

STATE OF ILLINOIS

**DEPARTMENT OF TRANSPORTATION** 

SECTION

(32, 33) R-1

742

TO STA.431+75

**ROADWAY LIGHTING PLAN AND ELEVATION** 

IL RTE 2 (SOUTH MAIN STREET)

SCALE: 1" = 10' SHEET 18 OF 32 SHEETS STA. 430+50

COUNTY

WINNEBAGO 705 504

CONTRACT NO. 64821

DIRECTORY = L'ROCKFORD/1126004/Draw/CADD

MODEL NAME = Default

CRAWFORD, MURPHY & TILLY, INC. CONSULTING ENGINEERS

FILE NAME = D264821-sht-light218,dgn

PLOT SCALE = 20.0000 '/ in.

PLOT DATE = 11/20/2012 - 11:28:53 AM

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DESIGNED - JWD

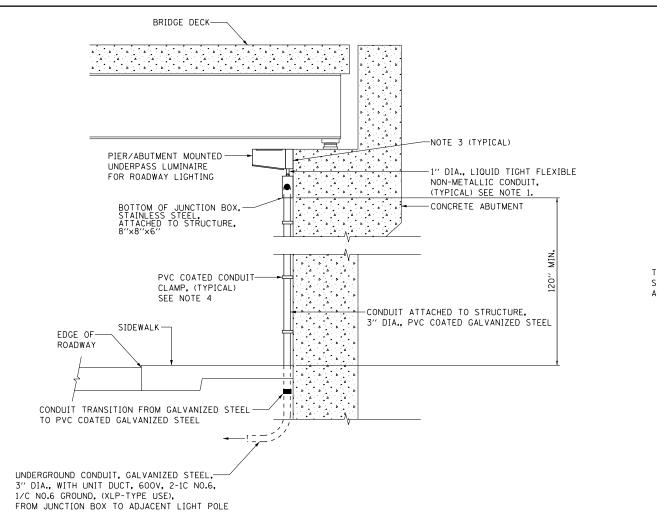
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– JWD

- 11/02/2012

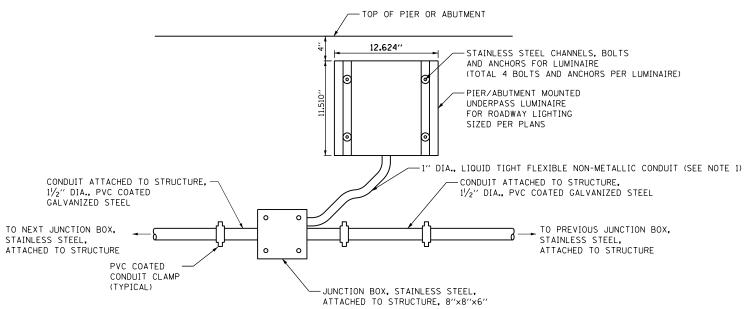
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#### TYPICAL ABUTMENT MOUNTED **UNDERPASS LUMINAIRE INSTALLATION DETAILS** NOT TO SCALE





#### TYPICAL UNDERPASS LUMINAIRE AND **JUNCTION BOX MOUNTING DETAIL** NOT TO SCALE

#### NOTES:

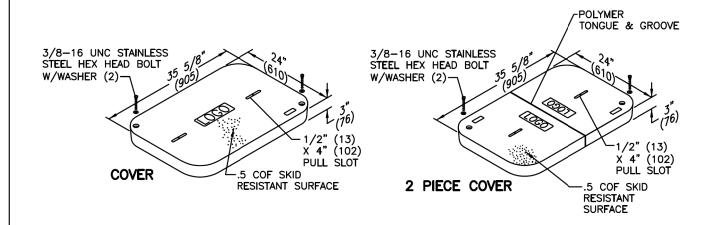
- 1. LIQUID TIGHT FLEXIBLE NON-METALLIC CONDUIT, MAXIMUM LENGTH 6'-0", TYPICAL FOR EACH INSTANCE AS SHOWN. PROVIDE PVC COATED RIGID GALVANIZED STEEL CONDUIT AS REQUIRED NOT TO EXCEED 6'-0" OF FLEXIBLE LIQUID TIGHT NON-METALLIC CONDUIT. LIQUID TIGHT FLEXIBLE NON-METALLIC CONDUIT WILL BE INCLUDED IN THE COST OF THE "CONDUIT ATTACHED TO STRUCTURE, OF THE CORRESPONDING DIA., PVC COATED GALVANIZED STEEL" PAY ITEM EXCEPT THAT 1" DIA. CONDUIT AND 1" DIA. FLEXIBLE CONDUIT SHALL BE INCLUDED IN THE COST OF UNDERPASS LUMINAIRE INSTALLATION.
- 2. UNDERPASS LUMINAIRE MOUNTED TO FACE OF PIER OR ABUTMENT WALL. MOUNTING HEIGHT OF 4" BELOW THE TOP OF PIER OR ABUTMENT WALL TYPICAL FOR ALL PIER/ABUTMENT MOUNTED UNDERPASS LUMINAIRES UNLESS OTHERWISE NOTED.
- 3. EXPANSION ANCHOR, POWER ACTUATED FASTENER WILL NOT BE ALLOWED. EXPANSION ANCHOR MUST BE SIZED IN ACCORDANCE WITH MANUFACTURER REQUIREMENTS.
- 4. SECURE THE CONDUIT WITH PVC COATED CONDUIT CLAMPS OR CONDUIT BEAM CLAMPS AS SHOWN AT 5'-0" INTERVALS FOR LATERALS AND WITHIN 2'-0" MAXIMUM FROM ANY JUNCTION BOX, FLEXIBLE CONDUIT, OR CHANGE IN DIRECTION. ALL PVC COATED CONDUIT CLAMPS OR BEAM CLAMPS SHALL BE INCLUDED WITH THE COST OF THE "CONDUIT ATTACHED TO STRUCTURE, OF THE CORRESPONDING DIA., PVC COATED GALVANIZED STEEL" PAY ITEM.
- 5. ATTACHING THE UNDERGROUND CONDUIT, GALVANIZED STEEL TO THE STRUCTURE SHALL BE INCLUDED IN THE COST OF THE UNDERGROUND CONDUIT, GALVANIZED STEEL PAY ITEMS.
- 6. ALL CONDUIT ATTACHED TO STRUCTURE SHALL BE PVC COATED RIGID STEEL CONDUIT (PVCC RGC)
- 7. ALL CONDUIT TRANSITIONS SHALL BE INCLUDED WITH THE COST OF THE "CONDUIT ATTACHED TO STRUCTURE, OF THE CORRESPONDING DIA., PVC COATED GALVANIZED STEEL" PAY ITEM.

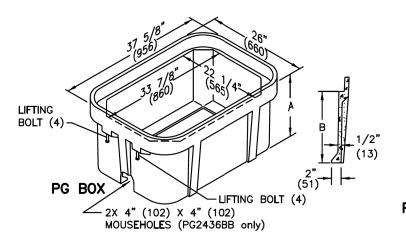
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<u>UI CMT</u>	FILE
CRAWFORD, MURPHY & TILLY, INC	PLOT

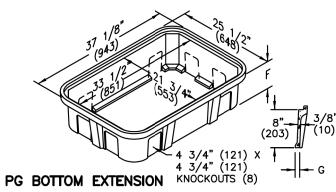
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	ILLINOIS FED.	ΑI	D PROJECT		
			CONTRACT	NO. 6	54821
742	(32, 33) R-1		WINNEBAGO	705	505
F.A.P. RTE.	SECTION		COUNTY	SHEETS	SHEET NO.

## **SPECIFICATIONS/DATA**







# **SPECIFICATIONS/DATA**

#### **Covers** (Blank unless logo is specified)

	DESCRIPTION	PART NO.	WEIGHT#	DESIGN/TEST LOAD #	ANSI TIER*	
<b>(</b> L)	W/2 Bolts	PG2436CA00	100 (45 kg)	8,000 / 12,000	8	ı
(h)	Gasketed w/2 Bolts	PG2436CG00	100 (45 kg)	8,000 / 12,000	8	ı
	2-Piece w/2 Bolts	PG2436CS00	122 (55 kg)	8,000 / 12,000	8	/.
(h)	No Bolts	PG2436WA00	100 (45 kg)	8,000 / 12,000	8 /	
A)	Heavy-Duty-w/2-Bolts-	~PG2436HAQQ	~~115/52-kg)~	~15,000\2 <del>2,5</del> 00\	~~~\ <sup>15</sup> ~\	
\ \(\empty{\text{\tin}\ext{\texi{\text{\texi}\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\ti}}\\ \ti}\\\ \tinttitet{\text{\text{\text{\text{\text{\texi}\text{\text{\texi}\text{\text{\texi}\\\ \ti}\\\ \ti}\\\ \\ \tittt{\texittt{\text{\text{\text{\text{\texi}\text{\texi}\text{\ti	Gasketed Heavy Duty w/2 Bolts	PG2436HG00	115 (52 kg)	15,000 / 22,500	15	K
$\sim$	<b>^Hêavy Duty 2-Piece</b> w/2 Bolts	<b>~^PGZ438HS06~</b>	<u>^_122^(55</u> kg)^_	<u>^15,000/22,500</u>	~~~ <sub>15</sub> ~~~	
	Heavy Duty w/2 Bolts	PG2436HH00	122 (55 kg)	22,500 / 33,750	22	

— SEE NOTE 1

 Gasketed covers and bolt grommets must be used with a gasketed box. Gaskets reduce the inflow of fluids but do not make the enclosure water tight.

#### PG Boxes (Stackable with self-aligning, replaceable EZ Nut) \*\*24" - 42" Deep boxes must be used as bottom of any stack.)

	DESCRIPTION	PART NO.	WEIGHT#	DIMENSION A	DIMENSION B	DESIGN/TEST LOAD#	ANSI TIER*	
		PG2436BA18	<del>141 (64 kg)</del>	18" (457 mm)	15" (381 mm)	22,500 / 33,750	22	✓ SEE NOTE 1
		PG2436BA24	180 (81.6 kg)	24" (610 mm)	21" ( <del>533 mm)</del>	<u>22,500 / 33,</u> 750	22	SEE NOTE I
(H)	Open Bottom	<del>PG2436BA3</del> 0	~196(88:9.kg)~	√36" (762 m/m) √	~27" (686-191119)~	<del>~22,50</del> 0433,750~	~~~~???~~~	<b>K</b>
	}	PG2436BA36	254 (115 kg)	36" (914 mm)	33" (838 mm)	22,500 / 33,750	22	<b>)</b>
	$\mathcal{I}$	<b>₽€2436BA42</b> ✓	<del>^293(133<b>%</b>g)</del> ^	<u>^42*(1067~hinh)</u> ~	<del>~39~(991~hmh)</del> ~	<u>~22,500~33,750</u> ~		$\sim$
		PG2436BB18	139 (63.1 kg)	18" (457 mm)	15" (381 mm)	22,500 / 33,750	/22	
(H)	Open Bottom	PG2436BB24	17 <del>8 (</del> 80.7 kg)	24" (610 mm)	21" (533 mm)	22,500 / 33,750	22	
	w/2 Mouseholes	PG2436BB30	194 (88.0 kg)	30" (762 mm)	27" (686 mm)	22 <del>,50</del> 0 / 33,750	22	
		PG2436BB36	252 (114 kg)	36" (914 mm)	33" (838 m <del>m</del> )	22,500 / 33,750	22	
		PG2436BB42	293 (133 kg)	42" (1067 mm)	<del></del>	22,500 / 33,750	22	
		PG2436DA18	171 (78 kg)	18 1/2" (47 <del>0 m</del> m)	15" (381 mm)	22,500 / 33,750	22	
		PG2436DA24	228 (103.4 kg)	<del>24</del> 1/2" (622 mm)	21" (533 mm)	<del>22,</del> 500 / 33,750	22	
(4)	Solid Bottom	PG2436DA30	238 (1 <del>07</del> .0 kg)	30 1/2" (775 mm)	27" (686 mm)	22,500 / 33, <del>75</del> 0	22	
		PG2436DA36	282 (128 kg)	36 1/2" (927 mm)	33" (838 mm)	22,500 / 33,750	22	
		PG2436DA42	321 (146 kg)	42 1/2" (1080 mm)	39" (991 mm)	22,500 / 33,750	22	

NOTE:

1. OR APPROVED EQUAL

#### **Extensions** (For use under 18" deep box only, one per box.)

DESCRIPTION	PART NO.	WEIGHT #	DIMENSION F	DIMENSION G	DESIGN/TEST LOAD#	ANSI TIER*
Open Bottom	PG2436EA08	81 (37 kg)	8 3/4" (222 mm)	1" (25 mm)	22,500 / 33,750	22
Solid Bottom	PG2436RA08	95 (43.1 kg)	9 1/4" (235 mm)	N/A	22,500 / 33,750	22

Dimensions & weights in parentheses are metric equivalent.

\* Loadings comply with ANSI/SCTE 77

#### HANDHOLES 24"X36" PG STYLE (STACKABLE) ASSEMBLY



MODEL NAME = Default	DESIGNED -	JWD	REVISED -
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F.A.P. RTE.	SECTION		COUNTY	TOTAL SHEETS	SHEE NO.
742	(32, 33) R-1		WINNEBAGO	705	506
			CONTRACT	NO. (	54821
	ILLINOIS	FED. Al	D PROJECT		

-3/8-16 UNC STAINLESS STEEL HEX HEAD BOLT

W/ WASHER (2)

STANDARD COVER

2X 4" (102) X 4" (102) MOUSEHOLES (PG3048BB only) PG3048CS00

-.5 COF SKID RESISTANT SURFACE

PG BOX

-LIFTING BOLT (4)

-1/2" (13) X \ 4" (102) \ PULL SLOT

**OVERLAPPING** 

COVER

.5 COF SKID RESISTANT SURFACE

**OVERLAPPING COVER** 

4 3/4" (121) X 4 3/4" (121) KNOCKOUTS (8) PG BOTTOM EXTENSION

PG TOP EXTENSION 1 - 1/2" PG BOTTOM EXTENSION

POLYMER TONGUE & GROOVE

-.5 COF SKID RESISTANT SURFACE

- 3/8-16 UNC STAINLESS STEEL HEX HEAD BOLT

W/ WASHER (2)

2 PIECE COVER

1/2" (13) X 4" (102) PULL SLOT —

## **SPECIFICATIONS/DATA**

**Covers** (Blank unless logo is specified)

\					
DESCRIPTION	PART NO.	WEIGHT #	DESIGN/TEST LOAD	ANSI TIER*	
W/2 Bolts	PG3048CA00	159 (72.1 kg)	8,000 / 12,000	8	
Gasketed w/2 Bolts	PG3048CG00	159 (72.1 kg)	8,000 / 12,000	8	
No Bolts	PG3048WA00	159 (72.1 kg)	8,000 / 12,000	8 /	
D Heavy Duty w/2-Bolts	~~PG2848HA80~~	~206/(93:4-kg)~	~~15;909v+22,590v~	~~~45~ <sub>6</sub>	
Gasketed Heavy Duty w/2 Bolts	PG3048HG00	206 (93.4 kg)	15,000 / 22,500	15 ′)	
Extra Heavy Duty w/2-Bolts	<u>^^663648H1966</u>	~220(99.7 Kg)~	<del>^22,500\33,750</del> ^	222	
2-piece w/2 Bolts	PG3048CS00	181 (82.1 kg)	8,000 / 12,000	8	
Heavy Duty 2-piece w/2 Bolts	PG3048HS00	206 (93.4 kg)	15,000 / 22,500	15	
2-piece Overlapping	PG3048CC00	248 (112.0 kg)	8,000 / 12,000	8	•
Heavy Duty 2-piece Overlapping	PG3048HC00	248 (112.0 kg)	15,000 / 22,500	15	

— SEE NOTE 1

 Gasketed covers and bolt grommets must be used with a gasketed box. Gaskets reduce the inflow of fluids but do not make the enclosure water tight.

PG Boxes (Stackable with self-aligning, replaceable EZ-Nut) \*24" & 36" deep boxes must be used as bottom of any stack

	DESCRIPTION	PART NO.	WEIGHT#	DIMENSION A	DIMENSION B	DESIGN/TEST LOAD#	ANSI TIER*
(4)	Open Bottom	PG3048BA18	185 (83.9 kg)	18" (457 mm)	15" (381 mm)	<del>22,500 / 33,750</del>	22
1 —		<del>✓ PG3048BA24</del> ✓✓	~236~(197.0 kg)~~	~~24"(609 vmvn)~~	~24" (533 ram) ~~	~22,500/33,750~	~~ <del>22</del> ~~
	*	PG3048BA36	343 (155.6 kg)	36" (914 mm)	33" (838 mm)	22,500 / 33,750	22
(4)	Open Bottom w/	~_PG3046BG18~~	<del>~185(83.9\kg)</del> ~	<u> </u>	<u>~45~(384-111111)~</u>	<u>~22,500733,750~</u>	W 22 V
	Gasket *	PG3048BG24	236 (107.0 kg)	24" (609 mm)	21" (533 mm)	22,500 / 33,750	22
	*	PG3048BG36	343 (155.6 kg)	36" (914 mm)	33" (838 mm)	22,500 / 33,750	22
<b>(</b> 1)	Open Bottom w/	PG3048BB18	185 (83.9 kg)	18" (457 mm)	15" (381 mm)	<del>22,</del> 500 / 33,750	22
·	2 Mouseholes *	PG3048BB24	236 (107.0 kg)	24" (610 mm)	21" (533 mm)	22,500 / 33,750	22
	*	PG3048BB36	343 (155.6 kg)	36" (914 mm)	<del>33"</del> (838 mm)	22,500 / 33,750	22
(4)	Solid Bottom	PG3048DA18	220 (99.8 kg)	18 1/2" (470 <del>m</del> m)	15" (381 mm)	22,500 / 33,750	22
	*	PG3048DA24	287 (130.2 kg)	<del>24</del> 1/2" (622 mm)	21" (533 mm)	22,500 / 33,750	22
	*	PG3048DA36	394 (178.7 kg)	36 1/2" (927 mm)	33" (838 mm)	22,500 / 33,750	22
<b>(</b> L)	Solid Bottom w/	PG3048DG18	220 (99.8 kg)	18 1/2" (470 mm)	15" (381 mm)	22,500 / 33,750	22
_	Gasket *	PG3048DG24	287 (130.2 kg)	24 1/2" (622 mm)	21" (533 mm)	22,500 / 33,750	22
	*	PG3048DG36	394 (178.7 kg)	36 1/2" (927 mm)	33" (838 mm)	22,500 / 33,750	22

NOTE

SEE NOTE

1. OR APPROVED EQUAL

**Top Extension** (For use on top of PG boxes of any depth)

DESCRIPTION	PART NO.	WEIGHT #	DESIGN/TEST LOAD #	ANSI TIER*
Open Bottom*	PG3048EA11	100 (45.4 kg)	22,500 / 33,750	22

<sup>\*</sup> In addition, this extension can be used as a bottom extension for 18" deep PG boxes.

**Bottom Extensions** (For use under 18" deep PG style box only, one per box)

DESCRIPTION	PART NO.	WEIGHT#	DIMENSION E	DIMENSION F	DESIGN/TEST LOAD #	ANSI TIER*
Open Bottom	PG3048EA08	102 (46.3 kg)	8 3/4" (222 mm)	1" (25 mm)	22,500 / 33,750	22
Solid Bottom	PG3048RA08	151 (58.0 kg)	9 1/4" (235 mm)	N/A	22,500 / 33,750	22

Dimensions & weights in parentheses are metric equivalent.

SCALE: N/A

HANDHOLES 30"X48" PG STYLE (STACKABLE) ASSEMBLY

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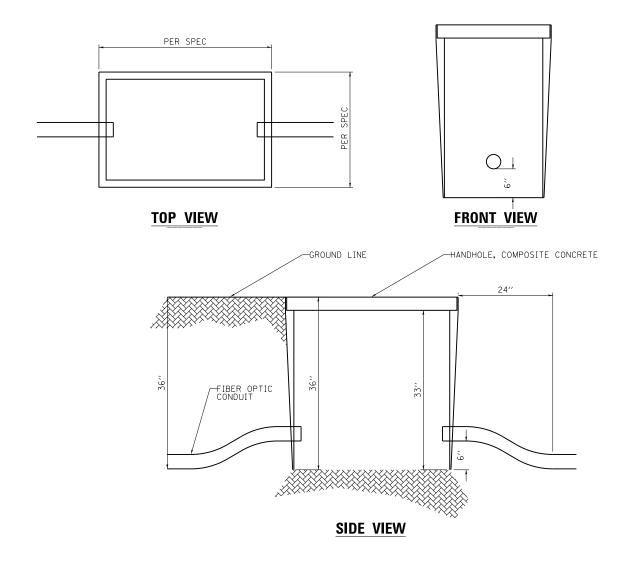
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LIFTING BOLT (4)

ROADWAY LIGHTING DETAIL		SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
HANDHOLE, COMPOSITE CONCRETE, TYPE 2	742	(32, 33) R-1	WINNEBAGO	705	507
HANDHOLL, COMI OSHL CONCHEIL, THE 2			CONTRACT	NO. (	64821
SHEET 21 OF 32 SHEETS STA. TO STA.		ILLINOIS FED. A	ID PROJECT		

<sup>\*</sup> Loadings comply with ANSI/SCTE 77



# FIBER OPTIC HANDHOLE

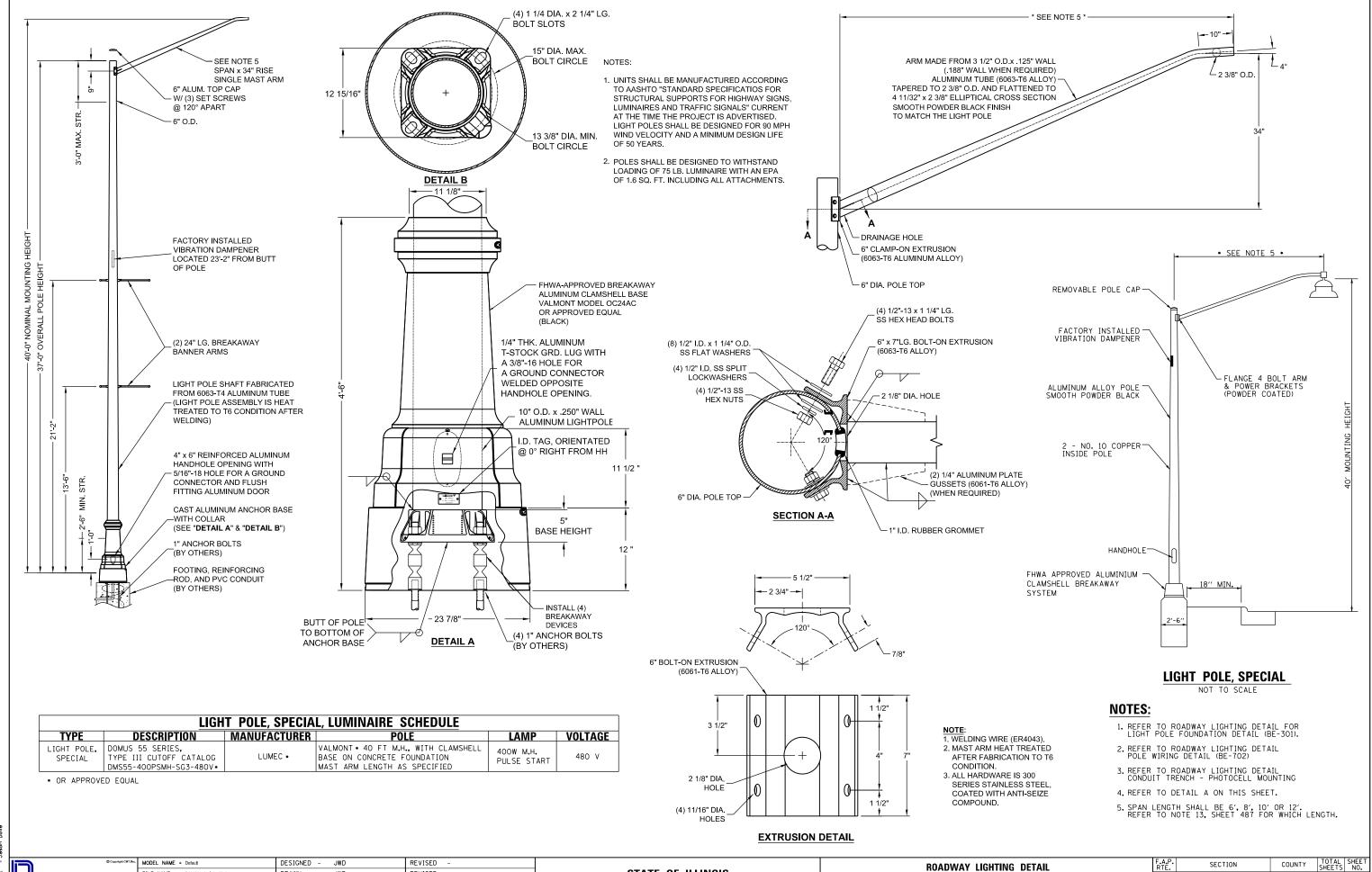
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	CONSULTING ENGINEERS

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROADWAY LIGHTING DETAIL				F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.		
	FIBER OPTIC HANDHOLE				742	(32, 33) R-1	WINNEBAGO	705	508	
	FIDER OFFIC HANDROLE							CONTRACT	NO.	64821
	SCALE: N/A SHEET 22 OF 32 SHEETS STA. TO STA.   ILLINOIS FED. AI			ID PROJECT						



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STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION** 

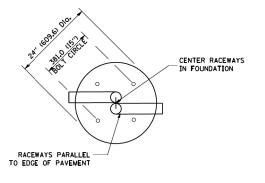
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742 (32, 33) R-1 **DECORATIVE LIGHT POLES – LUMINAIRE SCHEDULE** SHEET 23 OF 32 SHEETS STA.

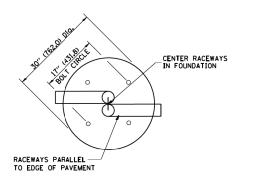
WINNEBAGO 705 509 CONTRACT NO. 64821

#### LIGHT POLE FOUNDATION DEPTH TABLE 40 FT. (12.192 m) TO 47.5 FT. (14.478 m) MOUNTING HEIGHT

SOIL CONDITIONS	DESIGN DEPTH "	" OF FOUNDATION
SOIL CONDITIONS	SINGLE ARM POLE	TWIN ARM POLE
SOFT CLAY	13'-0'' (3-96 m)	15′-0″ (4.57 m)
Qu = 0.375 TON/SQ. FT.	(2"ae m)	(4,57 m)
MEDIUM CLAY	9'-6"	10'-9"
Qu = 0.75 TON/SQ.FT	(2.09 m)	(3.23 m)
STIFF CLAY	7′-0″	8'-0"
Qu = 1.50 TON/SQ. FT.	(2 <sub>-13 m)</sub>	(2,44 m)
LOOSE SAND	9'-0"	10'-0"
Ø = 34°	(2.74 m)	(3.05 m)
MEDIUM SAND	8'-3"	9'-0"
Ø = 37.5°	(2,52 m)	(2,74 m)
DENSE SAND	7′-9″	9'-0"
Ø = 40°	(2₌36 m)	(2.74 m)

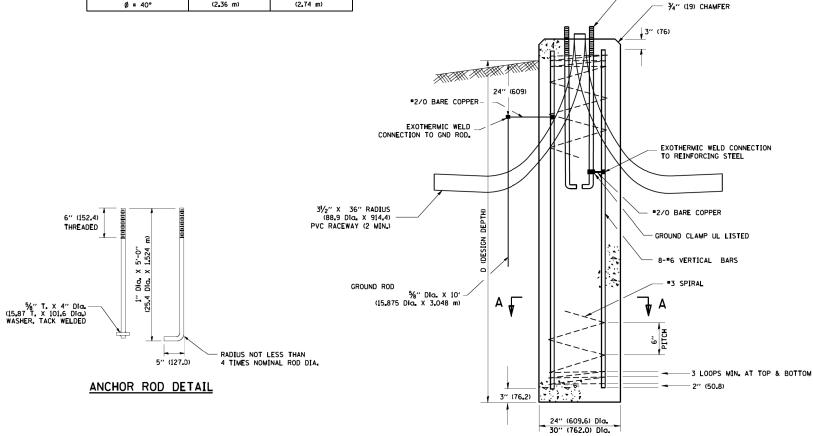


TOP VIEW



(4-25.4 Dia. X 1.524 m)







- ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.
- THE ANCHOR RODS AND RACEWAYS SHALL BE PROPERLY SECURED IN PLACE BEFORE THE CONCRETE IN PLACED.
- THE FOUNDATION SHALL NOT PROTRUDE MORE THAN 4 IN. (100 MM) ABOVE THE FINISHED GRADE WITHIN A 60 IN. (1.5 m) CHORD ACROSS THE FOUNDATION, WITH ANCHOR RODS INCLUDED, IN ACCORDANCE WITH AASHTO GUIDELINES, IF THE FOUNDATION HEIGHT, INCLUDING ANCHOR RODS, EXTENDS BEYOND THESE SPECIFIED LIMITS, THE FOUNDATION SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE. SEE FOUNDATION EXTENSION DETAIL.
- THE HOLE FOR THE FOUNDATION SHALL BE MADE BY DRILLING WITH AN AUGER, OF THE SAME DIAMETER AS THE FOUNDATION. IF SOIL CONDITIONS REQUIRE THE USE OF A LINER TO FORM THE HOLE, THE LINER SHALL BE WITHDRAWN AS THE CONCRETE IS DEPOSITED.
- THE TOP OF THE FOUNDATION SHALL BE CONSTRUCTED LEVEL. A LINER OR FORM SHALL BE USED TO PRODUCE A UNIFORM SMOOTH SIDE TO THE TOP OF THE FOUNDATION. FOUNDATION TOP
- THE CONCRETE SHALL BE CLASS SI. CONCRETE SHALL CURE ACCORDING TO ARTICLE 1020.13 BEFORE LIGHT POLES ARE INSTALLED.
- THE ANCHOR ROD SHALL BE A HOOK ROD TYPE, COLD BENDING OF THE ANCHOR ROD WILL NOT BE ALLOWED. THE RADIUS OF THE HOOK BEND SHALL NOT BE LESS THAN 4 TIMES THE NOMINAL DIAMETER OF THE ANCHOR ROD. A TACK WELDED ANCHOR ROD MAY BE SUBSTITUTED WITH THE APPROVAL OF THE ENGINEER.
- 8. THE ANCHOR RODS SHALL BE ACCORDING TO ASTM F1554 GRADE 725 (GRADE 105). NUTS SHALL BE HEXAGON NUTS ACCORDING TO ASTM A 194 2H OR ASTM A 563 DH, AND WASHERS SHALL BE
- ANCHOR RODS, NUTS AND WASHERS SHALL BE COMPLETELY GALVANIZED BY EITHER THE HOT-DIPPED PROCESS CONFORMING WITH AASHTO M 232, THE MECHANICAL PLATING METHOD CONFORMING TO AASHTO M 298, CLASS 50 WITH A MAXIMUM COATING THICKNESS OF 150 UM(6 MILS) OR THE ELECTROLYTIC
- 10. THE ANCHOR RODS SHALL BE THREADED A MINIMUM OF 6 INCHES (150 mm) WITH A MINIMUM OF 3 INCHES (75 mm) OF THREADED ANCHOR ROD EMBEDDED IN THE FOUNDATION.
- ANCHOR RODS SHALL PROJECT  $2\frac{1}{4}$ (" (69.9 mm) ABOVE THE TOP OF THE FOUNDATION, IF BREAKAWAY COUPLINGS ARE SPECIFIED, THE CONTRACTOR SHALL CAREFULLY COORDINATE THE ANCHOR ROD PROJECTION WITH THE INSTALLATION REQUIREMENTS OF THE BREAKAWAY COUPLINGS.
- 12. THE CONTRACTOR SHALL USE A \*3 SPIRAL AT 6" (152.4 mm) PITCH OR MAY SUBSTITUTE \*3 TIES AT 12" (304.8 mm) O.C. WITH THE APPROVAL OF THE ENGINEER.
- 13. THE CABLE TRENCHES AND FOUNDATION SHALL BE BACK FILLED AND COMPACTED AS SPECIFIED BEFORE THE LIGHT POLE IS ERECTED.
- 14. THE RACEWAYS SHALL PROJECT 1" (25.4 mm) ABOVE THE TOP OF THE FOUNDATION.

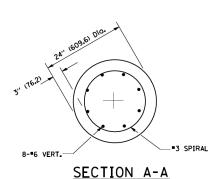
# GROUND LINE

FOUNDATION EXTENSION DETAIL

60" (1500)

TOP OF ANCHOR ROD

4" (100) MAX.



FOUNDATION DETAIL

-•3 SPIRAL 8-6" VERT. SECTION A-A

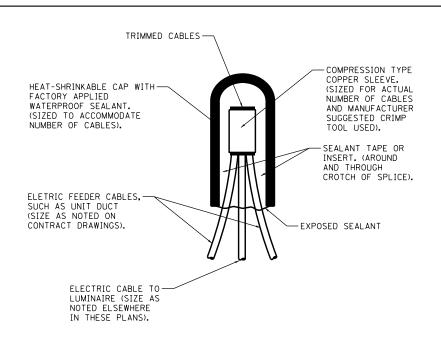
LIGHT POLE FOUNDATION 40' (12.192 m) TO 47 1/2' (14.478 m) M.H. 15" (381 mm) BOLT CIRCLE

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<u></u> I <sub>СМТ</sub>	F:
CRAWFORD, MURPHY & TILLY, INC.	PI
CONSULTING ENGINEERS	PI

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МТ	FILE NAME = D264821-sht-light524.dgn	DRAWN - JWD	REVISED -
RAWFORD, MURPHY & TILLY, INC.	PLOT SCALE = 40.0018 ' / in.	CHECKED - AB	REVISED -
ONSULTING ENGINEERS icense No. 184-000613	PLOT DATE = 11/20/2012 - 11:29:20 AM	DATE - 11/02/2012	REVISED -

STATE O	F ILLINOIS
DEPARTMENT OF	TRANSPORTATION

	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	742	(32, 33) R-1	WINNEBAGO	705	510
			CONTRACT	NO. 6	54821
TO CTA	-				



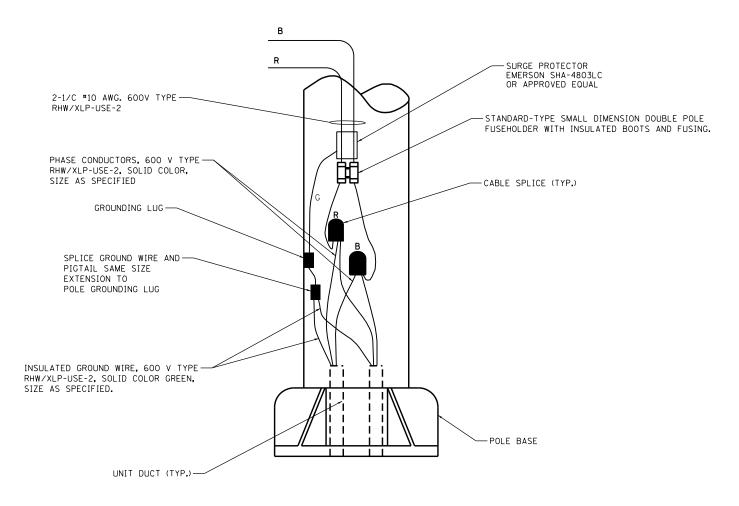
NOTES:

1. ALL TAPED SPLICES SHALL USE 2 LAYERS OF ELECTRICAL TAPE OVER 3 LAYERS OF RUBBER TAPE AS REQUIRED BY THE STANDARD SPECIFICATION. COAT THE FINISH TAPED SPLICE WITH BONDING COMPOUND.

2.ALL CABLE SPLICES SHALL BE TAPED UNLESS ANOTHER METHOD HAS BEEN SPECIFICALLY APPROVED BY THE ENGINEER.

3. THE NUMBER OF CABLES IN SPLICE MAY VARY

#### **TYPICAL SPLICE DETAIL**



#### **POLE WIRING DETAIL**

N.T.S.

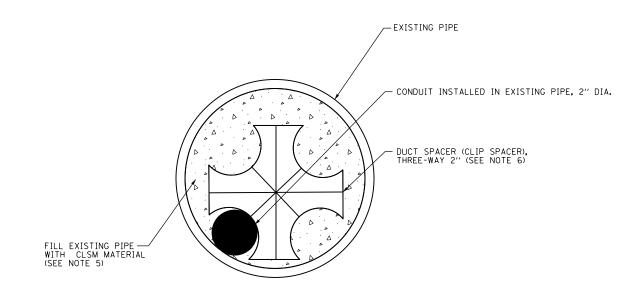
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	CMT
l	CRAWFORD, MUR
l	CONSULTING ENGINEER

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SULTING ENGINEERS nse No. 184-000613	PLOT DATE = 11/20/2012 - 11:29:31 AM	DATE - 11/02/2012	REVISED -

STATE	OF	ILLINOIS
DEPARTMENT	OF	TRANSPORTATION

SCALE: N/A

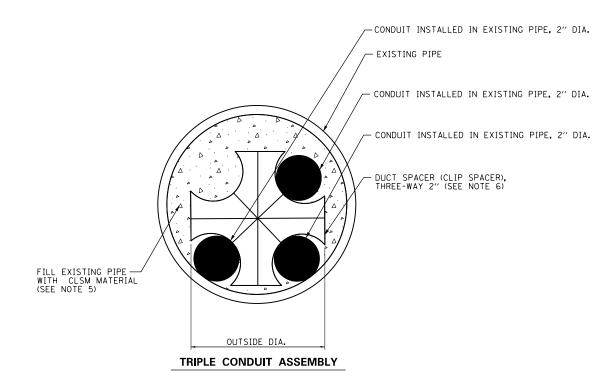
ROADWAY LIGHTING DETAIL					F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.		
TYPICAL SPLICE - POLE WIRING DETAIL (BE-702)			742	(32, 33) R-1	WINNEBAGO	705	511				
	IOAL SI LIC	,L —	10	LL VVIIII	NO DEIA	IL (DL=702)			CONTRACT	NO.	64821
	SHEET 25	OF	32	SHEETS	STA.	TO STA.		ILLINOIS FED. A	ID PROJECT		



SINGLE CONDUIT ASSEMBLY

#### NOTES:

- 1. USE ONE DUCT SPACER (CLIP SPACER) FOR EVERY 5 FEET OF EXISTING PIPE CASING.
- 2. INSTALL DUCT SPACERS PERPENDICULAR TO CONDUITS TO REDUCE THE TENDENCY OF CONDUITS TO CORKSCREW.
- 3. CONTRACTOR MUST COORDINATE WITH DUCT SPACER MANUFACTURER ON INSTALLATION MEANS TO PREVENT THE DUCTBANK FROM ROTATING DURING INSTALLATION. DUCT SPACERS MUST BE HELD IN PLACE WITH NON-METALLIC STRAPS AND HOLD DOWN BARS.
- 4. THE DUCTBANK MUST BE HELD IN POSITION AT BOTH ENDS TO ACCOMMODATE POSSIBLE UNEVEN THRUST LOADS THAT MAY BE GENERATED DURING THE GROUTING OPERATION.
- 5. THE COST FOR FILLING THE EXISTING PIPE WITH CLSM SHALL BE INCLUDED IN THE CONTRACT UNIT COST FOR CONDUIT INSTALLED IN EXISTING PIPE.
- 6. THE COST FOR DUCT SPACERS AND ANY ASSOCIATED STRAPS USED TO HOLD THE CONDUIT IN PLACE SHALL BE INCLUDED IN THE CONTRACT UNIT COST FOR CONDUIT INSTALLED IN EXISTING PIPE.



TORY = L'ROCKFORD NAME = Jason Do

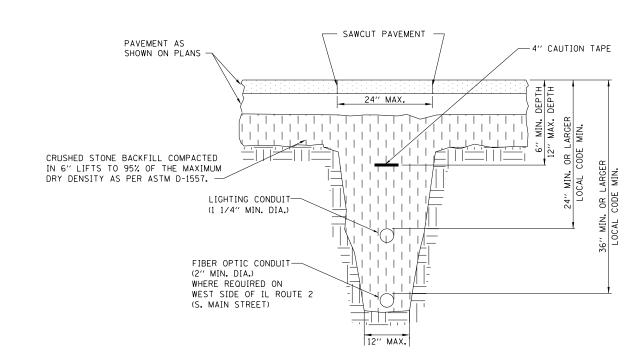
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

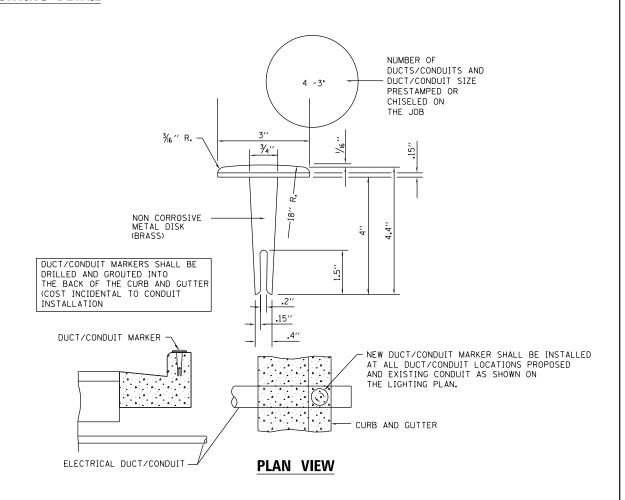
ROADWAY LIGHTING DETAIL

CONDUIT INSTALLED IN EXISTING PIPE WITH DUCT SPACERS

E: N/A SHEET 26 OF 32 SHEETS STA. TO STA.

#### PHOTOCELL MOUNTING DETAIL





#### **DUCT MARKER DETAIL**

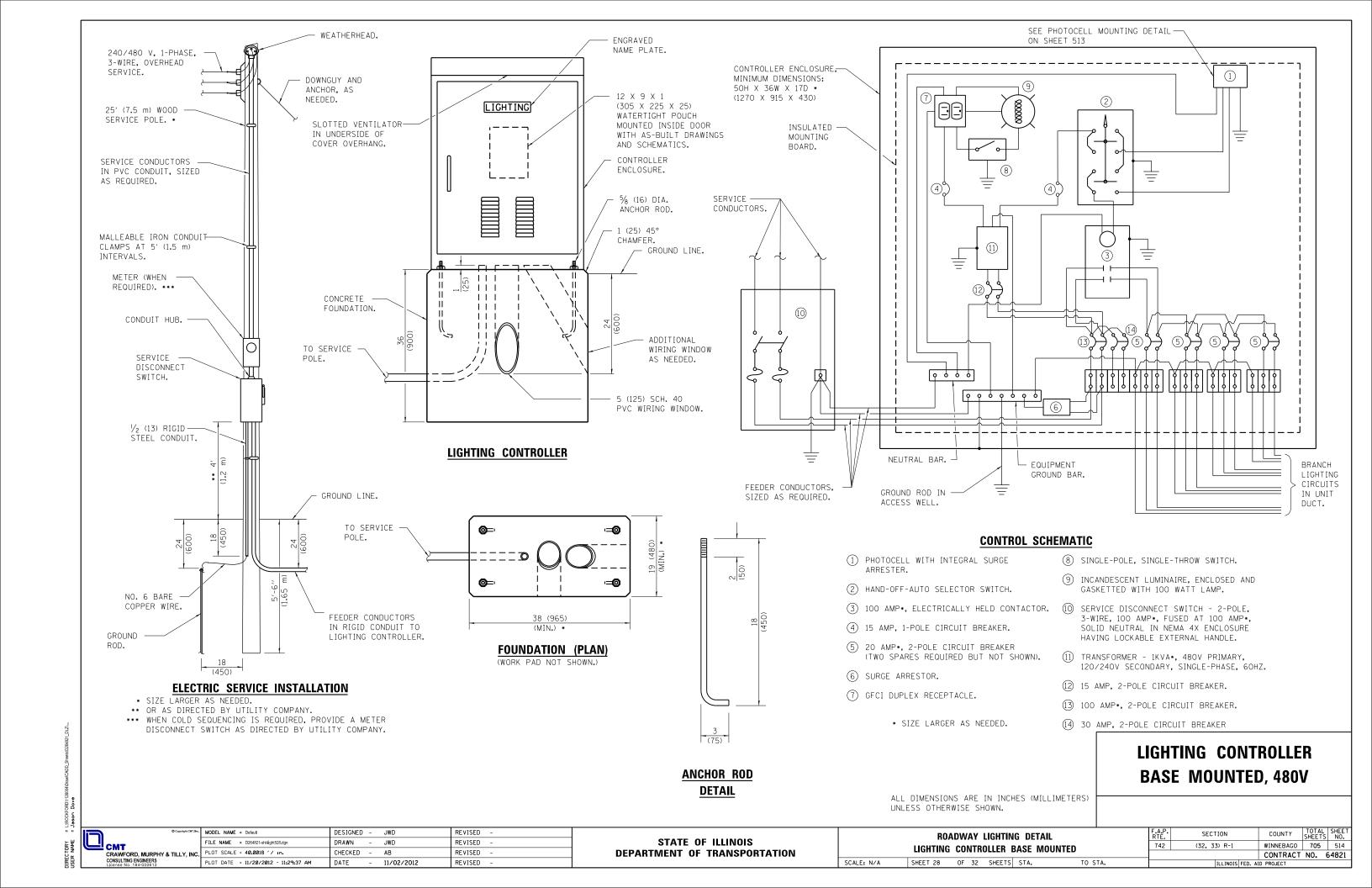
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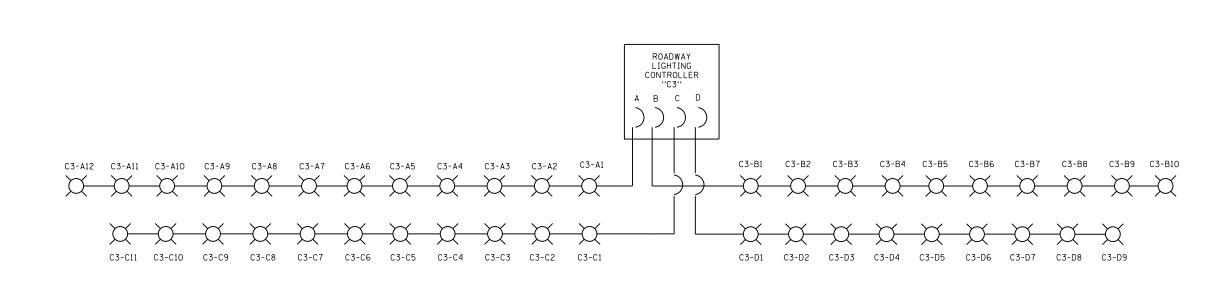
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CRAWFORD, MURPHY & TILLY, INC	. PLO
CONSULTING ENGINEERS	- n

FIBER OPTICS AND STREET LIGHTING CONDUIT TRENCH

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROADWAY LIGHTING DETAIL						
CONDUIT	TRENCH -	- DUC	T MARKE	R – PHO	TOCELL MOUNTING	74
SCALE: N/A	SHEET 27	OF	32 SHEETS	STA.	TO STA.	$\vdash$





#### ROADWAY LIGHTING CONTROLLER "C3" ONE-LINE

CONTROLLER	"C3" LOAD	SCHEDUL
CIRCUIT #	AMPERES	WATTAG
А	12.48	5760
В	10.40	4800
С	12.48	5280
D	9.38	4320

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FILE NAME = D264821-shi-lightnoceveg.

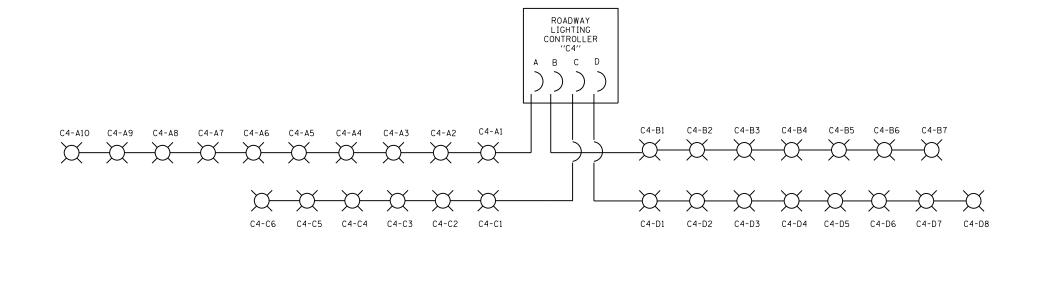
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STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION** 

**ROADWAY LIGHTING DETAIL** LIGHTING CONTROLLER "C3" ONE-LINE SHEET 29 OF 32 SHEETS STA. TO STA.

SCALE: N/A

COUNTY TOTAL SHEETS NO. WINNEBAGO 705 515 SECTION 742 (32, 33) R-1 CONTRACT NO. 64821



#### ROADWAY LIGHTING CONTROLLER "C4" ONE-LINE

CONTROLLER "C4" LOAD SCHEDULE					
AMPERES	WATTAGE				
12.5	4800				
7.3	3360				
6.25	2880				
8.33	3840				
	AMPERES 12.5 7.3 6.25				

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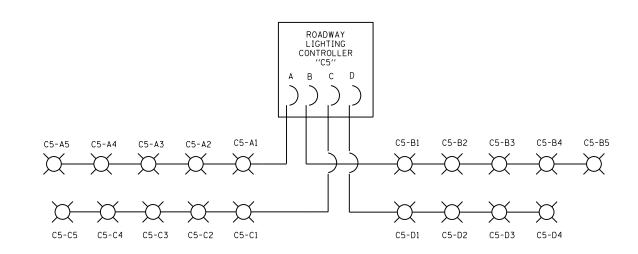
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STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION** 

**ROADWAY LIGHTING DETAIL** LIGHTING CONTROLLER "C4" ONE-LINE SCALE: N/A SHEET 30 OF 32 SHEETS STA. TO STA.

COUNTY TOTAL SHEET NO.
WINNEBAGO 705 516 SECTION 742 (32, 33) R-1 CONTRACT NO. 64821



#### ROADWAY LIGHTING CONTROLLER "C5" ONE-LINE

CONTROLLER "C5" LOAD SCHEDULE					
AMPERES	WATTAGE				
5.2	2400				
5.2	2400				
5.2	2400				
4.2	1920				
	5.2 5.2 5.2				

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License No. 184-000613

MODEL NAME = Default
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PLOT SCALE = 40.0018 '/ In.
PLOT DATE = 11/20/2012 - 11r

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION ROADWAY LIGHTING DETAIL
LIGHTING CONTROLLER "C5" ONE-LINE

SHEET 31 OF 32 SHEETS STA. TO STA.

SCALE: N/A



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CONSULTING ENGINEERS
License No. 184-000813

FILE NAME = D264821-81Hightroaccop.
PLOT SCALE = 40.0018 '/ in.
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C6-C12 C6-C11 C6-C10 C6-C9 C6-C8 C6-C7 C6-C6 C6-C5 C6-C4 C6-C3 C6-C2 C6-C1

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION** 

ROADWAY LIGHTING CONTROLLER

A B C D

C6-B1

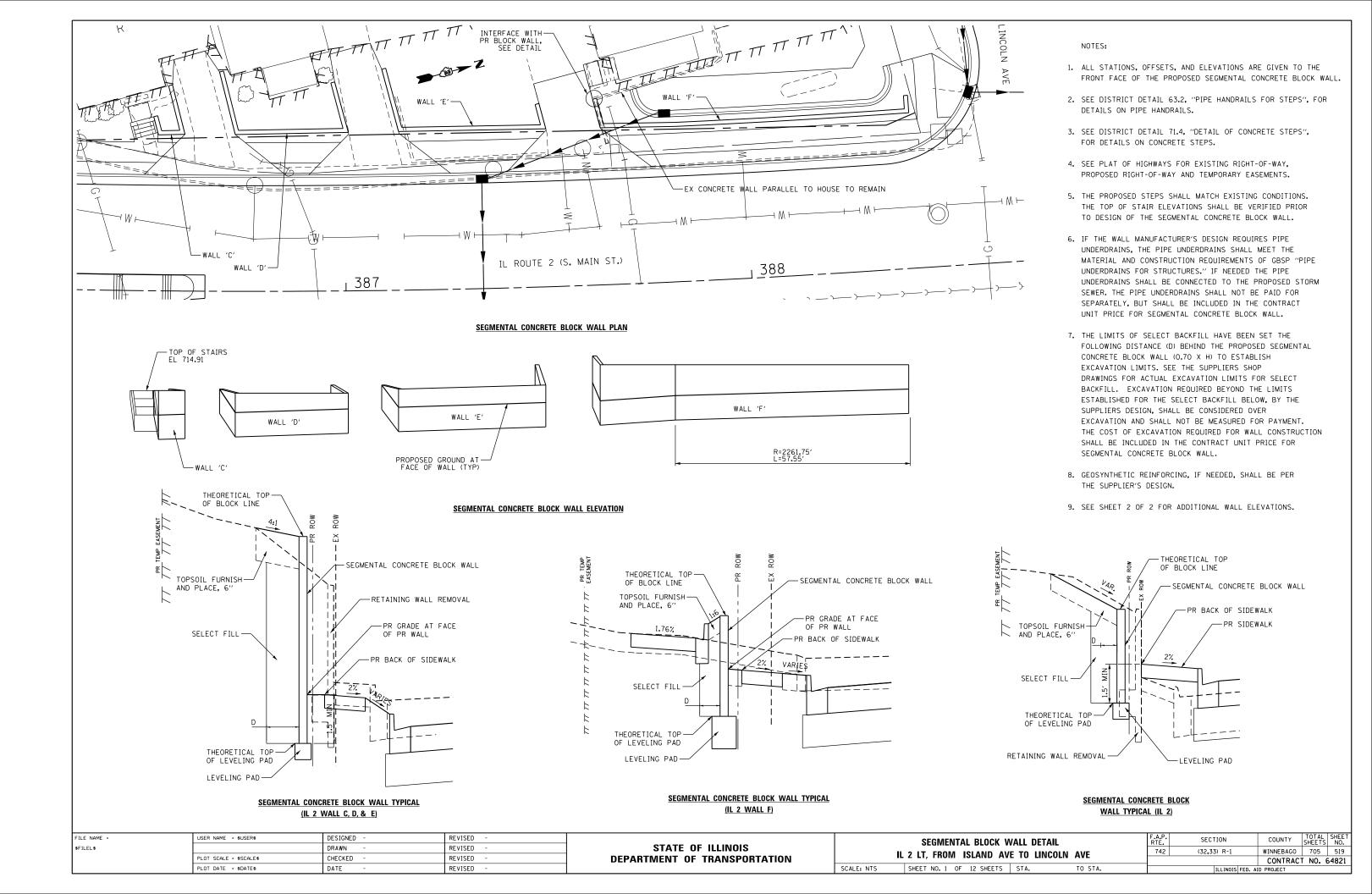
C6-D1

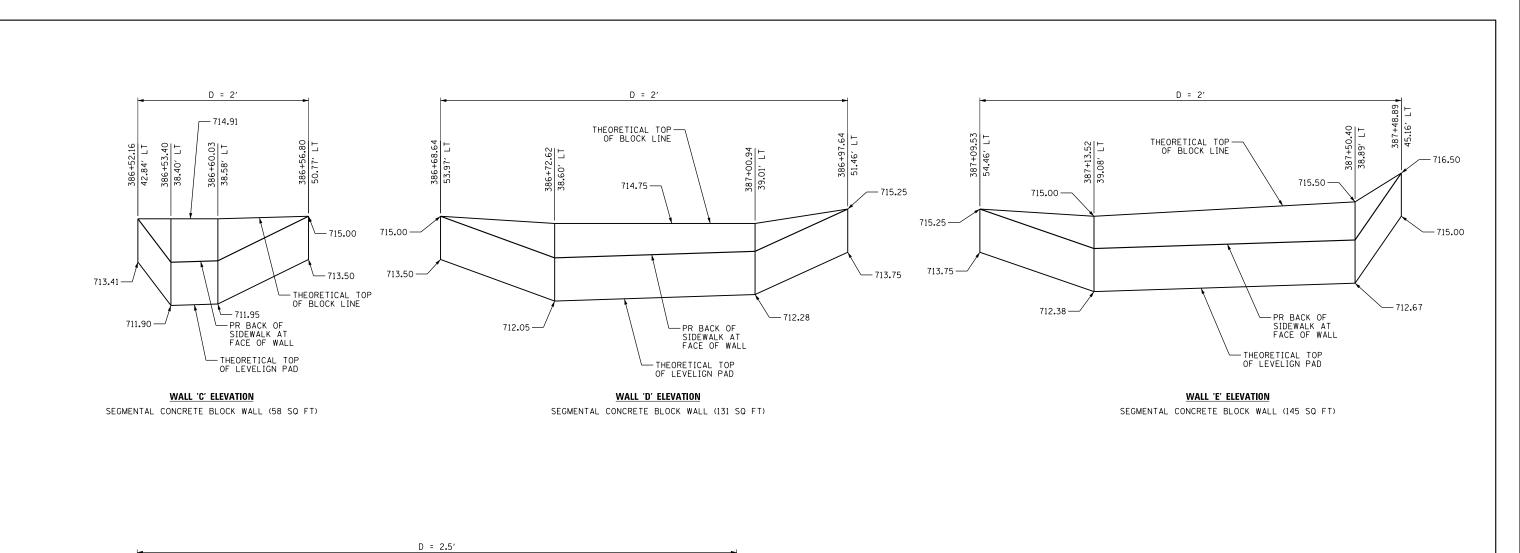
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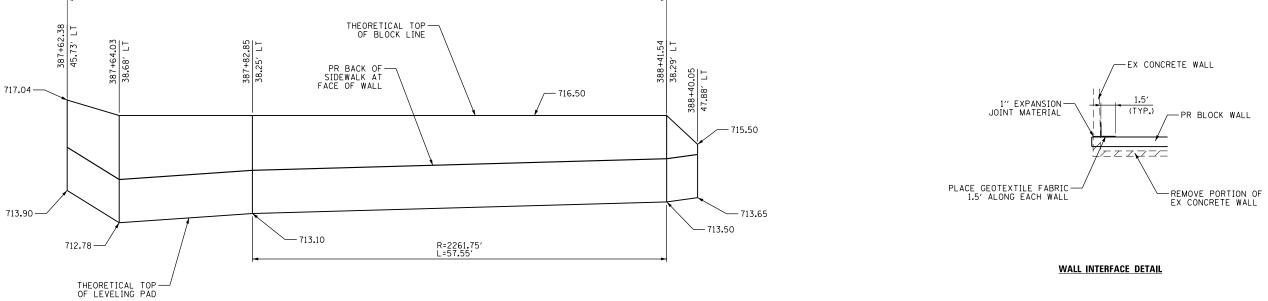
COUNTY TOTAL SHEET NO.
WINNEBAGO 705 518 SECTION 742 (32, 33) R-1 CONTRACT NO. 64821

ROADWAY LIGHTING CONTROLLER "C6" ONE-LINE

CONTROLLER	"C6" LOAD	SCHEDULE
CIRCUIT #	AMPERES	WATTAGE
А	9.63	4445
В	1.04	480
С	11.71	5405
D	1.04	480



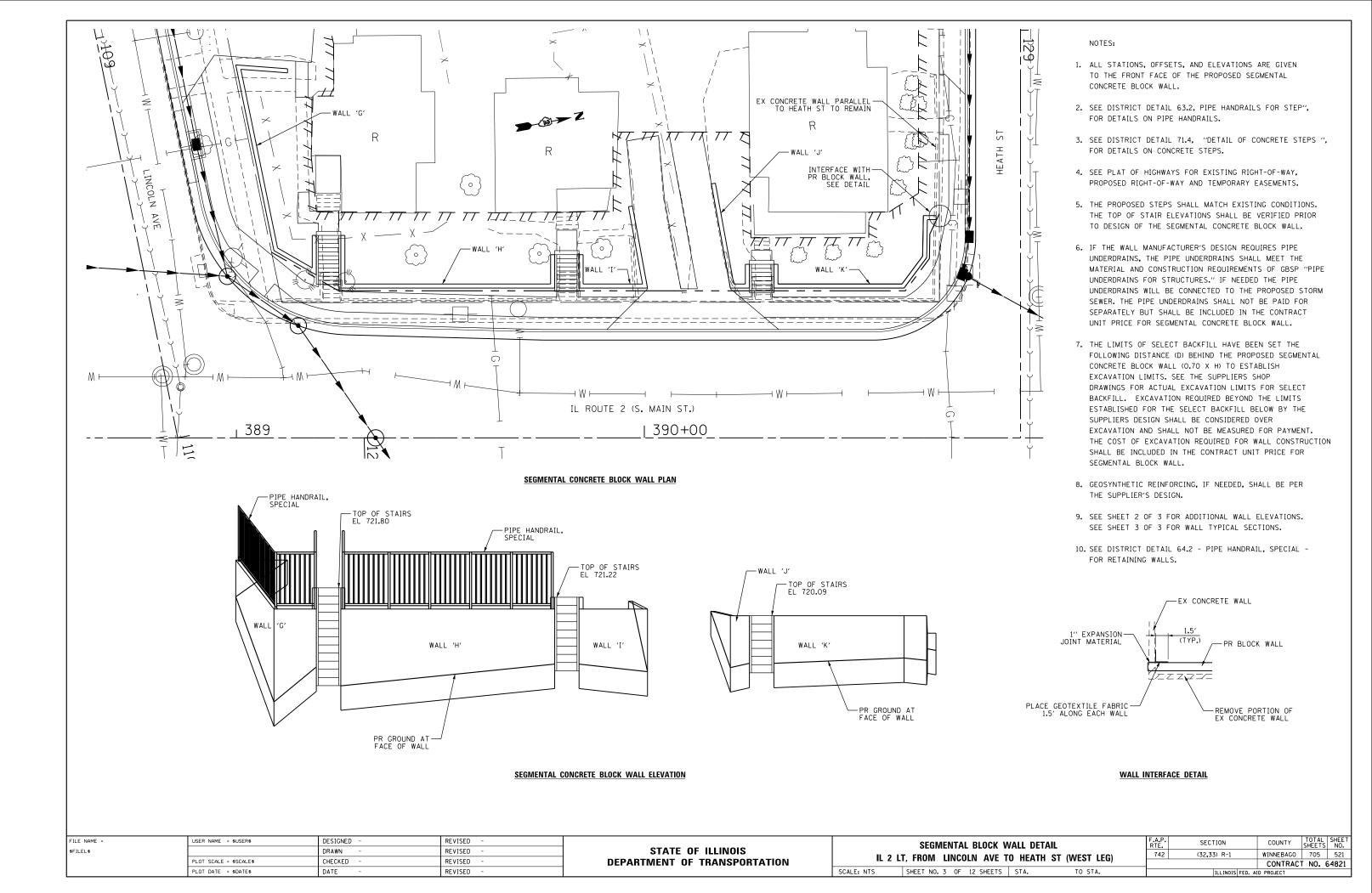


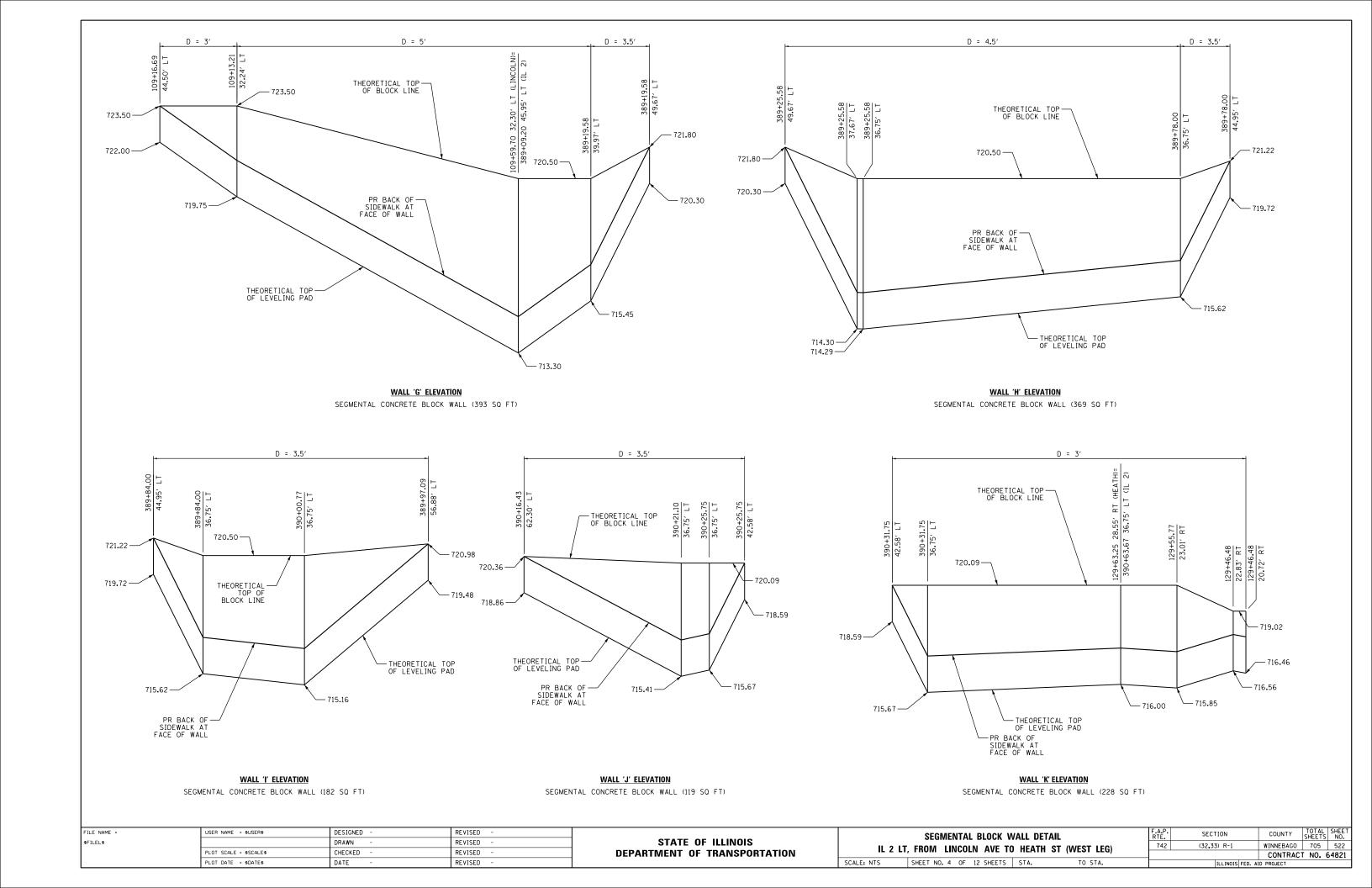


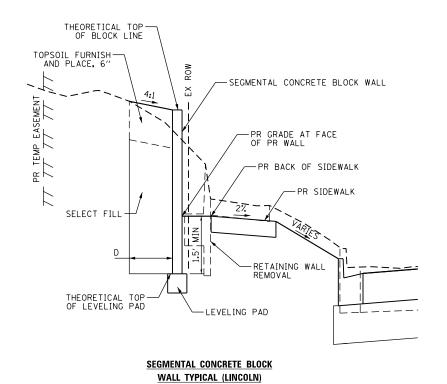
WALL 'F' ELEVATION

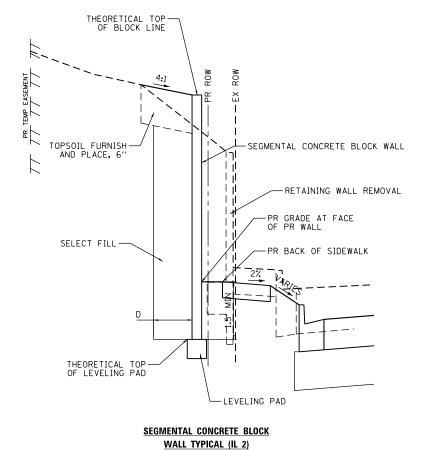
SEGMENTAL CONCRETE BLOCK WALL (285 SQ FT)

COUNTY TOTAL SHEET NO. WINNEBAGO 705 520 FILE NAME = USER NAME = \$USER\$ DESIGNED REVISED SECTION SEGMENTAL BLOCK WALL DETAIL STATE OF ILLINOIS \$FILEL\$ DRAWN REVISED 742 (32,33) R-1 IL 2 LT, FROM ISLAND AVE TO LINCOLN AVE CHECKED REVISED **DEPARTMENT OF TRANSPORTATION** CONTRACT NO. 64821 PLOT DATE = \$DATE\$ SHEET NO. 2 OF 12 SHEETS STA. DATE REVISED









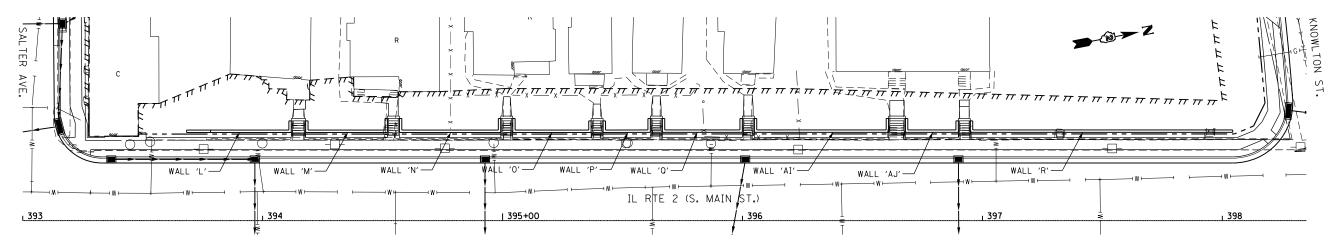


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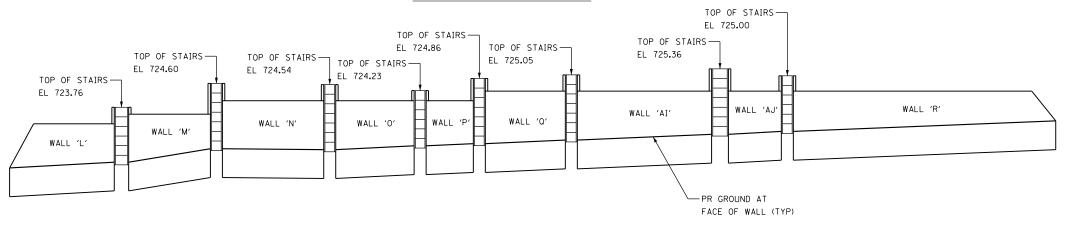
\$FILEL\$

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

	SEGMENTAL BLOCK W	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.		
IL 2 LT. FROM LINCOLN AVE TO HEATH ST (WEST LEG)				742	(32,33) R-1	WINNEBAGO	705	523
IL Z LI, I NOW LINCOLN AVE TO HEATH ST (VVLST EEG)						CONTRAC	T NO. 6	64821
SCALE: NTS	SHEET NO. 5 OF 12 SHEETS	STA.	TO STA.		ILLINOIS FED. AI	D PROJECT		



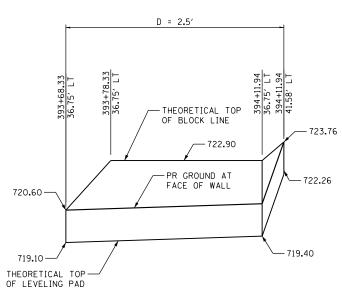
#### SEGMENTAL CONCRETE BLOCK WALL PLAN



#### SEGMENTAL CONCRETE BLOCK WALL ELEVATION

NOTES

- 1. ALL STATIONS, OFFSETS AND ELEVATIONS ARE GIVEN TO THE FRONT FACE OF THE PROPOSED SEGMENTAL CONCRETE BLOCK WALL.
- SEE DISTRICT DETAIL 63.2, "PIPE HANDRAILS FOR STEPS", FOR DETAILS ON PIPE HANDRAILS.
- SEE DISTRICT DETAIL 71.4, "DETAIL OF CONCRETE STEPS", FOR DETAILS ON CONCRETE STEPS.
- 4. SEE PLAT OF HIGHWAYS FOR EXISTING RIGHT-OF-WAY, PROPOSED RIGHT-OF-WAY AND TEMPORARY EASEMENTS.
- 5. THE PROPOSED STEPS SHALL MATCH EXISTING CONDITIONS. THE TOP OF STAIR ELEVATIONS SHALL BE VERIFIED PRIOR TO DESIGN OF THE SEGMENTAL CONCRETE BLOCK WALL.
- 6. IF THE WALL MANUFACTURES DESIGN REQUIRES PIPE UNDERDRAINS, THE PIPE UNDERDRAINS SHALL MEET THE MATERIAL AND CONSTRUCTION REQUIREMENTS OF GBSP "PIPE UNDERDRAINS FOR STRUCTURES." IF NEEDED THE PIPE UNDERDRAINS SHALL BE CONNECTED TO THE PROPOSED STORM SEWER. THE PIPE UNDERDRAINS SHALL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR SEGMENTAL CONCRETE BLOCK WALL.
- 7. THE LIMITS OF SELECT BACKFILL HAVE BEEN SET THE FOLLOWING DISTANCE (D) BEHIND THE PROPOSED SEGMENTAL CONCRETE BLOCK WALL (0.70 X H) TO ESTABLISH EXCAVATION LIMITS. SEE THE SUPPLIERS SHOP DRAWINGS FOR ACTUAL EXCAVATION LIMITS FOR SELECT BACKFILL. EXCAVATION REQUIRED BEYOND THE LIMITS ESTABLISHED FOR THE SELECT BACKFILL BELOW, BY THE SUPPLIERS DESIGN SHALL BE CONSIDERED OVER EXCAVATION AND SHALL NOT BE MEASURED FOR PAYMENT. THE COST OF EXCAVATION REQUIRED FOR WALL CONSTRUCTION SHALL BE INCLUDED IN THE UNIT PRICE FOR SEGMENTAL CONCRETE BLOCK WALL.
- 8. GEOSYNTHETIC REINFORCING, IF NEEDED, SHALL BE PER THE SUPPLIER'S DESIGN.
- 9. SEE SHEET 2 OF 2 FOR ADDITIONAL WALL ELEVATIONS AND TYPICAL SECTION.





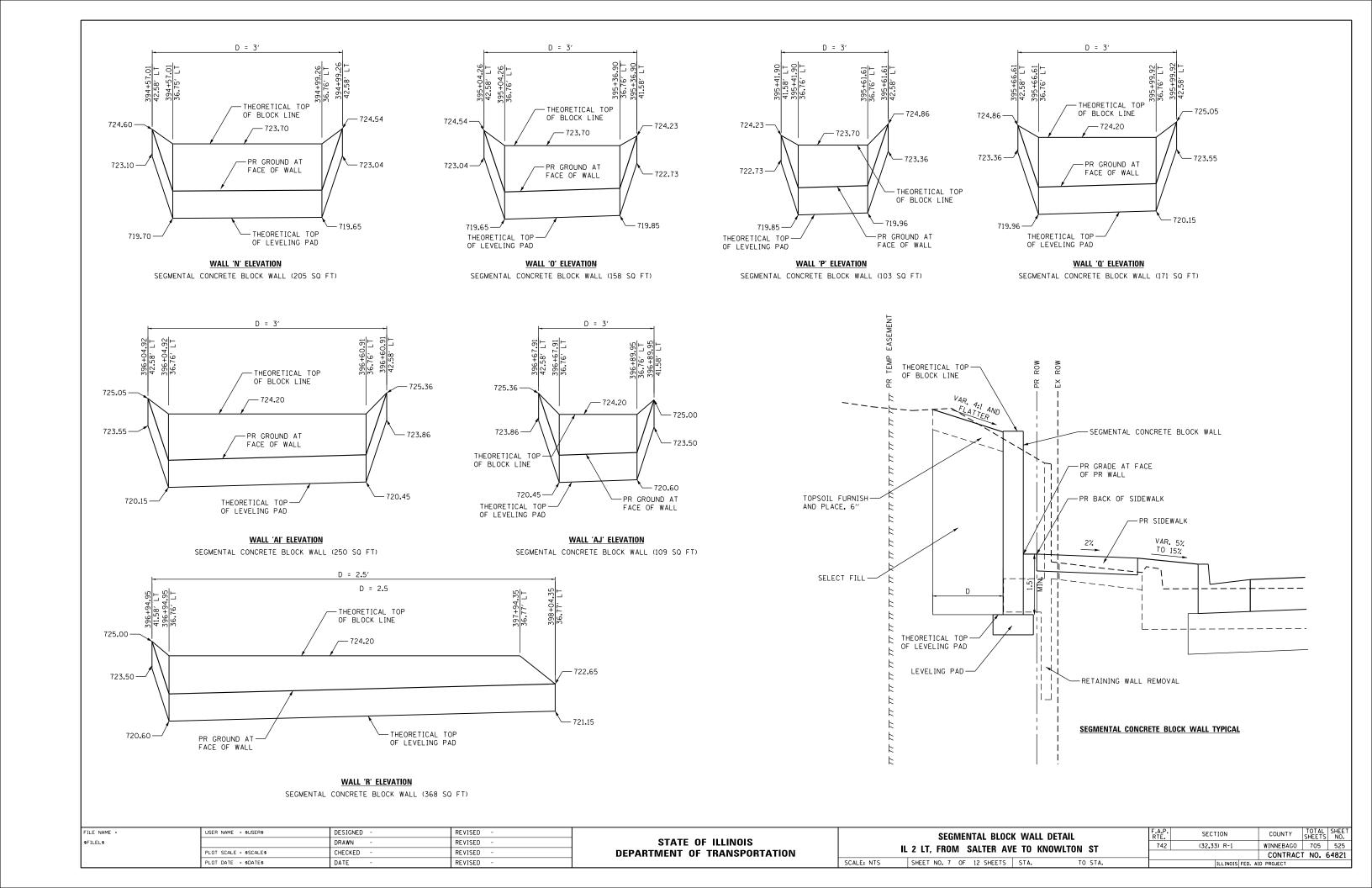
#### WALL 'M' ELEVATION

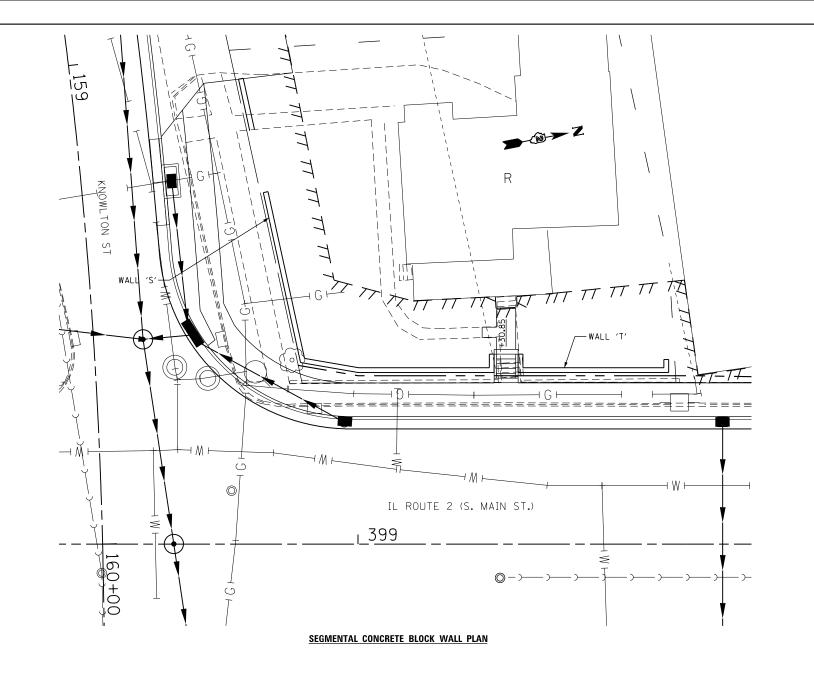
SEGMENTAL CONCRETE BLOCK WALL (160 SQ FT)

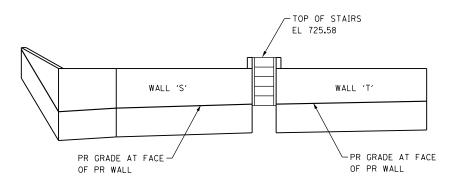
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	PLOT DATE = \$DATE\$	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SEGMENTAL BLOCK WALL DETAIL	F.A.P. RTE.	SECTION
IL 2 LT. FROM SALTER AVE TO KNOWLTON ST	742	(32,33) R-1
SCALE: NTS SHEET NO. 6 OF 12 SHEETS STA. TO STA.		ILLINOIS FE





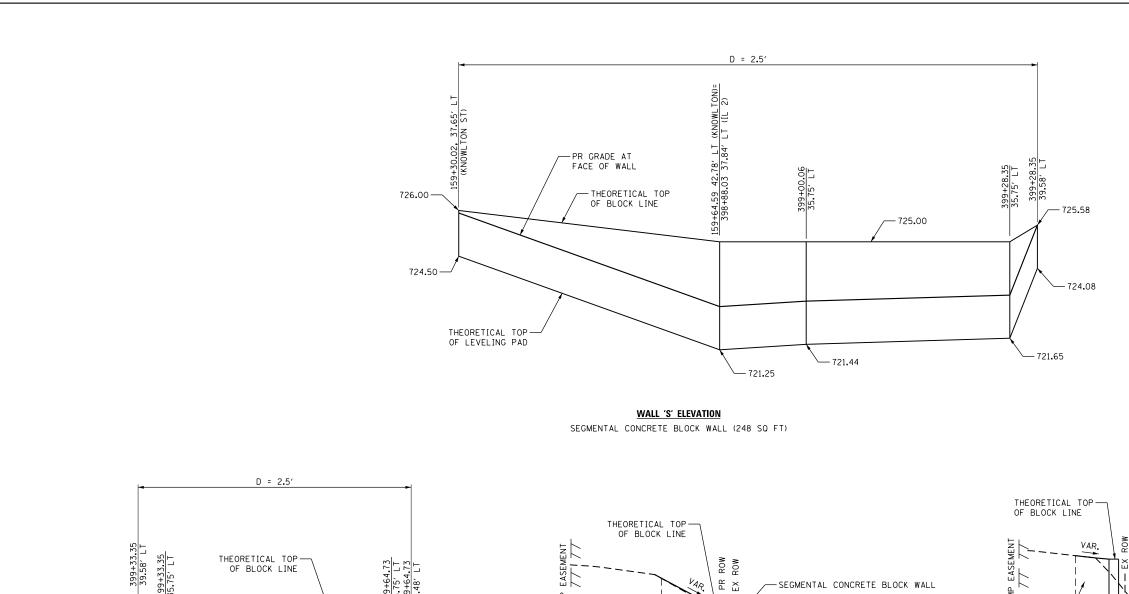


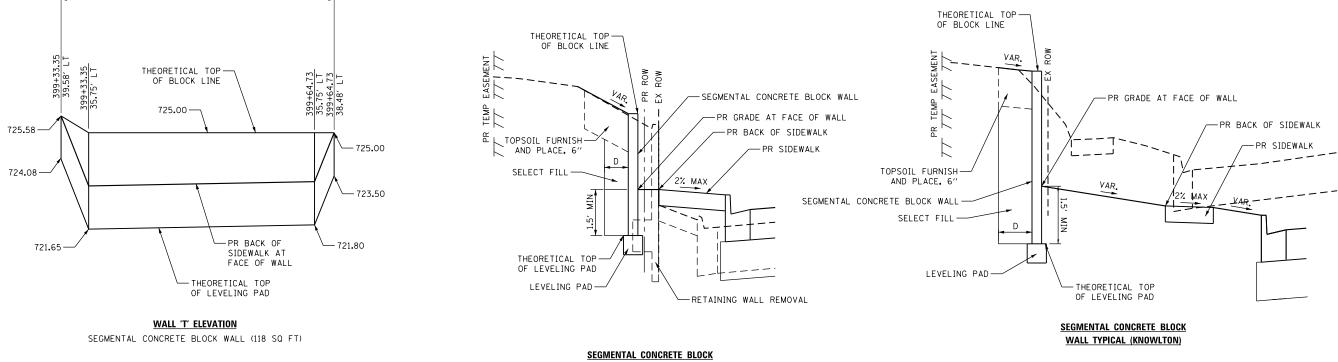
SEGMENTAL CONCRETE BLOCK WALL ELEVATION

NOTES:

- ALL STATIONS, OFFSETS, AND ELEVATIONS ARE GIVEN TO THE FRONT FACE OF THE PROPOSED SEGMENTAL CONCRETE BLOCK WALL.
- SEE DISTRICT DETAIL 63.2, "PIPE HANDRAILS FOR STEPS", FOR DETAILS ON PIPE HANDRAILS.
- SEE DISTRICT DETAIL 71.4 "DETAIL OF CONCRETE STEPS", FOR DETAILS ON CONCRETE STEPS.
- 4. SEE PLAT OF HIGHWAYS FOR EXISTING RIGHT-OF-WAY, PROPOSED RIGHT-OF-WAY AND TEMPORARY EASEMENTS.
- 5. THE PROPOSED STEPS SHALL MATCH EXISTING CONDITIONS.
  THE TOP OF STAIR ELEVATIONS SHALL BE VERIFIED PRIOR
  TO DESIGN OF THE SEGMENTAL CONCRETE BLOCK WALL.
- 6. IF THE WALL MANUFACTURER'S DESIGN REQUIRES PIPE UNDERDRAINS, THE PIPE UNDERDRAINS SHALL MEET THE MATERIAL AND CONSTRUCTION REQUIREMENTS OF GBSP "PIPE UNDERDRAINS FOR STRUCTURES." IF NEEDED THE PIPE UNDERDRAINS SHALL BE CONNECTED TO THE PROPOSED STORM SEWER. THE PIPE UNDERDRAINS SHALL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR SEGMENTAL CONCRETE BLOCK WALL.
- 7. THE LIMITS OF SELECT BACKFILL HAVE BEEN SET THE FOLLOWING DISTANCE (D) BEHIND THE PROPOSED SEGMENTAL CONCRETE BLOCK WALL (0.70 X H) TO ESTABLISH EXCAVATION LIMITS. SEE THE SUPPLIERS SHOP DRAWINGS FOR ACTUAL EXCAVATION LIMITS FOR SELECT BACKFILL. EXCAVATION REQUIRED BEYOND THE LIMITS ESTABLISHED FOR THE SELECT BACKFILL BELOW, BY THE SUPPLIERS DESIGN, SHALL BE CONSIDERED OVER EXCAVATION AND SHALL NOT BE MEASURED FOR PAYMENT. THE COST OF EXCAVATION REQUIRED FOR WALL CONSTRUCTION SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR SEGEMENTAL CONCRETE BLOCK WALL.
- 8. GEOSYNTHETIC REINFORCING, IF NEEDED, SHALL BE PER THE SUPPLIER'S DESIGN.
- 9. SEE SHEET 2 OF 2 FOR ADDITIONAL WALL ELEVATIONS AND TYPICAL SECTIONS.

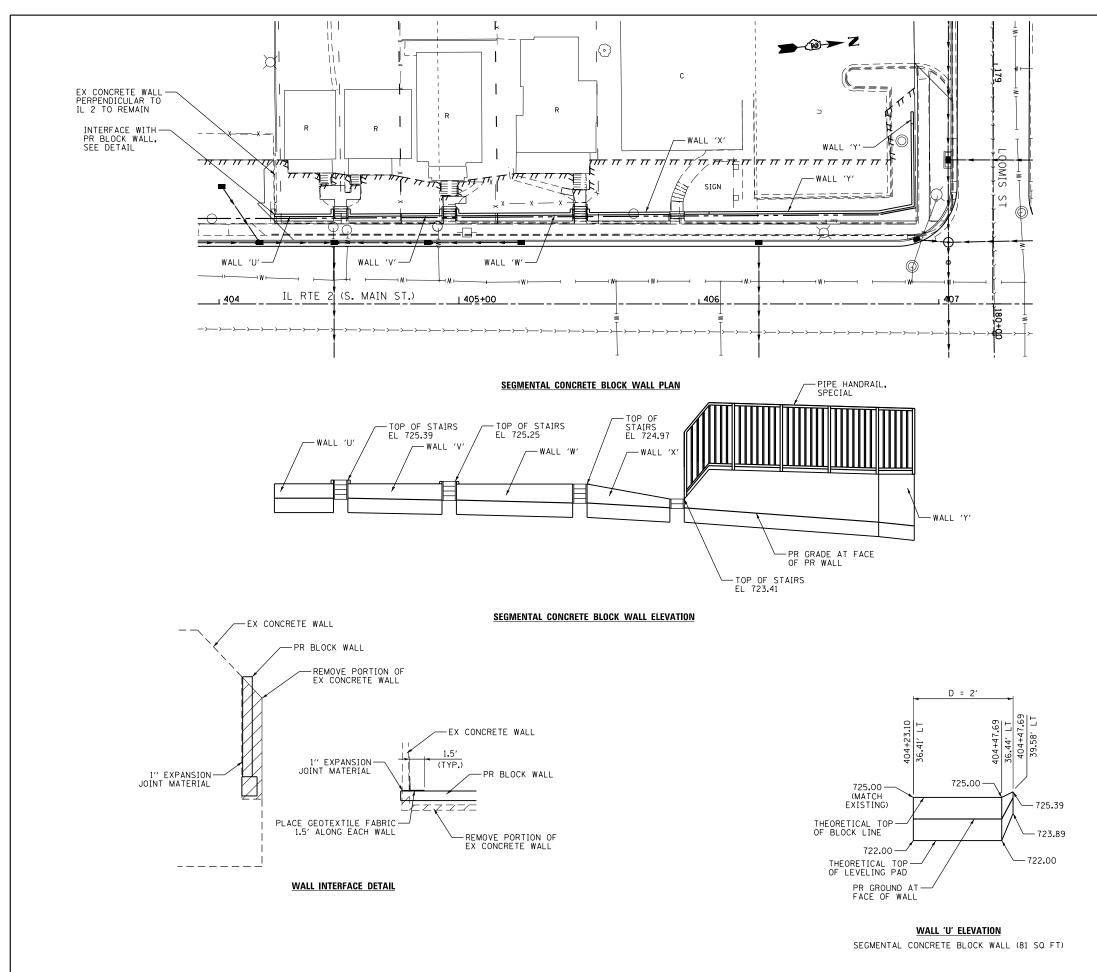
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\$F	FILEL\$		DRAWN -	REVISED -	STATE OF ILLINOIS		742	(32,33) R-1	WINNEBAGO 705 526
		PLOT SCALE = \$SCALE\$	CHECKED -	REVISED -	DEPARTMENT OF TRANSPORTATION	IL 2 LT, FROM KNOWLTON ST TO MONTAGUE ST		102,001 11 2	CONTRACT NO. 64821
- 1		PLOT DATE = \$DATE\$	DATE -	REVISED -	1	SCALE: NTS SHEET NO 8 OF 12 SHEETS STA TO STA	1	TILINOIS EED AT	





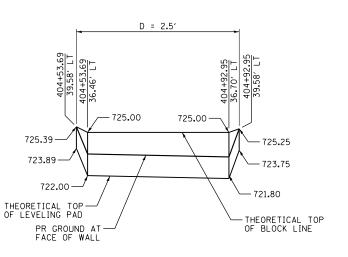
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\$FILEL\$		DRAWN -	REVISED -	STATE OF ILLINOIS			742	(32,33) R-1	WINNEBAGO 705 527
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	PLOT DATE = \$DATE\$	DATE -	REVISED -		SCALE: NTS	SHEET NO. 9 OF 12 SHEETS STA. TO STA.		ILLINOIS FED. A	ID PROJECT

WALL TYPICAL (IL 2)



NOTES:

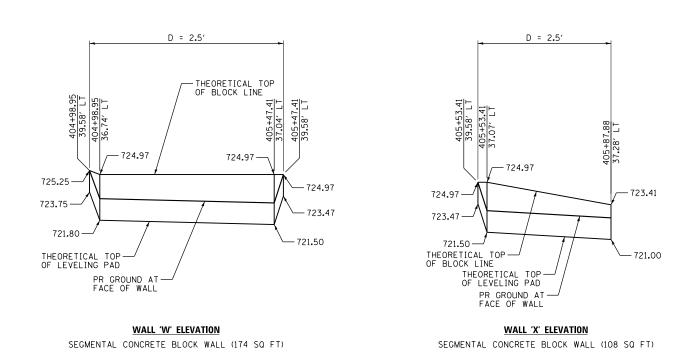
- ALL STATIONS, OFFSETS, AND ELEVATIONS ARE GIVEN TO THE FRONT FACE OF THE PROPOSED SEGMENTAL CONCRETE BLOCK WALL.
- SEE DISTRICT DETAIL 63.2, "PIPE HANDRAILS FOR STEPS", FOR DETAILS ON PIPE HANDRAILS.
- SEE DISTRICT DETAIL 71.4, "DETAIL OF CONCRETE STEPS" FOR DETAILS ON CONCRETE STEPS.
- 4. SEE PLAT OF HIGHWAYS FOR EXISTING RIGHT-OF-WAY, PROPOSED RIGHT-OF-WAY AND TEMPORARY EASEMENTS.
- 5. THE PROPOSED STEPS SHALL MATCH EXISTING CONDITIONS.
  THE TOP OF STAIR ELEVATIONS SHALL BE VERIFIED PRIOR
  TO DESIGN OF THE SEGMENTAL CONCRETE BLOCK WALL.
- 6. IF THE WALL MANUFACTURER'S DESIGN REQUIRES PIPE UNDERDRAINS, THE PIPE UNDERDRAINS SHALL MEET THE MATERIAL AND CONSTRUCTION REQUIREMENTS OF GBSP "PIPE UNDERDRAINS FOR STRUCTURES." IF NEEDED THE PIPE UNDERDRAINS SHALL BE CONNECTED TO THE PROPOSED STORM SEWER. THE PIPE UNDERDRAINS SHALL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR SEGMENTAL CONCRETE BLOCK WALL.
- 7. THE LIMITS OF SELECT BACKFILL HAVE BEEN SET THE FOLLOWING DISTANCE (D) BEHIND THE PROPOSED SEGMENTAL CONCRETE BLOCK WALL (0.70 X H) TO ESTABLISH EXCAVATION LIMITS. SEE THE SUPPLIERS SHOP DRAWINGS FOR ACTUAL EXCAVATION LIMITS FOR SELECT BACKFILL. EXCAVATION REQUIRED BEYOND THE LIMITS ESTABLISHED FOR THE SELECT BACKFILL BELOW BY THE SUPPLIERS DESIGN SHALL BE CONSIDERED OVER EXCAVATION AND SHALL NOT BE MEASURED FOR PAYMENT. THE COST OF EXCAVATION REQUIRED FOR WALL CONSTRUCTION SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR CONCRETE BLOCK WALL.
- 8. GEOSYNTHETIC REINFORCING, IF NEEDED, SHALL BE PER THE SUPPLIER'S DESIGN.
- SEE SHEET 2 OF 2 FOR ADDITIONAL WALL ELEVATIONS AND TYPICAL SECTIONS.
- 10. SEE DISTRICT DETAIL 64.2 PIPE HANDRAIL, SPECIAL FOR RETAINING WALLS.

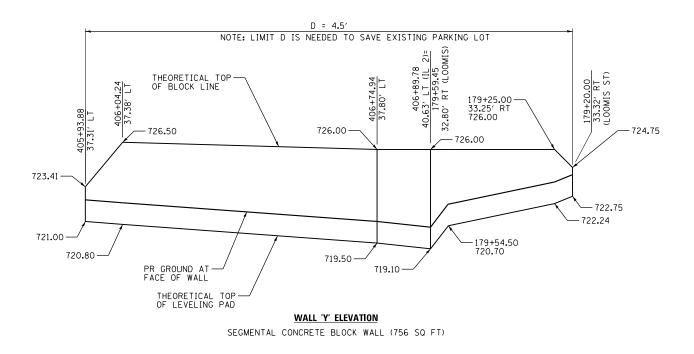


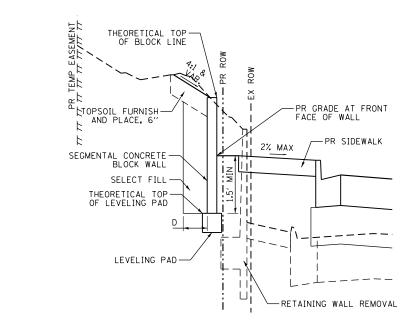
#### WALL 'V' ELEVATION

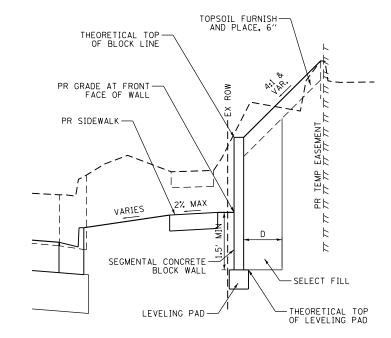
SEGMENTAL CONCRETE BLOCK WALL (136 SQ FT)

FILE NAME =	USER NAME = \$USER\$	DESIGNED -	REVISED -	CTATE OF HAINOIC	TE OF ILLINOIS  SEGMENTAL BLOCK WALL DETAIL  1. 2 IT FROM MONTAGUE ST TO LOOME ST		F.A.P.	SECTION	COUNTY TOTAL	AL SHEET
\$FILEL\$		DRAWN -	REVISED -	STATE OF ILLINOIS			742	(32,33) R-1	WINNEBAGO 705	5 528
	PLOT SCALE = \$SCALE\$	CHECKED -	REVISED -	DEPARTMENT OF TRANSPORTATION	<u> </u>	L 2 LT, FROM MONTAGUE ST TO LOOMIS ST		·	CONTRACT NO.	. 64821
	PLOT DATE = \$DATE\$	DATE -	REVISED -		SCALE: NTS	SHEET NO. 10 OF 12 SHEETS STA. TO STA.		ILLINOIS FED.	AID PROJECT	





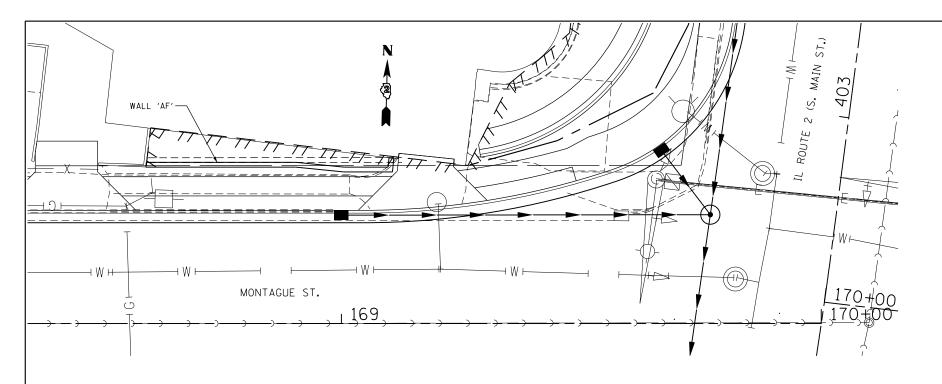




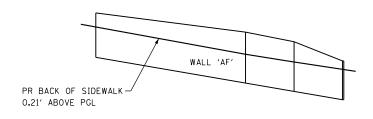
SEGMENTAL CONCRETE BLOCK
WALL TYPICAL (IL 2)

SEGMENTAL CONCRETE BLOCK
WALL TYPICAL (LOOMIS)

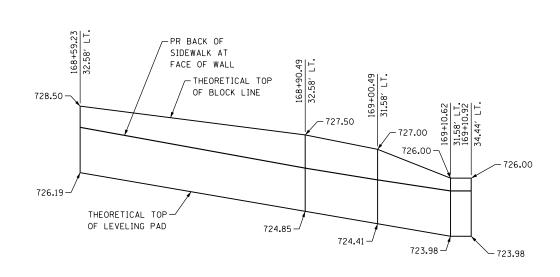
FILE	E NAME =	USER NAME = \$USER\$	DESIGNED -	REVISED -		STATE OF ILLINOIS  DEPARTMENT OF TRANSPORTATION  SEGMENTAL BLOCK WALL DETAIL  IL 2 LT, FROM MONTAGUE ST TO LOOMIS ST		F.A.P.	SECTION	COUNTY TOTAL SHEET
\$FIL	ILEL\$		DRAWN -	REVISED -	STATE OF ILLINOIS			742	(32,33) R-1	WINNEBAGO 705 529
		PLOT SCALE = \$SCALE\$	CHECKED -	REVISED -	DEPARTMENT OF TRANSPORTATION					CONTRACT NO. 64821
		PLOT DATE = \$DATE\$	DATE -	REVISED -		SCALE: NTS	SHEET NO. 11 OF 12 SHEETS STA. TO STA.		ILLINOIS FED	D. AID PROJECT



#### SEGMENTAL CONCRETE BLOCK WALL PLAN



#### SEGMENTAL CONCRETE BLOCK WALL ELEVATION



# THEORETICAL TOP OF BLOCK LINE PR GRADE AT FRONT FACE OF WALL 27. MAX 57. THEORETICAL TOP OF BLOCK LINE PR SIDEWALK 27. MAX 57. THEORETICAL TOP OF LEVELING PAD RETAINING WALL REMOVAL

SEGMENTAL CONCRETE BLOCK
WALL TYPICAL (MONTAGUE)

SCALE: NTS

- NOTES:
- ALL ELEVATIONS ARE GIVEN TO THE FRONT FACE OF THE PROPOSED SEGMENTAL CONCRETE BLOCK WALL.
- SEE DISTRICT DETAIL 63.2, "PIPE HANDRAILS FOR STEPS", FOR DETAILS ON PIPE HANDRAILS.
- 3. SEE DISTRICT DETAIL 71.4, "DETAIL OF CONCRETE STEPS", FOR DETAILS ON CONCRETE STEPS.
- SEE PLAT OF HIGHWAYS FOR EXISTING RIGHT-OF-WAY, PROPOSED RIGHT-OF-WAY AND TEMPORARY EASEMENTS.
- 5. THE PROPOSED STEPS SHALL MATCH EXISTING CONDITIONS.
  THE TOP OF STAIR ELEVATIONS SHALL BE VERIFIED PRIOR
  TO DESIGN OF THE SEGMENTAL CONCRETE BLOCK WALL.
- 6. IF THE WALL MANUFACTURER'S DESIGN REQUIRES PIPE UNDERDRAINS, THE PIPE UNDERDRAINS SHALL MEET THE MATERIAL AND CONSTRUCTION REQUIREMENTS OF GBSP "PIPE UNDERDRAINS FOR STRUCTURES." IF NEEDED THE PIPE UNDERDRAINS SHALL BE CONNECTED TO THE PROPOSED STORM SEWER. THE PIPE UNDERDRAINS SHALL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR SEGMENTAL CONCRETE BLOCK WALL.
- 7. THE LIMITS OF SELECT BACKFILL HAVE BEEN SET THE FOLLOWING DISTANCE (D) BEHIND THE PROPOSED SEGMENTAL CONCRETE BLOCK WALL (0.70 X H) TO ESTABLISH EXCAVATION LIMITS. SEE THE SUPPLIERS SHOP DRAWINGS FOR ACTUAL EXCAVATION LIMITS FOR SELECT BACKFILL. EXCAVATION REQUIRED BEYOND THE LIMITS ESTABLISHED FOR THE SELECT BACKFILL BELOW BY THE SUPPLIERS DESIGN SHALL BE CONSIDERED OVER EXCAVATION AND SHALL NOT BE MEASURED FOR PAYMENT. THE COST OF EXCAVATION REQUIRED FOR WALL CONSTRUCTION SHALL BE INCLUDED IN THE CONTRACT UNIT COST FOR SEGMENTAL CONCRETE BLOCK WALL.

<u>LOCATION:</u>
STA 168+59.23 (MONTAGUE)
TO STA 169+10.92 (MONTAGUE) = 2.0'

8. GEOSYNTHETIC REINFORCING, IF NEEDED, SHALL BE PER THE SUPPLIER'S DESIGN.

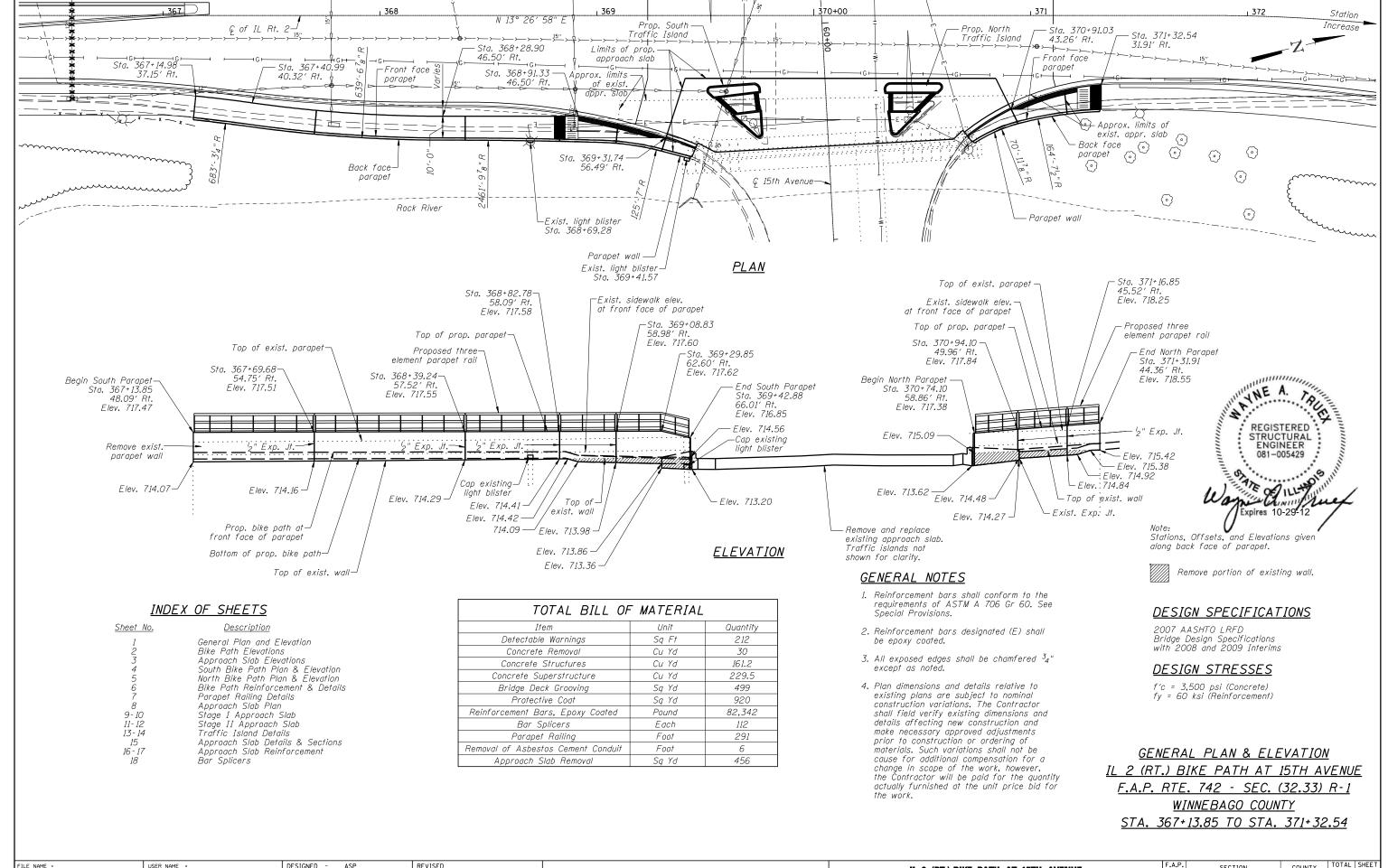
#### WALL 'AF' ELEVATION

SEGMENTAL CONCRETE BLOCK WALL (133 SQ FT)

FILE NAME =	USER NAME = \$USER\$	DESIGNED -	REVISED -
\$FILEL\$		DRAWN -	REVISED -
	PLOT SCALE = \$SCALE\$	CHECKED -	REVISED -
	PLOT DATE = \$DATE\$	DATE -	REVISED -

# STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

SEGMENTAL BLOCK WALL DETAIL	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
MONTAGUE ST LT. WEST OF IL 2	742	(32,33) R-1	WINNEBAGO	705	530
MONTAGOL ST LI, WEST OF IL Z			CONTRAC	T NO. 6	4821
SHEET NO. 12 OF 12 SHEETS   STA. TO STA.		ILLINOIS FED. AI	D PROJECT		



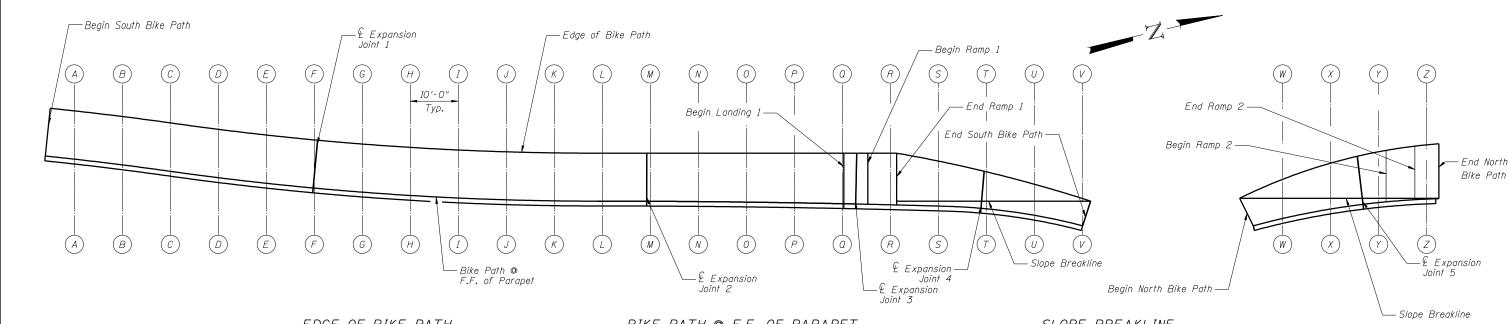
FILE NAME = DLZ Illinois, Inc.

OSEN MAILE -	DESTONED	ASI	INC A 12CD	
	CHECKED -	WSP	REVISED	
PLOT SCALE =	DRAWN -	LNB	REVISED	
PLOT DATE =	CHECKED -	ASP	REVISED	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL	2	(RT.)	BII	Œ	PA	ΓH .	ΑT	15TH	<b>AVENU</b>	E
		GENE	RAI	. P	LAI	8 <i>V</i>	E	LEVAT	ION	
		CH	сст	NO	•	OF	10	CHEET	c	

A.P. TE.	SECTION		COUNTY	TOTAL SHEETS	SHEET NO.
42	(32.33) R-1		WINNEBAGO	705	531
		T NO. 6	54821		
	ILLINOIS	FED. Al	D PROJECT		



#### EDGE OF BIKE PATH

<u> </u>	OI DINE	7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	
	Q of IL	. Rt. 2	Theoretical
Location	Station	Offset	Grade Elevations
Begin South Bike Path	367+14.98	<i>37.1</i> 5	714.94
A - A	367+20.00	37.68	714.94
B-B	367+30.00	38.86	714.95
C-C	367+40.00	40.18	714.96
D-D	367+50.00	41.53	714.98
E-E	367+60.00	42.71	714.99
F-F	367+70.00	43.73	715.01
€ Expansion Joint 1	367+70.69	43.80	715.01
G-G	367+80.00	44.60	715.02
H-H	367+90.00	45.30	715.04
I-I	368+00.00	45.84	715.05
J-J	368+10.00	46.22	715.07
K - K	368+20.00	46.44	715.08
L-L	368+30.00	46.50	715.10
€ Expansion Joint 2	368+39.28	46.50	715.12
M- M	368+40.00	46.50	715.12
N-N	368+50.00	46.50	715.11
0-0	368+60.00	46,50	715,10
P-P	368+70.00	46,50	715.09
Q - Q	368+80.00	46.50	715.08
Begin Landing 1	368+80.33	46.50	715.08
€ Expansion Joint 3	368+83.03	46.50	715.09
Begin Ramp 1	368+85.33	46.50	715.10
R-R	368+90.00	46.50	714.73
End Ramp 1	368+91.33	46.50	714.62
S-S	369+00.00	48.14	714.59
€ Expansion Joint 4	369+09.58	50.27	714.56
T - T	369+10.00	50.37	714.56
U- U	369+20.00	52.96	714.52
V-V	369+30.00	55.93	714.49
End South Bike Path	<i>369+31.78</i>	56.50	714.48
Begin North Bike Path	370+91.03	43.26	715.18
W-W	371+00.00	<i>39.31</i>	715.28
X - X	371+10.00	35.94	715.40
€ Expansion Joint 5	371+15.54	34.50	715.46
Y- Y	371+20,00	33.56	715.50
Begin Ramp 2	371+21.54	33.28	715.52
End Ramp 2	371+27.54	32.40	716.02
Z-Z	371+30.00	32.13	716.05
End North Bike Path	371+32.54	31.91	716.07

#### BIKE PATH @ F.F. OF PARAPET

	l		
	© of IL	. Rt. 2	Theoretical
Location	Station	Offset	Grade Elevations
Begin South Bike Path	<i>367+13.95</i>	47.10	715.14
A - A	367+20.00	47.75	715.14
B-B	367+30.00	49.94	715.15
C-C	367+40.00	50.28	715.16
D-D	367+50.00	51 <b>.</b> 61	715.16
E-E	367+60.00	52.77	715.17
€ Expansion Joint 1	367+69.77	53.76	715.18
F-F	367+70.00	53 <b>.</b> 78	715.18
G-G	367+80.00	54.63	715.18
H-H	367+90.00	<i>55.31</i>	715.19
<i>I-I</i>	368+00.00	55 <b>.</b> 85	715.20
J- J	368+10.00	56,22	715.20
K - K	368+20.00	56.44	715.21
L-L	368+30.00	56.50	715.22
€ Expansion Joint 2	368+39.24	56.52	715.22
M - M	368+40.00	56.53	715.22
N- N	368+50.00	56.59	715.23
O- O	368+60.00	56.70	715.23
P-P	368+70.00	56 <b>.</b> 84	715.24
Q-Q	368+80.00	57.03	715.25
Begin Landing 1	368+80.33	57.04	715.25
€ Expansion Joint 3	368+82.80	57.09	715.25
Begin Ramp 1	368+85.33	57 <b>.</b> 15	715.26
R-R	368+90.00	57.26	714.93
End Ramp 1	368+91.33	57.29	714.84
S-S	369+00.00	57.53	714.78
€ Expansion Joint 4	369+08.91	57.99	714.73
T - T	369+10.00	58.09	714.72
U- U	369+20.00	59 <b>.</b> 43	714.67
V - V	369+30.00	61.61	714.61
End South Bike Path	369+30.08	61.63	714.61
Begin North Bike Path	370+93.86	48.99	715.50
W - W	371+00.00	47.46	715.62
X - X	371+10.00	45.49	715.80
€ Expansion Joint 5	371+16.73	44.52	715.93
Y- Y	371+20.00	44.16	715.99
Begin Ramp 2	371+21.54	44.00	716.02
End Ramp 2	371+27.54	<i>43</i> <b>.</b> 55	716.13
Z-Z	371+30.00	43.43	716.17
End North Bike Path	372+32.54	43.34	716.22

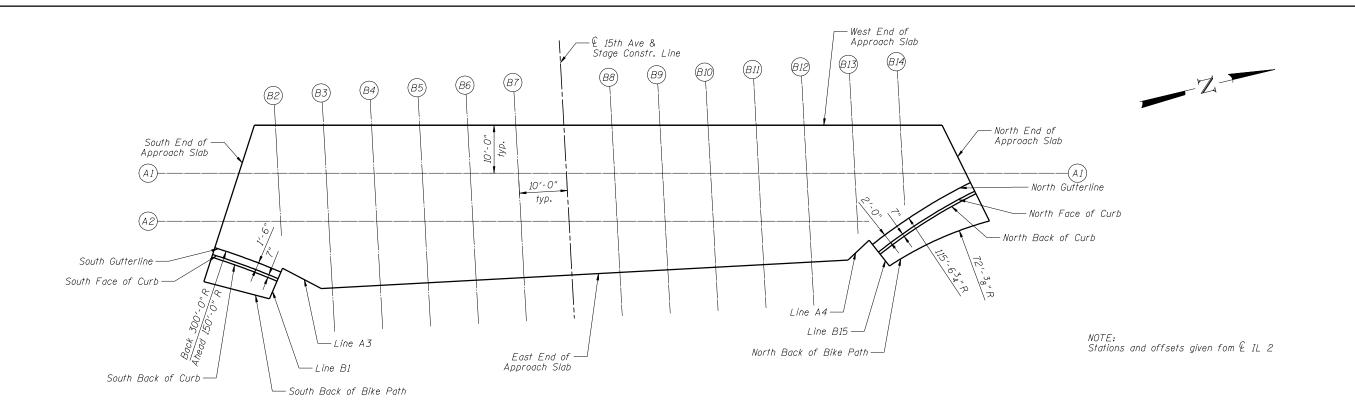
#### SLOPE BREAKLINE

	Q of IL	Theoretical	
Location	Station	Offset	Grade Elevations
End Ramp 1	368+91.33	56.50	714.82
S-S	369+00.00	56.50	714.75
€ Expansion Joint 4	369+09.04	56.50	714.67
T - T	369+10.00	56.50	714.66
U-U	369+20.00	56.50	714.58
V-V	369+30.00	56.50	714.50
End South Bike Path	369+31.78	56.50	714.48
Begin North Bike Path	370+91.03	43.28	715.18
W - W	371+00.00	43.28	715.32
X - X	371+10.00	43.28	715.48
€ Expansion Joint 5	371+16.59	43.28	715.59
Y- Y	371+20.00	43.28	715.65
Begin Ramp 2	371+21.54	43.28	715.67
End Ramp 2	371+27.54	43.28	716.15
Z-Z	371+30.00	43.28	716.17
End North Bike Path	372+32.54	43.28	716.22

1 ILL	NAME S	À.	D	T	7
		V		nois, Inc.	L

USER NAME =	DESIGNED	-	DPW	REVISED
	CHECKED	-	ASP	REVISED
PLOT SCALE =	DRAWN	-	WSP	REVISED
PLOT DATE =	CHECKED	-	ASP	REVISED

IL 2 (RT.) BIKE PATH AT 15TH AVENUE		SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
BIKE PATH ELEVATIONS		(32.33) R-1	WINNEBAGO	705	532
DIRL FAIR LELVATIONS			CONTRAC	T NO. 6	64821
SHEET NO. 2 OF 18 SHEETS		ILL INOIS FED. AL	D PROJECT		



#### WEST END OF APPROACH

	© of IL	© of IL Rt. 2		
Location	Station	Offset	Grade Elevations	
B2	369+45.05	29.00	715.19	
<i>B3</i>	369+55.07	29.00	715.22	
B4	369+65.08	29.00	715.25	
B5	369+75.10	29.00	715.28	
B6	369+85.11	29.00	715.31	
<i>B7</i>	369+95.13	29.00	715.34	
€ 15th Avenue	370+05,14	29.00	715.37	
B8	370+15.16	29.00	715.40	
<i>B</i> 9	370+25.17	29.00	715.43	
B10	370+35.19	29.00	715.46	
B11	370+45.20	29.00	715.49	
B12	370+55.22	29.00	715.52	
B13	370+65.23	29.00	715.54	
B14	370+75.24	29.00	715.56	

#### SOUTH END OF APPROACH

	© of IL	© of IL Rt. 2		
Location	Station	Offset	Grade Elevations	
W. End of Approach	369+40.66	29.00	715,18	
A1	369+37.43	39.00	714.92	
A2	369+34.20	49.00	714.66	
S. Gutterline	369+32.42	54.52	714.52	
S. Face of Curb	369+31 <b>.</b> 96	55.94	714.44	
S. Back of Curb	369+31.78	56.50	714.48	
S. Back of Sidewalk	369+30.13	61.60	714.61	

#### LINE A1

	₡ of IL	Theoretical	
Location	Station	Offset	Grade Elevations
B2	369+45.60	39.00	714.96
B3	369+55.61	39.00	715.00
B4	369+65.63	39.00	715.03
<i>B</i> 5	369+75.64	39.00	715.08
B6	369+85.66	39.00	715.11
<i>B</i> 7	369+95.67	39.00	715.16
€ 15th Avenue	370+05.68	39.00	715.22
B8	370+15.70	39.00	715.24
B9	370+25.71	39.00	715.25
B10	370+35.73	39.00	715.25
B11	370+45.74	39.00	715.28
B12	370+55.76	39.00	715.30
B13	370+65.77	39.00	715.30
B14	370+75.79	39.00	715.30

#### LINE B1\*

	₡ of IL	© of IL Rt. 2		
Location	Station	Offset	Grade Elevations	
A3	369+46.53	58.79	714.47	
S. Gutterlilne	369+46.19	59.60	714.47	
S. Face of Curb	369+45.60	60.98	714.46	
S. Back of Curb	369+45.37	61.52	715.09	
S. Back of Sidewalk	369+43.82	65.18	715.31	

#### <u>LINE A2</u>

	© of IL	© of IL Rt. 2		
Location	Station	Offset	Grade Elevations	
B2	369+46,14	49.00	714.72	
B3	369+56.15	49.00	714.77	
B4	369+66.17	49.00	714.82	
B5	369+76.18	49.00	714.87	
B6	369+86.20	49.00	714.92	
B7	369+96.21	49.00	714.99	
£ 15th Avenue	370+06.23	49.00	715.08	
B8	370+16.24	49.00	715.08	
B9	370+26.26	49.00	715.07	
B10	370+36.27	49.00	715.03	
B11	370+46.29	49.00	715.06	
B12	370+56.30	49.00	715.07	
B13	370+66.32	49.00	715.06	

#### <u>LINE B15\*</u>

	Ç of IL	© of IL Rt. 2		
Location	Station	Offset	Grade Elevations	
A4	370+68.75	52.96	715.02	
N. Gutterline	370+69.46	5 <b>3.8</b> 6	715.00	
N. Face of Curb	370+70.70	55 <b>.</b> 43	714.95	
N. Back of Curb	370+71.06	55.88	715.69	
N. Back of Sidewalk	370+72.99	58.34	715.73	

<sup>\*</sup> Finished elevations should match existing 15th Avenue at bridge abutment backwall. Contractor to field verify elevations and adjust transition elevations (Line A1 & A2) as necessary and submit to the Engineer for approval.

#### EAST END OF APPROACH\*

	₡ of IL	@ of IL Rt. 2			
Location	Station	Offset	Grade Elevations		
A3	369+54.62	63.06	714.44		
B3	369+56.91	62.94	714.46		
B4	369+66.90	62.40	714.53		
B5	369+76.88	61.85	714.61		
B6	369+86.87	61.31	714.68		
B7	369+96.85	60.77	714.78		
€ 15th Avenue	370+06.84	60.23	714.91		
B8	370+16.82	59.69	714.90		
B9	370+26.81	59 <b>.</b> 15	714.89		
B10	370+36.79	58.61	714.83		
B11	370+46.78	58.07	714.87		
B12	370+56.77	57.53	714.88		
A4	370+64.34	<i>57.12</i>	714.88		
•					

#### NORTH END OF APPROACH

	Ç of IL	Theoretical	
Location	Station	Offset	Grade Elevations
W. End of Approach	370+83.93	29.00	715,60
A1	370+88.88	39.00	715.30
N. Gutterline	370+89.85	40.97	715.24
N. Face of Curb	370+90.73	42.76	715.14
N. Back of Curb	370+90.99	43.28	715.18
N. Back of Sidewalk	370+93.81	48.97	715.50

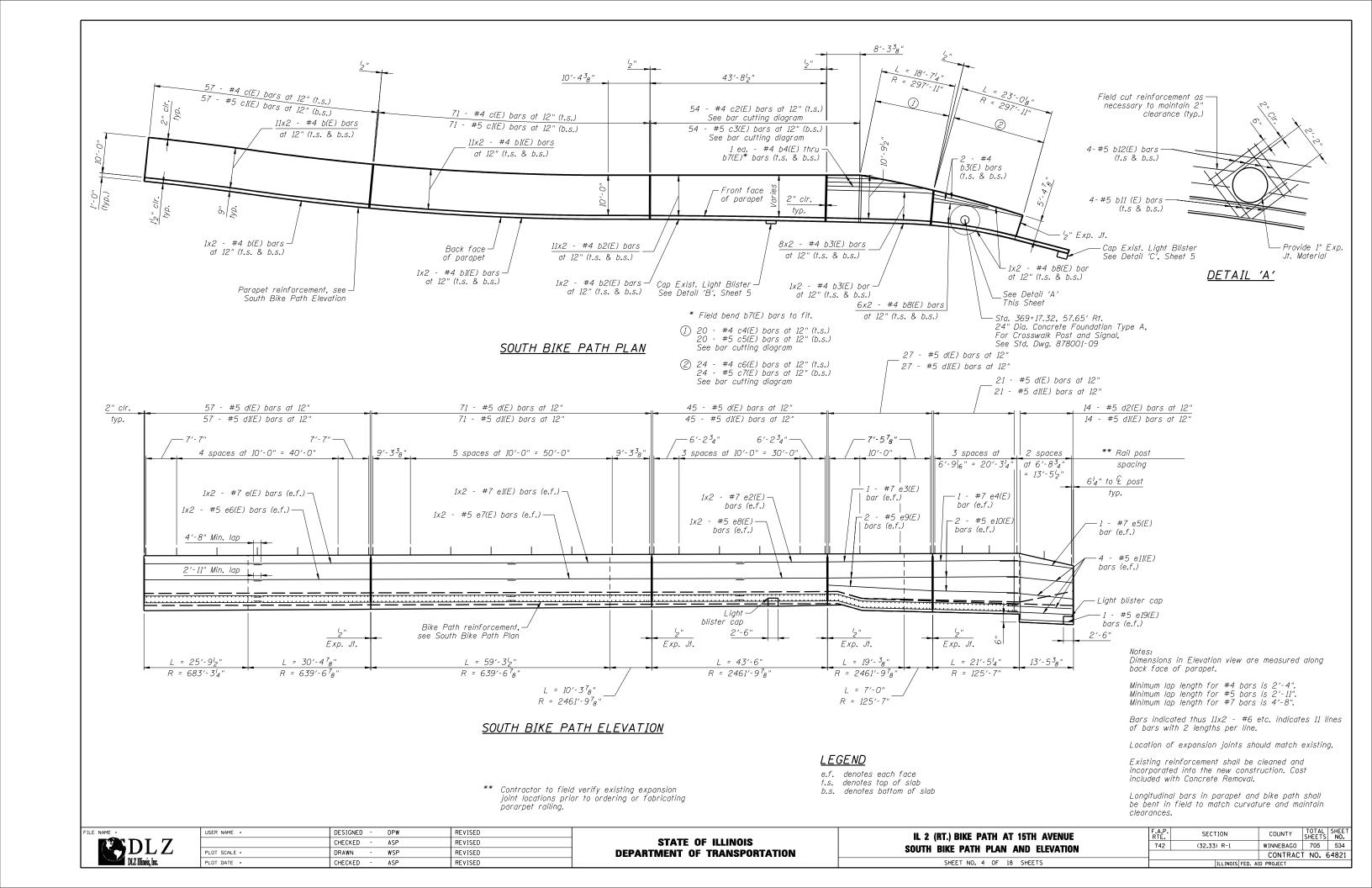


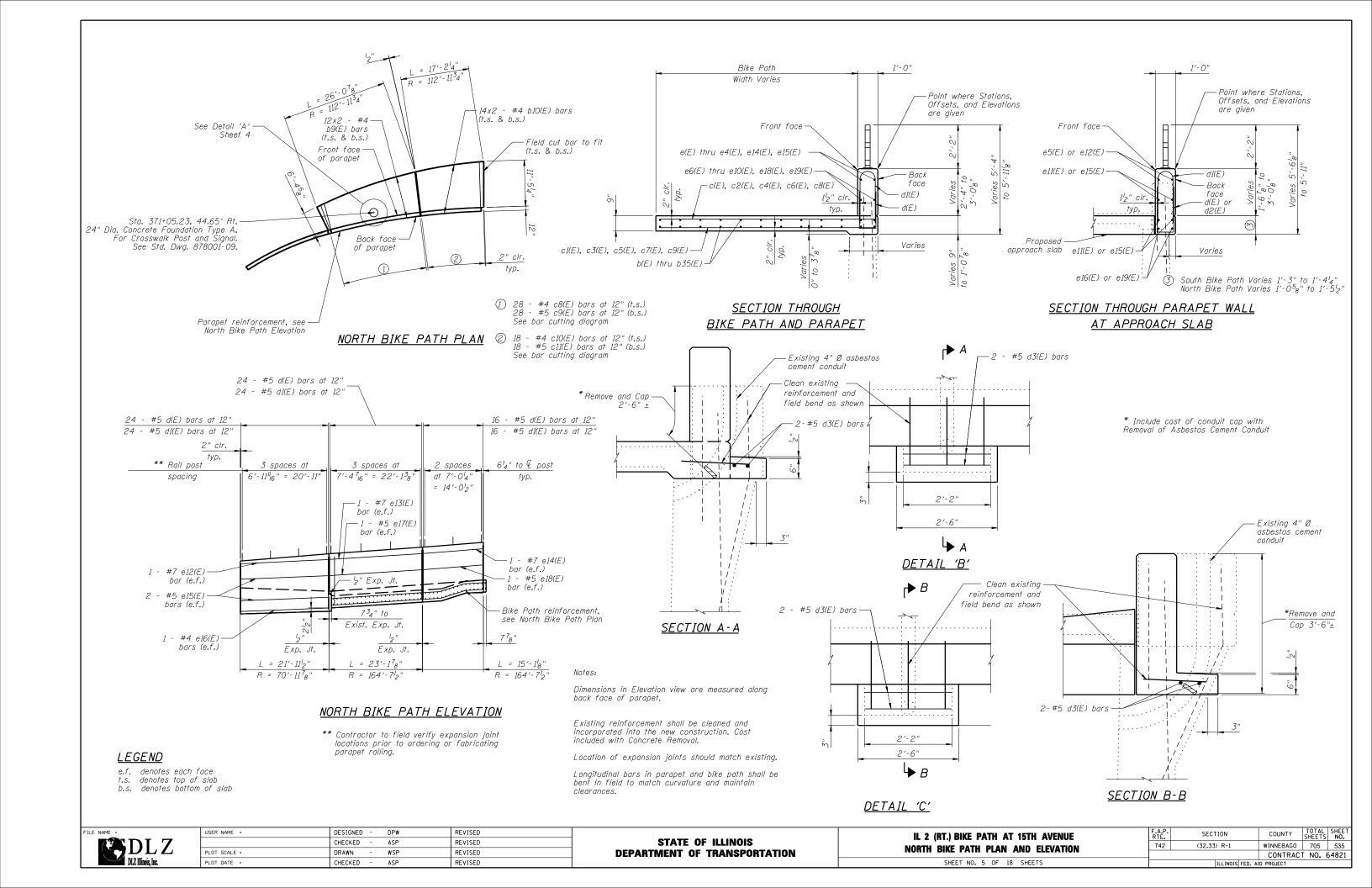
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	CHECKED -	ASP	REVISED
PLOT SCALE =	DRAWN -	LNB	REVISED
PLOT DATE =	CHECKED -	ASP	REVISED

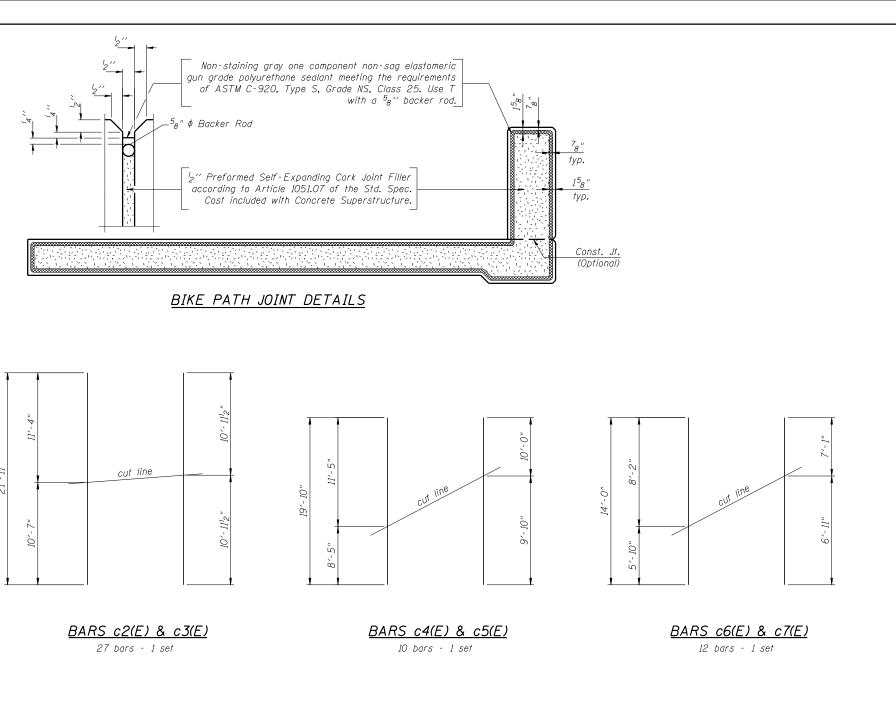
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

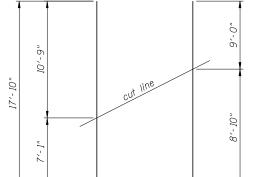
IL 2	(RT.) BIKE	PATH	AT 15TH	AVENUE
APPROACH SLAB ELEVATIONS				
	SHEET NO	3 05	10 SUEET	c

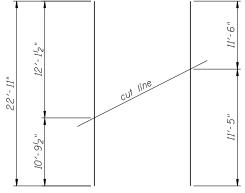
F.A.P. RTE.	SECTION		COUNTY	TOTAL SHEETS	SHEET NO.
742	(32.33) R-1		WINNEBAGO	705	533
			CONTRAC	T NO. 6	4821
	ILLINOIS FE	D. A	ID PROJECT		

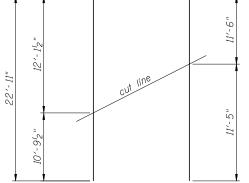




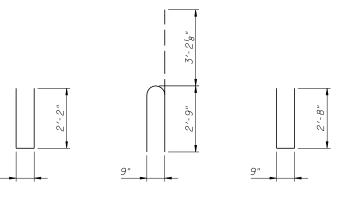












BAR d(E) BAR d1(E)

#### BARS c8(E) & c9(E) 14 bars - 1 set

DESIGNED -

CHECKED -

CHECKED -

DRAWN

ASP

WSP

LNB

WSP

USER NAME =

PLOT DATE =

DLZ Illinois, Inc.

REVISED	
REVISED	
REVISED	

REVISED

#### **STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**

IL 2 (RT.) BIKE PATH AT 15TH AVENUE		
REINFORCEMENT & DETAILS	742	
SHEET NO. 6 OF 18 SHEETS		

	bid for Concrete F	,	ce	
٠.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	(32.33) R-1	WINNEBAGO	705	536
CONTRACT NO. 648			54821	

ILLINOIS FED. AID PROJECT

\* Include the cost of existing

ELEVATED BIKE PATH BILL OF MATERIAL

Bar No. Size Length Shape

48 4 29'-1"

4

4 4

c9(E) 14 5 17'-10"

e1(E) 4 7 37'-2"

14′-3"

12'-10"

26′-6"

10′-8"

4 22'-11"

5 23'-1"

5 14'-10"

13′-0"

Pound

Sq. Yd.

Cu. Yd.

Cu. Yd.

Foot

Sq. Ft.

Foot

14,898

386

106.4

30

291

136

6

П

b1(E)

b4(E)

b7(E)

b6(E) 2

 b8(E)
 32

 b9(E)
 48

 b10(E)
 56

b11(E) 16

c(E) 128

c3(E) 27 c4(E) 10 c5(E) 10 c6(E) 12 c7(E) 12 c8(E) 14

c10(E) 9

d(E) 285 d1(E) 299 d2(E) 14

d3(E) 4

e3(E) 2 e4(E) 2

e9(E) 4 e10(E) e11(E) 8

e18(E) 2

e19(E) 2

Epoxy Coated Item # 50800205 Protective Coat

Reinforcement Bars,

Item # 50300300 Concrete Structures

Item # 50300225 Concrete Removal\*

Item # 50102400 Parapet Railing

Item # 50901750 Detectable

Item # 42400800 Removal of Asbestos Cement Conduit

Item # X0324198

Warnings

e6(E) e7(E) 4 e8(E) 4

e14(E) e15(E) 4

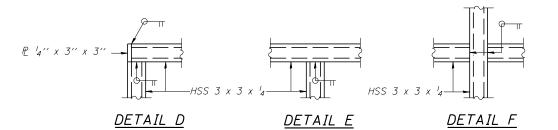
c11(E)

48

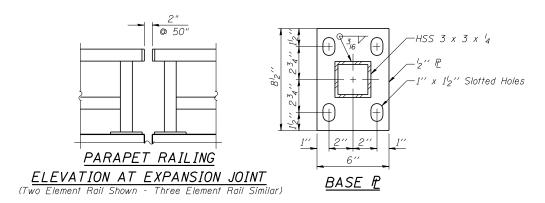
b3(E) 40 4

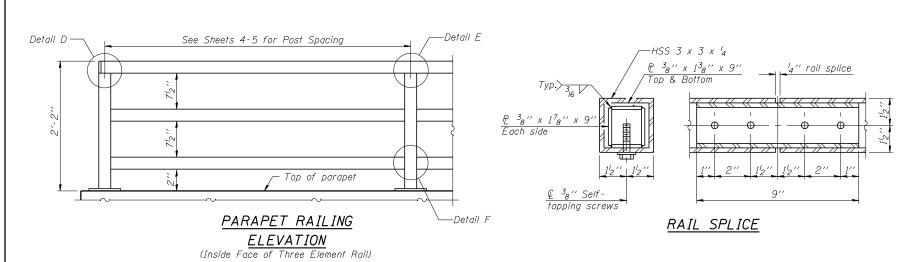
b2(E) 48

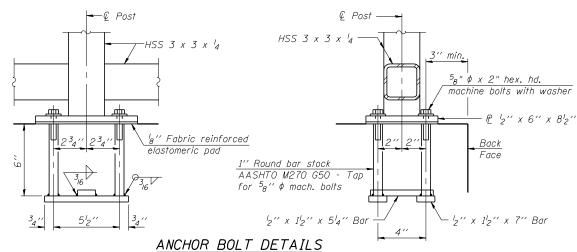
**BAR** d2(E)



All steel rail elements shall be galvanized according to Article 509.05 of the Standard Specifications.







In lieu of the cast-in-place anchor device shown, the Contractor has the option of drilling and setting  $^58''$   $\phi$  anchor rods according to Article 509.06 of the Standard Specifications. Embedment shall be according to the manufacturer's specifications.

R-29

7-1-10 (10'-0" Maximum Post Spacing)

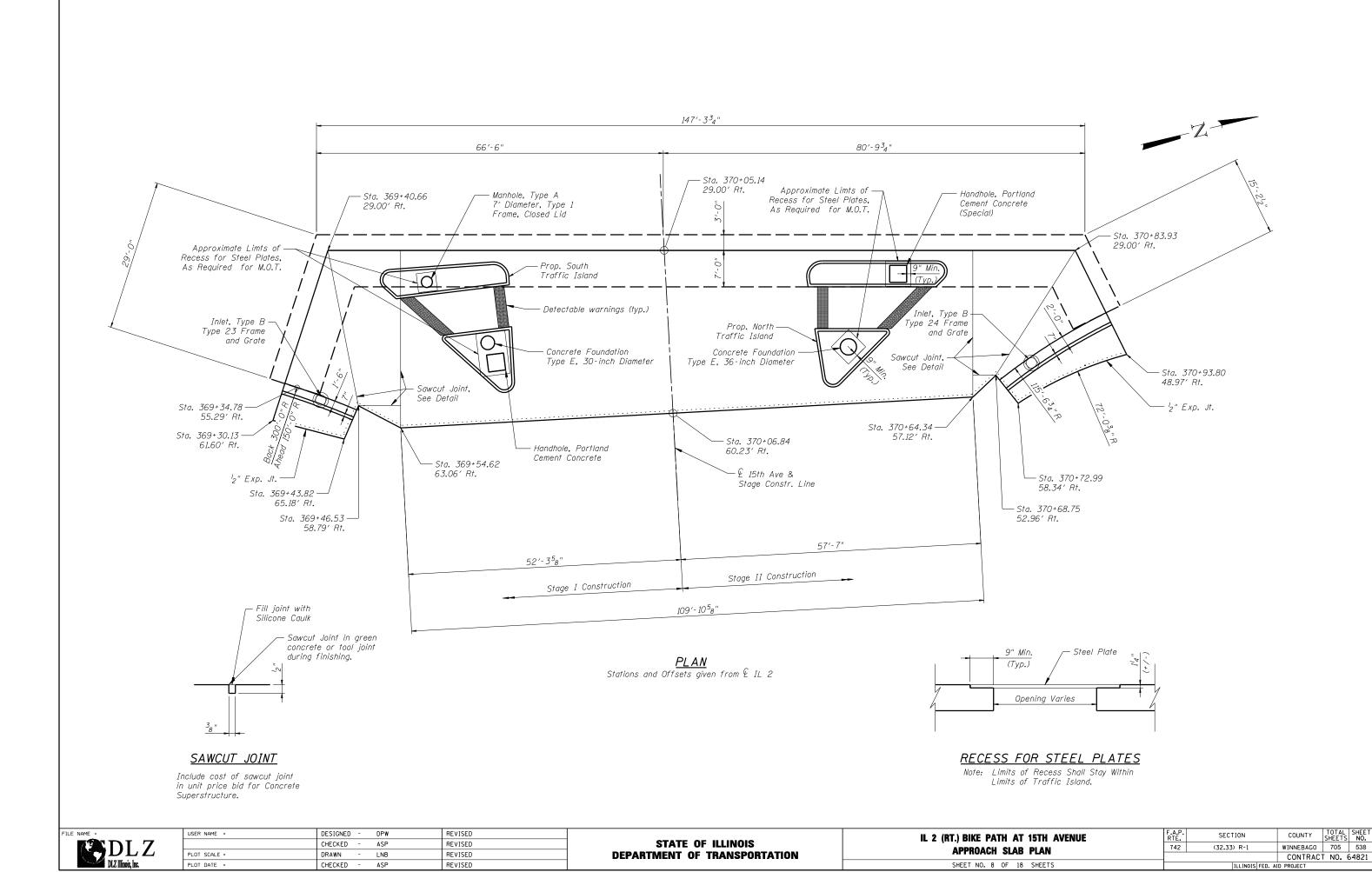
FILE NAME =
DIZ Illinois Inc
DLZ Illinois, Inc.

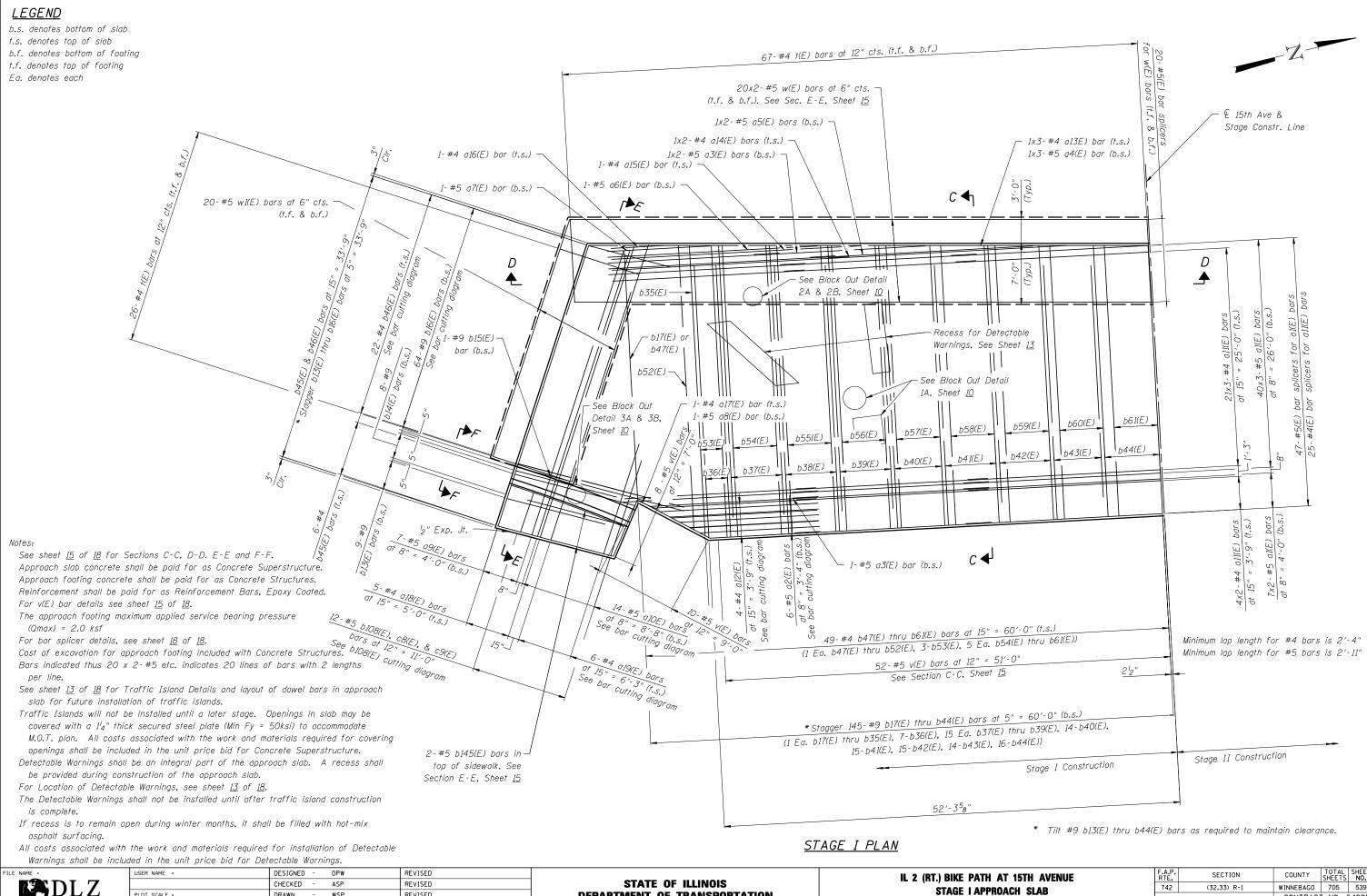
USER NAME =	DESIGNED	-	ASP	REVISED
	CHECKED	-	WSP	REVISED
PLOT SCALE =	DRAWN	-	LNB	REVISED
PLOT DATE =	CHECKED	-	ASP	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

IL 2 (RT.) BIKE PATH AT 15TH AVENUE	F.A.P. RTE.	
PARAPET RAILING DETAILS	742	
TAILALET HAILING DETAILS		
SHEET NO 7 OF 18 SHEETS		

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
742	(32.33) R-1	WINNEBAGO	705	537
	·	CONTRAC	NO. 6	54821
	TILINOIS EED A	ID PROJECT		



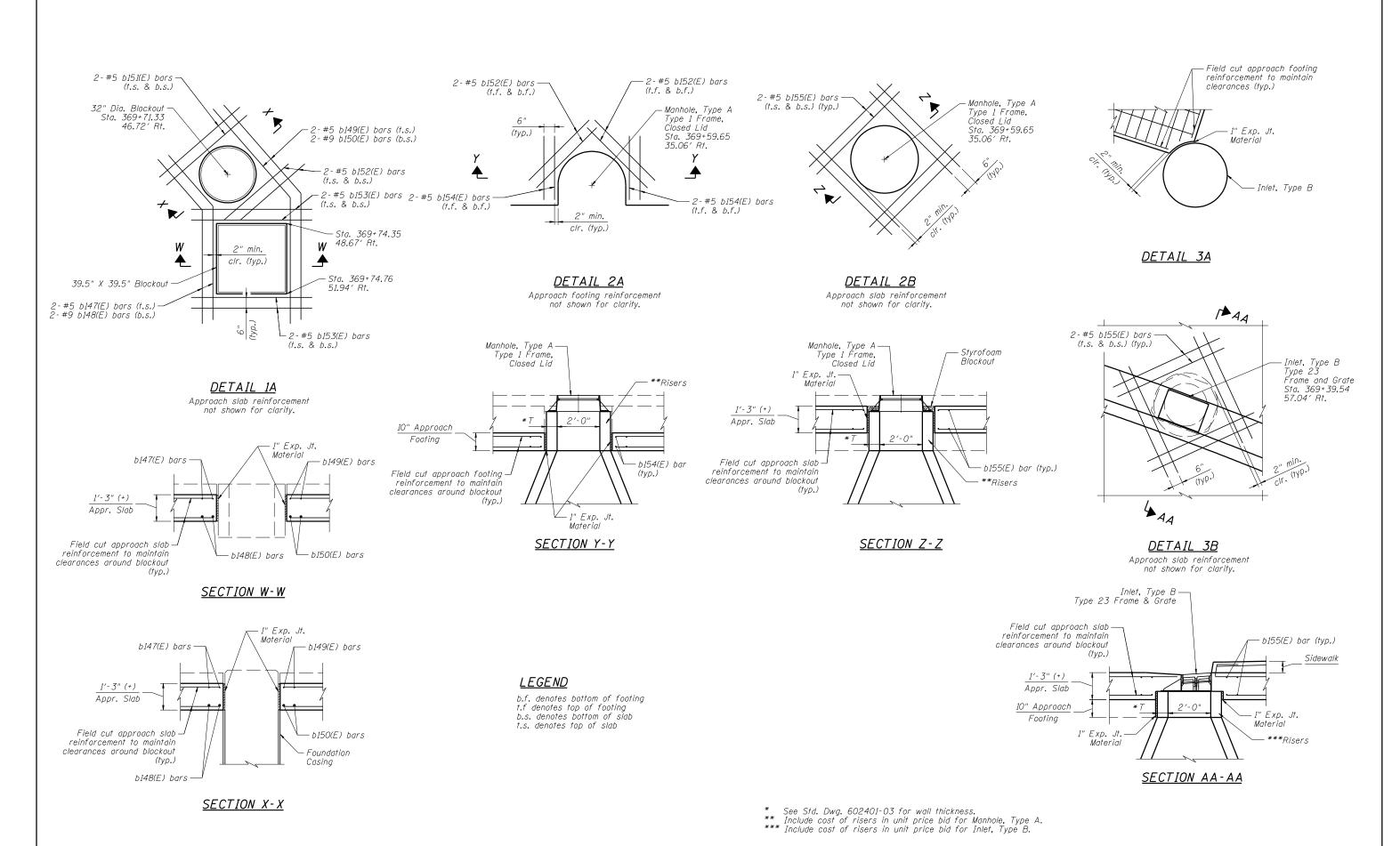


REVISED CHECKED -ASP REVISED

**DEPARTMENT OF TRANSPORTATION** 

STAGE I APPROACH SLAB SHEET NO. 9 OF 18 SHEETS

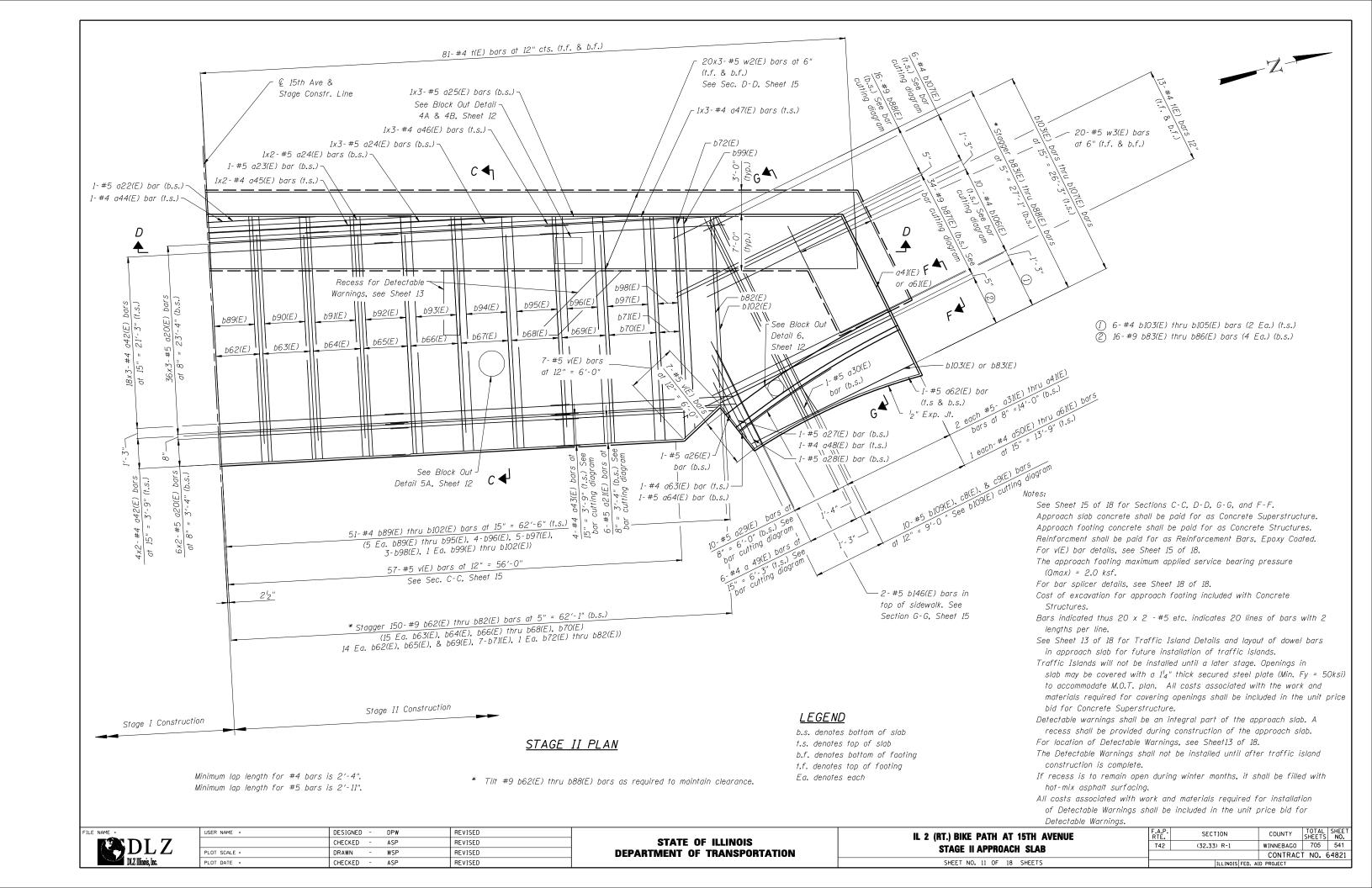
WINNEBAGO 705 539 CONTRACT NO. 64821

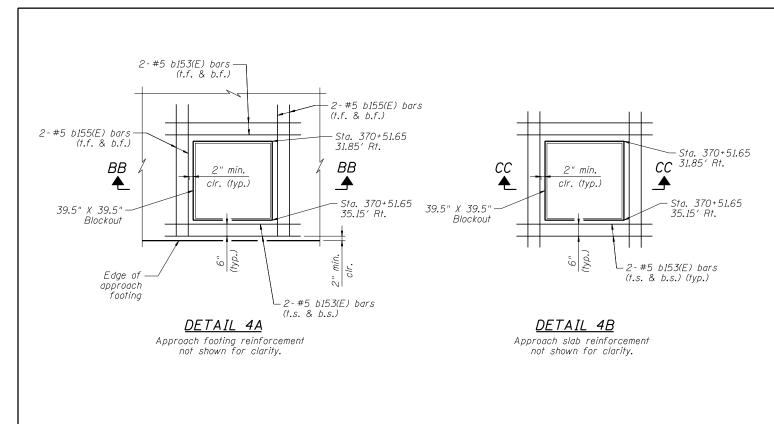


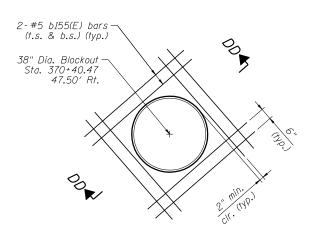
FILE NAME =	USER NAME =	DESIGNED - ASP	REVISED
		CHECKED - LNB	REVISED
	PLOT SCALE =	DRAWN - LNB	REVISED
DLZ Illinois, Inc.	PLOT DATE =	CHECKED - ASP	REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

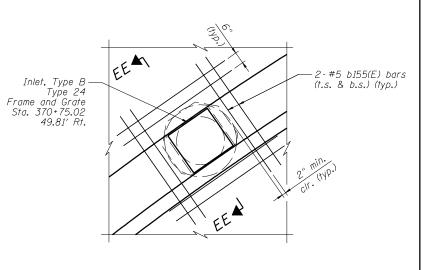
IL 2 (RT.) BIKE PATH AT 15TH AVENUE	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
STAGE I BLOCKOUT DETAILS	742	(32.33) R-1	WINNEBAGO	705	540
STAGE I DECOROUT DETAILS			CONTRAC	T NO. 6	4821
SHEET NO. 10 OF 18 SHEETS		TI I INOIS FED. AL	D PROJECT		



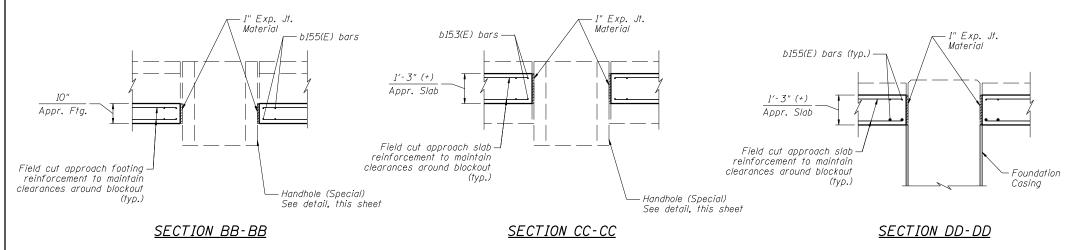


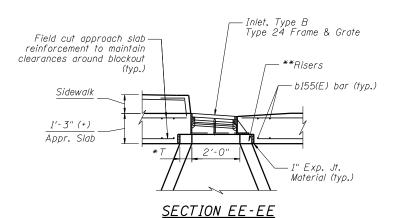


# DETAIL 5A Approach slab reinforcement not shown for clarity.

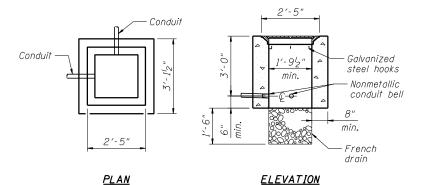


DETAIL 6 Approach slab reinforcement not shown for clarity.





\* See Std. Dwg. 602401-03 for wall thickness.
\*\* Include cost of risers in unit price bid for Inlet, Type B.



#### LEGEND

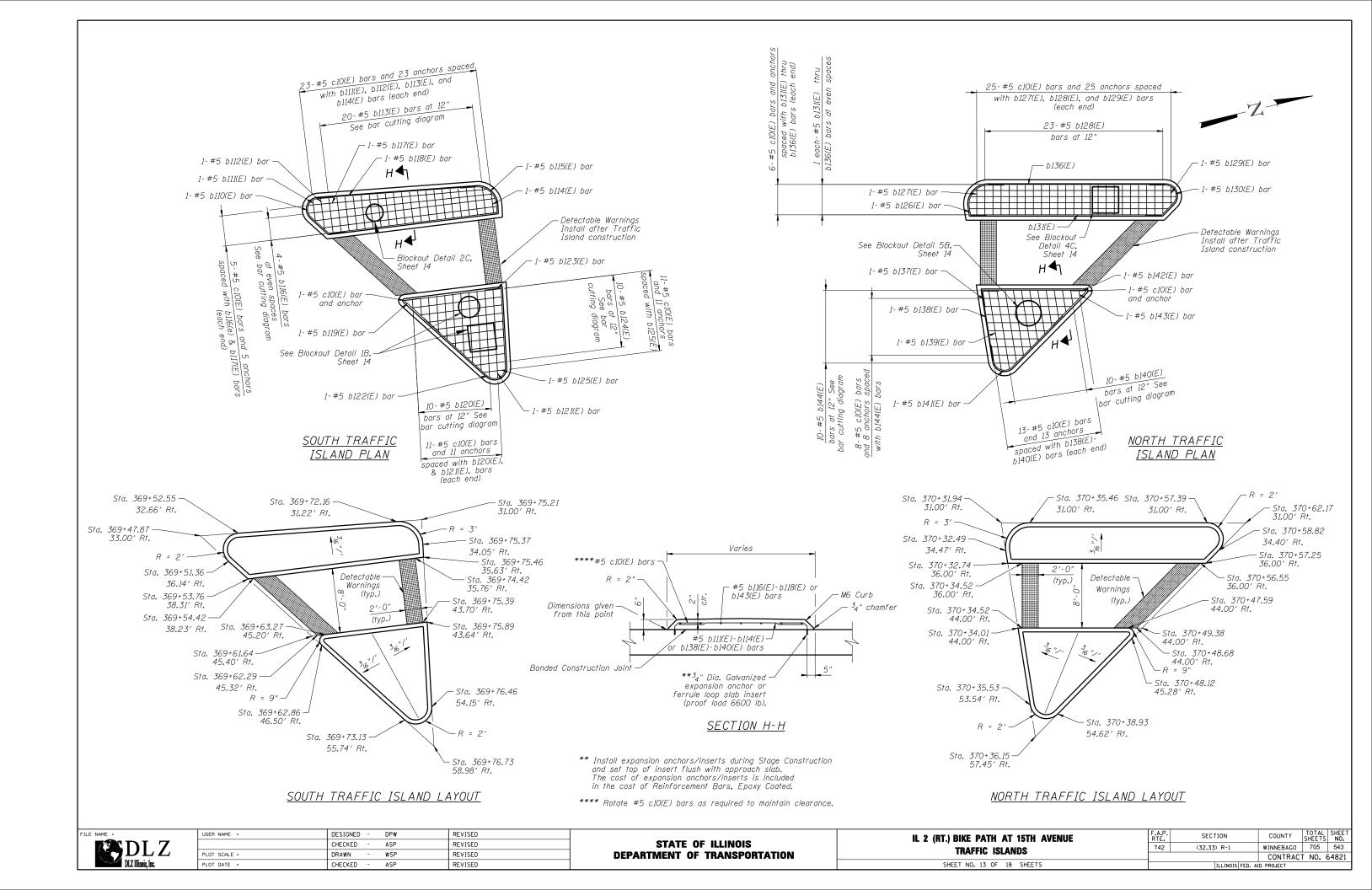
b.f. denotes bottom of footing t.f denotes top of footing b.s. denotes bottom of slab t.s. denotes top of slab

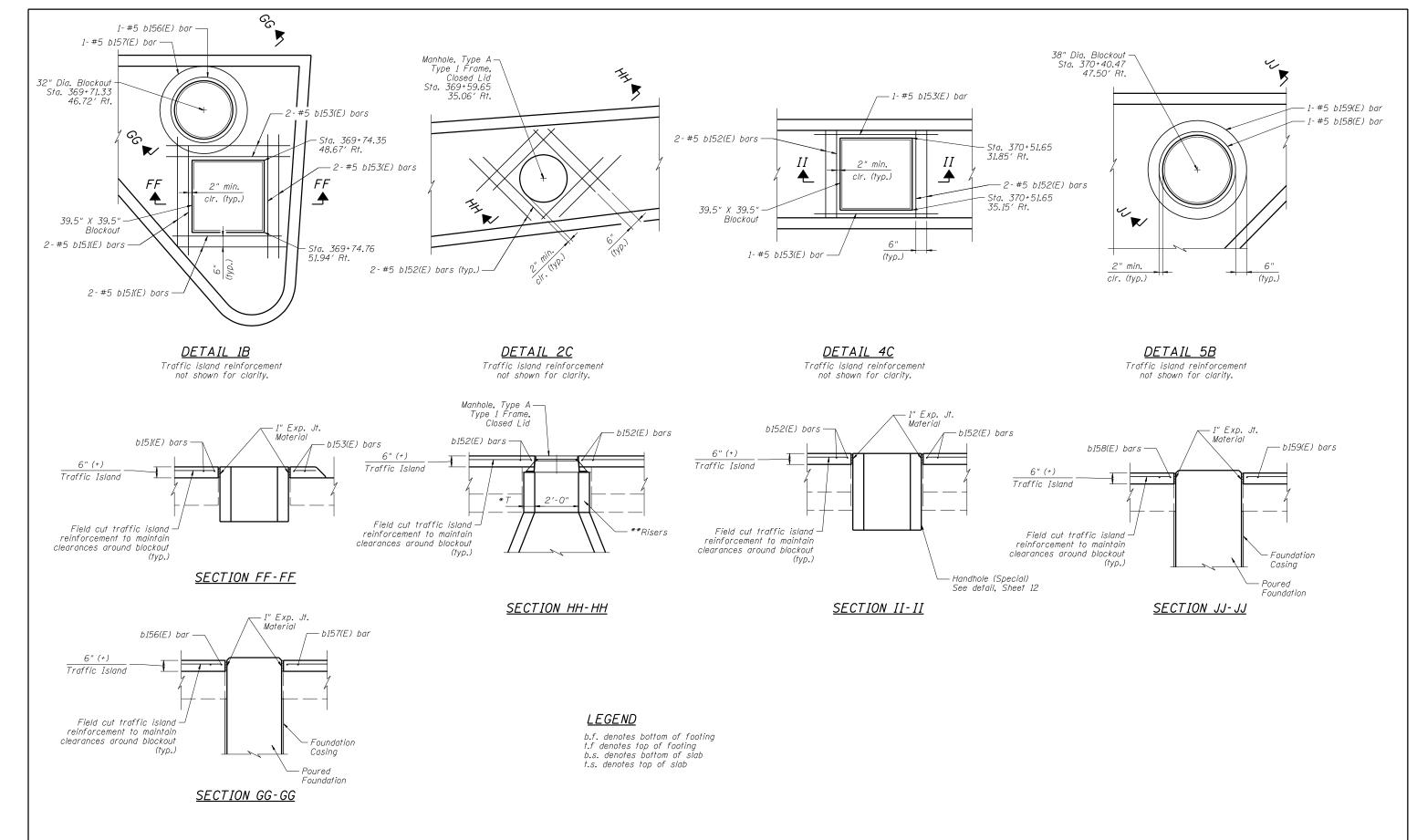
## HANDHOLE (SPECIAL)

FILE NAME =	USER NAME =	DESIGNED -	ASP	REVISED
		CHECKED -	LNB	REVISED
	PLOT SCALE =	DRAWN -	LNB	REVISED
DLZ Illinois, Inc.	PLOT DATE =	CHECKED -	ASP	REVISED

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION** 

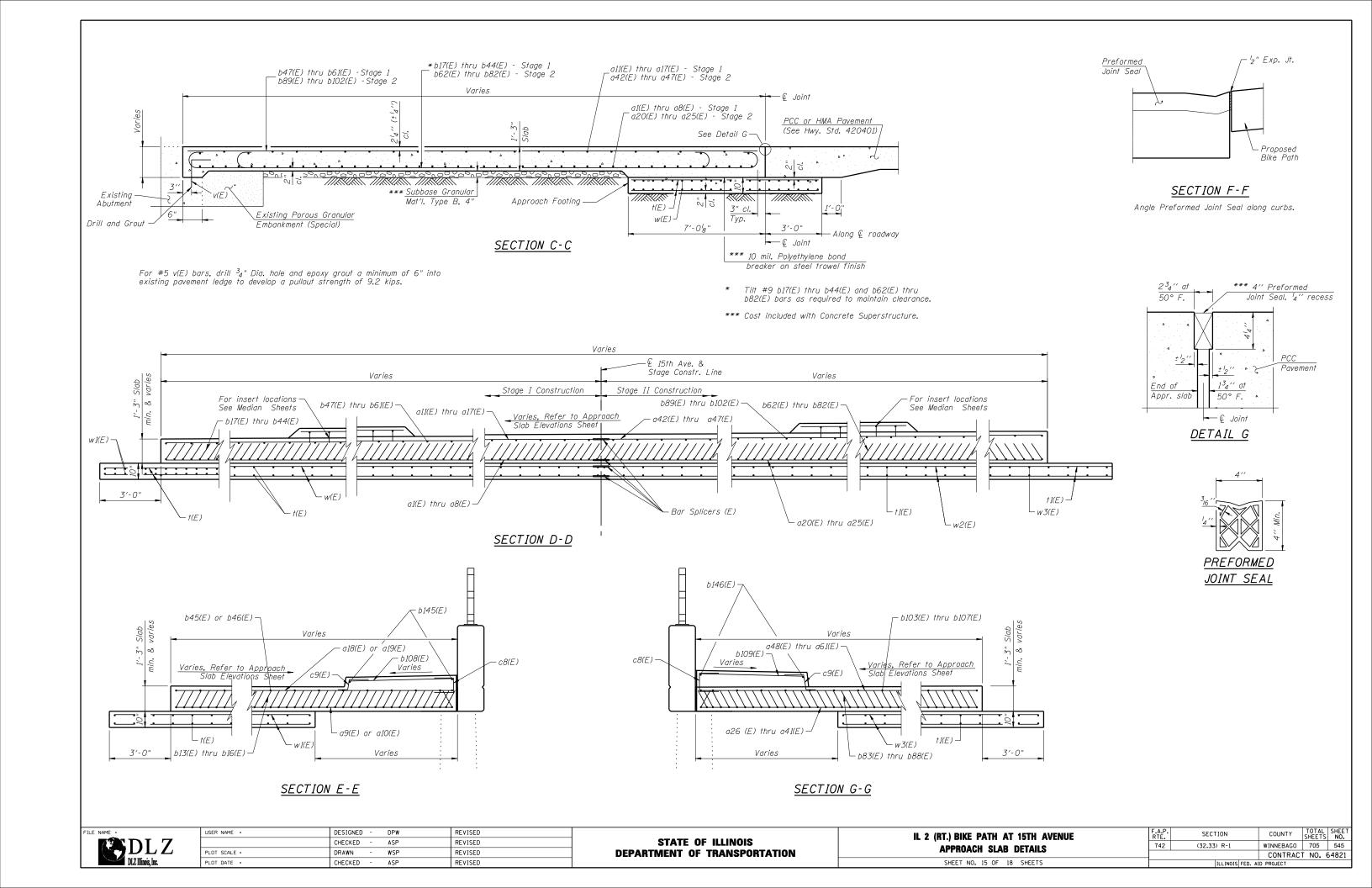
IL 2 (RT.) BIKE PATH AT 15TH AVENUE	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
STAGE II BLOCKOUT DETAILS	742	(32.33) R-1	WINNEBAGO	705	542
STAGE II DEGROUT DETAILS			CONTRAC	T NO. 6	54821
SHEET NO. 12 OF 18 SHEETS		ILLINOIS FED. AI	D PROJECT		

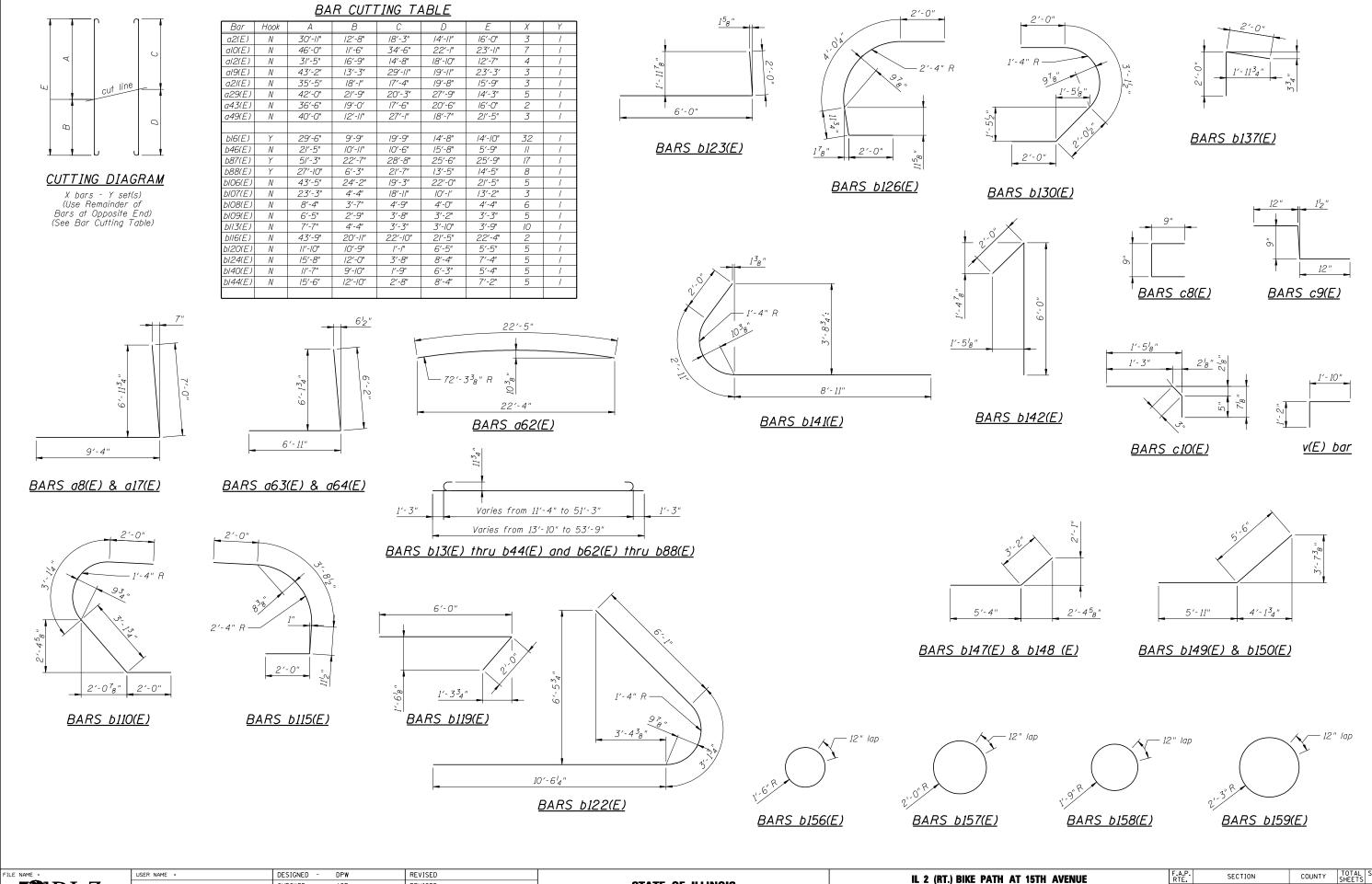




\* See Std. Dwg. 602401-03 for wall thickness.
\*\* Include cost of risers in unit price bid for Manhole, Type A.

FILE NAME =	USER NAME =	DESIGNED - ASP	REVISED		IL 2 (RT.) BIKE PATH AT 15TH AVENUE	F.A.P. SECTION	COUNTY TOTAL SHEET
DLZ		CHECKED - LNB	REVISED	STATE OF ILLINOIS	TRAFFIC ISLAND BLOCKOUT DETAILS	742 (32.33) R-1	WINNEBAGO 705 544
DLZ Illinois, Inc.	PLOT SCALE = PLOT DATE =	DRAWN - LNB  CHECKED - ASP	REVISED REVISED	DEPARTMENT OF TRANSPORTATION	SHEET NO. 14 OF 18 SHEETS	ILL INOIS FED.	CONTRACT NO. 64821







USER NAME =	DESIGNED - DPW	REVISED	ı
	CHECKED - ASP	REVISED	İ
PLOT SCALE =	DRAWN - WSP	REVISED	İ
PLOT DATE =	CHECKED - ASP	REVISED	

IL 2 (RT.) BIKE PATH AT 15TH AVENUE	F.A.P. RTE.	
APPROACH SLAB REINFORCEMENT & DETAILS	742	
ATTIONOLI CLAD ILLINI CHOLINLINI & DEIALO		
SHEET NO. 16 OF 18 SHEETS		_

.P. E.	SECTION		COUNTY	TOTAL SHEETS	SHEET NO.				
12	(32.33) R-1		WINNEBAGO	705	546				
		CONTRAC	NO. 6	34821					
	ILLINOIS FED. AID PROJECT								

# APPROACH SLAB BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	No	OT USE		
a1(E)	134	5	22'-7"	
a2(E)	3	5	30'-11"	
a3(E)	3	5	19'-8"	
a4(E)	3	5	23'-4"	
a5(E)	2	5	25'-10"	
			23-10	
a6(E)	1	5	24'-2"	
a7(E)	1	5	11'- 10"	
a8(E)	1	5	16′-4"	
a9(E)	7	5	33′-9"	
a10(E)	7	5	46′-0"	
a11(E)	71	4	22'-1"	
a12(E)	2	4	31′-5"	
a13(E)	3	4	23'-0"	
a14(E)	2	4	27'-4"	
a15(E)	1	4	28'-8"	
a16(E)	1	4	6'-1"	
			16'-4"	_
a17(E)	1	4		
a18(E)	5	4	33′-9"	
a19(E)	3	4	43'-2"	
a20(E)	120	5	23'-4"	
a21(E)	3	5	35′-5"	
a22(E)	1	5	13′-4"	
a23(E)	1	5	25′-7"	
a24(E)	5	5	20′-8"	
a25(E)	3	5	28'-1"	
a26(E)	1	5	4'-10"	
a27(E)	1	5	9'-6"	
a28(E)			12'-8"	
	1	5	12 - 0	
a29(E)	5	5	42'-0"	
a30(E)	1	5	27′-5"	
a31(E)	2	5	27′-1"	
a32(E)	2	5	26′-4"	
a33(E)	2	5	25′-10"	
a34(E)	2	5	25′-2"	
a35(E)	2	5	24′-8"	
a36(E)	2	5	24'-1"	
a37(E)	2	5	23'-7"	
a38(E)	2	5	23'-1"	
			22'-8"	
a39(E)	2	5	22 -0	
a40(E)	2	5	22'-2"	
041(E)	2	5	21'-9"	
a42(E)	62	4	22′-11"	
a43(E)	2	4	36′-6"	
a44(E)	1	4	13′-4"	
a45(E)	2	4	19′-5"	
a46(E)	3	4	21'-5"	
a47(E)	3	4	27'-9"	
a48(E)	1	4	9'-3"	
a49(E)	3	4	40'-0"	
a50(E)	1	4	27'-3"	
			26'-8"	
a51(E)	1	4		
a52(E)	1	4	26'-1"	
a53(E)	1	4	25′-6"	
a54(E)	1	4	25′-0"	
a55(E)	1	4	24′-5"	
a56(E)	1	4	23′-11"	
a57(E)	1	4	23'-6"	
a58(E)	1	4	23'-0"	
a59(E)	1	4	22'-7"	
a60(E)	1	4	22'-5"	
a61(E)	1	4	21'-9"	
			22'-5"	
a62(E)	2	5		_
a63(E)	1	4	13'-1"	_/
a64(E)	1	5	13'-1"	

Bar	No.	Size	Length	Shape
b13(E)			13'-10''	د ے
	9	9		
b14(E)	8	9	14'-2''	
b15(E)	1	9	17'-0''	
b16(E)	32	9	32'-0"	
b17(E)	1	9	29'-4''	دے
				د
b18(E)	1	9	29'-8''	
b19(E)	1	9	29'-10''	ـــــــ
b20(E)	1	9	30'-1''	ـــــــ
b21(E)	1	9	30'-4''	د ے
b22(E)	1	9	30'-7''	دے
				ر
b23(E)	1	9	30′-9′′	
b24(E)	1	9	31'-0''	
b25(E)	1	9	31'-2''	
b26(E)	1	9	31'-6''	
b27(E)	1	9	31'-8''	حــــــــ
			31'-11''	ر
b28(E)	1	9		
b29(E)	1	9	32'-1''	
b30(E)	1	9	32'-4''	
b31(E)	1	9	32'-7''	ى
b32(E)	1	9	32'-10''	دے
			33'-0"	
633(E)	1	9		
b34(E)	1	9	33′-3′′	ر ب
b35(E)	1	9	33′-6′′	ــــــ
b36(E)	7	9	33'-8''	حــــــ
b37(E)	15	9	33'-4''	حــــــ
			33'-0"	ر
638(E)	15	9		
b39(E)	15	9	32'-8''	ب
b40(E)	14	9	32'-4''	
b41(E)	<i>1</i> 5	9	32'-0"	
b42(E)	15	9	31'-8''	
643(E)	14	9	31'-4''	ر
b44(E)	16	9	31'-0''	
b45(E)	6	4	13'-7''	
b46(E)	11	4	21'-5''	
b47(E)	1	4	29'-2"	
b48(E)	1	4	29'-10''	
b49(E)	1	4	30'-6"	
b50(E)	1	4	31'-2''	
b51(E)	1	4	31'-10''	
b52(E)	1	4	32'-6"	
b53(E)	3	4	33′-5′′	
b54(E)	5	4	33'-1''	
b55(E)	5	4	32'-9"	
b56(E)	5	4	32′-5′′	
b57(E)	5	4	32'-1''	
b58(E)	5	4	31'-9''	
b59(E)	5	4	31'-5''	
b60(E)	5	4	31'-1''	
b61(E)	5	4	30′-9′′	
		1 a	30′-8′′	
b62(E)	14	9		
	14 15	9	30'-4''	
b62(E) b63(E)	15	9	30'-4'' 30'-0''	
b62(E) b63(E) b64(E)	15 15	9	30′-0′′	حــــــ
b62(E) b63(E) b64(E) b65(E)	15 15 14	9 9 9	30'-0'' 29'-8''	<del>د ،</del>
b62(E) b63(E) b64(E) b65(E) b66(E)	15 15 14 15	9 9 9 9	30'-0'' 29'-8'' 29'-4''	
b62(E) b63(E) b64(E) b65(E) b66(E) b67(E)	15 15 14 15 15	9 9 9 9	30'-0" 29'-8" 29'-4" 29'-0"	
b62(E) b63(E) b64(E) b65(E) b66(E) b67(E) b68(E)	15 15 14 15	9 9 9 9	30'-0'' 29'-8'' 29'-4'' 29'-0'' 28'-8''	
b62(E) b63(E) b64(E) b65(E) b66(E) b67(E)	15 15 14 15 15	9 9 9 9	30'-0" 29'-8" 29'-4" 29'-0"	
b62(E) b63(E) b64(E) b65(E) b66(E) b67(E) b68(E) b69(E)	15 15 14 15 15 15 15	9 9 9 9 9 9	30'-0" 29'-8" 29'-4" 29'-0" 28'-8" 28'-4"	
b62(E) b63(E) b64(E) b65(E) b66(E) b67(E) b69(E) b70(E)	15 15 14 15 15 15 15 14	9 9 9 9 9 9	30'-0" 29'-8" 29'-4" 29'-0" 28'-8" 28'-4" 28'-0"	
b62(E) b63(E) b64(E) b65(E) b66(E) b67(E) b69(E) b70(E) b71(E)	15 15 14 15 15 15 15 14 15 7	9 9 9 9 9 9 9	30'-0" 29'-8" 29'-4" 29'-0" 28'-8" 28'-4" 28'-0" 27'-8"	
b62(E) b63(E) b64(E) b65(E) b66(E) b67(E) b68(E) b69(E) b70(E) b71(E) b72(E)	15 14 15 15 15 15 14 15 7	9 9 9 9 9 9 9 9	30'-0'' 29'-8'' 29'-0'' 28'-8'' 28'-4'' 28'-0'' 27'-8'' 27'-5''	
b62(E) b63(E) b64(E) b65(E) b66(E) b67(E) b69(E) b70(E) b71(E)	15 15 14 15 15 15 15 14 15 7	9 9 9 9 9 9 9	30'-0'' 29'-8'' 29'-4'' 29'-0'' 28'-8'' 28'-4'' 27'-8'' 27'-5'' 26'-11''	
b62(E) b63(E) b64(E) b65(E) b66(E) b67(E) b68(E) b69(E) b70(E) b71(E) b72(E)	15 15 14 15 15 15 15 14 15 7 1	9 9 9 9 9 9 9 9	30'-0'' 29'-8'' 29'-4'' 29'-0'' 28'-8'' 28'-4'' 27'-8'' 27'-5'' 26'-11''	
b62(E) b63(E) b64(E) b65(E) b66(E) b67(E) b68(E) b69(E) b70(E) b71(E) b72(E) b73(E) b74(E)	15 15 14 15 15 15 15 14 15 7 1	9 9 9 9 9 9 9 9 9	30'-0'' 29'-8'' 29'-4'' 29'-0'' 28'-8'' 28'-4'' 28'-0'' 27'-8'' 27'-5'' 26'-1!'' 26'-8''	
b62(E) b63(E) b64(E) b65(E) b66(E) b67(E) b68(E) b69(E) b70(E) b71(E) b72(E) b73(E)	15 15 14 15 15 15 15 14 15 7 1	9 9 9 9 9 9 9 9	30'-0'' 29'-8'' 29'-4'' 29'-0'' 28'-8'' 28'-4'' 27'-8'' 27'-5'' 26'-11''	

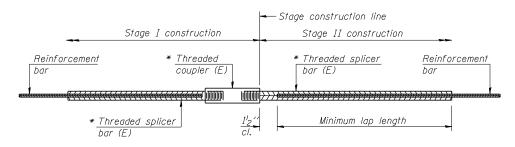
Bar	No.	Size	Length	Shape
b78(E)	1	9	25'-2''	
b79(E)	1	9	24'-8''	ر ـــــــ
b80(E)	1	9	24'-5"	حـــــــ
				ر ے
b81(E)	1	9	23′-11′′	
b82(E)	1	9	23′-8′′	
b83(E)	4	9	22'-5"	
b84(E)	4	9	22'-9''	
b85(E)	4	9	23'-1''	
	4	9	23'-5"	د ے
b86(E)			23 - 3	
b87(E)	17	9	53′-9′′	
b88(E)	8	9	30′-4′′	
b89(E)	5	4	30′-5′′	
b90(E)	5	4	30′-1′′	
b91(E)	5	4	29'-9''	
b92(E)	5	4	29'-5''	
b93(E)	5	4	29'-1''	
b94(E)	5	4	28′-9′′	
b95(E)	5	4	28′-5″	
b96(E)	4	4	28'-1''	
b97(E)	5	4	27'-9''	
POS(E)			27'-5"	
b98(E)	3	4		
b99(Е)	1	4	26′-9′′	
b100(E)	1	4	25'-2''	
b101(E)	1	4	24'-0''	
b102(E)	1	4	22'-11''	
			22'-5"	
b103(E)	2	4	22 - 5	
b104(E)	2	4	23'-0''	
b105(E)	2	4	23′-6′′	
b106(E)	5	4	43′-5′′	l ——
b107(E)	3	4	23'-3''	
b108(E)	6	5	8'-4"	
b100(E)	5		6′-5"	
		5	107.7"	
b110(E)	1	5	10′-3"	
b111(E)	1	5	2'-7"	
b112(E)	1	5	3′-10"	
b113(E)	10	5	7′-7"	
b114(E)	1	5	2′-6"	
b115(E)	1	5	8′-8"	
b116(E)	2	5	43'-9"	
			22'-1"	
b117(E)	1	5	407.0"	
b118(E)	1	5	19′-8"	
b119(E)	1	5	8′-0"	
b120(E)	5	5	11'- 10"	
b121(E)	1	5	11'-0"	
b122(E)	1	5	19'-9"	
			8'-0"	
b123(E)	1	5	0-0	
b124(E)	5	5	15′-8"	
b125(E)	1	5	2′-8"	
b126(E)	1	5	9′-0"	
b127(E)	1	5	3'-2"	
b128(E)	23	5	3′-8"	
			2'-4"	<u> </u>
b129(E)	1	5 5	2 -4	
b130(E)	1	5	9'-2"	<u> </u>
b131(E)	1	5 5	23′-8"	
b132(E)	1	5	24'-6"	
b133(E)	1	5	25′-3"	
b134(E)	1	5 5	25'-4"	
			24'-8"	
b135(E)	1	5 5	24 -0	
b136(E)	1	5	21'-11"	
b137(E)	1	5	4'-0"	
	1	5 5	8′-9"	
b138(E)		-	9'-11"	
b138(E)	1	(7)		
b138(E) b139(E)	<u>1</u>	5 5	11'- 7"	
b138(E) b139(E) b140(E)	5	5	9'-11" 11'-7"	
b138(E) b139(E)		5 5 5	11'-7" 13'-10" 8'-0"	

Bar	No.	Size	Length	Shape
b143(E)	1	5	0'-10"	
b144(E)	5	5	15'-6"	
	2	5	11'-4"	
b145(E)				
b146(E)	2	5	9'-4"	
b147(E)	2	5	8′-6"	
b148(E)	2	9	8′-6"	/
b149(E)	2	5	11'-5"	/
b150(E)	2	9	11'-5"	
b151(E)	8	5	5'-0"	
	24	5	4'-0"	
b152(E)				
b153(E)	38	5	5′-8"	
b154(E)	8	5	3'-0"	
b155(E)	72	5	5′-6"	
b156(E)	1	5	10′-6"	0
b157(E)	1	5	13'-7"	Ŏ
	1	5	12'-0"	$\sim$
b158(E)				$\sim$
b159(E)	1	5	15′-2"	0
c8(E)	22	5	2'-3"	
c9(E)	22	5	2'-9"	
c10(E)	187	5	1'-11"	$\overline{}$
010(L)	101		1 11	I
4/51	774		0/ 0//	
†(E)	374	4	9'-8''	
v(E)	141	5	3′-0"	
w(E)	80	5	34′-10′′	
	40	5	28'-6"	
w1(E)				
w2(E)	120	5	28′-10′′	
w3(E)	40	5	14′-9′′	
Detecto	able War	nings	Sg. Ft.	76
Item #	42400	800	34. TT.	76
	te Struc			
	50300		Cu. Yd.	54.8
Concre				000 -
Supers	tructure		Cu. Yd.	229.5
	50300			
	Deck G		C- V1	400
	50300		Sq. Yd.	499
	ive Coa			
	50300		Sq. Yd.	534
	cement	Bars,		
Ероху			Pound	67,444
Item #	50800	205		
Bar Sp				
	50800	515	Each	112
	ich Slab		C	150
Remove			Sq. Yd.	456
Item #	<i>≥ Z0004</i>	552		

FILE NAME =	
	ידו ס
	IDL Z
	DLZ Illinois, Inc.

USER NAME =	DESIGNED -	DPW	REVISED
	CHECKED -	ASP	REVISED
PLOT SCALE =	DRAWN -	WSP	REVISED
PLOT DATE =	CHECKED -	ASP	REVISED

IL 2 (RT.) BIKE PATH AT 15TH AVENUE	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
APPROACH SLAB REINFORCEMENT & DETAILS	742	(32.33) R-1	WINNEBAGO	705	547
ATTIOAGIT SEAD HEIRI GHOLINERT & DETAILS			CONTRAC	T NO.	64821
SHEET NO. 17 OF 18 SHEETS		ILLINOIS FED. AI	D PROJECT		



## STANDARD BAR SPLICER ASSEMBLY

Minimum Lap Lengths									
Bar size to be spliced	Table 1	Table 2	Table 3	Table 4	Table 5				
3, 4	1'-5''	1'-11''	2'-1''	2'-4''	2'-3"				
5	1'-9''	2'-5"	2'-7''	2'-11''	2'-10''				
6	2'-1"	2'-11''	3'-1''	3′-6′′	3'-4''				
7	2'-9"	3′-10′′	4'-2''	4'-8''	4'-6''				
8	3′-8′′	5′-1′′	5′-5′′	6'-2''	5′-10′′				
9	4'-7''	6'-5''	6′-10′′	7'-9"	7′-5′′				

Table 1: Black bar, 0.8 Class C

Table 2: Black bar, Top bar lap, 0.8 Class C

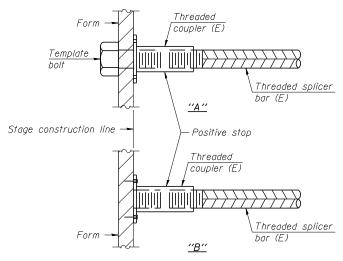
Table 3: Epoxy bar, 0.8 Class C

Table 4: Epoxy bar, Top bar lap, 0.8 Class C Table 5: Epoxy bar, Top bar lap, Class B

Threaded splicer bar length = min. lap length +  $1_2^{\prime\prime}$  + thread length

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

l ocation	Bar	No. assemblies	Table for minimum
200011011	size	required	lap length
Approach Footing	5	40	3
Approach Slab-Top	4	25	4
Approach Slab-Bottom	5	47	3



## 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.

## 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

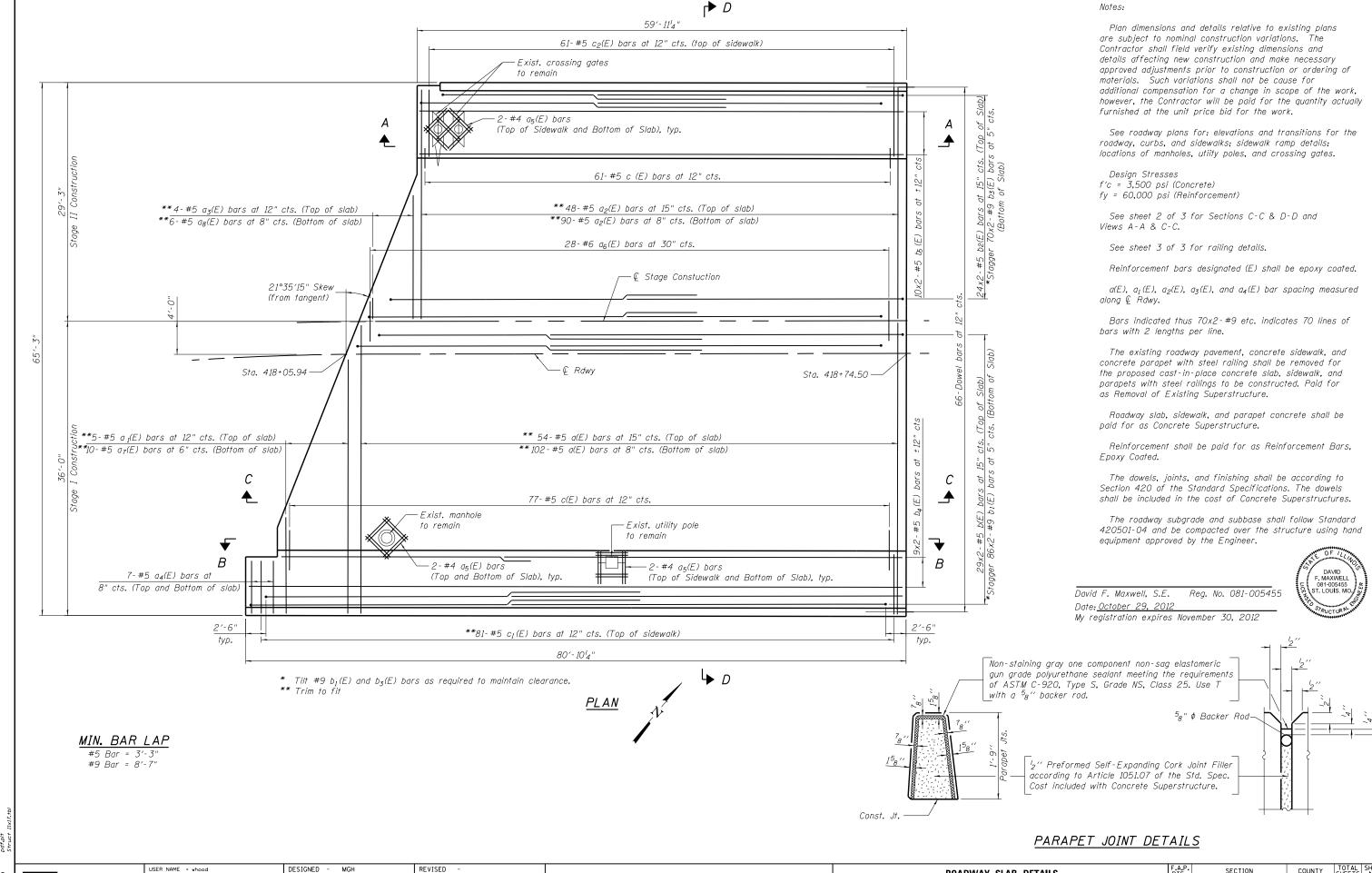
7 - 1 - 10



USER NAME =	DESIGNED	-	DPW	REVISED
	CHECKED	-	ASP	REVISED
PLOT SCALE =	DRAWN	-	LNB	REVISED
PLOT DATE =	CHECKED	-	ASP	REVISED

	IL 2 (RT.) BIKE PATH AT 15TH AVENUE						
BAR	SPLICER	<b>ASSEMBLY</b>	AND	MEC	HANICAL S	PLICER	DETAILS
		SHEET N	10. 18	OF 18	SHEETS		

F.A.P. RTE.	SECTION		COUNTY	TOTAL SHEETS	SHEET NO.		
742	(32.33) R-1		WINNEBAGO	705	548		
			CONTRAC	NO. 6	54821		
ILLINOIS FED. AID PROJECT							



HRGreen.com

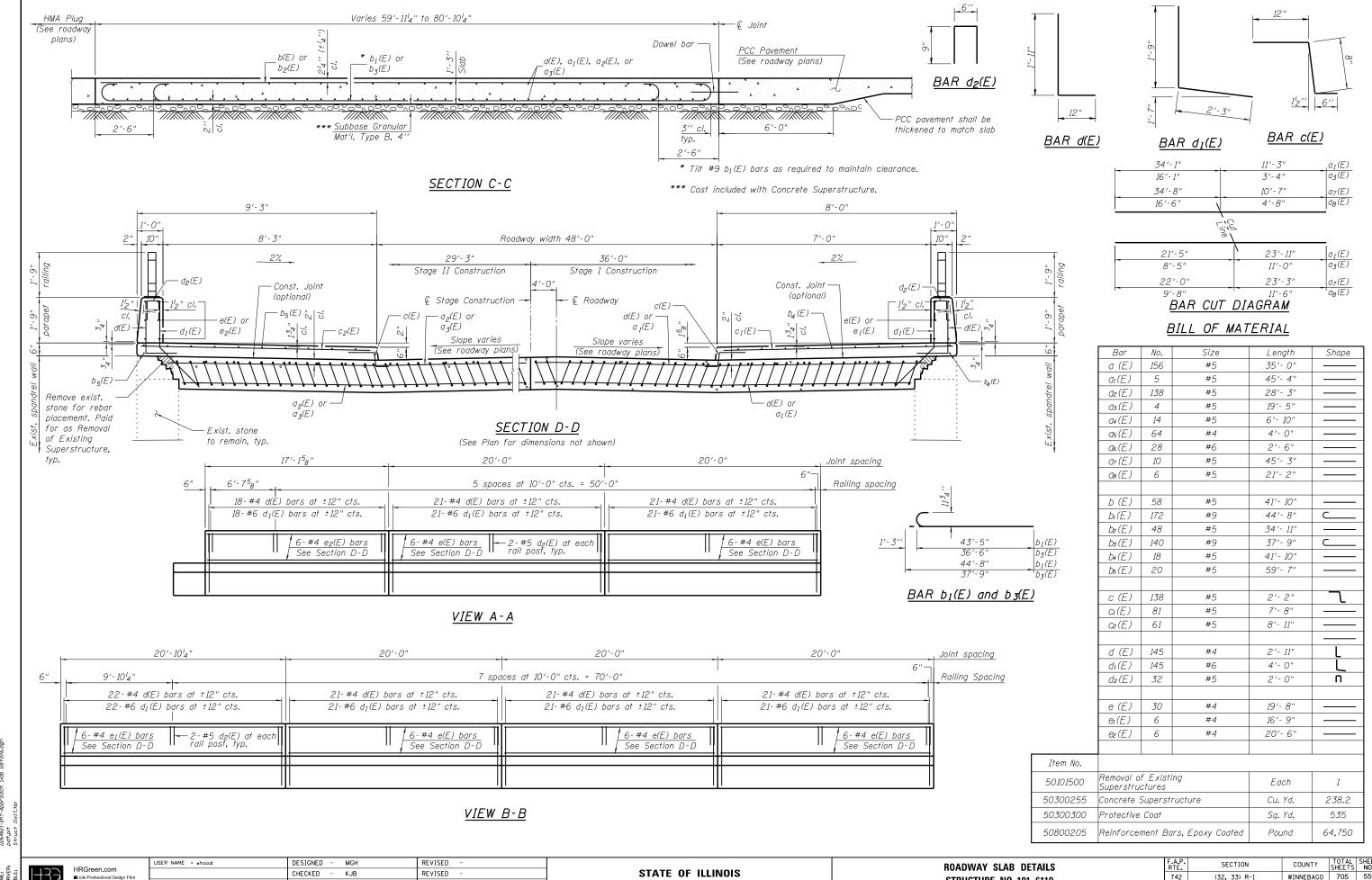
#inols Professional Design Firm
# 184-001322

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROADWAY SLAB DETAILS
STRUCTURE NO. 101-6110
SHEET NO. 1 OF 3 SHEETS

F.A.P. SECTION COUNTY TOTAL SHEETS NO. 742 (32, 33) R-1 WINNEBAGO 705 549

| CONTRACT NO. 64821 | ILLINOIS FED. AID PROJECT



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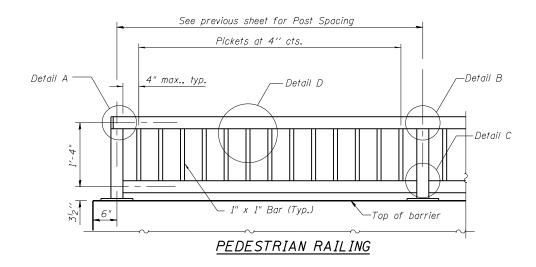
**HRGreen** 

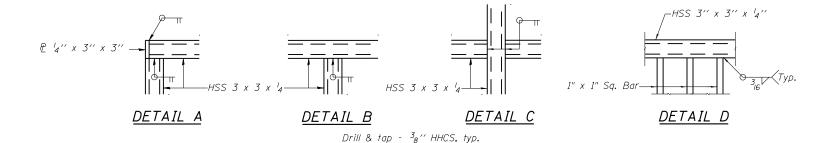
DRAWN WJH REVISED PLOT DATE = 10/29/2012 REVISED CHECKED MGH

**DEPARTMENT OF TRANSPORTATION** 

**STRUCTURE NO. 101-6110** SHEET NO. 2 OF 3 SHEETS

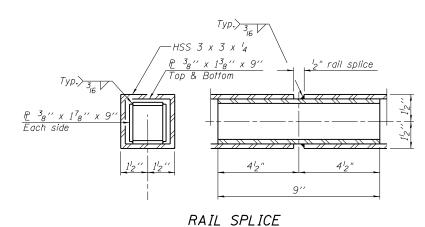
WINNEBAGO 705 550 742 (32, 33) R-1 CONTRACT NO. 64821

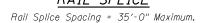


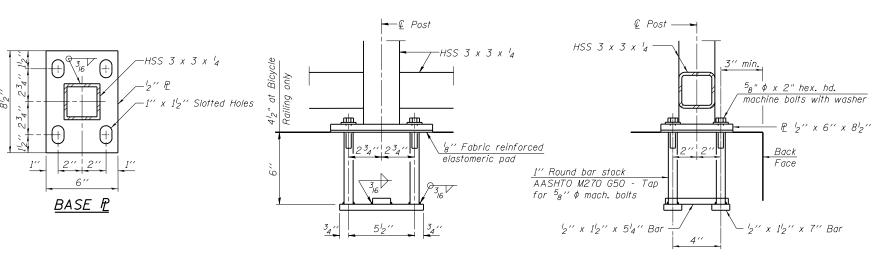


#### NOTES

All post, railing, pickets, splices, and anchor devices shall be galvanized and powder coated black per the Special Provisions. The galvanizing and powder coating system shall be approved by the engineer prior to the coating process. The galvanizing and powder coating shall be paid for as Painting Steel Railing.







## ANCHOR BOLT DETAILS

In lieu of the cast-in-place anchor device shown, the Contractor has the option of drilling and setting  $^5 g^{\prime\prime}$   $\phi$  anchor rods according to Article 509.06 of the Standard Specifications. Embedment shall be according to the manufacturer's specifications, but no greater than 6".

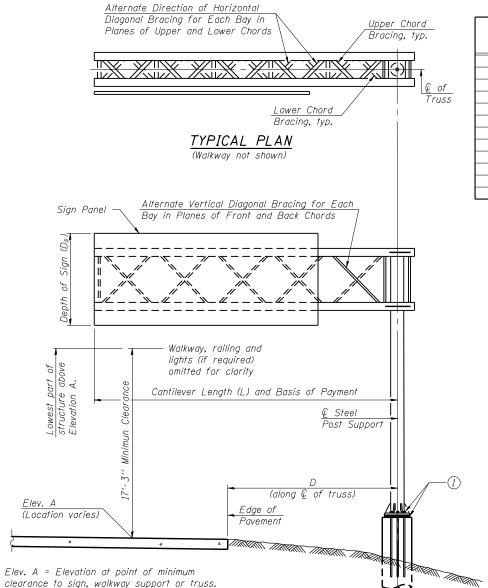
## BILL OF MATERIAL

Code No.	Item	Unit	Quantity
50600200	Painting Steel Railing	Foot	138
50900805	Pedestrian Railing	Foot	138

	LIDO	USE
1433	HRGreen.com	
HRGreen	# 184-001322	PLO
nnaleen		DI O

USER NAME = whood	DESIGNED - MGH	REVISED -	
	CHECKED - KJB	REVISED -	
PLOT SCALE =	DRAWN - WJH	REVISED -	
PLOT DATE = 10/29/2012	CHECKED - MGH	REVISED -	

RAILING DETAILS		SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
STRUCTURE NO. 101-6110	742	(32, 33) R-1	WINNEBAGO	705	551
STRUCTURE NO. 101-0110			CONTRAC	T NO. 6	64821
SHEET NO. 3 OF 3 SHEETS		TILINOIS FED A	D PROJECT		



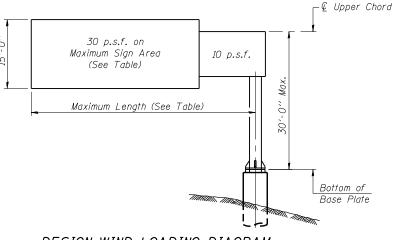
# TYPICAL ELEVATION

Looking in Direction of Traffic

Sign support structures may be subject to damaging vibrations and oscillations when sign panels are not in place during erection or maintenance of the structure. To avoid these vibrations and oscillations, consideration should be given to attaching temporary blank sign panels to the structure.

Structure Number	Station	Design Truss Type	Cantilever Length (L)	Elev. A	Dim. D	Ds	Total Sign Area
2C101S002L008.2	434+55	III-C-A	40'-0"	715.84	6′-0"	15′-0"	37.5

Truss Type	Maximum Sign Area	Maximum Length
I-C-A	170 Sq. Ft.	25 Ft.
II-C-A	340 Sq. Ft.	30 Ft.
III-C-A	400 Sg. Ft.	40 Ft.



# DESIGN WIND LOADING DIAGRAM

Parameters shown are basis for I.D.O.T. Standards Installations not within dimensional limits shown require special analysis for all components.

#### Note:

Trusses shall be shipped individually with adequate provision to prevent detrimental motion during transport. This may require ropes between horizontals and diagonals or energy dissipating (elastic) ties to the vehicle. The contractor is responsible for maintaining the configuration and protection of the trusses.

- (1) After adjustments to level truss and insure adequate vertical clearance, all top and leveling nuts shall be tightened against the base plate with a minimum torque of 200 lb.-ft. Stainless steel mesh shall then be placed around the perimeter of the base plate. Secure to base plate with stainless steel banding.
- \* If M270 Gr. 50W (M222) steel is proposed, chemistry for plate to be used shall first be approved by the Engineer as suitable for galvanizing and welding.

#### GENERAL NOTES

DESIGN: AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals. ("AASHTO Specifications")

CONSTRUCTION: Current (at time of letting) Illinois Department of Transportation Standard Specifications for Road and Bridge Construction, Supplemental Specifications and Special Provisions. ("Standard Specifications")

LOADING: 90 M.P.H. WIND VELOCITY

WALKWAY LOADING: Dead load plus 500 lbs. concentrated live load.

DESIGN STRESSES: Field Units  $f'_c = 3,500 \text{ p.s.i.}$ 

fy = 60,000 p.s.i. (reinforcement)

WELDING: All welds to be continuous unless otherwise shown. All welding to be done in accordance with current AWS D1.1 and D1.2 Structural Welding Codes (Steel and Aluminum) and the Standard Specificiations.

MATERIALS: Aluminum Alloys as shown throughout plans. All Structural Steel Pipe shall be ASTM A53 Grade B or A500 Grade B or C. If A500 pipe is substituted for A53, then the outside diameter shall be as detailed and wall thickness greater than or equal to A53. All Structural Steel Plates and Shapes shall conform to AASHTO M270 Gr. 36, Gr. 50 or Gr. 50W\*. Stainless steel for shims, sleeves and handhole covers shall be ASTM A240, Type 302 or 304, or another alloy suitable for exterior exposure and acceptable to the Engineer. The steel pipe and stiffening ribs at the base plate for the column shall have a minimum longitudinal Charpy V-Notch (CVN) energy of 15 lb.-ft. at 40° F. (Zone 2) before galvanizing.

FASTENERS FOR ALUMINUM TRUSSES: All bolts noted as "high strength" must satisfy the requirements of AASHTO M164 (ASTM A325), or approved alternate, and must have matching lock nuts. Threaded studs for splices (if Members interfere) must satisfy the requirements of ASTM A449, ASTM A193, Grade B7, or approved alternate, and must have matching lock nuts. Bolts and lock nuts not required to be high strength must satisfy the requirements of ASTM A307. All bolts and lock nuts must be hot dip galvanized per AASHTO M232. The lock nuts must have nylon or steel inserts. A stainless steel flat washer conforming to ASTM A240 Type 302 or 304, is required under both head and nut or under both nuts where threaded studs are used. High strength bolt installation shall conform to Article 505.04 (f) (2)d of the IDOT Standard Specifications for Road and Bridge Construction. Rotational capacity ("ROCAP") testing of bolts will not be required.

U-BOLTS AND EYEBOLTS: U-Bolts and Eyebolts must be produced from ASTM A276 Type 304, 304L, 316 or 316L, Condition A, cold finished stainless steel, or an equivalent material acceptable to the Engineer. All nuts for U-Bolts and Eyebolts must be lock nuts equivalent to ASTM A307 with nylon or steel inserts and hot dip galvanized per AASHTO M232. A stainless steel flat washer conforming to ASTM A240, Type 302 or 304, is required under each U-Bolt and Eyebolt lock nut.

GALVANIZING: All Steel Grating, Plates, Shapes and Pipe shall be Hot Dip Galvanized after fabrication in accordance with AASHTO M111. Painting is not permitted.

ANCHOR RODS: Shall conform to ASTM F1554 Gr. 105.

CONCRETE SURFACES: All concrete surfaces above an elevation 6" below the lowest final ground line at each foundation shall be cleaned and coated with Bridge Seat Sealer in accordance with the Standard Specifications.

REINFORCEMENT BARS: Reinforcement Bars designated (E) shall be epoxy coated in accordance with the Standard Specifications.

FOUNDATIONS: The contract unit price for Drilled Shaft Concrete Foundations shall include reinforcement bars complete in place.

## TOTAL BILL OF MATERIAL

ITEM #	ITEM	UNIT	TOTAL
73302210	OVERHEAD SIGN STRUCTURE CANTILEVER TYPE III-C-A	Foot	40
73301840	OVERHEAD SIGN STRUCTURE WALKWAY, TYPE A	Foot	34
73400200	DRILLED SHAFT CONCRETE FOUNDATIONS	Cu. Yds.	11.6
	-		

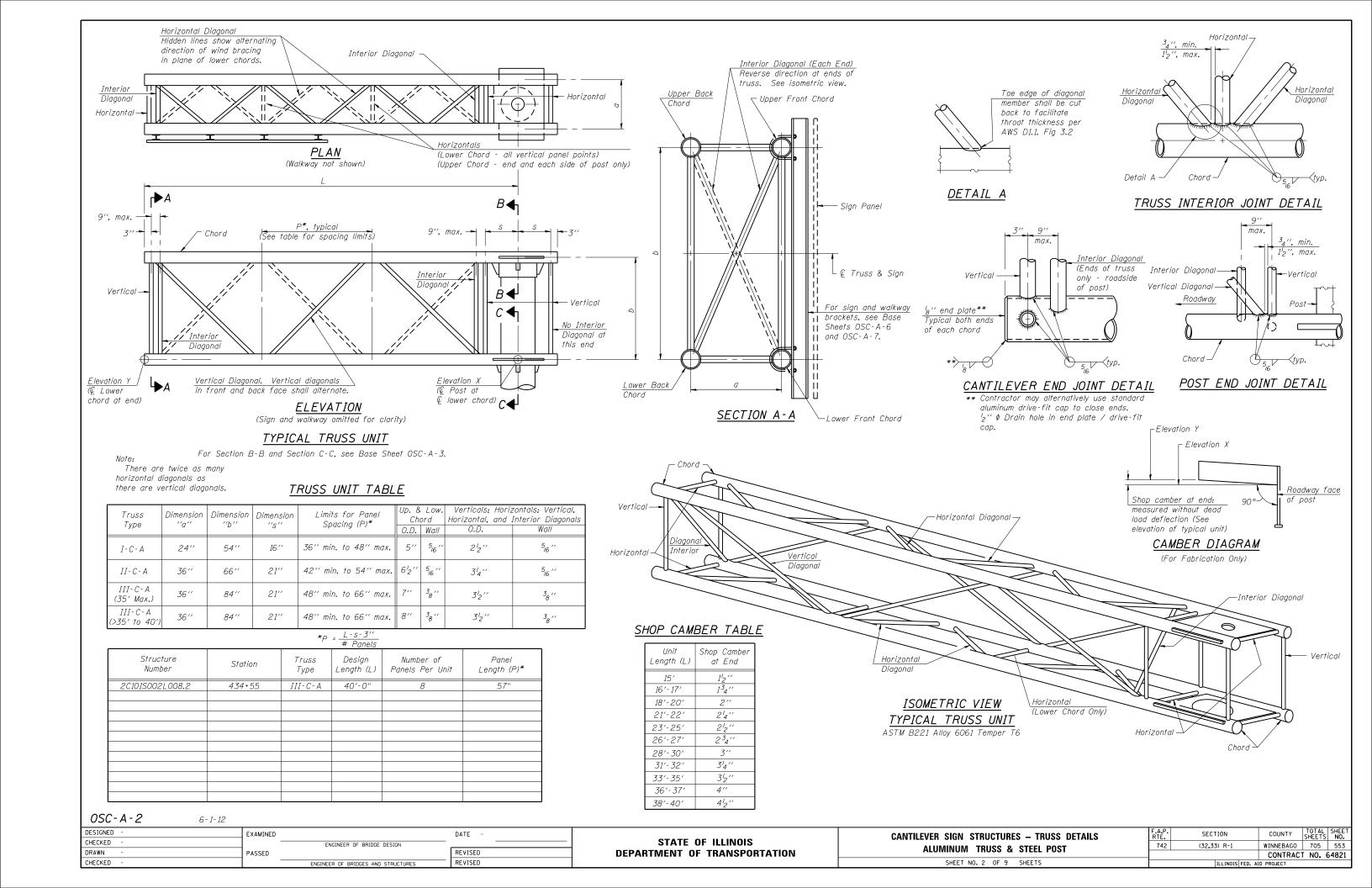
#### **OSC-A-1** 6-1-12

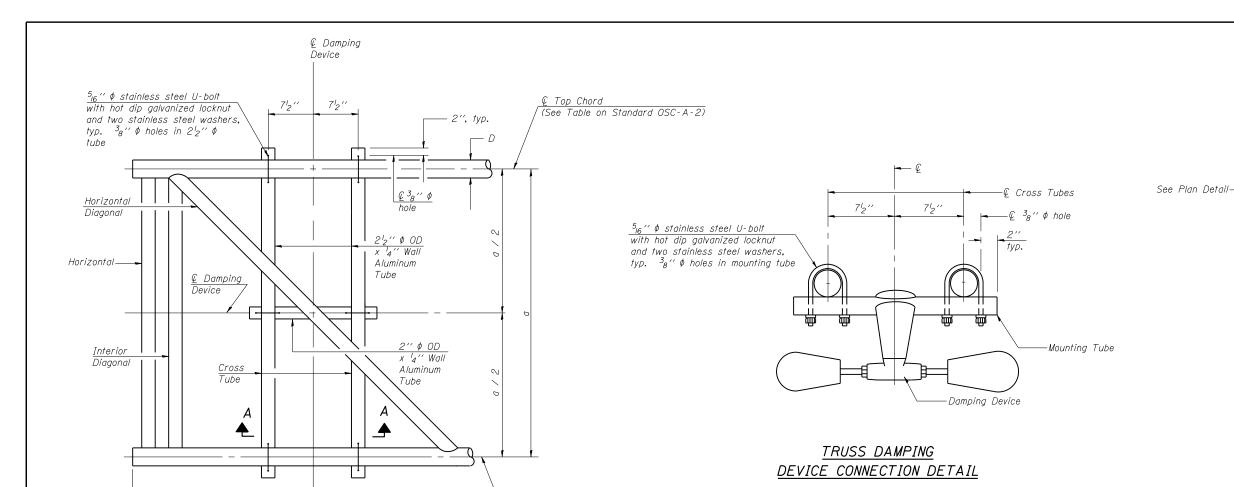
DESIGNED -	EXAMINED		DATE -	T
CHECKED -		ENGINEER OF BRIDGE DESIGN		
DRAWN -	PASSED		REVISED	1
CHECKED -	1	ENGINEER OF BRIDGES AND STRUCTURES	REVISED	1

# STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

# CANTILEVER SIGN STRUCTURES - GENERAL PLAN & ELEVATION RTE. SE ALUMINUM TRUSS & STEEL POST 742 (32

F.A.P. RTE.	SECTION		COUNTY	TOTAL SHEETS	SHEET NO.
742	(32,33) R-1		WINNEBAGO	705	552
			CONTRAC	T NO.	64821
	ILLINOIS	FED. A	D PROJECT		





# GENERAL NOTES

One damper per truss. (31 lbs. Stockbridge-Type Aluminum-29" minimum between ends of weights) Damper:

ELEVATION Aluminum Cantilever

Sign Structure

Materials: Aluminum tubes shall be ASTM B221 alloy 6061

Device

temper T6

Device € Top Chord 5<sub>16</sub> " ¢ stainless steel U-bolt SECTION A-A

· € Top Chord

DAMPING DEVICE MOUNTING TUBE U-BOLT DETAIL

(Typical)

TOP CHORD TO CROSS TUBE U-BOLT DETAIL (Typical)

OSC-A-D

6 - 1 - 12

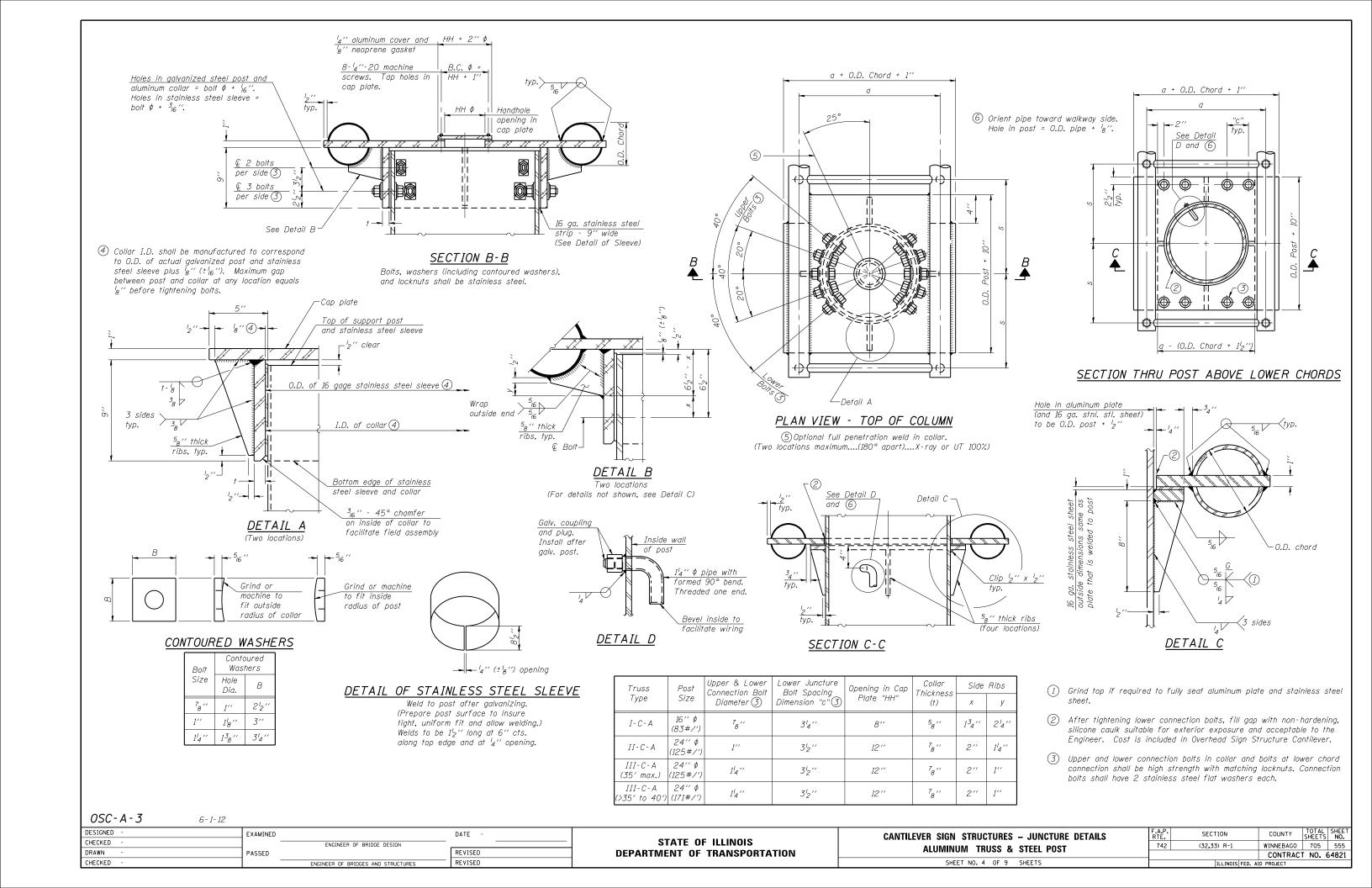
DESIGNED DATE EXAMINED CHECKED -ENGINEER OF BRIDGE DESIGN DRAWN PASSED REVISED CHECKED -

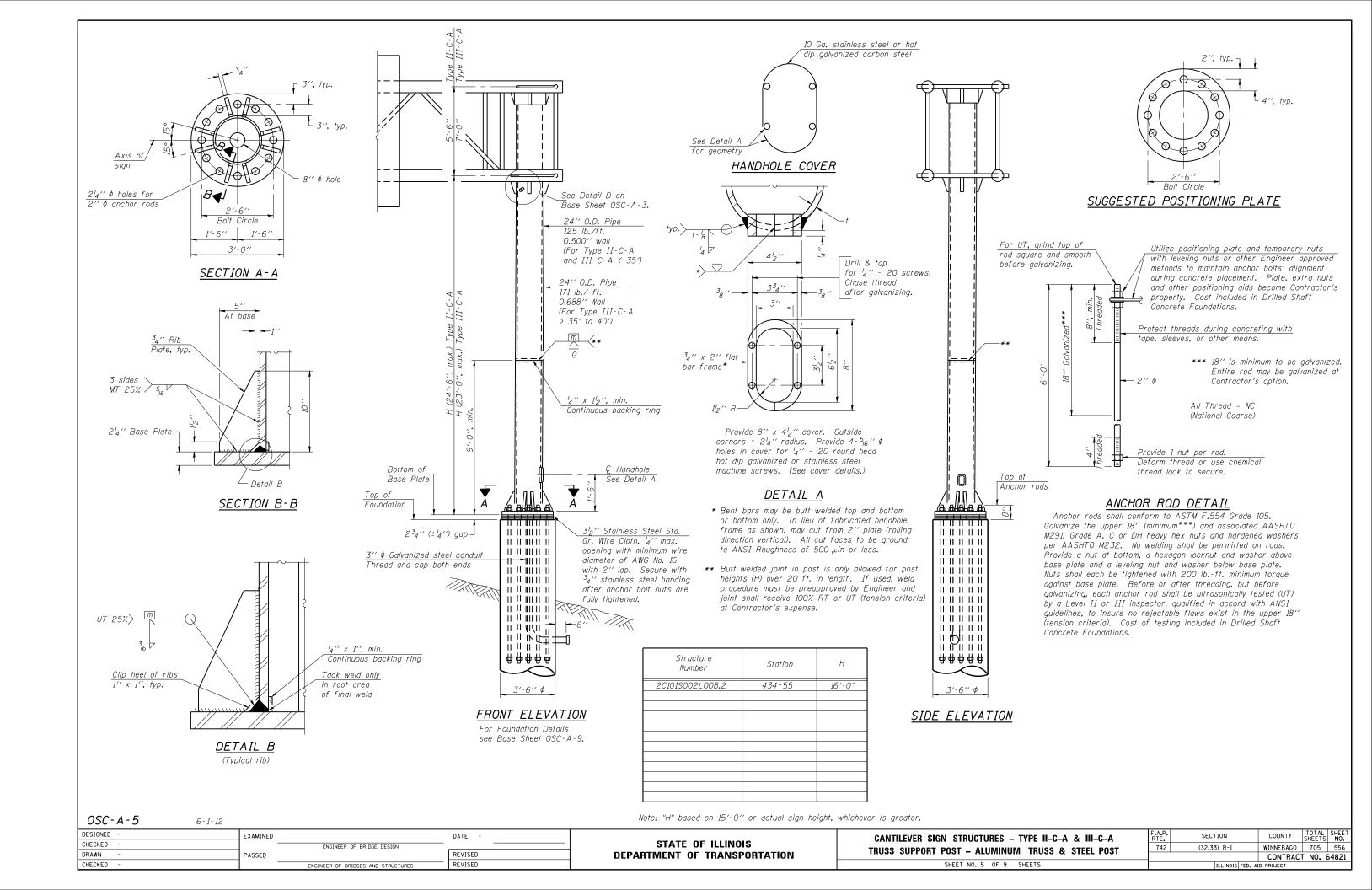
PLAN DETAIL

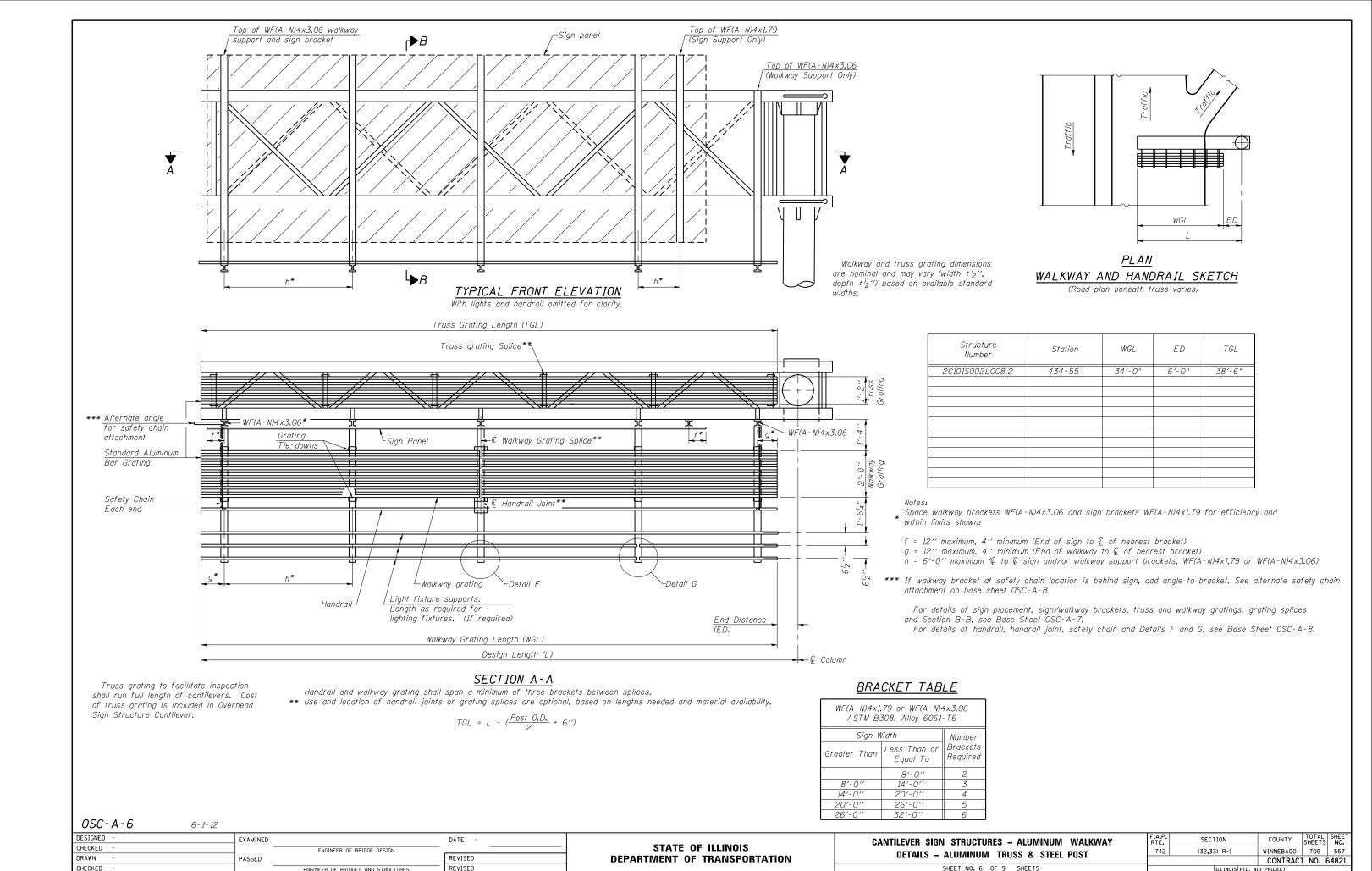
2'-0" (±6")

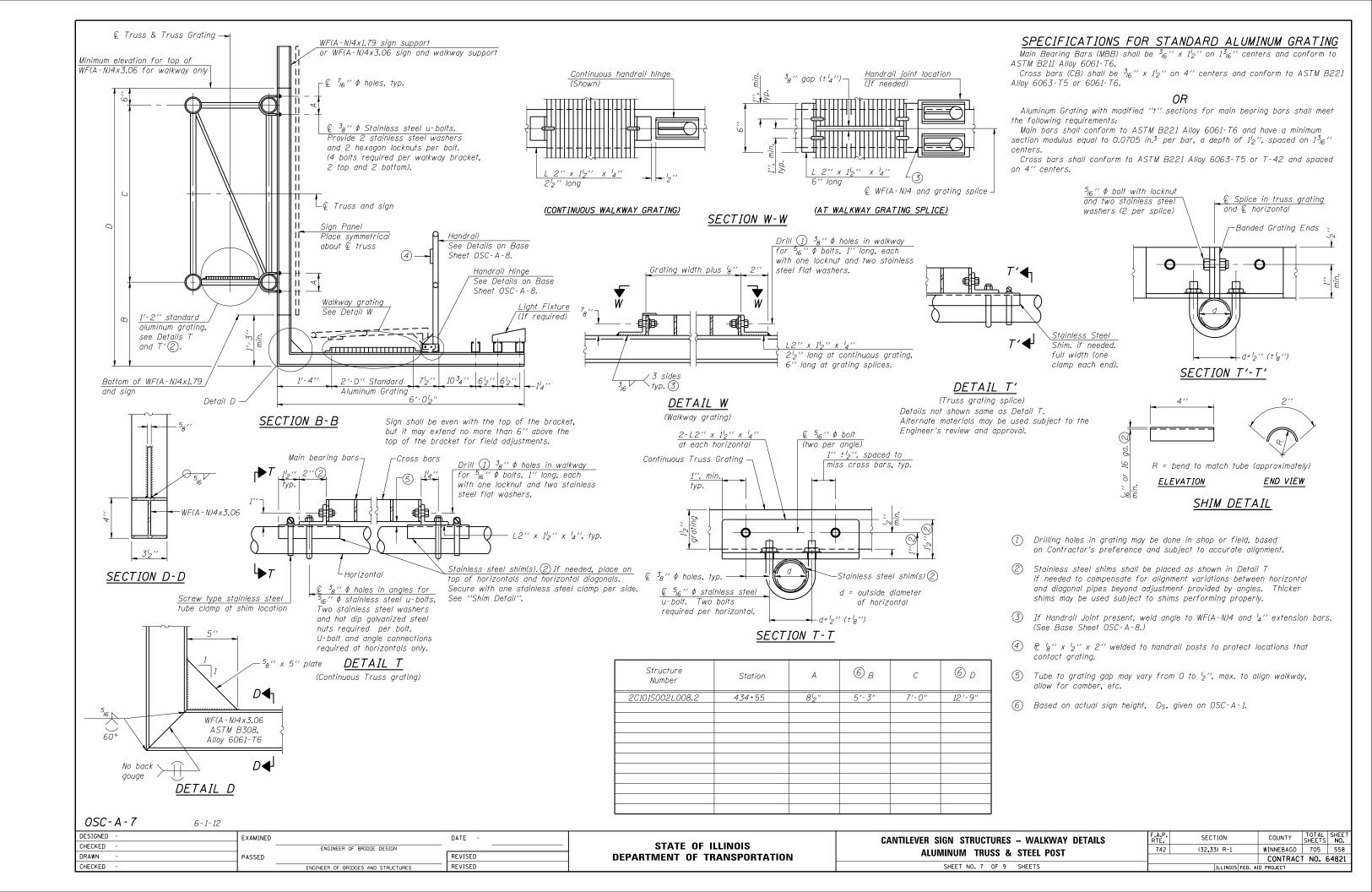
STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION** 

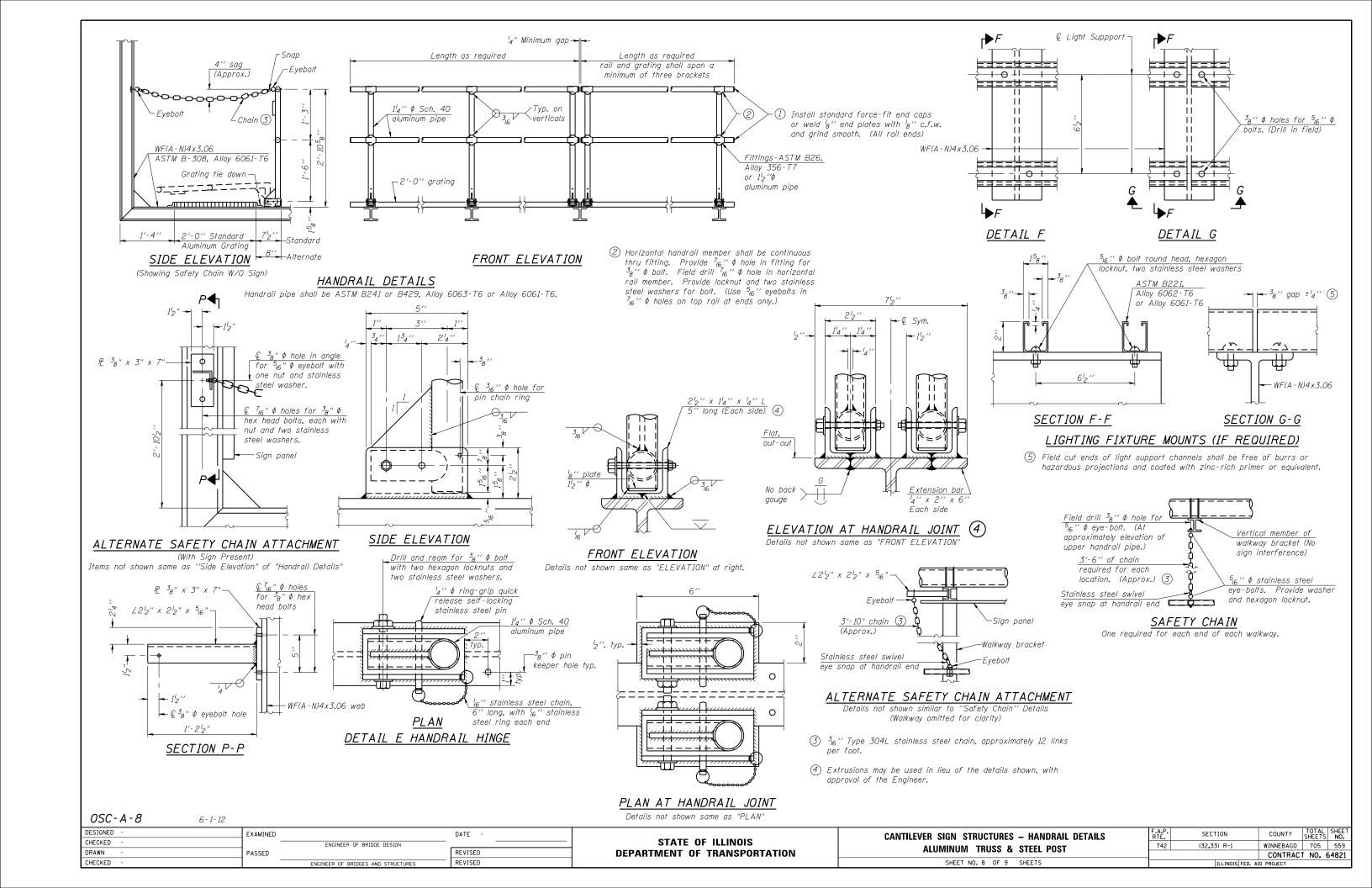
SECTION COUNTY **CANTILEVER SIGN STRUCTURE** 742 (32,33) R-1 WINNEBAGO 705 554 DAMPING DEVICE CONTRACT NO. 64821 SHEET NO. 3 OF 9 SHEETS

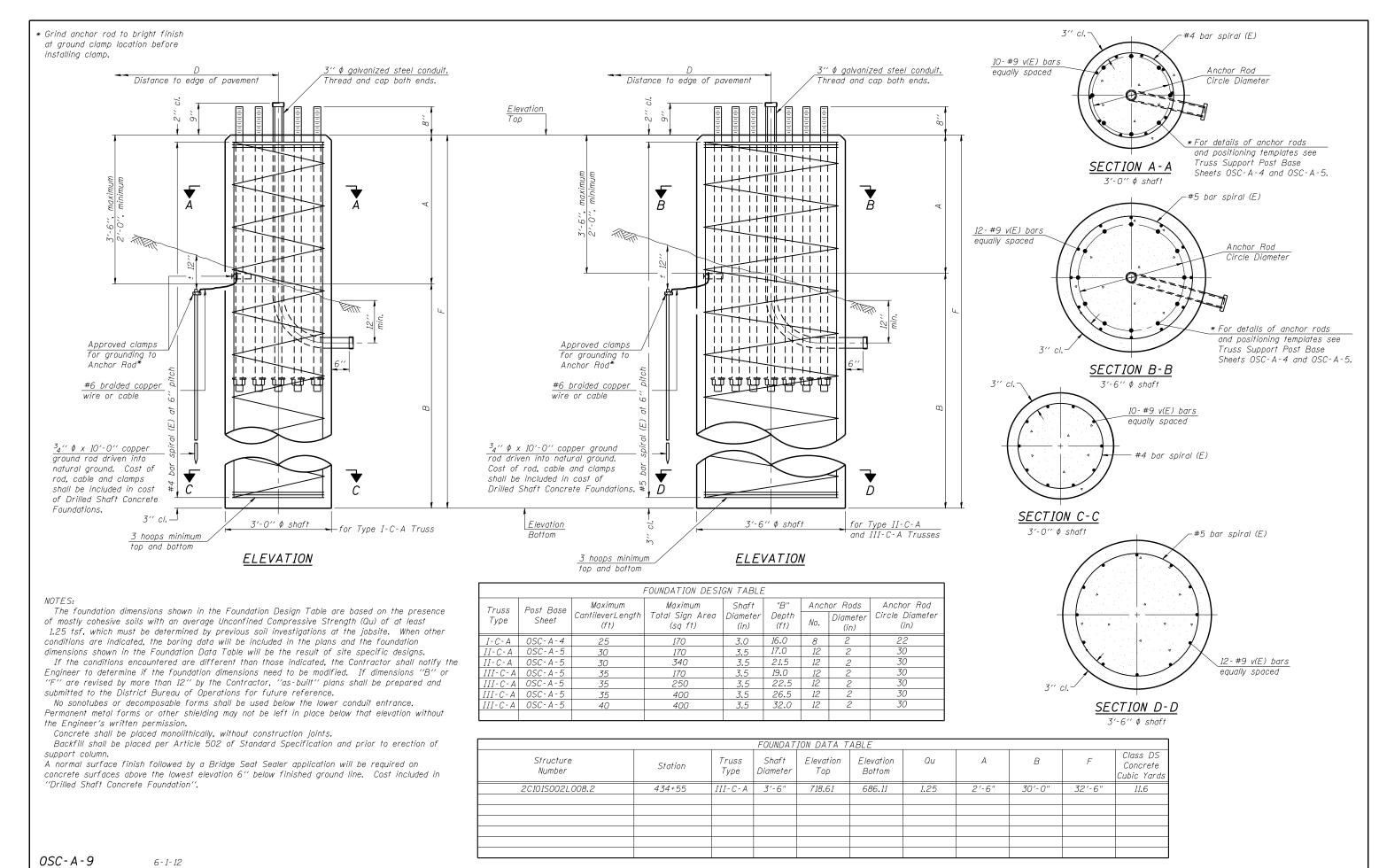








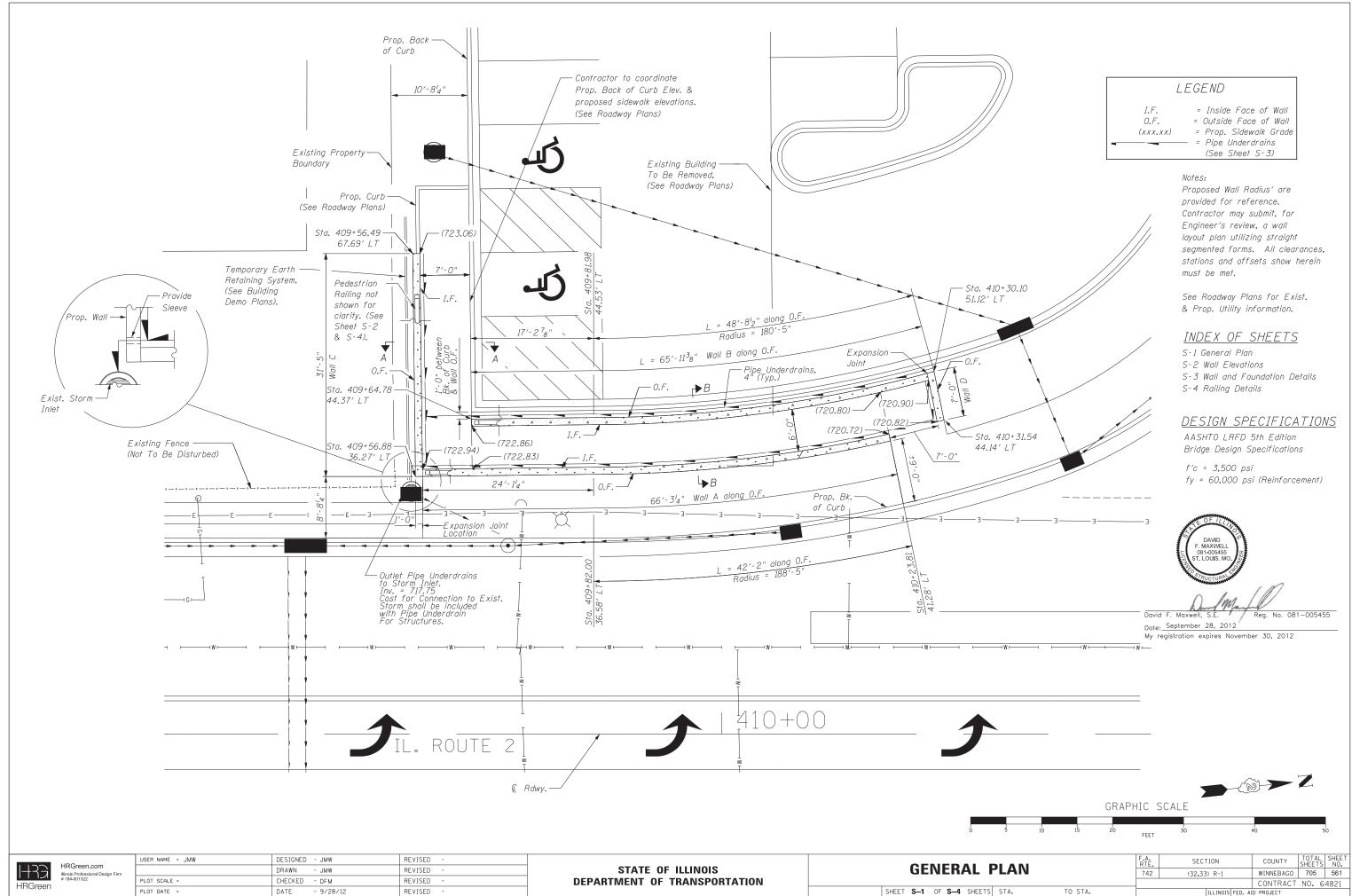


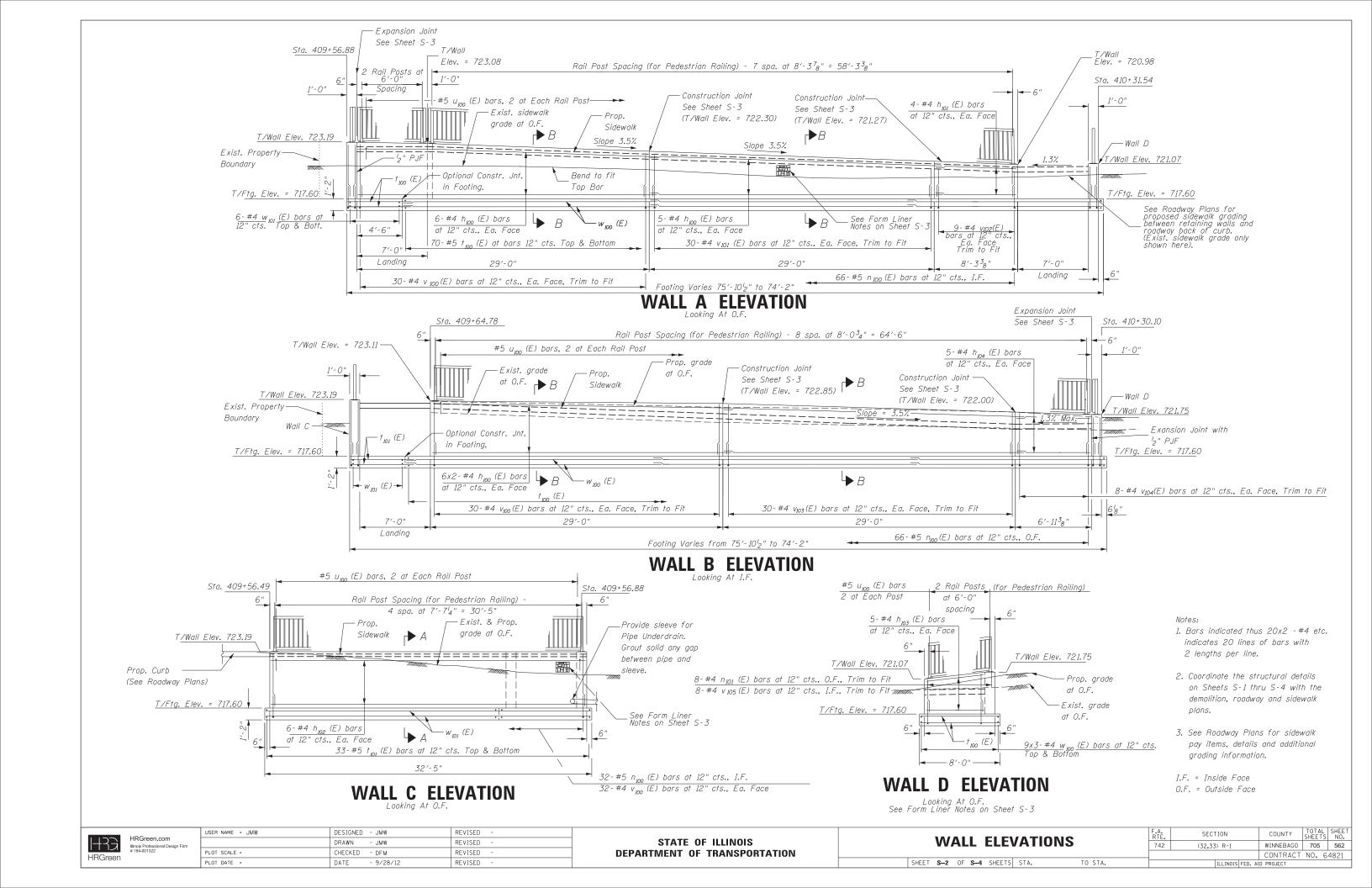


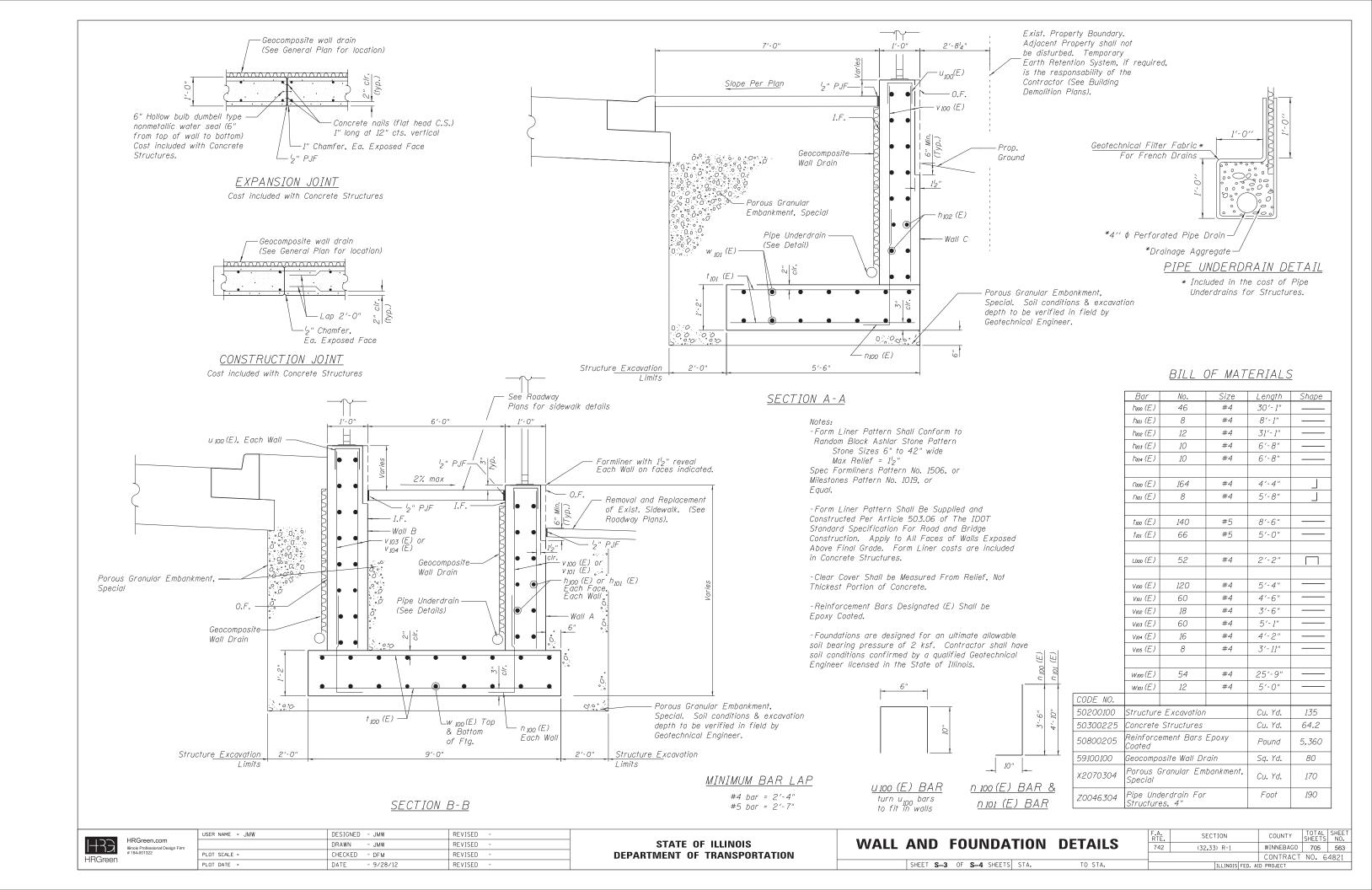
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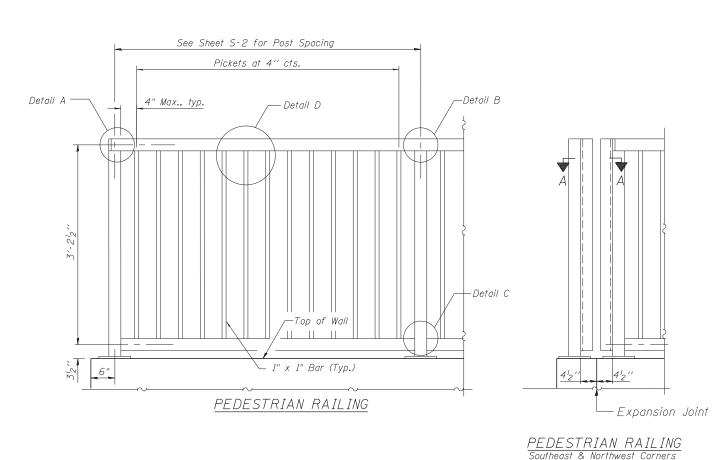
CANTILEVER SIGN STRUCTURES - DRILLED SHAFT **ALUMINUM TRUSS & STEEL POST** 

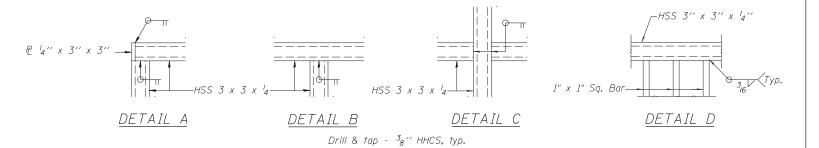
SECTION COUNTY 742 (32,33) R-1 WINNEBAGO 705 560 CONTRACT NO. 64821





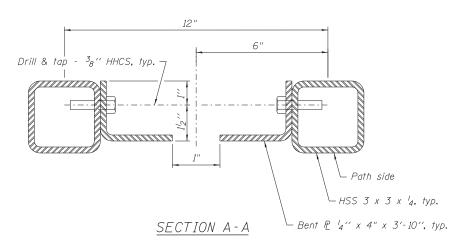


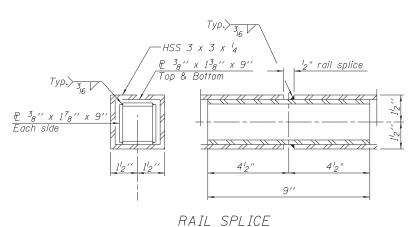




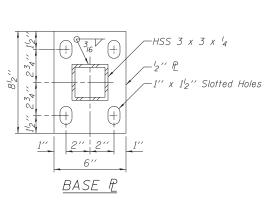
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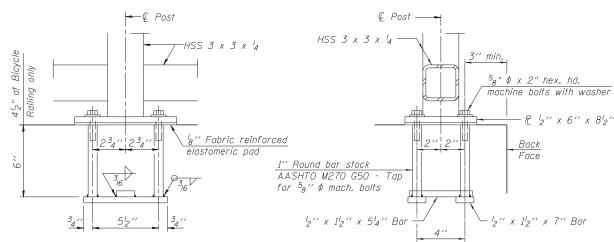
All post, railing, pickets, splices, and anchor devices shall be powder coated black. The powder coating system to be used shall be approved by the engineer prior to the coating process. The powder coating shall be paid for as Painting Steel Railing. See the Special Provision for the powder coating system to be used.





Rail Splice Spacing = 35'-0" Maximum.





# ANCHOR BOLT DETAILS

In lieu of the cast-in-place anchor device shown, the Contractor has the option of drilling and setting  $^58''$   $^9$  anchor rods according to Article 509.06 of the Standard Specifications. Embedment shall be according to the manufacturer's specifications, but no greater than 6".

## BILL OF MATERIAL

Code No.	Item	Unit	Quantity
50900805	Pedestrian Railing	Foot	159.2
50600200	Painting Steel Railing	Foot	159.2

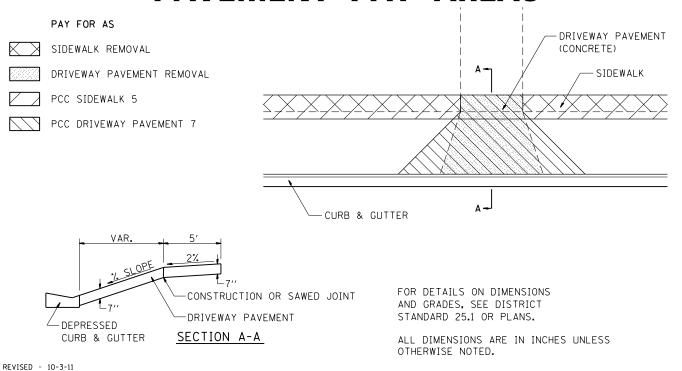
1433	HRGreen.com Illinois Professional Design Firm
HRGreen	# 184-001322

DRAWN - JMW REVISED -	
PLOT SCALE = CHECKED - DFM REVISED -	
PLOT DATE = DATE - 9/28/12 REVISED -	

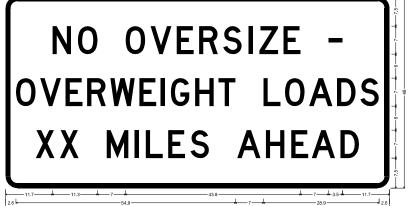
# STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

	DALLING DETAILS	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.		
RAILING DETAILS				(32,33) R-1	WINNEBAGO	705	564	
				CONTRACT	NO. 6	4821		
	SHEET S-4 OF S-4 SHEETS STA.	TO STA.	ILLINOIS FED. AID PROJECT					

# SIDEWALK AND DRIVEWAY PAVEMENT PAY AREAS



# ROAD CLOSED TO OVERSIZED LOADS



7.6 ± 10.7 ± 7 ± 25.6 96

Permit Loads - Loads Over 13 Feet; 3.0" Radius, 1.3" Border, Black on Orange;

[NO OVERSIZE -] D; [OVERWEIGHT LOADS] D 85% spacing; [XX MILES AHEAD] D;

for of letter and Option tables, \$\frac{7}{9}\], \$\frac{1}{9}\], \$\frac{1}{9}\

All work to furnish and install these signs shall be included in the cost of the Traffic Control Standards and shall not be paid for separately.

ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

REVISED - 3-11-09

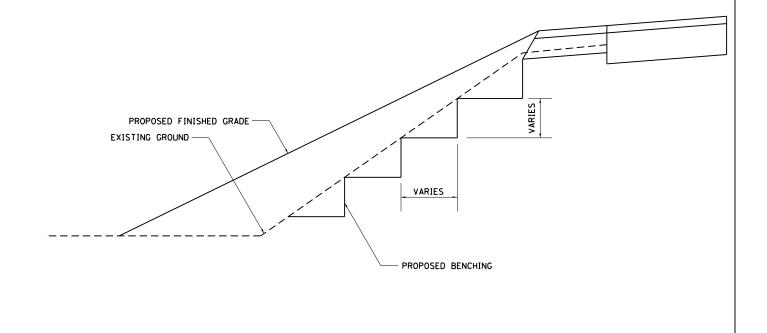
SIDEWALK AND DRIVEWAY PAVEMENT PAY AREAS

35.4

ROAD CLOSED TO OVERSIZED LOADS

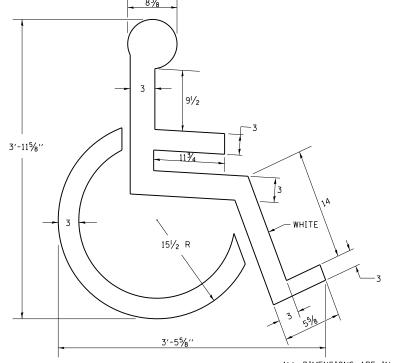
# 40.4

# TYPICAL BENCHING ON EXISTING EMBANKMENT



REVISED - 2-22-06

# DISABLED SYMBOL



ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

QUANTITY

COUNTY

WINNEBAGO 705 565

CONTRACT NO. 64821

# **DETAIL OF CONCRETE STEPS**

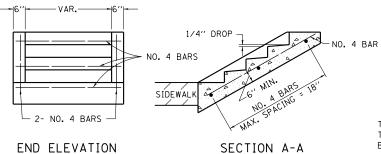


TABLE OF TREADS & RISERS **RISER** SLOPE TREAD

> 12'' 15'' 6′′ 1:2 5′′ 1:3 17′′ 4 1/4" 1:4

WHERE SLOPES FALL BETWEEN THOSE SHOWN IN THE TABLE ABOVE, THE STAIR RAIL SHOULD FIT THE SLOPE AND THE TREAD IN INCHES x THE RISER IN INCHES SHOULD BE BETWEEN 72 AND 78.

#### EXAMPLE:

FOR A 1:4 SLOPE USE  $y = RISER HEIGHT 4y^2 = 75"$ . SOLVING  $y^2 = 75''$ , y = 4.3'' (USE 4 1/4" FOR CONVENIENCE.)

TREAD WOULD THEN BE 4  $1/4" \times 4 = 17"$ 

COST OF REINFORCEMENT BARS SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER LBS FOR REINFORCEMENT BARS.

CLASS SI CONCRETE SHALL BE USED THROUGHTOUT, WHICH SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER CUBIC YARD FOR CLASS SI CONCRETE (MISCELLANEOUS).

ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

REVISED - 10-3-11

REVISED - 10-5-11

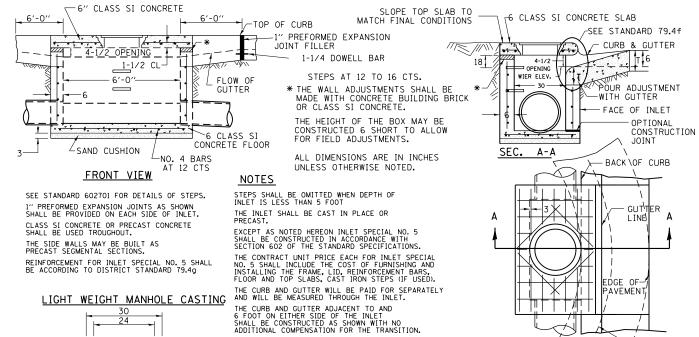
**DETAIL OF CONCRETE STEPS** 

71.4

TOTAL WEIGHT 160 LBS.

REVISED - 10-4-11

# **INLET SPECIAL NO. 5**



ALL PIPE UNDERDRAIN CONNECTIONS WHEN SPECIFIED SHALL BE DONE IN ACCORDANCE WITH ART. 601 OF THE STANDARD SPECIFICATIONS. THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER (FOOT) FOR PIPE UNDERDRAINS (SPECIFIC) OF THE DIAMETER SPECIFIED WHICH PRICE SHALL INCLUDE THE CA7 OR CA16 AND THE CONNECTION TO THE INLET.

**INLET SPECIAL NO. 5** 

RADIUS OF THE RETURN.

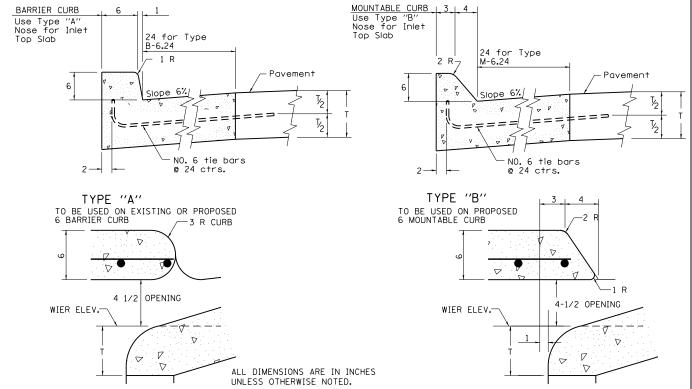
\*\* WHEN INLET IS CONSTRUCTED IN RETURN,
THE TOP OF SLAB SHALL CONFORM TO THE

79.4b

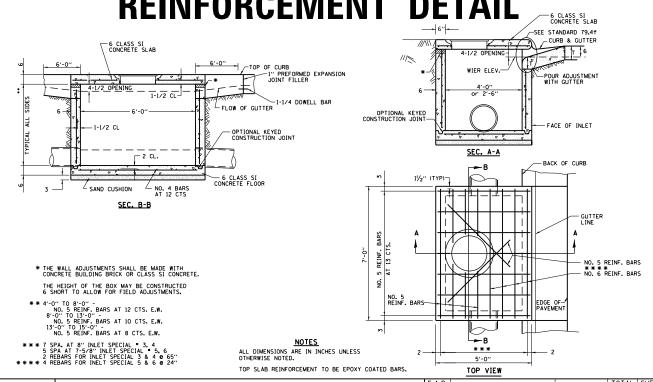
# NOSE TYPE FOR INLET TOP SLAB

√NO. 4 BAR

PLAN

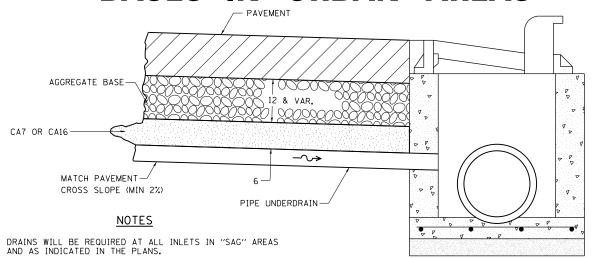


INLET SPECIAL NO. 3, 4, 5, 6
REINFORCEMENT DETAIL



REVISED - 10-5-11 COUNTY REVISED REGION 2 / DISTRICT 2 STANDARD 742 (32, 33) R-1 WINNEBAGO 705 566 CONTRACT NO. 64821 SCALE: \$SCALE\$ SHEET NO. 2 OF 19 SHEETS STA. TO STA. REVISED FED. ROAD DIST. NO.

# DRAIN FOR AGGREGATE BASES IN URBAN AREAS



THIS WORK SHALL BE COMPLETED ACCORDING TO SECTION 601 OF THE STANDARD SPECIFICATIONS.

ALL DIMENSIONS ARE IN INCHES UNLESS

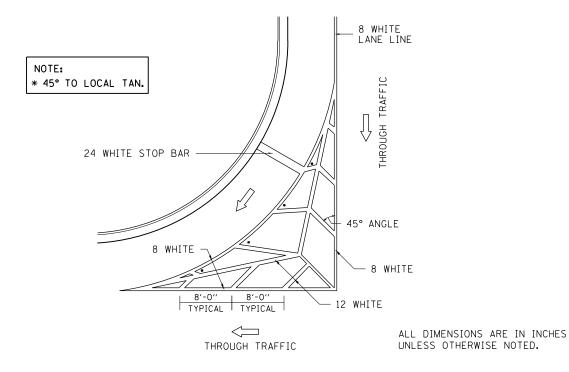
OTHERWISE NOTED.

REVISED - 10-5-11

THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER FOOT FOR PIPE UNDERDRAINS OF THE DIAMETER SPECIFIED WHICH PRICE SHALL INCLUDE THE CA7 OR CA16 AND THE CONNECTION TO THE INLET.

DRAIN FOR AGGREGATE BASES IN URBAN AREAS

# TYPICAL MARKING FOR PAINTED ISLANDS



TYPICAL MARKING FOR PAINTED ISLANDS

93.4

REVISED REVISED REVISED REVISED REVISED REVISED REVISED REVISED REVISED REVISED REVISED SCALE: \$SCALE\$ SHEET NO. 3 OF 19 SHEETS STA. TO STA.

| F.A.P. | SECTION | COUNTY | TOTAL | SHEETS | NO. | TOTAL | SHEETS | NO. | TOTAL | SHEETS | NO. | TOTAL | SHEETS | NO. | TOTAL | SHEETS | NO. | TOTAL | SHEETS | NO. | TOTAL | SHEETS | NO. | TOTAL | SHEETS | NO. | TOTAL | SHEETS | NO. | TOTAL | SHEETS | NO. | TOTAL | SHEETS | NO. | TOTAL | SHEETS | NO. | TOTAL | SHEETS | NO. | TOTAL | SHEETS | NO. | TOTAL | SHEETS | NO. | TOTAL | SHEETS | NO. | TOTAL | SHEETS | NO. | TOTAL | SHEETS | NO. | TOTAL | SHEETS | NO. | TOTAL | SHEETS | NO. | TOTAL | SHEETS | NO. | TOTAL | SHEETS | NO. | TOTAL | SHEETS | NO. | TOTAL | SHEETS | NO. | TOTAL | SHEETS | NO. | TOTAL | SHEETS | NO. | TOTAL | SHEETS | NO. | TOTAL | SHEETS | NO. | TOTAL | SHEETS | NO. | TOTAL | SHEETS | NO. | TOTAL | SHEETS | NO. | TOTAL | SHEETS | NO. | TOTAL | SHEETS | NO. | TOTAL | SHEETS | NO. | TOTAL | SHEETS | NO. | TOTAL | SHEETS | NO. | TOTAL | SHEETS | NO. | TOTAL | SHEETS | NO. | TOTAL | SHEETS | NO. | TOTAL | SHEETS | NO. | TOTAL | SHEETS | NO. | TOTAL | SHEETS | NO. | TOTAL | SHEETS | NO. | TOTAL | SHEETS | NO. | TOTAL | SHEETS | NO. | TOTAL | SHEETS | NO. | TOTAL | SHEETS | NO. | TOTAL | SHEETS | NO. | TOTAL | SHEETS | NO. | TOTAL | SHEETS | NO. | TOTAL | SHEETS | NO. | TOTAL | SHEETS | NO. | TOTAL | SHEETS | NO. | TOTAL | SHEETS | NO. | TOTAL | SHEETS | NO. | TOTAL | SHEETS | NO. | TOTAL | SHEETS | NO. | TOTAL | SHEETS | NO. | TOTAL | SHEETS | NO. | TOTAL | SHEETS | NO. | TOTAL | SHEETS | NO. | TOTAL | SHEETS | NO. | TOTAL | SHEETS | NO. | TOTAL | SHEETS | NO. | TOTAL | SHEETS | NO. | TOTAL | SHEETS | NO. | TOTAL | SHEETS | NO. | TOTAL | SHEETS | NO. | TOTAL | SHEETS | NO. | TOTAL | SHEETS | NO. | TOTAL | SHEETS | NO. | TOTAL | SHEETS | NO. | TOTAL | SHEETS | NO. | TOTAL | SHEETS | NO. | TOTAL | SHEETS | NO. | TOTAL | SHEETS | NO. | TOTAL | SHEETS | NO. | TOTAL | SHEETS | NO. | TOTAL | SHEETS | NO. | TOTAL | SHEETS | NO. | TOTAL | SHEE

PLOT DATE = \$DATE\$

REVISED - 10-05-11

88.4

## **INLET SPECIAL** TOP OF GRATE CURB BOX ADJUSTABLE TO 9 HIGH TOP OF MASONRY \* THE WALL ADJUSTMENTS SHALL BE MADE WITH CONCRETE BUILDING BRICK OR CLASS SI CONCRETE. OPTIONAL CONSTRUCTION JOINT FACE OF INLET THE HEIGHT OF THE BOX MAY BE CONSTRUCTED 6 SHORT TO ALLOW FOR FIELD ADJUSTMENTS. 14 OPTIONAL CONSTRUCTION JOINT 3 SAND CUSHION -NO. 4 BARS AT 12 CTS. IF PRECAST SEC. B-B SEC. A-A

#### NOTES

SEE STANDARD 602701 FOR DETAILS OF STEPS.

EXCEPT AS NOTED HEREON INLET SPECIAL SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 602 OF THE STANDARD SPECIFICATIONS.

THE SIDE WALLS MAY BE BUILT AS PRECAST SEGMENTED SECTIONS.

ALL VOIDS AROUND PIPE ENTRANCE, BOTH INSIDE AND OUTSIDE, SHALL BE SEALED WITH MORTAR.

WEIGHT OF CAST IRON FRAME & GRATE = 530 lbs. ± . STEPS SHALL BE OMITTED WHEN DEPTH OF "H" IS LESS THAN 5 ft.

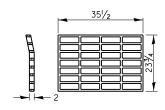
# DETAIL OF FRAME & GRATE

#### NOTES

REVISED - 10-13-11

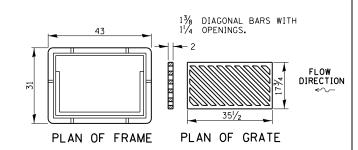
CLASS SI CONCRETE OR PRECAST CONCRETE SHALL BE USED THROUGHOUT. PRECAST CONCRETE SHALL BE IN ACCORDANCE WITH SECTION 504.01 THRU 504.05 OF THE STANDARD SPECIFICATIONS EXCEPT THAT CONCRETE STRENGTH SHALL BE 4,000 psi AFTER 28 DAYS.

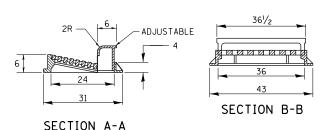
THE CONTRACT UNIT PRICE EACH FOR INLET SPECIAL SHALL INCLUDE THE COST OF CONSTRUCTING THE INLET BOX, FURNISHING AND INSTALLING THE FRAME AND GRATE, THE CAST IRON STEPS (IF USED), THE PRECAST FLOOR SLABS, SAND CUSHION (WHEN USED) AND REINFORCEMENT BARS.



PLAN OF GRATE \*

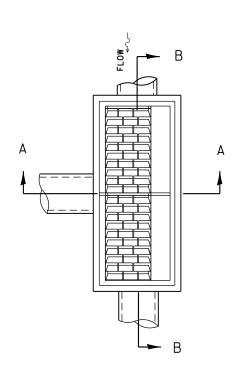
\* THIS GRATE TO BE USED WITHOUT CURB BOX WHEN INLET IS IN DRIVEWAY.





ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

## **DOUBLE INLET, SPECIAL** -TOP OF GRATE -CURB BOX ADJUSTABLE TO 9 HIGH # TOP OF MASONRY 12 \* THE WALL ADJUSTMENTS SHALL BE MADE WITH CONCRETE BUILDING BRICK OR CLASS SI CONCRETE. OPTIONAL FACE OF INLET -- CONSTRUCTION THE HEIGHT OF THE BOX MAY BE CONSTRUCTED 6 SHORT TO ALLOW FOR FIELD ADJUSTMENTS. JOINT 14 OPTIONAL CONSTRUCTION JOINT 3 SAND CLISHION NO. 4 BARS AT 12 CTS. IF PRECAST



SEC. A-A

#### NOTES

SEE STANDARD 602701 FOR DETAILS OF STEPS.

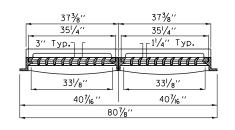
SEC. B-B

EXCEPT AS NOTED HEREON DOUBLE INLET SPECIAL SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 602 OF THE STANDARD SPECIFICATIONS

THE SIDE WALLS MAY BE BUILT AS PRECAST SEGMENTED SECTIONS.

ALL VOIDS AROUND PIPE ENTRANCE, BOTH INSIDE AND OUTSIDE, SHALL BE SEALED WITH MORTAR.

 $R\mbox{-}3295\mbox{-}2$  DOUBLE UNIT STEPS SHALL BE OMITTED WHEN DEPTH OF "H" IS LESS THAN 5 FOOT.



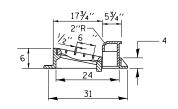
SECTION B-B

# DETAIL OF FRAME & GRATE

#### **NOTES**

CLASS SI CONCRETE OR PRECAST CONCRETE SHALL BE USED THROUGHOUT. PRECAST CONCRETE SHALL BE IN ACCORDANCE WITH SECTION 504.01 THRU 504.05 OF THE STANDARD SPECIFICATIONS EXCEPT THAT CONCRETE STRENGTH SHALL BE 4,000 psi AFTER 28 DAYS.

THE CONTRACT UNIT PRICE EACH FOR INLET SPECIAL SHALL INCLUDE THE COST OF CONSTRUCTING THE INLET BOX, FURNISHING AND INSTALLING THE FRAME AND GRATE, THE CAST IRON STEPS (IF USED), THE PRECAST FLOOR SLABS, SAND CUSHION (WHEN USED) AND REINFORCEMENT BARS.



SECTION A-A

ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

	OTHERWISE NOTES!									
REVISED - 10-13-11						F.A.P. RTE.	SECTION	COUNTY	TOTAL	SHEET NO.
REVISED -	REGION 2 / DISTRICT 2 STANDARD				742	(32, 33) R-1	WINNEBAGO		568	
REVISED -								CONTRAC		54821
DEVICED	CCALE, ACCALEA	CHEET NO 4 OF	10 CHEETS	CTA	TO CTA					

# **INLET SPECIAL NO. 1** -TOP OF GRATE TOP OF MASONRY \* THE WALL ADJUSTMENTS SHALL BE MADE WITH CONCRETE BUILDING BRICK OR CLASS SI CONCRETE. OPTIONAL FACE OF INLET -THE HEIGHT OF THE BOX MAY BE CONSTRUCTED 6 SHORT TO ALLOW FOR FIELD ADJUSTMENTS. CONSTRUCTION JOINT 14 OPTIONAL CONSTRUCTION 3 SAND CUSHION NO. 4 BARS AT 12 CTS. IF PRECAST SEC. B-B SEC. A-A

#### NOTES

SEE STANDARD 602701 FOR DETAILS OF STEPS.

EXCEPT AS NOTED HEREON INLET SPECIAL SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 602 OF THE STANDARD SPECIFICATIONS.

THE SIDE WALLS MAY BE BUILT AS PRECAST SEGMENTED SECTIONS.

ALL VOIDS AROUND PIPE ENTRANCE, BOTH INSIDE AND OUTSIDE, SHALL BE SEALED WITH MORTAR.

STEPS SHALL BE OMITTED WHEN DEPTH OF "H" IS LESS THAN 5 FOOT.

BOTH INLET SPECIAL NO. 1 SHALL DRAIN VERTICALLY TO THE ACROSS ROAD CULVERT LOCATED BENEATH.

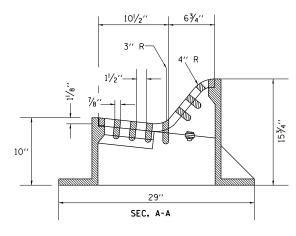
# DETAIL OF FRAME & GRATE

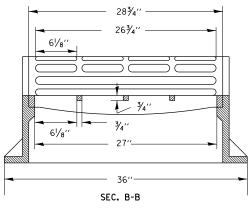
#### NOTES

CLASS SI CONCRETE OR PRECAST CONCRETE SHALL BE USED THROUGHOUT. PRECAST CONCRETE SHALL BE IN ACCORDANCE WITH SECTION 504.01 THRU 504.05 OF THE STANDARD SPECIFICATIONS EXCEPT THAT CONCRETE STRENGTH SHALL BE 4,000 psi AFTER 28 DAYS.

THE CONTRACT UNIT PRICE EACH FOR INLET SPECIAL, NO.1 SHALL INCLUDE THE COST OF CONSTRUCTING THE INLET BOX, FURNISHING AND INSTALLING THE FRAME AND GRATE, THE CAST IRON STEPS (IF USED), THE PRECAST FLOOR SLABS, SAND CUSHION (WHEN USED) AND REINFORCEMENT BARS.

NEENAH # R-3503-B OR EQUIVALENT



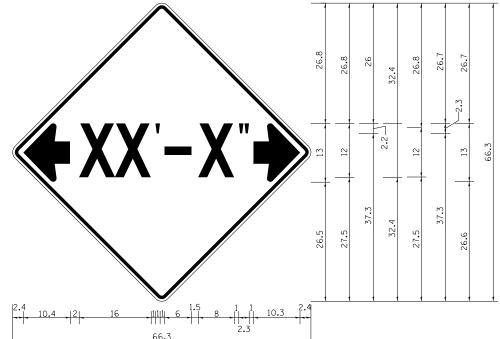


ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

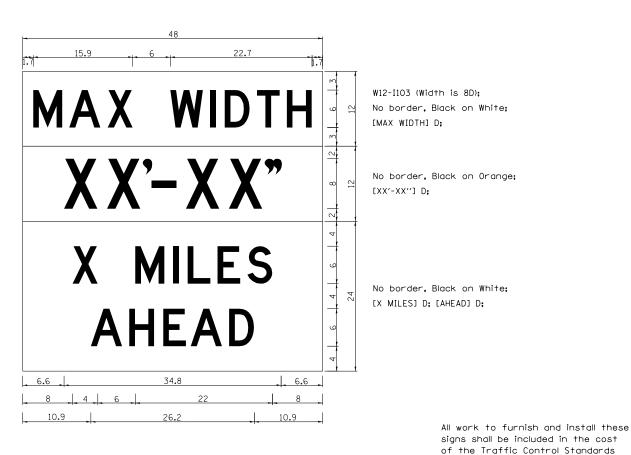
**INLET SPECIAL NUMBER 1** 

REVISED - 10-14-11

# INFORMATIONAL WARNING SIGN (FOR NARROW TRAVEL LANES)



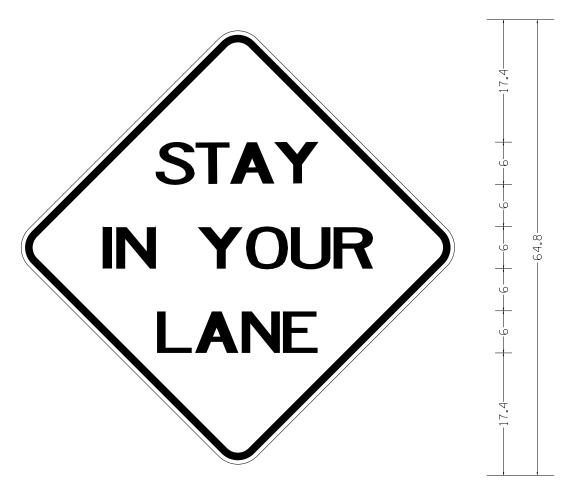
W12-2 - Horizontal Clearance Sign 48.0" across sides, 1.9" Radius, 0.8" Border, 0.5" Indent, Black on Orange; Standard Arrow Custom 10.4" X 8.1" 180° Black 11 Inch D Series Lettering; Standard Arrow Custom 10.4" X 8.1" 0°

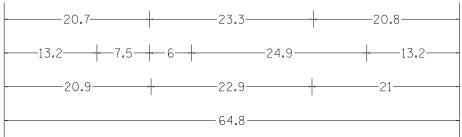


and shall not be paid for separately.

REVISED - 5-15-09 COUNTY REGION 2 / DISTRICT 2 STANDARD REVISED 742 (32, 33) R-1 WINNEBAGO 705 569 CONTRACT NO. 64821 SCALE: \$SCALE\$ SHEET NO. 5 OF 19 SHEETS STA. REVISED

# STAY IN YOUR LANE SIGN DETAIL

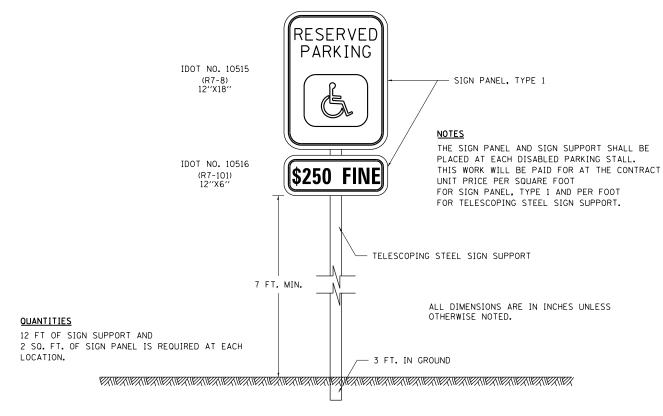




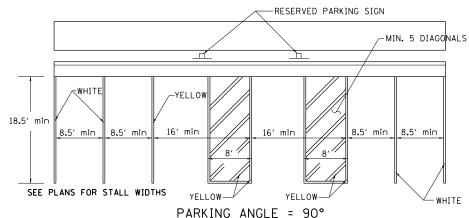
48.0" across sides 3.8" Radius, 1.0" Border, 0.6" Indent, Black on Orange "STAY" E Mod; "IN YOUR" E Mod; "LANE" E Mod; Table of letter and object lefts.

S 20.7	T 26.8	A 31.6	Y 38.0		
I 13.2	N 15.9	Y 26.7	0 33.9	U 40.5	R 46.8
L 20.9	A 25.8	N 33.1	E 39.4		

# RESERVED PARKING SIGN DETAIL



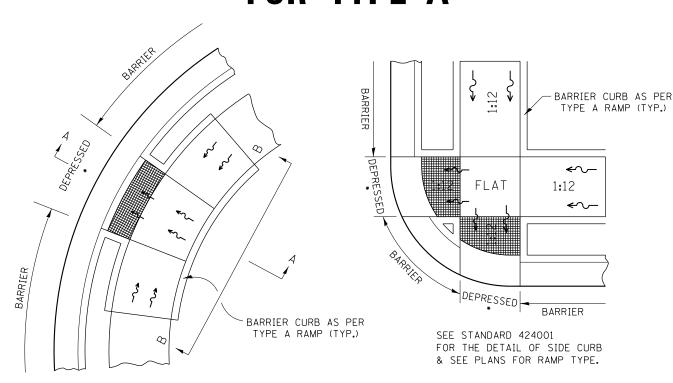
# DISABLED PARKING STRIPING



LESS THAN 90° PARKING ANGLE

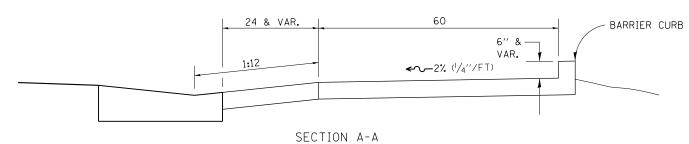
REVISED - 10-14-11						F.A.P. RTE.	SEC1	ΓΙΟΝ	COUNTY	TOTAL SHEETS	SHEET NO.
REVISED -	REGION 2 / DISTRICT 2 STANDARD				742	(32. 3	3) R-1	WINNEBAGO	705	570	
REVISED -							.02,		CONTRACT		54821
REVISED -	SCALE: \$SCALE\$	SHEET NO. 6 OF	19 SHEETS	STA.	TO STA.	FED. ROA	D DIST. NO.	ILLINOIS FED. A	D PROJECT		

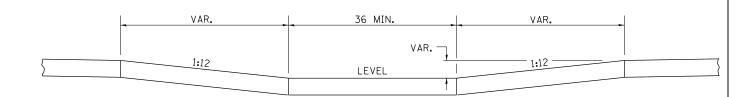
# DISABLED RAMP DETAIL FOR TYPE A



ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

\* SEE NOTE BELOW



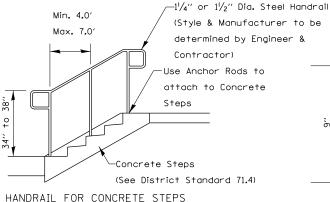


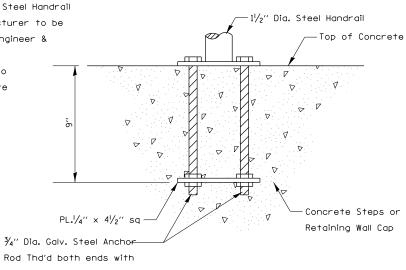
#### SECTION B-B

NOTES: THIS DETAIL TO BE USED IN CONJUNCTION WITH STATE STANDARD 424001. THE MAXIMUM ALLOWABLE CROSS SLOPE FOR SIDEWALK IS  $2\% \ (1/4)''/FT)$  . THE MAXIMUM ALLOWABLE SIDEWALK GRADE IS  $8\% (\frac{1}{12})$  . IF SPACE LIMITATIONS PROHIBIT THE USE OF THE 1:12 SLOPE, THEN SLOPES BETWEEN 1:10 ARE 1:12 ARE PERMITTED FOR A MAXIMUM RISE OF 6. SLOPES 1:8 AND 1:10 ARE ALLOWED FOR A MAXIMUM RISE OF 3. SLOPES STEEPER THAN 1:8 ARE THE DEPRESSED CURB IS NOT STANDARD. THE RISE IS  $\frac{1}{2}$  INSTEAD OF  $\frac{1}{2}$ .

REVISED - 10-14-11

# PIPE HANDRAILS FOR STEPS





Rod Thd'd both ends with Heavy Hex Nut Washer & two Hex Nuts

# 27" Max.

Extension at Bottom of Run Detail Stairways shall have continuous handrails both sides of all stairs.

The inside handrail on switchback or dogleg stairs shall always be continuous.

Gripping surfaces shall be uninterrupted by newel posts, other construction elements, or obstructions.

Ends of handrail shall be either rounded or returned smoothly to floor, wall, or post.

Hand & safety rails shall not rotate within their fittings.

The clear space between hanrails and any wall shall be  $1\frac{1}{2}$ "

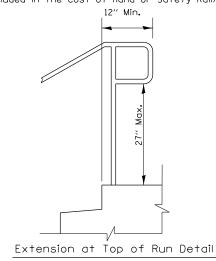
Handrail shall conform to Section 509 with the exception that all pipe and connections shall be welded galvanized or aluminum according to Article 1006.30, or 1006,34.

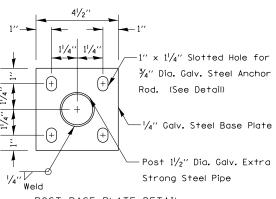
The diameter of the gripping surface of the handrail shall be 1-1/4" to 1-1/2"

This work shall be paid for at the contract unit price per  ${\tt FOOT}$  for  ${\tt PIPE}$   ${\tt HANDRAIL}$  .

# ANCHOR ROD DETAIL

(Included in the cost of Hand or Safety Rail)



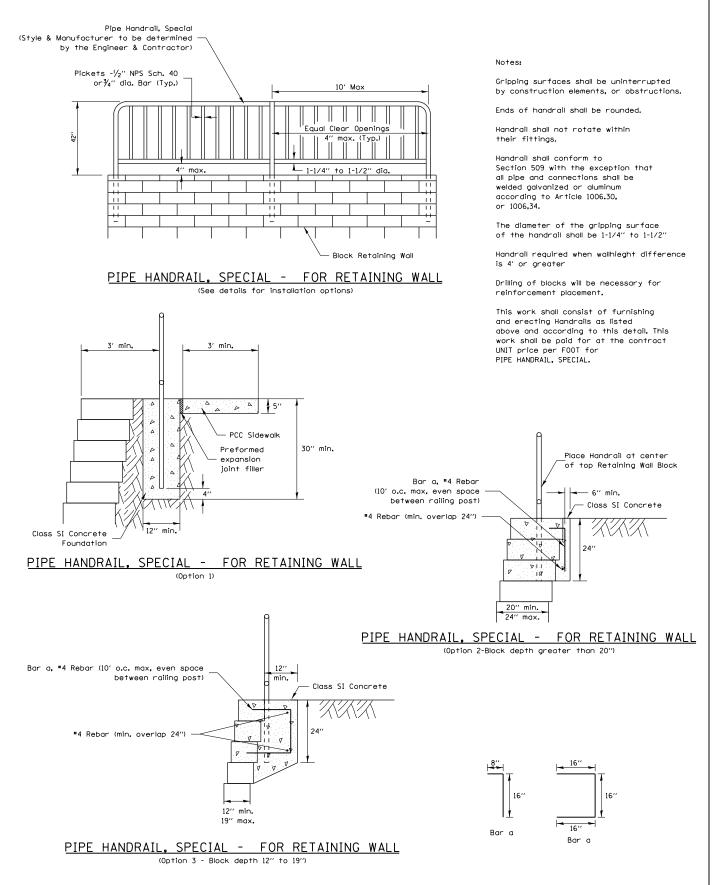


POST BASE PLATE DETAIL

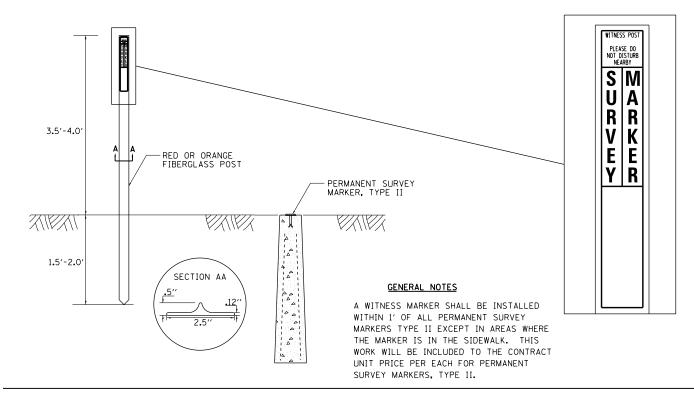
(Included in the cost of Hand or Safety Rail)

REVISED - 10-14-11 COUNTY REGION 2 / DISTRICT 2 STANDARD WINNEBAGO 705 571 742 (32, 33) R-1 REVISED CONTRACT NO. 64821 SCALE: \$SCALE\$ SHEET NO. 7 OF 19 SHEETS STA. REVISED FED. ROAD DIST. NO. | ILLINOIS FED. AID PROJECT

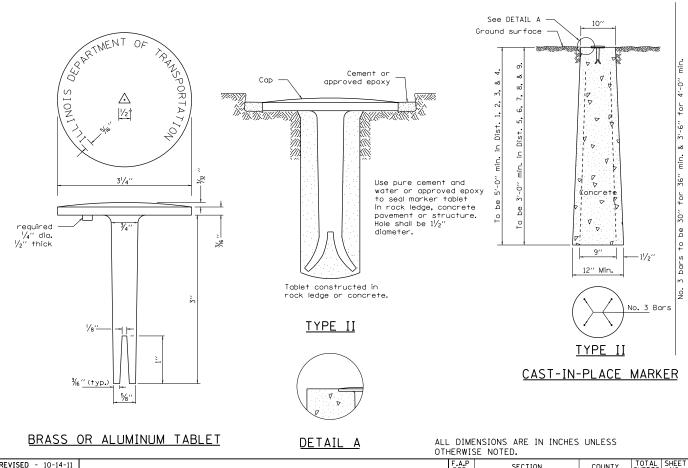
# PIPE HANDRAIL, SPECIAL – FOR RETAINING WALLS



# WITNESS MARKER FOR PERMANENT SURVEY MARKERS, TYPE II

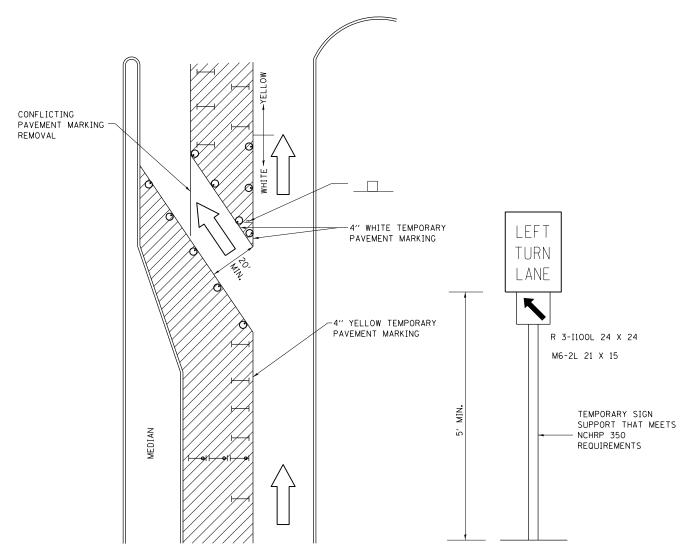


# PERMANENT SURVEY MARKERS, TYPE II



REVISED - 2-01-10

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



### LEGEND



WORK AREA



LANE OPEN TO TRAFFIC



TYPE I OR II BARRICADE OR DRUM WITH FLASHING BURNING LIGHT



DRUM OR BARRICADE WITH STEADY BURN LIGHT



SIGN (SEE DETAIL)



TYPE I OR II CHECK BARRICADE WITH STEADY LIGHT BURN

REVISED - 10-14-11

### GENERAL NOTES

CONES MAY BE SUBSTITUTED FOR BARRICADES OR DRUMS AT HALF THE SPACING DURING DAY OPERATIONS. CONES SHALL BE A MINIMUM OF 28 IN HEIGHT.

STEADY BURNING LIGHTS WILL NOT BE REQUIRED ON BARRICADES OR DRUMS FOR DAY OPERATIONS. ALL LIGHTS WILL BE MONODIRECTIONAL.

TEMPORARY PAVEMENT MARKING SHALL BE PLACED THROUGHOUT THE BARRICADED AREA OF EACH BAY WHERE THE CLOSURE TIME IS GREATER THAN FOURTEEN DAYS.

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 AND M6-2R 21 X 15 SHALL BE USED.

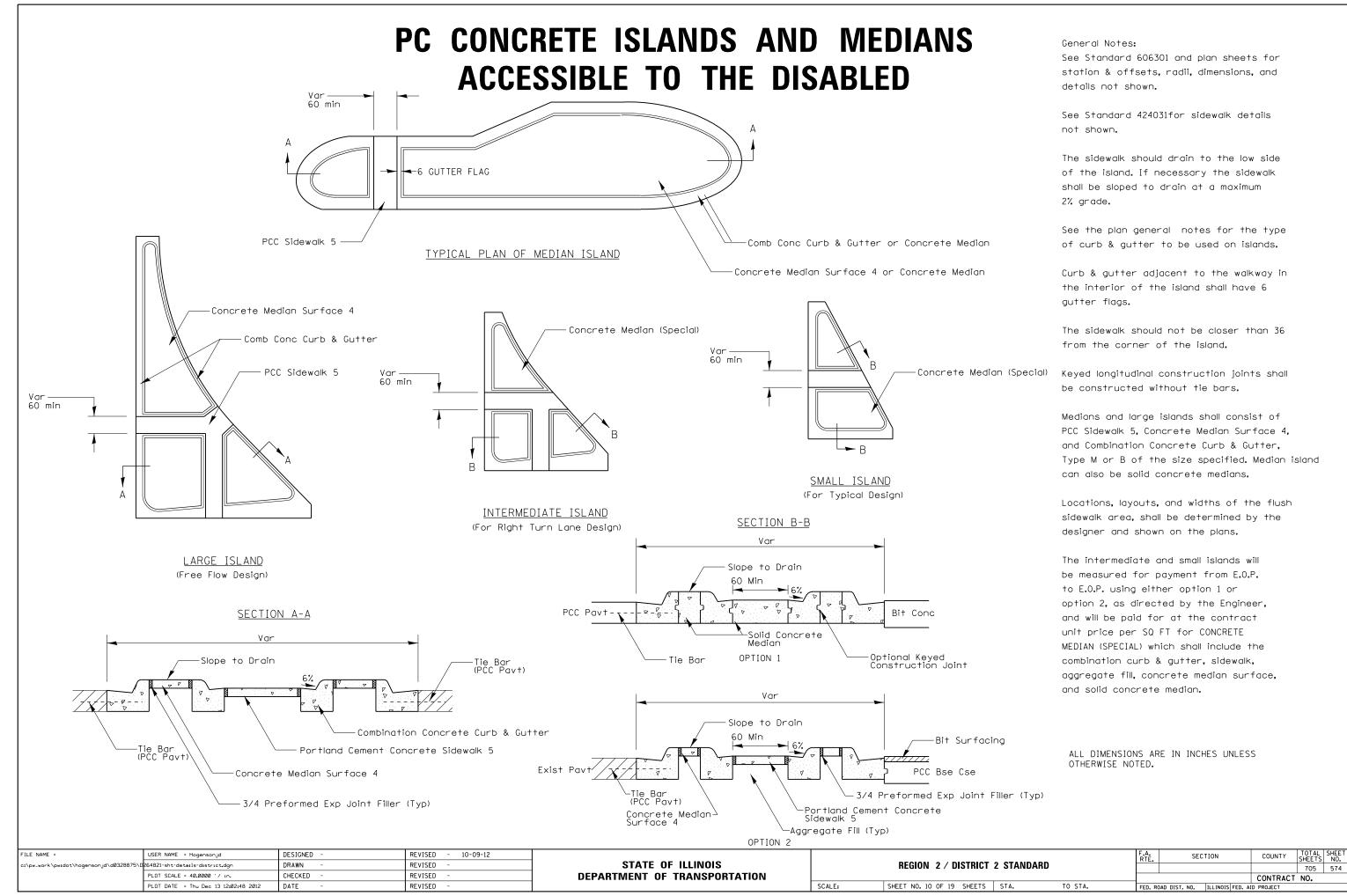
THESE CONTROLS SHALL SUPPLEMENT MAINLINE TRAFFIC CONTROL FOR LANE CLOSURES. LONGITUDINAL DIMENSIONS MAY BE ADJUSTED TO FIT FIELD CONDITIONS.

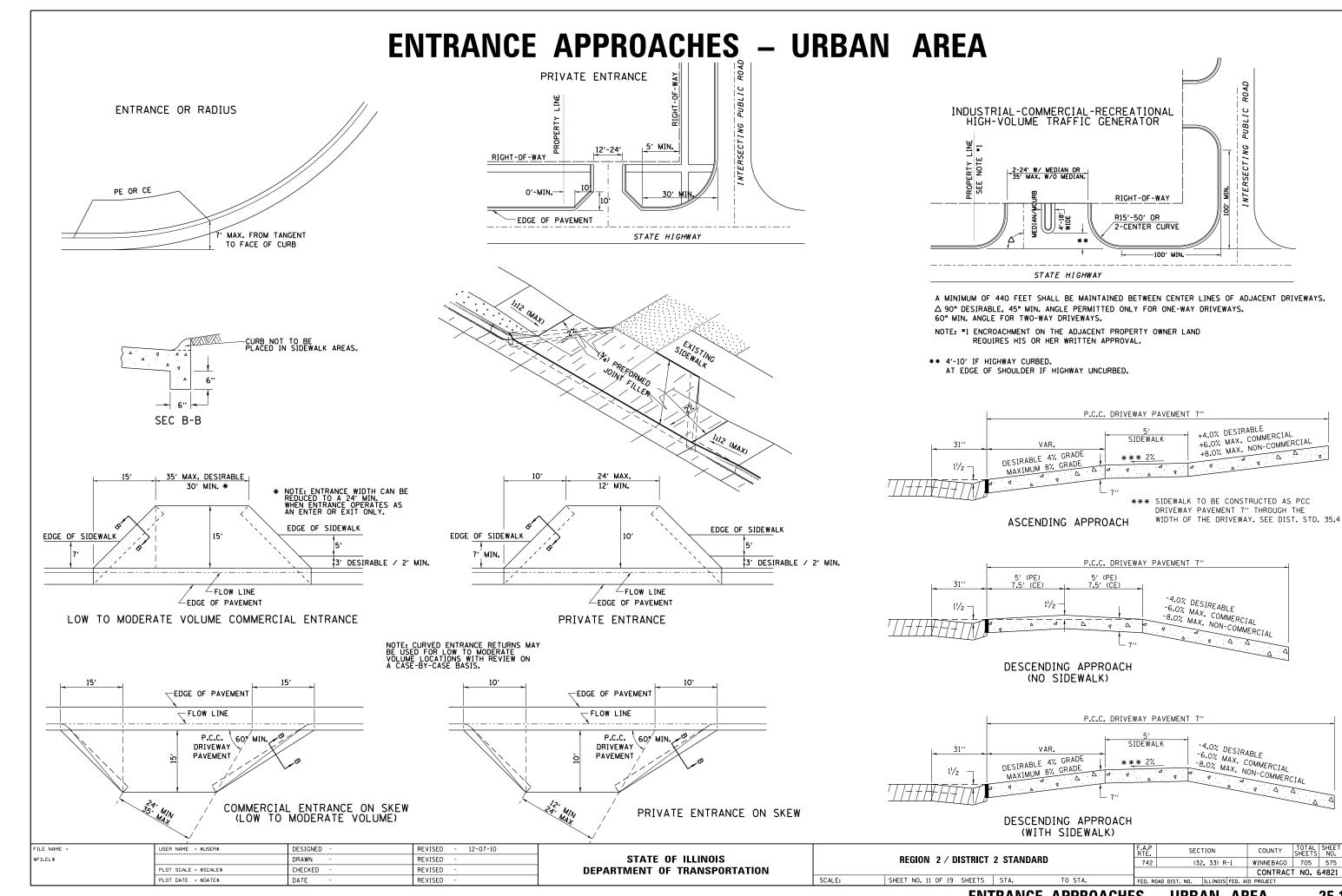
TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC) SHALL BE INCLUDED IN THE COST SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

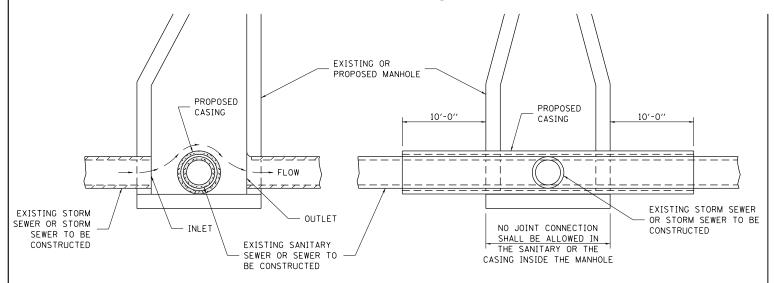
REVISED -					F.A.P RTE.	SECT	TION	COUNTY	TOTAL	SHEET NO.
REVISED -	REGION 2 / DISTRICT 2 STANDARD				742	(32, 33	3) R-1	WINNEBAGO	705	573
REVISED -								CONTRACT		54821
REVISED -	SCALE: \$SCALE\$	SHEET NO. 9 OF 19 SHEETS	STA.	TO STA.	FED. ROAD DIST. NO.   ILLINOIS FED. AID PROJECT					

TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC) 94.2°10





# SEWER AND WATER MAIN CROSSINGS



ELEVATION - ECCENTRIC

ELEVATION - CONCENTRIC

CASING SHALL BE CAST IRON WITH AN INSIDE DIAMETER 2" LARGER IN DIAMETER THAN ENCASED PIPE OUTSIDE DIAMETER WITH BOTH ENDS OF CASING SEALED

SEWER CASING AND WATER MAIN

PROPOSED SEWER

POINT LOADS SHALL NOT BE ALLOWED BETWEEN SEWER OR

PROVIDE ADEQUATE SUPPORT FOR EXISTING WATER MAIN

10'-0"

PROVIDE ADEQUATE SUPPORT FOR EXISTING WATER MAIN

MAINTAIN 18 MINIMUM VERTICAL SEPARATION

FOR 10 FT. HORIZONTALLY

PROPOSED SEWER

ALL DIMENSIONS ARE IN

UNLESS OTHERWISE NOTED

TO PREVENT DAMAGE DUE TO SETTLEMENT OF SEWER TRENCH

TO PREVENT DAMAGE DUE TO SETTLEMENT OF SEWER TRENCH

AT GRADE CROSSING OF SANITARY AND STORM SEWER

EXISTING WATER MAIN

EXISTING WATER MAIN

STORM SEWER

WATER MAIN

IFSS THAN 18

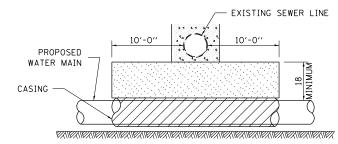
10'-0"

ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED

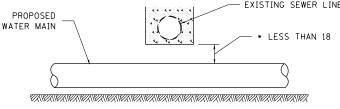
PROVIDE ADEQUATE SUPPORT FOR EXISTING SEWER LINE

TO PREVENT DAMAGE DUE TO SETTLEMENT

PLACE TRENCH BACKFILL FOR 10 FT. ON EITHER SIDE OF SEWER LINE



PROVIDE ADEQUATE SUPPORT FOR EXISTING WATER MAIN TO PREVENT DAMAGE DUE TO SETTLEMENT OF SEWER TRENCH MAINTAIN 18 MINIMUM VERTICAL SEPARATION FOR 10 FT. HORIZONTALLY



NOT ALLOWED

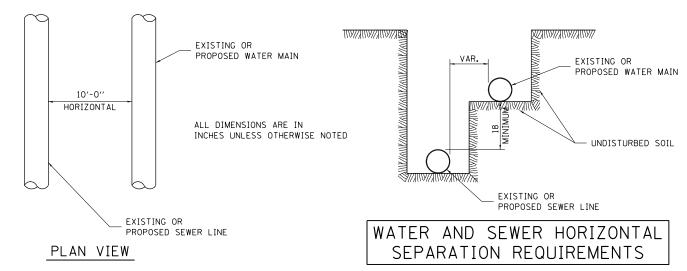
UNLESS OTHERWISE NOTED

PROPOSED WATER MAIN

THIS DETAIL IS FOR UNKNOWN UTILITIES UNLESS QUANTITIES ARE INCLUDED IN THE PLANS THE EXTRA WORK WILL BE PAID FOR IN ACCORDANCE WITH ARTICLE 109.04.

WHEN PROPOSED SEWER (OR WATER) IS LOCATED 10'-0" OR MORE FROM EXISTING WATER (OR SEWER) NO SPECIAL CONSTRUCTION REQUIRED.

WHEN PROPOSED SEWER (OR WATER) IS LOCATED LESS THAN 10'-0" FROM EXISTING WATER (OR SEWER) DETAILS BELOW SHALL APPLY.



CASING SHALL BE CAST IRON WITH AN INSIDE DIAMETER 2" LARGER IN DIAMETER THAN ENCASED PIPE OUTSIDE DIAMETER WITH BOTH ENDS OF CASING SEALED

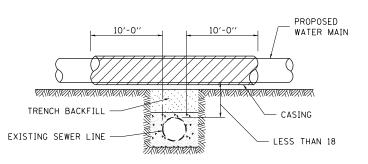
EXISTING SEWER LINE

MUST MAINTAIN 18 VERTICAL SEPARATION

ALL DIMENSIONS ARE IN

BELOW EXISTING SEWER LINE

POINT LOADS SHALL NOT BE ALLOWED BETWEEN WATER MAIN OR WATER MAIN CASING AND SEWER



CASING SHALL BE CAST IRON WITH AN INSIDE DIAMETER 2" LARGER IN DIAMETER THAN ENCASED PIPE OUTSIDE DIAMETER WITH BOTH ENDS OF CASING SEALED

ALL DIMENSIONS ARE IN UNLESS OTHERWISE NOTED

SCALE.

PROPOSED WATER MAIN ABOVE EXISTING SEWER LINE

PROVIDE ADEQUATE SUPPORT FOR SEWER TO PREVENT SETTLING AND BREAKING THE WATER MAIN. WATER MAIN PROPOSED TRENCE SEWER STORM SEWER TRENCH BACKFILL WATER MAIN MINIMIM 18 EXISTING WATER MAIN ALL DIMENSIONS ARE IN UNLESS OTHERWISE NOTED EXISTING WATER MAIN BELOW

PROPOSED SEWER LINE WITH MINIMUM 18 VERTICAL SEPARATION

FILE NAME USER NAME = \$USER\$ DESIGNED REVISED - 10-17-11 \$FILEL\$ DRAWN REVISED CHECKED REVISED PLOT DATE = \$DATE\$ DATE REVISED

PROPOSED SEWER LINE

BELOW EXISTING WATER MAIN

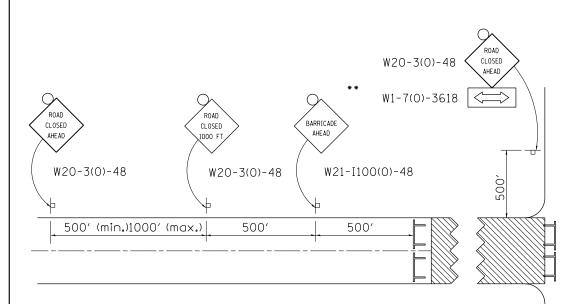
STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION** 

REGION 2 / DISTRICT 2 STANDARD SHEET NO. 12 OF 19 SHEETS STA.

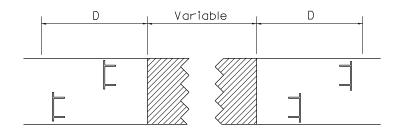
SECTION COUNTY 742 (32, 33) R-1 WINNEBAGO 705 576 CONTRACT NO. 64821 FED ROAD DIST NO. ILLINOIS FED AID PROJECT

TO STA.

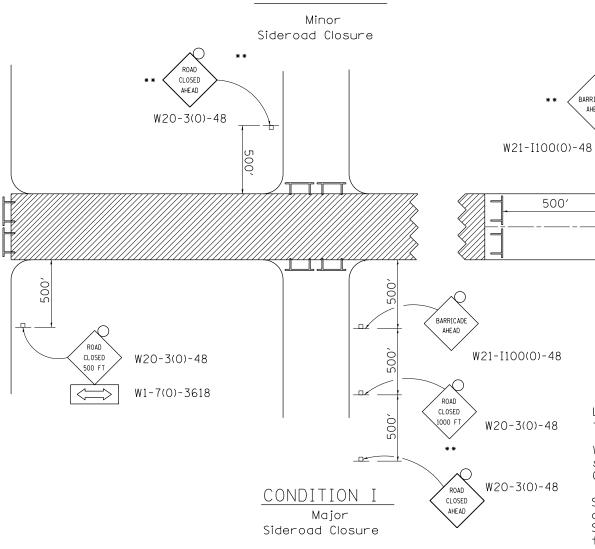
# TRAFFIC CONTROL FOR ROAD CLOSURE



# ROAD CLOSED TO THRU TRAFFIC BARRICADE SET UP



Type III Barricades and R11-4-4830 signs shall be as shown in "Road Closed To Thru Traffic" detail on Highway Standard 701901. If the distance "D" exceeds 2000' an additional set of barricades and R11-4-4830 shall be placed at each end of the work area.



CONDITION II

# SYMBOLS



Work area



Type III Barricade with Flashers



Sign with flashing light

## GENERAL NOTES

W20-3(0)-48

500' (min.)1000' (max.)

W20-3(0)-48

500'

Longitudinal dimensions may be adjusted to fit field conditions.

When speed limit is less than 45mph, change sign spacing to 250' and change ROAD CLOSED 1000 FT to ROAD CLOSED 500 FT.

Side roads requiring all three signs as shown in CONDITION I (Major Sideroad Closure), shall be listed in the special provision.

Where local access is to be maintained, barricades are to be set up as shown in Road Closed to thru traffic. Type III Barricades and R11-2-4830 signs shall be as shown in "Road Closed To All Traffic" detail on Highway Standard 701901.

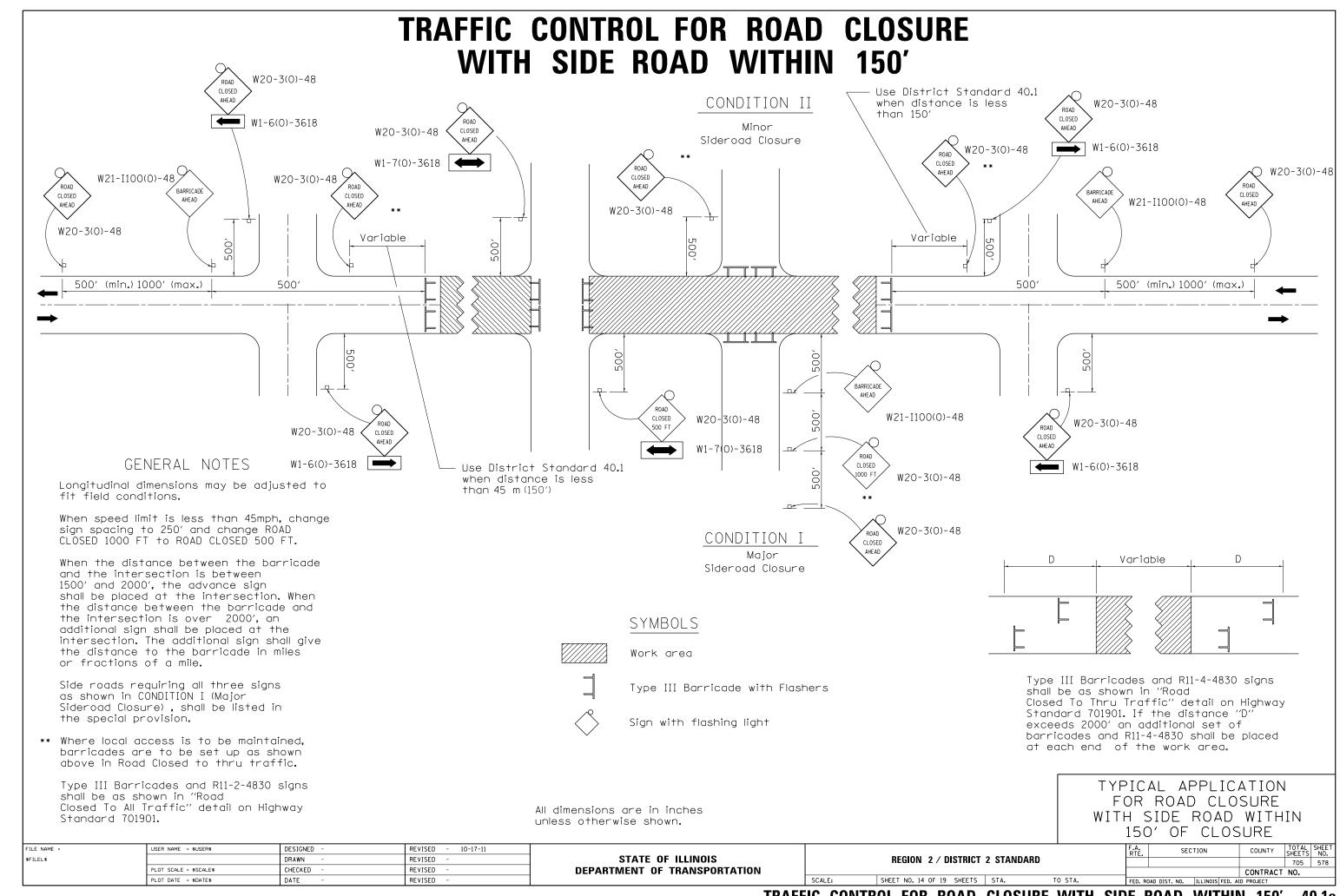
All dimensions are in inches unless otherwise shown.

TYPICAL APPLICATION FOR ROAD CLOSURE

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

REGION 2 / DISTRICT 2 STANDARD

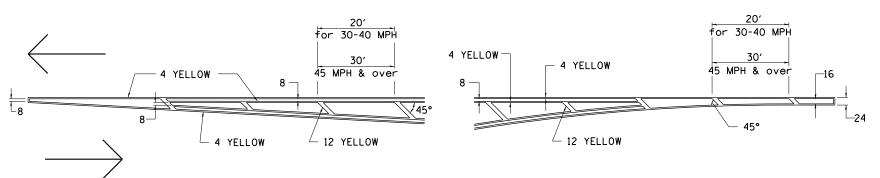
SHEET NO. 13 OF 19 SHEETS STA.

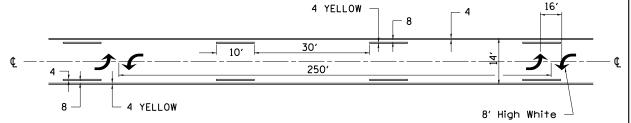


# TYPICAL PAVEMENT MARKINGS

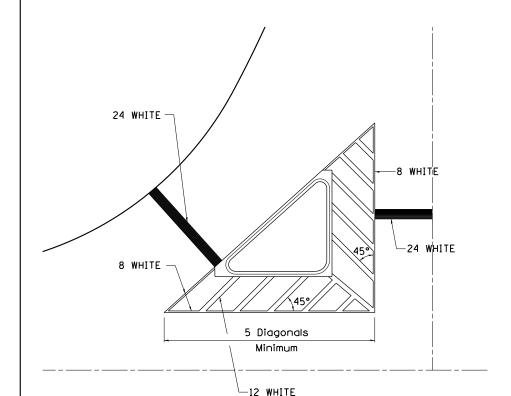
# MEDIAN PAVEMENT MARKING

# TYPICAL PAVEMENT MARKING FOR FLUSH MEDIAN AT LEFT TURN LANE

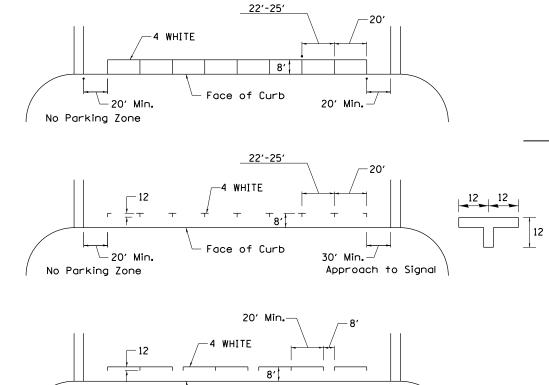




# TYPICAL ISLAND OFFSET SHOULDER WIDTH



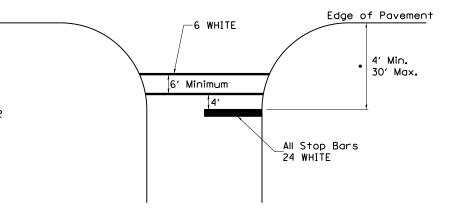
# TYPICAL PARKING SPACING



.. ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

# STANDARD CROSSWALK MARKING

See Schedules for Locations



· Distance to the nearest edge of the intersecting roadway in the absence of a marked crosswalk.

\$FILEL\$

USER NAME = \$USER\$ DESIGNED REVISED - 3-5-12 DRAWN REVISED CHECKED REVISED PLOT DATE = \$DATE\$ DATE REVISED

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION** 

Face of Curb

 $^{ackslash}$ 20' Min.

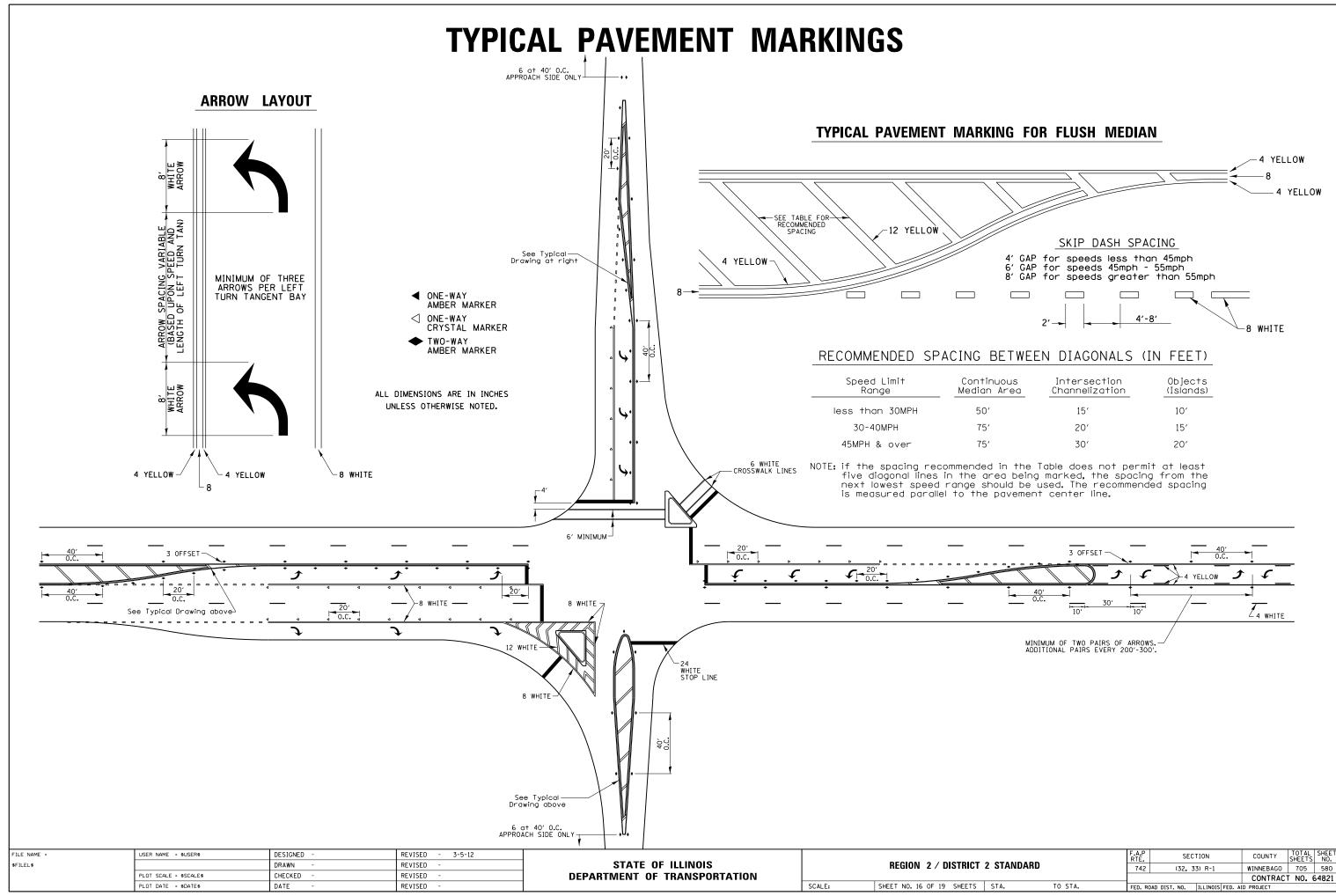
No Parking Zone

20' Min.-

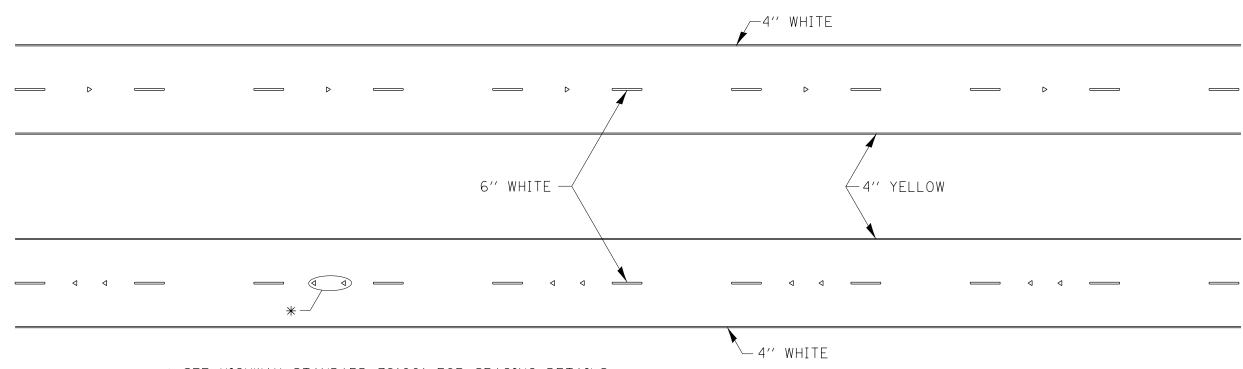
REGION 2 / DISTRICT 2 STANDARD SCALE: SHEET NO. 15 OF 19 SHEETS STA.

SECTION COUNTY 742 (32, 33) R-1 WINNEBAGO 705 579 CONTRACT NO. 64821

TO STA.



# TYPICAL PAVEMENT MARKINGS

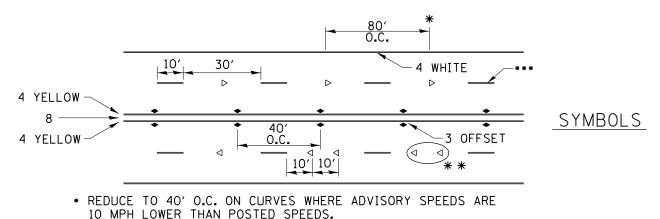


\* SEE HIGHWAY STANDARD 781001 FOR SPACING DETAILS. USE DOUBLE MARKERS WHEN ADT ≥ 25,000.

# **MULTI-LANE / DIVIDED**

30'

YELLOV



- •• USE DOUBLE MARKERS WHEN ADT ≥ 25,000
- \*\*\* CENTERLINE SKIP DASH PAVEMENT MARKING SPEED LIMIT LESS THAN 40 MPH USE 4" LINE SPEED LIMIT 40 MPH AND OVER USE 6" LINE

# MULTI-LANE / UNDIVIDED & ONE WAY

(FOR MULTI-LANE UNDIVIDED HIGHWAYS USE THIS DETAIL NOT HIGHWAY STANDARD 781001)

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# STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

# REGION 2 / DISTRICT 2 STANDARD F.A.P. RTE. SECTION 742 (32, 33) R-1 SCALE: SHEET NO. 17 OF 19 SHEETS STA. TO STA. FED. ROAD DIST, NO. | ILLINOI

TYPICAL PAVEMENT MARKING FOR TWO LANE SECTION - NO PASSING ZONES

EDGE OF PAVEMENT

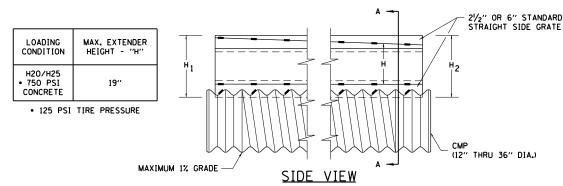
WHITE

WHITE-

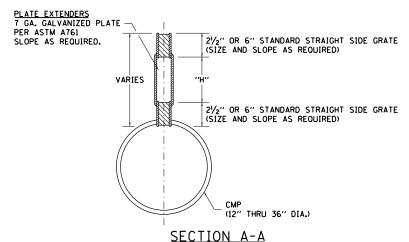
COUNTY

WINNEBAGO 705 581

CONTRACT NO. 64821



### DETAIL WITH VARIABLE HEIGHT GRATE



### GENERAL

Class SI Concrete shall be used throughout.

This specification covers Slottted Drain used for the removal of water as shown on the plans.

The Slotted Drain shall be Corrugated Pipe Culvert with Integral Slotted Drains.

Before placing the concrete adjacent to the pipe, the slot shall be covered by either thin, flat metal sheeting or by a board notched to fit over the grate bars. This covering must fit closely in the slot to prevent entry of concrete into the pipe. Paving over the slotted drain will then be one continuous operation over the protected drain. The protection for the drain slot shall then be removed. The pipe shall drain into the side of the inlet. The opening where the slot

is removed shall be covered to prevent concrete from entering the pipe.

The Corrugated Steel Pipe used in the Slotted Drain shall meet the requirements of AASHTO

The CMP shall be ALUMINIZED STEEL Type 2. The diameter shall be as shown on the plans.

Steel grating shall meet the galvanizing requirements of AASHTO MIII.

This work will be paid for at the contract unit price per foot for SLOTTED DRAIN of the pipe diameter specified WITH VARIABLE SLOT, or SLOTTED DRAIN, of the pipe diameter specified, WITH 6" SLOT, and shall include concrete and grating for depth specified on plans.

Use approved end cap to prevent concrete entry into the pipe during gutter construction on the

upstream end of the pipe.

### CONNECTIONS

The Corrugated Steel Pipe shall have a minimum of two rerolled annular ends. The Slotted Drain bands shall be modified HUGGER Bands to secure the pipe and prevent infiltration of the backfill.

When the Slotted Drain is banded together, the adjacent grates shall have a maximum 3" gap.

### **GRATES**

The grates shall be manufactured from ASTM A670, Grade 36 steel. The spacers and bearing bars (sides) shall be 3/16 " material  $\pm 0.008$ ".

Dur's (sides) shall be 3716 indirer all 10.000.

The spacers shall be on 6" centers and welded on both sides to each bearing bar (sides) with four (4) 1- 1/4" long 3/16" fillet welds on each side of the bearing bar.

The plate extender shall be 7 gage steel meeting ASTM A761.

The engineer may call for tensile strength tests on the grate if the grate is not in compliance with the above spacer specifications. If tensile strength tests are called for, minimum results for an in-place spacer pulled perpendicular to the bearing bar shall be: T= 12,000 pounds for 2- 1/2 " grate

T= 15,000 pounds for 6" grate

### **GAL VANIZING**

The grate and plate extenders shall be galvanized in accordance with ASTM A123 except with a 2 oz. galvanized coating.

### GRATE ATTACHED TO CSP

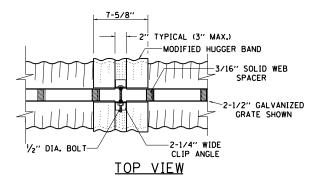
The grate shall be fillet welded with a minimum weld  $1^{\prime\prime}$  long to the CSP on each side of the grate at every other corrugation.

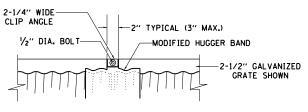
### TOLERANCES - FINISHED SLOTTED DRAIN - 20' LENGTHS

Vertical Bow= ± 3/8 ' Twist=  $\pm 1/2$ 

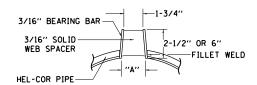
### FILE NAME USER NAME = \$USER\$ DESIGNED REVISED 10-18-11 \$FILEL\$ DRAWN REVISED PLOT SCALE = \$SCALES CHECKED REVISED PLOT DATE = \$DATE\$ DATE REVISED

# SLOTTED DRAIN PIPE

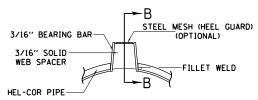




### SIDE VIEW



SECTION A-A STANDARD DETAIL



### SECTION A-A DETAIL WITH MESH

(TRAPEZOIDAL GALVANIZED GRATE SHOWN)

STANDARD SIZES									
GAGE DIAMETER OF PIP									
PIPE	12"	15"	18"	24"	30"	36"			
16	Х	Х	Х	Х	Х	Х			
14	Х	Х	Х	Х	Х	Х			
12	N.A.	N.A.	N.A.	N.A.	Х	Х			

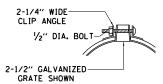
	RATE TYPE	"A"					
VERT	2-1/2"	1-3/4"					
VERT	6"	1-3/4"					
TRAP	2-1/2"	2-1/4"					
TRAP	6"	3"					
VERT = VERTICAL TRAP = TRAPIZOIDAL							

### SLOTTED DRAIN NOTES

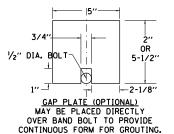
- GRATING IS AVAILABLE IN DEPTHS OF 2-1/2" AND 6".
- VERTICAL GRATING (STRAIGHT SIDES) WITH VERTICAL SPACERS IS ALSO AVAILABLE.
- FOR 6" VERTICAL & TRAPIZOIDAL REQUIREMENTS, THE SLOTTED DRAIN BAND MAY BE FURNISHED WITH THE 4"
- 4. DIMENSIONS ARE SUBJECT TO MANUFACTURING TOLERANCES.
- DIMENSIONS FOR H1 AND H2 AS REQUIRED.

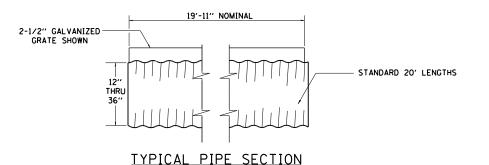
**DEPARTMENT** 

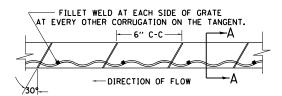
6. H1 AND H2 MEASURED FROM TOP OF GRATE TO BOTTOM OF GRATE.



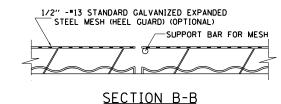
END VIEW

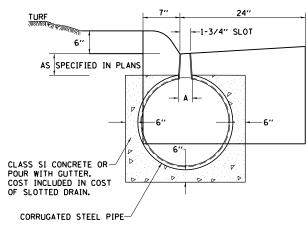




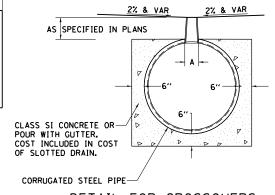


GRATE WELDING DETAIL







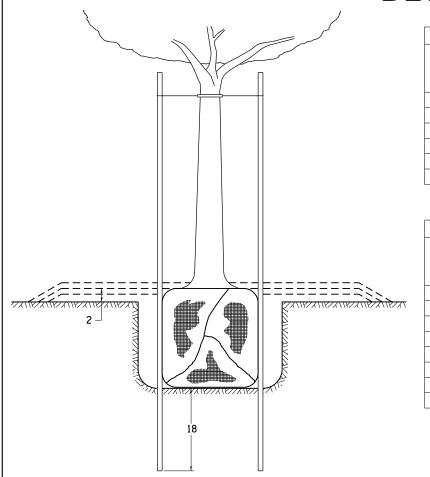


DETAIL FOR CROSSOVERS. DRIVEWAYS. OR PARKING LOTS

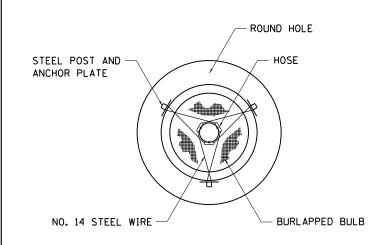
ALL DIMENSIONS ARE IN INCHES UNLESS

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OTATE OF HAMMON	REGION 2 / DISTRICT 2 STANDARD				F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
STATE OF ILLINOIS TMENT OF TRANSPORTATION					742	(32, 33) R-1	WINNEBAGO	705	582
							CONTRAC	T NO. 6	4821
	SCALE:	SHEET NO. 18 OF 19 SHEETS	STA.	TO STA.	FED. RO	DAD DIST. NO.   ILLINOIS FED	AID PROJECT		

# DETAILS OF PLANTING AND BRACING TREES

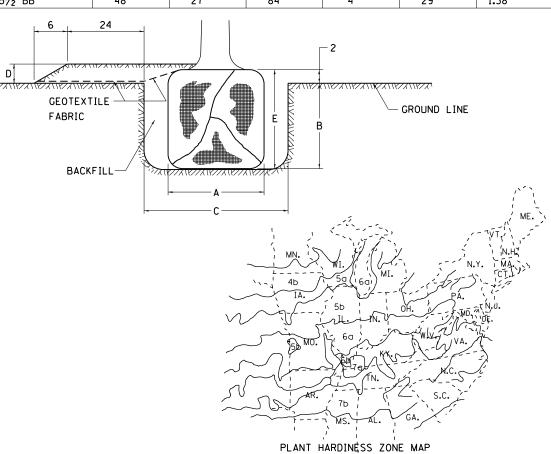


TREES	SMALLER	THAN	$4\frac{1}{2}$	ΙN	DIAMETER

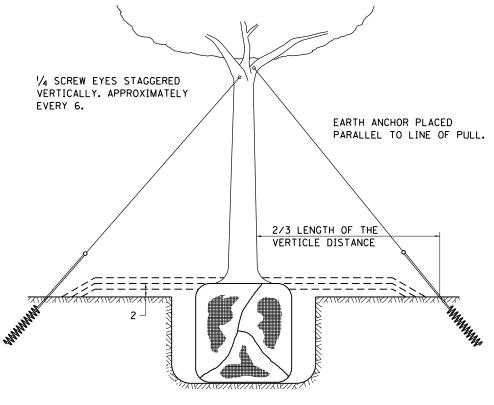


SMALL	A	В	С	D	E	F
TREE SIZE	DIAMETER OF BALL OR ROOT SYS.	DEPTH OF HOLE EXCAVATION	WIDTH OF HOLE EXCAVATION	THICKNESS OF MULCH COVER	DEPTH OF BALL OR ROOT SYS.	VOLUME OF MULCH COVER CU. YDS.
5′-6′	16	10	30	4	12	0.54
5'-6' BB	16	10	30	4	12	0.54
6'-7' BB	18	12	30	4	14	0.54
7'-8' BB	20	11	30	4	13	0.54
8'-10' BB	24	14	36	4	16	0.61
10'-12' BB	26	15	36	4	17	0.61

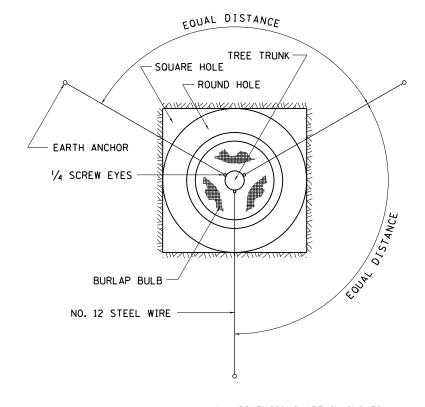
LARGE	Α	В	С	D	E	F
TREE SIZE	DIAMETER OF BALL OR ROOT SYS.	DEPTH OF HOLE EXCAVATION	WIDTH OF HOLE EXCAVATION	THICKNESS OF MULCH COVER	DEPTH OF BALL OR ROOT SYS.	VOLUME OF MULCH COVER CU. YDS.
0-2	20	11	36	4	13	0.61
2-21/2 BB	24	14	48	4	16	0.78
21/2-3 BB	28	17	48	4	19	0.78
3-3 <sup>1</sup> / <sub>2</sub> BB	32	17	60	4	19	0.96
31/2-4 BB	36	20	60	4	22	0.96
4-4 <sup>1</sup> / <sub>2</sub> BB	40	22	72	4	24	1.16
41/2-5 BB	44	24	72	4	26	1.16
5-51/2 BB	48	27	84	4	29	1.38



U.S. DEPARTMENT OF AGRICULTURE AGRICULTURAL RESEARCH SERVICE PUBLICATION NO. 814



TREES OVER 41/2 IN DIAMETER



ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION REGION 2 / DISTRICT 2 STANDARD

| SHEET NO. 19 OF 19 SHEETS | STA. TO STA.

F.A.P. RTE. SECTION COUNTY SHEET NO.

742 (32, 33) R-1 WINNEBAGO 705 583

CONTRACT NO. 64821

