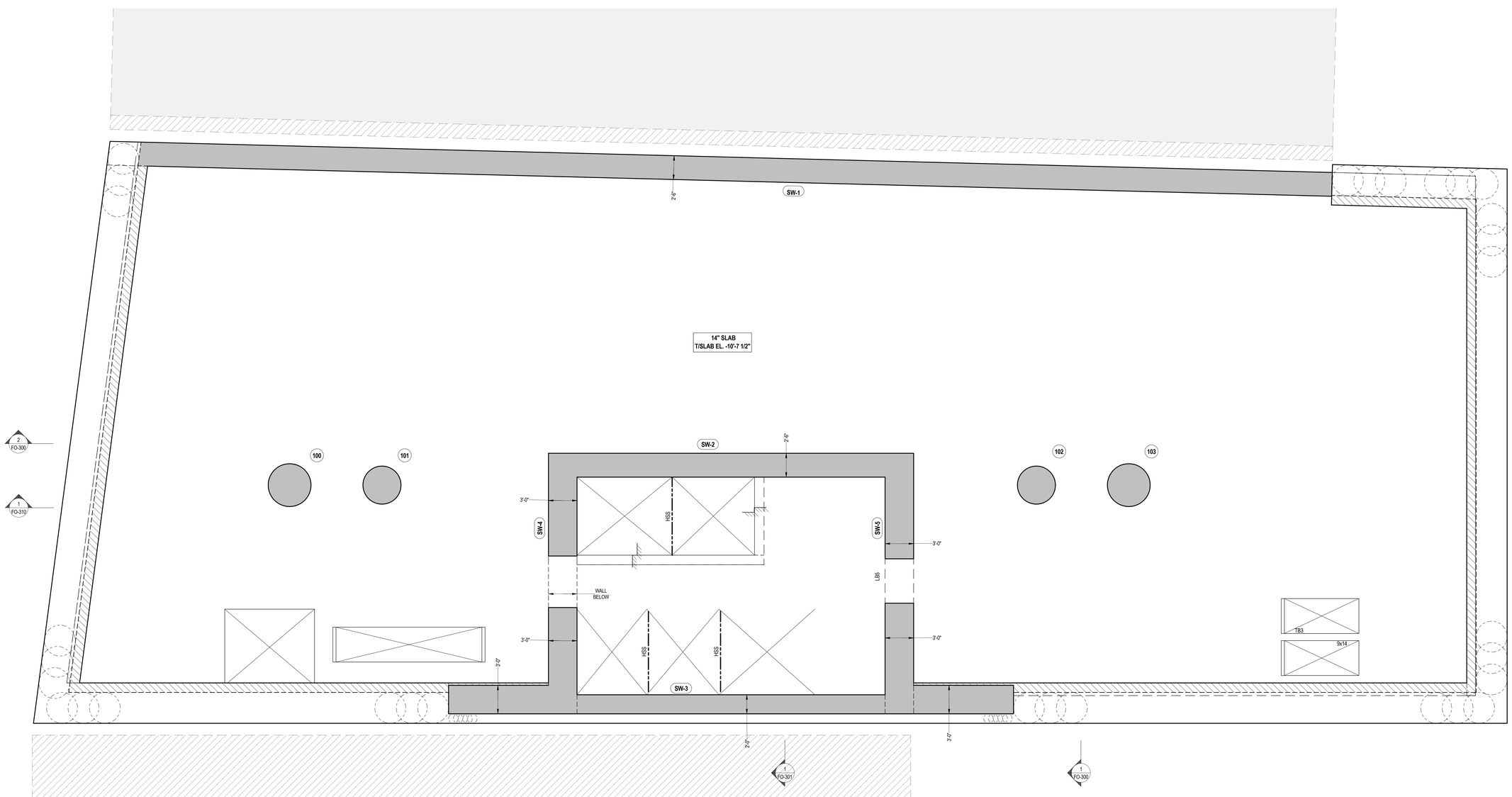
DEPT OF BLDGS 121207/2 Job Number

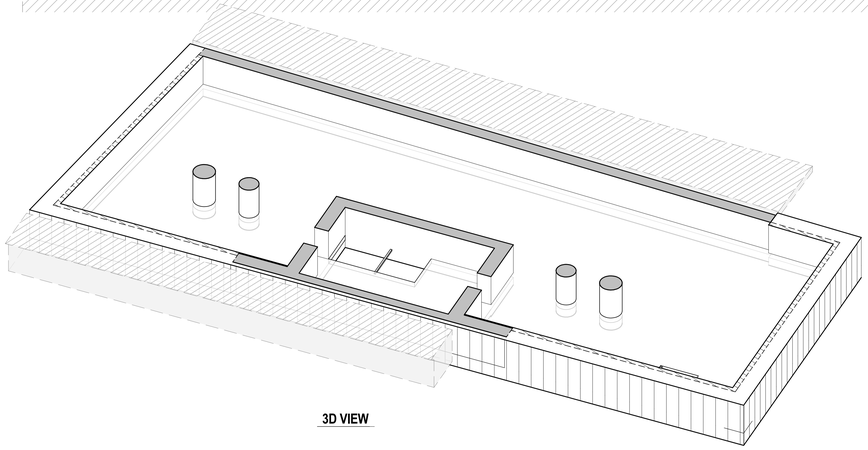
E342994845 Scan Code

45 BROAD STREET

NEW YORK NY 10004

ARCHITECT	**John A. Cetra** State of New York Registered Architect No. 018861 **CetraRuddy Architecture DPC** 584 Broadway Suite 401 New York, NY 10012 212.941.9801	OWNER	**Madison 45 Broad Development, LLC** 105 Madison Avenue New York, NY 10016
STRUCTURAL ENGINEER	**WSP Group** 228 East 45th Street, 3rd Fl New York, NY 10017 212.687.9888	MEP ENGINEER	**BuroHappold Engineering** 100 Broadway New York, NY 10005 212.334.2025
GEOTECHNICAL ENGINEER	**LANGAN** 21 Penn Plaza 360 West 31st Street, 8th Fl New York, NY 10001 212.479.5400	LANDSCAPE ARCHITECT	
LIGHTING DESIGNER	**Ventresca Design, LLC** 44-02 Eleventh St, Suite 203 Long Island City, NY 11101 212.600.0033	LIFTER WALL CONSULTANT	**BuroHappold Engineering** 100 Broadway New York, NY 10005 212.334.2025





3D VIEW

1 S-001 CELLAR 2 FRAMING PLAN

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

NOTES:

1. TOP OF SLAB ELEVATION TO BE -10'-7 1/2" U.O.N. ON PLAN THUS
2. SLAB TO BE 14" THICK U.O.N. ON PLAN THUS
3. BOTTOM MAT REINFORCEMENT TO BE: #X@XX FOR XX" SLAB.
4. FOR BALANCE OF NOTES SEE DWG. S-010.

PRELIMINARY - NOT FOR CONSTRUCTION

2016.04.22 ISSUED FOR DESIGN DEVELOPMENT 1

CETRARUDDY

CELLAR 2 FRAMING PLAN

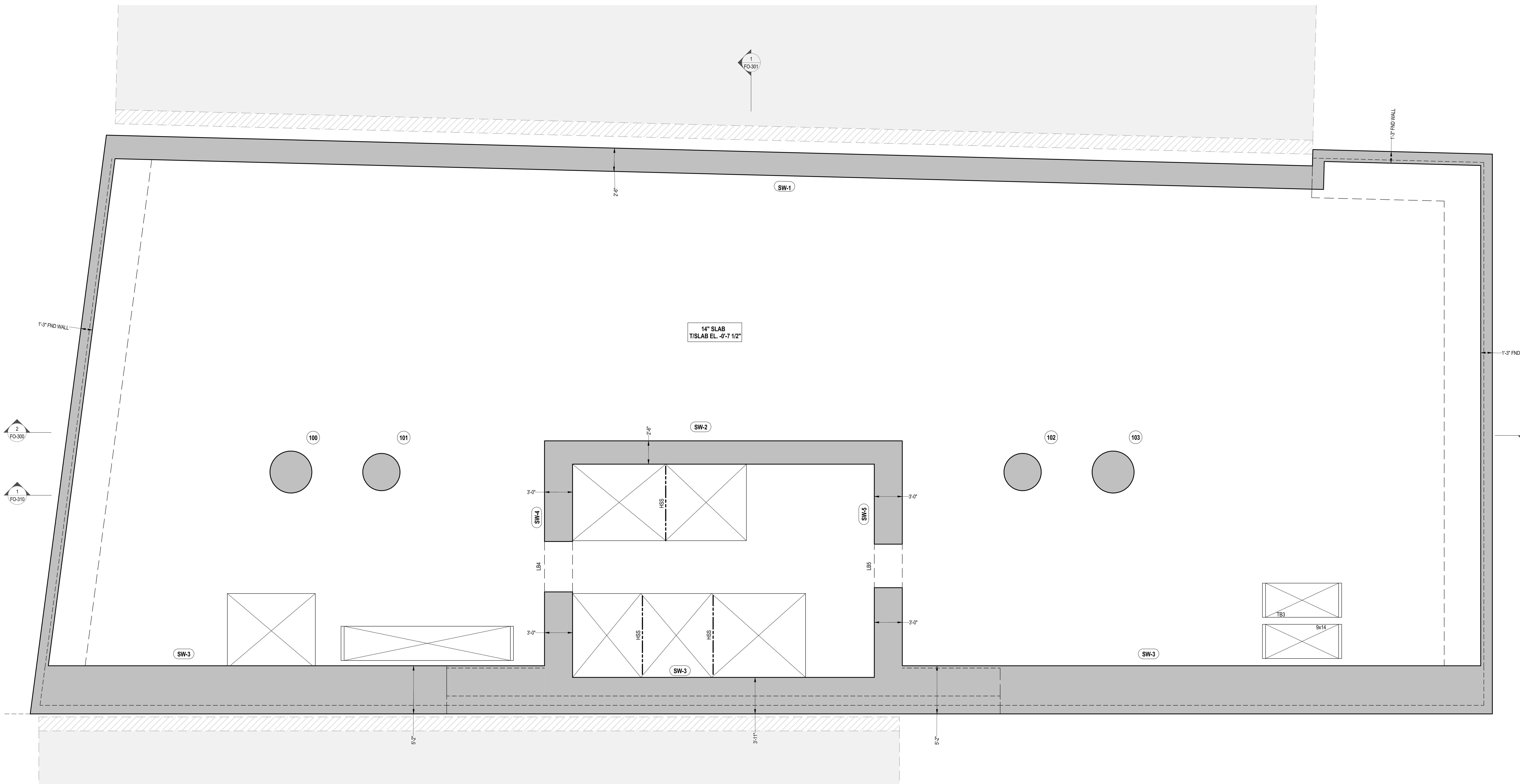
DRAWING NO. **S-001.00**

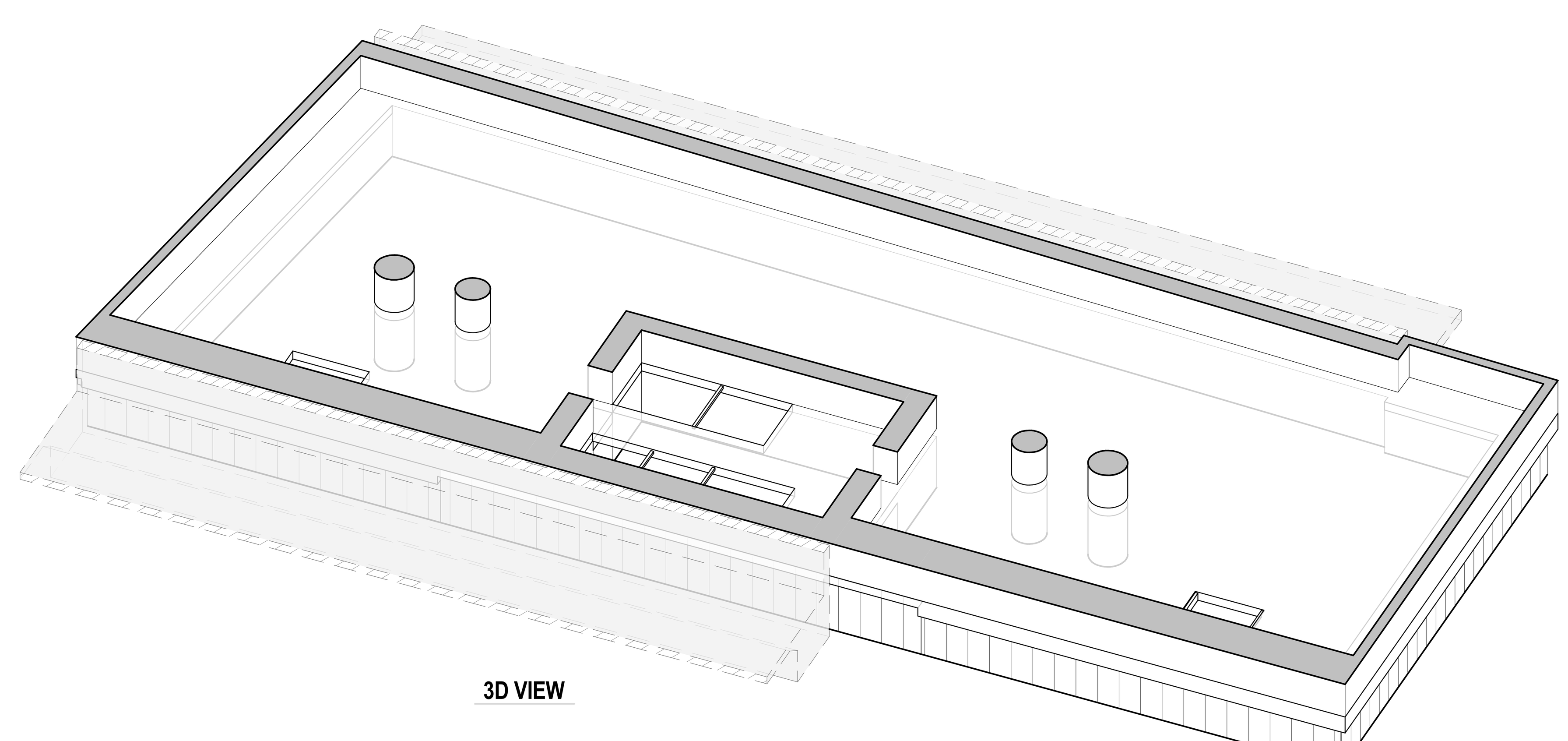
SCALE: As indicated

PROJECT: 1590109

DOB FILING NO.:

CETRARUDDY ARCHITECTURE DPC
584 BROADWAY NEW YORK NY 10012 T 212 941 9801 F 212 941 9440
WWW.CETRARUDDY.COM





3D VIEW

1 S-005 **CELLAR 1 FRAMING PLAN**

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

NOTES:

1. TOP OF SLAB ELEVATION TO BE -0'-7 1/2" U.O.N. ON PLAN THUS
2. SLAB TO BE 14" THICK U.O.N. ON PLAN THUS
3. BOTTOM MAT REINFORCEMENT TO BE: #X@XX FOR XX" SLAB.
4. FOR BALANCE OF NOTES SEE DWG. S-010.

45 BROAD STREET

NEW YORK NY 10004

ARCHITECT: **John A. Cetra**
State of New York
Registered Architect
No. 018861

CetraRuddy Architecture DPC
584 Broadway Suite 401
New York, NY 10012
212.941.9801

CLIENT: **Madison 45 Broad Development, LLC**
105 Madison Avenue
New York, NY 10016

STRUCTURAL ENGINEER: **WSP Group**
228 East 45th Street, 3rd Fl
New York, NY 10017
212.687.9888

MEP ENGINEER: **BuroHappold Engineering**
100 Broadway
New York, NY 10005
212.334.2025

GEOTECHNICAL ENGINEER: **LANGAN**
21 Penn Plaza
360 West 31st Street, 8th Fl
New York, NY 10001
212.479.5400

LANDSCAPE ARCHITECT:

LIGHTING DESIGNER: **Ventresca Design, LLC**
44-02 Eleventh St, Suite 203
Long Island City, NY 11101
212.600.0033

CURTAIN WALL CONSULTANT: **BuroHappold Engineering**
100 Broadway
New York, NY 10005
212.334.2025

PRELIMINARY - NOT FOR CONSTRUCTION

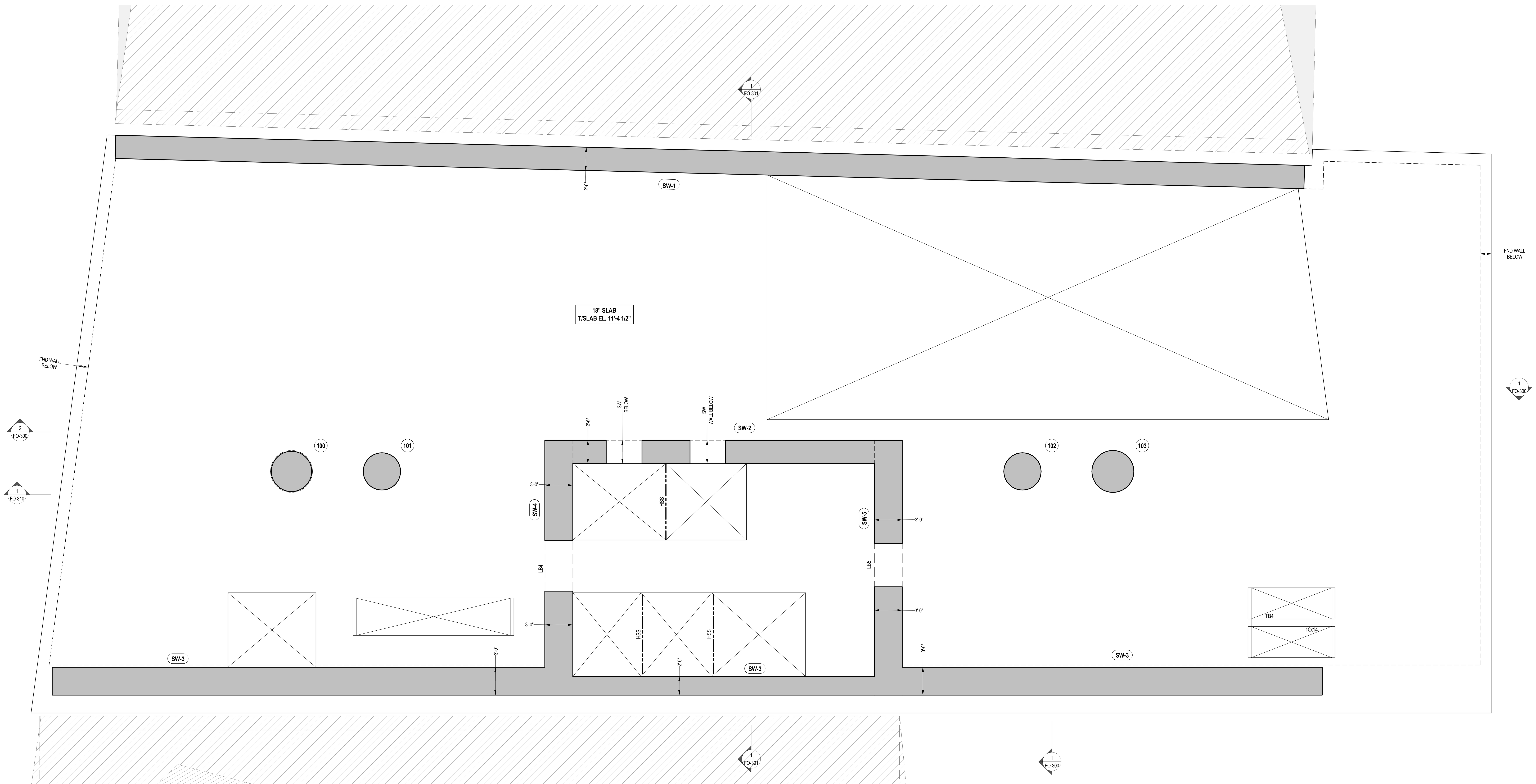
2016.04.22	ISSUED FOR DESIGN DEVELOPMENT	1

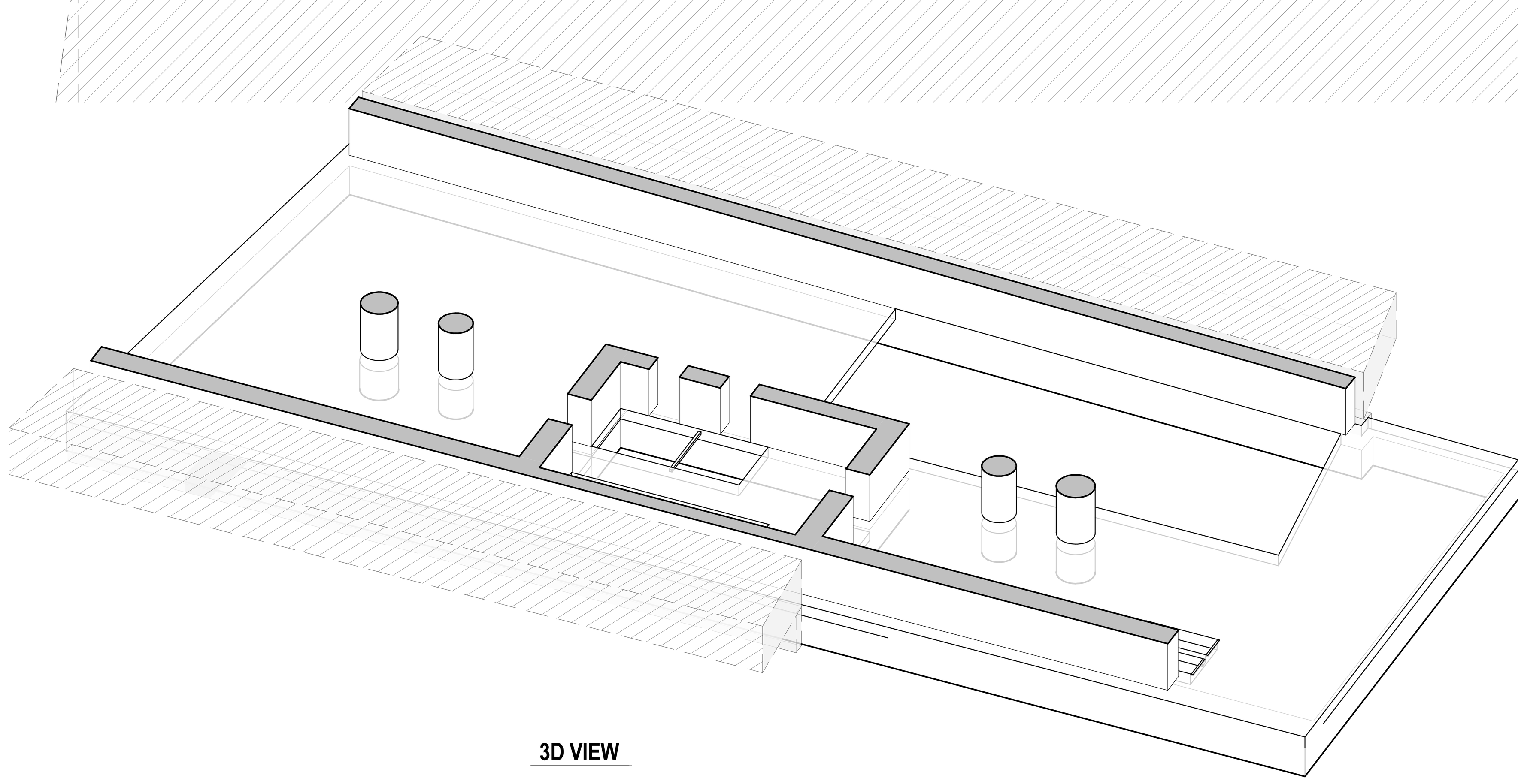
CETRARUDDY

CELLAR 1 FRAMING PLAN

DRAWING NO.	**S-005.00**		
SCALE	As indicated	DOB PAGE NO.	
PROJECT	1590109	DOB FILE NO.	

CETRARUDDY **ARCHITECTURE DPC**
584 BROADWAY NEW YORK NY 10012 T 212 941 9801 F 212 941 9440
WWW.CETRARUDDY.COM





3D VIEW

1 GROUND FRAMING PLAN

S-010

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

NOTES:

1. TOP OF SLAB ELEVATION TO BE 11'-4 1/2" U.O.N. ON PLAN THUS [.......]
2. SLAB TO BE 18" THICK U.O.N. ON PLAN THUS [.......]
3. BOTTOM MAT REINFORCEMENT TO BE: #X@XX FOR XX" SLAB.
   #X@XX FOR XX" SLAB.
4. FOR GENERAL NOTES, ABBREVIATIONS AND LEGEND SEE DWG FO-001.
5. FOR LINK BEAM SCHEDULE AND SHEARWALL DETAILS SEE S-940 SERIES DRAWINGS.
6. FOR COLUM AND BUTRESS SIZES, REINFORCEMENT AND DETAILS SEE S-950 SERIES DRAWINGS.
7. FOR TYPICAL SUPERSTRUCTURE DETAILS SEE S-960 SERIES DRAWINGS.
8. FOR SUPERSTRUCTURE SECTIONS SEE S-970 SERIES DRAWINGS
9. FOR STAIR DETAILS AND SECTIONS SEE S-980 SERIES DRAWINGS.

45 BROAD STREET

NEW YORK NY 10004

ARCHITECT
John A. Cetra
State of New York
Registered Architect
No. 018861

CetraRuddy Architecture DPC
584 Broadway Suite 401
New York, NY 10012
212.941.9801

CLIENT
Madison 45 Broad Development, LLC
105 Madison Avenue
New York, NY 10016

STRUCTURAL ENGINEER
WSP Group
228 East 45th Street, 3rd Fl
New York, NY 10017
212.687.9888

MEP ENGINEER
BuroHappold Engineering
100 Broadway
New York, NY 10005
212.334.2025

GEOTECHNICAL ENGINEER
LANGAN
21 Penn Plaza
360 West 31st Street, 8th Fl
New York, NY 10001
212.479.5400

LANDSCAPE ARCHITECT

LIGHTING DESIGNER
Ventresca Design, LLC
44-02 Eleventh St, Suite 203
Long Island City, NY 11101
212.600.0033

CURTAIN WALL CONSULTANT
BuroHappold Engineering
100 Broadway
New York, NY 10005
212.334.2025

PRELIMINARY - NOT FOR CONSTRUCTION

2016.04.22	ISSUED FOR DESIGN DEVELOPMENT	1

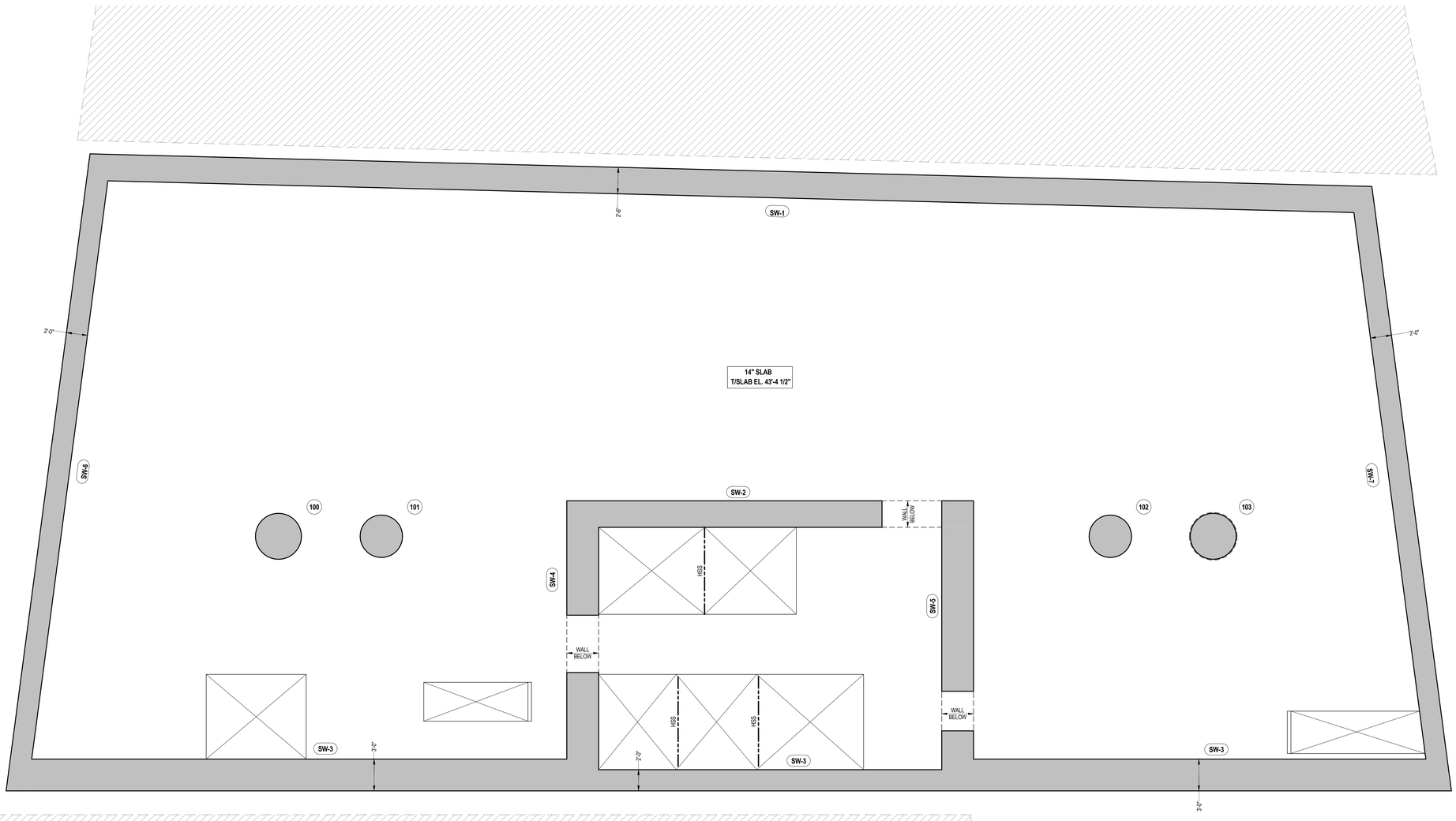
CETRARUDDY

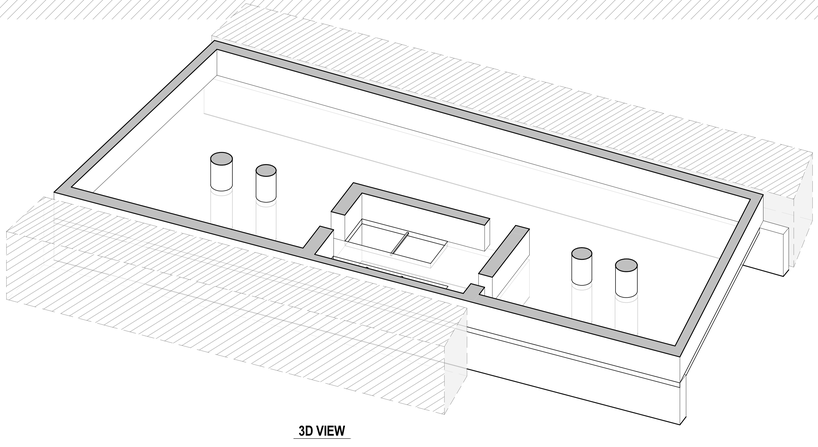
GROUND FRAMING PLAN

DRAWING NO. **S-010.00**

SCALE	As indicated	DOB PAGE NO.	
PROJECT	1590109	DOB FILE NO.	

CETRARUDDY ARCHITECTURE DPC
584 BROADWAY NEW YORK NY 10012 T 212 941 9801 F 212 941 9440
WWW.CETRARUDDY.COM





3D VIEW

1 / S-020 **2ND FLOOR FRAMING PLAN**

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

NOTES:

1. TOP OF SLAB ELEVATION TO BE 43'-4 1/2" U.O.N. ON PLAN THUS
2. SLAB TO BE 14" THICK U.O.N. ON PLAN THUS
3. BOTTOM MAT REINFORCEMENT TO BE: #X@XX FOR XX" SLAB.
   #X@XX FOR XX" SLAB.
4. FOR BALANCE OF NOTES SEE DWG. S-010.

45 BROAD STREET

NEW YORK NY 10004

ARCHITECT
John A. Cetra
State of New York
Registered Architect
No. 018861
CetraRuddy Architecture DPC
584 Broadway Suite 401
New York, NY 10012
212.941.9801

CLIENT
Madison 45 Broad Development, LLC
105 Madison Avenue
New York, NY 10016

STRUCTURAL ENGINEER
WSP Group
228 East 45th Street, 3rd Fl
New York, NY 10017
212.687.9888

MEP ENGINEER
BuroHappold Engineering
100 Broadway
New York, NY 10005
212.334.2025

GEOTECHNICAL ENGINEER
LANGAN
21 Penn Plaza
360 West 31st Street, 8th Fl
New York, NY 10001
212.479.5400

LANDSCAPE ARCHITECT

LIGHTING DESIGNER
Ventresca Design, LLC
44-02 Eleventh St, Suite 203
Long Island City, NY 11101
212.600.0033

LIFTER WALL CONSULTANT
BuroHappold Engineering
100 Broadway
New York, NY 10005
212.334.2025

PRELIMINARY - NOT FOR CONSTRUCTION

2016.04.22	ISSUED FOR DESIGN DEVELOPMENT 1

CETRARUDDY

FLOOR 02 FRAMING PLAN

DRAWING NO. **S-020.00**

SCALE: As indicated

PROJECT: 1590109

DOB / EXPIL. / MM/DD:

CETRARUDDY ARCHITECTURE DPC
584 BROADWAY NEW YORK NY 10012 T 212 941 9801 F 212 941 9440
WWW.CETRARUDDY.COM

45 BROAD STREET

NEW YORK NY 10004

ARCHITECT
John A. Cetra
State of New York
Registered Architect
No. 018861
CetraRuddy Architecture DPC
584 Broadway Suite 401
New York, NY 10012
212.941.9801

OWNER
Madison 45 Broad Development, LLC
105 Madison Avenue
New York, NY 10016

STRUCTURAL ENGINEER
WSP Group
228 East 45th Street, 3rd Fl
New York, NY 10017
212.687.9888

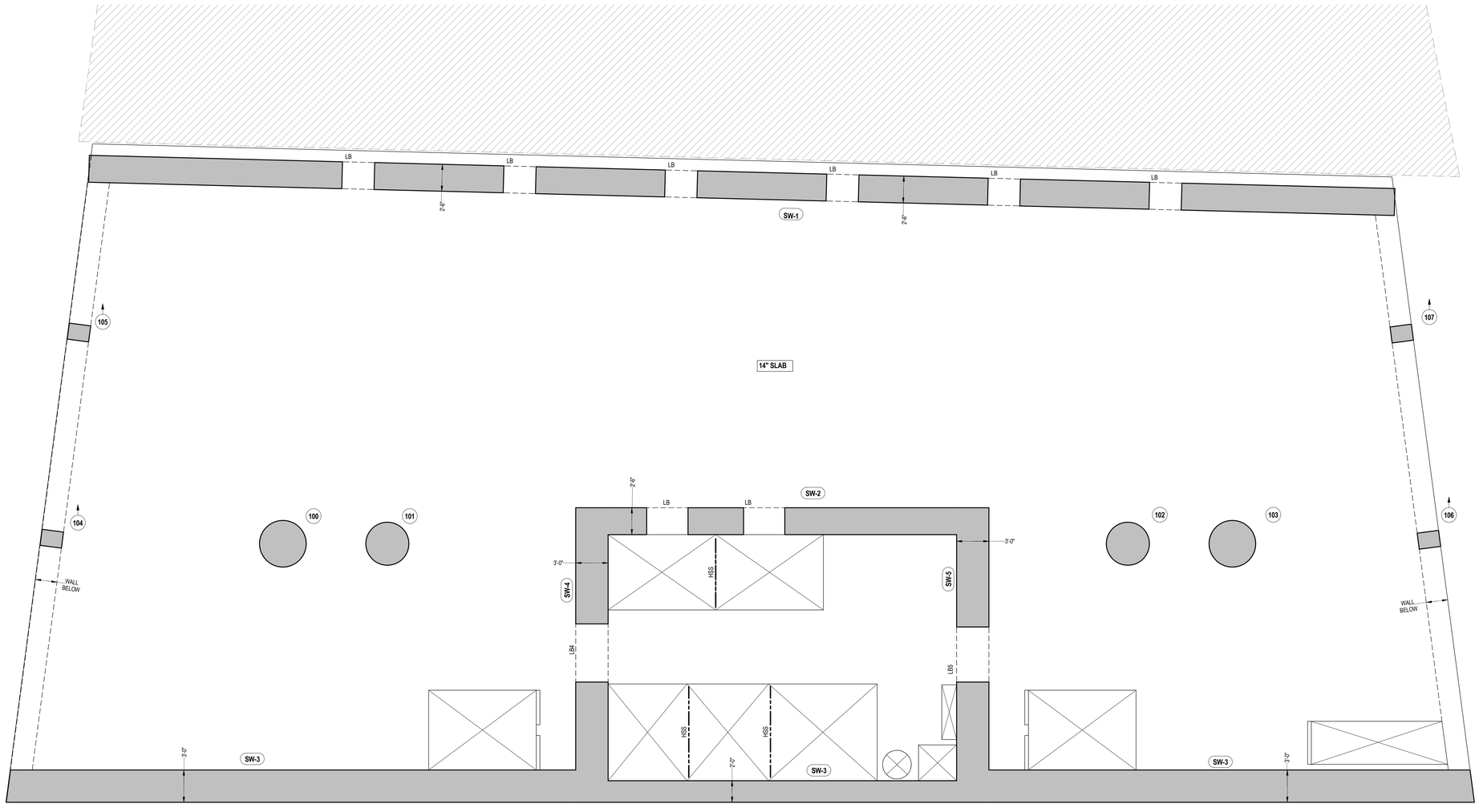
MEP ENGINEER
BuroHappold Engineering
100 Broadway
New York, NY 10005
212.334.2025

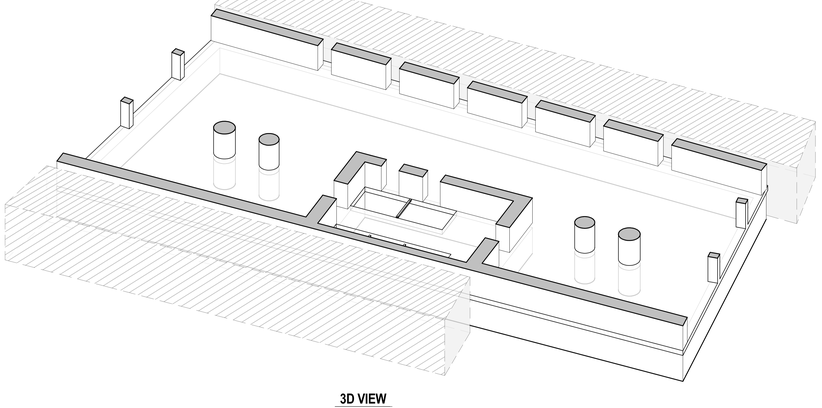
GEOTECHNICAL ENGINEER
LANGAN
21 Penn Plaza
360 West 31st Street, 8th Fl
New York, NY 10001
212.479.5400

LANDSCAPE ARCHITECT

LIGHTING DESIGNER
Ventresca Design, LLC
44-02 Eleventh St, Suite 203
Long Island City, NY 11101
212.600.0033

CIVIL/FIRE PROTECTION
BuroHappold Engineering
100 Broadway
New York, NY 10005
212.334.2025





3D VIEW

1 / S-030 **3RD - 8TH FLOOR FRAMING PLAN**

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

NOTES:

1. TOP OF SLAB ELEVATION TO BE
   - 59'-4 1/2" 3RD FLOOR
   - 75'-4 1/2" 4TH FLOOR
   - 91'-4 1/2" 5TH FLOOR
   - 107'-4 1/2" 6TH FLOOR
   - 123'-4 1/2" 7TH FLOOR
   - 139'-4 1/2" 8TH FLOOR U.O.N. ON PLAN THUS
2. SLAB TO BE 14" THICK U.O.N. ON PLAN THUS
3. BOTTOM MAT REINFORCEMENT TO BE: #X@XX FOR XX" SLAB.
   #X@XX FOR XX" SLAB.
4. FOR BALANCE OF NOTES SEE DWG. S-010.

PRELIMINARY - NOT FOR CONSTRUCTION

2016.04.22	ISSUED FOR DESIGN DEVELOPMENT 1

CETRARUDDY

FLOOR 03 - 08 FRAMING PLAN

DRAWING NO. **S-030.00**

SCALE: As indicated

PROJECT: 1590109

DRAWING NO.

CETRARUDDY ARCHITECTURE DPC
584 BROADWAY NEW YORK NY 10012 T 212 941 9801 F 212 941 9440
WWW.CETRARUDDY.COM

45 BROAD STREET
NEW YORK NY 10004

ARCHITECT
John A. Cetra
State of New York
Registered Architect
No. 018861

CetraRuddy Architecture DPC
584 Broadway Suite 401
New York, NY 10012
212.941.9801

CLIENT
Madison 45 Broad Development, LLC
105 Madison Avenue
New York, NY 10016

STRUCTURAL ENGINEER
WSP Group
228 East 45th Street, 3rd Fl
New York, NY 10017
212.687.9888

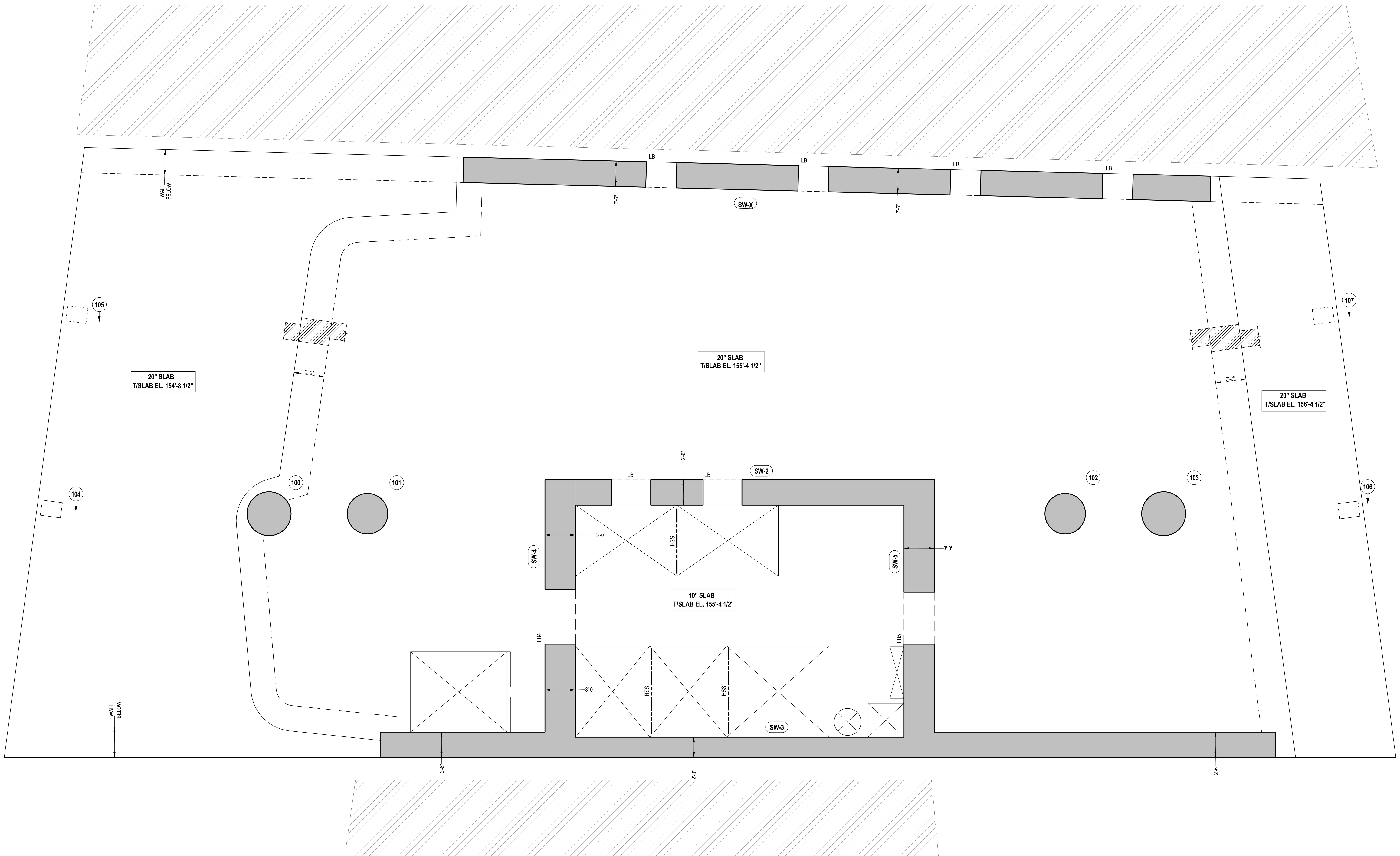
MEP ENGINEER
BuroHappold Engineering
100 Broadway
New York, NY 10005
212.334.2025

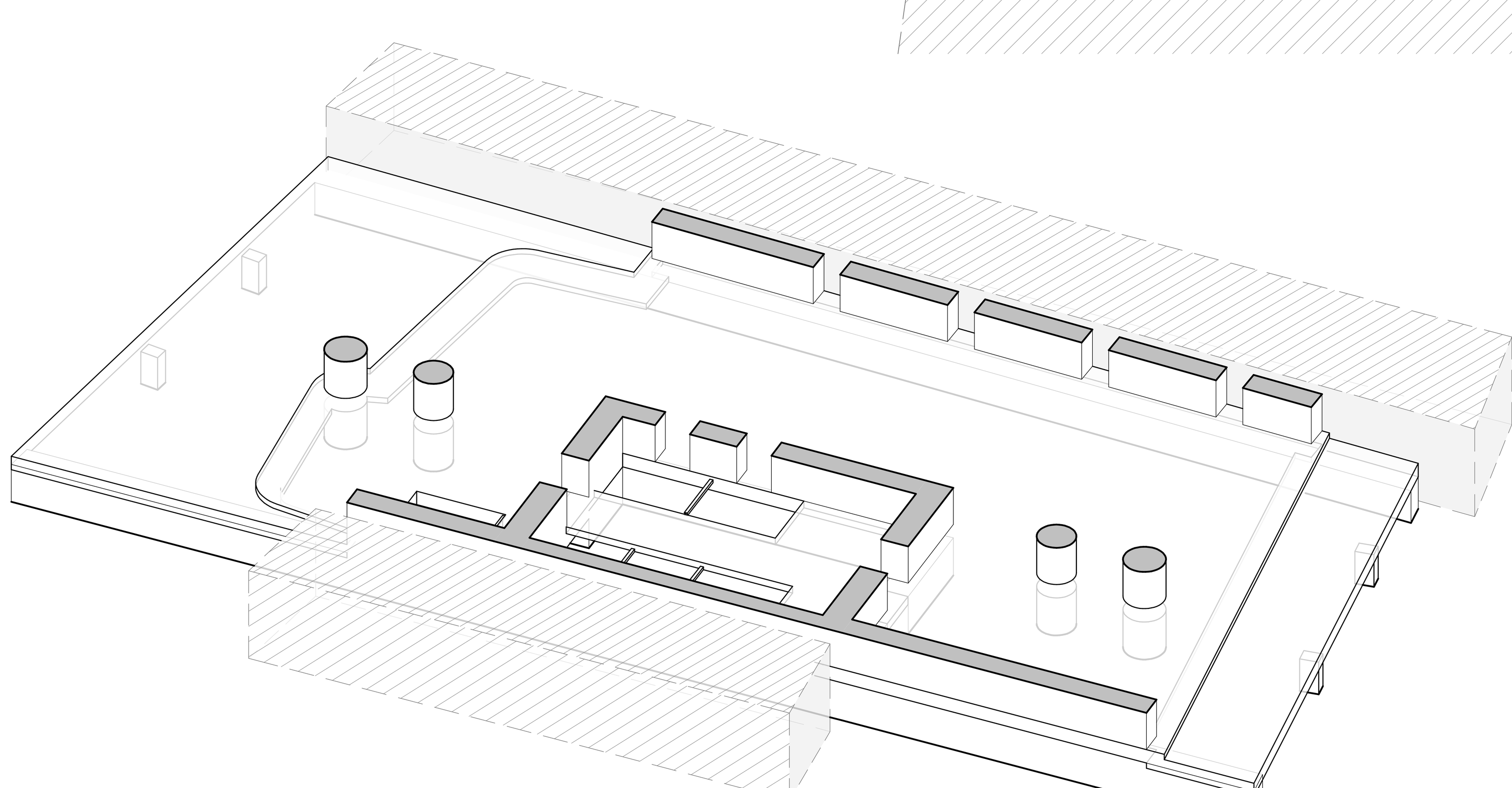
GEOTECHNICAL ENGINEER
LANGAN
21 Penn Plaza
360 West 31st Street, 8th Fl
New York, NY 10001
212.479.5400

LANDSCAPE ARCHITECT

LIGHTING DESIGNER
Ventresca Design, LLC
44-02 Eleventh St, Suite 203
Long Island City, NY 11101
212.600.0033

CURTAIN WALL CONSULTANT
BuroHappold Engineering
100 Broadway
New York, NY 10005
212.334.2025





3D VIEW

1 FLOOR 09 FRAMING PLAN
S-090

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

NOTES:

1. TOP OF SLAB ELEVATION TO BE 155'-4 1/2" U.O.N. ON PLAN THUS ....
2. SLAB TO BE 20" THICK U.O.N. ON PLAN THUS ....
3. BOTTOM MAT REINFORCEMENT TO BE: #X@XX FOR XX" SLAB.
   #X@XX FOR XX" SLAB.
4. FOR BALANCE OF NOTES SEE DWG. S-010.

PRELIMINARY - NOT FOR CONSTRUCTION

2016.04.22	ISSUED FOR DESIGN DEVELOPMENT	1

CETRARUDDY

FLOOR 09 FRAMING PLAN

DRAWING NO. **S-090.00**

SCALE	As indicated	DOB PAGE NO.	
PROJECT	1590109	DOB FILE NO.	

STATE OF NEW YORK · VIVIAN L. MARCUS · 057530 · PROFESSIONAL ENGINEER

CETRARUDDY **ARCHITECTURE DPC**
584 BROADWAY NEW YORK NY 10012 T 212 941 9801 F 212 941 9440
WWW.CETRARUDDY.COM

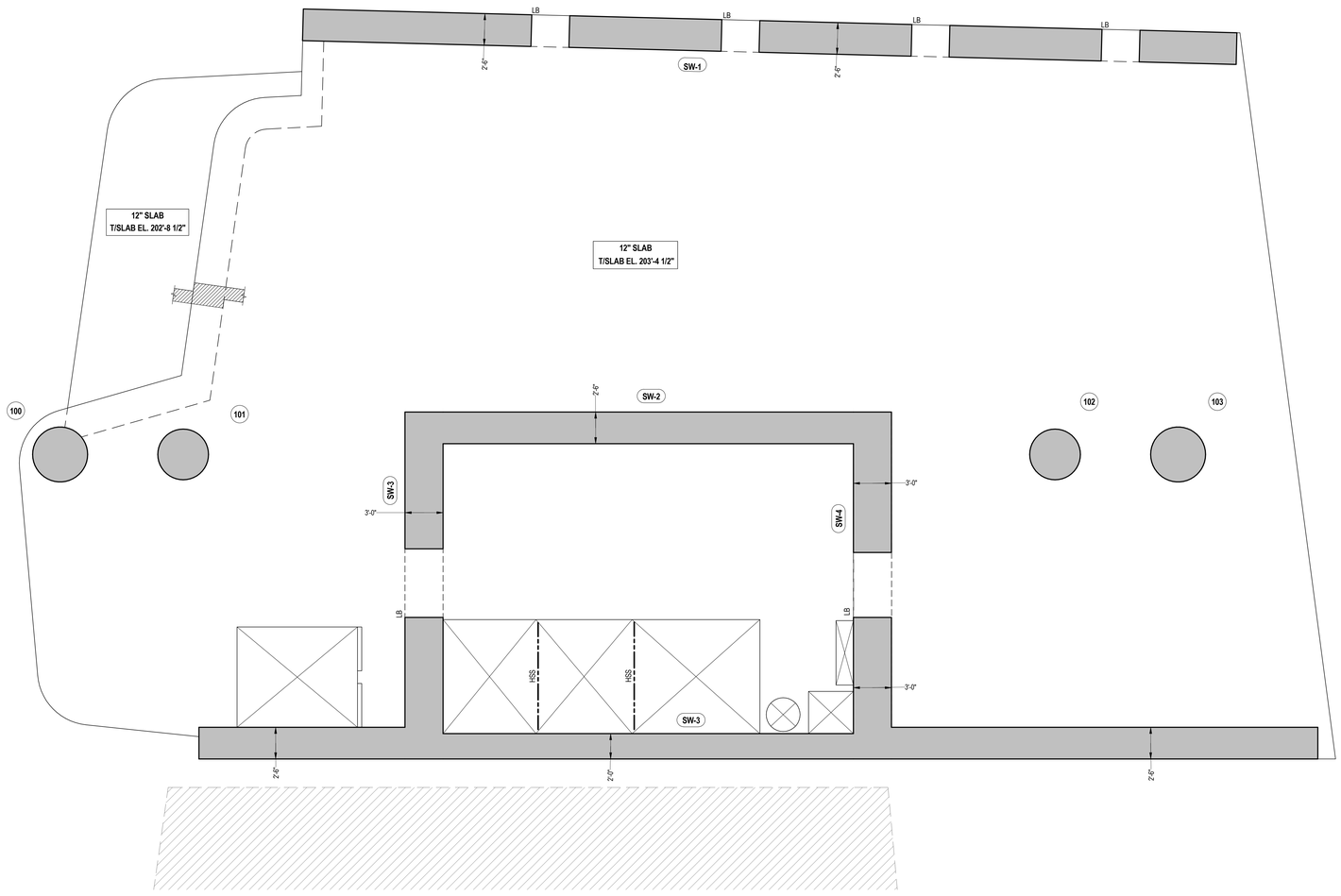
DEPT OF BLDGS 121207172 Job Number

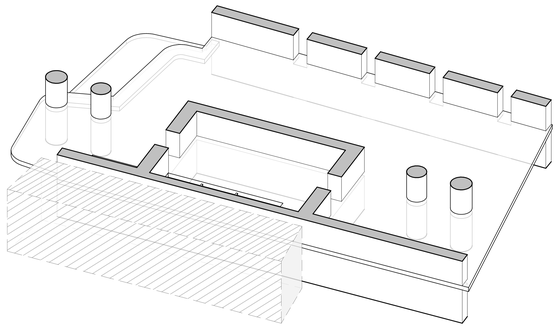
E3504099855 Scan Code

45 BROAD STREET

NEW YORK NY 10004

ARCHITECT	**John A. Cetra** State of New York Registered Architect No. 018861 **CetraRuddy Architecture DPC** 584 Broadway Suite 401 New York, NY 10012 212.941.9801	OWNER	**Madison 45 Broad Development, LLC** 105 Madison Avenue New York, NY 10016
STRUCTURAL ENGINEER	**WSP Group** 228 East 45th Street, 3rd Fl New York, NY 10017 212.687.9888	MEP ENGINEER	**BuroHappold Engineering** 100 Broadway New York, NY 10005 212.334.2025
GEOTECHNICAL ENGINEER	**LANGAN** 21 Penn Plaza 360 West 31st Street, 8th Fl New York, NY 10001 212.479.5400	LANDSCAPE ARCHITECT	
LIGHTING DESIGNER	**Ventresca Design, LLC** 44-02 Eleventh St, Suite 203 Long Island City, NY 11101 212.500.0033	LIFTER WALL CONSULTANT	**BuroHappold Engineering** 100 Broadway New York, NY 10005 212.334.2025





3D VIEW

1 / S-100 **10TH FLOOR FRAMING PLAN**

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

NOTES:

1. TOP OF SLAB ELEVATION TO BE 203'-4 1/2". 10TH FLOOR U.O.N. ON PLAN THUS
2. SLAB TO BE 12" THICK U.O.N. ON PLAN THUS
3. BOTTOM MAT REINFORCEMENT TO BE: #X@XX FOR XX" SLAB.
   #X@XX FOR XX" SLAB.
4. FOR BALANCE OF NOTES SEE DWG. S-010.

PRELIMINARY - NOT FOR CONSTRUCTION

2016.04.22 ISSUED FOR DESIGN DEVELOPMENT 1

CETRARUDDY

FLOOR 10 FRAMING PLAN

DRAWING NO. **S-100.00**

SCALE: As indicated

PROJECT: 1590109

DOB FILING: DOB PW1 NO.:

CETRARUDDY ARCHITECTURE DPC
584 BROADWAY NEW YORK NY 10012 T 212 941 9801 F 212 941 9440
WWW.CETRARUDDY.COM

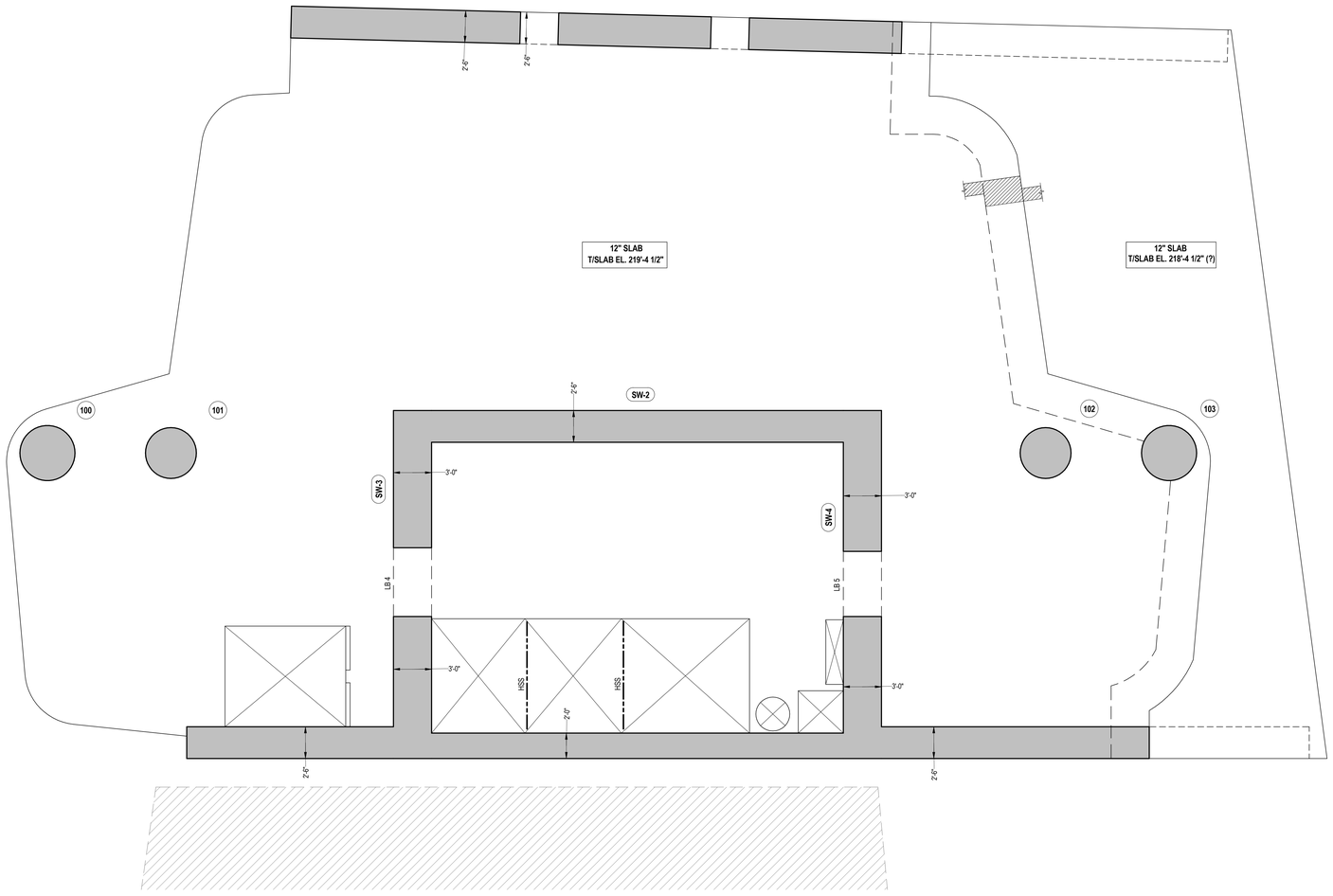
DEPT OF BLDGS 121207172 Job Number

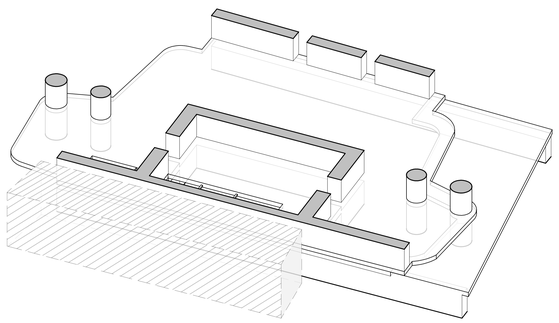
E1642842568 Scan Code

45 BROAD STREET

NEW YORK NY 10004

ARCHITECT	**John A. Cetra** State of New York Registered Architect No. 018861 **CetraRuddy Architecture DPC** 584 Broadway Suite 401 New York, NY 10012 212.941.9801	OWNER	**Madison 45 Broad Development, LLC** 105 Madison Avenue New York, NY 10016
STRUCTURAL ENGINEER	**WSP Group** 228 East 45th Street, 3rd Fl New York, NY 10017 212.687.9888	MEP ENGINEER	**BuroHappold Engineering** 100 Broadway New York, NY 10005 212.334.2025
GEOTECHNICAL ENGINEER	**LANGAN** 21 Penn Plaza 360 West 31st Street, 8th Fl New York, NY 10001 212.479.5400	LANDSCAPE ARCHITECT	
LIGHTING DESIGNER	**Ventresca Design, LLC** 44-02 Eleventh St, Suite 203 Long Island City, NY 11101 212.500.0033	LIFE SAFETY/CODE CONSULTANT	**BuroHappold Engineering** 100 Broadway New York, NY 10005 212.334.2025





3D VIEW

1 / S-110 **11TH FLOOR FRAMING PLAN**

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

NOTES:

1. TOP OF SLAB ELEVATION TO BE 219'-4 1/2" 11TH FLOOR U.O.N. ON PLAN THUS [219'-4 1/2"]
2. SLAB TO BE 12" THICK U.O.N. ON PLAN THUS [12"]
3. BOTTOM MAT REINFORCEMENT TO BE: #X@XX FOR XX" SLAB.
4. FOR BALANCE OF NOTES SEE DWG. S-010.

PRELIMINARY - NOT FOR CONSTRUCTION

2016.04.22 ISSUED FOR DESIGN DEVELOPMENT 1

CETRARUDDY

FLOOR 11 FRAMING PLAN

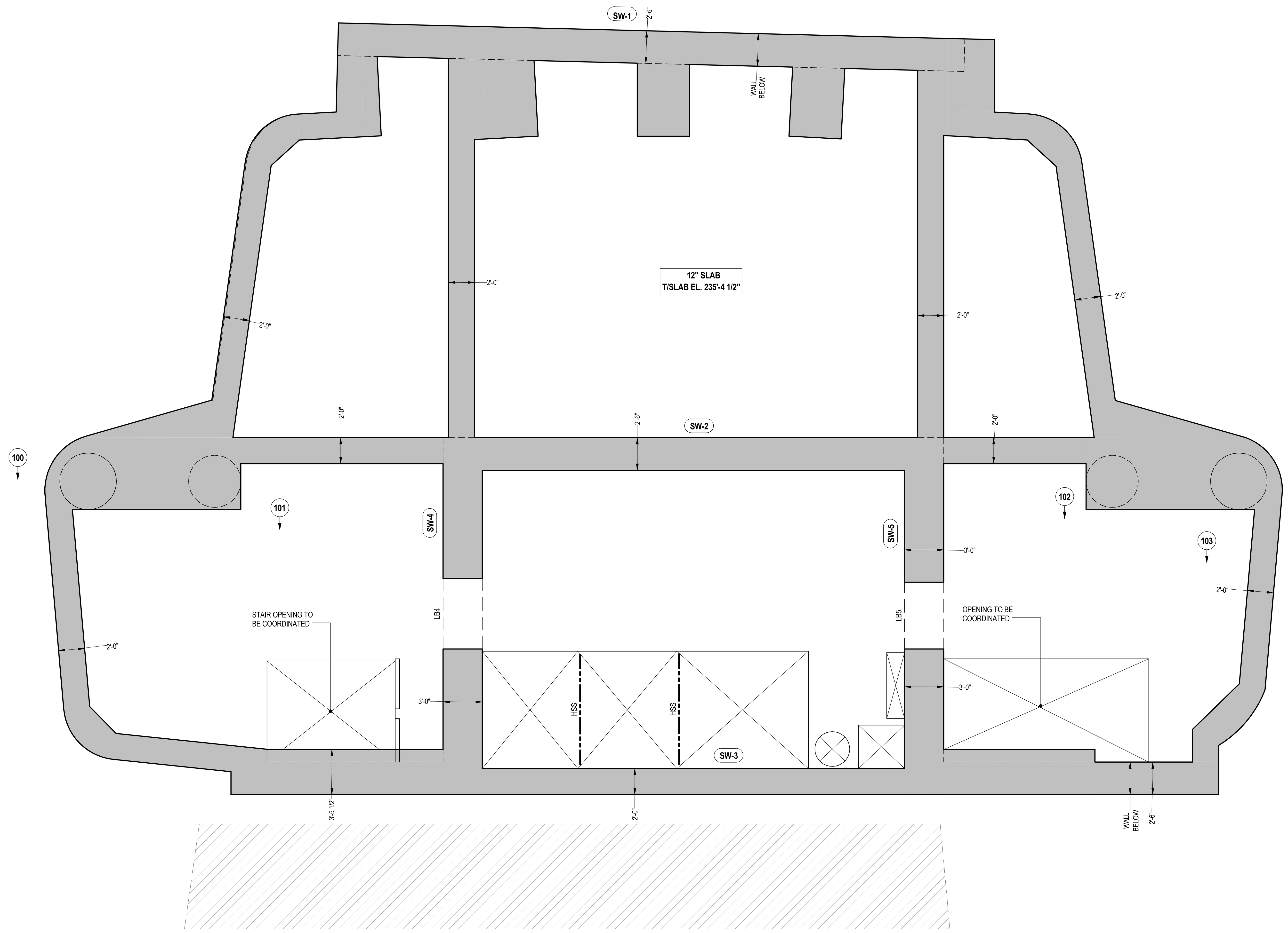
DRAWING NO. **S-110.00**

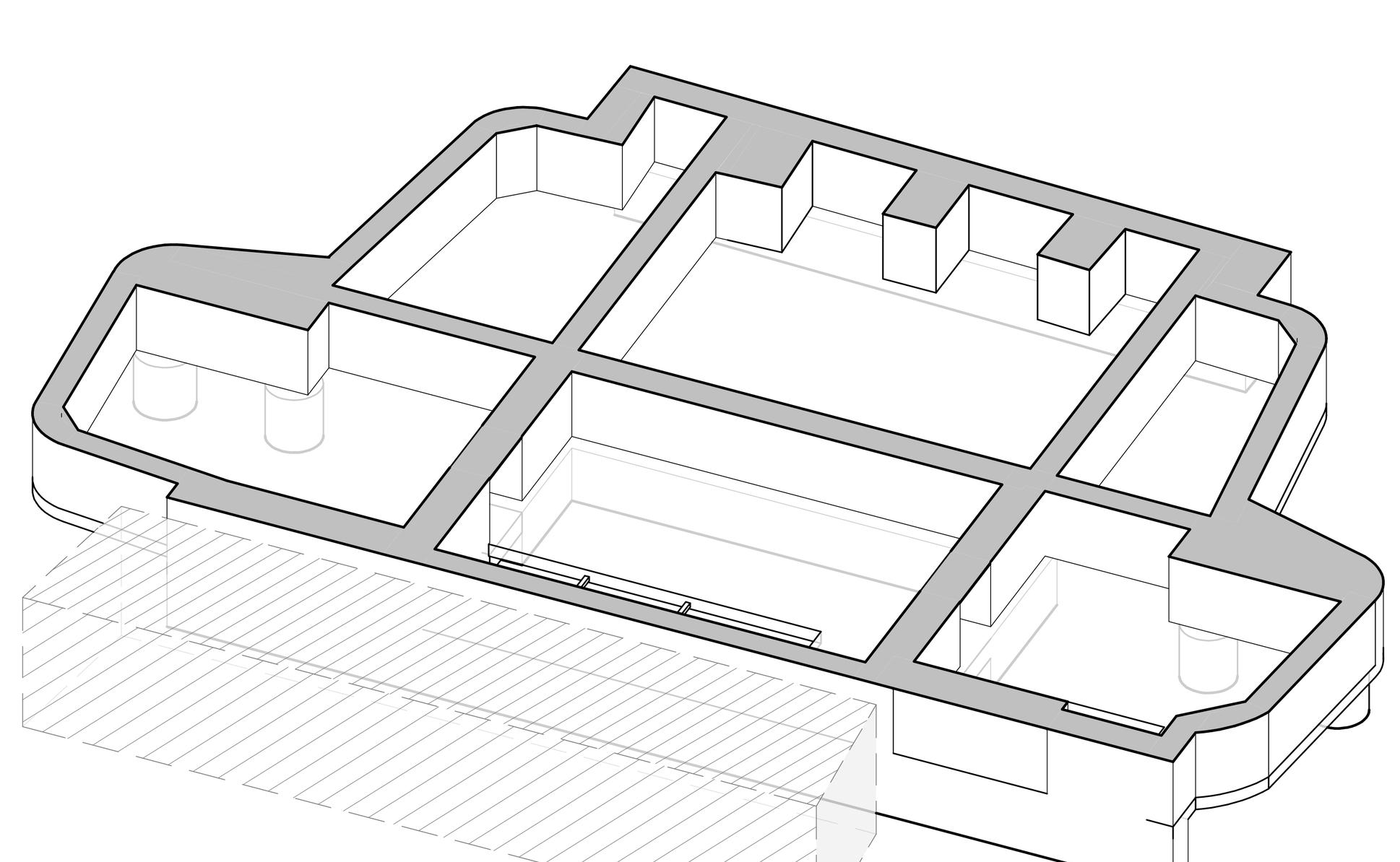
SCALE: As indicated

PROJECT: 1590109

DOB FILING: DOB PERMIT:

CETRARUDDY ARCHITECTURE DPC
584 BROADWAY NEW YORK NY 10012 T 212 941 9801 F 212 941 9440
WWW.CETRARUDDY.COM





3D VIEW

1
S-120

12TH FLOOR FRAMING PLAN

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

NOTES:

1. TOP OF SLAB ELEVATION TO BE 235'-4 1/2" U.O.N. ON PLAN THUS
2. SLAB TO BE 12" THICK U.O.N. ON PLAN THUS
3. BOTTOM MAT REINFORCEMENT TO BE: #X@XX FOR XX" SLAB.
4. FOR BALANCE OF NOTES SEE DWG. S-010.

45 BROAD STREET

NEW YORK NY 10004

ARCHITECT: **John A. Cetra**
State of New York
Registered Architect
No. 018861

CetraRuddy Architecture DPC
584 Broadway Suite 401
New York, NY 10012
212.941.9801

CLIENT: **Madison 45 Broad Development, LLC**
105 Madison Avenue
New York, NY 10016

STRUCTURAL ENGINEER: **WSP Group**
228 East 45th Street, 3rd Fl
New York, NY 10017
212.687.9888

MEP ENGINEER: **BuroHappold Engineering**
100 Broadway
New York, NY 10005
212.334.2025

GEOTECHNICAL ENGINEER: **LANGAN**
21 Penn Plaza
360 West 31st Street, 8th Fl
New York, NY 10001
212.479.5400

LANDSCAPE ARCHITECT:

LIGHTING DESIGNER: **Ventresca Design, LLC**
44-02 Eleventh St, Suite 203
Long Island City, NY 11101
212.600.0033

CURTAIN WALL CONSULTANT: **BuroHappold Engineering**
100 Broadway
New York, NY 10005
212.334.2025

PRELIMINARY - NOT FOR CONSTRUCTION

2016.04.22 ISSUED FOR DESIGN DEVELOPMENT 1

CETRARUDDY

FLOOR 12 FRAMING PLAN

DRAWING NO. **S-120.00**

SCALE: As indicated | DOB PAGE NO.:

PROJECT: 1590109 | DOB FILE NO.:

CETRARUDDY **ARCHITECTURE DPC**
584 BROADWAY NEW YORK NY 10012 T 212 941 9801 F 212 941 9440
WWW.CETRARUDDY.COM

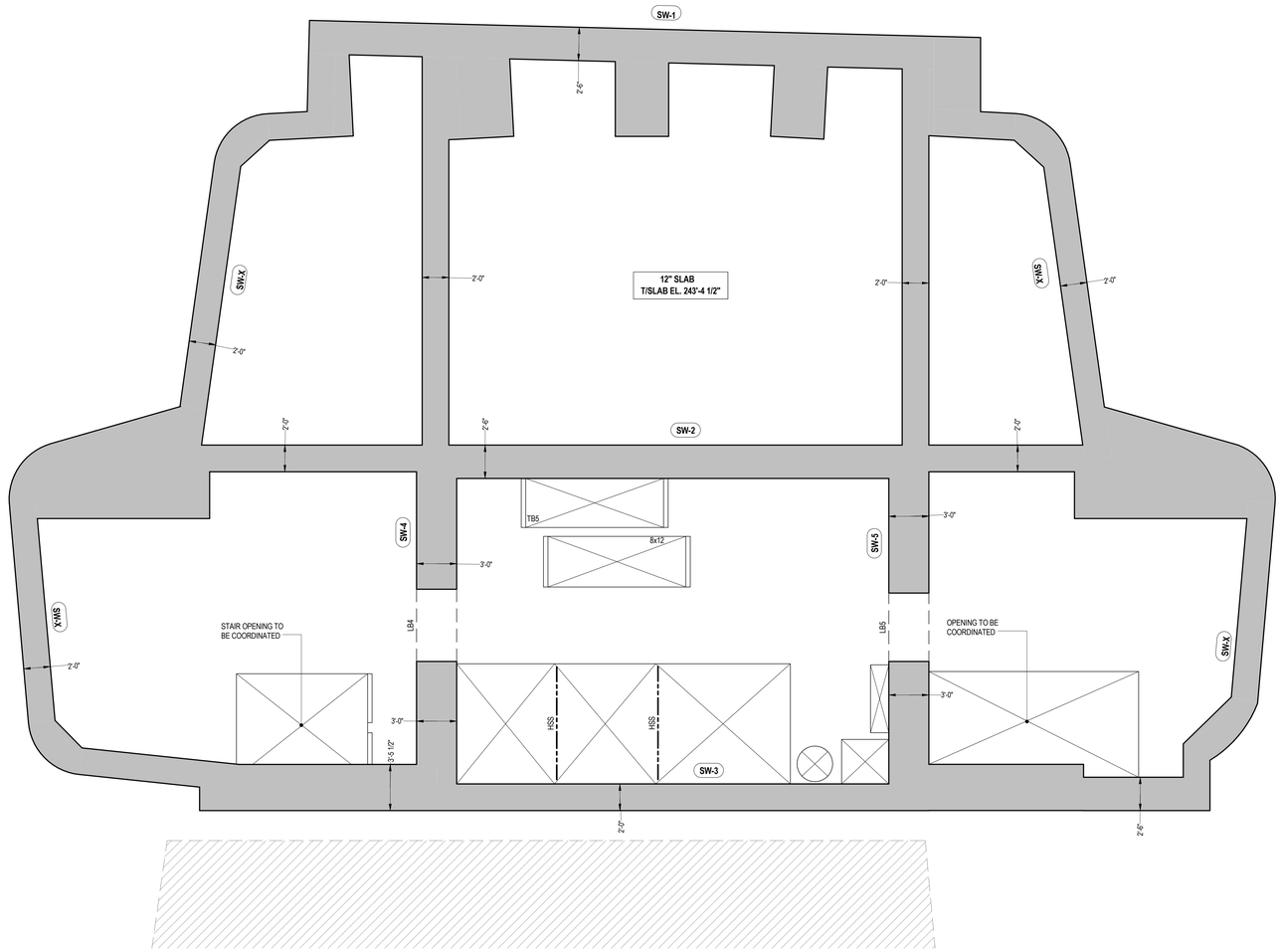
DEPT OF BLDGS 421200772 Job Number

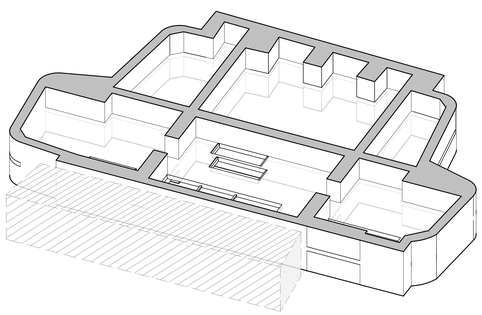
E591336810 Scan Code

45 BROAD STREET

NEW YORK NY 10004

ARCHITECT	**John A. Cetra** State of New York Registered Architect No. 018861 **CetraRuddy Architecture DPC** 584 Broadway Suite 401 New York, NY 10012 212.941.9801	OWNER	**Madison 45 Broad Development, LLC** 105 Madison Avenue New York, NY 10016
STRUCTURAL ENGINEER	**WSP Group** 228 East 45th Street, 3rd Fl New York, NY 10017 212.687.9888	MEP ENGINEER	**BuroHappold Engineering** 100 Broadway New York, NY 10005 212.334.2025
GEOTECHNICAL ENGINEER	**LANGAN** 21 Penn Plaza 360 West 31st Street, 8th Fl New York, NY 10001 212.479.5400	LANDSCAPE ARCHITECT	
LIGHTING DESIGNER	**Ventresca Design, LLC** 44-02 Eleventh St, Suite 203 Long Island City, NY 11101 212.600.0033	LIFE SAFETY / CODES / FAA	**BuroHappold Engineering** 100 Broadway New York, NY 10005 212.334.2025





3D VIEW

1 / S-125 **12TH FLOOR MEZZ. FRAMING PLAN**

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

NOTES:

1. TOP OF SLAB ELEVATION TO BE 243'-4 1/2" U.O.N. ON PLAN THUS:
2. SLAB TO BE 12" THICK U.O.N. ON PLAN THUS
3. BOTTOM MAT REINFORCEMENT TO BE: #X@XX FOR XX" SLAB.
4. FOR BALANCE OF NOTES SEE DWG. S-010.

PRELIMINARY - NOT FOR CONSTRUCTION

2016.04.22 ISSUED FOR DESIGN DEVELOPMENT 1

CETRARUDDY

FLOOR 12 MEZZ. FRAMING PLAN

DRAWING NO. **S-125.00**

SCALE: As indicated

PROJECT: 1590109

DOB FILING NUMBER:

CETRARUDDY ARCHITECTURE DPC
584 BROADWAY NEW YORK NY 10012 T 212 941 9801 F 212 941 9440
WWW.CETRARUDDY.COM

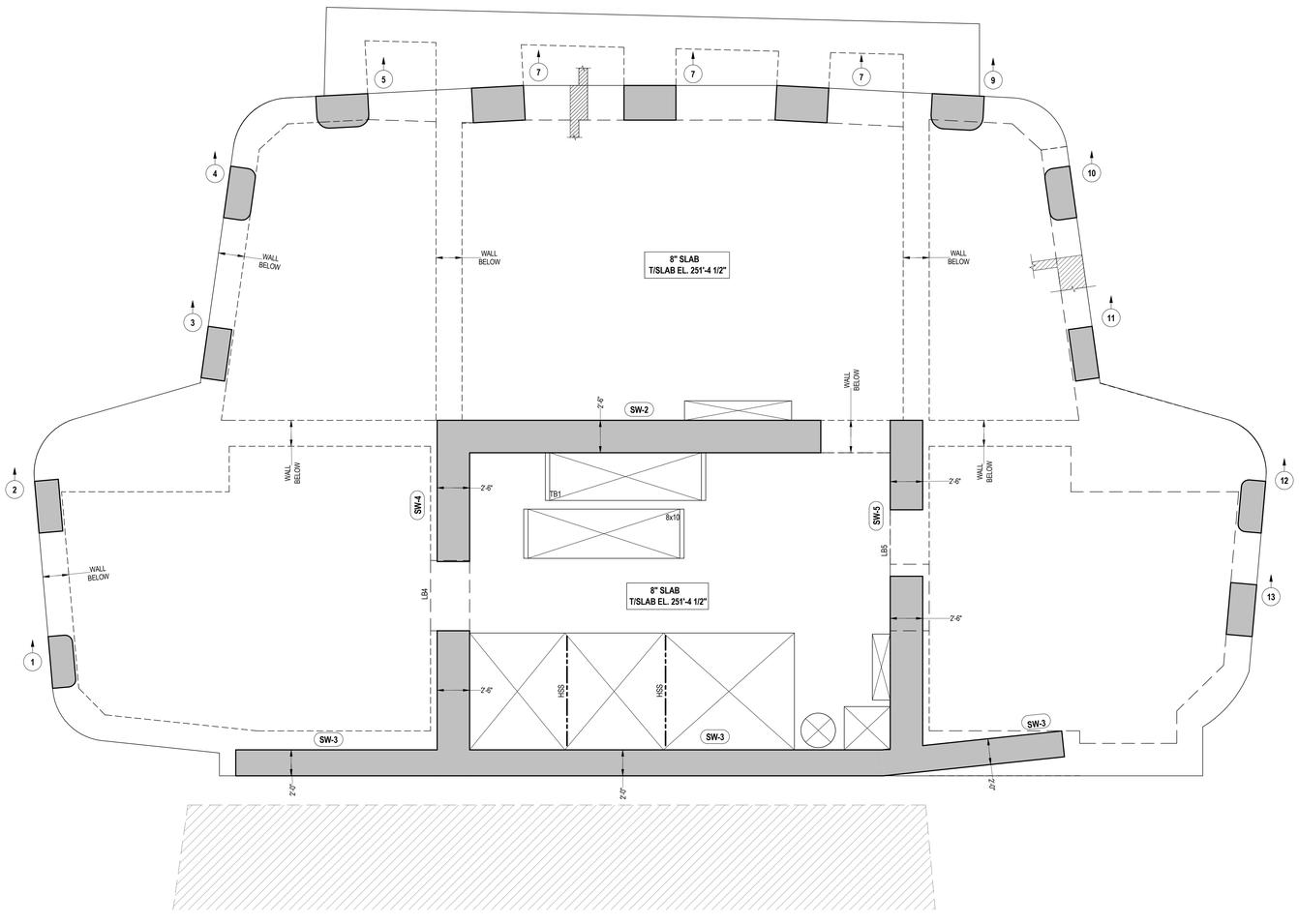
DEPT OF BLDGS 121200172 Job Number

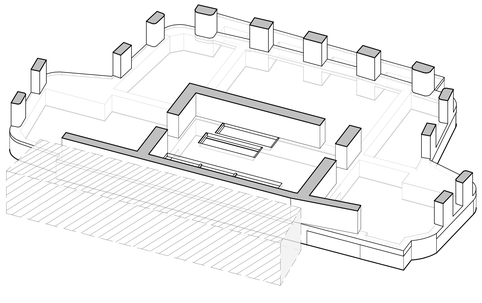
E503999040 Scan Code

45 BROAD STREET

NEW YORK NY 10004

ARCHITECT	**John A. Cetra** State of New York Registered Architect No. 018861 **CetraRuddy Architecture DPC** 584 Broadway Suite 401 New York, NY 10012 212.941.9801	OWNER	**Madison 45 Broad Development, LLC** 105 Madison Avenue New York, NY 10016
STRUCTURAL ENGINEER	**WSP Group** 228 East 45th Street, 3rd Fl New York, NY 10017 212.687.9888	MEP ENGINEER	**BuroHappold Engineering** 100 Broadway New York, NY 10005 212.334.2025
GEOTECHNICAL ENGINEER	**LANGAN** 21 Penn Plaza 360 West 31st Street, 8th Fl New York, NY 10001 212.479.5400	LANDSCAPE ARCHITECT	
LIGHTING DESIGNER	**Ventresca Design, LLC** 44-02 Eleventh St, Suite 203 Long Island City, NY 11101 212.500.0033	CURTAIN WALL CONSULTANT	**BuroHappold Engineering** 100 Broadway New York, NY 10005 212.334.2025





3D VIEW

1 / S-130 **13TH FLOOR FRAMING PLAN**

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

NOTES:

1. TOP OF SLAB ELEVATION TO BE 251'-4 1/2" U.O.N. ON PLAN THUS
2. SLAB TO BE 8" THICK U.O.N. ON PLAN THUS
3. BOTTOM MAT REINFORCEMENT TO BE: #X@XX FOR XX" SLAB.
4. FOR BALANCE OF NOTES SEE DWG. S-010.

PRELIMINARY - NOT FOR CONSTRUCTION

2016.04.22	ISSUED FOR DESIGN DEVELOPMENT	1

CETRARUDDY

FLOOR 13 FRAMING PLAN

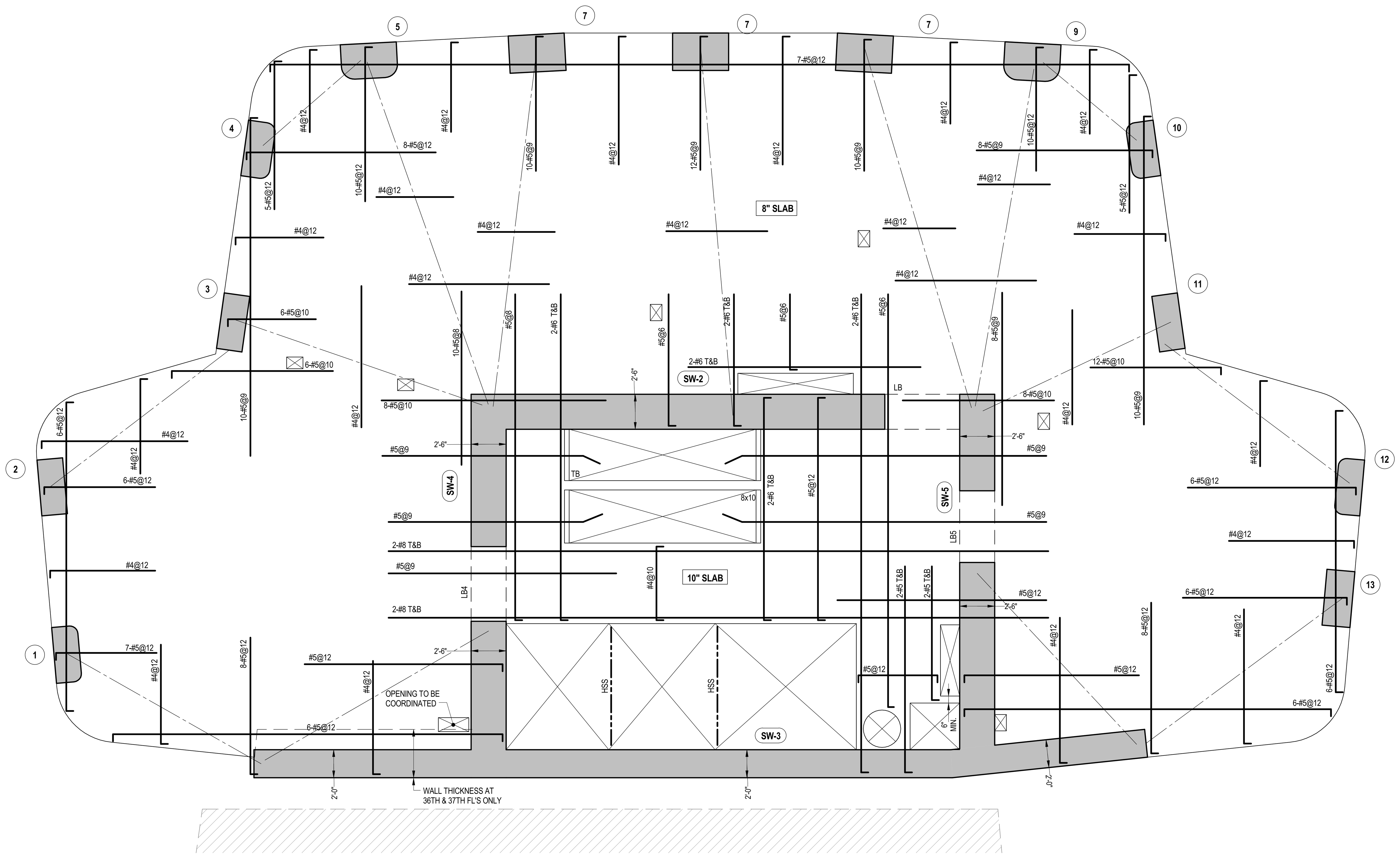
DRAWING NO. **S-130.00**

SCALE: As indicated

PROJECT: 1590109

DOB / EXPIL. / MM/DD/

CETRARUDDY ARCHITECTURE DPC
584 BROADWAY NEW YORK NY 10012 T 212 941 9801 F 212 941 9440
WWW.CETRARUDDY.COM



1 (S-140) 14TH - 37TH FLOOR FRAMING PLAN

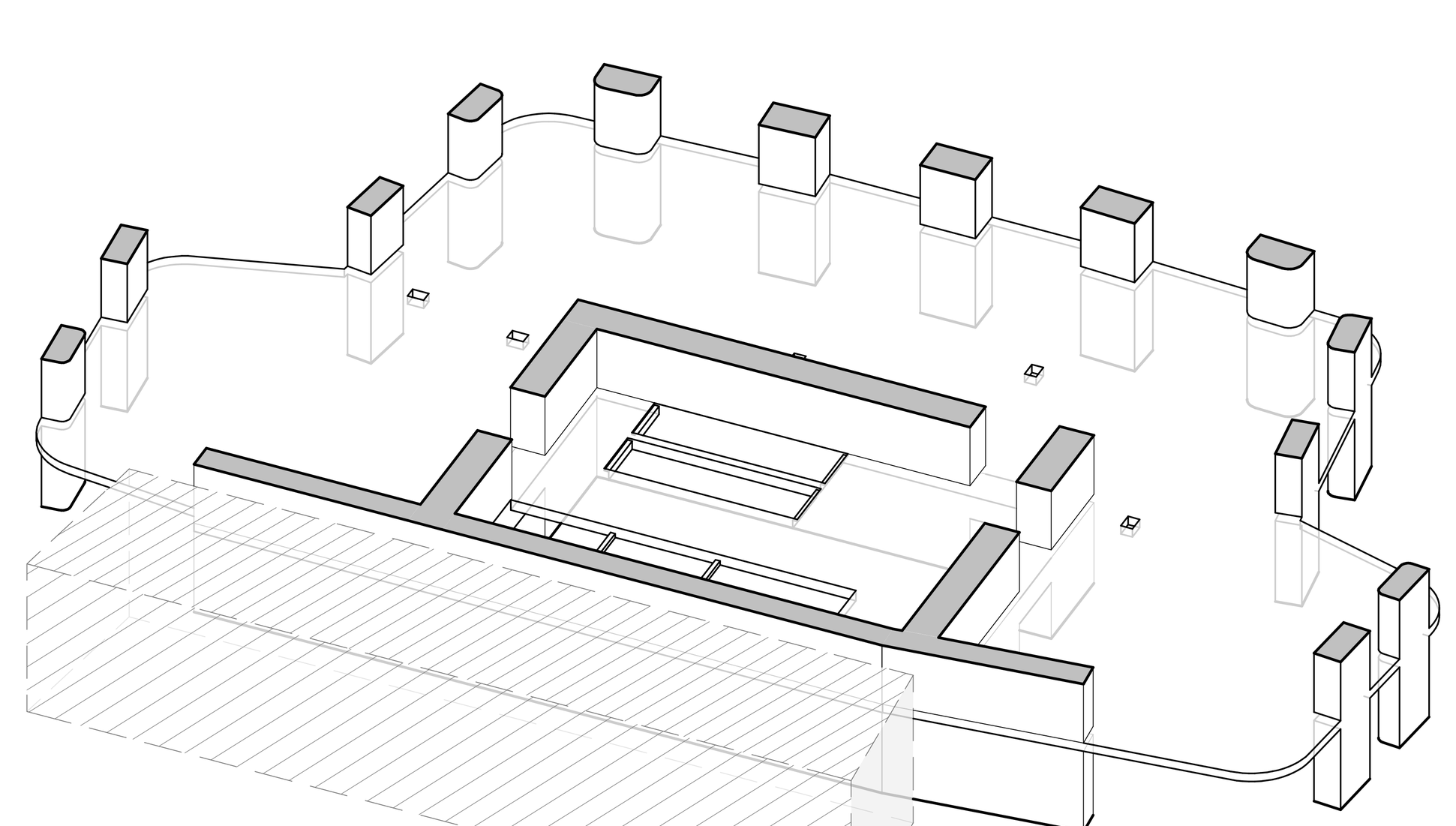
SCALE: 1/4" = 1'-0"

NOTES:

1. TOP OF SLAB ELEVATION TO BE

262'-2 1/2"	14TH FLOOR
273'-0 1/2"	15TH FLOOR
283'-10 1/2"	16TH FLOOR
294'-8 1/2"	17TH FLOOR
305'-6 1/2"	18TH FLOOR
316'-4 1/2"	19TH FLOOR
327'-2 1/2"	20TH FLOOR
338'-0 1/2"	21ST FLOOR
348'-10 1/2"	22ND FLOOR
359'-8 1/2"	23RD FLOOR
370'-6 1/2"	24TH FLOOR
381'-4 1/2"	25TH FLOOR
392'-2 1/2"	26TH FLOOR
403'-0 1/2"	27TH FLOOR
413'-10 1/2"	28TH FLOOR
424'-8 1/2"	29TH FLOOR
435'-6 1/2"	30TH FLOOR
446'-4 1/2"	31ST FLOOR
457'-2 1/2"	32ND FLOOR
468'-0 1/2"	33RD FLOOR
478'-10 1/2"	34TH FLOOR
489'-8 1/2"	35TH FLOOR
500'-6 1/2"	36TH FLOOR
511'-4 1/2"	37TH FLOOR U.O.N. ON PLAN THUS

2. SLAB TO BE 8" THICK U.O.N. ON PLAN THUS
3. BOTTOM MAT REINFORCEMENT TO BE: #4@12 CONT. E.W. FOR 8" SLAB U.O.N.
#4@10 CONT. E.W. FOR 10" SLAB U.O.N.
4. FOR BALANCE OF NOTES SEE DWG. S-010.



3D VIEW

45 BROAD STREET

NEW YORK NY 10004

ARCHITECT
John A. Cetra
State of New York
Registered Architect
No. 018861

CetraRuddy Architecture DPC
584 Broadway Suite 401
New York, NY 10012
212.941.9801

CLIENT
Madison 45 Broad Development, LLC
105 Madison Avenue
New York, NY 10016

STRUCTURAL ENGINEER
WSP Group
228 East 45th Street, 3rd Fl
New York, NY 10017
212.687.9888

MEP ENGINEER
BuroHappold Engineering
100 Broadway
New York, NY 10005
212.334.2025

GEOTECHNICAL ENGINEER
LANGAN
21 Penn Plaza
360 West 31st Street, 8th Fl
New York, NY 10001
212.479.5400

LANDSCAPE ARCHITECT

LIGHTING DESIGNER
Ventresca Design, LLC
44-02 Eleventh St, Suite 203
Long Island City, NY 11101
212.600.0033

CURTAIN WALL CONSULTANT
BuroHappold Engineering
100 Broadway
New York, NY 10005
212.334.2025

PRELIMINARY - NOT FOR CONSTRUCTION

2016.04.22	ISSUED FOR DESIGN DEVELOPMENT	1

CETRARUDDY

FLOOR 14 - 37 FRAMING PLAN

DRAWING NO. **S-140.00**

SCALE: As indicated
DOB PAGE NO.:
PROJECT: 1590109
DOB FILE NO.:

CETRARUDDY **ARCHITECTURE DPC**
584 BROADWAY NEW YORK NY 10012 T 212 941 9801 F 212 941 9440
WWW.CETRARUDDY.COM

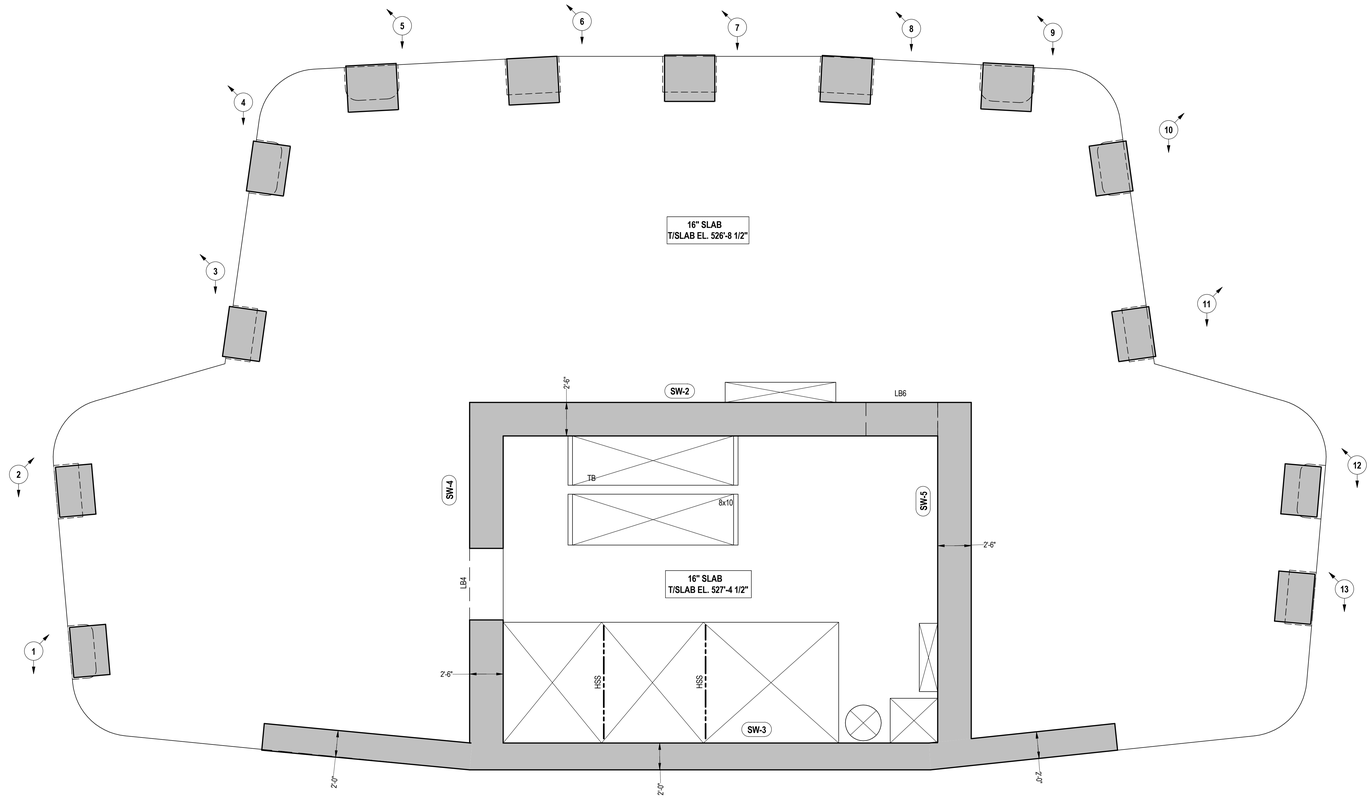
DEPT OF BLDGS 121207172 Job Number

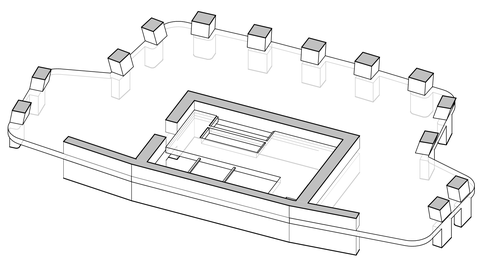
E500563654 Scan Code

45 BROAD STREET

NEW YORK NY 10004

ARCHITECT	**John A. Cetra** State of New York Registered Architect No. 018861 **CetraRuddy Architecture DPC** 584 Broadway Suite 401 New York, NY 10012 212.941.9801	OWNER	**Madison 45 Broad Development, LLC** 105 Madison Avenue New York, NY 10016
STRUCTURAL ENGINEER	**WSP Group** 228 East 45th Street, 3rd Fl New York, NY 10017 212.687.9888	MEP ENGINEER	**BuroHappold Engineering** 100 Broadway New York, NY 10005 212.334.2025
GEOTECHNICAL ENGINEER	**LANGAN** 21 Penn Plaza 360 West 31st Street, 8th Fl New York, NY 10001 212.479.5400	LANDSCAPE ARCHITECT	
LIGHTING DESIGNER	**Ventresca Design, LLC** 44-02 Eleventh St, Suite 203 Long Island City, NY 11101 212.500.0033	LIFTERA RAIL CONSULTANT	**BuroHappold Engineering** 100 Broadway New York, NY 10005 212.334.2025





3D VIEW

1 / S-380 **38TH FLOOR FRAMING PLAN**

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

NOTES:

1. TOP OF SLAB ELEVATION TO BE 527'-4 1/2" U.O.N. ON PLAN THUS: [ ]
2. SLAB TO BE 16" THICK U.O.N. ON PLAN THUS: [ ]
3. BOTTOM MAT REINFORCEMENT TO BE: #X@XX FOR XX" SLAB.
4. FOR BALANCE OF NOTES SEE DWG. S-010.

PRELIMINARY - NOT FOR CONSTRUCTION

2016.04.22 ISSUED FOR DESIGN DEVELOPMENT 1

CETRARUDDY

FLOOR 38 FRAMING PLAN

DRAWING NO. **S-380.00**

SCALE: As indicated

PROJECT: 1590109

DOB FILING NUMBER:

CETRARUDDY ARCHITECTURE DPC
584 BROADWAY NEW YORK NY 10012 T 212 941 9801 F 212 941 9440
WWW.CETRARUDDY.COM

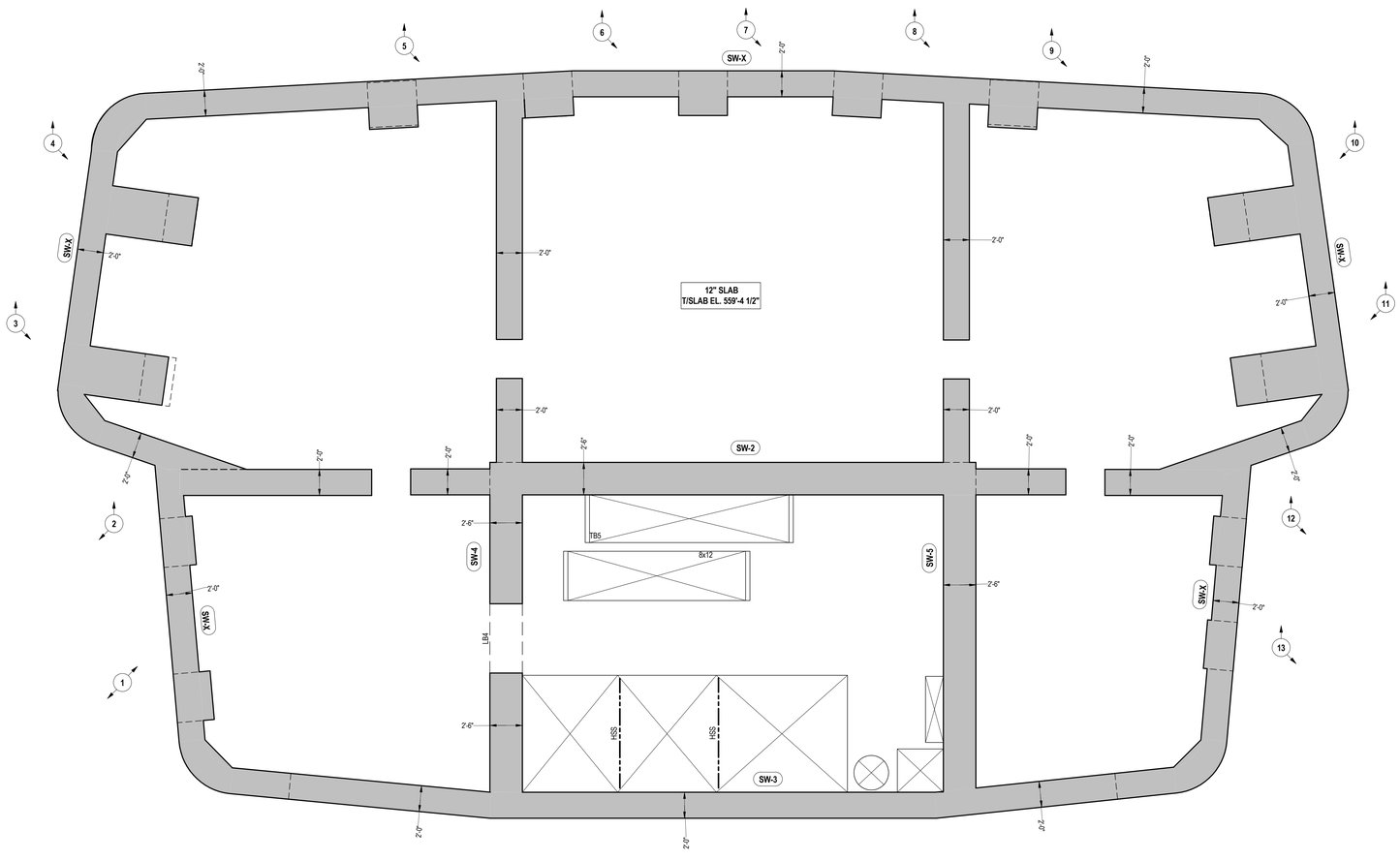
DEPT OF BLDGS 121200172 Job Number

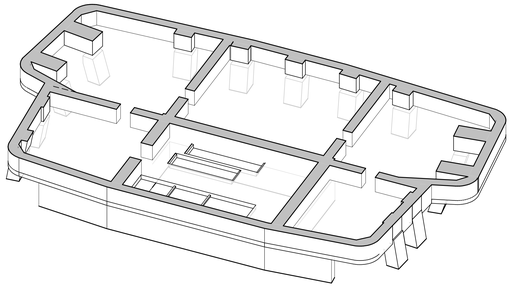
E3944978610 Scan Code

45 BROAD STREET

NEW YORK NY 10004

ARCHITECT	**John A. Cetra** State of New York Registered Architect No. 018861 **CetraRuddy Architecture DPC** 584 Broadway Suite 401 New York, NY 10012 212.941.9801	OWNER	**Madison 45 Broad Development, LLC** 105 Madison Avenue New York, NY 10016
STRUCTURAL ENGINEER	**WSP Group** 228 East 45th Street, 3rd Fl New York, NY 10017 212.687.9888	MEP ENGINEER	**BuroHappold Engineering** 100 Broadway New York, NY 10005 212.334.2025
GEOTECHNICAL ENGINEER	**LANGAN** 21 Penn Plaza 360 West 31st Street, 8th Fl New York, NY 10001 212.479.5400	LANDSCAPE ARCHITECT	
LIGHTING DESIGNER	**Ventresca Design, LLC** 44-02 Eleventh St, Suite 203 Long Island City, NY 11101 212.600.0033	LIFE/FIRE SAFETY & CODES	**BuroHappold Engineering** 100 Broadway New York, NY 10005 212.334.2025





3D VIEW

1 / S-390 **39TH FLOOR FRAMING PLAN**

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

NOTES:

1. TOP OF SLAB ELEVATION TO BE 559'-4 1/2" U.O.N. ON PLAN THUS:
2. SLAB TO BE 12" THICK U.O.N. ON PLAN THUS
3. BOTTOM MAT REINFORCEMENT TO BE: #X@XX FOR XX" SLAB.
4. FOR BALANCE OF NOTES SEE DWG. S-010.

PRELIMINARY - NOT FOR CONSTRUCTION

2016.04.22 ISSUED FOR DESIGN DEVELOPMENT 1

CETRARUDDY

FLOOR 39 FRAMING PLAN

DRAWING NO. **S-390.00**

SCALE: As indicated

PROJECT: 1590109

JOB DESCR. / IMAGE:

CETRARUDDY ARCHITECTURE DPC
584 BROADWAY NEW YORK NY 10012 T 212 941 9801 F 212 941 9440
WWW.CETRARUDDY.COM

45 BROAD STREET

NEW YORK NY 10004

ARCHITECT
John A. Cetra
State of New York
Registered Architect
No. 018861
CetraRuddy Architecture DPC
584 Broadway Suite 401
New York, NY 10012
212.941.9801

OWNER
Madison 45 Broad Development, LLC
105 Madison Avenue
New York, NY 10016

STRUCTURAL ENGINEER
WSP Group
228 East 45th Street, 3rd Fl
New York, NY 10017
212.687.9888

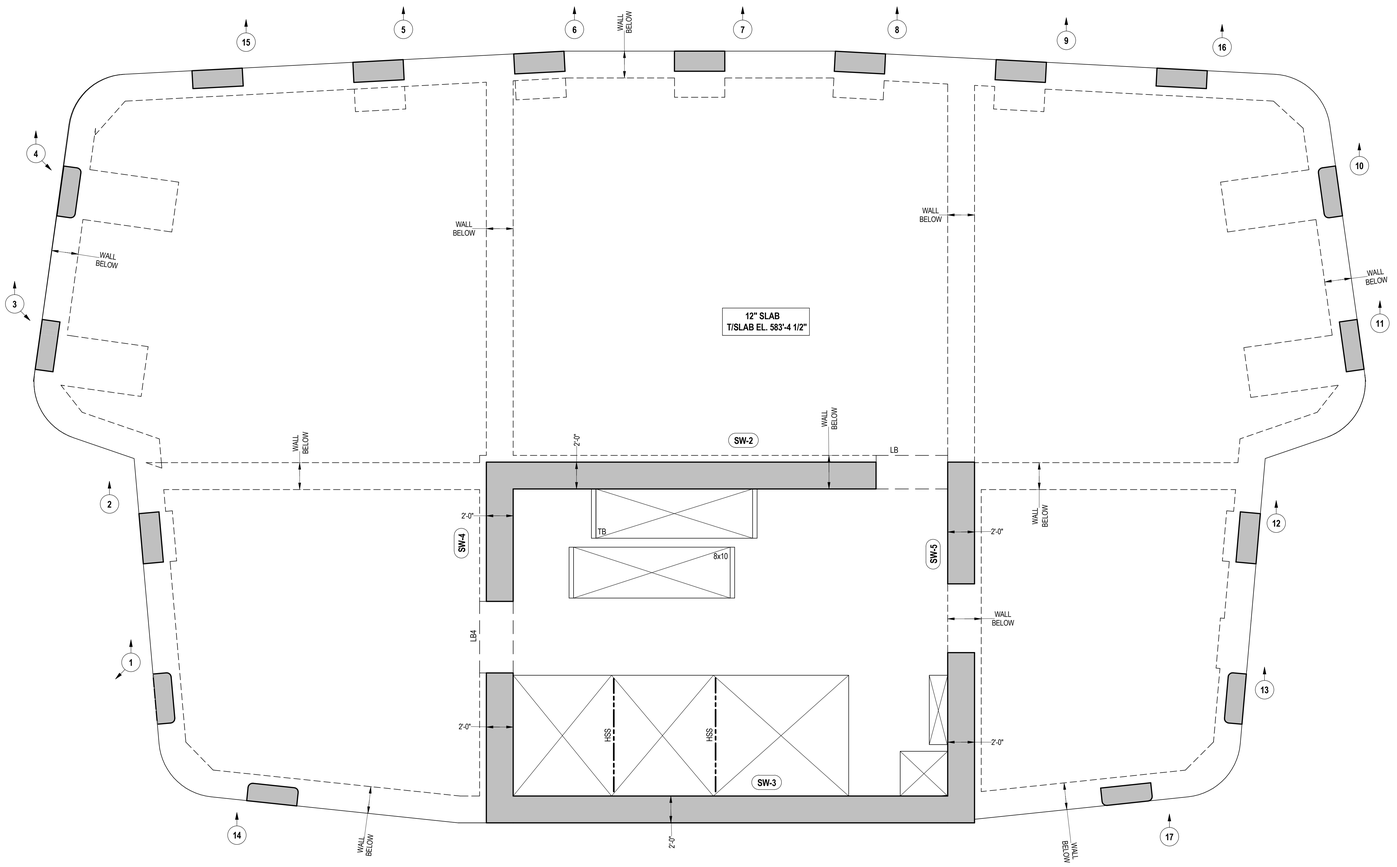
MEP ENGINEER
BuroHappold Engineering
100 Broadway
New York, NY 10005
212.334.2025

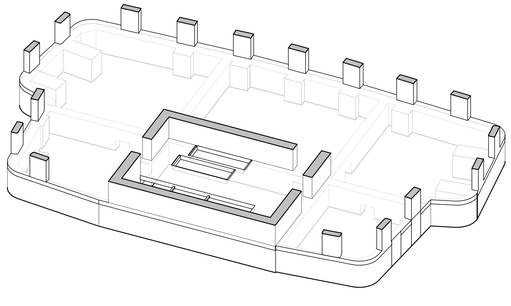
GEOTECHNICAL ENGINEER
LANGAN
21 Penn Plaza
360 West 31st Street, 8th Fl
New York, NY 10001
212.479.5400

LANDSCAPE ARCHITECT

LIGHTING DESIGNER
Ventresca Design, LLC
44-02 Eleventh St, Suite 203
Long Island City, NY 11101
212.600.0033

CURTAIN WALL CONSULTANT
BuroHappold Engineering
100 Broadway
New York, NY 10005
212.334.2025





3D VIEW

1 / S-400 **40TH FLOOR FRAMING PLAN**

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

NOTES:

1. TOP OF SLAB ELEVATION TO BE 583'-4 1/2" U.O.N. ON PLAN THUS:
2. SLAB TO BE 12" THICK U.O.N. ON PLAN THUS
3. BOTTOM MAT REINFORCEMENT TO BE: #X@XX FOR XX" SLAB.
4. FOR BALANCE OF NOTES SEE DWG. S-010.

PRELIMINARY - NOT FOR CONSTRUCTION

2016.04.22	ISSUED FOR DESIGN DEVELOPMENT 1

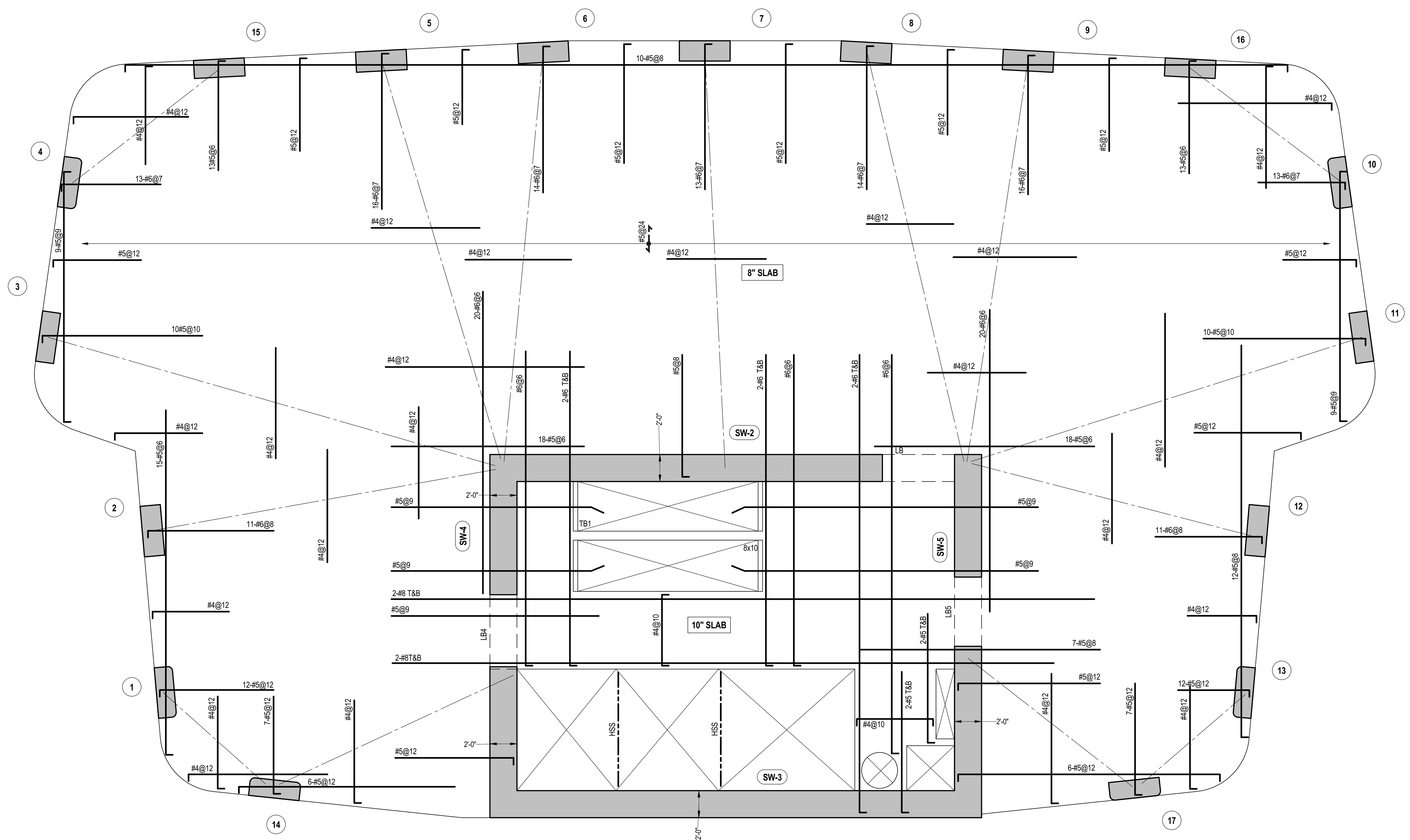
CETRARUDDY

FLOOR 40 FRAMING PLAN

DRAWING NO. **S-400.00**

PROJECT 1590109 | SCALE As indicated | DRAWN BY | CHECKED BY

CETRARUDDY ARCHITECTURE DPC
584 BROADWAY NEW YORK NY 10012 T 212 941 9801 F 212 941 9440
WWW.CETRARUDDY.COM



1 S-410 **41ST - 56TH FLOOR FRAMING PLAN**

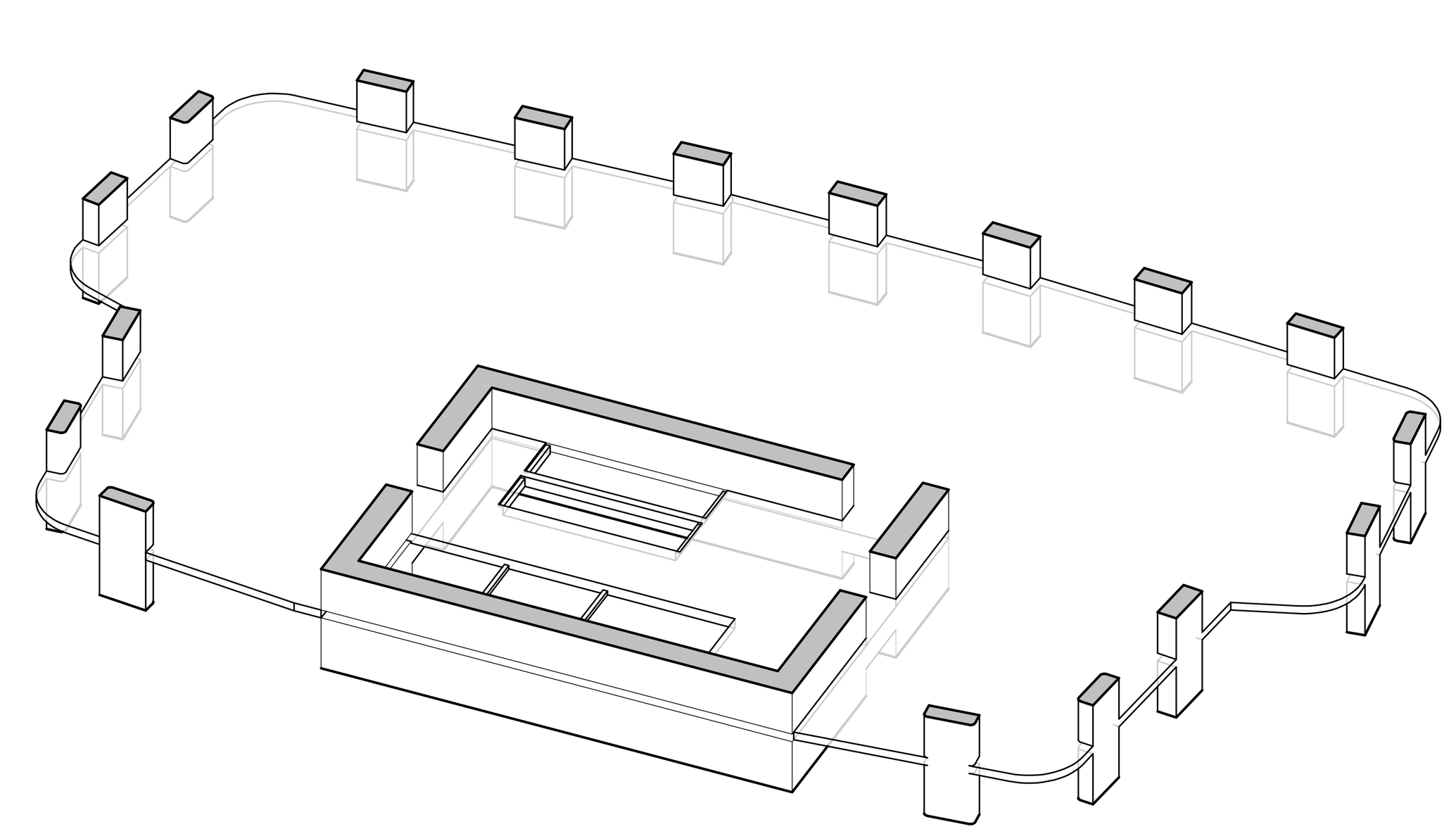
SCALE: 1/4" = 1'-0"

NOTES:

1. TOP OF SLAB ELEVATION TO BE

594'-2 1/2"	41ST FLOOR
605'-0 1/2"	42ND FLOOR
615'-10 1/2"	43RD FLOOR
626'-8 1/2"	44TH FLOOR
637'-6 1/2"	45TH FLOOR
648'-4 1/2"	46TH FLOOR
659'-2 1/2"	47TH FLOOR
670'-0 1/2"	48TH FLOOR
680'-10 1/2"	49TH FLOOR
691'-8 1/2"	50TH FLOOR
702'-6 1/2"	51ST FLOOR
713'-4 1/2"	52ND FLOOR
724'-2 1/2"	53RD FLOOR
735'-0 1/2"	54TH FLOOR
745'-10 1/2"	55TH FLOOR
756'-8 1/2"	56TH FLOOR U.O.N. ON PLAN THUS

2. SLAB TO BE 8" THICK U.O.N. ON PLAN THUS
3. BOTTOM MAT REINFORCEMENT TO BE: #4@12 CONT. E.W. FOR 8" SLAB U.O.N.
   #4@10 CONT. E.W. FOR 10" SLAB U.O.N.
4. FOR BALANCE OF NOTES SEE DWG. S-010.



3D VIEW

45 BROAD STREET

NEW YORK NY 10004

ARCHITECT: **John A. Cetra**
State of New York
Registered Architect
No. 018861

CetraRuddy Architecture DPC
584 Broadway Suite 401
New York, NY 10012
212.941.9801

CLIENT: **Madison 45 Broad Development, LLC**
105 Madison Avenue
New York, NY 10016

STRUCTURAL ENGINEER: **WSP Group**
228 East 45th Street, 3rd Fl
New York, NY 10017
212.687.9888

MEP ENGINEER: **BuroHappold Engineering**
100 Broadway
New York, NY 10005
212.334.2025

GEOTECHNICAL ENGINEER: **LANGAN**
21 Penn Plaza
360 West 31st Street, 8th Fl
New York, NY 10001
212.479.5400

LANDSCAPE ARCHITECT:

LIGHTING DESIGNER: **Ventresca Design, LLC**
44-02 Eleventh St, Suite 203
Long Island City, NY 11101
212.600.0033

CURTAIN WALL CONSULTANT: **BuroHappold Engineering**
100 Broadway
New York, NY 10005
212.334.2025

PRELIMINARY - NOT FOR CONSTRUCTION

2016.04.22 ISSUED FOR DESIGN DEVELOPMENT 1

CETRARUDDY

FLOOR 41 - 56 FRAMING PLAN

DRAWING NO. **S-410.00**

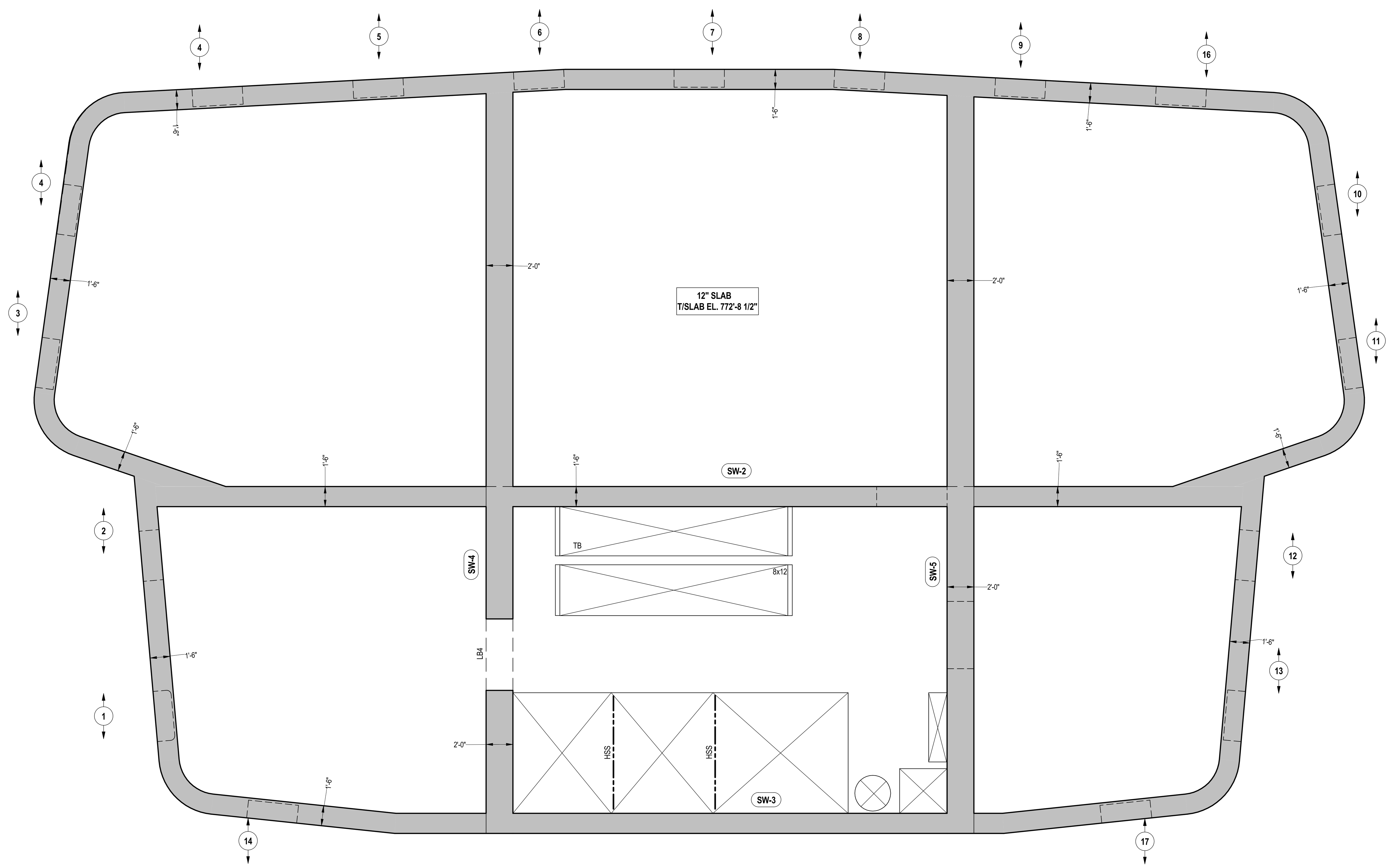
SCALE: As indicated

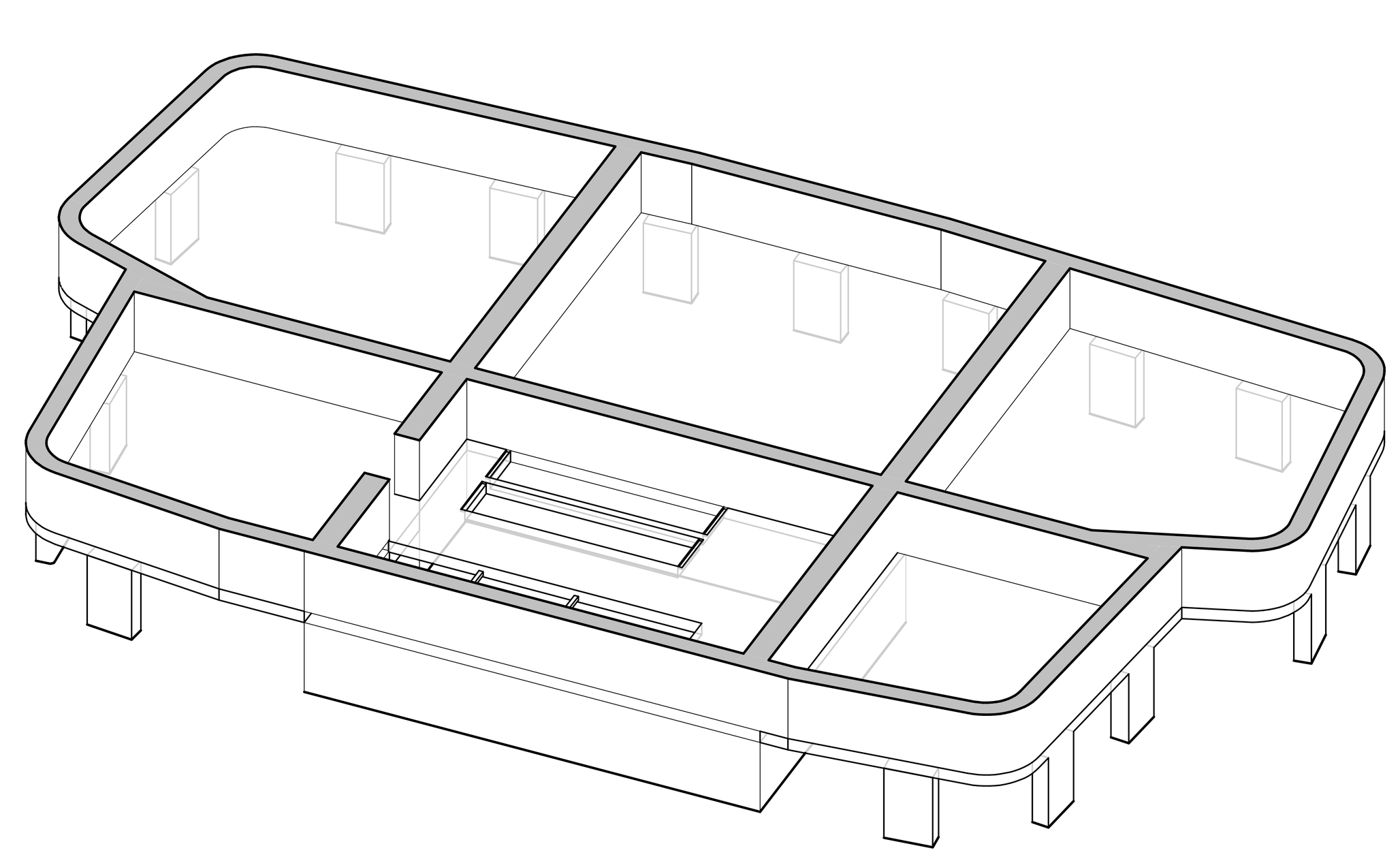
DOB PAGE NO.

PROJECT: 1590109

DOB FILE NO.

CETRARUDDY **ARCHITECTURE DPC**
584 BROADWAY NEW YORK NY 10012 T 212 941 9801 F 212 941 9440
WWW.CETRARUDDY.COM





3D VIEW

1 S-570 **57TH FLOOR FRAMING PLAN**

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

NOTES:

1. TOP OF SLAB ELEVATION TO BE 772'-8 1/2" U.O.N. ON PLAN THUS ....
2. SLAB TO BE 12" THICK U.O.N. ON PLAN THUS ....
3. BOTTOM MAT REINFORCEMENT TO BE: #X@XX FOR XX" SLAB.
4. FOR BALANCE OF NOTES SEE DWG. S-010.

45 BROAD STREET

NEW YORK NY 10004

ARCHITECT
John A. Cetra
State of New York
Registered Architect
No. 018861

CetraRuddy Architecture DPC
584 Broadway Suite 401
New York, NY 10012
212.941.9801

CLIENT
Madison 45 Broad Development, LLC
105 Madison Avenue
New York, NY 10016

STRUCTURAL ENGINEER
WSP Group
228 East 45th Street, 3rd Fl
New York, NY 10017
212.687.9888

MEP ENGINEER
BuroHappold Engineering
100 Broadway
New York, NY 10005
212.334.2025

GEOTECHNICAL ENGINEER
LANGAN
21 Penn Plaza
360 West 31st Street, 8th Fl
New York, NY 10001
212.479.5400

LANDSCAPE ARCHITECT

LIGHTING DESIGNER
Ventresca Design, LLC
44-02 Eleventh St, Suite 203
Long Island City, NY 11101
212.600.0033

CURTAIN WALL CONSULTANT
BuroHappold Engineering
100 Broadway
New York, NY 10005
212.334.2025

PRELIMINARY - NOT FOR CONSTRUCTION

2016.04.22 ISSUED FOR DESIGN DEVELOPMENT 1

CETRARUDDY

FLOOR 57 FRAMING PLAN

DRAWING NO. **S-570.00**

SCALE: As indicated

PROJECT: 1590109

DOB PAGE NO.

DOB FILE NO.

CETRARUDDY **ARCHITECTURE DPC**
584 BROADWAY NEW YORK NY 10012 T 212 941 9801 F 212 941 9440
WWW.CETRARUDDY.COM

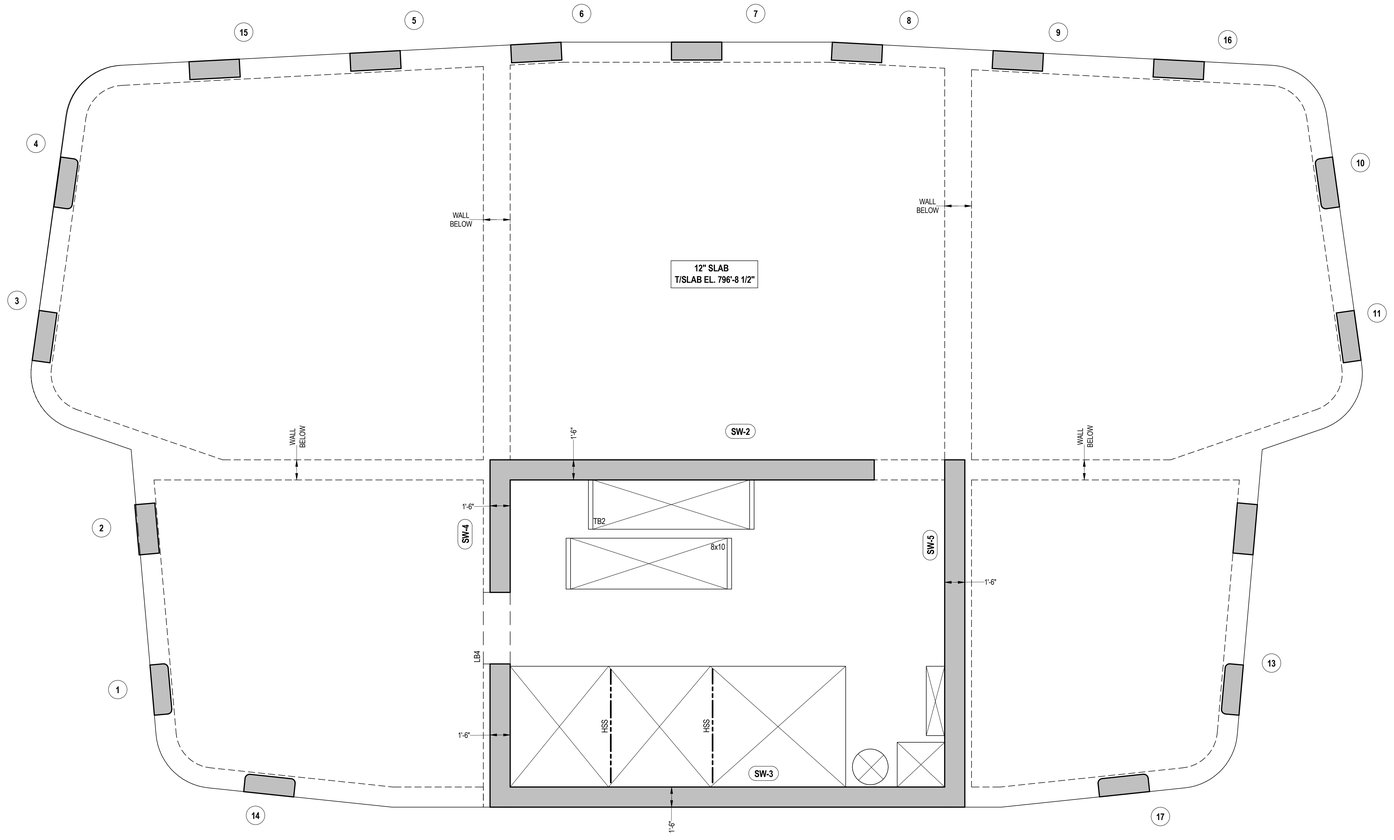
DEPT OF BLDGS 421200172 Job Number

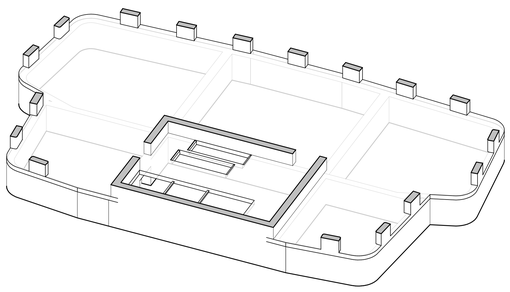
E599747909X Scan Code

45 BROAD STREET

NEW YORK NY 10004

ARCHITECT	**John A. Cetra** State of New York Registered Architect No. 018861 **CetraRuddy Architecture DPC** 584 Broadway Suite 401 New York, NY 10012 212.941.9801	OWNER	**Madison 45 Broad Development, LLC** 105 Madison Avenue New York, NY 10016
STRUCTURAL ENGINEER	**WSP Group** 228 East 45th Street, 3rd Fl New York, NY 10017 212.687.9888	MEP ENGINEER	**BuroHappold Engineering** 100 Broadway New York, NY 10005 212.334.2025
GEOTECHNICAL ENGINEER	**LANGAN** 21 Penn Plaza 360 West 31st Street, 8th Fl New York, NY 10001 212.479.5400	LANDSCAPE ARCHITECT	
LIGHTING DESIGNER	**Ventresca Design, LLC** 44-02 Eleventh St, Suite 203 Long Island City, NY 11101 212.600.0033	LIFE SAFETY/FIRE PROTECTION	**BuroHappold Engineering** 100 Broadway New York, NY 10005 212.334.2025





3D VIEW

1 / S-580 **58TH FLOOR FRAMING PLAN**

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

NOTES:

1. TOP OF SLAB ELEVATION TO BE 796'-8 1/2" U.O.N. ON PLAN THUS
2. SLAB TO BE 12" THICK U.O.N. ON PLAN THUS
3. BOTTOM MAT REINFORCEMENT TO BE: #X@XX FOR XX" SLAB.
4. FOR BALANCE OF NOTES SEE DWG. S-010.

PRELIMINARY - NOT FOR CONSTRUCTION

2016.04.22 ISSUED FOR DESIGN DEVELOPMENT 1

CETRARUDDY

FLOOR 58 FRAMING PLAN

DRAWING NO. **S-580.00**

SCALE: As indicated

PROJECT: 1590109

DOB FILING / PAB NO.:

CETRARUDDY ARCHITECTURE DPC
584 BROADWAY NEW YORK NY 10012 T 212 941 9801 F 212 941 9440
WWW.CETRARUDDY.COM

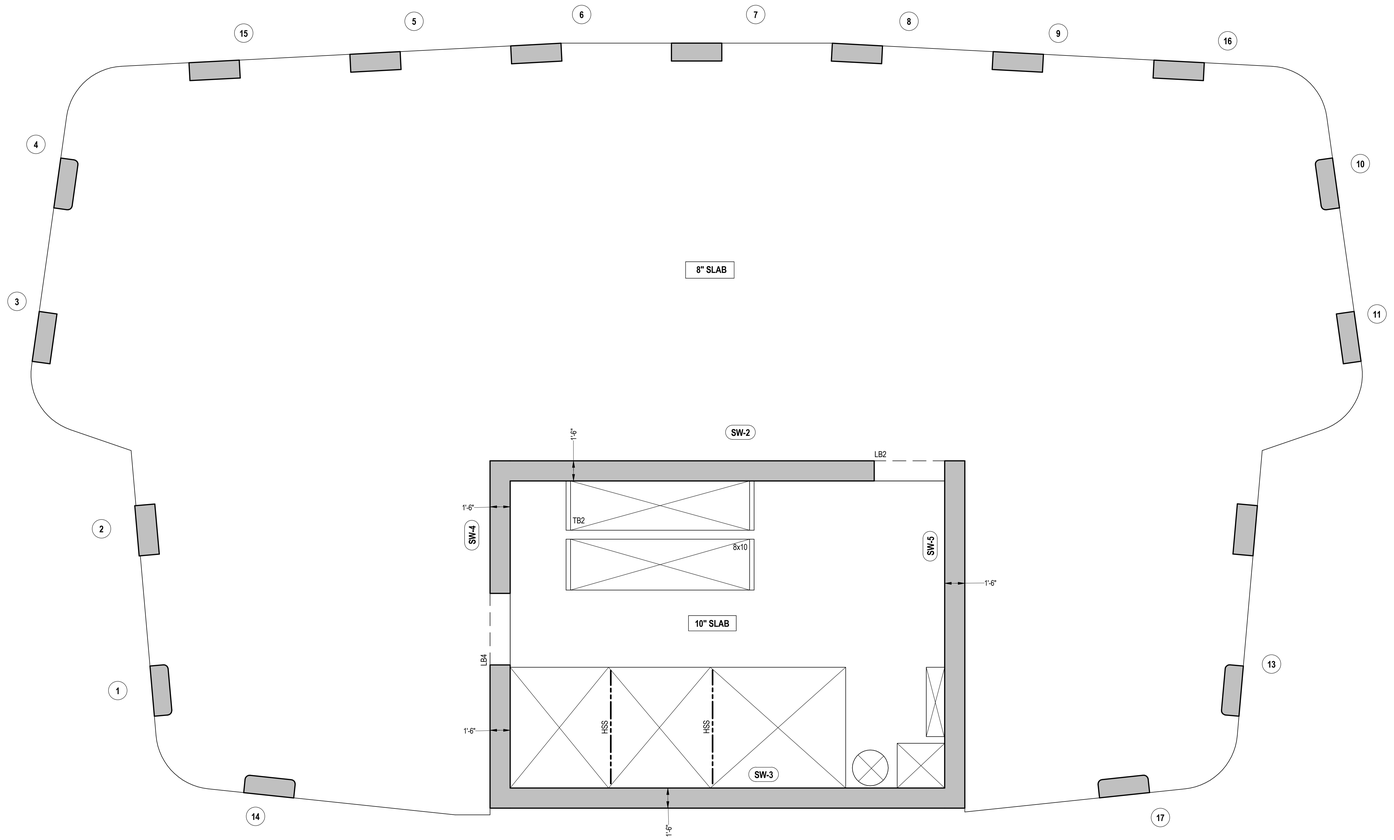
DEPT OF BLDGS 121200712 Job Number

E350457/355 Scan Code

45 BROAD STREET

NEW YORK NY 10004

ARCHITECT	**John A. Cetra** State of New York Registered Architect No. 018861 **CetraRuddy Architecture DPC** 584 Broadway Suite 401 New York, NY 10012 212.941.9801	OWNER	**Madison 45 Broad Development, LLC** 105 Madison Avenue New York, NY 10016
STRUCTURAL ENGINEER	**WSP Group** 228 East 45th Street, 3rd Fl New York, NY 10017 212.687.9888	MEP ENGINEER	**BuroHappold Engineering** 100 Broadway New York, NY 10005 212.334.2025
GEOTECHNICAL ENGINEER	**LANGAN** 21 Penn Plaza 360 West 31st Street, 8th Fl New York, NY 10001 212.479.5400	LANDSCAPE ARCHITECT	
LIGHTING DESIGNER	**Ventresca Design, LLC** 44-02 Eleventh St, Suite 203 Long Island City, NY 11101 212.600.0033	LIFE SAFETY / CODES / FAA	**BuroHappold Engineering** 100 Broadway New York, NY 10005 212.334.2025

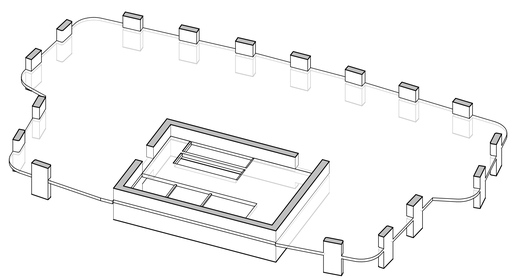


1 / S-590 **59TH - 68TH, 70TH, 72ND & 74TH FLOOR FRAMING PLAN**

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

NOTES:

1. TOP OF SLAB ELEVATION TO BE 807'-6 1/2" 59TH FLOOR
   818'-4 1/2" 60TH FLOOR
   829'-2 1/2" 61ST FLOOR
   840'-0 1/2" 62ND FLOOR
   850'-10 1/2" 63RD FLOOR
   861'-8 1/2" 64TH FLOOR
   872'-6 1/2" 65TH FLOOR
   883'-4 1/2" 66TH FLOOR
   894'-2 1/2" 67TH FLOOR
   905'-0 1/2" 68TH FLOOR
   926'-8 1/2" 70TH FLOOR
   948'-4 1/2" 72ND FLOOR
   970'-0 1/2" 74TH FLOOR U.O.N. ON PLAN THUS [ ]
2. SLAB TO BE 8" THICK U.O.N. ON PLAN THUS [ ]
3. BOTTOM MAT REINFORCEMENT TO BE: #X@XX FOR XX" SLAB.
   #X@XX FOR XX" SLAB.
4. FOR BALANCE OF NOTES SEE DWG. S-010.



3D VIEW

PRELIMINARY - NOT FOR CONSTRUCTION

2016.04.22	ISSUED FOR DESIGN DEVELOPMENT 1

CETRARUDDY

FLOOR 59 - 68, 70, 72 & 74 FRAMING PLAN

DRAWING NO. **S-590.00**

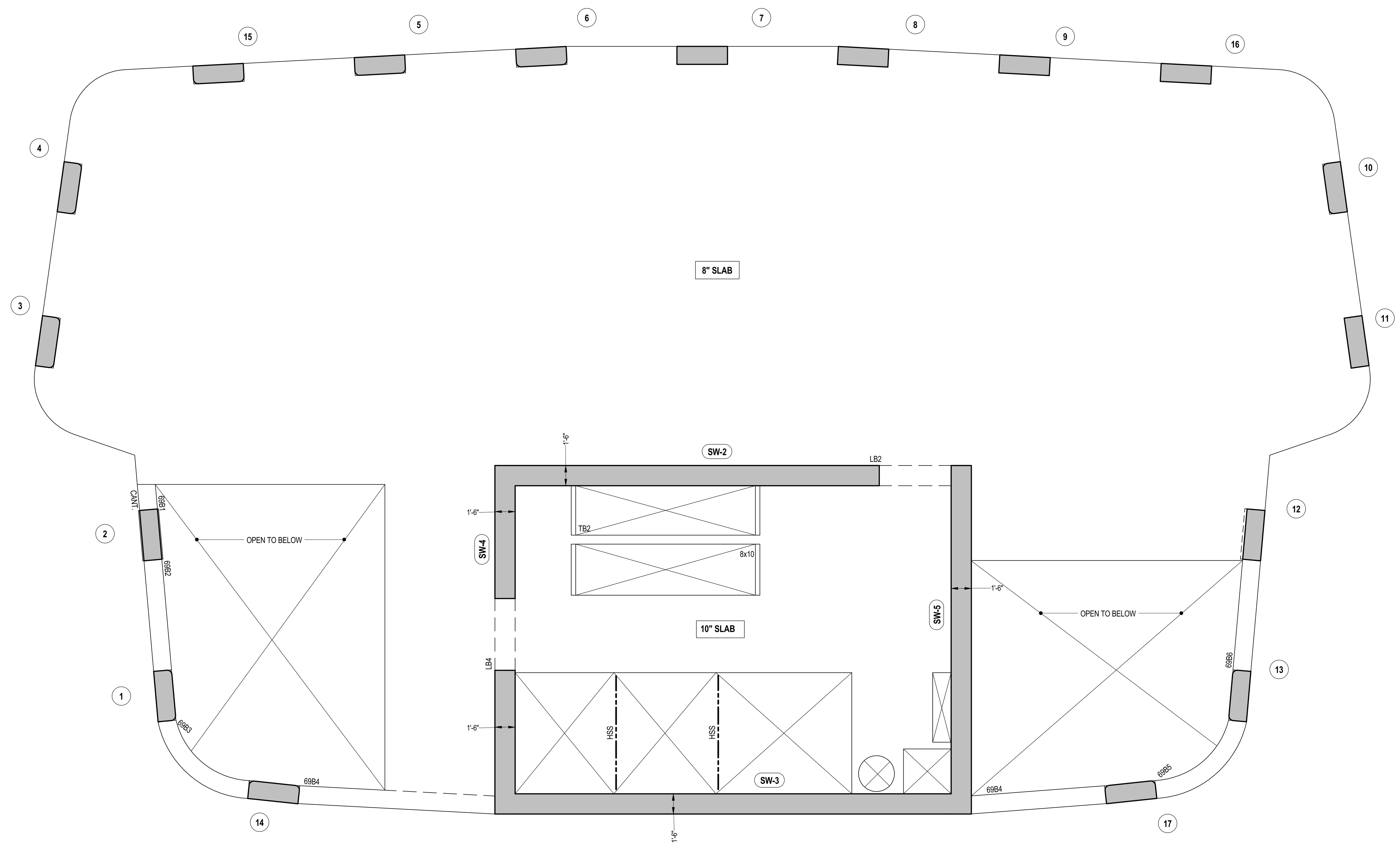
SCALE: As indicated

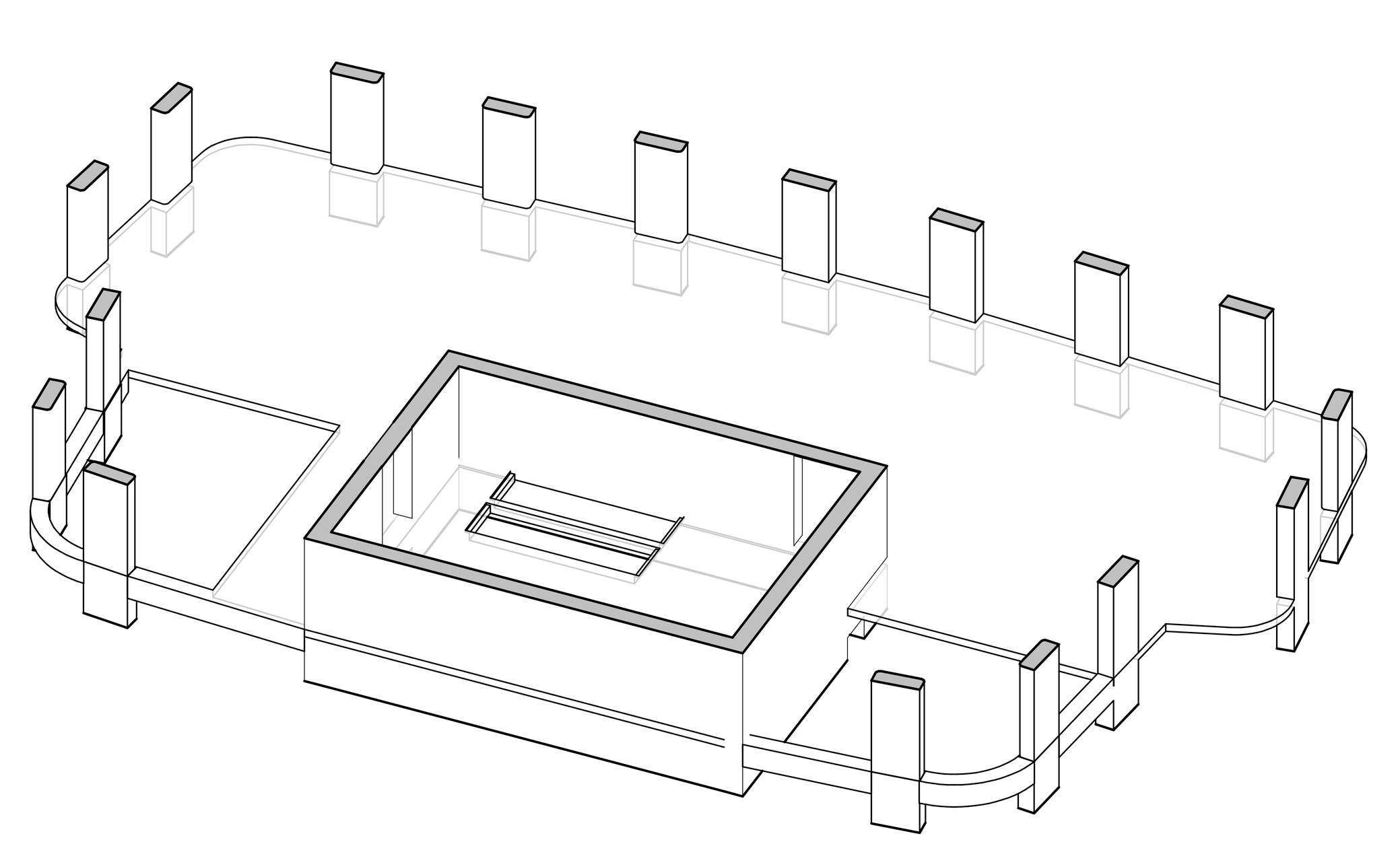
PROJECT: 1590109

JOB / FILE NO.:

STATE OF NEW YORK JOHN A. CETRA 019135 LICENSED PROFESSIONAL ENGINEER

CETRARUDDY ARCHITECTURE DPC
584 BROADWAY NEW YORK NY 10012 T 212 941 9801 F 212 941 9440
WWW.CETRARUDDY.COM





3D VIEW

1 (S-690) 69TH, 71ST, 73RD & 75TH FLOOR FRAMING PLAN

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

NOTES:

1. TOP OF SLAB ELEVATION TO BE 915'-10 1/2" 69TH FLOOR
   937'-6 1/2" 71ST FLOOR
   959'-2 1/2" 73RD FLOOR
   980'-10 1/2" 73RD FLOOR U.O.N. ON PLAN THUS
2. SLAB TO BE 8" THICK U.O.N. ON PLAN THUS
3. BOTTOM MAT REINFORCEMENT TO BE: #X@XX FOR XX" SLAB.
   #X@XX FOR XX" SLAB.
4. FOR BALANCE OF NOTES SEE DWG. S-010.

45 BROAD STREET

NEW YORK NY 10004

ARCHITECT: **John A. Cetra**
State of New York
Registered Architect
No. 018861

CetraRuddy Architecture DPC
584 Broadway Suite 401
New York, NY 10012
212.941.9801

CLIENT: **Madison 45 Broad Development, LLC**
105 Madison Avenue
New York, NY 10016

STRUCTURAL ENGINEER: **WSP Group**
228 East 45th Street, 3rd Fl
New York, NY 10017
212.687.9888

MEP ENGINEER: **BuroHappold Engineering**
100 Broadway
New York, NY 10005
212.334.2025

GEOTECHNICAL ENGINEER: **LANGAN**
21 Penn Plaza
360 West 31st Street, 8th Fl
New York, NY 10001
212.479.5400

LANDSCAPE ARCHITECT:

LIGHTING DESIGNER: **Ventresca Design, LLC**
44-02 Eleventh St, Suite 203
Long Island City, NY 11101
212.600.0033

CURTAIN WALL CONSULTANT: **BuroHappold Engineering**
100 Broadway
New York, NY 10005
212.334.2025

PRELIMINARY - NOT FOR CONSTRUCTION

2016.04.22	ISSUED FOR DESIGN DEVELOPMENT	1

CETRARUDDY

FLOOR 69, 71, 73 & 75 FRAMING PLAN

DRAWING NO.	S-690.00		
SCALE	As indicated	DOB PAGE NO.	
PROJECT	1590109	DOB FILE NO.	

STATE OF NEW YORK · ...AN L. MARCUS · 057530 · PROFESSIONAL ENGINEER

CETRARUDDY ARCHITECTURE DPC
584 BROADWAY NEW YORK NY 10012 T 212 941 9801 F 212 941 9440
WWW.CETRARUDDY.COM

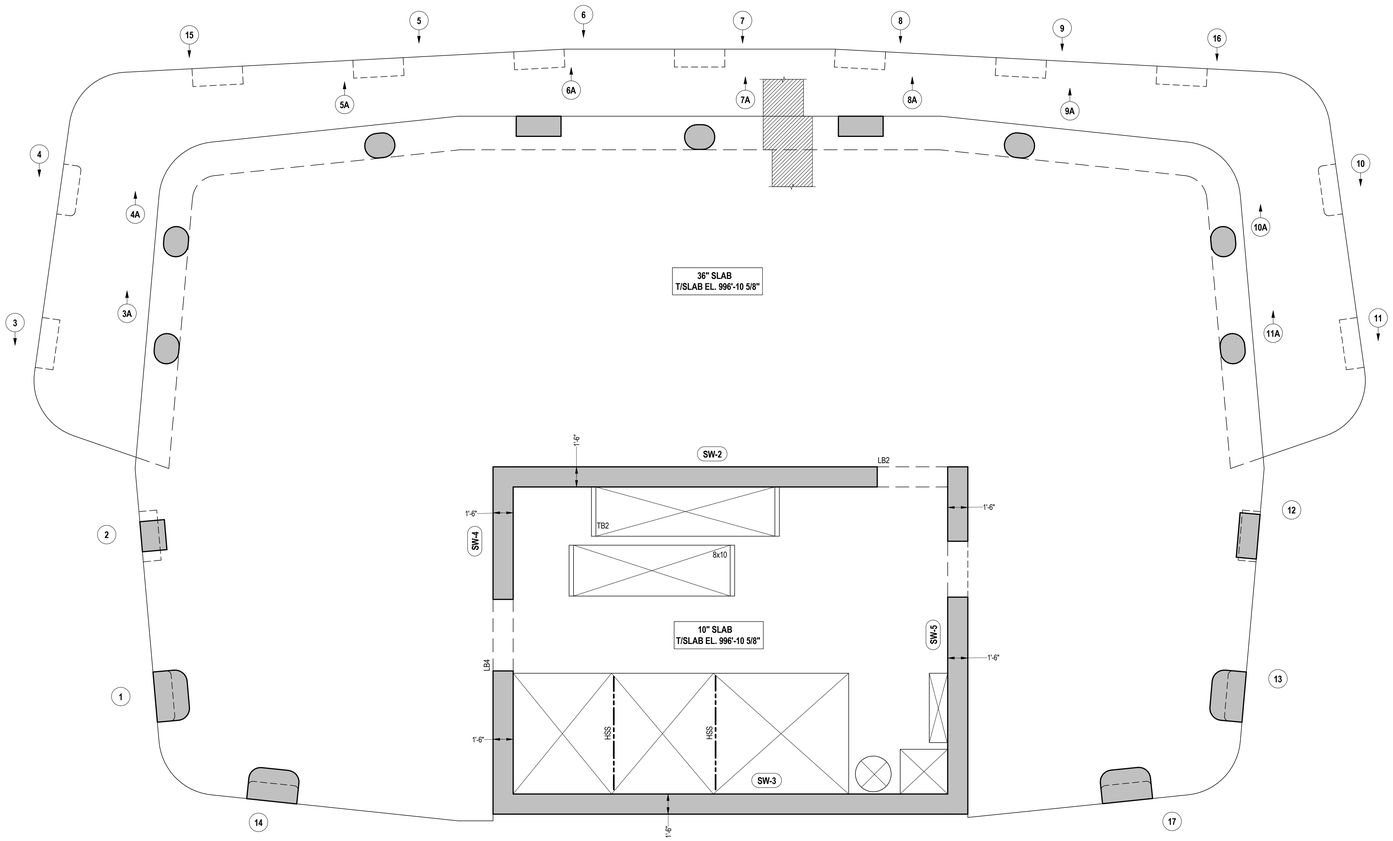
DEPT OF BLDGS 121207172 Job Number

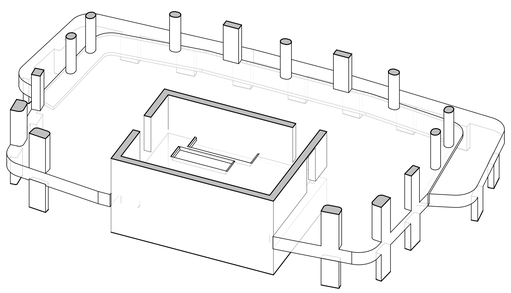
E1512253051 Scan Code

45 BROAD STREET

NEW YORK NY 10004

ARCHITECT	**John A. Cetra** State of New York Registered Architect No. 018861 **CetraRuddy Architecture DPC** 584 Broadway Suite 401 New York, NY 10012 212.941.9801	OWNER	**Madison 45 Broad Development, LLC** 105 Madison Avenue New York, NY 10016
STRUCTURAL ENGINEER	**WSP Group** 228 East 45th Street, 3rd Fl New York, NY 10017 212.687.9888	MEP ENGINEER	**BuroHappold Engineering** 100 Broadway New York, NY 10005 212.334.2025
GEOTECHNICAL ENGINEER	**LANGAN** 21 Penn Plaza 360 West 31st Street, 8th Fl New York, NY 10001 212.479.5400	LANDSCAPE ARCHITECT	
LIGHTING DESIGNER	**Ventresca Design, LLC** 44-02 Eleventh St, Suite 203 Long Island City, NY 11101 212.600.0033	CIVIL/FIRE PROTECTION ENGINEER	**BuroHappold Engineering** 100 Broadway New York, NY 10005 212.334.2025





3D VIEW

1 S-760 **76TH FLOOR FRAMING PLAN**

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

NOTES:

1. TOP OF SLAB ELEVATION TO BE 996'-10 5/8" U.O.N. ON PLAN THUS ▭
2. SLAB TO BE 36" THICK U.O.N. ON PLAN THUS ▭
3. BOTTOM MAT REINFORCEMENT TO BE: #X@XX FOR XX" SLAB.
4. FOR BALANCE OF NOTES SEE DWG. S-010.

PRELIMINARY - NOT FOR CONSTRUCTION

2016.04.22	ISSUED FOR DESIGN DEVELOPMENT	1

CETRARUDDY

FLOOR 76 FRAMING PLAN

PROJECT	1590109	DRAWING NO.	S-760.00
SCALE	As indicated	DOB / EXPIR. / MM.DD.	

CETRARUDDY **ARCHITECTURE DPC**
584 BROADWAY NEW YORK NY 10012 T 212 941 9801 F 212 941 9440
WWW.CETRARUDDY.COM

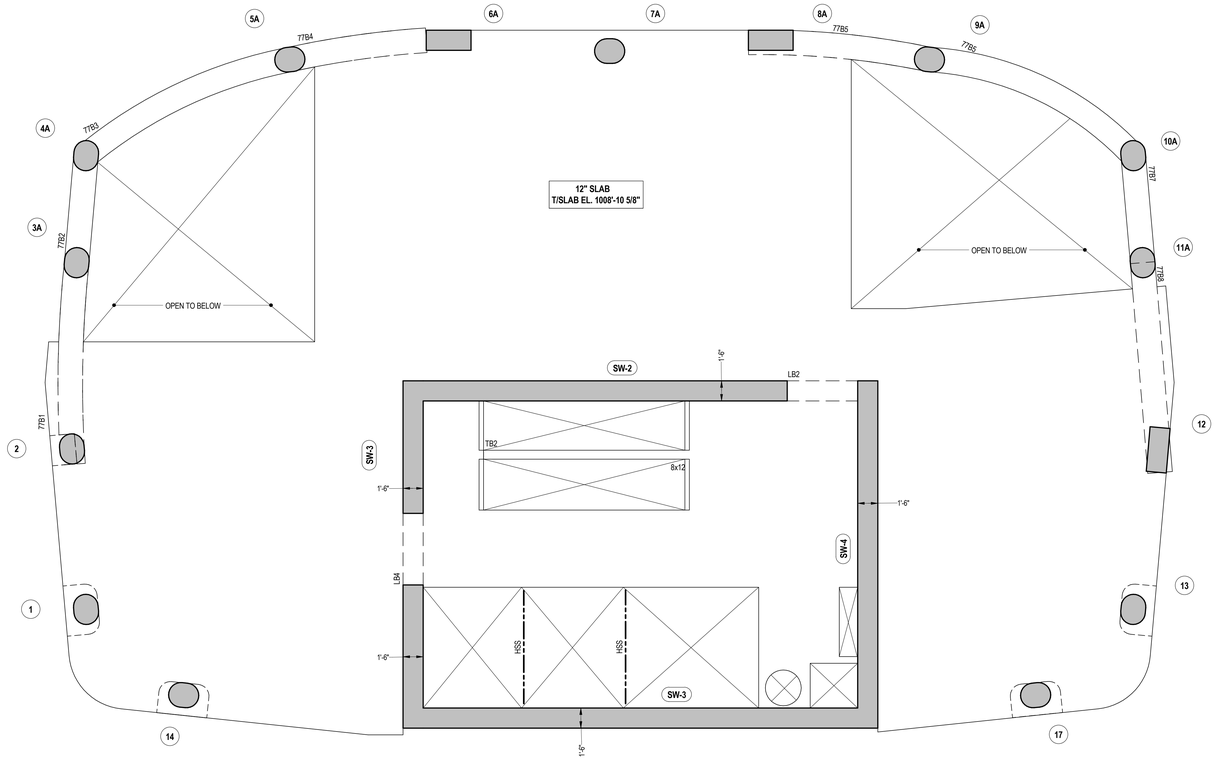
DEPT OF BLDGS 121207172 Job Number

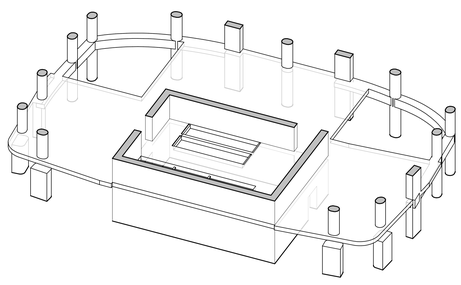
E385621/I001 Scan Code

45 BROAD STREET

NEW YORK NY 10004

ARCHITECT	**John A. Cetra** State of New York Registered Architect No. 018861 **CetraRuddy Architecture DPC** 584 Broadway Suite 401 New York, NY 10012 212.941.9801	OWNER	**Madison 45 Broad Development, LLC** 105 Madison Avenue New York, NY 10016
STRUCTURAL ENGINEER	**WSP Group** 228 East 45th Street, 3rd Fl New York, NY 10017 212.687.9888	MEP ENGINEER	**BuroHappold Engineering** 100 Broadway New York, NY 10005 212.334.2025
GEOTECHNICAL ENGINEER	**LANGAN** 21 Penn Plaza 360 West 31st Street, 8th Fl New York, NY 10001 212.479.5400	LANDSCAPE ARCHITECT	
LIGHTING DESIGNER	**Ventresca Design, LLC** 44-02 Eleventh St, Suite 203 Long Island City, NY 11101 212.600.0033	CIVIL ENGINEER / CONSULTANT	**BuroHappold Engineering** 100 Broadway New York, NY 10005 212.334.2025





3D VIEW

1 / S-770 **77TH & 79TH FLOOR FRAMING PLAN**

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

NOTES:

1. TOP OF SLAB ELEVATION TO BE 1008'-10 5/8" 77TH FLOOR
   1032'-10 1/2" 79TH FLOOR U.O.N. ON PLAN THUS
2. SLAB TO BE 12" THICK U.O.N. ON PLAN THUS
3. BOTTOM MAT REINFORCEMENT TO BE: #X@XX FOR XX" SLAB.
4. FOR BALANCE OF NOTES SEE DWG. S-010.

PRELIMINARY - NOT FOR CONSTRUCTION

2016.04.22 ISSUED FOR DESIGN DEVELOPMENT 1

CETRARUDDY

FLOOR 77 & 79 FRAMING PLAN

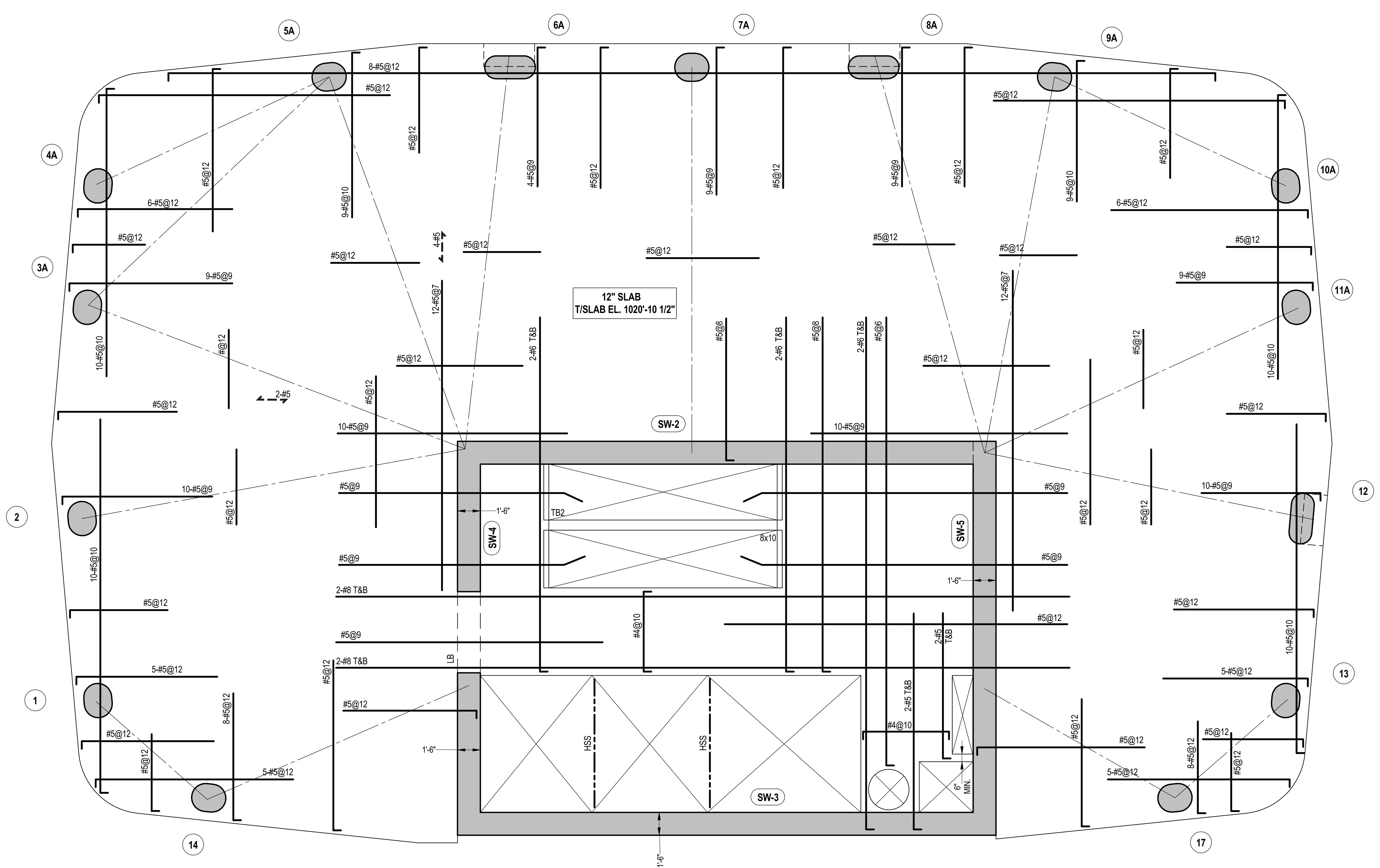
DRAWING NO. **S-770.00**

SCALE As indicated

PROJECT 1590109

DOB / ELEC. DOB / PLBG.

CETRARUDDY ARCHITECTURE DPC
584 BROADWAY NEW YORK NY 10012 T 212 941 9801 F 212 941 9440
WWW.CETRARUDDY.COM



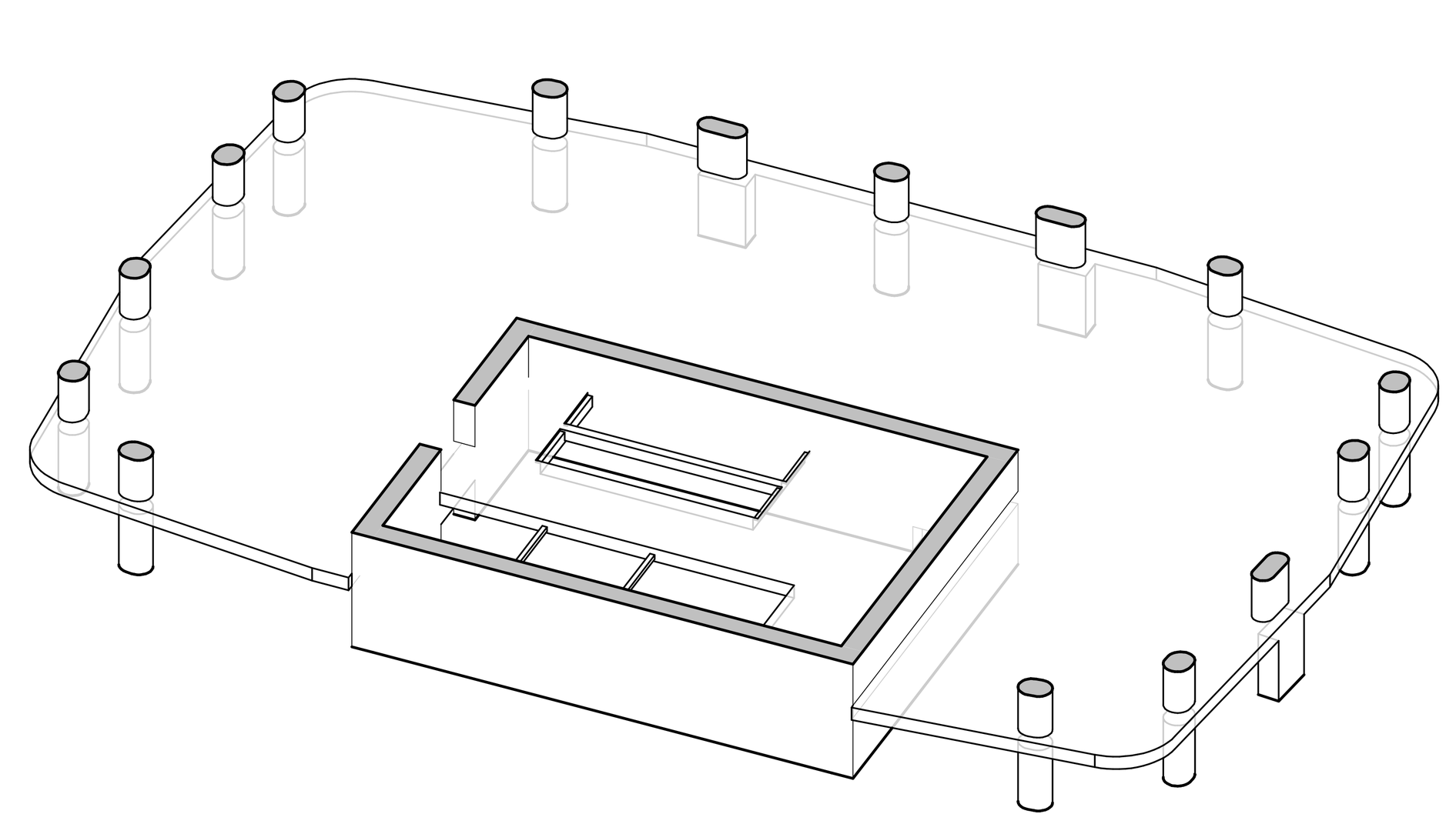
1 78TH & 80TH FLOOR FRAMING PLAN

S-780

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

NOTES:

1. TOP OF SLAB ELEVATION TO BE 1020'-10 1/2" 78TH FLOOR
   1044'-10 1/2" 80TH FLOOR U.O.N. ON PLAN THUS
2. SLAB TO BE 12" THICK U.O.N. ON PLAN THUS
3. BOTTOM MAT REINFORCEMENT TO BE: #5@12 CONT. E.W. FOR 12" SLAB U.O.N.
4. FOR BALANCE OF NOTES SEE DWG. S-010.



3D VIEW

45 BROAD STREET

NEW YORK NY 10004

ARCHITECT
John A. Cetra
State of New York
Registered Architect
No. 018861

CetraRuddy Architecture DPC
584 Broadway Suite 401
New York, NY 10012
212.941.9801

CLIENT
Madison 45 Broad Development, LLC
105 Madison Avenue
New York, NY 10016

STRUCTURAL ENGINEER
WSP Group
228 East 45th Street, 3rd Fl
New York, NY 10017
212.687.9888

MEP ENGINEER
BuroHappold Engineering
100 Broadway
New York, NY 10005
212.334.2025

GEOTECHNICAL ENGINEER
LANGAN
21 Penn Plaza
360 West 31st Street, 8th Fl
New York, NY 10001
212.479.5400

LANDSCAPE ARCHITECT

LIGHTING DESIGNER
Ventresca Design, LLC
44-02 Eleventh St, Suite 203
Long Island City, NY 11101
212.600.0033

CURTAIN WALL CONSULTANT
BuroHappold Engineering
100 Broadway
New York, NY 10005
212.334.2025

PRELIMINARY - NOT FOR CONSTRUCTION

2016.04.22 ISSUED FOR DESIGN DEVELOPMENT 1

CETRARUDDY

FLOOR 78 & 80 FRAMING PLAN

DRAWING NO. **S-780.00**

SCALE: As indicated

PROJECT: 1590109

DOB PAGE NO.

DOB FILE NO.

CETRARUDDY **ARCHITECTURE DPC**
584 BROADWAY NEW YORK NY 10012 T 212 941 9801 F 212 941 9440
WWW.CETRARUDDY.COM

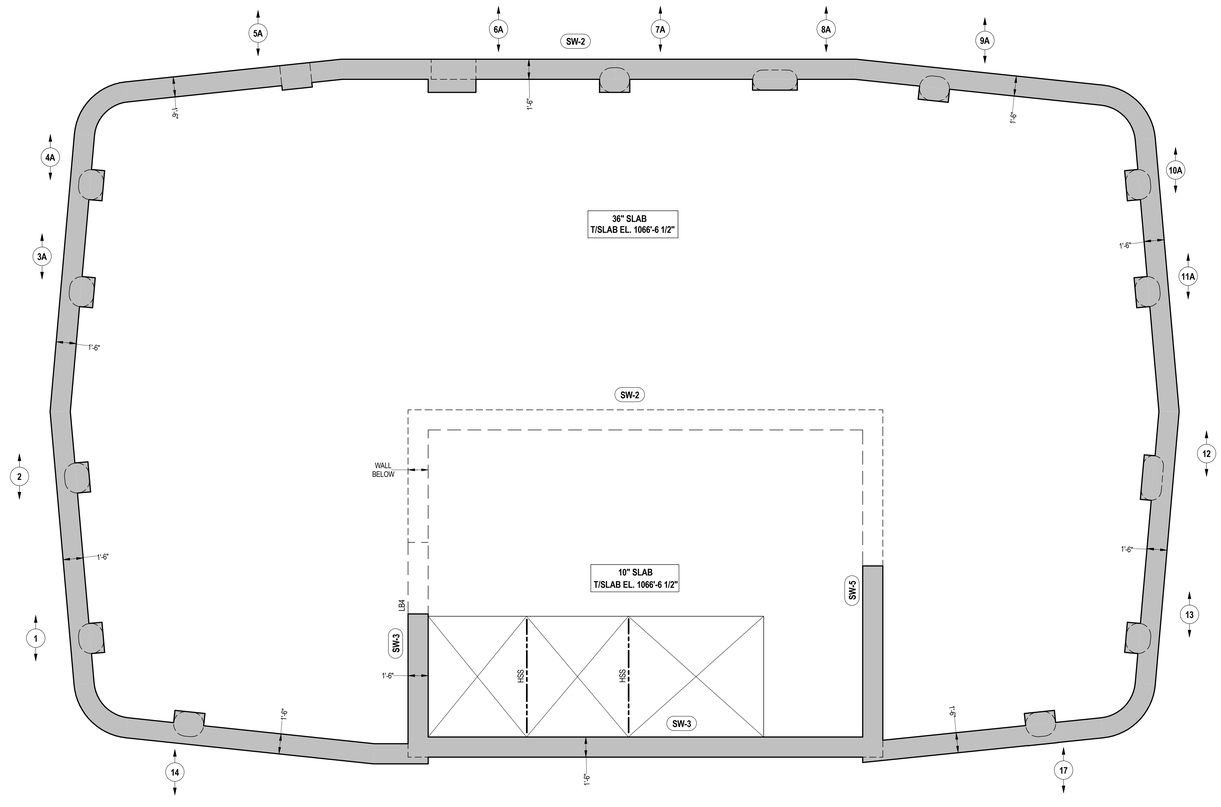
DEPT OF BLDGS 121207172 Job Number

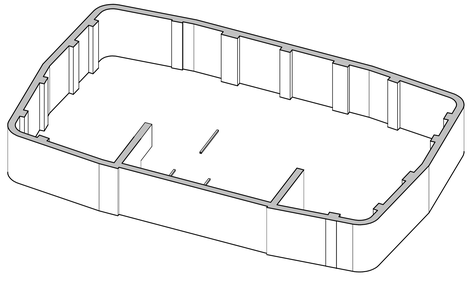
E1511497235 Scan Code

45 BROAD STREET

NEW YORK NY 10004

ARCHITECT	**John A. Cetra** State of New York Registered Architect No. 018861 **CetraRuddy Architecture DPC** 584 Broadway Suite 401 New York, NY 10012 212.941.9801	OWNER	**Madison 45 Broad Development, LLC** 105 Madison Avenue New York, NY 10016
STRUCTURAL ENGINEER	**WSP Group** 228 East 45th Street, 3rd Fl New York, NY 10017 212.687.9888	MEP ENGINEER	**BuroHappold Engineering** 100 Broadway New York, NY 10005 212.334.2025
GEOTECHNICAL ENGINEER	**LANGAN** 21 Penn Plaza 360 West 31st Street, 8th Fl New York, NY 10001 212.479.5400	LANDSCAPE ARCHITECT	
LIGHTING DESIGNER	**Ventresca Design, LLC** 44-02 Eleventh St, Suite 203 Long Island City, NY 11101 212.600.0033	CIVIL/FIRE PROTECTION	**BuroHappold Engineering** 100 Broadway New York, NY 10005 212.334.2025





3D VIEW

1 / S-810 **81ST FLOOR FRAMING PLAN**

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

NOTES:

1. TOP OF SLAB ELEVATION TO BE 1066'-6 1/2" U.O.N. ON PLAN THUS [....]
2. SLAB TO BE 36" THICK U.O.N. ON PLAN THUS [....]
3. BOTTOM MAT REINFORCEMENT TO BE: #X@XX FOR XX" SLAB.
4. FOR BALANCE OF NOTES SEE DWG. S-010.

PRELIMINARY - NOT FOR CONSTRUCTION

2016.04.22	ISSUED FOR DESIGN DEVELOPMENT	1

CETRARUDDY

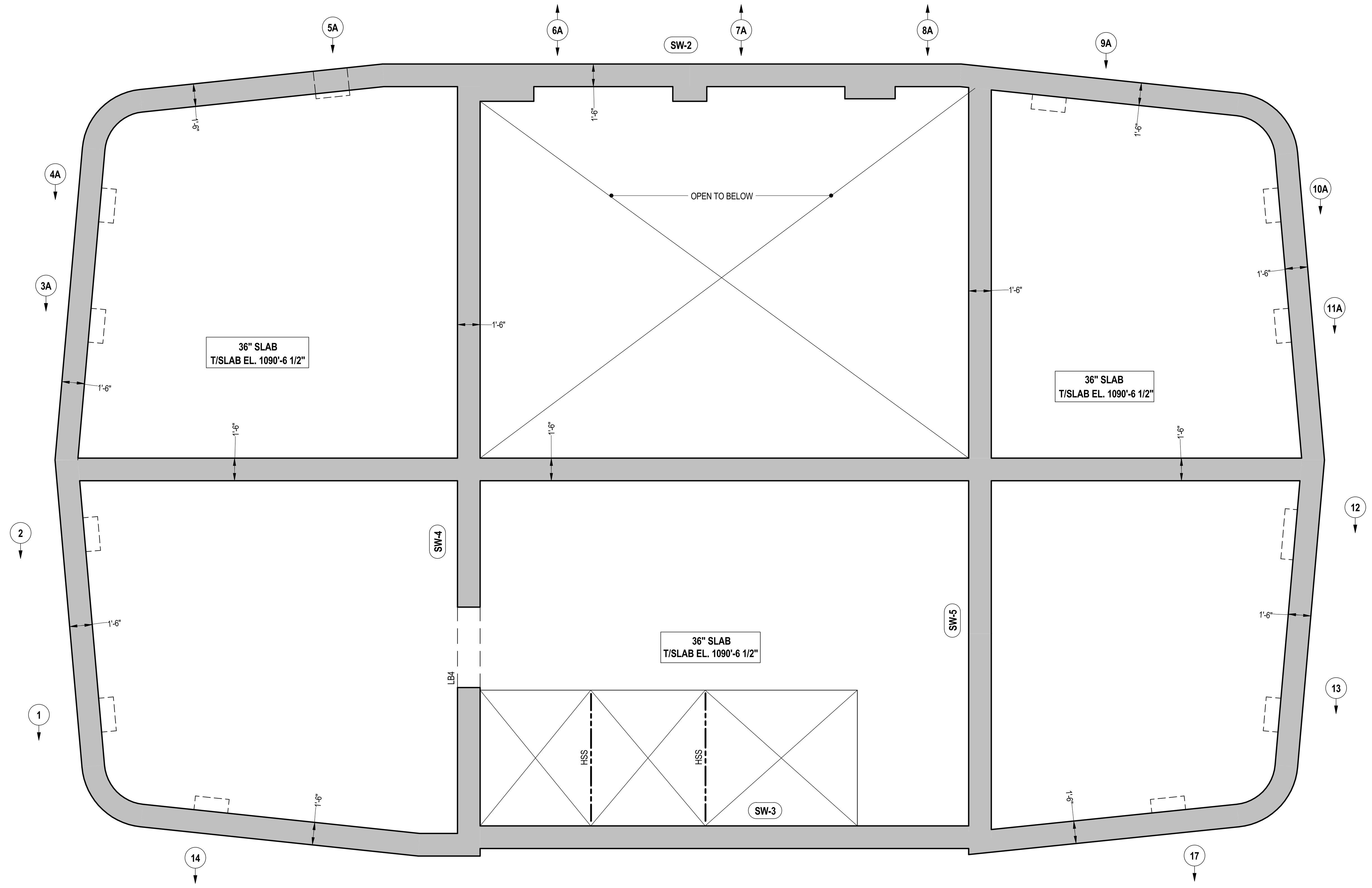
FLOOR 81 FRAMING PLAN

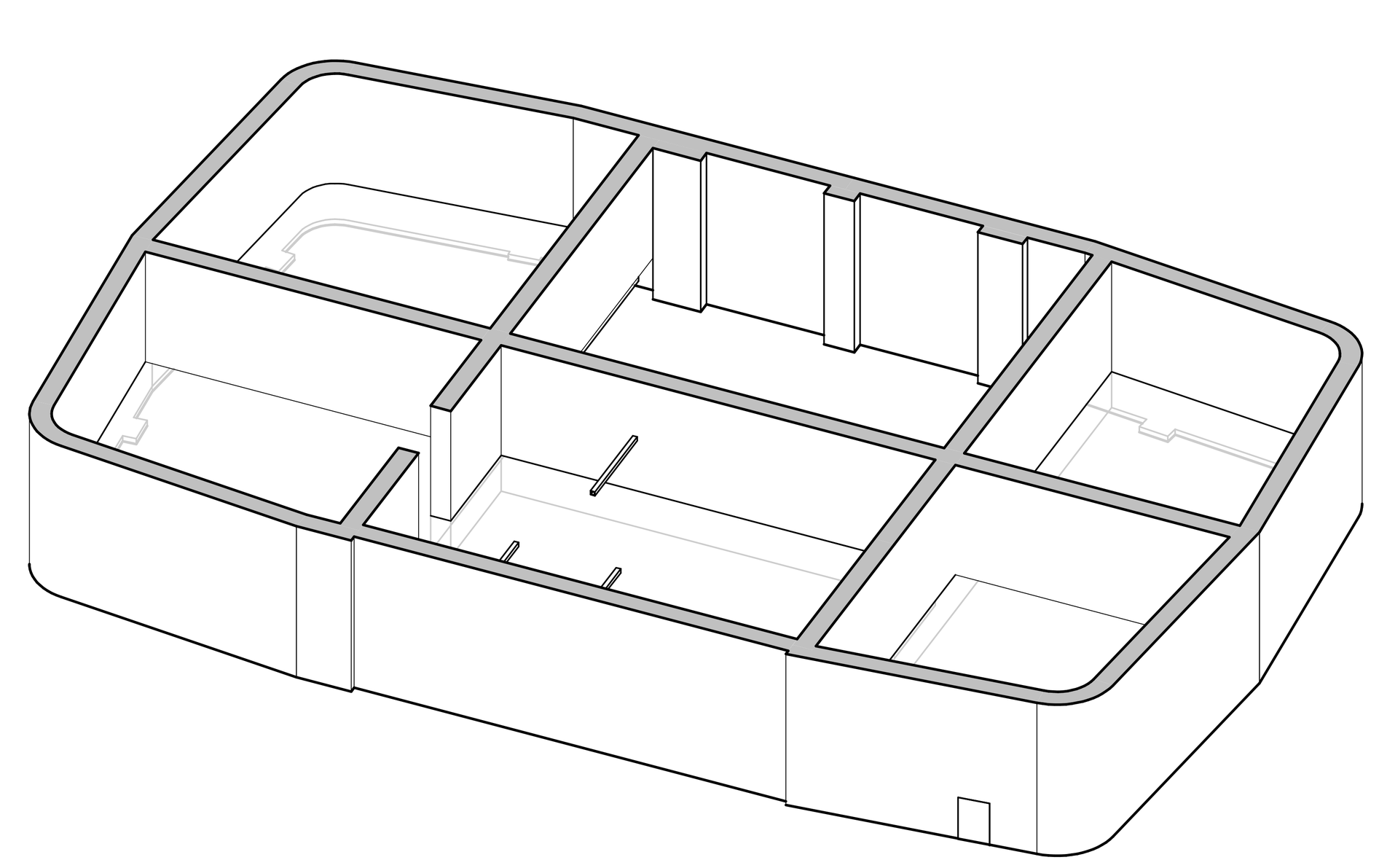
DRAWING NO. **S-810.00**

SCALE	As indicated	DOB FILE NO.	121207172
PROJECT	1590109		

CETRARUDDY ARCHITECTURE DPC

CETRARUDDY **ARCHITECTURE DPC**
584 BROADWAY NEW YORK NY 10012 T 212 941 9801 F 212 941 9440
WWW.CETRARUDDY.COM





3D VIEW

1 — 81ST MEZZ. FLOOR FRAMING PLAN

S-815

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

NOTES:

1. TOP OF SLAB ELEVATION TO BE 1090'-6 1/2" U.O.N. ON PLAN THUS ....
2. SLAB TO BE 36" THICK U.O.N. ON PLAN THUS ....
3. BOTTOM MAT REINFORCEMENT TO BE: #X@XX FOR XX" SLAB.
4. FOR BALANCE OF NOTES SEE DWG. S-010.

45 BROAD STREET

NEW YORK NY 10004

ARCHITECT: **John A. Cetra**
State of New York
Registered Architect
No. 018861

CetraRuddy Architecture DPC
584 Broadway Suite 401
New York, NY 10012
212.941.9801

CLIENT: **Madison 45 Broad Development, LLC**
105 Madison Avenue
New York, NY 10016

STRUCTURAL ENGINEER: **WSP Group**
228 East 45th Street, 3rd Fl
New York, NY 10017
212.687.9888

MEP ENGINEER: **BuroHappold Engineering**
100 Broadway
New York, NY 10005
212.334.2025

GEOTECHNICAL ENGINEER: **LANGAN**
21 Penn Plaza
360 West 31st Street, 8th Fl
New York, NY 10001
212.479.5400

LANDSCAPE ARCHITECT:

LIGHTING DESIGNER: **Ventresca Design, LLC**
44-02 Eleventh St, Suite 203
Long Island City, NY 11101
212.600.0033

CURTAIN WALL CONSULTANT: **BuroHappold Engineering**
100 Broadway
New York, NY 10005
212.334.2025

PRELIMINARY - NOT FOR CONSTRUCTION

2016.04.22	ISSUED FOR DESIGN DEVELOPMENT	1

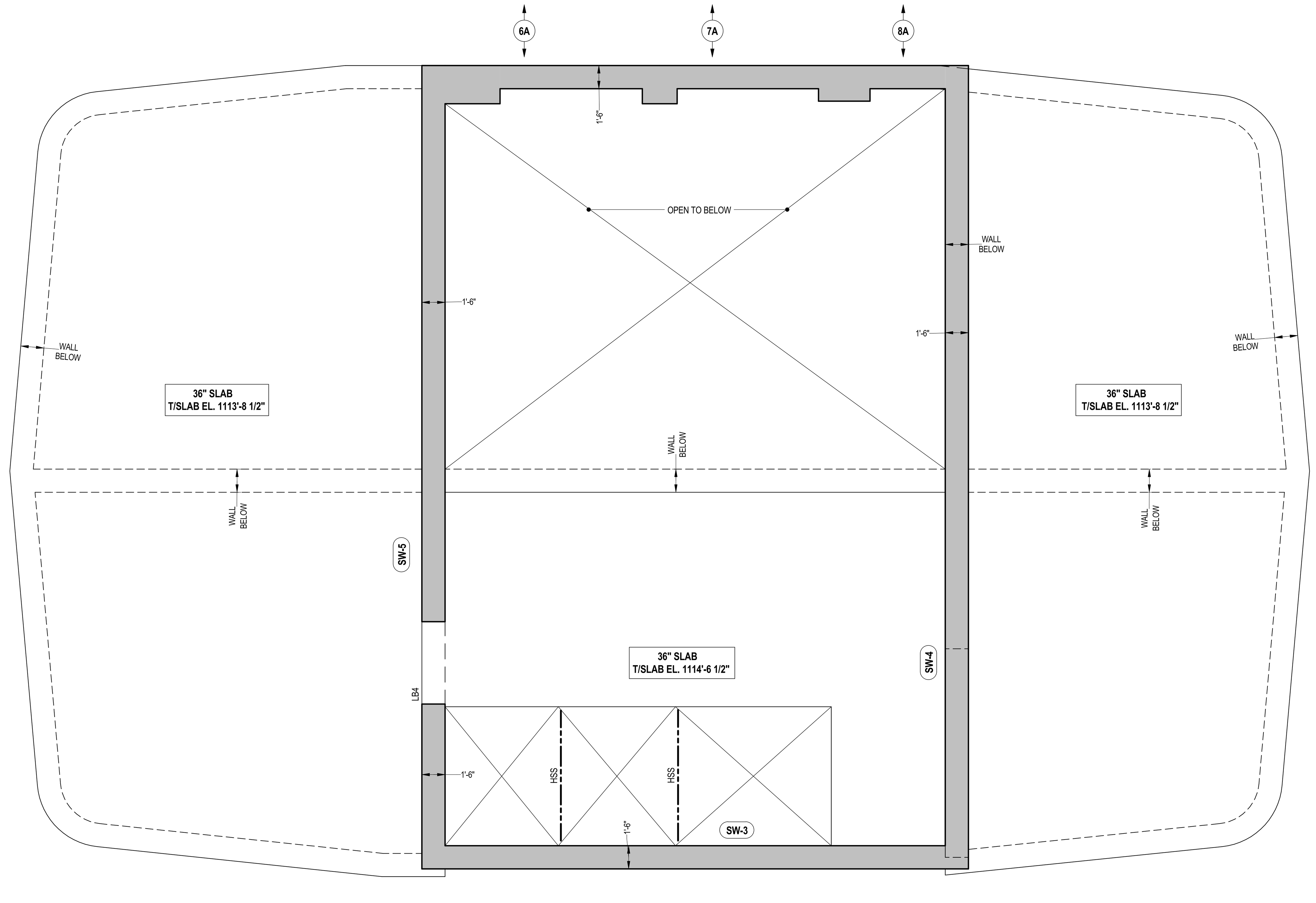
CETRARUDDY

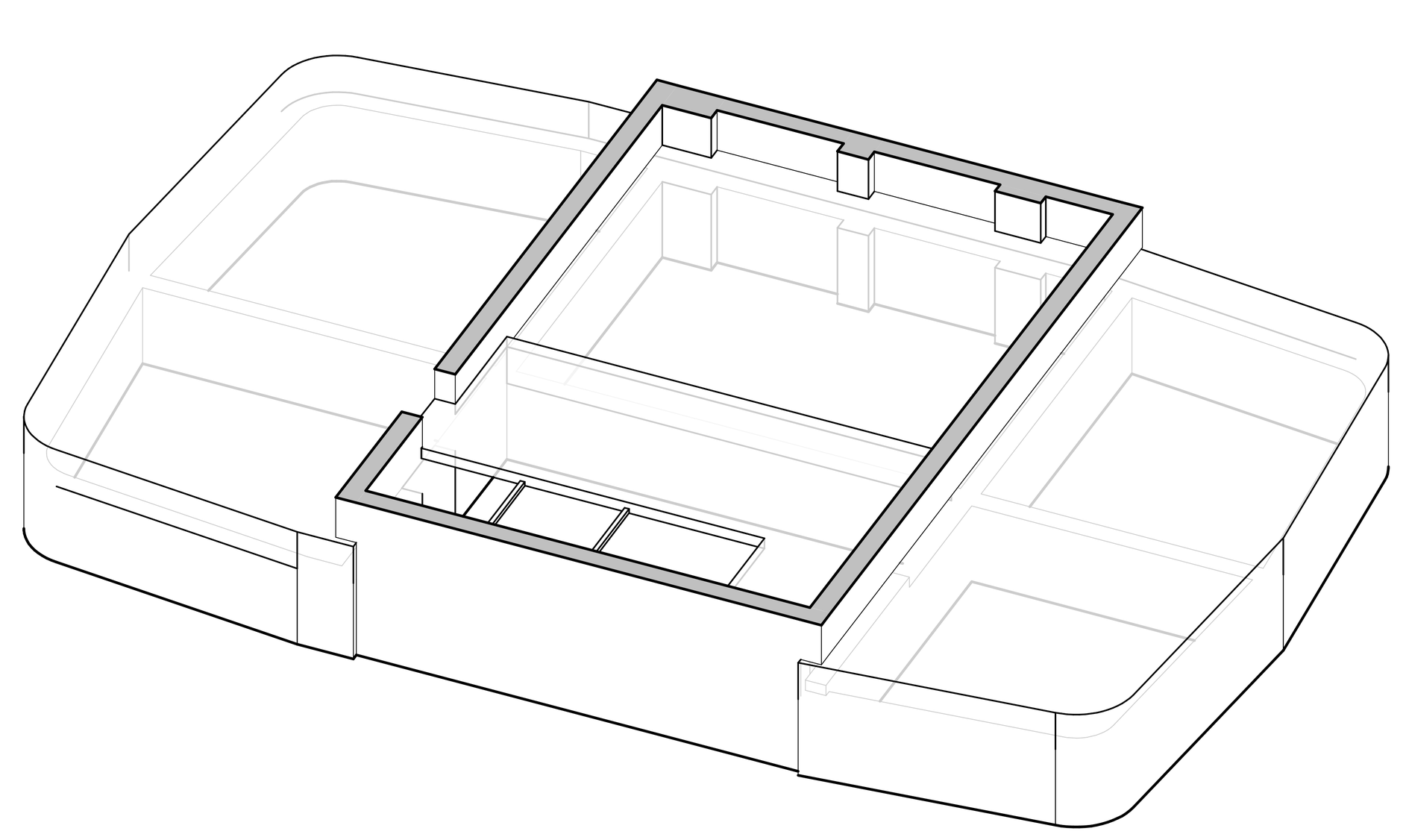
FLOOR 81 MEZZ. FRAMING PLAN

DRAWING NO.: **S-815.00**

SCALE	As indicated	DOB PAGE NO.	
PROJECT	1590109	DOB FILE NO.	

CETRARUDDY **ARCHITECTURE DPC**
584 BROADWAY NEW YORK NY 10012 T 212 941 9801 F 212 941 9440
WWW.CETRARUDDY.COM





3D VIEW

1 / S-820 82ND FLOOR FRAMING PLAN

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

NOTES:

1. TOP OF SLAB ELEVATION TO BE 1114'-6 1/2" U.O.N. ON PLAN THUS
2. SLAB TO BE 36" THICK U.O.N. ON PLAN THUS
3. BOTTOM MAT REINFORCEMENT TO BE: #X@XX FOR XX" SLAB.
4. FOR BALANCE OF NOTES SEE DWG. S-010.

45 BROAD STREET

NEW YORK NY 10004

ARCHITECT
John A. Cetra
State of New York
Registered Architect
No. 018861

CetraRuddy Architecture DPC
584 Broadway Suite 401
New York, NY 10012
212.941.9801

CLIENT
Madison 45 Broad Development, LLC
105 Madison Avenue
New York, NY 10016

STRUCTURAL ENGINEER
WSP Group
228 East 45th Street, 3rd Fl
New York, NY 10017
212.687.9888

MEP ENGINEER
BuroHappold Engineering
100 Broadway
New York, NY 10005
212.334.2025

GEOTECHNICAL ENGINEER
LANGAN
21 Penn Plaza
360 West 31st Street, 8th Fl
New York, NY 10001
212.479.5400

LANDSCAPE ARCHITECT

LIGHTING DESIGNER
Ventresca Design, LLC
44-02 Eleventh St, Suite 203
Long Island City, NY 11101
212.600.0033

CURTAIN WALL CONSULTANT
BuroHappold Engineering
100 Broadway
New York, NY 10005
212.334.2025

PRELIMINARY - NOT FOR CONSTRUCTION

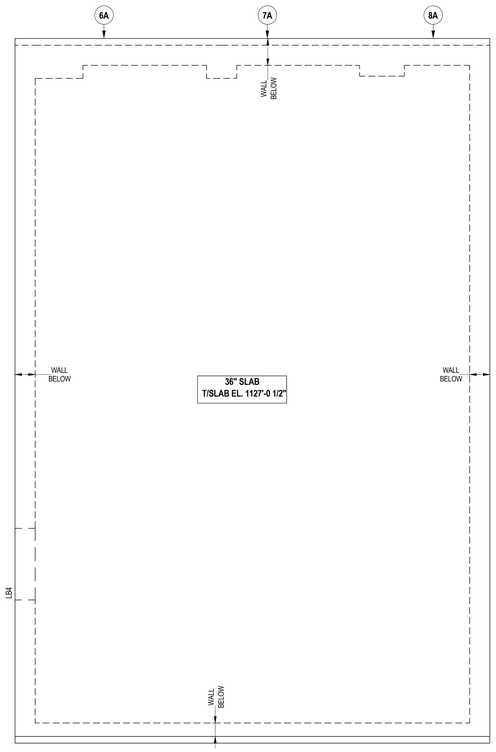
2016.04.22	ISSUED FOR DESIGN DEVELOPMENT	1

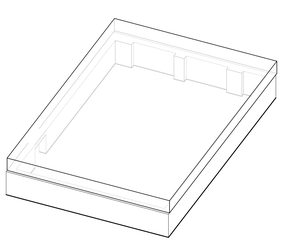
CETRARUDDY

FLOOR 82 FRAMING PLAN

DRAWING NO.	S-820.00		
SCALE	As indicated	DOB PAGE NO.	
PROJECT	1590109	DOB FILE NO.	

CETRARUDDY **ARCHITECTURE DPC**
584 BROADWAY NEW YORK NY 10012 T 212 941 9801 F 212 941 9440
WWW.CETRARUDDY.COM





3D VIEW

1 / S-830 **ROOF FRAMING PLAN**

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

NOTES:

1. TOP OF SLAB ELEVATION TO BE 1127'-0 1/2" U.O.N. ON PLAN THUS [.....]
2. SLAB TO BE 36" THICK U.O.N. ON PLAN THUS [.....]
3. BOTTOM MAT REINFORCEMENT TO BE: #X@XX FOR XX" SLAB.
4. FOR BALANCE OF NOTES SEE DWG. S-010.

45 BROAD STREET

NEW YORK NY 10004

ARCHITECT	**John A. Cetra** State of New York Registered Architect No. 018861 **CetraRuddy Architecture DPC** 584 Broadway Suite 401 New York, NY 10012 212.941.9801	OWNER	**Madison 45 Broad Development, LLC** 105 Madison Avenue New York, NY 10016
STRUCTURAL ENGINEER	**WSP Group** 228 East 45th Street, 3rd Fl New York, NY 10017 212.687.9888	MEP ENGINEER	**BuroHappold Engineering** 100 Broadway New York, NY 10005 212.334.2025
GEOTECHNICAL ENGINEER	**LANGAN** 21 Penn Plaza 360 West 31st Street, 8th Fl New York, NY 10001 212.479.5400	LANDSCAPE ARCHITECT	
LIGHTING DESIGNER	**Ventresca Design, LLC** 44-02 Eleventh St, Suite 203 Long Island City, NY 11101 212.600.0033	LIFE SAFETY/FIRE CONSULTANT	**BuroHappold Engineering** 100 Broadway New York, NY 10005 212.334.2025

PRELIMINARY - NOT FOR CONSTRUCTION

2016.04.22	ISSUED FOR DESIGN DEVELOPMENT 1

CETRARUDDY

FLOOR 83 FRAMING PLAN

DRAWING NO.	**S-830.00**
SCALE	As indicated
PROJECT	1590109

CETRARUDDY ARCHITECTURE DPC
584 BROADWAY NEW YORK NY 10012 T 212 941 9801 F 212 941 9440
WWW.CETRARUDDY.COM

COLUMN SCHEDULE

FLOOR \ COL. NO.	100	101	102	103	104	105	106	107	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	3A	4A	5A	6A	7A	8A	9A	10A	11A
25TH FL.									8182	8553	8146	8896	11392 58-#11	12575	12102 58-#11	12597	11905 48-#11	9354 44-#11	8349	8089	8860														
24TH FL.									8223	8597	8208	8940	11448	12633	12161	12657	11964 58-#11	9403 52-#11	8409	8127	8909														
23RD FL.									8264	8641	8269	8985	11505	12691	12221	12716	12024	9452	8468	8164	8958														
22ND FL.									8305	8685	8329	9029	11561	12749	12280	12776	12083	9502	8525	8202	9006														
21ST FL.									8345	8729	8389	9073	11618	12808	12339	12835	12143	9551	8582	8240	9055														
20TH FL.									8385	8773 44-#11	8449	9117	11674	12866 66-#11	12398	12894	12202	9601	8638	8278	9103														
19TH FL.									8425	8817 50-#11	8507	9160	11730	12923 74-#11	12457 58-#11	12953 68-#11	12262	9650	8692	8315	9152														
18TH FL.									8465	8861	8565	9202	11786	12981	12516 66-#11	13011 76-#11	12321	9700	8745	8353	9200														
17TH FL.									8503	8904	8622	9244	11842 58-#11	13038	12574	13069	12381	9749	8797 52-#11	8390 48-#11	9247														
16TH FL.									8542	8948	8678	9285	11897 62-#11	13095	12632	13127	12439 56-#11	9797 56-#11	8847	8428	9294														
15TH FL.									8580	8991	8734 44-#11	9325	11952	13152	12690	13185	12498 62-#11	9845	8895	8465	9341 44-#11														
14TH FL.									8617	9034	8788 46-#11	9364 44-#11	12006	13208	12748	13242	12556	9892	8942	8502	9387 46-#11														
13TH FL.									8652 22 x 48 44-#11	9075 22 x 48 50-#11	8842 24 x 48 46-#11	9403 24 x 48 46-#11	12060 48 x 30 62-#11	13264 48 x 30 74-#11	12805 48 x 30 66-#11	13298 48 x 30 76-#11	12615 48 x 30 62-#11	9941 48 x 30 56-#11	8987 48 x 30 52-#11	8539 24 x 48 44-#11	9433 24 x 48 46-#11														
12TH FL.–MEZZ. 10'-10"		13122 52-#11	9211 48-#8	8110 48-#8	11903 56-#11																													
12TH FL. 16'-0"		13501	9531	8389	12304																													
11TH FL.		13768	9931	8751	12653																													
10TH FL. 16'-0"		13598	9835	8659	12522																													
9TH FL. 16'-0"		13817	10023	8825	12781				L	L	L	L	L	L	L	L	L	L	L	L	L													
8TH FL. 16'-0"		14770 32-#11	10610	9253	14104 32-#11 24 x 18	442 10-#11 24 x 18	194 10-#11 24 x 18	407 10-#11 24 x 18	206 10-#11	L	L	L	L	L	L	L	L	L	L	L	L													
7TH FL.		15227 90-#11	10790	9376	14585 90-#11	669	294	616	313	A	A	A	A	A	A	A	A	A	A	A	A													
6TH FL.		15692	10966	9499	15069	897	395	827	419	W	W	W	W	W	W	W	W	W	W	W	W													
5TH FL.		16161	11142	9622	15555	1126	495	1038	526																									
4TH FL.		16633	11317	9744	16057	1355	595	1248	633	R	R	R	R	R	R	R	R	R	R	R	R													
3RD FL.		17107	11493	9869	16548	1583 24 x 18	696 10-#11 24 x 18	1459 10-#11 24 x 18	739 10-#11 24 x 18	A	A	A	A	A	A	A	A	A	A	A	A													
2ND FL. 16'-0"		17587 90-#11	11666	9994	17042 90-#11					E	E	E	E	E	E	E	E	E	E	E	E													
1ST FL. 32'-0"		18150 52# 100-#11	11881	10161	17625 52# 100-#11					H	H	H	H	H	H	H	H	H	H	H	H													
CELLAR 1 15'-3½"		18634 54# 100-#11	12043	10279	18131 54# 100-#11					S	S	S	S	S	S	S	S	S	S	S	S													
CELLAR 2 15'-0"		19134	12205	10161	18631																													
CELLAR 3 (f'c=14000psi) 15'-0"		19634 54# 100-#11	12367 48-#11	10400 48-#11	19131 54# 100-#11																													
End (service)		13376	7064	6142	13757																													
FLOOR \ COL. NO.	100	101	102	103	104	105	106	107	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	3A	4A	5A	6A	7A	8A	9A	10A	11A

NOTES:

1. FIRST COLUMN DIMENSION SHOWN IN SCHEDULE IS IN THE EAST-WEST DIRECTION.
2. LOADS ON PILE CAPS ARE SERVICE LOADS IN KIPS.
3. LOADS ARE GIVEN IN KIPS, AND ARE ULTIMATE LOADS U.O.N.
4. FOR CONCRETE STRENGTH REQUIRED SEE COLUMN SCHEDULES.
5. COLUMN SIZES AND REINFORCEMENT ARE SHOWN ONLY WHERE SIZES START AND STOP. BLANK SPACES IN BETWEEN INDICATE SAME SIZE AS INDICATED ABOVE AND BELOW.
6. HEAVY LINE AT TOP INDICATES TOP OF COLUMN.
7. FOR GENERAL NOTES SEE DWG. FO-001
8. FOR SHEARWALL DETAILS SEE S-940 SERIES DRAWINGS.
9. FOR COLUMN AND REINFORCING DETAILS SEE S-950 SERIES DRAWINGS.
10. BUTTRESS INDICATED AS "B" IN COLUMN SCHEDULE
11. * INDICATES TENSION SPLICE REBARS.
12. INDICATE SHEARWALLS.
13. INDICATES COLUMN BEING PICKED UP BY BEAM OR SLAB.
14. INDICATES CHANGES IN HELD FACE OF COLUMN.
15. INDICATES ADDITIONAL LOAD FROM PICK-UP BEAM OR SLAB.
16. INDICATES SLOPING COLUMNS.

COLUMN SCHEDULE

FLOOR \ COL. NO.	100	101	102	103	104	105	106	107	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	3A	4A	5A	6A	7A	8A	9A	10A	11A

FOR CONTINUATION OF THE SCHEDULE SEE DWG. S-951

FLOOR \ COL. NO.	100	101	102	103	104	105	106	107	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	3A	4A	5A	6A	7A	8A	9A	10A	11A
59TH FL.									2147	2837	2495	2484	3115	3201	3055	3055	3056	2391	2413	2473	2123	2004	1386	1318	2018									
58TH FL. 10'-10"									2181	2896	2530 12-#11	2525	3162	3246	3100	3099	3100	2429	2451	2519	2164	2037	1429	1361	2054									
57TH FL. f'c=10000psi 24'-0"									2265	2941	2593	2594	3239	3321	3174	3173	3174	2492	2516	2597	2233	2093	1500	1431	2112									
56TH FL. f'c=12000psi 16'-0"									3624	4382	2812 14-#11	2727	3401	3393 12-#11	3416 12-#11	3351 12-#11	3262 12-#11	2701	2806	2966	2520	2289	2003 12-#11	2019 12-#11	2318									
55TH FL. 10'-10"									3605	4343	4221	4189	5236 30-#11	5391 36-#11	5231 36-#11	5294 36-#11	5313 36-#11	4295	4308	3940	3572	3442	3812 20-#11	3890 20-#11	3143									
54TH FL.									3640	4394	4257	4231	5284	5437	5277	5339	5358	4334	4345	3986	3615	3475	3856	3933	3176									
53RD FL.									3675	4446	4294	4272	5332	5482	5322	5385	5403	4371	4383	4031	3657	3508	3898	3976	3212									
52ND FL.									3711	4498	4332	4312	5380 30-#11	5528	5368	5431	5447	4408	4421 12-#11	4076	3700	3542	3942	4019	3249									
51ST FL.									3747	4550	4370	4353	5428 32-#11	5574	5414	5477	5492	4446	4460 12-#11	4122	3743	3577	3985	4062	3286									
50TH FL.									3782	4601	4408	4394	5477 32-#11	5621	5461	5523	5538	4484	4498 20-#11	4167	3787	3612	4028	4105	3325									
49TH FL.									3818	4653	4445	4435	5525 12-#11	5667 34-#10 45 x 41	5507 36-#11	5570	5583	4521	4537	4213	3831	3647	4072	4149	3364									
48TH FL.									3854	4705	4483	4476	5574 14-#11	5715 34-#11 45 x 18	5554 36-#11	5617	5628	4559	4575	4260	3876	3683	4116	4193	3404									
47TH FL.									3890	4756	4521 14-#11	4517 14-#11	5623 36-#11	5763	5600	5665 45 x 16 36-#11	5673 45 x 16 36-#11	4597	4614	4306	3920	3719	4160	4236	3445									
46TH FL.									3926	4808	4560 18-#11	4558 18-#11	5671 36-#11	5812	5647	5713 45 x 18 36-#11	5720 45 x 18 36-#11	4635	4652	4353	3964	3755	4204	4280	3485									
45TH FL.									3962	4859	4599	4599 45 x 18	5721 36-#11	5860	5694 45 x 16	36-#11	5762	5766	4672	4691	4400	4009	3790	4248	4324	3525									
44TH FL.									3997	4911 12-#11	4637	4639 16-#11	5771	5908	5742 45 x 16 36-#11	5811	5813	4710	4730 18-#11	4446	4053	3826	4291	4368	3565									
43RD FL.									4032	4962 14-#11	4676	4680 18-#11	5820	5956	5791	5860	5859	4747	4770 24-#10	4492	4096	3861	4335	4411	3604									
42ND FL.									4067	5014 14-#11	4714	4720 20-#11	5870	6004	5839	5908	5905	4784	4809 24-#11	4538	4140	3896	4378	4454	3642									
41ST FL.									4101	5067 16-#11	4752 18-#11	4760	5919	6052	5887	5957	5951	4820	4848	4584	4183	3931	4421	4496	3680									
40TH FL. 10'-10"									4135 16 x 42 36-#11	5124 18 x 42 36-#11	4789 16 x 42	4801 20 x 42	5969 20-#11	6100 36-#11	5936 36-#11	6006 36-#11	5997 36-#11	4857 16 x 42	4886 20-#11	4620 24-#10	4226 36-#11	3965 36-#11	4458 45 x 16	4538 20-#11	3720 45 x 16									
39TH FL. f'c=12000psi 24'-0"									5004 32 x 45 44-#11	5280 32 x 45 44-#11	4874 32 x 45 44-#11	5672 44-#11	6998 45 x 41	6208 45 x 41	6045 45 x 41	6115 45 x 41	7036 45 x 41	5722 32 x 45 44-#11	4973 32 x 45 44-#11	4701 32 x 45 44-#11	5515 44-#11													
38TH FL. f'c=14000psi 32'-0"									7725 32 x 45 44-#11	8033 32 x 45 44-#11	5059 32 x 45 44-#11	4947 44-#11	6844 45 x 41	6613 36-#11 45 x 41	6750 36-#11 45 x 41	6808 36-#11 45 x 41	6651 36-#11 45 x 41	4863 32 x 45 44-#11	5174 32 x 45 44-#11	5055 44-#11	5710 44-#11													
37TH FL. 16'-0"									7797 22 x 48 44-#11	8179 22 x 48 44-#11	7862 24 x 48 44-#11	7362 24 x 48 44-#11	10916 48 x 30 48-#11	12045 56-#11 48 x 32	11540 48 x 32 50-#11	12047 48 x 32 48-#11	11411 48 x 32 58-#11	7360 24 x 48 44-#11	8031 22 x 48 44-#11	7831 24 x 48 44-#11	8463 44-#11													
36TH FL. 10'-10"									7728	8072	7444	8407	10794	11944	11456	11949	11289	8850	7652	7682	8337													
35TH FL.									7768	8115	7510	8448	10845	12000	11514	12007	11341	8891	7718	7718	8382													
34TH FL.									7809	8158	7574	8492	10897	12056	11571	12065	11394	8933	7783	7755	8428													
33RD FL.									7850	8202	7639	8536	10950	12113	11630	12123	11448	8977	7848	7791	8475													
32ND FL.									7891	8245	7703	8580	11003	12169	11688	12182	11503	9022	7912	7828	8522													
31ST FL.									7932	8289	7768	8625	11057	12227	11747	12241	11559	9067	7976	7865	8570													
30TH FL.									7974	8332	7832	8670	11112	12284	11806	12300	11615	9114	8040	7902	8618													
29TH FL.									8016	8376	7895	8715	11167	12342 56-#11	11865	12359	11672	9161	8103	7939	8666													
28TH FL.									8057	8420	7959	8760	11223	12400 66-#11	11924	12419 50-#11	11730	9208	8166	7977	8714													
27TH FL.									8099	8464	8022	8805	11279	12458	11983	12478 68-#11	11788	9256	8228	8014	8763													
26TH FL.									8140	8509	8084	8850	11335 48-#11	12516	12042 50-#11	12538	11846	9305	8289	8052	8811													
25TH FL.									8182	8553	8146	8896	11392 58-#11	12575	12102 58-#11	12597	11905 48-#11	9354 44-#11	8349	8089	8860													
FLOOR \ COL. NO.	100	101	102	103	104	105	106	107	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	3A	4A	5A	6A	7A	8A	9A	10A	11A

45 BROAD STREET

NEW YORK NY 10004

ARCHITECT
John A. Cetra
State of New York
Registered Architect
No. 018861
CetraRuddy Architecture DPC
584 Broadway Suite 401
New York, NY 10012
212.941.9801

STRUCTURAL ENGINEER
WSP Group
228 East 45th Street, 3rd Fl
New York, NY 10017
212.687.9888

GEOTECHNICAL ENGINEER
LANGAN
21 Penn Plaza
360 West 31st Street, 8th Fl
New York, NY 10001
212.479.5400

LIGHTING DESIGNER
Ventresca Design, LLC
44-02 Eleventh St, Suite 203
Long Island City, NY 11101
212.600.0033

OWNER
Madison 45 Broad Development, LLC
105 Madison Avenue
New York, NY 10016

MEP ENGINEER
BuroHappold Engineering
100 Broadway
New York, NY 10005
212.334.2025

LANDSCAPE ARCHITECT

LIGHTING CONSULTANT
BuroHappold Engineering
100 Broadway
New York, NY 10005
212.334.2025

PRELIMINARY - NOT FOR CONSTRUCTION

2016-04-22 ISSUED FOR DESIGN DEVELOPMENT 1

CETRARUDDY

FOUNDATION NOTES

DRAWING NO. **S-950.00**

SCALE: As Noted

PROJECT: 1590109

DATE: 2016-04-22

CETRARUDDY ARCHITECTURE DPC
584 BROADWAY NEW YORK NY 10012 T 212 941 9801 F 212 941 9440
WWW.CETRARUDDY.COM

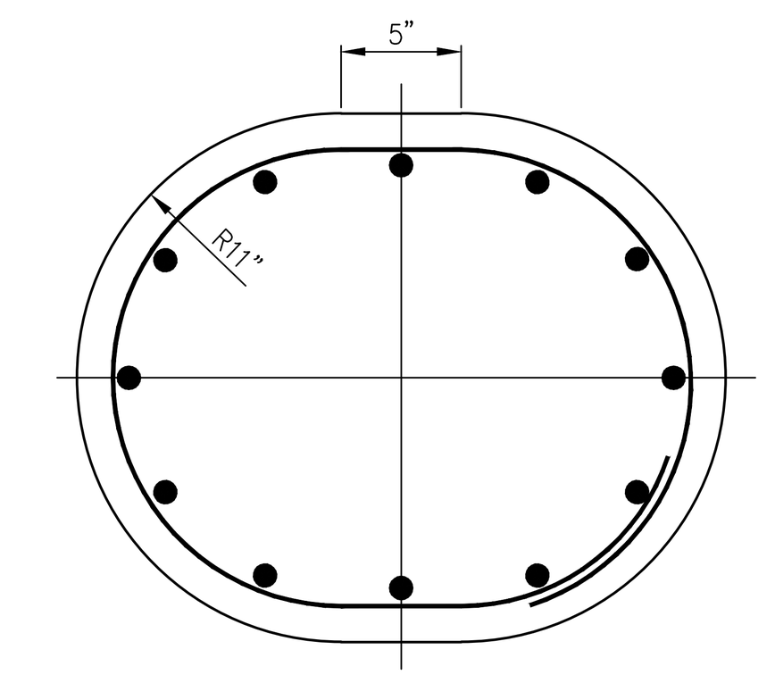
C O L U M N   S C H E D U L E

FLOOR	f'c	HEIGHT	100	101	102	103	104	105	106	107	1	2	3	4	5	6	7	8	9	10	11
83RD FL.–E.M.R.																					
82ND FL.– ROOF	f'c=8000psi	12'-6"																			
81ST FL.–MEZZ.		24'-0"									312	699									
81ST FL.		24'-0"									422	845									
80TH FL.		12'-0"									901 DETAIL 1 12-#11	1497 DETAIL 1 12-#11									
79TH FL.											1252	1565									
78TH FL.											1334	1671									
77TH FL.											1379	1722									
76TH FL.		12'-0"									1426 DETAIL 1 12-#11	1772 DETAIL 1 12-#11									
75TH FL.		16'-0"									1519 16 x 45 12-#11	1886 16 x 45 12-#11	1864 16 x 45 12-#11	1146 16 x 45 12-#7	2326 45 x 16 12-#11	2421 45 x 16 12-#11	2285 45 x 16 12-#11	2289 45 x 16 12-#11	2291 45 x 16 12-#11	1519 16 x 45 12-#11	1753 16 x 45 12-#11
74TH FL.		10'-10"									1596	1944	1901	1182 12-#7	2371	2467	2323	2334	2335	1553	1791
73RD FL.											1627	1995	1944	1870 12-#11	2418	2508	2364	2375	2379	1821	1835
72ND FL.											1693	2097	2017	1950	2505	2599	2454	2464	2465	1895	1910
71ST FL.											1728	2148	2053	1989	2549	2644	2499	2508	2509	1932	1948
70TH FL.											1758 12-#11	2198 16 x 45 12-#11	2090	2029	2594	2690	2544	2552	2553	1968	1986
69TH FL.	f'c=10000psi										1794 36-#11	2250 18 x 45 12-#11	2127	2069	2639	2735	2589	2597	2597	2005	2024
68TH FL.													2163	2109	2685	2781	2634	2641	2641	2043	2062
67TH FL.											1860	2358	2199	2150	2730	2827	2680	2686	2685	2080	2100
66TH FL.											1895	2416	2235	2190	2776	2872	2725	2731	2730	2118	2138
65TH FL.											1930	2474	2271	2231	2822	2918	2771	2776	2775	2156	2175
64TH FL.		10'-10"									1966	2533	2306	2271	2869	2963	2816	2820	2820	2194	2213
63RD FL.		15'-0"									2006	2598	2348	2318	2921	3014	2868	2871	2870	2237	2257
62ND FL.		10'-10"									2044	2663	2388	2362	2974	3065	2918	2921	2921	2278	2300
61ST FL.											2079	2721	2424	2403	3021	3111	2964	2965	2966	2316	2337
60TH FL.											2113	2779	2459	2444	3068	3156	3009	3010	3011	2354	2375
59TH FL.											2147	2837	2495	2484	3115	3201	3055	3055	3056	2391	2413

FLOOR	12	13	14	15	16	17	3A	4A	5A	6A	7A	8A	9A	10A	11A
83RD FL.–E.M.R.															
82ND FL.– ROOF										988	987	979			
81ST FL.–MEZZ.	607	505	483			294	1073	1001	1341	1154	1155	1142	1192	966	1006
81ST FL.	735	612	573			383	1220	1131	1515	1314	1316	1299	1356	1095	1139
80TH FL.	1322 DETAIL 1 12-#11	1075 DETAIL 1 12-#11	1031 DETAIL 1 12-#11			856 DETAIL 1 12-#11	1799 DETAIL 1 10-#11	1654 DETAIL 1 10-#11	2229 DETAIL 1 10-#11	2191 18 x 40 12-#11	2072 DETAIL 1 10-#11	2048 18 x 40 12-#11	2176 DETAIL 1 10-#11	1619 DETAIL 1 10-#11	1659 DETAIL 1 10-#11
79TH FL.	1394	1136	1085			926	1876	1727	2325	2275	2155	2131	2268	1690	1729
78TH FL.	1468	1178	1100			995	1993 10-#11	1809 10-#11	2453 10-#11	2393	2275	2246	2395 10-#11	1773 10-#11	1834 10-#11
77TH FL.	1514	1221	1140			1031	2047 30-#11	1869 30-#11	2537 30-#11	2453	2336	2307	2460 30-#11	1830 30-#11	1888 30-#11
76TH FL.	1560 DETAIL 1 12-#11	1265 DETAIL 1 12-#11	1182 DETAIL 1 12-#11			1067 DETAIL 1 12-#11	2259 DETAIL 1 30-#11	2007 DETAIL 1 30-#11	2696 DETAIL 1 30-#11	2582 DETAIL 1 12-#11	2464 DETAIL 1 10-#11	2437 DETAIL 1 12-#11	2611 DETAIL 1 30-#11	1984 DETAIL 1 30-#11	2115 DETAIL 1 30-#11
75TH FL.	1657 16 x 45 12-#11	1352 16 x 45 12-#11	1257 45 x 16 12-#11	599 45 x 16 12-#11	537 45 x 16 12-#11	1145 45 x 16 12-#11									
74TH FL.	1696	1394	1298	650	587	1182									
73RD FL.	1779	1489	1487	674	614	1438									
72ND FL.	1865	1570	1552	774	711	1511									
71ST FL.	1907	1608	1582	823	759	1545									
70TH FL.	1952	1652 12-#11	1618 12-#11	872	807	1586 12-#11									
69TH FL.	1994 16 x 45 12-#11	1690 36-#11	1648 36-#11	920	854	1621 36-#11									
68TH FL.	2041 18 x 45 28-#11			968	901										
67TH FL.	2084	1771	1712	1015	948	1691									
66TH FL.	2132	1815	1749	1062	994	1733									
65TH FL.	2179	1858	1785	1108	1040	1774									
64TH FL.	2227	1901	1821	1154	1086	1815									
63RD FL.	2281	1949	1862	1205	1137	1861									
62ND FL.	2333	1997	1900	1254	1186	1904									
61ST FL.	2380	2039	1935	1299	1231	1943									
60TH FL.	2427	2081	1970	1343	1275	1981									
59TH FL.	2473	2123	2004	1386	1318	2018									

FOR CONTINUATION OF THE SCHEDULE SEE DWG. S-950

NOTES:
FOR NOTES SEE DWG. S-950.



DETAIL 1
SCALE: 1½" = 1'-0"

NOTES:
1. APPLICABLE FOR COLUMNS 1, 2, 12, 13, 14, 17, 3A TO 11A
2. FOR COLUMN REINFORCEMENT SEE COLUMN SCHEDULE, THIS DRAWING.

45 BROAD STREET
NEW YORK NY 10004

ARCHITECT: **John A. Cetra**
State of New York
Registered Architect
No. 018861
CetraRuddy Architecture DPC
584 Broadway Suite 401
New York, NY 10012
212.941.9801

CLIENT: **Madison 45 Broad Development, LLC**
105 Madison Avenue
New York, NY 10016

STRUCTURAL ENGINEER: **WSP Group**
228 East 45th Street, 3rd Fl
New York, NY 10017
212.687.9888

MEP ENGINEER: **BuroHappold Engineering**
100 Broadway
New York, NY 10005
212.334.2025

GEOTECHNICAL ENGINEER: **LANGAN**
21 Penn Plaza
360 West 31st Street, 8th Fl
New York, NY 10001
212.479.5400

LANDSCAPE ARCHITECT:

LIGHTING DESIGNER: **Ventresca Design, LLC**
44-02 Eleventh St, Suite 203
Long Island City, NY 11101
212.600.0033

CURTAIN WALL CONSULTANT: **BuroHappold Engineering**
100 Broadway
New York, NY 10005
212.334.2025

PRELIMINARY - NOT FOR CONSTRUCTION

2016-04-22 ISSUED FOR DESIGN DEVELOPMENT 1

CETRARUDDY

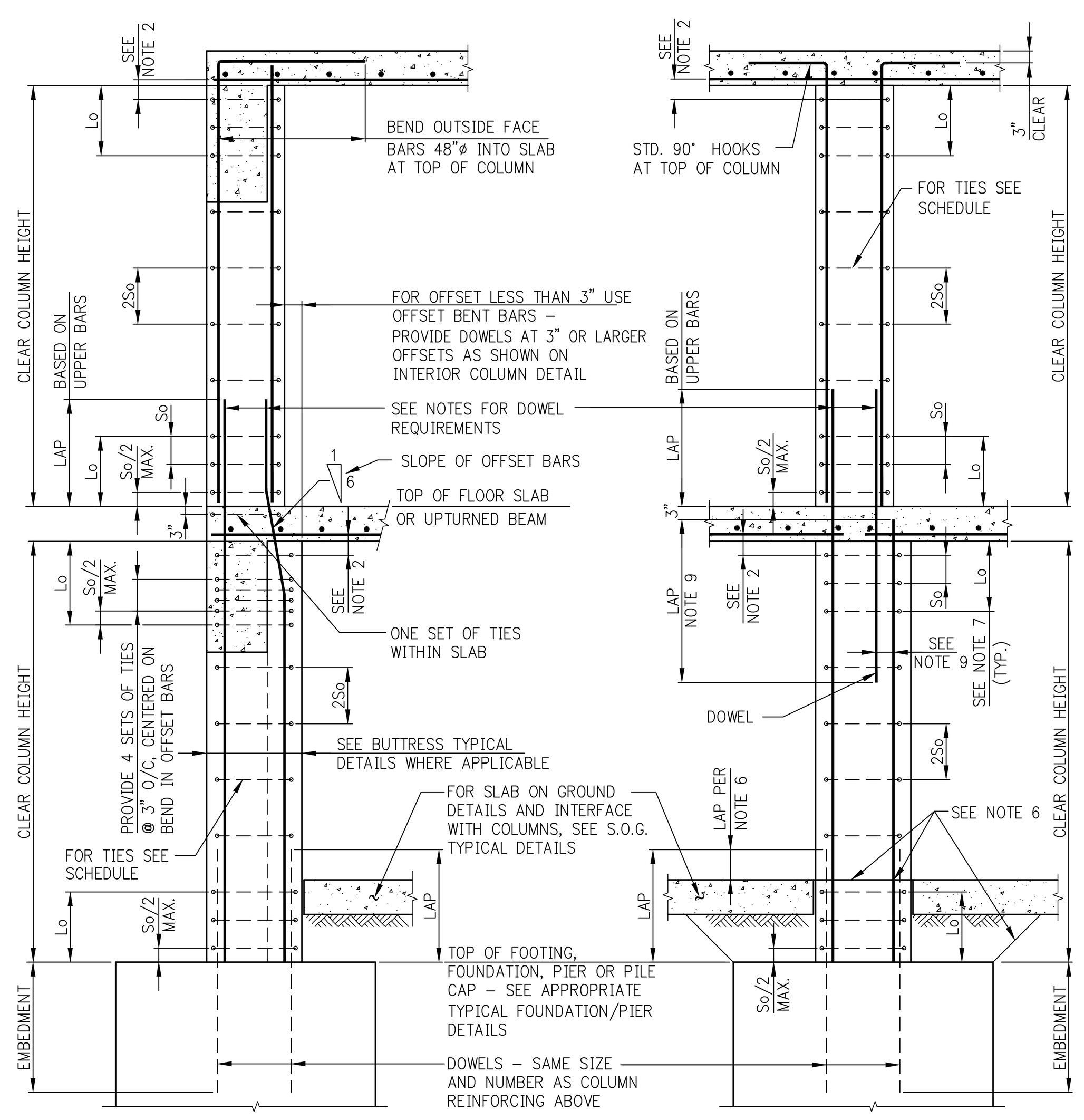
FOUNDATION NOTES

DRAWING NO. **S-951.00**

SCALE: As Noted
PROJECT: 1590109
DOB PAGE NO.:
DOB FILE NO.:

STATE OF NEW YORK · SILVIAN L. MARCUS · 057530 · LICENSED PROFESSIONAL ENGINEER

CETRARUDDY ARCHITECTURE DPC
584 BROADWAY NEW YORK NY 10012 T 212 941 9801 F 212 941 9440
WWW.CETRARUDDY.COM



EXTERIOR COLUMN OR BUTTRESS

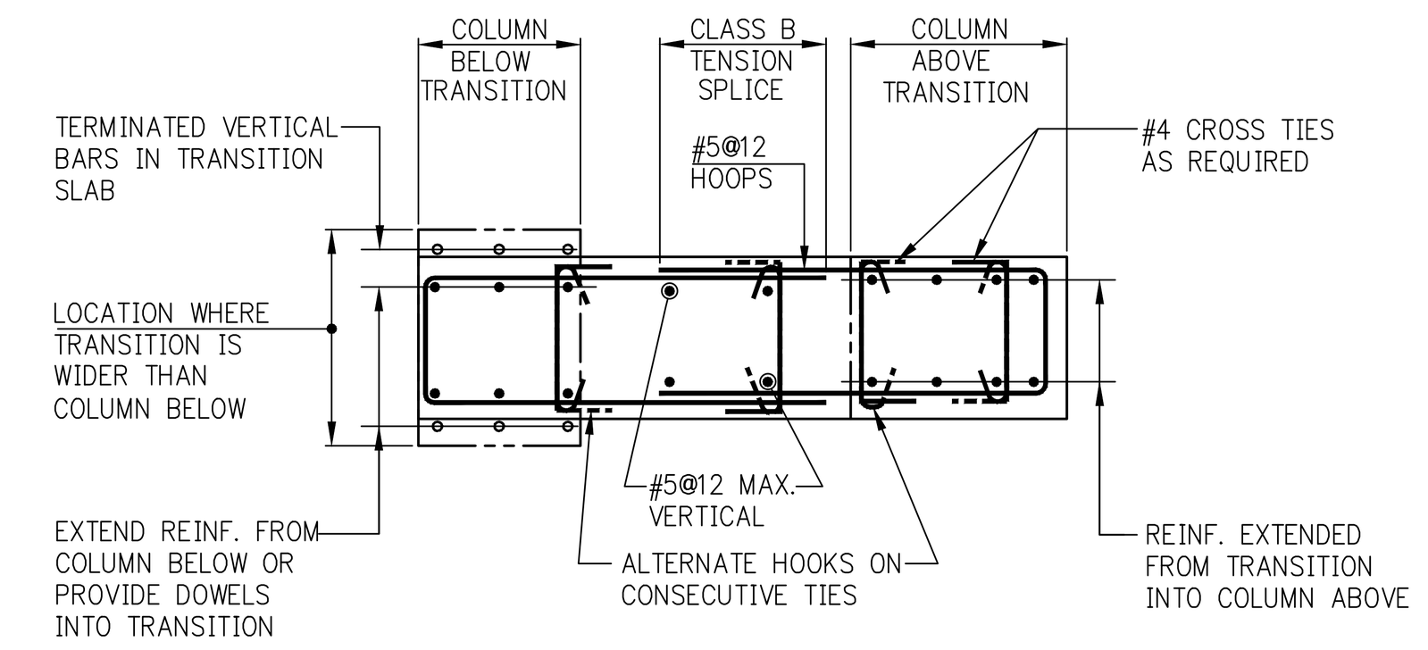
INTERIOR COLUMN

COLUMN DETAILS

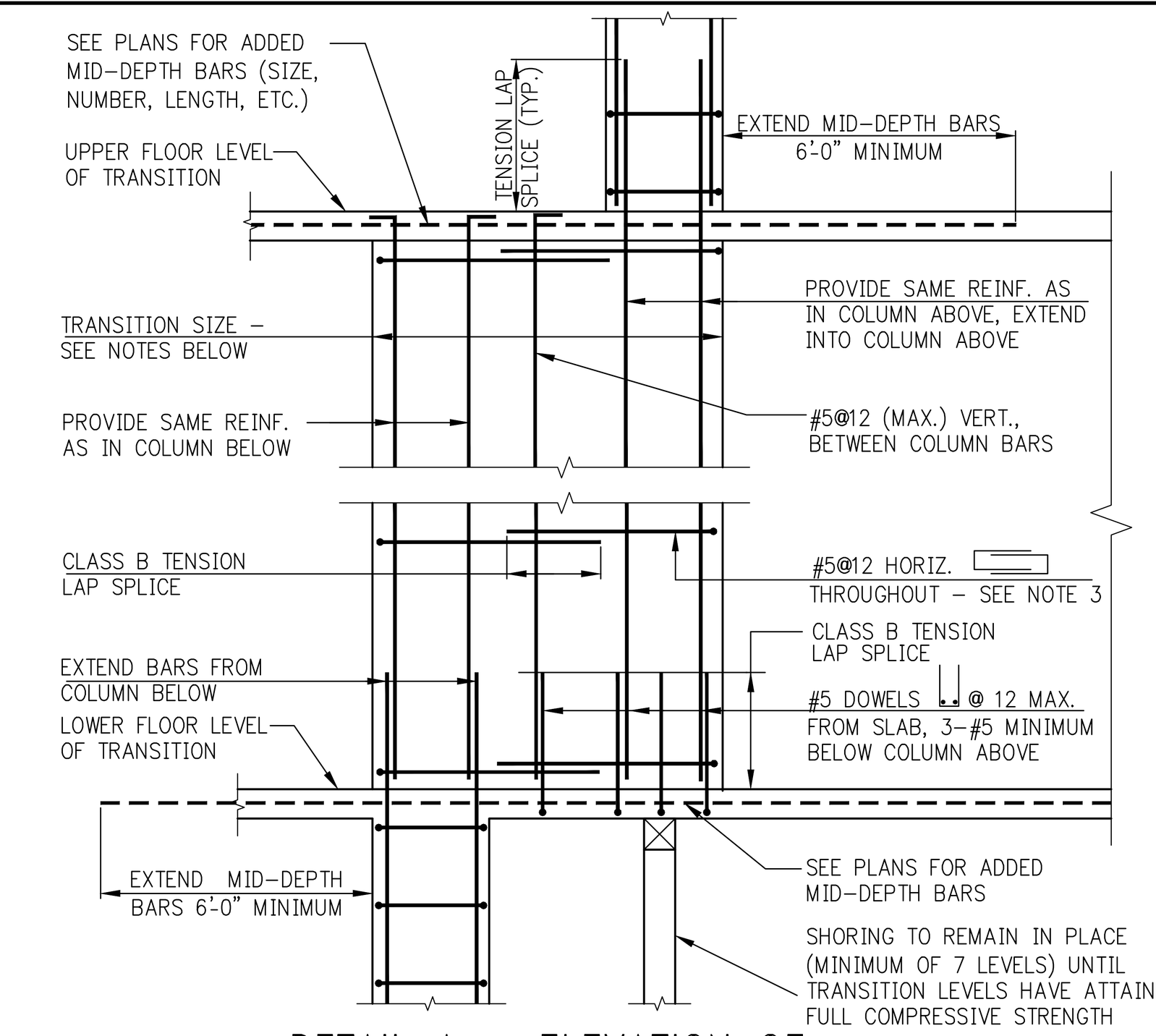
COLUMN TIE SCHEDULE			
VERTICAL BAR SIZE	SIZE & SPACING (So) OF TIES, IN INCHES. MAXIMUM SPACING NOT TO EXCEED ½ OF LEAST COLUMN DIMENSION OR 12". SEE NOTE 8		
	#3	#4	#5
#5	5	–	–
#6	6	–	–
#7	7	–	–
#8	8	8	–
#9	9	9	–
#10	9	10	–
#11	*	11	11
#14	*	12	12
#18	*	12	12

NOTES:

1. * #3 TIES NOT PERMITTED FOR #11, #14, #18 OR BUNDLED VERTICAL BARS.
2. LOCATE TOP SET OF TIES So/2 MAXIMUM BELOW THE LOWEST HORIZONTAL REINFORCEMENT IN SLAB OR DROP PANEL. WHERE BEAMS FRAME FROM FOUR DIRECTIONS INTO COLUMN, TIES MAY TERMINATE NOT MORE THAN 3" BELOW LOWEST REINFORCEMENT IN SHALLOWEST OF SUCH BEAMS.
3. WHERE AREA OF VERTICAL REINFORCEMENT IN LOWER COLUMN IS GREATER THEN THAT OF UPPER COLUMN, EXTEND AREA OF REINFORCEMENT AT LEAST EQUAL TO THAT OF UPPER COLUMN.
4. WHERE AREA OF REINFORCEMENT IN LOWER COLUMN IS LESS THAN THAT OF UPPER COLUMN, PROVIDE ADDITIONAL DOWELS TO MAKE UP THE DIFFERENCE
5. ALL LAP SPLICES AND EMBEDMENTS TO BE COMPRESSION UNLESS OTHERWISE NOTED IN COLUMN SCHEDULE.
6. WHERE SLAB IS POURED OVER FOUNDATION PRIOR TO COLUMN, VERTICAL REINFORCEMENT AND DOWEL LAP TO START AT TOP OF SLAB.
7. LENGTH "Lo" SHALL NOT BE LESS THAN 1/6 OF CLEAR HEIGHT OF COLUMN, MAXIMUM COLUMN DIMENSION, OR 18"
8. IF COLUMN REQUIRES SHEAR REINFORCEMENT, MAXIMUM SPACING OF TIES SHALL BE BE LIMITED TO d/2, REQUIRED SIZE, NUMBER AND SPACING OF TIES MAY BE MORE STRINGENT THAN SHOWN IN TYPICAL DETAILS.
9. IF OFFSET OF DOWEL IS MORE THAN 6", LAP SHALL BE TWICE THE COMPRESSION DEVELOPMENT LENGTH OF THE SMALLER BAR



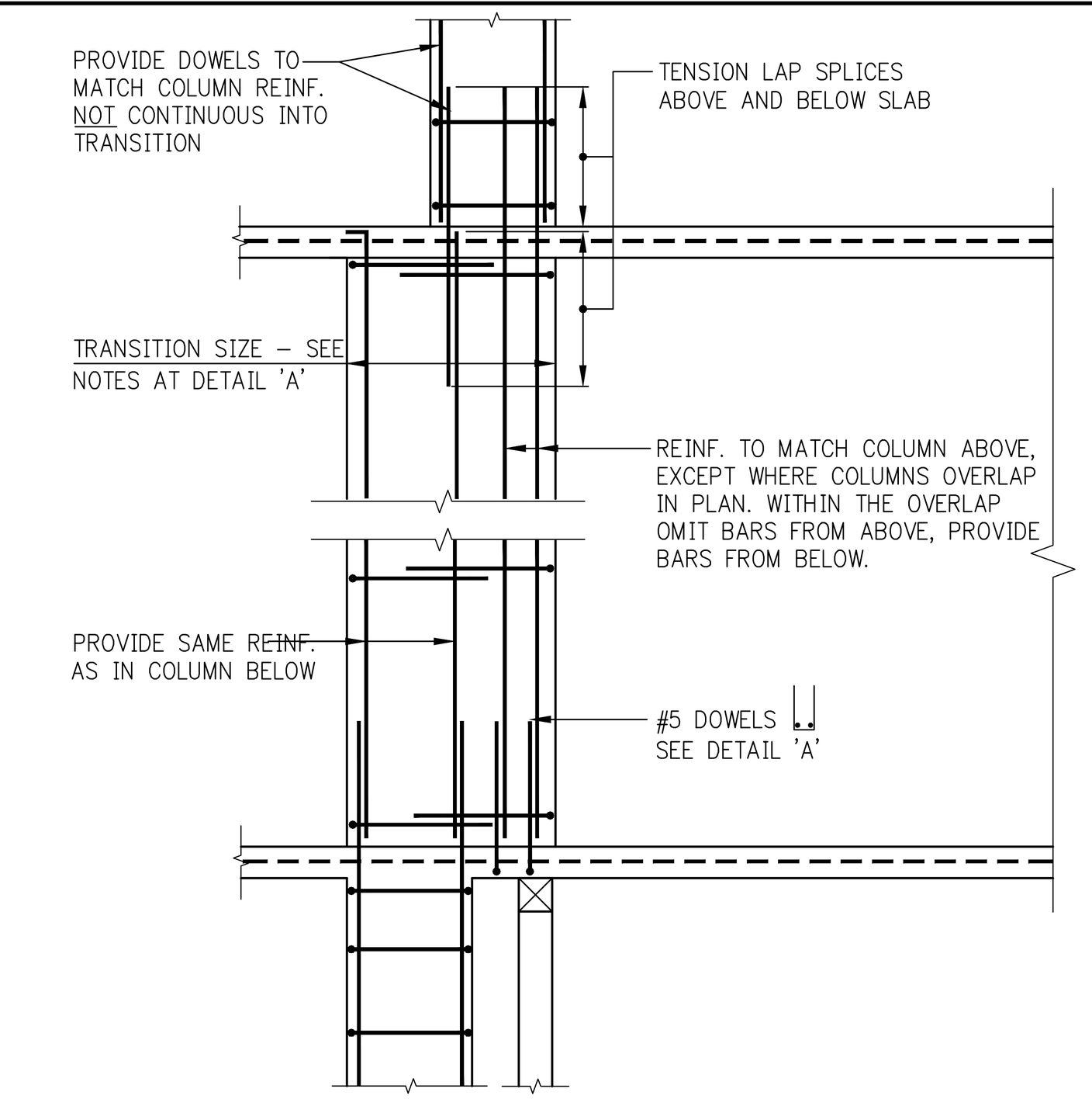
DETAIL C – HORIZONTAL SECTION THROUGH "WALKING" COLUMN TRANSITION



DETAIL A – ELEVATION OF "WALKING" COLUMN TRANSITION

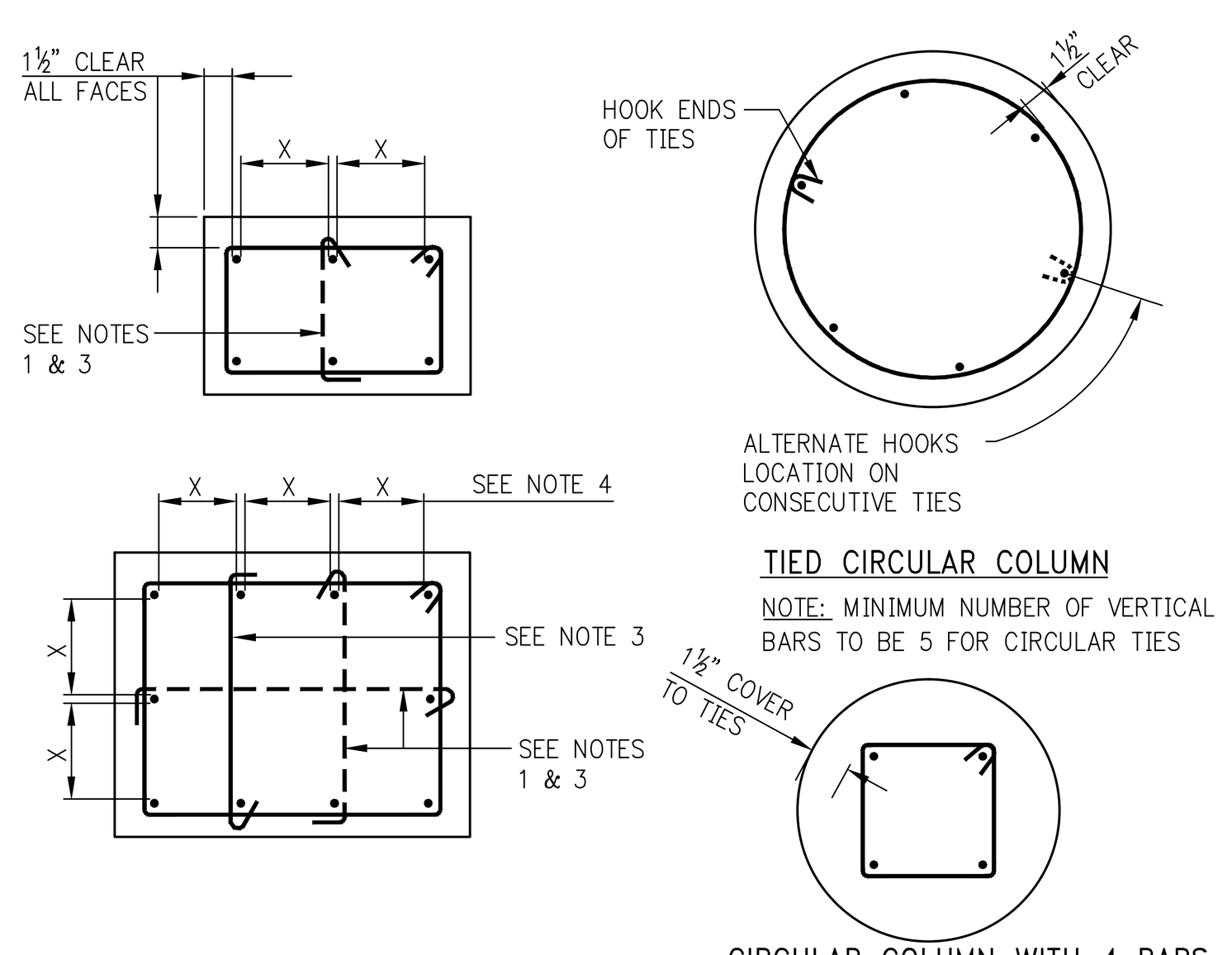
NOTES:

1. FOR DIMENSIONS AND LOCATION OF TRANSITION SEE COLUMN LOCATION PLANS AND/OR COLUMN SCHEDULE.
2. VERTICAL REINFORCEMENT IN TRANSITION TO BE AS SHOWN IN DETAILS 'A' AND 'B' UNLESS THE COLUMN SCHEDULE CALLS FOR SPECIFIC VERTICAL REINFORCEMENT WITHIN THE TRANSITION.
3. IN ADDITION TO #5@12 HORIZONTAL HOOPS, PROVIDE HOOPS AND CROSSTIES TO SATISFY TIEING REQUIREMENTS OF TYPICAL COLUMN DETAILS FOR ALL VERTICAL REINFORCEMENT.



DETAIL B

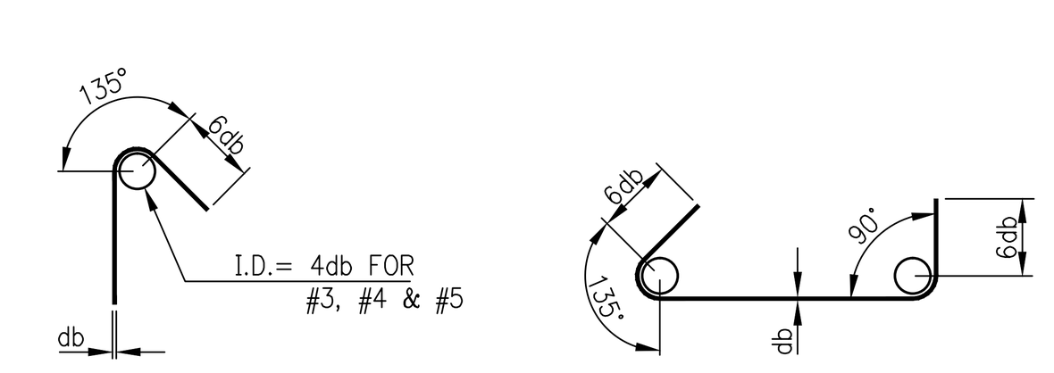
USE THIS DETAIL WHERE COLUMNS ABOVE AND BELOW TRANSITION OVERLAP IN PLAN



TIED CIRCULAR COLUMN

NOTE: MINIMUM NUMBER OF VERTICAL BARS TO BE 5 FOR CIRCULAR TIES

CIRCULAR COLUMN WITH 4 BARS AND SQUARE TIES



SEISMIC HOOKS

SUPPLEMENTARY CROSSTIES

COLUMN REINFORCEMENT AND TIES ARRANGEMENT

NOTES:

1. SINGLE LEG CROSSTIES SHOWN DASHED MAY BE OMITTED WHEN THE VERTICAL BAR IS NO FARTHER THAN 6" CLEAR ON EACH SIDE FROM ADJACENT TIED BARS.
2. WHEN THERE IS A SERIES OF VERTICAL BARS (SUCH AS IN WALL-LIKE COLUMNS) AND BARS ARE SPACED NOMINALLY AT 6" O/C, EVERY OTHER VERTICAL BAR WILL REQUIRE A CROSSTIE.
3. ALTERNATE 90° AND 135° ENDS ON CONSECUTIVE SINGLE LEG CROSSTIES THROUGHOUT HEIGHT OF MEMBER.
4. DETAILER SHALL SPACE BARS EQUIDISTANT ON ALL FACES UNLESS OTHERWISE SHOWN IN DETAILS.

45 BROAD STREET

NEW YORK NY 10004

ARCHITECT: **John A. Cetra**
State of New York
Registered Architect
No. 018861

CetraRuddy Architecture DPC
584 Broadway Suite 401
New York, NY 10012
212.941.9801

CLIENT: **Madison 45 Broad Development, LLC**
105 Madison Avenue
New York, NY 10016

STRUCTURAL ENGINEER: **WSP Group**
228 East 45th Street, 3rd Fl
New York, NY 10017
212.687.9888

MEP ENGINEER: **BuroHappold Engineering**
100 Broadway
New York, NY 10005
212.334.2025

GEOTECHNICAL ENGINEER: **LANGAN**
21 Penn Plaza
360 West 31st Street, 8th Fl
New York, NY 10001
212.479.5400

LANDSCAPE ARCHITECT:

LIGHTING DESIGNER: **Ventresca Design, LLC**
44-02 Eleventh St, Suite 203
Long Island City, NY 11101
212.600.0033

CURTAIN WALL CONSULTANT: **BuroHappold Engineering**
100 Broadway
New York, NY 10005
212.334.2025

PRELIMINARY NOT FOR CONSTRUCTION

2016-04-22	ISSUED FOR DESIGN DEVELOPMENT	1

CETRARUDDY

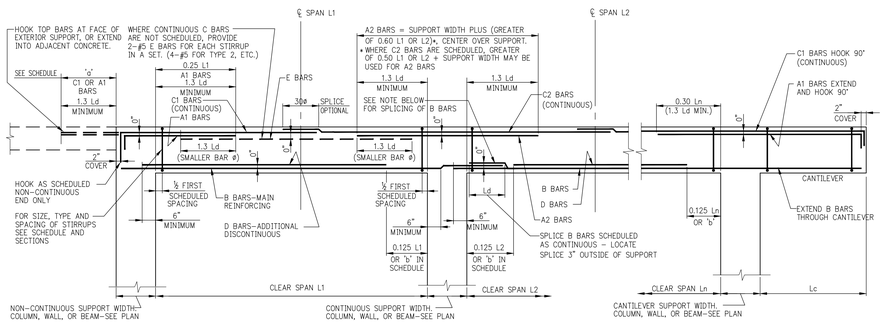
TYPICAL COLUMN DETAILS

DRAWING NO. S-955.00

SCALE: As Noted

PROJECT: 1590109

CETRARUDDY ARCHITECTURE DPC
584 BROADWAY NEW YORK NY 10012 T 212 941 9801 F 212 941 9840
WWW.CETRARUDDY.COM

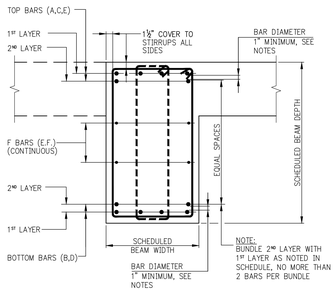


NOTE:
USE TYPICAL CUTOFF LENGTHS SHOWN UNLESS 'a' OR 'b' DIMENSIONS OR OTHER DIMENSIONS ARE GIVEN IN THE BEAM SCHEDULE

TYPICAL BEAM ELEVATION

MINIMUM SHEAR REINFORCEMENT FOR DEEP BEAMS (D > Ln/4)		
b=BEAM WIDTH	MINIMUM STIRRUPS(Av) (SPACING = S)*	MINIMUM F BARS (Avh) (SPACING = S2)*
UP TO 12"	1–#4 ▭ @ 12" MAX.	#4 E.F. @ 12" MAX.
12"+ TO 24"	2–#4 ▭ @ 12" MAX.	#4 E.F. @ 12" MAX.
24"+ TO 36"	3–#4 OR 2–#5 @ 12" MAX.	#5 E.F. @ 12" MAX.
36"+ TO 42"	2–#5 @ 12" MAX.	#6 E.F. @ 12" MAX.
42"+ TO 48"	4–#4 OR 3–#5 @ 12" MAX.	#6 E.F. @ 12" MAX.
OVER 48"	← DESIGNER TO PROVIDE →	

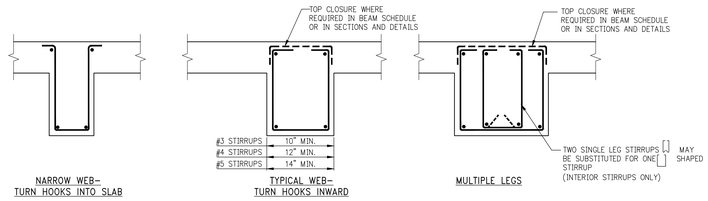
* PER ACI 11.8.4 AND 11.8.5, SPACINGS S AND S2 "SHALL NOT EXCEED D/5, NOR 12 INCHES."



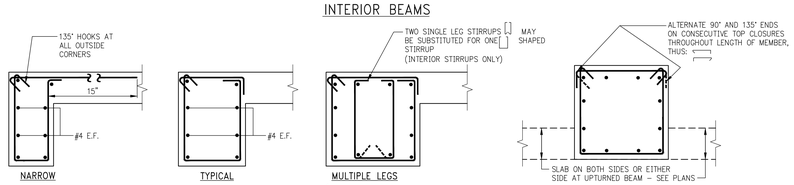
TYPICAL BEAM SECTION

NOTES:

1. WHERE BARS ARE PLACED IN TWO LAYERS THE MINIMUM CLEAR DISTANCE BETWEEN LAYERS SHALL BE THE LARGER OF: A: BAR DIAMETER, OR B: 1".
2. BEAM REINFORCEMENT SHALL BE LOCATED LATERALLY AS REQUIRED TO CLEAR COLUMN VERTICAL REINFORCEMENT.
3. WHERE BEAMS MEET AND CROSS EACH OTHER AT A SUPPORT, THE SHALLOWER BEAM SHALL HAVE ITS TOP REINFORCEMENT PLACED IN THE OUTERMOST (TOP) LAYER.
4. IN THE EVENT ONE CROSSING BEAM IS A CANTILEVER, THE CANTILEVER BEAM SHALL HAVE ITS TOP REINFORCEMENT PLACED IN THE OUTERMOST (TOP) LAYER.
5. WHERE F BARS (FACE BARS) ARE INDICATED IN THE BEAM SCHEDULE, THEY SHALL BE UNIFORMLY SPACED ON BOTH BEAM FACES AND SHALL BE CONTINUOUS, WITH STAGGERED 30 ø LAP SPLICES.
6. SEE SCHEDULE OF SHEAR REINFORCEMENT FOR DEEP BEAMS (D> Ln/4) FOR MINIMUM STIRRUP AND FACE BAR REQUIREMENTS.
7. THE FIRST STIRRUP AT EACH END SHALL BE PLACED AT ½ THE FIRST SCHEDULED SPACE FROM THE FACE OF SUPPORTING MEMBER. SUBSEQUENT STIRRUPS SHALL BE SPACED AS INDICATED IN THE BEAM SCHEDULE. THE SCHEDULE GIVES NUMBER OF SPACES, NOT NUMBER OF STIRRUPS.
8. WHERE MORE THAN ONE STIRRUP IS INDICATED IN A SET, PLACE EACH SET AT THE SCHEDULED SPACING.
9. SCHEDULED STIRRUP SPACING IS THE SAME AT EACH END UNLESS OTHERWISE NOTED.
10. PROVIDE #4 CLOSED TIE STIRRUPS @ 18" O/C WHERE SCHEDULED STIRRUPS DO NOT EXTEND TO END OF TOP BARS.

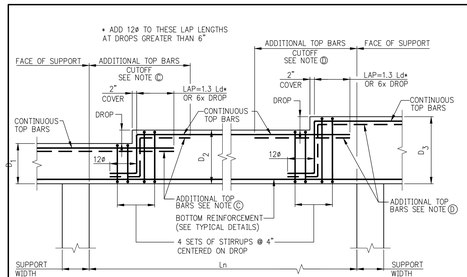


INTERIOR BEAMS



EDGE/SPANDREL BEAMS

NOTES:
1. TOP CLOSURES REQUIRED IN ALL EDGE/SPANDREL BEAMS.
2. 2–#4 E.F. IS MINIMUM FACE REINF. REQUIRED, UNLESS BEAM SCHEDULE (OR DETAIL) CALLS FOR HEAVIER REINF.

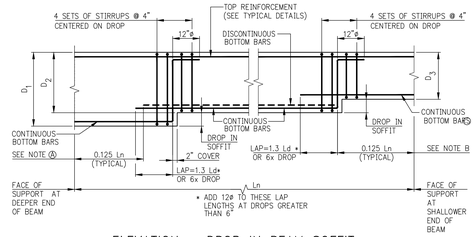


ELEVATION – DROP AT TOP OF BEAM

(SLAB NOT SHOWN)

NOTE Ⓒ:
IF LAP LENGTH OF LOWER ADDITIONAL TOP BARS (D_1) EXTENDS BEYOND THE CUTOFF LENGTH, THEN ADDITIONAL TOP BARS NEED NOT BE PLACED AT TOP OF DEEPER PORTION OF BEAM (D_2)

NOTE Ⓓ:
IF DROP OCCURS BEYOND THE CUTOFF LENGTH OF UPPER LEVEL ADDITIONAL TOP BARS (D_3), THEN ADDITIONAL TOP BARS NEED NOT BE PLACED IN SHALLOWER PORTION OF BEAM (D_2)

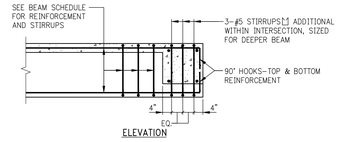


ELEVATION – DROP IN BEAM SOFFIT

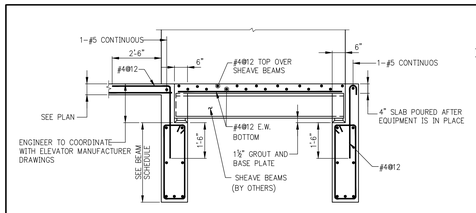
(SLAB NOT SHOWN)

NOTE Ⓐ:
IF DISCONTINUOUS BOTTOM BARS ARE CUT OFF WITHIN SPLICE LENGTH OF CONTINUOUS BOTTOM BARS, THEN DISCONTINUOUS BOTTOM BARS NEED NOT BE CONTINUED AT BOTTOM OF DEEPER PORTION OF BEAM (D_1)

NOTE Ⓑ:
IF DROP OCCURS WITHIN TYPICAL CUTOFF OF DISCONTINUOUS BOTTOM BARS, THEN DISCONTINUOUS BOTTOM BARS NEED NOT BE CONTINUED IN SHALLOWER PORTION OF BEAM (D_3)

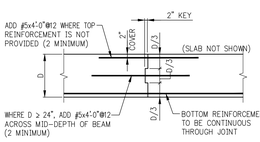


DEEP BEAM FRAMING INTO SHALLOW BEAM



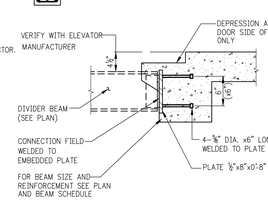
ELEVATOR SHEAVE BEAM

NOTE:
SHEAVE BEAMS TO BE SET BY ELEVATOR CONTRACTOR.

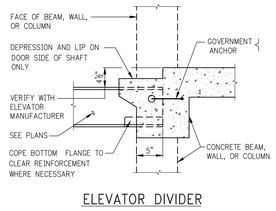


ELEVATION – BEAM CONSTRUCTION JOINT

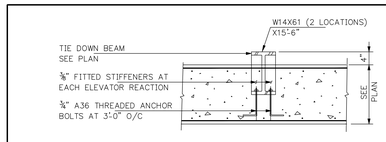
NOTE:
CONTRACTOR MUST SUBMIT LOCATIONS OF ALL CONSTRUCTION JOINTS TO THE ENGINEER FOR REVIEW PRIOR TO CONSTRUCTION.



ALTERNATIVE ELEVATOR DIVIDER BEAM CONNECTION

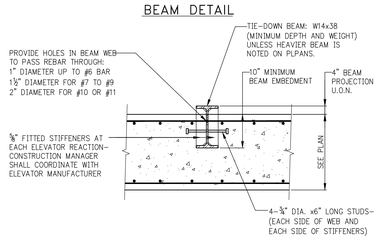


ELEVATOR DIVIDER BEAM CONNECTION

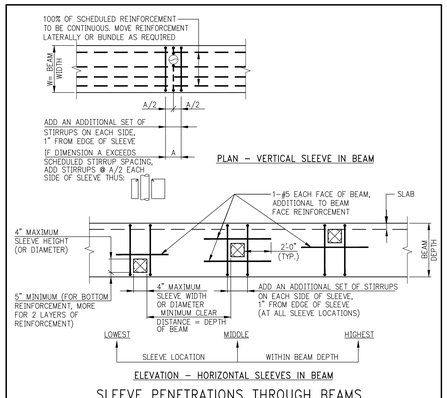


BEAM AT ELEVATOR SILL

TYPICAL ELEVATOR TIE DOWN BEAM DETAIL



ELEVATOR TIE–DOWN BEAM



SLEEVE PENETRATIONS THROUGH BEAMS

NOTES:
1. ALL SCHEDULED BEAM REINFORCEMENT (NOT SHOWN) IS TO BE CONTINUOUS
2. NO OPENINGS LARGER THAN 4" (SQUARE OR ROUND) ARE PERMITTED UNLESS SPECIFICALLY INDICATED ON STRUCTURAL PLANS.

NOTE:
IF THIS CONDITION OCCURS AT A COLUMN, PROVIDE 90° HOOKS ON BRACKET REINF. IF EMBEDMENT IS LIMITED.

BEAM SUPPORT BRACKET AT END OF WALL

FOR DIMENSION AND LOCATION OF PLUMBING SLOTS SEE MECHANICAL PLANS. ALL SLOTS SHALL BE FILLED WITH CONCRETE AFTER PIPING HAS BEEN INSTALLED.

TYPICAL PLUMBING SLOT DETAIL

PLAN–VERTICAL HOLES IN BEAMS

ELEV. HORIZ. HOLES IN BEAMS

NOTE:
NO OPENINGS LARGER THAN 4" ø SHALL BE PERMITTED IN CONCRETE BEAMS UNLESS SPECIFICALLY INDICATED ON STRUCTURAL PLANS. ALL BEAM REINF. TO RUN THROUGH.

TYPICAL CONCRETE CURB DETAILS

NOTE: FOR SIZE AND LOCATION SEE ARCH. DWGS

45 BROAD STREET

NEW YORK NY 10004

ARCHITECT
John A. Cetra
State of New York
Registered Architect
No. 018863
CetraRuddy Architecture DPC
584 Broadway Suite 401
New York, NY 10012
212.941.9801

OWNER
Madison 45 Broad Development, LLC
105 Madison Avenue
New York, NY 10016

STRUCTURAL ENGINEER
WSP Group
228 East 45th Street, 3rd Fl
New York, NY 10017
212.687.9888

MEP ENGINEER
BuroHappold Engineering
100 Broadway
New York, NY 10005
212.334.2025

GEOTECHNICAL ENGINEER
LANGAN
21 Penn Plaza
360 West 31st Street, 8th Fl
New York, NY 10001
212.479.5400

LANDSCAPE ARCHITECT

LIGHTING DESIGNER
Ventresca Design, LLC
44-02 Eleventh St, Suite 203
Long Island City, NY 11101
212.600.0033

CERTIFIED ENERGY CONSULTANT
BuroHappold Engineering
100 Broadway
New York, NY 10005
212.334.2025

PRELIMINARY - NOT FOR CONSTRUCTION

2016-04-22	ISSUED FOR DESIGN DEVELOPMENT 1

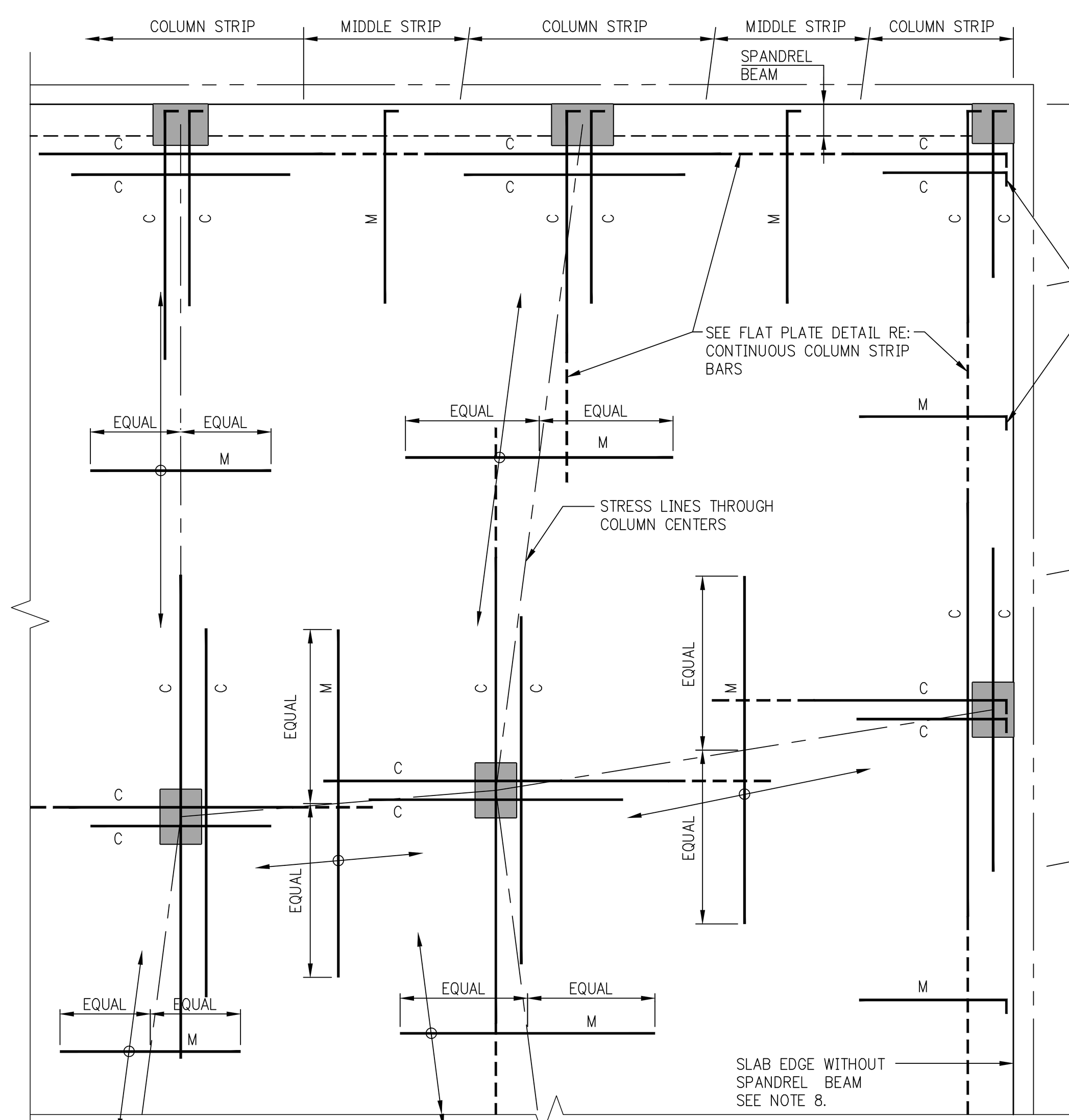
CETRARUDDY

TYPICAL SUPERSTRUCTURE DETAILS 1

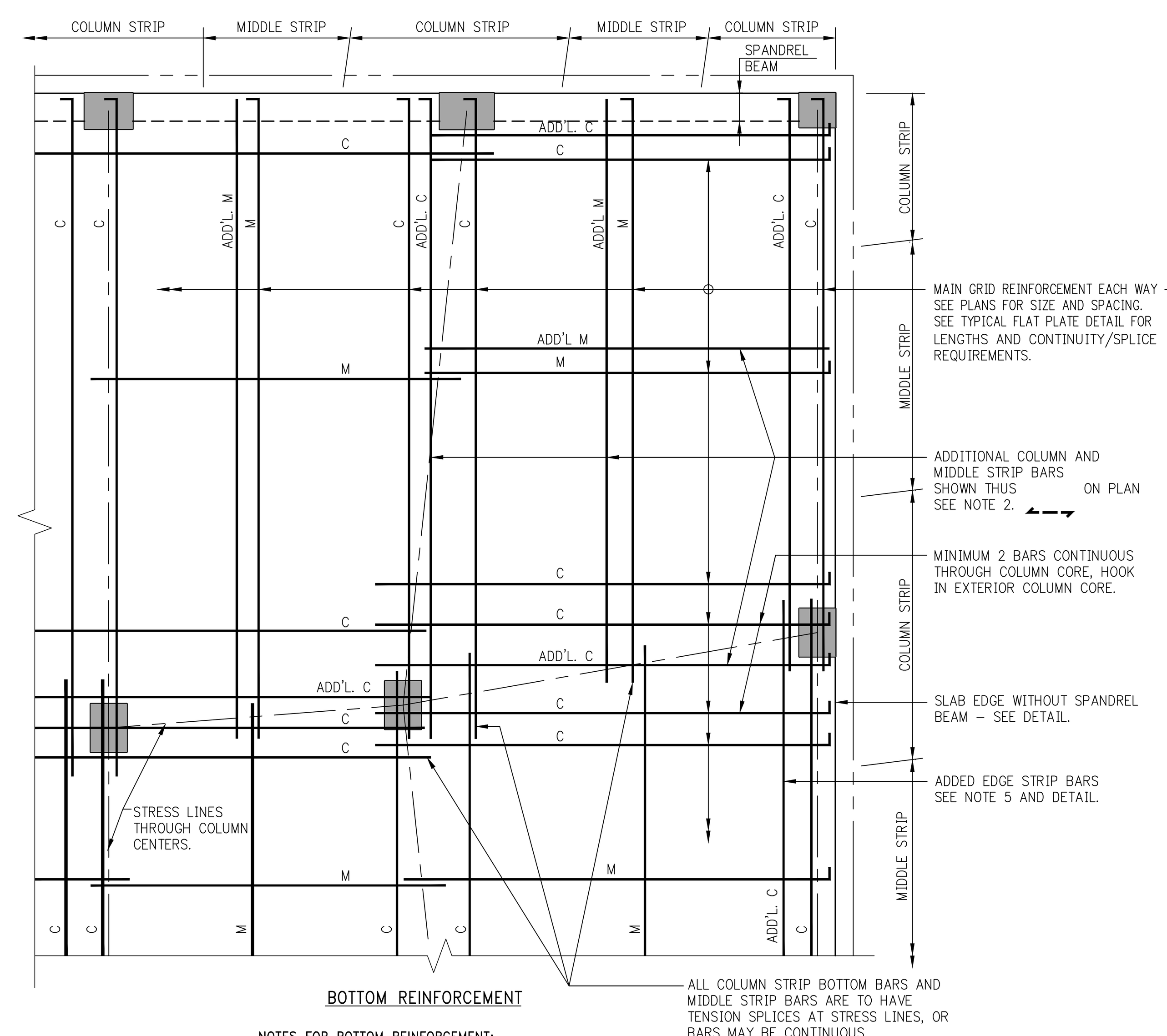
DRAWING NO. **S-960.00**

PROJECT 1590109 | SCALE As Noted | DATE | DRAWN

CETRARUDDY ARCHITECTURE DPC
584 BROADWAY NEW YORK NY 10012 T 212 941 9801 F 212 941 9440
WWW.CETRARUDDY.COM



TOP REINFORCEMENT



BOTTOM REINFORCEMENT

NOTES FOR TOP REINFORCEMENT

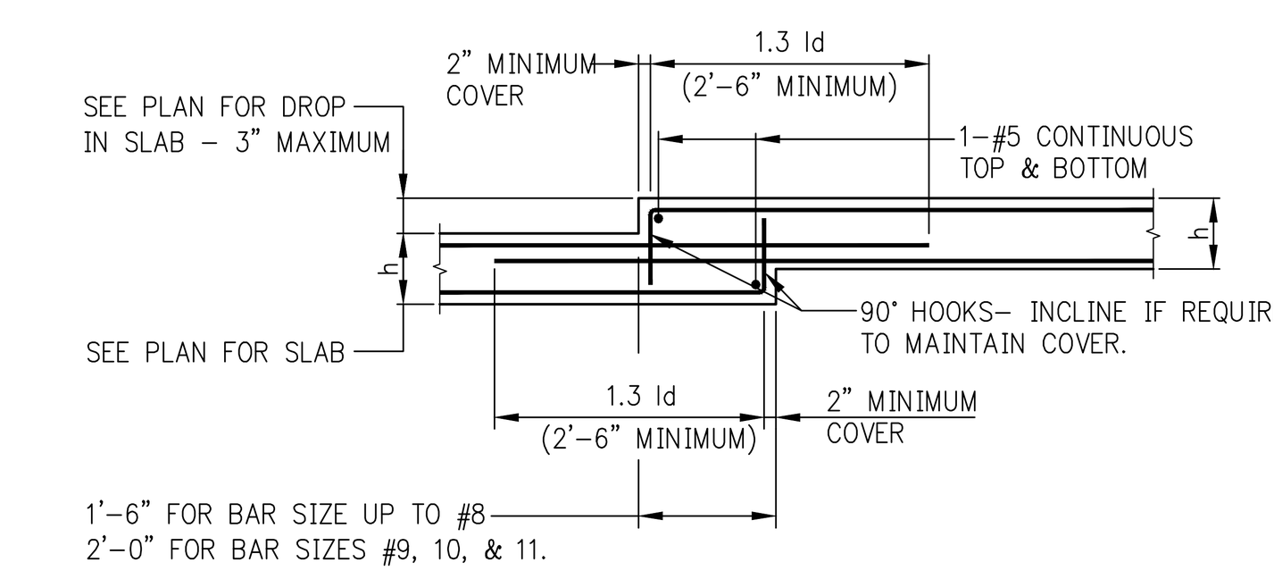
1. 'C' DENOTES COLUMN STRIP BARS (LONG AND SHORT BARS ARE ALTERNATED). 'M' DENOTES MIDDLE STRIP BARS.
2. FOR SIZE, SPACING, NUMBER, ETC. OF REINFORCING BARS, SEE FRAMING PLANS.
3. WHERE COLUMN STRIP BAR LENGTHS ARE SHOWN ON FRAMING PLANS THEY ARE FOR LONGER BARS, WHICH ARE TO BE ALTERNATED WITH SHORTER BARS. SEE TYPICAL FLAT PLATE DETAIL.
4. COLUMN STRIP BARS ARE TO BE CENTERED OVER COLUMNS UNLESS OTHERWISE INDICATED ON PLANS.
5. MIDDLE STRIP BARS ARE TO BE CENTERED OVER STRESS LINES UNLESS OTHERWISE INDICATED ON PLANS.
6. MIDDLE STRIP BARS ARE TO BE SPACED AS SHOWN ON PLANS. FIRST BAR IS TO BE LOCATED A DISTANCE FROM LAST COLUMN STRIP BAR NOT TO EXCEED MIDDLE STRIP BAR SPACING.
7. COLUMN STRIP BARS PARALLEL TO SPANDREL BEAMS ARE TO HAVE FIRST BAR LOCATED AT ONE-HALF SCHEDULED SPACING FROM INSIDE FACE OF BEAM, SIX INCHES MAXIMUM.
8. AT SLAB EDGES WITHOUT SPANDREL BEAMS, SEE TYPICAL DETAIL FOR ADDITIONAL CONTINUOUS EDGE BARS AND FOR COLUMN STRIP BAR PLACEMENT PARALLEL TO SLAB EDGE.
9. PROVIDE 90 DEGREE HOOK AT EVERY DISCONTINUOUS TOP BAR, COLUMN AND MIDDLE STRIPS, AT EDGE OF SLAB, WITH OR WITHOUT SPANDREL BEAMS (2" CLEAR COVER TO HOOK)

BAR LENGTH EXTENSIONS REQUIRED AT EPOXY COATED REINFORCEMENT (WHERE SPECIFIED ON PLANS)
1. TO REINFORCING BAR LENGTHS SHOWN ON PLAN OR AS DETERMINED FROM TYPICAL DETAILS, ADD AN ADDITIONAL LENGTH AT EACH END (EXCEPT AT HOOKED BARS) EQUAL TO 50% OF BAR DEVELOPMENT LENGTH (SEE TABLE #2) 2. DEVELOPMENT LENGTHS AND LAP SPLICE LENGTHS SHOWN ARE TO BE INCREASED, IN CONFORMANCE WITH TABLES 1 & 2 IN TYPICAL DETAILS FOR REINFORCEMENT DEVELOPMENT AND SPLICE LENGTHS, OVER VALUES FOR UNCOATED BARS.

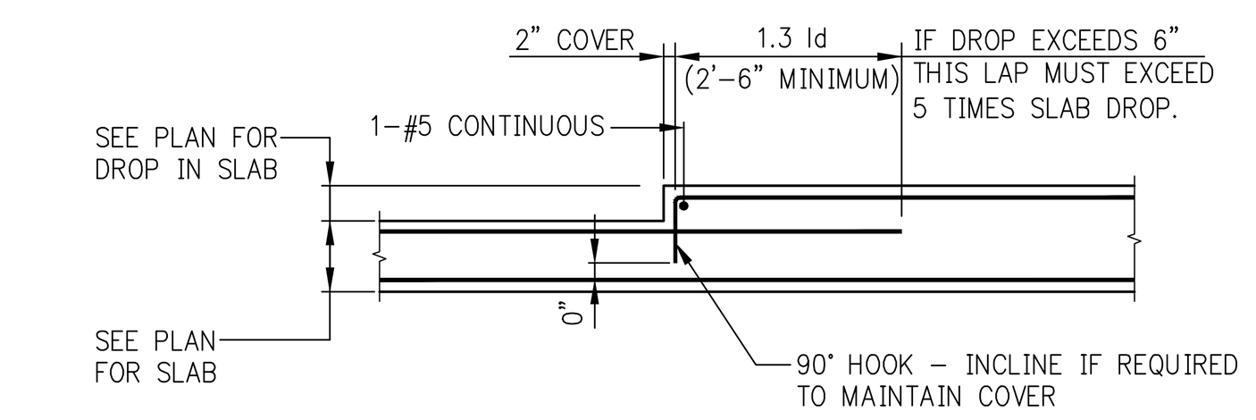
NOTES FOR BOTTOM REINFORCEMENT:

1. 'C' DENOTES A COLUMN STRIP BAR, PART OF MAIN GRID.
   'ADD'L. C' DENOTES COLUMN STRIP BARS ADDITIONAL TO MAIN GRID BARS.
   'M' DENOTES A MIDDLE STRIP BAR, PART OF MAIN GRID.
   'ADD'L M' DENOTES MIDDLE STRIP BARS ADDITIONAL TO MAIN GRID BARS.
2. PLACE ADDITIONAL BARS BETWEEN MAIN GRID BARS.
   IN COLUMN STRIPS GROUP ABOUT STRESS LINE.
   IN MIDDLE STRIPS DISTRIBUTE THROUGHOUT STRIP.
3. ALL COLUMN STRIP BOTTOM BARS ARE TO BE CONTINUOUS AND HOOKED 90° AT EDGES OF SLAB OR AT SLAB OPENINGS, OR AT OTHER DISCONTINUITIES.
4. ALL MIDDLE STRIP BOTTOM BARS ARE TO BE CONTINUOUS AND ARE TO EXTEND TO EDGE OF SLAB WHERE 50% OF BARS ARE TO BE HOOKED.
5. IN EDGE STRIP WITHOUT SPANDREL BEAMS START ADDITIONAL BARS TWO INCHES FROM CONTINUOUS EDGE BARS - SEE FLAT PLATE DETAIL AT EDGE OF SLAB.
6. PROVIDE ADD'L BOTTOM REINFORCEMENT WITHIN COLUMNS TO EXTEND Ln/3:
   4-#5 E.W. FOR 12" SLAB
   5-#5 E.W. FOR 14" SLAB

FLAT SLAB REINFORCEMENT DETAILS

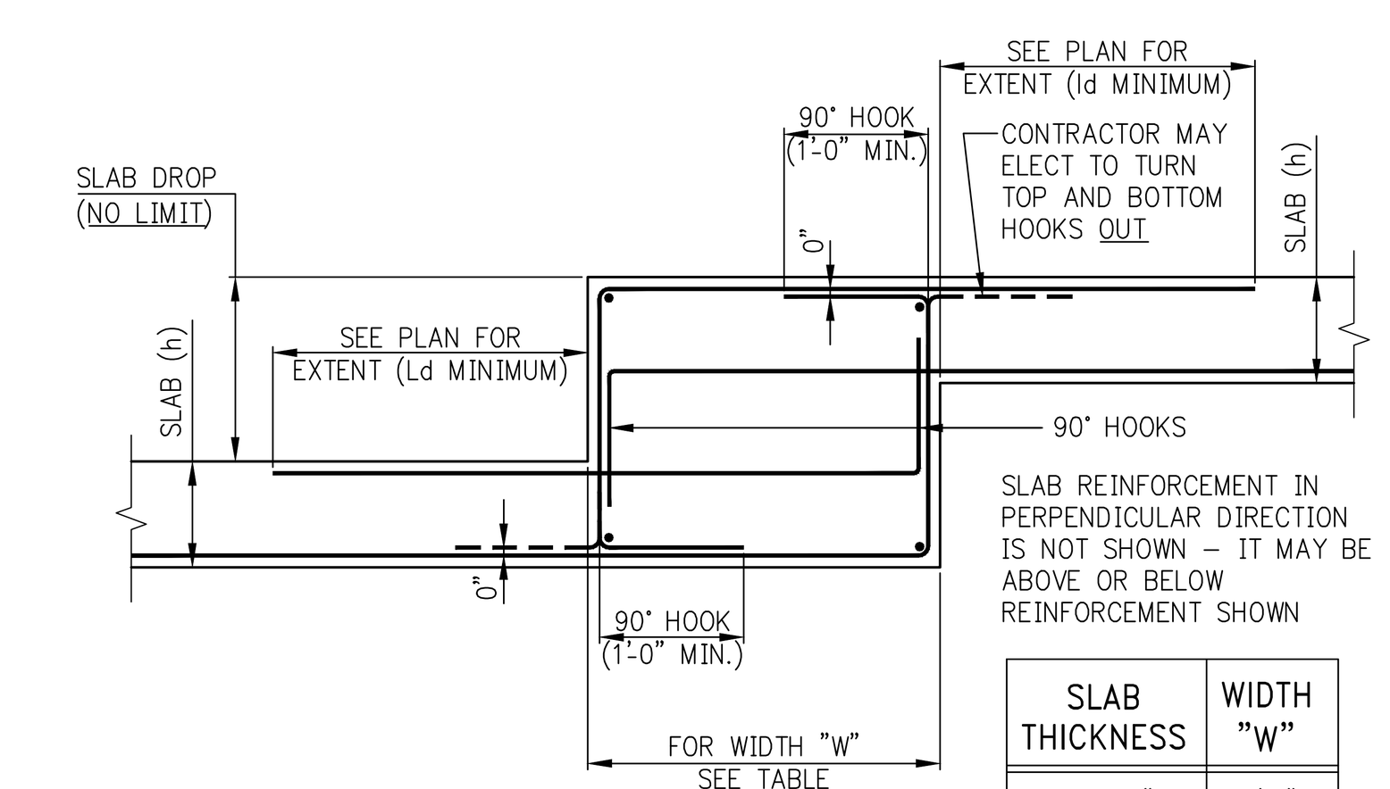


DROP IN TOP AND BOTTOM OF SLAB
(MAXIMUM DROP = 3")



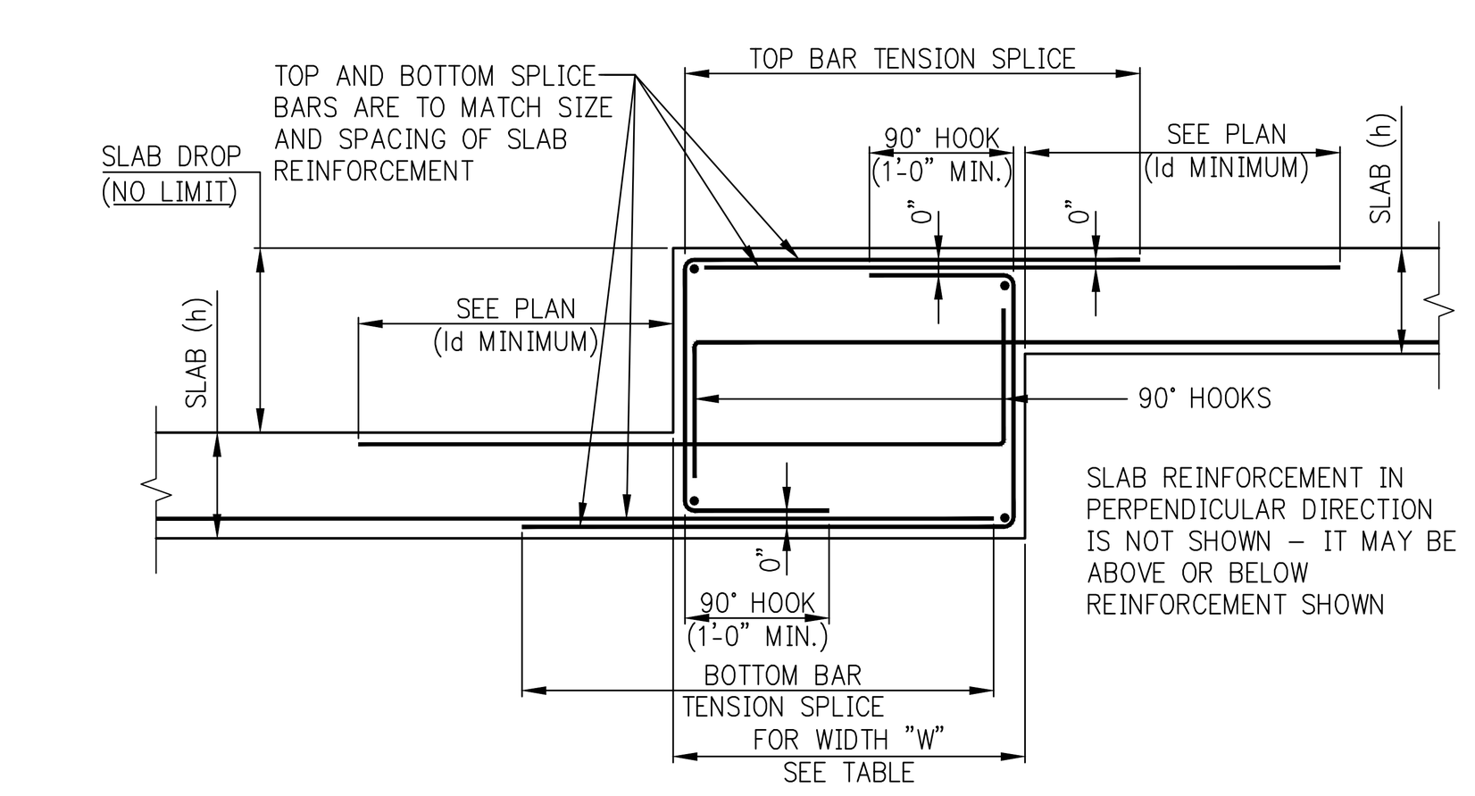
DROP IN TOP OF SLAB

NOTE:
BARS IN OTHER DIRECTION ARE NOT SHOWN - SEE PLANS.



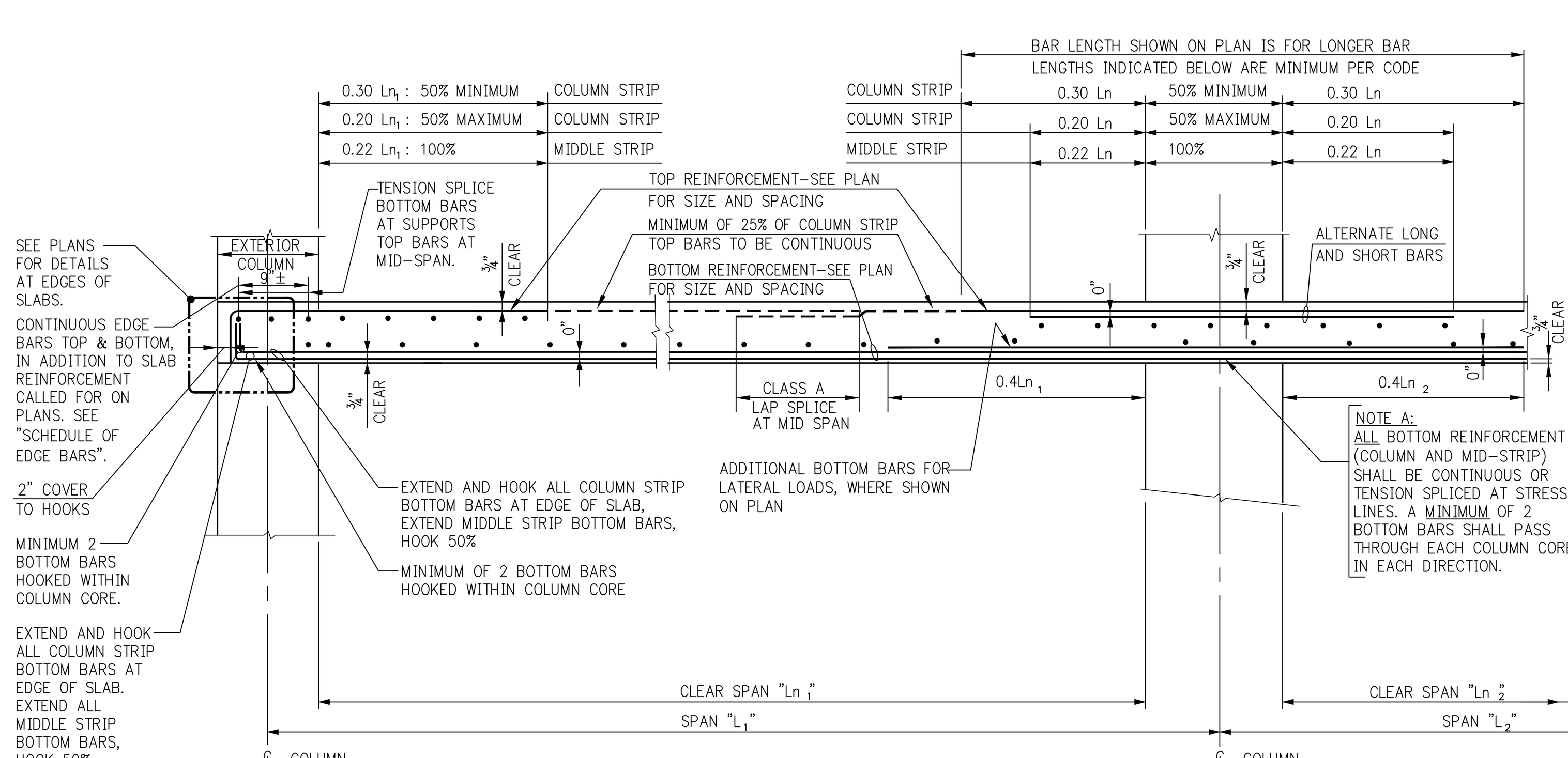
SLAB THICKNESS	WIDTH "W"
UP TO 8"	2'-0"
8"+ TO 10"	2'-6"
OVER 10"	3'-0"

DROP IN TOP AND BOTTOM OF SLAB
(DROP GREATER THAN 3")



ALTERNATIVE DROP IN TOP AND BOTTOM OF SLAB USING SPLICE BARS
(DROP GREATER THAN 3")

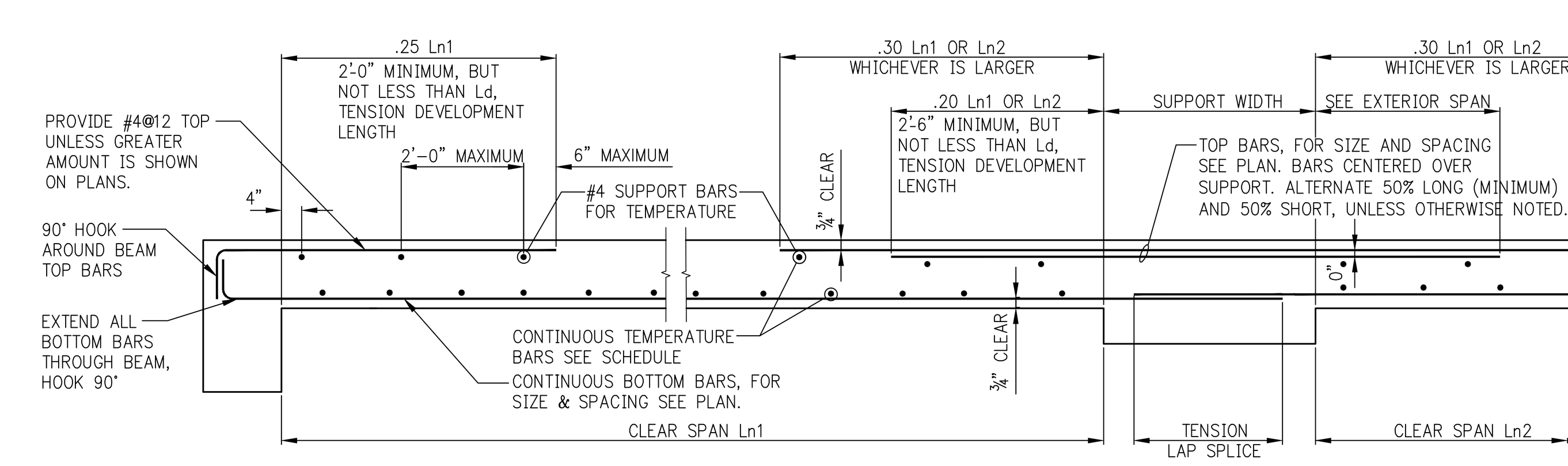
SCHEDULE OF EDGE BARS	
SLAB THICKNESS	*ADDITIONAL EDGE BARS (CONTINUOUS)
UP TO 7"	2-#5 TOP, 2-#5 BOTTOM
7" TO 8"	2-#6 TOP, 2-#6 BOTTOM
8" TO 10"	2-#7 TOP, 2-#7 BOTTOM
10" TO 12"	2-#8 TOP, 2-#8 BOTTOM
OVER 12"	SEE PLANS + DETAILS (MIN. 2-#8 T&B)
* UNLESS HEAVIER BARS ARE SHOWN ON PLANS	



EXTERIOR SUPPORT

FLAT PLATE DETAIL
(FOR DROP PANEL SEE DETAIL)
AT INTERIOR SUPPORTS USE LARGER OF L_{n1} OR L_{n2} FOR Ln

INTERIOR SUPPORT

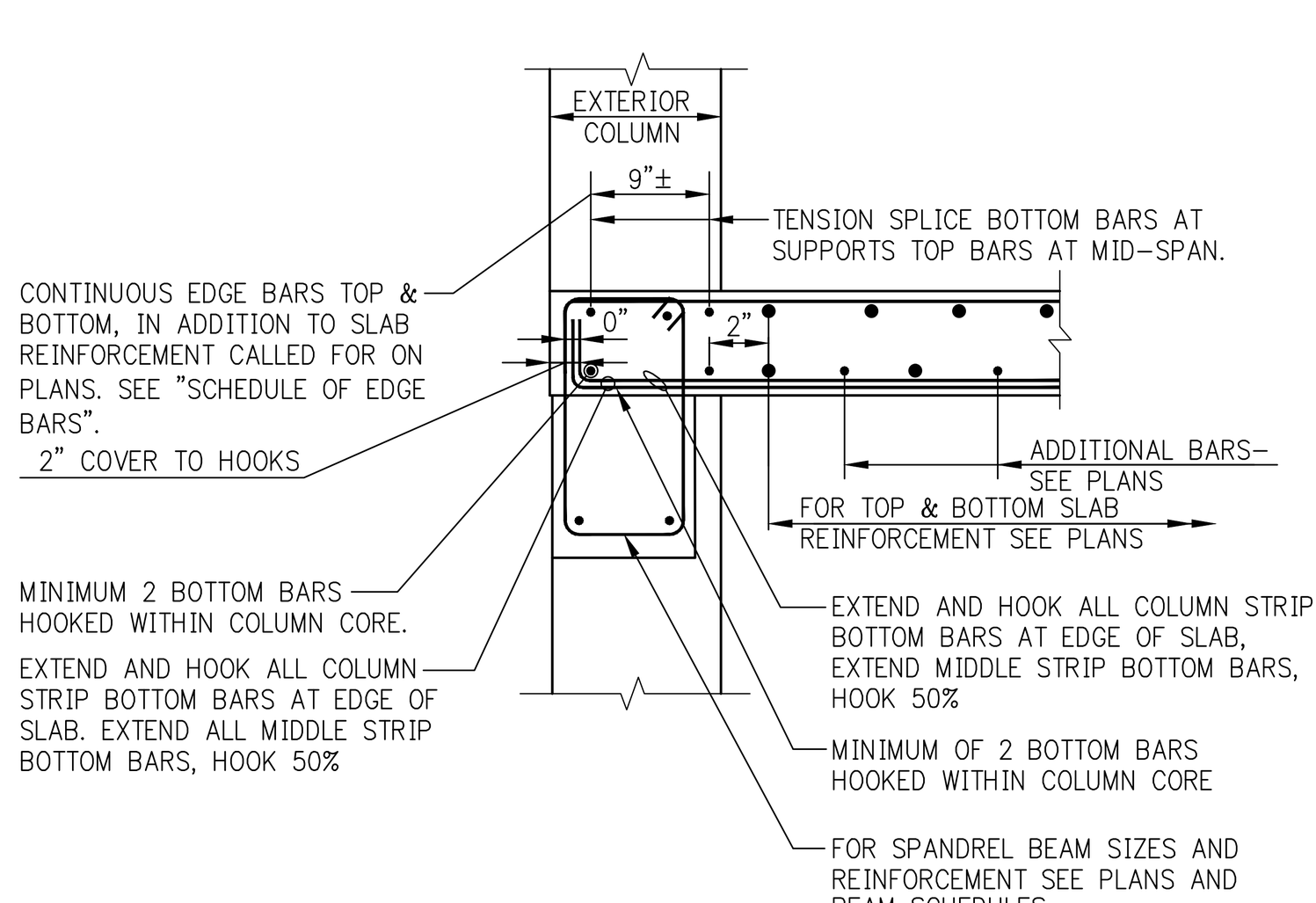


AT SUPPORT WHERE SLAB IS NON-CONTINUOUS

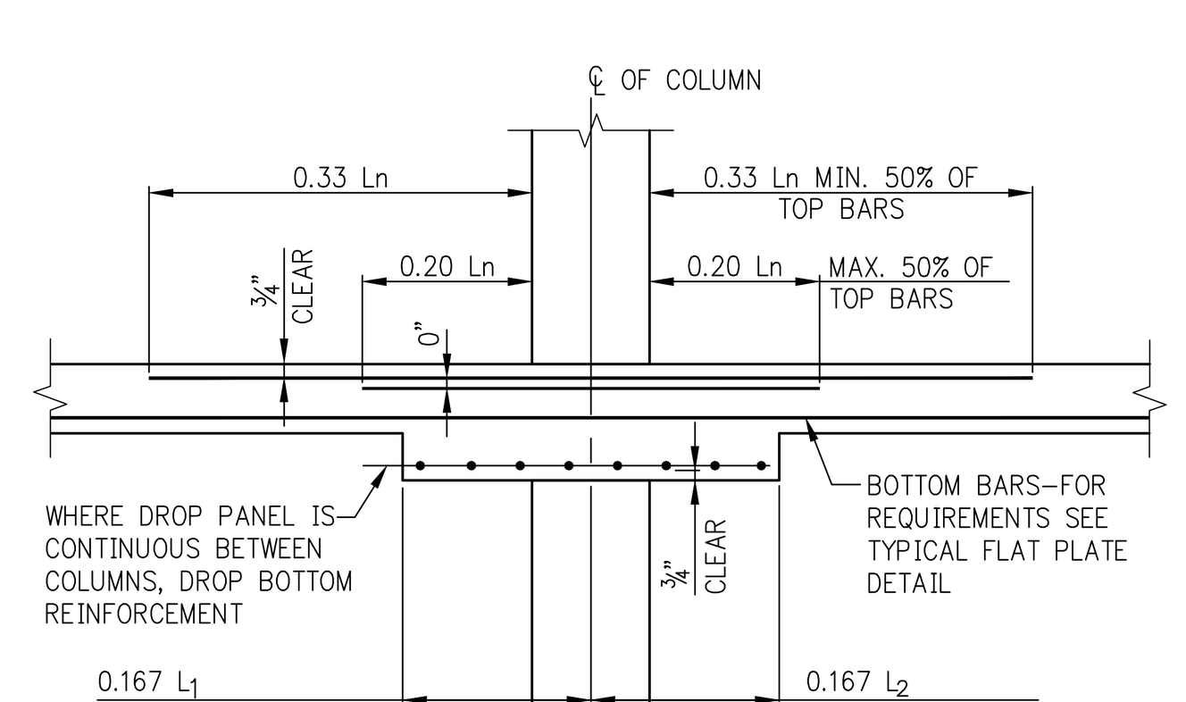
AT SUPPORT WHERE SLAB IS CONTINUOUS

MINIMUM TEMPERATURE REINFORCEMENT (BOTTOM) ONE WAY SLABS	
SLAB THICKNESS	MIN. TEMPERATURE REINFORCEMENT
UP TO 6"	#4@18
6"+ TO 7"	#4@16
7"+ TO 8"	#4@14
8"+ TO 9"	#4@12
9"+ TO 10"	#4@10 OR #5@15
10"+ TO 12"	#4@9 OR #5@14
12"+ TO 14"	#4@8 OR #5@12
14"+ TO 16"	#5@10
OVER 16"	BY DESIGNER

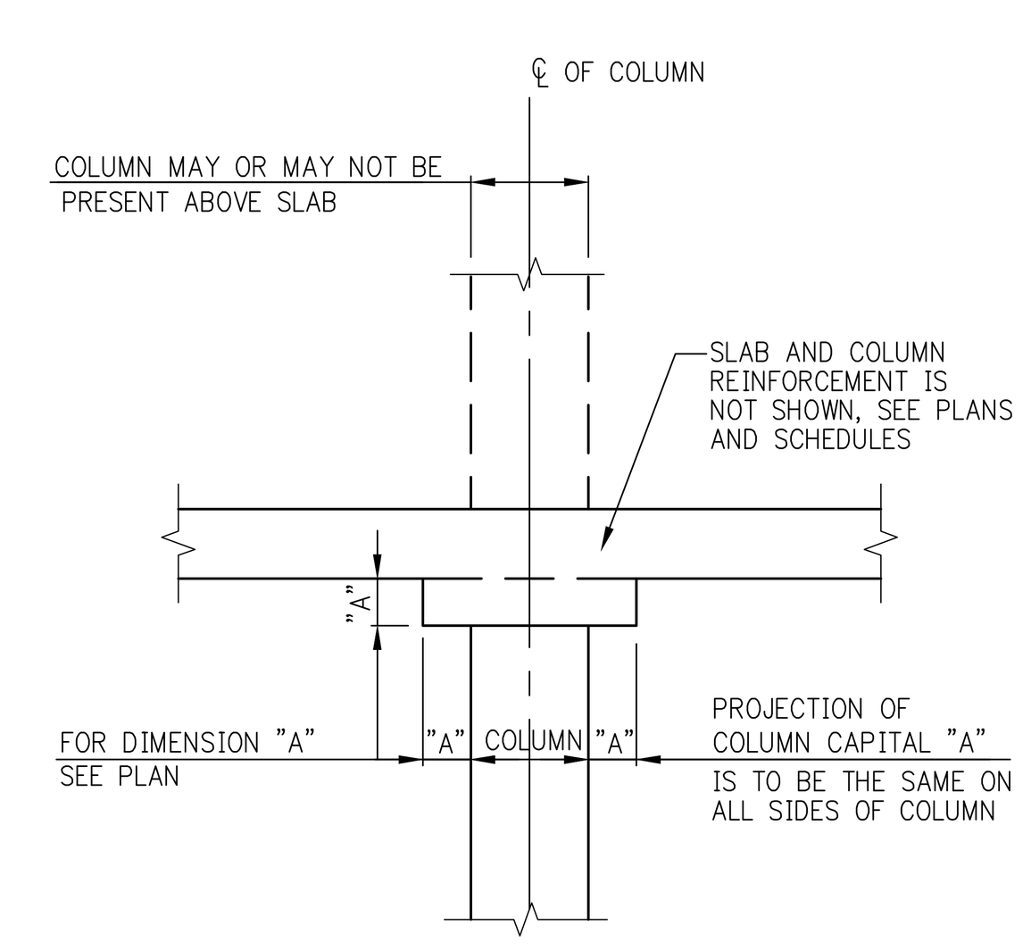
ONE WAY CONCRETE SLAB



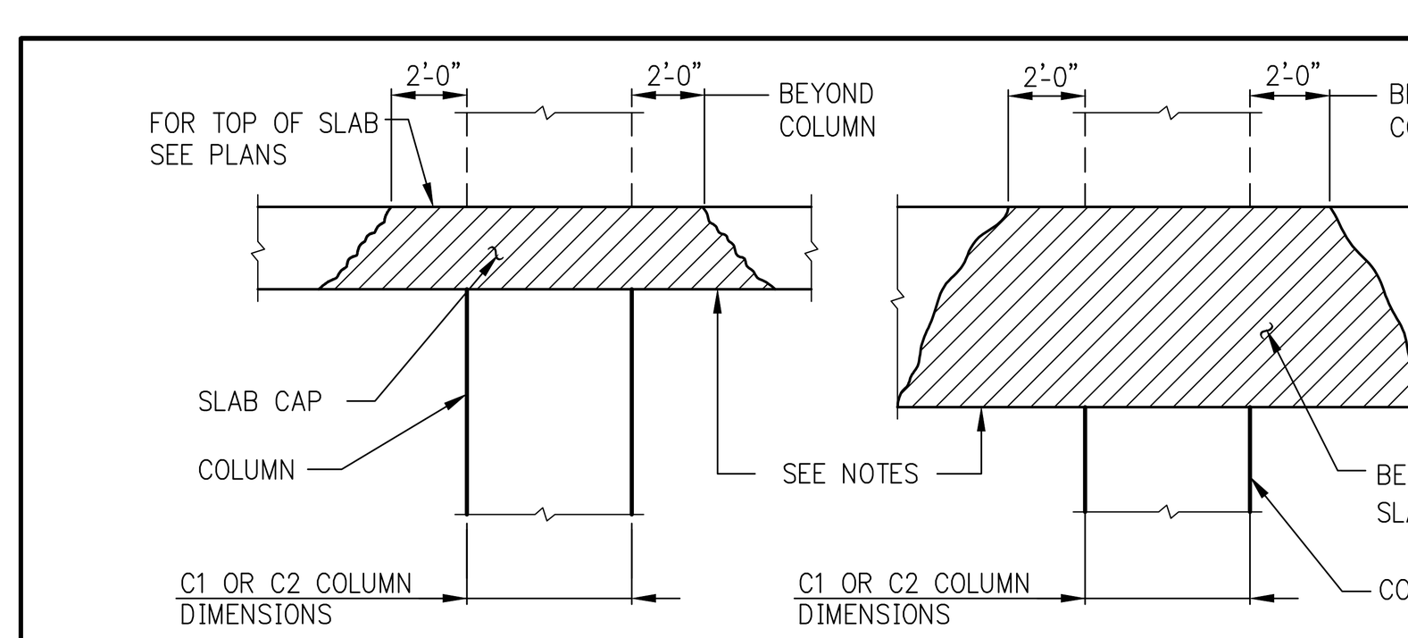
EDGE OF SLAB WITH SPANDREL BEAM



FLAT SLAB WITH DROP PANELS AT COLUMN STRIP
(MID-STRIP BARS SAME AS TYPICAL FLAT PLATE DETAIL)



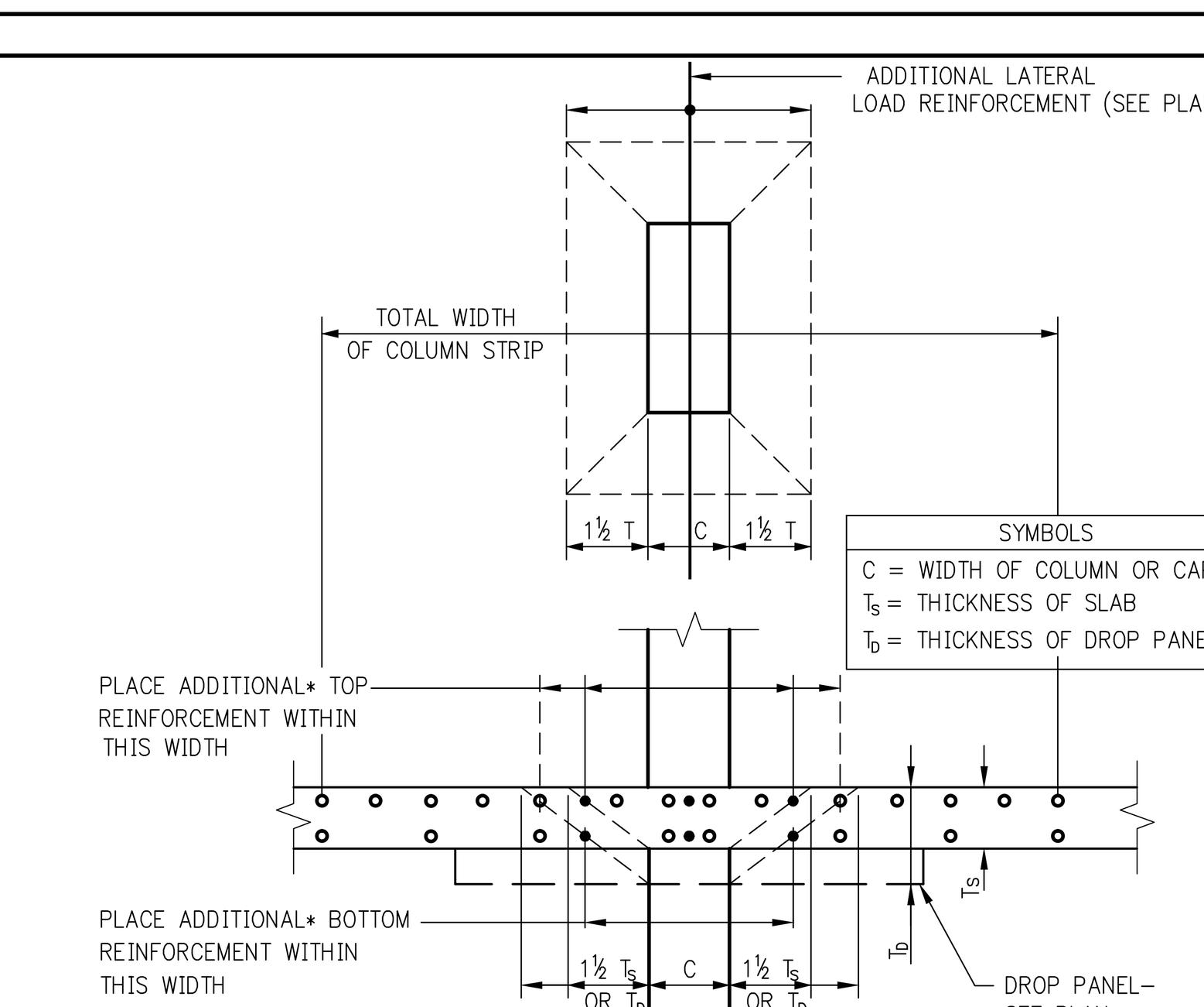
COLUMN WITH CAPITAL



BEAM AND SLAB CONCRETE PLACEMENT AT HIGH STRENGTH CONCRETE COLUMN OR WALL

NOTES:

1. IN CONFORMANCE WITH 10.13 OF ACI 318-89 (10.15 in 2002 CODE), USE THIS DETAIL WHEN THE SPECIFIED CONCRETE STRENGTH IN COLUMN/WALL IS GREATER THAN 1.4 TIMES THAT SPECIFIED FOR THE FLOOR SYSTEM.
2. CAP SHALL BE NORMAL-WEIGHT STONE CONCRETE, EQUAL IN STRENGTH TO THAT SPECIFIED FOR THE COLUMN/WALL. CAP SHALL EXTEND BEYOND COLUMN/WALL IN ALL DIRECTIONS AS SHOWN ABOVE.
3. CAP CONCRETE SHALL NOT BE PLACED OVER THE COLUMN/WALL UNTIL COLUMN/WALL CONCRETE IS NO LONGER PLASTIC, BUT IN NO CASE LESS THAN TWO HOURS AFTER COLUMN/WALL CONCRETE PLACEMENT HAS BEEN COMPLETED.
4. THE BALANCE OF CONCRETE IN SLAB AND BEAMS SHALL BE PLACED WHILE CAP CONCRETE IS STILL IN A WORKABLE PLASTIC CONDITION, BEFORE INITIAL SET. RETEMPERING OF CONCRETE WILL NOT BE PERMITTED.
5. IN LIEU OF PLACING TWO DIFFERENT STRENGTHS OF CONCRETE WITHIN THE SAME FLOOR SYSTEM, THE CONTRACTOR MAY ELECT (AT NO ADDITIONAL COST TO THE OWNER) TO PLACE ONE STRENGTH THROUGHOUT THE ENTIRE FLOOR. THE MINIMUM FLOOR CONCRETE STRENGTH REQUIRED BY ACI CODE WOULD BE 0.72 TIMES THE SPECIFIED STRENGTH OF CONCRETE IN THE COLUMNS/WALLS, UP TO 10,000 PSI COLUMN/WALL CONCRETE.
6. WHEN COLUMN/WALL CONCRETE STRENGTH EXCEEDS 10,000 PSI, THE CAP DETAILS SHOWN ABOVE MUST BE FOLLOWED, USING CAPS OF SAME CONCRETE STRENGTH AS IN COLUMNS/WALLS, AND THE STRENGTH SPECIFIED ON THE DRAWINGS FOR THE BALANCE OF THE FLOOR SYSTEM.



ADDITIONAL COLUMN STRIP REINFORCEMENT DUE TO LATERAL LOAD (WIND OR SEISMIC)

NOTES:
1. ADD'L TOP OR BOTTOM BARS ARE NOTED ON PLAN WITH AN ASTE
2. PROVIDE 4-#5 TOP E.W. AT EACH COLUMN U.O.N. ON PLAN.

STATE OF NEW YORK SILVIAN L. MARCUS 057530 LICENSED PROFESSIONAL ENGINEER

45 BROAD STREET
NEW YORK NY 10004

ARCHITECT: John A. Cetra, State of New York Registered Architect No. 018861; CetraRuddy Architecture DPC, 584 Broadway Suite 401, New York, NY 10012, 212.941.9801
CLIENT: Madison 45 Broad Development, LLC, 105 Madison Avenue, New York, NY 10016
STRUCTURAL ENGINEER: WSP Group, 228 East 45th Street, 3rd Fl, New York, NY 10017, 212.687.9888
MEP ENGINEER: BuroHappold Engineering, 100 Broadway, New York, NY 10005, 212.334.2025
GEOTECHNICAL ENGINEER: LANGAN, 21 Penn Plaza, 360 West 31st Street, 8th Fl, New York, NY 10001, 212.479.5400
LANDSCAPE ARCHITECT:
LIGHTING DESIGNER: Ventresca Design, LLC, 44-02 Eleventh St, Suite 203, Long Island City, NY 11101, 212.600.0033
CURTAIN WALL CONSULTANT: BuroHappold Engineering, 100 Broadway, New York, NY 10005, 212.334.2025

PRELIMINARY - NOT FOR CONSTRUCTION

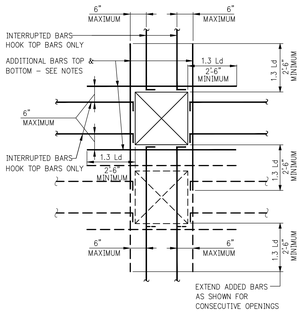
2016-04-22 ISSUED FOR DESIGN DEVELOPMENT 1

CETRARUDDY

TYPICAL SUPERSTRUCTURE DETAILS 2

DRAWING NO. S-961.00
SCALE As Noted
PROJECT 1590109
DOB PAGE NO.
DOB FILE NO.

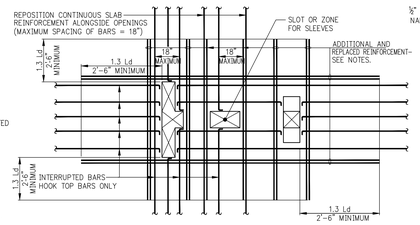
CETRARUDDY ARCHITECTURE DPC
584 BROADWAY NEW YORK NY 10012 T 212 941 9801 F 212 941 9440
WWW.CETRARUDDY.COM



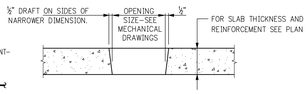
ADDED REINFORCEMENT AT OPENINGS IN FLOOR SLAB

NOTES:

1. ADDITIONAL BARS EQUAL IN AREA TO AREA OF REINFORCEMENT INTERRUPTED BY OPENING(S) SHALL BE PLACED ALONGSIDE OPENING(S), ONE HALF ON EACH SIDE (#5 MINIMUM DIAMETER), TOP AND BOTTOM.
2. ADD 1–#5 TOP AND BOTTOM EACH SIDE OF OPENING, ADDITIONAL TO REPLACEMENT BARS.
3. WHERE OPENINGS ARE NEAR OR AGAINST EXTERIOR BEAMS OR COLUMNS AND ADDED REINFORCEMENT CAN NOT BE EXTENDED AS SHOWN, HOOK EXTERIOR END.
4. AT OPENINGS SMALLER THAN THE SLAB THICKNESS (10" MAXIMUM), NO ADDITIONAL REINFORCEMENT IS REQUIRED, PLACE NORMAL REINFORCEMENT ALONGSIDE OPENING.
5. Ld = TENSION DEVELOPMENT LENGTH, SEE TABLES.



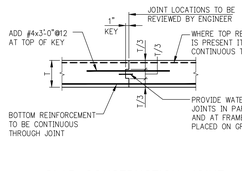
SLAB OPENINGS AT BATHROOM



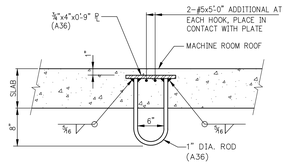
PLUMBING OPENING (SLOT) IN SLAB

NOTES:

1. FOR LOCATIONS AND DIMENSIONS OF PLUMBING OPENINGS SEE MECHANICAL AND/OR ARCHITECTURAL DRAWINGS.
2. FILL ALL OPENINGS WITH CONCRETE AFTER PIPING HAS BEEN INSTALLED.
3. FOR SLAB REINFORCEMENT DETAILS ALONGSIDE OPENINGS SEE DETAIL OF "ADDED REINFORCEMENT AT OPENINGS IN FLOOR SLAB".
4. MINIMUM REQUIREMENTS ARE SHOWN IN THESE DETAILS. SEE PLAN FOR ADDITIONAL REQUIREMENTS.

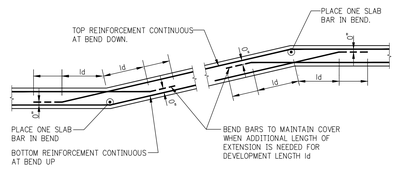


SLAB CONSTRUCTION JOINT



LIFTING HOOK AT ELEVATOR

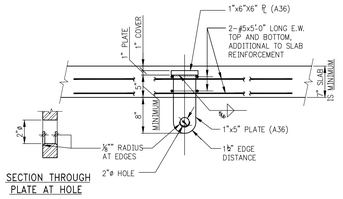
MAXIMUM SERVICE LOAD LIFTING CAPACITY = 2,000 POUNDS.
FOR HEAVIER LOADS A SOLID PLATE WITH HOLE MUST BE PROVIDED.



SLAB SLOPES UP SLAB SLOPES DOWN

BEND IN SLAB

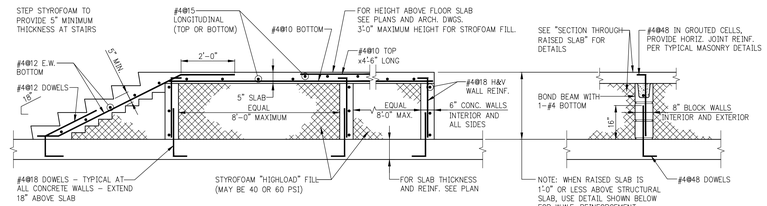
NOTE:
BARS IN OTHER DIRECTION ARE NOT SHOWN– SEE PLANS.



HEAVY LIFTING "PADEYE" PLATE AT ELEVATOR

MAXIMUM SERVICE LOAD LIFTING CAPACITY = 10,000 POUNDS.

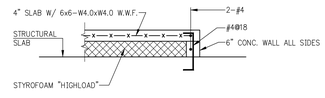
NOTES:
1. SLAB REINFORCEMENT IS NOT SHOWN.
2. PLACE ADDITIONAL #5 BOTTOM BARS IN THE SAME PLANE(S) AS SLAB BOTTOM REINFORCEMENT.



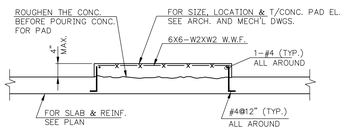
SECTION THROUGH RAISED SLAB FORMED WITH STYROFOAM

NOTES:
1. FOR STAIR TREADS, RISERS, AND WIDTH SEE ARCH. DWGS.
2. WHEN REQUIRED HEIGHT OF RAISED SLAB EXCEEDS 3'-0" USE STEEL DECK FORMS ALTERNATIVE. (STEEL DECK FORMED SLABS HAVE NO HEIGHT RESTICTIONS, MINIMUM OR MAXIMUM)

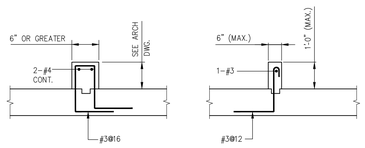
RAISED SLAB – ALTERNATIVE SUPPORTING WALL



RAISED SLAB – 1'-0" OR LESS IN HEIGHT ABOVE STRUCTURAL SLAB



TYPICAL CONCRETE PAD DETAIL



TYPICAL CONCRETE CURB DETAILS

NOTE:
FOR LOCATION SEE ARCH'L./MECH'L DRAWINGS.

45 BROAD STREET

NEW YORK NY 10004

ARCHITECT	**John A. Cetra** State of New York Registered Architect No. 018861 **CetraRuddy Architecture DPC** 584 Broadway Suite 401 New York, NY 10012 212.541.9801	OWNER	**Madison 45 Broad Development, LLC** 105 Madison Avenue New York, NY 10016
STRUCTURAL ENGINEER	**WSP Group** 228 East 45th Street, 3rd Fl New York, NY 10017 212.687.9888	MEP ENGINEER	**BuroHappold Engineering** 100 Broadway New York, NY 10005 212.334.2025
GEOTECHNICAL ENGINEER	**LANGAN** 21 Penn Plaza 360 West 31st Street, 8th Fl New York, NY 10001 212.479.5400	LANDSCAPE ARCHITECT	
LIGHTING DESIGNER	**Ventresca Design, LLC** 44-02 Eleventh St, Suite 203 Long Island City, NY 11101 212.600.0033	CERTIFIED WALL CONSULTANT	**BuroHappold Engineering** 100 Broadway New York, NY 10005 212.334.2025

PRELIMINARY - NOT FOR CONSTRUCTION

2016-04-22	ISSUED FOR DESIGN DEVELOPMENT	1

CETRARUDDY

TYPICAL SUPERSTRUCTURE DETAILS 3

DRAWING NO. **S-962.00**

SCALE: As Noted

PROJECT: 1590109

CETRARUDDY ARCHITECTURE DPC
584 BROADWAY NEW YORK NY 10012 T 212 941 9801 F 212 941 9440
WWW.CETRARUDDY.COM

DEPT OF BLDGS 121190772 Job Number
ES118413262 Scan Code

TABLE #1:
TENSION LAP SPLICE LENGTHS (CLASS B MINIMUM)

TABLE 1.A: ¾" COVER TO OUTER LAYER BARS
OUTER LAYER LAP LENGTHS (IN INCHES)

BAR \ f'c	3,000	4,000	5,000	6,000	7,000	8,000	9,000	10,000+
#3	16	16	16	16	16	16	16	16
#4	21	20	20	20	20	20	20	20
#5	31	27	24	24	24	24	24	24
#6	43	37	33	30	29	29	29	29
#7	69	60	53	49	45	42	40	38
#8	85	74	66	60	56	52	49	47
#9	103	89	80	73	67	63	59	56
#10	121	105	94	86	79	74	70	66
#11	140	122	109	99	92	86	81	77

TABLE 1.C: 1½" COVER TO OUTER LAYER BARS
OUTER LAYER LAP LENGTHS (IN INCHES)

NOTE: USE TABLE 1.A IF BAR SPACING IS LESS THAN 4" O/C UP TO #8, 5" O/C FOR #9, #10, #11

BAR \ f'c	3,000	4,000	5,000	6,000	7,000	8,000	9,000	10,000+
#3	16	16	16	16	16	16	16	16
#4	20	20	20	20	20	20	20	20
#5	24	24	24	24	24	24	24	24
#6	29	29	29	29	29	29	29	29
#7	42	37	34	34	34	34	34	34
#8	53	46	41	39	39	39	39	39
#9	66	57	51	46	44	44	44	44
#10	79	68	61	56	51	49	49	49
#11	92	80	72	65	60	57	54	54

TABLE 1.B: ¾" COVER TO OUTER LAYER BARS
INNER LAYER LAP LENGTHS (IN INCHES)

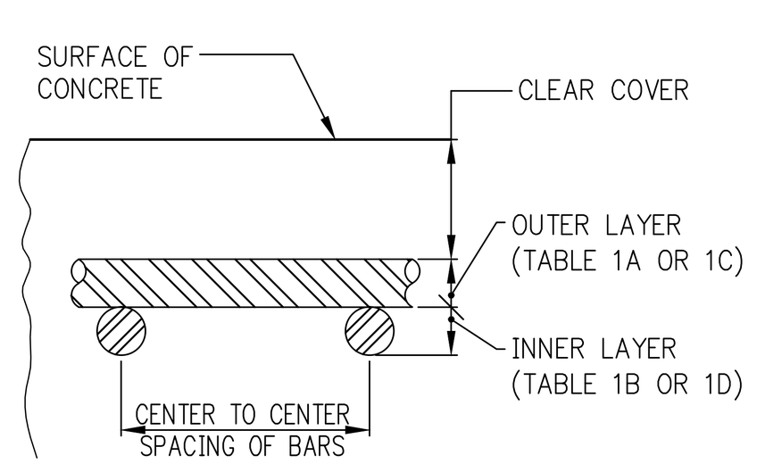
NOTE: USE TABLE 1.A IF BAR SPACING IS LESS THAN 4" O/C UP TO #8, 5" O/C FOR #9, #10, #11

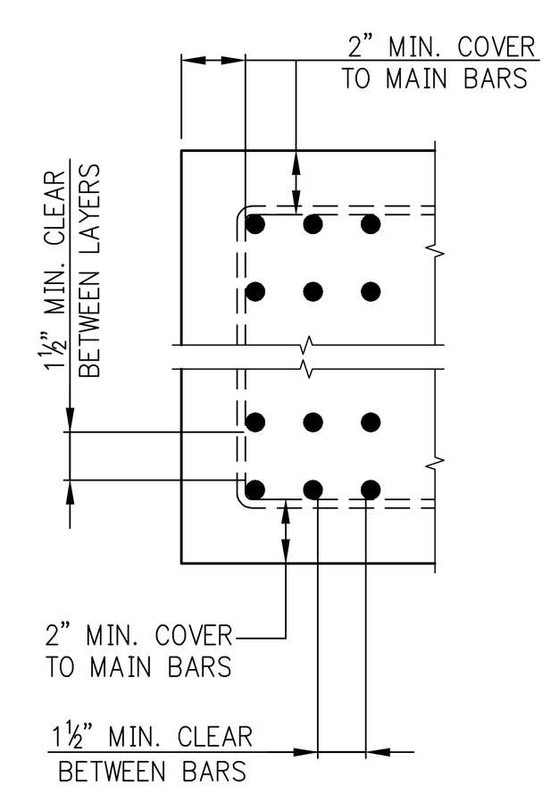
BAR \ f'c	3,000	4,000	5,000	6,000	7,000	8,000	9,000	10,000+
#3	16	16	16	16	16	16	16	16
#4	20	20	20	20	20	20	20	20
#5	24	24	24	24	24	24	24	24
#6	30	29	29	29	29	29	29	29
#7	48	42	38	34	34	34	34	34
#8	61	53	47	43	40	39	39	39
#9	75	65	58	53	49	46	44	44
#10	89	77	69	63	58	55	51	49
#11	104	90	81	74	68	64	60	57

TABLE 1.D: 1½" COVER TO OUTER LAYER BARS
INNER LAYER LAP LENGTHS (IN INCHES)

NOTE: USE TABLE 1.A IF BAR SPACING IS LESS THAN 5" O/C UP TO #8, 6" O/C FOR #9, #10, #11

BAR \ f'c	3,000	4,000	5,000	6,000	7,000	8,000	9,000	10,000+
#3	16	16	16	16	16	16	16	16
#4	20	20	20	20	20	20	20	20
#5	24	24	24	24	24	24	24	24
#6	29	29	29	29	29	29	29	29
#7	37	34	34	34	34	34	34	34
#8	43	39	39	39	39	39	39	39
#9	53	46	44	44	44	44	44	44
#10	64	55	49	49	49	49	49	49
#11	75	65	58	54	54	54	54	54





MULTIPLE LAYERS

PROVIDE MINIMUM COVER AND CLEARANCES SHOWN, USE TABLE 1.A FOR LAP SPLICE LENGTHS.

TABLE #2:
TENSION DEVELOPMENT LENGTHS (Ld) (IN INCHES)

TABLE 2.A: ¾" COVER TO OUTER LAYER BARS
OUTER LAYER DEVELOPMENT LENGTHS

BAR \ f'c	3,000	4,000	5,000	6,000	7,000	8,000	9,000	10,000+
#3	12	12	12	12	12	12	12	12
#4	16	14	13	12	12	12	12	12
#5	24	21	19	17	16	15	14	13
#6	33	28	25	23	22	20	19	18
#7	53	46	41	37	35	32	31	29
#8	66	57	51	46	43	40	38	36
#9	79	69	61	56	52	49	46	43
#10	93	81	72	66	61	57	54	51
#11	108	94	84	76	71	66	62	59

TABLE 2.C: 1½" COVER TO OUTER LAYER BARS
OUTER LAYER DEVELOPMENT LENGTHS)

BAR \ f'c	3,000	4,000	5,000	6,000	7,000	8,000	9,000	10,000+
#3	12	12	12	12	12	12	12	12
#4	13	12	12	12	12	12	12	12
#5	16	14	13	13	13	13	13	13
#6	20	17	15	15	15	15	15	15
#7	32	28	25	23	21	20	19	18
#8	41	36	32	29	27	25	24	23
#9	50	44	39	36	33	31	29	28
#10	60	52	47	43	40	37	35	33
#11	71	61	55	50	46	43	41	39

TABLE 2.B: ¾" COVER TO OUTER LAYER BARS
INNER LAYER DEVELOPMENT LENGTHS

BAR \ f'c	3,000	4,000	5,000	6,000	7,000	8,000	9,000	10,000+
#3	12	12	12	12	12	12	12	12
#4	13	12	12	12	12	12	12	12
#5	16	14	13	13	13	13	13	13
#6	23	20	18	16	15	15	15	15
#7	37	32	29	26	24	23	22	20
#8	47	41	36	33	31	29	27	26
#9	57	50	44	41	38	35	33	31
#10	68	59	53	48	45	42	40	38
#11	80	69	62	57	52	49	46	44

TABLE 2.D: 1½" COVER TO OUTER LAYER BARS
INNER LAYER DEVELOPMENT LENGTHS

BAR \ f'c	3,000	4,000	5,000	6,000	7,000	8,000	9,000	10,000+
#3	12	12	12	12	12	12	12	12
#4	13	12	12	12	12	12	12	12
#5	16	14	13	13	13	13	13	13
#6	20	17	15	15	15	15	15	15
#7	29	25	22	20	19	18	18	18
#8	33	28	25	23	22	20	20	20
#9	41	35	31	29	27	25	23	23
#10	49	42	38	35	32	30	28	27
#11	58	50	45	41	38	35	33	32

NOTES FOR TENSION LAP SPLICES

1. REINFORCEMENT IS UNCOATED, WITH Fy=60,000 PSI.
2. CONCRETE IS NORMAL WEIGHT (144–150#/C.F.).
3. FOR "TOP"' BAR SPLICE LENGTHS ("TOP" IS DEFINED BY ACI 318 AS HAVING MORE THAN 12 INCHES OF FRESH CONCRETE CAST BELOW THE BAR), TABULATED LENGTHS MUST BE MULTIPLIED BY 1.3.
4. LENGTHS TABULATED MUST BE MULTIPLIED BY THE FOLLOWING MODIFICATION FACTORS:
   a. LIGHTWEIGHT CONCRETE 1.3
   b. EPOXY–COATED BARS:
      1.) BARS WITH COVER < 3db, OR WITH CLEAR SPACING < 6db ...1.5 FOR BOTTOM & VERTICAL BARS, 1.3 FOR 'TOP' BARS *
      2.) ALL OTHER CONDITIONS 1.2

   * FOR EPOXY–COATED 'TOP' BARS THE MAXIMUM FOR COMBINED FACTORS = 1.7
5. WHERE TENSION DEVELOPMENT LENGTH (Ld) IS REQUIRED ON PLANS OR IN DETAILS, SEE TENSION DEVELOPMENT LENGTH TABLES.
6. CLASS A LAP SPLICE LENGTHS ARE EQUAL TO TENSION DEVELOPMENT LENGTHS. SEE TABLES FOR TENSION DEVELOPMENT LENGTHS (Ld). APPLY APPROPRIATE MODIFICATION FACTORS TO CLASS A SPLICE LENGTHS.

NOTES FOR TENSION DEVELOPMENT LENGTHS (Ld)

1. REINFORCEMENT IS UNCOATED, WITH Fy=60,000 PSI.
2. CONCRETE IS NORMAL WEIGHT (144–150#/C.F.).
3. FOR "TOP"' BAR DEVELOPMENT LENGTHS ("TOP" IS DEFINED BY ACI 318 AS HAVING MORE THAN 12 INCHES OF FRESH CONCRETE CAST BELOW THE BAR), TABULATED LENGTHS MUST BE MULTIPLIED BY 1.3.
4. LENGTHS TABULATED MUST BE MULTIPLIED BY THE FOLLOWING MODIFICATION FACTORS:
   a. LIGHTWEIGHT CONCRETE 1.3
   b. EPOXY–COATED BARS:
      1.) BARS WITH COVER < 3db, OR WITH CLEAR SPACING < 6db ...1.5 FOR BOTTOM & VERTICAL BARS, 1.3 FOR 'TOP' BARS *
      2.) ALL OTHER CONDITIONS 1.2

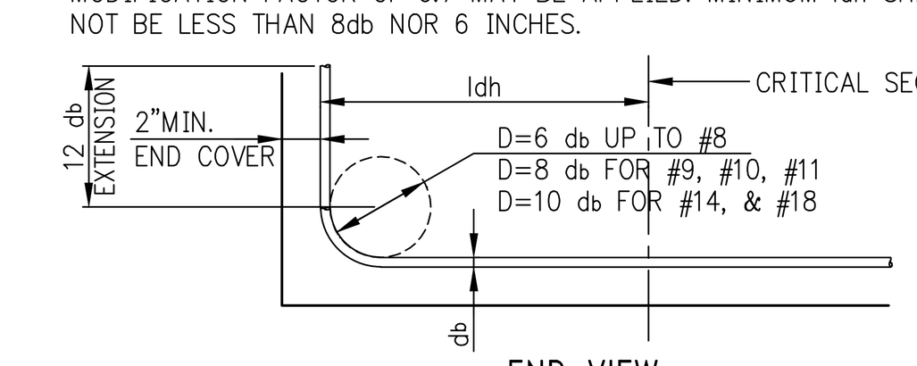
   * FOR EPOXY–COATED 'TOP' BARS THE MAXIMUM FOR COMBINED FACTORS = 1.7
5. WHERE TENSION DEVELOPMENT LENGTH (Ld) IS REQUIRED ON PLANS OR IN DETAILS, SEE TENSION DEVELOPMENT LENGTH TABLES.
6. CLASS A LAP SPLICE LENGTHS ARE EQUAL TO TENSION DEVELOPMENT LENGTHS. SEE TABLES FOR TENSION DEVELOPMENT LENGTHS (Ld). APPLY APPROPRIATE MODIFICATION FACTORS TO CLASS A SPLICE LENGTHS.

TABLE #3
TENSION DEVELOPMENT LENGTHS FOR STANDARD END HOOKS (ldh)
(LENGTHS IN INCHES)

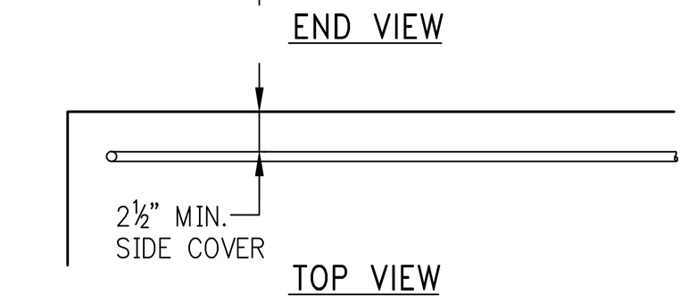
BAR SIZE	CONCRETE STRENGTH (PSI)							
	3,000	4,000	5,000	6,000	7,000	8,000	9,000	10,000+
#3	9	7	7	6	6	6	6	6
#4	11	10	9	8	7	7	7	6
#5	14	12	11	10	9	9	8	8
#6	17	15	13	12	11	10	10	9
#7	19	17	15	14	13	12	11	11
#8	22	19	17	16	15	14	13	12
#9	25	22	19	18	16	15	15	14
#10	28	24	22	20	19	17	16	16
#11	31	27	24	22	21	19	18	17
#14	37	32	29	27	25	23	22	21
#18	50	43	39	35	33	31	29	27

NOTES:

1. TABLE 3 CONFORMS TO ACI 318–2002 (AND 2005). TABULATED VALUES ARE BASED UPON ACI 12.5.2 , ASSUMING GRADE 60 REINFORCEMENT AND NORMALWEIGHT CONCRETE.
2. PER ACI 12.5.3 a), FOR #11 AND SMALLER BARS, IF COVER TO BAR IS 2½ INCHES OR MORE, AND FOR 90 DEGREE HOOK WITH COVER ON BAR EXTENSION BEYOND HOOK NOT LESS THAN 2 INCHES, A MODIFICATION FACTOR OF 0.7 MAY BE APPLIED. MINIMUM ldh SHALL NOT BE LESS THAN 8db NOR 6 INCHES.



END VIEW



TOP VIEW

TABLE #4
COMPRESSION LAP SPLICES
(LENGTHS IN INCHES)

BAR SIZE	GRADE OF REINFORCEMENT		
	60 KSI (30 DIA.)	75 KSI (44 DIA.)	80 KSI (48 DIA.)
#3	12	17	18
#4	15	22	24
#5	19	28	30
#6	23	33	36
#7	27	39	42
#8	30	44	48
#9	34	50	54
#10	38	56	61
#11	43	62	68
#14 AND #18	1. LAP SPLICES ARE NOT PERMITTED. USE MECHANICAL CONNECTIONS OR WELDED SPLICES FOR #14 AND #18, PER ACI 318 (12.14.3). 2. LAP SPLICES OF #14 AND #18 BARS TO #11 AND SMALLER BARS ARE PERMITTED PER ACI 318 (12.16.2).		

3. FOR BARS OF DIFFERENT SIZE, USE LARGER OF: SPLICE LENGTH OF SMALLER BAR (TABLE #4) OR DEVELOPMENT LENGTH OF LARGER BAR (FROM TABLE #5) PER ACI 318 (12.16.2).

NOTE:

TABLE #4 APPLIES FOR NORMALWEIGHT CONCRETE WITH f'c = 3,000 PSI OR GREATER.

TABLE #5
DEVELOPMENT LENGTHS FOR BARS IN COMPRESSION
(LENGTHS IN INCHES)

BAR SIZE	fy = 60,000 PSI			fy = 75,000 PSI			fy = 80,000 PSI		
	CONC. f'c (IN PSI)			CONC. f'c (IN PSI)			CONC. f'c (IN PSI)		
	3,000	4,000	5,000 OR MORE	3,000	4,000	5,000 OR MORE	3,000	4,000	5,000 OR MORE
#3	12	12	12	12	12	12	12	12	12
#4	12	12	12	14	12	12	15	13	12
#5	14	12	12	17	15	14	18	16	15
#6	17	15	14	21	18	17	22	19	18
#7	19	17	16	24	21	20	26	22	21
#8	22	19	18	28	24	23	29	25	24
#9	25	22	21	31	27	25	33	28	27
#10	28	24	23	34	30	28	36	31	30
#11	31	27	26	38	33	31	40	34	33
#14	37	32	31	48	42	39	51	44	42
#18	50	43	41	62	54	51	65	56	54

45 BROAD STREET
NEW YORK NY 10004

ARCHITECT
John A. Cetra
State of New York
Registered Architect
No. 018861

CetraRuddy Architecture DPC
584 Broadway Suite 401
New York, NY 10012
212.941.9801

CLIENT
Madison 45 Broad Development, LLC
105 Madison Avenue
New York, NY 10016

STRUCTURAL ENGINEER
WSP Group
228 East 45th Street, 3rd Fl
New York, NY 10017
212.687.9888

MEP ENGINEER
BuroHappold Engineering
100 Broadway
New York, NY 10005
212.334.2025

GEOTECHNICAL ENGINEER
LANGAN
21 Penn Plaza
360 West 31st Street, 8th Fl
New York, NY 10001
212.479.5400

LANDSCAPE ARCHITECT

LIGHTING DESIGNER
Ventresca Design, LLC
44-02 Eleventh St, Suite 203
Long Island City, NY 11101
212.600.0033

CURTAIN WALL CONSULTANT
BuroHappold Engineering
100 Broadway
New York, NY 10005
212.334.2025

PRELIMINARY NOT FOR CONSTRUCTION

2016–04–22 ISSUED FOR DESIGN DEVELOPMENT 1

CETRARUDDY

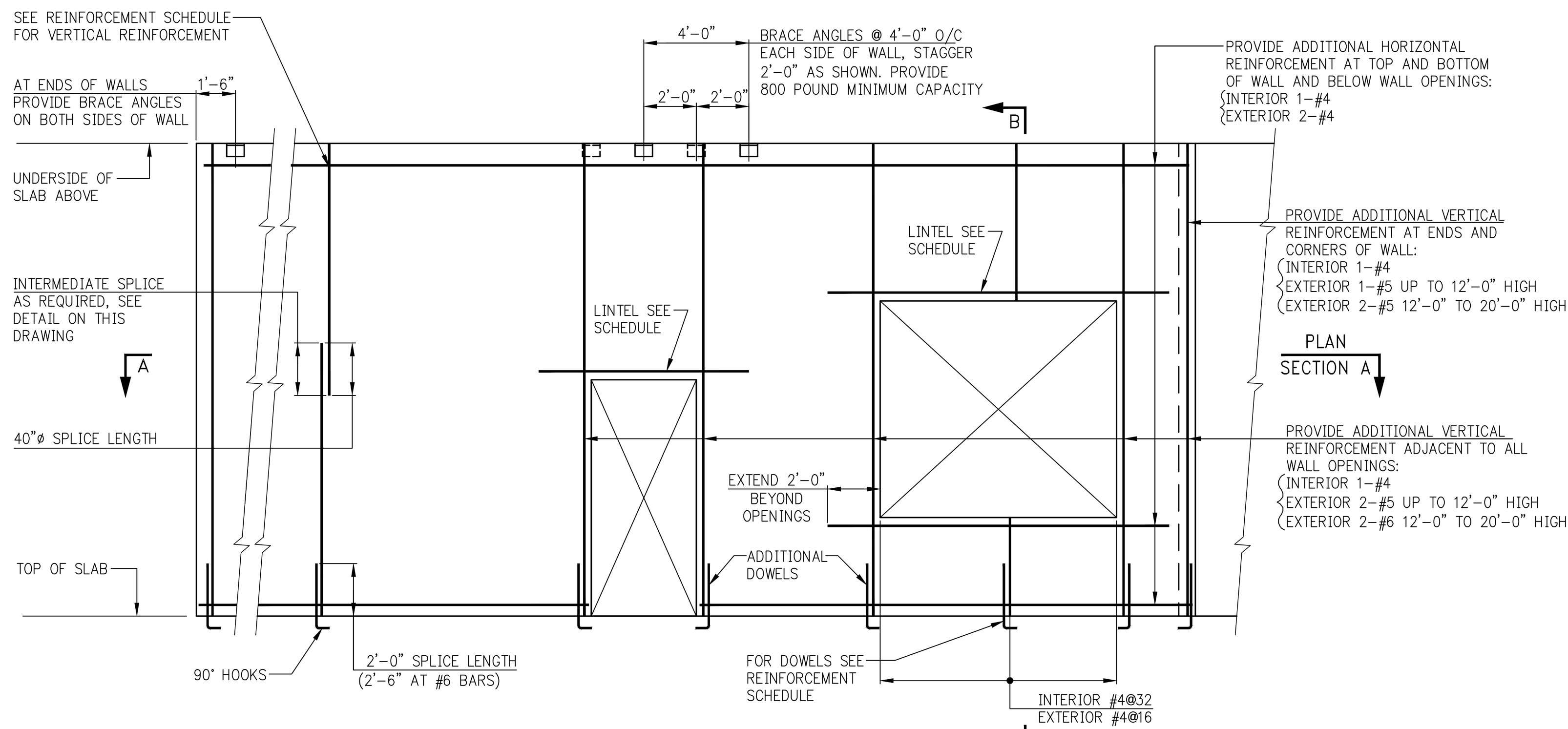
TYPICAL SUPERSTRUCTURE DETAILS 4

DRAWING NO. S-963.00

SCALE As Noted

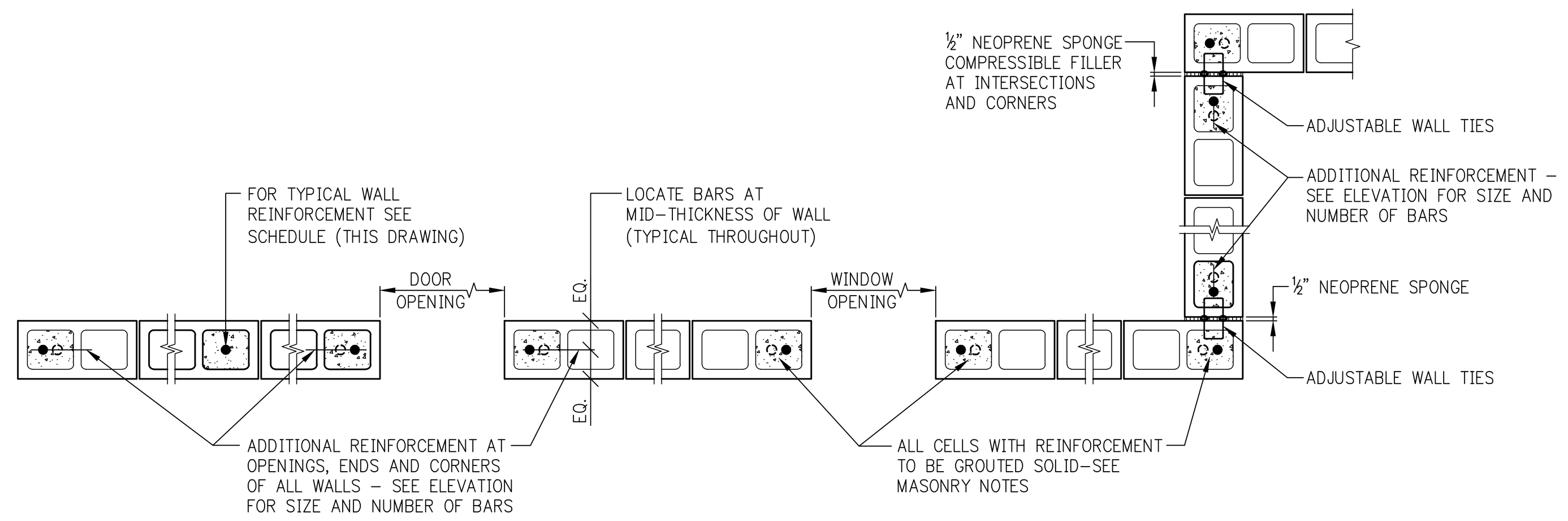
PROJECT 1590109

CETRARUDDY ARCHITECTURE DPC
584 BROADWAY NEW YORK NY 10012 T 212 941 9801 F 212 941 9440
WWW.CETRARUDDY.COM

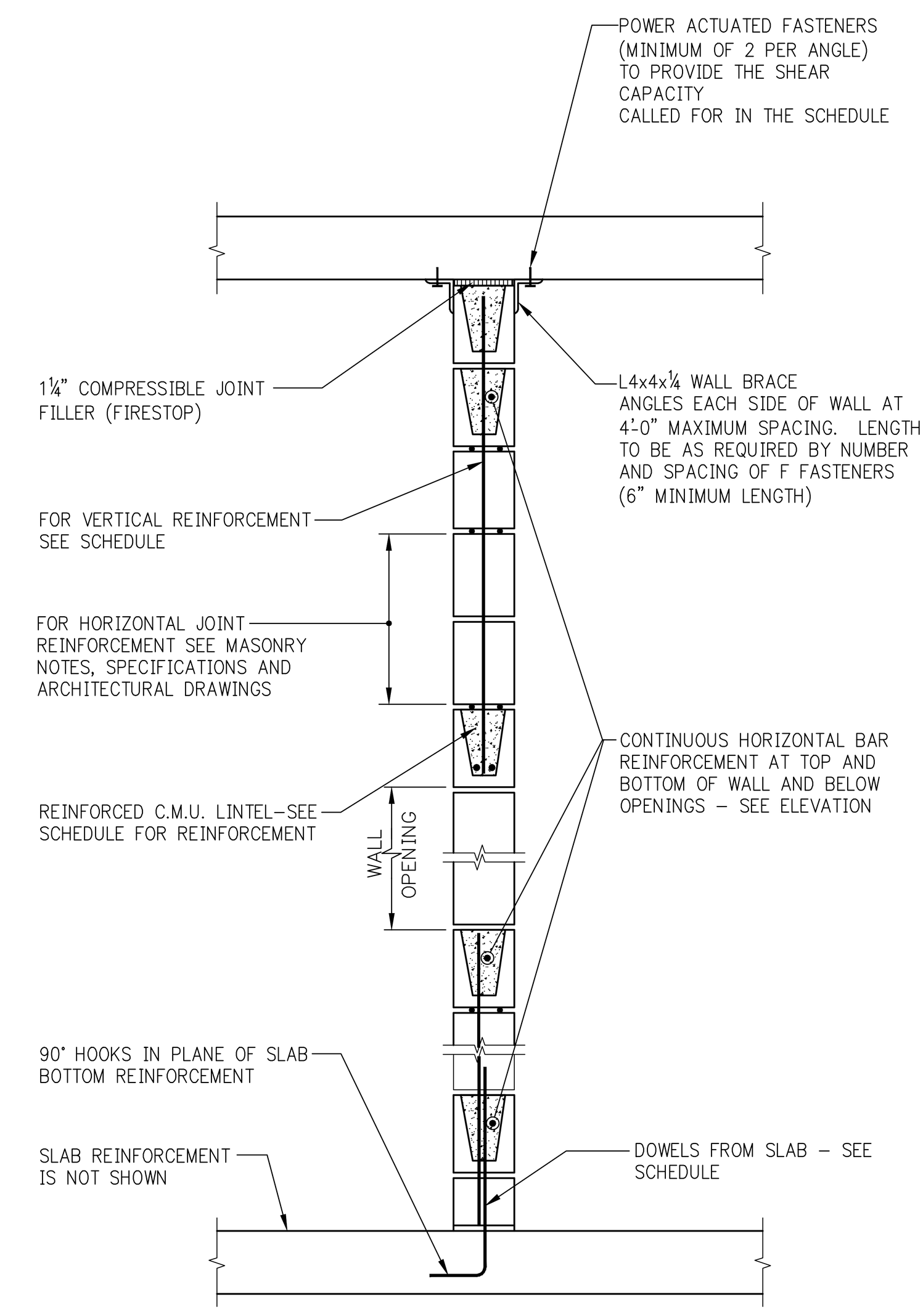


WALL REINFORCEMENT ELEVATION

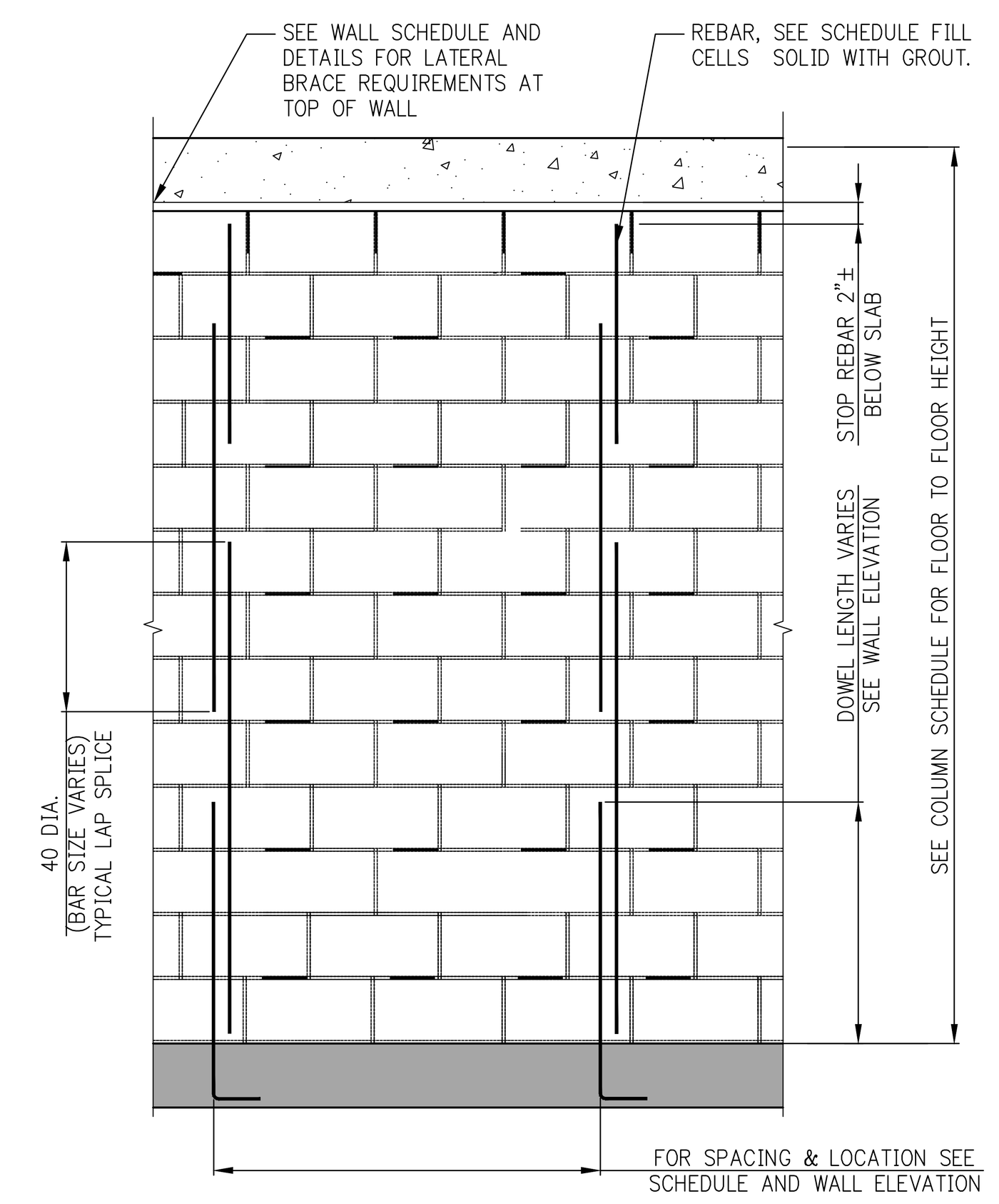
NOTES:
1. ABOVE DETAIL APPLIES TO ALL MASONRY (C.M.U.) WALLS.
2. FOR MULTIWYTHE EXTERIOR WALLS ABOVE DETAIL APPLIES TO C.M.U. BACKUP WALL ONLY. SEE SECTION BELOW FOR ADDITIONAL INFORMATION



PLAN SECTION A
(FOR DOWELS SEE ELEVATION)



SECTION B



SPLICE LENGTH OF REBAR IN CMU WALL

C.M.U. MASONRY NOTES

1. SEE ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR COMPLETE REQUIREMENTS FOR C.M.U. MASONRY CONSTRUCTION AND APPEARANCE. DETAILS AND NOTES SHOWN ON THE STRUCTURAL DRAWINGS ARE INTENDED TO SUPPLEMENT ARCHITECTURAL REQUIREMENTS AND TO DEFINE ELEMENTS WHICH PROVIDE STRUCTURAL STRENGTH AND STABILITY.
2. DETAILS, SECTIONS, SCHEDULES, ETC. AND THESE NOTES, REPRESENT THE MINIMUM REQUIREMENTS FOR STRUCTURAL ADEQUACY. WHERE ARCHITECTURAL REQUIREMENTS DIFFER FROM STRUCTURAL, THE MORE STRINGENT SHALL BE FOLLOWED.
3. CODE: MASONRY WALL CONSTRUCTION SHALL CONFORM TO THE NEW YORK CITY BUILDING CODE AND TO ACI 530/ASCE-5 AS REFERENCED BY THE NYC CODE.
4. MASONRY UNITS SHALL BE LIGHTWEIGHT HOLLOW LOAD BEARING CONCRETE MASONRY (CMU). COMPRESSIVE STRENGTH OF MASONRY F'M SHALL BE A MINIMUM OF 1,500 PSI.
5. MORTAR SHALL BE TYPE M OR S.
6. HORIZONTAL JOINT REINFORCEMENT SHALL BE TRUSS TYPE GALVANIZED COLD-DRAWN STEEL WIRE CONFORMING TO ASTM A 951.
7. PROVIDE HORIZONTAL JOINT REINFORCEMENT IN EVERY OTHER JOINT (16" O.C. VERTICALLY) UNLESS PLANS OR DETAILS CALL FOR CLOSER SPACING OR ADDITIONAL REINFORCEMENT.
8. BAR REINFORCEMENT: ASTM A 615 GRADE 60, PER SCHEDULE. FOR ADDITIONAL REINFORCEMENT SEE WALL REINFORCEMENT ELEVATION.
9. ALL CELLS WITH REINFORCEMENT SHALL BE GROUTED SOLID FOR THE FULL EXTENT OF BAR, VERTICAL AND HORIZONTAL.
10. GROUT SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 2,000 PSI. GROUT SHALL BE "FINE" AS DEFINED BY ASTM C 476.
11. STEEL ANGLES: ASTM A 36. STEEL IN AN EXTERIOR WALL OR EXPOSED TO THE EXTERIOR SHALL BE GALVANIZED.
12. CONTRACTOR SHALL COORDINATE ALL MASONRY WORK WITH WORK OF OTHER TRADES: ARCHITECTURAL, STRUCTURAL, MEP.

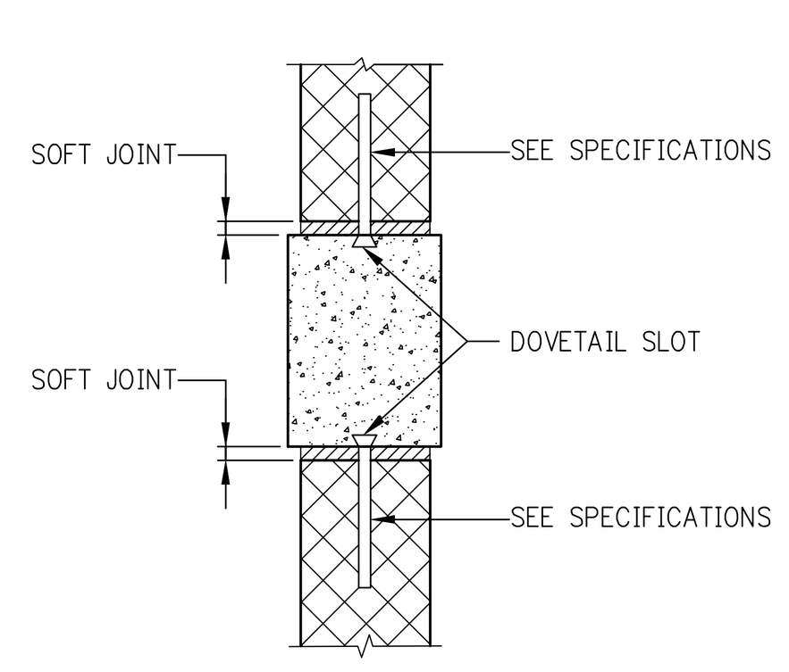
C.M.U. WALL REINFORCEMENT SCHEDULE (AND LATERAL BRACING LOAD AT TOP)

LOCATION AND HEIGHT OF WALL	MINIMUM BLOCK THICKNESS	VERTICAL REINFORCEMENT	DOWELS FROM SLAB	LATERAL BRACING FORCE (TOP) #/FOOT	REMARKS
INTERIOR UP TO 10'-0"	4"	#4@8'-0"	#4@8'-0"		
INTERIOR 10'-1" TO 16'-0"	6"	#4@48	#4@48		
INTERIOR 16'-1" TO 20'-0"	8"	#4@48	#4@48		
EXTERIOR UP TO 8'-0"	4"	#4@32	#4@16		
EXTERIOR 8'-1" TO 10'-2"	6"	#4@32	#4@16		
EXTERIOR 10'-3" TO 12'-0"	8"	#4@32	#4@16		
EXTERIOR 12'-1" TO 16'-0"	8"	#4@16	#5@16		
EXTERIOR 16'-1" TO 20'-0"	12"	#4@16	#5@16		
EXTERIOR CANTILEVER (PARAPET, ETC.) UP TO 8'-0"	8"	#4@16	#5@16		

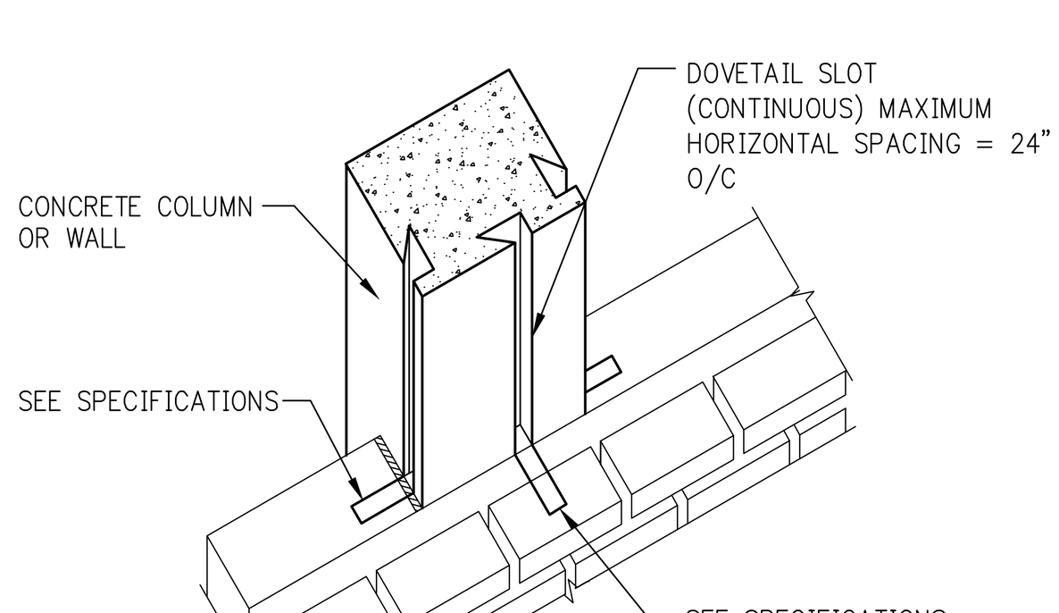
LOOSE LINTEL SCHEDULE
(ANGLES OR W-SHAPE PLUS PLATE)

MASONRY OPENING	ANGLE SIZE PER EACH 4" WIDTH OF MASONRY (OR W + PL)	ANGLE SIZE FOR 6" WIDTH OF MASONRY
UP TO 5'-0"	L3½ x 3½ x 5/16	L6 x 4 x 3/8
5'-1" TO 8'-0"	L6 x 3½ x 5/16	L6 x 4 x ½
8'-1" TO 10'-8"	L6 x 3½ x 3/8	–
10'-9" TO 14'-0"	W8x15 + BOTTOM PL 3/8 x 7 (WELD PLATE TO BOTTOM FLANGE)	–

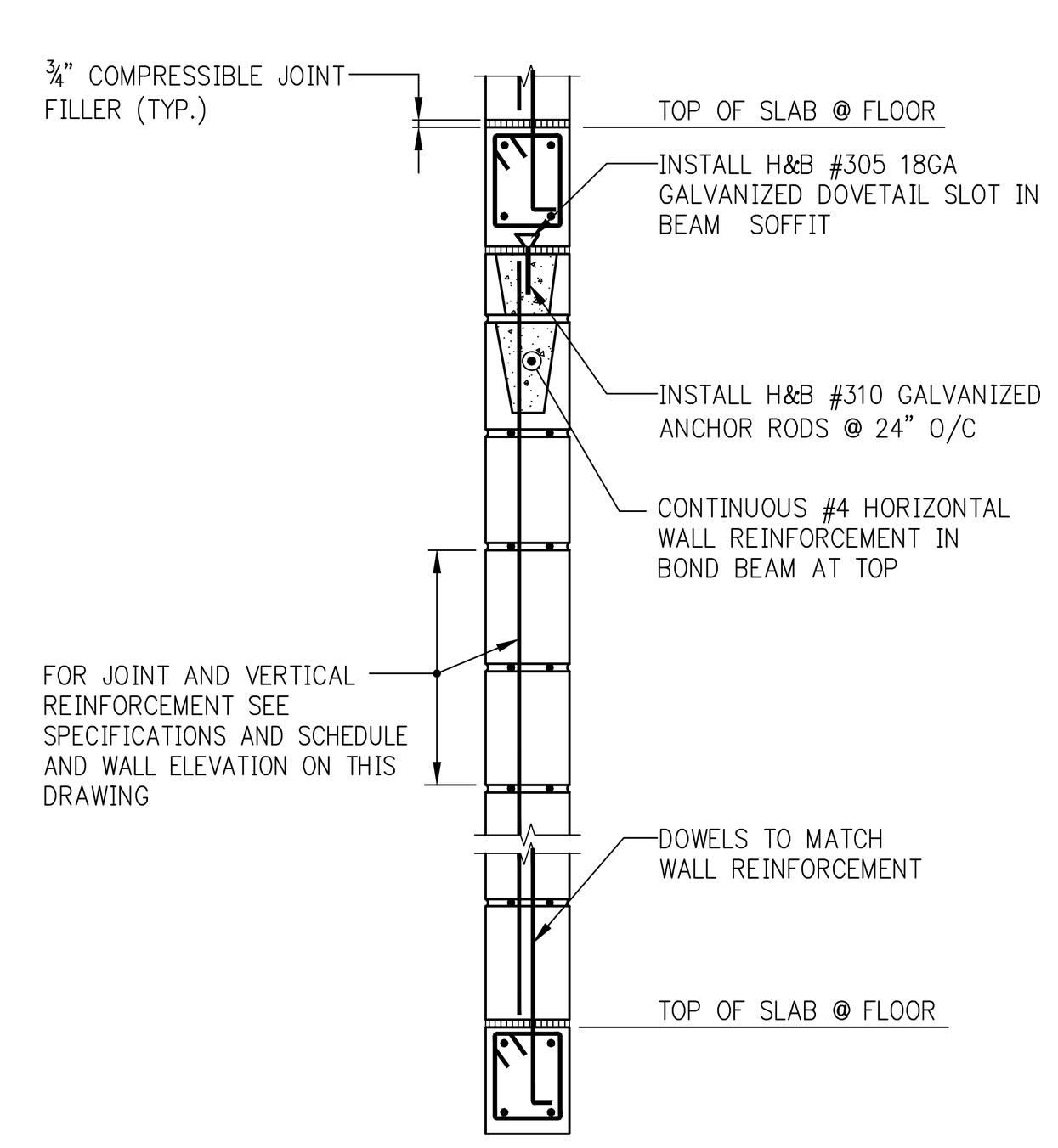
NOTES:
1. ANGLE LENGTH = MASONRY OPENING PLUS 1'-0" (6" BEARING AT EACH END).
2. ANGLE LONG LEG IS VERTICAL.
3. W8 + PL TO BE USED AT 8" WIDE WALL ONLY.
4. PROVIDE FIREPROOFING ON LINTELS FOR MASONRY OPENINGS GREATER THAN 4'-0", AS REQUIRED BY CODE.
5. JOINTS SHALL NOT BE LOCATED OVER THE MASONRY OPENING.



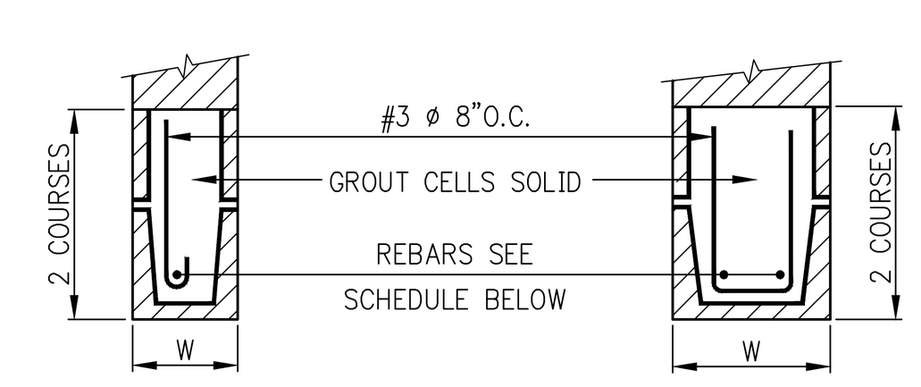
PART PLAN AT INTERIOR COLUMN SHOWING PARTITION ANCHORAGE



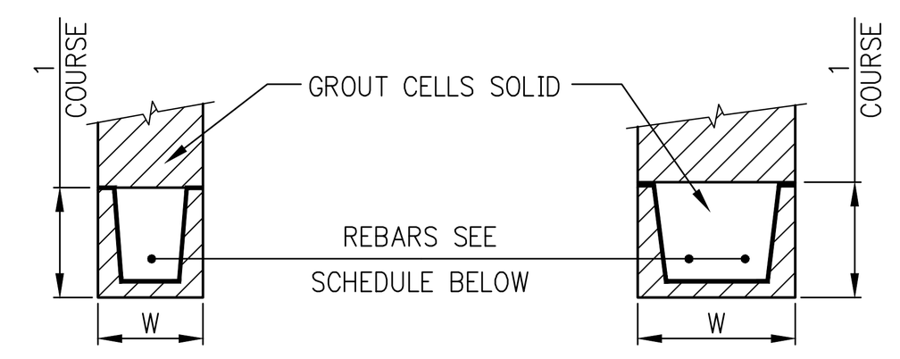
ISOMETRIC SHOWING DOVETAIL SLOT ANCHORS IN CONCRETE COLUMN OR WALL



WALL ANCHORAGE AT BEAMS BETWEEN SCISSOR STAIRS



TWO COURSE (16" DEEP) LINTELS



SINGLE COURSE (8" DEEP) LINTELS

NOTES:
1. PROVIDE BLOCK LINTELS FOR ALL OPENINGS IN INTERIOR BLOCK PARTITIONS, AND EXTERIOR WALLS FOR WHICH STEEL LINTELS ARE NOT SHOWN. REFER TO ARCHITECTURAL DRAWINGS FOR SIZE AND LOCATION OF OPENINGS. PROVIDE 8" MINIMUM BEARING AT EACH END.
2. W AS PER TABLE (FIRST DIMENSION).
3. GROUT SHALL BE FINE ONLY.

TYPE OF LOADING *	LINTEL SECTION NOMINAL SIZE (IN.)	REQUIRED REINFORCEMENT — CLEAR SPAN 3'-4"	4'-0"	4'-8"	5'-4"	6'-0"	6'-8"	7'-4"	8'-0"	10'-0"
WALL LOADS	6x8	1-#4	1-#4	1-#4	2-#4	2-#5	–	–	–	–
WALL LOADS	6x16	–	–	–	–	2-#4	2-#4	2-#4	2-#4	2-#5
FLOOR & ROOF LOADS	6x16	1-#4	1-#4	1-#4	1-#5	2-#4	2-#4	2-#5	2-#5	2-#6
WALL LOADS	8x8	1-#4	2-#4	2-#4	2-#4	2-#4	2-#5	2-#6	–	–
WALL LOADS	8x16	–	–	–	–	–	–	2-#5	2-#5	2-#6
FLOOR & ROOF LOADS	8x8	2-#4	–	–	–	–	–	–	–	–
FLOOR & ROOF LOADS	8x16	2-#4	2-#4	2-#4	2-#4	2-#4	2-#4	2-#5	2-#5	2-#6

(*) INCLUDES WEIGHT OF LINTEL

NOTES:
1. WALL LOADS ASSUMED 300lbs. PER LINEAR FOOT.
2. FLOOR & ROOF LOADS INCLUDING WALL LOADS ASSUMED 1000lbs. PER LINEAR FOOT.
3. 8" LINTELS ASSUMED TO WEIGH 50#/FT.
4. 16" LINTELS ASSUMED TO WEIGH 100#/FT.
5. IF ACTUAL LOADS EXCEED THOSE ASSUMED, CONTRACTOR IS TO OBTAIN DIRECTION FROM THE ENGINEER.
6. FOR LINTELS OVER 10'-0" LONG, CONTRACTOR IS TO OBTAIN DIRECTION FROM THE ENGINEER.

REINFORCED BLOCK LINTEL

SCHEDULE OF BRICK RELIEVING ANGLES FOR VARYING OFFSETS
(OUTSIDE FACE OF BRICK TO FACE OF SUPPORT)

OFFSET DIMENSION	RELIEVING ANGLE SIZE	H & B LW-340 INSERT SPACING VS. BRICK HEIGHT — BRICK HEIGHT (FL-FL TYPICAL)	INSERT SPACING	REMARKS
5 IN	L6 x 4 x 5/16 LLV	UP TO 12^F	32" O/C	
		12^F TO 16^F	24" O/C	
6 IN	L5 x 5 x 5/16	UP TO 12^F	32" O/C	
		12^F TO 16^F	24" O/C	
7 IN	L6 x 6 x 3/8	UP TO 12^F	32" O/C	
		12^F TO 16^F	24" O/C	
8 IN	L8* x 6 x 7/16 LLH	UP TO 12^F	32" O/C	*TRIM 1" FROM 8" LEG
		12^F TO 16^F	24" O/C	

NOTES:
1. ALL BOLTS ¾" DIAMETER.
2. ALL ANGLES TO BE A36, ANGLES, BOLTS AND SHIMS TO BE GALVANIZED.

DEPT OF BLDGS 121190772 Job Number

45 BROAD STREET
NEW YORK NY 10004

ARCHITECT: John A. Cetra, State of New York Registered Architect No. 018861; CetraRuddy Architecture DPC, 584 Broadway Suite 401, New York, NY 10012, 212.941.9801

CLIENT: Madison 45 Broad Development, LLC, 105 Madison Avenue, New York, NY 10016

STRUCTURAL ENGINEER: WSP Group, 228 East 45th Street, 3rd Fl, New York, NY 10017, 212.687.9888

MEP ENGINEER: BuroHappold Engineering, 100 Broadway, New York, NY 10005, 212.334.2025

GEOTECHNICAL ENGINEER: LANGAN, 21 Penn Plaza, 360 West 31st Street, 8th Fl, New York, NY 10001, 212.479.5400

LANDSCAPE ARCHITECT:

LIGHTING DESIGNER: Ventresca Design, LLC, 44-02 Eleventh St, Suite 203, Long Island City, NY 11101, 212.600.0033

CURTAIN WALL CONSULTANT: BuroHappold Engineering, 100 Broadway, New York, NY 10005, 212.334.2025

PRELIMINARY - NOT FOR CONSTRUCTION

2016-04-22 ISSUED FOR DESIGN DEVELOPMENT 1

CETRARUDDY

TYPICAL MASONRY DETAILS

DRAWING NO. S-964.00

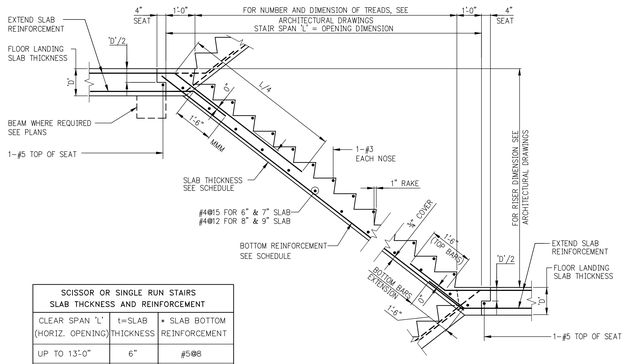
SCALE: As Noted

PROJECT: 1590109

DOB PAGE NO.

DOB FILE NO.

CETRARUDDY ARCHITECTURE DPC
584 BROADWAY NEW YORK NY 10012 T 212 941 9801 F 212 941 9440
WWW.CETRARUDDY.COM

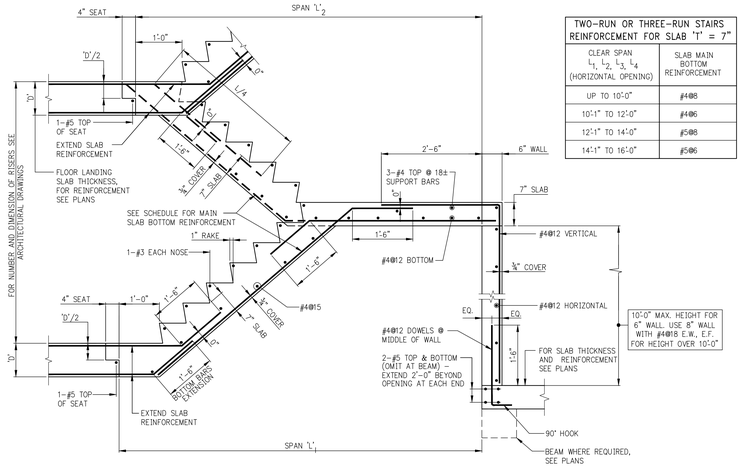


SCISSOR OR SINGLE RUN STAIRS SLAB THICKNESS AND REINFORCEMENT		
CLEAR SPAN 'L' (HORIZ. OPENING)	t=SLAB THICKNESS	• SLAB BOTTOM REINFORCEMENT
UP TO 13'-0"	6"	#5@8
13'-1" TO 16'-0"	7"	#5@6
16'-1" TO 18'-0"	8"	#5@5
18'-1" TO 20'-0"	9"	#5@5

• FOR TEMPERATURE REINFORCEMENT SEE SECTION.

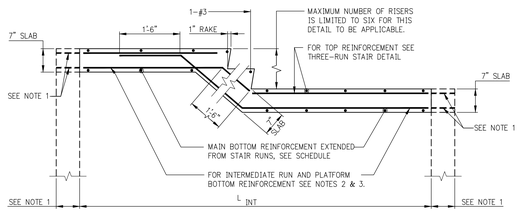
SCISSOR OR SINGLE RUN STAIR

FOR FLOOR REINFORCEMENT EXTENDED INTO STAIR SLAB, SEE FRAMING PLANS.



TWO-RUN OR THREE-RUN STAIRS REINFORCEMENT FOR SLAB 't' = 7"	
CLEAR SPAN L_1, L_2, L_3, L_4 (HORIZONTAL OPENING)	SLAB MAIN BOTTOM REINFORCEMENT
UP TO 10'-0"	#4@8
10'-1" TO 12'-0"	#4@6
12'-1" TO 14'-0"	#5@8
14'-1" TO 16'-0"	#5@6

TWO-RUN STAIR

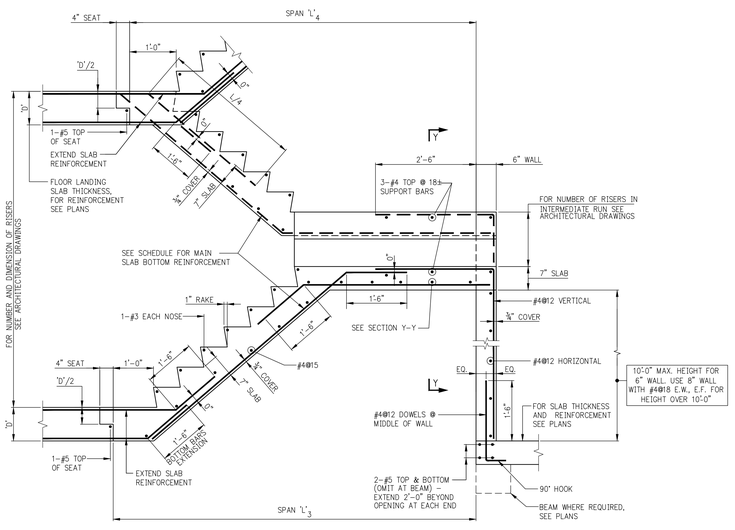


SECTION Y-Y

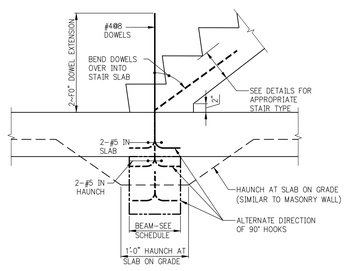
(AT THREE-RUN STAIR)

NOTES:

1. EXTEND SLAB AND REINFORCEMENT OVER SUPPORT WALLS WHERE WALLS ARE SHOWN ON PLANS.
2. WHERE L_{INT} IS NOT SUPPORTED AT ENDS, PROVIDE: #4@12 BOTTOM
3. WHERE L_{INT} IS SUPPORTED, PROVIDE: #4@8 FOR L_{INT} UP TO 10'-0", #4@6 FOR L_{INT} BETWEEN 10'-1" AND 12'-0". FOR L_{INT} SPANNING MORE THAN 12'-0", DESIGNER TO PROVIDE DETAILS.



THREE-RUN STAIR



BOTTOM OF STAIR-NO SLAB OPENING

45 BROAD STREET

NEW YORK NY 10004

ARCHITECT
John A. Cetra
State of New York
Registered Architect
No. 018861
CetraRuddy Architecture DPC
584 Broadway Suite 401
New York, NY 10012
212.541.9801

OWNER
Madison 45 Broad Development, LLC
105 Madison Avenue
New York, NY 10016

STRUCTURAL ENGINEER
WSP Group
228 East 45th Street, 3rd Fl
New York, NY 10017
212.687.9888

MEP ENGINEER
BuroHappold Engineering
100 Broadway
New York, NY 10005
212.334.2025

GEOTECHNICAL ENGINEER
LANGAN
21 Penn Plaza
360 West 31st Street, 8th Fl
New York, NY 10001
212.479.5400

LANDSCAPE ARCHITECT

LIGHTING CONSULTANT
Ventresca Design, LLC
44-02 Eleventh St, Suite 203
Long Island City, NY 11101
212.600.0033

CERTIFIED MINORITY OWNED FIRM
BuroHappold Engineering
100 Broadway
New York, NY 10005
212.334.2025

PRELIMINARY - NOT FOR CONSTRUCTION

2016-04-22 ISSUED FOR DESIGN DEVELOPMENT 1

CETRARUDDY

TYPICAL STAIR DETAILS

DRAWING NO. **S-980.00**

PROJECT 1590109

SCALE As Noted

DATE

CETRARUDDY ARCHITECTURE DPC
584 BROADWAY NEW YORK NY 10012 T 212 941 9801 F 212 941 9440
WWW.CETRARUDDY.COM