

Architecture
Graphic Design
Interior Design
Planning
Programming



THIS WORK WAS PREPARED BY
ME OR UNDER MY SUPERVISION.

Project
**HONUAKAHA AFFORDABLE
HOUSING COMPLEX**

STRUCTURAL NOTES

CONCRETE

- A. ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE LATEST ACI STANDARD 301, UNLESS OTHERWISE NOTED.
- B. MINIMUM CONCRETE COMPRESSIVE STRENGTH (AT 28 DAYS)
1. SLABS ON-GRADE = 3,000 PSI
 2. FOOTINGS = 3,000 PSI
 3. ALL OTHER CONCRETE = 4,000 PSI
 4. PRESTRESSED CONCRETE MEMBERS = 6,000 PSI
- C. REINFORCING STEEL
1. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185.
 2. PRESTRESSING STRANDS - 1/2" DIAMETER, SEVEN-WIRE 270 KSI STRANDS.
 3. DEFORMED REINFORCING BARS:
 - a. BEAM STIRRUP AND COLUMN TIE BARS SHALL CONFORM TO ASTM A615, GRADE 40. U.O.N. ON THE CONCRETE BEAMS AT L2 LEVEL.
 - b. ALL OTHER BARS SHALL CONFORM TO ASTM A615, GRADE 60.
 4. DEFORMED REINFORCING BARS TO BE WELDED SHALL CONFORM TO ASTM A706, GRADE 60.
 5. WELDING OF STEEL REINFORCING BARS SHALL BE IN ACCORDANCE WITH THE LATEST ADOPTED AWS D1.4. THE WELDING PROCEDURE AND STEEL WELDABILITY MUST BE COMPATIBLE. WHERE WELDING IS REQUIRED, THE CHEMICAL ANALYSIS IN ADDITION TO THE STANDARD ASTM REQUIREMENTS FOR THE REINFORCING BARS MUST BE PROVIDED EXCEPT FOR BARS CONFORMING TO ASTM A706.
- D. CONCRETE PROTECTION FOR REINFORCING
1. FOR FOOTINGS AND WHERE CONCRETE DEPOSITED ON GRADE = 3" CLEAR
 2. FORMED SURFACE EXPOSED TO EARTH OR WEATHER
 - a. #6 BARS AND LARGER = 2" CLEAR
 - b. #5 BARS AND SMALLER = 1-1/2" CLEAR
 3. FORMED SURFACES NOT EXPOSED TO EARTH OR WEATHER
 - a. SLABS AND WALLS = 3/4" CLEAR
 - b. BEAMS AND COLUMNS = 1-1/2" CLEAR
- E. MINIMUM LAPSED TIME BEFORE FORM REMOVAL
1. FOOTING SIDE FORMS = 24 HOURS
 2. WALLS, BEAMS AND COLUMNS SIDE FORMS = 3 DAYS
 3. SLABS AND BEAMS BOTTOM FORMS = 14 DAYS
- F. CONSTRUCTION JOINTS FOR SLABS-ON-GRADE SHALL NOT BE SPACED MORE THAN 15 FEET IN ANY DIRECTION. NO PANEL SHALL EXCEED 300 SQUARE FEET IN TOTAL AREA.

II. STRUCTURAL STEEL

- A. ALL STRUCTURAL STEEL WORK SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF "SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS - ALLOWABLE STRESS DESIGN" OF THE AISC, AND THE LATEST ADOPTED AWS D1.1 "STRUCTURAL WELDING CODE" UNLESS OTHERWISE NOTED.
- B. CODES AND STANDARDS
1. AISC "CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES."
 2. AISC "SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS - ALLOWABLE STRESS DESIGN."
 3. AWS D1.1 "STRUCTURAL WELDING CODE."
- C. MATERIALS
1. ALL STRUCTURAL BOLTS SHALL BE HOT-DIP GALVANIZED AND CONFORM TO THE FOLLOWING SPECIFICATIONS:
 - a. ASTM A325, TYPE 1 FOR STEEL TO STEEL CONNECTIONS.
 - b. ASTM A307, GRADE A FOR BOLTS EMBEDDED IN CONCRETE OR MASONRY.
 2. STUD BOLT SHEAR CONNECTORS SHALL CONFORM TO ASTM A108.
 3. NUTS SHALL CONFORM TO THE FOLLOWING SPECIFICATIONS:
 - a. ASTM A563, GRADE A MINIMUM FOR ASTM A307 BOLTS.
 - b. ASTM A563, GRADE C FOR ASTM A325 UNGALVANIZED BOLTS.
 - c. ASTM A563, GRADE DH FOR ASTM A325 GALVANIZED BOLTS.
 4. WASHERS, WHERE REQUIRED, SHALL CONFORM TO ASTM F436, TYPE 1 AND SHALL BE HOT-DIP GALVANIZED. WASHERS ARE REQUIRED WHERE BOLT HOLES ARE SLOTTED.
 5. ALL COLD-FORMED PURLINS SHALL CONFORM TO ASTM A570 OR ASTM A572 WITH A MINIMUM YIELD STRESS OF 50,000 PSI.
 - a. ALL PURLINS TO STEEL SUPPORT MEMBER CONNECTIONS SHALL BE DESIGNED TO WITHSTAND THE WIND LOADS AS SPECIFIED IN THESE NOTES.
 6. ALL PIPE SECTIONS SHALL CONFORM TO ASTM A53, GRADE B, WITH A MINIMUM YIELD STRESS OF 35,000 PSI.
 7. ALL STRUCTURAL TUBING SECTIONS SHALL CONFORM TO ASTM A500, GRADE A, WITH A MINIMUM YIELD STRESS OF 33,000 PSI.
 8. ALL OTHER ROLLED SHAPE SECTIONS AND MISCELLANEOUS PLATES, BARS AND RODS SHALL CONFORM TO ASTM A36.
 9. WELDS SHALL HAVE A MINIMUM ULTIMATE STRENGTH OF 70,000 PSI.
- D. ALL BOLTS SHALL BE SHEAR BEARING SNUG-TIGHT TYPE WITH THREADS NOT REQUIRED TO BE EXCLUDED FROM THE SHEAR PLANE UNLESS OTHERWISE NOTED.

- E. WHETHER SHOWN ON THE DRAWINGS OR NOT, THE CONTRACTOR SHALL BE RESPONSIBLE IN PROVIDING FOR CONNECTIONS AT ALL INTERMEDIATE AND END SUPPORTS. THE CONNECTIONS SHALL BE CAPABLE OF SUPPORTING ALL APPLICABLE VERTICAL AND LATERAL LOADS. IF IN DOUBT, THE CONTRACTOR SHALL CONTACT THE ENGINEER FOR CLARIFICATION.
- F. CONTRACTOR MAY CHANGE WELDED CONNECTIONS TO BOLTED CONNECTIONS SUBJECT TO APPROVAL BY THE ENGINEER.

III. METAL ROOFING AND METAL DECKING

- A. METAL DECKING SHALL BE A MINIMUM OF 22 GAGE, 1-1/2 INCHES DEEP AND SHALL CONFORM TO ASTM A446, GRADE A SPECIFICATION WITH A MINIMUM YIELD STRENGTH OF 33,000 PSI. THE STEEL SHEETS SHALL BE COATED WITH A ZINC COATING CONFORMING TO ASTM A529 CLASS G-60.
- B. THE DECKING SHALL BE "TYPE B, FORMLOK" AS MANUFACTURED BY VERCO MANUFACTURING, INC. OR AN APPROVED EQUIVALENT. THE VERTICAL WEBS AND TOP FLUTES SHALL BE DEFORMED TO PROVIDE A STRUCTURAL BOND WITH THE CONCRETE. DECKING FOR ROOF SHALL BE VENTED TYPE.
- C. THE DECKING SHALL BE COMPOSITE TYPE WITH VERTICAL WEBS AND TOP FLUTES DEFORMED TO PROVIDE A STRUCTURAL BOND WITH THE CONCRETE.
- D. METAL DECKING SHALL BE FASTENED TO THE STEEL FRAMEWORK AT THE ENDS AND AT ALL INTERMEDIATE SUPPORTS BY 5/8 INCH DIAMETER PUDDLE WELDS SPACED NOT MORE THAN 12 INCHES ACROSS THE WIDTH OF THE DECKING UNIT WHERE TWO UNITS ABUT, EACH UNIT SHALL BE SO FASTENED TO THE STEEL FRAMING.
- E. SHORING SHALL BE PROVIDED AS RECOMMENDED BY THE METAL DECKING MANUFACTURER.
- F. UNLESS OTHERWISE SHOWN, DECK OPENINGS FROM 6 TO 12 INCHES IN DIAMETER SHALL BE REINFORCED WITH A GALVANIZED STEEL PLATE NOT LESS THAN 6 GAGE THICK. REINFORCING PLATE SHALL EXTEND NOT LESS THAN 6 INCHES ON EACH SIDE OF OPENINGS. OPENINGS GREATER THAN 12 INCHES IN ANY DIMENSION SHALL BE FRAMED WITH STRUCTURAL STEEL MEMBERS DESIGNED TO SUPPORT THE APPLIED DESIGN LOADS.

IV. OPEN WEB STEEL JOISTS

- A. OPEN WEB STEEL JOISTS SHALL CONFORM TO THE MINIMUM REQUIREMENTS OF THE STEEL JOIST INSTITUTE (SJI) SPECIFICATIONS OF LATEST ADOPTION UNLESS OTHERWISE NOTED. MANUFACTURER'S CERTIFICATION THAT JOISTS COMPLY WITH SJI SPECIFICATIONS SHALL BE SUBMITTED.
- B. OPEN WEB STEEL JOISTS SHALL BE SUPPLIED BY A MANUFACTURER THAT IS CERTIFIED TO MANUFACTURE THE SPECIFIED PRODUCT BY THE STEEL JOIST INSTITUTE. PROOF OF CERTIFICATION SHALL BE SUBMITTED.
- C. JOISTS SHALL BE DESIGNED TO SUPPORT THE MINIMUM DESIGN LOADS.
- D. JOISTS DELIVERED TO THE SITE SHALL NOT BE MODIFIED IN ANY WAY UNLESS APPROVED BY THE MANUFACTURER IN WRITING.

V. CONCRETE MASONRY UNITS

- A. ALL UNITS SHALL BE LOAD-BEARING TYPE AND SHALL CONFORM TO THE REQUIREMENTS OF ASTM C90, "HOLLOW LOAD-BEARING CONCRETE MASONRY UNITS" GRADE N-11.
- B. THE MINIMUM COMPRESSIVE STRENGTH OF CONCRETE MASONRY UNITS SHALL BE 2,000 PSI BASED ON THE NET AREA. NET AREA COMPRESSIVE STRENGTH SHALL BE DETERMINED IN ACCORDANCE WITH UBC STANDARD NO. 24-7.
- C. ALL CMU WALLS SHALL BE REINFORCED AS INDICATED ON THE PLANS. PROVIDE DUR-O-WAL HORIZONTAL JOINT REINFORCING AT 24 INCHES ON CENTER. IN ADDITION, WHERE NOT SHOWN ON PLANS, ADD 1-#6 VERTICAL BAR AT CORNERS, AT INTERSECTIONS, AT ENDS, AND IN CELLS ADJACENT TO ALL DOOR AND WINDOW OPENINGS. BARS SHALL EXTEND THE FULL HEIGHT OF THE WALL WITH FOOTING DOWELS PROVIDED.
- D. PROVIDE "K-O" BLOCKS WITH 2-#5 CONTINUOUS REINFORCING BARS AS SHOWN ON THE DRAWINGS. LAP CONTINUOUS BARS A MINIMUM OF 24 INCHES. BEND END BARS A MINIMUM OF 18 INCHES AT CORNERS AND INTERSECTIONS.
- E. COMPRESSIVE STRENGTH FOR GROUT SHALL BE 2,500 PSI MINIMUM AT 28 DAYS. ALL CELLS CONTAINING REINFORCING BARS SHALL BE GROUTED SOLID.
- F. REINFORCING STEEL BARS SHALL BE GRADE 60 AS INDICATED IN CONCRETE SECTION.

VI. FOUNDATION

THESE FOUNDATION NOTES WERE BASED ON RECOMMENDATIONS CONTAINED IN A SOILS INVESTIGATION REPORT BY FEWELL GEOTECHNICAL ENGINEERING, LTD. DATED AUG. 18, 1993, AND MEMORANDA DATED NOV. 4, 1993 AND JAN. 4, 1994. THE REPORT AND MEMORANDA SHALL BE CONSIDERED AS PART OF THE CONSTRUCTION DOCUMENTS AND ITS RECOMMENDATIONS SHALL BE IMPLEMENTED UNLESS OTHERWISE DIRECTED BY THE SOILS ENGINEER.

- A. BOTTOM OF FOOTINGS SHALL BE AS INDICATED ON THE DRAWINGS AND SHALL BEAR ON FIRM ON-SITE SOILS OR PROPERLY COMPACTED FILL.
- B. ALL FILL AND BACKFILL MATERIAL SHALL BE PLACED IN LOOSE LIFTS NOT EXCEEDING 8 INCHES AND COMPACTED TO AT LEAST 90 PERCENT OF THE MAXIMUM DRY DENSITY AS DETERMINED BY THE ASTM D1557-91 PROCEDURE "C".
- C. ANY LOOSE OR SOFT SOIL ENCOUNTERED DURING EXCAVATION OR SUBGRADE COMPACTION OPERATIONS SHALL BE REMOVED TO FIRM SOIL AND REPLACED WITH PROPERLY COMPACTED FILL.
- D. IT IS IMPORTANT THAT ALL BACKFILL MATERIAL NEXT TO FOOTINGS AND UTILITY TRENCHES ARE PROPERLY COMPACTED IN ORDER TO PROVIDE PROPER LATERAL EARTH RESISTANCE FOR STRUCTURES AND TO MINIMIZE SETTLEMENT OF GROUND SURFACE OVER TRENCHES AND ADJACENT TO FOOTINGS.
- E. IT IS RECOMMENDED THAT A SOILS ENGINEER BE PRESENT TO OBSERVE FOOTING EXCAVATIONS PRIOR TO PLACEMENT OF REINFORCING STEEL AND CONCRETE.
- F. ALL BOTTOM OF FOOTING EXCAVATIONS SHALL BE THOROUGHLY TAMPED PRIOR TO PLACEMENT OF REINFORCING STEEL.
- G. THE ENGINEER SHALL BE NOTIFIED TO INSPECT THE EXCAVATION PRIOR TO PLACEMENT OF ANY REINFORCING STEEL OR CONCRETE.
- H. THE CONTRACTOR SHALL BE AWARE THAT SHORING MAY BE REQUIRED FOR THE CONSTRUCTION OF SEVERAL FOOTINGS TO PREVENT WATER FROM ENTERING INTO THE EXCAVATIONS. THE COST OF USING TREMIE CONCRETE FOR THESE FOOTINGS AS REQUIRED SHALL BE INCLUDED IN THE CONTRACTOR'S BID.

VII. DESIGN CRITERIA

A. CODES AND STANDARDS

1. UNIFORM BUILDING CODE - 1991 EDITION
2. ACI STANDARD 318-89 WITH SUPPLEMENTS
3. AISC "MANUAL OF STEEL CONSTRUCTION," 9TH EDITION

B. DESIGN LIVE LOADS

1. ROOF = 20 PSF
2. STORAGE AREA = 125 PSF
3. PARKING AREA = 60 PSF
4. RECREATION AREA = 100 PSF
5. LIVING UNITS AREA = 40 PSF
6. LOBBY AREA = 100 PSF

C. BASIC WIND SPEED

= 80 MPH (EXPOSURE C)

D. SEISMIC ZONE

= 2A

G. SOIL PARAMETERS (ASSUMED VALUES)

1. ALLOWABLE BEARING PRESSURE = 5,000 PSF
2. ACTIVE EQUIVALENT FLUID PRESSURE:
 - a. ABOVE GROUNDWATER UNRESTRAINED = 40 PCF
RESTRAINED = 55 PCF
 - b. BELOW GROUNDWATER UNRESTRAINED = 75 PCF
RESTRAINED = 90 PCF
3. PASSIVE EQUIVALENT FLUID PRESSURE = 350 PCF
4. COEFFICIENT OF FRICTION = 0.55

GENERAL NOTES

APPROVED
This set of plans and specifications MUST be filed with the building department prior to construction. It is unlawful to construct or alter or change same or to deviate therefrom without record from the building department.
The Engineer or to be approved by the Building Department.
By: **George K. Nishida**, Professional Engineer, License No. 13684, State of Hawaii.
Witnessed by: **City & County of Honolulu**, Building Safety Division.
50001

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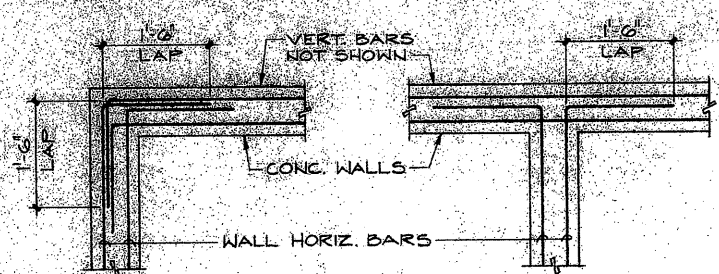
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TYPICAL DETAILS

APPROVED
This set of plans and specifications MUST be at job site during construction. It is unlawful to alter or change same or to delete therefrom without approval from the Building Department.
The stamping of this plan and specifications SHALL NOT be held to permit of or to be a dispensation of the Building Department or State Law.
BUILDING SAFETY DIVISION
Building Department - City & County of Honolulu

Sheet **S-0.02**



© CORNERS **© INTERSECTIONS**

TYP. 8" CONC. WALL LAP DETAIL

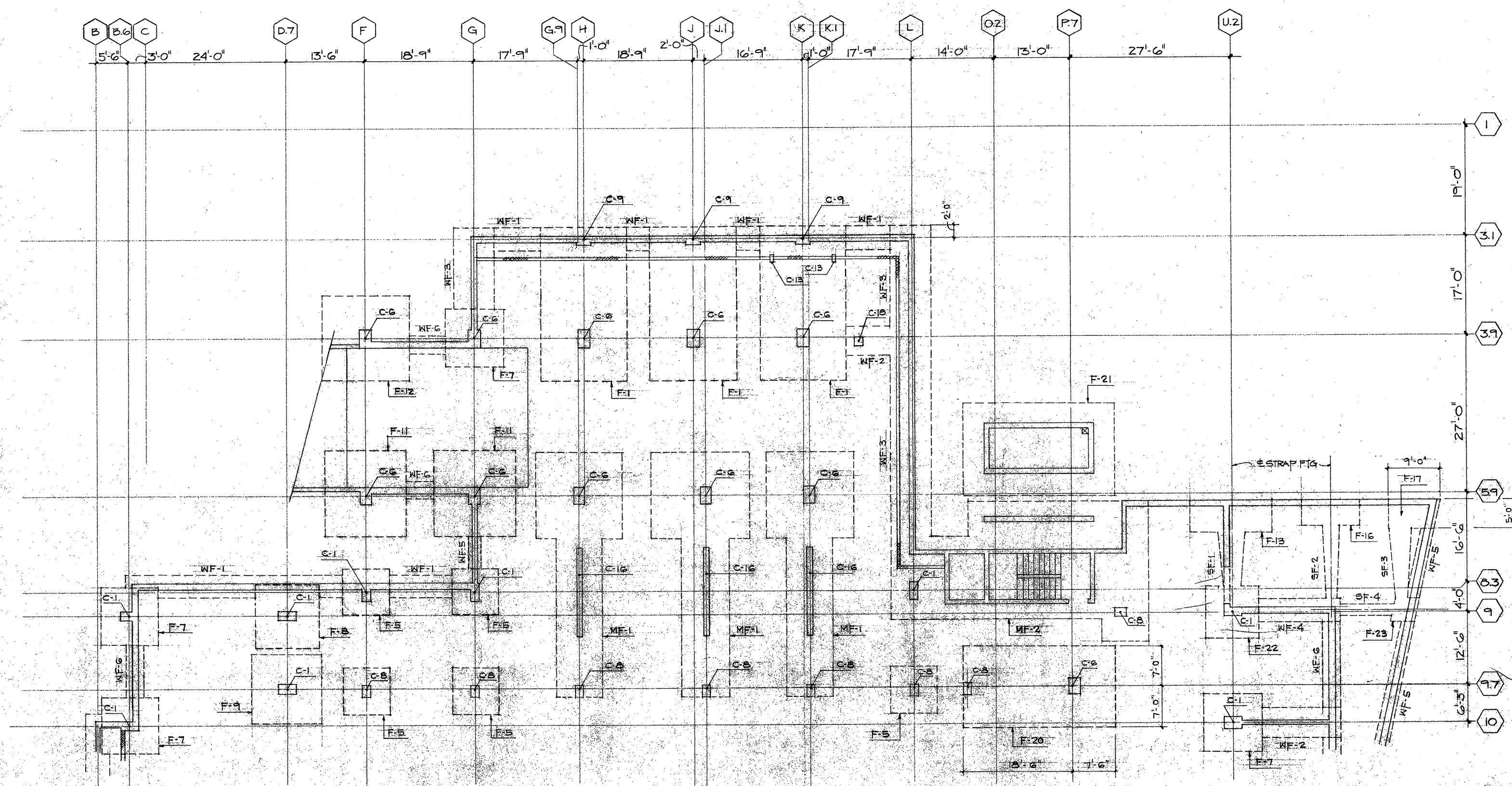
SCALE: 3/4" = 1'-0"

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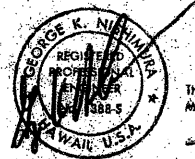
LEVEL P1 PART A FOUNDATION PLAN
SCALE: 1/8"=1'-0"

**LEVEL P1 PART A
FOUNDATION PLAN**

APPROVED
This set of plans and specifications MUST be of full size building
construction. It is unlawful to site or change same, or to execute
therefrom, without approval from the Building Department.
The stamping of this plan and specifications SHALL NOT be
held to permit the engineer or architect to be responsible for the
violation of any City, State or Federal Law.
BUILDING SAFETY DIVISION
Building Department - City & County of Honolulu

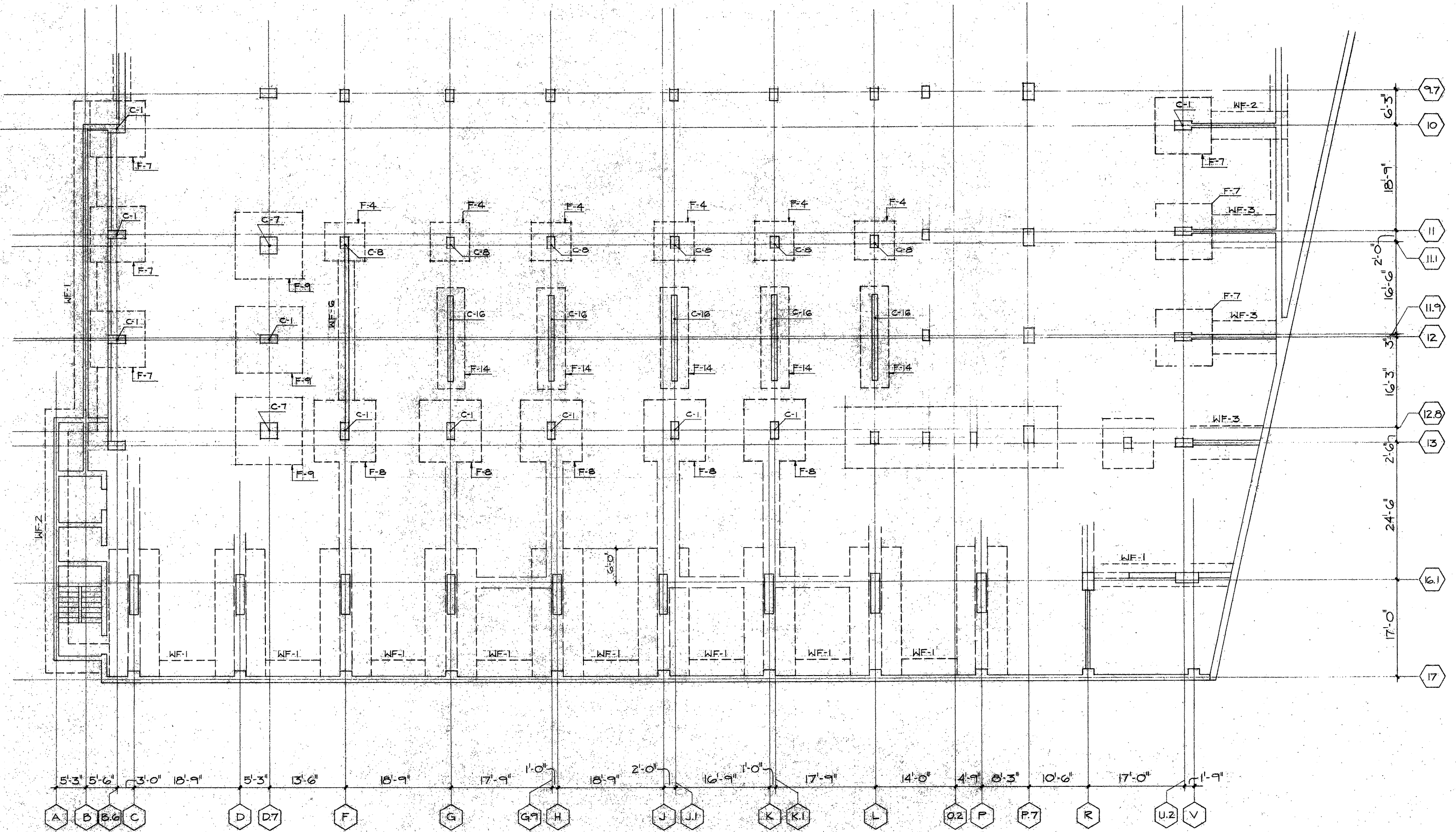
Sheet **S-1.01**

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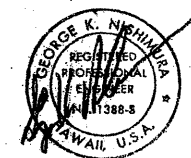
LEVEL P1 PART B FOUNDATION PLAN

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

**LEVEL P1 PART B
FOUNDATION PLAN**

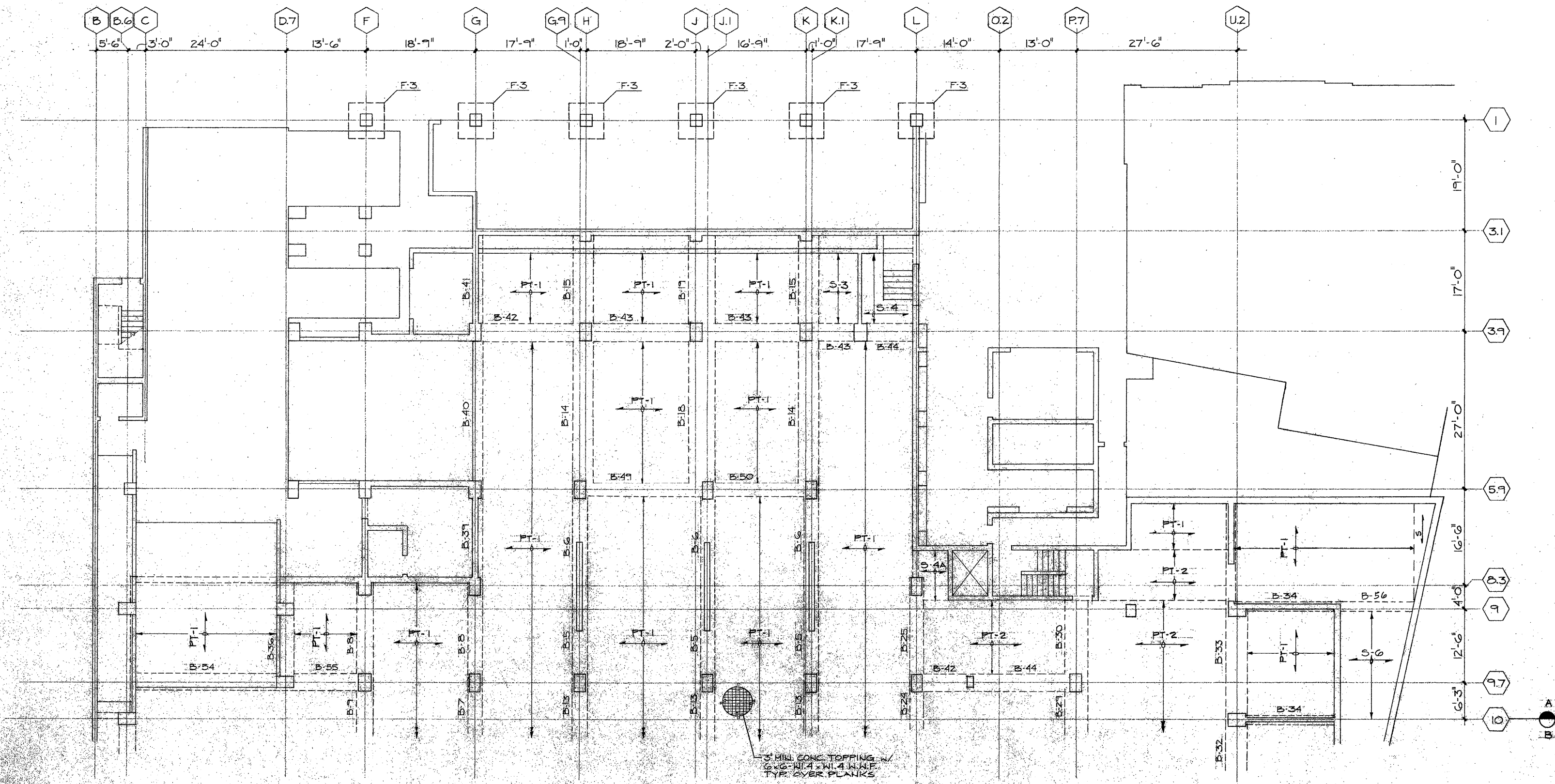
APPROVED
This set of plans and specifications MUST be on file during construction. It is unlawful to alter or change same, or to deviate therefrom. Without approval from the Building Department. The stamping of this set of plans and specifications SHALL NOT be valid unless it is stamped and signed by the Building Department. Building Department - City & County of Honolulu

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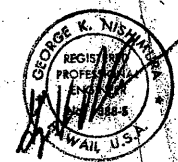
LEVEL P2 PART A FOUNDATION / FRAMING PLAN
SCALE: 1/8" = 1'-0"

- RS-2 3/30/14
- RS-2 3/30/14
- PE-2 4/21/14

**LEVEL P2 PART A
FOUNDATION /
FRAMING PLAN**

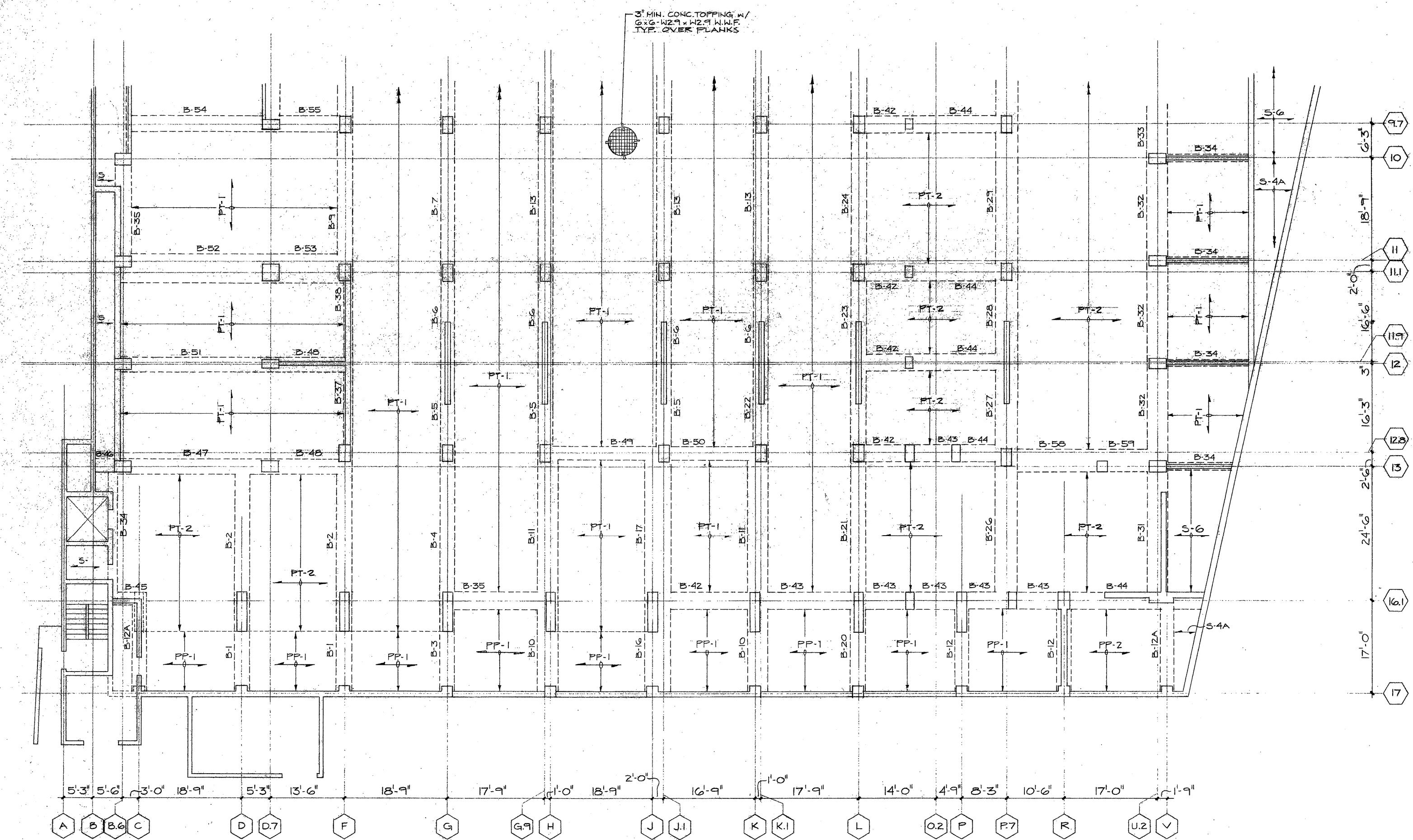
APPROVED
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LEVEL P2 PART B FOUNDATION / FRAMING PLAN
SCALE: 1/8" = 1'-0"

- 1 RS-1 3/11/94 *Isolation Pad*
- 2 RS-2 3/30/94 *Section Bubble*
- 3 PR-7 8/3/94 *Rw. Perimeter Wall*

LEVEL P2 PART B
FOUNDATION /
FRAMING PLAN

APPROVED
This set of plans and specifications MUST be at job site during construction. It is unlawful to alter or change same or to deviate therefrom, without approval from the Building Department.
The stamping of this plan and specifications SHALL NOT be held to permit or to be an approval of the violation of any provision of any City Ordinance or State Law.
BUILDING SAFETY DIVISION
Building Department—City & County of Honolulu

FOOTING SCHEDULE (F)							
FOOTING MARK	FOOTING SIZE	FIG. DEPTH	TOP REINFORCING "A" BARS	"B" BARS	BOTTOM REINFORCING "C" BARS	"D" BARS	REMARKS
F-1	15'-0"x27'-6"	40"	16-#9	28-#6	16-#9	28-#9	
F-2	10'-0"x23'-0"	24"	11-#8	23-#5	11-#8	23-#8	OMIT "B" & "D" BARS @ CF-B FOOTING
F-3	6'-0"x6'-0"	16"	7-#4	7-#4	7-#6	7-#6	
F-4	7'-0"x7'-0"	18"	8-#4	8-#4	8-#7	8-#7	
F-5	8'-0"x8'-0"	20"	9-#5	9-#5	9-#8	9-#8	
F-6	9'-0"x9'-0"	24"	10-#5	10-#5	11-#8	11-#8	
F-7	10'-0"x10'-0"	26"	11-#5	11-#5	11-#8	11-#8	
F-8	11'-0"x11'-0"	28"	12-#5	12-#5	12-#8	12-#8	
F-9	12'-0"x12'-0"	30"	13-#5	13-#5	13-#9	13-#9	
F-11	14'-0"x14'-0"	34"	15-#5	15-#5	15-#9	15-#9	
F-13	5'-6"x14'-0"	30"	6-#5	15-#5	7-#9	15-#5	
F-14	5'-0"x19'-0"	14"	6-#4	20-#4	7-#5	24-#5	
F-15	11'-0"x37'-6"	28"	12-#5	38-#5	12-#8	38-#8	
F-16	4'-0"x10'-0"	24"	5-#5	11-#5	5-#8	11-#5	
F-17	5'-0" VARIES	24"	6-#5	10-#5	6-#6	10-#5	LENGTH VARIES 9'-0" MAX.
F-18	6'-0"x10'-0"	24"	7-#5	11-#5	8-#8	11-#5	
F-19	12'-0"x29'-0"	20"	12-#5	36-#7	12-#5	36-#6	
F-20	14'-0"x26'-0"	34"	15-#9	27-#6	15-#9	27-#9	CENTER FTG. ON HOISTWAY SHAFT
F-21	16'-0"x26'-0"	24"	17-#5	27-#5	17-#9	27-#9	
F-22	9'-0"x9'-0"	24"	10-#5	10-#5	11-#8	11-#8	
F-23	4'-0"x4'-0"	24"			5-#5	5-#5	PARALLELOGRAM SHAPE
F-24	4'-0"x10'-0"	24"			5-#8	11-#8	LENGTH VARIES 10'-0" MIN.
F-26	28'-3"x32'-0"	44"	28-#9	35-#9	28-#9	35-#9	
F-27	18'-0"x27'-4"	36"	19-#6	28-#6	19-#10	28-#10	
F-28	28'-0"x32'-0"	36"	29-#5	40-#8	29-#9	40-#9	
F-29	2'-0"x4'-0"	12"			3-#5	5-#5	
F-30	3'-0"x3'-0"	12"			4-#5	4-#5	
F-31	5'-0"x5'-0"	14"			6-#5	6-#5	
F-32	10'-0"x13'-0"	24"	10-#5	13-#5	10-#8	13-#8	

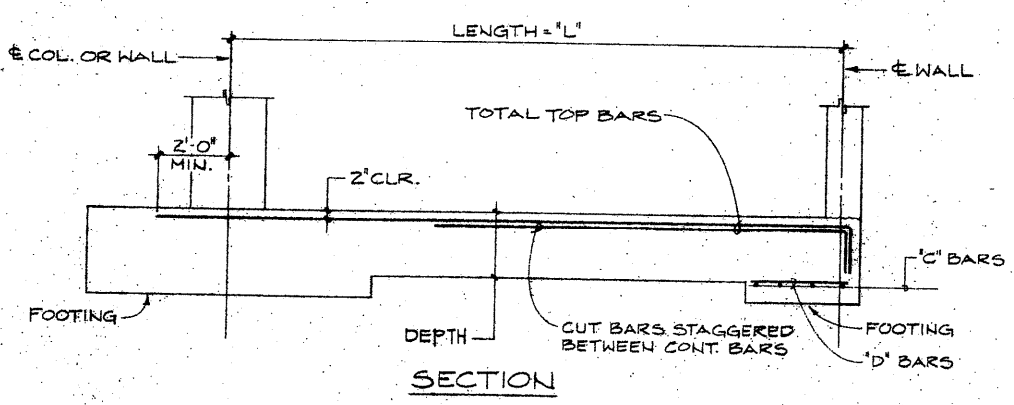
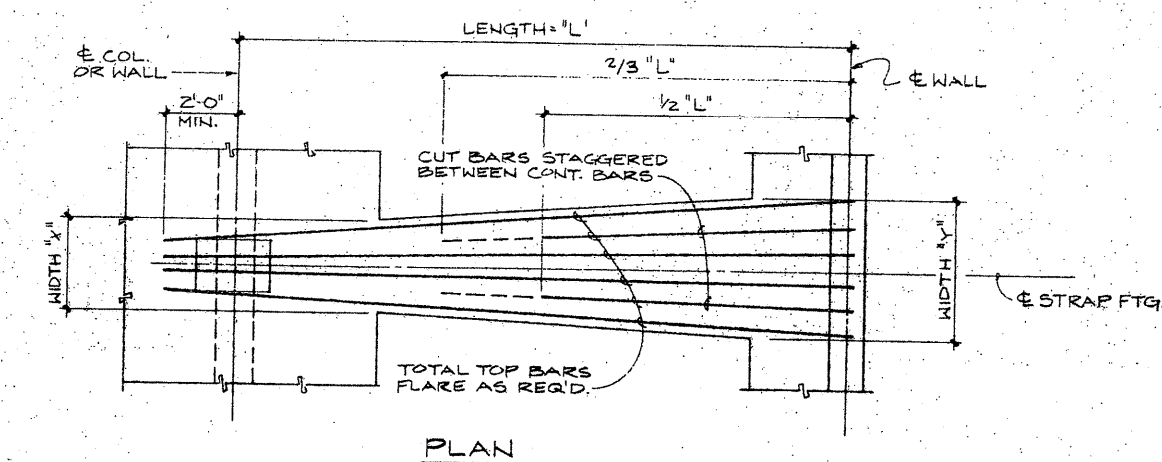
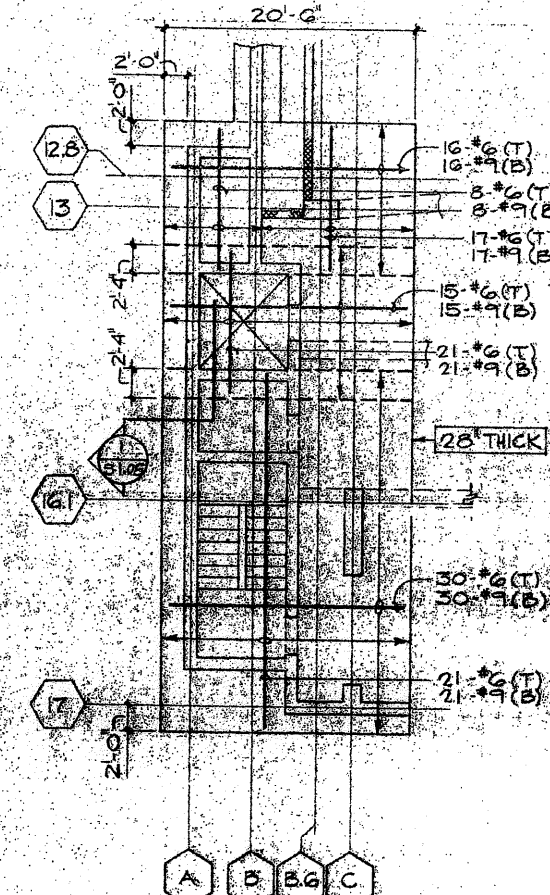
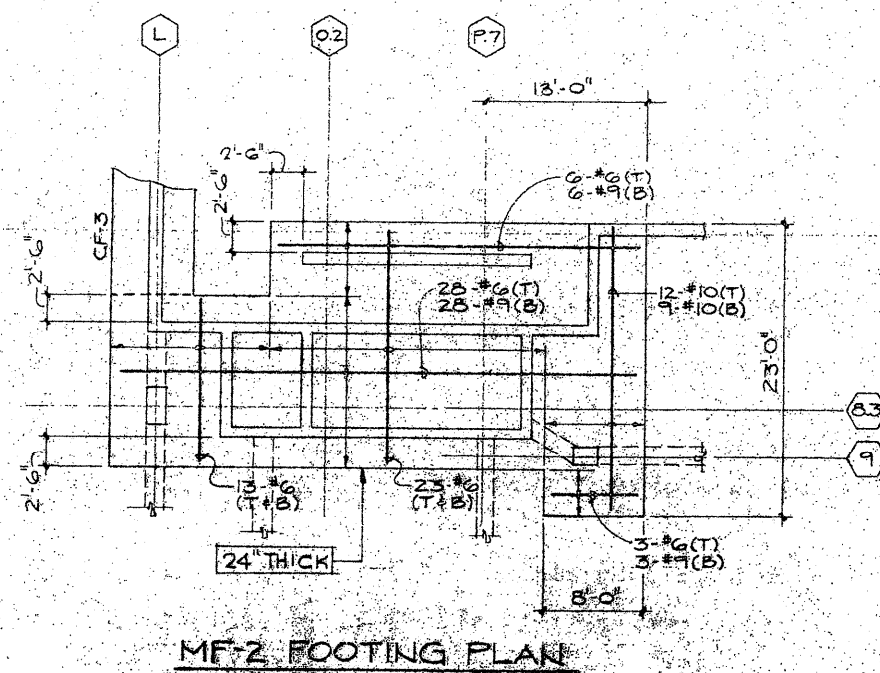
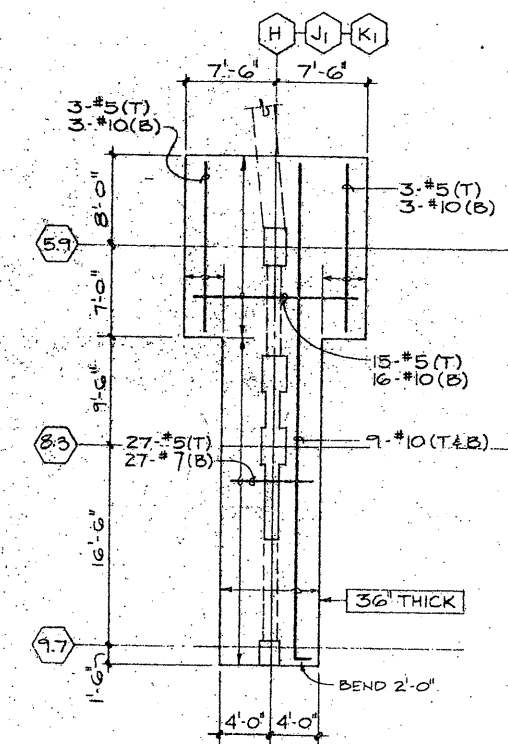
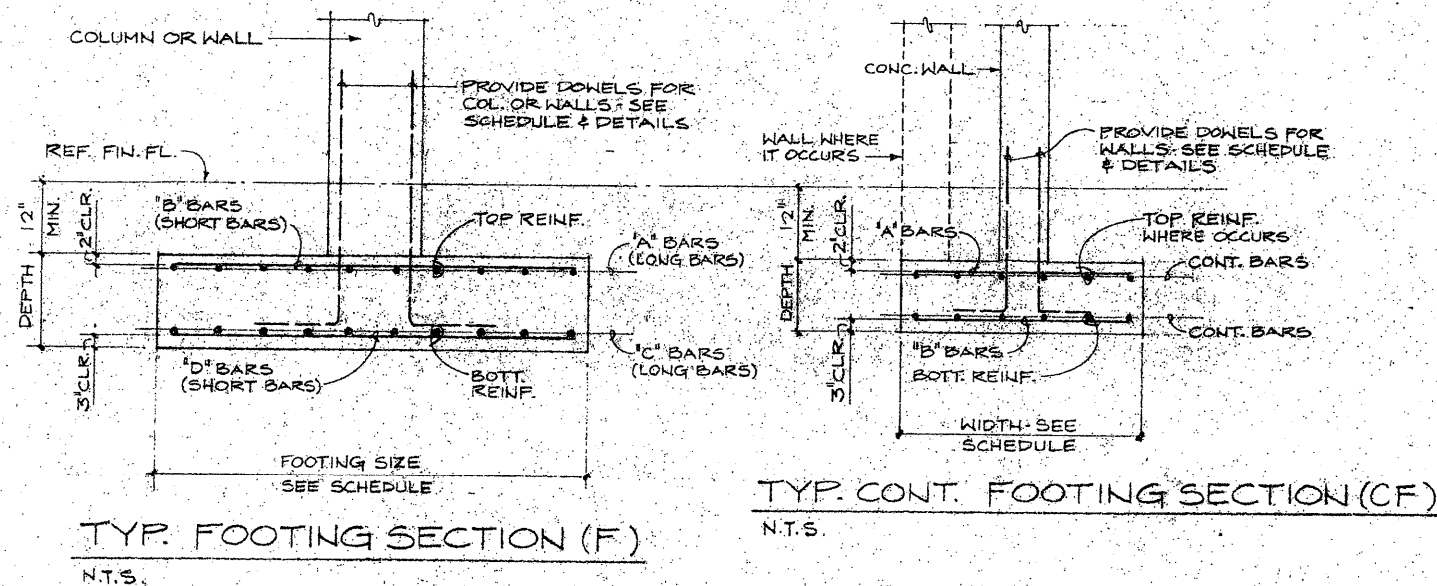
CONT. FOOTING SCHEDULE (CF)

FTG. MARK	FTG. WIDTH	FTG. DEPTH	TOP REINFORCING CONT. BARS	"A" BARS	BOTTOM REINFORCING CONT. BARS	"B" BARS	REMARKS
CF-1	4'-0"	12"			5-#5	#5@12"	
CF-2	5'-0"	14"			7-#5	#5@10"	
CF-3	7'-0"	18"			8-#7	#7@12"	
CF-4	4'-0"	24"	5-#5	#4@12"	6-#5	#5@12"	
CF-5	2'-6"	12"			3-#4	#3@12"	OFFSET WALL 3" FROM E
CF-6	3'-0"	12"			4-#4	#5@12"	
CF-7	6'-0"	20"	7-#6	#5@12"	7-#6	#7@12"	
CF-8	8'-0"	24"	8-#8	#5@12"	8-#8	#8@12"	CONT. BAR SHALL EXTEND THRU F-2 FOOTING, TYP.
CF-9	2'-0"	12"			3-#4	#3@12"	Su. Det. V/S 3.03

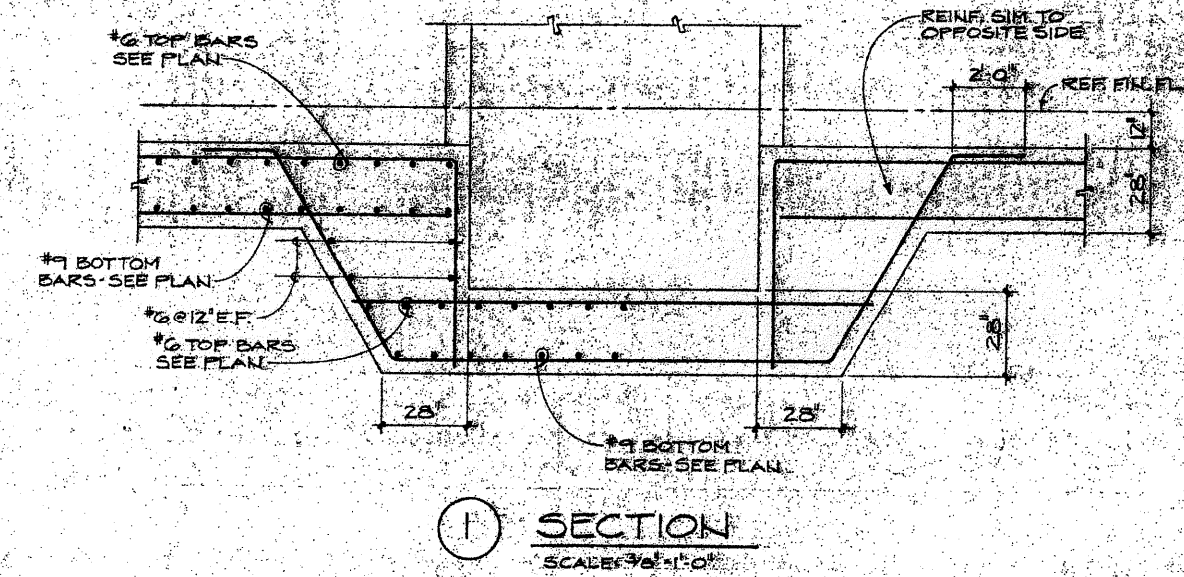
TYP. FOOTING SECTION (F)
N.T.S.

TYP. CONT. FOOTING SECTION (CF)
N.T.S.

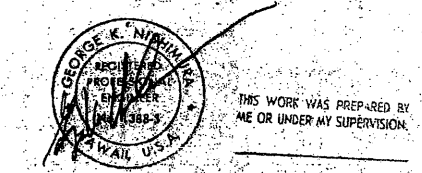
MF-1 FOOTING PLAN
SCALE: 1/8" = 1'-0"



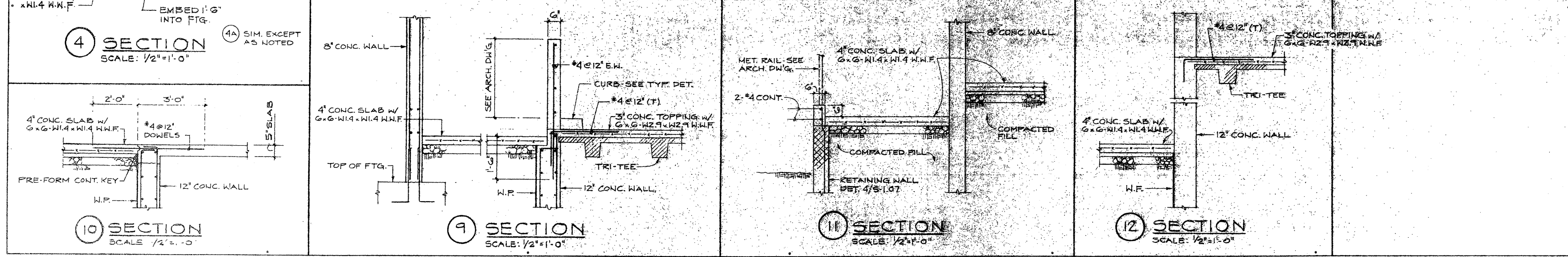
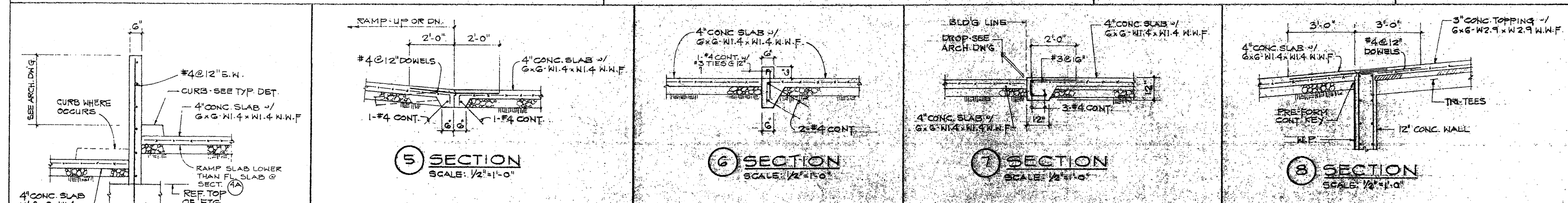
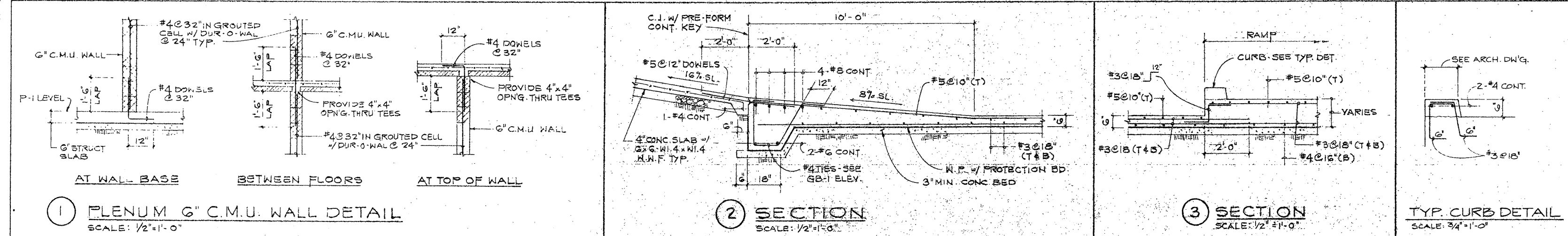
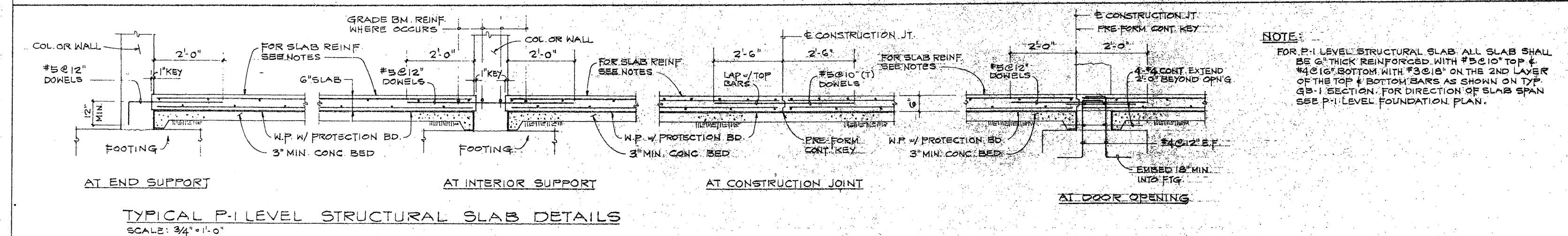
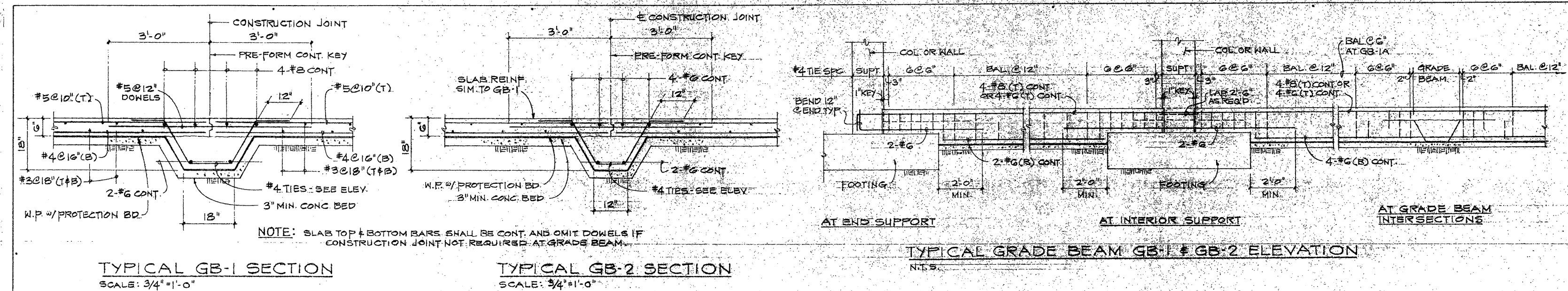
TYP. STRAP FOOTING DETAIL (SF-1)
N.T.S.



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Interior Design
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Programming

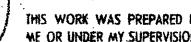


Project
HONOLULU AFFORDABLE HOUSING COMPLEX

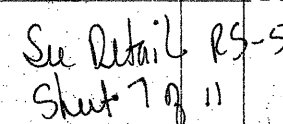


FOUNDATION SECTIONS

DATE: MARCH 1, 1974
APPROVED
This set of plans and specifications MUST be of 100% compliance during construction. It is unlawful to alter or change any part of the plans or specifications without approval from the Building Department. The stamping of this plan and specifications shall NOT be held in violation of any provision of the Building Code of the City and County of Honolulu.



Project
HONUAKAHA AFFORDABLE
HOUSING COMPLEX



1 RS-1 3x4x4 Rev. Conc. Slab
 2 RS-2 3x3x4 " "
 3 RS-2 " Sect. Bubble 4/3x.05
 4 RS-2 " 8x16 Header Beam
 5 RS-3 4x4x4 Rev. Conc. Slab
 + Clarification of
 Dimising wall @ Canal
 6 RS-1 6x6x4 Rev. of Beams
 28-106, 28-67, 28-75

LEVEL L2 PART A
FLOOR FRAMING PLAN

APPROVED

The undersigned hereby certifies that the above named person MUST be at jobsite during construction. It is understood no strike or change of name or to location without written approval from the Building Department.

The signature of the owner, his or her authorized representative shall NOT be required if the person is a resident of the City of St. Louis.

City & County of Hamilton

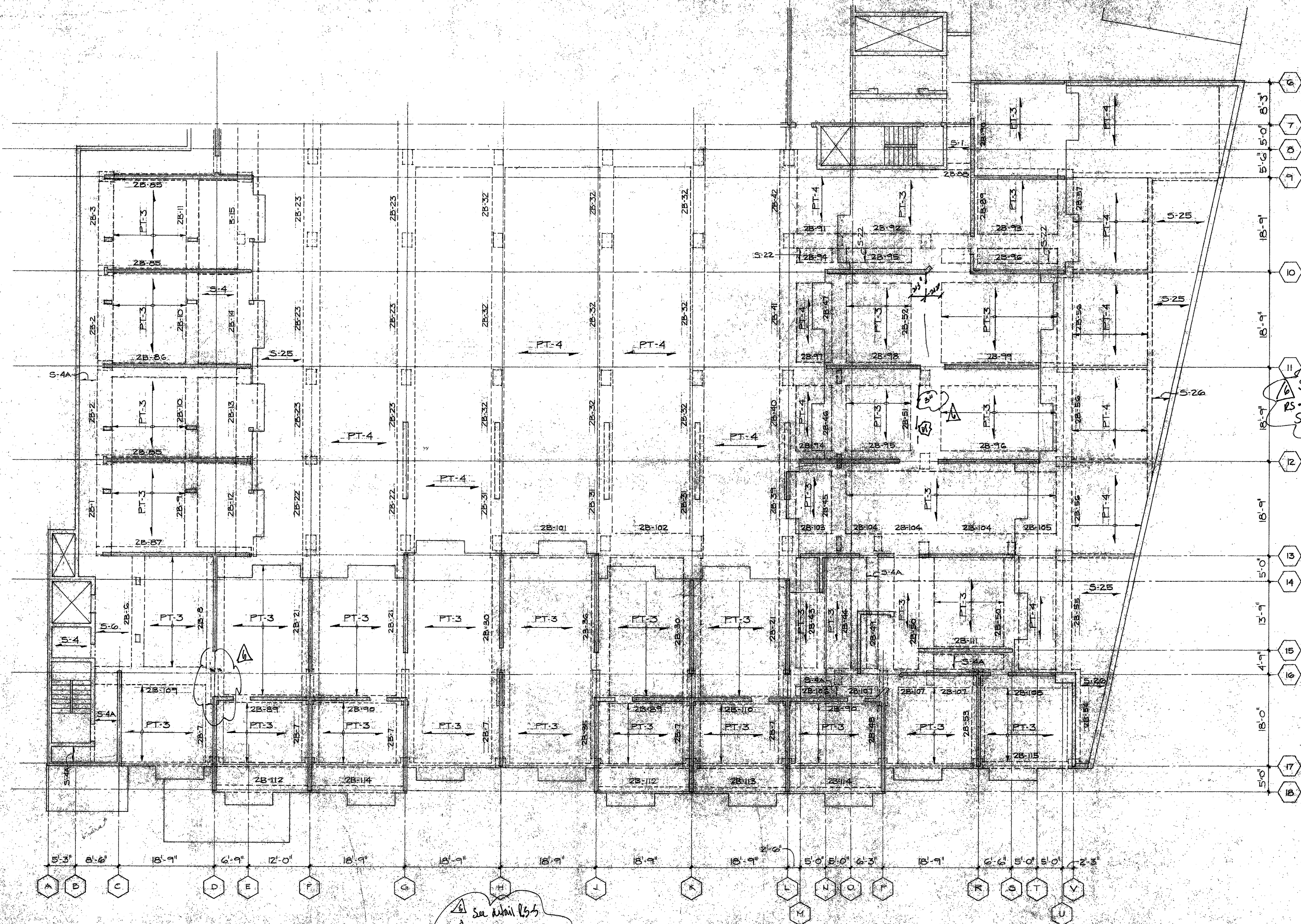
St. Louis

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Programming



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Project
HONOLULU AFFORDABLE HOUSING COMPLEX



See detail
RS-5
Shd. 10 g"

See detail RS-5
Shd. 9 g"

- ① RS-2 3/8x4 Rev. Wall Col. W.C.4
- ② " " Rev. Beam 2B-10B.4
- ③ RS-3 4/8x4 Rev. Slab S-4A
- ④ PR-2 6/8x4 Added & Extended Shear Walls
- ⑤ AS-5 6/8x4 Locate transition of beam 2B-7 to 2B-8
- ⑥ AS-5 " Add. of Dimensions at 2B-51 + 2B-52

LEVEL L2 PART B FLOOR FRAMING PLAN

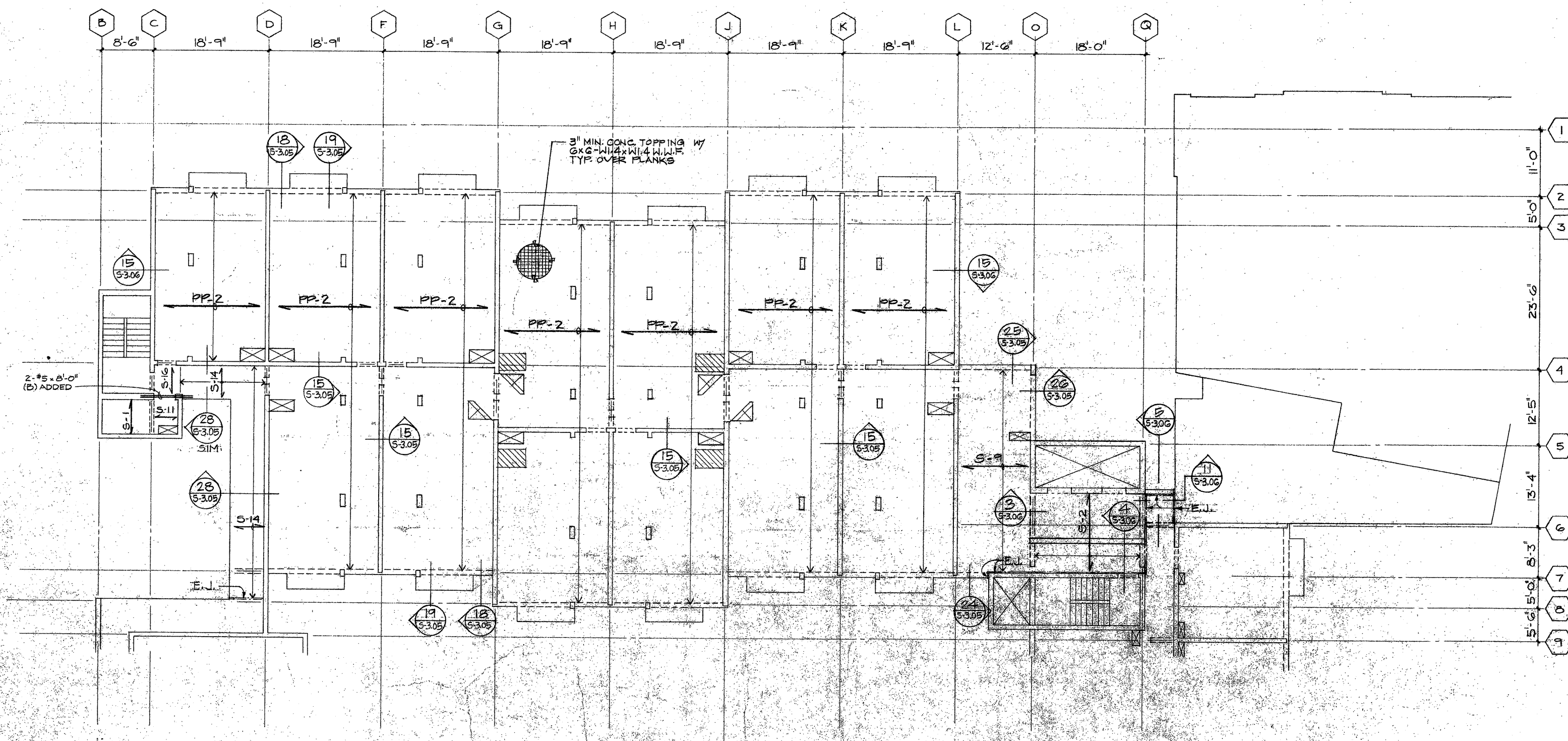
LEVEL L2 PART B FLOOR FRAMING PLAN
SCALE: 1/8" = 1'-0"

APPROVED
This set of plans and specifications MUST be at all times under the supervision of the architect or engineer. No changes or alterations shall be made without the written consent of the architect or engineer. The contractor shall be responsible for obtaining all necessary permits and for complying with all applicable laws and regulations. The contractor shall be responsible for the location of any point of construction. Building Department - City & County of Honolulu



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HOUSING COMPLEX**



LEVEL L3-L4 PART A FLOOR FRAMING PLAN
SCALE: 1/8" = 1'-0"

LEGEND:

- 1) PP-2 DENOTES DIRECTION OF SPAN OF PRECAST PRESTRESSED CONC. PLANKS; SEE SHT. 5- FOR DETAILS.
- 2) S-1 DENOTES DIRECTION OF SPAN OF CAST-IN-PLACE CONC. SLAB; SEE SHT. 5- FOR DETAILS.
- 3) [Symbol] DENOTES TYP. LOCATION OF 1/2" DEPRESSED SLAB AT SHOWER RECEPTOR. FOR BALANCE OF DEPRESSED SLAB LOCATIONS, SEE ARCH. PLANS.

**LEVEL L3-L4 PART A
FRAMING PLAN**

APPROVED

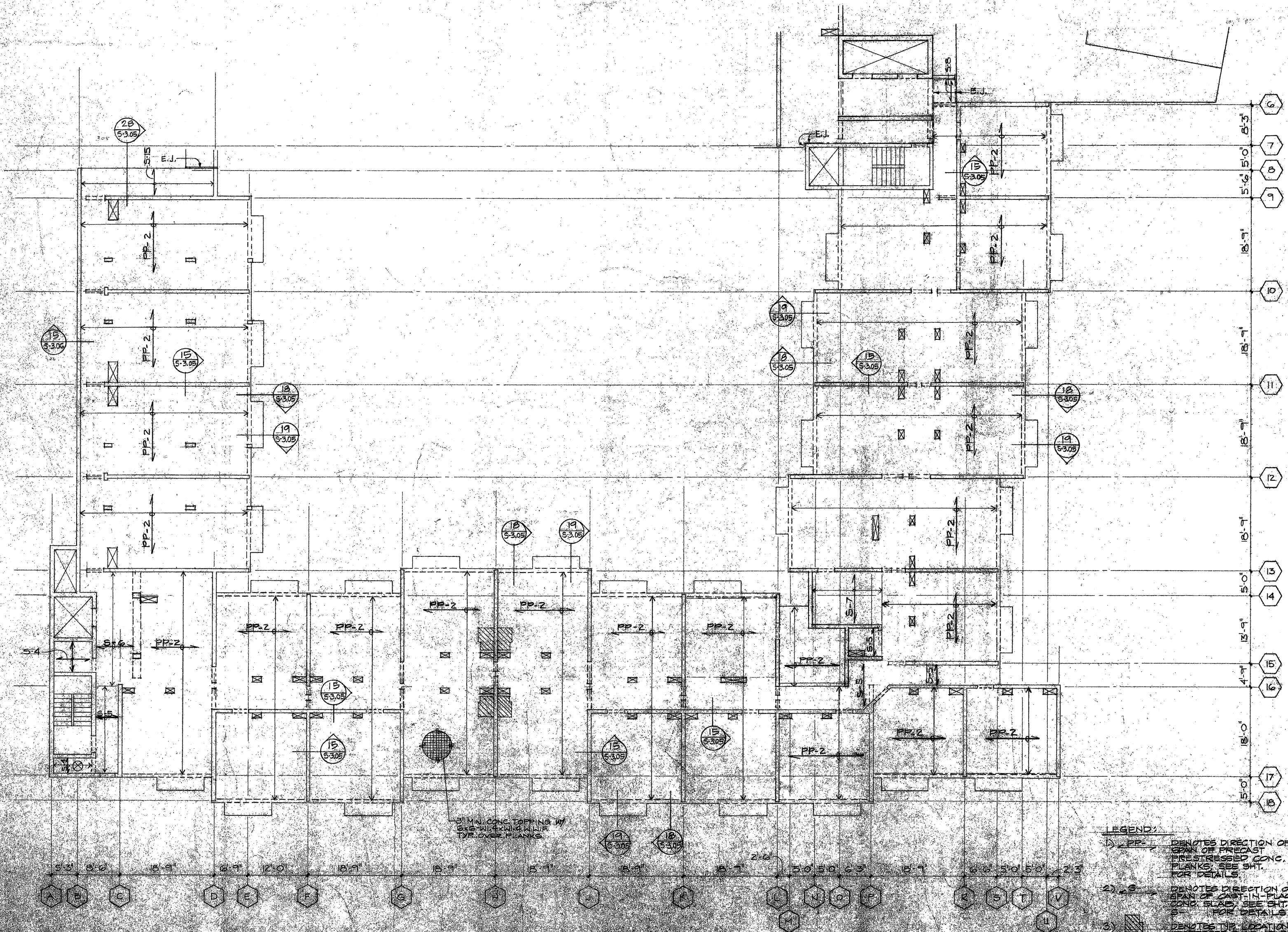
The set of plans and specifications shall be of the design and construction of the project as shown on the drawings and specifications, and shall be subject to the approval of the City and County of Honolulu. This approval does not constitute a warranty or guarantee of the design or construction of the project. The City and County of Honolulu shall not be responsible for any errors or omissions on the drawings or specifications. The City and County of Honolulu shall not be responsible for any changes or modifications to the drawings or specifications. The City and County of Honolulu shall not be responsible for any delays or interruptions in the construction of the project. The City and County of Honolulu shall not be responsible for any damages or losses incurred by the contractor or owner. The City and County of Honolulu shall not be responsible for any claims or lawsuits filed against the contractor or owner. The City and County of Honolulu shall not be responsible for any other matters related to the construction of the project.

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LEVEL L3-L4 PART B FLOOR FRAMING PLAN
SCALE: 1/8"=1'-0"

- LEGEND:**
- 1) PP-2 DENOTES DIRECTION OF SPAN OF PRECAST PRESTRESSED CONC. PLANKS. SEE SHT. FOR DETAILS.
 - 2) S-15 DENOTES DIRECTION OF SPAN OF CAST-IN-PLACE CONC. SLAB. SEE SHT. FOR DETAILS.
 - 3) DENOTES THE LOCATION OF DEPRESSED SLAB AND SHIELD RECEPTOR FOR BALANCE OF DEPRESSED SLAB LOCATIONS. SEE ARCH. DWGS.

RS-2 3/8x1/4 Def. 1/32.04
RS-3 1/8x1/4 Slab 5-15

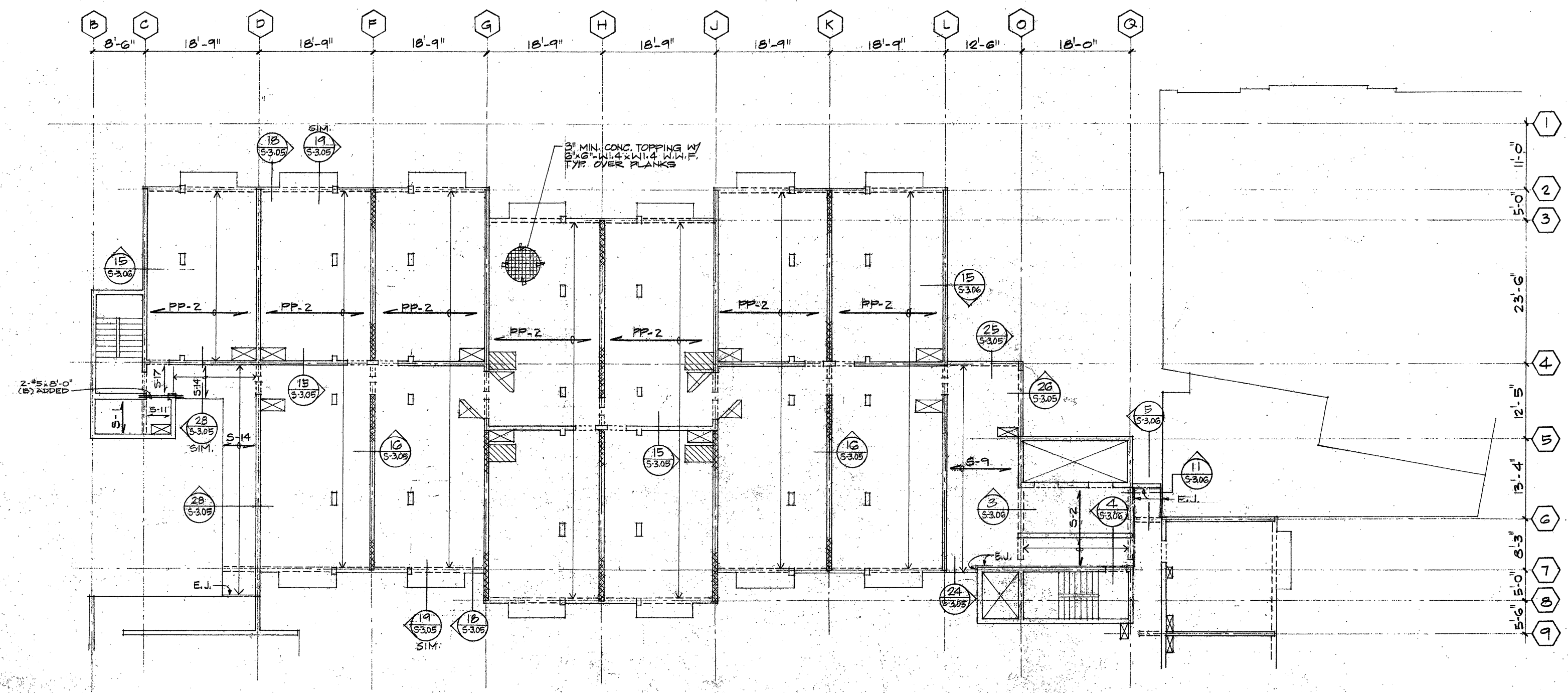
APPROVED
I, **George K. Nishimura**, a duly Licensed Professional Engineer in the State of Hawaii, do hereby certify that I am the author of the design and specification of the above project, and that the same comply with the provisions of the Building Code of the State of Hawaii, and the rules and regulations of the Board of Professional Engineers of the State of Hawaii.
Date: **5-2-04**
Signature: **George K. Nishimura**
Title: **Professional Engineer**
License No.: **1388-S**

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Project
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LEVEL L5 PART A FLOOR FRAMING
SCALE: 1/8" = 1'-0"

- LEGEND:**
- 1) PP-2 DENOTES DIRECTION OF SPAN OF PRECAST PRESTRESSED CONC. PLANKS; SEE SHT. FOR DETAILS.
 - 2) S-11 DENOTES DIRECTION OF SPAN OF CAST-IN-PLACE CONC. SLAB; SEE SHT. FOR DETAILS.
 - 3) R-1 DENOTES TYP. LOCATION OF 1/2" DEPRESSED SLAB AT SHOWER RECEPTOR; FOR BALANCE OF DEPRESSED SLAB LOCATIONS, SEE ARCH. DWGS.

**LEVEL L5 PART A
FLOOR FRAMING PLAN**

APPROVED
This set of plans and specifications must be at job site during construction. It is unlawful to alter or change same, or to duplicate without approval from the Building Department. The stamping of this plan and specifications shall not be held to permit to be an official record of the violation of any part of any city ordinance or state law.
Building Department - City & County of Honolulu

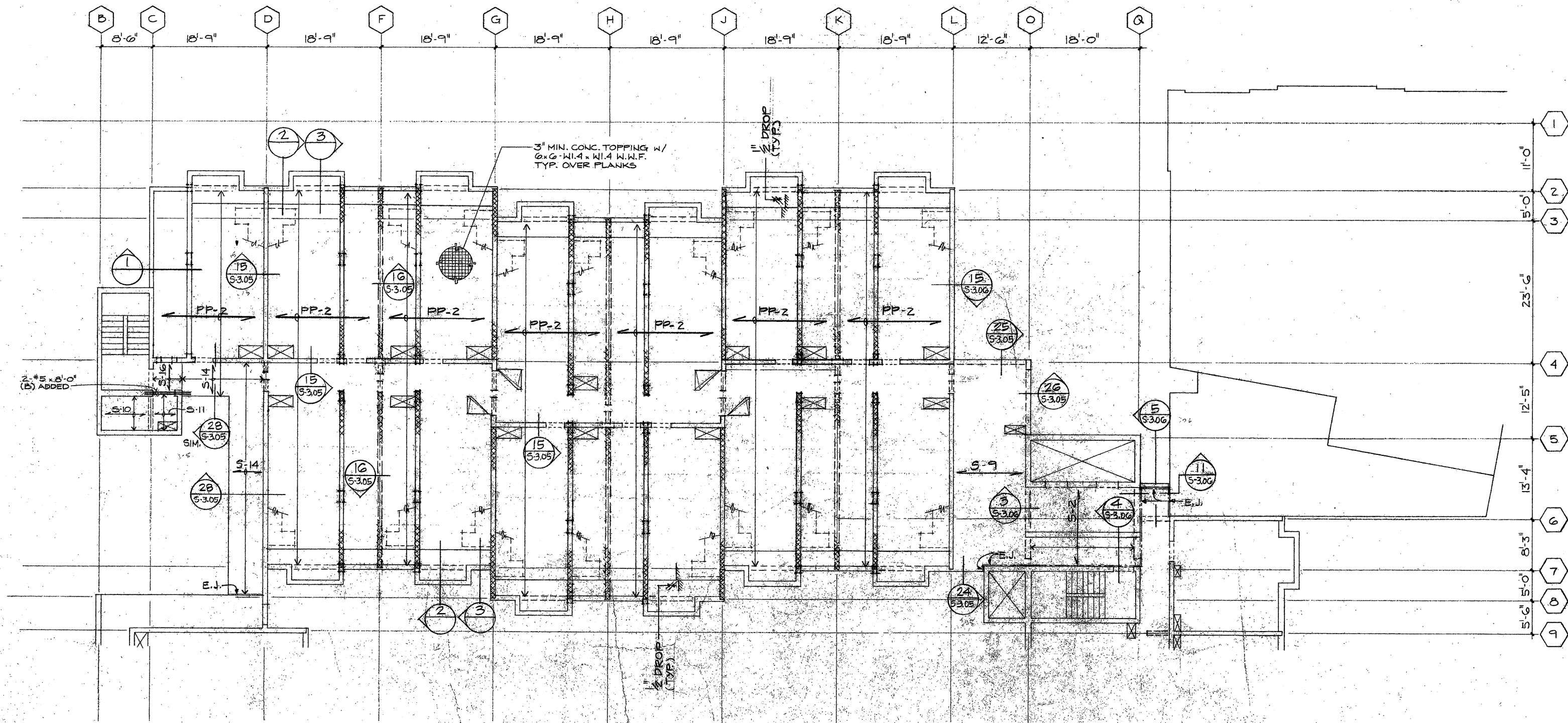
Standing - 2.00

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LEVEL 6 PART A FLOOR FRAMING PLAN
SCALE: 1/8"=1'-0"

LEGEND:
1) PP-2 DENOTES DIRECTION OF SPAN OF PRECAST PRESTRESSED CONC. PLANKS;
SEE DET. 5- FOR DETAILS.
2) C-1 DENOTES DIRECTION OF SPAN OF CAST-IN-PLACE CONC. SLAB;
SEE DET. 5- FOR DETAILS.

**LEVEL 6 PART A
FLOOR FRAMING PLAN**

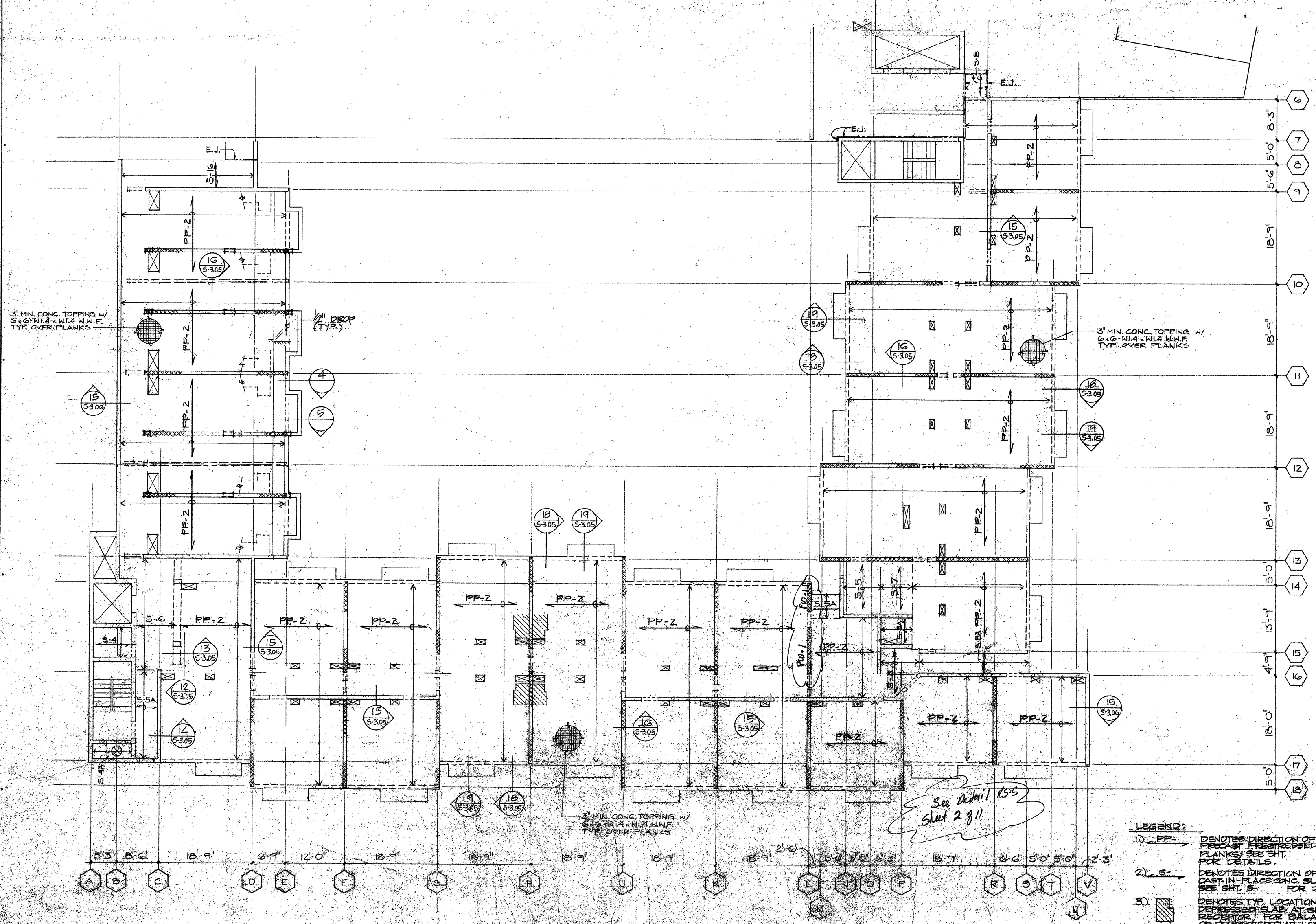
APPROVED
This plan and specifications shall be at all times the property of the City of Honolulu. It is to be used only for the project and site shown. It is not to be used for any other project or site without the written approval of the City Engineer. It is not to be used for any other project or site without the written approval of the City Engineer. It is not to be used for any other project or site without the written approval of the City Engineer.

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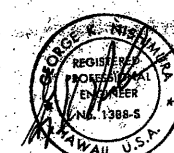
LEVEL LG PART B FLOOR FRAMING PLAN
SCALE: 1/8" = 1'-0"

LEGEND:
1) PP- DENOTES DIRECTION OF SPAN OF PRECAST PRESTRESSED CONC. PLANKS; SEE SHT. 1 FOR DETAILS.
2) S- DENOTES DIRECTION OF SPAN OF CAST-IN-PLACE CONC. SLAB; SEE SHT. 2 FOR DETAILS.
3) [Symbol] DENOTES TYP. LOCATION OF 1/2\"/>

- 1) RS-2 4/8x14 Detail 1/5 104
- 2) RS-3 4/8x14 Slab S-15
- 3) PR-1 1/2x14 Conc. Wall Along Line 13
- 4) RS-5 6/8x14 Revision of Walls

**LEVEL LG PART B
FLOOR FRAMING PLAN**

APPROVED
The seal of this professional engineer is hereby placed on this drawing as evidence of his approval of the design and construction of the project shown hereon. The stamping of this professional engineer is not to be construed as a guarantee of the accuracy or completeness of the information shown hereon. The stamping of this professional engineer is not to be construed as a guarantee of the accuracy or completeness of the information shown hereon.
George K. Nishida
Professional Engineer
License No. 15186
State of Hawaii
Building & City Division
Honolulu, Hawaii



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ME OR UNDER MY SUPERVISION

Project

HONUAKAHA AFFORDABLE
HOUSING COMPLEX

LEGEND

- LEGEND:**
- 1)  DENOTES DIRECTION OF SPAN OF CAST-IN-PLACE CONC. SLAB; SEE SHT. FOR DETAILS
- 2)  DENOTES TYP. LOCATION OF 1/2" DEPRESSIONED SLAB AT SHOWER RECEPTOR. FOR BALANCE OF DEPRESSIONED SLAB LOCATIONS SEE ARCH DWGS.

LEVEL L7 PART A
FLOOR FRAMING PLAN

APPROVED
Specifications MUST
to offer or ch
from the

APPROVED

This use of plans and specifications **MUST** be of **latest date during construction**. If it is found to be of an **earlier date** or to **deviate therefrom** without **approval** from the **Building Department**, the **allowing** of the same on **contract documents** **SHALL NOT** be held to **commit** or **constitute** the **City** of **San Jose**, **California**, or **Santa Clara** **County**, **Building Department**—**City & County of Honolulu**

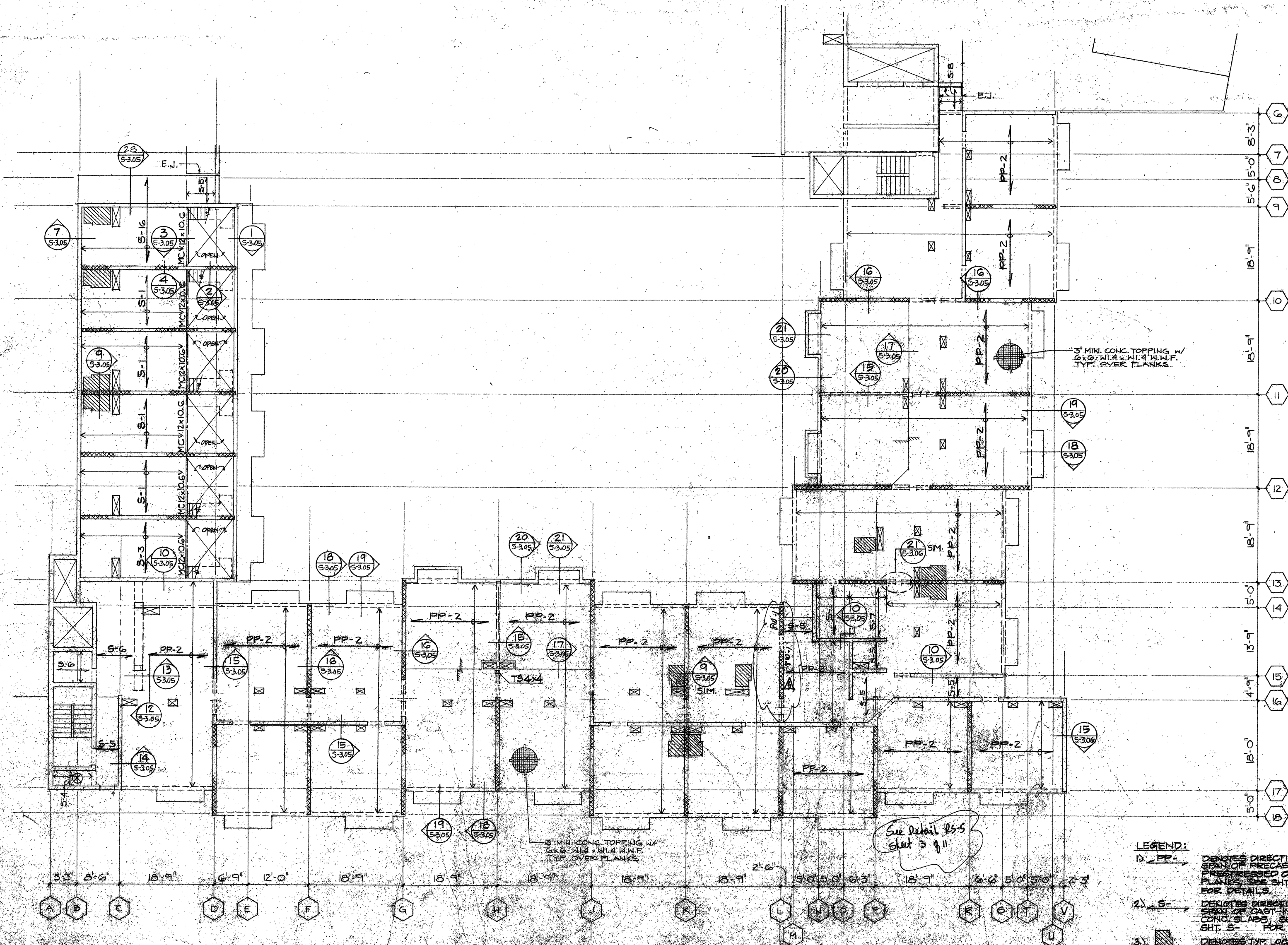
Sheet 5-200

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HOUSING COMPLEX**



LEVEL 7 PART B FLOOR FRAMING PLAN
SCALE: 1/8" = 1'-0"

LEGEND:

- 1) **PP-2** DENOTES DIRECTION OF SPAN OF PRECAST PRESTRESSED CONC. PLANKS; SEE SHT. 5- FOR DETAILS.
- 2) **S-** DENOTES DIRECTION OF SPAN OF CAST-IN-PLACE CONC. SLABS; SEE SHT. 5- FOR DETAILS.
- 3) **[Symbol]** DENOTES TYP. LOCATION OF 16\"/>

**LEVEL 7 PART B
FLOOR FRAMING PLAN**

- △ RS-2 3/8x4 Detail 15.04
- △ RS-2 2x8x14 24"x36" Opening
- △ RS-3 4/8x4 Slab 5-15
- △ PR-1 4/8x4 Conc. Wall Along Line 13
- △ RS-5 4/8x4 Rev. of Walls

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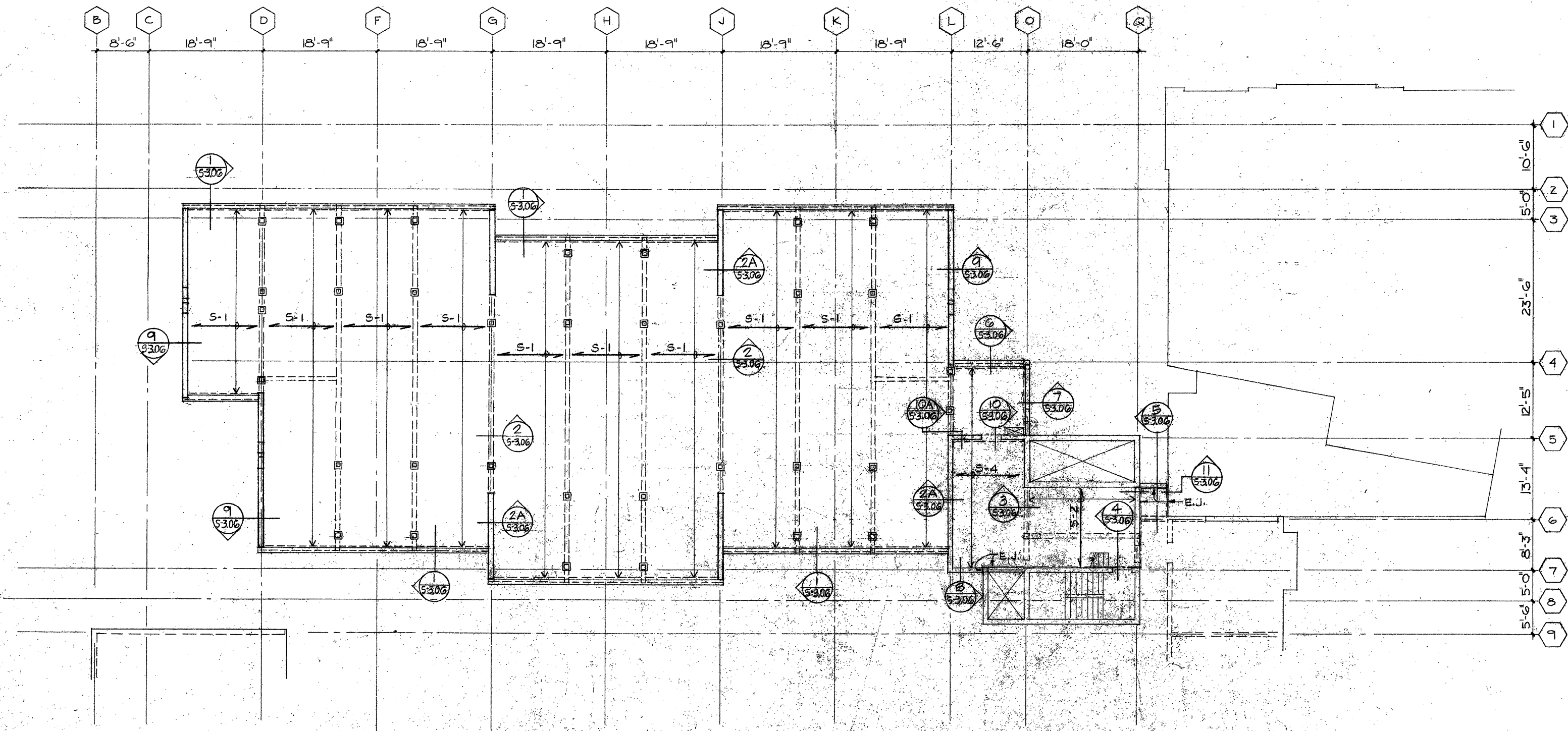


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HOUSING COMPLEX

**MACHINE ROOM
FRAMING PLAN (EL. 83'-0")**
SCALE: 1/8" = 1'-0"



LEVEL R1 PART A LOWER ROOF FRAMING PLAN
SCALE: 1/8" = 1'-0"

LEGEND:

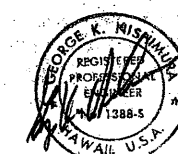
- 1) CAST-IN-PLACE CONCRETE SLABS. SEE SHT. FOR DETAILS.
- 2) 12x4 POSTS ON STEEL BASE PLATE. SEE SHT. FOR DETAILS.

**LEVEL R1 PART A LOWER
ROOF FRAMING PLAN**

APPROVED

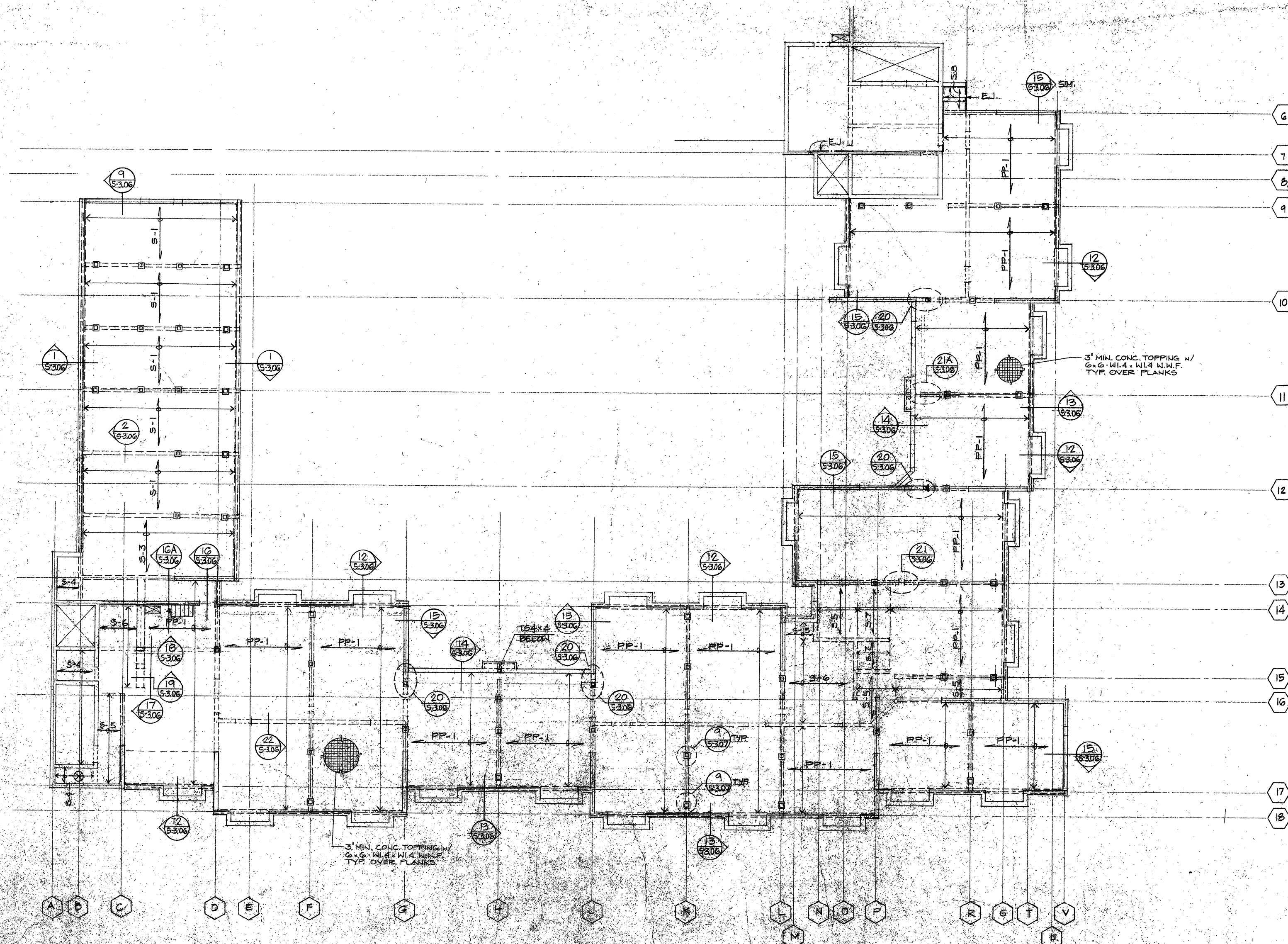
The level of plan and specifications MUST be a job the doing construction. It is unlawful to alter or change same, or to remove, modify, or omit any part thereof, without approval from the Building Department. The sampling of the plan and specifications SHALL NOT be held for approval or to be in approval of the Building Department. City of Honolulu - City & County of Honolulu
BUILDING - CITY DIVISION
S-2-11

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Project
HONOLULU AFFORDABLE HOUSING COMPLEX



LEVEL R1 PART B LOWER ROOF FRAMING PLAN
SCALE: 1/8" = 1'-0"

LEGEND:

- 1) PP-1 DENOTES DIRECTION OF SPAN OF PRECAST PRESTRESSED CONCRETE PLANKS. SEE SHT. FOR DETAILS.
- 2) S-1 DENOTES DIRECTION OF SPAN OF CAST-IN-PLACE CONCRETE SLABS. SEE SHT. FOR DETAILS.
- 3) B-1 DENOTES BEAM & X-1 POST ON STEEL BASE B. SEE SHT. S-101 FOR DETAILS.

- 2) RS-2 3/8" x 1/4" Extend 8x16 Header
- 3) RS-3 4/8" x 1/4" Slab S-15

See Dwg. RS-3
3 Sheets

LEVEL R1 PART B LOWER ROOF FRAMING PLAN

APPROVED
The work of plans and specifications MUST be checked by the engineer or architect who prepared them, and if they are found to be correct, they shall be approved. The signature of this plan shall not be used for any other purpose. This approval is not a guarantee of the accuracy of the information provided. The Building Department - City & County of Honolulu.

S-212

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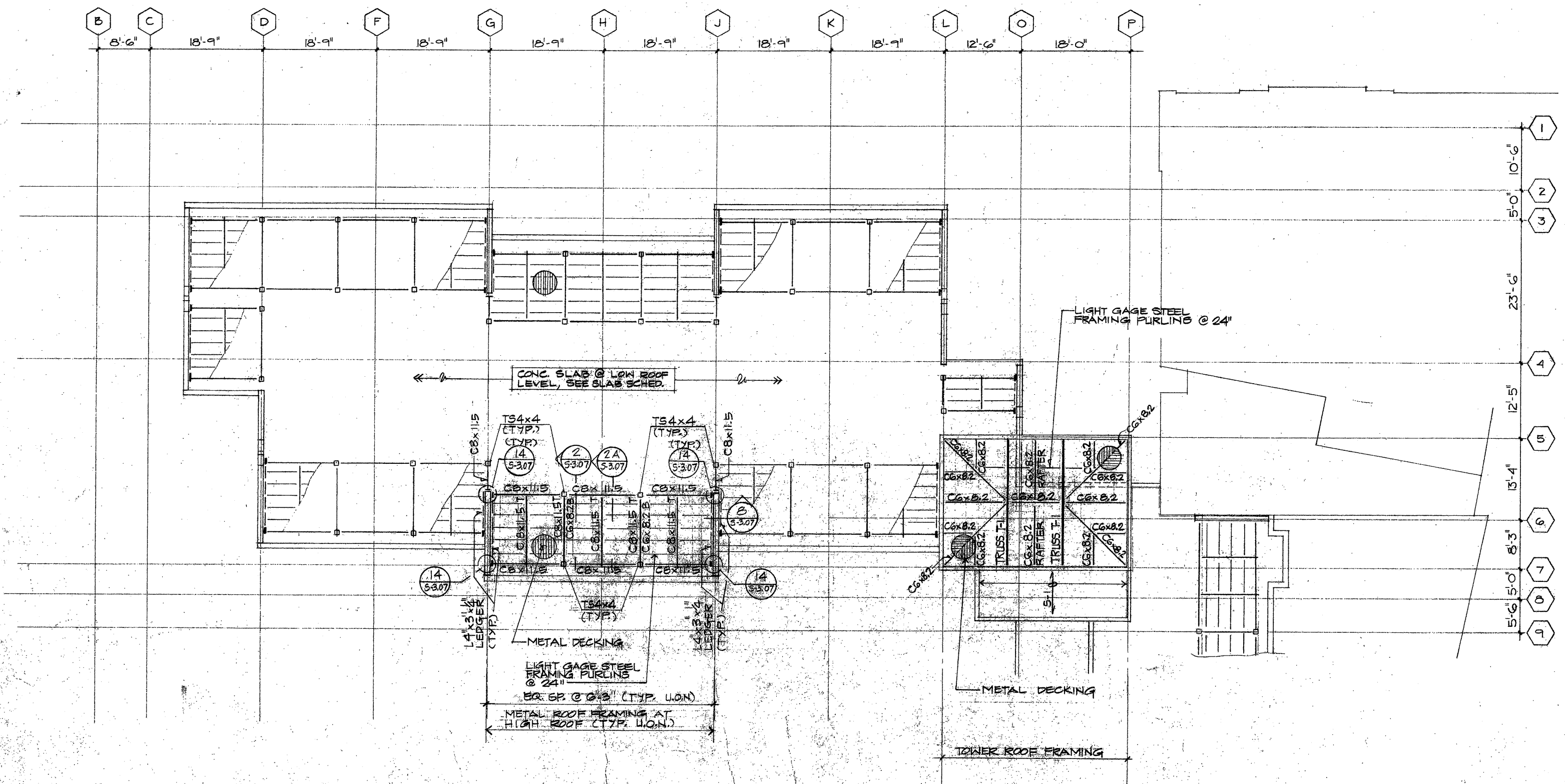


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Project
HONOLULU AFFORDABLE HOUSING COMPLEX

NOTES:

1. METAL ROOF FRAMING SHOWN IS TYPICAL THRUOUT, UNLESS OTHERWISE NOTED.
2. METAL ROOFING UNITS SHALL BE 24 GAUGE, 110T DEEP GALVANIZED STEEL HAVING A MINIMUM SECTION MODULUS = 0.0638 IN⁴/FT OF WIDTH.
3. LIGHT GAGE PURLIN ON SLOPING ROOF SHALL BE 1 1/2" DEEP GALVANIZED STEEL HAVING A MOMENT OF INERTIA = 0.13 IN⁴ & SECTION MODULUS = 0.174 IN³/FT.
4. SECURE ROOF DECKING & LIGHT GAGE PURLIN TO SUPPORTING MEMBERS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS TO RESIST A WIND LOAD OF 60 P.S.F.
5. FOR STEEL TRUSS AT TOWER, SEE SHT. S-3.07.
6. AT BOILER RM. ENCLOSURE, METAL STUDS SHALL BE 16 GA. W/ 6" DEEP GALVANIZED STEEL HAVING I = 2.368 IN⁴ & S = 0.793 IN³.



LEVEL R2 PART A UPPER ROOF FRAMING PLAN

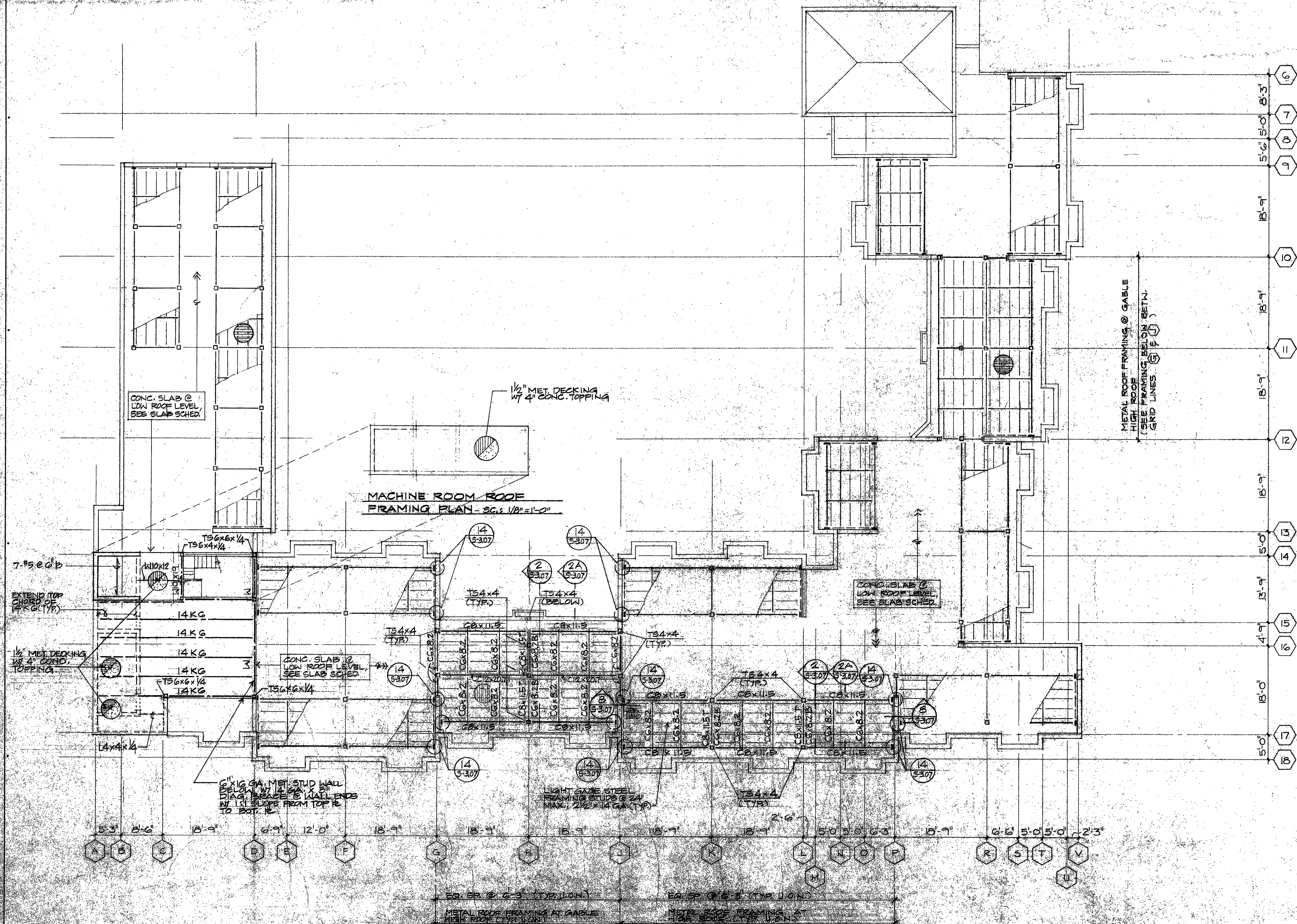
SCALE: 1/8" = 1'-0"

RS-1 3/11/94 Sect 3b 307 Simm.

**LEVEL R2 PART A
UPPER ROOF
FRAMING PLAN**

APPROVED
This set of plans and specifications MUST be at job site during construction. It is unlawful to alter or change same, or to delete therefrom, without approval from the Building Department.
The framing of this plan and specifications SHALL NOT be held to permit or to be in compliance of the Building Department of any City, Ordinance or State law.
BUILDING DEPARTMENT - City & County of Honolulu
5-215

NOTE:
SEE NOTES ON SHEET S-2.13 FOR ADDITIONAL
INFORMATION PERTAINING TO ROOF LEVEL R2
METAL FRAMING



See Dwg. RS4 (3/1/85)
Sheet 1 of 3
New Opening in Machine
Rm. Plan New Rf.
@ Slope 6/1

**LEVEL R PART B
UPPER ROOF
FRAMING PLAN**

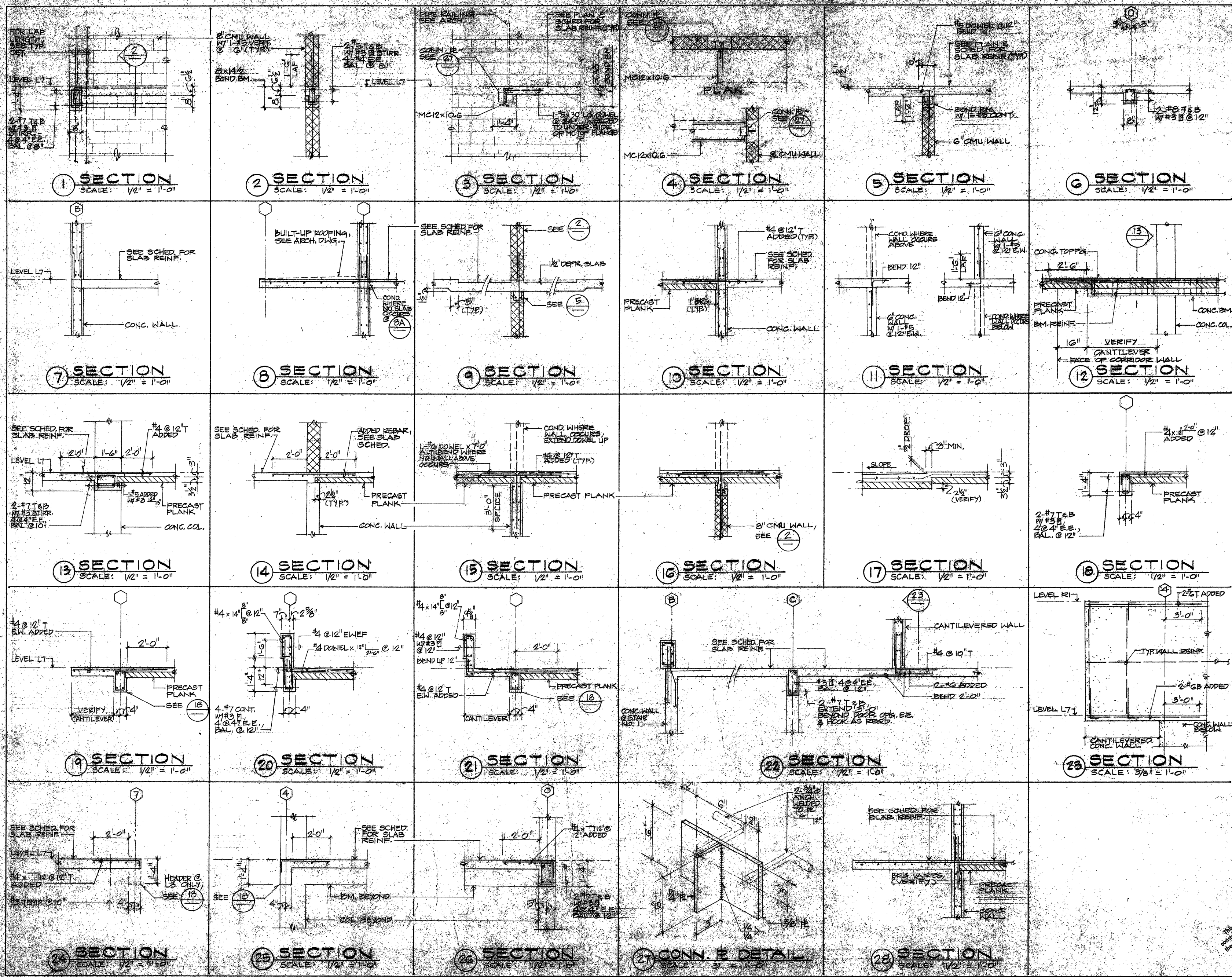
APPROVED
This set of plans and specifications must be on file at the time of construction. It is the responsibility of the architect to provide the necessary information for the contractor to construct the project in accordance with the approved plans and specifications. The contractor is responsible for obtaining all necessary permits and for ensuring that the construction complies with all applicable laws and regulations. The architect does not warrant the accuracy or completeness of the information provided in these plans and specifications. The architect's liability is limited to the design and construction of the project.

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Project
HONOLULU AFFORDABLE HOUSING COMPLEX



RS-1 3/11/94 Clarification of Section
RS-2 3/30/94 "

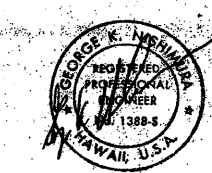
SECTIONS AND DETAILS

APPROVED

This set of plans and specifications MUST be left at the drawing office, and if it is intended to alter or change any part of the drawings, without approval from the Building Department, the drawings shall be void. The drawings shall be void if they are not approved by the Building Department, City & County of Honolulu.

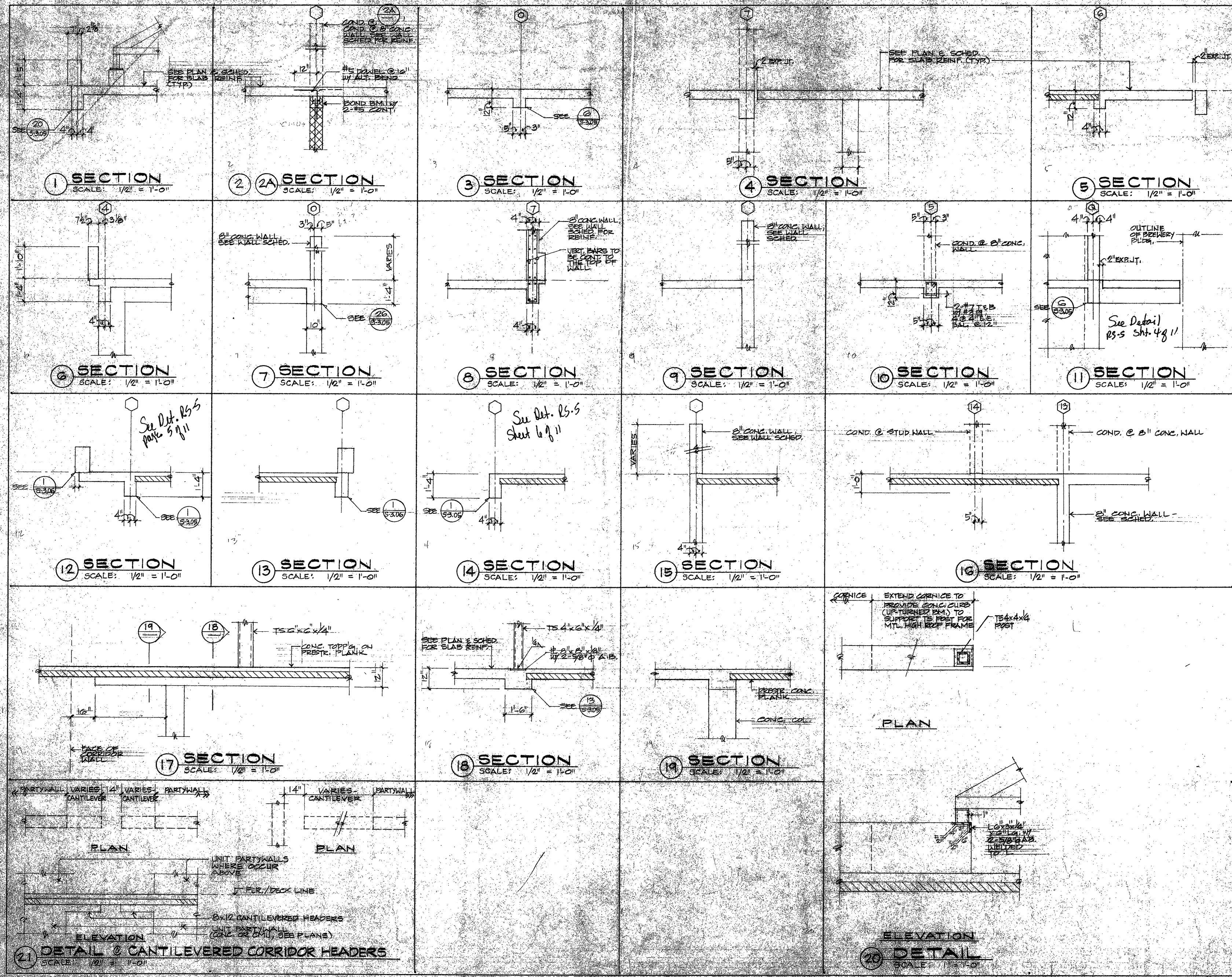
S-3.05

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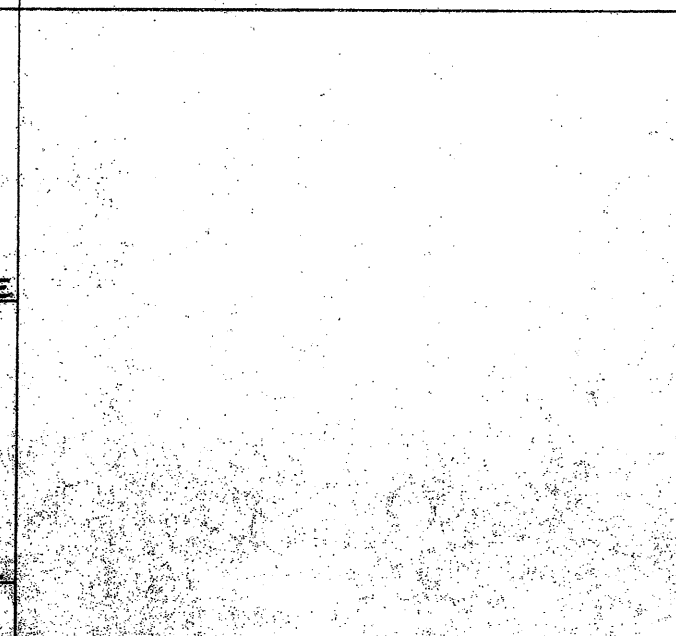
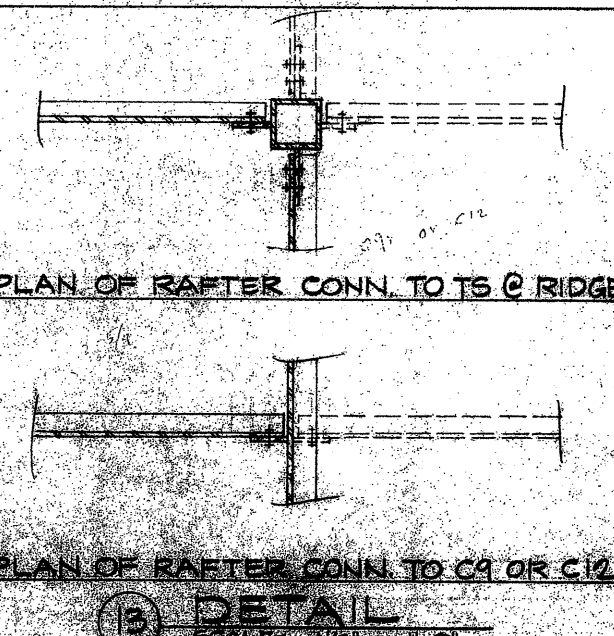
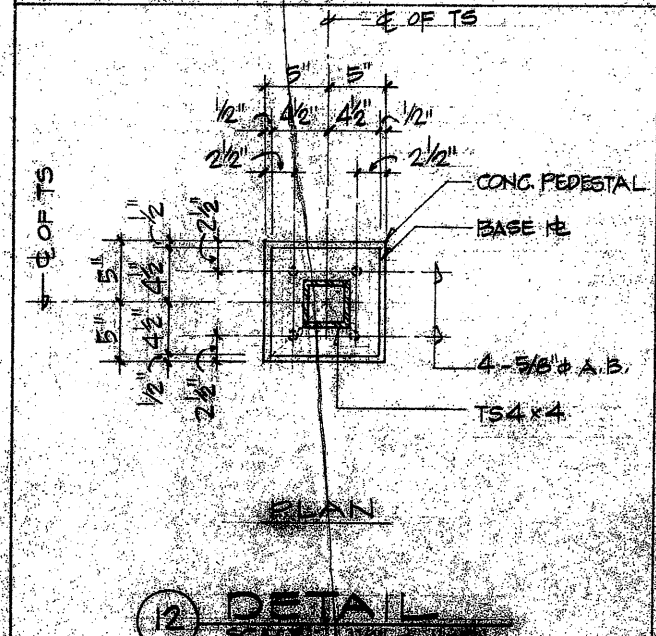
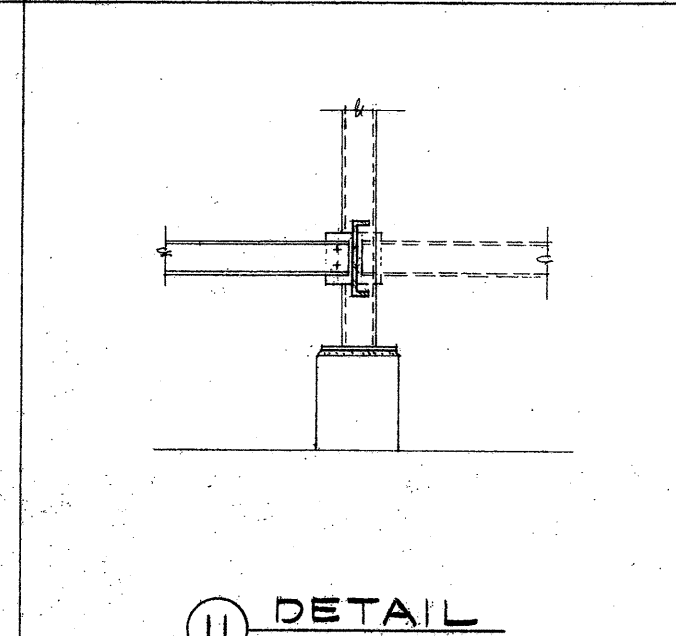
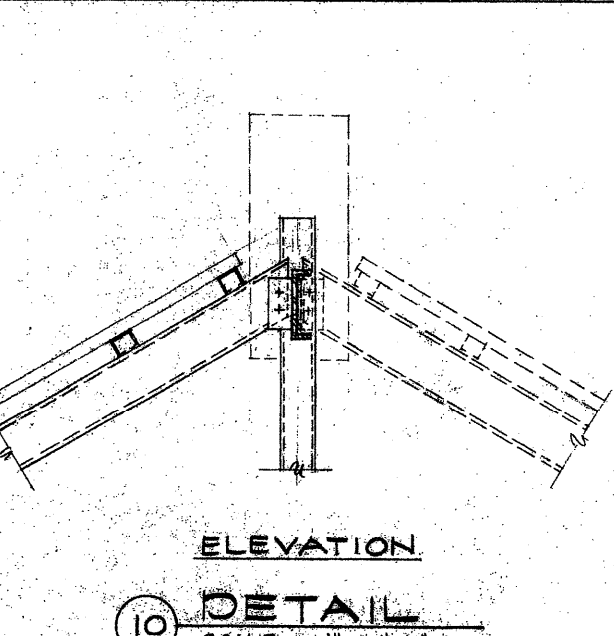
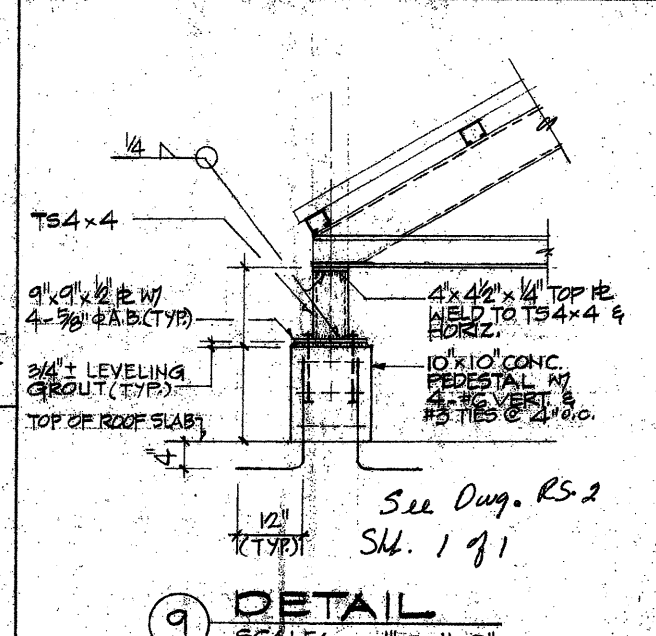
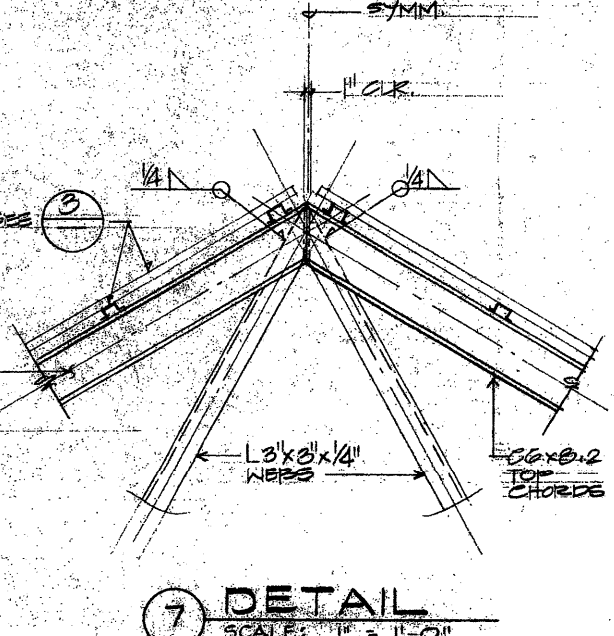
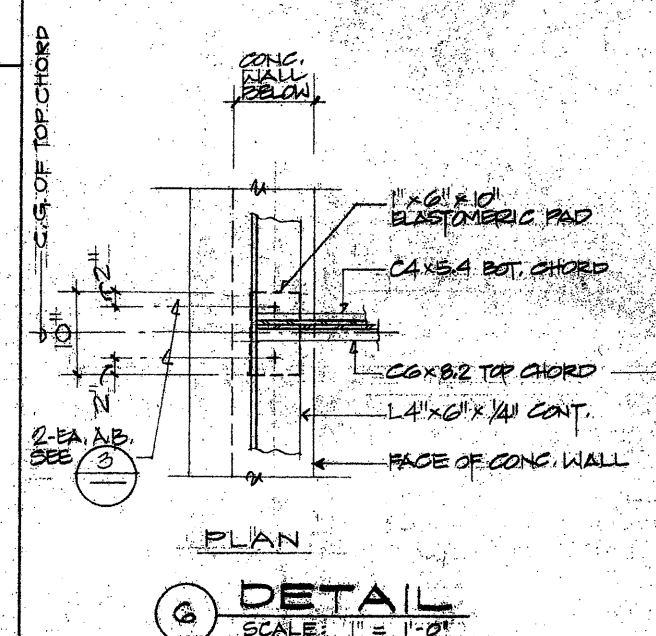
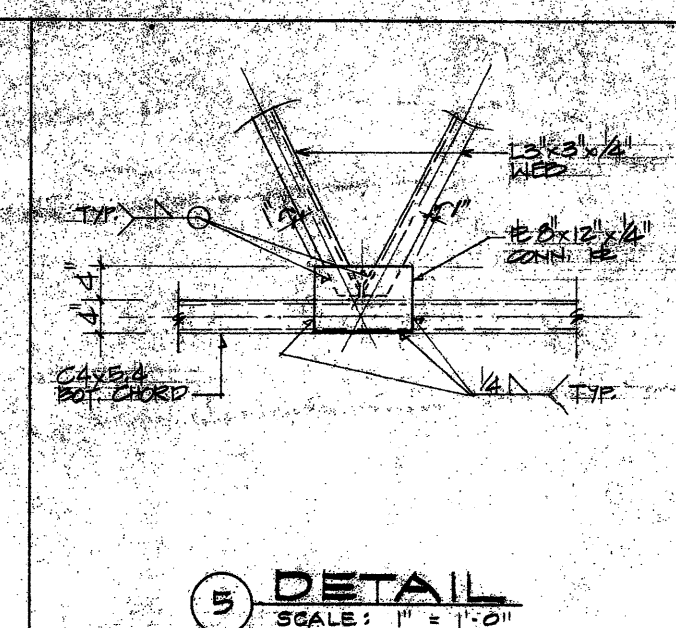
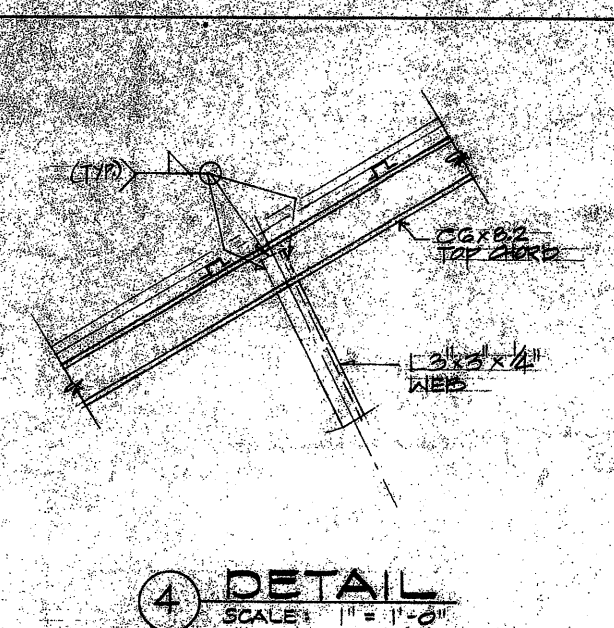
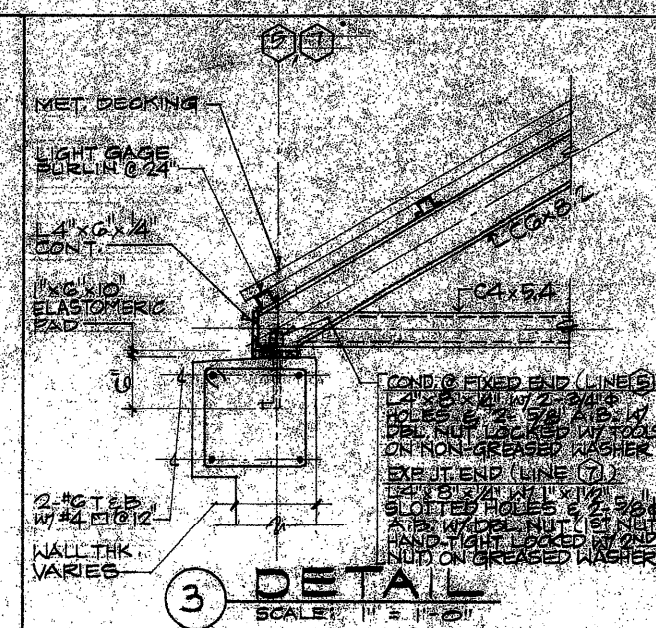
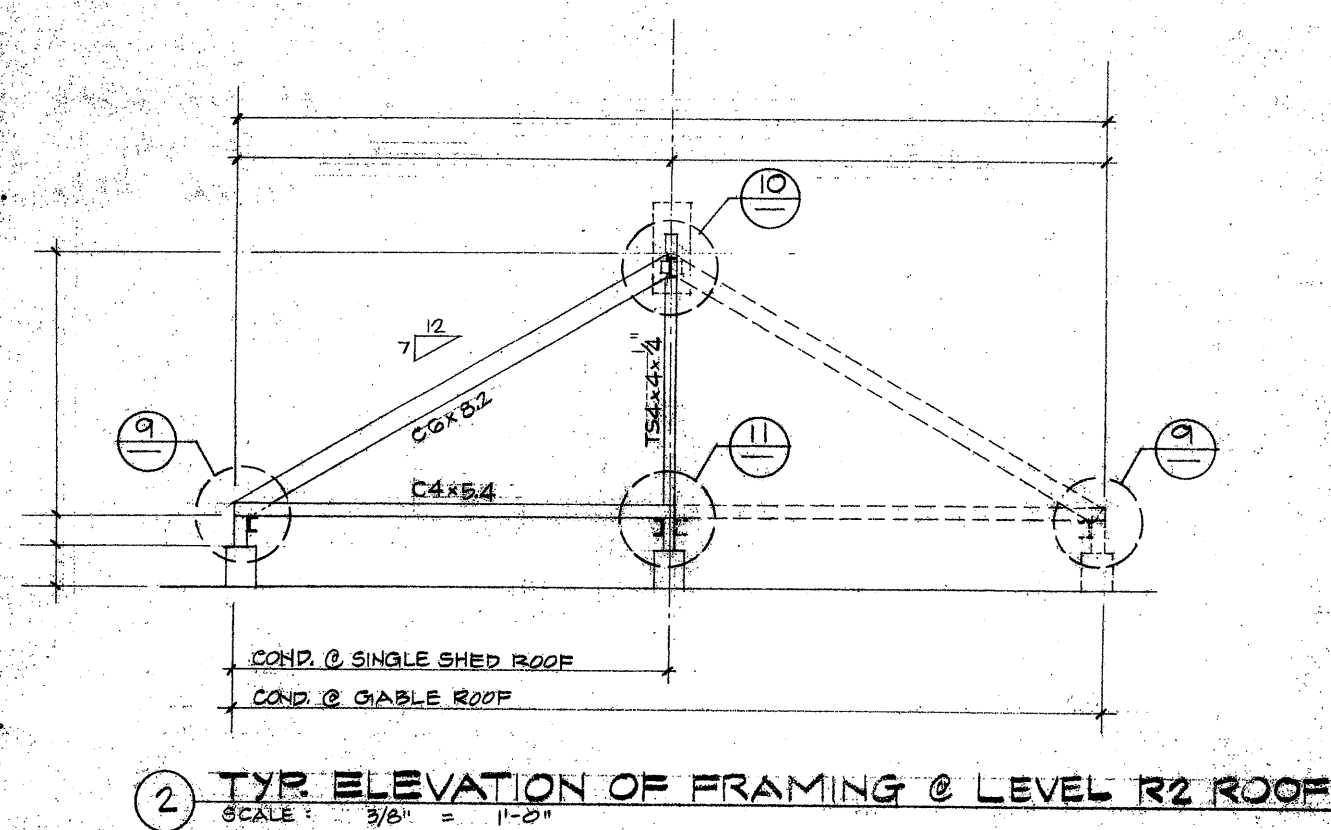
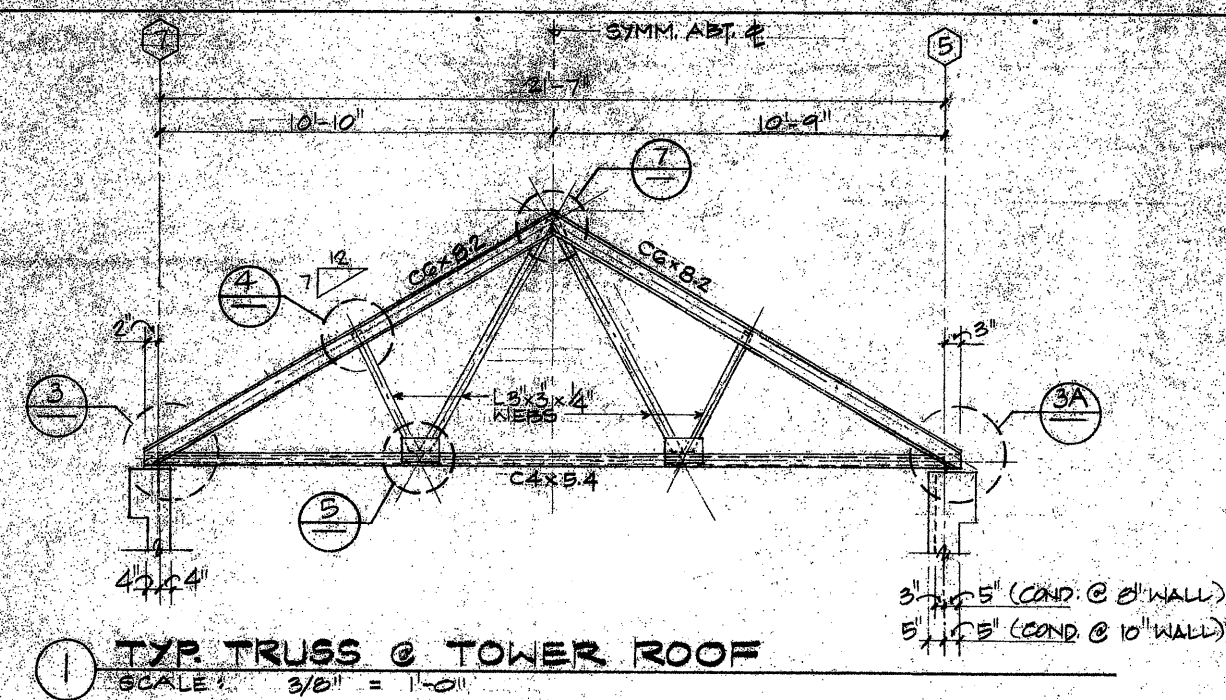
Project
HONOLULU AFFORDABLE HOUSING COMPLEX



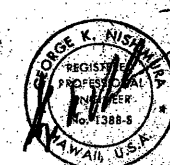
RS-1 3/1/94 Clarification of Sections
RS-5 4/2/94 Rev. of Ties & Dimen.

SECTIONS AND DETAILS

APPROVED
These drawings and specifications must be all the drawings and specifications for the construction of the building. No other drawings or specifications shall be used in the construction of the building. The drawings and specifications shall be the responsibility of the architect. The drawings and specifications shall be the responsibility of the architect. The drawings and specifications shall be the responsibility of the architect.



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Planning
Programming

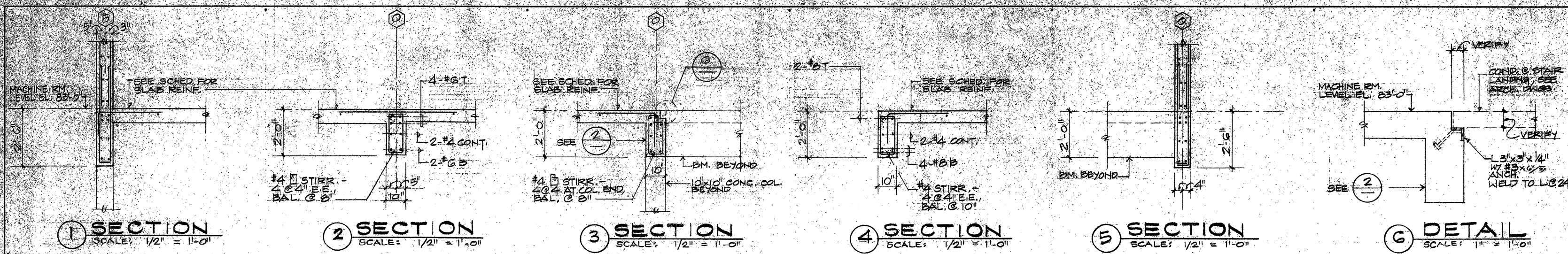


THIS WORK WAS PREPARED BY
ME OR UNDER MY SUPERVISION

Project
**HONUAKAHA AFFORDABLE
HOUSING COMPLEX**

SECTIONS AND DETAILS

APPROVED
This set of plans and specifications MUST be a full and complete representation of the work to be done or done some or to be done hereafter, without approval from the Building Department.
The approval of this set of plans and specifications SHALL NOT be taken as an endorsement or approval of the quality of the work or the equipment used or the materials used.
City & County of Honolulu



Architecture
Graphic Design
Interior Design
Planning
Programming



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ME OR UNDER MY SUPERVISION.

Project

**HONUAKAHA AFFORDABLE
HOUSING COMPLEX**

STAIR #3 DETAILS

APPROVED
I, the undersigned, being a duly licensed Professional Engineer in the State of Hawaii, do hereby approve the design and construction of the above project, and I am not aware of any fraud or deception in connection with the same.
The design is the property of the Engineering Firm and shall not be used for any other project without the written consent of the Engineering Firm.
City of Honolulu, Department of Planning, City & County of Honolulu

S-403

Architecture
Graphic Design
Interior Design
Planning
Programming



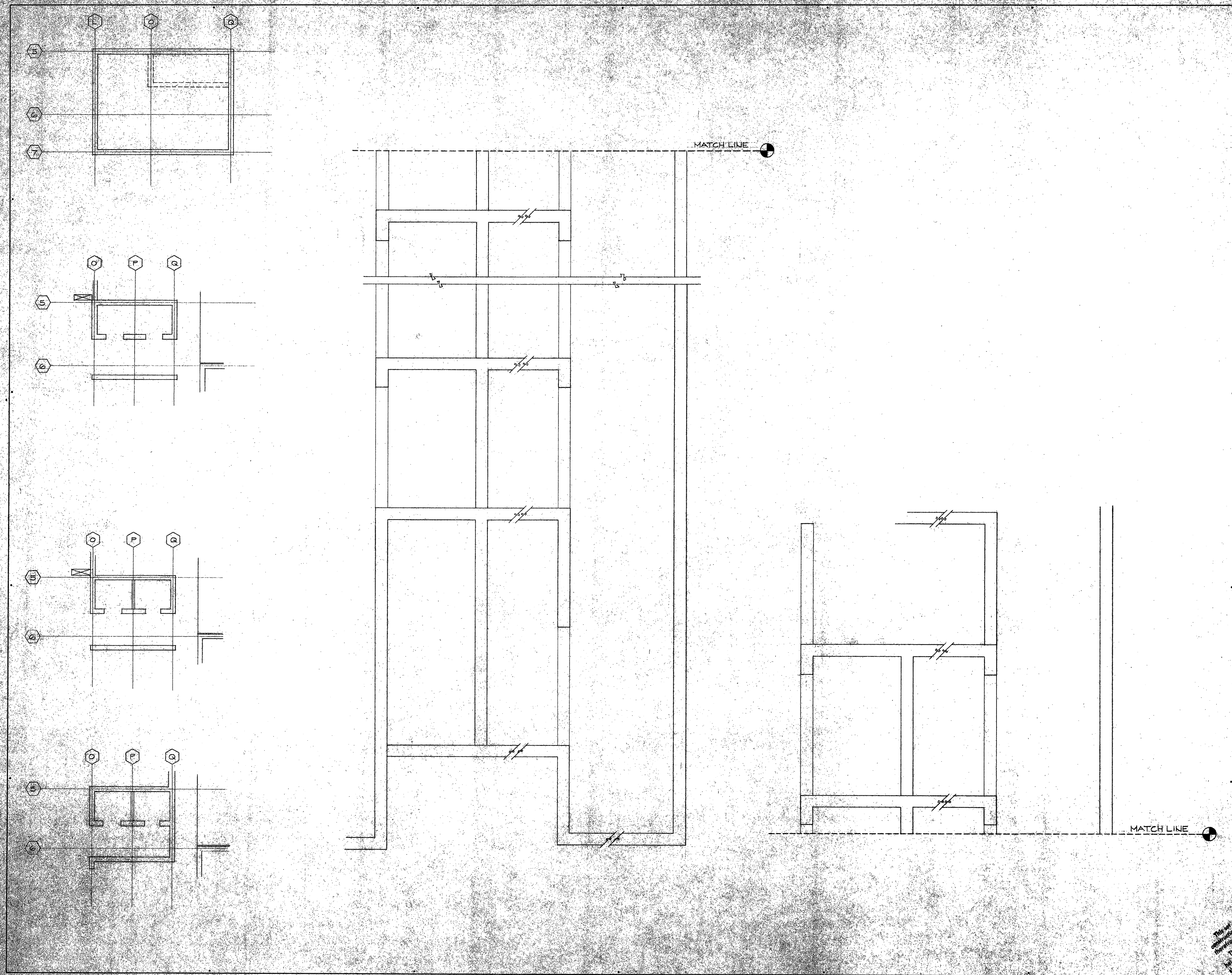
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Project
**HONOLULU AFFORDABLE
HOUSING COMPLEX**

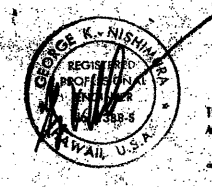
**ELEVATORS 1 & 2
DETAILS**

APPROVED
The work shown and specifications MUST be in full compliance with the City of Honolulu Building Department. No alterations or changes shall be made without the approval of the Building Department. This approval is given for the purpose of the City of Honolulu Building Department. It is not a guarantee of the quality of the work or the safety of the building. The City of Honolulu Building Department is not responsible for any errors or omissions in this document. The City of Honolulu Building Department is not responsible for any damages or injuries resulting from the use of this document. The City of Honolulu Building Department is not responsible for any legal actions or claims resulting from the use of this document. The City of Honolulu Building Department is not responsible for any other matters not mentioned in this document.

S-404



Architecture
Graphic Design
Interior Design
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Project
HONOLULU AFFORDABLE HOUSING COMPLEX

LEVEL P2 BEAM SCHEDULE						BEAM MARK	BEAM SIZE	BEAM REINFORCING	STIRRUPS	REMARKS	BEAM MARK	BEAM SIZE	BEAM REINFORCING	STIRRUPS	REMARKS	
BEAM MARK	BEAM SIZE	BEAM REINFORCING			STIRRUPS	REMARKS	BEAM MARK	BEAM SIZE	BEAM REINFORCING	STIRRUPS	REMARKS	BEAM MARK	BEAM SIZE	BEAM REINFORCING	STIRRUPS	REMARKS
		2 SUPPORTS												2 SUPPORTS		
B-1	30"x12"	4#8	3#8	10'-0"	#4		B-21	30"x12"	4#8	3#8		B-42	36"x18"	4#8	#4	
B-2	30"x12"	4#8	3#8	10'-0"	#4		B-22	30"x12"	4#8	3#8		B-43	36"x18"	4#8	#4	
B-3	30"x12"	4#8	3#8	10'-0"	#4		B-23	30"x12"	4#8	3#8		B-44	36"x18"	4#8	#4	
B-4	30"x12"	4#8	3#8	10'-0"	#4		B-24	30"x12"	4#8	3#8		B-45	24"x18"	4#8	#4	
B-5	30"x12"	4#8	3#8	10'-0"	#4		B-25	30"x12"	4#8	3#8		B-46	30"x18"	4#8	#4	
B-6	30"x12"	4#8	3#8	10'-0"	#4		B-26	42"x18"	4#8	3#8		B-47	30"x18"	4#8	#4	
B-7	30"x12"	4#8	3#8	10'-0"	#4		B-27	42"x18"	4#8	3#8		B-48	30"x18"	4#8	#4	
B-8	30"x12"	4#8	3#8	10'-0"	#4		B-28	42"x18"	4#8	3#8		B-49	30"x18"	4#8	#4	
B-9	30"x12"	4#8	3#8	10'-0"	#4		B-29	42"x18"	4#8	3#8		B-50	30"x18"	4#8	#4	
B-10	42"x12"	4#8	3#8	10'-0"	#4		B-30	42"x18"	4#8	3#8		B-51	30"x18"	4#8	#4	
B-11	42"x12"	4#8	3#8	10'-0"	#4		B-31	42"x18"	4#8	3#8		B-52	60"x18"	4#8	#4	
B-12	30"x12"	4#8	3#8	10'-0"	#4		B-32	42"x18"	4#8	3#8		B-53	60"x18"	4#8	#4	
B-12A	30"x18"	4#8	3#8	10'-0"	#4		B-33	42"x18"	4#8	3#8		B-54	36"x18"	4#8	#4	
B-13	30"x12"	4#8	3#8	10'-0"	#4		B-34	18"x18"	4#8	3#8		B-57	18"x18"	4#8	#4	
B-14	42"x18"	4#8	3#8	10'-0"	#4		B-35	36"x18"	4#8	3#8		B-58	42"x18"	4#8	#4	
B-15	42"x18"	4#8	3#8	10'-0"	#4		B-36	36"x18"	4#8	3#8		B-59	42"x18"	4#8	#4	
B-16	54"x12"	5#8	2#8	10'-0"	#4		B-37	18"x18"	4#8	3#8						
B-17	54"x18"	5#8	2#8	10'-0"	#4		B-38	18"x18"	4#8	3#8						
B-18	54"x18"	5#8	2#8	10'-0"	#4		B-39	21"x18"	4#8	3#8						
B-19	54"x18"	5#8	2#8	10'-0"	#4		B-40	21"x18"	4#8	3#8						
B-20	30"x12"	4#8	3#8	10'-0"	#4		B-41	21"x18"	4#8	3#8						

NOTE:

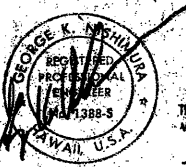
2 AS-2 3b44 Reinf. Clarification

BEAM SCHEDULE

APPROVED
This set of plans and specifications must be at all times during construction, is subject to the approval of the City & County of Honolulu, Department of Planning and Zoning, and the Department of Public Works, and shall not be used for any other purpose without the written approval of the City & County of Honolulu, Department of Planning and Zoning, and the Department of Public Works.

5-503

LEVEL L2 BEAM SCHEDULE					BEAM MARK	BEAM SIZE	BEAM REINFORCING		STIRRUPS	REMARKS	BEAM MARK	BEAM SIZE	BEAM REINFORCING		STIRRUPS	REMARKS	
BEAM MARK	BEAM SIZE	BEAM REINFORCING		STIRRUPS	REMARKS	BEAM MARK	BEAM SIZE	BEAM REINFORCING		STIRRUPS	REMARKS	BEAM MARK	BEAM SIZE	BEAM REINFORCING		STIRRUPS	REMARKS
2B-1	36"x24"	4-#10	CONT.	2-#4		2B-22	42"x42"	4-#11	CONT.	2-#4		2B-50	36"x36"	4-#11	CONT.	2-#5	
2B-2	36"x24"	4-#10	CONT.			2B-23	42"x42"	4-#11	CONT.			2B-51	72"x42"	4-#11	CONT.	2-#5	
2B-3	36"x24"	4-#10	CONT.			2B-24	42"x42"	4-#11	CONT.			2B-52	72"x42"	4-#11	CONT.		
2B-4	36"x42"	4-#10	CONT.	#4		2B-25	42"x42"	4-#11	CONT.			2B-53	30"x18"	4-#8	CONT.	#4	SEE SECT.
2B-5	36"x42"	4-#10	CONT.			2B-26	30"x42"	4-#11	CONT.			2B-54	30"x18"	4-#8	CONT.		SEE SECT.
2B-6	30"x36"	4-#9	CONT.	#5		2B-27	30"x42"	4-#11	CONT.			2B-55	36"x42"	4-#11	CONT.	2-#4	
2B-7	42"x18"	4-#8	CONT.	#4	SEE SECT.	2B-28	30"x42"	4-#11	CONT.			2B-56	36"x42"	4-#11	CONT.		
2B-8	42"x42"	4-#11	CONT.	3-#5		2B-29	42"x42"	4-#11	CONT.			2B-57	36"x42"	4-#11	CONT.		
2B-9	30"x24"	4-#11	CONT.	2-#4		2B-30	42"x42"	4-#11	CONT.			2B-58	18"x24"	4-#9	CONT.		
2B-10	30"x24"	4-#11	CONT.			2B-31	30"x42"	4-#11	CONT.			2B-59	18"x24"	4-#9	CONT.	#4	
2B-11	30"x24"	4-#11	CONT.			2B-32	30"x42"	4-#11	CONT.			2B-60	18"x24"	4-#9	CONT.		
2B-12	18"x42"	4-#10	CONT.	2-#5		2B-33	48"x42"	4-#11	CONT.			2B-61	36"x42"	4-#11	CONT.	3-#5	
2B-13	48"x42"	4-#11	CONT.			2B-34	42"x42"	4-#11	CONT.			2B-62	36"x42"	4-#11	CONT.		
2B-14	48"x42"	4-#11	CONT.	3-#5		2B-35	42"x42"	4-#11	CONT.			2B-63	36"x42"	4-#11	CONT.	2-#5	
2B-15	48"x42"	4-#11	CONT.	2-#5		2B-36	42"x42"	4-#11	CONT.			2B-64	30"x24"	4-#11	CONT.	2-#4	
2B-16	48"x42"	4-#11	CONT.			2B-37	48"x42"	4-#11	CONT.			2B-65	30"x24"	4-#11	CONT.		
2B-17	48"x42"	4-#11	CONT.	3-#5	PER COL GAP SEE SECT.	2B-38	48"x42"	4-#11	CONT.			2B-66	30"x24"	4-#11	CONT.		
2B-18	36"x42"	4-#11	CONT.			2B-39	42"x42"	4-#11	CONT.			2B-67	30"x24"	4-#11	CONT.		
2B-19	36"x42"	4-#11	CONT.			2B-40	42"x42"	4-#11	CONT.			2B-68	30"x24"	4-#11	CONT.		
2B-20	36"x42"	4-#11	CONT.			2B-41	42"x42"	4-#11	CONT.			2B-69	30"x24"	4-#11	CONT.		
2B-21	42"x42"	4-#11	CONT.			2B-42	42"x42"	4-#11	CONT.			2B-70	30"x24"	4-#11	CONT.		
2B-22	42"x42"	4-#11	CONT.			2B-43	18"x36"	4-#11	CONT.			2B-71	30"x24"	4-#11	CONT.		
2B-23	42"x42"	4-#11	CONT.			2B-44	36"x36"	4-#11	CONT.			2B-72	30"x24"	4-#11	CONT.		
2B-24	42"x42"	4-#11	CONT.			2B-45	36"x42"	4-#11	CONT.			2B-73	30"x24"	4-#11	CONT.		
2B-25	42"x42"	4-#11	CONT.			2B-46	36"x42"	4-#11	CONT.			2B-74	30"x24"	4-#11	CONT.		
2B-26	30"x42"	4-#11	CONT.			2B-47	36"x42"	4-#11	CONT.			2B-75	30"x24"	4-#11	CONT.		
2B-27	30"x42"	4-#11	CONT.			2B-48	36"x42"	4-#11	CONT.			2B-76	30"x24"	4-#11	CONT.		
2B-28	30"x42"	4-#11	CONT.			2B-49	36"x42"	4-#11	CONT.			2B-77	30"x24"	4-#11	CONT.		
2B-29	42"x42"	4-#11	CONT.			2B-50	36"x42"	4-#11	CONT.			2B-78	30"x24"	4-#11	CONT.		
2B-30	42"x42"	4-#11	CONT.			2B-51	72"x42"	4-#11	CONT.			2B-79	72"x42"	4-#11	CONT.		
2B-31	30"x42"	4-#11	CONT.			2B-52	72"x42"	4-#11	CONT.			2B-80	72"x42"	4-#11	CONT.		
2B-32	30"x42"	4-#11	CONT.			2B-53	30"x18"	4-#8	CONT.			2B-81	30"x18"	4-#8	CONT.		
2B-33	48"x42"	4-#11	CONT.			2B-54	30"x18"	4-#8	CONT.			2B-82	30"x18"	4-#8	CONT.		
2B-34	42"x42"	4-#11	CONT.			2B-55	36"x42"	4-#11	CONT.			2B-83	36"x42"	4-#11	CONT.		
2B-35	42"x42"	4-#11	CONT.			2B-56	36"x42"	4-#11	CONT.			2B-84	36"x42"	4-#11	CONT.		
2B-36	54"x42"	4-#11	CONT.			2B-57	36"x42"	4-#11	CONT.			2B-85	36"x42"	4-#11	CONT.		
2B-37	54"x42"	4-#11	CONT.			2B-58	18"x24"	4-#9	CONT.			2B-86	18"x24"	4-#9	CONT.		
2B-38	54"x42"	4-#11	CONT.			2B-59	18"x24"	4-#9	CONT.			2B-87	18"x24"	4-#9	CONT.		
2B-39	42"x42"	4-#11	CONT.			2B-60	18"x24"	4-#9	CONT.			2B-88	18"x24"	4-#9	CONT.		
2B-40	42"x42"	4-#11	CONT.			2B-61	36"x42"	4-#11	CONT.			2B-89	36"x42"	4-#11	CONT.		
2B-41	42"x42"	4-#11	CONT.			2B-62	36"x42"	4-#11	CONT.			2B-90	36"x42"	4-#11	CONT.		
2B-42	42"x42"	4-#11	CONT.			2B-63	36"x42"	4-#11	CONT.			2B-91	36"x42"	4-#11	CONT.		
2B-43	18"x36"	4-#11	CONT.			2B-64	30"x24"	4-#11	CONT.			2B-92	30"x24"	4-#11	CONT.		
2B-44	36"x36"	4-#11	CONT.			2B-65	30"x24"	4-#11	CONT.			2B-93	30"x24"	4-#11	CONT.		
2B-45	36"x42"	4-#11	CONT.			2B-66	30"x24"	4-#11	CONT.			2B-94	30"x24"	4-#11	CONT.		
2B-46	36"x42"	4-#11	CONT.			2B-67	30"x24"	4-#11	CONT.			2B-95	30"x24"	4-#11	CONT.		
2B-47	36"x42"	4-#11	CONT.			2B-68	30"x24"	4-#11	CONT.			2B-96	30"x24"	4-#11	CONT.		
2B-48	36"x42"	4-#11	CONT.			2B-69	30"x24"	4-#11	CONT.			2B-97	30"x24"	4-#11	CONT.		
2B-49	36"x42"	4-#11	CONT.			2B-70	30"x24"	4-#11	CONT.			2B-98	30"x24"	4-#11	CONT.		
2B-50	36"x42"	4-#11	CONT.			2B-71	30"x24"	4-#11	CONT.			2B-99	30"x24"	4-#11	CONT.		
2B-51	72"x42"	4-#11	CONT.			2B-72	30"x24"	4-#11	CONT.			2B-100	30"x24"	4-#11	CONT.		
2B-52	72"x42"	4-#11	CONT.			2B-73	30"x24"	4-#11	CONT.			2B-101	30"x24"	4-#11	CONT.		
2B-53	30"x18"	4-#8	CONT.			2B-74	30"x24"	4-#11	CONT.			2B-102	30"x24"	4-#11	CONT.		
2B-54	30"x18"	4-#8	CONT.			2B-75	30"x24"	4-#11	CONT.			2B-103	30"x24"	4-#11	CONT.		
2B-55	36"x42"	4-#11	CONT.			2B-76	30"x24"	4-#11	CONT.			2B-104	30"x24"	4-#11	CONT.		
2B-56	36"x42"	4-#11	CONT.			2B-77	30"x24"	4-#11	CONT.			2B-105	30"x24"	4-#11	CONT.		
2B-57	36"x42"	4-#11	CONT.			2B-78	30"x24"	4-#11	CONT.			2B-106	30"x24"	4-#11	CONT.		
2B-58	18"x24"	4-#9	CONT.			2B-79	30"x24"	4-#11	CONT.			2B-107	30"x24"	4-#11	CONT.		
2B-59	18"x24"	4-#9	CONT.			2B-80	30"x24"	4-#11	CONT.			2B-108	30"x24"	4-#11	CONT.		
2B-60	18"x24"	4-#9	CONT.			2B-81	30"x24"	4-#11	CONT.			2B-109	30"x24"	4-#11	CONT.		
2B-61	36"x42"	4-#11	CONT.			2B-82	30"x24"	4-#11	CONT.			2B-110	30"x24"	4-#11	CONT.		
2B-62	36"x42"	4-#11	CONT.			2B-83	30"x24"	4-#11	CONT.			2B-111	30"x24"	4-#11	CONT.		
2B-63	36"x42"	4-#11	CONT.			2B-84	30"x24"	4-#11	CONT.			2B-112	30"x24"	4-#11	CONT.		
2B-64	30"x24"	4-#11	CONT.			2B-85	30"x24"	4-#11	CONT.			2B-113	30"x24"	4-#11	CONT.		
2B-65	30"x24"	4-#11	CONT.			2B-86	30"x24"	4-#11	CONT.			2B-114	30"x24"	4-#11	CONT.		
2B-66	30"x24"	4-#11	CONT.			2B-87	30"x24"	4-#11	CONT.			2B-115	30"x24"	4-#11	CONT.		
2B-67	30"x24"	4-#11	CONT.			2B-88	30"x24"	4-#11	CONT.			2B-116	30"x24"	4-#11	CONT.		
2B-68	30"x24"	4-#11	CONT.			2B-89	30"x24"	4-#11	CONT.			2B-117	30"x24"	4-#11	CONT.		
2B-69	30"x24"	4-#11	CONT.			2B-90	30"x24"	4-#11	CONT.			2B-118	30"x24"	4-#11	CONT.		
2B-70	30"x24"	4-#11	CONT.			2B-91	30"x24"	4-#11	CONT.			2B-119	30"x24"	4-#11	CONT.		
2B-71	30"x24"	4-#11	CONT.			2B-92	30"x24"	4-#11	CONT.			2B-120	30"x24"	4-#11	CONT.		
2B-72	30"x24"	4-#11	CONT.			2B-93	30"x24"	4-#11	CONT.			2B-121	30"x24"	4-#11	CONT.		
2B-73	30"x24"	4-#11	CONT.			2B-94	30"x24"	4-#11	CONT.			2B-122	30"x24"	4-#11	CONT.		
2B-74	30"x24"	4-#11	CONT.			2B-95	30"x24"	4-#11	CONT.			2B-123	30"x24"	4-#11	CONT.		
2B-75	30"x24"	4-#11	CONT.			2B-96	30"x24"	4-#11	CONT.			2B-124	30"x24"	4-#11	CONT.		
2B-76	30"x24"	4-#11	CONT.			2B-97	30"x24"	4-#11	CONT.			2B-125	30"x24"	4-#11	CONT.		
2B-77	30"x24"	4-#11	CONT.			2B-98	30"x24"	4-#11	CONT.			2B-126	30"x24"	4-#11	CONT.		
2B-78	30"x24"	4-#11	CONT.			2B-99	30"x24"	4-#11	CONT.			2B-127	30"x24"	4-#11	CONT.		
2B-79	30"x24"	4-#11	CONT.			2B-100	30"x24"	4-#11	CONT.			2B-128	30"x24"	4-#11	CONT.		
2B-80	30"x24"	4-#11	CONT.			2B-101	30"x24"	4-#11	CONT.			2B-129	30"x24"	4-#11	CONT.		
2B-81	30"x24"	4-#11	CONT.			2B-102	30"x24"	4-#11	CONT.			2B-130	30"x24"	4-#11	CONT.		
2B-82	30"x24"	4-#11	CONT.			2B-103	30"x24"	4-#11	CONT.			2B-131	30"x24"	4-#11	CONT.		
2B-83	30"x24"	4-#11	CONT.			2B-104	30"x24"	4-#11	CONT.			2B-132	30"x24"	4-#11	CONT.		
2B-84	30"x24"	4-#11	CONT.			2B-105	30"x24"	4-#11	CONT.			2B-133	30"x24"	4-#11	CONT.		
2B-85	30"x24"	4-#11	CONT.			2B-106	30"x24"	4-#11	CONT.			2B-134	30"x24"	4-#11	CONT.		
2B-86	30"x24"	4-#11	CONT.			2B-107	30										



THIS WORK WAS PREPARED BY
ME OR UNDER MY SUPERVISION.

1) BS-2 3/30/76 Ref. Clarification
 2) PR-1 5/1/77 Clarification of
 Stim. on Beams
 2B-79 + 2B-81
 3) ASI- 6/30/79 Rev. of Beams
 2B-66, 2B-67,
 2B-75

BEAM SCHEDULE

[illegible]

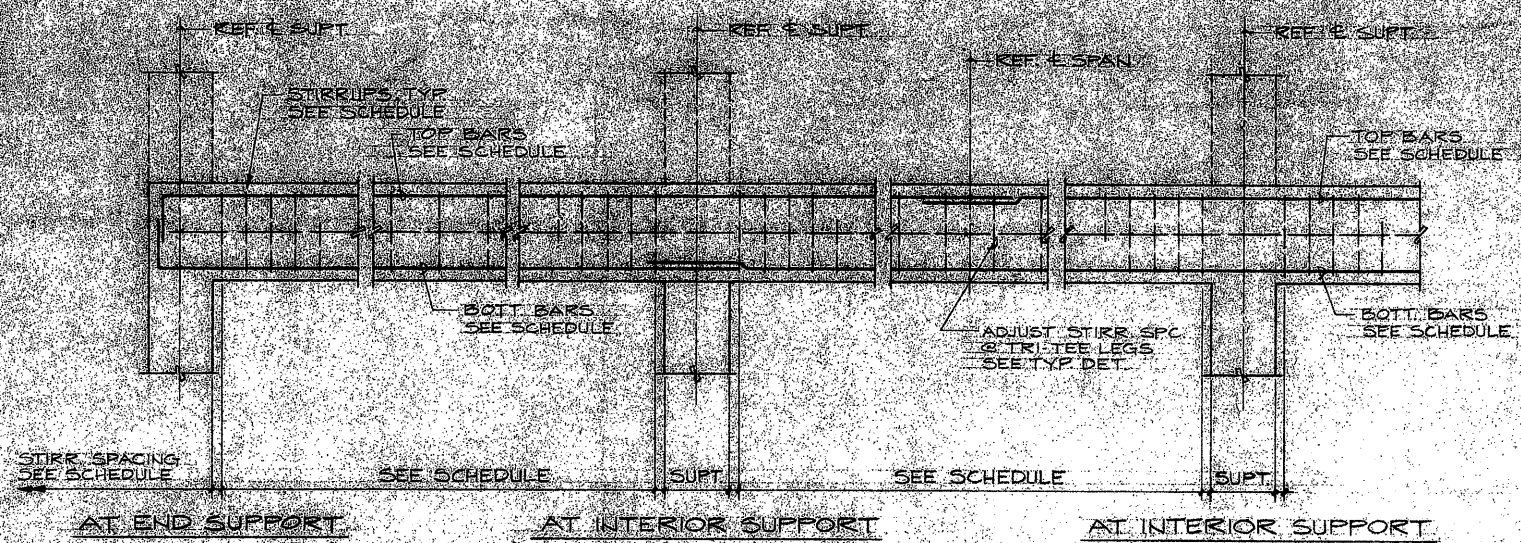
LEVEL L2 BEAM SCHEDULE CONTINUE FROM SHT. 5										BEAM MARK	BEAM SIZE	BEAM REINFORCING	STIRRUPS	REMARKS	BEAM MARK	BEAM SIZE	BEAM REINFORCING	STIRRUPS	REMARKS
BEAM MARK	BEAM SIZE	BEAM REINFORCING		STIRRUPS	REMARKS	BEAM MARK	BEAM SIZE	BEAM REINFORCING		STIRRUPS	REMARKS	BEAM MARK	BEAM SIZE	BEAM REINFORCING		STIRRUPS	REMARKS		
	W D	E SUPPORTS						E SUPPORTS						E SUPPORTS					
2B-66	18" x 24"	5#11	4#10	2#4	See Det. RS-5 Sht. 8/11	2B-67	18" x 24"	5#11	4#10	2#4		2B-68	30" x 30"	4#11	4#11	2#4			
2B-69	30" x 30"	4#11	4#11	2#4		2B-70	36" x 42"	4#10	4#11	2#4		2B-71	42" x 42"	5#10	5#10	2#4			
2B-72	42" x 42"	5#10	5#10	2#4		2B-73	42" x 42"	5#10	5#10	2#4		2B-74	30" x 36"	4#9	4#9	2#4			
2B-75	30" x 36"	4#9	4#9	2#4		2B-76	60" x 42"	5#11	4#11	2#4		2B-77	60" x 42"	5#11	4#11	2#4			
2B-78	60" x 42"	5#11	4#11	2#4		2B-79	18" x 24"	4#8	4#8	2#4		2B-80	18" x 24"	4#8	4#8	2#4			
2B-81	18" x 24"	4#8	4#8	2#4		2B-82	18" x 24"	4#8	4#8	2#4		2B-83	18" x 24"	4#8	4#8	2#4			
2B-84	18" x 24"	4#8	4#8	2#4		2B-85	18" x 24"	4#8	4#8	2#4		2B-86	18" x 24"	4#8	4#8	2#4			
2B-87	30" x 42"	4#10	4#10	2#4		2B-88	18" x 24"	4#8	4#8	2#4		2B-89	18" x 24"	4#8	4#8	2#4			
2B-90	18" x 24"	4#8	4#8	2#4		2B-91	36" x 36"	4#10	4#10	2#4		2B-92	36" x 36"	4#10	4#10	2#4			
2B-93	36" x 36"	4#10	4#10	2#4		2B-94	48" x 42"	6#11	6#11	2#4		2B-95	48" x 42"	6#11	6#11	2#4			
2B-96	48" x 42"	6#11	6#11	2#4		2B-97	54" x 42"	6#11	6#11	2#4		2B-98	54" x 42"	6#11	6#11	2#4			
2B-99	54" x 42"	6#11	6#11	2#4		2B-100	42" x 42"	6#11	6#11	2#4		2B-101	42" x 42"	6#11	6#11	2#4			
2B-102	42" x 42"	6#11	6#11	2#4		2B-103	60" x 42"	6#11	6#11	2#4		2B-104	60" x 42"	6#11	6#11	2#4			
2B-105	60" x 42"	6#11	6#11	2#4		2B-106	42" x 36"	6#11	6#11	2#4		2B-107	42" x 36"	6#11	6#11	2#4			

Architecture
Graphic Design
Interior Design
Planning
Programming

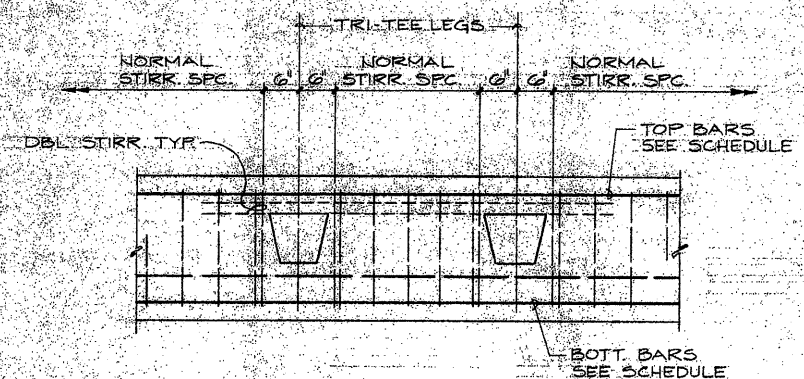


THIS WORK WAS PREPARED BY
ME OR UNDER MY SUPERVISION

Project
**HONOLULU AFFORDABLE
HOUSING COMPLEX**



TYPICAL BEAM ELEVATION
SCALE: 1/2" = 1'-0"



TYP. BEAM DETAIL @ TRI-TEES
SCALE: 3/4" = 1'-0"

TYP. CONCRETE BEAM DETAIL
SCALE: AS NOTED

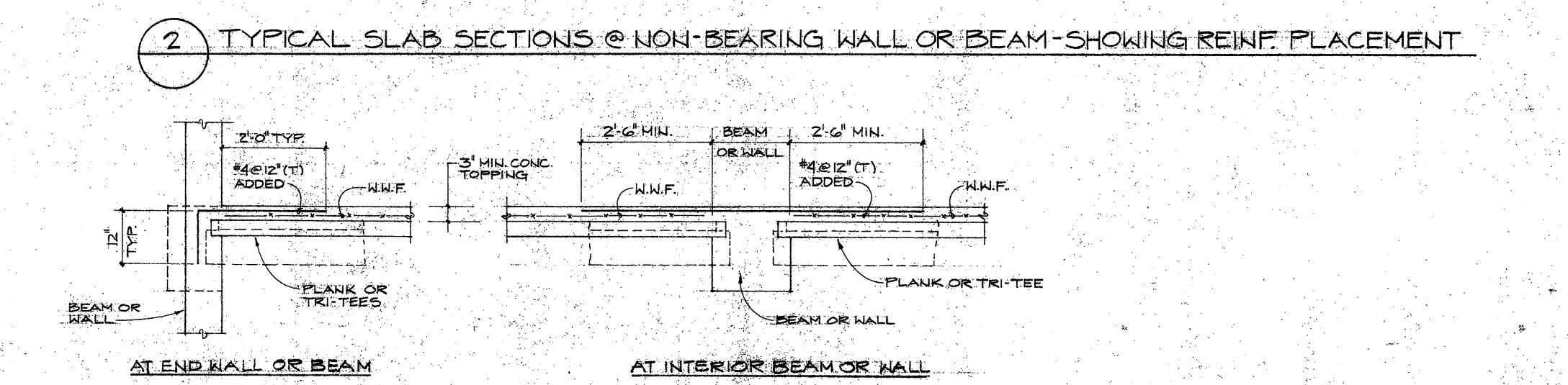
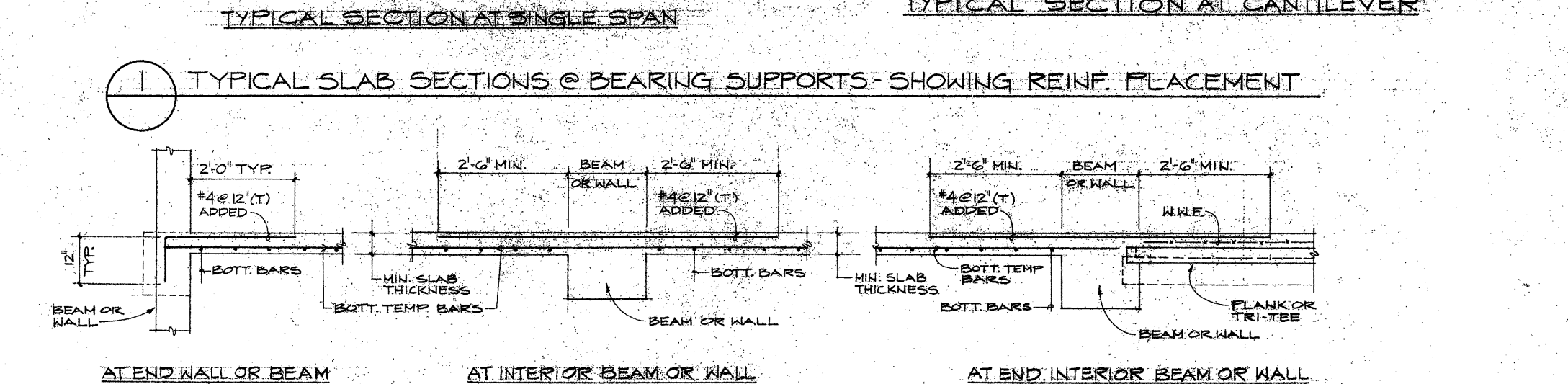
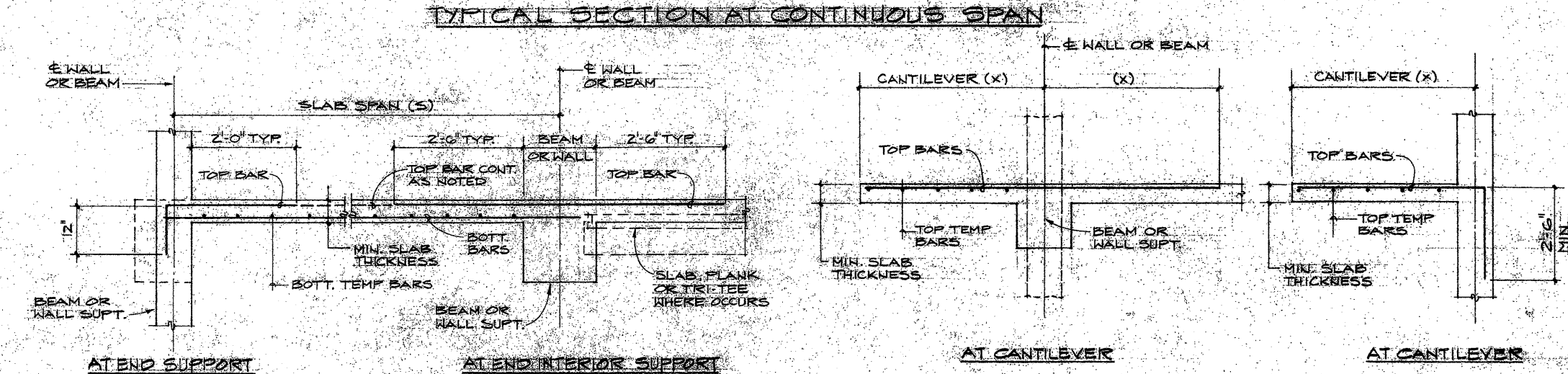
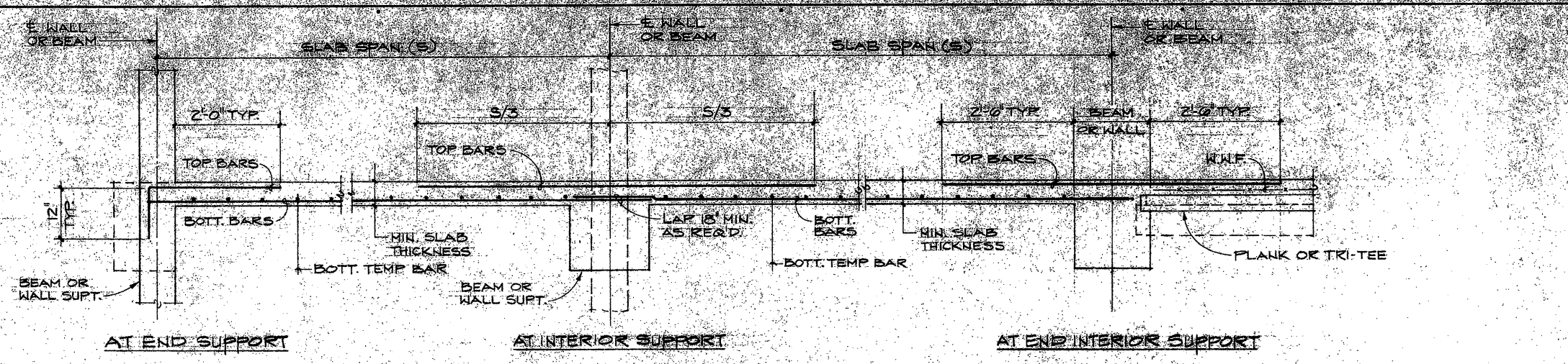
RS-1 3/16" Rev. Beam Depth
at Courtyard
RS-1 3/16" Rev. Type "A" &
Type "B" Stirrup

BEAM DETAILS

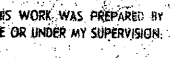
APPROVED
This set of plans and specifications MUST be at job site during construction. It is unlawful to alter or change same, or to denote the same without approval from the Building Department. SMALL NOT be used in any way to indicate compliance with the provisions of any code or law. HAWAIIAN CITY DIVISION
Approved by: City & County of Honolulu

S-506

SLAB STRIP SCHEDULE					
SLAB MARK	SLAB THICKNESS	SLAB REINFORCING			REMARKS
		LEFT SUPT. TOP BARS	BOTTOM BARS	RIGHT SUPT. TOP BARS	
S-1	5"		#4@10"(B)	#4@12"(T)	USE #4@12"(T) @ SLAB END CONDITION
S-2	5"	#4@6"(T) CANTILEVER	#4@10"(B)	#4@12"(T)	TOP TEMP. BAR @ CANTILEVER ONLY
S-3	5"	#4@12"(T)	#4@10"(B)	#4@10"(T)	USE #4@12"(T) @ SLAB END CONDITION
S-4 S-4A	5"	#4@12"(T)	#4@10"(B)	#4@12"(T)	TOP BARS CONT. @ S-4A
S-5 S-5A	6 1/2"	#4@12"(T)	#4@10"(B)	#4@12"(T)	TOP BARS CONT. @ S-5A
S-6	6 1/2"	#4@12"(T)	#4@10"(B)	#4@12"(T)	OMIT TOP BARS @ SLAB END CONDITION
S-7	6 1/2"	#4@12"(T)	#4@10"(B)	#4@12"(T)	
S-8	5"	#4@6"(T) CANTILEVER		#3@11"(T)	
S-9	5"		#4@10"(B)	#4@12"(T)	USE #4@12"(T) @ SLAB END CONDITION
S-10	5 1/2"	#4@12"(T)	#4@10"(B)	#4@10"(T)	USE #4@12"(T) @ SLAB END CONDITION
S-11	5 1/2"	#4@10"(T)	#4@10"(B)	#4@10"(T)	TOP BARS CONT. (BEND DOWN 12" @ SLAB END COND.)
S-12	5 1/2"		#4@10"(B)	#4@10"(T)	#3@10"(B)
S-13	5 1/2"	#4@6"(T)	#4@10"(B)	#4@10"(T)	TOP TEMP. BAR @ (T) OR (B) CANTILEVER ONLY
S-14	5 1/2"			#4@6"(T)	#3@10"(T)
S-15	5 1/2"	#4@6"(T) CANTILEVER			
S-16	5 1/2"		#4@10"(B)	#4@6"(T) CANTILEVER	(T) OR (B) TOP TEMP. BAR @ CANTILEVER ONLY
S-17	5 1/2"	#4@12"(T)	#4@10"(B)	#4@12"(T)	TOP BARS CONT.
S-20	6"	#4@12"(T)	#4@10"(B)	#4@8"(T)	#3@9"(B)
S-21	6"		#4@10"(B)	#4@8"(T)	
S-22	5"		#4@10"(B)	#4@12"(T)	#3@11"(B)
S-23	5"	#4@6"(T) CANTILEVER			#3@11"(T)
S-24	6"		#4@10"(B)	#4@12"(T)	#3@9"(B)
S-25	7"	#4@12"(T)	#5@6"(B)	#4@12"(T)	#4@12"(B)
S-26	7"	#4@12"(T)	#4@8"(B)	#4@12"(T)	



RS-3 4/8/94 Remove Remark Note on S-4
PR-1 4/8/94 Clarification of Slab at Typo Sect. at Cont. Span



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