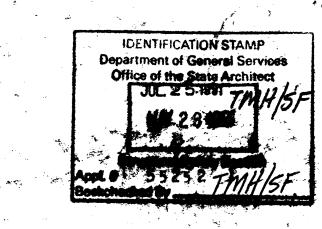
# DIABLO WALLEY COLLEGE

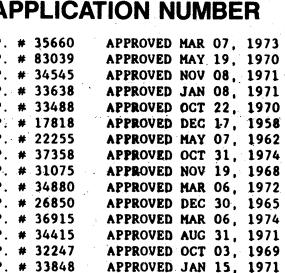
PLEASANT HILL CALIFORNIA

# SKILLS CENTER ADDITION

( DEVELOPMENTAL ENGLISH / LEARNING DISABILITY / MATH LAB )

CONTRA COSTA COMMUNITY COLLEGE DISTRICT JOB# NO. 2493.88





**KEY PLAN** VICINITY MAP LEGEND & SYMBOLS **ABBREVIATIONS** FORUM MEDIA CENTER (A.V.) LIBERAL ARTS BLACKBOARD Asphaltic Concret MEN'S LOCKER ROOM Acoustical OR ACO. **BOOK CENTER** WHITE BD CASHIER PROJECTION CAREER INFORMAT ORNAMENTAL HORTICULTURE PERFORMING ARTS CENTER DIABLO VALLEY Architectural, WINDOR TYPE COLLEGE Group Grade
Gypsum
GRADE CLEAN OF RAMP & STAIR UP PLEASANT HILL HEALTH SERVICES
JOB PLACEMENT Hollow Core 4"U.O.N. Hardwood Hardware Hollow Metal SPECIAL PROGRAMS
TUTORIAL SERVICES key note TECHNICAL EDUCATION CUBTAIN TRACK C.T. C.I. CLG. CLG. CLR. CONC. CONSTR CONT. CONTR. CORR. CTSK. CNTR. WALNUT CREEK WOMEN'S LOCKER ROOM ADMIN SERVICES 1st Floor FOF FOS. OR FOR CALIFORNIA STATE FIRE MARCHI EVENING OFFICE FACULTY SENATE DIABLO VALLEY COLLEGE Sanitary Napkin Receptacle INSTUCTION OFFICE Pleasant Hill, California See Plumbing Drawings, MAIL ROOM PRESIDENT'S UFFICE Contractor OH FIREHYDRANT FOR LARGER See Structural Drawings PROJECT LOCATION Structural Medicine Cabinet NORTH

Hydraulic Elevators

Fire Alarm System

Fire Sprinkler System

California Building Code 1988/1989

California Mechanical Code 1988/1989.

AS BUILT DRAWING INDEX ELECTRICAL **STRUCTURAL** E1 SCHEDULE AND NOTES S1 GEN. NOTES EZ SITE PLAN, NOTE, & 1 LINE DIAG E3 1 FLR DEMOLITION-LTG & POWER S3 FIRST & SECOND FLOOR PLANS E4 142ND FLOOR LIGHTING PLANS E5 142ND. FLOOR POWER PLANS \$5 SECTIONS & DETAILS S6 SECTIONS & DETAILS # IRRIGATION ST SECTIONS

LI IRRIGATION L2 DETAILS AND NOTES OFFICE OF THE STATE ARCHITECT 55252 MAY 14'91

TITLE SKILL DIABLO DATE 10/9/90

A13 CEILING DETAILS \_-MP4 ROOF MP5 IST & 2ND FLOOR PLANS PLUMBING A14 CYSEWORK MP6 PARTIAL PL. PLANS & PLAGRAMS MP7 CONTROL DIAGRAMS & DETAILS A15 BRIDGE DETHIS PROJECT AREA (Gross sf): 1st fl. - 8,493, 2nd fl. - 8,260, Total 16,753 OCCUPANCIES: A3 AND B2 FULLY SPRINKLERED

MECHANICAL/PLUMBING

MP1 LEGEND, SCHEDULES & DUG INDEX

MP2 FIRST FLOOR PLAN- MECHANICAL

MP3 SECOND FL. PLAN-MECHANICAL

Electrical Panelboard EXP. Floor Finish, Finish Floor

W.

Paper Towel Dispenser Combination Paper Towel

Manhole Minimum

Not To Scale

Window OR WHERE OCCUR

Tongue and Groove Thick

THRESHOLD Unfinished Unless Otherwide Noted

**GENERAL NOTES** 

3. California Plumbing Code 1988/1989. California Electrical Code 1987/1989. Uniform Fire Code (UFC), 1988 Edition. 6. Fire Safety Code, 1985 Edition. National Fire Protection Association (NFPA), Pamphlet 13, 24 (1987), 71 (1982) and California Public Utilities Commission (PUC), General Orders 95 and 128. California Code of Regulations (CCR):

DEFERRED APPROVALS

a. Title 8, State Industrial Safety Orders.

Title 24, Sate Building Code, including most recent amendments. Also see Project Manual - Section 01060 / Regulatory Requirements

CONSTRUCTION TYPE: TYPE V-N

ARCHITECTURAL

SITE PLAN & DETAILS

POOP PLAN + DETAILS

DOOR WHOOM DETAILS

A10 WALL SECTIONS EXTERIOR

AT INTEPIOR ELEVATIONS

REFLECTED CEILING PLANS

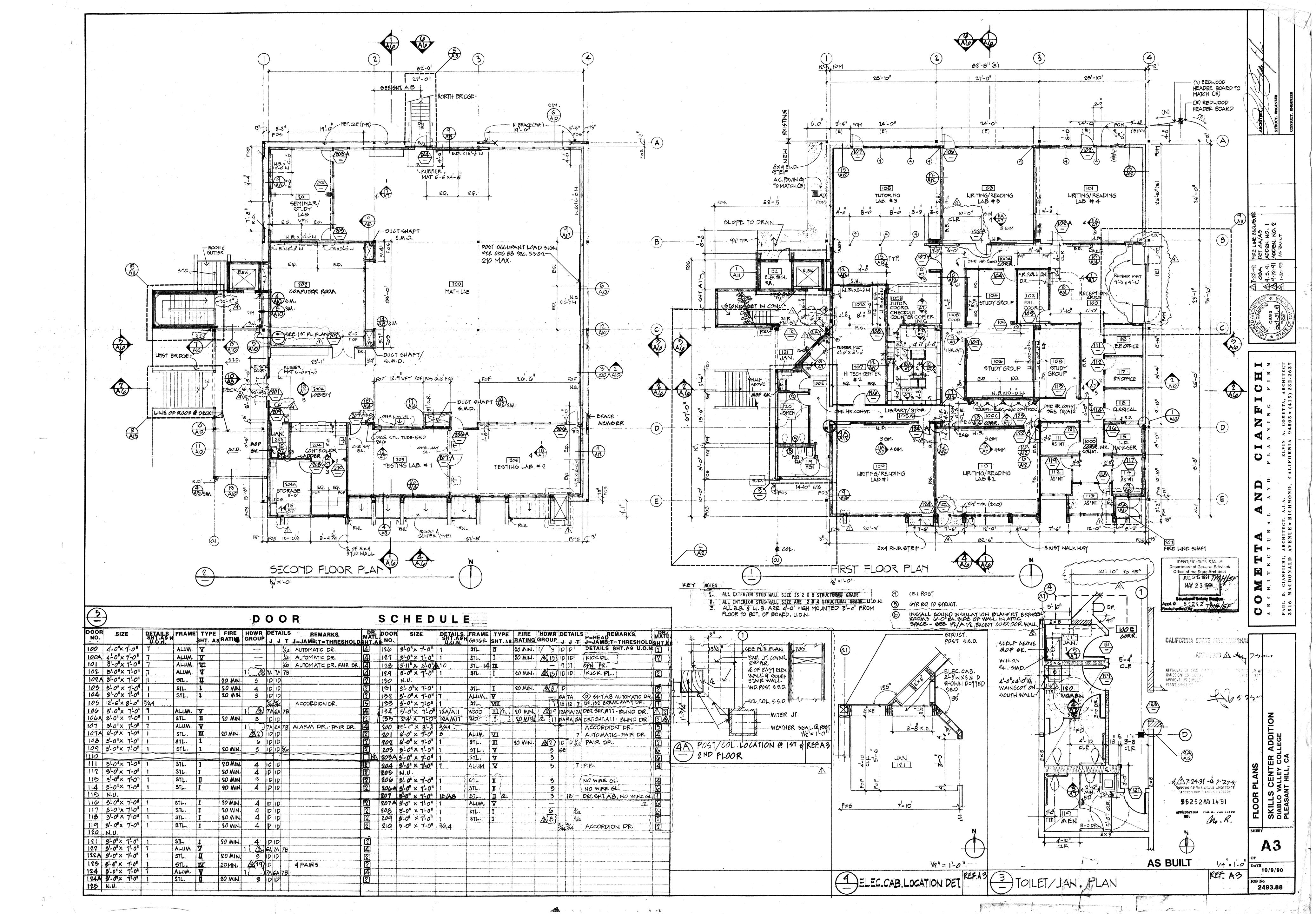
A6 SECTIONS + EXTERIOR ELEVATIONS

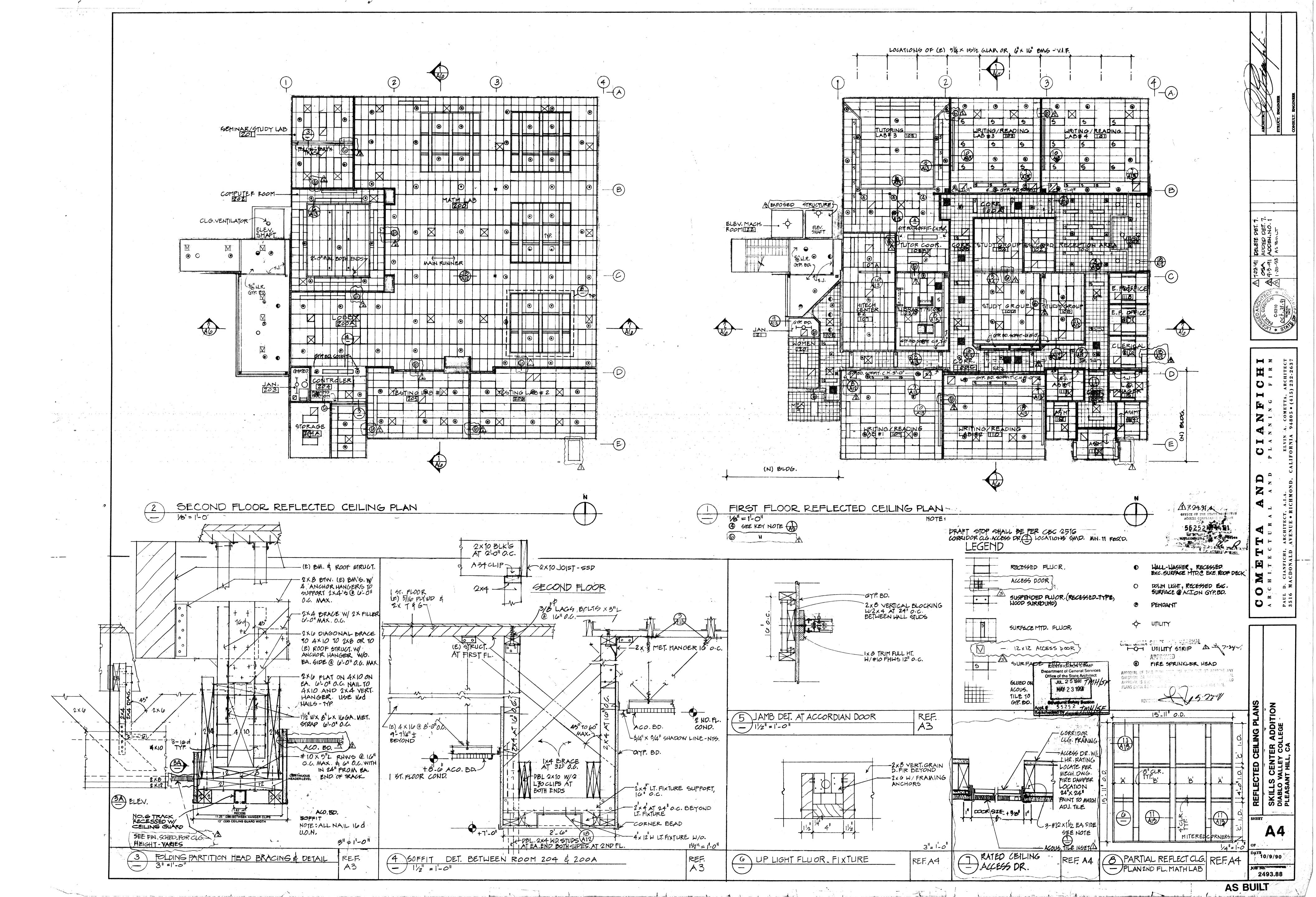
A11 STAIR & CLEVATOR DETAILS.
A12 PARTITIONS MO INTERIOR DETAILS.

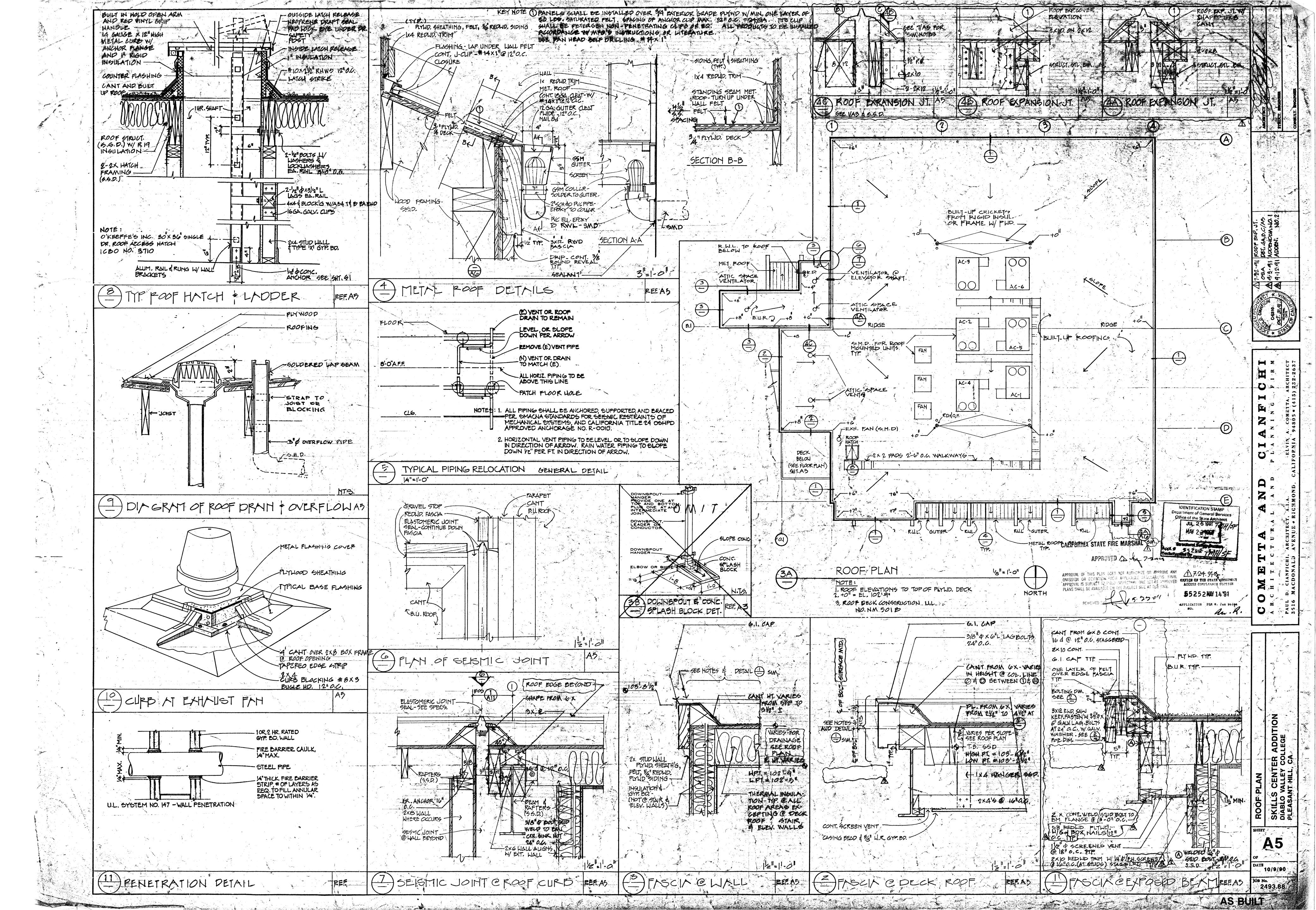
FLOOR PLAYS & DOOR SCHEDULE

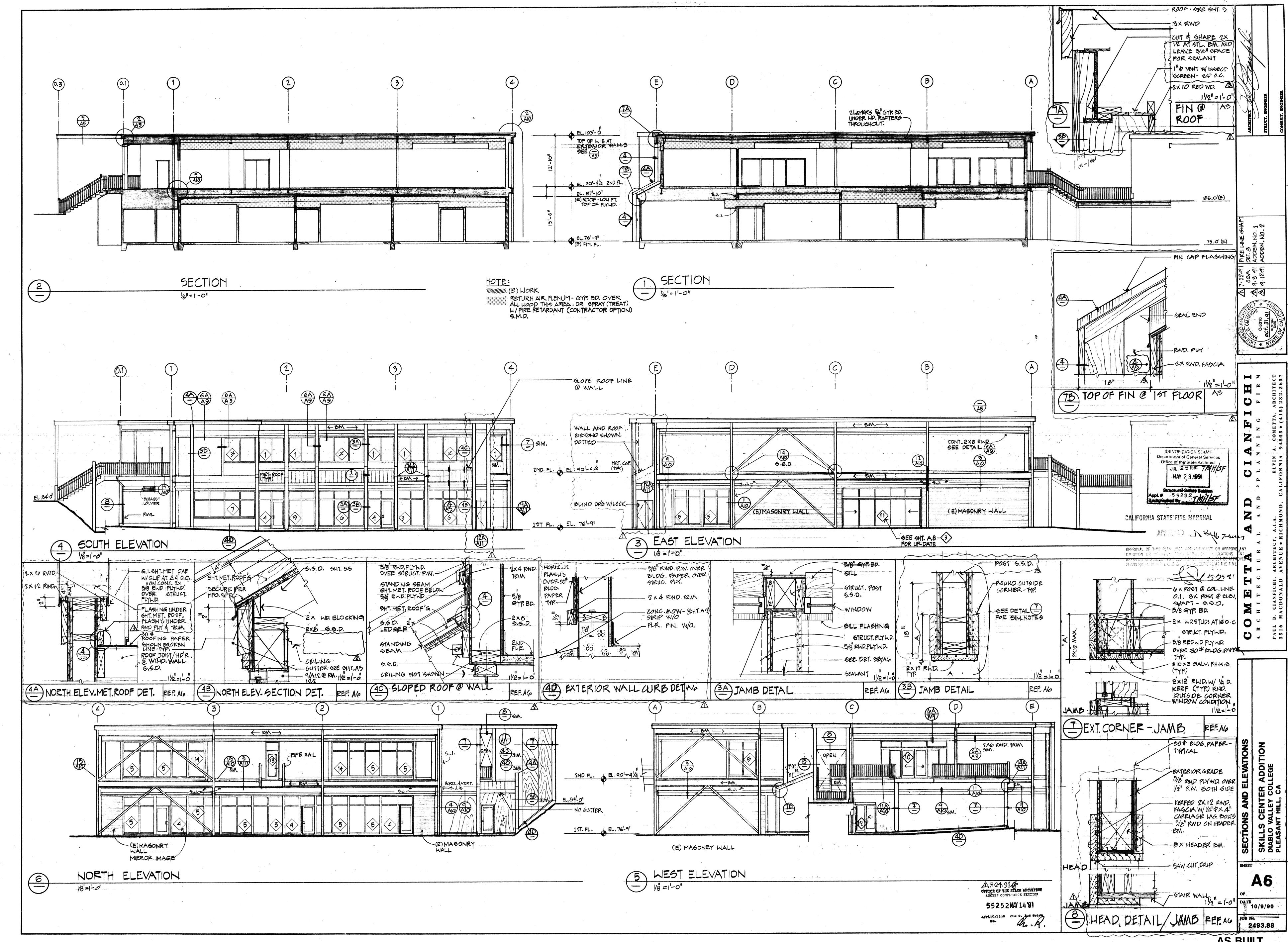
DOOR & WINDOW ELEYPTIONS, FIN. SCHE

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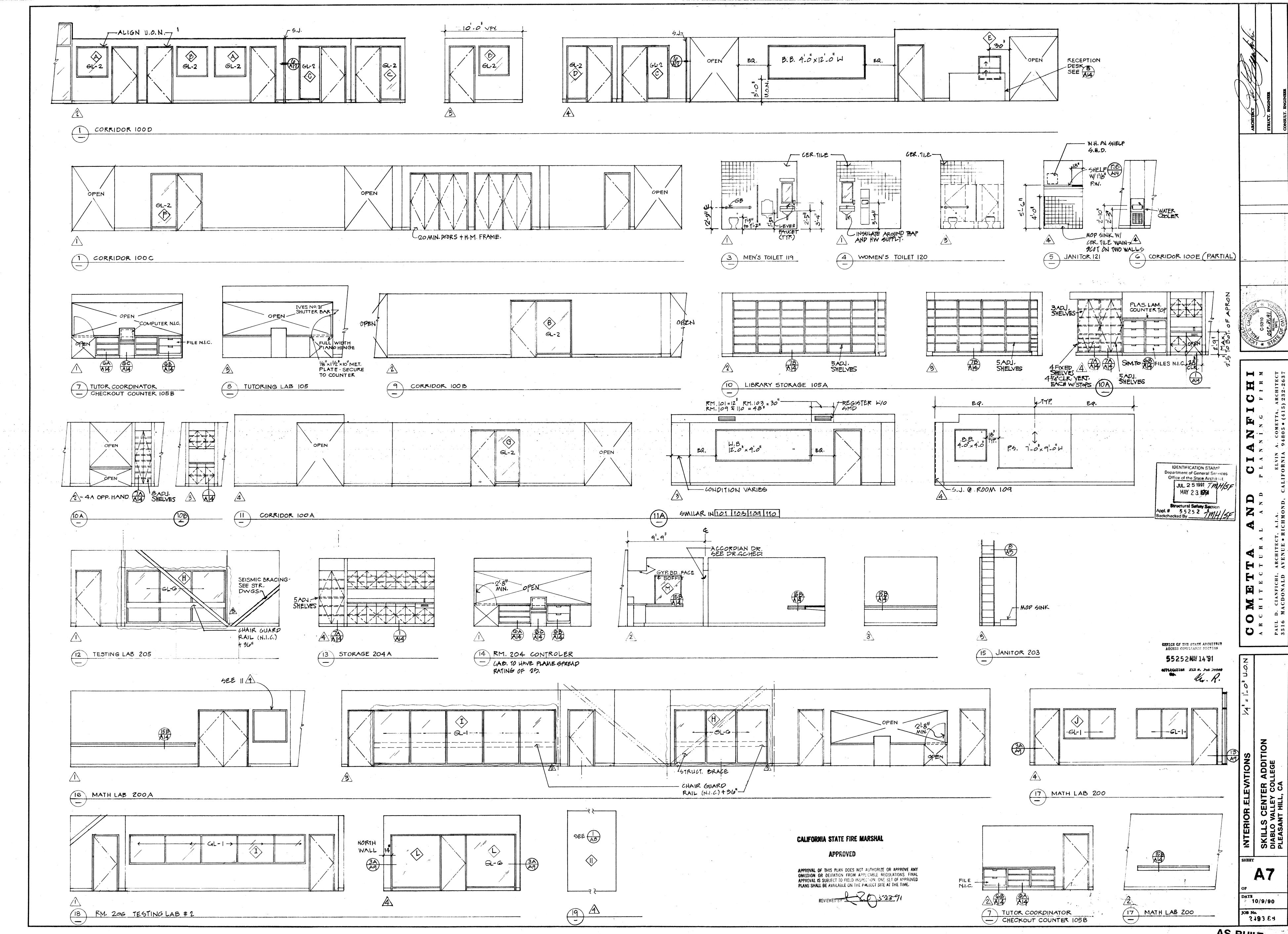


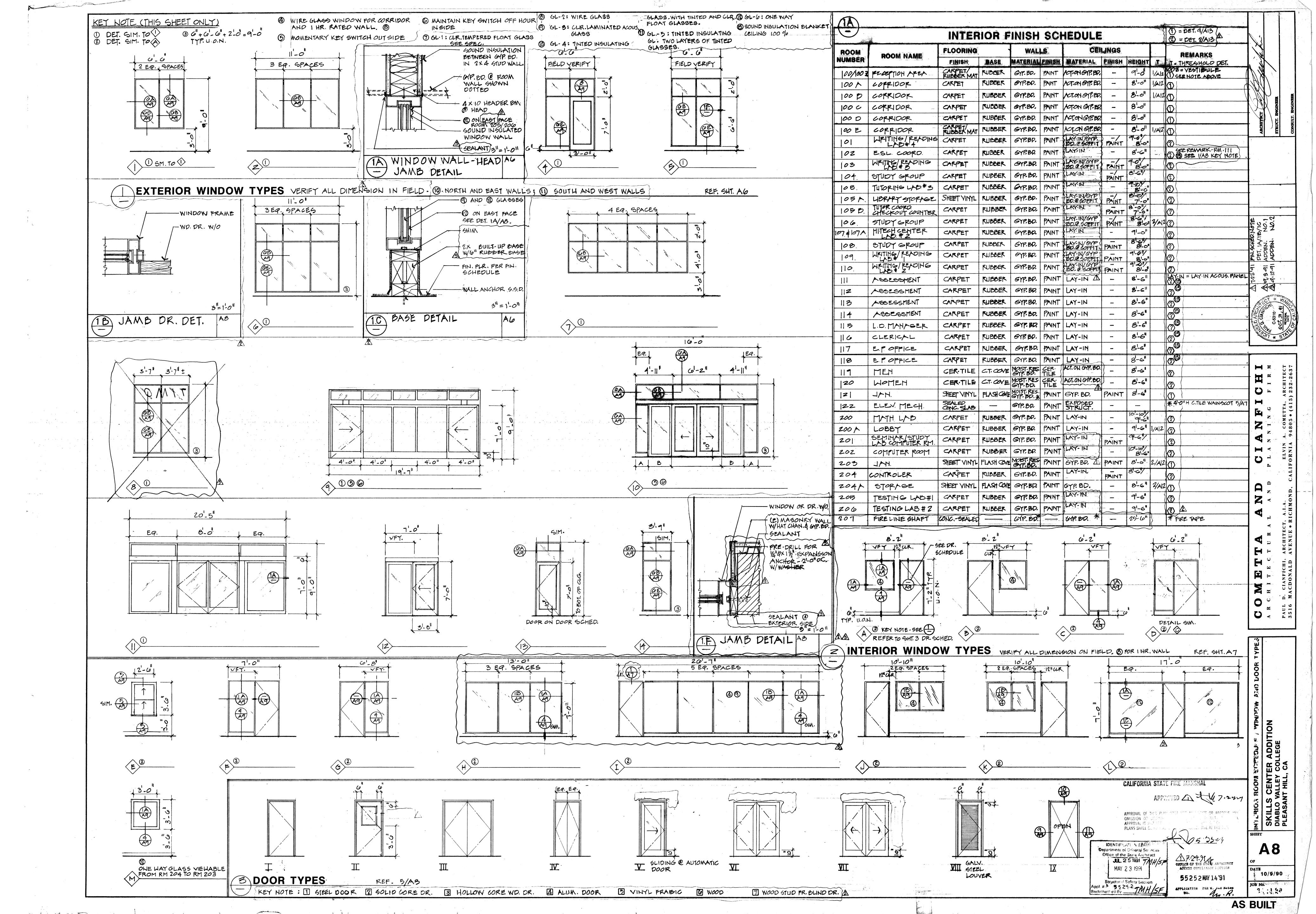


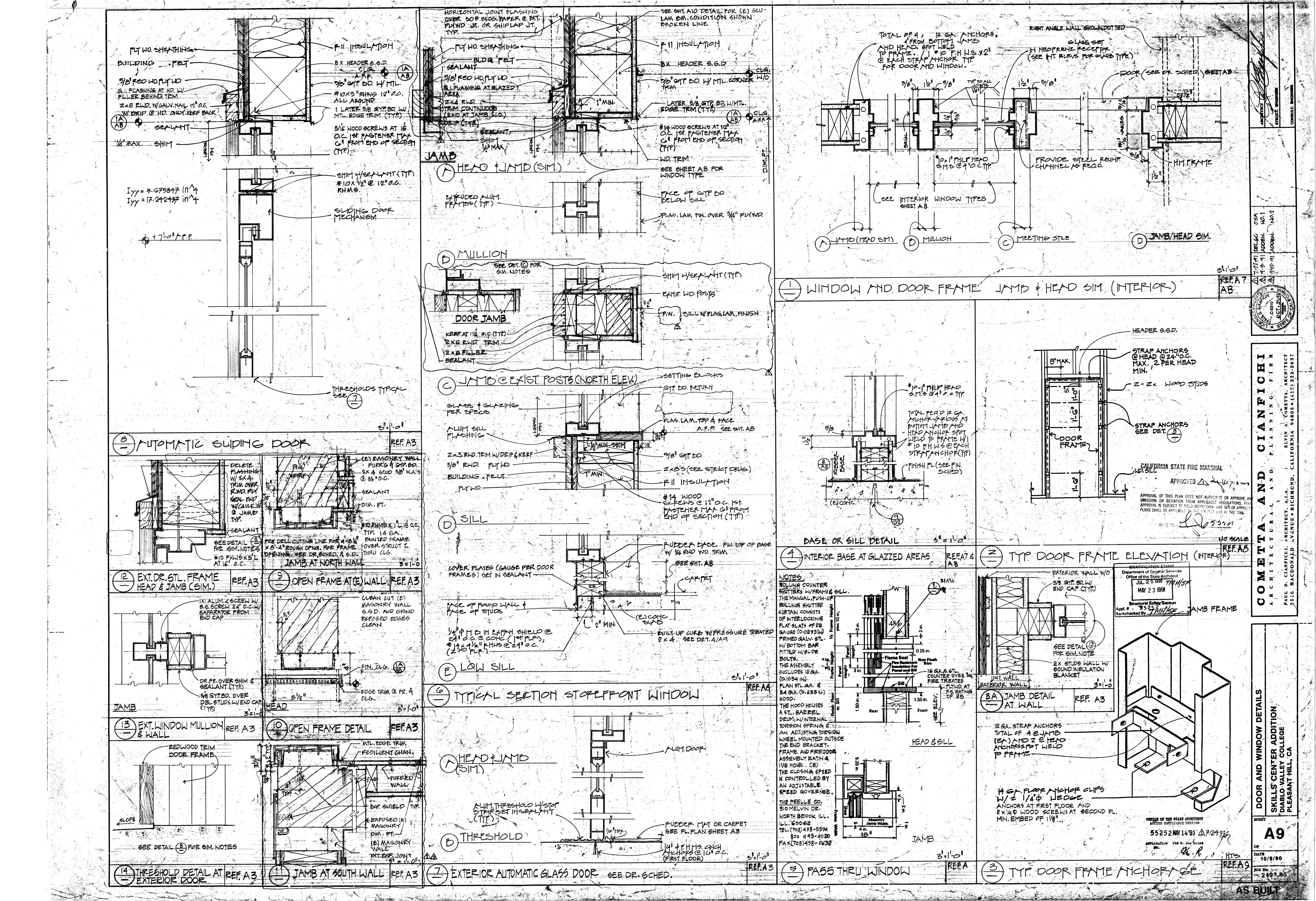


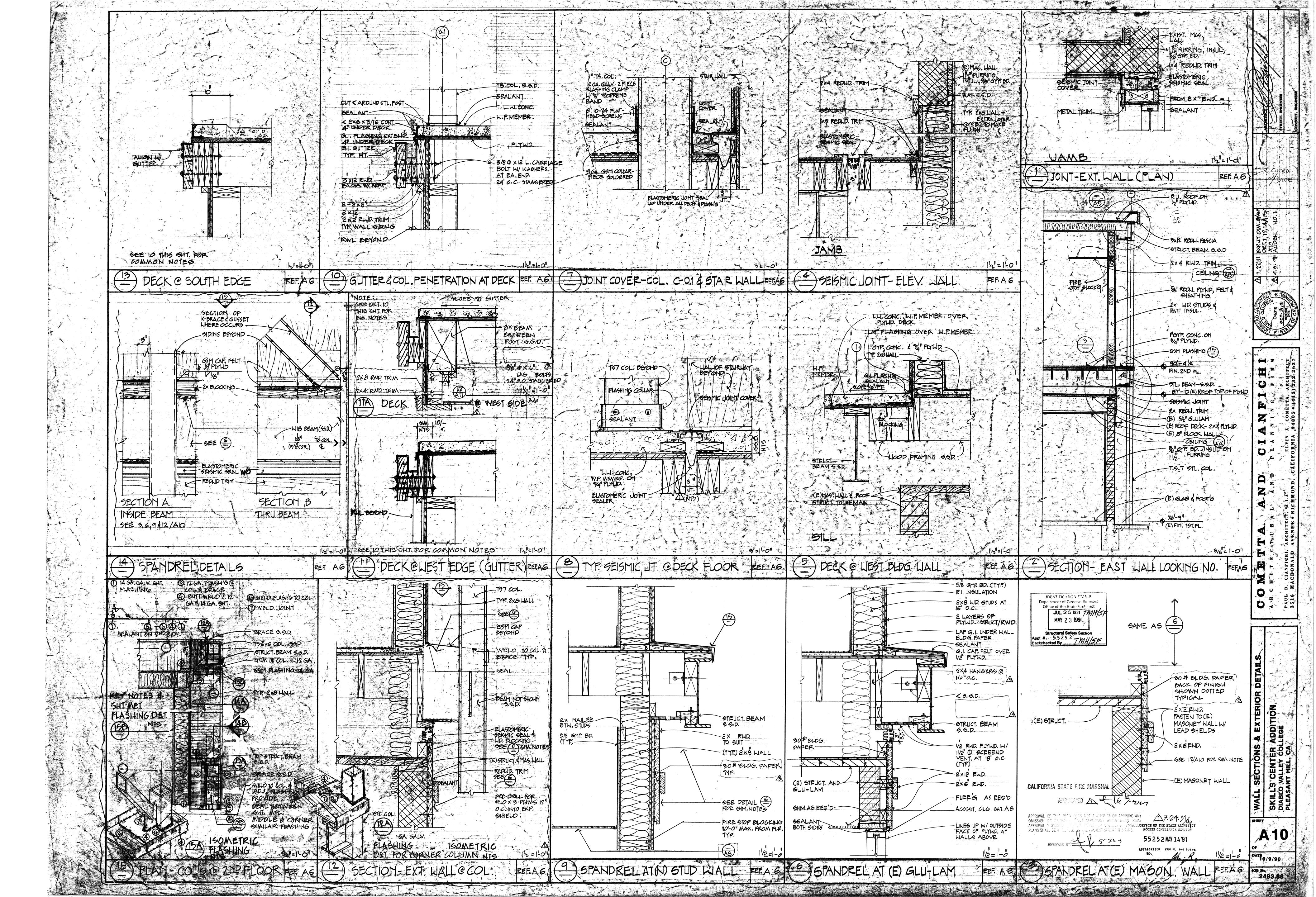
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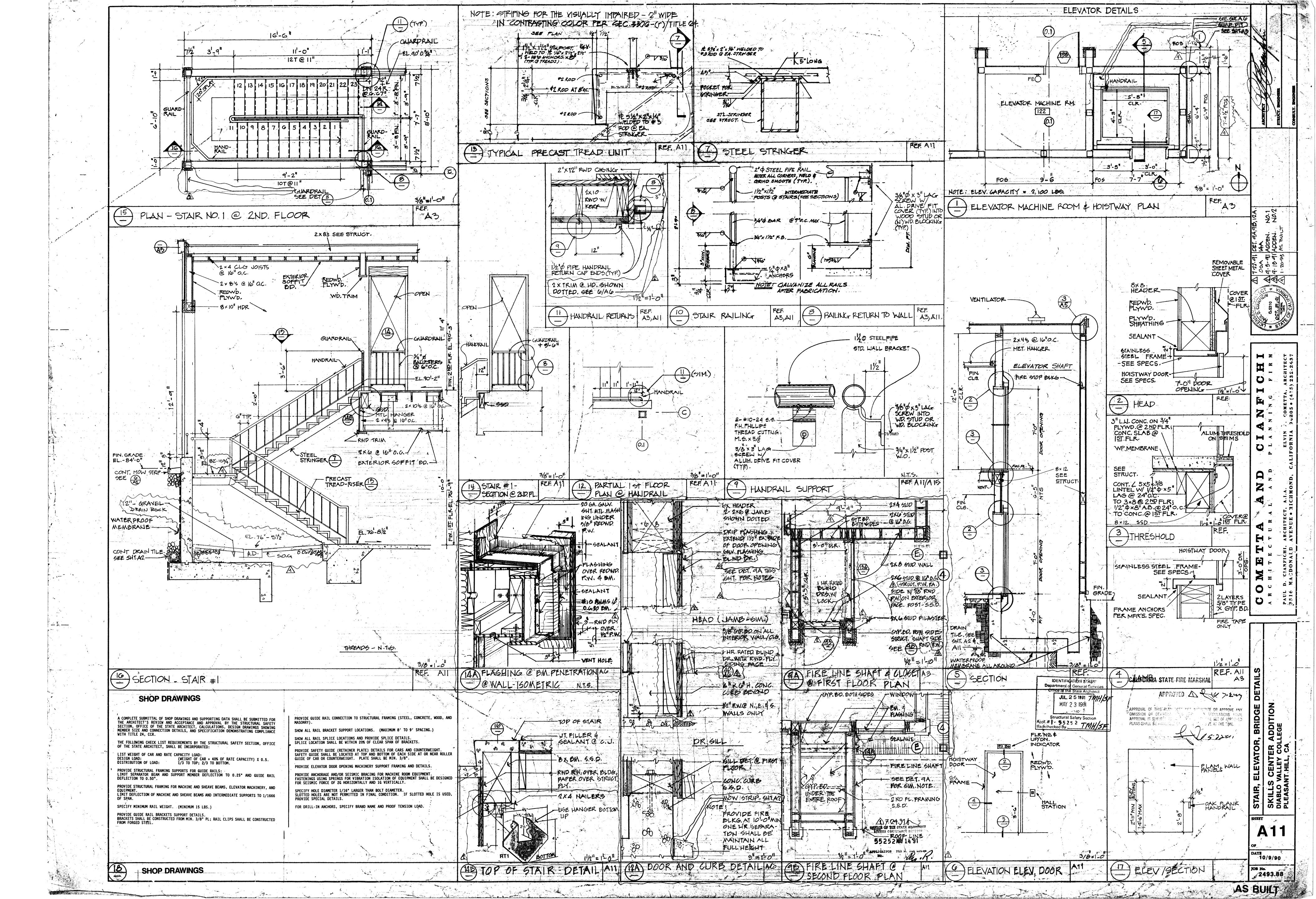
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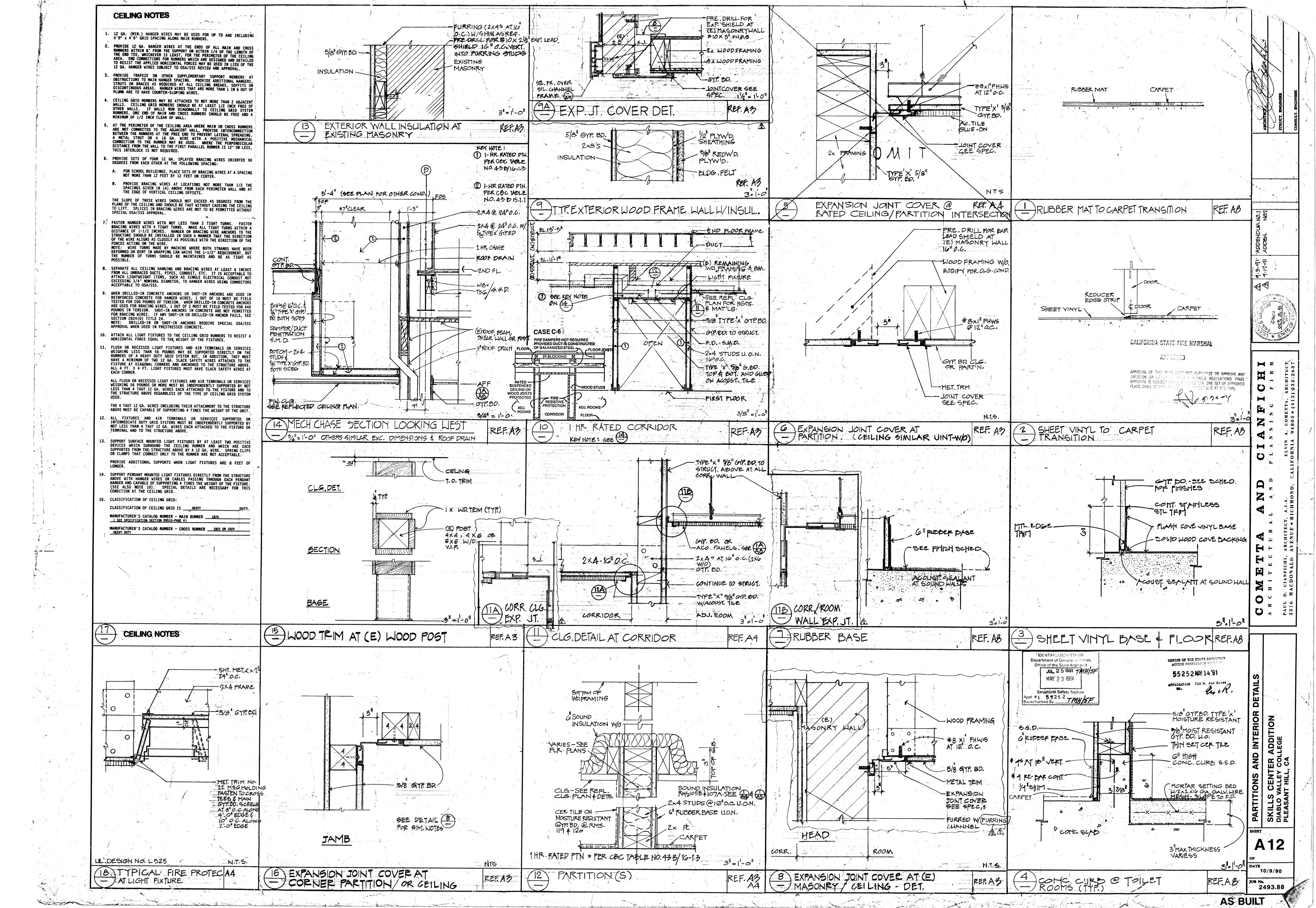


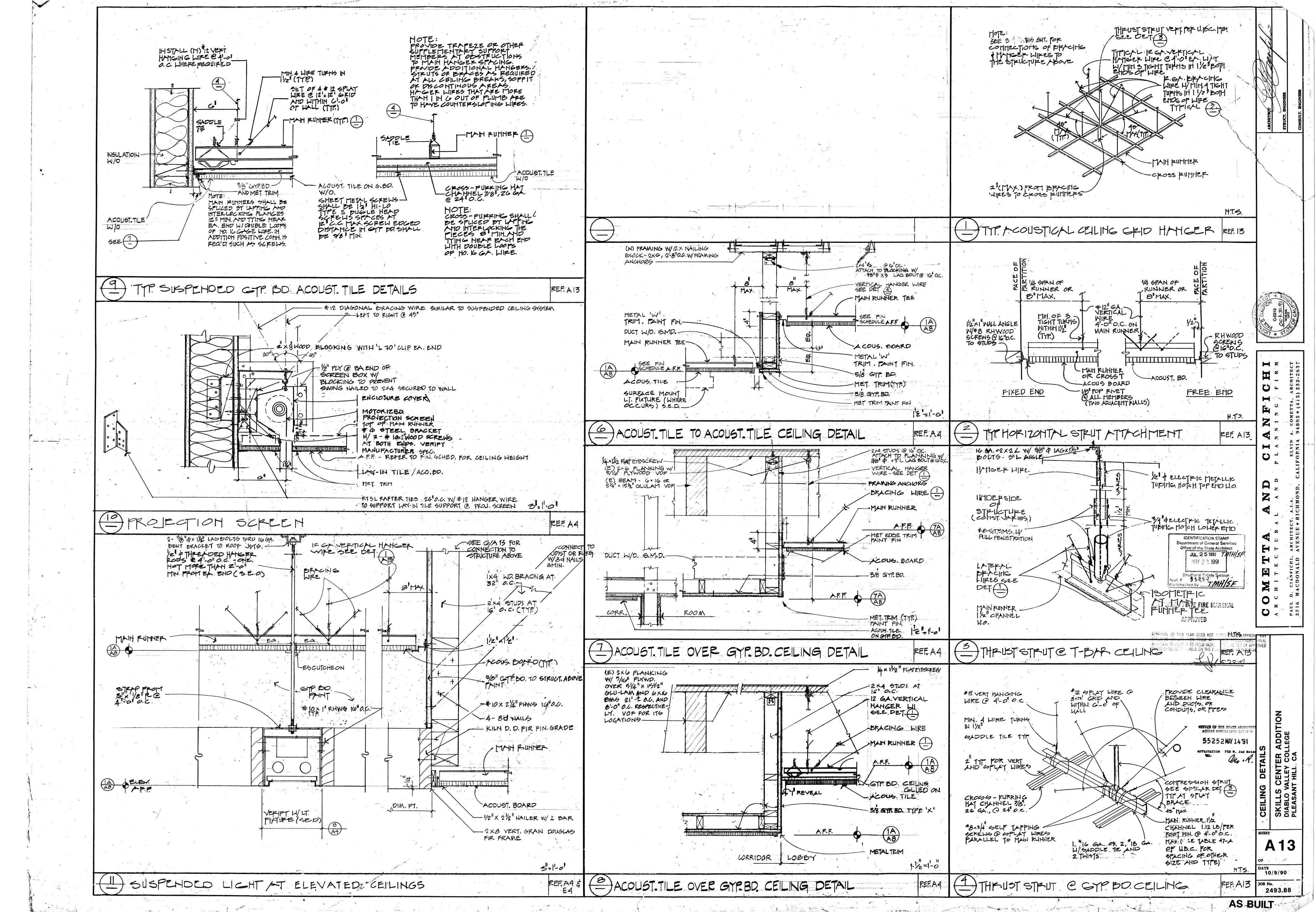


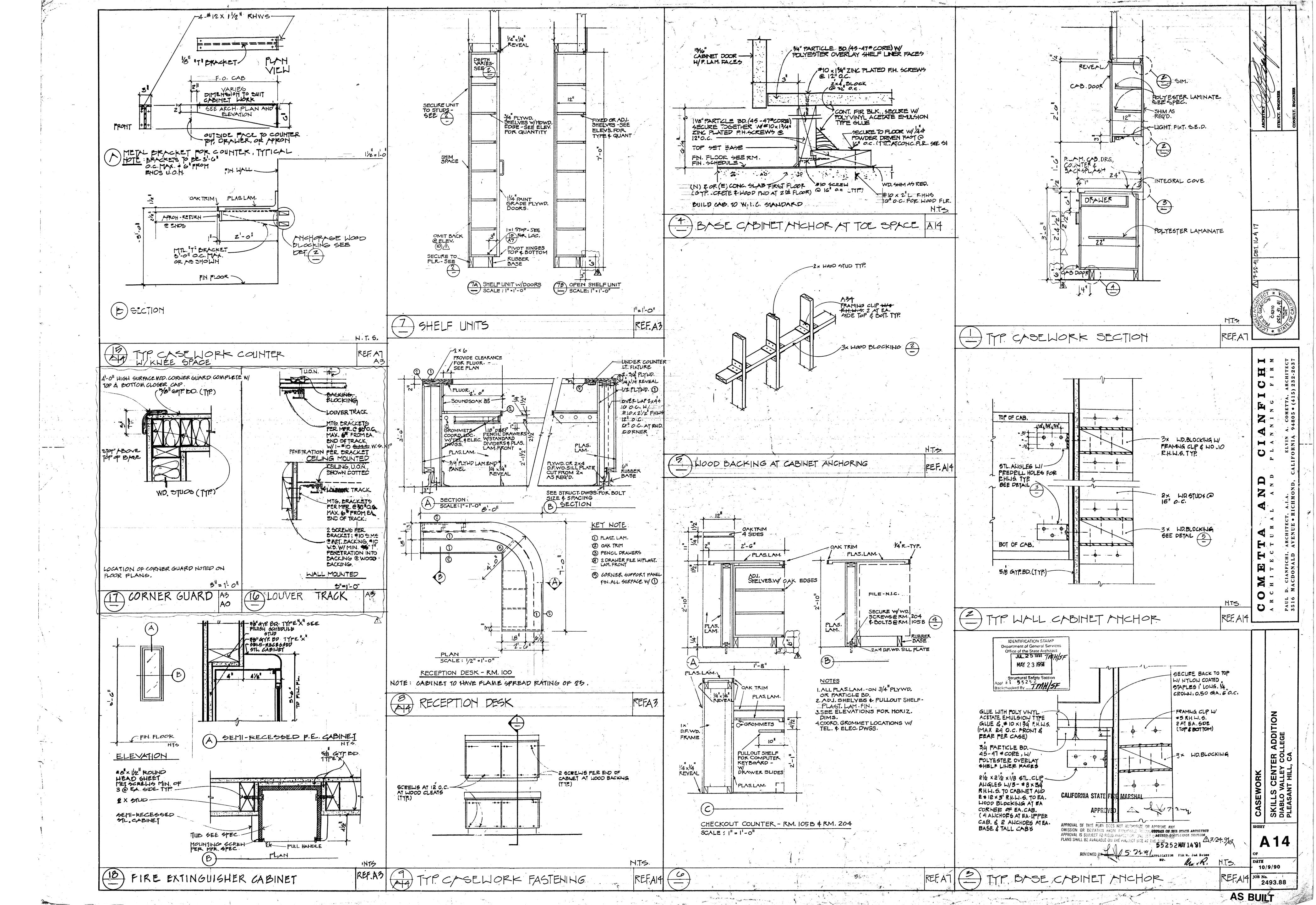


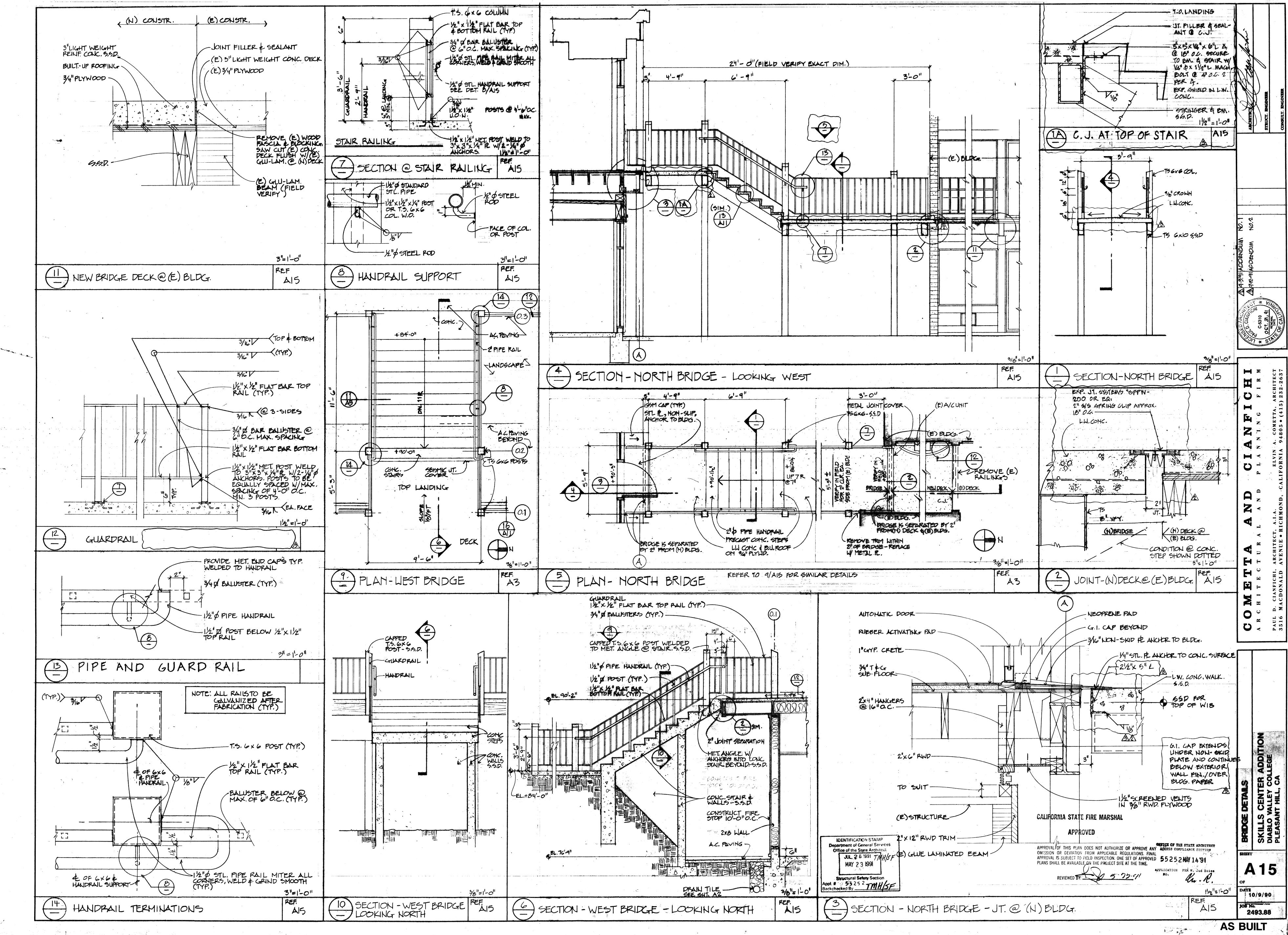












FEATURES OF CONSTRUCTION SHOWN ARE TYPICAL AND SHALL APPLY GENERALLY THROUGHOUT SIMILAR CONDITIONS. UNLESS SHOWN OTHERWISE, DETAILS SHOWN ON "TYPICAL DETAIL" SHEETS SHALL BE USED WHENEVER APPLICABLE. SPECIFIC DETAILS ON THE STRUCTURAL DRAWINGS TAKE PRECEDENCE OVER "TYPICAL DETAILS." SPECIFIC NOTES ON STRUCTURAL DRAWINGS TAKE PRECEDENCE OVER NOTES SHOWN IN "GENERAL NOTES." DETAILS ON STRUCTURAL DRAWINGS TAKE PRECEDENCE OVER SPECIFICATIONS.

THE STRUCTURAL DRAWINGS SHOW STRUCTURAL FEATURES. EXACT CONFIGURATION FOR INTERIOR PARTITION WALLS ARE SHOWN ON ARCHITECTURAL DRAWINGS. AND ARE NOT NECESSARILY SHOWN ON THE STRUCTURAL DRAWINGS. PROVIDE ANCHORAGE, INSERTS, ANCHOR BOLTS, ETC., FOR STRUCTURAL CONNECTIONS OF TOP, SIDES, AND BOTTOM OF ALL PARTITION WALLS AS LOCATED ON THE ARCHITECTURAL DRAWINGS. REFER TO THE ARCHITECTURAL DRAWINGS AND THE SPECIFICATIONS FOR THE FOLLOWING: FLOOR FINISHES; DEPRESSIONS AND CURBS ON FLOORS; OPENINGS REQUIRED FOR WINDOWS, DOORS, DUCTS, VENTS, PLUMBING, ETC.;

FLASHING, INSERTS, ANCHORAGE, HANGERS, ETC., EMBEDDED IN OR ATTACHED TO THE STRUCTURE; ROADWAY, WALKS, PAVING, STAIRS, RAMPS, TERRACES, EXTERIOR GRADES, ELEVATIONS OF ROOF SURFACE AND LOCATIONS OF DRAINS AND PARTITION WALLS. THE CONTRACTOR SHALL COMPARE THE STRUCTURAL DRAWINGS WITH THE ARCHITECTURAL, PLUMBING,

MECHANICAL AND ELECTRICAL DRAWINGS AS TO ALL LAYOUTS, DIMENSIONS AND ELEVATIONS. ANY DISCREPANCIES SHALL BE REPORTED TO THE ARCHITECT FOR PROPER ADJUSTMENT BEFORE PROCEEDING WITH THE WORK. IN THE EVENT THAT CERTAIN FEATURES OF THE CONSTRUCTION ARE NOT FULLY SHOWN ON THE DRAWINGS OR CALLED FOR IN THE GENERAL NOTES OR SPECIFICATIONS, THEIR CONSTRUCTION SHALL BE OF THE SAME CHARACTER AS SHOWN FOR SIMILAR CONDITIONS. BEAMS. JOISTS AND ANY OTHER STRUCTURAL ELEMENTS SHALL NOT BE CUT OR PENETRATED, EXCEPT AS SHOWN

IN STRUCTURAL DETAILS OR AS APPROVED BY THE ARCHITECT AND STRUCTURAL ENGINEER. AT NEW OR EXISTING CONSTRUCTION. NO OVERCUTTING IS ALLOWED FOR CUTS OR PENETRATIONS. CONTRACTOR SHALL VERIFY ALL DIMENSIONS IN FIELD PRIOR TO POURING CONCRETE. ANY DISCREPANCIES SHALL BE CALLED TO THE ATTENTION OF THE ARCHITECT BEFORE PROCEEDING WITH THE WORK. FEATURES OF EXISTING CONSTRUCTION SHALL BE VERIFIED BY THE CONTRACTOR IN THE FIELD AND DISCREPANCIES SHALL BE CALLED TO THE ATTENTION OF THE ARCHITECT. UNDERPINNING, BRACING, AND/OR SHORING OF EXISTING BUILDING ELEMENTS AND EXISTING ADJACENT

BUILDINGS: 1) IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR (OR THE CONTRACTOR'S SUBCONTRACTOR) TO DETERMINE UNDERPINNING REQUIREMENTS AND TO SUBMIT DETAILS AND CALCULATIONS TO ARCHITECT AND O. 6.A. FOR REVIEW. 30 DAYS PRIOR TO COMMENCING SHORING CONSTRUCTION .'DETAILS AND CALCULATIONS SHALL BE PREPARED AND SIGNED BY
ENGINEER LICENSED IN THE STATE OF CALIFORNIA. TESTINGUES TO MONITOR ALL (E) FOLKING FOR SETTLEMENT THE ENGINEERS OF RECORD FOR THIS PROJECT SHALL NOT BE ASSOCIATED WITH THIS WORK. DURING CONST. CALL MAX.

RAZZANO ASSOCIATES INC. IS NOT RESPONSIBLE FOR THIS WORK. SEE ARCHITECTURAL DRAWINGS FOR DETAILS ON REQUIRED VENTILATION OF ROOF JOISTS, FLOOR JOISTS AND ATTIC SPACES. THE GENERAL CONTRACTOR SHALL REVIEW AND COORDINATE ALL SHOP DRAWINGS AND STAMP THEM "REVIEWED" PRIOR TO SUBMITTING THEM TO THE ARCHITECT FOR REVIEW. SHOP DRAWINGS ARE PRODUCED TO FACILITATE FABRICATION AND COORDINATION BY THE CONTRACTORS. SHOP DRAWINGS SHALL BE EXCHANGED AND COORDINATED BY THE CONTRACTORS. THEY SHALL IN NO WAY TAKE PRECEDENCE OVER THE GOVERNING AGENCY'S APPROVED CONTRACT DOCUMENTS. REVIEW BY THE ARCHITECT AND/OR STRUCTURAL ENGINEER IS INTENDED TO BENEFIT THE FABRICATORS AND CONTRACTORS. NO APPROVAL IS IMPLIED OR INTENDED FOR VARIATIONS BETWEEN SHOP DRAWINGS AND THE CONTRACT DOCUMENTS. WHEN DIFFERENT COMPONENTS ARE ERECTED, THEY ARE INSPECTED FOR CONFORMANCE WITH THE CONTRACT DOCUMENTS, NOT THE SHOP DRAWINGS.

#### SYMBOLS AND ABBREVIATIONS

NTS	INDICATES	NOT TO SCALE	RW	INDICATES	REDWOOD LUMBER
A-S2	11	SECTION A ON DRAWINGS S2, ETC.	777	11 .	A CONTINUOUS MEMBER IN SECTION
SAD	11	SEE ARCHITECTURAL DRAWINGS	M	Ħ	A NON-CONTINUOUS MEMBER SUCH
		OR DETAILS	•		AS SOLID BLOCK IN SECTION
FS	. 11	FACE OF STUD	FC	11	GALVANIZED FRAMING CLIP
JST	Ħ	JOIST OR RAFTER	SMD	11	SEE MECHANICAL DETAILS
JH	H.	GALVANIZED JOIST HANGER	DJ	11	DOUBLE JOIST OR DOUBLE RAFTER
PW	11	STRUCTURAL PLYWOOD	OTJH	11	OVER-THE-TOP GALVANIZED
MB	11	MACHINE BOLT			JOIST HANGER
AB	#1	ANCHOR BOLT	UON	11	UNLESS OTHERWISE NOTED
WA		EXPANSION ANCHOR	CP	· #1	COMPLETE PENETRATION WELD
FTG	11	FOOTING	(N)	11	NEW CONSTRUCTION
TPW	· • • • • • • • • • • • • • • • • • • •	TOP OF PLYWOOD ELEVATION	(E)	11	EXISTING STRUCTURE
BOF	, 11	BOTTOM OF FOOTING	(F)	11	FLUSH FRAMED
PR	11	PAIR	CTC	ŧŧ	CENTER TO CENTER

#### FOUNDATIONS

THE SOIL REPORT APPLICABLE TO THIS PROJECT SITE IS BY HARDING LAWSON ASSOCIATES AND IS AVAILABLE FOR REVIEW AT THE ARCHITECT'S OFFICE. FOOTINGS SHALL BEAR ON UNDISTURBED SANDSTONE

FOR BIDDING PURPOSES, THE ELEVATION OF THE BOTTOM OF FOOTINGS SHALL BE AS INDICATED ON THE

FOUNDATION PLANS AND ON DETAILS. THESE FOOTING DEPTHS ARE MINIMUM AND SHALL IN NO CASE BE LESS THAN THEY SHALL BE SUBJECT TO APPROVAL BY THE SOIL ENGINEER DURING FOUNDATION EXCAVATION AND CONSTRUCTION. SOIL PRESSURES UNDER FOOTINGS AS DESIGNED DO NOT EXCEED 3000 PSF DUE TO DEAD LOAD. NOR EXCEED 3750 PSF DUE TO DEAD LOAD PLUS LIVE LOAD, NOR EXCEED 4500 PSF DUE TO COMBINED DEAD LOAD PLUS DESIGN LIVE LOAD PLUS GOVERNING DESIGN WIND OR SEISMIC LOAD.

WHERE FOUNDATION WALL BACKFILL IS NECESSARY, THE BACKFILL SHALL BE PLACED SIMULTANEOUSLY ON EACH SIDE OF WALL, AND THE LEVEL ON ONE SIDE SHALL NOT EXCEED THE OTHER SIDE BY MORE THAN 6" DURING THIS OPERATION.

FOOTINGS SHALL BE CENTERED UNDER BEARING WALLS ABOVE UNLESS OTHERWISE NOTED. SEE ARCHITECTURAL, PLUMBING, MECHANICAL, ELECTRICAL AND ANY OTHER INCLUDED DRAWINGS, AND CONSULT WITH THE RESPECTIVE TRADES FOR VERIFICATION OF ALL ITEMS SHOWN OR NOT SHOWN ON STRUCTURAL PLANS PRIOR TO POURING CONCRETE FOOTINGS AND FLOOR SLABS. VERIFY LOCATIONS FOR OPENINGS OR PENETRATIONS THROUGH CONCRETE, CONCRETE CURBS, FLOOR DEPRESSIONS, FLOOR SLOPES AND DRAINS, INSERTS, ETC.

#### CONCRETE

NOTIFY THE ARCHITECT, STRUCTURAL ENGINEER, AND OSA A MINIMUM OF 48 HOURS PRIOR TO COMMENCEMENT OF CONCRETING OPERATIONS.

ALL CONCRETE SHALL BE REINFORCED UNLESS NOTED: "NOT REINFORCED." THE REBAR SUBCONTRACTOR SHALL FURNISH AND INSTALL TWENTY TONS OF VARIOUS SIZES AND SHAPES OF REINFORCING BARS TO BE PLACED IN LOCATIONS PRESCRIBED BY THE STRUCTURAL ENGINEER DURING CONSTRUCTION. THE UNIT PRICE PER TON FOR MORE OR LESS THAN THE TONS SPECIFIED ABOVE SHALL BE INCLUDED IN THE BID DOCUMENTS. SEE SPECIFICATIONS FOR THE REQUIREMENTS IN THE PRODUCTION, TESTING, AND INSTALLATION OF

THE MAXIMUM PERMISSIBLE WATER-CEMENT RATIOS FOR CONCRETE SHALL BE 0.58. SEE ARCHITECTURAL DRAWINGS FOR LOCATION, EXTENT, AND REINFORCEMENT OF EXTERIOR WALKS AND

SEE ARCHITECTURAL DRAWINGS FOR SURFACE FEATURES SUCH AS CHAMFERS, REVEALS, ETC. REINFORCEMENT SHALL BE ASTM A615-40 FOR #4 AND SMALLER, AND A615-60 FOR #5 AND LARGER, WITH BAR MARKS LEGIBLY ROLLED INTO THE SURFACE INDICATING SIZE, TYPE OF STEEL, AND YIELD STRENGTH DESIGNATION. CONCRETE SHALL TEST NOT LESS THAN 3000 PSI AT 28 DAYS, FOR STRUCTURAL AND FOUNDATION ELEMENTS. FLOOR SLABS-ON-GRADE SHALL TEST NOT LESS THAN 2500 PSI AT 28 DAYS, UNLESS OTHERWISE NOTED ON STRUCTURAL DRAWINGS. LIGHT WEIGHT CONCRETE & EXTERIOR DECK'S SHALL TEST NOT LESS THAN. 3000 PSI @ 20 DAYS. LAP ALL BARS 48 DIAMETERS AT SPLICES. STAGGER SPLICES WHEREVER POSSIBLE. VERTICAL WALL BARS SHALL EXTEND INTO FOOTINGS, BUT MAY BE DOWELLED WITH 40 DIAMETER LAPS OF SAME SIZE BARS. BASE PLATE ANCHOR BOLTS SHALL BE LOCATED INSIDE THE FOOTING OR WALL REINFORCING CAGE, UNLESS OTHERWISE NOTED. IF THE ANCHOR BOLTS FALL OUTSIDE THE REINFORCING CAGE, THEN ADD #4 RECTANGULAR CLOSED TIES AT THE TOP AND BOTTOM OF ANCHOR BOLTS, WIRE-TIED TO ANCHOR BOLTS. REINFORCEMENT, ANCHOR BOLTS, PIPE SLEEVES AND OTHER INSERTS SHALL BE POSITIVELY SECURED IN PLACE BEFORE CONCRETE IS POURED. REBARS WELDED TO STRUCTURAL STEEL SHALL BE SUPPLIED BY REBAR SUBCONTRACTOR AND ALL WELDING

SHALL BE DONE BY STRUCTURAL STEEL SUBCONTRACTOR. ALL BARS THAT ARE WELDED SHALL MEET THE REQUIREMENTS OF ASTM A706. BAR COVERAGE TO FACE OF BAR, EXCEPT AS OTHERWISE SHOWN, SHALL BE:

WHERE CONCRETE IS POURED AGAINST EARTH OR IN CONTACT WITH GROUND. FOR BARS LARGER THAN #5, WHERE CONCRETE SURFACES ARE EXPOSED TO EARTH OR TO WEATHER AFTER REMOVAL OF FORMS 1-1/2" FOR #5 BARS OR SMALLER, WHERE CONCRETE SURFACES ARE EXPOSED TO EARTH OR TO WEATHER AFTER REMOVAL OF FORMS.

1-1/2" FOR COLUMN SPIRALS OR TIES 1-1/2" FOR STIRRUPS OF BEAM UNLESS GOVERNED ABOVE BY EXPOSURE TO WEATHER OR AS NOTED ON DETAILS. FOR WALL BARS (DOUBLE MAT)

FOR STRUCTURAL SLAB BARS, TOP AND BOTTOM ALL CONCRETE CURBS ARE 6" HIGH, UNLESS OTHERWISE NOTED. ALL TOILET ROOM STUD WALLS SHALL HAVE CONCRETE CURBS, UNLESS OTHERWISE NOTED. INTERIOR SLABS-ON-GRADE SHALL BE REINFORCED AS SHOWN ON STRUCTURAL PLANS. LOCATIONS OF CONSTRUCTION JOINTS MUST BE APPROVED BY THE ARCHITECT. ALSO, ANY DEVIATION IN THE POURING OF THE CONCRETE SLAB FROM THE METHOD DESCRIBED ON THE TYPICAL CONSTRUCTION JOINT DETAIL SHALL BE REVIEWED BY THE STRUCTURAL ENGINEER PRIOR TO POURING THE CONCRETE SLAB. A LETTER TO THE STRUCTURAL ENGINEER IS REQUIRED. STATING THE REQUESTED CHANGE AND DESCRIBING THE PROPOSED METHOD. THE CONTRACTOR WILL ASSUME ALL RESPONSIBILITY FOR THE CHANGED CONSTRUCTION JOINT DETAIL.

THE SURFACE OF ALL CONSTRUCTION JOINTS, INCLUDING EXISTING CONSTRUCTION, SHALL BE CLEANED AND ROUGHENED BY REMOVING THE ENTIRE SURFACE AND EXPOSING CLEAN AGGREGATE SOLIDLY EMBEDDED IN MORTAR MATRIX AGGREGATE TO BE EXPOSED TO A! AMPLITUDE.

ADMIXTURES CONTAINING CALCIUM CHLORIDE SHALL NOT BE USED. PROVIDE MODIFIED CONCRETE MIX AT HORIZONTAL CONSTRUCTION JOINTS WHERE CONDITIONS MAKE PUDDLING DIFFICULT AND/OR WHERE REINFORCING IS CONGESTED. MODIFIED CONCRETE MIX SHALL CONTAIN 50 PERCENT OR LESS OF COARSE AGGREGATES SPECIFIED IN CONCRETE MIX DESIGN.

CURING UNFORMED SURFACES: 1. CURE FOR ONE DAY TO SEVEN DAYS BY MAINTAINING THE CONCRETE ABOVE 50 DEGREES F. AND IN A MOIST CONDITION, KEEPING THE SURFACE CONTINUOUSLY WET BY COVERING WITH WATER OR BY

2. APPLY MEMBRANE-FORMING CURING COMPOUND TO DAMP CONCRETE SURFACES IMMEDIATELY AFTER THE COMPLETION OF THE MOIST-CONDITIONING PERIOD. APPLY UNIFORMLY IN TWO-COAT CONTINUOUS OPERATION BY POWER-SPRAY EQUIPMENT, IN ACCORDANCE WITH MANUFACTURER'S DIRECTIONS. RECOAT AREAS WHICH ARE SUBJECT TO HEAVY RAINFALL WITHIN THREE HOURS AFTER INITIAL APPLICATION. MAINTAIN CONTINUITY OF COATING AND REPAIR DAMAGE DURING CURING PERIOD. THE CURING PERIOD

3. MAKE TESTS TO CONFIRM THAT MEMBRANE-FORMING CURING COMPOUND IS SATISFACTORY BY PLACING 20 FOOT BY 20 FOOT SHEET OF POLYETHYLENE POSITIVELY HELD IN PLACE ON THE SURFACE OF THE CONCRETE, AND DETERMINE IF WATER VAPOR HAS MIGRATED FROM THE CONCRETE AND CONDENSED ON THE UNDERSIDE OF THE POLYETHYLENE. MAKE ONE TEST FOR THE AREA OF CONCRETE POURED EACH DAY. 4. IF CONDENSATION APPEARS, THEN RE-APPLY MEMBRANE-FORMING COMPOUND AND RETEST FOR VAPOR

#### CONCRETE - (CONTINUED)

CURING FORMED SURFACES: CURE FORMED SURFACES BY MOIST CURING WITH FORMS IN PLACE FOR FULL CURING PERIOD OR UNTIL FORMS ARE REMOVED. WHEN FORMS ARE REMOVED. CONTINUE CURING BY METHODS SPECIFIED ABOVE, AS APPLICABLE, FOR FULL CURING PERIOD. SHORING AND RESHORING: CONTRACTOR IS RESPONSIBLE FOR THE SHORING AND RESHORING OF ALL NECESSARY ELEMENTS. THIS INCLUDES THE DETERMINATION. DESIGN. INSTALLATION AND REMOVAL. SHORING AND RESHORING OF SLABS AND BEAMS SHALL NOT BE REMOVED UNTIL CONCRETE IS 28 DAYS OLD. THE AGGREGATES IN THE CONCRETE FOR THIS PROJECT SHALL BE COMPOSED OF LOCALLY AVAILABLE FINE AND COARSE AGGREGATES. DUE TO THE NATURE OF CONCRETE IN GENERAL, AND CONSIDERING THE SOURCE AND PERFORMANCE HISTORY OF THESE LOCAL AGGREGATES. CONCRETE CRACKING IS UNAVOIDABLE. IF THE OWNER AND/OR ARCHITECT DETERMINE THAT REDUCED CRACKING IS REQUIRED. THEY SHALL NOTIFY THE STRUCTURAL ENGINEER SO THAT LOW SHRINKAGE AGGREGATES WITH A HISTORY OF REDUCED CRACKING CAN BE SPECIFIED. SEE MECHANICAL AND/OR ARCHITECTURAL DRAWINGS FOR LOCATION, SIZE, AND DETAILS OF CONCRETE EQUIPMENT PADS.

#### CARPENTRY

SILLS ON CONCRETE SHALL BE NO. 2 GRADE, CLOSE GRAIN REDWOOD, OR PRESSURE-TREATED DOUGLAS FIR, W/AWPE STAMP 3" THICK AT STRUCTURAL PLYWOOD SHEATHED WALLS AND 2" MINIMUM THICK ELSEWHERE. THEY SHALL BE ANCHORED WITH 5/8" DIAMETER X 14" MACHINE BOLTS UNLESS OTHERWISE NOTED (HOLES MAY BE 1/16" OVERSIZE) WITH A BOLT WITHIN 9" OF EACH END OF EACH STICK AND SPACED NOT OVER 48" O.C. BETWEEN. SEE STRUCTURAL DETAILS FOR SPECIFIC SPACING OF ANCHOR BOLTS WHICH MAY BE NOTED AS LESS THAN 48" O.C. THERE SHALL BE AT LEAST 2 BOLTS IN EACH STICK. WHERE NOTCHES FOR PIPES, ETC., EXCEED 1/3 THE WIDTH OF THE SILL, PLACE A BOLT WITHIN 9" OF EACH SIDE OF NOTCH. TIEDOWN BOLTS SHALL NOT BE CONSIDERED AS SILL BOLTS. SILLS SHALL BE BEDDED IN 1:2 MORTAR (1 PART CEMENT/2 PARTS SAND) 3/4" THICK. ALL POSTS SHALL BE FULL HEIGHT OF BUILDING AND SHALL BE SOLID BLOCKED AT FRAMING LEVELS. FRAMING LUMBER: DOUGLAS FIR, NORTH REGION MANUFACTURED AND GRADED IN ACCORDANCE WITH THE WEST COAST LUMBER INSPECTION BUREAU "STANDARD GRADING RULES NO. 16" EFFECTIVE SEPTEMBER 1, 1970 AND REVISED JANUARY 1, 1988. ALL 2 × 12 JOISTS @ 2" FLOOR SHALL HAVE LESS THAN OR EQUALTO 19% MOISTURE CONTENT.

STRUCTURAL LIGHT FRAMING: NO. 1 (PARA. 124) 2" TO 4" THICK; 2" TO 4" WIDE STRUCTURAL JOISTS AND PLANKS: NO. 1 (PARA. 123) 2" TO 4" THICK; 6" AND WIDER NO. 1 STRUCTURAL, FREE OF HEART CENTER (PARA. 130) 5" AND THICKER; WIDTH MORE THAN 2"

GREATER THAN THICKNESS NO. 1 STRUCTURAL (PARA. 131) 2x4 OR 3x4 CONSTRUCTION (PARA 122)

2x6 AND LARGER NO.1 (PARA. 123) BLOCKING AND BRIDGING - PROVIDE AS FOLLOWS:

A. 2" SOLID BLOCKING BETWEEN JOISTS AND RAFTERS OVER SUPPORT. B. 2"x3" (MIN) CROSS BRIDGING BETWEEN JOISTS AND RAFTERS NOT OVER 8'-0" O.C. NOR MORE THAN 8'-0" FROM SUPPORT. CROSS BRIDGING NAILED UP AFTER SHEATHING IS PUT DOWN. 2x FULL HEIGHT BLOCKING MAY BE USED IN LIEU OF BRIDGING. ALL FLOOR JOISTS TO HAVE FULL DEPTH OMIT CROSS BRIDGING BETWEEN CEILING JOISTS AND RAFTERS 2x8 AND SMALLER. CONTINUOUS 2" HERRINGBONE BRIDGING, SLOPE 3-IN-12, AT MID-HEIGHT OF STUDS OR SO SPACED THAT UNBRACED LENGTH OF STUDS SHALL NOT EXCEED 8'-O" EXCEPT WHERE WALL FINISH OR PLYWOOD

WHERE JOISTS SPAN BETWEEN CONCRETE OR MASONRY WALLS, STEEL PLATE ANCHOR CONNECTORS SHALL BE PROVIDED AT EACH END OF THE SAME JOIST. SUCH CONNECTED JOISTS SHALL NOT BE SPACED OVER 48" ON CENTER. WHERE A JOIST OR STUD IS PLACED AGAINST CONCRETE OR MASONRY WALL, BOLT TO WALL WITH 3/4" DIAMETER ANCHOR BOLTS AT NOT OVER 48" O.C. DOUBLE TOP PLATES OF EXTERIOR WALLS SHALL NOT BE CUT TO LAP THE TOP PLATES OF INTERSECTING WALLS EXCEPT AT EXTERIOR WALL CORNERS OR AS OTHERWISE NOTED ON DRAWINGS. PIPES EXCEEDING ONE-THIRD OF THE PLATE WIDTH SHALL NOT BE PLACED IN PARTITIONS USED AS BEARING OR SHEAR WALLS, UNLESS OTHERWISE DETAILED OR COMPLETELY FURRED CLEAR OF THE STUDS. PIPES SHALL PASS THROUGH THE CENTER OF THE PLATES USING NEATLY BORED HOLES. NO NOTCHING WILL BE ALLOWED. LAG SCREWS SHALL BE SCREWED (NOT DRIVEN) INTO PLACE. DRILL HOLE SAME DIAMETER AND DEPTH AS SHANK, THEN DRILL HOLE SAME DIAMETER AS AT BASE OF THREAD FOR THE THREADED PORTION. USE PLATE

SHEATHING AT SHEAR WALLS CALLS FOR SOLID HORIZONTAL BLOCKING.

WASHERS AS REQUIRED FOR SAME BOLT SIZE. BOLTS IN WOOD SHALL BE MACHINE BOLTS UNLESS OTHERWISE NOTED. ALL MACHINE BOLTS SHALL HAVE CUT BOLT HOLES IN WOOD AND STEEL SHALL BE THE DIAMETER OF THE BOLT PLUS 1/16". PROVIDE SQUARE PLATE WASHER UNDER HEAD AND NUT WHERE BEARING IS AGAINST WOOD. WASHER WILL NOT BE REQUIRED UNDER HEAD OF CARRIAGE BOLTS. LENGTH OF THREAD SHALL BE SUCH THAT THREADS DO NOT BEAR AGAINST WOOD OR STEEL. ALL NUTS SHALL BE TIGHTENED WHEN PLACED AND RETIGHTENED AT COMPLETION OF THE JOB OR IMMEDIATELY BEFORE CLOSING WITH FINISH CONSTRUCTION

A.	TELL DEFORE CLO	SING WITH FINISH CONSTRUCTION.		
	BOLT DIAMETER	SQUARE STEEL PLATE WASHER	BOLT DIAMETER	SQUARE STEEL PLATE WASHER
	1/2"	2 x 2 x 1/4"	7/8"	$3-1/2 \times 3-1/2 \times 3/8$ "
	5/8"	$2-1/2 \times 2-1/2 \times 1/4$ "	1"	$3-1/2 \times 3-1/2 \times 3/8$ "
	3/4"	3 x 3 x 5/16"	1-1/8"	4 x 4 x 7/16"
			1-1/4"	$4-1/2 \times 4-1/2 \times 1/2$ "
M Å	TIPARIE TRAN I	ACUEDO MAV RE HOED IN LIEH OF COL	TADE CTERT DIATE WA	CHERC

MALLEABLE IRON WASHERS MAY BE USED IN LIEU OF SQUARE STEEL PLATE WASHERS.
ALL ANCHOR BOLTS AND SILL BOLTS SHALL BE SECURED IN PLACE PRIOR TO POURING CONCRETE FOOTINGS. ALL METAL CONNECTORS TO BE SIMPSON, UNLESS SHOWN OTHERWISE.

#### PLYWOOD SHEATHING

WHERE NOTED ON STRUCTURAL PLANS, ROOFS, FLOORS, EXTERIOR SHEAR WALLS AND INTERIOR SHEAR WALLS SHALL BE SHEATHED WITH DOUGLAS FIR PLYWOOD, STRUCTURAL I, C-D OR BETTER, WITH EXTERIOR GLUE. MINIMUM SPAN RATING OF 32/16. ALL PLYWOOD SHEATHING USED STRUCTURALLY SHALL EXTEND CONTINUOUSLY BEHIND ALL FINISHES. WHERE IT IS TO BE PLASTERED, IT SHALL BE PROTECTED BY AN UNBROKEN LAYER OF MOISTURE-TIGHT PAPER UNDER IN GENERAL, PLYWOOD SHEETS SHALL BE 4'-O" x 8'-O". THE LONG DIMENSION MAY BE LAID EITHER

HORIZONTALLY OR VERTICALLY AT WALLS. ROOF AND FLOOR SHEETS SHALL BE LAID WITH FACE PLIES ACROSS JOISTS OR FRAMING MEMBERS AND WITH END JOINTS STAGGERED 4'-O". ALL PLYWOOD JOINTS SHALL BE ACCURATELY CENTERED ON SUPPORTING ELEMENTS, INCLUDING BLOCKING. BLOCKING BETWEEN STUDS SHALL BE 3x STUD DEPTH. BLOCKING BETWEEN JOISTS FOR PLYWOOD EDGE NAILING SHALL BE 2x4 MINIMUM FLAT BLOCKING, EXCEPT WHERE DETAILED OTHERWISE. WHERE NAILING IS @ 3" O.C. OR CLOSER, PROVIDE 4x4 MINIMUM BLOCKING BETWEEN JOISTS, AND LEDGERS SHALL BE 4x SAME DEPTH AS JOIST. ALL ROOF, FLOOR, AND WALL PLYWOOD SHALL BE BLOCKED. USE 3x STUD FOR ALL VERTICAL WALL JOINTS WHERE SHEATHING IS ON BOTH SIDES. MINIMUM PLYWOOD PANEL WIDTH SHALL BE 12" & WALLS AND 24" & ROOF OR FLOOR, STAGGER PW PANELS WHERE WALLS EXCEED ONE STORY.

ALL NAILS SHALL BE COMMON WIRE NAILS. WHERE NAILS TEND TO SPLIT THE WOOD, NAIL HOLES SHALL BE

	SCHEDULE OF MINIMUM PER	MISSIBLE CONNECTION
DETAILS	· · · · · · · · · · · · · · · · · · ·	FASTENING
STUDS TO BEARING	2x6 AND SMALLER  2x8 AND LARGER	2-10d TOENAILS EACH SIDE (3-10d TOENAILS EACH SIDE TOP & BOTTOM AT EXTERIOR WALLS WHEN HEIGHT OF STUD EXCEEDS 13'-4' 3-10d TOENAILS EACH SIDE TOP AND BOTTOM AT
SOLE PLATES (ON SHEATHING)		EXTERIOR WALLS (3-16d TOENAILS EACH SIDE TO REDWOOD SILL WHEN STUD EXCEEDS 20'-0") 2-20d EACH JOIST
SOLE PLATES (ON SHEATHING)	PERPENDICULAR TO JOISTS PARALLEL TO JOIST	20d @ 8" O.C. STAGGERED
DOUBLE 2" TOP PLATES (USE 30d FOR 3" PLATE)	LOWER PLATE TO STUD	2-20d FOR 2x6 STUDS OR SMALLER; 3-30d FOR 2x8; 2-20d FOR 3x4 STUDS
	UPPER TO LOWER STAGGERED	16d @ 12" O.C. (MIN.) LAP 4'-O" WITH 16-16d EACH LAP. SEE PLANS FOR SPECIAL CONDITION.
JOIST OR RAFTERS	LAP AT INTERSECTIONS	3-16d
	TO BEARING TO SIDE OR EDGE OF STUD	2-10d TOENAILS EACH SIDE 3-16d FOR 8" DEPTH JOIST OR LESS AND 1-16d FOR EACH ADDITIONAL 4" IN DEPTH FOR JOIST.
	TO PARALLELING MEMBERS (PLATES, ETC.)	16d @ 12" O.C.
BLOCKING —	ALL LAPS (12" MIN.) TO JOISTS OR RAFTERS	4-16d 2-10d TOENAILS EACH SIDE EACH END
HERRINGBONE BRIDGING CROSS BRIDGING	TO BEARINGS TO STUDS	3-10d TOENAIL FOR 2x10 AND LARGER 2-10d TOENAILS EACH SIDE/3-10982×8 51445.
MULTIPLE STUDS	TO JOISTS OR RAFTERS	2-8d
BUILT-UP BEAMS (MULTIPLE JOISTS)	EACH LAYER EACH LAYER	16d @ 8" O.C. FOR BEAMS LESS THAN 10" IN
		DEPTH ONLY 1/2" DIAMETER BOLTS @ 24" O.C. STAGGERED FOR BEAMS 10" OR GREATER IN DEPTH.
DOUBLE JOIST UNDER PARTITIONS	WHERE NOT BLOCKED APART WHERE BLOCKED APART	16d @ 8" O.C. 3-16d EACH BLOCK EACH SIDE (BLOCKS 2x @ 24" O.C.)
PLYWOOD SHEATHING	PW NAILING LOCATION (SEE PLANS & STRUCTURAL SECTIONS)	PW AT LOCATIONS AS INDICATED ON STRUCTURAL PLANS.
3/4" THICKNESS @ ROOF 3/4" THICKNESS @ FLOOR 1/2" THICKNESS @ WALLS	AT ALL EDGES OF SHEET AND WHERE CALLED OUT AS "EDGE NAILING" (E.N.)	10d @ 4" O.C.
	AT ALL OTHER CONTACTS UNLESS OTHERWISE NOTED AT DOUGLAS FIR SILLS AT REDWOOD SILLS AT POST WITH HOLDOWN	10d @ 12" O.C. UON 10d @ 10" O.C. FLOOR 10d @ 4" O.C. 10d @ 3" O.C. 10d @ 4" O.C.

#### RECOMMENDED SPECIFICATIONS FOR AUTOMATIC END WELDED STUDS

#### A. <u>Material</u>

Automatic end welded studs shall be Nelson Granular Fluxfilled Shear Connector or Anchor Studs (or approved equal). Studs shall be manufactured of C-1015 cold rolled steel which conforms to A.S.T.M. Specification A-108-58-T.

Installation The study shall be automatically end welded in accordance with the manufacturer's recommendations in such a manner as to provide complete fusion between the end of the stud and the plate. There should be no porosity or evidence of lack of fusion between the welded end of the stud and the plate. The stud shall decrease in length during welding approximately 1/8" for 5/8" inch and under, and 3/16" for over 5/8" diameter. Welding shall be done only by qualified welders approved by the welding inspector.

#### ·C. <u>Inspection and Tests</u>

Inspection, in accordance with Title 24, Section 2727(e) of all the shop and field welding operations for the automatic end welded studs shall be made by a qualified welding inspector (approved by the Office of the State Architect). The type and capacity of the welding equipment shall be in accordance with the manufacturer's recommendations and shall be checked and approved by a welding inspector. At the beginning of each day's work, a minimum of two test stud welds shall be made with the equipment to be used to metal which is the same as the actual work piece. The test studs shall be subjected to a 90° bend test by striking them

whith a heavy hammer. After the above test, the weld section

shall not exhibit any tearing out or cracking.

#### PNEUMATIC GUN NAILING:

PNEUMATIC GUN NAILS SHALL HAVE THE SAME GAUGE AND HEAD DIAMETER AS A 104 COMMON NAIL. NAILS SHALL BE FULL HEADED. MINIMUM LENGTH: 2-1/4" FOR 1/2" PLYWOOD AND 2-1/2" FOR 3/4" PLYWOOD. (SHANK DIAMETER 0.148 INCHES, HEAD DIAMETER 5/16"). 2. MINIMUM EDGE DISTANCE OF NAIL FROM EDGE OF PLYWOOD AND FRAMING SHALL BE 3/8 INCHES FOR 2 x FRAMING, AND SHALL BE A MINIMUM OF 3/4 INCHES FOR 3 x FRAMING. THE PLYWOOD JOINT SHALL BE CENTERED

SPACING OF NAILS SHALL BE AS SPECIFIED FOR 10D COMMON NAILS. "SHINERS" OR NAILS WHICH DO NOT PENETRATE INTO FRAMING OR BLOCKING SHALL BE REMOVED AND REPLACED. WHERE SLANT NAILING IS USED, SLOPE OF NAILS SHALL NOT BE GREATER THAN 1 IN 6 WITH RESPECT TO A LINE AT RIGHT ANGLES TO THE PLYWOOD.

6. OVERDRIVING OF PNEUMATIC GUN NAILS, SUCH THAT THE HEAD OF NAIL IS BELOW THE TOP SURFACE OF PLYWOOD, SHALL NOT BE PERMITTED. PNEUMATIC GUN SHALL UNDERDRIVE NAIL BY 3/4" MAXIMUM AND THE NAIL SHALL BE HAND-DRIVEN, SO THAT THE HEAD OF THE NAIL IS FLUSH WITH TOP SURFACE OF PLYWOOD. 8. FOR EACH GUN OPERATOR, PREPARE TWO SAMPLE PANELS, ONE FOR 1/2" PLYWOOD AND ONE FOR 3/4" PLYWOOD. NOTE NAME AND SOCIAL SECURITY NUMBER OF GUN OPERATOR ON THE SAMPLE PANEL. GUN NAILING MAY BE APPROVED FOR 1/2" PLYWOOD ROOF AND WALL SHEATHING AND FOR 3/4" PLYWOOD ROOF SHEATHING. WALLS THAT ARE SHEATHED EACH SIDE OF WALL SHALL NOT BE NAILED WITH GUN, BUT BY HAND. 10. CONTRACTOR SHALL SUBMIT NAILING GUN DATA, INCLUDING I.C.B.O. REPORT AND NAIL SAMPLE.

12. CONTINUED ACCEPTANCE OF GUN NAILING IS SUBJECT TO SATISFACTORY JOB SITE PERFORMANCE. 13. IF ANY BLOCKING OR JOINTS RECEIVING THE POINTS OF THE NAILS ARE DAMAGED (SPLIT, NAIL HOLES TOO CLOSE, ETC.). THEY SHALL BE REMOVED AND REPLACED. 14. ALL CORRECTIVE NAILING SHALL BE DONE BY HAND NAILING.

11. ARCHITECT. STRUCTURAL ENGINEERS AND OFFICE OF THE STATE ARCHITECT SHALL ACCEPT OR REJECT

#### CEILING STRIPPING

1x NOMINAL 2-8d 1 STRAIGHT, 1 SLANT AND SUB-BORED AT JOINT 2-8d 1 STRAIGHT, 1 SLANT AND SUB-BORED AT JOINT 1-1/4x NET 2-10d 1 STRAIGHT, 1 SLANT AND SUB-BORED AT JOINT

THE USE OF SUBMITTED NAILING GUN FOR USE ON THE PROJECT.

2-16d 1 STRAIGHT, 1 SLANT AND SUB-BORED AT JOINT CEILING STRIPPING AT PLASTERED CEILINGS OR CEILINGS WITH GYPSUM BOARD SHALL HAVE IN ADDITION TO NAILING, 16-GAUGE GALVANIZED ANNEALED WIRE TIGHTLY SADDLE-LOOPED AROUND EACH STRIP AT 48" O.C. STAGGERED AND SECURELY FASTENED TO THE SIDE OF THE CEILING. JOIST WITH 1-16d THROUGH NAIL OR ONE 1-3/4" BARBED ROOFING NAIL AT EACH SIDE AND AT LEAST 2" ABOVE BOTTOM OF JOIST. WIRES MAY BE LOOPED AROUND THE FULL JOIST INSTEAD OF USING NAILS. AT THE CONTRACTOR'S OPTION THE WIRES MAY BE OMITTED IF THE STRIPPING IS NAILED WITH "STRONGHOLD" COMMON NAILS (SAME SIZE AND NUMBER AS COMMON WIRE NAILS LISTED ABOVE). 3" MATERIAL (AND 2" MATERIAL ON FACE OF SHEATHING) SHALL BE NAILED WITH 30d NAILS INSTEAD OF THE 16d NOTED IN THE SCHEDULE. NAILING NOT NOTED ABOVE OR ON DETAILS SHALL BE AT LEAST 2 NAILS AT ALL CONTACT POINTS, USING 8d THROUGH 1" MATERIAL AND 16d THROUGH 2" MATERAL. WHERE CONTACTING MEMBERS ARE PARALLELED, USE 8d @ 12" O.C. THROUGH 2" MATERIAL. ALL WOOD WINDOW AND DOOR FRAMES SHALL BE SECURED IN PLACE. BLOCK OUT SOLIDLY BETWEEN JAMBS AND CRIPPLES OR MULLION; ONE NEAR TOP AND BOTTOM AND NOT OVER 24" O.C. BETWEEN, NAIL TO EACH BLOCK WITH 2-16d CASING NAILS SET 1/8".

#### STRUCTURAL STEEL

ALL STRUCTURAL STEEL SHALL BE ASTM A36. ALL STRUCTURAL TUBING SHALL BE ASTM A500 GRADE B. ALL STEEL PIPE COLUMNS SHALL BE ASTM A53 GRADE B. ALL STRUCTURAL STEEL SHALL BE FABRICATED AND ERECTED IN ACCORDANCE WITH AISC SPECIFICATIONS, LATEST EDITION.

ALL W12 OR LARGER COLUMNS THAT ARE NON-MOMENT COLUMNS SHALL BE SQUARE CUT AND THEIR BASE PLATES STRAIGHTENED SO THAT FULL BEARING IS OBTAINED. ALL BOLTED CONNECTIONS STEEL-TO-STEEL SHALL BE MADE WITH 3/4" DIAMETER HIGH-STRENGTH (A325SC) BOLTS, UNLESS OTHERWISE NOTED. ALL ANCHOR BOLTS SHALL BE ASTM A307.

ALL THREADED STEEL RODS SHALL BE ASTM A307 OR ASTM A36. ALL MACHINE BOLTS, ANCHOR BOLTS, ALL-THREAD RODS, ETC., SHALL HAVE CUT THREADS, NOT ROLLED ALL CONNECTIONS SHALL BE STANDARD FRAMED BEAM CONNECTIONS WITH 3/8" THICK ANGLES, UNLESS OTHERWISE DETAILED ON PLANS. STRUCTURAL STEEL THAT IS TO BE COVERED WITH SPRAY-ON FIREPROOFING SHALL NOT BE PAINTED.

AT HIGH-STRENGTH BOLTED CONNECTIONS, STRUCTURAL STEEL SHALL NOT BE PAINTED WITHIN THREE INCHES OF THE CENTERLINES OF THE BOLT HOLES. "OOD NAILERS ON STRUCTURAL STEEL, IF CALLED FOR ON THIS PROJECT, SHALL BE BOLTED WITH 5/8" DIAMETER CARRIAGE BOLTS @ 32" O.C. STAGGERED, OR WELDED STUD BOLTS AT 32" O.C. NO COUNTERSINKING ALLOWED, IF REQUIRED AT OPENINGS, USE 1" MAXIMUM WITH 3x NAILER MINIMUM. ALL WELDING SHALL BE DONE BY CERTIFIED WELDERS.

ALL TESTING AND INSPECTION OF SHOP AND FIELD WELDING OPERATIONS SHALL BE MADE BY A CERTIFIED ALL WELDS SHALL BE TESTED AND INSPECTED IN ACCORDANCE WITH: CCR, TITLE 24, PART 2, SECTION 2727; THE SPECIFICATIONS; THE UNIFORM BUILDING CODE; AND AWS D1.1. THE WELDING INSPECTOR SHALL CHECK THE MATERIAL, EQUIPMENT, FIT UP AND PROCEDURES AS WELL AS THE WELDS. THE INSPECTOR SHALL USE ALL MEANS NECESSARY TO DETERMINE THE QUALITY OF THE WELDS, INCLUDING THE USE OF GAMMA RAY, MAGNAFLUX, TREPANNING, SONICS OR ANY OTHER AID TO VISUALLY INSPECT AND TO ASCERTAIN THE ADEQUACY OF THE WELDING. THE INSPECTOR SHALL FURNISH THE ARCHITECT AND THE STRUCTURAL ENGINEER WITH A REPORT VERIFYING THAT ALL WELDS HAVE BEEN DONE IN CONFORMITY WITH THE PLANS, SPECIFICATIONS, AWS D1.1 AND ANY OTHER WHERE CLOSER THAN AISC TOLERANCES ARE NECESSARY, SUCH AS FOR ALIGNMENT OF STEEL STUDS, MULLIONS, GFRC PANELS, ETC., FIELD WELDING WILL BE REQUIRED TO MEET THE NECESSARY TOLERANCES WITH NO

ADDITIONAL COSTS TO THE OWNER. WELDING OF REBAR TO STRUCTURAL STEEL SHALL BE DONE BY STRUCTURAL STEEL SUBCONTRACTOR. BOLT HOLES IN STEEL SHALL BE 1/16" OVERSIZE, UNLESS OTHERWISE NOTED. UNLESS NOTED OTHERWISE ON THE STRUCTURAL DRAWINGS, THE FABRICATION AND ERECTION REQUIREMENTS MAY DICTATE FIELD WELDING AND/OR SHOP WELDING. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE METHOD OF WELDING TO FULFILL THESE REQUIREMENTS. ALL ASSOCIATED COSTS SHALL BE INCLUDED IN THE CONTRACT PRICE. EXISTING FIREPROOFING REMOVED FOR NEW CONSTRUCTION SHALL BE REPLACED WITH SIMILAR FIREPROOFING

### EXPANSION ANCHORS IN HARDENED CONCRETE

AFTER NEW CONSTRUCTION HAS BEEN COMPLETED.

A. MAXIMUM VALUES: THE ALLOWABLE SHEAR AND TENSION SHALL NOT EXCEED; (a) EIGHTY (80) PERCENT OF THE ALLOWABLE LOAD LISTED IN THE ICBO EVALUATION REPORT FOR THE SPECIFIC ANCHOR; (b) VALUES PERMITTED FOR BOLTS CAST INTO CONCRETE, AS DEFINED IN SECTION 2624(a) OF TITLE 24, PART 2, WITH THE 100% INCREASE PROVIDED IN FOOTNOTE 5 TO UBC TABLE 26-F, OR 80% OF ICBO VALVES, WHICHEVER IS B. SPACING AND EDGE DISTANCE: THE MAXIMUM SPACING BETWEEN ANCHORS U.O.N. SHALL BE GREATER OF: (a) AS DEFINED IN THE ICBO REPORT; (b) 12 DIAMETERS OR (c) 2X EMBEDMENT. THE MINIMUM EDGE DISTANCE SHALL BE TEN (10) BOLT DIAMETERS UNLESS, OTHERWISE NOTED. C. EMBEDMENT: ALL EXPANSION ANCHORS SHALL MEET MINIMUM DEPTH OF EMBEDMENT CRITERIA OF THE ICBO REPORT FOR EACH SPECIFIC ANCHOR. ANCHORS SPECIFIED IN THE SCHEDULE BELOW SHALL HAVE EMBEDMENT AS LISTED. ANCHORS SHALL NOT BE INSTALLED IN SLABS WHICH ARE THINNER THAN THE MINIMUM SLAB THICK-NESS RECOMMENDED IN THE ICBO REPORT OR THE ANCHOR MANUFACTURER'S TECHNICAL GUIDE. D. LIMITATIONS ON ANCHORS IN WITHDRAWAL: ANCHORS ACTING IN WITHDRAWAL SHALL NOT BE USED FOR MAJOR CONNECTIONS SUCH AS ANCHORING TILT-UP WALLS, TIE-DOWNS, HEAVY CONTINUOUSLY APPLIED LOADS, FREQUENT VIBRATORY LOADS, ETC. E. INSTALLATION: THE ANCHORS MUST BE INSTALLED IN ACCORDANCE WITH THE ICBO REPORT FOR THE SPECIFIC ANCHOR. WHEN INSTALLING DRILLED-IN ANCHORS IN EXISTING REINFORCED CONCRETE, USE CARE AND CAUTION TO AVOID CUTTING OR DAMAGING THE EXISTING REINFORCING BARS.

IF FOR ANY REASON A DRILLED HOLE FOR A WEDGE ANCHOR HAS BEEN ABANDONED, THE HOLE SHALL BE IF FOR ANY REASON A DRILLED HOLE FOR A WEDGE ANCHOR HAS BEEN ABANDONED, THE HOLE SHALL BE DRYPACKED SOLID WITH A MIXTURE OF SAND AND CEMENT. LOCATE ANY OTHER NEW WEDGE ANCHORS AT LEAST 6 DIAMETERS AWAY FROM ABANDONED FILLED HOLE.

F. JOB TESTING: 50% OF THE ANCHORS SHALL BE LOAD TESTED ON EACH JOB, EXCEPT THAT IF THE DESIGN (SUSPENDED CEILING) LOAD IS LESS THAN 75 POUNDS, ONLY ONE ANCHOR IN TEN NEED BE TESTED. SEE NOTE 5 BELOW FOR TESTING OF SHELL-TYPE ANCHORS IF ANY ANCHOR FAILS, THEN TEST ALL ANCHORS OF THE SAME CATEGORY NOT PREVIOUSLY TESTED UNTIL TWENTY (20) CONSECUTIVE PASS, THEN RESUME INITIAL TESTING FREQUENCY. THE TENSION-PROOF LOADS EQUAL TO TWICE THE ESTABLISHED ALLOWABLE TENSION VALUES ARE LISTED BELOW. THE LOAD TEST SHALL BE PERFORMED IN PRESENCE OF THE PROJECT INSPECTOR. THE LOAD MUST BE APPLIED BY ANY METHOD THAT WILL EFFECTIVELY MEASURE THE TENSION IN THE ANCHOR, SUCH AS DIRECT PULL WITH A HYDRAULIC JACK, CALIBRATED SPRING-LOADING DEVICES, ETC.

G. TENSION-PROOF LOAD SHALL BE BY AN INDEPENDENT TESTING LABORATORY.

H. TEST INSPECTOR SHALL VERIFY ALL EXPANSION ANCHORS NOT TENSION-LOAD TESTED FOR MINIMUM INSTALLATION TORQUE NOTED IN SCHEDULE BELOW.

I. ALL WEDGE TYPE EXPANSION ANCHORS SHALL BE ITW RAMSET/RED HEAD TRUBOLT WEDGE ANCHORS (WA), OR APPROVED EQUAL.

J. WEDGE ANCHOR SCHEDULE (for 3000 psi NWC - ICBO REPORT NO. 1372, JUNE 1989) TENSION-PROOF MINIMUM MIN. INSTALLATION EMBEDMENT(in) LOAD (lbs.) K. TEST VALUES FOR SLEEVE- & SHELL-TYPE ANCHORS: (HARDROCK OR LIGHTWEIGHT CONCRETE) (ft-lbs)

NOTES

1. ANCHOR DIAMETER REFERS TO THE THREAD SIZE OF THE SHELL CATEGORY AND TO THE ANCHOR OUTSIDE DIAMETER FOR THE SLEEVE CATEGORY. APPLY PROOF TEST LOADS TO SLEEVE ANCHORS WITHOUT REMOVING THE NUT IF POSSIBLE. IF NOT, REMOVE NUT AND INSTALL A THREADED COUPLER TO THE SAME TIGHTNESS OF THE ORIGINAL NUT USING A TORQUE WRENCH AND APPLY

VERIFY THAT THE ANCHOR IS NOT PREVENTED FROM WITHDRAWING DURING TESTING BY A BASE PLATE OR OTHER FIXTURES. IF RESTRAINT IS FOUND, LOOSEN AND SHIM OR REMOVE FIXTURE(S) PRIOR TO TESTING.

REACTION LOADS FROM TEST FIXTURES MAY BE APPLIED CLOSE TO THE ANCHOR BEING TESTED, PROVIDED THE ANCHOR IS NOT RESTRAINED FROM WITHDRAWING

BY THE FIXTURE(S).

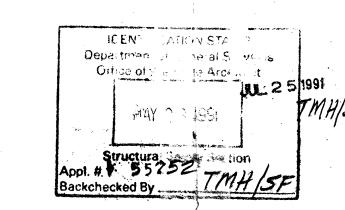
SHELL-TYPE ANCHORS SHOULD BE TESTED AS FOLLOWS:

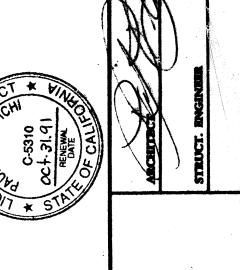
VISUALLY INSPECT 25% FOR FULL EXPANSION AS EVIDENCED BY THE LOCATION OF THE EXPANSION PLUG IN THE ANCHOR BODY. PLUG LOCATION OF A FULLY EXPANDED ANCHOR SHOULD BE AS RECOMMENDED BY THE MANUFACTURER PROOF LOAD 5% AS INDICATED IN THE TABLE ABOVE, BUT NOT LESS THAN THREE ANCHORS PER DAY FOR EACH DIFFERENT PERSON OR CREW INSTALLING

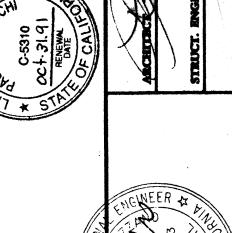
TEST 50% OF THE INSTALLED ANCHORS.

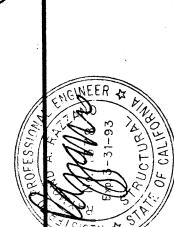
TEST EQUIPMENT IS TO BE CALIBRATED BY AN APPROVED TESTING LABORATORY IN ACCORDANCE WITH STANDARD RECOGNIZED PROCEDURES.

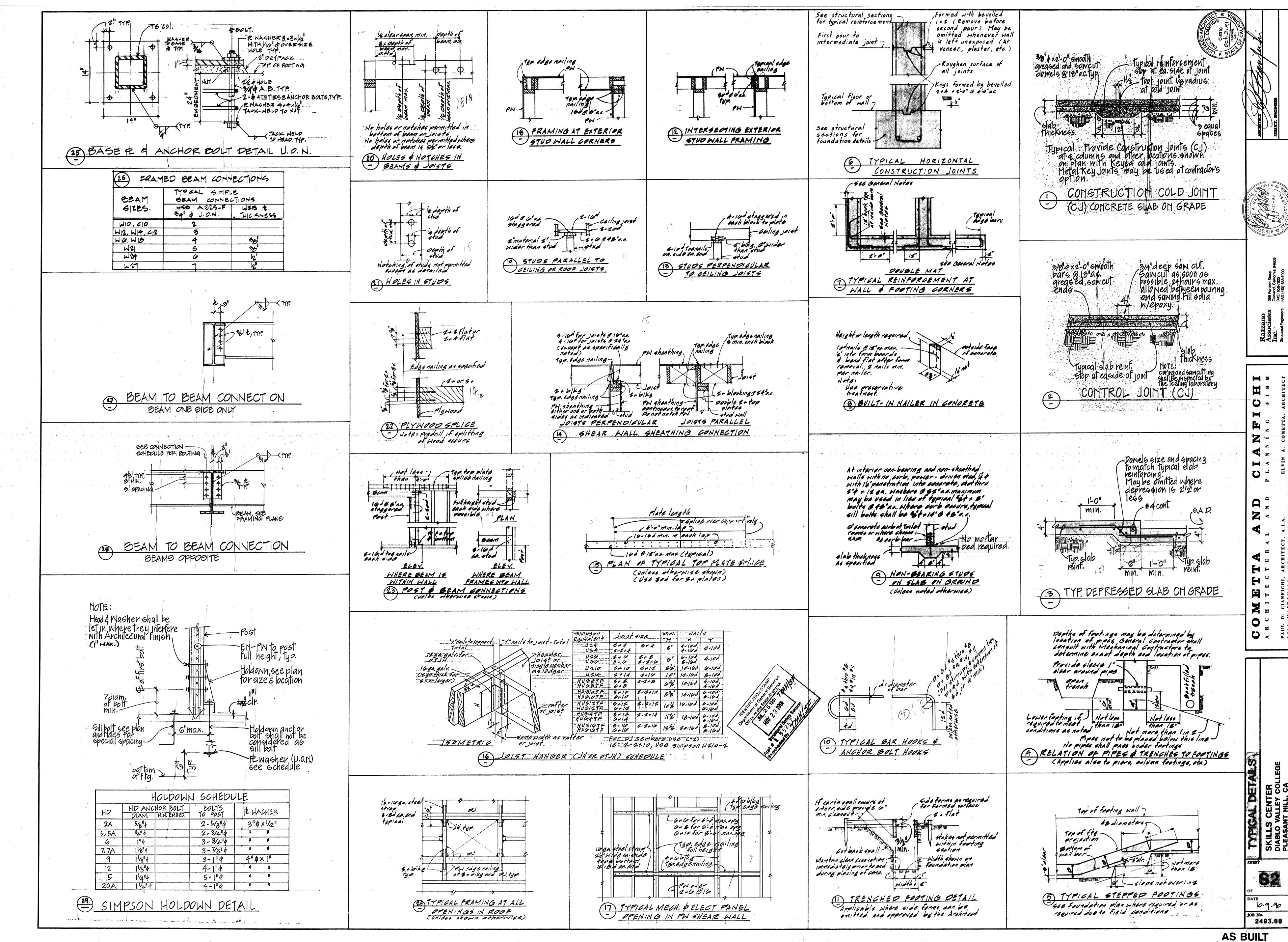
TESTING SHOULD OCCUR 24 HOURS MINIMUM AFTER INSTALLATION OF THE

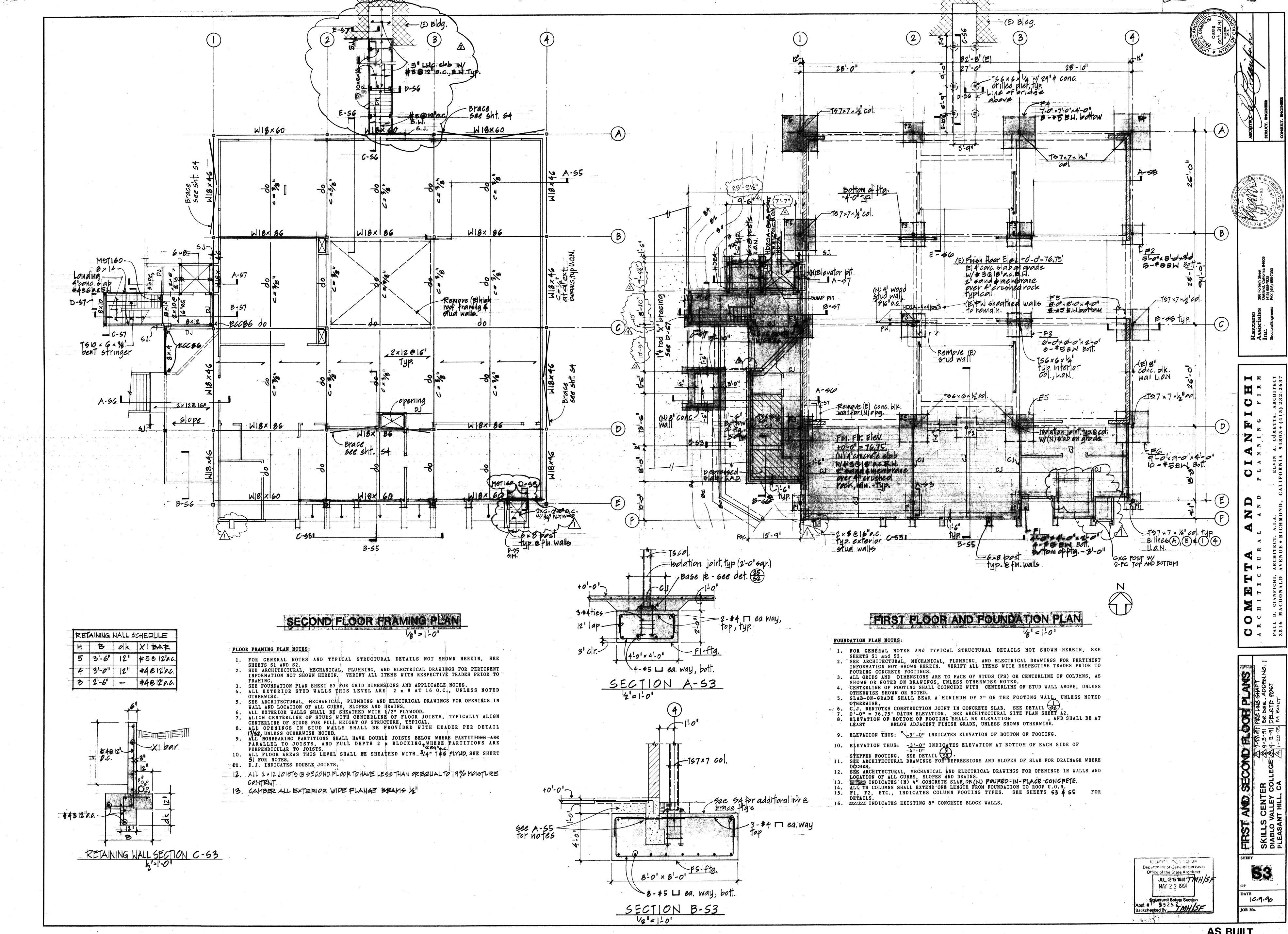


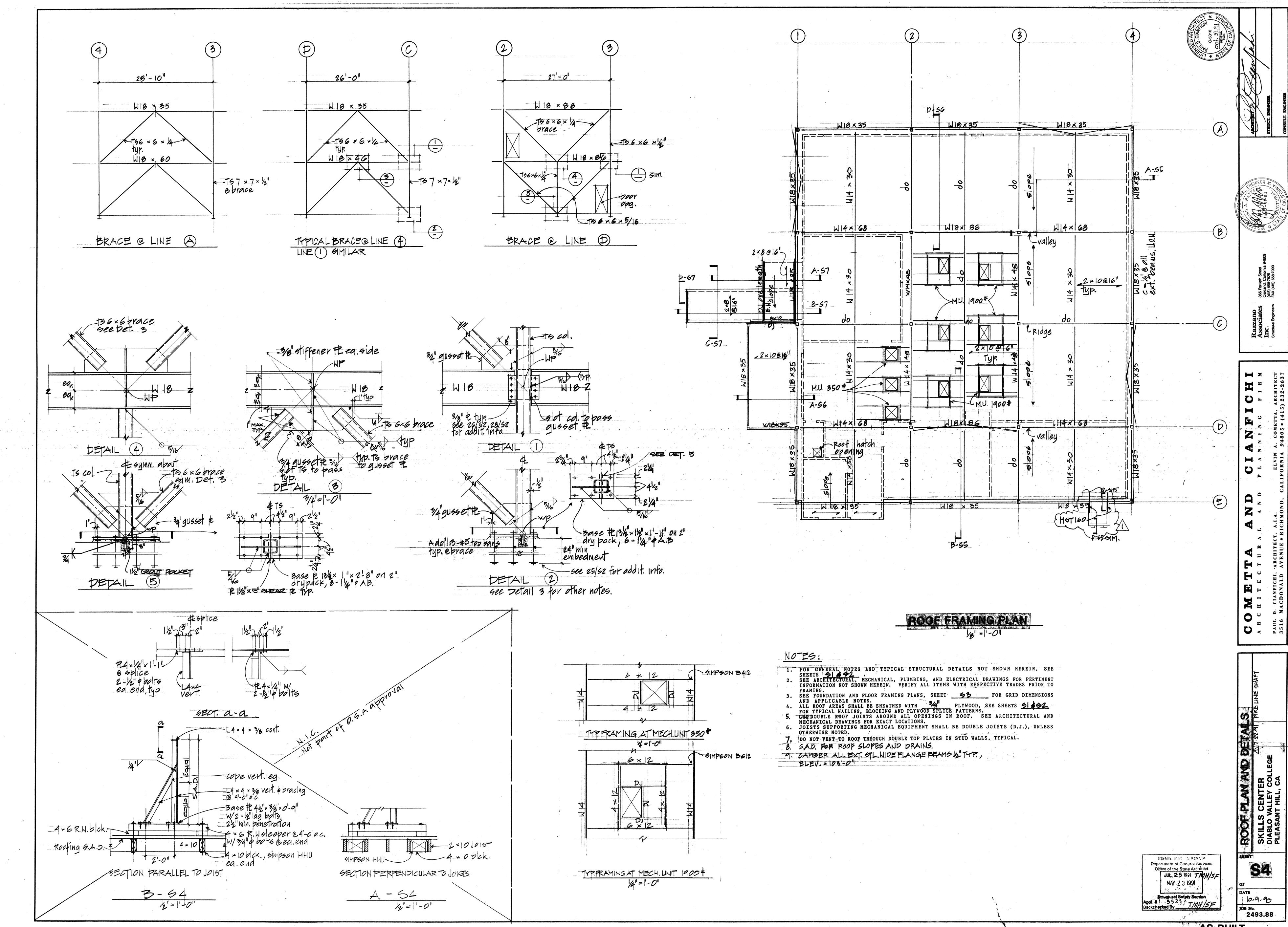


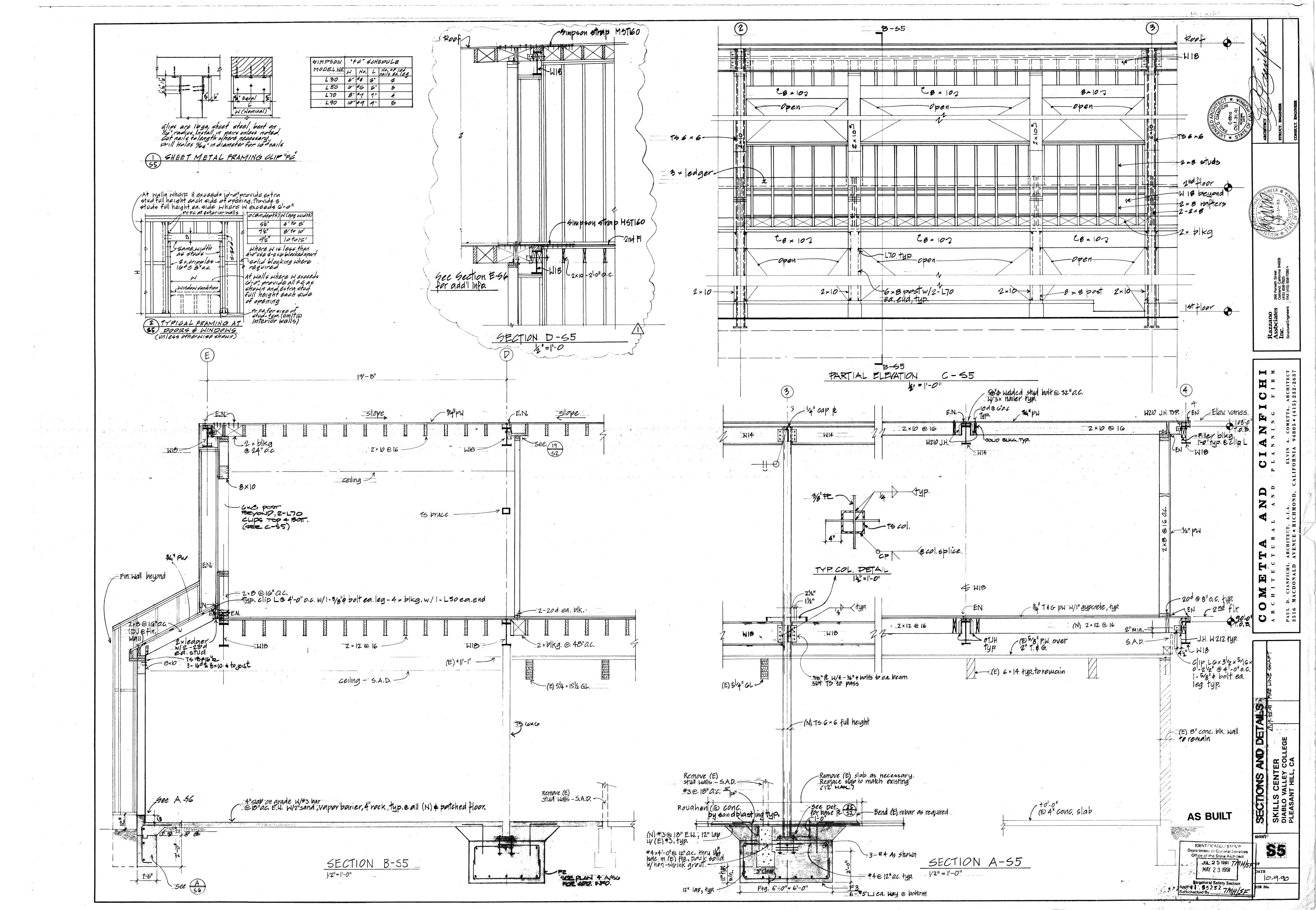


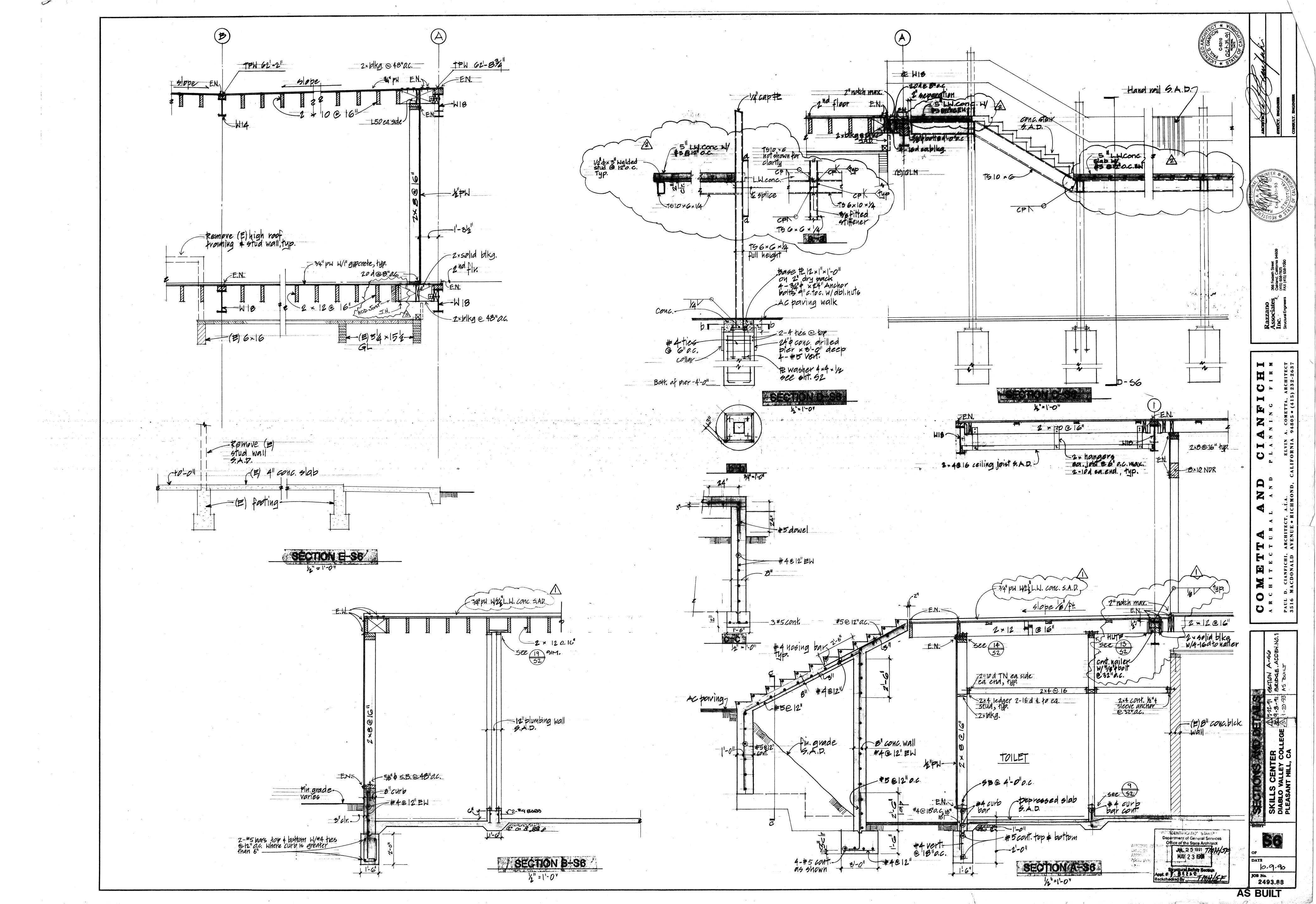


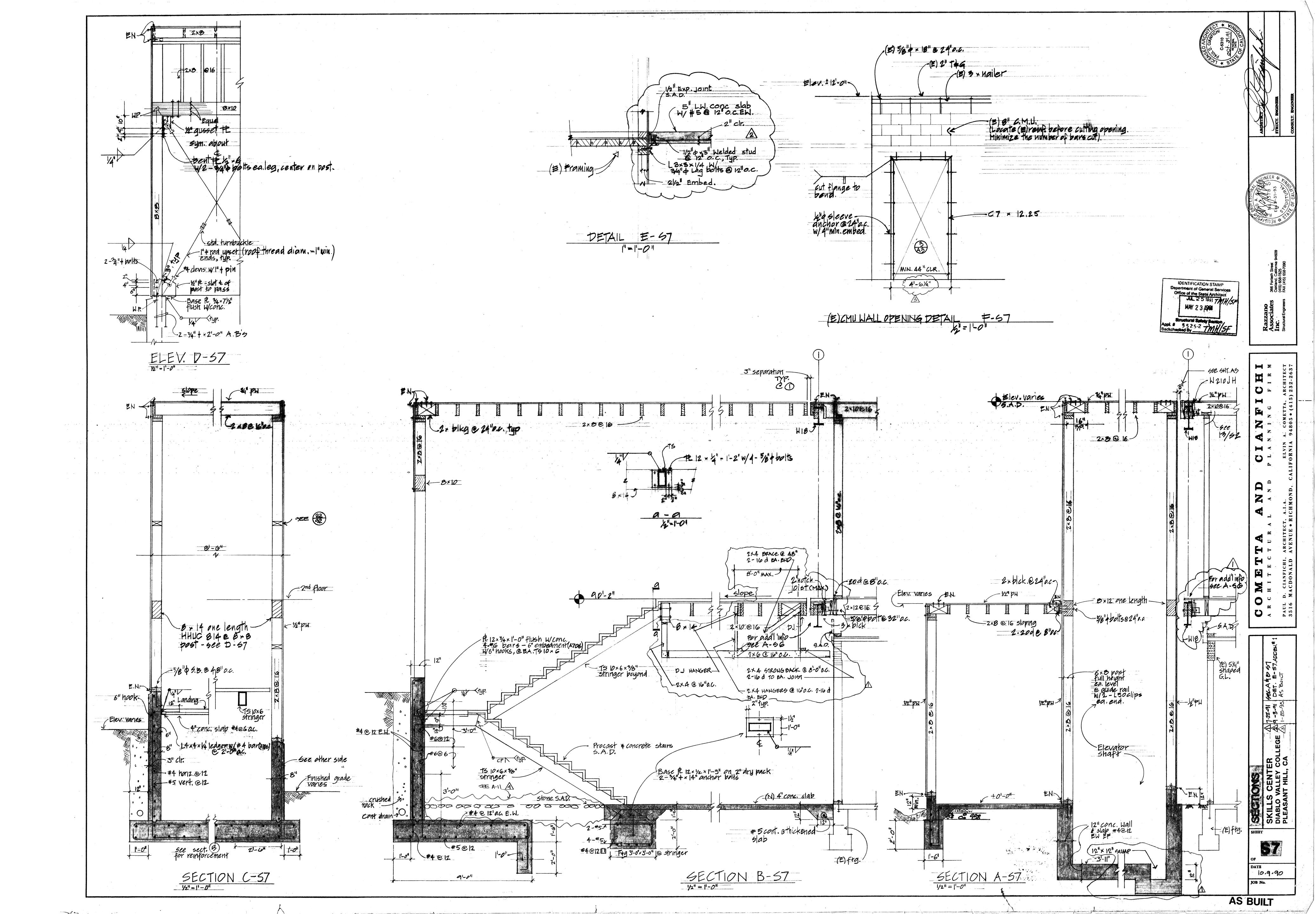












	COOL.	FA	۱N	MIN.					COOLING	}				HEATING	3					ELECTRIC	CAL			OPER	
CODE	TONS (1)	CFM	ESP ("WC)	OSA (CFM)	MODEL & TYPE (2)	ENT. COND.	SENS MBH	TOTAL MBH	ENT DB	ENT WB	LVG DB	LVG WB	INPUT MBH	OUPUT MBH	ENT *F	LVG *F	FILTERS	COMF RLA	PR.(2) LRA	EVAP FAN HP	COND(2) FAN FLA EACH	VOLT/ PHASE	EER	WT LBS	REMARKS
4C-1	12.5	4500	.70	1200	D2CG150N16546	100°F	120.0	132.0	80.2	62.1	55.6	52.1	204	161	61.5	91.3	(Z) O	10.3/12.2	62/78	5.0	2.5	460/3	8.4	1900	
AC-2	10.0	3000	.70	1100	D2CG120N16546	100°F	94.0	103.4	85.4	63.8	56.4	52.8	204	161	55.8	105	7	9.6/9.6	62/62	3.0	1.3		8.7	1900	
AC-3	10.0	3000	.70	1600	D2CG120N16546	100°F	94.5	103.7	86.0	64.0	56.8	53.0	204	161	48.5	98.2		9.6/9.6	62/62	3.0	1.3		8.7	1900	
AC-4	10.0	3750	.55	1100	D2CG120N16546	100°F	100.0	107.0	80.9	62.3	55.3	52.8	204	161	59.0	98.8	<b>V</b>	9.6/9.6	62/62	3.0	1.3		8.7	1900	
4C-5	12.5	3750	.55	2000	D2CG150N16546	100°F	123.1	132.0	86.0	64.4	55.6	52.0	204	161	48.5	98.2	(3)16" X 24" X 2" (2)18" X 24" X 2"	10.3/12.2	62/78	5.0	2.5		8.4	1900	•
AC-6	12.5	3750	.55	2000	D2CG150N16546	100°F	123.1	132.0	86.0	64.4	55.6	52.0	204	1		89.0		10.3/12.2	62/78	5.0	2.5	$\rightarrow$	8.4	1900	
				· · · · · · · · · · · · · · · · · · ·																					
		ONDITIONS.										·													

	FAN SCHEDULE MFR: GREENHECK											
CODE	TYPE & SIZE	FAN CFM	SP "WC	ВНР	MTR HP	SERVICE	LOCATION	OPER WT#	REMARKS			
EF-1	CSP-158	470	.25		250W	RESTROOMS	1ST FLOOR CEILING	40	W/SPEED CONTROLLER ①②③			
EF-2	G-60	90	.10		1/200	JANITOR CLOSET	ROOF	25	W/SPEED CONTROLLER ①②④			
REF-1,2,3	LB-30	6100	.125	.43	1/2	RELIEF AIR	ROOF	350	145			
① PRO ② 120\	VIDE BACKDRAFT DAMPER	S				HANGING VIB	RATION ISOLATORS	<b>⑤</b> 46	OV/3¢			

(3) PROVIDE O.S.A. APPROVED COMBINATION ROOF-CURB AND 2" DEFLECTION SPRING ISOLATION RAIL WITH SEISMIC RESTRAINTS.

	FIXT	URE (	CONNE	CTIC	ON S	SCHE	EDULE
CODE	DESCRIPTION	SOIL- WASTE	TRAP	VENT	CW	HW	REMARKS
WC-1	WATER CLOSET	4"		2"	1"		
WC-2	WATER CLOSET	4"		2"	1"		HANDICAP
UR-1	URINAL	2"		11/2"	1"	***************************************	
LAV-1	LAVATORY	11/2"	1½" X 1½"	11/2"	1/2"	1/2"	
SK-1,2	SERVICE SINKS	11/2"	1½" X 1½"	11/2"	1/2"	1/2"	
JS-1	JANITOR SINK	3"	3"	2"	1/2"	1/2"	
EWC-1	ELECTRIC WATER COOLER	11/2"	1½" X 1½"	11/2"	1/2"	-	
HB-1	HOSE BIBB	0		***************************************	1/2"		INDOOR
HB-2	HOSE BIBB	,	•	*******************	3/4"		OUTDOOR
					**************************************		

·			DRA	NS A	ND CLE	ANOUT	S
	CODE	FLOOR FINISH	J.R. SMITH FIG. NUMBER	CONN.	TOP GR. MATERIAL	GRATE SIZE	REMARKS
	FD-1	TILE	2010-B-P	2"	PB	5"SQ.	WITH TRAP PRIMER
	FCO-1	TILE	4046	AS SHOWN	PB	***************************************	
· ·	WCO-1		4036	AS SHOWN			
	RD-1	BUILT-UP ROOFING	1010	AS SHOWN	Cl	15 <sup>1</sup> / <sub>4</sub> "ø	
		6 <del>32</del> 7-57 -800 37.5	A COMM	16 0 <del>39</del> 77	€,	13.4° p	
	GCO-1	DIRT/PAVING	4251	4"	Cl	8 <sup>3</sup> / <sub>4</sub> "ø	
	<u> </u>		***				· · · · · · · · · · · · · · · · · · ·

		ODEL K	INPUT W-V-Ø		CAPA	CITY	TEMP.	WODKING		
WH-1 A.O.				MBH	GPH	GAL.	RISE.	WORKING PRESS.	OPER. WT	REMARKS
	SMITH EL	JF-30 4	.5/208/1		20.5	30	90°F	150 PSI	400	①

All mechanical and electrical equipment shall be braced or anchored to resist a horizontal force acting in any direction using the following criteria:

-

The same of the sa

Fixed Equipment on Grade

Fixed Equipment on Structure

Emergency Power Equipment on Grade

Emergency Power Equipment on Structure

Structure

2 % of Operating Weight

3 % of Operating Weight

4 % of Operating Weight 4 % of Operating Weight

Simultaneous Vertical Force - Use 1/3 x Hos zontal Force. For Flexibility Mounted Equipment see Title 24, Section 2312(9)2.

Where anchorage details are not shown on the drawings, the field installation shall be subject to the approval of the ≤TRUCTURAL engineer and the field representative of the Office of the State Architect.

		AIR OUTLET SCHEDULE MFR:	TITUS	
CODE	MODEL	DESCRIPTION	REMARKS	
CSD-1	PSS	24" X 24" PERFORATED FACE, STAR PATTERN, CEILING SUPPLY DIFFUSER		1 2
CRG-1	PAR	24" X 24" PERFORATED FACE, CEILING RETURN GRILLE	BLACK INTERIOR	1) 2
CRG-2	PAR	12" X 12" PERFORATED FACE, CEILING RETURN GRILLE		1 2
WSR-1	MODEL 1700	NARROW BLADE REVERSIBLE CORE REGISTER W/MODEL 07 DAMPER		1 2
WRG-1	MODEL 1700	SAME AS WSR-1 WITHOUT DAMPER		1 2
		•		

① COORDINATE FRAME AND BORDER TYPE WITH ARCHITECTURAL REFLECTED CEILING PLAN **AND** WALLS. ② FOR EXACT LOCATION OF AIR OUTLETS REFER TO ARCHITECTURAL DRAWINGS.

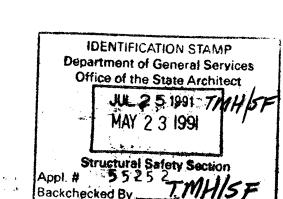
CODE	CFM	SIZE	REMARKS	CODE	CFM	SIZE	REMARKS
VVT-1-1	1360	14"		VVT-4-1	110	14"	
VVT-1-2	1600	16"		VVT-4-2	1400	16"	
VVT-1-3	680	10"		VVT-4-3	<b>4</b> 70	8"	
VVT-1-4	480	8"		VVT-4-4	760	10"	
VVT-1-5	150	6"					4
VVT-1-6	750	10"		VVT-5-1	1200	16"	
			<i></i>	VVT-5-2	1000	14"	
VVT-2-1	870	12"		VVT-5-3	1800	16"	
VVT-2-2	600	10"				·	
VVT-2-3	200	6"		VVT-6-1	1200	16"	7
VVT-2-4	270	8"		VVT-6-2	1400	16"	
VVT-2-5	500	10 <b>"</b>		VVT-6-3	1200	16"	
VVT-2-6	430	8"		VVT-6-4	500	10"	
VVT-2-7	220	6"		VVT-6-5	240	6"	
VVT-3-1	1160	14"			-		
VVT-3-2	900	12"					
VVT-3-3	900	12"					

OWG. NO.	DESCRIPTION
MP-1	LEGEND, SCHEDULES, AND DRAWING INDEX
MP-2	FIRST FLOOR PLAN - MECHANICAL
MP-3	SECOND FLOOR PLAN - MECHANICAL
MP-4	ROOF PLAN
MP-5	FIRST AND SECOND FLOOR PLANS — PLUMBING
MP-6	PARTIAL FLOOR PLANS AND DIAGRAMS - PLUMBING
MP-7	CONTROL DIAGRAMS AND DETAILS

			**:
1 M-1		DETAIL NUMBER DRAWING NUMBER	
1 M-1		SECTION NUMBER DRAWING NUMBER	
AC		EQUIPMENT IDENTIFICATION	
1		EQUIPMENT NUMBER	
CODE CFM		AIR OUTLET (SIZE IS INLET SIZE)(4 WAY U.O.N.)	
	CSD CRG WSR WRG	CEILING SUPPLY DIFFUSER CEILING RETURN GRILLE WALL SUPPLY REGISTER WALL RETURN GRILLE	
		SECTION THRU SUPPLY OR OUTSIDE AIR DUCT	
		SECTION THRU RETURN OR EXHAUST DUCT	
	R (D)	DUCT RISE OR DROP	
OR		(N) OR (R) DUCTWORK, PIPING OR EQUIPMENT	
== OR -	AL	ACOUSTICAL LINING (1" FIBERGLASS U.O.N.)	
<b>──</b>		DIRECTION OF AIRFLOW	
	FC	FLEXIBLE DUCT CONNECTION	
	FD	FIRE DAMPER	
	VD	VOLUME DAMPER	
	TV	TURNING VANES	
\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	I V	FLEXIBLE DUCT	1.
		SQUARE TO ROUND DUCT	
		REDUCING TRANSITION	
OR		REDUCING TRANSITION	
		LINE CONTINUED	
	CFF CD,D	CAPPED FOR FUTURE CONDENSATE DRAIN	
——————————————————————————————————————	PRV	PRESSURE REDUCING VALVE	
(T)	SD	THERMOSTAT - 48" MAX. ABOVE FINISHED FLOOR SMOKE DETECTOR	
① ② ③	AD	EXHAUST FAN SPEED CONTROLLER ACCESS DOOR (DUCT)	
	AP EA,OA	ACCESS PANEL (CEILÍNG) EXHAUST AIR, OUTSIDE AIR	
	RA,SA UON	RETURN AIR, SUPPLY AIR UNLESS OTHERWISE NOTED BYPASS DAMPER	
	BPD ZD VVT	ZONE DAMPER VARIABLE VOLUME & TEMPERATURE	
[27,000]		INVERT ELEVATION	
<u> </u>	S,W	SANITARY SOIL OR WASTE PIPING	
	S,W V CW	SANITARY SOIL OR WASTE PIPING BELOW FLOOR VENT PIPING DOMESTIC COLD WATER PIPING	
	HW HWR	DOMESTIC COED WATER THING  DOMESTIC HOT WATER PIPING  HOT WATER RETURN PIPING	
G RWL	G RWL	NATURAL GAS PIPING RAINWATER LEADER	
—— OD ——	OD	OVERFLOW DRAIN PIPING SLOPE DOWN	
	HB CO	HOSE BIBB CLEAN OUT	
	FCO WCO	FLOOR CLEAN OUT WALL CLEAN OUT	
<b>*</b>	TPRV	TEMPERATURE & PRESSURE RELIEF VALVE	
• •	FD	FLOOR DRAIN	
	RD	ROOF DRAIN	
	OD	OVERFLOW DRAIN UNION	
	GV GC	GATE VALVE GAS COCK	
	CV	CHECK VALVE	
	PRV VTR	PRESSURE REDUCING VALVE VENT THRU ROOF	
	FU IW	FIXTURE UNITS INDIRECT WASTE	
	AP WHA	ACCESS PANEL WATER HAMMER ARRESTER	
	(E)	EXISTING NEW	
	(CTE) (R) S.A.D.	CONNECT TO EXISTING RELOCATE SEE ARCHITECTURAL DETAILS	
	,	CALIFORNIA CTATE FIDE MAPOUAL	

LEGEND

DESCRIPTION



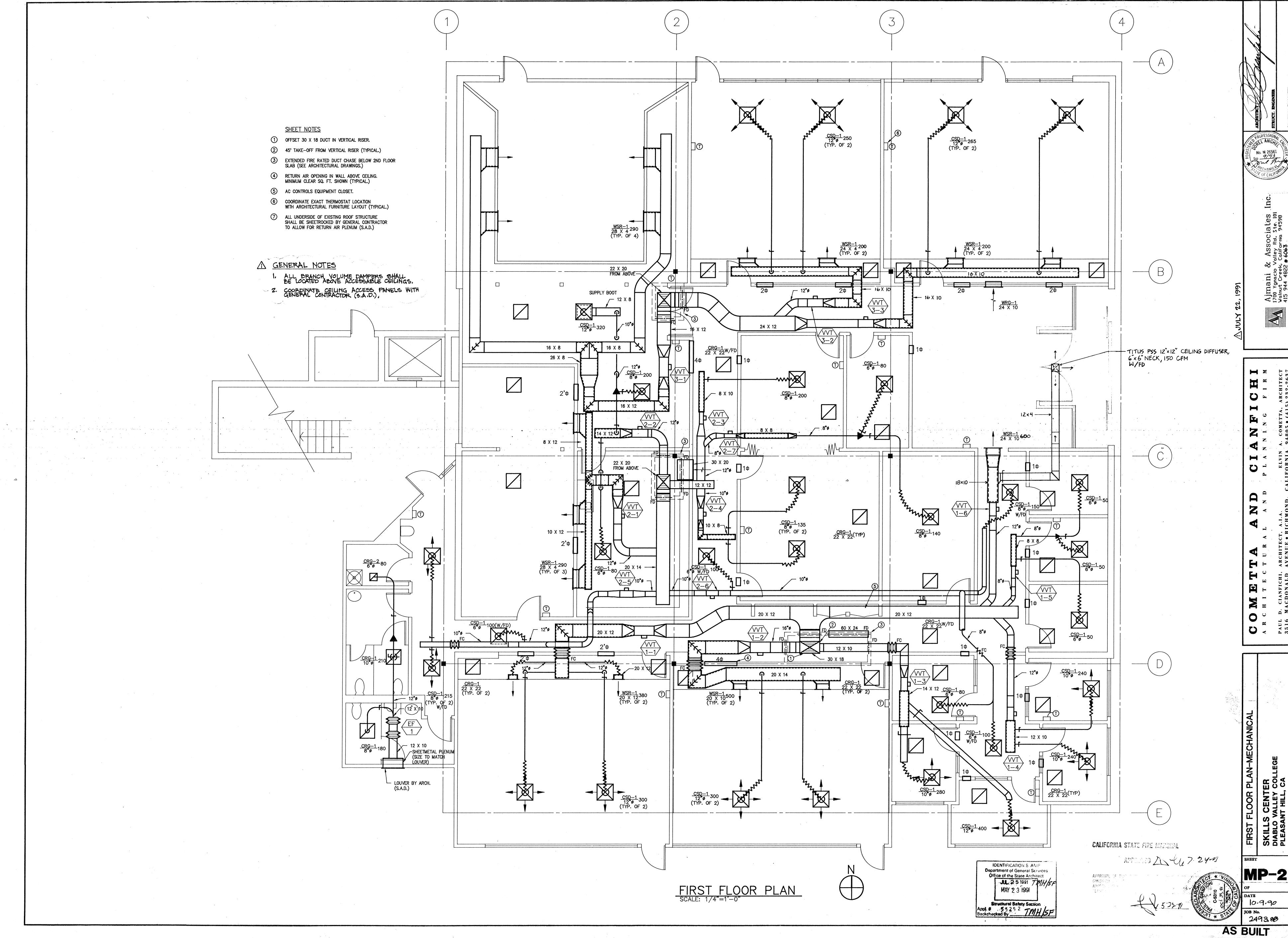
CALIFORNIA STATE FIRE MARSHAL

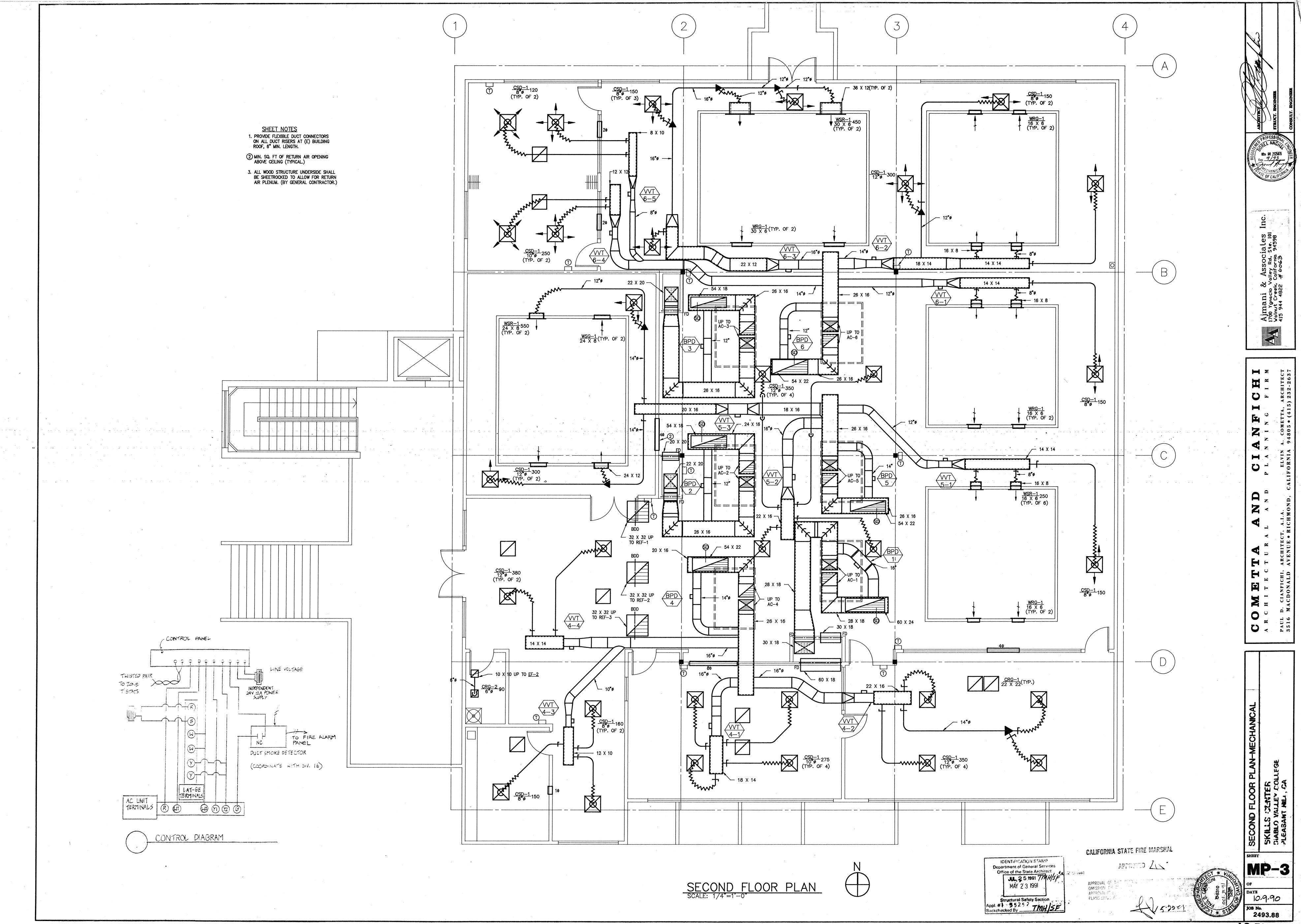
APPROVED APPROVAL OF THIS PLAN DOES NOT AUTHORIZE OR APPRO OMISSION OR DEVIATION FROM APPLICABLE REGULATIONS. APPROVAL IS SUBJECT TO FIELD INSPECTION. ONE SET OF APPROVAL PLANS SHALL BE AVAILABLE ON THE APOJECT SITE AT THE TIME

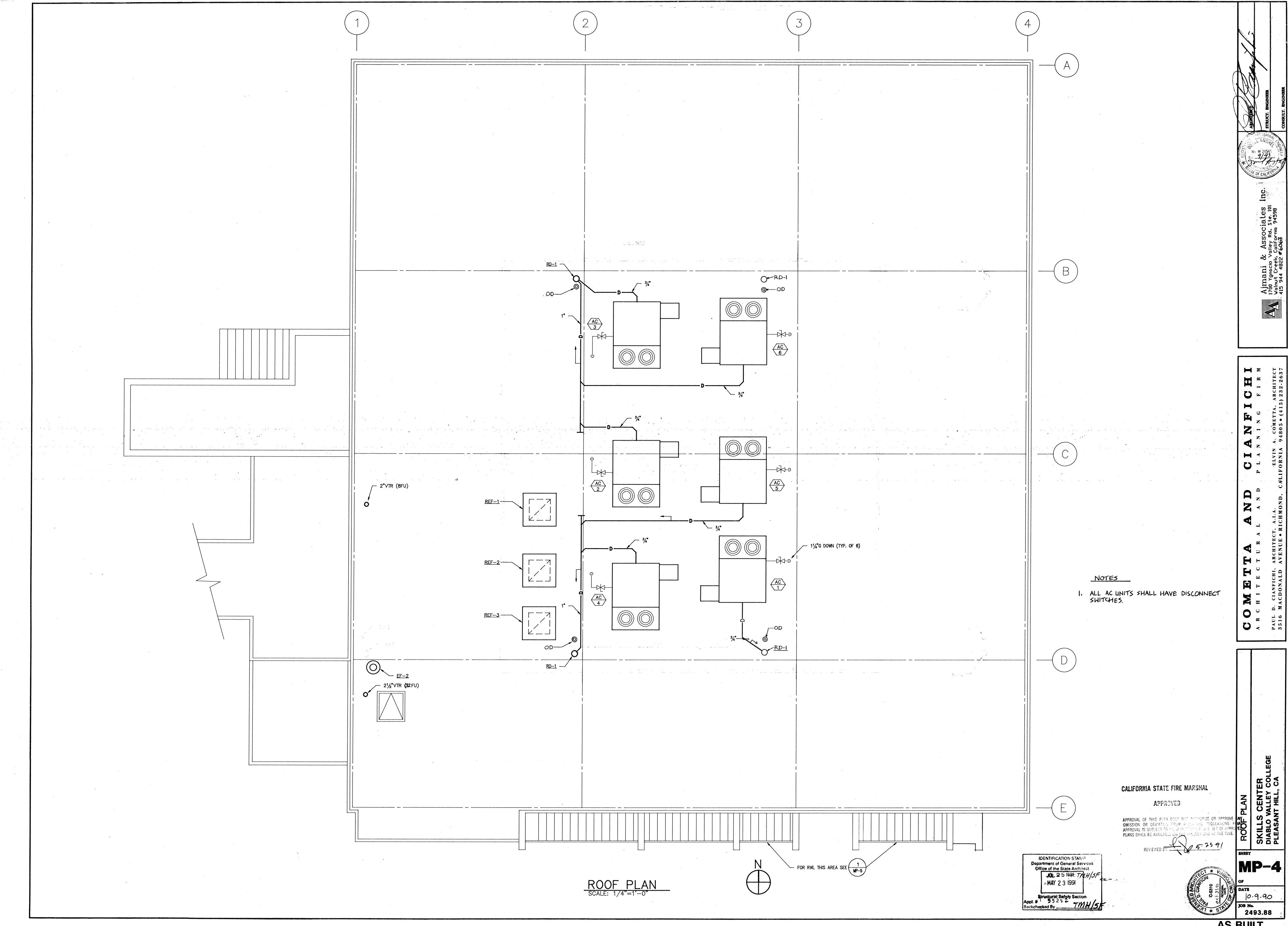
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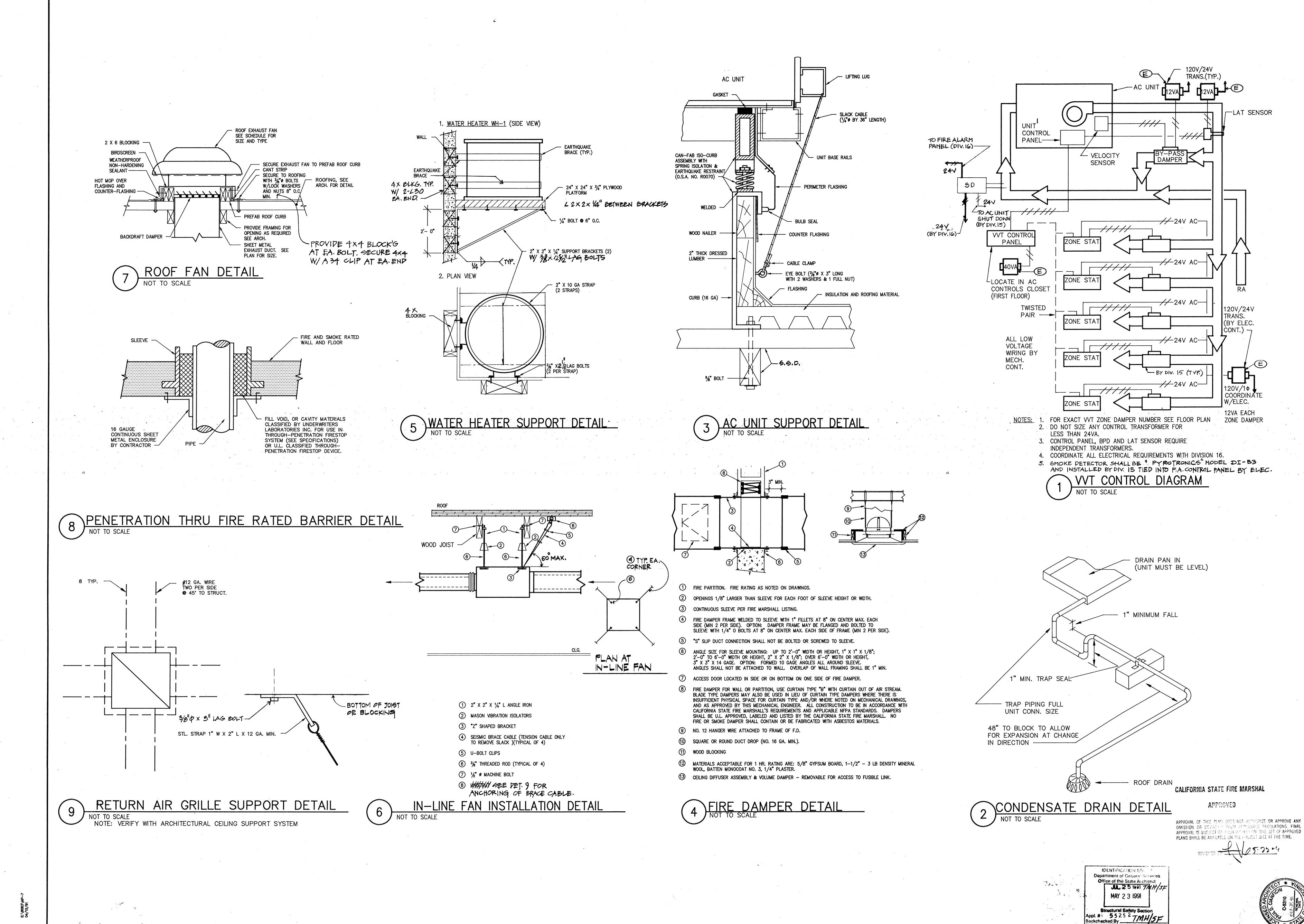
**AS BUILT** 

H L





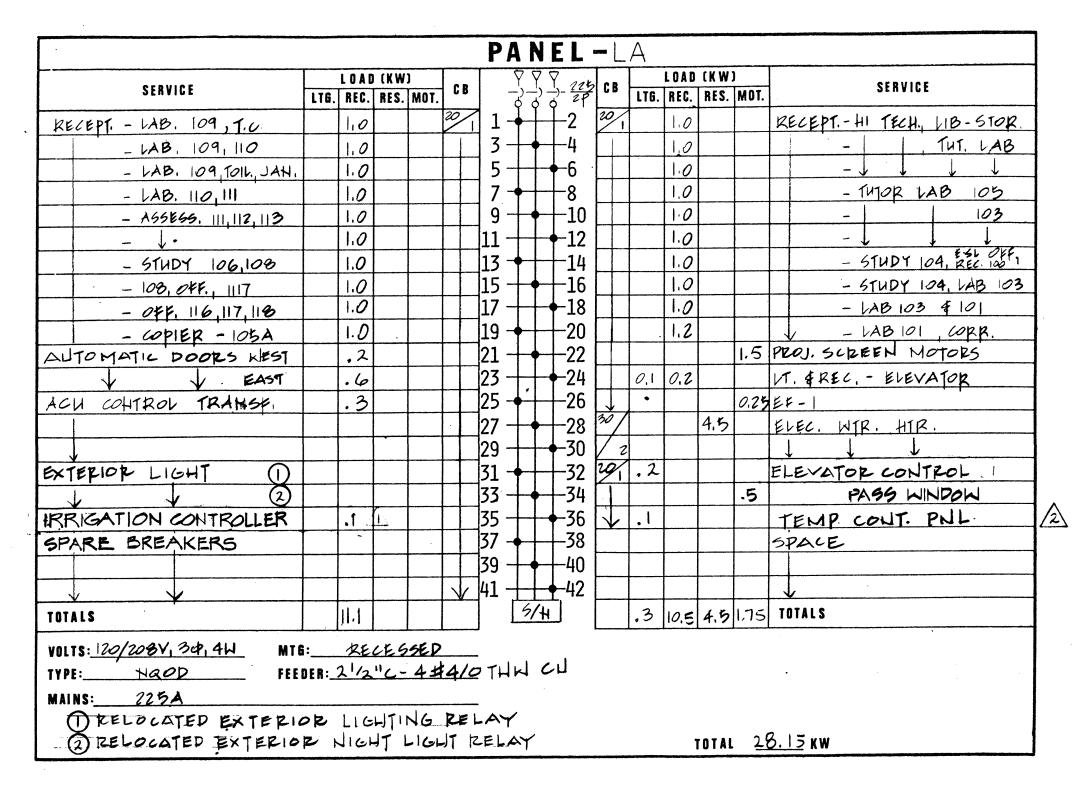




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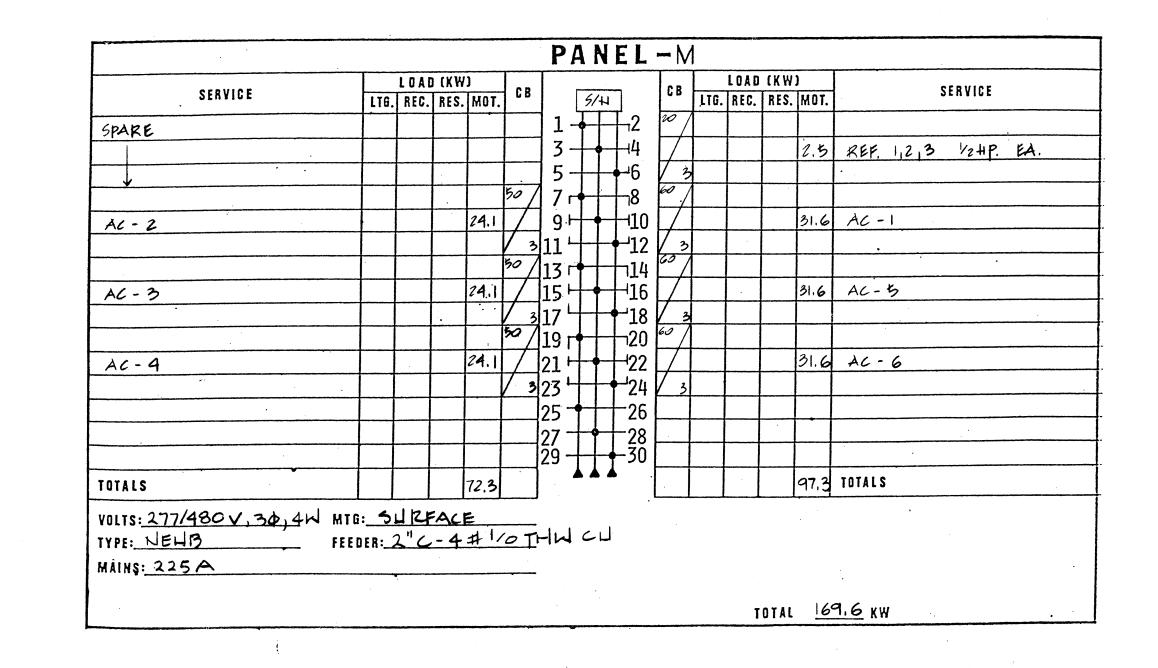
		LOAD	(KW)						0.0		LOAD (	KW)		SERVICE  SPARE BREAKER  SPACE  TOTALS
SERVICE	LTG.	REC.	RES.	MOT.	CB		₹ ₹	₹	C B	LTG.	REC.	RES. MOT		
	4.1				20/	1	++	<del></del> 2	201	1			SPARE	BREAKER
614DY, GROUP ACCESS 114-118 - 110, STOR, 104 \$ 106	4.3					3	++	<del>  4</del>						
- HITECH., TUTOR LAB	4.1	·			4	5	++	<del>-</del> 6	Щ					
-LAB, 3 44	3,5			,		] 7	+	<del>  8</del>						
- WAR. TOILETS	3.5					9	┥. ♦	<del>+</del> 10		<u> </u>				
PARE ONLY					V	11	++	<del>+</del> -12					SPACE	
PACE						13	++	十14						
						15	╌┿╌	<del> </del> 16						
						117	++	<del>+</del> 18						
						119	+-	<del>+</del> 20						
						21	-	+22		·				
						23	++	24						
	19,5					1	5/4	ጎ .					TOTALS	

						F	A	N	ĘL	<b>-</b> L	В				in the state of th
SERVICE	LTG.		(KW)		CB		Ţ	5/H	7	C B			(KW)		SERVICE
ECEPT - STOR, JAN, EDF		1,2			20	7 ]	լ		<del>「</del> 2	20		1.2			RECEPT FURY. MATH LAB
- LAB 205, 206		1.2				7 3	3 -	-	<del>  4</del>			1.0			
T - 1 1 1		1.0					5 –	-	-6			1.0			
- 206		0.3				77	7 →	<b>-</b> -	<del> </del> 8			1,2			
-		1.0					) –	-	<del> </del> 10			1.0			
-		1.0				11	<u> </u>	╀┼	-12			1.0			
- HATHLAB		0.8				]13	3 -	<b>-</b>	<del> </del> 14			0,2			ROOF
- UHDRFLOOK		1.0			and the same	15	5 -	┝┿╌	<del> </del> 16			.4			FILE SERVERS
- SEM./STUDY, 201		1.0				]17	7 —	$\vdash\vdash$	-18			.4			\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \
- J MATH LAB		0.8				19	} →	<b> </b>	-20			1.0			SLIDING DOOR
PROJ. SCREENS		.8				21	L -	-	-22		1	1.0			RECEPT-FURN-MATH LAB
CU CONTROL TRANSF.		0.9				23	3 –	$\vdash$	-24			1.0			$\downarrow$ $\downarrow$ $\downarrow$
OOF LIGHTS	.6					25	5 -	-	-26						SPARE
PARE					·	27	7 —	-	-28						
						29	) –		-30	V					<b>—</b>
PACE						31	-	-	-32						SPACE
						33	5 –	-	-34						
			-			35	5 –		<sub>1</sub> 36	10/		-		.75	FCU-1 13HP.
	<u> </u>					37	7 -∢		<u>138</u>	12					
						39	) –	-	40	20/				2.7	CU-1 (ON ROOF) 13.0 MCA
						41		-	-42	1/2					
OTALS	.6	11.5					4		<b>6</b>			0.4		3.45	TOTALS
VOLTS: 120/203V, 34, 4H MT TYPE: H20D FEE MAINS: 225 A	6: DER:_	541 21/2	2FAC 1"C-	E 4 #	+4/	- - <u>0</u> T -	.⊢1	ا د	LL.	d					<b>A</b>

•								P	AN	E	L	<b>-</b>  -	1B			·	
SERVICE		LOAD (KW)			C B	CD				CB	LOAD (KW)				SERVICE		
			LTG. R		REC. RES.			]	5/	11			LTG.	G. REC. RES.		MOT.	SERVICE
LTG MX	H . LA	B	2.95				20/	] 1 -	$\blacklozenge$	$\dashv$	-2	20/	3.1				ITG SEMIHAR, COMPUTER LA
			3.05					3 -	┼┿	+	-4		1.8				- LAB 200, STOR.
···			1.7					] 5 -	+	-	-6		3.35				- TEST LAB 205 206
			1.7					] 7 ·	+	+	-8						SPARE
SPARE								] 9 -	┼┿	+	-10						1
SPACE								]11 -	$\dashv \dashv$	-	-12						SPACE
					·			]13 ·	+	$\dashv$	-14						
								15	╁	+	-16						
					,			17	+	-	-18						
								19	$\downarrow$	$\dashv$	-20						
								21	$\downarrow \downarrow$	+	-22						
								23 -	+	- 1	-24						
TOTALS		Company Control Company Control Con	9.4						, ,	,			825				TOTALS
VOLTS: 277/48  TYPE: NEHB  MAINS: 225/		34,4H MTI FEE	6: Der:_	2"C	FAC - 4 =	<u>                                      </u>	ГНЬ	<u> </u>	. <mark>ப</mark>							1	<u>7.65</u> kw

	: <b>F</b>	IX I UKE	SCHEDULE	
TYPE	MANUFACTURER AND CATALOG NUMBER	LAMP QUANTITY AND TYPE	DESCRIPTION	WEIGHT (LBS)
A	DAY-BRITE #SG243-SFS21D	3 - F40RS (115W) 277V	2' X 4' RECESSED FLUORESCENT FIXTURE WITH 1/8" THICK ACRYLIC PRISMATIC #12 LENS - FOR TANDEM WIENG AS SHOWN ON PLANS	34
В	WELLMADE #515AC	2 - 13PL (29W) 120V	13-1/4" X 4½" X 3½" FLUORESCENT WALL OF CEILING MOUNT WITH CLEAR ACRYLIC LENS	. 3
С	DAY-BRITE #SG242-SFS21D	2 - F40RS (72W) 277V	SAME AS "A" BUT WITH 2 LAMPS	31
D	WELLMADE #501S	1 - 13 PL 15W 120V	13" X 4½" X 3½" FLUORESCENT SWIVEL WALL MOUNTED FLOOD LIGHT	6
Е	DAY-BRITE #PGA214W-P12S-14R	2 - F40RS (72W) 277V	RECESSED MOUNTED FLUORESCENT FIXTURE 1' X 4' PARA-BOLIS WITH 12 CELLS	21
F	LITE CONTROL #WID66N24RSPRSS-CXY-277	2 - F40RS (72W) 277V	4' LONG X 6" X 6%" WALL DIRECT/INDIRECT FLUORESCENT COLOR AS SELECTED BY ARCHITECT	21
G	DAY-BRITE #1X42-DL12A	2 F40RS (72W) 277V	1' X 4' SURFACE FLUORESCENT WITH ACRYLIC PRISMATIC #12 LENS 1/8" THICK	20
Н	LITE CONTROL PS/D-86N-4-8RS	4 - F40RS (144W) 277V	8' LONG X 8" WIDE X 63" H PENDANT FLUORESCENT WITH PARABOLIC BAFFLES - MOUNTED AT +9'-6" AFF	40
I	ALKCO #HP-138	1 T5-8W & 1 T5-13W (24W) 120V	33½"L X 5"W X 1 1/8"D FLUORESCENT UNDERCABINET LIGHT	5
J∦ J1	STAFF #710-38CL-HP-277	ኢ - 18W PL	10" DIAMETER FLUORESCENT RECESSED WALL WASHER DOWNLIGHT WITH CLEAR ALAZK REFLECTOR  J-120V J1-277V	8
K	PRESCOLITE #1234M1-32MHFE-M117	(15W) 32W M.H. (G.E.HALARC) (36W) 277V	6" DIAMETER RECESSED METAL HALIDE WALL WASHER DOWNLIGHT WITH CLEAR ALZAK REFLECTOR.	20
L	DAY-BRITE #SF142-SFS21D	2 F40RS (72W) 277V	1' X 4' RECESSED FLUORESCENT WITH ACRYLIC PRISMATIC #12 LENS 1/8" THICK	20
М	DAY-BRITE #PS218W-P12S14	4 - F40RS (144W) 277V	1' X 8' SURFACE FLUORESCENT PARABOLIC WITH 3" DEEP BLADES - TO BE PENDANT MOUNTED AT +8'-6" AFF	43
N # N 1	DAY-BRITE #S140HRS	1 - F40RS (43W)	4' FLUORESCENT STRIPLIGHT	7
P	STAFF #710-85CL-HP-2	2 - 18W FL QUAD (40W)	10" DIA. RECESSED FLUORESCENT WALL WASHER DOWNLIGHT WITH CLEAR ALZAK REFLECTOR	11
Q	DAY-BRITE #C240	2 - F40RS (72W) 277V	4' LONG DOUBLE LAMP FLUORESCENT STRIPLIGHT	21
R	STONCO #6700S WITH 67-2S COVERPLATE	2 - 150W PAR 38 (300W) 120V	DOUBLE HEAD INCANDESCENT EXTERIOR FLOOD LIGHT - SATIN ALUMINUM FINISH	7
A <sub>1</sub> .	DAY-BRITE #ESG243-SFS21D	3 - F40RS (115W) 277V	SAME AS "A" BUT WITH EMERBENCY POWER PACK	35
G <sub>1</sub>	DAY-BRITE #E1X42-DL12A	2 - F40RS (72W) 277V	SAME AS"G" BUT WITH EMERGENCY POWER PACK	21
.⊗	ISOLITE #2040-50-20-G		14.2" X 9.6" X 1.5" DEEP NON-ELECTRIC PLASTIC EXIT SIGN WITH GREEN LETTERS & MOUNTING HARDWARE AS REQUIRED	4
⊗ <sub>Ll</sub>	ISOLITE #2040-50-20-G		SAME AS $\bigotimes$ BUT BOTTOM OF SIGN TO BE MOUNTED AT +6" ABOVE FINISHED FLOOR	4
H <sub>1</sub>	LITE CONTROL #PS/D-86N-4-6RS	4 - F30RS (108W) 277V	SAME AS "H" BUT 6' LONG	30
S	DAYBRITE #2X43DL12D	3 - F40RS 277V	SURFACE MOUNTED FLUORESCENT 2' X 4' FIXTURE WITH 1/8" THICK ACRYLIC PRISMATIC LENS	38

NOTE: ALL LIGHT FIXTURES SHALL COMPLY W/ CBC 5209



### ELECTRICAL SYMBOL LIST

FLUORESCENT LIGHT FIXTURE WITH EMERGENCY BATTERY PACK EXIT SIGN - SEE FIXTURE SCHEDULE LOW LEVEL EXIT SIGN - SEE FIXTURE SCHEDULE FLUORESCENT LIGHT FIXTURE - SEE FIXTURE SCHEDULE SURFACE OR PENDANT MOUNTED LIGHT FIXTURE - SEE FIXTURE SCHEDULE WALL MOUNTED LIGHT FIXTURE - SEE FIXTURE SCHEDULE DOWNLIGHT - SEE FIXTURE SCHEDULE WALL WASHER DOWNLIGHT - SEE FIXTURE SCHEDULE FLUORESCENT STRIPLIGHT - SEE FIXTURE SCHEDULE SINGLE POLE LIGHT SWITCH AT +48" U.O.N., LETTER INDICATES OUTLET CONTROLLED THREE-WAY LIGHT SWITCH AT +48" FOUR-WAY LIGHT SWITCH AT +48"

THERMAL OVERLOAD SWITCH JUNCTION BOX - SIZE AS REQUIRED BY CODE

DISCONNECT SWITCH - FUSED MOTOR CONNECTION 20A, 125V, 3 WIRE GROUNDABLE DUPLEX RECEPTACLE AT +12" U.O.N.

FLOOR MONUMENT WITH 20A, 3 WIRE GROUNDABLE DUPLEX RECEPTACLE TELEPHONE OUTLET AT +12" U.O.N. SEE LEGEND SHEET E-6 LIGHT FIXTURE TAG - LETTER INDICATES TYPE, NUMBERS DESIGNATE

NUMBER OF LAMPS AND WATTAGE NUMBERED NOTE

UNLESS OTHERWISE NOTED

WEATHERPROOF

TELEVISION OUTLET WITH 34" MT STUBBED

TO CEILING

BRANCH CIRCUIT CONDUIT CONCEALED ABOVE CEILING OR IN WALL

— — BRANCH CIRCUIT CONDUIT BELOW GRADE OR UNDERFLOOR

HOMERUN TO PANEL OR OTHER TERMINATION POINT

ANY BRANCH CIRCUIT CONDUIT SHALL BE MINIMUM 1/2"C - 2#12 UNLESS OTHERWISE NOTED OR INDICATED. (-///-- = 1/2"C -3#12) ETC.; FOR WIRE SIZES GREATER THAN #12:  $(-///_{\#8})$ 3#8 IN CODE SIZE CONDUIT) ETC.

CEILING MOUNTED SMOKE DETECTOR, PYROTRONICS D1-3

FIRE ALARM PULL STATION AT +48", PYROTRONICS MS-S1

FIRE ALARM BELL AND STROBE LIGHT AT +7'-6", PYTROTRONICS HSD-24

DUCT SMOKE DETECTOR - PROVIDED BY OTHERS, CONNECTED BY ELEC.

COMPUTER DATA OUTLET, SEE DETAIL ON SHEET E-6

FIRE ALARM STROBE LIGHT - CEILING MOUNTED, PYTRONICS V-33D/GM-003

REMOTE ALARM LAMP INDICATOR, #RL-6. UNIT INDICATES ANY SMOKE DUCT DETECTOR ALARM SIGNAL.

## GENERAL ELECTRICAL NOTES

ELECTRICAL CONTRACTOR IS TO PROVIDE LABOR, MATERIALS, TRANSPORTATION, EQUIPMENT, RELATED HAND TOOLS, SPECIAL AND OCCASIONAL SERVICES TO CONSTRUCT AND INSTALL THE COMPLETE ELECTRICAL SYSTEM AS SPECIFIED AND SHOWN ON THE

ALL WORK SHALL BE DONE WITH COMPLETE COMPLIANCE WITH THE PUBLISHED EDITIONS OF APPLICABLE CODES AND STANDARDS WHETHER STATUTORY OR NOT. WHEN SPECIFICATIONS WILL NOT MEET CODES OR INSTALLATION WILL NOT CONFORM TO PLANS SUBMITTED, THE UNDERSIGNED MUST BE CONTACTED BEFORE ANY DESIGN CHANGES ARE

MOUNTING HEIGHTS SHOWN (I.E. +48") ARE FROM FINISHED FLOOR TO CENTERLINE OUTLET. ALL MOUNTING HEIGHTS SHALL BE AS SHOWN ON SYMBOL LIST UNLESS OTHERWISE NOTED ON DRAWINGS.

BONDING JUMPERS ARE REQUIRED TO INSURE CONTINUITY WHERE CONDUIT CONNECTIONS AT CONCENTRIC KNOCKOUTS ARE TO SERVE AS A GROUND.

5) PROVIDE GREEN TW COPPER GROUND WIRE FROM PANELBOARD GROUND BUS TO ALL MECHANICAL EQUIPMENT. 6) THE ELECTRICIAN SHALL CHECK THE TIGHTNESS OF ALL PANELBOARD BUSES AND

CIRCUIT BREAKER LUGS. COMPLETELY VACUUM AND CLEAN INTERIOR OF EQUIPMENT

ELECTRICAL CONTRACTOR SHALL VERIFY ALL MECH. EQUIPMENT LOCATIONS, MOTOR SIZES AND CONTROL WIRING REQUIREMENTS WITH MECH. CONTRACTOR AND MECH. EQUIPMENT SUPPLIERS AND MANUFACTURERS.

VERIFY ALL EXISTING DIMENSIONS AND CONDITIONS, NOTIFY ARCHITECT OF ANY DISCREPANCIES FOUND.

RECEPTACLES SHALL NOT BE INSTALLED BACK TO BACK AND SHALL HAVE ONE STUD

10) ALL ELECTRICAL EQUIPMENT SHALL BE BRACED OR ANCHORED TO RESIST A HORIZONTAL FORCE ACTING IN ANY DIRECTION USING THE FOLLOWING

> FIXED EQUIPMENT ON GRADE FIXED EQUIPMENT ON STRUCTURE EMERGENCY POWER EQUIPMENT ON GRADE EMERGENCY POWER EQUIPMENT ON STRUCTURE

> > 0M32400

THE RESERVE ASSESSMENT OF

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Property of the second second

IDENTIFICATION STAME

Department of General Services

Office of the State Architect

MAY 2 3 1991

Structural Safety Section

Appl. # 552527MH/S

JUL 25 1991 TMH/SF

PRIOR TO PLACING SERVICE INTO OPERATION.

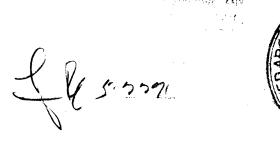
30% OF OPERATING WEIGHT 30% OF OPERATING WEIGHT 40% OF OPERATING WEIGHT

20% OF OPERATING WEIGHT

SIMULTANEOUS VERTICAL FORCE - USE 1/3 X HORIZONTAL FORCE. FOR FLEXIBLY MOUNTED EQUIPMENT SEE TITLE 24, SECTION 24,

SECTION 2312(g)2.

WHERE ANCHORAGE DETAILS ARE NOT SHOWN ON THE DRAWINGS, THE FIELD INSTALLATION SHALL BE SUBJECT TO THE APPROVAL OF THE STRUCTURAL ENGINEER AND THE FIELD REPRESENTATIVE OF THE OFFICE OF THE STATE



ACCESS COMPLIANCE SECTION

APPLICATION PER W. Jud Boises

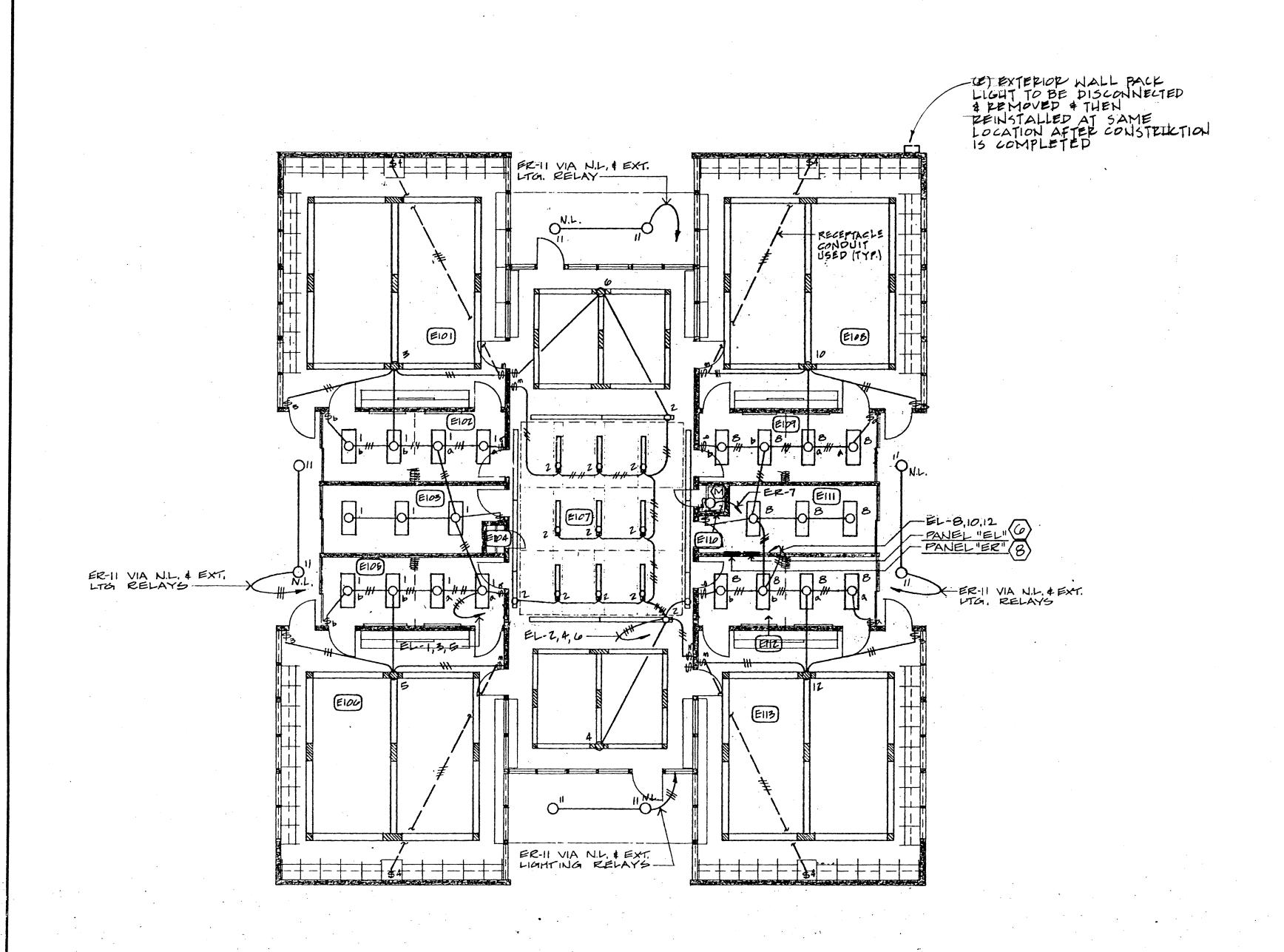
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SING CONSULTANTS
SCHOOL STREET
AGA, CA 94556
C(415)376-2007

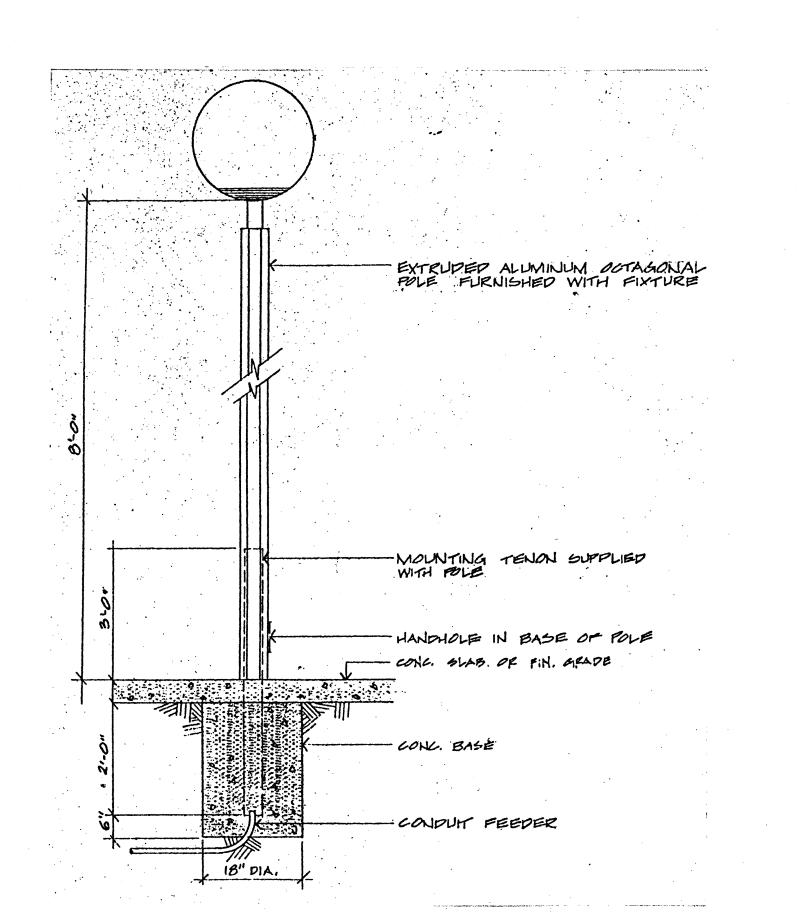


## FIRST FLOOR LIGHTING DEMOLITION PLAN

SCALE: 1/8" 1'-0"

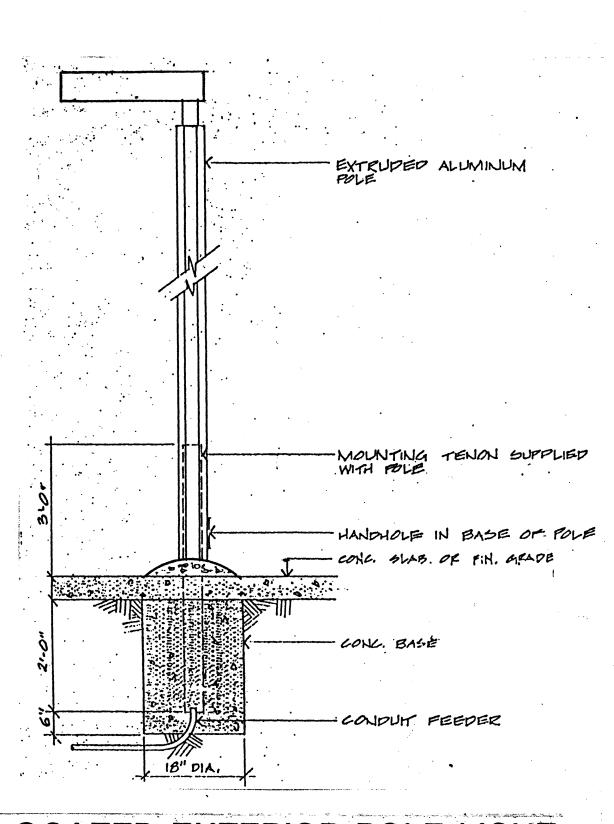
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ALL EXISTING ELECTRICAL ITEMS INCLUDING WIRING AND CONDUIT, SHOWN ON THIS PLAN ARE TO BE DISCONNECTED AND REMOVED UNLESS SPECIFICALLY DIRECTED TO REMAIN OR TO BE RELOCATED RETURN ALL REMOVED EQUIPMENT TO OWNER.



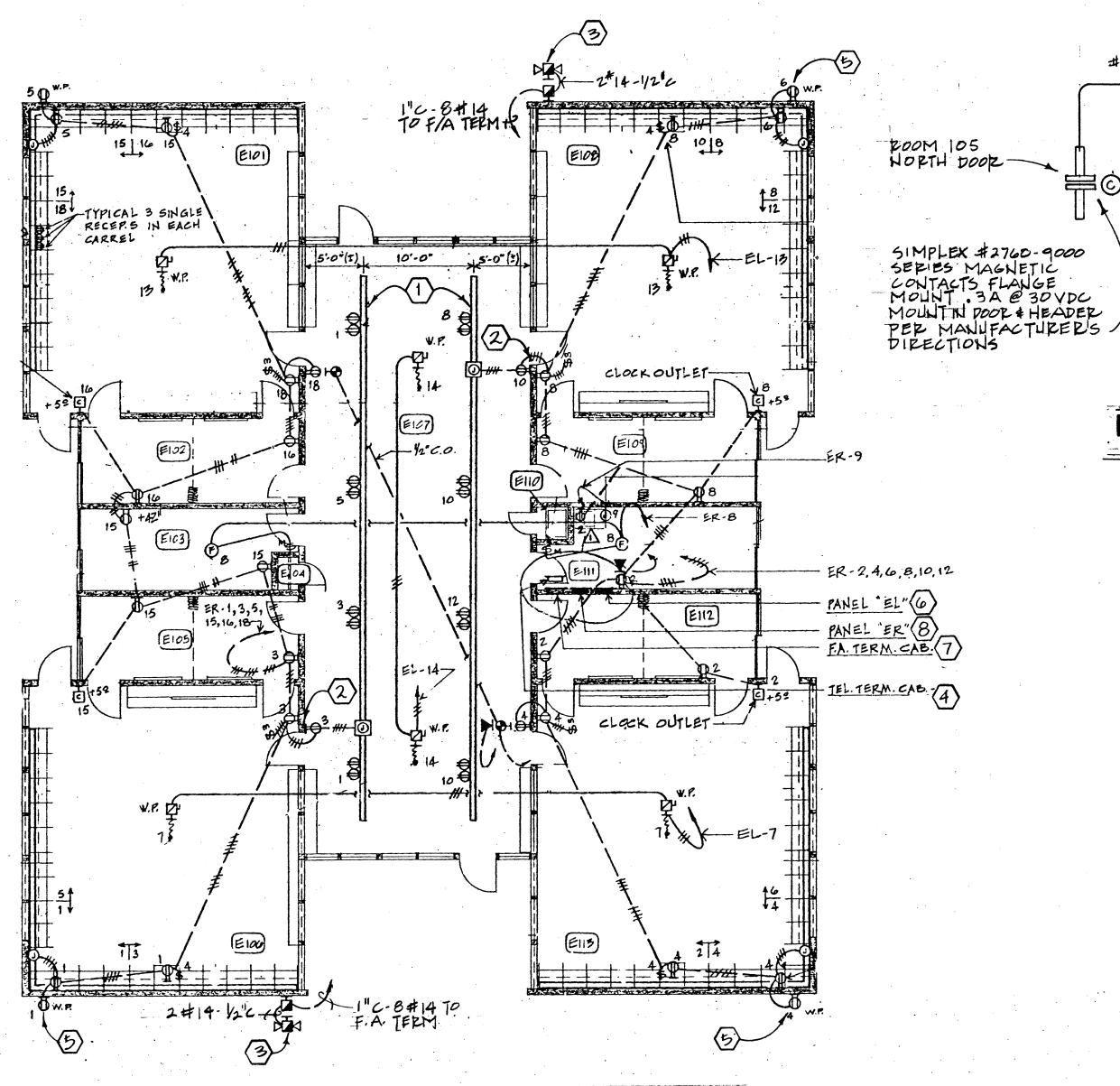
RELOCATED EXTERIOR POLE LIGHT MOUNTING

DETAIL -TYPE "X"



RELOCATED EXTERIOR POLE LIGHT

MOUNTING DETAIL - TYPE "Y"



## FIRST FLOOR POWER DEMOLITION PLAN

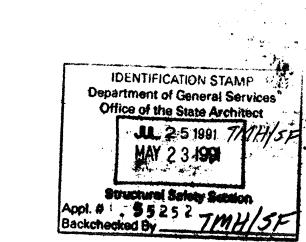
SCALE: 1/8" 1'-0"

ALL EXISTING ELECTRICAL ITEMS INCLUDING WIRING AND CONDUIT, SHOWN ON THIS PLAN ARE TO BE DISCONNECTED AND REMOVED UNLESS SPECIFICALLY DIRECTED TO REMAIN OR TO BE RELOCATED. RETURN ALL REMOVED EQUIPMENT TO OWNER.

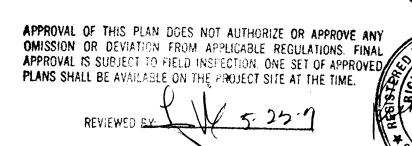
### NUMBERED NOTES

- EXISTING UNDERFLOOR DUCT TO BE ABANDONED REMOVE WIRING, PROVIDE AND INSTALL BLANK COVERPLATE OVER EXISTING OUTLETS IN
- CONDUIT COMING UP THROUGH FLOOR AT THIS LOCATION IS TO BE CUT AND BLANKED OFF.
- EXISTING FIRE ALARM PULL STATION AND ALARM HORN TO BE REMOVED.
- EXISTING TELEPHONE TERMINAL CABINET (12" X 12" X 4") TO BE REMOVED.

  EXTEND CONDUIT TO NEW TERMINAL LOCATION AND RECONNECT.
- **EXISTING EXTERIOR RECEPTACLE TO BE RELOCATED SEE SHEET E-5 FOR**
- EXISTING PANEL "EL" TO BE DISCONNECTED AND REMOVED. REMOVE FEEDER 4#2 IN 2"C FROM EXISTING CONDUIT. CUT CONDUIT BELOW FLOOR
- EXISTING FIRE ALARM TERMINAL CABINET (12" X 12" X 4") TO BE DISCONNECTED, RELOCATED AND RECONNECTED TO CAMPUS FIRE ALARM ADT UNIMODE SYSTEM. EXTEND CONDUCTOR TO NEW CABINET LOCATION. CONNECT NEW FIRE ALARM DEVICES TO EXISTING CIRCUITRY FOR PROPER OPERATION OF SYSTEM AND NEW DEVICES.
- EXISTING PANEL "ER" TO BE DISCONNECTED AND REMOVED. REMOVE FEEDER 4#2 IN 2"C FROM EXISTING CONDUIT. LEAVE 5#12 THWN FOR LIGHTING CONTROL AND EXTEND TO NEW PANEL. REMOVE ASCO #16640AP LIGHTING RELAY FOR EXTERIOR LIGHTING AND ASCO #166202P NIGHT LIGHTING RELAY AND REINSTALL AND RECONNECT TO NEW EXTERIOR LIGHTING CIRCUIT (SEE LIGHTING FLOOR PLAN).



CALIFORNIA STATE FIRE MARSHAL



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× 120 V

SIMPLEX #2901 -(GX-90-4) MINI HOPH AT +7'-6"

DOOR ALARM DIAGRAM

SIMPLEX
#2750-9003
BECHEITY
ACCESS KEY
STATION +48"

JEFFERSON OF EQUAL, 120 VOLTS TO 32 VDC 50 VA, TRANSFORMER-MOUNT IN 4"X 6" X4"D CAN, MOUNT ABOVE CEILING

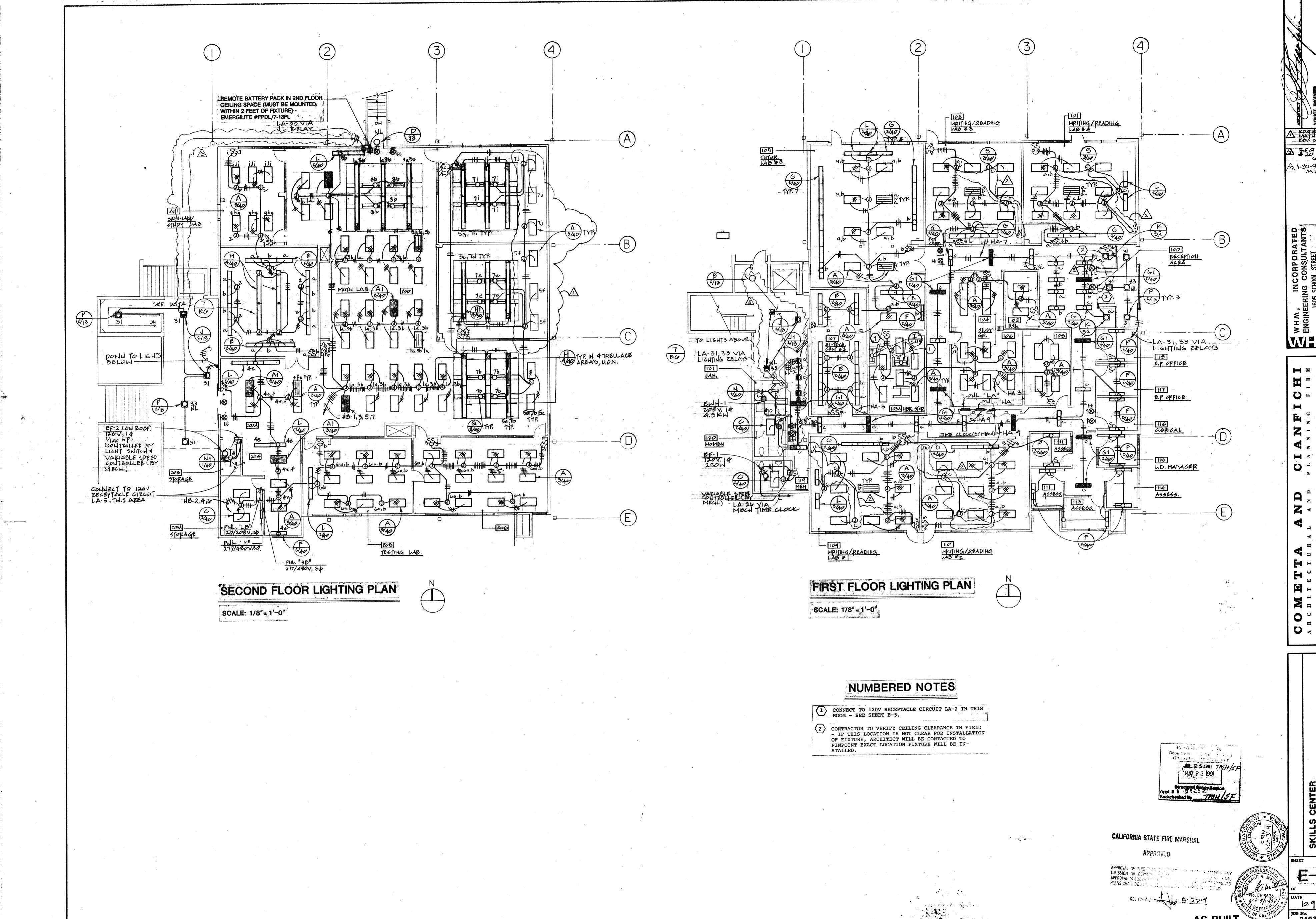
WHM, INCORPORATED ENGINEERING CONSULTANTS
1605 SCHOOL STREET

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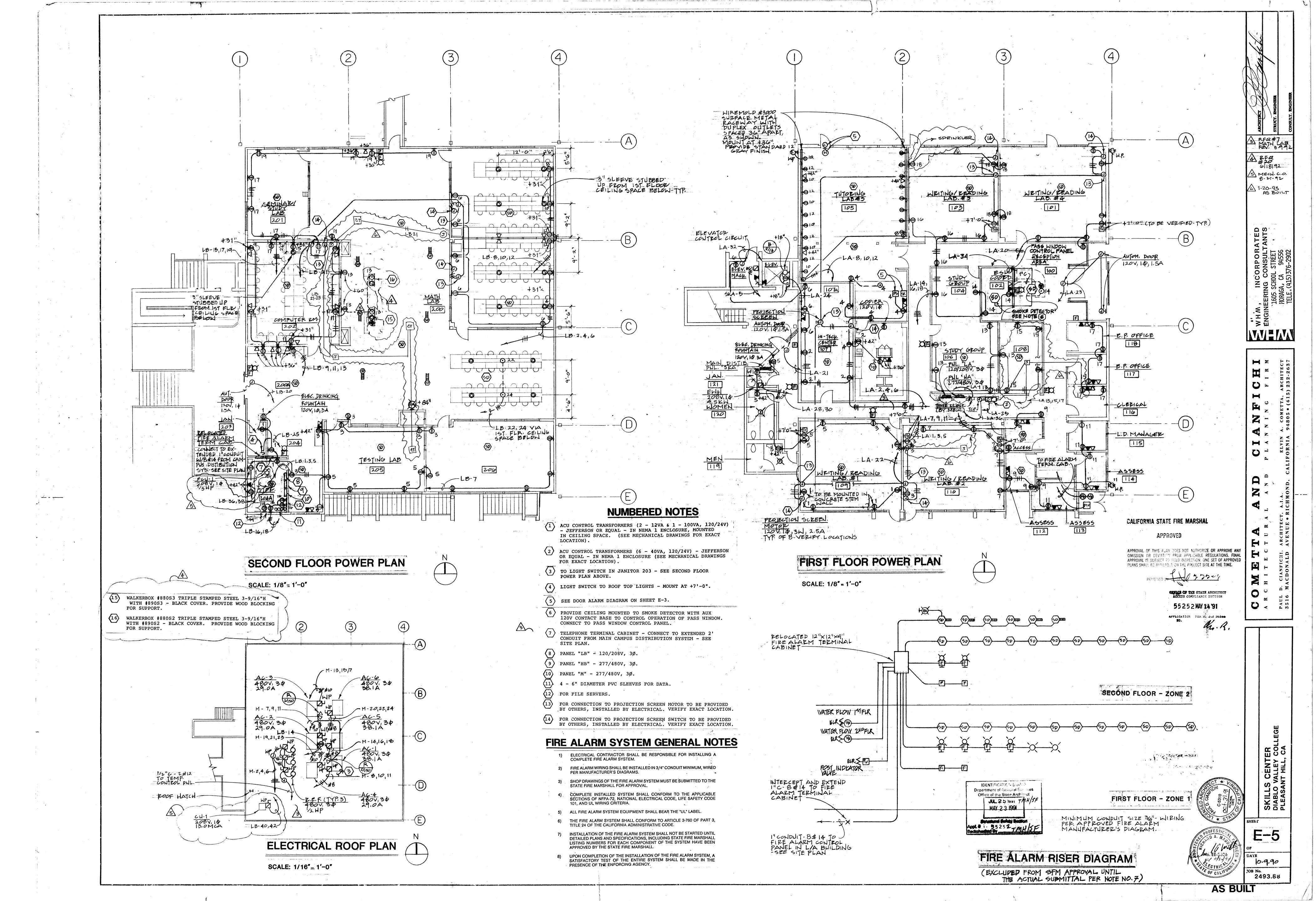
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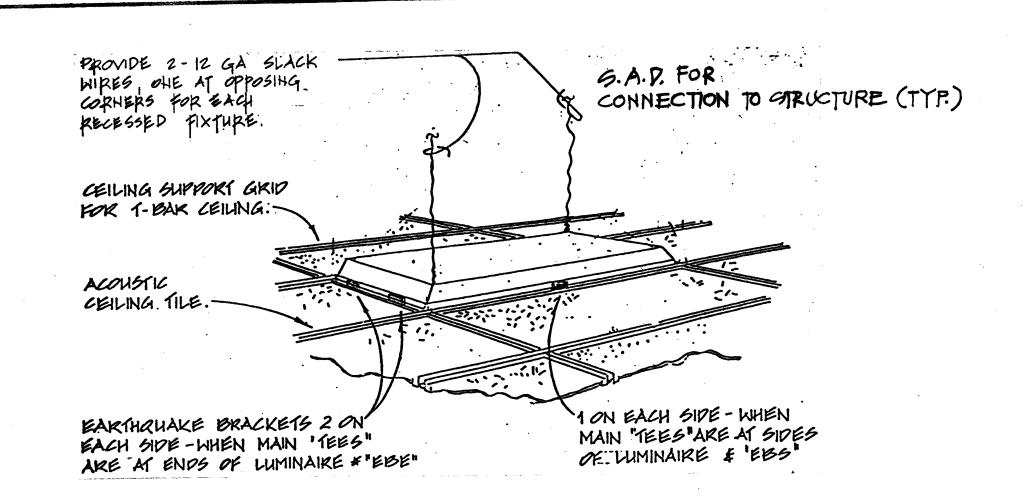
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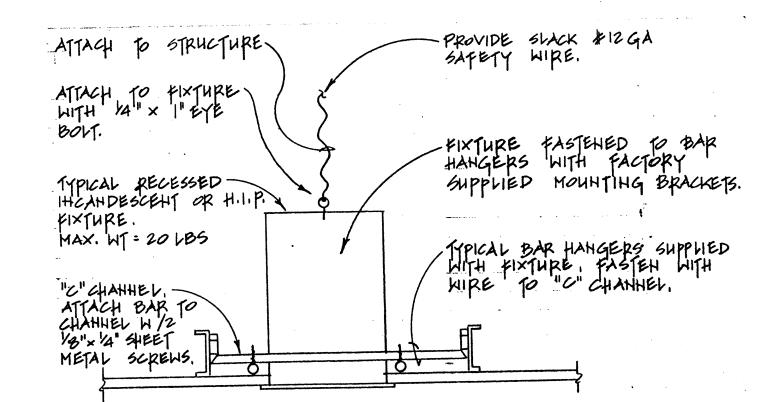


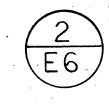


# E6

## RECESSED FIXTURE MOUNTING DETAIL

NO SCALE

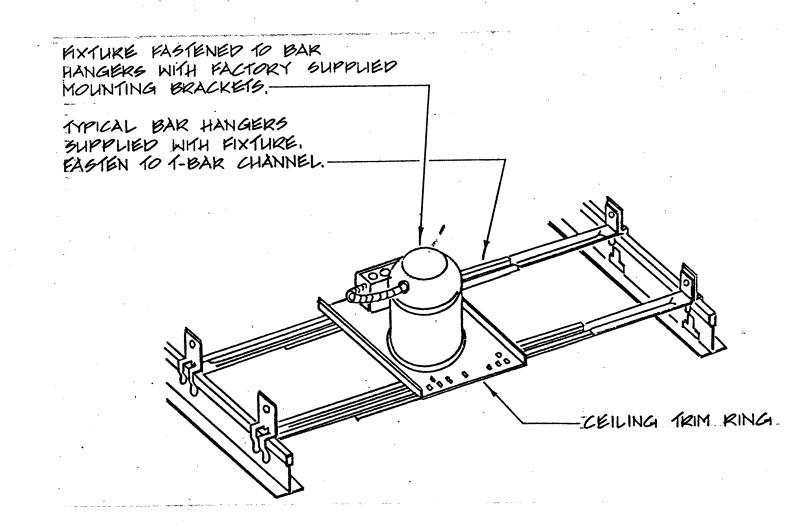


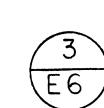


## RECESSED INCANDESCENT OR H.I.D.

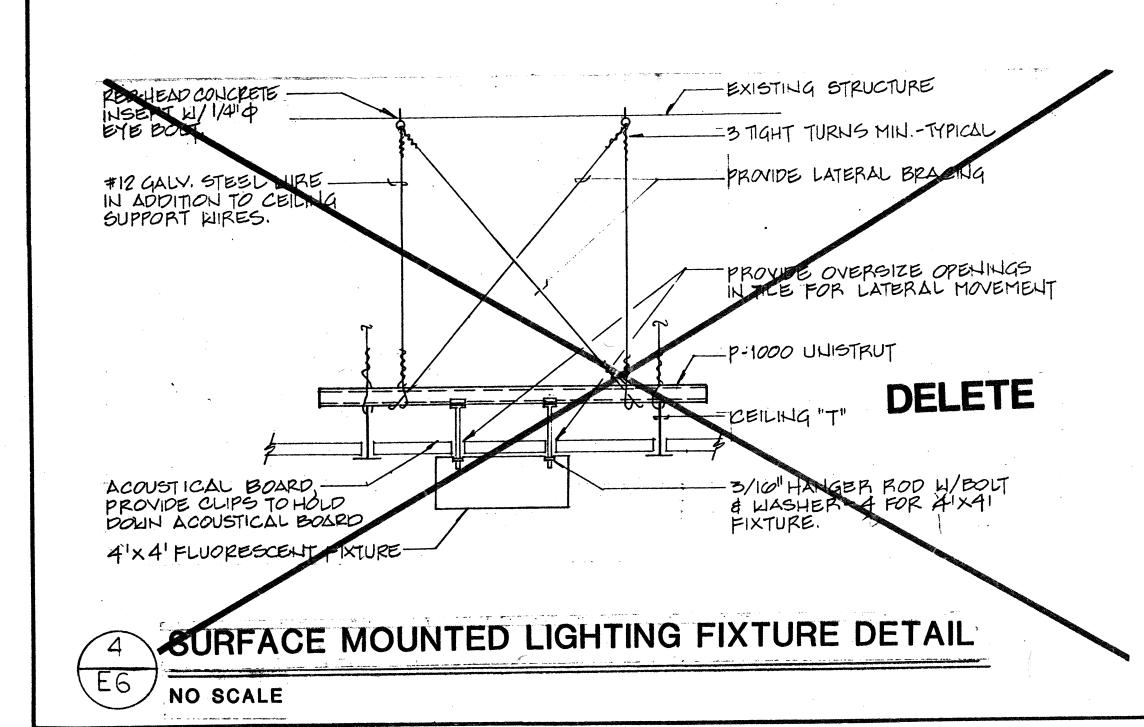
## FIXTURE DETAIL

NO SCALE





## RECESSED INCANDESENT FIXTURE DETAIL



#12 GA. HIPE HAHGER AT

OPPOSITE COPLERS OF

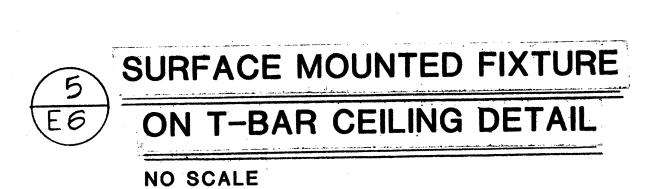
FIXTURE CTOTAL OF 2)

MINIMUM OF 3 TURNS OF

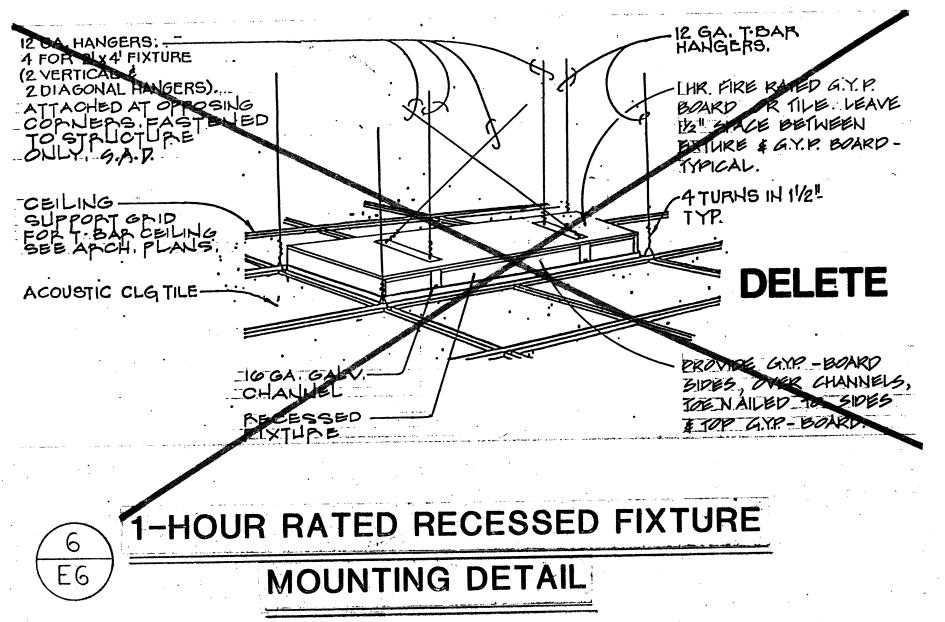
HIPE THISTED APOUND

ITGELY CTYP). -LOOP THROUGH EYE BOLT.
EMT. HIRED TO METAL CEILING
JOIST, H/+12 G.A. HIRE 6 SINTERDED STATES AS A SHOWN AT APRILED AS

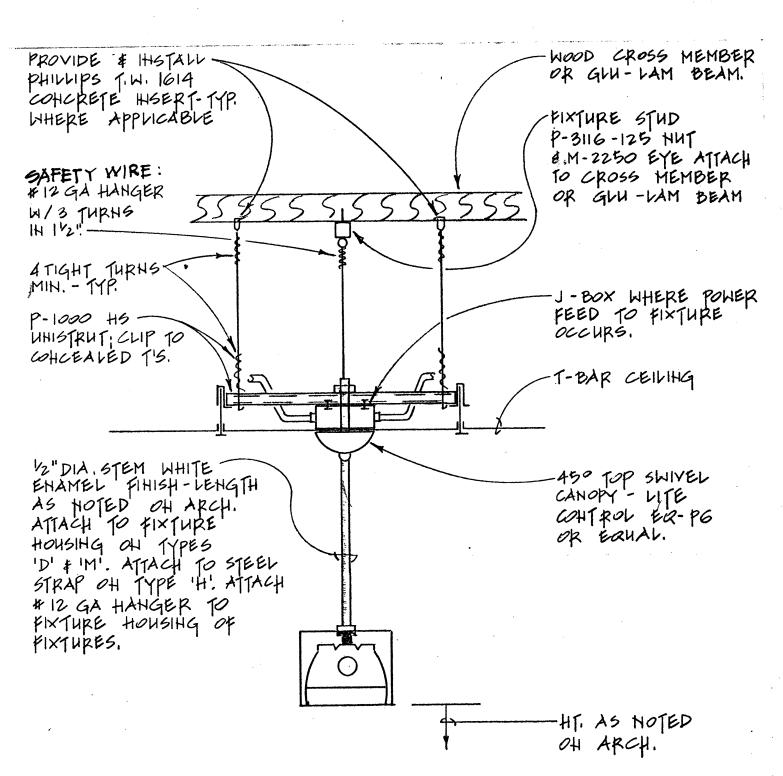
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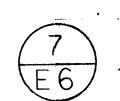


FLIPPESCENT FIXT.



NO SCALE

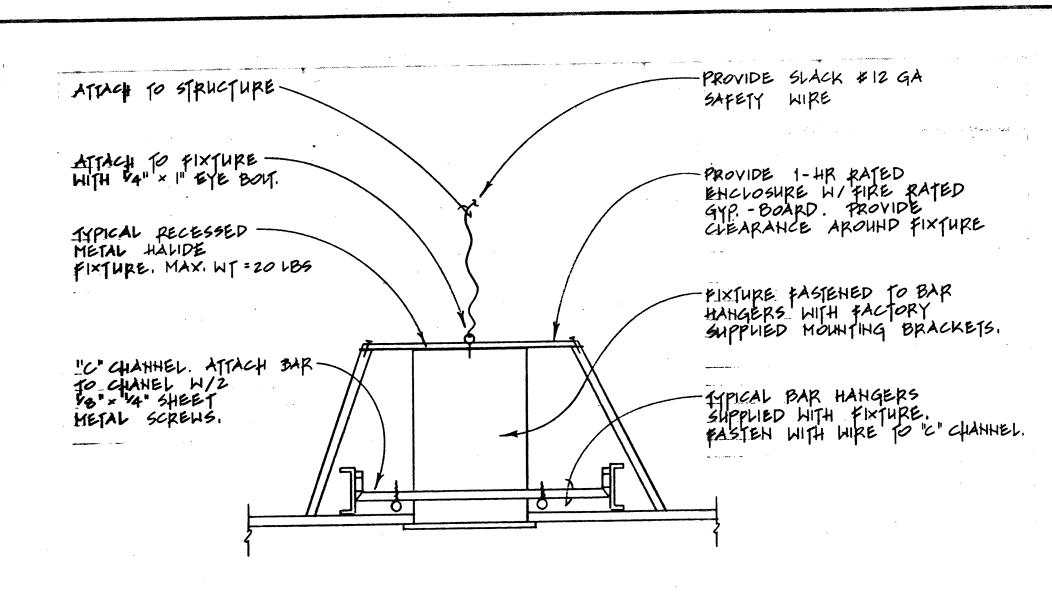




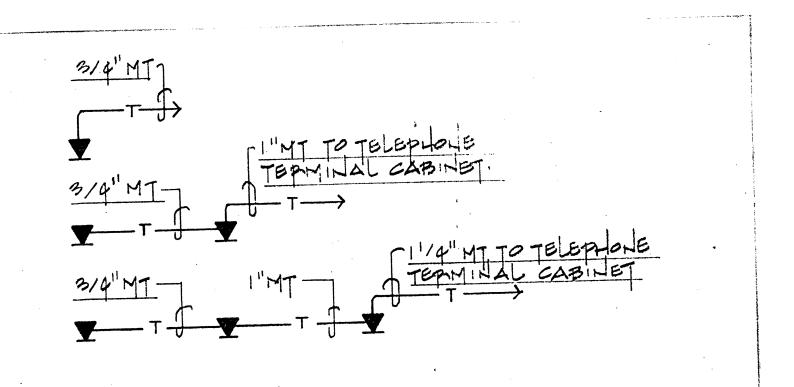
## FIXTURE TYPE 'M'

## MOUNTING DETAIL AT CEILING

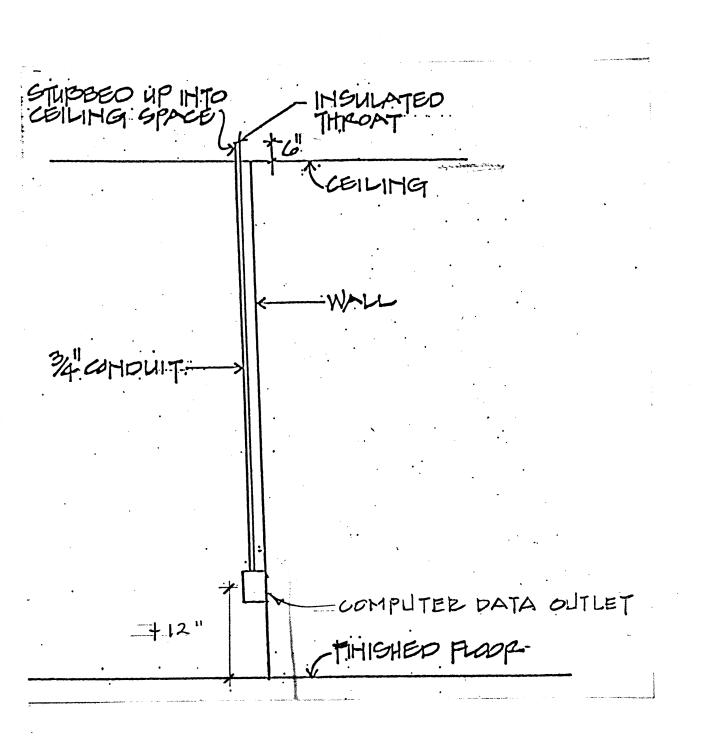
NO SCALE



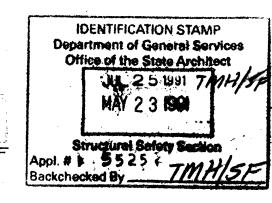
RECESSED DOWNLIGHT IN 1-HR CEILING



TELEPHONE SYSTEM CONDUIT LEGEND



COMPUTER DATA OUTLET INSTALLATION DETAIL



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WHM, INCORPORATED ENGINEERING CONSULTANTS 1605 SCHOOL STREET MORAGA, CA 94556 TELE, (415)376-2902

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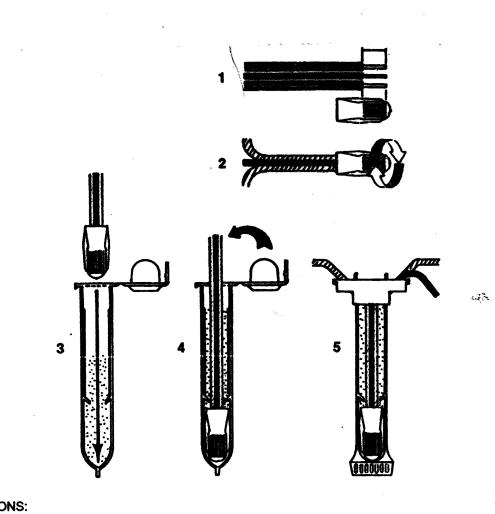
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SCHEDULE 40 PVC

---- PVC LATERAL LINE



- STRIP WIRES APPROXIMATELY 1/2" (12.7 MM) TO EXPOSE WIRE TWIST CONNECTOR AROUND WIRES CLOCKWISE UNTIL HAND TIGHT, DO NOT OVERTIGHTEN.
- PLACE WIRES WHICH EXIT TUBE IN WIRE EXIT HOLES AND CLOSE CAP UNTIL IT SNAPS INSPECT FINAL SPLICE ASSEMBLY TO BE SECURE AND FINISHED.

NOTE: NIPPLES AND FITTINGS TO BE SAME SIZE AS VALVE IPT INLET THREAD SIZE.

QUICK COUPLING VALVE

WEATHERPROOF SPLICE ASSEMBLY DETAIL NOT TO SCALE

**IRRIGATION NOTES** 

1. THESE IRRIGATION DRAWINGS ARE DIAGRAMMATIC AND INDICATIVE OF THE WORK TO BE INSTALLED. ALL PIPING, VALVES, ETC. SHOWN WITHIN PAVED AREAS IS FOR CLARITY ONLY AND ARE TO BE INSTALLED WITHIN PLANTING AREAS WHERE POSSIBLE. DUE TO THE SCALE OF THE DRAWINGS, IT IS NOT POSSIBLE TO INDICATE ALL OFFSETS, FITTINGS, SLEEVES, ETC. WHICH MAY BE REQUIRED. THE CONTRACTOR IS REQUIRED TO INVESTIGATE THE STRUCTURAL AND FINISHED CONDITIONS AFFECTING ALL OF THE CONTRACT WORK INCLUDING OBSTRUCTIONS, GRADE DIFFERENCES OR AREA DIMENSIONAL DIFFERENCES WHICH MAY NOT HAVE BEEN CONSIDERED IN THE ENGINEERING. IN THE EVENT OF FIELD DIFFERENCES, THE CONTRACTOR IS REQUIRED TO PLAN THE INSTALLATION WORK ACCORDINGLY BY NOTIFICATION AND APPROVAL OF THE OWNER'S AUTHORIZED REPRESENTATIVE AND ACCORDING TO THE CONTRACT SPECIFICATIONS. CONTRACTOR IS ALSO REQUIRED TO NOTIFY AND COORDINATE IRRIGATION CONTRACT WORK WITH ALL APPLICABLE CONTRACTORS FOR THE LOCATION AND INSTALLATION OF PIPE. CONDUIT OF SLEEVES THROUGH OR UNDER WALLS, ROADWAYS, PAVING STRUCTURE, ETC. BEFORE CONSTRUCTION. IN THE EVENT THESE NOTIFICATIONS ARE NOT PERFORMED. THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ALL REQUIRED REVISIONS.

- 2. THE INTENT OF THIS IRRIGATION SYSTEM IS TO PROVIDE THE MINIMUM AMOUNT OF WATER REQUIRED TO SUSTAIN GOOD PLANT
- 3. IT IS THE RESPONSIBILITY OF THE LANDSCAPE MAINTENANCE CONTRACTOR AND/OR OWNER TO PROGRAM THE IRRIGATION CONTROLLERS TO PROVIDE THE MINIMUM AMOUNT OF WATER NEEDED TO SUSTAIN GOOD PLANT HEALTH. THIS INCLUDES MAKING ADJUSTMENTS TO THE PROGRAM FOR SEASONAL WEATHER CHANGES, PLANT MATERIAL, WATER REQUIREMENTS, MOUNDS AND SLOPES, SUN, SHADE AND WIND EXPOSURES.
- 120 VOLT A.C. (2.5 AMP DEMAND PER CONTROLLER) ELECTRICAL SERVICE TO IRRIGATION CONTROLLER LOCATION TO BE PROVIDED UNDER ELECTRICAL CONTRACT WORK. IRRIGATION CONTRACTOR TO MAKE FINAL CONNECTION FROM ELECTRICAL STUB-OUT TO CONTROLLER AND PROVIDE PROPER GROUNDING PER CONTROLLER MANUFACTURER'S INSTRUCTIONS.

INSTALL NEW BATTERIES IN IRRIGATION CONTROLLER TO RETAIN PROGRAM IN MEMORY DURING TEMPORARY POWER FAILURES. USE QUANTITY, TYPE, AND SIZE REQUIRED AS PER CONTROLLER MANUFACTURER'S INSTRUCTIONS.

IRRIGATION CONTROL WIRES SHALL BE COPPER WITH U.L. APPROVAL FOR DIRECT BURIAL IN GROUND, SIZE #14-1. COMMON GROUND WIRE SHALL HAVE WHITE INSULATING JACKET. CONTROL WIRE SHALL HAVE INSULATING JACKET OF COLOR OTHER THAN WHITE

INSTALL SPARE CONTROL WIRE OF A DIFFERENT COLOR ALONG THE ENTIRE MAIN LINE. LOOP 36" EXCESS WIRE INTO EACH SINGLE VALVE BOX AND INTO ONE VALVE BOX IN EACH GROUP OF VALVES.

SPLICE SHALL BE MADE WITH 3M-DBY SEAL PACKS.

SPLICING OF 24 VOLT WIRES IS NOT PERMITTED EXCEPT IN VALVE BOXES. LEAVE A 36" LONG, 1" DIAMETER COIL OF EXCESS WIRE AT EACH SPLICE AND A 36" LONG EXPANSION LOOP EVERY 100 FEET ALONG WIRE RUN. TAPE WIRES TOGETHER EVERY TEN FEET. TAPING WIRES IS NOT REQUIRED INSIDE SLEEVES.

PLASTIC VALVE BOXES ARE TO BE GREEN IN COLOR WITH BOLT DOWN. NON-HINGED COVER MARKED "IRRIGATION". BOX BODY SHALL HAVE KNOCK OUTS. MANUFACTURER SHALL BE BROOKS OR CARSON.

- 10. INSTALL REMOTE CONTROL VALVE BOXES 12" FROM WALK, CURB. BUILDING OR LANDSCAPE FEATURE. AT MULTIPLE VALVE BOX GROUPS. EACH BOX SHALL BE AN EQUAL DISTANCE FROM THE WALK, CURB, ETC. AND EACH BOX SHALL BE 12" APART. SHORT SIDE OF RECTANGULAR VALVE BOXES SHALL BE PARALLEL TO WALK, CURB,
- 11. THE IRRIGATION CONTRACTOR SHALL FLUSH AND ADJUST ALL SPRINKLER HEADS FOR OPTIMUM PERFORMANCE AND TO PREVENT OVER SPRAY ONTO WALKS, ROADWAYS, AND/OR BUILDINGS AS MUCH AS POSSIBLE. THIS SHALL INCLUDE SELECTING THE BEST DEGREE OF ARC TO FIT THE EXISTING SITE CONDITIONS AND TO THROTTLE THE FLOW CONTROL AT EACH VALVE TO OBTAIN THE OPTIMUM OPERATING PRESSURE FOR EACH SYSTEM.

12. ALL SPRINKLER HEADS SHALL BE SET PERPENDICULAR TO FINISH GRADE OF THE AREA TO BE IRRIGATED UNLESS OTHERWISE NOTED ON THE DRAWINGS.

13. AT LOCATIONS WHERE LOW SPRINKLER HEAD DRAINAGE WILL CAUSE EROSION AND/OR EXCESS WATER. USE A RAIN BIRD 1800-SAM SERIES POP-UP BODY WITH INTEGRAL CHECK VALVE AND A VALCON 5000 SERIES SPRING LOADED CHECK VALVE ON SHRUB RISERS IN LIEU OF SCHEDULE 80 COUPLING.

14. WHERE IT IS NECESSARY TO EXCAVATE ADJACENT TO EXISTING TREES. THE CONTRACTOR SHALL USE ALL POSSIBLE CARE TO AVOID INJURY TO TREES AND TREE ROOTS. EXCAVATION IN AREAS WHERE TWO (2) INCH AND LARGER ROOTS OCCUR SHALL BE DONE BY HAND. ROOTS ONE (1) INCH AND LARGER IN DIAMETER SHALL BE PAINTED WITH TWO COATS OF TREE SEAL, OR EQUAL. TRENCHES ADJACENT TO TREE SHOULD BE CLOSED WITHIN TWENTY-FOUR (24) HOURS: AND WHERE THIS IS NOT POSSIBLE. THE SIDE OF THE TRENCH ADJACENT TO THE TREE SHALL BE KEPT SHADED WITH BURLAP OR

15. IRRIGATION CONTRACTOR TO NOTIFY ALL LOCAL JURISDICTIONS FOR INSPECTION AND TESTING OF INSTALLED BACKFLOW PREVENTION DEVICE.

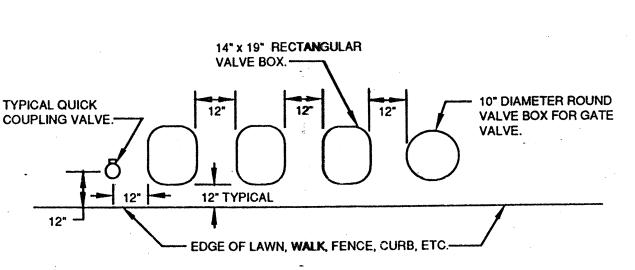
16. THE SPRINKLER SYSTEM DESIGN IS BASED ON THE MINIMUM OPERATING PRESSURE SHOWN ON THE IRRIGATION DRAWINGS. THE IRRIGATION CONTRACTOR SHALL VERIFY WATER PRESSURE PRIOR TO CONSTRUCTION. REPORT ANY DIFFERENCE BETWEEN THE WATER PRESSURE INDICATED ON THE DRAWINGS AND THE ACTUAL PRESSURE READING AT THE IRRIGATION POINT OF CONNECTION TO THE OWNER'S AUTHORIZED REPRESENTATIVE.

17. IRRIGATION DEMAND: 30 GPM AT 60 PSI AFTER THE PRESSURE REDUCING VALVE. STATIC PRESSURE IN THE STREET MAIN IS 85 PSI.

18. PIPE THREAD SEALANT COMPOUND SHALL BE LASCO #905-305 PERMATEX 51 OR RECTOR SEAL T+2.

**ROUND PLASTIC VALVE BOX WITH BOLT DOWN LID. TOP DIMENSION: 10".** REFER TO IRRIGATION 8" CLASS 160 OR SCHEDULE 40 PVC PIPE (NOTCH TO FIT OVER MAIN LINE PIPE) -- SCHEDULE 40 PVC MALE ADAPTER

2 1/2" AND SMALLER GATE VALVE DETAIL



3. SET RCV AND VALVE BOX ASSEMBLY IN GROUND COVER/SHRUB AREA WHERE POSSIBLE INSTALL IN LAWN ONLY IF GROUND COVER DOES NOT EXIST ADJACENT TO LAWN.

4. SET BOXES PARALLEL TO EACH OTHER AND PERPENDICULAR TO EDGE OF LAWN, WALK, FENCE, CURB, ETC.

DEFORMATION OF VALVE BOX SIDES.

ENCLOSE ASSEMBLY FOR EASY ACCESS.

CALIFORNIA STATE FIRE MARSHAL

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**IDENTIFICATION STAMP** Department of General Services Office of the State Architec JL 25 1991 7/14 MAY 2 3 1911 \* Structural Safety Section

Irrigation Consultant: Russell D. Mitchell & Associates, Inc. 1666 Oakland Blvd. Walnut Creek, CA 94596 (415) 939-3985 (415) 932-5671 FAX

JOB No. 2493.88

WITH BOLT DOWN LID. ONE VALVE PER - LOWER LATERAL **BOX - NO EXCEPTIONS. INSTALL BOX AS** LINE WITH SCH. 40 PVC 45° ELBOWS SHOWN IN BOX INSTALLATION DETAIL. TOP DIMENSION: 11 3/4" x 17" (12" DEEP).----REMOTE CONTROL VALVE WITH FLOW CONTROL AND MANUAL BLEED-SCHEDULE 80 PVC THREADED FITTINGS **REFER TO** (AS REQUIRED) **IRRIGATION** LEGEND DEEP BELOW VALVE (NO SOIL IN VALVE BOX) BRICK - 1 EACH PVC MAIN LINE-SCHEDULE 40 PVC TEE REMOTE CONTROL VALVE DETAIL

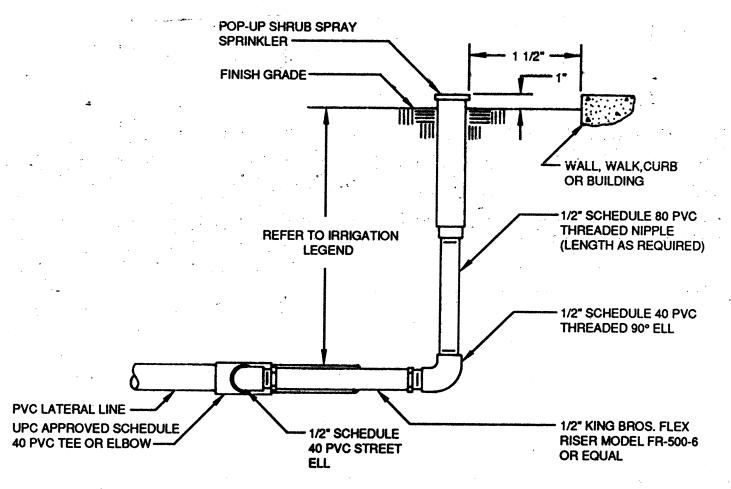
VALVE CONTROL WIRE - PROVIDE

AND 36" OF EXCESS UF WIRE IN A

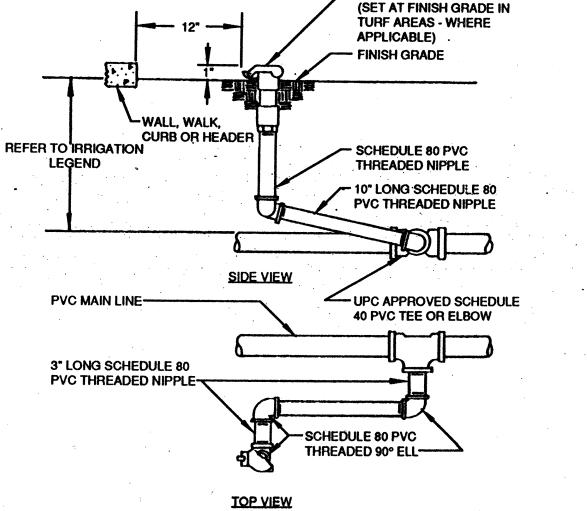
1" DIAMETER COIL.

3M DBY SEAL PACKS AT ALL SPLICES

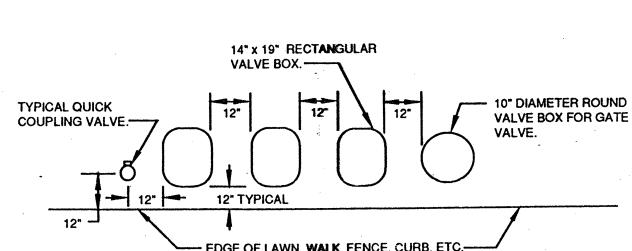
RECTANGULAR PLASTIC VALVE BOX



POP-UP SHRUB SPRAY SPRINKLER NOT TO SCALE



**QUICK COUPLING VALVE DETAIL** 



TOP VIEW

CENTER VALVE BOX OVER REMOTE CONTROL VALVE TO FACILITATE SERVICING VALVE. 2. SET BOXES 1" ABOVE FINISH GRADE OR MULCH COVER IN GROUND COVER/SHRUB AREA AND FLUSH WITH FINISH GRADE IN TURF AREA.

5. AVOID HEAVILY COMPACTING SOIL AROUND VALVE BOXES TO PREVENT COLLAPSE AND

6. INSTALL EXTENSION BY VALVE BOX MANUFACTURER AS REQUIRED TO COMPLETELY

VALVE BOX INSTALLATION NOT TO SCALE