TENSION SPLICES - BASIC LAP

	BAR SIZE	CLASS A	CLASS B	CLASS C
		1.0 LD	1.3 LD	1.7 LD
	4	1'-6"	2'-0"	2'-7"
	- 5	1'-11''	2'-6"	3'-3"
	6	2'-3"	3'-0"	3'-10"
	7	3'-1"	3′-11″	5′-2″
	8	4'-0''	5′-2″	6'-9''
	9	5′-1′′	6'-7"	8'-7''
	10	6′-5′′	8'-4"	10'-10"
	- 11	7'-10"	10'-2"	13'-4"

TENSION SPLICES - TOP BARS LAP (1.4 X BASIC LAP)

BAR SIZE	CLASS A	CLASS B	CLASS C
4	1'-9"	2'-3"	2'-11"
5	2'-2"	2'-10"	3'-8"
6	2'-7"	3'-4"	4'-5"
7	3′-5″	4'-6"	5′-10′′
8	4'-6"	5'-10"	7'-8"
9	5'-9"	7'-5"	9'-8"
10	7'-3"	9'-5"	12'-4"
11	8'-11"	11'-7"	15'-1"

COMPRESSION SPLICES

BAR SIZE	STANDARD LAP	LAP WITHIN TIES
4	1'-3"	1'-1"
5	1'-7"	1'-4''
6	1'-11"	1'-7"
7	2'-2"	1′-10′′
8	2′-6″	2′-1′′
9	2'-10"	2'-4"
10	3′-2"	2′-8″
- 11	3′-6″	2'-11"

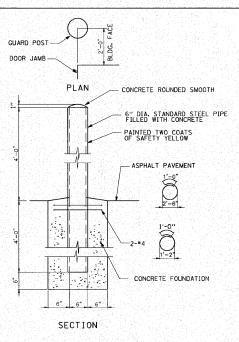
- 1. TOP BARS ARE HORIZONTAL BARS WITH MORE THAN 12" OF CONCRETE CAST BELOW.
- 2. USE CLASS B SPLICES NO MORE THAN $\frac{1}{2}$ OF THE BARS ARE LAP SPLICED WITHIN A REQUIRED LAP LENGTH.
- 3. USE CLASS C SPLICES MORE THAN 1/2 OF THE BARS ARE LAP SPLICED WITHIN A REQUIRED LAP LENGTH.
- 4. HOOKS SHALL BE ACT STANDARD UNLESS OTHERWISE NOTED.
- 5. LD = EMBEDMENT LENGTH.
- 6. EMBEDMENT LENGTH IS MINIMUM LENGTH OF EMBEDMENT FOR STRAIGHT DOWELS WHERE END HOOK IS NOT SHOWN, UNLESS NOTED OTHERWISE.
- 7. BAR COVER TO BE AS FOLLOWS (UNLESS SHOWN OTHERWISE):
 CAST AGAINST GROUND 3"
 CAST AGAINST SKIN COAT 2"

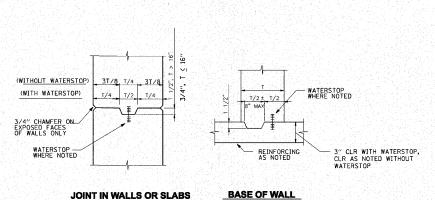
FORMED SURFACES *6 & LARGER *5 & SMALLER 2" 1½"

BASE SLAB TOP REINFORCING 2" EXCEPT θ FLOOR AND WALL INTERSECTIONS $2^{1}\!\!/_{4}$ " OR $^{1}\!\!/_{4}$ " UNDER KEY WAYS

COLUMN TIES & BEAM STIRRUPS 11/2" ROOF SLAB, TOP & BOT 3/4"

- 8. BILL OF MATERIAL IS FOR INFORMATION ONLY. PUMP STATION WILL BE PAID FOR UNDER CONTRACT UNIT PRICE.
- 9. CHAIRS, BOLSTER AND STANDEES ARE NOT INCLUDED IN BAR SCHEDULE AND SHALL BE INCIDENTAL TO REINFORCING BARS PAY ITEM.





CONSTRUCTION JOINTS DETAIL-S2

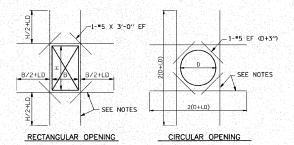
MECHANICALLY ROUGHEN OR. SANDBLAST TAPER TIE HOLE SURFACES COAT HOLE WITH EPOXY

1. MIN DIA AT DRY SIDE = 1". TAPER HOLE SO THAT MINIMUM WET SIDE DIA = DRY SIDE DIA PLUS 1/4"

CONSTRUCTION STEPS:

- 1. SANDBLAST OR MECHANICALLY ROUGHEN TAPER TIE HOLE SURFACES AND BLOW TIE HOLE CLEAN WITH COMPRESSED AIR.
- 2. DRIVE RUBBER PLUG.
- 3. APPLY EPOXY BONDING COMPOUND WET SIDE AND WHILE EPOXY IS TACKY, DRYPACK WITH NONSHRINK GROUT.
- 4. APPLY EPOXY BONDING COMPOUND DRY SIDE AND WHILE EPOXY IS TACKY, DRYPACK WITH NONSHRINK GROUT.

GUARD POST DETAIL-S1



T/FLOOR

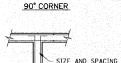
1/4"/FT

DIMENSION AS NOTED SHOWN ON DWG. A3

APPROACH SLAB DETAIL-S6

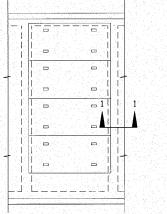
3. PLACE THE ADDED BARS IN THE SAME LAYERS AS THE WALL OR SLAB REINFORCING.

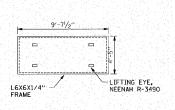
ADDITIONAL REINFORCEMENT AT OPENINGS IN WALLS AND SLABS DETAIL-S4



T-INTERSECTION

FORM TIE THROUGH BOLT DETAIL-S3





TOTAL SHEET NO.

107 38

SECTION

190

0102.1 S

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

COUNTY COOK

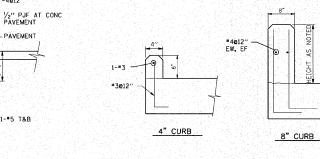
4 CONCRETE PLANKS

PLAN

L6X6X5/16" FRAME WITH *4X10" REBAR WELDED TO L @ 18" O/C #4@12" E.W. #4@12" 5-#5 L4X4X3/8 FRAME WITH #4X10" REBAR WELDED TO L-@ 18" O/C SECTION 1

ALL METALS SHALL BE HOT-DIPPED GALVANIZED

HORIZONTAL REINFORCEMENT DETAIL-S5



CURBS DETAIL-S7

REMOVABLE CONCRETE PLANK DETAIL-S8

N.T.S.

S27 NAME

ILLINOIS DEPARTMENT OF TRANSPORTATION

PUMP STATION NO. 24 RELOCATION

STRUCTURAL DETAILS

SCALE: AS SHOWN DATE: 11-22-10

DRAWN BY: FL CHECKED BY: PJE

