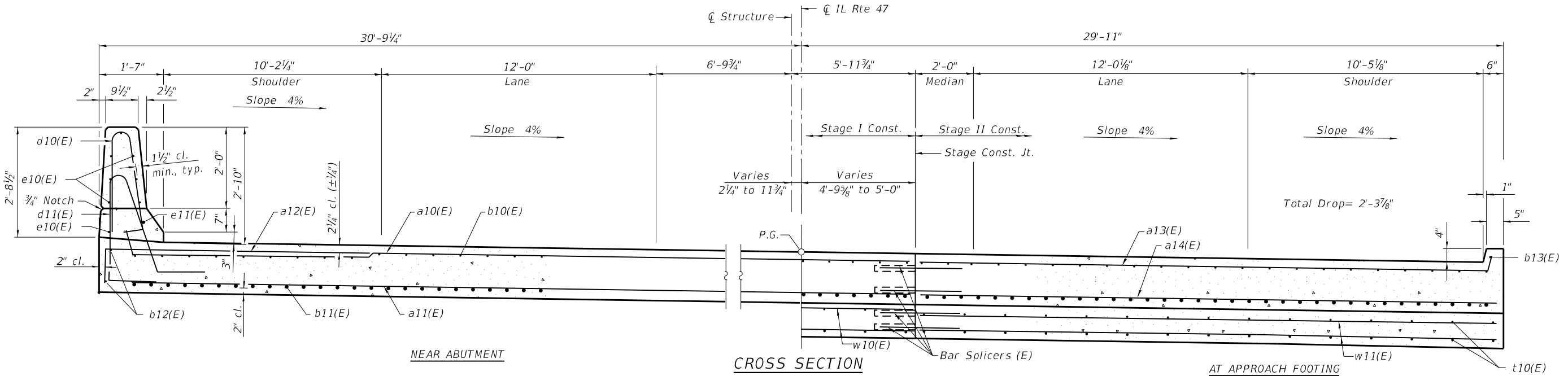


Measured along local tangent @ Sta. 502+48.97
PLAN
 (North Approach Shown, South Approach Similar)

TOP AND BOTTOM ELEVATIONS FOR APPROACH FOOTING

Point	South Approach		North Approach	
	Top	Bottom	Top	Bottom
A	731.86	731.03	734.83	733.99
B	733.03	732.19	733.67	732.84
C	734.19	733.36	732.52	731.68
D	731.81	730.98	734.88	734.05
E	732.98	732.14	733.72	732.89
F	734.14	733.31	732.57	731.74



CROSS SECTION
 (Looking North)

(Sheet 1 of 2)



USER NAME = tsledge	DESIGNED - LAS	REVISED -
PLOT SCALE = 4.0000' / in.	CHECKED - DAZ	REVISED -
PLOT DATE = 3/21/2019	DRAWN - TCS	REVISED -
	CHECKED - LAS	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BRIDGE APPROACH SLAB DETAILS
STRUCTURE NO. 045-2050

SHEET NO. SB-16 OF SB-28 SHEETS

F.A.P. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	107N-4	KANE	288	201
CONTRACT NO. 60T21				

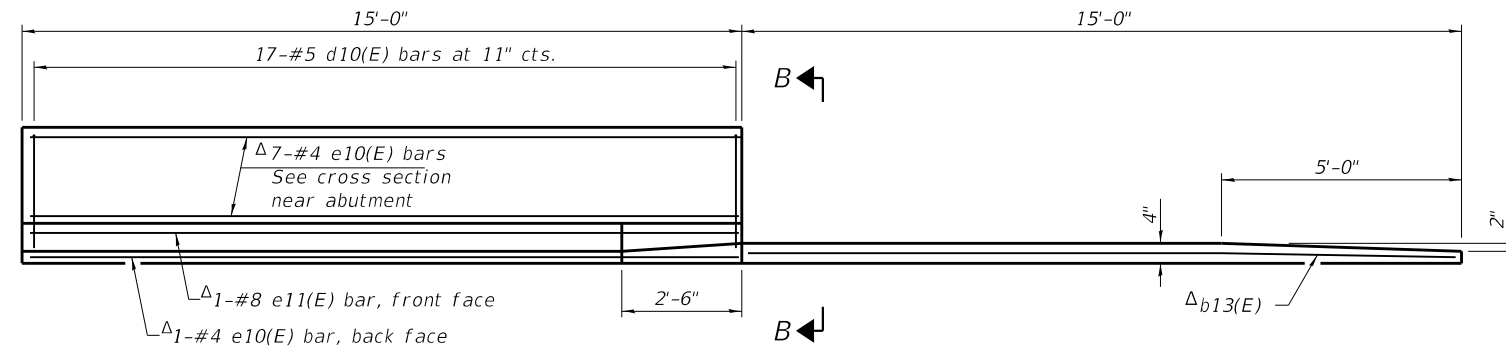
ILLINOIS FED. AID PROJECT

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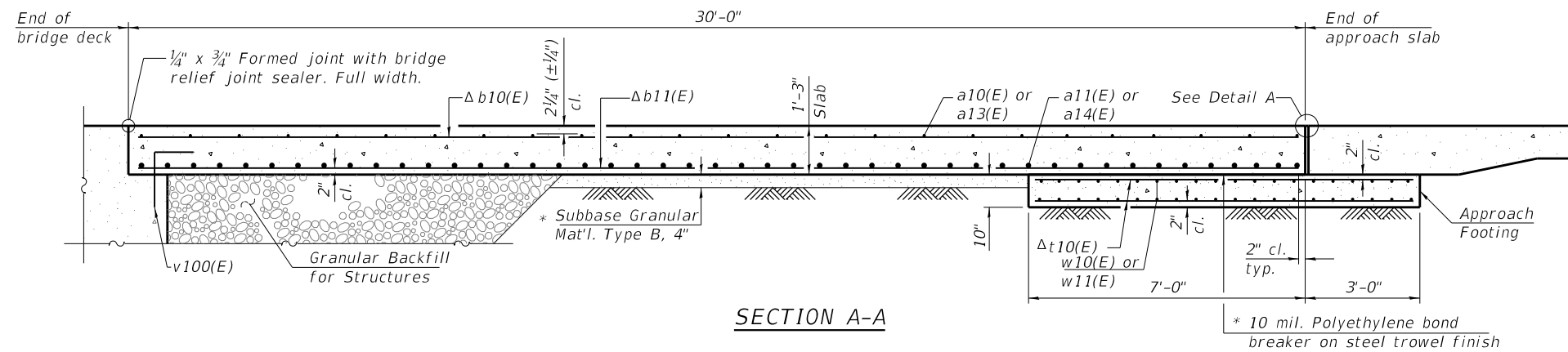
Notes:

The joint opening shall be adjusted for temperature per Article 520.04 of the Standard Specifications. However, since this detail is for jointless structures, the length of bridge used to calculate the adjustment shall be equal to half the total bridge length plus the length of the bridge approach slab.

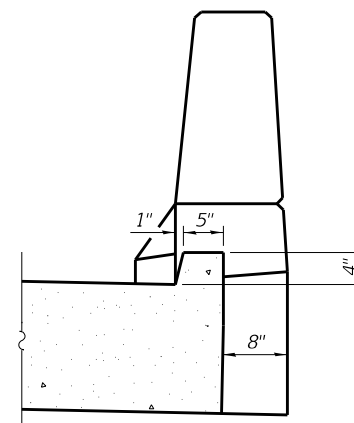
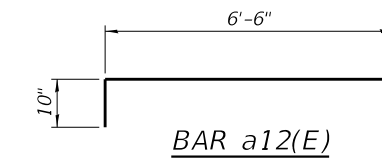
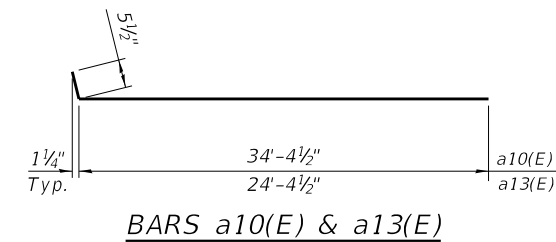
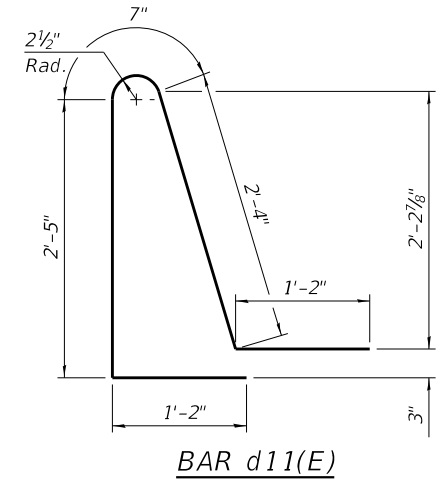
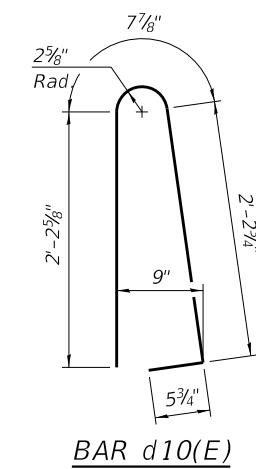
Parapet concrete shall be paid for as Concrete Superstructure.
 Approach slab shall be paid for as Concrete Superstructure (Approach Slab).
 Approach footing concrete shall be paid for as Concrete Structures.
 The approach footing maximum applied service bearing pressure (Qmax) = 2.0 ksf.
 Cost of excavation for approach footing included with Concrete Structures.
 For Granular Backfill for Structures and drainage treatment details, see sheet SB-2 of SB-27.



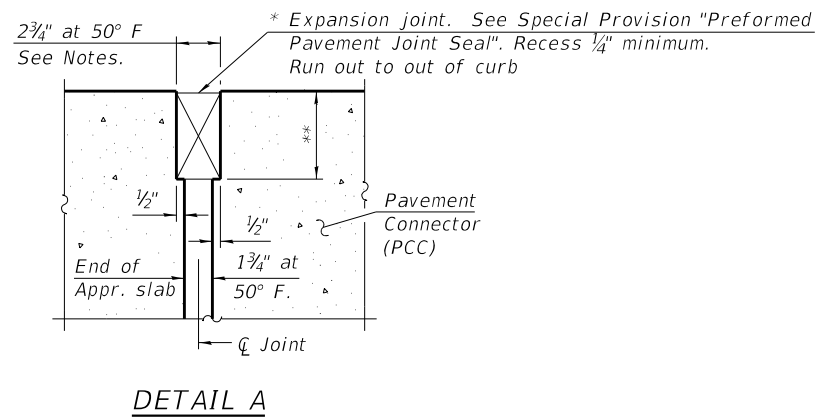
INSIDE ELEVATION OF PARAPET AND CURB



SECTION A-A



VIEW B-B



DETAIL A

* Cost included with Concrete Superstructure (Approach Slab).

** Per manufacturer recommendations

Δ Bars to be furnished straight & sprung into place

TWO APPROACHES
 BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a10(E)	92	#5	34'-10"	—
a11(E)	120	#8	34'-7"	—
a12(E)	92	#5	7'-4"	—
a13(E)	92	#5	24'-10"	—
a14(E)	120	#8	24'-7"	—
b10(E)	180	#5	29'-8"	—
b11(E)	286	#9	29'-8"	—
b12(E)	8	#5	14'-8"	—
b13(E)	4	#4	14'-8"	—
d10(E)	68	#5	5'-7"	U
d11(E)	68	#5	7'-8"	U
e10(E)	32	#4	14'-8"	—
e11(E)	4	#8	14'-8"	—
t10(E)	248	#4	9'-8"	—
w10(E)	80	#5	34'-7"	—
w11(E)	80	#5	24'-7"	—
Concrete Superstructure		Cu. Yd.	6.7	
Concrete Superstructure (Approach Slab)		Cu. Yd.	168.4	
Concrete Structures		Cu. Yd.	36.9	
Reinforcement Bars, Epoxy Coated		Pound	67,920	
Bridge Deck Grooving		Sq. Yd.	376	

(Sheet 2 of 2)



USER NAME = mlopez2	DESIGNED - LAS	REVISED -
PLOT SCALE = 0:2.0000 '1' / in.	CHECKED - DAZ	REVISED -
PLOT DATE = 1/28/2019	DRAWN - TCS	REVISED -
	CHECKED - LAS	REVISED -

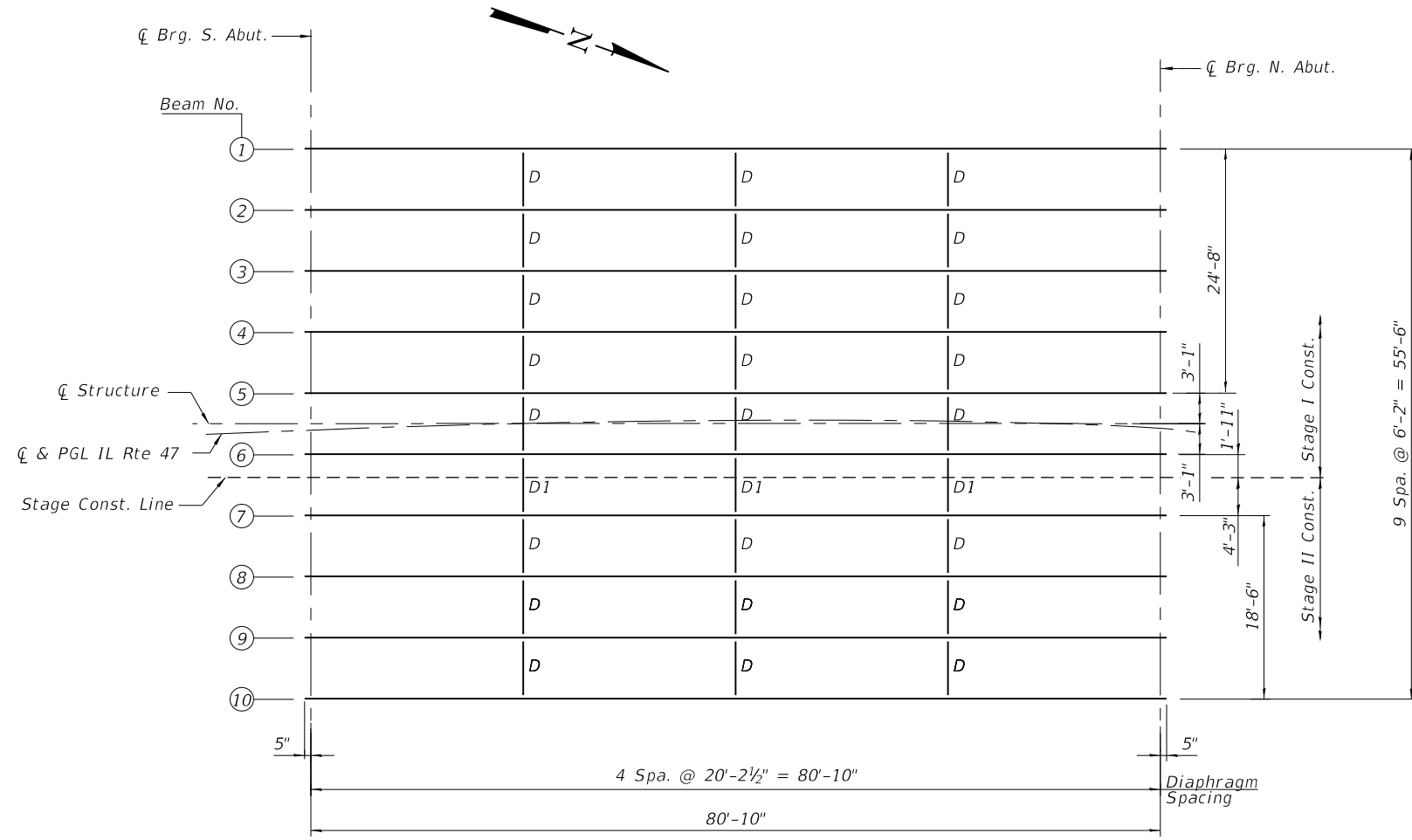
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

BRIDGE APPROACH SLAB DETAILS
 STRUCTURE NO. 045-2050

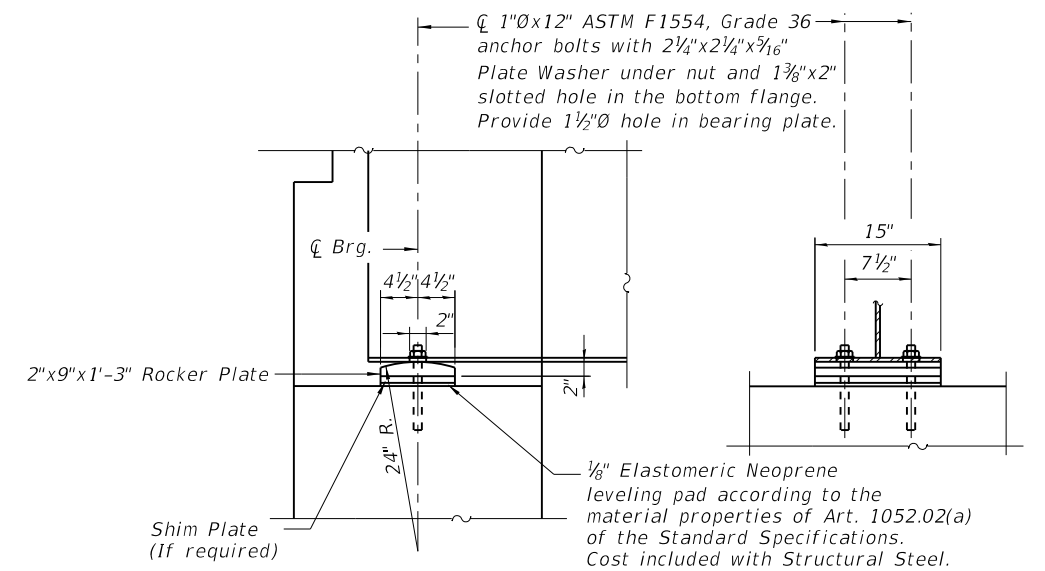
SHEET NO. SB-17 OF SB-28 SHEETS

F.A.P. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	107N-4	KANE	288	202
CONTRACT NO. 60T21				
ILLINOIS FED. AID PROJECT				

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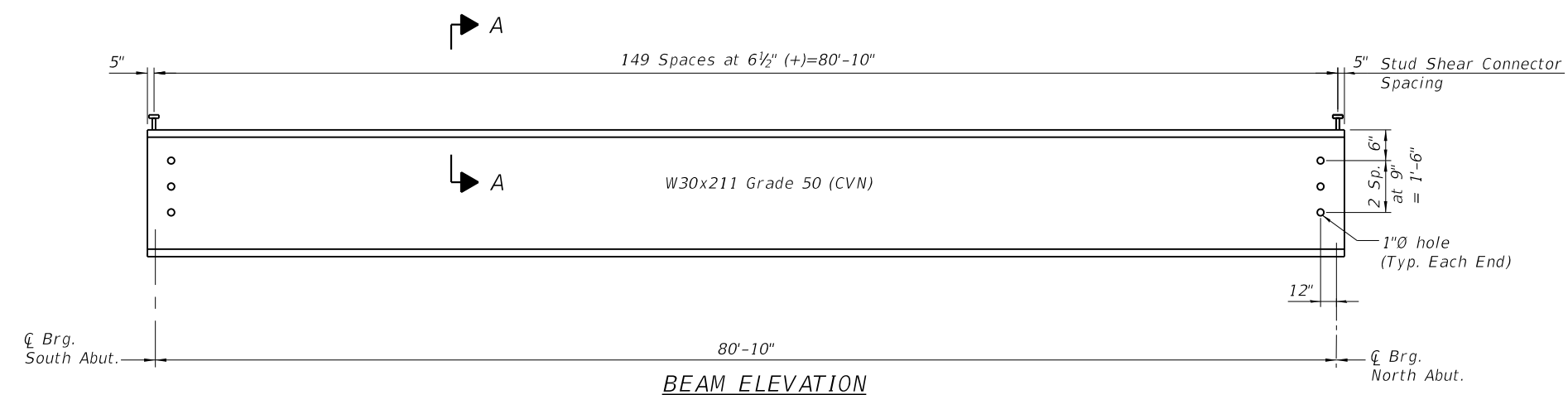


FRAMING PLAN



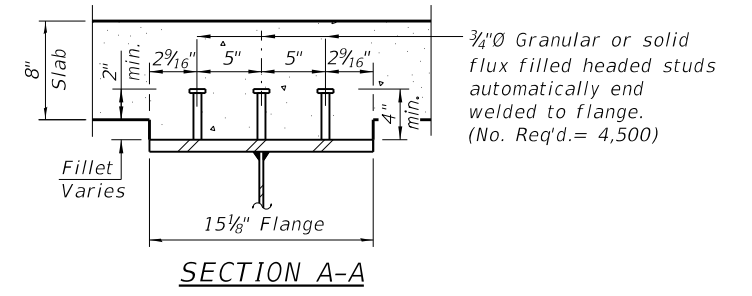
ABUTMENT BEARING DETAILS

Notes:
 Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.
 Anchor bolts at all supports shall be installed as each member is erected unless an equivalent temporary means of lateral restraint is used.



BEAM ELEVATION

"CVN" denotes Charpy-V-Notch impact energy requirements, Zone 2.



SECTION A-A

Note:
 All cross frames or diaphragms shall be installed as steel is erected and secured with erection pins and bolts except as otherwise noted. Individual cross frames or diaphragms at supports may be temporarily disconnected to install bearing anchor rods.

TOP OF BEAM ELEVATIONS
 (For Fabrication Only)

Beam	Cl Brg. S. Abut.	Cl Brg. N. Abut.
1	734.81	735.21
2	734.56	734.96
3	734.31	734.72
4	734.06	734.47
5	733.82	734.23
6	733.57	733.98
7	733.32	733.73
8	733.08	733.49
9	732.83	733.24
10	732.58	732.99

BILL OF MATERIAL

Item	Unit	Total
Anchor Bolts, 1"	Each	40

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INTERIOR GIRDER MOMENT TABLE		
	0.5 Span 1	
I_s	(in ⁴)	10,300
$I_c(n)$	(in ⁴)	24,676
$I_c(3n)$	(in ⁴)	17,702
$I_c(cr)$	(in ⁴)	-
S_s	(in ³)	665
$S_c(n)$	(in ³)	926
$S_c(3n)$	(in ³)	830
$S_c(cr)$	(in ³)	-
DC1	(k/')	0.892
M_{DC1}	(*k)	728.7
DC2	(k/')	0.089
M_{DC2}	(*k)	73.5
DW	(k/')	0.290
M_{DW}	(*k)	236.9
LLDF		.545
$M_{\ell + IM}$	(*k)	1,153.9
M_u (Strength I)	(*k)	3,377.6
$\phi_r M_n$	(*k)	4,292.6
f_s DC1	(ksi)	13.1
f_s DC2	(ksi)	1.1
f_s DW	(ksi)	3.4
f_s ($\ell + IM$)	(ksi)	14.9
f_s (Service II)	(ksi)	37.0
$0.95R_n F_y f$	(ksi)	47.5
f_s (Total)(Strength I)	(ksi)	-
$\phi_r F_n$	(ksi)	-
V_f	(k)	48.6

GIRDER REACTION TABLE			
	Abument		
	Interior	Exterior	
LLDF	.683	.495	
OCF	-	1.0	
R_{DC1}	(k)	36.1	35.0
R_{DC2}	(k)	3.6	3.6
R_{DW}	(k)	11.7	11.7
R_{ℓ}	(k)	67.4	48.8
R_{Im}	(k)	20.0	14.5
R_{Total}	(k)	138.8	113.6

I_s, S_s : Non-composite moment of inertia and section modulus of the steel section used for computing f_s (Total-Strength I, and Service II) due to non-composite dead loads (in⁴ and in³).

$I_c(n), S_c(n)$: Composite moment of inertia and section modulus of the steel and deck based upon the modular ratio, "n", used for computing f_s (Total-Strength I, and Service II) in uncracked sections due to short-term composite live loads (in⁴ and in³).

$I_c(3n), S_c(3n)$: Composite moment of inertia and section modulus of the steel and deck based upon 3 times the modular ratio, "3n", used for computing f_s (Total-Strength I, and Service II) in uncracked sections, due to long-term composite (superimposed) dead loads (in⁴ and in³).

$I_c(cr), S_c(cr)$: Composite moment of inertia and section modulus of the steel and longitudinal deck reinforcement, used for computing f_s (Total-Strength I and Service II) in cracked sections, due to both short-term composite live loads and long-term composite (superimposed) dead loads (in⁴ and in³).

DC1: Un-factored non-composite dead load (kips/ft.).

M_{DC1} : Un-factored moment due to non-composite dead load (kip-ft.).

DC2: Un-factored long-term composite (superimposed excluding future wearing surface) dead load (kips/ft.).

M_{DC2} : Un-factored moment due to long-term composite (superimposed excluding future wearing surface) dead load (kip-ft.).

DW: Un-factored long-term composite (superimposed future wearing surface only) dead load (kips/ft.).

M_{DW} : Un-factored moment due to long-term composite (superimposed future wearing surface only) dead load (kip-ft.).

LLDF: Live load distribution factor computed according to Article 4.6.2.2.

$M_{\ell + IM}$: Un-factored live load moment plus dynamic load allowance (impact) (kip-ft.).

M_u (Strength I): Factored design moment (kip-ft.).
 $1.25 (M_{DC1} + M_{DC2}) + 1.5 M_{DW} + 1.75 M_{\ell + IM}$

$\phi_r M_n$: Compact composite positive moment capacity computed according to Article 6.10.7.1 or non-slender negative moment capacity according to Article A6.1.1 or A6.1.2 (kip-ft.).

f_s DC1: Un-factored stress at edge of flange for controlling steel flange due to vertical non-composite dead loads as calculated below (ksi).
 M_{DC1} / S_{nc}

f_s DC2: Un-factored stress at edge of flange for controlling steel flange due to vertical composite dead loads as calculated below (ksi).
 $M_{DC2} / S_c(3n)$ or $M_{DC2} / S_c(cr)$ as applicable.

f_s DW: Un-factored stress at edge of flange for controlling steel flange due to vertical composite future wearing surface loads as calculated below (ksi).
 $M_{DW} / S_c(3n)$ or $M_{DW} / S_c(cr)$ as applicable.

f_s ($\ell + IM$): Un-factored stress at edge of flange for controlling steel flange due to vertical composite live load plus impact loads as calculated below (ksi).
 $M_{\ell + IM} / S_c(n)$ or $M_{\ell + IM} / S_c(cr)$ as applicable.

f_s (Service II): Sum of stresses as computed below (ksi).
 $f_{sDC1} + f_{sDC2} + f_{sDW} + 1.3 f_s(\ell + IM)$

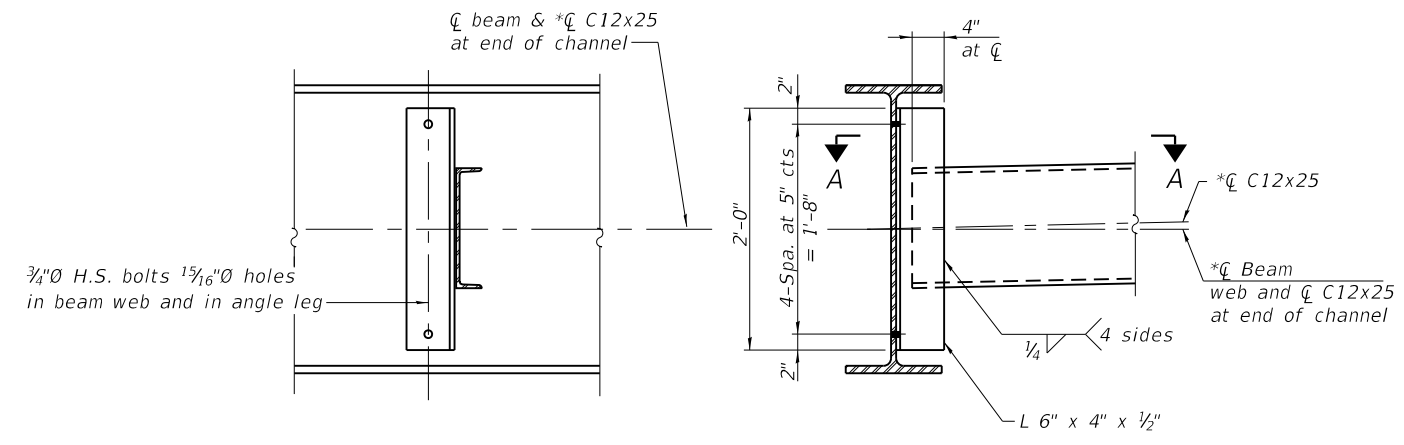
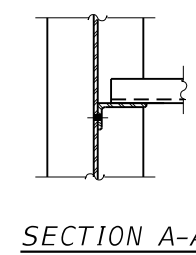
$0.95R_n F_y f$: Composite stress capacity for Service II loading according to Article 6.10.4.2 (ksi).

f_s (Total)(Strength I): Sum of stresses as computed below on non-compact section (ksi).
 $1.25 (f_{sDC1} + f_{sDC2}) + 1.5 f_{sDW} + 1.75 f_s(\ell + IM)$

$\phi_r F_n$: Non-Compact composite positive or negative stress capacity for Strength I loading according to Article 6.10.7 or 6.10.8 (ksi).

V_f : Maximum factored shear range in span computed according to Article 6.10.10.

Note:
 M_{ℓ} and R_{ℓ} include the effects of centrifugal force and superelevation.

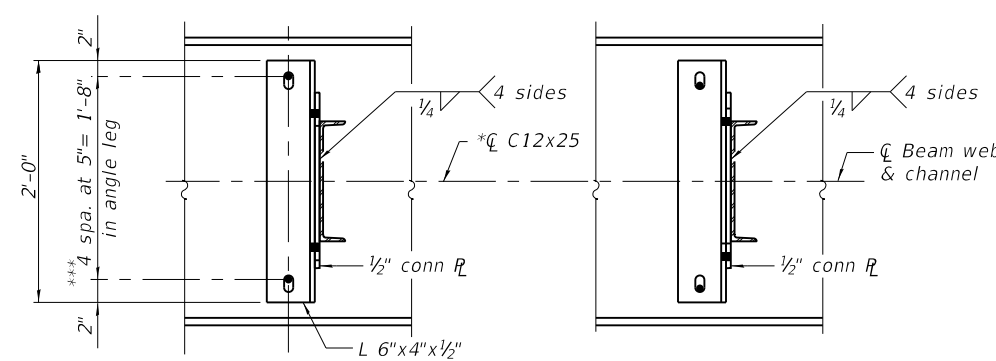
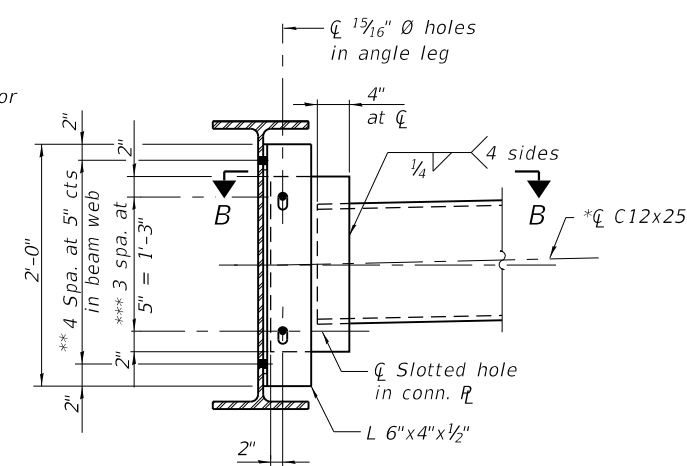
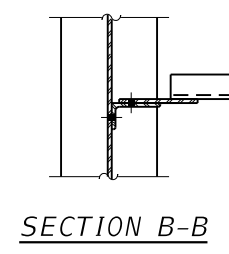


Note:
 Two hardened washers required for each set of oversized holes.

*Alternate channel C12x30 is permitted to facilitate material acquisition. Calculated weight of structural steel is based on lighter section. The alternate, if utilized shall be provided at no extra cost to the Department

** 3/4" HS bolts, 1 1/2" diameter holes

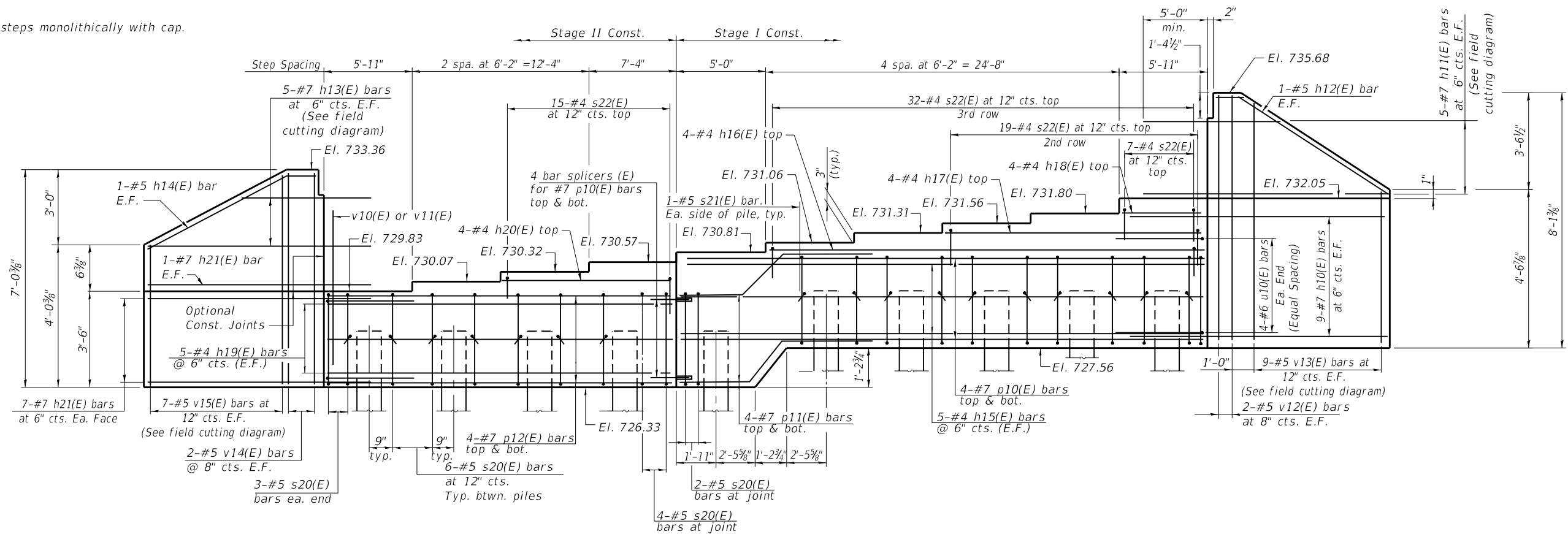
*** 3/4" H.S. bolts, on the west side of Beam 7. Provide 1 3/16" x 1 7/8" vertical slotted holes in the angle leg at the web and in the connection plate. Bolts in slotted holes shall be finger tightened until the second stage pour is completed. Position slots so bolts move from one end with no concrete load to the opposite end under the deck load. The slotted holes in the angle leg and connection plate shall be positioned as shown to allow bolts to move to the final erection positions under deck load. The holes shall be positioned to allow maximum bolt displacement without laterally stressing the beams.



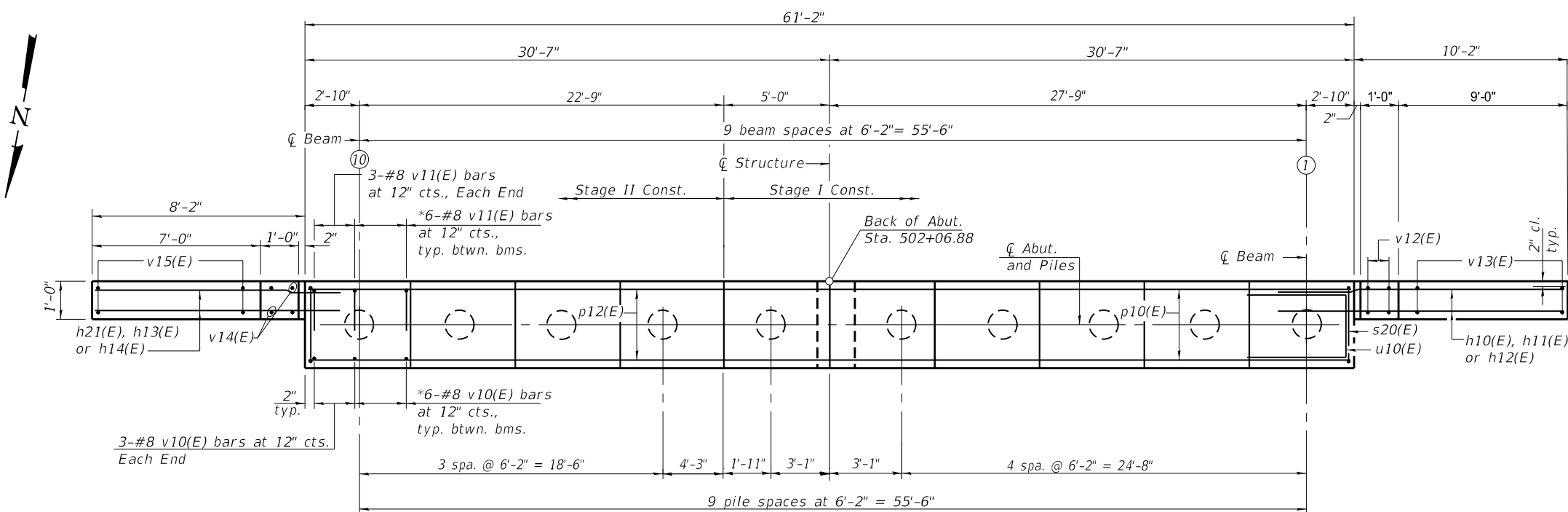
DIAPHRAGM D1
 West side Beam 7 connection shown. North side connection similar to connections shown for diaphragm D. (5 required)

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Notes:
Pour steps monolithically with cap.



ELEVATION



PLAN

*At Stage Construction Line use the following bars:
2-#8 v11(E) bars and 2-#8 v10 (E) bars at 12\"/>

FILE NAME = F:\2015\0558_IDOT_Draft1_IL_Route_47_at_Main_S_of_Elburn_(PTB_171-041-04-CADD_Sheets\10160721-SB-20-SouthAbutment.dgn

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CHECKED - DAZ	REVISIONS -	
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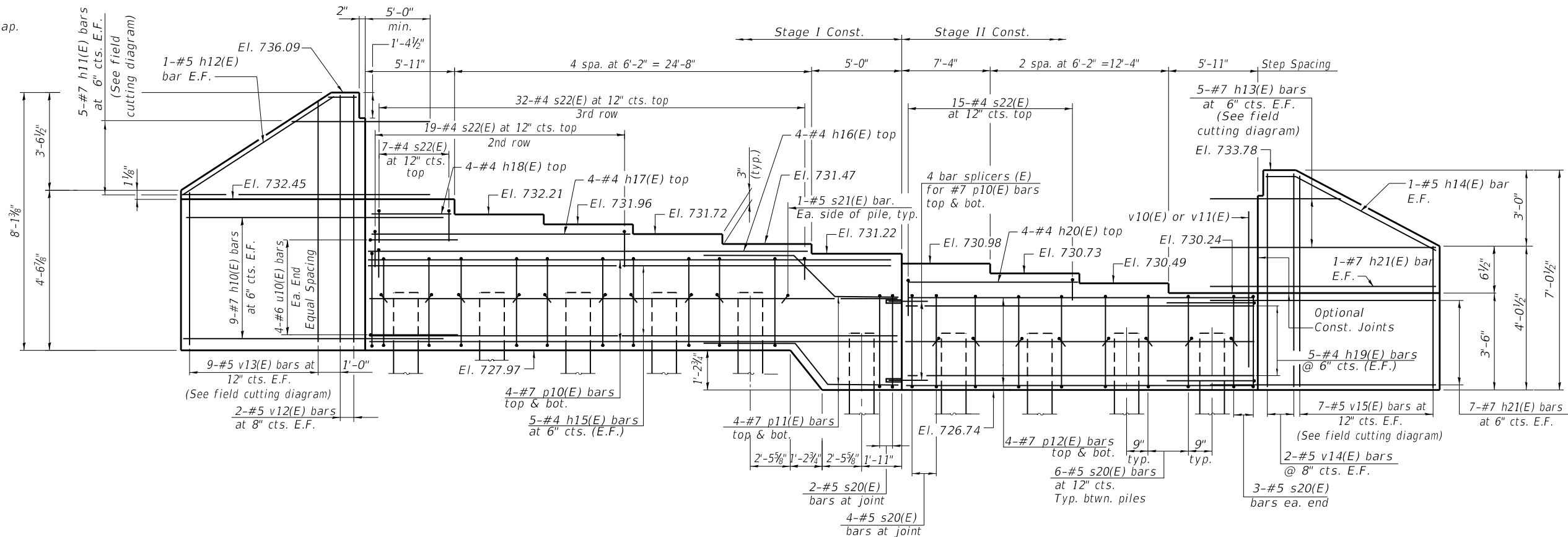
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOUTH ABUTMENT
STRUCTURE NO. 045-2050

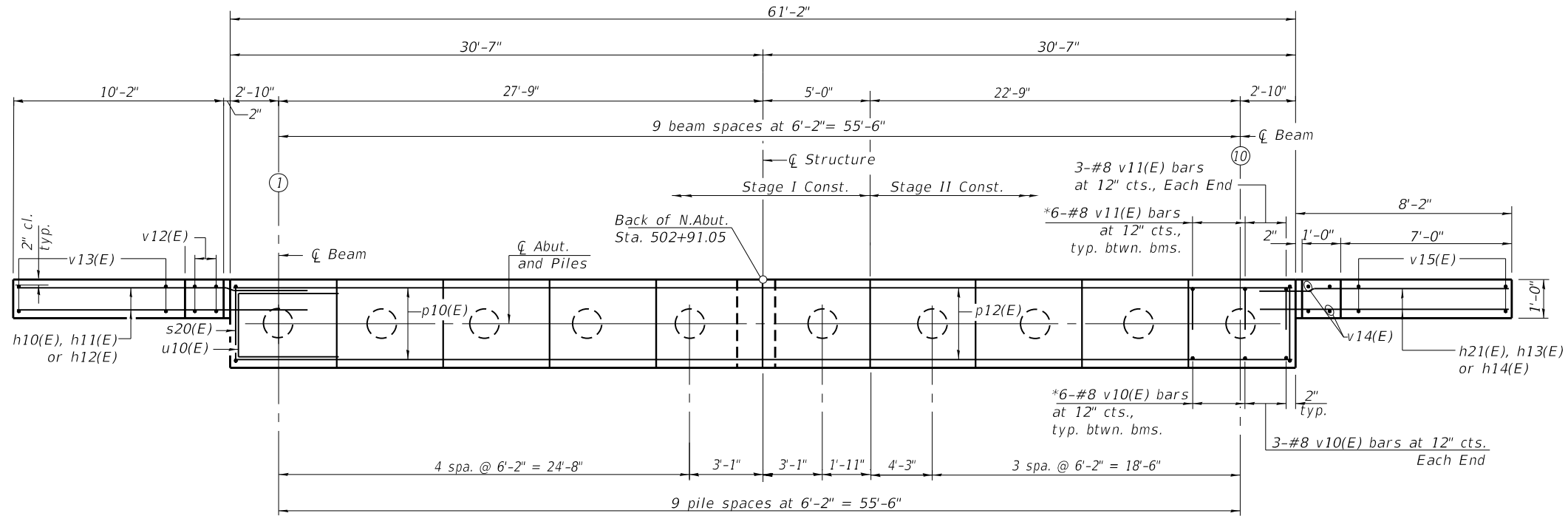
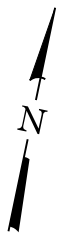
SHEET NO. SB-20 OF SB-28 SHEETS

F.A.P. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	107N-4	KANE	288	205
CONTRACT NO. 60T21				
ILLINOIS FED. AID PROJECT				

Notes:
Pour steps monolithically with cap.



ELEVATION



PLAN

*At Stage Construction Line use the following bars:
2-#8 v11(E) bars and 2-#8 v10 (E) bars at 12"cts. on Stage I Const. side
4-#8 v11(E) bars and 4-#8 v10 (E) bars at 12"cts. on Stage II Const. side

AI-2440-0 2-17-2017

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CHECKED - DAZ	REVISED -	
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PLOT DATE = 1/28/2019	CHECKED - LAS	REVISED -

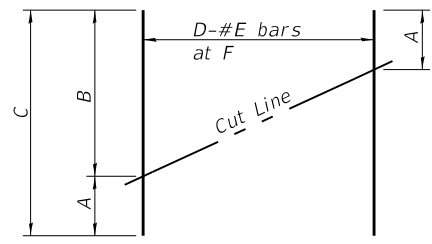
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

NORTH ABUTMENT
STRUCTURE NO. 045-2050

SHEET NO. SB-21 OF SB-28 SHEETS

F.A.P. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	107N-4	KANE	288	206
CONTRACT NO. 60T21				
ILLINOIS FED. AID PROJECT				

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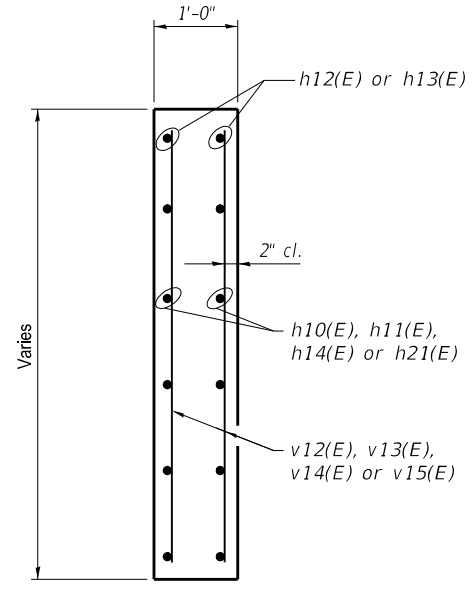


FIELD CUTTING DIAGRAM

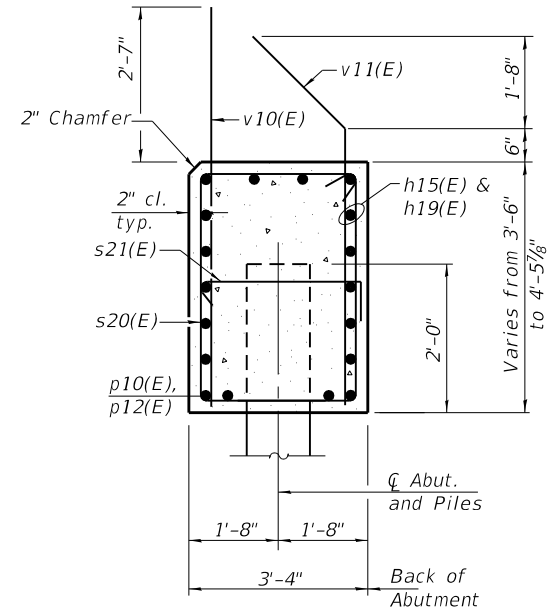
Order h11(E),h13(E) and v13(E),v15(E) full length.
Cut as shown and use remainder of bars in opposite face.

Bar	A	B	C	D	E	F
h11(E)	9'-3"	14'-9"	24'-0"	5	#7	6"
h13(E)	7'-10"	12'-7"	20'-5"	5	#7	6"
v13(E)	4'-4"	7'-4"	11'-8"	9	#5	12"
v15(E)	3'-9"	6'-5"	10'-2"	7	#5	12"

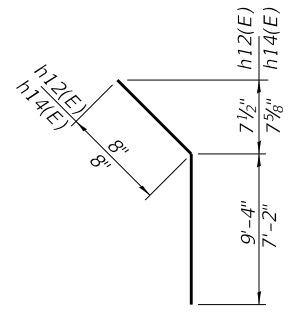
Information Shown Per Abutment



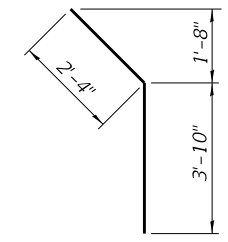
SEC. THRU WINGWALL



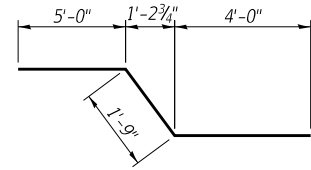
SEC. THRU ABUT.



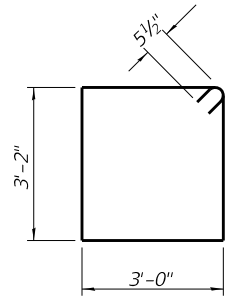
BAR h12(E) & h14(E)



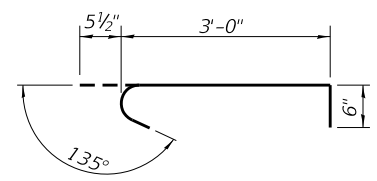
BAR v11(E)



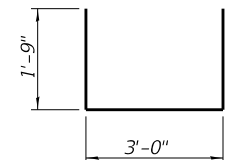
BAR p11(E)



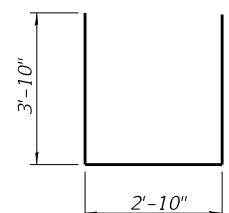
BAR s20(E)



BAR s21(E)



BAR s22(E)



BAR u10(E)

BILL OF MATERIAL
SOUTH ABUTMENT

Bar	No.	Size	Length	Shape
h10(E)	18	#7	15'-0"	—
h11(E)	5	#7	24'-0"	—
h12(E)	2	#5	10'-0"	—
h13(E)	5	#7	24'-5"	—
h14(E)	2	#5	7'-10"	—
h15(E)	10	#4	35'-3"	—
h16(E)	4	#4	30'-3"	—
h17(E)	4	#4	17'-11"	—
h18(E)	4	#4	5'-7"	—
h19(E)	10	#4	25'-3"	—
h20(E)	4	#4	13'-2"	—
h21(E)	16	#7	13'-0"	—
p10(E)	8	#7	35'-3"	—
p11(E)	8	#7	10'-9"	—
p12(E)	8	#7	25'-3"	—
s20(E)	60	#5	13'-3"	□
s21(E)	20	#5	4'-0"	□
s22(E)	73	#5	6'-6"	□
u10(E)	8	#6	10'-6"	□
v10(E)	60	#8	5'-11"	—
v11(E)	60	#8	6'-2"	—
v12(E)	4	#5	7'-9"	—
v13(E)	9	#5	11'-8"	—
v14(E)	4	#5	6'-9"	—
v15(E)	7	#5	10'-2"	—
Structure Excavation	Cu. Yd.		68	
Concrete Structures	Cu. Yd.		34.2	
Reinforcement Bars, Epoxy Coated	Pound		6,980	
Furnishing Metal Shell Piles, 14"x.312"	Foot		252	
Driving Piles	Foot		252	
Test Pile, Metal Shell	Each		1	
Pile Shoes	Each		10	

BILL OF MATERIAL
NORTH ABUTMENT

Bar	No.	Size	Length	Shape
h10(E)	18	#7	15'-0"	—
h11(E)	5	#7	24'-0"	—
h12(E)	2	#5	10'-0"	—
h13(E)	5	#7	24'-5"	—
h14(E)	2	#5	7'-10"	—
h15(E)	10	#4	35'-3"	—
h16(E)	4	#4	30'-3"	—
h17(E)	4	#4	17'-11"	—
h18(E)	4	#4	5'-7"	—
h19(E)	10	#4	25'-3"	—
h20(E)	4	#4	13'-2"	—
h21(E)	16	#7	13'-0"	—
p10(E)	8	#7	35'-3"	—
p11(E)	8	#7	10'-9"	—
p12(E)	8	#7	25'-3"	—
s20(E)	60	#5	13'-3"	□
s21(E)	20	#5	4'-0"	□
s22(E)	73	#5	6'-6"	□
u10(E)	8	#6	10'-6"	□
v10(E)	60	#8	5'-11"	—
v11(E)	60	#8	6'-2"	—
v12(E)	4	#5	7'-9"	—
v13(E)	9	#5	11'-8"	—
v14(E)	4	#5	6'-9"	—
v15(E)	7	#5	10'-2"	—
Structure Excavation	Cu. Yd.		82	
Concrete Structures	Cu. Yd.		34.2	
Reinforcement Bars, Epoxy Coated	Pound		6,980	
Furnishing Metal Shell Piles, 14"x.312"	Foot		270	
Driving Piles	Foot		270	
Test Pile, Metal Shell	Each		1	
Pile Shoes	Each		10	

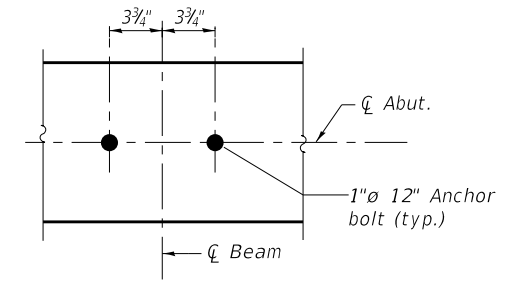
For details of piles see sheet SB-24 of SB-27.

PILE DATA

Type: Metal Shell 14"x.312"
Nominal Required Bearing: 513^k
Factored Resistance Available: 282^k
Est. Length: 28'
No. Production Piles: 9
No. Test Piles: 1

PILE DATA

Type: Metal Shell 14"x.312"
Nominal Required Bearing: 513^k
Factored Resistance Available: 282^k
Est. Length: 30'
No. Production Piles: 9
No. Test Piles: 1



ANCHOR BOLT DETAIL

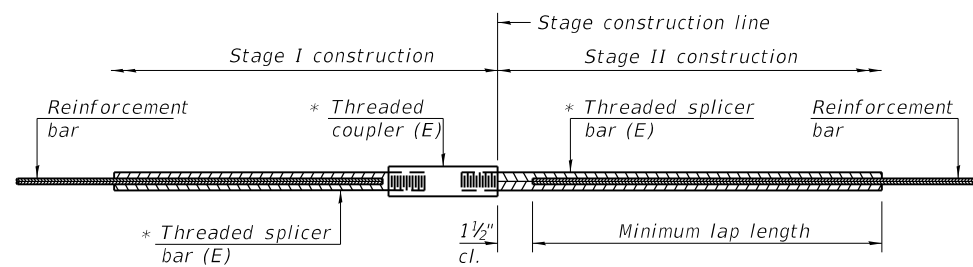
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PLOT DATE = 3/22/2019	DRAWN - TCS	REVISED -
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ABUTMENT DETAILS
STRUCTURE NO. 045-2050

F.A.P. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	107N-4	KANE	288	207
CONTRACT NO. 60T21				
ILLINOIS FED. AID PROJECT				

SHEET NO. SB-22 OF SB-28 SHEETS

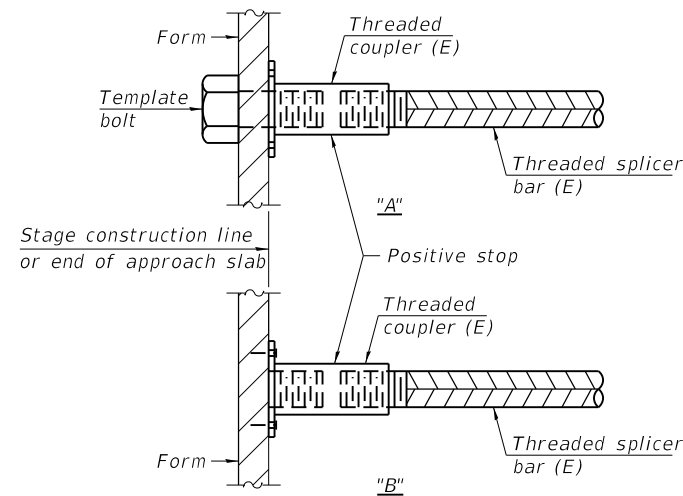


STANDARD BAR SPLICER ASSEMBLY

Threaded splicer bar length = min. lap length + 1 1/2" + thread length

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

Location	Bar size	No. assemblies required	Minimum lap length
Deck	#5	236	3'-6"
Diaphragm	#6	14	4'-0"
Approach Slab	#5	92	3'-4"
Approach Slab	#8	120	4'-9"
Approach Slab Footing	#5	80	3'-0"
Abutment	#7	16	5'-0"

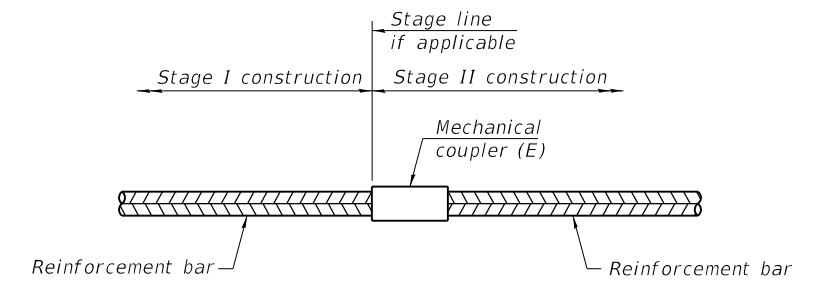


INSTALLATION AND SETTING METHODS

"A" : Set bar splicer assembly by means of a template bolt.

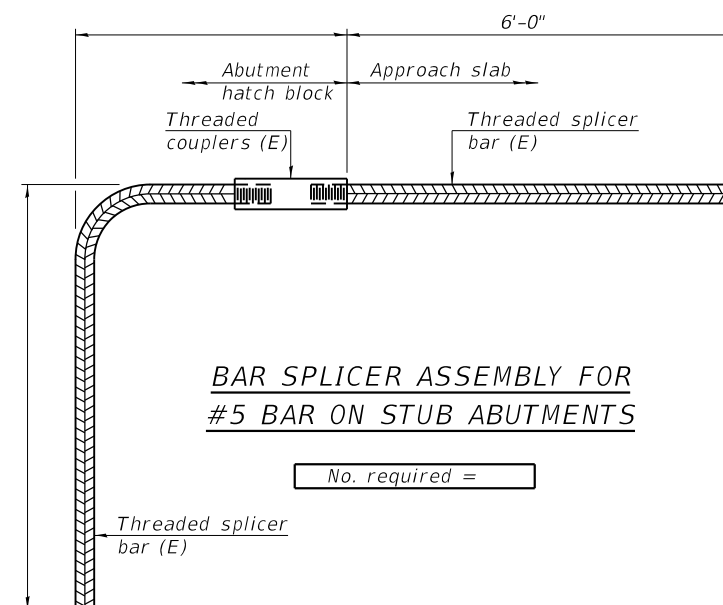
"B" : Set bar splicer assembly by nailing to wood forms or cementing to steel forms.

(E) : Indicates epoxy coating.



STANDARD MECHANICAL SPLICER

Location	Bar size	No. assemblies required



BAR SPLICER ASSEMBLY FOR #5 BAR ON STUB ABUTMENTS

No. required =

NOTES

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

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

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

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

BSD-1

2-17-2017

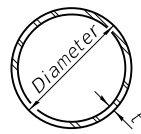
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PLOT DATE = 1/28/2019	DRAWN - TCS	REVISED -
	CHECKED - LAS	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS
STRUCTURE NO. 045-2050**

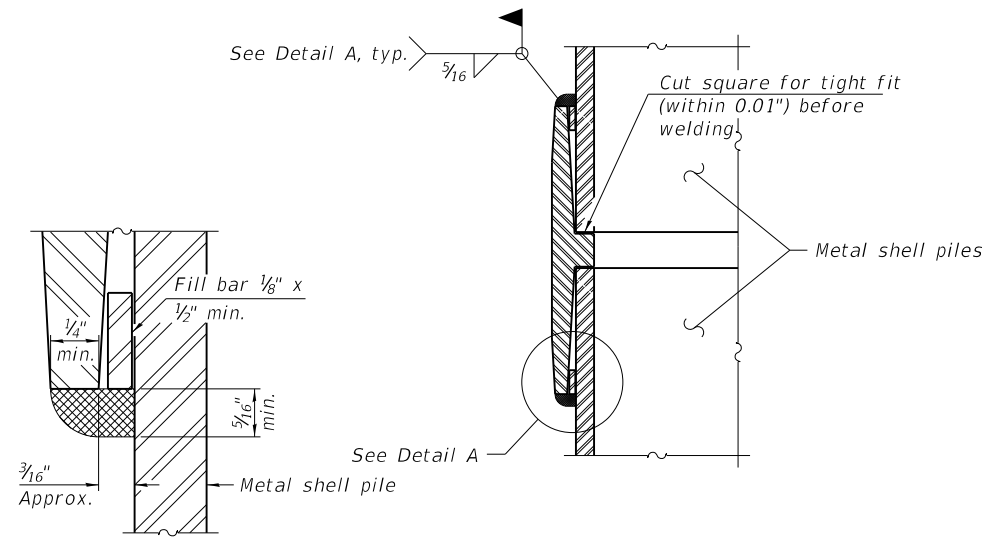
SHEET NO. SB-23 OF SB-28 SHEETS

F.A.P. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	107N-4	KANE	288	208
CONTRACT NO. 60T21				
ILLINOIS FED. AID PROJECT				

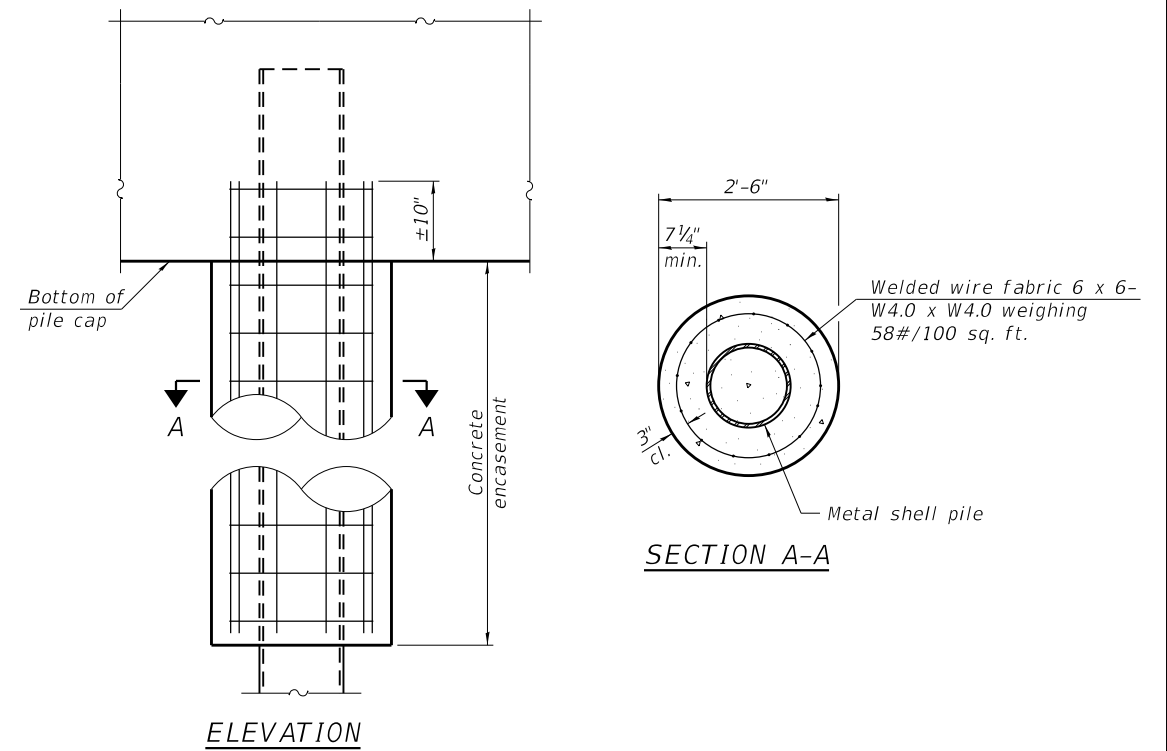


METAL SHELL PILE TABLE

Designation and outside diameter	Wall thickness t	Weight per foot (Lbs./ft.)	Inside volume (yd. ³ /ft.)
PP12	0.250"	31.37	0.0267
PP14	0.250"	36.71	0.0368
PP14	0.312"	45.61	0.0361
PP16	0.312"	52.32	0.0478
PP16	0.375"	62.64	0.0470



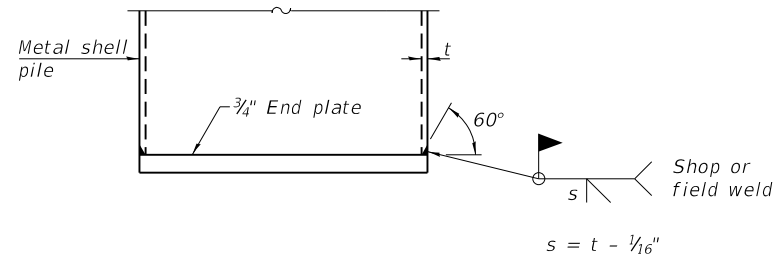
DETAIL A



ELEVATION

SECTION A-A

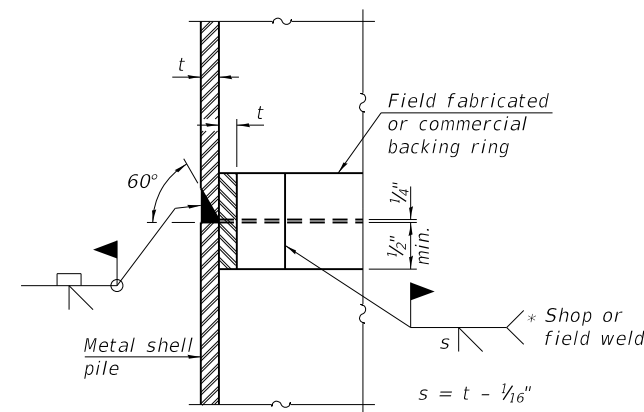
INDIVIDUAL PILE CONCRETE ENCASEMENT AT PIERS



END PLATE ATTACHMENT

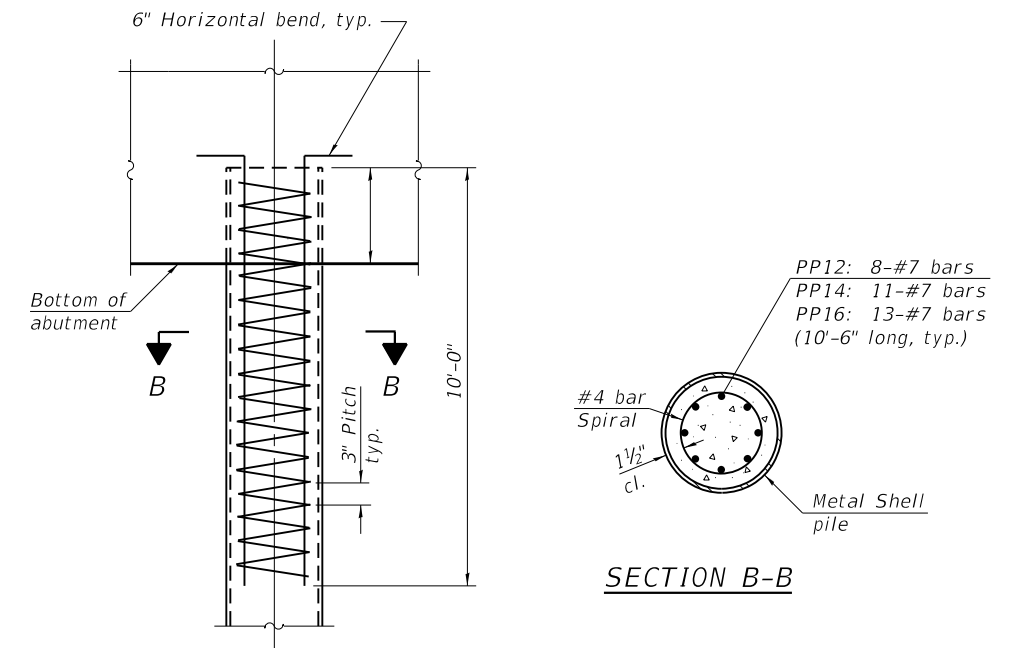
WELDED COMMERCIAL SPLICE

Notes:
 The 1/8" x 1/2" min. fill bar may be constructed of 2 bars with a 1/8" max. gap between them.
 Pile segments shall be driven to solid contact with splicer before welding.



COMPLETE PENETRATION WELD SPLICE

* Field fabricated backing ring may be made from pile shell by removing segment to allow reducing circumference and vertically rejoin with partial joint penetration weld.



ELEVATION

SECTION B-B

REINFORCEMENT AT ABUTMENTS

Note:
 The metal shell piles shall be according to Article 1006.05 of the Standard Specifications.

PILE SHOE ATTACHMENT

(When called for on the plans, the Contractor shall furnish metal shell pile shoes consisting of a single piece conical pile point as shown. The pile shoes shall be cast in one piece steel according to either ASTM A 148 Grade 90-60 or AASHTO M 103 Grade 65-35 and shall provide full bearing over the full circumference of the metal shell pile. The pile shoe shall have tapered leads to assure proper alignment and fitting and shall be secured to the pile with a circumferential weld).

FILE NAME = F:\2015\0558_IDOT_Drafts\IL_Route_47_at_Main_S_of_Elburn\PTB_171-041-04-CADD\01_CADD_Sheets\0160721-SB-24-Metal_Shell_Pile_Details.dwg

F-MS 8-11-2017

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PLOT DATE = 1/28/2019	CHECKED - LAS	REVISIONS -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**METAL SHELL PILE DETAILS
 STRUCTURE NO. 045-2050**

SHEET NO. SB-24 OF SB-28 SHEETS

F.A.P. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	107N-4	KANE	288	209
CONTRACT NO. 60T21				

ILLINOIS FED. AID PROJECT

Wang Engineering
 wangeng@wangeng.com
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 Lombard, IL 60148
 Telephone: 630 953-9928
 Fax: 630 953-9938

BORING LOG BB-03
 WEI Job No.: 192-03-01

Datum: NAVD 88
 Elevation: 731.98 ft
 North: 1885090.79 ft
 East: 947499.90 ft
 Station: 502+79.14
 Offset: 21.72' LT

Client: **Milhouse Engineering & Construction, Inc.**
 Project: **IL 47 at Main Street Intersection Improvements**
 Location: **Elburn, Kane County, IL**

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
731.0	12-inch thick, brown SANDY GRAVEL --AGGREGATE SHOULDER-- --moist-- Stiff to very stiff, brown SILTY CLAY LOAM, trace to little gravel --FILL--	1	3	1.50	22		709.0	--fine sand--	9	11	14	NP	21
		2	4	2.00	18		708.0	Very stiff, gray SILTY CLAY	10	5	9	3.00	20
		3	2	1.25	27			Medium dense, gray SANDY GRAVEL -saturated--	11	7	8	NR	
724.0	Stiff, black and green SILTY CLAY	4	2	1.00	31		704.0	--no Recovery--	12	7	8	2.25	13
722.8	Very loose to loose, black SILTY LOAM, little gravel, trace shells	5	0	NP	35			Very stiff, pinkish gray SILTY CLAY LOAM, trace gravel	13	10	35	NP	10
		6	4	NP	11		700.2	Dense, brown SANDY GRAVEL --saturated--	14	17	14	6.72	10
719.0	Medium dense to dense, brown SAND with GRAVEL to GRAVELLY SAND --saturated--	7	13	NP	13			--hard drilling--	15	14	13		
		8	12	NP	13		695.2	Hard, gray CLAY LOAM, little gravel	16	30	27	NP	10
	--%Gravel=39.6-- --%Sand=52.5-- --%Silt=6.6-- --%Clay=1.3--												

GENERAL NOTES				WATER LEVEL DATA			
Begin Drilling	04-20-2015	Complete Drilling	04-21-2015	While Drilling	▽	11.00 ft	
Drilling Contractor	Wang Testing Services	Drill Rig	D-50 TMR	At Completion of Drilling	▽	NA	
Driller	R & J	Logger	D. Kolpacki	Time After Drilling	NA		
Checked by	B. Wilson	Drilling Method	2.25" IDA SSA to 10', Mud rotary from 10', auto hammer, boring backfilled upon completion	Depth to Water	▽	NA	
The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.							

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BORING LOG BB-03
 WEI Job No.: 192-03-01

Datum: NAVD 88
 Elevation: 731.98 ft
 North: 1885090.79 ft
 East: 947499.90 ft
 Station: 502+79.14
 Offset: 21.72' LT

Client: **Milhouse Engineering & Construction, Inc.**
 Project: **IL 47 at Main Street Intersection Improvements**
 Location: **Elburn, Kane County, IL**

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
690.2	Medium dense to dense, brown coarse SAND to SANDY GRAVEL, little gravel --saturated--	15	5	NP	12								
		16	30	NP	10								
682.0	Boring terminated at 50.00 ft	50											

GENERAL NOTES				WATER LEVEL DATA			
Begin Drilling	04-20-2015	Complete Drilling	04-21-2015	While Drilling	▽	11.00 ft	
Drilling Contractor	Wang Testing Services	Drill Rig	D-50 TMR	At Completion of Drilling	▽	NA	
Driller	R & J	Logger	D. Kolpacki	Time After Drilling	NA		
Checked by	B. Wilson	Drilling Method	2.25" IDA SSA to 10', Mud rotary from 10', auto hammer, boring backfilled upon completion	Depth to Water	▽	NA	
The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.							

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	CHECKED - LAS	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

BORING LOG 1
 STRUCTURE NO. 045-2050

SHEET NO. SB-25 OF SB-28 SHEETS

F.A.P. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	107N-4	KANE	288	210
CONTRACT NO. 60T21				
ILLINOIS FED. AID PROJECT				



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BORING LOG BB-04

WEI Job No.: 192-03-01

Client **Milhouse Engineering & Construction, Inc.**
Project **IL 47 at Main Street Intersection Improvements**
Location **Elburn, Kane County, IL**

Datum: NAVD 88
Elevation: 729.99 ft
North: 1885038.80 ft
East: 947546.38 ft
Station: 502+20.31
Offset: 15.59' RT

Page 1 of 2

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)	Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
		14-inch thick, ASPHALT --PAVEMENT--								709.5	Medium dense, brown, fine SAND						
	728.8	Medium dense, brown SANDY GRAVEL --BASE COURSE--			1	7 16 12	NP	4		707.0	Medium dense to very dense, brown SAND and GRAVEL to SANDY GRAVEL --saturated--			9	4 6 6	NP	19
	727.0	Stiff, brown SILTY CLAY, trace gravel --FILL--			2	2 2 3	1.25 P	21						10	7 12 18	NP	9
			5		3	1 2 2	1.25 P	15						11	7 10 21	NP	8
	722.0	Medium stiff (0.5P), greenish brown, SILTY CLAY			4	1 1 2	NP	64						12	22 32 33	NP	6
		Very loose, brown SILTY LOAM, trace gravel, shells, and organic matter --moist--	10														
	719.5	Loose to medium dense, brown SANDY GRAVEL --saturated--			5	1 2 5	NP	11									
			15		6	3 3 7	NP	10						13	6 11 15	NP	6
	714.5	Medium dense, brown, medium SAND, trace gravel --saturated--			7	3 3 7	NP	20									
	712.0	Dense, brown SAND and GRAVEL --saturated--			8	17 21 12	NP	11		693.0	Very dense, gray LOAM, some gravel --wet--			14	9 26 29	NP	11

GENERAL NOTES

Begin Drilling **05-20-2015** Complete Drilling **05-20-2015**
Drilling Contractor **Wang Testing Services** Drill Rig **D-50 TMR**
Driller **R & J** Logger **D. Kolpacki** Checked by **B. Wilson**
Drilling Method **3.25" IDA HSA, auto hammer, boring backfilled upon completion**

WATER LEVEL DATA

While Drilling **10.50 ft**
At Completion of Drilling **6.00 ft**
Time After Drilling **NA**
Depth to Water **NA**
The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

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DRAWN - TCS
CHECKED - LAS

REVISED -
REVISED -
REVISED -
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORING LOG 3
STRUCTURE NO. 045-2050

SHEET NO. SB-27 OF SB-28 SHEETS

F.A.P. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	107N-4	KANE	288	212
CONTRACT NO. 60T21				
ILLINOIS FED. AID PROJECT				



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BORING LOG BB-04

Page 2 of 2

WEI Job No.: 192-03-01

Client **Milhouse Engineering & Construction, Inc.**
 Project **IL 47 at Main Street Intersection Improvements**
 Location **Elburn, Kane County, IL**

Datum: NAVD 88
 Elevation: 729.99 ft
 North: 1885038.80 ft
 East: 947546.38 ft
 Station: 502+20.31
 Offset: 15.59' RT

Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)	Profile	Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample Type recovery	Sample No.	SPT Values (blw/6 in)	Qu (tsf)	Moisture Content (%)
	688.5	Medium dense, brown, medium SAND, trace gravel --saturated--															
	685.0					15	10 9 17	NP	16								
		Boring terminated at 45.00 ft	45														
			50														
			55														
			60														

GENERAL NOTES				WATER LEVEL DATA			
Begin Drilling	05-20-2015	Complete Drilling	05-20-2015	While Drilling	▽	10.50 ft	
Drilling Contractor	Wang Testing Services	Drill Rig	D-50 TMR	At Completion of Drilling	▽	6.00 ft	
Driller	R & J	Logger	D. Kolpacki	Time After Drilling		NA	
Checked by	B. Wilson	Drilling Method	3.25" IDA HSA, auto hammer, boring backfilled upon completion	Depth to Water	▽	NA	
				The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.			

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WANGENG 1920301.GPJ WANGENG.GDT 2/10/17



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PLOT DATE = 1/28/2019	DRAWN - TCS	REVISED -
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STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

BORING LOG 4
 STRUCTURE NO. 045-2050

SHEET NO. SB-28 OF SB-28 SHEETS

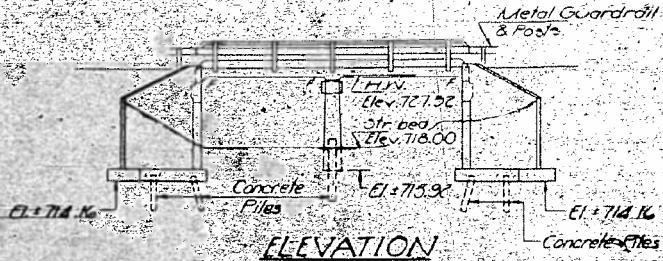
F.A.P. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	107N-4	KANE	288	213
CONTRACT NO. 60T21				
ILLINOIS FED. AID PROJECT				

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

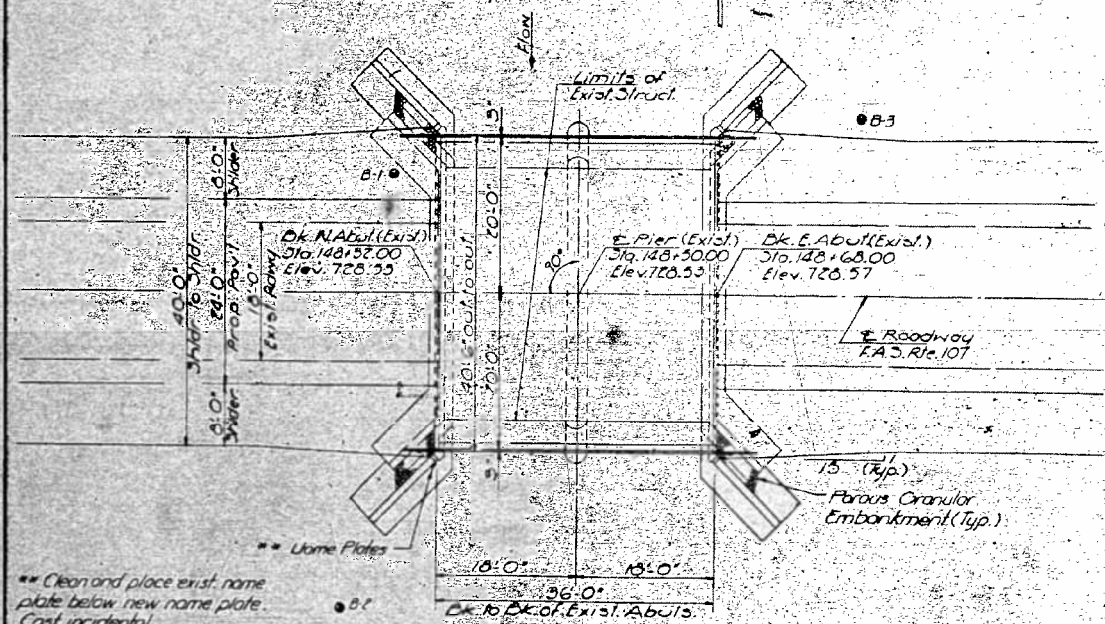
DATE	BY	REVISION	DATE	BY	REVISION
10/27/17	SOBE	KANE	2/17	2/7	

GENERAL NOTES

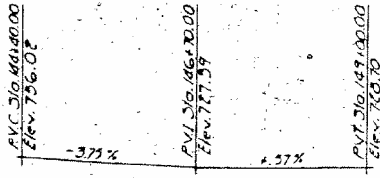
- All reinforcement bars shall be lapped 24 diameters unless otherwise shown. Backfill shall be placed behind the abutment after the superstructure has been poured and the falsework removed. See Article 502.11 of the Standard Specifications.
- The Contractor shall make allowance for the deflection of forms, shrinkage and settlement of falsework, in addition to allowance for dead load deflection.
- It shall be the responsibility of the Contractor to verify all dimensions and conditions existing in the field prior to construction and ordering of materials.
- Protective Coat shall not be applied to surfaces to which Waterproofing Membrane System is applied.
- Expansion bolts shall consist of self drilling expansion anchors and 3/4" x 12" hooked bolts.
- Nonmetallic water seal used in the wingwall joints shall extend from the top of the footing to within 6" of the top of the wingwall.
- The Contractor shall drive One Concrete test piles in a permanent location at the East Abutment as directed by the Engineer before ordering the remainder of pile.
- The back face of the Lew abutments & wings above the tops of the footings shall be waterproofed in accordance with Article 503.11 of the Std. Specs for Blowing Data see the proposal.



ELEVATION



PLAN



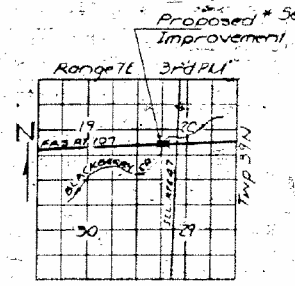
PROFILE GRADE
F.A.S. ROUTE 107

WATERWAY INFORMATION

Drainage Area	11.43 Sq. Miles
Character	Level, Rolling, Cultivated
Present Opening	756 Sq. Ft.
Required Opening	756 Sq. Ft.
Proposed Opening	756 Sq. Ft.
Q(30)	761.54 CFS
Created Head	9.7'
All Time Highwater Elev.	729.0'

TOTAL BILL OF MATERIAL

Item	Unit	Super.	Sub.	Total
Porous Granular Embankment	Cu. Yds		35	35
Bituminous Concrete Surface Course - Class I	Tons	13		13
Removal of Existing Superstructures	Each	1		1
Concrete Removal	Cu. Yds		10	10
Expansion Bolts 3"	Each		186	186
Structure Excavation	Cu. Yds		265	265
Protective Coat	Sq. Yds	19		19
Class X Concrete	Cu. Yds	37.6	81.9	139.5
Waterproofing Membrane System	Sq. Yds	163		163
Steel Railings (Type T)	Lin. Ft.	71		71
Reinforcement Bars	Lbs.	15340	790	23130
Concrete Piles	Lin. Ft.		240	240
Test Piles (Concrete)	Each		1	1
Name Plates	Each		1	1



LOCATION SKETCH

GENERAL PLAN & ELEVATION
F.A.S. RTE. 107 OVER BLACKBERRY CREEK
SECTION 50BR
KANE COUNTY
STATION 148+50.00

DESIGN STRESSES
fc = 1000 psi - Abutts.
fc = 1400 psi - Deck & Pier
fs = 20,000 psi - Reinf.
V = 75 psi - Footings
n = 10
Allow 25% for Full Wearing Surf.
LOADING HS20-44

STATION 148+50.00
BLACKBERRY CREEK
REBUILT 19
F.A.S. RT. 107 SEC. 50BR
LOADING HS20
NAME PLATE
(See Std. 1113)

DESIGNED: [Signature]
CHECKED: [Signature]
DRAWN: [Signature]
CHECKED: [Signature]

APPROVED: [Signature]
DATE: APRIL 23 - 1975

DATE	BY	REVISION

DATE	BY	REVISION

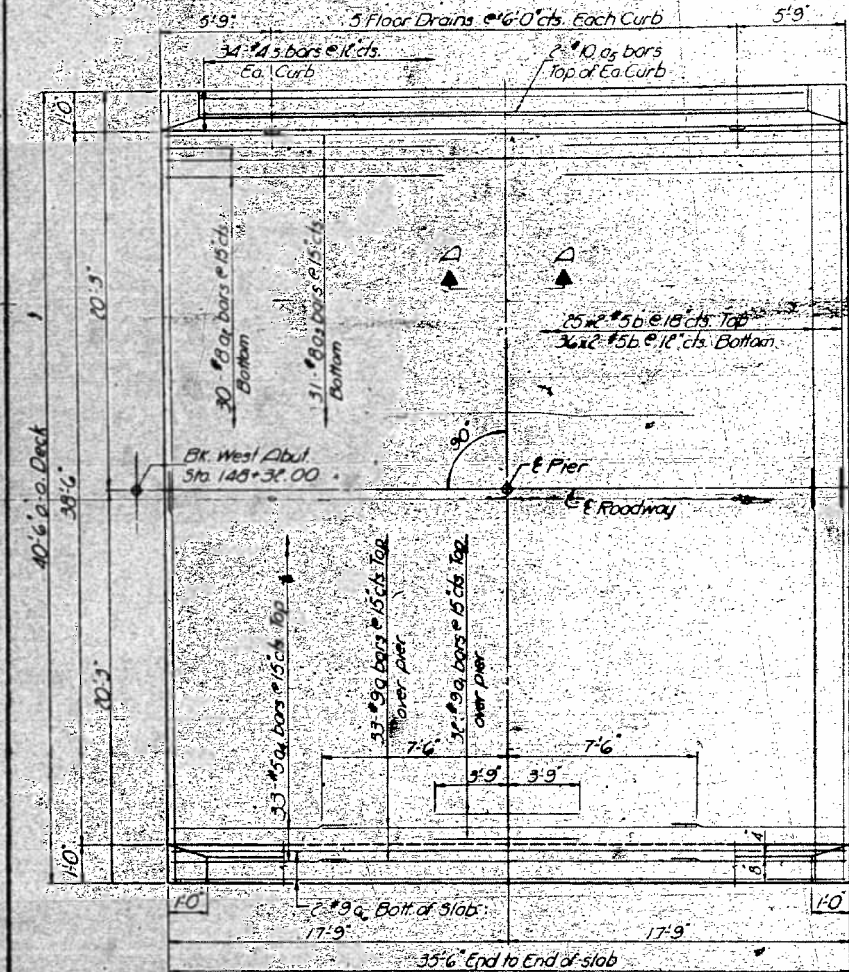
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	PLOTTED	BY
	GRADES CHECKED	
	STRUCTURE NOTATIONS CHECKED	
	NOTE BOOK NO.	
	CADD FILE NAME	

PROFILE	SURVEYED	DATE
	PLOTTED	BY
	GRADES CHECKED	
	STRUCTURE NOTATIONS CHECKED	
	NOTE BOOK NO.	
	CADD FILE NAME	

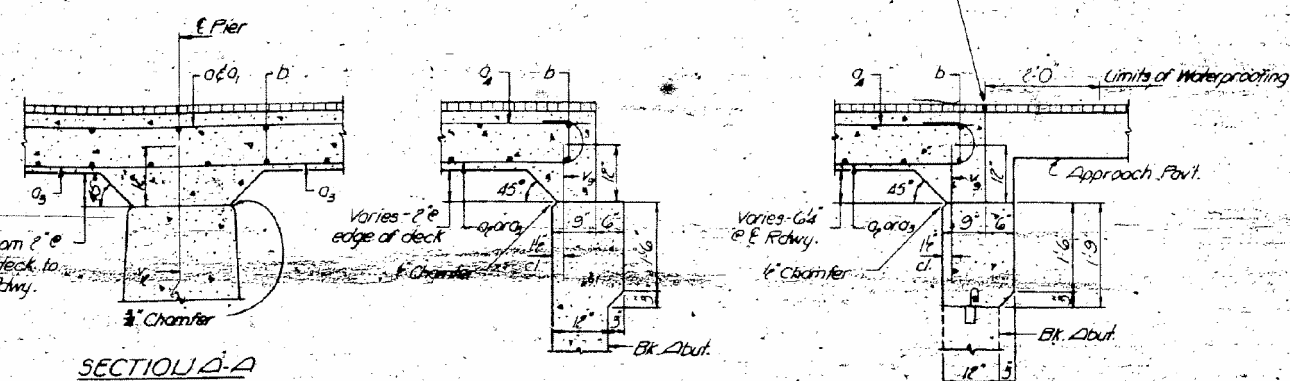
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEETS
107	50BR	KANE	217	28	2
JOB NO. 107-50BR					

Note: Bars indicated thus 20x3-5 etc. indicates 20 lines of bars with 3 lengths per line. Min. bar lap = 4 Dia.

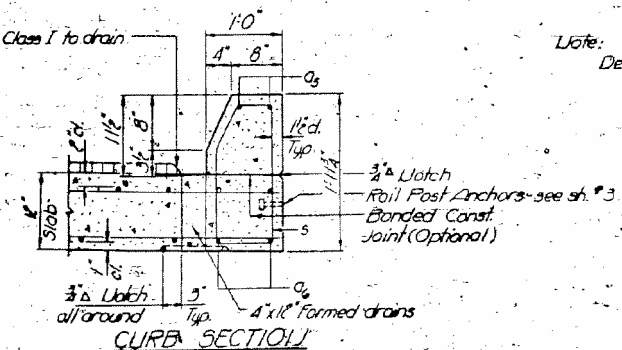


PLAN



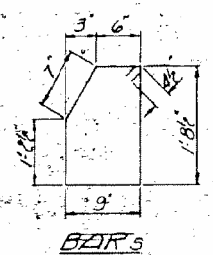
SECTION A-A

SECTION THRU ABUT. EXTENSION SECTION THRU EXISTING ABUT.

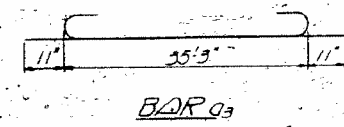


CURB SECTION

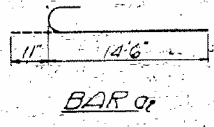
Note: Dead Load Deflection of 0.4 Span is less than 1/8".



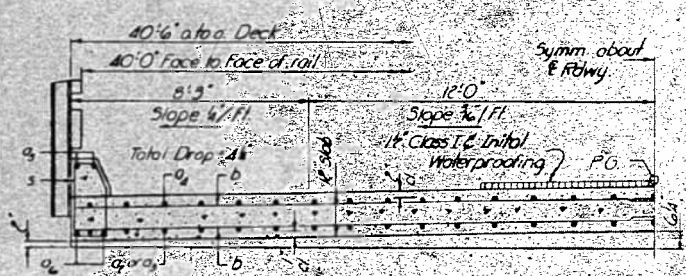
BAR 3



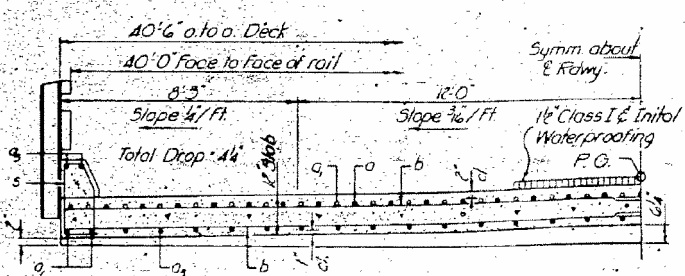
BAR 9a



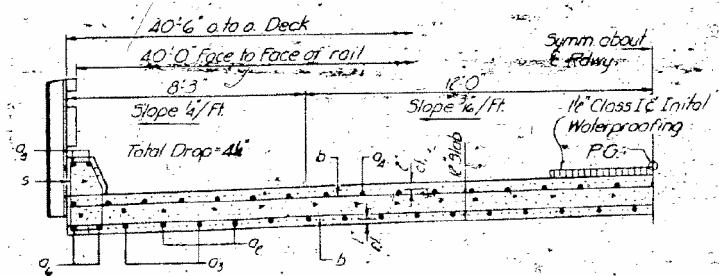
BAR 9b



HALF SECTION NEAR ABUTMENTS



HALF SECTION NEAR PIER



HALF SECTION AT MIDSPAN

BILL OF MATERIAL

Bar	Qty	Size	Length	Shape
0	33	#9	15'0"	
01	32	#9	14'6"	
02	60	#8	15'3"	
03	60	#8	37'1"	
04	66	#5	11'6"	
05	4	#10	33'3"	
06	4	#9	33'3"	
0	122	#5	20'9"	
5	68	#4	5'6"	0
Class X Concrete				Cu Yds 55.4
Reinforcement Bars				Lbs. 15840

SUPERSTRUCTURE
FDS. RT. 107 SEC 50BR
KANE COUNTY
STA 148+50.00



DESIGNED	by	DATE
CHECKED	by	DATE
DRAWN	by	DATE
CHECKED	by	DATE

USER NAME	= mlopez2
DESIGNED	-
DRAWN	-
CHECKED	-
DATE	- 1/28/19

REVISED	-
REVISED	-
REVISED	-
REVISED	-

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

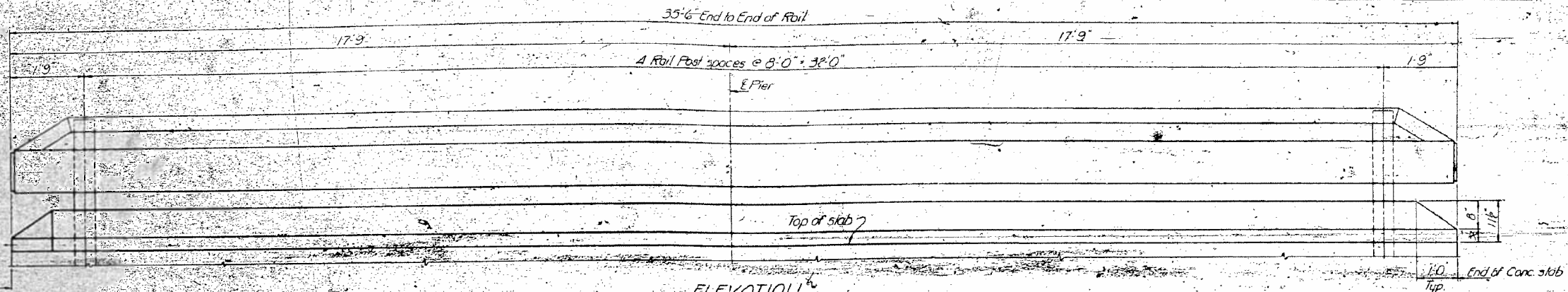
EXISTING STRUCTURE SN-045-0049

SCALE:	SHEET NO. 2 OF 8 SHEETS	STA.	TO STA.
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	107N-4	KANE	288	215
CONTRACT NO. 60T21				
ILLINOIS FED. AID PROJECT				

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROJECT NO.	SECTION	SHEET NO.	TOTAL SHEETS
S.107.50BR	KANE	217	219

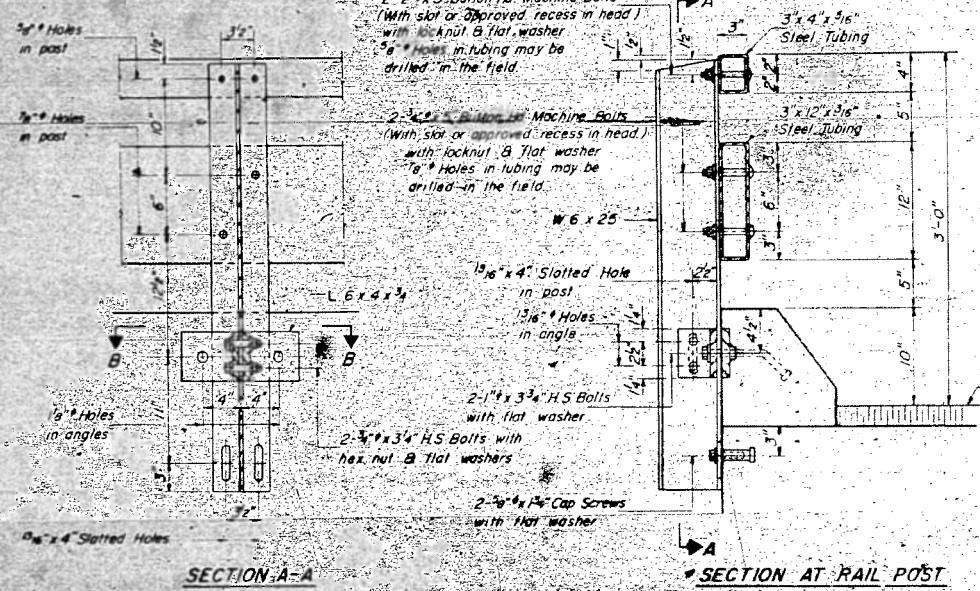


ELEVATION

All dimensions along inside face of curb.

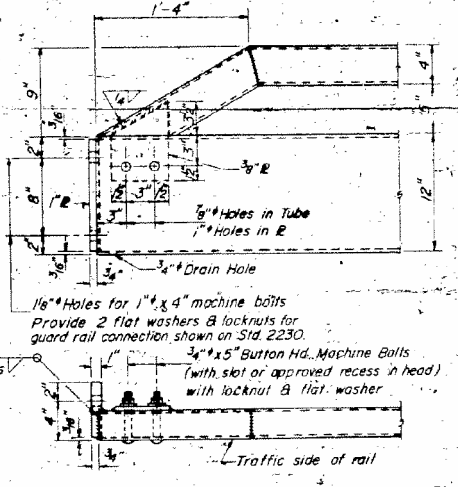
NOTES

- Hollow structural steel tubing shall conform to the requirements of ASTM designation A-500 Grade B or A-501 Structural Steel Tubing.
- All other steel shapes and plates shall conform to the requirements of ASTM designation M163 except posts shall conform to ASTM M165.
- Bolts, cap screws, and nuts shall conform to the requirements of ASTM designation A-307 except for high strength bolts, nuts and washers noted which shall conform to ASTM designation M164.
- All bolts, nuts, cap screws, washers and lock washers shall be galvanized in accordance with ASTM designation M252.
- All posts, railing, rail splices, anchor devices and angles shall be galvanized after shop fabrication in accordance with ASTM designation M111 and A-385. Galvanized rail shall not be painted.
- Railing shall be in accordance with Section 508 of the Standard Specifications, except as noted, and shall be paid for at the contract unit price per linear foot for STEEL RAILING, TYPE T.
- All field drilled holes shall be coated with an approved zinc rich paint before erection.
- The lower portion of the post flange in contact with concrete shall receive two coats of asphalt paint conforming to Section 714.08 Type B or place fabric bearing pad between the post and concrete.
- The 3/4" high strength bolts used to connect the 6x4x3/4 angles to the post shall be tightened in accordance with Article 507.04(13) of the Standard Specifications. The 1" high strength bolts connecting the angles to the concrete shall be tightened to a snug fit and given an additional 1/4 turn.
- For multi-span bridges sufficient 4x6x1/2 galvanized steel shims shall be provided to align rail between adjacent spans cast incidental to Steel Railing.



SECTION A-A

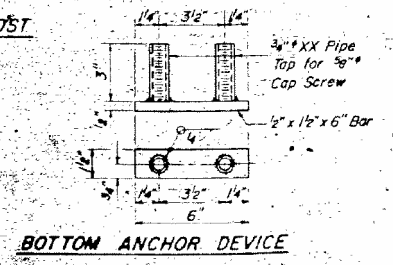
SECTION AT RAIL POST



END OF RAIL DETAILS

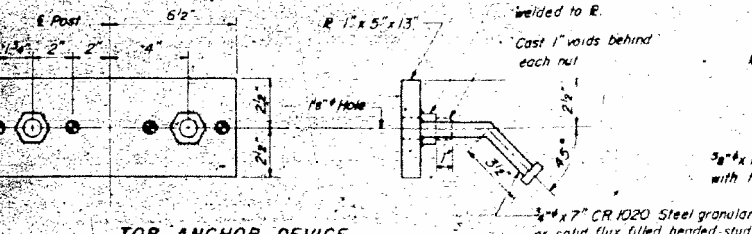


SECTION B-B

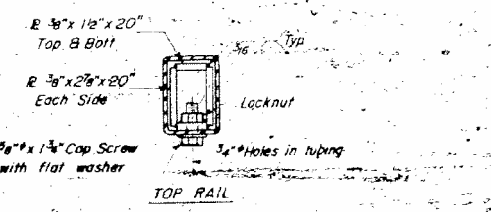


BOTTOM ANCHOR DEVICE

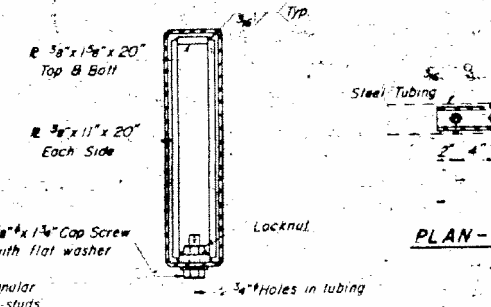
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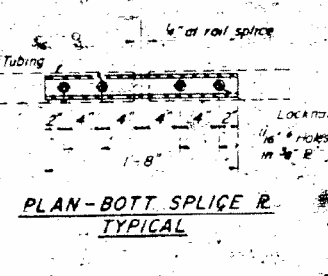
TOP ANCHOR DEVICE



TOP RAIL



BOTTOM RAIL



PLAN-BOTTOM SPLICE R TYPICAL

SECTIONS AT RAIL SPLICE

CURB & RAIL BILL OF MATERIAL

Bar	No.	Size	Length	Shape
Glass X Concrete			Cu Yds	2.2
Steel Railing, Type T			Lbs. Ft.	71
Curb Reinforcement sh.				

TYPE T
STEEL RAILING
F.A.S. RT. 107, SEC. 30 B.R.
KANE COUNTY
572.148 * 50.00

DESIGNED: *Lu Shing Hand*
CHECKED: *Chen Shih-Wei*
DRAWN: *JD*
CHECKED: *JD*

EXAMINED: *JD*
PASSED:
APPROVED: *JD*

R-24 (2-10-71) 19'-0" Maximum Post Spacing

DATE	BY	DATE	BY

DATE	BY	DATE	BY

FILE NAME = PA20150558 IDOT Dist 1, Route 47 at Main S of Elburn (PTB 77-201V4-CADD)01-CADD-Sheets-D160721-int-Ex-Structures-03.dgn



USER NAME = mlopez2	DESIGNED -	REVISED -
FILE NAME =	DRAWN -	REVISED -
PLOT SCALE = 2.0000 "/td> <td>CHECKED -</td> <td>REVISED -</td>	CHECKED -	REVISED -
PLOT DATE = 1/28/2019	DATE - 1/28/19	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING STRUCTURE SN-045-0049

SCALE:	SHEET NO. 3 OF 8 SHEETS	STA.	TO STA.
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	107N-4	KANE	288	216
CONTRACT NO. 60T21				
ILLINOIS FED. AID PROJECT				

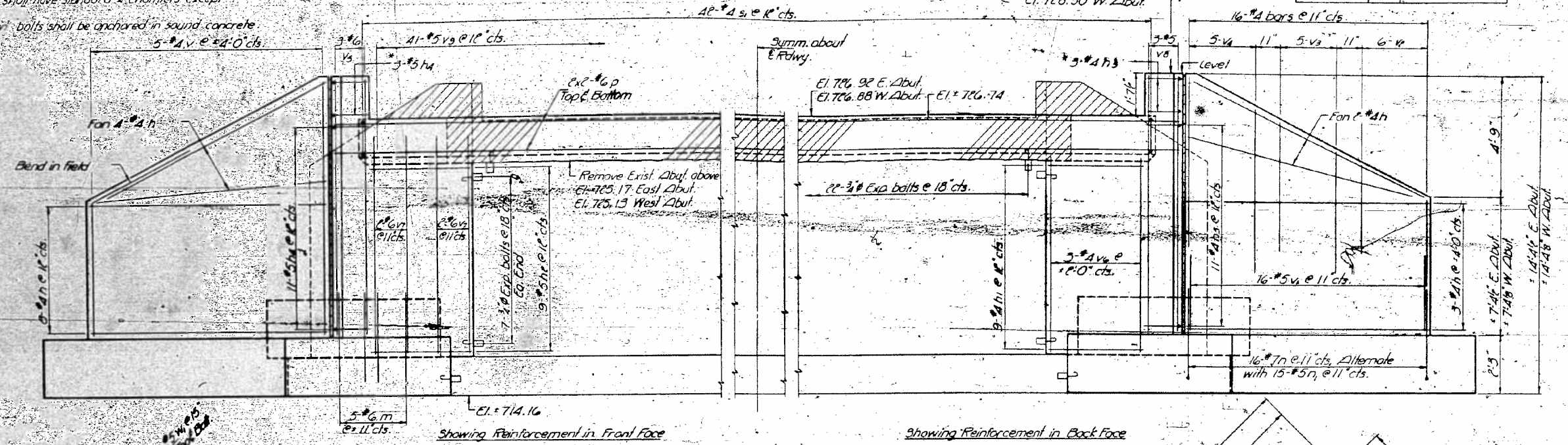
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BY	
PLAN	SURVEYED
	PLOTTED
	ALIGNED
	CHECKED
	FILED
NO.	
NO.	

DATE	
BY	
PROFILE	SURVEYED
	PLOTTED
	GRADES CHECKED
	STRUCTURE NOTATIONS CHECKED
NO.	
NO.	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

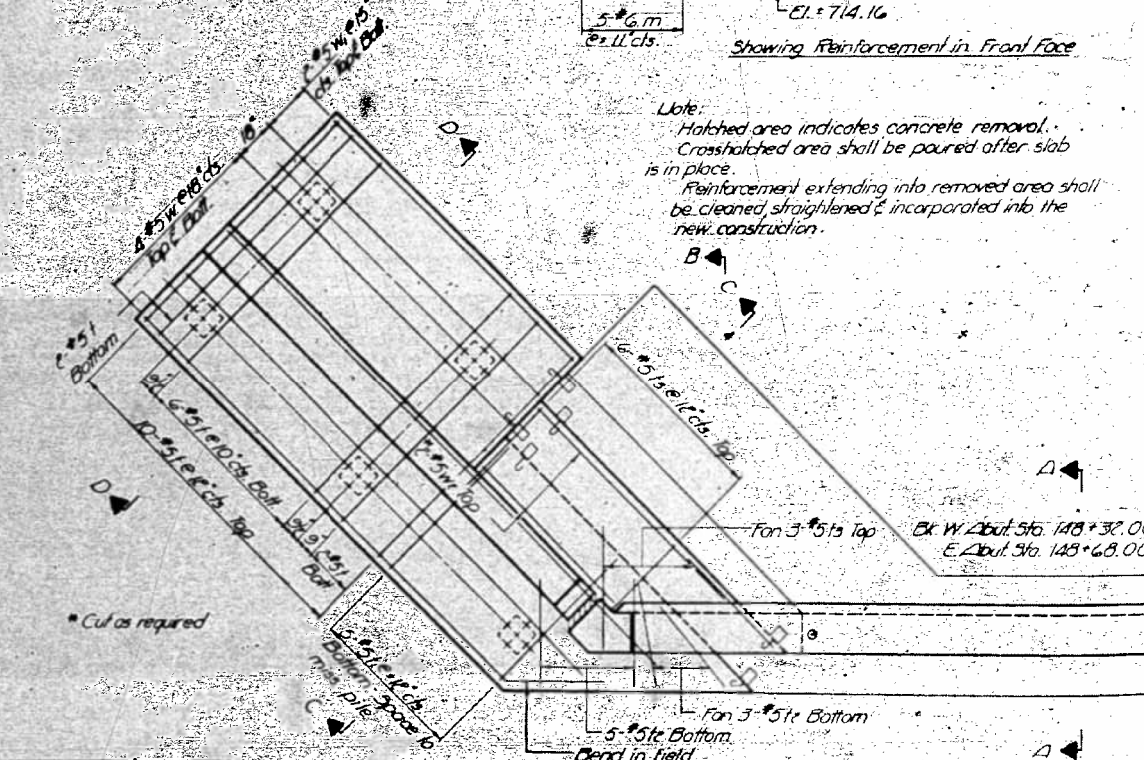
PROJECT NO.	SN-045-0049	SHEET NO.	4
DATE	2/17/19	TOTAL SHEETS	7
DESIGNED BY	KANE	SCALE	AS SHOWN

Note:
Bars indicated 20x3" 5 etc. indicates 20 lines of bars with 3 lengths per line.
All edges shall have standard 3 chamfers except as noted.
Expansion bolts shall be anchored in sound concrete.

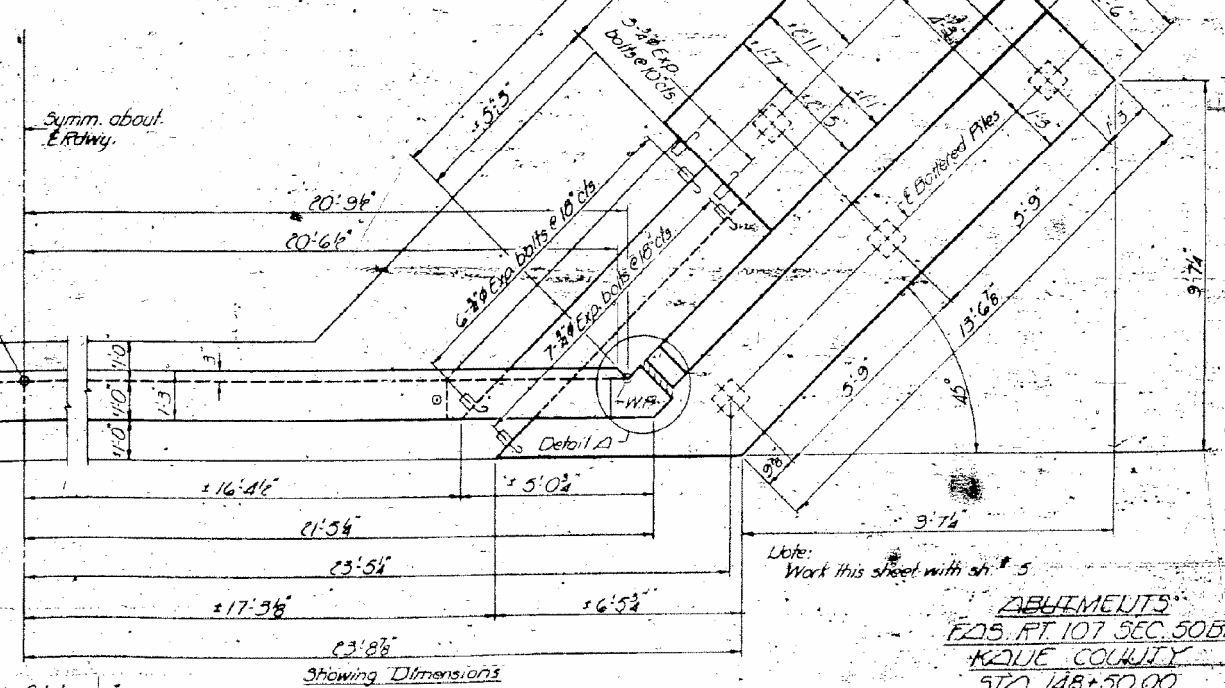


ELEVATION

Note:
Hatched area indicates concrete removal.
Crosshatched area shall be poured after slab is in place.
Reinforcement extending into removed area shall be cleaned, straightened & incorporated into the new construction.



PLAN



Note:
Work this sheet with sh. # 5

ABUTMENTS
F25 RT. 107 SEC. 50BR
KANE COUNTY
STA. 148+50.00

DESIGNED	Richard Huch
CHECKED	Shane White
DRAWN	JD
CHECKED	9.6



USER NAME	= mlopez2
FILE NAME	
PLOT SCALE	= 2.0000 "/td>
PLOT DATE	= 1/28/2019
DESIGNED	-
DRAWN	-
CHECKED	-
DATE	= 1/28/19
REVISED	-
REVISED	-
REVISED	-
REVISED	-

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

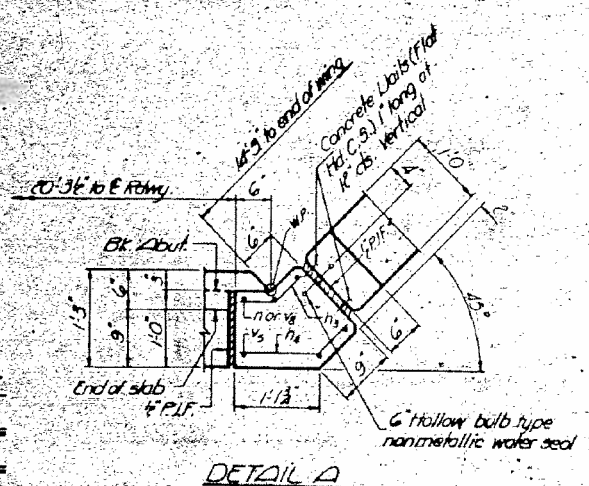
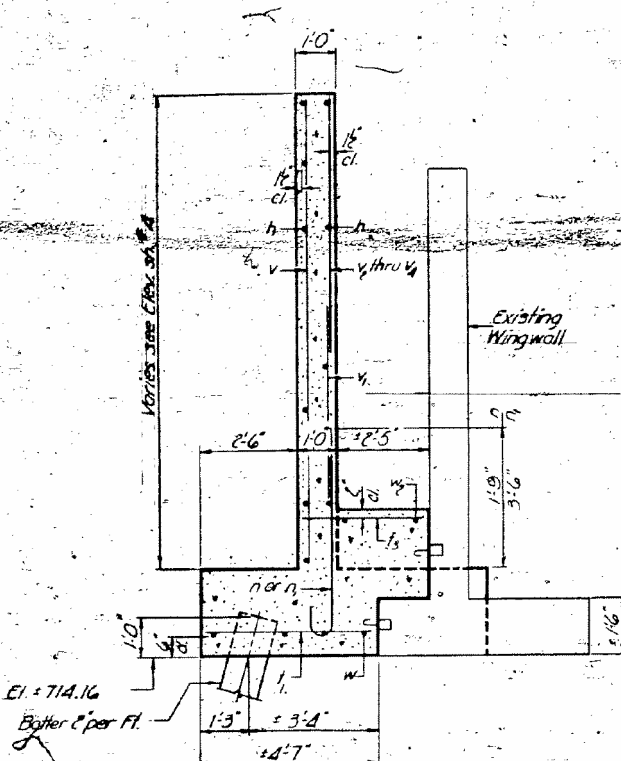
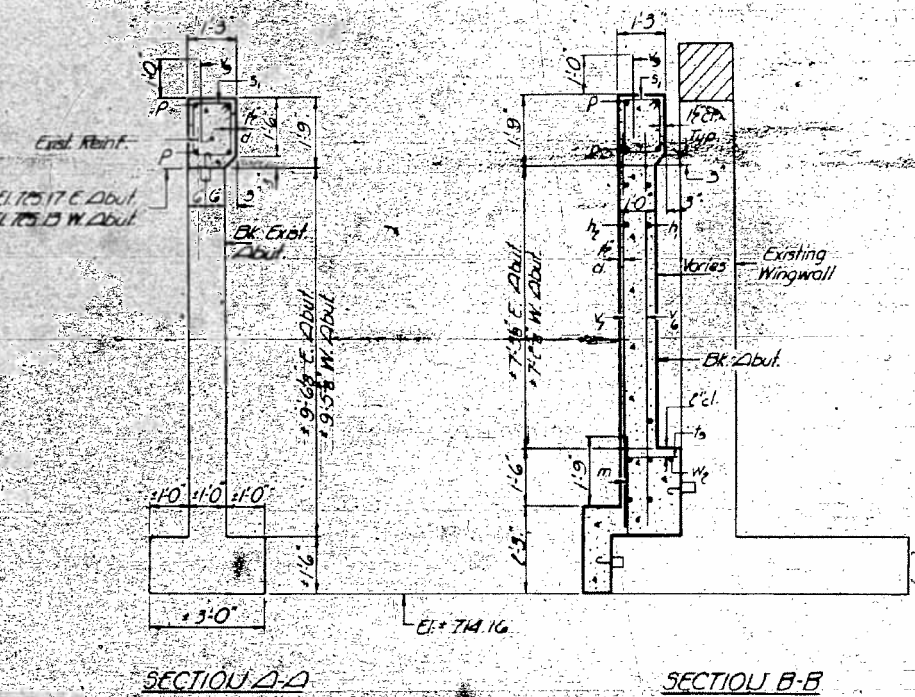
EXISTING STRUCTURE SN-045-0049	
SCALE:	SHEET NO. 4 OF 8 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	107N-4	KANE	288	217
CONTRACT NO. 60T21				
ILLINOIS FED. AID PROJECT				

FILE NAME = PA20150958 IDOT Dist 1, Route 47 at Main S of Elburn (PTB 77-20104-CADD-01-CADD-Sheets\168721-int-EC-Structures\04.dgn

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHEET NO.	SECTION	PROJECT	TOTAL SHEETS	SHEET NO.	SHEET NO.
31	50BR	KANE	217	31	7
SHEET NO. 3					



PILE DATA
Type: Concrete
Capacity: 75
Est. Length: 10'
No. Required: 19 plus 1 Test Pile

**TWO ABUTMENTS
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
h	68	#4	13'-6"	—
h1	36	#4	3'-6"	—
h2	36	#5	4'-6"	—
na	36	#4	1'-8"	—
na	36	#5	4'-8"	—
m	80	#6	3'-6"	—
n	64	#7	4'-4"	—
n1	60	#5	5'-10"	—
p	16	#6	21'-9"	—
s1	84	#4	5'-3"	—
1	80	#5	7'-3"	—
11	80	#5	4'-3"	—
12	36	#5	2'-9"	—
13	36	#5	3'-2"	—
v	20	#4	17'-9"	—
v1	64	#5	5'-0"	—
v2	24	#4	5'-6"	—
v3	20	#4	7'-0"	—
v4	20	#4	8'-6"	—
v5	18	#6	11'-9"	—
v6	18	#4	9'-6"	—
v7	16	#6	9'-6"	—
v8	18	#5	11'-9"	—
v9	82	#5	2'-3"	—
w	32	#5	16'-0"	—
w1	16	#5	8'-9"	—
w2	8	#5	9'-0"	—
Class X Concrete Cu Yds 40.4				
Reinforcement Bars 265 6190				
Expansion bolts Each 136				
Concrete Piles (in. Ft.) 190				
Test Piles (Concrete) Each 1				
Concrete Removal Cu Yds 5				

ABUTMENT DETAILS
FAS RPTOT SEC. 50BR
KANE COUNTY
STA 148+50'00

DESIGNED	Checked	EXAMINED	Approved
CHECKED	Checked	PAID	Approved
DRAWN	J.D.	APPROVED	Approved
CHECKED	Checked	APPROVED	Approved

PLAN	SURVEYED	DATE
	PLOTTED	
	GRADES CHECKED	
	ALIGNMENT CHECKED	
	STRUCTURE NOTATIONS OK'D	
	NOTE BOOK NO.	
	CARD FILE NAME	

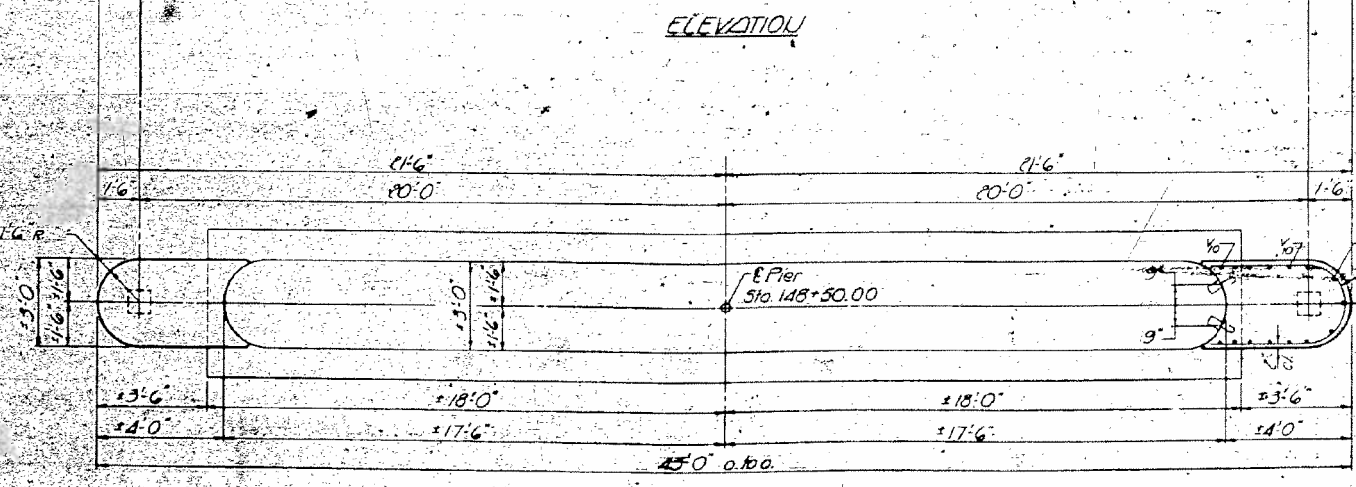
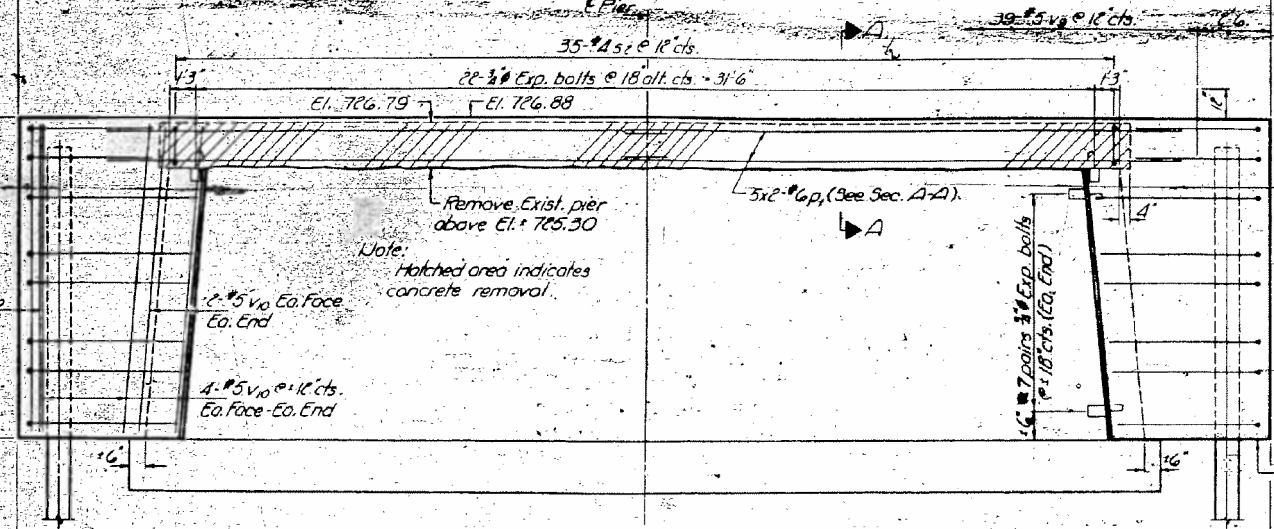
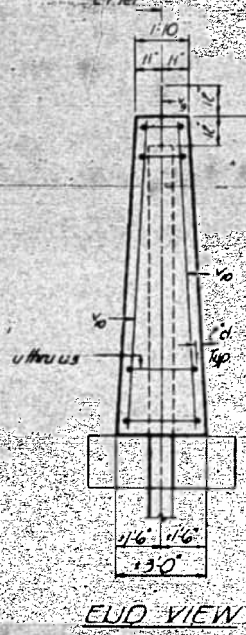
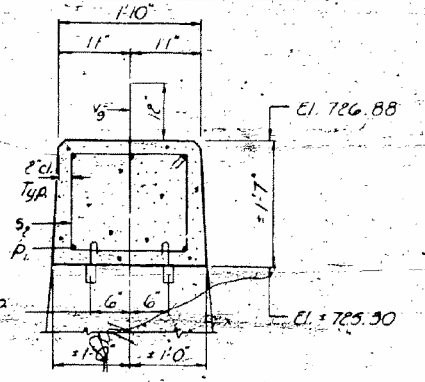
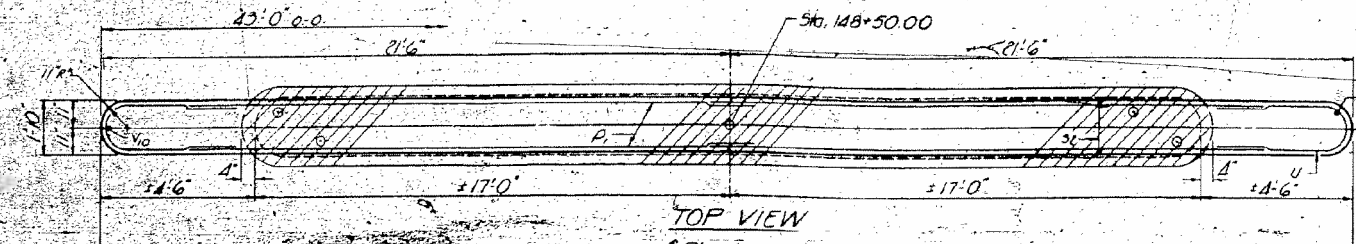
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	PLOTTED	
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	NOTE BOOK NO.	
	CARD FILE NAME	

FILE NAME = PA20150558 100T Draft IL Route 47 at Main S of Elburn (P18 771-201V4-CADD)01.CADD:Sheets\0168721-int-Ex-Structures_05.dgn

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DATE	BY	PROJECT	DATE	SHEET NO.
11.8.10	5088	KANE	217	32
7 SHEETS				

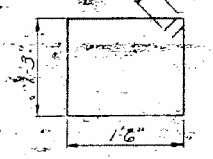
Note:
All edges shall have standard chamfers except as noted.
Bars indicated 20x3 #5 etc. indicates 20 lines of bars with 3 lengths per line.
Expansion bolts shall be anchored in sound concrete.



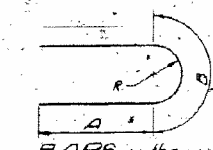
FILE DATA
Type: Concrete
Capacity: 50 Tons
Est. Length: 25'
Lbs. Required: 2'
Includes length embedded in the pier.
Metal Shell option not permitted.

BILL OF MATERIAL

Bar	Qty	Size	Length	Shape
P	10	#6	19'-0"	
S	35	#4	6'-3"	□
U	4	#5	9'-10"	U
U1	6	#5	10'-9"	U
U2	6	#5	10'-10"	U
U3	6	#5	11'-0"	U
V	39	#5	2'-5"	
V1	30	#5	10'-6"	
Class X Concrete - Cu Yds 11.3				
Reinforcement Bars - Lbs. 1100				
3/8" Expansion bolts - Each 50				
Concrete Piles - Lin Ft. 30				
Concrete Removal - Cu Yds 5				



BAR #2



BARS U thru U3

Bar	A	B	R
U	3'-9"	2'-4"	9"
U1	4'-0"	2'-9"	10"
U2	3'-10"	3'-2"	10"
U3	3'-8"	3'-8"	12"

PIER
EAS. RT. 107 SEC. 50BR
KANE COUNTY
STA. 148+50.00

DATE	BY	SURVEYED	PLOTTED	CHECKED	FILE NAME

DATE	BY	DESIGNED	CHECKED	DRAWN	CHECKED

DESIGNED	Checked	DATE	11/23/10
CHECKED	Checked	DATE	
DRAWN	J.D.	DATE	
CHECKED	Checked	DATE	



USER NAME = mlopez2
FILE NAME =
PLOT SCALE = 2.0000 "/ in.
PLOT DATE = 1/28/2019

DESIGNED -
DRAWN -
CHECKED -
DATE - 1/28/19

REVISED -
REVISED -
REVISED -
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING STRUCTURE SN-045-0049

SCALE: SHEET NO. 6 OF 8 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	107N-4	KANE	288	219
CONTRACT NO. 60T21				

ILLINOIS FED. AID PROJECT

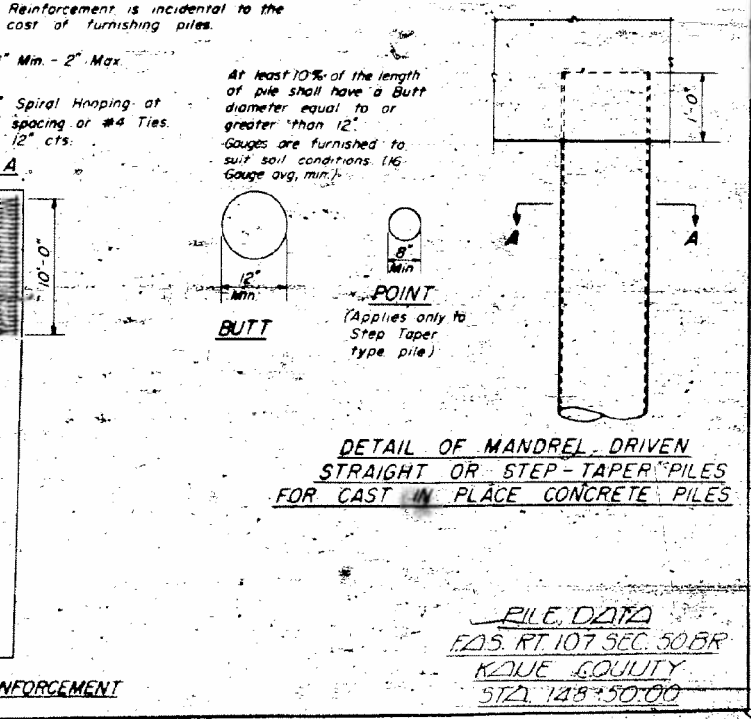
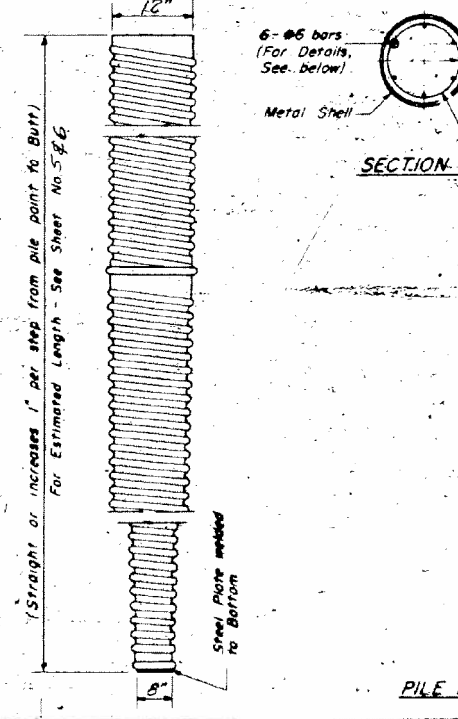
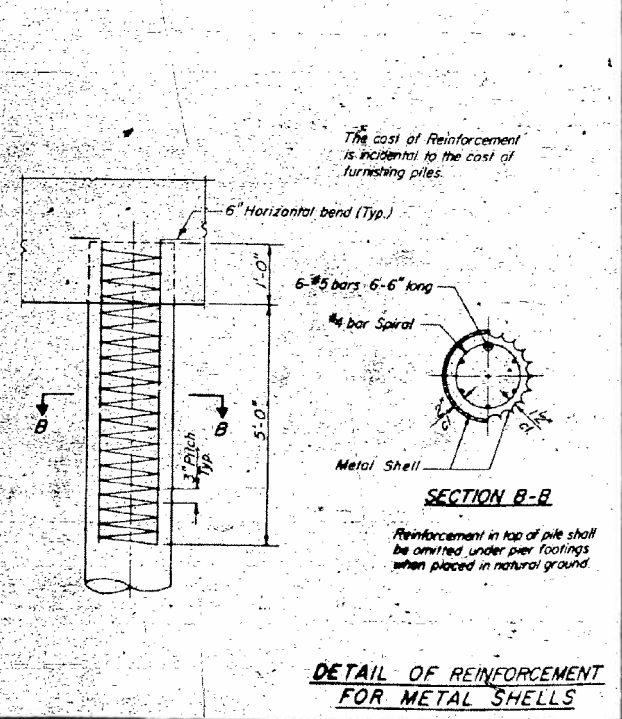
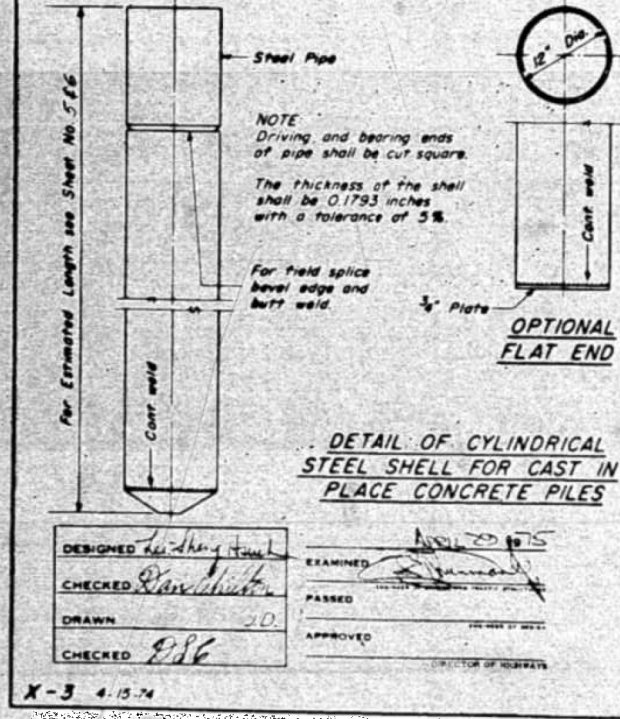
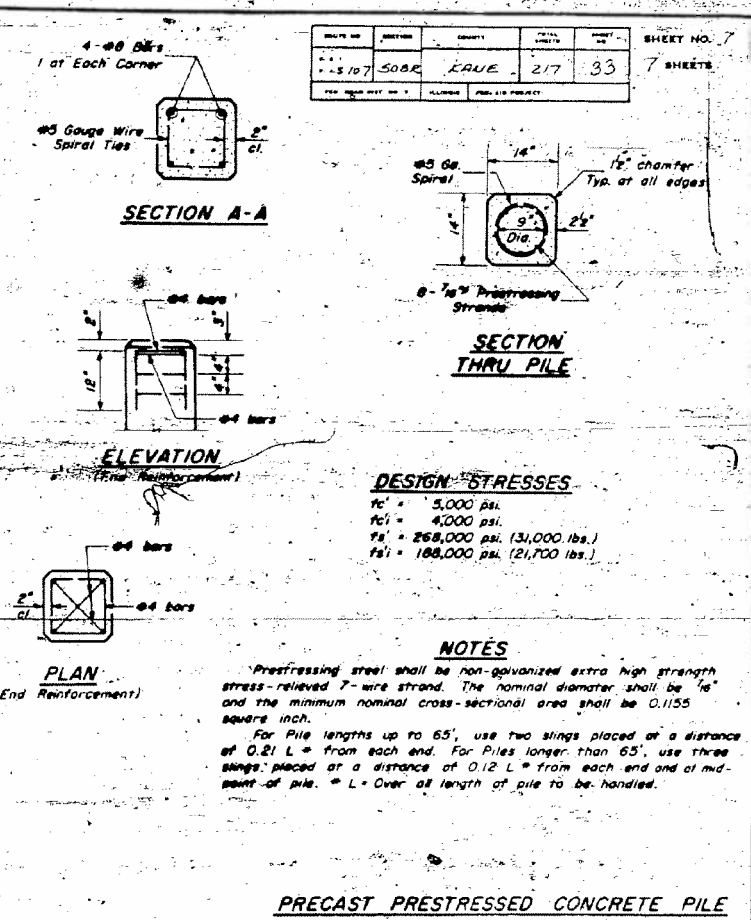
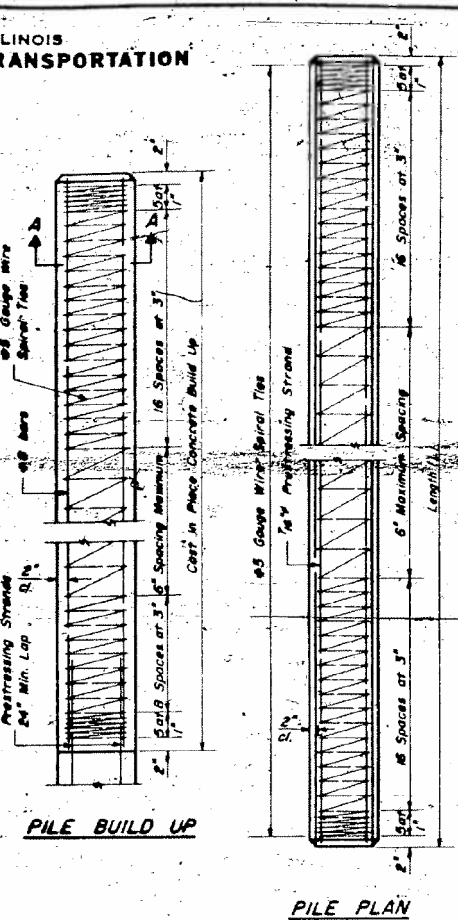
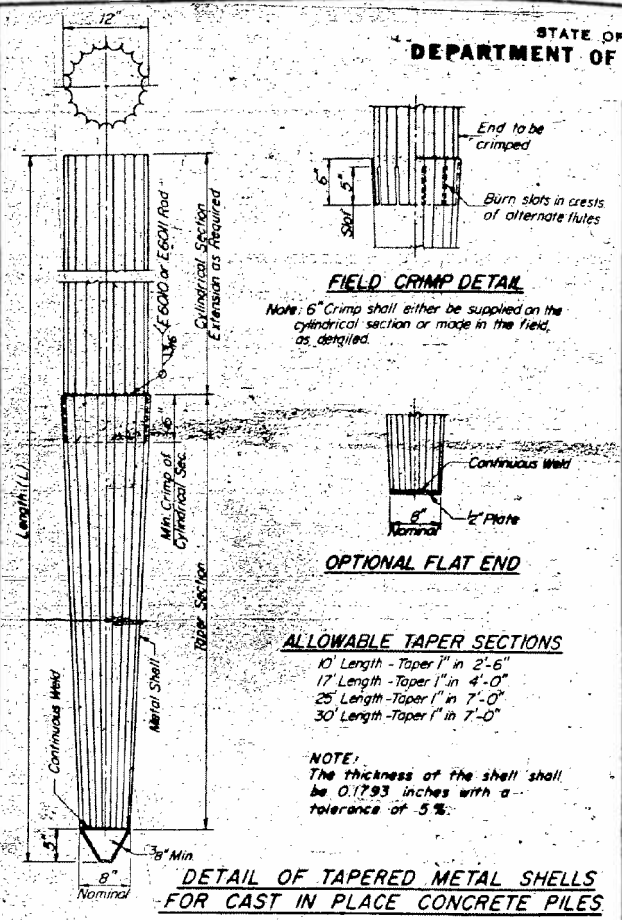
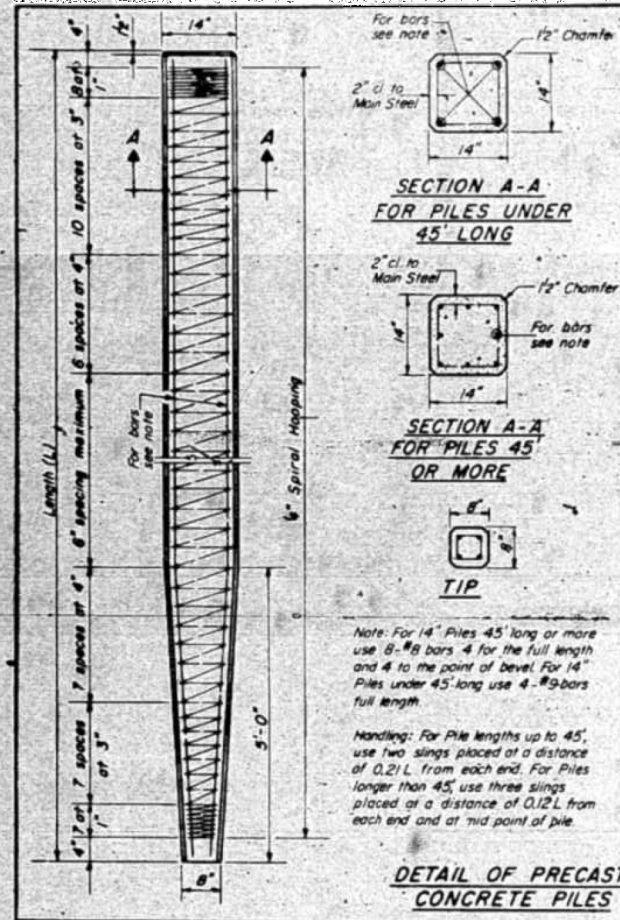
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	STRUCTURE NOTATIONS CHECKED	
	NOTE BOOK NO.	
	CARD FILE NAME	

PROFILE	SURVEYED	DATE
	PLOTTED	
	GRADES CHECKED	
	STRUCTURE NOTATIONS CHECKED	
	NOTE BOOK NO.	
	CARD FILE NAME	

FILE NAME = PA20150558 IDOT Dist 1, Route 47 at Main S of Elburn (PTB 171-20154-CADD)01.CADD; Sheets: D160721-int-EC-Structures @7.dgn

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHEET NO.	7
TOTAL SHEETS	7
PROJECT NO.	50BR
SECTION	KANE
COUNTY	217
STA.	33



DESIGNED	2/13/14
CHECKED	2/13/14
DRAWN	2/13/14
CHECKED	2/13/14

DESIGNED *[Signature]*
CHECKED *[Signature]*
DRAWN *[Signature]*
CHECKED *[Signature]*

PILE DATA
EAS. RT. 107 SEC. 50BR
KANE COUNTY
STA. 145+50.00



USER NAME	= mlopez2
FILE NAME	=
PLOT SCALE	= 2.0000 ' / in.
PLOT DATE	= 1/28/2019

DESIGNED	-
DRAWN	-
CHECKED	-
DATE	= 1/28/19

REVISED	-
REVISED	-
REVISED	-
REVISED	-

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCALE:	SHEET NO. 7 OF 8 SHEETS	STA.	TO STA.
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EXISTING STRUCTURE SN-045-0049

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	107N-4	KANE	288	220
CONTRACT NO. 60T21				
ILLINOIS FED. AID PROJECT				

DATE	
BY	
PLAN	
SURVEYED	
PLOTTED	
ALIGNED	
CHECKED	
NO. 1	
NO. 2	
NO. 3	
NO. 4	
NO. 5	
NO. 6	
NO. 7	
NO. 8	
NO. 9	
NO. 10	
NO. 11	
NO. 12	
NO. 13	
NO. 14	
NO. 15	
NO. 16	
NO. 17	
NO. 18	
NO. 19	
NO. 20	

DATE	
BY	
PROFILE	
SURVEYED	
PLOTTED	
GRADES CHECKED	
STRUCTURE	
NOTATRS CHFD	
NO. 1	
NO. 2	
NO. 3	
NO. 4	
NO. 5	
NO. 6	
NO. 7	
NO. 8	
NO. 9	
NO. 10	
NO. 11	
NO. 12	
NO. 13	
NO. 14	
NO. 15	
NO. 16	
NO. 17	
NO. 18	
NO. 19	
NO. 20	

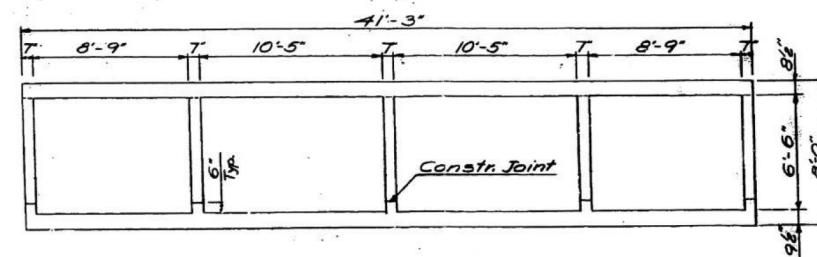
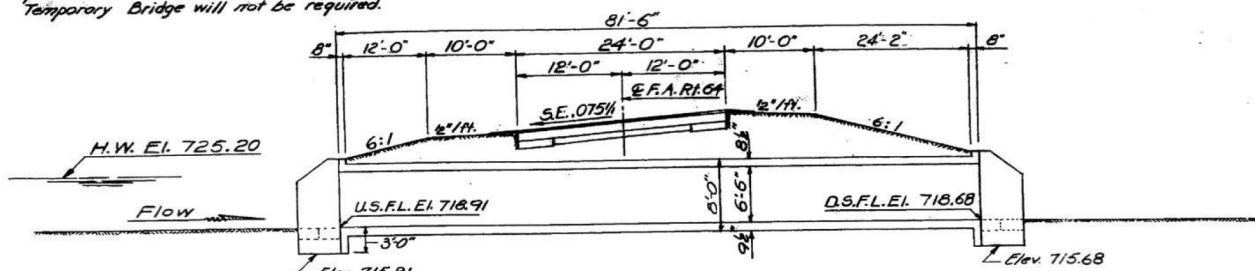
FILE NAME = PA20150958 IDOT Dist 1 IL Route 47 at Main S of Elburn (P1B 77-201504-CADD-01-CADD-01-CADD-01-INT-1-C-Structure) 08/29/17

B.M. Chiseled "x" on top wing wall in Southeast corner of the bridge over Blackberry Creek of C.H. Rte. 10, 17 Rt. of Sta 148+67 (C.H. Rte. 10) - Elev. = 728.21.

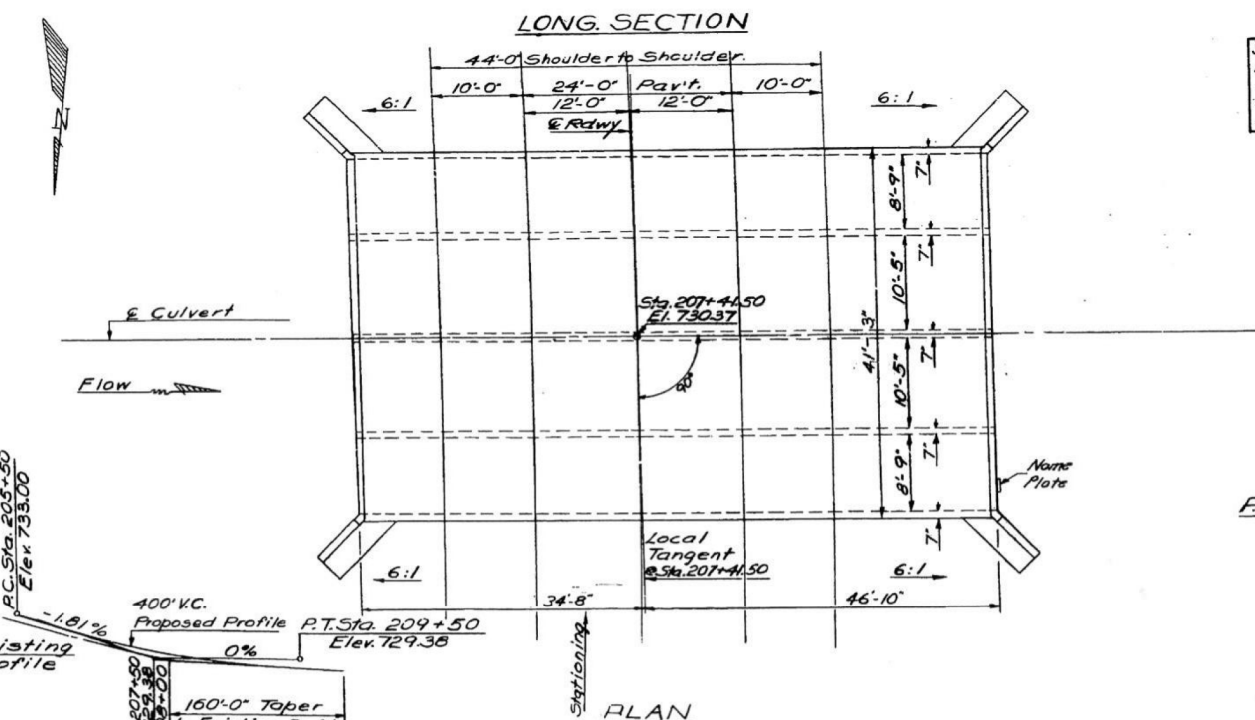
Existing Culvert is to be removed by contractor at the beginning of construction and replaced with a new structure. Handrail shall be salvaged by District Maintenance. Temporary Bridge will not be required.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

DATE	7/11/67
BY	KANE
NO.	27
PROJECT	F-158(12)
SHEET NO.	3
TOTAL SHEETS	3



SECTION THRU BARREL



STATION 207+41.50
BUILT 19 BY
STATE OF ILLINOIS
F.A. RT. 64 SEC. 107B-I-1
LOADING HS20
NAME PLATE
See Std 2115-1

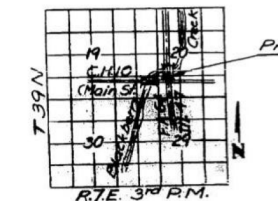
GENERAL NOTES
Class X Concrete shall be used throughout. Exposed edges shall be beveled 3/4". For backfilling and embankment see Std. Specs. All bars shall be lapped 20 diameters unless otherwise specified. The top of the culvert, the backs of the sidewalls above the lower construction joint and backs of the wings above the tops of the footings shall be waterproofed in accordance with Act 5121 of the Std. Specs. Nonmetallic water seal used in the wing wall joints shall extend from the top of the footing to within 6" of the top of the headwall. ANY REVISIONS NEEDED TO CONSTRUCT THE STRUCTURE WILL NOT BE PAID SEPARATELY BUT WILL BE INCORPORATED TO CLASS X CONCRETE.

F.A.R.T.E. 64 CURVE DATA
A = 34'-24"
D = 2'-42.91'
T = 653.45'
L = 1,267.00
R = 2,110.95
E = 96.64
S = 0.075% (Prop.)
P.C. = 197+19.80
P.I. = 203+73.25
P.C.C. = 209+86.80

TOTAL BILL OF MATERIAL

Item	Unit	Total
Class X Concrete	Cu. Yds.	281.0
Reinforcement Bars	Lbs.	54,840
Name Plates	Each	1
Removal of Existing Structures	Each	1

WATERWAY INFORMATION
Drainage Area 7,680 acres
Character: rolling, wooded, cultivated
Required Opening 240 Sq. Ft. 30 years frequency
Present Opening 240 Sq. Ft.
Proposed Opening 240 Sq. Ft.
Ordinary Water Elev. 720.50
High Water Elev. 725.20



GENERAL PLAN & ELEVATION
PROJECT: F-158(12)
F.A.R.T.E. 64 SECTION 107B-I-1
KANE COUNTY
STA. 207+41.50

DESIGNED: J.K.G.
CHECKED: Susan T. Dashi
DRAWN: D. Derringer
CHECKED: S.D.
EXAMINED: [Signature]
PASSED: [Signature]
APPROVED: [Signature]
DATE: July 11 1967



USER NAME = mlopez2	DESIGNED -	REVISED -
FILE NAME =	DRAWN -	REVISED -
PLOT SCALE = 2.0000 "/td> <td>CHECKED -</td> <td>REVISED -</td>	CHECKED -	REVISED -
PLOT DATE = 1/28/2019	DATE - 1/28/19	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING STRUCTURE SN-045-2000

SCALE: SHEET NO. 8 OF 8 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	107N-4	KANE	288	221
CONTRACT NO. 60T21				
ILLINOIS FED. AID PROJECT				

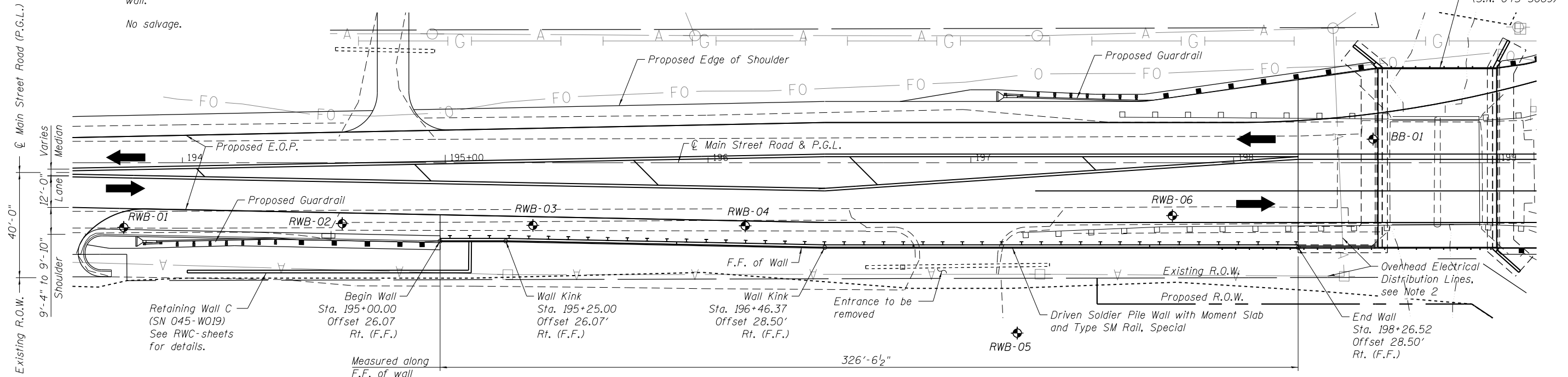
S-8.40

Benchmark: "□" Cut top of southwest wingwall on Bridge over Blackberry Creek west of IL Route 47, Elev. 728.26.

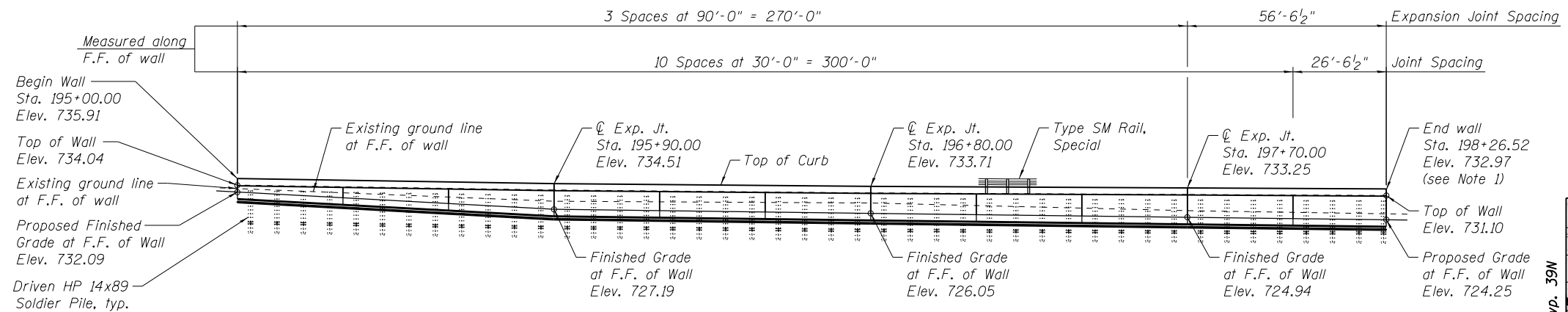
Existing Structure: None

Stage Construction: Construction of the proposed retaining wall to be coordinated with stage construction and plans required for the proposed roadway and proposed bridge at the east end of the retaining wall.

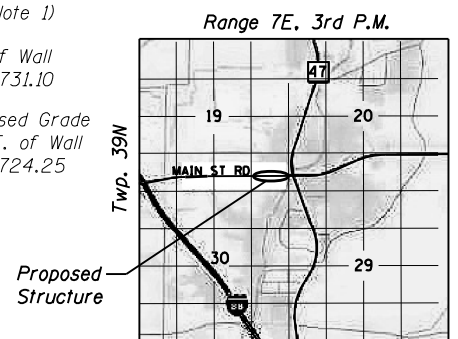
No salvage.



PLAN VIEW



ELEVATION VIEW
(Looking North at F.F.)



LOCATION SKETCH

NOTES:

- Top of curb elevation shall match top of southwest wingwall elevation of S.N. 045-3069.
- Contractor to identify precautions and determine method/procedures for driving piles near overhead electrical distribution lines.



M. Basar Civelek

HIGHWAY CLASSIFICATION

Main Street Road, F.A.S. Route 107
 Functional Class: Other Principal Arterial
 ADT: 3700 (2010); 7000 (2040)
 ADTT: 936 (2010); 1771 (2040)
 DHV: 380 (2040)
 Design Speed: 60 m.p.h.
 Posted Speed: 55 m.p.h.
 2-Way Traffic, Directional Distribution: 50/50

DESIGN SPECIFICATIONS

2017 AASHTO LRFD Bridge Design Specifications, 8th Edition

DESIGN STRESSES

FIELD UNITS

$f'_c = 3,500$ psi
 $f_y = 60,000$ psi (Reinforcement)

SOLDIER PILES

$f_y = 50,000$ psi (M270 Grade 50)

**GENERAL PLAN AND ELEVATION
 MAIN STREET ROAD / COUNTY HWY 10
 F.A.P. ROUTE 524 - SECTION 107N-4**

KANE COUNTY

**STATION 195+00 TO 198+26.52
 STRUCTURE NO. 045-3500**

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NAME = JKando	CHECKED - JSK	REVISED -
DATE = 3/15/2019	DRAWN - MRK	REVISED -
TIME = 3:35:07 PM	CHECKED - WPK	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

RETAINING WALL A (SN 045-3500)

SHEET NO. RWA-1 OF RWA-16 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	107N-4	KANE	288	222
CONTRACT NO. 60T21				

ILLINOIS FED. AID PROJECT

GENERAL NOTES:

1. Reinforcement bars designated (E) shall be epoxy coated.
2. Concrete Sealer shall be applied to all exposed areas of the concrete facing.
3. All exposed concrete edges shall have a 3/4" x 45° chamfer, U.N.O. The chamfer on vertical edges shall continue a minimum of one foot below finished grade.

MINIMUM BAR LAPS

#5 bars - 3'-3"

LEGEND

- └─┘— Pipe Underdrain Flow Arrow
- A — Overhead Electrical
- FO — Fiber Optic
- G I — Gas
- □ — Guardrail
- ⊕ Soil Boring

ABBREVIATIONS

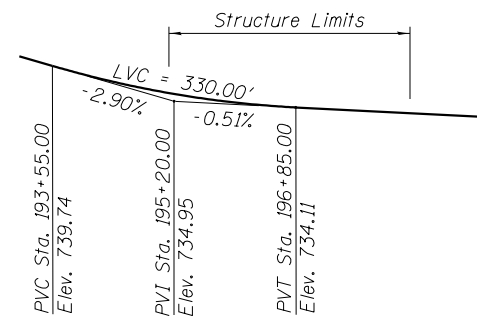
- B.F. Back Face
- C Construction Joint
- ℄ Centerline
- cts. Centers
- E Expansion Joint
- E.F. Each Face
- F.F. Front Face
- Spa. Spaces
- U.N.O. Unless Noted Otherwise

BILL OF MATERIAL

ITEM	UNIT	TOTAL
Structure Excavation	Cu Yd	571
Concrete Structures	Cu Yd	272
Stud Shear Connectors	Each	584
Reinforcement Bars, Epoxy Coated	Pound	32,860
Type SM Rail, Special	Foot	327
Furnishing Soldier Piles (HP Section)	Foot	1,320
Driving Soldier Piles	Foot	1,320
Untreated Timber Lagging	Sq Ft	1,928
Concrete Sealer	Sq Ft	6,356
Geocomposite Wall Drain	Sq Yd	215
Anti-Graffiti Protection System	Sq Ft	1,765
Pipe Underdrains For Structures 4"	Foot	327

INDEX OF SHEETS

- RWA-1 General Plan and Elevation
- RWA-2 Total Bill of Material, Index of Sheets & General Notes
- RWA-3 Soldier Pile Plan & Elevation I
- RWA-4 Soldier Pile Plan & Elevation II
- RWA-5 Soldier Pile Plan & Elevation III
- RWA-6 Soldier Pile Plan & Elevation IV
- RWA-7 Moment Slab Plan & Wall Elevation I
- RWA-8 Moment Slab Plan & Wall Elevation II
- RWA-9 Moment Slab Plan & Wall Elevation III
- RWA-10 Moment Slab Plan & Wall Elevation IV
- RWA-11 Wall & Moment Slab Details I
- RWA-12 Wall & Moment Slab Details II
- RWA-13 Steel Railing, Type SM (R-34CWSC)
- RWA-14 Boring Logs I
- RWA-15 Boring Logs II
- RWA-16 Boring Logs III

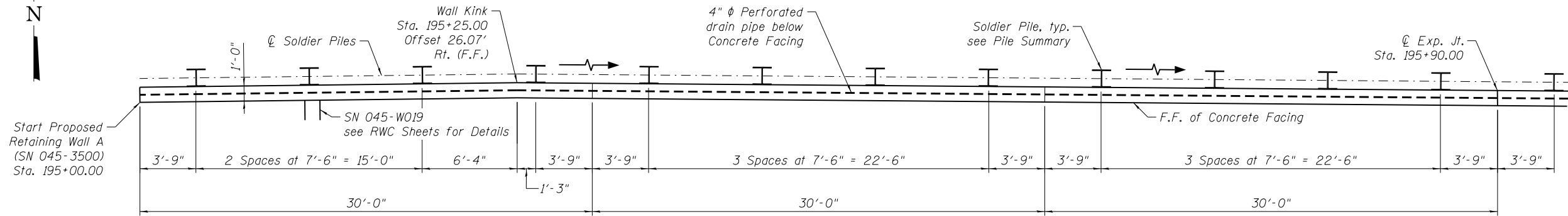
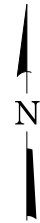


PROFILE GRADE

(Along ℄ Main Street Road)

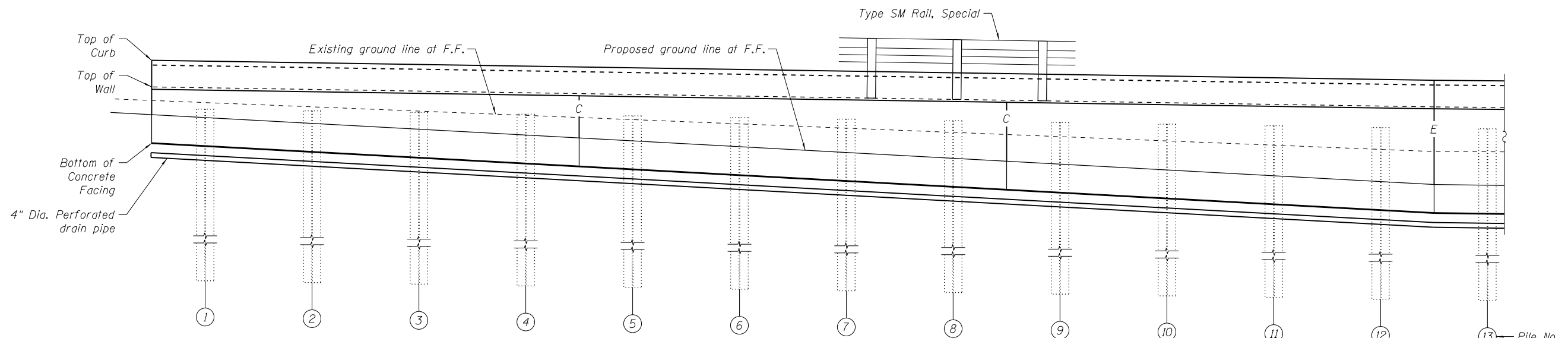
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DB STERLIN CONSULTANTS, INC. 133 N. WACKER DRIVE SUITE 2000 CHICAGO, ILLINOIS 60606 TEL. (312)837-1000 FAX. (312)837-1006	PLOT NAME = JKando DATE = 3/6/2019 TIME = 3:56:35 PM	DESIGNED - MBC CHECKED - JSK DRAWN - MRK CHECKED - WPK	REVISED - REVISED - REVISED - REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TOTAL BILL OF MATERIAL, INDEX OF SHEETS & GENERAL NOTES RETAINING WALL A (SN 045-3500)	F.A.P. RTE. = 326	SECTION = 107N-4	COUNTY = KANE	TOTAL SHEETS = 288	SHEET NO. = 223
	SHEET NO. RWA-2 OF RWA-16 SHEETS						CONTRACT NO. 60T21			



PLAN

(All dimensions are measured along F.F. of Concrete Facing)



ELEVATION

(Looking North at F.F.)

PILE SUMMARY

PILE NO.	PILE SIZE	STATION AT PILE ϕ	OFFSET TO PILE ϕ	LENGTH	TIP ELEVATION	TOP ELEVATION	PILE NO.	PILE SIZE	STATION AT PILE ϕ	OFFSET TO PILE ϕ	LENGTH	TIP ELEVATION	TOP ELEVATION
1	HP14x89	195+03.75	27'-7 3/4" Rt.	30.00'	702.48	732.48	7	HP14x89	195+48.77	28'-1 1/2" Rt.	30.00'	701.78	731.78
2	HP14x89	195+11.25	27'-7 3/4" Rt.	30.00'	702.37	732.37	8	HP14x89	195+56.27	28'-3 1/2" Rt.	30.00'	701.67	731.67
3	HP14x89	195+18.75	27'-7 3/4" Rt.	30.00'	702.25	732.25	9	HP14x89	195+63.77	28'-5 1/4" Rt.	30.00'	701.55	731.55
4	HP14x89	195+26.27	27'-8 1/4" Rt.	30.00'	702.13	732.13	10	HP14x89	195+71.26	28'-7" Rt.	30.00'	701.43	731.43
5	HP14x89	195+33.77	27'-10" Rt.	30.00'	702.02	732.02	11	HP14x89	195+78.76	28'-8 3/4" Rt.	30.00'	701.32	731.32
6	HP14x89	195+41.27	27'-11 3/4" Rt.	30.00'	701.90	731.90	12	HP14x89	195+86.26	28'-10 1/2" Rt.	30.00'	701.20	731.20

NOTES:

- See Civil Plans for Drainage Structure to Pipe Underdrain connection details.

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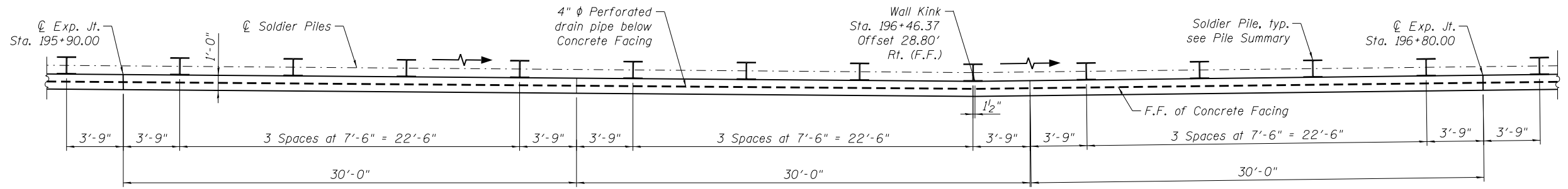
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**SOLDIER PILE PLAN & ELEVATION I
RETAINING WALL A (SN 045-3500)**

SHEET NO. RWA-3 OF RWA-16 SHEETS

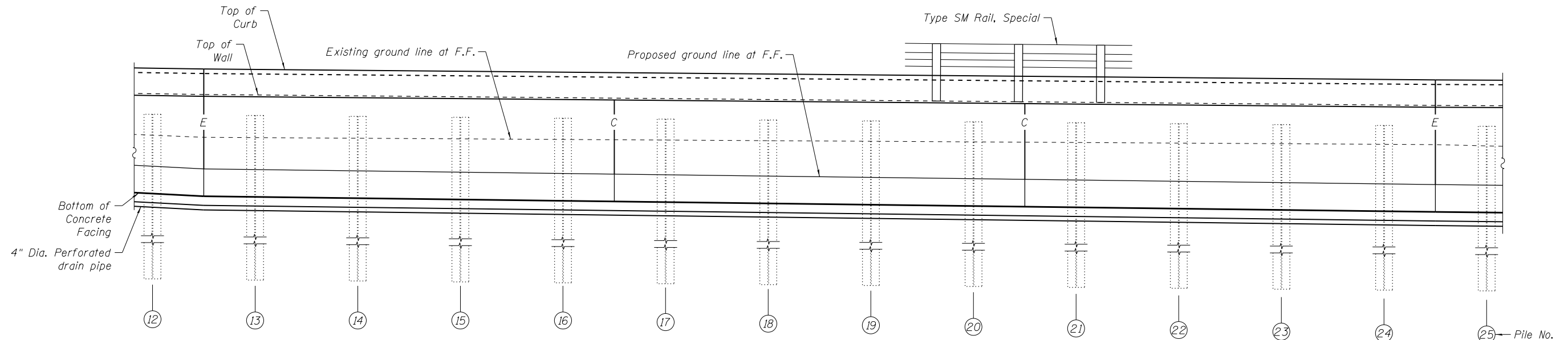
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	107N-4	KANE	288	224
CONTRACT NO. 60T21				

ILLINOIS FED. AID PROJECT



PLAN

(All dimensions are measured along F.F. of Concrete Facing)



ELEVATION

(Looking North at F.F.)

PILE SUMMARY

PILE NO.	PILE SIZE	STATION AT SHAFT ϕ	OFFSET TO SHAFT ϕ	LENGTH	TIP ELEVATION	TOP ELEVATION	PILE NO.	PILE SIZE	STATION AT SHAFT ϕ	OFFSET TO SHAFT ϕ	LENGTH	TIP ELEVATION	TOP ELEVATION
13	HP14x89	195+93.76	29'-0 1/2" Rt.	30.00'	701.11	731.11	19	HP14x89	196+38.75	29'-11 1/4" Rt.	30.00'	700.71	730.71
14	HP14x89	196+01.26	29'-2 1/4" Rt.	30.00'	701.04	731.04	20	HP14x89	196+46.26	30'-1" Rt.	30.00'	700.64	730.64
15	HP14x89	196+08.76	29'-4" Rt.	30.00'	700.97	730.97	21	HP14x89	196+53.75	30'-1" Rt.	30.00'	700.57	730.57
16	HP14x89	196+16.26	29'-5 3/4" Rt.	30.00'	700.91	730.91	22	HP14x89	196+61.25	30'-1" Rt.	30.00'	700.51	730.51
17	HP14x89	196+23.75	29'-7 1/2" Rt.	30.00'	700.84	730.84	23	HP14x89	196+68.75	30'-1" Rt.	30.00'	700.44	730.44
18	HP14x89	196+31.25	29'-9 1/2" Rt.	30.00'	700.77	730.77	24	HP14x89	196+76.25	30'-1" Rt.	30.00'	700.37	730.37

NOTES:

- See Civil Plans for Drainage Structure to Pipe Underdrain connection details.

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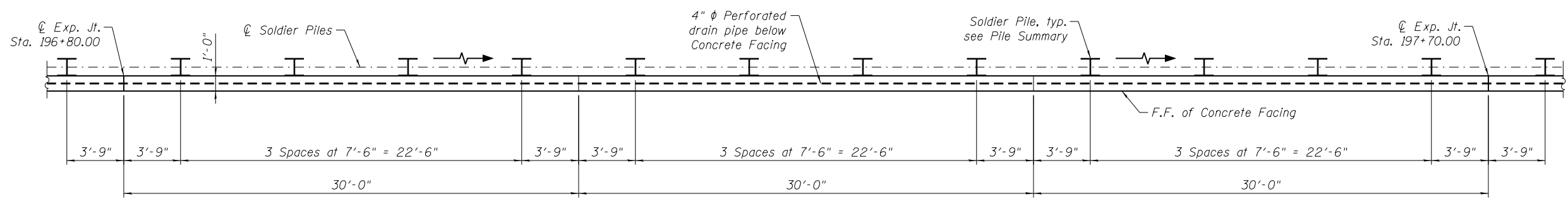
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**SOLDIER PILE PLAN & ELEVATION II
RETAINING WALL A (SN 045-3500)**

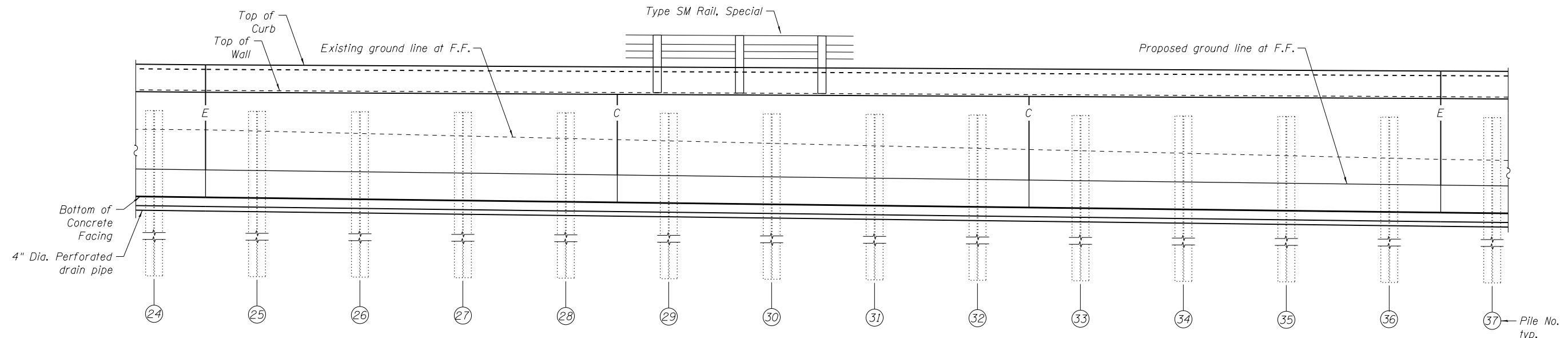
SHEET NO. RWA-4 OF RWA-16 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	107N-4	KANE	288	225
CONTRACT NO. 60T21				

ILLINOIS FED. AID PROJECT



PLAN
(All dimensions are measured along F.F. of wall)



ELEVATION
(Looking North at F.F.)

PILE SUMMARY

PILE NO.	PILE SIZE	STATION AT SHAFT ϕ	OFFSET TO SHAFT ϕ	LENGTH	TIP ELEVATION	TOP ELEVATION	PILE NO.	PILE SIZE	STATION AT SHAFT ϕ	OFFSET TO SHAFT ϕ	LENGTH	TIP ELEVATION	TOP ELEVATION
25	HP14x89	196+83.75	30'-1" Rt.	30.00'	700.32	730.32	31	HP14x89	197+28.75	30'-1" Rt.	30.00'	700.09	730.09
26	HP14x89	196+91.25	30'-1" Rt.	30.00'	700.28	730.28	32	HP14x89	197+36.50	30'-1" Rt.	30.00'	700.05	730.05
27	HP14x89	196+98.75	30'-1" Rt.	30.00'	700.24	730.24	33	HP14x89	197+43.75	30'-1" Rt.	30.00'	700.01	730.01
28	HP14x89	197+06.25	30'-1" Rt.	30.00'	700.21	730.21	34	HP14x89	197+51.25	30'-1" Rt.	30.00'	699.98	729.98
29	HP14x89	197+13.75	30'-1" Rt.	30.00'	700.17	730.17	35	HP14x89	197+58.75	30'-1" Rt.	30.00'	699.94	729.94
30	HP14x89	197+21.25	30'-1" Rt.	30.00'	700.13	730.13	36	HP14x89	197+66.25	30'-1" Rt.	30.00'	699.90	729.90

NOTES:

1. See Civil Plans for Drainage Structure to Pipe Underdrain connection details.

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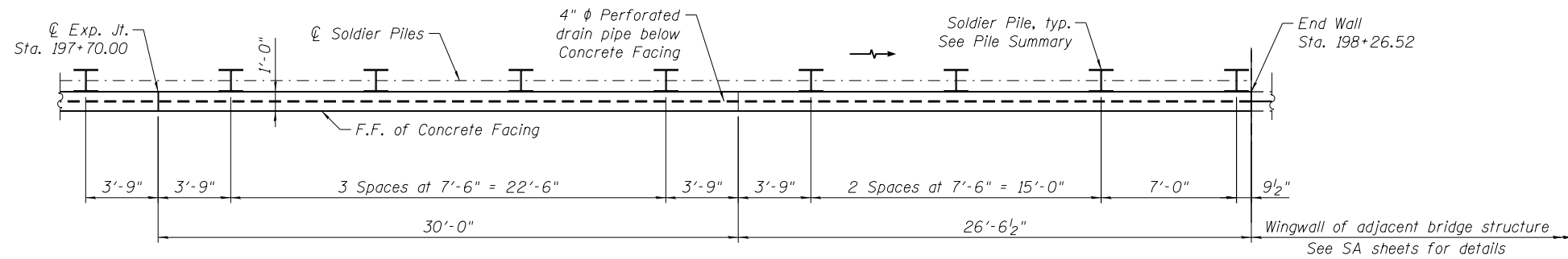
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NAME = JKando	CHECKED - JSK	REVISED -
DATE = 3/6/2019	DRAWN - MRK	REVISED -
TIME = 3:56:38 PM	CHECKED - WPK	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**SOLDIER PILE PLAN & ELEVATION III
RETAINING WALL A (SN 045-3500)**

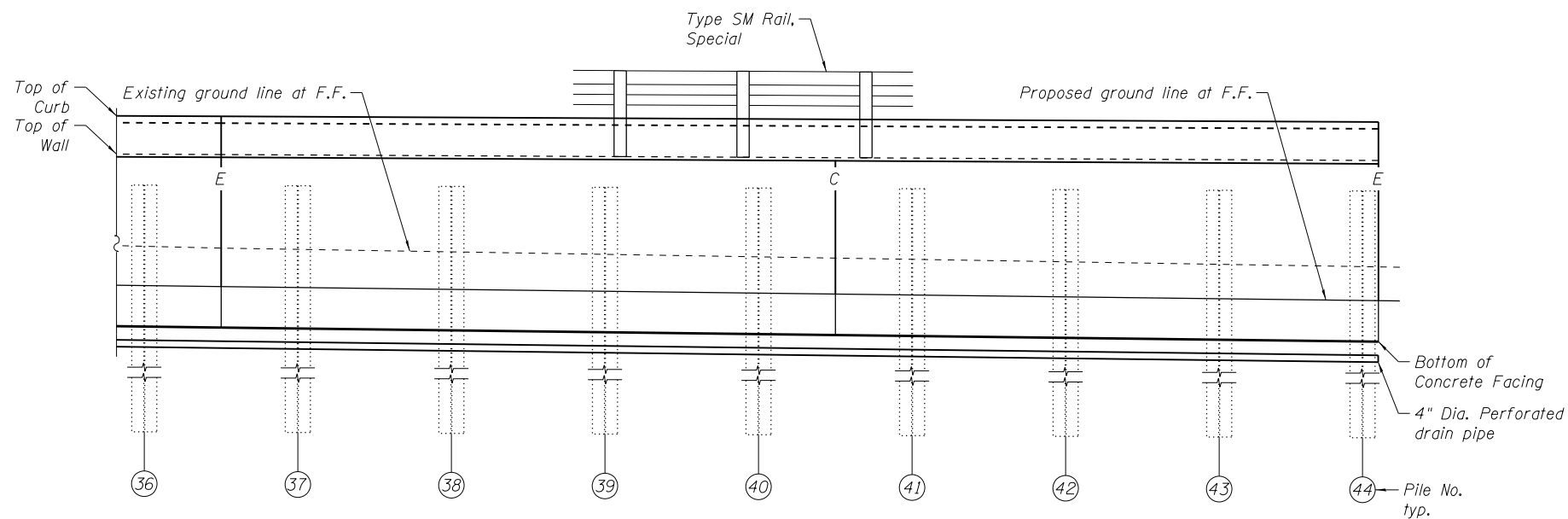
SHEET NO. RWA-5 OF RWA-16 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	107N-4	KANE	288	226
CONTRACT NO. 60T21				
ILLINOIS FED. AID PROJECT				



PLAN

(All dimensions are measured along F.F. of Concrete Facing)



ELEVATION

(Looking North at F.F.)

PILE SUMMARY

PILE NO.	PILE SIZE	STATION AT SHAFT C	OFFSET TO SHAFT C	LENGTH	TIP ELEVATION	TOP ELEVATION	PILE NO.	PILE SIZE	STATION AT SHAFT C	OFFSET TO SHAFT C	LENGTH	TIP ELEVATION	TOP ELEVATION
37	HP14x89	197+73.75	30'-1" Rt.	30.00'	699.86	729.86	43	HP14x89	198+18.75	30'-1" Rt.	30.00'	699.64	729.64
38	HP14x89	197+81.25	30'-1" Rt.	30.00'	699.82	729.82	44	HP14x89	198+25.75	30'-1" Rt.	30.00'	699.60	729.60
39	HP14x89	197+88.75	30'-1" Rt.	30.00'	699.79	729.79							
40	HP14x89	197+96.25	30'-1" Rt.	30.00'	699.75	729.75							
41	HP14x89	198+03.75	30'-1" Rt.	30.00'	699.71	729.71							
42	HP14x89	198+11.25	30'-1" Rt.	30.00'	699.68	729.68							

NOTES:

- See Civil Plans for Drainage Structure to Pipe Underdrain connection details.

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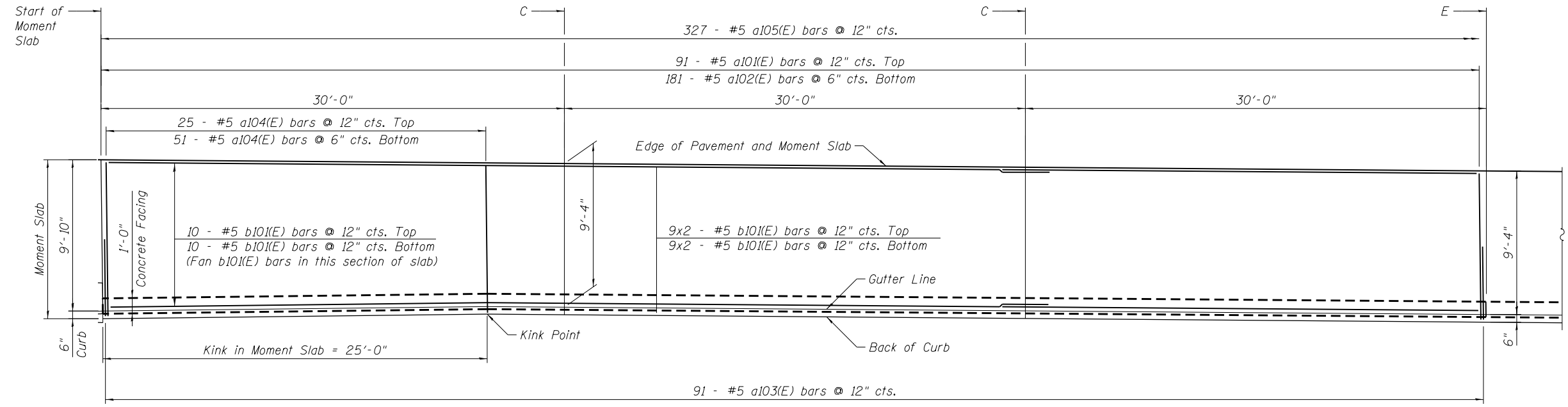
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DATE = 3/6/2019	DRAWN - MRK	REVISED -
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

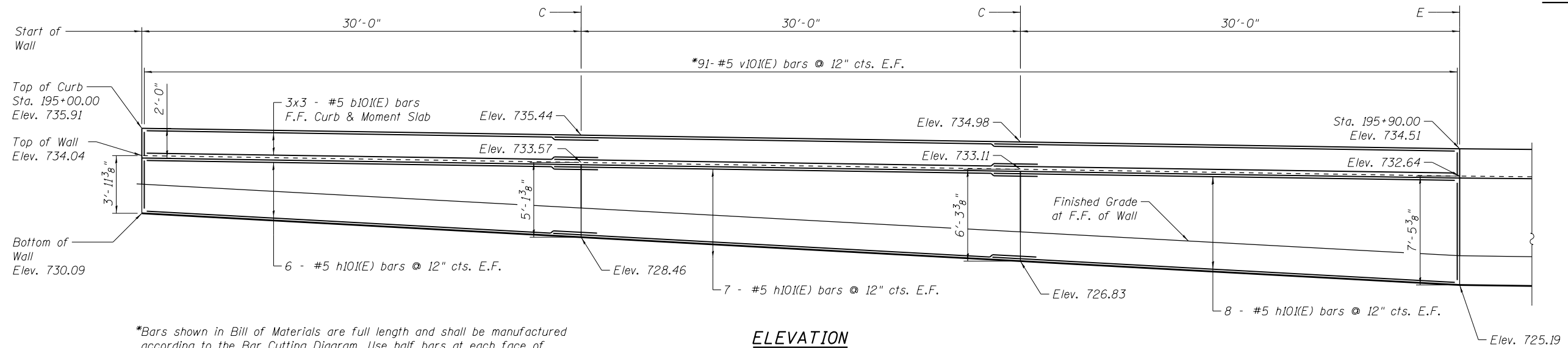
**SOLDIER PILE PLAN & ELEVATION IV
RETAINING WALL A (SN 045-3500)**

SHEET NO. RWA-6 OF RWA-16 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	107N-4	KANE	288	227
CONTRACT NO. 60T21				
ILLINOIS FED. AID PROJECT				



PLAN



ELEVATION

(Looking North at F.F.)

*Bars shown in Bill of Materials are full length and shall be manufactured according to the Bar Cutting Diagram. Use half bars at each face of concrete facing. See sheet RWA-10 for BOM and Bar Cutting Diagram.

NOTES:

1. For Sections and Details, see Sheets RWA-11 and RWA-12.
2. Bars noted, 3x2 - #5, indicate 3 lines of bars with 2 lengths of bars per line.
3. Type SM Rail, Special not shown for clarity, see Sheet RWA-13 for Details.

P:\00441.000\Drawings\CAD\Structural\Sheets\DI60T21_RWA-07_Plan.dgn



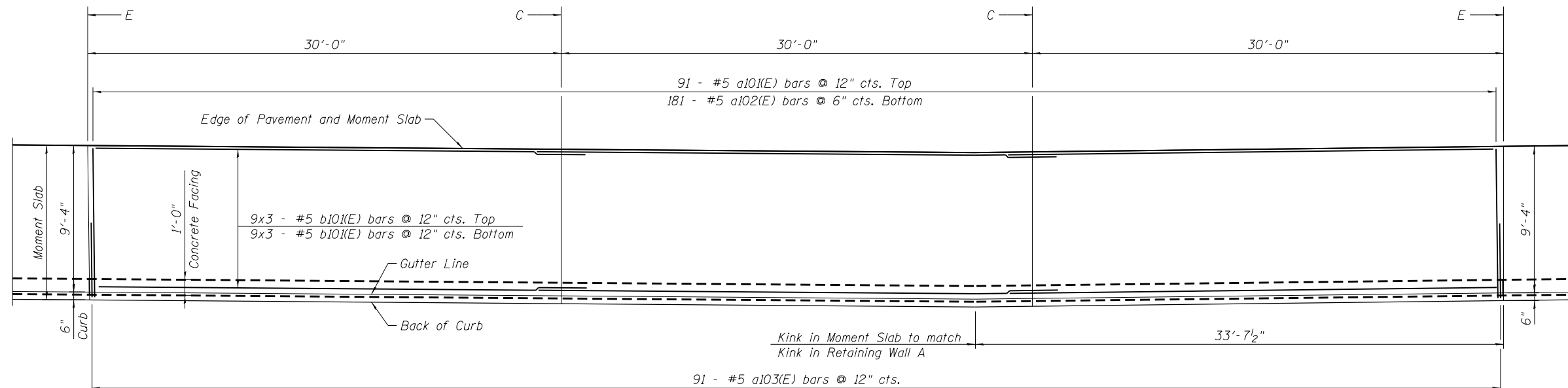
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NAME = JKando	CHECKED - JSK	REVISD -
DATE = 3/6/2019	DRAWN - MRK	REVISD -
TIME = 3:56:40 PM	CHECKED - WPK	REVISD -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

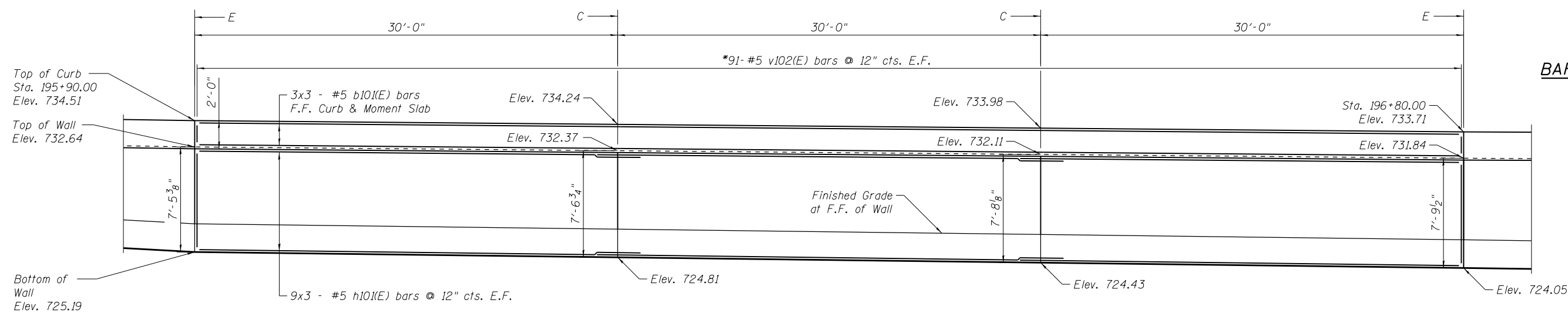
**MOMENT SLAB PLAN & WALL ELEVATION I
RETAINING WALL A (SN 045-3500)**

SHEET NO. RWA-7 OF RWA-16 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	107N-4	KANE	288	228
CONTRACT NO. 60T21				
ILLINOIS FED. AID PROJECT				



PLAN



ELEVATION

(Looking North at F.F.)

*Bars shown in Bill of Materials are full length and shall be manufactured according to the Bar Cutting Diagram. Use half bars at each face of concrete facing. See sheet RWA-10 for BOM and Bar Cutting Diagram.

NOTES:

1. For Sections and Details, see Sheets RWA-11 and RWA-12.
2. Bars noted, 3x2 - #5, indicate 3 lines of bars with 2 lengths of bars per line.
3. Type SM Rail, Special not shown for clarity, see Sheet RWA-13 for Details.

P:\00441.000\Drawings\CAD\Structural\Sheets\DI60T21_RWA-08_Plan2.dgn



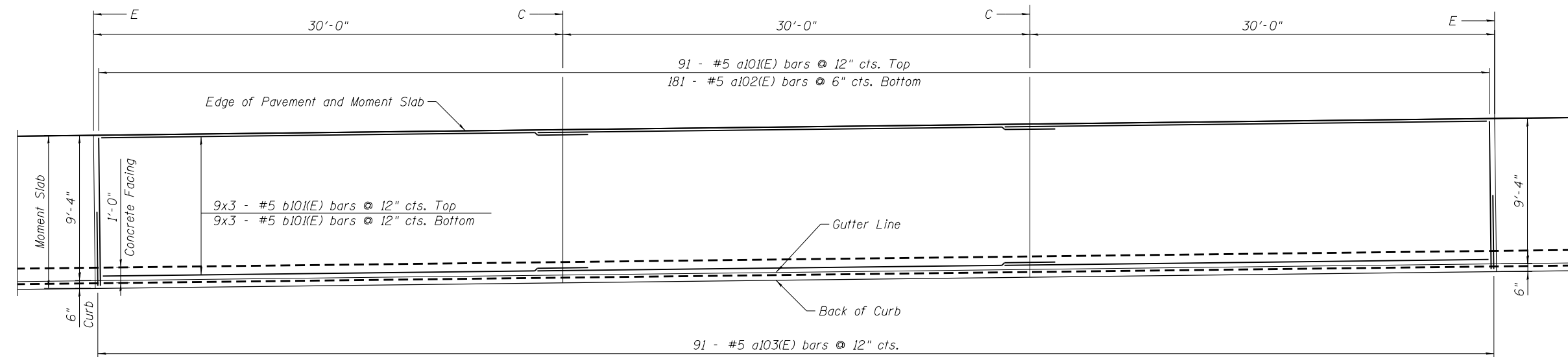
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DATE = 3/6/2019	DRAWN - MRK	REVISED -
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

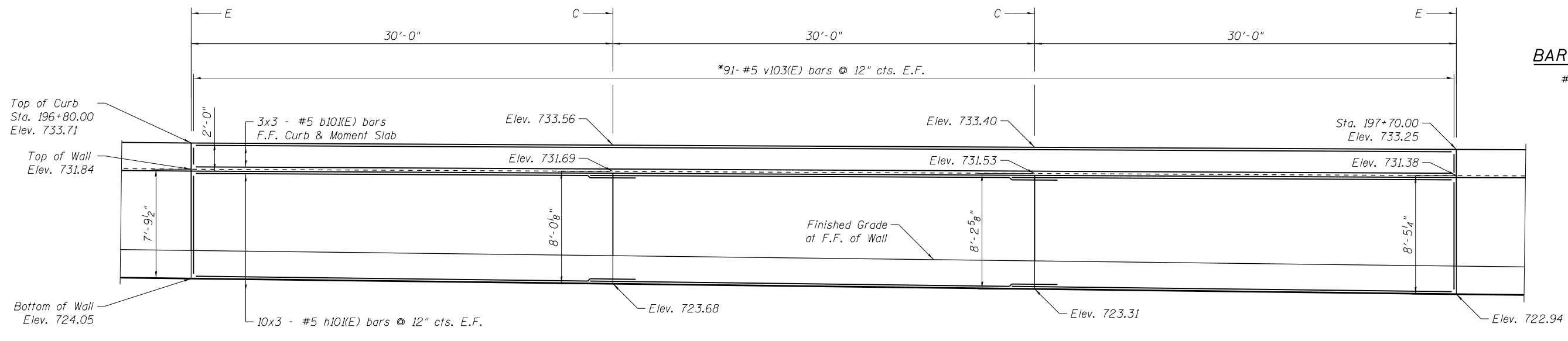
**MOMENT SLAB PLAN & WALL ELEVATION II
RETAINING WALL A (SN 045-3500)**

SHEET NO. RWA-8 OF RWA-16 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	107N-4	KANE	288	229
CONTRACT NO. 60T21				
ILLINOIS FED. AID PROJECT				



PLAN



ELEVATION

(Looking North at F.F.)

*Bars shown in Bill of Materials are full length and shall be manufactured according to the Bar Cutting Diagram. Use half bars at each face of concrete facing. See sheet RWA-10 for BOM and Bar Cutting Diagram.

BAR LAP LENGTH

#5 bar - 3'-3"

NOTES:

1. For Sections and Details, see Sheets RWA-11 and RWA-12.
2. Bars noted, 3x2 - #5, indicate 3 lines of bars with 2 lengths of bars per line.
3. Type SM Rail, Special not shown for clarity, see Sheet RWA-13 for Details.

P:\0041.000\Drawings\CAD\Structural\Sheets\DI60T21_RWA-09_Plan3.dgn



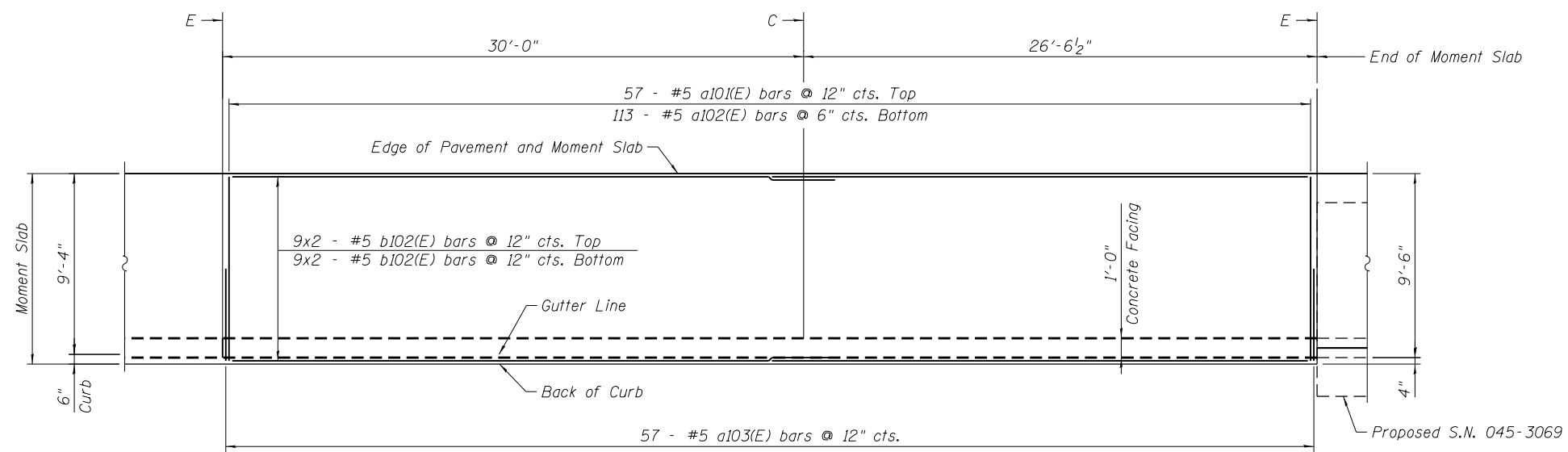
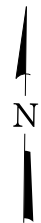
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NAME = JKando	CHECKED - JSK	REVISED -
DATE = 3/6/2019	DRAWN - MRK	REVISED -
TIME = 3:56:41 PM	CHECKED - WPK	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

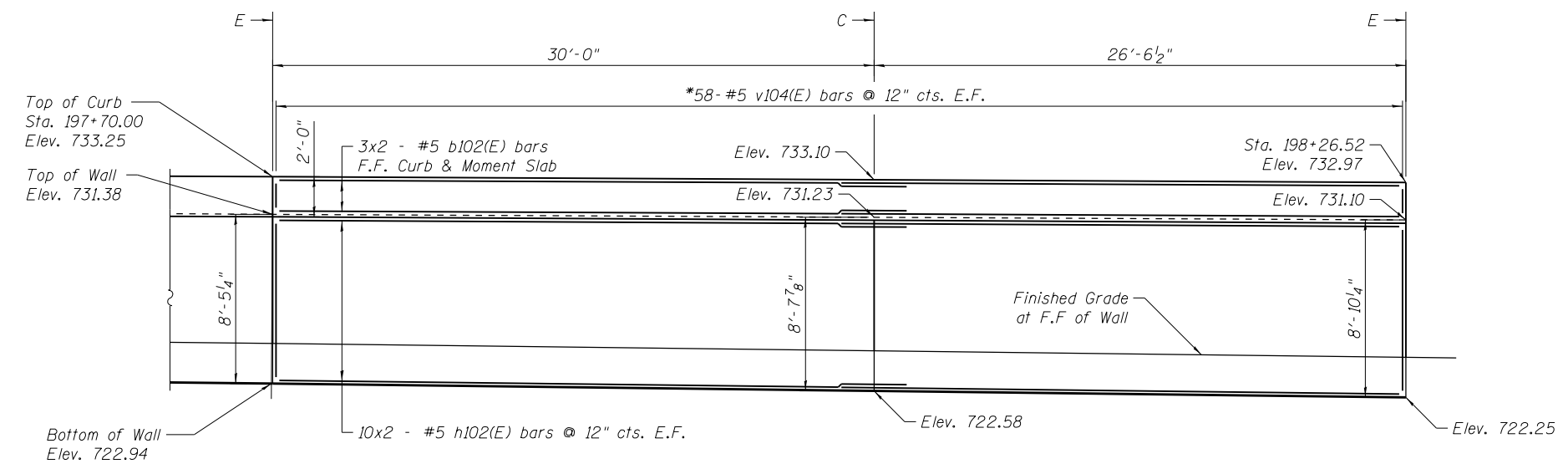
**MOMENT SLAB PLAN & WALL ELEVATION III
RETAINING WALL A (SN 045-3500)**

SHEET NO. RWA-9 OF RWA-16 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	107N-4	KANE	288	230
CONTRACT NO. 60T21				
ILLINOIS FED. AID PROJECT				



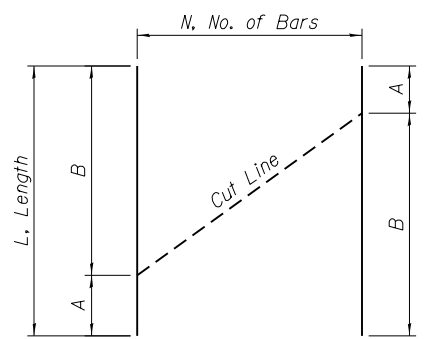
PLAN



ELEVATION

(Looking North at F.F.)

*Bars shown in Bill of Materials are full length and shall be manufactured according to the Bar Cutting Diagram. Use half bars at each face of concrete facing.



BAR CUTTING DIAGRAM

BAR	L	A	B	N
v101(E)	10'-10"	3'-8"	7'-2"	91
v102(E)	14'-8"	7'-2"	7'-6"	91
v103(E)	15'-7"	7'-6"	8'-1"	91
v104(E)	16'-8"	8'-1"	8'-7"	58

BILL OF MATERIALS

Bar	No.	Size	Length	Shape
a101(E)	330	#5	9'-4"	┌
a102(E)	656	#5	9'-0"	┌
a103(E)	330	#5	5'-5"	┌
a104(E)	76	#5	3'-9"	┌
a105(E)	330	#5	6'-6"	┌
b101(E)	187	#5	32'-1"	—
b102(E)	46	#5	29'-9"	—
h101(E)	157	#5	32'-1"	—
h102(E)	40	#5	29'-9"	—
v101(E)	91	#5	10'-10"	—
v102(E)	91	#5	14'-8"	—
v103(E)	91	#5	15'-7"	—
v104(E)	58	#5	16'-8"	—
Structure Excavation	Cu Yd	571		
Concrete Structures	Cu Yd	272		
Stud Shear Connectors	Each	584		
Type SM Rail, Special	Foot	327		
Reinforcement Bars, Epoxy Coated	Pound	32860		
Furnishing Soldier Piles (HP Section)	Foot	1320		
Driving Soldier Piles	Foot	1320		
Untreated Timber Lagging	Sq Ft	1928		
Concrete Sealer	Sq Ft	6356		
Geocomposite Wall Drain	Sq Yd	215		
Anti-Graffiti Protection System	Sq Ft	1765		
Pipe Underdrains For Structures 4"	Foot	327		

BAR LAP LENGTH

#5 bar - 3'-3"

NOTES:

- For Sections and Details, see Sheets RWA-11 and RWA-12.
- Bars noted, 3x2 - #5, indicate 3 lines of bars with 2 lengths of bars per line.
- Type SM Rail, Special not shown for clarity, see Sheet RWA-13 for Details.

P:\00441.000\Drawings\CAD\Structural\Sheets\DI60T21_RWA-10_Plan4.dgn



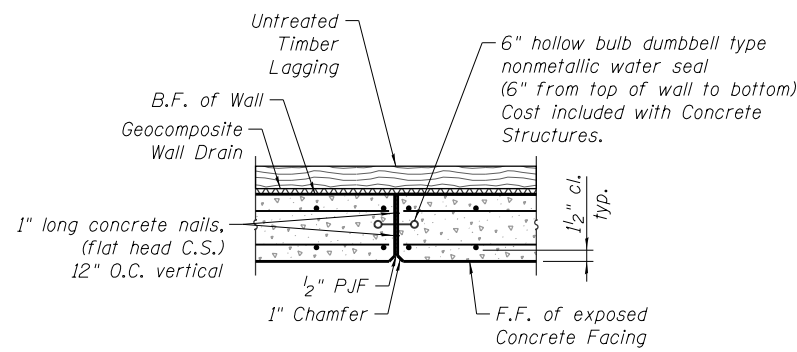
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DATE = 3/6/2019	DRAWN - MRK	REVISED -
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

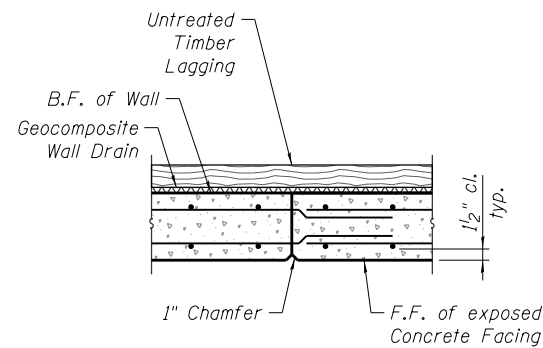
**MOMENT SLAB PLAN & WALL ELEVATION IV
RETAINING WALL A (SN 045-3500)**

SHEET NO. RWA-10 OF RWA-16 SHEETS

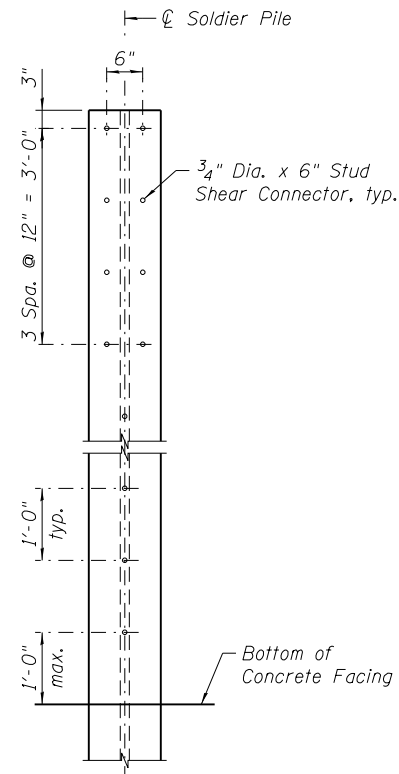
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	107N-4	KANE	288	231
CONTRACT NO. 60T21				
ILLINOIS FED. AID PROJECT				



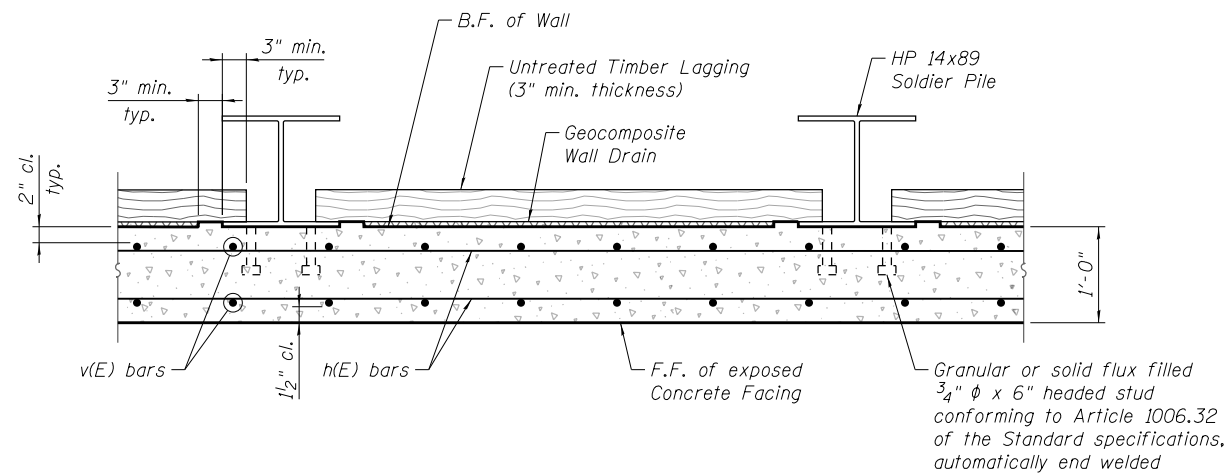
EXPANSION JOINT DETAIL - WALL



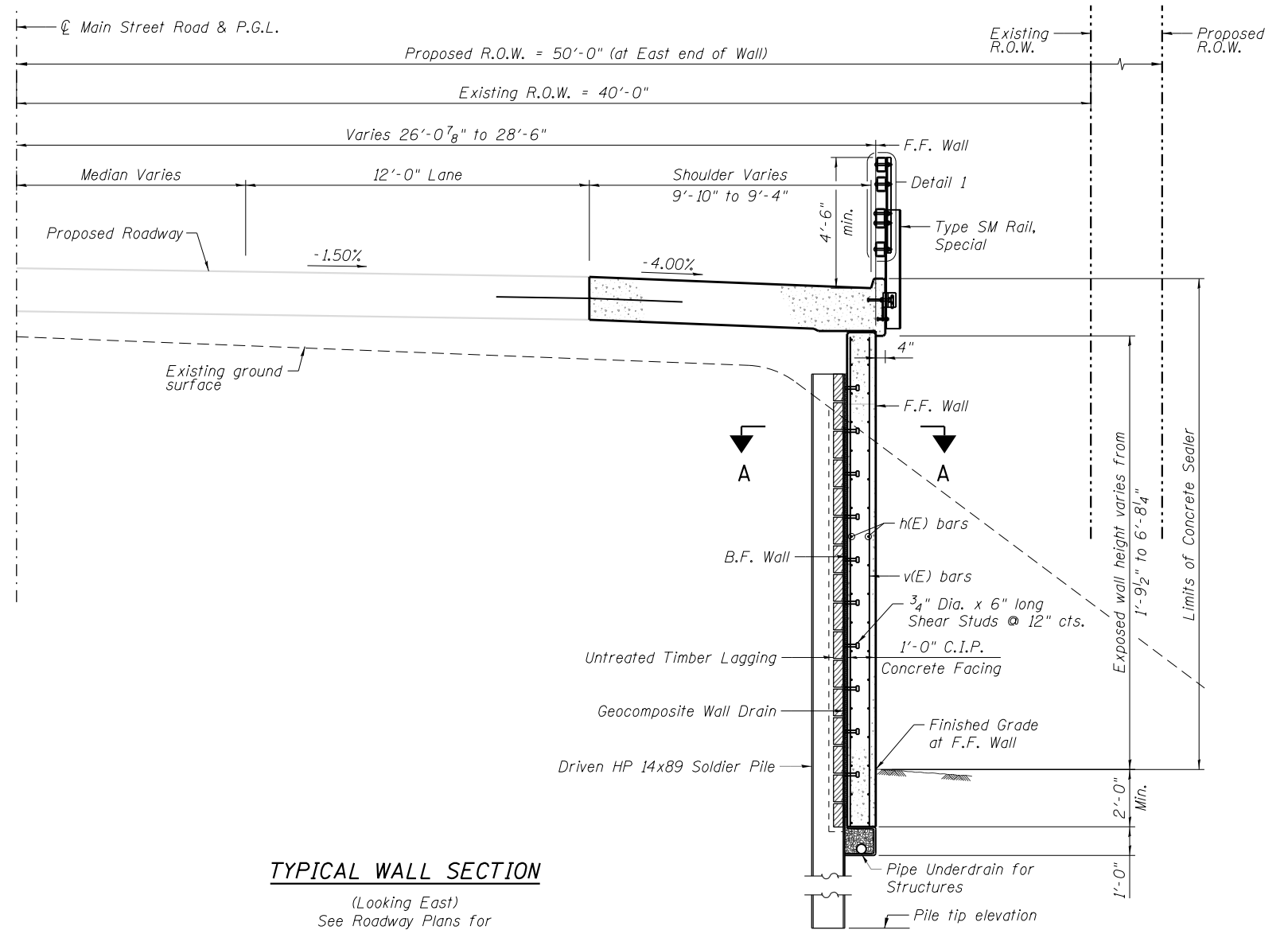
CONSTRUCTION JOINT DETAIL - WALL



STUD SHEAR CONNECTOR DETAIL

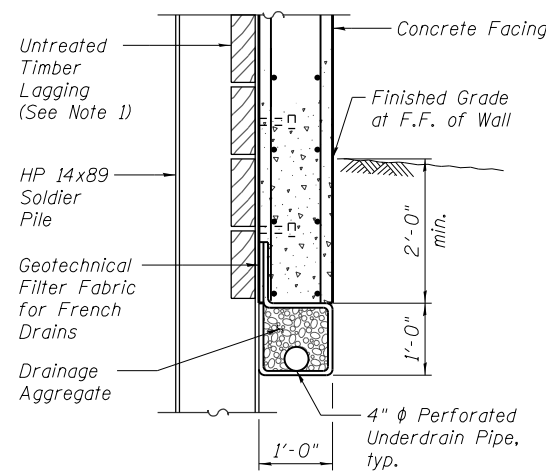


SECTION A-A

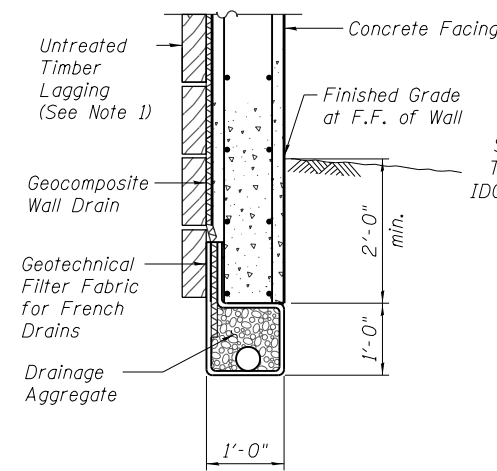


TYPICAL WALL SECTION

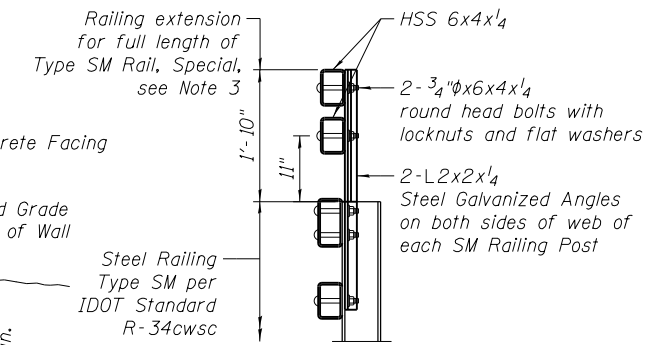
(Looking East)
See Roadway Plans for Backfill Details



UNDERDRAIN AT SOLDIER PILE



UNDERDRAIN BETWEEN SOLDIER PILES



DETAIL 1 - RAILING EXTENSION

NOTES:

1. Place 3/4" gap between lagging to allow for drainage, typ.
2. The cost of "Drainage Aggregate, Geotechnical Filter Fabric and Underdrain Pipe is included in the cost of "Pipe Underdrains for Structures".
3. The cost of Steel Railing, Type SM (IDOT Standard R-34cwsc) and the Railing Extension as detailed on this sheet shall be paid for under Special Provisions "Type SM Rail, Special".

P:\0041.000\Drawings\CAD\Structural\Sheets\DI60T21_RWA-11_Details.dgn

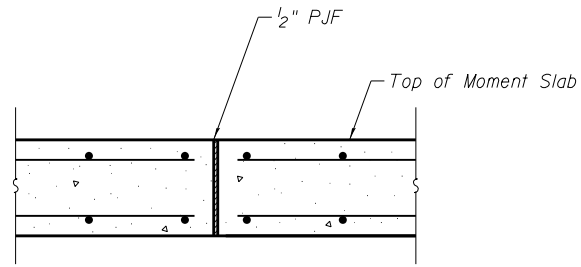
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

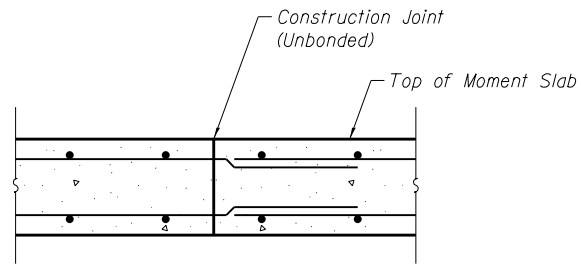
**WALL & MOMENT SLAB DETAILS I
RETAINING WALL A (SN 045-3500)**

SHEET NO. RWA-11 OF RWA-16 SHEETS

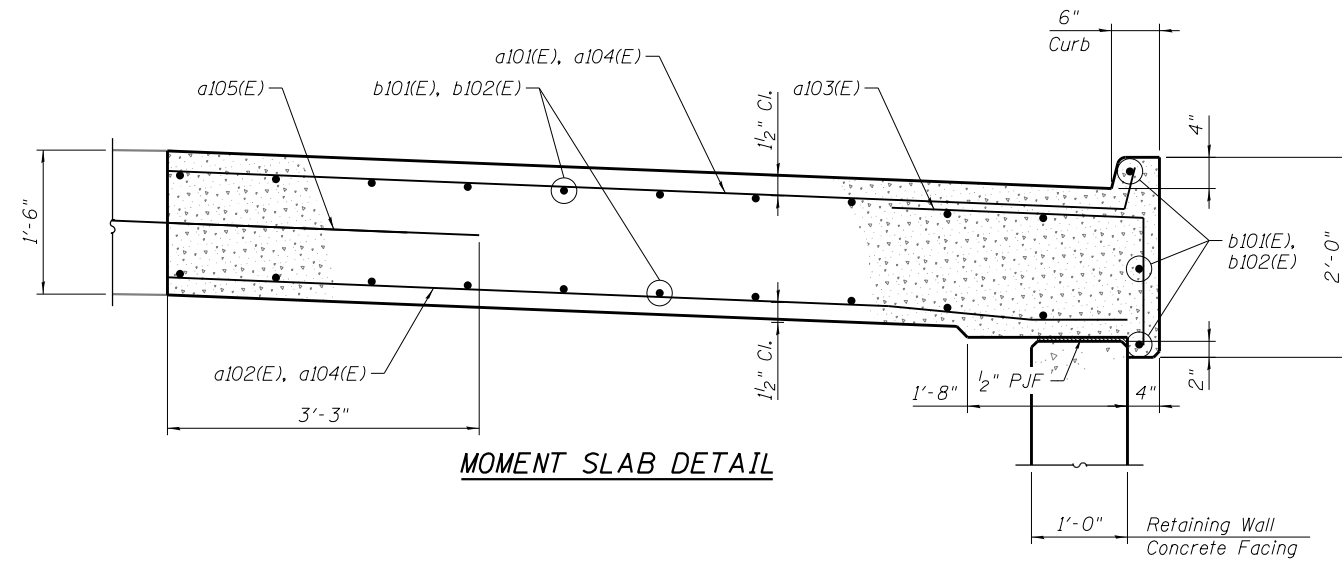
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	107N-4	KANE	288	232
CONTRACT NO. 60T21				
ILLINOIS FED. AID PROJECT				



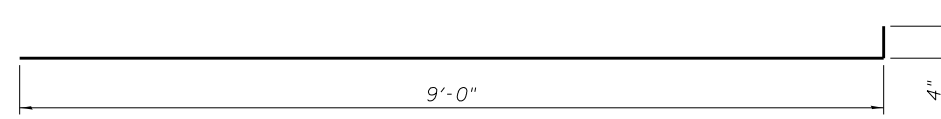
EXPANSION JOINT DETAIL - MOMENT SLAB



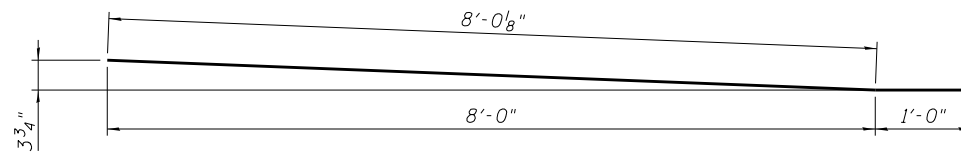
CONSTRUCTION JOINT DETAIL - MOMENT SLAB



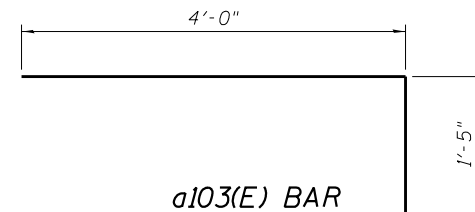
MOMENT SLAB DETAIL



a101(E) BAR



a102(E) BAR



a103(E) BAR

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NAME = JKando	CHECKED - JSK	REVISÉD -
DATE = 3/6/2019	DRAWN - MRK	REVISÉD -
TIME = 3:56:45 PM	CHECKED - WPK	REVISÉD -

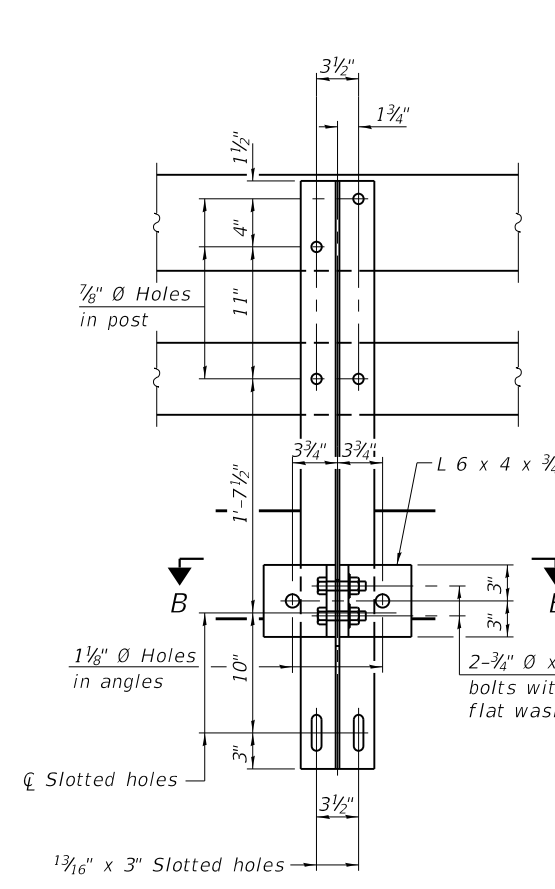
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**WALL & MOMENT SLAB DETAILS II
RETAINING WALL A (SN 045-3500)**

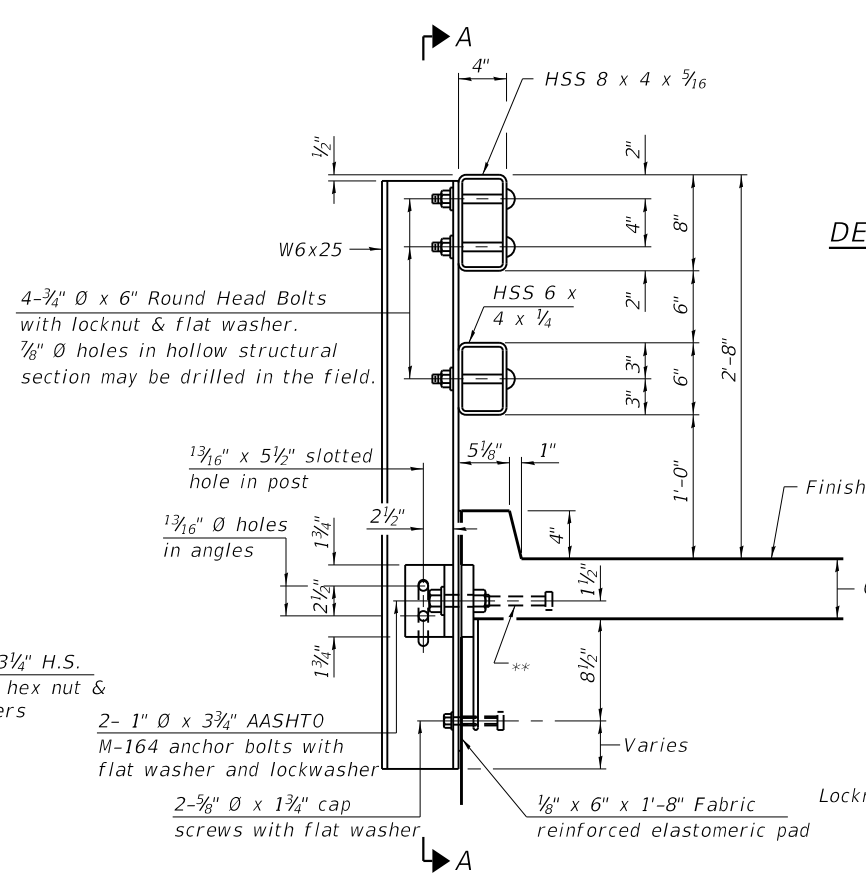
SHEET NO. RWA-12 OF RWA-16 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	107N-4	KANE	288	233
CONTRACT NO. 60T21				
ILLINOIS FED. AID PROJECT				

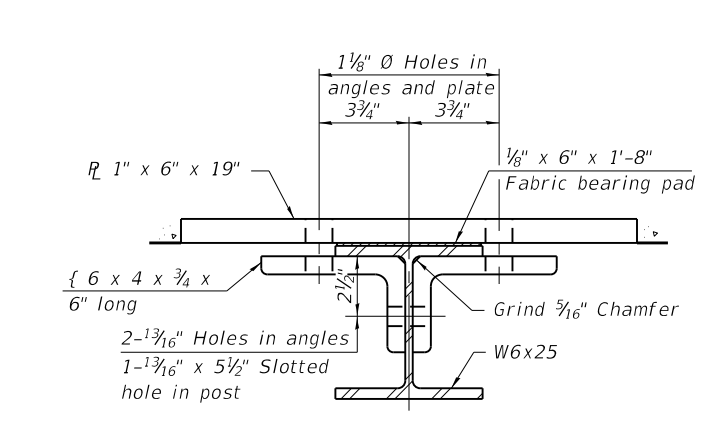
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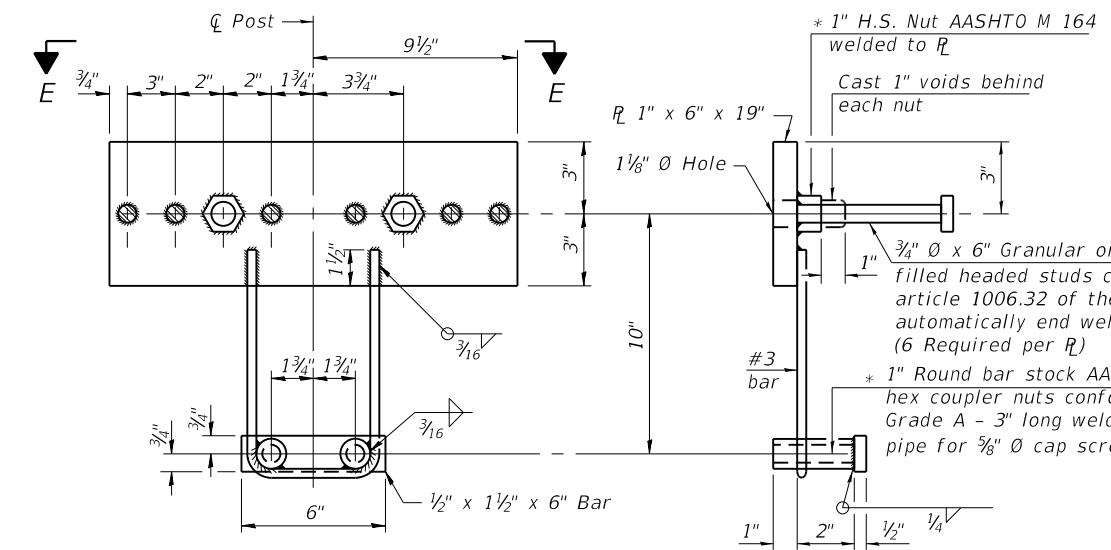
SECTION A-A



SECTION AT RAIL POST

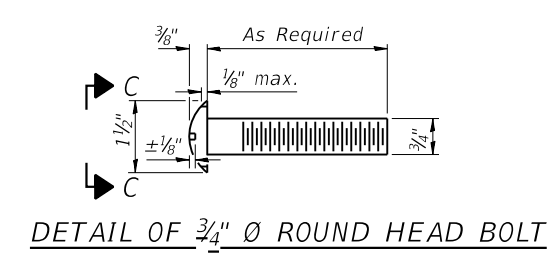


SECTION B-B

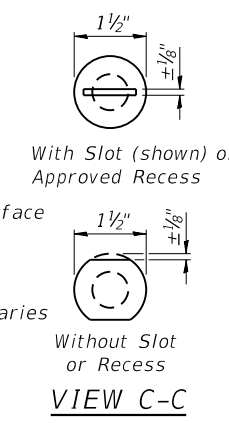


ANCHOR DEVICE

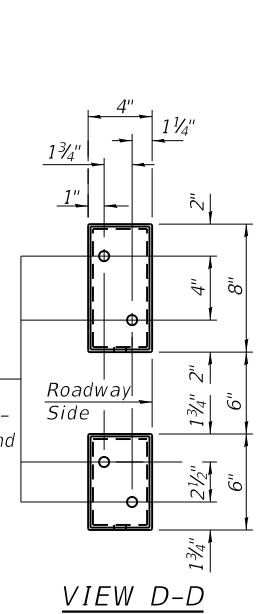
* Threaded areas shall be plugged or blocked off during casting of beam. Galvanized after fabrication.



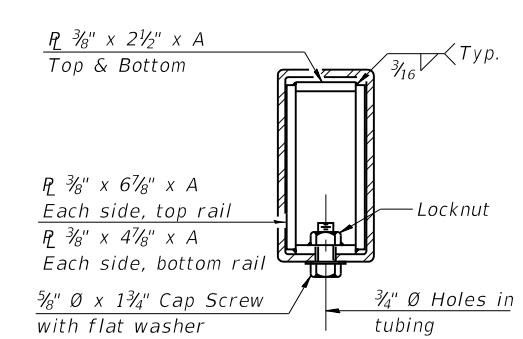
DETAIL OF 3/4" Ø ROUND HEAD BOLT



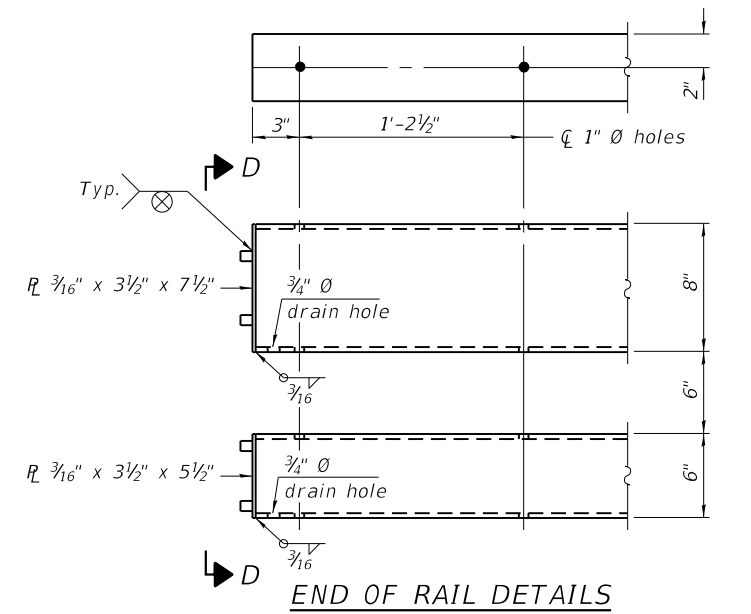
VIEW C-C



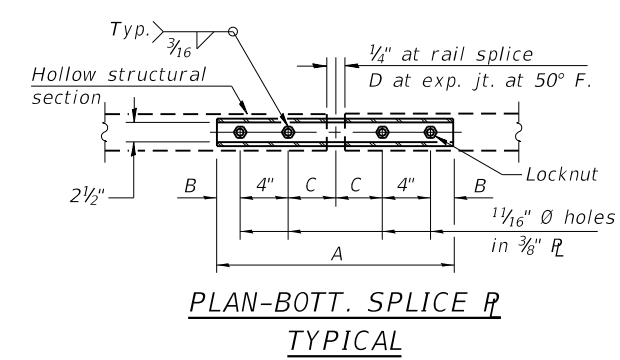
VIEW D-D



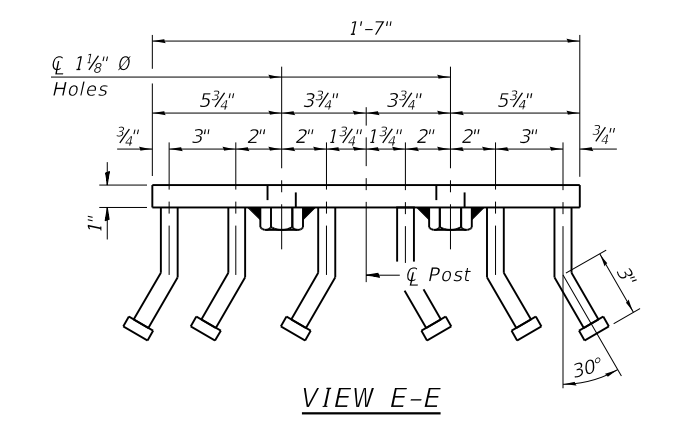
SECTION AT RAIL SPLICE



END OF RAIL DETAILS



PLAN-BOTT. SPLICE R TYPICAL



VIEW E-E

SPLICE DIMENSIONS

T	D	A	B	C	E
≤ 4"	2 1/2"	1'-8"	2"	4"	2 1/2"
> 4" ≤ 6 1/2"	3 3/4"	2'-0"	2 1/2"	5 1/2"	3 1/2"
> 6 1/2" ≤ 9"	5"	2'-4"	3 1/2"	6 1/2"	9"
> 9" ≤ 13"	7"	2'-10"	4 1/2"	8 1/2"	11"
Rail Splice	1/4"	1'-8"	2"	4"	

T = Total movement at expansion joint as shown on the design plans.

Notes:
 For multi-span bridges, sufficient 1/4" x 6" x 1'-2" galvanized steel shims shall be provided to align rail between adjacent spans. Cost included with Type SM Rail, Special.
 All steel railing elements shall be galvanized according to Article 509.05 of the Standard Specifications.
 ** The studs of the anchor devices shall be placed below the top reinforcement bars and the outermost longitudinal reinforcement bar shall be placed directly above the studs of the rail post anchor device.
 See Sheet RWA-11 for Railing Extension Details.

BILL OF MATERIAL

Item	Unit	Quantity
Type SM Rail, Special	Foot	327

(6'-3" Maximum Post Spacing) (5" minimum to 7 1/8" maximum CWS thickness)



DESIGNED	DESIGNED	DESIGNED	DESIGNED
NAME = JKando	DESIGNED - MBC	REVISIONS	REVISIONS
DATE = 3/6/2019	CHECKED - JSK	REVISIONS	REVISIONS
TIME = 3:56:46 PM	DRAWN - MRK	REVISIONS	REVISIONS
	CHECKED - WPK	REVISIONS	REVISIONS

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

STEEL RAILING, TYPE SM (R-34CWSC)
 RETAINING WALL A (SN 045-3500)

SHEET NO. RWA-13 OF RWA-16 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	107N-4	KANE	288	234
CONTRACT NO. 60T21				
ILLINOIS FED. AID PROJECT				

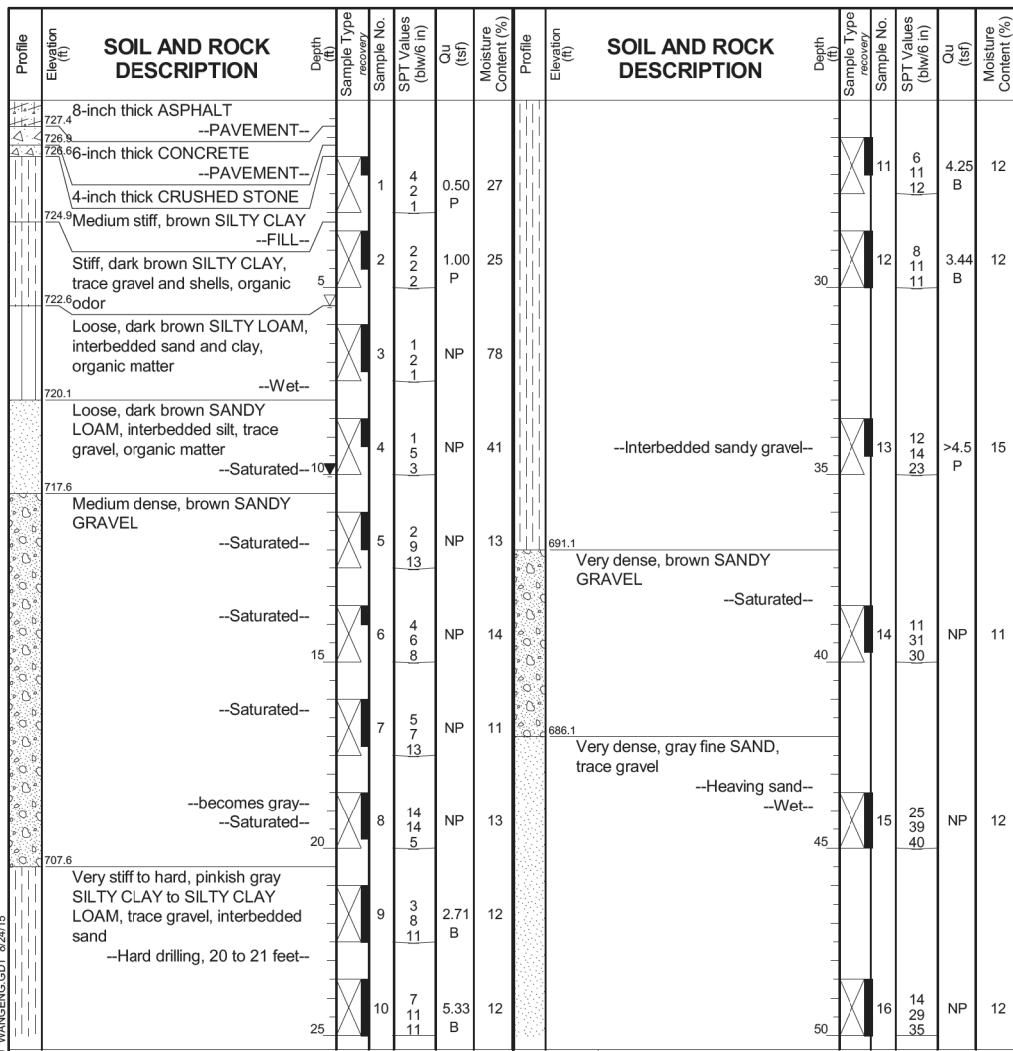
Wang Engineering
 wangeng@wangeng.com
 1145 N Main Street
 Lombard, IL 60148
 Telephone: 630 953-9928
 Fax: 630 953-9938

BORING LOG BB-01
 WEI Job No.: 192-03-01

Datum: NAVD 88
 Elevation: 728.14 ft
 North: 1884832.56 ft
 East: 947436.10 ft
 Station: 198+55.00
 Offset: 12.69' LT

Client: **Milhouse Engineering & Construction, Inc.**
 Project: **IL 47 at Main Street Intersection Improvements**
 Location: **Elburn, Kane County, IL**

Page 1 of 2



GENERAL NOTES		WATER LEVEL DATA	
Begin Drilling	05-15-2015	Complete Drilling	05-15-2015
Drilling Contractor	Wang Testing Services	Drill Rig	CME-55 TMR
Driller	R & N	Logger	D. Kolpacki
Checked by	B. Wilson	Drilling Method	3.25" IDA HSA, auto hammer, boring backfilled upon completion
While Drilling	5.50 ft	At Completion of Drilling	10.00 ft
Time After Drilling	NA	Depth to Water	NA

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

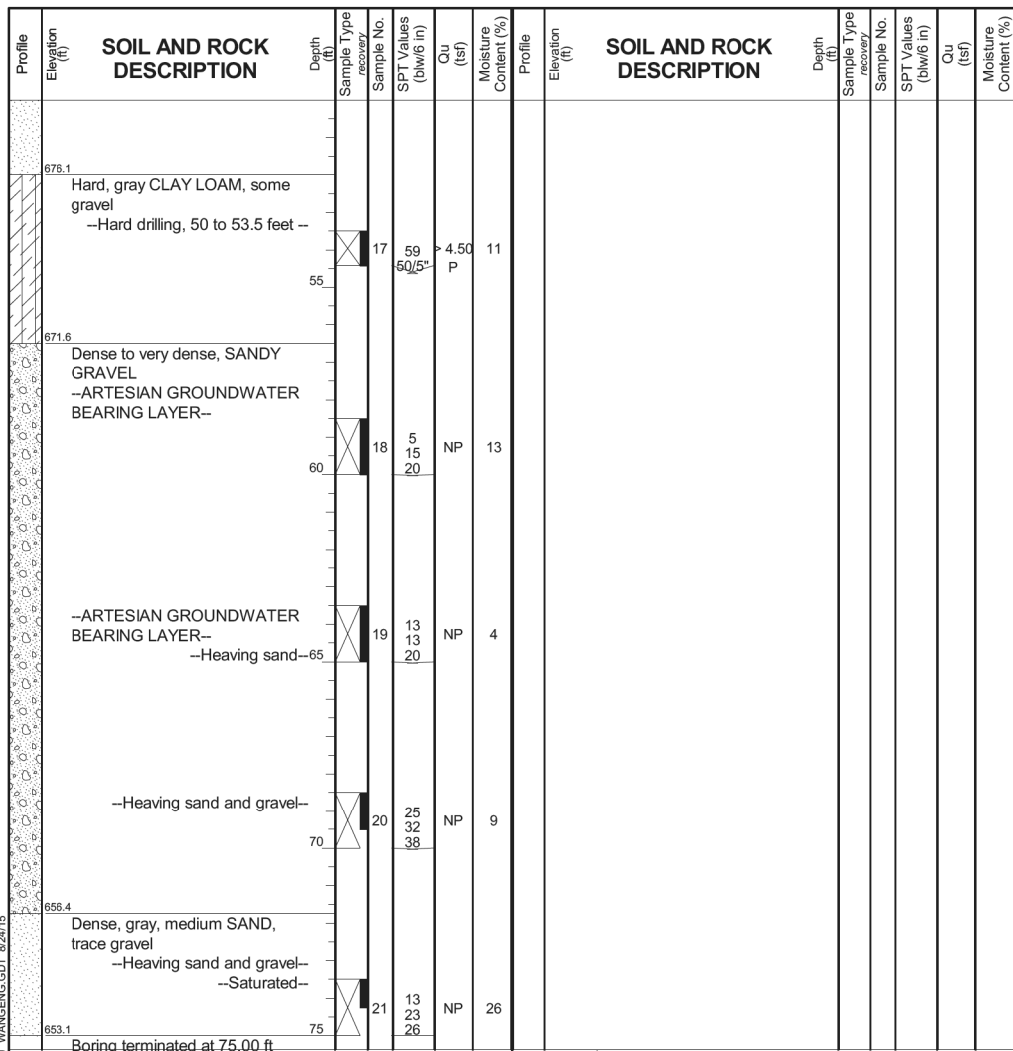
Wang Engineering
 wangeng@wangeng.com
 1145 N Main Street
 Lombard, IL 60148
 Telephone: 630 953-9928
 Fax: 630 953-9938

BORING LOG BB-01
 WEI Job No.: 192-03-01

Datum: NAVD 88
 Elevation: 728.14 ft
 North: 1884832.56 ft
 East: 947436.10 ft
 Station: 198+55.00
 Offset: 12.69' LT

Client: **Milhouse Engineering & Construction, Inc.**
 Project: **IL 47 at Main Street Intersection Improvements**
 Location: **Elburn, Kane County, IL**

Page 2 of 2



GENERAL NOTES		WATER LEVEL DATA	
Begin Drilling	05-15-2015	Complete Drilling	05-15-2015
Drilling Contractor	Wang Testing Services	Drill Rig	CME-55 TMR
Driller	R & N	Logger	D. Kolpacki
Checked by	B. Wilson	Drilling Method	3.25" IDA HSA, auto hammer, boring backfilled upon completion
While Drilling	5.50 ft	At Completion of Drilling	10.00 ft
Time After Drilling	NA	Depth to Water	NA

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

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PLOT	DESIGNED - MBC	REVISED -
NAME = JKando	CHECKED - JSK	REVISED -
DATE = 3/6/2019	DRAWN - MRK	REVISED -
TIME = 3:56:47 PM	CHECKED - WPK	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORING LOGS I
RETAINING WALL A (SN 045-3500)

SHEET NO. RWA-14 OF RWA-16 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	107N-4	KANE	288	235
CONTRACT NO. 60T21				
ILLINOIS FED. AID PROJECT				

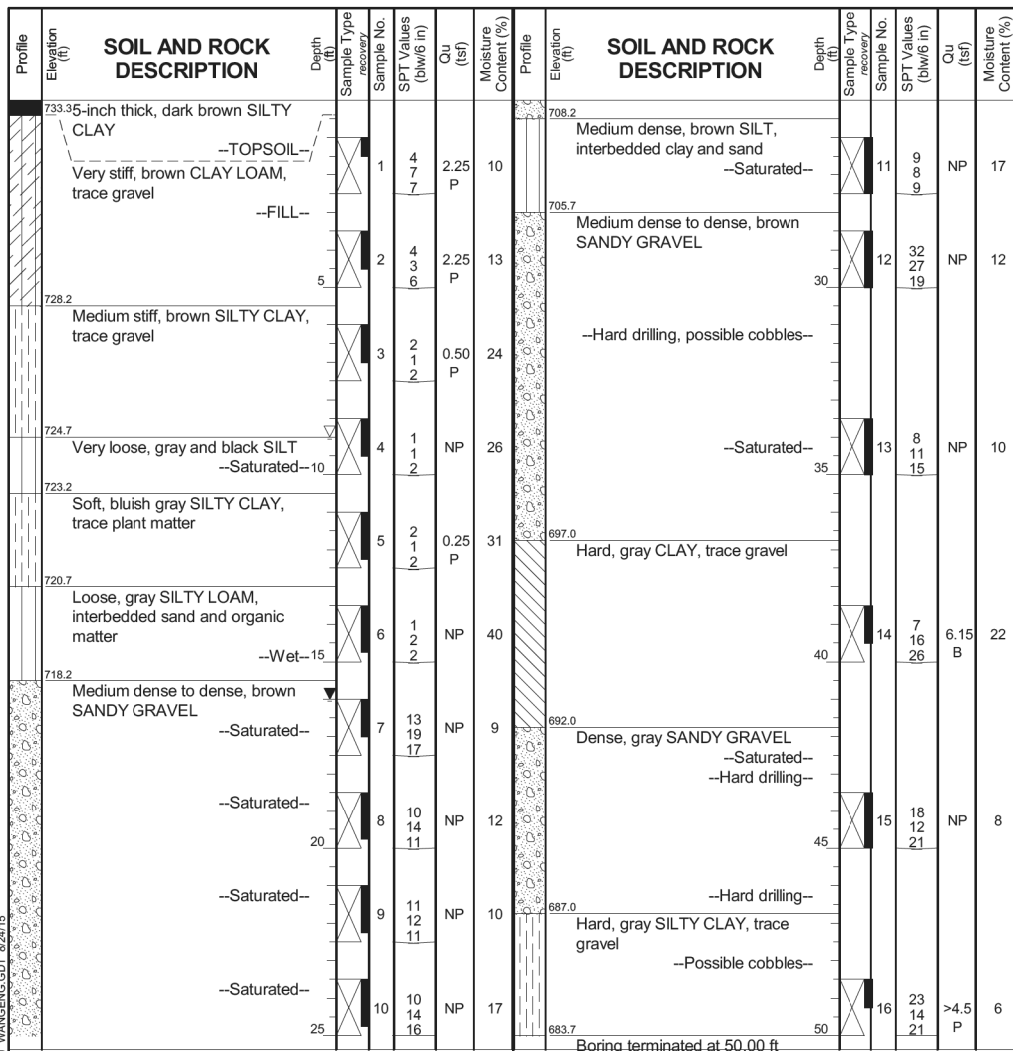
Wang Engineering
 wangeng@wangeng.com
 1145 N Main Street
 Lombard, IL 60148
 Telephone: 630 953-9928
 Fax: 630 953-9938

BORING LOG RWB-03
 WEI Job No.: 192-03-01

Datum: NAVD 88
 Elevation: 733.75 ft
 North: 1884795.96 ft
 East: 947116.84 ft
 Station: 195+35.33
 Offset: 20.09' RT

Client: **Milhouse Engineering & Construction, Inc.**
 Project: **IL 47 at Main Street Intersection Improvements**
 Location: **Elburn, Kane County, IL**

Page 1 of 1



GENERAL NOTES		WATER LEVEL DATA	
Begin Drilling	05-14-2015	Complete Drilling	05-14-2015
Drilling Contractor	Wang Testing Services	Drill Rig	CME-55 TMR
Driller	R & N	Logger	D. Kolpacki
Checked by	B. Wilson	Drilling Method	3.25" IDA HSA, auto hammer, boring backfilled upon completion
While Drilling	9.00 ft	At Completion of Drilling	16.00 ft
Time After Drilling	NA	Depth to Water	NA

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

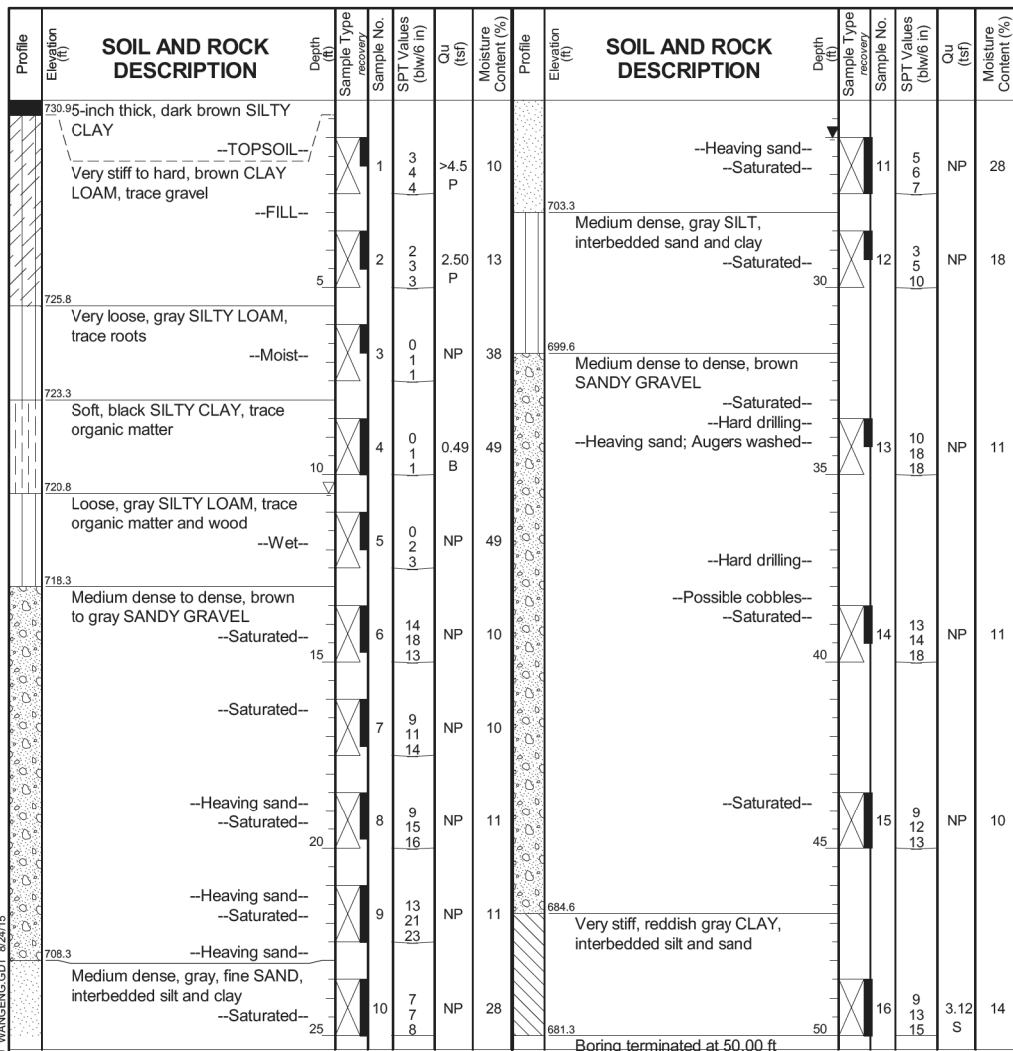
Wang Engineering
 wangeng@wangeng.com
 1145 N Main Street
 Lombard, IL 60148
 Telephone: 630 953-9928
 Fax: 630 953-9938

BORING LOG RWB-04
 WEI Job No.: 192-03-01

Datum: NAVD 88
 Elevation: 731.31 ft
 North: 1884796.75 ft
 East: 947197.64 ft
 Station: 196+16.13
 Offset: 20.26' RT

Client: **Milhouse Engineering & Construction, Inc.**
 Project: **IL 47 at Main Street Intersection Improvements**
 Location: **Elburn, Kane County, IL**

Page 1 of 1



GENERAL NOTES		WATER LEVEL DATA	
Begin Drilling	05-14-2015	Complete Drilling	05-14-2015
Drilling Contractor	Wang Testing Services	Drill Rig	CME-55 TMR
Driller	R & N	Logger	D. Kolpacki
Checked by	B. Wilson	Drilling Method	3.25" IDA HSA, auto hammer, boring backfilled upon completion
While Drilling	10.50 ft	At Completion of Drilling	26.00 ft
Time After Drilling	NA	Depth to Water	NA

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

P:\00441.000\Drawings\CAD\Structural\Sheets\161021_RWA-15_Logs2.dgn



PLOT	DESIGNED - MBC	REVISED -
NAME = JKando	CHECKED - JSK	REVISED -
DATE = 3/6/2019	DRAWN - MRK	REVISED -
TIME = 3:56:55 PM	CHECKED - WPK	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORING LOGS II
RETAINING WALL A (SN 045-3500)
 SHEET NO. RWA-15 OF RWA-16 SHEETS

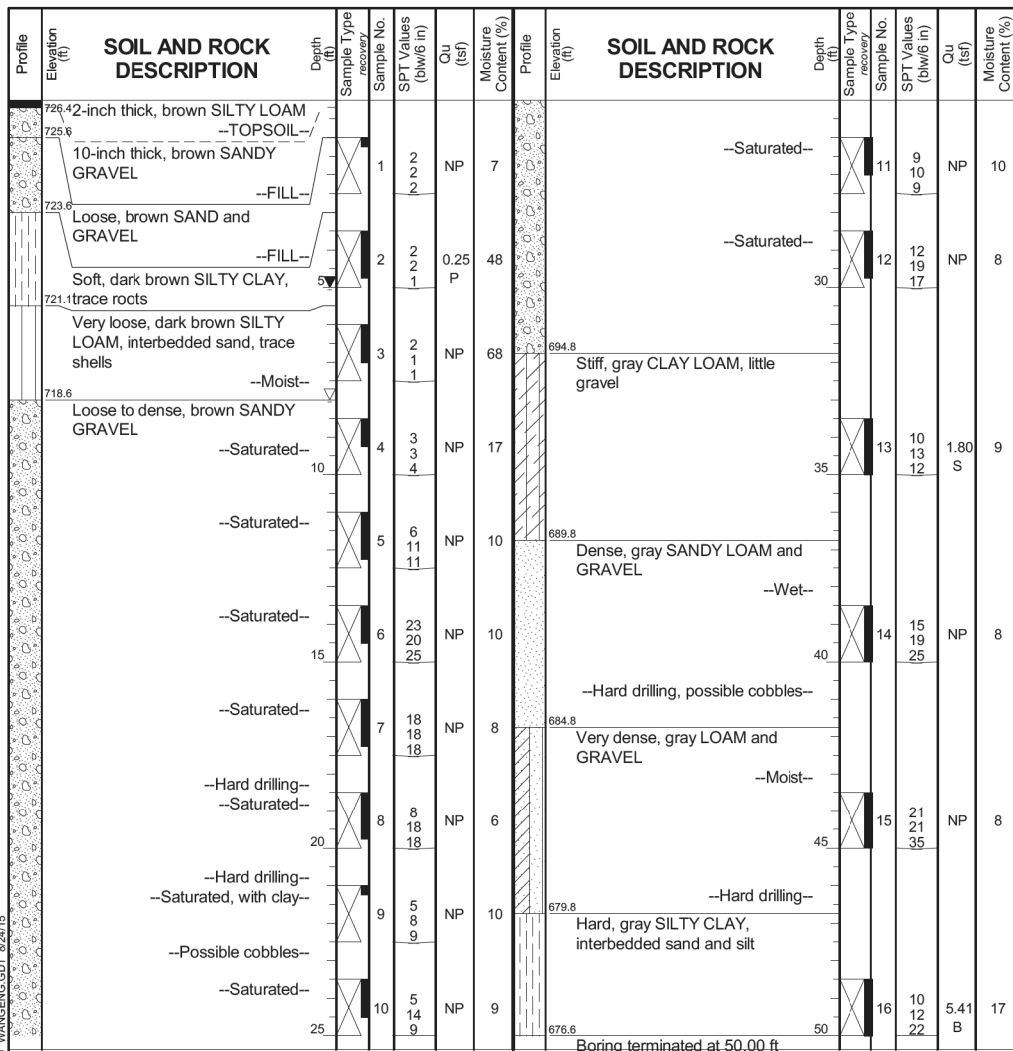
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	107N-4	KANE	288	236
CONTRACT NO. 60T21				
ILLINOIS FED. AID PROJECT				

Wang Engineering
 wangeng@wangeng.com
 1145 N Main Street
 Lombard, IL 60148
 Telephone: 630 953-9928
 Fax: 630 953-9938

BORING LOG RWB-05
 WEI Job No.: 192-03-01
 Client: Milhouse Engineering & Construction, Inc.
 Project: IL 47 at Main Street Intersection Improvements
 Location: Elburn, Kane County, IL

Datum: NAVD 88
 Elevation: 726.58 ft
 North: 1884757.21 ft
 East: 947301.61 ft
 Station: 197+19.62
 Offset: 61.04' RT

Page 1 of 1



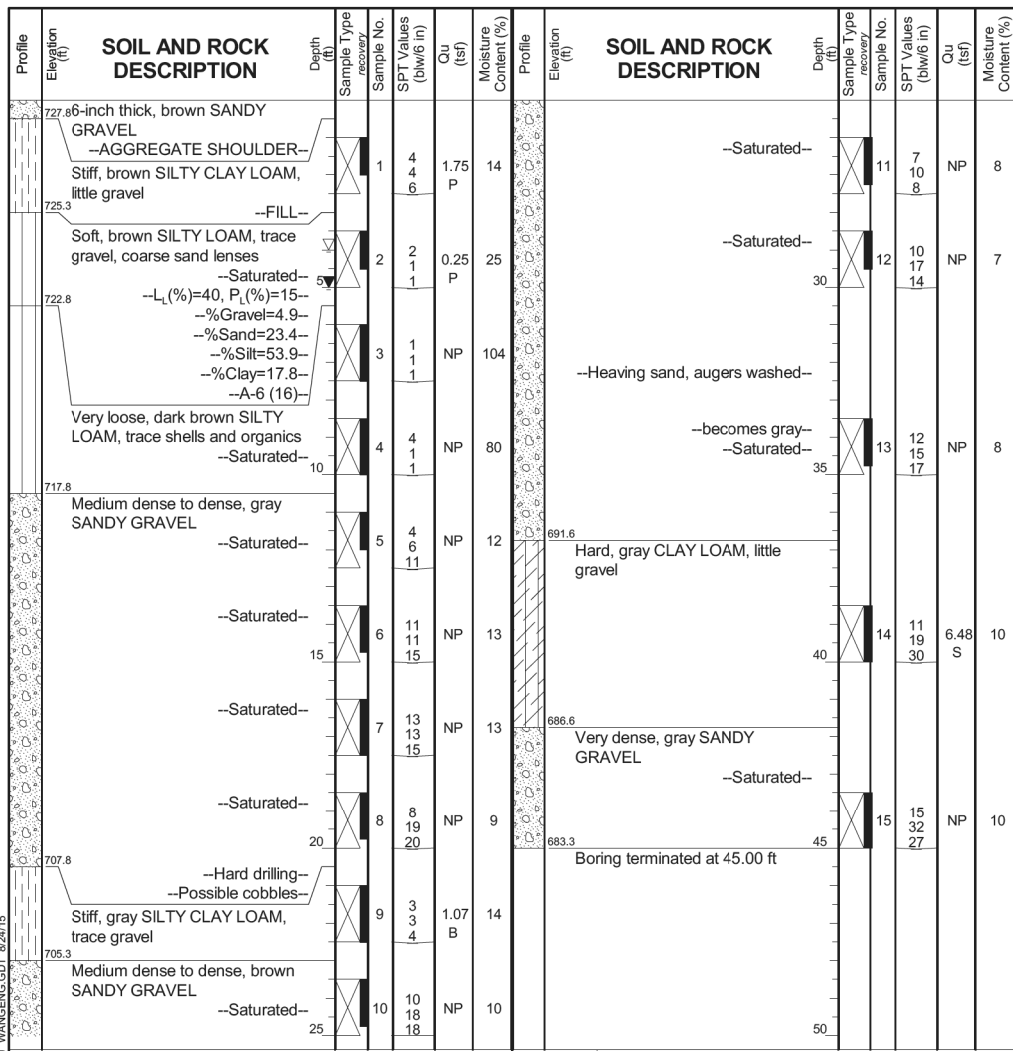
GENERAL NOTES		WATER LEVEL DATA	
Begin Drilling	05-19-2015	Complete Drilling	05-19-2015
Drilling Contractor	Wang Testing Services	Drill Rig	CME-55 TMR
Driller	R & N	Logger	D. Kolpacki
Checked by	B. Wilson	Drilling Method	3.25" IDA HSA, auto hammer, boring backfilled upon completion
While Drilling	8.00 ft	At Completion of Drilling	5.00 ft
Time After Drilling	NA	Depth to Water	NA

Wang Engineering
 wangeng@wangeng.com
 1145 N Main Street
 Lombard, IL 60148
 Telephone: 630 953-9928
 Fax: 630 953-9938

BORING LOG RWB-06
 WEI Job No.: 192-03-01
 Client: Milhouse Engineering & Construction, Inc.
 Project: IL 47 at Main Street Intersection Improvements
 Location: Elburn, Kane County, IL

Datum: NAVD 88
 Elevation: 728.35 ft
 North: 1884802.58 ft
 East: 947360.13 ft
 Station: 197+78.68
 Offset: 16.38' RT

Page 1 of 1



GENERAL NOTES		WATER LEVEL DATA	
Begin Drilling	05-21-2015	Complete Drilling	05-21-2015
Drilling Contractor	Wang Testing Services	Drill Rig	CME-55 TMR
Driller	R & N	Logger	D. Kolpacki
Checked by	B. Wilson	Drilling Method	3.25" IDA HSA, auto hammer, boring backfilled upon completion
While Drilling	4.00 ft	At Completion of Drilling	5.00 ft
Time After Drilling	NA	Depth to Water	NA

P:\00441.000\Drawings\CAD\Structural\Sheets\1610T21_RWA-16_Logs3.dgn

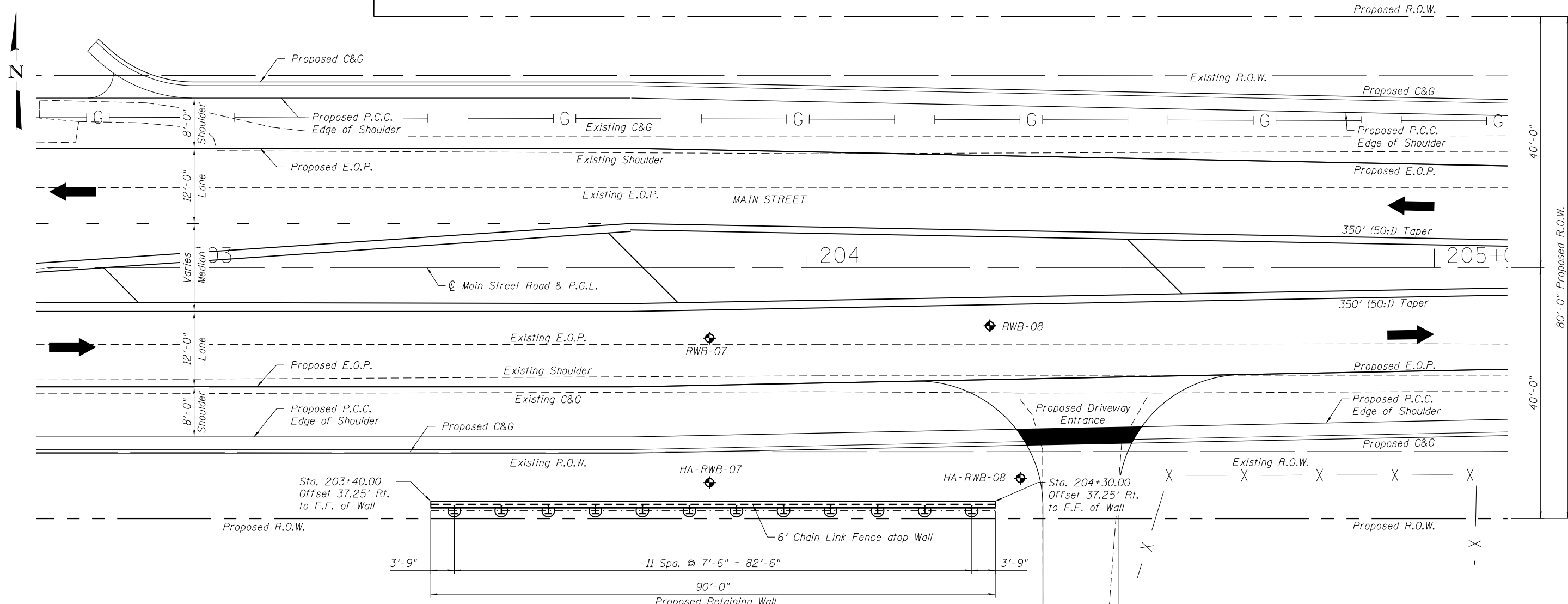


PLLOT	DESIGNED	REVISIONS
NAME = JKando	MBC	
DATE = 3/6/2019	JSK	
TIME = 3:57:04 PM	MRK	
	WPK	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BORING LOGS III
RETAINING WALL A (SN 045-3500)
 SHEET NO. RWA-16 OF RWA-16 SHEETS

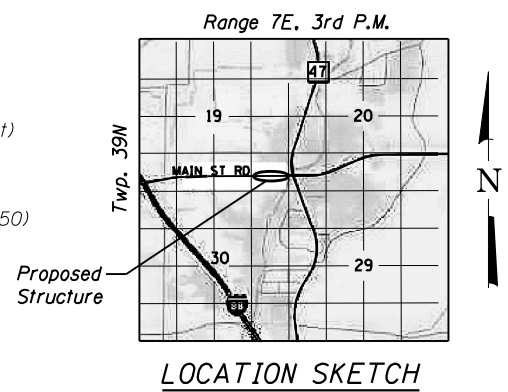
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	107N-4	KANE	288	237
CONTRACT NO. 60T21				
ILLINOIS FED. AID PROJECT				



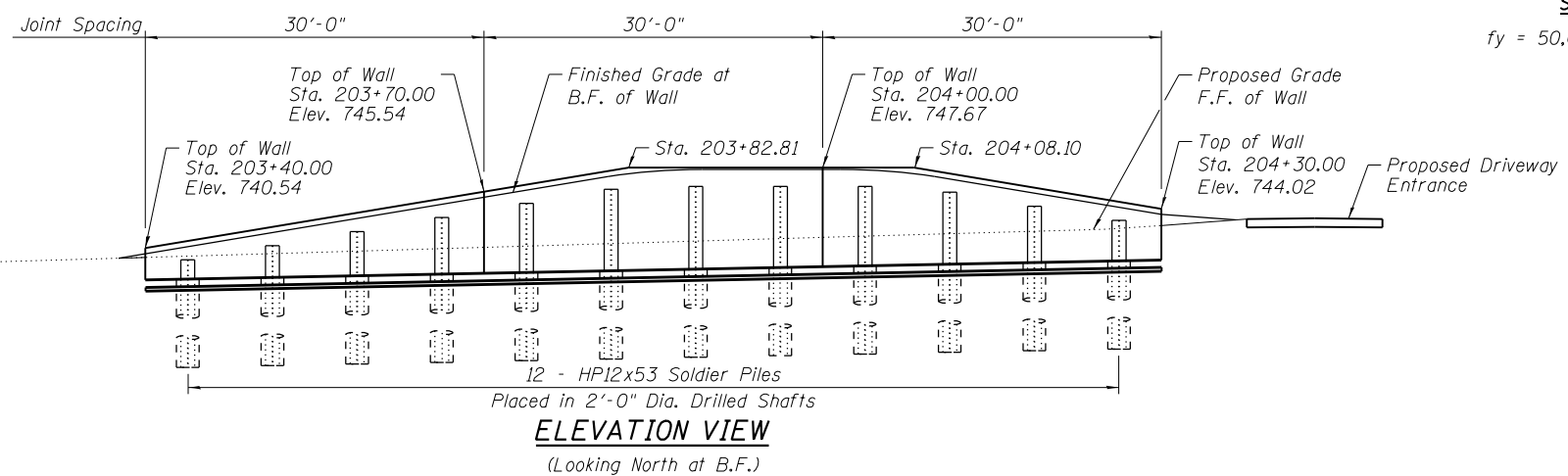
HIGHWAY CLASSIFICATION
 Main Street Road, F.A.S. Route 107
 Functional Class: Other Principal Arterial
 ADT: 3700 (2010); 7000 (2040)
 ADTT: 936 (2010); 1771 (2040)
 DHV: 380 (2040)
 Design Speed: 60 m.p.h.
 Posted Speed: 55 m.p.h.
 2-Way Traffic, Directional Distribution: 50/50

DESIGN SPECIFICATIONS
 2017 AASHTO LRFD Bridge Design Specifications, 8th Edition

DESIGN STRESSES
FIELD UNITS
 $f'_c = 3,500$ psi
 $f_y = 60,000$ psi (Reinforcement)
SOLDIER PILES
 $f_y = 50,000$ psi (M270 Grade 50)



PLAN VIEW



ELEVATION VIEW
 (Looking North at B.F.)



M. Basar Civelek

PLOT	DESIGNED - MBC	REVISED -
NAME = JKando	CHECKED - JSK	REVISED -
DATE = 3/15/2019	DRAWN - MRK	REVISED -
TIME = 3:33:14 PM	CHECKED - WPK	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

RETAINING WALL B (SN 045-W018)

SHEET NO. RWB-1 OF RWB-8 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	107N-4	KANE	288	238
CONTRACT NO. 60T21				

ILLINOIS FED. AID PROJECT

P:\00441.000\Drawings\CAD\Structural\Sheets\DI60T21_RWB-01_GPE.dgn

GENERAL NOTES

1. Reinforcement bars designated (E) shall be epoxy coated.
2. Concrete Sealer shall be applied to all exposed areas of the concrete facing.
3. All exposed concrete edges shall have a 3/4" x 45° chamfer, U.N.O. The chamfer on vertical edges shall continue a minimum of one foot below finished grade.

MINIMUM BAR LAPS

#5 bars - 3'-3"

LEGEND

- └─┘— Pipe Underdrain Flow Arrow
- A — Overhead Electrical
- FO — Fiber Optic
- G I — Gas
- □ — Guardrail
- ⊕ Soil Boring

ABBREVIATIONS

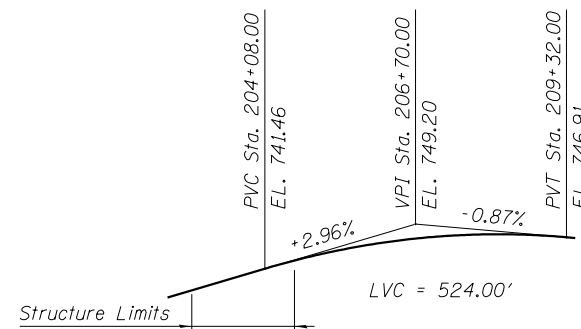
- B.F. Back Face
- C Construction Joint
- Ⓞ Centerline
- cts. Centers
- E Expansion Joint
- E.F. Each Face
- F.F. Front Face
- Spa. Spaces
- U.N.O. Unless Noted Otherwise

BILL OF MATERIAL

ITEM	UNIT	TOTAL
Structure Excavation	Cu Yd	214
Concrete Structures	Cu Yd	23
Stud Shear Connectors	Each	144
Reinforcement Bars, Epoxy Coated	Pound	3,110
Furnishing Soldier Piles (HP Section)	Foot	204
Drilling And Setting Soldier Piles (In Soil)	Cu Ft	704
Untreated Timber Lagging	Sq Ft	466
Concrete Sealer	Sq Ft	437
Geocomposite Wall Drain	Sq Yd	52
Chain Link Fence, 6' Attached To Structure	Foot	91
Anti-Graffiti Protection System	Sq Ft	438
Pipe Underdrains For Structures 4"	Foot	91

INDEX OF SHEETS

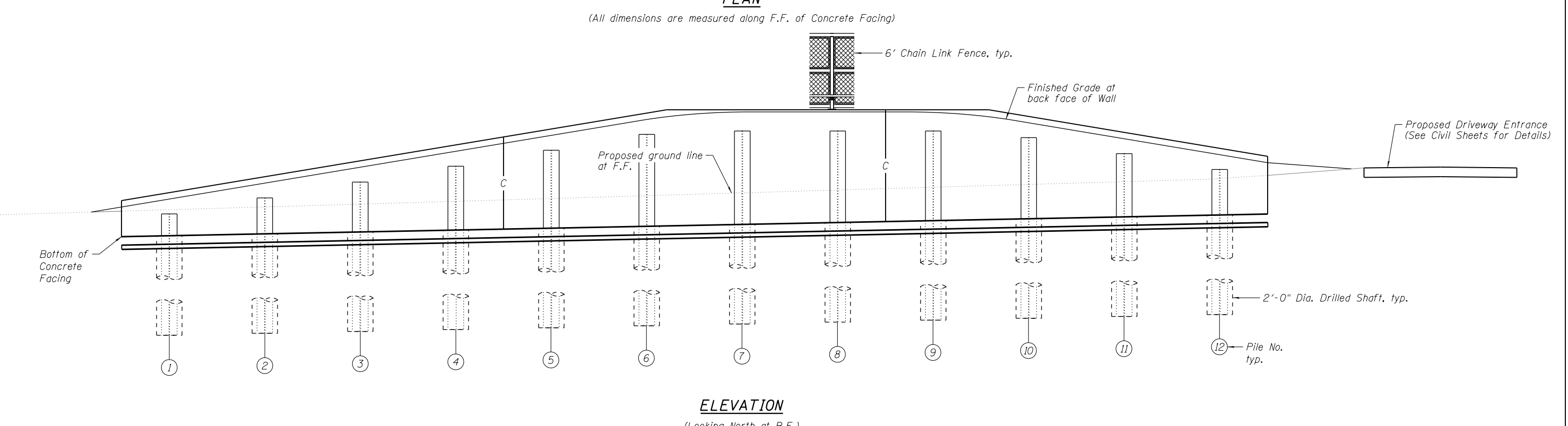
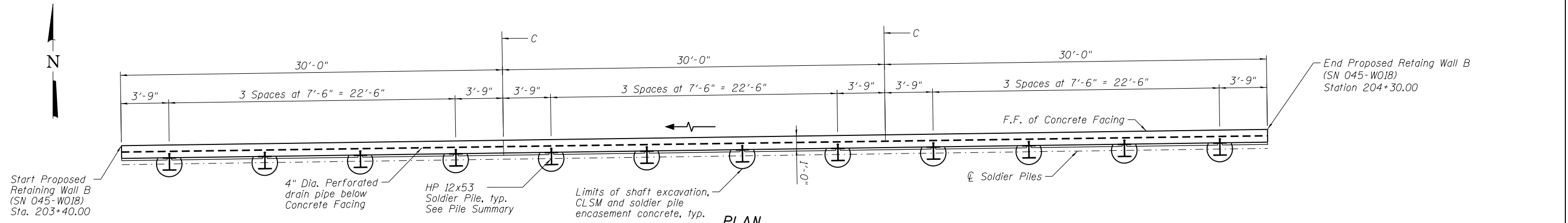
- RWB-1. General Plan and Elevation
- RWB-2. Total Bill of Material, Index of Sheets & General Notes
- RWB-3. Soldier Pile Plan & Elevation
- RWB-4. Wall Plan & Elevation
- RWB-5. Wall Details
- RWB-6. Chain Link Fence Details
- RWB-7. Boring Logs I
- RWB-8. Boring Logs II



MAIN ST. (WB & EB) PROFILE GRADE

P:\0041.000\Drawings\CAD\Structural\Sheets\1610T21_RWB-02_Notes.dgn

	DB STERLIN CONSULTANTS, INC. 133 N. WACKER DRIVE SUITE 2000 CHICAGO, ILLINOIS 60606 TEL. (312)837-1000 FAX. (312)837-1006	DESIGNED - MBC CHECKED - JSK DRAWN - MRK CHECKED - WPK	REVISED - REVISED - REVISED - REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TOTAL BILL OF MATERIAL, INDEX OF SHEETS & GENERAL NOTES RETAINING WALL B (SN 045-W018)	F.A.P. RTE. 326 SECTION 107N-4 COUNTY KANE TOTAL SHEETS 288 SHEET NO. 239	CONTRACT NO. 60T21 ILLINOIS FED. AID PROJECT
	SHEET NO. RWB-2 OF RWB-8 SHEETS				SHEET NO. RWB-2 OF RWB-8 SHEETS		



PILE SUMMARY

PILE NO.	PILE SIZE	STATION AT PILE ϕ	OFFSET TO PILE ϕ	LENGTH	TIP ELEVATION	TOP ELEVATION	PILE NO.	PILE SIZE	STATION AT PILE ϕ	OFFSET TO PILE ϕ	LENGTH	TIP ELEVATION	TOP ELEVATION
1	HP12x53	203+43.75	38'-9" Rt.	17.00'	722.49	739.49	7	HP12x53	203+88.75	38'-9" Rt.	17.00'	729.00	746.00
2	HP12x53	203+51.25	38'-9" Rt.	17.00'	723.74	740.74	8	HP12x53	203+96.25	38'-9" Rt.	17.00'	729.00	746.00
3	HP12x53	203+58.75	38'-9" Rt.	17.00'	724.99	741.99	9	HP12x53	204+03.75	38'-9" Rt.	17.00'	729.00	746.00
4	HP12x53	203+66.25	38'-9" Rt.	17.00'	726.24	743.24	10	HP12x53	204+11.25	38'-9" Rt.	17.00'	728.48	745.48
5	HP12x53	203+73.75	38'-9" Rt.	17.00'	727.49	744.49	11	HP12x53	204+18.75	38'-9" Rt.	17.00'	727.23	744.23
6	HP12x53	203+81.25	38'-9" Rt.	17.00'	728.74	745.74	12	HP12x53	204+26.25	38'-9" Rt.	17.00'	725.98	742.98

NOTES:
1. See Civil Plans for Drainage Structure to Pipe Underdrain connection details.

P:\00441.000\Drawings\CAD\Structural\Sheets\1610T21_RWB-03_Piles.dgn



PLOT	DESIGNED - MBC	REVISED -
NAME = JKando	CHECKED - JSK	REVISED -
DATE = 3/6/2019	DRAWN - MRK	REVISED -
TIME = 3:57:15 PM	CHECKED - WPK	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**SOLDIER PILE PLAN & ELEVATION
RETAINING WALL B (SN 045-W018)**

SHEET NO. RWB-3 OF RWB-8 SHEETS

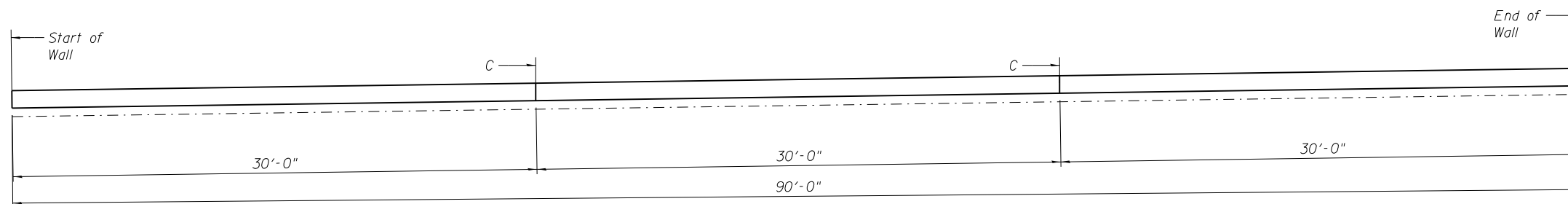
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	107N-4	KANE	288	240
CONTRACT NO. 60T21				

ILLINOIS FED. AID PROJECT

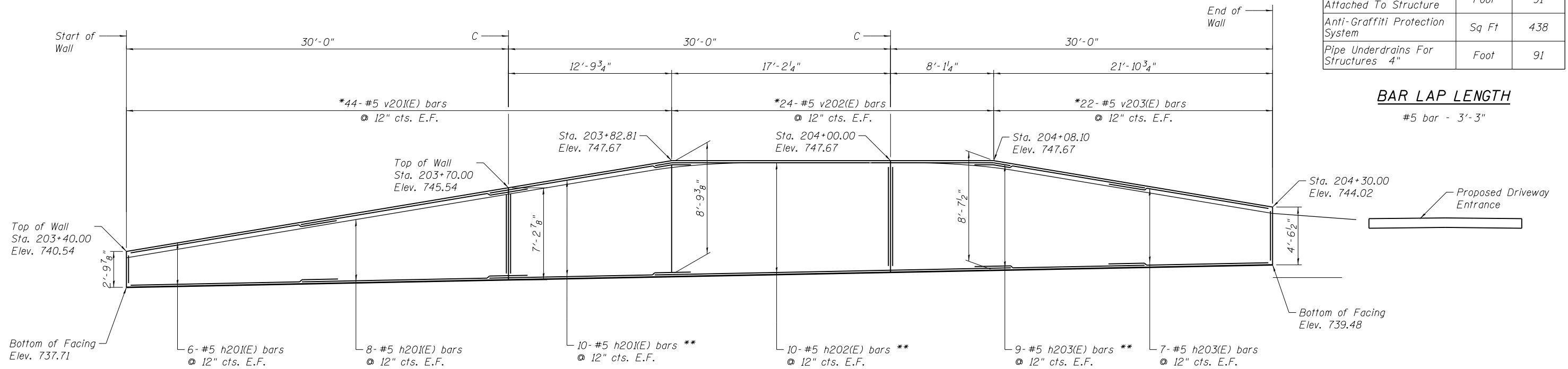


BILL OF MATERIALS

Bar	No.	Size	Length	Shape
h201(E)	48	#5	16'-4"	————
h202(E)	20	#5	31'-9"	————
h203(E)	32	#5	12'-6"	————
v201(E)	44	#5	11'-0"	————
v202(E)	24	#5	16'-9"	————
v203(E)	22	#5	12'-5"	————
Structure Excavation		Cu Yd	214	
Concrete Structures		Cu Yd	23	
Stud Shear Connectors		Each	144	
Reinforcement Bars, Epoxy Coated		Pound	3110	
Furnishing Soldier Piles (HP Section)		Foot	204	
Drilling And Setting Soldier Piles (In Soil)		Cu Ft	704	
Untreated Timber Lagging		Sq Ft	466	
Concrete Sealer		Sq Ft	437	
Geocomposite Wall Drain		Sq Yd	52	
Chain Link Fence, 6' Attached To Structure		Foot	91	
Anti-Graffiti Protection System		Sq Ft	438	
Pipe Underdrains For Structures 4"		Foot	91	



PLAN



ELEVATION

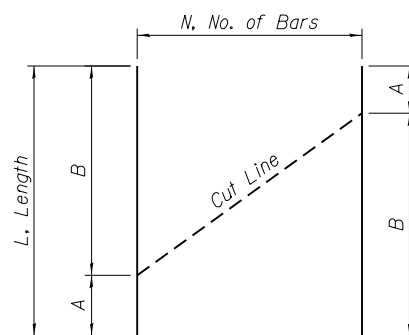
(Looking North at B.F.)

* Bars shown in Bill of Materials are full length and shall be manufactured according to the Bar Cutting Diagram. Use half bars at each face of concrete facing.

** Bend Top Bars in Field to Fit.

BAR LAP LENGTH

#5 bar - 3'-3"



BAR CUTTING DIAGRAM

BAR	L	A	B	N
v201(E)	11'-0"	2'-6"	8'-6"	44
v202(E)	16'-9"	8'-3"	8'-6"	25
v203(E)	12'-5"	4'-2"	8'-3"	22

NOTES:

1. For Sections and Details, see Sheets RWB-5 and RWB-6.
2. Bars noted, 3x2 - #5 indicate 3 lines of bars with 2 lengths of bars per line.
3. Piles and shafts not shown for clarity.
4. Chain Link Fence not shown for clarity, see Sheet RWB-7 for Details.

P:\00441.000\Drawings\CAD\Structural\Sheets\DI60T21_RWB-04_Plan.dgn



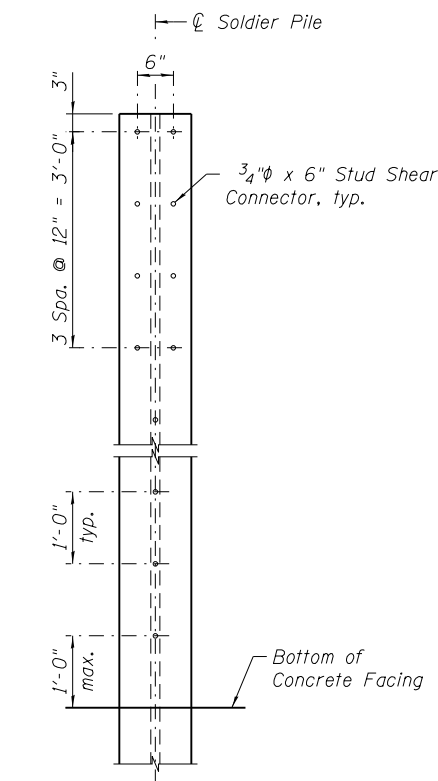
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NAME = JKando	CHECKED - JSK	REVISD -
DATE = 3/6/2019	DRAWN - MRK	REVISD -
TIME = 3:57:16 PM	CHECKED - WPK	REVISD -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

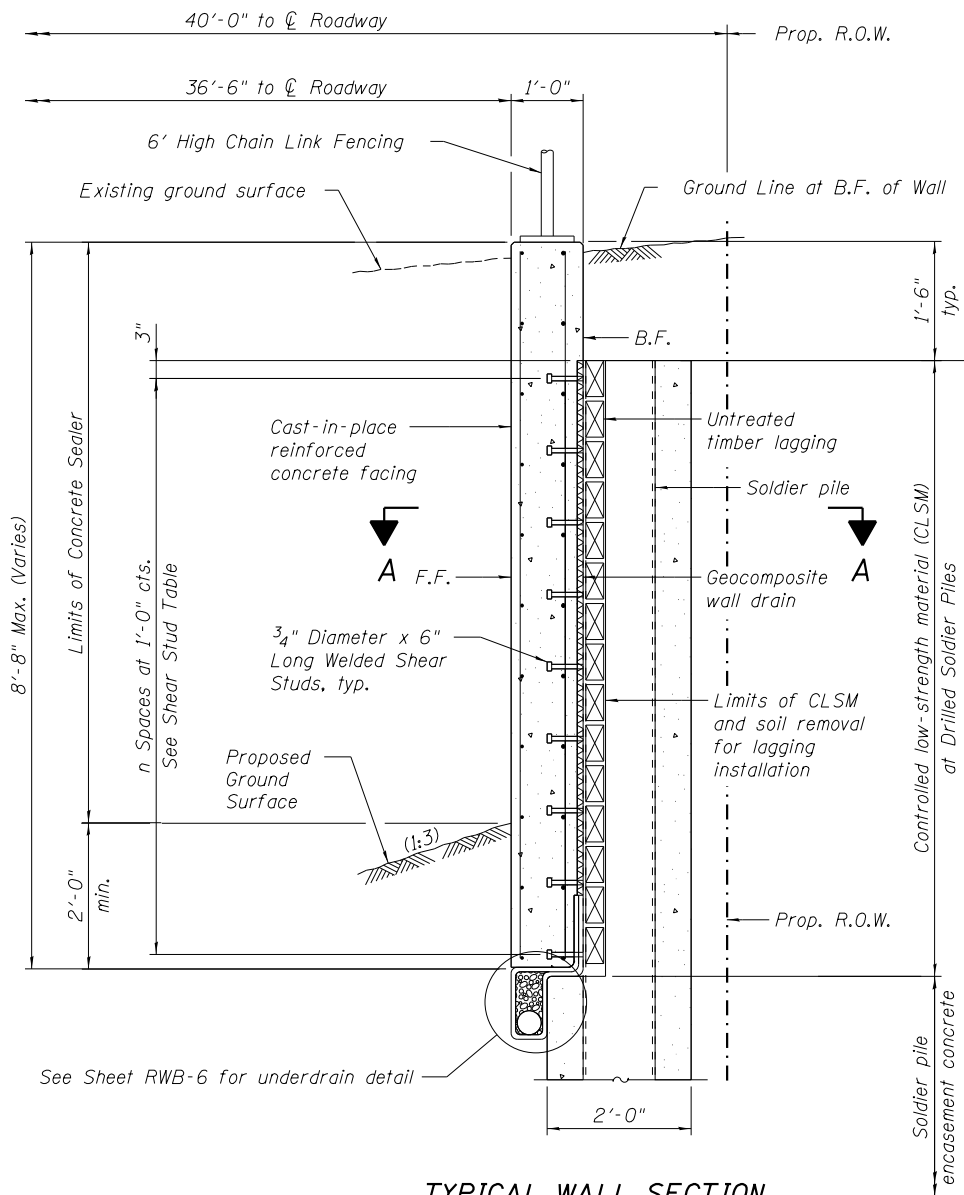
**PLAN AND ELEVATION
RETAINING WALL B (SN 045-W018)**

SHEET NO. RWB-4 OF RWB-8 SHEETS

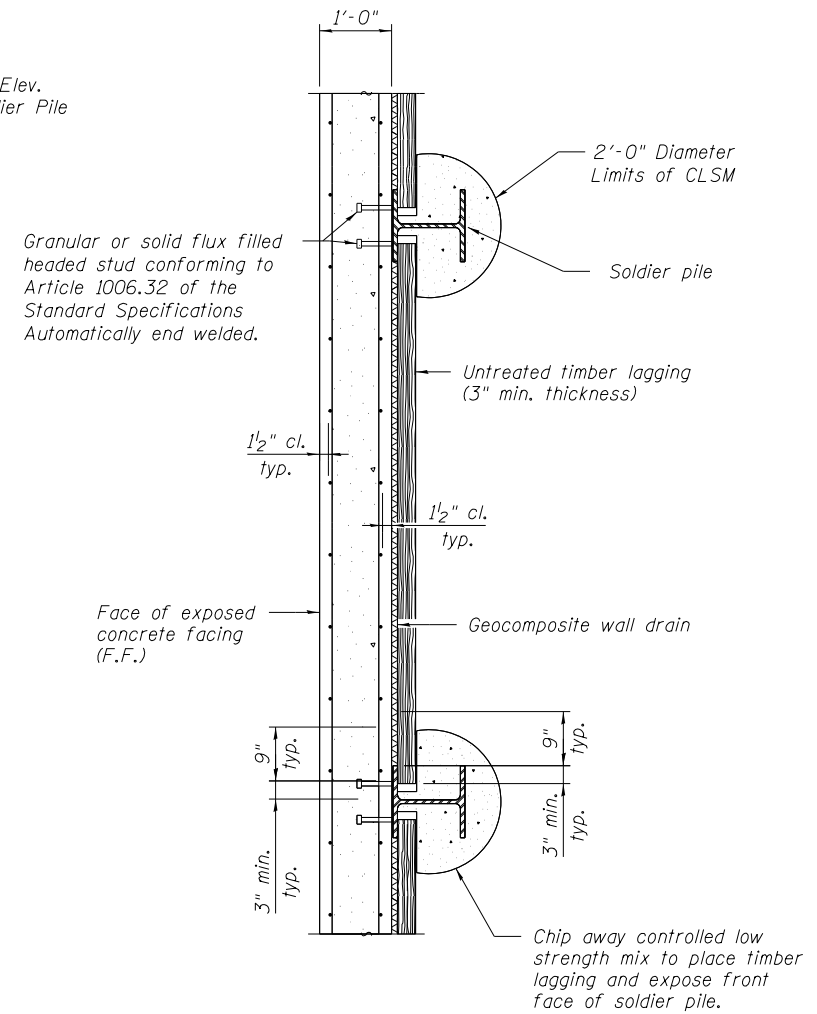
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	107N-4	KANE	288	241
CONTRACT NO. 60T21				
ILLINOIS FED. AID PROJECT				



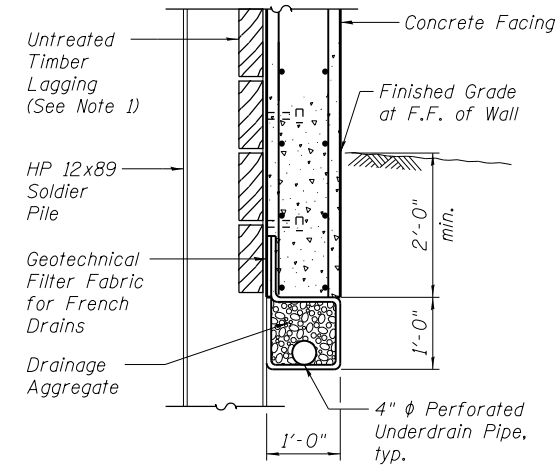
STUD SHEAR CONNECTOR DETAIL



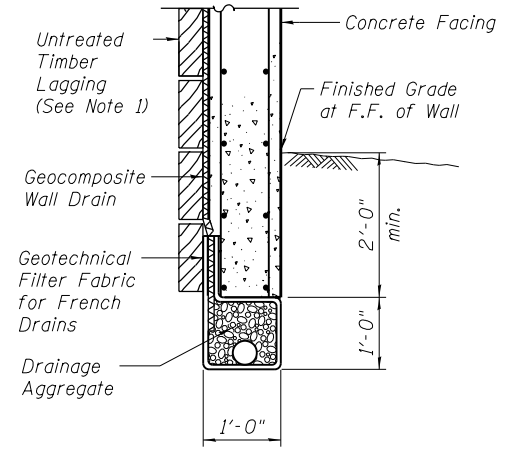
TYPICAL WALL SECTION
(Looking East)



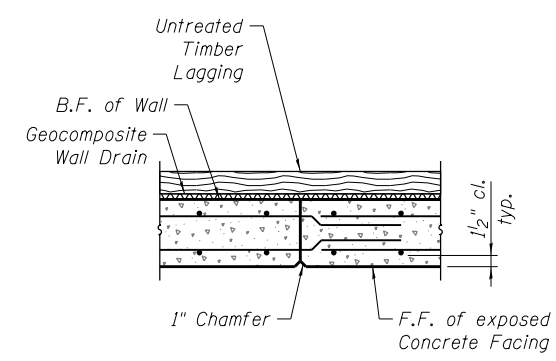
SECTION A-A



UNDERDRAIN AT SOLDIER PILE



UNDERDRAIN BETWEEN SOLDIER PILES



CONSTRUCTION JOINT DETAIL - WALL

Granular or solid flux filled headed stud conforming to Article 1006.32 of the Standard Specifications Automatically end welded.

- NOTES:**
1. Place 3/4" gap between lagging to allow for drainage, typ.
 2. The cost of "Drainage Aggregate, Geotechnical Filter Fabric and Underdrain Pipe is included in the cost of "Pipe Underdrains for Structures".

P:\00441.000\Drawings\CAD\Structural\Sheets\DI60T21_RWB-05_Details.dgn



PLOT	DESIGNED - MBC	REVISD -
NAME = JKando	CHECKED - JSK	REVISD -
DATE = 3/6/2019	DRAWN - MRK	REVISD -
TIME = 3:57:17 PM	CHECKED - WPK	REVISD -

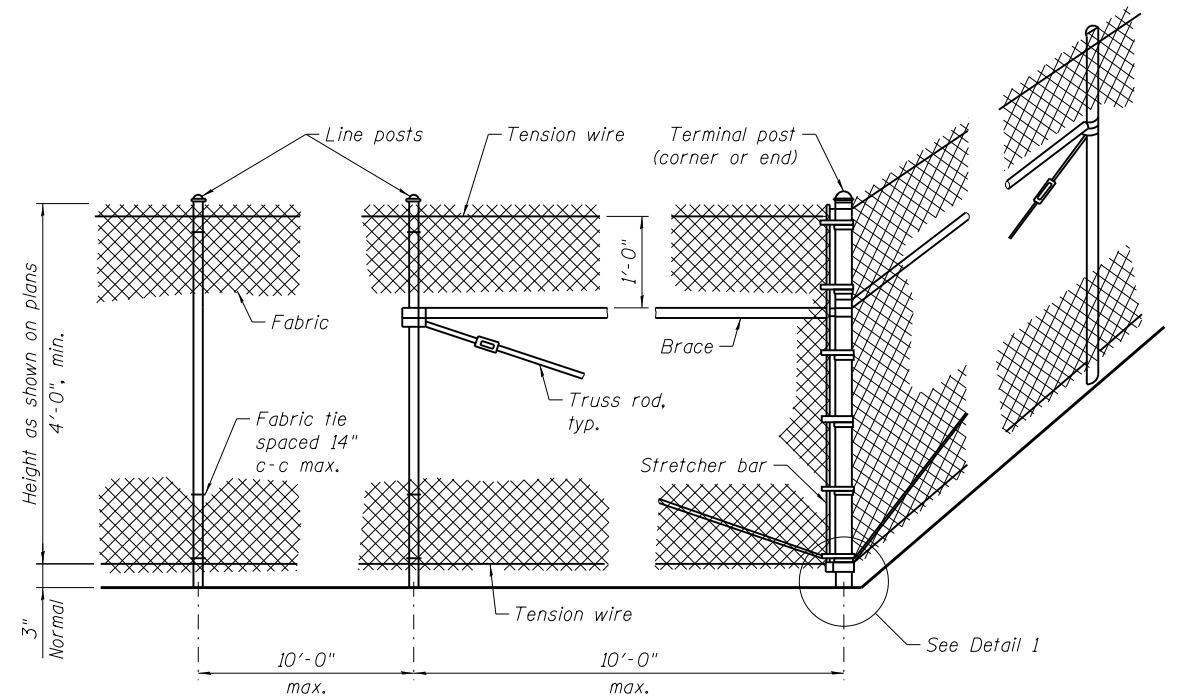
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WALL DETAILS
RETAINING WALL B (SN 045-W018)

SHEET NO. RWB-5 OF RWB-8 SHEETS

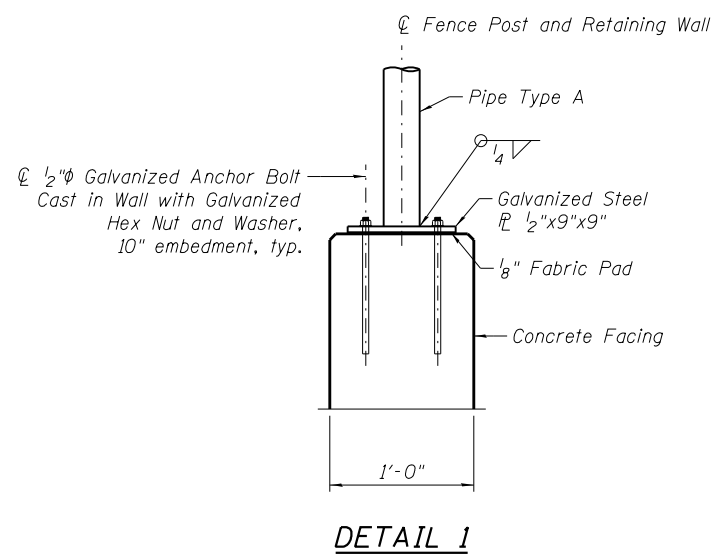
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	107N-4	KANE	288	242
CONTRACT NO. 60T21				

ILLINOIS FED. AID PROJECT

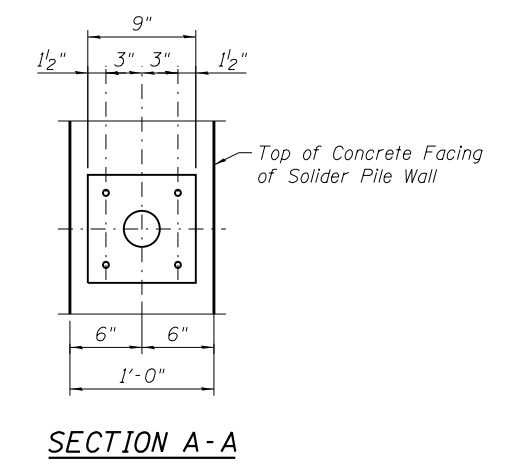


LINE POST ARRANGEMENT

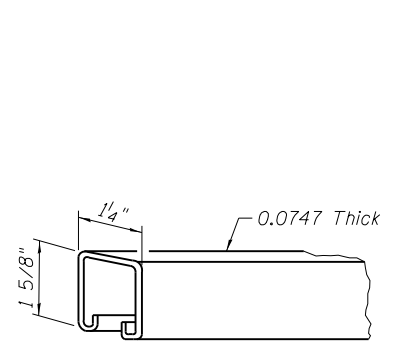
CORNER OR END POST ARRANGEMENT



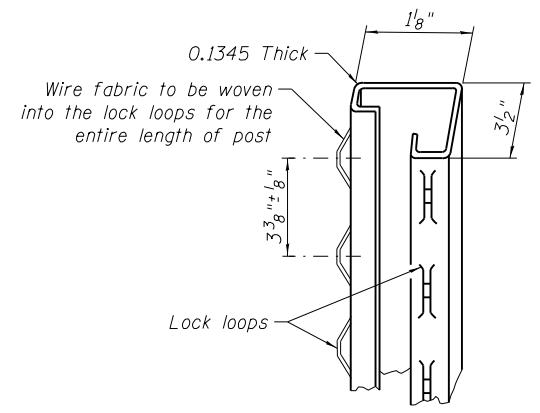
DETAIL 1



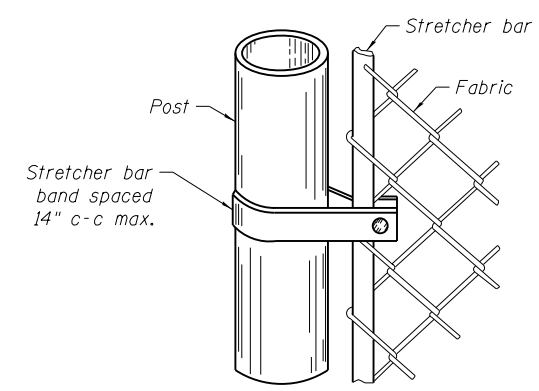
SECTION A-A



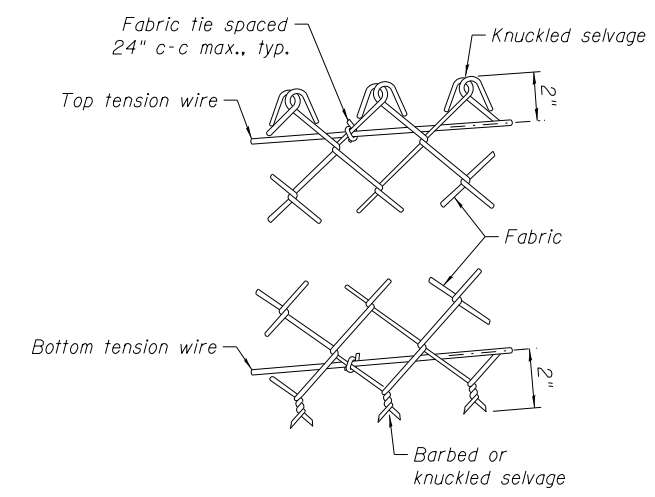
ROLL FORMED SECTION OF BRACE



ROLL FORMED SECTION OF TERMINAL



METHOD OF FASTENING STRETCHER BAR TO POST



METHOD OF TYING FABRIC TO TENSION WIRES

LINE POST	
Section	lbs./ft.
Pipe Type A 1.90 O.D.	2.72
H 1.875x1.625	2.72
C	1.60
I	2.30

TERMINAL POST	
Section	lbs./ft.
Pipe Type A 2.375 O.D.	3.65
Roll Formed 3 1/2"x3 1/2"	See detail
Sq. Tubing 2 1/2"x2 1/2"	4.32

HORIZONTAL BRACES	
Section	lbs./ft.
Pipe Type A 1.66 O.D.	2.27
H 1.31x1.5	2.25
Roll Formed 1 3/8"x1 1/4"	See detail

BILL OF MATERIAL

Item	Unit	Quantity
Chain Link Fence, 6' Attached to Structure	Foot	91

P:\0041.000\Drawings\CAD\Structural\Sheets\160121_RWB-06_Fence.dgn



PLOT	DESIGNED - MBC	REVISED -
NAME = JKando	CHECKED - JSK	REVISED -
DATE = 3/6/2019	DRAWN - MRK	REVISED -
TIME = 3:57:18 PM	CHECKED - WPK	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**CHAIN LINK FENCE DETAILS
RETAINING WALL B (SN 045-W018)**

SHEET NO. RWB-6 OF RWB-8 SHEETS

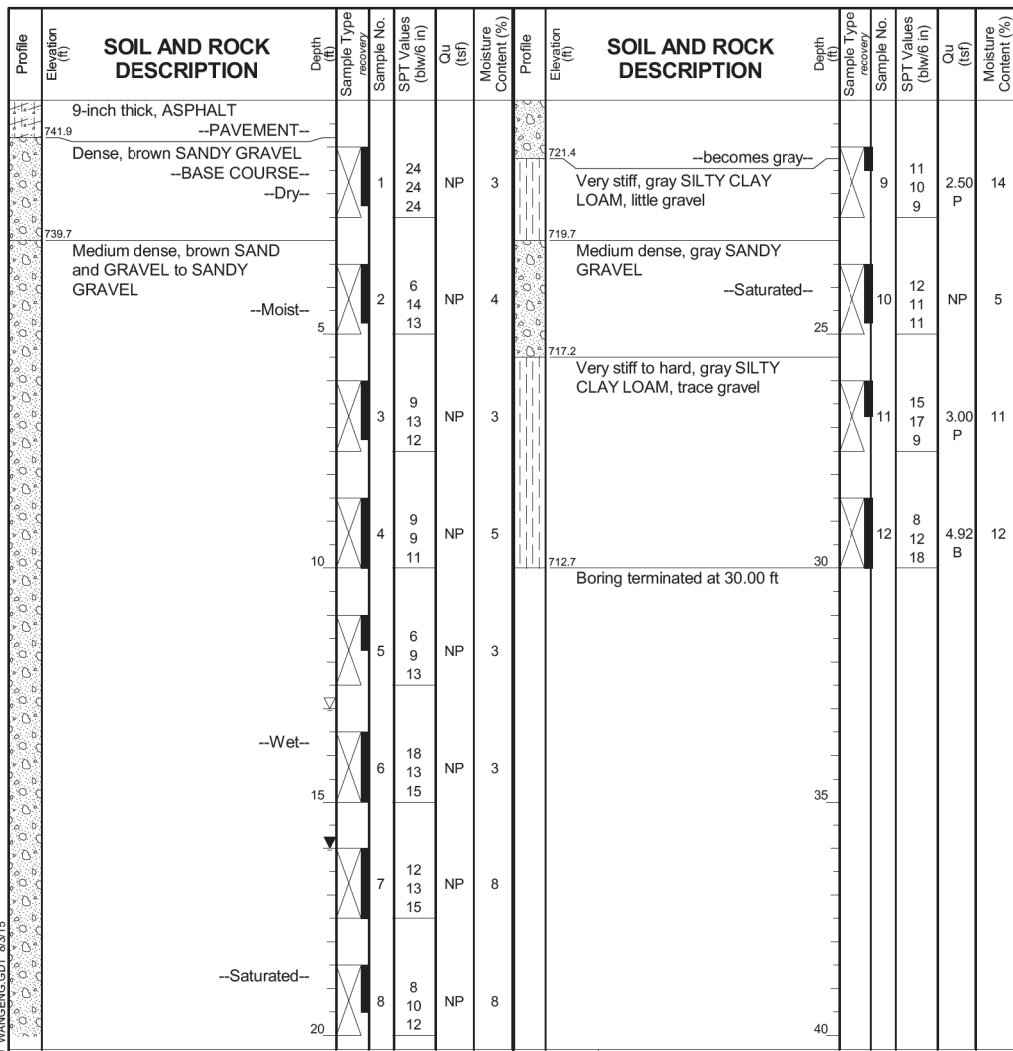
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	107N-4	KANE	288	243
CONTRACT NO. 60T21				
ILLINOIS FED. AID PROJECT				

Wang Engineering
 wangeng@wangeng.com
 1145 N Main Street
 Lombard, IL 60148
 Telephone: 630 953-9928
 Fax: 630 953-9938

BORING LOG RWB-07
 WEI Job No.: 192-03-01
 Client: **Milhouse Engineering & Construction, Inc.**
 Project: **IL 47 at Main Street Intersection Improvements**
 Location: **Elburn, Kane County, IL**

Datum: NAVD 88
 Elevation: 742.67 ft
 North: 1884815.82 ft
 East: 947965.80 ft
 Station: 203+84.44
 Offset: 11.25' RT

Page 1 of 1



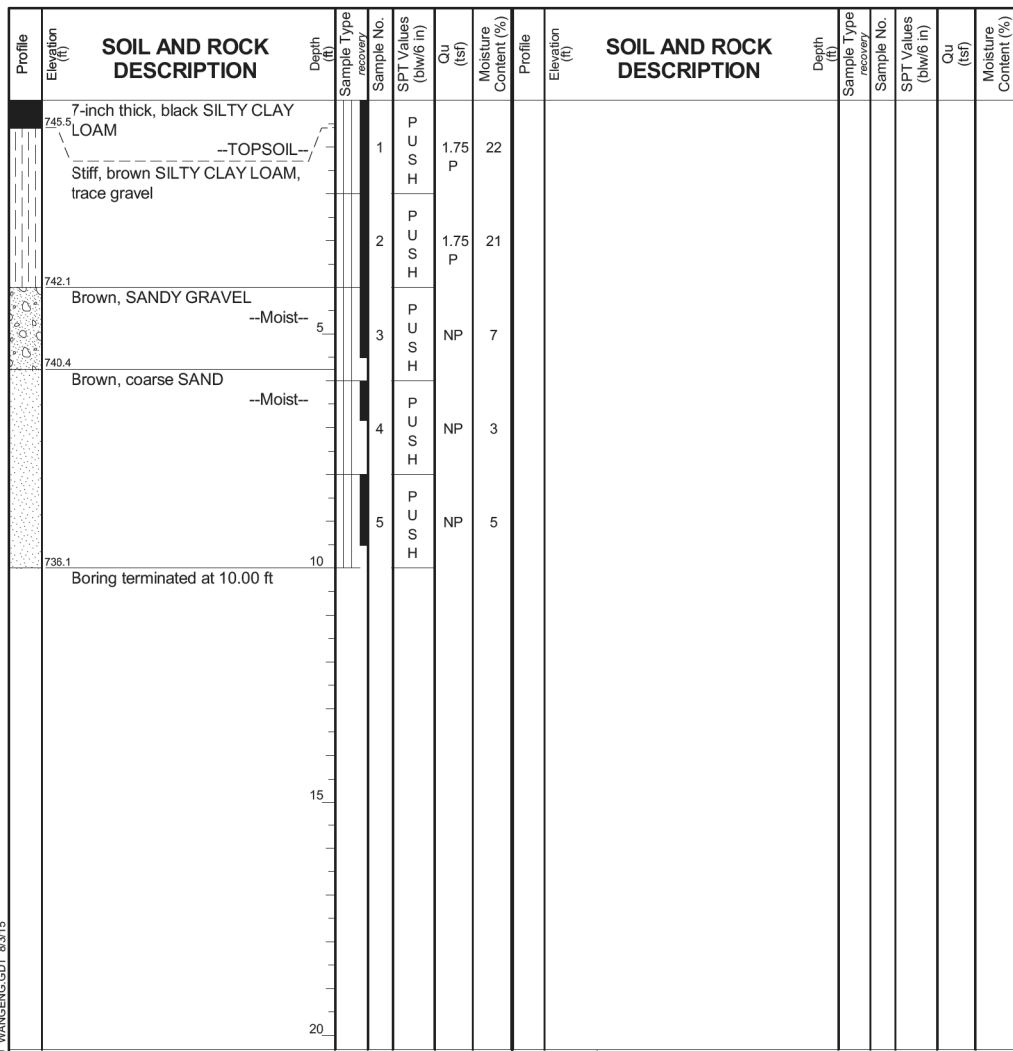
GENERAL NOTES		WATER LEVEL DATA	
Begin Drilling	05-11-2015	Complete Drilling	05-11-2015
Drilling Contractor	Wang Testing Services	Drill Rig	CME-55 TMR
Driller	R & N	Logger	D. Kolpacki
Checked by	B. Wilson	Drilling Method	3.25" IDA HSA, auto hammer, boring backfilled upon completion
While Drilling	13.00 ft	At Completion of Drilling	16.00 ft
Time After Drilling	NA	Depth to Water	NA

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BORING LOG HA-RWB-07
 WEI Job No.: 192-03-01
 Client: **Milhouse Engineering & Construction, Inc.**
 Project: **IL 47 at Main Street Intersection Improvements**
 Location: **Elburn, Kane County, IL**

Datum: NAVD 88
 Elevation: 746.13 ft
 North: 1884792.88 ft
 East: 947966.05 ft
 Station: 203+84.37
 Offset: 34.20' RT

Page 1 of 1



GENERAL NOTES		WATER LEVEL DATA	
Begin Drilling	05-19-2015	Complete Drilling	05-19-2015
Drilling Contractor	Wang Testing Services	Drill Rig	Geoprobe HA
Driller	R & J	Logger	F. Bozga
Checked by	B. Wilson	Drilling Method	1" IDA Pneumatic Geoprobe LB Sampler
While Drilling	Dry	At Completion of Drilling	Dry
Time After Drilling	NA	Depth to Water	NA

P:\0041.000\Drawings\CAD\Structural\Sheets\DI61021_RWB-07_Logs1.dgn

PLOT	DESIGNED - MBC	REVISED -
NAME = JKando	CHECKED - JSK	REVISED -
DATE = 3/6/2019	DRAWN - MRK	REVISED -
TIME = 3:57:19 PM	CHECKED - WPK	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**BORING LOGS I
 RETAINING WALL B (SN 045-W018)**

SHEET NO. RWB-7 OF RWB-8 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	107N-4	KANE	288	244
CONTRACT NO. 60T21				

ILLINOIS FED. AID PROJECT



DB STERLIN CONSULTANTS, INC.
 103 N. WACKER DRIVE SUITE 2000
 CHICAGO, ILLINOIS 60606
 TEL. (312)857-1000 FAX. (312)857-1000

Wang Engineering
 wangeng@wangeng.com
 1145 N Main Street
 Lombard, IL 60148
 Telephone: 630 953-9928
 Fax: 630 953-9938

BORING LOG RWB-08
 WEI Job No.: 192-03-01
 Client: **Milhouse Engineering & Construction, Inc.**
 Project: **IL 47 at Main Street Intersection Improvements**
 Location: **Elburn, Kane County, IL**

Datum: NAVD 88
 Elevation: 742.50 ft
 North: 1884818.46 ft
 East: 948010.46 ft
 Station: 204+29.14
 Offset: 09.24' RT

Page 1 of 1

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample No.	SPT Values (blows/6 in)	Qu (tsf)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample No.	SPT Values (blows/6 in)	Qu (tsf)	Moisture Content (%)
741.9	7-inch thick ASPHALT --PAVEMENT--												
	Very dense, brown SANDY GRAVEL --BASE COURSE-- --Dry--		1	24 30 20	NP	4			9	15 15 18	NP	14	
739.5	Medium dense, brown SAND and GRAVEL --Moist--		2	5 8 8	NP	3			10	8 13 15	NP	12	
			3	4 6 9	NP	4			11	10 11 8	NP	11	
734.5	Medium dense, brown, medium SAND --Moist--		4	4 8 8	NP	3			12	7 11 14	NP	10	
			5	6 8 10	NP	3							
729.5	Medium dense to dense, brown SANDY GRAVEL --Moist-- --Possible cobbles--		6	18 18 26	NP	4							
			7	13 17 19	NP	3							
	--Saturated--		8	10 15 18	NP	8							
							712.5	Boring terminated at 30.00 ft	30				

GENERAL NOTES				WATER LEVEL DATA	
Begin Drilling	05-11-2015	Complete Drilling	05-11-2015	While Drilling	18.00 ft
Drilling Contractor	Wang Testing Services	Drill Rig	CME-55 TMR	At Completion of Drilling	18.00 ft
Driller	R & N	Logger	D. Kolpacki	Time After Drilling	NA
Checked by	B. Wilson	Drilling Method	3.25" IDA HSA, auto hammer, boring backfilled upon completion	Depth to Water	NA
The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.					

Wang Engineering
 wangeng@wangeng.com
 1145 N Main Street
 Lombard, IL 60148
 Telephone: 630 953-9928
 Fax: 630 953-9938

BORING LOG HA-RWB-08
 WEI Job No.: 192-03-01
 Client: **Milhouse Engineering & Construction, Inc.**
 Project: **IL 47 at Main Street Intersection Improvements**
 Location: **Elburn, Kane County, IL**

Datum: NAVD 88
 Elevation: 743.50 ft
 North: 1884794.19 ft
 East: 948015.69 ft
 Station: 204+34.02
 Offset: 33.59' RT

Page 1 of 1

Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample No.	SPT Values (blows/6 in)	Qu (tsf)	Moisture Content (%)	Profile Elevation (ft)	SOIL AND ROCK DESCRIPTION	Depth (ft)	Sample No.	SPT Values (blows/6 in)	Qu (tsf)	Moisture Content (%)
743.0	6-inch thick, black SILTY CLAY LOAM --TOPSOIL--		1		NP	6							
	Brown, coarse GRAVELLY SAND --Moist--		2		NP	4							
			3		NP	6							
			4		NP	4							
			5		NP	4							
733.5								Boring terminated at 10.00 ft	10				

GENERAL NOTES				WATER LEVEL DATA	
Begin Drilling	05-19-2015	Complete Drilling	05-19-2015	While Drilling	Dry
Drilling Contractor	Wang Testing Services	Drill Rig	Geoprobe HA	At Completion of Drilling	Dry
Driller	R & J	Logger	F. Bozga	Time After Drilling	NA
Checked by	B. Wilson	Drilling Method	1" IDA Pneumatic Geoprobe LB Sampler	Depth to Water	NA
The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.					

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PLOT	DESIGNED - MBC	REVISED -
NAME = JKando	CHECKED - JSK	REVISED -
DATE = 3/6/2019	DRAWN - MRK	REVISED -
TIME = 3:57:27 PM	CHECKED - WPK	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**BORING LOGS II
 RETAINING WALL B (SN 045-W018)**

SHEET NO. RWB-8 OF RWB-8 SHEETS

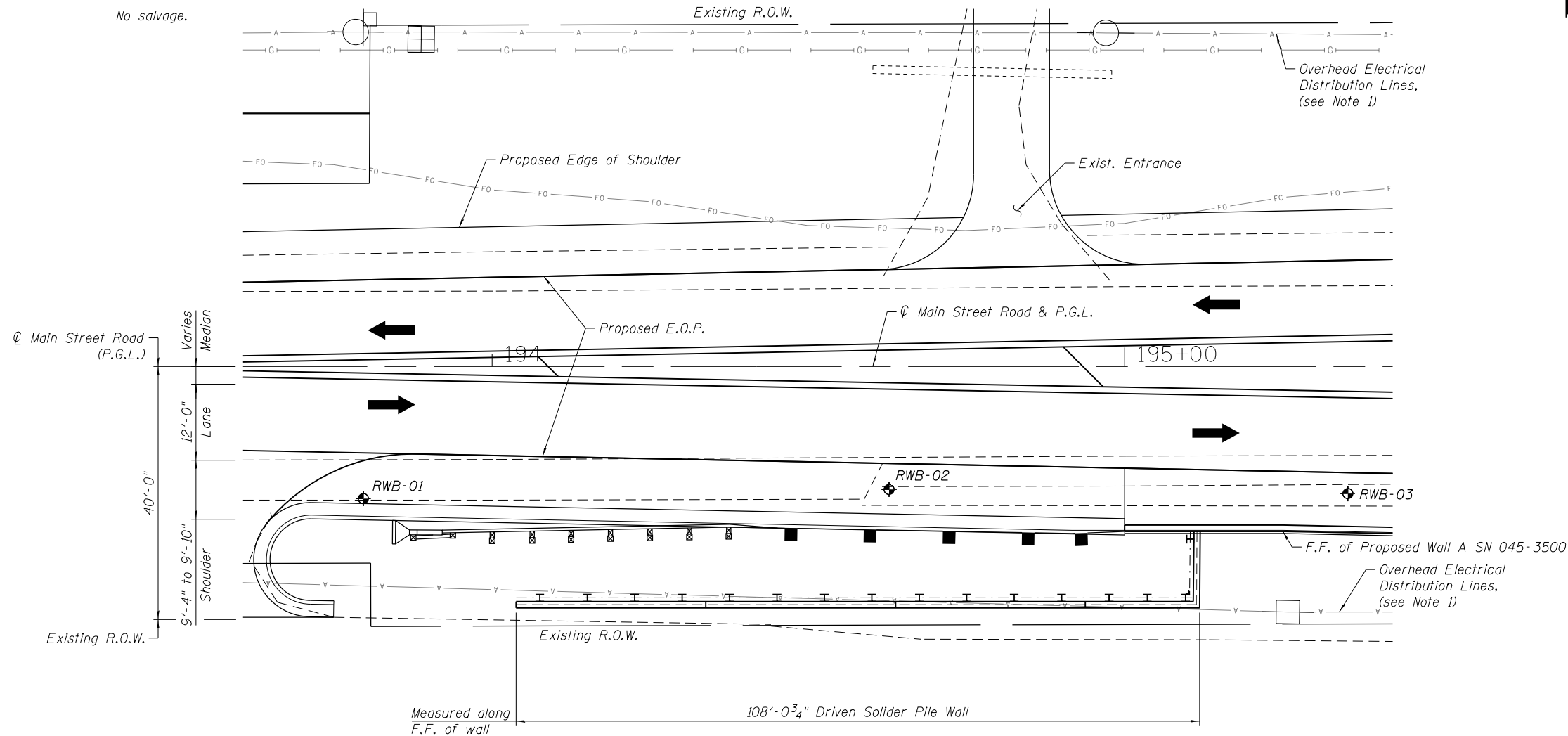
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	107N-4	KANE	288	245
CONTRACT NO. 60T21				
ILLINOIS FED. AID PROJECT				

Benchmark: "□" Cut top of southwest wingwall on Bridge over Blackberry Creek west of IL Route 47, Elev. 728.26.

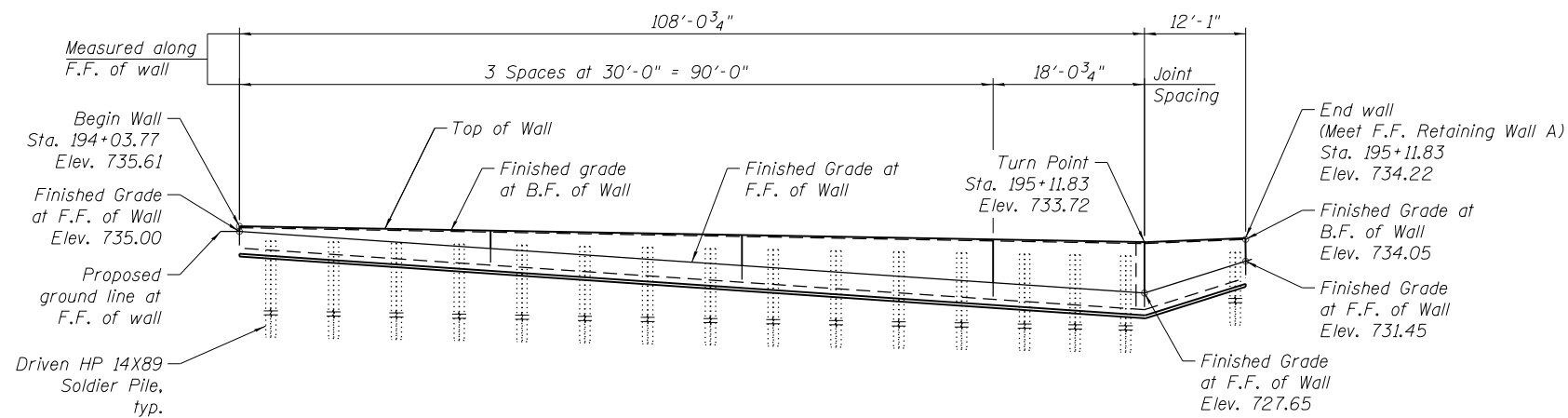
Existing Structure: None

Stage Construction: Construction of the proposed retaining wall to be coordinated with stage construction and plans required for the proposed roadway and proposed bridge at the east end of the retaining wall.

No salvage.



PLAN VIEW



ELEVATION VIEW

(Looking North at F.F.)

NOTES:

- Contractor to identify precautions and determine method/procedures for driving piles near overhead electrical distribution lines.

HIGHWAY CLASSIFICATION

Main Street Road, F.A.S. Route 107
 Functional Class: Other Principal Arterial
 ADT: 3700 (2010); 7000 (2040)
 ADTT: 936 (2010); 1771 (2040)
 DHV: 380 (2040)
 Design Speed: 60 m.p.h.
 Posted Speed: 55 m.p.h.
 2-Way Traffic, Directional Distribution: 50/50

DESIGN SPECIFICATIONS

2017 AASHTO LRFD Bridge Design Specifications, 8th Edition

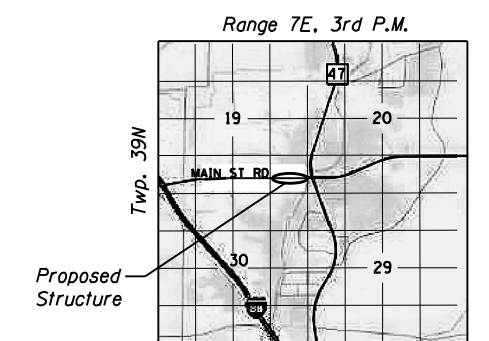
DESIGN STRESSES

FIELD UNITS

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

SOLDIER PILES

fy = 50,000 psi (M270 Grade 50)



LOCATION SKETCH

**GENERAL PLAN AND ELEVATION
 MAIN STREET ROAD / COUNTY HWY 10
 F.A.P. ROUTE 524 - SECTION 107N-4**

KANE COUNTY

STATION 194+03.77 TO 195+11.83

STRUCTURE NO. 045-W019

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DESIGNED -	MBC	REVISD -	
CHECKED -	JSK	REVISD -	
DRAWN -	MRK	REVISD -	
CHECKED -	WPK	REVISD -	
NAME =	JKando	DATE =	3/15/2019
TIME =	3:33:20 PM		

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

RETAINING WALL C (SN 045-W019)

SHEET NO. RWC-1 OF RWC-8 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	107N-4	KANE	288	246
CONTRACT NO. 60T21				

ILLINOIS FED. AID PROJECT

GENERAL NOTES

1. Reinforcement bars designated (E) shall be epoxy coated.
2. Concrete Sealer shall be applied to the designated areas of the concrete facing.
3. All exposed concrete edges shall have a 3/4" x 45° chamfer, U.N.O. The chamfer on vertical edges shall continue a minimum of one foot below finished grade.

MINIMUM BAR LAPS

#5 bars - 3'-3"

LEGEND

- └─┘— Pipe Underdrain Flow Arrow
- A — Overhead Electrical
- FO — Fiber Optic
- G I — Gas
- □ — Guardrail
- ⊕ Soil Boring

ABBREVIATIONS

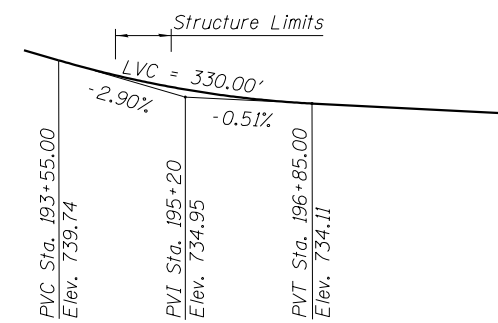
- B.F. Back Face
- C Construction Joint
- ℄ Centerline
- cts. Centers
- E Expansion Joint
- E.F. Each Face
- F.F. Front Face
- Spa. Spaces

BILL OF MATERIAL

ITEM	UNIT	TOTAL
Structure Excavation	Cu Yd	225
Concrete Structures	Cu Yd	25
Stud Shear Connectors	Each	190
Reinforcement Bars, Epoxy Coated	Pound	3,290
Furnishing Soldier Piles (HP Section)	Foot	480
Driving Soldier Piles	Foot	480
Untreated Timber Lagging	Sq Ft	455
Concrete Sealer	Sq Ft	415
Geocomposite Wall Drain	Sq Yd	51
Chain Link Fence, 6' Attached To Structure	Foot	121
Anti-Graffiti Protection System	Sq Ft	413
Pipe Underdrains For Structures 4"	Foot	121

INDEX OF SHEETS

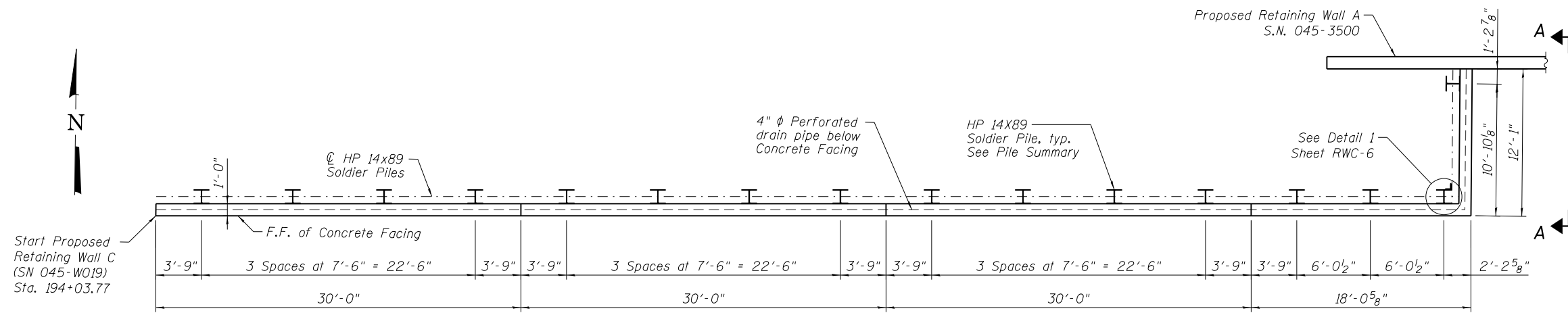
- RWC-1. General Plan and Elevation
- RWC-2. Total Bill of Material, Index of Sheets & General Notes
- RWC-3. Soldier Pile Plan & Elevation
- RWC-4. Wall Plan & Elevation
- RWC-5. Wall Details I
- RWC-6. Wall Details II
- RWC-7. Chain Link Fence Details
- RWC-8. Boring Logs



PROFILE GRADE
(Along ℄ Main Street Road)

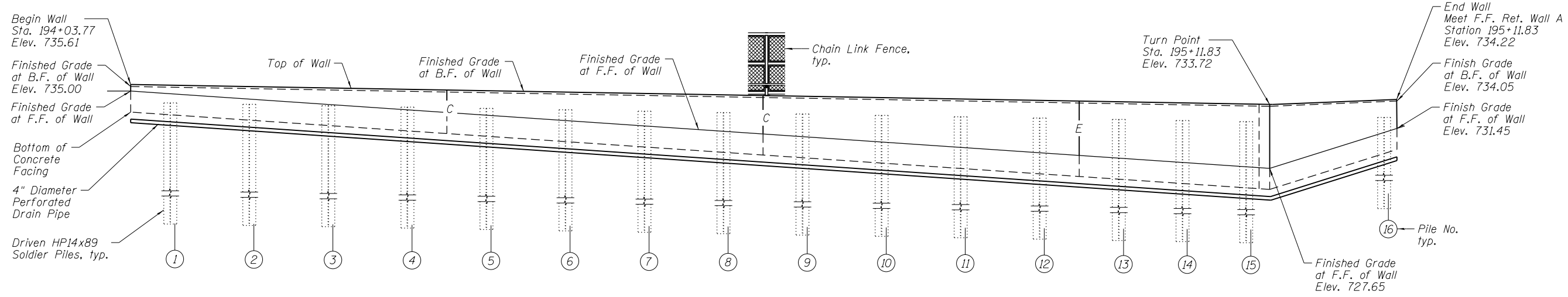
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DB STERLIN CONSULTANTS, INC. 133 N. WACKER DRIVE SUITE 2000 CHICAGO, ILLINOIS 60606 TEL. (312)837-1000 FAX. (312)837-1006	PLOT NAME = JKando DATE = 3/6/2019 TIME = 3:57:37 PM	DESIGNED - MBC CHECKED - JSK DRAWN - MRK CHECKED - WPK	REVISED - REVISED - REVISED - REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TOTAL BILL OF MATERIAL, INDEX OF SHEETS & GENERAL NOTES RETAINING WALL C (SN 045-W019)	F.A.P. RTE. 326	SECTION 107N-4	COUNTY KANE	TOTAL SHEETS 288	SHEET NO. 247
	SHEET NO. RWC-2 OF RWC-8 SHEETS						CONTRACT NO. 60T21			



PLAN VIEW

(All dimensions are measured along F.F. of Wall)



ELEVATION VIEW

(Looking North at F.F.)

PILE SUMMARY

PILE NO.	PILE SIZE	STATION AT PILE \varnothing	OFFSET TO PILE \varnothing	LENGTH	TIP ELEVATION	TOP ELEVATION	PILE NO.	PILE SIZE	STATION AT PILE \varnothing	OFFSET TO PILE \varnothing	LENGTH	TIP ELEVATION	TOP ELEVATION
1	HP14x89	194+07.52	39'-9" Rt.	30.00'	703.88	733.88	9	HP14x89	194+67.52	39'-9" Rt.	30.00'	702.83	732.83
2	HP14x89	194+15.02	39'-9" Rt.	30.00'	703.75	733.75	10	HP14x89	194+75.02	39'-9" Rt.	30.00'	702.70	732.70
3	HP14x89	194+22.52	39'-9" Rt.	30.00'	703.62	733.62	11	HP14x89	194+82.52	39'-9" Rt.	30.00'	702.57	732.57
4	HP14x89	194+30.02	39'-9" Rt.	30.00'	703.48	733.48	12	HP14x89	194+90.02	39'-9" Rt.	30.00'	702.43	732.43
5	HP14x89	194+37.52	39'-9" Rt.	30.00'	703.35	733.35	13	HP14x89	194+97.52	39'-9" Rt.	30.00'	702.30	732.30
6	HP14x89	194+45.02	39'-9" Rt.	30.00'	703.22	733.22	14	HP14x89	195+03.57	39'-9" Rt.	30.00'	702.20	732.20
7	HP14x89	194+52.52	39'-9" Rt.	30.00'	703.09	733.09	15	HP14x89	195+09.61	39'-9" Rt.	30.00'	702.09	732.09
8	HP14x89	194+60.02	39'-9" Rt.	30.00'	702.96	732.96	16	HP14x89	195+10.34	27'-3 1/2" Rt.	30.00'	702.50	732.50

NOTES:

- See Civil Plans for Drainage Structure to Pipe Underdrain connection details.
- For Section A-A, See Sheet RWG-6

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NAME = JKando	CHECKED - JSK	REVISED -
DATE = 3/6/2019	DRAWN - MRK	REVISED -
TIME = 3:57:38 PM	CHECKED - WPK	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**SOLDIER PILE PLAN & ELEVATION
RETAINING WALL C (SN 045-W019)**

SHEET NO. RWC-3 OF RWC-8 SHEETS

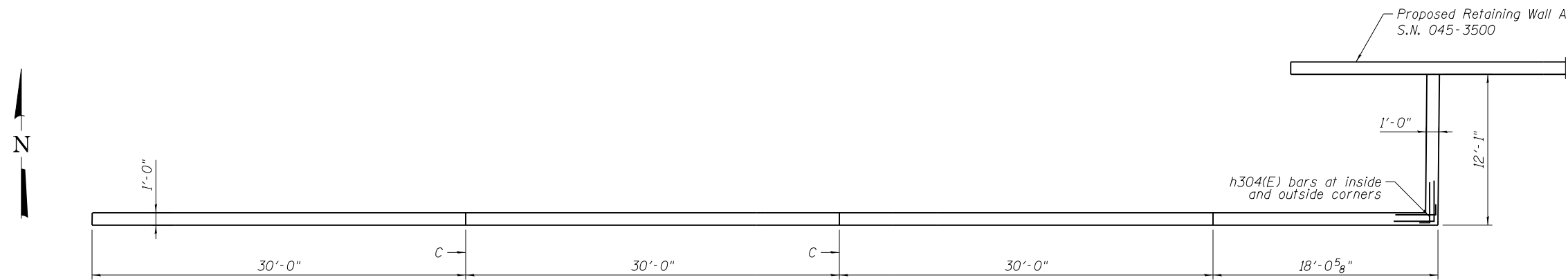
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	107N-4	KANE	288	248
CONTRACT NO. 60T21				
ILLINOIS FED. AID PROJECT				

BILL OF MATERIALS

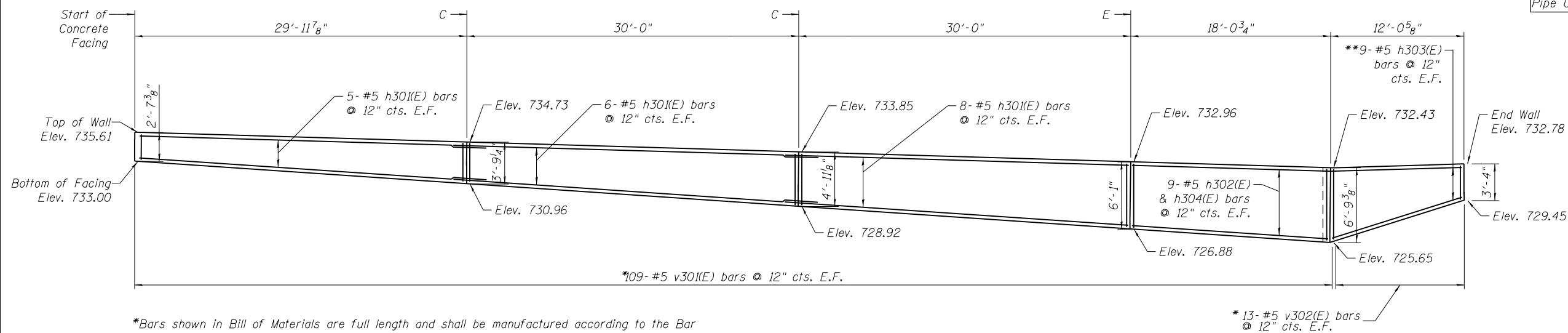
Bar	No.	Size	Length	Shape
h301(E)	38	#5	32'-2"	—
h302(E)	18	#5	17'-9"	—
h303(E)	18	#5	12'-4"	—
h304(E)	9	#5	6'-6"	└
h305(E)	18	#5	4'-1"	└
v301(E)	109	#5	10'-2"	—
v302(E)	12	#5	12'-3"	—
Structure Excavation		Cu Yd	225	
Concrete Structures		Cu Yd	25	
Stud Shear Connectors		Each	190	
Reinforcement Bars, Epoxy Coated		Pound	3290	
Furnishing Soldier Piles (HP Section)		Foot	480	
Driving Soldier Piles		Foot	480	
Untreated Timber Lagging		Sq Ft	455	
Concrete Sealer		Sq Ft	415	
Geocomposite Wall Drain		Sq Yd	51	
Chain Link Fence, 6' Attached To Structure		Foot	121	
Anti-Graffiti Protection System		Sq Ft	413	
Pipe Underdrains For		Foot	121	

BAR LAP LENGTH

#5 bar - 3'-3"



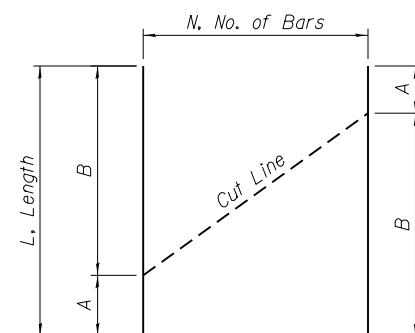
PLAN



ELEVATION
(Looking North at F.F.)

*Bars shown in Bill of Materials are full length and shall be manufactured according to the Bar Cutting Diagram. Use half bars at each face of concrete facing.

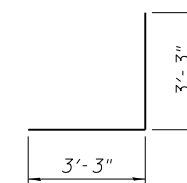
**Cut bars in field to fit.



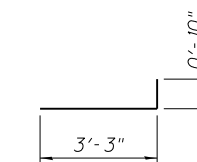
BAR CUTTING DIAGRAM

BAR	L	A	B	N
v301(E)	10'-2"	2'-4"	7'-10"	109
v302(E)	12'-3"	4'-5"	7'-10"	12

h304(E) BAR



h305(E) BAR



NOTES:

- For Sections and Details, see Sheets RWC-5 and RWC-6.
- Bars noted, 3x2 - #5, indicate 3 lines of bars with 2 lengths of bars per line.
- Chain Link Fence not shown for clarity, see Sheet RWC-7 for Details.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WALL PLAN & ELEVATION
RETAINING WALL C (SN 045-W019)

SHEET NO. RWC-4 OF RWC-8 SHEETS

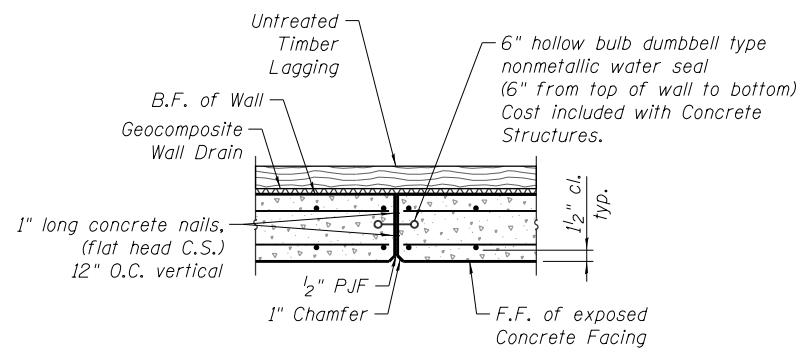
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	107N-4	KANE	288	249
CONTRACT NO. 60T21				

ILLINOIS FED. AID PROJECT

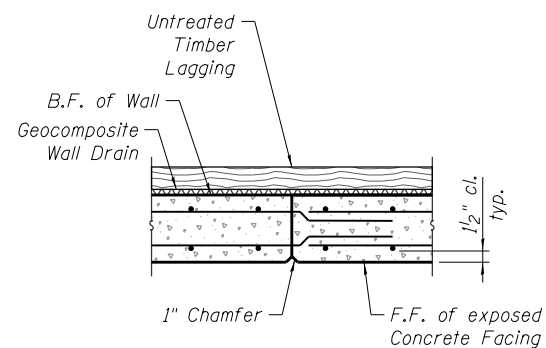
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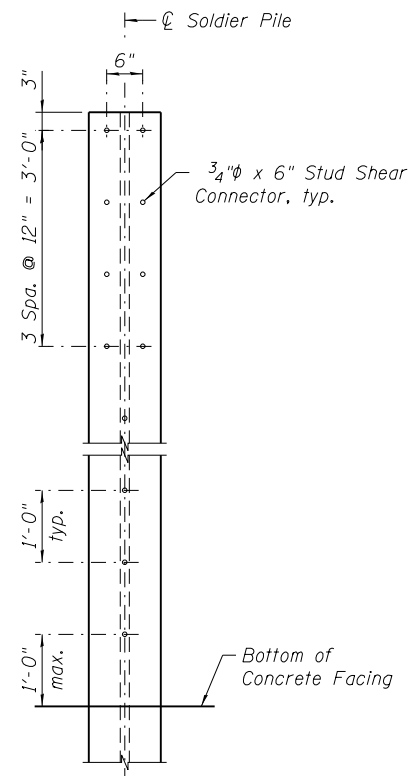
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NAME = JKando	CHECKED - JSK	REVISED -
DATE = 3/6/2019	DRAWN - MRK	REVISED -
TIME = 3:57:39 PM	CHECKED - WPK	REVISED -



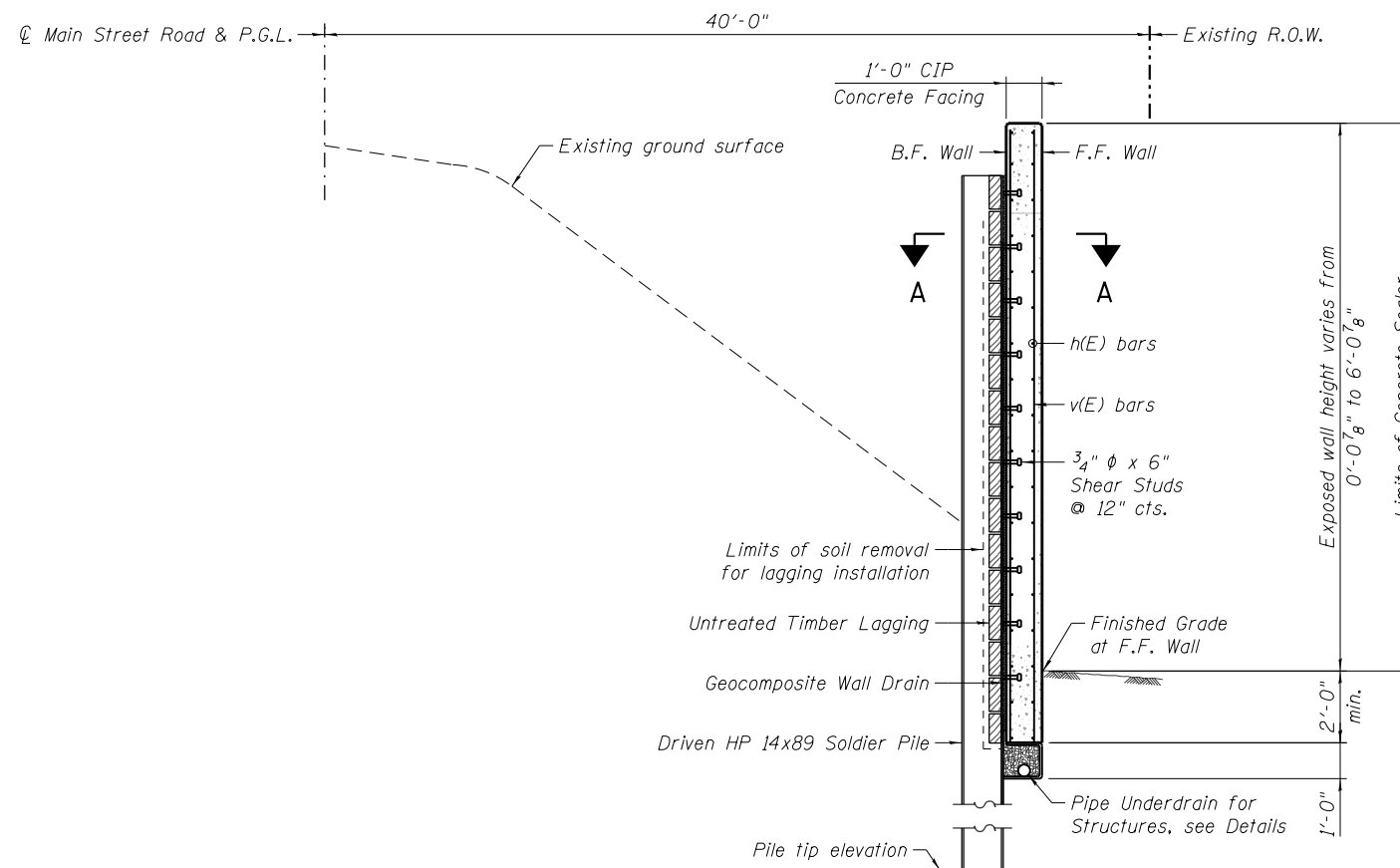
EXPANSION JOINT DETAIL - WALL



CONSTRUCTION JOINT DETAIL - WALL

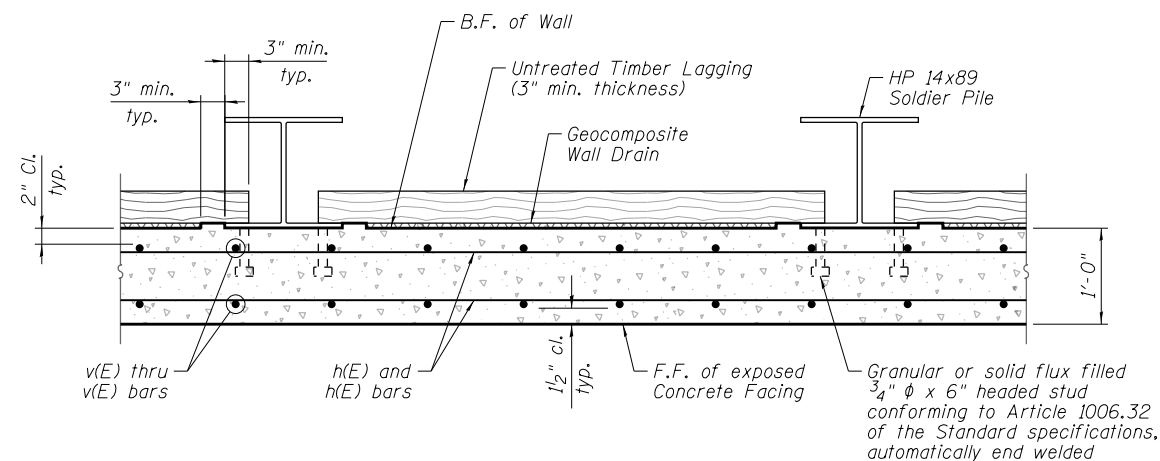


STUD SHEAR CONNECTOR DETAIL

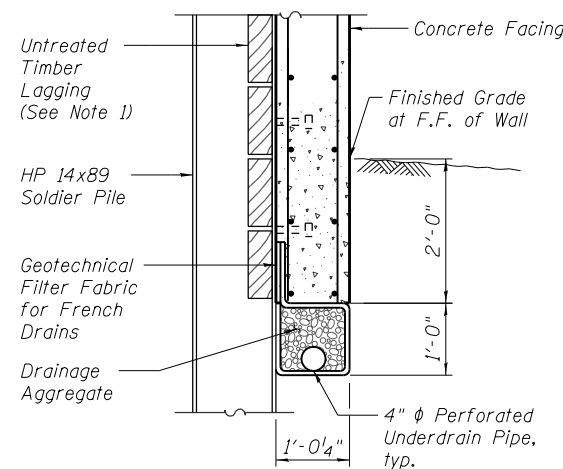


TYPICAL WALL SECTION

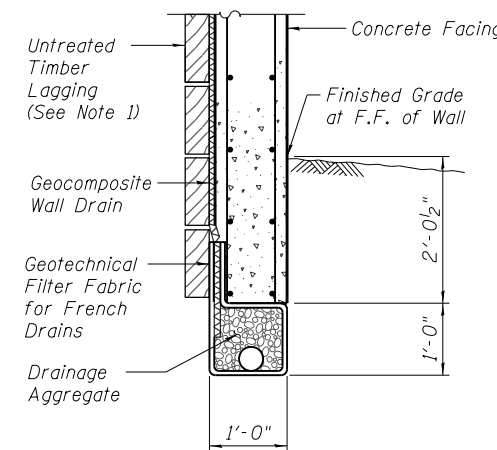
(Looking East)
Backfill remainder of structure excavation with same material specified for roadway embankment



SECTION A-A



UNDERDRAIN AT SOLDIER PILE



UNDERDRAIN BETWEEN SOLDIER PILES

NOTES:

1. Place 3/4 inch gap between lagging to allow for drainage, typ.
2. The cost of "Drainage Aggregate, Geotechnical Filter Fabric and Underdrain Pipe is included in the cost of "Pipe Underdrains for Structures".

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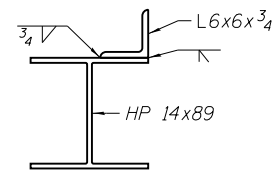
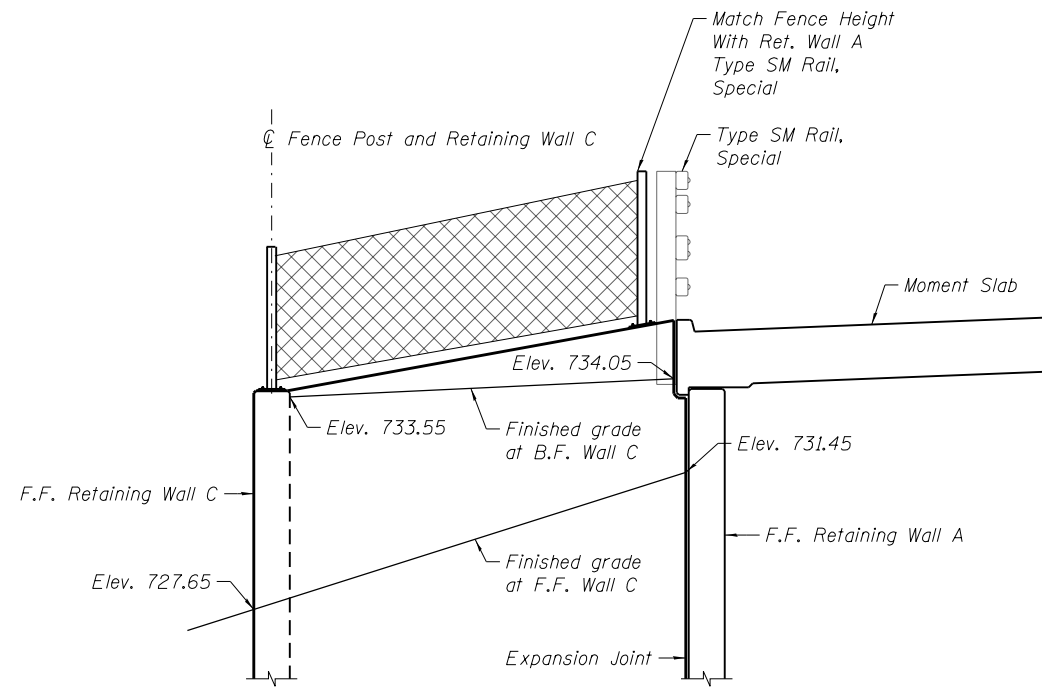
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**WALL DETAILS I
RETAINING WALL C (SN 045-W019)**

SHEET NO. RWC-5 OF RWC-8 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	107N-4	KANE	288	250
CONTRACT NO. 60T21				
ILLINOIS FED. AID PROJECT				



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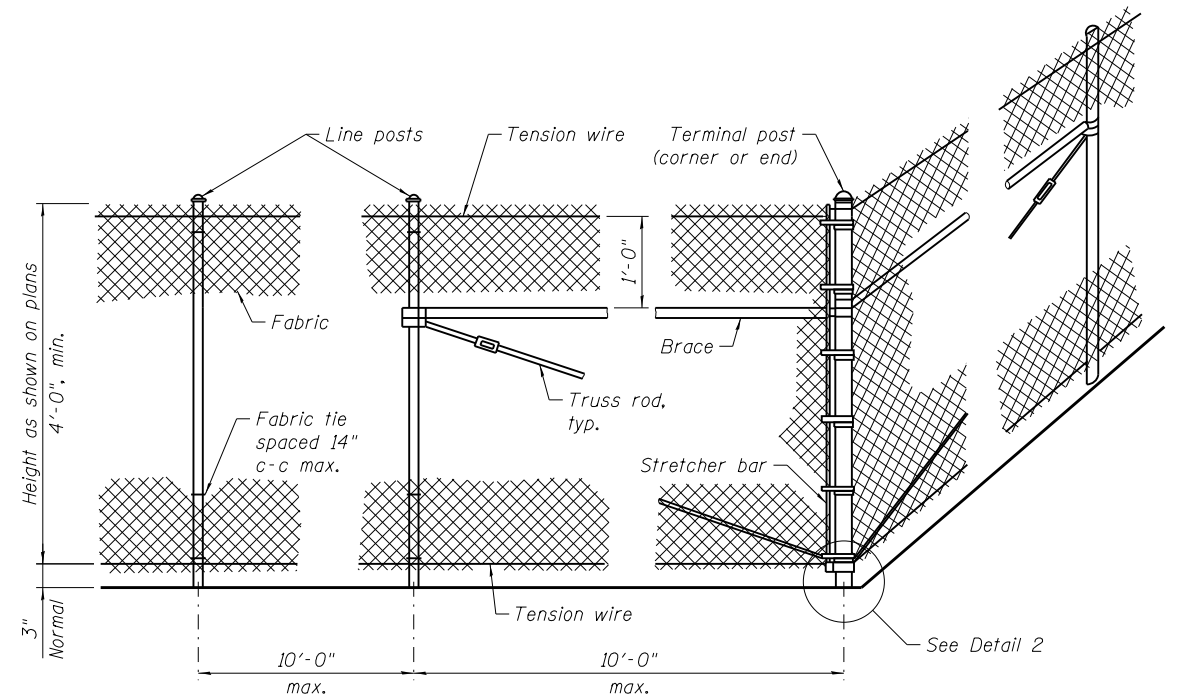
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DATE = 3/6/2019	DRAWN - MRK	REVISED -
TIME = 3:57:41 PM	CHECKED - WPK	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WALL DETAILS II
RETAINING WALL C (SN 045-W019)

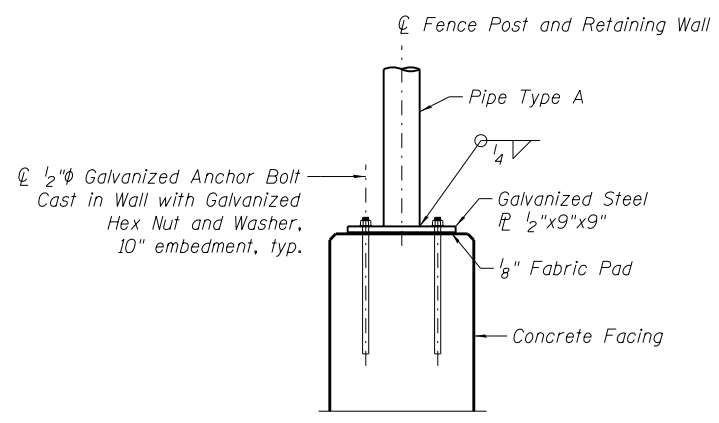
SHEET NO. RWC-6 OF RWC-8 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 60T21				
ILLINOIS FED. AID PROJECT				

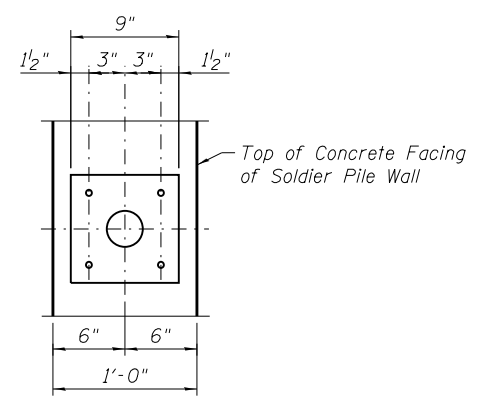


LINE POST ARRANGEMENT

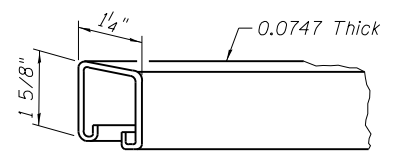
CORNER OR END POST ARRANGEMENT



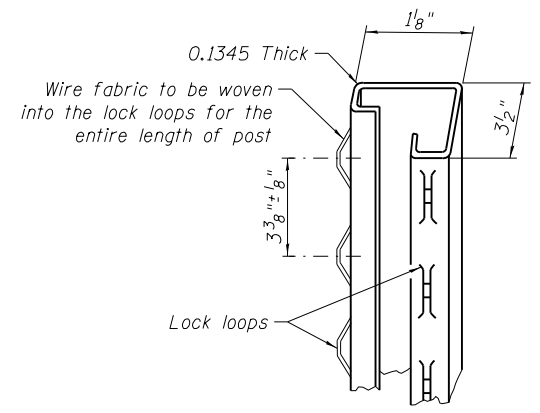
DETAIL 2



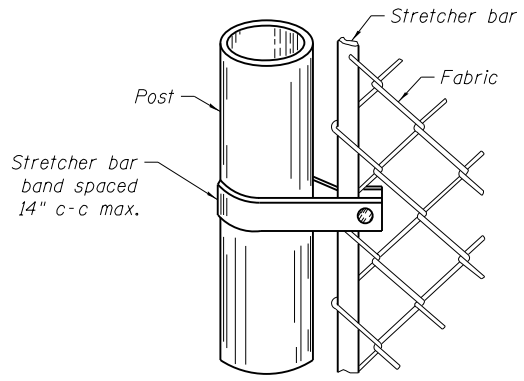
SECTION A-A



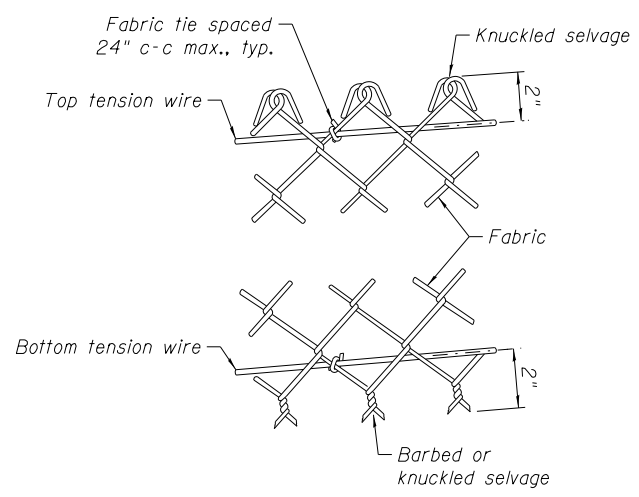
ROLL FORMED SECTION OF BRACE



ROLL FORMED SECTION OF TERMINAL



METHOD OF FASTENING STRETCHER BAR TO POST



METHOD OF TYING FABRIC TO TENSION WIRES

LINE POST	
Section	lbs./ft.
Pipe Type A 1.90 O.D.	2.72
H 1.875x1.625	2.72
C	1.60
I	2.30

TERMINAL POST	
Section	lbs./ft.
Pipe Type A 2.375 O.D.	3.65
Roll Formed 3 1/2"x3 1/2"	See detail
Sq. Tubing 2 1/2"x2 1/2"	4.32

HORIZONTAL BRACES	
Section	lbs./ft.
Pipe Type A 1.66 O.D.	2.27
H 1.31x1.5	2.25
Roll Formed 1 3/8"x1 1/4"	See detail

BILL OF MATERIAL

Item	Unit	Quantity
Chain Link Fence, 6' Attached to Structure	Foot	121

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PLOT	DESIGNED - MBC	REVISED -
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DATE = 3/6/2019	DRAWN - MRK	REVISED -
TIME = 3:57:42 PM	CHECKED - WPK	REVISED -

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

CHAIN LINK FENCE DETAILS RETAINING WALL C (SN 045-W019)

SHEET NO. RWC-7 OF RWC-8 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	107N-4	KANE	288	252
CONTRACT NO. 60T21				
ILLINOIS FED. AID PROJECT				

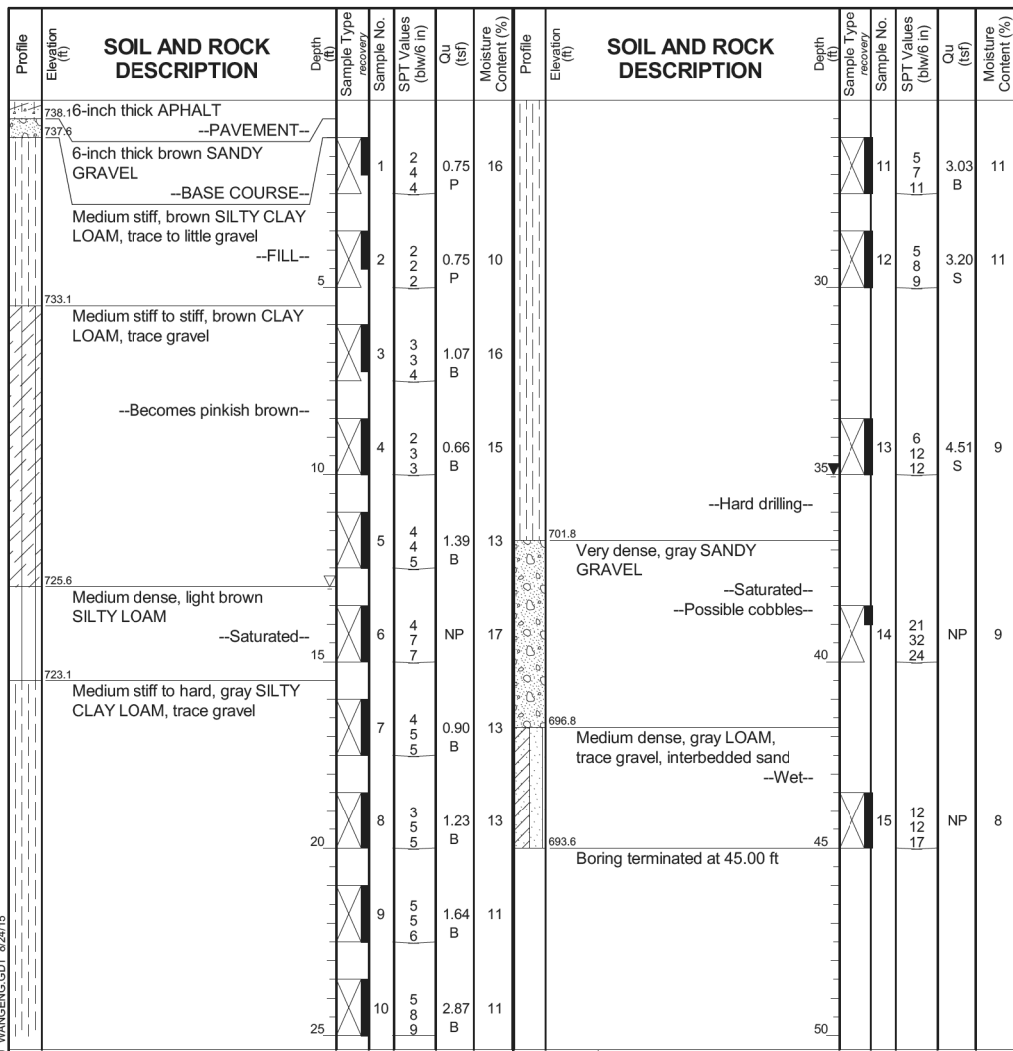
Wang Engineering
 wangeng@wangeng.com
 1145 N Main Street
 Lombard, IL 60148
 Telephone: 630 953-9928
 Fax: 630 953-9938

BORING LOG RWB-01
 WEI Job No.: 192-03-01

Datum: NAVD 88
 Elevation: 738.57 ft
 North: 1884793.30 ft
 East: 946961.16 ft
 Station: 193+79.62
 Offset: 20.88' RT

Client: **Milhouse Engineering & Construction, Inc.**
 Project: **IL 47 at Main Street Intersection Improvements**
 Location: **Elburn, Kane County, IL**

Page 1 of 1



GENERAL NOTES		WATER LEVEL DATA	
Begin Drilling	05-13-2015	Complete Drilling	05-13-2015
Drilling Contractor	Wang Testing Services	Drill Rig	CME-55 TMR
Driller	R & N	Logger	D. Kolpacki
Checked by	B. Wilson	Time After Drilling	NA
Drilling Method	3.25" IDA HSA, auto hammer, boring backfilled upon completion	Depth to Water	NA
		While Drilling	13.00 ft
		At Completion of Drilling	35.00 ft

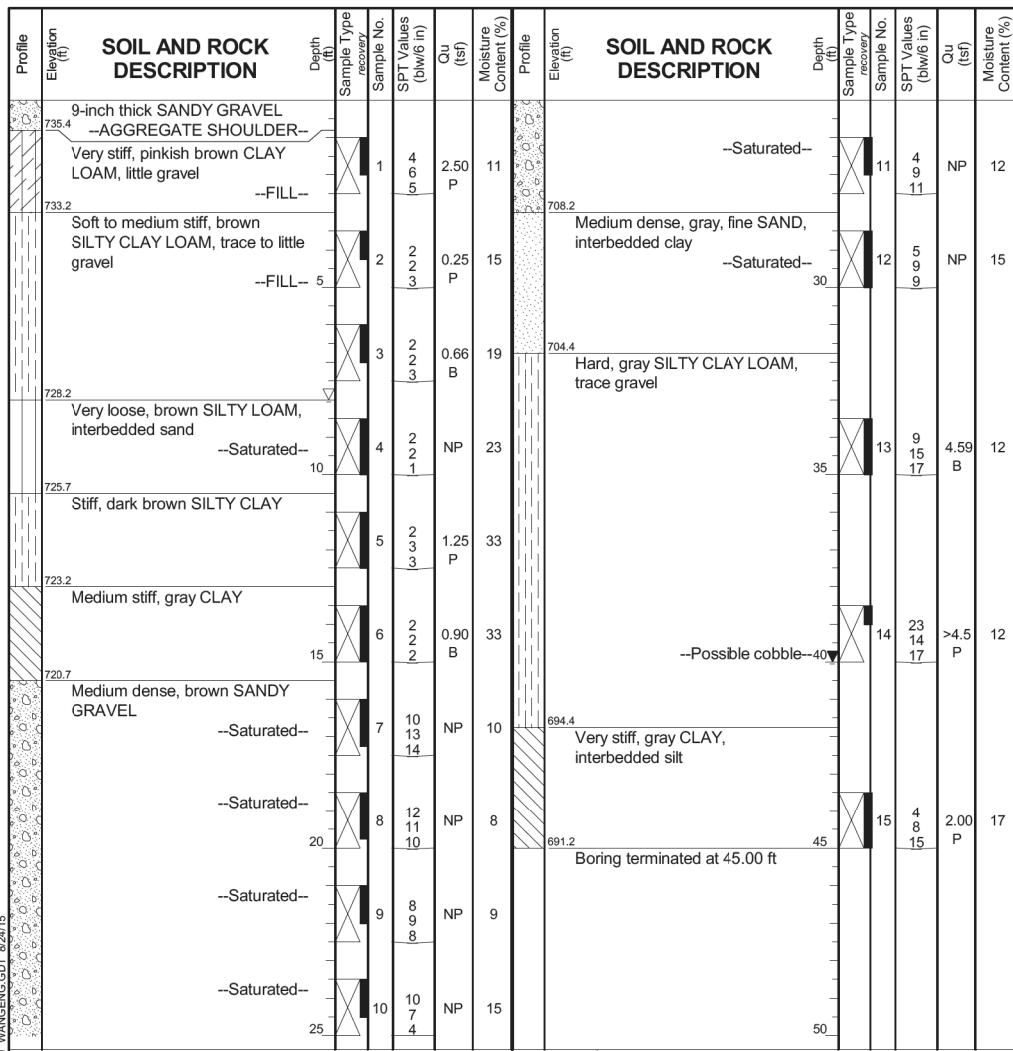
Wang Engineering
 wangeng@wangeng.com
 1145 N Main Street
 Lombard, IL 60148
 Telephone: 630 953-9928
 Fax: 630 953-9938

BORING LOG RWB-02
 WEI Job No.: 192-03-01

Datum: NAVD 88
 Elevation: 736.18 ft
 North: 1884795.75 ft
 East: 947044.28 ft
 Station: 194+62.77
 Offset: 19.43' RT

Client: **Milhouse Engineering & Construction, Inc.**
 Project: **IL 47 at Main Street Intersection Improvements**
 Location: **Elburn, Kane County, IL**

Page 1 of 1



GENERAL NOTES		WATER LEVEL DATA	
Begin Drilling	05-13-2015	Complete Drilling	05-13-2015
Drilling Contractor	Wang Testing Services	Drill Rig	CME-55 TMR
Driller	R & N	Logger	D. Kolpacki
Checked by	B. Wilson	Time After Drilling	NA
Drilling Method	3.25" IDA HSA, auto hammer, boring backfilled upon completion	Depth to Water	NA
		While Drilling	8.00 ft
		At Completion of Drilling	40.00 ft

P:\00441.000\Drawings\CAD\Structural\Sheets\1610121_RWC-08_Logs1.dgn



PLOT	DESIGNED - MBC	REVISED -
NAME = JKando	CHECKED - JSK	REVISED -
DATE = 3/6/2019	DRAWN - MRK	REVISED -
TIME = 3:57:43 PM	CHECKED - WPK	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

BORING LOGS I
 RETAINING WALL C (SN 045-W019)

SHEET NO. RWC-8 OF RWC-8 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	107N-4	KANE	288	253
CONTRACT NO. 60T21				

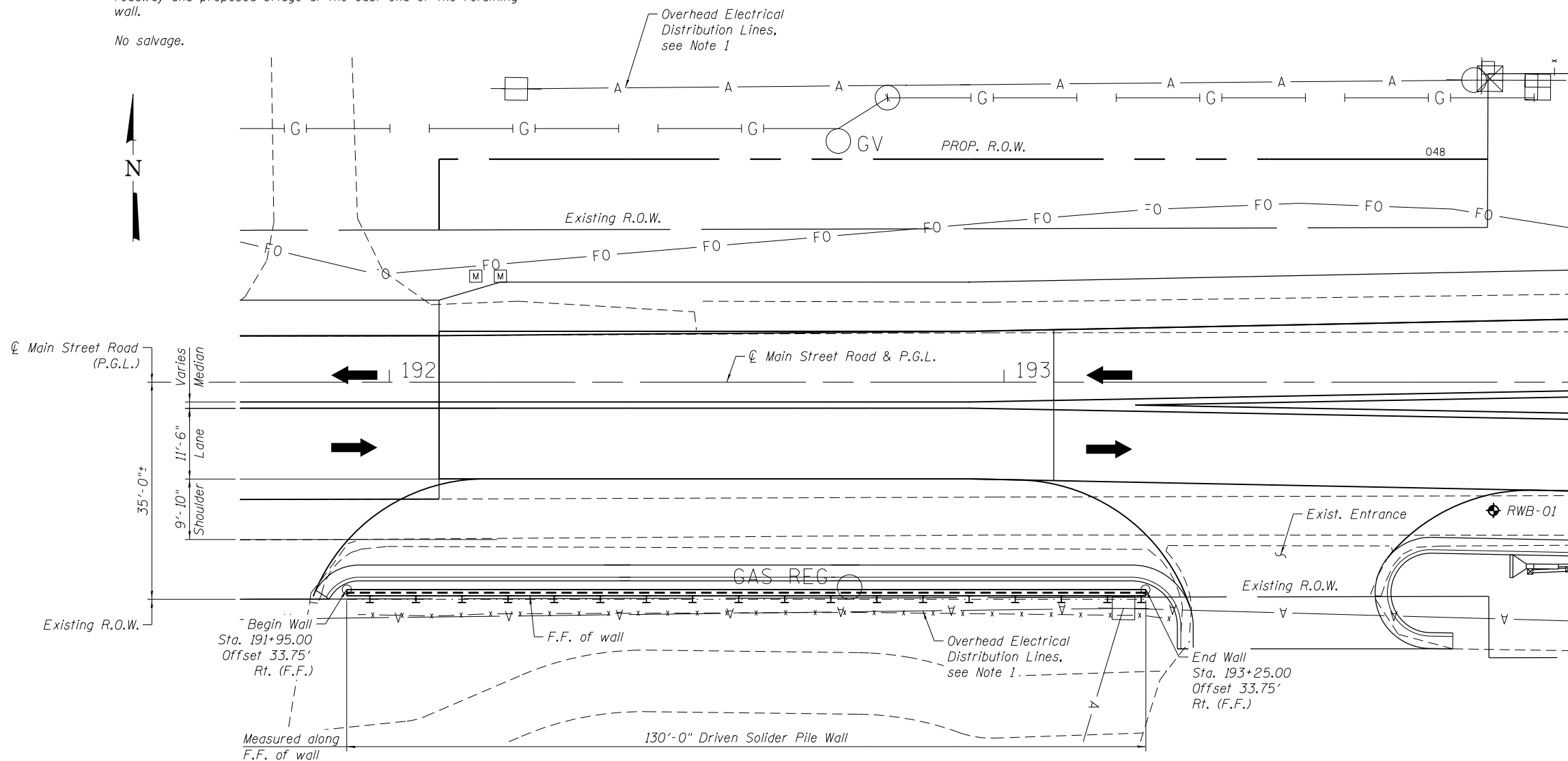
ILLINOIS FED. AID PROJECT

Benchmark: "□" Cut top of southwest wingwall on Bridge over Blackberry Creek west of IL Route 47, Elev. 728.26.

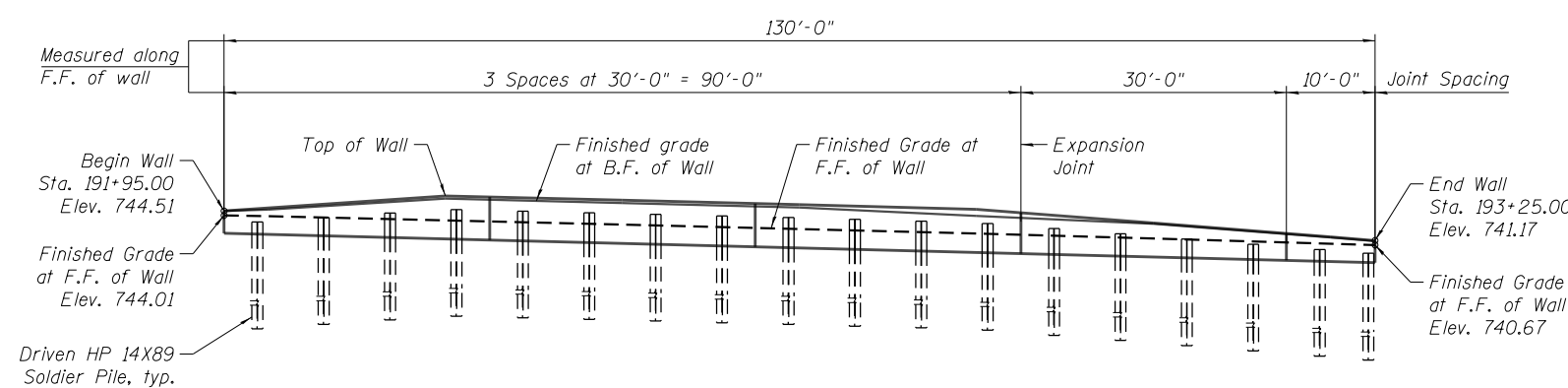
Existing Structure: None

Stage Construction: Construction of the proposed retaining wall to be coordinated with stage construction and plans required for the proposed roadway and proposed bridge at the east end of the retaining wall.

No salvage.



PLAN VIEW



ELEVATION VIEW

(Looking North at B.F.)

NOTES:

- Contractor to identify precautions and determine method/procedures for driving piles near overhead electrical distribution lines.

HIGHWAY CLASSIFICATION

Main Street Road, F.A.S. Route 107
 Functional Class: Other Principal Arterial
 ADT: 3700 (2010); 7000 (2040)
 ADTT: 936 (2010); 1771 (2040)
 DHV: 380 (2040)
 Design Speed: 60 m.p.h.
 Posted Speed: 55 m.p.h.
 2-Way Traffic, Directional Distribution: 50/50

DESIGN SPECIFICATIONS

2017 AASHTO LRFD Bridge Design Specifications, 8th Edition

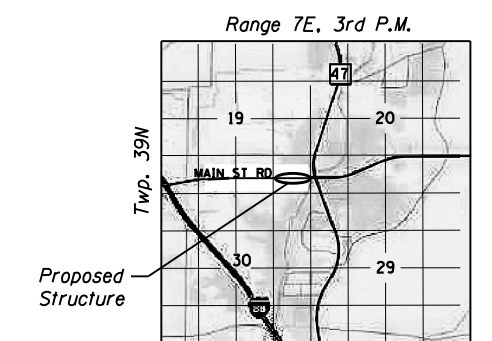
DESIGN STRESSES

FIELD UNITS

f'_c = 3,500 psi
 f_y = 60,000 psi (Reinforcement)

SOLDIER PILES

f_y = 50,000 psi (M270 Grade 50)



LOCATION SKETCH

GENERAL PLAN AND ELEVATION
 MAIN STREET ROAD / COUNTY HWY 10
 F.A.P. ROUTE 524 - SECTION 107N-4

KANE COUNTY

STATION 191+95.00 TO 193+25.00

STRUCTURE NO. 045-W020

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DATE = 3/15/2019	DRAWN - MRK	REVISED -
TIME = 3:33:26 PM	CHECKED - WPK	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

RETAINING WALL D (SN 045-W020)

SHEET NO. RWD-1 OF RWD-6 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	107N-4	KANE	288	254
CONTRACT NO. 60T21				

ILLINOIS FED. AID PROJECT

GENERAL NOTES

1. Reinforcement bars designated (E) shall be epoxy coated.
2. Concrete Sealer shall be applied to the designated areas of the concrete facing.
3. All exposed concrete edges shall have a 3/4" x 45° chamfer, U.N.O. The chamfer on vertical edges shall continue a minimum of one foot below finished grade.

MINIMUM BAR LAPS

#5 bars - 3'-3"

LEGEND

- ┘— Pipe Underdrain Flow Arrow
- A — Overhead Electrical
- FO — Fiber Optic
- G — Gas
- ┐— Guardrail
- ⊕ Soil Boring

ABBREVIATIONS

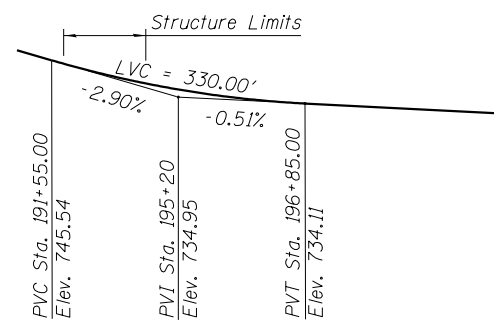
- B.F. Back Face
- C Construction Joint
- Ⓞ Centerline
- cts. Centers
- E Expansion Joint
- E.F. Each Face
- F.F. Front Face
- Spa. Spaces

BILL OF MATERIAL

ITEM	UNIT	TOTAL
Structure Excavation	Cu Yd	187
Concrete Structures	Cu Yd	21
Stud Shear Connectors	Each	156
Reinforcement Bars, Epoxy Coated	Pound	2,510
Furnishing Soldier Piles (HP Section)	Foot	540
Driving Soldier Piles	Foot	540
Untreated Timber Lagging	Sq Ft	329
Concrete Sealer	Sq Ft	286
Geocomposite Wall Drain	Sq Yd	37
Anti-Graffiti Protection System	Sq Ft	286
Pipe Underdrains For Structures 4"	Foot	130

INDEX OF SHEETS

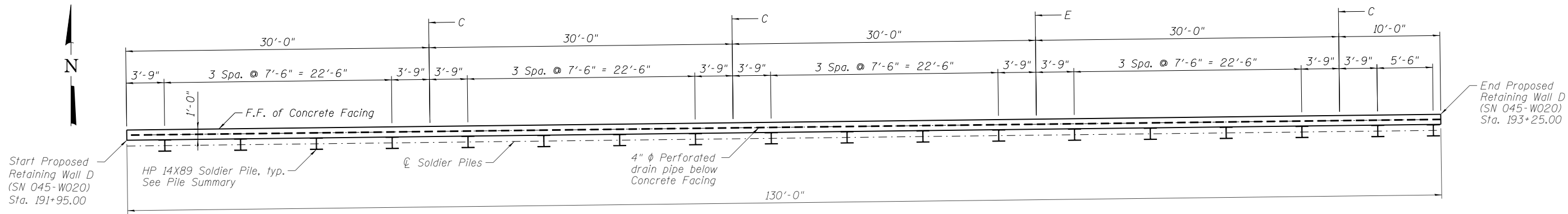
- RWD-1 General Plan and Elevation
- RWD-2 Total Bill of Material, Index of Sheets & General Notes
- RWD-3 Soldier Pile Plan & Elevation
- RWD-4 Wall Plan & Elevation
- RWD-5 Wall Details
- RWD-6 Boring Logs



PROFILE GRADE
(Along Ⓞ Main Street Road)

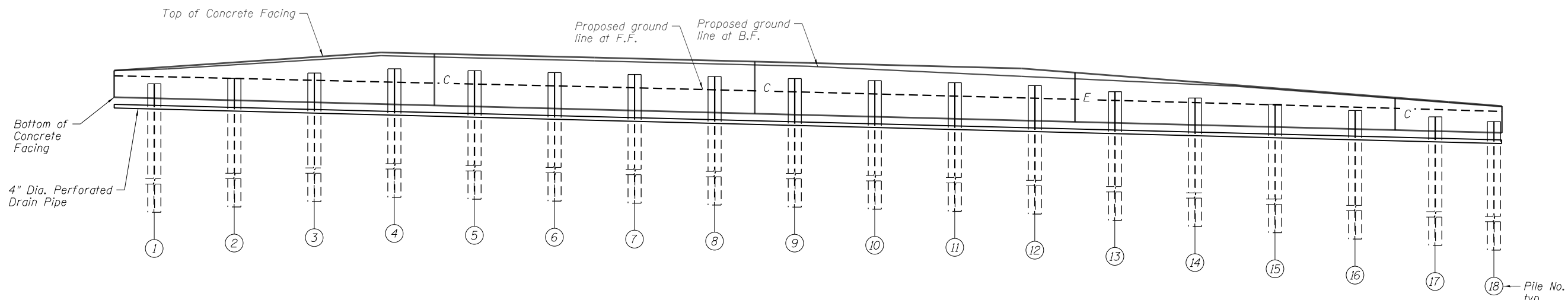
P:\0041.000\Drawings\CAD\Structural\Sheets\1610T21_RWD-02_Notes.dgn

DB STERLIN CONSULTANTS, INC. 133 N. WACKER DRIVE SUITE 2000 CHICAGO, ILLINOIS 60606 TEL. (312)837-1000 FAX. (312)837-1000	PLOT NAME = JKando DATE = 3/6/2019 TIME = 3:57:53 PM	DESIGNED - MBC CHECKED - JSK DRAWN - MRK CHECKED - WPK	REVISED - REVISED - REVISED - REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TOTAL BILL OF MATERIAL, INDEX OF SHEETS & GENERAL NOTES RETAINING WALL D (SN 045-W020)	F.A.P. RTE. 326	SECTION 107N-4	COUNTY KANE	TOTAL SHEETS 288	SHEET NO. 255
	SHEET NO. RWD-2 OF RWD-6 SHEETS						CONTRACT NO. 60T21			



PLAN

(All dimensions are measured along F.F. of Concrete Facing)



ELEVATION

(Looking North at B.F.)

PILE SUMMARY

PILE NO.	PILE SIZE	STATION AT PILE C	OFFSET TO PILE C	LENGTH	TIP ELEVATION	TOP ELEVATION	PILE NO.	PILE SIZE	STATION AT PILE C	OFFSET TO PILE C	LENGTH	TIP ELEVATION	TOP ELEVATION
1	HP14x89	191+98.75	35'-4" Rt.	28.00'	715.10	743.10	10	HP14x89	192+66.25	35'-4" Rt.	28.00'	715.38	743.38
2	HP14x89	192+06.25	35'-4" Rt.	28.00'	715.60	743.60	11	HP14x89	192+73.75	35'-4" Rt.	28.00'	715.19	743.19
3	HP14x89	192+13.75	35'-4" Rt.	28.00'	716.11	744.11	12	HP14x89	192+81.25	35'-4" Rt.	28.00'	715.00	743.00
4	HP14x89	192+21.25	35'-4" Rt.	28.00'	716.50	744.50	13	HP14x89	192+88.75	35'-4" Rt.	28.00'	714.35	742.35
5	HP14x89	192+28.75	35'-4" Rt.	28.00'	716.31	744.31	14	HP14x89	192+96.25	35'-4" Rt.	28.00'	713.76	741.76
6	HP14x89	192+36.25	35'-4" Rt.	28.00'	716.13	744.13	15	HP14x89	193+03.75	35'-4" Rt.	28.00'	713.17	741.17
7	HP14x89	192+43.75	35'-4" Rt.	28.00'	715.94	743.94	16	HP14x89	193+11.25	35'-4" Rt.	28.00'	712.58	740.58
8	HP14x89	192+51.25	35'-4" Rt.	28.00'	715.75	743.75	17	HP14x89	193+18.75	35'-4" Rt.	28.00'	711.99	739.99
9	HP14x89	192+58.75	35'-4" Rt.	28.00'	715.56	743.56	18	HP14x89	193+24.25	35'-4" Rt.	28.00'	711.56	739.56

NOTES

- See Civil Plans for Drainage Structure to Pipe Underdrain connection details.

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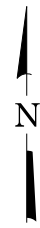
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DATE = 3/6/2019	DRAWN - MRK	REVISED -
TIME = 3:57:54 PM	CHECKED - WPK	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**SOLDIER PILE PLAN & ELEVATION
RETAINING WALL D (SN 045-W020)**

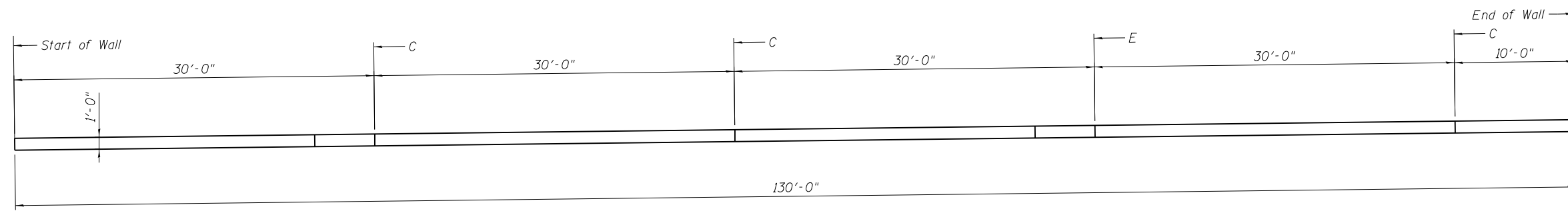
SHEET NO. RWD-3 OF RWD-6 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	107N-4	KANE	288	256
CONTRACT NO. 60T21				
ILLINOIS FED. AID PROJECT				



BILL OF MATERIALS

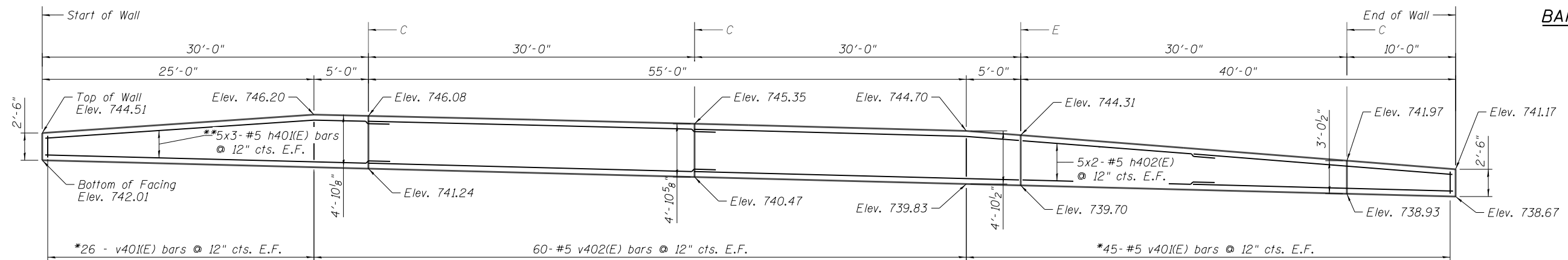
Bar	No.	Size	Length	Shape
h401(E)	30	#5	32'-1"	———
h402(E)	20	#5	21'-6"	———
v401(E)	71	#5	6'-8"	———
v402(E)	120	#5	4'-6"	———
Structure Excavation		Cu Yd	187	
Concrete Structures		Cu Yd	21	
Stud Shear Connectors		Each	156	
Reinforcement Bars, Epoxy Coated		Pound	2510	
Furnishing Soldier Piles (HP Section)		Foot	540	
Driving Soldier Piles		Foot	540	
Untreated Timber Lagging		Sq Ft	329	
Concrete Sealer		Sq Ft	286	
Geocomposite Wall Drain		Sq Yd	37	
Anti-Graffiti Protection System		Sq Ft	286	
Pipe Underdrains For Structures 4"		Foot	130	



PLAN

BAR LAP LENGTH

#5 bar - 3'-3"

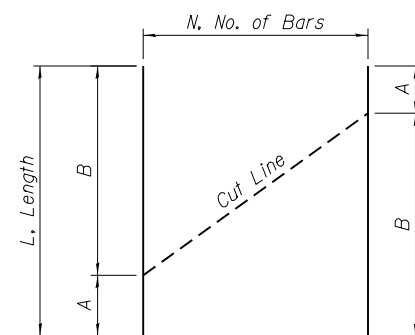


ELEVATION

(Looking North at B.F)

*Bars shown in Bill of Materials are full length and shall be manufactured according to the Bar Cutting Diagram. Use half bars at each face of concrete facing.

**Cut bars in field to fit.



BAR	L	A	B	N
v401(E)	6'-8"	2'-2"	4'-6"	44

NOTES:

1. For Sections and Details, see Sheet RWD-5.
2. Bars noted, 3x2 - #5, indicate 3 lines of bars with 2 lengths of bars per line.

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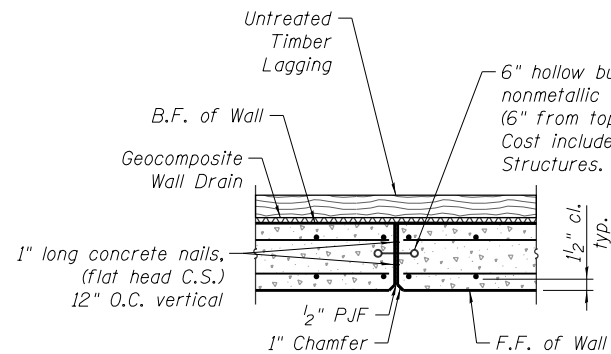
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DATE = 3/6/2019	DRAWN - MRK	REVISED -
TIME = 3:57:55 PM	CHECKED - WPK	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

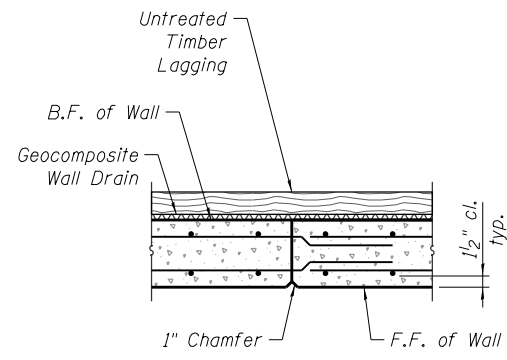
**WALL PLAN & ELEVATION
RETAINING WALL D (SN 045-W020)**

SHEET NO. RWD-4 OF RWD-6 SHEETS

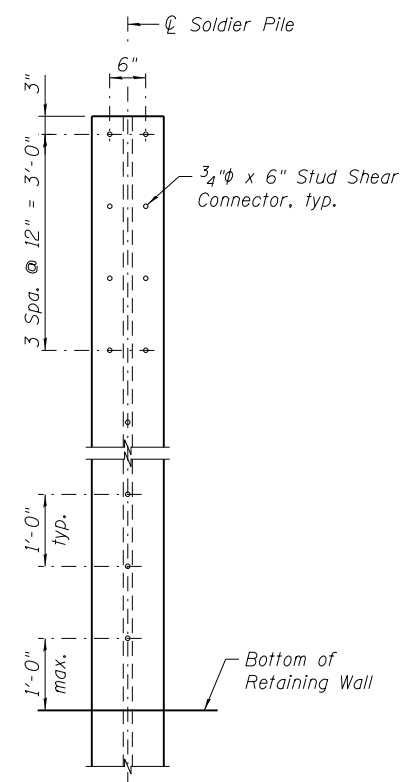
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	107N-4	KANE	288	257
CONTRACT NO. 60T21				
ILLINOIS FED. AID PROJECT				



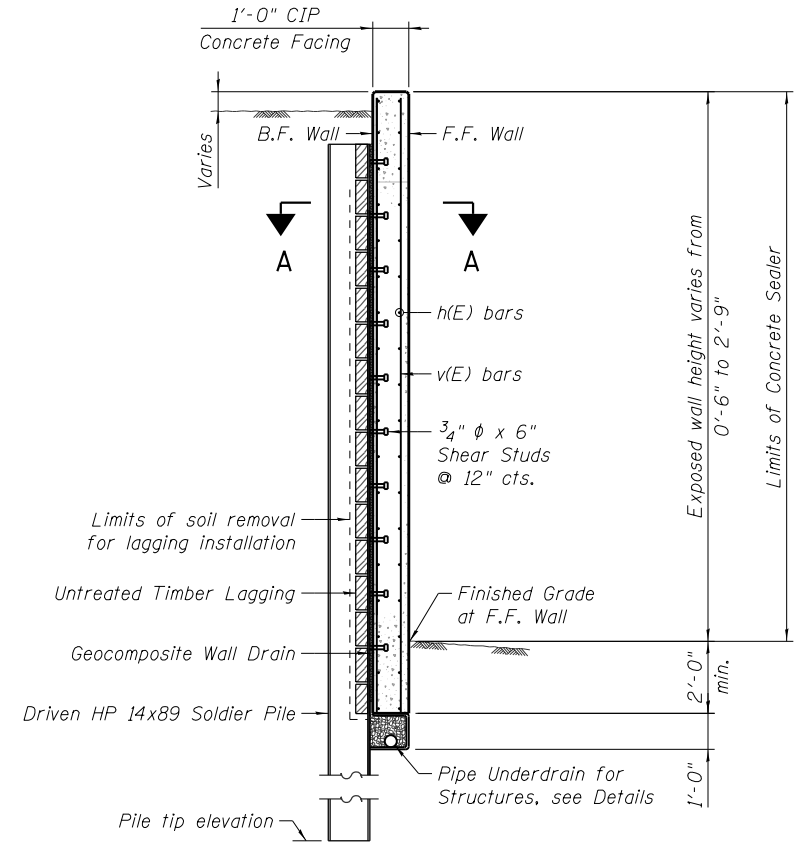
EXPANSION JOINT DETAIL - WALL



CONSTRUCTION JOINT DETAIL - WALL

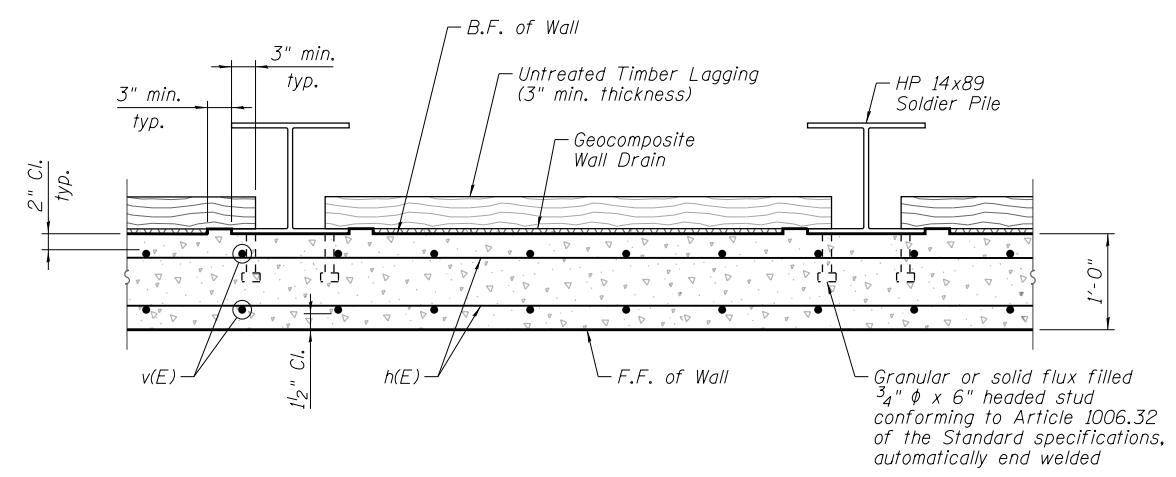


STUD SHEAR CONNECTOR DETAIL

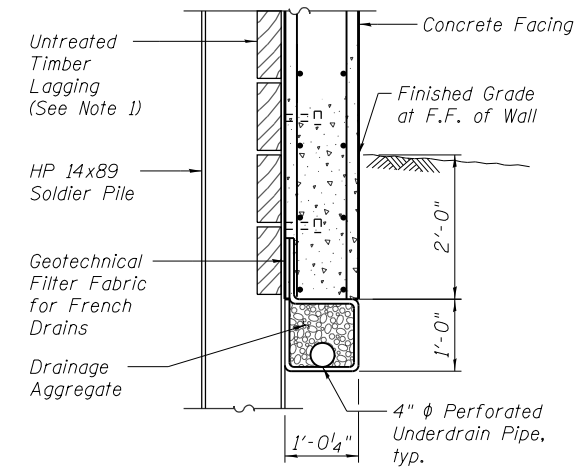


TYPICAL WALL SECTION

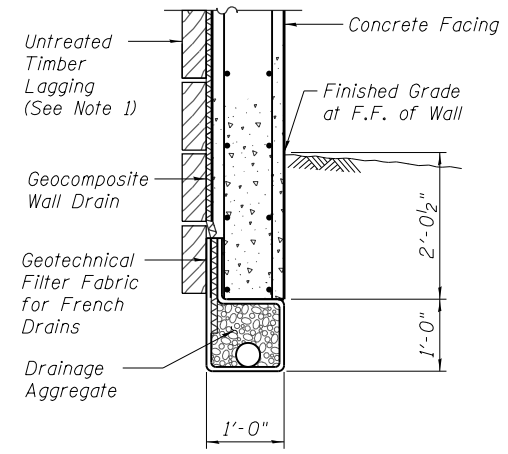
(Looking West)
Backfill remainder of structure excavation with same material specified for roadway embankment



SECTION A-A



UNDERDRAIN AT SOLDIER PILE



UNDERDRAIN BETWEEN SOLDIER PILES

- NOTES:**
1. Place 3/4" gap between lagging to allow for drainage, typ.
 2. The cost of "Drainage Aggregate, Geotechnical Filter Fabric and Underdrain Pipe is included in the cost of "Pipe Underdrains for Structures".

P:\0041.000\Drawings\CAD\Structural\Sheets\DI60T21_RWD-05_Details.dgn

PLOT	DESIGNED - MBC	REVISED -
NAME = JKando	CHECKED - JSK	REVISED -
DATE = 3/6/2019	DRAWN - MRK	REVISED -
TIME = 3:57:57 PM	CHECKED - WPK	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**WALL DETAILS
RETAINING WALL D (SN 045-W020)**

SHEET NO. RWD-5 OF RWD-6 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	107N-4	KANE	288	258
CONTRACT NO. 60T21				
ILLINOIS FED. AID PROJECT				

Page 1 of 1



wangeng@wangeng.com
1145 N Main Street
Lombard, IL 60148
Telephone: 630 953-9928
Fax 630 953-9938

BORING LOG RWB-01

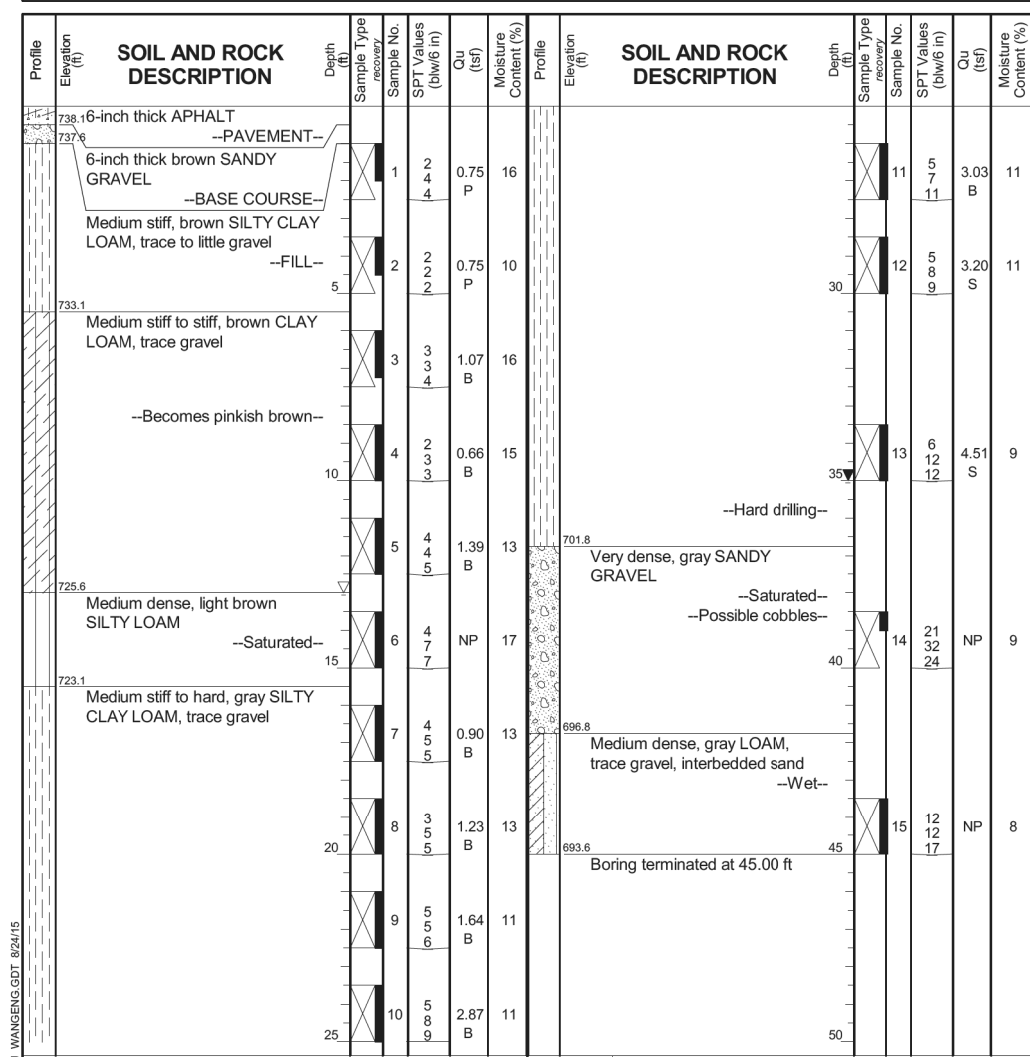
WEI Job No.: 192-03-01

Client **Milhouse Engineering & Construction, Inc.**

Project **IL 47 at Main Street Intersection Improvements**

Location **Elburn, Kane County, IL**

Datum: NAVD 88
Elevation: 738.57 ft
North: 1884793.30 ft
East: 946961.16 ft
Station: 193+79.62
Offset: 20.88' RT

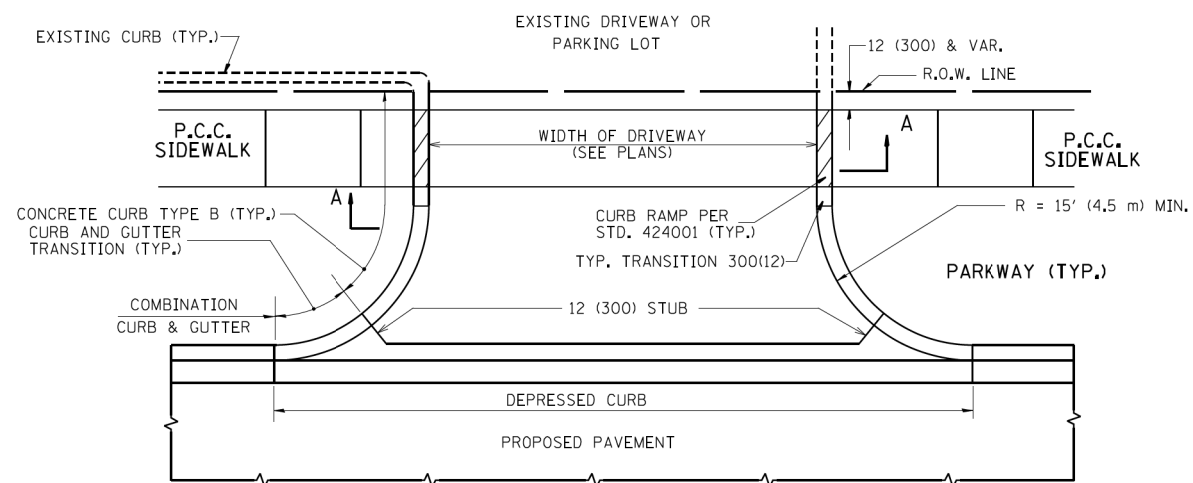


GENERAL NOTES		WATER LEVEL DATA	
Begin Drilling	05-13-2015	Complete Drilling	05-13-2015
Drilling Contractor	Wang Testing Services	Drill Rig	CME-55 TMR
Driller	R & N	Logger	D. Kolpacki
Checked by	B. Wilson	Drilling Method	3.25" IDA HSA, auto hammer, boring backfilled upon completion
While Drilling	13.00 ft	At Completion of Drilling	35.00 ft
Time After Drilling	NA	Depth to Water	NA

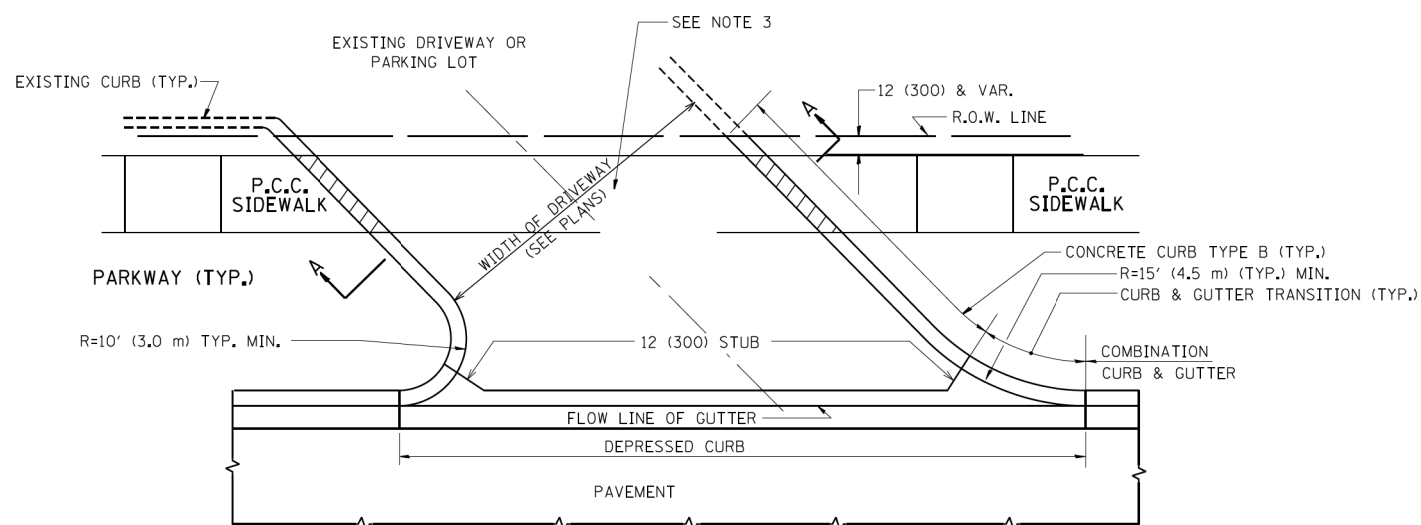
The stratification lines represent the approximate boundary between soil types; the actual transition may be gradual.

P:\00441.000\Drawings\CAD\Structural\Sheets\DI60121_RWD-06_Logs1.dgn

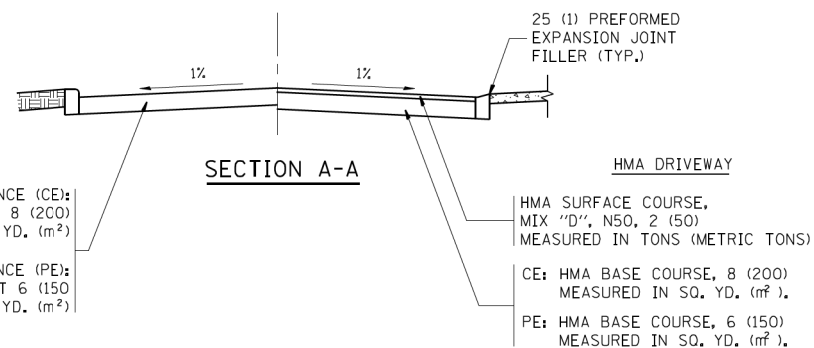
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	SHEET NO. RWD-6 OF RWD-6 SHEETS						



WITH CONCRETE CURB, TYPE B

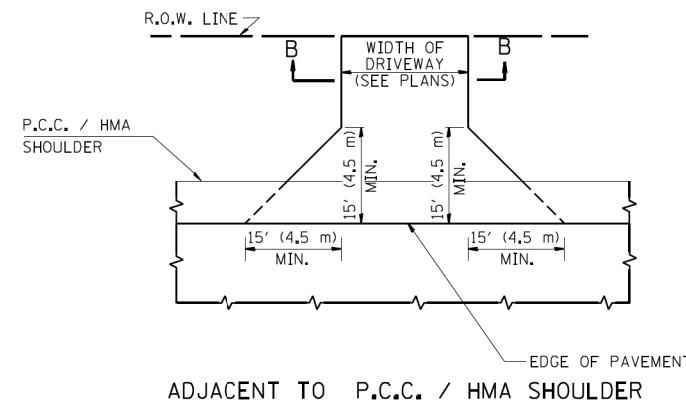


WITH CONCRETE CURB, TYPE B

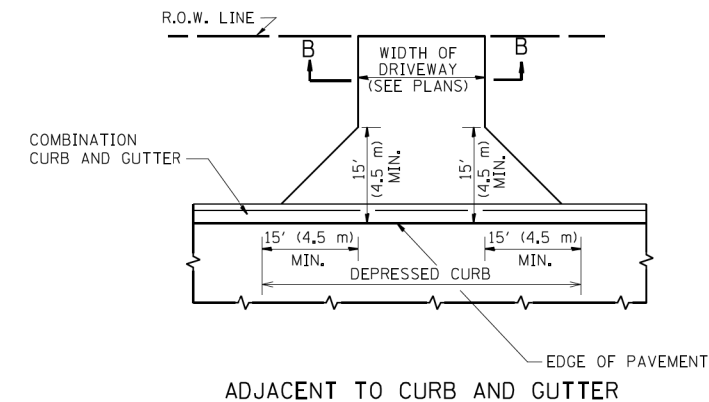


RIGID DRIVEWAY
 COMMERCIAL ENTRANCE (CE):
 P.C.C. DRIVEWAY PAVEMENT 8 (200)
 MEASURED IN SQ. YD. (m²)
 NON-COMMERCIAL ENTRANCE (PE):
 P.C.C. DRIVEWAY PAVEMENT 6 (150)
 MEASURED IN SQ. YD. (m²)

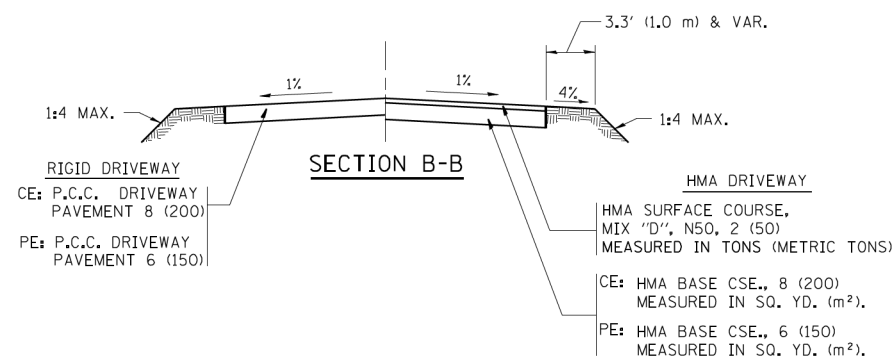
HMA DRIVEWAY
 HMA SURFACE COURSE,
 MIX "D", N50, 2 (50)
 MEASURED IN TONS (METRIC TONS)
 CE: HMA BASE COURSE, 8 (200)
 MEASURED IN SQ. YD. (m²),
 PE: HMA BASE COURSE, 6 (150)
 MEASURED IN SQ. YD. (m²).



ADJACENT TO P.C.C. / HMA SHOULDER



ADJACENT TO CURB AND GUTTER



GENERAL NOTES:

DRIVEWAY SLOPES, LOCATIONS, & GEOMETRIC LAYOUT SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE "HANDBOOK FOR POLICY ON PERMITS FOR ACCESS DRIVEWAYS TO STATE HIGHWAYS". FOR FURTHER LAYOUT REQUIREMENTS, REFER TO ILLUSTRATIONS IN THE PERMIT HANDBOOK. DRIVEWAYS SHALL BE REPLACED IN KIND, UNLESS OTHERWISE NOTED ON THE PLANS.

COMMERCIAL DRIVEWAYS SHALL BE CONSTRUCTED WITH CONCRETE CURB, TYPE B RETURNS EXCEPT WHEN THE SIDEWALK EDGE IS 4 FEET (1.2 METERS) OR LESS FROM THE BACK OF CURB, CONSTRUCT A FLARE DRIVEWAY WITHOUT CURB.

THE RESIDENT ENGINEER SHALL CONTACT THE TRAFFIC PERMIT OFFICE AT 847/ 705-4131 FOR ANY QUESTIONS ON DRIVEWAYS SHOWN IN THE PLANS; SPECIFICALLY IN REFERENCE TO ADDITIONAL AND/OR RELOCATION/REMOVAL OF A DRIVEWAY.

COMBINATION CONCRETE CURB & GUTTER SHALL BE MEASURED STRAIGHT ACROSS THE DRIVEWAY. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR THE CURB & GUTTER TRANSITION.

1 (25) PREFORMED EXPANSION JOINT FILLER WILL NOT BE PAID SEPARATELY, BUT SHALL BE CONSIDERED INCLUDED IN THE COST OF THE P.C.C. DRIVEWAY PAVEMENT OR P.C.C. SIDEWALK.

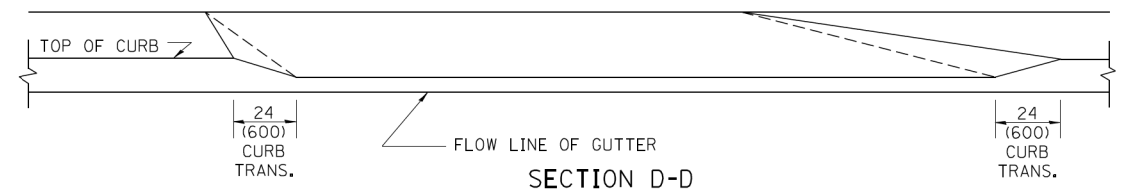
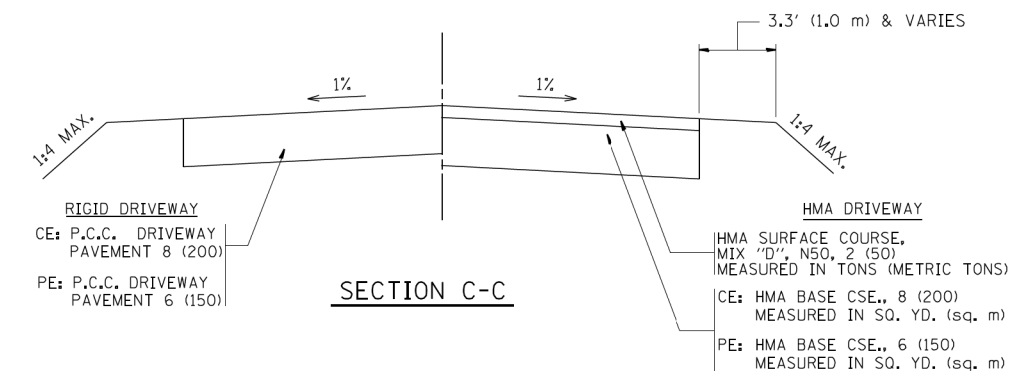
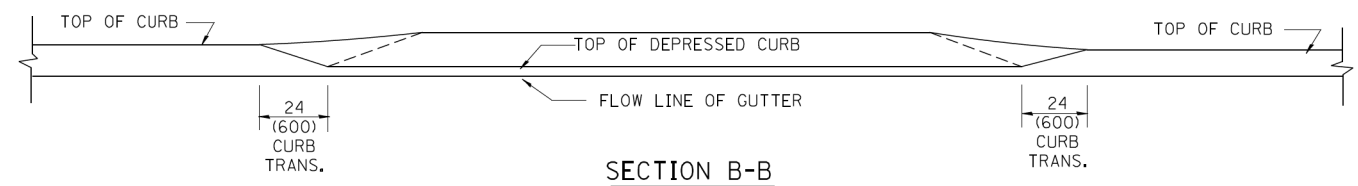
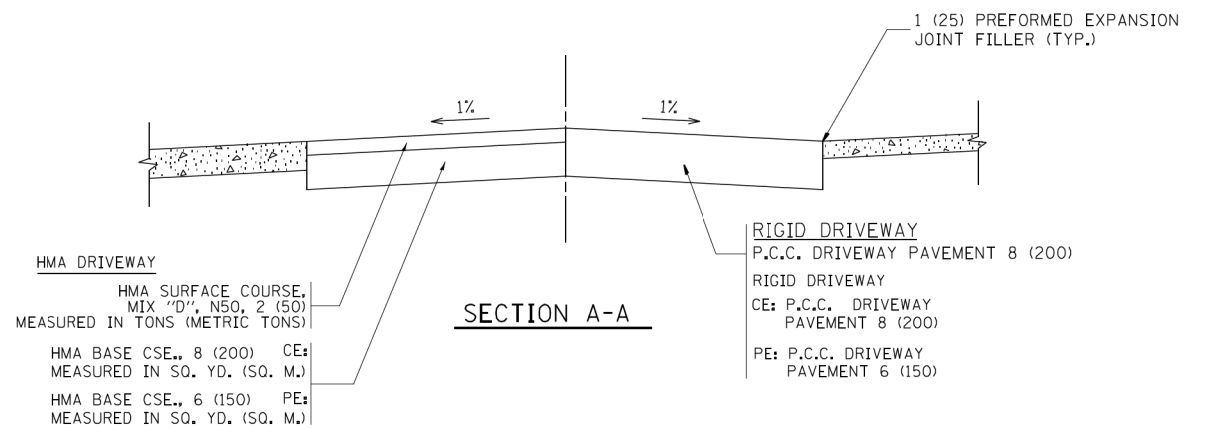
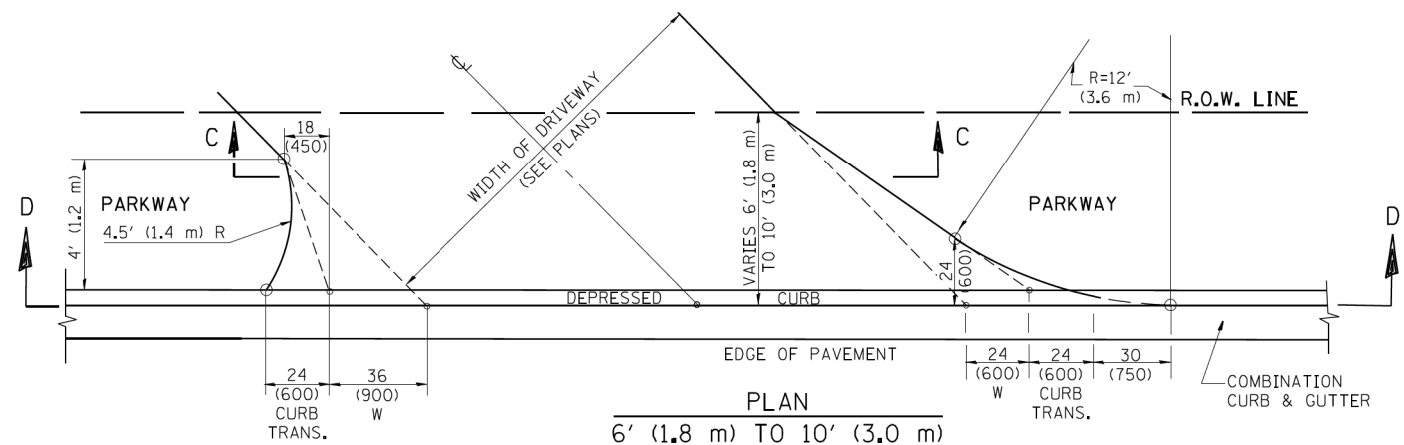
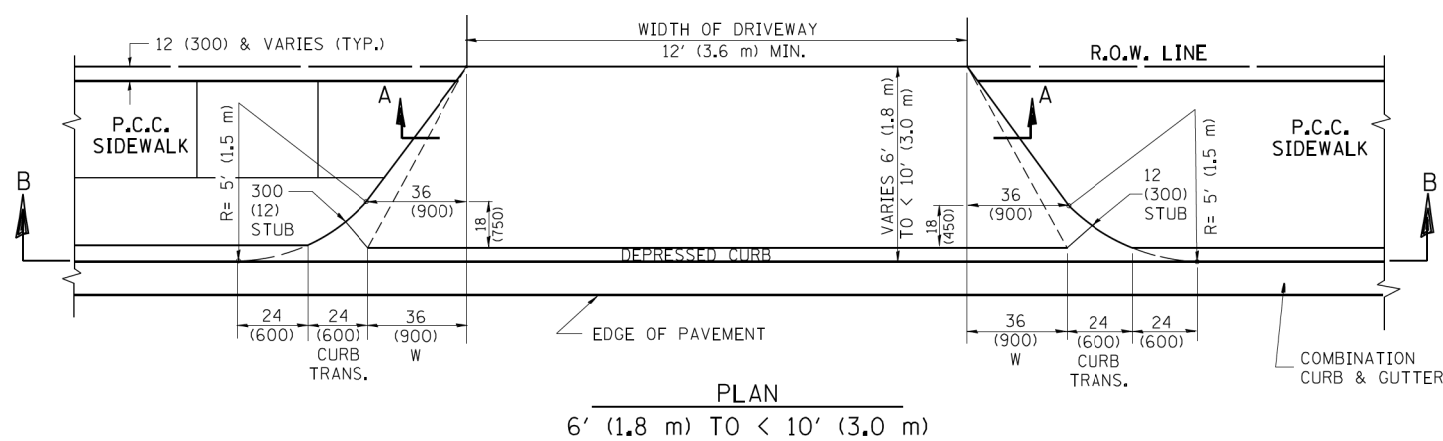
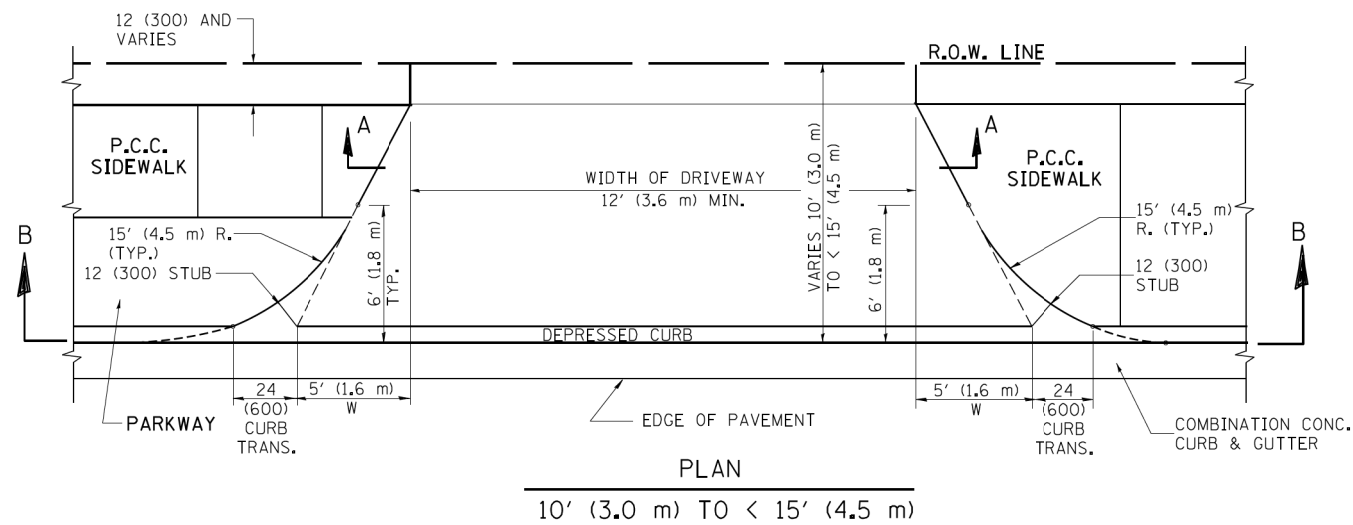
WHEN THE P.C.C. SIDEWALK EXTENDS THROUGH THE DRIVEWAY, THE THICKNESS OF THE SIDEWALK IN THE DRIVEWAY AREA SHALL BE THE SAME AS THE DRIVEWAY THICKNESS. SIDEWALK WILL BE PAID FOR AS P.C.C. SIDEWALK OF THE THICKNESS SPECIFIED. SIDEWALK CROSS SLOPE THRU DRIVEWAY AREA TO BE A MAXIMUM OF 1:50.

FILE NAME =	USER NAME = lrysa	DESIGNED - R. SHAH	REVISED - P. LaFLUER 04-15-03
et:\pwork\pido\td\lrysa\0108315\bd01.dgn		DRAWN -	REVISED - R. BORO 01-01-07
	PLOT SCALE = 50.0000' / 1"	CHECKED -	REVISED - R. BORO 06-11-08
	PLOT DATE = 9/6/2011	DATE - 11-04-95	REVISED - R. BORO 09-06-11

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

DRIVEWAY DETAILS - DISTANCE BETWEEN R.O.W. AND FACE OF CURB & EDGE OF SHOULDER >= 15' (4.5 m)			
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	107N-4	KANE	288	260
BD0156-07 (BD-01)			CONTRACT NO.	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



GENERAL NOTES

DRIVEWAY SLOPES, LOCATIONS, & GEOMETRIC LAYOUT SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE "HANDBOOK FOR POLICY ON PERMITS FOR ACCESS DRIVEWAYS TO STATE HIGHWAYS". FOR FURTHER LAYOUT REQUIREMENTS, REFER TO ILLUSTRATION 10 IN THE PERMIT HANDBOOK. WHERE SIDEWALKS EXIST, DRIVEWAYS SHALL BE REPLACED WITH RIGID PAVEMENT. WHERE NO SIDEWALKS EXIST, DRIVEWAYS SHALL BE REPLACED IN KIND. SIDEWALK CROSS SLOPE THRU DRIVEWAY AREA TO BE A MAXIMUM OF 1:50.

WHEN THE DISTANCE BETWEEN R.O.W. AND THE BACK OF CURB IS EQUAL TO OR LESS THAN 8' (2.4 m), THE P.C.C. SIDEWALK SHALL EXTEND TO THE BACK OF CURB.

THE RESIDENT ENGINEER SHALL CONTACT THE TRAFFIC PERMIT OFFICE AT 847/ 705-4131 FOR ANY QUESTIONS ON DRIVEWAYS SHOWN IN THE PLANS; SPECIFICALLY IN REFERENCE TO ADDITIONAL AND/OR RELOCATION/REMOVAL OF A DRIVEWAY.

COMBINATION CONCRETE CURB & GUTTER SHALL BE MEASURED STRAIGHT ACROSS THE DRIVEWAY. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR THE CURB & GUTTER TRANSITION.

THE 1 (25) PREFORMED EXPANSION JOINT FILLER WILL NOT BE PAID SEPARATELY, BUT SHALL BE CONSIDERED INCLUDED IN THE COST OF THE P.C.C. DRIVEWAY PAVEMENT OR P.C.C. SIDEWALK.

"W" VARIES FROM 36 (900) TO 5' (1.5 m) PROPORTIONAL TO THE LENGTH (L), FROM 6' (1.8 m) TO 10' (3 m).

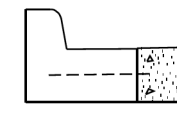
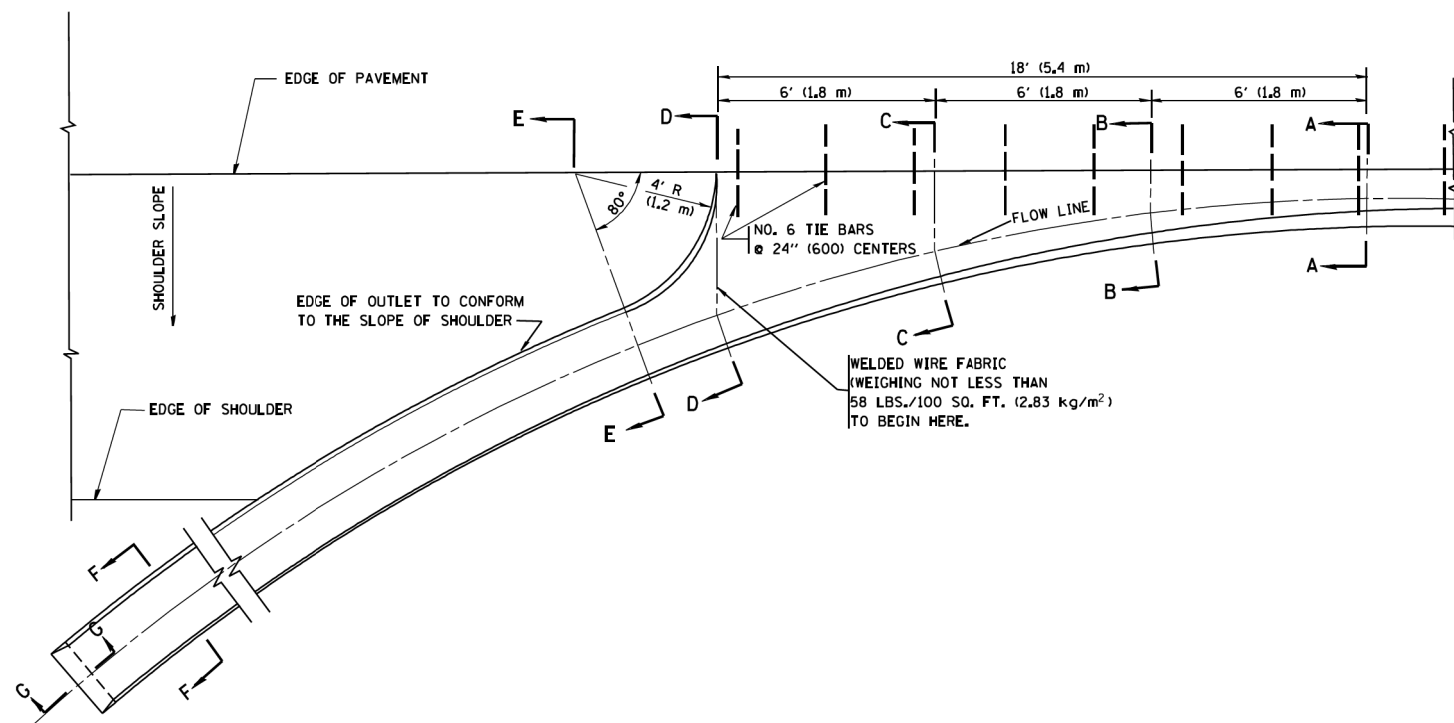
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE NOTED.

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	PLOT SCALE = 50.0000' / 1"	CHECKED -	REVISED - R. BORO 01-01-07
	PLOT DATE = 10/28/2011	DATE - 11-06-95	REVISED - R. BORO 09-06-11

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

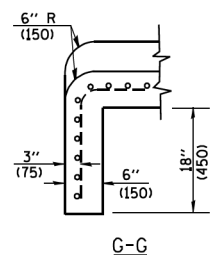
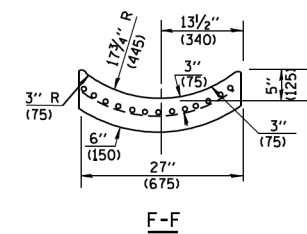
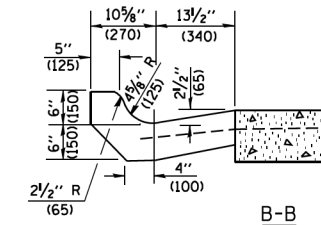
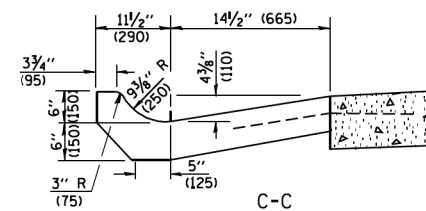
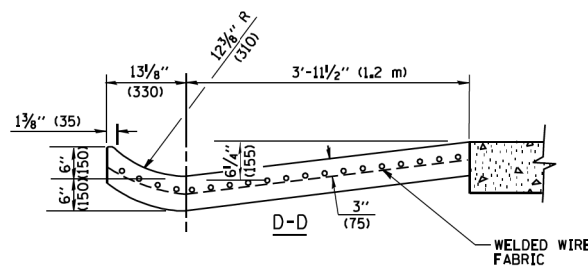
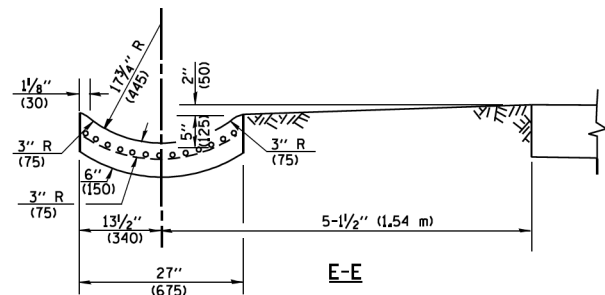
DRIVEWAY DETAILS			
DISTANCE BETWEEN ROW AND FACE OF CURB < 15' (4.5 m)			
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA. TO STA.	

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	107N-4	KANE	288	261
BD400-02 (BD-02)			CONTRACT NO.	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



A-A *

* DIMENSIONS OF THE CURB & GUTTER AT SECTION A-A ARE SHOWN ON STATE STANDARD 606001. FOR DETAILS OF OUTLET FOR CONCRETE CURB & GUTTER, TYPE B-6.24 (B-15.60) SEE STATE STANDARD 606006.



GENERAL NOTES

GUTTER OUTLET SHALL BE TIED TO THE PAVEMENT IN ACCORDANCE WITH DETAILS FOR LONGITUDINAL CONSTRUCTION JOINT SHOWN ON STANDARD 420001.

TIE BARS SHALL BE NO. 20 (NO.6) AT 24\" (600) CENTERS UNLESS OTHERWISE SHOWN.

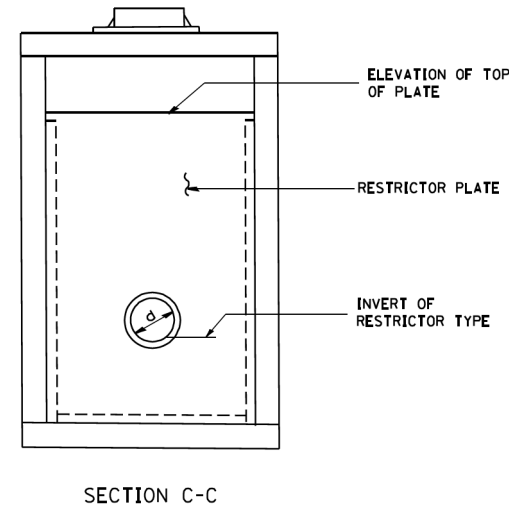
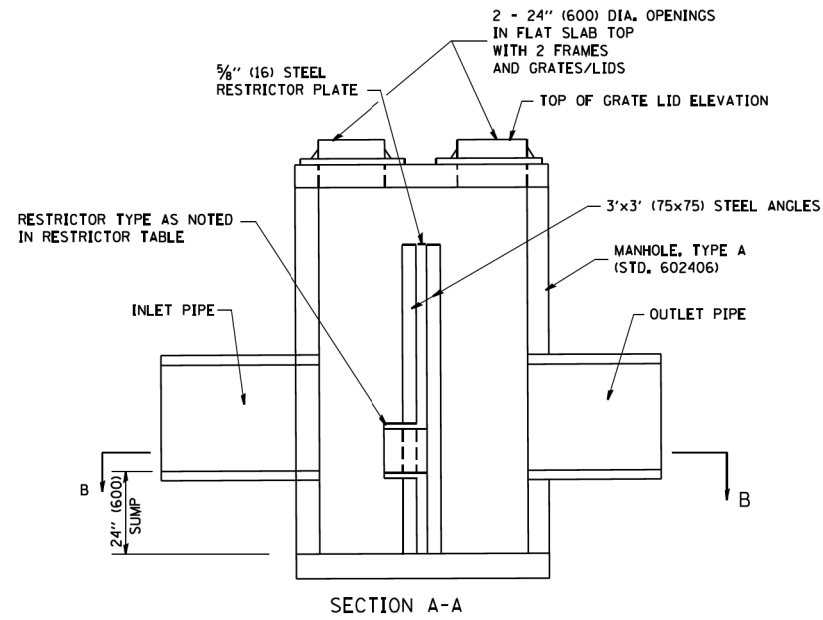
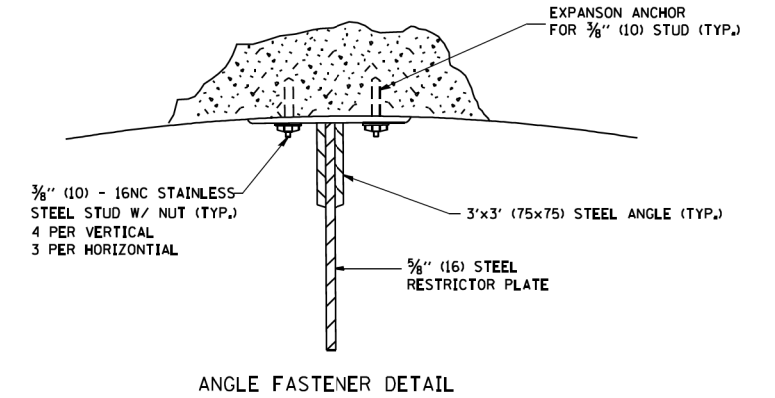
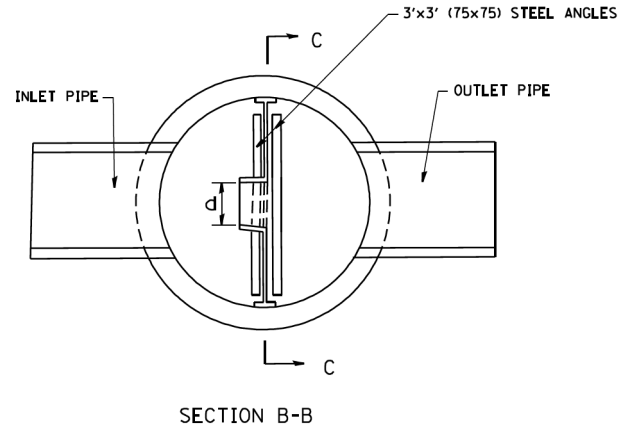
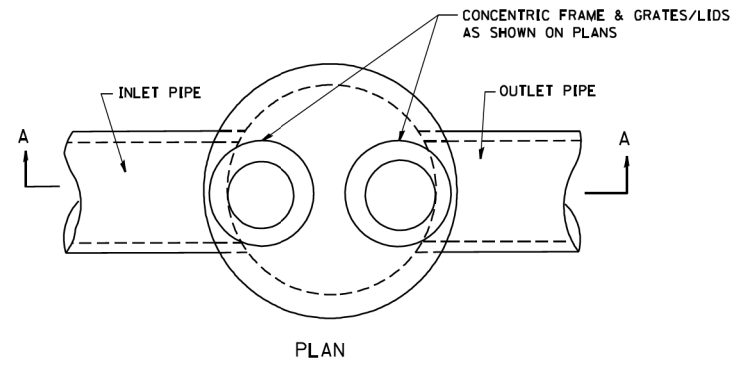
IF THE AVERAGE GRADE OF PAVEMENT FOR THE DISTANCE FROM SECTION A-A TO D-D EXCEEDS 2%, THIS DISTANCE SHALL BE INCREASED 6\" (1.8 m) FOR EACH 1% INCREASE IN GRADE.

QUANTITIES

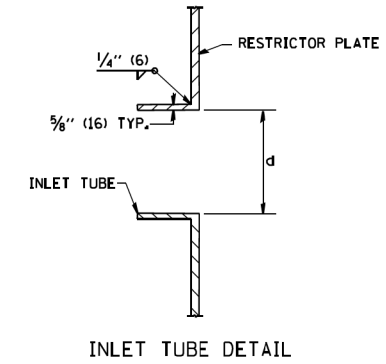
FOR SECTION A-A TO E-E AND CURTAIN WALL =
 1.25 CU. YDS. (0.96 m³) CLASS SI CONCRETE (OUTLET) FOR 9\" (225) PAV'T.
 1.27 CU. YDS. (0.96 m³) CLASS SI CONCRETE (OUTLET) FOR 10\" (250) PAV'T.
 FOR SECTION F-F =
 0.045 CU. YDS. (0.03 m³) CLASS SI CONCRETE PER FT. (M).

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

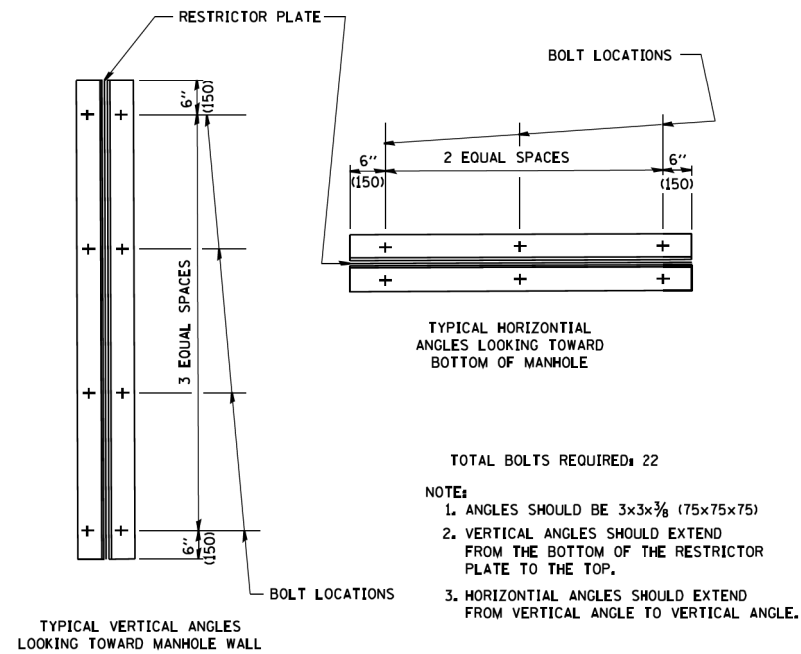
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	PLOT SCALE = 50.0000' / IN.	CHECKED -	REVISED - R. SHAH 10-25-94					BD600-01 (BD-03)	CONTRACT NO.			
PLOT DATE = 1/4/2008	DATE = 08-04-86	REVISED - E. GOMEZ 12-21-00	REVISED -	SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA. TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					



- NOTES:
1. ALL STEEL ANGLES AND PLATES TO BE GALVANIZED AFTER FABRICATION.
 2. ALL RESTRICTOR PLATES, ANGLES AND HARDWARE TO BE INCLUDED IN THE COST OF THE MANHOLE.
 3. BASIS OF PAYMENT: "MANHOLES, TYPE A, 6 FT. (1.8 m)-DIAMETER, TYPE 1 FRAME, CLOSED LID, RESTRICTOR PLATE" EACH



STATION	MANHOLE DIAMETER	FRAME AND GRATE	RESTRICTOR TYPE	INSIDE RESTRICTOR TYPE DIAMETER in. (mm) (d)	INVERT OF RESTRICTOR TYPE	ELEVATION OF TOP OF PLATE OVERFLOW



RESTRICTOR TYPE					
1	2	3	4	5	6
RE-ENTRANT TUBE	SHARP EDGED	SQUARE EDGED	RE-ENTRANT TUBE	SQUARE EDGED	ROUNDED
LENGTH: 1/2 TO 1 DIA.		STREAM CLEARS SIDES	LENGTH: 2-1/2 DIA.	LENGTH: 2-1/2 DIA.	
C=.52	C=.61	C=.61	C=.73	C=.82	C=.98

VALUES OF "C" FOR CIRCULAR AND SQUARE ORIFICES

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

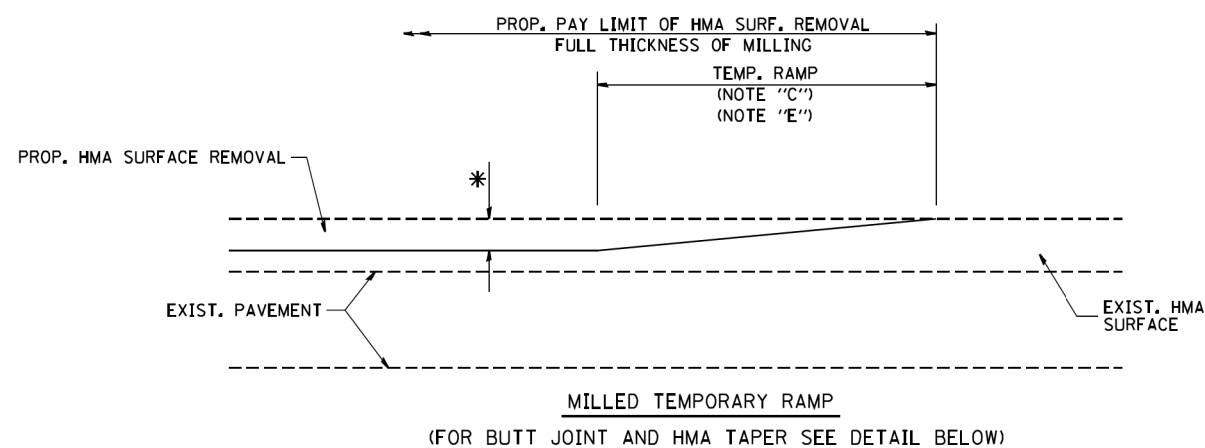
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	PLOT DATE = 1/4/2008	DATE - 09-09-94	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

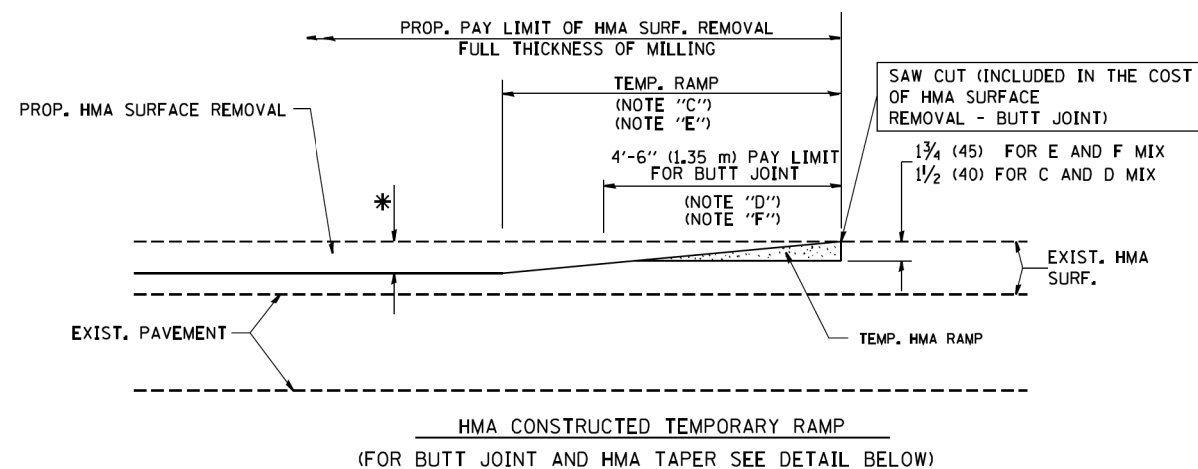
MANHOLE WITH
RESTRICTOR PLATE

SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A. RTE. 326	SECTION 107N-4	COUNTY KANE	TOTAL SHEETS 288	SHEET NO. 263
BD600-04 (BD-12)		CONTRACT NO.		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

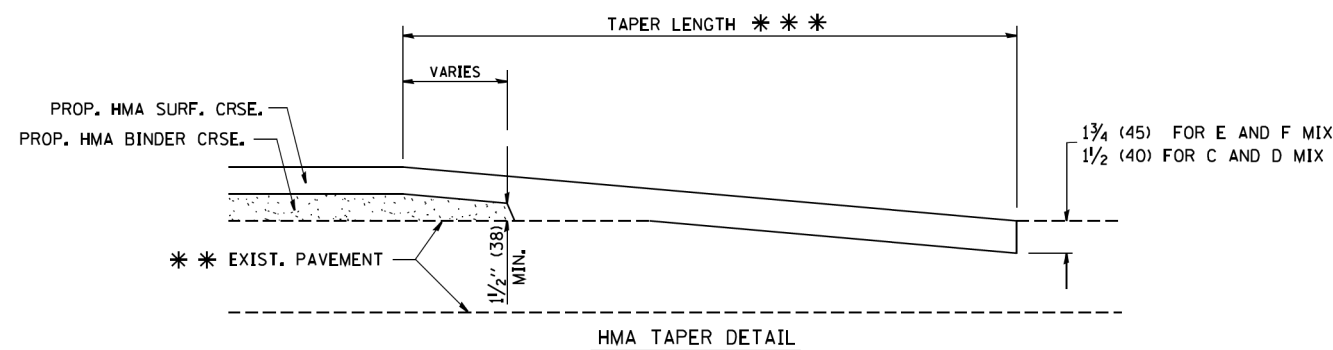
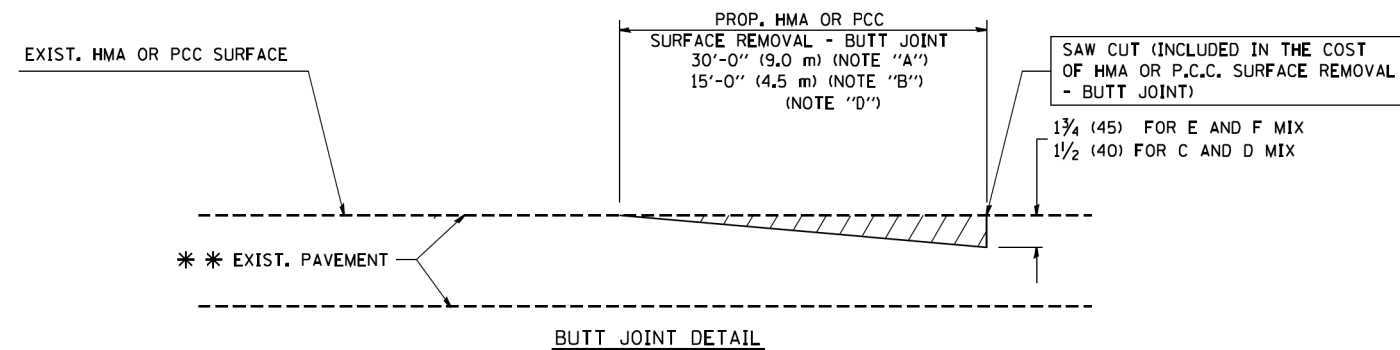


OPTION 1



OPTION 2

TYPICAL TEMPORARY RAMP



TYPICAL BUTT JOINT AND HMA TAPER FOR RESURFACING ONLY

*** PC CONCRETE, HMA OR HMA RESURFACED PAVEMENT.

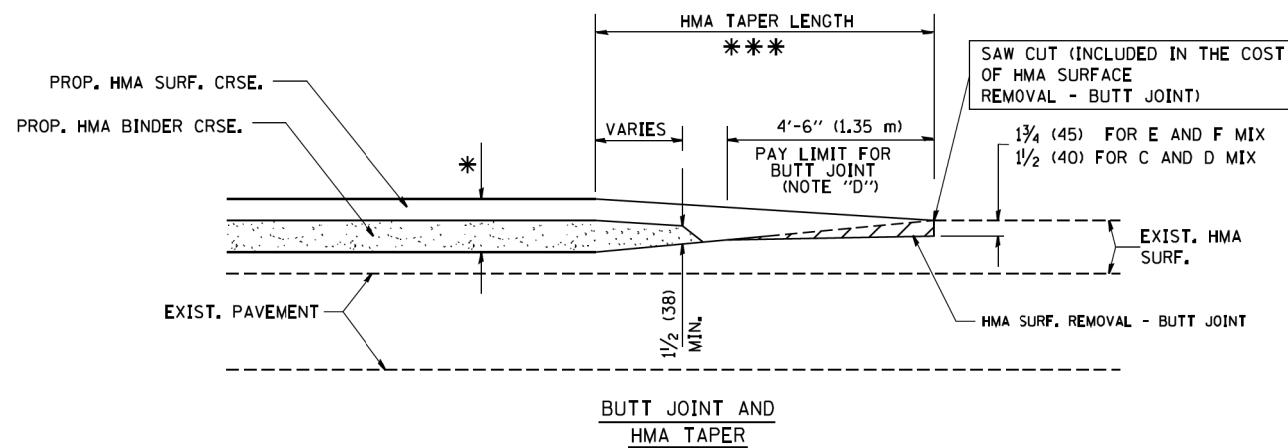
NOTES

- A: MAINLINE ROADWAYS AND MAJOR SIDE ROADS.
 - B: MINOR SIDE ROADS.
 - C: THE TEMP. RAMP SHALL BE CONSTRUCTED IMMEDIATELY UPON REMOVAL OF THE EXISTING HMA SURFACE.
 - D: THE BUTT JOINT SHALL BE CONSTRUCTED IMMEDIATELY PRIOR TO PLACING THE PROPOSED HMA COURSES.
 - E: TAPER THE TEMP. RAMP AT A RATE OF 3'-0" (900 mm) PER 1 INCH (25 mm) OF MILLING THICKNESS.
 - F: INSTALLATION AND REMOVAL OF THE 4'-6" (1.35 m) TEMP. RAMP IS INCLUDED IN COST OF HMA SURFACE REMOVAL - BUTT JOINT
 - G: SEE ARTICLE 406.08 AND 406.14 OF THE STANDARD SPECIFICATIONS FOR "HMA AND/OR PCC SURFACE REMOVAL, BUTT JOINT".
- * SEE TYPICAL SECTIONS FOR MILLING THICKNESS.
- *** 20'-0" (6.1 m) PER 1 (25) RESURFACING (NOTE "A")
10'-0" (3.0 m) PER 1 (25) RESURFACING (NOTE "B")

BASIS OF PAYMENT:

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

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



TYPICAL BUTT JOINT AND HMA TAPER FOR MILLING AND RESURFACING

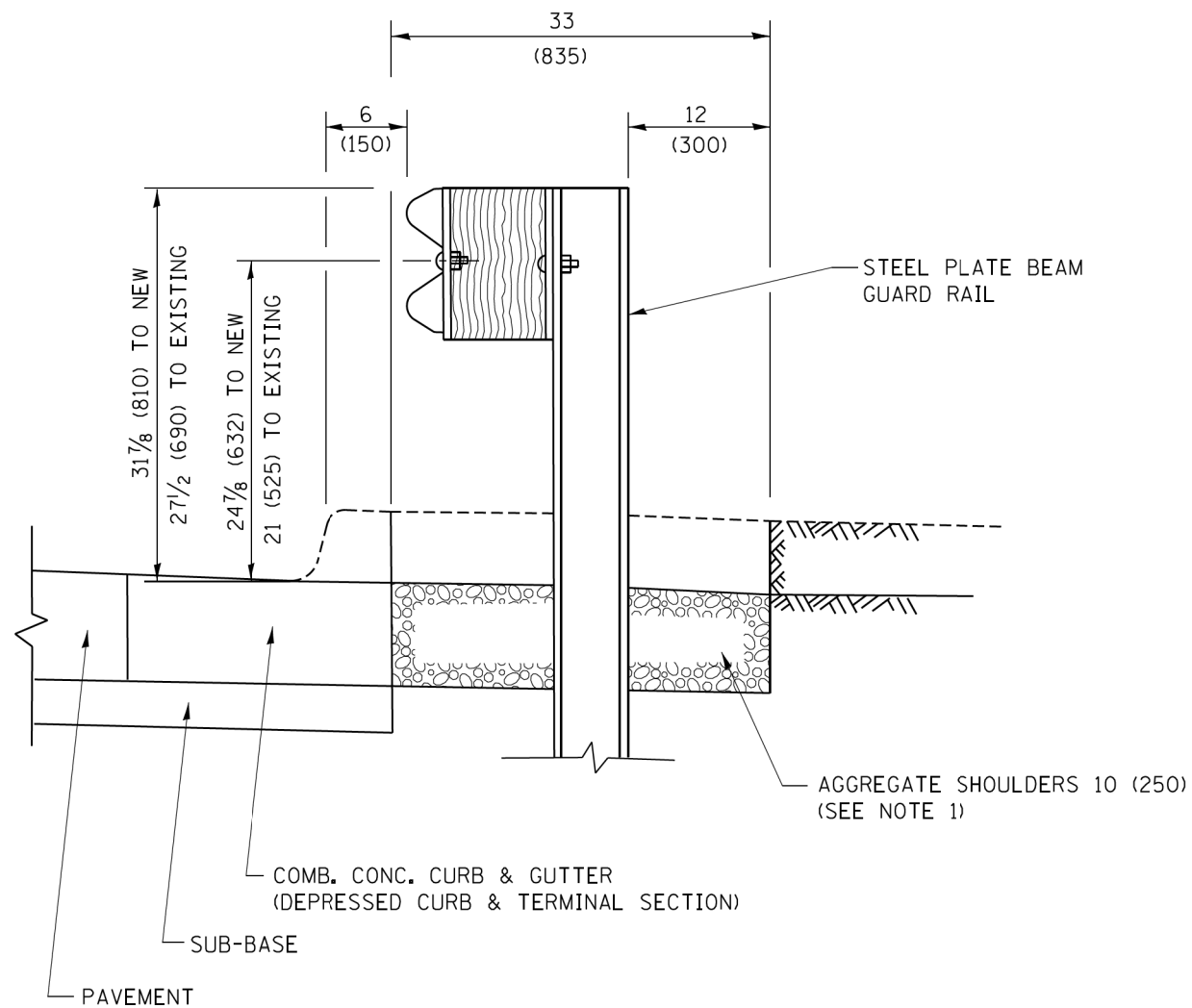
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	PLOT DATE = 1/4/2008	DATE - 06-13-90	REVISED - R. BORO 01-01-07

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**BUTT JOINT AND
HMA TAPER DETAILS**

SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

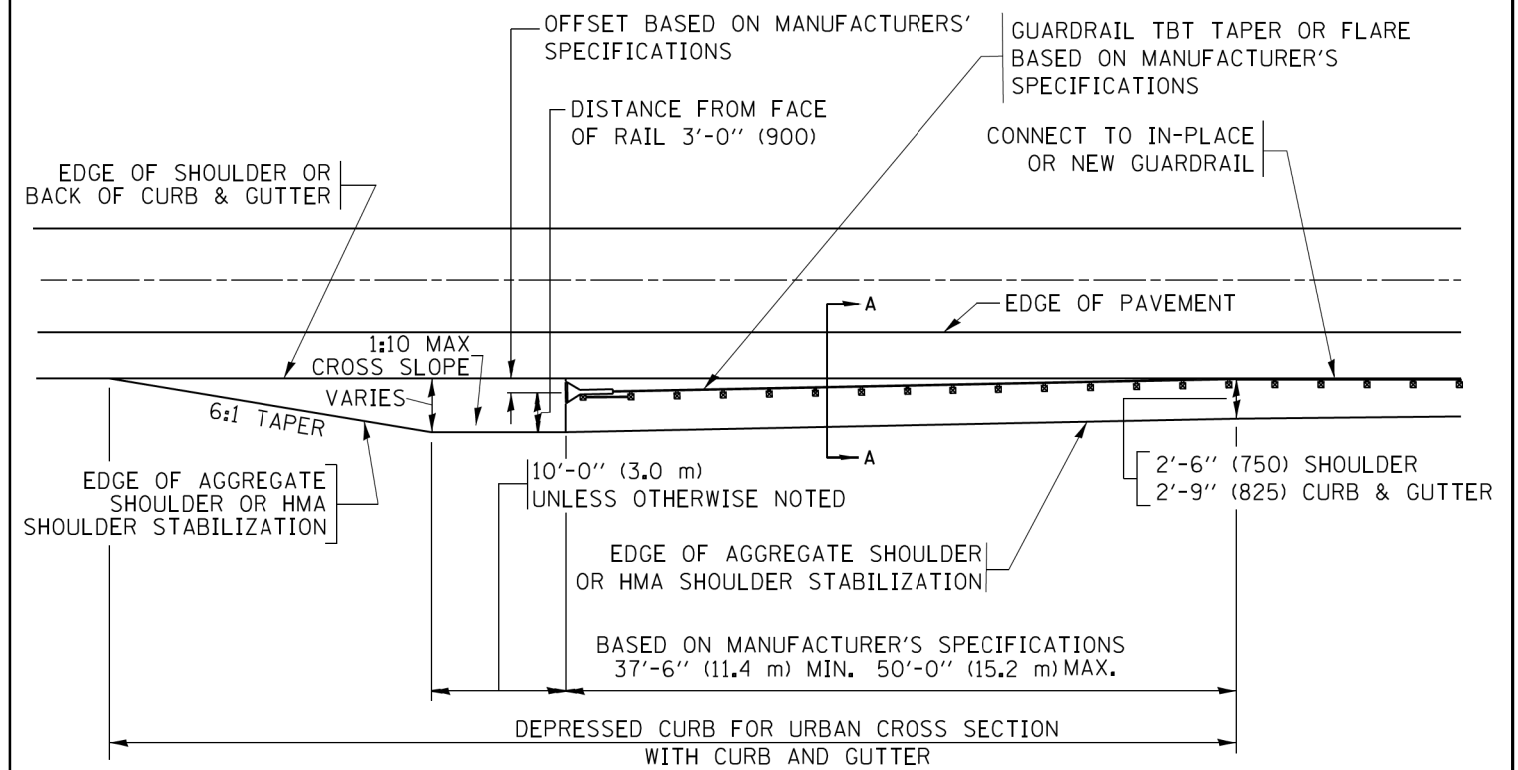
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	107N-4	KANE	288	264
BD400-05 BD32			CONTRACT NO.	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



SECTION A-A

- NOTES:
1. THE AGGREGATE SHOULDER, 10 (250) OR HMA SHOULDER, 6 (150) (IF REQUIRED) SHALL EXTEND UNDER THE TRAFFIC BARRIER TERMINAL.
 2. "EXISTING" GUARDRAIL REFERS TO CONNECTING TERMINAL SECTION TO GUARD RAILING PRIOR TO THE MIDWEST GUARDRAIL SYSTEM.
 3. THE CONTRACTOR SHALL VERIFY THE TYPE/HEIGHT OF GUARDRAIL IN-PLACE BEFORE ORDERING THE NEW TERMINAL SECTION. COST INCLUDED WITH THE COST OF THE TERMINAL. THE TERMINAL SECTION HEIGHT TO BE PLACED MUST MATCH THE HEIGHT OF THE IN-PLACE GUARDRAIL.

**DETAILS FOR STEEL PLATE BEAM
GUARD RAIL ADJACENT TO CURB AND GUTTER
[FOR ROADWAY SPEED 35 MPH (60 kmh) TO 45 MPH (70 kmh)]**



**DEPRESSED CURB AND GUTTER AND
SHOULDER TREATMENT AT TBT TY. 1 SPL.**

AGGREGATE SHOULDER, 10 (250) WILL BE PAID ACCORDING TO SECTION 481.

HMA SHOULDERS 6 (150) (IF REQUIRED) WILL BE PAID ACCORDING TO SECTION 482.

COMB. CONC. C&G, STEEL PLATE BEAM GUARD RAIL AND TRAFFIC BARRIER TERMINAL, OF THE TYPE SPECIFIED WILL BE PAID FOR SEPARATELY.

TBT = TRAFFIC BARRIER TERMINAL
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS)
UNLESS OTHERWISE SHOWN.

FILE NAME =	USER NAME = drivakosgn	DESIGNED - M. DE YONG	REVISED - R. BORO 12-08-2008
pw\1\084EBID\INTEG\illinois.gov\PWIDOT\Documents\DOT Offices\District 1\Projects\Dist 1\CAD\Drawings\CADsheets\bd34.dgn		DRAWN	REVISED - R. BORO 09-14-2009
	PLOT SCALE = 50,0000' / 1"	CHECKED -	REVISED - R. BORO 08-06-2012
Default	PLOT DATE = 12/21/2015	DATE - 09-22-90	REVISED - R. BORO 05-08-2015

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**DETAILS FOR DEPRESSED CURB & GUTTER AND
SHOULDER TREATMENT AT TBT TY. 1 SPL.**

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

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	107N-4	KANE	288	265
BD600-10 (BD 34)			CONTRACT NO.	
ILLINOIS FED. AID PROJECT				

GENERAL NOTES

ALTERNATE MATERIAL FOR THE WALLS MAY BE CONCRETE MASONRY UNITS, PRECAST REINFORCED CONCRETE SECTIONS OR CAST-IN-PLACE CONCRETE. THE CAST IRON STEPS AS DETAILED HEREON ARE TYPICAL. STEPS OF OTHER DESIGN AND MATERIAL THAT CONFORM TO THE MINIMUM REQUIREMENTS OF THE STEPS SHOWN MAY BE USED WHEN APPROVED BY THE ENGINEER.

CAST IRON STEPS SHALL BE GRAY IRON CONFORMING TO THE REQUIREMENTS OF ARTICLE 1006.14 OF THE STANDARD SPECIFICATIONS.

STEPS SHALL BE EMBEDDED INTO THE WALL A MINIMUM OF THREE (3) INCHES. STEPS SHALL NOT BE EXTENDED ON THE OUTSIDE.

STEPS SHALL BE OMITTED FOR WORK IN COOK COUNTY WHEN THE DEPTH OF THE MANHOLE IS TEN (10') OR LESS.

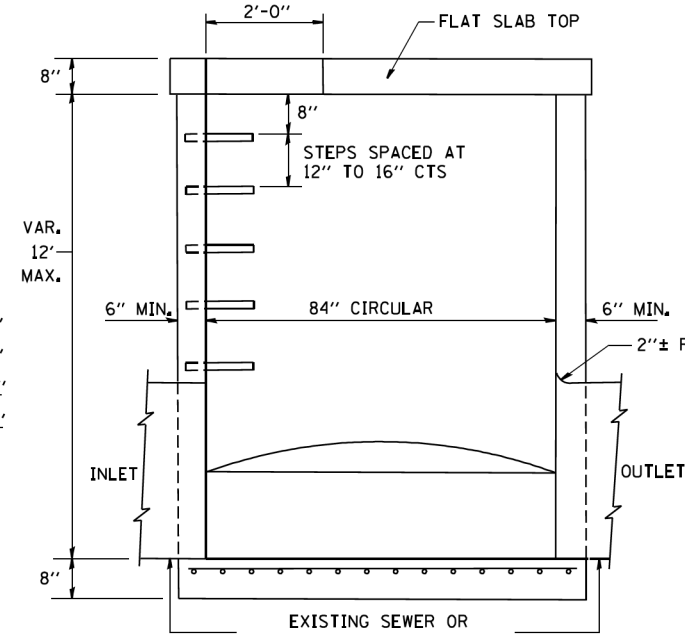
IN ADDITION TO THE REQUIREMENTS OF ARTICLE 612.13 OF THE STANDARD SPECIFICATIONS, THE CONTRACT UNIT PRICE FOR MANHOLES, TYPE A, 7'-DIAMETER SHALL INCLUDE THE SAND CUSHION WHEN REQUIRED, FURNISHING AND INSTALLING STEPS WHEN REQUIRED, FURNISHING AND COMPACTING THE SPECIFIED BACKFILL MATERIAL, AND FURNISHING AND INSTALLING FLAT SLAB TOP.

PRECAST FLAT SLAB TOP SHALL CONFORM TO ARTICLES 505.01 THRU 505.05 OF THE STANDARD SPECIFICATIONS EXCEPT THAT THE CONCRETE STRENGTH SHALL BE 4,000 PSI AFTER 28 DAYS. REINFORCEMENT BARS AND WELDED WIRE FABRIC SHALL CONFORM TO THE REQUIREMENTS OF ARTICLE 1006.10. ONLY GRADE 60 REINFORCEMENT BARS WILL BE PERMITTED.

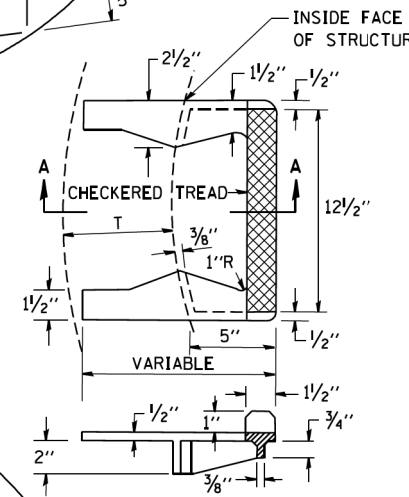
BOTTOM SLAB SHALL BE REINFORCED BY EITHER REINFORCEMENT BARS OR WELDED WIRE FABRIC. THE MINIMUM REINFORCEMENT SHALL BE 0.46 SQUARE INCH PER LINEAR FOOT IN BOTH DIRECTIONS.

JOINT CONFIGURATION AND DIMENSIONS OF FLAT SLAB TOP SHALL MATCH AND FIT THE RISER JOINT DETAIL.

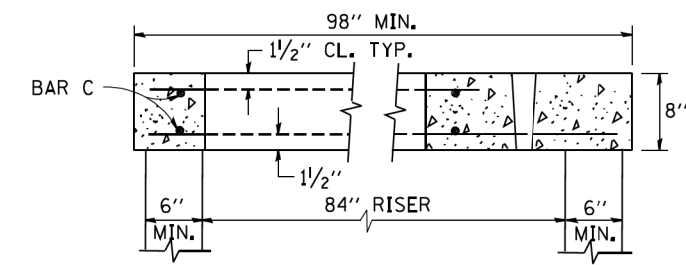
LIFTING DEVICES SHALL BE APPROVED BY THE ENGINEER.



ELEVATION

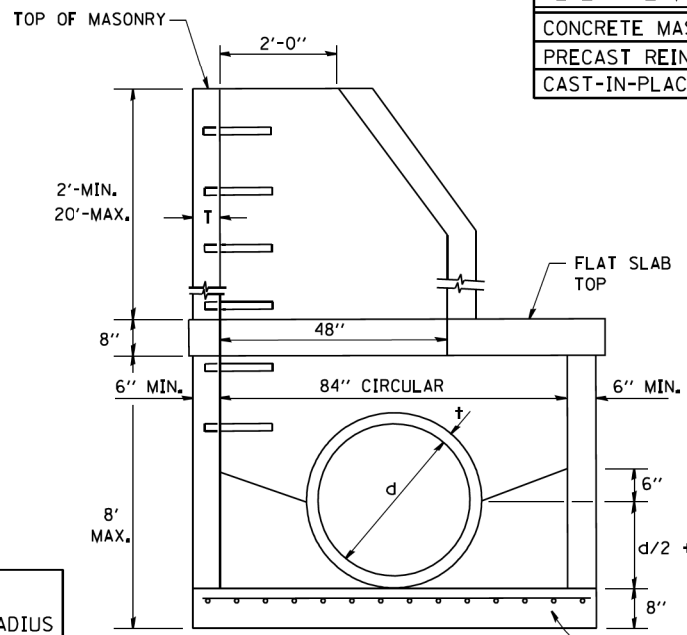


**SEC. A-A
CAST IRON STEPS**

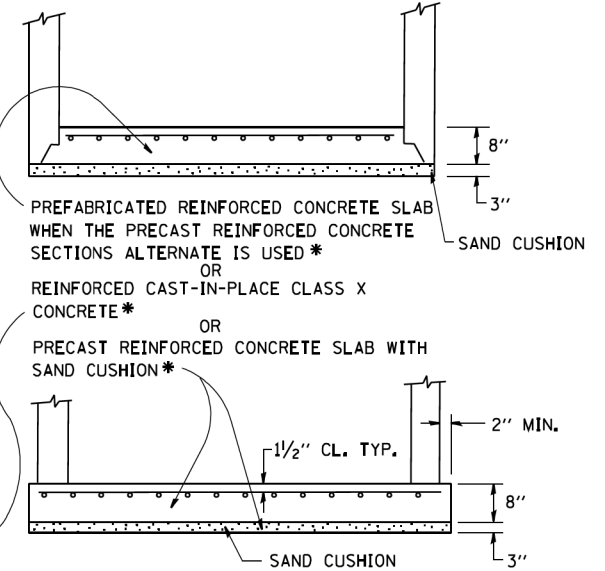


SECTION B-B

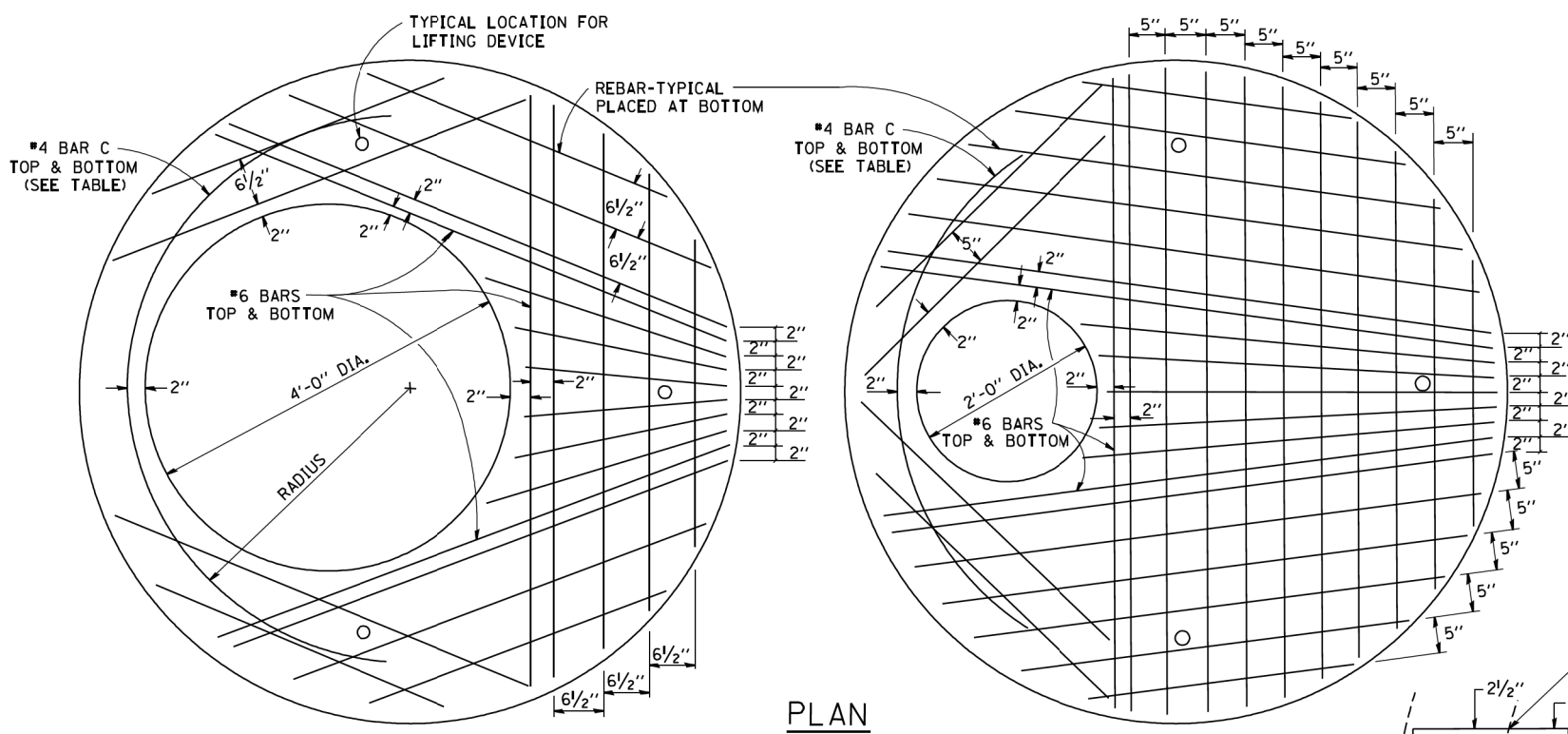
ALTERNATE MATERIALS FOR RISERS	T (MIN.)
CONCRETE MASONRY UNITS	5"
PRECAST REINFORCED CONCRETE SECTIONS	4"
CAST-IN-PLACE CONCRETE	6"



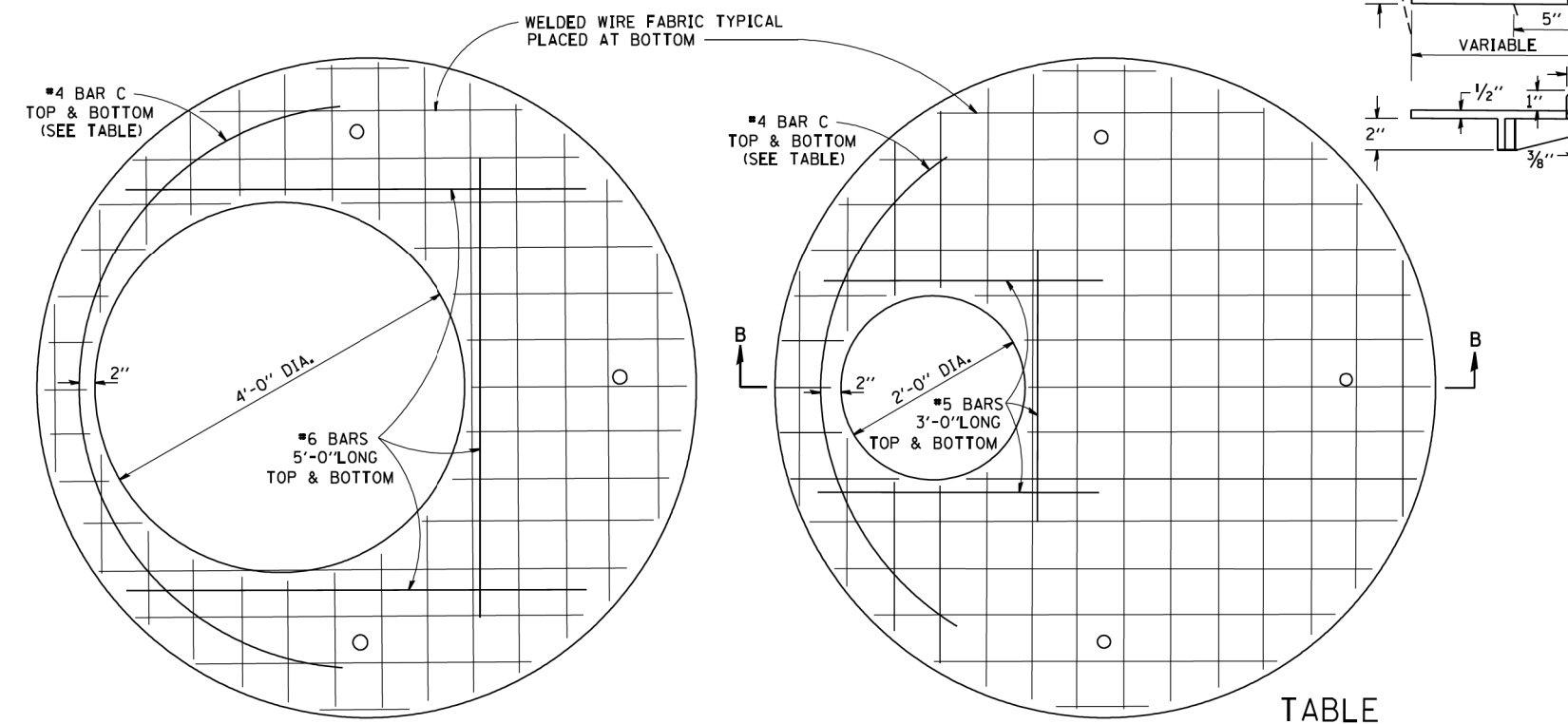
ELEVATION



PREFABRICATED REINFORCED CONCRETE SLAB WHEN THE PRECAST REINFORCED CONCRETE SECTIONS ALTERNATE IS USED *
OR
REINFORCED CAST-IN-PLACE CLASS X CONCRETE *
OR
PRECAST REINFORCED CONCRETE SLAB WITH SAND CUSHION *



**PLAN
SHOWING REBAR REINFORCEMENT**



**PLAN
SHOWING WELDED WIRE FABRIC REINFORCEMENT**

NOTE: THIS STRUCTURE SHOULD BE USED WITH PIPES SIZE 54" DIA. OR SMALLER.

DIAMETER OF OPENING	REINFORCEMENT "A _C " WWF OR SIZE EACH DIRECTION	BAR SIZE	BAR C		
			SIZE	LENGTH	RADIUS
2'-0"	1.06 SQ.IN./LIN.FT.	#6	#4	6'-0"	38"
4'-0"	0.82 SQ.IN./LIN.FT.	#6	#4	9'-0"	38"

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**MANHOLE TYPE A
7 FOOT DIAMETER**

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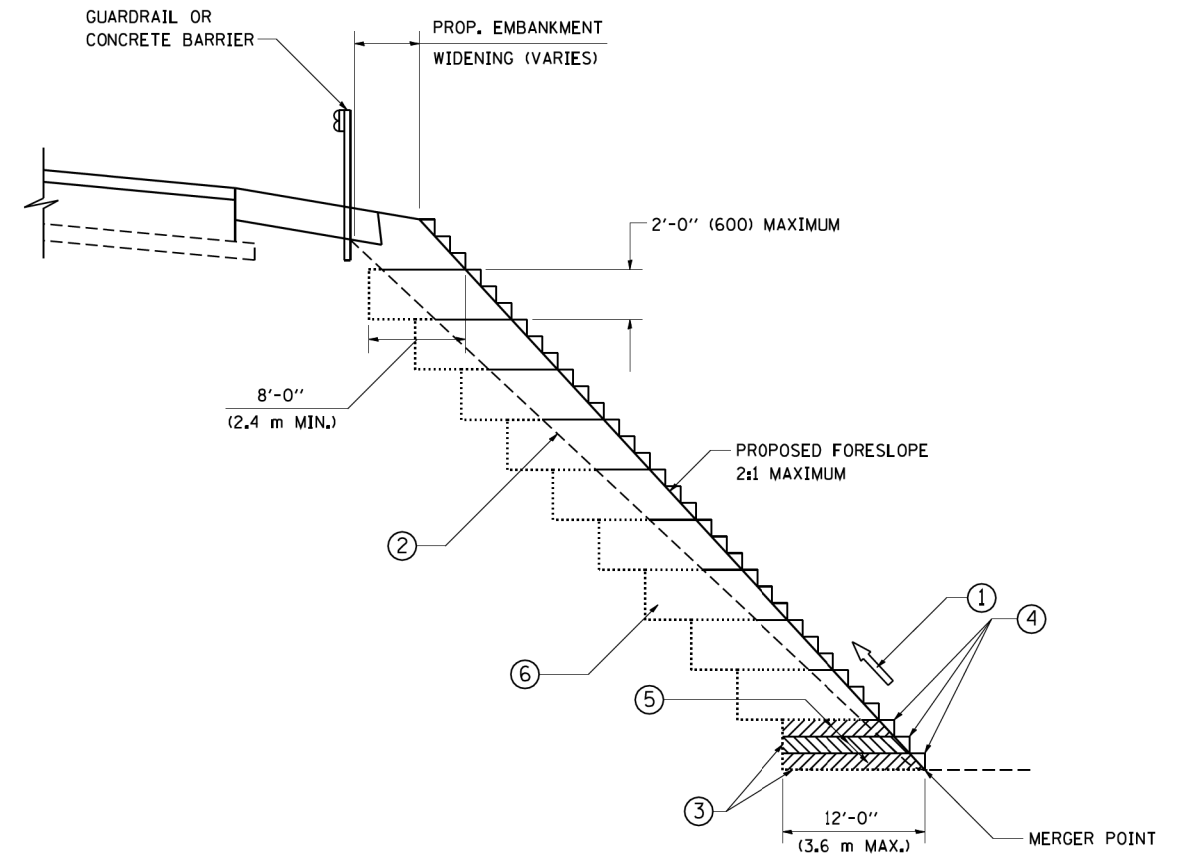
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PLOT DATE = 1/4/2008

DESIGNED -
DRAWN -
CHECKED -
DATE - 10-18-02

REVISED -
REVISED -
REVISED -
REVISED -

SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A. RTE. 326	SECTION 107N-4	COUNTY KANE	TOTAL SHEETS 288	SHEET NO. 266
BD600-11 (BD-37)			CONTRACT NO.	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



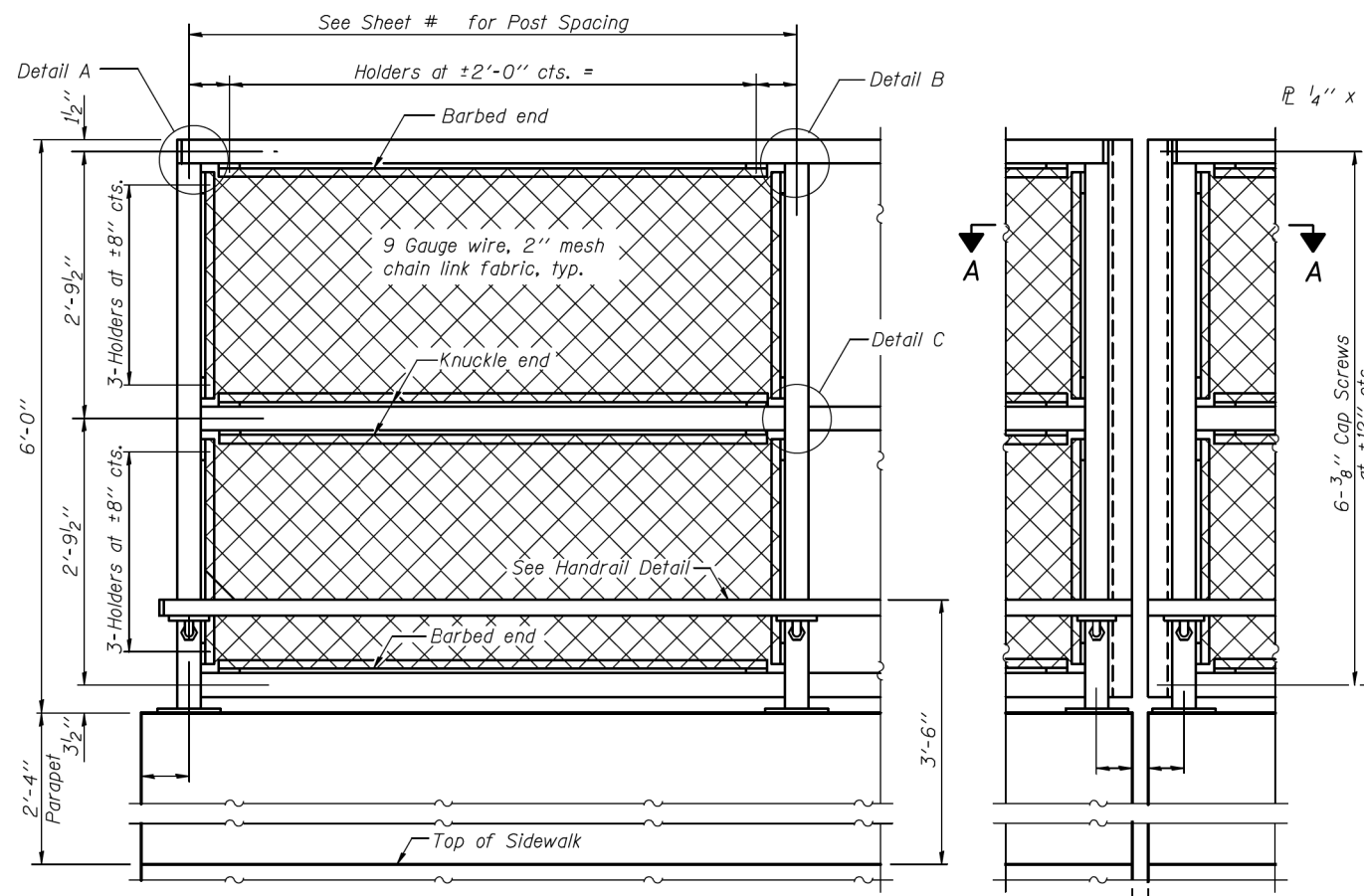
**TYPICAL BENCHING DETAIL
FOR EMBANKMENT**

NOTES:

- ① CONSTRUCT SUCCEEDING BENCH CUTS AND EMBANKMENT PLACEMENT AND COMPACTION FROM BOTTOM TO TOP IN STAIRSTEP FASHION.
- ② EXISTING FORESLOPE PREPARED IN ACCORDANCE WITH ARTICLE 205.03 OF THE STANDARD SPECIFICATIONS.
- ③ BENCH CUT EXISTING SLOPE TYPICAL FOR EACH STEP.
- ④ TRIM TO FINAL SLOPE.
- ⑤ EQUAL 8-INCH (200) LIFTS OF EMBANKMENT COMPACTED IN ACCORDANCE WITH ARTICLE 205.05 OF THE STANDARD SPECIFICATIONS.
- ⑥ EXCAVATION OF BENCH CUTS WITHIN EXISTING EMBANKMENT WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER CUBIC METER OR CUBIC YARD FOR "EARTH EXCAVATION". THIS PRICE WILL INCLUDE ALL LABOR AND MATERIAL, NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
- ⑦ SLOPES SHALL BE BENCHED ACCORDING TO THIS DETAIL WHEN THE SLOPE IS STEEPER THAN 4:1 AND THE HEIGHT IS GREATER THAN 5' (1.5 m).

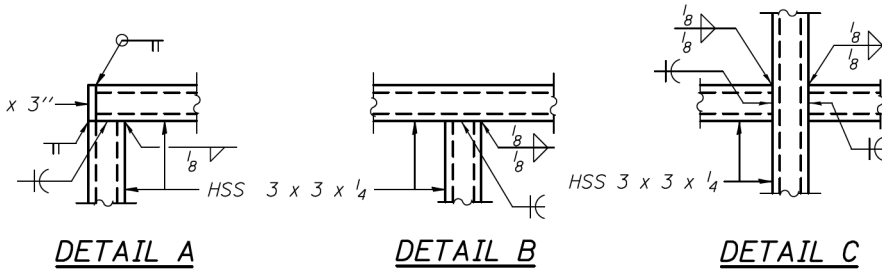
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS)
UNLESS OTHERWISE SHOWN.

FILE NAME = W:\diststd\22x34\bd51.dgn	USER NAME = gegljanobt	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	BENCHING DETAIL FOR EMBANKMENT WIDENING			F.A. RTE. = 326	SECTION = 107N-4	COUNTY = KANE	TOTAL SHEETS = 288	SHEET NO. = 267
	PLOT SCALE = 50.0000' / IN.	CHECKED - S.E.B.	REVISED -		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA. TO STA.	BD-51 CONTRACT NO.				
PLOT DATE = 1/4/2008	DATE = 06-16-04	REVISED -	REVISED -	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT								



ELEVATION
(Inside Face)

ELEVATION
(At Expansion Joint)

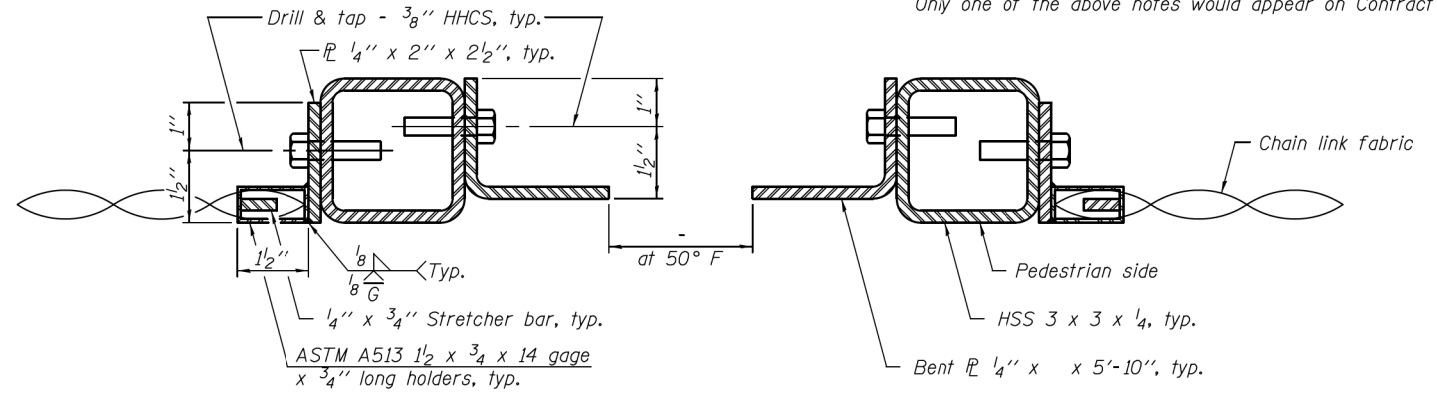


DETAIL A

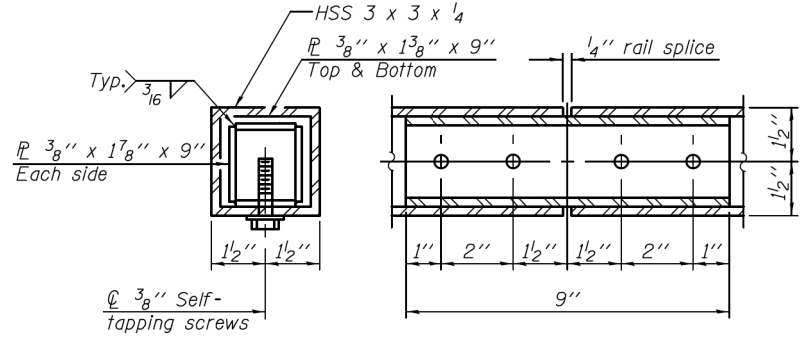
DETAIL B

DETAIL C

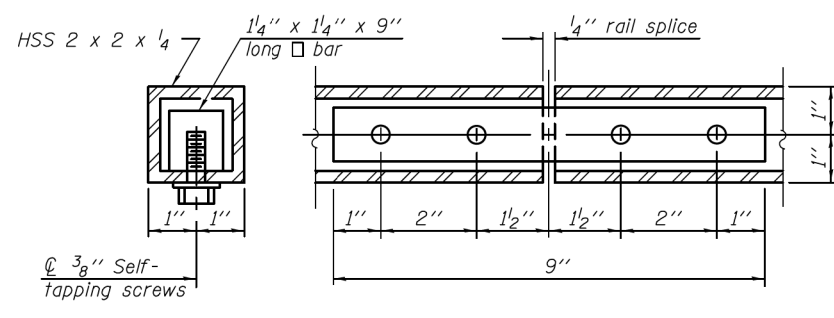
The designer should add the appropriate note as applicable.
 A. When railing is galvanized:
 All steel rail elements shall be galvanized according to Article 509.05 of the Standard Specifications.
 B. When railing is painted:
 All post, railing, splices, anchor devices, and bent plates shall be painted using the (List the appropriate paint system for Structural Steel).
 Only one of the above notes would appear on Contract Plans.



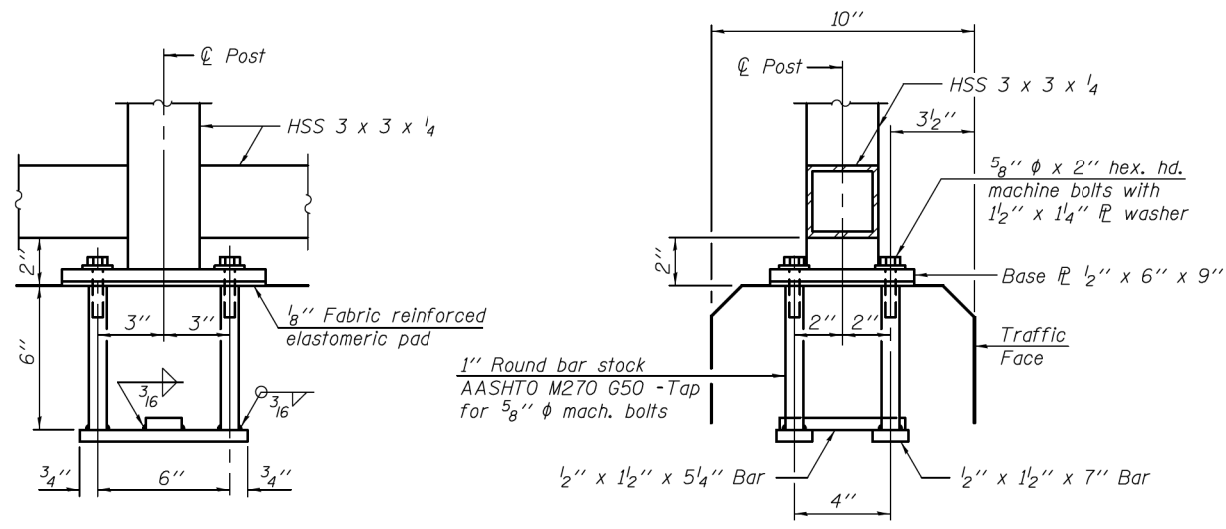
SECTION A-A



RAIL SPLICE

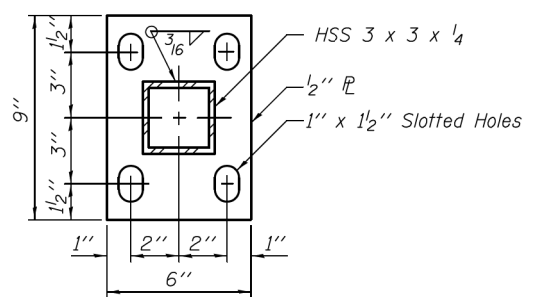


HANDRAIL SPLICE

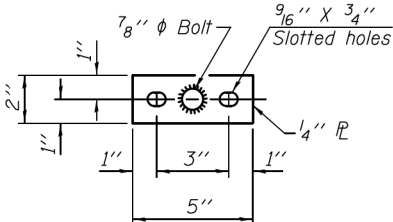


ANCHOR BOLT DETAILS

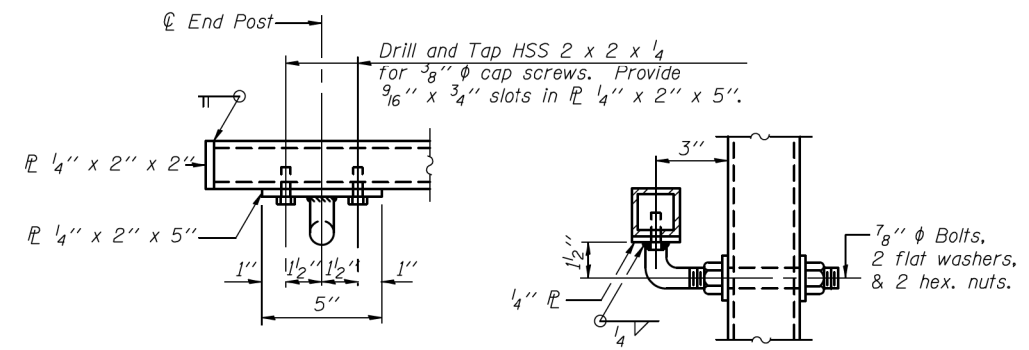
In lieu of the cast-in-place anchor device shown, the Contractor has the option of drilling and setting 5/8" φ anchor rods according to Article 509.06 of the Standard Specifications. Embedment shall be according to the manufacturer's specifications.



BASE PL



BASE PL
(Handrail)



HANDRAIL DETAIL

BILL OF MATERIAL

Item	Unit	Quantity
Bridge Fence Railing	Foot	

R-28 1-12-15 (10'-0" Maximum Post Spacing)

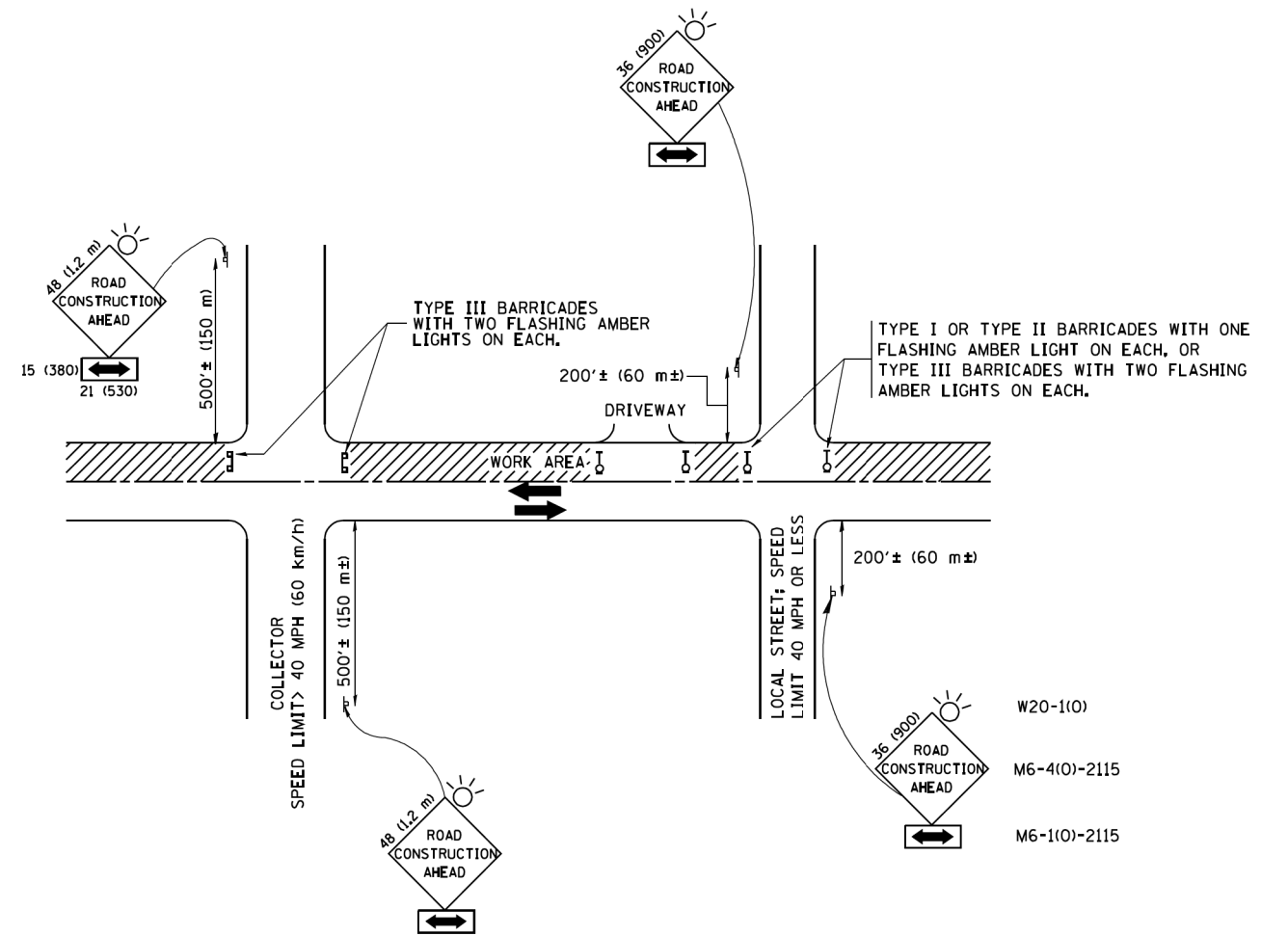
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		CHECKED -	REVISED -
		DRAWN -	REVISED -
		CHECKED -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BRIDGE FENCE RAILING, PARAPET MOUNTED
STRUCTURE NO.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	107N-4	KANE	288	268
CONTRACT NO.				

ILLINOIS FED. AID PROJECT



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

NOTES:

- A. FOR NO LANE RESTRICTION ON THE SIDE ROAD OR DRIVEWAYS
 1. SIDE ROAD WITH A SPEED LIMIT OF 40 MPH (60 km/h) OR LESS AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
 - a) ONE ROAD CONSTRUCTION AHEAD SIGN 36 x 36 (900x900) WITH A FLASHER AND FLAG MOUNTED ON IT APPROXIMATELY 200' (60 m) IN ADVANCE OF THE MAIN ROUTE.
 - b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE I, TYPE II OR TYPE III BARRICADES, 1/3 OF THE CROSS SECTION OF THE CLOSED PORTION.
 2. SIDE ROAD WITH A SPEED LIMIT GREATER THAN 40 MPH (60 km/h) AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
 - a) ONE ROAD CONSTRUCTION AHEAD SIGN 48 x 48 (1.2 m x 1.2 m) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 500' (150 m) IN ADVANCE OF THE MAIN ROUTE.
 - b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE III BARRICADES, 1/2 OF THE CROSS SECTION OF THE CLOSED PORTION.
 3. WHEN THE SIDE ROAD LIES BETWEEN THE BEGINNING OF THE MAINLINE SIGNING AND THE WORK ZONE, A SINGLE HEADED ARROW (M6-1) SHALL BE USED IN LIEU OF THE DOUBLE HEADED ARROW (M6-4).
- B. FOR A LANE CLOSURE ON A SIDE ROAD OR DRIVEWAY:

USE APPLICABLE PORTIONS OF THE TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES (STD. 701501, STD. 701606 OR THE APPROPRIATE STANDARD). THE SPACING OF SIGNS AND BARRICADES SHALL BE ADJUSTED FOR FIELD CONDITIONS AS DIRECTED BY THE ENGINEER. THE DIRECTIONAL ARROW SHALL BE COVERED OR REMOVED WHEN NO LONGER CONSISTENT WITH THE SIDE ROAD LANE CLOSURE.
- C. ADVANCE WARNING SIGNS ARE TO BE OMITTED ON DRIVEWAY UNLESS OTHERWISE NOTED.
- D. THE TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS SHALL BE INCIDENTAL TO THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

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

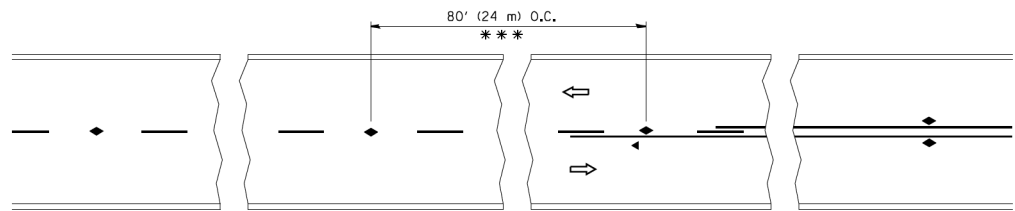
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	PLOT DATE = 1/4/2008	DATE - 06-89	REVISED - T. RAMMACHER 01-06-00

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

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

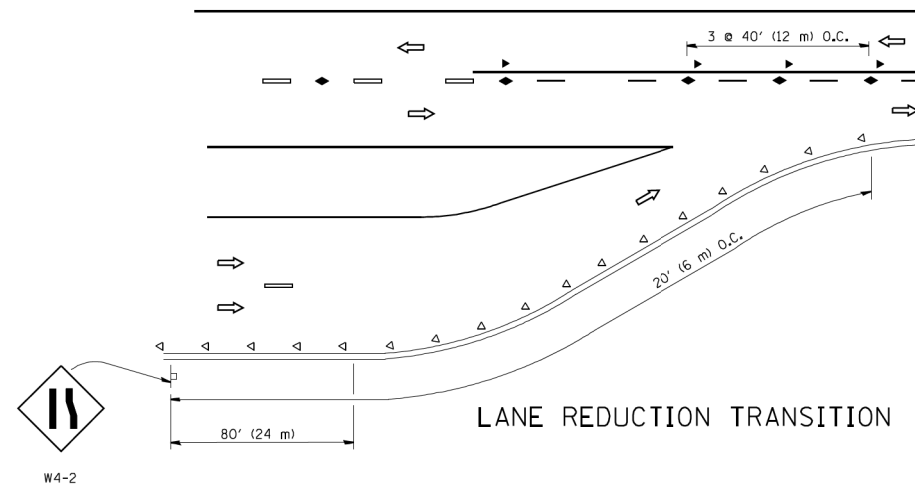
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F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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TC-10			CONTRACT NO.	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

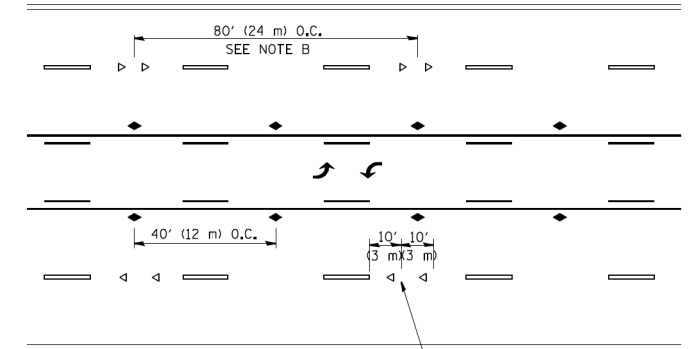


*** REDUCE TO 40' (12 m) O.C. ON CURVES WITH POSTED OR ADVISORY SPEED 45 M.P.H. (70 km/h) OR LESS.

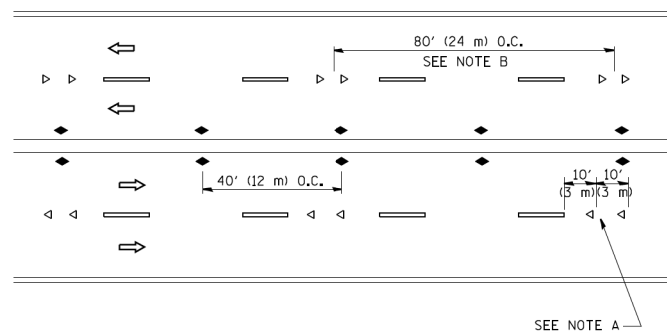
TWO-LANE/TWO-WAY



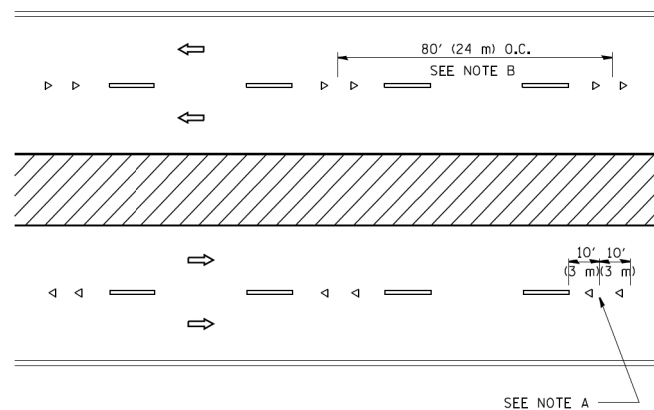
LANE REDUCTION TRANSITION



TWO-WAY LEFT TURN



MULTI-LANE/UNDIVIDED



MULTI-LANE/DIVIDED

GENERAL NOTES

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

SYMBOLS

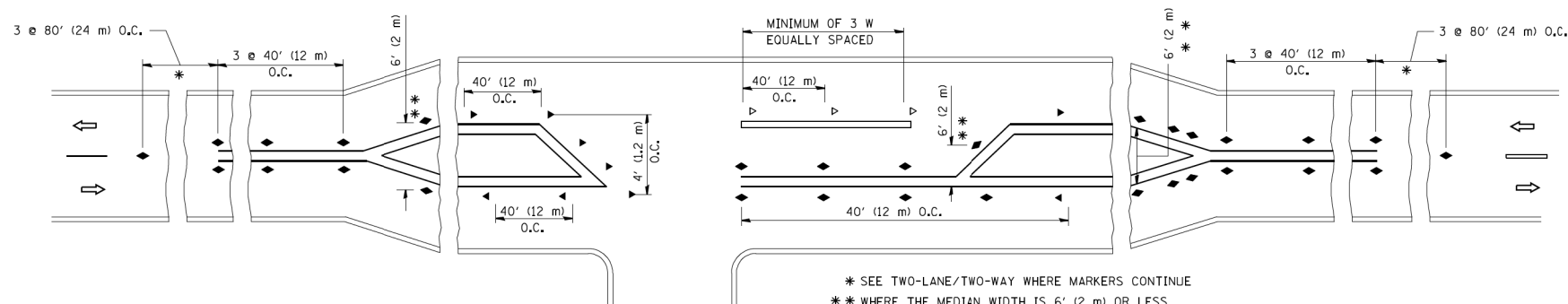
- YELLOW STRIPE
- WHITE STRIPE
- ◀ ONE-WAY AMBER MARKER
- ◁ ONE-WAY CRYSTAL MARKER (W/O)
- ◆ TWO-WAY AMBER MARKER

LANE MARKER NOTES

- A. USE DOUBLE LANE LINE MARKERS SPACED AS SHOWN.
- B. REDUCE TO 40' (12 m) O.C. ON CURVES WHERE ADVISORY SPEEDS ARE 10 M.P.H. (20 km/h) LOWER THAN POSTED SPEEDS.

DESIGN NOTES

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



LEFT TURN

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

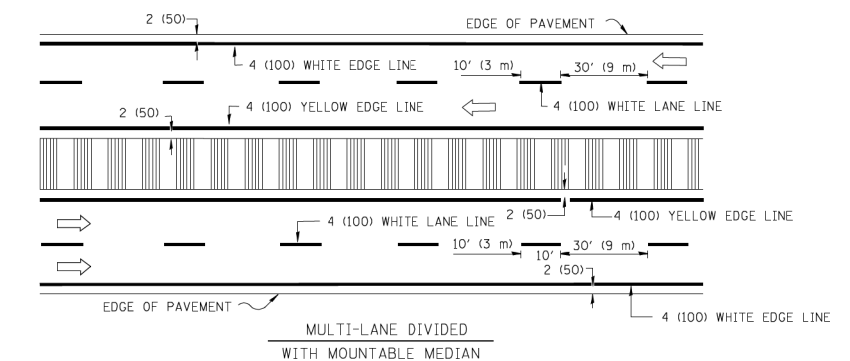
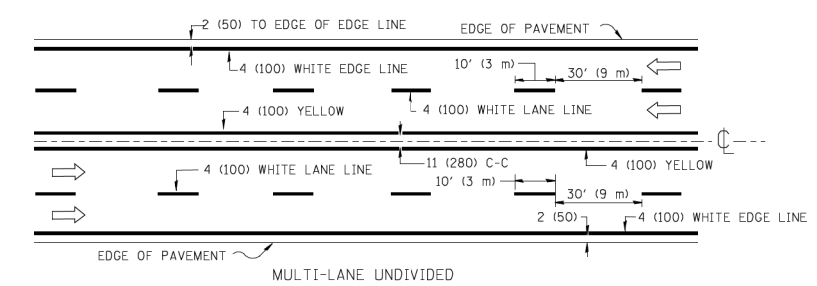
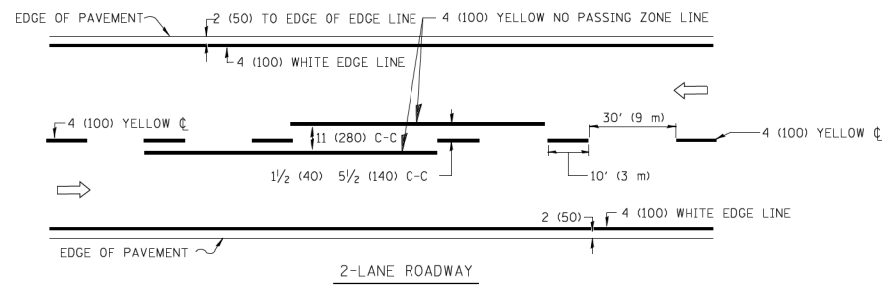
All dimensions are in inches (millimeters) unless otherwise shown.

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STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

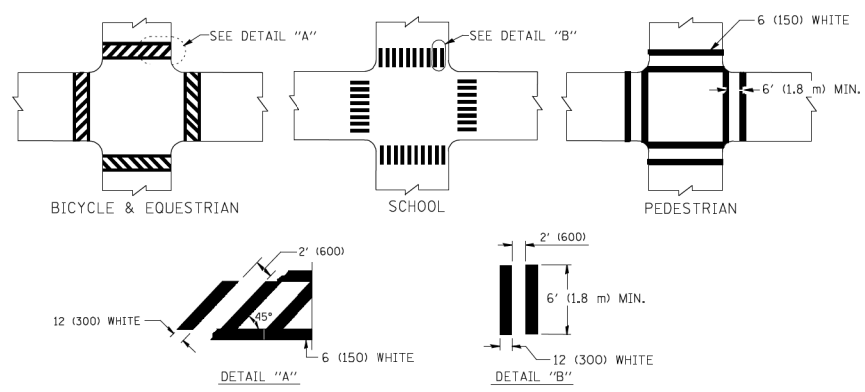
TYPICAL APPLICATIONS			
RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)			
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	107N-4	KANE	288	270
TC-11			CONTRACT NO.	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

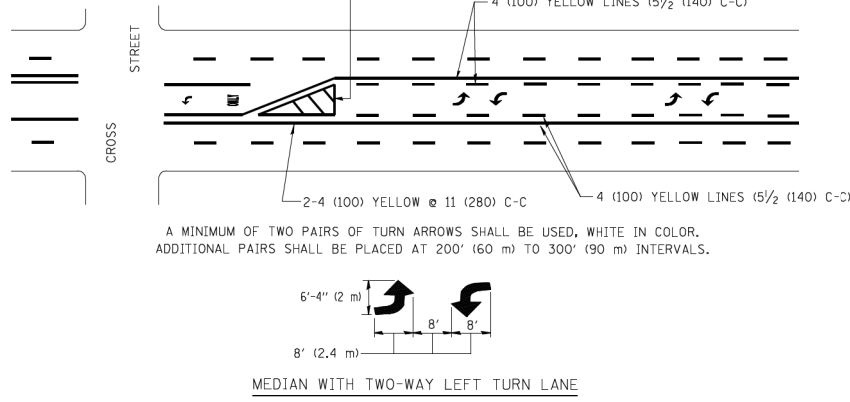
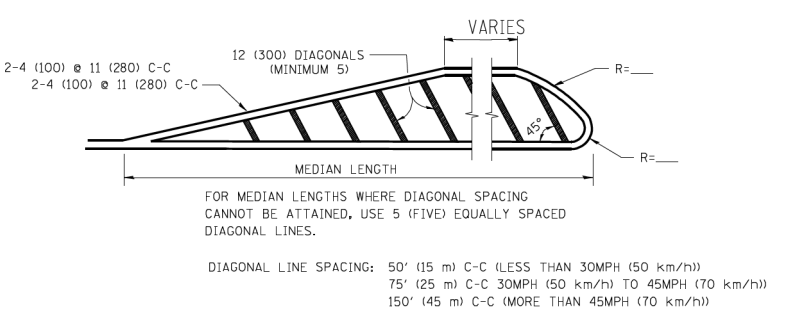
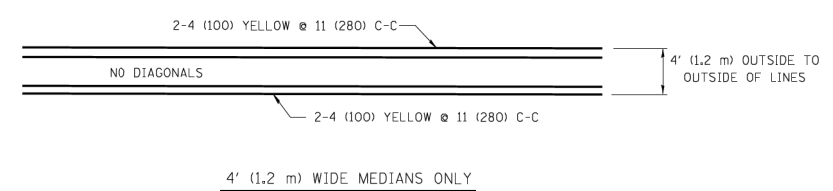


NOTE: MEDIANS WITH BARRIER CURB DO NOT REQUIRE AN EDGE LINE

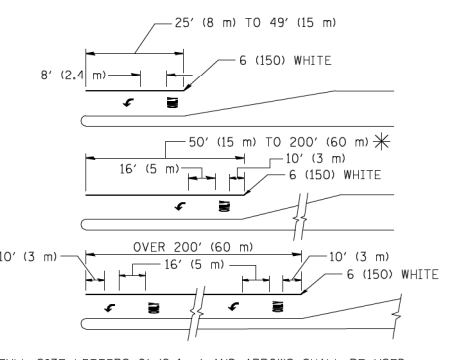
TYPICAL LANE AND EDGE LINE MARKING



TYPICAL CROSSWALK MARKING



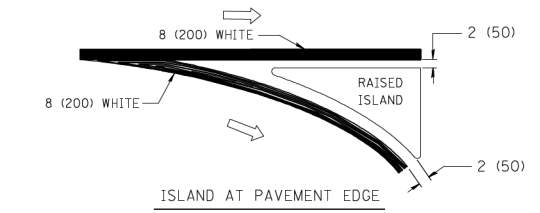
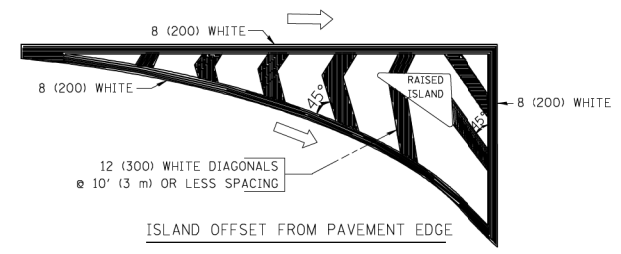
TYPICAL PAINTED MEDIAN MARKING



FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED.
 * TURN LANES IN EXCESS OF 400' (120 m) IN LENGTH MAY HAVE AN ADDITIONAL SET OF ARROW - "ONLY" INSTALLED MIDWAY BETWEEN THE OTHER TWO SETS OF ARROW - "ONLY".

TYPICAL LEFT (OR RIGHT) TURN LANE

TYPICAL TURN LANE MARKING



TYPICAL ISLAND MARKING

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

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

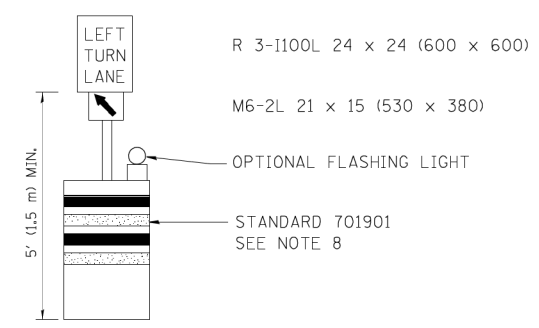
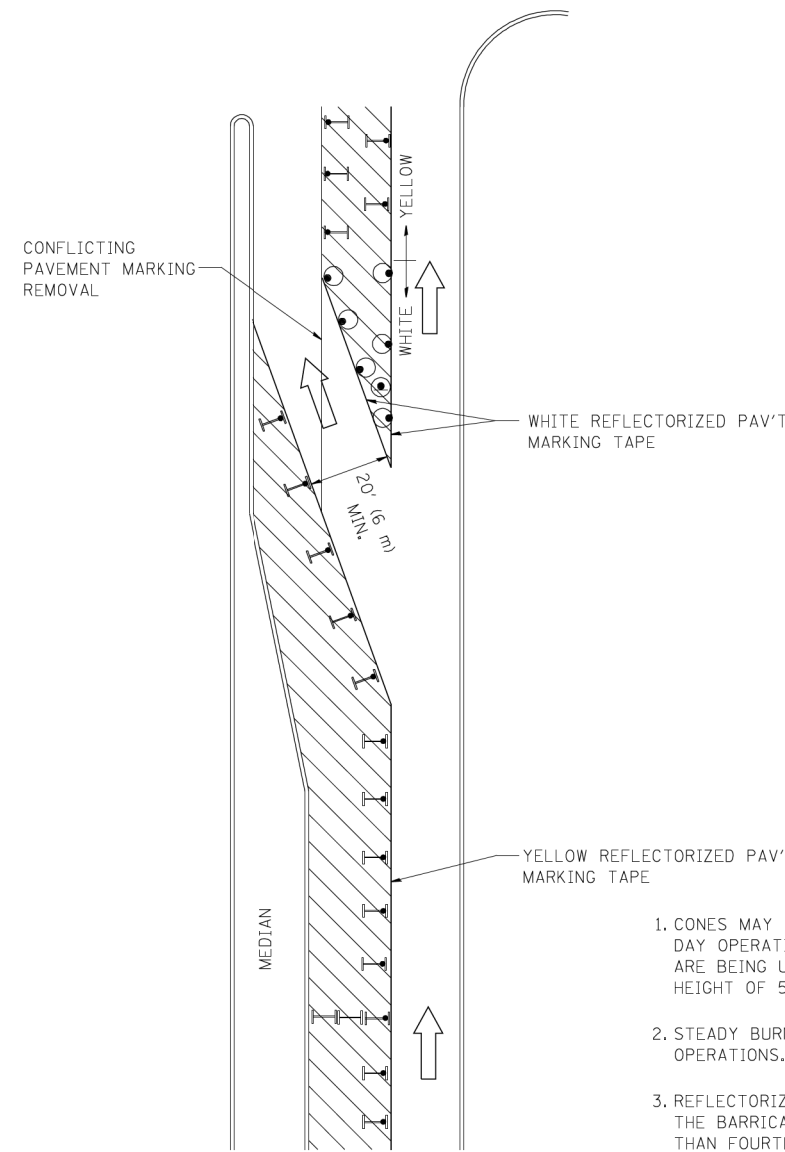
All dimensions are in inches (millimeters) unless otherwise shown.

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	PLOT SCALE = 50.000' / IN.	CHECKED -	REVISED -
	PLOT DATE = 9/9/2009	DATE - 03-19-90	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

DISTRICT ONE			
TYPICAL PAVEMENT MARKINGS			
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	107N-4	KANE	288	271
TC-13		CONTRACT NO.		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				









GENERAL NOTES

1. CONES MAY BE SUBSTITUTED FOR BARRICADES OR DRUMS AT HALF THE SPACING DURING DAY OPERATIONS. CONES SHALL BE A MINIMUM OF 28 (710) IN HEIGHT. WHEN CONES ARE BEING USED, THE "LEFT TURN LANE" SIGN MAY BE SKID MOUNTED AT A MINIMUM HEIGHT OF 5' (1.5 m).
2. STEADY BURNING LIGHTS WILL NOT BE REQUIRED ON BARRICADES OR DRUMS FOR DAY OPERATIONS. ALL LIGHTS SHALL BE MONODIRECTIONAL.
3. REFLECTORIZED TEMPORARY PAVEMENT MARKING TAPE SHALL BE PLACED THROUGHOUT THE BARRICADED AREA OF EACH TURN BAY WHERE THE CLOSURE TIME IS GREATER THAN FOURTEEN DAYS.
4. THIS APPLICATION ALSO APPLIES WHEN WORK IS BEING PERFORMED IN THE RIGHT LANE(S) AND THE RIGHT TURN BAY IS TO REMAIN OPEN. UNDER THIS CONDITION, "RIGHT TURN LANE" R3-100 24 x 24 (600 x 600) AND M6-2R 21 x 15 (530 x 380) SHALL BE USED.
5. THESE CONTROLS SHALL SUPPLEMENT MAINLINE TRAFFIC CONTROL FOR LANE CLOSURES.
6. LONGITUDINAL DIMENSIONS MAY BE ADJUSTED TO FIT FIELD CONDITIONS.
7. FORM OPER 725 IS REQUIRED.
8. IF A DRUM OR TYPE II BARRICADE WITH AN ATTACHED SIGN PANEL WHICH MEETS NCHRP 350 REQUIREMENTS IS NOT AVAILABLE, THE SIGNS SHALL BE MOUNTED, ABOVE THE BARRICADES, ON SEPARATE SIGNS SUPPORTS THAT MEET NCHRP 350 PREQUIREMENTS.
9. TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC) SHALL BE INCLUDED IN THE COST SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

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

LEGEND

-  WORK AREA
-  LANE OPEN TO TRAFFIC
-  TYPE I OR II BARRICADE WITH STEADY BURN LIGHT
-  DRUM WITH STEADY BURN LIGHT
-  DRUM WITH SIGN (WITH OPTIONAL FLASHING LIGHT) SEE DETAIL
-  TYPE I OR II CHECK BARRICADE WITH FLASHING LIGHT

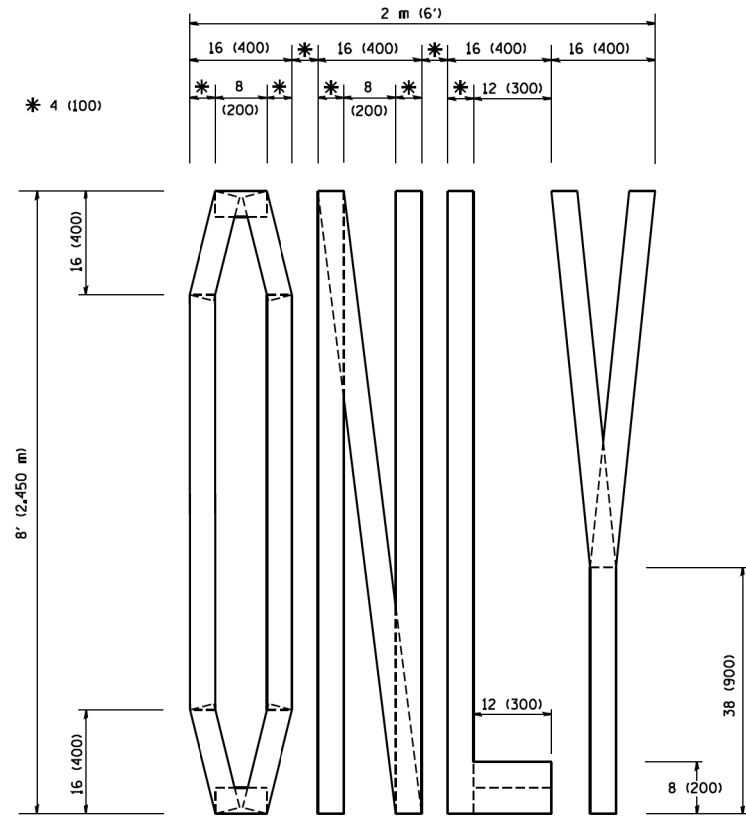
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		REVISED -T, RAMMACHER 01-06-00	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

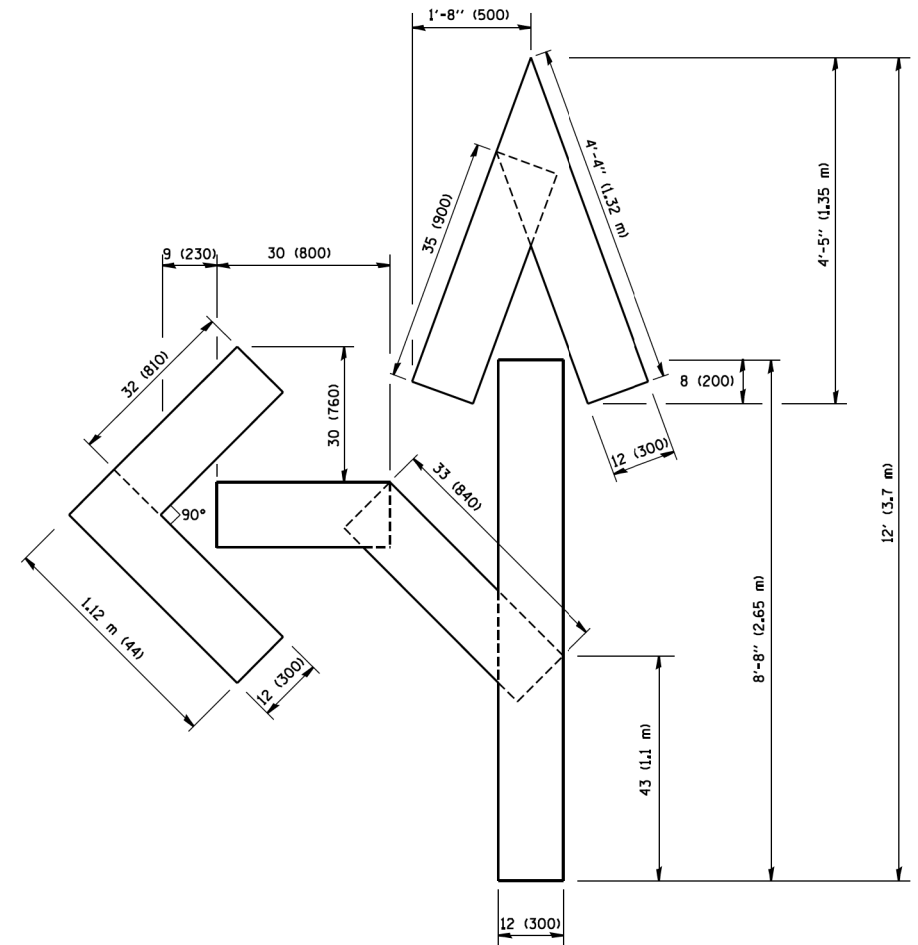
**TRAFFIC CONTROL AND PROTECTION AT TURN BAYS
(TO REMAIN OPEN TO TRAFFIC)**

SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

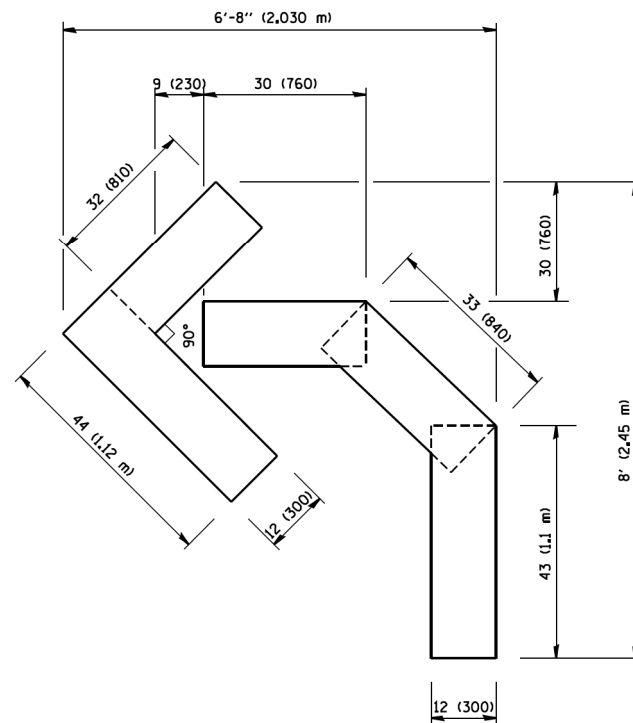
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	107N-4	KANE	288	272
TC-14		CONTRACT NO.		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



QUANTITY
 4 (100) LINE = 64.1 ft. (19.7 m)
 21.1 sq. ft. (1.97 sq. m)



QUANTITY
 4 (100) LINE = 82.5 ft. (25.3 m)
 27.5 sq. ft. (2.53 sq. m)



QUANTITY
 4 (100) LINE = 45.5 ft. (13.9 m)
 15.2 sq. ft. (1.39 sq. m)

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

FILE NAME = W:\diststd\22x34\to16.dgn	USER NAME = gaglianobt	DESIGNED - DRAWN -	REVISED -T. RAMMACHER 06-05-96 REVISED -T. RAMMACHER 11-04-97
	PLOT SCALE = 50,0000 ' / IN.	CHECKED -	REVISED -T. RAMMACHER 03-02-98
	PLOT DATE = 1/4/2008	DATE - 09-18-94	REVISED -E. GOMEZ 08-28-00


STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION


PAVEMENT MARKING LETTERS AND SYMBOLS
 FOR TRAFFIC STAGING


SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A. RTE. 326	SECTION 107N-4	COUNTY KANE	TOTAL SHEETS 288	SHEET NO. 273
TC-16			CONTRACT NO.	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				






ROUTE MARKERS

 FOR U.S. ROUTES
M1-40-2424






 FOR ILLINOIS ROUTES
M1-50-2424

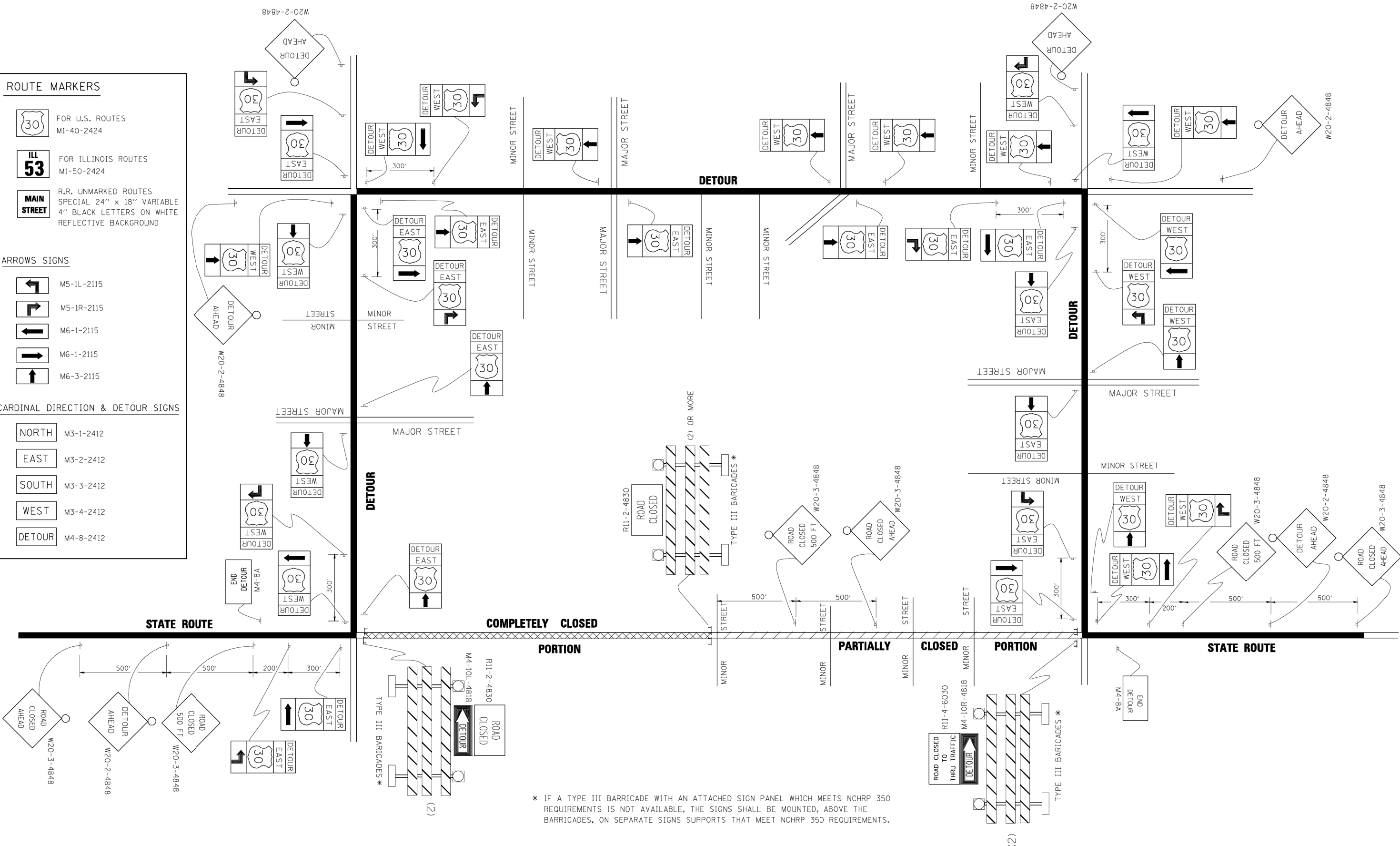
 R.R., UNMARKED ROUTES
SPECIAL 24" x 18" VARIABLE
4" BLACK LETTERS ON WHITE
REFLECTIVE BACKGROUND

ARROWS SIGNS

-  M5-1L-2115
-  M5-1R-2115
-  M6-1-2115
-  M6-1-2115
-  M6-3-2115

CARDINAL DIRECTION & DETOUR SIGNS

-  NORTH M3-1-2412
-  EAST M3-2-2412
-  SOUTH M3-3-2412
-  WEST M3-4-2412
-  DETOUR M4-8-2412



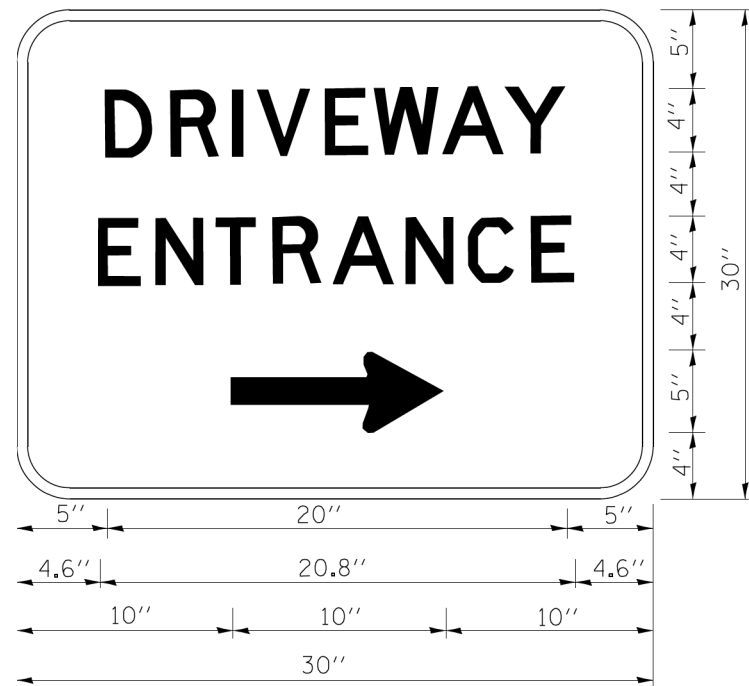
* IF A TYPE III BARRICADE WITH AN ATTACHED SIGN PANEL WHICH MEETS NCHRP 350 REQUIREMENTS IS NOT AVAILABLE, THE SIGNS SHALL BE MOUNTED, ABOVE THE BARRICADES, ON SEPARATE SIGNS SUPPORTS THAT MEET NCHRP 350 REQUIREMENTS.

FILE NAME =	USER NAME = drlvakosgn	DESIGNED -	REVISED - 10-18-02
et:\pwwork\pww\d01\DRIVAKOSGN\d0108315\421.dgn		DRAWN -	REVISED - R. BORO 09-14-09
		CHECKED -	REVISED -
		DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

DETOUR SIGNING FOR CLOSING STATE HIGHWAYS			
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	107N-4	KANE	288	274
TC-21			CONTRACT NO.	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



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

NOTES:

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

FILE NAME =	USER NAME = gaglianob	DESIGNED -	REVISED - C. JUCIUS 02-15-07
et:\pwork\pido\gaglianob\0108315\te	te	DRAWN -	REVISED -
		CHECKED -	REVISED -
		DATE -	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

DRIVEWAY ENTRANCE SIGNING

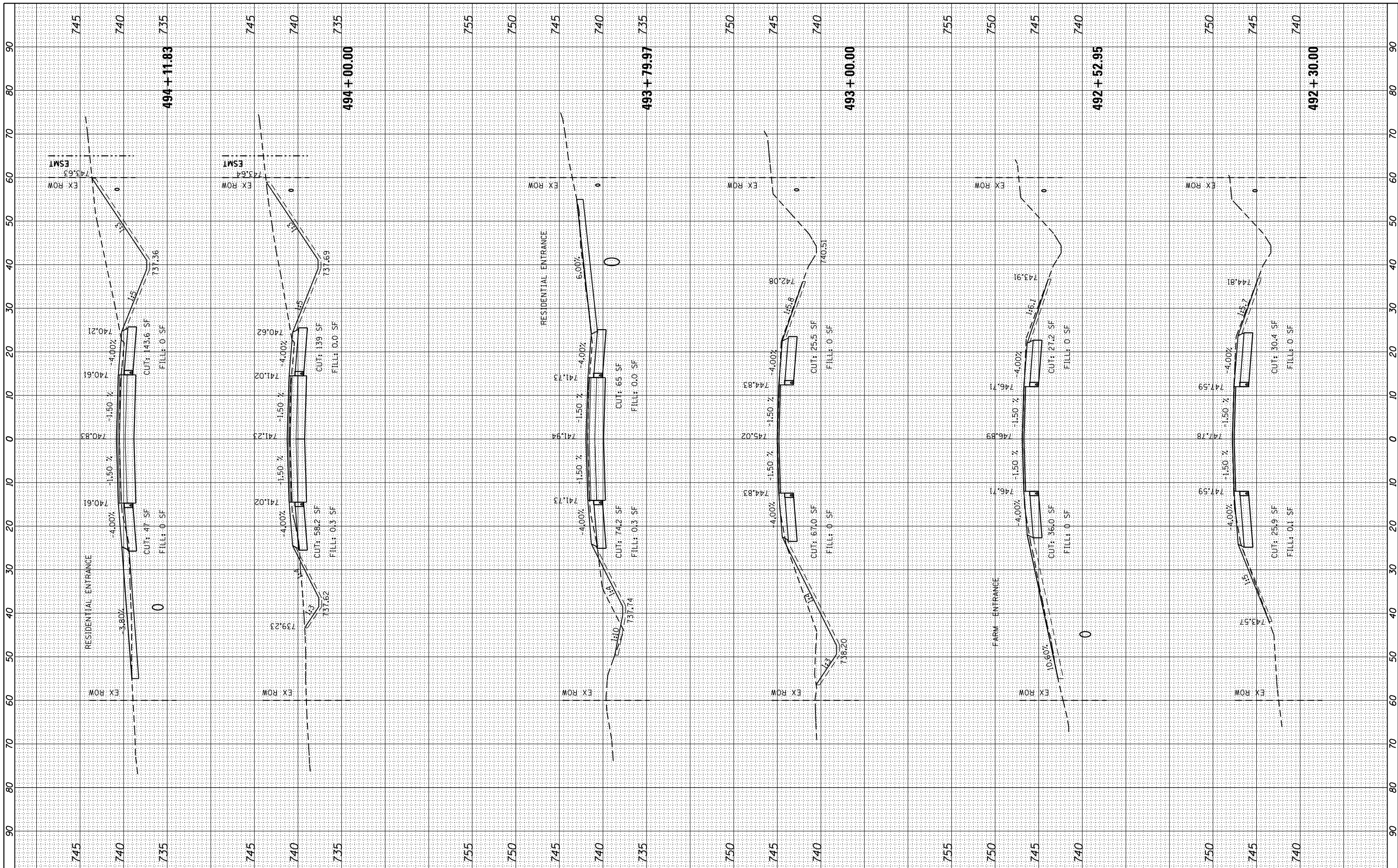
SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	107N-4	KANE	288	275
TC-26			CONTRACT NO.	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

PLAN	SURVEYED	DATE
NOTE BOOK	PLOTTED	
NO.	GRADES CHECKED	
	STRUCTURE NOTATIONS CHKD	
	FILE NAME	

PROFILE	SURVEYED	DATE
NOTE BOOK	PLOTTED	
NO.	GRADES CHECKED	
	STRUCTURE NOTATIONS CHKD	
	FILE NAME	

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FILE NAME =	
PLOT SCALE =	20.0000' / in.
PLOT DATE =	1/28/2019
DESIGNED -	LAB
DRAWN -	SA
CHECKED -	EJL
DATE -	7/25/18

REVISED -	
REVISED -	
REVISED -	
REVISED -	

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**IL 47
CROSS SECTIONS**

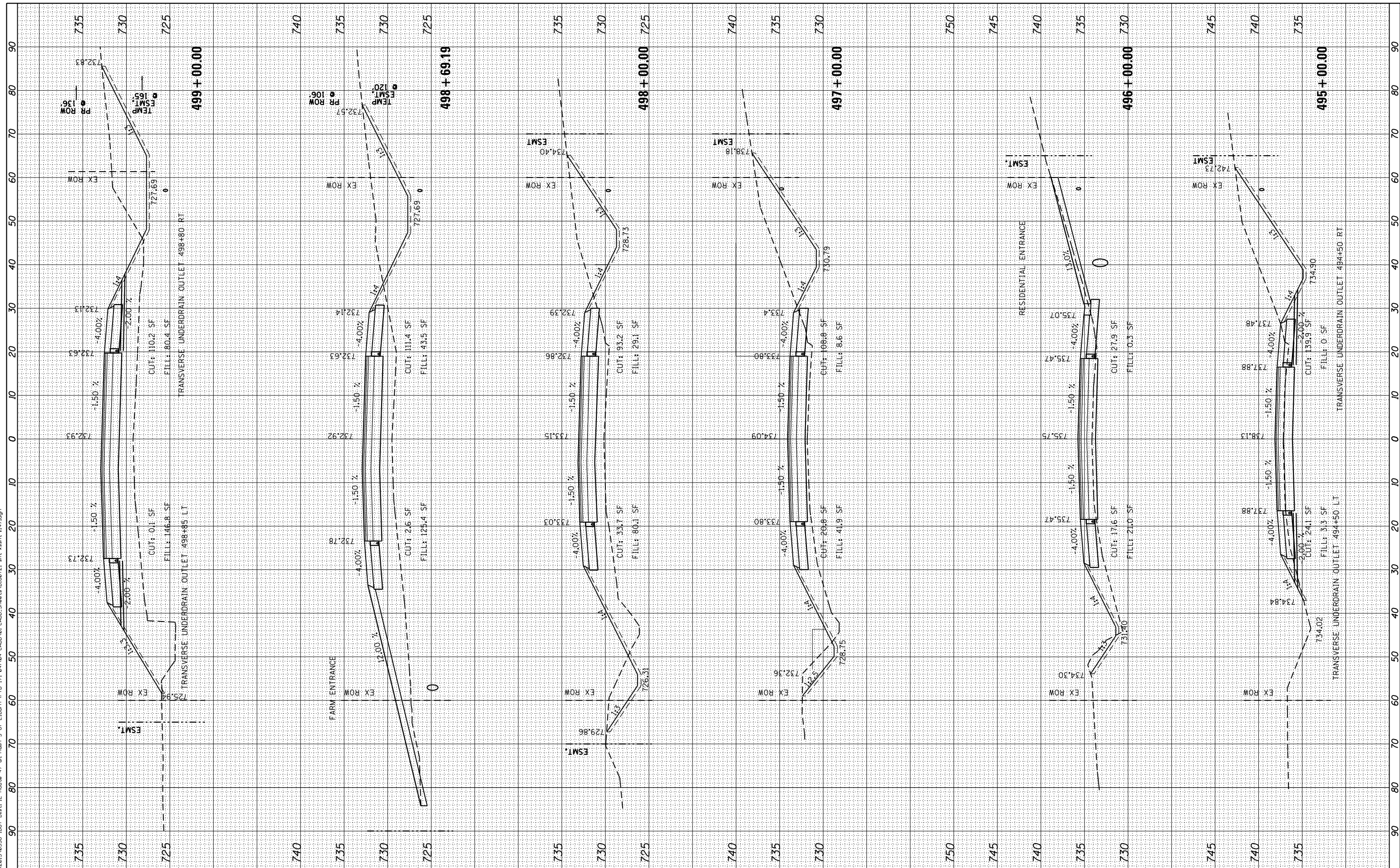
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	107N-4	KANE	288	277
CONTRACT NO. 60T21				
ILLINOIS FED. AID PROJECT				

PLAN	SURVEYED	DATE
NOTE BOOK	PLOTTED	
NO.	CHECKED	
	FILE NAME	

PROFILE	SURVEYED	DATE
NOTE BOOK	PLOTTED	
NO.	CHECKED	
	FILE NAME	

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PLOT SCALE = 20.0000" / 1"	CHECKED - E.JL	REVISED -
PLOT DATE = 1/28/2019	DATE - 7/25/18	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**IL 47
CROSS SECTIONS**

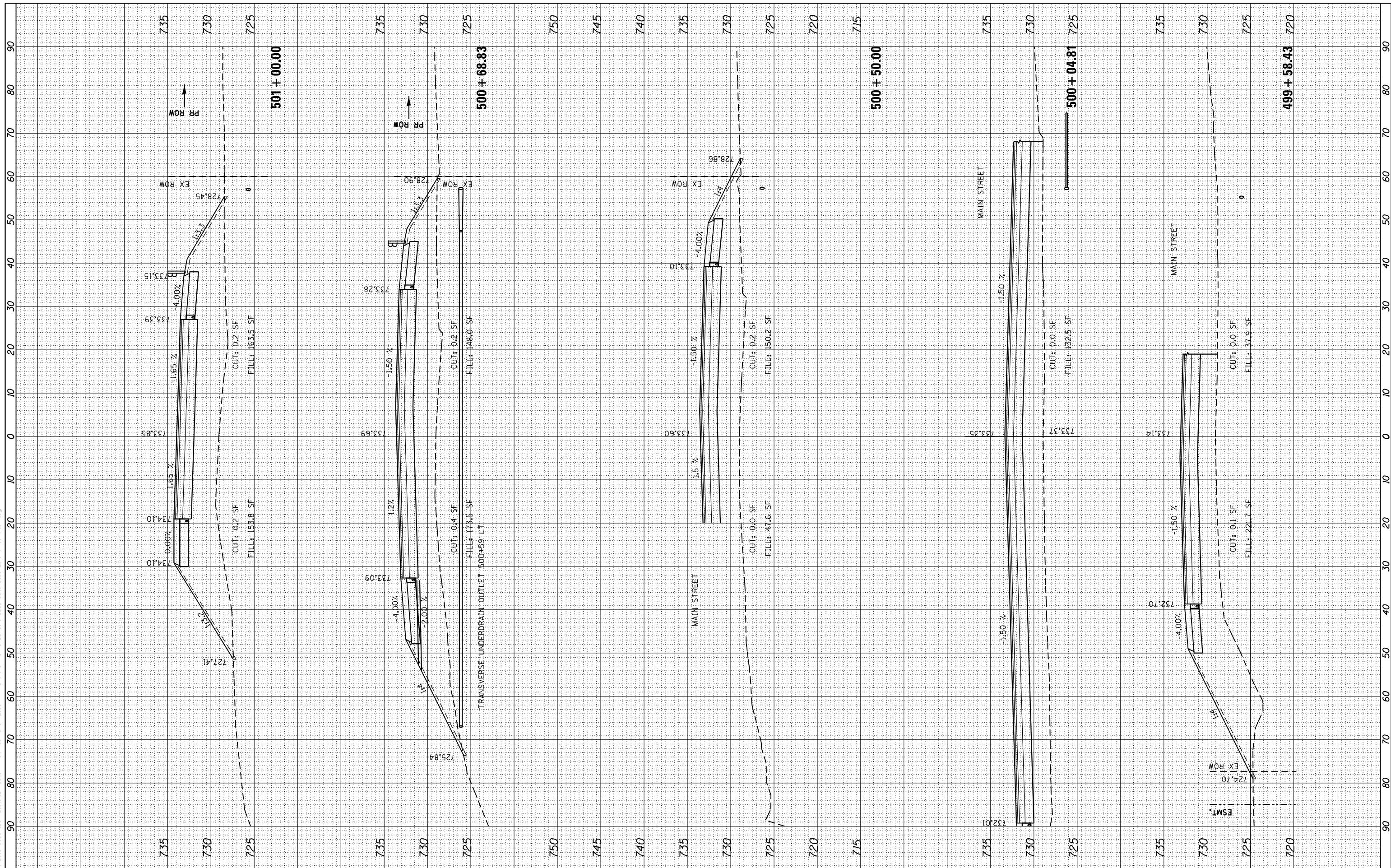
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F.A.P. RTE. 326	SECTION 107N-4	COUNTY KANE	TOTAL SHEETS 288	SHEET NO. 278
CONTRACT NO. 60T21				
ILLINOIS FED. AID PROJECT				

PLAN	SURVEYED	DATE
	PLOTTED	
	ALIGNED	
	CHECKED	
	FILE NAME	
	NO.	

PROFILE	SURVEYED	DATE
	PLOTTED	
	GRADES CHECKED	
	STRUCTURE NOTATIONS CHKD	
	NO.	

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PLOT SCALE =	20.0000' / in.
PLOT DATE =	1/28/2019

DESIGNED -	LAB
DRAWN -	SA
CHECKED -	EJL
DATE -	7/25/18

REVISED -	
REVISED -	
REVISED -	
REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL 47
CROSS SECTIONS

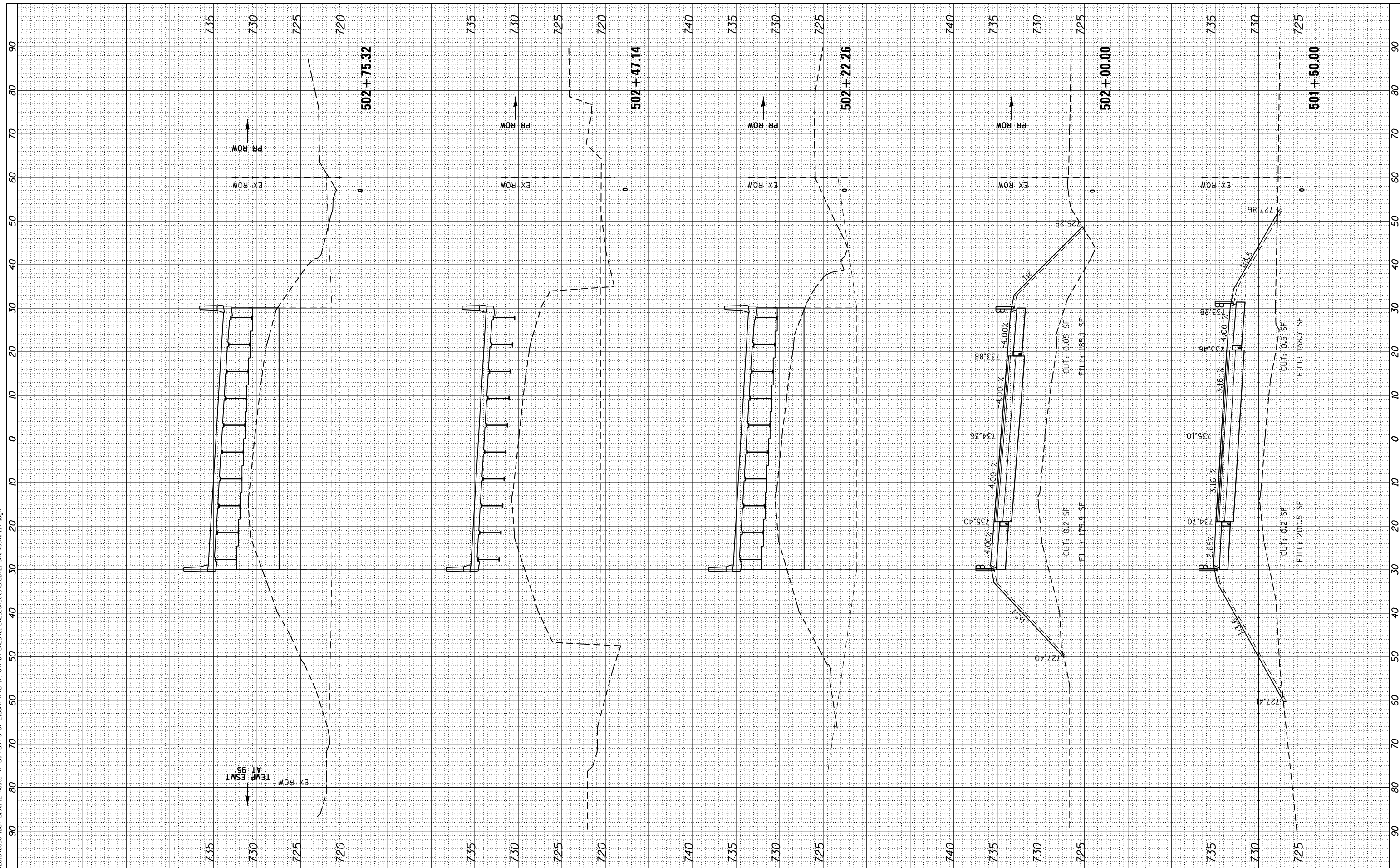
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	107N-4	KANE	288	279
				CONTRACT NO. 60T21
ILLINOIS FED. AID PROJECT				

PLAN	SURVEYED	DATE
	PLOTTED	
	ALIGNED	
	CHECKED	
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PROFILE	SURVEYED	DATE
	PLOTTED	
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PLOT DATE =	1/28/2019
DESIGNED -	LAB
DRAWN -	SA
CHECKED -	EJL
DATE -	7/25/18

REVISED -	
REVISED -	
REVISED -	
REVISED -	

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**IL 47
CROSS SECTIONS**

SCALE: 1:10H, 1:5V SHEET NO. 4 OF 11 SHEETS STA. 492+30.00 TO STA. 494+11.83

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	107N-4	KANE	288	280
CONTRACT NO. 60T21				

ILLINOIS FED. AID PROJECT

PROFILE	SURVEYED	BY	DATE
NOTE BOOK	GRADES CHECKED		
	BY NOTED		
	STRUCTURE NOTATIONS CHKD		

PLAN	SURVEYED	BY	DATE
NOTE BOOK	ALIGNED		
	PT. OF WAY CHECKED		
	CADD FILE NAME		

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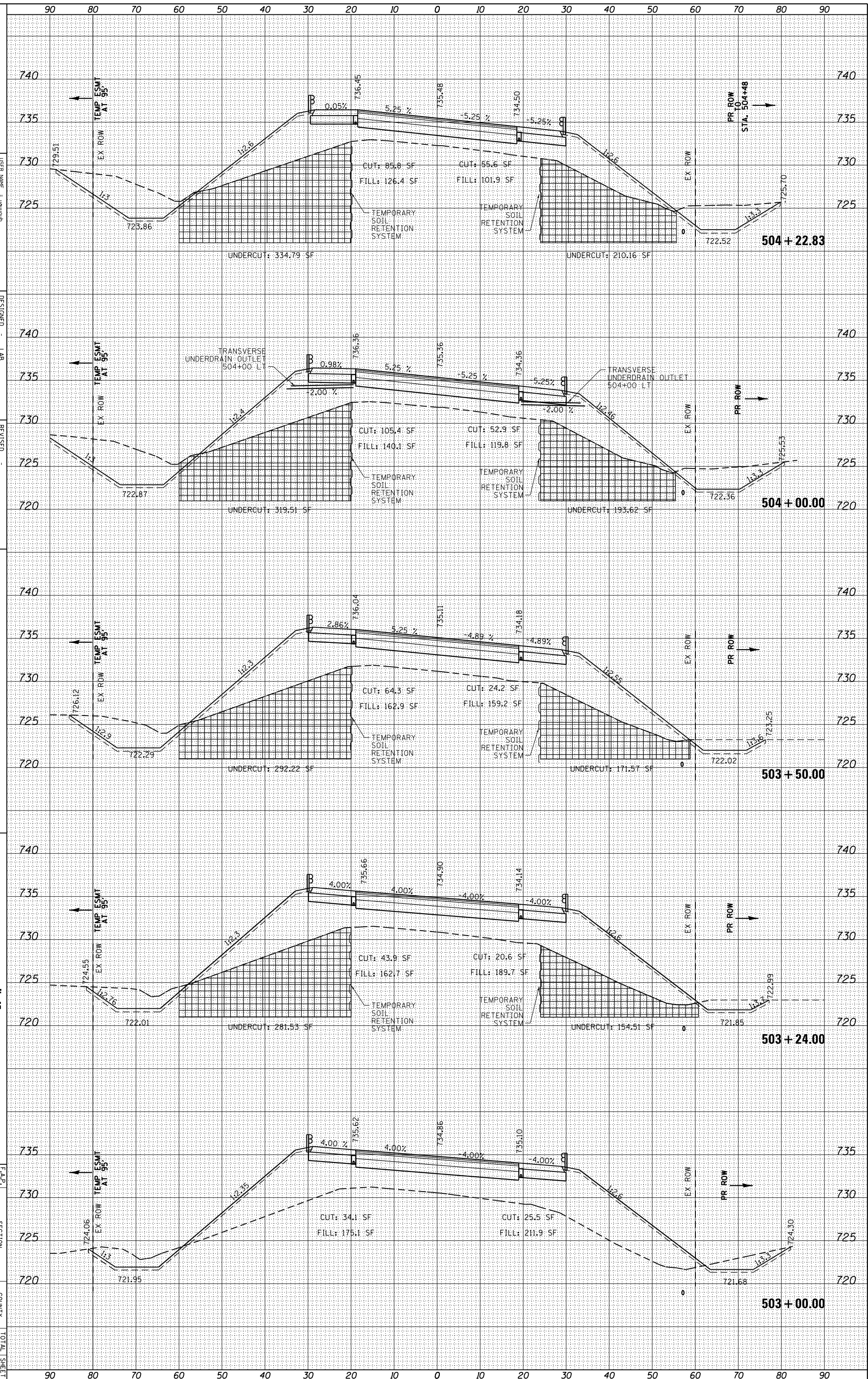
DESIGNED - LAB
 DRAWN - SA
 CHECKED - EUL
 DATE - 7/25/18

REVISED -
 REVISED -
 REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

SCALE: 1"=10'-1.5"
 SHEET NO. 5 OF 11 SHEETS
 STA. 492+30.00 TO STA. 494+11.83

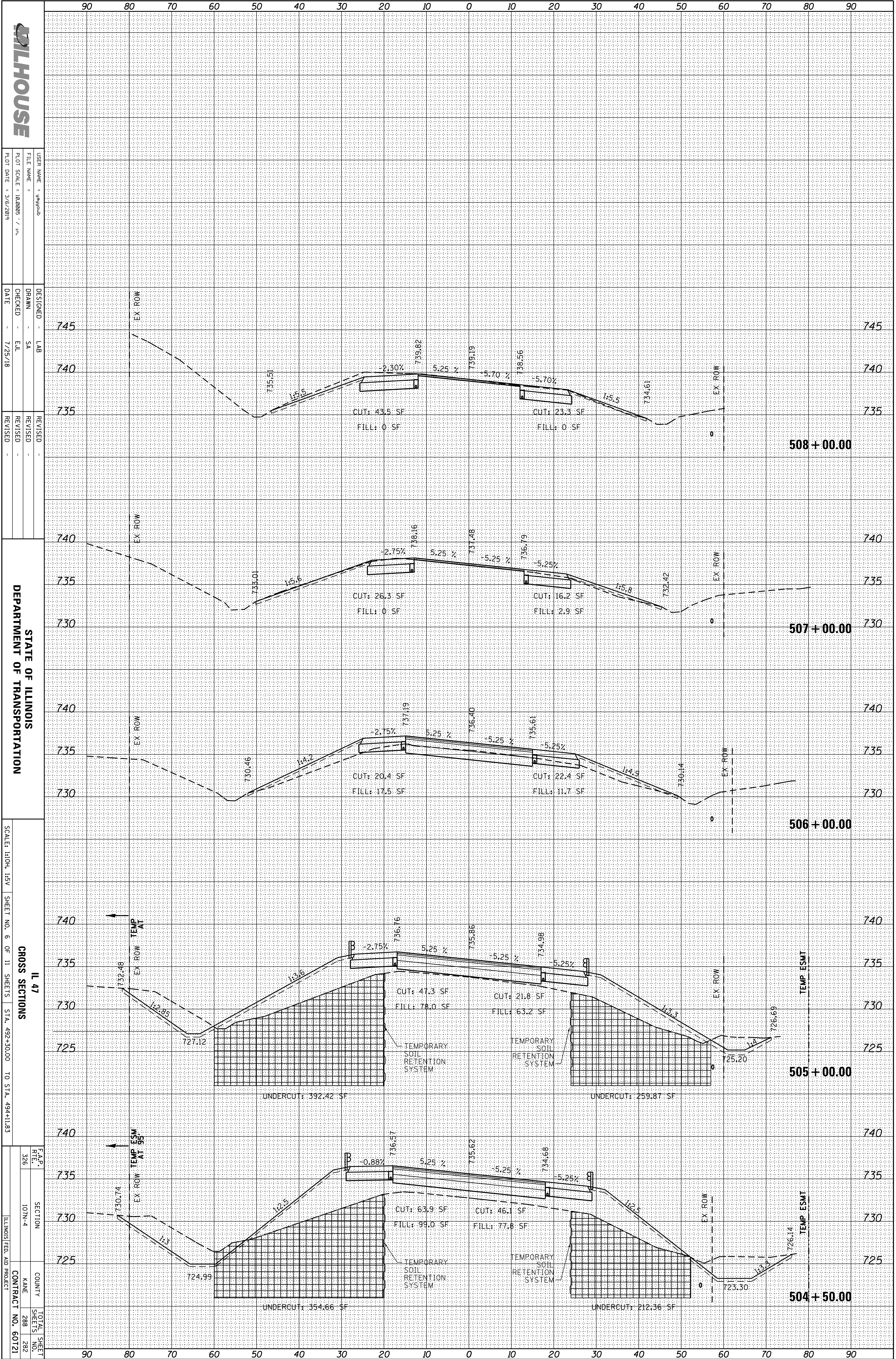
CROSS SECTIONS
 IL 47
 F.A.P. R.T.E. 326
 SECTION 107N-4
 COUNTY KANE
 TOTAL SHEETS 288
 SHEETS NO. 281
 CONTRACT NO. 60121
 ILLINOIS FED. AID PROJECT



PROFILE	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
	GRADES CHECKED		
	BY		
	STRUCTURE NOTATIONS CHECKED		

PLAN	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
	ALIGNMENT CHECKED		
	PT. OF WAY CHECKED		
	CADD FILE NAME		

FILE NAME = P:\2015\0558 IDOT Distl IL Route 47 at Main S of E16th (PTB 171-04)\04-CADD\01 CADD_Sheets\0150721-shr-xssht-1147.dgn



MILHOUSE

DESIGNED - LAB
 DRAWN - SA
 CHECKED - EUL
 DATE - 7/25/18

REVISOR -
 REVISION -
 REVISOR -
 REVISION -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

SCALE: 1"=10'-0" V, 1"=50'-0" H
 SHEET NO. 6 OF 11 SHEETS STA. 492+30.00 TO STA. 494+11.83
 CROSS SECTIONS
 IL 47
 COUNTY: KANE
 CONTRACT NO. 60121

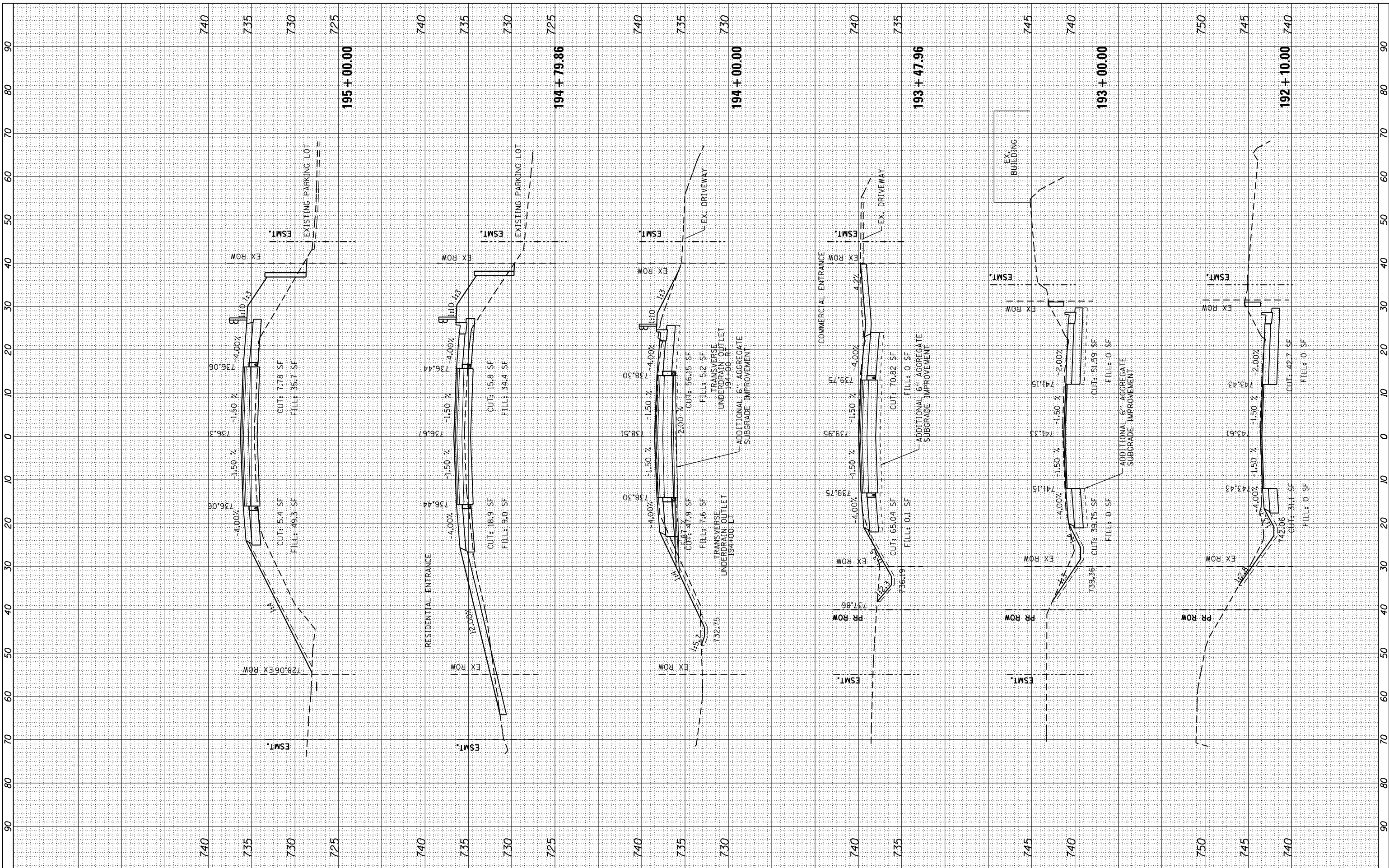
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PLLOT SCALE = 1/8"=1'-0"	CHECKED - EUL	REVISOR -
PLLOT DATE = 3/6/2019	DATE - 7/25/18	REVISION -

SECTION	COUNTY	TOTAL SHEETS
326	KANE	288
107N-4		282
CONTRACT NO. 60121		

PLAN	SURVEYED	DATE
	PLOTTED	
	GRADES CHECKED	
	ALIGNMENT CHECKED	
	STRUCTURE NOTATIONS CHKD	
	NO. OF SHEETS	
	DATE	

PROFILE	SURVEYED	DATE
	PLOTTED	
	GRADES CHECKED	
	ALIGNMENT CHECKED	
	STRUCTURE NOTATIONS CHKD	
	NO. OF SHEETS	
	DATE	

FILE NAME = P:\2015\0558 100T Data\ IL Route 47 at Main St of Elburn\PTB 171\DWG\CADD\001\CADD_Sheets\01601 21-sht-sash+Main.dgn



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PLOT DATE =	1/28/2019
DESIGNED -	LAB
DRAWN -	SA
CHECKED -	EJL
DATE -	7/25/18

REVISED -	
REVISED -	
REVISED -	
REVISED -	

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**MAIN ST.
CROSS SECTIONS**

SCALE: 1:10H, 1:5V SHEET NO. 7 OF 11 SHEETS STA. 192+10.00 TO STA. 195+00.00

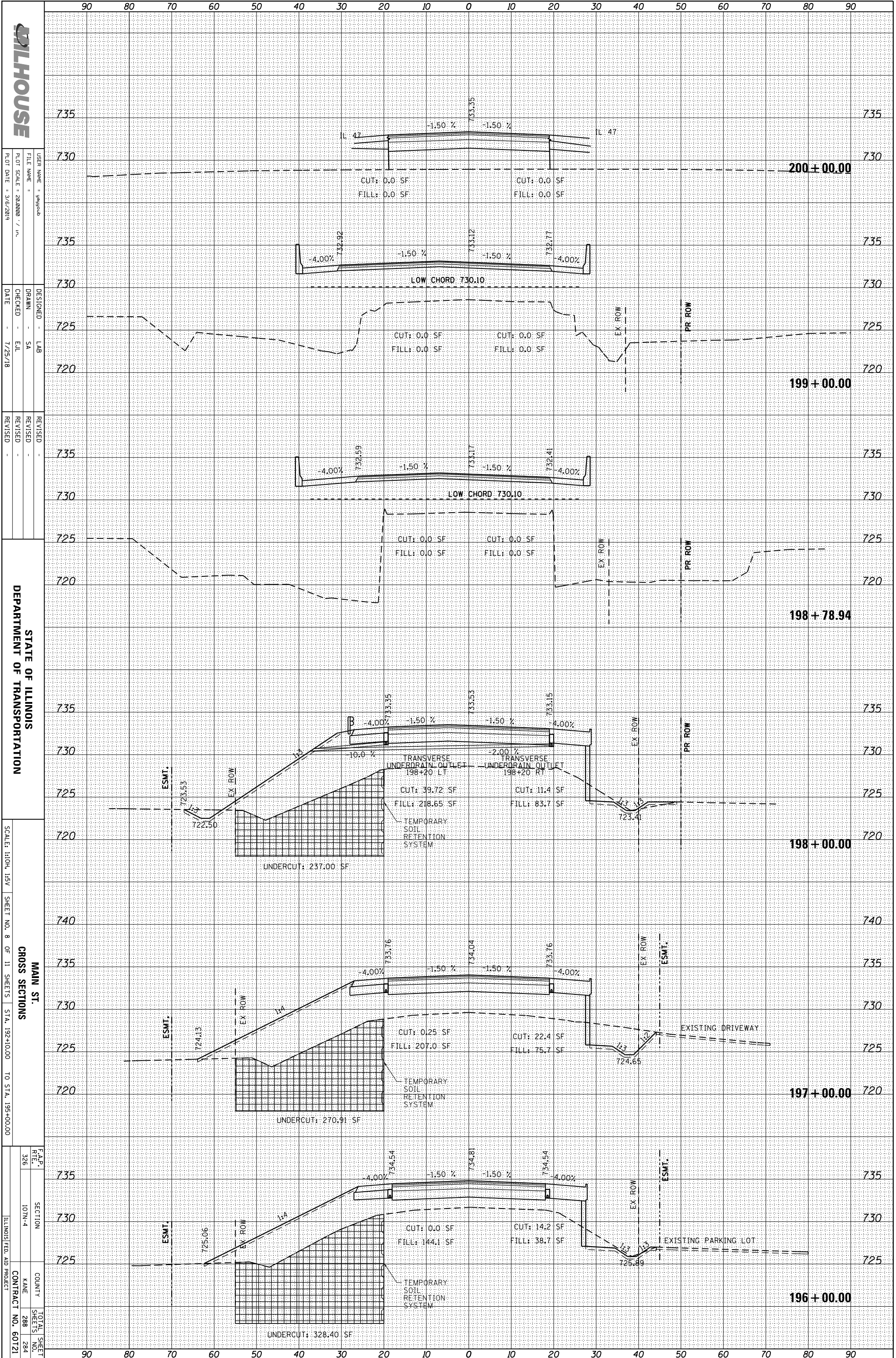
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	107N-4	KANE	288	283
CONTRACT NO. 60T21				

ILLINOIS FED. AID PROJECT

PROFILE	SURVEYED	BY	DATE
NOTE BOOK	GRADES CHECKED		
NO.	BY		
	STRUCTURE NOTATIONS CHKD		

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

FILE NAME = P:\2015\0558 IDOT Distl IL Route 47 at Main S of Elburn (PTB 171-04)\04-CADD\01 CADD_Sheets\0160121-sht-xssht-Main.dgn



MILHOUSE

DESIGNED - LAB
 DRAWN - SA
 CHECKED - EUL
 DATE - 7/25/18

REVISIONS

NO.	DATE	DESCRIPTION

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

SCALE: 1"=10'-0" H, 1"=50' V

SHEET NO. 8 OF 11 SHEETS STA. 192+00.00 TO STA. 195+00.00

MAIN ST.
 CROSS SECTIONS

F.A.P. R.T.L. 326

SECTION 107N-4

COUNTY KANE

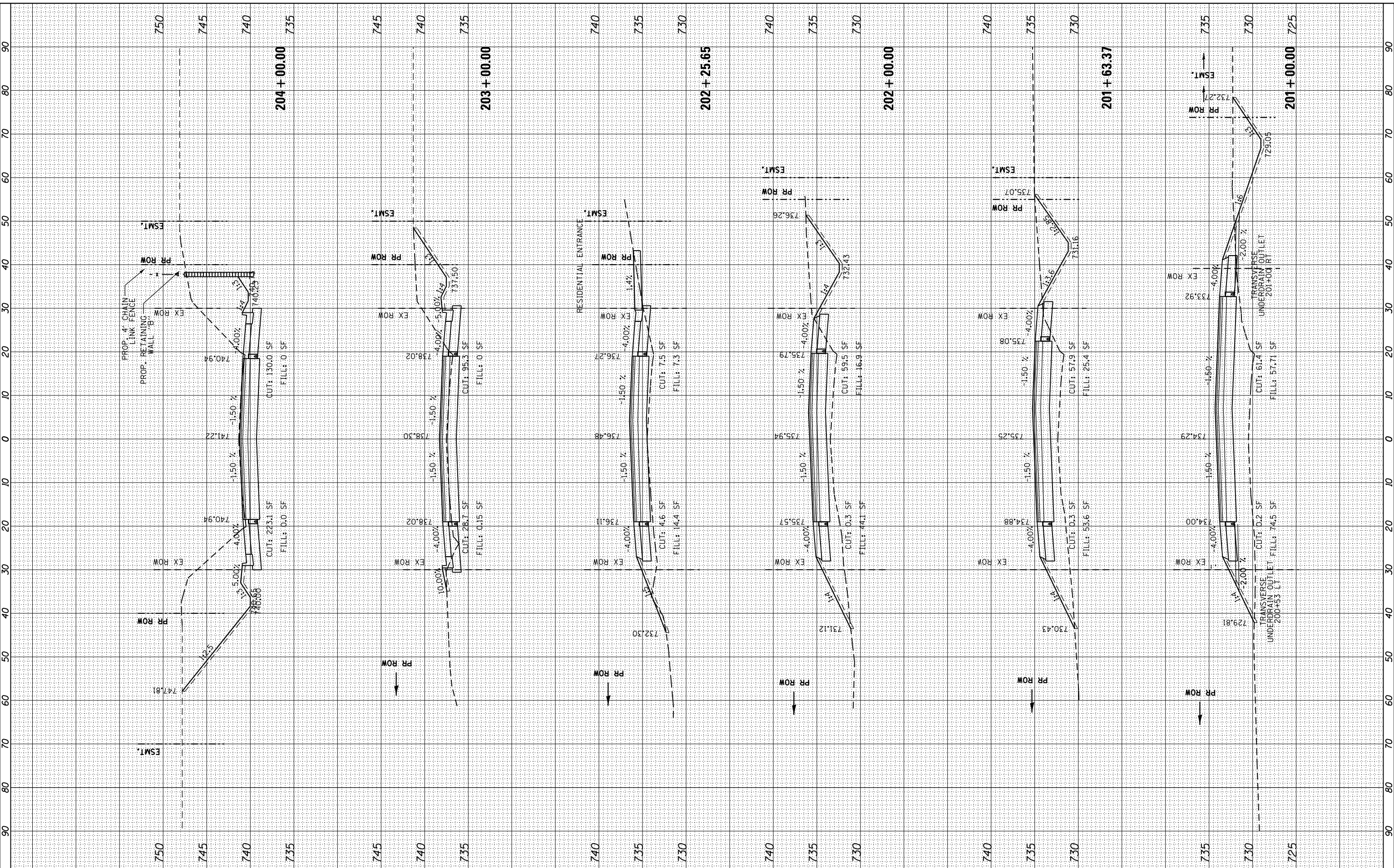
CONTRACT NO. 60121

TOTAL SHEET SHEETS NO. 288 284

PLAN	SURVEYED	DATE
	PLOTTED	
	GRADES CHECKED	
	ALIGNMENT CHECKED	
	STRUCTURE NOTATIONS CHKD	
	NO. OF SHEETS	
	DATE	

PROFILE	SURVEYED	DATE
	PLOTTED	
	GRADES CHECKED	
	ALIGNMENT CHECKED	
	STRUCTURE NOTATIONS CHKD	
	NO. OF SHEETS	
	DATE	

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USER NAME =	mlopez2
FILE NAME =	
PLOT SCALE =	20.0000' / in.
PLOT DATE =	1/28/2019

DESIGNED -	LAB	REVISED -	
DRAWN -	SA	REVISED -	
CHECKED -	EJL	REVISED -	
DATE -	7/25/18	REVISED -	

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**MAIN ST.
CROSS SECTIONS**

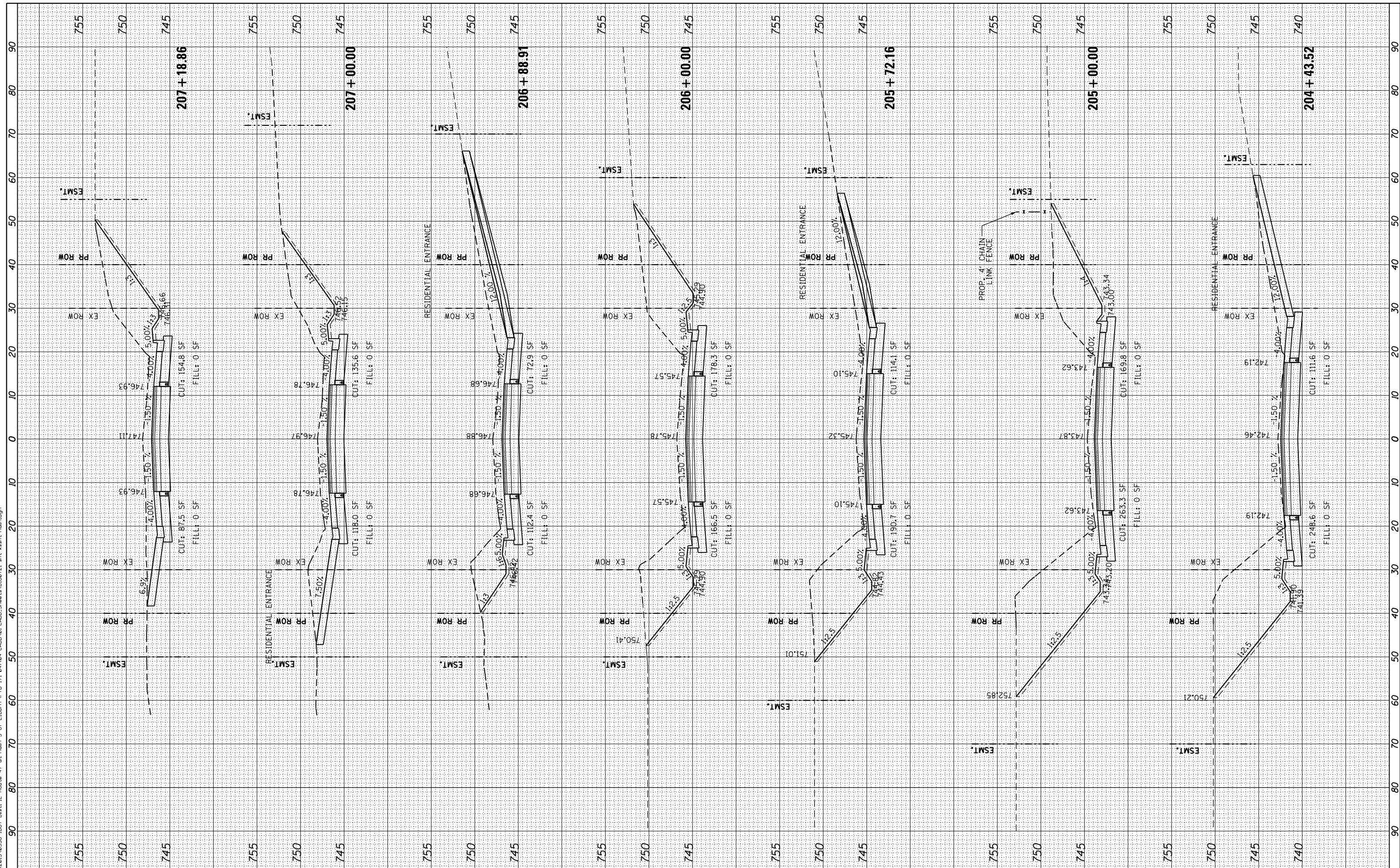
SCALE: 1:10H, 1:5V SHEET NO. 9 OF 11 SHEETS STA. 192+00.00 TO STA. 195+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	107N-4	KANE	288	285
CONTRACT NO. 60T21				
ILLINOIS FED. AID PROJECT				

PLAN	SURVEYED	DATE
	PLOTTED	
	GRADES CHECKED	
	ALIGNMENT CHECKED	
	STRUCTURE NOTATIONS CHKD	
	NO. OF SHEETS	
	DATE	

PROFILE	SURVEYED	DATE
	PLOTTED	
	GRADES CHECKED	
	ALIGNMENT CHECKED	
	STRUCTURE NOTATIONS CHKD	
	NO. OF SHEETS	
	DATE	

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USER NAME = mlopez2	DESIGNED - LAB	REVISED -
FILE NAME =	DRAWN - SA	REVISED -
PLOT SCALE = 20.0000' / in.	CHECKED - E.JL	REVISED -
PLOT DATE = 1/28/2019	DATE - 7/25/18	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**MAIN ST.
CROSS SECTIONS**

SCALE: 1:10H, 1:5V SHEET NO. 10 OF 11 SHEETS STA. 192+00.00 TO STA. 195+00.00

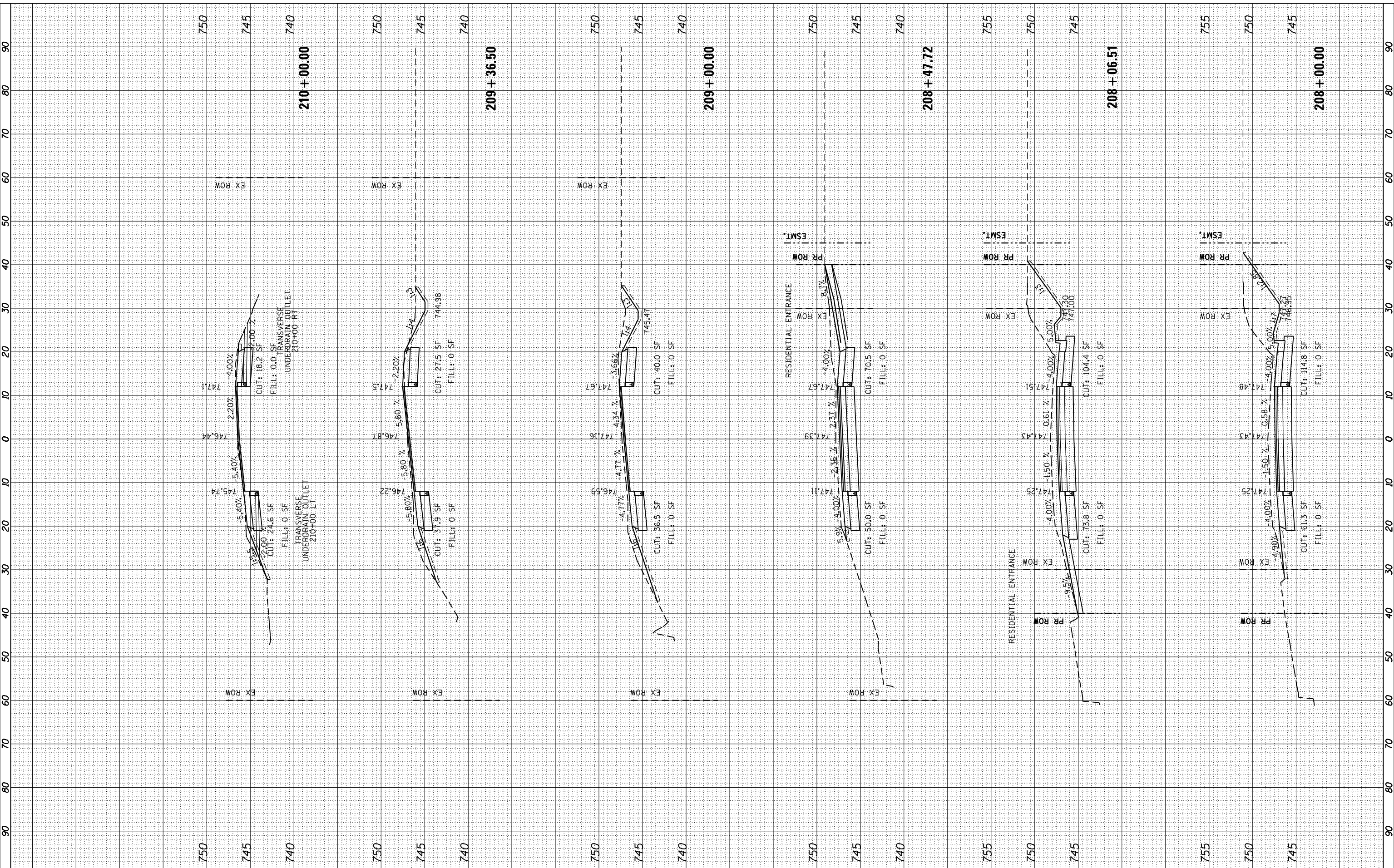
F.A.P. RTE. 326	SECTION 107N-4	COUNTY KANE	TOTAL SHEETS 288	SHEET NO. 286
CONTRACT NO. 60T21				

ILLINOIS FED. AID PROJECT

PLAN	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
NO.	ALIGNED		
	CHECKED		
	CADD FILE NAME		
	NO.		

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

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DESIGNED -	LAB	REVISED -	
DRAWN -	SA	REVISED -	
CHECKED -	EJL	REVISED -	
DATE -	7/25/18	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

MAIN ST.
CROSS SECTIONS

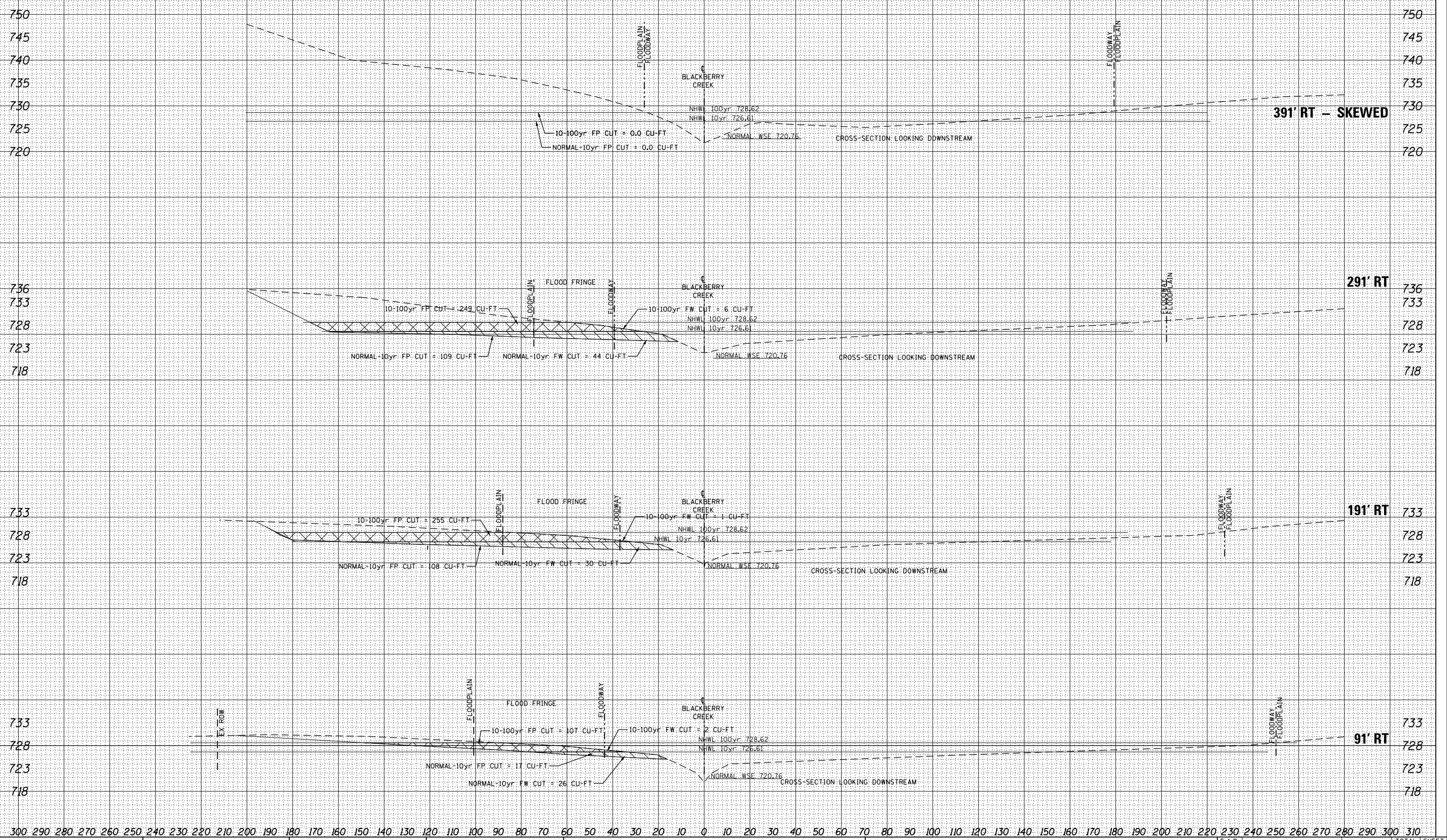
SCALE: 1:10H, 1:5V SHEET NO. 11 OF 11 SHEETS STA. 192+00.00 TO STA. 195+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
326	107N-4	KANE	288	287
CONTRACT NO. 60T21				
ILLINOIS FED. AID PROJECT				

PLAN	SURVEYED	DATE
	PLOTTED	
	GRADES CHECKED	
	STRUCTURE NOTATIONS CHKD	
	NO. _____	
	FILE NAME	

PROFILE	SURVEYED	DATE
	PLOTTED	
	GRADES CHECKED	
	STRUCTURE NOTATIONS CHKD	
	NO. _____	
	FILE NAME	

FILE NAME = P:\2015\0558 IDOT Dist 1 IL Route 47 at Main St of Elburn PTB 171-001\04-CADD\01-CADD\01-Sheets\01601 21.sht; saah+Mar.dgn



	USER NAME = lboizenus	DESIGNED - LAB	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	IL ROUTE 47- MAIN ST PROPOSED FLOODPLAIN COMPENSATORY STORAGE			F.A.P. RTE. 326	SECTION 107N-4	COUNTY KANE	TOTAL SHEETS 288	SHEET NO. 288
	FILE NAME =	DRAWN - SA	REVISED -		SCALE: 1" = 20.0000' / in.	SCALE: _____	SHEET NO. _____	OF _____	SHEETS _____	STA. _____	TO STA. _____	CONTRACT NO. 60T21
	PLOT DATE = 1/30/2019	CHECKED - E.JL	REVISED -	DATE = 7/25/18							ILLINOIS FED. AID PROJECT	