ABBREVIATIONS

AL. SL.	ALUMINUM SLIDER	(N)	NORTH
ALT.	ALTERNATE	N.A.	NOT APPLICABLE
A.T.	ACOUSTIC TITLE	N.I.C.	NOT IN CONTRACT
BD.	BOARD	O.C.	ON CENTER
CLG.	CEILING	Q.T.	QUARRY TILE
COL.	COLUMN	R.A.	RETURN AIR
CONC. OR CNC.	CONCRETE	RDWD.	REDWOOD
COND.	CONDITION	REF.	REFRIGERATOR
CPT.	CARPET	REV.	REVISED
DBL.	DOUBLE	R.T.S.	RUBBER TOP SET
DN.	DOWN	S.	SOUTH
DS.	DOWNSPOUT	SHT.	SHEET
DTL.	DETAIL	SIM.	SIMILAR
E.	EAST	S & P	SHELF AND POLE
EA.	EACH	SPECS.	SPECIFICATIONS
ELEC.	ELECTRICAL	T.	THERMOSTAT
EXH.	EXHAUST	T.C.	TIME CLOCK
EXP.	EXPOSED STRUCTURE	T.O.PL.	TOP OF PLATE
EXT.	EXTERIOR	TYP.	TYPICAL
FIN. FLR.	FINISH FLOOR	U.O.N.	UNLESS OTHERWISE NOTED
F. GL.	FIXED GLASS	U.N.O	UNLESS NOTED OTHERWISE
GA.	GAUGE	V.	VARIES
GYP. BD. OR G.B.	GYPSUM BOARD	V.W.C.	VINYL WALL COVERING
H.B.	HOSE BIBB	W.	WEST
HI.	HIGH	W/	WITH
HT.	HEIGHT	W.C.	WATER CLOSET
HR.	HOUR	WD/	WOOD
INT.	INTERIOR	W/H	WATER HEATER
JST.	JOIST	W.P.	WATERPROOF
LAV.	LAVATORY	WT	WEIGHT
LT.	LIGHT	O	ROUND
M.E.	METAL EDGE	#	NUMBER
MET	METAL	@	AT

VENTURA COUNTY MEDICAL CENTER
MAMMOGRAPHY ROOMS & NEEDLE BIOPSY ROOM
VENTURA, CALIFORNIA

FILE PATH & NAME: P:\A000443 VCMC MAMMOGRAPHY EQUIPMENT\DRAWINGS\T-TITLESHEET.DWG PLOTTED: 11:15 AM

- 5 — WINDOW TYPE
- 6 — DOOR CONSECUTIVE NUMBER
- 106 — ROOM CONSECUTIVE NUMBER
- 3 / A5 — INDICATES DETAIL NUMBER; SHEET WHERE DETAIL IS DRAWN
- 2 / A5 — SECTION; SHEET WHERE DETAIL IS DRAWN
- 1 / A6 — INTERIOR ELEVATION IDENTIFICATION; SHEET WHERE INTERIOR ELEVATION IS DRAWN
- 2 — NUMBER OF CIRCLE CORRESPONDS TO NUMBER ON NOTE LEGEND
- A — LETTER IN OVAL CORRESPONDS TO WALL CONSTRUCTION TYPE
- N — NORTH ARROW, ORIENTATION TO TRUE NORTH
- 3 — REVISION CLOUD INDICATES AREA REVISED
- WORK POINT, CONTROL, ELEVATION OR DATUM POINT

LIST OF SYMBOLS

- EARTH
- GRAVEL OR CRUSHED ROCK BASE
- ASPHALTIC CONCRETE PAVING
- CONCRETE
- MASONRY
- PLYWOOD
- WOOD, ROUGH OR DIM. LUMBER
- INSULATION
- PLASTER
- GYPSUM WALL BOARD

MATERIALS LEGEND

GENERAL NOTES

PROJECT SCOPE

ALTERATIONS TO AND EXISTING SPC-1, NPC-2 HOSPITAL BUILDING AS FOLLOWS:

THE PROJECT SCOPE CONSISTS OF THE CONSTRUCTION OF TWO MAMMOGRAPHY ROOMS IN AN AREA PREVIOUSLY USED AS AN ANGIOGRAPHY ROOM. ADDITIONALLY, A NEEDLE BIOPSY ROOM WILL BE CONSTRUCTED IN A VACATED AND UNPROGRAMMED ROOM PREVIOUSLY USED FOR STORAGE. HANDICAP ACCESSIBLE DRESSING ROOMS WILL BE ADDED (TO COMPLY WITH 1224.18.6.2) ALONG WITH MODIFICATION TO EXISTING TOILET ROOMS TO PROVIDE AN ACCESSIBLE PATIENT TOILET ROOM (TO COMPLY WITH 1224.18.6.1) AND A STAFF TOILET ROOM (TO COMPLY WITH 1224.18.6.3).

APPLICABLE CODES:

2010 CALIFORNIA BUILDING STANDARDS ADMINISTRATIVE CODE (PART 1, TITLE 24, CALIFORNIA CODE OF REGULATIONS (CCR)

2007 CALIFORNIA BUILDING CODE (PART 2, TITLE 24, CALIFORNIA CODE OF REGULATIONS (CCR) (2006 IBC AND 2007 CALIFORNIA AMEDMENTS)

2007 CALIFORNIA ELECTRICAL CODE (PART 3, TITLE 24, CALIFORNIA CODE OF REGULATIONS (CCR) (2005 NEC AND 2007 CALIFORNIA AMEDMENTS)

2007 CALIFORNIA MECHANICAL CODE (PART 4, TITLE 24, CALIFORNIA CODE OF REGULATIONS (CCR) (2006 NEC AND 2007 CALIFORNIA AMEDMENTS)

2007 CALIFORNIA PLUMBING CODE (PART 5, TITLE 24, CALIFORNIA CODE OF REGULATIONS (CCR) (2005 NEC AND 2007 CALIFORNIA AMEDMENTS)

2007 CALIFORNIA FIRE CODE (PART 9, TITLE 24, CALIFORNIA CODE OF REGULATIONS (CCR) (2005 NEC AND 2007 CALIFORNIA AMEDMENTS)

CONSTRUCTION TYPE:

BUILDING NUMBER	BUILDING NAME	CONSTRUCTION COMPLETION DATE	CONSTRUCTION TYPE
304	FAINER WING	1984	TYPE IA
305	MAIN HOSPITAL	1951	TYPE IB
306	MAIN HOSPITAL	1919	TYPE IB
367	TELEPHONE BUILDING	1984	TYPE IA
368	CAT SCAN	1996	TYPE VA
404	LAB/KITCHEN	2005	TYPE IA
403	CAFETERIA	2005	TYPE IA

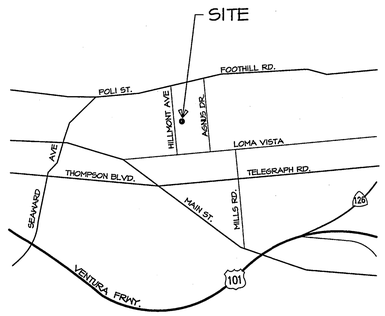
OCCUPANCY:

BUILDING NUMBER	PRIMARY OCCUPANCY
304	I-2
305	I-2
306	I-2
367	B
368	B
404	B
403	A2

USE AND AREAS

PROPOSED USE	EXISTING USE	AREA
NEEDLE BIOPSY ROOM	VACATED STORAGE ROOM	186 SQ. FT.
MAMMO ROOMS	VACATED ANGIO ROOM	367 SQ. FT.
DRESSING AREA	VACATED MAMMO ROOM	254 SQ. FT.
RESTROOMS	VACATED VENDING/STORAGE AREA	436 SQ. FT.

SITE



VICINITY MAP

N

TEMPORARY INSTALLATIONS

Infection control measures during construction shall be implemented as required by the facility's infection control staff (Title 24, Part 1, Section 7-135). Prior to construction, all required temporary installations, including details of infection control measures such as temporary barriers/membranes, portable exhaust fans and temporary ductwork, must be shown on the plans or reviewed by OSHPD field staff. Temporary construction barriers must comply with Code Application Notice No. 4-8705.4. Temporary installations must not have a negative impact on existing systems nor cause unsafe conditions. Temporary installations shall maintain adequate egress in compliance with the 2007 CBC and shall not obstruct existing exits, create a fire hazard or reduce required fire resistance. Temporary ventilation systems shall not cause the air balance of adjacent rooms or spaces to be impacted or alter the performance of permanent building ventilation systems. Airflow measurements shall be taken to verify adjacent rooms or spaces are not impacted. (Code Application Notice No. 2-34)

OSHPD REQUIREMENTS FOR REMODELING

The intent of the drawings and specifications is to reconstruct the hospital building in accordance with the California Building Standards Code, the 2007 edition of Title 19 & 24 California Code of Regulations. Should any conditions develop not covered by the approved plans and specifications wherein the finished work will not comply with said Title 24, California Code of Regulations, a change order detailing and specifying the required work shall be submitted to and approved by OSHPD before proceeding with the work.

Copy of the OSHPD pre-approved documents must be made available at the job site at all times. Installation of pre-approved items must be done in strict accordance with the pre-approved documents. Identify manufacturer's name and model no., if applicable.

Anchorage of all equipment to be installed, as a part of this project shall be detailed on the appropriate plans, except for the following:

1. Fixed equipment weighing less than 400 pounds supported by the floor or roof.
3. Temporary or movable equipment.
4. Equipment weighing less than 20 pounds supported by vibration isolators.
5. Equipment weighing less than 20 pounds suspended from roof of floor or hung from a wall.

Some of the items in the categories listed above must be supported and anchored to resist the forces prescribed by Section 1632A and the anchorage shall be approved by the appropriate Design Professional of Record and OSHPD as a part of field reviews/observations. The Inspector of Record shall assure that the above requirements are enforced.

Prior to coring or drilling of concrete floor or wall structure, existing reinforcing bars shall be located by non-destructive means. Do not damage existing reinforcing bars in any way, unless so detailed on these plans.

LATERAL FORCE DESIGN CRITERIA FOR NONSTRUCTURAL COMPONENTS & EQUIPMENT

Per C.B.C. Section 3403A.2.4.4, Exception #2 and #3

For existing SPC-1 & NPC-2 building, anchorage shall meet the requirements of Section 1630B of the 1995 CBC, with Importance Factor Ip=1.0

DEFERRED APPROVALS

1. FIRE ALARM SYSTEM PER CBC 106.1.1.1. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR REVIEW BY THE AOR PRIOR TO SUBMITTING TO OSHPD FOR APPROVAL. OSHPD APPROVAL REQUIRED PRIOR TO CONSTRUCTION.

INDEX OF DRAWINGS

O.S.H.P.D. PROJECT #SL101318-56

REVIEWED IN ACCORDANCE WITH THE REQUIREMENTS OF T24, CCR

APPROVED

APR 05 2011

Office of Statewide Health Planning & Development
FACILITIES DEVELOPMENT DIVISION

COUNTY OF VENTURA
PUBLIC WORKS AGENCY
ENGINEERING SERVICES DEPARTMENT

HEALTH CARE AGENCY	DEPUTY DIRECTOR
PROJECT MANAGER	DIRECTOR
SPEC. NUMBER CP11-05	SHEET 1 OF 31
PROJECT NUMBER ENT11103	DRAWING NUMBER 113549

RASMUSSEN & ASSOCIATES
Architecture
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21 S. California Street
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Sheet Title: TITLE SHEET

Revisions	R&A No:	000443
12-29-10 OSHPD CORR.	Date:	06-01-10
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	Checked:	JJL
	Consult. No:	

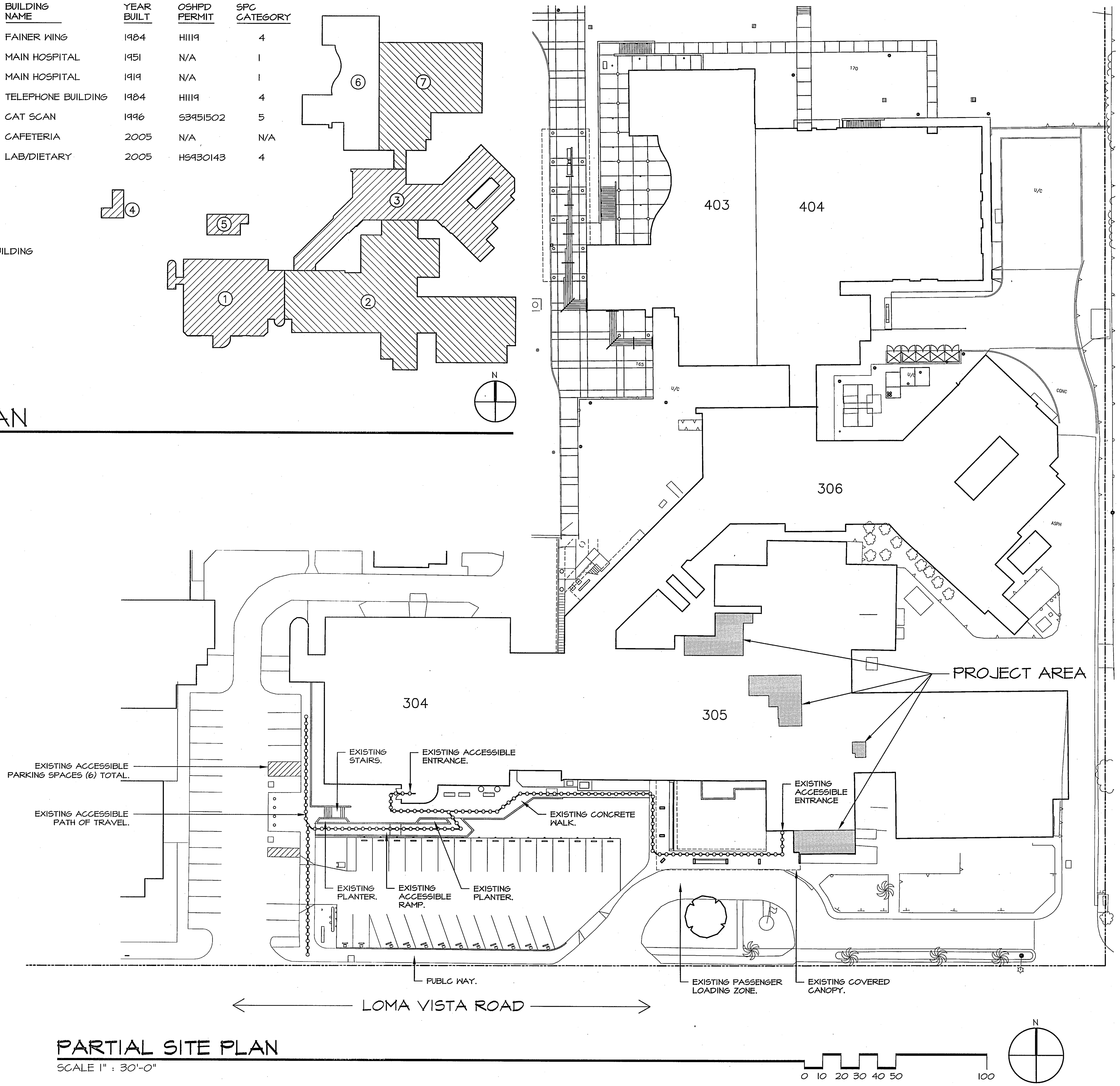
MAMMOGRAPHY ROOMS & NEEDLE BIOPSY ROOM
VENTURA COUNTY MEDICAL CENTER
3291 LOMA VISTA ROAD
VENTURA, CALIFORNIA

Sheet No.
T

KEY PLAN No.	BUILDING NUMBERS	BUILDING NAME	YEAR BUILT	OSHPD PERMIT	SPC CATEGORY
1	304	FAINER WING	1984	H1119	4
2	305	MAIN HOSPITAL	1951	N/A	1
3	306	MAIN HOSPITAL	1919	N/A	1
4	367	TELEPHONE BUILDING	1984	H1119	4
5	368	CAT SCAN	1996	S3951502	5
6	403	CAFETERIA	2005	N/A	N/A
7	404	LAB/DIETARY	2005	HS930143	4

LEGEND

ACUTE CARE HOSPITAL BUILDING



KEY PLAN

O NOTE LEGEND

PARTIAL SITE PLAN

SCALE 1" : 30'-0"

O.S.H.P.D. PROJECT #SL-101318-56

REVIEWED IN ACCORDANCE WITH THE REQUIREMENTS OF T24, CCR
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Office of Statewide Health Planning & Development
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COUNTY OF VENTURA
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ENGINEERING SERVICES DEPARTMENT

PROJECT MANAGER

SPEC. NUMBER	SHEET 2 OF 31
CP11-05	
PROJECT NUMBER ENT 11103	DRAWING NUMBER 113550

MAMMOGRAPHY ROOMS
& NEEDLE BIOPSY ROOM
VENTURA COUNTY MEDICAL CENTER
3291 LOMA VISTA ROAD
VENTURA, CALIFORNIA

Sheet No.
A1.0

Sheet Title: PARTIAL SITE PLAN

Revisions		
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LICENSED ARCHITECT JAY LONGNO C-20801 REN. 12-31-11 STATE OF CALIFORNIA

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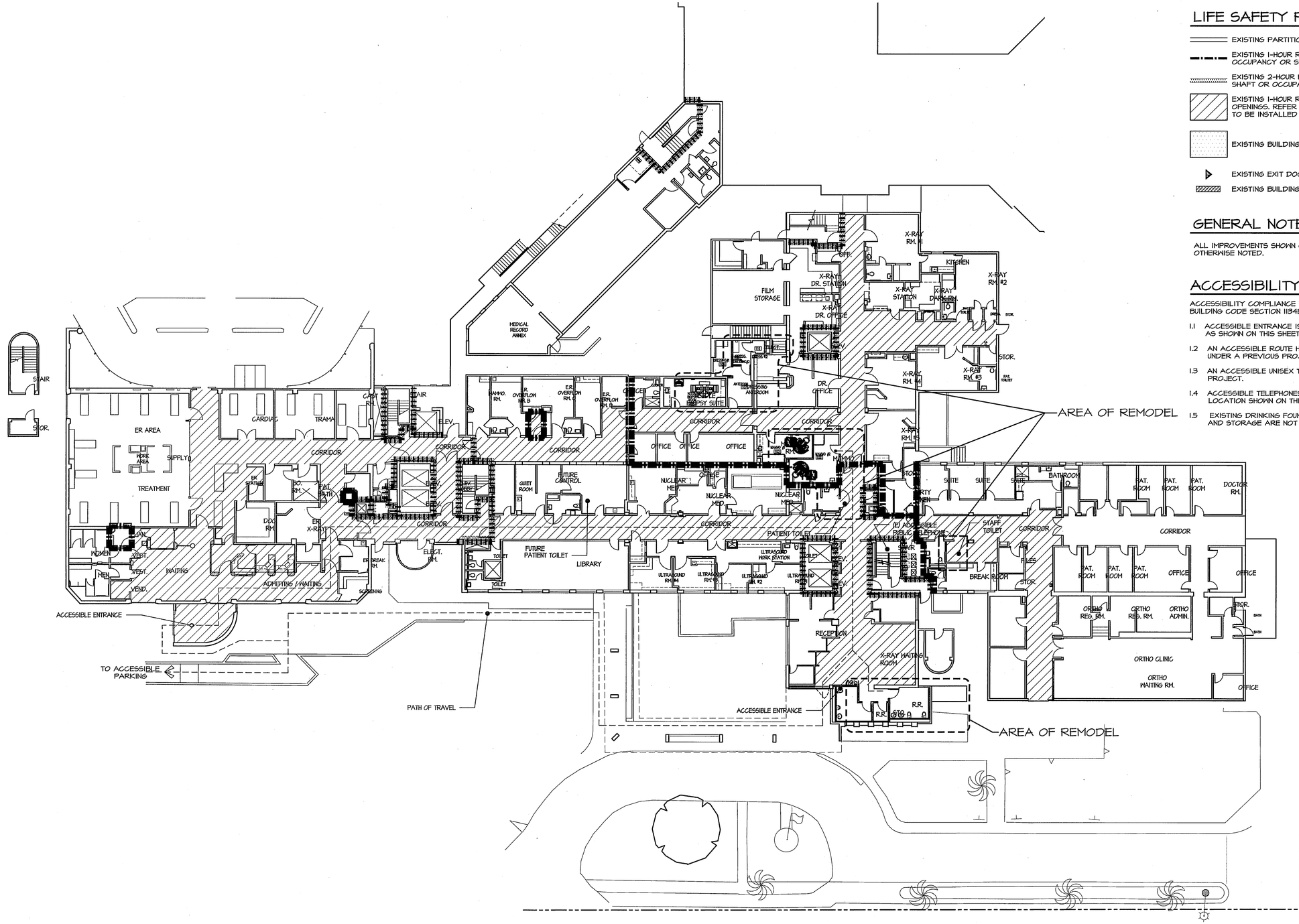

LIFE SAFETY PLAN WALL LEGEND

- EXISTING PARTITION WITH UNPROTECTED OPENINGS.
- EXISTING 1-HOUR RATED WALL WITH PROTECTED OPENINGS FOR OCCUPANCY OR SMOKE SEPARATION.
- EXISTING 2-HOUR RATED WALL WITH PROTECTED OPENING FOR SHAFT OR OCCUPANCY SEPARATION.
- EXISTING 1-HOUR RATED CORRIDOR WITH 20 MINUTE RATED OPENINGS. REFER TO DETAIL 1/A4.2 FOR TEMPORARY PARTITIONS TO BE INSTALLED DURING CONSTRUCTION.
- EXISTING BUILDING AREA PROTECTED WITH FIRE SPRINKLER.
- EXISTING EXIT DOOR AT GRADE.
- EXISTING BUILDING SEPARATION OR SMOKE BARRIER WALL.

GENERAL NOTE

ALL IMPROVEMENTS SHOWN ON THIS DRAWING ARE EXISTING UNLESS OTHERWISE NOTED.

ACCESSIBILITY COMPLIANCE

ACCESSIBILITY COMPLIANCE FOR PATH OF TRAVEL PER CALIFORNIA BUILDING CODE SECTION 1134B.2.1 IS PROVIDED AS FOLLOWS:

1.1 ACCESSIBLE ENTRANCE IS PROVIDED AT THE MAIN ENTRY AS SHOWN ON THIS SHEET.

1.2 AN ACCESSIBLE ROUTE HAS BEEN PROVIDED TO THE MAIN ENTRANCE UNDER A PREVIOUS PROJECT.

1.3 AN ACCESSIBLE UNISEX TOILET HAS BEEN PROVIDED UNDER A PREVIOUS PROJECT.

1.4 ACCESSIBLE TELEPHONES ARE PROVIDED AT THE LOCATION SHOWN ON THIS SHEET.

1.5 EXISTING DRINKING FOUNTAIN IS ACCESSIBLE. 1.6 ADDITIONAL PARKING AND STORAGE ARE NOT REQUIRED FOR THIS PROJECT.

FIRST FLOOR LIFE/SAFETY KEY PLAN

SCALE 1/16" : 1'-0"

0 5 10 15 20 25 50

N

O.S.H.P.D. PROJECT #SL 101318-56

REVIEWED IN ACCORDANCE WITH THE REQUIREMENTS OF T24, CCR

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APR 05 2011

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PROJECT MANAGER	
SPEC. NUMBER CP11-05	SHEET 3 OF 31
PROJECT NUMBER ENT11103	DRAWING NUMBER 113551

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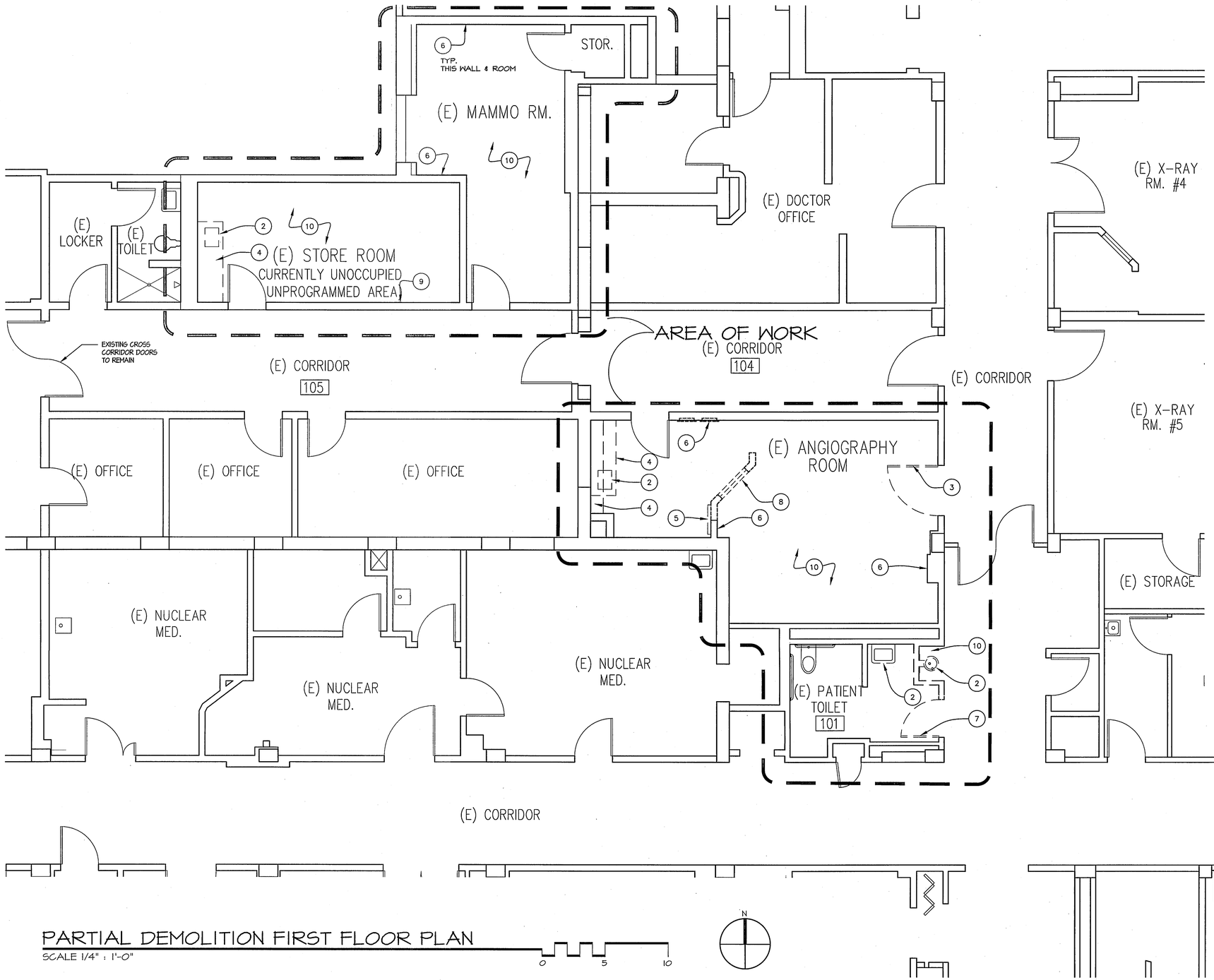
Sheet Title: FIRST FLOOR LIFE/ SAFTEY KEY PLAN

MAMMOGRAPHY ROOMS & NEEDLE BIOPSY ROOM
VENTURA COUNTY MEDICAL CENTER
3291 LOMA VISTA ROAD
VENTURA, CALIFORNIA

Sheet No.
A2.1



PARTIAL DEMOLITION FIRST FLOOR PLAN

SCALE 1/4" : 1'-0"

0 5 10

GENERAL NOTE

A. ALL IMPROVEMENTS SHOWN ON THIS DRAWING ARE EXISTING UNLESS OTHERWISE NOTED.

B. PROVIDE TEMPORARY BARRIERS AND EXITING PATHS PER DETAIL 7/A4.2 DURING CONSTRUCTION TO MAINTAIN RATED CORRIDOR SYSTEMS.

WALL LEGEND

EXISTING WALLS TO REMAIN

EXISTING WALLS TO BE REMOVED

NOTE LEGEND

1 REMOVE (E) DOOR AND FRAME. INFILL EXISTING OPENING PER WALL FRAMING DETAILS. 3/A4.1.

2 REMOVE (E) PLUMBING FIXTURE.

3 REMOVE (E) 4' DOOR. & FRAME.

4 REMOVED (E) CABINETS.

5 REMOVE (E) FILM ILLUMINATOR.

6 REMOVE (E) ELECTRICAL EQUIPMENT. SEE ELECTRICAL FOR EXTENT OF ELECTRICAL DEMO.

7 REMOVE (E) DOOR AND FRAME. RE-FRAME NEW WALL PER FLOOR PLAN SHEET 3.3.

8 REMOVED EXISTING WINDOW & FRAME.

9 REMOVE (E) BUILT-IN WALL CLOCK. PATCH AND REPAIR WALL FINISH.

10 REMOVE (E) FLOORING. PREPARE SUBSTRATE FOR NEW FLOORING.

O.S.H.P.D. PROJECT #SL 101318-56

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PROJECT MANAGER	
SPEC. NUMBER CP11-05	SHEET 4 OF 31
PROJECT NUMBER ENT11103	DRAWING NUMBER 113552

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Sheet PARTIAL DEMO. FIRST FLOOR PLAN
Title

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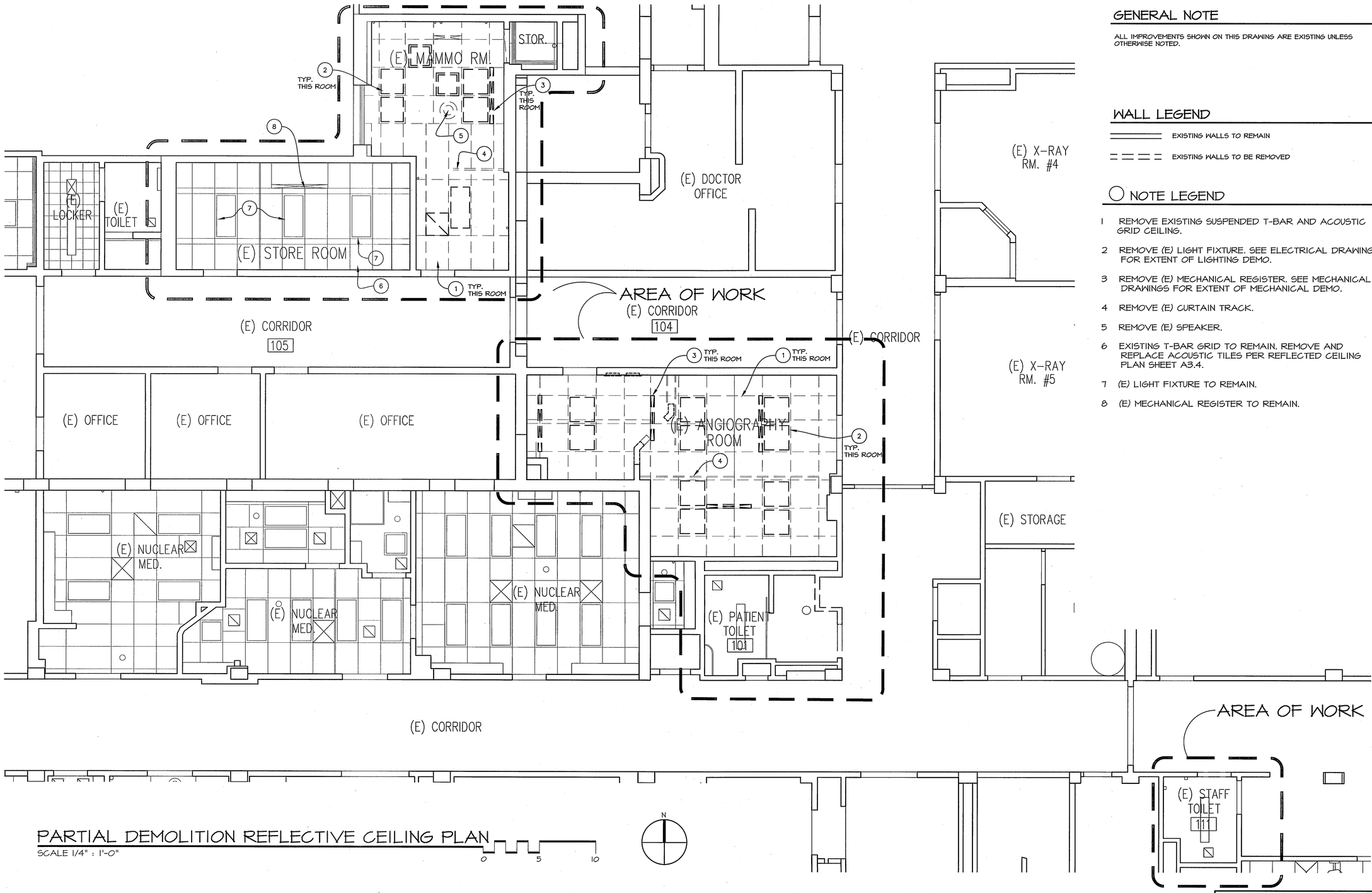
MAMMOGRAPHY ROOMS & NEEDLE BIOPSY ROOM
VENTURA COUNTY MEDICAL CENTER
3291 LOMA VISTA ROAD
VENTURA, CALIFORNIA

Sheet No.
A3.1



PARTIAL DEMOLITION REFLECTIVE CEILING PLAN

SCALE 1/4" : 1'-0"

0 5 10

GENERAL NOTE

ALL IMPROVEMENTS SHOWN ON THIS DRAWING ARE EXISTING UNLESS OTHERWISE NOTED.

WALL LEGEND

EXISTING WALLS TO REMAIN

EXISTING WALLS TO BE REMOVED

NOTE LEGEND

1 REMOVE EXISTING SUSPENDED T-BAR AND ACOUSTIC GRID CEILING.

2 REMOVE (E) LIGHT FIXTURE. SEE ELECTRICAL DRAWINGS FOR EXTENT OF LIGHTING DEMO.

3 REMOVE (E) MECHANICAL REGISTER. SEE MECHANICAL DRAWINGS FOR EXTENT OF MECHANICAL DEMO.

4 REMOVE (E) CURTAIN TRACK.

5 REMOVE (E) SPEAKER.

6 EXISTING T-BAR GRID TO REMAIN. REMOVE AND REPLACE ACOUSTIC TILES PER REFLECTED CEILING PLAN SHEET A3.4.

7 (E) LIGHT FIXTURE TO REMAIN.

8 (E) MECHANICAL REGISTER TO REMAIN.

O.S.H.P.D. PROJECT #SL 101318-56

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PROJECT MANAGER	
SPEC. NUMBER CP11-05	SHEET 5 OF 31
PROJECT NUMBER ENT11103	DRAWING NUMBER 113553

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Sheet Title: PARTIAL DEMO. REFLECTIVE CEILING PLAN

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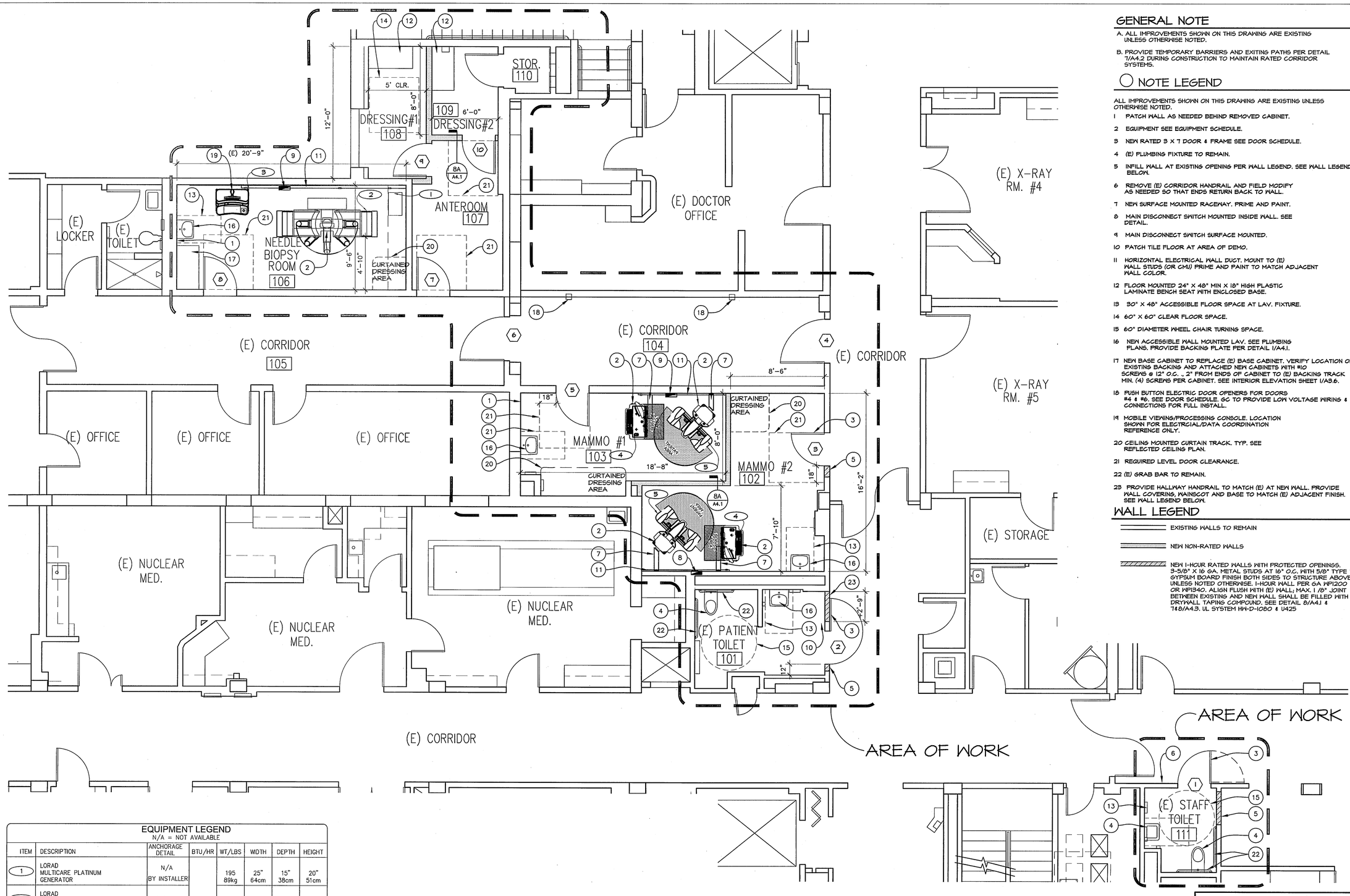
Sheet No.
A3.2



EQUIPMENT LEGEND

N/A = NOT AVAILABLE

ITEM	DESCRIPTION	ANCHORAGE DETAIL	BTU/HR	WT/LBS	WIDTH	DEPTH	HEIGHT
1	LORAD MULTICARE PLATINUM GENERATOR	N/A BY INSTALLER	1,100	195 89kg	25" 64cm	15" 38cm	20" 51cm
2	LORAD MULTICARE PLATINUM BREAST BIOPSY TABLE	A/A4		910 413kg	109" 277cm	61" 156cm	57" 145cm
3	LORAD MULTICARE PLATINUM VIEWING AND PROCESSING CONSOLE	MOBILE EQUIPMENT ON CASTERS		253 115kg	36" 92cm	28" 71cm	62" 158cm
4	LORAD SELENIA ACQUISITION WORKSTATION (WITH SHIELD)	B/A4	1,700 TO 2,500 TYPICAL RANGE	360 163kg	39.8" 101.2cm	23.8" 60.5cm	74.6" 189.4cm
5	LORAD SELENIA GANTRY WITH C-ARM	B/A4		615 300±20kg	54.3" 138cm	43.3" 110cm	84" 213cm

PARTIAL FIRST FLOOR PLAN
SCALE 1/4" : 1'-0"
0 5 N 10

GENERAL NOTE

A. ALL IMPROVEMENTS SHOWN ON THIS DRAWING ARE EXISTING UNLESS OTHERWISE NOTED.

B. PROVIDE TEMPORARY BARRIERS AND EXITING PATHS PER DETAIL 7/A4.2 DURING CONSTRUCTION TO MAINTAIN RATED CORRIDOR SYSTEMS.

NOTE LEGEND

ALL IMPROVEMENTS SHOWN ON THIS DRAWING ARE EXISTING UNLESS OTHERWISE NOTED.

1 PATCH WALL AS NEEDED BEHIND REMOVED CABINET.

2 EQUIPMENT SEE EQUIPMENT SCHEDULE.

3 NEW RATED 3 X 7 DOOR & FRAME SEE DOOR SCHEDULE.

4 (E) PLUMBING FIXTURE TO REMAIN.

5 INFILL WALL AT EXISTING OPENING PER WALL LEGEND. SEE WALL LEGEND BELOW.

6 REMOVE (E) CORRIDOR HANDRAIL AND FIELD MODIFY AS NEEDED SO THAT ENDS RETURN BACK TO WALL.

7 NEW SURFACE MOUNTED RACEWAY. PRIME AND PAINT.

8 MAIN DISCONNECT SWITCH MOUNTED INSIDE WALL. SEE DETAIL.

9 MAIN DISCONNECT SWITCH SURFACE MOUNTED.

10 PATCH TILE FLOOR AT AREA OF DEMO.

11 HORIZONTAL ELECTRICAL WALL DUCT. MOUNT TO (E) WALL STUDS (OR CMU) PRIME AND PAINT TO MATCH ADJACENT WALL COLOR.

12 FLOOR MOUNTED 24" X 48" MIN X 18" HIGH PLASTIC LAMINATE BENCH SEAT WITH ENCLOSED BASE.

13 30" X 48" ACCESSIBLE FLOOR SPACE AT LAV. FIXTURE.

14 60" X 60" CLEAR FLOOR SPACE.

15 60" DIAMETER WHEEL CHAIR TURNING SPACE.

16 NEW ACCESSIBLE WALL MOUNTED LAV. SEE PLUMBING PLANS. PROVIDE BACKING PLATE PER DETAIL 1/A4.1.

17 NEW BASE CABINET TO REPLACE (E) BASE CABINET. VERIFY LOCATION OF EXISTING BACKING AND ATTACHED NEW CABINETS WITH #10 SCREWS @ 12" O.C., 2" FROM ENDS OF CABINET TO (E) BACKING TRACK MIN. (4) SCREWS PER CABINET. SEE INTERIOR ELEVATION SHEET 1/A9.6.

18 PUSH BUTTON ELECTRIC DOOR OPENERS FOR DOORS #4 & #6. SEE DOOR SCHEDULE. EC TO PROVIDE LOW VOLTAGE WIRING & CONNECTIONS FOR FULL INSTALL.

19 MOBILE VIEWING/PROCESSING CONSOLE. LOCATION SHOWN FOR ELECTRICAL/DATA COORDINATION REFERENCE ONLY.

20 CEILING MOUNTED CURTAIN TRACK. TYP. SEE REFLECTED CEILING PLAN.

21 REQUIRED LEVEL DOOR CLEARANCE.

22 (E) GRAB BAR TO REMAIN.

23 PROVIDE HALLWAY HANDRAIL TO MATCH (E) AT NEW WALL. PROVIDE WALL COVERING, MAINSCOT AND BASE TO MATCH (E) ADJACENT FINISH. SEE WALL LEGEND BELOW.

WALL LEGEND

EXISTING WALLS TO REMAIN

NEW NON-RATED WALLS

NEW 1-HOUR RATED WALLS WITH PROTECTED OPENINGS. 3-5/8" X 16 GA. METAL STUDS AT 16" O.C. WITH 5/8" TYPE "X" GYPSUM BOARD FINISH BOTH SIDES TO STRUCTURE ABOVE UNLESS NOTED OTHERWISE. 1-HOUR WALL PER GA WP1200 OR WP1340. ALIGN FLUSH WITH (E) WALL; MAX. 1/8" JOINT BETWEEN EXISTING AND NEW WALL SHALL BE FILLED WITH DRYWALL TAPING COMPOUND. SEE DETAIL 8/A4.1 & 7&8/A4.3. UL SYSTEM HW-D-1080 & U425

O.S.H.P.D. PROJECT #SL 101318-56

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COUNTY OF VENTURA
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ENGINEERING SERVICES DEPARTMENT

PROJECT MANAGER	
SPEC. NUMBER CP11-05	SHEET 6 OF 31
PROJECT NUMBER ENT 11103	DRAWING NUMBER 113554

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Sheet Title: PARTIAL FIRST FLOOR PLAN

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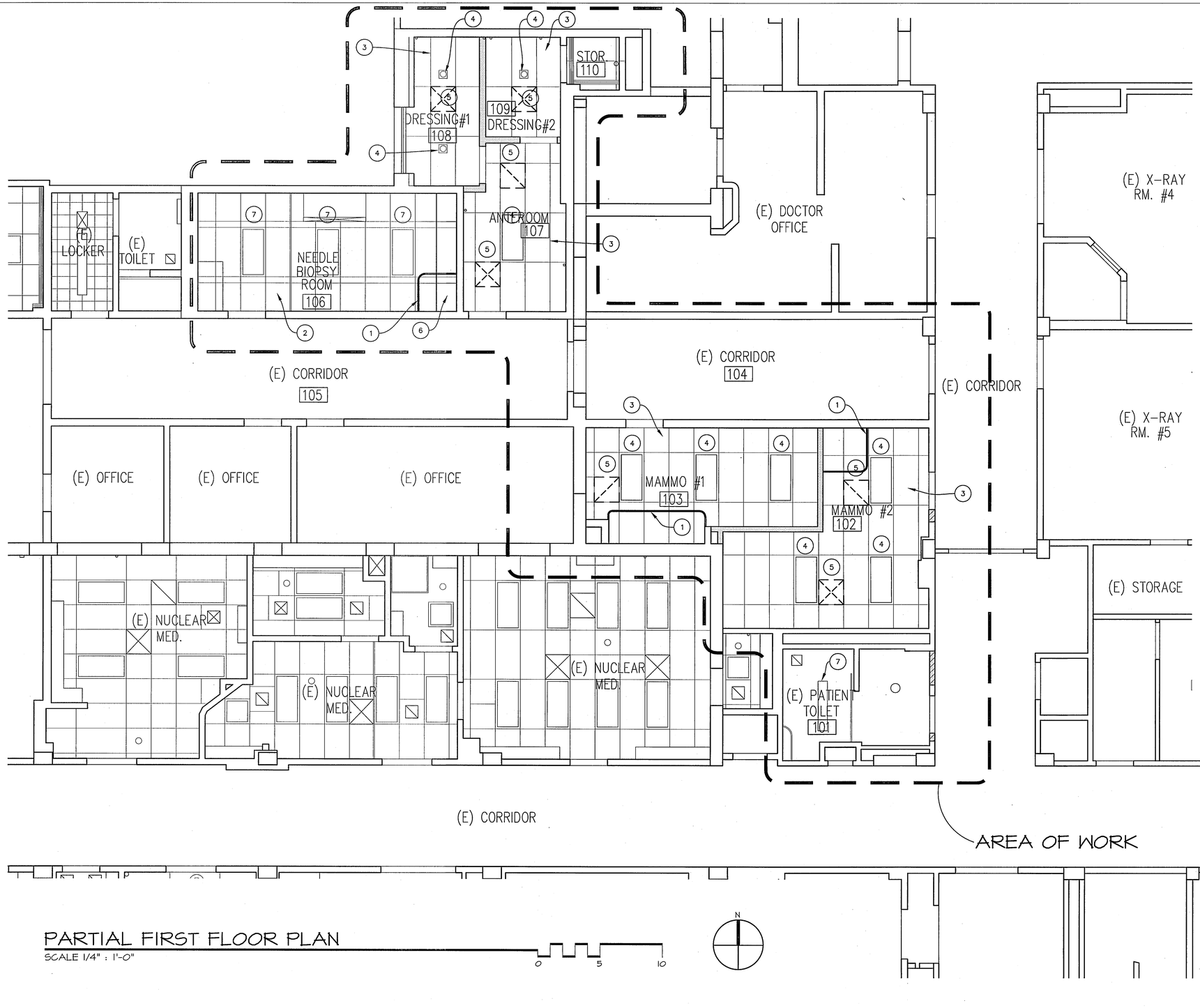
MAMMOGRAPHY ROOMS & NEEDLE BIOPSY ROOM
VENTURA COUNTY MEDICAL CENTER
3291 LOMA VISTA ROAD
VENTURA, CALIFORNIA

Sheet No. A3.3



PARTIAL FIRST FLOOR PLAN

SCALE 1/4" : 1'-0"

0 5 10

GENERAL NOTE

ALL IMPROVEMENTS SHOWN ON THIS DRAWING ARE EXISTING UNLESS OTHERWISE NOTED.

WALL LEGEND

- EXISTING WALLS TO REMAIN
- NEW NON-RATED WALLS
- NEW 1-HOUR RATED WALLS. SEE WALL LEGEND SHEET 3.3.

NOTE LEGEND

1. CEILING MOUNTED PRIVACY CURTAIN BY OWNER, G.C. TO INSTALL CURTAIN TRACK WITH #10 X 1-1/2" SCREW TO JOINT OR BLOCKING AT 32" O.C. MIN.
2. NEW ACOUSTIC CEILING TILES AT EXISTING T-BAR GRID
3. NEW ACOUSTIC CEILING TILES & T-BAR GRID. SEE DETAIL 4/A4.3
4. FIXTURE PER ELECTRICAL PLAN. SUPPORT PER DETAIL 6/A4.3
5. MECHANICAL REGISTER PER MECHANICAL PLAN
6. EXISTING T-BAR SOFFIT TO REMAIN REMOVE (E) ACOUSTIC CEILING TILES AND REPLACE WITH NEW.
7. (E) FIXTURE TO REMAIN.

O.S.H.P.D. PROJECT #SL 101318-56

REVIEWED IN ACCORDANCE WITH THE REQUIREMENTS OF T24, CCR
APPROVED
APR 05 2011
Office of Statewide Health Planning & Development
FACILITIES DEVELOPMENT DIVISION

COUNTY OF VENTURA
PUBLIC WORKS AGENCY
ENGINEERING SERVICES DEPARTMENT

PROJECT MANAGER	
SPEC. NUMBER CP11-05	SHEET 7 OF 31
PROJECT NUMBER ENT11103	DRAWING NUMBER 113555

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21 S. California Street
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(805) 648-1284

Sheet Title: PARTIAL FIRST FLOOR REFLEC. CEILING PLAN

Revisions	R&A No:	000443
12-28-10 OSHPD CORR.	Date:	06-01-10
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	Checked:	JJL
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MAMMOGRAPHY ROOMS & NEEDLE BIOPSY ROOM

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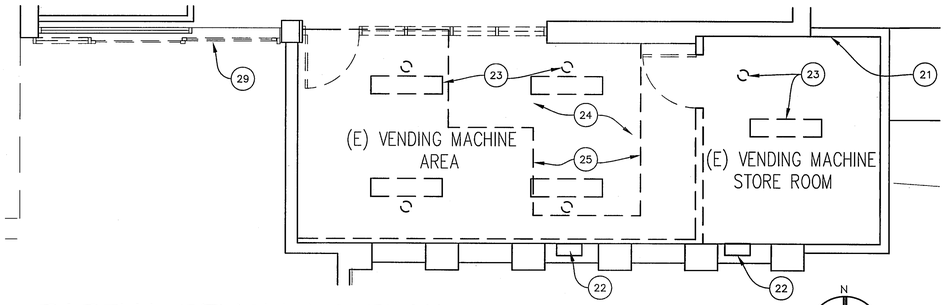
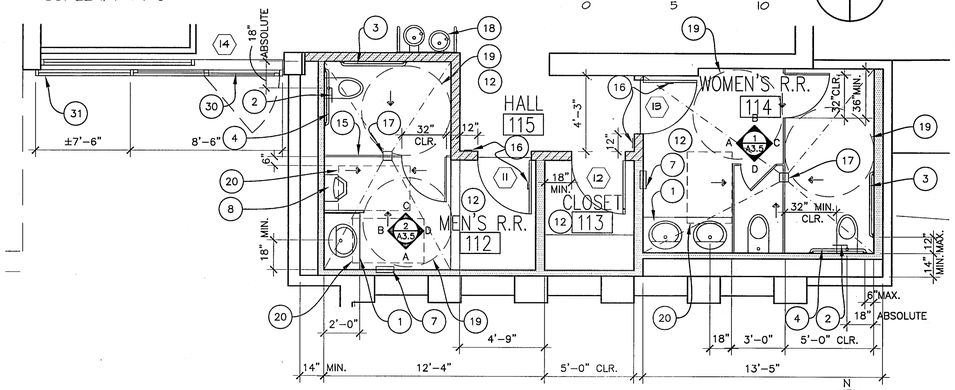
Sheet No. A3.4



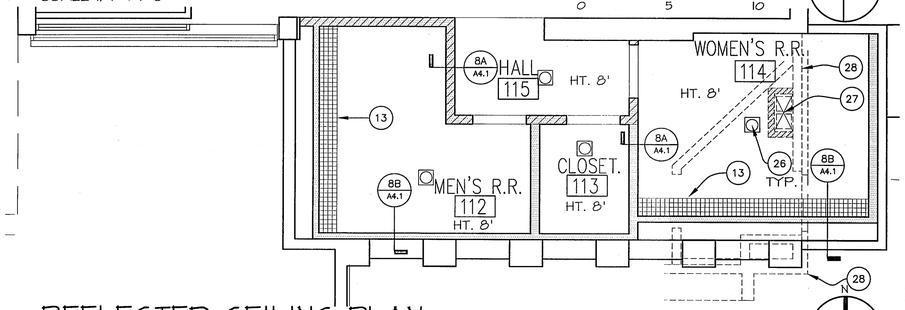
PARTIAL DEMOLITION PLAN

SCALE 1/4" : 1'-0"



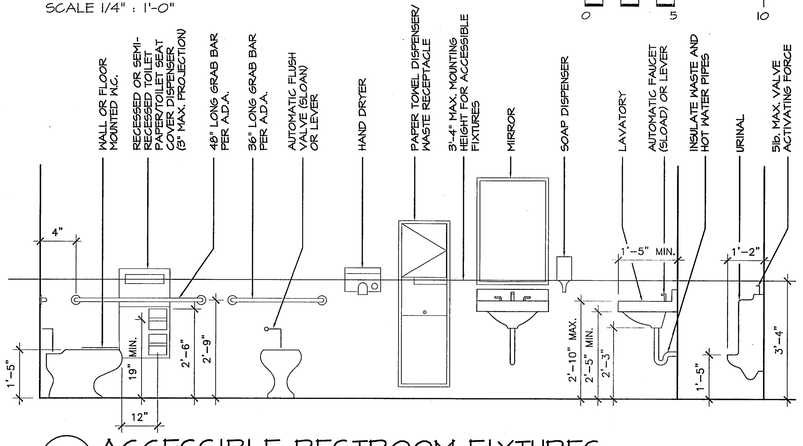
PARTIAL FIRST FLOOR PLAN

SCALE 1/4" : 1'-0"



REFLECTED CEILING PLAN

SCALE 1/4" : 1'-0"



A ACCESSIBLE RESTROOM FIXTURES

NOT TO SCALE

NOTE LEGEND

1. CORIAN COUNTER TOP WITH INTEGRATED NO SEAM SINK, INSULATED HOT WATER AND WASTE PIPING. SEE PLUMBING PLANS FOR FAUCET AND SPECIFICATION APPENDIX A FOR COLOR. SEE DETAIL 1/A4.3.
2. WATER CLOSET WITH FLUSH VALVE TO FACE AWAY FROM ADJACENT SIDE WALL; SEE PLUMBING DRAWINGS.
3. 1-1/2" DIAMETER X 42" GRAB BAR AT +33" A.F.F. PROVIDE 16 GAUGE STUDS AND BACKING PLATES PER DETAIL 3/A4.2.
4. 1-1/2" DIAMETER X 36" GRAB BAR AT +33" A.F.F. PROVIDE 16 GAUGE STUDS AND BACKING PLATES PER DETAIL 3/A4.2. LOCATE WITHIN 6" OF NEAR CORNER OF ROOM.
5. CERAMIC TILE WAINSCOT, 48" HIGH.
6. 36" HIGH MIRROR, WITH BOTTOM AT +34" A.F.F. PROVIDE STAINLESS STEEL FILLER ABOVE WAINSCOT. FIELD VERIFY WIDTH.
7. RECESSED PAPER TOWEL DISPENSER AND TRASH RECEPTACLE.
8. URINAL; SEE PLUMBING DRAWINGS.
9. PAPER SEAT COVER DISPENSER.
10. SOAP DISPENSER.
11. TOILET TISSUE DISPENSER.
12. ROOM FINISHES PER ROOM FINISH SCHEDULE.
13. LIGHT COVE SEE DETAIL 1/A4.3.
14. PLASTIC LAMINATE FILLER PANEL SEE LAV. DETAIL 4/A4.2.
15. SOLID SURFACE TOILET PARTITION. PROVIDE SHOP DRAWINGS.
16. DOOR SIGNAGE PER DETAIL 1&2/A4.2.
17. FLOOR DRAIN PER PLUMBING PLAN. SLOPE FLOORING MINIMUM 1/8" PER FOOT TO DRAIN.
18. WALL HUNG DRINKING FOUNTAIN. SEE PLUMBING PLAN. GUARD RAILS PER DETAIL 10/A4.2.
19. 60" DIA. WHEEL CHAIR TURNING RADIUS.
20. 30" X 48" CLEAR SPACE.
21. REMOVE EXISTING ELECTRICAL PANEL. SEE ELECTRICAL DRAWINGS.
22. REMOVE EXISTING WALL MOUNTED FAN. PATCH AND REPAIR EXTERIOR.
23. REMOVE ALL EXISTING LIGHT FIXTURES TYPICAL.
24. REMOVE EXISTING FLOORING & PREPARE SLAB FOR NEW FLOORING.
25. REMOVE PORTION OF CONCRETE SLAB TO EXTENT OF DEPRESSED TILE AND FOR DRAIN LINE PIPING. (INDICATED BY DIAGONAL HATCH)
26. LIGHT FIXTURE. SEE ELECTRICAL LIGHTING PLAN FOR FIXTURE SPECIFICATION.
27. LOCATION OF FIRE RATED SHAFT FROM SECOND FLOOR DECK FRAMING THROUGH VESTIBULE ON THE SECOND FLOOR TO ROOF STRUCTURE ABOVE. NO MODIFICATION TO FLOOR OR ROOF FRAMING ANTICIPATED. PROVIDE ROOF PENETRATION PER MECHANICAL DRAWINGS. CONTRACTOR SHALL CONFIRM ROUTING PRIOR TO CONSTRUCTION.
28. DASHED LINES AT REFLECTED CEILING REPRESENT WALLS ON SECOND FLOOR.
29. (E) AUTOMATIC SLIDING STOREFRONT DOOR TO BE REMOVED AND REPLACED.
30. (N) AUTOMATIC SLIDING STOREFRONT DOOR WITH EMERGENCY BREAK AWAY HARDWARE, BY BESAM, ESR 2740 OR APPROVED EQUAL. SEE DOOR SCHEDULE AND SPECIFICATIONS FOR MORE INFO.
31. FIXED STOREFRONT PANEL, PART OF NEW SLIDING DOOR ASSEMBLY.

WALL LEGEND

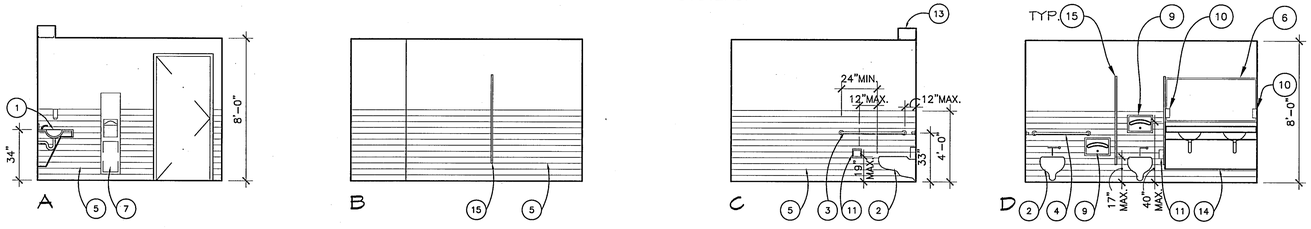
- EXISTING WALLS TO BE DEMOLISHED
- EXISTING WALLS TO REMAIN
- NEW NON-RATED WALLS
- NEW 1-HOUR RATED WALLS SEE WALL LEGEND SHEET 3.3

GENERAL NOTE

A. ALL IMPROVEMENTS SHOWN ON THIS DRAWING ARE EXISTING UNLESS OTHERWISE NOTED.

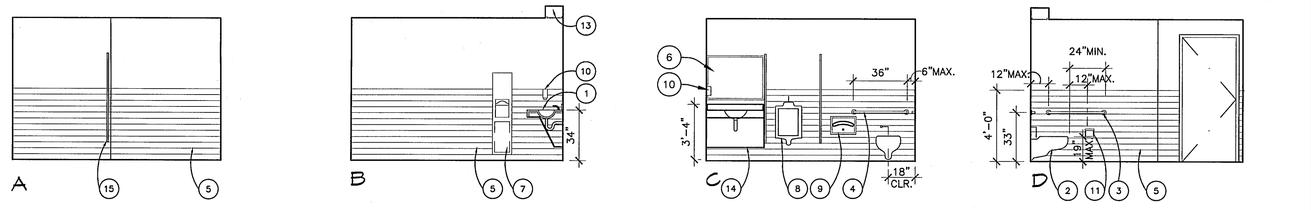
B. SEE DETAIL (A) ON THIS SHEET FOR TYPICAL ACCESSIBLE FIXTURE MOUNTING HEIGHT.

C. PROVIDE TEMPORARY BARRIERS AND EXITING PATHS PER DETAIL 7/A4.2 DURING CONSTRUCTION TO MAINTAIN RATED CORRIDOR SYSTEMS.



1 WOMEN'S RESTROOM - #114

SCALE 1/4" : 1'-0"



2 MEN'S RESTROOM - #112

SCALE 1/4" : 1'-0"

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Sheet PARTIAL DEMO. PLAN, PARTIAL FIRST FLR. PLAN, REFL.C. CLG.
Title

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Sheet No.
A3.5

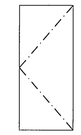
FINISH SCHEDULE

ROOM NUMBER	ROOM NAME	CEILING HEIGHT	CEILING MATERIAL	CEILING FINISH	FLOOR	BASE	WALL MATERIAL	WALL FINISH	REMARKS
101	(E) PATIENT TOILET	(E) 8'	(E)GB	P2	(E)CTF*	(E)CTW*	(E)GB/CTW*	P2	* PATCH (E) AS NEEDED
102	MAMMO #2	(E) 8'	ATI	MFR	CPT	RTSI	(E)GB*&GB	VNC	
103	MAMMO #1	(E) 8'	ATI	MFR	CPT	RTSI	(E)GB*&GB	VNC	
104	(E) CORRIDOR	(E) 8'	(E)	(E)	(E)	(E)	(E)GB*	PI*	* PATCH (E) AS NEEDED
105	(E) CORRIDOR	(E) 8'	(E)	(E)	(E)	(E)	(E)GB	PI	
106	NEEDLE BIOPSY ROOM	8'-0"	ATI	MFR	RF	RTSI	(E) GB	P2	
107	ANTEROOM	8'-0"	ATI	MFR	CPT	RTSI	(E)GB*&GB	VNC	
108	DRESSING #1	8'-0"	ATI	MFR	CPT	RTSI	(E)GB*&GB	VNC	
109	DRESSING #2	8'-0"	ATI	MFR	CPT	RTSI	(E)GB*&GB	VNC	
110	STORAGE CLOSET	8'-0"	(E)	(E)	(E)	(E)	(E)GB	P2	
111	(E) STAFF TOILET	8'-0"	(E)GB	P2	(E)CFT*	(E)CTW*	(E)GB/CTW*	P2	* PATCH (E) AS NEEDED
112	MEN'S RESTROOM	8'-0"	GB	P2	CPT	CTW	GB/CTW	VNC	
113	STORAGE CLOSET	8'-0"	GB	P2	RF	RTSI	GB	P2	
114	WOMEN'S RESTROOM	8'-0"	GB	P2	CPT	CTW	GB/CTW	VNC	
115	HALL	8'-0"	GB	P2	RF	RTSI	GB	VNC	

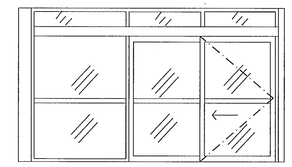
DOOR SCHEDULE

NUMBER	TYPE	SIZE WIDTH	SIZE HEIGHT	FINISH	DETAIL HEAD	DETAIL JAMB	DETAIL THRESHOLD	FRAME MATERIAL	FRAME FINISH	HARDWARE SET	HARDWARE TYPE	CLOSER	SIGN DET. 1/A4.2	FIRE RATING	REMARKS
1	A	3'-0"	7'-0"	PGF	5/A4.2	5/A4.2	6/A4.2	MTL	MFR	01	L	Y	Y	20 MIN. FPS	
2	A	3'-0"	7'-0"	PGF	5/A4.2	5/A4.2	6/A4.2	MTL	MFR	01	L	Y	Y	20 MIN. FPS	
3	A	3'-0"	7'-0"	PGF	5/A4.2	5/A4.2	6/A4.2	MTL	MFR	02	L	Y	N	20 MIN. FPS	
4	(E)A	4'-0"	7'-0"	(E)	(E)	(E)	6/A4.2	(E)	(E)	03	L/E	Y	N	20 MIN. FPS	
5	(E)A	3'-0"	7'-0"	(E)	(E)	(E)	6/A4.2	(E)	(E)	04	L	Y	N	20 MIN. FPS	
6	(E)A	4'-0"	7'-0"	(E)	(E)	(E)	6/A4.2	(E)	(E)	05	L/E/PH	Y	N	20 MIN. FPS	
7	(E)A	3'-0"	7'-0"	(E)	(E)	(E)	6/A4.2	(E)	(E)	04	L	Y	N	20 MIN. FPS	
8	(E)A	3'-0"	7'-0"	(E)	(E)	(E)	6/A4.2	(E)	(E)	04	L	Y	N	20 MIN. FPS	
9	A	3'-0"	7'-0"	PGF	5/A4.2	5/A4.2	6/A4.2	MTL	MFR	06	L	N	N		
10	A	3'-0"	7'-0"	PGF	5/A4.2	5/A4.2	6/A4.2	MTL	MFR	06	L	N	N		
11	A	3'-0"	7'-0"	PGF	5/A4.2	5/A4.2	6/A4.2	MTL	MFR	07	L	Y	Y	20 MIN. FPS	
12	A	3'-0"	7'-0"	PGF	5/A4.2	5/A4.2	6/A4.2	MTL	MFR	08	L	Y	N	20 MIN. FPS	
13	A	3'-0"	7'-0"	PGF	5/A4.2	5/A4.2	6/A4.2	MTL	MFR	07	L	Y	Y	20 MIN. FPS	
14	B	102"	7'-0"	MTL	-	-	-	MTL	MFR	-	-	-	Y		PROVIDE ACCESSIBLE SIGNAGE PER NOTE #8 BELOW

DOOR TYPES



A
SOLID CORE WOOD DOOR



B
AUTOMATIC SLIDING STOREFRONT DOOR

SCHEDULE ABBREVIATIONS

AL ALUMINUM

ATI ACOUSTIC CEILING TILE 2'X4' (PIN PERFORATED, FINE FISSURED OR LIGHTLY TEXTURED)

CPT CARPET. AS SELECTED BY OWNER

CTF CERAMIC FLOOR TILE- UNGLAZED

CTW CERAMIC WALL TILE - GLAZED

GB 5/8" GYPSUM WALLBOARD (OR EXISTING PLASTER WHERE OCCURS)

L LEVER TYPE, SEE HARDWARE GROUPS AND GENERAL NOTES.

L/E LEVER WITH AUTOMATIC BUTTON OPENER

MFR MANUFACTURER'S STANDARD FINISH

MTL PREFINISHED METAL FRAME

N NO OR NONE

PI PAINT: EGGSHELL

P2 PAINT COLOR: SEMIGLOSS

PH PANIC HARDWARE

PPS POSITIVE PRESSURE, SMOKE & DRAFT CONTROL DOOR (SEE NOTE #1-D-1. thru 4. THIS SHEET)

RF RESILIENT FLOORING AS SELECTED BY OWNER

RTSI RUBBER TOPSET BASE AS SELECTED BY OWNER

VNC VINYL WALL COVERING TO MATCH (E)

PGF PAINT GRADE FINISH

Y YES

NOTES

1. DOOR HARDWARE:
   - A. ALL DOOR AND LATCHES SHALL BE LEVER TYPE AND SHALL BE LOCATED 36" ABOVE FINISH FLOOR.
   - B. DOOR HARDWARE SHALL NOT REQUIRE MORE THAN 8.5 LBS. OF PRESSURE TO OPERATE EXTERIOR DOOR AND NO MORE THAN 5 LBS. OF PRESSURE TO OPERATE INTERIOR DOORS. FIRE RATED DOORS MAY REQUIRE 15 LBS. OF PRESSURE TO OPERATE. PRESSURE TO OPERATE DOORS SHALL BE MEASURED AT RIGHT ANGLES TO THE HINGED DOORS.
   - C. THRESHOLDS MAY NOT BE MORE THAN 1/2" HIGH AND EXPOSED EDGES SHALL BE BEVELED, WITH A SLOPE NO GREATER THAN 45 DEGREES. MAXIMUM ALLOWED SINGLE VERTICAL CHANGE IN ELEVATION SHALL BE 1/4".
   - D. POSSITIVE PRESSURE / SMOKE AND DRAFT CONTROL DOORS SHALL COMPLY WITH:
     1. UL - Underwriters Laboratories
        - a. ULIOC - Positive Pressure Fire Tests of Door Assemblies
     2. NFPA - National Fire Protection Association
        - a. NFPA 80 - Fire Doors and Windows
        - b. NFPA 105 - Smoke and Draft Control Door Assemblies
        - c. NFPA 252 - Fire Tests of Door Assemblies
     3. Fire-Rated Openings: NFPA 80 compliant. Hardware ULIOC / California State Fire Marshal Standard 12-7-4 (positive pressure) compliant for given type/size opening and degree of label. Provide proper latching hardware, non-flaming door closers, approved-bearing hinges, and resilient seals. Coordinate with wood door section for required intumescent seals. Furnish openings complete.
     4. A fire-rated smoke and draft control gasket shall be installed to the opening per NFPA 105. The smoke and draft control gasket shall be labeled showing compliance with CBC 715.4.5.3, CMC 407.3.1, 715.4.3.. Smoke gaskets are to be installed per instructions provided with the gasket system and must be compatible with the door and frame type. Fire rating label on the door shall show the letter "S".
2. ALL EXIT DOORS SHALL BE OPENABLE FROM THE INSIDE WITHOUT THE USE OF A KEY OR ANY SPECIAL KNOWLEDGE OR EFFORT.
3. NOTE USED
4. WALL AND CEILING MATERIALS SHALL NOT EXCEED THE FLAME SPREAD CLASSIFICATIONS IN U.B.C. TABLE 8-B.
5. WATER CLOSETS/URINALS:
   - A. CONTROLS SHALL BE OPERABLE WITH ONE HAND AND SHALL NOT REQUIRE TIGHT GRASPING, PINCHING OR TWISTING OF THE WRIST. 5-1502.
   - B. CONTROLS FOR THE FLUSH VALVES FOR TOILETS AND URINALS SHALL BE MOUNTED (ON THE WIDE SIDE OF TOILET AREAS) NO MORE THAN 44" A.F.F. AND REQUIRE NOT MORE THAN 5 LBS. OF FORCE TO OPERATE. BOTH SHALL MEET PERFORMANCE STANDARDS ESTABLISHED
   - C. THE FORCE REQUIRED TO ACTIVATE CONTROLS SHALL BE NO GREATER THAN 5 LBS. OF FORCE. 5-1502.
   - D. WATER CLOSETS AND ASSOCIATED FLUSHOMETER VALVES SHALL USE NO MORE THAN 1.6 GALLONS PER FLUSH. ALSO URINALS AND ASSOCIATED FLUSHOMETER VALVES SHALL USE NO MORE THAN 1 GALLON PER FLUSH.

     BY THE AMERICAN NATIONAL STANDARDS INSTITUTE STANDARD A112.19.2 H & S CODE, SECTION 17921.3(b).
6. LAVATORIES:
   - A. HOT WATER AND DRAIN PIPES UNDER LAVATORIES SHALL BE INSULATED. 5-1504(b).
   - B. FAUCET CONTROLS AND OPERATING MECHANISM (OPERABLE WITH NE HAND) SHALL BE OF THE TYPE NOT REQUIRING TIGHT GRASPING, PINCHING OR TWISTING OF THE WRIST (SUCH AS LEVER-OPERATED) AND AN OPERATING FORCE NOT EXCEEDING 5 LBS. 5-1504(c).
   - C. IF SELF-CLOSING VALVES ARE USED, THEY SHALL REMAIN OPEN FOR AT LEAST TEN SECONDS. 5-1504(c).
8. ACCESSIBILITY AND SIGNAGE

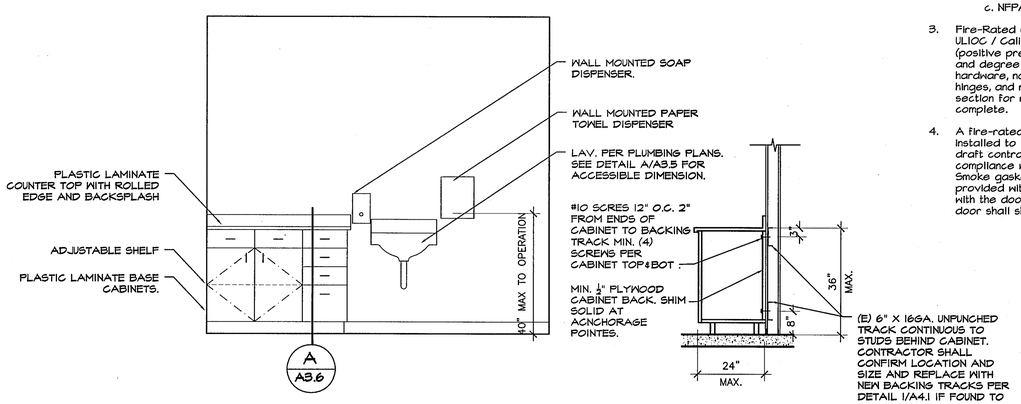
   MEN'S REST ROOM SIGN CENTERED ON DOOR AND MOUNTED AT 60" A.F.F. SIGN TO BE 1/4" THICK, EQUILATERAL TRIANGLE, EDGES 12" LONG AND VERTEX POINTING UPWARD IN CONTRASTING COLOR PER CalDAG Sec. 42.B. WALL MOUNTED SIGN AGE TO THE LATCH SIDE OF THE DOOR. 6" SQUARE INTERNATIONAL SYMBOL OF ACCESSIBILITY WITH VERBAL DESCRIPTION BELOW. SIGN LOCATED 60" FROM FLOOR. SEE SIGN AGE NOTES.

   WOMEN'S REST ROOM SIGN CENTERED ON DOOR AND MOUNTED AT 60" A.F.F. SIGN TO BE 1/4" THICK, 12" DIAMETER IN CONTRASTING COLOR PER CalDAG Sec. 42.B. WALL MOUNTED SIGN AGE TO THE LATCH SIDE OF THE DOOR. 6" SQUARE INTERNATIONAL SYMBOL OF ACCESSIBILITY WITH VERBAL DESCRIPTION BELOW. SIGN LOCATED 60" FROM FLOOR. SEE SIGN AGE NOTES.
   ALL BUILDING ENTRANCES SHALL BE IDENTIFIED BY A STANDARD SIGN WITH THE INTERNATIONAL SYMBOL OF ACCESSIBILITY WITH ADDITIONAL SIGNS AT JUNCTIONS, TO BE VISIBLE TO PERSONS ALONG APPROACHING PEDESTRIAN WAYS. THE SYMBOL SHALL BE A WHITE FIGURE ON A BLUE BACKGROUND. BRAILLE, RAISED CHARACTERS, AND PICTORIAL SYMBOLS SIGNS SHALL BE USED WHENEVER SPECIALLY REQUIRED, AND SHALL CONFORM TO THE STANDARDS SET FORTH IN THE CODE. SEE FLOOR PLAN FOR SIGNAGE LOCATIONS.

   DOORS WITHIN THE ACCESSIBLE PATH OF TRAVEL :

   ALL LATCHING AND LOCKING HAND ACTIVATED DOORS SHALL OPERATE WITH A SINGLE EFFORT WITHOUT REQUIRING THE ABILITY TO GRASP THE OPENING HARDWARE. LOCKED EXIT DOORS SHALL OPERATE AS ABOVE IN EGRESS DIRECTION.

   DOOR SHALL BE OF A SIZE TO PERMIT INSTALLATION OF A DOOR NOT LESS THAN 3' IN WIDTH AND NOT LESS THAN 6'-8" IN HEIGHT. WHEN INSTALLED EXIT DOORS SHALL BE CAPABLE OF OPENING AT LEAST 90 DEGREES AND SHALL BE MOUNTED SO THAT THE CLEAR WIDTH OF THE EXIT DOOR IS NOT LESS THAN 32". MEASURED BETWEEN THE FACE OF THE DOOR AND THE OPPOSITE STOP.



1 INTERIOR ELEVATION- HALL #229
SCALE: 1/2"= 1'-0"

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

O.S.H.P.D. PROJECT #SI-101318-56

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Sheet Title: ROOM FINISH & DOOR SCHEDULE

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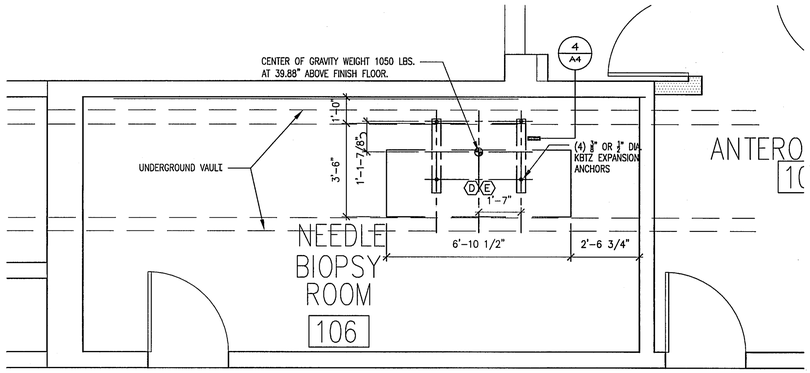
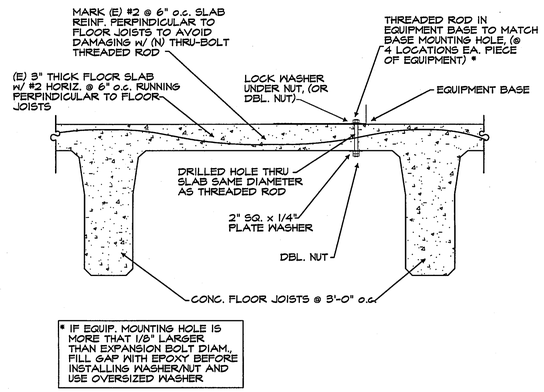


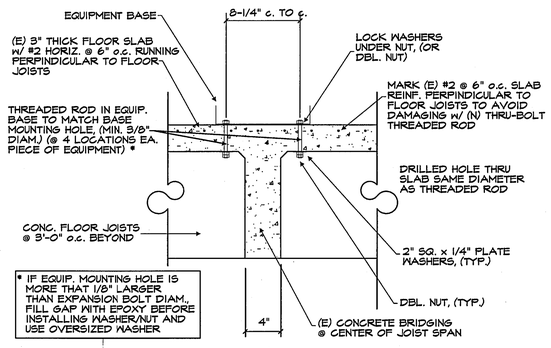
A MULTI CARE TABLE ANCHORAGE

SCALE 3/8" = 1'-0"



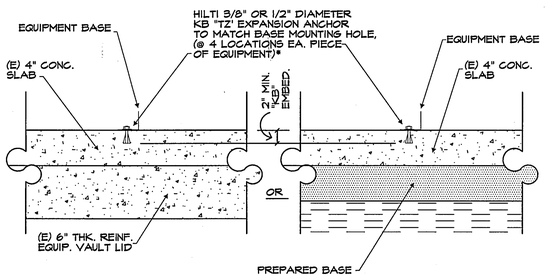
2 MAMMO EQUIPMENT ANCHORAGE THROUGH (E) 3" FLOOR SLAB

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



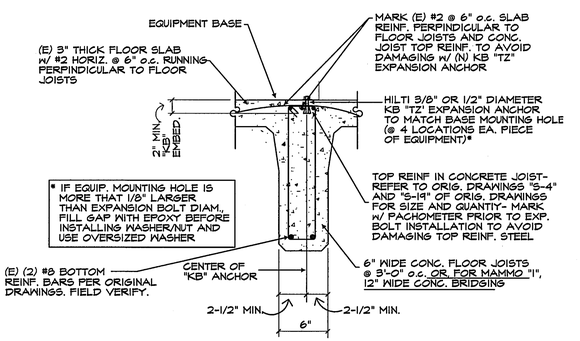
3 THRU-BOLT ANCHORAGE @ MAMMO 2 CONSOLE

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



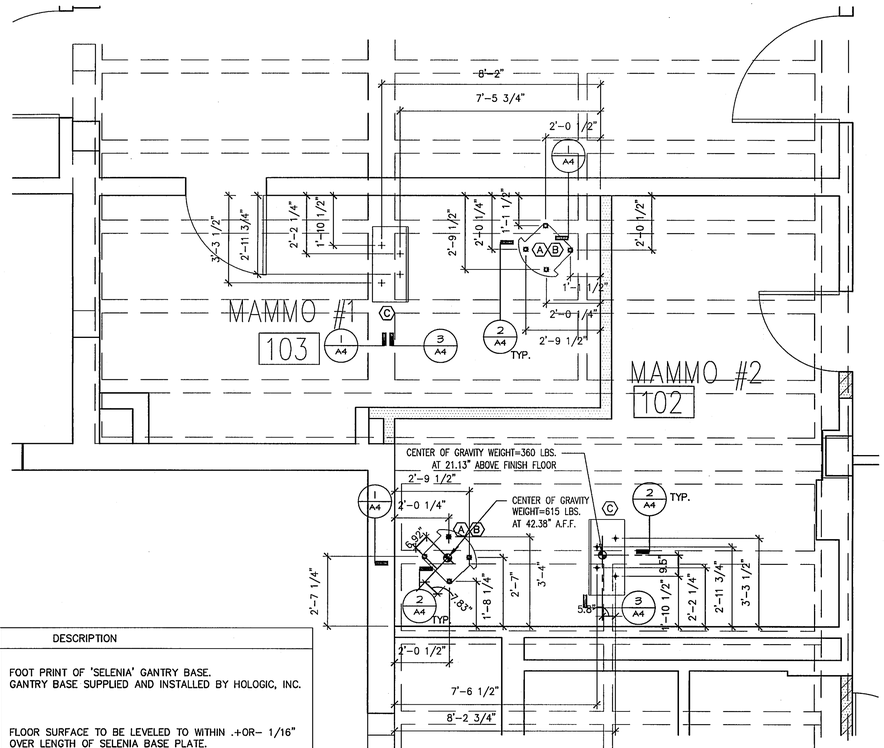
4 MULTI-CARE PLATINUM EQUIPMENT ANCHORAGE IN (E) 4" CONC. SLAB

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



1 MAMMO EQUIPMENT ANCHORAGE IN (E) 6" WIDE CONC. FLOOR JOIST

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



B LORAD SELENIA WORKSTATION & GANTRY ANCHORAGE PLAN

SCALE 1" = 1'-0"

ITEM	DESCRIPTION
A	FOOT PRINT OF 'SELENIA' GANTRY BASE. GANTRY BASE SUPPLIED AND INSTALLED BY HOLOGIC, INC.
B	FLOOR SURFACE TO BE LEVELED TO WITHIN .+OR- 1/16" OVER LENGTH OF SELENIA BASE PLATE.
C	FOOT PRINT OF 'ACQUISITION WORKSTATION' BASE. CONSOLE BASE SUPPLIED AND INSTALLED BY HOLOGIC, INC.
D	FOOT PRINT OF 'MULTICARE PLATINUM' TABLE BASE. TABLE BASE SUPPLIED AND INSTALLED BY HOLOGIC, INC.
E	FLOOR SURFACE TO BE LEVELED TO WITHIN .+OR- 1/16" OVER LENGTH OF MULTICARE PLATINUM BASE PLATE.

GENERAL NOTES

1. ALL WORK SHALL CONFORM WITH THE 2007 CALIFORNIA BUILDING CODE, (CBC), TITLE 24.
2. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS PRIOR TO STARTING CONSTRUCTION AND BRING TO THE ATTENTION OF THE ENGINEER ANY DISCREPANCIES OR INCONSISTENCIES.
3. NO STRUCTURAL MEMBER SHALL BE CUT, NOTCHED, BORED OR OTHERWISE WEAKENED EXCEPT AS ALLOWED BY THE CALIFORNIA BUILDING CODE OR APPROVED BY THE ENGINEER.
4. THE ENGINEER SHALL BE NOTIFIED OF ANY UNUSUAL OR UNFORSEEN CONDITION WHICH EFFECTS THE STRUCTURAL STABILITY OF THE BUILDING PRIOR TO CONTINUING WITH CONSTRUCTION. SHOULD ANY CONDITION ARISE WHERE THERE APPEARS TO BE AN ERROR ON THE DRAWINGS OR A DISCREPANCY BETWEEN THE DRAWINGS AND CONDITIONS IN THE FIELD, THE ENGINEER SHALL BE NOTIFIED PRIOR TO CONTINUING WITH THE WORK.
5. IN THE CASE WHERE TWO OR MORE DETAILS APPLYING TO THE SAME PART OF THE WORK ARE IN CONFLICT, THE MOST RESTRICTIVE SHALL GOVERN UNLESS CLARIFIED OR OTHERWISE APPROVED BY THE ENGINEER.
6. REVIEW OF SHOP DRAWINGS MEANS REVIEW OF GENERAL METHOD OF FABRICATION ONLY. DIMENSIONS AND QUANTITIES MAY NOT BE CHECKED, AND REVIEW OF THE SHOP DRAWINGS DOES NOT RELIEVE THE CONTRACTOR FROM COMPLIANCE WITH THE CONSTRUCTION DOCUMENTS UNLESS SPECIFICALLY SO INDICATED IN THE REVIEW.
7. THE ENGINEER HAS NOT BEEN RETAINED FOR SUPERVISION OR INSPECTION DURING CONSTRUCTION, BUT WILL RESOLVE STRUCTURAL ITEMS BROUGHT TO HIS ATTENTION DURING CONSTRUCTION.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SHORING AND BRACING REQUIRED TO PROTECT PERSONNEL AND ADJACENT PROPERTY DURING CONSTRUCTION. THE CONTRACTOR SHALL ADEQUATELY BRACE ELEMENTS OF THE STRUCTURE DURING CONSTRUCTION TO INSURE THE SAFETY OF THE STRUCTURE.
9. REFER TO THE ARCHITECTURAL DRAWINGS FOR DIMENSIONS, ELEVATIONS, AND SLOPES NOT SHOWN ON THE STRUCTURAL DRAWINGS.
10. (E) INDCATES EXISTING CONDITON OR MEMBER, (N) NEW.
11. NOTE THAT EXISTING CONDITONS HAVE NOT BEEN FIELD VERIFIED DUE TO AN EXISTING HARD LID CEILING IN THE SUBJECT ROOM. AFTER THE EXISTING CEILING HAS BEEN REMOVED, THE ENGINEER SHALL BE NOTIFIED PRIOR TO CONTINUING WITH WORK SO THAT HE MAY VERIFY THE ASSUMED EXISTING CONDTIONS.
12. THE GENERAL CONTRACTOR SHALL INSTALL ALL EQUIPMENT ANCHORAGE.

STRUCTURAL STEEL

1. ALL STRUCTURAL STEEL SHALL CONFORM TO ASTM A-36.
7. BOLT HOLES SHALL BE 1/16 INCH LARGER THAN BOLT DIAMETER UNLESS SLOTTED HOLES ARE INDICATED IN DETAILS. BOLT HOLES SHALL BE PUNCHED OR DRILLED, BURNED HOLES ARE NOT PERMITTED.
8. BOLT HEADS OR NUTS BEARING ON SLOPING SURFACES SHALL BE EQUIPPED WITH BEVELED WASHERS.
9. MACHINE BOLTS AND THREADED RODS SHALL CONFORM TO ASTM A-307 AND SHALL BE DOUBLE NUTTED WHERE SHOWN. OTHERWISE, USE A LOCK WASHER BETWEEN NUT AND CONTACT SURFACE.

NOTE:

HILTI "KWIK-BOLT TZ" CONCRETE ANCHORS SHALL BE CARBON STEEL AND CONFORM TO AND BE INSTALLED PER: ICC ES REPORT #1917 WITH THE FOLLOWING TORQUE AND EFFECTIVE EMBEDMENT INTO THE EXISTING CONCRETE: 1/2" DIAM. KB "TZ" : 40 FT. LB. TORQUE w/ 2" EMBED. 3/8" DIAM. KB "TZ" : 25 FT. LB. TORQUE w/ 2" EMBED. ALSO SEE WEDGE ANCHOR DETAIL 2/A4.1

NOTE:

FOR THE INSTALLATION OF THE KB - "TZ" EXPANSION BOLTS AND "THRU-BOLT" THREADED RODS AT THE TWO MAMMO AREAS, THE CONTRACTOR SHALL LOCATE THE EXISTING CONCRETE FLOOR SLAB AND JOIST TOP REINFORCING STEEL PRIOR TO ANCHORAGE INSTALLATION TO AVOID DAMAGING THE EXISTING REINFORCING STEEL, (BY MEANS OF A PACHOMETER). LOCATE ALL NEW ANCHORAGE BOLTS AND THREADED RODS "A MINIMUM OF 1" ADJACENT TO" EXITING REINFORCING STEEL IN THE TOP OF EXISTING CONCRETE FLOOR SLABS OR FLOOR JOISTS.

O.S.H.P.D. PROJECT #SL 101318-56

REVIEWED FOR COMPLIANCE WITH THE REQUIREMENTS OF T24, CCR

APPROVED

APR 05 2011

Office of Statewide Health Planning & Development FACILITIES DEVELOPMENT DIVISION

COUNTY OF VENTURA
PUBLIC WORKS AGENCY
ENGINEERING SERVICES DEPARTMENT

PROJECT MANAGER

SPEC. NUMBER	SHEET OF
CP11-05	10 31
PROJECT NUMBER	DRAWING NUMBER
ENT11103	113558

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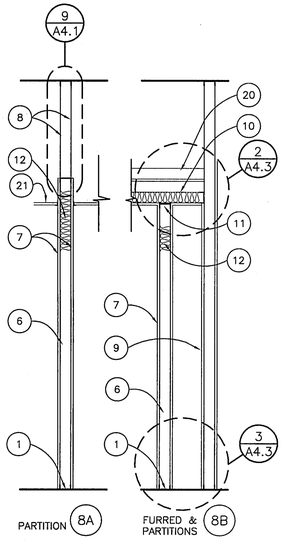
STATE OF CALIFORNIA

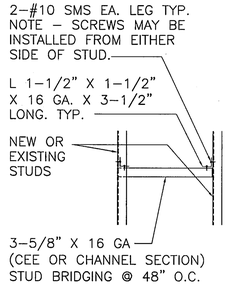
Sheet TABLE ANCHORAGE & DETAILS, GENERAL NOTES
Title

Revisions	R&A No: 000443
12-29-10 OSHPD CORR.	Date: 06-01-10
03-30-11 OSHPD CORR.	Drawn: CJH
	Checked: JLL
	Consult. No:

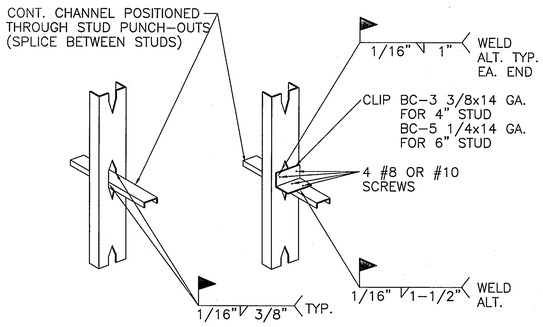
MAMMOGRAPHY ROOMS
& NEEDLE BIOPSY ROOM
VENTURA COUNTY MEDICAL CENTER
3291 LOMA VISTA ROAD
VENTURA, CALIFORNIA

Sheet No.
A4.0



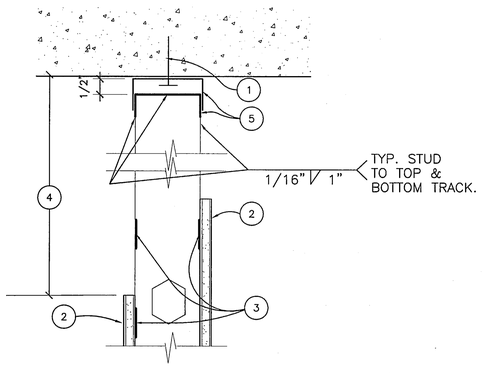


ALTERNATE BRIDGING

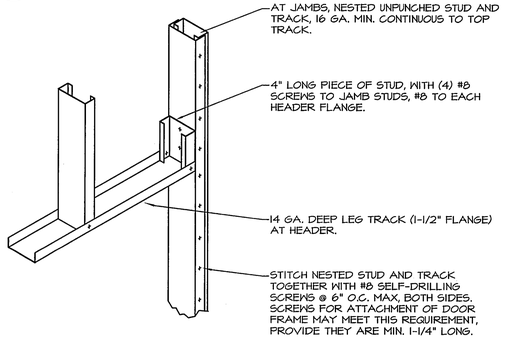


BRIDGING CHANNEL ATTACHED IN STUD PUNCH-OUT (USE FOR STUD 4" AND SMALLER)	BRIDGING CHANNEL ATTACHED USING BRIDGE CLIP (B.C.) (USE FOR STUDS 6" AND LARGER)
BRIDGING SPACING (VERTICAL)	UP TO 4'-0" HIGH - NOT REQUIRED 4'-1" TO 8'-0" HIGH - ONE ROW 8'-1" AND GREATER - 4'-0" O.C.

8 WALL TYPES
SCALE 1/2" : 1'-0"

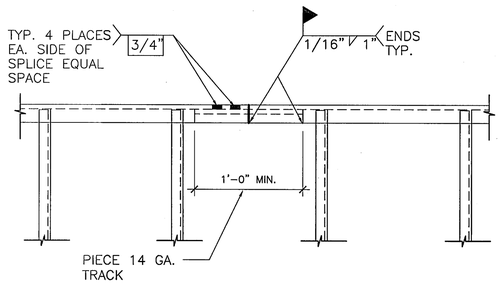


9 DOUBLE SLIP TRACK HEAD WALLS W/ NON-RATED OPENINGS
SCALE 3" : 1'-0"

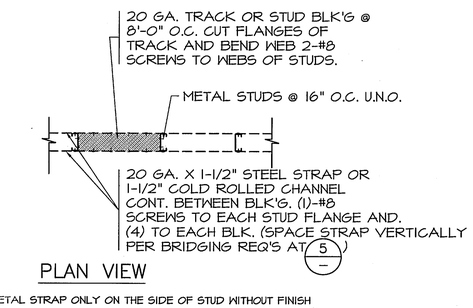


10 JAMB/HEADER FRAMING (3'-4" MAX.)
SCALE: N.T.S.

5 CHANNEL BRIDGING
N.T.S.



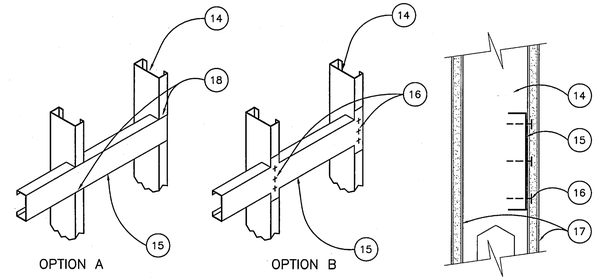
6 TOP TRACK SPLICE
N.T.S.



PLAN VIEW

NOTES:
INSTALL METAL STRAP ONLY ON THE SIDE OF STUD WITHOUT FINISH

7 STRAPPING
N.T.S.

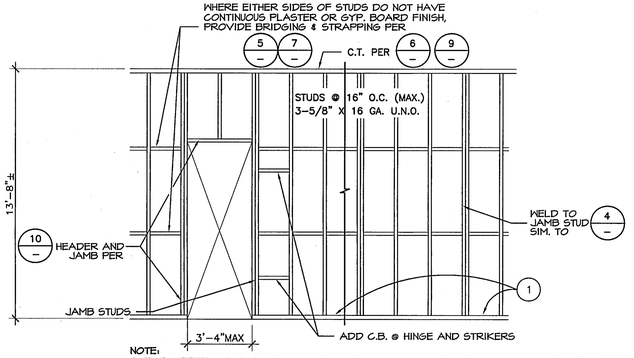


1 BACKING PLATE
SCALE: 3"=1'-0"

TYPICAL WEDGE ANCHOR INSTALLATION DESIGN AND TEST VALUES											
BOLT DIAMETER			3/8"		1/2"			5/8"		3/4"	
MIN. EMBEDMENT			2"	3"	2"	3-1/4"	4"	3-1/8"	5"	3-3/4"	4-3/4"
DESIGN	MAX. TENSION (LBS.)	HARD ROCK	1102	1102	1167	2386	2386	2280	3301	3297	4272
		SAND LT. WT. CONC.	937	937	992	2028	2028	1938	2806	2802	3631
		CONC. FILL/MTL DECK	709	709	709	1272	1272	971	2255	-	-
	MAX. SHEAR (LBS.)	HARD ROCK	999	999	2839	2839	2839	4678	4678	6313	6313
		SAND LT. WT. CONC.	999	999	2839	2839	2839	4678	4678	6313	6313
		CONC. FILL/MTL DECK	944	944	1330	2192	2192	2039	2677	-	-
TEST	TORQUE WRENCH (FT-LBS.)	HARD ROCK	25	25	40	40	40	60	60	110	110
		SAND LT. WT. CONC.	25	25	40	40	40	60	60	110	110
		CONC. FILL/MTL DECK	25	25	40	40	40	60	60	110	110

ACCEPTABLE DRILLED ANCHORS:
1.) HILTI KWIK BOLT TZ (ICC-ES ESR-1917).
2.) CONCRETE SHALL HAVE A MINIMUM STRENGTH OF 3000 P.S.I. (HARDROCK) OR 3000 PSI (LT. WT.)
3.) ALL ANCHORS REQUIRE SPECIAL INSPECTION. TEST & INSPECT INSTALLATION OF 100% OF ANCHORS.
4.) ALL TABULATED DESIGN VALUES FOR BOLTS ARE 100% OF ALLOWABLE SEISMIC TENSION AND SHEAR (ASD), CRACKED CONCRETE, ICC-ES VALUES FOR HARD ROCK CONCRETE AND LT. WT. CONC.
5.) VALUES ARE FOR SINGLE ANCHORS WITH NO EDGE DISTANCE OR SPACING REDUCTIONS AND NO SUPPLEMENTARY REINFORCEMENT (CONDITION B). SINGLE ANCHORS MUST BE SPACED A MINIMUM OF 1.5 TIMES THE EFFECTIVE EMBEDMENT DEPTH FROM A FREE EDGE AND A MINIMUM OF 3 TIMES THE EFFECTIVE EMBEDMENT DEPTH FROM NEARBY ANCHORS. FOR OTHER CASES, CONSULT THE ENGINEER OF RECORD (EOR)
6.) WHEN INSTALLING DRILLED-IN ANCHORS IN NON-PRESTRESSED REINFORCED CONCRETE, USE CARE AND CAUTION TO AVOID CUTTING OR DAMAGING THE REINFORCING BARS OR OTHER EMBEDDED ITEMS SUCH AS ELECTRICAL/TELECOMMUNICATIONS CONDUIT AND GAS LINES. WHEN INSTALLING DRILLED-IN ANCHORS INTO PRESTRESSED CONCRETE (PRE- OR POST-TENSIONED), LOCATE TENDONS DURING INSTALLATION. MAINTAIN A MINIMUM CLEARANCE OF ONE INCH BETWEEN THE REINFORCEMENT AND THE DRILLED-IN ANCHOR.
7.) TESTING SHALL BE PERFORMED IN THE PRESENCE OF INSPECTOR OF RECORD (IOR).

2 DRILLED-IN WEDGE ANCHORS



NOTE:
A. FOR OPENING SIZE AND LOCATION, SEE ARCHITECTURAL AND/OR MECHANICAL SHEETS.
B. ALL LIGHT GAUGE FRAMING WELDS SHALL BE 1/16" MIDE.
C. ALL STUDS & ETC. SHALL BE 16 GAUGE H.D.S. SERIES W/ 1-5/8" FLANGES AND ALL TRACKS TO BE 14 GA. H.D.S. SERIES W/1-1/2" FLANGES U.N.O., PER ICC-ES ER#4943P

3 TYPICAL WALL FRAMING
N.T.S.

NOTE LEGEND

1 FASTEN TOP AND BOTTOM TRACKS TO FLOOR SLABS WITH SHOT PINS: RAMSET 1508 (.140" D). ICBO #1694, WITH 1-1/8" EMBEDMENT, @ 16" O.C. MAXIMUM 4" FROM END OF TRACK AND 2" FROM EA. SIDE OF JAMB STUD OR STUDS SUPPORTING EQUIPMENT ANCHORAGE OR BACKING PLATES. PLACE 2 SHOT-PINS @ 3" O.C. AT ONE SIDE OF JAMB STUD WHERE TRACK IS INTERRUPTED BY WALL OPENING.

2 5/8" GYPSUM BOARD FINISH. SCREW TO FRAMING WITH 1" TYPE S SCREWS @ 12" O.C. DO NOT SCREW TO UPPER SLIP TRACK. GYPSUM BOARD MAY TERMINATE AT FINISH CEILING (3" ABOVE ACOUSTIC GRID).

3 PROVIDE CONTINUOUS STAPPING AT TOP OF GYPSUM BOARD PER DETAIL 7 THIS SHEET.

4 WHERE LONGEST UNFINISHED FACE OF STUD EXCEEDS 24", PROVIDE BRIDGING AND STRAPPING PER DETAILS 6 AND 8, THIS SHEET. DIMNESION MAY BE INCREASED TO 48" WHERE EQUIPMENT OF FIXTURE ANCHORAGE DOES NOT OCCUR.

5 14 GAUAGE DEEP LEG TRACK, DIETRICH TSC (2" LEG)

6 16 GAUGE STUDS AT 16" O.C., 3-5/8" WID TYPICAL, SEE DETAILS 3-9 ON THIS SHEET.

7 5/8" TYPE X GYPSUM BOARD, WITH NON-RATED OPENINGS. (NO GYPBD. ON INTERIOR OF FURRED SPACES.)

8 ALL STUD FLANGES NOT COVERED WITH GYPSUM BOARD SHALL RECEIVE STRAPPING AND BRIDGING PER DETAILS 5/A5 AND 7/A5, SEE ADDITIONAL INFORMATION AT DETAIL 8/A5. COORDINATE WITH MECHANICAL FOR FAN COIL FILTER ACCESS.

9 EXISTING WALL WITH 3/4" GYPSUM PLASTER ON 4" METAL STUDS @ 24" O.C. MAX. (FIELD VERIFY: IF OVER 24" O.C. NOTIFY A.O.R.)

10 DEMOLISH (E) PLASTER CEILING AND JOISTS AND REPLACE WITH 5/8" TYPE X GYPSUM BOARD (NON-RATED CEILING) ON 3-5/8" X 16 GA. JOIST AT 16" O.C. (MAX. SPAN 9'-0") STRAP UNFINISHED FLANGES PER DETAIL 7/A5. JOIST TRACKS AT BOTH ENDS OF JOISTS SHALL BE FASTENED TO EACH WALL STUD WITH #12 SCREWS; NO SUSP. WIRES REQ'D. JOISTS SHALL BE FASTENED TO TRACKS W/ #10 @ TOP & BOTTOM FLANGE OF TRACK.

11 FASTEN TOP TRACK TO PERPENDICULAR (N) CEILING JOISTS BLOCKING AT 16" O.C. WITH #14 SCREWS.

12 PROVIDE R-11 BATT INSULATION AT NEW WALLS AND CEILING. (NO INSULATION IN FURRED WALLS.)

13 NOT USE.

14 EXISTING OR NEW STEEL STUDS.

15 6" x 16 GA. UNPUNCHED DEEP LEG TRACK (1-1/2" LEGS); NOTCH LEGS @ STUDS. EXTEND TRACK AS REQUIRED TO TERMINATE AT A STUD. FASTEN TO A MINIMUM OF THREE STUDS.

16 CUT AND BEND TRACK FLANGES AT STUD, AND FASTEN WITH (3) #10 SCREWS TO EACH STUD.

17 5/8" GYPSUM BOARD FINISH OR EXISTING 3/4" GYPSUM PLASTER WHERE OCCURS. PATCH EXISTING PLASTER @ ALL NEW PENETRATIONS.

18 NOTCH TRACK FLANGES AS SHOWN, AND WELD TO EACH STUD WITH 1/16" FILLET WELD, 1" LONG, TOP AND BOTTOM.

19 NOT USED

20. EXISTING CEILING FRAMING TO REMAIN.

21 ACCOUSTIC CEILING WHERE OCCURS.

O.S.H.P.D. PROJECT #SL-101318-56

REVIEWED IN ACCORDANCE WITH THE REQUIREMENTS OF T24, CCR
APPROVED
APR 05 2011
Office of Statewide Health Planning & Development
FACILITIES DEVELOPMENT DIVISION

COUNTY OF VENTURA
PUBLIC WORKS AGENCY
ENGINEERING SERVICES DEPARTMENT

PROJECT MANAGER

SPEC. NUMBER CP11-05	SHEET 11 OF 31
PROJECT NUMBER ENT11103	DRAWING NUMBER 113559

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Sheet STRUCTURAL DETAILS
Title

Revisions	R&A No:	000443
12-29-10 OSHPD CORR.	Date:	06-01-10
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	Checked:	JJL
	Consult. No:	

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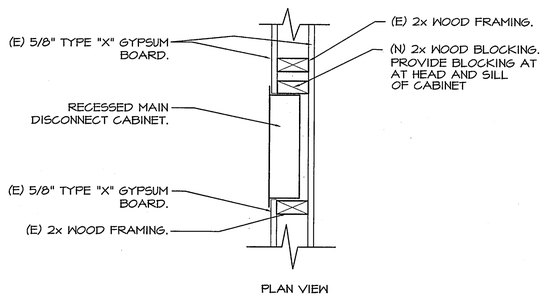
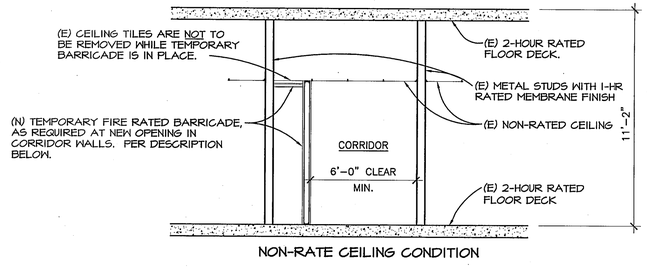
A4.1

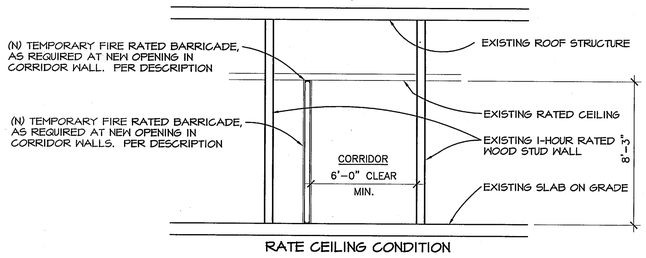


PLAN VIEW

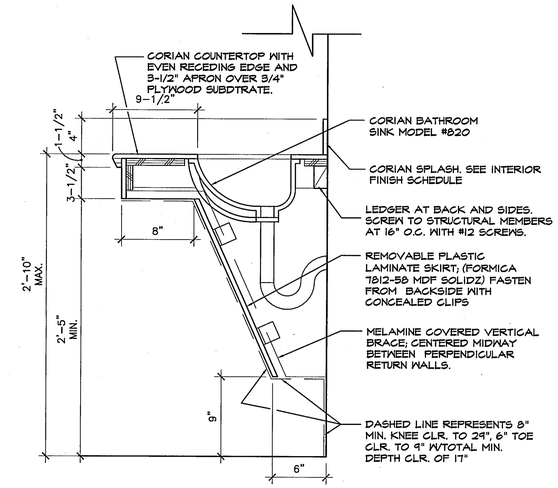
9 CABINET IN (E) WALL
SCALE 1-1/2" : 1'-0"



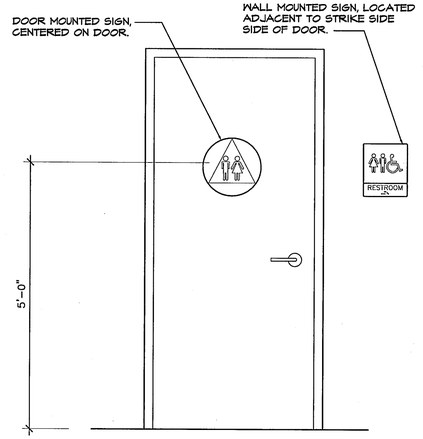
NON-RATE CEILING CONDITION



RATE CEILING CONDITION

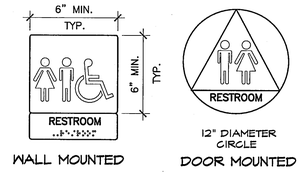


4 LAVATORY COUNTER TOP
SCALE 1-1/2" : 1'-0"

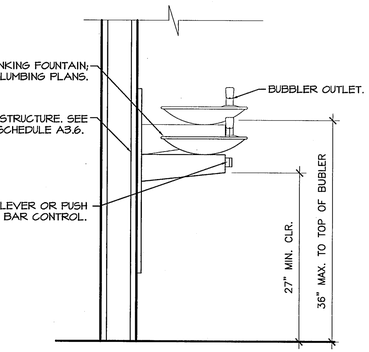


1 TOILET SIGN LOCATIONS
NOT TO SCALE

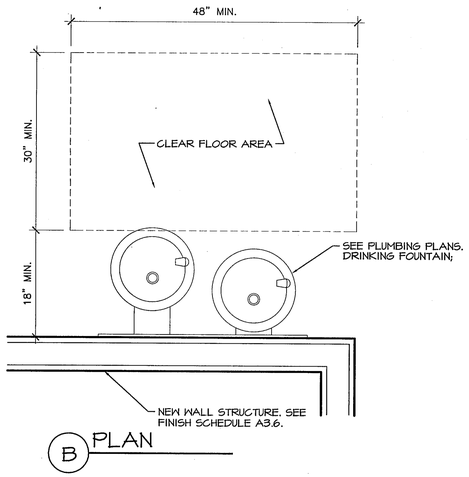
1. SIGNS SHALL BE MATTE FINISH PLASTIC, WHITE GRAPHICS ON CONTRASTING BACKGROUND.
2. WALL MOUNTED SIGN TEXT SHALL BE 5/8" - 2" HIGH, AND SHALL BE RAISED 1/32".
3. WALL MOUNTED SIGNS SHALL HAVE GRADE 2 BRAILLE.



2 TOILET ROOM SIGNS
NOT TO SCALE



A ELEVATION



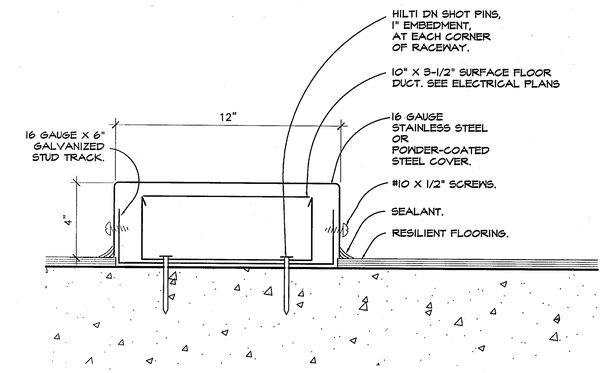
B PLAN

10 HANDICAP ACCESSIBLE HIGH/LOW DRINKING FOUNTAIN
SCALE N.T.S.

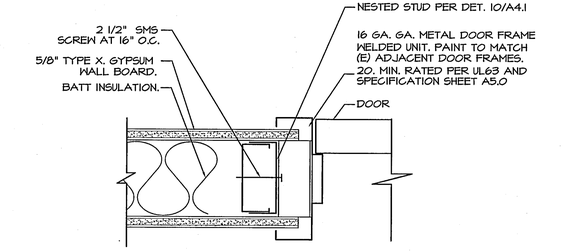
REQUIREMENTS FOR OPENINGS AND PENETRATIONS AT RATED CONSTRUCTION

1. PENETRATIONS: ANY NEW PENETRATIONS THROUGH CORRIDOR WALLS, BUILDING/SMOKE SEPARATION WALLS, OR FLOOR/ROOF STRUCTURAL DECKS SHALL BE FIRESTOPPED; SEE DETAILS AT MECHANICAL AND ELECTRICAL DRAWINGS.
2. CORRIDOR CONSTRUCTION OPENINGS: ANY OPENINGS IN THE EXISTING CORRIDOR WALL DURING THE CONSTRUCTION PROCESS SHALL BE PROTECTED BY A TEMPORARY BARRICADE. TEMPORARY BARRICADE SHALL BE ONE-HOUR RATED CONSTRUCTION: OPTION 1: 2-1/2" X .25 GAUGE USG SHAFTWALL STUDS AT 24" O.C. WITH 1" GYPSUM SHAFT LINER ONE SIDE, AND 5/8" TYPE X GYPSUM BOARD ONE SIDE (1-HOUR RATING PER NER 258); OPTION 2: 2-1/2" X 25 GAUGE STUDS AT 24" O.C., WITH 5/8" TYPE X GYPSUM BOARD BOTH SIDES (1 HOUR-RATING PER GYPSUM ASSOC. WP 1340). FASTEN SILL TRACK TO FLOOR WITH SHOT PINS AT 32" O.C.; SEE WALL FRAMING DETAILS AND NOTES FOR SHOT PIN REQUIREMENTS. FASTEN METAL FRAMING WITH #8 SCREWS AT 24" O.C. BARRICADE DOORS SHALL BE 20 MINUTE "S" RATED ASSEMBLIES, SELF-CLOSING WITH SMOKE AND DRAFT SEALS.
3. COORDINATE WITH OSHPD FIELD FIRE & LIFE SAFETY OFFICER PRIOR TO CONSTRUCTION / INSTALLATION OF TEMPORARY BARRICADES.
4. TEMPORARY BARRIERS SHALL CONFORM TO UL SYSTEM U425.

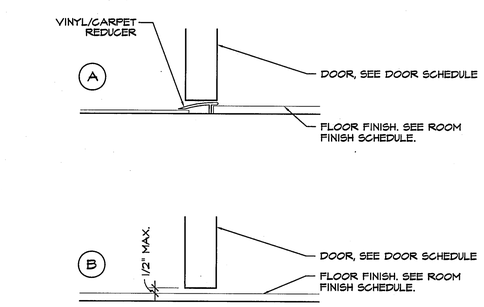
7 EXISTING CORRIDOR CONSTRUCTION
NOT TO SCALE



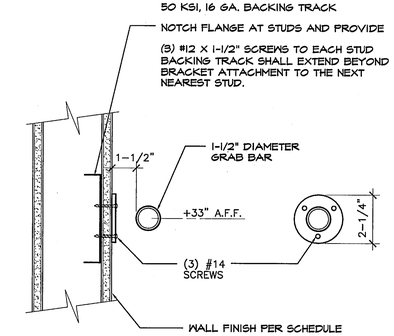
8 FLOOR RACEWAY COVER
SCALE 6" : 1'-0"



5 20. RATED METAL DOOR JAMB (HEAD SIM.)
SCALE 3" : 1'-0"



6 INTERIOR THRESHOLD
SCALE 3" : 1'-0"



3 GRAB BAR
SCALE: 3"=1'-0"

O.S.H.P.D. PROJECT #SL 101318-56

REVIEWED IN ACCORDANCE WITH THE REQUIREMENTS OF T24, CCR

APPROVED

APR 05 2011

Office of Statewide Health Planning & Development
FACILITIES DEVELOPMENT DIVISION

COUNTY OF VENTURA
PUBLIC WORKS AGENCY
ENGINEERING SERVICES DEPARTMENT

PROJECT MANAGER	
SPEC. NUMBER CP11-05	SHEET 12 OF 31
PROJECT NUMBER ENT11103	DRAWING NUMBER 113560

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Revisions	R&A No:	000443
12-29-10 OSHPD CORR.	Date:	06-01-10
03-30-11 OSHPD CORR.	Drawn:	CJH
	Checked:	JLL
	Consult:	No:

Sheet DETAILS
Title

MAMMOGRAPHY ROOMS & NEEDLE BIOPSY ROOM
VENTURA COUNTY MEDICAL CENTER
3291 LOMA VISTA ROAD
VENTURA, CALIFORNIA

Sheet No.
A4.2

ACOUSTIC CEILING NOTES:

A INSTALLATION SHALL CONFORM TO OSHPD REQUIREMENTS AS DETAILED IN THESE DRAWINGS AND NOTED BELOW.

B SPLICES ARE NOT ALLOWED IN HANGER OR BRACING WIRES.

C PROVIDE TRAPEZE OR OTHER SUPPLEMENTARY SUPPORT MEMBERS AT OBSTRUCTIONS TO MAIN HANGER SPACING. PROVIDE ADDITIONAL HANGERS, STRUTS, OR BRACES AS REQUIRED AT ALL CEILING BREAKS, SOFFITS OR DISCONTINUOUS AREAS. HANGER WIRES THAT ARE MORE THAN 1 IN 6 OUT OF PLUMB ARE TO HAVE COUNTERSLOPING WIRES.

D CEILING GRID MEMBERS MAY BE ATTACHED TO NOT MORE THAN 2 ADJACENT WALLS; WHERE WALLS RUN DIAGONALLY TO CEILING GRID RUNNERS, ONE END OF EACH MAIN AND CROSS RUNNER SHALL BE A "FREE END".

E HANGING AND BRACING WIRES SHALL BE TAUT WITHOUT CAUSING CEILING TO LIFT. WIRES SHALL BE INSTALLED IN SUCH A MANNER THAT THE DIRECTION OF THE WIRE ALIGNS WITH THE DIRECTION OF FORCES ACTING ON THE WIRE.

F SEPARATE ALL CEILING HANGING AND BRACING WIRES AT LEAST 6" FROM ALL UNBRACED PIPES, DUCTS, CONDUIT, ETC.

G CONCRETE ANCHOR TESTING REQUIREMENTS:
HANGER WIRE SHOT PINS: TEST 1 IN 10 FOR 200# TENSION.
BRACING WIRE EXPANSION BOLTS: TEST 1 IN 2 FOR 440# TENSION.
IF ANY ANCHOR FAILS, ALL ADJACENT ANCHORS SHALL BE TESTED.

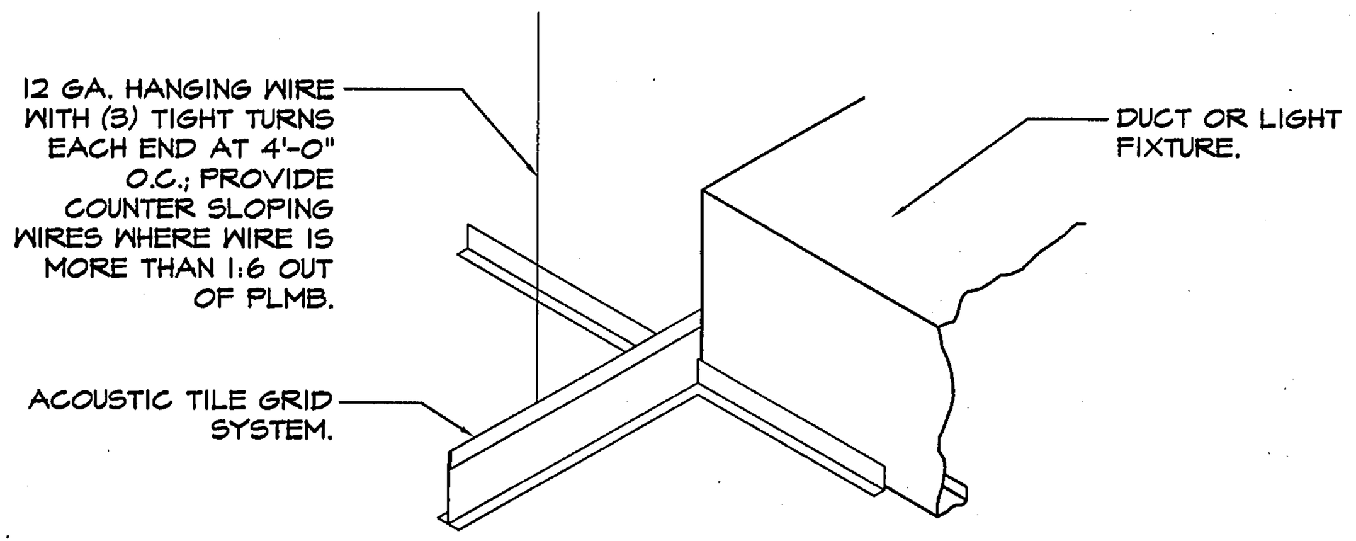
H SEE ELECTRICAL AND MECHANICAL DRAWINGS FOR SUPPORT OF LIGHT FIXTURES AND AIR TERMINALS.

I RE-USE OF EXISTING HANGER WIRES:
1. THE GAUGE AND SPACING OF WIRES SHALL COMPLY WITH REFERENCE NOTE 18.
2. ALL EXISTING HANGER WIRES SHALL BE TESTED FOR 200# TENSION; TEST TO BE PERFORMED IN THE PRESENCE OF THE I.O.R.
3. EXISTING WIRES SHALL NOT BE RE-USED FOR SPLAYED BRACING.

J SHOT PINS TO BE RAMSET/REDHEAD 1500 SERIES (ICBO ER#1639) OR APPROVED EQUIVALENT.

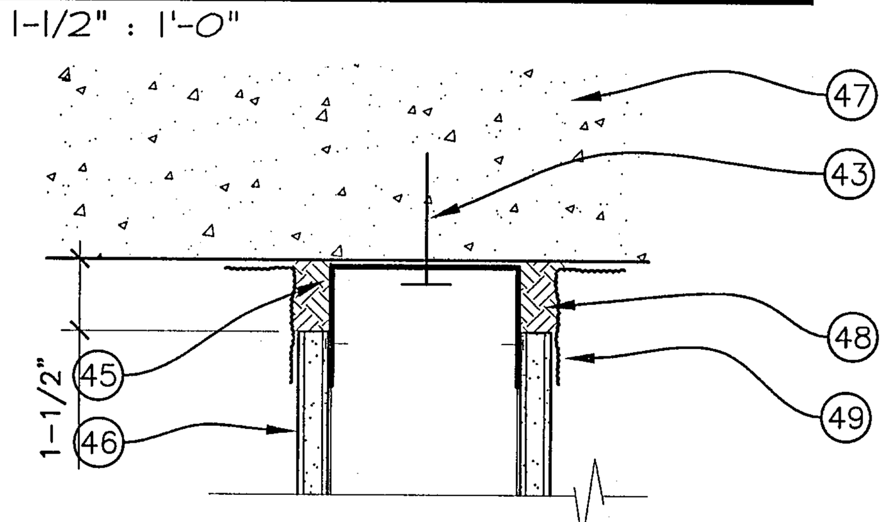
K NOT USED.

L EXISTING LAY-IN LIGHT FIXTURES ARE SUPPORTED BY EXISTING #12 SLACK WIRES.

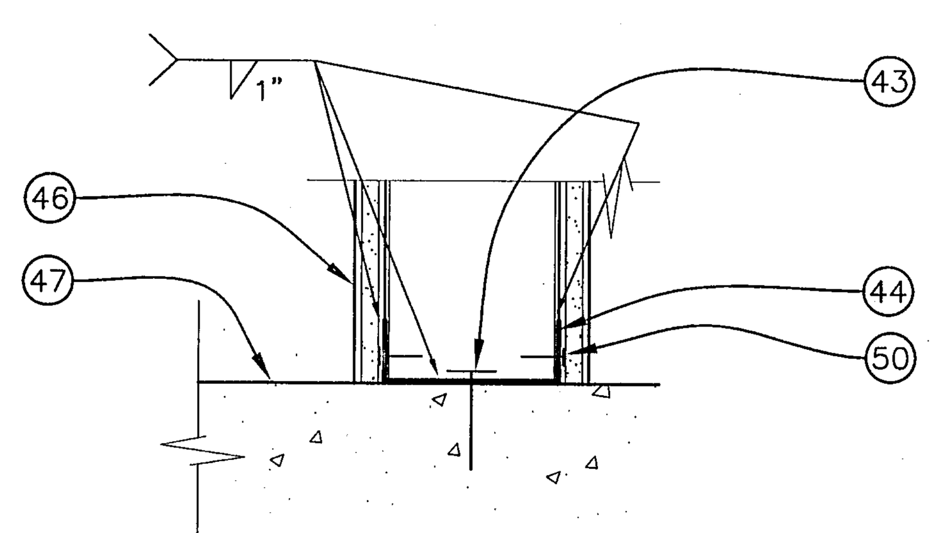


NOTE: IF LIGHT FIXTURE WEIGHS MORE THAN 20 LBS., PROVIDE (2) 12 GA. GALVANIZED HANGER WIRES CONNECTED TO FIXTURE IN ADDITION TO SUSPENDED CEILING SYSTEM (MAY HAVE SOME SLACK).

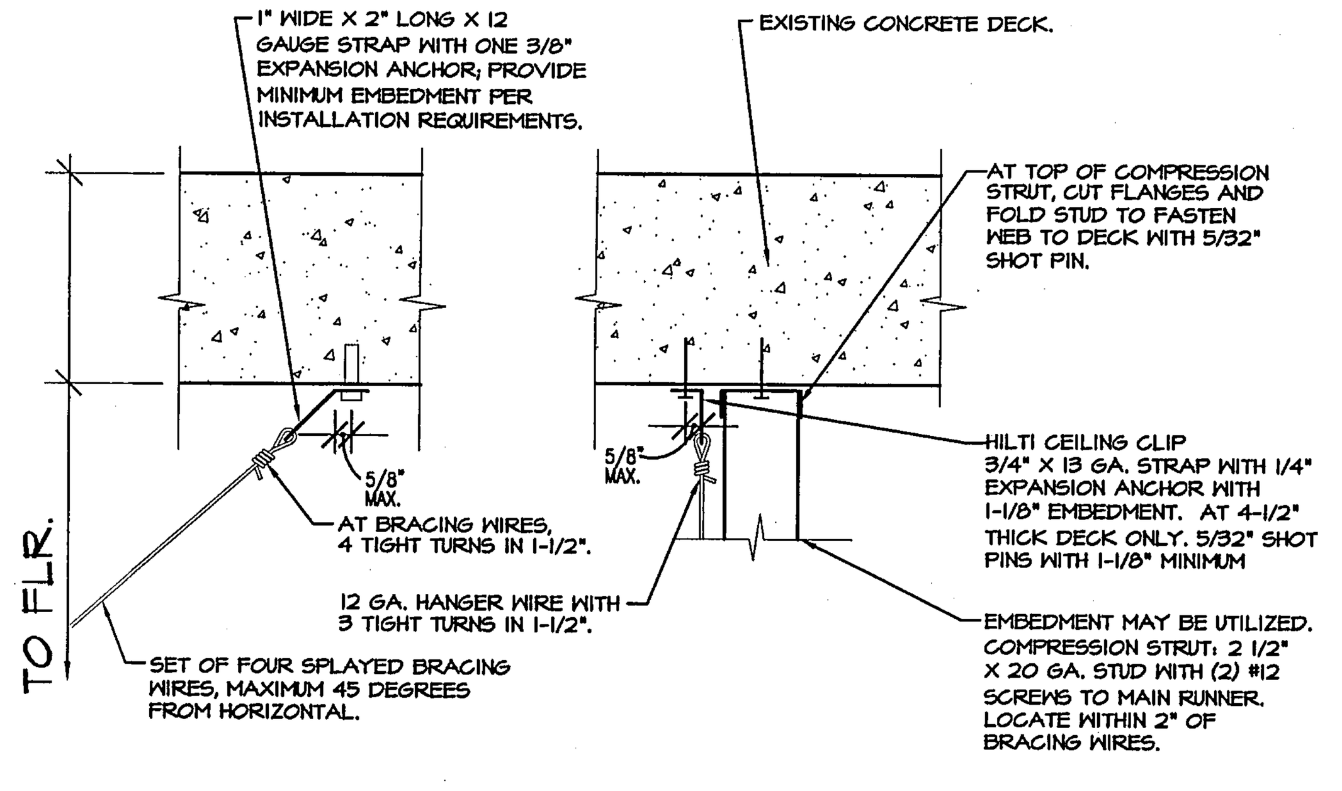
6 LIGHT FIXTURE/DUCT PENETRATION
SCALE 1-1/2" : 1'-0"



7 HEAD OF WALL WITH RATED OPENINGS
SCALE: 3"=1'-0"

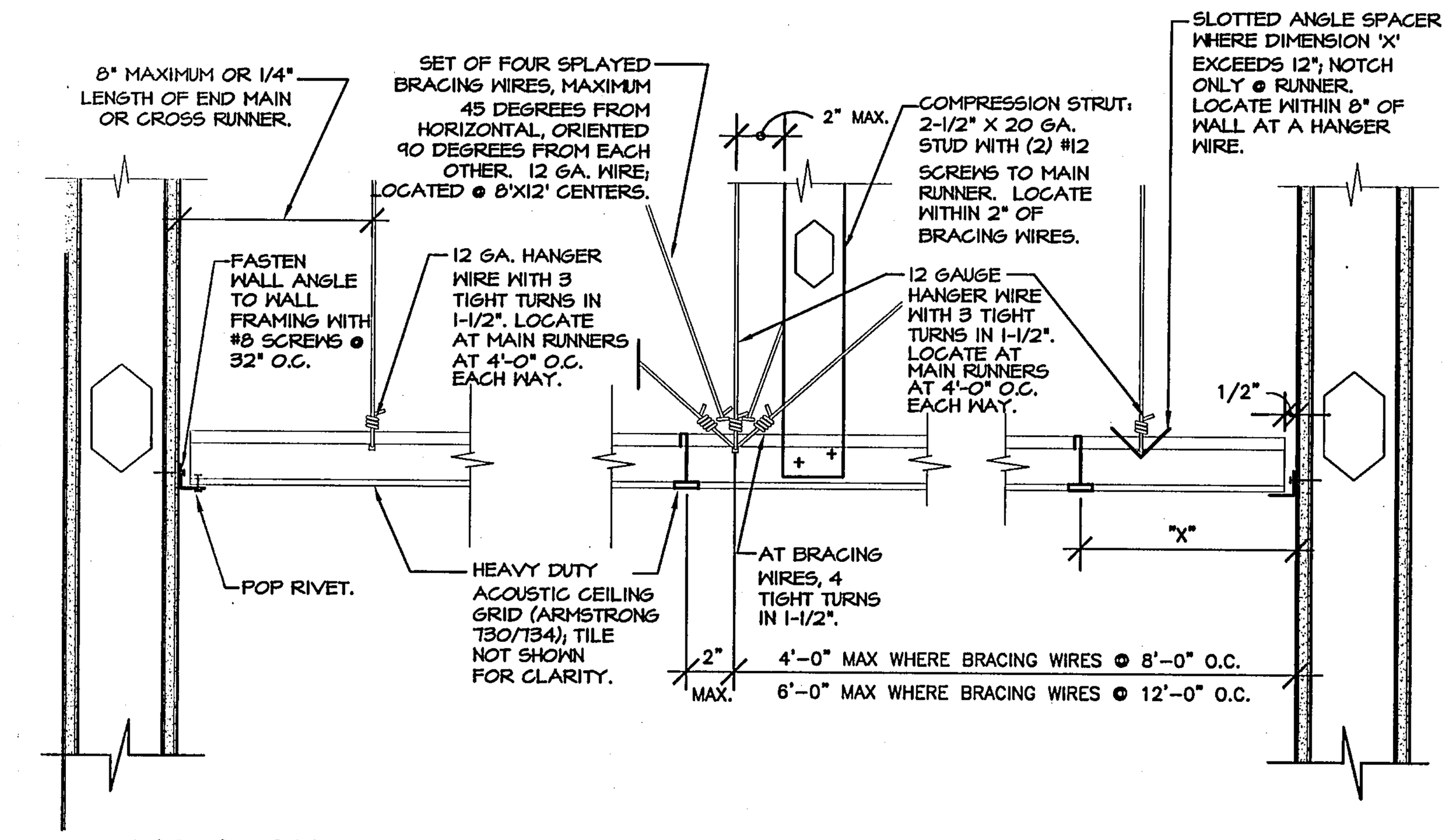


8 WALL BOTTOM TRACK
SCALE: 3"=1'-0"



BRACING WIRE @ LT.WT.CONC. (B)

VERTICAL STRUT & HANGER WIRE @ LT.WT.CONC. (A)



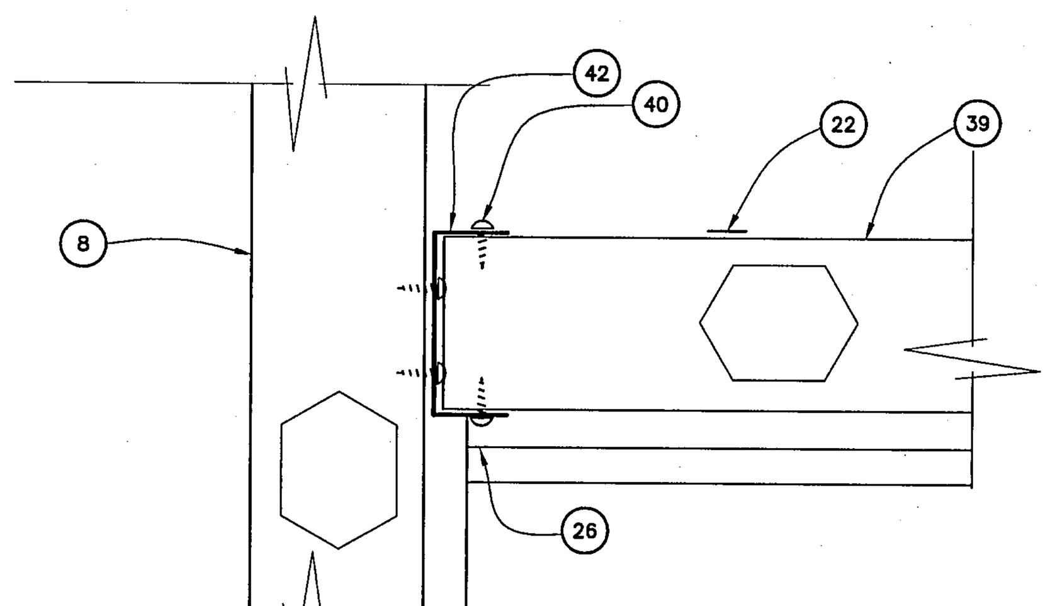
WALL ANGLE "CONNECTED" (E)
TYP. @ 2 ADJACENT WALLS

LATERAL BRACING (D)

"FREE END" WALL ANGLE (C)
TYP.@ 2 ADJACENT WALLS

SEE "ACOUSTIC CEILING NOTES", THIS SHEET.

4 TYPICAL ACOUSTIC CEILING
SCALE: 1-1/2" : 1'-0"



5 ALTERNATE CEILING TO FURRING WALL
SCALE: 3"=1'-0"

NOTE LEGEND (CONT.)

43. FASTEN TOP AND BOTTOM TRACK TO FLOOR SLAB WITH SHOT PINS: HILTI "X-U" (.157" D), ICC ESR 2269, WITH 1-1/4" EMBEDMENT, 2" FROM EACH END OF TRACK. AT TRACKS ABOVE DOUBLE JAMB STUDS SUPPORTING OVERHEAD DOORS, FASTEN TRACKS WITH (2) 3/8" KBTZ ANCHORS WITH 2" EMBEDMENT, PER ICC ESR 1917.

44. SILL TRACK SHALL BE 16 GA. WITH 1-1/2" FLANGES.

45. AT RATED HEAD-OF-WALL, TOP TRACK SHALL BE 16 GA. DIETRICH SLP-TRK PER ICC ESR 1042. STUDS HELD 5/8" BELOW TRACK WEB AND SCREWED TO TRACK WITH #8 WAFERHEAD SCREWS THROUGH SLOTTED HOLES.

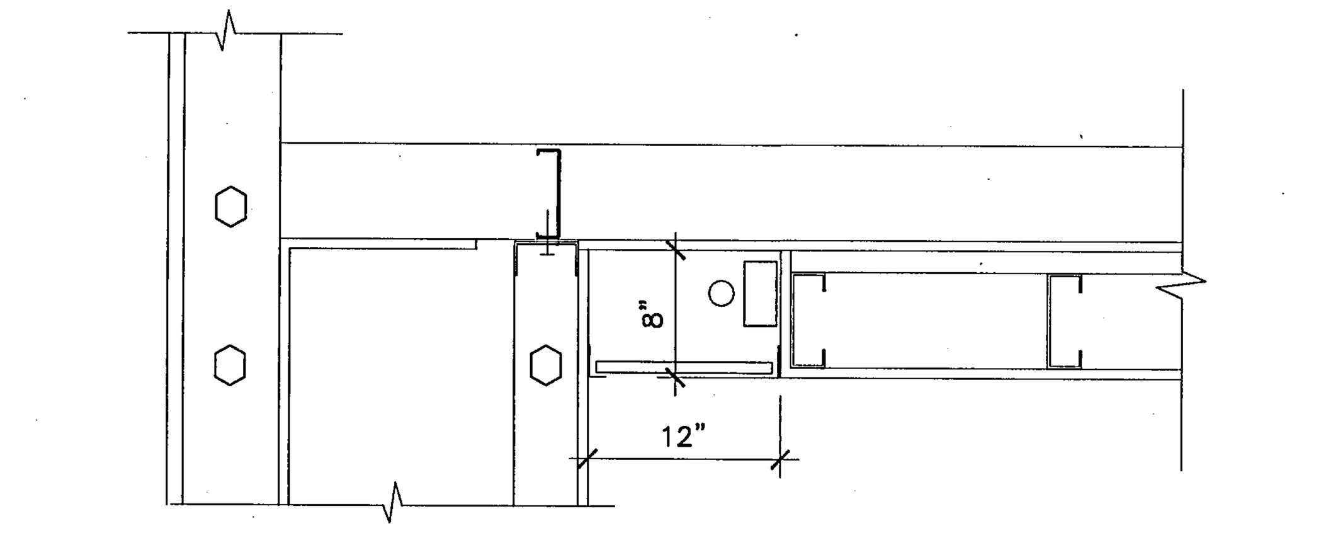
46. 5/8" TYPE "X" GYPSUM BOARD FINISH. SCREW TO FRAMING WITH 1" SCREWS AT 12" O.C., DO NOT SCREW TO SLIP TRACK. TYPICAL WALL FINISH U.N.O. 1-HOUR WALL RATING PER WP1200.

47. EXISTING CONCRETE BEAM OR SLAB ON GRADE, 3000 PSI STRUCTURAL CONCRETE.

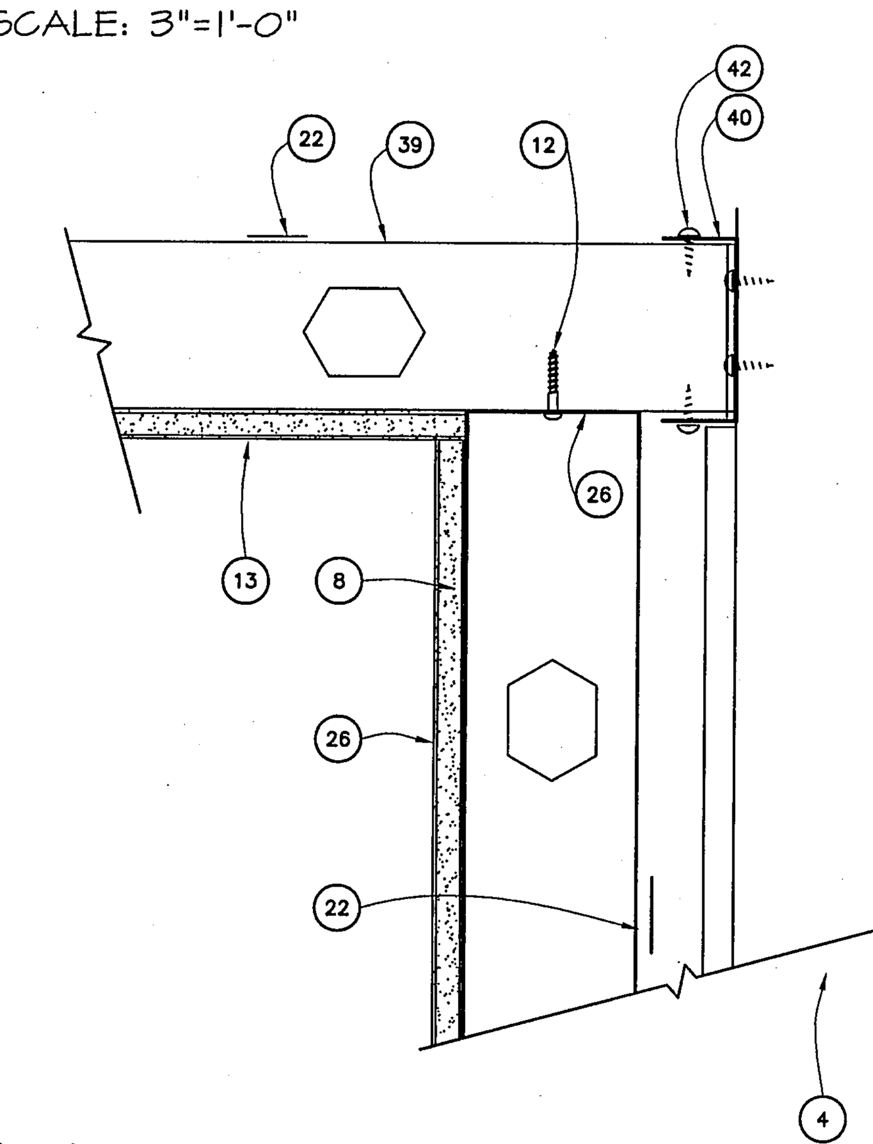
48. MINERAL WOOL, CUT TO THICKNESS OF GYPSUM BOARD AND TWICE THE WIDTH OF JOINT; COMPRESS INTO GAP AT TOP OF GYPSUM BOARD. GRACE FLAMESAFE 4 PCF MINERAL WOOL.

49. GRACE FLAMESAFE FS 3000 SPRAY JOINT SEAL, MIN. 1/8" WET FILM THICKNESS. LAP ONTO CONCRETE DECK AND GYPSUM BOARD MIN. 1/2".

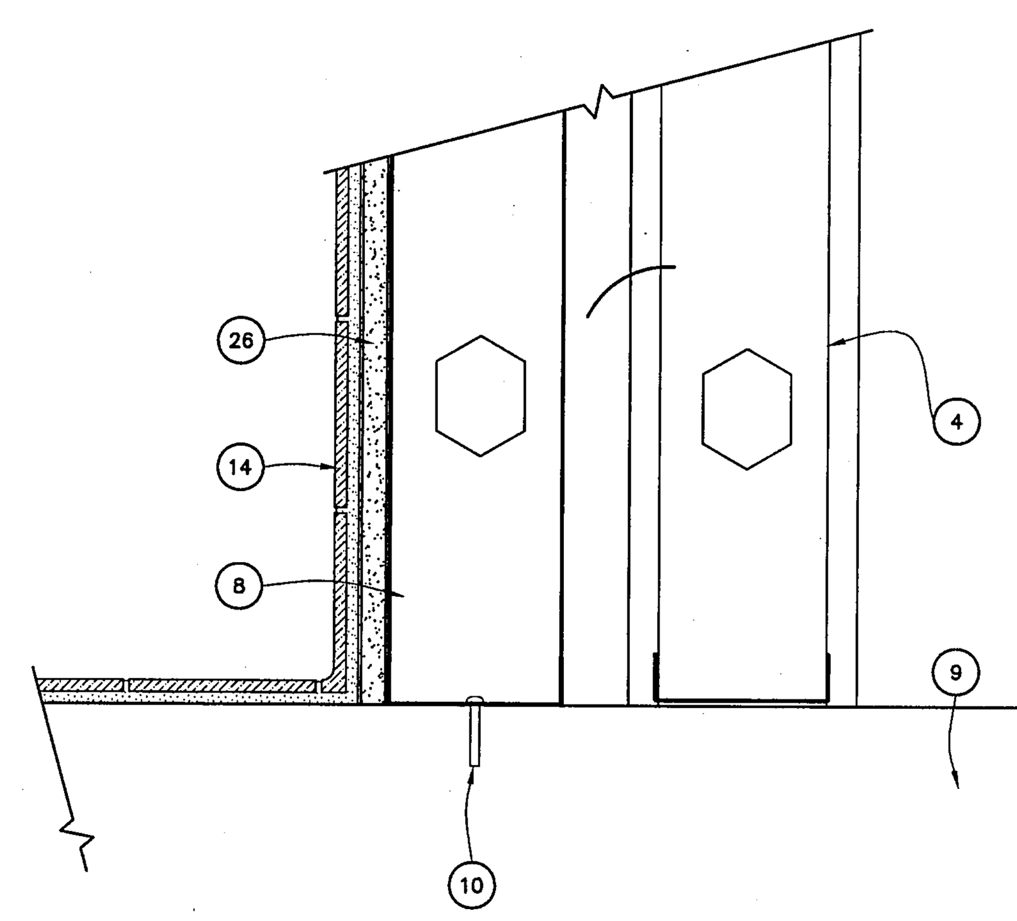
50 #8 S.M.S. EACH SIDE EACH STUD. (ALT. IN LIEU OF WELDING)



1 TOILET SIGN COVER LIGHTING
SCALE: 3"=1'-0"



2 FURRING WALL TOP CONNECTION
SCALE: 3"=1'-0"



3 FURRING WALL BOTTOM CONNECTION
SCALE: 3"=1'-0"

NOTE LEGEND

1 50 KSI, 16 GA. BACKING TRACK WELDING PER DETAIL 5, OPTION B, THIS SHEET

2 1-1/2" DIAMETER x42" GRAB BAR PER DETAIL 3/A3 AT +33" A.F.F. REMOVE EXISTING WALL FINISH TO EXPOSE FRAMING AT ATTACHMENT. PROVIDE 2 x 6 WOOD BLOCKING BETWEEN EXISTING WOOD STUDS.

3 (3) #14 SCREWS

4 EXISTING WALL FRAMING.

5 DOOR MOUNTED SIGN, CENTERED ON DOOR. SIGN PER DETAIL 4/A3.

6 WALL MOUNTED SIGN, LOCATED ADJACENT TO STRIKE SIDE OF DOOR AT 60" ABOVE F.F.L. SIGN PER DETAIL 4/A3.

7 (E) FULL HEIGHT WALL

8 3-5/8" x 20 GA. METAL STUD FRAMED FURRING WALL.

9 (E) CONCRETE FLOOR SLAB.

10 FASTEN TRACK TO CONCRETE WITH SHOT PINS: RAMSET 1508 SHOT PINS .145" DIA.,1" EMBEDMENT AT 16" O.C. AND 6" MAX FROM END OF TRACK PER ICC ESR 1799. ALSO SEE NOTE #9 SHEET A4.

11 16 GA. HOLLOW METAL DOOR FRAME.

12 FASTEN 16 GA. TOP TRACK TO PERPENDICULAR (N) CEILING BLOCKING AT 16" O.C. WITH #14 SCREWS.

13 EXISTING GYP. BD CEILING TO REMAIN. ADD ONE LAYER OF 5/8" TYPE "X" GYP. BD. PER CBC TABLE 720.1(3) ITEM #21-1.1 TO COMPLETE 1 HR. ROOF/CEILING ASSEMBLY.

14 (N) 4 x 4 CERAMIC WALL TILE AND COVED TILE WALL BASE, OVER THIN SET, OVER GYP BD.

15 EXISTING WOOD CEILING JOIST TO REMAIN.

16 1-1/2" DIAMETER x 36" GRAB BAR PER DETAIL 3/A3 AT +33" A.F.F. PROVIDE 18 GA. STUDS AND BACKING PLATES PER DETAIL 5/A3.

17 NESTED JAMB STUD PER DETAIL 4/A4.

18 NEW WATER CLOSET, SEE PLUMBING PLAN.

19 (N) BLOCKING AS NEEDED.

20 NEW LAVATORY, SEE PLUMBING PLAN, AND DETAIL 8 THIS SHEET FOR ACCESS DIMENSIONS.

21 NEW WOOD DOOR PER PLAN, PAINTED FINISH.

22 STUDS FLANGES NOT COVERED WITH GYP. BD. SHALL RECEIVE STRAPPING PER DETAIL 7 /A4, SEE ADDITIONAL INFORMATION DETAIL 8/A4.

23 WALL FRAMING PER PLAN.

24 6" x 16 GA. UNPUNCHED DEEP LEG TRACK (1-1/2" LEGS); NOTCH LEGS @ STUDS. EXTEND TRACK AS REQUIRED TO TERMINATE AT A STUD. FASTEN TO A MINIMUM OF THREE STUDS.

25 CUT AND BEND TRACK FLANGES AT STUD, AND FASTEN WITH (3) #10 SCREWS TO EACH STUD.

26 5/8" TYPE "X" GYPSUM BOARD FINISH OR EXISTING 3/4" GYPSUM PLASTER WHERE OCCURS. PATCH EXISTING PLASTER @ ALL NEW PENETRATIONS. PROVIDE TWO LAYERS AT NEW FURRED CEILING PER CBC TABLE 720.1(3) ITEM #21-1.1 TO COMPLETE 1 HR. ROOF/CEILING ASSEMBLY.

27 18" x 30" MIRROR

28 PATCH (E) CEILING WHERE PORTION OF WALL AND HEADER IS REMOVED. ALSO SEE NOTE #13 ABOVE

29 TOILET SEAT COVER DISPENSER.

30 TOILET PAPER DISPENSER WITH COVER.

31 NOTCH TRACK FLANGES AS SHOWN, AND WELD TO EACH STUD WITH 1/16" FILLET WELD, 1" LONG, TOP AND BOTTOM.

32 SOAP DISPENSER BY OWNER INSTALLED BY CONTRACTOR.

33 PAPER TOWEL DISPENSER.

34 FLOOR FINISH PER PLAN.

35 MARBLE THRESHOLD SET IN THIN SET

36 TILE LEDGE LOCATED TO CLEAR BOTTOM OF EXISTING ELECTRICAL ENCLOSURE FLANGE.

37 EXISTING ELECTRICAL PANEL ENCLOSURE. PROVIDE NEW CUSTOM COVER. SEE DETAIL 1/A4.

38 LINE OF EXISTING WALL & CEILING TO REMAIN. REMOVE (E) FINISH AS NEEDED FOR ACCESS.

39 3-5/8" CEILING JOISTS AT 16" O.C. MIN. PROVIDE 362S137-33 (20 GA, 33KSI) FOR SPANS UP TO 8'-8"

40 16 GA. TRACK W/ 1-1/2" LEGS. W/ (2) #10 SCREWS TO EACH WALL STUD.

41 EMERGENCY NURSE CALL DEVICE PER SHEET E3.

42. #8 S.M.S. EACH SIDE EACH STUD.

O.S.H.P.D. PROJECT #SL 101318-56
REVIEWED IN ACCORDANCE WITH THE REQUIREMENTS OF T24, CCR
APPROVED
APR 05 2011
Office of Statewide Health Planning & Development
FACILITIES DEVELOPMENT DIVISION

COUNTY OF VENTURA
PUBLIC WORKS AGENCY
ENGINEERING SERVICES DEPARTMENT

PROJECT MANAGER	
SPEC. NUMBER CP11-05	SHEET 13 OF 31
PROJECT NUMBER ENT11103	DRAWING NUMBER 113561

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LICENSED ARCHITECT JAMES L. LUCKING C10801 STATE OF CALIFORNIA

Sheet Title	DETAILS & CEILING NOTES	
Revisions	R&A No:	000443
12-29-10 OSHPD CORR.	Date:	06-01-10
03-30-11 OSHPD CORR.	Drawn:	LBE
	Checked:	JLL
	Consult. No:	

MAMMOGRAPHY ROOMS & NEEDLE BIOPSY ROOM
VENTURA COUNTY MEDICAL CENTER
3291 LOMA VISTA ROAD
VENTURA, CALIFORNIA

Sheet No.
A4.3

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1.01 GENERAL AND SUPPLEMENTAL CONDITIONS

A. OSHPD Requirements: Contractor shall conform to all requirements of the Office of Statewide Health Planning and Development, including (but not limited to) submittal of Verified Reports, cooperation with the Inspector of Record, and preparation of Deferred Approvals, as required by Title 24 CCR, Part 1.

B. Deferred Approvals: Submittals for items listed on the plans as "Deferred Approvals" shall be reviewed by the Architect prior to submittal to OSHPD. Where applicable, engineered calculations (bearing the stamp and signature of an engineer licensed in the state of California) shall be provided, confirming capacity of structural attachments, hydraulic capacity, etc. Submittal shall detail all structural attachments.

C. Maintenance of fire–protective construction: Contractor shall maintain the integrity of fire–rated partitions, floors, roofs, openings, and penetrations during the course of construction, in conformance with the the requirements of the permitting agency.

D. Hospital utilities shall not be interrupted without prior notification and approval by the hospital engineering department.

E. Infection Control: Contractor shall implement infection control measures as determined by the hospital's infection control officer. Maintain appropriate dust control barricades and walk–off mat. Maintain negative–pressure ventilation of space.

2.01 DEMOLITION, CUTTING AND PATCHING

A. Demolition: Remove existing components to the extent indicated. Protect existing components to remain, and enclose demolition area as required to avoid disruption to adjacent hospital functions. Provide temporary shoring or permanent reinforcing prior to demolition of any structural components.

B. Cutting and Patching: As indicated, or where required to install components shown on the drawings, remove existing components to the extent required for access or routing of ducts, piping, and conduit. Patch finishes to match existing for appearance and fire rating. Do not cut structural components unless shown on drawings; notify Architect of conflicts with existing structure. Proper procedures shall be utilized to prevent overcutting of structural components.

C. Remove and dispose of all demolished materials. Confirm with owner whether they wish to take possession of any fixtures, casework, doors, frames, windows, or similar components prior to removal from site. The owner has the first right to salvaged items.

D. Maintain barricades and control ventilation systems in order to prevent contamination of the existing hospital functions outside of the construction area. The construction area should be under negative pressure in relation to adjacent spaces whenever demolition or removal of existing materials is being performed, or when other construction operations are occurring which generate odors or dust.

E. Provide fire–rated barricades where existing fire rated walls are compromised in excess of one working day. Maintain pathways, lighting, and fire–rated protection of exits serving any occupied area of the building.

3.03 CONCRETE FASTENING SYSTEMS

A. Expansion Anchors: Anchors shall be of the type and manufacture as shown on the drawings. Sleeve–type anchors shall not be used.

B. Powder Actuated Fasteners: Fasteners shall be of the type and manufacturer as shown on drawings. Installation tools shall be by the fastener manufacturer.

C. Epoxy Anchors: Anchors and epoxy material shall be of the type and manufacture as shown on the drawings.

D. Installation and Testing: A copy of the manufacturer's printed installation instructions and the ICC report shall be provided to the Inspector of Record; installation shall be in strict compliance with those documents. Testing requirements for structural expansion anchors, epoxy anchors, ceiling anchors, and ceiling fasteners are indicated on the drawings.

E. Protection of Existing Steel Reinforcing: Prior to drilling for any expansion anchors, locate existing reinforcing steel with by non–destructive test procedure. Drilling shall not damage any existing steel.

4.01 NOT USED

5.01 METAL FABRICATIONS

A. Miscellaneous ferrous metal structural shapes shall be fabricated with steel complying with ASTM A36 and A283. Shapes shall be galvanized whenever their installed location will be exposed to weather, floor cleaning, or other moisture; otherwise they shall be shop primed. Welding shall be done by the electric arc process; welding shall be inspected in accordance with CBC chapter 17.

B. Nuts, bolts, and washers shall comply with ASTM A325, and shall be galvanized when exposed as noted above.

6.01 ROUGH FRAMING (NOT USED)

6.03 PLASTIC LAMINATE CASEWORK (CABINETS & COUNTERTOPS)

A. New and modified casework in accordance with requirements of the (W.I.) "Manual of Millwork", latest published edition, Custom Grade; Type II construction, single length sections to fit access openings; Style A, Frameless, in accordance with Supplement No. 1& 2 to section 15: flush overlay door and drawer front style; Type A, flush door type. Prepare for installation of utilities.

B. Plastic Laminate Cabinets: NEMA LD 3; General Purpose Quality. Color and pattern shall match existing adjacent cabinets.

C. Modify existing countertops in accordance with the requirements of the (W.I.) "Manual of Millwork", Section 16, "Custom" grade; with decorative edge. Provide backsplash where shown, height as indicated, integral cove, with square top; square, butt joint end splash where shown with square top.

D. Decorative edge: Where indicated on the drawings, provide decorative laminate bevel edge molding by Kuehn, Type 1, flat back, black, or approved equal.

E. Hardware:
Hinges: Concealed "European" type
Pulls: "Wire Pull" Type
Catches: Magnetic type
Locks shall be installed where shown on the drawings and master keyed.

7.01 FIRESTOPPING

A. Provide sealant systems as required by the California Building Code at all through penetrations and joints in fire rated floors, roofs, and walls. This facility requires an F–rating of 2–hours at all floor and roof decks. Sealant is not required in walls where non–rated openings are allowed.

B. Sealant systems shown on the drawings are manufacturer's complete assemblies, and shall not have other materials substituted for those indicated.

C. Alternate systems by other manufacturers may not be substituted without prior submission in accordance with Section 1.01.

D. Should conditions be discovered in the field which do not allow the installation of the indicated systems in accordance with the manufacturer's requirements, the condition shall be brought to the attention of the architect by the IOR, for determination of an appropriate alternate sealant system.

8.01 WOOD DOORS

A. Construction: Solid core, non–rated, constructed per Woodwork Institute Manual of Millwork, Section 12, Premium Grade, solid wood block or solid particle board core.

B. Fire rated doors shall conform to NFPA 80 and UBC Standard 7–2; 20–minute "S" rated doors and lite kits shall be labeled as meeting positive pressure requirements. Manufacturer's installation instructions shall be available at the jobsite for the IOR.

C. Facing: Paint grade, close hardwood faces and vertical edges.

D. Manufacturer: Algoma Hardwood Inc., Buell Door Co., Eggers Industries. Marshfield Architectural Doors, or Architect approved equal.

E. Installation: Install doors in accordance with Woodwork Institute Manual of Woodwork, Section 12. Coordinate installation of doors with installation of frames and hardware. Adjust door for smooth and balanced door movements.

8.02 DOOR FRAMES

A. Non–rated, Interior Frames: 16 gage thick material, base metal thickness. Conform to requirements of ANSI/SDI–100 and ANSI A117.1.

B. Bituminous Coating: Fibered asphalt emulsion.

C. Primer: Zinc–chromate type, air dried or baked.

D. Fabricate frames as welded unit. Joints shall be mitered or butted and continuously arc welded for full depth and width of frame and trim. All contact edges shall be closed tight and all welds on exposed surfaces dressed smooth and flush.

E. Fire rated door and window frames shall conform to NFPA 80 and UBC Standard 7–2; 20–minute "S" rated frames shall conform to ANSI A155.1/UL63 (submit documentation), or be labeled as meeting positive pressure requirements.

F. Glazing at rated windows shall be per 2001, CBC 713.9 and caulked with 100% pure silicone sealant.

8.03 DOOR HARDWARE

1.1 Section Includes:

1. Door Hardware, including electric hardware.
2. Low energy door operators plus sensors and actuators.

1.2 REFERENCES:

Use date of standard in effect as of Bid date.

A. American National Standards Institute – ANSI 156.18 – Materials and Finishes.

B. BHMA – Builders Hardware Manufacturers Association

C. DHI – Door and Hardware Institute

D. NFPA – National Fire Protection Association
1. NFPA 80 – Fire Doors and Windows
2. NFPA 105 – Smoke and Draft Control Door Assemblies
3. NFPA 252 – Fire Tests of Door Assemblies

E. UL – Underwriters Laboratories
1. UL10C – Positive Pressure Fire Tests of Door Assemblies.
2. UL 305 – Panic Hardware

F. WHI – Warnock Hersey Incorporated

G. 2007 State of California Building Code

H. Local applicable codes

I. SDI – Steel Door Institute

J. WI – Woodwork Institute

K. AWI – Architectural Woodwork Institute

L. NAAMM – National Association of Architectural Metal Manufacturers

1.3 SUBMITTALS & SUBSTITUTIONS

A. SUBMITTALS: Submit six copies of schedule per Section 01330. Only submittals printed one sided will be accepted and reviewed. Organize vertically formatted schedule into "Hardware Sets" with index of doors and headings, indicating complete designations of every item required for each door or opening. Include following information:
1. Type, style, function, size, quantity and finish of hardware items.
2. Use BHMA Finish codes per ANSI A156.18.
3. Name, part number and manufacturer of each item.
4. Fastenings and other pertinent information.
5. Description of door location using space names and numbers as published in the drawings.
6. Explanation of abbreviations, symbols, and codes contained in schedule.
7. Mounting locations for hardware.
8. Door and frame sizes, handing, materials, fire–rating and degrees of swing.
9. List of manufacturers used and their nearest representative with address and phone number.
10. Catalog cuts.
11. Wiring Diagrams.
12. Manufacturer's technical data and installation instructions for electronic hardware.
13. Date of jobsite visit.

B. Bid and submit manufacturer's updated/improved item if scheduled item is discontinued.

C. Deviations: Highlight, encircle or otherwise identify deviations from "Schedule of Finish Hardware" on submittal with notations clearly designating those portions as deviating from this section.

D. If discrepancy between drawings and scheduled material in this section, bid the more expensive of the two choices, note the discrepancy in the submittal and request direction from Architect for resolution.

E. Substitutions per Division 1. Include product data and indicate benefit to the Project. Furnish operating samples on request.

F. Furnish as–built/as–installed schedule with closeout documents, including keying schedule, wiring diagrams, manufacturers' installation, adjustment and maintenance information, and supplier's final inspection report.

1.4 QUALITY ASSURANCE:

A. Qualifications:
1. Hardware supplier: direct factory contract supplier who employs a certified architectural hardware consultant (AHC), available at reasonable times during course of work for project hardware consultation to Owner, Architect and Contractor.
   a) Responsible for detailing, scheduling and ordering of finish hardware. Detailing implies that the submitted schedule of hardware is correct and complete for the intended function and performance of the openings.

B. Hardware: Free of defects, blemishes and excessive play. Obtain each kind of hardware (latch and locksets, exit devices, hinges and closers) from one manufacturer.

C. Exit Doors: Operable from inside with single motion without the use of a key or special knowledge or effort.

D. Fire–Rated Openings: NFPA 80 compliant. Hardware UL10C / California State Fire Marshal Standard 12–7–4 (positive pressure) compliant for given type/size opening and degree of label. Provide proper latching hardware, non–flaming door closers, approved–bearing hinges, and resilient seals. Coordinate with wood door section for required intumescent seals. Furnish openings complete.
1. Note: scheduled resilient seals may exceed selected door manufacturer's requirements.
2. See 2.6.E for added information regarding resilient and intumescent seals.

E. Furnish hardware items required to complete the work in accordance with specified performance level and design intent, complying with manufacturers' instructions.

1.5 DELIVERY, STORAGE AND HANDLING:

A. Delivery: coordinate delivery to appropriate locations (shop or field).
1. Permanent keys and cores: secured delivery direct to Owner's representative.

B. Acceptance at Site: Items individually packaged in manufacturers' original containers, complete with proper fasteners and related pieces. Clearly mark packages to indicate contents, locations in hardware schedule and door numbers.

C. Storage: Provide securely locked storage area for hardware, protect from moisture, sunlight, paint, chemicals, dust, excessive heat and cold, etc.

1.6 PROJECT CONDITIONS AND COORDINATION:

A. Where exact types of hardware specified are not adaptable to finished shape or size of members requiring hardware, provide suitable types having as nearly as practical the same operation and quality as type specified, subject to Architect's approval.

B. Coordination: Coordinate hardware with other work. Furnish hardware items of proper design for use on doors and frames of the thickness, profile, swing, security and similar requirements indicated, as necessary for proper installation and function, regardless of omissions or conflicts in the information on the Contract Documents. Furnish related trades with the following information:
1. Location of embedded and attached items to concrete.
2. Location of wall–mounted hardware, including wall stops.
3. Location of finish floor materials and floor–mounted hardware.
4. Locations for conduit and raceways as needed for electrical, electronic and electro–pneumatic hardware items. Fire/life–safety system interfacing. Point–to–point wiring diagrams plus riser diagrams to related trades.
5. Manufacturer templates to door and frame fabricators.

C. Check Shop Drawings for doors and entrances to confirm that adequate provisions will be made for proper hardware installation. Do not order hardware until the submittal has been reviewed by the frame and door suppliers for compatibility with their products.

D. Prior to submittal, carefully inspect existing conditions at each opening to verify finish hardware required to complete Work, including sizes, quantities, existing hardware scheduled for re–use, and sill condition material. If conflict or incompatibility between the specified/scheduled hardware and existing conditions, submit request for direction from Architect. Include date of jobsite visit in the submittal.
1. Submittals prepared without thorough jobsite visit by qualified hardware expert will be rejected as non–compliant.

1.7 WARRANTY:

A. Part of respective manufacturers' regular terms of sale. Provide manufacturers' written warranties:

1. Locksets:	Three years
2. Extra Heavy Duty Cylindrical Lock:	Seven Years
3. Exit Devices:	Three years mechanical, One year electrical
4. Closers:	Ten years mechanical, Two years electrical
5. Hinges:	One year
6. Other Hardware:	Two years

1.8 COMMISSIONING:

A. Conduct these tests prior to request for certificate of substantial completion:
1. With installer present, test door hardware operation with climate control system and stairwell pressurization system both at rest and while in full operation.
2. With installer, access control contractor and electrical contractor present, test electrical, electronic and electro–pneumatic hardware systems for satisfactory operation.
3. With installer and electrical contractor present, test hardware interfaced with fire/life–safety system for proper operation and release.

PART 2 PRODUCTS

2.1 MANUFACTURERS:

A. Listed acceptable alternate manufacturers: submit for review products with equivalent function and features of scheduled products.

ITEM:	MANUFACTURER:	ACCEPTABLE SUB:
Hinges	(IVE) Ives	Bommer
Key System	(SAR) Sargent	
Locks	(SAR) Sargent	
Closers	(LCN) LCN	
Auto Flush Bolts	(IVE) Ives	DCI
Coordinators	(IVE) Ives	DCI
Silencers	(IVE) Ives	Hiawatha
Push & Pull Plates	(IVE) Ives	Hiawatha
Kickplates	(IVE) Ives	Hiawatha
Stops & Holders	(IVE) Ives	Hiawatha
Overhead Stops	(GLY) Glynn–Johnson	None available
Thresholds	(NGP) NGP	Zero
Seals & Bottoms	(NGP) NGP	Zero

B. Manufacturers and their abbreviations used in this schedule

IVE	H.B. Ives
GLY	Glynn–Johnson Hardware
LCN	LCN Closers
PEM	Pemko
SCH	Schlage Lock Company
VON	Von Duprin
HES	Hes Electric strikes
SAR	Sargent

2.2 HINGING METHODS:

A. Drawings typically depict doors at 90 degrees, doors will actually swing to maximum allowable. Use wide–throw conventional or continuous hinges as needed up to 8 inches in width to allow door to stand parallel to wall for true 180–degree opening. Advise architect if 8–inch width is insufficient.

B. Conform to manufacturer's published hinge selection standard for door dimensions, weight and frequency, and to hinge selection as scheduled. Where manufacturer's standard exceeds the scheduled product, furnish the heavier of the two choices, notify Architect of deviation from scheduled hardware.

C. Conventional Hinges: Steel or stainless steel pins and concealed bearings. Hinge open widths minimum, but of sufficient throw to permit maximum door swing.
1. Outswinging exterior doors: non–ferrous with non–removable (NRP) pins and security studs.
2. Non–ferrous material exteriors and at doors subject to corrosive atmospheric conditions.

2.3 LOCKSETS, LATCHSETS, DEADBOLTS:

A. Heavy Duty Cylindrical Locks and Latches: as scheduled.
1. Backset: 2–3/4" typically, more or less as needed to accommodate frame, door or other hardware.
2. Lock Series and Design: Sargent 10 line" LL" design.
3. Certifications:
   a) ANSI A156.2, 1994, Series 4000, Grade 1.
   b) UL listed for A label and lesser class single doors up to 4ft x 8ft.

2.4 CLOSERS

A. Surface Closers: [4041]
1. Full rack–and–pinion type cylinder with removable non–ferrous cover and cast iron body. Double heat–treated pinion shaft, single piece forged piston, chrome–silicon steel spring.
2. ISO 2000 certified. Units stamped with date–of–manufacture code.
3. Independent lab–tested 10,000,000 cycles.
4. Non–sized, non–handed, and adjustable. Place closer inside building, stairs, and rooms.
5. Plates, brackets and special templating when needed for interface with particular header, door and wall conditions and neighboring hardware.
6. Adjustable to open with not more than 5.0lbs pressure to open at exterior doors and 5.0lbs at interior doors. As allowed per California Building Code, Section 1133B.2.5, local authority may increase the allowable pressure for fire doors to achieve positive latching, but not to exceed 15lbs.
7. Separate adjusting valves for closing speed, latching speed and backcheck, fourth valve for delayed action where scheduled.
8. Extra–duty arms (EDA) at exterior doors scheduled with parallel arm units.
9. Exterior door closers: tested to 100 hours of ASTM B117 salt spray test, furnish data on request.
10. Exterior doors: seasonal adjustments not required for temperatures from 120 degrees F to –30 degrees F, furnish checking fluid data on request.
11. Non–flaming fluid, will not fuel door or floor covering fires.
12. Pressure Relief Valves (PRV) not permitted.

ELECTRIC

B. Dor–O–Matic Senior Swing

C. Low–Energy Door Operators: Comply with ANSI/BHMA 156.19 Electric power–open, hydraulically checked spring power closing. Modular construction. Finished metal cover. Field–adjustable opening force, opening speed, time–open, closing and latching speeds. Door reopens and timing cycle restores if system reactuated during closing cycle. Breakaway clutch protection from forced closing. Door, frame, motor and drive train protected by attenuated initiation of opening cycle.
1. Self–contained low–voltage power supply, terminal strip and sequencing for incorporation of electric hardware with system operation.

2.6 OTHER HARDWARE

A. Automatic Flush Bolts: Low operating force design.

B. Overhead Stops: Non–plastic mechanisms and finished metal end caps. Field–changeable hold–open, friction and stop–only functions.

C. Kick Plates: Four beveled edges, .050 inches minimum thickness, height and width as scheduled. Sheet–metal screws of bronze or stainless steel to match other hardware.

D. Door Stops: Provide stops to protect walls, casework or other hardware.
1. Unless otherwise noted in Hardware Sets, provide wall type with appropriate fasteners. Where wall type cannot be used, provide floor type. If neither can be used, provide overhead type.
2. Locate overhead stops for maximum possible opening. Consult with Owner for furniture locations. Minimum: 90deg stop / 95deg deadstop. Note degree of opening in submittal.

E. Seals: Finished to match adjacent frame color. Resilient seal material: polyurethane, polypropylene, nylon brush, silicone rubber or solid high–grade neoprene as scheduled. Do not furnish vinyl seal material. UL label applied to seals on rated doors. Substitute products: certify that the products equal or exceed specified material's thickness and durability.
1. Proposed substitutions: submit for approval.
2. Solid neoprene: MIL Spec. R6855–CL III, Grade 40.
3. Non–corroding fasteners at in–swinging exterior doors.
4. Sound control openings: Use components tested as a system using nationally accepted standards by independent laboratories. Ensure that the door leafs have the necessary sealed–in–place STC ratings. Fasten applied seals over bead of sealant.
5. Fire–rated Doors, Resilient Seals: UL10C / UBC Standard 7–2 compliant. Coordinate with selected door manufacturers' and selected frame manufacturers' requirements. Where rigid housed resilient seals are scheduled in this section and the selected door manufacturer only requires an adhesive–mounted resilient seal, furnish rigid housed seal at minimum, or both the rigid housed seal plus the adhesive applied seal. Adhesive applied seals alone are deemed insufficient for this project where rigid housed seals are scheduled.
6. Fire–rated Doors, Intumescent Seals: Furnished by selected door manufacturer. Furnish fire–labeled opening assembly complete and in full compliance with UL10C / UBC Standard 7–2. Where required, intumescent seals vary in requirement by door type and door manufacture –– careful coordination required

F. Automatic door bottoms: low operating force units. Doors with automatic door bottoms plus head and jamb seals cannot require more than two pounds operating force to open when closer is disconnected.

G. Thresholds: As scheduled and per details. Comply with CBC Section 1133B.2.4.1. Substitute products: certify that the products equal or exceed specified material's thickness. Proposed substitutions: submit for approval.
1. Exteriors: Seal perimeter to exclude water and vermin. Use sealant complying with requirements in Division 7 "Thermal and Moisture Protection". Non–ferrous 1/4inch fasteners and lead expansion shield anchors, or Red–Head #SFS–1420 (or approved equivalent) Flat Head Sleeve Anchors (SS/FHSL).
2. Fire–rated openings, 90min or less duration: use thresholds to interrupt floor covering material under the door where that material has a critical radiant flux value less than 0.22 watts per square centimeter, per NFPA 253. Use threshold unit as scheduled. If none scheduled, request direction from Architect.
3. Fire–rated openings, 3hour duration: Thresholds, where scheduled, to extend full jamb depth.
4. Acoustic openings: Set units in full bed of Division–7–compliant, leave no air space between threshold and substrate.
5. Plastic plugs with wood or sheet metal screws are not an acceptable substitute for specified fastening methods.
6. Fasteners: Generally, exposed screws to be Phillips or Robertson drive. Pinned TORX drive at high security areas. Flat head sleeve anchors (FHSL) may be slotted drive. Sheet metal and wood screws: full–thread. Sleeve nuts: full length to prevent door compression.

H. Exposed Through–Bolts: Do not use SNB, grommet nuts, sleeve nuts or other such clamping type fasteners, intent is for minimal exposed hardware. Coordinate with wood doors; ensure provision of proper blocking to support wood screws for mounting panic hardware and door closers. Coordinate with metal doors and frames; ensure provision of proper reinforcement to support machine screws for mounting panic hardware and door closers.

I. Silencers: Interior hollow metal frames, 3 for single doors, 4 for pairs of doors. Omit where adhesive mounted seal occurs. Leave no unfilled/uncovered pre–punched silencer holes.

2.7 FINISH:

A. Generally BHMA 626 Satin Chromium.
1. Areas using BHMA 626 to have push–plates, pulls and protection plates of BHMA 630, Satin Stainless Steel, unless otherwise noted.

B. Door closers: factory powder coated to match other hardware, unless otherwise noted.

C. Aluminum items: match predominant adjacent material. Seals to coordinate with frame color.

2.8 KEYING REQUIREMENTS:

A. Key System: existing (Sargent) system. Initiate and conduct meeting(s) with Owner to determine system structure, furnish Owner's written approval of the system. Furnish temporary construction–keyed and permanent cylinders. Contractor to demonstrate to the Owner that temporary keys no longer operate the locking cylinders at the end of the project. Permanent keys and cores: use secured shipment direct from point of origination to Owner.
1. For estimate: 3 keys per change combination, 5 master keys per group, 5 grand–master keys, 3 control keys.
2. For estimate: VKC stamping plus "Do Not Duplicate".

B. Bitting List: use secured shipment direct from point of origination to Owner upon completion.

PART 3 – EXECUTION

3.1 ACCEPTABLE INSTALLERS:

A. Can read and understand manufacturers' templates, suppliers' hardware schedules and printed installation instructions. Can readily distinguish drywall screws from manufacturers' furnished fasteners. Available to meet with manufacturers' representatives and related trades to discuss installation of hardware.

3.2 PREPARATION:

A. Ensure that walls and frames are square and plumb before hardware installation. Make corrections before commencing hardware installation.

B. Locate hardware per SDI–100 and applicable building, fire, life–safety, accessibility, and security codes.
1. Notify Architect of code conflicts before ordering material.
2. Locate levers, key cylinders, t–turn pieces, touchbars and other operable portions of latching hardware between 30 inches to 44 inches above the finished floor, per CBC Section 1133B.2.5.1.
3. Where new hardware is to be installed near existing doors/hardware scheduled to remain, match locations of existing hardware.

C. Overhead stops: before installing, determine proposed locations of furniture items, fixtures, and other items to be protected by the overhead stop's action.

O.S.H.P.D. REVIEWED FOR CONFORMANCE WITH THE REQUIREMENTS OF T24, CCR
APPROVED
APR 05 2011
Office of Statewide Health Planning & Development
FACILITIES DEVELOPMENT DIVISION
OSHPD–56

COUNTY OF VENTURA
PUBLIC WORKS AGENCY
ENGINEERING SERVICES DEPARTMENT

PROJECT MANAGER	
SPEC. NUMBER CP11–05	SHEET 14 OF 31
PROJECT NUMBER ENT 11103	DRAWING NUMBER 113562

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Sheet Title SPECIFICATIONS

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12–29–10 OSHPD CORR.	Date:	06–01–10
03–30–11 OSHPD CORR.	Drawn:	
	Checked:	JLL
	Consult. No:	

MAMMOGRAPHY ROOMS
& NEEDLE BIOPSY ROOM
VENTURA COUNTY MEDICAL CENTER
3291 LOMA VISTA ROAD
VENTURA, CALIFORNIA

Sheet No.
A5.0

Door Hardware (cont)

D. Existing frames and doors to be retrofitted with new hardware:

1. Field-verify conditions and dimensions prior to ordering hardware. Fill existing hardware cut outs not being reused by the new hardware. Remove existing hardware not being reused, return to Owner unless directed otherwise.
2. Field modify Existing hollow metal frames for electric strike per the frame manufacturer's listing service. Re-certify frame labels that are field modified
3. Remove existing floor closers not scheduled for reuse, fill cavities with concrete and finish smooth
4. Cut and weld existing steel frames currently prepared with 2-¾" height strikes. Cut an approx. 8" section from the strike jamb and weld in a reinforced section to accommodate specified hardware's strike.
5. Patch and weld flush filler pieces into existing door hardware preparations in steel doors and frames, leave surfaces smooth.
6. Glue in solid wood block fillers to fill cut outs in existing wood doors, sand surfaces smooth. Alternatively, use an approved epoxy-based wood filler product, submit product data for approval.

3.3 INSTALLATION

A. Install hardware per manufacturer's instructions and recommendations. Do not install surface-mounted items until finishes have been completed on substrate. Set units level, plumb and true to line and location. Adjust and reinforce attachment substrate for proper installation and operation. Remove and reinstall or replace work deemed defective by Architect.

1. Gaskets: install jamb-applied gaskets before closers, overhead stops, rim strikes, etc; fasten hardware over and through these seals. Install sweeps across bottoms of doors before astragals, cope sweeps around bottom pivots, trim astragals to tops of sweeps.
2. When hardware is to be attached to existing metal surface and insufficient reinforcement exists, use RivNuts, NutSerts or similar anchoring device for screws.
3. Use manufacturers' fasteners furnished with hardware items, or submit Request for Substitution with Architect.
4. Replace fasteners damaged by power-driven tools.

B. Locate floor stops no more that 4 inches from walls and not within paths of travel. See paragraph 2.2 regarding hinge widths, door should be well clear of point of wall reveal. Point of door contact no closer to the hinge edge than half the door width. Where situation is questionable or difficult, contact Architect for direction.

C. Core concrete for exterior door stop anchors. Set anchors in approved non-shrink grout.

D. Locate overhead stops for minimum 90 degrees and maximum allowable degree of swing.

E. Drill pilot holes for fasteners in wood doors and/or frames. Centerpunch hole locations before using self-drilling type screws to prevent skating. Replace screws that are not centered in their holes.

F. Lubricate and adjust existing hardware scheduled to remain. Carefully remove and give to Owner items not scheduled for reuse.

G. Field verify existing conditions and measurements prior to ordering hardware. Fill existing hardware cut outs not being used by the new hardware. Remove existing hardware not being reused.

H. Disable or remove existing floor closers where they exist. If disabled cut or remove spindle.

I. Where existing wall conditions will not allow door to swing using the scheduled hinges, provide wide-throw hinges and if needed extended arms on closers.

J. Provide proper brackets to accommodate the mounting of closers on doors with flush transoms.

3.4. ADJUSTING

A. Adjust and check for proper operation and function. Replace units, which cannot be adjusted to operate freely and smoothly.

1. Hardware damaged by improper installation or adjustment methods: repair or replace to Owner's satisfaction.
2. Adjust doors to fully latch with no more than 1 pound of pressure.
3. Adjust delayed-action closers on fire-rated doors to fully close from fully-opened position in no more than 10 seconds.
4. Adjust door closers per 1.9 this section.

B. Inspection: Use hardware supplier's consultant or consultant's agent. Include supplier's report with closeout documents.

C. Final inspection: Installer to provide letter to Owner that upon completion installer has visited the Project and has accomplished the following:

1. Re-adjust hardware.
2. Evaluate maintenance procedures and recommend changes or additions, and instruct Owner's personnel.
3. Identify items that have deteriorated or failed.
4. Submit written report identifying problems

3.5 DEMONSTRATION:

A. Demonstrate mechanical hardware and electrical, electronic and pneumatic hardware systems, including adjustment and maintenance procedures.

3.6 PROTECTION/CLEANING:

A. Cover installed hardware, protect from paint, cleaning agents, weathering, carts/barrows, etc. Remove covering materials and clean hardware just prior to substantial completion.

B. Clean adjacent wall, frame and door surfaces soiled from installation/reinstallation process.

3.7 SCHEDULE OF FINISH HARDWARE

A. See door schedule in drawings for hardware set assignments.

B. Miscellaneous Material:

HW SET: 01

3 EA HINGE	5BB1 4.5 X 4.5	652	IVE
1 EA PRIVACY SET	28-10U65 LL (2-3/4 LATCH, ANSI STRIKE)	626	SAR
1 EA SURFACE CLOSER	4041 DEL EDA	689	LCN
1 EA WALL STOP	WS406/407 SERIES AS REQUIRED	630	IVE
1 SET SEALS	S88D	DKB	PEM

INSTALL CLOSER FOR 180 DEGREE SWING

HW SET: 02

3 EA HINGE	5BB1 4.5 X 4.5	652	IVE
1 EA PASSAGE SET	28-10U15 LL (2-3/4 LATCH, ANSI STRIKE)	626	SAR
1 EA SURFACE CLOSER	4041	689	LCN
1 EA MOUNTING PLATE	4040-18 (IF REQUIREDFOR HOLDER)	689	LCN
1 EA OVERHEAD STOP	450S	630	GLY
1 SET SEALS	S88D	DKB	PEM

HW SET: 03

1 EA ELECTRIC STRIKE	6211 FSE 24VDC	630	VON
1 EA AUTO. OPERATOR	9531 STD	628	LCN
2 EA ACTUATOR	136-3 CLEAR	628	WIK
1 EA MEMO BALANCE OF HARDWARE IS EXISTING			
1 EA MEMO MODIFY EXISTING HMF FOR ELECTRIC STRIKE			

REMOVE STANDARD SURFACE CLOSER AND INSTALL NEW AUTO OPERATOR, ELECTRIC STRIKE AND WALL ACTUATORS. MODIFY AND RELABEL EXISTING HMF PER MANUFACURE'S LABEL SERVICE REQUIREMENTS. EXISTING SARGENT 10 LINE LATCH

HW SET: 04

1 EA ADJUST ADJUST EXISTING CLOSER AS DIRECTED
1 EA MEMO BALANCE OF HARDWARE IS EXISTING

HW SET: 05

1 EA ELECTRIC STRIKE	6113 FSE 24VDC	630	VON
1 EA AUTO. OPERATOR	9531 STD	628	LCN
2 EA ACTUATOR	136-3 CLEAR	628	WIK
1 EA MEMO BALANCE OF HARDWARE IS EXISTING			
1 EA MEMO MODIFY EXISTING HMF FOR ELECTRIC STRIKE			

REMOVE STANDARD SURFACE CLOSER AND INSTALL NEW AUTO OPERATOR, ELECTRIC STRIKE
AND WALL ACTUATORS.
MODIFY AND RELABEL EXISTING HMF PER MANUFACURE'S LABEL SERVICE REQUIREMENTS.

EXISTING SARGENT 80 SERIES RIM EXIT DEVICE

HW SET: 06

3 EA HINGE	5BB1 4.5 X 4.5	652	IVE
1 EA PRIVACY SET	28-10U65 LL (2-3/4 LATCH, ANSI STRIKE)	626	SAR
1 EA WALL STOP	WS406/407 SERIES AS REQUIRED	630	IVE
1 EA DBL WARDROBE HOOK	582	626	IVE

HW SET: 07

3 EA HINGE	5BB1 4.5 X 4.5	652	IVE
1 EA PASSAGE SET	28-10U15 LL (2-3/4 LATCH, ANSI STRIKE)	626	SAR
1 EA SURFACE CLOSER	4041 DEL	689	LCN
1 EA KICK PLATE	8400 10" X 2" LDW	630	IVE
1 EA WALL STOP	WS406/407 SERIES AS REQUIRED	630	IVE
1 SET SEALS	S88D	DKB	PEM

HW SET: 08

3 EA HINGE	5BB1 4.5 X 4.5	652	IVE
1 EA STOREROOM LOCK	28-10G04 LL (2-3/4 LATCH, ANSI STRIKE)	626	SAR
1 EA SURFACE CLOSER	4041 DEL	689	LCN
1 EA KICK PLATE	8400 10" X 2" LDW	630	IVE
1 EA WALL STOP	WS406/407 SERIES AS REQUIRED	630	IVE
1 SET SEALS	S88D	DKB	PEM

8.04 AUTOMATIC ENTRY DOOR

1.02 REFERENCES

A. AMA 605.2-85 - Standard for High Performance Pigmented Organic Coatings

B. NSI/BHMA

C. A156.1 _ Power Operated Pedestrian Door.

D. FPA 101 _ Life Safety Code.

E. UL 235 _ Electric Door, Drapery, Gate, Louver and Window Operators and Systems.

1.03 SYSTEM DESCRIPTION

A. Automatic Door Equipment: Electrically operated with proximity control device.

B. Doors: Single leaf single sliding automatic doors with additional fixed panel and emergency breakaway hardware, surface mounted track operation.

1.04 PERFORMANCE

A. Automatic door equipment to accommodate pedestrian traffic, and weight of doors.

B. Equipment: UL 235 listed, ESR-2740

C. Design system to operate, hold open and close doors under design wind and suction loads calculated in accordance with the building code designated in Section 01015.

D. Provide for thermal expansion and contraction of door and frame units, transmitted to operating equipment.

E. Provide for dimensional distortion of components during operation.

F. Provide for opening and closing operation of door panels in the event of power failure.

G. Provide for emergency breakaway operation of door panels.

H. Provide fully adjustable operators for opening and closing speeds, checking speeds, hold open time and motion detection pattern and sensitivity.

1.05 QUALITY ASSURANCE

A. Manufacturer: Company specializing in manufacture of door operating equipment with ten years documented experience.

B. Installer: Company specializing in performing the work of this section with minimum five years continuous current documented experience and approved by material manufacturer. A California Contractor's State License Board Class C-17 license is required.

C. Comply with ANSI/BHMA A156.1.

1.06 REGULATORY REQUIREMENTS

A. Conform to 2001 California Building Code requirements for automatic release of control drive unit to permit manual opening of doors.

B. Conform to applicable sections of Chapter 5 of NFPA 101.

1.07 SUBMITTALS

A. Submit shop drawings and product data as specified in Section 01340

1.08 PROJECT RECORD DOCUMENTS

A. Submit documents as specified in Section 01720.

B. Accurately record locations of concealed equipment, services, connections, and conduit.

1.09 OPERATION AND MAINTENANCE DATA

A. Submit data as specified in Section 01730.

B. Include manufacturer's parts list and maintenance instructions for each type of hardware.

1.10 PRE-INSTALLATION CONFERENCE

A. Convene a pre-installation conference one week prior to commencing work of this Section, under provisions of Division 1 - General Provisions.

1.12 WARRANTY

A. Provide five year warranty under provisions of Division 1 - General Provisions.

B. Warranty: Include coverage of operating unit.

1.13 Not Used

1.14 MAINTENANCE SERVICE

A. Furnish complete service and maintenance of operating equipment for one year from Date of Substantial Completion.

1.15 MAINTENANCE MATERIALS

A. Provide any specialized wrenches and tools required for maintenance of equipment.

PART 2 PRODUCTS

2.01 ACCEPTABLE MANUFACTURERS

A. Besam Automated Entrance Systems, Inc.

1900 Airport Road
Monroe, NC 28110
(866) 237-2687
(704) 290-5551
www.besam.com

Product: Besam "Unisilde" OC30-8-6, Overhead Concealed, Fixed Sidelite, Narrow Stile, Single Slide, Sliding Door System, with transom, and additional Fixed Sidelite

B. Other manufacturers offering equivalent product

Stanley Access Technologies
65 Scott Swamp Road
Farmington, CT 06032
1-800-722-2377
Fax 1-860-679-6436
www.stanleyworks.com

All products offered as equivalent to the specified manufacturer's products listed herein shall be equivalent to all the properties, specifications, appearance, conformance to standards, finish and function of the specified manufacturer's product.

C. Substitutions: Under provisions of Section 01640.

2.02 POWER UNITS

A. Operation: Power open, power close operation.

B. Electric Type: Self-contained.

2.03 AUTOMATIC SLIDE OPERATOR

A. Concealed overhead operator for accommodating door action.

2.04 FINISHES

A. Exterior Exposed Aluminum Frame and Trim: Standard Finish Clear Anodized Aluminum: AA-C23- A31.

B. Interior Exposed Aluminum Frame and Trim Surfaces: Same as exterior exposed aluminum frame surfaces.

C. Exposed Aluminum Brake Metal Surfaces: Same as exterior exposed aluminum frame surfaces.

D. Concealed Steel Items: Galvannized in accordance with ANSI-ASTM A386 to 2.0 oz/sq.ft.

9.01 GYPSUM BOARD AND METAL FRAMING SYSTEMS

A. Gypsum Board: United States Gypsum Company, or equivalent.

Gypsum Board: ASTM C36, fire resistive type (type x) throughout, UL rated; 5/8 inch thick, maximum permissible length; ends square cut, tapered edges.

B. Accessories:

Acoustical Insulation: ASTM C665; preformed glass fiber, friction fit type, unfaced, 3-1/2" thickness or as indicated on drawings.

Thermal Insulation at Furring: ASTM C612; preformed rigid or semi-rigid glass fiber boards, friction fit type, unfaced, 1-1/2" thickness or as indicated on drawings.

Acoustical Sealant: Non-hardening, non-skinning, for use in conjunction with gypsum board; No. 3131 - manufactured by W.W. Henry or approved equivalent.

Corner Beads and Trim: Metal, ASTM C 1047 and C 840, hot dip galvanized.

Joint Materials: ASTM C475; reinforced tape, joint compound, adhesive, and water.

Prime Coat: U.S. Gypsum "First Coat" or Hamilton "Prep Coat".

Texture Finish Materials: Latex based texturing material, containing fine aggregate.

C. Metal Framing and Furring Installation:

Metal Stud and Joist Framing: Manufacturer shall be a member of the Steel Stud Manufacturer's Association, and provide products covered by ICC Evaluation Report #4943P. Metal Studs and Tracks: ASTM C645 (non load bearing); galvanized sheet steel. Unless otherwise detailed, studs and track shall be 20 gauge material, Vertical studs shall have 1-5/8" flange; sill track shall have 1-1/2" flange; slip track shall have flanges as detailed. Dietrich "SLP-TRK" is an acceptable alternate to double slip track at top of wall condition.
Install studs and joists plumb and level, in accordance with ASTM C754 and manufacturer's ICC Evaluation Report, 16 inches on center typical U.N.O. Connections shall be welded and screwed as detailed on the drawings.

Install acoustical sealant where indicated and at gypsum board perimeter at metal framing, and at penetrations of partitions by conduit, pipe, duct work, and rough-in boxes.

Install double studs at open ends of partitions that do not intersect cross partitions

Complete framing ready to receive gypsum board.

1. Stud sections- SSMA section with 1-5/8" flanges, 20 gauge minimum.
2. Bottom Tracks - SSMA section with 1-1/2" legs, 16 gauge minimum, unpunched.
3. Top Tracks, slip connection- SSMA section with 2" legs, 14 gauge minimum, unpunched.
4. Top Tracks, fixed connection- SSMA section with 1-1/2" legs, 16 gauge minimum, unpunched.

D. Bridging: Unpunched channel shaped members designed for use with the studs, formed from hot dip zinc coated steel, 16 gage.

E. Strapping, Lateral Bracing, Clip Angles and other Accessories: Manufacturer's standard components formed from hot dip zinc coated steel, 16 gage minimum.

F. Backing Plates:

1. Continuous backing plates installed behind cement board at inside face of parapet walls to receive fasteners for roofing base flashings: 16 gage galvanized steel sheet.
2. For grab bars, handrail brackets, etc.: 16 gage steel track section or steel plate 3/16 inch thick, of proper size to accommodate fastenings.

G. "Z" furring members: Steel, 16 gage minimum, of size and profile indicated.

H. Gypsum Board Installation: Install gypsum board in accordance with GA-201, GA-216, GA-600 and manufacturer's instructions, with self-tapping screws.

I. Joint Treatment: All joints, including internal and external corners, shall be filled and taped and 3-coat finished. All fastener heads and metal trim shall be 3-coat finished.

J. Prime Coat: Thoroughly remove all dust with a large damp sponge. Roller or airless spray apply prime coat in accordance with prime coat manufacturer's published application recommendations for full and complete coverage.

K. Texture Finish: Gypsum board shown to be painted shall be fine-grained "orange peel" spray stipple finished at walls and ceiling. Spray-apply finish texture coating in accordance with manufacturer's instructions.

9.02 INTERIOR GYPSUM PLASTER

A. Where shown on drawings, or where existing plastered walls are being patched, provide metal lath and plaster finish applied to wall framing. Lath shall be 3.4 lb. galvanized expanded metal. Provide 3-coat gypsum plaster finish to match existing, maximum 1:3 gypsum to sand ratio, in conformance with CBC chapter 25 and manufacturer's recommendations.

9.03 CERAMIC TILE

A. Provide wall and floor tile and perform work in accordance with the Tile Council of America (TCA) Handbook for Ceramic Tile Installation, latest edition

B. Wall tile shall be 4" x 4" glazed ceramic tile, color group 1. Install per TCA recommendations for thin-set wall tile over gypsum board or cementitious backer board.

C. Floor tile shall be 2" x 2" unglazed ceramic tile, color group 1. Install per TCA recommendations for thin-set floor tile over concrete subfloor.

D. Provide tile products as available from the standard lines of Dal Tile.

E. Provide cove, cap and angle trim shapes for all corners and edge conditions.

F. Threshold: one-piece white marble threshold, full depth and width of frame opening, beveled both sides, radiused edges. Installation in accordance with TCA Handbook for Ceramic Tile Installation - Method TR611.

G. The installed dry surface static coefficient of friction for finish surface materials shall be not less than 0.60 for level walking surfaces when tested in accordance with procedures outlined in ASTM Test Method C-1028-89.

9.04 RESILIENT FLOORING AND BASE

A. Match existing adjacent materials.

9.05 PAINTING

A. Materials: All material shall be manufacturer's first quality and best grade and shall be delivered in original, unopened containers. Materials shall not be diluted by addition of thinners except as recommended by manufacturer's label instructions.

B. Examination and Preparation: Verify that substrate conditions are ready to receive work.

Correct minor defects and clean surfaces which affect work of this Section. Protect adjacent surfaces against damage and stains.

Gypsum Board Surfaces: Fill minor defects with latex compounds. Spot prime defects after repair. The first coat shall be roller applied and include such repeated touching up of suction spots of overall application of sealer as necessary to produce a uniform color and gloss.

Galvanized Surfaces: Remove surface contamination and oils and wash with solvent. Apply coat of etching primer.

Exposed metal work, both interior and exterior, including unplated plumbing, piping, and trim, shall be thoroughly cleaned before application of paint. Remove rust, scale, grease and pickling solution. Wash with solvent if necessary.

Shop Primed Steel Surfaces: Sand and scrape to remove loose primer and rust, clean surfaces with solvent. Prime bare steel surfaces.

Demolition: Where existing partitions, walls, floors, ceiling, roof or floor construction, curbs, fixtures, outlets, ducts, piping, conduit, trim and other such items are shown to be removed, existing remaining construction and new patch and repair work thereto, shall be painted to match existing and/or new adjacent construction and finish.

C. Application: Apply products in accordance with manufacturer's instructions.
All edges of paint adjoining other materials or colors shall be sharp, straight, and clean, and without overlapping.

Exposed ducts, piping, conduits, ferrous or galvanized metal work, factory primed equipment, and other such features for which a paint process is not specifically designated, are to be finished to match adjacent painted walls or ceilings if the area or space in which they occur is scheduled to be painted.

All closets, alcoves, recesses and other such accessory spaces shall be finished the same as adjoining rooms, unless shown otherwise on the drawings.

Remove unfinished louvers, grilles, covers, and access panels and paint separately. Paint dampers and ducts visible behind louvers and grilles flat black.

D. Schedule - Interior Paint Processes
Gypsum Board:

Process S (semi-gloss)

1 coat sealer W420 Walltone (confirm installation of gypsum sealer specified above)
2 coats semi-gloss,W450, Decoglo (1st coat roller applied)

Wood:

Process WN (wood-natural)
1 coat stain LQ120 Decolaq
1 coat sealer V161 Acrithane
2 coats clear finish V163 Acrithane

Process S (semi-gloss):
1 coat undercoat W707 Unikote
2 coats semi-gloss W450 Decoglo

Metal-Galvanized:

Process S. (semi-gloss):
1 coat primer QD43-7 GalvAlum
2 coats semi-gloss W450 Decoglo

Metal-Ferrous:

Process S (semi-gloss):
1 coat primer 43-5 Corrobar
1 coat semi-gloss W450 Decoglo

10.01 TOILET ACCESSORIES

A. Conform to applicable portions of the 2001 California Building Code, The Americans With Disabilities Act (ADA) and ANSI A117.1.

B SUBMITTALS

Submit under provisions of Section 01001.

Product Data: Provide data on accessories describing size, finish, details of function and attachment methods.

Manufacturer's Installation Instructions: Indicate special procedures and perimeter conditions requiring special attention.

C MATERIALS

Manufacturers:

1. Bobrick Washroom Equipment, Inc.
2. American Specialties, Inc. (ASI)

Substitutions: Under provisions of Section 00100 and Section 01001.

All products offered as equivalent to the specified manufacturer's products listed herein shall be equivalent to all the properties, specifications, appearance, conformance to standards, finish and functions of the specified manufacturer's product.

Sheet Steel: ASTM A366.

Stainless Steel Sheet: ASTM A167 Type 304.

Tubing: ASTM A269 stainless steel.

Fasteners, Screws, and Bolts; Hot dip galvanized steel, tamper-proof type.

D. FABRICATION

Form surfaces flat without distortion. Weld and grind joints smooth.

Shop assemble components and package with anchors and fittings.

Back paint components to prevent electrolysis.

Provide steel anchor plates, adapters, and anchor components for installation.

Hot dip galvanize exposed and painted ferrous metal and fastening devices.

Locks shall be keyed alike for each type of accessory; 2 keys shall be furnished for each lock or each group of accessories keyed alike. Locks shall be the manufacturer's standard locks.

E. FINISHES

Anchors: Galvanize to 1.25 oz/sq yd.

Ferrous Metals - Shop Primed: Pretreat and clean, spray apply one coat primer and bake.

Enamel: Pretreat, one coat primer and two coats baked enamel.

Chrome/Nickel Plating: ASTM B456, Type SC2; satin finish.

Stainless Steel: No. 6 satin luster finish.

F. EXAMINATION AND PREPARATION

Verify exact location of accessories for installation.

Verify that site conditions are ready to receive work and dimensions are as indicated on shop drawings and as instructed by the manufacturer.

Deliver inserts and rough-in frames to site. Provide templates, setting drawings, instructions and rough-in measurements as required. Coordinate delivery with the work and schedule of other sections.

G. INSTALLATION

Install accessories in accordance with manufacturer's published instructions, and the 2001 California Building Code, The Americans With Disabilities Act (ADA) and ANSI A117.1

Install plumb and level, securely and rigidly anchored to substrate.

Recessed accessories shall be fastened to studs or solid blocking or back-up plates in framed construction; or to a rough frame blocking or with screws into expansion anchors in masonry or concrete construction.

Surface mounted accessories shall be installed with screws into solid blocking or back-up plate in framed construction; or with screws into expansion anchors in masonry or concrete construction.

Where a toilet and bath accessory is required to be installed with the unit partially above and partially below (straddling) a wainscot, a continuous wood filler/spacer shall be installed along all exposed edges above the wainscot. Provide clear heart, kiln dried, redwood with mitered corners of same thickness as wainscot and nominal 2" wide. Paint to match adjacent wall.

H. SCHEDULE

Paper Towel Dispenser/: Surface Mounted, Bobrick B-2621

Framed Mirror: Bobrick (or Equal) CUSTOM SIZE
Toilet Tissue Dispenser: Recessed, Bobrick B-297

Toilet Seat Cover Dispenser: Surface Mounted, Bobrick B-221

Grab Bars: Back of toilet Bobrick B-6806-36
Side of toilet, Bobrick B-6806-42

Soap Dispenser: Provided by Owner, installed by Contractor.

O.S.H.P.D. PROJECT #SL 101318-56

REVIEWED IN ACCORDANCE WITH THE REQUIREMENTS OF T24, CCR
APPROVED
APR 05 2011
Office of Statewide Health Planning & Development
FACILITIES DEVELOPMENT DIVISION

COUNTY OF VENTURA
PUBLIC WORKS AGENCY
ENGINEERING SERVICES DEPARTMENT

PROJECT MANAGER

SPEC. NUMBER CP11-05	SHEET 15 OF 31
PROJECT NUMBER ENT11103	DRAWING NUMBER 113563

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Sheet SPECIFICATIONS
Title

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MAMMOGRAPHY ROOMS
& NEEDLE BIOPSY ROOM
VENTURA COUNTY MEDICAL CENTER
3291 LOMA VISTA ROAD
VENTURA, CALIFORNIA

Sheet No.
A5.1

EXISTING AIR HANDLING UNIT

UNIT TAG	DUTY	CFM	ESP	FAN			MOTOR NAMEPLATE					COILS			FILTERS		OA CFM	TYPE	MANUFACTURER AND MODEL NO.	REMARKS
				SP	RPM	BHP	RPM	HP	V	HZ	PH	PHC	CC	HC	PRE	FINAL				
MZ 1	PART OF 1ST & 2ND FLOOR OF BLDG. 305	4,380	–	2.5	975	4.5	800	7.5	460	60	3	NO	YES	YES	30%	95%	100%	MULTI-ZONE	CARRIER 39NXB131	

EXISTING HEAT PUMP

UNIT TAG	DUTY	CFM	EXT. ST. PRESSURE	COOLING			HEATING			MOTOR NAMEPLATE						OA CFM	WEIGHT (LBS)	MANUFACTURER AND MODEL NO.	REMARKS
				BTUH	EAT DB/WB	SEER	BTUH	EAT DB/WB	COP	RPM	HP	V	HZ	PH	MCA				
HP 2	SECOND FLOOR	3,400	2.0"	130,000	80/67	9.6	110,000	80/67	3.0	1,750	3	460	60	3	85	29%	1,579	TRANE WCH-120-B4-0B	36 KW ELECTRIC HEATER.

EXISTING FANS

UNIT TAG	DUTY	CFM	FAN			MOTOR NAMEPLATE					TYPE	MANUFACTURER AND MODEL NO.	REMARKS
			SP	RPM	BHP	RPM	HP	V	HZ	PH			
EF 1	BLDG. 305, PART OF 1ST & 2ND FLOOR	4,380	0.5"	1,277	1.13	1,750	2	480	60	3	CENTRIFUGAL FAN	COOK CPV-180	
EF 2	SECOND FLOOR	1,000	0.5"	–	–	–	1/3	115	60	1	CENTRIFUGAL FAN	–	

COILS

UNIT TAG	DUTY	CFM	SIZE	FV	MBH	EDB	EWB	LDB	LWB	EWT	LWT	GPM	ROWS	APD	WPD	FPF	WEIGHT (LBS)	BRANCH PIPE SIZE	CONTROL VALVE ARRANGEMENT	REMARKS
RHC 1	ROOM TEMPERATURE CONTROL	230	6x12	460	9.4	52°F	–	90°F	–	–	–	–	1	0.15	–	120	<25	INLET 3/4" OUTLET 1/2"	2-WAY	10-PSIG STEAM PRESSURE
RHC 2	ROOM TEMPERATURE CONTROL	250	6x12	500	10.3	52°F	–	90°F	–	–	–	–	1	0.17	–	120	<25	INLET 3/4" OUTLET 1/2"	2-WAY	10-PSIG STEAM PRESSURE
RHC 3	ROOM TEMPERATURE CONTROL	320	9x12	427	13.1	52°F	–	90°F	–	–	–	–	1	0.16	–	120	<25	INLET 3/4" OUTLET 1/2"	2-WAY	10-PSIG STEAM PRESSURE
PHC 1	MZ-1 PREHEAT	3,400	21x57	529	151	29°F	–	60.6°F	–	–	–	–	1	0.07	–	48	60	INLET 1" OUTLET 3/4"	2-WAY	10-PSIG STEAM PRESSURE, 159 LBS/HR

HUMIDIFIER - STEAM

UNIT TAG	DUTY	CFM	DUCT SIZE	COOLING AND HUMIDIFYING			HEATING AND HUMIDIFYING			STEAM PRESS (PSIG)	ORIFICE SIZE (IN.)	QTY OF MANIFOLDS	WEIGHT (LBS)	REMARKS
				EAT DB/WB	CAP (LBS/HR)	VISIBLE VAPOR LENGTH	EAT DB/WB	CAP (LBS/HR)	VISIBLE VAPOR LENGTH					
HU 1	ROOM HUMIDITY CONTROL	230	6x12	52°/40°F	4.5	2'	29/25°F	5.0	3'	10	3/32	1	<25	IB TRAP, 3/4" LPS & 1/2" LPC BRANCH LINES
HU 2	ROOM HUMIDITY CONTROL	250	6x12	52°/40°F	4.6	2'	29/25°F	5.1	3'	10	3/32	1	<25	IB TRAP, 3/4" LPS & 1/2" LPC BRANCH LINES
HU 3	ROOM HUMIDITY CONTROL	320	9x12	52°/40°F	6.3	3'	29/25°F	6.8	3.5'	10	3/32	1	<25	IB TRAP, 3/4" LPS & 1/2" LPC BRANCH LINES

PLUMBING FIXTURES

UNIT TAG	FIXTURE	MINIMUM CONNECTIONS (IN.)					FIXTURE DESCRIPTION	ACCESSORIES DESCRIPTION
		S/W	VENT	DRAIN	CW	HW		
WC 1	WATER CLOSET	4	2	–	1-1/4	–	VITREOUS CHINA, LOW CONSUMPTION, WALL MOUNTED, ELONGATED BOWL, DIRECT-FED SIPHON JET, TOP SPUD, 25 PSIG AT FLUSH VALVE. COLOR: WHITE.	1.6 GPF FLUSH VALVE, CHROME PLATED, NON-HOLD-OPEN HANDLE, VANDAL RESIST. STOP CAP, VACUUM BREAKER. OPEN FRONT, HEAVY DUTY. WHITE TOILET SEAT. ADJUSTABLE VERTICAL FITTINGS, COMPACT FIXTURE SUPPORTS FOR SIPHON JET WATER CLOSETS.
WC 2	WATER CLOSET (ACCESSIBLE)	4	2	–	1-1/4	–	VITREOUS CHINA, LOW CONSUMPTION, WALL MOUNTED, ELONGATED BOWL, DIRECT-FED SIPHON JET, TOP SPUD, 25 PSIG AT FLUSH VALVE. COLOR: WHITE. WALL MOUNTED FOR ADA COMPLIANCE.	1.6 GPF FLUSH VALVE, CHROME PLATED, NON-HOLD-OPEN HANDLE, VANDAL RESIST. STOP CAP, VACUUM BREAKER. OPEN FRONT, HEAVY DUTY. WHITE TOILET SEAT. ADJUSTABLE VERTICAL FITTINGS, COMPACT FIXTURE SUPPORTS FOR SIPHON JET WATER CLOSETS.
U 1	URINAL	3	1-1/2	–	1	–	VITREOUS CHINA, LOW CONSUMPTION, FLUSHING RIM, WASHOUT FLUSH ACTION, WALL MOUNTED, TOP-SPUD, 20 PSIG AT FLUSH VALVE. COLOR: WHITE. WALL MOUNTED FOR ADA COMPLIANCE.	1.0 GPF EXPOSED URINAL FLUSH VALVE, CHROME PLATED, NON-HOLD-OPEN HANDLE, VANDAL RESISTANT STOP CAP, VACUUM BREAKER FLUSH CONNECTION, OFF THE FLOOR URINAL SUPPORT WITH BEARING PLATE FOR WASHOUT URINALS.
L 1	LAVATORY	2	1-1/2	–	1/2	1/2	VITREOUS CHINA, WALL HUNG, FAUCET LEDGE, FAUCET HOLES ON 4" CENTERS, FOR CONCEALED ARM SUPPORTS. COLOR: WHITE.	FAUCET: CHROME PLATED, LEVER STYLE SINGLE HANDLE WITH HOT AND COLD COLOR INDICATORS. LAMINAR FLOW OUTLET, GRID STRAINER. SUPPORT: LAVATORY SUPPORT WITH CONCEALED ARMS.
L 2	LAVATORY	2	1-1/2	–	1/2	1/2	VITREOUS CHINA, SELF-RIMMING OVAL COUNTERTOP LAVATORY, FAUCET HOLES ON 4" CENTERS, OVERFLOW. COLOR: WHITE.	FAUCET: CHROME PLATED, LEVER STYLE SINGLE HANDLE WITH HOT AND COLD COLOR INDICATORS. LAMINAR FLOW OUTLET, GRID STRAINER.
S 1	SINK	2	1-1/2	–	1/2	1/2	VITREOUS CHINA, WALL HUNG, FAUCET LEDGE, SINGLE-HOLE, FOR CONCEALED ARM SUPPORTS. COLOR: WHITE.	FAUCET: BATTERY POWERED, SENSOR ACTIVATED ELECTRONIC GOOSENECK FAUCET, SHOWER SPRAY HEAD, GRID STRAINER. SUPPORT: LAVATORY SUPPORT WITH CONCEALED ARMS.
DF 1	DRINKING FOUNTAIN	1-1/2	1-1/2	–	1/2	–	18-GAUGE STAINLESS STEEL WITH NO. 4 SATIN FINISH, CHROME-PLATED NON-SQUIRT BUBBLER. MOUNTING FRAME. WHEELCHAIR ACCESSIBLE.	
FD 1	FLOOR DRAIN	2	1-1/2	–	1/2	–	DUCO CAST IRON BODY WITH FLASHING COLLAR AND SQUARE ADJUSTABLE STRAINER HEAD.	AUTOMATIC TRAP PRIMER: CAST BRONZE WITH 1/2" CONNECTION.

PROVIDE HANGERS, SUPPORTS, SEISMIC RESTRAINTS AND/OR BRACING FOR ALL EQUIPMENT, PIPING, DUCTWORK, AND CONDUIT TO SUSTAIN VERTICAL LOADS AND RESIST HORIZONTAL FORCES IN ANY DIRECTION TO COMPLY WITH 2007 EDITION OF TITLE 24, PART 2, CALIFORNIA BUILDING CODE AND THE 2005 EDITION OF ASCE 7 CHAPTER 13.

PIPES, DUCTS, AND CONDUITS SHALL BE SUPPORTED AND BRACED PER OSHPD PRE-APPROVAL NO. OPA-0349 THE 'MASON INDUSTRIES SEISMIC RESTRAINT GUIDELINES,' NO. OPA-0242 THE 'POWERSTRUT SEISMIC RESTRAINT SYSTEM,' OR NO. OPA-0114 THE 'B-LINE SEISMIC RESTRAINT SYSTEM' FOR PIPES AND CONDUITS ONLY. A COPY OF THE OSHPD PRE-APPROVED DOCUMENTS SHALL BE AT THE JOB SITE AT ALL TIMES. INSTALLATION OF THIS EQUIPMENT MUST BE DONE IN STRICT ACCORDANCE WITH THE PRE-APPROVED DOCUMENTS.

LAYOUT DRAWINGS, SHOWING THE BRACING/SUPPORT LOCATIONS AND REFERENCES TO DETAILS FROM THE RELEVANT OSHPD PRE-APPROVALS FOR PIPING/DUCTS/CONDUITS EXCEPT FIRE SPRINKLERS, SHALL BE SUBMITTED FOR USE BY THE IOR AND OSHPD FIELD STAFF. THE LAYOUT DRAWINGS, PREPARED PER SECTION 1632A.6, SHALL BE REVIEWED AND ACCEPTED BY THE AOR AND EOR (SE AND/OR ME/EE) PRIOR TO START OF INSTALLATION OF THE BRACING/SUPPORT. IOR SHALL ENSURE THE ABOVE REQUIREMENTS ARE SATISFIED.

ANCHORAGE OF ALL EQUIPMENT TO BE INSTALLED, AS A PART OF THIS PROJECT SHALL BE DETAILED ON THESE PLANS, EXCEPT FOR THE FOLLOWING:
1. EQUIPMENT WEIGHING LESS THAN 400 POUNDS SUPPORTED DIRECTLY ON THE FLOOR OR ROOF.
2. BLANK
3. TEMPORARY OR MOVABLE EQUIPMENT (EXCEPT AS NOTED IN TABLE 16A-0.)
4. EQUIPMENT WEIGHING LESS THAN 20 POUNDS SUPPORTED BY VIBRATION ISOLATORS.
5. EQUIPMENT WEIGHING LESS THAN 20 POUNDS SUSPENDED FROM A ROOF OR FLOOR OR HUNG FROM A WALL.

PERMANENT EQUIPMENT IN ITEMS 1, 4, AND 5 MUST BE SUPPORTED AND ANCHORED TO RESIST THE FORCES PRESCRIBED BY CHAPTER 13 AND THE ANCHORAGE SHALL BE APPROVED BY THE APPROPRIATE DESIGN PROFESSIONAL OF RECORD AND OSHPD AS A PART OF FIELD REVIEWS/OBSERVATIONS. THE INSPECTOR OF RECORD SHALL ASSURE THAT THE ABOVE REQUIREMENTS ARE ENFORCED.

EXPANSION ANCHORS FOR USE IN CONCRETE IN DRY LOCATIONS SHALL BE HILTI KWIK BOLT TZ CARBON STEEL WEDGE ANCHORS OR APPROVED EQUAL. EXPANSION ANCHORS FOR USE IN CONCRETE IN DAMP AND WET LOCATIONS SHALL BE HILTI KWIK BOLT TZ STAINLESS STEEL WEDGE ANCHORS OR APPROVED EQUAL. ALLOWABLE SHEAR AND TENSION VALUES IN POUNDS FOR EACH ANCHOR SHALL BE 80% OF THE VALUES SHOWN IN THE 2007 ISSUE OF ICBO REPORT NO. ESR-1917. PROVIDE ANCHORS OF DIAMETER AND MINIMUM EMBEDMENT INDICATED. DRY LOCATIONS ARE DEFINED AS LOCATIONS NOT NORMALLY SUBJECT TO DAMPNESS OR WETNESS. DAMP LOCATIONS ARE DEFINED AS PARTIALLY PROTECTED LOCATIONS UNDER CANOPIES, MARQUEES, ROOFED PORCHES, AND LIKE LOCATIONS AND INTERIOR LOCATIONS SUBJECT TO MODERATE DEGREES OF MOISTURE, SUCH AS SOME BASEMENTS. WET LOCATIONS ARE DEFINED AS INSTALLATIONS UNDERGROUND OR IN CONCRETE SLABS OR MASONRY IN DIRECT CONTACT WITH THE EARTH, LOCATIONS SUBJECT TO SATURATION WITH WATER OR OTHER LIQUIDS, AND LOCATIONS EXPOSED TO WEATHER AND UNPROTECTED.

PROOF LOAD TEST FOR WEDGE TYPE CONCRETE ANCHOR BOLTS: WHERE CONCRETE ANCHOR BOLTS OF THE WEDGE EXPANSION TYPE ARE LOADED IN PULLOUT OR SHEAR, 50% OF THE BOLTS (ALTERNATE BOLTS IN ANY GROUP ARRANGEMENT) SHALL BE PROOF TESTED AT LEAST 24 HOURS AFTER INSTALLATION IN THE PRESENCE OF PROJECT INSPECTOR TO THE TEST VALUES LISTED FOR THE PARTICULAR ANCHOR. APPLY PROOF TEST LOAD TO WEDGE ANCHOR WITHOUT REMOVING THE NUT IF POSSIBLE. IF NOT, REMOVE NUT AND INSTALL A THREADED COUPLER TO THE SAME TIGHTNESS AS THE ORIGINAL NUT USING A TORQUE WRENCH AND APPLY LOAD. THE ANCHOR SHALL HAVE NO OBSERVABLE MOVEMENT AT THE APPLICABLE TEST LOAD. IF ANY BOLTS FAIL THE PROOF LOAD TEST, TEST ALL ANCHOR BOLTS OF THE SAME TYPE, INSTALLED BY THE SAME TRADE, AND NOT PREVIOUSLY TESTED, UNTIL 20 CONSECUTIVE ANCHORS PASS, THEN RESUME INITIAL TEST FREQUENCY.

MATERIAL: HARD ROCK OR LIGHTWEIGHT CONCRETE
TEST: DIRECT PULL TENSION OR TORQUE

BOLT DIAMETER (INCHES):	1/4	3/8	1/2	5/8	3/4	1
TENSION VALUE (LBS):	800	1100	2000	2300	3700	5800
TORQUE VALUE (FT-LBS):	10	25	50	80	150	250

THE ABOVE VALUES ARE BASED ON CODE APPLICATION NOTICE 2-1925B.3.5 DATED AUGUST 26, 2002.

AIR DISTRIBUTION

UNIT TAG	DESCRIPTION	PANEL SIZE
S1	PERFORATED FACE LAY-IN MOUNTING	24x24
E1	PERFORATED FACE LAY-IN MOUNTING	24x24
S2	PERFORATED FACE SURFACE MOUNTING	–
E2	PERFORATED FACE SURFACE MOUNTING	–

GENERAL NOTATION

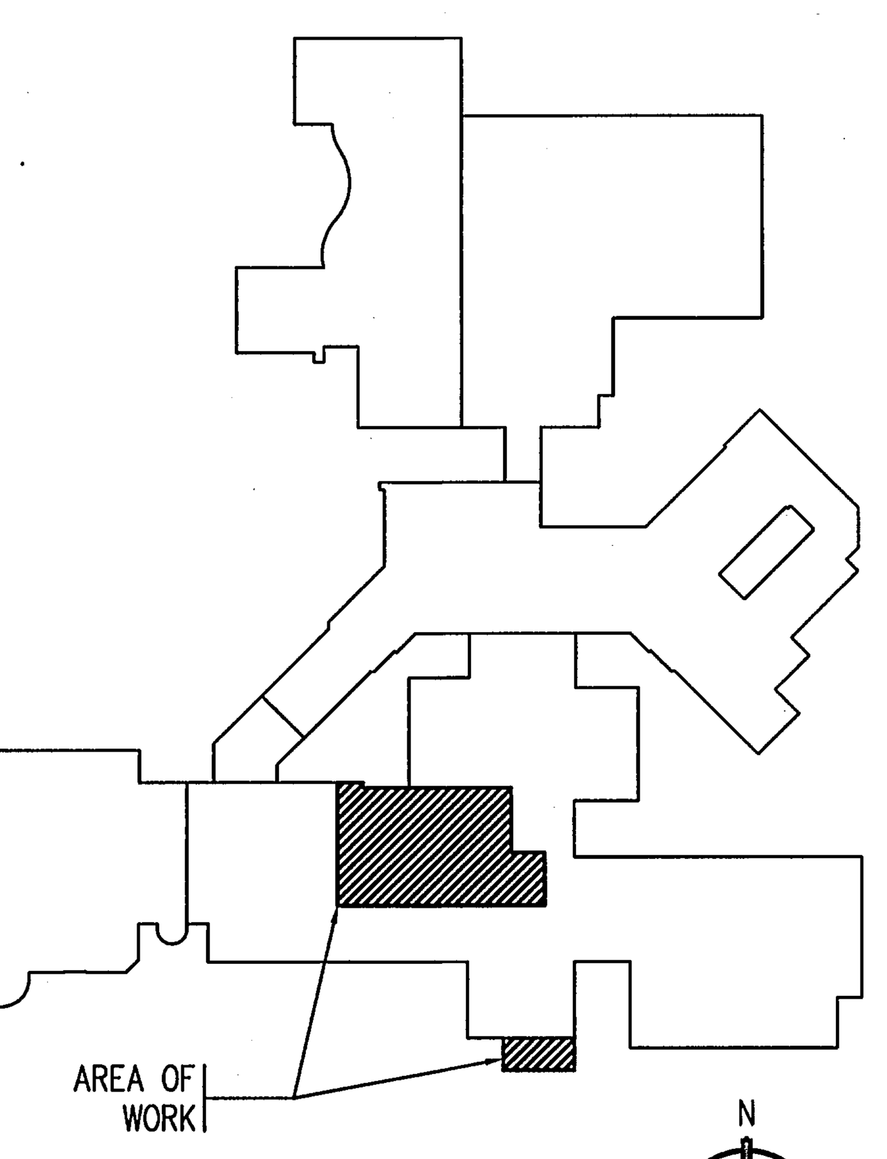
1. INDICATES RECTANGULAR SUPPLY AIR DIFFUSER (4-WAY BLOW UNLESS OTHERWISE NOTED).
2. INDICATES RECTANGULAR RETURN AIR REGISTER.
3. INDICATES RECTANGULAR EXHAUST AIR REGISTER.
4. INDICATES EXISTING RECTANGULAR SUPPLY AIR DIFFUSER.
5. INDICATES EXISTING RECTANGULAR RETURN AIR REGISTER OR GRILLE.
6. INDICATES EXISTING RECTANGULAR EXHAUST AIR REGISTER OR GRILLE.
7. FOR DUCT CONNECTION TO AIR DISTRIBUTION SEE 7/M4.1 AND 15/M4.1

S = SUPPLY
R = RETURN
E = EXHAUST
S1 — ITEM NUMBER
120 — CFM
6x6 — NECK SIZE
2-WAY — BLOW

E = EXISTING
S = SUPPLY
R = RETURN
E = EXHAUST
ES 200 — REBALANCE EXISTING AIR DISTRIBUTION DEVICE TO INDICATED AIR QUANTITY

GENERAL NOTES

1. THE INTENT OF THE DRAWINGS AND SPECIFICATIONS IS TO RECONSTRUCT THE HOSPITAL BUILDING IN ACCORDANCE WITH THE CALIFORNIA BUILDING STANDARDS CODE, TITLES 19 AND 24, CALIFORNIA CODE OF REGULATIONS. SHOULD ANY CONDITIONS DEVELOP NOT COVERED BY THE APPROVED CONTRACT DOCUMENTS WHEREIN THE FINISHED WORK WILL NOT COMPLY WITH TITLE 24, CALIFORNIA CODE OF REGULATIONS, A CHANGE ORDER DETAILING AND SPECIFYING THE REQUIRED WORK SHALL BE SUBMITTED TO AND APPROVED BY OSHPD BEFORE PROCEEDING WITH THE WORK.
2. ROOM PRESSURE RELATIONSHIPS AND VENTILATION SYSTEM PERFORMANCE SHALL COMPLY WITH THE 2007 EDITION OF TITLE 24, CALIFORNIA CODE OF REGULATIONS, PART 4, TABLE 4-A FOR LISTED AREAS.
3. FIRESTOP ALL PENETRATIONS THROUGH RATED WALLS AND FLOORS BY PIPES, CONDUITS, DUCTS, ETC. WITH STATE FIRE MARSHAL APPROVED FIRESTOP MATERIAL FOR THE PARTICULAR ASSEMBLY. INSTALL FIRESTOP MATERIAL IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.
4 THIS PROJECT HAS BEEN DESIGNED IN ACCORDANCE WITH NARRATIVE 7 OF THE MECHANICAL, PLUMBING, AND MEDICAL GAS AND VACUUM SYSTEMS REMODEL FLOW CHART IN CAN 2-3403A.



12 KEY PLAN
NTS

LEGEND

SYMBOL	ABBREVIATION	DESCRIPTION
—CHWS—	CHWS	CHILLED WATER SUPPLY
—CHWR—	CHWR	CHILLED WATER RETURN
—LPS—	LPS	LOW PRESSURE STEAM
—LPC—	LPC	LOW PRESSURE CONDENSATE
	CW	COLD WATER (POTABLE)
	HW	HOT WATER (POTABLE)
	HWR	HOT WATER RETURN (POTABLE)
	S OR W	SANITARY SOIL/WASTE ABOVE FLOOR/GRADE
	S OR W	SANITARY SOIL/WASTE BELOW FLOOR/GRADE
	V	VENT (PLUMBING)
—D—	D	INDIRECT DRAIN
—F—	F	FIRE SPRINKLER WATER
—OX—	OX	OXYGEN
—VAC—	VAC	VACUUM
—SD—	SD	STORM WATER DRAIN
		EXISTING PIPING TO BE REMOVED
	GV	GATE VALVE
	BV	BALL VALVE
	FLEX	FLEXIBLE PIPE CONNECTOR
	CBV	CALIBRATED BALANCE VALVE
		PIPE TURNS DOWN
		PIPE TURNS UP
		PIPE TEE DOWN
	VOR	VALVE ON RISE
		DIRECTION OF FLOW
	FCO/GCO	FLOOR CLEANOUT/GRADE CLEANOUT
	WCO	WALL CLEANOUT
		FIRE SPRINKLER – PENDENT
OR	SA	SUPPLY AIR DUCT SECTION
OR	RA	RETURN AIR DUCT SECTION
OR	EA	EXHAUST AIR DUCT SECTION
OR		FLEXIBLE DUCT
		TURNING VANES
	FLFD	FUSIBLE LINK FIRE DAMPER
	MVD	MANUAL VOLUME DAMPER
(D)		DUCT MOUNTED SMOKE DETECTOR
T RHC-1		ROOM THERMOSTAT/SENSOR (NO.) AT +48"
H H-1		ROOM HUMIDISTAT/SENSOR (NO.) AT +48"
T RHC-1		EXISTING ROOM T'STAT/SENSOR (ZONE NO.)
		EXISTING DUCTWORK
		EXISTING DUCTWORK TO BE REMOVED
OR		PIPE OR DUCT CAP
	POC	POINT OF CONNECTION
1		NUMBERED NOTES
		EXISTING FIXTURE/EQUIPMENT TAG
	VTR	VENT THROUGH ROOF
	DTR	DUCT THROUGH ROOF
	TYP. OR (TYP)	TYPICAL
	E OR (E)	PREFIX INDICATING EXISTING

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LICENSED ARCHITECT JAY LOMAGNO C20801 REN. 12-31-11 STATE OF CALIFORNIA

Sheet Title: LEGEND, SCHEDULES, NOTES

Revisions	
12-29-10 OSHPD CORR.	R&A No: 000443
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MAMMOGRAPHY ROOMS
& NEEDLE BIOPSY ROOM
VENTURA COUNTY MEDICAL CENTER
3291 LOMA VISTA ROAD
VENTURA, CALIFORNIA

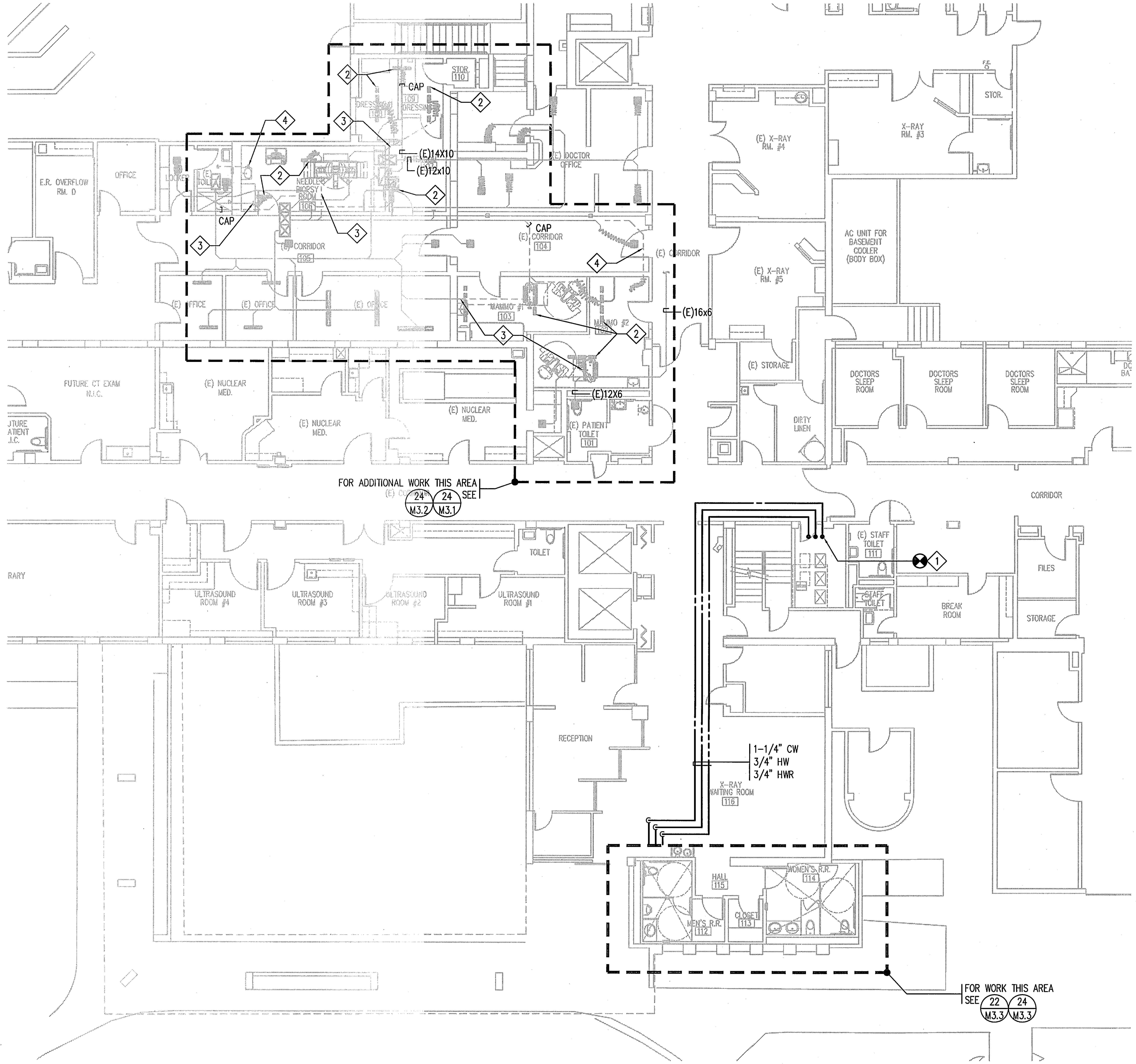
Sheet No. M0.1

O.S.H.P.D. PROJECT # SL 101318-56
REVIEWED IN ACCORDANCE WITH THE REQUIREMENTS OF T24, CCR
APPROVED
APR 05 2011
Office of Statewide Health Planning & Development
FACILITIES DEVELOPMENT DIVISION

COUNTY OF VENTURA
PUBLIC WORKS AGENCY
ENGINEERING SERVICES DEPARTMENT

PROJECT MANAGER

SPEC. NUMBER CP11-05	SHEET 16 OF 31
PROJECT NUMBER ENT11103	DRAWING NUMBER 113564



NUMBERED NOTES:

1. CONNECT TO EXISTING CW, HW, AND HWR RISERS IN MECHANICAL ROOM.
2. REMOVE AIR DISTRIBUTION DEVICE AND BRANCH DUCTWORK. CAP WHERE INDICATED.
3. POINT OF CONNECTION FOR THIS WORK.
4. REMOVE ABANDONED DUCTWORK.

(24) PARTIAL FIRST FLOOR MECHANICAL PLAN

SCALE 1/8" = 1'-0"

O.S.H.P.D. PROJECT # SL 101318-56
REVIEWED IN ACCORDANCE WITH THE REQUIREMENTS OF T24, CCR APPROVED APR 05 2011
Office of Statewide Health Planning & Development FACILITIES DEVELOPMENT DIVISION

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PROJECT MANAGER	
SPEC. NUMBER CP11-05	SHEET 17 OF 31
PROJECT NUMBER ENT11103	DRAWING NUMBER 113565

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Sheet Title: PARTIAL FIRST FLOOR MECHANICAL PLAN

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MAMMOGRAPHY ROOMS & NEEDLE BIOPSY ROOM
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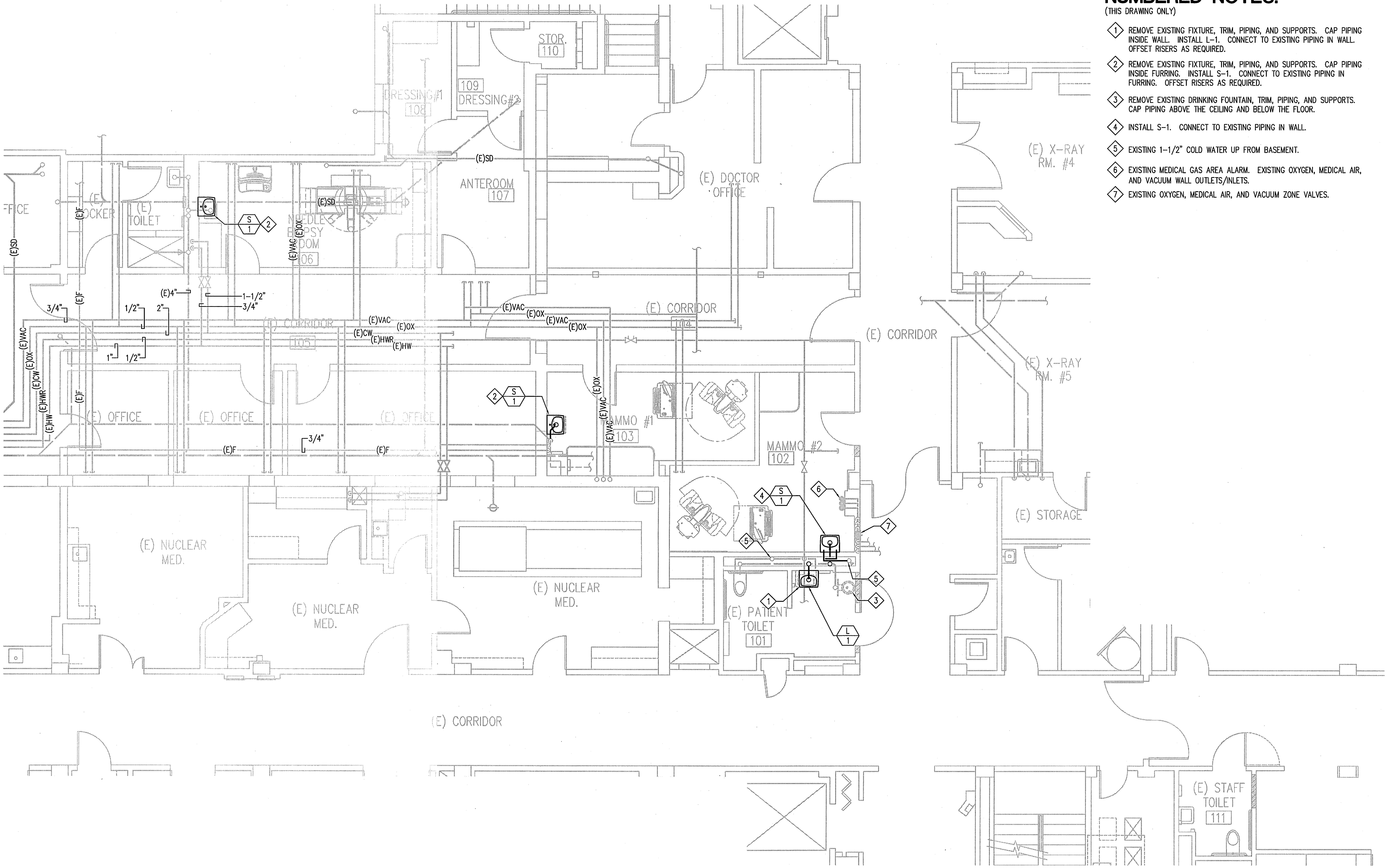
Sheet No.
M2.1



NUMBERED NOTES:

(THIS DRAWING ONLY)

1. REMOVE EXISTING FIXTURE, TRIM, PIPING, AND SUPPORTS. CAP PIPING INSIDE WALL. INSTALL L-1. CONNECT TO EXISTING PIPING IN WALL. OFFSET RISERS AS REQUIRED.
2. REMOVE EXISTING FIXTURE, TRIM, PIPING, AND SUPPORTS. CAP PIPING INSIDE FURRING. INSTALL S-1. CONNECT TO EXISTING PIPING IN FURRING. OFFSET RISERS AS REQUIRED.
3. REMOVE EXISTING DRINKING FOUNTAIN, TRIM, PIPING, AND SUPPORTS. CAP PIPING ABOVE THE CEILING AND BELOW THE FLOOR.
4. INSTALL S-1. CONNECT TO EXISTING PIPING IN WALL.
5. EXISTING 1-1/2" COLD WATER UP FROM BASEMENT.
6. EXISTING MEDICAL GAS AREA ALARM. EXISTING OXYGEN, MEDICAL AIR, AND VACUUM WALL OUTLETS/INLETS.
7. EXISTING OXYGEN, MEDICAL AIR, AND VACUUM ZONE VALVES.

(24) PARTIAL FIRST FLOOR PLUMBING PLAN

SCALE 1/4" = 1'-0"

N

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PROJECT MANAGER	
SPEC. NUMBER CP11-05	SHEET 18 OF 31
PROJECT NUMBER ENT11103	DRAWING NUMBER 113566

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Sheet: PARTIAL FIRST FLOOR
Title: PLUMBING PLAN

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MAMMOGRAPHY ROOMS & NEEDLE BIOPSY ROOM
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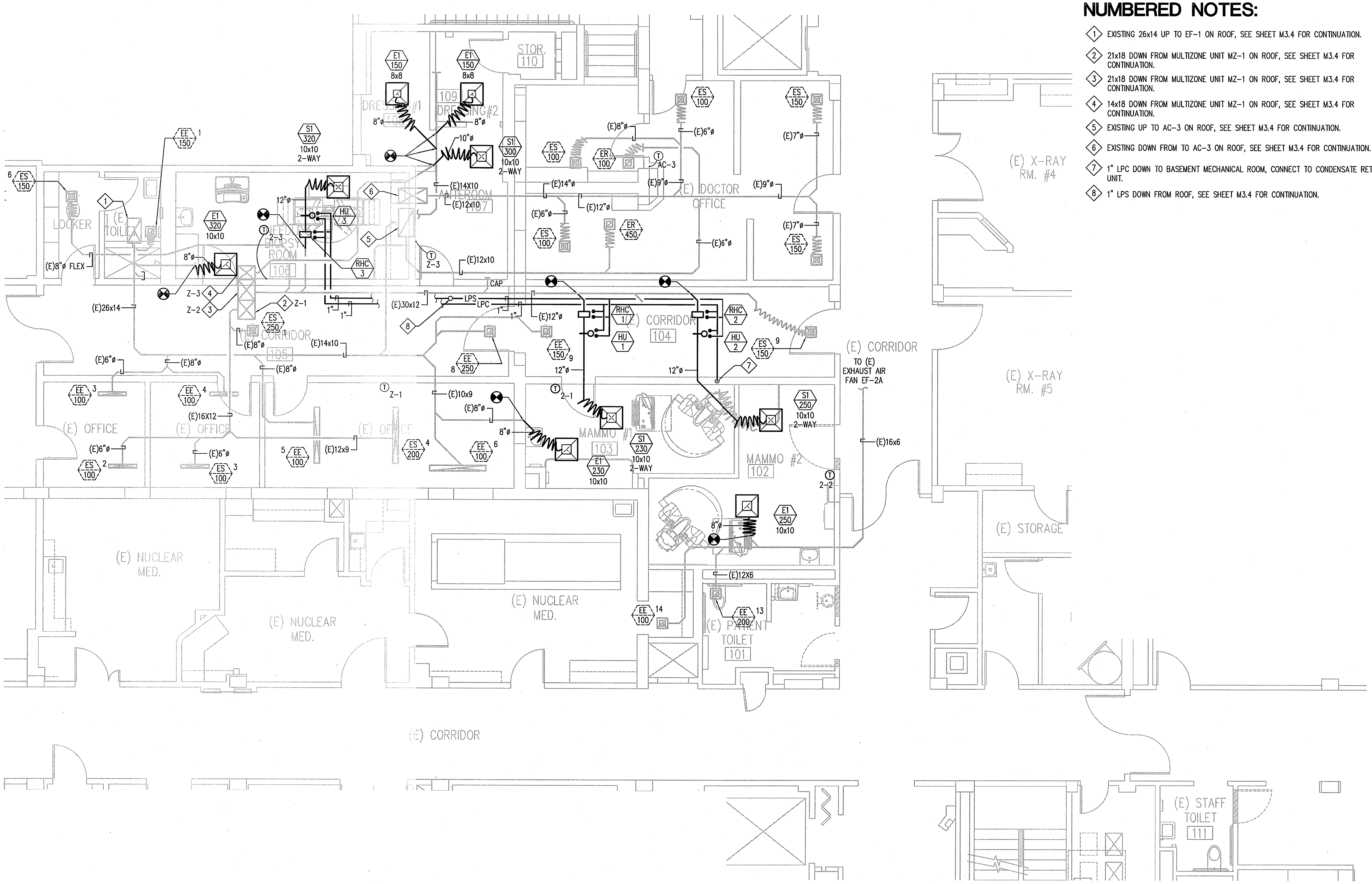
VENTURA, CALIFORNIA

Sheet No.
M3.1

NUMBERED NOTES:

1. EXISTING 26x14 UP TO EF-1 ON ROOF, SEE SHEET M3.4 FOR CONTINUATION.
2. 21x18 DOWN FROM MULTIZONE UNIT MZ-1 ON ROOF, SEE SHEET M3.4 FOR CONTINUATION.
3. 21x18 DOWN FROM MULTIZONE UNIT MZ-1 ON ROOF, SEE SHEET M3.4 FOR CONTINUATION.
4. 14x18 DOWN FROM MULTIZONE UNIT MZ-1 ON ROOF, SEE SHEET M3.4 FOR CONTINUATION.
5. EXISTING UP TO AC-3 ON ROOF, SEE SHEET M3.4 FOR CONTINUATION.
6. EXISTING DOWN FROM TO AC-3 ON ROOF, SEE SHEET M3.4 FOR CONTINUATION.
7. 1" LPC DOWN TO BASEMENT MECHANICAL ROOM, CONNECT TO CONDENSATE RETURN UNIT.
8. 1" LPS DOWN FROM ROOF, SEE SHEET M3.4 FOR CONTINUATION.



24 PARTIAL FIRST FLOOR HVAC PLAN

SCALE 1/4" = 1'-0"

O.S.H.P.D. PROJECT # SL 101318-56

REVIEWED IN ACCORDANCE WITH THE REQUIREMENTS OF T24, CCR APPROVED APR 05 2011

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PROJECT MANAGER

SPEC. NUMBER	SHEET OF
CP11-05	19 31
PROJECT NUMBER	DRAWING NUMBER
ENT11103	113567

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VENTURA, CALIFORNIA

Sheet No. **M3.2**

Sheet Title: PARTIAL FIRST FLOOR HVAC PLAN

Revisions	
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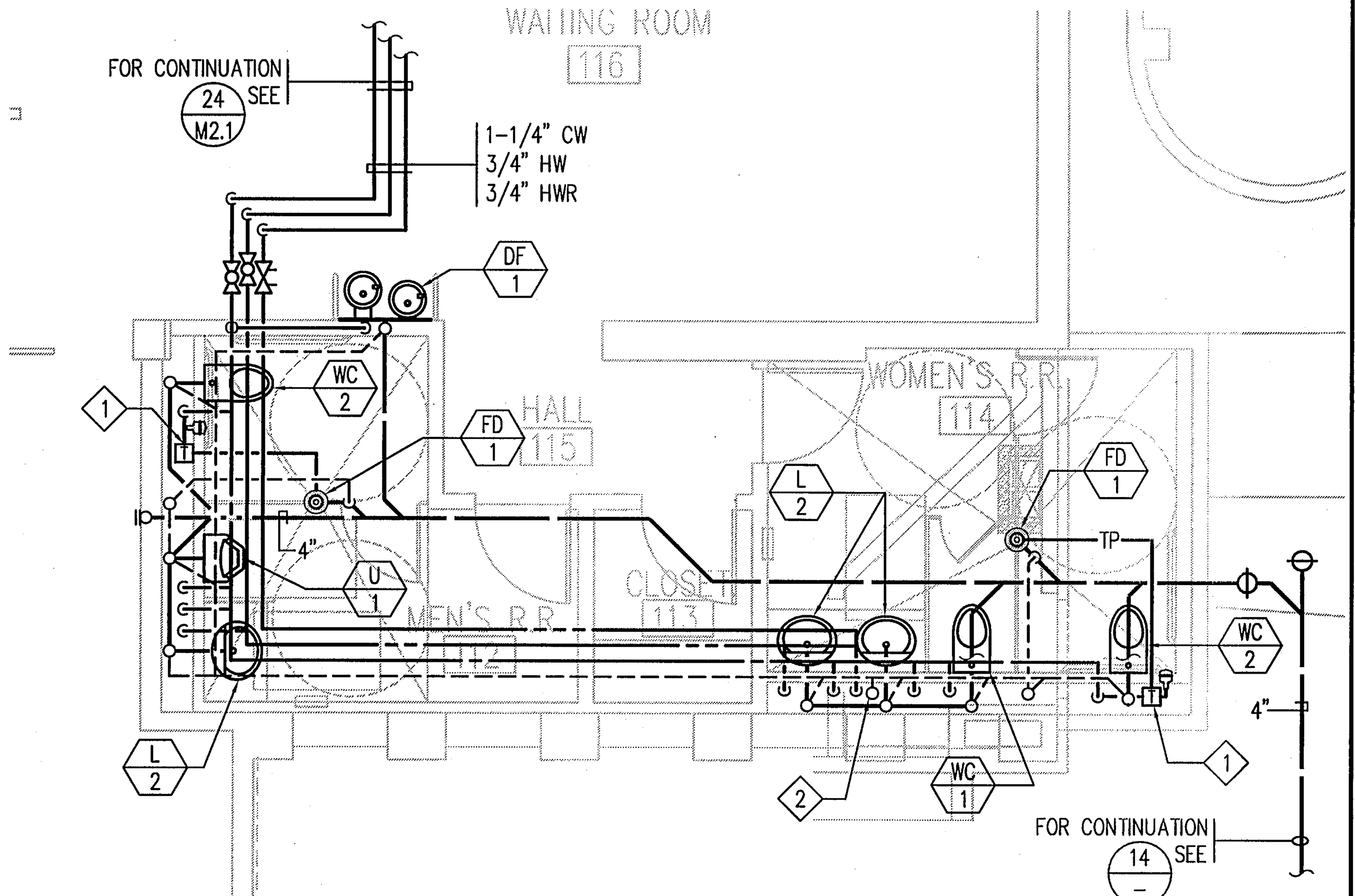
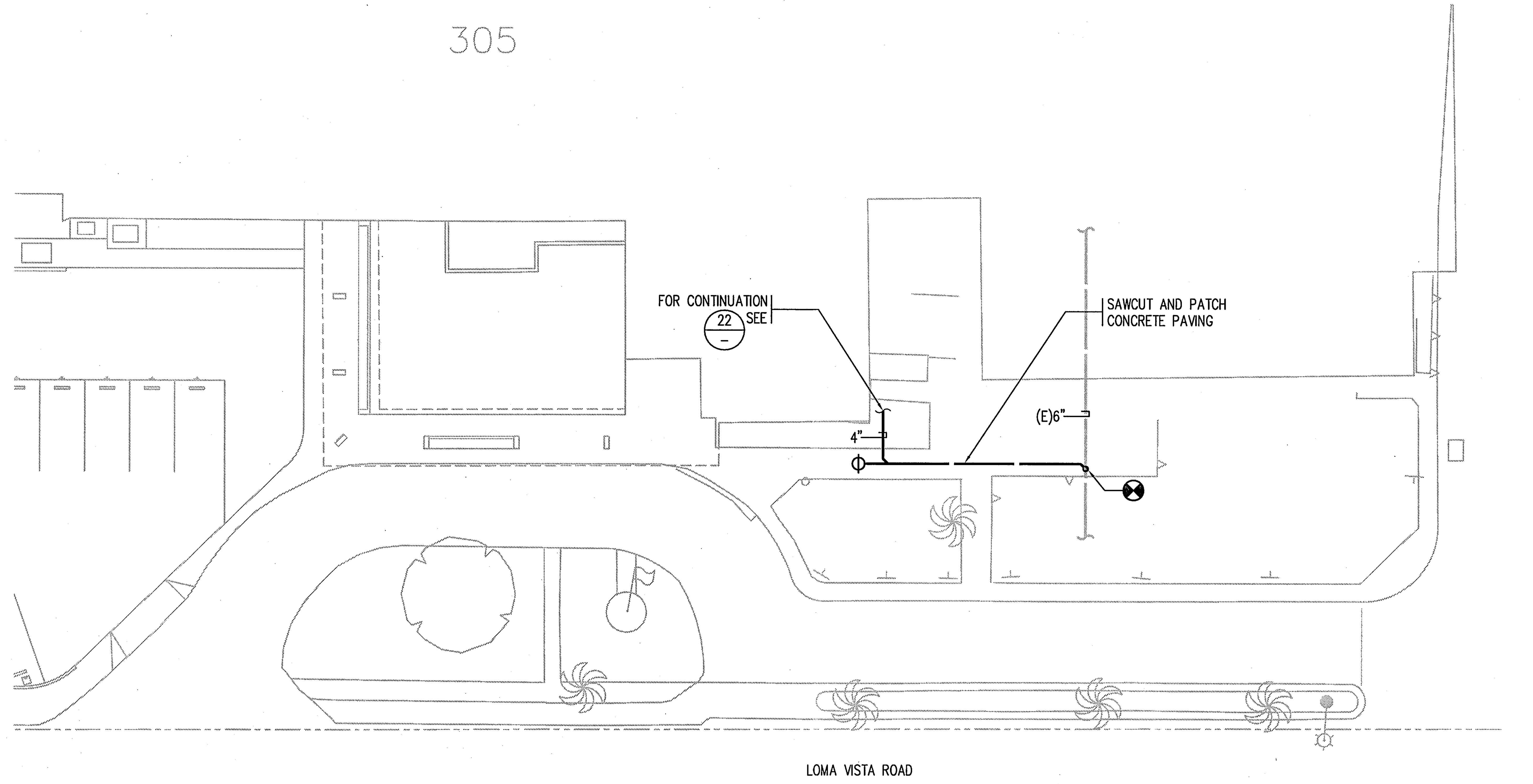


NUMBERED NOTES:

1. TRAP PRIMER AND WATER HAMMER ARRESTOR WITH ACCESS PANEL.
2. 2-1/2" VENT THRU ROOF, SEE DETAIL 16 THIS SHEET FOR CONTINUATION.

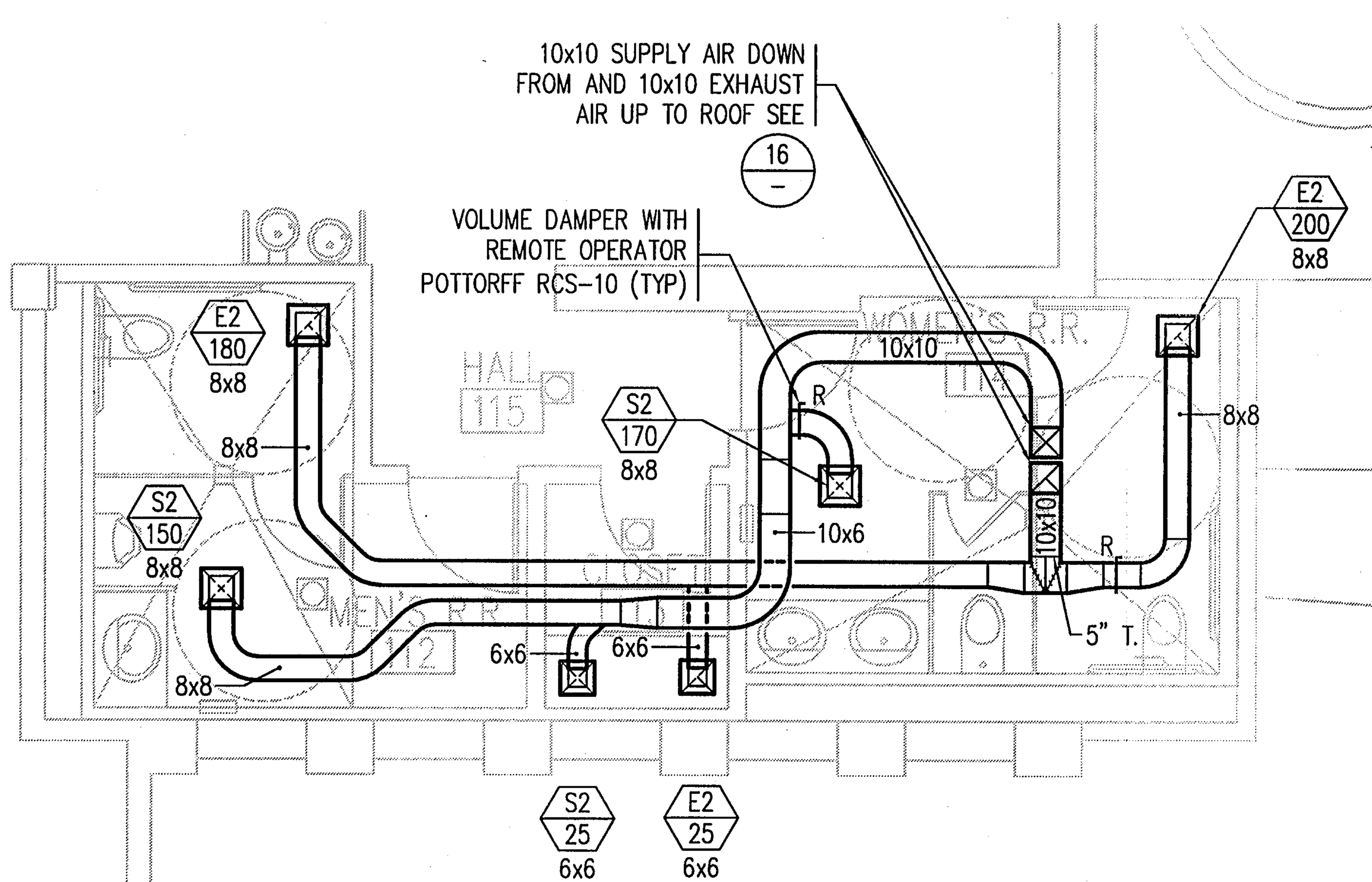
22 RESTROOM PLUMBING PLAN

SCALE 1/4" = 1'-0"



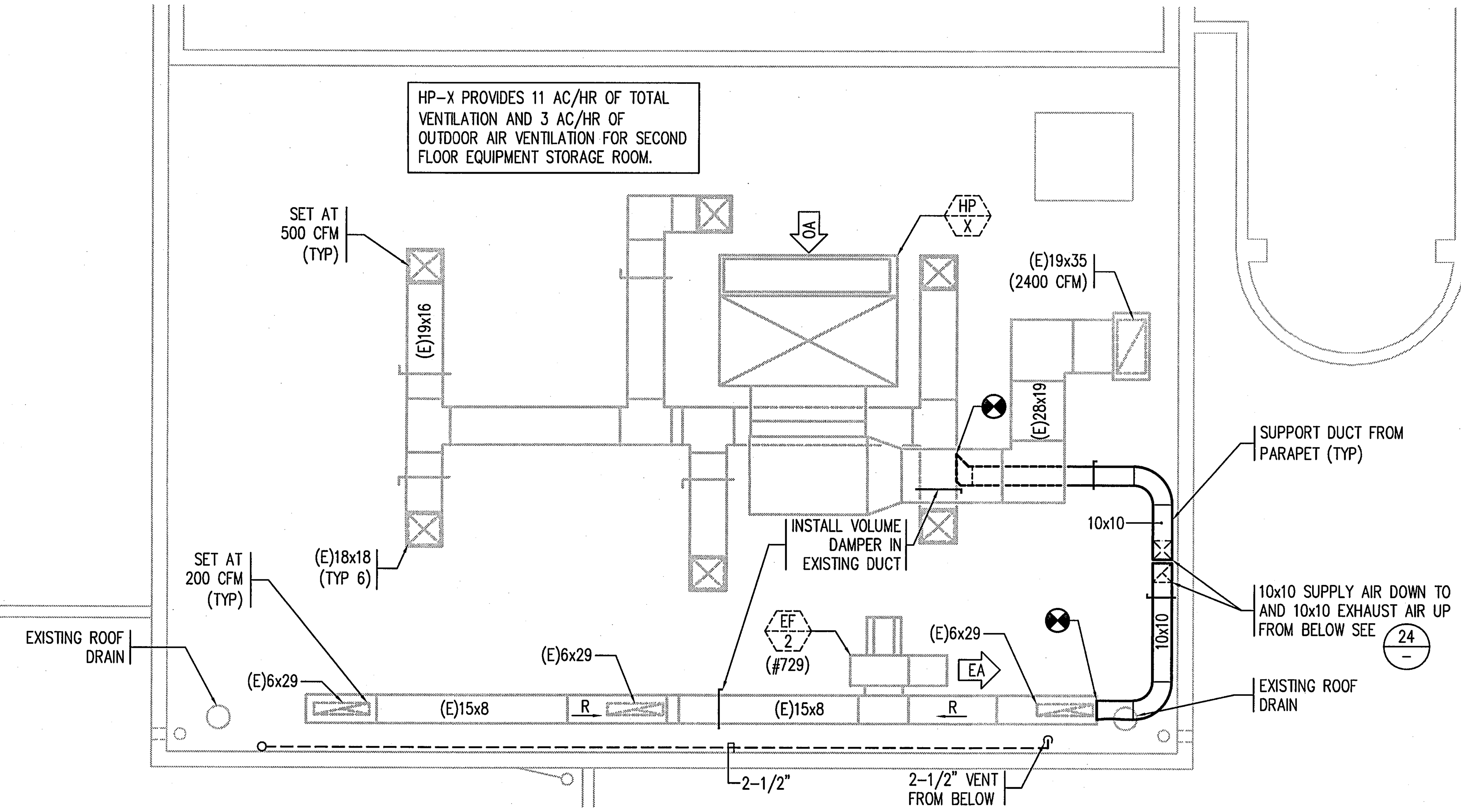
14 PARTIAL SITE PLUMBING PLAN

SCALE 1/16" = 1'-0"



24 RESTROOM HVAC PLAN

SCALE 1/4" = 1'-0"



16 PARTIAL ROOF PLAN

SCALE 1/4" = 1'-0"

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PROJECT MANAGER	
SPEC. NUMBER CP11-05	SHEET 20 OF 31
PROJECT NUMBER ENT11103	DRAWING NUMBER 113568

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LICENSED ARCHITECT JAY LOMAGNO C-20801 STATE OF CALIFORNIA

Sheet Title: RESTROOM HVAC & PLUMBING PLANS, PARTIAL ROOF PLAN & PARTIAL SITE PLUMBING PLAN

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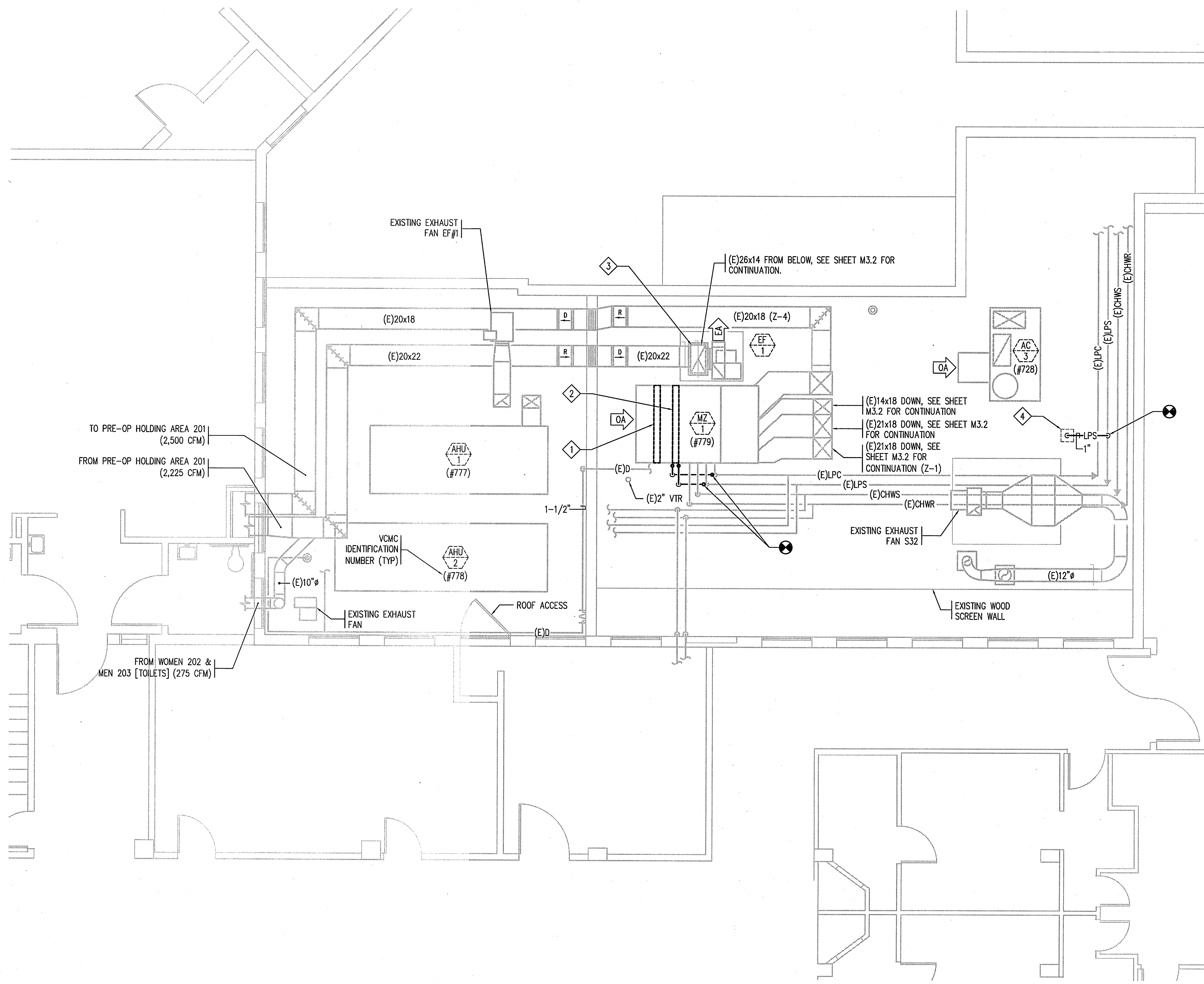
VENTURA, CALIFORNIA

Sheet No.
M3.3



NUMBERED NOTES:

(THIS DRAWING ONLY)

1. INSTALL 2" DEEP, 25% EFFICIENT, PREFILTERS AND HOLDING FRAMES IN INTAKE SECTION OF MZ-1.
2. INSTALL PHC-1 IN PREFILTER SECTION OF MZ-1. REMOVE PREFILTERS AND HOLDING FRAMES. INSTALL BLANKOFF PLATES AFTER COIL IS IN PLACE. CONNECT TO EXISTING STEAM AND CONDENSATE PIPING. PIPING SIMILAR TO DETAIL 14 ON SHEET M4.1.
3. MODIFY FAN INLET AND INSTALL STRAIGHTENING VANES TO PROVIDE UNIFORM VELOCITY PROFILE INTO EXISTING FAN.
4. 1" LPS DOWN TO FIRST FLOOR SEE DETAIL 24 ON SHEET M3.2 FOR CONTINUATION. SEE DETAIL 21 ON SHEET M4.1 FOR PIPE THROUGH ROOF. PROVIDE GATE VALVE IN PIPING ABOVE ROOF.

CONSTRUCTION NOTES:

1. INTERRUPTION OF MECHANICAL BUILDING SERVICES AND UTILITIES CONSIDERED BY THE OWNER TO BE CRITICAL TO THE OPERATION OF THE FACILITY (SUPPLY AIR, EXHAUST AIR, STEAM, CONDENSATE, COLD WATER, AND HOT WATER) SHALL BE PERFORMED ONLY AT TIMES APPROVED BY THE OWNER, DURING THE HOURS FROM 12:00 MIDNIGHT TO 4:00 A.M., WITH A MAXIMUM INTERRUPTION OF FOUR HOURS. INTERRUPTION OF SERVICES AND UTILITIES CONSIDERED BY THE OWNER TO BE NON-CRITICAL MAY BE PERFORMED DURING NORMAL WORKING HOURS AT TIMES AND DURATIONS APPROVED BY THE OWNER, UNLESS NOTED OTHERWISE.
2. PRIOR TO INTERRUPTING A SERVICE OR UTILITY, HAVE ADEQUATE MATERIALS AND LABOR READILY AVAILABLE SO THAT THE WORK CAN BE COMPLETED WITHOUT DELAY AND THE SERVICE OR UTILITY RESTORED WITHIN THE APPROVED SCHEDULE. INCLUDE REQUIRED TEMPORARY PROVISIONS TO MAINTAIN SERVICES AND UTILITIES THAT CANNOT BE INTERRUPTED AT ANY TIME. REFER TO NOTES ON THE DRAWINGS FOR ADDITIONAL REQUIREMENTS. SUBMIT REQUEST FOR INTERRUPTION OF SERVICE OR UTILITY A MINIMUM OF SEVEN DAYS PRIOR TO THE PLANNED INTERRUPTION.
3. PERFORM MODIFICATIONS TO AIR HANDLING UNIT MZ-1 AND EXHAUST AIR FAN EF-1 WHEN SPACES SERVED BY THE UNITS ARE UNOCCUPIED AND RESTORE THEIR OPERATION PRIOR TO THE SPACES BEING OCCUPIED. WHEN WORK AFFECTS THE AIR QUANTITY DELIVERED BY A PIECE OF EQUIPMENT ADJUST IT TO DELIVER THE REQUIRED AIR QUANTITY PRIOR TO THE SPACE BEING OCCUPIED.

24 PARTIAL ROOF AND SECOND FLOOR PLAN

SCALE 1/4" = 1'-0"

N

O.S.H.P.D. PROJECT # SL 101318-56
REVIEWED IN ACCORDANCE WITH THE REQUIREMENTS OF T24, CCR
APPROVED
APR 05 2011
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FACILITIES DEVELOPMENT DIVISION

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ENGINEERING SERVICES DEPARTMENT

PROJECT MANAGER	
SPEC. NUMBER CP11-05	SHEET 21 OF 31
PROJECT NUMBER ENT11103	DRAWING NUMBER 113569

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Sheet Title: PARTIAL ROOF AND SECOND FLOOR PLAN

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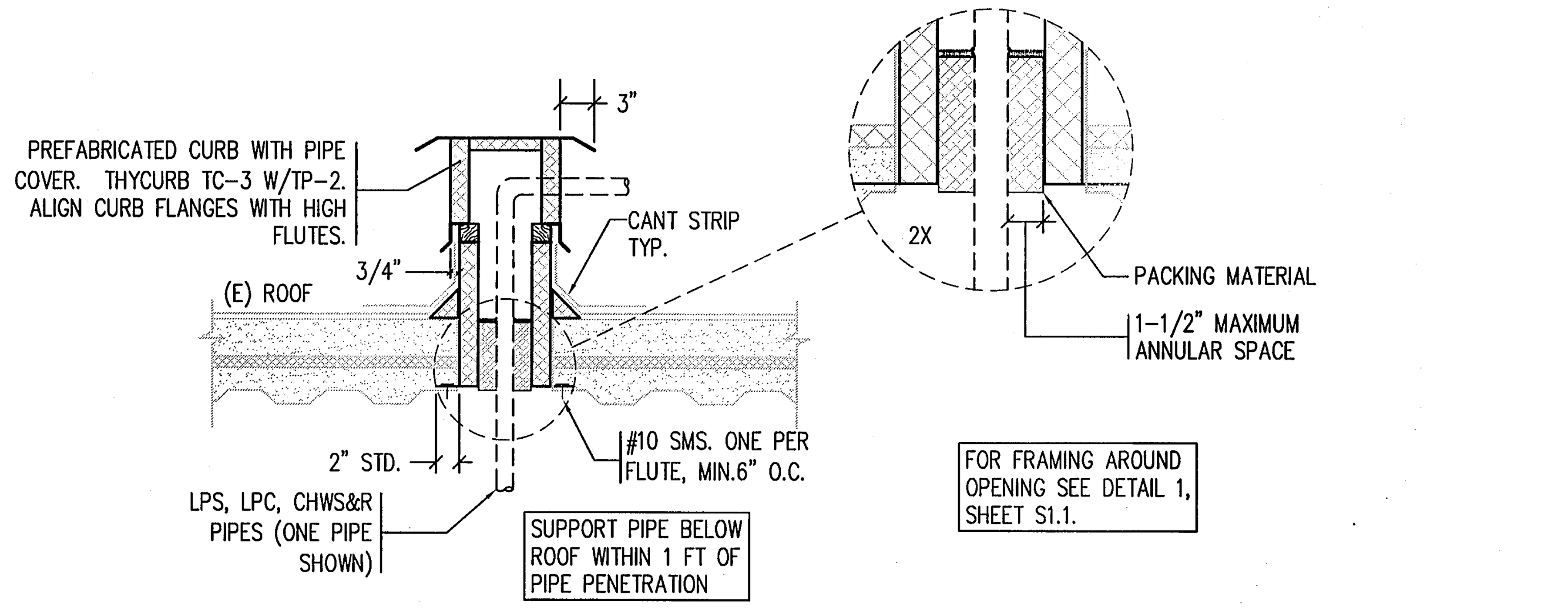
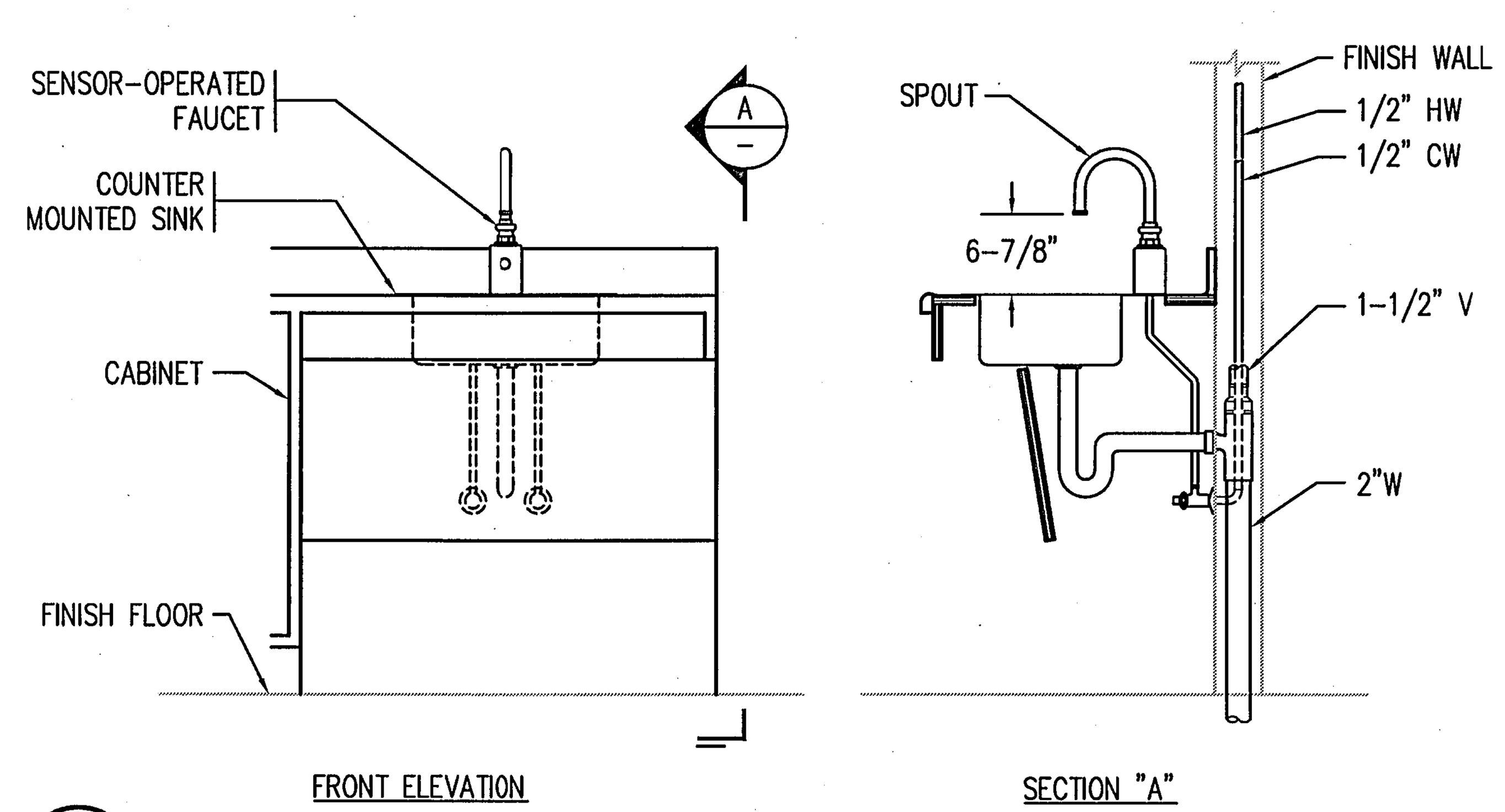
Sheet No. **M3.4**



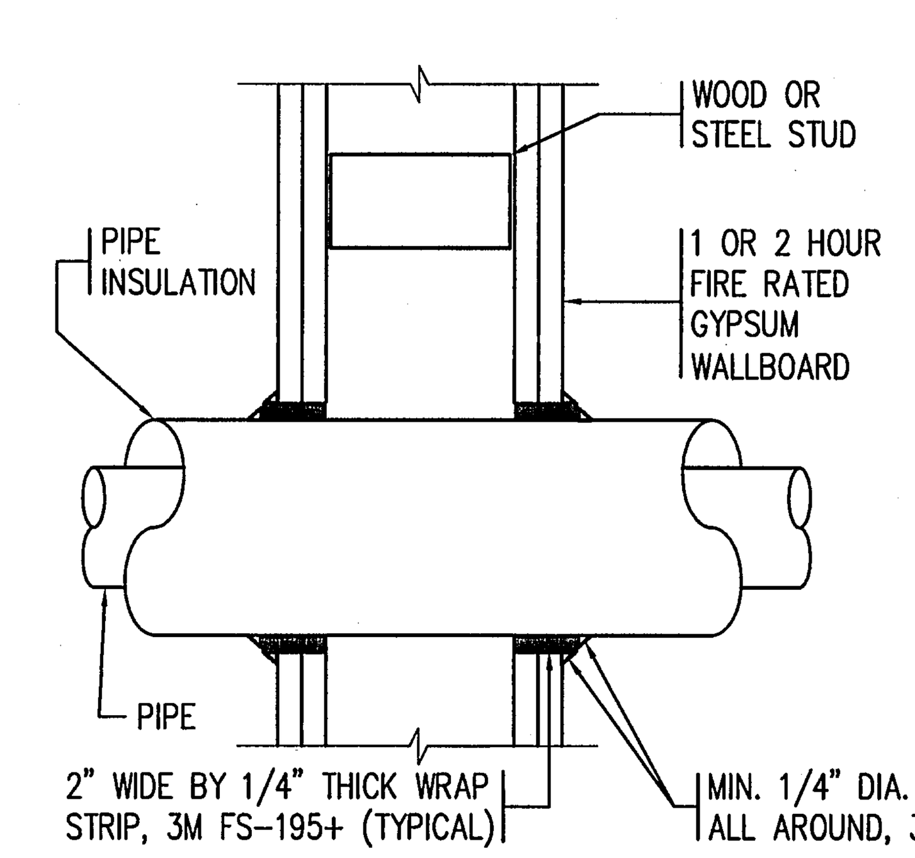
(21) INSULATED PIPE THRU ROOF

NTS



(13) SINK - SENSOR-OPERATED FAUCET

NTS

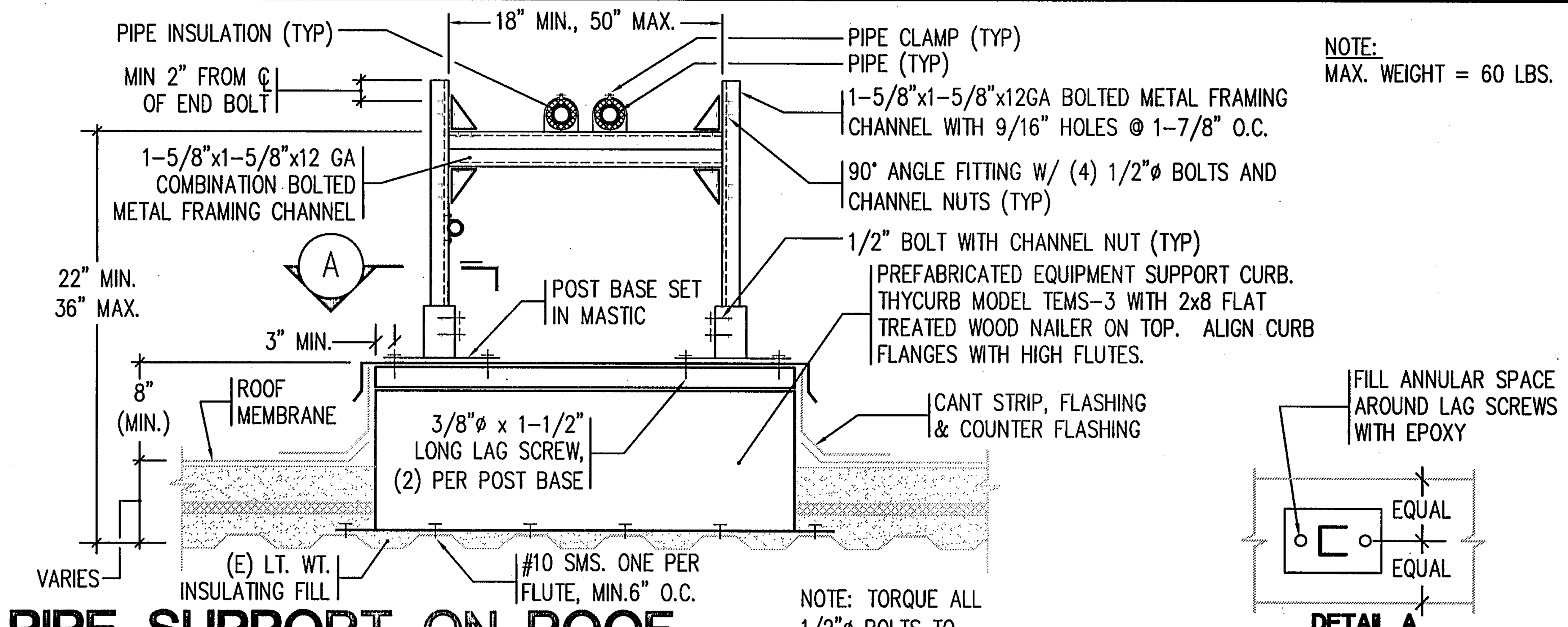


NOTES:

1. THE SPACE BETWEEN THE PENETRATING ITEM AND WALLBOARD SHALL BE PER THE UL LISTING
2. PIPE INSULATION SHALL BE FIBERGLASS, MIN. 1" THICK, MIN. 3.5 PCF DENSITY, WITH ALL SERVICE JACKET SEALED PER UL LISTING.
3. FOR 12" DIA. (OR SMALLER), SCH. 10 (OR HEAVIER) STEEL PIPE. FOR 6" DIA. (OR SMALLER) TYPE L (OR HEAVIER) COPPER TUBING.
4. UL SYSTEM NO. W-L-5001.
5. INSTALLATION SHALL CONFORM TO UL LISTING.

(5) INSULATED PIPE THRU RATED WALL

NTS

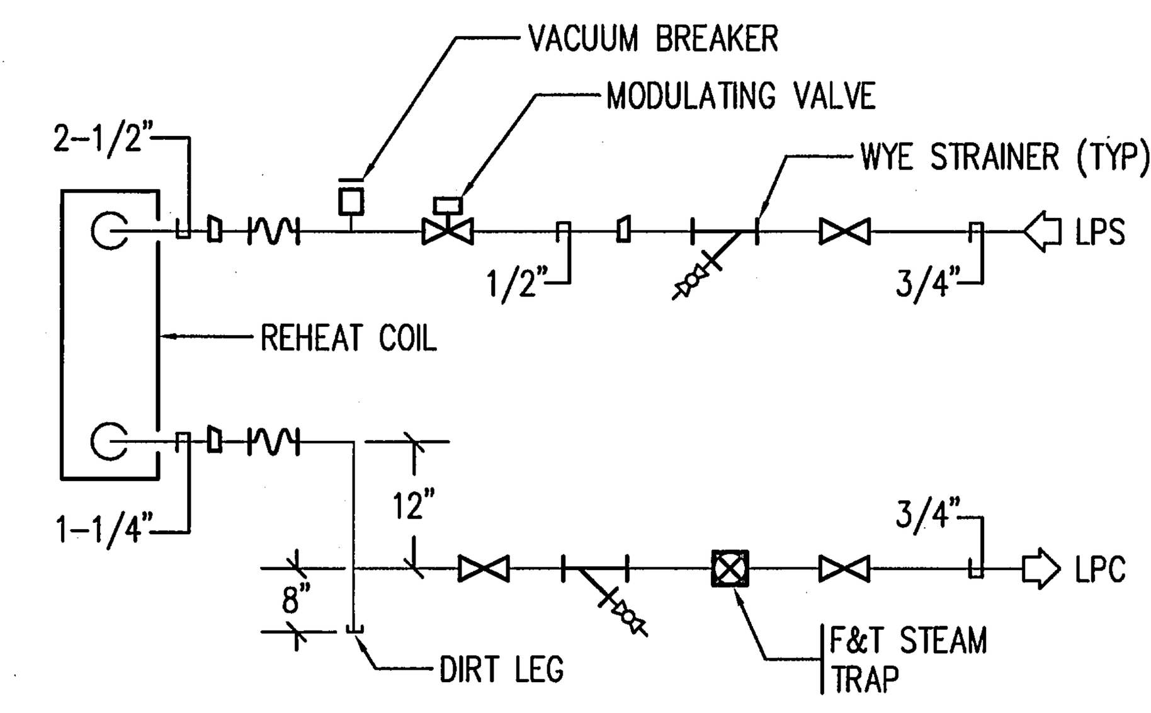


NOTE:
MAX. WEIGHT = 60 LBS.

NOTE: TORQUE ALL 1/2"ø BOLTS TO 50 FT-LBS.

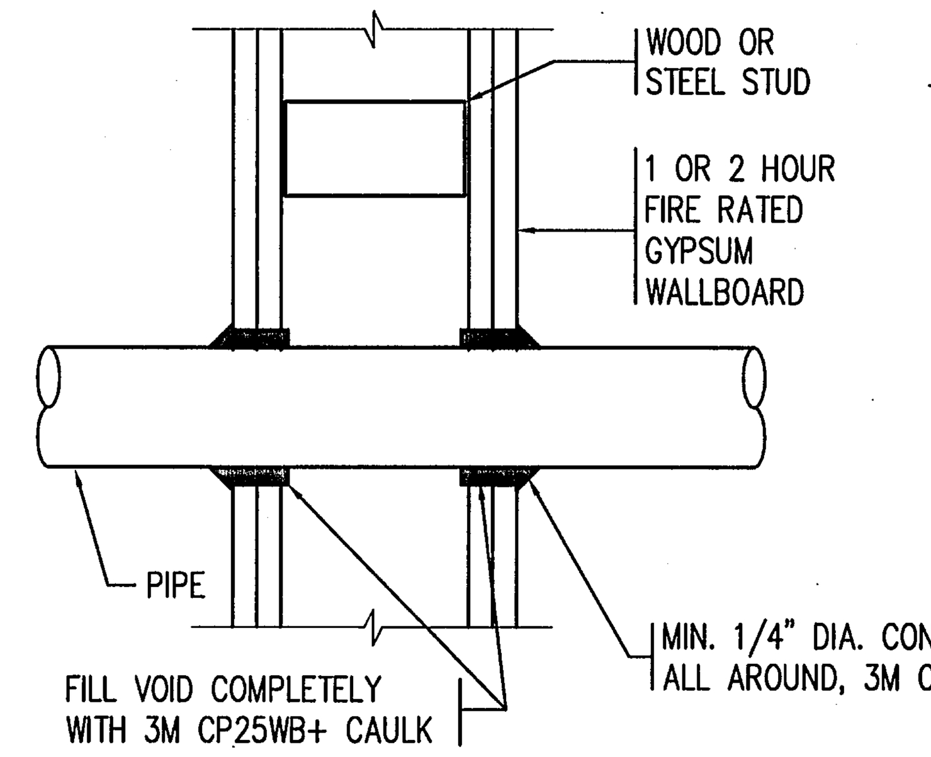
(22) PIPE SUPPORT ON ROOF

NTS



(14) RE-HEAT COIL PIPING

NTS

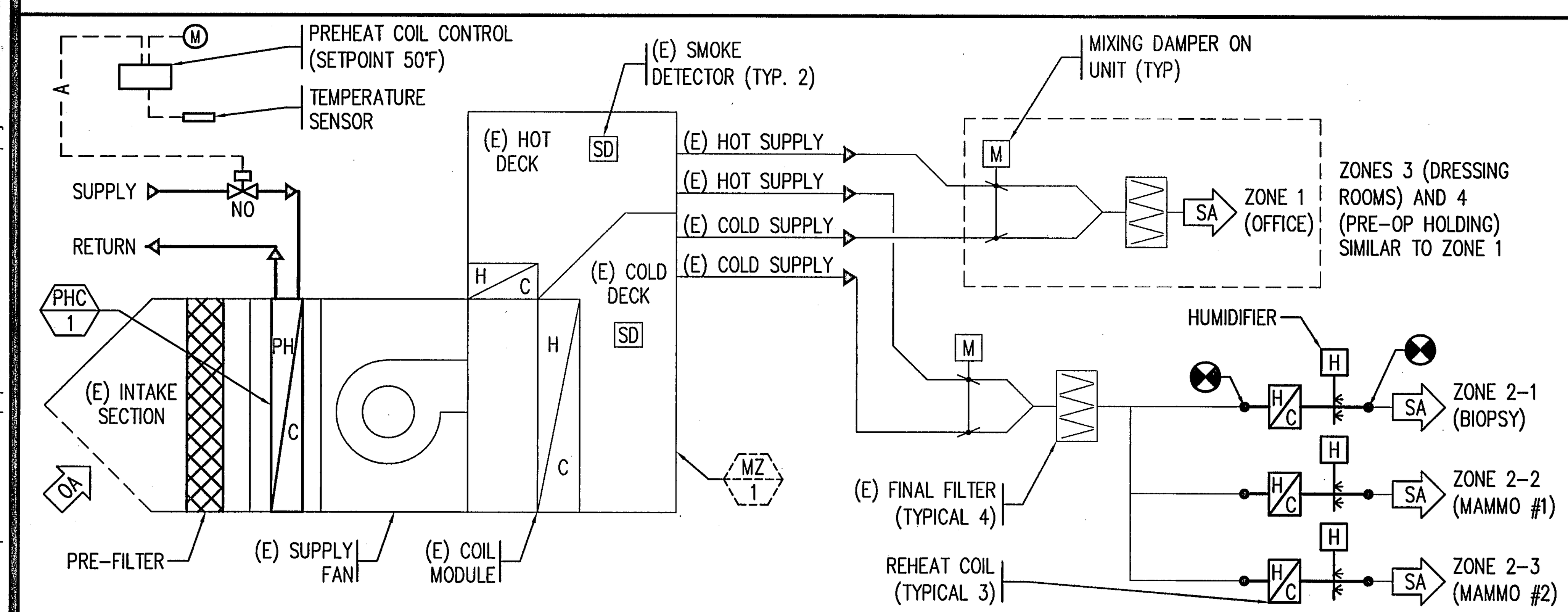


NOTES:

1. THE SPACE BETWEEN THE PENETRATING ITEM AND WALLBOARD SHALL BE PER THE UL LISTING
2. FOR 12" DIA. (OR SMALLER), SCH. 10 (OR HEAVIER) STEEL PIPE. FOR 6" DIA. (OR SMALLER) TYPE L (OR HEAVIER) COPPER TUBING. FOR 12" DIA. (OR SMALLER), SERVICE WEIGHT (OR HEAVIER) CAST IRON PIPE.
3. UL SYSTEM NO. W-L-1001.
4. INSTALLATION SHALL CONFORM TO UL LISTING.

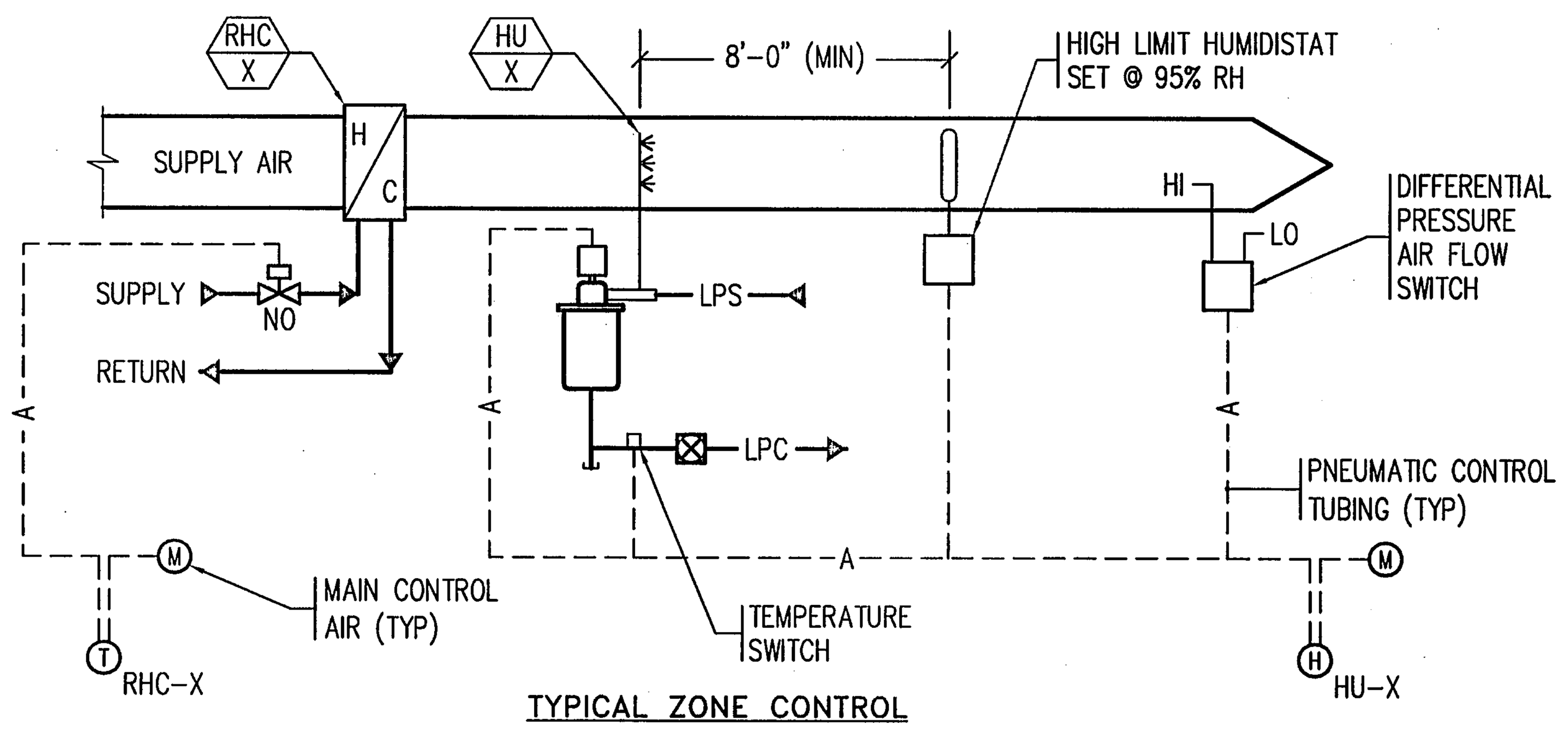
(6) UNINSULATED PIPE THRU RATED WALL

NTS



SEQUENCE OF OPERATION:

1. THE THERMOSTAT MODULATES THE REHEAT COIL CONTROL VALVE TO MAINTAIN ROOM TEMPERATURE SETPOINT. A HIGH-LOW SELECTOR MODULATES THE MIXING DAMPER FOR ZONE 2 TO MINIMIZE REHEAT FOR ZONES 2-1, 2-2, AND 2-3.
2. THE HUMIDISTAT MODULATES THE HUMIDIFIER CONTROL VALVE TO MAINTAIN ROOM HUMIDITY SETPOINT. THE AIR FLOW SWITCH PREVENTS HUMIDIFIER OPERATION WHEN AIR IS NOT FLOWING. THE HIGH LIMIT HUMIDISTAT PREVENTS HUMIDIFIER OPERATION WHEN DUCT HUMIDITY EXCEEDS SETPOINT. THE TEMPERATURE SWITCH PREVENTS HUMIDIFIER OPERATION WHEN CONDENSATE IS PRESENT IN THE HUMIDIFIER DISCHARGE PIPE.
3. THE PREHEAT COIL CONTROL MODULATES THE PREHEAT COIL CONTROL VALVE TO MAINTAIN SETPOINT.
4. ZONE THERMOSTATS CONTROL THE MIXING DAMPERS FOR ZONES 1, 3, AND 4.

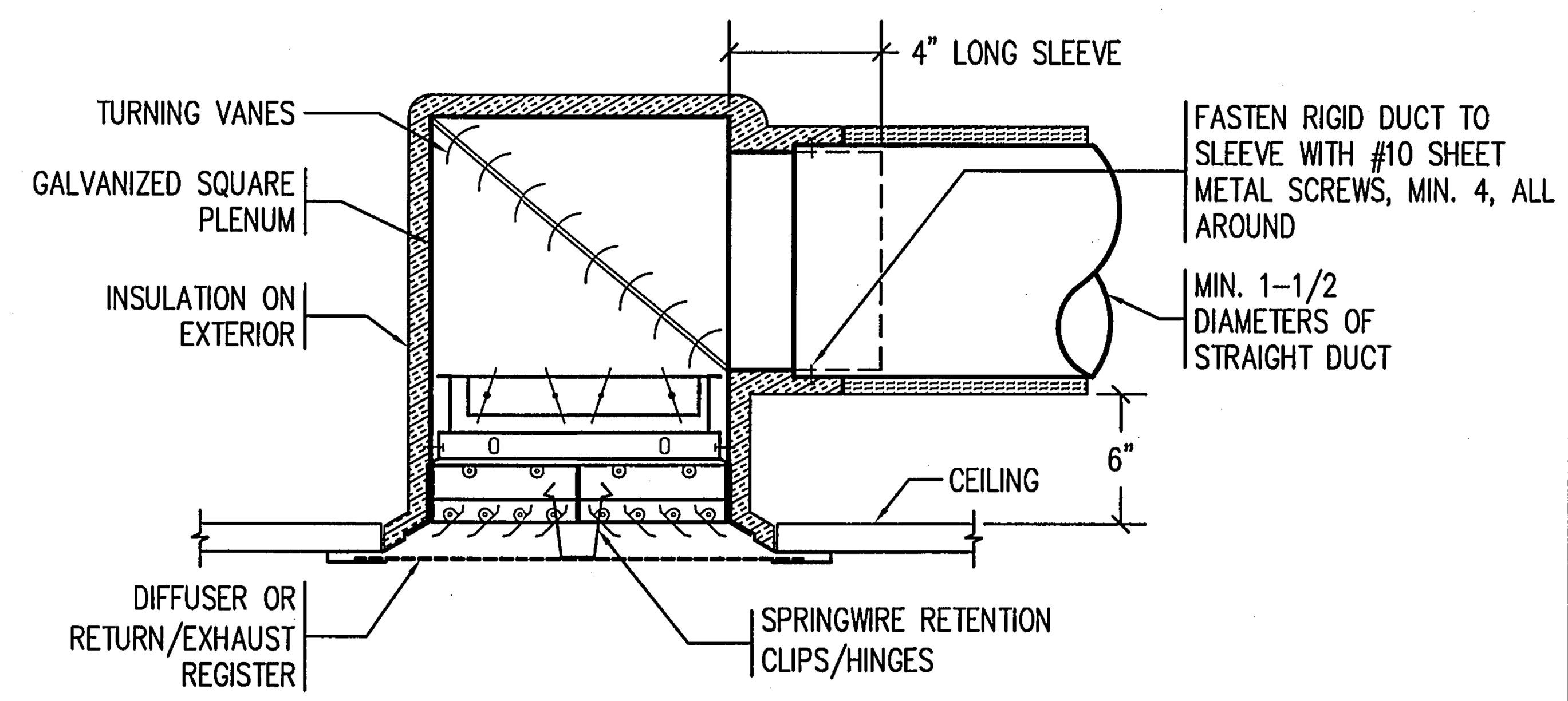


TYPICAL ZONE CONTROL

MECHANICAL CONTROL SYSTEM SETPOINTS	
ROOM TEMPERATURE	74°F
ROOM HUMIDITY	40% RH

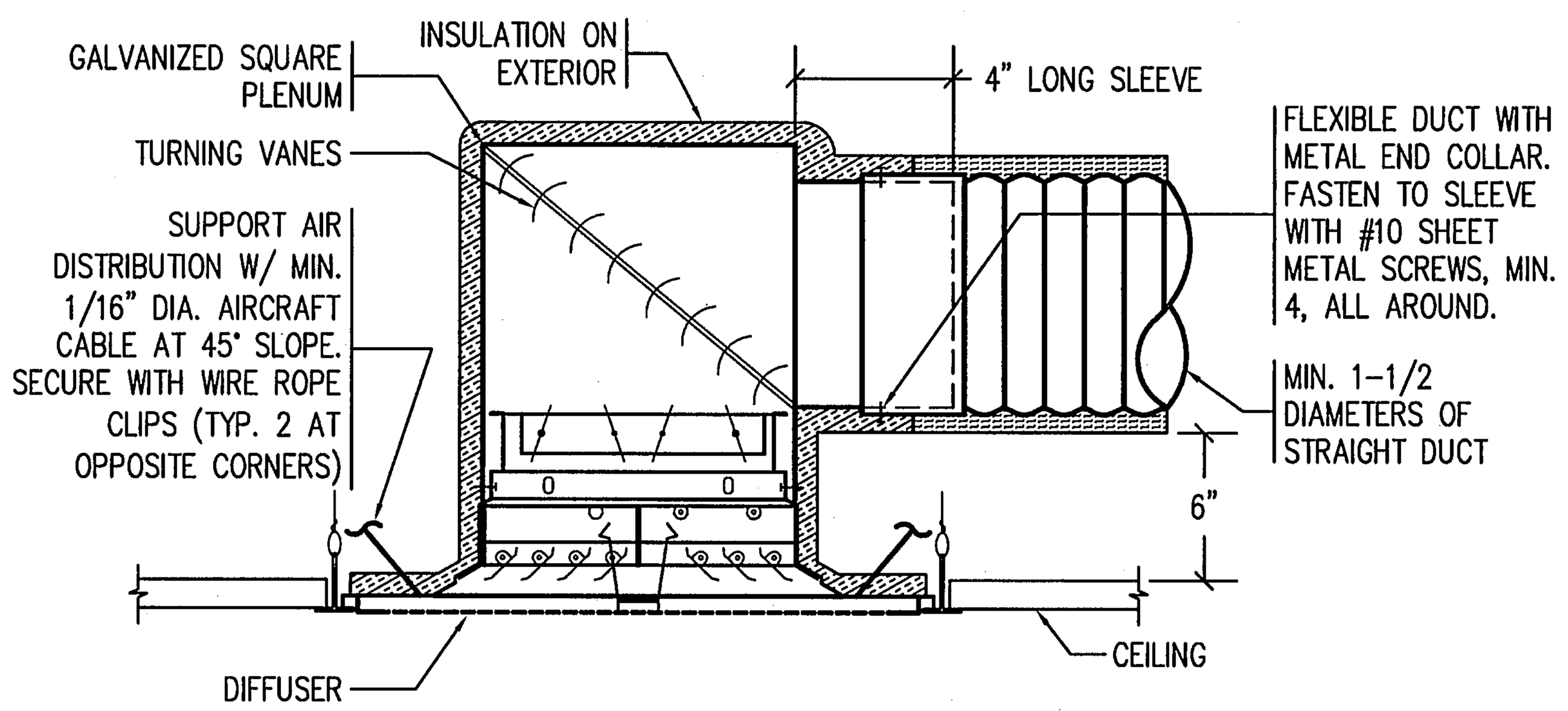
(24) HVAC SCHEMATIC

NTS



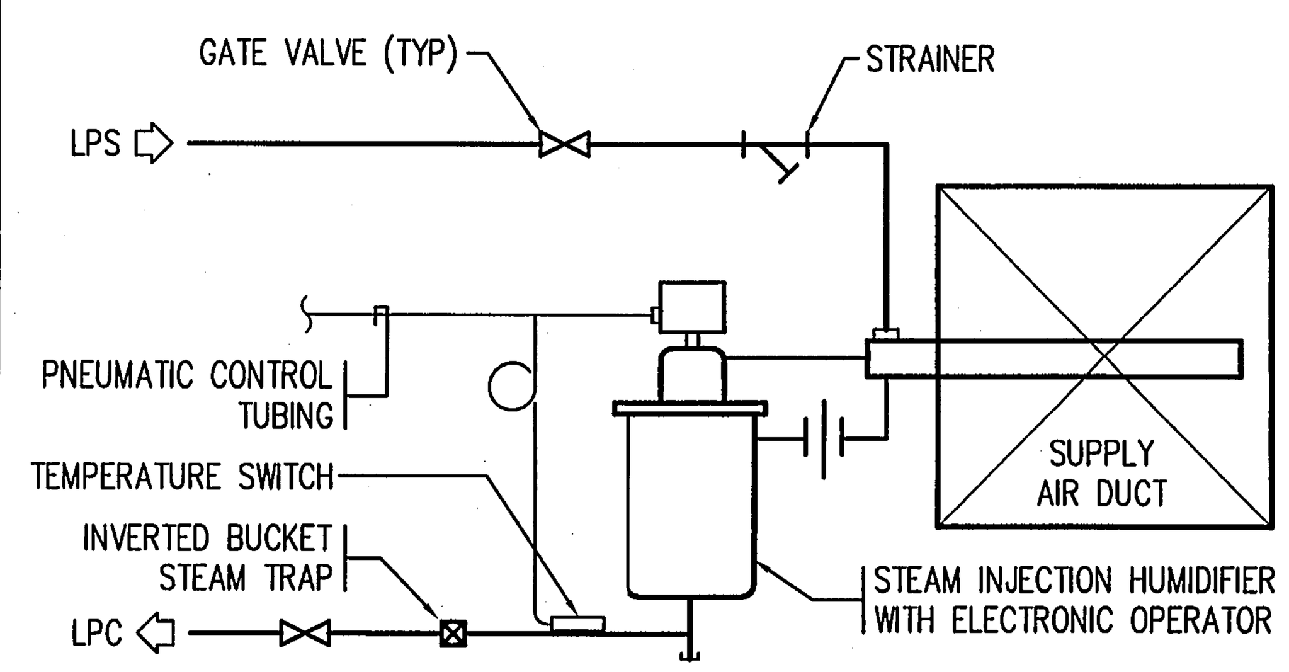
(15) AIR DISTRIBUTION CONNECTION TO RIGID DUCT

NTS



(7) AIR DIST. CONN. TO FLEXIBLE DUCT

NTS



(16) HUMIDIFIER PIPING

NTS

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PROJECT MANAGER	
SPEC. NUMBER CP11-05	SHEET 22 OF 31
PROJECT NUMBER ENT11103	DRAWING NUMBER 113570

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FOR PLAN REVIEW ONLY

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LICENSED ARCHITECT JAY LOMAGNO C-20801 REN. 10-31-11 STATE OF CALIFORNIA

Sheet Title: HVAC SCHEMATIC, DETAILS

Revisions	
12-29-10 OSHPD CORR.	
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MAMMOGRAPHY ROOMS & NEEDLE BIOPSY ROOM
VENTURA COUNTY MEDICAL CENTER
3291 LOMA VISTA ROAD
VENTURA, CALIFORNIA

Sheet No.
M4.1

DIVISION 15
MECHANICAL SPECIFICATIONS

1.01 The scope of Work consists of complete and operating HVAC and plumbing systems for the remodel area including:

A. Furnish and install HVAC system components including all ductwork, piping, controls, appurtenances, and supports as required for an operating system. Relocate equipment and components as required.
B. Furnish and install plumbing system components including all piping, fixtures, trim, appurtenances, and supports as required for an operating system. Relocate equipment and components as required.
C. Remove abandoned supports, piping, and ductwork.
D. Verify operation and performance of systems. Test all systems for leaks.

1.02 Comply with the current applicable codes and regulations including, but not limited to, the 2007 California Building, Mechanical, and Plumbing Codes.

1.03 Perform work in accordance with the referenced standards:

A. Air Conditioning and Refrigeration Institute (ARI).
B. Air Moving and Conditioning Association (AMCA).
C. American National Standards Institute (ANSI).
D. American Society of Heating, Refrigerating and Air Conditioning Engineers, Inc. (ASHRAE).
E. American Society of Mechanical Engineers (ASME).
F. American Society for Testing Materials (ASTM).
G. Associated Air Balance Council (AABC).
H. American Welding Society (AWS).
I. Manufacturer's Standardization Society (MSS).
J. National Electrical Manufacturers Association (NEMA).
K. National Sanitation Foundation – International (NSF–International).
L Sheet Metal and Air Conditioning Contractors National Association (SMACNA).
M. Underwriters Laboratories, Inc. (UL).

1.04 All equipment, devices, and control panels furnished as part of this Work shall be listed, labeled, or certified for the intended use by a Nationally Recognized Testing Laboratory as recognized by the United States Department of Labor, Occupational Safety, and Health Administration.

1.05 Coordinate working hours with the Owner to minimize the impact the construction will have on the facility's occupants and staff. Follow phasing instructions and minimize downtime. Coordinate with the work of the facility maintenance staff for the building.

1.06 Submit six complete copies of technical data, product data, shop drawings, and diagrams for all products and materials that will be used on this project. Submittals shall be bound and marked with specification reference and equipment or device tag number. Submittals shall be marked to indicate material submitted and options selected. Submittals shall cover data and features required by these documents. Submit evidence that equipment furnished as part of this Work is listed, labeled, or certified for the intended use.

1.07 Submit four sets of operating and maintenance manuals for all equipment and devices installed as part of this project. Manuals shall be indexed, tabbed, and bound. Include control diagrams with the operating and maintenance manuals. Provide operating and maintenance training for the Owner's staff. Schedule training at a time selected by the Owner. Submit a receipt, signed by the Owner, that the training has been successfully completed.

1.08 The Owner shall obtain the building permit from OSHPD. Work shall not commence until a valid building permit has been issued. Additional permits related to this Work shall be obtained by the Contractor.

1.09 Review contract documents and technical specifications for extent of work, phasing conditions, relationship of demolition, and work to be provided. Examine all existing conditions at building site. Verify all dimensions by field measurements. Do not fabricate piping or ductwork using these documents as the only reference.

1.10 Drawings and Specifications are intended to be fully cooperative and to agree. The Contractor shall notify the Architect at once should any discrepancy or apparent differences occur. All misunderstandings of Drawings and Specifications shall be clarified by the Architect.

1.11 While work is in progress, except for designated short intervals during which connections are to be made, continuity of service shall be maintained to all existing systems. Interruptions shall be coordinated with the Owner as to time and duration.

1.12 Coordinate mechanical equipment and materials installation with other building components. Arrange for chases, slots, and openings in other building components to allow for mechanical installations. Sequence, coordinate, and integrate installations of mechanical materials and equipment for efficient flow of the Work.

1.13 Include the cutting and patching of building components to accommodate the installation of mechanical equipment and materials. Patching shall match existing surfaces for materials, finish, and color.

1.14 Where mounting heights are not detailed or dimensioned, arrange mechanical work and overhead installations to provide the maximum clearance possible.

1.15 Install mechanical equipment and systems to facilitate maintenance and repair or replacement of equipment components. Coordinate final locations for rough–ins with field measurements and with the requirements of the actual devices to be connected. Refer to contract documents for rough–in requirements. Coordinate the installation of mechanical materials and equipment with ceiling suspension system, luminaires, and other installations.

1.16 All material and equipment installed for this Work shall be new unless indicated otherwise.

1.17 Provide complete and accurate record drawings both during construction and before final acceptance. All costs associated with the preparation of the record documents shall be included under this Work. Obtain at cost, from the Owner, a complete set of applicable full–size prints. Mark prints to indicate revisions to piping and ductwork, size and location, locations of control devices and similar units requiring periodic maintenance or repair, actual equipment locations dimensioned from column lines, actual dimensions of mains and branches of piping systems from column lines, and work included in Change Orders. Indicate location and depth or invert of underground piping installed as part of this Work and existing underground piping uncovered during the installation of this Work. Location and depth or invert of underground piping shall be determined by a California licensed land surveyor. Locate all cleanouts and indicate dimensions from columns. The Inspector of Record shall approve and sign the record prints. Submit neat and readable copies of these record prints for review and acceptance. Upon acceptance of the record prints, neatly transfer the information to sepia Mylar reproductions of the construction documents. Obtain the sepia Mylars from the Owner at a nominal cost. Submit record sepia Mylars for review and acceptance before completion of the project.

1.18 Deliver products to project properly identified with names, model numbers, types, grades, compliance labels, and similar information needed for distinct identification and adequately packaged and protected to prevent damage during shipment, storage, and handling. Piping shall have plastic end caps to prevent entry of debris and moisture. End caps shall be maintained until materials are installed.

1.19 Field prime and finish paint all exposed work of Division 15 not provided with factory finish, except exposed copper piping and exposed insulation as specified.

1.20 Contractor shall visit the job site before submitting a bid to determine the scope of the demolition work, and to become familiar with the existing conditions that affect the Work and therefore the bid. Remove all equipment, materials, supports, and appurtenances for all items indicated demolished. Remove all abandoned piping, ductwork, supports, equipment, and appurtenances, except where removal affects existing equipment and systems that remain. Perform all work required for relocation and extension of mechanical systems to clear the area of demolition and for the installation of this Work. Maintain continuity of equipment, services, and all special systems that will remain active. Areas vacated by equipment shall be left in neat and safe condition. Leave the area clean and suitable for the installation of the Work. Owner shall have first right of refusal of all salvageable materials demolished as part of this Work. Contractor shall clean items claimed by the Owner and deliver them to an Owner selected storage location. Such materials not claimed by the Owner shall become the property of the Contractor, and shall be removed from the site by the Contractor. Legally dispose of all demolished materials, equipment, and debris.

1.21 Upon completion of the Work, perform final cleaning. Clean the area of all debris. Remove shipping and other non–permanent labels. Wipe surfaces of mechanical materials, equipment, and devices clean. Clean all plumbing fixtures to a sanitary condition. Touch up paint on all finished surfaces. Clean the surfaces of the air distribution.

1.22 Provide a one–year material and labor warranty for all Work of this project from the date of Owner acceptance. Warranty shall cover leaks, breaks, or failure to perform intended function. Submit written warranty statement.

II. PRODUCTS AND MATERIALS

2.01 Piping and Fittings
A. Aboveground Cold Water, Tempered Water, Hot Water Supply and Return, and Drain: Type L hard drawn seamless copper tubing conforming to ASTM B88–03. Fittings shall be wrought copper conforming to ANSI/ASME B16.22–01 with 95/5 solder joints.
B. Aboveground Sewer, Waste, and Vent: Hubless cast iron soil pipe conforming to CISPI 301–05 and ASTM A888–04a. Fittings shall be hubless cast iron pipe conforming to CISPI Standard 301–04a and ASTM A888–04a. Couplings shall be heavy–duty stainless steel conforming to CISPI 310–04 and ASTM C1540–04. Hubless coupling gaskets shall conform to ASTM Standard C564–03a. Pipe and fittings shall be marked with the collective trademark of the Cast Iron Soil Pipe Institute.
C. Belowground Sewer, Waste, and Vent: Hubless cast iron soil pipe conforming to CISPI 301–04a and ASTM A888–04a. Fittings shall be hubless cast iron pipe conforming to CISPI Standard 301–04a and ASTM A888–04a. Couplings shall be with heavy–duty cast iron. Hubless coupling gaskets shall conform to ASTM Standard C564–03a. Pipe and fittings shall be marked with the collective trademark of the Cast Iron Soil Pipe Institute.
D. Aboveground Medium and Low Pressure Steam and Medium and Low Pressure Condensate: Schedule 40 seamless black steel pipe conforming to ASTM A53–90a. Fittings shall be Class 300 malleable iron threaded for size 2" and smaller. Fittings shall be wrought steel butt–welding type with welded joints for sizes 2–1/2" and larger.
E. Trap Prime: Aboveground Type L hard drawn seamless copper tubing conforming to ASTM B 88–96. Belowground Type K hard drawn seamless copper tubing conforming to ASTM B 88–96. Fittings shall be wrought copper conforming to ANSI B 16.22–95 with 95/5 solder joints.

2.02 Piping Specialties
A. Escutcheons: Chrome plated, stamped steel, split ring escutcheon. Inside diameter shall closely fit outside diameter of pipe or outside diameter of insulation on insulated pipes. Outside diameter shall completely cover the hole in the penetrated surface. Manufacturers: Chicago Specialty Manufacturing Co. or Sanitary–Dash Manufacturing Co.
B. Dielectric Fittings: Electroplated steel or brass nipple with an inert thermoplastic liner. Manufactured in accordance with ASTM F 492 for continuous use at 300 psig and 225°F. Liner shall be NSF/FDA listed. Manufacturers: Perfection Corporation.
C. Dielectric Unions: Unions shall be rated at 250 psig at 150°F, 600 volts on a dry line with no flash over, and shall be designed to meet the requirements of ANSI B 16.39. Manufacturers: Watts Regulator Co. or Wilkins.
D. Unions for Copper Pipe: Cast brass, wrought copper tailpiece, bronze ring nut and thread piece, threaded joint.
E. Unions for Steel Pipe: Malleable iron class 150 for low pressure service and class 250 for medium and high pressure service, hexagonal stock, ball and socket joints, metal to metal bronze seating surfaces, and female threaded ends.
F. Strainers: Y–type, full line size of connecting piping, with ends matching piping system materials. Screens shall be Type 304 stainless steel, with 20 mesh perforations. Provide strainers with 125 psi working pressure rating for low–pressure applications and 250 psi pressure rating for high–pressure application. Provide blowdown port with ball valve and hose thread connector. Provide cast bronze body with threaded ends for size 2" and smaller and cast iron body with flanged ends for sizes 2–1/2" and larger.
G. Inverted Bucket Steam Traps: Provide ASTM A 278, Class 30 cast iron body and bolted cap, pressure rated 250 psig, stainless steel heads, seat, valve retainer, lever, and guide pin, integral check valve, integral strainer, and bronze or stainless steel bucket. Manufacturer: Armstrong Machine Works or Spirax Sarco.

2.03 Valves
A. Ball Valves (2" and smaller): Bronze construction with three piece body, blowout proof stem, full port, and bronze trim. Rated at 150 psi saturated steam and 600 psi non–shock water, oil, or gas. Manufacturer: Nibco T–595–Y.
B. Bronze Gate Valves (2" and smaller): Bronze construction with solid wedge disc, rising stem, threaded bonnet, gland packed, and threaded ends. Rated at 125 psi saturated steam and 200 psi non–shock water, oil, or gas. Manufacturer: Nibco T–111.
C. Bronze Globe Valves (2" and smaller): Bronze construction with renewable seat and disc, rising stem, screw–in–bonnet, gland packed, and threaded ends. Rated at 125 psi saturated steam and 200 psi non–shock water, oil, or gas. Manufacturer: Nibco T–211.
D. Alternate Manufacturers: Milwaukee Valve Co. or Stockham Valves & Fittings as listed in Nibco Inc. figure number comparison chart.

2.04 Meters and Gauges
A. Pressure Gauges: General use type with 1% accuracy, ANSI B 40.1 Grade A, phosphor bronze bourdon type, drawn steel or brass case, glass lens, 4–1/2" diameter, and brass connector. Range 0 – 100 psi. Provide 1/4" brass snubber and ball valve for each gauge. Connect pressure gauges to piping systems with piping specified for instrument connections. Manufacturer: Trerice (H.O.) Co. or Weiss Instruments, Inc.
B. Air Filter Gauges: 0"–2" water gauge. Dwyer Magnehelic 2002 with adjustable signal flag. Mount filter gauges on outside of filter housing or filter plenum, in accessible position. Adjust gauges for accurate readings. Set signal flag at final filter pressure drop indicated on Drawings.

2.05 Supports and Hangers
A. Provide clevis type with threaded rod and building attachment. Provide pipe clips. Hangers and pipe clips for copper pipe shall be copper plated. Manufacturer: B–line, Powerstrut, or equal. Hanger spacing:

Pipe Size	Hanger Spacing	
	Steel Pipe	Copper Pipe
Up to 1–1/4"	8'–0"	6'–0"
1–1/2" to 2"	10'–0"	8'–0"

B. Provide prefabricated equipment support curb with 14 gauge galvanized steel construction, welded corners, internal steel bulkhead reinforcement, 18 gauge galvanized steel counterflashing, and treated wood nailer on top. Curb shall be manufactured to match requirements of roof installation. Manufacturer: ThyCurb, Custom Curb, or equal.
C. Provide 12 gauge steel, bolted metal framing channel with hot–dipped galvanized finish for exterior installation and green epoxy paint for interior installations. Fasteners shall conform to ASTM A307. For exterior installations provide fasteners with a hot–dipped galvanized finish or provide ASTM A240 Type 304 stainless steel fasteners. All fasteners shall be grade–2 or higher and shall be tightened to manufacturer's recommended values. Minimum torque for 3/8" diameter bolts is 19 ft–lbs. Minimum torque for 1/2" diameter bolts is 50 ft–lbs. Manufacturer: B–Line, Power–Strut, or equal.

2.06 Insulation
A. Insulation Materials:
Fiberglass Pipe Insulation: ASTM C 547, Type I and ASTM C 1136.
Rigid Fiberglass Board Insulation (1.5 PCF): ASTM C 612, Class 1.
Flexible Fiberglass Blanket Insulation (.75 PCF): ASTM C 553, Type I, Class B–2.
Insulation shall have a flame spread index of less than 25 and a smoke developed index of less than 50 as tested by ASTM E 84.
B. Insulation Accessories: Provide staples, bands, wires, tape, anchors, corner angles, and similar accessories as recommended by insulation manufacturer for applications indicated.
C. Insulation Compounds: Provide cements, adhesives, coatings, sealers, protective finishes, and similar compounds as recommended by insulation manufacturer for applications indicated.
D. Piping and Equipment Weather Jacketing: Minimum 0.016 inch aluminum sheet with aluminum fitting covers and bands.

2.07 Plumbing Fixtures
A. Plumbing Fixtures: Provide plumbing fixtures as scheduled complete with carriers, supports, and trim, including chrome plated loose key stops, chrome plated p–traps, chrome plated trap arms, and chrome plated tailpieces. Trim shall be Chicago unless indicated otherwise. Carriers shall be J.R. Smith or equal by Zurn.

2.08 Humidifiers
A. Humidifiers shall be the steam separation type with capacity as scheduled providing full separation ahead of an integral steam jacketed control valve. Steam shall be discharged through an internal steam jacketed drying chamber, a silencing chamber, and a steam jacketed distribution manifold. Humidifier shall receive steam at supply pressure and discharge at atmospheric pressure. Separation chamber shall be designed to remove all water droplets and particulate matter larger than 3 microns when the humidifier is operating at maximum capacity.
B. Humidifiers shall have a stainless steel metering valve with a parabolic plug and 3/4 inch stroke. Valve actuator shall be pneumatic. The distribution manifold shall provide uniform distribution over the entire length. The manifold shall be jacketed by steam at supply pressure to assure that vapor discharged is free of water droplets.
C. Humidifiers shall be furnished with an inlet strainer, external inverted bucket steam trap with integral check valve, pneumatic temperature switch, stainless steel duct mounting plate for distribution tube, and insulated distribution manifold.
D. Manufacturer: Armstrong Machine Works or Dristeem.

2.09 Filters
A. Pre–Filters: Provide factory fabricated, replaceable, dry, pleated air filters in the sizes, thickness, and efficiencies indicated. All filters shall meet or exceed the indicated efficiencies in accordance with ASHRAE Test Standard 52.1–1992. All filters shall be listed as UL Class 2. Enclosing frame shall be high wet–strength beverage board. The media shall be chemically bonded to the enclosing frame and wire support grid. Install in holding frames with factory recommended fasteners.
B. Filter Holding Frames: Provide filter bank framing system, constructed of aluminum framing members having minimum thickness of 0.09". Design system for either upstream (front) or downstream (rear) filter servicing. Provide permanently gasketed framing members to prevent bypass of unfiltered air. If vertical support members are required to prevent deflection of horizontal members, install so as not to interfere with either installation or operation of filters. Incorporate separate track for pre–filters, removable from front, or removable from back after removal of after–filters. Provide factory–installed positive sealing device for each row of filters, to insure seal between gasketed filter elements. Provide factory recommended hardware and filter fasteners necessary for field assembly.
C. Manufacturers: Farr Co. or equal.

2.10 Preheat and Reheat Coils
One row or two rows, same end connections, aluminum fin, copper tube, and duct flanges. Provide coils with capacity and performances as scheduled. Casings shall be minimum 16 gauge galvanized steel. Tubes shall be 5/8" copper expanded into the tube collars for permanent fin–tube bond. Maximum working ratings: 200 psig at 250°F. Manufacturer: Carrier, Trane or equal.

2.11 Ductwork
A. All indicated duct sizes are inside, free area, dimensions. Fabricated ductwork dimensions shall be increased to provide inside free area dimensions wherever duct lining is indicated.
B. Construct rigid ducts using ASTM A653M–2003 G90 sheet metal in accordance with recommendations of the ASHRAE Guide, SMACNA 1985 HVAC Duct Construction Standards Metal and Flexible, NFPA 90A, and the California Mechanical Code. Turn all exposed edges both for strength and appearance, fit the sheet metal closely and neatly together and furnish all necessary ribs, cleats, stiffeners, and other reinforcements required to make all sections rigid and substantial. Cross–break all flat surfaces for stiffening. Seal all seams and joints. Rectangular duct joints shall be flush, drive–slip where required for reasons of space limitations; otherwise standing seams. Construct radius elbows with inside radius not less than duct width. Provide rectangular and square elbows with turning vanes. All exposed ductwork in finished spaces shall be fabricated from smooth and clean sheet metal stock with no visible imperfections in finish. Clean all labels and mill identification from exposed ducts in finished spaces.
C. Flexible Ducts: Flexible ducts shall consist of an exterior reinforced vapor barrier (maximum 0.10 perms), minimum 1–1/2" thick fiberglass insulation, minimum R = 8.0 (outside, attic, equipment rooms, etc.)/4.2 (ceiling space, conditioned space, etc.) (hr sq. ft. °F)/Btu in. at 75°F, encapsulated steel wire helix, and impervious, smooth, non–perforated interior polymer liner. Individual lengths of flexible ducts shall contain factory fabricated steel connection collars. The maximum length shall be seven feet and may be used only at the terminal ends. Flexible ducts shall conform to UL–181

2.12 Ductwork Accessories
A. Balancing Dampers: Round ducts and rectangular ducts with maximum dimension 16" or smaller, butterfly type with quadrant locks and fabricated according to SMACNA standards. Rectangular ducts with maximum dimension greater than or equal to 17", Ruskin, Pottorff, or Air Balance Inc. opposed blade configuration with quadrant locks.
B. Turning Vanes: 1–1/2" wide blades at 3/4" on center with center support bars and vane rails for anchoring to the ductwork. Install vanes in all rectangular ducts turns greater than 30 degrees.
C. Duct Access Doors: Galvanized steel construction, 22–gauge frame, 24–gauge door, zinc plated piano hinge, and ventlock style latch. Provide latch on doors with hinge side dimension of 14 inches or less. Provide a minimum of two latches on doors with hinge side dimension greater than 14 inches. Access doors installed in insulated ducts shall be double wall construction with 1–inch thick fiberglass insulation in the core.

2.13 Supply and Exhaust Air Distribution
Steel construction with perforated face, integral pattern controls, and volume controls. Finish shall be factory electro–coated, off–white. Submit color sample for review and acceptance. All surfaces behind face shall be painted flat black. Touch up scratches in field. See drawings for sizes and specific requirements. Manufacturer: Carnes or Anemostat Products Division/Dynamics Corporation of America.

2.14 Controls
A. Controls shall be as indicated on the drawings and specified herein, pneumatic systems of control, complete with all accessories required to control the heating, ventilating, and air conditioning systems and produce the results shown schematically on the drawings. In addition to the controls regularly supplied with the units and equipment, provide all the controls as required. The actual design of the system shall conform to the requirements of the manufacturer supplying the materials, which shall submit detailed shop drawings, specifications, and written sequences of operation for review.
B. Control air piping shall be hard drawn copper with wrought copper fittings or type FR polyethylene tubing in metallic conduit.
C. Room thermostats shall be pneumatic two pipe type with tamperproof cover. Setpoint and temperature shall be concealed by the blank face of the cover.
D. Room humidistats shall be pneumatic two pipe type with tamperproof cover. Setpoint shall be concealed by the blank face cover.
E. Duct humidistats shall be pneumatic type configured for mounting in the ductwork. Humidistats shall be set up to control duct high humidity.
F. Provide modulating control valves with screwed type bronze body, rated at 250 psig, stainless steel stems, and serviceable stem, packing, and disc. Valve operator shall be pneumatic. Control valves shall be two ways or three ways as indicated on the drawings.
G. All devices except space sensors shall be installed in control panels. Assembled control panels, with all devices installed, shall be listed, labeled or certified for intended use by a Nationally Recognized Test Laboratory (NRTL) as recognized by the U.S. Department of Labor, Occupational Safety, and Health Administration.
H. Manufacturers: Honeywell, Johnson Controls, or Robertshaw.

III. EXECUTION

3.01 Install equipment and appurtenances in strict accordance with manufacturer's directions and applicable code requirements. Exercise care during installation and avoid damaging finished surfaces of equipment, fixtures, trim, and appurtenances. Make connections using proper tools and do not leave marks on visible surfaces.

3.02 Install work uniform, level, and plumb in relation to lines of building. Do not install any diagonal or otherwise irregular work unless so indicated on Drawings or approved by the Owner.

3.03 Trenching
A. Furnish all labor, materials, equipment, and transportation necessary to accomplish all earthwork for mechanical utilities as indicated on the drawings and as specified. Become familiar with site and subsurface conditions. Verify or determine locations of existing utilities. Provide barricades, coverings, warning signs, or other types of protection necessary to prevent damage to existing improvements indicated to remain.
B. Protect and preserve in operating condition all active utilities traversing or within and about the site. Promptly repair any damage to such utilities due to Work under this contract. Restore any improvements damaged by this Work to their original condition, as acceptable to the Architect and at no cost to the Owner.
C. Noise shall be kept at a reasonable level as related to specific items of equipment used and their hours of use. During trenching and backfill operations, keep dust and dirt from blowing or spreading by means of watering down at regular intervals and as directed.
D. Materials
1) Select backfill material shall be any clean, granular, non–expansive soil excavated from the utility trench, site cut areas, or from off–site borrow fill material that, in the opinion of the Architect, is suitable for backfilling and compaction. The material shall contain no rocks or clods over 3" in diameter and be free of debris and organic matter. Between 15% and 60% of the material shall pass a #200 sieve.
2) Select bedding sand shall be Class A screened fill sand with a maximum particle size of 1/2" not exceeding 18% and shall be free of expansive materials, debris, and organic matter and a sand equivalent of at least 30.
3) Select gravel shall be clean washed rock, conforming to ASTM C33, graded minimum 3/4" to maximum 1–1/2", and without fines.
E. Existing utilities shown on the drawings are shown from information available. Verify exact locations prior to start of any work. Uncover all utilities that cross the route of this Work and are between grade and one foot below the bottom of the trench. Exercise extreme caution during excavating, trenching, and like work. Should any such utilities be encountered, give notice in writing to the Architect, and do not proceed until adequate investigation has been made, the utility identified, and instructions issued as to how to proceed.
F. Excavate trenches for utilities to the required lines, grades, and elevations indicated on the drawings and as specified. Hand trim changes in direction and bottoms of trenches. Trenches and trench bottoms shall be square and true. Remove debris and loose material from bottom of trench. Compact trench bottoms. Provide shoring in trenches as required by Construction Safety Orders and in all trenches greater than 5' deep or where unstable soil conditions exist. Keep excavations free of water until backfilling is complete. Provide a pump as required.
G. The following requirements are considered minimum pipe trench dimensions unless indicated otherwise on the drawings to provide adequate pipe clearance and bedding. Provide trenches wider than the specified minimums where required to properly install the particular type of piping. In the event utility company regulations, code requirements, or the pipe manufacturer's recommendations differ from these provisions, the most restrictive requirements shall take precedence. Pipe burial depth is from finished grade or pavement surface to top of pipe. Trench width is to be measured at top of pipe.
1) Pipe Burial Depths:
a) Sewer: 24" + pipe OD + 3" bed.
2) Trench Widths:
a) Sewer: 12" minimum, 18" maximum + pipe OD for 4" to 18" diameter pipe.
H. Promptly install piping after excavation has been completed to minimize the time the trench is open.
I. Lay and bed pipe in compacted select bedding sand (thickness as specified. After required tests and inspections have been completed and as–installed locations recorded, backfill with the same material used for bedding to a height of 1' above the top of pipe. Place in 6" layers and compact to a minimum relative density of 90%, compacting in a manner that does not displace or damage pipe. Sewer and drain lines may be bedded in the native soil, provided it is rock free and sandy.
J. The remaining trench depth, including concrete encased utilities, shall be backfilled with select backfill material at optimum moisture content, placed in 6" layers, and compacted to a minimum relative density of 90%. Sewer and drain lines may be backfilled entirely with select backfill material. Trench backfill in pavement or other areas where compaction greater than 90% is required shall be compacted in accordance with those requirements to the specified depth. Compaction shall be attained by any method other than water jetting that will obtain the minimum specified relative density, without damaging the buried lines. Measure compaction in accordance with ASTM designation D–1557–64T.
K. Grade utility trench smooth to adjacent grade. Prepare trench for final paving or landscaping.

3.04 General Piping Installation
A. Install pipe, tube, fittings, fixtures, and equipment in accordance with recognized industry practices, which will achieve permanently leakproof systems, capable of performing each indicated service without failure. Install each run with minimum joints and couplings. Align piping accurately at connections, within 1/16" misalignment tolerance. Use fittings for all changes in direction.
B. Provide unions or flanges on all connections to equipment. Install union or flange adjacent to equipment and between equipment and service valves.
C. Threaded joints shall be made with key–paste or thread compound to male threads. Comply with ANSI B 2.1 for piping threading.
D. Solder and brazed joints shall be made with high temperature compounds. Clean surfaces to be joined of all oil, grease, and oxides. Clean socket of fitting and end of pipe thoroughly. After cleaning and before assembly apply flux to joint surfaces and spread evenly.
E. Clean exterior of piping systems and prepare for application of specified coatings. Flush piping for plumbing and steam systems with clean water before proceeding with testing.
F. Inspect each run of each system for completion of joints, supports, and accessory items. Inspect pressure piping in accordance with procedures of ANSI B 31.
G. Test each plumbing piping system in accordance with the requirements of the California Plumbing Code. A test fails when there is a visible leak, a drop in pressure, or a decrease in water level. Test duration shall be a minimum of two hours. Repair leaks in piping system using specified materials. Stop leak and other temporary methods shall not be used. Retest the system until the test is passed. Drain test water upon completion of successful test.
H. Test steam piping in accordance with ANSI B 31. Provide temporary equipment for testing including pump and gauges. Test each section of each piping system independently. Do not use system valves to isolate sections under test unless the valve is rated for the test pressure. Fill each section with water and pressurize for the indicated time. Test pressure shall be 50 psig greater than system operating pressure but not less than 100 psig. Test duration shall be a minimum of two hours. Observe each section for leakage. Test fails if leakage is observed or if pressure drop exceeds five percent of test pressure. Repair piping using specified materials. Stop leak and other temporary methods shall not be used. Drain water and refill the system upon completion of successful test.
I. During installation, provide caps covering all open ends of pipe until final connections are made to equipment and fixtures. Caps shall be tight fitting plastic and installed to keep the interior of the piping system free from contamination.
J. Dissimilar metals used for pipes and supports shall be isolated using formed metal and felt isolators or other acceptable method. Dissimilar piping materials shall be isolated with dielectric fittings and unions.
K. Install escutcheons at each location where a pipe penetrates a finished surface.
L. Where pipes pass through fire rated walls, partitions, ceilings, or floors, the fire rated integrity shall be maintained.

3.05 Hangers and Supports
A. Supports for ducts shall be in accordance with the California Mechanical Code and the SMACNA 1985 HVAC Duct Construction Standards Metal and Flexible I. Maximum spacing between duct supports shall be 8 feet.
B. Supports for piping shall comply with the California Mechanical Code and the California Plumbing Code. Support piping at each change in direction, at the bottom of risers, at drops, at connection to fixtures or equipment, and wherever necessary to prevent sagging, bending, or vibrating.
C. Provide seismic bracing for all ductwork and piping, as required by California Building Code.
D. Support ductwork and piping directly from the building structure. Attach pipe supports to structure according to the seismic restraint data by the manufacturer.

3.06 Insulation
A. General Installation: Clean and dry all surfaces to be insulated prior to insulating. Repair insulation that is damaged by this Work. Repair of insulation shall be performed with materials and methods that match the existing installation. Patch existing insulation at points of connection for this Work with materials and methods that match the existing installation. Patching shall provide continuous insulation and vapor barrier between existing installation and this Work.
B. Piping Insulation:
1. Insulate hot plumbing piping systems (ambient to 120°F) including hot water, hot water return, and hot drain piping with:
a. Fiberglass Pipe Insulation:

thickness	pipe size
1.0"	0" through 2"

2. Insulate supplies and drains for accessible lavatories and sinks with 3/4" premolded fiberglass insulation sections with PVC covers. Insulation shall be removable.
3. Insulate hot low pressure HVAC piping systems (steam to 15 psi, water to 250°F) including low pressure steam, steam vent, and condensate piping with:
a. Fiberglass Pipe Insulation except where otherwise indicated:

thickness	pipe size
1.5"	0" through 2"

4. Omit insulation on hot piping within unit cabinets; on condensate piping between steam trap and union; and on unions, flanges, strainers, flexible connections, and expansion joints.
5. Cover valves, fittings, and similar items in each piping system with equivalent thickness and composition of insulation as applied to adjoining pipe run. Install factory molded, precut or job fabricated mitered units (at installer's option) except where specific form or type is indicated.
6. Provide all piping insulation with all service jacket, self sealing lap, and PVC fittings covers. Vapor barrier shall be continuous. Seal all raw edges of insulation.
7. Provide all outdoor piping exposed to weather with Piping Weather Jacketing (0.016" thick aluminum) banded in place. Fastening with screws is not acceptable.
8. Extend piping insulation without interruption through walls, floors, and similar barriers except where otherwise indicated.
9. Insulation of pipes through rated walls shall conform to requirements for UL listed assembly number WL5001.
C. Ductwork Insulation
1. Insulate ductwork including all HVAC supply ductwork and all diffuser necks and backpans with:
a. Flexible Fiberglass Blanket Insulation (.75 PCF) for all concealed ductwork:

thickness	application
1.5"	cold ductwork (below ambient)
2.0"	dual temperature ductwork (above/below ambient)

2. Omit insulation on all lined return ductwork unless otherwise indicated.
3. Secure insulation to duct with mechanical fasteners on 18" centers (maximum). Seal all joints, fastener penetrations, and other breaks in vapor barrier with 3" strips of the same facing material adhered with vapor barrier adhesive. Seal all raw edges of insulation. Insulate the neck, backpan, back, and plenum of supply air diffusers so that no metal surfaces are exposed to the space above the ceiling.
4. Ductwork Exposed to Weather: Protect all ductwork insulation exposed to weather with galvanized weather cover. Weather cover shall be continuous and watertight, covering the top and sides of the duct, and terminating 2 inches below the bottom of the duct with a rain lip. Fasten weather cover to duct supports with sheetmetal screws. Seal weather cover watertight. Slope the top of the weather cover so that water does not accumulate.

3.07 Plumbing Fixture Installation
Install plumbing fixtures in accordance with the manufacturer's installation instructions. Caulk around fixture at interface with finished surface of wall or floor. Fasten fixtures to wall, floor, or carrier at concealed locations with stainless steel hardware. Fasten fixtures to wall, floor or carrier at visible locations with chrome plated hardware. Adjust plumbing fixtures and trim to provide for quiet operation during use.

3.08 Humidifier Installation
Install humidifier where indicated and in accordance with manufacturer's installation instructions. Provide space around humidifier for servicing. Support humidifier from structure independent of ductwork and piping. Provide access door in duct downstream of humidifier. Install and adjust humidifier so that vapor does not condense on the inside of ductwork.

3.09 Filter and Housing Installation:
A. Anchor filter holding frames securely to substrate. Install filters in proper position to prevent passage of unfiltered air. Position frames with sufficient clearance for normal service and maintenance.
B. Operate installed air filters to demonstrate compliance with requirements. Test for air leakage of unfiltered air while system is operating. Correct malfunctioning units at site, then retest to demonstrate compliance; otherwise remove and replace with new units and proceed with retest.
C. Provide one complete extra set of pre–filters for each air handling system. Install new filters at completion of air handling system installation, and prior to testing, adjusting, and balancing work. Obtain receipt from Owner that new filters have been installed.

3.10 Coil Installation
Install coils in accordance with manufacturer's installation instructions. Provide supply and return connections complete with shut–off valves, unions, control valves, and appurtenances as required.

3.11 General Ductwork Installation
A. Coordinate the fabrication and installation of sheet metal ductwork with all other trades, with existing conditions, and as specified or shown on the drawings.
B. Ducts, branches, and risers shall be free–flowing and air tight, constructed according to the drawings with full free area being maintained throughout, without obstructions or abrupt angles, unless otherwise specifically indicated by the drawings. If it is necessary to change the shape of any ductwork due to interference of other work, change to equal effective area as directed without extra cost. Unless shown otherwise, all transitions or angled offsets shall be less than 30° as measured from the side of duct to duct centerline.
C. Provide sheet metal angle type escutcheons where ducts penetrate walls.
D. Provide temporary closure for all ductwork openings during construction to prevent construction debris and dust from entering the systems.
E. Fabricate ducts in accordance with the SMACNA 1985 HVAC Duct Construction Standards Metal and Flexible using the 2" pressure class.
F. Install ducts in accordance with recommendations of the ASHRAE Guide, SMACNA 1985 HVAC Duct Construction Standards Metal and Flexible, NFPA 90A, and the State Fire Marshal.
G. Provide 45° entry at all rectangular branch duct take–offs.
H. Provide bell mouth entry at all round branch duct branch take–offs.
I. Joint Sealer: Seal transverse and longitudinal joints of ducts with water–based, indoor/outdoor, duct sealant manufactured by Carlisle Hardcast Duct–Seal 321 or Foster 32–19.
J. Paint the interior of all air inlet and outlet boxes and all ductwork visible through the air distribution faces with non–toxic flat black paint.
K. Install balancing dampers at all branches serving two or more outlets and elsewhere as indicated or required to adequately balance systems. Do not use register or diffuser dampers for primary balancing of the systems: use for fine tuning only. Provide all access doors required to service or adjust dampers.
L. Fabricate and install ductwork located outside the building and exposed to weather with sloped horizontal top surfaces so that water does not accumulate on the top of the ductwork.
M. Install flexible ducts in accordance with Section III of SMACNA "HVAC Duct Construction Standards, Metal and Flexible". Flexible ducts shall be supported at or near mid–length with 2" wide, 28 gauge, steel hanger collars attached to the structure with an approve duct hanger. Installation shall minimize sharp radius turns or offsets. Fasten flexible duct metal ends to ducts and devices with #10 sheetmetal screws at 4 inches on–center around the duct, minimum four sheetmetal screws per connection.
N. Flexible connections shall be installed partially compressed. Protect flexible connections installed outdoors with a galvanized steel sunshield.

3.12 Air Distribution Installation
A. Install ceiling diffusers, registers, and grilles aligned with reflected ceiling. Where diffusers, registers, and grilles are installed in a lay–in ceiling the devices shall be centered within the grid so that the reveal is equal around all sides. Support ceiling diffusers, registers, and grilles using slack galvanized wires attached to the structure and connected to tabs on the devices.

3.13 Controls
A. The installations shall be made by the control manufacturer. Upon completion, the control manufacturer shall approve the controls and control systems to verify that they are correctly installed and functioning properly.
B. Control air tubing shall be installed in concealed spaces. The entire piping system shall be tested, prior to connecting to the existing pneumatic system, by placing it under a test pressure of 20 psi for 24–hours; the pressure drop during this period shall not exceed 3 psi. Report the results of this pressure test. Support pneumatic tubing at four–foot intervals. Tubing may be supported from duct or pipe supports.
D. Controls shall operate according to the sequence on the drawings.

3.14 Labeling
Install labels upon completion of installation of piping, valves, ductwork, and equipment. Label aboveground piping with plastic pipe labels at 20–foot intervals along runs, at each valve, at each tee, at least once in every story traversed by risers, at each side of floor or wall penetrations, and at least once in or above every single room. Label belowground piping with metallic detectable labeling tape installed 6" to 8" below finish grade. Pipe label shall indicate fluid carried in pipe and direction of flow. Label valves with brass valve tags fastened to the valve with brass chain. Valve tag shall indicate valve number and fluid carried in pipe. Label ductwork with stenciled signs at 20–foot intervals along runs, at each tee, at least once in every story traversed by risers, at each side of floor or wall penetrations, and at least once in or above every single room. Duct label shall indicate supply air, return air, exhaust air, outside air, etc. and direction of flow. Label duct access doors with stenciled signs indicating requirement for access. Label each piece of equipment installed as part of this work. Equipment label shall be engraved plastic tag with 1/8 inch high lettering, fastened to the equipment with stainless steel screws. Label text shall match drawing designation for equipment or shall have designation as directed by the Owner.

3.15 Air Testing, Adjusting, and Balancing
The following complete services shall be performed by an independent testing, adjusting, and balancing agency that specializes in the testing, adjusting, and balancing of air conditioning systems and all costs therefore shall be included under this work. The agency shall be a member, in good standing, of the Associated Air Balance Council (AABC) or the National Environmental Balancing Bureau (NEBB). The instruments used for testing, adjusting, and balancing shall have been calibrated within a period of six (6) months prior to the start of balancing this project and be so certified. Submit agency data demonstrating compliance with the specifications including current certificates from the national association. The testing, adjusting, and balancing work shall be performed in accordance with the procedures described in the AABC Test and Balance Procedures, as published by AABC and shall include, but not necessarily be limited to the following:
A. Prior to demolition test and report the air quantity from each existing air distribution device shown on the Drawings. Schedule this work with the Owner so that the Owner can confirm that the equipment is at optimum performance. Submit report prior to installation of this Work.
B. Test and adjust each diffuser, grille, and register shown on the Drawings to within 5–percent of design requirements. Tabulate test data and identify each grille, diffuser, and register as to location and area. Adjust each diffuser and supply register and revise air discharge arrangement to minimize drafts. Adjust each diffuser, grille, and register to minimize noise produced by the HVAC system.
C. Test and adjust each fan, air–handling unit, and air conditioning unit to achieve air quantities indicated. Tabulate data and report results.
D. Make all necessary control adjustments and balancing of flows, and then operate each system for a period of not less than two (2) working days for the purpose of providing satisfactory performance. Should further adjustment prove necessary, repeat operating tests until a complete satisfactory test is obtained.
E. Test the operation of the temperature and humidity controls. Verify the controls maintain the setpoints. Record setpoint setting and actual conditions for each control device. Vary the setpoints by plus and minus 10–percent and repeat readings. Report results.
F. Furnish all necessary labor, materials, and equipment for conducting tests and pay all expenses in connection therewith. Should problems develop during testing, test shall be repeated after repairs have been made until satisfactory test obtained.
G. Report the result of all tests. Submit minimum of six (6) copies of an air balance report indicating the results of all tests and the final flow quantities for each device. Report shall be signed by the Contractor certifying the results are accurate.
H. It is the intent of this paragraph to include and provide all labor, equipment, instruments, and materials required to adjust, balance, regulate, and check the system. Fan speeds shall be adjusted to suit actual conditions and to deliver required air quantities to the space. Balancing dampers and other appurtenances required to secure the proper conditions shall be supplied at no additional cost to the Owner as part of this Work. Temperature controls shall be completely checked and all necessary adjustments shall be made to ensure proper operation and control.

3.16 Potable Water System Testing
Flush the potable water systems thoroughly and then test all water outlets and confirm that the water delivered is potable. Tests shall include every sink, lavatory, drinking fountain, and other fixture, installed or relocated by this project, where water can be consumed. Draw a sample from each fixture, label each sample, and test for potability. Testing shall be performed by a laboratory approved for potability testing. Report results of testing by listing the results for each fixture tested. Submit report for review and acceptance. Should the tests indicate that the water system sterilization is required, perform sterilizing using the procedures described in AWWA C651–92. Repeat the water potability tests and report the results.

End of Section

O.S.H.P.D. PROJECT # SL 101318–56
REVIEWED IN ACCORDANCE WITH
THE REQUIREMENTS OF T24, CCR
APPROVED
APR 05 2011
Office of Statewide Health
Planning & Development
FACILITIES DEVELOPMENT DIVISION

COUNTY OF VENTURA
PUBLIC WORKS AGENCY
ENGINEERING SERVICES DEPARTMENT

PROJECT MANAGER

SPEC. NUMBER CP11–05	SHEET 23 OF 31
PROJECT NUMBER ENT11103	DRAWING NUMBER 11357/

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STATE OF CALIFORNIA
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LICENSED ARCHITECT
JAY LOMAGNO
C–20801
REN. 12–31–11
STATE OF CALIFORNIA

Sheet Title: SPECIFICATIONS

Revisions		
12–29–10 OSHPD CORR.	R&A No:	000443
3–30–11 OSHPD CORR.	Date:	06–01–10
	Drawn:	
	Checked:	
	Consult. No:	

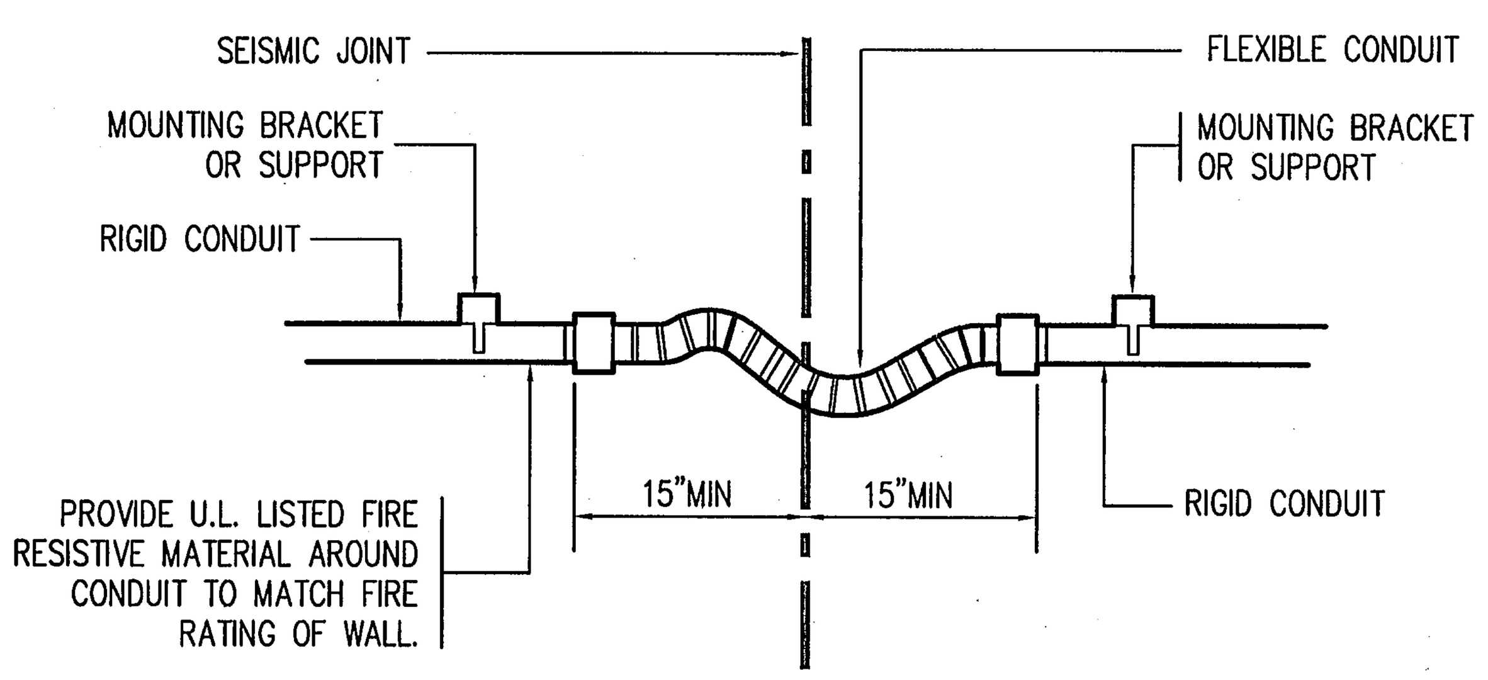
MAMMOGRAPHY ROOMS
& NEEDLE BIOPSY ROOM
VENTURA COUNTY MEDICAL CENTER
3291 LOMA VISTA ROAD
VENTURA, CALIFORNIA

Sheet No.
M5.1

TYPE	MANUFACTURER	CATALOG NUMBER ①②③④	DESCRIPTION ①③④⑤	LAMP ⑥ TYPE	LAMP ⑥ QUAN/ WATTS	INPUT WATTS (VA)	MOUNTING (WEIGHT – LBS.)
A	H.E. WILLIAMS LITHONIA OR EQUAL	50G-S24-232-RA12125-DIMMING-UNV 2SP8-G-232-RWA12125-MVOLT-DIMMING BALLAST	2' X 4' 2-LAMP, TYPE G, FLUORESCENT LUMINAIRE WITH STEEL HOUSING, WHITE BAKED ENAMEL FINISH, ACRYLIC LENS, REGRESSED MITERED WHITE ALUMINUM DOOR FRAME INCLUDING SPRING-LOADED STEEL LATCHES, (1) 2-LAMP ELECTRONIC DIMMING BALLAST. BALLAST SHALL BE LUTRON HI-LUME 3D UNIVERSAL VOLTAGE #H3D T832 C UNV 2 10, OR EQUAL, NO KNOWN EQUAL.	F32T8 SPX35	2/32	67	RECESSED (22 LBS)
A1	H.E. WILLIAMS LITHONIA OR EQUAL	50G-S24-432-RA12125-DIMMING-UNV 2SP8-G-432-RWA12125-MVOLT-DIMMING BALLAST	2' X 4' 4-LAMP, TYPE G, FLUORESCENT LUMINAIRE WITH STEEL HOUSING, WHITE BAKED ENAMEL FINISH, ACRYLIC LENS, REGRESSED MITERED WHITE ALUMINUM DOOR FRAME INCLUDING SPRING-LOADED STEEL LATCHES, (2) 2-LAMP ELECTRONIC DIMMING BALLASTS. BALLAST SHALL BE LUTRON HI-LUME 3D UNIVERSAL VOLTAGE #H3D T832 C UNV 2 10, OR EQUAL.	F32T8 SPX35	4/32	134	RECESSED (22 LBS)
A2	H.E. WILLIAMS LITHONIA OR EQUAL	50G-S24-232-RA12125-EB2-UNV 2SP8-G-232-RWA12125-MVOLT-GEB10IS	2' X 4' 2-LAMP, TYPE G, FLUORESCENT LUMINAIRE WITH STEEL HOUSING, WHITE BAKED ENAMEL FINISH, ACRYLIC LENS, REGRESSED MITERED WHITE ALUMINUM DOOR FRAME INCLUDING SPRING-LOADED STEEL LATCHES, (1) 2-LAMP ELECTRONIC BALLAST. ELECTRONIC BALLAST SHALL BE ADVANCE IOP-2P32-SC, UNIVERSAL B232IUNVHP-B, OR EQUAL.	F32T8 SPX35	2/32	60	RECESSED (22 LBS)
B	H.E. WILLIAMS LITHONIA OR EQUAL	PHSQ12-226Q-EB LAF-2/26DTT-12FW-T73-MVOLT-BDP	12" SQUARE DOWN LIGHT, RECESSED MOUNTED, FLUSH WHITE DOOR, TEMPERED PRISMATIC LENS, AND ELECTRONIC BALLAST. ELECTRONIC BALLAST SHALL BE ADVANCE ICF-2S42-M2, UNIVERSAL C242UNV, OR EQUAL.	26DTT SPX35	2/26	55	RECESSED
B1	H.E. WILLIAMS LITHONIA OR EQUAL	PHSQ12-232T-EB LAF-2/32TRT-12FW-T73-MVOLT-BDP	12" SQUARE DOWN LIGHT, FLUSH WHITE DOOR, TEMPERED PRISMATIC LENS, AND ELECTRONIC BALLAST. ELECTRONIC BALLAST SHALL BE ADVANCE ICF-2S420M2, UNIVERSAL C242UNV, OR EQUAL.	32TRT SPX35	2/32	72	RECESSED
C	H.E. WILLIAMS LITHONIA OR EQUAL	76-4-232-WG11-EB2-277 C232 MV	GENERAL PURPOSE STRIP LIGHT, 48" LENGTH, SURFACE MOUNTED, (1) 2-LAMP ELECTRONIC BALLAST. ELECTRONIC BALLAST SHALL BE ADVANCE IOP-2P32-SC, UNIVERSAL B232IUNVHP-B, OR EQUAL. LUMINAIRE SHALL BE LOCATED IN ARCHITECTURAL LIGHT COVE. COORDINATE LOCATION WITH TOILET ROOM LIGHT COVE DETAIL ON ARCHITECTURAL SHEETS.	F32T8 SPX35	2/32	60	SURFACE
C1	H.E. WILLIAMS LITHONIA OR EQUAL	76-3-225-WG11-EB2-277 C225 MV	GENERAL PURPOSE STRIP LIGHT, 36" LENGTH, SURFACE MOUNTED, (1) 2-LAMP ELECTRONIC BALLAST. ELECTRONIC BALLAST SHALL BE ADVANCE IOP-2P32-SC, UNIVERSAL B232IUNVHP-B, OR EQUAL. LUMINAIRE SHALL BE LOCATED IN ARCHITECTURAL LIGHT COVE. COORDINATE LOCATION WITH TOILET ROOM LIGHT COVE DETAIL ON ARCHITECTURAL SHEETS.	F25T8 SPX35	2/25	48	SURFACE

1. PRIOR TO BIDDING, CONTRACTOR SHALL DETERMINE CEILING CONSTRUCTION AND MOUNTING REQUIREMENTS FOR EACH LUMINAIRE AT EACH LOCATION, INCLUDING THOSE LUMINAIRES WHERE CEILING TYPE IS INDICATED.
2. SEE DESCRIPTION.
3. SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
4. CATALOG NUMBER AND DESCRIPTIONS SHALL BE VERIFIED BY CONTRACTOR PRIOR TO SUBMISSION OF SHOP DRAWINGS. ANY CONFLICTS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT.
5. ALL FLUORESCENT BALLASTS SHALL BE CERTIFIED BY THE STATE OF CALIFORNIA.
6. ALL LAMPS SHALL BE OF TYPE AND HAVE LAMP BASE COMPATIBLE WITH LAMP SOCKET AND LUMINAIRE.
7. THE CATALOG NUMBERS SHOWN FOR LAMP TYPE ARE AS LISTED BY GENERAL ELECTRIC AND CAN BE CROSS REFERENCED TO CATALOG NUMBERS AS LISTED BY SYLVANIA.

(23) LUMINAIRE SCHEDULE



FLEXIBLE CONDUITS SHALL BE INSTALLED WITH SUFFICIENT FLEXIBILITY TO ACCOMMODATE MOTION EQUAL TO OR GREATER THAN THE DEPTH OF THE SEISMIC JOINT IN ALL DIRECTIONS. THE INSTALLED CONDUITS SHALL ALSO INCLUDE FLEXIBILITY TO ACCOMMODATE THE MAXIMUM DIFFERENTIAL SETTLEMENT IN A VERTICAL DIRECTION. PROVIDE PULL POINT AT EACH END OF THE FLEXIBLE PORTION OF THE CONDUIT RUN WHENEVER THE TOTAL BENDS BETWEEN PULL POINTS IN THE RUN ARE GREATER THAN 270 AND LESS THAN 360°

(24) CONDUIT AT SEISMIC JOINT

NTS

ONE LINE DIAGRAM SYMBOL LIST

(X) DESIGNATION FOR OCPD OR DISCONNECTION EQUIPMENT BY CIRCUIT NUMBER OR LETTER. M=MAIN, B=BRANCH CIRCUIT DEVICE, F=FEEDER.

AF (B) AT 3P — MOLDED CASE CIRCUIT BREAKER. AF=FRAME SIZE, AT=TRIP RATING, P=NUMBER OF POLES, A=AMP RATING.

KVA (T) — TRANSFORMER WITH PRIMARY AND SECONDARY VOLTAGES, PHASES, AND KVA RATING AS INDICATED.

THE NUMBERS IN THE LOAD COLUMN OF THE PANEL SCHEDULES REFER TO THE CATEGORY NUMBERS IDENTIFIED BELOW. DEMAND FACTORS ARE APPLIED BASED ON THE 2001 CALIFORNIA ELECTRICAL CODE SECTION LISTED FOR EACH CATEGORY. THE PANEL SCHEDULE CALCULATED LOAD IS DETERMINED BY SUBTRACTING FROM THE CONNECTED LOAD THE AMOUNT ALLOWED BY CATEGORIES 2, 4, 7, AND 8. THE CONDUCTOR LOAD IS DETERMINED BY ADDING THE AMOUNTS REQUIRED BY CATEGORIES 1, 3, 6, AND 9 TO THE CALCULATED LOAD.

1. CONTINUOUS LOAD (CEC 215-3)
2. RECEPTACLE LOAD (CEC 220-13)
3. MOTOR LOAD (CEC 220-14)
4. KITCHEN EQUIPMENT LOAD (CEC 220-20)
5. CONNECTED LOAD (NON-CONTINUOUS LOAD WITH NO DEMAND FACTOR)
6. METERED LOAD (CEC 220-35(2))
7. ELEVATOR LOAD (CEC 620-14)
8. X-RAY EQUIPMENT DEMAND (CEC 517-73)

(20) PANEL SCHEDULE LOAD CATEGORY DESCRIPTIONS

PLAN SYMBOL LIST

- 1/2"C. 2-12AWG & 1-12AWGG
- 1/2"C. 3-12AWG & 1-12AWGG
- 3/4"C. 4-12AWG & 1-12AWGG
- 3/4"C. 5-12AWG & 1-12AWGG
- 3/4"C. 6-12AWG & 1-12AWGG
- 3/4"C. 7-12AWG & 1-12AWGG
- 1"C. 8-12AWG & 1-12AWGG
- 1"C. 9-12AWG & 1-12AWGG

A-1,3 — CONDUIT HOME RUN WITH 3-12AWG & 1-12AWGG TO PANEL "A", CIRCUITS 1 AND 3.
CONDUIT RUN CONCEALED IN OR ABOVE CEILING, OR IN WALLS.
CONDUIT RUN IN OR BELOW FLOOR, OR BELOW GRADE.
CONDUIT RUN EXPOSED.
CONDUIT RISER DOWN.
CONDUIT RISER UP.
CONDUIT RUN STUBBED OUT, MARKED AND CAPPED.
F — FIRE ALARM SYSTEM CONDUIT. 1/2"C. 1-18TSP CABLE UON.
N — NURSE CALL SYSTEM CONDUIT. 1/2"C. 1-2/C 22AWG WEST PENN 221 & 1-5/C 22AWG WEST PENN 280 OR EQUAL, UON.
FLEXIBLE CONDUIT.
DOTTED LINE INDICATES EQUIPMENT TO BE REMOVED UON.
JUNCTION BOX WITH BLANK FACEPLATE. JUNCTION BOX SHALL BE CONCEALED UON.
JUNCTION BOX WITH BLANK FACEPLATE FLUSH WALL MOUNTED AT +18"UON.
S ab — SINGLE POLE TOGGLE SWITCH IN FLUSH WALL OUTLET BOX UON. SUBSCRIPTS INDICATE OUTLETS CONTROLLED AND A GANGED ASSEMBLY WITH A SWITCH OF THE TYPE INDICATED FOR EACH SUBSCRIPT. +42" UON.
OS — OCCUPANCY SENSOR IN FLUSH WALL OUTLET BOX AT +42"UON.
D — FLUORESCENT DIMMER IN FLUSH WALL OUTLET BOX AT +42"UON.
OS — OCCUPANCY SENSOR IN FLUSH CEILING OUTLET BOX UON.
DUPLEX RECEPTACLE CONNECTED TO A NORMAL SYSTEM CIRCUIT IN A FLUSH WALL OUTLET BOX AT +18" UON.
DUPLEX RECEPTACLE CONNECTED TO AN EMERGENCY SYSTEM CIRCUIT IN A FLUSH WALL OUTLET BOX AT +18" UON.
GFCI DUPLEX RECEPTACLE CONNECTED TO A NORMAL SYSTEM CIRCUIT IN A FLUSH WALL OUTLET BOX AT +18" UON.
GFCI DUPLEX RECEPTACLE CONNECTED TO AN EMERGENCY SYSTEM CIRCUIT IN A FLUSH WALL OUTLET BOX AT +18" UON.
SPECIAL RECEPTACLE IN A FLUSH WALL OUTLET BOX AT +18" UON.
ELECTRICAL BRANCH CIRCUIT PANELBOARD, FLUSH MOUNTED. BAR DENOTES DOOR SIDE OF FLUSH MOUNTED PANEL.
FLUORESCENT LUMINAIRE FLUSH, SURFACE, OR PENDANT MOUNTED AS INDICATED WITH OUTLET BOX MOUNTED ADJACENT TO LUMINAIRE.
FLUORESCENT STRIP LUMINAIRE SURFACE MOUNTED ON FLUSH OUTLET BOX.
INCANDESCENT, HID, OR COMPACT FLUORESCENT FLUSH CEILING MOUNTED LUMINAIRE WITH ADJACENT OUTLET BOX UON.
INDICATES LUMINAIRE CONNECTED TO EMERGENCY CIRCUIT.
TELEPHONE OUTLET IN FLUSH WALL OUTLET BOX WITH SINGLE GANG RING AT +9" UON. STUB 3/4"CO INTO ACCESSIBLE CEILING SPACE.
DATA OUTLET IN FLUSH WALL OUTLET BOX WITH SINGLE GANG RING AT +18" UON. STUB 3/4"CO INTO ACCESSIBLE CEILING SPACE.
S — PAGING SYSTEM SPEAKER IN FLUSH CEILING MOUNTED BACK BOX.
VC — PAGING SYSTEM VOLUME CONTROL IN FLUSH WALL OUTLET BOX UON.
CLOCK ON FLUSH WALL MOUNTED SPECIAL BACK BOX UON.
NURSE CALL SYSTEM TOILET CALL STATION IN FLUSH WALL OUTLET BOX AT +28" UON.
NURSE CALL SYSTEM CORRIDOR LIGHT IN FLUSH WALL OUTLET BOX AT +90" UON.
FIRE ALARM SYSTEM SMOKE DETECTOR SURFACE MOUNTED ON A FLUSH CEILING OUTLET BOX UON.
FIRE ALARM SYSTEM HEAT DETECTOR SURFACE MOUNTED ON A SURFACE OUTLET BOX IN THE ACCESSIBLE CEILING SPACE UON.
FIRE ALARM SYSTEM MANUAL PULL STATION ON FLUSH WALL OUTLET BOX WITH COMBINATION CHIME/STROBE ON FLUSH OUTLET BOX ABOVE UON.
FIRE ALARM SYSTEM COMBINATION CHIME/STROBE ON FLUSH OUTLET BOX AT +86" UON.
FIRE ALARM SYSTEM STROBE ON FLUSH OUTLET BOX AT +86" UON.
10/E7 — THE TOP NUMBER INDICATES THE DETAIL REFERENCED AND THE BOTTOM NUMBER INDICATES THE SHEET NUMBER.
(A) — CALL-OUT DESIGNATES LUMINAIRE TYPE. REFER TO LUMINAIRE SCHEDULE FOR SPECIFICATIONS.

PROVIDE HANGERS, SUPPORTS, SEISMIC RESTRAINTS AND/OR BRACING FOR ALL EQUIPMENT, PIPING, DUCTWORK, AND CONDUIT TO SUSTAIN VERTICAL LOADS AND RESIST HORIZONTAL FORCES IN ANY DIRECTION TO COMPLY WITH 2007 EDITION OF TITLE 24, PART 2, CALIFORNIA BUILDING CODE AND THE 2005 EDITION OF ASCE 7 CHAPTER 13.

PIPES, DUCTS, AND CONDUITS SHALL BE SUPPORTED AND BRACED PER OSHPD PRE-APPROVAL NO. OPA-0349 THE 'MASON INDUSTRIES SEISMIC RESTRAINT GUIDELINES,' NO. OPA-0242 THE 'POWERSTRUT SEISMIC RESTRAINT SYSTEM,' OR NO. OPA-0114 THE 'B-LINE SEISMIC RESTRAINT SYSTEM' FOR PIPES AND CONDUITS ONLY. A COPY OF THE OSHPD PRE-APPROVED DOCUMENTS SHALL BE AT THE JOB SITE AT ALL TIMES. INSTALLATION OF THIS EQUIPMENT MUST BE DONE IN STRICT ACCORDANCE WITH THE PRE-APPROVED DOCUMENTS.

LAYOUT DRAWINGS, SHOWING THE BRACING/SUPPORT LOCATIONS AND REFERENCES TO DETAILS FROM THE RELEVANT OSHPD PRE-APPROVALS FOR PIPING/DUCTS/CONDUITS EXCEPT FIRE SPRINKLERS, SHALL BE SUBMITTED FOR USE BY THE IOR AND OFFICE FIELD STAFF. THE LAYOUT DRAWINGS SHALL BE REVIEWED AND ACCEPTED BY THE AOR AND EOR (SE AND/OR ME/EE) PRIOR TO START OF INSTALLATION OF THE BRACING/SUPPORT. IOR SHALL ENSURE THE ABOVE REQUIREMENTS ARE SATISFIED.

ANCHORAGE OF ALL EQUIPMENT TO BE INSTALLED, AS A PART OF THIS PROJECT SHALL BE DETAILED ON THESE PLANS, EXCEPT FOR THE FOLLOWING:
1. EQUIPMENT WEIGHING LESS THAN 400 POUNDS SUPPORTED DIRECTLY ON THE FLOOR OR ROOF.
2. BLANK
3. TEMPORARY OR MOVABLE EQUIPMENT.
4. EQUIPMENT WEIGHING LESS THAN 20 POUNDS SUPPORTED BY VIBRATION ISOLATORS.
5. EQUIPMENT WEIGHING LESS THAN 20 POUNDS SUSPENDED FROM A ROOF OR FLOOR OR HUNG FROM A WALL.

PERMANENT EQUIPMENT IN ITEMS 1, 4, AND 5 MUST BE SUPPORTED AND ANCHORED TO RESIST THE FORCES PRESCRIBED BY CHAPTER 13 AND THE ANCHORAGE SHALL BE APPROVED BY THE APPROPRIATE DESIGN PROFESSIONAL OF RECORD AND OSHPD AS A PART OF FIELD REVIEWS/OBSERVATIONS. THE INSPECTOR OF RECORD SHALL ASSURE THAT THE ABOVE REQUIREMENTS ARE ENFORCED.

EXPANSION ANCHORS FOR USE IN CONCRETE IN DRY LOCATIONS SHALL BE HILTI CARBON STEEL KWIK BOLT TZ WEDGE ANCHORS OR APPROVED EQUAL. EXPANSION ANCHORS FOR USE IN CONCRETE IN DAMP AND WET LOCATIONS SHALL BE HILTI STAINLESS STEEL KWIK BOLT TZ WEDGE ANCHORS OR APPROVED EQUAL. ALLOWABLE SHEAR AND TENSION VALUES IN POUNDS FOR EACH ANCHOR SHALL BE 80% OF THE VALUES SHOWN IN THE 2004 ISSUE OF ICBO REPORT NO. ESR-1917. PROVIDE ANCHORS OF DIAMETER AND MINIMUM EMBEDMENT INDICATED. DRY LOCATIONS ARE DEFINED AS LOCATIONS NOT NORMALLY SUBJECT TO DAMPNESS OR WETNESS. DAMP LOCATIONS ARE DEFINED AS PARTIALLY PROTECTED LOCATIONS UNDER CANOPIES, MARQUEES, ROOFED PORCHES, AND LIKE LOCATIONS AND INTERIOR LOCATIONS SUBJECT TO MODERATE DEGREES OF MOISTURE, SUCH AS SOME BASEMENTS. WET LOCATIONS ARE DEFINED AS INSTALLATIONS UNDERGROUND OR IN CONCRETE SLABS OR MASONRY IN DIRECT CONTACT WITH THE EARTH, LOCATIONS SUBJECT TO SATURATION WITH WATER OR OTHER LIQUIDS, AND LOCATIONS EXPOSED TO WEATHER AND UNPROTECTED.

PROOF LOAD TEST FOR WEDGE TYPE CONCRETE ANCHOR BOLTS: WHERE CONCRETE ANCHOR BOLTS OF THE WEDGE EXPANSION TYPE ARE LOADED IN PULLOUT OR SHEAR, 50% OF THE BOLTS (ALTERNATE BOLTS IN ANY GROUP ARRANGEMENT) SHALL BE PROOF TESTED AT LEAST 24 HOURS AFTER INSTALLATION IN THE PRESENCE OF PROJECT INSPECTOR TO THE TEST VALUES LISTED FOR THE PARTICULAR ANCHOR. APPLY PROOF TEST LOAD TO WEDGE ANCHOR WITHOUT REMOVING THE NUT IF POSSIBLE. IF NOT, REMOVE NUT AND INSTALL A THREADED COUPLER TO THE SAME TIGHTNESS AS THE ORIGINAL NUT USING A TORQUE WRENCH AND APPLY LOAD. THE ANCHOR SHALL HAVE NO OBSERVABLE MOVEMENT AT THE APPLICABLE TEST LOAD. IF ANY BOLTS FAIL THE PROOF LOAD TEST, TEST ALL ANCHOR BOLTS OF THE SAME TYPE, INSTALLED BY THE SAME TRADE, AND NOT PREVIOUSLY TESTED, UNTIL 20 CONSECUTIVE ANCHORS PASS, THEN RESUME INITIAL TEST FREQUENCY.

MATERIAL: HARD ROCK OR LIGHTWEIGHT CONCRETE
TEST: DIRECT PULL TENSION OR TORQUE

BOLT DIAMETER (INCHES):	1/4	3/8	1/2	5/8	3/4	1
TENSION VALUE (LBS):	800	1100	2000	2300	3700	5800
TORQUE VALUE (FT-LBS):	10	25	50	80	150	250

THE ABOVE VALUES ARE BASED ON CODE APPLICATION NOTICE 2-1925B.3.5 DATED AUGUST 26, 2002.

WHEN INSTALLING DRILLED-IN ANCHORS IN EXISTING NON-PRESTRESSED REINFORCED CONCRETE, USE CARE AND CAUTION TO AVOID CUTTING OR DAMAGING THE EXISTING REINFORCING BARS. MAINTAIN A MINIMUM CLEARANCE OF ONE INCH BETWEEN THE REINFORCEMENT AND THE DRILLED-IN ANCHOR.

(8) SEISMIC NOTES

Electrical Abbreviations

AWGG	AMERICAN WIRE GAGE GROUND CONDUCTOR, SIZE AS INDICATED.
CO	CONDUIT ONLY WITH NYLON PULLROPE
EX	EXISTING
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
MH=90"	INDICATES HEIGHT TO BOTTOM OF LUMINAIRE
NTS	NOT TO SCALE
UON	UNLESS OTHERWISE NOTED
+XX"	INDICATES HEIGHT TO CENTER OF OUTLET BOX

O.S.H.P.D. PROJECT # SL 101318-56
REVIEWED IN ACCORDANCE WITH THE REQUIREMENTS OF T24, CCR
APPROVED
APR 05 2011
Office of Statewide Health Planning & Development FACILITIES DEVELOPMENT DIVISION

COUNTY OF VENTURA
PUBLIC WORKS AGENCY
ENGINEERING SERVICES DEPARTMENT

PROJECT MANAGER

SPEC. NUMBER CP11-05	SHEET 24 OF 31
PROJECT NUMBER ENT11103	DRAWING NUMBER 113572

IRJ ENGINEERS, INC.
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RASMUSSEN & ASSOCIATES
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21 S. California Street Fourth Floor Ventura, California 93001 (805) 648-1234

Sheet Title: SYMBOL LISTS, LUMINAIRE SCHEDULE, SEISMIC NOTES

Revisions	
12-29-10 OSHPD CORR	R&A No: 000443
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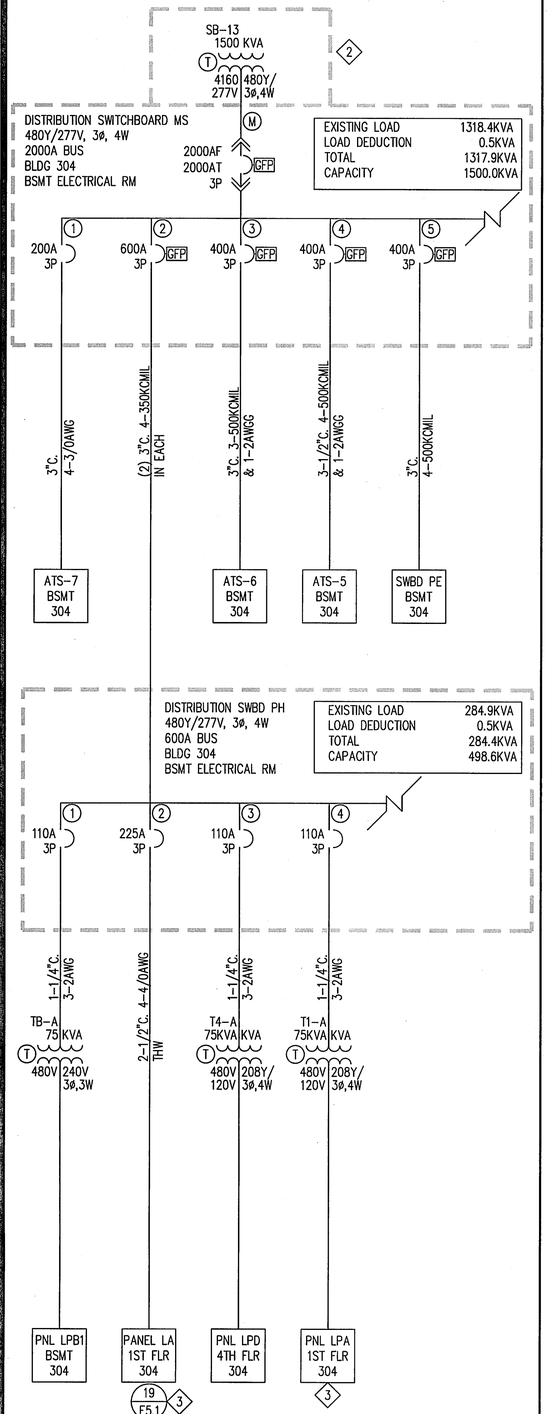
MAMMOGRAPHY ROOMS & NEEDLE BIOPSY ROOM
VENTURA COUNTY MEDICAL CENTER
3291 LOMA VISTA ROAD
VENTURA, CALIFORNIA

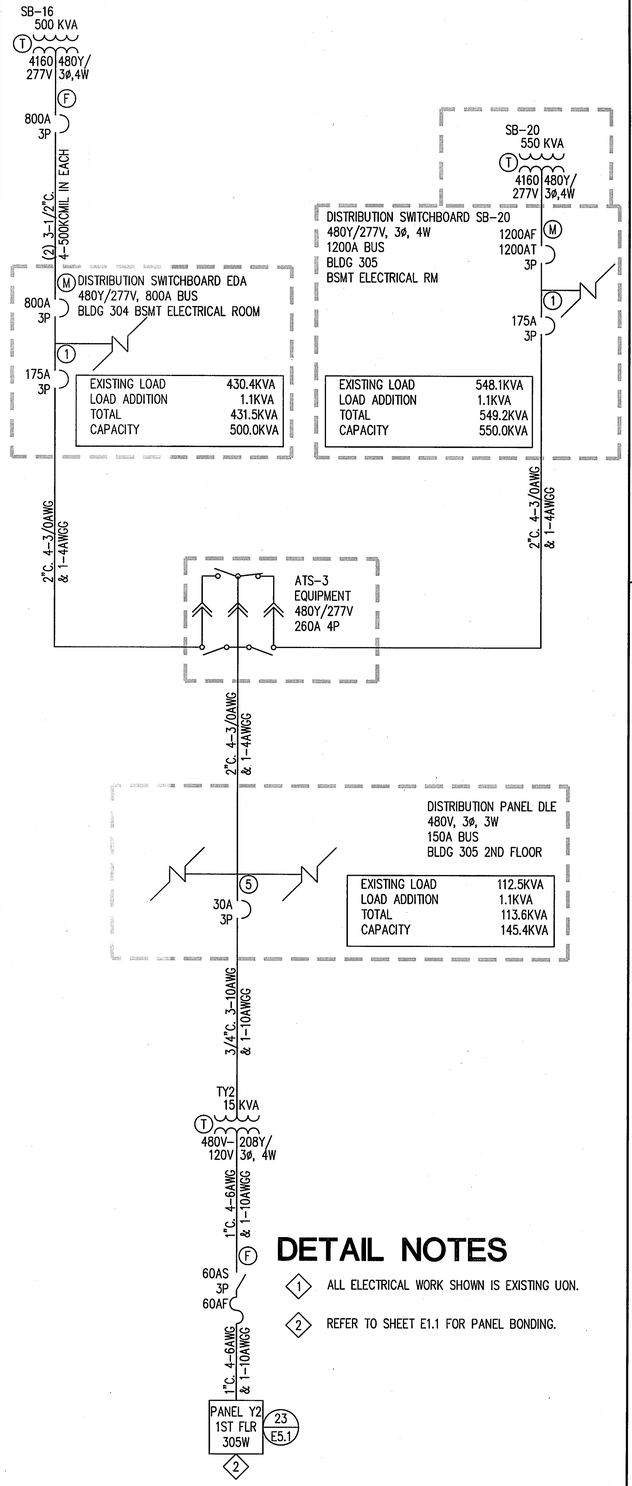
Sheet No.
E0.1



DETAIL NOTES

1. ALL ELECTRICAL WORK SHOWN IS EXISTING UON.
2. SB-13 IS SERVED FROM A NON-SEGREGATED ESSENTIAL SYSTEM TRANSFER SWITCH.
3. REFER TO SHEET E1.1 FOR PANEL BONDING.

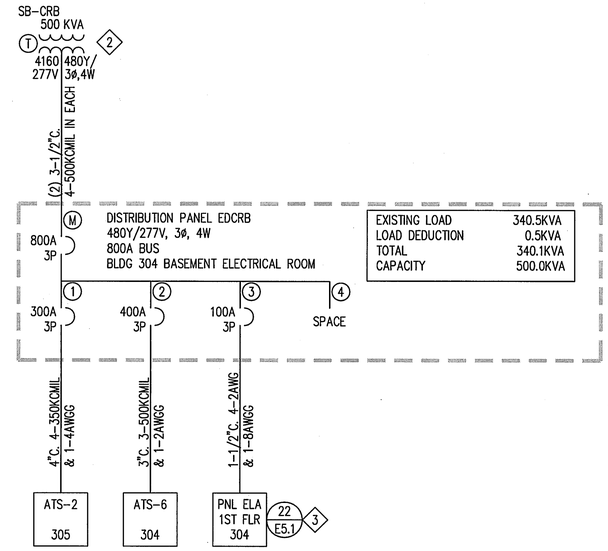
(24) PARTIAL SB-13 ONE LINE DIAGRAM ◇1



DETAIL NOTES

1. ALL ELECTRICAL WORK SHOWN IS EXISTING UON.
2. REFER TO SHEET E1.1 FOR PANEL BONDING.

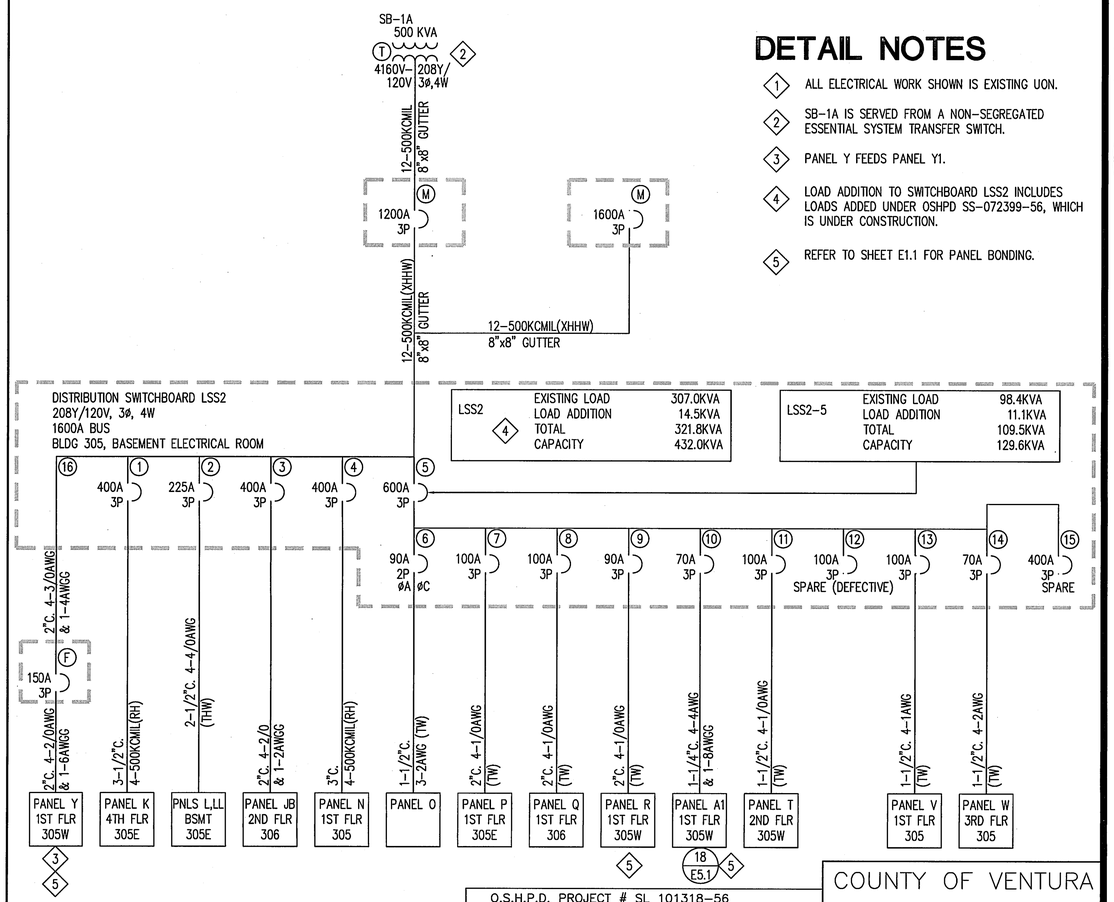
(20) PARTIAL SB-16 AND SB-20 ONE LINE DIAGRAM ◇1



DETAIL NOTES

1. ALL ELECTRICAL WORK SHOWN IS EXISTING UON.
2. SB-CRB IS SERVED FROM A MEDIUM VOLTAGE CRITICAL BRANCH TRANSFER SWITCH.
3. REFER TO SHEET E1.1 FOR PANEL BONDING.

(14) PARTIAL SB-CRB ONE LINE DIAGRAM ◇1



DETAIL NOTES

1. ALL ELECTRICAL WORK SHOWN IS EXISTING UON.
2. SB-1A IS SERVED FROM A NON-SEGREGATED ESSENTIAL SYSTEM TRANSFER SWITCH.
3. PANEL Y FEEDS PANEL Y1.
4. LOAD ADDITION TO SWITCHBOARD LSS2 INCLUDES LOADS ADDED UNDER OSHPD SS-072399-56, WHICH IS UNDER CONSTRUCTION.
5. REFER TO SHEET E1.1 FOR PANEL BONDING.

(16) PARTIAL SB-1A ONE LINE DIAGRAM ◇1

O.S.H.P.D. PROJECT # SL 101318-56

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APPROVED

APR 05 2011

Office of Statewide Health Planning & Development FACILITIES DEVELOPMENT DIVISION

COUNTY OF VENTURA
PUBLIC WORKS AGENCY
ENGINEERING SERVICES DEPARTMENT

PROJECT MANAGER	
SPEC. NUMBER CP11-05	SHEET 25 OF 31
PROJECT NUMBER ENT11103	DRAWING NUMBER 113973

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REGISTERED PROFESSIONAL ENGINEER — JACK V. IRJ — No. 12824 — 9/11 — ELECTRICAL — STATE OF CALIFORNIA

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REGISTERED ARCHITECT — JAY C. DOMINGO — No. B2801 — EXP. 12-31-11 — STATE OF CALIFORNIA

Sheet Title: PARTIAL ONE LINE DIAGRAMS

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MAMMOGRAPHY ROOMS & NEEDLE BIOPSY ROOM
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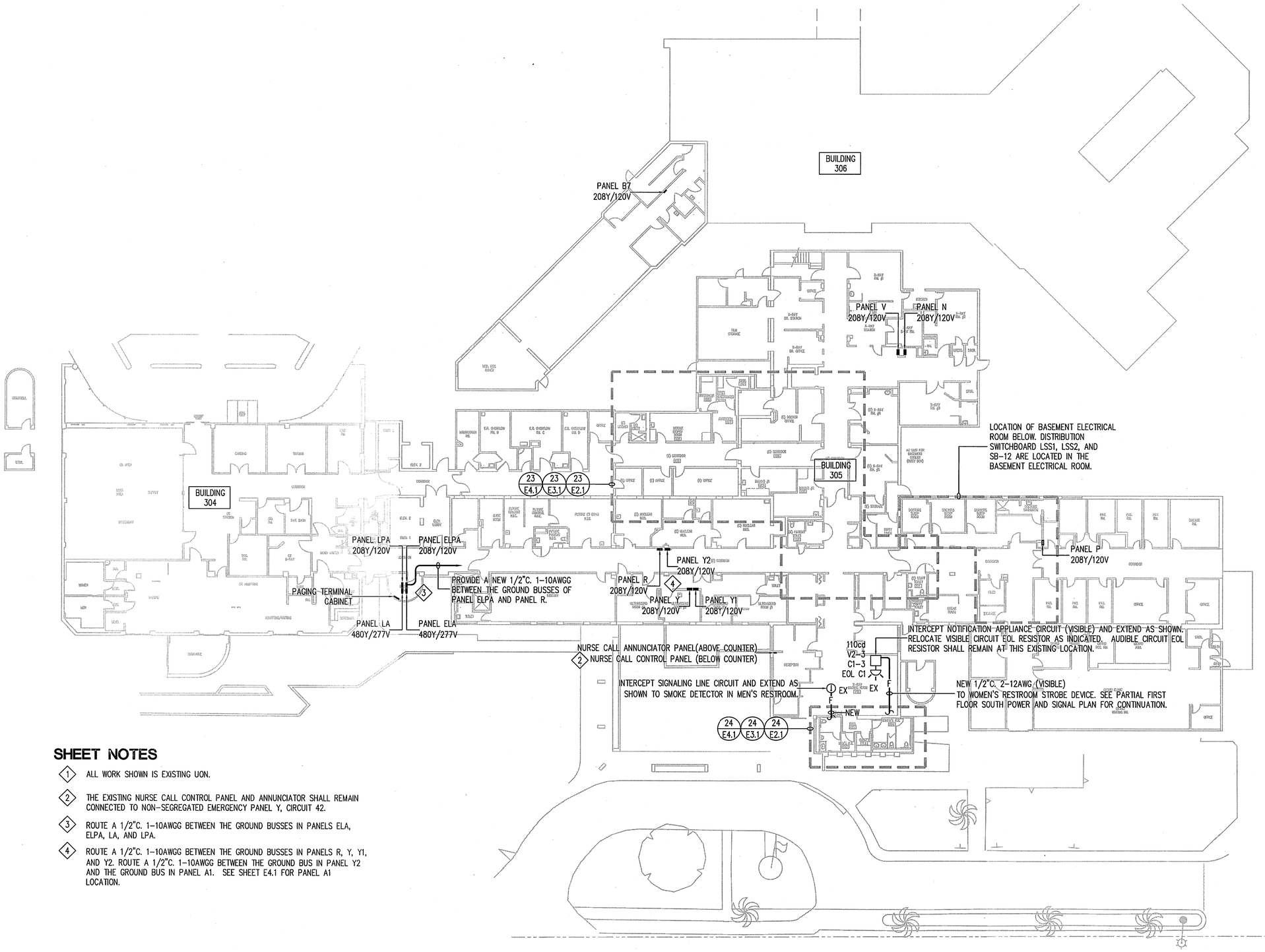
3291 LOMA VISTA ROAD
VENTURA, CALIFORNIA

Sheet No. E0.2



SHEET NOTES

1. ALL WORK SHOWN IS EXISTING UON.
2. THE EXISTING NURSE CALL CONTROL PANEL AND ANNUNCIATOR SHALL REMAIN CONNECTED TO NON-SEGREGATED EMERGENCY PANEL Y, CIRCUIT 42.
3. ROUTE A 1/2"C. 1-10AWGG BETWEEN THE GROUND BUSSES IN PANELS ELA, ELPA, LA, AND LPA.
4. ROUTE A 1/2"C. 1-10AWGG BETWEEN THE GROUND BUSSES IN PANELS R, Y, Y1, AND Y2. ROUTE A 1/2"C. 1-10AWGG BETWEEN THE GROUND BUS IN PANEL Y2 AND THE GROUND BUS IN PANEL A1. SEE SHEET E4.1 FOR PANEL A1 LOCATION.

24 FIRST FLOOR ELECTRICAL PLAN 1

SCALE 1/16" = 1' - 0"

16 8 0 32
12 4 16

N

O.S.H.P.D. PROJECT # SL 101318-56

REVIEWED IN ACCORDANCE WITH THE REQUIREMENTS OF T24, CCR
APPROVED
APR 05 2011
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FACILITIES DEVELOPMENT DIVISION

COUNTY OF VENTURA
PUBLIC WORKS AGENCY
ENGINEERING SERVICES DEPARTMENT

PROJECT MANAGER	
SPEC. NUMBER CP11-05	SHEET 26 OF 31
PROJECT NUMBER ENT11103	DRAWING NUMBER 113574

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LICENSED ARCHITECT
JAY LOMAGNO
C-22801
REN. 12-31-11
STATE OF CALIFORNIA

Sheet FIRST FLOOR ELECTRICAL PLAN
Title

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MAMMOGRAPHY ROOMS & NEEDLE BIOPSY ROOM
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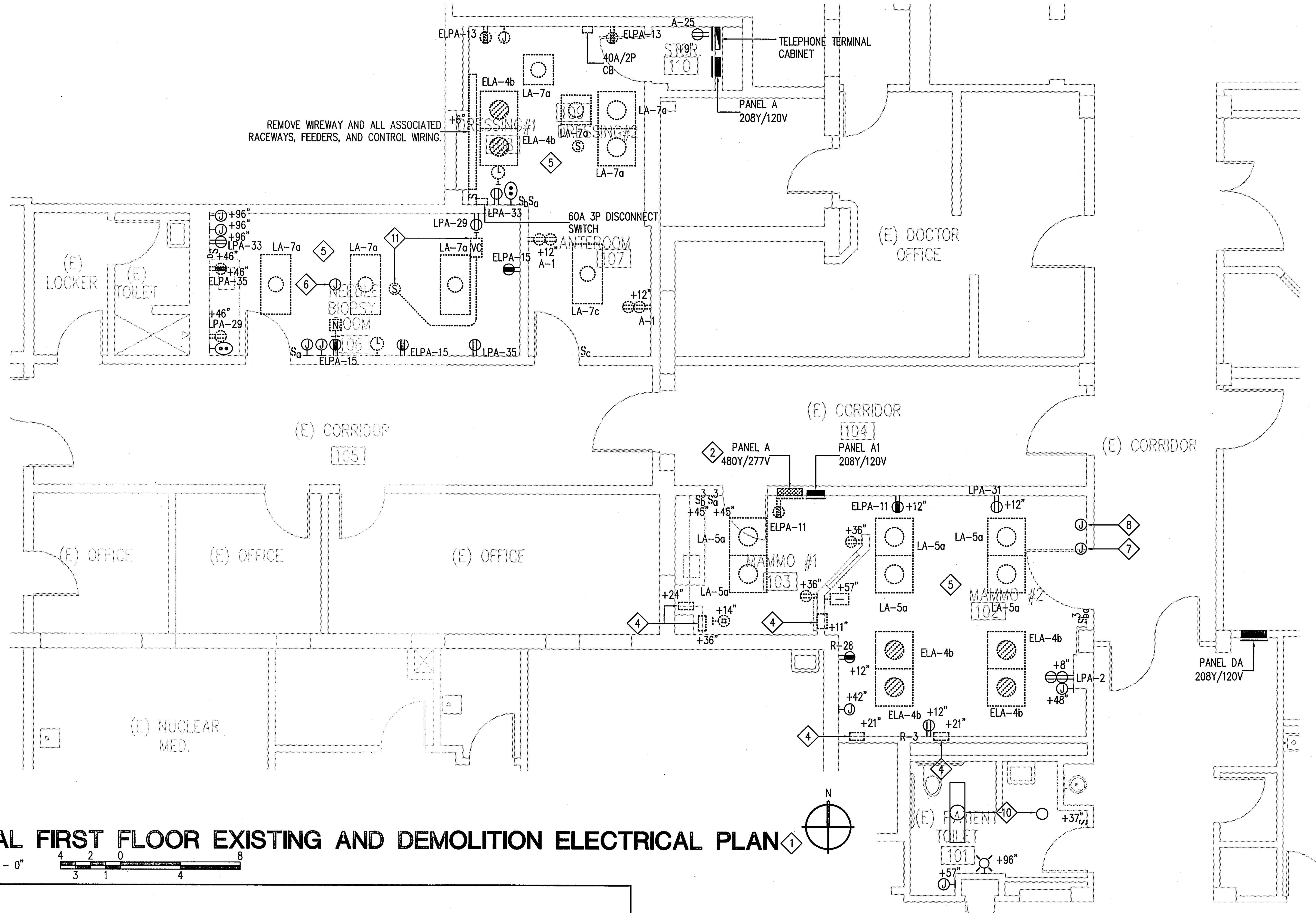
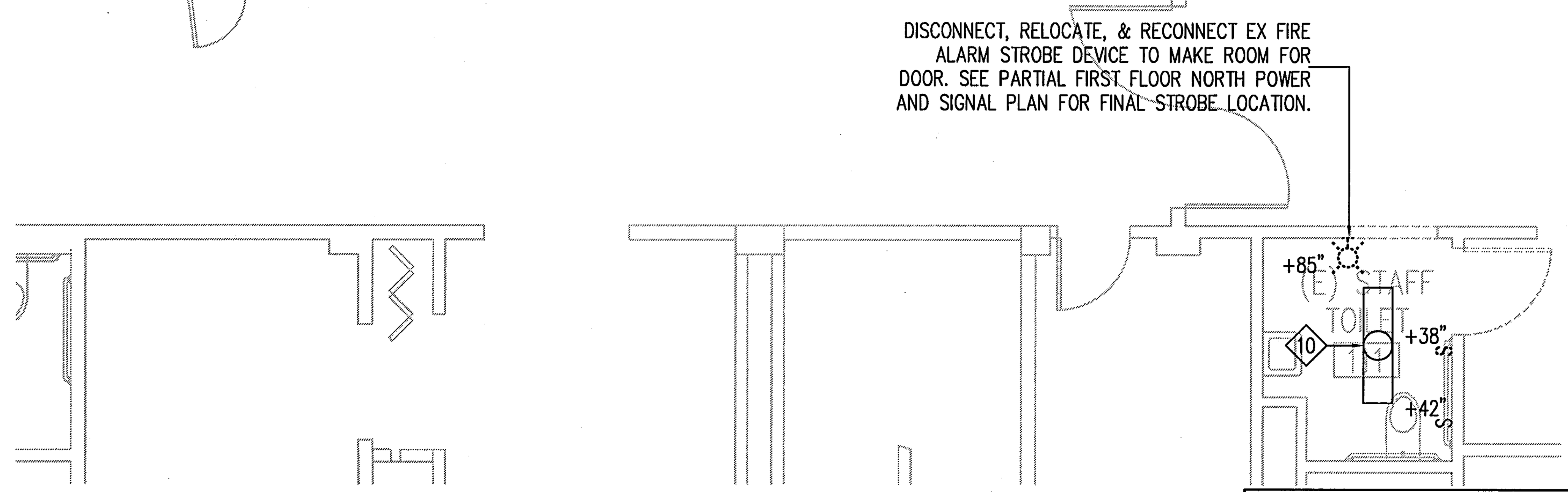
3291 LOMA VISTA ROAD
VENTURA, CALIFORNIA

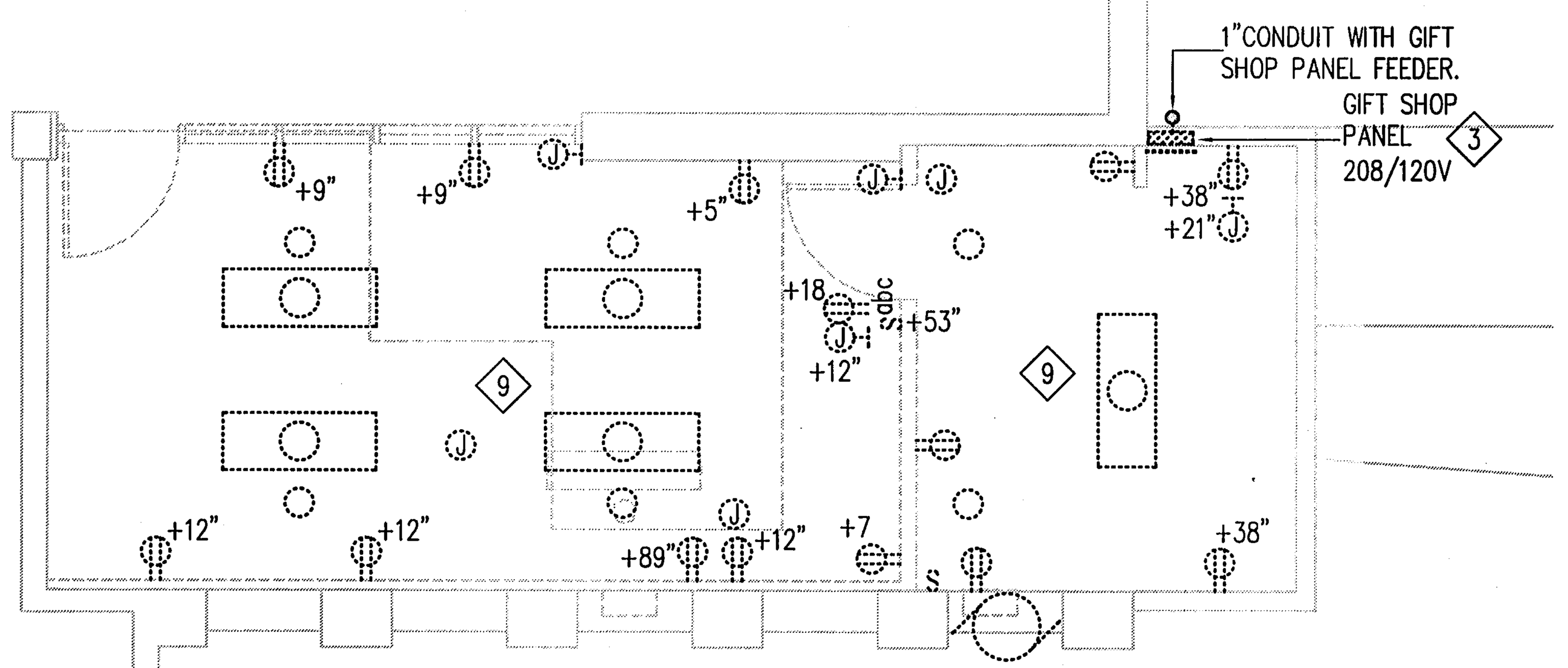
Sheet No.
E1.1



(23) PARTIAL FIRST FLOOR EXISTING AND DEMOLITION ELECTRICAL PLAN ◇1

SCALE 1/4" = 1' - 0"





(24) PARTIAL FIRST FLOOR EXISTING AND DEMOLITION ELECTRICAL PLAN ◇1

SCALE 1/4" = 1' - 0"

SHEET NOTES

1. ALL WORK SHOWN IS EXISTING UON.
2. PANEL A IS FED FROM TRANSFORMER SB-12.
3. GIFT SHOP PANEL IS FED FROM SWITCHBOARD LSS1.
4. SEMI-FLUSH PULLBOX.
5. EXISTING CIRCUITS SHOWN FOR LUMINAIRES ARE BASED ON AVAILABLE RECORD DATA. TRACE ACTUAL PANEL & CIRCUIT NUMBERS AND NOTE ON RECORD DRAWINGS.
6. EXISTING OUTLET BOX ABOVE CEILING LABELED LA-7. CONFIRM LIGHTING CIRCUIT IS FED FROM PANEL LA AND EXTEND AS NOTED ON SHEET E3.1. SEE SHEET E1.1 FOR PANEL LA LOCATION.
7. EXISTING OUTLET BOX ABOVE CEILING LABELED LA-5. CONFIRM LIGHTING CIRCUIT IS FED FROM PANEL LA AND EXTEND AS NOTED ON SHEET E3.1. SEE SHEET E1.1 FOR PANEL LA LOCATION.
8. EXISTING OUTLET BOX ABOVE CEILING LABELED ELA-4. CONFIRM LIGHTING CIRCUIT IS FED FROM PANEL ELA AND EXTEND AS NOTED ON SHEET E3.1. SEE SHEET E1.1 FOR PANEL ELA LOCATION.
9. AVAILABLE RECORD INFORMATION INDICATES THE CIRCUITS IN THIS AREA ARE SERVED BY THE EXISTING GIFT SHOP PANEL. TRACE ACTUAL PANEL & CIRCUIT NUMBERS AND NOTE ON THE RECORD DRAWINGS.
10. TRACE ACTUAL PANEL & CIRCUIT NUMBERS AND NOTE ON THE RECORD DRAWINGS.
11. RELOCATE EXISTING PAGING SPEAKER TO CORRIDOR 104. RELOCATE EXISTING VOLUME CONTROL TO MAMMO #1 103. SEE SHEET E4.1 FOR NEW LOCATIOS.

O.S.H.P.D. PROJECT # SL 101318-56

REVIEWED IN ACCORDANCE WITH THE REQUIREMENTS OF T24, CCR
APPROVED
APR 05 2011
Office of Statewide Health Planning & Development
FACILITIES DEVELOPMENT DIVISION

COUNTY OF VENTURA
PUBLIC WORKS AGENCY
ENGINEERING SERVICES DEPARTMENT

PROJECT MANAGER	
SPEC. NUMBER CP11-05	SHEET 27 OF 31
PROJECT NUMBER ENT11103	DRAWING NUMBER 113575

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Sheet Title: PARTIAL FIRST FLOOR EXISTING AND DEMOLITION ELECTRICAL PLANS

Revisions	
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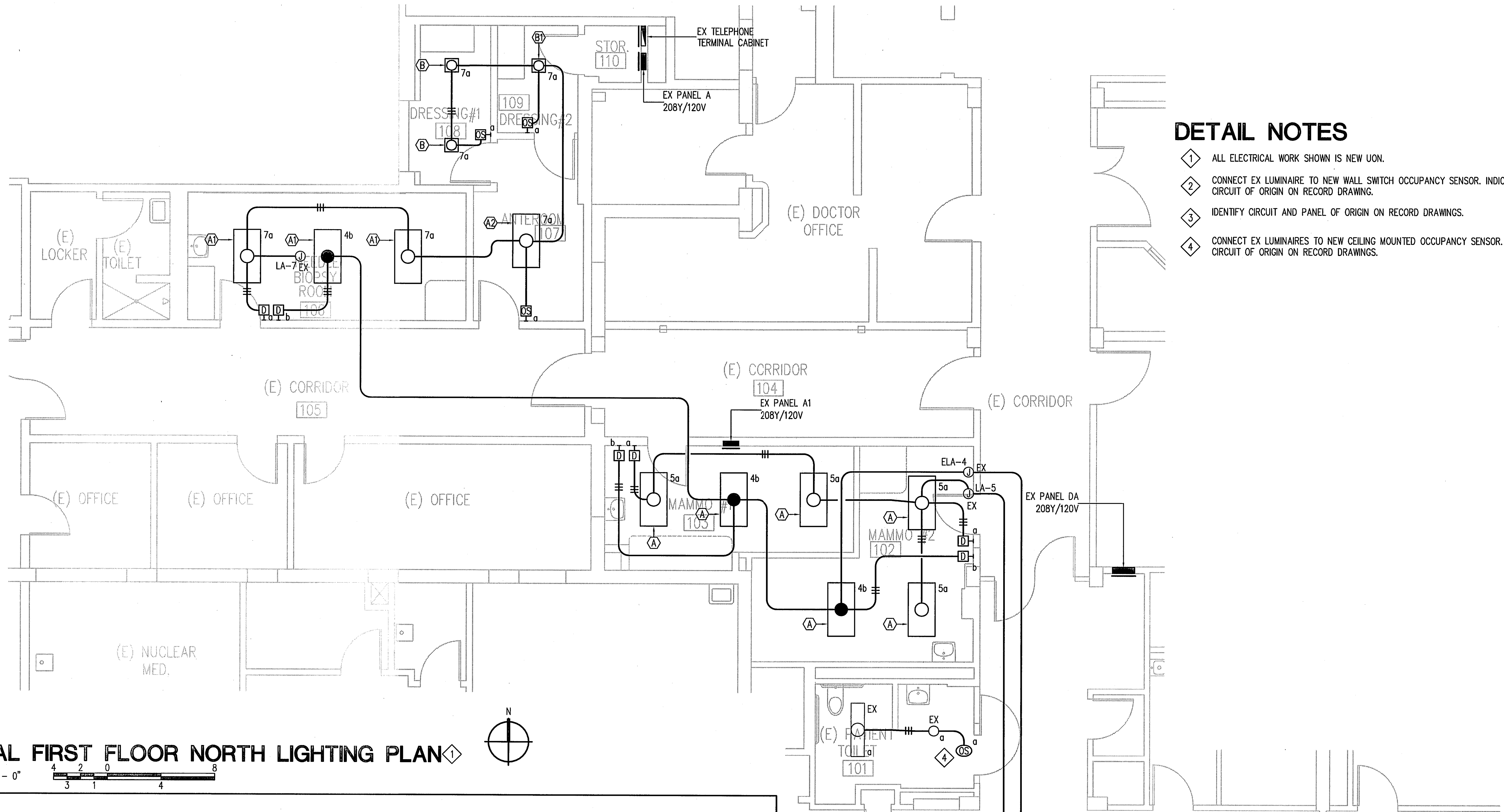
MAMMOGRAPHY ROOMS & NEEDLE BIOPSY ROOM
VENTURA COUNTY MEDICAL CENTER
3291 LOMA VISTA ROAD
VENTURA, CALIFORNIA

Sheet No. E2.1

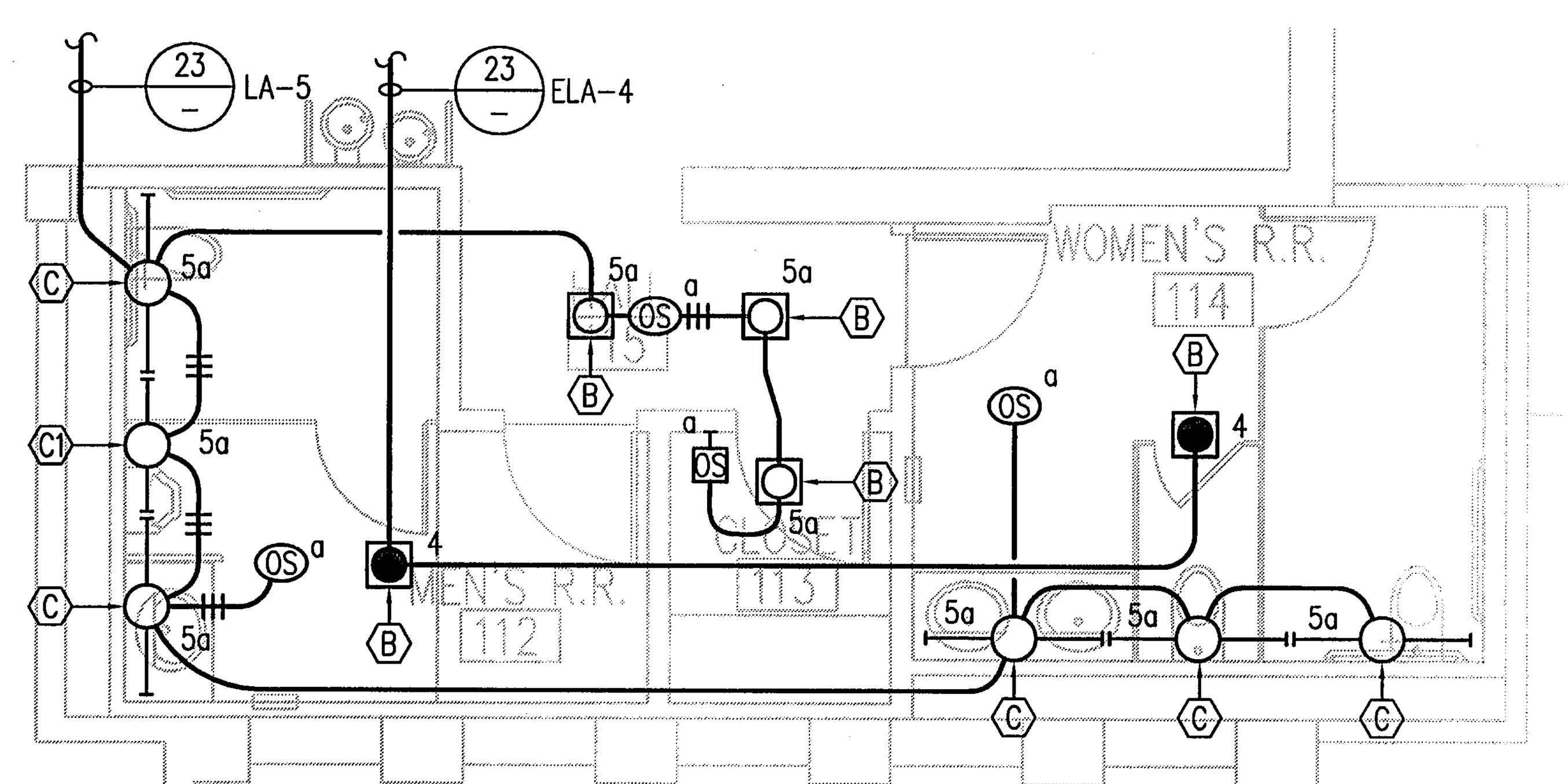


DETAIL NOTES

1. ALL ELECTRICAL WORK SHOWN IS NEW UON.
2. CONNECT EX LUMINAIRE TO NEW WALL SWITCH OCCUPANCY SENSOR. INDICATE CIRCUIT OF ORIGIN ON RECORD DRAWING.
3. IDENTIFY CIRCUIT AND PANEL OF ORIGIN ON RECORD DRAWINGS.
4. CONNECT EX LUMINAIRES TO NEW CEILING MOUNTED OCCUPANCY SENSOR. INDICATE CIRCUIT OF ORIGIN ON RECORD DRAWINGS.

(23) PARTIAL FIRST FLOOR NORTH LIGHTING PLAN ◇1

SCALE 1/4" = 1' - 0"



DETAIL NOTES

1. ALL ELECTRICAL WORK SHOWN IS NEW UON.

(24) PARTIAL FIRST FLOOR SOUTH LIGHTING PLAN ◇1

SCALE 1/4" = 1' - 0"

O.S.H.P.D. PROJECT # SL 101318-56

REVIEWED IN ACCORDANCE WITH THE REQUIREMENTS OF T24, CCR
APPROVED
APR 05 2011
Office of Statewide Health Planning & Development
FACILITIES DEVELOPMENT DIVISION

COUNTY OF VENTURA
PUBLIC WORKS AGENCY
ENGINEERING SERVICES DEPARTMENT

PROJECT MANAGER

SPEC. NUMBER CP11-05	SHEET 28 OF 31
PROJECT NUMBER ENT11103	DRAWING NUMBER 113576

IRJ ENGINEERS, INC.
MECHANICAL & ELECTRICAL ENGINEERS
JOB No. 0914-00

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Sheet Title: PARTIAL FIRST FLOOR LIGHTING PLANS

Revisions	
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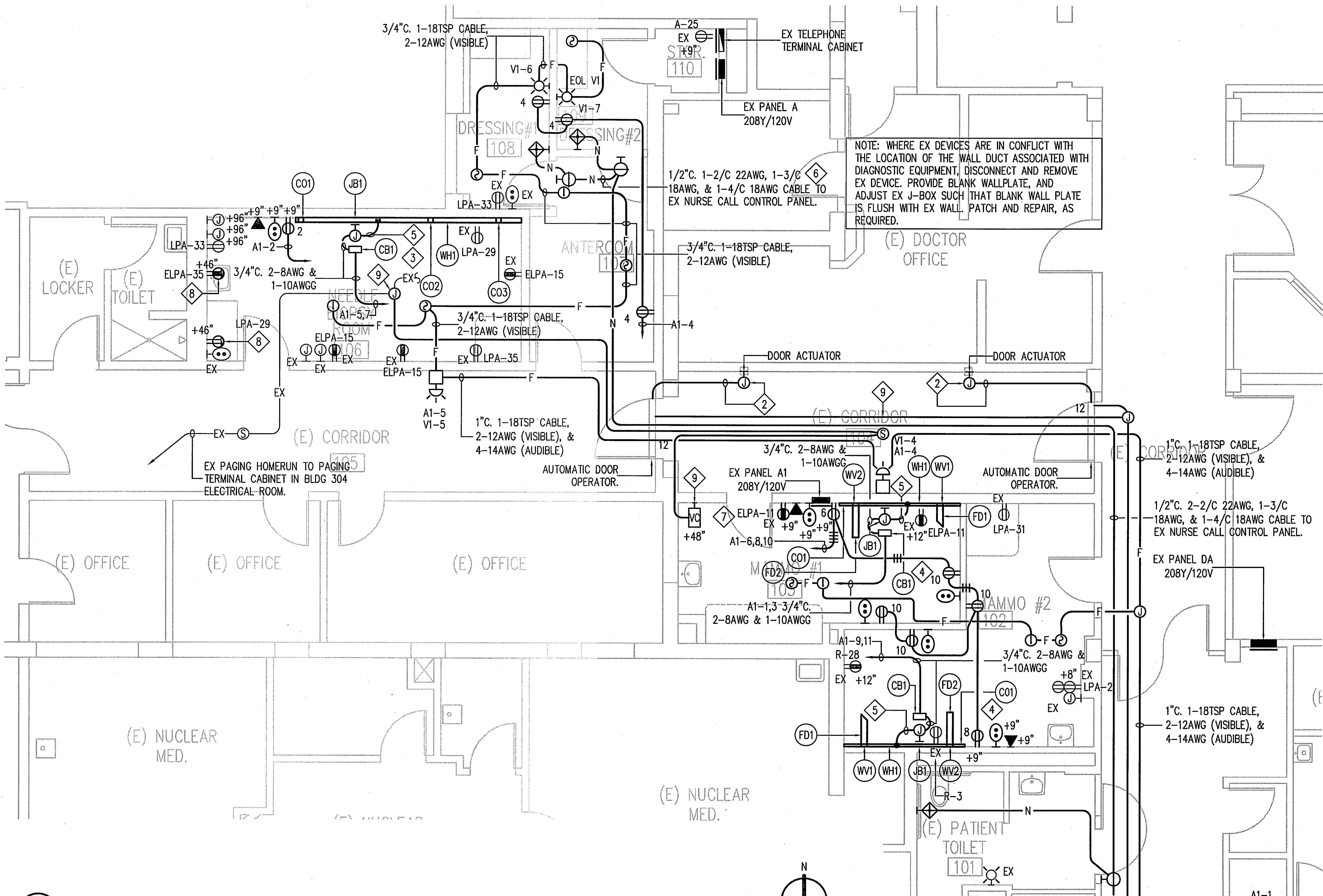
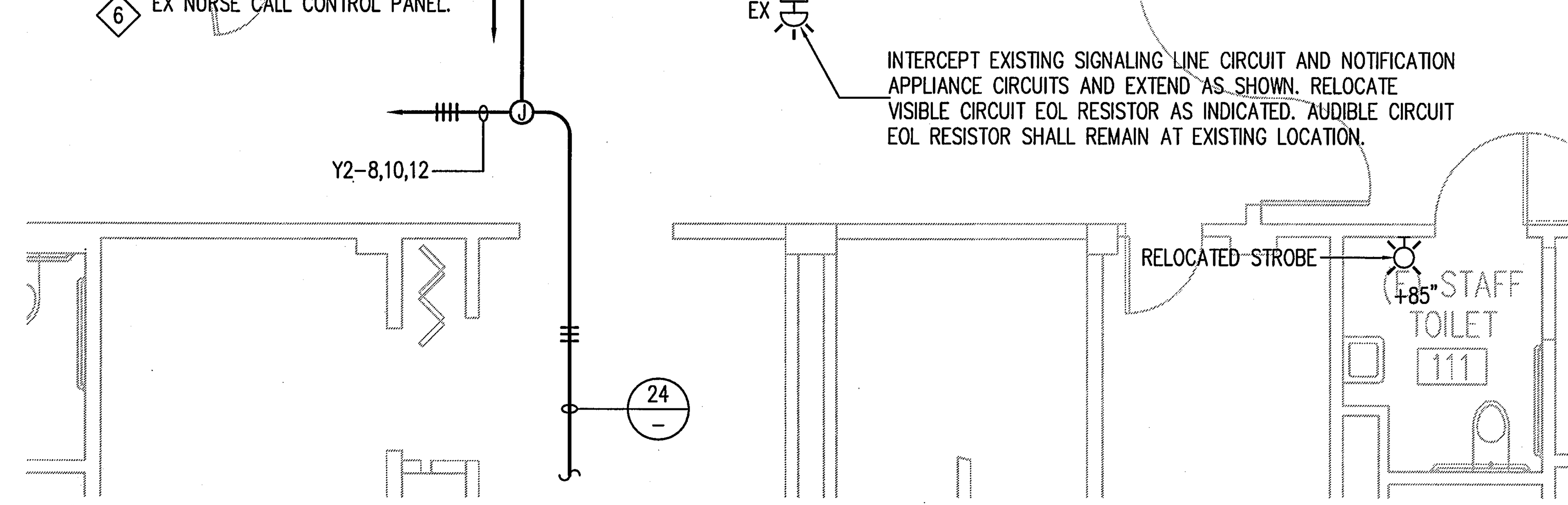
MAMMOGRAPHY ROOMS & NEEDLE BIOPSY ROOM
VENTURA COUNTY MEDICAL CENTER
3291 LOMA VISTA ROAD
VENTURA, CALIFORNIA

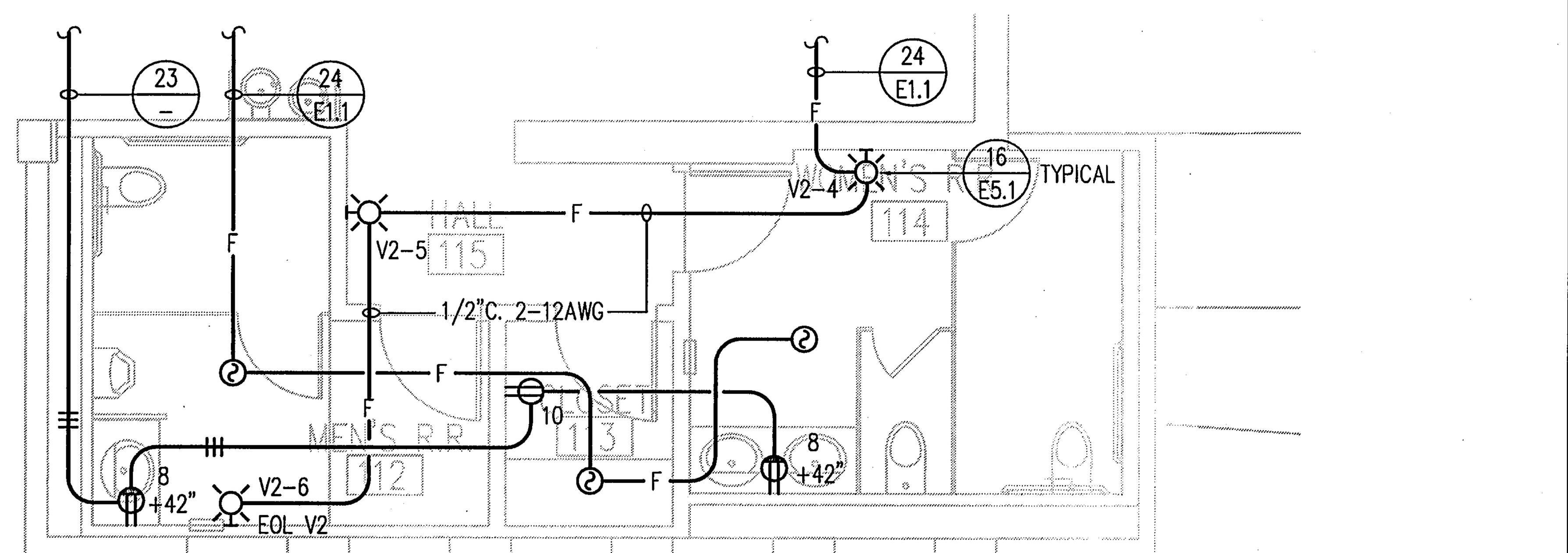
Sheet No.
E3.1



23 PARTIAL FIRST FLOOR NORTH POWER & SIGNAL PLAN

SCALE 1/4" = 1' - 0"





24 PARTIAL FIRST FLOOR SOUTH POWER & SIGNAL PLAN

SCALE 1/4" = 1' - 0"

ELECTRICAL LEGEND

ITEM	DESCRIPTION
CB1	35A, 2P SURFACE MOUNTED ENCLOSED CIRCUIT BREAKER, +60" TO CENTER OF ENCLOSURE. PROVIDE CONDUCTORS FROM CB1 TO JB1 WITH 18" NON-TERMINATED PIGTAIL. MAXIMUM LINE IMPEDANCE NOT TO EXCEED: 0.20 OHMS FOR 208, 220, 230, 240VAC, OR 0.16 OHMS FOR 200VAC (IEC 601-2-7, TABLE 101). GENERATOR TO BE PERMANENTLY WIRED ONLY. PLUG AND RECEPTACLE ARE NOT ALLOWED FOR GENERATOR POWER.
JB1	6" x 6" x 4" SURFACE MTD. ELECTRICAL WALL BOX, +42". JB1 SHALL SERVE AS THE LOCATION FOR PERMANENT (HARD-WIRED) CONNECTION OF GENERATOR POWER.
WH1	HORIZONTAL SURFACE WALL DUCT, 10" x 3 1/2", WITH REMOVABLE COVERS, BOTTOM OF WALL DUCT 12" ABOVE FINISHED FLOOR. PROVIDE TWO EQUALLY SPACED DIVIDERS THROUGH-OUT WALL DUCT. WALL DUCT MUST HAVE ACCESS OPENING TO CO1, CO2, AND CO3.
CO1 CO2 CO3	3" DIA. GROMMETTED CUT-OUT IN SEPARATE 10"X10" COVER OF HORIZONTAL WALL DUCT, 1'-5" ABOVE FINISHED FLOOR. 7/E5.1

10 NEEDLE BIOPSY ROOM LEGEND

ELECTRICAL LEGEND

ITEM	DESCRIPTION
CB1	35A, 2P ENCLOSED CIRCUIT BREAKER, +60" TO CENTER OF ENCLOSURE. MAMMO #1 SHALL BE SURFACE MOUNTED. MAMMO #2 SHALL BE FLUSH MOUNTED. PROVIDE CONDUCTORS FROM CIRCUIT BREAKER TO JB1 WITH 18" NON-TERMINATED PIGTAIL. MAXIMUM LINE IMPEDANCE SHALL NOT EXCEED: 0.20 OHMS FOR 208, 220, 230, 240VAC, OR 0.16 OHMS FOR 200VAC (IEC 601-2-7, TABLE 101). GANTRY TO BE PERMANENTLY WIRED ONLY. PLUG AND RECEPTACLE ARE NOT ALLOWED FOR GANTRY POWER.
JB1	6" x 6" x 4" ELECTRICAL WALL BOX, +42". "JB1" SHALL SERVE AS THE LOCATION FOR PERMANENT (HARD-WIRED) CONNECTION OF GANTRY POWER. JB1 SHALL BE SURFACE MOUNTED IN LOCATIONS WHERE CB1 IS SURFACE MOUNTED. JB1 SHALL BE FLUSH MOUNTED WITH FLUSH COVER IN LOCATIONS WHERE CB1 IS FLUSH MOUNTED.
CO1	2" DIA. GROMMETTED CUTOUT IN COVER OF WH1.
WH1	HORIZONTAL SURFACE WIREWAY, 1 3/4" x 4 3/4" WIREMOLD 4000 SERIES OR EQUAL, DIVIDED, WITH REMOVABLE COVERS, BOTTOM OF HORIZONTAL WIREWAY SHALL BE MOUNTED 12" ABOVE FINISHED FLOOR. PROVIDE FULL ACCESS TO WV1 AND WV2.
WV1 WV2	VERTICAL WIREWAY, 1 3/4" x 4 3/4" WIREMOLD 4000 SERIES OR EQUAL, DIVIDED, WITH REMOVABLE COVERS, PROVIDE FULL ACCESS TO WH1, AND CORRESPONDING FLOOR DUCT (WV1 TO FD1/WV2 TO FD2)
FD1 FD2	FLOOR MOUNTED HORIZONTAL SURFACE WIREWAY, 1 3/4" x 4 3/4" WIREMOLD 4000 SERIES OR EQUAL, DIVIDED, WITH REMOVABLE COVERS, PROVIDE FULL ACCESS TO CORRESPONDING VERTICAL WALL DUCT, PROVIDE GROMMETED OPEN END.

11 MAMMO #1 & #2 ROOM LEGEND

SHEET NOTES

1. ALL WORK SHOWN IS NEW UON.
2. PROVIDE 1/2"CO BETWEEN DOOR ACTUATOR AND AUTOMATIC DOOR OPERATO FOR LOW VOLTAGE DOOR CONTROL CONDUCTORS. COORDINATE J-BOX AND CONDUIT LOCATIONS WITH DOOR CONTROL SYSTEM.
3. REFER TO NEEDLE BIOPSY ROOM LEGEND FOR ELECTRICAL WORK IN THIS ROOM.
4. REFER TO MAMMO #1 & #2 ROOM LEGEND FOR ELECTRICAL WORK IN THIS ROOM.
5. PROVIDE 1-1/2"CO BETWEEN JB1 AND THE HORIZONTAL RACEWAY. COORDINATE RACEWAY ENTRY INTO DIVIDED RACEWAY WITH THE DIAGNOSTIC EQUIPMENT INSTALLER'S REQUIREMENTS.
6. 3/C CABLE SHALL BE WEST PENN 234, 4/C CABLE SHALL BE WEST PENN 244. REFER TO SHEET E1.1 FOR CONTROL PANEL LOCATION. PROVIDE WALL MOUNTED WIREMOLD V700 WHITE SURFACE METAL RACEWAY FROM CEILING TO CONTROL PANEL.
7. REPLACE EXISTING IVORY COLORED RECEPTACLE WITH A RED COLORED RECEPTACLE.
8. REPLACE EXISTING RECEPTACLE WITH GFCI RECEPTACLE.
9. RELOCATE EXISTING SPEAKER IN RM 106 WITH A CONCEALED OUTLET BOX ABOVE THE CEILING. ROUTE A NEW 3/4"C. WITH A 2/C 16AWG CABLE TO RELOCATED SPEAKER IN CORRIDOR 104. CONNECT SPEAKER TO RELOCATED VOLUME CONTROL IN MAMMO 1 RM 103 WITH (2)2/C 16AWG CABLES.

O.S.H.P.D. PROJECT # SL 101318-56
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Office of Statewide Health Planning & Development
FACILITIES DEVELOPMENT DIVISION

COUNTY OF VENTURA
PUBLIC WORKS AGENCY
ENGINEERING SERVICES DEPARTMENT

PROJECT MANAGER

SPEC. NUMBER	SHEET OF
CP11-05	29 31
PROJECT NUMBER	DRAWING NUMBER
ENT11103	113577

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Sheet Title: PARTIAL FIRST FLOOR POWER AND SIGNAL PLANS

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	Checked:
	Consult. No:

MAMMOGRAPHY ROOMS & NEEDLE BIOPSY ROOM
VENTURA COUNTY MEDICAL CENTER
3291 LOMA VISTA ROAD
VENTURA, CALIFORNIA

Sheet No. E4.1

EXISTING EMERGENCY BRANCH-CIRCUIT PANELBOARD ELA ①

SERVICE: 480Y/277V S/N 3P 4W | BUS: 100A | LOCATION: BLDG 304 1ST FLR ELEC RM
MAIN BREAKER: 100A | FEEDER: SEE ONE LINE DIAGRAM | VER: A3
ENTER CAB'T AT: BOTTOM | MOUNTING: SURFACE | MINIMUM AIC RATING: 14,000

CIRC	TRIP	POLE	REC	LTG	HP	LOAD	VOLT AMPS A	VOLT AMPS B	VOLT AMPS C	DESCRIPTION
1	20	1		35		1	2825			RM. 002, 004, 006, 008, 010-014, 016-018, 020-021
2	20	1		25		1	1875			RM. 021, 023, 024, 028, 029, 032-034
3	20	1		37		1		2480		FIRST FLOOR
4	20	1		34		1		2075		FIRST FLOOR BLDG 305 LIGHTS
5	20	1		31		1			2300	FIRST FLOOR
6	20	1		45		1			3099	SECOND FLOOR
7	20	1		13		1	1070			AMBULANCE ENTRANCE
8	100	3					6122			PANEL "ELC"
9	20	1				1		1000		PARKING LOT LIGHTS
10	100	–						5917		PANEL ELC
11	20	1							0	SPARE
12	100	–							3007	PANEL ELC
13		1					0			SPACE
14	20	1					600			ER WAITING ROOM LIGHTS
15		1						0		SPACE
16	20	1						600		ER CORRIDOR LIGHTS
17		1							0	SPACE
18	20	1							600	ER ENTRY
19		1					0			SPACE
20		1					0			SPACE
21		1						0		SPACE
22		1						0		SPACE
23		1							0	SPACE
24		1							0	SPACE
25		1					0			SPACE
26	100	3					0			MAIN CIRCUIT BREAKER
27		1						0		SPACE
28	100	–						0		MAIN CIRCUIT BREAKER
29		1							0	SPACE
30	100	–							0	MAIN CIRCUIT BREAKER

	A	B	C	TOTAL	
CONNECTED LOAD (VA)	12492	12072	9006	33570	45 MAX. PHASE AMPS
COMP. LOAD FACTOR (VA)	0	0	0	0	
COMPUTED LOAD (VA)	12492	12072	9006	33570	45 MAX. PHASE AMPS
CONT. LOAD FACTOR (VA)	2973	2868	2102	7943	
CONDUCTOR LOAD (VA)	15465	14940	11108	41513	56 MAX. PHASE AMPS

① LOAD REDUCED

(22) PANEL ELA SCHEDULE

EXISTING EQUIPMENT BRANCH-CIRCUIT PANELBOARD Y2

SERVICE: 208Y/120V S/N 3P 4W | BUS: 225A | LOCATION: 305 1ST FLR CORRIDOR
MAIN BREAKER: MAIN LUGS | FEEDER: SEE ONE LINE DIAGRAM | VER: A4
ENTER CAB'T AT: TOP | MOUNTING: FLUSH | MINIMUM AIC RATING: 10,000

NOTE	CIRC	TRIP	POLE	REC	LTG	HP	LOAD	VOLT AMPS A	VOLT AMPS B	VOLT AMPS C	DESCRIPTION
	1	20	1			1/2	3	1176			EF-3
	2	50	3					0			SPARE
	3	20	3			3	3		1273		EF-2
	4	50	–						0		SPARE
	5	20	–				3			1273	EF-2
	6	50	–							0	SPARE
	7	20	–				3	1273			EF-2
①	8	20	1					360			ROOMS 112, 114
	9		1						0		SPACE
①	10	20	1						180		ROOM 113
	11		1							0	SPACE
①	12	20	1							500	ROOM 104 DOOR OPERATORS
	13		1					0			SPACE
	14		1					0			SPACE
	15		1						0		SPACE
	16		1						0		SPACE
	17		1							0	SPACE
	18		1							0	SPACE
	19		1					0			SPACE
	20		1					0			SPACE
	21		1						0		SPACE
	22		1						0		SPACE
	23		1							0	SPACE
	24		1							0	SPACE
	25		1					0			SPACE
	26		1					0			SPACE
	27		1						0		SPACE
	28		1						0		SPACE
	29		1							0	SPACE
	30									0	SPACE

	A	B	C	TOTAL	
CONNECTED LOAD (VA)	2809	1453	1773	6035	23 MAX. PHASE AMPS
COMP. LOAD FACTOR (VA)	0	0	0	0	
COMPUTED LOAD (VA)	2809	1453	1773	6035	23 MAX. PHASE AMPS
CONT. LOAD FACTOR (VA)	318	318	318	955	
CONDUCTOR LOAD (VA)	3127	1771	2091	6990	26 MAX. PHASE AMPS

① PROVIDE 20A 1P CB IN EXISTING SPACE FOR NEW LOAD.

(23) PANEL Y2 SCHEDULE

EXISTING EMERGENCY BRANCH-CIRCUIT PANELBOARD A1 ①

SERVICE: 208Y/120V S/N 3P 4W | BUS: 100A | LOCATION: 1ST FLOOR MAMMO (RM 103)
MAIN BREAKER: MAIN LUGS | FEEDER: SEE ONE LINE DIAGRAM | VER: A4
ENTER CAB'T AT: BOTTOM | MOUNTING: RECESSED | MINIMUM AIC RATING: 10,000

CIRC	TRIP	POLE	REC	LTG	HP	LOAD	VOLT AMPS A	VOLT AMPS B	VOLT AMPS C	DESCRIPTION
1	40	2				8	1625			ROOM 103 MAMMO #1 X-RAY
2	20	1	1			5	500			ROOM 106 DSM CART
3	40	–				8		1625		ROOM 103 MAMMO #1 X-RAY
4	20	1	2			2		360		ROOM 108,109
5	40	2				8			1750	ROOM 106 NEEDLE BIOPSY
6	20	1	1			2			960	ROOM 103 CONSOLE
7	40	–				8	1750			ROOM 106 NEEDLE BIOPSY
8	20	1	1			2	960			ROOM 102 CONSOLE
9	40	2				8		1625		ROOM 102 MAMMO #2 X-RAY
10	20	1	4			2		720		ROOMS 102,103
11	40	–	2			8			1625	ROOM 102 MAMMO #2 X-RAY
12	20	1							0	SPARE

	A	B	C	TOTAL	
CONNECTED LOAD (VA)	4835	4330	4335	13500	40 MAX. PHASE AMPS
COMP. LOAD FACTOR (VA)	−813	−813	−813	−2438	
COMPUTED LOAD (VA)	4023	3518	3523	11063	34 MAX. PHASE AMPS
CONT. LOAD FACTOR (VA)	0	0	0	0	
CONDUCTOR LOAD (VA)	4023	3518	3523	11063	34 MAX. PHASE AMPS

① REPLACE EXISTING BRANCH-CIRCUIT BREAKERS WITH NEW BREAKERS.

(18) PANEL A1 SCHEDULE

EXISTING BRANCH-CIRCUIT PANELBOARD LA ①

SERVICE: 480Y/277V S/N 3P 4W | BUS: 225A | LOCATION: BLDG 304 1ST FLR ELEC RM
MAIN BREAKER: | FEEDER: SEE ONE LINE DIAGRAM | VER: A4
ENTER CAB'T AT: BOTTOM | MOUNTING: | MINIMUM AIC RATING: 14,000

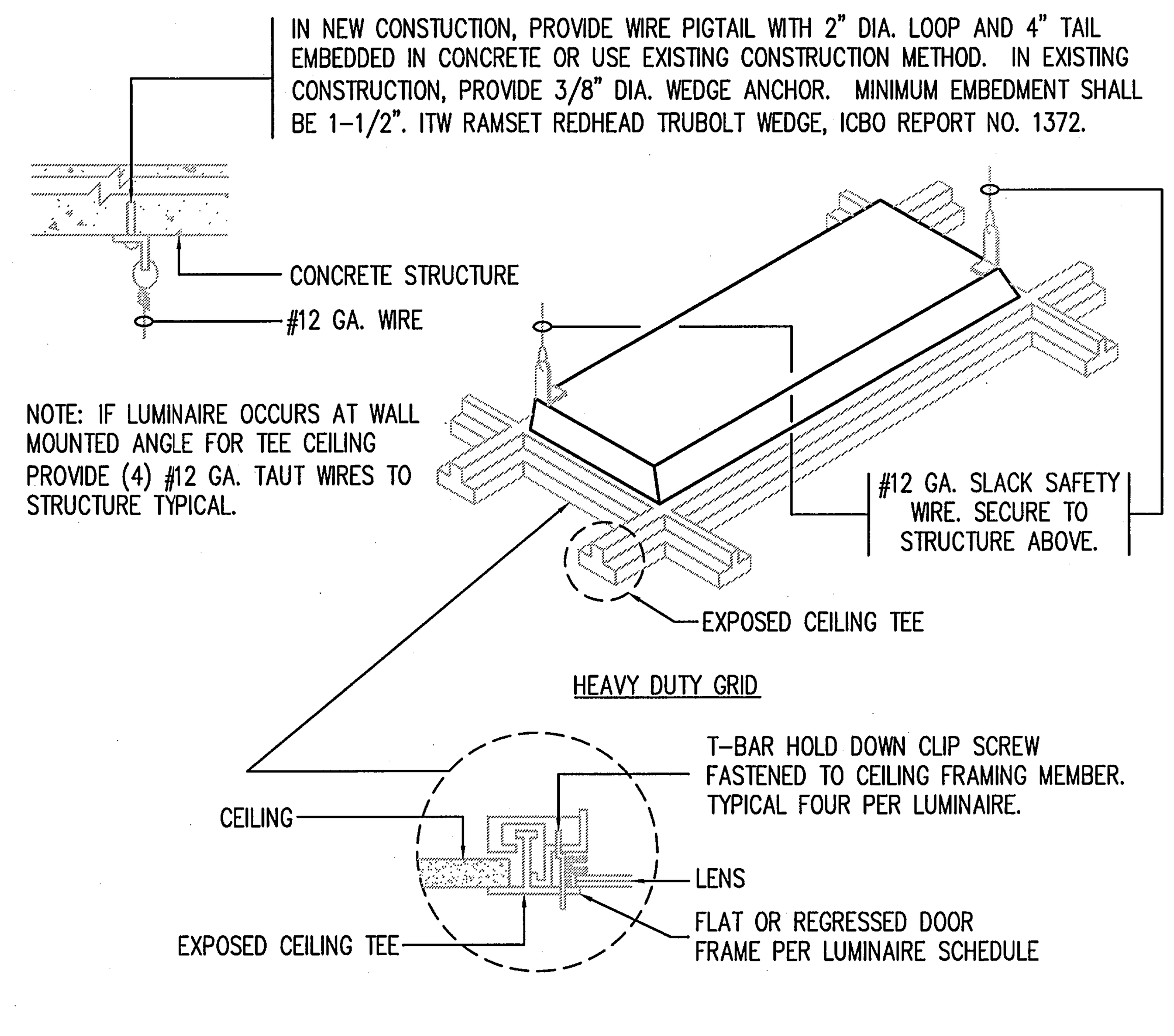
CIRC	TRIP	POLE	REC	LTG	HP	LOAD	VOLT AMPS A	VOLT AMPS B	VOLT AMPS C	DESCRIPTION
1	20	1		25		1	3280			305 BASEMENT
2	20	1		29		1	2800			304 BASEMENT
3	20	1		34		1		3440		305 BASEMENT
4	20	1		30		1		3180		304 FIRST FLOOR
5	20	1		36		1			3021	305 FIRST FLOOR ①
6	20	1		44		1			2865	304 FIRST FLOOR
7	20	1		29		1	3040			305 FIRST FLOOR ②
8	20	1		30		1	2100			ENTRANCE FIRST FLOOR
9	20	1		17		1		2025		ROOMS 208,210-214
10	20	1						0		SPARE
11	20	1		25		1			2475	ROOMS 205, 207, 252, 263, 264
12	20	1							0	SPARE
13	20	1		31		1	2195			ROOMS 221,227,235, 237-239, 241, 242, 244,245,247-249,250
14	100	3					7555			PANEL LC
15	20	1						0		SPARE
16	100	–						5725		PANEL LC
17	20	1							0	SPARE
18	100	–							5120	PANEL LC
19		1					0			SPACE
20	15	3					750			AIR HANDLER AH-2
21		1						0		SPACE
22	15	–						750		AIR HANDLER AH-2
23		1							0	SPACE
24	15	–							750	AIR HANDLER AH-2
25		1					0			SPACE
26		1					0			SPACE
27		1						0		SPACE
28		1						0		SPACE
29		1							0	SPACE
30		1							0	SPACE
31		1					0			SPACE
32		1					0			SPACE
33		1						0		SPACE
34		1						0		SPACE
35		1							0	SPACE
36		1							0	SPACE
37	15	3					750			AIR HANDLER AH-1
38	90	3					13500			HEAT PUMP NUCLEAR MEDICINE ADMITTING
39	15	–						750		AIR HANDLER AH-1
40	90	–						13500		HEAT PUMP NUCLEAR MEDICINE ADMITTING
41	15	–							750	AIR HANDLER AH-1
42	90	–							13500	HEAT PUMP NUCLEAR MEDICINE ADMITTING

	A	B	C	TOTAL	
CONNECTED LOAD (VA)	35970	29370	28481	93821	130 MAX. PHASE AMPS
COMP. LOAD FACTOR (VA)	0	0	0	0	
COMPUTED LOAD (VA)	35970	29370	28481	93821	130 MAX. PHASE AMPS
CONT. LOAD FACTOR (VA)	5243	3593	3370	12205	
CONDUCTOR LOAD (VA)	41213	32963	31851	106026	149 MAX. PHASE AMPS

① LOAD REDUCED

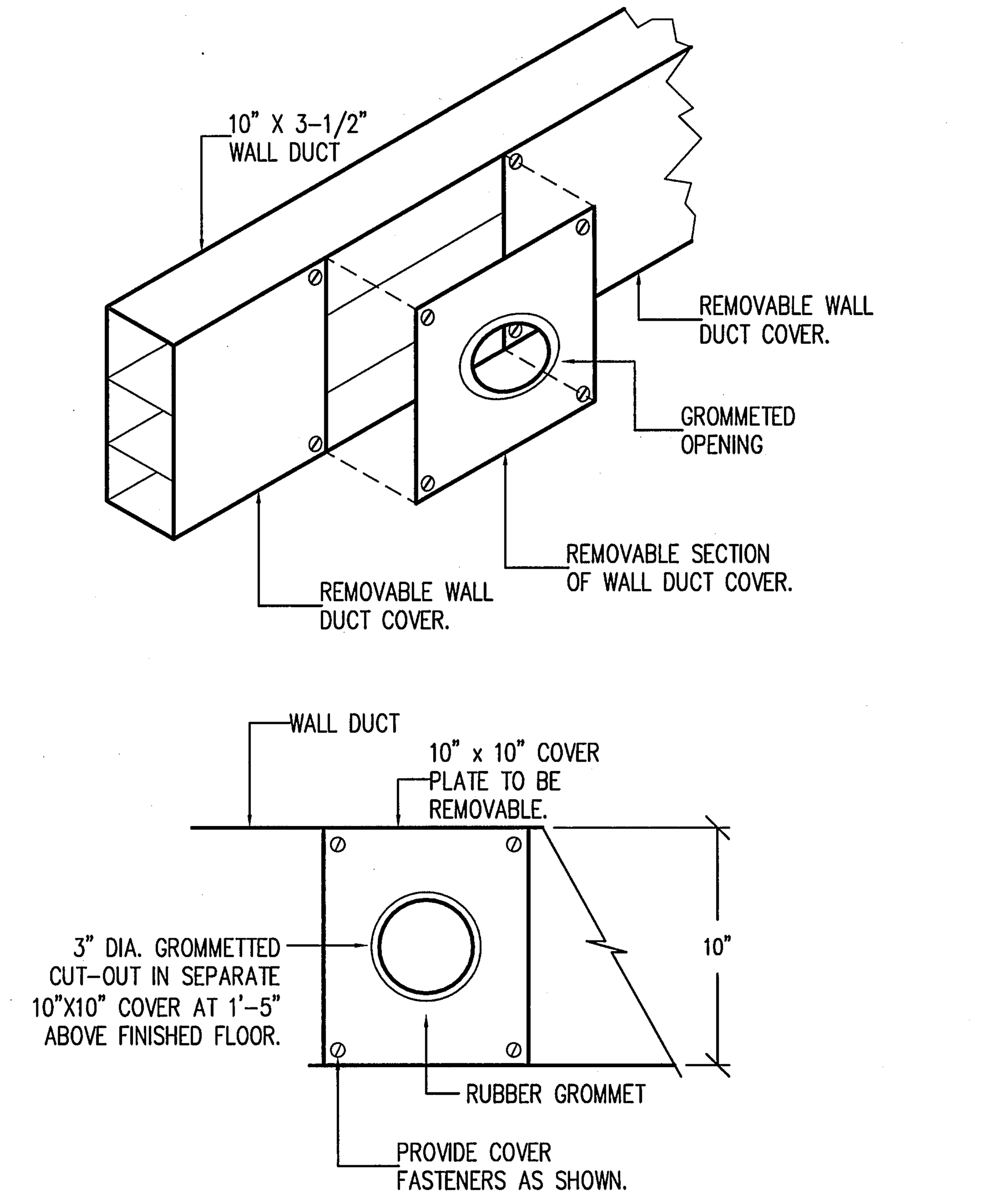
② LOAD UNCHANGED

(19) PANEL LA SCHEDULE



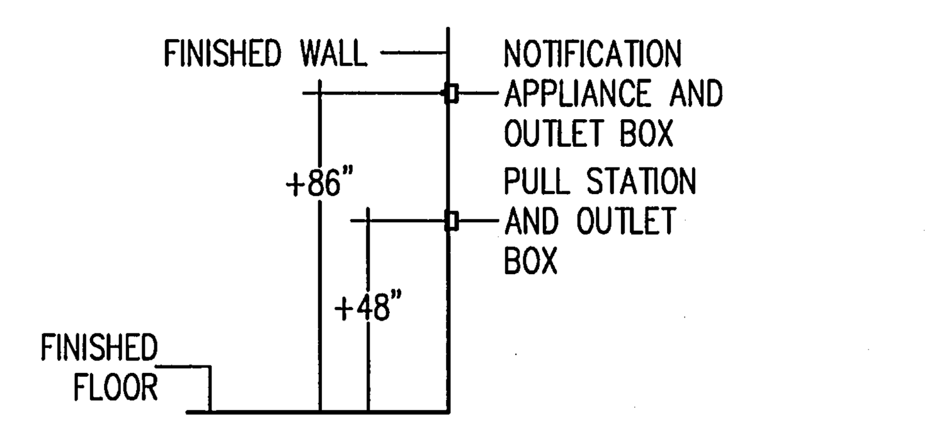
(14) TYPICAL SAFETY SUPPORT FOR RECESSED LUMINAIRE

NTS

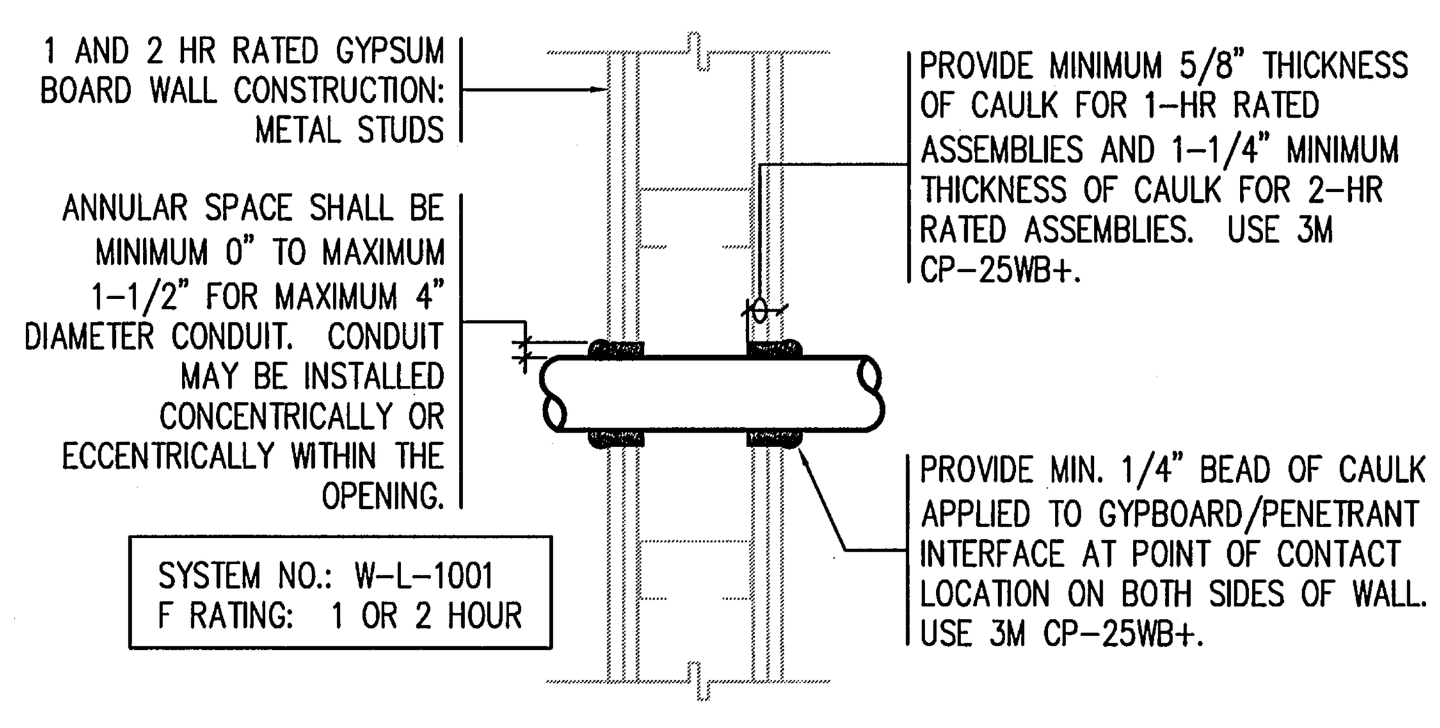


(6) WALL DUCT OPENING

NTS



(15) NOTIFICATION APPLIANCE AND PULL STATION ELEVATION



(7) GYPBOARD WALL PENETRATION FIRESTOP

NTS

O.S.H.P.D. PROJECT # SL 101318-56

REVIEWED IN ACCORDANCE WITH THE REQUIREMENTS OF T24, CCR
APPROVED
APR 05 2011
Office of Statewide Health Planning & Development
FACILITIES DEVELOPMENT DIVISION

COUNTY OF VENTURA
PUBLIC WORKS AGENCY
ENGINEERING SERVICES DEPARTMENT

PROJECT MANAGER

SPEC. NUMBER	SHEET	OF
CP11-05	30	31
PROJECT NUMBER	DRAWING NUMBER	
ENT11103	11357B	

IRJ ENGINEERS, INC.
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FOR PLAN REVIEW ONLY

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LICENSED ARCHITECT JAY LOMAGNO C-20801 REN. 12-24-11 STATE OF CALIFORNIA

Sheet Title: ELECTRICAL DETAILS, PANEL SCHEDULES

Revisions		
12-29-10 OSHPD CORR	R&A No:	00443
3-30-11 OSHPD CORR	Date:	06-01-10
	Drawn:	
	Checked:	
	Consult. No:	

MAMMOGRAPHY ROOMS
& NEEDLE BIOPSY ROOM
VENTURA COUNTY MEDICAL CENTER
3291 LOMA VISTA ROAD
VENTURA, CALIFORNIA

Sheet No.
E5.1

DIVISION 16
ELECTRICAL SPECIFICATIONS

I GENERAL

1.01 All work and materials shall be in accordance with all applicable codes, including the 2007 California Electrical Code and governing authorities. Nothing in the plans or specifications shall be deemed as permission to violate these codes or authorities. General and special conditions apply to work of this division.

1.02 All materials shall be new and shall be listed and labeled or labeled only by a Nationally Recognized Testing Laboratory. All material shall also comply with the following standards:

A. National Electrical Manufacturers Association
B. American National Standards Institute
C. Institute of Electrical and Electronics Engineers

1.03 Submit for approval minimum of five (5) copies of shop drawings for all new electrical equipment including circuit breakers, surface metal raceway, boxes, conduits, conductors, luminaires, wiring devices, lighting controls, nurse call system components, and fire alarm system. Similar materials shall be the products of a single manufacturer. The luminaire submittal shall include descriptive data provided by the manufacturer of the electronic ballasts. The fire alarm system submittal shall provide all information required for submittal to OSHPD including, but not limited to, manufacturer, model number, current CSFM listing sheets, single line, riser, and point-to-point wiring diagrams, floor plans showing the fire alarm devices and drawn to a standard architectural or engineering scale, details of trouble supervision, type of conductors, use of metal raceway, battery and voltage drop calculations, and integrated diagrams showing function of Life Safety System with control devices supplied under other Divisions of Work.

1.04 Maintain a set of full sized record drawing bond or blue-line prints with all changes indicated in red ink. Forward to Engineer for review. Upon approval of record drawings, transfer information neatly to reproducible copies of original drawings. Mark specifications to identify equipment installed.

1.05 All work, materials, and equipment provided and/or installed under this section of the specification shall be warranted for a period of twelve months from date of acceptance of work by the Owner. The word "provide" means to furnish, install, and electrically connect as part of the work of this division.

1.06 Examine all existing conditions as applicable. Become acquainted with Specifications and Drawings for all portions of the Project. Notify Owner's Representative (before bidding if possible) of any apparent discrepancies between the Specifications and Drawings for different parts of the Work or of any inconsistencies between the Specifications and Drawings and the existing conditions. Obtain and follow Owner's Representative's instructions.

1.07 Work shall include but not necessarily be limited to the following:

A. Demolition of existing electrical work, as indicated on the drawings.
B. Modifications to existing panelboard branch circuits, as indicated on drawings.
C. Installation of new circuit breakers and branch circuits to serve radiology equipment and additional loads.
D. Installation of new surface mounted wall duct and surface wireway for radiology equipment cabling.
E. Installation of new luminaires, lighting control devices, and wiring devices, as indicated on the drawings.
F. Modifications to the existing fire alarm system, as indicated on the drawings.
G. Modifications to the existing nurse call system, as indicated on the drawings.
H. Grounding of equipment as indicated or required for electrical systems.
I. All cutting, excavation, core drilling, patching, and restoration of disturbed surfaces required in conjunction with electrical work.
J. Conduit sleeves, metal frames, galvanized channel support systems, and backing required for installation of electrical conduits, luminaires, devices, and equipment.
K. Prime and finish painting of all exposed electrical surfaces, conduits, boxes, and supports to match adjacent surfaces under another Division of the Work.

1.08 Rough-In

A. Verify all electrical rough-ins required for each new device or piece of equipment to be connected as part of this work.

1.09 Electrical Installations

A. Verify all dimensions by field measurements. The Drawings serve as working drawings only, indicating diagrammatically the general layout of the systems and their various components and equipment. Existing conduit routing, conductor quantities, and circuiting shown on the Drawings are based on record drawings provided by Owner. Where interceptions or extensions of existing conduits are indicated, Contractor shall field verify exact routing of existing conduits. Provide quantity and type of new conductors to match existing conductors unless noted otherwise on the Drawings.
B. Coordinate the installation of required supporting devices and sleeves with all existing building features and systems and to facilitate maintenance, repair, and replacement of components.
C. Coordinate the installation of new and relocated electrical materials and equipment with existing and new conduits, pipes, support systems, equipment, and building components, to provide for efficient flow of work.
D. Comply with NECA 1-2006 Good Workmanship in Electrical Contracting.

1.10 Interruption of Electrical Systems

A. All required shutdowns or interruptions of electrical systems shall be coordinated with the Owner. Shutdowns considered to be "critical" by the Owner shall be performed only during the hours from 12:00 midnight to 4:00 A.M. with a maximum down time not to exceed four (4) hours. Shutdowns considered non-critical may be performed during normal working hours unless noted otherwise.
B. At the time of any interruption or cut-off, have all required materials and labor readily available so that the work can be completed without delay and within the approved schedule. Include all required temporary services to maintain power systems to areas where systems cannot be interrupted at any time.
C. All shutdowns and system interruptions shall have Owner's approval 72 hours in advance with regard to date, time, and duration.

1.11 Grounding

A. Execute grounding of equipment in compliance with applicable codes, governing authorities, and drawings.
B. Make all connections with approved solderless, bolted fasteners unless otherwise noted. Sheet metals straps are prohibited.

1.12 Cutting and Patching

A. Do all miscellaneous cutting, drilling, and patching necessary and normally required at the time of actually installing this work. Patching shall be of the same materials, workmanship, grade, and finish as the original or surrounding work to the complete satisfaction of the Owner. Do not cut structural framing, walls, floors, and other members intended to withstand stress, except with written authorization. Authorization will be granted only where there is no other reasonable method for completing electrical work and where proposed cutting clearly does not affect the structures in any way.
B. Penetrations through fire rated walls, floors, and ceilings shall be sealed and firestopped with Underwriters Laboratories, State Fire Marshal, and Factory Mutual approved sealant.
C. Core Drilling Concrete: Where authorized, cut openings for conduit penetrations and similar services through concrete or masonry walls by core drilling. Do not cut by hammer-driven chisel or drill. Pachometer both sides of concrete and masonry elements to locate structural steel prior to drilling. Reinforcing steel shall not be cut.
D. All costs required to accomplish cutting, repairing, patching, and sealing of new work in existing areas to accommodate the electrical shall be paid for by the Electrical Contractor at no increase in contract cost.

1.13 Marking

A. In general, and except as modified by details or elsewhere herein, before requesting the Engineer to make final observation, identify all electrical distribution equipment, circuit breakers, and other equipment by means of neat, approved labels, decals, brass tags, engraved plastic laminate or metal strips, neatly painted signs or by other approved means. Provide manufacturer's standard vinyl-cloth self-adhesive cable/conductor markers of wrap-around type, either pre-numbered plastic coated type or write-on type with clear plastic self-adhesive cover flap, numbered to show circuit identification. Where nameplates are indicated, provide engraving stock plastic laminate, complying with FS L-P-387, in sizes and thicknesses indicated, engraved with engraver's standard letter style of sizes and wording indicated, black face and white core plies (letter color) for normal electrical systems, red face and white core plies for essential electrical systems. Provide thickness of 1/16", except as otherwise indicated. Punch plastic laminate for mechanical fastening and provide stainless steel rivets or self-tapping stainless steel screws.

1.14 Tests

A. Perform all electrical tests as required or as directed including tests indicated by the installation instructions provided with the equipment supplied. Provide all materials, labor, and equipment necessary for performance of these tests. At completion of the work perform a complete "in-service" operation of the entire electrical power and control systems added or modified as part of this work, to show compliance with the Drawings and Specifications. Replace any work showing faults under test without additional cost to the Owner.
B. The Contractor shall demonstrate a fire alarm voltage drop test for any and all affected notification appliance circuits. The test method for such demonstration shall include the following steps:
   1. Using a volt-ohm meter set to read the voltage being applied, measure the output voltage of the notification appliance circuit to be tested at the notification circuit power source.
   2. Remove from its mounting the end of line notification appliance. All appliance wiring and the end of line devices are to remain intact throughout the test procedure.
   3. Activate the fire alarm system to cause the notification appliance circuit to operate.
   4. Using a volt-ohm meter, measure the actual voltage being applied to the end of line device during operation of the circuit.
   5. Compare the measured voltage to the manufacturer's nameplate voltage. The measured voltage shall not be below the lowest voltage range as printed on the device nameplate. If the output voltage, as measured at the circuit's power source is greater than 24 volts, that difference shall be added to the lowest nameplate voltage of the device and the actual voltage measured at the device shall not be lower than that voltage. Any circuit(s) failing such field tests shall be reevaluated, repaired, and retested prior to acceptance of the system.
C. Perform reacceptance testing for the fire alarm system in accordance with 2007 NFPA 72 Chapter 10 as follows:
   6. Per Section 10.4.1.2.1.1: New initiating devices, notification appliances, or control relays shall be functionally tested.
   7. Per Section 10.4.1.2.1.2: When initiating devices, notification appliances, or control relays are removed, another existing device, appliance, or control relay on the same circuit shall be tested.
   8. Per Section 10.4.1.2.1.4: Changes to site-specific software require the following testing:
      a. Test 100 percent of all functions known to be affected by the change, or identified by a means that indicates changes.
      b. Test and verify correct system operation for 10 percent of initiating devices that are not directly affected by the change, up to a maximum of 50 devices.
      c. Provide a revised record of completion that reflects the changes.

(24) ELECTRICAL SPECIFICATIONS

1.15 Demolition

A. Contractor shall visit the job site prior to submitting a bid to determine the scope of the demolition Work, and to become familiar with the existing conditions that will affect his work and therefore his bid.
B. Owner shall have first right of refusal of all salvageable materials removed from the building. Materials not claimed by the Owner shall become the property of the Contractor, and shall be removed from the site by the Contractor.
C. Areas vacated by equipment shall be left in neat and safe condition.
D. Maintain circuit continuity to equipment, devices, luminaires, and all special systems that will remain active. Remove all existing abandoned electrical conduits, junction boxes, supports, and wiring back to panels or switchboards, except where it will affect existing equipment that will remain.
E. Perform all work required for relocation and extension of luminaires, conduits, outlets, etc. to clear the area of demolition and for the remodel. Revise existing panel directories to clearly indicate loads and areas served after remodel. Provide new typed directory card when circuits are changed.
F. Where existing switches, receptacles, luminaires, junction boxes, equipment, etc. are not to be reused, remove and patch the opening.
G. All switches and circuit breakers that become spares as a result of the demolition or remodel Work shall be labeled "spare." No wires shall remain connected to them. The switches or circuit breakers shall be left in the "off" position.

II PRODUCTS AND MATERIALS

2.01 Conductors

A. Conductors shall be 600-volt, soft drawn copper. Conductors shall be stranded and have type THHN/THWN insulation.
B. Conductors shall not be smaller than 12 AWG unless otherwise noted.
C. All conductors shall be installed in conduit as indicated on plans.
D. Identify all new conductors in existing panelboards, circuit breakers, pullboxes, junction boxes, and outlet boxes.
E. Provide 1/8-inch diameter dimensioned polyethylene pullrope in each empty conduit.
F. Comply with CEC and the following for color-coding of conductors. Color-code all secondary service, feeder, and branch circuit conductors. 208-volt system neutrals shall be white. All other system neutrals shall be white with an identifiable color stripe. 208 volt ungrounded conductors for phase A, phase B, and phase C shall be black, red, and blue respectively. The color coding for conductors 6 AWG and smaller shall be continuous along the entire length.
G. Provide electrical insulating tape, heat-shrinkable insulating tubing and boots, solder, electrical soldering flux, wire nuts, and cable ties as recommended for use by accessories manufacturers for type services indicated.

2.02 Conduit

A. All conduits shall be UL listed and labeled.
B. Material:
   1. Electrical Metallic Tubing (EMT): Electrical metallic tubing shall be galvanized steel with a corrosion resistant inner coating and shall be produced in accordance with UL Safety Standard #797 and ANSI C80.3.
   2. Flexible Metal Conduit: Flexible metal conduit shall be steel and shall be constructed of single strip, flexible continuous, interlocked, and double-wrapped steel. Conduit shall be galvanized inside and outside. Aluminum conduit shall not be used.
   3. Liquid-Tight Flexible Metal Conduit: Liquid-tight flexible metal conduit shall be steel and shall be constructed of single strip, flexible, continuous, interlocked, and double-wrapped steel. Conduit shall be galvanized inside and outside. Coat with liquid-tight jacket of flexible thermoplastic. Conduit shall include a copper ground in sizes through 1-1/4". Aluminum conduit shall not be used.
   4. Rigid Steel Conduit: Rigid steel conduit shall be hot dip galvanized steel manufactured in accordance with UL Safety Standard #6 and ANSI C 80.1.
   5. Fittings: All locknuts for metallic conduits shall be galvanized or zinc plated steel. Insulating bushings shall be high impact thermoplastic. Fittings for EMT shall be compression or set screw type zinc plated steel or zinc die cast.
C. Conduit usage:
   1. Install rigid steel conduit underground, under slab, in contact with earth, embedded in concrete, in masonry walls, where subject to mechanical damage, where exposed on the exterior, or exposed on the interior below four feet above the floor.
   2. Install electrical metallic tubing in places where rigid or flexible conduit is not required, such as stud walls, ceiling spaces, and exposed areas on the interior over four feet above the floor.
   3. Install flexible steel conduit for final connection to motors or other vibrating equipment and where indicated on the drawings. It may also be used in other locations where, due to structural conditions, EMT or rigid conduit cannot be used. This use will be allowed only if approved by the Owner's Representative. Lengths of flexible steel conduit shall not exceed six feet in any path to ground.
D. Conduit installation:
   1. Field bends in conduit shall be workmanlike and smooth and shall not materially reduce the internal diameter of the conduit. Bends shall not be made at joints.
   2. Keep conduit interior clean and clear.
   3. Provide secure mounting facilities for all conduits. Factory made strap of the one-hole galvanized malleable iron or two-hole galvanized steel clamp type shall be used. Wire or plumber's tape shall not be used for hanging conduits.
   4. Provide junction or pull boxes in addition to those shown on drawings, where required for pulling conductors due to excessive number of bends or to length of conduit runs. Coordinate locations of pull boxes with all existing building features and equipment.
   5. Reroute conduit where necessary to clear structural and mechanical obstructions. All rerouting shall be approved by the Owner prior to installation.
   6. Ends of conduit shall be cut square and reamed to remove any burrs and sharp edges. Conduit terminations at panelboards and boxes shall be provided with locknuts and bushings.
   7. Prime and finish paint all exposed conduits to match adjacent surfaces.
   8. Existing conduits, in accessible or inaccessible ceiling spaces where the ceiling is opened as part of this work, shall be supported from the structure in compliance with this specification and with the seismic requirements of the State of California. Existing conduits include those conduits that are not directly affected by the work of this project.

2.03 Grounding

A. General: Except as otherwise indicated, provide electrical grounding systems indicated, with assembly of materials including, but not limited to, cables/wires, connectors, terminals (solderless lugs), and additional accessories needed for complete installation. Where more than one type unit meets indicated requirements, selection is Installer's option. Where materials or components are not indicated, provide products complying with CEC, IEEE, and established industry standards for applications indicated.
B. Conductors: Unless otherwise indicated, provide electrical grounding conductors for grounding connections matching power supply wiring materials and sized according to CEC.
C. Electrical Grounding Connection Accessories: Provide electrical insulating tape, heat-shrinkable insulating tubing, welding materials, and bonding straps, as recommended by accessories manufacturers for type of service indicated.

2.04 Outlet and Junction Boxes (50 cu.in and smaller)

A. Concealed outlet boxes: Provide UL listed and labeled galvanized flat rolled sheet steel interior outlet boxes of types, shapes, number of gangs, sizes, and depths to suit each location, number and AWG of wires passing through or terminating within, and wiring devices installed but in no case less than 4" square by 1-1/2" deep unless specifically noted as smaller on the drawings. Telephone, data, or communication outlet boxes shall be minimum 2-1/8" deep. Boxes shall have stamped knockouts in back and sides and shall have threaded screw holes with corrosion resistant screens for securing wiring devices and box covers.
B. Coordinate outlet box requirements with the manufacturer of the device to be installed.
C. Outlet boxes shall be as manufactured by Appleton, Bowers, Crouse-Hinds, O-Z Gedney Co., Steel City/Midland-Ross Corp., or RACO, Inc.
D. Install boxes and conduit bodies in locations, which ensure ready accessibility of electrical wiring.
E. Fasten boxes rigidly to substrates and structural surfaces or solidly embed electrical boxes in concrete or masonry.
F. In existing areas where ceilings are to be replaced, outlet, junction, and pull boxes that are to remain above the ceilings shall be supported and seismically braced from the structure above.
G. Outlet boxes on the essential electrical system shall be identified with the letter 'E', applied using a permanent marker.
H. Provide steel partition between switches in common outlet boxes when fed from separate normal and emergency voltage systems.

2.05 Outlet and Junction Boxes (larger than 50 cu.in)

A. Provide galvanized code gage sheet steel junction and pull boxes, with screw-on covers, of types, shapes, and sizes to suit each respective location and installation, with welded seams and equipped with stainless steel nuts, bolts, screws, and washers. Furnish in prime coat. Finish paint all exposed junction and pull boxes in finished areas to match adjacent surfaces or a color directed by Architect. [Finish painting is covered under painting section.] Provide engraved nameplate on each pull box and junction box identified with a specific name on the Drawings.
B. Coordinate outlet box requirements with the manufacturer of the device to be installed.
C. Available Manufacturers: Subject to compliance with requirements, manufacturers offering junction and pull boxes that may be incorporated in the work include, but are not limited to, Circle A-W, Cross, Hammond, or equal.

2.06 Wiring Devices

A. Provide factory-fabricated wiring devices in types, colors, and electrical ratings for applications indicated and complying with NEMA Standards Publication No. WD 1. Where types and grades are not indicated, provide proper selection as determined by Installer to fulfill wiring requirements and complying with CEC and NEMA standards for wiring devices.
B. Receptacles:
   1. General Duty Duplex: Provide duplex convenience outlets, three-wire, NEMA 5-15R or 5-20R, hospital grade, 125-volt, parallel slot, polarized where indicated. Devices shall have nylon face, thermoplastic body, brass strap, triple wipe brass line contacts, brass ground contacts, and devices shall be UL listed as Hospital Grade. Devices shall be white for normal circuits and red for essential electrical system circuits. Devices shall be Hubbell HBL8200, Cooper 8262, or Leviton 8200 for 15 ampere and Hubbell HBL8300, Cooper 8362, or Leviton 8300, for 20 ampere.
   2. Provide 20-ampere, 125-volt receptacle when indicated on the Drawings and/or where only one (1) duplex receptacle is provided on a separate 20-ampere, 120-volt circuit, or where the item of equipment to be connected requires a 20-ampere receptacle.
   3. Ground Fault Circuit Interrupter (GFCI): GFCI receptacles shall be duplex, three-wire, NEMA 5-15 R or 5-20 R, 125-volt, parallel slot, polarized where indicated, in white color for normal system circuits and red color for essential electrical system circuits. GFCI receptacles shall be 20A feed-through type, capable of protecting connected downstream receptacles on single circuit, grounding type UL-rated Class A, 60 Hz, with solid state ground fault sensing and signaling, with 4-6 milliamperes ground fault trip level, and UL listed as Hospital Grade. Devices shall be Hubbell GF8200, Cooper XHGF15, or Leviton 8598-HG for 15 ampere and Hubbell GF 8300, Cooper XHGF20, or Leviton 8898-HG for 20 ampere, or equal.
C. Switches
   1. Snap: Provide toggle switches, 20 ampere, 120/277 volt AC, quiet type with steel mounting strap insulated from mechanism. Equip with plaster ears, nylon or lexan switch handle, and back and side wired screw terminals. Switch shall include a steel grounding clip that shall automatically provide grounding continuity between the metal strap and a grounded metal wall box. Flush or surface mount per drawings.
   2. Provide line voltage specification grade lighting circuit switches at locations indicated on the drawings. Handles shall be white for normal circuits and red for essential electrical circuits. Devices shall be Hubbell HBL 1221, Leviton 1221-2.
   3. Verify correctness or door swings and locate switches on the latch side of the door swing.

2.07 Luminaires

A. Provide new luminaires of sizes, types, ratings and manufacturer, complete with, but not necessarily limited to, housings, lamps, lamp holders, reflectors, lenses, louvers, ballasts, starters, and wiring as specified on the drawings.
B. Provide electronic fluorescent lamp ballasts, capable of operating lamp types indicated, with high power factor, rapid-start or instant start, and low noise features, Type 1, Class P, sound-rated A, and with internal thermal protection. Minimum ballast factor shall be 0.88. Total harmonic distortion shall not exceed 20%. Ballasts for multiple lamps shall be wired for parallel lamp operation. Ballast shall be immune to transient voltages.
C. Provide lamps of colors indicated as manufactured by General Electric or Sylvania. For fluorescent luminaires, use General Electric 800 Series or Sylvania Octron 800 Series lamps where SPX35 lamps are indicated on the Drawings. Lamps shall have a minimum CRI of 85.
D. Install luminaires at locations and heights as indicated, complying with manufacturer's written instructions, applicable requirements of CEC, NECA'S "Standard of Installation", NEMA standards, and recognized industry practices to ensure that products fulfill requirements.
E. Coordinate with other electrical work and work of all other Divisions as necessary for proper interface.
F. Fasten luminaires securely to indicated structural support, and check to ensure that pendant luminaires are plumb.
G. Wire luminaires with conductors suitable for the voltage, current, temperature, and environment to which the conductors will be subjected.
H. Clean luminaires in areas of this phase of the work of dirt and debris and replace burned-out lamps before final acceptance of the installation.
I. Protect installed luminaires from damage during construction period.
J. Upon completion of installation of luminaires and after building circuitry has been energized, apply electrical energy to demonstrate capability and compliance with requirements. Where possible, correct malfunctioning units at site, then retest to demonstrate compliance. Otherwise, remove and replace with new units, and proceed with retesting.
K. Replace defective and burned-out lamps before Substantial Completion.
L. Replace burned-out lamps in existing luminaires that are relocated, reinstalled, and reconnected as part of the work of this Division.
M. Provide tight equipment grounding connections for each luminaire installation.

2.08 Faceplates

A. Provide single switch and duplex outlet faceplates, of types, sizes, and with ganging and cutouts as indicated. Provide faceplates possessing the following additional construction features:
   1. Material and Finish:
      a. 0.032" thick, type 302 satin finished stainless steel in dry locations except as otherwise selected by Engineer.
      b. Steel plate, galvanized for unfinished areas.
      c. Nylon (thermoplastic) where specified, with color as indicated.
   2. Engraved lettering shall be provided on receptacle faceplates indicating panel and circuit number.

2.09 Panelboard circuit breakers: New circuit protective devices in existing panelboards shall match existing manufacturer and have same short circuit rating. New molded case thermal magnetic circuit breakers shall have toggle handles that indicate when breaker is tripped. Multiple pole breakers shall have common trip so overload on one pole will trip all poles simultaneously. Circuit breakers shall be automatic with an interrupter and trip element for each pole, all enclosed in a molded plastic case. The operating mechanism shall provide quick-make, quick-break, trip free contact action. The operating handle of the circuit breaker shall open and close all poles of a multi-pole breaker simultaneously. Each breaker shall have a thermal magnetic trip unit for each pole, consisting of a thermal element for time-delayed overload protection and a magnetic element for short circuit protection. Individual single pole breakers with tie bars will not be acceptable. The breakers shall have a visible trip indication. Units shall be of the size shown on the drawings and shall meet NEMA and/or UL specifications. Make modifications and additions to feeders and distribution branch circuits as indicated on drawings.

2.10 Enclosed circuit breakers

A. Subject to compliance with requirements, provide products as manufactured by General Electric Co., Square D Co., Cutler-Hammer, or equal.
B. Molded Case Thermal Magnetic Circuit Breakers: Provide factory-assembled, molded case circuit breakers of frame size and number of poles as indicated. Circuit breakers shall be constructed using glass reinforced insulating material providing superior dielectric strength. Current-carrying components shall be completely isolated from the handle and accessory mounting area. Provide breakers with permanent thermal and instantaneous magnetic trips in each pole and with fault current protection and ampere ratings as indicated. Construct with overcenter, trip free, toggle type operating mechanisms with quick-make, quick-break action and positive handle trip indication. Construct breakers for mounting and operating in any physical position and operating in an ambient temperature of 40degree centigrade. All circuit breakers shall have minimum 10,000A AIC rating.
C. Provide neutral and equipment ground conductor terminal kits. Enclosure shall be NEMA 1 type with flush or surface mount cover.

2.11 Metal raceway

A. Wireway: The raceway shall be of a two-piece design with a metal base and snap-on metal cover. Base shall be a minimum of 0.050" wall thickness and cover shall be a minimum of 0.040" wall thickness. Assembled base and cover shall be 4.750" wide by 1.750" high. Base shall be provided with two equal compartments separated by a removable barrier section. Provide with fittings including but not limited to flat, internal elbows, tees, entrance fittings, wire clips, cover clips, couplings, support clips, and end caps. The fittings shall be ivory color to match the raceway. All fittings shall be supplied with a base where applicable to eliminate mitering. A take-off fitting shall be available to adapt to existing flush wall boxes. Provide separate covers for 2" grommeted openings at locations as shown on the drawings and as required by the x-ray equipment installer. Grommet openings at the ends of the wireways.
B. Wall Duct: Raceway tub and cover shall be 14 gauge steel with baked enamel finish, UL approved for enclosing of wiring to X-Ray machines. Cross section of tub shall be 10" by 3-1/2". Wire retainers shall be furnished for each duct joint. Provide all components and accessories required for a complete and continuous installation. Provide with fittings and accessories including but not limited to couplers and wire retainers. Partitions shall provide 3 compartments of equal dimension on either side of a straight length and be attached with coupler screws. Cover plates 10" wide for surface mounted wall duct. Provide separate covers with 3" grommeted openings at locations as shown on the drawings and as required by the x-ray equipment installer.

2.12 Lighting Controls:

A. OCCUPANCY SENSORS
   1. Wall mounted occupancy sensor: Sensor shall be vandal resistant with dual technology (passive infrared and ultrasonic) and include a completely self contained control system that replaces a standard toggle switch. Switching mechanism shall be a latching air gap relay, compatible with electronic ballasts and inductive loads. Sensor shall be capable of detecting presence in the control area by detecting changes in infrared energy and by detecting sounds that indicate continued occupancy. Continuously adjusting zero cross relay control shall be used to guarantee reliable operation with non-linear loads. Time delay range shall be adjustable from 30 seconds to 20 minutes. Lights shall turn off 10 minutes after the area is initially occupied if no motion is detected after the first 30 seconds. Sensor shall have no minimum load requirement and shall be capable of switching 0 to 1200 watts (277VAC) fluorescent/incandescent loads. Sensors shall not protrude more than 1.5" from the wall. Provide Sensorswitch WSD-PDT-V, or equal by Hubbell or Watt Stopper.
   2. Ceiling mounted dual technology occupancy sensor: Dual technology sensor shall be capable of detecting presence in the control area, by detecting changes in the infrared energy and by detecting sounds that indicate continued occupancy. Small movements shall be detected such as when a person is writing while seated at a desk. To avoid false 'on' activations the frequency, duration, and amplitude of the signal received by the sensor shall be monitored to respond only to those signals caused by human motion. Sensors shall utilize mixed signal technology, which combines analog and digital processing, to provide immunity to RFI and EMI. Sensor shall utilize a temperature compensated, dual element sensor and a multi-element lens. Sensor shall have a field of view of 360-degree vertically and horizontally. Sensor shall cover 300 square feet at normal mounting heights. Sensor shall have the ability to sense directly under and behind sensor. Time delay range shall be adjustable from 30 seconds to 20 minutes. Set time delay at 10 minutes. Sensor shall have user-adjustable sensitivity setting. The sensor shall not protrude more than 1.55 inches from the ceiling. Sensor shall be capable of being wired in parallel to allow coverage of large areas. Provide Sensorswitch CMR-PDT-10, or equal by Hubbell or Watt Stopper.
   3. Devices shall be white in color.
B. FLUORESCENT DIMMERS
   1. Dimmer shall be capable of dimming fluorescent lamps powered from an electronic fluorescent dimming ballast from 100% to 1% light output. The dimmer shall be rated for operation at 277 volts, with UL 20 compliant air gap switch, high impact polycarbonate faceplate, die cast aluminum frame, preset lighting control, on-off switch, and slide dimmer control. The dimmer shall be capable of supplying a control signal to a controllable electronic ballast. Devices shall be white in color where connected to non essential electrical system. Devices shall be white in color with a red nylon faceplate where connected to essential electrical system.
   2. Available Manufacturers: Subject to compliance with requirements, manufacturers offering dimmers for electronic dimming ballasts that may be incorporated in the work include, Lutron Nova T, NTF Series, model NTF-10-277 or equal, no known equal.

2.13 Fire Alarm System

A. Provide new fire alarm system devices compatible with the existing fire alarm system. Provide all programming modifications required to integrate the new devices into the existing system.
B. Addressable Photoelectric Smoke Sensor and Base.
   1. The detector shall be 24VDC type and obtain its operating power from the signaling line circuit.
   2. The addressable smoke sensors shall be of the photoelectric type and shall communicate actual smoke chamber values to the system control panel.
   3. Detector construction shall have a mounting base with a twist-lock detecting head that is lockable. The locking feature must be field removable when not required. Contact between the base and head shall be of the bifurcated type utilizing spring type, self-wiping contacts. Removal of the detector head shall interrupt the supervisory current of the fire alarm detection loop and cause a trouble signal at the control panel. Detector design shall provide compatibility with other normally open fire alarm detection loop devices (heat detectors, pull stations, etc.).
   4. To minimize false alarms, voltage and RF suppression techniques shall be employed as well as a smoke signal verification circuit and an insect screen.
   5. Photoelectric Smoke Sensor shall be Simplex model 4098-9714, CSFM listing no. 7272-0026:218. Base shall be Simplex model 4098-9792, CSFM listing no. 7300-0026:217.
C. Addressable Heat Detectors and Base
   1. The addressable heat detector shall be of the thermistor based fixed temperature sensing type. The new detectors shall obtain operating power from the signaling line circuit.
   2. The sensors shall be listed to UL Standard 521 and shall be documented to be compatible with the control equipment to which they are to be connected. The sensors shall be listed for both ceiling and wall mount applications.
   3. Each sensor base shall contain a LED that will flash each time it is scanned by the control panel (once every 4 seconds). When the control panel determines that a sensor is in an alarm or a trouble condition, the control panel shall command the LED on that sensor's base to turn on steady indicating the abnormal condition. Sensors which do not provide a visible indication of an abnormal condition at the sensor location shall not be acceptable.
   4. Detector construction shall have a mounting base with a twist-lock detecting head that is lockable. The locking feature must be field removable when not required. Contact between the base and head shall be of the bifurcated type utilizing spring type, self-wiping contacts. Removal of the detector head shall interrupt the supervisory current of the fire alarm detection loop and cause a trouble signal at the control panel. Detector design shall provide compatibility with other normally open fire alarm detection loop devices (smoke detectors, pull stations, etc.).
   5. Heat detector sensor shall be Simplex model 4098-9733, CSFM listing no. 7270-0026:216. Base shall be Simplex model 4098-9792, CSFM listing no. 7300-0026:217.
D. Combination chime/strobe notification appliances shall be mounted on a single plate and red in color with the word 'FIRE' stenciled on the plate. The chime shall be a solid state device that is field selectable for either single-stroke or vibrating operation and shall be set in single-stroke mode. Anechoic sound levels shall be adjustable up to 83 dB with tone frequency adjustable from 800Hz to 1200 Hz. Sound level and tone frequency shall be set to match existing appliances. Strobes shall have a Xenon flash tube with a Lexan cover and shall flash once per second minimum over their regulated voltage range. Strobe candela setting shall be adjustable to 15cd, 30cd, 75cd, or 110cd. The strobe adjustment switch shall be tamper-resistant and shall not be accessible from the front of the appliance. Strobe shall comply with FCC Part 15 Class B. Strobe candela setting shall be 15cd unless otherwise indicated on the drawings. Strobes shall be capable of synchronized operation when used with a synchronizing module. Appliances shall comply with UL 1971 and UL 464. Combination chime/strobe appliance shall be Siemens model CH-MC-R, CSFM listing no. 7125-0067:253.
E. Stand-alone strobes shall have a Xenon flash tube with a Lexan cover and shall flash once per second minimum over their regulated voltage range. Strobe candela setting shall be adjustable to 15cd, 30cd, 75cd, or 110cd. The strobe adjustment switch shall be tamper-resistant and shall not be accessible from the front of the appliance. Strobe shall comply with FCC Part 15 Class B. Strobe candela setting shall be 15cd unless otherwise indicated on the drawings. Strobes shall be capable of synchronized operation when used with a synchronizing module. Appliances shall comply with UL 1971. Stand-alone strobes shall be Siemens model ZR-MC-R (wall mount), CSFM listing no. 7125-0067:252.
F. Provide 18AWG twisted shielded pair cable for the signaling line circuit, West Penn, Belden, or equal. The 12AWG and 14AWG conductors shall be 600 volt, stranded copper with THHN/THWN insulation.

2.14 Nurse Call

A. The existing nurse call system at this facility shall be modified, as required, to add toilet call stations and corridor/zone lights. Contractor shall provide all necessary work and materials in order to connect new nurse call system devices and corridor/zone lights to the existing nurse call control panels and annunciators.
B. Provide new nurse call system toilet call stations and corridor/zone lights. New nurse call system devices and corridor/zone lights shall be compatible with and of the same manufacturer as the existing nurse call system. New system devices and corridor/zone lights shall be as manufactured by Rauland-Borg
C. Toilet call stations shall activate the emergency signal and cause associated dome light to flash. Provide call stations with a nylon pull cord connected to a slide switch. Calls shall be placed by pulling the cord. Provide stainless steel single gang faceplate with engraving indicating emergency call.
D. Dome lights shall be ceiling mounted and provided with translucent plastic lens on a single gang faceplate.
E. Provide wiring as recommended by the manufacturer.

III EXECUTION

3.01 Completion data

A. Submit completion data to the Engineer and Owner in acceptable quantity and form before requesting a final inspection. Such submittal shall be corrected, amended, or completed before final acceptance of the work.
B. Include: warranties; record drawings and data; test results; manufacturer's installation, operating, and maintenance instructions; certifications by manufacturers as required; approvals by other authorities where specified or where required by the general, special, or supplementary general conditions.

3.02 Manufacturer's directions: Follow manufacturer's directions and recommendations in all cases where the manufacturers of articles used for this work furnish directions covering points not shown or specified.

3.03 Mounting: Provide all materials and accessories necessary to properly mount and secure equipment furnished and/or installed under the electrical work. The items requiring mounting include, but are not limited to, conduits, outlets, junction boxes, pull boxes, etc. Mounting shall comply with the 2007 edition of Title 24, Part 2, California Building Code and the 2005 edition of ASCE 7 Chapter 13.

3.04 Cleaning: During construction and upon completion of the work, remove from the entire site all debris and excess materials, tools, etc., resulting from this work. Clean all equipment provided or modified as part of this work, including luminaires, free from dust, dirt, grease, paint, etc.

3.05 Concrete Anchors and Inserts

A. Concrete and masonry expansion type anchors shall be equal to Hilti KWIK BOLT TZ Wedge anchors. Allowable shear and tension values in pounds for each anchor shall comply with latest issue of ICBO Report No. ESR-1917. Provide anchors of diameter and minimum embedment as required by loads.
B. Expansion type anchors shall be proof load tested per requirements of the State of California.

3.06 Obtain all required permits; Owner will pay for permits, inspections, and examinations.

O.S.H.P.D. PROJECT # SL 101318-56

REVIEWED IN ACCORDANCE WITH THE REQUIREMENTS OF T24, CCR
APPROVED
APR 05 2011
Office of Statewide Health Planning & Development
FACILITIES DEVELOPMENT DIVISION

COUNTY OF VENTURA
PUBLIC WORKS AGENCY
ENGINEERING SERVICES DEPARTMENT

PROJECT MANAGER	
SPEC. NUMBER CP11-05	SHEET 31 OF 31
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FOR PLAN REVIEW ONLY

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VENTURA COUNTY MEDICAL CENTER
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