

ARCHITECTS

HELLMUTH, OBATA & KASSABAUM, INC.

STRUCTURAL ENGINEER

JOHN P. NIX

MECHANICAL ENGINEER

JOHN D. FALVEY

FOOD SERVICE CONSULTANT

FLAMBERT & FLAMBERT



UNIVERSITY OF MISSOURI

COLLEGE AVENUE & ASHLAND GRAVEL ROAD

COLUMBIA, MISSOURI

H.H.F.A. PROJECT NO. CH-MO-77(D)

# MEN'S & WOMEN'S DORMITORIES AND A CAFETERIA BUILDING

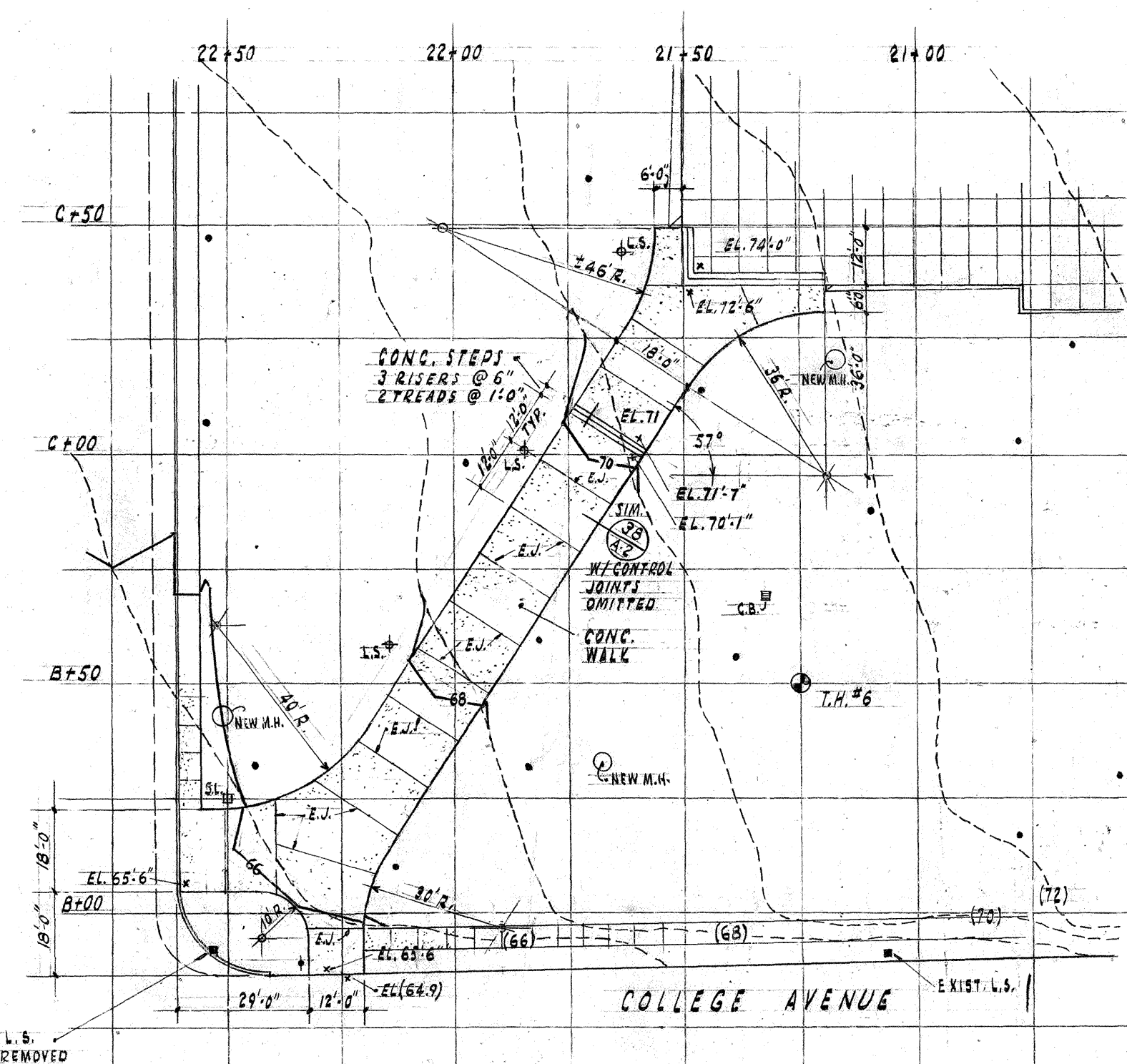
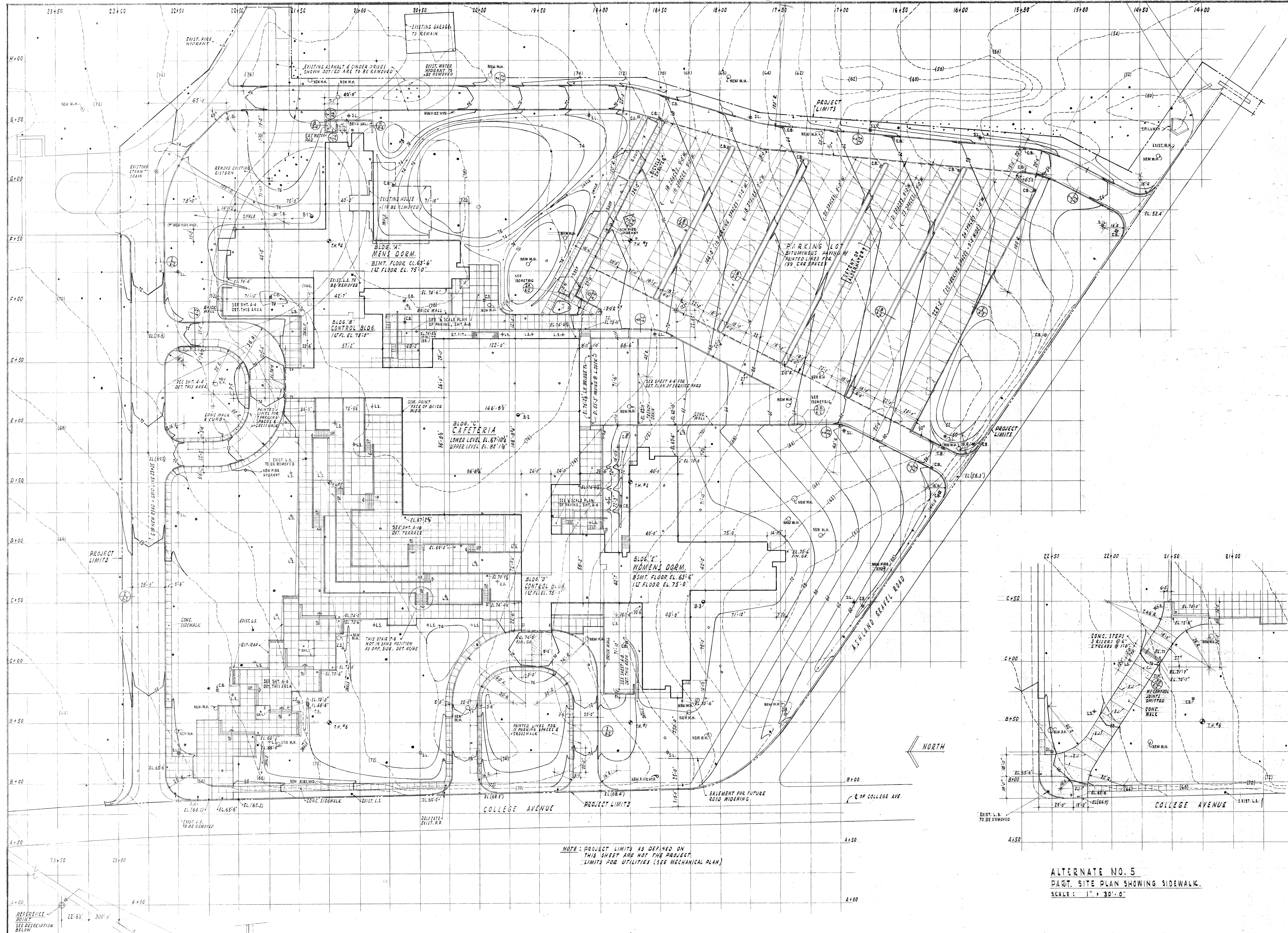
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AV 092 00 A00 00

## SCHEDULE OF DRAWINGS

ARCHITECTURAL		MECHANICAL	
A-1	SITE PLAN	ME-1	SITE PLAN
A-2	SITE DETAILS	ME-2	STRIP MAPS STEAM & ELECTRIC - OFF SITE
A-3	1/16" BASEMENT PLAN BLDGS. A & E LOWER PLAN BLDG. C, CRAWL SPACE BLDGS. B & D	M-3	STRIP MAPS SEWERS - OFF SITE
A-4	1/16" FIRST FLOOR PLAN BLDGS. A, B, D, E UPPER LEVEL PLAN BLDG. C	M-4	STEAM MANHOLES
A-5	1/16" TYP. FLOOR PLAN, 2nd THRU 8th FLOOR, ROOF PLAN - BLDG. C	M-5	STEAM MANHOLES
A-6	1/16" ELEVATIONS	M-6	STEAM MANHOLES
A-7	1/16" ELEVATIONS & EXTERIOR DETAILS	M-7	STEAM MANHOLES
A-8	BASEMENT PLAN, BLDG. A	M-8	STEAM MANHOLES
A-9	BASEMENT PLAN, BLDG. E	M-9	PROFILES (STEAM) OFF SITE & ON SITE
A-10	FIRST FLOOR PLAN, BLDG. A	M-10	BUILDING A FOUNDATION PLAN
A-11	TYPICAL FLOOR PLAN, TOILET PLANS AND DETAILS, BLDGS. A & E	M-11	BUILDINGS A & B, BASEMENT PLAN
A-12	CONTROL BLDG. B PLAN & DOOR SCHEDULE	M-12	BUILDINGS A & B, FIRST FLOOR PLAN
A-13	INTERIOR DETAILS BLDG. A & B	M-13	BUILDING A, 2nd THRU 8th, INCLUSIVE
A-14	SASH TYPES - WALL SECTIONS, BLDGS. A & B	M-14	BUILDINGS A & B, ROOF PLANS
A-15	EXTERIOR DETAILS, BLDGS. A & B	M-15	BUILDING C, CAFETERIA FOUNDATION PLAN
A-16	EXTERIOR DETAILS, BLDGS. A & B	M-16	BUILDING C, CAFETERIA FLOOR PLAN LOWER LEVEL
A-17	STAIRS - ELEVATOR - PENTHOUSE PLAN, BLDG. A	M-17	BUILDING C, CAFETERIA CEILING PLAN, LOWER LEVEL
A-18	LOWER LEVEL PLAN - CAFE - BLDG. C	M-18	BUILDING C, CAFETERIA FLOOR PLAN, UPPER LEVEL
A-19	UPPER LEVEL PLAN - CAFE - BLDG. C	M-19	BUILDING C, CAFETERIA, CEILING PLAN, UPPER LEVEL
A-20	WALL SECTIONS & DETAILS - CAFE - BLDG. C	M-20	BUILDING C, CAFETERIA ROOF PLAN
A-21	EXTERIOR DETAILS - CAFE - BLDG. C	M-21	BUILDING E, FOUNDATION PLAN
A-22	EXTERIOR DETAILS - CAFE - BLDG. C	M-22	BUILDINGS D & E, BASEMENT PLAN
A-23	DOOR SCHEDULE - SASH TYPES - CAFE BLDG. C	M-23	BUILDINGS D & E, FIRST FLOOR PLAN
A-24	TOILET PLANS - INT. DETAILS - CAFE - BLDG. C	M-24	BUILDING E, 2nd THRU 8th FLOORS
A-25	INTERIOR SECTIONS - DETAILS - CAFE - BLDG. C	M-25	BUILDINGS D & E, ROOF PLAN
A-26	UPPER LEVEL CURB PLAN - CAFE - BLDG. C	M-26	BUILDING A, MECHANICAL EQUIP. ROOM
A-27	UPPER LEVEL EQUIP. PLAN - CAFE - BLDG. C	M-27	BUILDING C, CAFETERIA MECHANICAL EQUIP. ROOM
A-28	UPPER LEVEL ELEC. PLAN - CAFE - BLDG. C	M-28	BUILDING C, FAN ROOM & COOLING TOWER
A-29	UPPER LEVEL MECH. PLAN - CAFE - BLDG. C	M-29	BUILDING E, MECHANICAL EQUIP. ROOM
A-30	LOWER LEVEL CURB PLAN - CAFE - BLDG. C	M-30	BUILDINGS A, B, C, D & E, HEATING & VENTILATING RISER DIAGRAMS
A-31	LOWER LEVEL EQUIP. PLAN - CAFE - BLDG. C	M-31	BUILDINGS A & B, PLUMBING RISER DIAGRAMS
A-32	LOWER LEVEL ELEC. PLAN - CAFE - BLDG. C	M-32	BUILDINGS A & B, PLUMBING RISER DIAGRAMS
A-33	LOWER LEVEL MECH. PLAN - CAFE - BLDG. C	M-33	BUILDINGS D & E, PLUMBING RISER DIAGRAMS
A-34	KITCHEN EQUIP. DETAILS - CAFE - BLDG. C	M-34	BUILDINGS D & E, PLUMBING RISER DIAGRAMS
A-35	KITCHEN EQUIP. DETAILS - CAFE - BLDG. C	M-35	BUILDING C, CAFETERIA PLUMBING RISER DIAGRAMS
A-36	SERVING LINE EQUIP. DETS. - CAFE - BLDG. C	M-36	BUILDING C, PLUMBING RISER DIAGRAMS
A-37	SERVING LINE EQUIP. DETS. - CAFE - BLDG. C	M-37	BUILDING C, PLUMBING RISER DIAGRAMS
A-38	DISHWASH AREA EQUIP. DETS. - CAFE - BLDG. C	M-38	EQUIPMENT DETAILS
A-39	SNACK BAR EQUIP. DETS. - CAFE - BLDG. C	M-39	DETAILS - SPECIAL RADIATORS
A-40	SNACK BAR EQUIP. DETS. - CAFE - BLDG. C	M-40	TYPICAL DETAILS
A-41	BAKERY EQUIP. DETS. - CAFE - BLDG. C		
<b>STRUCTURAL</b>		<b>ELECTRICAL</b>	
S-1	FOUNDATION PLAN, BLDG. A	ME-1	SITE PLAN
S-2	FOUNDATION PLAN, BLDG. E	ME-2	STRIP MAP STEAM & ELECTRIC - OFF SITE
S-3	FIRST FLOOR FRAMING PLAN, BLDG. A	E-3	MANHOLES & DETAILS
S-4	FIRST FLOOR FRAMING PLAN, BLDG. E	E-4	PROFILES & STRIP MAP
S-5	PARTIAL 2nd FLOOR; MECH. FLOOR; P.H.; ROOF FRAMING PLANS, BLDGS. A & E	E-5	BUILDING A, FOUNDATION PLAN
S-6	TYPICAL (3rd THRU 8th) FLOOR FRAMING PLANS, BLDGS. A & E	E-6	BUILDINGS A & B, BASEMENT FLOOR PLAN
S-7	ROOF FRAMING PLAN, BLDGS. A & E	E-7	BUILDINGS A & B, FIRST FLOOR PLAN
S-8	FOUNDATION SECTIONS - STAIRS #2, 3, 4 - BLDGS. A & E	E-8	BUILDING A, 2nd THRU 8th FLOOR PLAN
S-9	STAIR #1 & ELEV. SECTIONS, BLDGS. A & E	E-9	BUILDING C, CAFETERIA FOUNDATION PLAN
S-10	TYPICAL WALL SECTIONS, BLDGS. A & E	E-10	BUILDING C, LOWER LEVEL FLOOR PLAN
S-11	COLUMN AND FOOTING SCHEDULE, BLDGS. A & E	E-11	BUILDING C, UPPER LEVEL FLOOR PLAN
S-12	TYPICAL DETAILS - COL. AND FTG. DETAILS, BLDGS. A & E	E-12	BUILDING C, KITCHEN & BAKERY FLOOR PLAN
S-13	BEAM AND SLAB SCHEDULE, BLDGS. A & E	E-13	BUILDING C, CAFETERIA ROOF PLAN
S-14	BEAM AND SLAB SCHEDULE, BLDGS. A & E	E-14	BUILDING E, FOUNDATION PLAN
S-15	FOUNDATION AND FIRST FLOOR FRAMING PLANS, BLDGS. B & D	E-15	BUILDINGS D & E, BASEMENT PLAN
S-16	ROOF FRAMING PLANS AND SECTIONS, BLDGS. B & D	E-16	BUILDINGS D & E, FIRST FLOOR PLAN
S-17	BEAM, SLAB AND COLUMN SCHEDULES, BLDGS. B & D	E-17	BUILDING E, 2nd THRU 8th FLOOR PLANS
S-18	FOUNDATION PLAN, BLDG. C	E-18	RISER DIAGRAMS
S-19	2nd FLOOR (UPPER LEVEL) FRAMING PLAN, BLDG. C		
S-20	LOW ROOF FRAMING PLAN, BLDG. C		
S-21	HIGH ROOF FRAMING PLAN, BLDG. C		
S-22	WALL SECTIONS, BLDG. C		
S-23	STAIR SECTIONS, BLDG. C		
S-24	COLUMN AND 2-WAY SLAB SCHEDULES, BLDG. C		
S-25	BEAM AND 1-WAY SLAB SCHEDULES, BLDG. C		
S-26	TYPICAL DETAILS, BLDG. C		
S-27	EXTERIOR RETAINING WALLS		

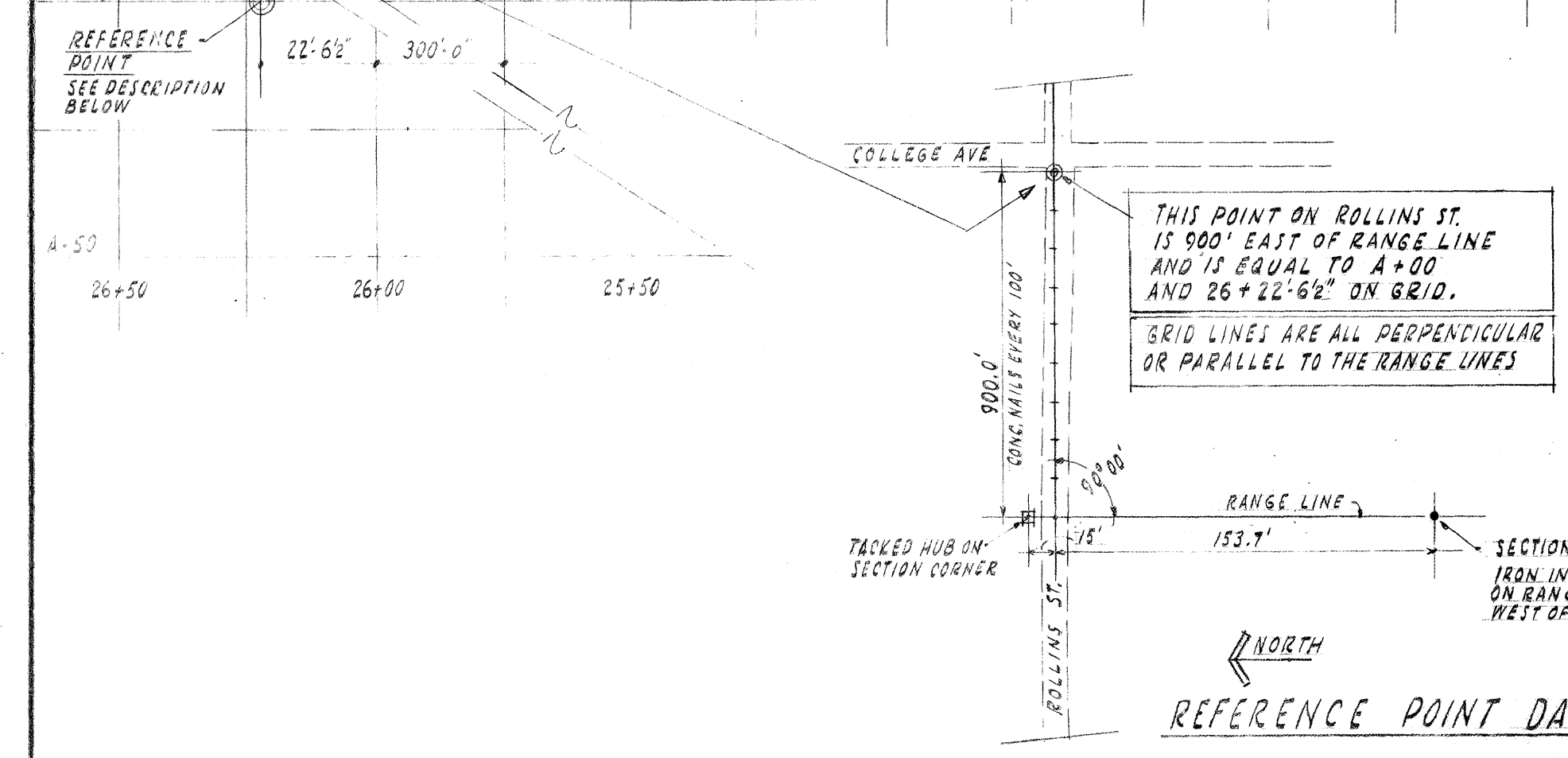


- LEGEND**
- PROJECT LIMITS
  - EXISTING CONTOURS (70)
  - PROPOSED CONTOURS (70)
  - EXISTING ELEVATIONS (70)
  - PROPOSED ELEVATIONS (70)
  - EXISTING TREES RETAINED
  - EXISTING TREES REMOVED
  - TEST BORING HOLES
  - PROPOSED LIGHT STANDARDS
  - PROPOSED STREET LIGHTS
  - EXISTING LIGHT STANDARDS
  - PROPOSED CATCH BASINS
  - EXISTING POWER POLE
  - PROPOSED MANHOLE
  - 30" AUGER BORINGS

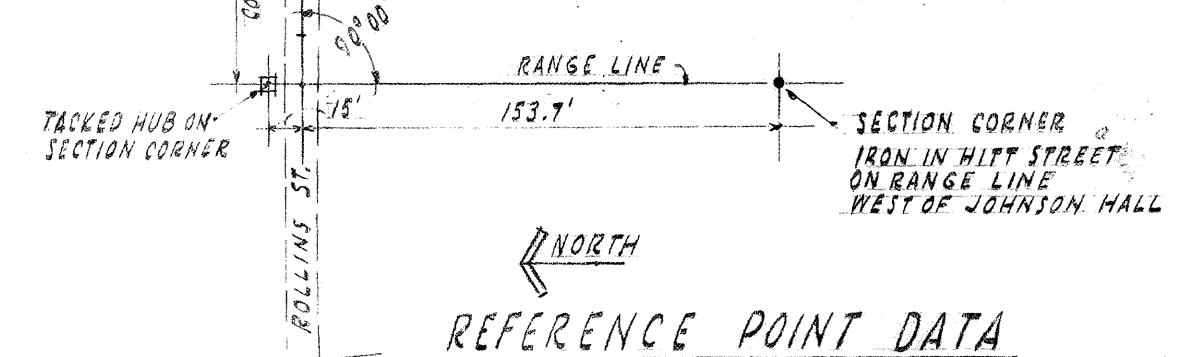
**ALTERNATE NO. 5**  
 PART. SITE PLAN SHOWING SIDEWALK.  
 SCALE: 1" = 30'-0"

NOTE: PROJECT LIMITS AS DEFINED ON THIS SHEET ARE NOT THE PROJECT LIMITS FOR UTILITIES (SEE MECHANICAL PLAN)

**SITE PLAN**  
 SCALE: 1" = 30'-0"



THIS POINT ON ROLLINS ST. IS 90' EAST OF RANGE LINE AND IS EQUAL TO 4'-00" AND 26' ± 22'-66" ON GRID.  
 GRID LINES ARE ALL PERPENDICULAR OR PARALLEL TO THE RANGE LINES



REFERENCE POINT DATA

AV 092 00 A01 00

ISSUED & HOME FINANCE AGENCY PROJECT NO. 44 - 89 - 77 (D)

**SITE PLAN**

**DORMITORIES & CAFETERIA BUILDING FOR THE UNIVERSITY OF MISSOURI**  
 COLLEGE AVE. & ASHLAND GRAVEL ROAD, COLUMBIA, MISSOURI

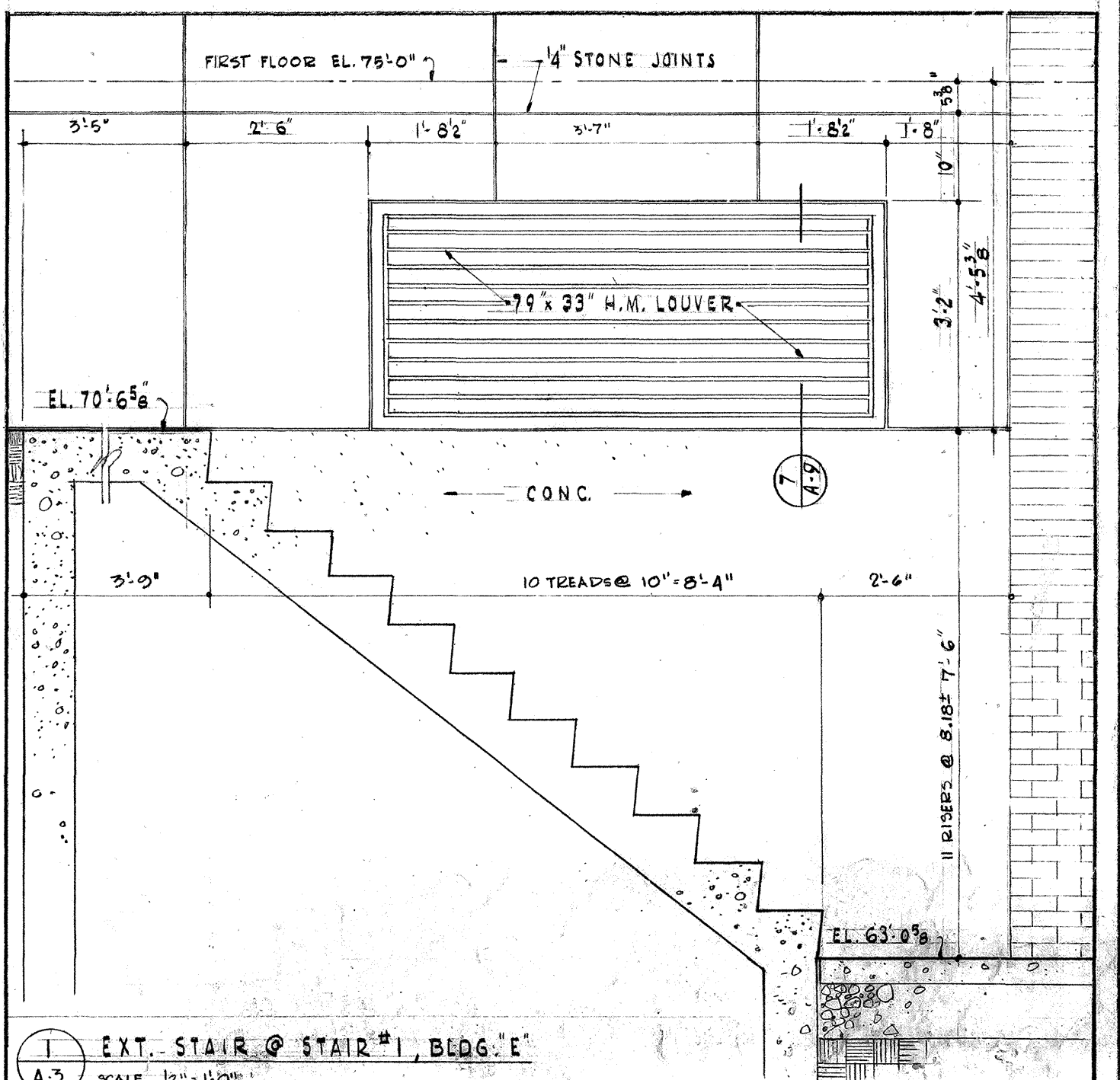
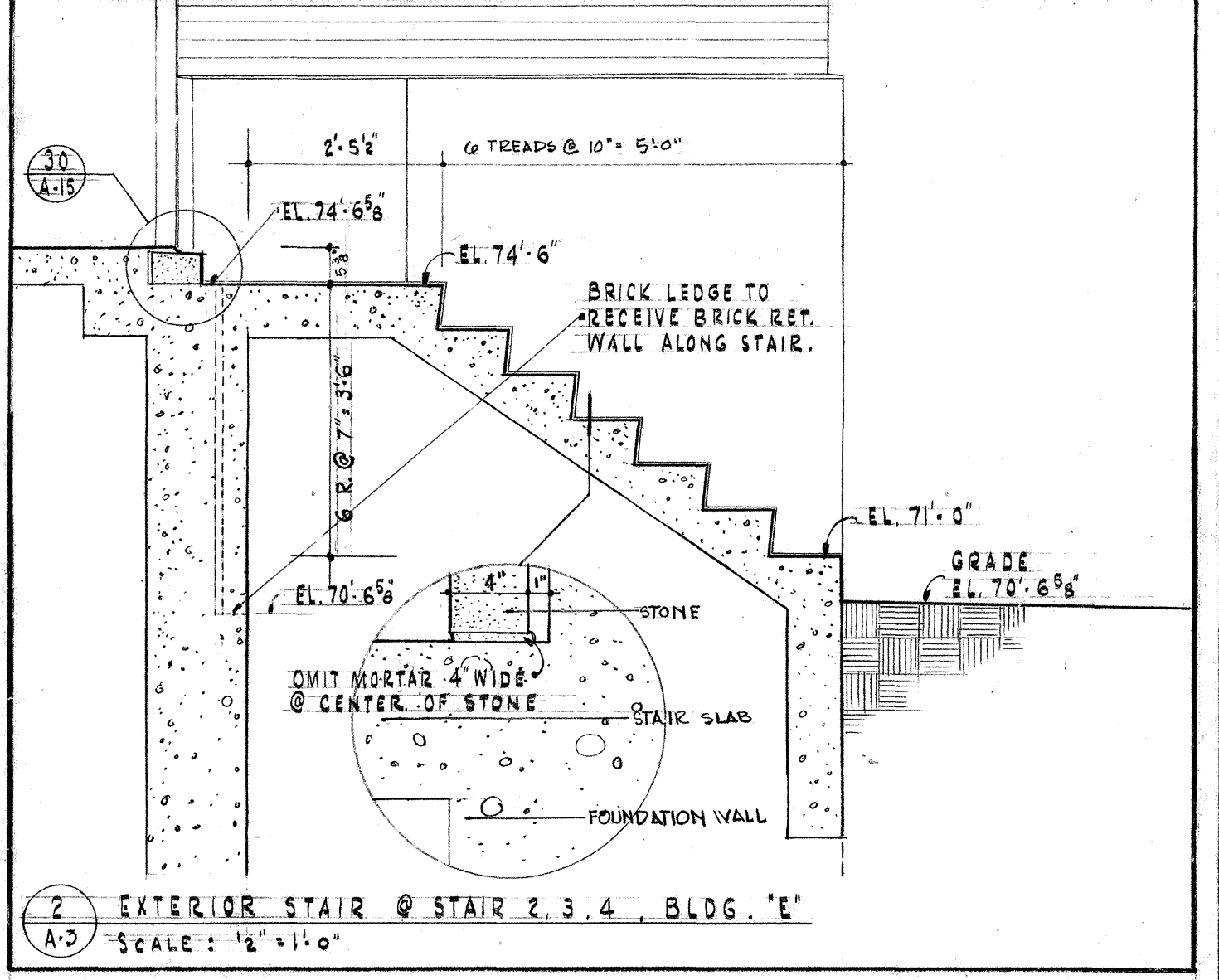
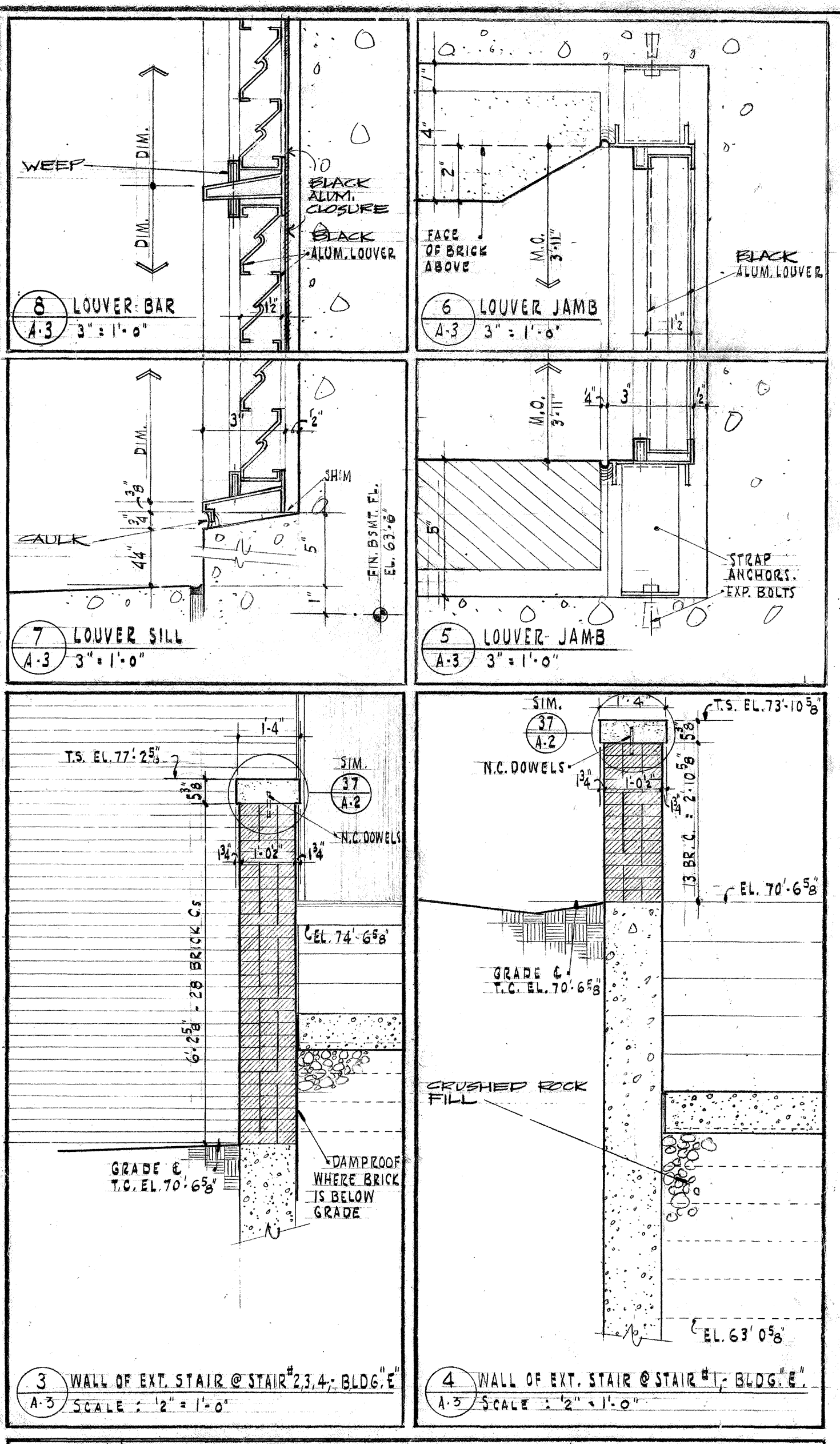
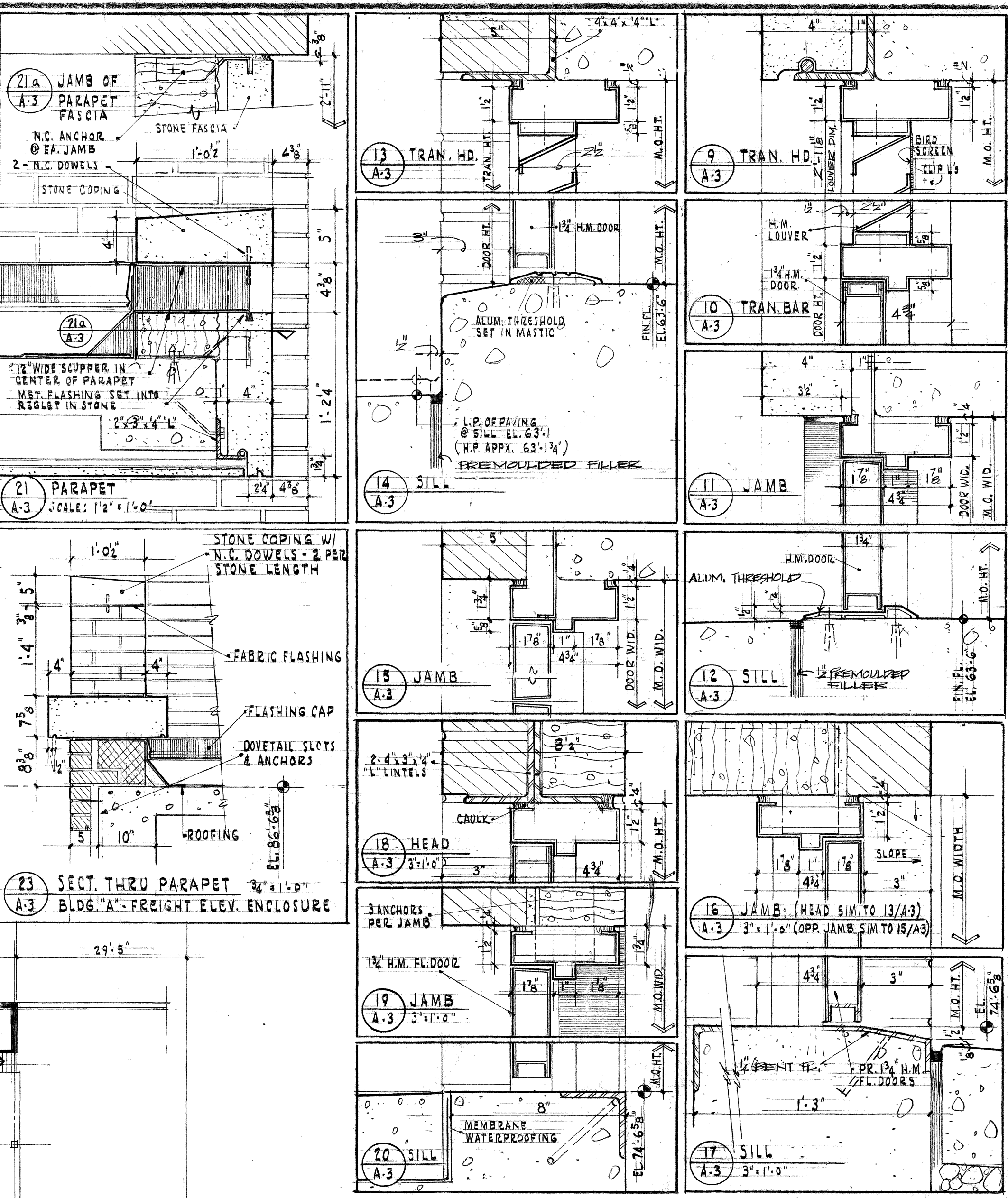
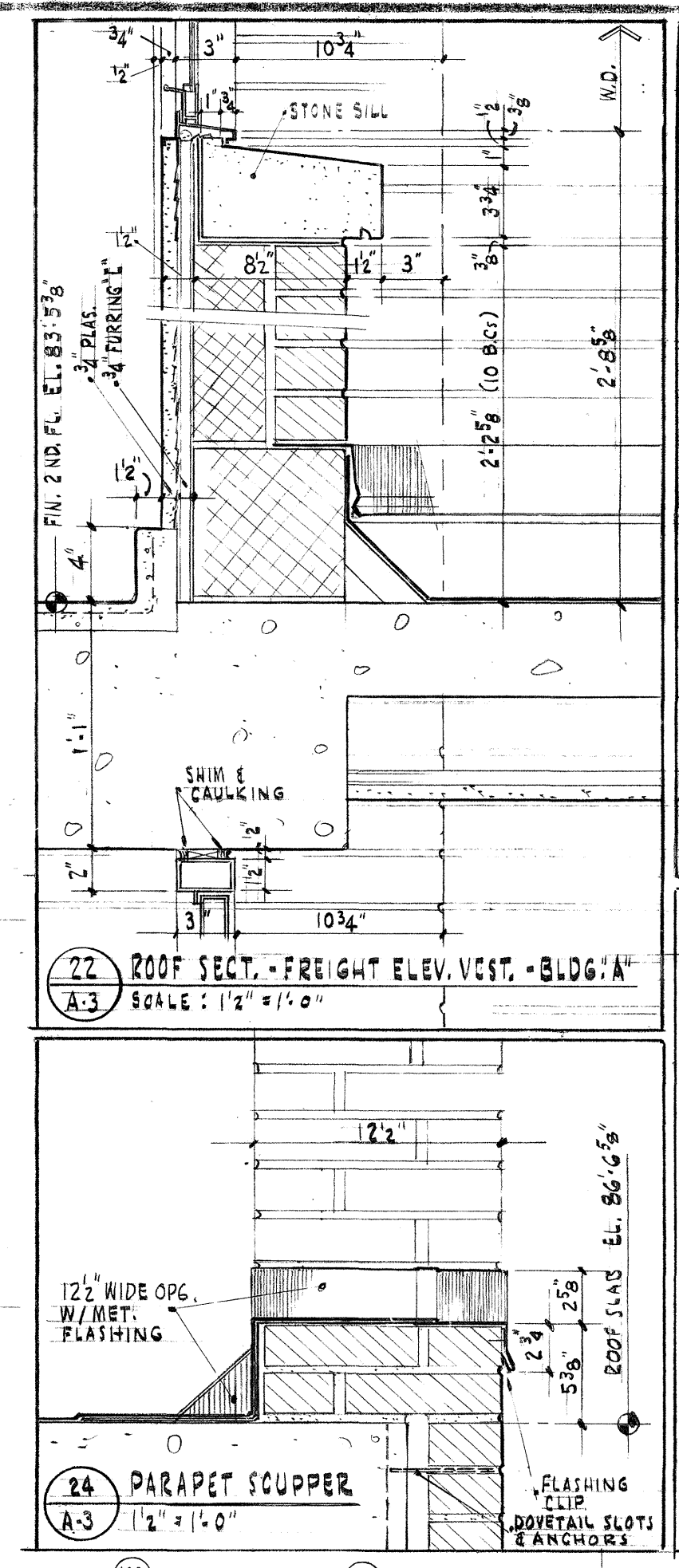
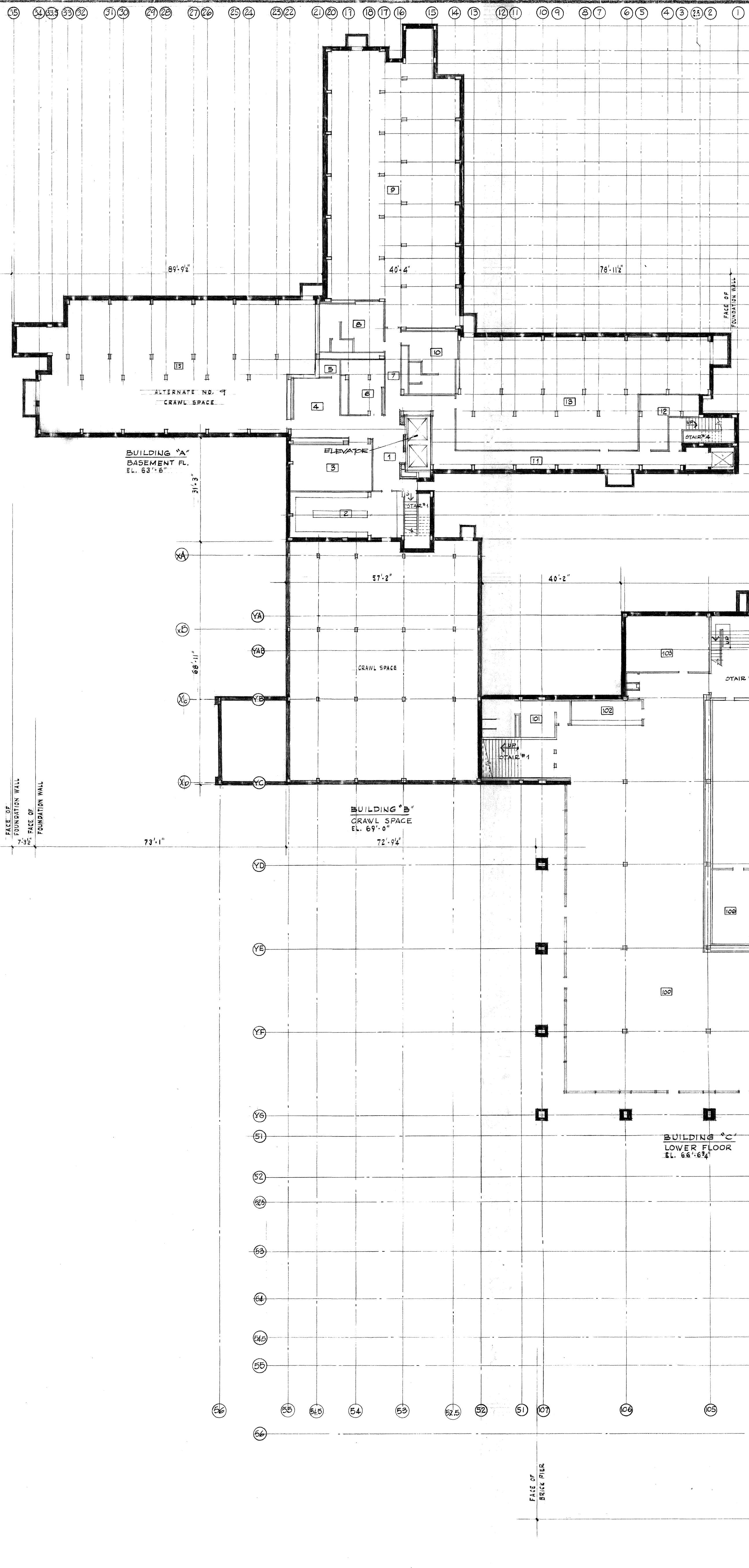
HELLMUTH, OBATA & KASSABAUM, INC.  
 ARCHITECTS  
 ST. LOUIS, MISSOURI

JOHN P. NIX  
 JOHN D. FALVEY  
 FLAMBERT & FLAMBERT

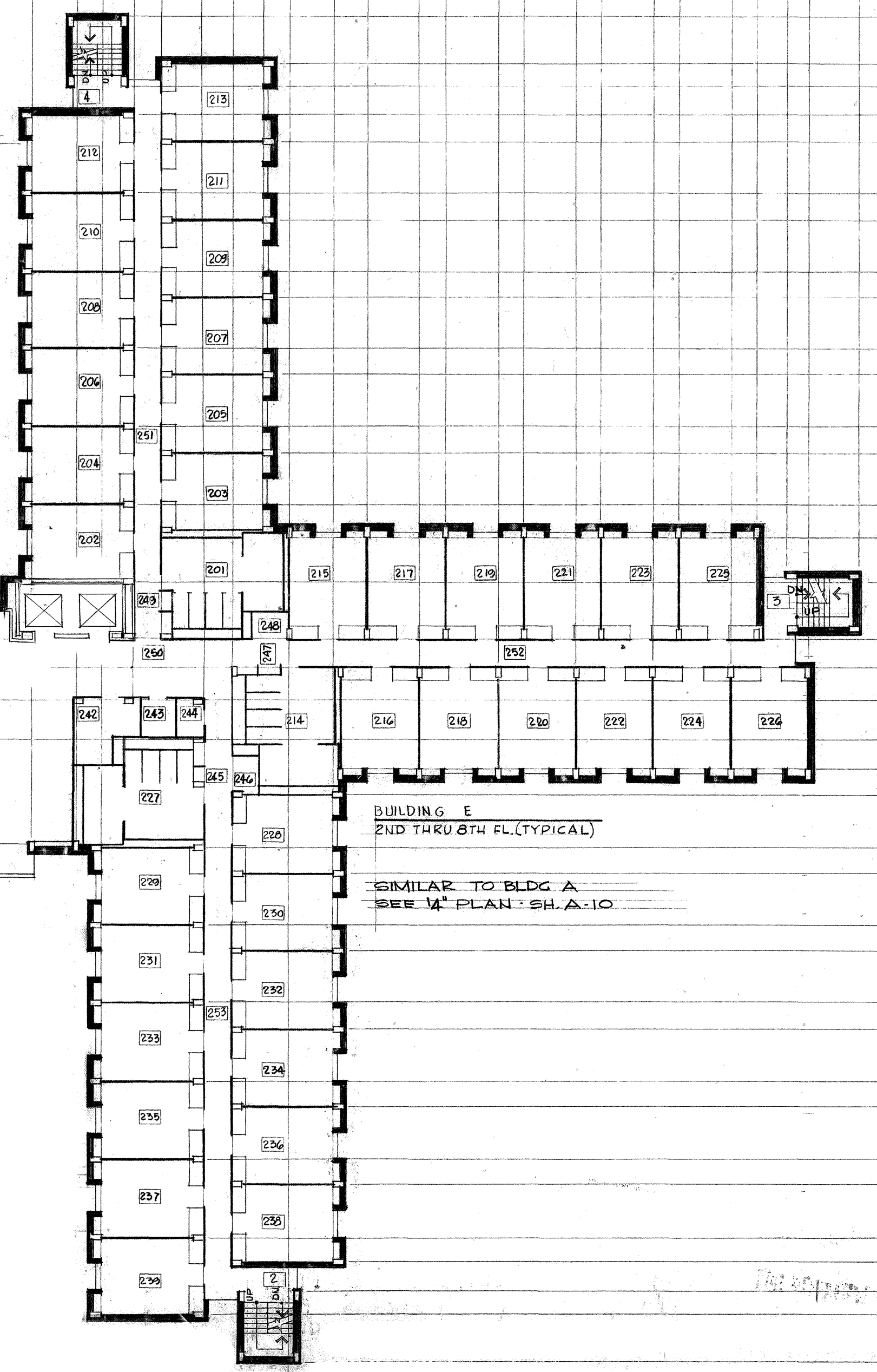
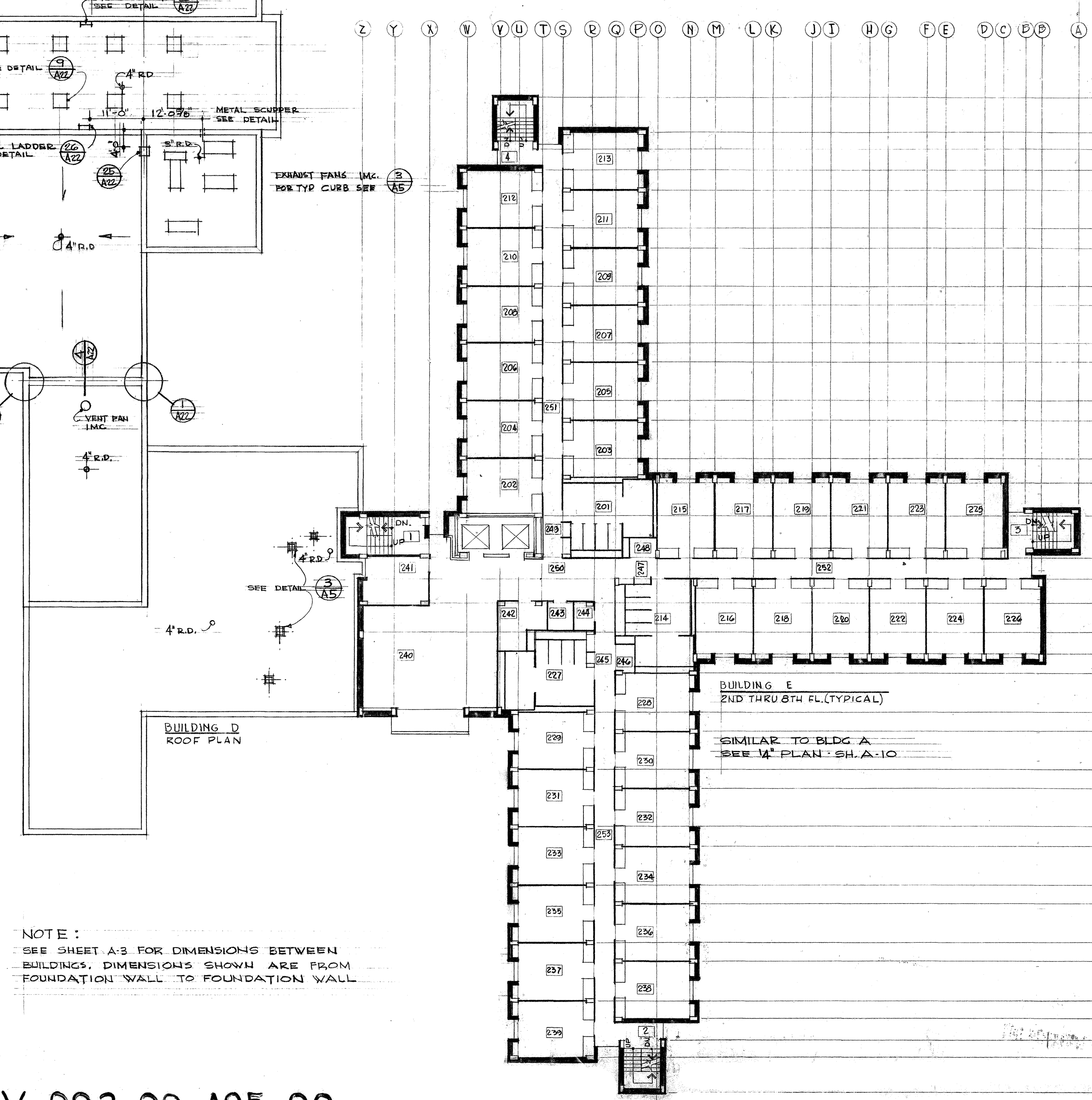
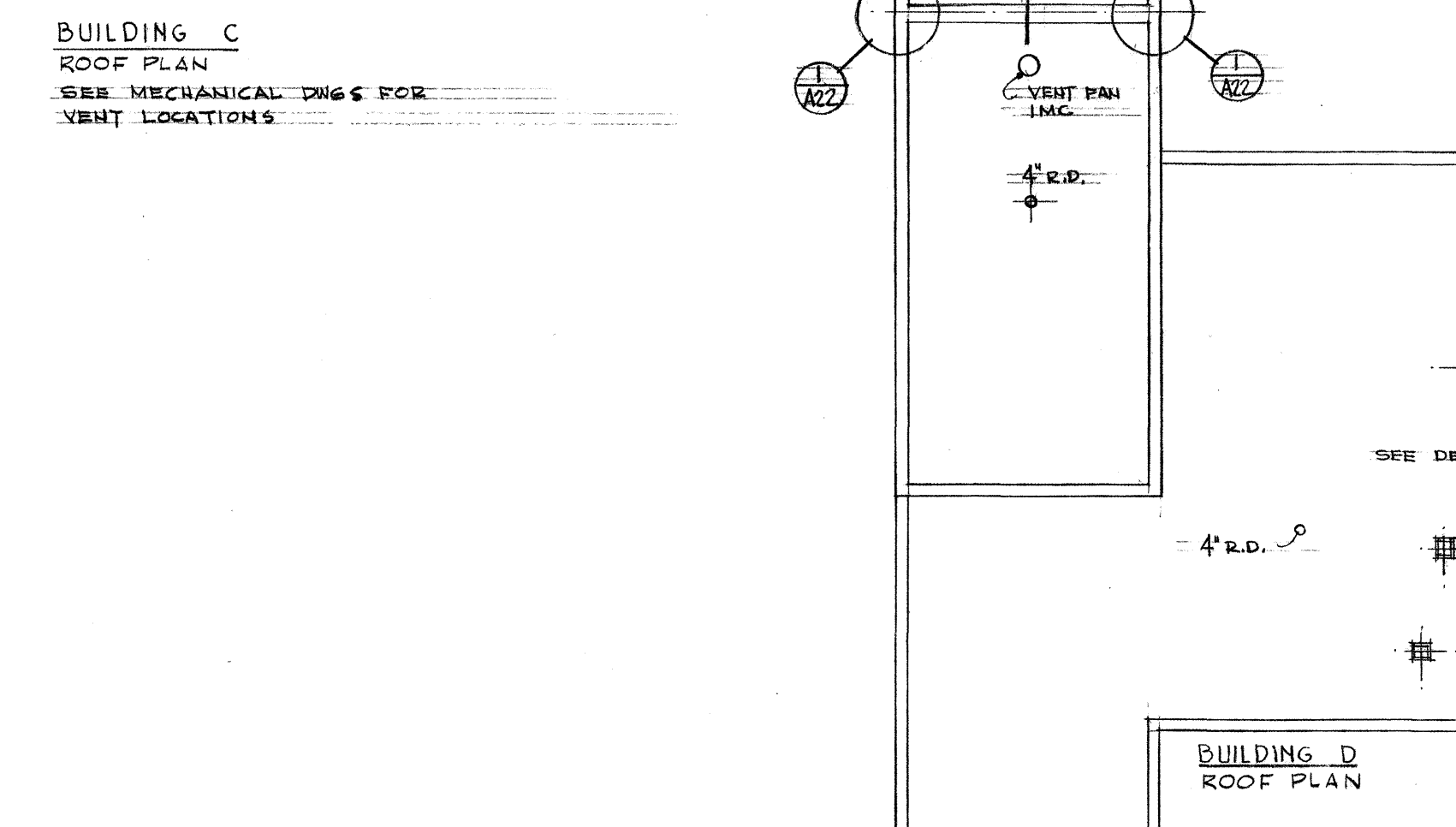
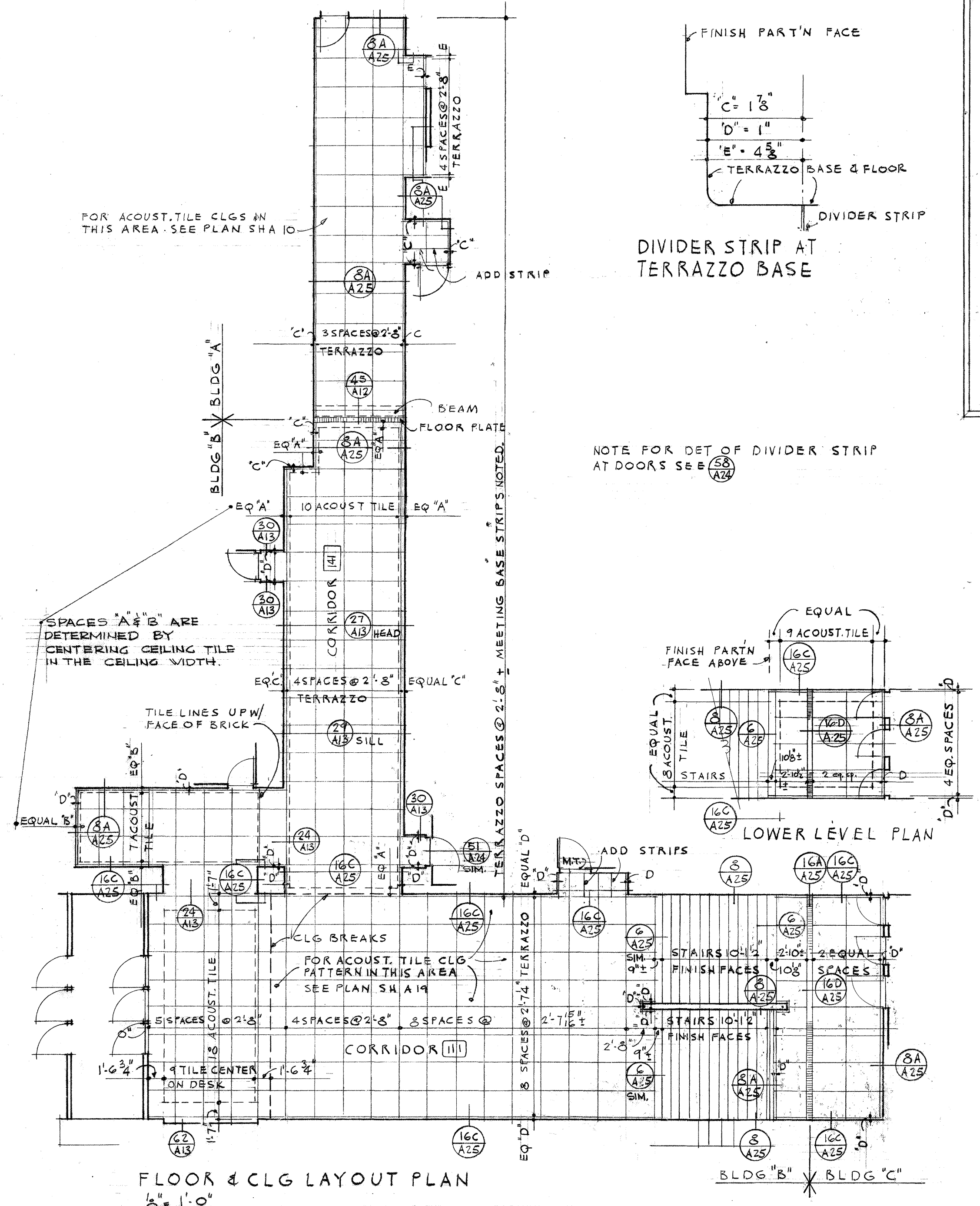
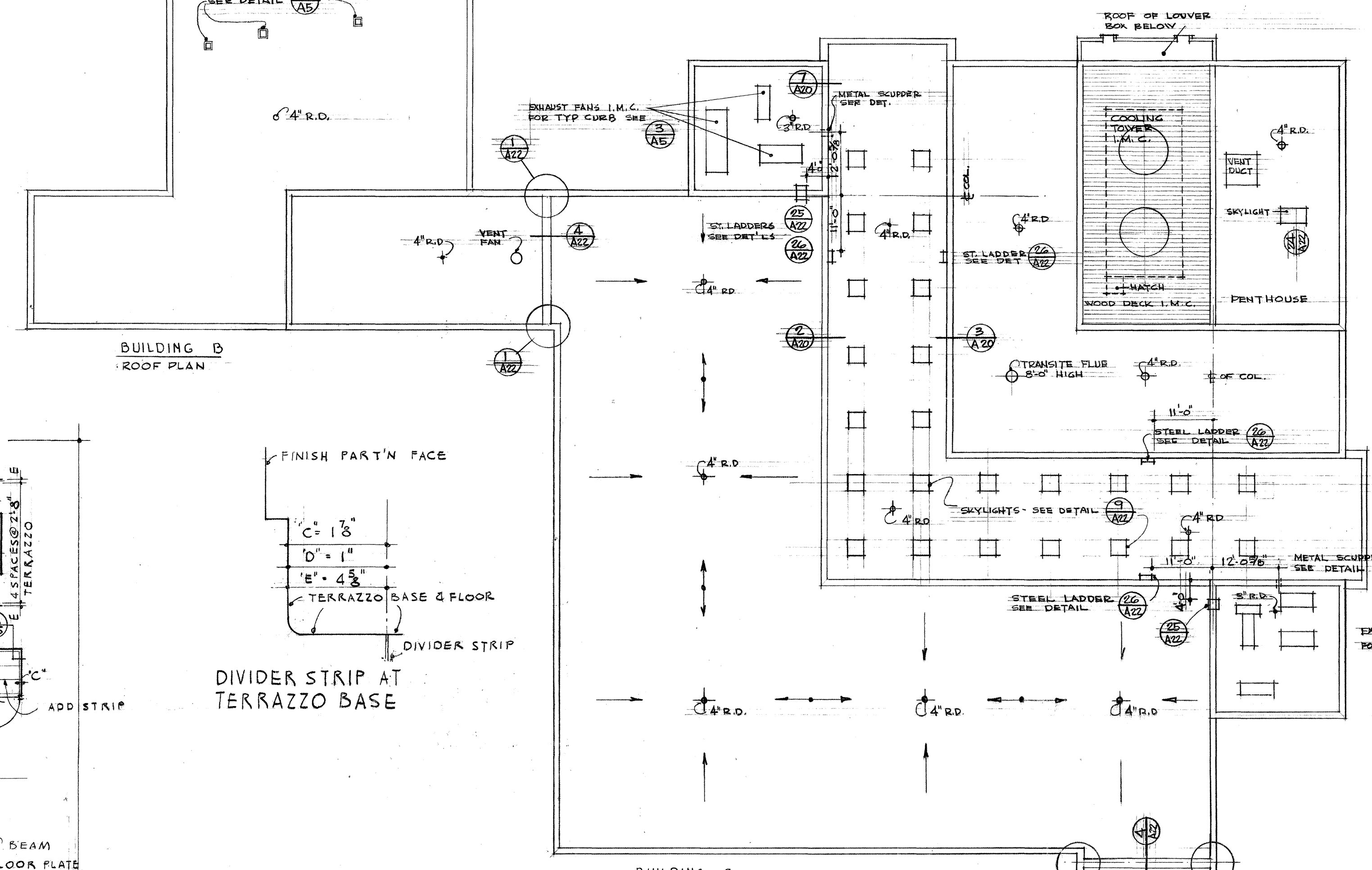
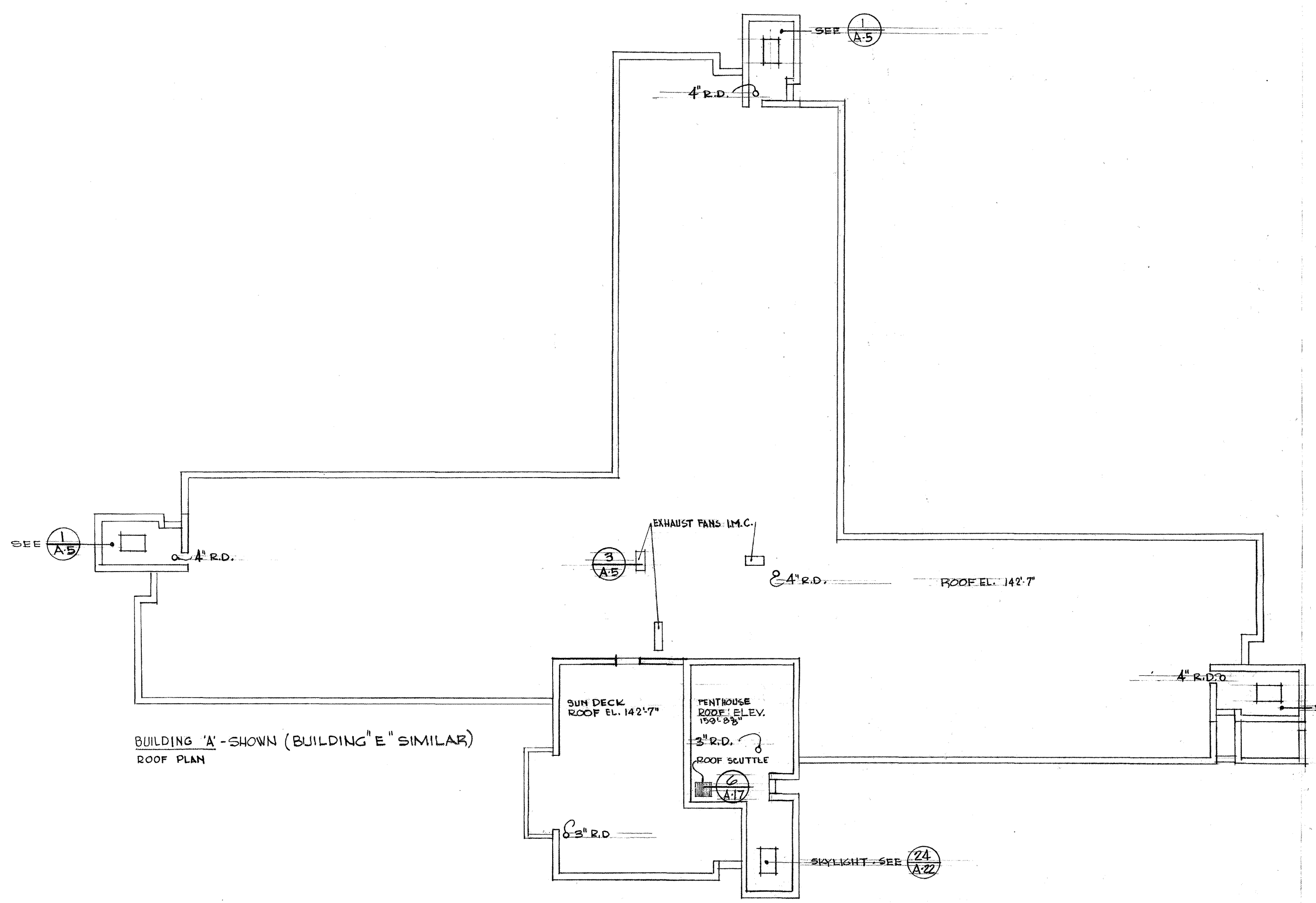
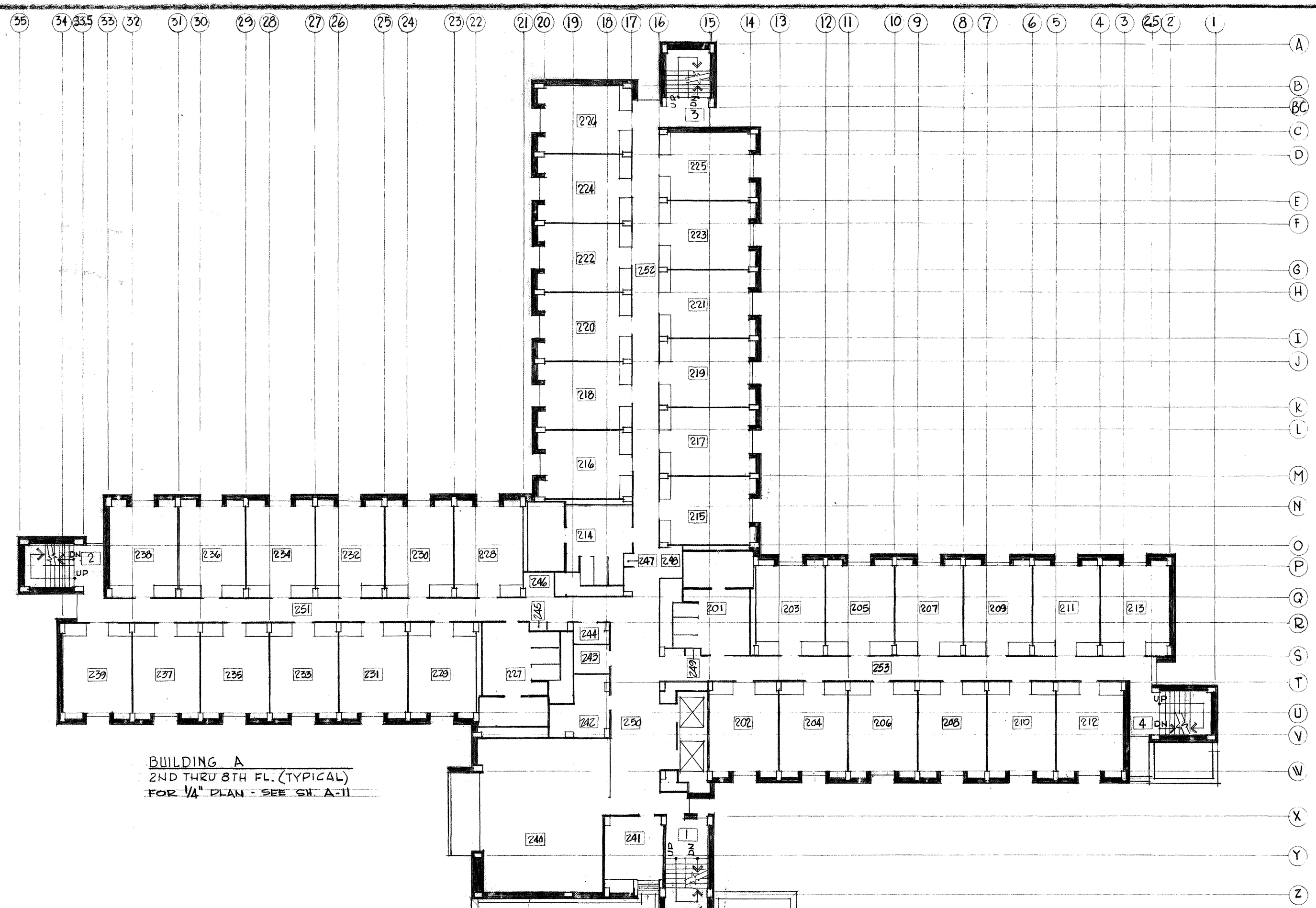
STRUCTURAL ENGINEER  
 MECHANICAL ENGINEER  
 FOOD SERVICE CONSULTANT

ISSUED MARCH 22, 61  
 REVISED

1



PROJECT NO. CR - MO - 77 (C)  
 GEORGE F. HELLMUTH ARCHITECTS  
 NUMBER A-122  
 ISSUED MARCH 22, 62  
 REVISED  
 HELLMUTH, OBATA & KASSABAUM, INC.  
 ARCHITECTS  
 ST. LOUIS, MISSOURI  
 JOHN P. NIX  
 JOHN D. FALVEY  
 FLAMBERT & FLAMBERT  
 STRUCTURAL ENGINEER  
 MECHANICAL ENGINEER  
 FOOD SERVICE CONSULTANT  
 DORMITORIES & A CAFETERIA BUILDING FOR THE UNIVERSITY OF MISSOURI  
 COLLEGE AVE. & ASHLAND GRAVEL ROAD, COLUMBIA, MISSOURI  
 BASEMENT PLAN - BLDG. A - E  
 LOWER PLAN - BLDG. C, CRAWL SPACE BLDG. B - D  
 AV 092 00 A03 00



NOTE:  
SEE SHEET A-3 FOR DIMENSIONS BETWEEN BUILDINGS. DIMENSIONS SHOWN ARE FROM FOUNDATION WALL TO FOUNDATION WALL

1 PLAN AT ROOF - STAIRS 2,3&4  
SCALE 1/4" = 1'-0"

2 DETAIL - SCUPPER  
SCALE 1/2" = 1'-0"

3 TYPICAL ROOF CURB EXHAUST FAN  
SCALE 1/2" = 1'-0"

4 TYPICAL DORMITORY WALL PANEL FINISH  
SCALE: 3/4" = 1'-0"

5 SECTION (TYP)  
SCALE 3/4" = 1'-0"

6 SECT. AT STAIRS  
SCALE 3/4" = 1'-0"

7/8/9/10/11/12/13/14/15/16/17/18/19/20/21/22/23/24/25/26/27/28/29/30/31/32/33/34/35

1/4" TYPE FLOOR PLAN, 2ND THRU 8TH FL., ROOF PLAN, BLDG. C  
DORMITORIES & A CAFETERIA BUILDING  
FOR THE UNIVERSITY OF MISSOURI  
COLLEGE AVE. & ASHLAND GRAVEL ROAD, COLUMBIA, MISSOURI

HELLMUTH, OBATA & KASSABAUM, INC.  
ARCHITECTS  
ST. LOUIS, MISSOURI

JOHN P. NIX  
STRUCTURAL ENGINEER

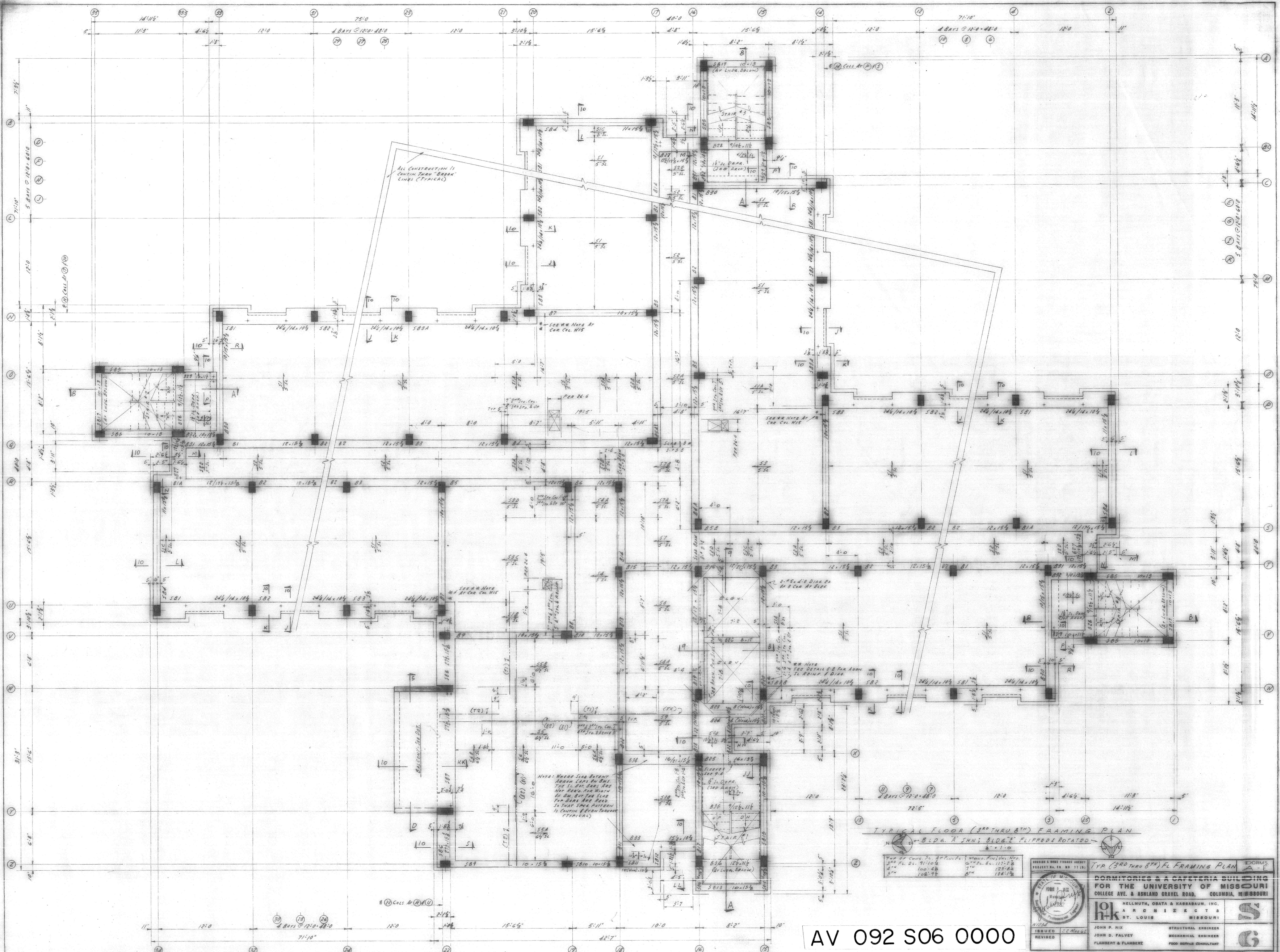
JOHN D. FALVEY  
MECHANICAL ENGINEER

FLAMBERT & FLAMBERT  
FOOD SERVICE CONSULTANT

ISSUED: MARCH 22, 62  
REVISED

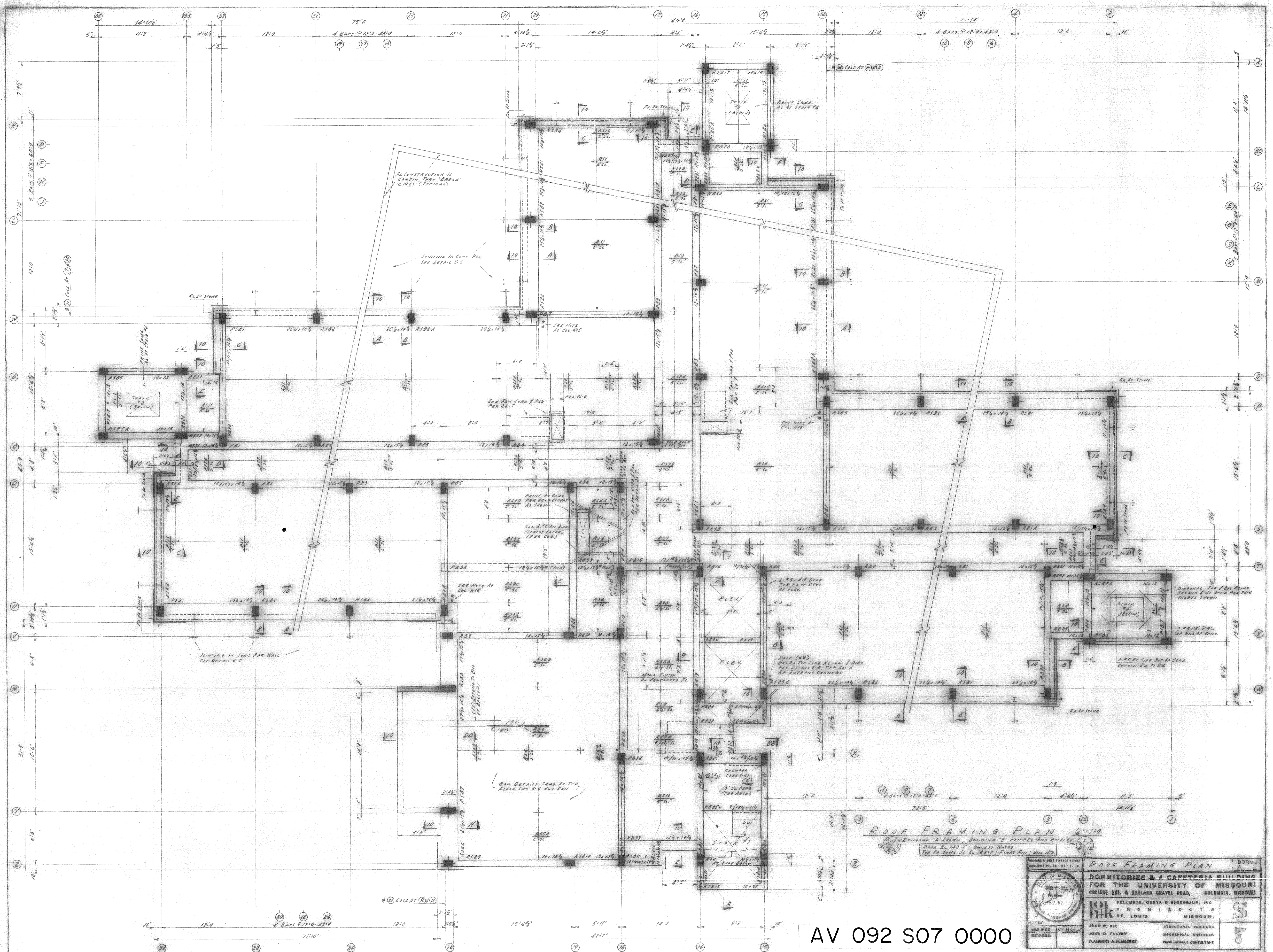
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ADDED JUNE 1, 1958 FOR REFERENCE USE ONLY



AV 092 S06 0000

	<b>TYP. (3RD THRU 8TH) FL. FRAMING PLAN</b> DORMS. A-F	
	<b>DORMITORIES &amp; CAFETERIA BUILDING</b> FOR THE UNIVERSITY OF MISSOURI COLLEGE AVE. & ASHLAND GRAVEL ROAD, COLUMBIA, MISSOURI	
HELLMUTH, OBATA & KASSABAUM, INC. ARCHITECTS ST. LOUIS, MISSOURI		
JOHN P. NIX ISSUED 22 MAR 66 REVISION	JOHN D. FALVEY FLAMBERT & FLAMBERT	STRUCTURAL ENGINEER MECHANICAL ENGINEER FOOD SERVICE CONSULTANT



AV 092 S07 0000

**ROOF FRAMING PLAN**

DORMS A - E

**ROOF FRAMING PLAN**

**DORMITORIES & CAFETERIA BUILDING**  
**FOR THE UNIVERSITY OF MISSOURI**  
 COLLEGE AVE. & ASHLAND GRAVEL ROAD, COLUMBIA, MISSOURI

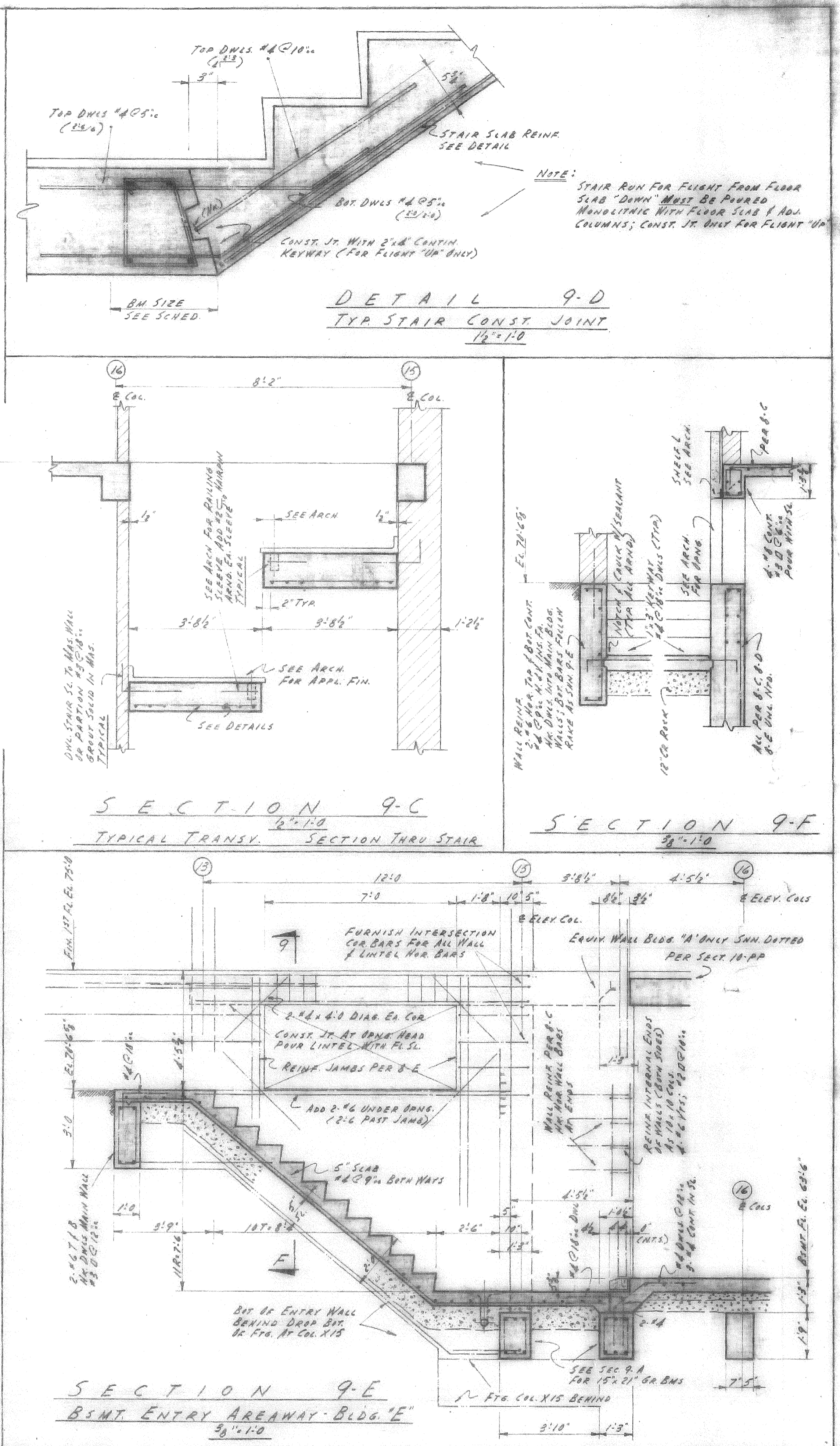
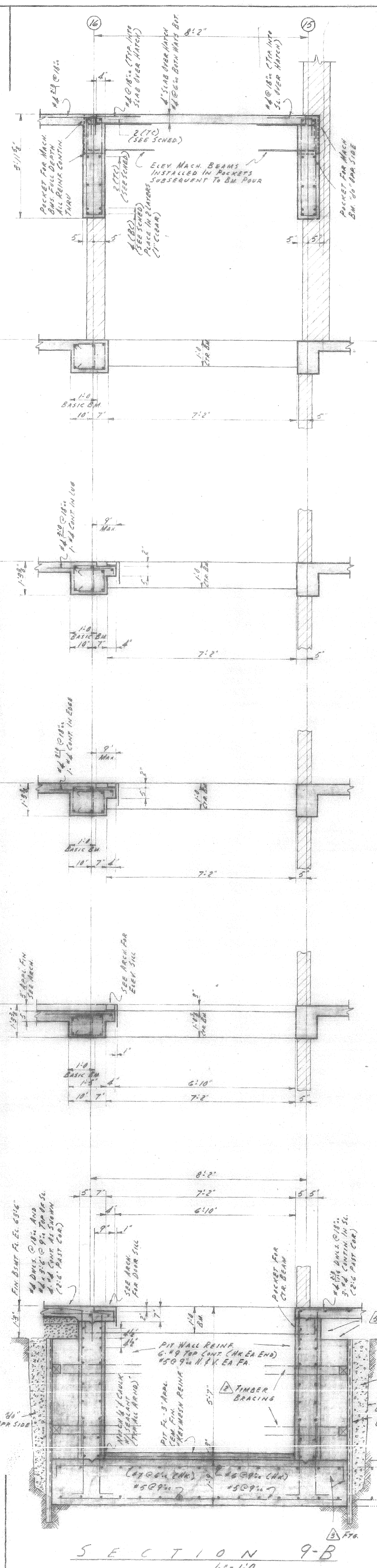
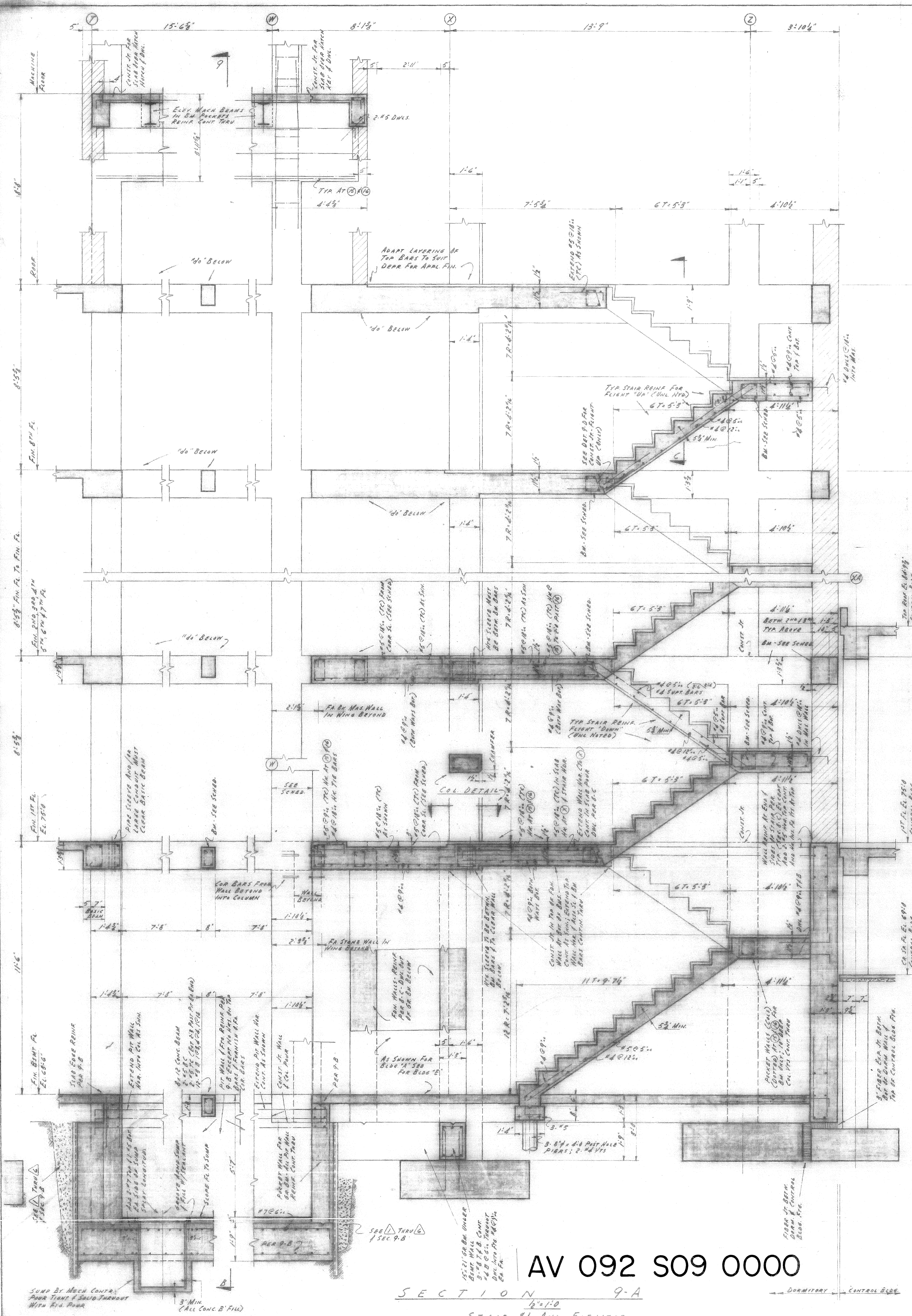
**HOK**  
 HELLMUTH, OBATA & KASSABAUM, INC.  
 ARCHITECTS  
 ST. LOUIS, MISSOURI

JOHN P. HIX  
 DESIGNER

JOHN D. PALVEY  
 FLAMING & FLAMING

STRUCTURAL ENGINEER  
 MECHANICAL ENGINEER  
 FOOD SERVICE CONSULTANT

DESIGNED BY MISSOURI ARCHITECTS ASSOCIATION  
 NOVEMBER, 1952



**SPECIAL REQUIREMENTS AT ELEV. PIT FTGS. (BLDGS. 'A' & 'E' MAIN ELEV. ONLY)**

**GENERAL:** CONDUCT ALL OPERATIONS TO ASSURE SOUND BEARING FOR ALL FOOTINGS AT VICINITY OF ELEV. PITS AND PERFORM WORK USING REINFORCING OF FOOTINGS ADJACENT TO PIT AND INCLUDING (BUT NOT LIMITED TO) THE FOLLOWING:

**OPERATIONS:**

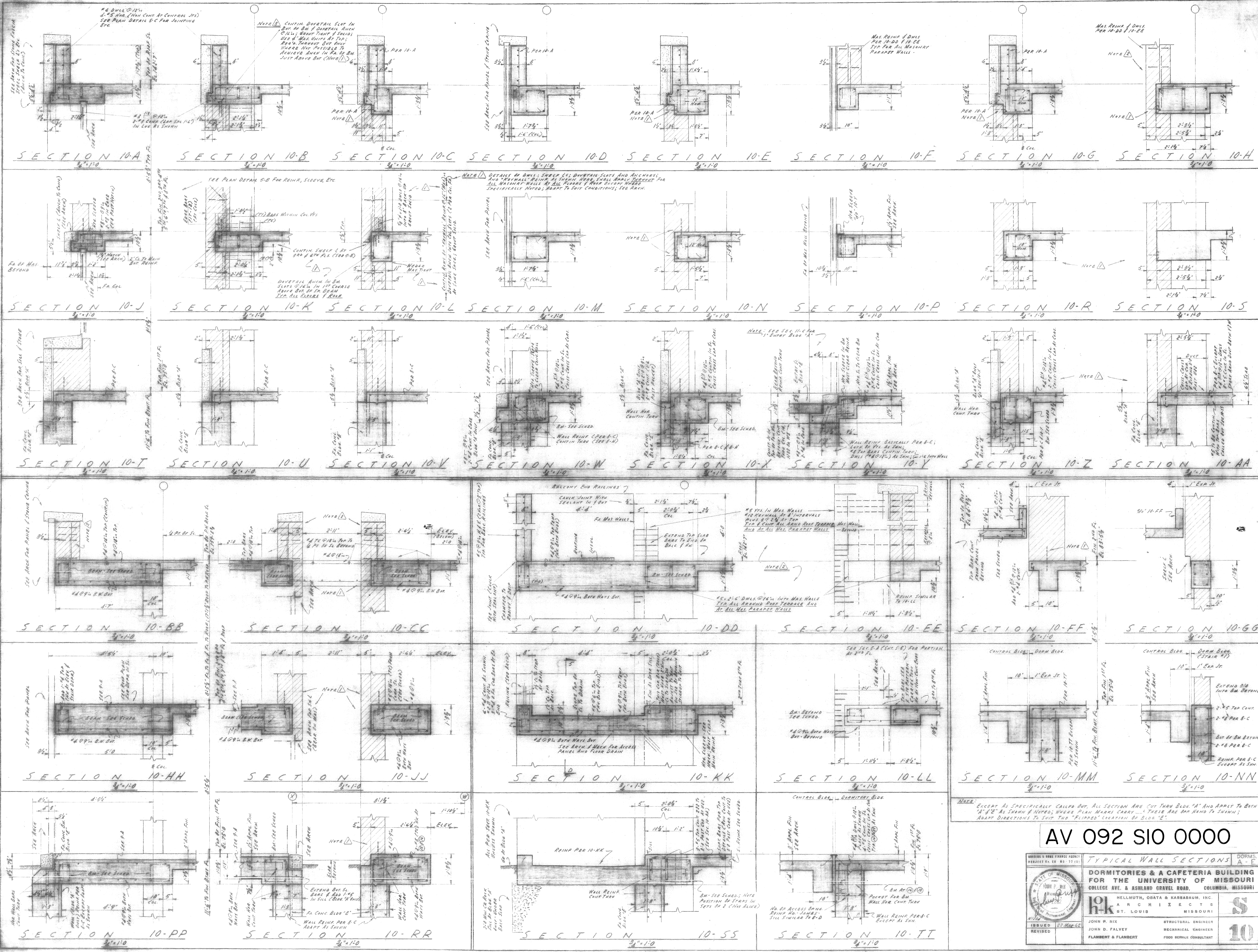
- ▲ PIT EXCAVATIONS MUST BE HEAT AND CLEAN WITH OVERSIZ (BEYOND FOOTINGS) OF 5" TO 9" TO A LEVEL 6" ABOVE BOTTOM OF PIT; NO DIRT (FOR PIT QUEST) PERMITTED; REMOVE LAR 6" TO BEARING LEVEL BY HAND FOR PIT. ALL REQUIREMENTS STAFF 3-12 BUT DELAY FULL WORK UNTIL SCHEDULE IS IN PLACE AND COVERED; IN LOCAL SAND STRONG IS ENCOUNTERED ABOVE BEARING LEVEL THE EXCAVATION SHALL BE STOPPED AT TOP OF SAND UNTIL SHEETING IS DRIVEN IN PLACE AND COVERED.
- ▲ INITIAL HEAVY BRICKS SHALL FROM SHEETING CONTINUOUS AND TIGHT ROUND ENTIRE FOOTING WITH BOTTOM DESIGN IN PLACE BELOW BOTTOM OF PIT; SPACE WITH CROCKETED TIMBER WHOLELS AND LOW BEARING CONSTRUCTED WITH MINIMUM RIGIDITY TO PREVENT DEFLECTIONS; DRIVE SHEETS PLAINS FROM TOP OF SAND STRONG (IF ENCOUNTERED) PER.
- ▲ POOR FOOTINGS THAT RESIST SHEETING; BEARING MUST REMAIN IN PLACE; POOR TO FOLLOW BOTTOM COVER OR PARTIAL (ON SAND GR) DESIGN PRESSURE ON ELEV. FTGS. IS 4.0 OR AND SAND BEARING IS PERMISSIBLE.
- ▲ BRICK FILL BETWEEN SHEETING AND EXCAV. WITH CONCRETE FOR FULL HEIGHT & EXTENT; REMOVE ALL COARSE SAND, DEBRIS, AND ALL SORTS OF DISPERSED PORTIONS OF LOOSE SOIL BOTH IN SAND OF FULL STRONG BEFORE FILLING WITH CONCRETE; BEARING MUST REMAIN IN PLACE.
- ▲ POOR PIT WALLS THAT NO SOLID BRICKS SHEETING; BEARING WHOLELS TO REMAIN IN PLACE AND BE CONCRETE IN BEARING STRIPS TO BE REMOVED AS CONCRETE POUR REACHES A LEVEL 12" ABOVE TRUSS HOLES IN FORM PLUGS AND CONCRETE RE-WEIGHTED AND COMPACTED.
- ▲ TIMELY CONSTRUCTION IS IMPERATIVE TO PROTECT EXCAV WITH EARTH DAM AND TERRACLIN AT ALL TIMES UNTIL COMPLETION OF.

AV 092 S09 0000

SECTION 9-A  
STAIR #1 AND ELEVATOR

SECTION 9-B

		<b>STAIR #1 &amp; ELEV. SECTIONS</b>	
<b>DORMITORIES &amp; CAFETERIA BUILDING FOR THE UNIVERSITY OF MISSOURI</b> COLLEGE AVE. & ASHLAND GRAVEL ROAD, COLUMBIA, MISSOURI			
JOHN P. NIX ARCHITECTS ST. LOUIS, MISSOURI			
JOHN D. FALVEY FLAMBERT & FLAMBERT		STRUCTURAL ENGINEER MECHANICAL ENGINEER FOOD SERVICE CONSULTANT	



AV 092 SIO 0000

	TYPICAL WALL SECTIONS		DORMS A-E
	<b>DORMITORIES &amp; A CAFETERIA BUILDING</b> FOR THE UNIVERSITY OF MISSOURI COLLEGE AVE. & ASHLAND GRAVEL ROAD, COLUMBIA, MISSOURI		
JOHN P. NIX JOHN D. FALVEY FLAMBERT & FLAMBERT			
STRUCTURAL ENGINEER MECHANICAL ENGINEER FOOD SERVICE CONSULTANT			

BEAM AND SLAB SCHEDULE

Table with columns: MARK, SIZE, REINFT, TOP CL, BOTTOM CL, REMARKS. Contains typical floor beams and spandrel beams.

Table with columns: MARK, SIZE, REINFT, TOP CL, BOTTOM CL, REMARKS. Contains typical floor beams.

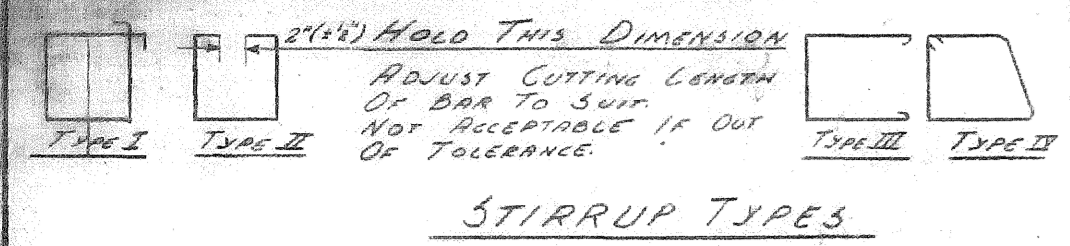
Table with columns: MARK, SIZE, REINFT, TOP CL, BOTTOM CL, REMARKS. Contains typical floor slabs.

Table with columns: MARK, SIZE, REINFT, TOP CL, BOTTOM CL, REMARKS. Contains typical floor slabs.

Table with columns: MARK, SIZE, REINFT, TOP CL, BOTTOM CL, REMARKS. Contains special first floor beams.

Table with columns: MARK, SIZE, REINFT, TOP CL, BOTTOM CL, REMARKS. Contains special first floor slabs.

Table with columns: MARK, SIZE, REINFT, TOP CL, BOTTOM CL, REMARKS. Contains special second floor beams.



SEE TOP BAR BENDING DETAIL FOR BAR BENDING RECESSED...

STIRRUP TYPES

TYPICAL FLOOR BEAMS

TYPICAL FLOOR SPANDEL BEAMS

TYPICAL FLOOR SLABS

SPECIAL FIRST FLOOR BEAMS

SPECIAL FIRST FLOOR SLABS

SPECIAL SECOND FLOOR BEAMS

AV 092 S13 0000

BEAM/SLAB SCHEDULE, DORMS A-E, DORMITORIES & CAFETERIA BUILDING FOR THE UNIVERSITY OF MISSOURI...

BEAM AND SLAB SCHEDULE (CONT.)

Table with columns: REIN, MIN. SIZE, TOP CL. OF COLUMN, REMARKS. Contains beam schedule data for various levels and locations.

Table with columns: REIN, MIN. SIZE, TOP CL. OF COLUMN, REMARKS. Contains beam schedule data for various levels and locations.

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NOTE: (1) REFER TO DETAIL OF SPECIAL ORDER DRAWING FOR THE CONCRETE BEAMS - SEE 43-12

Project information block including: BEAM & SLAB SCHEDULE (CONT.), DORMITORIES & CAFETERIA BUILDING FOR THE UNIVERSITY OF MISSOURI, ARCHITECTS: HELLMUTH, OBATA & KASSABAUM, INC., MISSOURI, JOHN P. NIX, JOHN D. FALVEY, PLUMBING & PLUMBING, FOOD SERVICE CONSULTANT.