



RIVERSIDE CENTER
BUILDING TWO
NEW YORK, NY

OWNER/DEVELOPER:
EXTELL DEVELOPMENT

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WSP FLACK+KURTZ

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INTERIOR DESIGN ARCHITECT:

XXXXX

XXXXX

NOTES:

1. TOP OF SLAB ELEVATION NOTED THUS ON PLAN. REFER TO ARCHITECTS DRAWINGS FOR LOCATIONS OF HP AND UP.
2. TOP OF PILE CAP TO BE 1'-0" BELOW TOP OF SLAB TYPICALLY U.O.N. THUS ON PLANS.
ELEVATION OF PILE CAP
TOP OF CAP
3. FOR COLUMN SCHEDULE SEE S-950'S DWG. SERIES.
4. FIRST DIMENSION OF COLUMNS AND BUTTRESSES ARE GIVEN IN COLUMN SCHEDULE IS IN THE NORTH-SOUTH DIRECTION, IN INCHES.
5. FOR FOUNDATION TYPICAL DETAILS SEE FO-200 DWG. SERIES.
6. FOR SHEARWALL FOUNDATION DETAILS SEE FO-400 DWG. SERIES.
7. FOR FOUNDATION SECTIONS SEE FO-300 DWG. SERIES.
8. FOR BAR PLACEMENT IN COLUMNS AND SHEARWALLS SEE S-940'S & S-950'S DWG. SERIES.
9. CENTERLINE OF PILE CAPS TO COINCIDE WITH CENTERLINES OF CONCRETE PIER, BUTTRESS OR COLUMN ABOVE U.O.N. ON PLAN.
10. SLAB ON GRADE TO BE 9", 12" & 18" THICK NOTED THUS ON PLAN FOR DETAILS SEE FO-200 DWG. SERIES.
REINFORCING TO BE #6@10 CONT. TABS FOR 9" & 12" SLAB
& #6@8 CONT. TABS FOR 18" SLAB
11. ALL SLABS ON GROUND U.O.N. TO BE POURED ON A WATERPROOFING MEMBRANE (PREPRUFE 308) OVER 2" MUD SLAB AND 6" GRAVEL BED BELOW SEE DWG. FO-200.
12. UNLESS OTHERWISE NOTED PROVIDE CONCRETE HOUSEKEEPING PADS MIN. 4" THICK REINFORCED WITH #4-W4.4 x #4 W4.4 W4.4. BENEATH MECHANICAL EQUIPMENT AS REQUIRED. COORDINATE SIZE AND LOCATION WITH ARCH. AND MECH. DWGS.
13. WHERE GRADE BEAMS OR FDN. WALLS FRAME INTO BUTTRESSES OR COLUMNS PROVIDE DOWELS EACH FACE TO MATCH HORIZONTAL WALL OR BEAM REINFORCING (MINIMUM #4@2 EA. FACE).
14. INDICATES LAYERS OF REINFORCEMENT FROM TOP OF SLAB.
15. BEAM POCKETS IN FOUNDATION WALLS AND BUTTRESSES TO BE COORDINATED WITH SUPERSTRUCTURE CONTRACT.
16. ALL BURIED / UNDERGROUND UTILITIES, CABLES AND FACILITIES MUST BE LOCATED AND PROTECTED BEFORE ANY DIGGING OR CONSTRUCTION TAKES PLACE. THIS INCLUDES RAILROAD AND COMMERCIAL UTILITIES, CABLES AND FACILITIES. AMTRAK MAINTAINS THE RIGHT TO ACCESS ALL EXISTING CABLES AND CONDUITS AND PRESERVES THE RIGHT TO UPDATE AND INSTALL NEW CABLES AND CONDUITS IN THE AFFECTED AREA. ANY REQUIRED RELOCATION OF UTILITIES, CABLES OR FACILITIES WILL BE AT THE SOLE COST AND EXPENSE OF THE OWNER.
17. (P) INDICATES 36x12 CONC. POST. REINF. W/4-#8 VERT. BARS & #3@10 HORIZ. TIES.
(P1) INDICATES 24x14 CONC. POST. REINF. W/4-#9 VERT. BARS & #3 @10 HORIZ. TIES.
(B1) INDICATES 18x18 CONC. POST. REINF. W/4-#8 VERT. BARS & #3@10 HORIZ. TIES.

LEGENDS:

- a. INDICATES PILE CAP WITH A MONITOR PILE TO BE DRIVEN FIRST IN ORDER TO DETERMINE THE ACTUAL 20 TON/5' ROCK ELEVATION. IF EFFECTIVE LENGTH OF MONITOR PILE IS LESS THAN 7'-0", PILE CAP MUST BE REPLACED BY A SPREAD FOOTING BEARING ON A 20 TON/5' CAPACITY ROCK. A CONCRETE PIER MUST BE PROVIDED FROM 1/750 ELEVATION TO 1'-0" BELOW 7/500 ELEVATION AND MONITOR PILE SHALL BE CUT-OFF AT ROCK ELEVATION.
FOR FOOTING SIZE AND REINFORCEMENT SEE FOOTING SCHEDULE. FOR PIER SIZE AND REINFORCEMENT SEE PLAN.
A CREDIT FOR THE NON-DRIVEN PILES ON THE DENOTED PILE CAPS SHOULD BE GIVEN TO THE OWNERSHIP IN CASE PILE CAPS ARE REPLACED BY SPREAD FOOTINGS AS NOTED ABOVE.
- b. -20' - INDICATES ESTIMATED CONTOUR LINE FOR TOP OF 20 TON/5' ROCK ELEVATION
- c. INDICATES MINI-CAISSON WITH ALLOWABLE AXIAL UPLIFT CAPACITY OF 75 TONS & 450 TONS IN COMPRESSION. ADD. INFORMATION SEE TYPICAL CROSS SECTION THRU PILE/MINI CAISSON CAP & MINI CAISSON DETAIL ON DWG. FO-200 & SECTION FO-300. IF MINI CAISSON IS CONCENTRIC OR WITHIN THE SHEARWALL/COLUMN ABOVE MINI CAISSON VERTICAL REINF. SHALL BE EXTEND 6'-0" ABOVE TOP OF SLAB ON GRADE. OTHERWISE A 18"x18"x24" STEEL PLATE SHALL BE INSTALLED IN ACCORDANCE WITH THE TYPICAL CROSS SECTION THRU THE PILE/MINI CAISSON DETAIL ON DRAWING FO-200.00

NOTE FOR:

PARKING FLOORS, RAMPS, DRIVEWAYS EXPOSED TOPPING, SIDE WALKS - ALL DIRECTLY EXPOSED TO CARS AND/OR PEDESTRIAN TRAFFIC.

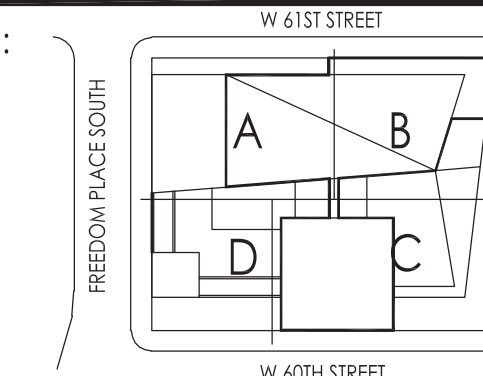
1. CONCRETE TO BE 6500 PSI NORMAL WEIGHT MAX. WATER/CEMENT RATIO LESS THAN 0.4 ADMIXTURES: SUPERPLASTICIZER MIN. 80 OZ. 1.5 LB/CU YD FIBER MESH, AIR ENTRAINED 7% MIN., SILICA FUME AND DCL OR SIMILAR CORROSION INHIBITOR
2. THE CURING SHALL BE ONLY MOIST TYPE. NO CURING COMPOUND ACCEPTABLE.
3. ALTHOUGH PROTECTIVE MEASURES WERE INCORPORATED IN THE DESIGN OF THE PARKING AREAS AND RAMPS, THESE AREAS MUST BE CAREFULLY MAINTAINED IN ORDER TO PREVENT EARLY DETERIORATION.

Maria-Teresa Fernandez
Building
APPROVED
Under Directive 2 of 1975
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07-22-12	ISSUED FOR D.C.B.
08-19-12	ISSUED FOR AMTRAK TO REVIEW
08-28-12	ISSUED FOR AMTRAK TO REVIEW
12-28-11	85% CD
09-15-11	50% CD
07-15-11	100% DESIGN DEVELOPMENT SET
NO.	Date: Revision:

Scale: 3/32" = 1'-0"

KEY PLAN:



PROJECT:

RIVERSIDE CENTER
BUILDING 2

DRAWING TITLE:

FOUNDATION OVERALL
FRAMING PLAN

SEAL & SIGNATURE:



DATE: JULY 15, 2011

PROJECT No: 2011-075

DRAWN BY:

CHECKED BY:

DRAWING No:

FO-100.00

CADD FILE No:

1
FO-100
FOUNDATION OVERALL FRAMING PLAN
SCALE: 3/32" = 1'-0"

OWNER/DEVELOPER:
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INTERIOR DESIGN ARCHITECT:
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XXXXXXX

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 NYC Development Hub


	07-02-12	ISSUED FOR D.O.B.
	06-19-12	ISSUED FOR AMTRAK TO REVIEW
	06-06-12	ISSUED FOR AMTRAK TO REVIEW
	06-15-11	50% CD
No:	Date:	Revised:

Scale: $1/4" = 1'-0"$

KEY PLAN:

PROJECT:
RIVERSIDE CENTER
BUILDING 2

DRAWING TITLE:
FOUNDATION FRAMING PLAN
PART 1

SEAL & SIGNATURE: 	DATE: JULY 15, 2011
	PROJECT No: 2011-072
	DRAWN BY:
	CHECKED BY:
	DRAWING No: FO-101.00
CADD FILE No:	



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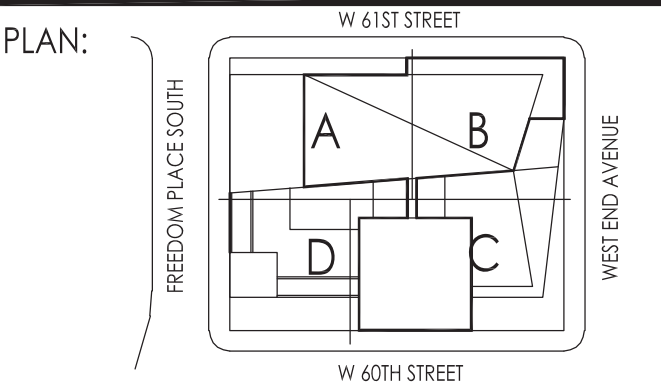
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08-19-12	ISSUED FOR AMTRAK TO REVIEW
08-08-12	ISSUED FOR AMTRAK TO REVIEW
09-15-11	50% CD
Date:	Revision:
NORTH ARROW	
Scale: 1/4" = 1'-0"	

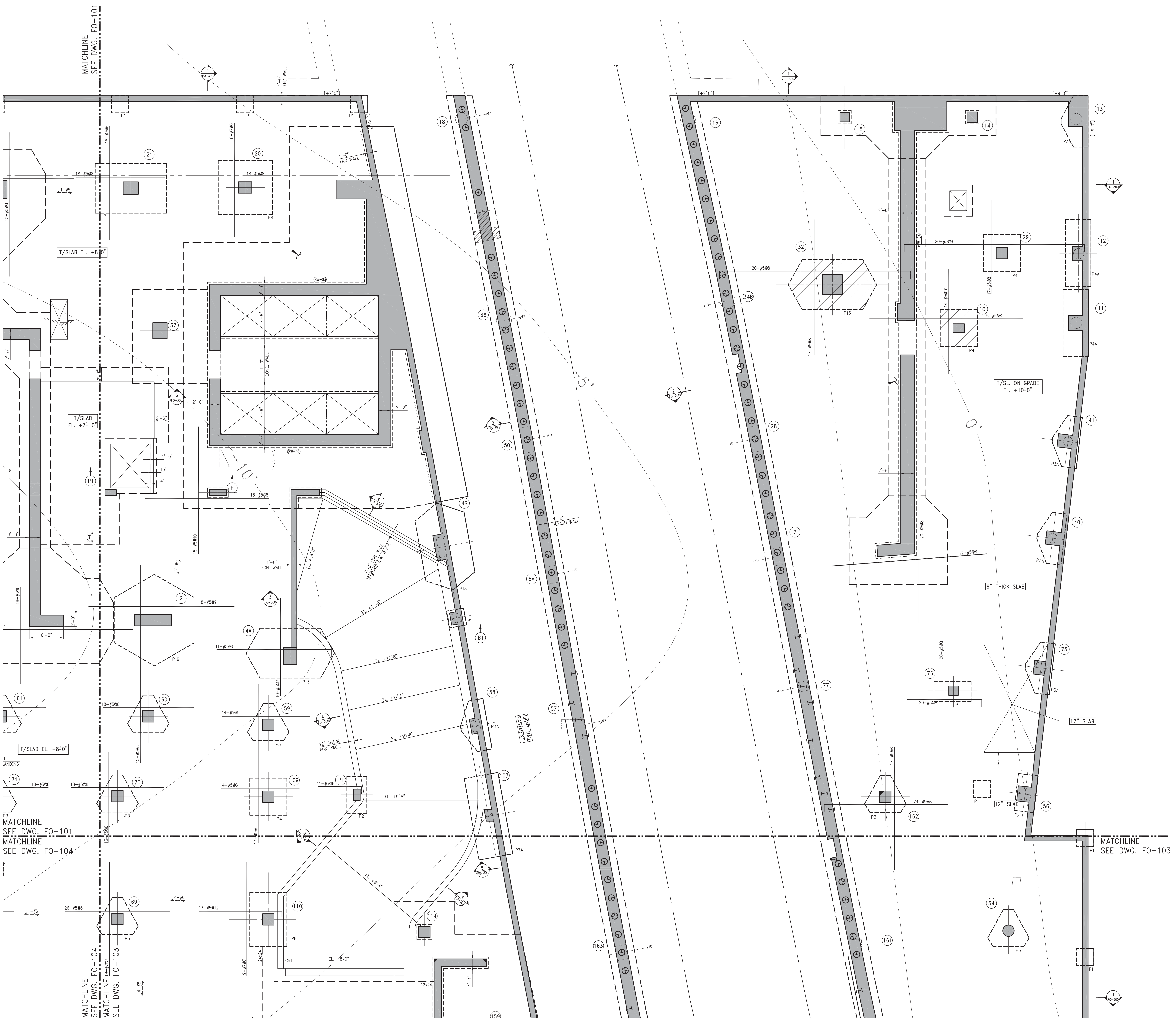


PROJECT:
**RIVERSIDE CENTER
BUILDING 2**

DRAWING TITLE:
**FOUNDATION FRAMING PLAN
PART 2**

SEAL & SIGNATURE:

DATE: JULY 15, 2011
PROJECT NO.: 2011-075
DRAWN BY:
CHECKED BY:
DRAWING NO.: **FO-102.00**
CADD FILE NO.:



1 FOUNDATION FRAMING PLAN - PART 2
FO-102
SCALE: 3/4" = 1'-0"
NOTES:
FOR NOTES SEE MAIN PLAN DWG. FO-100.

INTERIOR DESIGN ARCHITECT:
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NORTH ARROW


Scale: 1/4" = 1'-0"



KEY PLAN: W 61ST STREET

PROJECT: RIVERSIDE CENTER BUILDING 2

DRAWING TITLE:
FOUNDATION FRAMING PLAN
PART 3

	DATE: JULY 15, 2011 PROJECT No: 2011-072 DRAWN BY: CHECKED BY: DRAWING No:
	CADD File No:

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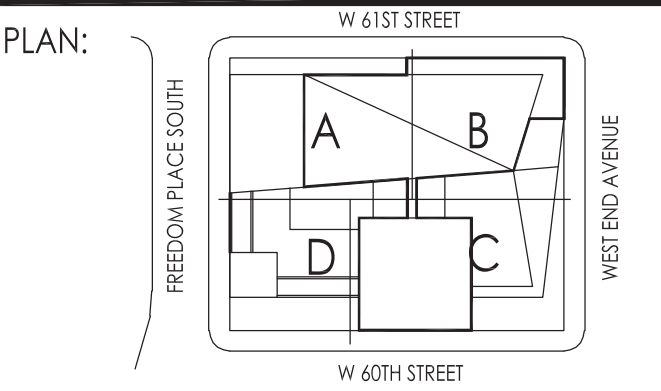
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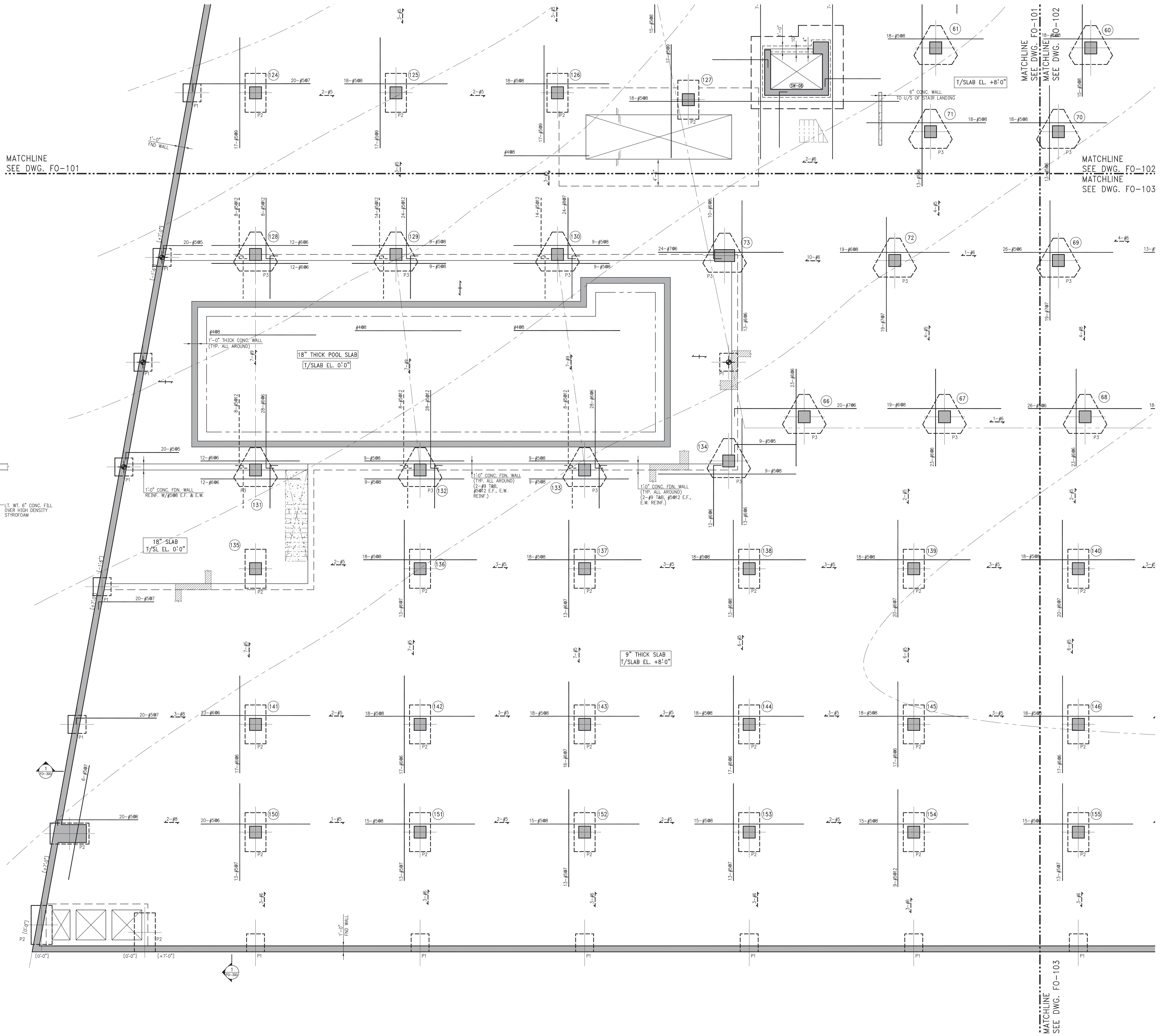
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08-19-12	ISSUED FOR AMTRAK TO REVIEW
08-08-12	ISSUED FOR AMTRAK TO REVIEW
09-19-11	3RD CD
NO.	Date: Rev: NO.
Scale: 1/4" = 1'-0"	
NORTH ARROW	



PROJECT:
RIVERSIDE CENTER
BUILDING 2

DRAWING TITLE:
FOUNDATION FRAMING PLAN
PART 4

SEAL & SIGNATURE:
DATE: JULY 15, 2011
PROJECT NO.: 2011-072
DRAWN BY:
CHECKED BY:
DRAWING NO.: FO-104.00
CADD FILE NO.:



1 FOUNDATION FRAMING PLAN - PART 4
SCALE: 3/8" = 1'-0"
NOTES:
FOR NOTES SEE MAIN PLAN DWG. FO-100.

2 PART PLAN OF POOL GYM FRAMING PLAN
SCALE: 3/8" = 1'-0"

NOTE:
-BOTTOM MAT REINF. TO BE #4@2 C.W. CONT.

NEW YORK, NY

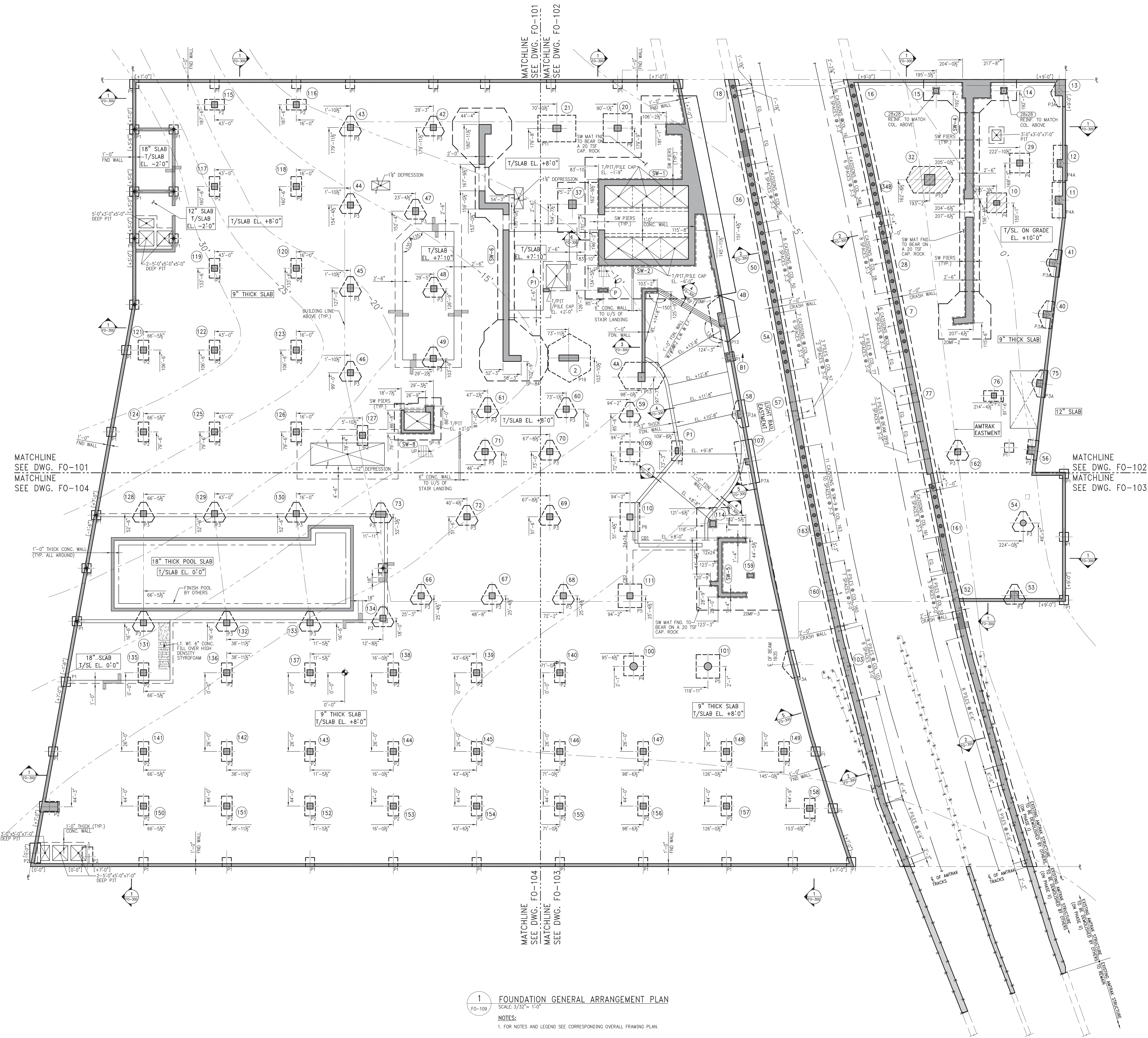
423 WEST 69TH STREET

841 BROADWAY

WSP CANTOR SEINUK

WSP FLACK+KURTZ

XXXXX



FO-109 SCALE: 5/32" = 1'-0"

1. FOR NOTES AND LEGEND SEE CORRESPONDING OVERALL FRAMING PLAN

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[Signature]

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07-02-12 ISSUED FOR D.O.B.

06-19-12 ISSUED FOR AMTRAX TO REVIEW

06-08-12 ISSUED FOR AMTRAX TO REVIEW

12-08-11 85% CD

09-15-11 50% CD

07-15-11 100% DESIGN DEVELOPMENT SET

No: _____ Date: _____ Revision: _____

NORTH ARROW

Scale: 3/32" = 1'-0"

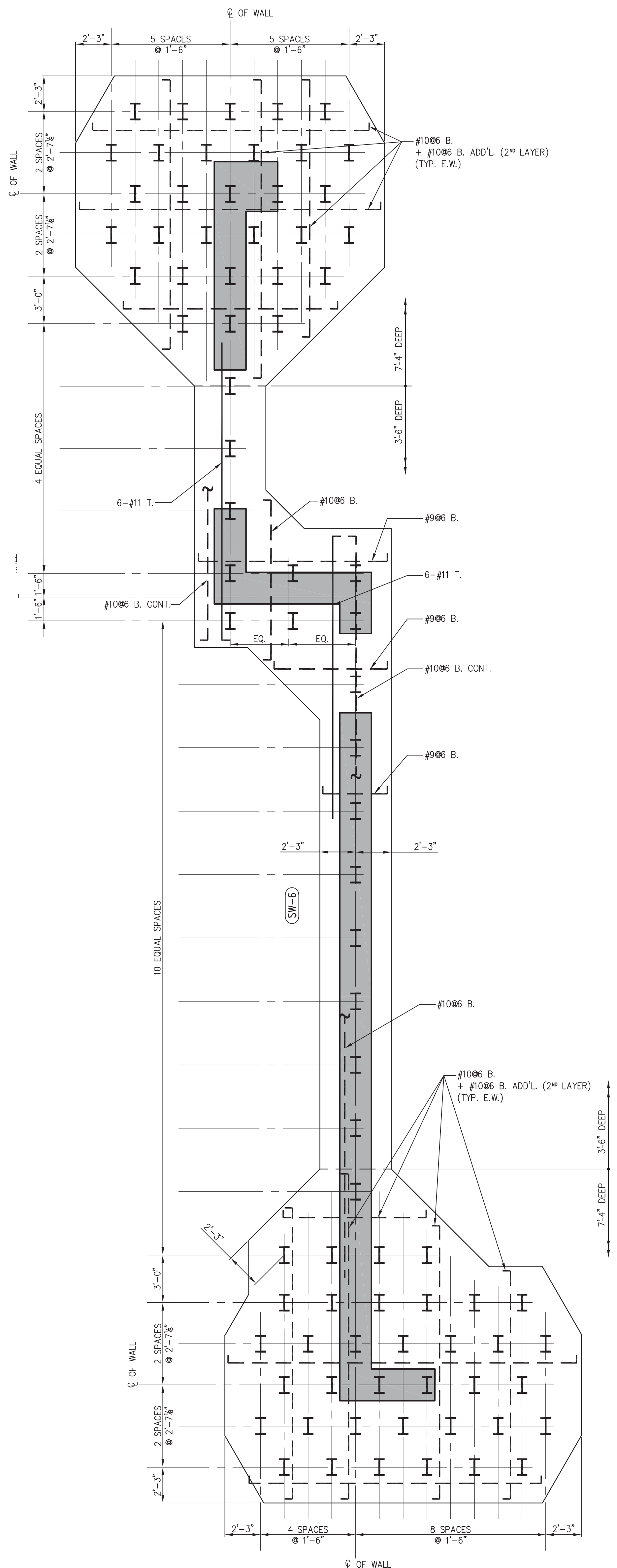
0' 1' 2' 3' 4' 5' 6' 7' 8' 9' 10'

KEY PLAN:

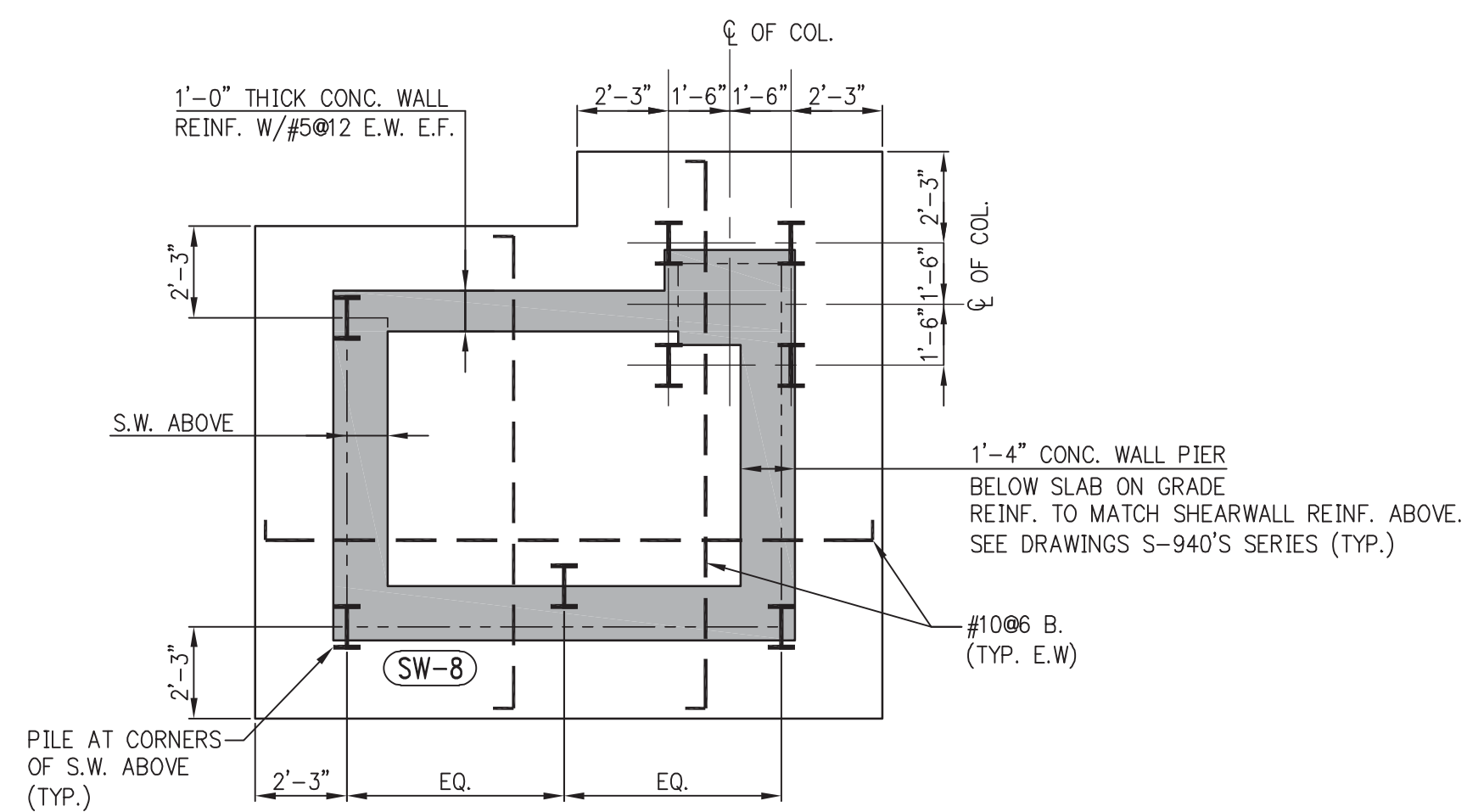
PROJECT: RIVERSIDE CENTER
BUILDING 2

DRAWING TITLE:
FOUNDATION GENERAL
ARRANGEMENT PLAN

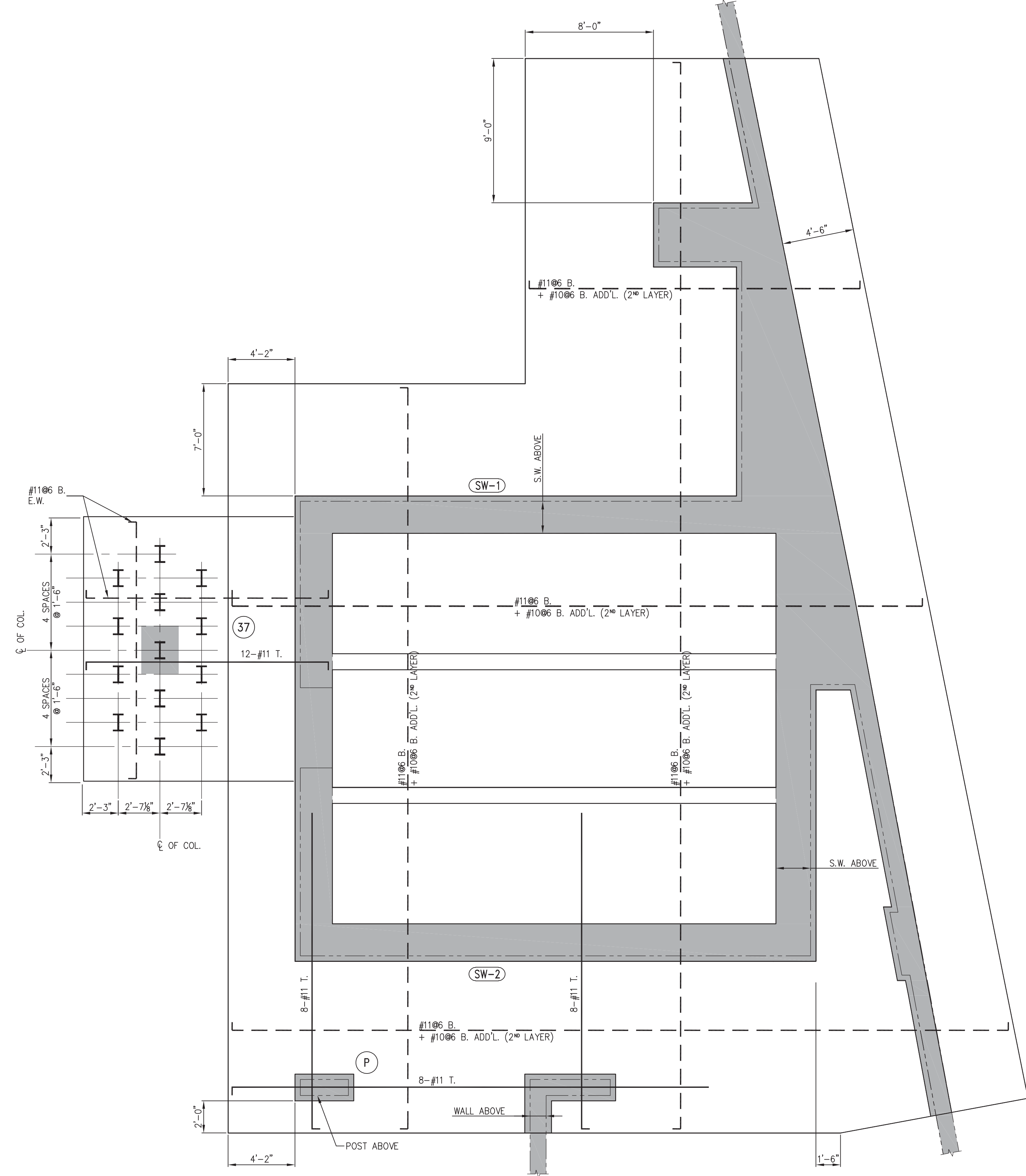
The image shows the official seal of the State of New Jersey, which features a shield with a plow, a sheaf of wheat, and a ship, surrounded by the words "STATE OF NEW JERSEY" and "1776". Below the seal is a signature block with the text "SEAL & SIGNATURE:" followed by a line for a signature. To the right of the signature line is a table with the following information: DATE: JULY 15, 2011; PROJECT No.: 2011-072; DRAWN BY: [blank]; CHECKED BY: [blank]; DRAWING No.: FO-109.0; and CADD FILE No.: [blank].



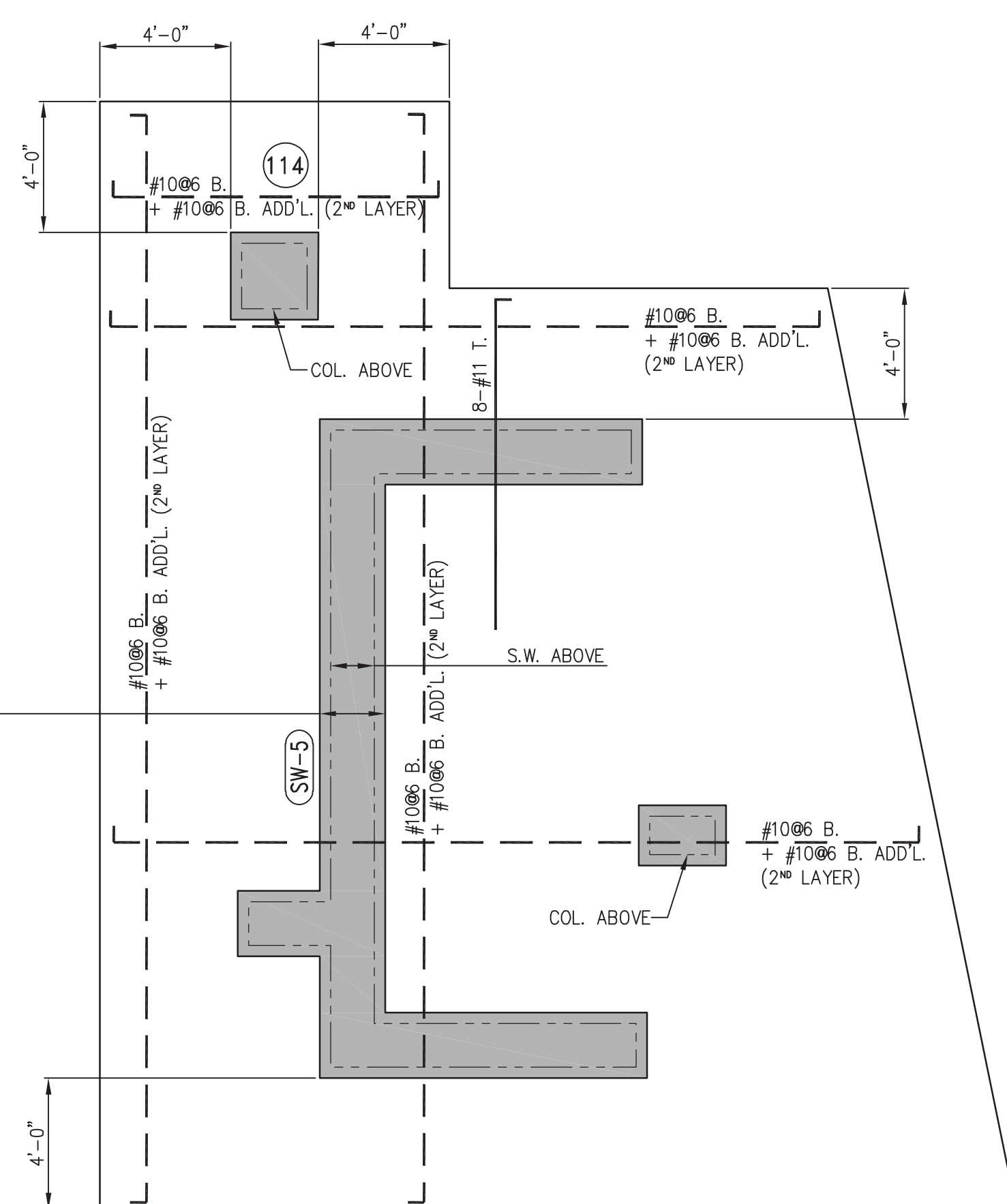
1 SP-84
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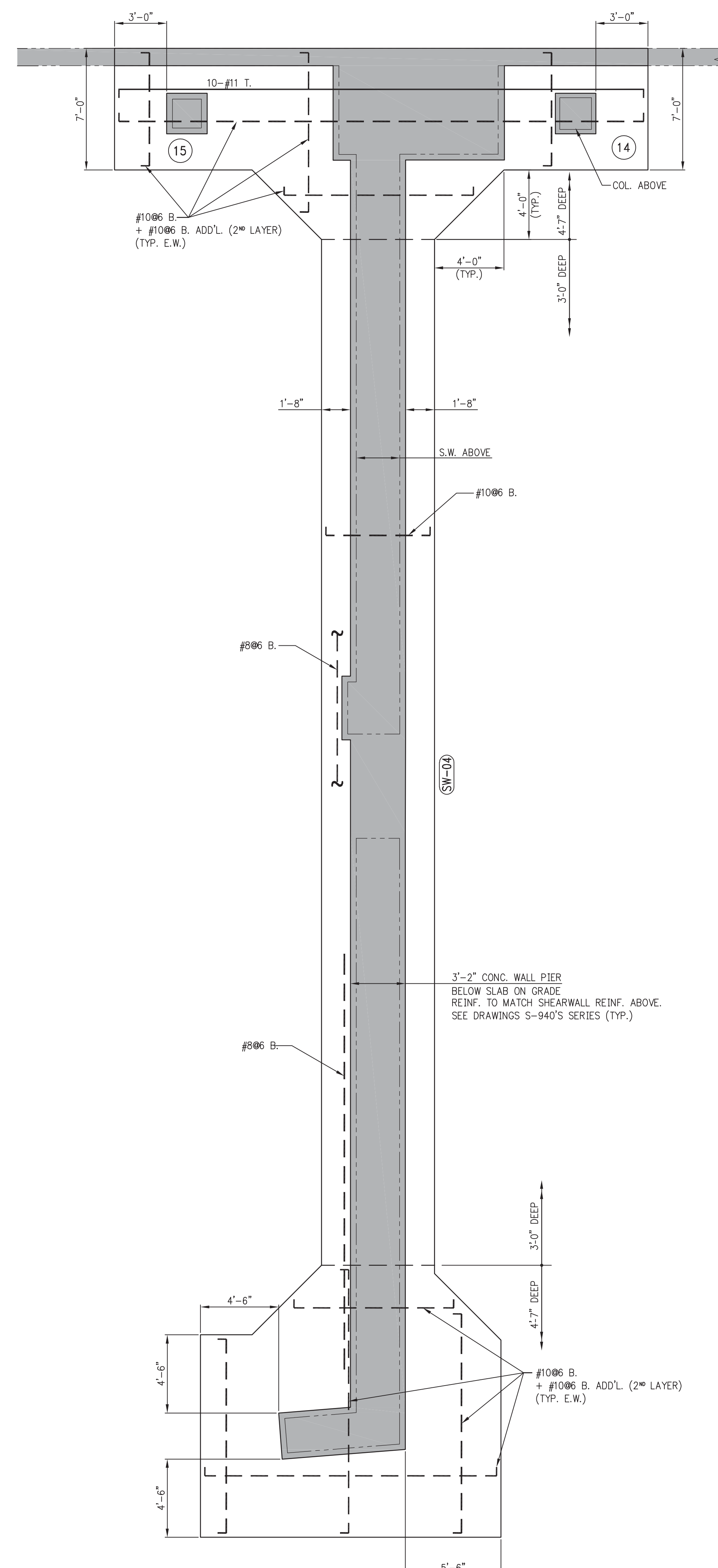
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SCALE: 1/4"=1'-0"



2 SP/20MF-1
SCALE: 1/4"=1'-0"



4 20MF-3
SCALE: 1/4"=1'-0"
DEPTH = 6'-0"



3 20MF-2
SCALE: 1/4"=1'-0"
DEPTH = 4'-7"/3'-0"/4'-7"

RIVERSIDE CENTER
BUILDING TWO
NEW YORK, NY

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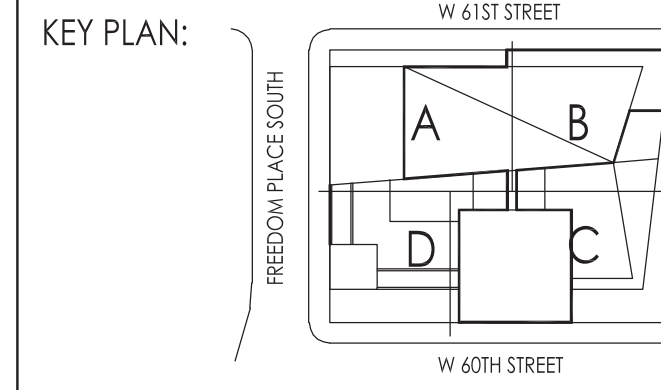
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PROJECT:
RIVERSIDE CENTER
BUILDING 2

DRAWING TITLE:
FOUNDATION SHEAR WALL
MAT DETAILS

SEAL & SIGNATURE:
DATE: JULY 15, 2011
PROJECT No.: 2011-072
DRAWN BY:
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DRAWING NO.:
FO-110.00
CADD FILE NO.:



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BUILDING TWO
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INTERIOR DESIGN ARCHITECT

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XXXXXX

FOUNDATION NOTES:

A. EXCAVATION

- ALL FOUNDATIONS SHALL BEAR ON PILES (SEE PILE & FOOTING NOTES).
- WHERE EXISTING FOOTING OR FOUNDATIONS OF ADJACENT PROPERTY IS LOWER THAN ELEVATIONS SHOWN, NEW FOUNDATIONS ARE TO BE LOWERED TO SAME ELEVATION. WHERE NEW FOUNDATION IS LOWER THAN EXISTING FOUNDATIONS CONTRACTOR IS TO UNDERPIN EXISTING FOUNDATION. CONTRACTOR IS TO ESTABLISH EXISTING CONDITIONS BEFORE COMMENCING WORK AND NOTIFY THE ENGINEER.
- ALL UNDERPINNING, SHEETING, SHORING OR OTHER CONSTRUCTION REQUIRED FOR THE SUPPORT OF ADJACENT PROPERTIES, BUILDINGS, RAILROAD TRACKS, SIDEWALKS, UTILITIES, ETC., SHALL BE SUBJECT TO CONTROLLED INSPECTION AS REQUIRED BY THE CODE. THE CONTRACTOR SHALL RETAIN A LICENSED PROFESSIONAL ENGINEER ACCEPTABLE TO THE ENGINEER OF RECORD TO PROVIDE THE NECESSARY DESIGN AND THE REQUIRED INSPECTION. THE CONTRACTOR'S PROFESSIONAL ENGINEER SHALL PREPARE AND FILE THE REQUIRED FORMS FOR THE WORK WITH THE BUILDING DEPARTMENT AND AMTRAK.

B. CONCRETE AND STEEL REINFORCEMENT

- ALL CONCRETE SHALL BE NORMAL WEIGHT CONTROLLED CONCRETE, U.O.N., AND COMPLY WITH A.C.I. BUILDING CODE AND THE CURRENT NEW YORK CITY BUILDING CODE.
- CONCRETE STRENGTH SHALL BE AS FOLLOWS, UNLESS OTHERWISE NOTED:
-FOUNDATION PIERS, PILE CAPS & MATS 4000 PSI U.O.N. ON PLAN
-BUTTRESSES AND FOUNDATION WALLS 4000 PSI MIN.
-COLUMN PIERS IF ANY 4000 PSI MIN.
-SLAB ON GROUND 9000 PSI
-CRASH WALL 9000 PSI

*IF SLAB ON GROUND IS POURED BEFORE THE COLUMNS ABOVE AND THE COLUMN STRENGTH IS 5950 PSI OR GREATER, THE SLAB ON GROUND STRENGTH IS TO BE ACCORDING TO THE DETAIL OF BEAM AND SLAB CONCRETE PLACEMENT AT HIGH STRENGTH COLUMN. DWS. 3-950. IN ADDITION, THE DOWELS EXTENDING ABOVE THE FOOTINGS, PIERS OR PILE CAPS ARE TO BE LENGTHENED A MIN. 12", BEYOND THAT SHOWN OR CALLED FOR IN THE DETAILS.

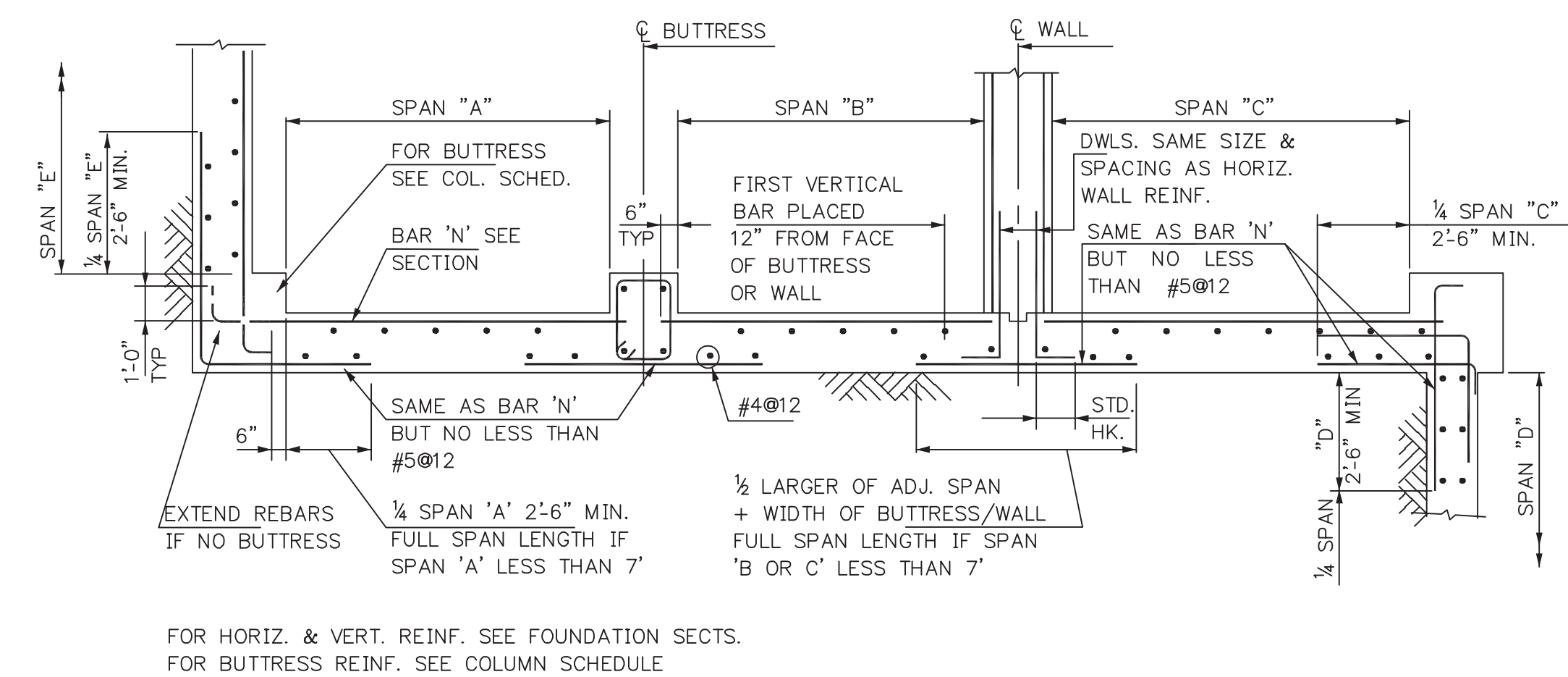
- ALL STEEL REINFORCEMENT SHALL HAVE AN ULTIMATE TENSILE STRENGTH OF 90,000 PSI AS PER A.S.T.M. A615-94 GRADE 60, A.S.T.M. A775-94D FOR EPOXY COATED REINFORCING BARS, AND A.S.T.M. A884-94d FOR EPOXY COATED STEEL WIRE AND WELDED WIRE FABRIC FOR REINFORCEMENT. THE CONTRACTOR SHALL FURNISH AND INSTALL ALL THE NECESSARY CHAIRS, REBARS, TIES, SPACERS, ETC., TO SECURE AND SUPPORT THE REINFORCING WHILE PLACING THE CONCRETE.
- ALL BARS MARKED CONTINUOUS, SHALL BE LAPPED 36 DIAMETERS AT SPLICES AND CORNERS EXCEPT AS OTHERWISE SHOWN ON PLANS. LAP CONTINUOUS TOP BARS AT CENTER BETWEEN SUPPORTS AND BOTTOM BARS AT SUPPORTS. HOOK TOP BARS AT DISCONTINUOUS ENDS.
- VERTICAL CONSTRUCTION JOINTS IN ALL WALLS SHALL BE USED ONLY IF UNAVOIDABLE, OR UNLESS OTHERWISE NOTED, AND TO BE LOCATED AT LEAST 4'-0" FROM ANY SUPPORTING COLUMN OR WALL OPENING. DISTANCE BETWEEN JOINTS IN WALL SHALL BE ALLOWED AS PER SPECIFICATIONS. NO HORIZONTAL CONSTRUCTION JOINTS WILL BE ALLOWED IN GRADE BEAMS.
- IN NO CASE SHALL TRUCKS, BULDOZERS, OR OTHER HEAVY EQUIPMENT BE PERMITTED CLOSER THAN 8'-0" FROM ANY FOUNDATION WALL UNLESS APPROVED BY THE ENGINEER.
- TEMPORARY BRACING SHALL BE PROVIDED FOR ALL BUTTRESSES, WHERE BUTTRESSES DO NOT EXIST OR SPACING BETWEEN BUTTRESSES EXCEED 25 FEET, AND WHERE THE DIFFERENCE IN LEVEL BETWEEN INSIDE AND OUTSIDE GRADE IS MORE THAN 4'-0". INTERMEDIATE BRACING SHALL BE PROVIDED. WHERE RAMPS OCCUR, THE GRADE ELEVATION OUTSIDE OF RAMP WALLS SHALL BE USED IN FIGURING THE DIFFERENCE IN LEVEL. CORNER BUTTRESSES NEED NOT BE BRACED. NO BACKFILLING IS TO BE DONE BEFORE ALL SLABS BRACING WALLS ARE IN PLACE UNLESS APPROVED BY THE ENGINEER. PROVIDE TEMPORARY BRACING FOR ALL PIERS AND SUMP PITS.
- CONTRACTOR TO INSTALL ALL PIPE SLEEVES, BOXED OPENINGS, ANCHOR BOLTS, ETC., AS REQUIRED FOR THE VARIOUS TRADES. WALL POCKETS TO RECEIVE BEAMS AND SLABS SHALL BE PROVIDED AS REQUIRED FOR THE SUPERSTRUCTURE. SHOP DRAWINGS SHOWING THE POSITION OF OPENINGS SHALL BE SUBMITTED TO THE STRUCTURAL ENGINEER PRIOR TO PLACING CONCRETE.
- MINIMUM COVER FOR REINFORCING STEEL SHALL BE 3" FOR INTERIOR SLABS AND INTERIOR WALL SURFACES; 1 1/2" FOR BEAMS, GIRDERS, AND COLUMNS (TIES, STIRRUPS OR PRIMARY REINFORCEMENT). FOR ALL CONCRETE EXPOSED TO WEATHER AND EARTH FILL, COVER SHALL BE 2" (1 1/2" FOR STIRRUPS) FOR CONCRETE PLACED AGAINST EARTH. MINIMUM COVER SHALL BE 3".
- THE CONTRACTOR MUST SUBMIT REINFORCING SHOP DRAWINGS TO THE STRUCTURAL ENGINEER FOR REVIEW. NO CONSTRUCTION IS TO BE STARTED UNTIL THE SHOP DRAWINGS ARE REVIEWED BY THE ENGINEER.

C. CODES AND TESTS

- THIS STRUCTURE HAS BEEN DESIGNED UNDER THE PROVISIONS OF THE NEW YORK CITY BUILDING CODE AS AMENDED AND A.C.I. 318.
- ALL CONTROLLED CONCRETE SHALL COMPLY WITH THE A.C.I. 318 BUILDING CODE. APPLICATION FOR CONTROLLED CONCRETE WITH CONCRETE TESTS AND CURVES OF TESTS FOR THE PRELIMINARY DESIGN MIX PREPARED BY AN APPROVED LABORATORY MUST BE SUBMITTED TO THE ENGINEER FOR FILING WITH THE BUILDING DEPARTMENT. NO CONCRETE SHALL BE PLACED WITHOUT THE DESIGN MIX BEING APPROVED BY THE BUILDING DEPARTMENT.
- DESIGN AND CONSTRUCTION OF FORMWORK IS TO COMPLY WITH THE A.C.I. 318-89 BUILDING CODE AND NEW YORK CITY BUILDING CODE AS AMENDED.
- THE DESIGN DETAILS AND NOTES INCLUDED HEREIN ARE IN COMPLIANCE WITH LOCAL LAW 17/95.

D. SEISMIC AND WIND CRITERIA

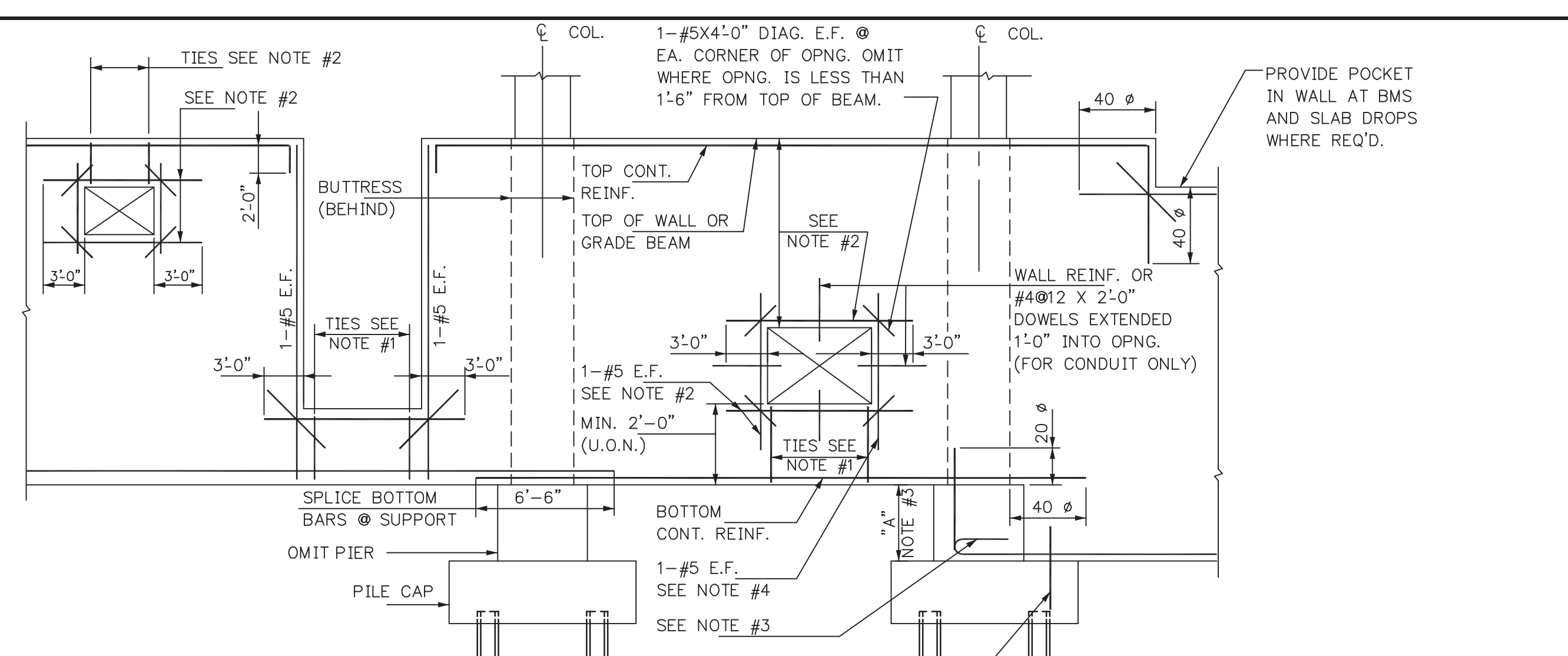
- THE STRUCTURE HAS BEEN DESIGNED IN ACCORDANCE WITH THE LATEST NEW YORK CITY BUILDING CODE (NYCBC 2008).
- WIND DESIGN DATA:
WIND LOADS BASED ON PROJECT SPECIFIC WIND TUNNEL TEST RW01 11/18/2011 IN ACCORDANCE WITH PROVISION OF NYCBC 2008.
- EARTHQUAKE DESIGN DATA:
IN ACCORDANCE WITH SITE-SPECIFIC ANALYSIS MUESER RUTLEDGE 9/9/2011
- SEISMIC IMPORTANCE FACTOR = 1.25
- $S_s = 0.447$ $S_1 = 0.111$
- $S_{D1} = 0.447$ $S_{D2} = 0.177$
- SITE CLASS AS PER A SITE SPECIFIC STUDY
- SEISMIC DESIGN CATEGORY = C
- SEISMIC FORCE RESISTING SYSTEM = ORDINARY REINFORCED CONCRETE SHEARWALLS
- DESIGN BASE SHEAR (V):
 $E/W = 4200$ kips
 $N/S = 4200$ kips
- SEISMIC RESPONSE COEFFICIENT (C_s):
 $E/W = 0.0264$
 $N/S = 0.0264$
- RESPONSE MODIFICATION FACTORS:
 $R = 5$
- ANALYSIS PROCEDURE USED = EQUIVALENT LATERAL FORCE PROCEDURE



EXTERIOR CORNER

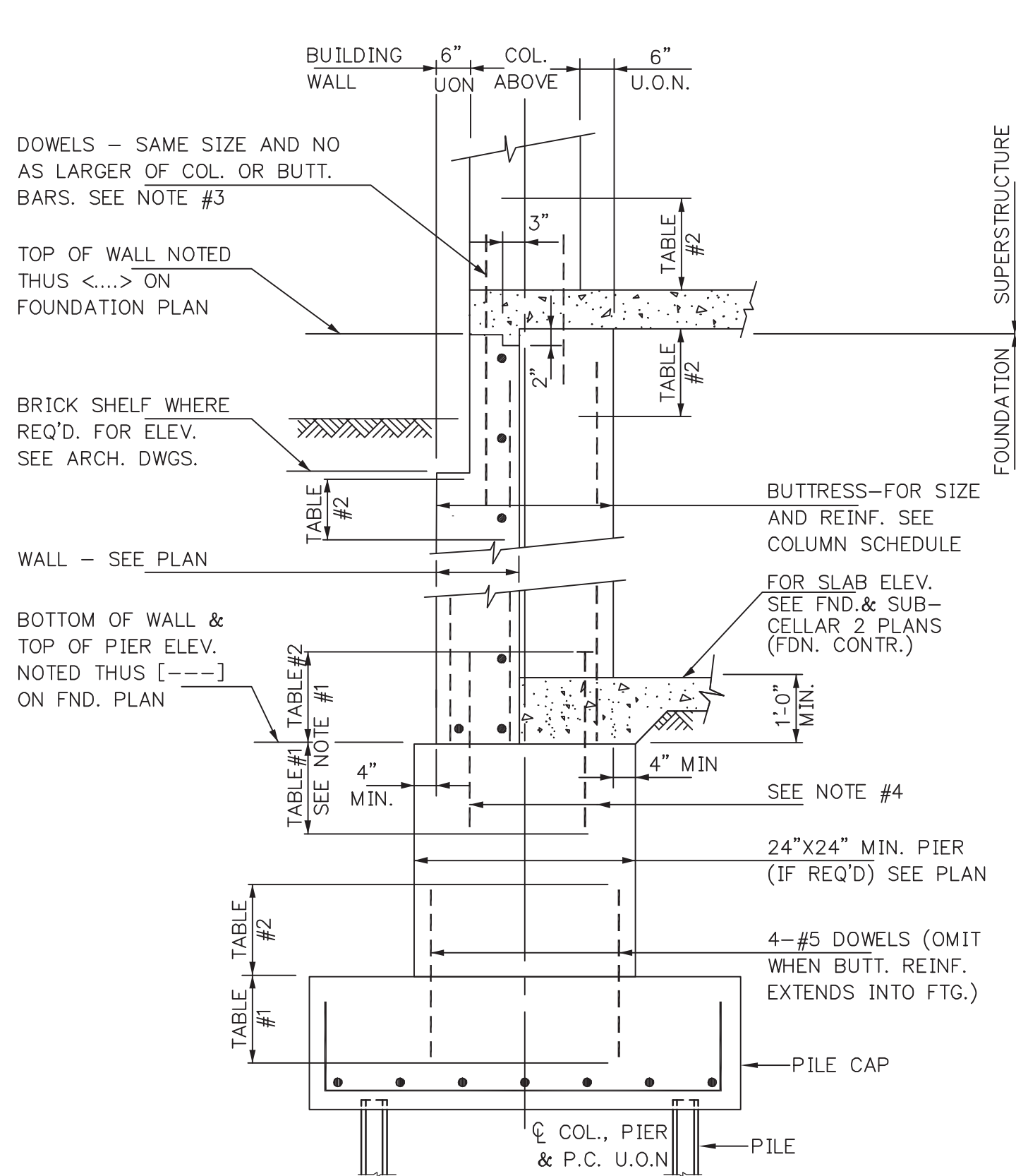
RE-ENTRANT CORNER

HORIZONTAL SECTION SHOWING METHOD
OF PLACING WALL REINFORCEMENT



ELEVATION SHOWING REQUIRED REINFORCING
AT OPENING AND MISC. DETAILS

- NOTES:
- WHERE EDGE OF OPENING IS 2'-6" OR LESS FROM BOTTOM OF WALL OR GRADE BEAM ADD #3 @2.
 - WHERE EDGE OF OPENING IS 2'-6" OR LESS FROM TOP OF WALL OR GRADE BEAM ADD 1-#7 E.F. OVER OPENING. (INSTEAD OF 1-#5 E.F.) PROVIDE #3 @2.
 - WHERE DIMENSIONS "A" EXCEEDS 1'-6" BOTT. BARS MAY BE HOOKED 180°.
 - ADD #5 BARS EA. SIDE OF OPENING EQUAL IN AREA TO 1/2 OF INTERRUPTED BARS MIN. 1'-6" E.F.



TYPICAL BUTTRESS DETAIL

NOTES:

- WHEN PIER HEIGHT IS LESS THAN 2'-6" RUN BUTTRESS REINF. INTO FTG.
- MAXIMUM PIER UNREINF. HEIGHT TO BE 8 TIMES LEAST DIMENSION; FOR REINF. REQ'D WHEN HEIGHT EXCEEDS 8 TIMES LEAST DIMENSION SEE GENERAL FOUNDATION NOTES
- WHERE GRADE BEAM HEIGHT IS LESS THAN 3'-0" CARRY DOWELS INTO PIER OR FOOTING.
- OMIT THESE BARS WHERE GRADE BEAM HEIGHT IS LESS THAN 3'-0"
- PROVIDE DOVETAIL TYPE MASONRY ANCHORS SPACED 2'-0" o.c. WHERE HEIGHT OF BRICK SHELF EXCEEDS 1'-6"

BAR SIZE	TABLE #1	#4	#5	#6	#7	#8	#9	#10	#11	#14	#18
EMBEDMENT LENGTH		10	13	15	18	20	23	26	29	34	46

BAR SIZE	TABLE #2	#4	#5	#6	#7	#8	#9	#10	#11	#14	#18
EMBEDMENT LENGTH		10	13	15	18	20	23	26	29	34	46

BAR SIZE	TABLE #2	#4	#5	#6	#7	#8	#9	#10	#11	#14	#18
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||



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BUILDING TWO
NEW YORK, NY

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EXTELL DEVELOPMENT

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MECHANICAL ENGINEER

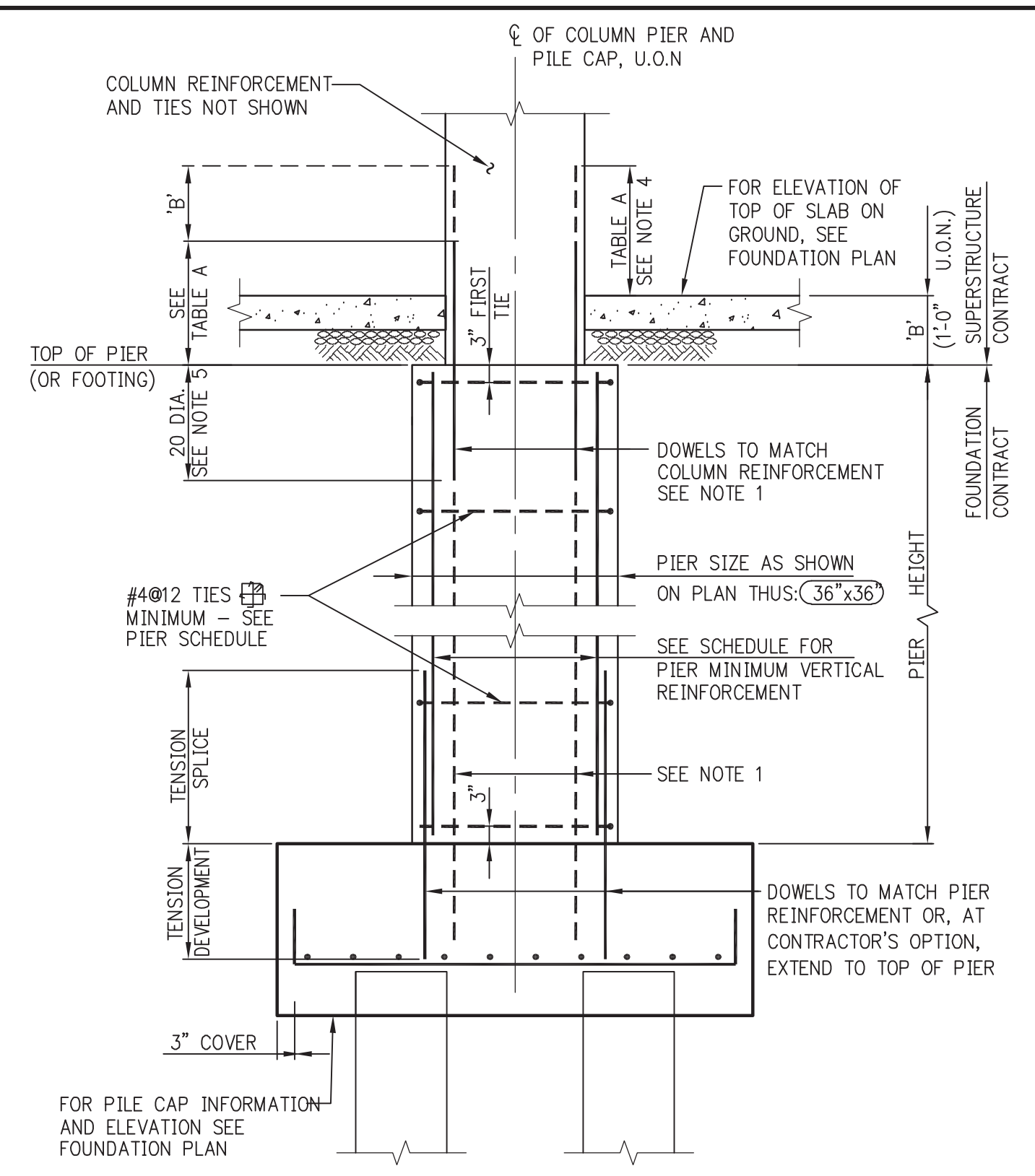
WSP FLACK+KURTZ

510 SEVENH AVENUE
NEW YORK, NY 10017
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F: 646.487.5501

INTERIOR DESIGN ARCHITECT

XXXXX

XXXXXX

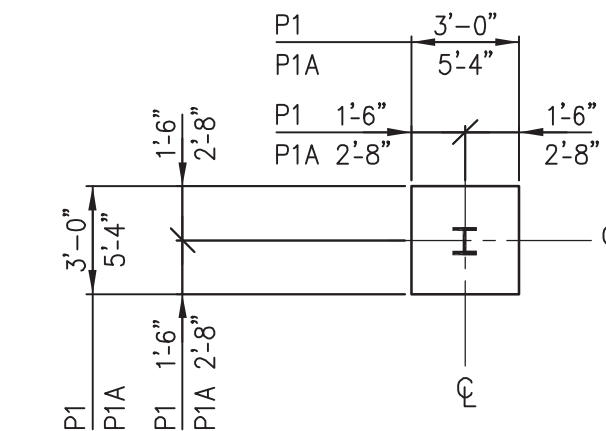


INTERIOR PILE CAP AND PIER
AT CONCRETE COLUMN

NOTES:

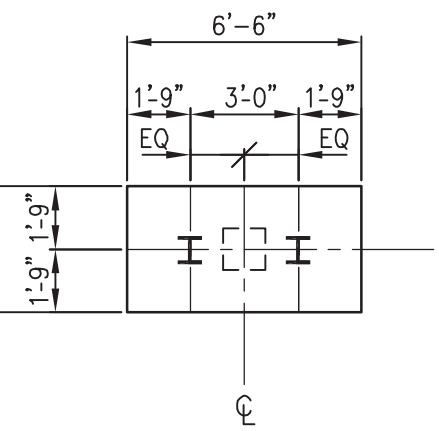
- WHERE PIER HEIGHT IS LESS THAN EMBEDMENT LENGTH OF COLUMN DOWELS, EMBED DOWELS IN PILE CAP AND EXTEND THROUGH PIER INTO COLUMN ABOVE.
- AT CONTRACTOR'S OPTION, A SHORT PIER MAY BE ELIMINATED BY THICKENING THE COLUMN PILE CAP TO THE TOP OF PIER ELEVATION.
- MAXIMUM PIER HEIGHT TO BE EIGHT TIMES THE LEAST PIER DIMENSION. INCREASE PIER SIZE AS REQUIRED TO MAINTAIN THIS RATIO.
- WHEN SLAB ON GROUND IS POURED BEFORE COLUMN, INCREASE LENGTH OF DOWELS BY DIMENSION "B" (FROM TOP OF PIER TO TOP OF SLAB). IN ADDITION, IF COLUMN CONCRETE STRENGTH IS GREATER THAN 1.4 TIMES SLAB CONCRETE STRENGTH, THE SLAB CONCRETE STRENGTH MUST BE INCREASED LOCALLY TO MATCH COLUMN CONCRETE STRENGTH FOR A DISTANCE OF 2 FEET IN ALL DIRECTIONS FROM COLUMN FACES.
- IF GRADE 75 COLUMN REINFORCEMENT IS USED, INCREASE DOWEL EMBEDMENT LENGTH TO 24 DIAMETERS.
- MINIMUM CONCRETE STRENGTH OF $f_c=4,000$ PSI IS REQUIRED FOR PIER AND PILE CAP. SEE PLANS AND NOTES FOR GREATER STRENGTH REQUIREMENTS.

PIER: MINIMUM VERTICAL REINFORCEMENT	
PIER SIZE (OR EQUIVALENT)	VERTICAL REINF.
UP TO 36x36	8-#6
36x36 TO 48x48	12-#6
48x48 TO 54x54	12-#7
54x54 TO 66x66	16-#7
66x66 TO 84x84	16-#8
OVER 84 TO BE SUPPLIED IN PIER SCHEDULE	



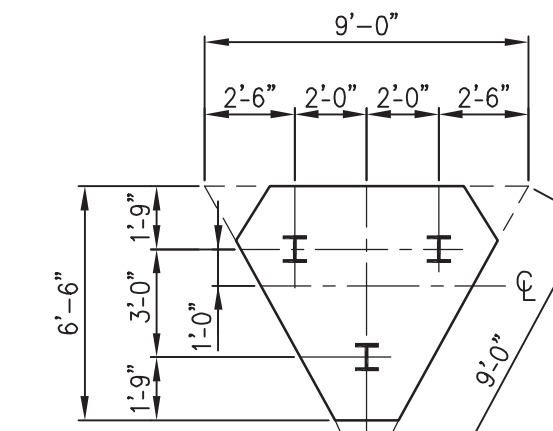
P1 & P1A

DEPTH: 2'-9"
REINF: 5-#4@8 TIES
1-#11 EA. WAY
2-#5 TOP EA. WAY (P1)
5-#5 TOP EA. WAY (P1A)



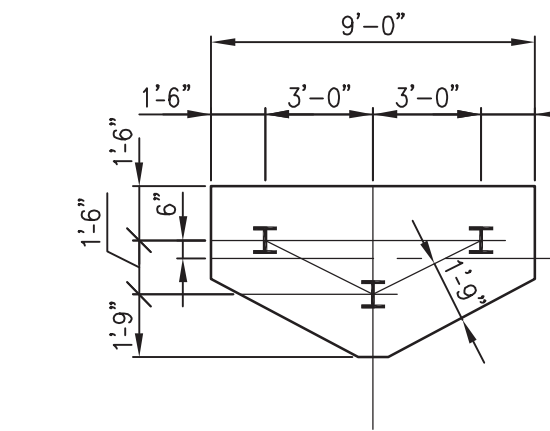
P2

DEPTH: 3'-0"
REINF: 5-#8 LONG BARS
12-#8 SHORT BARS
ALL BARS W/90° HOOKS



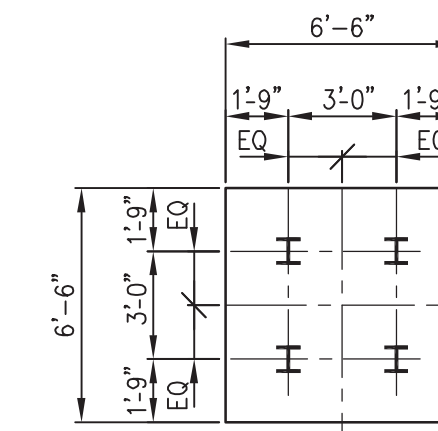
P3

DEPTH: 3'-4"
REINF: 4-#8 W/90° HOOKS
EA. END 3 WAYS



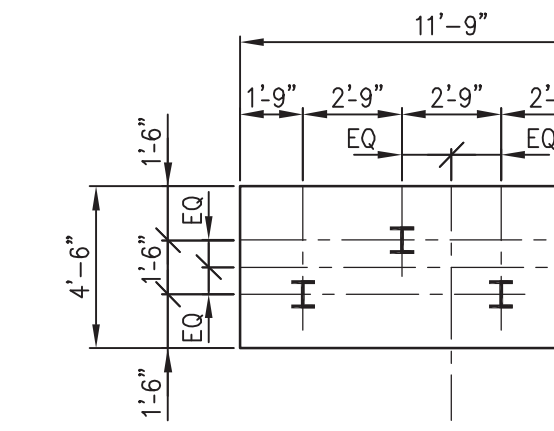
P3A

DEPTH: 3'-4"
REINF: 5-#8 W/90° HOOKS
EA. END 3 WAYS



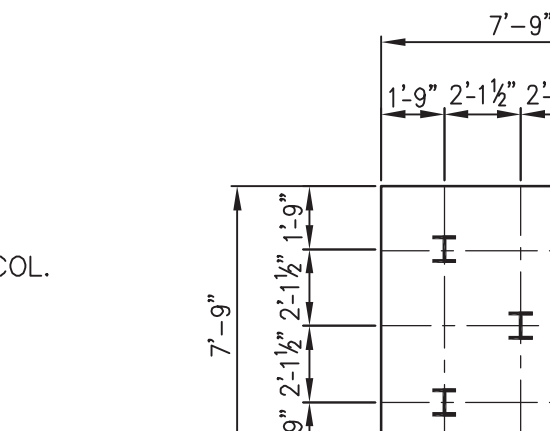
P4

DEPTH: 4'-0"
REINF: 6-#10B BOTH WAYS
W/90° HOOKS EA. END



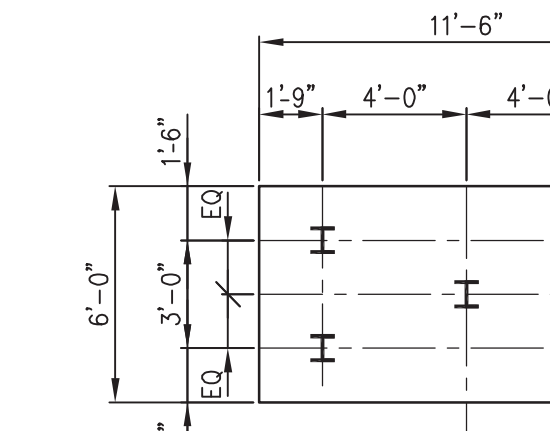
P4A

DEPTH: 4'-6"
REINF: 10-#11B LONG BARS
W/90° HOOKS EA. END
13-#8B SHORT BARS
W/90° HOOKS EA. END



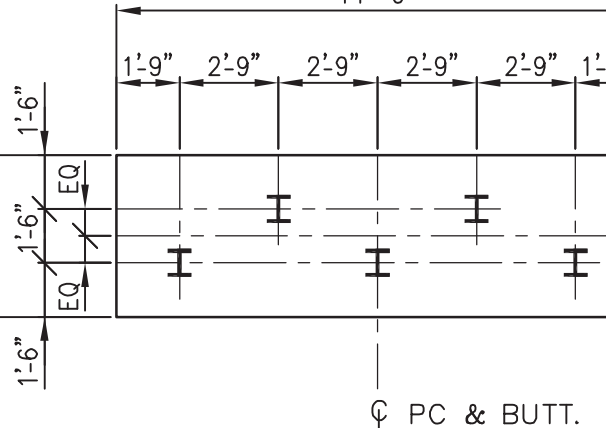
P5

DEPTH: 4'-0"
REINF: 11-#8B
W/90° HOOKS EA. END



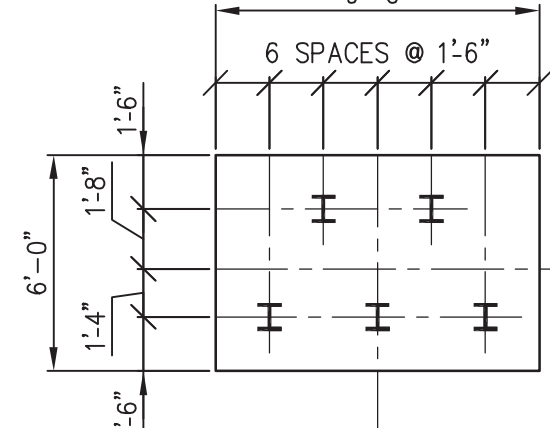
P5A

DEPTH: 4'-6"
REINF: 14-#8B SHORT BARS
W/90° HOOKS EA. END
13-#8B LONG BARS
W/90° HOOKS EA. END



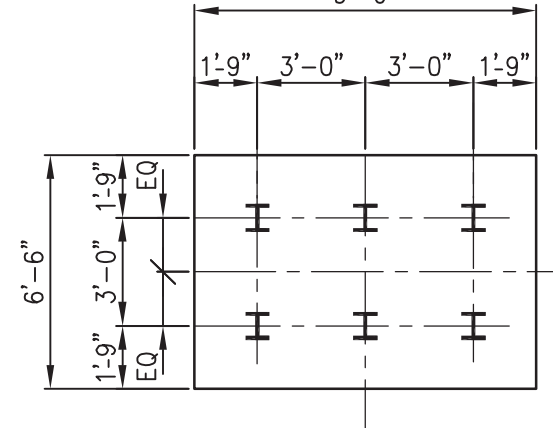
P5B

DEPTH: 3'-10"
REINF: 16-#11B SHORT BARS
W/90° HOOKS EA. END
16-#11B LONG BARS
W/90° HOOKS EA. END



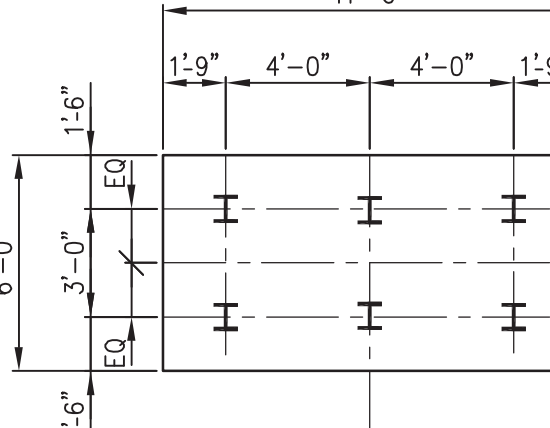
P5C

DEPTH: 4'-0"
REINF: 10-#10B LONG BARS
W/90° HOOKS EA. END
8-#10B SHORT BARS
W/90° HOOKS EA. END



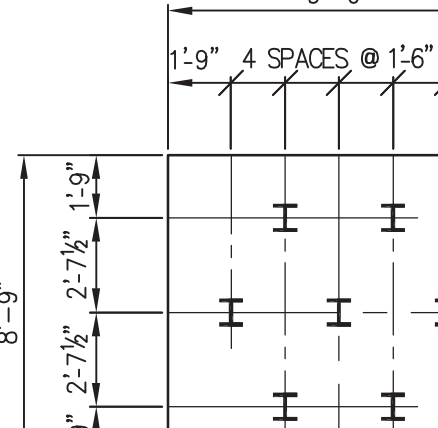
P6

DEPTH: 4'-0"
REINF: 12-#10B LONG BARS
W/90° HOOKS EA. END
8-#10B SHORT BARS
W/90° HOOKS EA. END



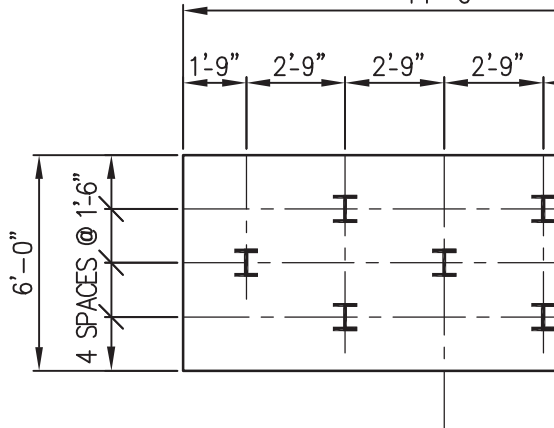
P6A

DEPTH: 4'-0"
REINF: 14-#10B LONG BARS
W/90° HOOKS EA. END
13-#8B SHORT BARS
W/90° HOOKS EA. END



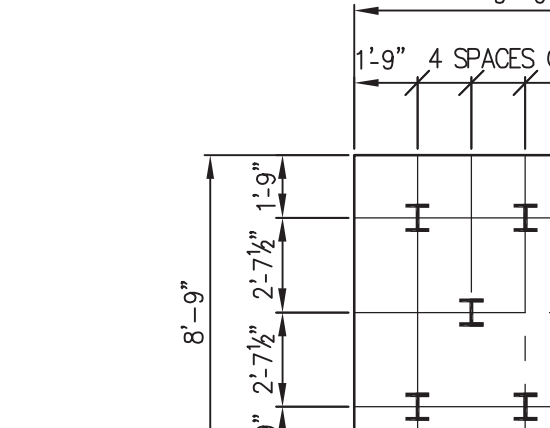
P7

DEPTH: 4'-5"
REINF: 11-#10B BOTH WAYS
W/90° HOOKS EA. END



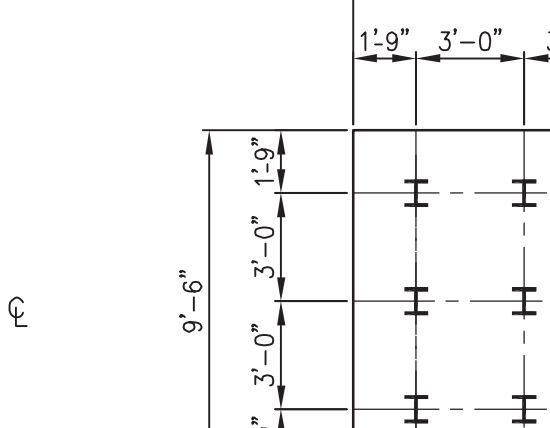
P7A

DEPTH: 4'-5"
REINF: 14-#11B SHORT BARS
W/90° HOOKS EA. END
18-#11B LONG BARS
W/90° HOOKS EA. END



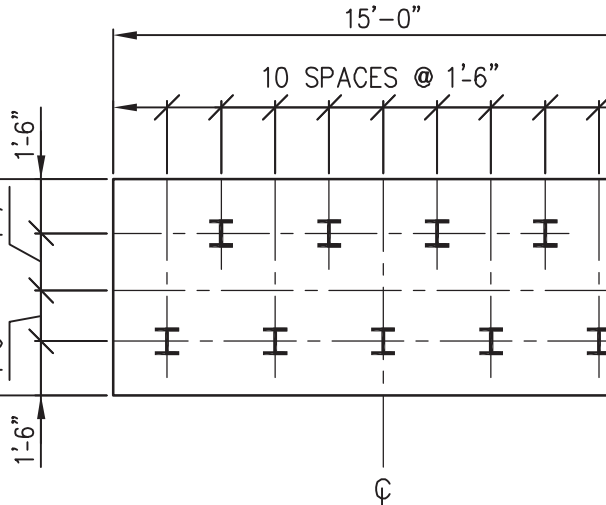
P8

DEPTH: 4'-6"
REINF: 14-#8B BOTH WAYS
W/90° HOOKS EA. END



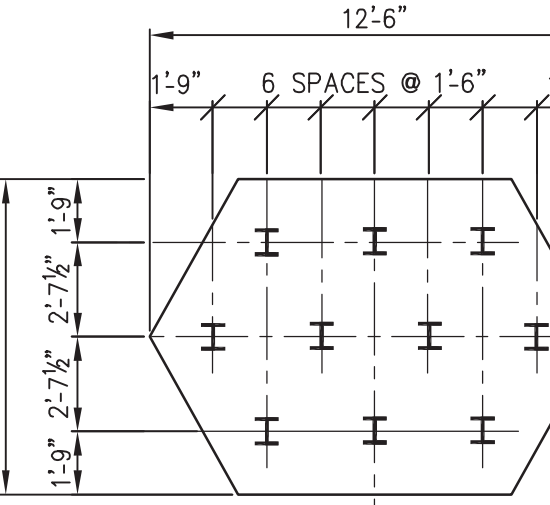
P9

DEPTH: 5'-0"
REINF: 14-#11B BOTH WAYS
W/90° HOOKS EA. END



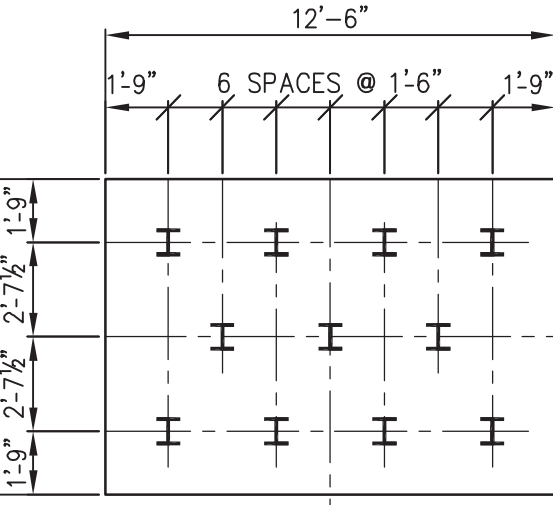
P9A

DEPTH: 4'-6"
REINF: 18-#11B SHORT BARS
W/90° HOOKS EA. END
14-#11B LONG BARS
W/90° HOOKS EA. END



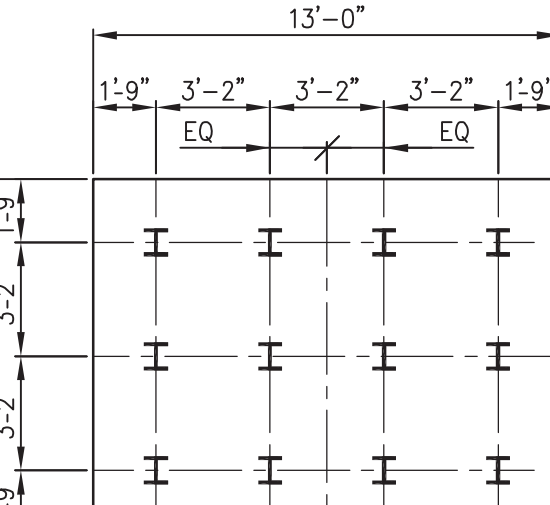
P10

DEPTH: 5'-0"
REINF: 17-#11B BOTH WAYS
W/90° HOOKS EA. END



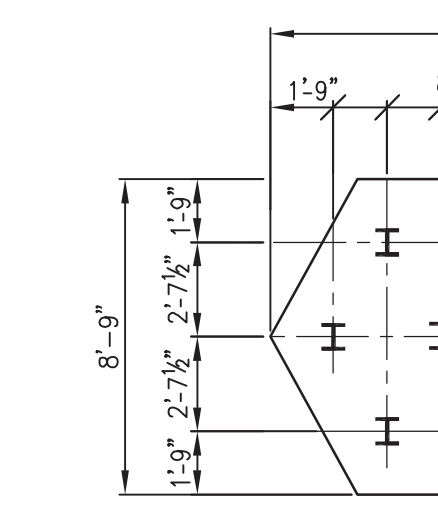
P11

DEPTH: 5'-6"
REINF: 17-#11B BOTH WAYS
W/90° HOOKS EA. END



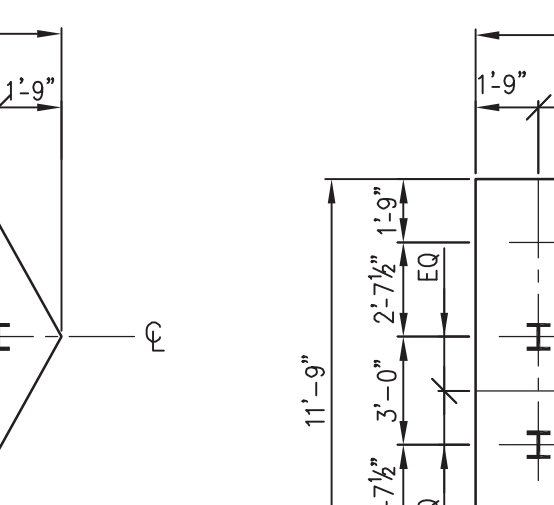
P12

DEPTH: 6'-0"
REINF: 18-#11B LONG BARS
W/90° HOOKS EA. END
14-#11B SHORT BARS
W/90° HOOKS EA. END



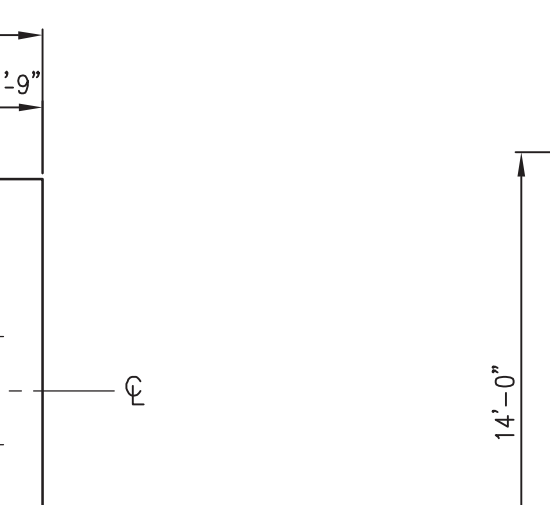
P13

DEPTH: REINF:



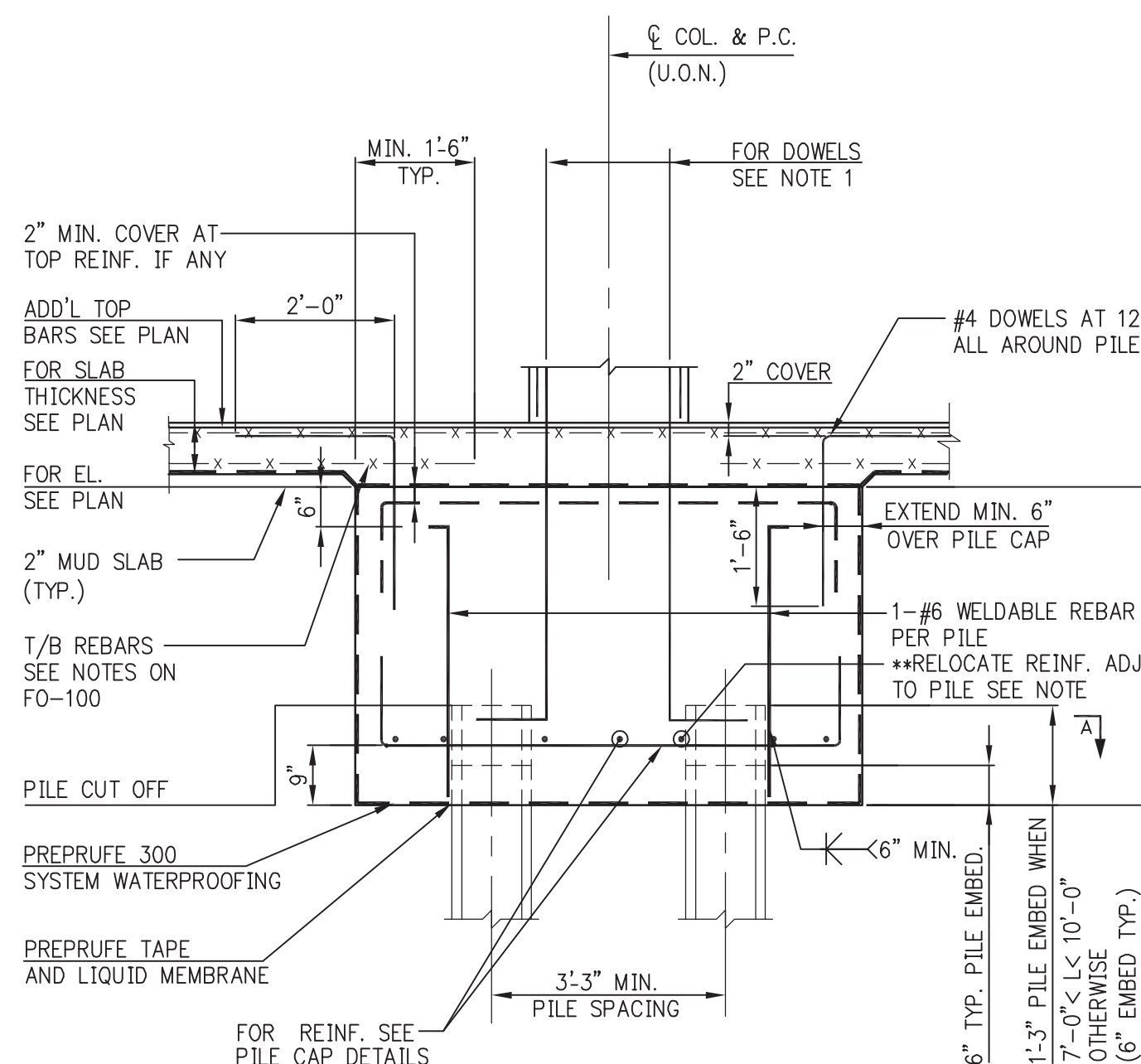
P14

DEPTH: 6'-4"
REINF: 18-#11B BOTH WAYS
W/90° HOOKS EA. END



P19

DEPTH: 6'-6"
REINF: 28-#11B BOTH WAYS
W/90° HOOKS EA. END



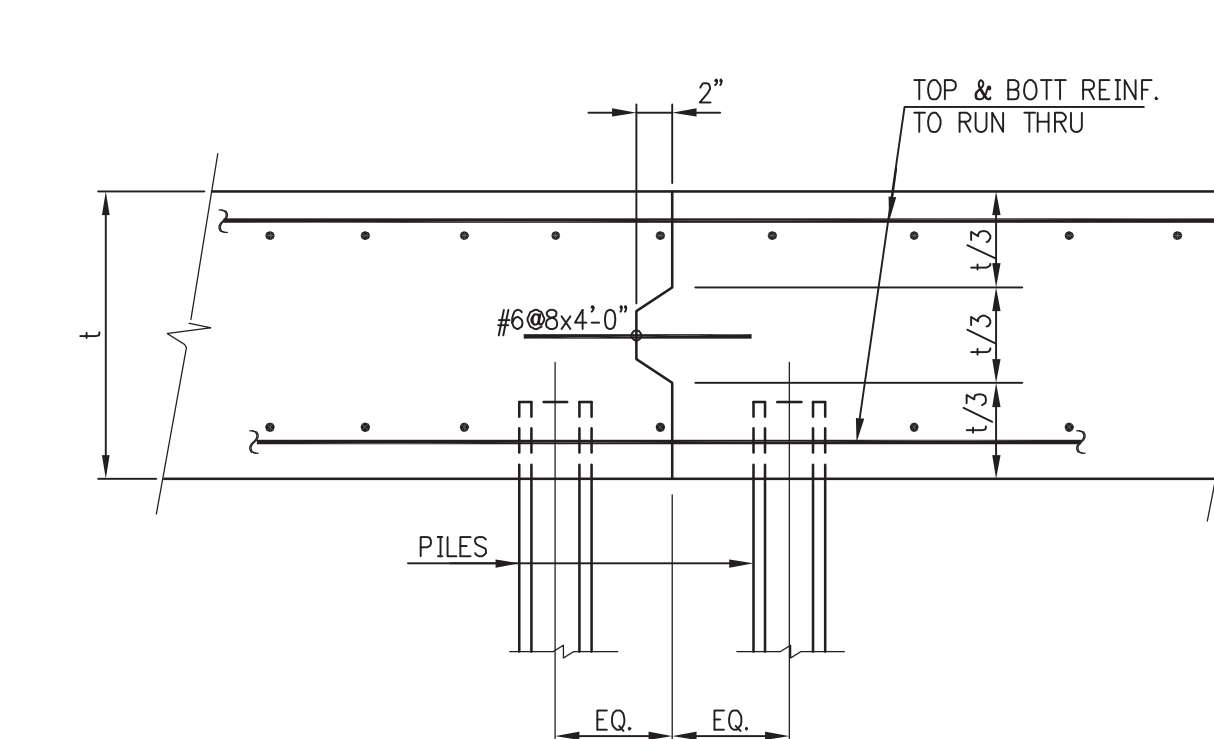
SECTION A

NOTES:
1. DETAIL APPLIES FOR PILE EMBED. = 1'-3" 2. REFER TO PILE CAP DETAILS FOR FURTHER INFORMATION

TYPICAL CROSS SECTION THRU PILE/MINI CAISSON DETAIL

SCALE: 1/2" = 1'-0"

- NOTES:
- WHERE SLAB IS POURED OVER FOUNDATION PIER TO COLUMN, VERTICAL REINFORCING AND DOWEL LAP TO START AT TOP OF SLAB.
 - INDICATES LENGTH OF THE PILES.
 - INDICATES THAT DEPTH OF PILE CAP SHALL BE INCREASED BY 9" WHEN LENGTH OF THE PILES (L) IS 7'-0" < L < 10'-0" (I.E. PILE EMBED. = 1'-3").
 - PILE CAP REIN. PLACED EITHER SIDE OF PILE WHEN PILE EMBED. = 1'-3".
 - IF LENGTH OF PILES IS LESS THAN 7'-0", PILES SHALL BE CUT AT ROCK LEVEL AND PILE CAP SHALL BE EXTENDED DOWN TO REST ON A MINIMUM 20 TON/3' ROCK.




TYPICAL PILE CAP
CONSTRUCTION JOINT DETAIL
FOR LOCATION SEE SHEAR WALL FOUNDATION DETAILS


Maria-Teresa Fernandez
Building
APPROVED
Under Directive 2 of 1975
Date/Time: Dec 7, 2012 - 3:25 PM
NYC Development Hub

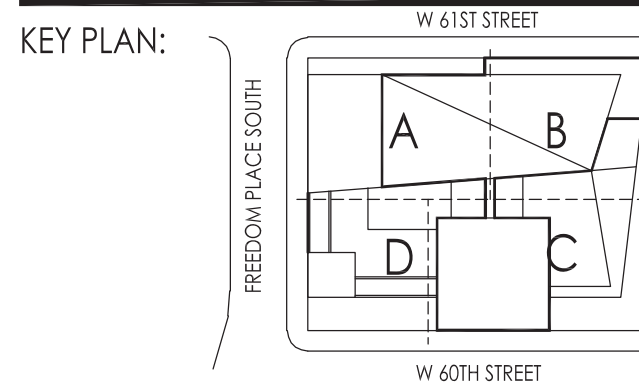
07-02-12	ISSUED FOR D.O.B.
06-19-12	ISSUED FOR AMTRAK TO REVIEW
06-08-12	ISSUED FOR AMTRAK TO REVIEW
12-08-11	85% CD
No.	Date: Revisior:

NORTH ARROW



Scale: AS NOTED





PROJECT:
**RIVERSIDE CENTER
BUILDING 2**

DRAWING TITLE:
**TYPICAL FOUNDATION
DETAILS II**

SEAL & SIGNATURE:

DATE: JULY 15, 2011
PROJECT No.: 2011-075
DRAWN BY:
CHECKED BY:
DRAWING NO.:
CADD FILE NO.: **FO-201.00**

