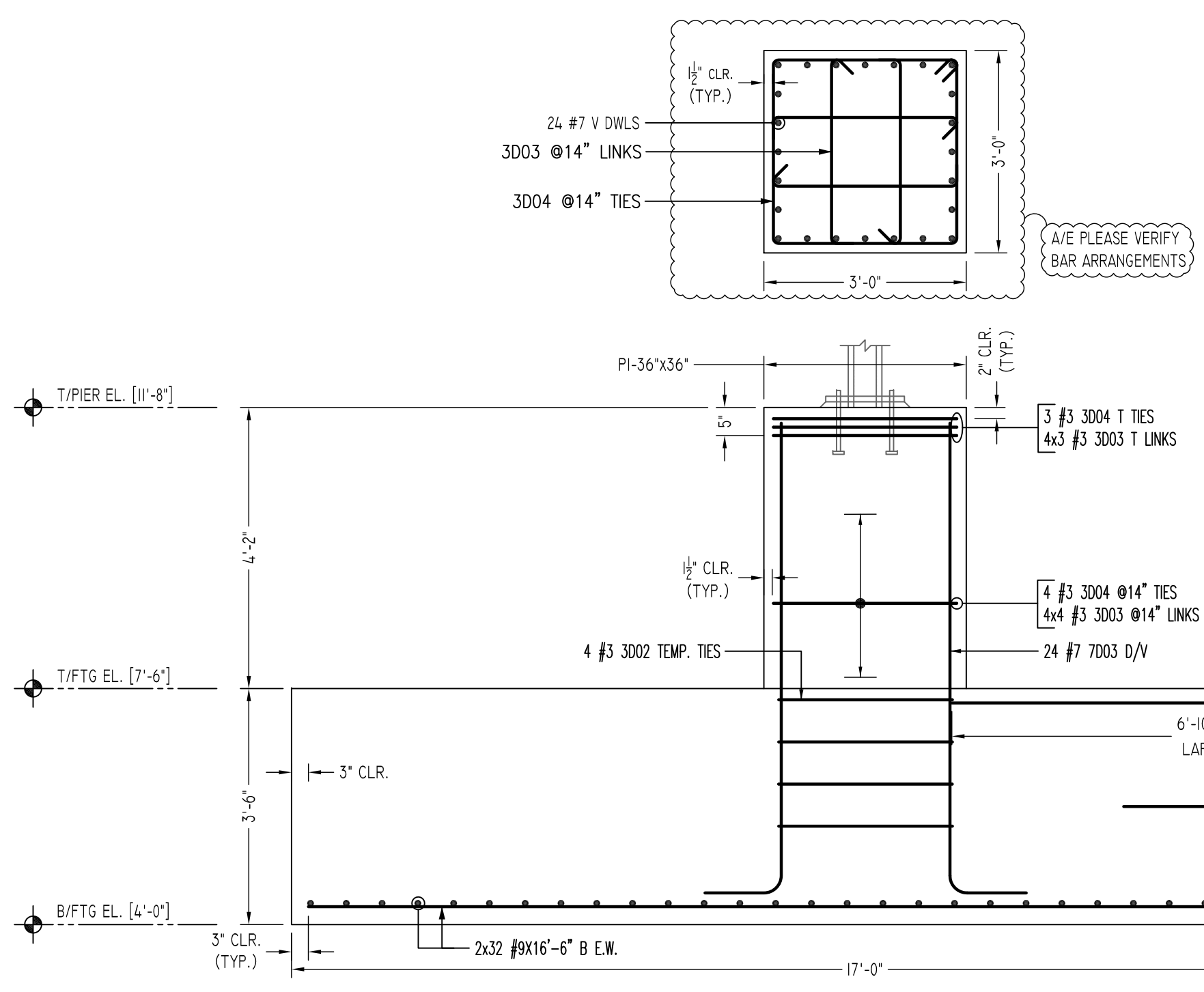
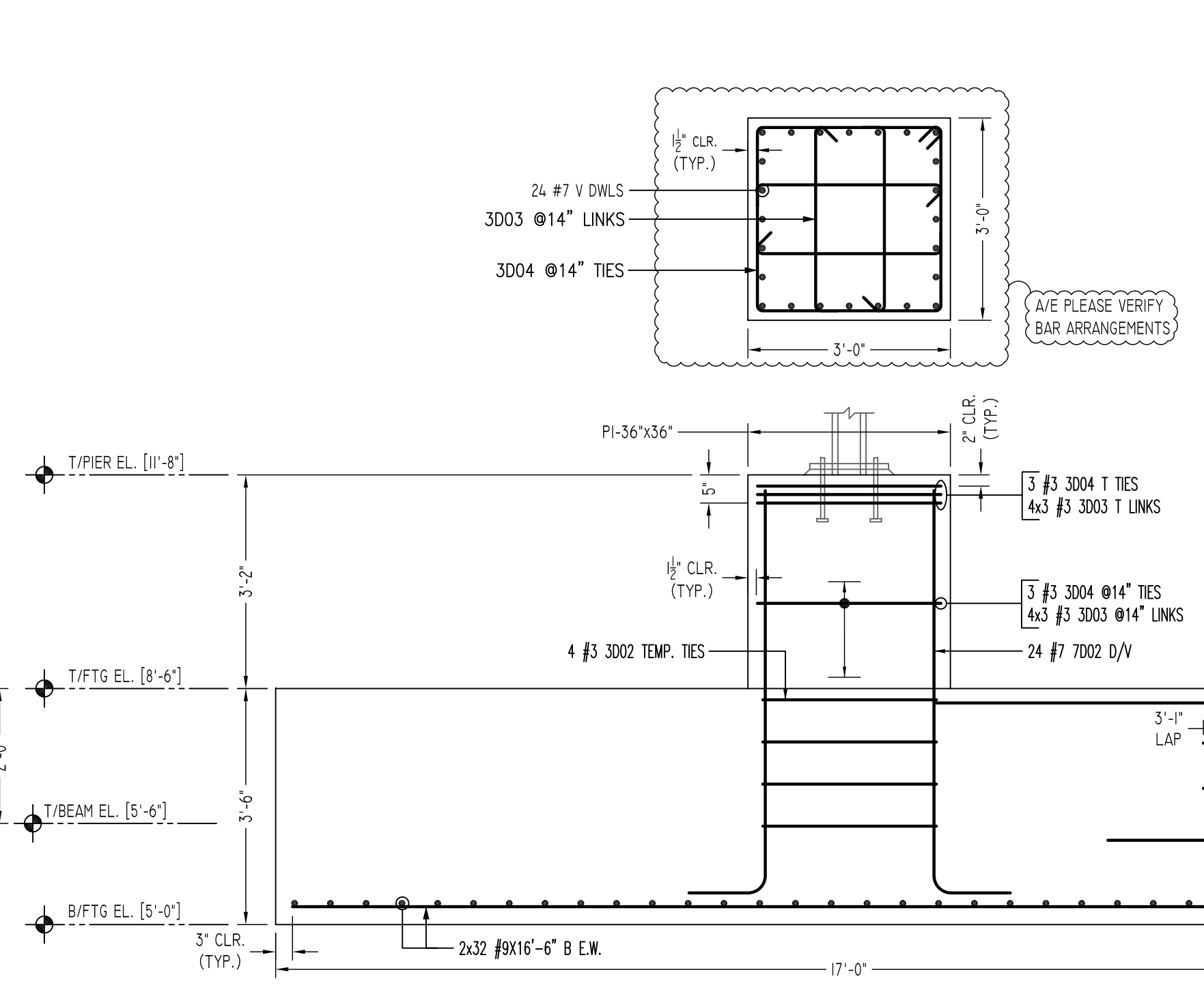


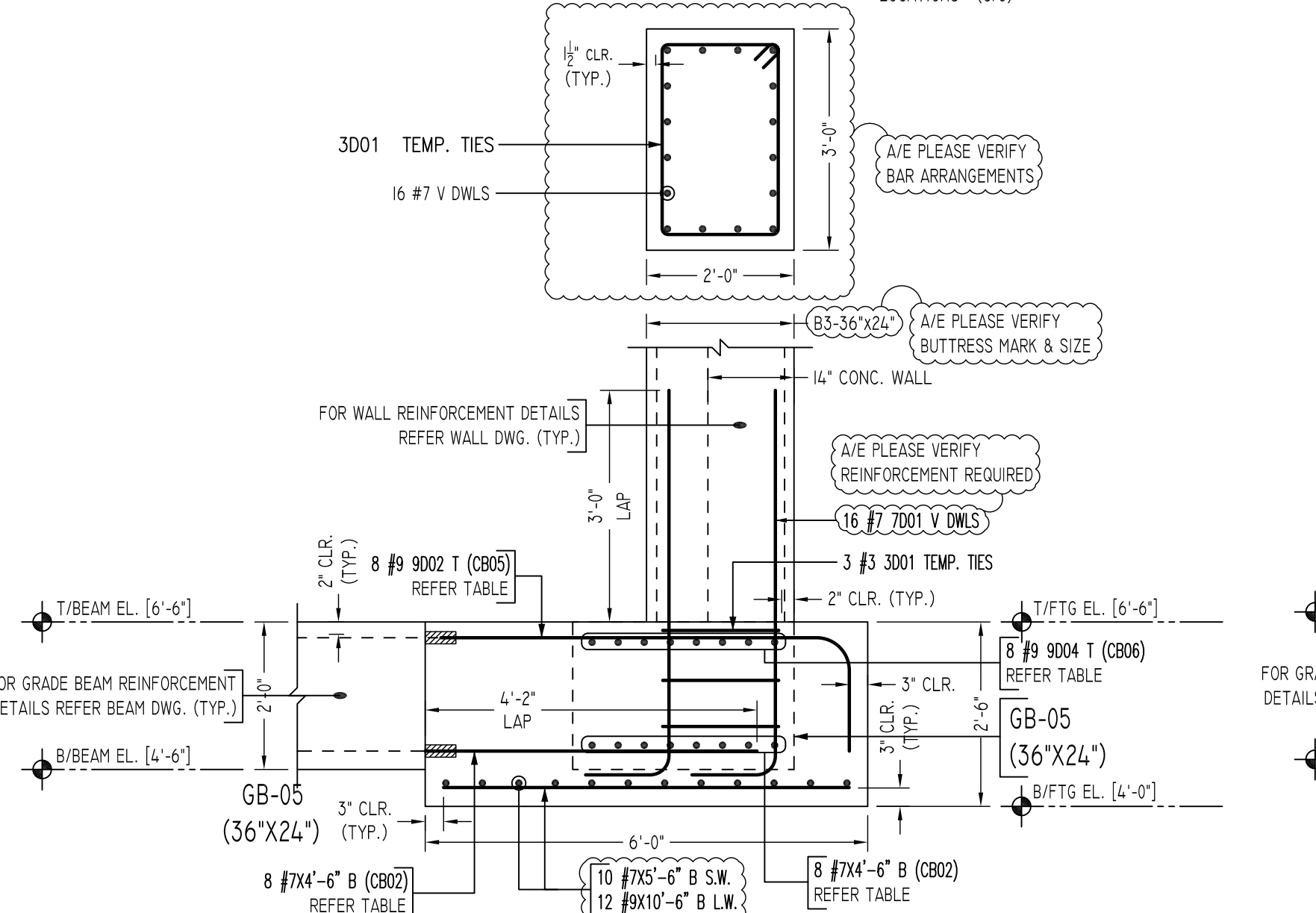
**7 SECTION**  
 SCALE - 1/2"=1'-0"  
 REF:FD-104.00 & S401.00  
 LOCATIONS - (C15)



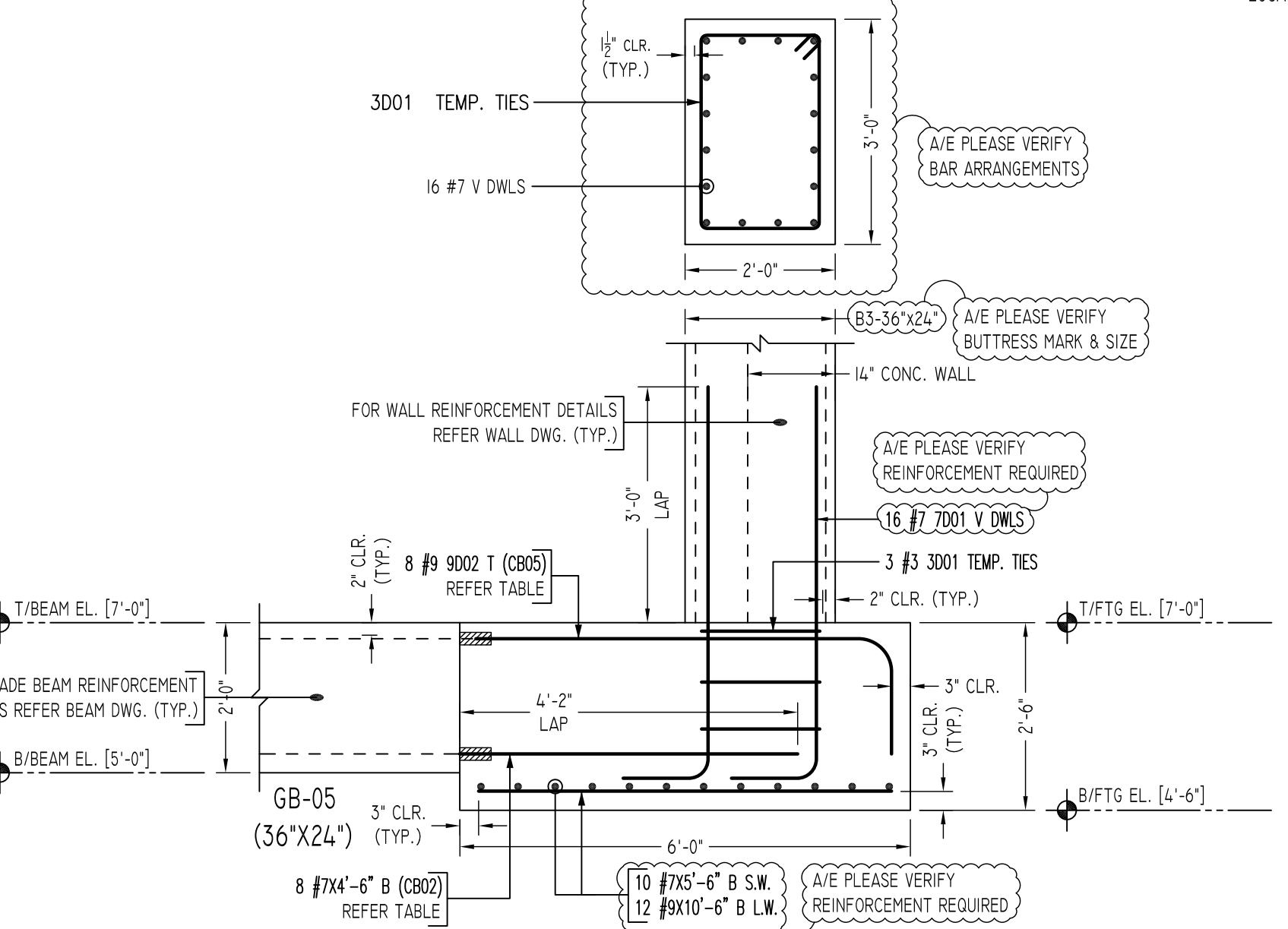
**8 SECTION**  
 SCALE - 1/2"=1'-0"  
 REF:FD-104.00 & S401.00  
 LOCATIONS - (C7.6)



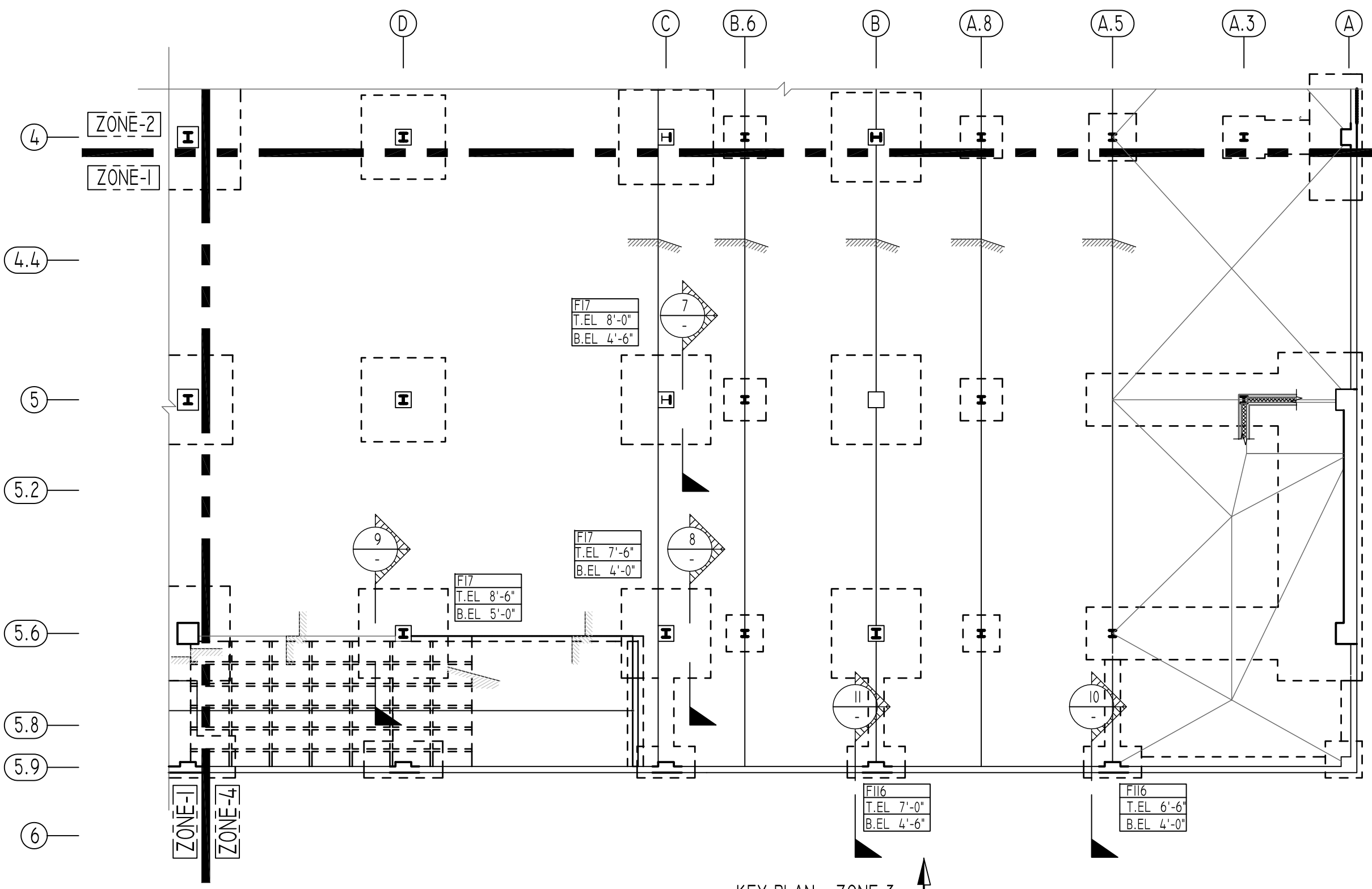
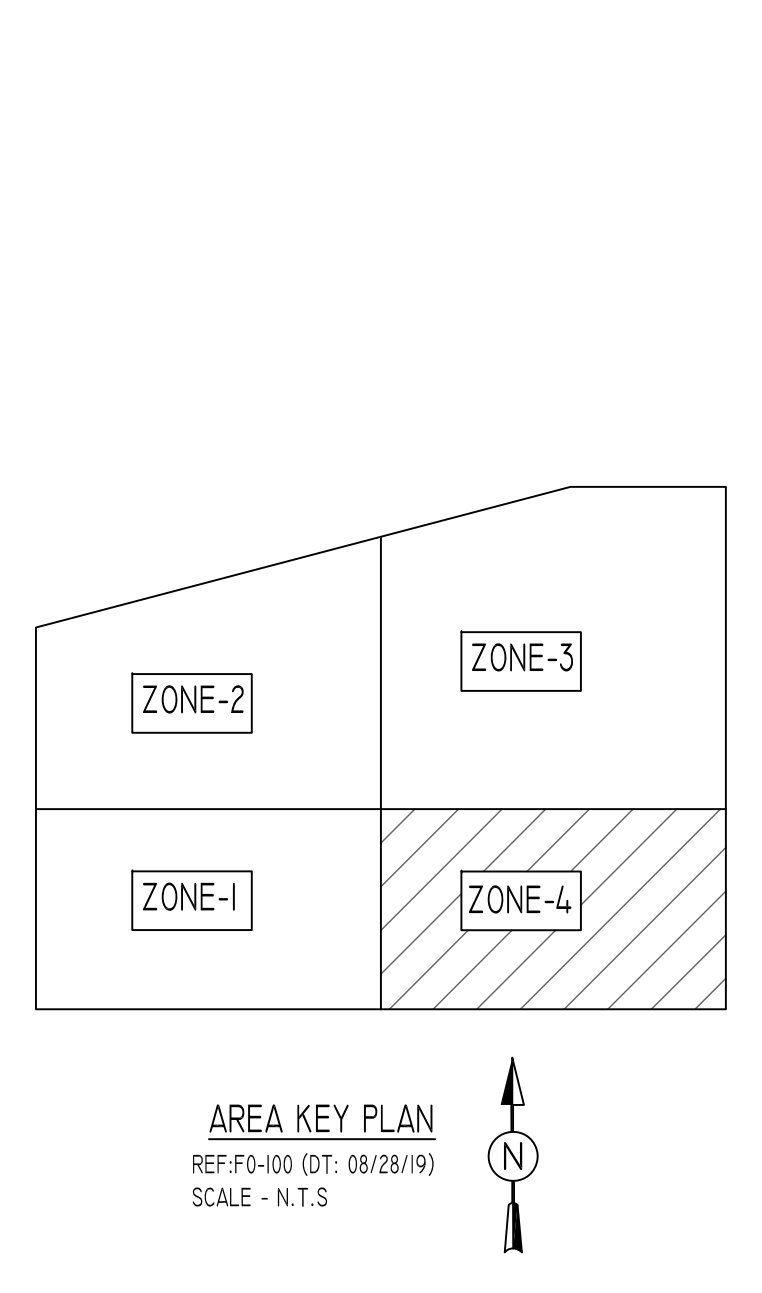
**9 SECTION**  
 SCALE - 1/2"=1'-0"  
 REF:FD-104.00 & S401.00  
 LOCATIONS - (D15.6)



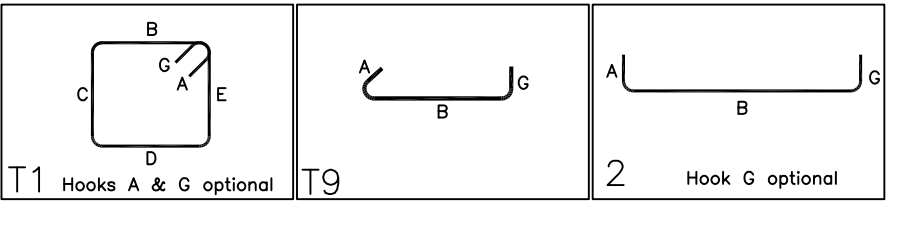
**10 SECTION**  
 SCALE - 1/2"=1'-0"  
 REF:FD-104.00 & S401.00  
 LOCATIONS - (A.5/5.9)



**11 SECTION**  
 SCALE - 1/2"=1'-0"  
 REF:FD-104.00 & S401.00  
 LOCATIONS - (B.5.9)



Bar Mark	Qty	Size	Total Length	Type	X'	Y'	Z'	W'	V'	U'	T'	S'	R'	Q'	P'	O'	N'	M'	L'	K'	J'	I'	H'	G'	F'	E'	D'	C'	B'	A'
3001	6	#3	9'-0"	T1	0'-4"	1'-7"	2'-7"	1'-7"	2'-7"	0'-4"																				
3002	8	#3	11'-0"	T1	0'-4"	2'-7"	2'-7"	2'-7"	2'-7"	0'-4"																				
3003	50	#3	3'-5"	T1	0'-4"	2'-9"				0'-4"																				
3004	13	#3	11'-8"	T1	0'-4"	2'-9"	2'-9"	2'-9"	2'-9"	0'-4"																				
4001	28	#4	3'-8"	T1	0'-4"	2'-9"				0'-4"																				
4002	7	#4	11'-9"	T1	0'-4"	2'-9"	2'-9"	2'-9"	2'-9"	0'-4"																				
4003	4	#4	11'-3"	T1	0'-4"	2'-9"	2'-9"	2'-9"	2'-9"	0'-4"																				
7001	30	#7	8'-5"	T1	1'-2"	5'-3"				1'-2"																				
7002	24	#7	7'-2"	T1	1'-2"	6'-0"				1'-2"																				
7003	24	#7	8'-2"	T1	1'-2"	7'-0"				1'-2"																				
7004	24	#7	7'-8"	T1	1'-2"	6'-6"				1'-2"																				



ALL BARS IN THIS DRAWING  
 ASTM A615 GRADE 60  
 BLACK UNCOATED

FOR PIER & BUTTRESS

SIZE	LD	PSJ
#3	10"	13"
#4	13"	17"
#5	16"	21"
#6	19"	25"
#7	27"	36"
#8	31"	41"
#9	35"	46"
#10	39"	51"
#11	43"	56"

FOR BEAM & FOOTING

SIZE	TOP	OTHERS
#3	23"	17"
#4	30"	23"
#5	37"	29"
#6	45"	34"
#7	64"	50"
#8	73"	56"
#9	82"	63"
#10	93"	71"
#11	102"	78"

PIER SCHEDULE

TYPE	PIER SIZE		REINFORCING		REMARK
	LENGTH X WIDTH	VERTICAL	HORIZONTAL		
P1	36"x36"	24 - #7	#3 @ 14"		
P2	48"x48"	24 - #9	#3 @ 16"		
P3	36"x36"	24 - #7	#4 @ 12"	1.3 LD SPLICE	
P4	48"x48"	24 - #9	#4 @ 12"	1.3 LD SPLICE	
B1	36"x36"	24 - #7	#3 @ 14"		
B2	24"x36"	16 - #7	#3 @ 14"		
B3	36"x24"	16 - #7	#3 @ 14"		

FOOTING SCHEDULE

TYPE	FOOTING SIZE		DEPTH	BOTTOM REINFORCING		F'C (KSI)
	LENGTH X WIDTH	DEPTH		LONG WAY	SHORT WAY	
F7	7'-0"x7'-0"	2'-6"	11 - #6	11 - #6	-	5
F8	8'-0"x8'-0"	2'-6"	11 - #7	11 - #7	-	5
F9	9'-0"x9'-0"	2'-6"	13 - #7	13 - #7	-	5
F11	11'-0"x11'-0"	3'-0"	19 - #7	19 - #7	-	5
F15	15'-0"x15'-0"	3'-0"	30 - #8	30 - #8	-	10
F16	16'-0"x16'-0"	3'-6"	30 - #9	30 - #9	-	10
F17	17'-0"x17'-0"	3'-6"	32 - #9	32 - #9	-	10
F18	18'-0"x18'-0"	4'-0"	38 - #9	38 - #9	-	10
F20	20'-0"x20'-0"	4'-0"	38 - #10	38 - #10	-	10
F20A	20'-0"x20'-0"	4'-6"	38 - #10	38 - #10	20 - #7	10
F21	21'-0"x21'-0"	4'-0"	40 - #10	40 - #10	-	10
F21A	21'-0"x21'-0"	4'-0"	40 - #10	40 - #10	20 - #7	10
F22	22'-0"x22'-0"	4'-0"	44 - #10	44 - #10	-	10
F16	11'-0"x6'-0"	2'-6"	12 - #9	10 - #7	-	5
F14.6	14'-0"x6'-0"	2'-6"	12 - #10	16 - #7	-	5
F15.7	15'-0"x7'-0"	2'-6"	16 - #10	18 - #7	-	5
F18.8	18'-0"x8'-0"	2'-6"	24 - #11	16 - #8	-	5
F14.10	14'-0"x10'-0"	3'-0"	16 - #10	14 - #8	-	5
F20.10	20'-0"x10'-0"	3'-0"	30 - #11	16 - #9	-	5
F20.30	20'-0"x30'-0"	4'-6"	20 - #10	40 - #10	20 - #7	10
F24.10	24'-0"x10'-0"	3'-0"	24 - #11.2L	20 - #9	-	5
WF4	4'-0"x4'-0"	2'-6"	6 - #6	#6@12"	6 - #9	5

COUPLER REINFORCEMENT DETAILS

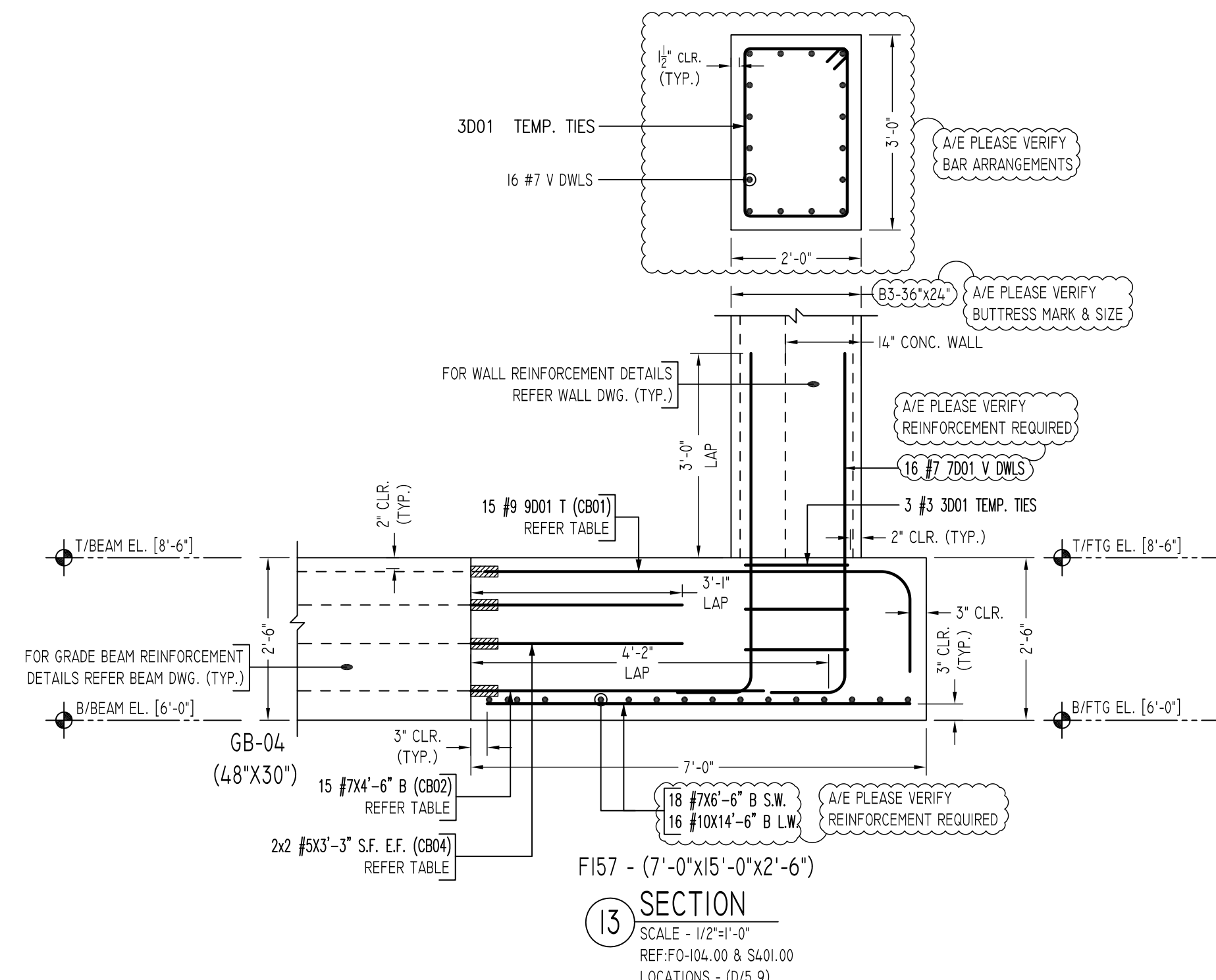
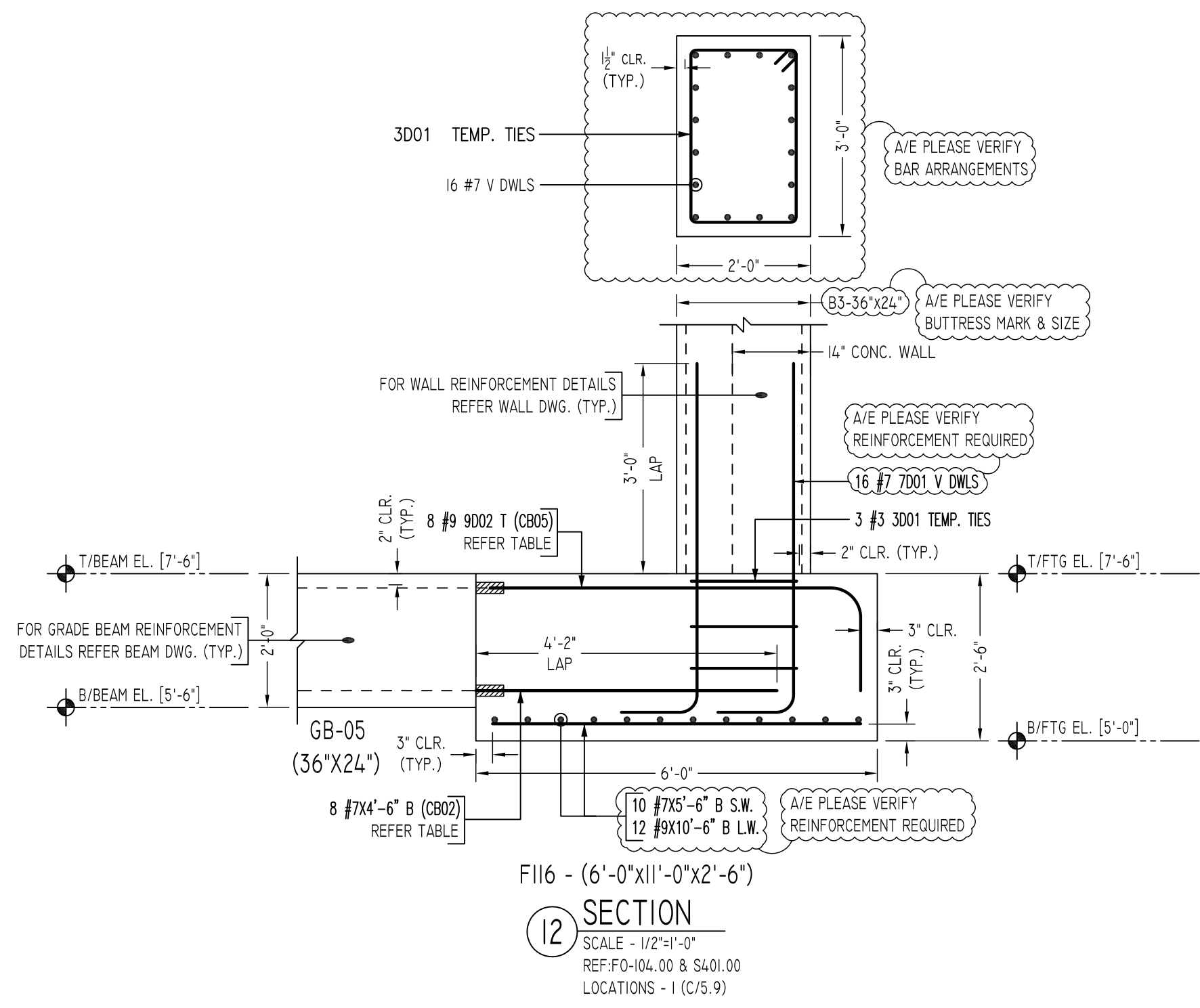
MARK	BAR DIA.	BAR SHAPE	QUANTITY	REMARK
CB02	#7	4'-6"	47	REFER SECTIONS 8, 9, 10 & 11
CB05	#7	7'-0"	23	REFER SECTIONS 8, 9, 10 & 11
CB04	#5	3'-5"	4	REFER SECTION 9
CB05	#9	5'-7"	16	REFER SECTIONS 10 & 11
CB06	#9	10'-7"	8	REFER SECTION 10

**NOTICE**  
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REVISION MARK	REVISION DETAILS	DATE
0	FOR APPROVAL	02/28/2020

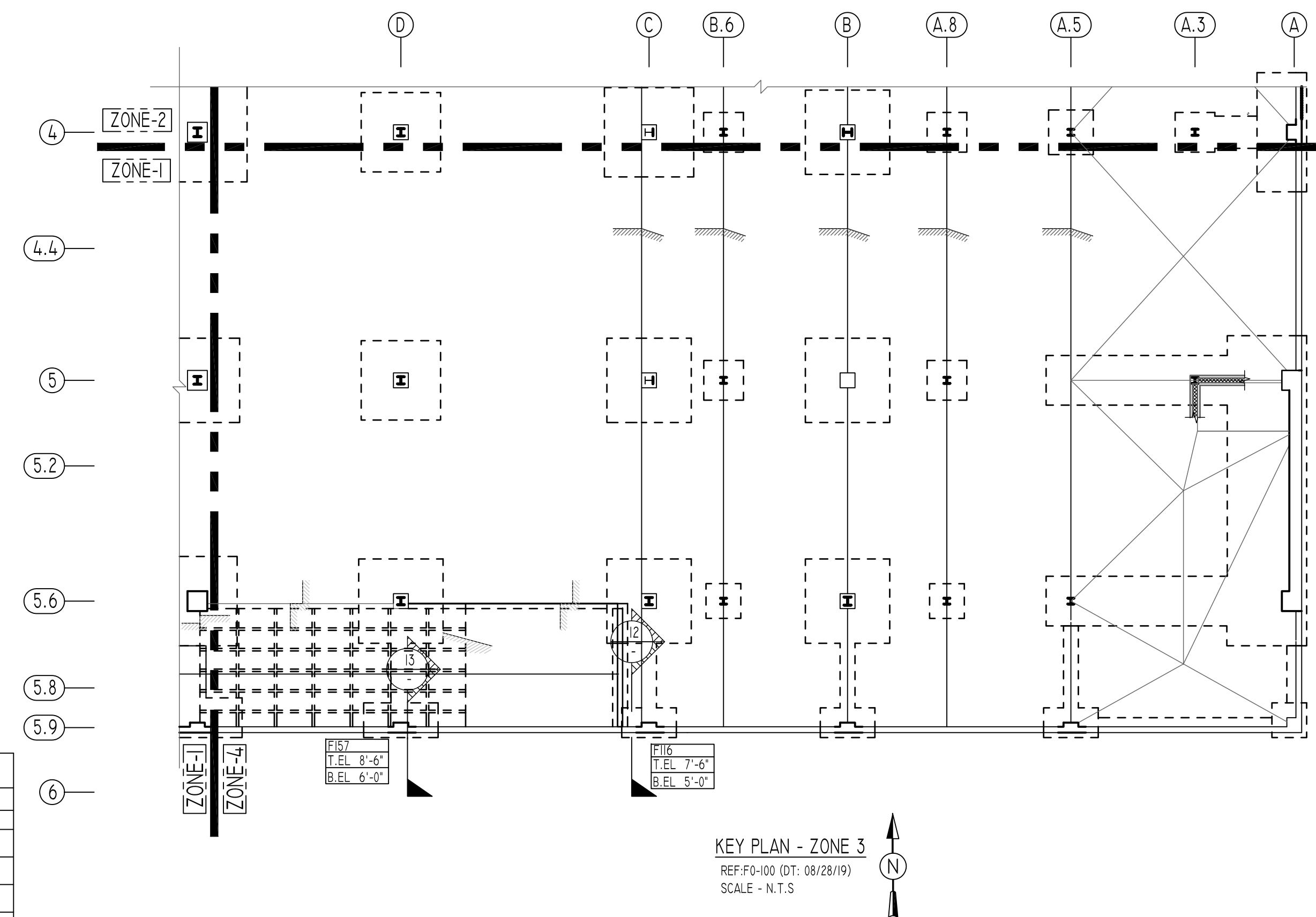
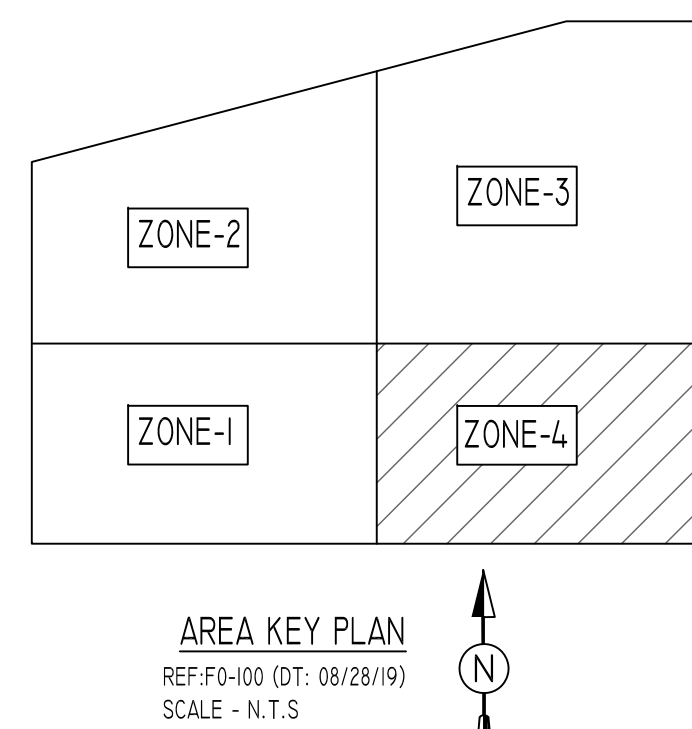
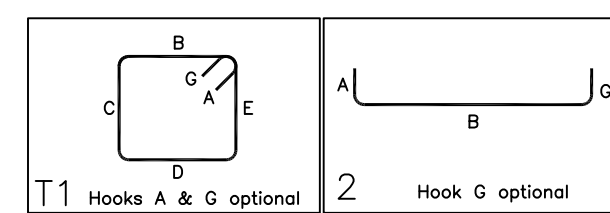
PROJECT	JFK TERMINAL LOGISTICS CENTER
LOCATION	JAMAICA, NY, 11430
ARCHITECT	CRAFT ARCHITECTS
ENGINEER	DESIMONE STRUCTURAL ENGINEERS
CUSTOMER	BENCHMARK CONTRACTING
DRAWN BY:	KKV/MRS
DATE:	02/28/20
REVIEWED BY:	T/L
JOB NO.:	20015
DRAWING TITLE:	SPREAD FOOTING & PIER REINFORCEMENT DETAILS ZONE-4
DRAWING NO.:	R11

Abbreviations:  
 I.F.=Inside Face  
 O.F.=Outside Face  
 E.F.=Each Face  
 C.J.=Construction Joint  
 CLR.=CLEARANCE  
 CMU.=Concrete Masonry Unit  
 CONT.=Continuous  
 EA.=Each  
 Elev.=Elevation  
 EMB.=Embedment  
 SW.=Short Way  
 LW.=Long Way  
 BL.=Black Bar  
 EP.=Epoxy Bar  
 GA.=Galvanized



COUPLER REINFORCEMENT DETAILS				
MARK	BAR DIA.	BAR SHAPE	QUANTITY	REMARK
CB02	#7	4'-6"	23	REFER SECTION 12
CB04	#5	3'-3"	4	REFER SECTION 13
CB05	#9	5'-7" 1'-7"	8	REFER SECTIONS 12, 13
CB01	#9	6'-7" 1'-7"	15	REFER SECTIONS 8, 9

BENDING DETAILS											
Bar Mark	Qty	Size	Total Length	Type	X'	Y'	Z'	W'	V'	U'	T'
3001	8	#3	9'-0"	11	0'-4"	1'-7"	2'-7"	1'-7"	2'-7"	0'-4"	
7001	32	#7	6'-5"	2	1'-2"	5'-3"					



TYPE	FOOTING SIZE		BOTTOM REINFORCING		BOTTOM REINFORCING		F.C. (KSI)
	LENGTH X WIDTH	DEPTH	LONG WAY	SHORT WAY	LONG WAY	SHORT WAY	
F7	7'-0"x7'-0"	2'-6"	11 - #6	11 - #6	-	-	5
F8	8'-0"x8'-0"	2'-6"	11 - #7	11 - #7	-	-	5
F9	9'-0"x9'-0"	2'-6"	13 - #7	13 - #7	-	-	5
FI1	11'-0"x11'-0"	3'-0"	19 - #7	19 - #7	-	-	5
FI5	15'-0"x15'-0"	3'-0"	30 - #8	30 - #8	-	-	10
FI6	16'-0"x16'-0"	3'-6"	30 - #9	30 - #9	-	-	10
FI7	17'-0"x17'-0"	3'-6"	32 - #9	32 - #9	-	-	10
FI8	18'-0"x18'-0"	4'-0"	38 - #9	38 - #9	-	-	10
F20	20'-0"x20'-0"	4'-0"	38 - #10	38 - #10	-	-	10
F20A	20'-0"x20'-0"	4'-6"	38 - #10	38 - #10	20 - #7	-	10
F21	21'-0"x21'-0"	4'-0"	40 - #10	40 - #10	-	-	10
F21A	21'-0"x21'-0"	4'-0"	40 - #10	40 - #10	20 - #7	-	10
F22	22'-0"x22'-0"	4'-0"	44 - #10	44 - #10	-	-	10
FI16	11'-0"x16'-0"	2'-6"	12 - #9	10 - #7	-	-	5
FI16	14'-0"x7'-0"	2'-6"	12 - #10	16 - #7	-	-	5
FI17	15'-0"x7'-0"	2'-6"	16 - #10	18 - #7	-	-	5
FI88	18'-0"x8'-0"	2'-6"	24 - #11	16 - #8	-	-	5
FI410	14'-0"x10'-0"	3'-0"	16 - #10	14 - #8	-	-	5
F2010	20'-0"x10'-0"	3'-0"	30 - #11	16 - #9	-	-	5
F2030	20'-0"x30'-0"	4'-6"	20 - #10	40 - #10	20 - #7	-	10
F2410	24'-0"x10'-0"	3'-0"	24 - #11	20 - #9	-	-	5
WF4	4'-0"x4'-0"	2'-6"	6 - #6	#6@12"	6 - #9	-	5

ALL BARS IN THIS DRAWING  
ASTM A615 GRADE 60  
BLACK UNCOATED

TYPICAL REINFORCING BAR CLEARANCE TABLE	
LOCATION	MIN. COVER
FOOTINGS AGAINST EARTH	3" CLR
BOTTOM TOP	2" CLR
EXPOSED TO EARTH (#5 & SMALLER)	1 1/2" CLR
EXPOSED TO EARTH (#6 & LARGER)	2" CLR
COLUMN, PIER & BUTTRESS (MAIN REINF.)	2" CLR
COLUMN (TIES, REINF.)	1 1/2" CLR
BEAMS (STIRRUPS, MAIN REINF.)	1 1/2" CLR
SLABS, WALLS, JOISTS	1 1/2" CLR

FOR PIER & BUTTRESS		
SIZE	LAP SCHEDULE	
	LD	LAP
#3	10"	13"
#4	13"	17"
#5	16"	21"
#6	19"	25"
#7	27"	36"
#8	31"	41"
#9	35"	46"
#10	39"	51"
#11	43"	56"

FOR BEAM & FOOTING		
SIZE	LAP SCHEDULE	
	TOP	OTHERS
#3	23"	17"
#4	30"	23"
#5	37"	29"
#6	45"	34"
#7	64"	50"
#8	75"	56"
#9	82"	63"
#10	93"	71"
#11	102"	78"

PIER SCHEDULE					
TYPE	PIER SIZE		REINFORCING		REMARK
	LENGTH X WIDTH	VERTICAL	HORIZONTAL		
P1	36"x36"	24 - #7	#3 @ 14"		
P2	48"x48"	24 - #9	#3 @ 16"		
P3	36"x36"	24 - #7	#4 @ 12"	1.3 LD SPLICE	
P4	48"x48"	24 - #9	#4 @ 12"	1.3 LD SPLICE	
B1	36"x36"	24 - #7	#3 @ 14"		
B2	24"x36"	16 - #7	#3 @ 14"		
B3	36"x24"	16 - #7	#3 @ 14"		

Abbreviations:  
I.F.=Inside Face  
O.F.=Outside Face  
E.F.=Each Face  
V=Vertical  
H=Horizontal  
C.B.=Corner Bar  
S.DWL=Slab Dowel  
E.W.=Each Way  
B/BOT=Bottom  
T=Top  
MDWL=Masonry Dowel  
B.B.=Bond Beam  
ALT.=Alternate  
Approx.=Approximate

OPNG=Opening  
BAL=Balance  
BTW=Between  
CJ=Construction Joint  
CLR=CLEARANCE  
CMU=Concrete Masonry Unit  
CONT.=Continuous  
EA=Each  
Elev.=Elevation  
EMB=Embedment  
SW=Short Way  
LW=Long Way  
(BL)=Black Bar  
(EP)=Epoxy Bar  
(GA)=Galvanized

**NOTICE**

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REINFORCING STEEL PLACING DRAWINGS ONLY USE IN CONJUNCTION WITH CONTRACT DRAWINGS & SPECIFICATIONS. ELEVATIONS & DIMENSIONS SHOWN ON THIS DRAWING ARE FOR DETAILING PURPOSES ONLY AND SHOULD NOT BE USED FOR CONSTRUCTION UNLESS VERIFIED BY ENGINEER OR CONTRACTOR.

REVISION MARK	REVISION DETAILS	DATE
0	FOR APPROVAL	02/28/2020

PROJECT	JFK TERMINAL LOGISTICS CENTER
LOCATION	JAMAICA, NY, 11430
ARCHITECT	CRAFT ARCHITECTS
ENGINEER	DESIMONE STRUCTURAL ENGINEERS
CUSTOMER	BENCHMARK CONTRACTING
DRAWN BY:	KKV/MRS
DATE:	02/28/20
REVIEWED BY:	T/L
JOB NO.:	20015
DRAWING TITLE:	SPREAD FOOTING & PIER REINFORCEMENT DETAILS ZONE-4
DRAWING NO.:	R12