

KEY NOTES

- EXISTING BUILDING, NOT IN CONTRACT.
- EXISTING PARKING/ AC PAVING.
- EXISTING BARRIER FREE PATH OF TRAVEL (SEE GENERAL NOTE #2).
- EXISTING PARKING LOT "TOW-AWAY" SIGNAGE - PROVIDE UNDER DSA APPLICATION A100551.
- EXISTING ACCESSIBLE PARKING - PROVIDED UNDER DSA APPLICATION A100551.
- EXISTING ACCESSIBLE RAMP, 1/2" MAXIMUM SLOPE, PROVIDED UNDER DSA APPLICATION A100551.
- EXISTING ACCESSIBLE RESTROOM (STUDENT AND STAFF) PROVIDED UNDER DSA APPLICATION A100551.
- EXISTING ACCESSIBLE PARKING SIGNAGE, PROVIDED UNDER DSA APPLICATION A100551.
- EXISTING ACCESSIBLE PARKING SYMBOL, PROVIDED UNDER DSA APPLICATION A100551.
- EXISTING "VAN ACCESSIBLE" PARKING SPACE, PROVIDED UNDER DSA APPLICATION A100551.
- EXISTING "VAN ACCESSIBLE" PARKING STALL SIGNAGE, PROVIDED UNDER DSA APPLICATION A100551.
- EXISTING CONCRETE WALK.
- EXISTING CONCRETE CURB AND GUTTER.
- EXISTING CONCRETE STEP.
- EXISTING DRAINS.
- EXISTING BICYCLE RACKS.
- EXISTING CATCH BASIN.
- EXISTING SCREEN WALL.
- EXISTING FIRE HYDRANT.
- EXISTING LANDSCAPING PLANTERS.
- EXISTING DIRECTORY.
- INDICATES LOCATION OF TEMPORARY CONSTRUCTION FENCE SPECIFICATIONS. COORDINATE EXACT LOCATIONS WITH OWNER PRIOR TO ERECTION.
- EXISTING BUILDING TO BE REMODELED UNDER THIS CONTRACT.
- EXISTING ACCESSIBLE PARKING SPACE, PROVIDED UNDER DSA APPLICATION A100551.
- EXISTING ACCESSIBLE PARKING STALL SIGNAGE, PROVIDED UNDER DSA APPLICATION A100551.
- EXISTING CONCRETE CURB RAMP PROVIDED UNDER DSA APPLICATION A100551.
- EXISTING CROSS WALK WITH PAINTED STRIPES TO MATCH ACCESSIBLE PARKING STALL LOADING ZONE PROVIDED UNDER DSA APPLICATION A100551.
- EXISTING CONTINUOUS DETECTABLE WARNING AT EDGE OF CROSSWALK AT VEHICULAR WAY, PROVIDED UNDER DSA APPLICATION A100551.

GENERAL NOTES

- NOT ALL KEYNOTES MAY BE NECESSARILY USED OR REFERENCED.
- PATH INDICATED IS BARRIER FREE AND WITHOUT ABRUPT VERTICAL CHANGES EXCEEDING 1/2" AT 1/2" MAXIMUM SLOPE EXCEPT THAT VERTICAL CHANGES SHALL NOT EXCEED 1/4" IN THE VERTICAL DIRECTION. THE ARCHITECT AND CONTRACTOR NEED TO VERIFY THAT ALL BARRIERS IN THE PATH OF TRAVEL HAVE BEEN REMOVED (PER SECTION 1023, CBC).
- ENTRANCE SIGNS FOR ALL ACCESSIBLE MAIN ENTRANCES FOR THE USE OF PHYSICALLY HANDICAPPED AND PHYSICALLY DISABLED PERSONS SHALL BE IDENTIFIED WITH AT LEAST ONE STANDARD SIGN, AND ADDITIONAL DIRECTIONAL SIGNS AS REQUIRED, TO BE VISIBLE TO PERSONS ALONG APPROACHING PEDESTRIAN WAYS. REFERENCE DETAILS 3/A-G.1, 4/A-G.1 & 5/A-G.1.

LOCAL FIRE AUTHORITY REVIEW

FIRE DEPARTMENT ACCESS, EGRESS AND GATE ENTRANCES HAVE BEEN REVIEWED FOR COMPLIANCE WITH SECTION 3.05 AND 3.16, TITLE 19.
FIRE FLOW AND FIRE HYDRANTS HAVE BEEN REVIEWED FOR COMPLIANCE WITH STATE APPENDICES II-AA AND II-BB, PART 9, TITLE 24.

APPROVAL ISSUED BY:

DAVID MOORE
PRINTED NAME AND TITLE OF REVIEWER

ENCINITAS FIRE, 505 S. VULCAN, 760-633-2822

TITLE, ADDRESS AND PHONE NUMBER OF AGENCY

[Signature] 8-3-2000
SIGNATURE OF REVIEWER DATE

D.S.A. APPROVALS

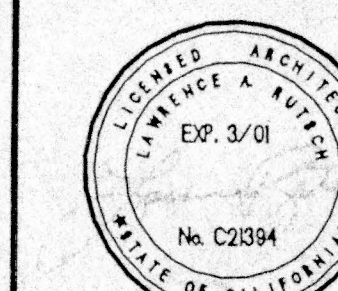
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BIOTECHNOLOGY LAB REMODEL
BUILDING 400
MIRACOSTA COMMUNITY COLLEGE DISTRICT

SAN ELIJO CAMPUS
333 MANCHESTER AVENUE, CARLETON, CA 92007



PARTIAL
SITE PLAN

REVISIONS:

DATE: 0/0/00

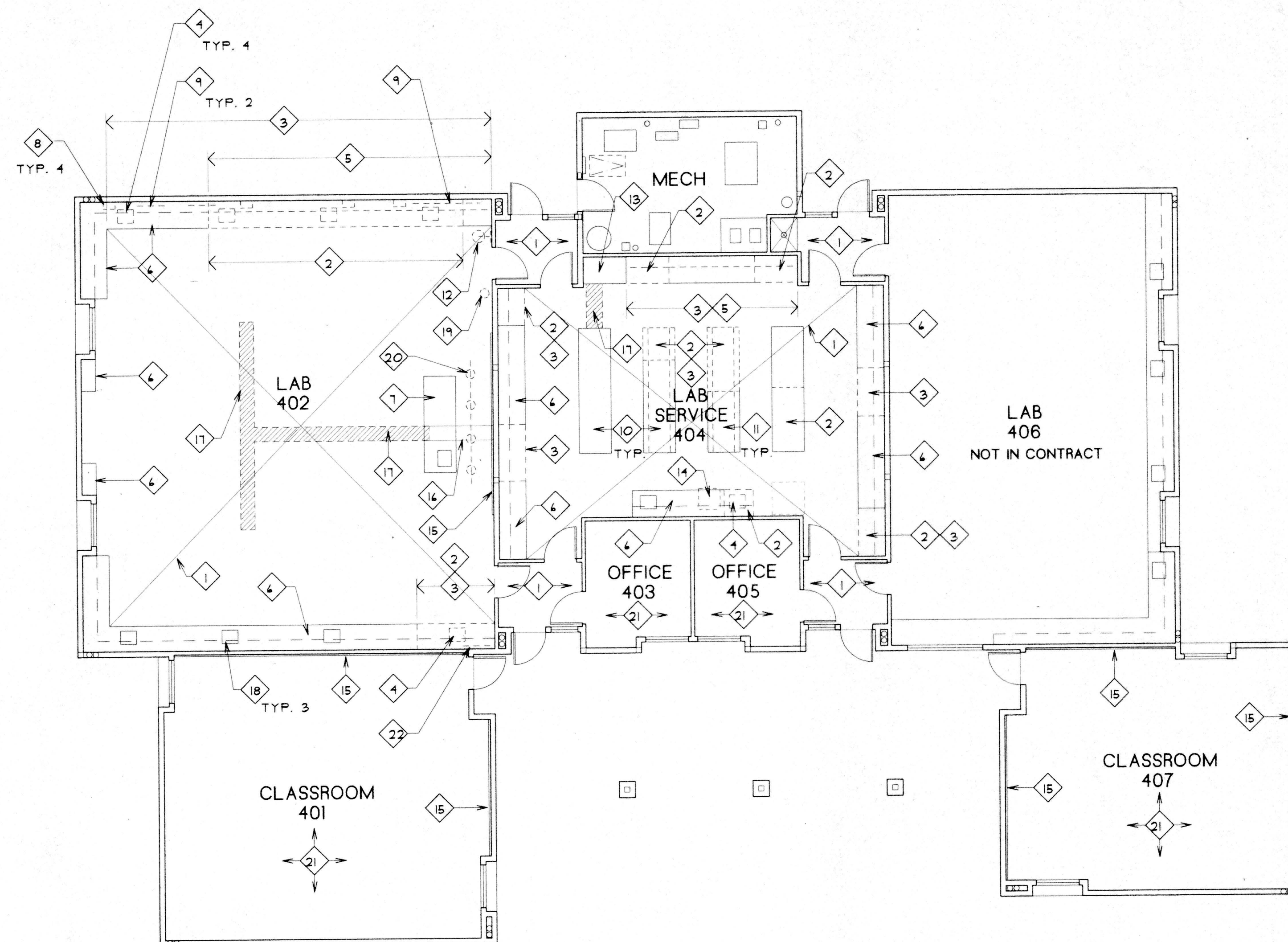
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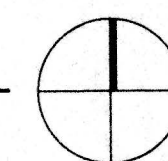
SAN ELIJO HUB PARTIAL SITE PLAN

SCALE 1" = 30'-0"



DEMOLITION PLAN - BLDG. 400

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



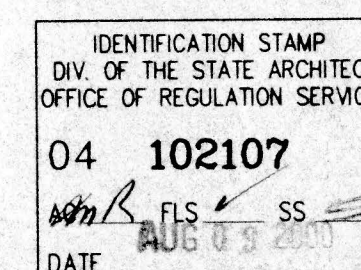
KEY NOTES

1. REMOVE EXISTING SHEET VINYL FLOORING (TOPSET BASE).
2. REMOVE PORTION OF EXISTING BASE CABINET.
3. REMOVE PORTION OF EXISTING EPOXY COUNTERTOP.
4. REMOVE EXISTING SINK - REFER TO PLUMBING DWGS.
5. REMOVE PRTION OF EXISTING WALL CABINETS.
6. EXISTING BASE and/or WALL CABINETS TO REMAIN.
7. EXISTING DEMONSTRATION TABLE TO REMAIN.
8. REMOVE EXISTING PAPER TOWEL DISPENSER. DELIVER TO DISTRICT.
9. REMOVE EXISTING PEG-BOARD DRYING RACK. DELIVER TO DISTRICT.
10. EXISTING LAB SERVICE ISLAND TO REMAIN. MODIFY PER NEW WORK PLANS AND ELEVATIONS, SHTS. A-3.1 & A-4.2.
11. REMOVE EXISTING SHELVING.
12. REMOVE EXISTING EYE WASH - REFER TO PLUMBING DWGS.
13. EXISTING FUME HOOD TO REMAIN - REMOVE BASE CABINET FOR REPLACEMENT PER NEW WORK PLANS.
14. REMOVE EXISTING DISHWASHER. CAP WATER SUPPLY LINE AND DISCONNECT / SAFE OFF ELECTRICAL SUPPLY.
15. EXISTING CHALKBOARD TO REMAIN.
16. EXISTING UTILITY TRENCH.
17. SAWCUT AND REMOVE CONCRETE FLOOR SLAB FOR CONSTRUCTION OF NEW UTILITY TRENCH PER DETAIL 1/A-4.1.
18. EXISTING SINK TO REMAIN.
19. REMOVE EXISTING FIRE EXTINGUISHER FOR RELOCATION PER FLOOR PLAN, SHT. A-3.1.
20. REMOVE TRACK LIGHTING - REFER TO ELECTRICAL DWGS.
21. REMOVE EXISTING FLOORING AND BASE FOR REPLACEMENT (ADDITIVE ALTERNATE - REFER TO SPECIFICATIONS SECTION 0230).
22. REMOVE EXISTING PEG BOARD DRYING RACK - SAVE FOR RELOCATION AS NOTED ON INTERIOR ELEVATION A1/A-4.2.

GENERAL NOTES

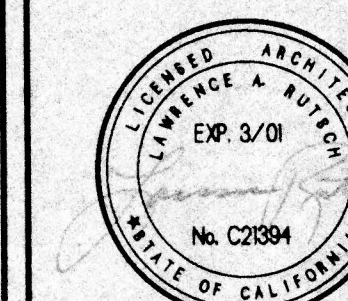
1. NOT ALL KEY NOTES MAY BE NECESSARILY USED OR REFERENCED.
2. THIS DEMOLITION PLAN REFERENCES GENERAL ITEMS AND CONDITIONS. VARIATIONS MAY OCCUR WITHIN ROOMS AND SHALL BE TREATED AS A SIMILAR CONDITION.
3. KEY NOTES REFERENCE GENERAL ELEMENTS FOR DISPOSAL OR SALVAGE. VARIOUS OTHER ITEMS MAY OCCUR AND SHOULD BE REMOVED ACCORDING TO THE NEEDS AND DESIGN INTENT OF THE NEW CONSTRUCTION.
4. AFTER THE DEMOLITION AND REMOVAL OF ELEMENTS, REPAIR AND RESTORE EXISTING FINISHES TO REMAIN TO THEIR ORIGINAL CHARACTER. WHERE EXISTING FINISHES ARE TO BE HIDDEN WITH NEW MATERIAL, THOSE FINISHES SHALL BE RESTORED TO PROVIDE ADEQUATE SUITABILITY, STRENGTH AND SUBSTRATE FOR NEW CONSTRUCTION AND FINISHES.
5. CONTRACTOR SHALL COMPLY WITH THE FOLLOWING SECTIONS OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION:
 - 5-2 PROTECTION
 - 5-3 REMOVAL
 - 5-4 RELOCATION
 - 7-8 PROJECT SITE MAINTENANCE
 - 7-9 PROTECTION & RESTORATION OF EXIST. IMPROVEMENTS
 - 7-10 PUBLIC CONVENIENCE AND SAFETY
6. CONTRACTOR SHALL DISPOSE OF DEMOLITION MATERIALS IN A LEGAL AND ACCEPTABLE MANNER OFF-SITE.
7. CONTRACTOR SHALL MAKE AVAILABLE TO OWNER ANY MATERIALS OR EQUIPMENT SCHEDULED FOR DEMOLITION, DISPOSAL, REMOVAL, ETC. UPON OWNER'S REQUEST. OWNER SHALL HAVE FIRST RIGHT OF REFUSAL ON ALL SALVAGABLE ITEMS.
8. CONTRACTOR SHALL KEEP EQUIPMENT OR MATERIALS INDICATED FOR REUSE, RELOCATION OR OWNER REQUESTED RETENTION IN A SAFE MANNER TO PROTECT THE MATERIAL OR EQUIPMENT'S CONDITION.
9. REFER TO MECHANICAL AND ELECTRICAL DEMOLITION DRAWINGS FOR ADDITIONAL DEMOLITION REQUIREMENTS.
10. REMOVE ALL WALL MOUNTED FURNISHINGS SCHEDULED TO REMAIN (IE BULLETIN BOARDS, FIRE EXTINGUISHERS, BLINDS, ETC.) DURING CONSTRUCTION. STORE AND REINSTALL AT COMPLETION OF NEW FINISH WORK.
11. REFER TO FINISH SCHEDULE GENERAL NOTES ON SHEET A-4.1 FOR ADDITIONAL DEMOLITION REQUIREMENTS.
12. REFER TO PLUMBING DRAWINGS TO DETERMINE LOCATION & EXTENT OF ALL CONCRETE FLOOR SLAB REMOVAL AND REPLACEMENT FOR NEW UNDERGROUND PLUMBING WORK. REFER TO DETAIL 8/A-4.1 FOR SLAB REPAIR REQUIREMENTS.

DSA APPROVAL



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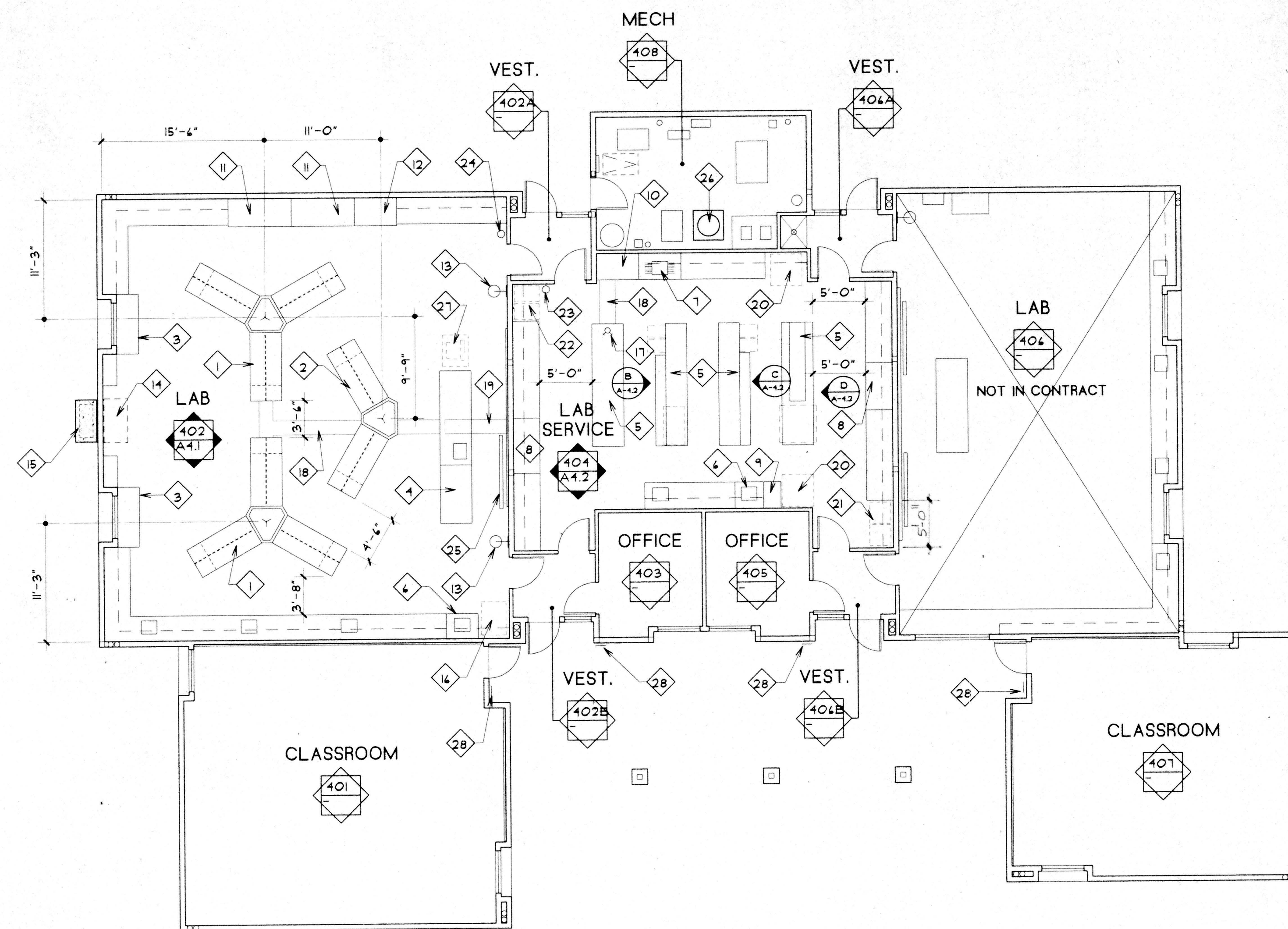


BUILDING 400
DEMOLITION PLAN

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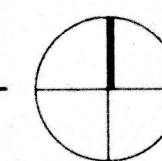
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FLOOR PLAN - BLDG. 400

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



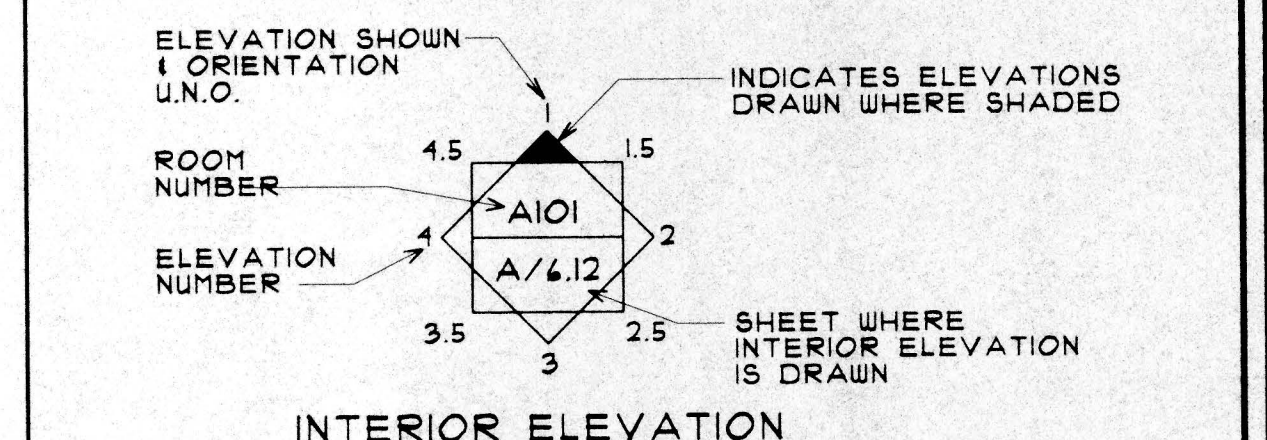
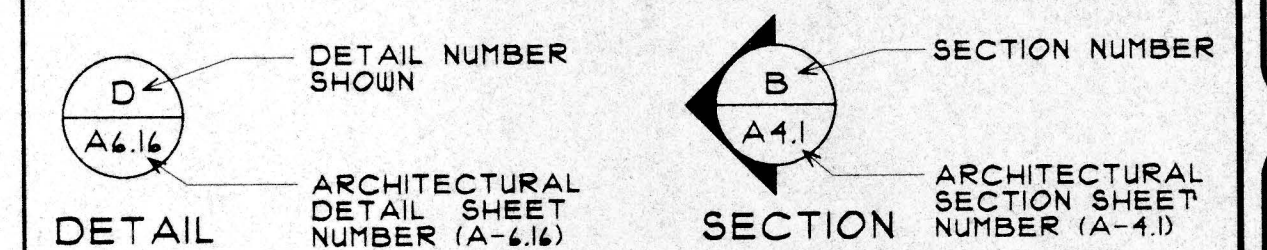
KEY NOTES

1. NEW LAB STATION UNIT - REFER TO DETAIL B/A-4.1.
2. NEW LAB STATION UNIT WITH ACCESSIBLE BENCH SECTION - REFER TO DETAIL C/A-4.2.
3. NEW MICROSCOPE STORAGE BASE CABINET.
4. NEW STORAGE CABINET - REFER TO DETAIL D/A-4.1.
5. EXISTING LAB SERVICE ISLAND - MODIFY AS NOTED ON NEW WORK PLANS AND AS INDICATED ON INTERIOR ELEV'S.
6. NEW ACCESSIBLE SINK CABINET - REFER TO INTERIOR ELEVATIONS AND PLUMBING DRAWINGS.
7. NEW SINK CABINET - REFER TO INTERIOR ELEVATIONS AND PLUMBING DWGS. COUNTERTOP TO BE PROVIDED WITH GROOVED DRAIN BOARD EACH SIDE OF SINK (12" LONG GROOVES).
8. NEW ACCESSIBLE WORKSTATION - MODIFY EXISTING CASEWORK, REFER TO INTERIOR ELEVATIONS.
9. NEW BASE CABINET SECTION FOR AUTOCLAVE.
10. EXISTING FUME HOOD TO REMAIN - REPLACE BASE CABINET PER INTERIOR ELEVATIONS.
11. NEW 4'-0" FUME HOOD - REFER TO SPECIFICATIONS AND MECHANICAL / ELECTRICAL DRAWINGS FOR ALL SERVICES REQUIRED.
12. NEW 4'-0" ACCESSIBLE FUME HOOD - REFER TO SPECS AND MECHANICAL / ELECTRICAL DRAWINGS FOR ALL SERVICES REQUIRED.
13. NEW EMERGENCY SHOWER - REFER TO PLUMBING DRAWINGS.
14. SALTWATER AQUARIUM (N.I.C. - OWNER FURNISHED AND INSTALLED).
15. AQUARIUM CIRCULATION PUMP AND COMPRESSOR (N.I.C. - OWNER FURNISHED AND INSTALLED). CONTRACTOR SHALL PROVIDE A 4" THICK 2'-0" WIDE X 4'-0" LONG (VERIFY EXACT DIMENSIONS) CONCRETE BASE PAD PER DET. 2/A-4.1 AND SHALL BE RESPONSIBLE FOR PROVIDING ALL REQUIRED ELECTRICAL AND PLUMBING ROUGH-INS. REFER TO ELECTRICAL AND PLUMBING DRAWINGS. SEAL ALL PIPING PENETRATIONS THROUGH EXISTING WALL TO PROVIDE A WEATHERTIGHT CONDITION.
16. CENTRIFUGE (N.I.C. - OWNER FURNISHED AND INSTALLED).
17. NEW GAS COCK AT EXISTING LAB BENCH - REFER TO PLUMBING DRAWINGS.
18. NEW UTILITY TRENCH - REFER TO DETAIL 1/A-4.1.
19. EXISTING UTILITY TRENCH.
20. REFRIGERATOR (N.I.C.)
21. ROCK FILES (N.I.C.)
22. FILE CABINETS (N.I.C.)
23. EXISTING FIRE EXTINGUISHER TO REMAIN.
24. RELOCATE EXISTING FIRE EXTINGUISHER AND MOUNTING BRACKET. MOUNT EXTINGUISHER AT +48" FROM FINISH FLOOR TO CENTERLINE OF HANDLE.
25. EXISTING PROJECTION SCREEN TO REMAIN.
26. NEW DEIONIZED WATER PLANT - REFER TO PLUMBING DWGS.
27. COMPUTER (N.I.C.)
28. PROVIDE 4" SQUARE ACCESSIBLE ENTRANCE SIGN. REFER TO DETAIL 3/A-4.1.

GENERAL NOTES

1. NOT ALL KEY NOTES MAY BE NECESSARILY USED OR REFERENCED.
2. CONTRACTOR SHALL VERIFY EXISTING CONDITIONS PRIOR TO CONSTRUCTION. MINOR VARIATIONS MAY OCCUR WITHIN TYPICAL ROOMS AND SHALL BE TREATED AS SIMILAR CONDITION.
3. SWITCHES, OUTLETS, FIRE EXTINGUISHERS, CLOCKS, FIRE ALARM PULL STATIONS, ETC. SHALL REMAIN UNLESS NOTED FOR REMOVAL, REPLACEMENT and/or RELOCATION.
4. REFER TO INTERIOR ELEVATIONS FOR ALL REQ'D. MODIFICATION WORK TO OCCUR AT EXISTING CASEWORK.
5. PROVIDE ROOM SIGNAGE PER DETAILS 1/A-4.1 & 5/A-4.1. VERIFY PLACEMENT WITH DISTRICT PRIOR TO INSTALLATION.

LEGEND KEY



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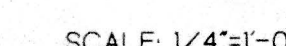
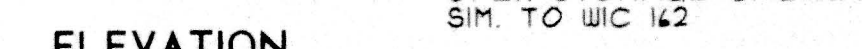
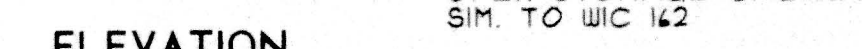
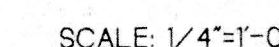
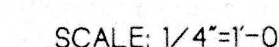
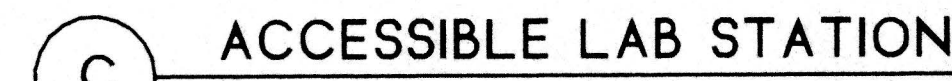
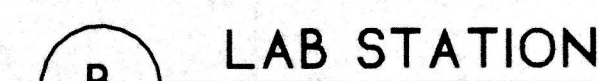
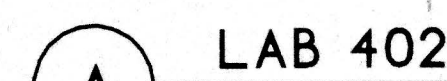
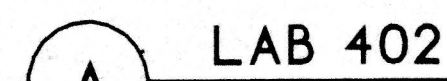


BUILDING 400
FLOOR PLAN

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1 DSA REVISIONS
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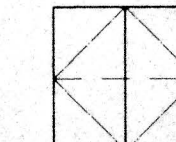


1. NOT ALL KEY NOTES MAY BE NECESSARILY USED OR REFERENCED.
2. CONTRACTOR SHALL VERIFY EXISTING CONDITIONS PRIOR TO CONSTRUCTION. MINOR VARIATIONS MAY OCCUR WITHIN TYPICAL ROOMS AND SHALL BE TREATED AS A SIMILAR CONDITION.
3. REFERENCE DETAIL SHEET A-4.2 FOR TYPICAL CABINET DTLS.

BASE, FULL HEIGHT, OVERHEAD

Diagram illustrating dimension line components:

- DEPTH DIMENSION
- ACTUAL LENGTH DIMENSION
- W.I.C. REFERENCE NUMBER



1. BASE PER FINISH SCHEDULE.
2. GYPSUM WALLBOARD - FINISH PER FINISH SCHEDULE.
3. EXISTING PLASTIC LAMINATE BASE CABINET.
4. EXISTING PLASTIC LAMINATE WALL CABINET.
5. EXISTING SINK TO REMAIN.
6. EXISTING AIR AND GAS COCKS TO REMAIN.
7. NEW PLASTIC LAMINATE CASEWORK. ADJUSTABLE SHELVING INDICATED. DASHED WHERE APPLICABLE. REFER TO DETAILS ON SHEET A-4.2.
8. NEW EPOXY RESIN SINK - REFER TO SPECS & PLUMB. DWGS.
9. LOCKABLE CABINET OR DRAWER INDICATED BY "L" ON ELEVATION (TYP). RETROFIT EXISTING CASEWORK SCHEDULED TO REMAIN TO PROVIDE LOOKS AS INDICATED.
10. ACCESSIBLE WORKSTATION - 21" MIN. HEIGHT CLEARANCE FROM FLOOR TO UNDERSIDE OF COUNTER AND/OR DRAWERS WITH 32" MIN. WIDTH CLEAR FLOOR SPACE.
11. PROVIDE DISABLED ACCESS BEHIND CABINET DOORS. 24" MIN. HEIGHT CLEARANCE FROM FLOOR TO UNDERSIDE OF SINK. SINKER SINK. OBSTRUCTION. 32" MIN. WIDTH CLEAR SPACE. INSULATE HOT WATER AND WASTE PIPES WHERE OCCURS. NO TOE KICK AT CASEWORK FOR WHEELCHAIR ACCESS. HEIGHT TO TOP OF COUNTERTOP IS 34" TYPICAL. REFERENCE DETAIL A-4.2.
12. NEW FOOT PEDAL CONTROLS FOR SINK - REFER TO PLUMB. DRAWINGS.
13. EXISTING ACID RESISTANT EPOXY COUNTERTOP.
14. NEW ACID RESISTANT EPOXY COUNTERTOP - REFER TO SPECIFICATIONS.
15. NEW ACID STORAGE BASE CABINET - REFER TO SPECS.
16. KNEE SPACE.
17. 4" TOE SPACE WITH BASE PER FINISH SCHEDULE.
18. ACID RESISTANT EPOXY BACKSPASH - HEIGHT TO MATCH EXISTING.
19. NEW 4'-0" FUME HOOD - REFER TO SPECIFICATIONS. COORDINATE W/ MECH. PLUMB. & ELECT. DWGS FOR ALL REQUIRED UTILITY REQUIREMENTS.
20. NEW 4'-0" ACCESSIBLE FUME HOOD - REFER TO SPECS.
21. EXISTING CHALKBOARD.
22. EXISTING DOOR.
23. EXISTING WINDOW.
24. EXISTING PROJECTION SCREEN AND BRACKETS.
25. EXISTING ELECTRICAL OUTLET AND/OR POWER STRIP TO REMAIN.
26. NEW EMERGENCY SHOWER - REFER TO PLUMBING DWGS.
27. DRAWERS WITH PADLOCK AND HASP.
28. NEW 12" DEEP EPOXY RESIN SINK - REFER TO SPECIFICATIONS AND PLUMBING DWGS.
29. DOUBLE GAS OUTLET - REFER TO PLUMB. DWGS.
30. DOUBLE VACUUM OUTLET - REFER TO PLUMBING DWGS.
31. MONUMENT ELECTRICAL OUTLET - REFER TO ELECT. DWGS.
32. DATA AND POWER OUTLET BELOW COUNTERTOP MOUNTED HORIZONTAL - REFER TO ELECT. DWGS.
33. NEW ADJUSTABLE SHELVES W/ FRONT LIP.
34. NEW TOP SHELF UNIT.
35. PROVIDE SOLID BACK AT SHELVING UNIT.
36. EXISTING PEG BOARD DRYING RACK.
37. RELOCATED PEG BOARD DRYING RACK.
38. EXISTING OPEN SHELVES - ADD FRONT LIP.
39. SALTWATER AQUARIUM (N.I.C.)
40. CENTRIFUGE (N.I.C.)
41. INCUBATOR (N.I.C.)
42. SHAKING WATER BATH (N.I.C.)
43. REFRIGERATOR (N.I.C.)
44. DRYING OVEN (N.I.C.)
45. FILE CABINET (N.I.C.)
46. ROCK CABINET (N.I.C.)
47. CARTS (N.I.C.)
48. MAP FILES (N.I.C.)
49. AUTOCLAVE (N.I.C.)
50. GROOVED DRAIN BOARD EACH SIDE OF SINK IN COUNTERTOP PROVIDE 12" LONG GROOVES.
51. ACCESSIBLE LAB STATION.
52. EXISTING PAPER TOWEL DISPENSER TO REMAIN.
53. EXISTING FUME HOOD.
54. NEW FLAMMABLE STORAGE BASE CABINET - REFER TO SPECIFICATIONS.
55. PROVIDE NEW PLASTIC LAMINATE FINISH (TO MATCH EXISTING) WHERE END OF EXISTING CASEWORK IS EXPOSED DUE TO NEW CONFIGURATION.
56. NEW PLASTIC LAMINATE END PANEL.
57. NEW EPOXY RESIN UNDERMOUNT SINK FIXTURE. MODEL H20C A MANUFACTURED BY LABORATORY TOPS, INC. WITH FOOT PLATE CONTROLS PER PLUMB. DWGS.

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DATE AUG 08 2008

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DATE:	4/10/00
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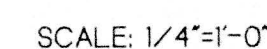
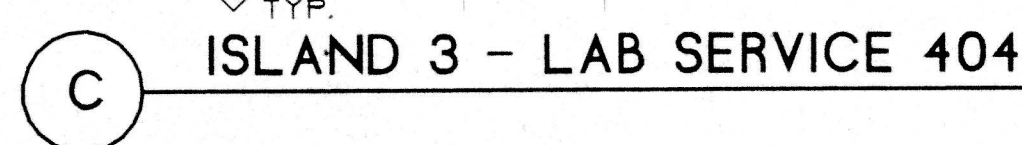
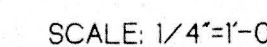
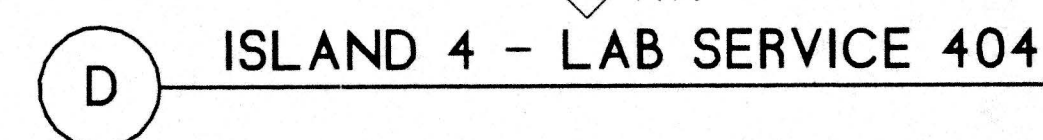
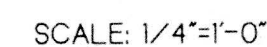
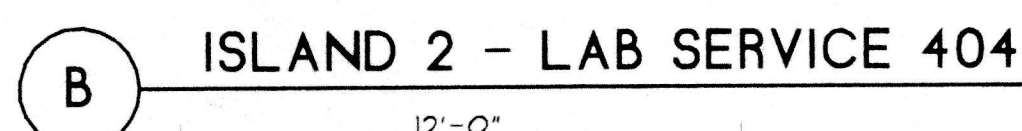
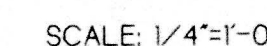
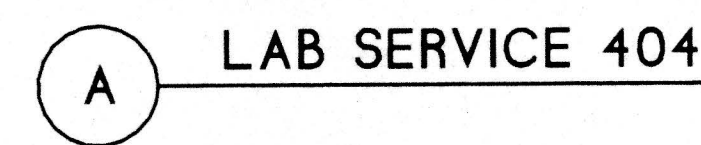
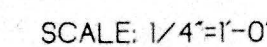
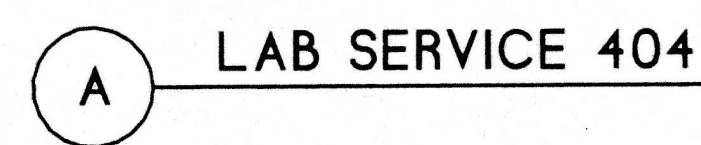
BIOTECHNOLOGY LAB REMODEL
BUILDING 400
MIRACOSTA COMMUNITY COLLEGE DISTRICT
SAN ELIJIO CAMPUS
CUNISE EX-LINE, SEA, CA 90002
900 MANCHESTER AVENUE



MiraCosta
College



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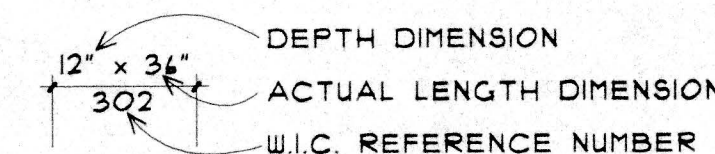


1. BASE PER FINISH SCHEDULE.
2. GYPSUM WALLBOARD - FINISH PER FINISH SCHEDULE.
3. EXISTING PLASTIC LAMINATE BASE CABINET.
4. EXISTING PLASTIC LAMINATE WALL CABINET.
5. EXISTING SINK TO REMAIN.
6. EXISTING AIR AND GAS COCKS TO REMAIN.
7. NEW PLASTIC LAMINATE CASEWORK, ADJUSTABLE SHELVING INDICATED DASHED WHERE APPLICABLE. REFER TO DETAILS ON SHEET A-4.2.
8. NEW EPOXY RESIN SINK - REFER TO SPECS & PLUMB. DWGS.
9. LOCKABLE CABINET OR DRAWER INDICATED BY "L" ON ELEVATION (TYP.); RETROFIT EXISTING CASEWORK SCHEDULED TO REMAIN TO PROVIDE LOCKS AS INDICATED.
10. ACCESSIBLE WORKSTATION - 21" MIN. HEIGHT CLEARANCE FROM FLOOR TO UNDERSIDE OF COUNTER AND/OR DRAWERS WITH 32" MIN. WIDTH CLEAR FLOOR SPACE.
11. PROVIDE DISABLED ACCESS BEHIND CABINET DOORS, 24" MIN. HEIGHT CLEARANCE FROM FLOOR TO UNDERSIDE OF COUNTER, SINK AND/OR OBSTRUCTION, 32" MIN. WIDTH CLEAR SPACE, INSULATE HOT WATER AND WASTE PIPES WHERE OCCURS. NO TOE KICK AT CASEWORK FOR WHEELCHAIR ACCESS. HEIGHT TO TOP OF COUNTERTOP IS 34" TYPICAL. REFERENCE DETAIL 4/A-4.2.
12. NEW FOOT PEDAL CONTROLS FOR SINK - REFER TO PLUMB. DRAWINGS.
13. EXISTING ACID RESISTANT EPOXY COUNTERTOP.
14. NEW ACID RESISTANT EPOXY COUNTERTOP - REFER TO SPECIFICATIONS.
15. NEW ACID STORAGE BASE CABINET - REFER TO SPECS.
16. KNEE SPACE.
17. 4" TOE SPACE WITH BASE PER FINISH SCHEDULE.
18. ACID RESISTANT EPOXY BACKSPLASH - HEIGHT TO MATCH EXISTING.
19. NEW 4'-0" FUME HOOD - REFER TO SPECIFICATIONS. COORDINATE W/ MECH., PLUMB. & ELECT. DWGS FOR ALL REQUIRED UTILITY REQUIREMENTS.
20. NEW 4'-0" ACCESSIBLE FUME HOOD - REFER TO SPECS.
21. EXISTING CHALKBOARD.
22. EXISTING DOOR.
23. EXISTING WINDOW.
24. EXISTING PROJECTION SCREEN AND BRACKETS.
25. EXISTING ELECTRICAL OUTLET AND/OR POWER STRIP TO REMAIN.
26. NEW EMERGENCY SHOWER - REFER TO PLUMBING DWGS.
27. DRAWERS WITH PADLOCK AND HASP.
28. NEW 12" DEEP EPOXY RESIN SINK - REFER TO SPECIFICATIONS AND PLUMBING DWGS.
29. DOUBLE GAS OUTLET - REFER TO PLUMB. DWGS.
30. DOUBLE VACUUM OUTLET - REFER TO PLUMBING DWGS.
31. MONUMENT ELECTRICAL OUTLET - REFER TO ELECT. DWGS.
32. DATA AND POWER OUTLET BELOW COUNTERTOP MOUNTED HORIZONTAL - REFER TO ELECT. DWGS.
33. NEW ADJUSTABLE SHELVES W/ FRONT LIP.
34. NEW TOP SHELF UNIT.
35. PROVIDE SOLID BACK AT SHELVING UNIT.
36. EXISTING PEG BOARD DRYING RACK.
37. RELOCATED PEG BOARD DRYING RACK.
38. EXISTING OPEN SHELVES - ADD FRONT LIP.
39. SALTWATER AQUARIUM (N.I.C.)
40. CENTRIFUGE (N.I.C.)
41. INCUBATOR (N.I.C.)
42. SHAKING WATER BATH (N.I.C.)
43. REFRIGERATOR (N.I.C.)
44. DRYING OVEN (N.I.C.)
45. FILE CABINET (N.I.C.)
46. ROCK CABINET (N.I.C.)
47. CARTS (N.I.C.)
48. MAP FILES (N.I.C.)
49. AUTOCLAVE (N.I.C.)
50. GROOVED DRAIN BOARD EACH SIDE OF SINK IN COUNTERTOP. PROVIDE 12" LONG GROOVES.
51. ACCESSIBLE LAB STATION.
52. EXISTING PAPER TOWEL DISPENSER TO REMAIN.
53. EXISTING FUME HOOD.
54. NEW FLAMMABLE STORAGE BASE CABINET - REFER TO SPECIFICATIONS.
55. PROVIDE NEW PLASTIC LAMINATE FINISH (TO MATCH EXISTING) WHERE END OF EXISTING CASEWORK IS EXPOSED DUE TO NEW CONFIGURATION.
56. NEW PLASTIC LAMINATE END PANEL.
57. NEW 12" DEEP CUSTOM EPOXY RESIN SINK W/ FOOT PEDAL CONTROLS - REFER TO DETAIL 11/A-4.2. SPECIFICATIONS & PLUMBING DWGS.

1. NOT ALL KEY NOTES MAY BE NECESSARILY USED OR REFERENCED.
2. CONTRACTOR SHALL VERIFY EXISTING CONDITIONS PRIOR TO CONSTRUCTION. MINOR VARIATIONS MAY OCCUR WITHIN TYPICAL ROOMS AND SHALL BE TREATED AS A SIMILAR CONDITION.
3. REFERENCE DETAIL SHEET A-6.2 FOR TYPICAL CABINET DTLs.

Diagram illustrating dimension line components:

- DEPTH DIMENSION
- ACTUAL LENGTH DIMENSION
- W.C. REFERENCE NUMBER



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A-4.2

A-4.2

Page 10 of 10

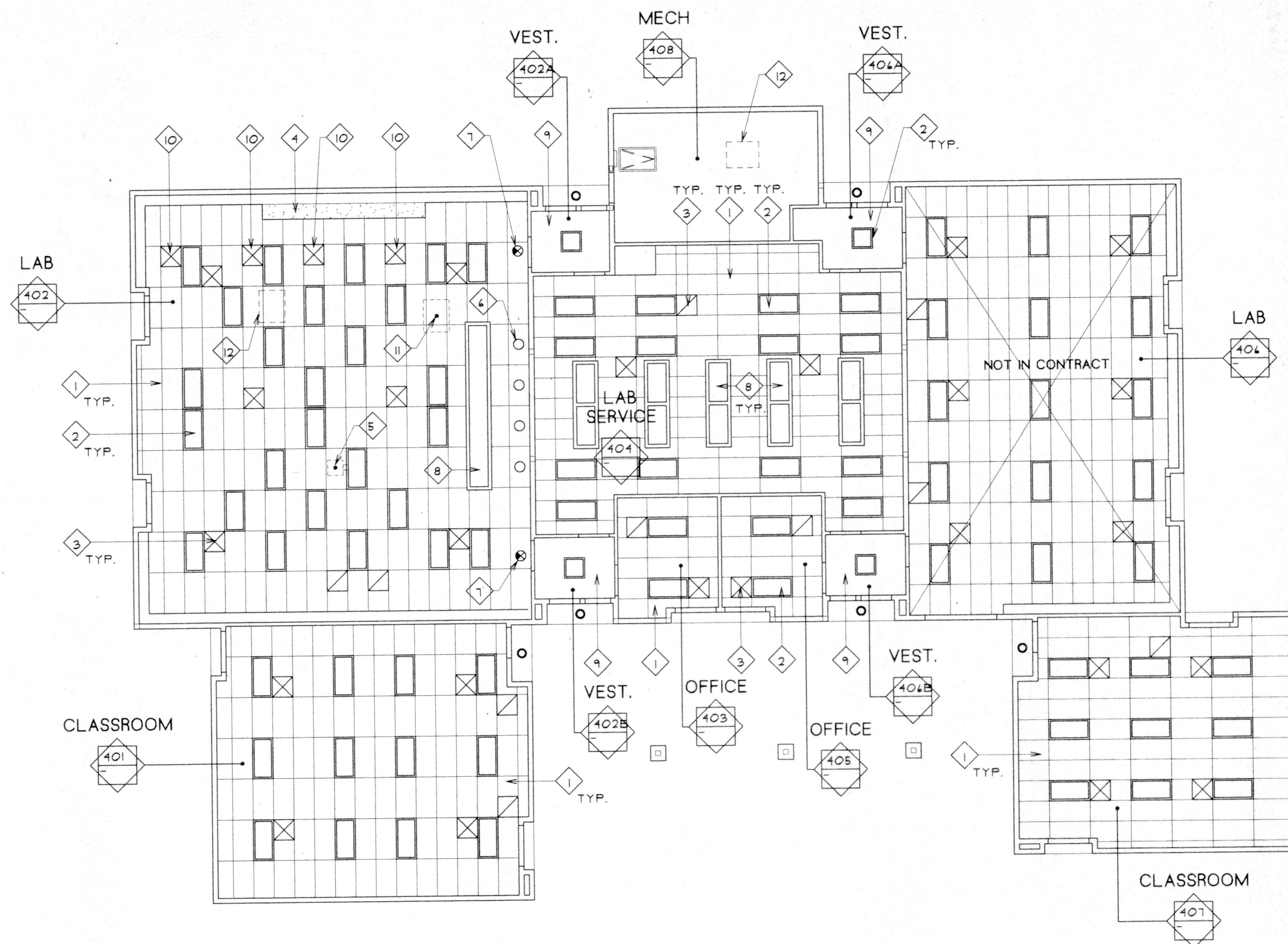
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**BIOTECHNOLOGY LAB REMODEL
BUILDING 400
MIRACOSTA COMMUNITY COLLEGE DISTRICT**

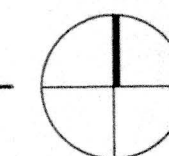
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REFLECTED CEILING PLAN - BLDG. 400

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



KEY NOTES

1. EXISTING ACOUSTICAL TILE CEILING IN SUSPENDED T-BAR GRID.
2. EXISTING FLUORESCENT LIGHT FIXTURE.
3. EXISTING MECHANICAL REGISTER.
4. NEW GYPSUM WALLBOARD SOFFIT OVER NEW FUME HOODS.
5. NEW CEILING MOUNTED VIDEO PROJECTION UNIT SUPPORT PER DETAIL 4/A-4.1. VERIFY LOCATION WITH OWNER. REFER TO ELECTRICAL DWGS. FOR POWER AND DATA ROUGH-IN REQUIREMENTS.
6. NEW RECESSED DOWNLIGHT - REFER TO ELECTRICAL DWGS.
7. EXISTING CEILING MOUNTED EXIT SIGN.
8. EXISTING SKYLIGHT SHAFT.
9. EXISTING GYPSUM WALLBOARD CEILING.
10. NEW MECHANICAL REGISTER - REFER TO MECHANICAL DWGS.
11. EXISTING CEILING MOUNTED TELEVISION MONITOR.
12. LOCATION OF NEW ROOF MOUNTED MECHANICAL EQUIPMENT - REFER TO MECH. DWGS. AND DETAIL 10/A-4.2 FOR MECH. CURB FLASHING REQUIREMENTS.

GENERAL NOTES

1. NOT ALL KEY NOTES MAY BE NECESSARILY USED OR REFERENCED.
2. CONTRACTOR SHALL VERIFY EXISTING CONDITIONS PRIOR TO CONSTRUCTION. VARIATIONS MAY OCCUR WITHIN TYPICAL ROOMS AND SHALL BE TREATED AS SIMILAR CONDITION.
3. CONTRACTOR SHALL COORDINATE WITH ELECTRICAL AND MECHANICAL DRAWINGS FOR ADDITIONAL INFORMATION.

CEILING PLAN LEGEND

	ACOUSTIC TILE CEILING IN 24"x48" SUSPENDED T-BAR GRID
	ACOUSTIC TILE CEILING IN 24"x24" SUSPENDED T-BAR GRID
	5/8" GYPSUM BOARD CEILING (PROVIDE TYPE 'X' AT 1 HOUR RATED SPACES)
	1/8" CEMENT PLASTER
	SUSPENDED FLUORESCENT LIGHT FIXTURE (REFER TO ELECTRICAL DRAWINGS)
	SURFACE OR RECESS MOUNTED LIGHT FIXTURE (REFER TO ELECTRICAL DRAWINGS)
	FLUORESCENT STRIP LIGHT FIXTURE (REFER TO ELECTRICAL DRAWINGS)
	RECESSED DOWNLIGHT (REFER TO ELECTRICAL DRAWINGS)
	SUPPLY AIR DIFFUSER (REFER TO MECHANICAL DRAWINGS)
	RETURN OR EXHAUST AIR GRILLE (REFER TO MECHANICAL DRAWINGS)
	SKYLIGHT SHAFT
	FINISH CEILING HEIGHT - WHERE NOT NOTED CEILING HEIGHT SHALL BE PER FINISH SCHEDULE

DSA APPROVAL

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333 MANCHESTER AVENUE, CARLISLE, CA 92007



BUILDING 400
REFLECTED CEILING
PLAN

REVISIONS:
1 DSA REVISIONS
00/00/00

DATE: 4/10/00

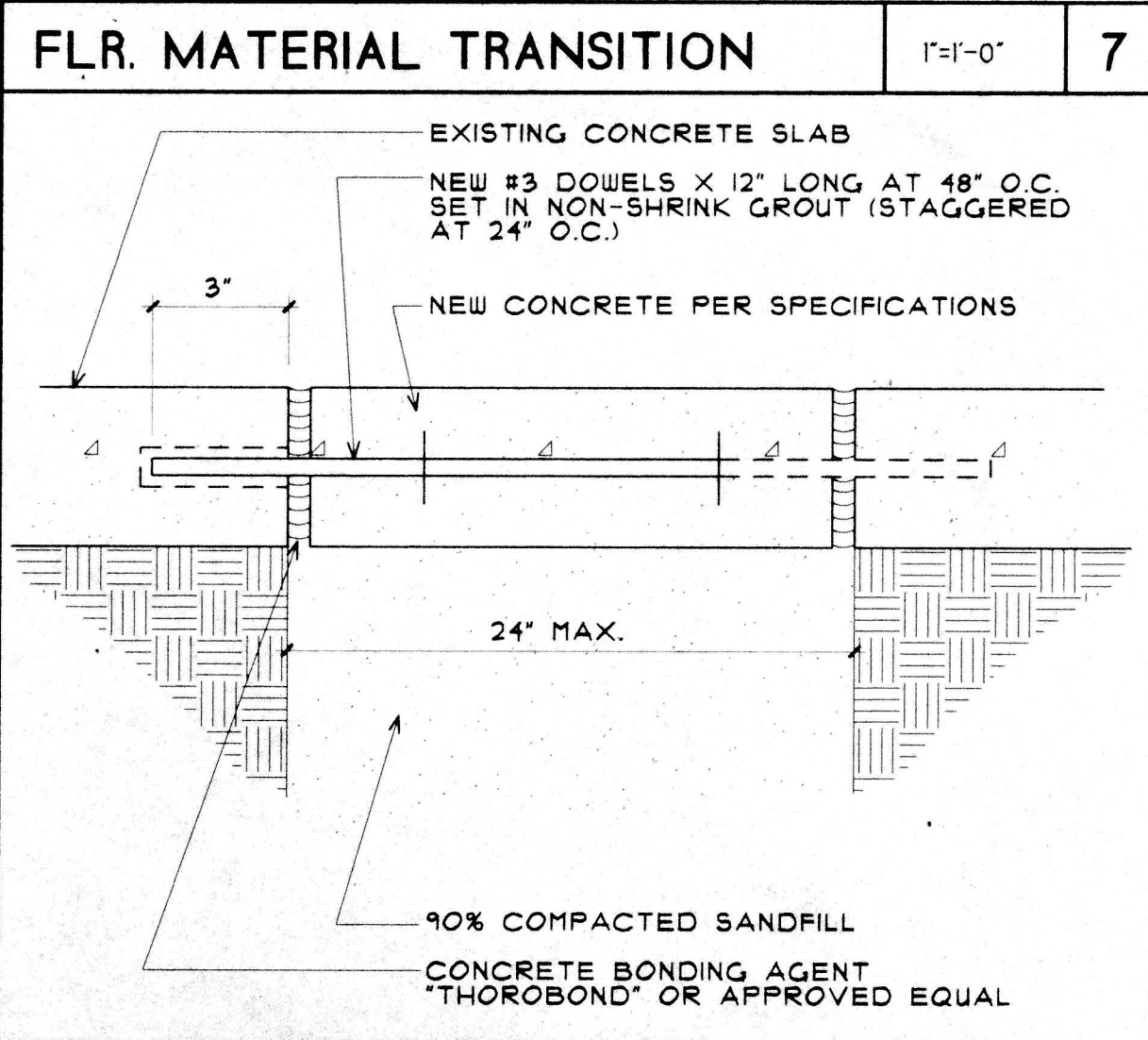
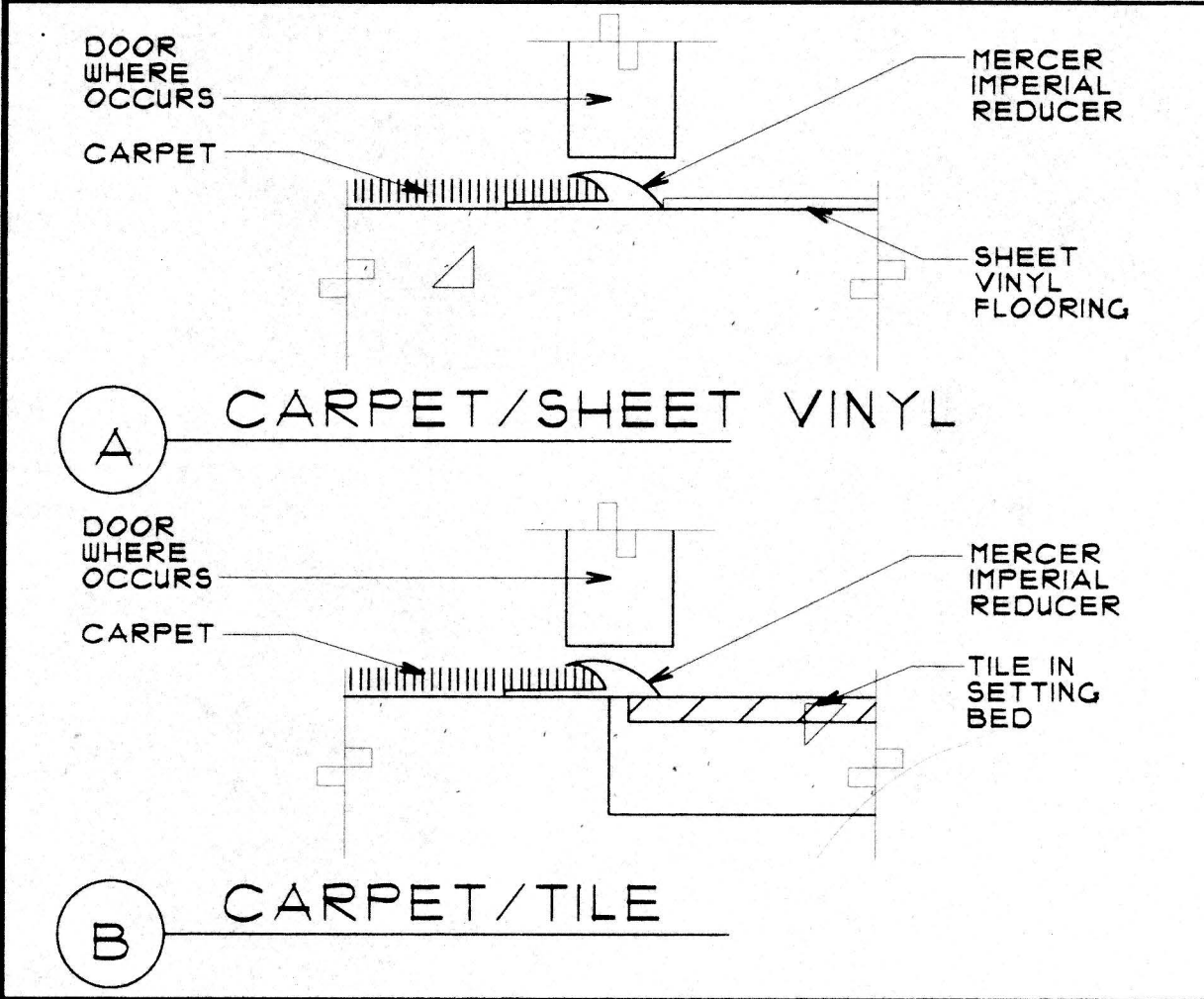
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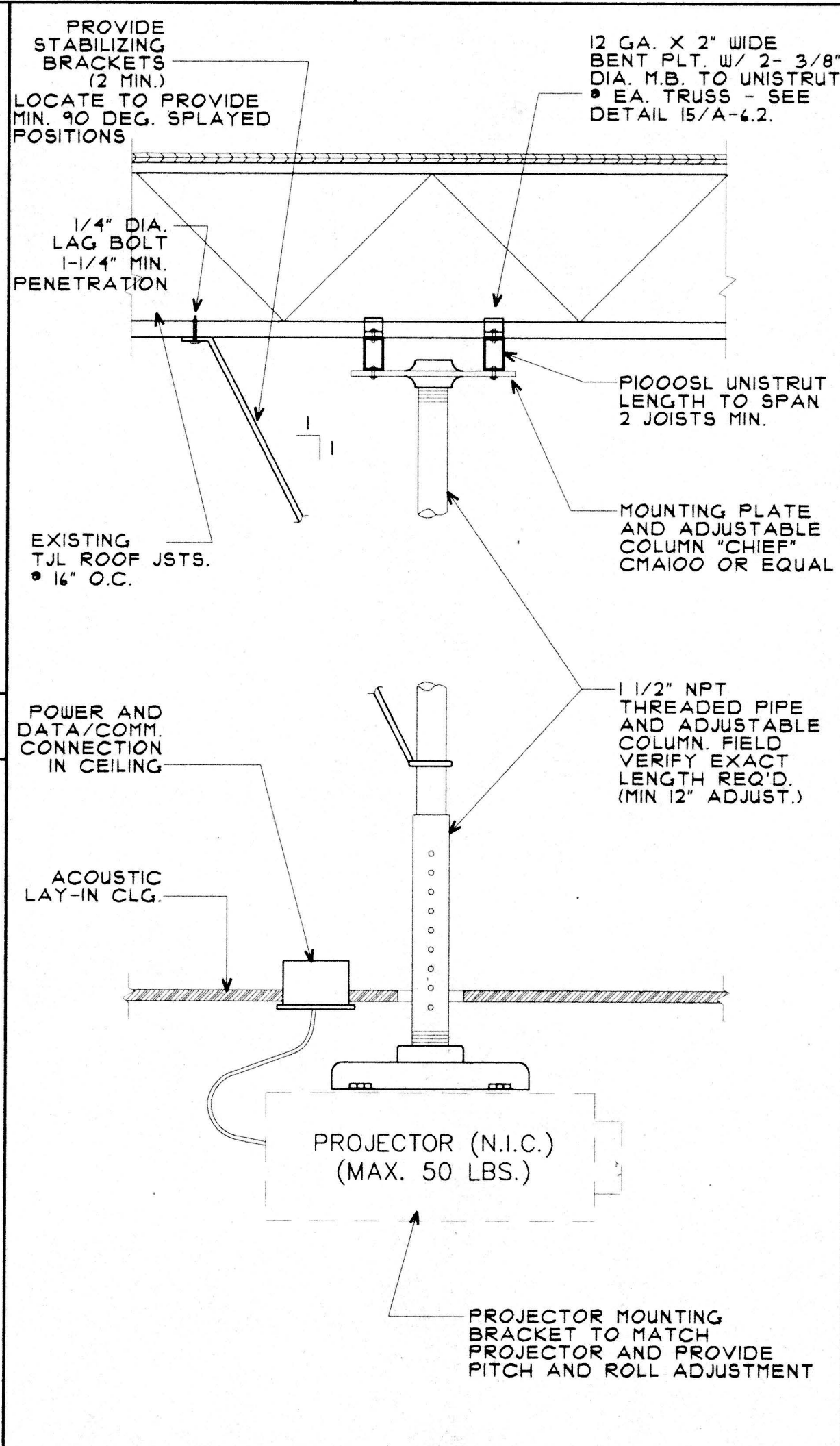
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ROOM FINISH SCHEDULE																				
RM. NO.	ROOM NAME	FLOOR		BASE		WAINSCOT			WALLS								CEILING			REMARKS
		MAT.	FIN.	MAT.	FIN.	MAT.	FIN.	HGT.	ELEV. 1/15		ELEV. 2/25		ELEV. 3/35		ELEV. 4/45		MAT.	FIN.	HGT.	
									MAT.	FIN.	MAT.	FIN.	MAT.	FIN.	MAT.	FIN.				
BUILDING 400																				
401	CLASSROOM	F6	B	B4	B	---	---	---	W1	E	W1	E	W1	E	W1	E	C1	B	10'-6"	II, 12
402	LAB	F4	B	B4	B	---	---	---	W1	F	W1	F	W1	F	W1	F	C1	B	10'-6"	5, 9, II
402A	VESTIBULE	F4	B	B4	B	---	---	---	W1	E	W1	E	W1	E	W1	E	C2	E	10'-6"	II
402B	VESTIBULE	F4	B	B4	B	---	---	---	W1	E	W1	E	W1	E	W1	E	C2	E	10'-6"	II
403	OFFICE	F6	B	B4	B	---	---	---	W1	E	W1	E	W1	E	W1	E	C1	B	10'-6"	II, 12
404	LAB SERVICE	F4	B	B4	B	---	---	---	W1	F	W1	F	W1	F	W4	F	C1	B	10'-6"	9, II
405	OFFICE	F6	B	B4	B	---	---	---	W1	E	W1	E	W1	E	W1	E	C1	B	10'-6"	II, 12
406	LAB	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	I (N.I.C.)
406A	VESTIBULE	F4	B	B4	B	---	---	---	W1	E	W1	E	W1	E	W1	E	C2	E	10'-6"	II
406B	VESTIBULE	F4	B	B4	B	---	---	---	W1	E	W1	E	W1	E	W1	E	C2	E	10'-6"	II
407	CLASSROOM	F6	B	B4	B	---	---	---	W1	E	W1	E	W1	E	W1	E	C1	B	10'-6"	II, 12
408	MECHANICAL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	I

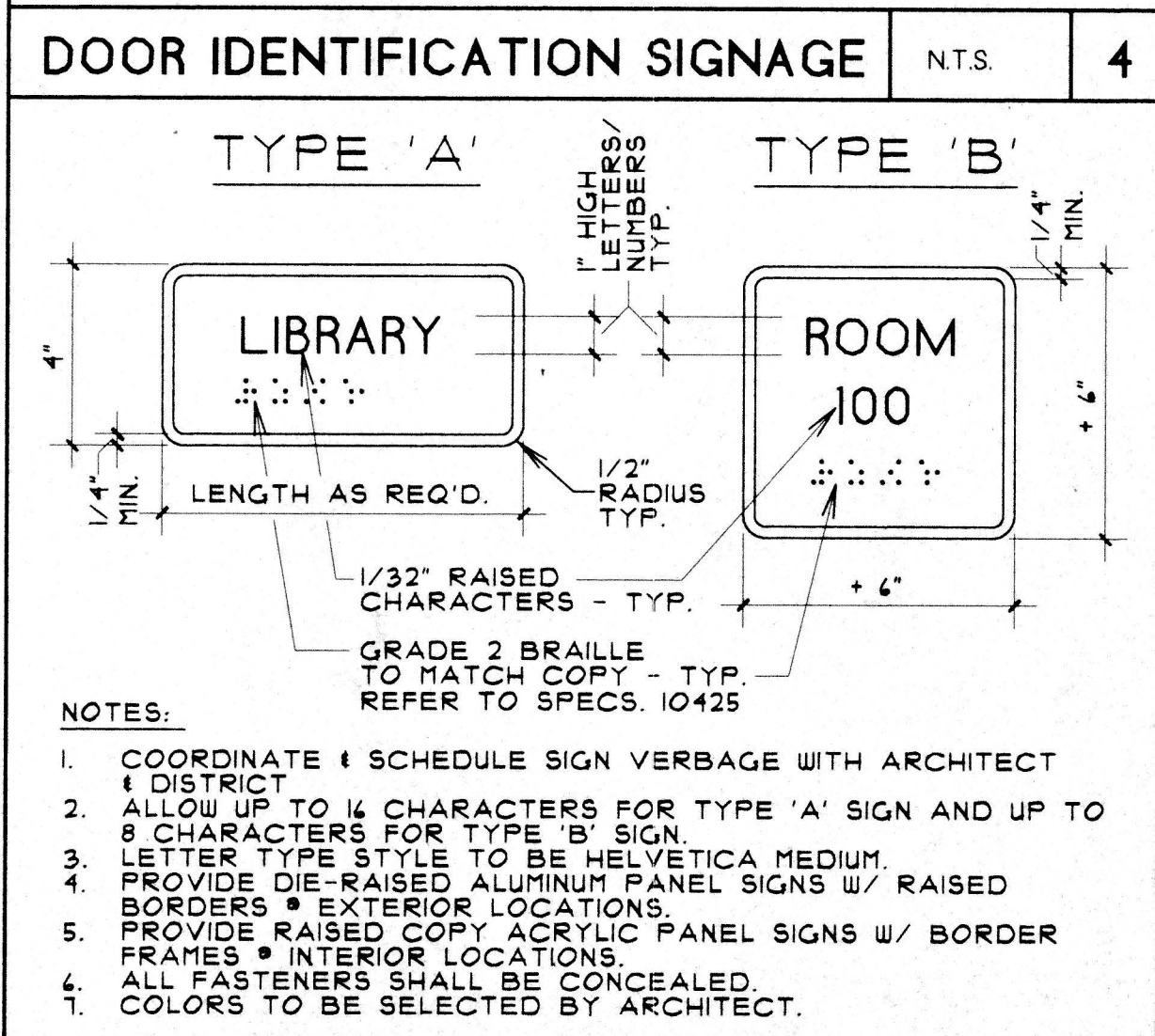
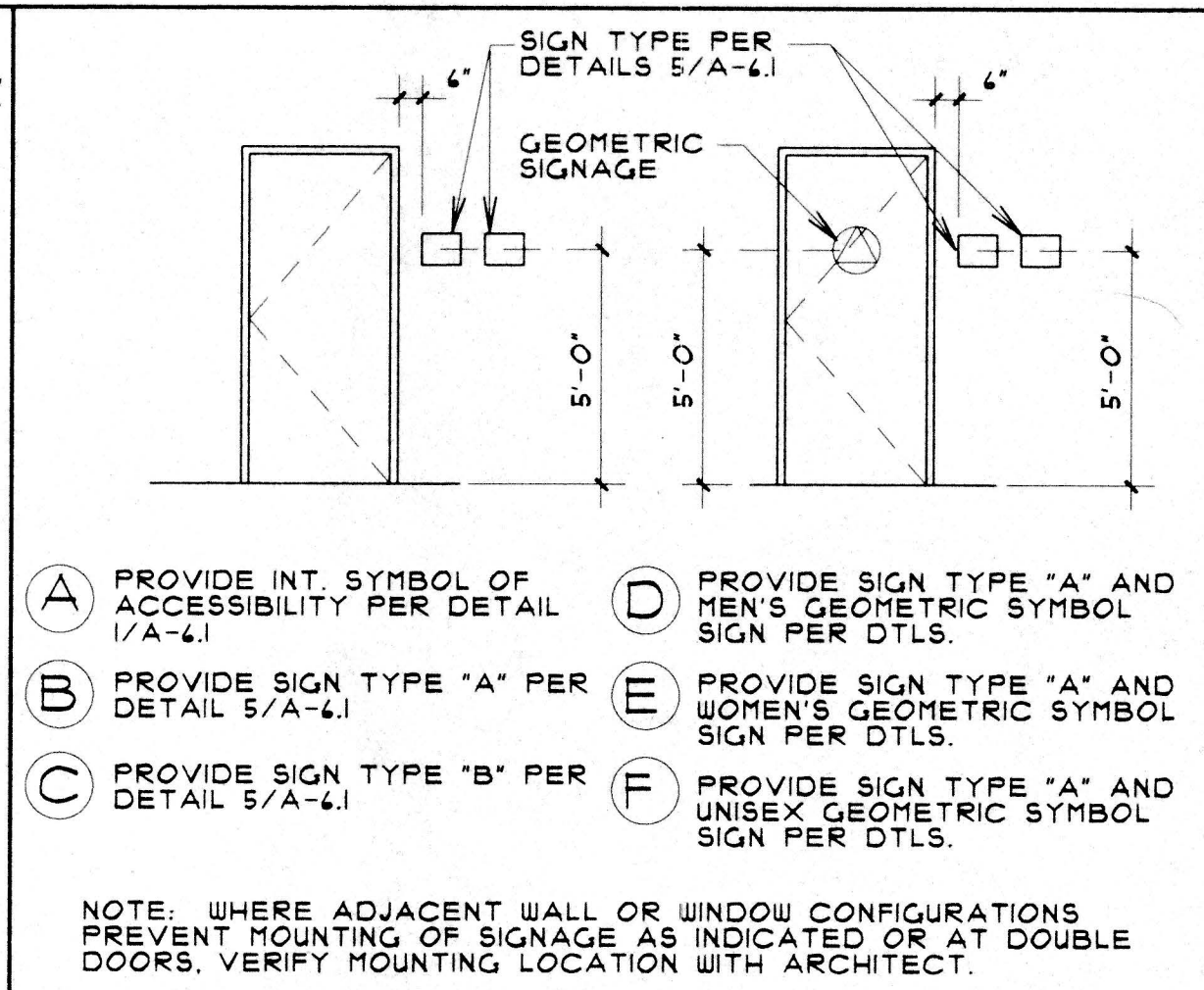
FINISH SCHEDULE NOTES										FINISH SCHEDULE REMARKS										
1. NOT ALL KEY NOTES MAY NECESSARILY BE USED OR REFERENCED.										1. NO CHANGE IN ROOM FINISHES.										
2. AFTER THE DEMOLITION AND REMOVAL OF ELEMENTS, REPAIR AND RESTORE EXISTING FINISHES TO BE LEFT EXPOSED TO THEIR ORIGINAL CHARACTER. WHERE EXISTING FINISHES ARE TO BE HIDDEN WITH NEW MATERIAL, THOSE FINISHES SHALL BE RESTORED TO PROVIDE ADEQUATE SUITABILITY, STRENGTH, AND SUBSTRATE FOR NEW CONSTRUCTION AND FINISHES.										2. MULTIPLE FINISHES AT WALL, FLOOR AND/OR CEILING. REFERENCE PLAN OR ELEVATIONS FOR LOCATIONS.										
3. WHERE EQUIPMENT AND/OR FIXTURES ARE INDICATED TO BE REMOVED, ALL RELATED EXPOSED PIPING, CONDUITS AND RELATED ITEMS SHALL ALSO BE REMOVED AND/OR PROPERLY TERMINATED IN UNEXPOSED AREAS.										3. PROVIDE GYPSUM BOARD CEILING PER FINISH SCHEDULE ON NEW METAL CEILING FRAMING. REFER TO DETAILS										
4. WHERE EXISTING CONSTRUCTION ELEMENTS (i.e. FRAMING, FINISHES, PIPES, CONDUITS, EQUIPMENT, ETC.) INTERFERE WITH THE INTENDED NEW CONSTRUCTION, THOSE WOULD BE EXPOSED IN OTHERWISE "FINISHED" AREAS. THEY ARE TO BE REMOVED AND/OR RELOCATED.										4. CEILING PLACED AT UNDERSIDE OF ROOF STRUCTURE.										
5. CONTRACTOR SHALL MAKE AVAILABLE TO OWNER ANY MATERIALS OR EQUIPMENT LISTED FOR DEMOLITION, DISPOSAL, REMOVAL, ETC. UPON OWNER'S REQUEST. OWNER SHALL HAVE FIRST RIGHT OF REFUSAL ON ALL SALVAGABLE ITEMS.										5. REFER TO REFLECTED CEILING PLAN FOR LOCATIONS OF DROPPED SOFFITS.										
6. CONTRACTOR SHALL KEEP ALL EQUIPMENT OR MATERIALS INDICATED FOR RE-USE, RELOCATION, OR OWNER REQUESTED SALVAGE, ETC. IN A SAFE AND SECURE MANNER IN ORDER TO PROTECT THE MATERIALS OR EQUIPMENT'S EXISTING CONDITION.										6. SEE INTERIOR ELEVATIONS FOR ACOUSTICAL PANEL LOCATIONS.										
7. ALL EXISTING FLOOR FINISHES SHALL BE REMOVED IN ROOMS WHERE NEW FLOOR FINISHES ARE INDICATED AND/OR SPECIFIED.										7. REFER TO ELECTRICAL POWER PLANS FOR LOCATIONS OF 3/4" PLYWOOD BACKBOARDS.										
8. ALL FINISHES SHALL COMPLY WITH C.B.C. CHAPTERS 3, 4, 7, 8 & 10, C.F.C. AND TITLE 19, C.C.R.										8. REFER TO MECHANICAL PLANS FOR LOCATIONS OF NEW "HOUSEKEEPING PADS".										
9. ALL ROOM FINISH SCHEDULE MATERIALS AND FINISHES ARE INTENDED TO BE NEW UNLESS SPECIFICALLY INDICATED TO BE EXISTING.										9. PATCH WALLS AT LOCATIONS OF NEW ELECTRICAL & PLUMBING ROUGH IN PER SECTION 0450 OF THE SPECIFICATIONS. REFER TO THE ELECTRICAL & MECHANICAL PLANS FOR LOCATIONS.										



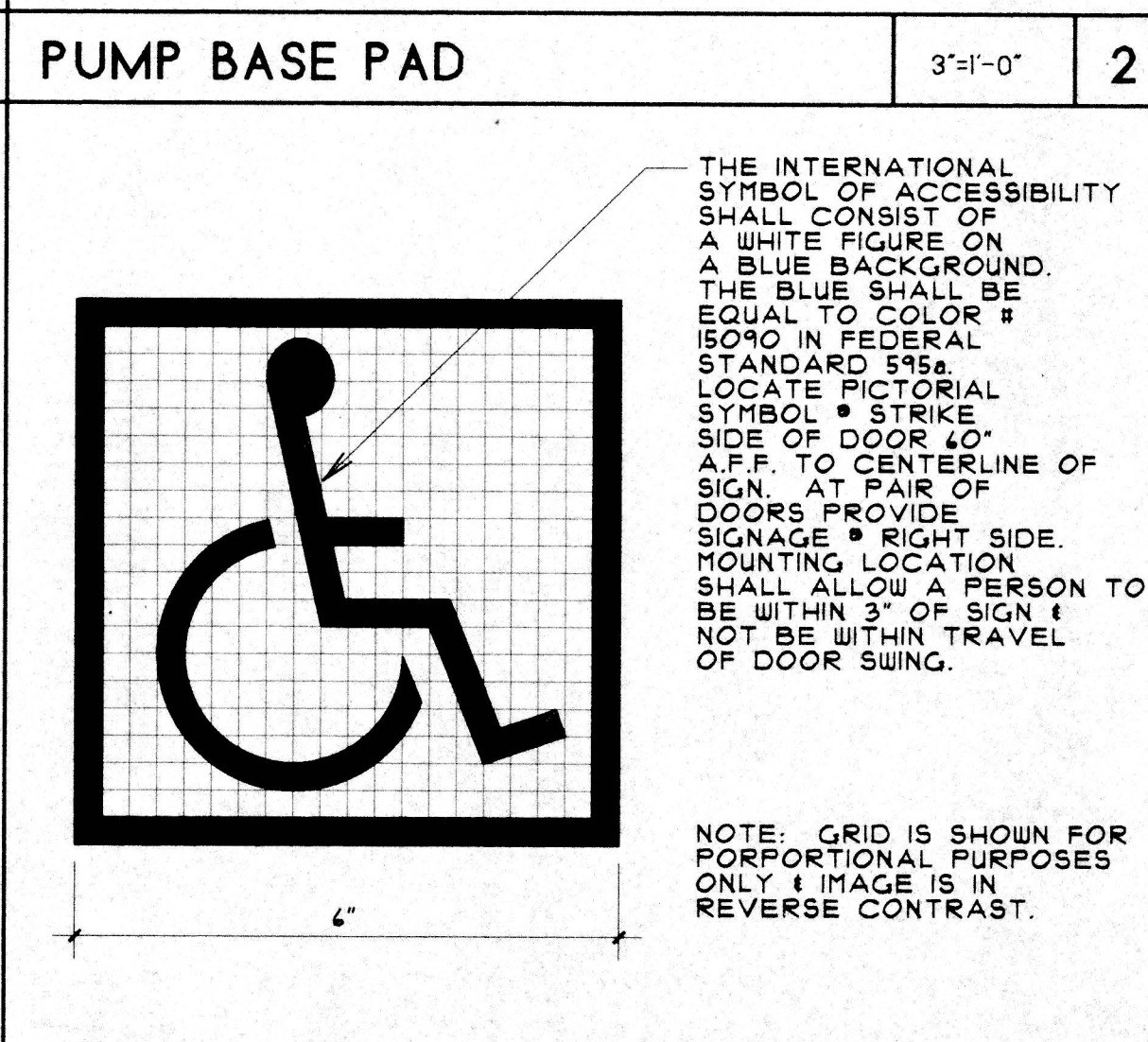
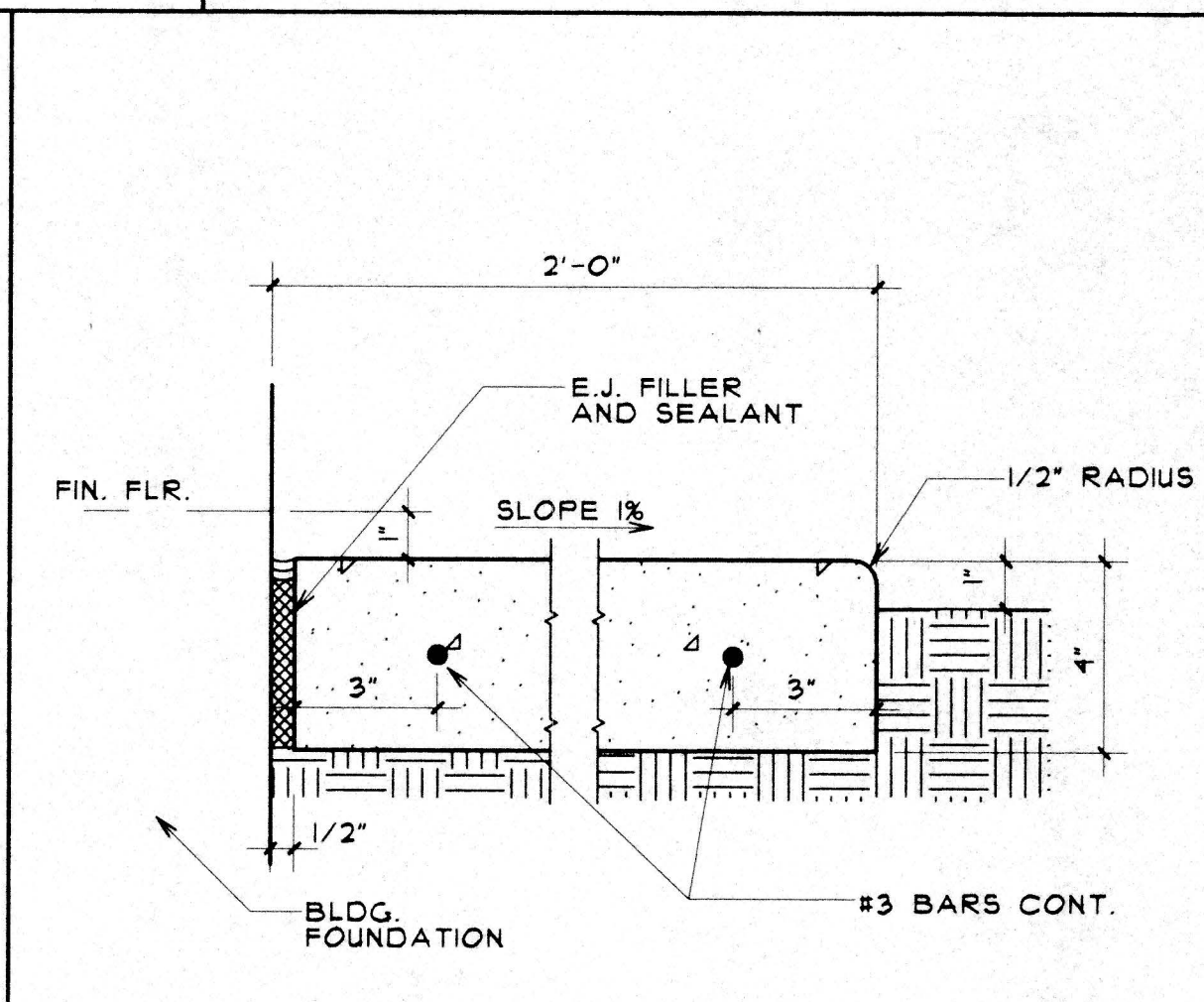
CONC. SLAB TRENCH REPAIR 1'-1'-0" 8



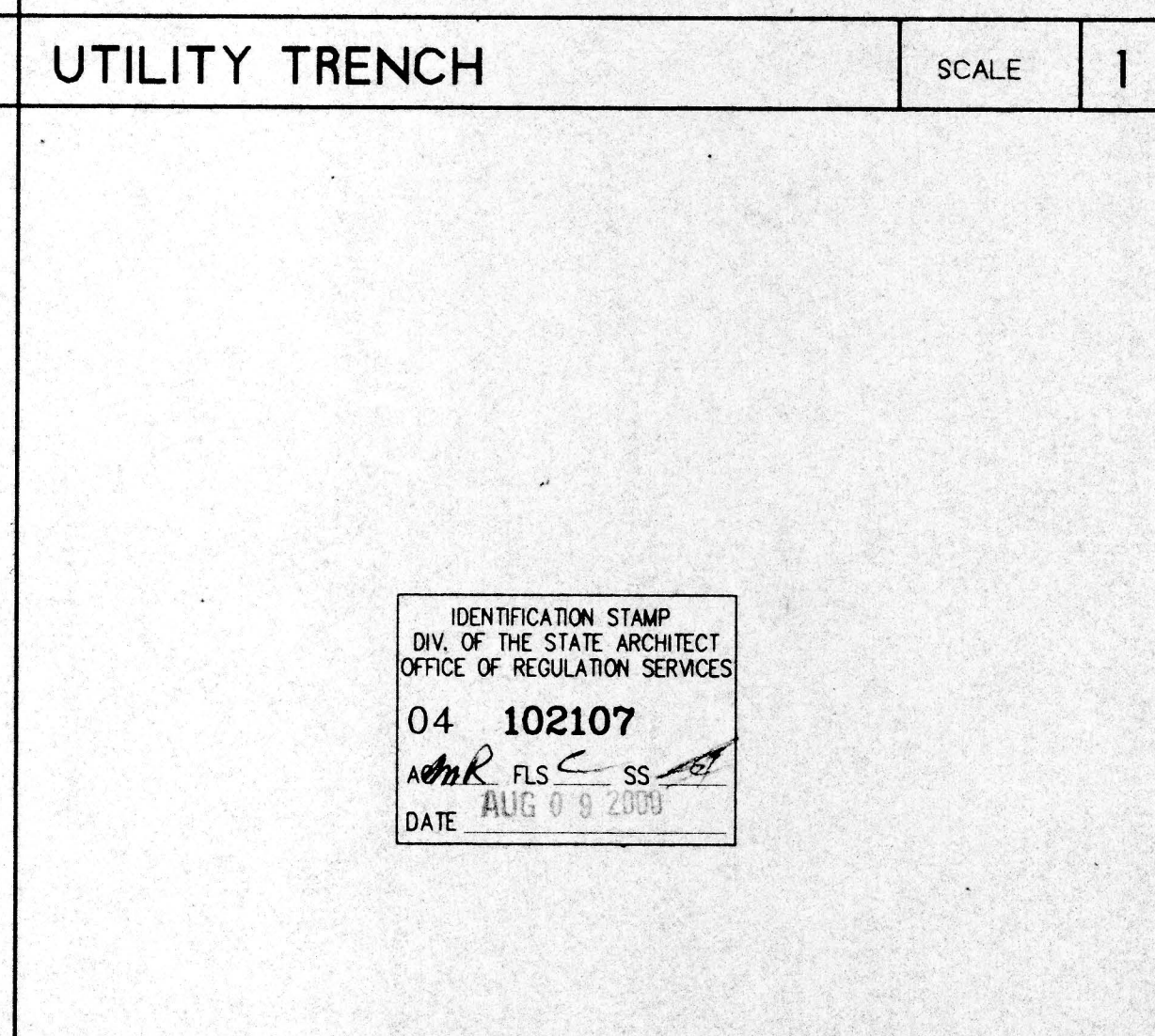
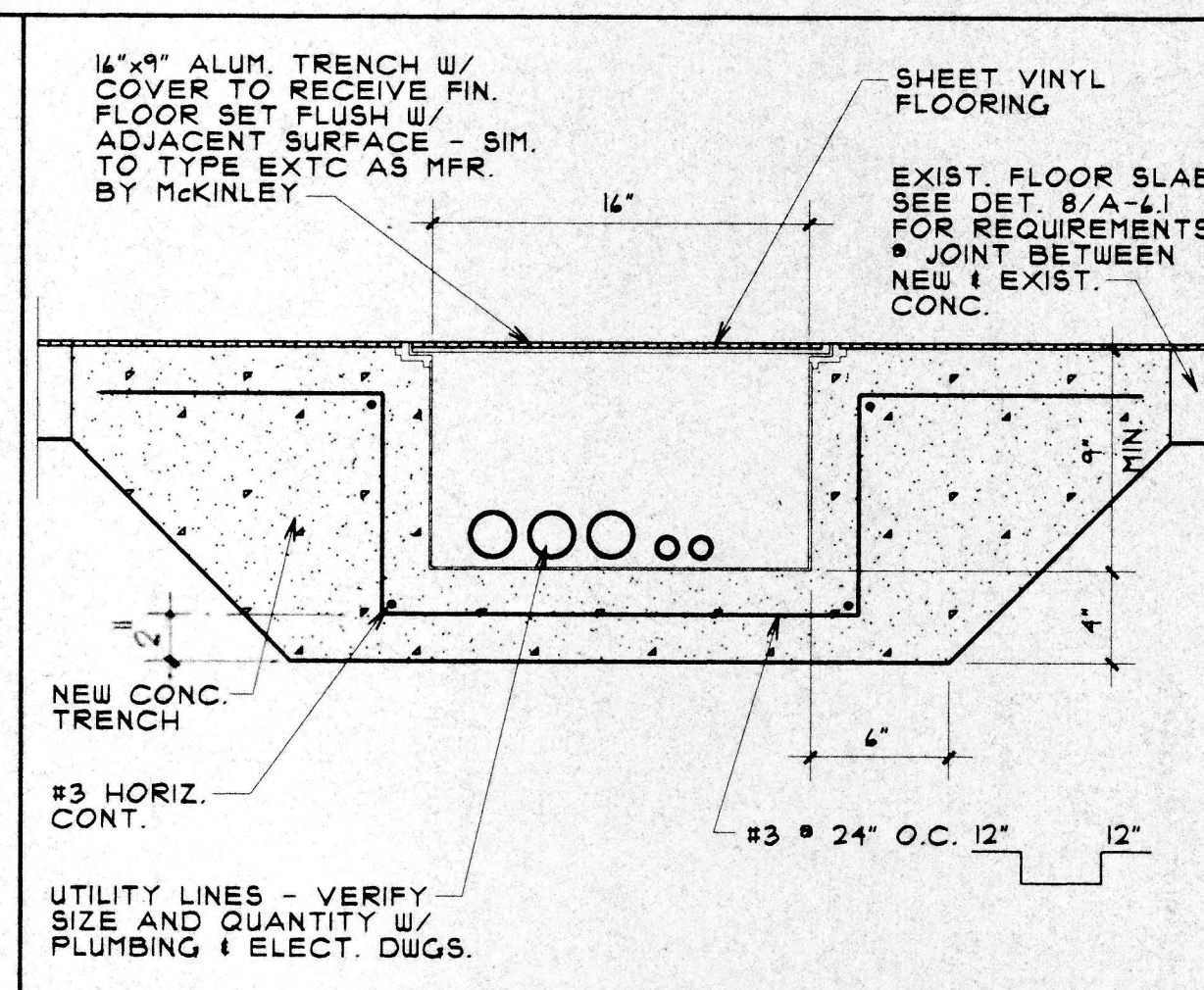
PROJECTOR SUPPORT 1'-1'-0" 6



SIGNAGE DETAIL N.T.S. 5



SYMBOL OF ACCESSIBILITY N.T.S. 3



D.S.A. APPROVALS SCALE 1

FINISH SCHEDULE LEGEND

FLOOR

- F1 EXISTING NEW CONCRETE
- F2 UNGLAZED CERAMIC MOSAIC TILE (09300)
- F3 PORCELAIN PAVEMENT TILE (09300)
- F4 RESILIENT FLOORING-SHEET VINYL (09650)
- F5 VINYL COMPOSITION TILE (09650)
- F6 CARPET-TYPE 1 (09680)
- F7 CARPET-TYPE 2 (09680)
- F8 RUBBER RECREATIONAL AND ATHLETIC FLOORING (09622)

BASE

- B0 NONE
- B1 EXISTING BASE TO REMAIN
- B2 UNGLAZED CERAMIC MOSAIC TILE (09300)
- B3 PORCELAIN PAVEMENT TILE (09300)
- B4 RUBBER WALL BASE (09650)
- B5 INTEGRAL COVERED SHEET VINYL BASE (09650)

CEILINGS

- C1 EXISTING ACOUSTICAL TILE CEILING TO REMAIN
- C2 EXISTING GYPSUM BOARD TO REMAIN
- C3 GYPSUM BOARD-5/8" TYPE "X" (09260)
- C4 ACOUSTICAL TILE CEILING-TYPE 1 (09511)-2X4
- C5 ACOUSTICAL TILE CEILING-TYPE 2 (09511)-2X2
- C6 ACOUSTICAL TILE CEILING-TYPE 3 (09511)-2X4
- C7 EXPOSED ROOF STRUCTURE
- C8 TRANSLUCENT ROOF ASSEMBLY (08950)
- C9 LUMINOUS CEILING (09548)
- C10 1 X 1 GLED ON ACOUSTICAL TILE CEILING (09512)

WAINSCOT

- WT1 GLAZED CERAMIC MOSAIC TILE (09300)
- WT2 3/4" THICK A.C. PLYWOOD (08000)
- WT3 ACOUSTICAL FABRIC WALL COVERING
- WT4 PROTECTIVE VINYL SHEET WALLCOVERING

WALLS

- W1 EXISTING 5/8" TYPE "X" GYP. BD. TO REMAIN
- W2 GYPSUM BOARD-5/8" TYPE "X" (09260)
- W3 GYPSUM BOARD-5/8" TYPE "X" (09260)
- W4 GYPSUM BOARD-5/8" WATER RESISTANT (09260)
- W5 GLAZED CERAMIC MOSAIC TILE (09300)
- W6 EXISTING TACKSURFACE TO REMAIN
- W7 EXISTING GLED ON ACOUSTICAL TILE TO REMAIN
- W8 EXISTING TACKBOARD WALL TO REMAIN

FINISHES

- A NONE
- B FACTORY FINISH
- C SLIP RESISTANT
- D PAINTED-FLAT (09900)
- E PAINTED-EGGSHELL ENAMEL (09900)
- F PAINTED-SEMI-GLOSS ENAMEL (09900)
- G PAINTED-EPOXY (09900)
- H ANTI-GRAFFITI COATING (09900)
- I VARNISH (09900)
- J VINYL WALL COVERING (09720)
- K VINYL COVERED TACKSURFACE (09720)
- L FABRIC COVERED TACKSURFACE (09841)
- M FIBERGLASS REINFORCED PLASTIC PANELS (09772)
- N CONCRETE SEALER
- O ACOUSTICAL PANELS (09841)
- P ACOUSTICAL FABRIC WALLCOVERING

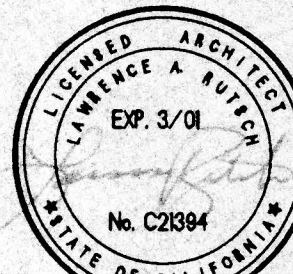
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BIOTECHNOLOGY LAB REMODEL

BUILDING 400
MIRACOSTA COMMUNITY COLLEGE DISTRICT

SAN ELIJO CAMPUS
333 MANCHESTER AVENUE, CARLEFF-BY-THE-SEA, CA 92007



FINISH SCHEDULE & DETAILS

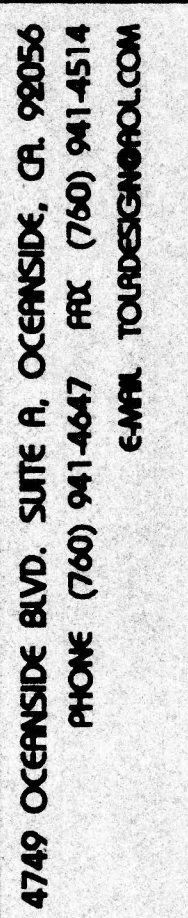
REVISIONS:

DATE: 4/10/00

JOB NO. 9808

SHEET:

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CONDENSING UNIT SCHEDULE

MARK	LOCATION	SERVICE	EER	MBH TOTAL	AMB. TEMP. °F	ELECTRICAL DATA					OPER WEIGHT (LBS.)	BASED ON:		REMARKS
						MCA	MOCF	VOLT	PH	HZ		MANUFACTURER	MODEL	
CU 1	ROOF	F-1	-	60	90	10.8	15	480	3	60	290	CARRIER	38HDO	W/ DIP BAKED EPOXY COATING COIL.

COOLING COIL SCHEDULE

MARK	DESCRIPTION	SERVICE	CFM	COOLING CAPACITY		EDB	LDB	FACE AREA (SQ. FT.)	OPER WEIGHT (LBS.)	BASED ON:		REMARKS
				TOTAL	SENSIBLE					MANUFACTURER	MODEL	
CC 1	DIRECT EXPANSION HORIZONTAL DUCT COIL	CU-1	1850	59	44.1	83	62	3.41	37	RHEEM	RCAB-A059	W/ DIP BAKED EPOXY COATING COIL.

FURNACE SCHEDULE

MARK	DESCRIPTION	CFM	CFM OSA	ESP (IN. WG.)	FUEL	HEATING CAPACITY		AFUE (%)	ELECTRICAL DATA				OPER WEIGHT (LBS.)	BASED ON:		REMARKS
						INPUT	OUTPUT		HP	VOLT	PH	HZ		MANUFACTURER	MODEL	
F 1	HORIZONTAL GAS FURNACE	1850	100%	0.5	NATURAL GAS	90,000	84,000	92.4	3/4	120	1	60	150	RHEEM	RGTA-09NAJ	-

FAN SCHEDULE

MARK	DESCRIPTION	LOCATION	CFM	ESP (IN. WG.)	RPM	ELECTRICAL DATA				OPER WEIGHT (LBS.)	BASED ON:		REMARKS
						HP	VOLT	PH	HZ		MANUFACTURER	MODEL	
EF 1	UTILITY	ROOF	3,420	1.0	930	1	460	3	60	389	GREENHECK	SUB-20	W/ WEATHER HOOD, EPOXY COATING, DRAIN CONNECTION, BACKDRAFT DAMPER

DIFFUSERS, GRILLES & REGISTERS

MARK	NECK SIZE	DAMPER	BASED ON:		REMARKS
			MANUFACTURER	MODEL	
A	12"x12"	-	TITUS	MCD	-

NOTE: DIFFUSERS & GRILLES SHALL HAVE FRAMES TO MATCH THE CEILING IN WHICH THEY ARE INSTALLED.
IE: T-BAR CEILING: LAY-IN FRAMES, GYPSUM BOARD CEILING: FLUSH MOUNTED FRAMES.

GRAVITY VENTILATORS

MARK	DESCRIPTION	CFM	AREA INTAKE (SQ. FT.)	DAMPER SIZE	OPER WEIGHT (LBS.)	BASED ON:		REMARKS
						MANUFACTURER	MODEL	
GV 1	GRAVITY INTAKE	980	251	14"x14"	50	GREENHECK	GRS-14	W/ ROOF CURB AND BACKDRAFT DAMPER

SEQUENCE OF OPERATION

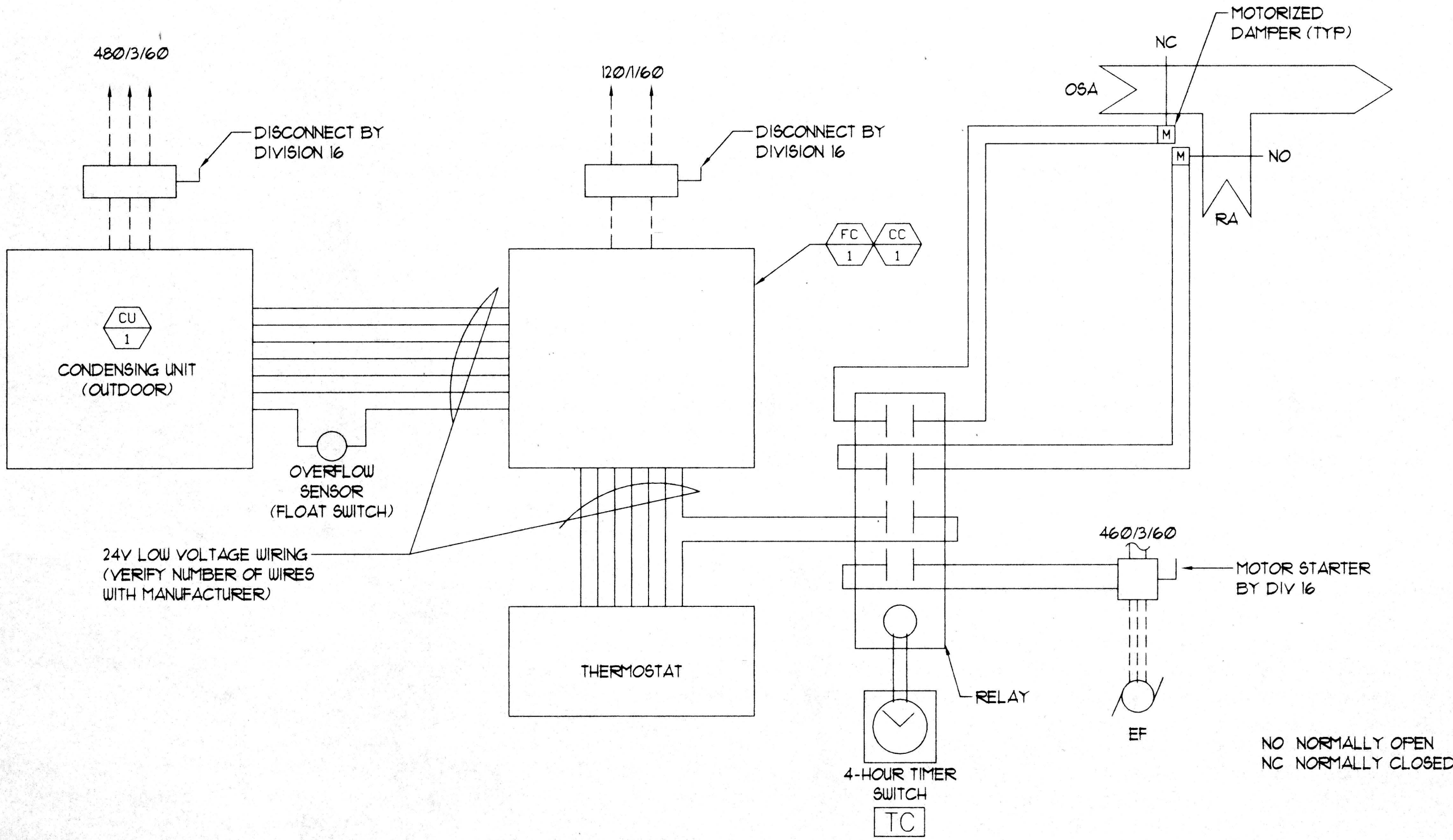
EF-1, CU-1, AND (2) MOTORIZED DAMPERS SHALL BE START/STOP BY 4-HOUR TIMER SWITCH.

WHEN THE TIMER SWITCH IS ON EXHAUST FAN (EF-1), A/C UNIT AND THE (2) MOTORIZED DAMPERS SHALL BE ENERGIZED.

THE SUPPLY FAN (F-1) SHALL RUN CONTINUOUSLY AND THE THERMOSTAT SHALL CONTROL THE BURNER AND THE DX COOLING.

NOTES:

- CONDENSATE OVERFLOW SENSOR (FLOAT SWITCH) SHALL BE MOUNTED ON THE FAN COIL SECONDARY DRAIN PAN AND SHALL DEACTIVATE AND LOCK OUT THE CONDENSING UNIT WHEN THE CONDENSATE PAN LEVEL REACHES UNACCEPTABLE LEVEL. A RED ALARM SHALL ILLUMINATE ON THE THERMOSTAT IN THE EVENT OF UNACCEPTABLY HIGH CONDENSATE LEVEL.
- PROVIDE TRANSFORMER (120V/24V) WHERE REQUIRED.



WIRING DIAGRAM

NO SCALE

GENERAL NOTES

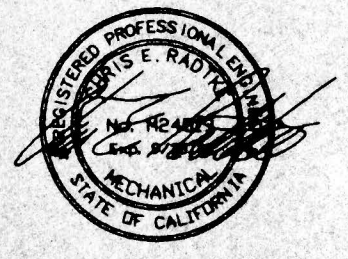
- DUCT FABRICATION AND INSTALLATION SHALL CONFORM TO THE 'HVAC DUCT CONSTRUCTION STANDARDS - METAL AND FLEXIBLE' AS PUBLISHED BY SMACNA 1991 EDITION.
- DUCT LINER APPLICATION SHALL CONFORM TO THE 'HVAC DUCT CONSTRUCTION STANDARDS - METAL AND FLEXIBLE' AS PUBLISHED BY SMACNA 1991 EDITION.
- IF ANY EQUIPMENT SUBMITTED FOR APPROVAL HAS A DIFFERENT PHYSICAL SIZE OR ARRANGEMENT FROM THAT SHOWN ON THE DRAWINGS A FULL SET OF SHOP DRAWINGS SHALL BE SUBMITTED TO SHOW ALL INSTALLATION DETAILS.
- BRANCHES TO DIFFUSER, REGISTERS AND GRILLES SHALL BE SUPPLIED WITH MANUAL VOLUME DAMPERS, DAMPER QUADRANT SHALL BE 3/8 MINIMUM, POSITION TO BE INDICATED BY QUADRANT. ALL DAMPERS THAT ARE INACCESSIBLE SHALL BE PROVIDED WITH REMOTE OPERATORS SIMILAR TO VENTLOCK 611, PLAIN FINISH.
- EQUIPMENT ACCESS SHALL CONFORM TO UMC SECTION 503.
- MISCELLANEOUS METAL, ANGLES, BRACING OR SUPPORTS EXPOSED TO THE WEATHER SHALL BE GALVANIZED IRON OR BLACK IRON PAINTED WITH ONE COAT OF RUST INHIBITING PAINT AND ONE COAT OF GRAY PRIMER.
- ALL SUPPLY AND RETURN DUCTS SHALL BE SEALED AIRTIGHT AT ALL DUCT JOINTS, BRANCH TAKEOFFS AND CONNECTIONS TO EQUIPMENT WITH A NON-HARDENING, NON-MIGRATING MASTIC OR LIQUID ELASTIC SEALANT, AS RECOMMENDED BY THE MANUFACTURER SPECIFICALLY FOR SEALING JOINTS AND SEAMS IN DUCTWORK. DUCT TAPE SHALL NOT BE USED AS A SEALER. DUCT EXPOSED IN CONDITIONED SPACES NEED NOT BE SEALED.
- DUCT SEAMS AND JOINTS EXPOSED TO WEATHER SHALL BE CAULKED WATERTIGHT WITH ACRYLIC SEALANT AND SHALL HAVE 4 INCH MINIMUM WIDTH OF 6 OUNCE CANVAS PASTED ON WITH LAGGING ADHESIVE. PAINT WITH ASPHALT BASED ALUMINUM PAINT TO MATCH ADJACENT WORK.
- GAS FIRED EQUIPMENT SHALL HAVE CLEARANCES PER MANUFACTURER'S SPECIFICATIONS BASED ON AGA APPROVAL.
- MECHANICAL CONTRACTOR SHALL COORDINATE THEIR INSTALLATION LOCATIONS WITH OTHER TRADES PRIOR TO INSTALLATION OF EQUIPMENT.
- PROVIDE PERMANENT IDENTIFICATION NAMEPLATES, BLACK BAKELITE WITH 1/2 INCH WHITE ETCHED LETTERS, ON EQUIPMENT AND MOUNT BY MANUFACTURER'S NAMEPLATE.
- MAINTENANCE MANUALS FROM EQUIPMENT MANUFACTURERS WILL BE REQUIRED, 3 COPIES, EACH IN ITS OWN 3-RING BINDER.
- ALL CONTROL WIRING SHALL BE IN CONDUIT AND ARE THE RESPONSIBILITY OF THE MECHANICAL CONTRACTOR. ALL THERMOSTATS SHALL BE MOUNTED 48 INCHES ABOVE FINISHED FLOOR.
- INTERCONNECTING WIRING SAFETY SWITCHES, RELAYS, CONTROLLERS AND MOTOR STARTERS WHICH ARE INTEGRAL COMPONENTS OF PACKAGED EQUIPMENT SHALL BE PROVIDED AS AN INTEGRAL PART OF THAT EQUIPMENT.
- ALL EQUIPMENT, DUCTWORK, PIPEWORK ETC. THAT IS REMOVED DURING DEMOLITION SHALL BE REMOVED FROM THE SITE AND DISPOSED OF BY THIS CONTRACTOR AT HIS EXPENSE.
- ALL CONSTRUCTION SHALL BE DONE IN ACCORDANCE WITH:

TITLE 24, PART 2, CCR, 1998 CBC (1997 UBC WITH 1998 CA AMEND)
TITLE 24, PART 3, CCR, 1998 CEC (1996 NEC WITH CA AMEND)
TITLE 24, PART 4, CCR, 1998 CMC (1997 UMC WITH 1998 CA AMEND)
TITLE 24, PART 5, CCR, 1998 CFC (1997 UPC WITH 1998 CA AMEND)
TITLE 24, PART 9, CCR, 1998 CFC (1997 UPC WITH 1998 CA AMEND)
TITLE 24, PART 12, CCR, 1998 BUILDING STANDARDS CODE (1998 STATE REFERENCED STANDARDS CODE)

LEGEND

SYMBOL	ABBR	DESCRIPTION
		EQUIPMENT SYMBOL NUMBER
		DUCT (RECTANGULAR OR ROUND)
	(L)	DUCT (LINED)
	(L)	DUCT (LINED) NEW
		EXISTING TO REMAIN
		EXISTING TO BE REMOVED
		FLEXIBLE DUCT
	FC	DUCT FLEXIBLE CONNECTION
		SQUARE ELBOW WITH TURNING VANES
		RADIUS ELBOW
		DUCT TRANSITION
		45 DEGREE BRANCH TAKE-OFF
		END DOUBLE BRANCH WITH TURNING VANES
	SA	SUPPLY AIR DIFFUSER/DUCT
	RA	RETURN AIR GRILLE/DUCT
	EA	EXHAUST AIR GRILLE/DUCT
	UP	DUCT RISE/UP THRU ROOF OR FLOOR
	DN	DUCT DROP/DOWN THRU ROOF OR FLOOR
	AD	ACCESS DOOR
	AF	ABOVE FINISHED FLOOR
	ARCH	ARCHITECTURAL
	CFM	CUBIC FEET PER MINUTE
	Ø	DIAMETER
	D/L	DOOR LOUVER
	DWG	DRAWING
	(E)	EXISTING
	FD	FIRE DAMPER
	FSD	FIRE SMOKE/DAMPER
	MD	MOTORIZED DAMPER
	SM	SHEETMETAL
		SMOKE DETECTOR
		SWITCH
		THERMOSTAT (MOUNT @ 48" AFF.)
	U/C	UNDERCUT
	VD	MANUAL VOLUME DAMPER

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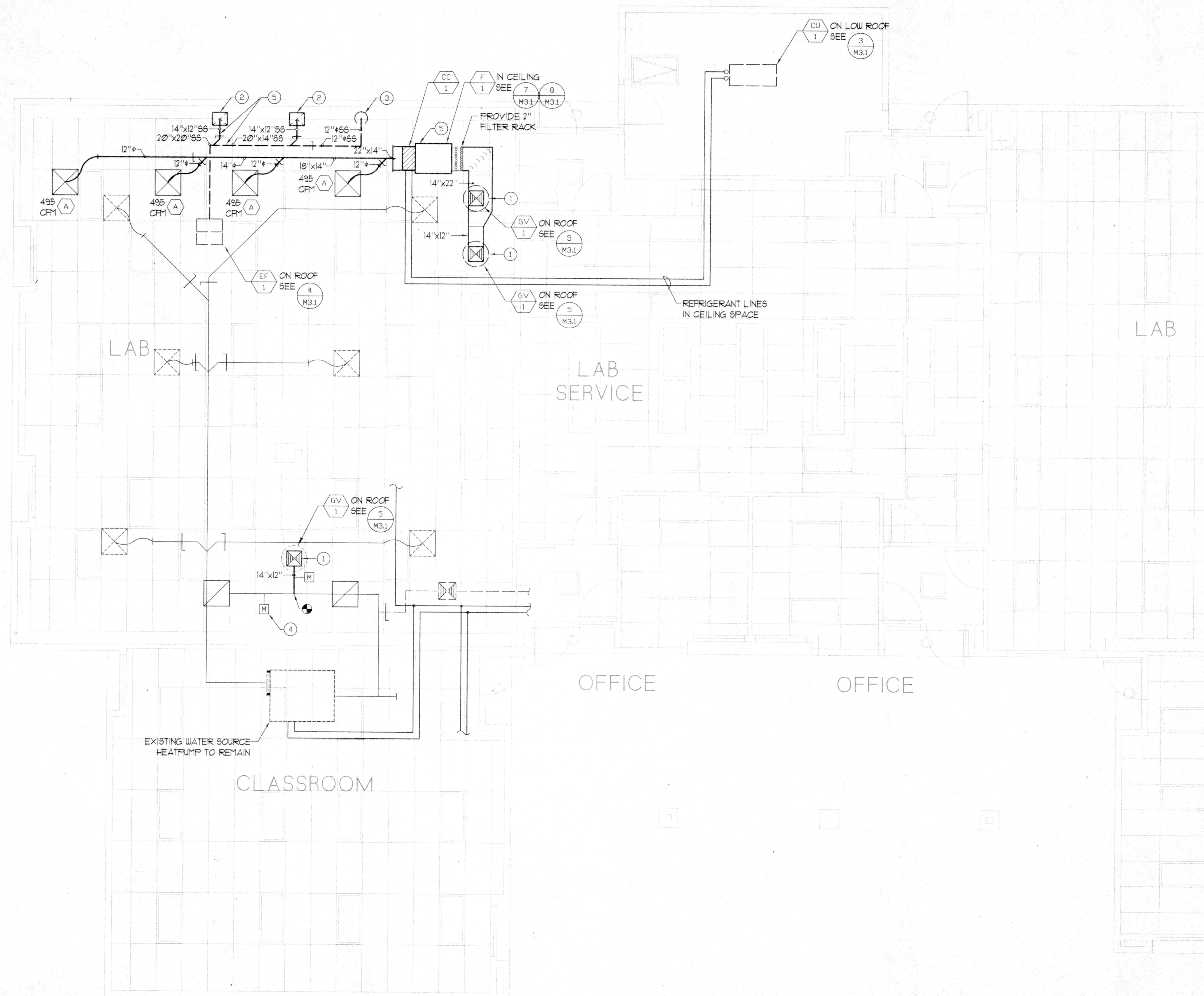
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BIOTECHNOLOGY LAB REMODEL
BUILDING 400
MIRACOSTA COMMUNITY COLLEGE DISTRICT
SAN ELIJO CAMPUS
333 MANCHESTER AVENUE, CARDIFF-BY-THE-SEA, CA 92007



**BUILDING 400
MECHANICAL
NOTES, SCHEDULES,
& LEGEND**

REVISIONS:
1 DSA REVISIONS 08/00/00
X
X
DATE: 4/10/2000
JOB NO. 9808
SHEET: M1.1



KEYNOTES

- 1 14"x12" OSA DUCT UP THRU ROOF TO GRAVITY INTAKE GV-1, RUN DUCTWORK BETWEEN JOISTS AND PROVIDE OFFSETS AS REQUIRED.
- 2 CONNECT 14"x12" STAINLESS STEEL DUCT TO FUME HOOD AND TRANSITION AS REQUIRED TO HOOD OPENING. RUN DUCTWORK BETWEEN JOIST AND PROVIDE OFFSET AS REQUIRED. SET AT 1200 CFM.
- 3 CONNECT 12"x12" STAINLESS STEEL DUCT TO FUME HOOD AND TRANSITION AS REQUIRED TO HOOD OPENING. RUN DUCTWORK BETWEEN JOIST AND PROVIDE OFFSET AS REQUIRED. SET AT 840 CFM.
- 4 PROVIDE MOTORIZED DAMPER IN THE DUCTWORK, SEE SEQUENCE OF OPERATION.
- 5 ALL FUMEHOOD DUCTWORK SHALL BE STAINLESS STEEL.

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**BUILDING 400
MECHANICAL
FLOOR PLAN**

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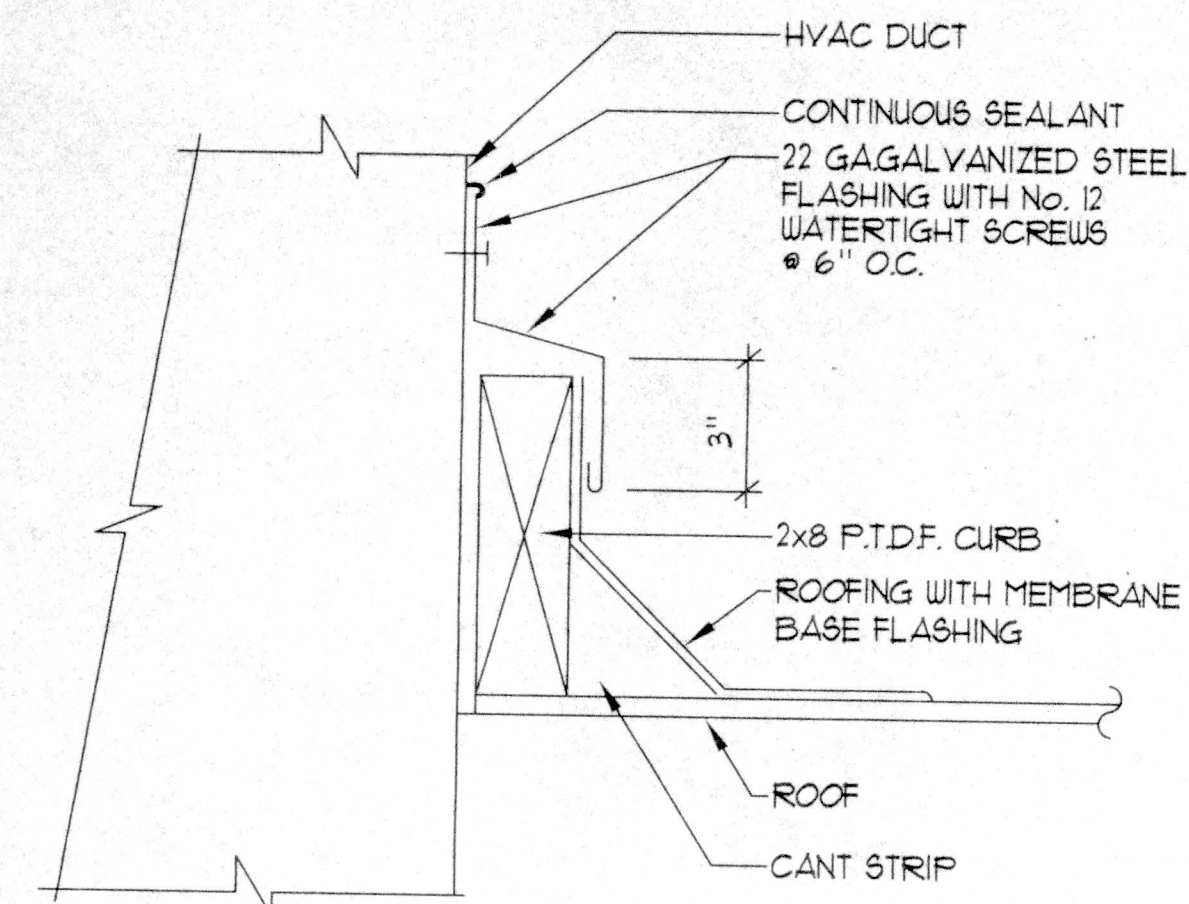
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1 DSA REVISIONS
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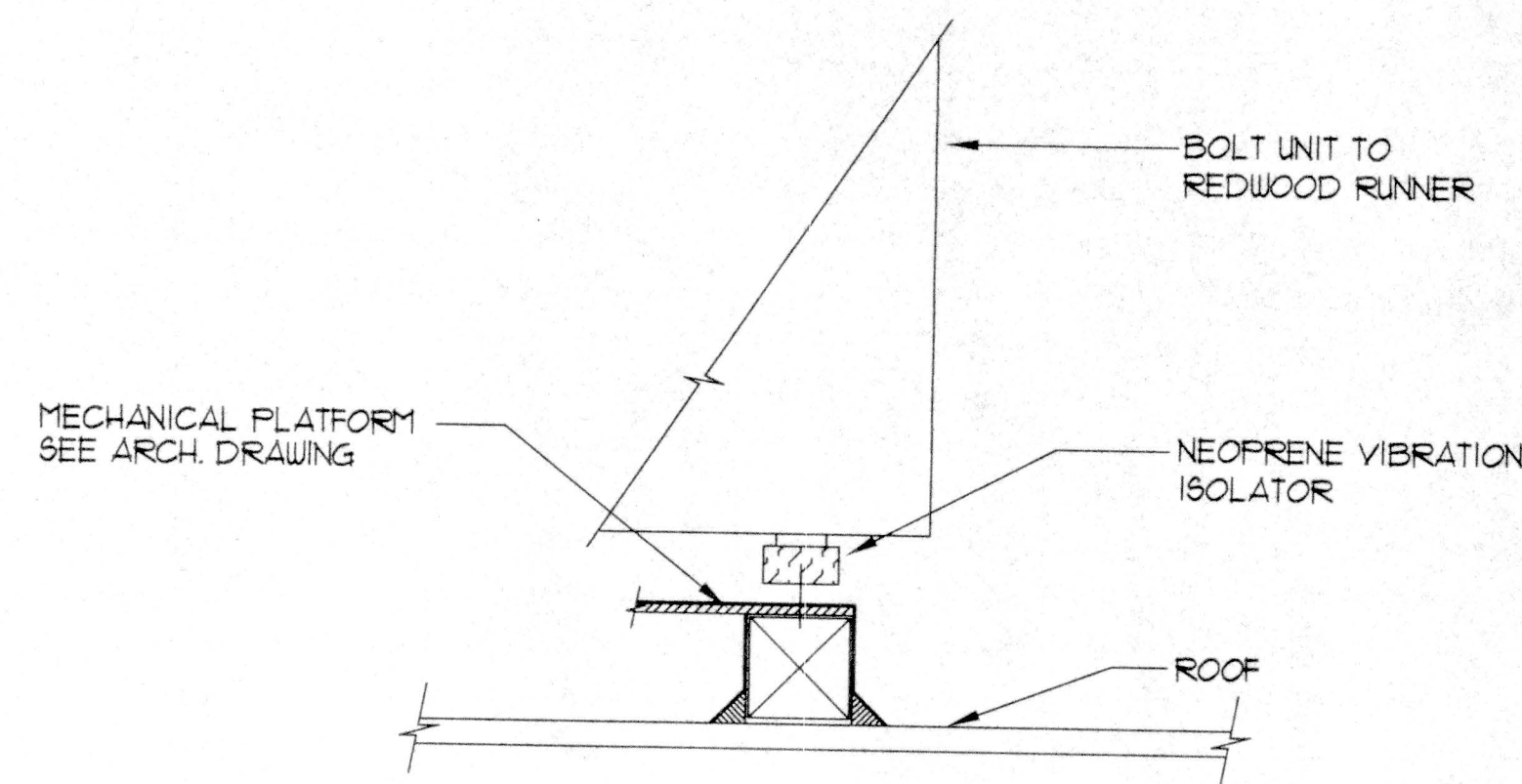
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JOB NO. 9808

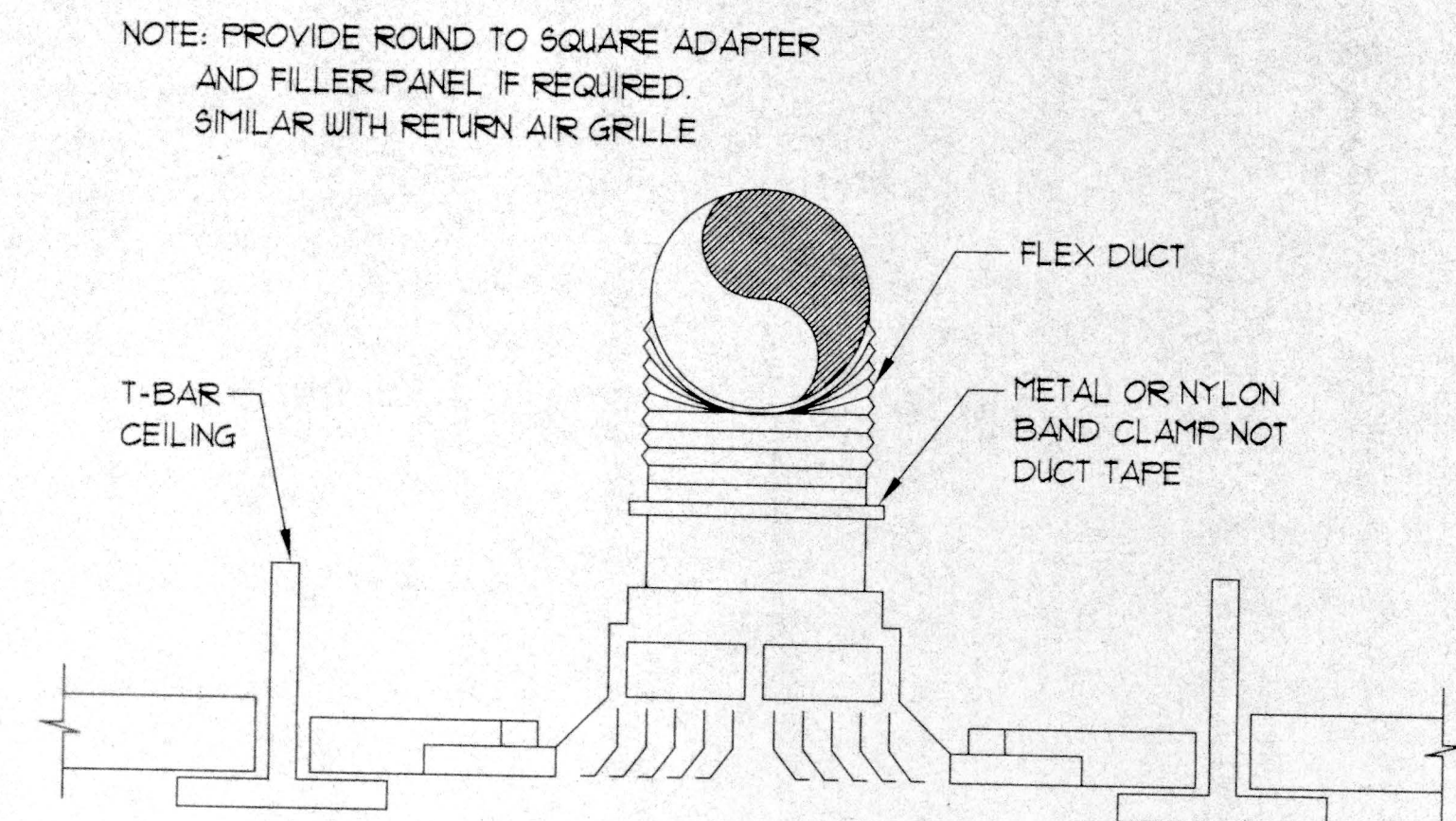
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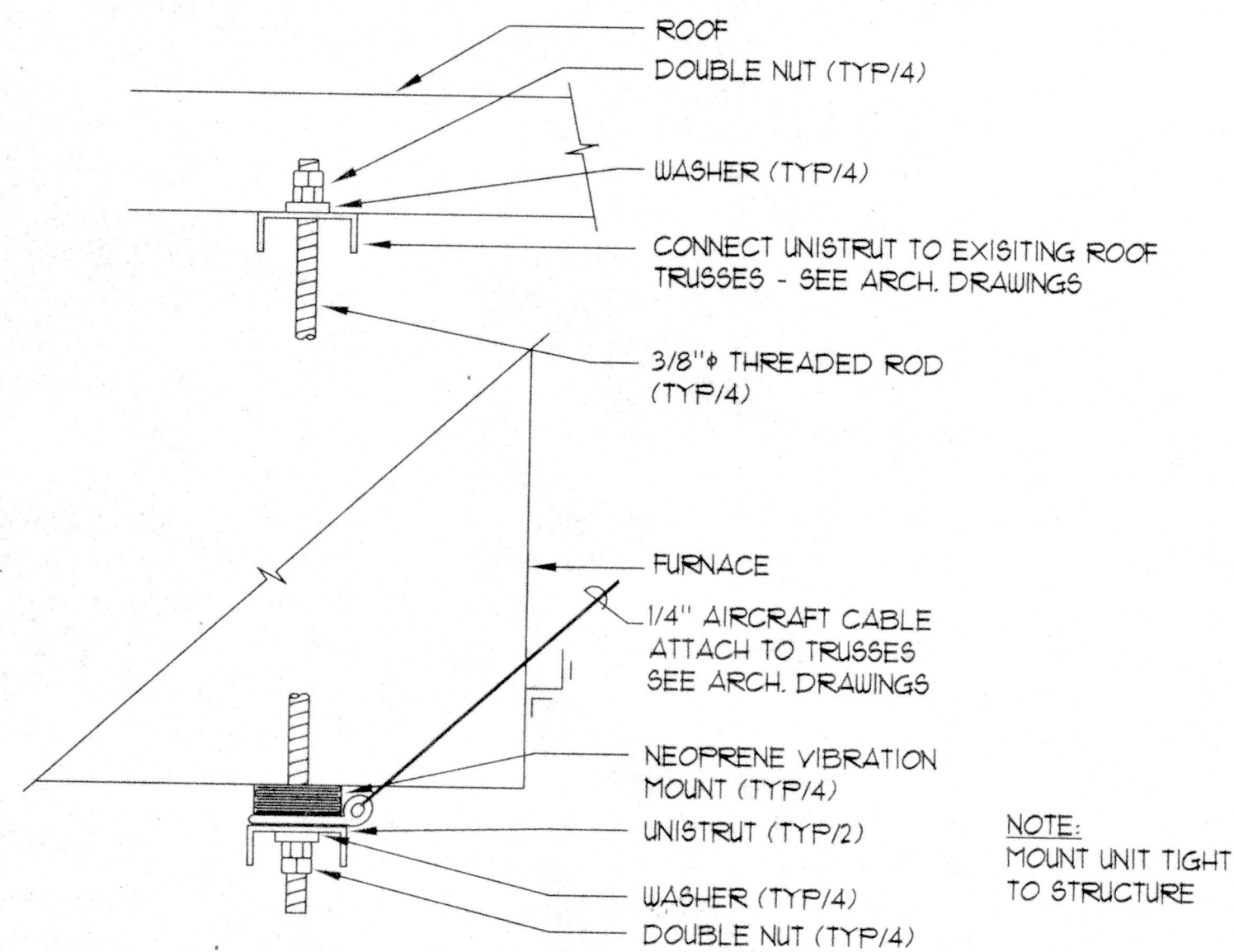
6 DUCT THRU ROOF
NO SCALE



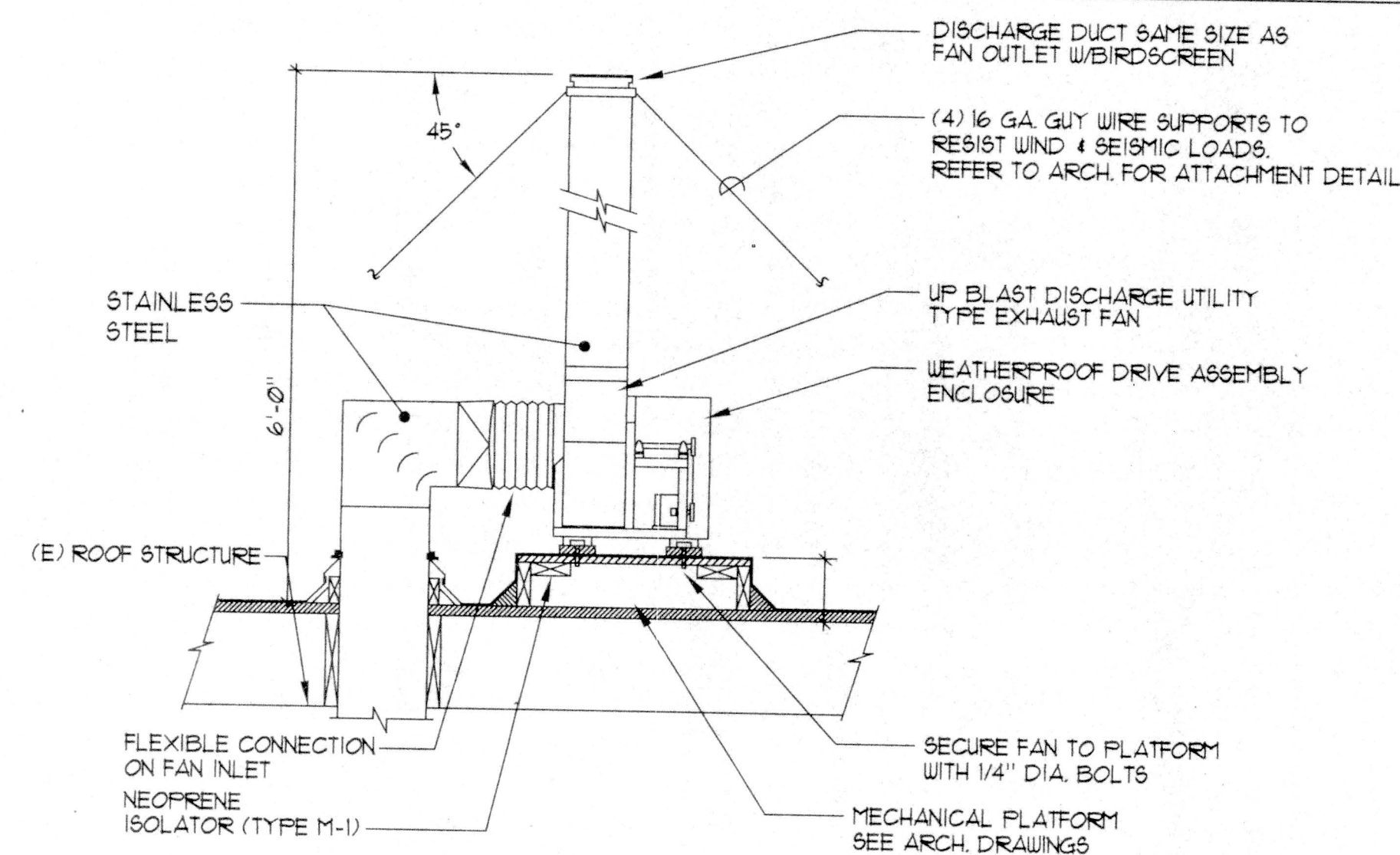
3 CONDENSING UNIT (CU-1) MOUNTING
NO SCALE



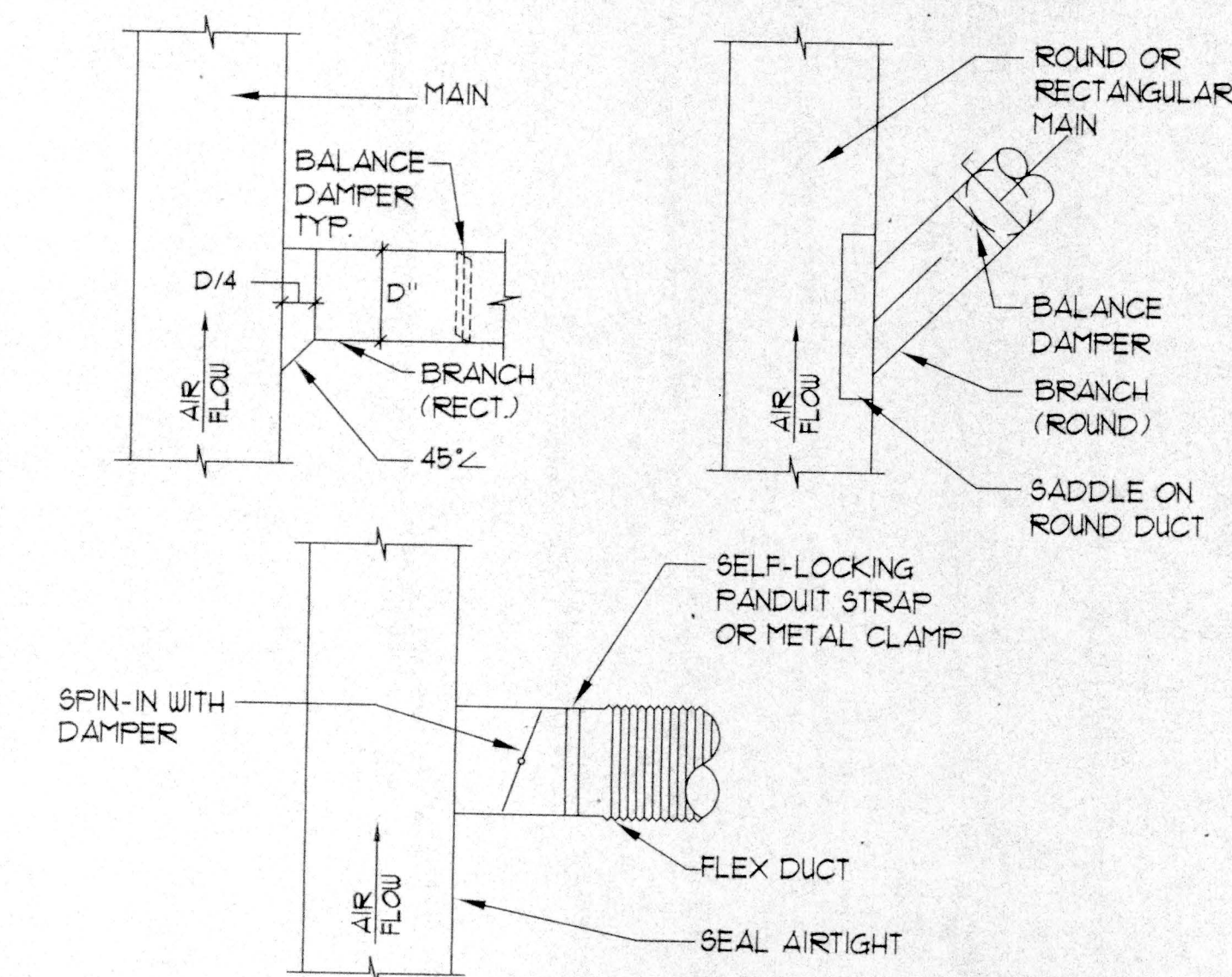
1 DIFFUSER MOUNTING DETAIL
NO SCALE



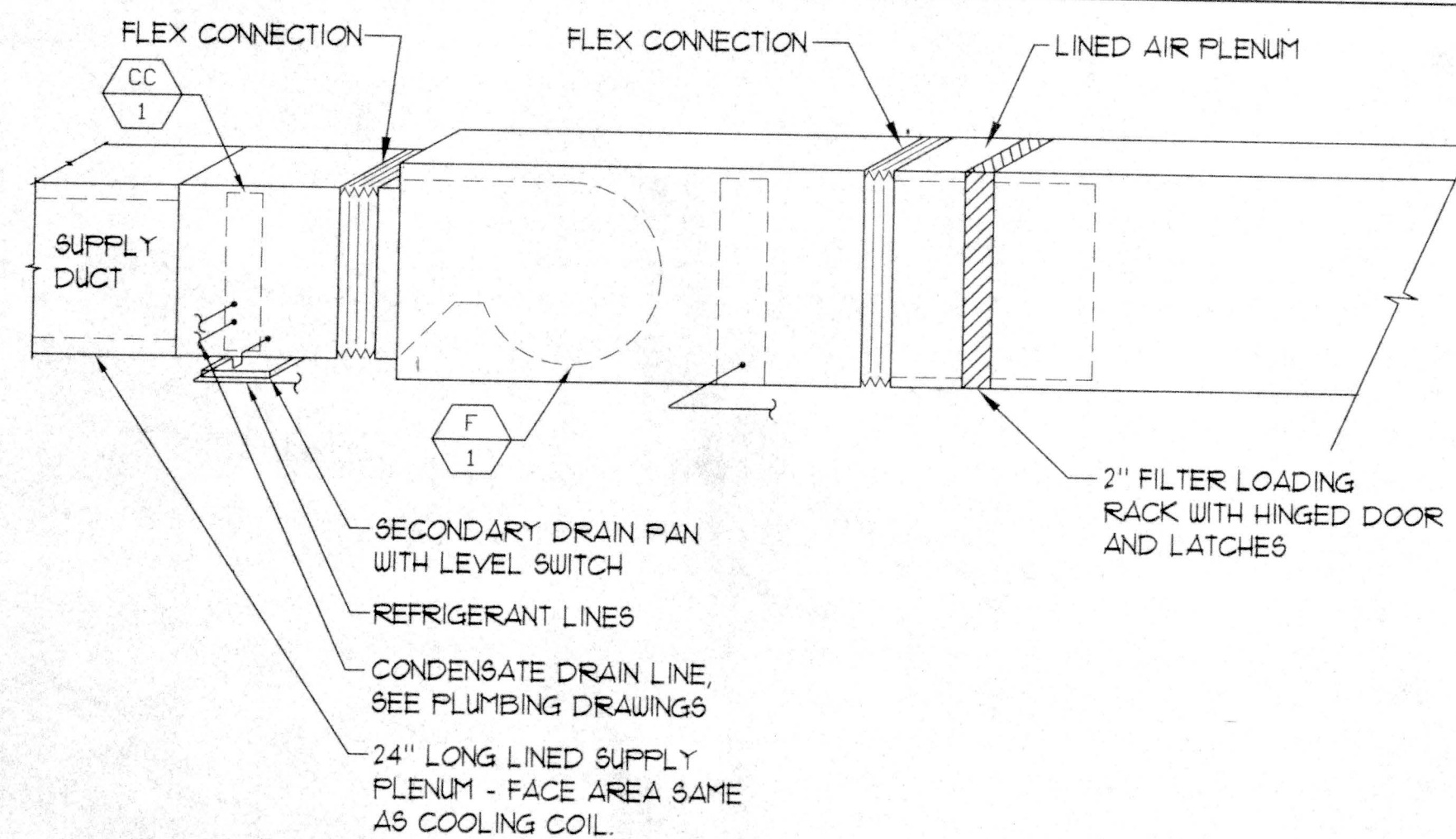
7 HANGING EQUIPMENT MOUNTING
NO SCALE



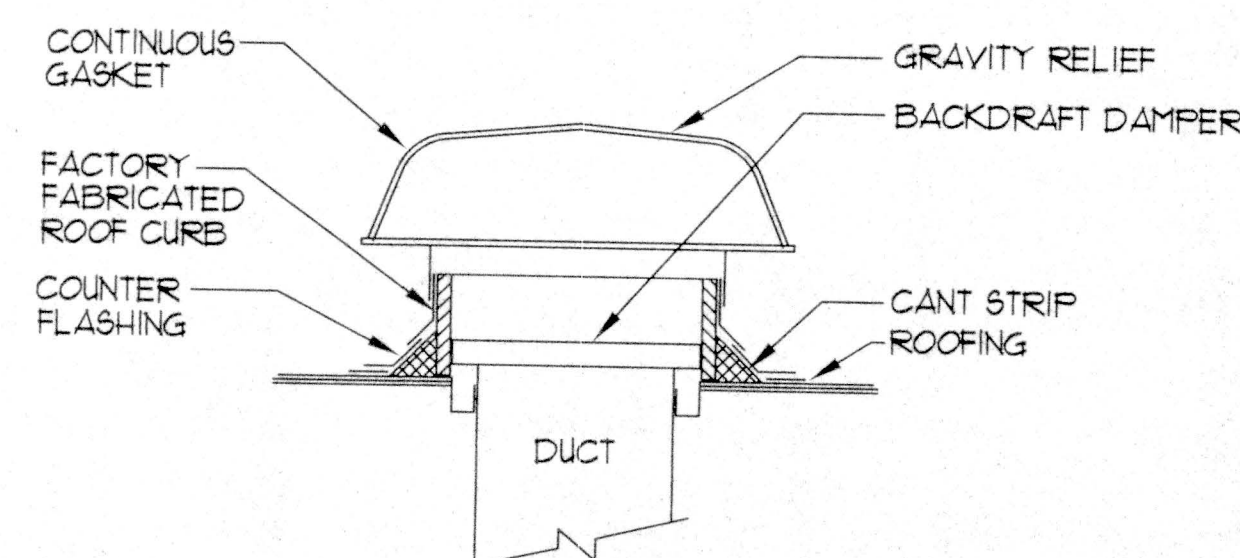
4 FUME HOOD EXHAUST FAN
NO SCALE



2 TYPICAL DUCT TAKE-OFF
NO SCALE



8 FURNACE DETAIL
NO SCALE



5 GRAVITY INTAKE
NO SCALE

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BUILDING 400
MECHANICAL
DETAILS

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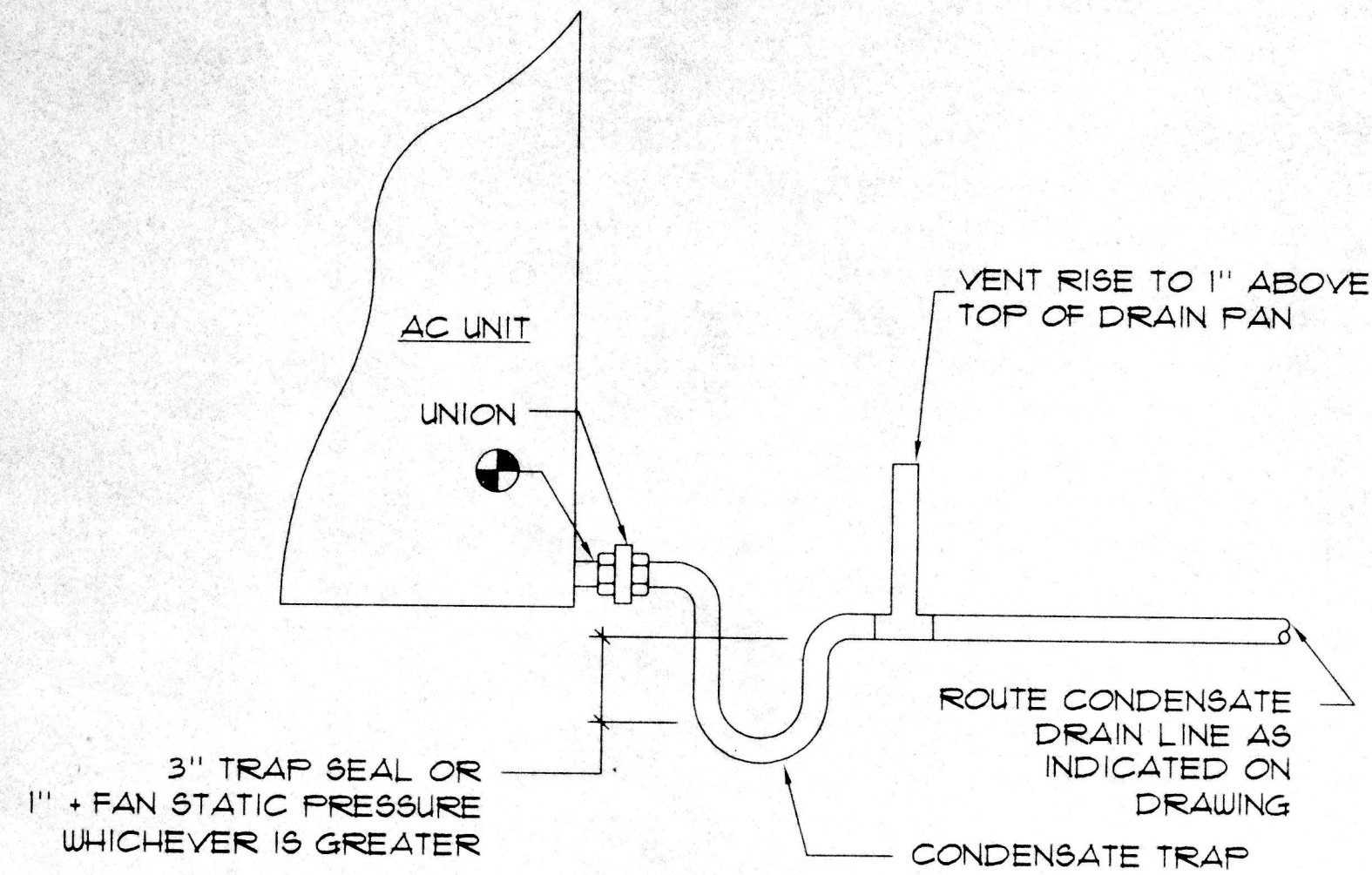
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MiraCosta College

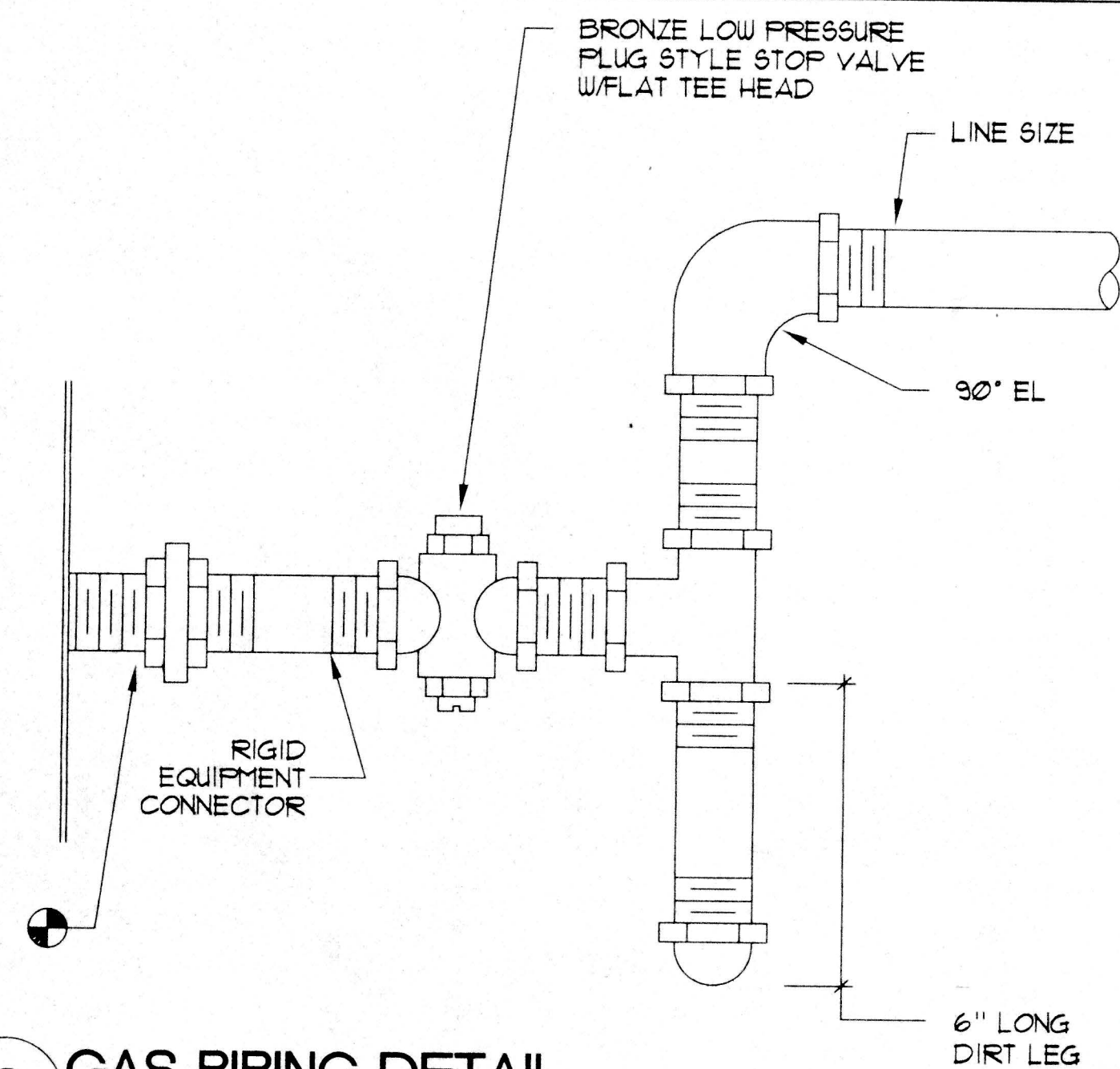
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1 CONDENSATE DRAIN DETAIL
NO SCALE



2 GAS PIPING DETAIL
NO SCALE

PLUMBING REGULATORY NOTES

SEISMIC RESTRAINTS

- A. SEISMIC BRACING AND ANCHORAGE OF PLUMBING PIPING SHALL BE IN ACCORDANCE WITH THE "GUIDELINES FOR SEISMIC RESTRAINTS OF MECHANICAL SYSTEMS AND PLUMBING PIPING SYSTEMS," PUBLISHED BY SMACNA, AS APPROVED BY DSA FIELD ENGINEER.

AREA SEPARATION PENETRATIONS

LOCATION AND RATING OF WALLS, ARE IDENTIFIED ON ARCHITECTURAL FLOOR PLANS.

PIPING

- A. WHERE PIPING PENETRATES THE AREA SEPARATION WALL, FLOOR OR ROOF SURFACE THE SECTION PASSING THROUGH THE WALL SHALL BE ONLY OF METAL.
- B. PENETRATIONS OF RATED ASSEMBLIES SHALL INCLUDE UL THROUGH-PENETRATION FIRE STOP DEVICES AND OR FIRE STOP SYSTEM ADDITIONAL REQUIREMENTS AS FOLLOWS:

1. THROUGH-PENETRATION FIRE STOP DEVICES:

PIPING MAT.	PENETRATION TYPE	ASSEMBLY TYPE	HR. RATING SYS.	UL *
CAST IRON	FLOOR	CONC. MTL DECK	3/3	CAJ116
COPPER	FLOOR	CONC. MTL DECL	3/0	CAJ106
COPPER	WALL	FRAMED	2/0	UL1038

- A) FIRE STOPPING DEVICES SHALL BE COMPLETE FACTORY BUILT PRODUCTS

MANUFACTURER UL FILE * CSFM LISTING *
PROSET SYSTEMS R10338(N) N/A

2. THROUGH-PENETRATION FIRE STOP SYSTEMS:

PIPING MAT.	PENETRATION TYPE	ASSEMBLY TYPE	HR. RATING SYS.	UL *
CAST IRON	FLOOR	CONC. MTL DECK	3/3	CAJ1001
COPPER	FLOOR	CONC. MTL DECL	3/0	CAJ1001
COPPER INSUL	FLOOR	MTL DECK	3/1	CAJ5001
COPPER	WALL	FRAMED	2/0	UL1001
COPPER INSUL	WALL	FRAMED	2/1-1/2	UL5001

- A) FIRE STOPPING SHALL BE UL LISTED CAULK FILL MATERIAL.

MANUFACTURER UL FILE * CSFM LISTING *
MINNESOTA R9100(N) 04485-094:101-106

MINING & MFG

- C. FIRE STOPPING DEVICES AND MATERIALS SHALL BE APPLIED PER MANUFACTURERS WRITTEN INSTALLATION INSTRUCTIONS.

- D. FIRE RATING SHALL BE EQUAL TO AREA SEPARATION RATING.

PROJECT NOTES

GENERAL

- A. VERIFY ALL DIMENSIONS, ELEVATIONS AND SITE CONDITIONS PRIOR TO THE COMMENCEMENT OF ANY WORK. IN THE EVENT OF ANY DISCREPANCIES THE ARCHITECT SHALL BE IMMEDIATELY NOTIFIED IN WRITING. IN NO CASE SHALL DIMENSIONS BE SCALED FROM THE PLANS, SECTIONS, ELEVATIONS OR DETAILS ON THE PLUMBING DRAWINGS.

- B. ALL OMISSIONS AND OR CONFLICTS BETWEEN THE VARIOUS ELEMENTS OF THE CONSTRUCTION DOCUMENTS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT PRIOR TO PROCEEDING WITH ANY OF THE AFFECTED WORK.

- C. ALL MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE REQUIREMENTS OF CBC AND CFC.

- D. THE PLUMBING CONSTRUCTION DOCUMENTS REPRESENT THE FINISHED PLUMBING SYSTEM, NOT THE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL LABOR, MATERIALS, EQUIPMENT AND ACCESSORIES NECESSARY TO ACHIEVE THE FINISHED PLUMBING SYSTEM.

ELECTRICAL POWER CONNECTIONS

- A. FIELD VERIFY AND COORDINATE WITH ELECTRICAL SYSTEMS INSTALLER EXACT ELECTRICAL REQUIREMENTS OF ALL PLUMBING PRODUCTS REQUIRING POWER.

- B. CONFIRM ELECTRICAL VOLTAGES AND LOADS WITH AVAILABLE VOLTAGES AND LOADS IN ORDER TO ENSURE THAT CAN BE CONNECTED.

- C. ELECTRICAL POWER CONNECTIONS SHALL BE MADE BY ELECTRICAL SYSTEMS INSTALLER UNDER PROVISIONS OF DIVISION 16.

EXISTING BUILDING CONDITIONS

PLUMBING SYSTEMS

- A. LOCATION AND SIZE OF EXISTING PLUMBING PIPING AND VALVES IS BASED ON EXISTING CONSTRUCTION DOCUMENTS FURNISHED BY THE OWNER AND FIELD SURVEYS.

- B. LOCATION OF CONCEALED OR NOT READILY ACCESSIBLE PIPING IS BASED ON EXISTING CONSTRUCTION DOCUMENTS.

- C. EXISTING UNDERGROUND PLUMBING LINES SHOWN ARE BASED ON EXISTING CONSTRUCTION DOCUMENTS WHICH INDICATE APPROXIMATE LOCATION ONLY.

INTERRUPTION OF SERVICE

- A. PRIOR TO THE SHUT-DOWN OF ANY PLUMBING, BUILDING DRAIN/VENT SYSTEM, OR TIE-IN, MINIMUM 72 HOURS PRIOR NOTICE SHALL BE GIVEN TO THE SCHOOL ADMINISTRATION. PROVIDE THE FOLLOWING INFORMATION:

1. SYSTEMS AFFECTED
 2. PLANNED TIME AND LENGTH OF INTERRUPTION
 3. AREAS AFFECTED
- WORK SHALL NOT COMMENCE UNTIL RECEIPT OF WRITTEN NOTICE TO PROCEED.

- B. WHERE SERVICE INTERRUPTION IMPACTS DAILY OPERATIONS, AT THE DISCRETION OF THE SCHOOL ADMINISTRATION THESE INTERRUPTIONS SHALL BE MADE DURING OFF HOURS (PREMIUM TIME).

LEGEND

SYMBOL	ABBREV.	DESCRIPTION
---	CW	COLD WATER (DOMESTIC)
---	HW	HOT WATER (DOMESTIC)
---	HW R	HOT WATER RETURN (DOMESTIC)
---	G	FUEL GAS (LOW PRESSURE)
(E)	(E)	EXISTING PIPING
---	AW	ACID WASTE
---	AV	ACID VENT
---	FCO	FLOOR CLEAN OUT
---	UP	UP/RISE
---	DN	DOWN/DROP
---		TEE BRANCH
---	P.O.C.	POINT OF CONNECTION
---	ABV.	ABOVE
---	BEL.	BELOW
---	CLG.	CEILING
////		REMOVE EXISTING PIPING
---		SHUT OFF OR ISOLATION VALVE
---	CD	CONDENSATE DRAIN
---	FCO	FLOOR CLEANOUT
---	WCO	WALL CLEANOUT
---	CONN	CONNECTION
---	TYP	TYPICAL
---	VTR	VENT THROUGH ROOF
(NK)		KEYNOTE REFERENCE
---	FLR	FLOOR
---	CA	COMPRESSED AIR
---	V	VACUUM
---	DI	DEIONIZED WATER

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Miracosta College

PLUMBING NOTES AND LEGEND

PLUMBING NOTES AND LEGEND

REVISIONS:
1 DSA REVISIONS 00/00/00

DATE: 4/10/2000

JOB NO. 9808

SHEET: P1.1

PLUMBING SPECIFICATIONS

- 11 SURVEY OF SITE
- A. BEFORE SUBMITTING PROPOSALS FOR THIS WORK, EACH BIDDER SHALL BE FAMILIAR WITH PLANS AND SPECIFICATIONS AND SHALL HAVE EXAMINED THE PREMISES AND UNDERSTOOD THE CONDITIONS UNDER WHICH HE WILL BE OBLIGED TO OPERATE IN PERFORMING THIS CONTRACT. NO ALLOWANCE WILL BE MADE SUBSEQUENTLY IN THE CONNECTIONS ON BEHALF OF THE CONTRACTOR FOR ANY ERROR THROUGH NEGLIGENCE ON HIS PART.
- 12 CODE ANALYSIS
- A. THE CONSTRUCTION OF THIS PROJECT SHALL CONFORM TO THE REQUIREMENTS OF:
1. 1991 UBC AND 1998 - CALIFORNIA AMENDMENTS (98 CALIFORNIA BUILDING CODE PART 2, TITLE 24, CCR)
 2. 1991 NEC AND 1998 - CALIFORNIA AMENDMENTS (98 CALIFORNIA ELECTRICAL CODE PART 3, TITLE 24, CCR)
 3. 1991 UMC AND 1998 - CALIFORNIA AMENDMENTS (98 CALIFORNIA MECHANICAL CODE PART 4, TITLE 24, CCR)
 4. 1991 UPC AND 1998 - CALIFORNIA AMENDMENTS (98 CALIFORNIA PLUMBING CODE PART 5, TITLE 24, CCR)
 5. 1991 UFC AND 1998 - CALIFORNIA AMENDMENTS (98 CALIFORNIA FIRE CODE PART 9, TITLE 24, CCR)

- 13 SUBMITTALS
- A. SUBMITTALS ARE REQUIRED ON EVERY ITEM TO BE FURNISHED WHETHER OR NOT IT IS THE SPECIFIED ITEM.
- B. SIX (6) BOUND COPIES OF EACH SHOP DRAWING, INDICATING PROPOSED LAYOUT, MATERIAL LISTS AND/OR PLATES OR BROCHURES OF MATERIALS AND EQUIPMENT SPECIFIED HEREIN SHALL BE PREPARED AND SUBMITTED TO THE ENGINEER FOR REVIEW WITHIN FIFTEEN (15) DAYS AFTER AWARD OF CONTRACT. NO WORK INDICATED ON ANY ONE SHOP DRAWING SHALL BE STARTED UNTIL SUCH DRAWING HAVE BEEN REVIEWED AND APPROVED BY THE ENGINEER.
- C. RECORD DRAWINGS: TWO (2) COMPLETE SETS OF "AS-BUILTS".

PART 2 MATERIALS

21 PIPE AND FITTINGS

- A. ACID (CHEMICAL) WASTE PIPING, BURIED
1. POLYPROPYLENE PIPE: ASTM F-1230, SCH 40, FLAME RETARDANT "ORION" RIONFUSE BLUELINE CORROSION RESISTANT DRAINAGE SYSTEM.
 2. FITTINGS: ASTM F-1230, SCH 40, FLAME RETARDANT POLYPROPYLENE.
 3. JOINTS: PIPE AND FITTINGS SHALL BE JOINED USING THE "ORION" RIONFUSE JOINING MACHINE. EACH FITTING SOCKET SHALL HAVE A MOLDED RIONFUSE HEAVY GAUGE RESISTANCE WIRE.
- B. ACID (CHEMICAL) WASTE PIPING, ABOVE GRADE
1. POLYPROPYLENE PIPE: ASTM F-1230, SCH 40, FLAME RETARDANT "ORION" MECHANICAL JOINT BLUELINE CORROSION RESISTANT DRAINAGE SYSTEM.
 2. FITTINGS: SCH 40, POLYPROPYLENE, MECHANICAL JOINT, FLAME RETARDANT.
 3. JOINTS: MECHANICAL JOINT COUPLING "ORION" RIONTITE CONSISTING OF STAINLESS STEEL OUTER BAND, WITH 5/16 INCH BOLTS, NUTS AND WASHERS.
- C. DOMESTIC COLD AND HOT WATER: ASTM B88, TYPE "L" HARD DRAWN COPPER TUBING. FITTINGS: ANSI/ASME B16.22, WROUGHT COPPER.
- D. GAS PIPING: ASTM A53, STEEL PIPING (INSIDE BUILDING) SCHEDULE 40 BLACK, ASME B16.3, MALLEABLE IRON FITTINGS. ASTM 120, GALVANIZED STEEL PIPING (EXTERIOR) SCHEDULE 40, WITH ASME B16.3, GALVANIZED FITTINGS.
- E. COMPRESSED AIR PIPING: ASTM B88, TYPE "K" HARD DRAWN WITH WROUGHT COPPER BRAZED FITTINGS.
- F. DE-IONIZED WATER: ASTM D-1185, POLYPROPYLENE PIPE AND FITTINGS (SCHEDULE 80). JOINTS: SOCKET WELDED OR BUTT WELDED.

22 PIPE HANGERS AND SUPPORT

- A. ADJUSTABLE RING HANGERS: "SECUR STRUT AND HANGER CO." FIG. 2, 2-F.
- B. PIPE ISOLATION: "SECUR STRUT AND HANGER CO." FIG. 83, ISOLATOR COPPER TUBE.

23 PLUMBING ACCESSORIES

- A. GENERAL: PROVIDE AND INSTALL AT EACH SCIENCE CLASSROOM SINK CHROME PLATED ANGLE STOPS WITH RIGID SUPPLIES AND MECHANICALLY JOINED CHEMICAL WASTE PIPING.

24 INSULATION

- A. ALL PIPE AND TUBING INSULATION SHALL HAVE A FLAME SPREAD NOT TO EXCEED 25. THE SMOKE DENSITY SHALL BE NO GREATER THAN 50 WHEN TESTED IN ACCORDANCE WITH UBC STANDARD NO. 8-1 IN THE WAY INTENDED FOR USE.
- B. PIPING INSULATION SHALL BE AS FOLLOWS: DOMESTIC HOT WATER SYSTEM - OWENS CORNING FIBERGLASS ASJ/SSLII PIPE INSULATION, ASTM/ANSI C-541 MINERAL FIBER, PREFORMED PIPE INSULATION AND FITTING.
- C. PIPING INSULATION SHALL BE AS FOLLOWS: UNDERNEATH SINK- TRUEBRO INC. FULLY MOLDED P-TRAP ASSEMBLY, ANGLE VALVE AND SUPPLY TUBES INSULATION, ANSI A111.1.

25 PLUMBING EQUIPMENT

1. PORTABLE EXCHANGE SYSTEM: "CULLIGAN" TRI-BED, MIXED-BED DEIONIZED WATER TANKS WITH WATER QUALITY LIGHT (50,000 OHMS (2) REQUIRED) AND (1 MEGA-OHM) FOR THE 3-INCH DIA. TANKS.
2. RESISTIVITY METER: "MYRON" 153-1, 0-20 MEGA-OHM WITH WALL TYPE MOUNTING PLATE.
3. EMERGENCY SAFETY SHOWER: "GUARDIAN" GBF1643, BARRIER-FREE EMERGENCY SHOWER, HORIZONTAL/WALL MOUNTING, IDENTIFICATION SIGN.

PART 3 INSTALLATION AND TESTING

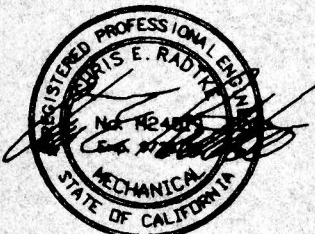
31 INSTALLATION

- A. PIPING SHALL BE SUPPORTED AND BRACED PER THE SMACNA "GUIDELINES FOR SEISMIC RESTRAINTS OF MECHANICAL SYSTEMS AND PLUMBING PIPING SYSTEMS", OR R-0003, THE SUPERSTRUT SEISMIC RESTRAINT SYSTEM", OR R-0114, THE "B-LINE" SEISMIC RESTRAINT SYSTEM.
- B. CONTRACTOR SHALL VERIFY EXACT LOCATION AND DEPTH OF LATERALS BEFORE STARTING PROJECT. SHOULD IT BECOME NECESSARY TO RE-ROUTE LINES DUE TO CONDITIONS FOUND ON THE SITE OR IF INDICATED POINT OF CONNECTION CANNOT BE MADE TO THE LINES AS FOUND, THE CONTRACTOR SHALL, BEFORE CONTINUING, NOTIFY THE ARCHITECT BEFORE INSTALLING ANY WORK WHICH MAY BE AFFECTED.
- C. INSTALL ALL PLUMBING TO AVOID INTERFERENCE WITH ELECTRICAL AND MECHANICAL EQUIPMENT AND STRUCTURAL FRAMING.
- D. EXACT LOCATIONS OF PLUMBING FIXTURES SHALL BE OBTAINED FROM ARCHITECTURAL DRAWINGS.
- E. AIR CHAMBERS 24 INCHES LONG SHALL BE INSTALLED AT THE SUPPLY TO EACH PLUMBING FIXTURE OF TWO PIPE SIZES LARGER THAN THE FIXTURE SUPPLY UNLESS A WATER HAMMER ARRESTER IS PROVIDED FOR THE HEADER.
- F. ALL CUTTING OF EXISTING FLOORS SHALL BE BY MACHINE SAW CUTTING.
- G. ALL BURRED ENDS OF TUBING SHALL BE REAMED TO THE FULL BORE OF THE PIPE OR TUBE AND ALL CHIPS SHALL BE REMOVED (SEE 1994 CALIFORNIA PLUMBING CODE, SECTION 310.03).

32 TESTS

- A. DOMESTIC COLD AND HOT WATER SYSTEM: 125 PSI, UPC SECTION 318.6.6 OR SYSTEM WORKING PRESSURE.
- B. SANITARY, WASTE AND VENT SYSTEM: MINIMUM OF 10 FEET HEAD OF WATER UPC SECTION 318.6.3.
- C. STERILIZE THE DOMESTIC COLD AND HOT WATER LINES THAT SERVE THE VARIOUS PLUMBING FIXTURES AFTER WATER LINES HAVE BEEN FLUSHED THOROUGHLY. STERILIZE PER APPROVED FEDERAL AND/OR AWWA PROCEDURES STD C651-86.

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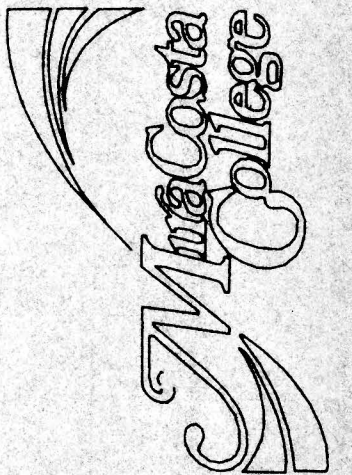


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DATE AUG 08 2000

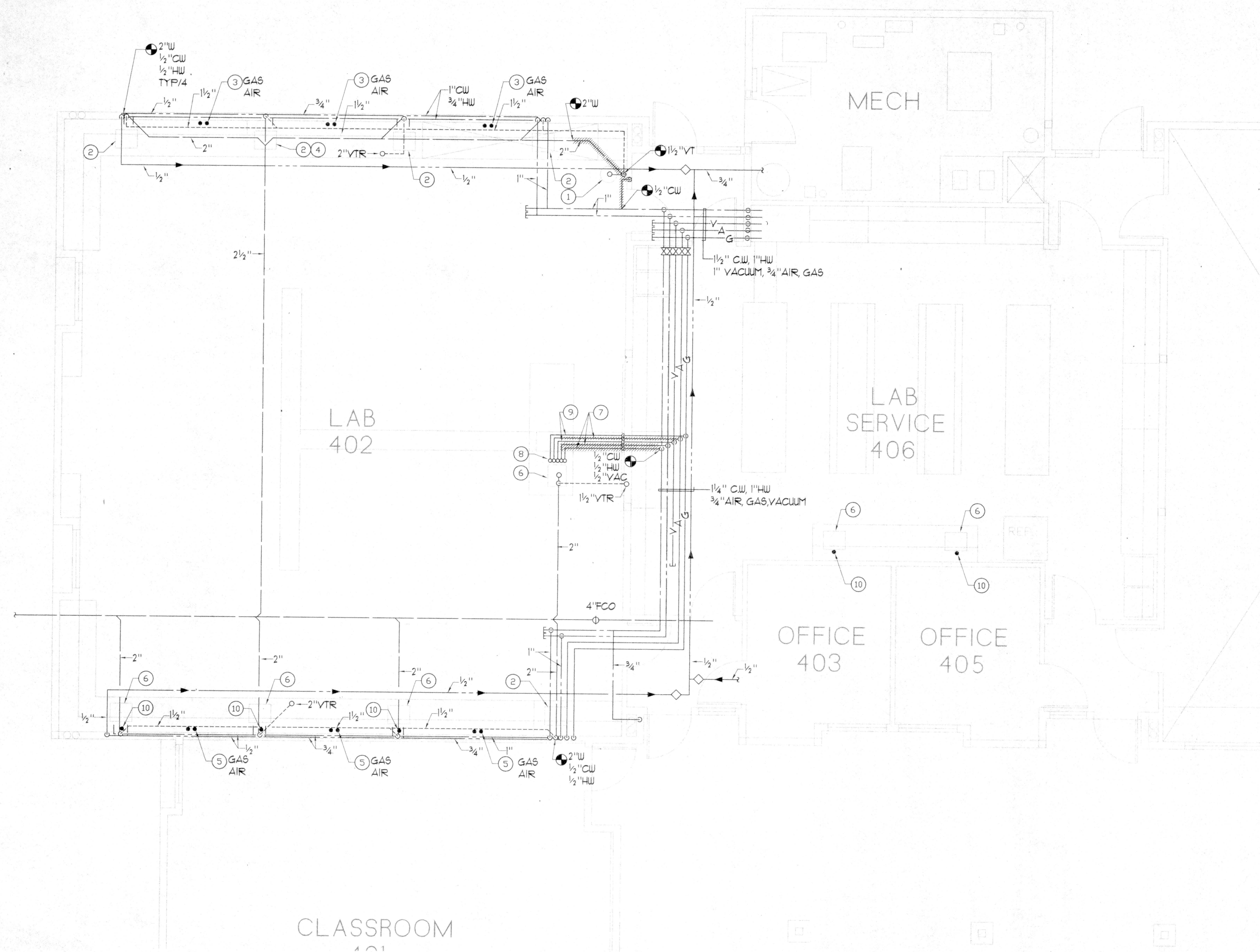
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BIOTECHNOLOGY LAB REMODEL
BUILDING 400
MIRACOSTA COMMUNITY COLLEGE DISTRICT
SAN ELIJO CAMPUS
333 MANCHESTER AVENUE, CARDIFF, BY THE SEA, CA 92007



PLUMBING SPECIFICATIONS

REVISIONS:
1 DSA REVISIONS 00/00/00
X
X
X
DATE: 4/10/2000
JOB NO. 9808
SHEET: P1.2



PLUMBING DEMOLITION PLAN - BLDG. 400

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

KEYNOTES

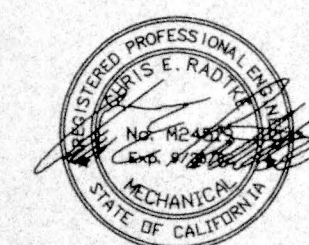
- 1 REMOVE EXISTING EMERGENCY EYE WASH STATION. REMOVE 2" WASTE AND CAP BELOW FLOOR. REMOVE 1/2" COLD WATER AND CAP ABOVE CEILING. CAP 1/2" VENT IN WALL.
- 2 DISCONNECT AND REMOVE EXISTING LAVATORY SINK FITTING, WASTE, COLD AND HOT WATER AND CAP SERVICES BEHIND FINISHED WALL.
- 3 DISCONNECT AND REMOVE EXISTING AIR AND GAS TURRET EQUIPPED WITH COCK AND SERRATED NOZZLE OUTLET. REMOVE SERVICES UNDERNEATH THE CABINETRY TO EXISTING SHUT-OFF VALVE AND CAP.
- 4 DISCONNECT AND REMOVE EXISTING HYDROCLEAN CARBON AND SEDIMENT FILTERS, TUBING AND SPIGOT.
- 5 EXISTING AIR AND GAS TURRETS EQUIPPED WITH COCK AND SERRATED NOZZLE OUTLET TO REMAIN.
- 6 EXISTING EPOXY-RESIN SINK TO REMAIN.
- 7 REMOVE EXISTING 1/2" CW, 1/2" HW AND 1/2" VACUUM DOWN IN WALL AND TO BELOW FLOOR IN TRENCH. CAP SERVICES ABOVE CEILING.
- 8 DISCONNECT EXISTING 1/2" CW, 1/2" HW AND 1/2" VACUUM SERVICES FROM ISLAND SINK. REFER TO RENOVATION DRAWING FOR RECONNECTION OF SERVICES.
- 9 EXISTING VACUUM, GAS AND AIR PIPING TO REMAIN.
- 10 REMOVE EXISTING LABORATORY SINK FITTING.

BIOTECHNOLOGY LAB REMODEL
BUILDING 400
MIRACOSTA COMMUNITY COLLEGE DISTRICT
SAN ELIJO CAMPUS



BUILDING 400
PLUMBING
DEMOLITION

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4/10/2000

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9808

SHEET:

P.2.1



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

- (1) CONNECT 2 INCH WASTE TO EXISTING WASTE LINE AND ROUTE AS INDICATED.
- (2) CONNECT 1-1/2 INCH VENT TO EXISTING VENT LINE AND ROUTE AS INDICATED.
- (3) CONNECT 1-1/2 INCH COLD WATER TO EXISTING SERVICE AND ROUTE AS INDICATED.
- (4) CONNECT 3/4 INCH COLD WATER TO EXISTING SERVICE AND ROUTE AS INDICATED.
- (5) EXISTING ACID WASTE PIPING BELOW FLOOR.
- (6) LOCATION OF EXISTING FLOOR SINK.
- (7) EPOXY RESIN SINK WITH CENTRAL WATER DELIVERY (3-FAUCET) CAPABLE OF LOWERING BELOW COUNTERTOP AND INNER LIP ON SINK TO HOLD REMOVABLE SINK COVER BY OTHERS. PROVIDE AND INSTALL 'CHICAGO' 625-SLO PEDAL VALVES (TYP 3).
NOTE: FAUCETS/SPIGOTS FOR DOMESTIC WATER AND DE-IONIZED WATER BY OTHERS. REFER TO ARCHITECTURAL DRAWINGS FOR ADDITIONAL INFORMATION FOR LAB STATIONS.
- (8) EXISTING PIPING ABOVE CEILING.
- (9) CONNECT 3/4" GAS PIPING TO EXISTING 1/4" GAS PIPING IN CEILING SPACE AND ROUTE AS INDICATED.
- (10) MODIFY EXISTING SERVICES (WASTE, COLD AND HOT WATER) AS REQUIRED TO ACCOMMODATE INSTALLATION OF FUME HOOD WITH CUPSINK.
- (11) PROVIDE AND INSTALL MIXED BED DEIONIZED TANKS.
- (12) ROUTE GAS PIPING IN TRENCH BELOW FLOOR AS INDICATED.
- (13) 1/2 INCH GAS DOWN IN WALL TO BELOW FLOOR.
- (14) PROVIDE 2 INCH WASTE, 1-1/2 INCH VENT AND 1/2 INCH COLD, HOT AND DEIONIZED WATER ROUGH-IN SERVICES FOR COUNTER MOUNTED ISLAND EPOXY RESIN SINK.
- (15) PROVIDE AND INSTALL RESISTIVITY MONITOR/CONTROLLER FOR DEIONIZED WATER. ELECTRICAL REQUIREMENTS: 115VAC, SINGLE PHASE.
- (16) PROVIDE AND INSTALL EMERGENCY SHOWER AND FLOOR DRAIN. PULL DEVICE @ 40" MAX.
- (17) 1/2 INCH GAS UP FROM BELOW FLOOR IN CABINETY.
- (18) PROVIDE AND INSTALL 'CHICAGO' 982 LABORATORY TURRET WITH (2) 309 HOSE COCKS.
- (19) LOCATION OF CUPSINK WITH DEIONIZED WATER, GAS AND VACUUM SERVICES FOR THE FUME HOOD.
- (20) LOCATION OF NEW ACCESSIBLE EPOXY RESIN SINK BY OTHERS.
- (21) PROVIDE AND INSTALL 'CHICAGO' 625-SLO AND 786-E3-TW WITH GN2BYB VACUUM BREAKER SPOUT, THIRD WATER CONNECTION FOR USE IN CONJUNCTION WITH FOOT PEDAL VALVE.
- (22) MODIFY EXISTING SERVICES (COLD AND HOT WATER) AS REQUIRED TO ACCOMMODATE INSTALLATION OF NEW SINK FITTING.
- (23) PROVIDE AND INSTALL 'CHICAGO' 869-B LABORATORY FITTING FOR DEIONIZED WATER. PROVIDE 2" MIN LEVER HANDLE.
- (24) PROVIDE AND INSTALL 'CHICAGO' 625-SLO AND 900-AGN2BYB-E7 VACUUM BREAKER SPOUT AND FOOT PEDAL VALVE.
- (25) PROVIDE AND INSTALL 'CHICAGO' 786-GN2BYB-E7 LABORATORY FITTING.
- (26) EXISTING EPOXY-RESIN SINK.
- (27) EXISTING AIR AND GAS CURRENTS WITH COCK AND NOZZLE.

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DATE AUG 09 2000

P 2.2

BIOTECHNOLOGY LAB REMODEL
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SYMBOLS

- ◊ LUMINAIRE; POINT SOURCE, RECESSED ROUND.
- ⊕ DUPLEX RECEPTACLE OUTLET, FLUSH WALL MOUNTED AT +18" ABOVE FINISHED FLOOR U.O.N.
- ⊕ 2 DUPLEX RECEPTACLE OUTLETS (4 PLEX) IN 4" SQ. BOX, FLUSH WALL MOUNTED AT +18" ABOVE FINISHED FLOOR U.O.N.
- ⊕ SPECIAL RECEPTACLE, SUBSCRIPT INDICATES SIZE AND TYPE, FLUSH WALL MOUNTED AT +18" ABOVE FINISHED FLOOR U.O.N.
- CONDUIT AND WIRE RUN UNDERFLOOR OR UNDERGROUND.
- CONDUIT AND WIRE RUN CONCEALED.
- ~ FLEXIBLE CONDUIT.
- ||| SLASH MARKS INDICATE NUMBER OF #12 AWG WIRES, NO SLASH MARKS INDICATES 2 #12 AWG WIRES, U.O.N. CHEVRON MARKS INDICATES NUMBER OF #10 AWG WIRES, U.O.N.
- Ⓜ JUNCTION BOX WITH COVER
- Ⓜ JUNCTION BOX PROVIDED BY OTHERS
- FATC FIRE ALARM TERMINAL CABINET.
- \$T FRACTIONAL HORSEPOWER MANUAL MOTOR STARTER.
- A 3/4" DETAIL REFERENCE SYMBOL FOR DETAIL TITLES. "A" IS DETAIL DESIGNATION, "E-1" INDICATES SHEET WHERE DETAIL IS REFERENCED, "E-2" INDICATES SHEET WHERE DETAIL IS DRAWN.
- E-1 E-2
- ▽ DATA OUTLET, FLUSH WALL MOUNTED AT +18" ABOVE FINISHED FLOOR U.O.N.
- ▽ COMBINATION TELEPHONE/DATA OUTLET, FLUSH WALL MOUNTED AT +18" ABOVE FINISHED FLOOR U.O.N.

ABBREVIATIONS

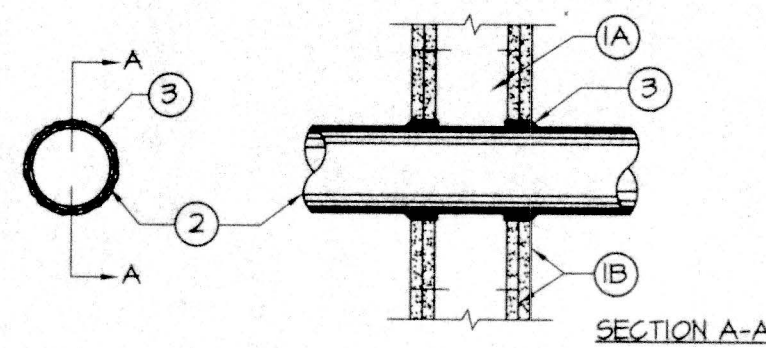
- AFF ABOVE FINISHED FLOOR
- BKR BREAKER
- CB CIRCUIT BREAKER
- C CONDUIT
- C.O. CONDUIT ONLY
- COND CONDUCTOR
- CU COPPER
- FACP FIRE ALARM CONTROL PANEL
- FATC FIRE ALARM TERMINAL CABINET
- FIN FINISH
- LTG LIGHTING
- MTG MOUNTING
- PNL PANEL
- PWR POWER
- RGS RIGID GALVANIZED STEEL
- SHT SHEET
- ST SHUNT TRIP
- SW SWITCH
- T, TELE TELEPHONE
- TYP TYPICAL
- UG UNDERGROUND
- WP WEATHERPROOF
- X EXISTING TO REMAIN
- XR EXISTING TO BE REMOVED

FIRE PENETRATIONS NOTE

ALL PENETRATIONS OF FIRE RESISTIVE FLOORS, WALLS OR CEILING SHALL BE PROTECTED BY MATERIALS AND INSTALLATION DETAILS THAT CONFORM TO U.L. (UNDERWRITERS LABORATORY) LISTINGS FOR THROUGH PENETRATION FIRE STOP SYSTEMS, AND SHALL BE A TESTED ASSEMBLY APPROVED BY THE FIRE MARSHAL. THIS INCLUDES, BUT IS NOT LIMITED TO, ALL RACENAY PENETRATIONS AND ELECTRICAL OUTLET BOXES RECESSED IN OPPOSITE SIDES OF RATED WALLS WITH LESS THAN A 24" HORIZONTAL OFFSET. THE CONTRACTOR SHALL SUBMIT SHOP DRAWING DETAILS, FURNISHED BY THE MANUFACTURER OF THE FIRE STOP MATERIAL, WHICH SHOW COMPLETE CONFORMANCE TO THE U.L. LISTING, TO THE UNIVERSITY'S REPRESENTATIVE. THESE DRAWINGS SHALL BE AVAILABLE TO THE FIRE MARSHAL. THE SHOP DRAWINGS SHALL BE SPECIFIC FOR EACH PENETRATION WITH ALL VARIABLES DEFINED. SEE TYPICAL FIRE PENETRATION DETAIL BELOW.

PENETRATION SEAL AT RATED PARTITIONS:

SYSTEM NO. 111001
F RATINGS - 1, 2, 3 AND 4 HR. (SEE ITEMS 2 AND 3)
T RATINGS - 0, 1, 2, 3 AND 4 HR. (SEE ITEM 3)
L RATING AT AMBIENT - LESS THAN 1 CFM/SQ. FT. (SEE ITEM 3)
L RATING AT 400 F - LESS THAN 1 CFM/SQ. FT. (SEE ITEM 3)



- WALL ASSEMBLY-THE 1, 2, 3, OR 4 HR FIRE-RATED GYPSUM WALLBOARD/ STUD WALL ASSEMBLY SHALL BE CONSTRUCTED OF THE MATERIALS AND IN THE MANNER DESCRIBED IN THE INDIVIDUAL U300 OR U400 SERIES WALL OR PARTITION DESIGNS IN THE U.L. FIRE FIRE RESISTANCE DIRECTORY AND SHALL INCLUDE THE FOLLOWING CONSTRUCTION FEATURES:
 - STUDS-WALL FRAMING MAY CONSIST OF EITHER WOOD STUDS (MAX 2 HR FIRE RATED ASSEMBLY) OR STEEL CHANNEL STUDS. WOOD STUDS TO CONSIST OF NOM 2 BY 4 IN. LUMBER SPACE 16 IN. OC WITH NOM 2 B Y 4 IN. LUMBER END PLATES AND CROSS BRACES. STEEL STUDS TO BE MIN. 3-5/8 IN. WIDE BY 1-3/8 IN. DEEP CHANNELS SPACED MAX 24 IN. OC.
- WALLBOARD, GYPSUM*-NOM 1/2 OR 5/8 IN. THICK, 4 FT. WIDE WITH SQUARE OR TAPERED EDGES. THE GYPSUM WALLBOARD TYPE, THICKNESS, NUMBER OF LAYERS, FASTENER TYPE AND SHEET ORIENTATION SHALL BE AS SPECIFIED IN THE INDIVIDUAL U300 OR U400 SERIES DESIGN IN THE U.L. FIRE RESISTANCE DIRECTORY. MAX. DIAM. OF OPENING IS 13-1/2 IN.
- PIPE OR CONDUIT-NOM 12 IN. DIA (OR SMALLER) SERVICE WEIGHT (OR HEAVIER) CAST IRON SOIL PIPE, NOM 12 IN. DIA (OR SMALLER) CLASS 50 (OR HEAVIER) DUCTILE IRON PRESSURE PIPE, NOM 6 IN. DIA (OR SMALLER) STEEL CONDUIT, NOM 4 IN. DIAM (OR SMALLER) STEEL ELECTRICAL METALLIC TUBING OR TYPE L (OR HEAVIER) COPPER TUBING OR NOM 1 IN. DIA (OR SMALLER) FLEXIBLE STEEL CONDUIT. WHEN COPPER PIPE OR FLEXIBLE STEEL CONDUIT IS USED, MAX F RATINGS OF FIRESTOP SYSTEM (ITEM 3) IS 2 H. STEEL PIPES OR CONDUITS LARGER THAN NOM 4 IN. DIA MAY ONLY BE USED IN WALLS CONSTRUCTED USING STEEL CHANNEL STUDS. A MAX OF ONE PIPE OR CONDUIT IS PERMITTED IN THE FIRESTOP SYSTEM. PIPE OR CONDUIT TO BE INSTALLED NEAR CENTER OF STUD CAVITY WIDTH AND TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF WALL ASSEMBLY.
- FILL, VOID, OR CAVITY MATERIAL* - CAULK FILL MATERIAL INSTALLED TO COMPLETELY FILL ANNULAR SPACE BETWEEN PIPE OR CONDUIT AND GYPSUM WALLBOARD AND WITH A MIN 1/4 IN. DIA BEAD OF CAULK APPLIED TO PERIMETER OF PIPE OR CONDUIT AT AT ITS EGRESS FROM THE WALL. CAULK INSTALLED SYMMETRICALLY ON BOTH SIDES OF WALL ASSEMBLY. THE HOURLY F RATING OF THE FIRESTOP SYSTEM IS DEPENDENT UPON THE HOURLY FIRE RATING OF THE WALL ASSEMBLY IN WHICH IT IS INSTALLED, AS SHOWN IN THE FOLLOWING TABLE. THE HOURLY T RATINGS OF THE FIRESTOP SYSTEM IS DEPENDENT UPON THE TYPE OR SIZE OF THE PIPE OR CONDUIT AND THE HOURLY FIRE RATING OF THE WALL ASSEMBLY IN WHICH IT IS INSTALLED, AS TABULATED BELOW:

MAX PIPE OR CONDUIT DIA, INCHES	ANNULAR SPACE INCHES	F RATING, HOUR	T RATING, HOUR
1	0 TO 3/16	1 OR 2	0+1 OR 2
4	1/4 TO 1/2	3 OR 4	3 OR 4
4	0 TO 1/4	1 OR 2	0
4	0 TO 1/24	1 OR 2	0
6	1/4 TO 1/2	3 OR 4	0
12	3/16 TO 3/8	1 OR 2	0

*WHEN COPPER PIPE IS USED, T RATINGS IS 0 H.
#0 TO 1-1/2 IN. ANNULAR SPACE APPLIES ONLY WHEN TYPE CP-25
WB+ CAULK IS USED.
MINNESOTA MINING & MFG. CO.-TYPES CP-25 S/L, CP-25 N/S, CP-25 WB, CP-25 WB+. (NOTE: L RATINGS APPLY ONLY WHEN TYPE CP-25 WB CAULK IS USED.)
*BEARING THE U.L. CLASSIFICATION MARKING

FIRE PENETRATION DETAIL

NO SCALE

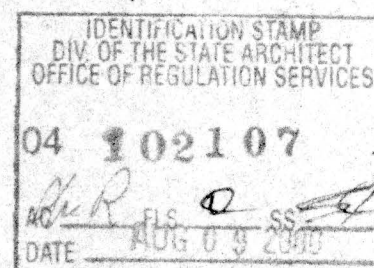
SHEET INDEX

- E1 ELECTRICAL SYMBOLS, ABBREVIATIONS, GENERAL NOTES, SHEET INDEX
- E2 ELECTRICAL POWER AND SIGNAL PLAN BUILDING 400
- E3 ELECTRICAL LIGHTING PLAN BUILDING 400
- FA1 TITLE SHEET FIRE ALARM WIRING DIAGRAM
- FA2 FLOOR PLANS AND FIRE ALARM WIRING DIAGRAM

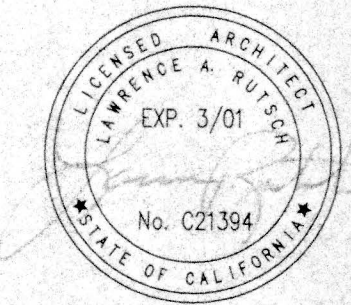
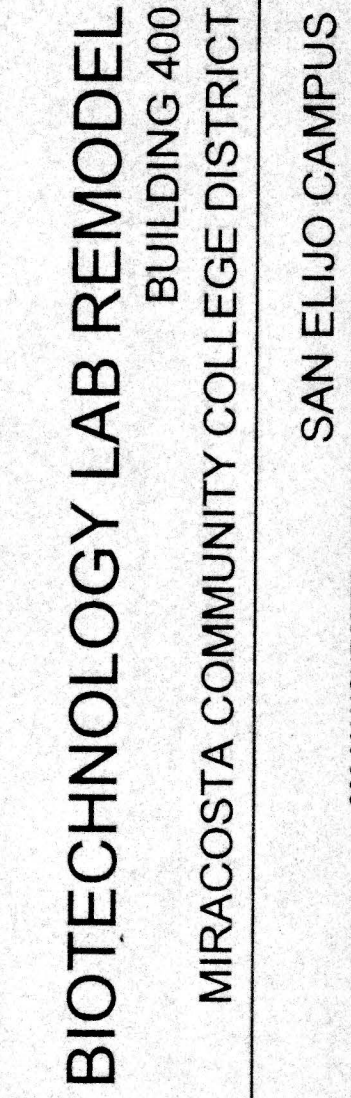
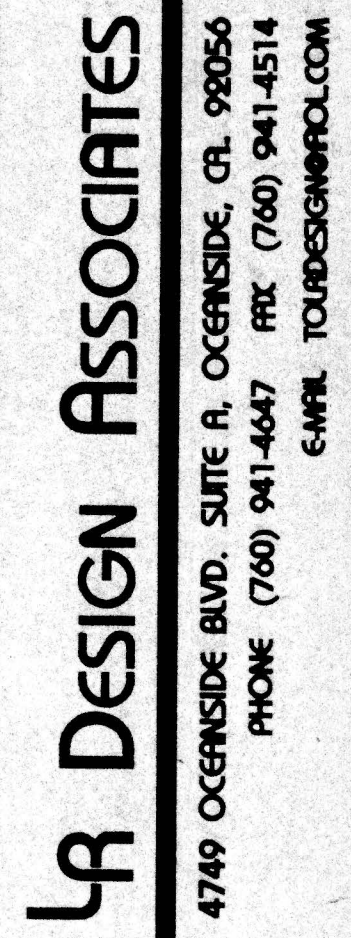
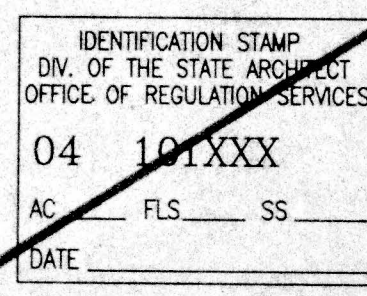
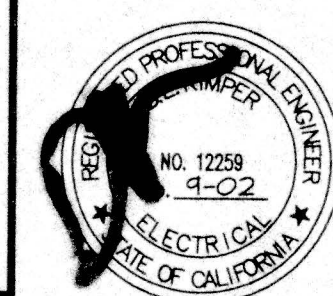
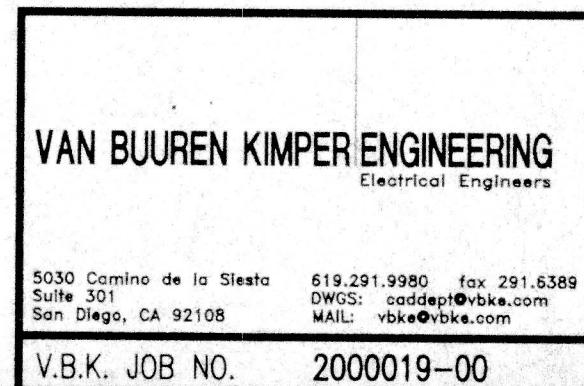
FIRE ALARM SYSTEM GENERAL NOTES

- THE FIRE ALARM SYSTEM AND ALL COMPONENTS SHALL CONFORM TO ARTICLE 160 OF THE CALIFORNIA ELECTRICAL CODE.
- UPON COMPLETION OF THE MODIFICATIONS TO THE FIRE ALARM SYSTEM, A SATISFACTORY TEST OF THE AFFECTED PORTION OF THE FIRE ALARM SYSTEM SHALL BE MADE IN THE PRESENCE OF THE ENFORCING AGENCY.
- A MINIMUM OF 48 HOURS NOTICE SHALL BE REQUIRED FOR ANY INSPECTION AND/OR TESTING.
- ALL DEVICES OF THE FIRE ALARM SYSTEM SHALL BE APPROVED AND LISTED BY THE CALIFORNIA STATE FIRE MARSHAL.
- A STAMPED SET OF APPROVED FIRE ALARM PLANS SHALL BE ON THE JOB SITE AND USED FOR INSTALLATION. ANY DEVIATION FROM APPROVED PLANS, INCLUDING THE SUBSTITUTION OF DEVICES, SHALL BE APPROVED BY THE STATE FIRE MARSHAL.
- ANY DISCREPANCIES BETWEEN THE DRAWINGS AND THE CODE OR RECOGNIZED STANDARDS SHALL BE BROUGHT TO THE ATTENTION OF THE INSPECTOR OF RECORD.
- A CERTIFICATE OF COMPLIANCE SHALL BE PREPARED BY THE INSTALLER AND GIVEN TO THE STATE FIRE MARSHAL UPON COMPLETION OF THE INSTALLATION.
- MODIFICATIONS TO THE EXISTING FIRE ALARM SYSTEM SHALL NOT BE STARTED UNTIL DETAILED PLANS AND SPECIFICATIONS, INCLUDING CALIFORNIA STATE FIRE MARSHALL LISTING NUMBERS FOR EACH NEW COMPONENT OF THE SYSTEM HAVE BEEN APPROVED BY DSA FIRE MARSHAL.
- ALL NEW COMPONENTS SHALL BE SUPPLIED BY SIMPLEX TO MATCH EXISTING.
- ALL MODIFICATIONS TO THE EXISTING FIRE ALARM SYSTEM SHALL BE MADE BY SIMPLEX AND NO OTHER.
- REFER TO SIMPLEX FIRE ALARM DRAWINGS FOR FIRE ALARM SYSTEM MODIFICATIONS.
- THE CONTRACTOR SHALL PROVIDE THE SERVICES OF SIMPLEX FOR ALL MODIFICATIONS TO THE FIRE ALARM SYSTEM.

GENERAL NOTES



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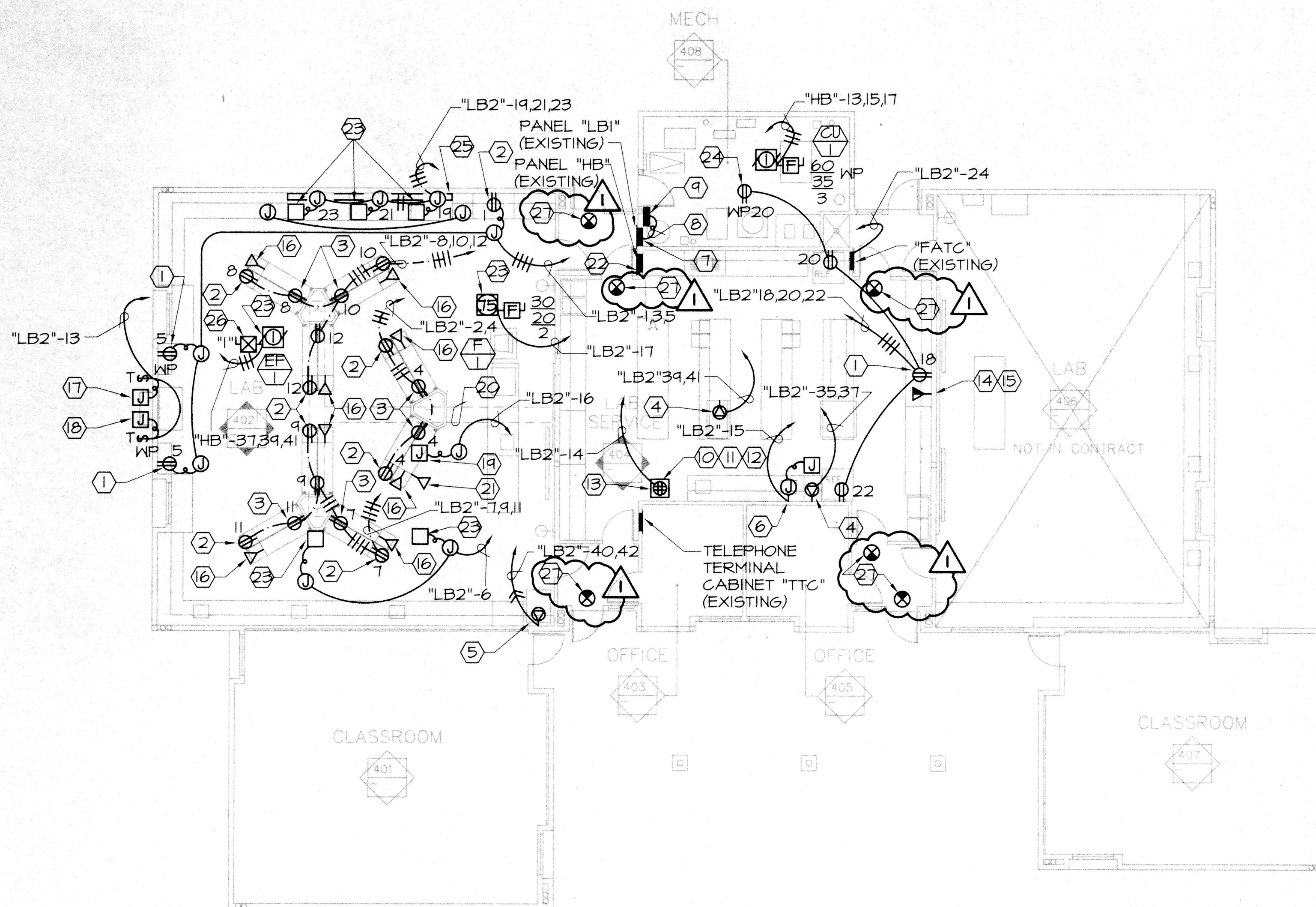
ELECTRICAL SYMBOLS, ABBREVIATIONS, GENERAL NOTES, SHEET INDEX

REVISIONS:
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DATE: 3-17-00
JOB NO. 9808
SHEET: E1

SHEET NOTES

- ① PROVIDE DUPLEX OUTLET MOUNTED ABOVE EXISTING COUNTERTOP.
- ② PROVIDE DUPLEX OUTLET MOUNTED INSIDE BENCH.
- ③ PROVIDE DUPLEX OUTLET MOUNTED IN SURFACE MOUNTED MONUMENT, SQUARE-D #DSMHA-DMFPBA OR APPROVED EQUAL.
- ④ PROVIDE 15 AMP 250 VOLT 6-20R RECEPTACLE, HUBBELL #5469-C OR APPROVED EQUAL MOUNTED IN ISLAND BENCH.
- ⑤ PROVIDE 30 AMP 250 VOLT 6-30R RECEPTACLE HUBBELL #4330 OR APPROVED EQUAL.
- ⑥ PROVIDE 120 VOLT CONTROL CIRCUIT WITH CONNECTION TO AUTOCLAVE.
- ⑦ PROVIDE 100 AMP, 3-POLE, 240 VOLT CIRCUIT BREAKER TO MATCH EXISTING AT EXISTING PANEL "LB1".
- ⑧ PROVIDE 1-1/2" C, 4#2, 1#6 GND THIN CU. ELECTRICAL SUBFEED TO NEW PANEL "LB2".
- ⑨ PROVIDE NEW ELECTRICAL PANEL "LB2". FOR DETAILS SEE ELECTRICAL PANEL SCHEDULE ON THIS SHEET.
- ⑩ PROVIDE DATA NETWORKING "IDF", 19" WALL MOUNTED CABINET RACK TECHNOLOGIES #WC2428 ADJACENT TO EXISTING OPTIC TERMINATION JUNCTION BOX COMPLETE WITH ONE (1) 19" CANTILEVER SHELF AT BOTTOM, RACK TECHNOLOGIES #9023.
- ⑪ PROVIDE ONE (1) AMP 24-PORT MODULAR JACK TIIO BLOCK PATCH PANEL AMP #551860-1.
- ⑫ PROVIDE DOUBLE DUPLEX SURGE PROTECTED RECEPTACLE, HUBBELL #5360IS.
- ⑬ EXISTING DATA NETWORKING SHELF AND EQUIPMENT TO BE REMOVED BY OWNER. EXISTING DATA NETWORKING FIBER OPTIC AND CATEGORY FIVE COPPER CABLE AND PATCH PANEL TO BE INSTALLED IN "IDF" CABINET BY OWNER. VERIFY ALL REQUIREMENTS AND COORDINATE INSTALLATION WITH THE OWNER'S REPRESENTATIVE.
- ⑭ PROVIDE COMBINATION VOICE/DATA NETWORKING OUTLET LOCATED ABOVE COUNTER TOP COMPLETE WITH 1" CONDUIT, ONE (1) 4-2 PAIR CATEGORY SIX CABLE. EXTEND CONDUIT AND CABLE TO EXISTING TELEPHONE TERMINAL CABINET "TTC", TERMINATE CABLE AT OUTLET AND TERMINAL CABINET CONNECTION BLOCKS.
- ⑮ PROVIDE 1" CONDUIT WITH ONE (1) 4-2 PAIR CATEGORY SIX CABLE, EXTEND CONDUIT AND CABLE TO WALL HUNG DATA NETWORKING "IDF", ROOM 404. TERMINATE CABLE AT OUTLET AND "IDF" IIO PATCH PANEL.
- ⑯ PROVIDE DATA NETWORKING OUTLET MOUNTED INSIDE BENCH WITH ONE (1) 1" CONDUIT, ONE (1) 4-2PAIR CATEGORY SIX CABLE. EXTEND CONDUIT TO WALL HUNG DATA NETWORKING "IDF", ROOM 404. TERMINATE CABLE AT OUTLET AND "IDF" IIO PATCH PANEL.
- ⑰ PROVIDE ELECTRICAL CONNECTION TO CIRCULATION PUMP.
- ⑱ PROVIDE ELECTRICAL CONNECTION TO AIR COMPRESSOR.
- ⑲ PROVIDE ELECTRICAL CONNECTION TO LCD PROJECTOR.
- ⑳ UTILITY TRENCH PROVIDED BY OTHERS.
- ㉑ PROVIDE DATA NETWORKING OUTLET MOUNTED AT CEILING WITH ONE (1) 1" CONDUIT, ONE (1) 4-2 PAIR CATEGORY SIX CABLE. EXTEND CONDUIT TO WALL HUNG DATA NETWORKING "IDF" ROOM 404. TERMINATE CABLE AT OUTLET AND "IDF" IIO PATCH PANEL.
- ㉒ PROVIDE ONE (1) 15 AMP 3 POLE 600 VOLT CIRCUIT BREAKER CIRCUITS 3739.41, ONE (1) 35 AMP 3 POLE 600 VOLT CIRCUIT BREAKER CIRCUITS 1315.17, TO MATCH EXISTING, FOR CONNECTION TO MECHANICAL EQUIPMENT.
- ㉓ PROVIDE ELECTRICAL CONNECTION TO MECHANICAL EQUIPMENT.
- ㉔ PROVIDE ROOF MOUNTED DUPLEX RECEPTACLE.
- ㉕ DISCONNECT, REMOVE PORTION OF EXISTING SURFACE MOUNTED RACEWAY, PROVIDE JUNCTION BOX AND RECONNECTION OF REMAINING SURFACE RACEWAY.
- ㉖ PROVIDE 600 VOLT 3 PHASE SIZE "1" STARTER WITH ELECTRICAL CONNECTION TO MECHANICAL EXHAUST FAN.
- ㉗ PROVIDE SELF ILLUMINATED EXIT LIGHT, PERMEX #P-160-R-20 OR APPROVED EQUAL BY ISOLITE OR BRAND HURST.



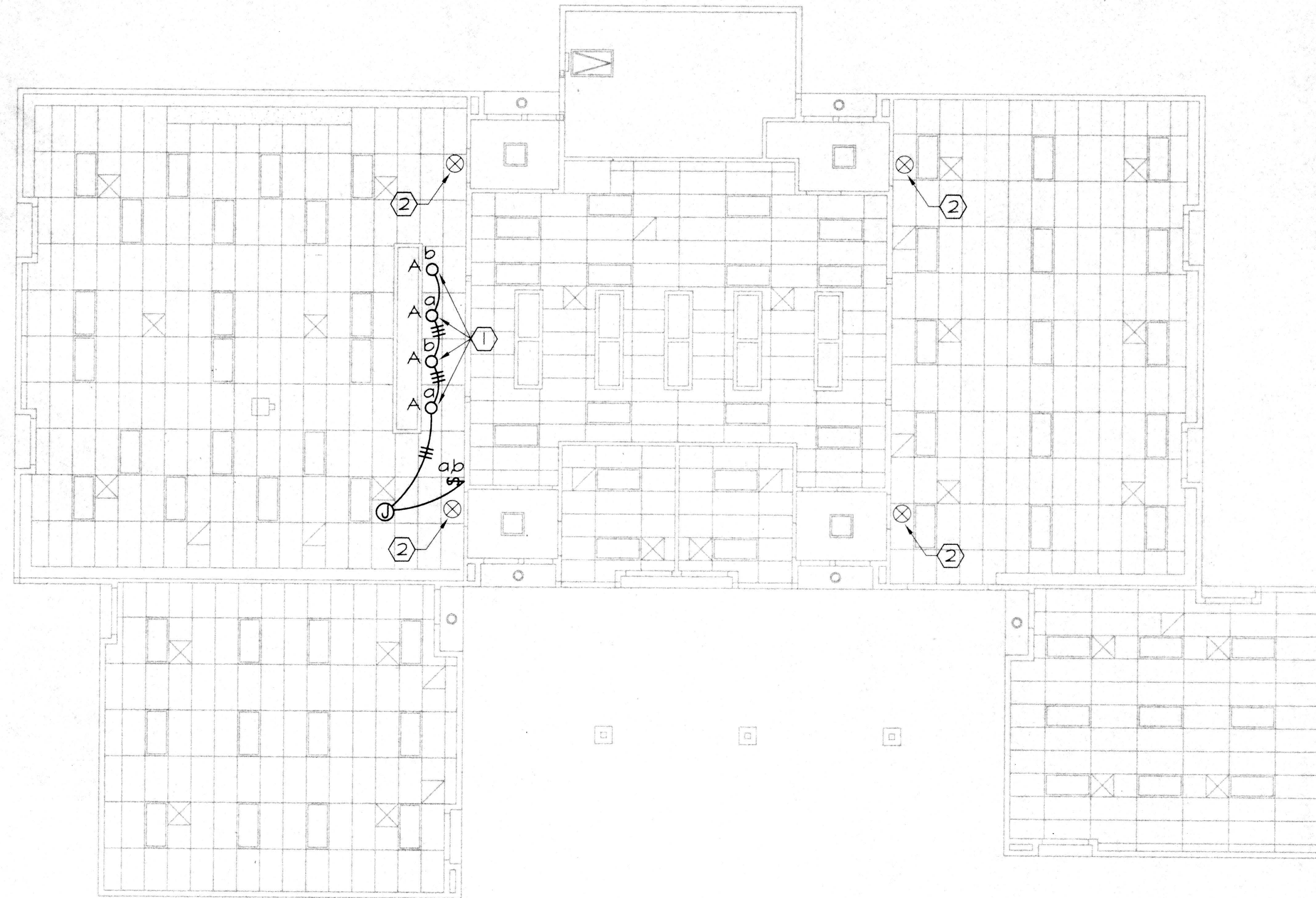
ELECTRICAL POWER & SIGNAL PLAN - BUILDING 400
SCALE: 1/8"=1'-0"



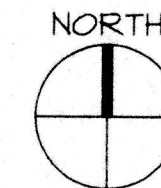
PANEL:		VOLTAGE: 120/208 V, 3ø 4W				BUS SIZE: 100 AMP		FED FROM: PANEL "LB1"		MAIN: M.L.O.		MTG: SURFACE	
"LB2"		LOC: MECH. RM. 408				MIN. A.I.C.: 10,000		NEUTRAL: 100%		NEMA: 1			
ITEM/LOCATION		* BKR/P	#	ø A	ø B	ø C	# BKR/P	* ITEM/LOCATION					
LAB 402 COUNTER RECEPTACLE		R	20	1	180		2	R	LAB 402 BENCH RECEPTACLE				
					360								
LAB 402 COUNTER RECEPTACLE		R	3		180		4	R	LAB 402 BENCH RECEPTACLE				
					360								
LAB 402 COUNTER RECEPTACLE		R	5			180	6	R	MOTORIZED DAMPER				
						180							
LAB 402 BENCH RECEPTACLE		R	7	360			8	R	LAB 402 BENCH RECEPTACLE				
				360									
LAB 402 BENCH RECEPTACLE		R	9		360		10	R	LAB 402 BENCH RECEPTACLE				
					360								
LAB 402 BENCH RECEPTACLE		R	11				12	R	LAB 402 BENCH RECEPTACLE				
						360							
SALT WATER PUMP AIR COMP.			13	630			14	R	LAB 404 DATA IDF RECEPTACLE				
				360									
LAB 204 AUTOCLAVE CONTROLS			15		100		16		LAB 402 LCD PROJECTOR				
					100								
LAB 402-F1			17			1656	18		LAB 404 BENCH RECEPTACLE				
LAB 402 FUME HOOD			19	460			20		LAB 404 REFRIGERATOR				
LAB 402 FUME HOOD			21		460		22		LAB 404 REFRIGERATOR				
LAB 402 FUME HOOD			23				24		"FACP"				
SPARE			25				26		SPARE				
			27				28						
			29				30						
			31				32						
			33				34						
LAB 404 AUTOCLAVE		20	35			1344	36						
		2	37	1344			38						
LAB 402 DRYING OVEN		15	39		1000		40	30	LAB 402 CENTERFUGE				
					2800								
ISLAND #2			2	41			42	2					
						1000							
						2800							

LOAD TYPE	(NON-CONTINUOUS VA	0	ø	CONN. VA	LCL VA	CONN. AMPS	PANEL CONNECTED KVA	17.3 KV
	(NON-CONTINUOUS VA	13694	A	4054	4054	33.8	PANEL DEMAND AMPS	48.0 A
	DEMANDABLE (RECEPTACLE	3600	B	5720	5720	47.7	PANEL CONNECTED AMPS	48.0 A
	(DEMANDABLE (REQUIP. 0)	0	C	7520	7520	62.7	HIGH ø AMPS W/LCL	62.7 A

NOTES: DATE: 04/06/00



ELECTRICAL LIGHTING PLAN - BUILDING 400
SCALE: 1/8"=1'-0"



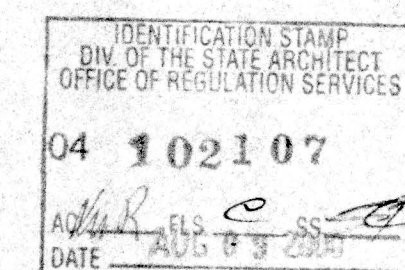
LUMINAIRE SCHEDULE							
TYPE	MTG	LUMINAIRE DESCRIPTION	MANUFACTURER & CATALOG NUMBER	LAMP	BALLAST	INPUT	REC DEPTH
	MH			#/TYPE WATTS CT/CRI CODE	#/TYPE PF BF CIRCUIT	WATTS VOLTS VA	REF NOTES
A	REC	LOW PROFILE COMPACT FLUORESCENT TWO (2) 18W FLUORESCENT LAMPS, 277V BALLAST, SPECULAR CLEAR REFLECTOR	LIGHTOLIER LYTECASTER #1102T18F2-1113TCL-277 OR APPROVED EQUAL BY PRESCOLITE OR COLUMBIA	2/FL 18W/4 3500K 85CRI	1/EL .95PF .92BF	50 277 63	
MTG: COVE, FLOOR, Ground, PENDANT, POLE, Recessed, SURFACE, WALL		LAMP: #NUMBER OF LAMPS/LUMINAIRE; TYPE:FluoRescent, HPS, INCandescent, INDUction, LPS, Metal Halide; WATTS: LAMPS WATTS; CT: COLOR TEMP. IN DEGREES KELVIN; CRI: MINIMUM COLOR RENDERING INDEX; CODE: ORDERING CODE OR OTHER INFO.		BALLAST: #NUMBER OF BALLASTS PER LUMINAIRE TYPE: Electronic, HYbrid, MAGnetic; PF: MINIMUM POWER FACTOR; BF: MINIMUM BALLAST FACTOR; CIRCUIT: CWA, INSTANT, PARallel, RAPid Series, TRIGger.			
MH: MOUNTING HEIGHT ABOVE FINISHED FLOOR TO J-BOX CENTER IF WALL, TO BOTTOM IF PENDANT OR IF POLE, HEIGHT ABOVE GRADE TO TOP.							

SHEET NOTES

- DISCONNECT AND REMOVE EXISTING LIGHT TRACK AND LIGHTING FIXTURES. PROVIDE FOUR (4) LOW PROFILE HOUSING COMPACT FLUORESCENT LIGHTING FIXTURES WITH CONNECTION TO EXISTING AB LIGHTING SWITCHES, FOR DETAILS SEE LUMINAIRE SCHEDULE THIS SHEET.
- EXIT LIGHT (EXISTING).

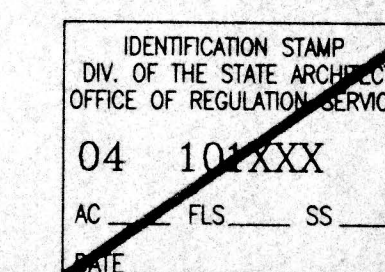
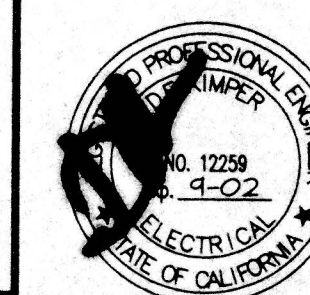
GENERAL NOTES

- ALL EXISTING LIGHTING TO REMAIN IN COMPLETE CORRECT OPERATING CONDITION.



DSA APPROVAL

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EMAIL: TOURDESIGN@AOL.COM

BIOTECHNOLOGY LAB REMODEL
BUILDING 400
MIRACOSTA COMMUNITY COLLEGE DISTRICT
SAN ELIJO CAMPUS
333 MANCHESTER AVENUE, CARDIFF-BY-THE-SEA, CA 92007



ELECTRICAL
LIGHTING PLAN
BUILDING 400

REVISIONS:

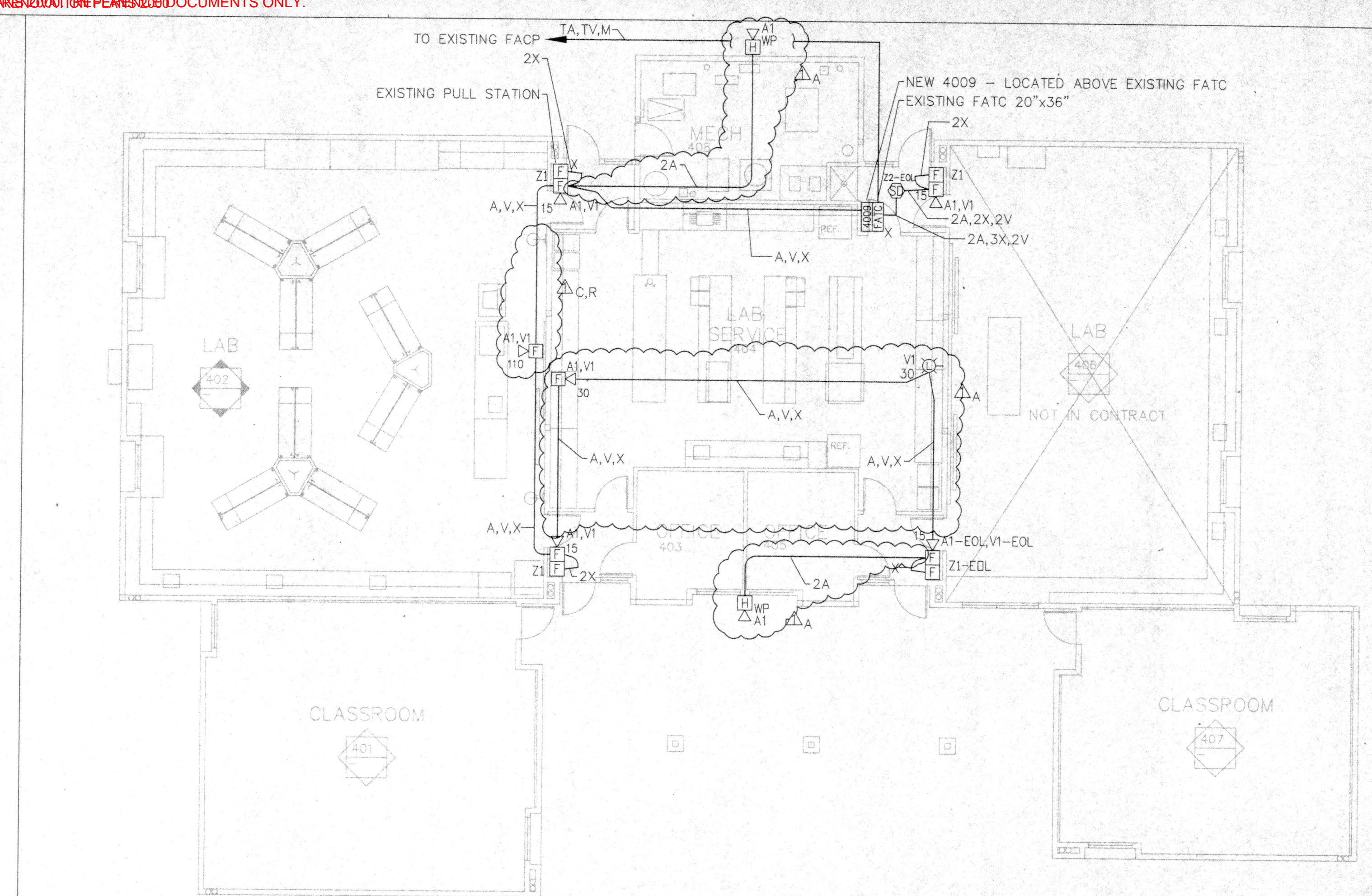
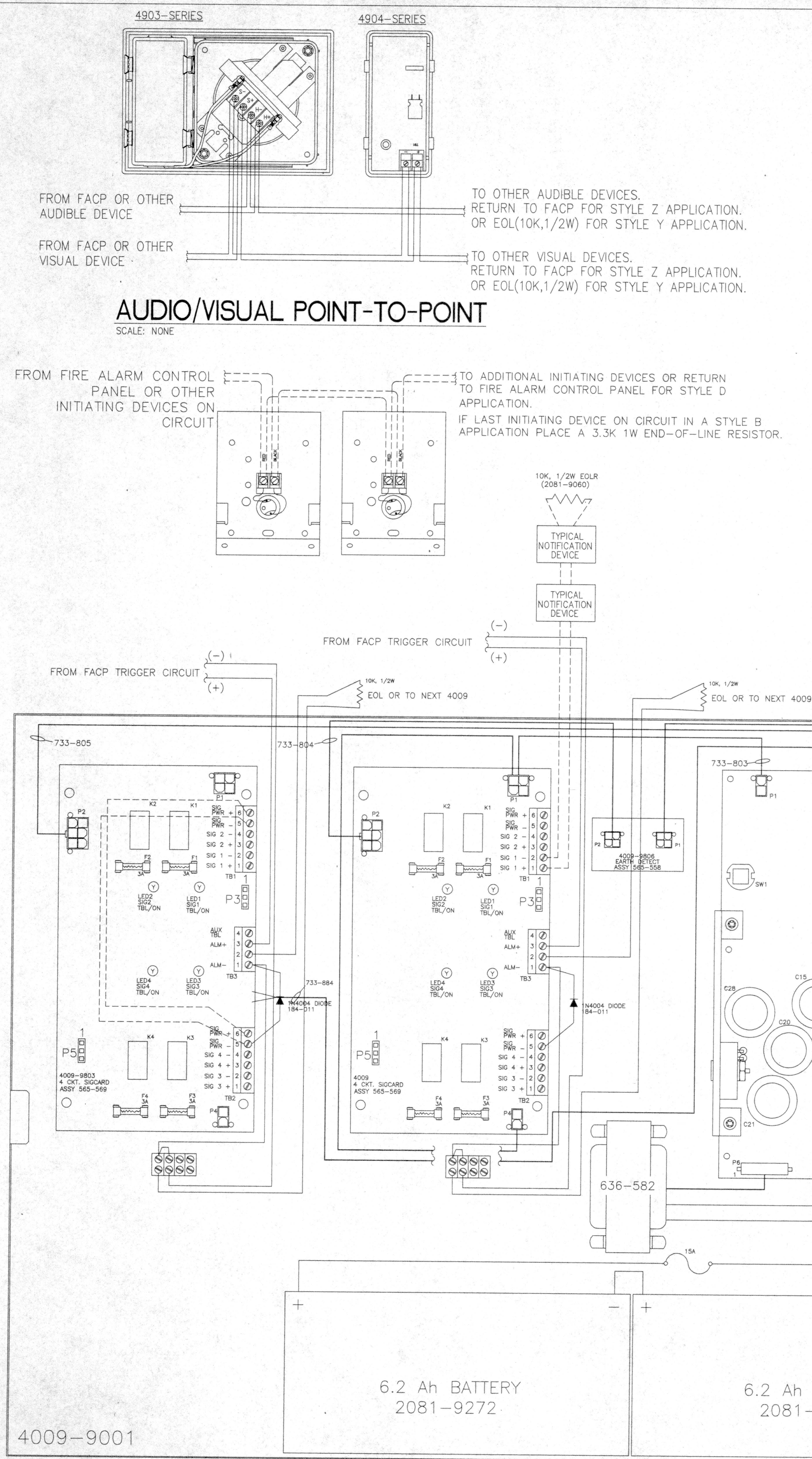


DATE: 3-17-00
JOB NO. 4808
SHEET:

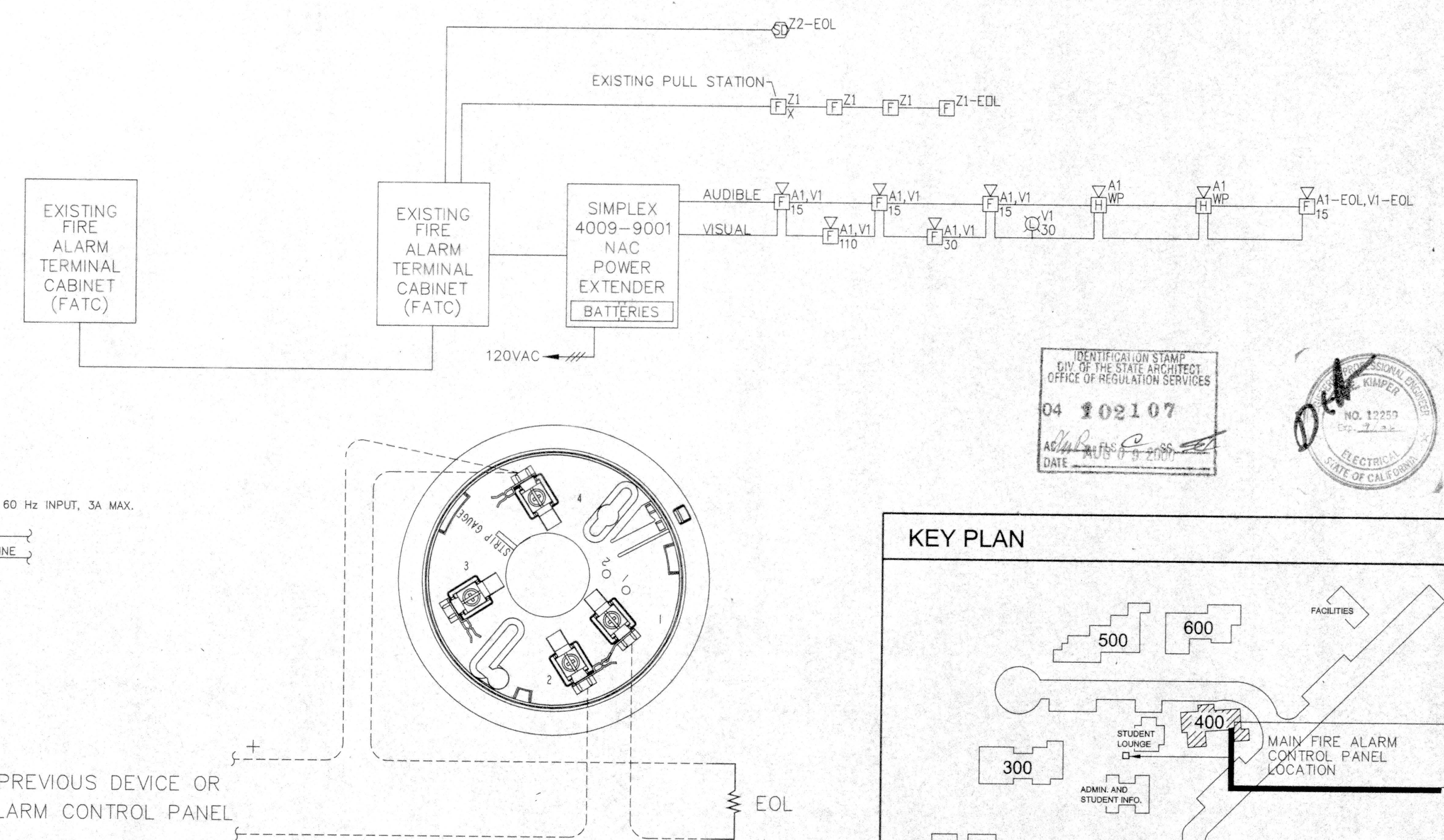
E3

MIRA COSTA COLLEGE BUILDING 400 BIOTECH

FA-1



BUILDING 400 FIRE ALARM WIRING DIAGRAM



SMOKE DETECTOR POINT-TO-POINT

REVISIONS

SIMPLEX 08-09-00
PER DSA COMMENTS

REVISION NOTES

A=DEVICE ADD
C=DEVICE CHANGE
D=DEVICE DELETED
R=DEVICE RELOCATED

DATE: 03-16-00
SCALE: 1/8" = 1'-0"
DRAWN BY: T.HOOK
PROJ ENGR: JOHN S.
P.N. 480-980050-08
SHEET 2 OF 2

Simplex
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FIRE CONTROL * SOUND * COMMUNICATION

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TELEPHONE: (SALES) 858.279.8010 (SERVICE) 858.279.8090
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3333 MANCHESTER AVE
CARDIFF BY THE SEA, CALIFORNIA, 920
FLOOR PLANS AND FIRE ALARM WIRING DIAGRAM

EET 2 OF 2

—A-2