CUY-90-14.90

PID 77332/85531

APPENDIX EX-81

Parcel 602 - Cold Storage Building Plans
(Reference Document)

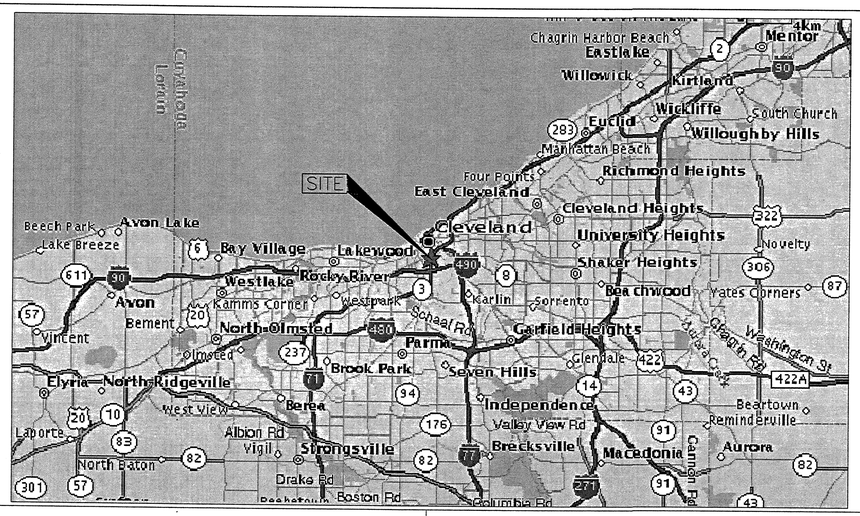
State of Ohio
Department of Transportation
Jolene M. Molitoris, Director

Innerbelt Bridge
Construction Contract Group 1 (CCG1)

Revision Date: 2000

AREA MAP

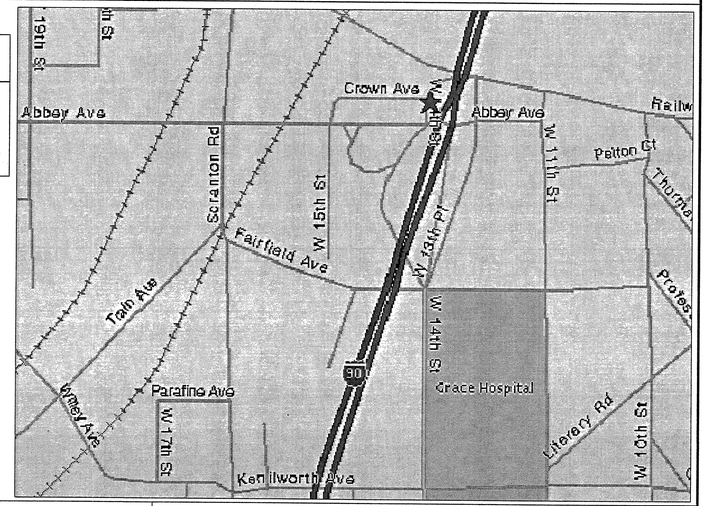
NO SCALE



VICINITY MAP

NO SCALE

DRIVING DIRECTIONS FROM CLEVELAND HOPKINS AIRPORT
FOLLOW AIRPORT SIGNS TO I-71 NORTH TO THE W 14TH ST EXIT. LEFT ONTO W 14TH AT THE INTERSECTION OF W 14TH & FAIRFIELD AVE TAKE SLIGHT RIGHT ONTO W 13TH PL TO LEFT ON ABBEY AVE. ABBEY AVE TO RIGHT ON W 14TH ST. SITE IS ON LEFT AT CROWN AVE.



NORTH

PROJECT TEAM

ENGINEER:

WASHINGTON GROUP INTERNATIONAL INC.
1500 WEST 3RD STREET
CLEVELAND, OH 44113
(216) 523-5600

CONTACT PERSON:

DAVID W. HARPER
(216) 523-5209

DO NOT SCALE DRAWINGS
CONTRACTOR SHALL VERIFY ALL PLANS & EXISTING DIMENSIONS & CONDITIONS ON THE JOB SITE & SHALL IMMEDIATELY NOTIFY THE ARCHITECT IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME
HANDICAP REQUIREMENTS
FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION. HANDICAP ACCESS IS NOT REQUIRED
OTHER REQUIREMENTS
FACILITY HAS NO PLUMBING OR PARKING

SITE INFORMATION

PROJECT DATA:

FACILITY OCC:	NORTHCOAST COMMUNICATIONS, L.C.C.
LEASE AREA:	24' x 16'
EQUIPMENT ENCLOSURE:	FLEXENT MODULAR CELL CABINET
ZONING JURISDICTION:	CITY OF CLEVELAND
TAX I.D. NO.	
CONSTRUCTION TYPE:	NONCOMBUSTIBLE, 2C
GOVERNING CODE:	OHIO BASIC BLDG. CODE
SITE ADDRESS:	2000 W. 14TH ST. CLEVELAND, OH 44113
PROPERTY OWNER:	
OWNER CONTACT:	
APPLICANT:	NORTHCOAST COMMUNICATIONS, L.C.C. 6800 JERICHO TURNPIKE SUITE 120W SYOSSET, NY 11791 SEAN GILLEY (440) 826-5981
POWER PROVIDER:	FIRST ENERGY (800) 589-3101
PHONE PROVIDER:	

APPROVALS

DOUGLAS M. SMITH	09/07/00
NORTHCOAST RF	DATE
STEVEN M. WESTON	09/06/00
NORTHCOAST IMPLEMENTATION ENGR	DATE
MATT PALMER	09/06/00
NORTHCOAST SITE ACQUISITION	DATE
NORTHCOAST OPERATIONS	DATE
PROPERTY/OWNER OWNERS REP/LEASOR	DATE

SHEET INDEX

SHT. NO.	DESCRIPTION	REV. NO.
T-1	TITLE SHEET	2
A-1	EXISTING ROOF PLAN	2
A-2	ENLARGED ROOF PLANS	2
A-3	BUILDING ELEVATIONS	2
S-1	PLATFORM FRAMING DETAILS & SECTIONS	2
E-1	UTILITY DETAILS	2
E-2	SITE GROUNDING & RISER DIAGRAM	2
E-3	GROUNDING DETAILS	2
E-4	GROUNDING & TYPICAL DETAILS	2
SP-1	GENERAL NOTES	2
SP-2	GENERAL NOTES	2

Northcoast Communications, L.L.C.

SITE NAME:

CLEVELAND COLD STORAGE

SITE NUMBER:

084-088.1

Northcoast Communications, L.L.C.
6800 JERICHO TURNPIKE SUITE 120W
SYOSSET, NEW YORK 11791
OFFICE: (516) 393-5808
FAX: (516) 393-5807

WASHINGTON GROUP INTERNATIONAL INC.
1500 WEST 3RD STREET
CLEVELAND, OHIO 44113-1406
(216) 523-5600

A&E SEAL
STATE OF OHIO
R. E. TEMPEST
041285
REGISTERED PROFESSIONAL ENGINEER
9/13/00

THE INFORMATION CONTAINED IN THIS SET OF DOCUMENTS IS PROPRIETARY BY NATURE. ANY USE OR DISCLOSURE OTHER THAN THAT WHICH RELATES TO NORTHCOAST COMMUNICATIONS, L.L.C. IS STRICTLY PROHIBITED.

SITE
084-088.1
CLEVELAND
COLD STORAGE
2000 W. 14th ST.
CLEVELAND, OH
44113

PROJECT NO: 20222-010

DRAWN BY: PMF

CHECKED BY: DWH

CAD FILE: 01Oct01.dwg

SUBMITTALS

2	09/13/00	FOR FINAL CONST.
1	09/01/00	FOR CONST. REVIEW

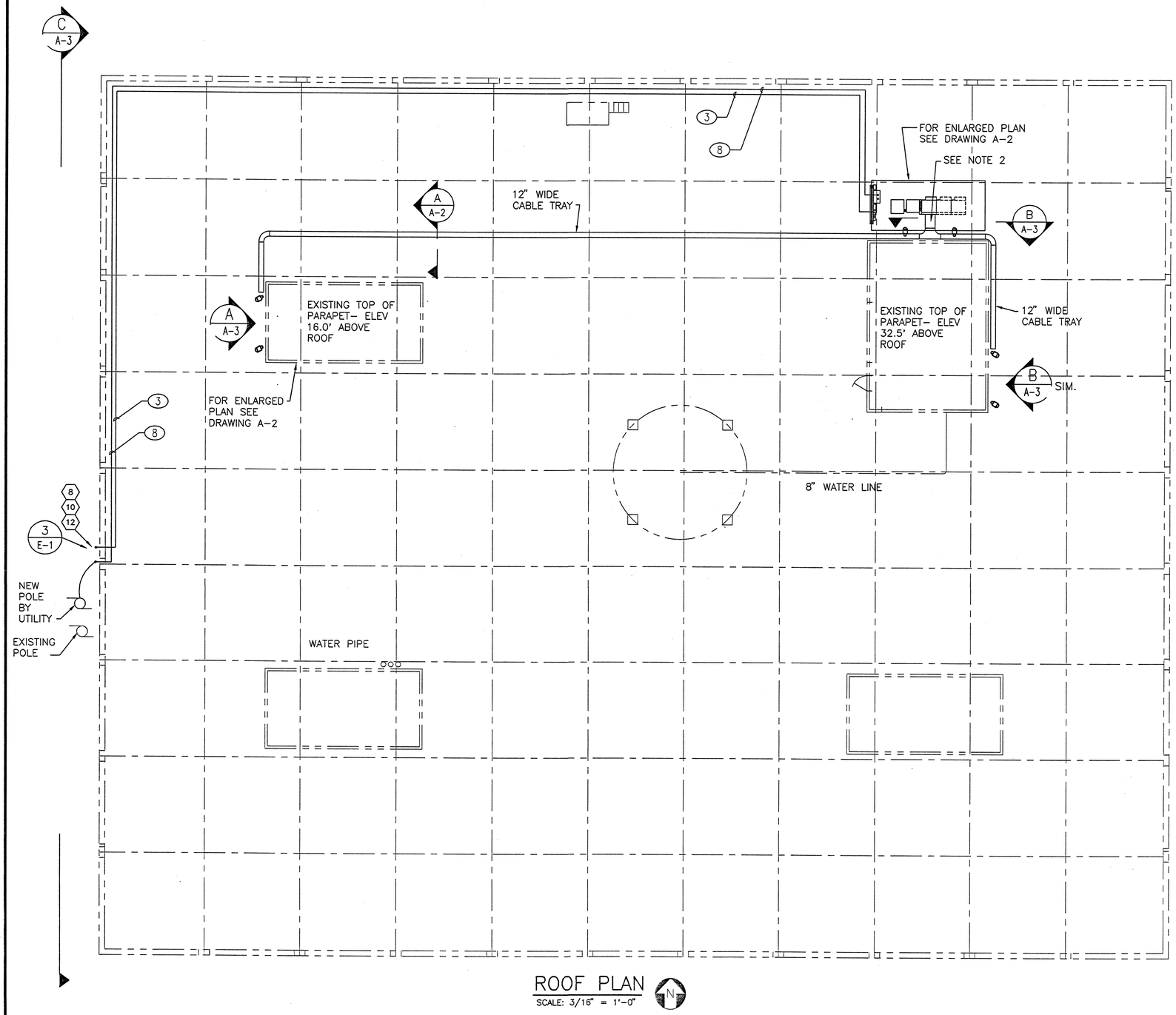
SHEET TITLE
TITLE SHEET

SHEET NUMBER
T-1

REV. NO.2

SITE ID NO. 084-088.1

SITE NAME: CLEVELAND COLD STORAGE



ROOF PLAN

SCALE: 3/16" = 1'-0"

NOTES:

1. (8) INDICATES EQUIPMENT ITEM NUMBER. SEE EQUIPMENT LEGEND ON DRAWING A–2.
2. 24" WIDE CABLE TRAY
   B–LINE SERIES 24–A ALUMINUM TRAY, 12' LENGTHS, 4" DEEP LADDER TYPE W/9" RUNG SPACING. FITTINGS SHALL HAVE 24" RADIUS MINIMUM. ALL CABLE TRAYS SHALL HAVE A SOLID FLANGED COVER WITH HEAVY DUTY COVER CLAMPS. ELECTRICAL CONTRACTOR TO PROVIDE AND INSTALL 1/4" RUBBER PADS UNDER 4"x4" PVC TUBE SLEEPERS SUPPORTING THE TRAY EVERY 4'. BOND ALL SECTIONS TOGETHER. SEE SECTION A ON A–2.
   (TYPICAL FOR ALL CABLE TRAYS)
3. (2) INDICATES CONDUIT TAG. SEE CABLE AND CONDUIT SCHEDULE ON DRAWING E–1

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SITE
084-088.1
CLEVELAND
COLD STORAGE
2000 W. 14TH STREET
CLEVELAND, OH
44113

PROJECT NO:	20222–010
DRAWN BY:	PGC
CHECKED BY:	NS
CAD FILE:	010caa01.DWG

SUBMITTALS

2	09/13/00	FOR FINAL CONST.
1	09/01/00	FOR CONST. REVIEW

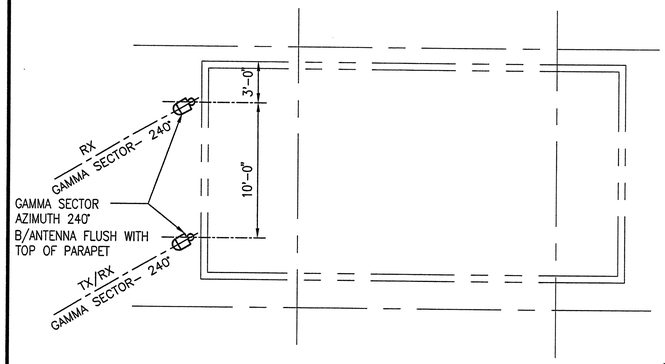
SHEET TITLE
EXISTING ROOF PLAN

SHEET NUMBER
A-1

REV. NO.2

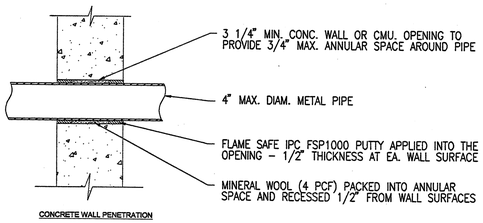
SITE ID NO. 084-088.1

SITE NAME: CLEVELAND COLD STORAGE



ENLARGED DETAIL AT NORTHWEST PENTHOUSE

3/8" = 1'-0"



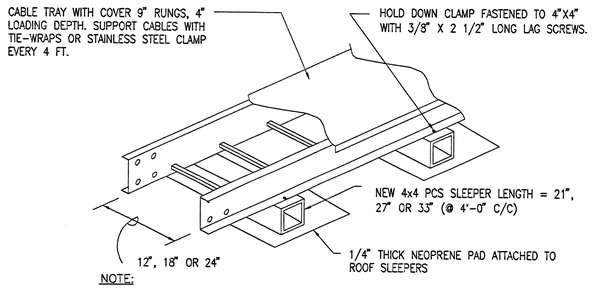
FIRE STOPPING PENETRATIONS

SCALE: N.T.S.

1. COLOR BAND ON MAIN LINE TO BE 2" WIDE WITH 1" SPACE MIN. OF 3 WRAPS
2. COLOR BAND ON JUMPERS TO BE 1" WIDE WITH 1" SPACE MIN. OF 3 WRAPS
3. START COLOR BANDS 2" BEYOND WEATHERPROOFING
4. START SECTOR COLOR NEXT TO END CONNECTOR

COLOR CODING

SCALE: N.T.S.



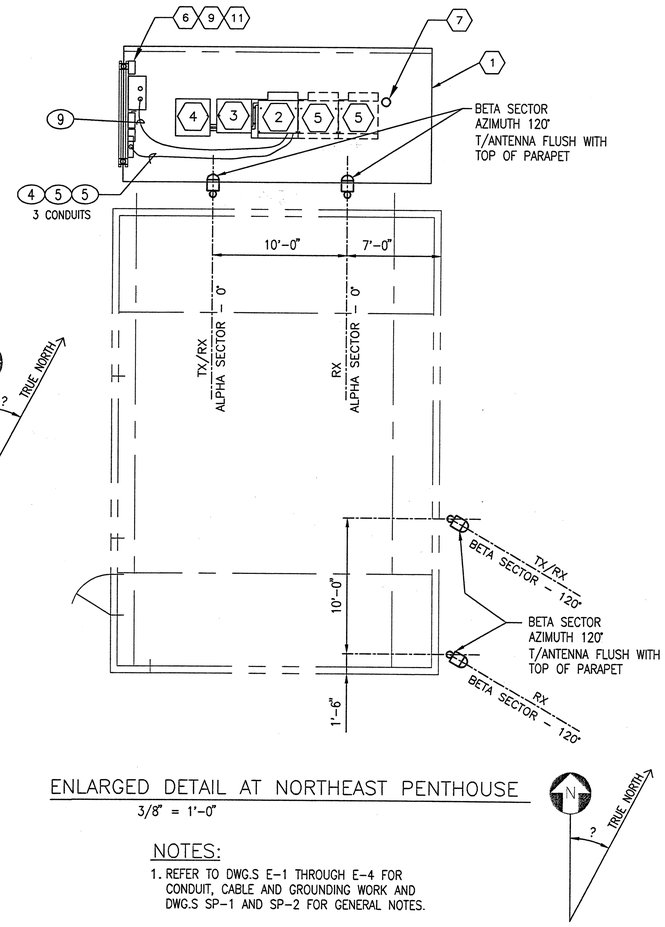
NOTE:

1. RUN #2 AWG BTCW GROUND CONDUCTOR ALONG CABLE TRAY AND GROUND AT BOTH ENDS.
2. CABLE TRAYS SHALL BE FREE OF SHARP OBJECTS AND BURRS WHICH COULD INJURE CABLES. COVERS SHALL BE FASTENED USING HOLD DOWN CLIPS. SHEET METAL SCREWS ARE NOT ACCEPTABLE.

SECTION A

SCALE: NTS

A-1



ENLARGED DETAIL AT NORTHEAST PENTHOUSE

3/8" = 1'-0"

NOTES:

1. REFER TO DWG.S E-1 THROUGH E-4 FOR CONDUIT, CABLE AND GROUNDING WORK AND DWG.S SP-1 AND SP-2 FOR GENERAL NOTES.
2. (11)-INDICATES CONDUIT AND CABLE SCHEDULE TAG. REFER TO DWG. E-1. CONDUIT ROUTINGS SHOWN ARE DIAGRAMMATIC.
3. EXACT ANTENNA ORIENTATION TO BE VERIFIED BASED ON TRUE NORTH & AZIMUTH INFORMATION.

ANTENNA CONFIGURATION:

TOWER LOCATION:
LATITUDE:
LONGITUDE:

ANTENNA SPECS:

AZIMUTH: ALPHA SECTOR - 0°
BETA SECTOR - 120°
GAMMA SECTOR - 240°

MECHANICAL TILT: ALPHA SECTOR - 0° DOWN
BETA SECTOR - 0° DOWN
GAMMA SECTOR - 0° DOWN

MODEL: ALPHA SECTOR : DAPA 58210S
BETA SECTOR: DAPA 58210S
GAMMA SECTOR : DAPA 58210S

ANTENNA SUMMARY

BILL OF MATERIALS

ITEM#	ITEM DESCRIPTION	MODEL NUMBER	QUANTITY
1	EQUIPMENT PAD SEE S-1	BY CONTRACTOR	1
2	FLEXENT MODULAR CELL CABINET	LUCENT FLEXENT CDMA MODULAR CELL CABINET	1
3	POWER CABINET	LUCENT POWERHOUSE 24 CABINET	1
4	BATTERY CABINET	LUCENT 60ECv2 BATTERY CABINET	1
5	FUTURE FLEXENT MODULAR CELL CABINET	LUCENT FLEXENT CDMA MODULAR CELL CABINET	2
6	UTILITY PEDESTAL SEE E-1	BY CONTRACTOR	1
7	GPS UNIT SEE E-4	ANDREW GPS ANTENNA KIT GPS-KIT12	1
8	METER SEE E-1	SEE DRAWING E-1	1
9	DISCONNECT SWITCH SEE E-1	SEE DRAWING E-1	1
10	NOT USED		
11	UTILITY TELCO CABINET (COORDINATE WITH NORTHCOAST)	BY CONTRACTOR	
12	NOT USED		1
13	NOT USED		1
14	ICE BRIDGE SEE S-1	BY CONTRACTOR	1
15	SUPPORT FRAME FLOODLIGHT SEE E-1	BY CONTRACTOR	1
16	NOT USED	BY CONTRACTOR	1
17	NOT USED		1
	COAXIAL CABLE	COMMSCOPE 1 5/8" CR 50 1873 PE	1050 ft
	CONNECTORS	COMMSCOPE 7/16" DIN FEMALE CR1873DF	12
	GPS ANTENNA KIT	ANDREW 1/2" GPS ANTENNA KIT GPS-KIT12	2
	ANTENNA JUMPERS	COMMSCOPE 1/2" CR 540 6' LENGTH WITH 7/16" DIN MALE TO 7/16" DIN MALE CONNECTORS	6
	CABINET JUMPERS	COMMSCOPE 1/2" CR 540 6' LENGTH WITH 7/16" DIN MALE TO 7/16" DIN MALE CONNECTORS	6
	GPS CABLE	ANDREW 1/2" LDF4-50A WITH ANDREW HOISTING GRIPS	25 ft
	HOISTING GRIP	COMMSCOPE HOISTING GRIP	6
	GROUND KIT	COMMSCOPE 1 5/8" CABLE STANDARD GROUND KIT, 1873 SGK	18
	GROUND KIT	COMMSCOPE 1/2" CABLE STANDARD GROUND KIT, 540 SGK	2
	GROUND BAR	COMMSCOPE GROUND BUS BAR KIT, 1/4" X 4" X 14" GB-0414-IT	3
	ANTENNA	DAPA 58212S	6
	ANTENNA MOUNTS	DAPA (TB-S) PROVIDED WITH ANTENNAS	

		SECTOR A (ALPHA)				SECTOR B (BETA)				SECTOR C (GAMMA)					
	ANTENNA TYPE	DAPA 58210S				DAPA 58210S				DAPA 58210S					
		AZIMUTH 0° TRUE NORTH	DOWNTILT = 0°			AZIMUTH 120° TRUE NORTH	DOWNTILT = 0°			AZIMUTH 240° TRUE NORTH	DOWNTILT = 0°			GPS ANTENNA	
	FROM/TO	COAXIAL CABLE TYPE/SIZE	LENGTH (FT) NOTE 6 TX/RX	FUTURE	RX	COAXIAL CABLE TYPE/SIZE	LENGTH (FT) NOTE 6 TX/RX	FUTURE	RX	COAXIAL CABLE TYPE/SIZE	LENGTH (FT) NOTE 6 TX/RX	FUTURE	RX	COAXIAL CABLE TYPE/SIZE	LENGTH (FT)* GPS
CABLE SIZE AND LENGTH (MFG-COMSCOPE)		1/2"	6	-	6	1/2"	6	-	6	1/2"	6	-	6	-	-
	MAIN COAXIAL CABLE	1/2"	40	-	40	7/8"	100	-	100	1 5/8"	160	-	160	1/2"	25
	MAIN COAXIAL CABLE TO EQUIP (LOWER JUMPER)	1/2"	6	-	6	1/2"	6	-	6	1/2"	6	-	6	-	-
COLOR CODING	FIRST RING	*	YELLOW	-	YELLOW	*	BLUE	-	BLUE	*	RED	-	RED		
	SECOND RING	*	BROWN	-	WHITE	*	BROWN	-	WHITE	*	BROWN	-	WHITE		
	THIRD RING	*	GREEN	-	GREEN	*	GREEN	-	GREEN	*	GREEN	-	GREEN		

1. ALL COAXIAL CABLES SHALL BE MARKED AT THE TOP AND BOTTOM WITH COLORED TAPE.
2. COLOR BAND ON MAIN LINE TO BE 2" WIDE WITH 1" SPACE MIN. OF 3 WRAPS
3. COLOR BAND ON JUMPERS TO BE 1" WIDE WITH 1" SPACE MIN. OF 3 WRAPS
4. START COLOR BANDS 2" BEYOND WEATHERPROOFING
5. START SECTOR COLOR NEXT TO END CONNECTOR
6. FIELD ENGINEER TO VERIFY LENGTHS AND UPDATE ON DRAWINGS..

* COLOR CODING OF JUMPER CABLES TO BE THE SAME AS CORRESPONDING MAIN CABLE

CABLE DIAMETER	MINIMUM BEND RADIUS	MAXIMUM SUPPORTED (LENGTH)
1/2"	4"	3'
7/8"	8"	6'
1 1/4"	15"	6'
1 5/8"	20"	6'

Northcoast Communications, L.L.C.
6800 JERICHO TURNPIKE SUITE 120W
SYOSSET, NEW YORK 11791
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WASHINGTON GROUP INTERNATIONAL INC.
1500 WEST 3RD STREET
CLEVELAND, OHIO 44113-1406
(216) 523-5600

A&E SEAL
STATE OF OHIO
R. E. TEMPEST
041285
REGISTERED
PROFESSIONAL ENGINEER
9/13/00

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SITE
084-088.1
CLEVELAND COLD STORAGE
2000 W. 14TH STREET
CLEVELAND, OH
44113

PROJECT NO: 20222-010
DRAWN BY: DMW
CHECKED BY: NS
CAD FILE: 010ca02.DWG

SUBMITTALS

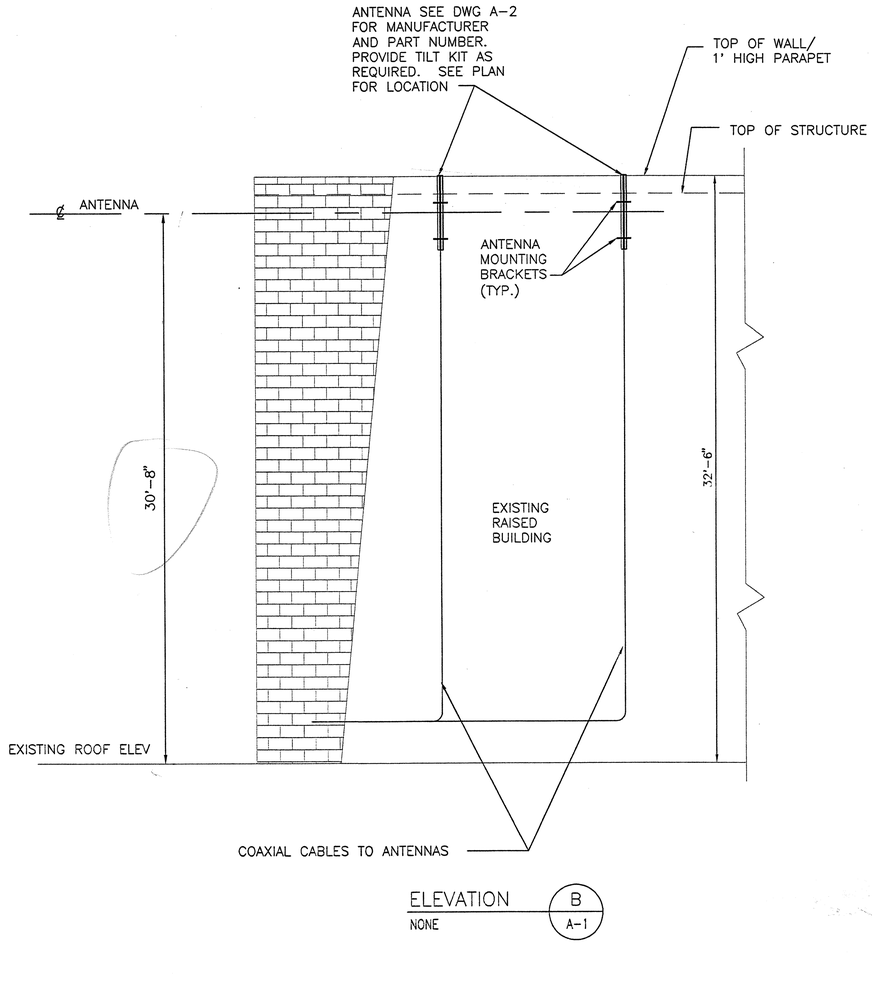
2	09/13/00	FOR FINAL CONST.
1	09/01/00	FOR CONST. REVIEW

SHEET TITLE
ENLARGED ROOF PLANS

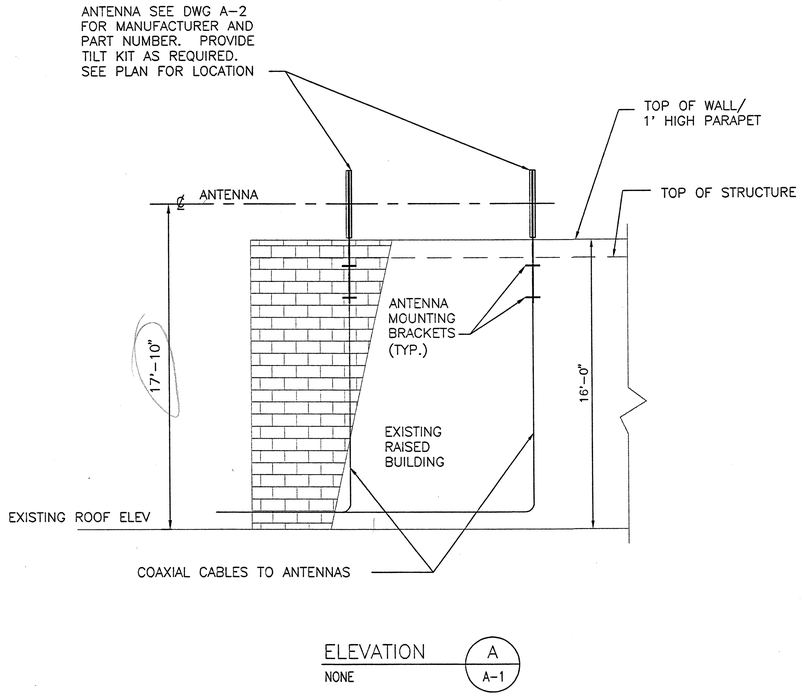
SHEET NUMBER
A-2

REV. NO.:2
SITE ID NO. 084-088.1
SITE NAME: CLEVELAND COLD STORAGE

WEST ELEVATION — NONE — C / A-1



ELEVATION — NONE — B / A-1



ELEVATION — NONE — A / A-1

Northcoast Communications, L.L.C.

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SYOSSET, NEW YORK 11791
OFFICE: (516) 393-5808
FAX: (516) 393-5807

WASHINGTON GROUP INTERNATIONAL INC.
1500 WEST 3RD STREET
CLEVELAND, OHIO 44113-1406
(216) 523-5600

A&E SEAL

STATE OF OHIO — R. E. TEMPEST 041285 — REGISTERED PROFESSIONAL ENGINEER — 9/13/00

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SITE
084-088.1
CLEVELAND COLD STORAGE
2000 W. 14TH STREET
CLEVELAND, OH
44113

PROJECT NO: 20222-010

DRAWN BY: PGC

CHECKED BY: NS

CAD FILE: 010ca03.DWG

SUBMITTALS

2	09/13/00	FOR FINAL CONST.
1	09/01/00	FOR CONST. REVIEW

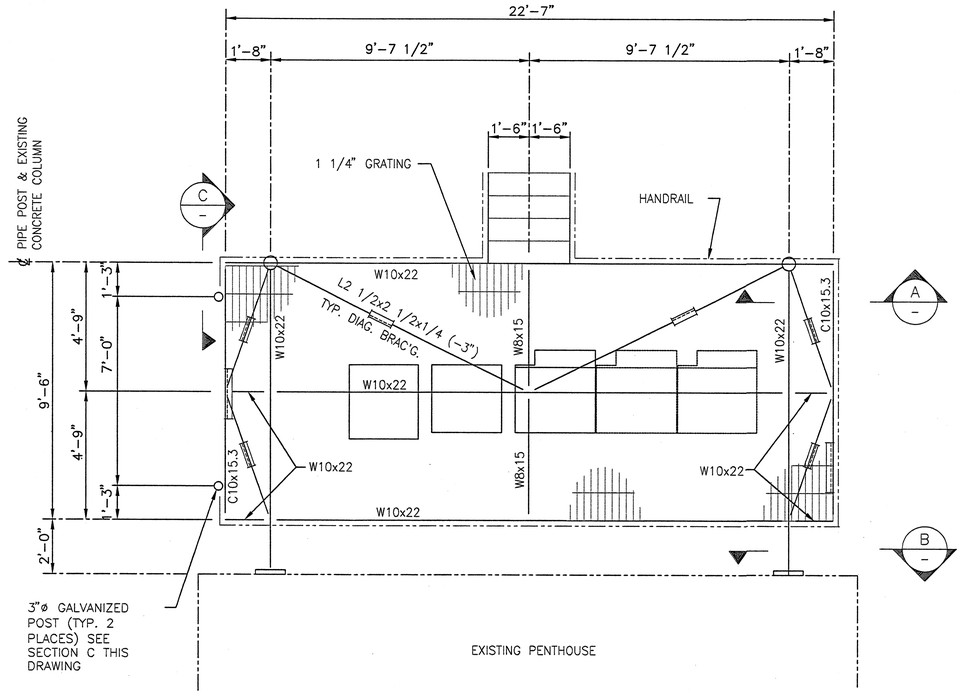
SHEET TITLE
BUILDING ELEVATIONS

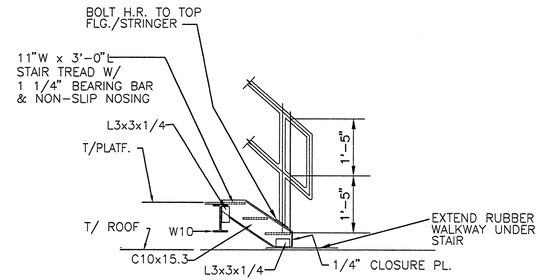
SHEET NUMBER
A-3

REV. NO.2

SITE ID NO. 084-088.1

SITE NAME: CLEVELAND COLD STORAGE

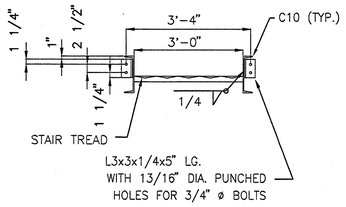




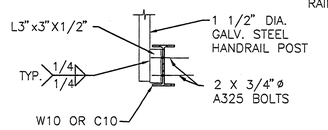
STAIR/HANDRAIL DETAIL
SCALE: N.T.S

STRUCTURAL NOTES

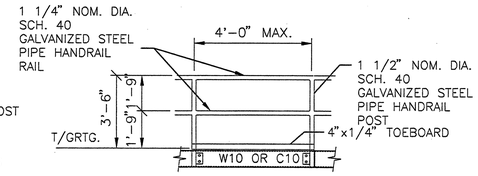
1. DESIGN REQUIREMENTS PER OBBC (OHIO BASIC BUILDING CODE)
2. THE GENERAL CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS & DIMENSIONS AND NOTIFY THE ARCHITECT/ENGINEER OF ANY DISCREPANCIES PRIOR TO ORDERING MATERIALS OR PROCEEDING WITH CONSTRUCTION.
3. STRUCTURAL STEEL SHALL CONFORM TO THE LATEST EDITION OF THE AISC SPECIFICATIONS FOR STRUCTURAL STEEL BUILDINGS- ALLOWABLE STRESS DESIGN INCLUDING THE COMMENTARY AND THE AISC CODE OF STANDARD PRACTICE.
4. STRUCTURAL STEEL PLATES AND SHAPES SHALL CONFORM TO ASTM A36. ALL STRUCTURAL STEEL PIPES SHALL CONFORM TO ASTM A53 GRADE B. ALL STRUCTURAL STEEL COMPONENTS AND FABRICATED ASSEMBLIES SHALL BE HOT DIP GALVANIZED AFTER FABRICATION.
5. WELDING SHALL BE IN ACCORDANCE WITH THE AMERICAN WELDING SOCIETY (AWS) D.1.1-2000. STRUCTURAL WELDING CODE - STEEL WELD ELECTRODES SHALL BE E70XX. AT THE COMPLETION OF WELDING, ALL DAMAGE TO GALVANIZED COATING SHALL BE REPAIRED.
6. ALL THREADED STRUCTURAL FASTENERS FOR ANTENNA SUPPORT ASSEMBLIES SHALL CONFORM TO ASTM A307 OR ASTM A36. ALL STRUCTURAL FASTENERS FOR STRUCTURAL STEEL FRAMING SHALL CONFORM TO ASTM A325X. FASTENERS SHALL BE 3/4 INCH MIN. DIAMETER (TYP. U.N.) ALL EXPOSED FASTENERS, NUTS AND WASHERS SHALL BE GALVANIZED UNLESS OTHERWISE NOTED.
7. PROVIDE 5/8" DIA. A36 HAS THREADED ROD W/HEAVY HEX NUT (ASTM A563) AND WASHER (ASTM F436) IN "HILTI" HVA ADHESIVE SYSTEM (PROJECTION = 4", EMBEDMENT = 5"). INSTALL SYSTEM PER MANUFACTURER'S INSTRUCTIONS AND PROCEDURES.



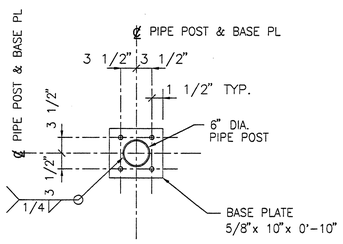
STAIR CONNECTION DETAIL
SCALE: N.T.S.



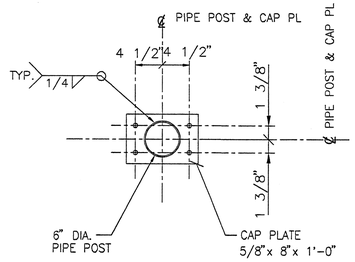
HANDRAIL CONNECTION DETAIL
SCALE: N.T.S.



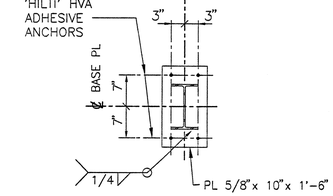
HANDRAIL ELEVATION
SCALE: 1/2"=1'-0"



DETAIL 1
SCALE: NONE



DETAIL 2
SCALE: NONE



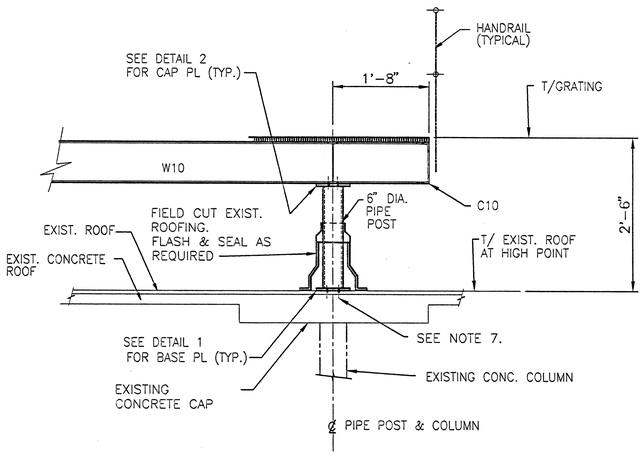
SECTION B
SCALE: NONE

EQUIPMENT SUPPORT PLATFORM

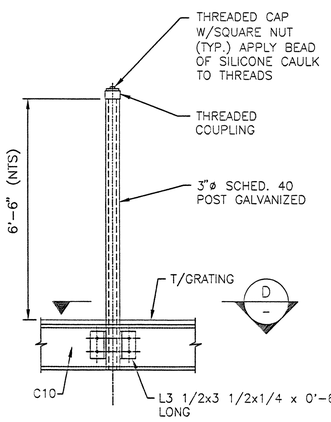
SCALE: 3/8" = 1'-0"

NOTES:

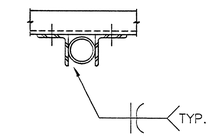
1. FIELD CUT AND BAND GRATING WITHIN CABLE CHASE-TO SUIT INSTALLATION OF CABLES. PROVIDE CABLE COVER AS REQUIRED.
2. CABINETS TO BE BOLTED THRU GRATING USING 5/8"ø "J" BOLTS (QUANTITY TO SUIT EQUIPMENT INSTALLATION REQUIREMENTS).



SECTION A
SCALE: NONE



SECTION C
SCALE: NONE



SECTION D
SCALE: NONE

NOTE:
THE ADDED LOADS IMPOSED BY THE SPRINTCOM ANTENNAS & EQUIPMENT WILL NOT AFFECT THE INTERGRITY OF THE EXISTING STRUCTURE.

Northcoast Communications, L.L.C.
6800 JERICHO TURNPIKE SUITE 120W
SYOSSET, NEW YORK 11791
OFFICE: (516) 393-5808
FAX: (516) 393-5807

WASHINGTON GROUP INTERNATIONAL INC.
1500 WEST 3RD STREET
CLEVELAND, OHIO 44113-1406
(216) 523-5600

A&E SEAL
STATE OF OHIO
R. E. TEMPEST
041285
REGISTERED
PROFESSIONAL ENGINEER

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SITE
084-088.1 CLEVELAND COLD STORAGE
2000 W. 14TH STREET
CLEVELAND, OH
44113

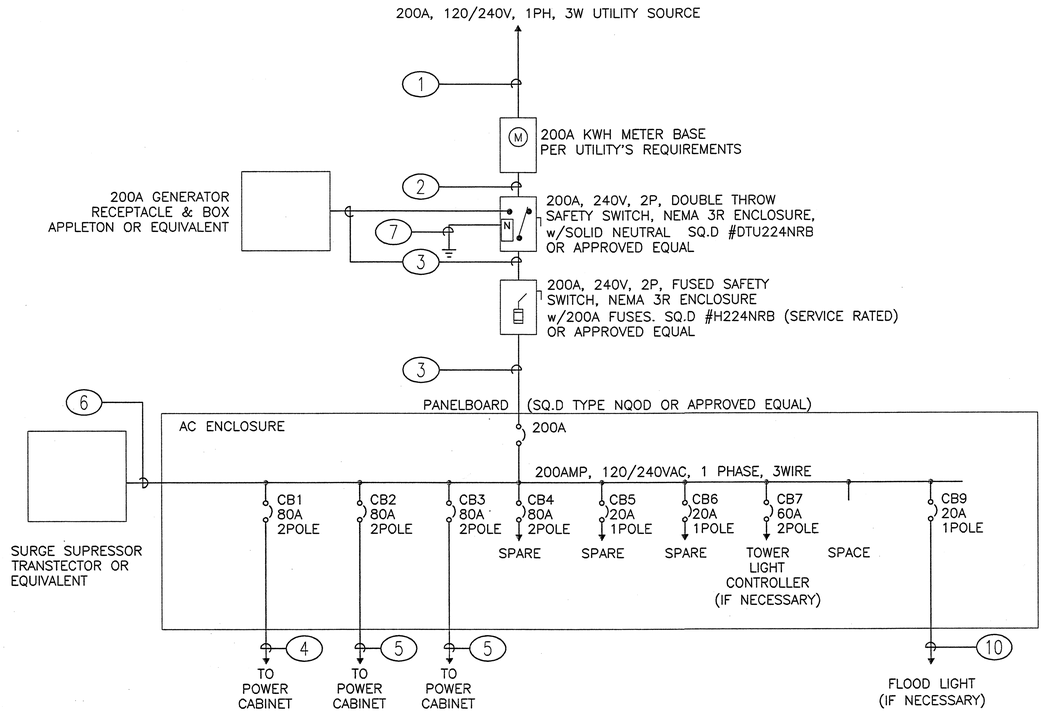
PROJECT NO: 20222-010
DRAWN BY: DMW
CHECKED BY: NS
CAD FILE: 010cs01.DWG

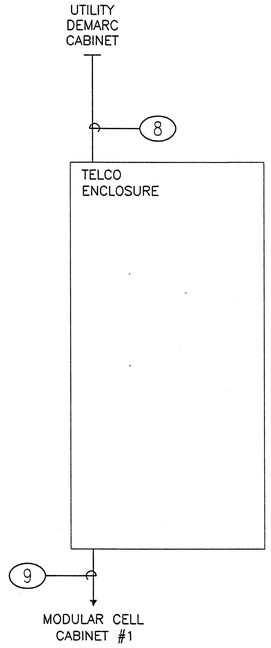
SUBMITTALS

2	09/13/00	FOR FINAL CONST.
1	09/01/00	FOR CONST. REVIEW

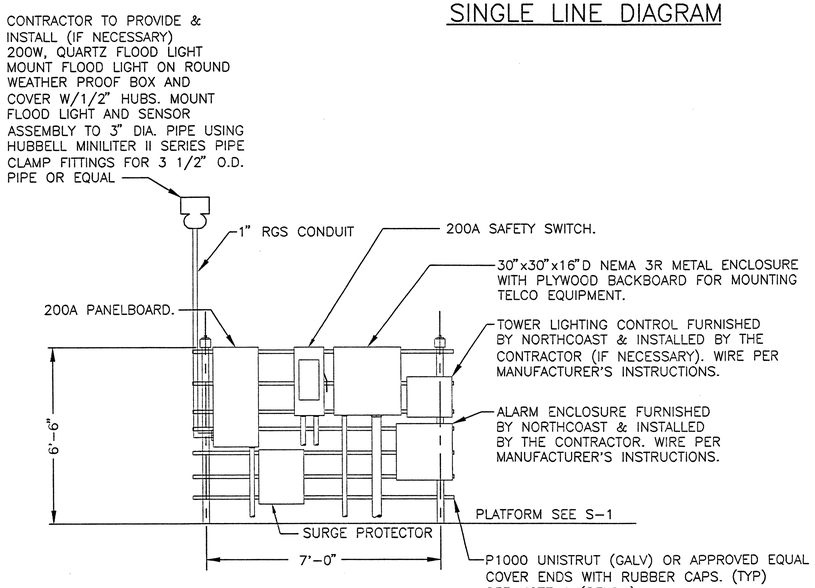
SHEET TITLE
PLATFORM FRAMING DETAILS AND SECTIONS

SHEET NUMBER
S-1





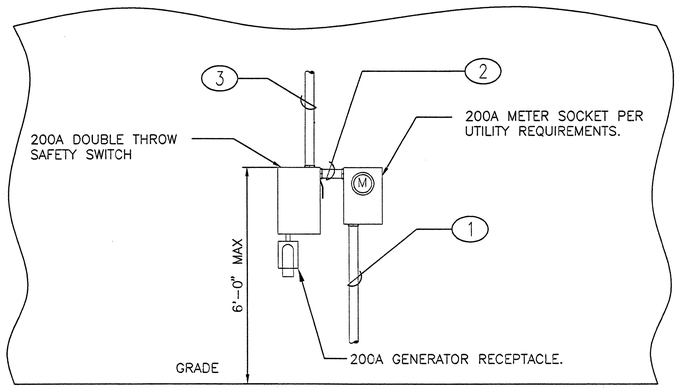
SINGLE LINE DIAGRAM



UTILITY PEDESTAL DETAIL (2 / E-1)
SCALE: NONE

NOTES:

1.) UNISTRUT SHALL BE ATTACHED TO FRONT OF POSTS AS REQUIRED TO PROVIDE FOR FRONT EQUIPMENT MOUNTING.



PARTIAL ELEVATION AT WEST WALL GRADE LEVEL SEE A-3

ELECTRIC METER, DISCONNECT SWITCH & GENERATOR RECEPTACLE MOUNTING DETAIL (3 / E-1)
SCALE: NONE

CABLE AND CONDUIT SCHEDULE

CONDUIT TAG	CABLE/CONDUIT	FROM	TO
1	3#3/0 AWG CU (TYPE THHN/THWN) 4"C PVC	SEE SINGLE LINE	SEE SINGLE LINE
2	3#3/0 AWG CU (TYPE THHN/THWN) 2"C RGS	SEE SINGLE LINE	SEE SINGLE LINE
3	3#3/0 AWG CU & 1#2 GND (TYPE THHN/THWN) 2"C RGS	SEE SINGLE LINE	SEE SINGLE LINE
4	3#2 AWG CU & 1#6 GND (TYPE THHN/THWN) 2"C RGS	PANELBOARD	POWER CABINET
5	2#2 AWG CU (TYPE THHN/THWN) 2"C RGS	PANELBOARD	POWER CABINET
6	4#2 AWG CU (TYPE THHN/THWN) 1-1/2"C RGS	PANELBOARD	SURGE SUPRESSOR
7	1#2 AWG CU (TYPE THHN/THWN) GND	FUSED SAFETY SWITCH NEUTRAL BUS	GROUND SYSTEM
8	INCOMING TELCO SERVICE (SEE DWG. A-1 AND/OR C-2) -FOR UNDERGROUND SERVICE: CONTRACTOR TO INSTALL (1)-4" PVC SCHED 40 CONDUIT WITH 2 METALLIC PULL STRINGS.	UTILITY DEMARC	TELCO EQUIPMENT CABINET
9	6-PAIR #24 AWG & 25-PAIR #24 AWG 2" PVC SCHED 40 CONDUIT-BTS ALARMS	TELCO EQUIPMENT CABINET	MODULAR CELL CABINET #1
10	2#12 AWG CU & 1#12 GND (TYPE THHN/THWN) 3/4"C RGS	PANELBOARD	SITE LIGHT FIXTURE

NOTE: ABOVE GROUND CONDUIT TO BE RGS; UNDERGROUND ELBOWS TO BE PVC. 36" RADIUS FOR 3" & 4". CONDUITS ENTERING ELECTRICAL ENCLOSURES SHALL BE RGS AT ENTRY POINT.

GENERAL NOTES:

1.) IN CASE OF CONFLICT BETWEEN THIS STANDARD DRAWING & C-2, A-1, A-2, OR MANUFACTURER SPEC., C-2, A-1, A-2, OR MANUFACTURER SPEC. SHALL GOVERN.

ABBREVIATIONS

AWG	AMERICAN WIRE GUAGE	MIN	MINIMUM
BCW	BARE COPPER WIRE	MTD	MOUNTED
BLDG	BUILDING	MTG	MOUNTING
BTS	BASE TRANSCEIVER STATION	NTS	NOT TO SCALE
C	CONDUIT	OH	OVERHEAD
MFR	MANUFACTURER	PPC	POWER PROTECTION CABINET
COAX	COAXIAL CU COPPER	PVC	POLYVINYLCHLORIDE
CU	COPPER	PWR	POWER CABINET
DIA	DIAMETER	RGS	RIGID GALVANIZED STEEL
DWG	DRAWING	TEL	TELEPHONE
EMT	ELECTRICAL METALLIC TUBING	TYP	TYPICAL
GND	GROUND	UG	UNDERGROUND
GPS	GLOBAL POSITIONING SYSTEM	UL	UNDERWRITERS LABORATORIES
GR	GROWTH	XFMR	TRANSFORMER
MAX	MAXIMUM	UE	UNDERGROUND ELECTRICAL
CIGBE	COAX ISOLATED GROUND BAR, EXTERNAL	UT	UNDERGROUND TELEPHONE
MIGB	MASTER ISOLATED GROUND BAR		

Northcoast Communications, L.L.C.
6800 JERICHO TURNPIKE SUITE 120W
SYOSSET, NEW YORK 11791
OFFICE: (516) 393-5808
FAX: (516) 393-5807

WASHINGTON GROUP INTERNATIONAL INC.
1500 WEST 3RD STREET
CLEVELAND, OHIO 44113-1406
(216) 523-5600

STATE OF OHIO
CHRISTOPHER MICHAEL KAY
E-56477
REGISTERED PROFESSIONAL ENGINEER
9/13/00

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PROJECT NO: 20222-010
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CHECKED BY: TRA
CAD FILE: 010ce01.dwg

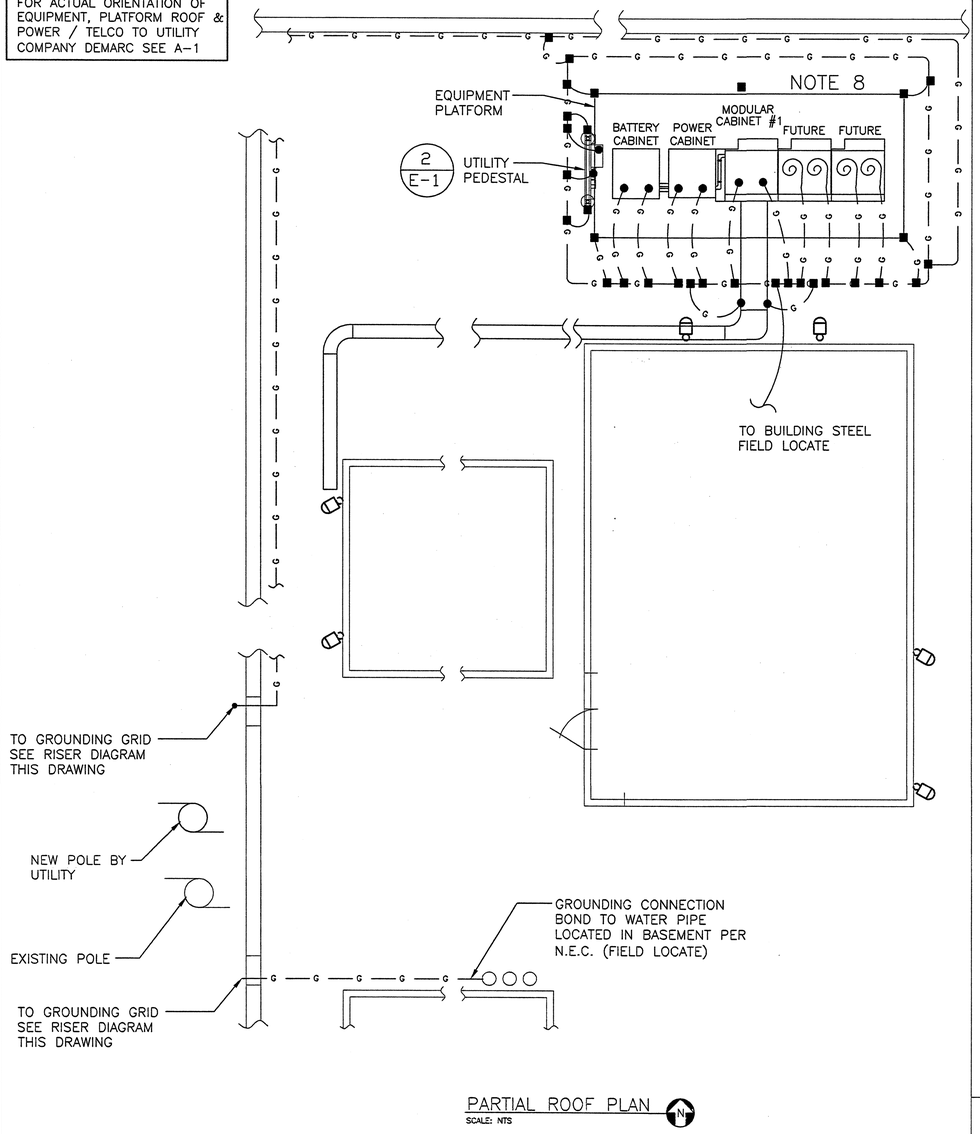
SUBMITTALS

2	09/13/00	FOR FINAL CONST.
1	09/01/00	FOR CONST. REVIEW

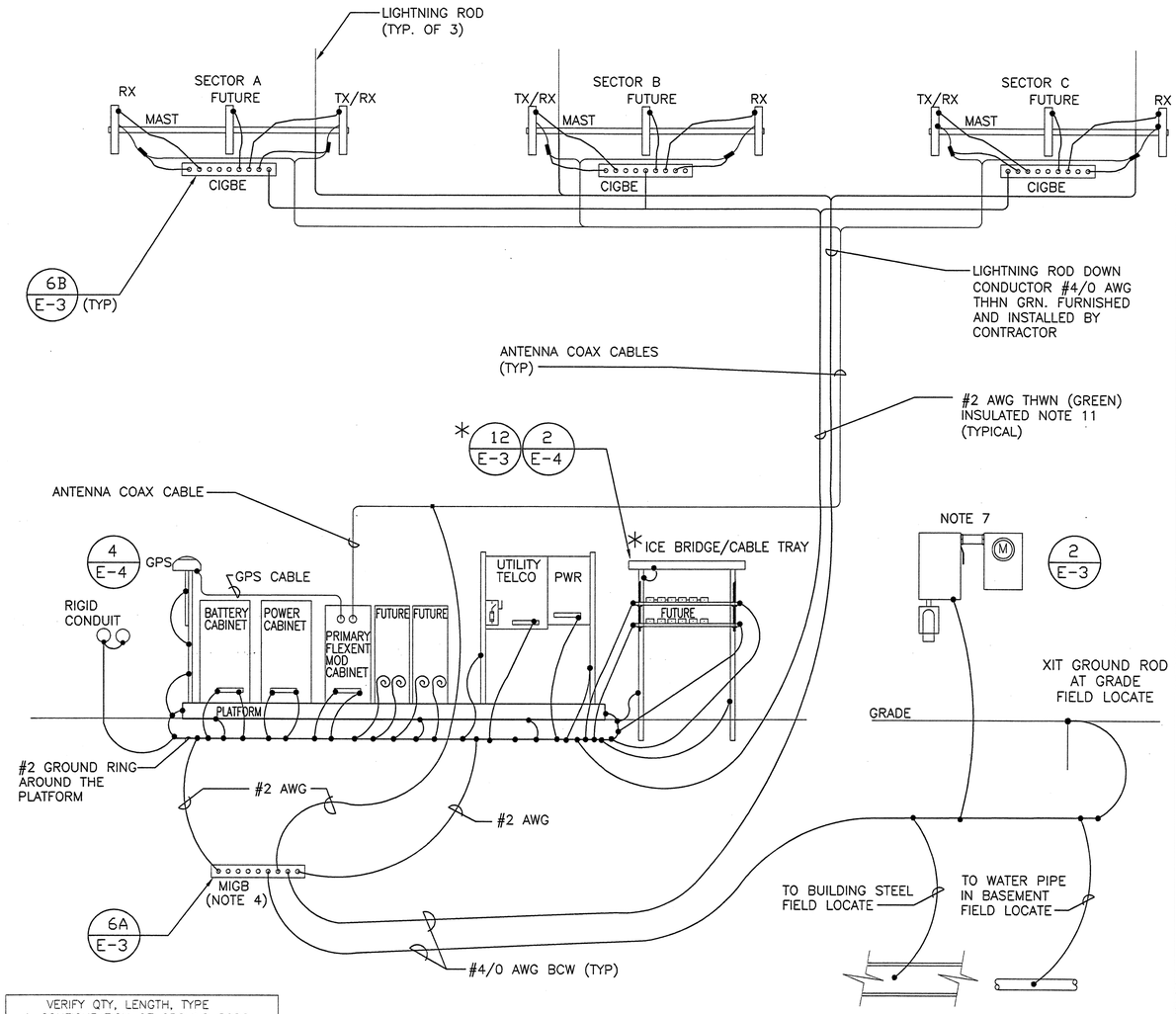
SHEET TITLE
UTILITY DETAILS

SHEET NUMBER
E-1

FOR ACTUAL ORIENTATION OF EQUIPMENT, PLATFORM ROOF & POWER / TELCO TO UTILITY COMPANY DEMARC SEE A-1



PARTIAL ROOF PLAN
SCALE: NTS



VERIFY QTY, LENGTH, TYPE & CONFIGURATION OF GROUND RODS PROVIDES SYSTEM GROUND RESISTANCE OF 5 OHMS OR LESS

GROUNDING SYSTEM RISER DIAGRAM
SCALE: NONE

* - IF APPLICABLE, SEE DWG. A-1

GROUNDING NOTES: (FOR GROUNDING PLAN AND RISER DIAGRAM)

1.) REFER TO GROUNDING NOTES ON DWG. SP-2 FOR TERMINATION, CONDUCTOR, GROUND ROD AND TESTING REQUIREMENTS.

2.) CONTRACTOR SHALL COORDINATE INSTALLATION OF GROUND RODS AND GROUND RING WITH FOUNDATION AND UNDERGROUND CONDUIT INSTALLATION.

3.) CONTRACTOR SHALL BOND NEW NORTHCOAST GROUND RING TO NEW TOWER/SHELTER GROUND RING IN TWO PLACES.

4.) CONTRACTOR SHALL MOUNT MASTER ISOLATED GROUND BAR (MIGB) TO FRAME OF EQUIPMENT PLATFORM CHANNEL NEAR ICE BRIDGE/CABLE TRAY CONNECTION OR ON ICE BRIDGE/CABLE TRAY FOR PAD MOUNTED EQUIPMENT. ROUTE (2) #2 AWG BCW FROM GROUND RING TO MIGB.

5.) CONTRACTOR SHALL MOUNT COAX ISOLATED GROUND BAR (CIGBE) ON THE TOWER STRUCTURE NEAR GRADE LEVEL AND NEAR COAX ANTENNA CABLES. SEE RISER DIAGRAM ABOVE FOR ADDITIONAL COAX ISOLATED GROUND BARS AT ANTENNA LEVEL TO BE MOUNTED BY THE CONTRACTOR.

6.) CONTRACTOR SHALL INSTALL COAX CABLE GROUND BAR AT MID-POINT FOR TOWERS GREATER THAN 200FT.

7.) GROUND SERVICE DISCONNECTING MEANS PER NEC.

8.) GROUND EQUIPMENT ON PLATFORM PER NORTHCOAST AND MANUFACTURER'S RECOMMENDATIONS.

9.) COAX GROUND CONNECTION KITS ARE FURNISHED BY NORTHCOAST AND INSTALLED BY ELECTRICAL CONTRACTOR.

10.) COAX GROUND CONNECTION AT TOWER BASE TO BE MADE ON VERTICAL PORTION OF THE CABLE ABOVE THE 90° BEND TO THE ICE BRIDGE/CABLE TRAY.

11.) ALL GROUND WIRES SHALL PROVIDE A STRAIGHT, DOWNWARD PATH TO GROUND WITH GRADUAL BENDS TO CHANGE DIRECTION IF NECESSARY. GROUND WIRES SHALL NOT BE LOOPED OR SHARPLY BENT.

12.) TRENCHES SHALL NOT BE BACKFILLED UNTIL ALL SPECIFIED TESTS HAVE BEEN PERFORMED AND UNTIL THE GROUNDING SYSTEM CONFORMS TO THE REQUIREMENTS OF THE DRAWINGS AND SPECIFICATIONS. SEE GROUNDING NOTES ON DWG. SP-2.

13.) CONTRACTOR SHALL INSTALL GROUNDING AS SHOWN ABOVE AND PER NORTHCOAST STANDARDS AND APPLICABLE CODES, BUT SHALL NOT DUPLICATE EXISTING GROUNDING (I.E. FENCE GROUNDING, TOWER GROUND RING ON COLOCATE SITES) WHICH IS PROPER AND ADEQUATE.

ELECTRICAL SYMBOLS LEGEND

- ⊠ GROUND ROD WITH ACCESS (TEST WELL)
- ⊗ GROUND ROD
- ■ CADWELD TYPE CONNECTION
- ● COMPRESSION TYPE CONNECTION
- — G — GROUND RING
- GROUNDING PIGTAIL FOR FUTURE CONNECTION (10 FT.)
- XXX / XX — REPRESENTS DETAIL NUMBER / REFERENCE DRAWING NUMBER

Northcoast Communications, L.L.C.
6800 JERICHO TURNPIKE SUITE 120W
SYOSSET, NEW YORK 11791
OFFICE: (516) 393-5808
FAX: (516) 393-5807

WASHINGTON GROUP INTERNATIONAL INC.
1500 WEST 3RD STREET
CLEVELAND, OHIO 44113-1406
(216) 523-5600

STATE SEAL OHIO
CHRISTOPHER MICHAEL KAY
E-56477
REGISTERED
PROFESSIONAL ENGINEER
Christopher M. Kay 7/5/00

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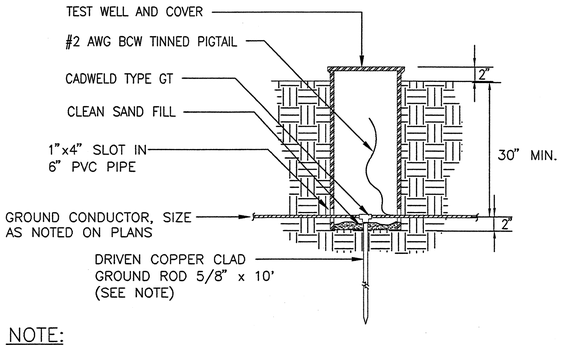
PROJECT NO: 20222-010
DRAWN BY: PMF
CHECKED BY: TRA
CAD FILE: 010ce02.dwg

SUBMITTALS

2	09/13/00	FOR FINAL CONST.
1	09/01/00	FOR CONST. REVIEW

SHEET TITLE
SITE GROUNDING PLAN AND RISER DIAGRAM

SHEET NUMBER
E-2

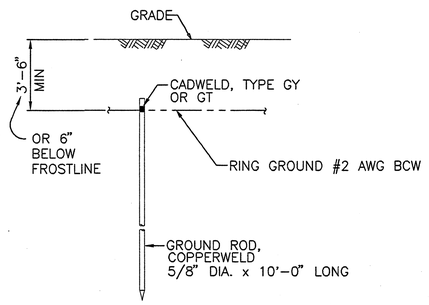


NOTE:

TO IMPROVE SYSTEM RESISTANCE, ERICO GEM MAY BE USED AS A BACKFILL MATERIAL IN AN AUGURED HOLE. PROVIDE RODS TO ACHIEVE MAXIMUM 5 OHMS RESISTANCE. NORTHCOAST REPPRESENTATIVE MUST BE PRESENT PRIOR TO BACKFILL OF GROUND RING. NOTIFY 24 HOURS IN ADVANCE OF COMPLETION AND/OR BACKFILL.

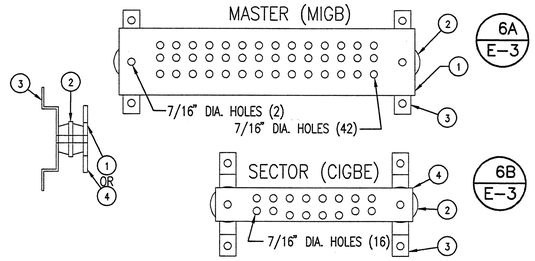
GROUND ROD WITH ACCESS

DETAIL 1/E-3 — SCALE: NONE



GROUND ROD

DETAIL 3/E-3 — SCALE: NONE

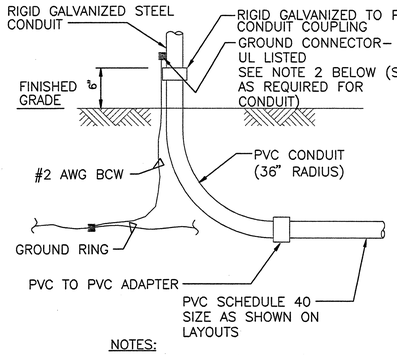


MATERIAL LIST

1.) COPPER GROUND BAR, 1/4"X 4"X 14", COMMSCOPE KIT NO. GB-0414-IS OR APPROVED EQUAL.
2.) INSULATORS, COMMSCOPE (PROVIDED WITH KIT) OR APPROVED EQUAL.
3.) WALL MOUNTING BRACKET, COMMSCOPE (PROVIDED WITH KIT) OR APPROVED EQUAL.
4.) COPPER GROUND BAR, 1/4"X 2"X 12", COMMSCOPE KIT NO. GB-0212-IS OR APPROVED EQUAL.

MASTER & SECTOR GROUND BAR DETAIL

DETAIL 6A/E-3 6B/E-3 — SCALE: NONE

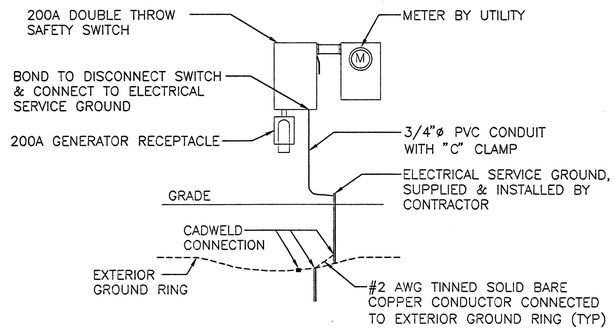


NOTES:

1.) SEE PLAN FOR CONDUIT SIZES.
2.) CONTRACTOR TO GROUND ALL METALLIC CONDUIT STUB-UPS PER NEC.

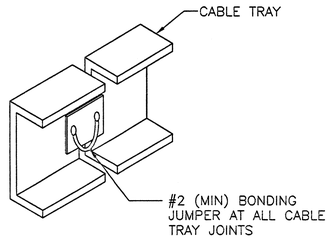
UNDERGROUND ELEC./ TELE. CONDUIT STUB-UP

DETAIL 5/E-3 — SCALE: NONE



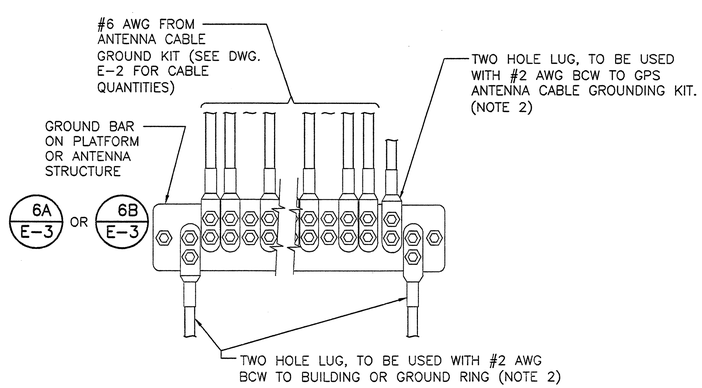
ELECTRICAL SERVICE GROUND
SEE RISER DIAGRAM E-2 & DETAIL 3 E-1

DETAIL 2/E-3 — SCALE: NONE



CABLE TRAY BONDING JUMPER

DETAIL 4/E-3 — SCALE: NONE



NOTES:

1. REFER TO RISER DIAGRAM ON DWG E-2 FOR CONNECTIONS.
2. CONTRACTOR SHALL COAT ALL LUGS WITH KOPR-SHIELD BEFORE ATTACHING GROUND BAR.

INSTALLATION OF GROUND WIRE TO GROUND BAR

DETAIL 7/E-3 — SCALE: NONE

Northcoast Communications, L.L.C.
6800 JERICHO TURNPIKE SUITE 120W
SYOSSET, NEW YORK 11791
OFFICE: (516) 393-5808
FAX: (516) 393-5807

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PROJECT NO: 20222-010
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CHECKED BY: TRA
CAD FILE: 010ce03.dwg

SUBMITTALS

2	09/13/00	FOR FINAL CONST.
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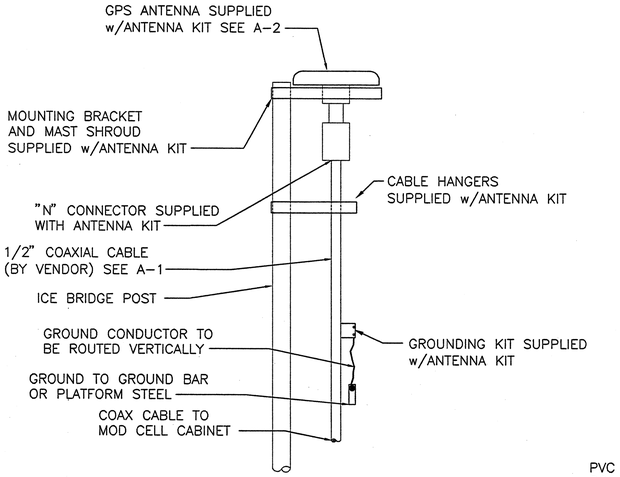
SHEET TITLE
GROUNDING DETAILS

SHEET NUMBER
E-3

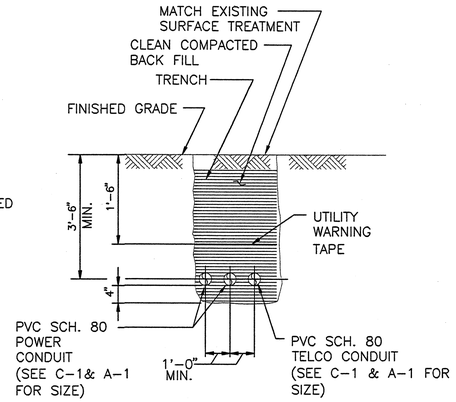


GPS ANTENNA INSTALLATION

COORDINATE LOCATION WITH NORTHCOAST REPRESENTATIVE

DETAIL 4 / E-4

SCALE: NONE



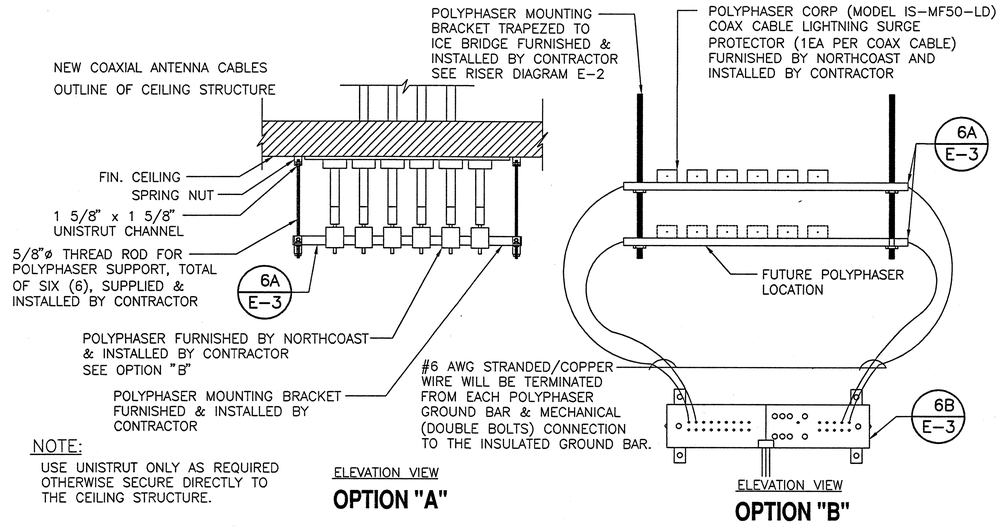
NOTE:

1.) CONTRACTOR SHALL TRENCH AND BACKFILL ALL UNDERGROUND UTILITIES AS SHOWN.

ELEC./ TELE. TRENCH DETAIL

DETAIL 5 / E-4

SCALE: NONE



NOTE:

USE UNISTRUT ONLY AS REQUIRED OTHERWISE SECURE DIRECTLY TO THE CEILING STRUCTURE.

ELEVATION VIEW

OPTION "A"

ELEVATION VIEW

OPTION "B"

POLYPHASER MODEL PSX LIGHTNING SURGE PROTECTOR MOUNTING DETAIL

DETAIL 6 / E-4

SCALE: NONE

Northcoast Communications, L.L.C.

6800 JERICHO TURNPIKE SUITE 120W
SYOSSET, NEW YORK 11791
OFFICE: (516) 393-5808
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CHECKED BY: TRA

CAD FILE: 010ce04.dwg

SUBMITTALS

2	09/13/00	FOR FINAL CONST.
1	09/01/00	FOR CONST. REVIEW

SHEET TITLE

GROUNDING AND TYPICAL DETAILS

SHEET NUMBER

E-4

GENERAL NOTES:

1. OWNER FURNISHED MATERIALS, NORTHCOAST COMMUNICATIONS "THE COMPANY" WILL PROVIDE AND THE CONTRACTOR WILL INSTALL:

   A. AC/TELCO INTERFACE BOX(PPC)
   B. TOWERS, MONOPOLE
   C. TOWER LIGHTING
   D. GENERATORS & LIQUID PROPANE TANK
   E. ANTENNAS (INSTALLED BY OTHERS)
   F. TRANSMISSION LINE
   G. TRANSMISSION LINE JUMPERS
   H. TRANSMISSION LINE CONNECTORS WITH WEATHERPROOFING KITS
   I. TRANSMISSION LINE GROUND KITS
   J. HANGERS
   K. HOISTING GRIPS
   L. FLEXENT CABINETS

2. CONTRACTOR TO FURNISH AND INSTALL THE FOLLOWING:

   THE CONTRACTOR IS RESPONSIBLE TO PROVIDE ALL OTHER MATERIALS FOR THE COMPLETE INSTALLATION OF THE SITE INCLUDING, BUT NOT LIMITED TO, SUCH MATERIALS AS FENCING, STRUCTURAL STEEL SUPPORTING SUB-FRAME FOR PLATFORM, ROOFING LABOR AND MATERIALS, GROUNDING RINGS, GROUNDING WIRES, COPPER-CLAD OR XIT CHEMICAL GROUND ROD(S), BUSS BARS, TRANSFORMERS AND DISCONNECT SWITCHES WHERE APPLICABLE, ELECTRICAL FEEDER WIRE, CONDUIT, LANDSCAPING COMPOUND STONE, CRANES, CORE DRILLING, SLEEPERS AND RUBBER MATTING, REBAR, CONCRETE CAISSONS, PADS AND/OR AUGER MOUNTS, MISCELLANEOUS FASTENERS, CABLE TRAYS, NON-STANDARD ANTENNA FRAMES AND ALL OTHER MATERIAL AND LABOR REQUIRED TO COMPLETE THE JOB ACCORDING TO THE DRAWINGS AND SPECIFICATIONS.
   THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL REQUIRED LICENSES AND PERMITS BEFORE STARTING ANY CONSTRUCTION. THE COSTS OF THE PERMITS SHALL BE INCLUDED IN THE PRICE OF THE BID.

3. NORTHCOAST COMMUNICATIONS FURNISHED EQUIPMENT SHALL BE PICKED-UP AT THE NORTHCOAST COMMUNICATIONS WAREHOUSE, INSURED, STORED, UNCRATED, PROTECTED AND INSTALLED BY THE CONTRACTOR WITH ALL APPURTENCES REQUIRED TO PLACE THE EQUIPMENT IN OPERATION, READY FOR USE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE EQUIPMENT AFTER PICKING UP.

4. ALL EQUIPMENT FURNISHED AND WORK PERFORMED UNDER THE CONTRACT DOCUMENTS SHALL BE GUARANTEED AGAINST DEFECTS IN MATERIALS OR WORKMANSHIP FOR A PERIOD OF ONE (1) YEAR FROM THE DATE OF FINAL ACCEPTANCE, UNLESS NOTED OTHERWISE. ANY FAILURE OF EQUIPMENT OR WORK DUE TO DEFECTS IN MATERIALS OR WORKMANSHIP SHALL BE CORRECTED BY THE CONTRACTOR AT NO COST TO THE OWNER.

5. ALL WORK, MATERIAL, AND EQUIPMENT SHALL COMPLY WITH ALL REQUIREMENTS OF THE LATEST EDITIONS AND INTERIM AMENDMENTS OF THE NATIONAL ELECTRICAL CODE (N.E.C.). NATIONAL ELECTRICAL SAFETY CODE, OSHA, AND ALL APPLICABLE FEDERAL, STATE, AND LOCAL LAWS AND ORDINANCES. ALL ELECTRICAL EQUIPMENT PROVIDED UNDER THIS CONTRACT SHALL BE NEW (EXCEPT WHERE OTHERWISE NOTED) AND SHALL COMPLY WITH THE REQUIREMENTS OF THE UNDERWRITERS' LABORATORIES (U.L.) AND BEAR THE U.L. LABEL.

6. NORTHCOAST COMMUNICATIONS OR HIS ARCHITECT/ENGINEER RESERVES THE RIGHT TO REJECT ANY EQUIPMENT OR MATERIALS WHICH, IN HIS OPINION ARE NOT IN COMPLIANCE WITH THE CONTRACT DOCUMENTS, EITHER BEFORE OR AFTER INSTALLATION AND THE EQUIPMENT SHALL BE REPLACED WITH EQUIPMENT CONFORMING TO THE REQUIREMENTS OF THE CONTRACT DOCUMENTS BY THE CONTRACTOR AT NO COST TO THE OWNER OR HIS ARCHITECT/ENGINEER.

7. THE CONTRACTOR SHALL SUPPORT, BRACE AND SECURE EXISTING STRUCTURE AS REQUIRED. CONTRACTOR IS SOLELY RESPONSIBLE FOR THE PROTECTION OF ANY EXISTING STRUCTURES DURING CONSTRUCTION. FIELD VERIFY ALL EXISTING DIMENSIONS WHICH AFFECT THE NEW CONSTRUCTION.

8. THE CONTRACTOR SHALL NOT ALLOW OR CAUSE ANY OF THE WORK TO BE COVERED UP OR ENCLOSED UNTIL IT HAS BEEN INSPECTED BY THE GOVERNING AUTHORITIES. ANY WORK THAT IS ENCLOSED OR COVERED UP BEFORE SUCH INSPECTION AND TEST SHALL BE UNCOVERED AT THE CONTRACTOR'S EXPENSE; AFTER IT HAS BEEN INSPECTED, THE CONTRACTOR SHALL RESTORE THE WORK TO ITS ORIGINAL CONDITION AT HIS OWN EXPENSE.

9. ALL EXISTING UTILITIES, FACILITIES, CONDITIONS, AND THEIR DIMENSIONS SHOWN ON PLANS HAVE BEEN PLOTTED FROM AVAILABLE RECORDS. THE ARCHITECT/ENGINEER AND OWNER (NORTHCOAST COMMUNICATIONS) ASSUME NO RESPONSIBILITY WHATEVER AS TO THE SUFFICIENCY OR ACCURACY OF THE INFORMATION SHOWN ON THE PLANS OR THE MANNER OF THEIR REMOVAL OR ADJUSTMENT. CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING EXACT LOCATION OF ALL SAID UTILITIES AND FACILITIES PRIOR TO START OF CONSTRUCTION. CONTRACTOR SHALL ALSO OBTAIN FROM EACH UTILITY COMPANY DETAILED INFORMATION RELATIVE TO WORKING SCHEDULES AND METHODS OF REMOVING OR ADJUSTING AFFECTED UTILITIES.

GENERAL NOTES (CONT'D):

10. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING UTILITIES BOTH HORIZONTALLY AND VERTICALLY PRIOR TO START OF CONSTRUCTION. ANY DISCREPANCIES OR DOUBTS AS TO THE INTERPRETATION OF PLANS SHOULD BE IMMEDIATELY REPORTED TO THE PROJECT MANAGER FOR RESOLUTION AND INSTRUCTION, AND NO FURTHER WORK SHALL BE PERFORMED UNTIL DISCREPANCY IS CHECKED AND CORRECTED BY THE ARCHITECT/ENGINEER. FAILURE TO SECURE SUCH INSTRUCTION MEANS CONTRACTOR WILL HAVE WORKED AT HIS OWN RISK AND EXPENSE.

11. CONTRACTORS SHALL CLEAN ENTIRE SITE AFTER CONSTRUCTION SUCH THAT NO PAPERS, TRASH, DEBRIS, WEEDS, BRUSH, OR ANY OTHER DEPOSITS REMAIN. ALL MATERIALS COLLECTED DURING CLEANING OPERATIONS SHALL BE PROPERLY DISPOSED OF OFF-SITE BY THE CONTRACTOR.

12. ALL SITE WORK SHALL BE CAREFULLY COORDINATED BY THE CONTRACTOR WITH LOCAL GAS, ELECTRIC, TELEPHONE, AND ANY OTHER UTILITY COMPANIES HAVING JURISDICTION OVER THIS LOCATION.

13. DURING CONSTRUCTION, THE CONTRACTOR SHALL AT ALL TIMES MAINTAIN THE UTILITIES OF THE BUILDING/SITE WITHOUT INTERRUPTION. SHOULD IT BE NECESSARY TO INTERRUPT ANY SERVICE OR UTILITY, THE CONTRACTOR SHALL SECURE PERMISSION IN WRITING FROM THE BUILDING/PROPERTY OWNER FOR SUCH INTERRUPTION, AT LEAST 72 HOURS IN ADVANCE. ANY INTERRUPTION SHALL BE MADE WITH A MINIMUM AMOUNT OF INCONVENIENCE TO THE BUILDING/PROPERTY OWNER AND ANY SUCH SHUTDOWN TIME SHALL BE COORDINATED WITH THE BUILDING/PROPERTY OWNER.

14. CONTRACTOR SHALL SUBMIT AT THE END OF THE PROJECT A COMPLETE SET OF AS BUILT DRAWINGS TO NORTHCOAST COMMUNICATIONS PROJECT ENGINEER.

DIVISION 2 - SITE WORK:

1. THE CONTRACTOR SHALL CALL UTILITIES PRIOR TO THE START OF CONSTRUCTION. ALL EXISTING ACTIVE SEWER, WATER, GAS, ELECTRIC, AND OTHER UTILITIES WHERE ENCOUNTERED IN THE WORK SHALL BE PROTECTED AT ALL TIMES, AND WHERE REQUIRED FOR THE PROPER EXECUTION OF THE WORK, SHALL BE RELOCATED AS DIRECTED BY THE PROJECT MANAGER. EXTREME CAUTION SHOULD BE USED BY THE CONTRACTOR WHEN EXCAVATING OR PIER DRILLING AROUND OR NEAR UTILITIES. CONTRACTOR SHALL PROVIDE SAFETY TRAINING FOR THE WORKING CREW. THIS WILL INCLUDE BUT NOT LIMITED TO:

   A. FALL PROTECTION
   B. CONFINED SPACE
   C. ELECTRICAL SAFETY
   D. TRENCHING AND EXCAVATION

2. REMOVE FROM SITE/OWNER'S PROPERTY ALL WASTE MATERIALS, UNUSED EXCAVATED MATERIAL INCLUDING MATERIAL CLASSIFIED UNSATISFACTORY, CONTAMINATED OR DANGEROUS TRASH AND DEBRIS, AND DISPOSE OF IN A LEGAL MANNER.

3. ALL EXISTING INACTIVE SEWER, WATER, GAS, ELECTRIC AND OTHER UTILITIES, WHICH INTERFERE WITH THE EXECUTION OF THE WORK, SHALL BE REMOVED AND/OR CAPPED, PLUGGED OR OTHERWISE DISCONTINUED AT POINTS WHICH WILL NOT INTERFERE WITH THE EXECUTION OF THE WORK, SUBJECT TO THE APPROVAL OF ENGINEERING.

4. THE AREAS OF THE OWNERS PROPERTY DISTURBED BY THE WORK AND NOT COVERED BY THE BUILDING OR DRIVEWAY, SHALL BE GRADED TO A UNIFORM SLOPE, FERTILIZED, SEEDED, AND COVERED WITH MULCH AS SPECIFIED IN THE SPECIFICATION LANDSCAPE WORK.

5. CONTRACTOR SHALL MINIMIZE DISTURBANCE TO EXISTING SITE DURING CONSTRUCTION. EROSION CONTROL MEASURES, IF REQUIRED DURING CONSTRUCTION, SHALL BE IN CONFORMANCE WITH THE LOCAL AND 1996 NBC STANDARD GUIDELINES FOR EROSION AND SEDIMENT CONTROL.

6. CONTRACTOR IS RESPONSIBLE FOR LAYOUT AND CONSTRUCTION STAKING. CONTRACTOR SHALL ESTABLISH GRADE AND LINE STAKES PRIOR TO CONSTRUCTION.

DIVISION 3 - CONCRETE:

1. MINIMUM ALLOWABLE CONCRETE COMPRESSIVE STRENGTH SHALL BE 4000 PSI AT 28 DAYS WHEN TESTED IN ACCORDANCE WITH THE AMERICAN SOCIETY FOR TESTING AND MATERIALS METHODS STANDARDS ASTM C172, ASTM C31 AND ASTM C39 UNLESS OTHERWISE NOTED.

2. CONCRETE FOR ALL FOUNDATIONS: 540 LBS PER CUBIC YARD OF CONCRETE MINIMUM CEMENT CONTENT FOR 1-INCH MAXIMUM SIZE AGGREGATE, SLUMP RANGE 3 INCHES TO 5 INCHES, TOTAL AIR CONTENT 4 PERCENT TO 7 PERCENT BY VOLUME. AIR ENTRAINING ADMIXTURE REQUIRED TO CONTROL TOTAL AIR CONTENT, WATER REDUCING ADMIXTURE PERMITTED TO OBTAIN SLUMP OVER 3-INCHES.

3. ALL CONCRETE CONSTRUCTION SHALL MEET THE REQUIREMENTS OF THE LATEST EDITION OF THE AMERICAN CONCRETE INSTITUTE (ACI 318) BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE AND (ACI 301) STANDARD SPECIFICATION FOR STRUCTURAL CONCRETE.

4. REBARS SHALL BE ASTM A-615 DEFORMED TYPE WITH MINIMUM YIELD STRENGTH OF 60,000 PSI (40,000 PSI GRADE MAY BE USED FOR TIES & STIRRUPS).

   WELDED WIRE FABRIC SHALL CONFORM TO ASTM A-185.

5. DETAILING SHALL BE IN ACCORDANCE WITH MANUAL OF STANDARD PRACTICE OF DETAILING REINFORCED CONCRETE STRUCTURES (ACI STD-315 LATEST EDITION).

6. CHAMFER ALL EXPOSED EDGES OF CONCRETE 3/4".

7. REINFORCING STEEL SHALL BE ACCURATELY PLACED AND ADEQUATELY SECURED IN POSITION. LOCATION OF REINFORCEMENT SHALL BE INDICATED ON THE DRAWINGS. THE FOLLOWING MINIMUM COVER (INCHES) FOR REINFORCEMENT SHALL BE PROVIDED, EXCEPT AS NOTED ON DRAWINGS.

   MINIMUM COVER (INCHES)
   CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH ... 3"
   EXPOSED TO EARTH OR WEATHER:
   #6 THROUGH #18 ... 2"
   #5 BAR AND SMALLER ... 1-1/2"

8. TESTS
   CONCRETE MATERIALS AND OPERATIONS SHALL BE TESTED AND INSPECTED BY THE ENGINEER AS THE WORK PROGRESSES. FAILURE TO DETECT ANY DEFECTIVE WORK OR MATERIAL SHALL NOT IN ANY WAY PREVENT LATER REJECTION WHEN SUCH DEFECT IS DISCOVERED NOR SHALL IT OBLIGATE THE ENGINEER FOR FINAL ACCEPTANCE.
   A. FIVE CONCRETE TEST CYLINDERS SHALL BE TAKEN OF THE TOWER PIER FOUNDATION. TWO SHALL BE TESTED @ THREE DAYS, TWO @ TWENTY-EIGHT DAYS. THE FIFTH CYLINDER SHALL BE KEPT SEPARATELY, IF REQUIRED TO BE USED IN THE FUTURE.
   B. ONE ADDITIONAL TEST CYLINDER SHALL BE TAKEN DURING COLD WEATHER AND CURED ON SITE UNDER SAME CONDITIONS AS CONCRETE IT REPRESENTS.
   C. ONE SLUMP TEST SHALL BE TAKEN FOR EACH SET OF TEST CYLINDERS TAKEN.

9. PLACING CONCRETE
   A. THE ENGINEER SHALL BE NOTIFIED NOT LESS THAT 24 HOURS IN ADVANCE OF CONCRETE PLACEMENT, UNLESS INSPECTION IS WAIVED IN EACH CASE, PLACING OF CONCRETE SHALL BE PERFORMED ONLY IN THE PRESENCE OF THE ENGINEER. CONCRETE SHALL NOT BE PLACED UNTIL ALL FORMWORK, EMBEDDED PARTS, STEEL REINFORCEMENT, FOUNDATION SURFACES AND JOINTS INVOLVED IN THE PLACING HAVE BEEN APPROVED, AND UNTIL FACILITIES ACCEPTABLE TO THE NORTHCOAST COMMUNICATIONS REPRESENTATIVE HAVE BEEN PROVIDED AND MADE READY FOR ACCOMPLISHMENT OF THE WORK AS SPECIFIED. CONCRETE MAY NOT BE ORDERED FOR PLACEMENT UNTIL ALL ITEMS HAVE BEEN APPROVED AND NORTHCOAST COMMUNICATIONS HAS PERFORMED A FINAL INSPECTION AND GIVEN APPROVAL TO START PLACEMENT IN WRITING.
   B. PLACEMENT OF CONCRETE SHALL BE IN ACCORDANCE WITH ACI 301.

10. PROTECTION
    A. IMMEDIATELY AFTER PLACEMENT, THE CONTRACTOR SHALL PROTECT THE CONCRETE FROM PREMATURE DRYING, EXCESSIVELY HOT OR COLD TEMPERATURES, AND DAMAGE TO EXPOSED SURFACES. FINISHED WORK SHALL BE PROTECTED.
    B. CONCRETE SHALL BE MAINTAINED WITH MINIMAL MOISTURE LOSS AT RELATIVELY CONSTANT TEMPERATURE FOR A PERIOD NECESSARY FOR HYDRATION OF CEMENT AND HARDENING OF CONCRETE.
    C. ALL CONCRETE SHALL BE WATER CURED BY CONTINUOUS (NOT PERIODIC) FINE MIST SPRAYING OR SPRINKLING ALL EXPOSED SURFACES. WATER SHALL BE CLEAN AND FREE FROM ACID, ALKALI, SALTS, OIL SEDIMENT, AND ORGANIC MATTER. SUCCESSFUL CURING SHALL BE OBTAINED BY USE OF AN AMPLE WATER SUPPLY UNDER PRESSURE IN PIPES, WITH ALL NECESSARY APPLIANCES OF SPRINKLERS, AND SPRAYING DEVICES.

DIVISION 5 - STRUCTURAL STEEL:

1. DETAIL, FABRICATE AND ERECT STRUCTURAL STEEL IN ACCORDANCE WITH THE LATEST AISC MANUAL OF STEEL CONSTRUCTION (ASD), AWS D1.1 AND OHIO BASIC BUILDING CODE (OBBC). STRUCTURAL STEEL SHALL BE AS FOLLOWS:
   A. ASTM A36, GRADE 36; ROLLED STEEL, RODS, PLATES, U-BOLTS AND ANCHOR BOLTS.
   B. ASTM A325 BOLTS, BEARING TYPE
   C. ALL STEEL SHALL BE HOT-DIP GALVANIZED IN ACCORDANCE WITH ASTM A123.

2. THE CONTRACTOR SHALL PROVIDE ADEQUATE SHORING AND/OR BRACING WHERE REQUIRED DURING CONSTRUCTION UNTIL ALL CONNECTIONS ARE COMPLETE.

3. ANY FIELD CHANGES OR SUBSTITUTIONS SHALL HAVE PRIOR APPROVAL FROM THE ENGINEER.

4. TIGHTEN HIGH STRENGTH BOLTS TO A SNUG TIGHT CONDITION WHERE ALL PLIES IN A JOINT ARE IN FIRM CONTACT BY EITHER
   A. A FEW IMPACTS OF A IMPACT WRENCH
   B. THE FULL EFFORT OF A PERSON USING A SPUD WRENCH.

5. WELDING
   A. ALL WELDING SHALL BE DONE BY CERTIFIED WELDERS. CERTIFICATION DOCUMENTS SHALL BE MADE AVAILABLE FOR ENGINEER'S AND/OR OWNER'S REVIEW IF REQUESTED.
   B. WELDING ELECTRODES FOR MANUAL SHIELDED METAL ARC WELDING SHALL CONFORM TO ASTM A-233, E70 SERIES. BARE ELECTRODES AND GRANULAR FLUX USED IN THE SUBMERGED ARC PROCESS SHALL CONFORM TO AISC SPECIFICATIONS.
   C. FIELD WELDING SHALL BE DONE AS PER AWS D1.1 REQUIREMENTS VISUAL INSPECTION IS ACCEPTABLE.

6. PROTECTION
   A. UPON COMPLETION OF ERECTION INSPECT ALL GALVANIZED STEEL AND PAINT ANY FIELD CUTS, WELDS, OR GALVANIZED BREAKS WITH ZINC BASED PAINT. COLOR TO MATCH THE GALVANIZING PROCESS.

DIVISION 13 - SPECIAL CONSTRUCTION ANTENNA INSTALLATION

1. WORK INCLUDED:
   A. INSTALL ANTENNAS AS INDICATED ON DRAWINGS AND NORTHCOAST COMMUNICATIONS SPECIFICATIONS.
   B. INSTALL GALVANIZED STEEL ANTENNA MOUNTS AS INDICATED ON DRAWINGS.
   C. INSTALL FURNISHED WAVEGUIDE AND PROVIDE PRINTOUT OF THE TEST.
   D. CONTRACTOR SHALL PROVIDE FOUR (4) SETS OF SWEEP TESTS USING HEWLETT-PACKARD 8713B RF SCALAR NETWORK ANALYZER. SUBMIT FREQUENCY DOMAIN REFLECTOMETER(FDR) TESTS RESULTS TO THE PROJECT MANAGER. SWEEP TESTS SHALL BE AS PER ATTACHED ANDREW "MINIMUM FIELD TESTING RECOMMENDED FOR ANTENNA AND HELIAX COAXIAL CABLE SYSTEMS" DATED 10/5/93. TESTING SHALL BE PERFORMED BY AN INDEPENDENT TESTING SERVICE AND BE BOUND AND SUBMITTED WITHIN ONE WEEK OF WORK COMPLETION.
   E. INSTALL COAXIAL CABLES AND TERMINATING BETWEEN ANTENNAS AND EQUIPMENT PER MANUFACTURER'S RECOMMENDATIONS. WEATHERPROOF ALL CONNECTORS BETWEEN THE ANTENNA AND EQUIPMENT PER MANUFACTURER'S REQUIREMENTS. TERMINATE ALL COAXIAL CABLE THREE (3) FEET IN EXCESS OF ENTRY PORT LOCATION UNLESS OTHERWISE STATED.
   F. ANTENNA AND COAXIAL CABLE GROUNDING:
      1. ALL EXTERIOR #6 GREEN GROUND WIRE "DAISY CHAIN" CONNECTIONS ARE TO BE WEATHER SEALED WITH ANDREWS CONNECTOR/SPLICE WEATHERPROOFING KIT #221213 OR EQUAL.
      2. ALL COAXIAL CABLE GROUNDING KITS ARE TO BE INSTALLED ON STRAIGHT RUNS OF COAXIAL CABLE (NOT WITHIN BENDS).

Northcoast Communications, L.L.C.
6800 JERICHO TURNPIKE SUITE 120W
SYOSSET, NEW YORK 11791
OFFICE: (516) 393-5808
FAX: (516) 393-5807

WASHINGTON GROUP INTERNATIONAL INC.
1500 WEST 3RD STREET
CLEVELAND, OHIO 44113-1406
(216) 523-5600

STATE OF OHIO
R. E. TEMPEST
041285
REGISTERED
PROFESSIONAL ENGINEER
9/1/00

A&E SEAL

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SITE
STANDARD DRAWING

PROJECT NO: 20222
DRAWN BY: DJP
CHECKED BY: DWH
CAD FILE: nccp01.dwg

SUBMITTALS

2	09/01/00	FOR FINAL CONST.
1	08/18/00	FOR CONST. REVIEW

SHEET TITLE
GENERAL NOTES

SHEET NUMBER
SP-1

DIVISION 16 – ELECTRICAL

QUALITY ASSURANCE:

1. ALL CONTRACTOR FURNISHED MATERIALS AND EQUIPMENT SPECIFIED ON THE PROJECT SHALL BE NEW AND UNUSED, OF CURRENT MANUFACTURE AND OF THE HIGHEST GRADE.

2. ALL EQUIPMENT, MATERIAL AND THE INSTALLATION METHODS SPECIFIED ON THE PROJECT DRAWINGS SHALL BE DESIGNED AND FABRICATED IN COMPLIANCE WITH APPLICABLE FEDERAL, STATE, AND LOCAL CODES AND REGULATIONS, AND APPROPRIATE INDUSTRIAL CONSENSUS STANDARDS AND CODES INCLUDING ANSI, IEEE, NEMA, NFPA AND UL, ALL AS REVISED AS OF THE DATE OF THIS WORK PACKAGE.

3. ALL ELECTRICAL ITEMS BOTH CONTRACTOR AND OWNER FURNISHED SHALL BE CHECKED FOR AGREEMENT WITH THE PROJECT DRAWINGS AND SPECIFICATIONS AND SHALL BE VISUALLY INSPECTED TO ENSURE THAT EQUIPMENT IS UNDAMAGED AND IS IN PROPER ALIGNMENT, INSTALLED PER MANUFACTURER'S INSTRUCTIONS, ELECTRICAL CONNECTIONS ARE TIGHT AND PROPERLY INSULATED WHERE REQUIRED, FUSES ARE OF THE PROPER TYPE AND SIZE, AND ELECTRICAL ENCLOSURES ARE OF THE PROPER NEMA TYPE.

4. NOTIFY OWNER IN WRITING OF ALL DISCREPANCIES BETWEEN DRAWINGS/SPECIFICATIONS AND FIELD INSTALLATIONS, OR IF THE VISUAL INSPECTIONS SHOW DAMAGE OR IMPROPER INSTALLATION.

GENERAL:

1. THE EQUIPMENT AND MATERIAL SHALL BE FURNISHED AND INSTALLED TO OPERATE SAFELY AND CONTINUOUSLY OUTDOORS WITH NO PROTECTION FROM THE WEATHER.

2. ELECTRICAL WORK REPRESENTED ON THE PROJECT DRAWINGS IS SHOWN DIAGRAMMATICALLY. EXACT LOCATIONS AND ELEVATIONS OF ELECTRICAL EQUIPMENT SHALL BE DETERMINED IN THE FIELD AND VERIFIED WITH THE OWNER'S REPRESENTATIVE.

3. CONTRACTOR SHALL COORDINATE THE INSTALLATION OF TEMPORARY, IF REQUIRED, AND PERMANENT POWER WITH THE LOCAL UTILITY COMPANY. THE TEMPORARY POWER AND ALL HOOKUP COSTS ARE TO BE PAID BY THE CONTRACTOR.

4. PROVIDE MOLDED CASE, BOLT–ON, THERMAL MAGNETIC TRIP, SINGLE, TWO OR THREE POLE CIRCUIT BREAKERS. MULTIPLE POLE CIRCUIT BREAKERS SHALL BE SINGLE HANDLE COMMON TRIP. SHORT CIRCUIT INTERRUPTING RATING SHALL BE AS REQUIRED FOR AVAILABLE FAULT CURRENTS. ALL CIRCUIT BREAKERS, FUSES AND ELECTRICAL EQUIPMENT SHALL HAVE A SHORT CIRCUIT INTERRUPTING RATING EQUAL TO OR GREATER THAN THAT SHOWN ON PROJECT DRAWINGS.

5. CONTRACTOR SHALL PERFORM ALL EXCAVATION, TRENCHING, BACKFILLING, AND REMOVAL OF DEBRIS IN CONNECTION WITH THE ELECTRICAL WORK IN ACCORDANCE WITH THE PROJECT DRAWINGS. CONTRACTOR SHALL COORDINATE THE INSTALLATION OF UNDERGROUND UTILITIES AND GROUNDING WITH THE FOUNDATION INSTALLATION.

6. CONTRACTOR SHALL PROVIDE ALL NECESSARY SUPPORTS FOR EQUIPMENT INSTALLED AS PART OF THIS PROJECT. SUPPORTS SHALL CONSIST OF GALVANIZED STEEL FRAMES, PLATES, BRACKETS, RACKS AND OTHER SHAPES OF ADEQUATE SIZE AND FASTENED WITH BOLTS, SCREWS OR BY WELDING TO PROVIDE RIGID SUPPORT.

7. CONTRACTOR SHALL CALL THE APPROPRIATE UTILITIES PROTECTION SERVICE BEFORE ANY UNDERGROUND WORK IS PERFORMED, SUCH AS TRENCHING, EXCAVATING, AND DRIVING GROUND RODS.

8. CONTRACTOR SHALL SEAL AROUND ELECTRICAL PENETRATIONS THROUGH FIRE–RATED WALLS/FLOORS USING APPROVED FIRE STOP MATERIALS TO MAINTAIN THE FIRE RESISTANCE RATING.

RACEWAYS:

1. CONDUIT AND CONDUIT FITTINGS SHALL MEET ANSI AND NEC STANDARDS FOR MATERIAL AND WORKMANSHIP AND SHALL BE UL LISTED.

   A. RIGID STEEL CONDUIT (FOR ALL ABOVE GRADE WORK) SHALL CONFORM TO ANSI C80.1 AND THE REQUIREMENTS OF NEC, PARAGRAPH 346 AND BE STANDARD WEIGHT, MILD RIGID STEEL, HOT DIP GALVANIZED WITH INSIDE AND OUTSIDE FINISHED WITH A PROTECTIVE ZINC COATING. COUPLING, ELBOWS AND BENDS SHALL MEET THESE SAME REQUIREMENTS. FITTINGS SHALL BE OF THE GALVANIZED IRON OR STEEL THREADED TYPE.

   B. PVC CONDUIT (FOR UNDERGROUND WORK) SHALL CONFORM TO UL STANDARD 651–89 AND THE REQUIREMENTS OF NEC, PARAGRAPH 347. CONDUIT SHALL BE HEAVY WALL TYPE, SCHEDULE 40 OR 80, AND SUNLIGHT RESISTANT. FITTINGS SHALL BE OF THE UNTHREADED SOLVENT CEMENT TYPE.

   C. EMT CONDUIT (FOR USE BEHIND WALLS OR ABOVE SUSPENDED CEILINGS ONLY): ELECTRIC METALLIC TUBING SHALL CONFORM TO ANSI C80.3 AND THE REQUIREMENTS OF NEC, PARAGRAPH 348 AND BE PROTECTED ON EXTERIOR WITH A ZINC COATING AND ON INTERIOR SURFACES WITH EITHER A ZINC COATING OR LACQUER ENAMEL. FITTINGS SHALL BE ZINC COATED STEEL.

2. MINIMUM CONDUIT SIZE SHALL BE 3/4–INCH, SIZES NOT SHOWN ON DRAWINGS SHALL BE PER NEC.

3. ALL SPARE CONDUITS SHALL HAVE A METALLIC PULL WIRE.

4. CONDUIT SUPPORTS SHALL BE FURNISHED AND INSTALLED BY THE ELECTRICAL CONTRACTOR AND IN ACCORDANCE WITH THE NEC.

5. UNDERGROUND CONDUITS:

   A. INSTALL A WARNING TAPE TWELVE INCHES ABOVE EACH CONDUIT OR SET OF CONDUITS.
   B. IDENTIFY EACH CONDUIT AT BOTH ENDS.
   C. INSTALL A MINIMUM OF 36 INCHES BELOW THE FINISHED GRADE, OR DEEPER IF NOTED ON PLAN DRAWINGS.
   D. SLOPE A MINIMUM OF 4 INCHES PER 100 FEET TO DRAIN AWAY FROM BUILDINGS AND EQUIPMENT.
   E. USE MANUFACTURED ELECTRICAL PVC ELBOWS AND FITTINGS FOR BELOW GRADE BENDS.
   F. MAKE JOINTS AND FITTINGS WATERTIGHT ACCORDING TO MANUFACTURER'S INSTRUCTIONS.
   G. INSTALL A COUPLING BEFORE EACH WALL PENETRATION.
   H. RESTORE SURFACE FEATURES DISTURBED BY EXCAVATION (AND TRENCHING) IN ALL AREAS.

CABLE TRAYS:

1. ALL CABLE TRAYS AND FITTINGS SHALL BE DESIGNED, MANUFACTURED AND TESTED IN CONFORMANCE WITH NEMA VE 1.

2. CABLE TRAYS SHALL BE LADDER TYPE WITH 9–INCH SPACING.

3. CABLE TRAYS SHALL BE CAPABLE OF SUPPORTING 75 LBS/LINEAR FOOT.

4. CABLE TRAYS AND FITTINGS SHALL BE MANUFACTURED OF GALVANIZED STEEL.

5. CABLE TRAYS SHALL BE FURNISHED WITH COVERS WHERE SHOWN ON THE PROJECT DRAWINGS.

6. ALL DISCONTINUOUS SECTIONS OF CABLE TRAY SHALL BE BONDED ACROSS JOINTS.

CONDUCTORS:

1. ALL POWER, CONTROL AND COMMUNICATION WIRING SHALL MEET NEMA– WC, ASTM, UL, AND NEC STANDARDS FOR MATERIAL AND WORKMANSHIP UNLESS OTHERWISE SPECIFIED.

   A. SERVICE ENTRANCE CONDUCTORS SHALL BE COPPER, 600 VOLT, SUNLIGHT RESISTANT, SUITABLE FOR WET LOCATIONS, TYPE USE–2. THE GROUNDED NEUTRAL CONDUCTOR, SHALL BE IDENTIFIED WITH A WHITE MARKING AT EACH TERMINATION.

   B. CONDUCTORS FOR FEEDER AND BRANCH CIRCUITS SHALL BE COPPER 600 VOLT, TYPE THHN / THWN WITH A MINIMUM SIZE OF #12 AWG.

2. ALL CONDUCTOR ACCESSORIES INCLUDING CONNECTORS, TERMINATIONS, INSULATING MATERIALS, SUPPORT GRIPS, MARKER AND CABLE TIES SHALL BE FURNISHED AND INSTALLED. SUPPLIER'S INSTALLATION INSTRUCTIONS SHALL BE OBTAINED FOR CABLE ACCESSORIES. THESE INSTRUCTIONS SHALL BE IN THE POSSESSION OF THE CRAFTSMAN WHILE INSTALLING THE ACCESSORIES AND SHALL BE AVAILABLE TO THE COMPANY FOR REFERENCE.

3. WHERE POSSIBLE, NO. 6 AWG AND SMALLER WIRE SHALL BE COLOR CODED BY THE COLOR OF THE INSULATION COVERING. COLOR CODING OF WIRE LARGER THAN NO. 6 AWG MAY BE BY MEANS OF SELF–ADHESIVE WRAP–AROUND TYPE MARKERS, PER NEC.

4. TERMINAL CONNECTORS FOR CONDUCTORS SMALLER THAN 8 AWG SHALL BE COMPRESSION TYPE CONNECTORS SIZED FOR THE CONDUCTOR AND THE TERMINAL. THE CONNECTORS SHALL BE CONSTRUCTED OF FINE GRADE HIGH CONDUCTIVITY COPPER IN ACCORDANCE WITH QQ–C–576 AND SHALL BE TIN–PLATED IN ACCORDANCE WITH MIL–T–10727. THE INTERIOR SURFACE OF THE CONNECTOR WIRE BARREL SHALL BE SERRATED, AND THE EXTERIOR SURFACE OF THE CONNECTOR WIRE BARREL SHALL BE PROVIDED WITH CRIMP GUIDES.

5. TERMINAL CONNECTORS FOR CONDUCTORS 8 AWG AND LARGER SHALL BE PRESSURE OR BOLTED CLAMP TYPE, BURNDY QUIKLUG, VARILUG OR ACCEPTABLE EQUAL; OR COMPRESSION TYPE, BURNDY TYPE YAV OR YA (LONG BARREL), PANDUIT TYPE LCA OR LCC, OR ACCEPTABLE EQUAL. ACCEPATBLE CONNECTORS INCLUDED WITH COMPANY–FURNISHED EQUIPMENT MAY BE USED.

6. TERMINATION PROVISIONS OF EQUIPMENT FOR CIRCUITS RATED 100 AMPERES OR LESS, OR MARKED FOR NOS. 14 THROUGH 1 CONDUCTORS, SHALL BE USED ONLY FOR CONDUCTORS RATED 60°C (140°F). CONDUCTORS WITH HIGHER TEMPERATURE RATINGS SHALL BE PERMITTED, PROVIDED THE AMPACITY OF EACH CONDUCTOR IS DETERMINED BASED ON THE 60°C (140°F) AMPACITY OF THE CONDUCTOR SIZE USED.

7. TERMINATION PROVISIONS OF EQUIPMENT FOR CIRCUITS RATED OVER 100 AMPERES, OR MARKED FOR CONDUCTORS LARGER THAN NO. 1, SHALL BE USED ONLY FOR CONDUCTORS RATED 75°C (167°F). CONDUCTORS WITH HIGHER TEMPERATURE RATINGS SHALL BE PERMITTED, PROVIDED THE AMPACITY OF EACH CONDUCTOR IS DETERMINED BASED ON THE 75°C (167°F) AMPACITY OF THE CONDUCTOR SIZE USED.

8. ALL 600 VOLT OF LESS WIRING, WHERE COMPRESSION TYPE CONNECTORS ARE USED, SHALL BE INSULATED WITH AT LEAST ONE TURN OF "SCOTCHFILL" ELECTRICAL INSULATING PUTTY AND THEN COVERED WITH TWO HALF TURNS OF TAPE SIMILAR TO 3M COMPANY'S "33 PLUS" (33+) PLASTIC TAPE OR 88 OUTDOOR.

GROUNDING:

1. ALL BASE TRANSCEIVER SITE EQUIPMENT SHALL BE GROUNDED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE (NEC), AND LATEST EDITION OF LIGHTNING PROTECTION CODE NFPA 780 AND SPRINT STANDARDS.

2. THE ELECTRICAL SERVICE TO THE SITE SHALL BE GROUNDED AT THE SERVICE DISCONNECTING MEANS REQUIRED IN ARTICLE 250 OF THE NATIONAL ELECTRICAL CODE, IN ACCORDANCE WITH ANY LOCAL CODE.

3. ALL UNDERGROUND (BELOW GRADE) GROUNDING CONNECTIONS SHALL BE MADE BY THE CADWELD PROCESS (MECHANICAL LUG ATTACHMENTS BELOW GRADE ARE NOT ACCEPTABLE). CONNECTIONS SHALL INCLUDE ALL CABLE TO CABLE SPLICES (TEES, Xs, ETC.), ALL CABLE CONNECTIONS TO GROUND RODS, GROUND ROD SPLICES, AND LIGHTNING PROTECTION SYSTEM AS INDICATED. ALL MATERIALS USED (MOLDS, WELDING METAL, TOOLS, ETC.) SHALL BE BY CADWELD AND INSTALLED PER MANUFACTURER'S RECOMMENDATION AND PROCEDURES.

4. ALL GROUNDING AND BONDING CONDUCTORS THAT ARE CONNECTED ABOVE GRADE OR INTERIOR TO A BUILDING SHALL BE CONNECTED USING TWO HOLD CRIMP TYPE (COMPRESSION) CONNECTIONS FOR #2 AND #6 AWG INSULATED COPPER CONDUCTOR.

5. ALL GROUNDING CONNECTIONS, INTERIOR AND EXTERIOR, MADE THROUGHOUT THIS DOCUMENT SHALL BE MADE USING AN ANTI–OXIDATION COMPOUND. THE ANTI–OXIDATION COMPOUND SHALL BE THOMAS AND BETTS KOPR–SHIELD (TM OF JET LUBE INC.). THERE IS NO EQUIVALENT FOR THIS PRODUCT; NO OTHER COMPOUND WILL BE ACCEPTED. COAT ALL WIRES BEFORE LUGGING. COAT ALL SURFACES BEFORE CONNECTING.

6. ALL CONNECTIONS SHALL BE MADE TO BARE METAL. ALL PAINTED SURFACES SHALL BE FIELD INSPECTED AND MODIFIED TO ENSURE PROPER CONTACT. PRIOR TO CADWELD, GALVANIZING SHALL BE REMOVED BY GRINDING SURFACE TO BARE METAL. "SLAG" FROM CADWELD MUST BE REMOVED AND WELD SHALL BE SPRAYED WITH COLD GALVANIZE AFTER COMPLETION.

7. FERROUS METAL CLIPS WHICH COMPLETELY SURROUND THE GROUNDING CONDUCTOR SHALL NOT BE USED. CLIPS OF THE FOLLOWING MATERIALS AND TYPES MAY BE USED TO SUPPORT GROUNDING CONDUCTORS.

   - PLASTIC CLIPS
   - STAINLESS STEEL CLIPS WHICH DO NOT COMPLETELY SURROUND THE GROUNDING CONDUCTOR.
   - FERROUS METAL CLIPS WHICH DO NOT COMPLETELY SURROUND THE GROUNDING CONDUCTOR.

8. ALL BELOW–GRADE GROUNDING CONDUCTORS SHALL BE BARE TINNED SOLID COPPER WIRE.
   ABOVE–GRADE GROUNDING CONDUCTORS MAY BE EITHER:

   - BARE TINNED SOLID COPPER WIRE
   - THWN–INSULATED, CONTINUOUS GREEN COLOR, SOLID COPPER WIRE.
   - THWN–INSULATED, CONTINUOUS GREEN COLOR, STRANDED COPPER WIRE.

   A. THE UNDERGROUND GROUND RING SHALL BE A #2 AWG BARE TINNED SOLID COPPER WIRE.

   B. #2 THWN SHALL BE STRANDED COPPER WITH GREEN THWN INSULATION SUITABLE FOR WET INSTALLATION (SOME ABOVE GROUND APPLICATIONS, I.E., INDOOR GROUNDING RING).

   C. #4/0 THWN (I.E., TO MAIN GROUND, BUILDING STEEL, MAIN WATER LINE OF THE BUILDING OR EXISTING GROUND ROD) SHALL BE STRANDED COPPER WITH THWN INSULATION (GREEN TAPE AT EACH END) SUITABLE FOR WET LOCATIONS.

   D. #2 BARE TINNED COPPER SHALL BE SOLID. ALL BURIED WIRE SHALL MEET THIS CRITERIA, INCLUDING CABLE TRAY GROUNDING WIRES AND WIRES INDICATED ON THE DRAWINGS.

   E. FENCE GATE BONDING JUMPER SHALL BE 4/0 WELDING CABLE THAT HAS BEEN CRIMPED ON EACH END WITH A CAP FOR THE CADWELD PROCESS.

   (THE MINIMUM BEND RADIUS IS 8 INCHES FOR #6 AWG AND SMALLER; 12– INCHES FOR WIRE LARGER THAN #6 AWG.)

9. ALL HARDWARE, BOLTS, NUTS, WASHERS AND LOCK WASHERS SHALL BE 18–8 STAINLESS STEEL. EVERY CONNECTION SHALL BE BOLT–FLAT WASHER–BUSS–LUG–FLAT WASHER–LOCK WASHER–NUT IN THAT EXACT ORDER, WITH NUT FACING OUTWARD. BACK–TO–BACK LUGGING, BOLT–FLAT WASHER–LUG–FLAT WASHER–LUG–BUSS–LUG–FLAT WASHER–LOCK WASHER–NUT, IN THAT EXACT ORDER IS ACCEPTED WHERE NECESSARY TO CONNECT MANY LUGS TO A BUSS BAR. STACKING OF LUGS, BUSS–LUG–LUG, IS NOT ACCEPTABLE.

10. THE COMPRESSION GROUND LUG FOR #2 AWG BARE SOLID GROUNDING CONDUCTOR SHALL BE BURNDY TYPE YA3C–2TC.

11. THE DEPTH OF THE GROUND RING, WHEN SPECIFIED, SHALL BE EITHER 3'–6" BELOW FINAL GRADE OR IT SHALL BE INSTALLED TO THE MINIMUM DEPTH REQUIRED BY LOCALLY ENFORCED CODES, REGULATIONS AND ORDINANCES, WHICHEVER IS DEEPER.

12. THE GROUND RING, WHEN SPECIFIED, SHALL BE WITHIN 18 TO 36 INCHES OF THE EQUIPMENT PLATFORM.

13. GROUND RODS, WHEN SPECIFIED, SHALL BE 5/8 INCH STEEL, CLAD WITH A PURE COPPER JACKET OF NOT LESS THAN 0.0012 INCHES THICK, 10 FEET LONG. GROUND RODS SHALL BE DRIVEN IN THE QUANTITY AND LOCATION AS SHOWN ON THE DRAWINGS TO THE FULL VERITCAL LENGTH IN UNDISTURBED EARTH.

14. SPACING BETWEEN GROUND RODS, WHEN SPECIFIED, SHALL BE A MINIMUM OF 10'–0" AND A MAXIMUM OF 15'–0" ON CENTERS.

15. XIT RODS.

    WHEN SPECIFIED ON THE PROJECT DRAWINGS,
    ALL XIT RODS SHALL BE 2–1/8" OD TYPE K COPPER WITH A WALL THICKNESS OF 0.083" AND SHALL HAVE A LENGTH AS SPECIFIED ON THE SITE SPECIFIC DESIGN DRAWINGS.
    THE XIT COPPER PIPE/ROD SHALL BE FILLED WITH NON–HAZARDOUS CALSOLYTE.
    THE BACKFILL MATERIAL SHALL BE NATURAL CLAY LYNCONITE.
    THE COVER SHALL BE INDUSTRIAL POLYPLASTIC, LYNCOLE MODEL XB–11, FOR NON–TRAFFIC AREAS, AND CONCRETE, LYNCOLE MODEL XB–12, FOR TRAFFIC OR PAVED AREAS.

16. PPC BONDING. PPC UNITS ARE SHIPPED WITH A NEUTRAL–GROUND BONDING JUMPER INSTALLED (BECAUSE THEY ARE SERVICE ENTRANCE–RATED EQUIPMENT). AT SITES WHERE THE PPC IS NOT SERVICE EQUIPMENT (AS DEFINED BY THE NATIONAL ELECTRICAL CODE), THIS BONDING JUMPER SHALL BE REMOVED.

NOTE: AT SITES WHERE THE PPC IS NOT SERVICE EQUIPMENT, THE CONTRACTOR SHALL VERIFY THAT THE SERVICE ENTRANCE NEUTRAL IS GROUNDED PRIOR TO REMOVAL OF THE BONDING JUMPER IN THE PPC.

17. THE ANTENNA CABLES SHALL BE GROUNDED AT THE TOP AND BOTTOM OF THE VERTICAL RUN. THE ANTENNA CABLE SHIELD SHALL BE BONDED TO A COPPER GROUND BUS AT THE LOWEST POINT OF VERTICAL RUN, THE ANTENNA CABLE SHIELD SHALL BE GROUNDED JUST BEFORE ENTERING THE BTS. GROUNDING KITS ON COAX CABLE SHALL HAVE A MINIMUM BEND OF 6" AND SHALL BE KEPT AS CLOSE TO VERTICAL AS POSSIBLE. FLAT WASHER SENT WITH GROUND KITS MUST BE REPLACED WITH SMALLER STAINLESS FLAT WASHERS. WASHERS MUST REMAIN FLAT AGAINST GROUND BAR. ALL FASTENERS MUST BE STAINLESS STEEL AND KOPR–SHIELD MUST BE USED ON BOTH SIDES OF GROUND BAR.

LIGHTNING PROTECTION:

1. LIGHTNING PROTECTION MATERIALS SHALL BE FURNISHED BY SPRINT AND INSTALLED BY CONTRACTOR.

GROUND SYSTEM TESTING:

1. A RESISTANCE–TO–GROUND OF 5 OHMS OR LESS IS THE OBJECTIVE OF THE EXTERNAL GROUND SYSTEM AS INDICATED AND SPECIFIED. THE CONTRACTOR SHALL PERFORM TESTS AS SPECIFIED IN SPRINT STANDARD SSEO 3.018.10.002 – SITE RESISTANCE TO EARTH TESTING TO DETERMINE RESISTANCE–TO–GROUND OF THE COMPLETED EXTERNAL GROUND SYSTEM PRIOR TO BACKFILLING TRENCHES. THE CONTRACTOR SHALL EMPLOY THE SERVICES OF AN EXPERIENCED TESTING LABORATORY OR ENGINEERING FIRM FAMILIAR WITH THE SPECIFIED TEST METHOD. IF RESISTANCE OF THE ENTIRE SYSTEM EXCEEDS 5 OHMS. NOTIFY THE OWNER'S REPRESENTATIVE FOR FURTHER DIRECTIVE.

2. GROUND RESISTANCE SHALL BE MEASURED FOR EACH PIECE OF EQUIPMENT TO THE GROUND ELECTRODE.

3. GROUNDING RESISTANCE TEST REPORT
   A GROUNDING RESISTANCE TEST REPORT SHALL BE PREPARED UPON COMPLETION OF THE TESTING FOR EACH SITE. THE TEST REPORT SHALL CONTAIN THE COMPLETE FORMS IN 96104 AND SHOW THE RESISTANCE IN OHMS AT 62% SPACING AND WITH AUXILIARY POTENTIAL ELECTRODES AND READINGS AT 10% INTERVALS WITH A TOTAL DISTANCE OF AT LEAST 500 FEET OR UNTIL THE AVERAGE RESISTANCE STARTS INCREASING. IT SHALL CONTAIN 10 TO 15 PHOTOGRAPHS TAKEN DURING CONSTRUCTION TO PROVIDE PROOF THAT THE ENTIRE EXTERNAL GROUND RING SYSTEM WAS COMPLETE BEFORE BACKFILLING. THE CONTRACTOR SHALL ALSO NOTIFY SPRINT NO LESS THAN 48 HOURS IN ADVANCE OF BACKFILL. TESTING SHALL BE COMPLETED BY THE CONTRACTOR AND TWO (2) COPIES OF THE GROUNDING RESISTANCE TEST REPORT ARE TO BE BOUND AND SUBMITTED WITHIN ONE WEEK OF TEST COMPLETION FOR EACH SITE.

LABELING:

1. PROVIDE 1/8" THICK X 1" HIGH MELAMINE PLASTIC LAMINATE NAMEPLATE ON DISCONNECT SWITCH AND METER WITH "SPRINT" IN 1/4" HIGH WHITE LETTERS ON BLACK FIELD. FASTEN TO SWITCH AND METER WITH EPOXY ADHESIVE.

2. PROVIDE 1/8" THICK X 1/2" HIGH X 2 1/2" LONG MELAMINE PLASTIC LAMINATE NAMEPLATE WITH 1/4" HIGH WHITE LETTERS ON BLACK FIELD AND LABEL ALL CIRCUIT BREAKERS IN PPC WITH LOADS SERVED. FASTEN BESIDE EACH CIRCUIT BREAKER WITH EPOXY ADHESIVE.

Northcoast Communications, L.L.C.
6800 JERICHO TURNPIKE SUITE 120W
SYOSSET, NEW YORK 11791
OFF (516) 393–5808
FAX (516) 393–5807

WASHINGTON GROUP INTERNATIONAL INC.
1500 WEST 3RD STREET
CLEVELAND, OHIO 44113–1406
(216) 523–5600

CHRISTOPHER MICHAEL KAY E–56477 REGISTERED PROFESSIONAL ENGINEER STATE OF OHIO
Christopher M. Kay 08/31/02

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SITE.

STANDARD DRAWING

PROJECT NO: 20222
DRAWN BY: PMF
CHECKED BY: TRA
CAD FILE: nccp02.dwg

SUBMITTALS

2	09/01/02 FOR FINAL CONST.
1	08/[illegible]/02 FOR CONST. REVIEW

SHEET TITLE
GENERAL NOTES

SHEET NUMBER
SP-2

CHICAGO & ST. LOUIS R R

NEW YORK

UNIVERSITY ROAD SW 60'

PRESENT WALK TO BE REPAIRED BY GEN. CONTR.

292'-0"

NEW 6" MESH REINF. CONC. DRIVEWAY

CUT PRESENT CURB

R.C. CRIBBING

PLATFORM ELEV. 71.30

PLATFORM ELEV. 68.30

P.L.

ROOF ELEV. 70.25±

ROOF ELEV. 128.0±

ROOF ELEV. 82.5±

ROOF ELEV. 77.0±

ROOF ELEV. 75.0±

WATER COOLING TOWER

188'-6¼"

67.0

67.50

68.0

69.0

68.50

64.0

T WIRE FENCE

CUT PRESENT CURB

NEW 6" MESH REINF. CONC. DRIVE

FLOOR ELEV. 60.50

TOP OF WALL EL. 70.0±

2" PIPE RAIL

16' GATE

FUTURE TRACK

AV. ELEV. 68.0

6" CURB

T WIRE FENCE

CURB

2" PIPE RAIL

36" STEEL SMOKE STACK ELEV. BOTTOM 71.30

TOP OF APRON WALL ELEV. 70.36

20'-0" SECTIONAL LIFTING GATE 68.45

TOP OF RAIL 68.85

FIRST FLOOR ELEV. 72.31

FOURTH FLOOR ELEV. 104.50

13½

107'-0"

20.0

R.C. CRIBBING

3:1

TOP OF SLOPE 101.0

TOP OF RAIL 100.25

150'-0"

COCA-COLA BOTTLING WORKS
1 STORY BRICK BLDG.
ELEV. FLOOR 102.19
No BASEMENT

BOILER ROOM

4" PAVING BRICK ON 1" CEM. AND SAND CUSHION BY GEN. CONTR.

101.06 101.08 101.17 228'-4" 101.25 101.33 101.40

18'-8"

10'

175'-8"

4" PAVING BRICK ON 1" CEM. AND SAND CUSHION BY GEN. CONTRACTOR

NEW CURB LINE 2

OLD CURB TO BE CUT DOWN

NEW CEMENT SIDEWALK BY CONTRACTOR

73.84 UNDER

100.49

100.53

100.83

101.13

101.33

101.40

101.06

100.83

100.53

100.23

100.04

99.93

99.74

11'

20'

10'

8'

5'

5'

8'

20'

40'

CROWN AVE. SW 60'

ABBEY AVE. SW 66'

15TH ST. W.

14TH ST. W.

CENTRAL VIADUCT

8'

20'

60'

8'

UNIVERSITY RD.

LEGEND

NEW ELEVATIONS 102.06

PRESENT ELEVATIONS 102.06

MOORES & DUNFORD
CONSULTING ENGINEERS
NEW YORK CITY

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CLEVELAND OHIO

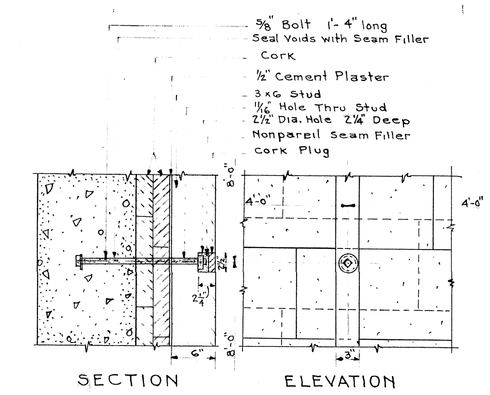
PLOT PLAN

SCALE 1" = 20'-0"

FILE No		DRAWING No
4086	WILBUR WATSON AND ASSOCIATES ARCHITECTS & ENGINEERS CLEVELAND	101-A

DRAWING MADE	DRAWN BY	TRACED BY	CHECKED BY	DATE	APPROVED BY	DATE
8-9-27	L W B	L W B				

REV. BY	DATE	REMARKS	REV. BY	DATE	REMARKS



DETAIL OF BUCKSTAYS

2 x 4 SLATS NOT SHOWN

DOOR SCHEDULE

DESIGNATION NUMBER	MASONRY OPENING	WALL THICK.	WIDTH	HEIGHT	THICKNESS	MATERIAL	LINTEL	JAMB	SILL	REMARKS
1	3'-10"x7'-4"	8" Conc.	3'-6"	7'-6"	1¾"	Hollow Metal	Reinforced Concrete	Metal Buck and Frame	3x4 Pressed Metal Thresh.	2 Panel Door Upper Obscure Gl.
2-3-4		8" Conc.					Reinforced Concrete			Standard Refrig. Doors
5	2'-10"x6'-10"	8" Conc.	2'-6"	6'-8"	1¾"	Hollow Metal	Reinforced Concrete	Metal Buck and Frame	Conc. Flush with Floor	Two Panel Door Anchor Frame to Wall
6	4'-4"x7'-2"	8" Conc.	4'-0"	7'-0"	1¾"	Hollow Metal	Reinforced Concrete	Metal Buck and Frame	8"C Anchored to Curb	3'-6"x7'-0" Louver Bottom Panel
7	8'-8"x10'-4"	8" Conc.	2 4'-0"	10'-4"	1¾"	Hollow Metal	Reinforced Concrete	Metal Buck and Frame	8"C Anchored to Curb	Wired Gl. Panel See Elevations
8	3'-6"x7'-6"	8" Conc.	4'-2"	7'-10"	¾ PLY	TIN CLAD	Reinforced Concrete	8"C Anchored to Conc	Conc. Flush with Floor	Counter Balanced Sliding Fire Door
9-10	4'-0"x 7'-0"	8" Conc.				STEEL	Reinforced Concrete	See Detail of Coal Slides	Conc. Flush with Floor	Std. Steel Rolling Curtain Door
11	3'-6"x 6'-8"	8" Conc.				STEEL	Reinforced Concrete			Std. Steel Rolling Curtain Door
12	11'-0"x VAR.	12" Conc.					Reinforced Concrete			No Door

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• FLOOR • PLAN • OF •
• REFRIGERATING • PLANT & BOILER • HOUSE •

SCALE 1/8"=1'-0"

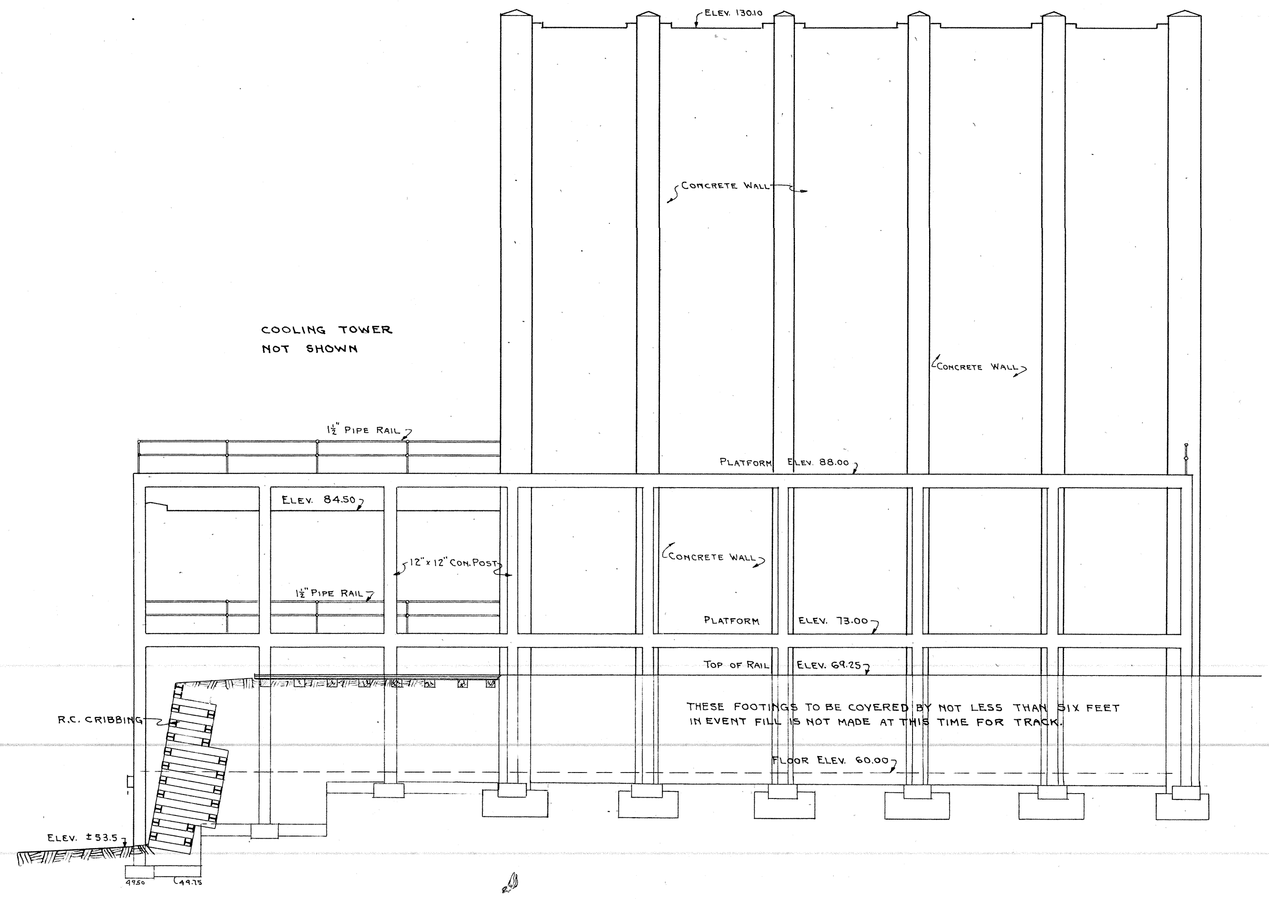
FILE No. 4086

WILBUR WATSON AND ASSOCIATES
ARCHITECTS & ENGINEERS
CLEVELAND

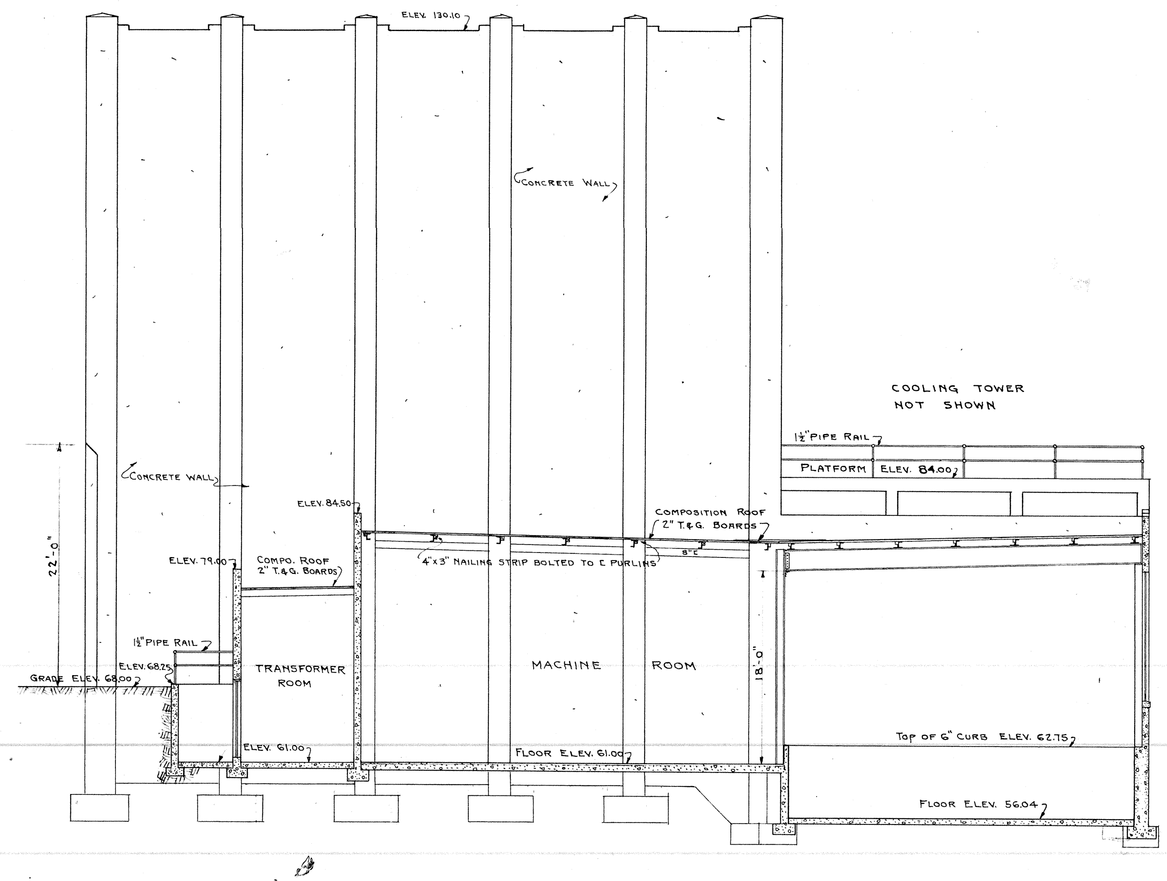
DRAWING No. 1-A

DRAWING MADE	DRAWN BY	TRACED BY	CHECKED BY	DATE	APPROVED BY	DATE
8-6-27	V.E.	L.W.B.				

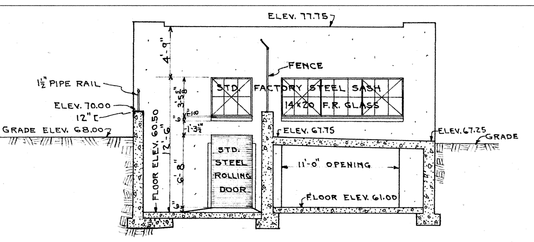
REV. BY	DATE	REMARKS	REV. BY	DATE	REMARKS
L.W.B	8-11	Buckstays And Slats			



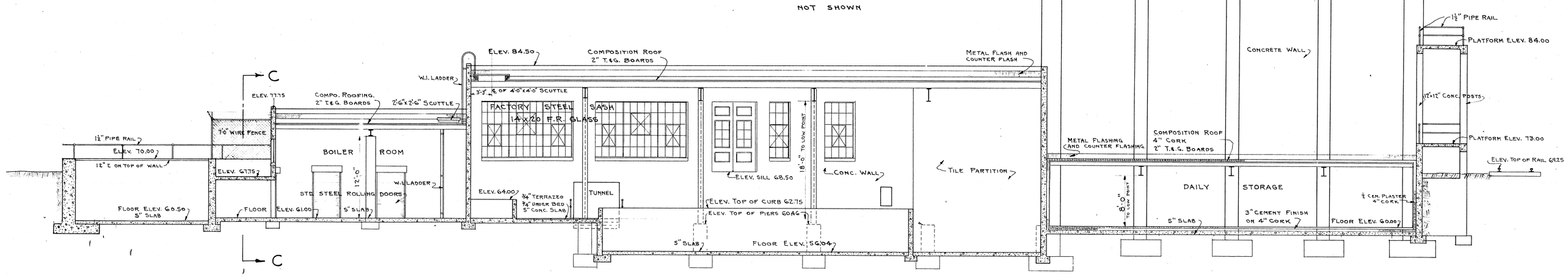
WEST ELEVATION



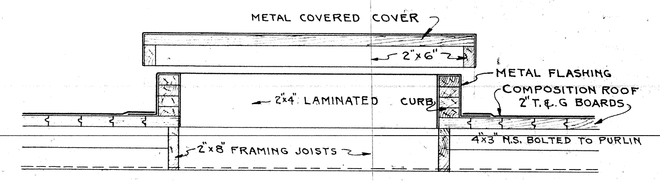
SECTION B-B



SECTION C-C

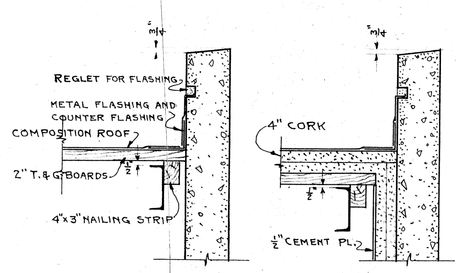


SECTION A-A



TYPICAL SECTION THRU SCUTTLES

SCALE: 3/4" = 1'-0"



TYPICAL SECTIONS THRU PARAPETS

SCALE 3/4" = 1'-0"

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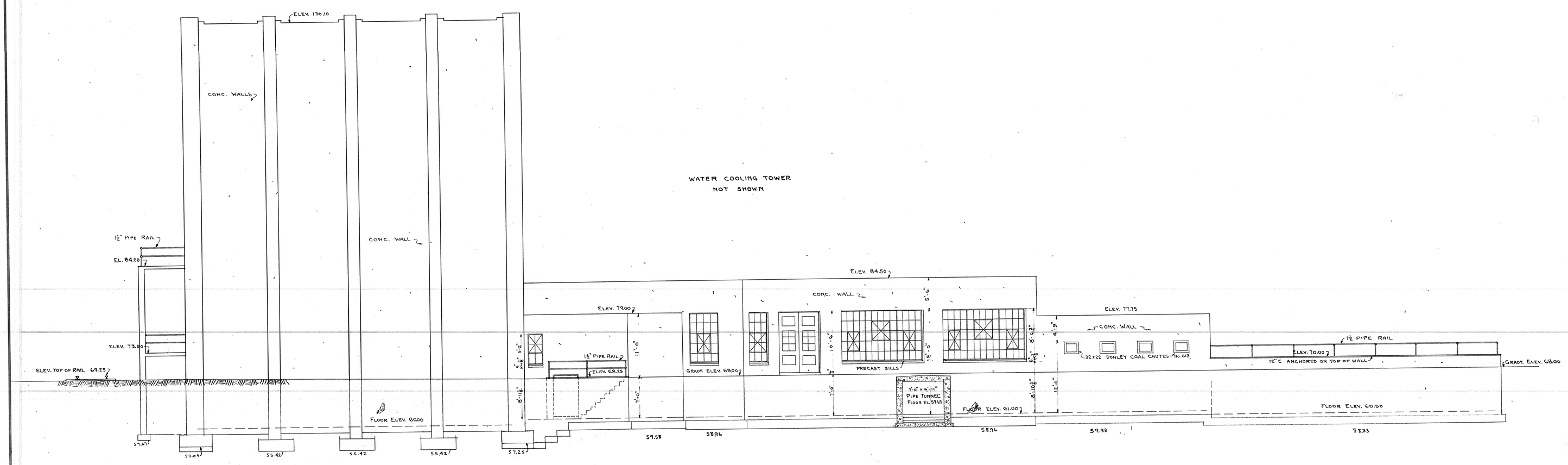
WEST ELEVATION, SECTIONS & DETAILS
OF REFRIGERATING PLANT & BOILER HOUSE

SCALE

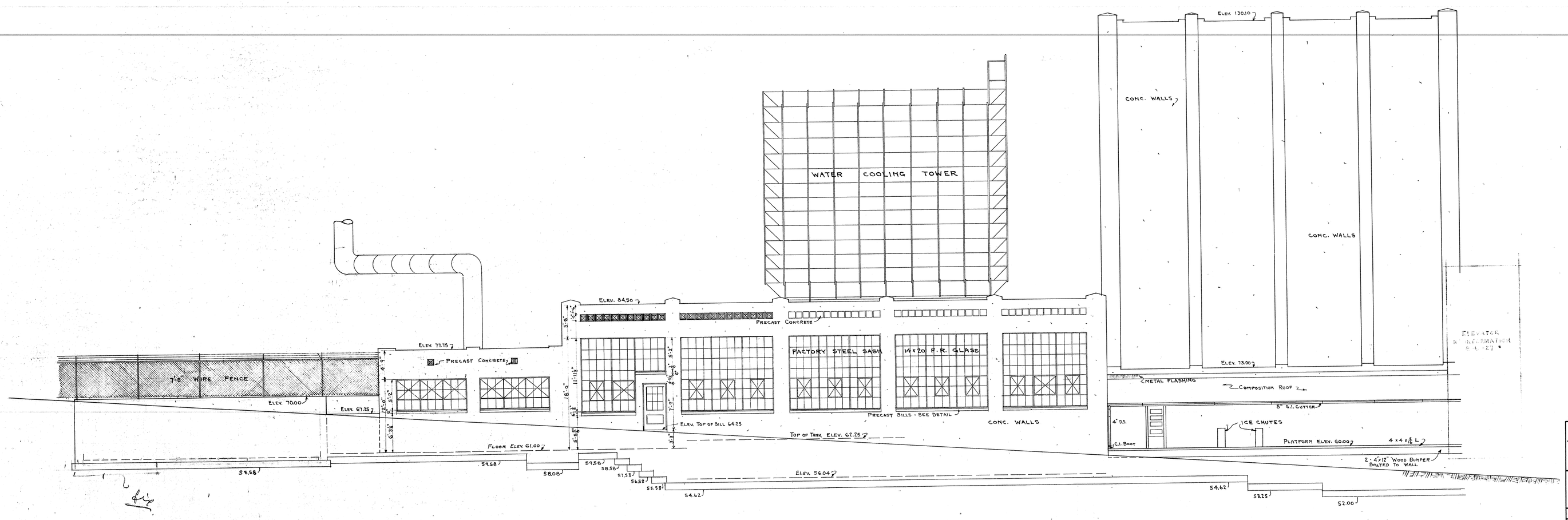
FILE No.		DRAWING No.
4086	WILBUR WATSON AND ASSOCIATES ARCHITECTS & ENGINEERS CLEVELAND	2-A

DRAWING MADE	DRAWN BY	TRACED BY	CHECKED BY	DATE	APPROVED BY	DATE
8-6-27	L.W.B.	L.W.B.				

REV. BY	DATE	REMARKS	REV. BY	DATE	REMARKS
L.W.B.	8-11	Platform Elev.			



SOUTH ELEVATION



UNIVERSITY ROAD ELEVATION

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SCALE 1/8" = 1'-0"

FILE Nº	WILBUR WATSON AND ASSOCIATES ARCHITECTS & ENGINEERS CLEVELAND	DRAWING Nº
4086		3-A

DRAWING MADE	DRAWN BY	TRACED BY	CHECKED BY	DATE	APPROVED BY	DATE
8-6-27	L.W.B.	L.W.B.				

REV. BY	DATE	REMARKS	REV. BY	DATE	REMARKS
L.W.B.	8-11	Platform Elev.			

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- CLEVELAND · OHIO -

- ROOF · PLAN · OF -
- REFRIGERATING · PLANT · & · BOILER · HOUSE -

SCALE

FILE №	4086	DRAWING № 4-A

WILBUR WATSON AND ASSOCIATES
ARCHITECTS & ENGINEERS
CLEVELAND

DRAWING MADE	DRAWN BY	TRACED BY	CHECKED BY	DATE	APPROVED BY	DATE
8-6-27	L.W.B.	L.W.B.				

REV. BY	DATE	REMARKS	REV. BY	DATE	REMARKS
L.W.B.	8-11	Platform Elev.			

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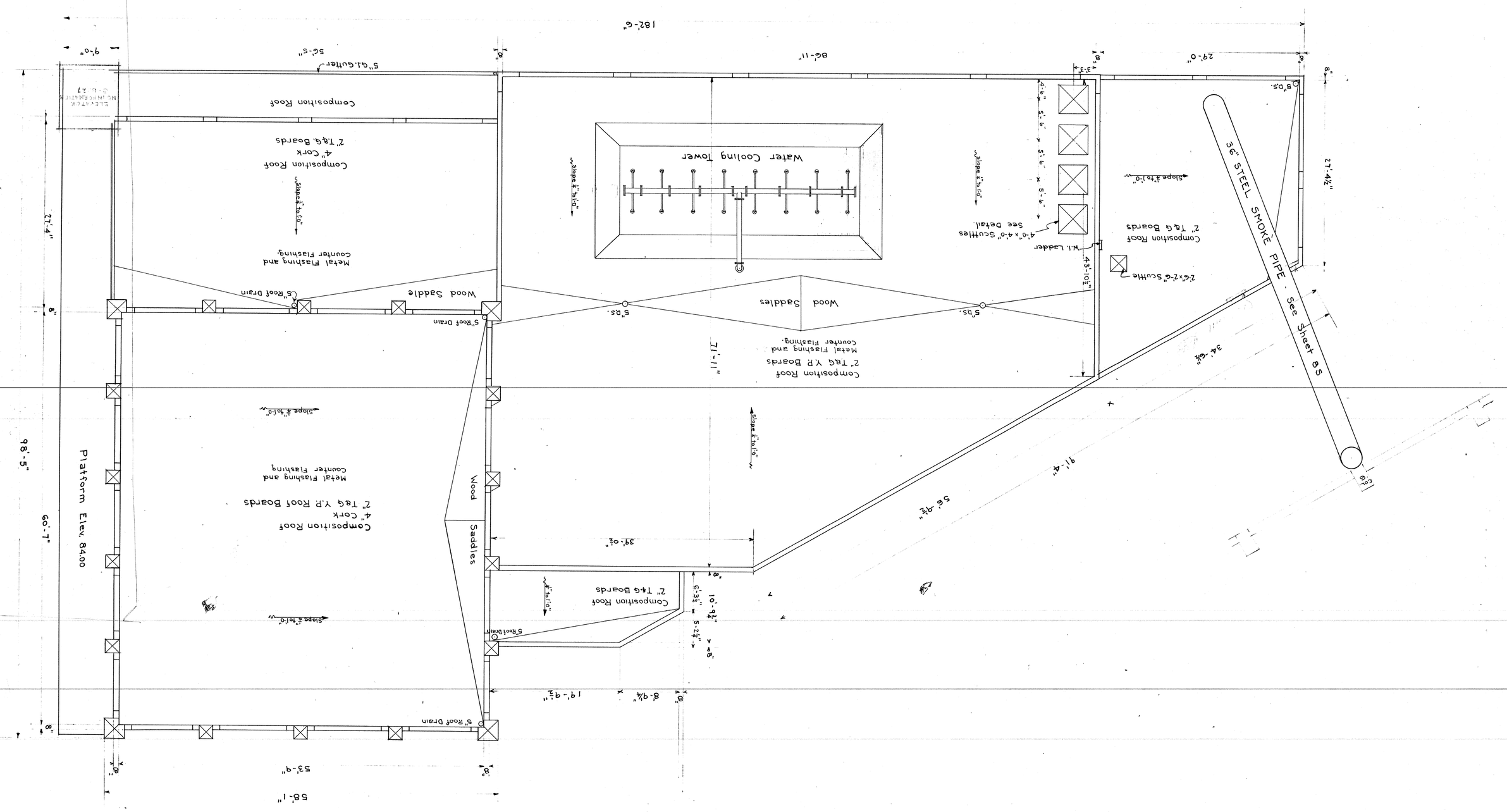
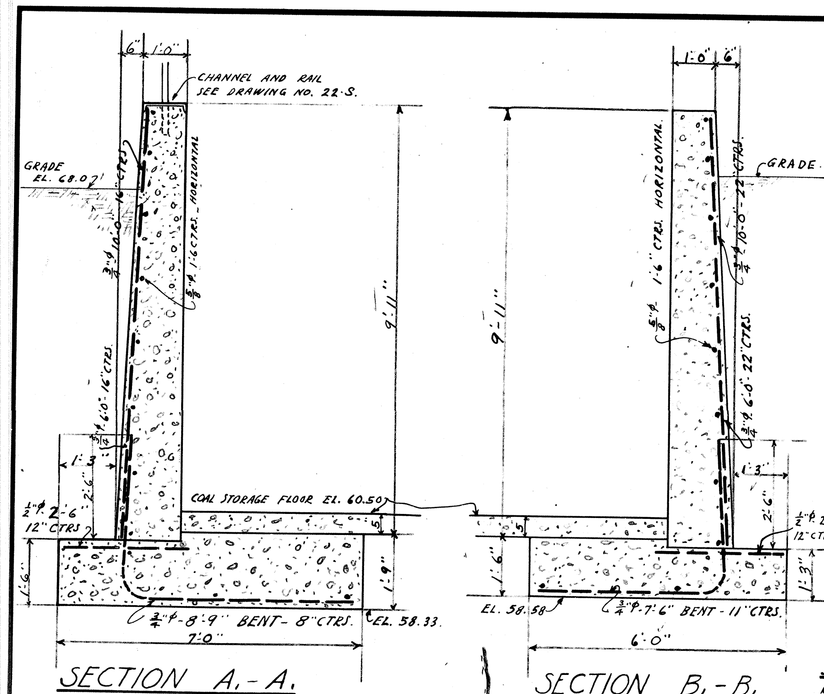
- CONSULTING ENGINEERS -
- NEW · YORK · CITY -



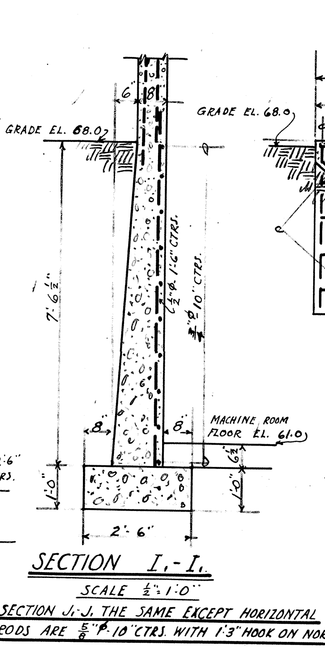


SECTION A,-A.

SCALE 1/4"=1'-0"

SECTION B,-B.

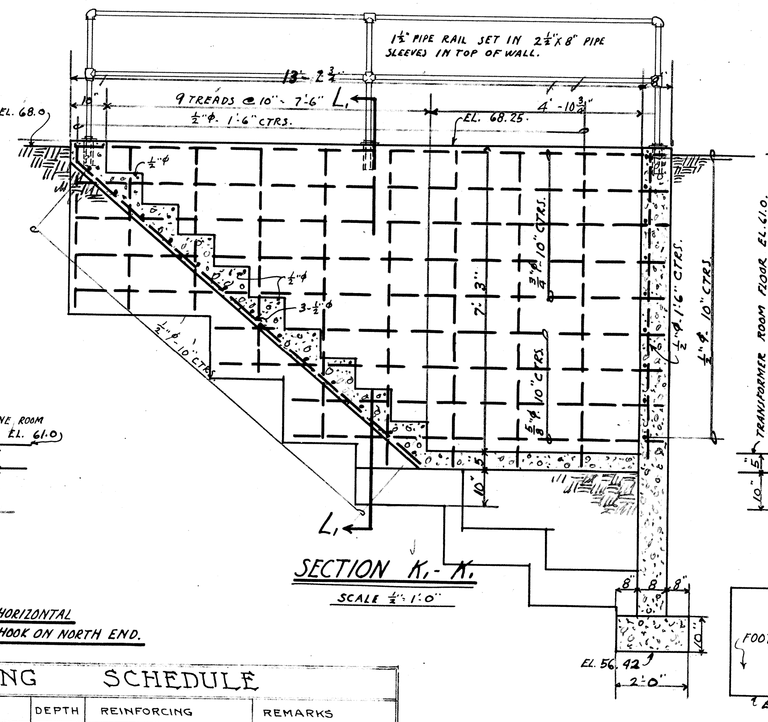
SCALE 1/4"=1'-0"



SECTION I,-I.

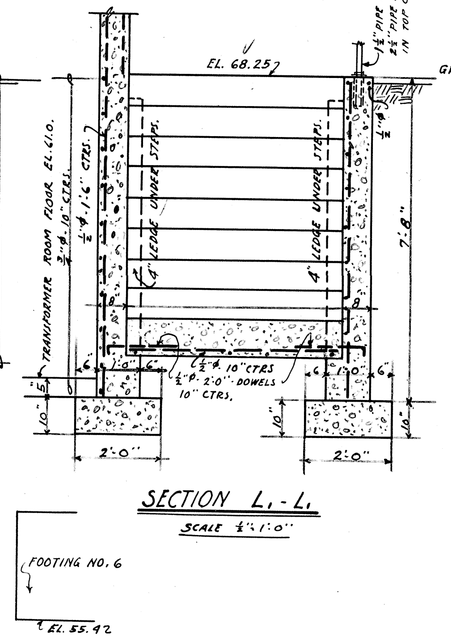
SCALE 1/4"=1'-0"

SECTION J,-J. THE SAME EXCEPT HORIZONTAL RODS ARE 5/8" ϕ 10" CTRS. WITH 1'-3" HOOK ON NORTH END.



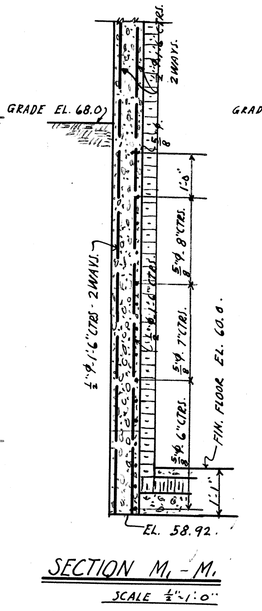
SECTION K,-K.

SCALE 1/4"=1'-0"



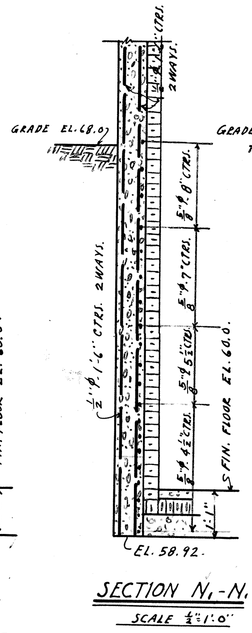
SECTION L,-L.

SCALE 1/4"=1'-0"



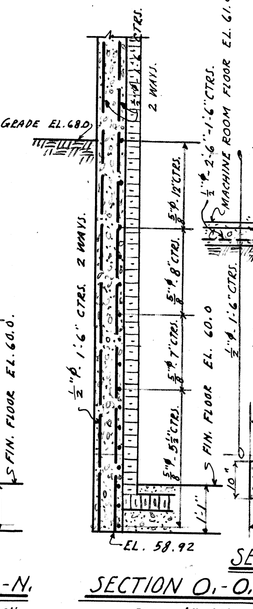
SECTION M,-M.

SCALE 1/4"=1'-0"



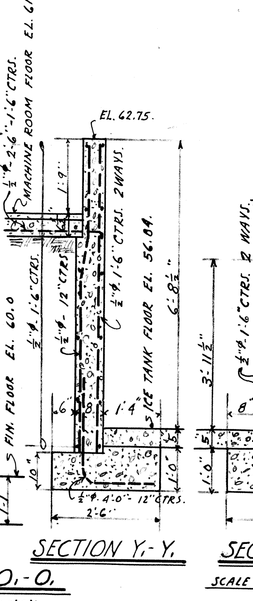
SECTION N,-N.

SCALE 1/4"=1'-0"

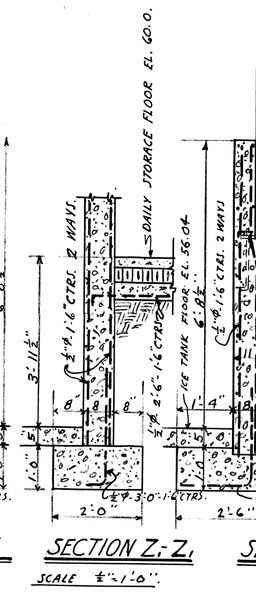


SECTION O,-O.

SCALE 1/4"=1'-0"



SECTION Y,-Y.



SECTION Z,-Z,

SCALE 1/4"=1'-0"

SECTION AA-AA

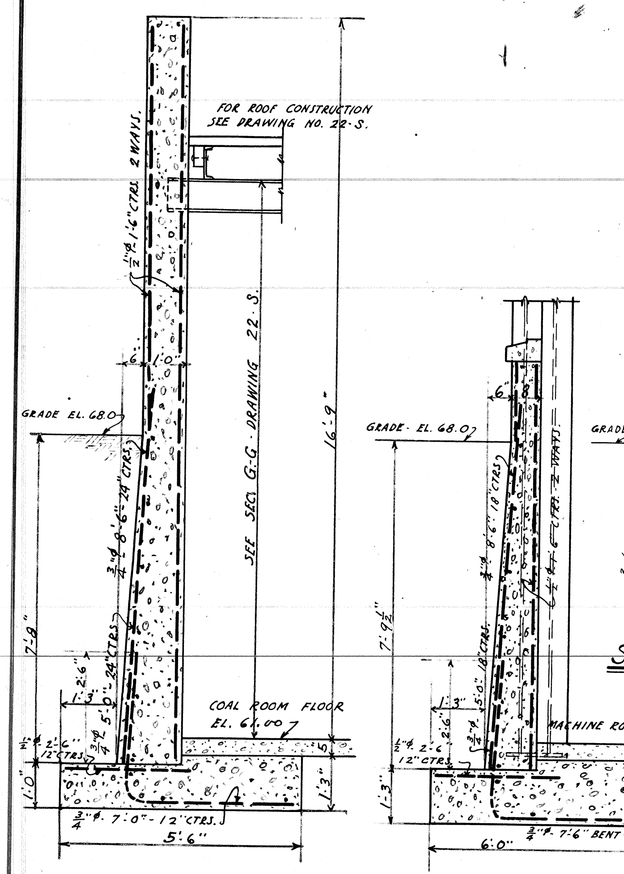
FOR SECTION P,-P, SEE SECTION F-F DRAWING NO 22-S
FOR SECTION Q,-Q, SEE SECTION N-N DRAWING NO. 23-S.

FOOTING SCHEDULE

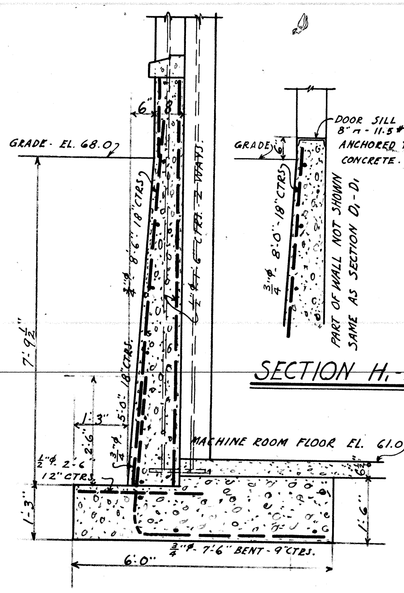
DESIGNATION NUMBER	SIZE	DEPTH	REINFORCING	REMARKS
1	5'-6" SQ.	2'0"	6-5/8" ϕ x 5'-3" ea. way	
2, 3, 4, 6, 7, 8, 9, 10, 11, 12, 13, 15, 16, 17	6'-0" X 7'-0"	2'-6"	10-5/8" ϕ, 6'-9" 13-5/8" ϕ, 5'-9"	
5	5'-9" SQ.	2'2"	7-5/8 ϕ x 5'-6" EA. WAY	
14 - 28	6'-0" X 6'-9"	2'6"	8-5/8" ϕ x 5'-9" 10-5/8" ϕ x 6'-6"	COMBINED.
18	6'-3" SQ.	2'4"	8-5/8" ϕ - 6'-0" EA. WAY	
24	3'-6" SQ.	12"	—	
40 - 48 INCL.	2'-6" SQ.	15"	—	

NOTE: ALL ELEVATIONS GIVEN TO BOTTOM OF FOOTINGS.

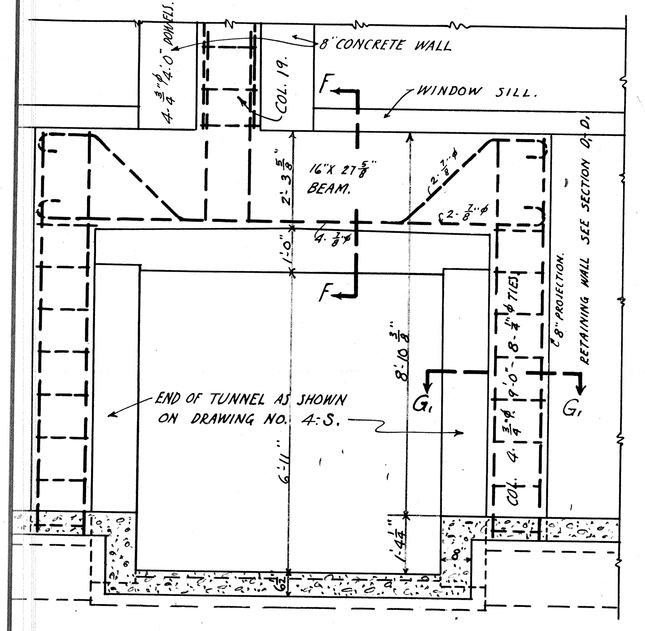
Pedestals under Cols. 24, 25, 26, & 27 to have 4-3/4" ϕ rods with 1/4" hoops spaced 1'-0" ctrs.



SECTION H,-H.

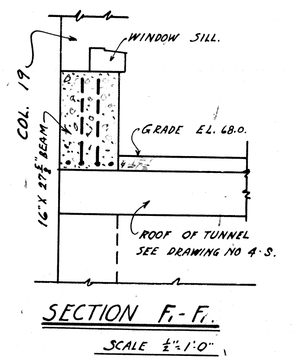


SECTION D,-D.



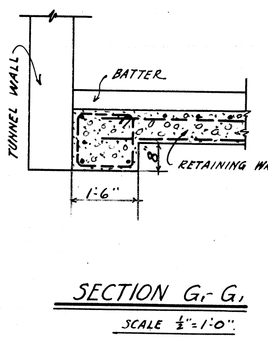
SECTION E,-E.

SCALE 1/4"=1'-0"



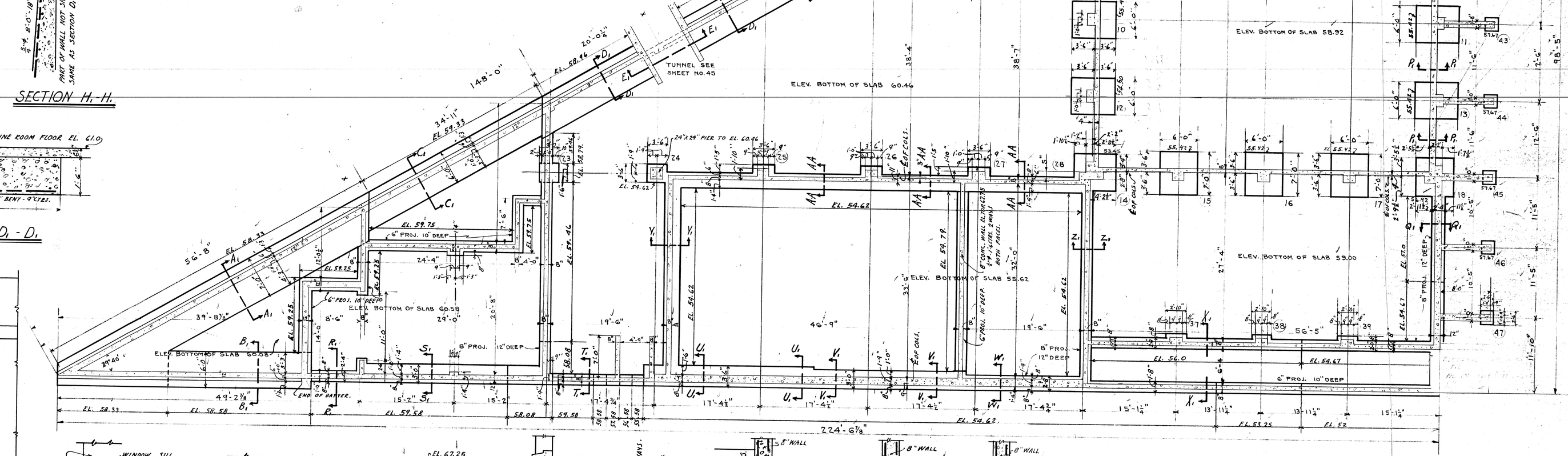
SECTION F,-F.

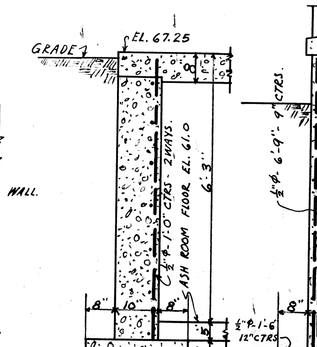
SCALE 1/4"=1'-0"



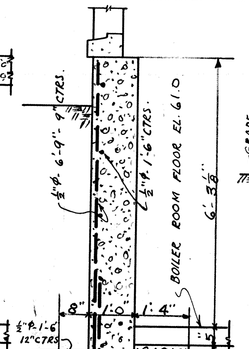
SECTION G,-G,

SCALE 1/4"=1'-0"

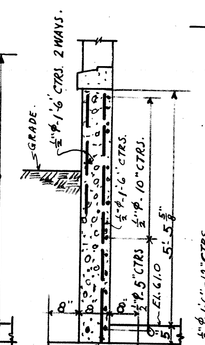




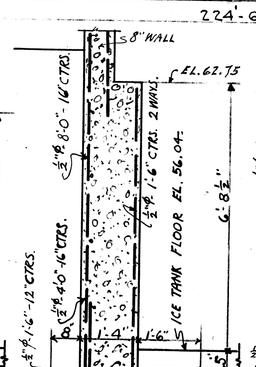
SECTION R,-R.



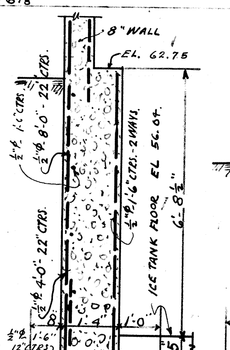
SECTION S,-S.



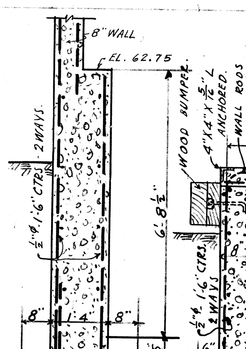
SECTION T,-T.



SECTION U,-U.



SECTION V-V.



SECTION W,-W.

SECTION X,-X.

MOORES & DUNFORD
CONSULTING ENGINEERS
NEW YORK CITY

DISTRIBUTION TERMINAL & COLD STORAGE CO.
CLEVELAND, OHIO

FOUNDATION PLAN OF REFRIGERATING PLANT & BOILER HOUSE

SCALE 1/8" and 1/4" = 1'-0"

FILE No. 4086

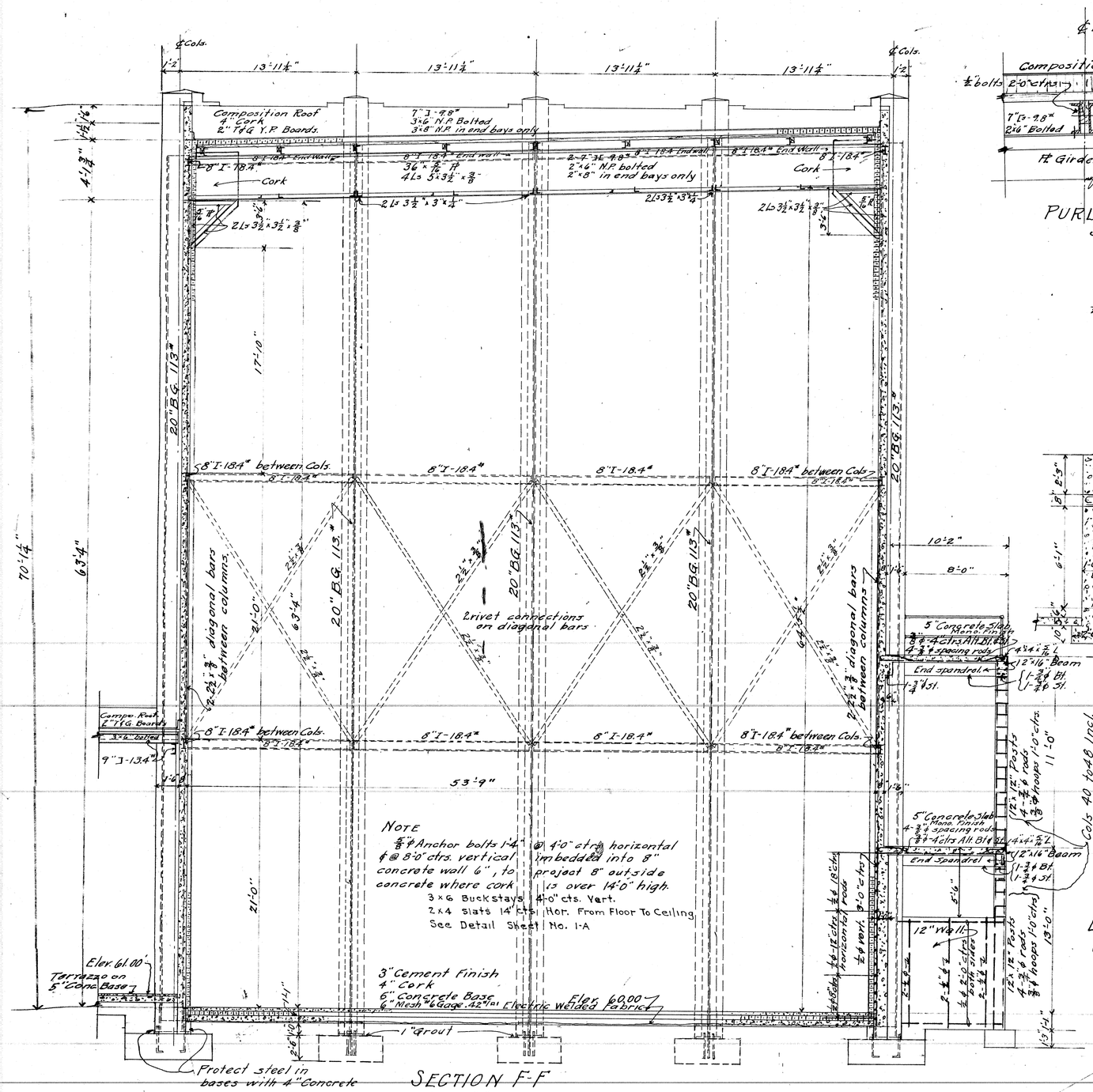
WILBUR WATSON AND ASSOCIATES
ARCHITECTS & ENGINEERS
CLEVELAND

DRAWING No. 21-S

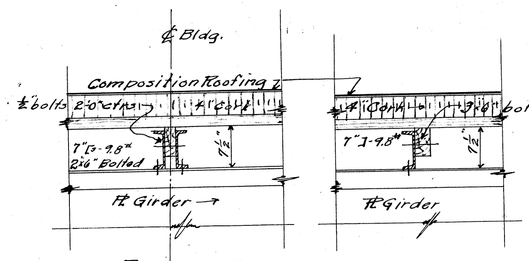
DRAWING MADE	DRAWN BY	TRACED BY	CHECKED BY	DATE	APPROVED BY	DATE
8-6-27	L.W.E. W.R.B.	L.W.E. W.R.B.				

REV. BY	DATE	REMARKS
W.P.R.	12-10	Pedestal Note
W.P.R.	6-19	Dimensions

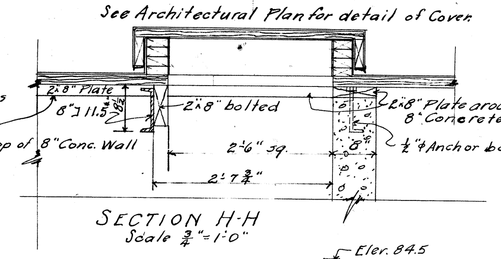
REV. BY	DATE	REMARKS



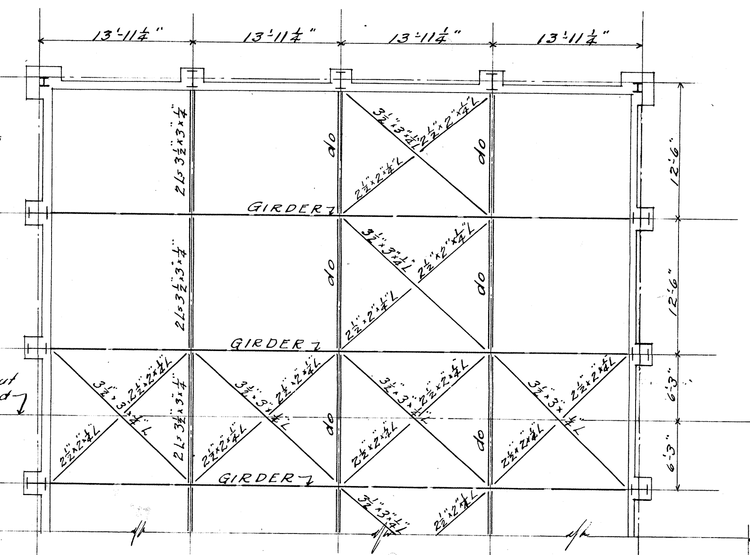
SECTION F-F
Scale 3/16" = 1'-0"



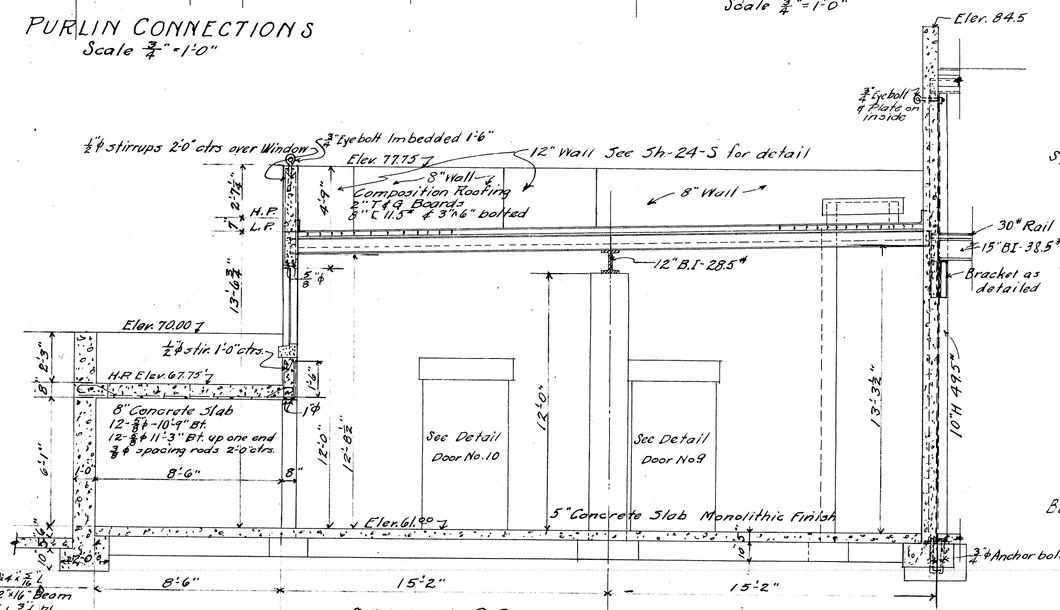
PURLIN CONNECTIONS
Scale 3/4" = 1'-0"



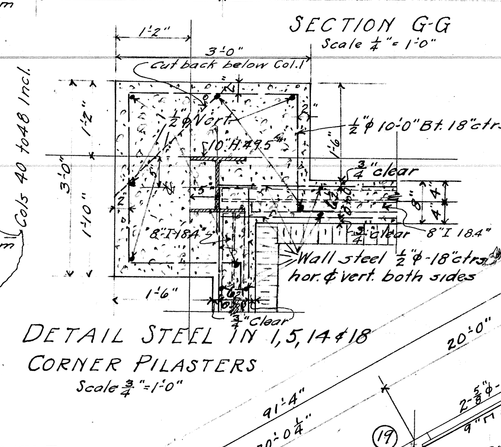
SECTION H-H
Scale 3/4" = 1'-0"



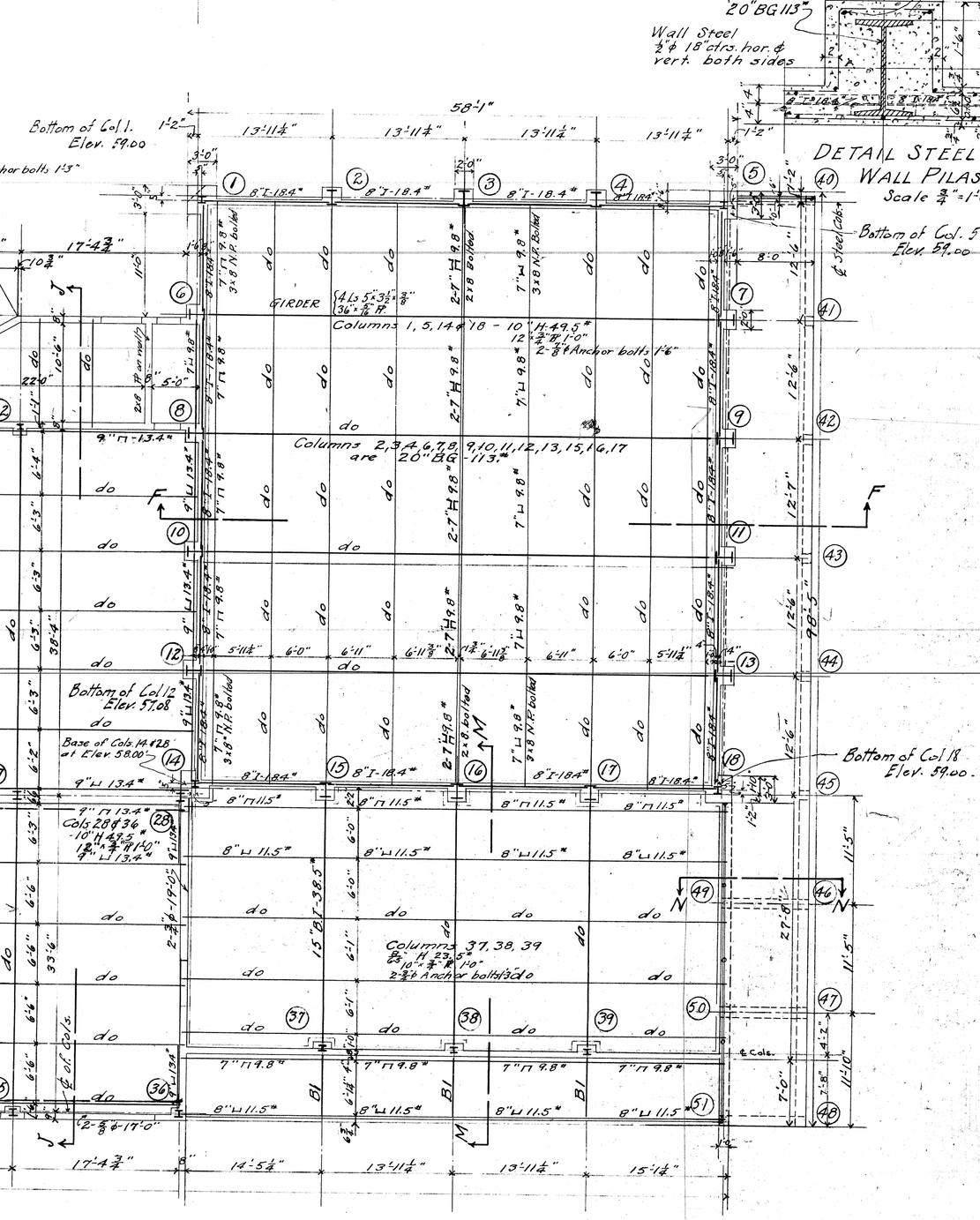
BOTTOM CHORD BRACING

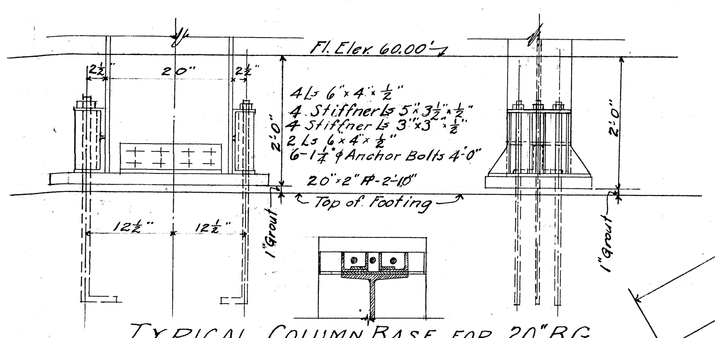


SECTION G-G
Scale 1/4" = 1'-0"

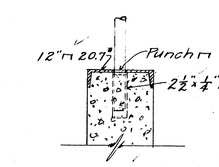


DETAIL STEEL IN 1,5,14 & 18 CORNER PILASTERS
Scale 3/4" = 1'-0"

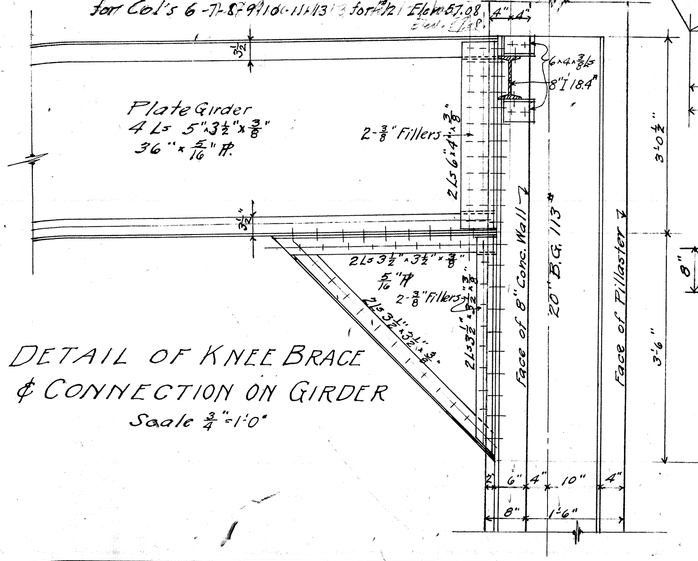




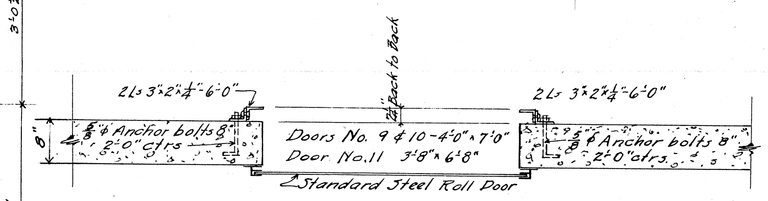
TYPICAL COLUMN BASE FOR 20" B.G.
Elevation of base as shown
for Col's 6-7-8-9-10-11-13 ; for Col 12 Elev. 57.08



SECTION I-I
Scale 3/4" = 1'-0"



DETAIL OF KNEE BRACE & CONNECTION ON GIRDER
Scale 3/4" = 1'-0"



DETAIL DOORS INTO COAL ROOM
Scale 3/4" = 1'-0"

GENERAL NOTES.

Use Bethlehem Steel Co. standard connections except where shown.

Wall Steel — All 8", 12" & 16" walls reinforced with ½" ℄ rods, both sides, 1'-6" ctrs. both horizontally & vertically except where shown otherwise

6" curb walls reinforced with ½" ℄ rods in middle of wall, 1'6" ctrs. each way.

Anchors for wall bearing purlins & beams to be 2 Ls 2½" x 2½" x ¼"

Rivet all connections except purlin connections.

See Sh. "21-S for reinforcing steel in foundations

MOORES & DUNFORD
CONSULTING ENGINEERS
NEW YORK CITY

DISTRIBUTION TERMINAL & COLD STORAGE Co.
CLEVELAND OHIO

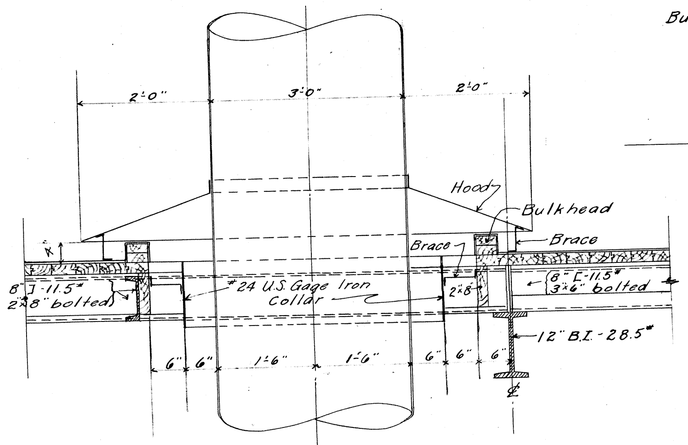
ROOF FRAMING PLAN
REFRIGERATING PLANT & BOILER HOUSE

SCALE

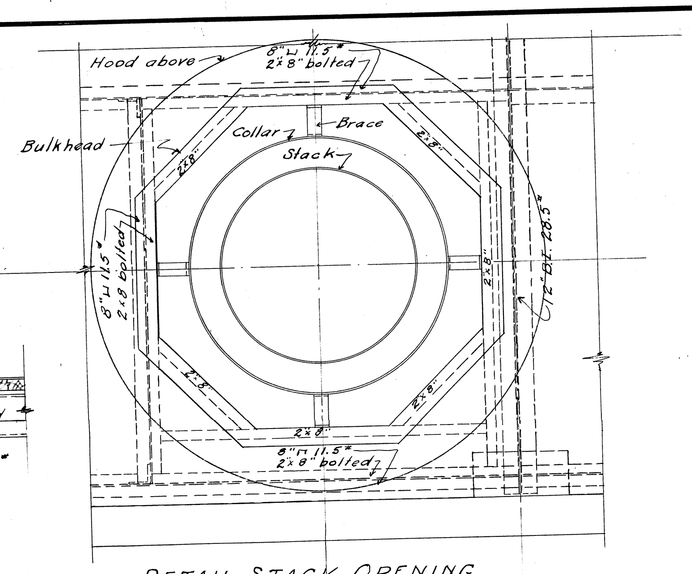
FILE No.	WILBUR WATSON AND ASSOCIATES ARCHITECTS & ENGINEERS CLEVELAND	DRAWING No.
4086		22-S

DRAWING MADE	DRAWN BY	TRACED BY	CHECKED BY	DATE	APPROVED BY	DATE
Aug. 6, 1927	L.H.S.	L.H.S				

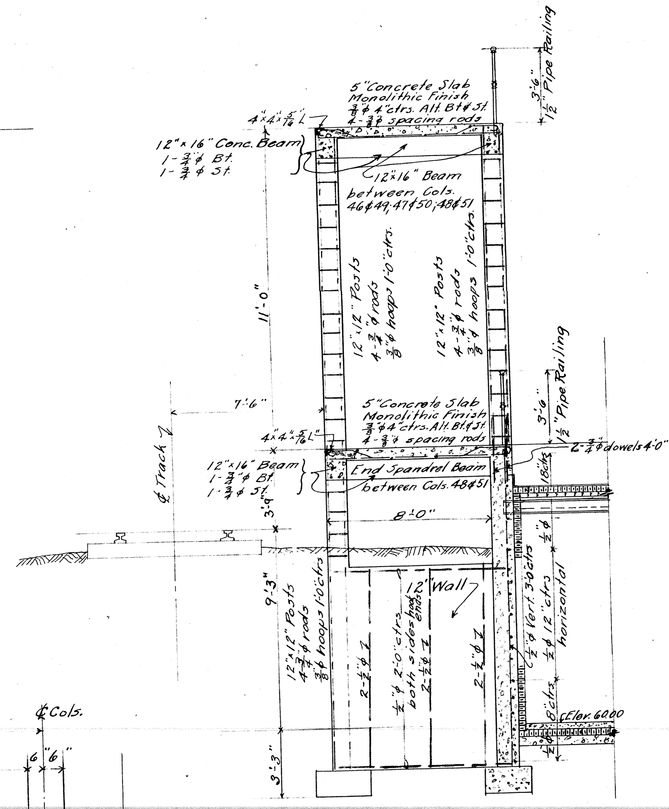
REV. BY	DATE	REMARKS
L.W.B	8-11	Platform Elev. & Doorways
L.H.S	8-17	Cols 1, 5, 14 & 18 & Steel Fill
W.P.R	8-23	Crane Cab, Col Base Elevs



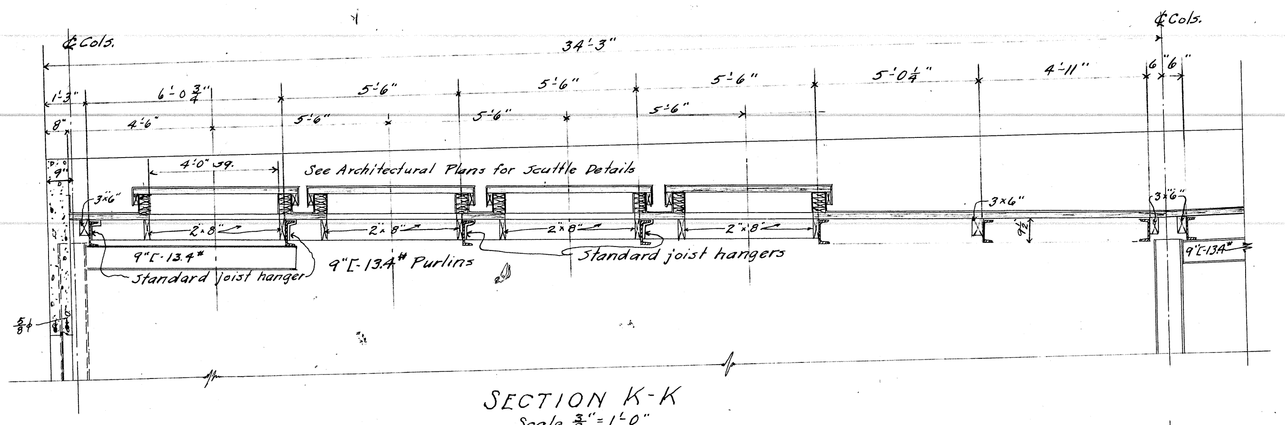
SECTION L-L
Scale $\frac{3}{4}$" = 1'-0"



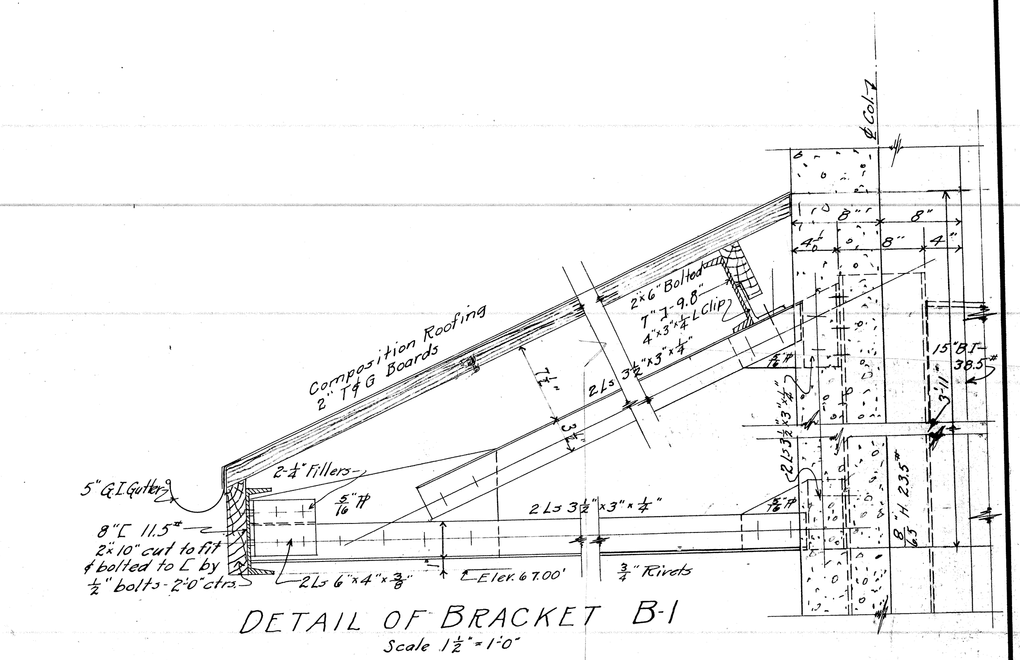
DETAIL STACK OPENING
Scale $\frac{3}{4}$" = 1'-0"



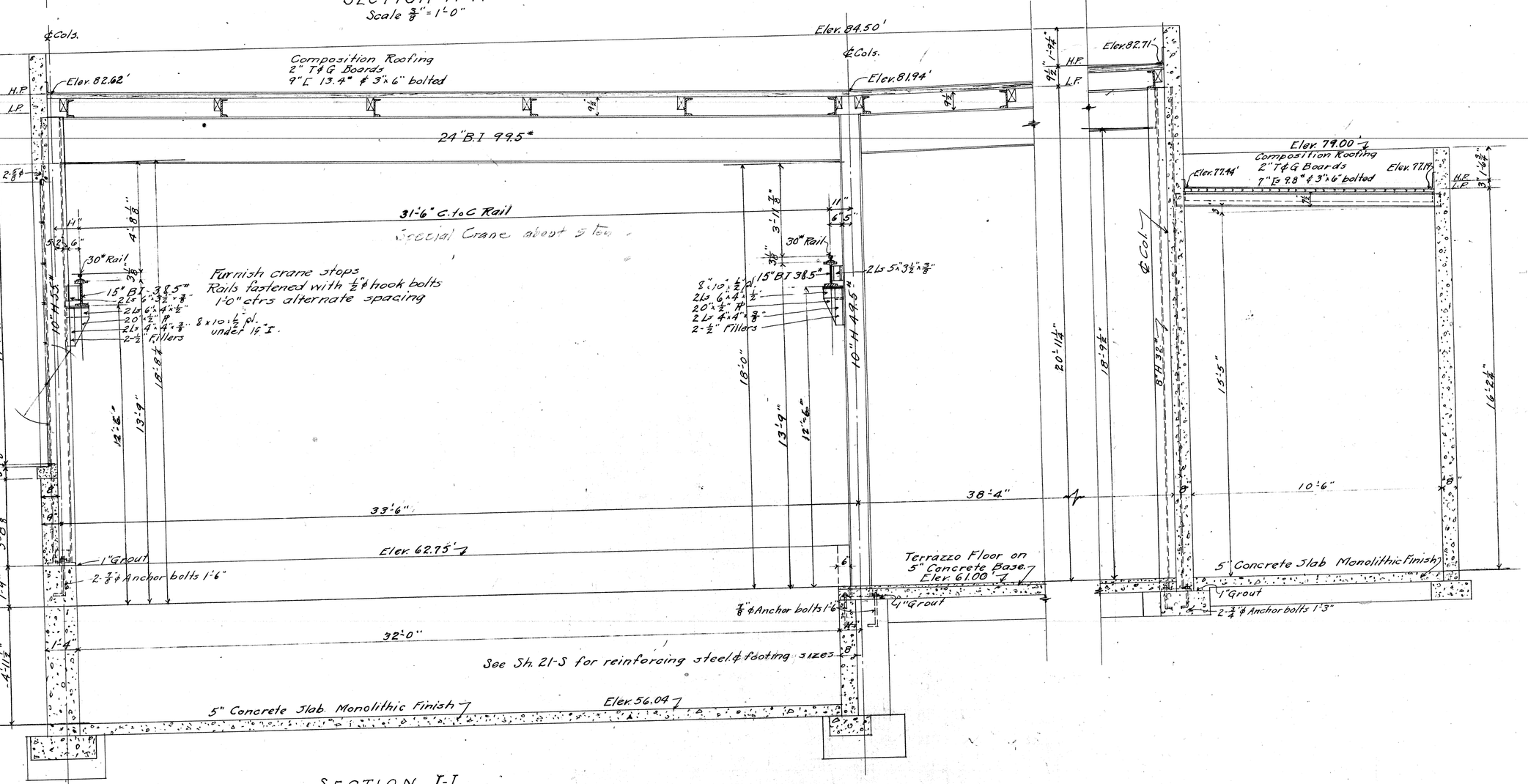
SECTION N-N
Scale $\frac{1}{4}$" = 1'-0"



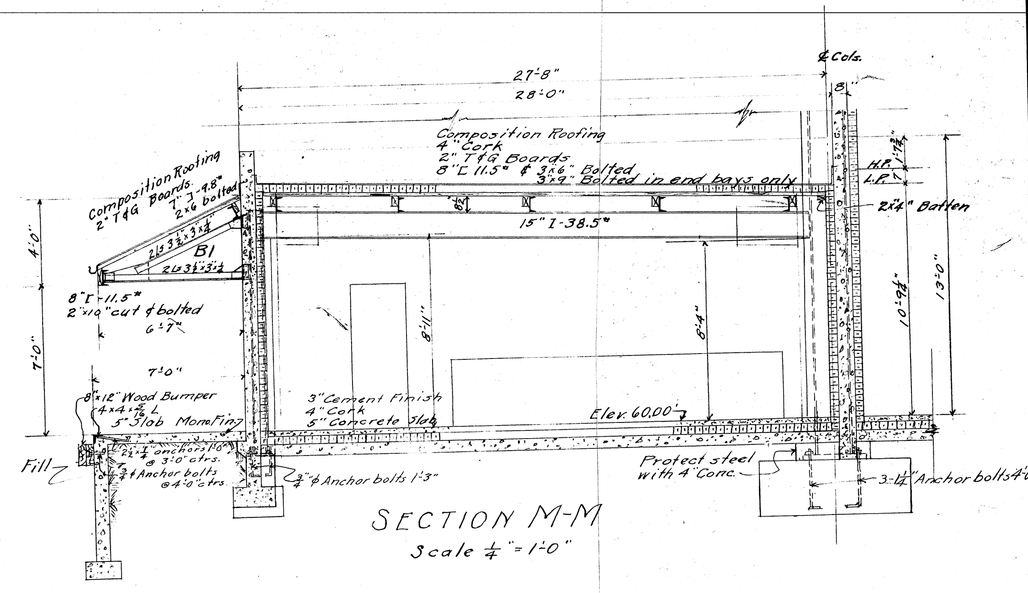
SECTION K-K
Scale $\frac{3}{8}$" = 1'-0"



DETAIL OF BRACKET B-1
Scale 1½" = 1'-0"



SECTION J-J
Scale $\frac{3}{8}$" = 1'-0"



SECTION M-M
Scale $\frac{1}{4}$" = 1'-0"

MOORES & DUNFORD
CONSULTING ENGINEERS
NEW YORK CITY

DISTRIBUTION TERMINAL & COLD STORAGE CO.
CLEVELAND OHIO

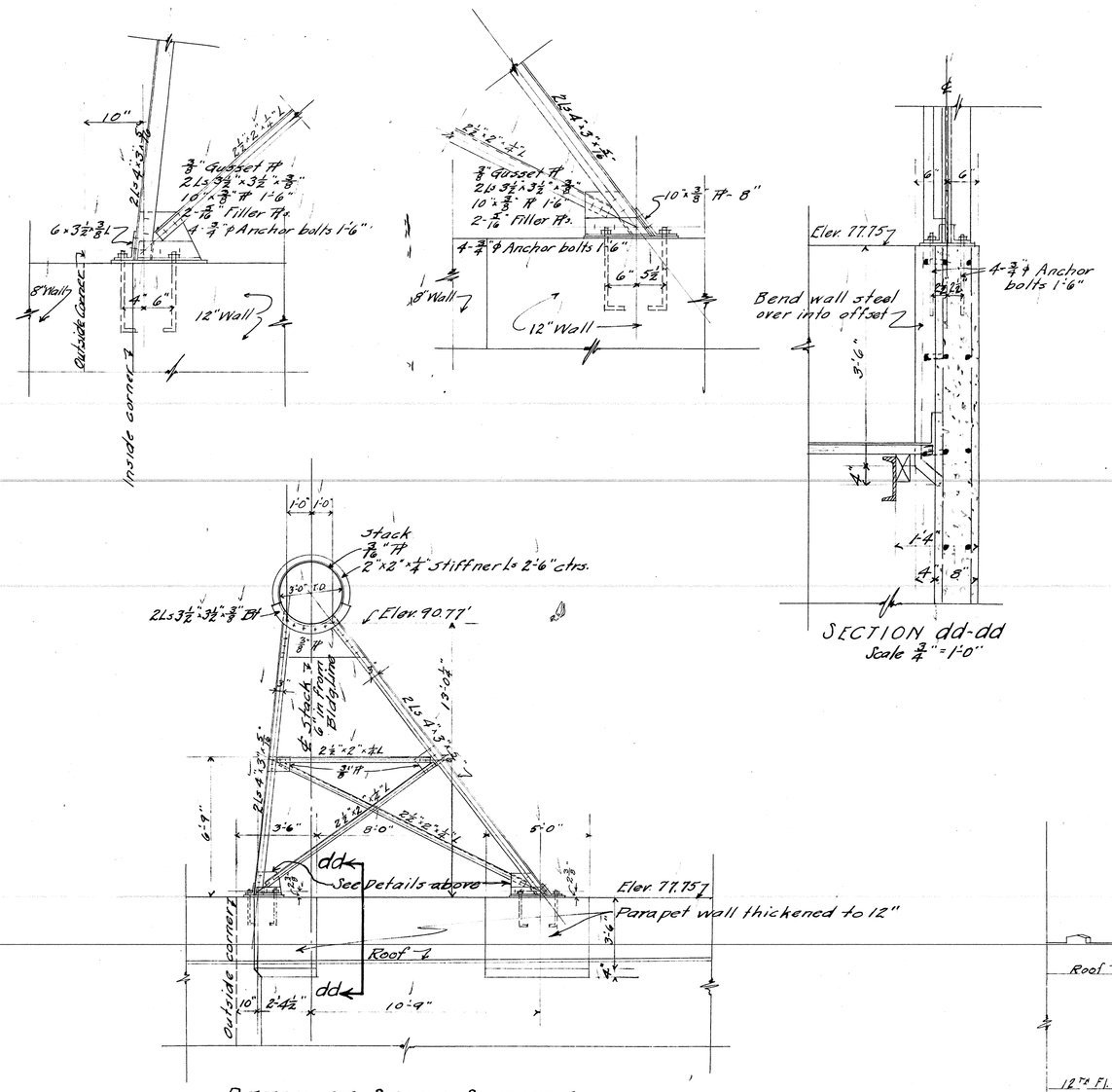
SECTIONS
REFRIGERATING PLANT & BOILER HOUSE

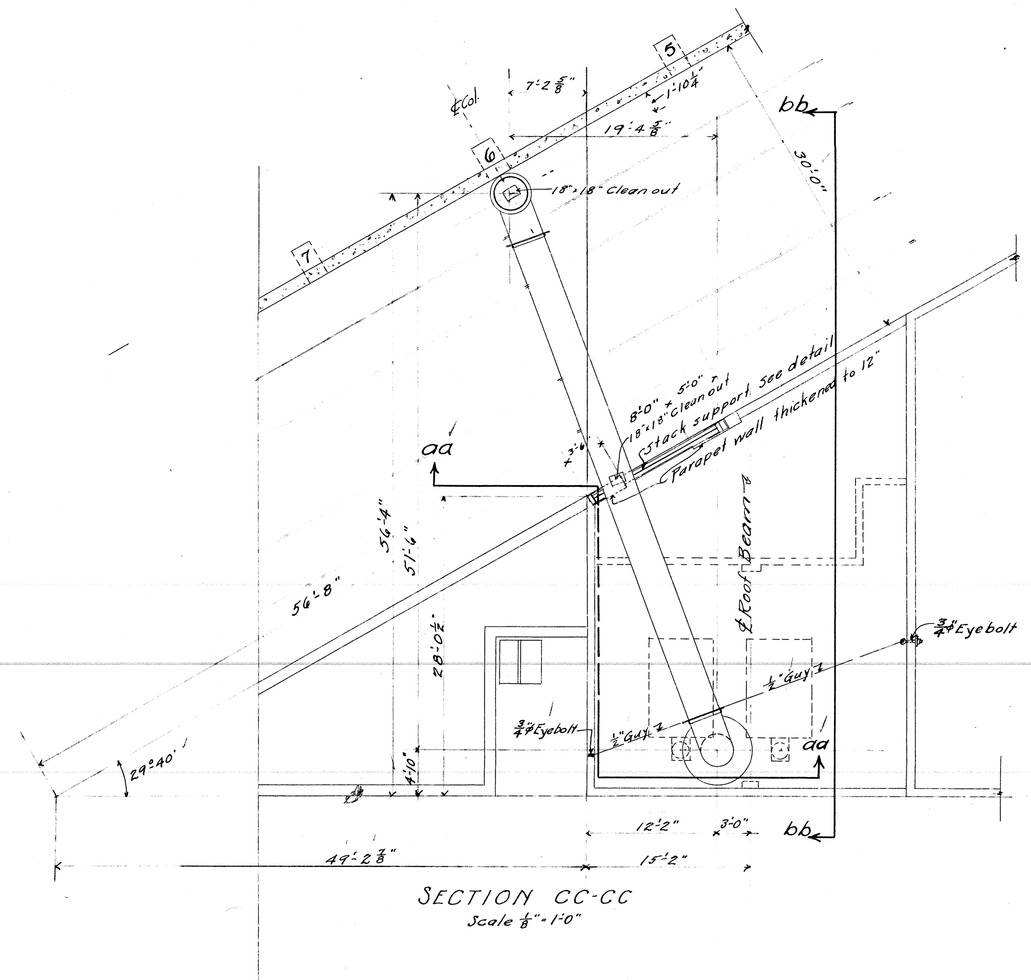
SCALE

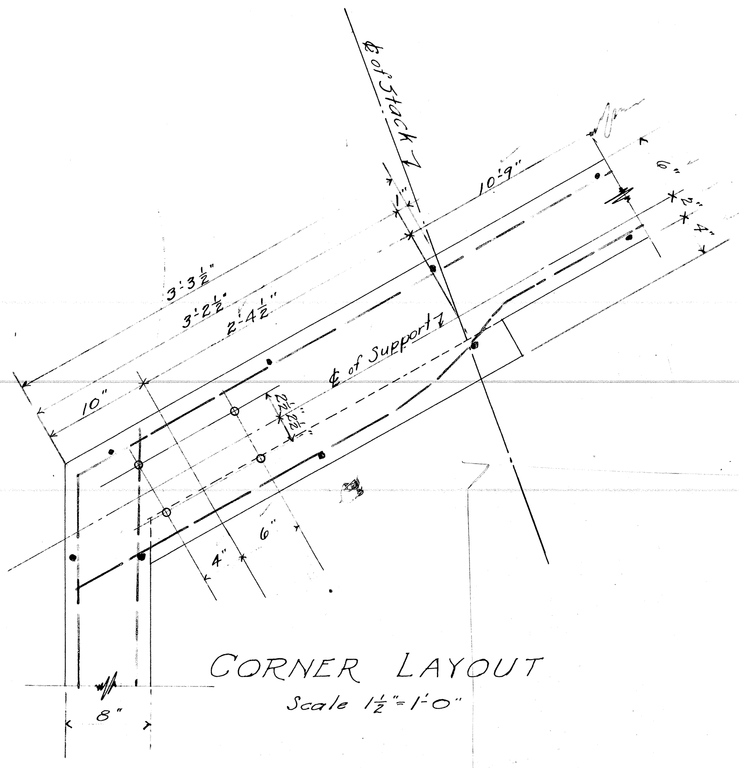
FILE No.	WILBUR WATSON AND ASSOCIATES ARCHITECTS & ENGINEERS CLEVELAND	DRAWING No.
4086		23-S

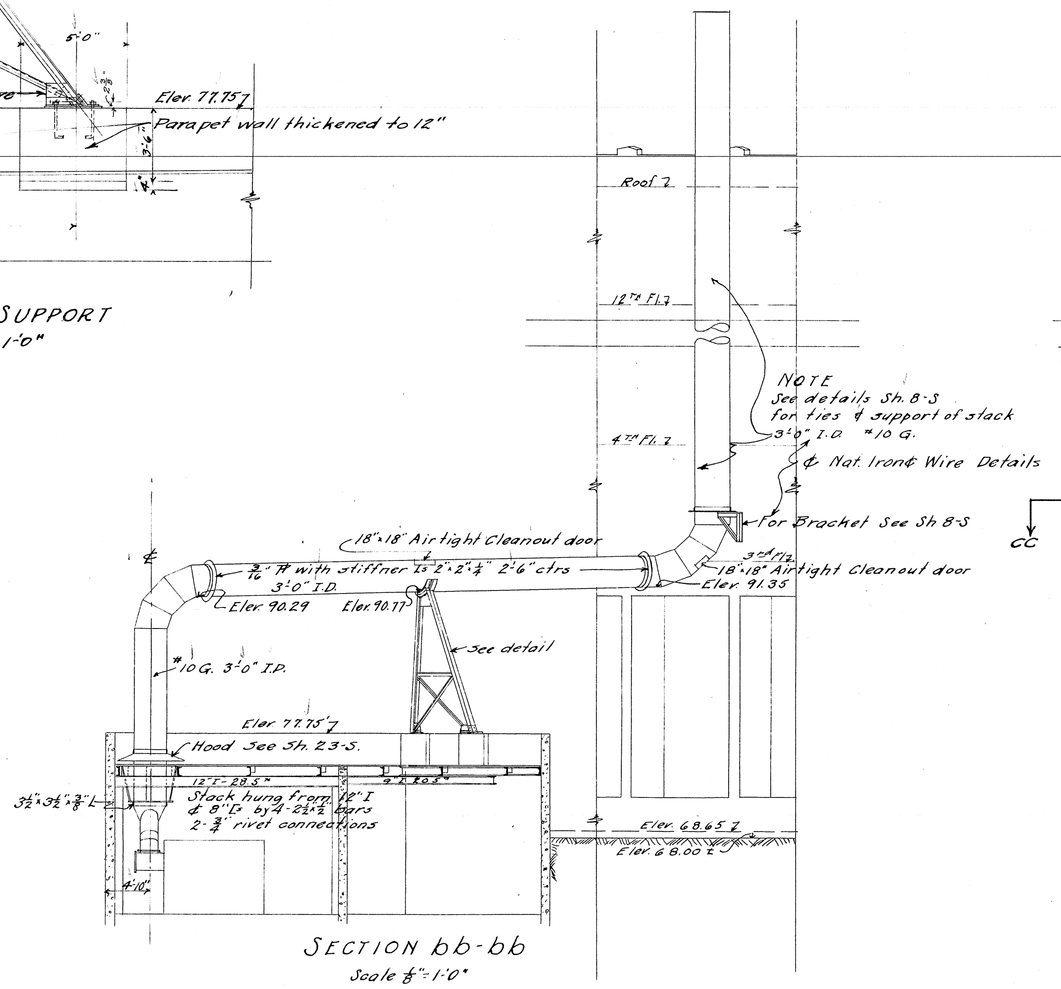
DRAWING MADE	DRAWN BY	TRACED BY	CHECKED BY	DATE	APPROVED BY	DATE
Aug. 6, 1927	L.H.S.	L.H.S.				

REV. BY	DATE	REMARKS	REV. BY	DATE	REMARKS
W.P.K.	8-17	Changed Sections J-J & N-N			
W.P.K.	9-13	Crane Girder			









NOTE
Contractor to check all dimensions in field.

• MOORES • & • DUNFORD •
• CONSULTING • ENGINEERS •
• NEW • YORK • CITY •

• DISTRIBUTION • TERMINAL • & • COLD • STORAGE • Co. •
• CLEVELAND • OHIO •

• STRUCTURAL • DETAILS • FOR •
• STEEL • STACK •

SCALE AS NOTED

FILE N°		DRAWING N°
4086	WILBUR WATSON AND ASSOCIATES ARCHITECTS & ENGINEERS CLEVELAND	24-S

DRAWING MADE	DRAWN BY	TRACED BY	CHECKED BY	DATE	APPROVED BY	DATE
8-24-27	L.H.S	L.H.S	W.P.F.			

REV. BY	DATE	REMARKS	REV. BY	DATE	REMARKS

RUMBING & HEATING LAYOUT OF REFRIGERATING PLANT & BOILER HOUSE

SCALE 1/8" = 1'-0"

UNIVERSITY ROAD - 60'-0"

MAIN BUILDING
FIRST FLOOR ELEV. 73.91

TUNNEL - 7'-0" x 6'-6" HIGH

GRADE ELEV. 68.02

ELEV. TOP OF RAIL 68.65

R.R. SIDING

FUTURE R.R. SIDING

SEE SHEET No 102-M FOR CONTINUATION

EXTRA HEAVY CAST IRON SEWER

E.H. CAST IRON

15" VIT-TILE

DRIVEWAY

ELEV. 74.87

ELEV. 72.42

ELEV. APPROX. 67.0

CURB

COAL STORAGE
ELEV. 61.0

EMERGENCY COAL STORAGE
ELEV. 60.5

BOILER ROOM
FLR'G. 61.0

BOILER

8" STEAM HEADER

ASH STORAGE
FLOOR - BELOW EL. 61.0

SUPPLY MAIN TO RISE TO CEILING AT THIS POINT THEN BOTTOM INTO ESTUCH MAIN

RETURN MAIN TO DROP UNDER FLUME AT THIS POINT

RETURN MAIN ALONG WALL

8" STEAM SUPPLY MAIN & GLUD INTO SUPPLY MAIN

2" COND. SERVICE MAIN

THESE HEADERS RUNS TO BE INSULATED

DRIP END OF SUPPLY MAIN THRU TRAP INTO RETURN MAIN

SEE SHEET No 102-M FOR CONTINUATION

DRIP END OF SUPPLY MAIN THRU TRAP INTO RETURN MAIN

SERVICE MAINS ALONG CEILING OF MACHINE ROOM TO TUNNEL AT THIS POINT

DOUBLE ROW - 2 1/2" BACK TO BACK - 90-108 F

SUPPLY MAIN ALONG CEILING

RETURN MAIN ALONG WALL UNDER WINDOW SILLS

6" VIT-TILE SEWER

ENGINE HEATER, ABOVE FLOOR

6" TEMP. CONTROL VALVE WITH VALVED BY-PASS IN STEAM LINE TO ENGINE HEATER

CARRY 2" GAS MAIN TO H.W. GAS HEATER IN BOILER ROOM

TRANSFORMER VAULT
ELEV. 69.0

TOILET ROOM
ELEV. 61.0

MACHINE ROOM
ELEV. 61.0

SEASON STORAGE
ELEV. 61.0

ICE TANK ROOM

ICE TANKS
EL. TOP 65.25
EL. BOTTOM 58.04

PIT
ELEV. 56.04

DAILY STORAGE
ELEV. - 60.0

PLATFORM

ELEV. APPROX. 54.56

HOT & COLD WATER LINES ALONG CEILING

6" VIT-TILE

4" VIT-TILE SEWER

5" E.H. CAST IRON SEWER

5" D.S. RECESSED IN WALL

4" D.S. RECESSED IN WALL

4" D.S.

V.S.

F.D.

F.D. IN MUDDLE PIT

F.D. IN PIT BELOW

F.D. BELOW

SC.

DRAIN C.W. LINES TO BLOW OFF AT THIS POINT

15" C.W. LINE TO BOILER, CONN. FOR 11" CONN. TO BOILER FILL LINES, 24" CONN. TO HOUSE LINE & 11" CONN. TO H.W. STORAGE TANK

LEAVE 2" OPEN C.W. CONN. WITH GATE VALVE FOR REFRIGERATING CONTRACTOR

3" WATER MAIN TO RISE TO CEILING AT THIS POINT

3" WATER SERVICE MAIN

WATER METER WITH BY-PASS IN MANHOLE

15" VIT-TILE SEWER TO CITY SEWER IN CENTER OF UNIVERSITY RD.

Moores & Dunford
Consulting Engineers
New York City

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CLEVELAND, OHIO.

RUMBING & HEATING LAYOUT OF REFRIGERATING PLANT & BOILER HOUSE

SCALE - 1/8" = 1'-0"

FILE Nº		DRAWING Nº
4086	WILBUR WATSON AND ASSOCIATES ARCHITECTS & ENGINEERS CLEVELAND	101-M

DRAWING MADE	DRAWN BY	TRACED BY	CHECKED BY	DATE	APPROVED BY	DATE
JUNE-24-1927	LH-PWB-CJ	W-B-C				

REV. BY	DATE	REMARKS	REV. BY	DATE	REMARKS

DOOR SCHEDULE

DESIGNATION OPENING NO.	OPENING WIDTH	OPENING HEIGHT	THICK	MATERIAL	JAMB	SILL	REMARKS
101-102-103-104-106 111-112-116-117-109	PELLE STANDARD 8'-0"	8'-0"	1¾"	TIN CLAD	4"x4"x⅜" L TO BE BOLTED TO STEEL FRAME	4"x4"x⅜" L FLUSH WITH FLOOR	PELLE PASS TYPE COUNTERBALANCED
105-108-115-118-				HOLLOW METAL	CEMENT FILLED HOLLOW METAL FRAME	CEMENT FILLED HOLLOW METAL FRAME TO FLOOR	PELLE PASS TYPE COUNTERBALANCED
107-	9'-6"	8'-0"	1¾"	TIN CLAD	4"x4"x⅜" L TO BE BOLTED TO CONCRETE	4"x4"x⅜" L FLUSH WITH FL.	PELLE PASS TYPE COUNTERBALANCED
113-	15'-2"	8'-0"	3'-0" CONC.	CONCRETE	4"x4"x⅜" L ANCHORED TO CONC.	4"x4"x⅜" L FLUSH WITH TOP OF PLATFORM	ROLLING STEEL CURTAIN DOOR
114-119-120-121-123-124-125-126-	PELLE STANDARD 16'-4"	8'-0"	6" TILE	STEEL	4"x3½"x⅜" L ONE PIECE CT. MENT FILLED	4"x3½"x⅜" L INCORP. IN CONC. FLOOR	ROLLING STEEL CURTAIN DOOR 3 2 PANEL DOOR
130-			6" TILE	HOLLOW METAL	GL@8.2#	CEMENT FILLED HOLLOW METAL FRAME	2 PANEL DOOR
110-			6" TILE	HOLLOW METAL	GL@8.2#	CEMENT FILLED HOLLOW METAL FRAME	2 PANEL DOOR 2 PANEL DOOR OPENS AT BOTTOM PANEL
122-127-128-129			6" TILE	HOLLOW METAL	GL@8.2#	CEMENT FILLED HOLLOW METAL FRAME	2 PANEL DOOR ANCHOR FRAME TO WALL

1st FLOOR LEV. = EL. 72.31

5" CONCRETE FLOOR, MESH REINFORCED
MONOLITHIC CEMENT FINISH

4"x4"x⅜" Ls. 5'-0" HIGH GUARDS ON ALL EXPOSED CORNERS OF COLUMNS
Nos. 27-28-39-40-33-34-34a-35-45-46-46a-47-75-76-87-88-81-82-93 & 94.

1½" SCALE SECTION THRU. DRAIN AT ENTRANCE DRIVEWAY NEAR NORTH EAST CORNER OF BUILDING

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· DISTRIBUTION · TERMINAL · & · COLD · STORAGE · C
· CLEVELAND · OHIO ·

· PLAN · OF · FIRST · STORY ·

SCALE 1"=1'-0"

FILE No.	WILBUR WATSON AND ASSOCIATES ARCHITECTS & ENGINEERS CLEVELAND	DRAWING No.
4086		1

DRAWING MADE	DRAWN BY	TRACED BY	CHECKED BY	DATE	APPROVED BY
6-15-27	C.A.N.	L.H.S.	V.E.		

REV. BY	DATE	REMARKS
L.H.S.	6-15-27	SCALES
L.H.S.	6-30-27	ANGLES AT COLS. 30 & 47 ALSO DOWNSPOUTS

REV. BY	DATE	REMARKS

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· PLAN · OF · SECOND · STORY ·

SCALE 1/8" = 1'-0"

FILE Nº 4086

WILBUR WATSON AND ASSOCIATES
ARCHITECTS & ENGINEERS
CLEVELAND

DRAWING Nº 103-A

	DRAWN BY	TRACED BY	CHECKED BY	DATE	APPROVED BY	DATE
DRAWING MADE 6 - 15 - 27	C. A. N.	L. H. S.	V. E.			
REMARKS			REV. BY	DATE	REMARKS	
REV. BY DATE						
L.H.S. 6-29-27	SCALES: 1/8" ANGLES AT COLS. 35 & 47 ARE 90 DEGREES					
L.H.S. 6-30-27						

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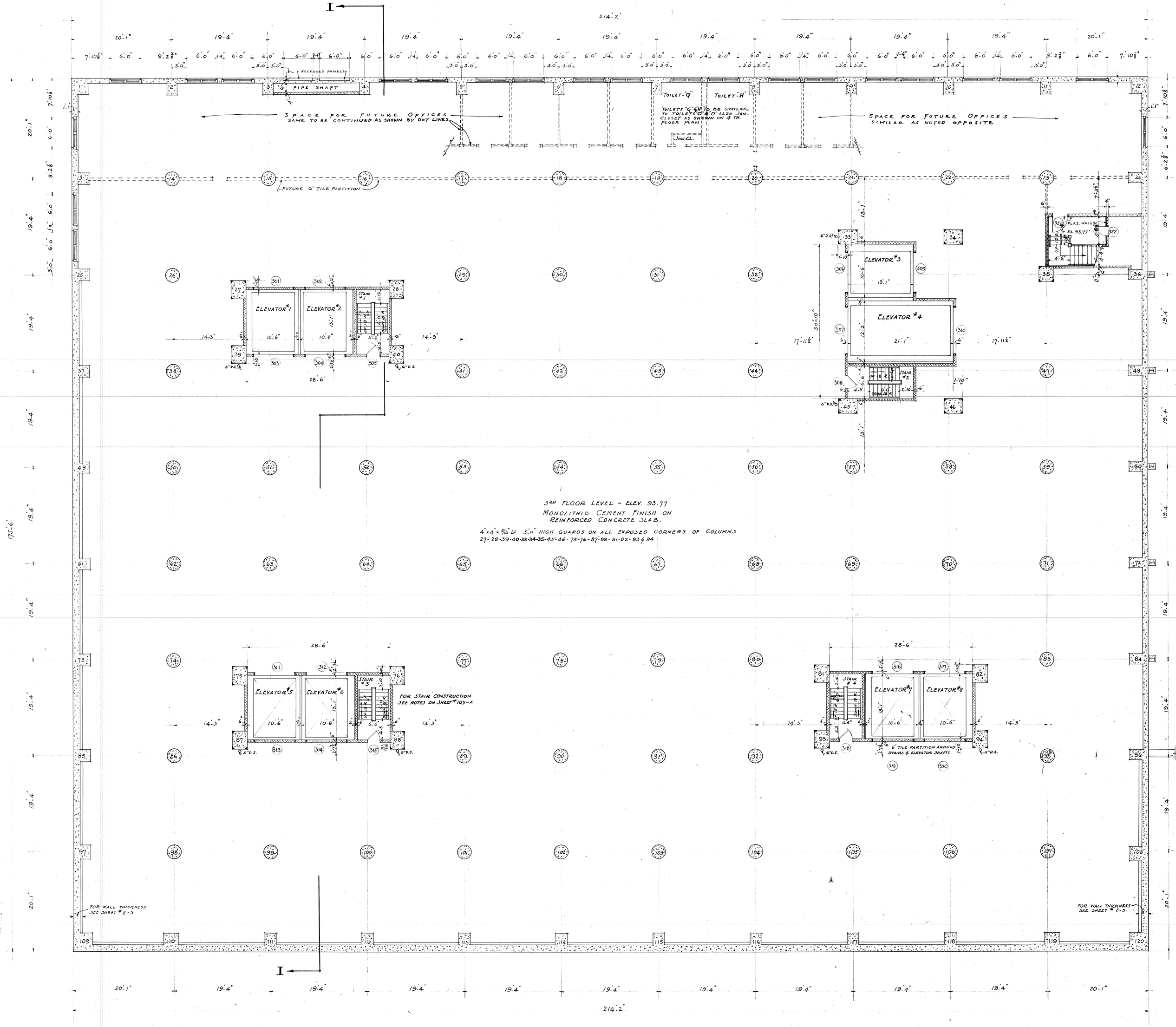
DOOR SCHEDULE

DESIGNATION NUMBER.	MASONRY OPENING	WALL THICK	WIDTH	HEIGHT	THICK	MATERIAL	LINTEL	JAMB	SILL	REMARKS
225-	12-0×11-6"	13" CONC.				STEEL	CONCRETE	4"×4"×⅜" L	4"×4"×⅜" L	STANDARD ROLLING STEEL CURTAIN DOOR
221-222-223-224-	17-4×8-0"	3'-9" CONC.				STEEL	CONCRETE	4"×4"×⅜" L W/ 3/4" BUMPER BOLTED TO WALL	4"×4"×⅜" L FLUSH WITH FLOOR	STANDARD ROLLING STEEL CURTAIN DOOR
203-204-206-209 211-212-216-217 219-220-	8-0×8-0"	6" TILE	PEELLE STANDARD			TIN CLAD	CONCRETE	6" C.T. @ 8.2# ANCHORED TO TILE WALL	4"×4"×⅜" L FLUSH WITH FLOOR	PEELLE PASS TYPE COUNTERBALANCED
205-208-215-218-		6" TILE	2'-6"	7'-0"	1/4"	HOLLOW METAL	6" C. @ 8.2#	ONE PIECE METAL FRAME & TRIM	CONCRETE FLUSH WITH FL.	2 PANEL DOOR ANCHOR FRAME TO TILE WALL
207-	9'-6"×8'-0"	6" TILE	PEELLE STANDARD			TIN CLAD	CONCRETE	6" C.T. @ 8.2# ANCHORED TO TILE WALL	4"×4"×⅜" L FLUSH WITH FL.	PEELLE PASS TYPE COUNTERBALANCED
210-	9'-6"×11'-6"	6" TILE	PEELLE STANDARD			TIN CLAD	CONCRETE	6" C.T. @ 8.2# ANCHORED TO TILE WALL	4"×4"×⅜" L FLUSH WITH FL.	PEELLE PASS TYPE COUNTERBALANCED
201-202-213-214-	8'-0"×8'-0"	6" TILE	OPENING FOR FUTURE DOORS				CONCRETE	6" C.T. @ 8.2# ANCHORED TO TILE WALL	4"×4"×⅜" L FLUSH WITH FL.	TILE IN OPENING FOR FUTURE PEELLE DOORS



- DOOR SCHEDULE -

DESIGNATION NUMBERS	MASONRY OPENING	WALL THICK	WIDTH	HEIGHT	THICK	MATERIAL	LINTEL	JAMB	SILL	REMARKS
303-304-306-309 311-312-316-317	8'-0" x 8'-0"	6" TILE	PELLE STANDARD		1¾"	TIN CLAD	CONCRETE	4"x4"x⅝" L ANCHORED TO TILE WALL	4"x4"x⅝" L FLUSH WITH FLOOR	PELLE PASS. TYPE COUNTER BALANCED.
305-308-315-318		6" TILE	2'-6"	7'-0"	1¾"	HOLLOW METAL	CONCRETE	6"x6"x⅜" ANGLES METAL FRAME	4"x4"x⅝" L FLUSH WITH FLOOR	ON WATER CLOSET DOORS. FRAME.
307-310.	9'-6"x8'-0"	6" TILE	PELLE STANDARD		1¾"	TIN CLAD	CONCRETE	6"x6"x⅜" ANGLES ANCHORED TO TILE WALL	4"x4"x⅝" L FLUSH WITH FLOOR	PELLE PASS TYPE COUNTER BALANCED.
301-302-313-314 319-320	8'-0"x8'-0"	6" TILE	OPENING FOR FUTURE DOORS			HOLLOW METAL	CONCRETE	6"x6"x⅜" ANGLES ANCHORED TO TILE WALL	4"x4"x⅝" L FLUSH WITH FLOOR	TILE IN OPENING TO BE REMOVED FOR PELLE DOOR
321.		4" TILE	3'-0"	7'-0"	1¾"	HOLLOW METAL	6"I @ 8.2#	6"I @ 8.2# SET FLUSH WITH TILE	CONCRETE FLUSH WITH FLOOR	12 PANEL DOOR FLUSH WITH WALL
322.		4" TILE	2'-0"	6'-4"	1¾"	HOLLOW METAL	6"I @ 8.2#	6"I @ 8.2# SET FLUSH WITH TILE	CONCRETE FLUSH WITH FLOOR	2 PANEL DOOR. FLUSH WITH FLANCHOR FRAME TO WALL

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· PLAN · OF · THIRD · STORY ·

SCALE 1/8" = 1'-0"

FILE No	WILBUR WATSON AND ASSOCIATES ARCHITECTS & ENGINEERS CLEVELAND	DRAWING No
4086		104-A

DRAWING MADE	DRAWN BY	TRACED BY	CHECKED BY	DATE	APPROVED BY	DATE
6-15-27	C.A.N.	W.H.M.	W.E.			

REV. BY	DATE	REMARKS
E.H.S.	6-24-27	Angles at Cols. 35 & 46 also Downspouts

REV. BY	DATE	REMARKS

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PLAN · OF · FOURTH · STORY

SCALE 1/8" = 1'-0"

FILE No.	4086
DRAWING MADE	6 - 15 - 27
REV. BY	DATE
L.H.S.	6-17-27
L.H.S.	6-25-27
L.H.S.	6-30-27
L.H.S.	7-14-27

WILBUR WATSON AND ASSOCIATES
ARCHITECTS & ENGINEERS
CLEVELAND

DRAWN BY	TRACED BY	CHECKED BY	DATE	APPROVED BY	DATE
C.A.N.	L.H.S.	V.E.			

REMARKS

SCALES
EXTERIOR & STAIRS 1/8" = 1'-0"
INTERIOR DETAILS 1/4" = 1'-0"
DOWNSPOUTS & ANGLES 1/8" = 1'-0"
SIZE OF COLUMNS & DIMENSIONS
DETAIL OF DOORS 3/4" = 1'-0"

DRAWING Nº 105-A

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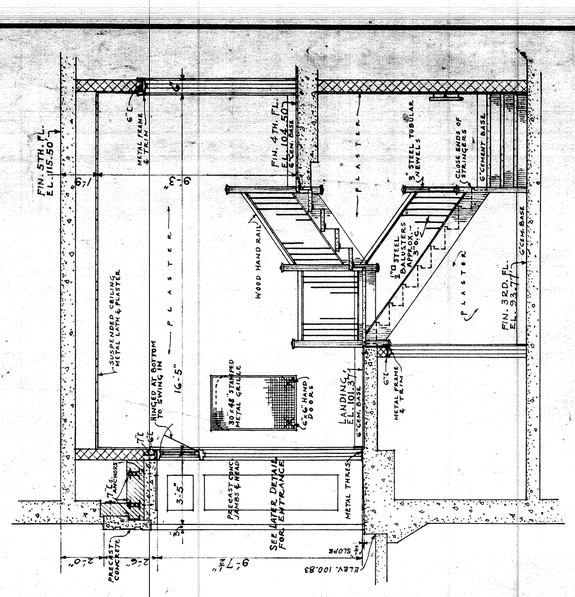
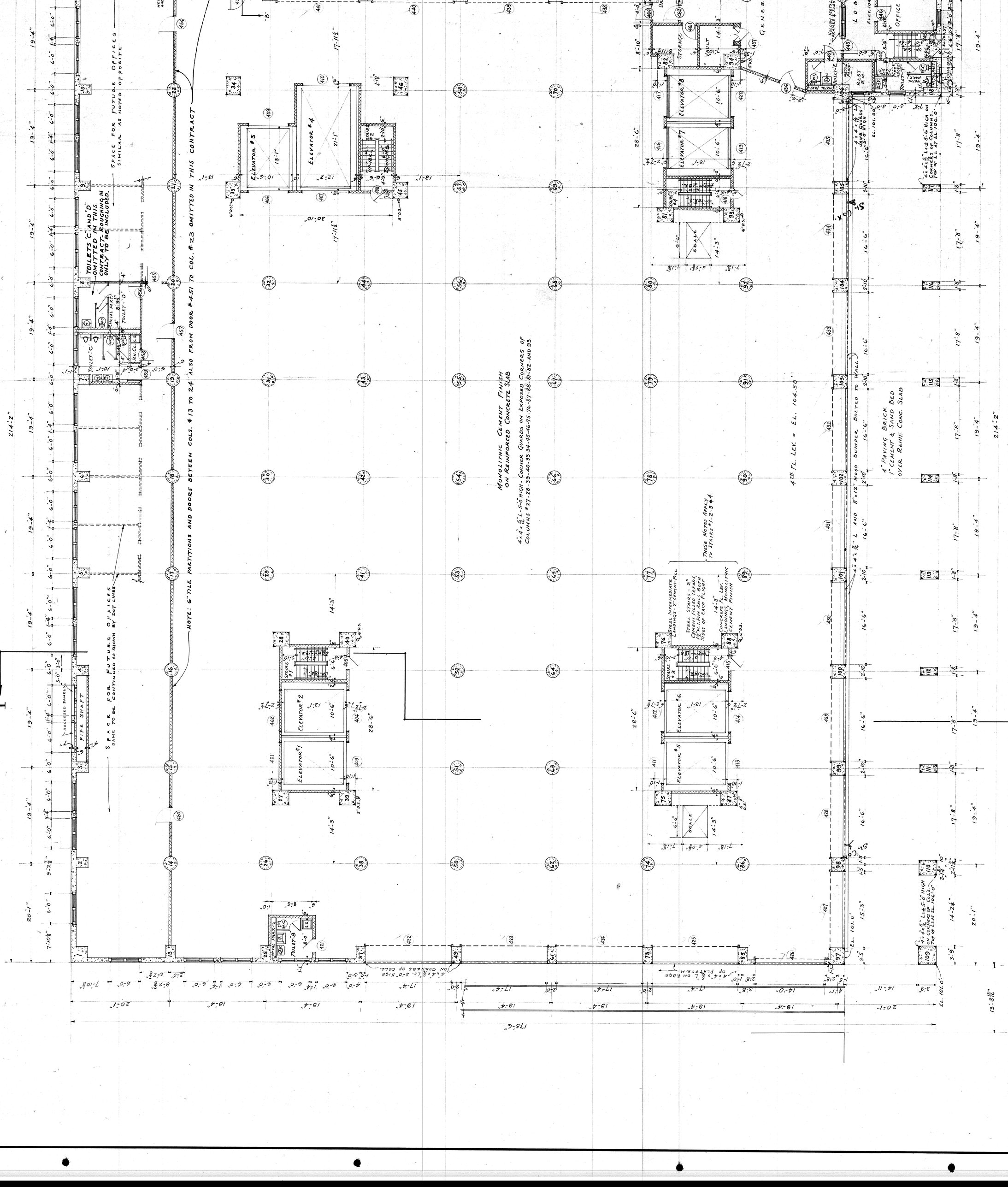
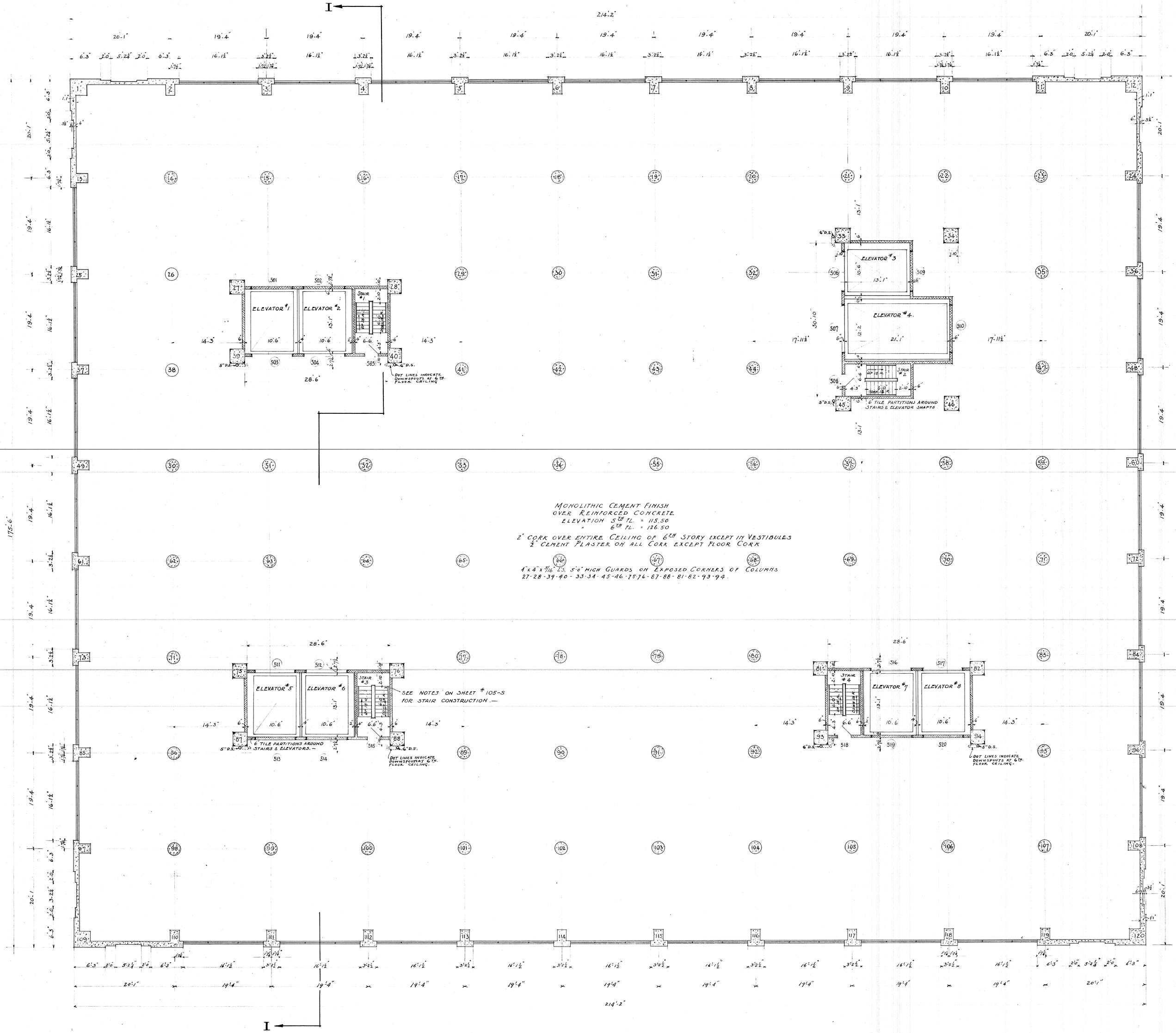
1/4" SCALE SECTION THRU. STAIRWAY AT ENTRANCE ON LINE "B-B"



DOOR SCHEDULE

DESIGNATION NUMBER	MASONRY OPENING WALL THICK	WIDTH	HEIGHT	MATERIAL	LINTEL	JAMB	SILL	REMARKS
403-404-405-409 411-412-418-419 416-417-418-419	8'-0" TILE	8'-0"	FEELLE STANDARD CLAD	TIN CONCRETE	REINFORCED HOLLOW METAL	6"C @ 8.2# ANCHORED TO WALL	FRAME & TRIM	PEELLE PASS TYPE COUNTERBALANCED FLUSH WITH FL.
405-408-415-418-	2'-6" TILE	2'-6"	7'-0"	12#	HOLLOW METAL	6"C @ 8.2# ONE PIECE METAL	FRAME & TRIM	2 PANEL DOOR ANCHOR FRAME TO WALL FLUSH WITH FL.
407-410-	9'-6" TILE	9'-6"	8'-0"	6"	PEELLE STANDARD CLAD	TIN CONCRETE	ANCHORED TO WALL	REINFORCED CONCRETE FLUSH WITH FL.	PEELLE PASS TYPE COUNTERBALANCED TILE IN OPENINGS FOR PEELLE DOORS
401-402-	8'-0" TILE	8'-0"	8'-0"	6"	FUTURE DOORS	OPENINGS FOR	REINFORCED CONCRETE	ANCHORED TO WALL	6"C @ 8.2#	4"x4"x⅜" L. FLUSH WITH FL.
421-442-444-461-	2'-6" TILE	2'-6"	7'-0"	12#	HOLLOW METAL	6"C @ 8.2# ONE PIECE METAL	FRAME & TRIM	FLUSH WITH FLUSH	CONCRETE	2 PANEL DOOR ANCHOR FRAME TO WALL
422-423-424-425-	17'-4" TILE	3'-3"	8'-0"	6"	STEEL	REINFORCED CONCRETE	ANCHORED TO CONCRETE	4"x4"x⅜" L. ANCHORED TO EDGE OF PLATFORM	STANDARD ROLLING STEEL CURTAIN DOOR
426-	14'-0" CONC.	1'-1"	8'-0"	6"	STEEL	REINFORCED CONCRETE	ANCHORED TO CONCRETE	4"x4"x⅜" L. ANCHORED TO EDGE OF PLATFORM	STANDARD ROLLING STEEL CURTAIN DOOR
427-	15'-3" CONC.	2'-10"	8'-0"	2-10"	STEEL	REINFORCED CONCRETE	ANCHORED TO CONCRETE	4"x4"x⅜" L. ANCHORED TO EDGE OF PLATFORM	STANDARD ROLLING STEEL CURTAIN DOOR
428-429-430-431 432-433-434-435 438-439-440-441	16'-6" CONC.	2'-10"	8'-0"		STEEL	REINFORCED CONCRETE	ANCHORED TO CONCRETE	4"x4"x⅜" L. ANCHORED TO EDGE OF PLATFORM	STANDARD ROLLING STEEL CURTAIN DOOR
436-437-442-443 448-449-450-451 452-454-455-457 460-462-464-	6'-0" TILE	3'-0"	7'-0"	12#	HOLLOW METAL	6"C @ 8.2# ONE PIECE METAL	FRAME & TRIM	CONCRETE FLUSH WITH FL.	2 PANEL DOOR UPPER PANEL OBSCURE GL. ANCHOR FRAME TO WALL
443-	3'-10" TILE	3'-6"	7'-6"	12#	HOLLOW METAL	6"C @ 8.2#	FRAME	METAL DUCK & PRESSED STEEL THRESHOLD	SEE ELEVATION FOR DESIGN
445-	4'-6" TILE	4'-6"	7'-8"	6"	2-2-1 EACH	7'-6"	4'-6"	12#	HOLLOW METAL	6"C @ 8.2#	METAL DUCK & PRESSED STEEL THRESHOLD	SEE ELEVATION FOR DESIGN-
447-	BRICK	2'-4"	6'-4"					12#	4"x3½"x⅜" L.	6"C	BRICK	STANDARD VAULT DOOR WITH VESTIBULE
454-458-459	TILE	2'-6"	7'-0"	12#	HOLLOW METAL	4"C @ 5.4#	FRAME & TRIM	CONCRETE FLUSH WITH FL.	2 PANEL DOOR ANCHOR FRAME TO WALL
452-465-	4" TILE	3'-6"	7'-6"	12#	HOLLOW METAL	SEE STRUCTL. DRAWINGS	METAL DUCK & FRAME	SEE DETAILS FOR DESIGN STEEL THRESHOLD


175'-6"
4" PAVING BRICK 1" CEMENT & SAND BED OVER REINF. CONC. SLAB
4" PAVING BRICK 1" CEMENT & SAND BED OVER REINF. CONC. SLAB
4"x4"x⅜" L's 5'-0" HIGH ON COR. OF COLUMNS TOP OF L's AT EL. 106.0'



DOORS IN SIXTH STORY SAME AS SHOWN IN FIFTH STORY EXCEPT NUMBERED 603-604 ETC.

DOOR SCHEDULE.

DESIGNATION NUMBER	MASONRY OPENING WIDTH	MASONRY OPENING HEIGHT	MASONRY WALL THICK	TYPE & SHEET	LINTEL	JAMB	SILL	REMARKS
501-502-509-510 511-512-514-515	8'-0"	8'-0"	12"	PEELLE STANDARD	REINF. CONCRETE	4"x4"x⅜" L. ANCHORED TO TILE WALLS	4"x4"x⅜" L.	PEELLE PASS TYPE
503-508-516-518	6'	7'-0"	12"	PEELLE STANDARD	ONE PIECE METAL FRAMES FROM	6"C @ 8.2# ANCHORED TO TILE WALLS	CONCRETE FLOOR WITH TERR.	2 PANEL DOOR CHANGE ALIKE
504	6' TILE	7'-0"	6" TILE	½" METAL	6"C @ 8.2#	6"C @ 8.2# ANCHORED TO TILE WALLS	4"x4"x⅜" L. ANCHORED TO TILE WALLS	PEELLE PASS TYPE CHANGE ALIKE
507	9'-6"	8'-0"	6" TILE	TIN CLAD	REINF. CONCRETE	4"x4"x⅜" L. ANCHORED TO TILE WALLS	4"x4"x⅜" L. ANCHORED TO TILE WALLS	SEE TYPICAL DETAIL FOR FUTURE PEELLE DOORS
505-506-513-514-515-516-517-518-519-520	8'-0"	8'-0"	12"	OPENINGS FOR FUTURE DOORS	CONCRETE	"	"	"
510	9'-6"	8'-0"	-	-	-	"	"	"

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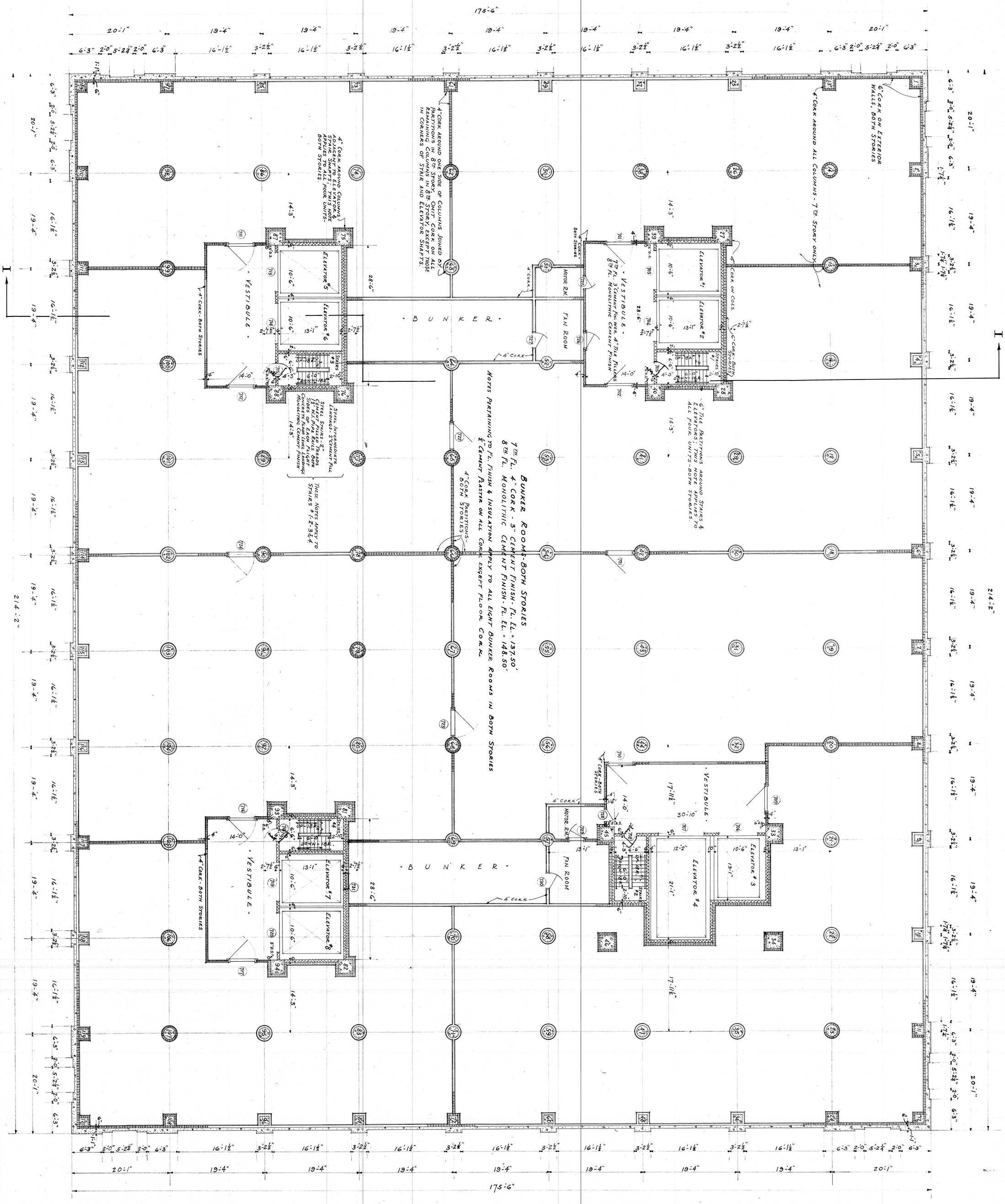
PLAN OF 5TH & 6TH STORIES

SCALE 1/8" = 1'-0"

FILE No.		DRAWING No.
4086	WILBUR WATSON AND ASSOCIATES ARCHITECTS & ENGINEERS CLEVELAND	106-A

DRAWING MADE	DRAWN BY	TRACED BY	CHECKED BY	DATE	APPROVED BY	DATE
6-15-27	C.A.N.	W.H.H.	V. E.			

REV. BY	DATE	REMARKS	REV. BY	DATE	REMARKS
L.H.S.	6-30-27	DOWNSPOUTS			



DOORS IN EIGHTH STORY SAME AS SHOWN IN SEVENTH STORY EXCEPT NUMBERED 801-802 ETC.

DOOR SCHEDULE

DESIGNATION NUMBER	MASONRY OPENING	WALL THICK	WIDTH	HEIGHT	THICK	MATERIAL	LINTEL	JAMB	SILL	REMARKS
701-702-709-710-711 712-716-717-721-722 723-724-		4" CORK & PLAS. BOTH SIDES	5'-0"	7'-0"	–	WOOD INSULATED	WOOD	WOOD BRACED TO CEILING	CONCRETE	STANDARD COLD STORAGE DOORS
703-704-706-713 714-719-720-	8'-0" x 7'-0"	6" TILE	PEELLE STANDARD			TIN CLAD	6"L @ 8.2# SUSPENDED FROM CONC. BEAM	6"L @ 8.2#	4"x4"x⅝"L	PEELLE PASS TYPE COUNTERBALANCED
705-708-715-718-		6" TILE	2'-6"	7'-0"	1¾"	HOLLOW METAL	6"L @ 8.2#	ONE PIECE METAL FRAME & TRIM	CONCRETE	2 PANEL DOOR - ANCHOR FRAME TO WALL
707-	9'-6" x 7'-0"	6" TILE	PEELLE STANDARD			TIN CLAD	6"L @ 8.2# SUSPENDED FROM CONCRETE BEAM	6"L @ 8.2#	4"x4"x⅝"L	PEELLE PASS TYPE COUNTERBALANCED
725-728-		4" CORK	2'-6"	7'-0"	–	HOLLOW METAL	6"L @ 8.2# SUSPENDED FROM CONCRETE SLAB	ONE PIECE METAL FRAME & TRIM	CONCRETE	2 PANEL DOOR - ANCHOR FRAME TO WALL
726-729-		4" CORK & PLAS. BOTH SIDES	3'-0"	7'-0"	–	WOOD INSULATED	WOOD	WOOD BRACED TO CEILING	CONCRETE	STANDARD COLD STORAGE DOORS
727-730-		4" CORK	3'-0"	7'-0"	–	HOLLOW METAL	6"L @ 8.2# SUSPENDED FROM CONCRETE SLAB	ONE PIECE METAL FRAME & TRIM	CONCRETE	2 PANEL DOOR - ANCHOR FRAME TO WALL
731-		6" TILE	3'-0"	7'-0"	–	–	6" TILE	6" TILE	CONCRETE	TILED IN FOR FUTURE OPENING. CORK TO HAVE CONTINUOUS JOINT

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• PLAN • OF • SEVENTH • STORY •
• EIGHTH • STORY • SIMILAR • EXCEPT • AS • NOTED •

SCALE ⅛" = 1'-0"

FILE Nº 4086

WILBUR WATSON AND ASSOCIATES
ARCHITECTS & ENGINEERS
CLEVELAND

DRAWING Nº 107-A

DRAWING MADE	DRAWN BY	TRACED BY	CHECKED BY	DATE	APPROVED BY	DATE
6-15-27	C.A.N.	L.H.S.	V.E.			

REV. BY	DATE	REMARKS
L.H.S.	6-29-27	BUNKER PARTITIONS & STAIR DOWN STAIRS

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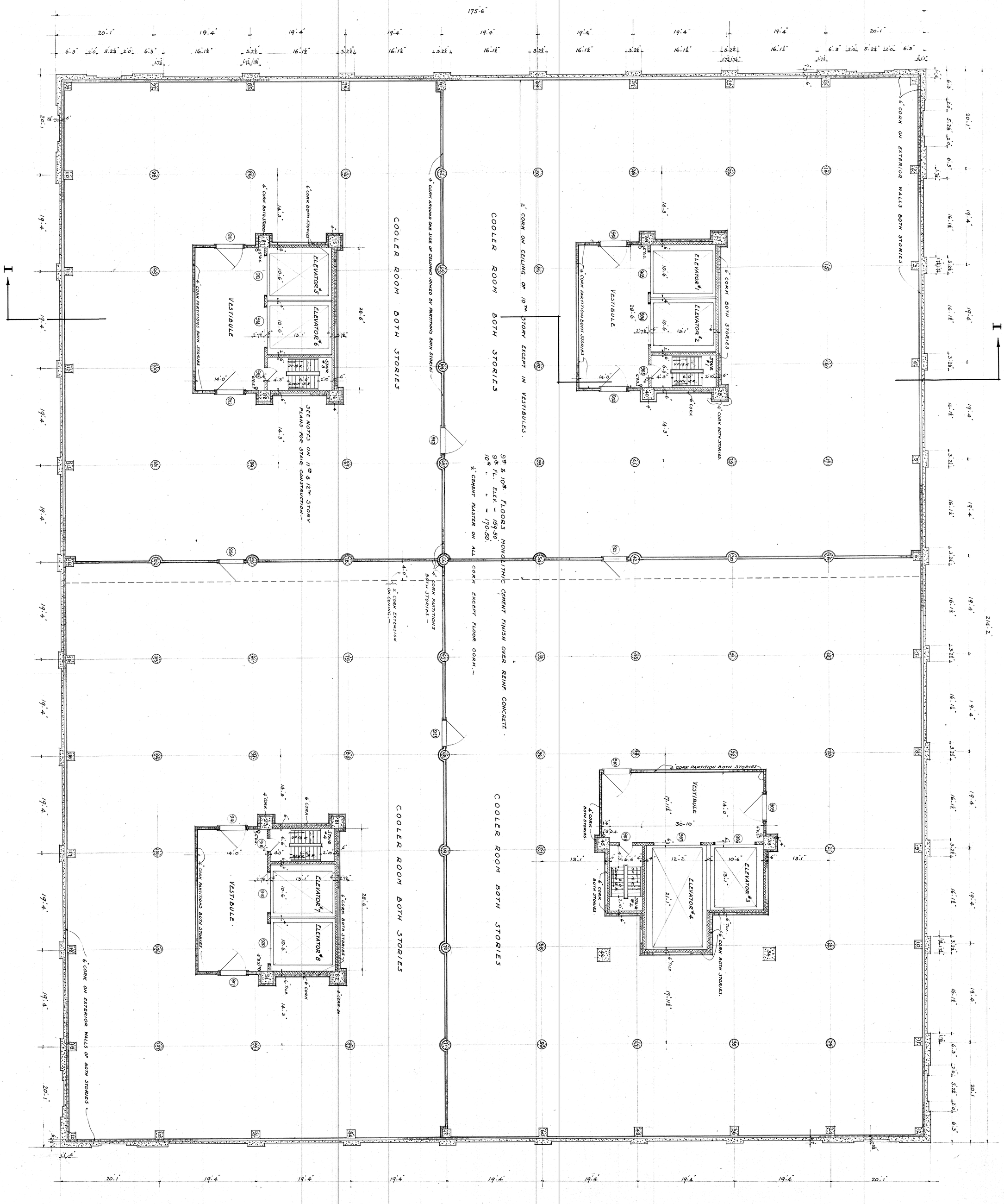

SEE NOTES ON 11TH & 12TH STORY PLANS FOR STAIR CONSTRUCTION.—

9TH & 10TH FLOORS MONOLITHIC CEMENT FINISH OVER REINF. CONCRETE.
9TH FL. ELEV. = 159'-50'.
10TH " " = 170'-50'.
½" CEMENT PLASTER ON ALL CORK EXCEPT FLOOR CORK.—

4" CORK PARTITIONS BOTH STORIES.—

2" CORK EXTENSION ON CEILING.—

DOORS IN TENTH STORY SAME AS SHOWN IN NINTH STORY EXCEPT NUMBERED 1001-1002 ETC.

DOOR SCHEDULE

DESIGNATION NUMBER	MASONRY OPENING	WALL THICK.	WIDTH	HEIGHT	THICK.	MATERIAL	LINTEL	JAMB	SILL	REMARKS
901-902-909-910 911-912-916&917		4" CORK & PLASTER BOTH SIDES	5'-0"	7'-0"		WOOD INSULATED	WOOD	WOOD BRACED TO CEILING.	CONCRETE	STANDARD COLD STORAGE DOORS.
903-904-906-913 914-915&920	8'-0" x 7'-0"	6" TILE	PEELLE STANDARD			TIN CLAD	6" C @ 8.2# SUSPENDED FROM CONCRETE BEAM ABOVE.	6" C @ 8.2# ANCHORED TO TILE WALL.	4"x4"x 5/16" L FLUSH WITH FLOOR	PEELLE PASS TYPE COUNTER BALANCED
905-908-915&918		6" TILE	2'-6"	7'-0"	1¾"	HOLLOW METAL	6" C @ 8.2#	ONE PIECE METAL FRAME & TRIM.	CONCRETE FLUSH WITH FLOOR	2 PANEL DOOR ANCHOR FRAME TO TILE WALL.
907.	9'-6" x 7'-0"	6" TILE	PEELLE STANDARD			TIN CLAD	6" C @ 8.2# SUSPENDED FROM CONCRETE BEAM ABOVE.	6" C @ 8.2# ANCHORED TO TILE WALL.	4"x4"x 5/16" L FLUSH WITH FLOOR	PEELLE PASS TYPE COUNTER BALANCED
921-922-923 & 924.		4" CORK & ½" PLASTER BOTH SIDES	5'-0"	7'-0"	—	WOOD INSULATED	WOOD	WOOD BRACED TO CEILING.	CONCRETE	STANDARD COLD STORAGE DOORS.

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• PLAN • OF • NINTH • & • TENTH • STORIES •

SCALE 1/8" = 1'-0"

FILE Nº 4086

DRAWING Nº 108-A

WILBUR WATSON AND ASSOCIATES
ARCHITECTS & ENGINEERS
CLEVELAND

DRAWING MADE 6-18-1927 | DRAWN BY C.A.M. | TRACED BY W.A.M. | CHECKED BY | DATE | APPROVED BY | DATE

REV. BY	DATE	REMARKS
L.H.S.	6-30-27	DOWNSPOUTS

REV. BY	DATE	REMARKS

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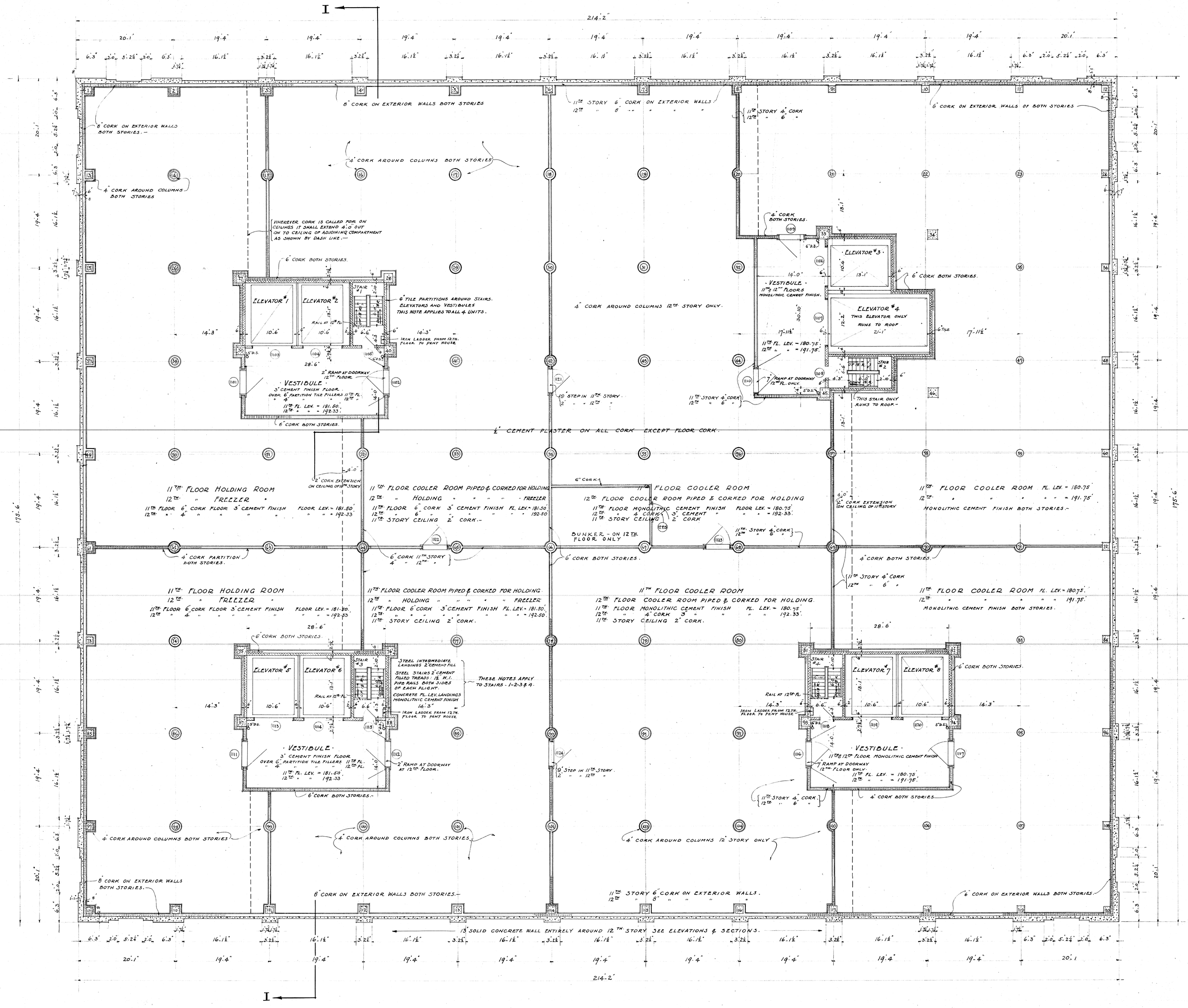
DOORS IN TWELFTH STORY SAME AS SHOWN IN ELEVENTH STORY EXCEPT NUMBERED 1201 ETC

· DOOR SCHEDULE ·

DESIGNATION	MASONRY OPENING	WIDTH	HEIGHT	THICK	MATERIAL	LINTEL	JAMB	SILL	REMARKS
101-102-1111 & 1112		6'-0" & 5'-0"	7'-0"		WOOD INSULATED	WOOD	WOOD GRADE OF COLUMN	CONCRETE	STANDARD COLD STORAGE DOORS.
109, 110-1116 & 1117		4'-0" & 5'-0"	7'-0"		"	"	"	"	"
1103-1104-1106-1113 1118-1119-1120-1121		8'-0"	7'-0"	6"	TIN CLAD STANDARD	6"C@ 9.2# CHANNEL WITH ANGLES	6"C@ 8.2# ANGLES TO GRADE OF COLUMN	4"x4"x3/8" ANGLE WITH LUGS	PEELLE PASS TYPE COUNTERBALANCED
1105-1108-1115 & 1116		6'-0"	2'-6"	6"	PEELLE STANDARD	YELLOW METAL	6"C@ 8.2# FRAME & TRIM	CONCRETE FLOOR WITH METAL SILL	2 PANEL DOOR WITH FRAME TO WALL.
1107-		9'-6"	7'-0"	6"	PEELLE STANDARD	TINCLAD	6"C@ 8.2# CONCRETE FRAME	6"C@ 8.2# 4"x4"x3/8" ANGLE TYPE WALL	PEELLE PASS TYPE COUNTERBALANCED
1121-1122-1123 & 1124		6'-0" & 5'-0"	7'-0"		WOOD INSULATED	WOOD	WOOD GRADE OF COLUMN	CONCRETE	STANDARD COLD STORAGE DOORS.
1125-		6'-0" & 5'-0"	7'-0"		WOOD INSULATED	WOOD	WOOD GRADE OF CEILING	CONCRETE	STANDARD COLD STORAGE DOORS.



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PLAN OF ELEVENTH STORY

SCALE 1/8" = 1'-0". 12TH STORY SIMILAR EXCEPT AS NOTED HEREON.

FILE No.	WILBUR WATSON AND ASSOCIATES ARCHITECTS & ENGINEERS CLEVELAND	DRAWING No.
4086		109-A

DRAWING MADE	DRAWN BY	TRACED BY	CHECKED BY	DATE	APPROVED BY	DATE
6-15-1927	C.A.N.	W.H.M.	V.E.			

REV. BY	DATE	REMARKS	REV. BY	DATE	REMARKS
L.H.S.	6-30-28	BUNKER & BOUNDARY WALLS ALSO IRON LADDERS TO PENT HOUSE			

DOOR NO. 1408 SIMILAR TO 1308 EXCEPT SILL - SAME TO BE SIMILAR TO 1305 - OMIT GLASS IN UPPER PANEL -

· DOOR SCHEDULE ·

DESIGNATION NUMERIC	MASONRY OPENING WIDTH	MASONRY OPENING HEIGHT	WALL THICK	JAMB MATERIAL	JAMB	LINTEL	SILL	REMARKS
1305-1305-1308-	3'-4 7-8"	6'-10 1/2"	6" CONC.	HOLLOW METAL	ONE PIECE WITH FRAME & TRIM	6"C @ 8.2#	6"CONCRETE SLOPED WITH STEEL THRESHOLD	2 FRAMES DOORS IN ONE PLANE TO WALL
1307-	3'-6 9-6	8'-0"	6" CONC.	TIN CLAD	ANCHOR TO CONCRETE WALLS	6"C @ 8.2#	ANCHOR TO CONCRETE WALLS	PELLE PASS TYPE DOOR - UPPER PANEL GLASS
1308-	3'-4 7-8"	7'-0"	6" CONC.	HOLLOW METAL	ONE PIECE WITH FRAME & TRIM	6"C @ 8.2#	6"CONCRETE SLOPED WITH STEEL THRESHOLD	2 FRAMES DOORS IN ONE PLANE TO WALL

I

H.P. OF ROOF ELEV. 203.83'

PITCH

PENT HOUSE FOR ELEVATORS Nº1&2.

4" CONCRETE SLAB MONOLITHIC TYP. TO BE PLACED AFTER ELEVATOR MACH. IS SET ELEV. 208.50

IRON LADDER, OPENING IN FLOOR

PIPE RAIL HIGH

CONCRETE PENT HOUSE ROOF

3'-6" D.S. ABOVE ELEV. 205.50

3" D.S. ELEV. 203.50

28'-1" 30'-6"

31'-6"

43'-0"

TAR AND GRAVEL ROOF
COMPOSITION BASE-FLASHING
METAL CAP FLASHING

54 55

HIGH POINT OF ROOF ELEV. 203.83'

ELEVATOR Nº3.

ELEVATOR Nº4

10"C @ 15.3" SILL ELEV. 204.16

7"C @ 88" SILL ELEV. 204.16

STAIRS SIMILAR TO THOSE SHOWN ON FLOORS BELOW

IRON LADDER TO PENT HOUSE ROOF

24'-5"

16'-9 1/2"

11'-10"

PENT HOUSE FOR ELEVATORS Nº5&6

4" CONCRETE SLAB MONOLITHIC TYP. TO BE PLACED AFTER ELEVATOR MACH. IS SET ELEV. 208.50

IRON LADDER OPENING IN ROOF

42" PIPE RAIL 30" HIGH

IRON LADDER TO PENT HOUSE ROOF

3" D.S. ELEV. 203.50

6" D.S. ABOVE ELEV. 203.50

66 67

CONCRETE COLUMNS PROJECT 12" ABOVE ROOF LEVEL TO RECEIVE SPRINKLER TANK SUPPORTS BASE FLASH AROUND SAME WITH COMPO & COVER ENTIRELY WITH SHEET METAL

PENT HOUSE FOR ELEVATORS Nº7&8

4" CONCRETE SLAB MONOLITHIC TYP. TO BE PLACED AFTER ELEVATOR MACH. IS SET ELEV. 208.50

IRON LADDER OPENING IN ROOF

42" PIPE RAIL 30" HIGH

IRON LADDER TO PENT HOUSE ROOF

5" D.S. ABOVE ELEV. 203.50

5" D.S. ELEV. 203.50

H.P. OF ROOF ELEV. 203.83'

- PENT HOUSE ROOF PLAN ABOVE ELEVATORS #3&4 -

3" D.S. OPEN

SCUPPER LOW POINT OF ROOF - ELEV. 236.41'

6" CONCRETE PARAPET

PITCH

ROOF SIMILAR TO MAIN ROOF

GRAVY FLASHING UP 10" ABOVE ROOF

HIGH POINT OF ROOF - ELEV. 236.74'

3" WASH IN TOP OF PARAPET

IRON LADDER TO MAIN ROOF

- PLAN AT PENT HOUSE FLOOR - OF ELEVATORS #3&4 -

24'-5"

9'-0 1/2"

4'-10 1/2"

23'-5"

RED GLASS PAC. STEEL SASH

DOT LINES SHOW MATCH OPENINGS BELOW FOR ELEVATORS NOS. 5 & 6

ELEVATOR MACHINERY AS SHOWN ON SHOP DETAILS

4" CONCRETE SLAB MONOLITHIC TYP. TO BE PLACED AFTER ELEVATOR MACHINERY IS SET

PENT FLOOR ELEV. 224.75'

IRON LADDER TO PENT HOUSE ROOF

34'-2"

7'-4"

4'-0"

- SECTION THRU. PENT HOUSE ON LINE 'A-A' -

REGLET FOR FLASHING

TOP OF PARAPET ELEV. 236.74'

CONTINUOUS FLASHING - 10" HIGH ABOVE ROOF

CONC. SLAB ROOF

IRON LADDER

T & G PRECAST CONC. SILL

42" PIPE RAIL

PAC. RED GLASS PAC. STEEL SASH

PENT FLOOR ELEV. 224.75'

STAIRS FROM 12TH FLOOR TO ROOF ALSO TO PENT HOUSE. TO BE SIMILAR TO THOSE SHOWN ON FLOORS BELOW

6'-6"

23'-10"

6" CONCRETE WALLS

DOOR FROM ELEVATOR TO ROOF

10"C SILL ELEV. 204.16'

ROOF AT LOW POINT ELEV. 203.50'

FURR REGLET TO RECEIVE FLASHING

Col. #5

Col. #3

EXTERIOR

ELEVATOR SHAFT

1'-2"

6"C JAMB

RUN FLASHING AS SHOWN UNDER CHANNEL SILL

10"C SILL - 9.8# ELEV. 204.16'

FLASHING COMPO ROOFING

STAGGER HOLES FOR CONCRETE

CHANNEL SET FLUSH WITH FACE OF WALL

TOP OF CONC. AT LOW POINT OF ROOF - EL. 203.50'

STRAP ANCHORS 3'-0" C.C.

9"

23'-5"

RELATIVE POSITIONS OF WALLS ABOVE & BELOW

1½" SCALE SECTION THRU. SILL ON ℄ OF OPENING #1307

NOTE: CONSTRUCTION OF SILL AT OPENING #1308 TO BE SIMILAR TO #1307 EXCEPT 7'2" AS NOTED

- PENT HOUSE ROOF PLAN ABOVE ELEVATORS #7&8 -

SIMILAR FOR ROOFS OVER ELEVATORS #1&2 ALSO 5&6

HIGH POINT OF ROOF - EL. 218.14'

CONCRETE PARAPET

ROOF SIMILAR TO MAIN ROOF

GRAVY FLASHING UP 10" ABOVE ROOF

PITCH

IRON LADDER TO MAIN ROOF

LOW POINT OF ROOF - ELEV. 217.83'

SCUPPER

FRAME & COUNTER FLASH

3" D.S. OPEN

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· CLEVELAND · OHIO ·

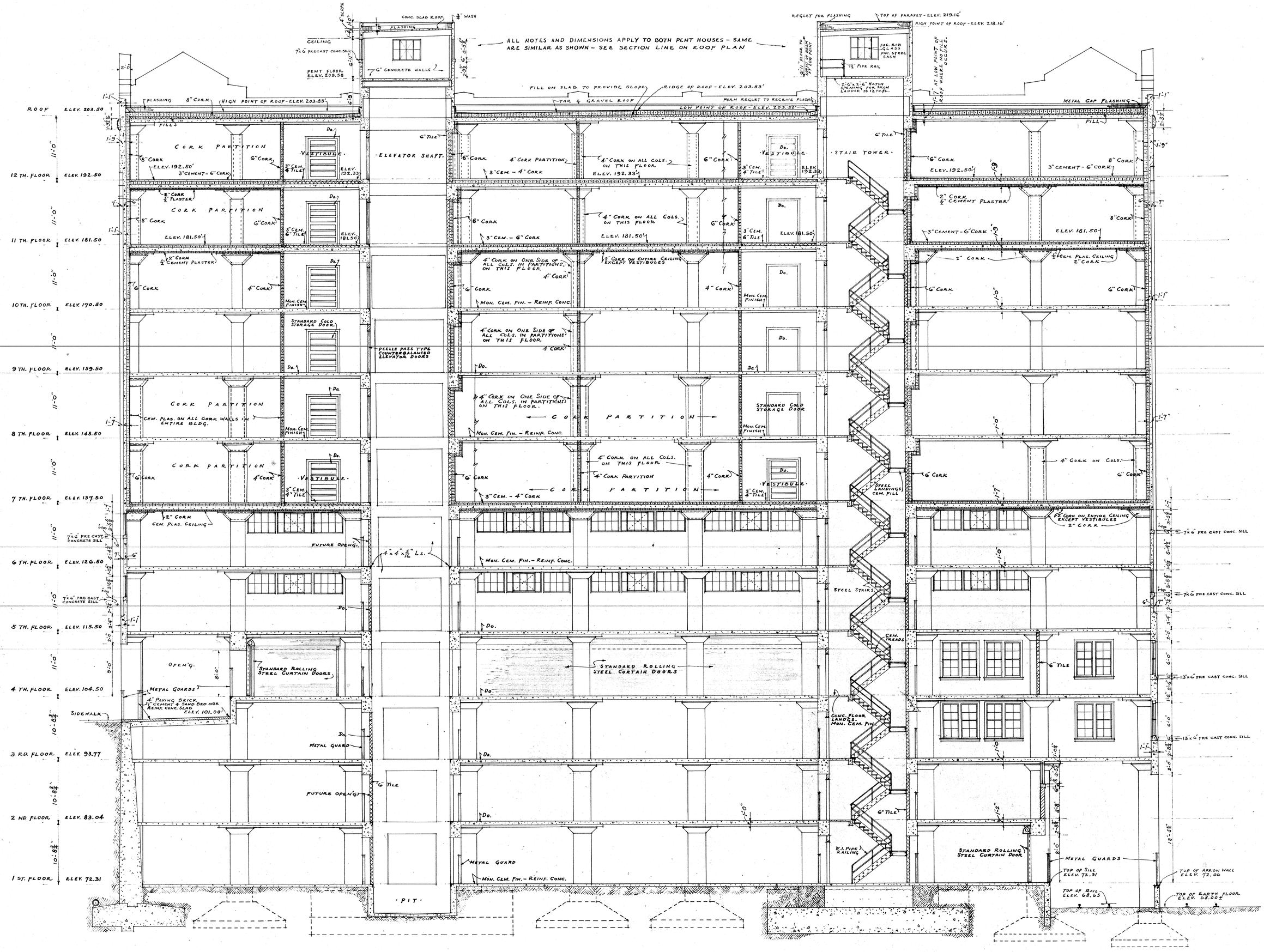
· ROOF · PLAN ·

SCALE 1/8" = 1'-0"

FILE Nº		DRAWING Nº
4086	WILBUR WATSON AND ASSOCIATES ARCHITECTS & ENGINEERS CLEVELAND	110-A

DRAWING MADE	DRAWN BY	TRACED BY	CHECKED BY	DATE	APPROVED BY	DATE
6-28-27.	V. E.	L. H. S.				

REV. BY	DATE	REMARKS	REV. BY	DATE	REMARKS



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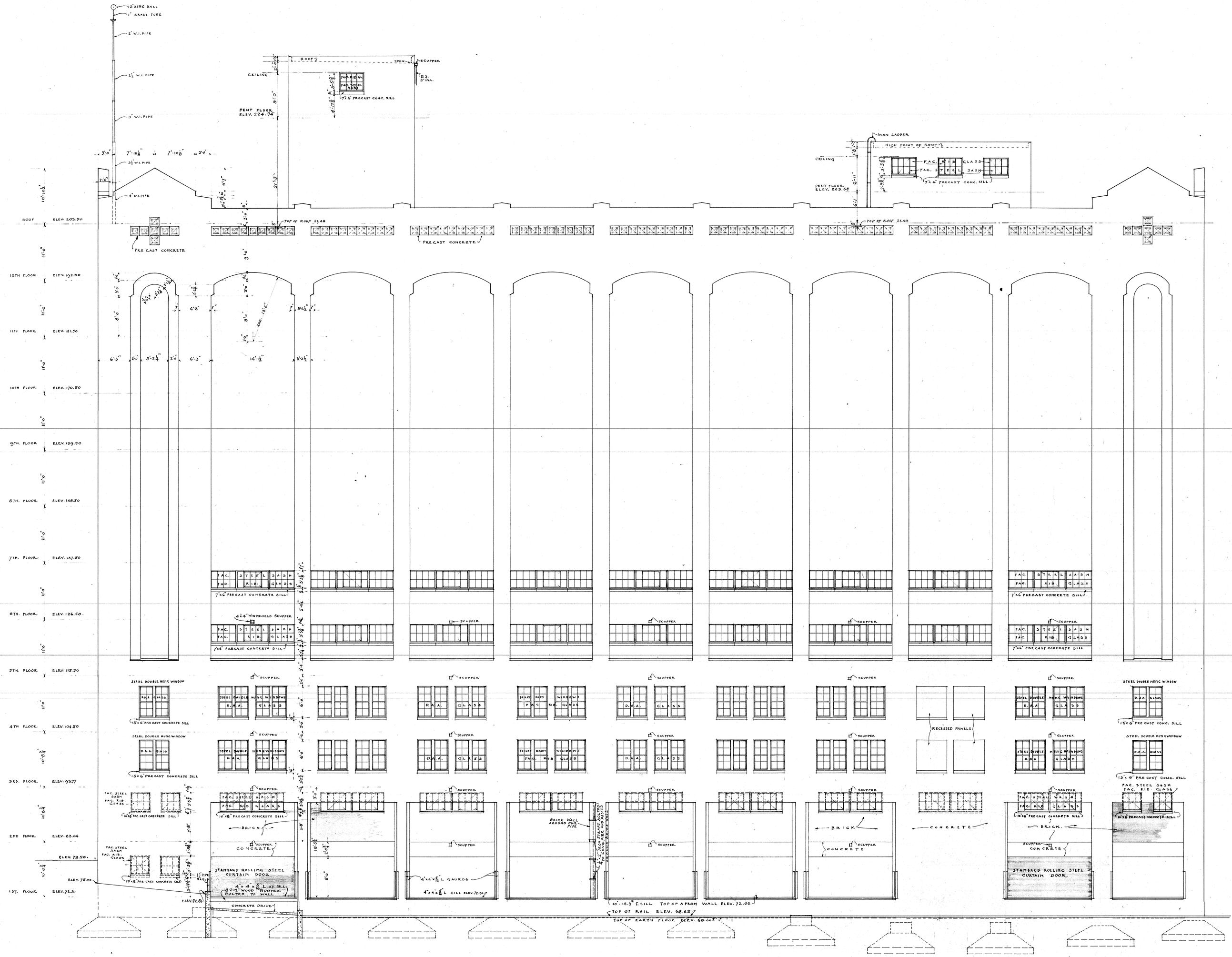
SECTION I-I

SCALE 1/8" = 1'-0"

FILE Nº		DRAWING Nº
4086	WILBUR WATSON AND ASSOCIATES ARCHITECTS & ENGINEERS CLEVELAND	111-A

DRAWING MADE	DRAWN BY	TRACED BY	CHECKED BY	DATE	APPROVED BY	DATE
6-15-27	L.H.S.	L.H.S.	V.E.			

REV. BY	DATE	REMARKS	REV. BY	DATE	REMARKS
L.H.S.	6-24-27	PENT HOUSES.			



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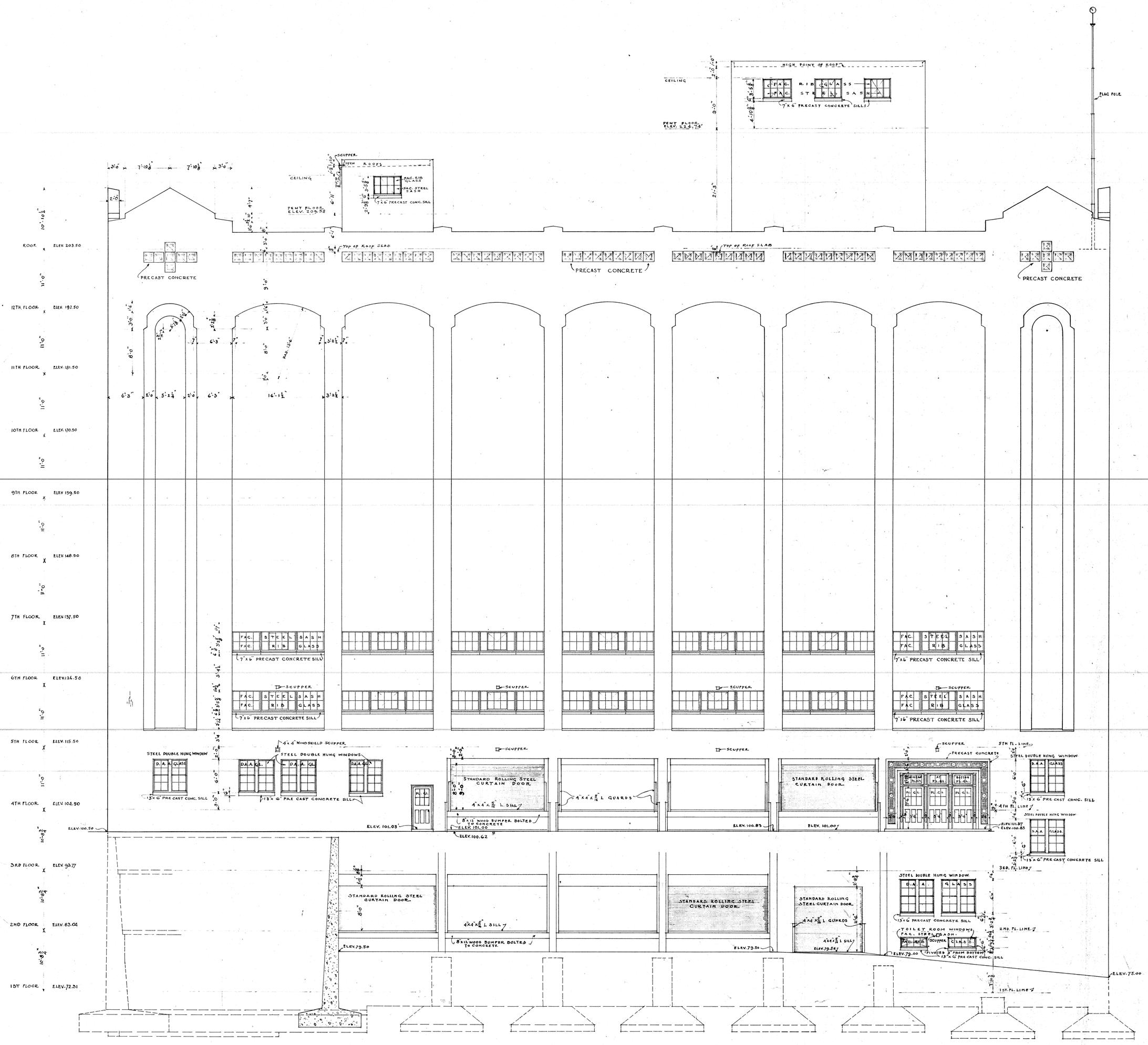
NORTH ELEVATION

SCALE ⅛" = 1'-0"

FILE No		DRAWING No
4086	WILBUR WATSON AND ASSOCIATES ARCHITECTS & ENGINEERS CLEVELAND	112-A

DRAWING MADE	DRAWN BY	TRACED BY	CHECKED BY	DATE	APPROVED BY	DATE
6-10-1927	V.E.	V.E.	L.H.S.			

REV. BY	DATE	REMARKS	REV. BY	DATE	REMARKS
L.H.S.	6-17-27	PENT HOUSES & SCUPPERS			



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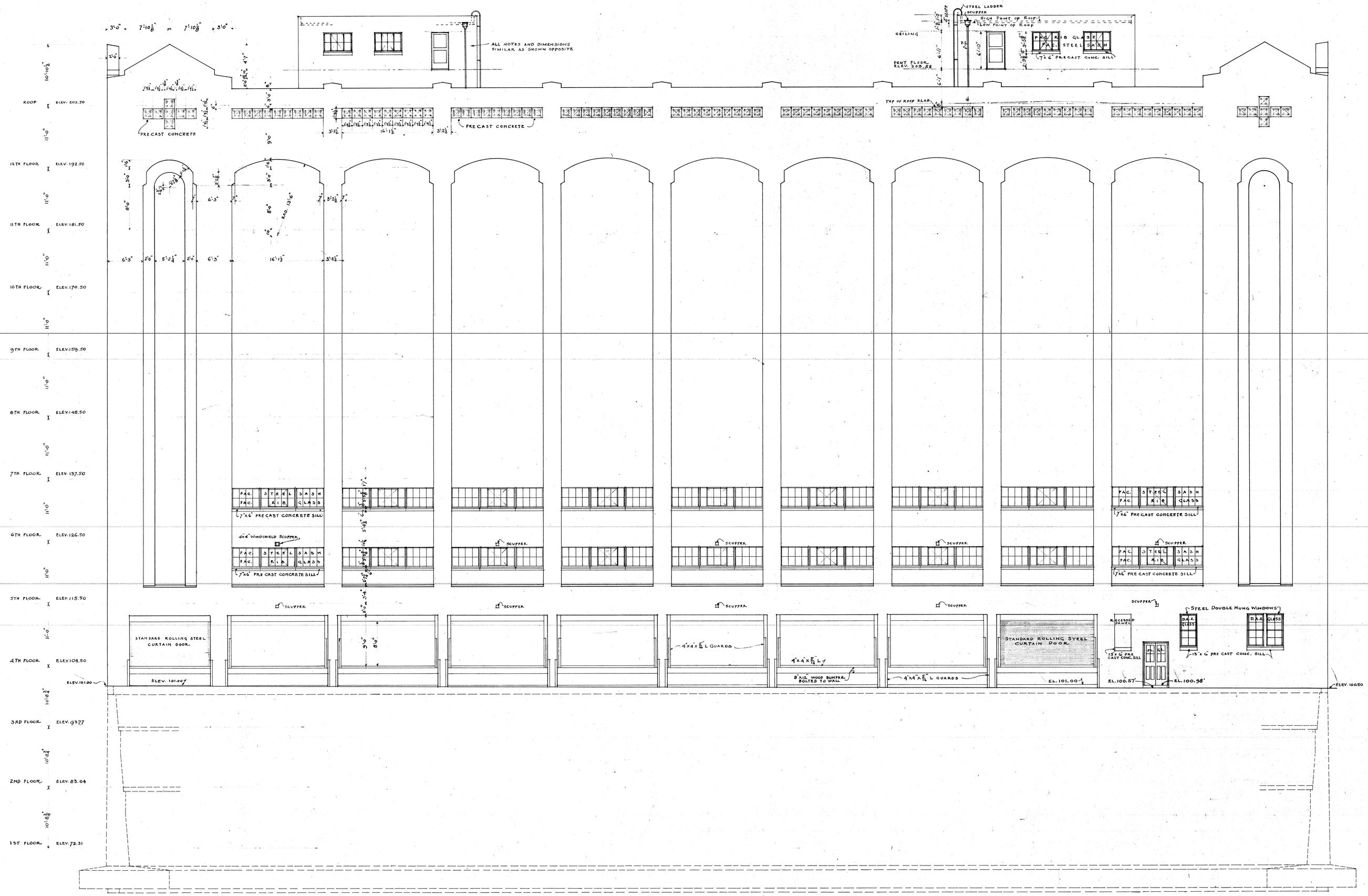
· EAST · ELEVATION ·

SCALE 1/8"-1'-0"

FILE Nº	WILBUR WATSON AND ASSOCIATES ARCHITECTS & ENGINEERS CLEVELAND	DRAWING Nº
4086		113-A

DRAWING MADE	DRAWN BY	TRACED BY	CHECKED BY	DATE	APPROVED BY	DATE
6-15-1927	V.A.	V.A.	L.H.S.			

REV. BY	DATE	REMARKS	REV. BY	DATE	REMARKS
L.H.S.	6-17-27	PENT HOUSES & SCUPPERS			



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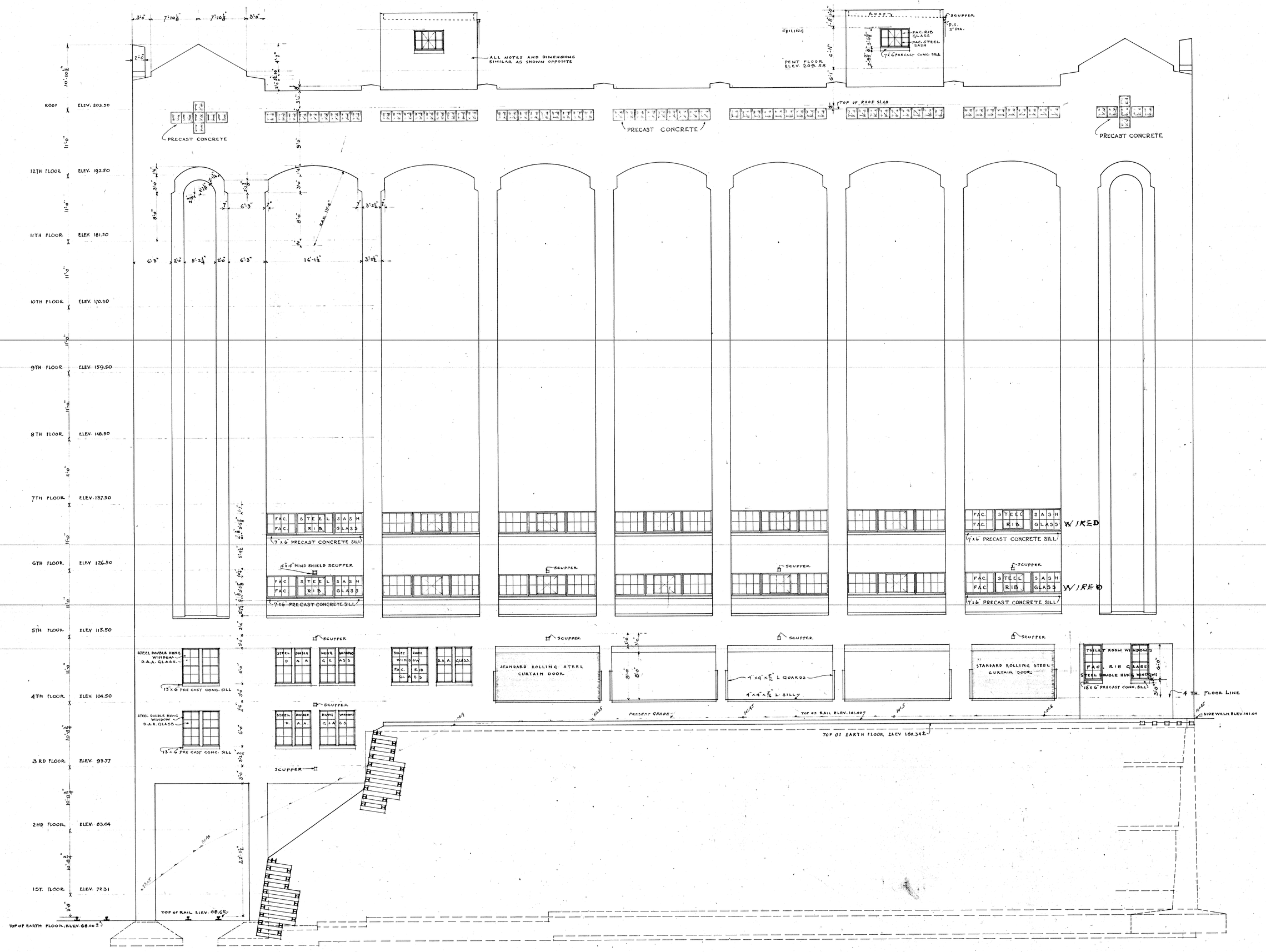
• SOUTH • ELEVATION •

SCALE ⅛" - 1'-0"

FILE No.		DRAWING No.
4086	WILBUR WATSON AND ASSOCIATES ARCHITECTS & ENGINEERS CLEVELAND	114-A

DRAWING MADE	DRAWN BY	TRACED BY	CHECKED BY	DATE	APPROVED BY	DATE
6-15-1927	V.E.	V.E.	L.H.S.			

REV. BY	DATE	REMARKS	REV. BY	DATE	REMARKS
L.H.S.	6-17-27	PENT HOUSES & SCUPPERS			



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• CLEVELAND • OHIO •

• WEST • ELEVATION •

SCALE 1/8" = 1'-0"

FILE No.	WILBUR WATSON AND ASSOCIATES ARCHITECTS & ENGINEERS CLEVELAND	DRAWING No.
4086		115-A

DRAWING MADE	DRAWN BY	TRACED BY	CHECKED BY	DATE	APPROVED BY	DATE
6-15-1927	V.E.	V.E.	L.H.S.			

REV. BY	DATE	REMARKS	REV. BY	DATE	REMARKS
L.H.S.	6-17-27	PENT HOUSES & SCUPPERS			

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SCALE 1/8" = 1'-0"

FILE Nº 4086

DRAWING Nº 1-S

WILBUR WATSON AND ASSOCIATES
ARCHITECTS & ENGINEERS
CLEVELAND

DRAWING MADE	DRAWN BY	TRACED BY	CHECKED BY	DATE	APPROVED BY	DATE
5 - 3 - 27	W.P.R.	L.H.S.				

REV. Nº	DATE	REMARKS	REV. Nº	DATE	REMARKS
W.P.R.	5-4-27	Footings & Tchanged and	W.P.R.	6/15/27	Col. Ctrs. Underlined
"	"	Footings added to Tco.	W.E.R.	9-5-27	Wall details added
"	"	Posts to 1st Floor and	W.E.R.	12-6-27	Ctrs. LINE F-E shown

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NOTE
Elevations are given in reference to finish 1st Floor, which is 72.31 ft. bottom of footing. Retaining wall sections are on Sh. 2-S footing and Retaining Wall details on Shs. 3-S and 4-S.

FOOTING FOR POST 12"19# See Drawings 7-S and 8-S. DETAIL AT (A)

SECTION A, A2

SECTION XX TYPICAL WALL SECTION Scale 1/2" = 1'-0"

Bldg. Line

Bldg. Line

Lot Line

Bldg. Line

Bldg. Line

9 Bays @ 19'-4" = 174'-0"

7 Bays @ 19'-4" = 135'-4"

20'-1"

20'-1"

214'-2"

175'-6"

Retaining wall and reinforcing same as shown on Section BB except projections under columns and dowel spacing.

SECTION AA
Scale 1/4" = 1'-0"

SECTION BB
Scale 1/4" = 1'-0"

SECTION CC
Scale 1/4" = 1'-0"

SECTION DD
Scale 1/4" = 1'-0"

SECTION EE
Scale 1/4" = 1'-0"

SECTION FF
Scale 1/4" = 1'-0"

NOTE All reinforcing steel determined by 36,000 lb. steel at 24,000 lb. Below 4th Floor

NOTE Construction joint may be made at any point between floors except that all vertical reinforcing steel must be continuous through joint. Should construction joint be made at floor line, dowels must be provided for all vertical reinforcing steel.

FOOTINGS FOR COLS. 3-4-5-8-9-10

SECTION XX

FOOTINGS FOR COLS. 14-17-18-19-20-23-50 and 62

SECTION YY

FOOTINGS FOR COLS. 30-31-32-41-42-43-44-47-53-56-57-65-66-67-68-69-70-101-102-103-104 and 107

SECTION ZZ

FOOTINGS FOR COLS. 36-48-60-72-84 Building Line

SECTION MM

FOOTINGS FOR COLS. 24 Building Line

SECTION NN

FOOTINGS FOR COLS. 26-38-50-62 Building Line

SECTION OO

FOOTINGS FOR COLS. 11-23-35-47-59-71-83-95 and 107

SECTION PP

FOOTINGS FOR COL. 2

SECTION QQ

FOOTINGS FOR COL. 12

SECTION RR

FOOTINGS FOR COL. 1

SECTION SS

FOOTINGS FOR COL. 13

SECTION TT

FOOTINGS FOR COL. 25

SECTION UU

FOOTINGS FOR COL. 37

SECTION VV

FOOTINGS FOR COL. 49

SECTION WW

FOOTINGS FOR COL. 61

SECTION XX

FOOTINGS FOR COL. 73

SECTION YY

FOOTINGS FOR COL. 85

SECTION ZZ

FOOTINGS FOR COL. 97

SECTION AAA

FOOTINGS FOR COL. 109

SECTION BBB

DISTRIBUTION TERMINAL & COLD STORAGE CO.
CLEVELAND, OHIO

FOUNDATION DETAILS

SCALE 1/4" = 1'-0"

WILBUR WATSON AND ASSOCIATES
ARCHITECTS & ENGINEERS
CLEVELAND

MOORE & DINEEN
CONSULTING ENGINEERS
NEW YORK CITY

JOB NO. 4086

DRAWING NO. 137

DRAWN BY W. P.S.

TRACED BY

CHECKED BY

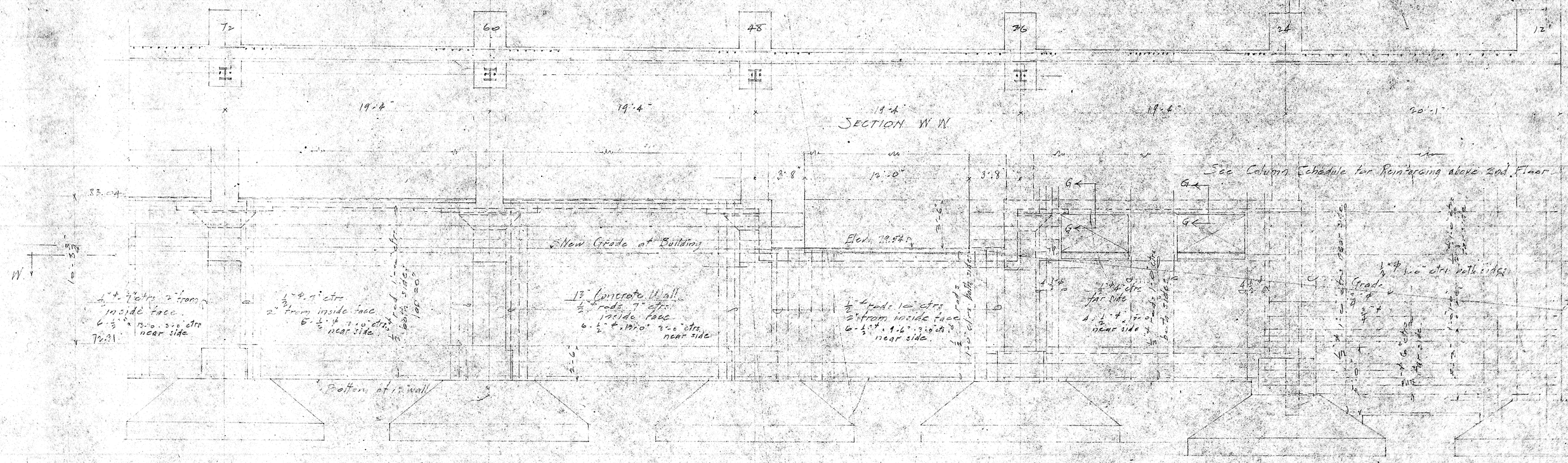
DATE 6-8-51

APPROVED

DATE

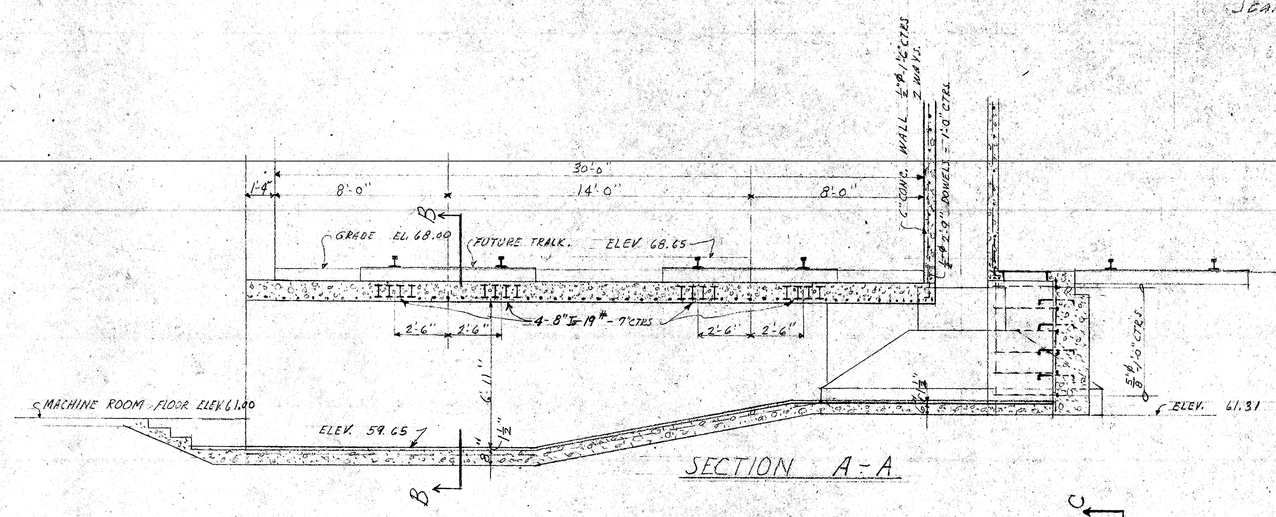
SCALE

DRAWING NO.

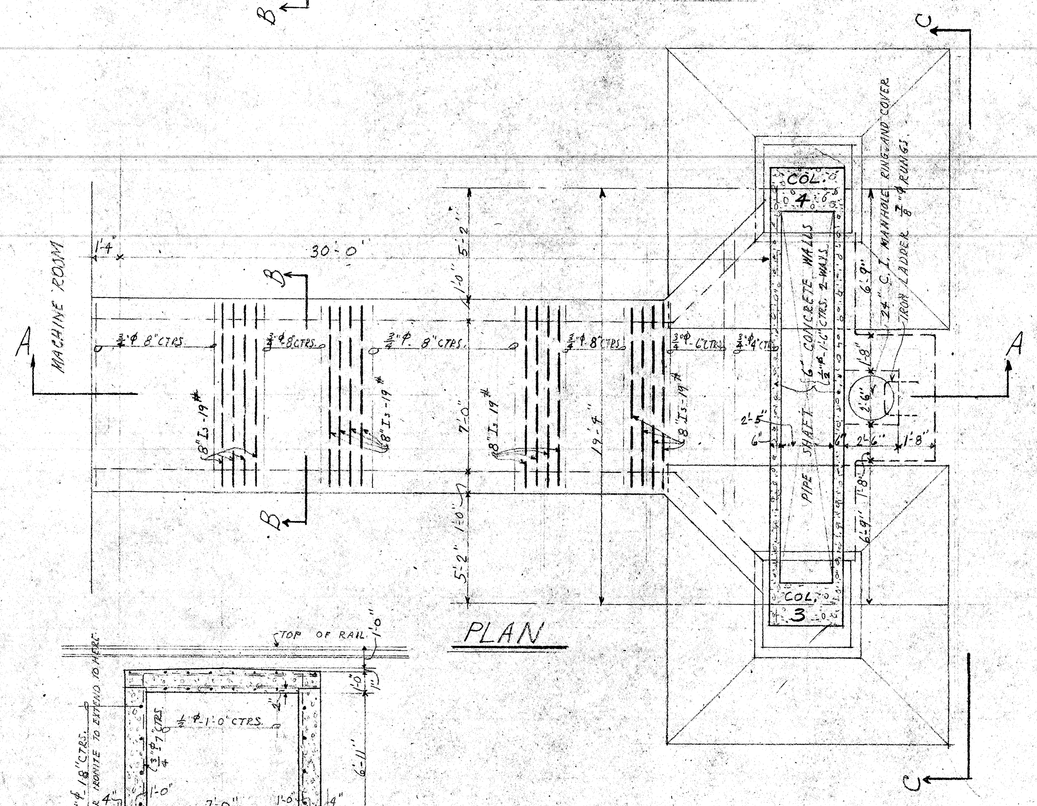


ELEVATION OF 1ST STORY WALL EAST SIDE
Scale $\frac{1}{4}$" = 1'-0"

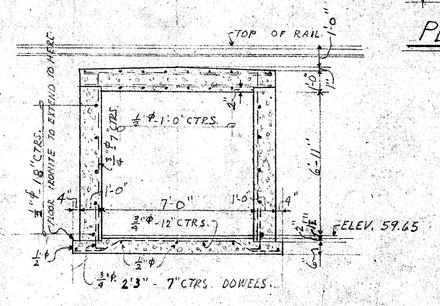
ELEVATION OF WALL NORTH SIDE
Scale $\frac{1}{4}$" = 1'-0"



SECTION A-A



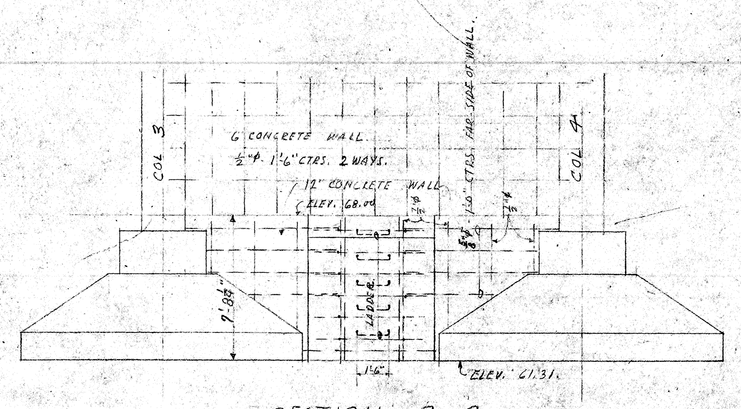
PLAN



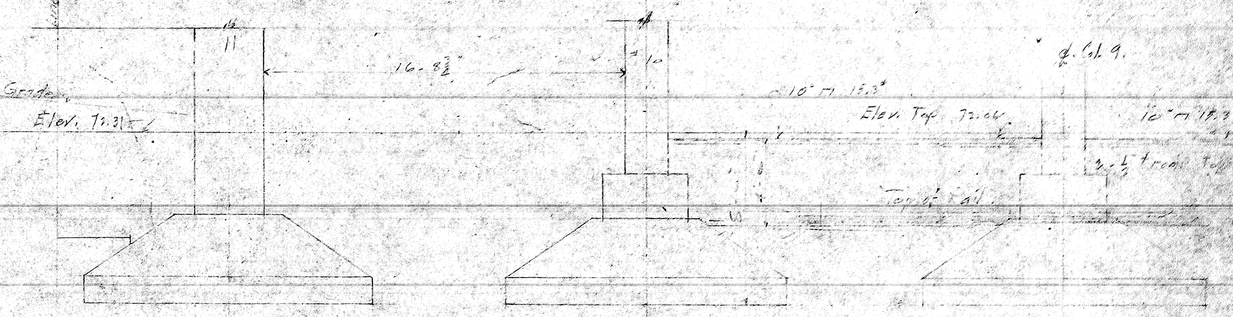
SECTION B-B

DETAILS OF TUNNEL
SCALE $\frac{1}{4}$"-1'-0"

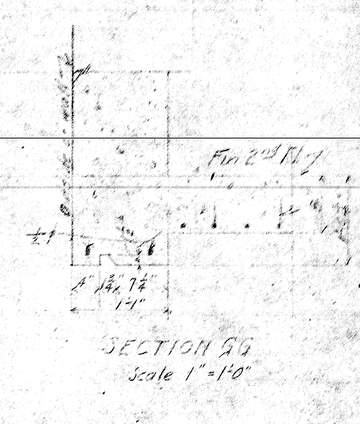
NOTE
WATERPROOF TUNNEL WITH 3 APPLICATIONS OF IRONITE ON THE TOP OF THE ROOF SLAB AND ON THE OUTSIDE OF THE SIDE WALLS AND COVER. WATERPROOFING WITH $\frac{1}{2}$" CEMENT PLASTER.
WATERPROOF TUNNEL FLOOR WITH 3 APPLICATIONS OF IRONITE AND COVER WITH 1" CEMENT FINISH.
ALL TUNNEL CONCRETE TO CONTAIN TEUSCON INTEGRAL WATERPROOFING



SECTION C-C



SECTION HH
SHOWING RETAINING WALL



MOORES & DUNFORD
CONSULTING ENGINEERS
NEW YORK CITY

DISTRIBUTION TERMINAL & COLD STORAGE PLANT
CLEVELAND, OHIO

RETAINING WALL DETAILS

SCALE:

JOB NO.	WILBUR WATSON AND ASSOCIATES ARCHITECTS & ENGINEERS CLEVELAND	DRAWING NO.
4086		A-5

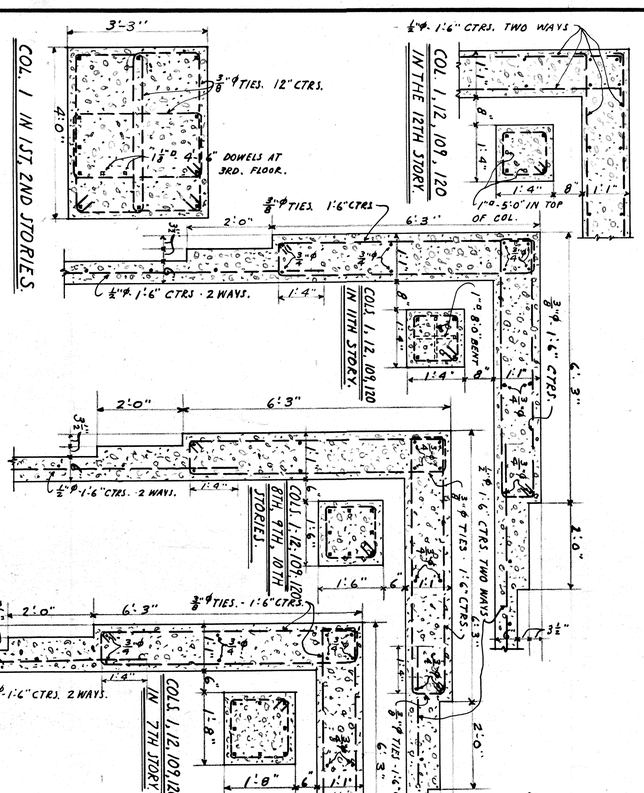
DRAWN MADE	DRAWN BY	TRACED BY	CHKD.	APPROVED	DATE
5-25-37	W.P.R.				

REV. BY	DATE	REVISIONS	REV. BY	DATE	REVISIONS
WRB	9-1-37	Tunnel detailed			

COLUMN SCHEDULE

COLUMN NUMBERS.	1, 12	2, 11	3, 4, 5, 6, 7, 8, 9, 10	13	14, 23.	15, 16, 30, 31, 32, 42, 43, 44, 53, 56, 65, 68, 78, 79, 90, 91	17, 18, 19, 20	21 - 22	24.	25, 37, 49, 61, 73, 85	26, 38, 74, 83, 86, 95	27, 75, 82	39, 87, 94	28, 76, 81.	40, 88, 93	33	34.	45	46
ROOF EL. 203.50																			
AREA																			
L.L. 100																			
D.L.																			
WALL	30.5																		
PENTHOUSE																			
ELEVATOR																			
TANK																			
12TH FLOOR EL. 192.50	52.5	44.0	44.0	28.0	33.0	37.3	35.7	33.3	44.0	30.1	30.1	30.1	31.0	31.0	31.0	33.3	31.0	31.0	31.0
L.L. 125																			
D.L.																			
WALL	33.3	22.7	22.7	14.3	14.3	15.5	13.8	12.7	22.7	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5
11TH FLOOR EL. 181.50	85.8	44.0	44.0	28.0	33.0	37.3	35.7	33.3	44.0	30.1	30.1	30.1	31.0	31.0	31.0	33.3	31.0	31.0	31.0
L.L. 150																			
D.L.																			
WALL	33.3	22.7	22.7	14.3	14.3	15.5	13.8	12.7	22.7	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5
10TH FLOOR EL. 170.50	119.1	83.3	83.3	53.1	53.1	53.1	53.1	53.1	83.3	40.8	40.8	40.8	40.8	40.8	40.8	40.8	40.8	40.8	40.8
L.L. 150																			
D.L.																			
WALL	33.3	22.7	22.7	14.3	14.3	15.5	13.8	12.7	22.7	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5
9TH FLOOR EL. 148.50	185.7	124.6	124.6	79.8	79.8	79.8	79.8	79.8	124.6	61.2	61.2	61.2	61.2	61.2	61.2	61.2	61.2	61.2	61.2
L.L. 150																			
D.L.																			
WALL	33.3	22.7	22.7	14.3	14.3	15.5	13.8	12.7	22.7	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5
8TH FLOOR EL. 135.50	152.4	102.1	102.1	65.4	65.4	65.4	65.4	65.4	102.1	50.2	50.2	50.2	50.2	50.2	50.2	50.2	50.2	50.2	50.2
L.L. 150																			
D.L.																			
WALL	33.3	22.7	22.7	14.3	14.3	15.5	13.8	12.7	22.7	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5
7TH FLOOR EL. 118.50	118.0	79.8	79.8	51.1	51.1	51.1	51.1	51.1	79.8	39.3	39.3	39.3	39.3	39.3	39.3	39.3	39.3	39.3	39.3
L.L. 150																			
D.L.																			
WALL	33.3	22.7	22.7	14.3	14.3	15.5	13.8	12.7	22.7	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5
6TH FLOOR EL. 101.50	185.7	124.6	124.6	79.8	79.8	79.8	79.8	79.8	124.6	61.2	61.2	61.2	61.2	61.2	61.2	61.2	61.2	61.2	61.2
L.L. 150																			
D.L.																			
WALL	33.3	22.7	22.7	14.3	14.3	15.5	13.8	12.7	22.7	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5
5TH FLOOR EL. 118.50	219.0	146.7	146.7	94.0	94.0	94.0	94.0	94.0	146.7	72.1	72.1	72.1	72.1	72.1	72.1	72.1	72.1	72.1	72.1
L.L. 150																			
D.L.																			
WALL	33.3	22.7	22.7	14.3	14.3	15.5	13.8	12.7	22.7	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5
4TH FLOOR EL. 104.50	252.4	168.9	168.9	108.2	108.2	108.2	108.2	108.2	168.9	83.0	83.0	83.0	83.0	83.0	83.0	83.0	83.0	83.0	83.0
L.L. 125																			
D.L.																			
WALL	33.3	22.7	22.7	14.3	14.3	15.5	13.8	12.7	22.7	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5
3RD FLOOR EL. 91.17	285.7	191.2	191.2	122.5	122.5	122.5	122.5	122.5	191.2	93.9	93.9	93.9	93.9	93.9	93.9	93.9	93.9	93.9	93.9
L.L. 150																			
D.L.																			
WALL	33.3	22.7	22.7	14.3	14.3	15.5	13.8	12.7	22.7	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5
2ND FLOOR EL. 83.04	319.0	213.5	213.5	136.7	136.7	136.7	136.7	136.7	213.5	104.8	104.8	104.8	104.8	104.8	104.8	104.8	104.8	104.8	104.8
L.L. 75																			
D.L.																			
WALL	32.6	21.8	21.8	13.9	13.9	15.2	13.5	12.4	21.8	15.2	15.2	15.2	15.2	15.2	15.2	15.2	15.2	15.2	15.2
1ST FLOOR EL. 72.33	352.4	235.8	235.8	150.9	150.9	150.9	150.9	150.9	235.8	115.7	115.7	115.7	115.7	115.7	115.7	115.7	115.7	115.7	115.7
L.L. 100																			
D.L.																			
WALL	32.6	21.8	21.8	13.9	13.9	15.2	13.5	12.4	21.8	15.2	15.2	15.2	15.2	15.2	15.2	15.2	15.2	15.2	15.2
	709.9	474.9	474.9	303.9	303.9	303.9	303.9	303.9	474.9	232.3	232.3	232.3	232.3	232.3	232.3	232.3	232.3	232.3	232.3
	COL. 1 - 48"X39" 8-1¼"□-28'-0" 5-1¼"□-25'-9" 26-⅜"ϕ TIES-12" CTRS. COL. 12 - 39"X39" 10-1¼"□-27'-6" 24-⅜"ϕ TIES-12" CTRS.	6-¾"ϕ 4'-6" DOWELS.	39"X39" COL. 10-1⅝"□ 13'-0" 11-⅜"ϕ TIES-12" CTRS.	39"X39" COL. 10-1⅛"□-13'-0" 11-⅜"ϕ TIES-12" CTRS.	39"X39" COL. 10-1⅝"□ 13'-0" 11-⅜"ϕ TIES-12" CTRS.	39"X39" COL. 10-1⅝"□-12'-3" 3-1"□-4'-0" DOWELS. 10-⅜"ϕ TIES-12" CTRS.	20"X20" COL. 8-1"□-13'-6" 12-¼"ϕ TIES-12" CTRS.	18"X18" COL 8-1"□-13'-0" 11-¼"ϕ TIES-12" CTRS.	18"X18" COL 8-1"□-12'-9" 11-¼"ϕ. 12" CTRS.	18"X18" COL 4-1"□-12'-6" 10-¼"ϕ TIES-12" CTRS	16"X16" COL. 4-1"□-12'-9" 2-1"□8'-0" BENT 11-¼"ϕ TIES 12" CTRS	16"X16" COL. 4-1"□-11'-0" 2-1"ϕ-5'-0" IN TOP 11-¼"ϕ TIES-12" CTRS.					
	856.1	572.4	572.4	366.2	366.2	366.2	366.2	366.2	572.4	280.0	280.0	280.0	280.0	280.0	280.0	280.0	280.0	280.0	280.0
	COL. 2 - 48"X41" 20-1½"□-29'-6" + 5-1½"□-4'-9" DOWELS. 27-⅞"ϕ TIES - 12" CTRS. COL. 11 - 38"X41" 20-1¾"□-27'-9" 25-⅞"ϕ TIES - 12" CTRS.		28"X41" COL. 20-1¼"□-13'-3" 11-⅜"ϕ TIES-12" CTRS.	24"X41" COL. 20-1¼"□-13'-3" 11-⅜"ϕ TIES-12" CTRS.	22"X41" COL. 16-1¼"□-13'-3" 11-⅜"ϕ TIES-12" CTRS.	22"X41" COL 12-1½"□-12'-9" 1-1½"□-4'-9" DOWEL. 10-⅜"ϕ TIES-12" CTRS.	22"X22" COL 8-1½"□-14'-0" 12-¼"ϕ TIES-12" CTRS.	22"X22" COL. 8-1⅜"□-13'-3" 11-¼"ϕ TIES-12" CTRS.	20"X20" COL 8-1⅛"□-12'-6" 11-¼"ϕ TIES 12" CTRS.	20"X20" COL 4-1"□-12'-6" 2-1"□-8'-0" BENT 10-¼"ϕ TIES-12" CTRS.	18"X18" COL 4-1"□-12'-9" 2-1"□8'-0" BENT 11-¼"ϕ TIES-12" CTRS.	16"X16" COL 4-1"□-11'-0" 2-1"ϕ-5'-0" IN TOP 11-¼"ϕ TIES-12" CTRS.					
	844.2	565.5	565.5	360.2	360.2	360.2	360.2	360.2	565.5	276.6	276.6	276.6	276.6	276.6	276.6	276.6	276.6	276.6	276.6
	24"X41" 18-1½"□-30'-0" 18-1½"□-28'-6" 18-1½"□-27'-0" 2-¾"ϕ SPIRALS	COL. FOR COLS. 3, 4, 6, 7 FOR COL 5 FOR COLS. 8, 9, 10	24"X41" COL. 18-1½"□ 13'-3" 2-⅜"ϕ SPIRALS-2½" P.	24"X41" COL. 18-1½"□-13'-3" 11-⅜"ϕ TIES-12" CTRS.	22"X41" COL. 16-1½"□-13'-3" 11-⅜"ϕ TIES-12" CTRS.	22"X41" COL. 12-1½"□-12'-9" 1-1½"□-4'-9" DOWEL. 10-⅜"ϕ TIES-12" CTRS.	22"X22" COL. 8-1½"□-14'-0" 12-¼"ϕ TIES-12" CTRL.	22"X22" COL. 8-1½"□-13'-3" 11-¼"ϕ TIES-12" CTRS.	20"X20" COL. 8-1⅛"□-12'-6" 11-¼"ϕ TIES-12" CTRS.	20"X20" COL. 4-1"□-12'-6" 2-1"□-8'-0" BENT. 10-¼"ϕ TIES-12" CTRS.	18"X18" COL. 4-1"□-12'-9" 2-1"□8'-0" BENT. 11-¼"ϕ TIES-12" CTRS.	16"X16" COL. 4-1"□-11'-0" 2-1"ϕ-5'-0" IN TOP. 11-¼"ϕ TIES-12" CTRS.					
	1021.3	684.1	684.1	435.5	435.5	435.5	435.5	435.5	684.1	334.6	334.6	334.6	334.6	334.6	334.6	334.6	334.6	334.6	334.6
	SEE DRAWING NO. 2-5 FOR COLUMN BELOW 3RD. FLOOR		28"X41" COL. 20-1¼"□-13'-3" 11-⅜"ϕ TIES-12" CTRS.	24"X41" COL. 20-1¼"□-13'-3" 11-⅜"ϕ TIES-12" CTRS.	22"X41" COL. 16-1¼"□-13'-3" 11-⅜"ϕ TIES-12" CTRS.	SAME AS COLUMN 2													
	1196.8	801.7	801.7	510.6	510.6	510.6	510.6	510.6	801.7	392.2	392.2	392.2	392.2	392.2	392.2	392.2	392.2	392.2	392.2
	36"X36" COL. 20-1¼"□ 15'-9" FOR 14. 20-1½"□ 14'-9" FOR 23. ½"ϕ SPIRAL 2⅝" P.	36"X36" COL. 16-1¼"□ 14'-3" ½"ϕ SPIRAL 2⅝" P.	34" DIAM. COL. 16-1¼"□ 14'-3" ½"ϕ SPIRAL 2½" P.	32" DIAM. COL. 15-1¼"□-14'-3" ½"ϕ SPIRAL 2⅝" P.	32" DIAM. COL. 13-1⅝"□ 14'-3" ½"ϕ SPIRAL 2⅝" P.	30" DIAM. COL. 13-1⅜"□ 13'-6" ½"ϕ SPIRAL 2⅝" P.	28" DIAM. COL. 12-1⅛"□ 14'-6" ⅝"ϕ SPIRAL 1⅞" P.	26" DIAM. COL. 10-1⅛"□ 13'-6" ⅝"ϕ SPIRAL 1⅞" P.	24" DIAM. COL. 10-1"□-13'-6" ⅝"ϕ SPIRAL 2" P.	22" DIAM. COL. 6-1"□-13'-3" ⅝"ϕ SPIRAL 2½" P.	18" DIAM. COL. 6-1"ϕ-12'-9" ⅝"ϕ SPIRAL 3" P.	14" DIAM. COL. 4-¾"ϕ 11'-0" ¾"ϕ SPIRAL 1⅝" P.					
	1346.4	902.1	902.1	574.5	574.5	574.5	574.5	574.5	902.1	441.2	441.2	441.2	441.2	441.2	441.2	441.2	441.2	441.2	441.2
	COLS. 15 & 16 - 36"X36" ALL OTHERS - 36" DIAM. 23-1½"□-11'-0" FOR 15 & 16 23-1½"□-14'-6" FOR OTHERS ½"ϕ SPIRAL 2⅝" P. FOR 15 & 16 ½"ϕ SPIRAL 2½" P. FOR OTHERS		34" DIAM. COL. 19-1½"□-14'-3" ½"ϕ SPIRAL 2½" P.	32" DIAM. COL. 19-1¼"□. 14'-3" ½"ϕ SPIRAL 2⅝" P.	32" DIAM. COL. 14-1¼"□-14'-3" ½"ϕ SPIRAL-2⅝" P.	30" DIAM. COL. 13-1¼"□ 13'-9" ½"ϕ SPIRAL 2⅝" P.	28" DIAM. COL. 12-1⅛"□-14'-6" ⅝"ϕ SPIRAL-1⅞" P.	26" DIAM. COL. 10-1⅛"□ 14'-0" ⅝"ϕ SPIRAL-1⅞" P.	24" DIAM. COL. 9-1⅛"□-13'-6" ⅝"ϕ SPIRAL 2" P.	22" DIAM. COL. 8-1"□-13'-3" ⅝"ϕ SPIRAL 2½" P.	18" DIAM. COL. 6-1"□-12'-6" ⅝"ϕ SPIRAL-3" P.	14" DIAM. COL. 4-¾"ϕ 11'-0" ¾"ϕ SPIRAL-1⅝" P.					
	1496.3	1002.5	1002.5	713.1	713.1	713.1	713.1	713.1	1002.5	490.8	490.8	490.8	490.8	490.8	490.8	490.8	490.8	490.8	490.8
	36"X36" COL. 22-1¾"□-15'-0" FOR 17. 22-1½"□-14'-9" FOR 18, 19, 20 ½"ϕ SPIRAL-2⅝" P.	36"X36" COL. 18-1¼"□-14'-3" ½"ϕ SPIRAL-2⅝" P.	34" DIAM. COL. 18-1¼"□-14'-3" ½"ϕ SPIRAL-2½" P.	32" DIAM. COL. 18-1¼"□-14'-3" ½"ϕ SPIRAL-2⅝" P.	32" DIAM. COL. 12-1¼"□-14'-3" ½"ϕ SPIRAL-2⅝" P.	30" DIAM. COL. 12-1¼"□-13'-9" ½"ϕ SPIRAL-2⅝" P.	28" DIAM. COL. 12-1⅛"□-14'-6" ⅝"ϕ SPIRAL-1⅞" P.	26" DIAM. COL. 11-1⅛"□-14'-0" ⅝"ϕ SPIRAL-1⅞" P.	24" DIAM. COL. 9-1⅛"□-13'-6" ⅝"ϕ SPIRAL 2" P.	22" DIAM. COL. 8-1"□-13'-3" ⅝"ϕ SPIRAL 2½" P.	18" DIAM. COL. 6-1"ϕ-12'-9" ⅝"ϕ SPIRAL-3" P.	14" DIAM. COL. 4-¾"ϕ 11'-0" ¾"ϕ SPIRAL-1⅝" P.					
	1646.9	1102.9	1102.9	784.4	784.4	784.4	784.4	784.4	1102.9	539.9	539.9	539.9	539.9	539.9	539.9	539.9	539.9	539.9	539.9
	36"X36" COL. 22-1¾"□-15'-0" FOR 40. 22-1½"□-14'-9" FOR 88, 93 ½"ϕ SPIRAL-2⅝" P.	36"X36" COL. 18-1¼"□-13'-3" ½"ϕ SPIRAL-2⅝" P.	34" DIAM. COL. 18-1¼"□-14'-3" ½"ϕ SPIRAL-2½" P.	32" DIAM. COL. 18-1¼"□-14'-3" ½"ϕ SPIRAL-2⅝" P.	32" DIAM. COL. 12-1¼"□-14'-3" ½"ϕ SPIRAL-2⅝" P.	30" DIAM. COL. 12-1¼"□-13'-9" ½"ϕ SPIRAL-2⅝" P.	28" DIAM. COL. 12-1⅛"□-14'-6" ⅝"ϕ SPIRAL-1⅞" P.	26" DIAM. COL. 11-1⅛"□-14'-0" ⅝"ϕ SPIRAL-1⅞" P.	24" DIAM. COL. 9-1⅛"□-13'-6" ⅝"ϕ SPIRAL 2" P.	22" DIAM. COL. 8-1"□-13'-3" ⅝"ϕ SPIRAL 2½" P.	18" DIAM. COL. 6-1"ϕ-12'-9" ⅝"ϕ SPIRAL-3" P.	14" DIAM. COL. 4-¾"ϕ 11'-0" ¾"ϕ SPIRAL-1⅝" P.					
	1796.3	1203.3	1203.3	855.8	855.8	855.8	855.8	855.8	1203.3	589.3	589.3	589.3	589.3	589.3	589.3	589.3	589.3	589.3	589.3
	36"X36" COL. 26-1¾"□-14'-9" 4-⅜"ϕ 13'-0" 2-½"ϕ SPIRALS 2⅝" P. 12-⅜"ϕ TIES-12" CTRS.	36"X48" COL. 26-1¾"□-14'-3" 4-⅜"ϕ 12'-3" 2-½"ϕ SPIRALS 2⅝" P. 11-⅜"ϕ TIES-12" CTRS.	36"X44" COL. 26-1¾"□-14'-3" 4-⅜"ϕ 12'-3" 2-½"ϕ SPIRALS 2⅝" P. 11-⅜"ϕ TIES-12" CTRS.	36"X44" COL. 26-1¾"□-13'-3" 4-⅜"ϕ 12'-3" 2-½"ϕ SPIRALS 2⅝" P. 11-⅜"ϕ TIES-12" CTRS.	36"X44" COL. 26-1¾"□-13'-3" 11-⅜"ϕ TIES-12" CTRS.	36"X38" COL. 26-1¾"□-12'-9" 10-⅜"ϕ TIES-12" CTRS.	34"X34" COL. 24-1¾"□-14'-0" 12-⅜"ϕ TIES-12" CTRS.	32"X32" COL. 22-1¾"□-13'-3" 11-⅜"ϕ TIES-12" CTRS.	30"X30" COL. 20-1⅝"□-13'-0" 11-½"ϕ TIES-12" CTRS.	27"X27" COL. 18-1⅜"□ 12'-3" 11-½"ϕ TIES-12" CTRS.	24"X24" COL. 16-1"□-12'-9" 11-½"ϕ TIES-12" CTRS.	20"X20" COL. 12-1"□ 11'-0" 11-½"ϕ TIES-12" CTRS.					
	1946.0	1303.6	1303.6	927.2	927.2	927.2	927.2	927.2	1303.6	638.4	638.4	638.4	638.4	638.4	638.4	638.4	638.4	638.4	638.4
	36"X52" COL. 28-1¾"□-14'-3" FOR 27. 28-1½"□-13'-9" FOR 75, 82. ½"ϕ SPIRAL 2⅝" P. 11-⅜"ϕ TIES-12" CTRS.	36"X48" COL. 26-1½"□-13'-3" 11-⅜"ϕ TIES-12" CTRS.	36"X44" COL. 26-1½"□-13'-3" 11-⅜"ϕ TIES-12" CTRS.	36"X40" COL. 24-1½"□-13'-3" 11-⅜"ϕ TIES-12" CTRS.	36"X36" COL. 24-1½"□-13'-3" 11-⅜"ϕ TIES-12" CTRS.	34"X34" COL. 22-1½"□-12'-9" 10-⅜"ϕ TIES-12" CTRS.	32"X32" COL. 22-1⅜"□-13'-3" 12-⅜"ϕ TIES-12" CTRS.	30"X30" COL. 20-1⅜"□-13'-0" 11-½"ϕ TIES-12" CTRS.	28"X28" COL. 20-1"□ 12'-9" 11-½"ϕ TIES-12" CTRS.	25"X25" COL. 16-1"□-12'-6" 11-½"ϕ TIES-12" CTRS.	22"X22" COL. 14-1"□-12'-9" 11-½"ϕ TIES-12" CTRS.	18"X18" COL. 8-1"□ 11'-0" 11-½"ϕ TIES-12" CTRS.					
	2096.8	1403.8	1403.8	998.5	998.5	998.5	998.5	998.5	1403.8	687.5	687.5	687.5	687.5	687.5	687.5	687.5	687.5	687.5	687.5
	36"X52" COL. 30-1½"□-14'-9" 4-⅜"ϕ 13'-0" 2-½"ϕ SPIRALS 2⅝" P. 12-⅜"ϕ TIES-12" CTRS.	36"X48" COL. 30-1½"□-14'-3" 4-⅜"ϕ 12'-3" 2-½"ϕ SPIRALS 2⅝" P. 11-⅜"ϕ TIES-12" CTRS.	36"X44" COL. 30-1½"□-14'-3" 4-⅜"ϕ 12'-3" 2-½"ϕ SPIRALS 2⅝" P. 11-⅜"ϕ TIES-12" CTRS.	36"X44" COL. 30-1½"□-13'-3" 4-⅜"ϕ 12'-3" 2-½"ϕ SPIRALS 2⅝" P. 11-⅜"ϕ TIES-12" CTRS.	36"X44" COL. 30-1½"□-13'-3" 11-⅜"ϕ TIES-12" CTRS.	36"X38" COL. 28-1½"□-12'-9" 10-⅜"ϕ TIES-12" CTRS.	34"X34" COL. 26-1¼"□-14'-0" 12-⅜"ϕ TIES-12" CTRS.	32"X32" COL. 24-1½"□-13'-3" 11-⅜"ϕ TIES-12" CTRS.	30"X30" COL. 22-1⅜"□ 13'-0" 11-½"ϕ TIES-12" CTRS.	27"X27" COL. 18-1⅛"□ 12'-9" 11-½"ϕ TIES-12" CTRS.	24"X24" COL. 16-1"□-12'-9" 11-½"ϕ TIES-12" CTRS.	20"X20" COL. 8-1"□ 11'-0" 11-½"ϕ TIES-12" CTRS.					
	2246.5	1504.0	1504.0	1069.8	1069.8	1069.8	1069.8	1069.8	1504.0	736.7	736.7	736.7	736.7	736.7	736.7	736.7	736.7	736.7	736.7
	36"X52" COL. 32-1¾"□-14'-9" 4-⅜"ϕ 13'-0" 2-½"ϕ SPIRALS 2⅝" P. 11-⅜"ϕ TIES-12" CTRS.	36"X48" COL. 32-1½"□-14'-3" 4-⅜"ϕ 12'-3" 2-½"ϕ SPIRALS 2⅝" P. 11-⅜"ϕ TIES-12" CTRS.	36"X44" COL. 30-1½"□-14'-3" 4-⅜"ϕ 12'-3" 2-½"ϕ SPIRALS 2⅝" P. 11-⅜"ϕ TIES-12" CTRS.	36"X44" COL. 30-1½"□-13'-3" 4-⅜"ϕ 12'-3" 2-½"ϕ SPIRALS 2⅝" P. 11-⅜"ϕ TIES-12" CTRS.	36"X44" COL. 30-1½"□-13'-3" 11-⅜"ϕ TIES-12" CTRS.	36"X38" COL. 28-1½"□-12'-9" 10-⅜"ϕ TIES-12" CTRS.	34"X34" COL. 26-1¼"□-14'-0" 12-⅜"ϕ TIES-12" CTRS.	32"X32" COL. 24-1½"□-13'-3" 11-⅜"ϕ TIES-12" CTRS.	30"X30" COL. 22-1⅜"□ 13'-0" 11-½"ϕ TIES-12" CTRS.	27"X27" COL. 18-1⅛"□ 12'-9" 11-½"ϕ TIES-12" CTRS.	24"X24" COL. 16-1"□-12'-9" 11-½"ϕ TIES-12" CTRS.	20"X20" COL. 8-1"□ 11'-0" 11-½"ϕ TIES-12" CTRS.					
	2396.2	1604.2	1604.2	1141.1	1141.1	1141.1	1141.1	1141.1	1604.2	785.9	785.9	785.9	785.9	785.9	785.9	785.9	785.9	785.9	785.9
	36"X52" COL. 32-1¾"□-14'-9" 4-⅜"ϕ 13'-0" 2-½"ϕ SPIRALS 2⅝" P. 11-⅜"ϕ TIES-12" CTRS.	36"X48" COL. 32-1½"□-14'-3" 4-⅜"ϕ 12'-3" 2-½"ϕ SPIRALS 2⅝" P. 11-⅜"ϕ TIES-12" CTRS.	36"X44" COL. 30-1½"□-14'-3" 4-⅜"ϕ 12'-3" 2-½"ϕ SPIRALS 2⅝" P. 11-⅜"ϕ TIES-12" CTRS.	36"X44" COL. 30-1½"□-13'-3" 4-⅜"ϕ 12'-3" 2-½"ϕ SPIRALS 2⅝" P. 11-⅜"ϕ TIES-12" CTRS.	36"X44" COL. 30-1½"□-13'-3" 11-⅜"ϕ TIES-12" CTRS.	36"X38" COL. 28-1½"□-12'-9" 10-⅜"ϕ TIES-12" CTRS.	34"X34" COL. 26-1¼"□-14'-0" 12-⅜"ϕ TIES-12" CTRS.	32"X32" COL. 24-1½"□-13'-3" 11-⅜"ϕ TIES-12" CTRS.	30"X30" COL. 22-1⅜"□ 13'-0" 11-½"ϕ TIES-12" CTRS.	27"X27" COL. 18-1⅛"□ 12'-9" 11-½"ϕ TIES-12" CTRS.	24"X24" COL. 16-1"□-12'-9" 11-½"ϕ TIES-12" CTRS.	20"X20" COL. 8-1"□ 11'-0" 11-½"ϕ TIES-12" CTRS.					
	2546.0	1704.4	1704.4	1212.4	1212.4	1212.4	1212.4	1212.4	1704.4	835.2	835.2	835.2	835.2	835.2	835.2	835.2	835.2	835.2	835.2
	36"X52" COL. 32-1¾"□-14'-9" 4-⅜"ϕ 13'-0" 2-½"ϕ SPIRALS 2⅝" P. 11-⅜"ϕ TIES-12" CTRS.	36"X48" COL. 32-1½"□-14'-3" 4-⅜"ϕ 12'-3" 2-½"ϕ SPIRALS 2⅝" P. 11-⅜"ϕ TIES-12" CTRS.	36"X44" COL. 30-1½"□-14'-3" 4-⅜"ϕ 12'-3" 2-½"ϕ SPIRALS 2⅝" P. 11-⅜"ϕ TIES-12" CTRS.	36"X44" COL. 30-1½"□-13'-3" 4-⅜"ϕ 12'-3" 2-½"ϕ SPIRALS 2⅝" P. 11-⅜"ϕ TIES-12" CTRS.	36"X44" COL. 30-1½"□-13'-3" 11-⅜"ϕ TIES-12" CTRS.	36"X38" COL. 28-1½"□-12'-9" 10-⅜"ϕ TIES-12" CTRS.	34"X34" COL. 26-1¼"□-14'-0" 12-⅜"ϕ TIES-12" CTRS.	32"X32" COL. 24-1½"□-13'-3" 11-⅜"ϕ TIES-12" CTRS.	30"X30" COL. 22-1⅜"□ 13'-0" 11-½"ϕ TIES-12" CTRS.	27"X27" COL. 18-1⅛"□ 12'-9" 11-½"ϕ TIES-12" CTRS.	24"X24" COL. 16-1"□-12'-9" 11-½"ϕ TIES-12" CTRS.	20"X20" COL. 8-1"□ 11'-0" 11-½"ϕ TIES-12" CTRS.					
	2695.8	1804.6	1804.6	1283.7	1283.7	1283.7	1283.7	1283.7	1804.6	884.5	884.5	884.5	884.5	884.5	884.5	884.5	884.5	884.5	884.5
	36"X52" COL. 32-1¾"□-14'-9" 4-⅜"ϕ 13'-0" 2-½"ϕ SPIRALS 2⅝" P. 11-⅜"ϕ TIES-12" CTRS.	36"X48" COL. 32-1½"□-14'-3" 4-⅜"ϕ 12'-3" 2-½"ϕ SPIRALS 2⅝" P. 11-⅜"ϕ TIES-12" CTRS.	36"X44" COL. 30-1½"□-14'-3" 4-⅜"ϕ 12'-3" 2-½"ϕ SPIRALS 2⅝" P. 11-⅜"ϕ TIES-12" CTRS.	36"X44" COL. 30-1½"□-13'-3" 4-⅜"ϕ 12'-3" 2-½"ϕ SPIRALS 2⅝" P. 11-⅜"ϕ TIES-12" CTRS.	36"X44" COL. 30-1½"□-13'-3" 11-⅜"ϕ TIES-12" CTRS.	36"X38" COL. 28-1½"□-12'-9" 10-⅜"ϕ TIES-12" CTRS.	34"X34" COL. 26-1¼"□-14'-0" 12-⅜"ϕ TIES-12" CTRS.	32"X32" COL. 24-1½"□-13'-3" 11-⅜"ϕ TIES-12" CTRS.	30"X30" COL. 22-1⅜"□ 13'-0" 11-½"ϕ TIES-12" CTRS.	27"X27" COL. 18-1⅛"□ 12'-9" 11-½"ϕ TIES-12" CTRS.	24"X24" COL. 16-1"□-12'-9" 11-½"ϕ TIES-12" CTRS.	20"X20" COL. 8-1"□ 11'-0" 11-½"ϕ TIES-12" CTRS.					

COLS. 1, 12, 109, 120 IN THE 12TH STORY.



COLS. 1, 12, 109, 120 IN 11TH STORY.

COLS. 1, 12, 109, 120 8TH, 9TH, 10TH STORIES.

¼"ϕ 1'-6" CT

COLUMN SCHEDULE - CONCLUDED.

COLUMN NUMBERS	29, 41, 77, 80, 89, 92.	35, 47.	36, 48, 60, 72, 84, 96 111 - 118 INCL.	50, 62 59, 71	51, 52	54, 55 66, 67.	57, 58	63, 64 69, 70	97	98	99, 100 105, 106	101, 102 103, 104	107	108, 110, 119	109, 120.
AREA	319"	339"	182	367"	374"	333"	308"	394"			313"				
ROOF EL 203.50															
LL 100	31.9	33.9	18.9	35.7	39.4	37.3	30.8	39.4			37.2				
DL	34.1	38.0	24.0	39.2	43.3	41.5	35.0	43.3			41.2				
WALL			14.0			110.0									
PENTHOUSE															
ELEVATOR															
TANK															
12TH FLOOR EL 192.50	68.0	71.9	44.0	82.4	87.7	88.8	65.8	82.7			78.8				
175 L.L 157.5	50.1	53.8	29.1	54.6	62.0	58.1	48.4	62.0			58.7				
DL	50.8	53.6	32.7	54.7	63.8	58.6	49.2	61.3			66.6				
WALL			20.8												
11TH FLOOR EL 181.50	148.4	175.4	68.8	183.3	215.5	306.1	163.5	206.0			209.1				
150 L.L 118	40.8	43.3	29.1	45.7	50.0	47.7	39.4	50.4			47.7				
DL	51.8	54.7	33.7	57.3	70.1	59.8	50.3	62.6			67.8				
WALL			20.4												
10TH FLOOR EL 170.5	241.5	274.9	83.2	291.1	359.6	413.6	253.7	319.0			319.5				
150 L.L 120	38.2	40.7	22.6	43.0	47.2	46.8	37.0	47.2			46.8				
DL	58.2	62.9	32.4	65.8	67.9	62.9	48.9	62.8			65.3				
WALL			20.4												
9TH FLOOR EL 154.50	349.9	378.5	103.6	398.5	474.1	516.3	339.1	426.6			430.3				
150 L.L 113.5	36.9	38.1	21.2	40.2	44.3	42.0	34.1	44.3			42.0				
DL	41.5	43.8	27.1	45.5	52.8	47.2	40.4	49.3			55.2				
WALL			20.4												
8TH FLOOR EL 148.50	427.3	457.4	126.0	476.2	550.2	605.5	414.2	520.2			527.5				
150 L.L 105	33.5	35.6	19.8	37.5	41.3	39.1	37.4	41.3			39.2				
DL	42.5	44.6	27.1	46.5	57.8	48.2	41.4	50.3			56.2				
WALL			20.4												
7TH FLOOR EL 137.50	503.3	537.6	166.4	559.2	649.3	692.9	488.0	611.8			622.9				
150 L.L 97.5	31.1	33.0	18.4	34.9	38.4	36.9	30.0	38.9			34.9				
D.L	55.3	58.3	34.3	60.9	73.7	63.2	53.9	66.2			71.4				
WALL			15.9												
			146.4												
6TH FLOOR EL 126.50	589.9	629.9	332.8	655.0	761.9	792.5	571.9	716.9	537.3		730.5			537.3	
150 L.L 90	28.8	30.5	17.0	32.3	35.5	33.6	27.8	36.1	17.5		33.6			17.5	
D.L	43.9	45.5	32.1	47.4	58.7	49.1	42.5	52.8	32.2		57.1			32.2	
WALL			15.9						21.0					21.0	
5TH FLOOR EL. 115.50	662.1	699.9	576.5	738.6	856.2	875.2	694.0	802.7	608.5		821.2	734.5	703.0	688.5	305.1
150 L.L 82.5	24.9	26.0	15.4	27.8	32.4	30.8	25.2	32.4	16.0		30.2	29.5	28.1	16.0	7.5
D.L	51.3	53.2	39.5	54.8	67.4	58.1	54.8	67.1	39.9		72.1	61.8	54.9	39.9	24.1
WALL			11.5						19.0					19.0	5.9
4TH FLOOR EL 104.50	734.9	778.1	643.4	821.2	956.0	970.1	774.3	901.8	683.9		923.5	825.8	784.5	683.9	342.6
175 L.L 82.5	27.9	29.1	16.4	31.3	36.5	32.7	27.0	34.5	38.8		42.1	29.8	29.8	38.8	7.5
D.L	48.3	49.0	31.2	50.8	57.1	50.0	43.2	51.1	47.5		47.0	46.5	46.5	47.5	24.1
WALL			11.5												5.9
3RD FLOOR EL 93.77	817.1	863.2	705.5	904.8	1052.8	1065.2	797.3	988.9	722.4		1093.1	852.8	865.8	722.4	385.2
150 L.L 75	24.0	25.5	17.0	27.0	29.6	29.6	23.1	29.6	26.5		29.6	27.0	26.5	26.5	7.5
D.L	48.3	46.9	28.3	48.3	57.1	49.9	43.2	51.1	46.5		51.1	48.3	46.5	46.5	24.1
WALL			11.5												5.9
2ND FLOOR EL 83.08	888.8	935.1	780.8	980.8	1130.1	1135.7	858.8	1070.1	766.9		1119.9	1008.2	918.8	766.9	385.2
150 L.L 76	24.0	25.5	17.0	27.0	29.6	29.6	23.1	29.6	26.5		29.6	27.0	26.5	26.5	7.5
D.L	48.3	46.9	28.3	48.3	57.1	49.9	43.2	51.1	46.5		51.1	48.3	46.5	46.5	24.1
WALL			11.5												5.9
1ST FLOOR EL 72.31	956.7	1007.0	819.5	1036.1	1211.8	1208.6	925.1	1151.8	803.9		1196.6	1083.4	1011.8	803.9	385.2

SAME AS COL 2.

SAME AS COL. 14.

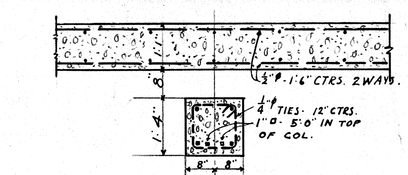
SAME AS COL. 50.

SAME AS COL. 14

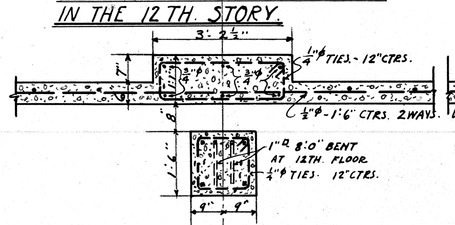
WALL SAME AS COLUMN 2. COLUMN SAME AS COLUMN 36

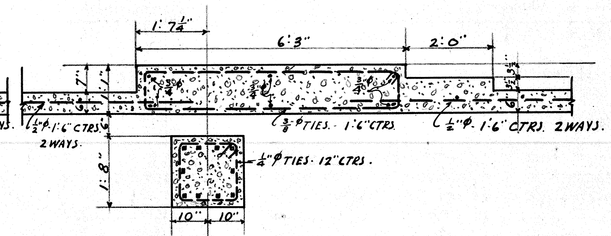
SAME AS COL. 1

DETAILS OF COLS. NO. 108, 110, 119 IN THE 9TH, 10TH, 11TH AND 12TH STORIES ARE SHOWN ON DRAWING NO. 5-5.



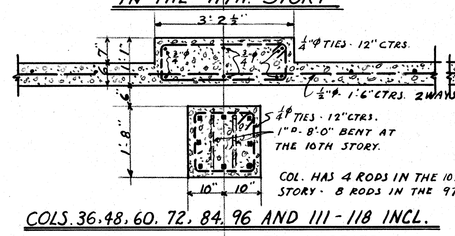
COLS 36, 48, 60, 72, 84, 96, -111, 118 INCL. IN THE 12 TH STORY.

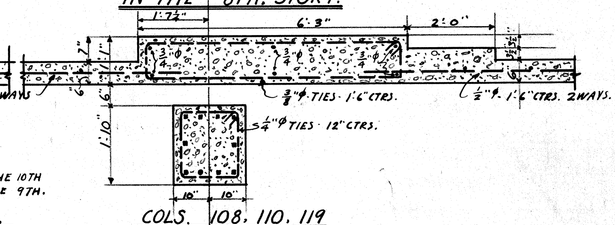




COLS. 108, 110, 119. IN THE 8TH. STORY.

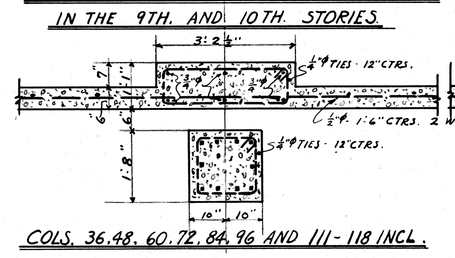
COLS 36, 48, 60, 72, 84, 96 AND 111 - 118 INCL. IN THE 11TH. STORY

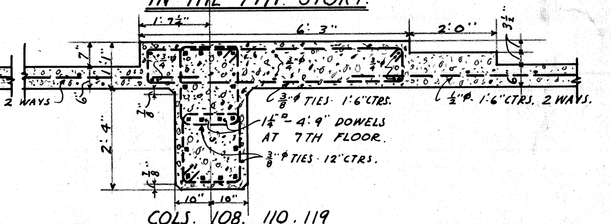




COLS. 108, 110, 119. IN THE 7TH. STORY.

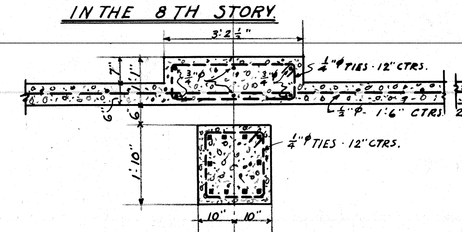
COLS 36, 48, 60, 72, 84, 96 AND 111 - 118 INCL. IN THE 9TH. AND 10TH. STORIES.

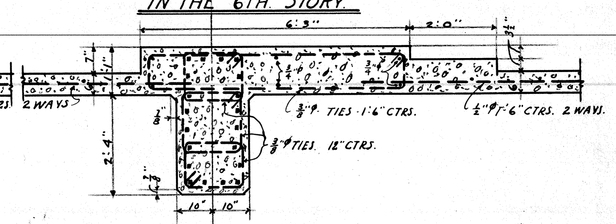




COLS. 108, 110, 119. IN THE 6TH. STORY.

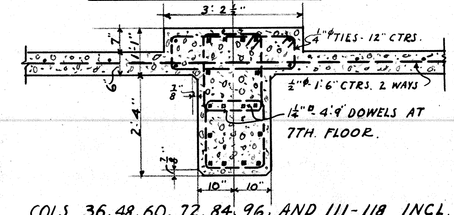
COLS. 36, 48, 60, 72, 84, 96 AND 111 - 118 INCL. IN THE 8TH STORY

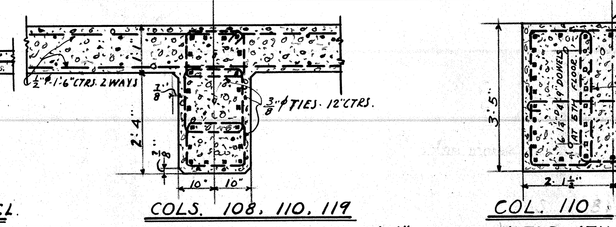




COLS. 108, 110, 119. IN THE 5TH STORY FROM 3'4 ABOVE 5TH FLOOR TO 6TH FLOOR

COLS. 36, 48, 60, 72, 84, 96 AND 111 - 118 INCL. IN THE 7TH STORY



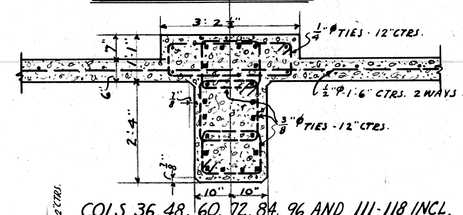


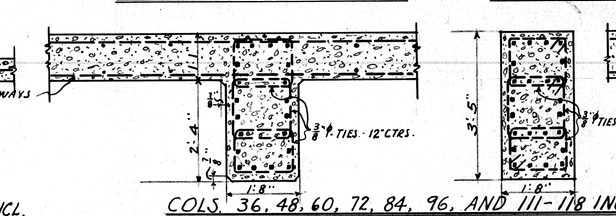
COLS. 108, 110, 119. FROM 5TH. FLOOR UP 3'-4"

COL. 110 IN THE 4TH. STORY.

COLS. 108-119 IN 4TH STORY

COLS. 36, 48, 60, 72, 84, 96, AND 111 - 118 INCL. IN THE 6TH STORY

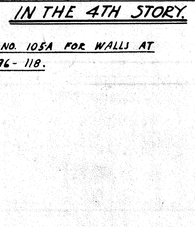




COLS. 36, 48, 60, 72, 84, 96, AND 111 - 118 INCL. FROM 5TH FLOOR UP 3'-4"

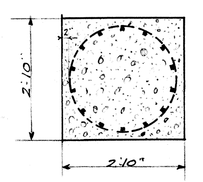
IN THE 4TH STORY.

COLS 36, 48, 60, 72, 84 IN THE 3RD STORY.

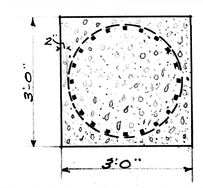


COLS 36, 48, 60, 72, 84 IN THE 2ND STORY

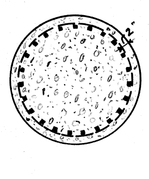
SEE DRAWING NO 33 FOR COLS. 36, 48, 60, 72, 84 IN THE 1ST. STORY.



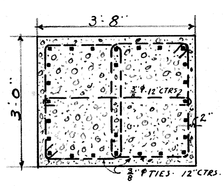
TYPICAL DETAIL OF 34"X 34" SPIRAL COLUMN.



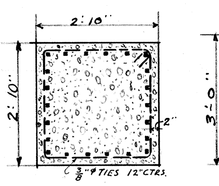
TYPICAL DETAIL OF 36"X 36" SPIRAL COLUMN.



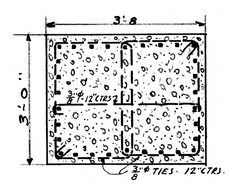
TYPICAL DETAIL OF ROUND SPIRAL COLUMNS SEE SCHEDULE FOR DIAM. OF COL. AND NO. OF RODS.



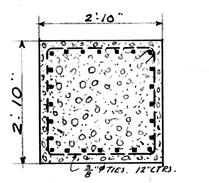
COLS. 27, 75, 82 IN THE 3RD. STORY.



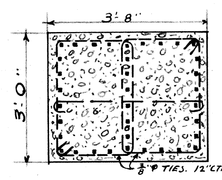
COLS. 27, 75, 82 IN THE 6TH. STORY.



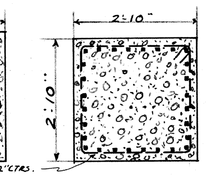
3RD. STORY COLS. 39, 87, 94, 28, 76, 81



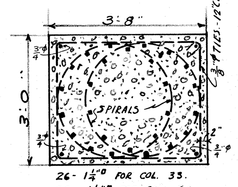
6TH STORY COLS. 39, 87, 94, 28, 76, 81



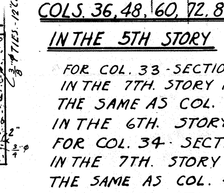
3RD. STORY COLS. 40, 88, 93



6TH STORY COLS. 40, 88, 93



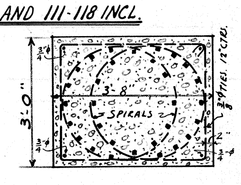
COLS. 33 & 34 3RD. AND 4TH. STORIES



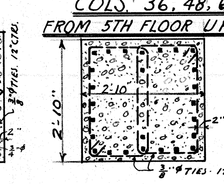
COLS. 33 AND 34 6TH. STORY

IN THE 5TH STORY

FOR COL. 33 - SECTION IN THE 7TH STORY IS THE SAME AS COL. 39 IN THE 6TH. STORY. FOR COL. 34 - SECTION IN THE 7TH. STORY IS THE SAME AS COL. 45 IN THE 7TH. STORY.

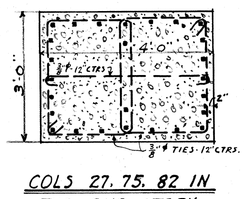


3RD. AND 4TH. STORIES COLS. 45, 46

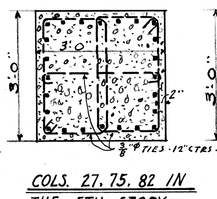


7TH. STORY. COLS. 45, 46

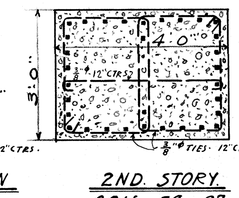
SEE DRAWING NO. 105A FOR WALLS AT COLS 36-84-96-118.



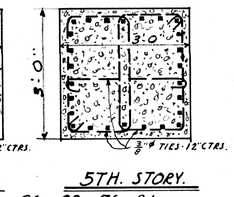
COLS. 27, 75, 82 IN THE 2ND STORY



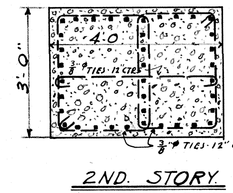
COLS. 27, 75, 82 IN THE 5TH. STORY.



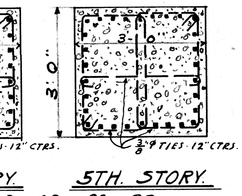
2ND. STORY COLS. 39, 87, 94, 28, 76, 81



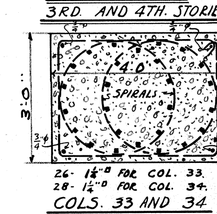
5TH. STORY. COLS. 39, 87, 94, 28, 76, 81



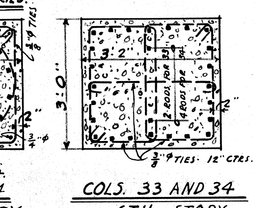
2ND. STORY COLS. 40, 88, 93



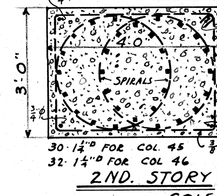
5TH. STORY. COLS. 40, 88, 93



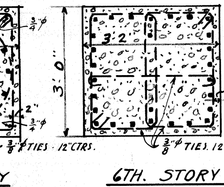
COLS. 33 AND 34 2ND. STORY



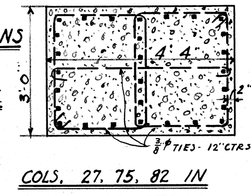
COLS. 33 AND 34 6TH. STORY



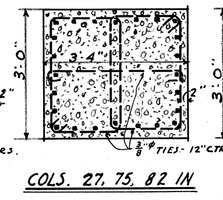
2ND. STORY COLS. 45, 46.



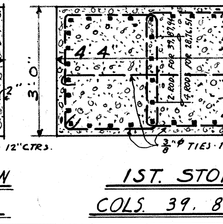
6TH. STORY COLS. 45, 46.



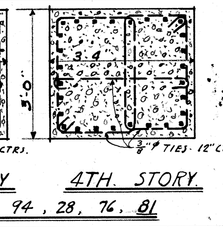
COLS. 27, 75, 82 IN THE 1ST. STORY.



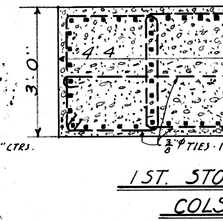
COLS. 27, 75, 82 IN THE 4TH. STORY.



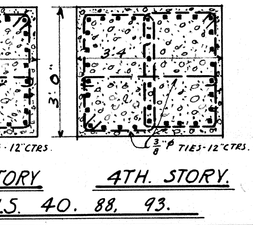
1ST. STORY COLS. 39, 87, 94, 28, 76, 81



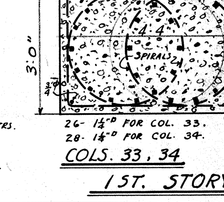
4TH. STORY COLS. 39, 87, 94, 28, 76, 81



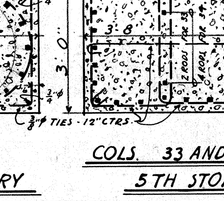
1ST. STORY COLS. 40, 88, 93.



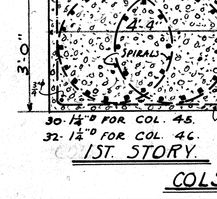
4TH. STORY. COLS. 40, 88, 93.



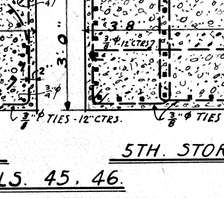
COLS. 33, 34 1ST. STORY



COLS. 33 AND 34 5TH STORY.



1ST. STORY COLS. 45, 46



5TH. STORY COLS. 45, 46

* MOORES & DUNFORD * CONSULTING ENGINEERS * NEW YORK CITY *

* DISTRIBUTION TERMINAL & COLD STORAGE CO. * CLEVELAND * OHIO *

* COLUMN SCHEDULE AND DETAILS * (CONCLUDED)

SCALE

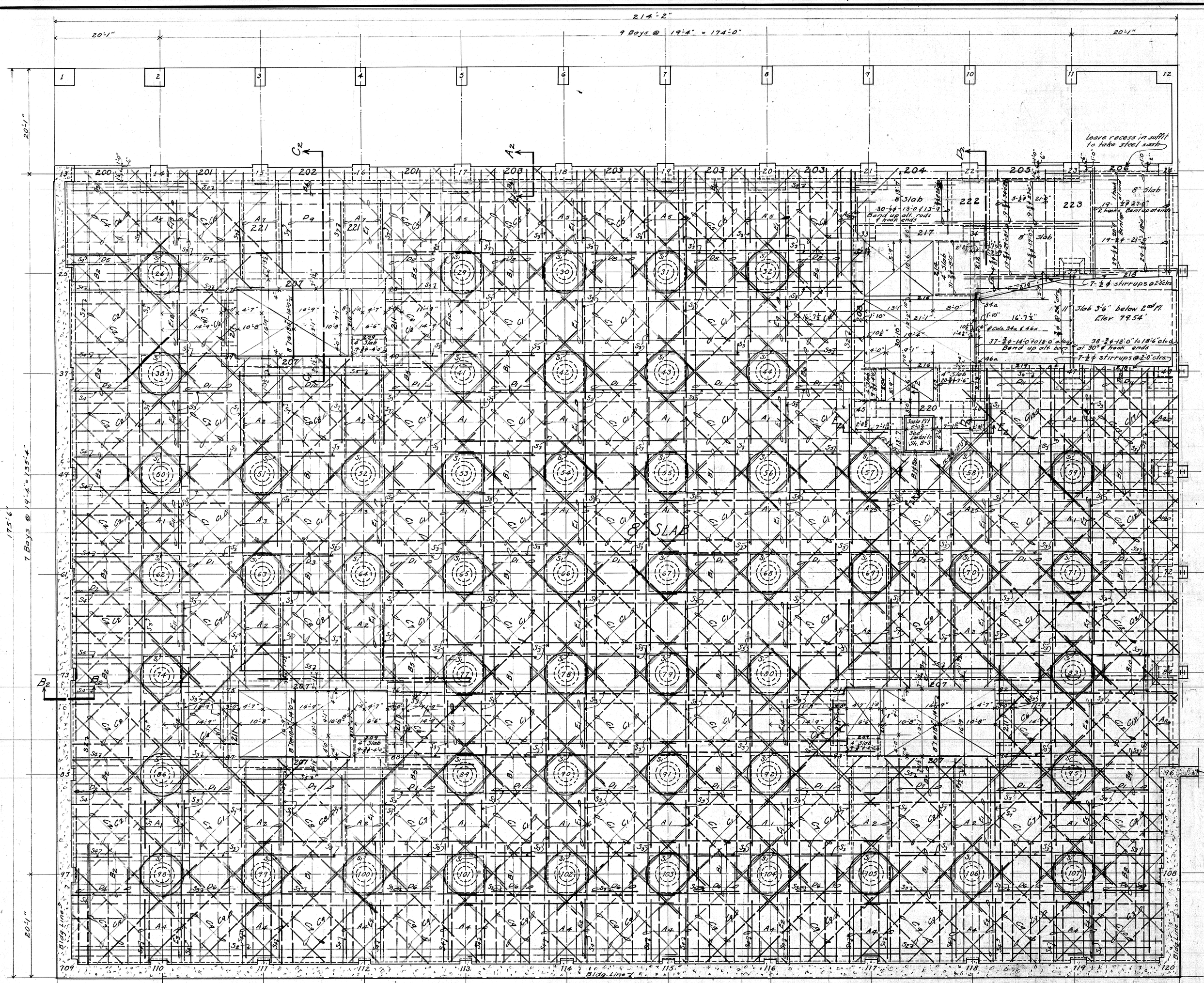
FILE Nº 4086

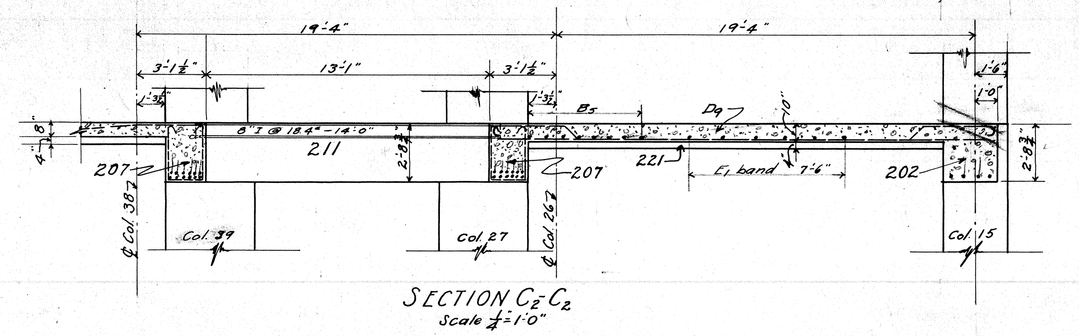
WILBUR WATSON AND ASSOCIATES ARCHITECTS & ENGINEERS CLEVELAND

DRAWING Nº 6-8

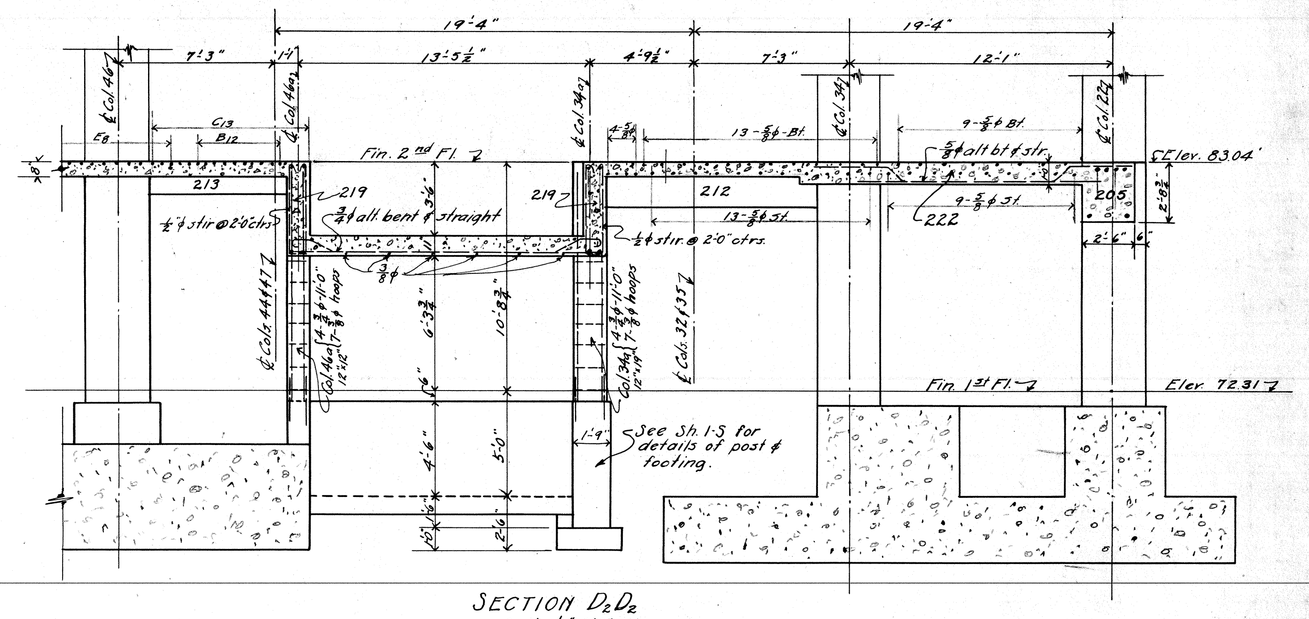
DRAWING MADE	DRAWN BY	TRACED BY	CHECKED BY	DATE	APPROVED BY	DATE
W.E.B.	7-7-27					

REV. BY	DATE	REMARKS	REV. BY	DATE	REMARKS
W.E.B.	7-7-27	DIMENSIONS ETC.			


214'-2"
9 Bays @ 19'-4" = 174'-0"
20'-1"
20'-1"
175'-6"
7 Bays @ 19'-4" = 135'-4"
20'-1"
Bldg Line
Bldg Line
leave recess in soffit to take steel sash
8" Slab
8" Slab
8" Slab



SECTION C_2C_2
Scale ¼"=1'-0"



SECTION D_2D_2
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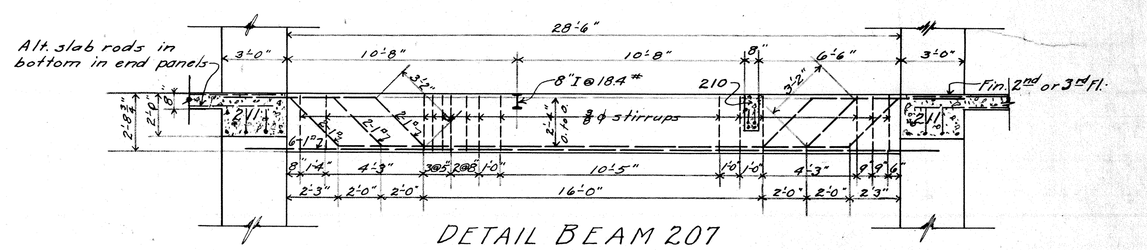
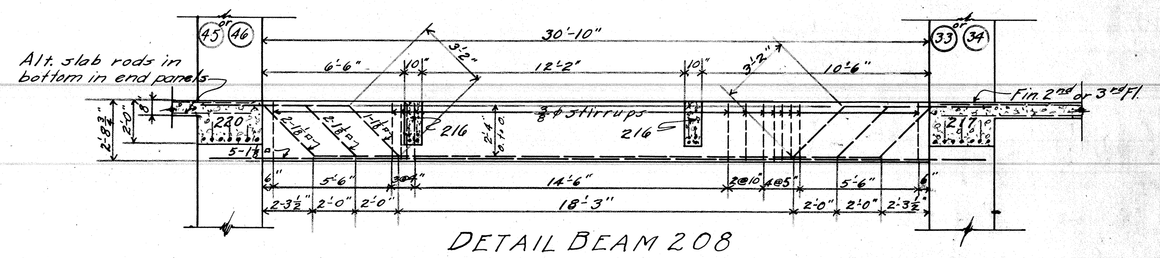
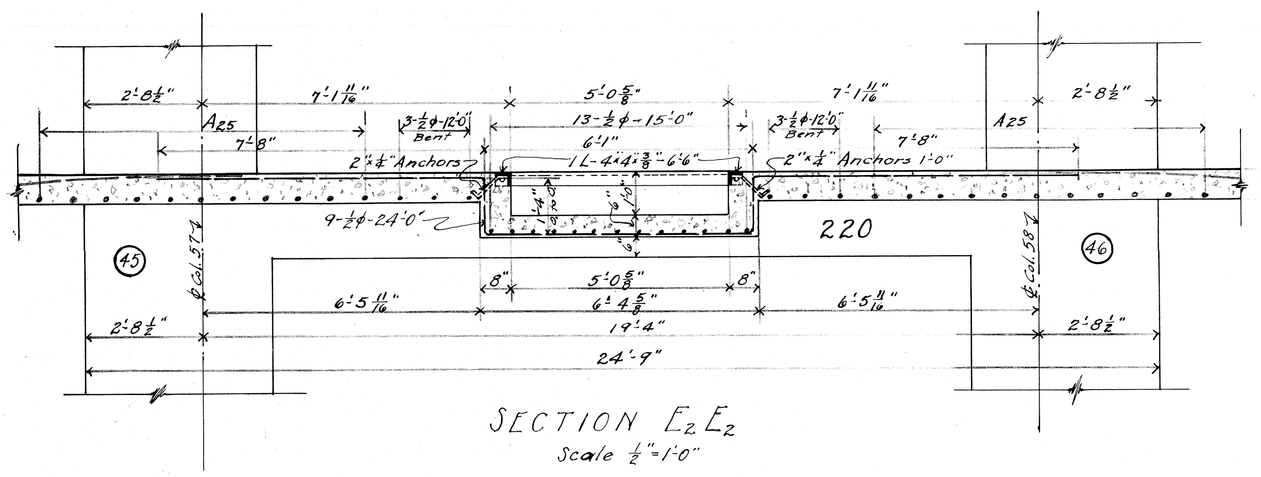


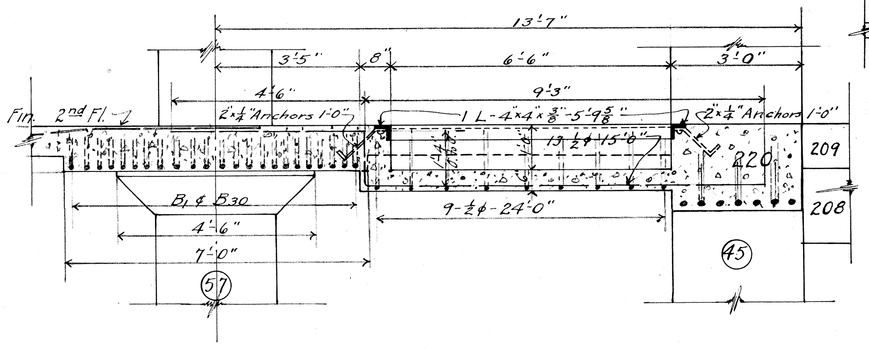
DETAIL BEAM 207



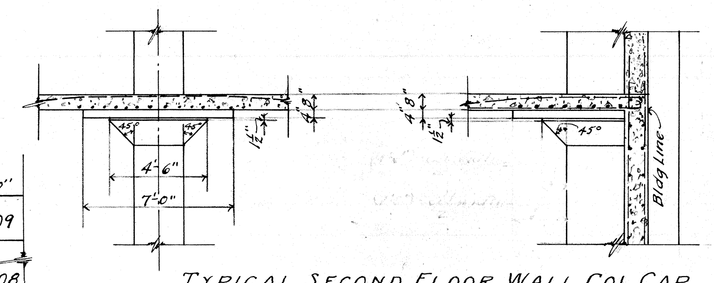
DETAIL BEAM 208



SECTION E_2E_2
Scale ¼"=1'-0"



SECTION F_2F_2
Scale ½"=1'-0"



TYPICAL SECOND FLOOR WALL COL. CAP

· MOORES · & · DUNFORD ·
· CONSULTING · ENGINEERS ·
· NEW · YORK · CITY ·

· DISTRIBUTION · TERMINAL · & · COLD · STORAGE · Co. ·
· CLEVELAND · OHIO ·

· STRUCTURAL · DETAILS · FOR ·
· SECOND & THIRD · FLOORS ·
SCALE ¼" · 1' · 0"

FILE Nº	WILBUR WATSON AND ASSOCIATES ARCHITECTS & ENGINEERS CLEVELAND	DRAWING Nº
4086		8-S

DRAWING MADE	DRAWN BY	TRACED BY	CHECKED BY	DATE	APPROVED BY	DATE
6-16-27.	L.H.S.	L.H.S.				

REV. BY	DATE	REMARKS	REV. BY	DATE	REMARKS
L.H.S.	9/11	Details added			

214'-2"

9 Bays @ 19'-4" = 174'-0"

20'-1"

175'-6"

9 Bays @ 19'-4" = 174'-0"

20'-1"

8" SLAB

NOTE

All places where reinforcing steel is not shown to be the same as 2nd Fl. framing. Sh. T-S.

See detail Sh. S-7

NOTE

Elevation of Finished Third Floor slab is 93.77. Monolithic finish. All other general notes for 2nd Fl. on T-S apply to 3rd fl. also.

NOTE

Omit bends Au, Av, Aw, Ax, Ay over Cols. 96, 84, 72, 60, 48 on 3rd Fl. only. Lay A_{16} straight after B bends.

BEAM SCHEDULE

Beam No.	Beam Size	No. Rods per beam	Size of Rods	Length of Rods	A	B	C	D	E	F	G	W	Stirrups No.	Stirrups Size
300	13"x36"	1	¾ ϕ	22'-3"	—	3'-0"	3'-9"	8'-9"	3'-9"	3'-0"	—	2'-9"		
		1	¾ ϕ	18'-0"										
301	13"x36"	1	¾ ϕ	21'-0"	—	3'-0"	3'-9"	7'-0"	3'-9"	3'-6"	—	2'-9"		
		1	⅞ ϕ	15'-0"										
302	13"x36"	2	⅞ ϕ	25'-6"	—	4'-8"	3'-9"	8'-8"	3'-9"	4'-8"	—	2'-9"		
		2	⅞ ϕ	19'-3"										
303	13"x32½"	1	¾ ϕ	20'-0"	—	3'-7"	3'-5"	6'-0"	3'-5"	3'-7"	—	2'-6"		
		1	¾ ϕ	14'-0"										
304	13"x32½"	2	¾ ϕ	34'-6"	—	9'-6"	3'-5"	8'-8"	3'-5"	9'-6"	—	2'-6"	6	¾ ϕ
		2	¾ ϕ	19'-3"									@6,9,11"	
305	13"x32½"	1	¾ ϕ	28'-0"	11"	—	3'-3"	10'-8"	3'-5"	9'-9"	—	2'-6"	5	¾ ϕ
		1	¾ ϕ	28'-0"	11"	2'-0"	3'-5"	8'-8"	3'-5"	9'-7"	—	2'-6"	@3,6,9,11"	
		2	⅞ ϕ	19'-6"	11"	—	—	—	—	—	8½"	trunk end		
306	10"x26"	2	¾ ϕ	28'-0"	—	3'-0"	3'-4"	15'-4"	3'-4"	3'-0"	—	1'-9"		
		2	¾ ϕ	24'-0"	10"	—	—	—	—	—	10"			

SLAB STEEL SCHEDULE

Mk	No. Rods per band	Size of Rods	Length of Rods	No. of Hooks	Length out to out
A_{12}	11	¾ ϕ	41'-0"	1	
A_{13}	3	¾ ϕ	26'-6"	1	
	14	¾ ϕ	21'-6"	1	
A_{14}	6	¾ ϕ	26'-6"	1	
A_{15}	14	¾ ϕ	34'-0"	1	
A_{16}	5	¾ ϕ	41'-0"	1	
A_{17}	2	¾ ϕ	26'-6"	1	
	11	¾ ϕ	34'-0"	—	
	5	¾ ϕ	21'-3"	—	
B_{14}	6	¾ ϕ	38'-0"	1	
	5	¾ ϕ	41'-0"	1	
	3	¾ ϕ	25'-6"	1	
B_{15}	11	¾ ϕ	41'-0"	1	
	3	¾ ϕ	26'-6"	1	
B_{16}	5	¾ ϕ	41'-0"	1	
	2	¾ ϕ	26'-6"	1	
B_{17}	5	¾ ϕ	40'-6"	—	
B_{18}	5	¾ ϕ	21'-6"	1	
	2	¾ ϕ	26'-6"	1	
B_{19}	14	¾ ϕ	38'-9"	1	
B_{20}	7	¾ ϕ	27'-6"	—	
B_{21}	5	¾ ϕ	21'-6"	—	
C_{18}	5	¾ ϕ	23'-0"	—	
	5	¾ ϕ	25'-0"	—	
	5	¾ ϕ	28'-0"	—	
C_{19}	3	⅞ ϕ	21'-0"	—	
	3	¾ ϕ	24'-0"	—	
	3	⅞ ϕ	27'-0"	—	
	3	⅞ ϕ	30'-0"	—	
	3	¾ ϕ	33'-0"	—	
C_{20}	5	¾ ϕ	29'-0"	—	
	5	¾ ϕ	31'-0"	—	
	5	¾ ϕ	37'-0"	—	
C_{21}	5	¾ ϕ	33'-0"	—	
	5	¾ ϕ	35'-0"	—	
	5	¾ ϕ	34'-0"	—	
D_{12}	9	¾ ϕ	41'-0"	1	
	3	⅞ ϕ	26'-6"	1	
D_{13}	6	¾ ϕ	41'-0"	1	
	2	¾ ϕ	26'-0"	1	
D_{14}	8	¾ ϕ	39'-9"	1	
D_{15}	8	¾ ϕ	34'-0"	1	
D_{16}	6	¾ ϕ	14'-6"	—	
	2	⅞ ϕ	19'-3"	—	
E_{15}	6	¾ ϕ	41'-0"	1	
E_{16}	2	¾ ϕ	26'-6"	1	
	4	¾ ϕ	40'-6"	—	
E_{17}	4	⅞ ϕ	38'-9"	1	
	2	¾ ϕ	21'-6"	1	
	2	¾ ϕ	26'-6"	1	
E_{18}	8	¾ ϕ	38'-9"	1	

SECTION A_3A_3

SECTION B_3B_3

SECTION C_3C_3

SECTION D_3D_3

SECTION E_3E_3

SECTION F_3F_3

Scale ½" = 1'-0"

· MOORES & DUNFORD ·
· CONSULTING-ENGINEERS ·
· NEW YORK · CITY ·

· DISTRIBUTION · TERMINAL & COLD · STORAGE · Co.

· CLEVELAND · OHIO ·

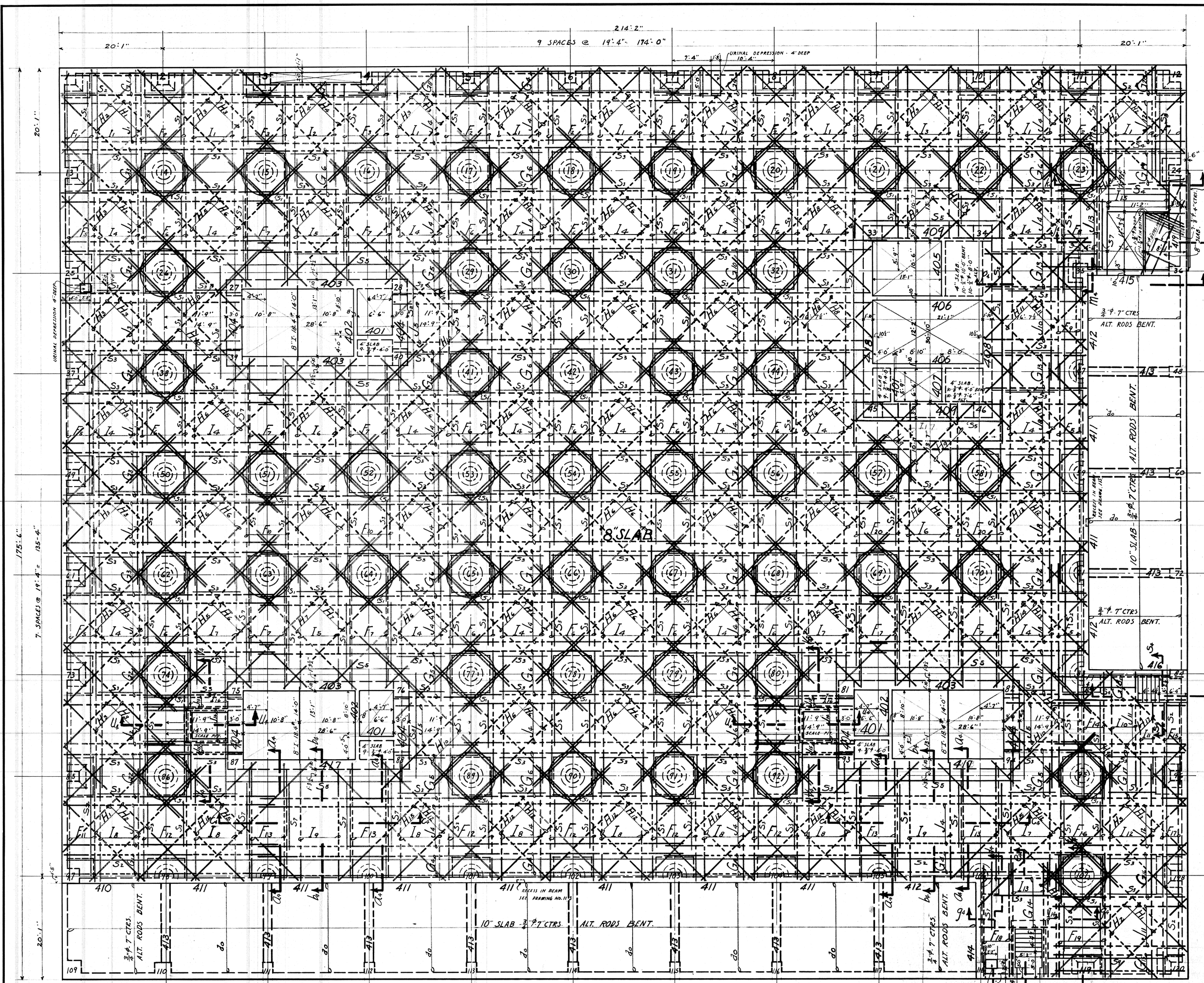
· THIRD · FLOOR · FRAMING · PLAN ·

SCALE ⅛ ¼ ½ · 1'-0"

FILE No.		DRAWING No.
4086	WILBUR WATSON AND ASSOCIATES ARCHITECTS & ENGINEERS CLEVELAND	9-S

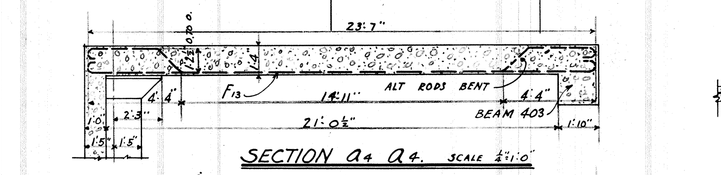
DRAWING MADE	DRAWN BY	TRACED BY	CHECKED BY	DATE	APPROVED BY	DATE
6-16-27	L.H.S.	L.H.S.	W.R.D.			

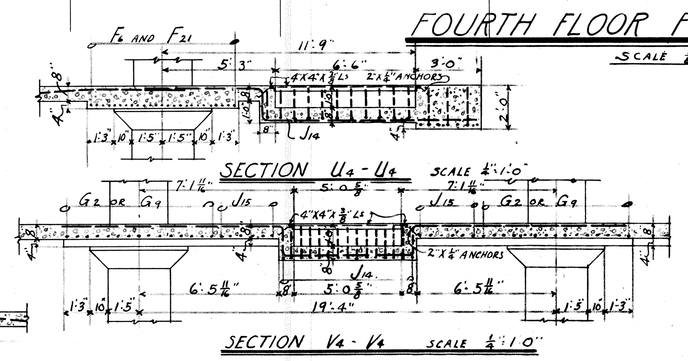
REV. BY	DATE	REMARKS	REV. BY	DATE	REMARKS
L.H.S.	6-17-27	Change Section A_3A_3			



FOURTH FLOOR FRAMING PLAN

SCALE 1/4"=1'-0"





GENERAL NOTES.

ELEVATION OF FINISHED FOURTH FLOOR IS 104.50. MONOLITHIC FINISH.
DROP PANELS ARE 7'-0" SQUARE AND 4" DEEP. COL. CAPS ARE 4'-6" DIAM.
PLACE STEEL IN SLABS AS FOLLOWS:-
1ST. PLACE ALL SUPPORTING RINGS S_1 AND SUPPORTING RODS S_2, S_3, S_4, S_5, S_8, S_9
NOTICE:- IN ALL END PANELS, PLACE THE OUTSIDE END OF ALTERNATE RODS OF THE F, I, G, AND J RODS IN THE BOTTOM OF THE SLAB.
2ND.- PLACE ALL CROSS BANDS F EXCEPT F_1, F_2, F_3, F_{11}, F_{18}, F_{21} AND F_{18}.
3RD. PLACE ALL CROSS BANDS G. THEN PLACE F_1, F_2, F_3, F_{11}, F_{18}, F_{21} AND F_{18}.
4TH. PLACE ALL DIAGONAL BANDS H IN ONE DIRECTION.
5TH. PLACE ALL DIAGONAL BANDS IN OPPOSITE DIRECTION.
6TH. PLACE ALL REMAINING SUPPORTING RODS.
7TH. PLACE MIDDLE BANDS I
8TH. PLACE MIDDLE BANDS J
ABOVE RODS TO LAP 20" AT ALL SPLICES.

RODS IN THE TOP OF SLAB ARE INDICATED THUS ———
RODS IN BOTTOM OF SLAB ARE INDICATED THUS - - - - -
TOP OF UPPER RODS MUST BE $\frac{3}{4}$" BELOW TOP OF SLAB.
BOTTOM OF LOWER RODS MUST BE $\frac{3}{4}$" ABOVE BOTTOM OF SLAB.
ALL SUPPORTING RODS SHALL REST ON 5"X5" CONCRETE BLOCKS OR METAL CHAIRS.
USE DEFORMED RODS THROUGH OUT.
FLAT SLABS WERE DESIGNED FOR A LIVE LOAD OF 175# PER SQ. FT.
ROAD WAY SLABS WERE DESIGNED FOR 10 TON TRUCKS USING A.R.E.A. SPECIFICATION.
PLACE $\frac{3}{4}$" TEMPERATURE RODS 24" CTRS. AT RIGHT ANGLES TO MAIN REINFORCING IN ALL 4" SLABS.
BEND ALL HOOKS TO A RADIUS OF 4 DIAMETERS OF ROD.
DETAILS OF THIS FLOOR ARE SHOWN ON DRAWING NO. 11 S.
SEE DRAWING NO. 105-A FOR ANGLE CORNER GUARDS ON COLUMNS, PLATFORM, ETC.
ALL ANGLE GUARDS TO BE ANCHORED TO CONCRETE - 2'-6" ANCHORS ABOUT 2'-0" CTRS.

SUPPORTING RODS

S_1	$\frac{3}{4}$"ϱ RODS 8'-0" DIAM.
S_2	$\frac{3}{4}$"ϱ CONTINUOUS.
S_3	$\frac{5}{8}$"ϱ 8'-0"
S_4	$\frac{3}{4}$"ϱ 11'-0"
S_5	$\frac{3}{4}$"ϱ 18'-0"
S_6	$\frac{3}{4}$"ϱ 35'-0"
S_7	$\frac{3}{4}$"ϱ 14'-0"
S_8	$\frac{3}{4}$"ϱ 17'-0"
S_9	$\frac{3}{4}$"ϱ 26'-0"

SCHEDULE OF FLAT SLAB REINFORCEMENT

MK	NO. RODS PER BAND	SIZE OF RODS	LENGTH OF RODS	NO. OF HOOKS
F_1	5	$\frac{3}{4}$"ϱ	21'-6"	1
	2	$\frac{3}{4}$"ϱ	26'-6"	1
F_2	12	$\frac{3}{4}$"ϱ	21'-6"	1
	3	$\frac{3}{4}$"ϱ	26'-6"	1
F_3	4	$\frac{3}{4}$"ϱ	18'-6"	1
	1	$\frac{3}{4}$"ϱ	23'-6"	1
	8	$\frac{3}{4}$"ϱ	21'-6"	1
	2	$\frac{3}{4}$"ϱ	26'-6"	1
F_4	15	$\frac{3}{4}$"ϱ	33'-6"	—
F_5	6	$\frac{3}{4}$"ϱ	40'-6"	—
F_6	12	$\frac{3}{4}$"ϱ	40'-6"	—
F_7	16	$\frac{3}{4}$"ϱ	23'-3"	—
F_8	5	$\frac{3}{4}$"ϱ	21'-9"	1
	5	$\frac{3}{4}$"ϱ	24'-6"	BENT.
	5	$\frac{3}{4}$"ϱ	21'9"	—
	5	$\frac{3}{4}$"ϱ	30'-0"	BENT.
F_9	6	$\frac{3}{4}$"ϱ	21'-3"	—
F_{10}	12	$\frac{3}{4}$"ϱ	21'-3"	—
F_{11}	5	$\frac{3}{4}$"ϱ	22'3"	1
	2	$\frac{3}{4}$"ϱ	27'-3"	1
F_{12}	12	$\frac{3}{4}$"ϱ	22'3"	1
	3	$\frac{3}{4}$"ϱ	27'-0"	1
F_{13}	14	$\frac{3}{4}$"ϱ	24'-9"	2
	14	$\frac{3}{4}$"ϱ	25'-9"	BENT.
F_{14}	10	$\frac{3}{4}$"ϱ	21'-9"	1
F_{15}	4	$\frac{3}{4}$"ϱ	15'6"	1
F_{16}	12	$\frac{3}{4}$"ϱ	24'-0"	—
F_{17}	6	$\frac{3}{4}$"ϱ	41'-0"	1
F_{18}	9	$\frac{3}{4}$"ϱ	21'-9"	1
F_{19}	8	$\frac{3}{4}$"ϱ	21'-9"	1
	8	$\frac{3}{4}$"ϱ	24'-0"	BENT.
F_{20}	12	$\frac{3}{4}$"ϱ	34'-0"	—
F_{21}	13	$\frac{3}{4}$"ϱ	21-3"	—
I_1	6	$\frac{3}{4}$"ϱ	21'-6"	1
	2	$\frac{3}{4}$"ϱ	26'-6"	1
I_2	6	$\frac{3}{4}$"ϱ	18'-6"	1
	2	$\frac{3}{4}$"ϱ	23'-6"	1
I_3	8	$\frac{3}{4}$"ϱ	34'-0"	1
I_4	6	$\frac{3}{4}$"ϱ	40'-6"	—
I_5	6	$\frac{3}{4}$"ϱ	23'3"	—
	6	$\frac{3}{4}$"ϱ	28'-0"	—
I_6	6	$\frac{3}{4}$"ϱ	42'-9"	—
	6	$\frac{3}{4}$"ϱ	28'-0"	—
I_7	6	$\frac{3}{4}$"ϱ	21'-3"	—
I_8	6	$\frac{3}{4}$"ϱ	22'3"	—
	2	$\frac{3}{4}$"ϱ	27'-0"	—
I_9	13	$\frac{3}{4}$"ϱ	24'-9"	2
	13	$\frac{3}{4}$"ϱ	25'3"	BENT.
I_{10}	9	$\frac{3}{4}$"ϱ	25'-6"	1
I_{11}	3	$\frac{3}{4}$"ϱ	15'-6"	1
I_{12}	6	$\frac{3}{4}$"ϱ	41'-0"	—
	2	$\frac{3}{4}$"ϱ	26'-6"	—
I_{13}	13	$\frac{3}{4}$"ϱ	SEE DETAIL	
I_{14}	6	$\frac{3}{4}$"ϱ	21'-9"	—
I_{15}	25	$\frac{3}{4}$"ϱ	14'-0"	IN TOP & STRT.
I_{16}	11	$\frac{3}{4}$"ϱ	32'-0"	BENT.
I_{17}	4	$\frac{3}{4}$"ϱ	14'-3"	—

MK	NO. RODS PER BAND	SIZE OF RODS	LENGTH OF RODS	NO. OF HOOKS
G_1	6	$\frac{3}{4}$"ϱ	41'-0"	1
	4	$\frac{3}{4}$"ϱ	35'-0"	1
G_2	8	$\frac{3}{4}$"ϱ	41'-0"	1
	3	$\frac{3}{4}$"ϱ	26'-3"	1
G_3	12	$\frac{3}{4}$"ϱ	41'-0"	1
	3	$\frac{3}{4}$"ϱ	26'3"	1
G_4	6	$\frac{3}{4}$"ϱ	40'6"	—
G_5	4	$\frac{3}{4}$"ϱ	18'9"	—
G_6	8	$\frac{3}{4}$"ϱ	40'6"	—
G_6	12	$\frac{3}{4}$"ϱ	40'6"	—
G_7	9	$\frac{3}{4}$"ϱ	29'-0"	—
G_8	6	$\frac{3}{4}$"ϱ	21'-3	—
G_9	4	$\frac{3}{4}$"ϱ	36'-0	—
	8	$\frac{3}{4}$"ϱ	40'6"	—
G_{10}	12	$\frac{3}{4}$"ϱ	39'3"	—
	3	$\frac{3}{4}$"ϱ	24'3	—
G_{11}	4	$\frac{3}{4}$"ϱ	15'9"	—
	3	$\frac{3}{4}$"ϱ	40'6"	—
	5	$\frac{3}{4}$"ϱ	41'6"	1
G_{12}	2	$\frac{3}{4}$"ϱ	26'0"	1
	12	$\frac{3}{4}$"ϱ	41'6"	1
	3	$\frac{3}{4}$"ϱ	27'0"	1
G_{13}	7	$\frac{3}{4}$"ϱ	20'9"	2
	6	$\frac{3}{4}$"ϱ	21'6"	BENT.
G_{14}	10	$\frac{3}{4}$"ϱ	15'0"	1
	10	$\frac{3}{4}$"ϱ	27'0"	BENT.
G_{15}	8	$\frac{3}{4}$"ϱ	26'3"	1
G_{16}	15	$\frac{3}{4}$"ϱ	26'3"	1
G_{17}	16	$\frac{3}{4}$"ϱ	21'6"	1
	4	$\frac{3}{4}$"ϱ	26'3	1
G_{18}	11	$\frac{3}{4}$"ϱ	SEE DETAIL	
G_{19}	10	$\frac{3}{4}$"ϱ	21'9"	1
	10	$\frac{3}{4}$"ϱ	26'0"	BENT.
G_{20}	6	$\frac{3}{4}$"ϱ	21'6"	1
J_1	6	$\frac{3}{4}$"ϱ	41'0"	1
	2	$\frac{3}{4}$"ϱ	26'3	1
J_2	6	$\frac{3}{4}$"ϱ	22'6"	1
	2	$\frac{3}{4}$"ϱ	26'3	1
J_3	2	$\frac{3}{4}$"ϱ	26'3"	1
J_{20}	6	$\frac{3}{4}$"ϱ	40'6"	—
J_{21}	6	$\frac{3}{4}$"ϱ	15'6"	—
J_4	6	$\frac{3}{4}$"ϱ	21'3"	—
J_5	6	$\frac{3}{4}$"ϱ	39'3"	—
J_7	2	$\frac{3}{4}$"ϱ	24'3"	—
J_8	6	$\frac{3}{4}$"ϱ	41'6"	1
J_9	2	$\frac{3}{4}$"ϱ	27'0"	1
J_{18}	18	$\frac{3}{4}$"ϱ	22'0"	BENT.
J_{15}	6	$\frac{3}{4}$"ϱ	29'9"	—
J_{10}	12	$\frac{3}{4}$"ϱ	20'9"	2
J_{11}	16	$\frac{3}{4}$"ϱ	26'3"	1
J_{12}	6	$\frac{3}{4}$"ϱ	21'6"	1
	2	$\frac{3}{4}$"ϱ	26'3"	1
J_{13}	22	$\frac{3}{4}$"ϱ	10'0"	IN TOP & STRT.

MK	NO. RODS PER BAND	SIZE OF RODS	LENGTH OF RODS	NO. OF HOOKS
H_1	1	$\frac{3}{4}$"ϱ	23'0"	—
	4	$\frac{3}{4}$"ϱ	27'-0"	—
	4	$\frac{3}{4}$"ϱ	31'0"	—
	4	$\frac{3}{4}$"ϱ	36'0"	—
H_2	8	$\frac{3}{4}$"ϱ	32'0"	—
	8	$\frac{3}{4}$"ϱ	34'0"	—
H_3	4	$\frac{3}{4}$"ϱ	32'6"	—
	4	$\frac{3}{4}$"ϱ	34'6"	—
	4	$\frac{3}{4}$"ϱ	36'6"	—
H_4	4	$\frac{3}{4}$"ϱ	38'6"	—
	4	$\frac{3}{4}$"ϱ	28'0"	—
	4	$\frac{3}{4}$"ϱ	30'0"	—
	1	$\frac{3}{4}$"ϱ	32'0"	—
	3	$\frac{3}{4}$"ϱ	34'0"	—
H_5	4	$\frac{3}{4}$"ϱ	35'6"	—
	4	$\frac{3}{4}$"ϱ	37'6"	—
	5	$\frac{3}{4}$"ϱ	39'6"	—
	5	$\frac{3}{4}$"ϱ	41'6"	—
H_6	13	$\frac{3}{4}$"ϱ	42'6"	—
H_7	4	$\frac{3}{4}$"ϱ	36'0"	—
	6	$\frac{3}{4}$"ϱ	38'6"	—
	6	$\frac{3}{4}$"ϱ	48'0"	—
H_8	4	$\frac{3}{4}$"ϱ	30'6"	—
	4	$\frac{3}{4}$"ϱ	32'6"	—
	4	$\frac{3}{4}$"ϱ	34'6"	—
	4	$\frac{3}{4}$"ϱ	36'6"	—
H_9	3	$\frac{3}{4}$"ϱ	23'0"	—
H_{11}	3	$\frac{3}{4}$"ϱ	25'0"	—
	3	$\frac{3}{4}$"ϱ	27'0"	—
	4	$\frac{3}{4}$"ϱ	29'0"	—
H_{10}	3	$\frac{3}{4}$"ϱ	24'0"	—
	3	$\frac{3}{4}$"ϱ	26'0"	—
	3	$\frac{3}{4}$"ϱ	28'0"	—
	4	$\frac{3}{4}$"ϱ	30'0"	—
H_{11}	16	$\frac{3}{4}$"ϱ	27'6"	—
H_{12}	4	$\frac{3}{4}$"ϱ	33'0"	—
	4	$\frac{3}{4}$"ϱ	35'0"	—
	4	$\frac{3}{4}$"ϱ	37'0"	—
	4	$\frac{3}{4}$"ϱ	39'0"	—
H_{13}	4	$\frac{3}{4}$"ϱ	26'0"	—
	4	$\frac{3}{4}$"ϱ	30'0"	—
	4	$\frac{3}{4}$"ϱ	32'0"	—
	4	$\frac{3}{4}$"ϱ	38'0"	—
H_{14}	4	$\frac{3}{4}$"ϱ	39'6"	—
H_{15}	12	$\frac{3}{4}$"ϱ	42'6"	—
H_{16}	16	$\frac{3}{4}$"ϱ	33'0"	—
	8	$\frac{3}{4}$"ϱ	33'0"	—
	5	$\frac{3}{4}$"ϱ	32'0"	—
H_{17}	4	$\frac{3}{4}$"ϱ	32'0"	—
	4	$\frac{3}{4}$"ϱ	34'6"	—
	4	$\frac{3}{4}$"ϱ	36'6"	—
	4	$\frac{3}{4}$"ϱ	38'6"	—
H_{18}	13	$\frac{3}{4}$"ϱ	16'6"	—

SCHEDULE OF CONCRETE BEAMS.

BEAM NUMBER	BEAM SIZE	NO. OF RODS PER BEAM	SIZE OF RODS	LENGTH OF RODS	A	B	C	D	E	F	G	H	STIRRUPS No.	STIRRUPS SIZE
401	8"X12"	2	$\frac{5}{8}$"ϱ	7'-6"										
402	8"X20"	2	$\frac{5}{8}$"ϱ	18'-0"	—	2'-6"	1'-9"	9'-6"	1'-9"	2'-6"	—	1'-3"		
		2	$\frac{5}{8}$"ϱ	15'-0"										
403	22"X32$\frac{3}{4}$"	2	1"ϱ	36'-4"	—	3'-0"	3'-2"	24'-0"	3'-2"	3'-0"	—	2'-4"		
		2	1"ϱ	36'-4"	—	5'-0"	3'-2"	20'-0"	3'-2"	5'-0"	—	2'-4"	14	$\frac{3}{4}$"ϱ
		2	1"ϱ	36'-4"	—	7'-0"	3'-2"	16'-0"	3'-2"	7'-0"	—	2'-4"		
		6	1"ϱ	34'-0"										
404	36"X24"	2	$\frac{5}{8}$"ϱ	16'-0"	—	3'-0"	2'-4"	5'-4"	2'-4"	3'-0"	—	1'-9"		
		2	$\frac{5}{8}$"ϱ	11'-6"										
405	13"X16"	2	$\frac{5}{8}$"ϱ	14'-3"	7	9	1'-6"	7'-10	1'-6"	2'-1"	—	1'-1"		
		2	$\frac{5}{8}$"ϱ	12'-0"										
406	10"X26"	2	$\frac{3}{4}$"ϱ	28'-0"	—	3'-0"	3'-4"	16'-4"	3'-4"	3'-0"	—	1'-9"		
		2	$\frac{3}{4}$"ϱ	23'-6"										
407	8"X 12"	2	$\frac{5}{8}$"ϱ	8'-0"										
408	22"X32$\frac{3}{4}$"	2	1"ϱ	36'-6"	—	3'-0"	3'-2"	26'3"	3'-2"	3'-0"	—	2'-4"		
		1	1"ϱ	36'-6"	—	5'-0"	3'-2"	22'3"	3'-2"	5'-0"	—	2'-4"	28	$\frac{3}{4}$"ϱ
		1	1"ϱ	36'-6"	—	7'-0"	3'-2"	18'3"	3'-2"	7'-0"	—	2'-4"		
		5	1"ϱ	35'-0"										
409	36"X24"	3	$\frac{3}{4}$"ϱ	24'-6"	—	3'-5"	2'-4"	13'-0"	2'-4"	3'-5"	—	1'-9"		
		4	$\frac{3}{4}$"ϱ	19'-6"										
410	13"X57"	2	$\frac{3}{4}$"ϱ	29'-0"	—	3'-0"	6'-3"	6'-6"	6'-3"	7'-0"	—	4'-6"	14	$\frac{3}{4}$"ϱ
		2	$\frac{3}{4}$"ϱ	19'-0"										
411	13"X 57"	2	$\frac{3}{4}$"ϱ	34'-0"	—	7'-0"	6'-3"	7'-6"	6'-3"	7'-0"	—	4'-6"	16	$\frac{3}{4}$"ϱ
		2	$\frac{3}{4}$"ϱ	19'-0"										
412	13"X 57"	2	$\frac{3}{4}$"ϱ	34'-0"	—	7'-0"	6'-3"	7'-6"	6'-3"	7'-0"	—	4'-6"	16	$\frac{3}{4}$"ϱ
		2	$\frac{3}{4}$"ϱ	19'-0"										
413	26"X 20"	2	1"ϱ	20'-9"	—	2'-4"	1'-11"	12'-3"	1'-11"	2'-4"	—	1'-5"		
		1	1"ϱ	20'-9"	—	3'-4"	1'-11"	9'-9"	1'-11"	3'-4"	—	1'-5"	14	$\frac{3}{4}$"ϱ
		3	1"ϱ	19'-0"										
414	15"X57½ to 61"	2	$\frac{3}{4}$"ϱ	29'-0"	—	3'-0"	6'-3"	6'-6"	6'-3"	7'-0"	—	4'-6"	14	$\frac{3}{4}$"ϱ
		2	$\frac{3}{4}$"ϱ	19'-0"										
415	15"X57½ to 59"	2	$\frac{3}{4}$"ϱ	29'-0"	=	3'-0"	6'-3"	6'-6"	3'-6"	7'-0"	=	4'-6"	15	$\frac{3}{4}$"ϱ
		2	$\frac{3}{4}$"ϱ	19'-0"	-						-			
					=						=			
416	15"X57½ to 60½	2	$\frac{3}{4}$"ϱ	29'-0"	—	3'-0"	6'-3"	6'-6"	3'-8"	7'-0"	—	4'-6"	14	$\frac{3}{4}$"ϱ
		2	$\frac{3}{4}$"ϱ	19'-0"	-						-			
417	22"X32$\frac{3}{4}$"	2	1$\frac{1}{8}$"ϱ	36'-4"	—	3'-0"	3'-2"	24'0"	3'-2"	3'-0"	—	2'-4"		
		2	1$\frac{1}{8}$"ϱ	36'-4"	—	5'-0"	3'-2"	20'-0"	3'-2"	5'-0"	—	2'-4"	24	$\frac{3}{4}$"ϱ
		1	1$\frac{1}{8}$"ϱ	36'-4"	—	7'-0"	3'-2"	16'-0"	3'-2"	7'-0"	—	2'-4"		
		5	1$\frac{1}{8}$"ϱ	34'-0"										
418	22"X32$\frac{3}{4}$"	2	1$\frac{1}{8}$"ϱ	38'-0"	—	3'-0"	3'-2"	26'3"	3'-2"	3'-0"	—	2'-4"		
		2	1$\frac{1}{8}$"ϱ	38'-0"	—	5'-0"	3'-2"	22'3"	3'-2"	5'-0"	—	2'-4"	14	$\frac{3}{4}$"ϱ
		1	1$\frac{1}{8}$"ϱ	38'-0"	—	7'-0"	3'-2"	18'3"	3'-2"	7'-0"	—	2'-4"		
		5	1$\frac{1}{8}$"ϱ	35'-0"										
419	52"X18"	5	1"ϱ	19'-0"	IN TOP OF BEAM									
		7	1"ϱ	19'-0"	IN BOTTOM OF BEAM.									

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CONSULTING ENGINEERS
NEW YORK CITY

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CLEVELAND OHIO

FOURTH FLOOR FRAMING PLAN

SCALE 1/4"=1'-0"

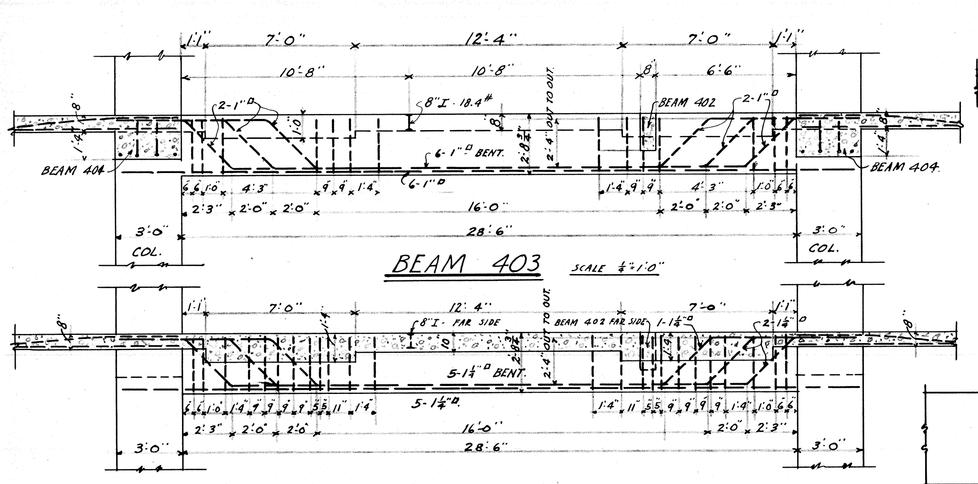
FILE NO. 4086

WILBUR WATSON AND ASSOCIATES
ARCHITECTS & ENGINEERS
CLEVELAND

DRAWING NO. 10-S

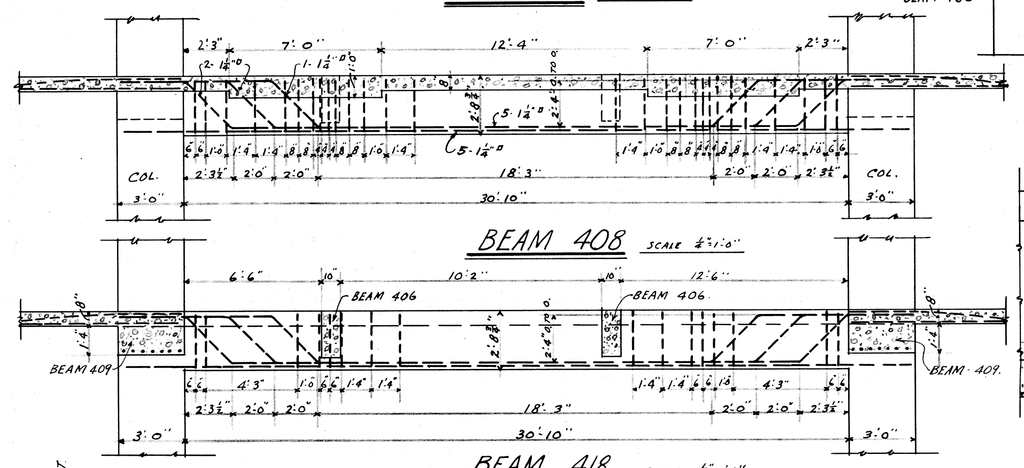
DRAWING MADE	DRAWN BY	TRACED BY	CHECKED BY	DATE	APPROVED BY	DATE
6-25-27	W.R.D.	W.R.D.				

REV. BY	DATE	REMARKS	REV. BY	DATE	REMARKS



BEAM 403 SCALE ¼"=1'-0"

BEAM 417 SCALE ¼"=1'-0"



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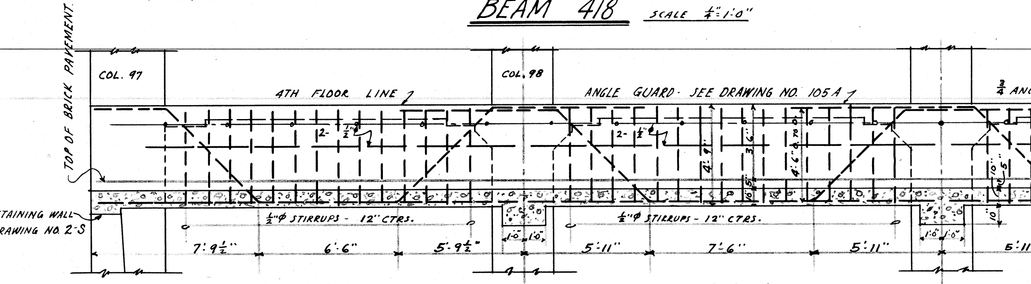
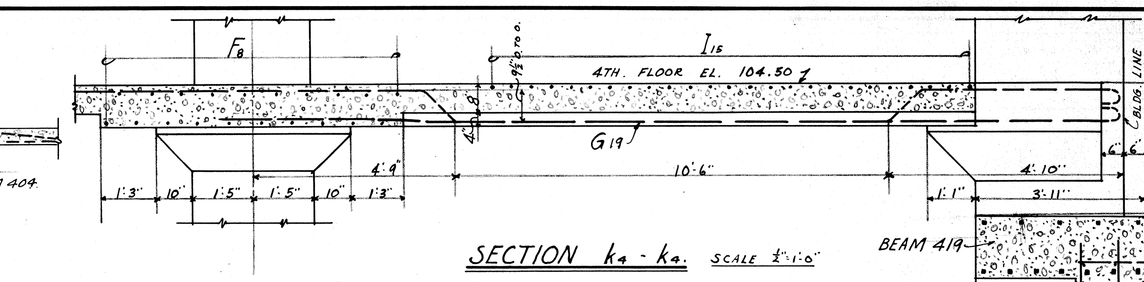
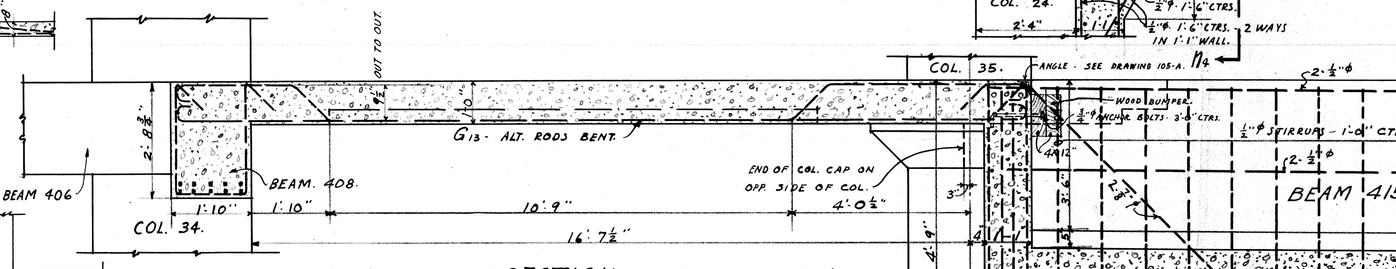


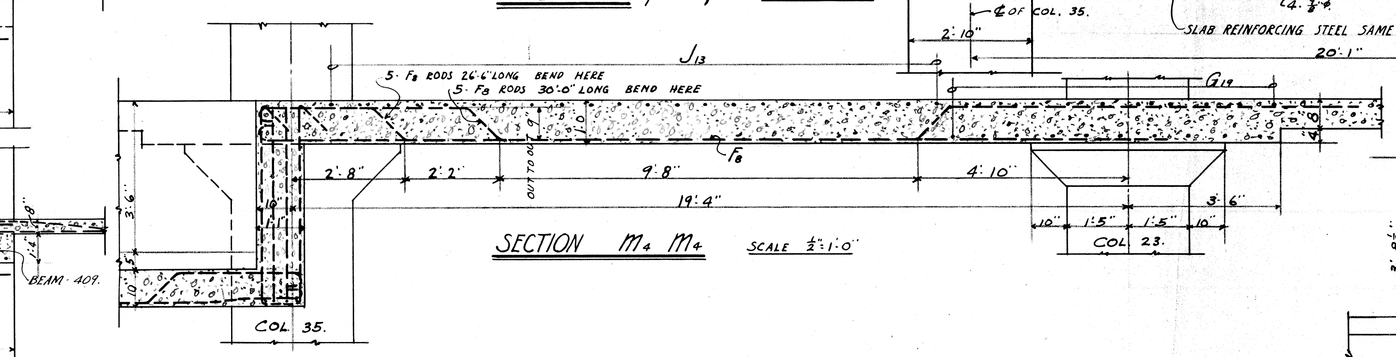
BEAM 418 SCALE ¼"=1'-0"



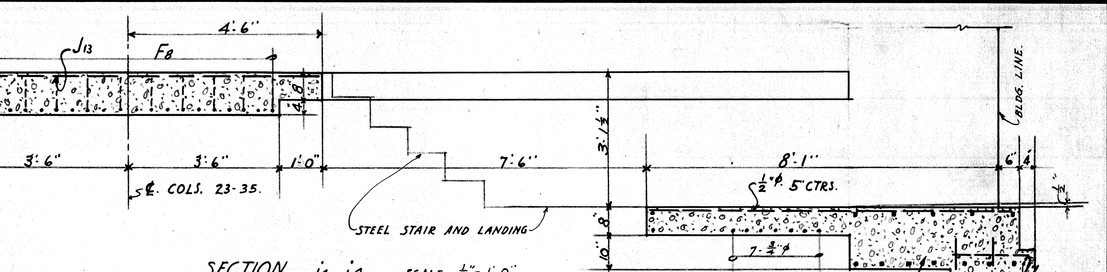
SECTION k4 - k4. SCALE ¼"=1'-0"



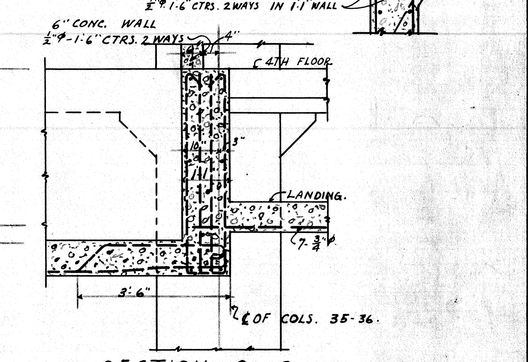
SECTION p4 - p4. SCALE ¼"=1'-0"



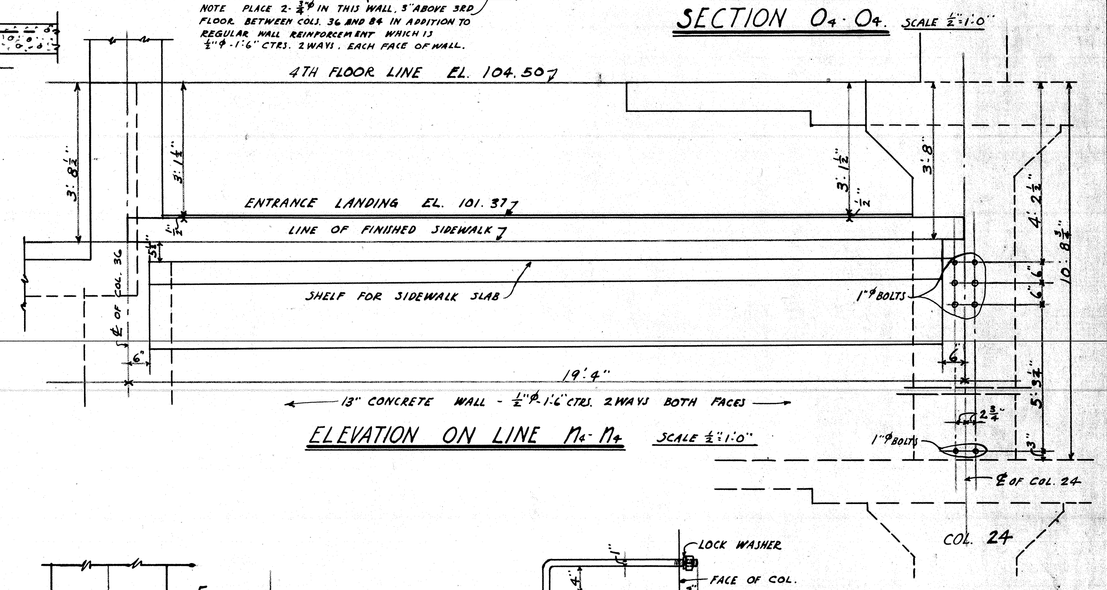
SECTION M4 M4 SCALE ¼"=1'-0"



SECTION j4 j4. SCALE ¼"=1'-0"

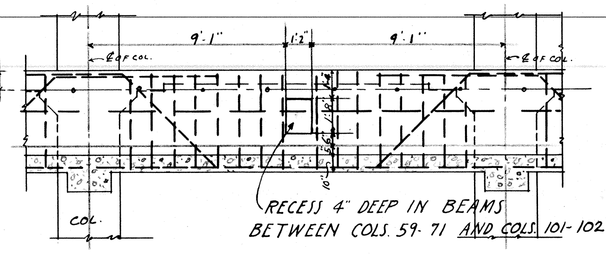


SECTION O4 - O4 SCALE ¼"=1'-0"

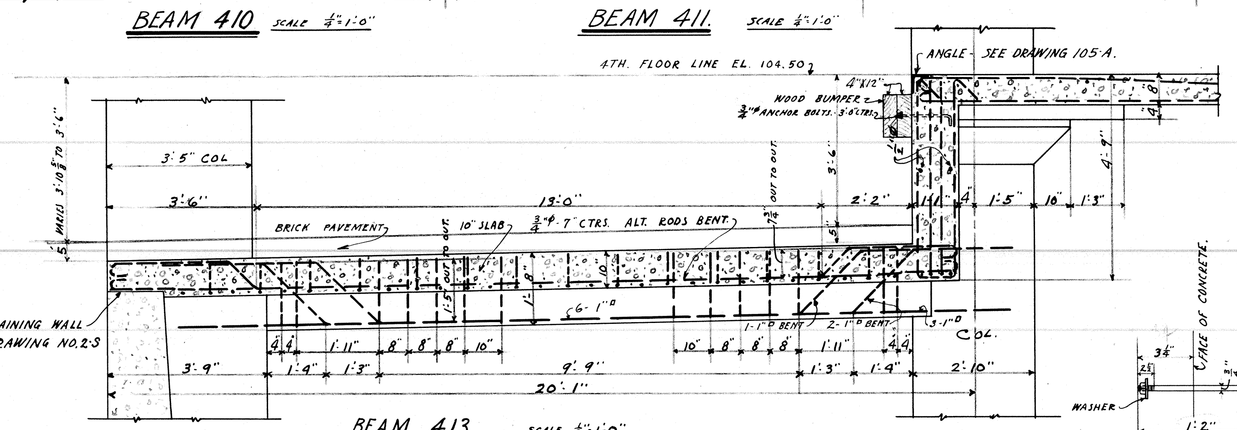


ELEVATION ON LINE N4 - M4 SCALE ¼"=1'-0"

BEAM 410 SCALE ¼"=1'-0"

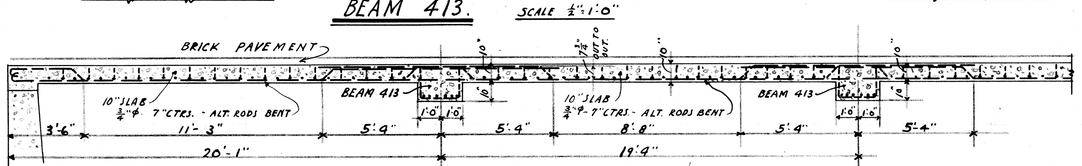


BEAM 411. SCALE ¼"=1'-0"

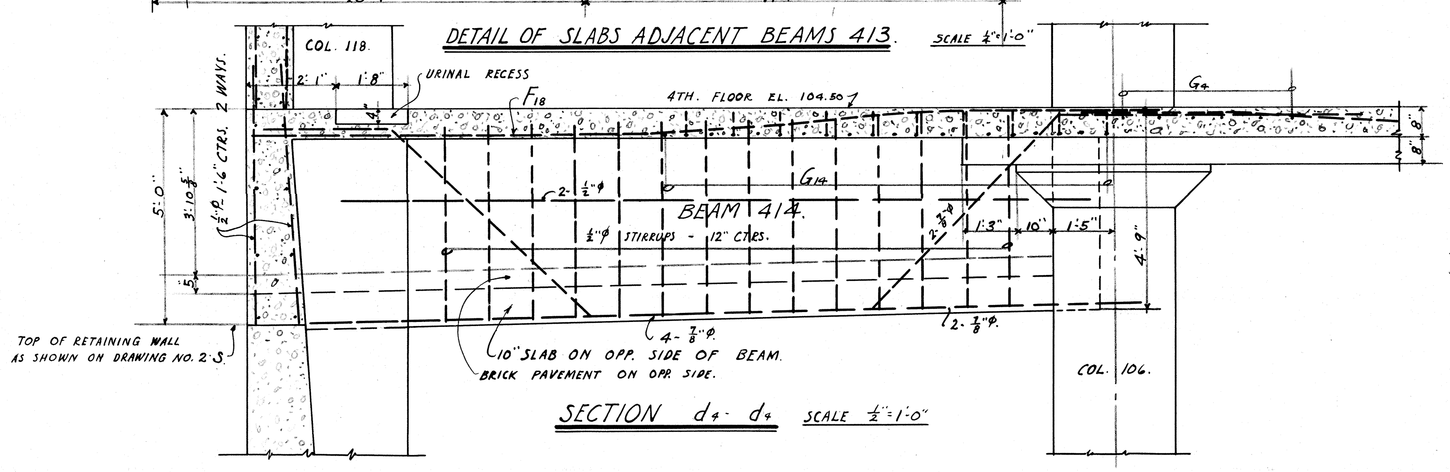


BEAM 413. SCALE ¼"=1'-0"

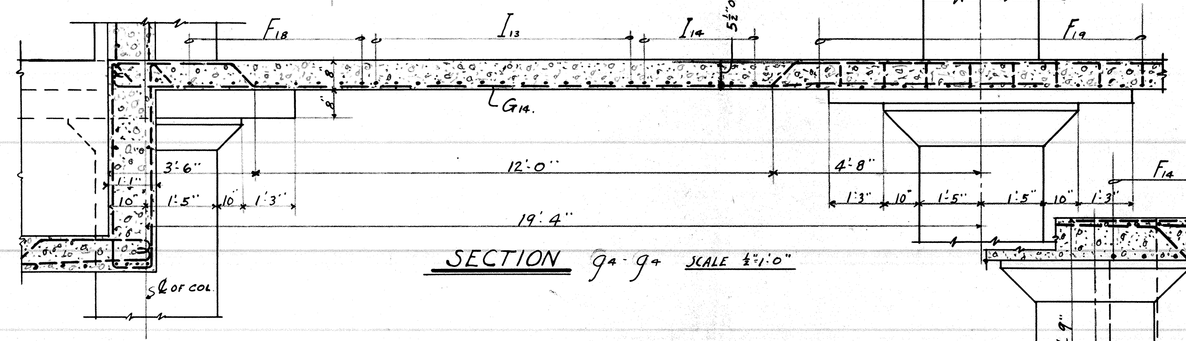
DETAIL OF ANCHOR BOLTS FOR WOOD BUMPER. 84 REQD. 3'-0" CTRS.



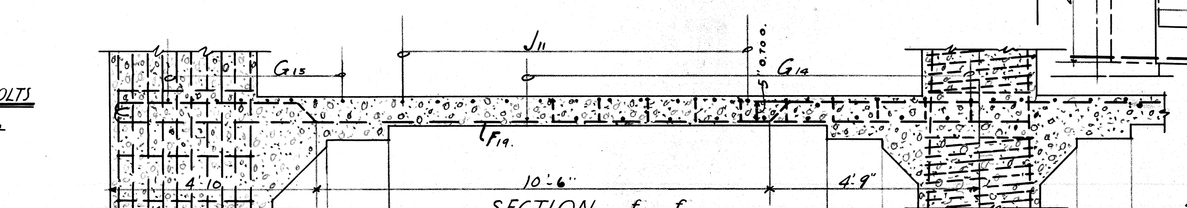
DETAIL OF SLABS ADJACENT BEAMS 413. SCALE ¼"=1'-0"



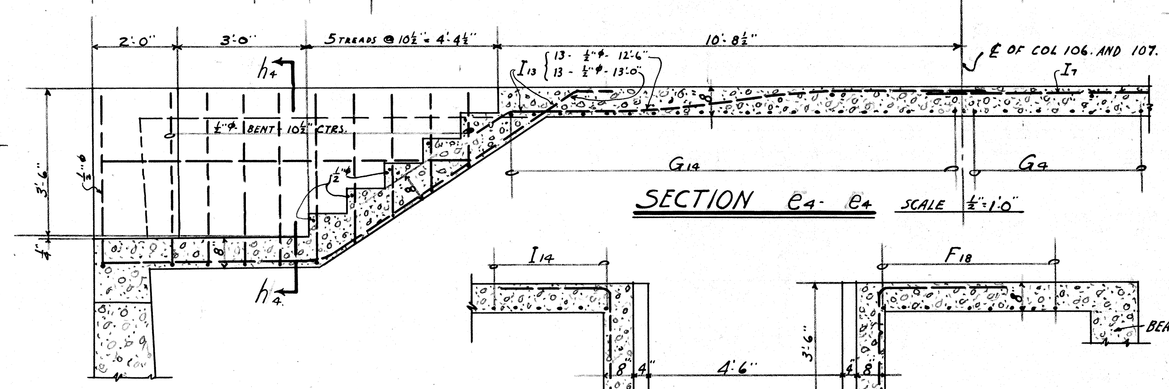
SECTION d4 - d4 SCALE ¼"=1'-0"



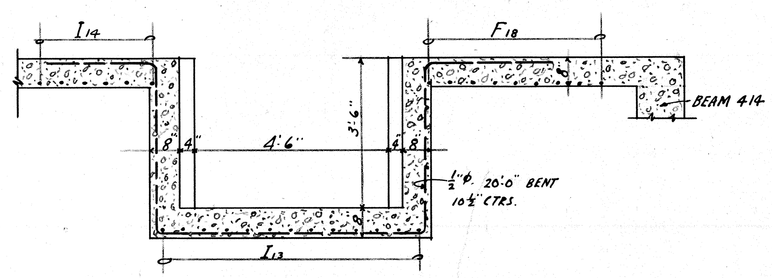
SECTION g4 - g4 SCALE ¼"=1'-0"



SECTION f4 - f4

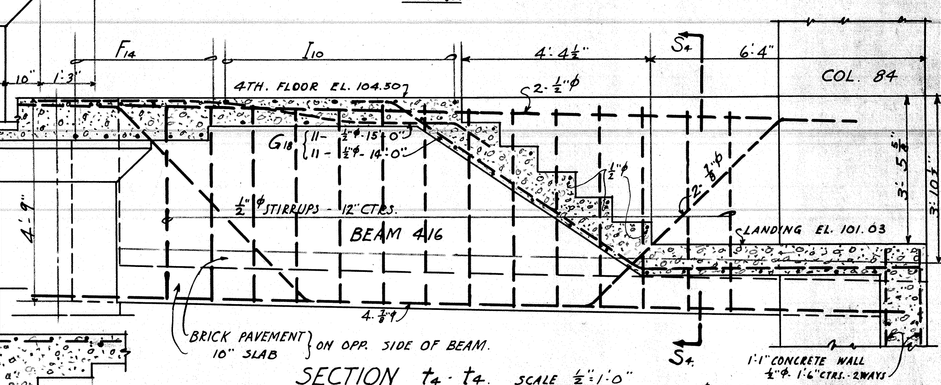


SECTION e4 - e4 SCALE ¼"=1'-0"

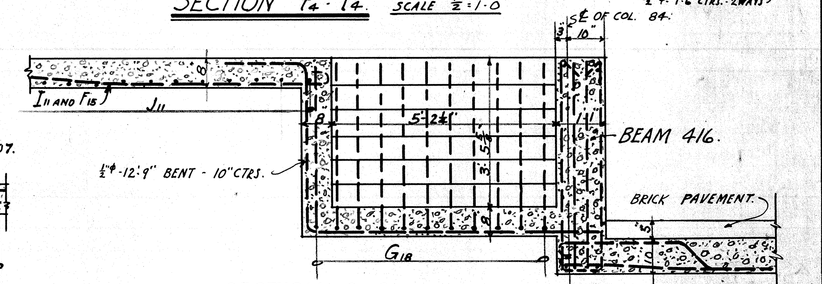


SECTION h4 - h4. SCALE ¼"=1'-0"

DETAIL OF BOLTS IN COL. 24.
8 REQD.



SECTION t4 - t4 SCALE ¼"=1'-0"



SECTION S4 - S4 SCALE ¼"=1'-0"

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· CLEVELAND · OHIO ·

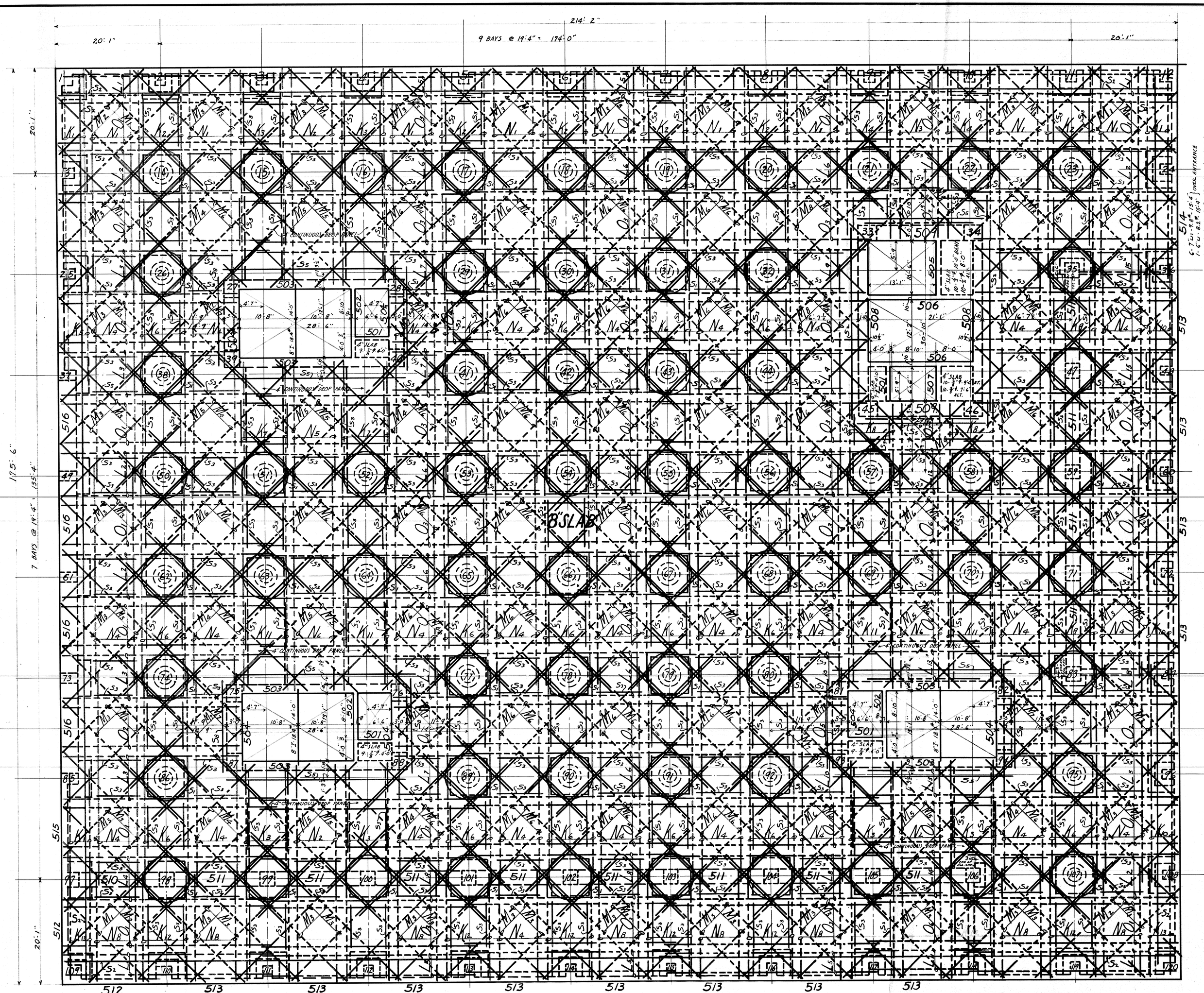
· STRUCTURAL · DETAILS · FOR ·
· FOURTH · FLOOR ·

SCALE ¼" = 1'-0"

FILE Nº	WILBUR WATSON AND ASSOCIATES ARCHITECTS & ENGINEERS CLEVELAND	DRAWING Nº
4086		11-S

DRAWING MADE	DRAWN BY	TRACED BY	CHECKED BY	DATE	APPROVED BY	DATE
6-29-27	W.R.B.	W.R.B.				

REV. BY	DATE	REMARKS	REV. BY	DATE	REMARKS
W.R.B.	7-7-27	WOOD BUMPER CHANGED.			


214'-2"
9 BAYS @ 19'-4" = 174'-0"
20'-1"
7 BAYS @ 19'-4" = 135'-4"
175'-6"
8" SLAB
4" CONTINUOUS BEAM PANEL
4" CONTINUOUS DROP PANEL
4" CONTINUOUS BEAM PANEL
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SEE SECTION A-A BEARING NO 1054.
SEE SECTION C-C BEARING NO 1054.
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SEE SECTION E-E BEARING NO 1054.
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SEE SECTION F''''''''''''''''''-F'''''''''''''''''' BEARING NO 1054.
SEE SECTION G''''''''''''''''''-G'''''''''''''''''' BEARING NO 1054.
SEE SECTION H''''''''''''''''''-H'''''''''''''''''' BEARING NO 1054.
SEE SECTION I''''''''''''''''''-I'''''''''''''''''' BEARING NO 1054.
SEE SECTION J''''''''''''''''''-J'''''''''''''''''' BEARING NO 1054.
SEE SECTION K''''''''''''''''''-K'''''''''''''''''' BEARING NO 1054.
SEE SECTION L''''''''''''''''''-L'''''''''''''''''' BEARING NO 1054.
SEE SECTION M''''''''''''''''''-M'''''''''''''''''' BEARING NO 1054.
SEE SECTION N''''''''''''''''''-N'''''''''''''''''' BEARING NO 1054.
SEE SECTION O''''''''''''''''''-O'''''''''''''''''' BEARING NO 1054.
SEE SECTION P''''''''''''''''''-P'''''''''''''''''' BEARING NO 1054.
SEE SECTION Q''''''''''''''''''-Q'''''''''''''''''' BEARING NO 1054.
SEE SECTION R''''''''''''''''''-R'''''''''''''''''' BEARING NO 1054.
SEE SECTION S''''''''''''''''''-S'''''''''''''''''' BEARING NO 1054.
SEE SECTION T''''''''''''''''''-T'''''''''''''''''' BEARING NO 1054.
SEE SECTION U''''''''''''''''''-U'''''''''''''''''' BEARING NO 1054.
SEE SECTION V''''''''''''''''''-V'''''''''''''''''' BEARING NO 1054.
SEE SECTION W''''''''''''''''''-W'''''''''''''''''' BEARING NO 1054.
SEE SECTION X''''''''''''''''''-X'''''''''''''''''' BEARING NO 1054.
SEE SECTION Y''''''''''''''''''-Y'''''''''''''''''' BEARING NO 1054.
SEE SECTION Z''''''''''''''''''-Z'''''''''''''''''' BEARING NO 1054.
SEE SECTION A'''''''''''''''''''-A''''''''''''''''''' BEARING NO 1054.
SEE SECTION B'''''''''''''''''''-B''''''''''''''''''' BEARING NO 1054.
SEE SECTION C'''''''''''''''''''-C''''''''''''''''''' BEARING NO 1054.
SEE SECTION D'''''''''''''''''''-D''''''''''''''''''' BEARING NO 1054.
SEE SECTION E'''''''''''''''''''-E''''''''''''''''''' BEARING NO 1054.
SEE SECTION F'''''''''''''''''''-F''''''''''''''''''' BEARING NO 1054.
SEE SECTION G'''''''''''''''''''-G''''''''''''''''''' BEARING NO 1054.
SEE SECTION H'''''''

SCHEDULE OF FLAT SLAB REINFORCEMENT.

MK	NO. RODS PER BAND	SIZE OF RODS	LENGTH OF RODS	NO. OF HOOKS.
K14	7	⅝ ϕ	41'-0"	1
K16	2	⅝ ϕ	26'-6"	1
K15	7	⅝ ϕ	40'-6"	–
K17	7	⅝ ϕ	21'-6"	1
K18	2	⅝ ϕ	26'-6"	1

MK	NO RODS PER BAND	SIZE OF RODS	LENGTH OF RODS	NO. OF HOOKS.
	7	⅝ ϕ	41'-0"	1
L16	2	⅝ ϕ	26'-6"	1
L15	7	⅝ ϕ	40'-6"	–
L18	7	⅝ ϕ	21'-3"	–

NOTE – K_{12}, L_{12}, L_{16} AND L_{18} ARE SCHEDULED ON DRAWING NO. 12-S.

SCHEDULE OF CONCRETE BEAMS.

BEAM NUMBER	BEAM SIZE	NO. OF RODS PER BEAM.	SIZE OF RODS	LENGTH OF RODS	A	B	C	D	E	F	G	H	STIRRUPS. NO.	STIRRUPS. SIZE	STIRRUPS. SPACING.
703	22"X29"	2	1⅛ ϕ	36'-0"	–	3'-0"	2'-9"	24'-6"	2'-9"	3'-0"	–	2'-0"			
		2	1⅛ ϕ	36'-0"	–	4'-8"	2'-9"	21'-2"	2'-9"	4'-8"	–	2'-0"			
		1	1⅛ ϕ	36'-0"	–	6'-4"	2'-9"	17'-10"	2'-9"	6'-4"	–	2'-0"	16	½ ϕ	6',6',5@,6',6',9',14"
		5	1⅛ ϕ	34'-0"											
704	34"X24"	2	⅞ ϕ	16'-0"	–	3'-0"	2'-8"	5'-4"	2'-8"	3'-0"		1'-9"	–	–	
		2	⅞ ϕ	11'-6"											
708	22"X29"	2	1⅛ ϕ	38'-4"	–	3'-0"	2'-9"	26'-10"	2'-9"	3'-0"	–	2'-0"			
		2	1⅛ ϕ	38'-4"	–	4'-8"	2'-9"	23'-6"	2'-9"	4'-8"	–	2'-0"			
		1	1⅛ ϕ	38'-4"	–	6'-4"	2'-9"	20'-2"	2'-9"	6'-4"	–	2'-0"	18	½ ϕ	6',6',5@,6',6',10',10',12"
		4	1⅛ ϕ	35'-0"											
		3	1⅛ ϕ	16'-0"	1M TOP										
710	22"X36"	2	1⅛ ϕ	39'-0"	–	3'-0"	3'-7"	25'-10"	3'-7"	3'-0"	–	2'-7"			
		2	1⅛ ϕ	39'-0"	–	5'-8"	3'-7"	21'-4"	3'-7"	5'-3"	–	2'-7"			
		1	1⅛ ϕ	39'-0"	–	7'-6"	3'-7"	16'-10"	3'-7"	7'-6"	–	2'-7"	18	½ ϕ	6',6',7@16"
		4	1⅛ ϕ	35'-0"											

NOTE:-
6TH FLOOR BEAMS NO. 601, 602, 603, 604, 605, 606, 607, 608, AND 609 ARE THE SAME AS 5TH. FLOOR BEAMS NO. 501, 502, 503, 504, 505, 506, 507, 508, AND 509 RESPECTIVELY.
7TH FLOOR BEAMS NO. 701, 702, 705, 706, 707, AND 709 ARE THE SAME AS 5TH FLOOR BEAMS NO. 501, 502, 505, 506, 507 AND 509 RESPECTIVELY.

214'-2"
9 BAYS @ 19'-4" = 174'-0"
20'-1"
175'-6"
7 BAYS @ 19'-4" = 135'-4"

8" SLAB
FRAMING, NOT OTHERWISE SHOWN, TO BE THE SAME AS SHOWN ON THE FIFTH FLOOR FRAMING PLAN. DRAWING NO. 12-S.

603 - 703
606 - 706
609 - 709
601-701
602-702
604-704
605-705
607-707
608-708
2'-10" FOR 7TH FLOOR
3'-0" " 6TH "
14'-9"
16'-7½"
21'-6"

FIN. 7TH FLOOR EL. 137.50
3" CEMENT FINISH
4" TILE
SLAB
1'-8"
3'-0"
1'-10"

SECTION BEAM 710
SCALE ½"=1'-0"

ELEVATOR HATCH.
FINISHED 7TH FLOOR EL. 137.50.
3" CEMENT FINISH.
4" CORK.
SLAB.
2" CORK.
2'-6"
1'-8"
1'-10"

SECTION BEAM 708.
SCALE ½"=1'-0"

GENERAL NOTES

ELEVATION OF FINISHED SIXTH FLOOR IS 126.50 MONOLITHIC FINISH.
ELEVATION OF FINISHED SEVENTH FLOOR IS 137.50 ELEVATION OF TOP OF SLAB IS 136.92.
ALL OTHER GENERAL NOTES ON DRAWING NO. 12-S. ALSO APPLY TO THIS DRAWING.

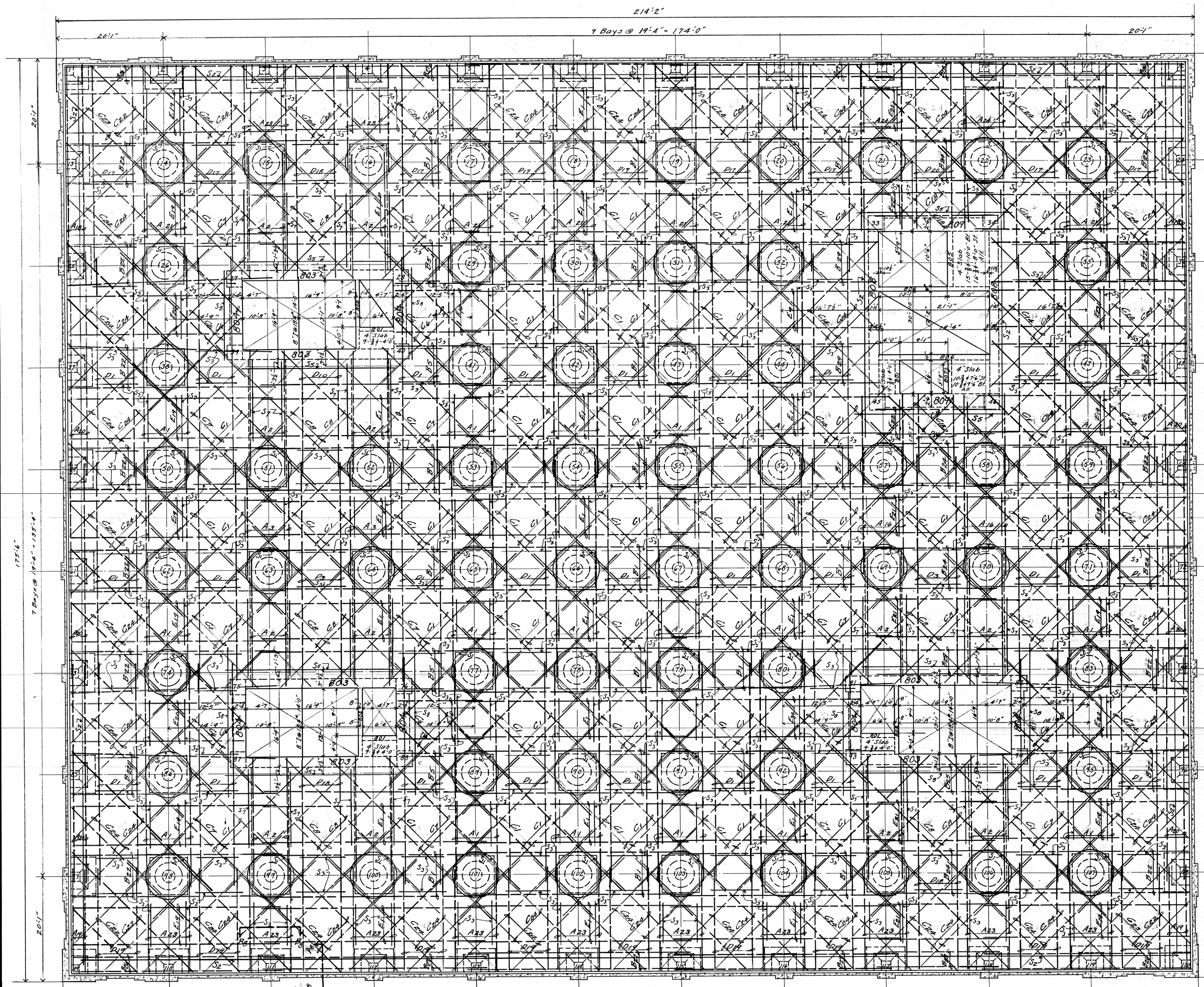
6TH AND 7TH FLOOR FRAMING PLAN

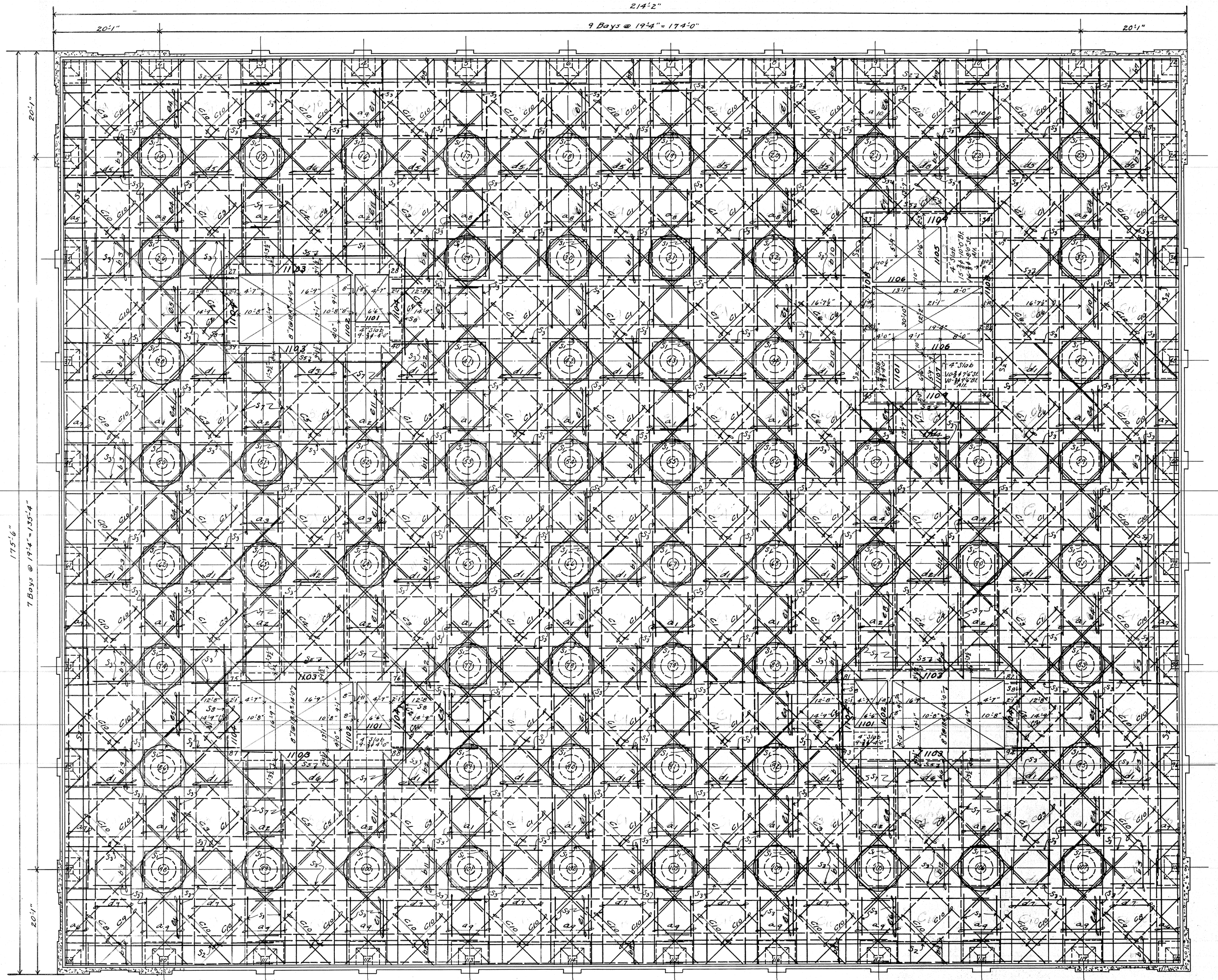
SCALE

FILE Nº	WILBUR WATSON AND ASSOCIATES ARCHITECTS & ENGINEERS CLEVELAND	DRAWING Nº
4086		13-S

DRAWING MADE	DRAWN BY	TRACED BY	CHECKED BY	DATE	APPROVED BY	DATE

REV. BY	DATE	REMARKS	REV. BY	DATE	REMARKS


214'-2"
9 Bays @ 19'-4" = 174'-0"
20'-1"
20'-1"
135'-8"
7 Bays @ 19'-4" = 135'-4"
20'-1"
803
801
4" Slab
7-#4 @ 4'-0"
8"x18" Beam
7-#4 Cont.
8"x18" Beam
7-#4 Cont.
4" Slab
Val. #4 @ 4'-0"
Alt. #4 @ 8'-0"
Cork Cant
Cant Cork
Cork Cant
Cant Cork
Cork Cant
Cant Cork



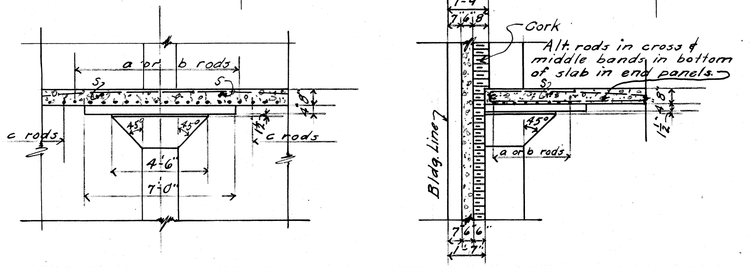
BEAM SCHEDULE

Beam No.	Beam Size	No. Rods per beam of	Size of Rods	Length of Rods	A	B	C	D	E	F	G	H	Stirrups No.	Stirrups Size
1101	8"×12"	2	¾"	7'-6"										
1102	8"×20"	2	¾"	18'-0"	—	2'-6"	1'-9"	9'-6"	1'-9"	2'-6"	—	1'-3"		
		2	¾"	15'-0"										
1103	22"×32¾"	2	1"	36'-4"	—	3'-0"	3'-2"	24'-0"	3'-2"	3'-0"	—	2'-4"	15	¾"
		2	1"	36'-4"	—	5'-0"	3'-2"	20'-0"	3'-2"	5'-0"	—	2'-4"	Same as Beam 207 Sh.# 8-3)	
		2	1"	36'-4"	—	7'-0"	3'-2"	16'-0"	3'-2"	7'-0"	—	2'-4"		
		6	1"	32'-0"										
1104	25"×24"	2	¾"	17'-6"	—	3'-1"	2'-4"	6'-8"	2'-4"	3'-1"	—	1'-9"		
		2	¾"	14'-6"										
1105	13"×16"	2	½"	14'-3"	7"	9"	1'-6"	7'-10"	1'-6"	2'-1"	—	1'-1"		
		2	½"	11'-6"										
1106	10"×26"	2	¾"	28'-0"	—	3'-0"	3'-4"	15'-4"	3'-4"	3'-0"	—	1'-9"		
		2	¾"	24'-0"	10"	—	—		—	—	—	10"		
1107	8"×12"	2	¾"	8'-0"										
1108	22"×32¾"	2	1⅛"	38'-0"	—	3'-0"	3'-2"	24'-3"	3'-2"	3'-0"	—	2'-4"	13	¾"
		2	1⅛"	38'-0"	—	5'-0"	3'-2"	22'-3"	3'-2"	5'-0"	—	2'-4"	Same as Beam 208 Sh.# 8-3)	
		1	1⅛"	38'-0"	—	7'-0"	3'-2"	18'-3"	3'-2"	7'-0"	—	2'-4"		
		5	1⅛"	34'-6"										
1109	27"×24"	3	⅞"	27'-6"	—	5'-0"	2'-4"	12'-10"	2'-4"	5'-0"	—	1'-9"		
		3	⅞"	22'-3"										

SLAB STEEL SCHEDULE

MK	No. Rods per band	Size of Rods	Length of Rods	No. of Hooks
a_1	13	½"	42'-6"	—
a_2	14	½"	23'-3"	—
a_3	13	½"	21'-3"	—
a_4	13	½"	34'-0"	—
a_5	8	½"	39'-6"	1
	2	½"	25'-0"	1
a_6	8	½"	20'-0"	1
	2	½"	25'-0"	1
a_7	8	½"	40'-6"	1
a_8	13	½"	39'-6"	1
	3	½"	25'-0"	1
a_9	13	½"	20'-0"	1
	3	½"	25'-0"	1
a_{10}	16	½"	32'-6"	1
b_1	13	½"	40'-6"	—
b_2	9	½"	40'-6"	—
	5	½"	16'-3"	1
b_3	13	½"	39'-6"	1
	3	½"	25'-0"	1
b_4	16	½"	37'-0"	1
b_5	13	½"	21'-3"	—
b_6	9	½"	21'-3"	—
b_7	8	½"	39'-6"	1
	2	½"	25'-0"	1
b_8	8	½"	40'-6"	—
b_9	8	½"	21'-3"	—
b_{10}	13	½"	38'-9"	—
	3	½"	24'-3"	—
b_{11}	15	½"	40'-6"	—
b_{12}	15	½"	21'-3"	—
d_1	7	½"	40'-6"	—
d_2	7	½"	42'-9"	—
	4	½"	28'-0"	—
d_3	7	½"	23'-3"	—
	4	½"	28'-0"	—
d_4	7	½"	14'-6"	—
	2	½"	19'-3"	—
d_5	7	½"	39'-6"	1
	2	½"	25'-0"	1
d_6	11	½"	41'-3"	1
d_7	2	½"	25'-0"	1
d_8	9	½"	32'-6"	1

MK	No. Rods per band	Size of Rods	Length of Rods	No. of Hooks
c_1	13	½"	42'-6"	—
c_2	5	½"	24'-0"	—
	6	½"	27'-0"	—
c_3	5	½"	33'-0"	—
	6	½"	39'-0"	—
	5	½"	42'-0"	—
c_4	7	½"	36'-0"	—
	7	½"	35'-0"	—
	6	½"	48'-0"	—
	7	½"	36'-0"	—
c_5	7	½"	38'-0"	—
	7	½"	48'-0"	—
c_6	5	½"	31'-0"	—
	6	½"	34'-0"	—
	5	½"	37'-0"	—
	5	½"	23'-0"	—
c_7	6	½"	25'-0"	—
	5	½"	28'-0"	—
c_8	8	½"	31'-0"	—
	8	½"	33'-0"	—
c_9	3	½"	17'-0"	—
	3	½"	20'-0"	—
	3	½"	23'-0"	—
	3	½"	26'-0"	—
	4	½"	29'-0"	—
	5	½"	30'-0"	—
c_{10}	6	½"	33'-0"	—
	5	½"	36'-0"	—
e_1	7	½"	40'-6"	—
e_2	7	½"	38'-9"	—
	2	½"	24'-3"	—
e_3	7	½"	15'-9"	—
	2	½"	20'-9"	—
e_4	7	½"	39'-6"	1
	2	½"	25'-0"	1
e_5	9	½"	33'-6"	1
e_6	7	½"	21'-3"	—
e_7	5	½"	21'-3"	—
e_8	8	½"	21'-3"	—
e_9	7	½"	35'-0"	—
	2	½"	20'-9"	—
e_{10}	9	½"	37'-0"	1
e_{11}	8	½"	40'-6"	—



SECTIONS SHOWING TYPICAL CONDITION AT WALL COLUMN
Scale ¼" = 1'-0"

NOTE

Elevation of Eleventh Floor Slab is 180.75' See Architectural plans for finish. 8" Concrete slab.

Drop panels 7'0" square & 4" deep. Column caps are 4'6" in dia. & at a 45° angle with vertical.

Place steel in flat slab as follows:-

1st Place all supporting rings S_1 & supporting rods S_2 S_3 & S_8
Notice:- In end panels, place the outside end of alternate rods of the a, b, d & e bands in bottom of slab.

2nd Place all cross bands "a" except a_5, a_6 & a_7.

3rd Place all cross bands "b"; then a_5, a_6 & a_7.

4th Place all diagonal bands "c" in one direction.

5th Place all diagonal bands "c" in opposite direction.

6th Place remaining supporting rods, S_3 & S_7

7th Place middle bands "d".

8th Place middle bands "e".

Rods in top of slab are indicated thus ———
Rods in bottom of slab are indicated thus - - - -
Top of upper rods must be ¾" below top of slab
Bottom of lower rods must be ¾" above the bottom of the slab.

All supporting rods must rest on metal chairs, rigid enough to hold rods in place.

Use deformed rods throuout.

Flat slabs are designed for 150 #per sq.ft.

Provide ⅜ & spacing rods @ 24" c/c. transverse to reinforcing steel in all 4" slabs.

All above rods must lap 20" @ splices.

SUPPORTING RODS

S_1	⅞" Ring 8'-0" Dia.
S_2	⅞" Str. Continuous
S_3	⅞" Str. 2'-0"
S_5	⅞" Str. 28'-0"
S_7	⅞" Str. 14'-0"
S_8	⅞" Str. 17'-0"

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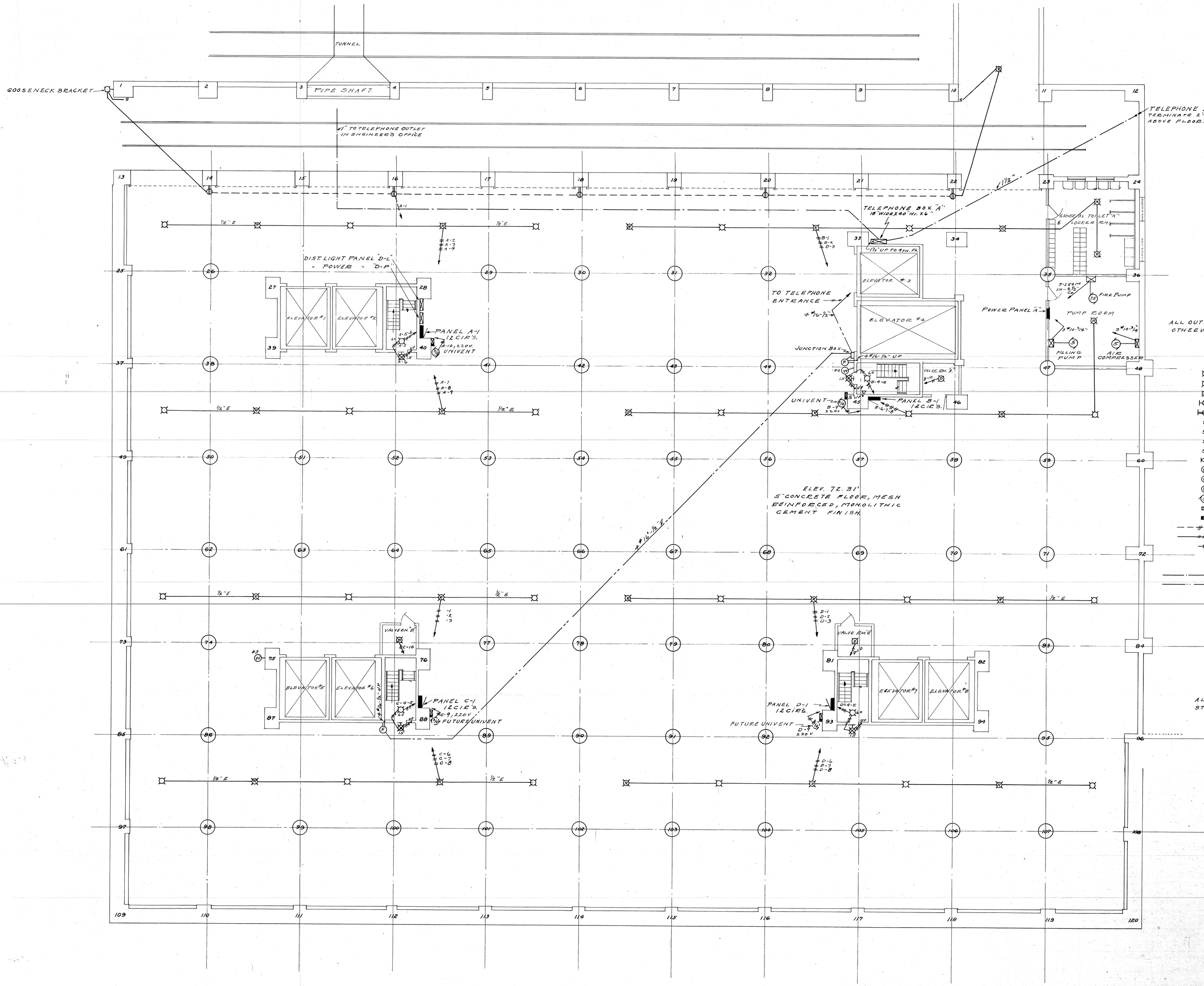
· ELEVENTH · FLOOR · FRAMING · PLAN ·

SCALE ⅛" · 1'-0", ¼" · 1'-0"

FILE No.		DRAWING No.
4086	WILBUR WATSON AND ASSOCIATES ARCHITECTS & ENGINEERS CLEVELAND	/

DRAWING MADE	DRAWN BY	TRACED BY	CHECKED BY	DATE	APPROVED BY	DATE
	L.H.S.	L.H.S.				

REV. BY	DATE	REMARKS	REV. BY	DATE	REMARKS



ALL OUTLETS 150 WATTS UNLESS OTHERWISE NOTED.

ELECTRICAL SYMBOLS

- CEILING OUTLET
- " " WITH REFLECTOR. SEE DETAIL
- " " (VAPORPROOF) " "
- EXIT LIGHT
- CONVENIENCE OUTLET
- S TUMBLER SWITCH.
- S^3 " " 3 POINT
- S^4 " " 4 "
- S^P SWITCH WITH PILOT LIGHT.
- TELEPHONE OUTLET
- (W) WATCHMAN'S STATION
- $(W)^T$ " " , TRANSMITTER
- (F) FIRE ALARM "
- (5) MOTOR. (NUMERAL DENOTES H.P.
- STARTER
- MERCOID THERMOSTAT & STARTER FOR UNIVENTS
- —#— BRANCH CIR. CONDUIT IN FLOOR SLAB (#NO. WIRES) — WHERE NO MARKS ARE SHOWN, INDICATES 2 #12 WIRES IN 1/2" CON.
- —#— BRANCH " " - CEILING ABOVE
- —×— INDICATES CONDUIT STUB OF SIZE AS SHOWN FROM CAB. THRU WALL, TERMINATE WITH PIPE CAP SO AS TO PROVIDE FOR FUTURE EXTENSIONS.
- TELEPHONE CONDUIT.
- FIRE ALARM & WATCHMANS CONDUIT

ALL OUTLETS NOT MARKED R, EXCEPT STAIRWAYS ARE TO BE CAPPED.

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PLAN OF FIRST STORY
(ELECTRIC)

SCALE 1/8" = 1'-0"

FILE No.		DRAWING No.
4086	WILBUR WATSON AND ASSOCIATES ARCHITECTS & ENGINEERS CLEVELAND	E-2

DRAWING MADE	DRAWN BY	TRACED BY	CHECKED BY	DATE	APPROVED BY	DATE
JULY 1, 1927	E.B.		H.C.T.			

REV. BY	DATE	REMARKS	REV. BY	DATE	REMARKS

PIPE SHAFT

½"E

A-1
A-2
A-3

PANEL A-2
8 CIRS.
M.T. 220V.
UNIVENT

A-4
A-5
A-6

B-1
B-2
B-3

FUTURE
UNIVENT
M.B-7, 220V.

PANEL B-2
8 CIRS.

ELEV. 83.04'
MONOLITHIC CEMENT FINISH ON
REINFORCED CONCRETE SLAB.

C-1
C-2
C-3

PANEL C-2
8 CIRS.
M.C-7, 220V.
FUTURE UNIVENTS

C-4
C-5
C-6

D-1
D-2
D-3

PANEL D-2
8 CIRS.
FUTURE
UNIVENTS
M.D-7, 220V.

D-4
D-5
D-6

GOOSENECK BRACKETS

ALL OUTLETS 150 WATTS
UNLESS OTHERWISE NOTED

ALL OUTLETS NOT MARKED B,
EXCEPT STAIRWAYS ARE TO
BE CAPPED

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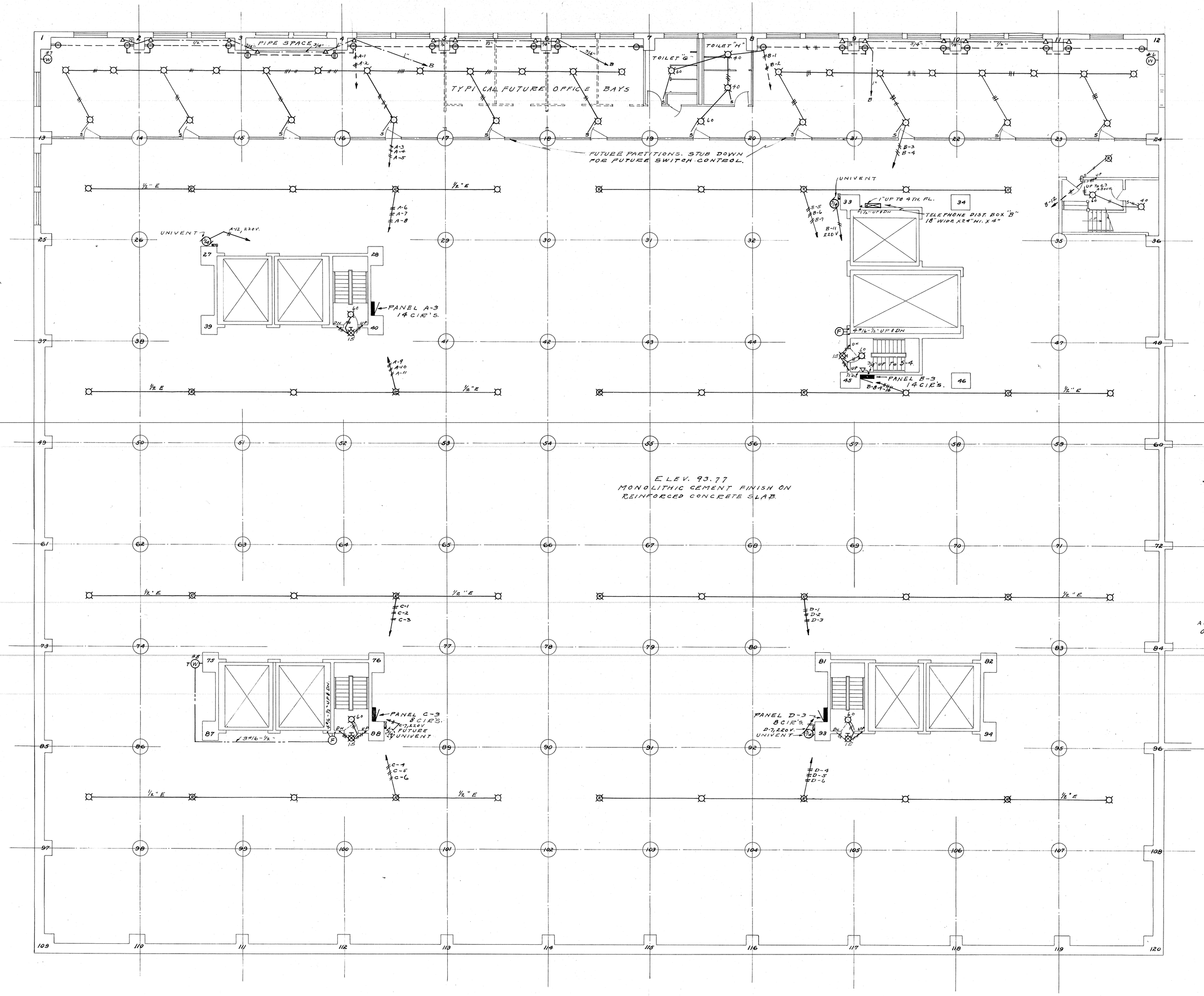
· PLAN · OF · SECOND · STORY ·
(ELECTRIC)

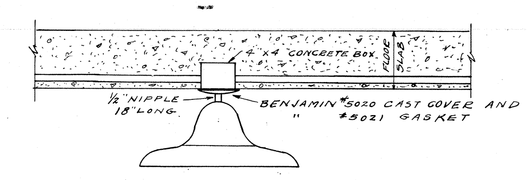
SCALE 8'-1"-0"

FILE No.	WILBUR WATSON AND ASSOCIATES ARCHITECTS & ENGINEERS CLEVELAND	DRAWING No.
4086		E-3

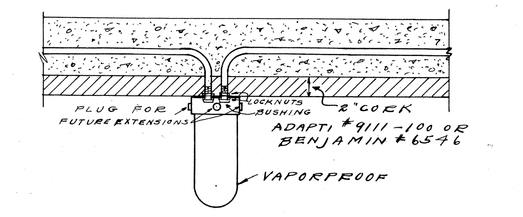
DRAWING MADE	DRAWN BY	TRACED BY	CHECKED BY	DATE	APPROVED BY	DATE
JULY 1, 1927	E.B.		H.C.T.			

REV. BY	DATE	REMARKS	REV. BY	DATE	REMARKS





DETAIL OF R.L.M. REFLECTOR OUTLET.



DETAIL OF VAPORPROOF OUTLET

ALL OUTLETS 150 WATTS UNLESS OTHERWISE NOTED.

ALL OUTLETS NOT MARKED "E" EXCEPT IN STAIRWAYS & OFFICE AREAS ARE TO BE CAPPED.

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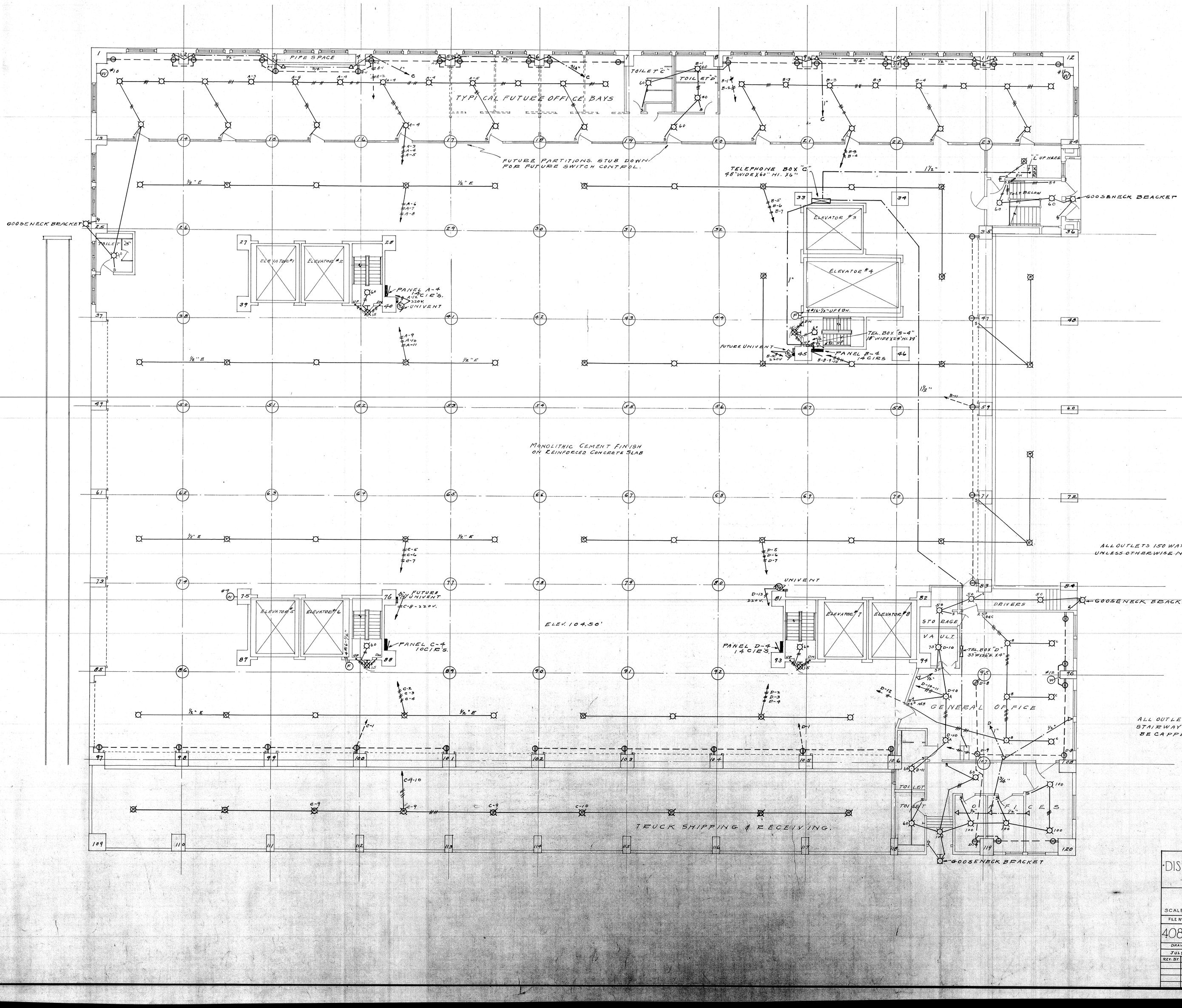
PLAN OF THIRD STORY (ELECTRIC)

SCALE 1/8" = 1'-0"

FILE No.		DRAWING No.
4086	WILBUR WATSON AND ASSOCIATES ARCHITECTS & ENGINEERS CLEVELAND	E-4

DRAWING MADE	DRAWN BY	TRACED BY	CHECKED BY	DATE	APPROVED BY	DATE
JULY 1, 1927	F.D.		H.C.T.			

REV. BY	DATE	REMARKS	REV. BY	DATE	REMARKS



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• CLEVELAND • OHIO •

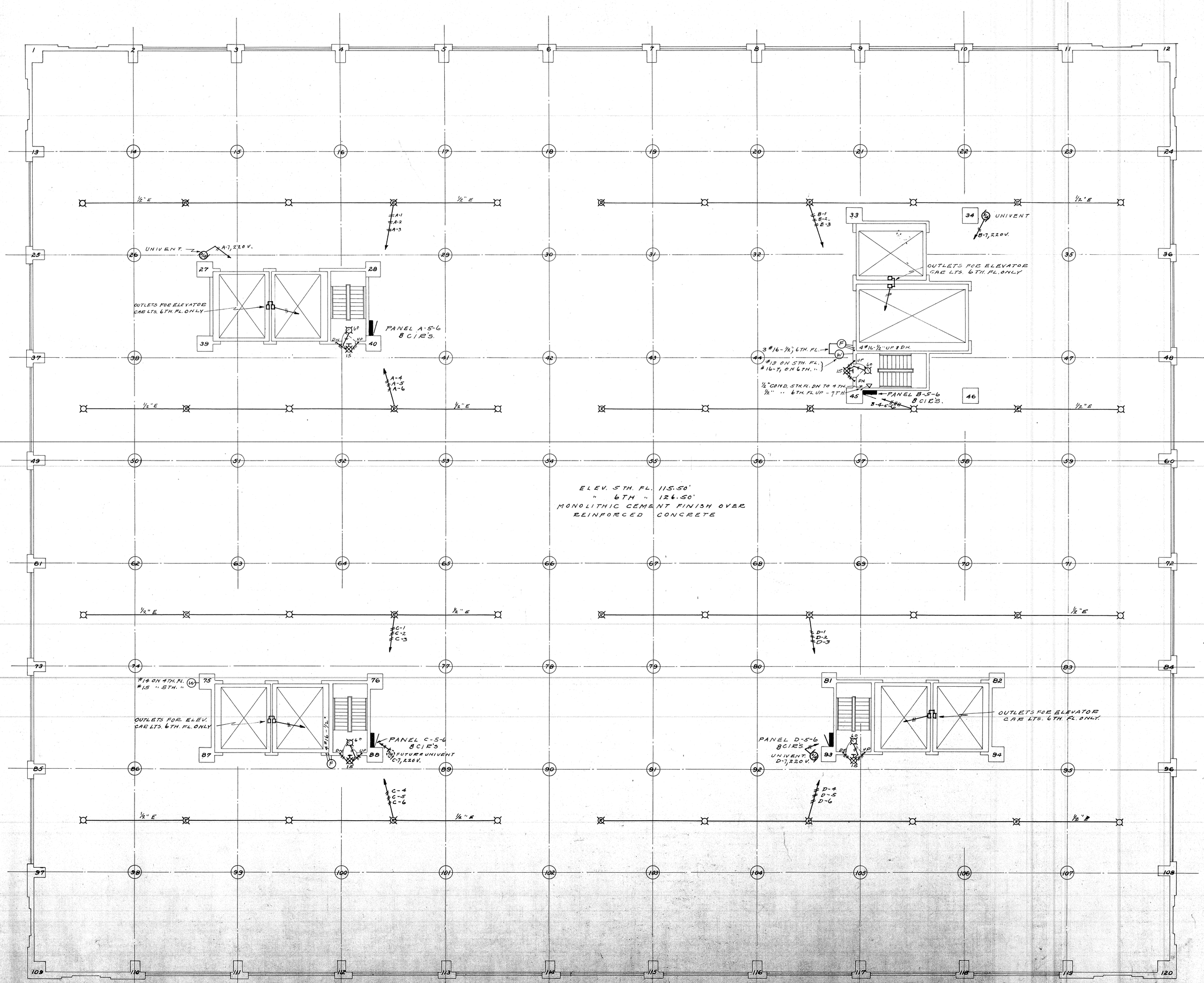
• PLAN • OF • FOURTH • STORY •
(ELECTRIC)

SCALE 1/8" = 1'-0"

FILE Nº		DRAWING Nº
4086	WILBUR WATSON AND ASSOCIATES ARCHITECTS & ENGINEERS CLEVELAND	E-5

DRAWING MADE	DRAWN BY	TRACED BY	CHECKED BY	DATE	APPROVED BY	DATE
JULY 11 1927	E.B.		H.C.T.			

REV. BY	DATE	REMARKS	REV. BY	DATE	REMARKS



NOTE

2" CORK WILL BE INSTALLED ON CEILING OF 6TH. FLOOR.

ALL OUTLETS 150 WATTS UNLESS OTHERWISE NOTED.

ALL OUTLETS NOT MARKED "R" EXCEPT STAIRWAYS ARE TO BE CAPPED.

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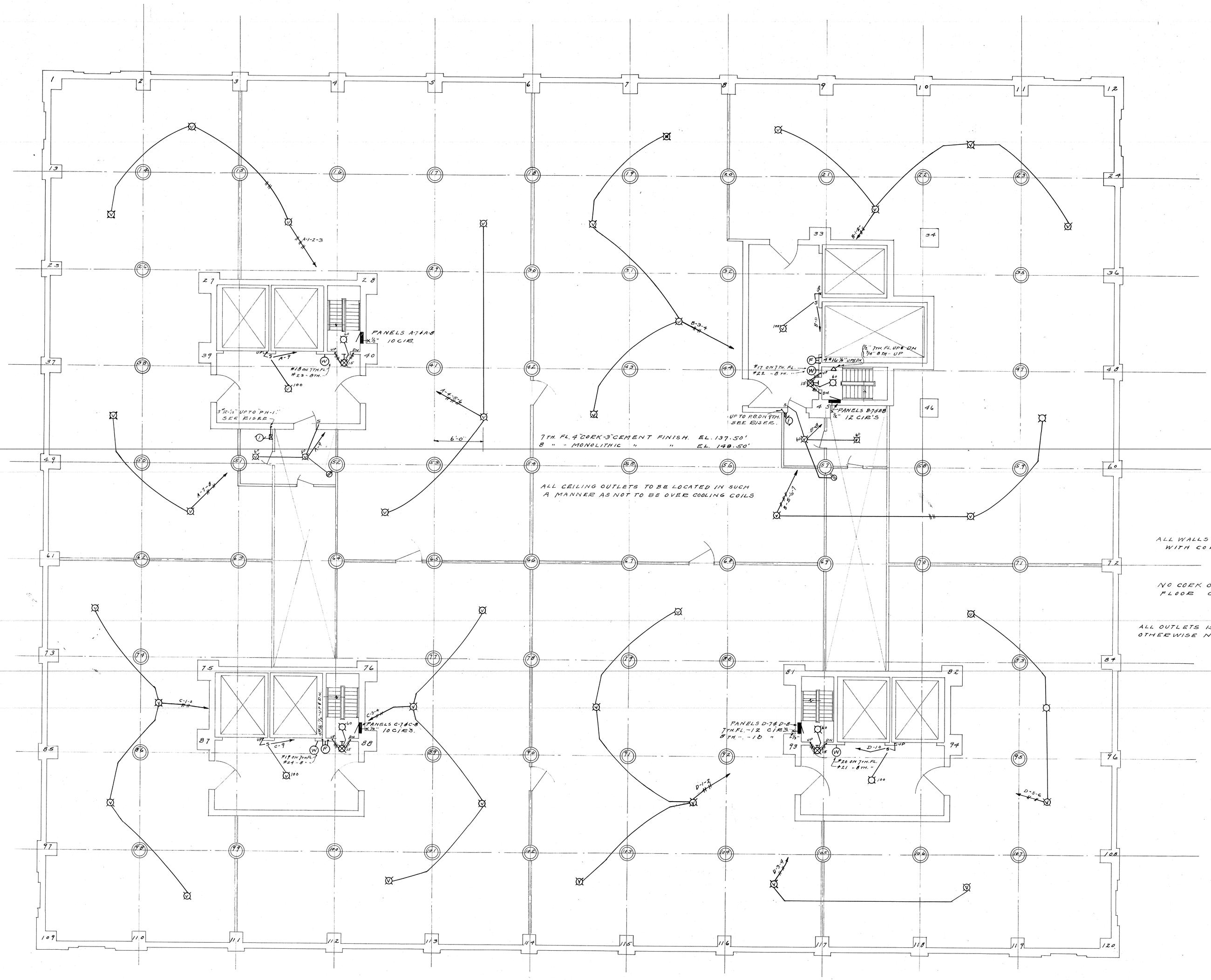
• PLAN • OF • FIFTH • & • SIXTH • STORIES •
(ELECTRIC)

SCALE 1/8" = 1'-0"

FILE No.		DRAWING No.
4086	WILBUR WATSON AND ASSOCIATES ARCHITECTS & ENGINEERS CLEVELAND	E-6

DRAWING MADE	DRAWN BY	TRACED BY	CHECKED BY	DATE	APPROVED BY	DATE
JULY 1, 1927	C.B.		H.C.T.			

REV. BY	DATE	REMARKS	REV. BY	DATE	REMARKS



ALL WALLS TO BE INSULATED WITH CORK.

NO CORK ON 7TH OR 8TH FLOOR CEILINGS.

ALL OUTLETS 150 W UNLESS OTHERWISE NOTED.

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- NEW - YORK - CITY -

- DISTRIBUTION - TERMINAL & COLD - STORAGE - CO. -
- CLEVELAND - OHIO -

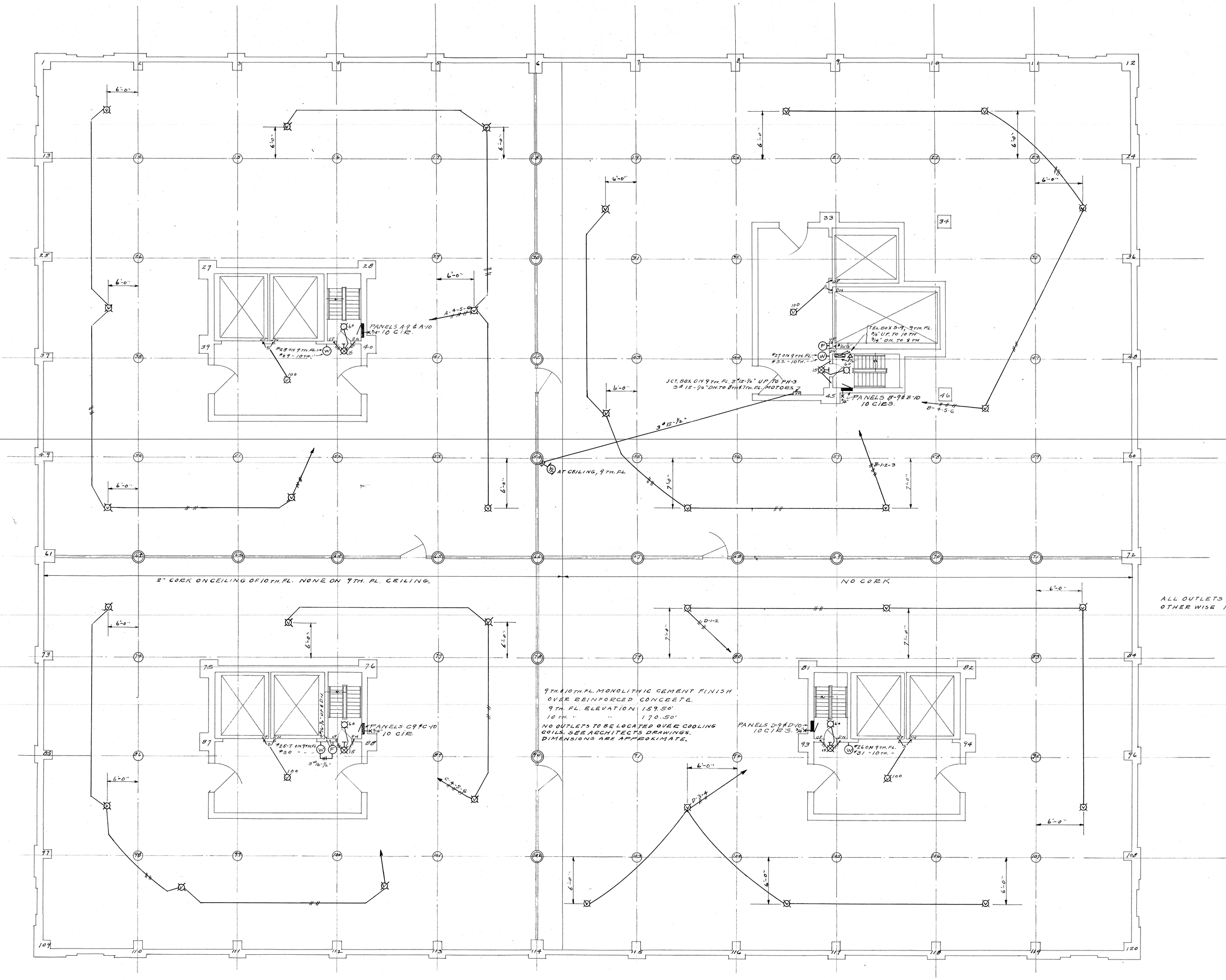
- PLAN - OF - SEVENTH - & - EIGHTH - STORIES -
(ELECTRIC)

SCALE 1/8" - 1'-0"

FILE Nº	WILBUR WATSON AND ASSOCIATES ARCHITECTS & ENGINEERS CLEVELAND	DRAWING Nº
4086		E-7

DRAWING MADE	DRAWN BY	TRACED BY	CHECKED BY	DATE	APPROVED BY	DATE
JULY 1, 1921	E.B.		H.C.T.			

REV. BY	DATE	REMARKS	REV. BY	DATE	REMARKS



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NEW YORK CITY

DISTRIBUTION TERMINAL & COLD STORAGE CO.
CLEVELAND OHIO

PLAN OF NINTH & TENTH STORIES
(ELECTRIC)

SCALE 1/8" = 1'-0"

FILE NO.		DRAWING NO.
4086	WILBUR WATSON AND ASSOCIATES ARCHITECTS & ENGINEERS CLEVELAND	E-8

DRAWING MADE	DRAWN BY	TRACED BY	CHECKED BY	DATE	APPROVED BY	DATE
JULY 1, 1927	K.B.		H.G.T.			

REV. BY	DATE	REMARKS	REV. BY	DATE	REMARKS

#42-12TH. FL.

#43-12TH. FL.

#44-12TH. FL.

#41-12TH. FL.

#34-11TH. FL.

#33-11TH. FL.

PANELS A-11 & A-12
10 CIRS.

PANELS B-11 & B-12
12 CIRS

A-1-2-3

A-4-5-6

B-3-4

C-1-2

D-1-2

D-5-6

P-3-4

WEATHER PROOF
W.P. 2 I.A.

2" CORK ON CEILING OF 11TH. STORY.
NONE ON CEILING OF 12TH. STORY

DIMENSIONS FROM CENTER OF COLUMNS
TO CEILINGS OUTLETS ARE APPROXIMATE.
ACTUAL DIMENSIONS TO BE OBTAINED FROM
ARCHTS. DWGS. NO OUTLETS TO BE LOCATED OVER
COOLING COILS.

#40-12TH. FL.

#35-11TH. FL.

PANELS C-11 & C-12
10 CIR.

PANELS D-11 & D-12
10 CIRS.

#36-11TH. FL.

#37
12TH. FL.

#39-12TH. FL.

#38-12TH. FL.

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• CLEVELAND • OHIO •

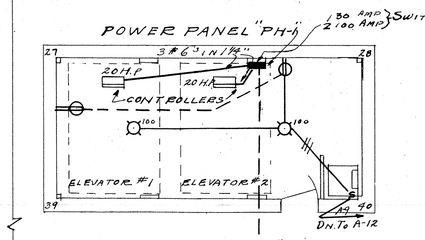
• PLAN • OF • ELEVENTH & TWELFTH • STORIES •
(ELECTRIC)

SCALE 1/8" = 1'-0"

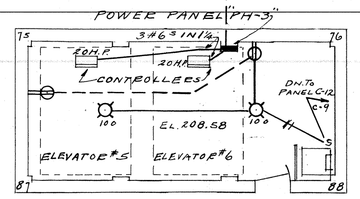
FILE Nº		DRAWING Nº
4086	WILBUR WATSON AND ASSOCIATES ARCHITECTS & ENGINEERS CLEVELAND	E-9

DRAWING MADE	DRAWN BY	TRACED BY	CHECKED BY	DATE	APPROVED BY	DATE
JULY 1, 1927	E.B.		H.C.T.			

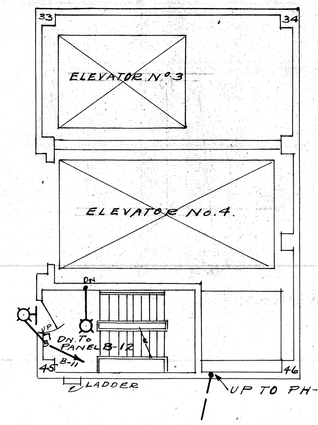
REV. BY	DATE	REMARKS	REV. BY	DATE	REMARKS



PENT HOUSE #1

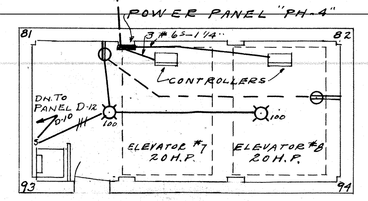


PENT HOUSE #3



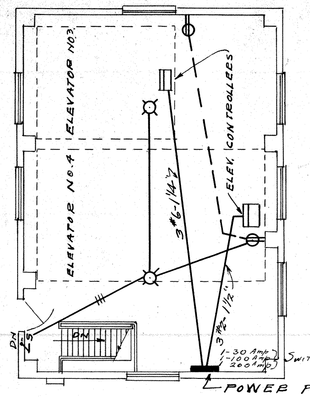
ELEV. 203.83 + OR −

3#2-1 1/2" IN 1 1/2" CONT.

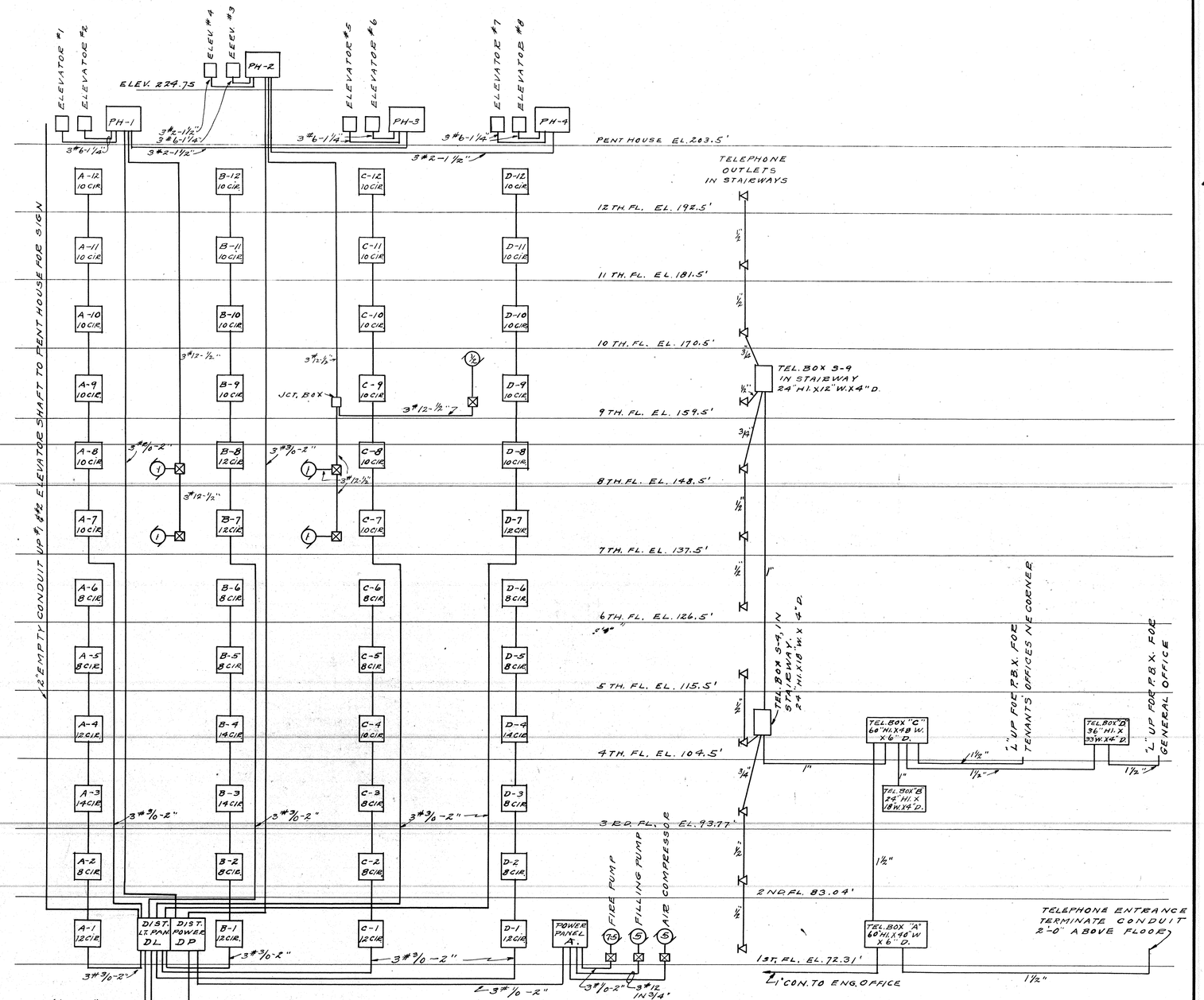


PENT HOUSE #4

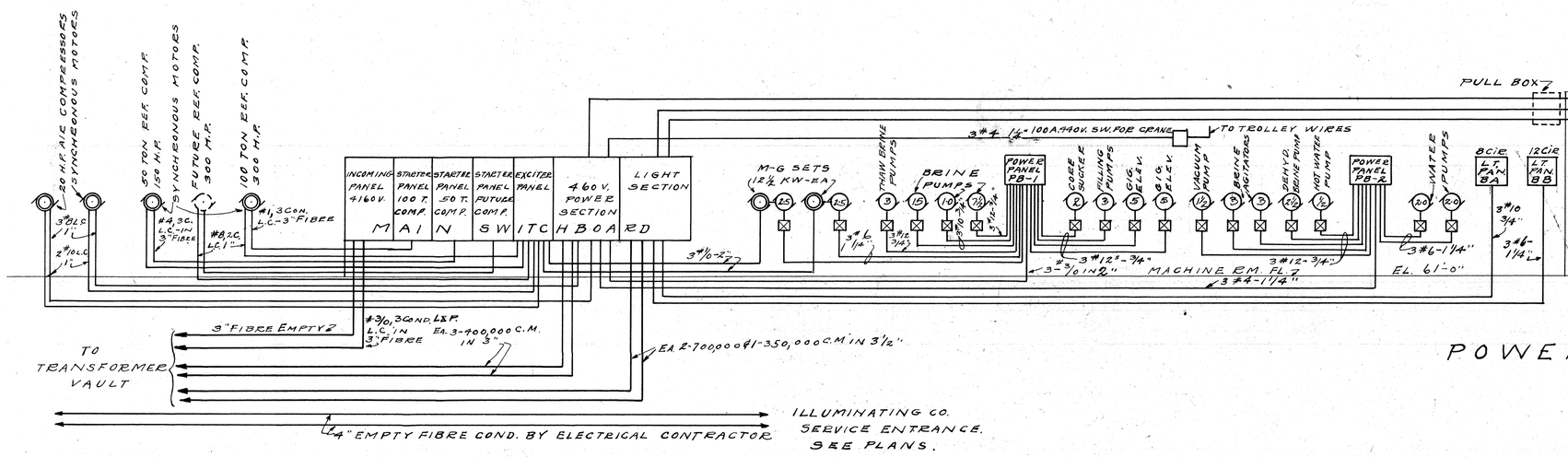
PART PLAN OF ROOF
SCALE 1/8" = 1'-0"



PENT HOUSE #2
ELEV. 224.75'



TELEPHONE RISER DIAGRAM
NO SCALE



POWER AND LIGHT RISER DIAGRAM
NO SCALE

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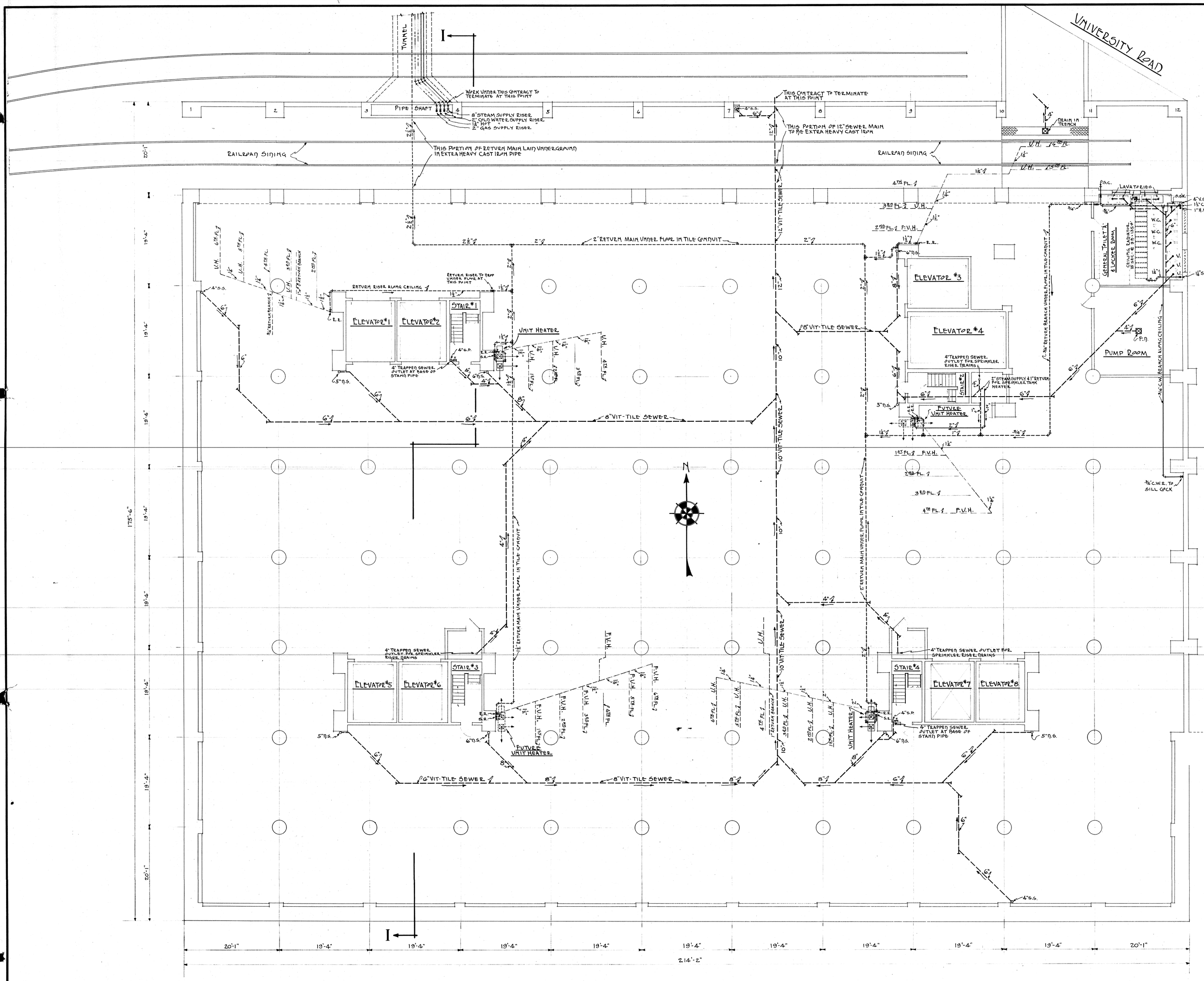
• PENT • HOUSE • PLAN • AND • RISER • DIAGRAM •
(ELECTRIC)

SCALE 3/8" = 1'-0"

FILE No.		DRAWING No.
4086	WILBUR WATSON AND ASSOCIATES ARCHITECTS & ENGINEERS CLEVELAND	E-10

DRAWING MADE	DRAWN BY	TRACED BY	CHECKED BY	DATE	APPROVED BY	DATE
JULY 1, 1929	E.B.		H.C.T.			

REV. BY	DATE	REMARKS	REV. BY	DATE	REMARKS



HEATING NOTES

———	INDICATES	SUPPLY LINES
- - - - -	"	RETURN "
S.R.	"	SUPPLY RISER
R.R.	"	RETURN "
U.H.	"	UNIT HEATER
F.U.H.	"	FUTURE UNIT HEATER

RADIATOR TAPPINGS

SUPPLY	RADIATION	RETURN
¾"	UP TO 60ft	1"
1"	61ft TO 90ft	1¼"
1¼"	91ft TO 125ft	1½"
1½"	126ft TO 230ft	2"
2"	UNIT HEATERS	1¼"

GRADE BOTH SUPPLY & RETURN MAINS DOWN 1" IN 20'-0" AS INDICATED BY ARROWS → DRIP THE ENDS OF ALL SUPPLY MAINS & RISERS WHERE CALLED FOR & ALSO THE END OF ALL SUPPLY CONNECTIONS TO UNIT HEATERS, THRU DRIP TRAPS INTO THE RETURN MAINS.

INSTALL GATE VALVES WITH UNION CONNECTIONS ON BOTH THE SUPPLY & RETURN CONNECTIONS TO PRESENT & FUTURE UNIT HEATERS, INSTALLING THESE VALVES AS CLOSE TO RISERS AS POSSIBLE. ALSO INSTALL THERMOSTATIC FLOAT TYPE TRAPS IN RETURN CONNECTIONS FROM PRESENT UNIT HEATERS.

PLUMBING NOTES

———	INDICATES	SEWER LINES
———	"	COLD WATER & FIRE LINES
———	"	HOT WATER LINES
———	"	GAS LINES
D.S.	"	DOWN SPOUT
S.S.	"	SOIL STACK
V.S.	"	VENT STACK
C.W.R.	"	COLD WATER RISER
H.W.R.	"	HOT " "
W.C.	"	WATER CLOSET
U.	"	URINAL
L.	"	LAVATORY
S.SK.	"	SLOP SINK
F.D.	"	FLOOR DRAIN
S.C.	"	SILL COCK
S.P.	"	STAND PIPE

INSTALL 1½" VALVED DRAIN CONNECTIONS AT BASE OF STAND-PIPES IN 1ST STORY & CONNECT TO SEWER.

FIRST STORY HEATING & PLUMBING LAYOUT

SCALE 1/8"=1'-0"

DISTRIBUTION TERMINAL & COLD STORAGE CO.
CLEVELAND, OHIO.

FIRST STORY HEATING & PLUMBING LAYOUT
SCALE 8"=1'-0"

FILE Nº	WILBUR WATSON AND ASSOCIATES ARCHITECTS & ENGINEERS CLEVELAND	DRAWING Nº
4086		102M

DRAWING MADE	DRAWN BY	TRACED BY	CHECKED BY	DATE	APPROVED BY	DATE
JUNE-14-1927	L.H.P.&W.B.C	W.B.C				

REV. BY	DATE	REMARKS	REV. BY	DATE	REMARKS

DISTRIBUTION · TERMINAL & COLD · STORAGE · CO.
· CLEVELAND · OHIO ·

· FOUNDATION · PLAN ·

SCALE 1/8" = 1'-0"

FILE Nº 4086

DRAWING Nº 1-S

WILBUR WATSON AND ASSOCIATES
ARCHITECTS & ENGINEERS
CLEVELAND

DRAWING MADE	DRAWN BY	TRACED BY	CHECKED BY	DATE	APPROVED BY	DATE
5 - 3 - 27	W.P.R.	L. H. S.				

REV. BY	DATE	REMARKS
W.P.R.	5/14/27	Footings & Tchanged and Footings added for Pos. 15 at Floor and Figures added.
W.P.R.	6/17/27	Col. Ctrs. Underlined and Footing dimens.

NOTE
Elevations are given in reference to finish 1st Floor, which is 72.31'± bottom of Footing - Retaining wall sections are on Sh. 2-S Footing and Retaining Wall details on Shs. 3-S and 4-S.

FOOTING FOR POST 12"x14" See Drawg. 7-S and 8-S. DETAIL AT (A)

SECTION A. A2

Top of Elevator Pit Wall (-6')

1st. Floor

Bldg. Line

Lot Line

9 Bays @ 19'-4" = 174'-0"

7 Bays @ 19'-4" = 135'-4"

175'-6"

214'-2"

20'-1"

Retaining wall and reinforcing same as shown on Section BB except projections under columns and dowel spacing.

SECTION AA
Scale 1/4" = 1'-0"

SECTION BB
Scale 1/4" = 1'-0"

SECTION CC
Scale 1/4" = 1'-0"

SECTION DD
Scale 1/4" = 1'-0"

SECTION EE
Scale 1/4" = 1'-0"

SECTION FF
Scale 1/4" = 1'-0"

WEST ELEVATION OF RETAINING WALL
Scale 1/4" = 1'-0"

NOTE Construction joint for Col. 97 as shown on Section AA

NOTE All reinforcing steel deformed except twisted bars.
Earth disturbed under footings to be replaced with concrete.
See Specifications for concrete.
See Drawings for section locations and 3.5 for column footing details.

DISTRIBUTION TERMINAL & COLD STORAGE CO.
CLEVELAND, OHIO.
RETAINING WALL SECTIONS
WILBUR WATSON & ASSOCIATES
ARCHITECTS & ENGINEERS
CLEVELAND, OHIO.
JOB NO. 2-5

DISTRIBUTION · TERMINAL-4-COLD-STORAGE-C8
CLEVELAND · OHIO

FOUNDATION · DETAILS

Scale	1/4"=1'-0"		
Title No	WILBUR WATSON AND ASSOCIATES, ARCHITECTS & ENGINEERS CLEVELAND		Drawing No 3-S
4086			

Drawing Made	Drawn By	Traced By	Checked By	Date	Approved By	Date
May 14 1947	W.P.K.					

No	By	Date	Remarks
1	Revised Sht. No. 3-S to 3-S-A	7-14-47	Add Footings 6 and 7
2	Revised Typical Section	7-24-47	Revised Footings 6 and 7

Scale of Drawings
1/4" = 1'-0"

Scale of Details
1/2" = 1'-0"

Wilbur Watson & Associates
Architects & Engineers
Cleveland

Terminal 4 Cold Storage
Distribution
Foundation Details

Job No. 4086
Sheet No. 3-S
Date May 14 1947
Revised July 24 1947

Footings 6 and 7 are located to accommodate future Concrete tower.

Steel Sheet Piling around Shafts for Pedestals

FOOTING FOR COLS. 6 and 7

Elev. 7.3l

Elev. 7.3l

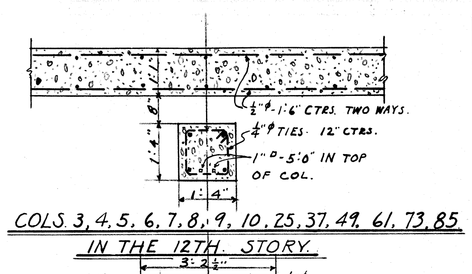
Elev. 7.3l

COLUMN SCHEDULE

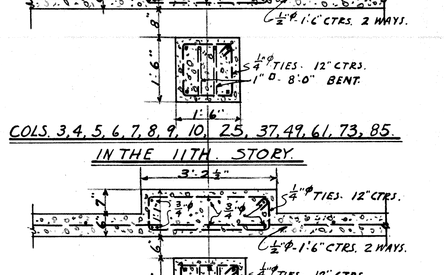
COLUMN NUMBERS.	1. 12	2, 11	3,4,5,6,7,8,9,10	13	14, 23.	15, 16, 30, 31, 32, 42, 43, 44, 53, 54, 65, 68, 78, 79, 90, 91	17, 18, 19, 20	21 - 22	24.	25, 37, 49, 61, 73, 85	26, 38, 74, 83, 86, 95	27, 75, 82	39, 87, 94	28, 76, 81.	40, 88, 93	33	34.	45	46
AREA							357'-0"				301'-0"	315'-0"	316'-0"	328'-0"	365'-0"	397'-0" 140 P.H.E.	378'-0" 140	389'-0" 140	396'-0" 140
ROOF EL 203.50		9.0	18.9		34.0	37.3	35.7	29.0			30.1	31.0	31.0	31.0	31.0	39.7	39.4	38.7	39.6
LL 100		11.9	26.0		38.2	41.5	39.8	33.3			34.3	50.5	50.5	50.5	50.5	51.3	54.6	56.2	57.6
D.L											48.0	38.0	38.0	38.0	38.0	77.0	98.0	63.0	87.0
WALL	52.5	17.5	44.0								9.1	9.1	9.1	9.1	9.1	43.0	15.0	10.8	10.8
PENTHOUSE											66.0	66.0	66.0	66.0	66.0		38.0	28.0	30.0
ELEVATOR																			
TANK																			
12TH FLOOR EL 181.50	52.5	21.9	44.0		72.2	78.8	75.5	62.3			64.4	168.8	168.8	168.8	168.8	233.0	233.0	202.0	237.5
11TH FLOOR EL 161.50	85.8	53.1	93.3		199.4	196.1	188.1	159.5			160.0	283.5	294.2	286.0	297.1	367.2	394.0	358.8	385.9
10TH FLOOR EL 141.50	119.1	83.2	93.6		277.8	303.6	291.1	239.5			239.5	396.4	416.6	408.5	427.7	496.3	523.5	493.5	523.0
9TH FLOOR EL 121.50	152.6	112.6	121.9		371.7	406.3	388.5	319.5			319.5	501.8	521.3	526.9	558.2	622.2	653.3	630.3	656.4
8TH FLOOR EL 101.50	185.7	138.5	121.9		453.7	495.5	475.2	391.7			391.7	547.0	627.0	624.9	688.5	735.8	768.0	753.5	776.4
7TH FLOOR EL 81.50	219.0	163.7	146.4		534.1	582.9	559.2	461.7			461.7	477.2	731.2	724.5	788.1	886.4	880.1	875.6	893.5
6TH FLOOR EL 126.50	444.3	531.3	532.4	537.3	625.8	682.5	655.0	541.0	537.3		541.0	886.1	928.4	838.7	905.3	972.2	1007.0	1010.7	1015.2
5TH FLOOR EL 113.50	505.0	648.5	596.5	608.5	709.0	765.2	734.6	607.9	608.5	514.5	608.8	968.2	1044.6	967.2	1015.4	1083.3	1117.6	1128.9	1134.9
4TH FLOOR EL 108.50	568.4	683.4	670.9	683.4	789.6	840.1	825.9	684.2	683.4	683.4	707.2	1050.8	1167.2	1089.8	1138.6	1197.4	1241.2	1254.9	1264.9
3RD FLOOR EL. 93.71	628.3	714.9	751.7	764.9	865.8	905.5	895.8	750.9	764.9	764.9	776.0	1085.2	1157.2	1157.6	1140.2	1301.1	1357.5	1366.5	1380.8
2ND. FLOOR EL. 89.06	684.9	849.1	831.2		953.8	1020.8	995.8	814.0	854.5		841.0	1177.4	1249.6	1250.5	1339.3	1402.2	1460.0	1475.6	1497.6
1ST. FLOOR EL. 72.31	703.9	857.1	844.2		996.1	1098.8	1039.8	837.0	884.3		905.0	1270.6	1342.8	1350.6	1459.6	1564.3	1559.0	1585.7	1593.7

COLUMN NUMBERS.	1. 12	2, 11	3,4,5,6,7,8,9,10	13	14, 23.	15, 16, 30, 31, 32, 42, 43, 44, 53, 54, 65, 68, 78, 79, 90, 91	17, 18, 19, 20	21 - 22	24.	25, 37, 49, 61, 73, 85	26, 38, 74, 83, 86, 95	27, 75, 82	39, 87, 94	28, 76, 81.	40, 88, 93	33	34.	45	46
LL	COLUMN PART OF WALL SEE DETAIL			SAME AS COLUMN 2					SAME AS COLUMN 2										
D.L																			
WALL																			

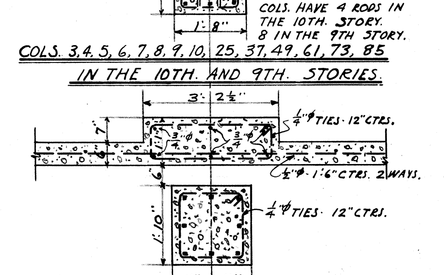
COLS 3,4,5,6,7,8,9,10,25,37,49,61,73,85 IN THE 12TH STORY.



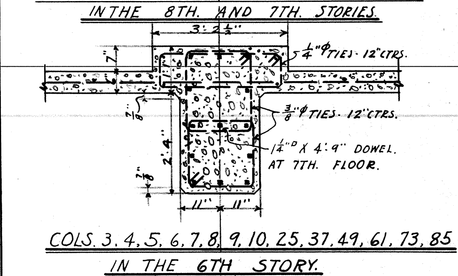
COLS 3,4,5,6,7,8,9,10,25,37,49,61,73,85 IN THE 11TH STORY.



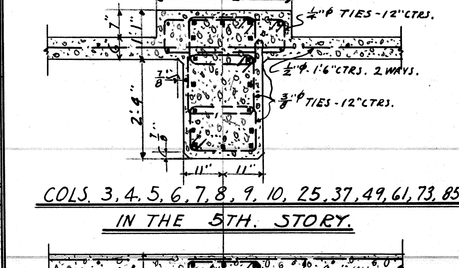
COLS 3,4,5,6,7,8,9,10,25,37,49,61,73,85 IN THE 10TH AND 9TH. STORIES.



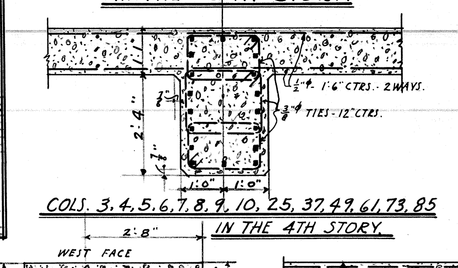
COLS. 3,4,5,6,7,8,9,10,25,37,49,61,73,85 IN THE 8TH. AND 7TH. STORIES.



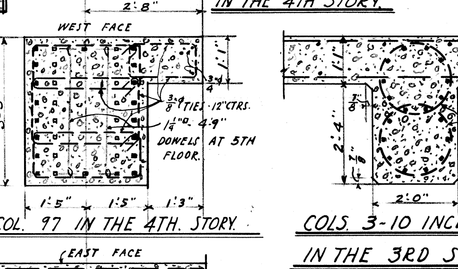
COLS. 3,4,5,6,7,8,9,10,25,37,49,61,73,85 IN THE 6TH. STORY.



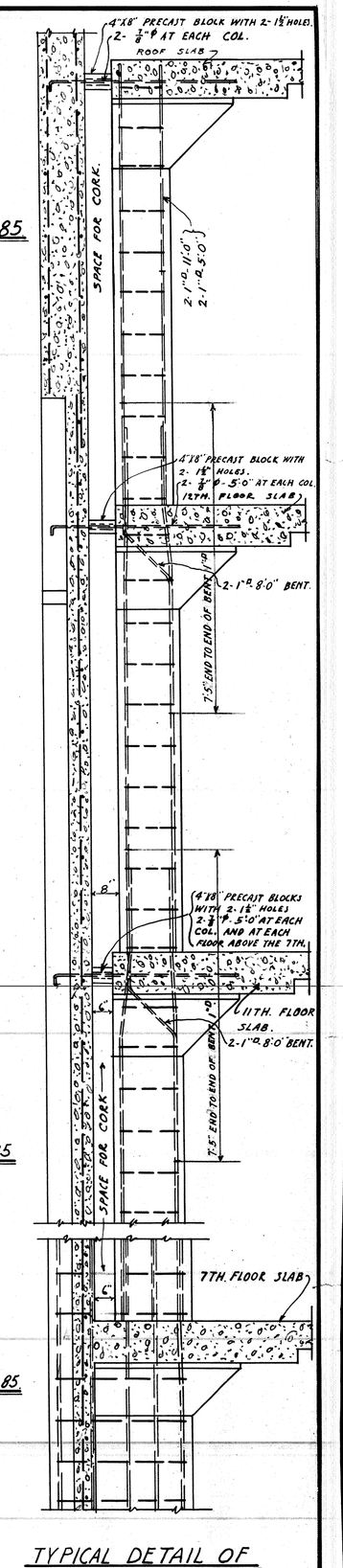
COLS. 3,4,5,6,7,8,9,10,25,37,49,61,73,85 IN THE 5TH. STORY.



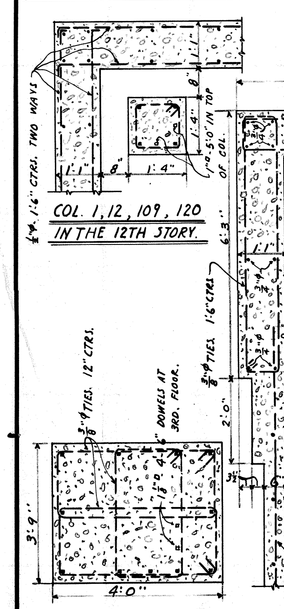
COLS. 3,4,5,6,7,8,9,10,25,37,49,61,73,85 IN THE 4TH STORY.



TYPICAL DETAIL OF EXTERIOR COLUMNS FROM 7TH. FLOOR UP.



COL. 1, 12, 109, 120 IN THE 12TH STORY.


6'-3"
2'-0"
5/8" ϕ TIES - 1'-6" CTRS.
1/2" ϕ 1'-6" CTRS. TWO WAYS.
5/8" ϕ TIES - 1'-6" CTRS.
1'-8"
1'-8"
1'-6"
1'-6"
1'-6

COLUMN SCHEDULE - CONCLUDED.

COLUMN NUMBERS	29, 41, 77, 80, 89, 92.	35, 47.	36, 48, 60, 72, 84, 96 111 - 118 INCL.	50, 62 59, 71	51, 52	54, 55 66, 67.	57, 58	63, 64 69, 70.	97	98	99, 100 105, 106	101, 102 103, 104	107	108, 110, 119	109, 120.
AREA	314 sq. ft.	314 sq. ft.	188	357 sq. ft.	334 sq. ft.	323 sq. ft.	308 sq. ft.	334 sq. ft.			333 sq. ft.				
ROOF EL. 203.50															
ELEVATOR PENTHOUSE WALL															
ELEVATOR TANK															
ELEVATOR EL. 192.50															
PENTHOUSE FLOOR EL. 188.50															
ROOF EL. 175.50															
ROOF EL. 175.50 WALL															
ROOF EL. 175.50 D.L.															
ROOF EL. 175.50 L.L. 100															
ROOF EL. 175.50 D.L.															
11TH FLOOR EL. 162.50	14" DIAM. COL. 4-#8 BARS - #3 SPIRAL - 1'-5" P.														
11TH FLOOR EL. 162.50 WALL															
11TH FLOOR EL. 162.50 D.L.	18" DIAM. COL. 4-1" ø - 12'-6" #5 ø SPIRAL 3" P.														
11TH FLOOR EL. 162.50 L.L. 118															
10TH FLOOR EL. 150.50 WALL															
10TH FLOOR EL. 150.50 D.L.	22" DIAM. COL. 5-1" ø - 13'-3" #8 ø SPIRAL 2½" P.														
10TH FLOOR EL. 150.50 L.L. 110															
9TH FLOOR EL. 138.50 WALL															
9TH FLOOR EL. 138.50 D.L.	24" DIAM. COL. 7-1" ø - 13'-6" #8 ø SPIRAL 2" P.														
9TH FLOOR EL. 138.50 L.L. 112.5															
8TH FLOOR EL. 126.50 WALL															
8TH FLOOR EL. 126.50 D.L.	26" DIAM. COL. 9-1" ø - 13'-9" #8 ø SPIRAL 1⅞" P.														
8TH FLOOR EL. 126.50 L.L. 105															
7TH FLOOR EL. 114.50 WALL															
7TH FLOOR EL. 114.50 D.L.	28" DIAM. COL. 10-1" ø - 14'-3" #8 ø SPIRAL 1⅝" P.														
7TH FLOOR EL. 114.50 L.L. 97.5															
6TH FLOOR EL. 102.50 WALL															
6TH FLOOR EL. 102.50 D.L.	30" DIAM. COL. 12-1" ø - 13'-3" ¼" ø SPIRAL - 2⅜" P.														
6TH FLOOR EL. 102.50 L.L. 90															
5TH FLOOR EL. 90.50 WALL															
5TH FLOOR EL. 90.50 D.L.	32" DIAM. COL. 12-1" ø - 13'-9" ¼" ø SPIRAL - 2⅝" P.														
5TH FLOOR EL. 90.50 L.L. 82.5															
4TH FLOOR EL. 78.50 WALL															
4TH FLOOR EL. 78.50 D.L.	34" DIAM. COL. 12-1¼" ø - 14'-3" ½" ø SPIRAL - 2⅝" P.	34" DIAM. COL. 12-1¼" ø - 14'-3" ½" ø SPIRAL - 2½" P.	34" DIAM. COL. 12-1¼" ø - 14'-3" ½" ø SPIRAL - 2½" P.												
4TH FLOOR EL. 78.50 L.L. 70															
3RD FLOOR EL. 66.50 WALL															
3RD FLOOR EL. 66.50 D.L.	34" DIAM. COL. 12-1¼" ø - 14'-3" ½" ø SPIRAL - 2½" P.	34" DIAM. COL. 12-1¼" ø - 14'-3" ½" ø SPIRAL - 2½" P.	34" DIAM. COL. 12-1¼" ø - 14'-3" ½" ø SPIRAL - 2½" P.												
3RD FLOOR EL. 66.50 L.L. 75															
2ND FLOOR EL. 53.50 WALL															
2ND FLOOR EL. 53.50 D.L.	34" DIAM. COL. 16-1¼" ø - 14'-3" ½" ø SPIRAL - 2½" P.	34" DIAM. COL. 16-1¼" ø - 14'-3" ½" ø SPIRAL - 2½" P.	34" DIAM. COL. 16-1¼" ø - 14'-3" ½" ø SPIRAL - 2½" P.												
2ND FLOOR EL. 53.50 L.L. 50															
1ST FLOOR EL. 22.50 WALL															
1ST FLOOR EL. 22.50 D.L.	36" DIAM. COL. 16-1¼" ø 16'-0" FOR 27.41 16-1¼" ø 15'-0" FOR 22.50 #11 ø SPIRAL 2½" P.	36" DIAM. COL. 18-1¼" ø - 14'-6" ½" ø SPIRAL 2½" P.	36" DIAM. COL. 18-1¼" ø - 14'-6" ½" ø SPIRAL 2⅝" P.												
1ST FLOOR EL. 22.50 L.L. 25															
BASEMENT WALL															
BASEMENT D.L.															
BASEMENT L.L. 25															