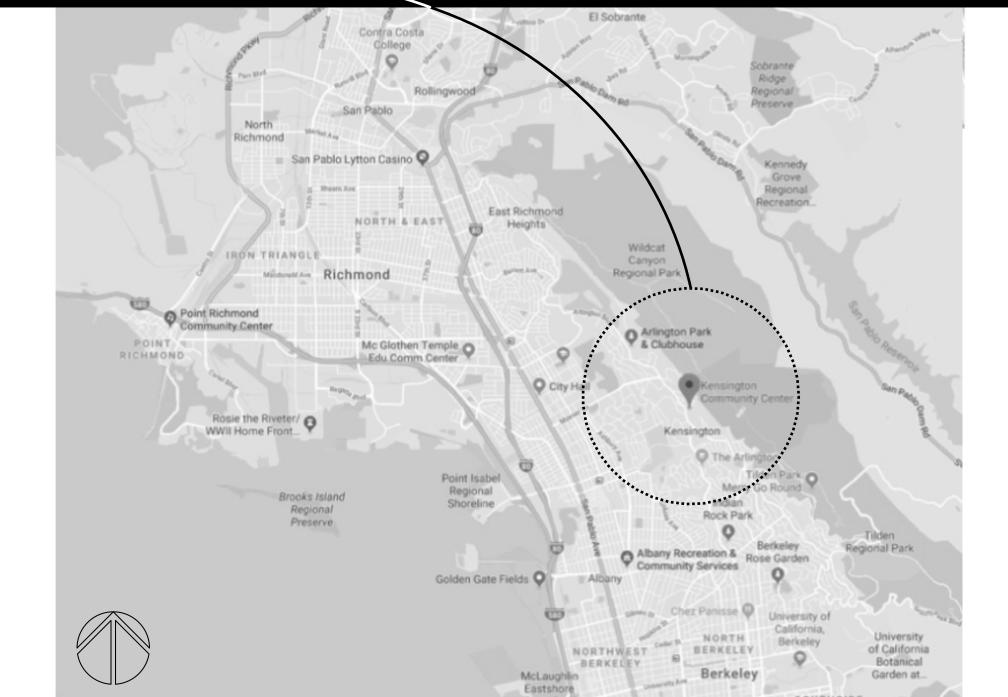


LOCATION MAP ~



PROJECT SCOPE SUMMARY

SEISMIC RETROFIT, ADA UPGRADES AND ENERGY UPGRADES TO AN EXISTING COMMUNITY CENTER BUILDING (APPROX. 4430 S.F.), ORIGINALLY BUILT IN 1955 OF CMU CONSTRUCTION WITH A 1988 ADDITION IN WOOD CONSTRUCTION. SCOPE OF WORK INCLUDES A NEW STRUCTURAL FRAME WITH ALUMINUM AND GLASS DOORS AND WINDOWS REPLACING THE EXISTING UNBRACED CMU WALL AT THE ENTRY FACADE OF THE MEETING HALL, A NEW CANOPY COVER PROVIDING SOLAR SHADING TO THE NEW DOORS AND WINDOWS, SITE UPGRADES RELATING TO ADA PARKING AND PATH OF TRAVEL, AND REPAIR OF HARDSCAPE/LANDSCAPE EFFECTED BY NEW WORK. SCOPE OF WORK DOES NOT INCLUDE ADDITION OF ANY NEW SQUARE FOOTAGE TO THE INTERIOR OF THE BUILDING OR RESULT IN ANYCHANGE OF USE.

CODE INFORMATION

A-3

OCCUPANCY:

SETBACKS: FRONT:

REAR: SIDE:

NEW FLOOR AREA:

BUILDING HEIGHT

CONSTRUCTION:

EXISTING FLOOR AREA:

20 FT. 15 FT. COMBINED 15 FT., NO LESS THAN 5 FT. 4430 S.F. 4430 S.F. (NONE ADDED)

14' - 4" TYPE V-B

PROJECT DIRECTORY

OWNER

Kensington Police Protection & Community Services District

Tony Costantouros, General Manager 217 Arlington Avenue Kensington, CA 94707 TCostantouros@kppcsd.org 510-526-4141 CONSULTANTS
Architects:

Glass Associates, Inc. Architecture & Planning 337 17th Street, Suite 100 Oakland, CA 94612 Attn: William R. Glass, FAIA, Principal wrglass@glassarchplan.com (510) 788-5888

Structural Engineers:

IDA Structural Engineers 1629 Telegraph Avenue, Suite 300 Oakland, CA 94612 Attn: Steven DeJesse, S.E., President srdejesse@ida-se.com 510-834-1629

Mechanical Engineers:

Eddie Padilla Consulting Engineers Inc. 274 Devonshire Street Vallejo, CA 94591 Attn: Eddie Padilla, P.E., Principal eddie.padilla@comcast.net 707-980-4049 CONSULTANTS (cont.) Electrical Engineers:

Bay Area Consulting Engineers 311 California Street, Suite 720 San Francisco, CA 94104 Attn: Lito Magbitang, Principal Lito@bacengineers.com (415) 788-8388

Energy Consultant:

Paul Welshmeyer Architects Energy Consultants 37735 Second Street The Niles District Fremont, CA 94536 Attn: Paul Welshmeyer, AIA, Principal paul@pwaec.com 510-825-0783



DRAWING INDEX

	SHEET NO.	DRAWING NO.	SHEET NAME	SHEET NO.	DRAWING NO.	SHEET NAME
	NO.			NO.		
		G0.01	COVER SHEET - DRAWING INDEX, LOCATION MAP, VICINITY MAP & PROJECT DIRECTORY		EC0.1	THERMAL BOUNDARY ANALYSIS
		G0.02	CODE INFORMATION, GENERAL NOTES, EXIT ROUTE PLAN,		EC1.1	ENERGY COMPLIANCE DOCUMENTATION
			CODE INFORMATION, GENERAL NOTES, EXIT ROUTE PLAN, CONDITIONS OF APPROVAL, ABBREVIATIONS, DRAWING SYMBOLS & MATERIALS LEGEND		EC1.2	
		G2.01	SITE PATH OF TRAVEL		EC1.3	
		G2.02	ACCESS REQUIREMENTS		M1.0	LEGEND, SYMBOLS, GENERAL NOTES & SCOPE OF WORK
		C0.00	SURVEY		M1.1	EQUIPMENT SCHEDULES TITLE 24 COMPLIANCE FORMS
		C0.01	SITE PLAN		M1.2 M2.0	HVAC PLAN
		C1.01	SITE DEMOLITION		M3.0	HVAC DETAILS
		C1.02	SITE GRADING AND PAVING		M3.1	HEAT PUMP SYSTEM DIAGRAM
		C2.01	CIVIL DETAILS		M3.1 M4.1	SPECIFICATIONS
		A1.01	EXISTING FLOOR PLAN		M4.1 M4.2	SPECIFICATIONS
		A1.02	EXISTING CLERESTORY AND LOWER ROOF PLAN		M4.2 M4.3	SPECIFICATIONS
		A1.03	EXISTING UPPER ROOF PLAN		P1.0	PLUMBING LEGEND, SYMBOLS, GENERAL NOTES & SCOPE OF
		A1.04	CONSTRUCTION PLAN		1 1.0	WORK
		A1.05	CLERESTORY AND LOWER ROOF PLAN		P2.0	PLUMBING PLAN
		A1.06	UPPER ROOF PLAN		P3.0	EQUIPMENT SCHEDULES
		A1.11	SCHEDULES		E0.01	ELECTRICAL LEGEND, ABBREVIATIONS, GENERAL NOTES, AND DRAWING INDEX
		A2.01	BUILDING SECTIONS		E0.02	TITLE 24 INDOOR LIGHTING COMPLIANCE FORMS
		A3.01	EXTERIOR ELEVATIONS		E0.03	TITLE 24 INDOOR POWER ALLOWANCE COMPLIANCE FORMS AND
		A3.02	EXTERIOR ELEVATIONS			INSTALLATION FORMS
		A4.01	REFLECTED CEILING PLAN		E0.04	TITLE 24 INDOOR LIGHTING INSTALLATION FORMS AND OUTDOOR LIGHTING COMPLIANCE FORMS
		A5.01	WALL SECTIONS		E0.05	TITLE 24 OUTDOOR LIGHTING COMPLIANCE FORMS AND LIGHTING
		A5.02			Fa a a	CONTROLS FORMS
		A5.03			E0.06	TITLE 24 OUTDOOR LIGHTING POWER ALLOWANCE COMPLINACE FORMS
		A5.04			E0.07	TITLE 24 OUTDOOR LIGHTING INSTALLATION AND ACCEPTANCE
		A6.01	INTERIOR ELEVATIONS - MEETING HALL INTERIOR ELEVATIONS - CATERING PANTRY		E0.08	FORMS LIGHT FIXTURE SCHEDULE AND DETAILS
		A6.02 A6.03	INTERIOR ELEVATIONS - CATERING FAILTRY		E0.08 E1.01	SITE PLAN DEMOLITION
s		A0.03 A7.01	INTERIOR DETAILS		E1.02	SITE PLAN NEW WORK
		A7.01 A7.02	INTERIOR DETAILS		E2.01	
		A7.02	INTERIOR DETAILS - SIGNAGE		E2.02	LIGHTING NEW WORK PLAN
		A8.01	BID ALTERNATIVES - KEY PLAN		E3.01	POWER AND DATA DEMOLITION PLAN
		A8.02	BID ALTERNATIVES - ALT 3 & 4, WEST WALL CABINETS & AV		E3.02	POWER AND DATA NEW WORK PLAN
		A8.03	BID ALTERNATIVES - ALT 5 & 6, FIREPLACE MODIFICATIONS		E3.03	CLERESTORY POWER NEW WORK PLAN
		A8.04	BID ALTERNATIVES - ALT 7, SCREEN PARTITION		E4.01	RISER DIAGRAM AND PANEL SCHEDULES
		A8.05	BID ALTERNATIVES - ALT 8, ACOUSTICAL CEILING TILE		E5.01	TELECOMMUNICATIONS DETAIL
		A8.06	BID ALTERNATIVES - ALT 9, EXTERIOR BUILDING SIGN			
		A9.01	SPECIFICATIONS			
		A9.02	SPECIFICATIONS			
		A9.03	SPECIFICATIONS			
		A9.04	SPECIFICATIONS			
		S1.01	STRUCTURAL - GENERAL NOTES AND ABBREVIATIONS			
		0 / 00				

S1.01STRUCTURAL - GENERAL NOTES AND ABBREVIATIONSS1.02STRUCTURAL - TYPICAL DETAILSS2.01STRUCTURAL - FOUNDATION/FIRST FLOOR FRAMING PLANS2.02STRUCTURAL - ROOF FRAMING PLAN

STRUCTURAL- DETAILS

S4.01

Seismic Upgrades and Building Alterations

Kensington Community Center

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GLASS Associates, Inc. architecture & planning

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T. 510.788.5888

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CONSULTANTS

Structural Engineers:

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Mechanical Engineers:

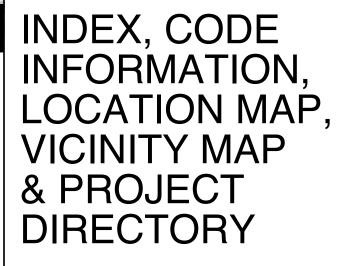
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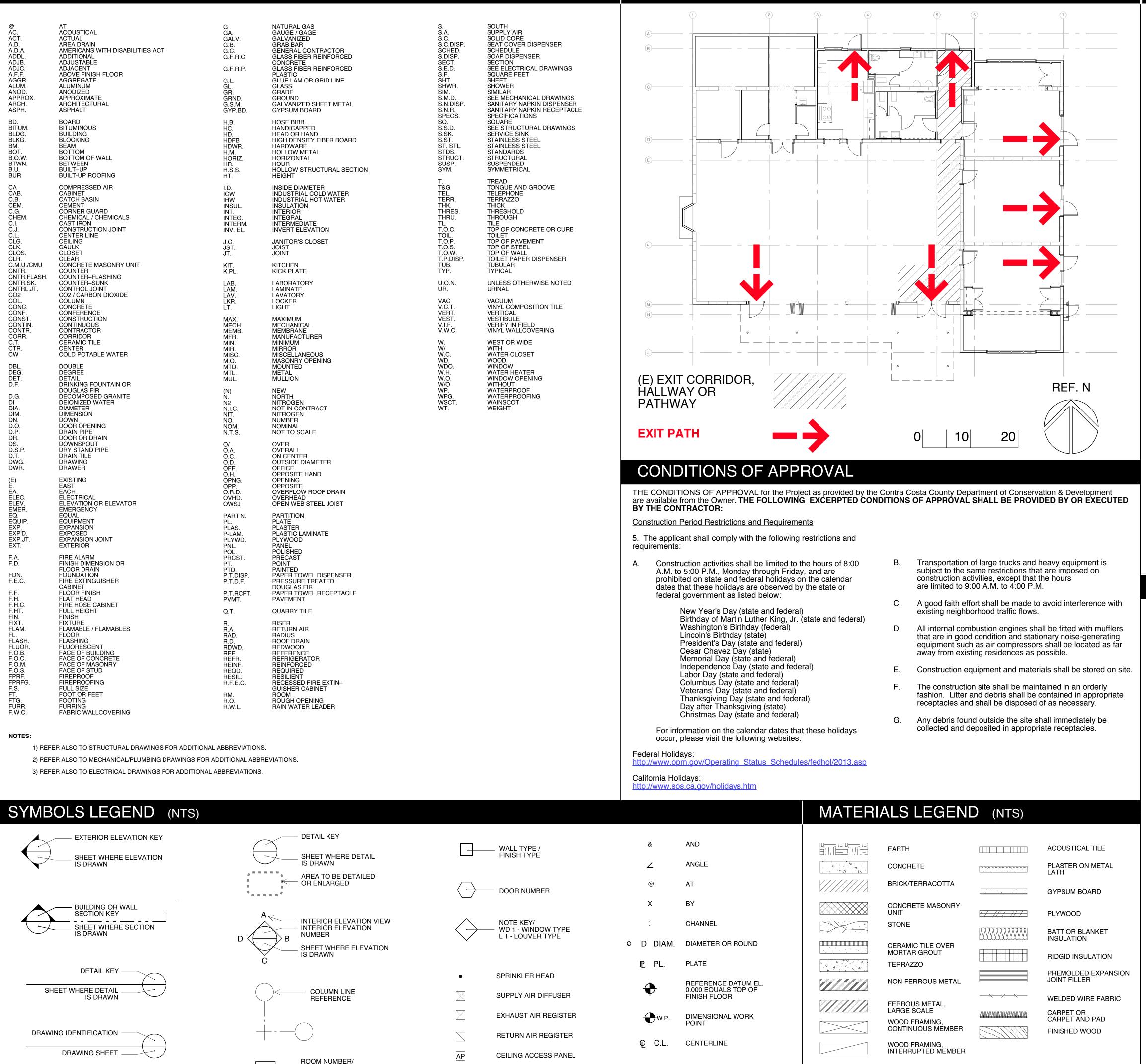


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ABBREVIATIONS

@ AC. A.D. A.D.A. ADDL. ADJB. ADJC.	AT ACOUSTICAL ACTUAL AREA DRAIN AMERICANS WITH DISABILITIES ACT ADDITIONAL ADJUSTABLE ADJACENT	G GA. GALV. G.B. G.C. G.F.R.C. G.F.R.P.	NATURAL GAS GAUGE / GAGE GALVANIZED GRAB BAR GENERAL CONTRACTOR GLASS FIBER REINFORCED CONCRETE GLASS FIBER REINFORCED	S. S.A. S.C. S.C.DISP. SCHED. S.DISP. SECT. S.E.D.	SOUTH SUPPLY AIR SOLID CORE SEAT COVER DISPENSE SCHEDULE SOAP DISPENSER SECTION SEE ELECTRICAL DRAW
A.F.F. AGGR. ALUM. ANOD. APPROX. ARCH. ASPH. BD.	ABOVE FINISH FLOOR AGGREGATE ALUMINUM ANODIZED APPROXIMATE ARCHITECTURAL ASPHALT BOARD	G.L. GL. GR. GRND. G.S.M. GYP.BD. H.B.	PLASTIC GLUE LAM OR GRID LINE GLASS GRADE GROUND GALVANIZED SHEET METAL GYPSUM BOARD HOSE BIBB	S.F. SHT. SHWR. SIM. S.M.D. S.N.DISP. S.N.R. SPECS. SQ.	SQUARE FEET SHEET SHOWER SIMILAR SEE MECHANICAL DRAV SANITARY NAPKIN DISP SANITARY NAPKIN REC SPECIFICATIONS SQUARE
BITUM. BLDG. BLKG. BM. BOT. B.O.W. BTWN. B.U. BUR	BITUMINOUS BUILDING BLOCKING BEAM BOTTOM BOTTOM OF WALL BETWEEN BUILT-UP BUILT-UP BUILT-UP ROOFING	HC. HD. HDFB HDWR. H.M. HORIZ. HR. H.S.S. HT.	HANDICAPPED HEAD OR HAND HIGH DENSITY FIBER BOARD HARDWARE HOLLOW METAL HORIZONTAL HOUR HOULOW STRUCTURAL SECTION HEIGHT	S.S.D. S.SK. S.ST. ST. STL. STDS. STRUCT. SUSP. SYM.	SPECIFICATIONS SQUARE SEE STRUCTURAL DRA SERVICE SINK STAINLESS STEEL STAINLESS STEEL STANDARDS STRUCTURAL SUSPENDED SYMMETRICAL
CA CAB. C.B. C.G. C.HEM. C.I. C.J. C.L. CLG. CLK. CLOS.	COMPRESSED AIR CABINET CATCH BASIN CEMENT CORNER GUARD CHEMICAL / CHEMICALS CAST IRON CONSTRUCTION JOINT CENTER LINE CEILING CAULK CLOSET	I.D. ICW IHW INSUL. INT. INTEG. INTERM. INV. EL. J.C. JST.	INSIDE DIAMETER INDUSTRIAL COLD WATER INDUSTRIAL HOT WATER INSULATION INTERIOR INTEGRAL INTERMEDIATE INVERT ELEVATION JANITOR'S CLOSET JOIST	T. T&G TEL. TERR. THK. THRES. THRU. TL. T.O.C. TOIL. T.O.P. T.O.S. T.O.W.	TREAD TONGUE AND GROOVE TELEPHONE TERRAZZO THICK THRESHOLD THROUGH TILE TOP OF CONCRETE OR TOILET TOP OF PAVEMENT TOP OF STEEL TOP OF WALL
CLUS. CLR. C.M.U./CMU CNTR. CNTR.FLASH. CNTR.SK. CNTRL.JT. CO2 COL. CONC. CONF. CONST.	CLUSET CLEAR CONCRETE MASONRY UNIT COUNTER COUNTER-FLASHING COUNTER-SUNK CONTROL JOINT CO2 / CARBON DIOXIDE COLUMN CONCRETE CONFERENCE CONSTRUCTION	JT. KIT. K.PL. LAB. LAM. LAV. LKR. LT. MAX.	JOINT KITCHEN KICK PLATE LABORATORY LAMINATE LAVATORY LOCKER LIGHT MAXIMUM	T.P.DISP. T.P.DISP. TUB. TYP. U.O.N. UR. VAC V.C.T. VERT. VEST.	TOF OF WALL TOILET PAPER DISPENS TUBULAR TYPICAL UNLESS OTHERWISE NO URINAL VACUUM VINYL COMPOSITION TI VERTICAL VESTIBULE
CONTIN. CONTR. CORR. C.T. CTR. CW DBL. DEG. DET.	CONTINUOUS CONTRACTOR CORRIDOR CERAMIC TILE CENTER COLD POTABLE WATER DOUBLE DEGREE DEGREE DETAIL	MAX. MECH. MEMB. MFR. MIN. MIR. MISC. M.O. MTD. MTL. MUL.	MECHANICAL MEMBRANE MANUFACTURER MINIMUM MIRROR MISCELLANEOUS MASONRY OPENING MOUNTED METAL MULLION	V.I.F. V.W.C. W/ W.C. WD. WDO. W.H. W.O.	VERIFY IN FIELD VINYL WALLCOVERING WEST OR WIDE WITH WATER CLOSET WOOD WINDOW WATER HEATER WINDOW OPENING
D.F. D.G. DIA. DIA. DIM. DN. D.O. D.P. DR. DS.	DRINKING FOUNTAIN OR DOUGLAS FIR DECOMPOSED GRANITE DEIONIZED WATER DIAMETER DIMENSION DOWN DOOR OPENING DRAIN PIPE DOOR OR DRAIN DOWNSPOUT	(N) N. N2 N.I.C. NIT. NO. NOM. N.T.S. O/	NEW NORTH NITROGEN NOT IN CONTRACT NITROGEN NUMBER NOMINAL NOT TO SCALE OVER	W/O WP. WPG. WSCT. WT.	WITHOUT WATERPROOF WATERPROOFING WAINSCOT WEIGHT
D.S.P. D.T. DWG. DWR. (E) E. EA. ELEC. ELEV.	DRY STAND PIPE DRAIN TILE DRAWING DRAWER EXISTING EAST EACH ELECTRICAL ELEVATION OR ELEVATOR	O.A. O.C. O.D. OFF. O.H. OPNG. OPP. O.R.D. OVHD. OWSJ	OVERALL ON CENTER OUTSIDE DIAMETER OFFICE OPPOSITE HAND OPENING OPPOSITE OVERFLOW ROOF DRAIN OVERHEAD OPEN WEB STEEL JOIST		
EMER. EQ. EQUIP. EXP. EXP'D. EXP.JT. EXT. F.A. F.D.	EMERGENCY EQUAL EQUIPMENT EXPANSION EXPOSED EXPANSION JOINT EXTERIOR FIRE ALARM FINISH DIMENSION OR	PART'N. PL. PLAS. P-LAM. PLYWD. PNL. POL. PRCST. PT.	PARTITION PLATE PLASTER PLASTIC LAMINATE PLYWOOD PANEL POLISHED PRECAST POINT		
FDN. F.E.C. F.F. F.H. F.H.C. F.HT. FIN.	FLOOR DRAIN FOUNDATION FIRE EXTINGUISHER CABINET FLOOR FINISH FLAT HEAD FIRE HOSE CABINET FULL HEIGHT FINISH	PTD. P.T.DISP. P.T.D.F. P.T.RCPT. PVMT. Q.T.	PAINTED PAPER TOWEL DISPENSER PRESSURE TREATED DOUGLAS FIR PAPER TOWEL RECEPTACLE PAVEMENT QUARRY TILE		
FIXT. Flam. Fl. Flash. Fluor. F.o.b. F.o.b. F.o.c. F.o.m. F.o.s. FPRF. FPRFG. F.S.	FIXTURE FLAMABLE / FLAMABLES FLOOR FLASHING FLUORESCENT FACE OF BUILDING FACE OF CONCRETE FACE OF MASONRY FACE OF STUD FIREPROOF FIREPROOFING FULL SIZE	R. R.A. RAD. RDWD. REF. REFR. REINF. REQD. RESIL. R.F.E.C.	RISER RETURN AIR RADIUS ROOF DRAIN REDWOOD REFERENCE REFRIGERATOR REINFORCED REQUIRED RESILIENT RECESSED FIRE EXTIN– GUISHER CABINET		
FT. FTG. FURR. F.W.C.	FOOT OR FEET FOOTING FURRING FABRIC WALLCOVERING	RM. R.O. R.W.L.	ROOM ROUGH OPENING RAIN WATER LEADER		

SIGN KEY



EXIT ROUTE PLAN

14.

15

PROJECT CODE INFORMATION

APPLICABLE CODES:

2016 California Building Code (CBC) NEC, Current Issue and California Amendments (CBC) UMC, Current Issue and California Amendments (CBC) UPC, Current Issue and California Amendments (CBC) UFC, Current Issue and California Amendments (CBC)

NOTE: Project consists of alterations to existing spaces. Work does not include changes to Occupancy Classifications

ORIGINAL CONSTRUCTION & APPLICABLE CODES: 1955 Construction; 1953 Uniform Building Code (UBC)

REMODEL CONSTRUCTION & APPLICABLE CODES: 1988 Remodel & Addition; 1985 Uniform Building Code (UBC)

CONSTRUCTION TYPES (1953 & 1985 UBC): Type V- NR

FIRE PROTECTION: Unsprinklered

CBC 2016 TABLE 601 & 602 REQUIREMENTS:

Building Element - Type V-B	Requirement
1. Bearing Walls - Exterior	1 Hr. =5' from property line<br Unprotected 5'+ from property line (20'+ from all property lines)
2. Bearing Walls - Interior	NR
3. Non-Bearing Walls - Exterior	Unprotected (40'+ from property line)
4. Structural Frame	NR
5. Partitions - Between A-3 & B	1 Hr. Occupancies
6. Shaft Enclosures	N/A
7. Floors	N/A
8. Roofs	NR
9. Exterior Doors & Window	Unprotected (20'+ from property line) & 3/4 Hr. (w/in 10' of Exit Stair)
10. Stairway Construction	N/A

GENERAL NOTES

GENERAL CONSTRUCTION NOTES

2.

3.

4.

5.

6.

9.

ALL WORK IS SHOWN, DESCRIBED OR SPECIFIED IN THE DRAWINGS INDEXED ON SHEET G0.01 OR IN THE SPECIFICATIONS.

ONLY WORK SO NOTED IS NOT IN CONTRACT (N.I.C.). FOR OUTLINE OF EXISTING CONDITIONS REFER TO SHEET A1.01 - EXISTING PLAN. CONTRACTOR SHALL FAMILIARIZE ITSELF WITH EXISTING CONDITIONS PRIOR TO BID AND COMMENCEMENT OF CONSTRUCTION. ALL WORK SHOWN IS NEW UNLESS ACCOMPANIED BY "(E)", INDICATING

EXISTING. PATCH & REPAIR ANY EXISTING CONDITION AFFECTED BY NEW

CONSTRUCTION TO "LIKE NEW" CONDITION, TYP.

ALL WORK SHALL BE CARRIED OUT IN ACCORDANCE WITH THE 2016 C.B.C., CURRENT ADA GUIDELINES FOR ACCESSIBLE DESIGN.

CONTRACTOR SHALL COOPERATE IN PROVIDING ACCESS FOR AND IN SCHEDULING WORK BY OTHERS NOT IN THIS CONTRACT, INCLUDING BUT NOT LIMITED TO UNIVERSITY'S CONTRACTORS OR VENDORS.

CONTRACTOR SHALL MAINTAIN ACCESS AT ALL TIMES TO PUBLIC AREAS FOR BUILDING USERS IN AREAS NOT RECEIVING WORK UNDER THIS CONTRACT.

SHEET NOTES INCLUDE BOTH GENERAL AND SPECIFIC SCOPE ITEMS. SPECIFIC ITEMS ARE KEYED IN THE DRAWINGS TO ASSIST CONTRACTOR IN IDENTIFYING LOCATION OF WORK. NOTES NOT KEYED IN THE DRAWINGS SHOULD BE CONSIDERED AS GENERAL OR TYPICAL AND APPLY TO ALL AREAS OF THE WORK.

ALL AREAS AND PROPERTY ADJACENT TO THOSE RECEIVING WORK UNDER THIS CONTRACT SHALL BE PROTECTED DURING CONSTRUCTION FROM DIRT, DUST, AND DAMAGE RESULTING FROM CONTRACTOR'S OPERATIONS.

10. GENERAL CONTRACTOR SHALL PROVIDE PROTECTION TO ALL EXISTING FINISHED SPACES DESIGNATED TO REMAIN AND SHALL BE RESPONSIBLE TO REPAIR ANY DAMAGES CAUSED BY THE CONTRACTOR OR BY ITS SUBCONTRACTORS.

WORK INCLUDES MODIFICATIONS TO EXISTING FIRE ALARM SYSTEMS; 11. ALL WORK TO MEET REQUIREMENTS OF NFPA 72; MAINTAIN OPERATION OF SMOKE DETECTORS AND OTHER LIFE SAFETY SYSTEM COMPONENTS DURING CONSTRUCTION; PROVIDE TEMPORARY SERVICE AS REQUIRED.

12. THE WORK DOES NOT INCLUDE INSTALLATION OF A FIRE SPRINKLER SYSTEM (NOT REQUIRED BY C.B.C. FOR TYPE V-B, BUILDINGS LESS THAN 5,000 G.S.F.).

13. PROVIDE FIRESTOPPING THROUGH FIRE RATED CONSTRUCTION AT NEW PENETRATIONS AND AT EXISTING ADJACENT CONDUITS AND OTHER PENETRATIONS THAT DO NOT HAVE FIRESTOPPING COMPLYING WITH REGULATORY REQUIREMENTS.

ALL DIMENSIONS TO FINISH FACE UNLESS OTHERWISE NOTED.

PATCH, REPAIR, TAPE, FLOAT AND SAND DAMAGE AT EXISTING PARTITIONS FOR LIKE-NEW APPEARANCE, INCLUDING REPAIR WHERE EXISTING RESILIENT BASE IS REMOVED TO PROVIDE SMOOTH SUBSTRATE FOR INSTALLATION OF NEW RESILIENT BASE.

CONTRACTOR SHALL INCLUDE IN THE WORK ANY DEMOLITION OF EXISTING CONDITIONS REQUIRED TO COMPLETE THE IMPROVEMENTS CALLED FOR IN THE DRAWINGS AND SPECIFICATIONS.

Seismic Upgrades and **Building Alterations**

Kensington Community Center

59 Arlington Avenue Kensington, CA 94707 for the

Kensington Police Protection & **Community Services District**

GLASS Associates, Inc. architecture & plan'ning

337 17th Street, Suite 100 Oakland, CA 94612

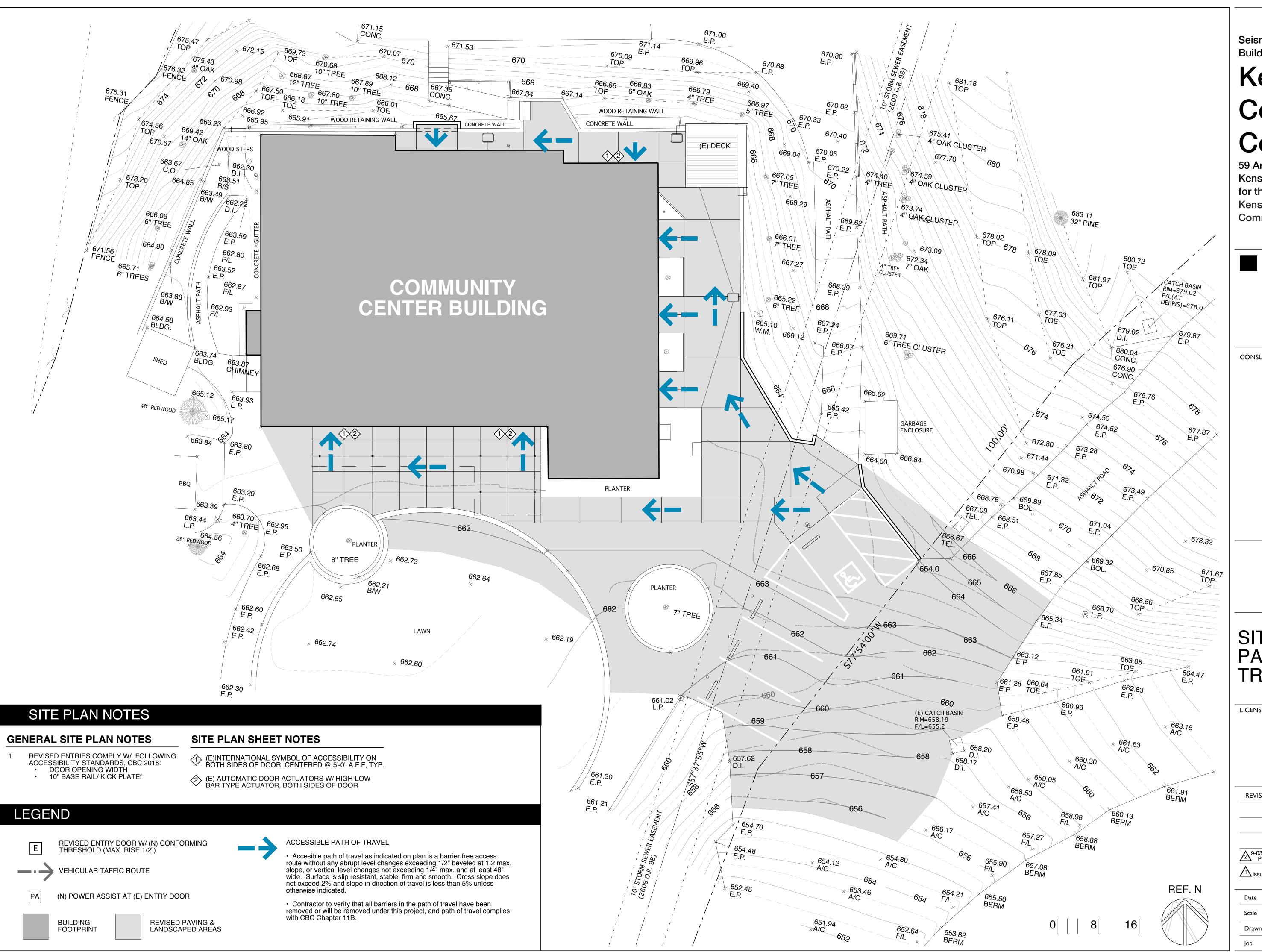
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CONSULTANTS

CODE INFORMATION, GENERAL NOTES, EXIT ROUTE PLAN, **CONDITIONS OF APPROVAL** ABBREVIATIONS, DRAWING SYMBOLS & MATERIALS LEGEND

LICENSE	ALIFORNIA
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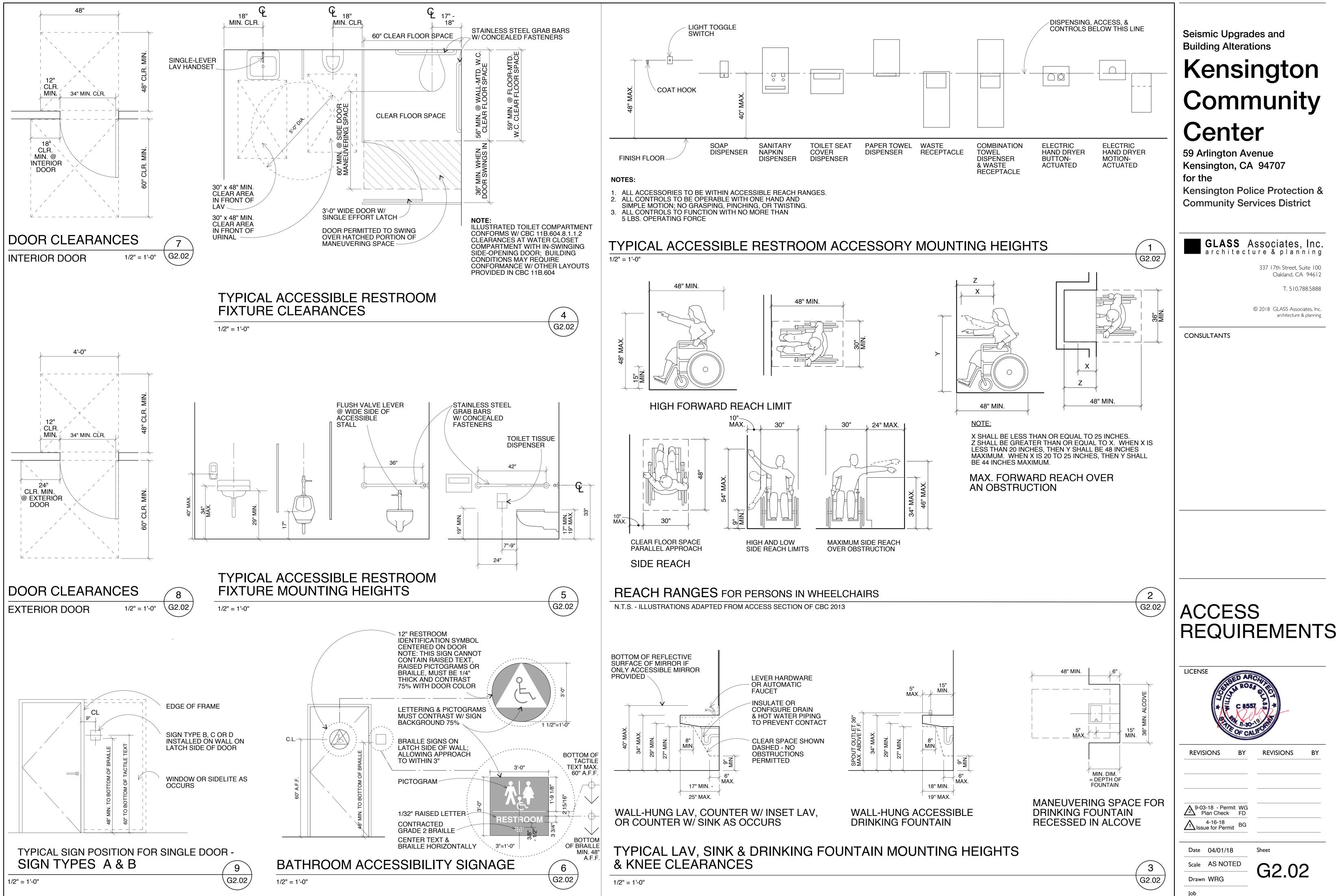
T. 510.788.5888

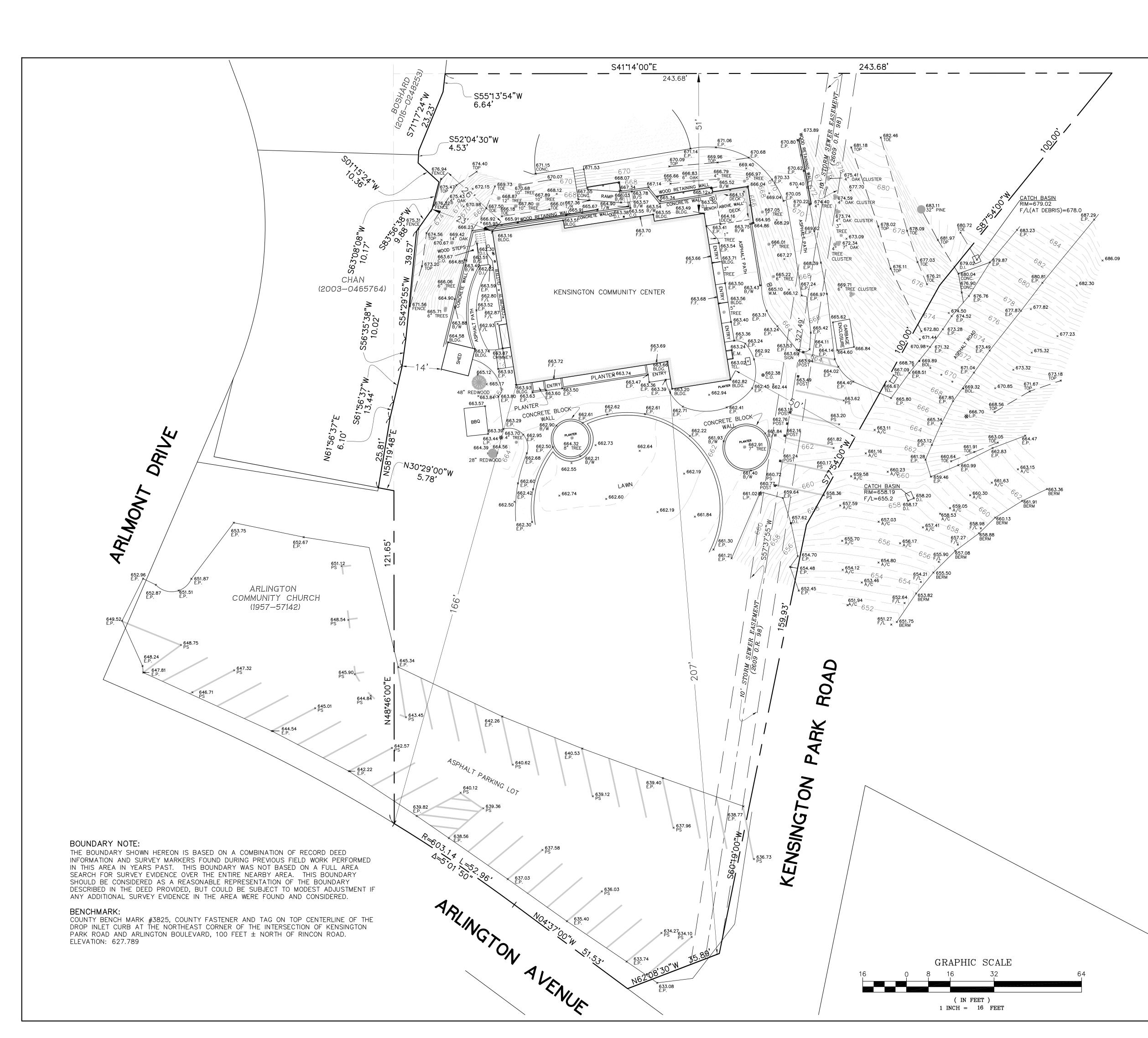
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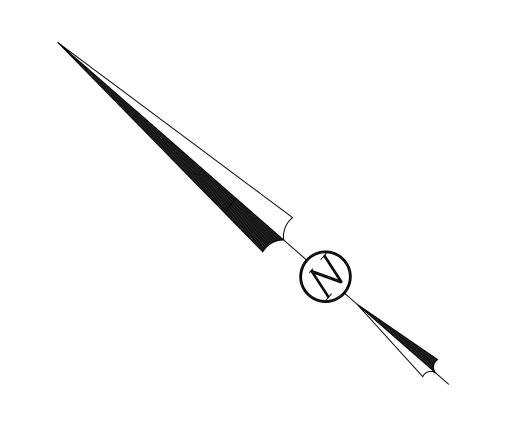
CONSULTANTS

SITE PATH OF TRAVEL PLAN

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Scale 1/4" = 1'-0"	- G2.01
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LEGEND

A/C B/R B/S B/W BLDG. BOL. C.O. CONC. D.I. E.M. E.P. F.F. F/L L.P. ΡS S/W T/R T/W TEL. TOE TOP UN W.M.

ASPHALT/CONCRETE BASE OF RAMP BASE OF STEPS BASE OF WALL BUILDING BOLLARD CLEAN OUT CONCRETE DRAIN INLET ELECTRIC METER EDGE OF PAVEMENT FINISHED FLOOR FLOWLINE LIGHT POLE PARKING STRIPE SIDEWALK TOP OF RAMP TOP OF WALL TELECOMMUNICATIONS TOE OF BANK TOP OF BANK UNKNOWN UTILITY WATER METER CONCRETE ASPHALT CONCRETE WALL BUILDING

TOPOGRAPHIC SURVEY

KENSINGTON COMMUNITY CENTER LOCATED AT 59 ARLINGTON AVENUE CITY OF KENSINGTON, COUNTY OF CONTRA COSTA, CALIFORNIA

MAY 18, 2018

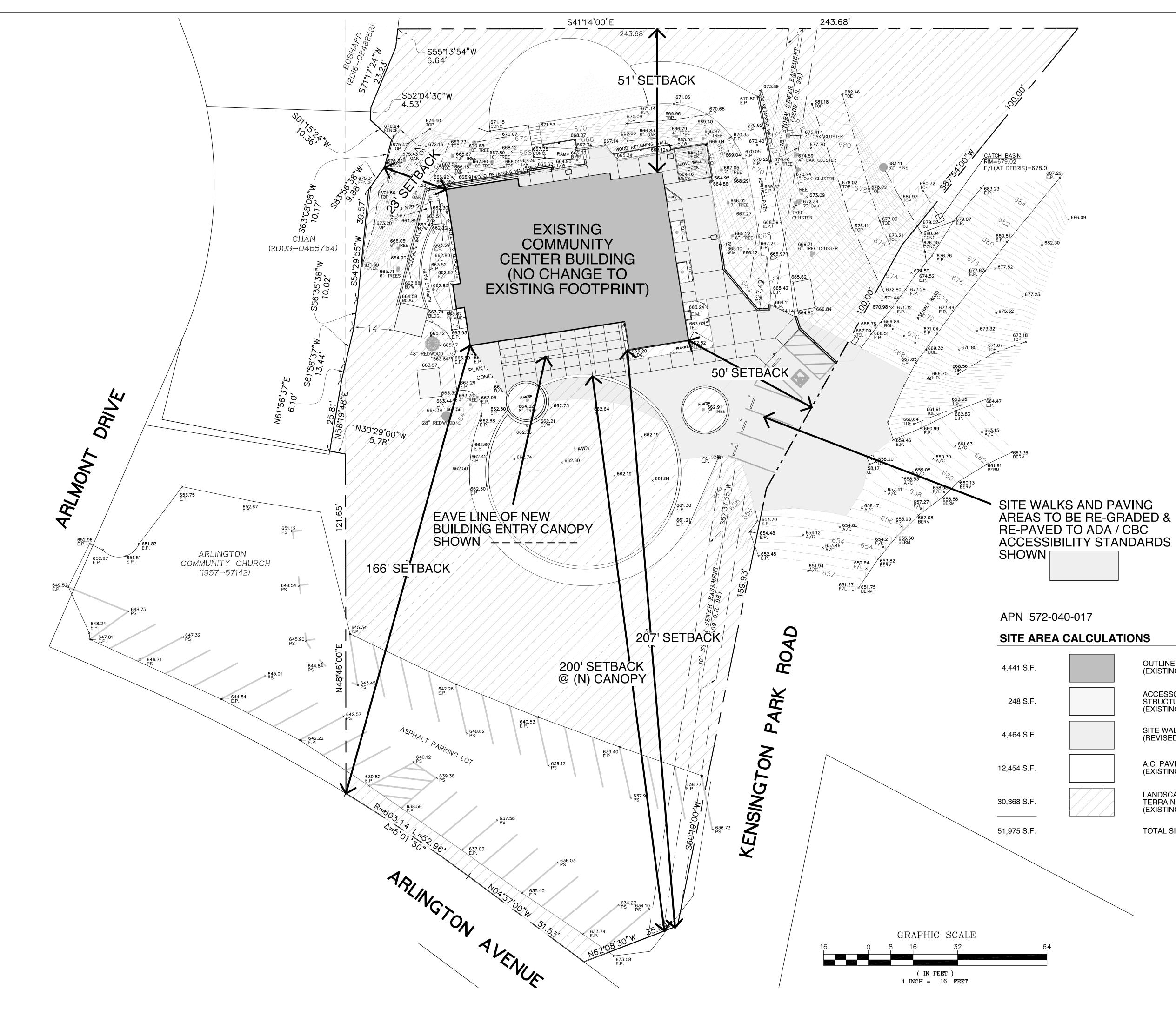
SCALE: 1'' = 16'

C0.00

MORAN ENGINEERING, INC.

CIVIL ENGINEERS \ LAND SURVEYORS 1930 SHATTUCK AVENUE, SUITE A BERKELEY, CALIFORNIA 94704 (510) 848–1930

F.B. NO. 1680 KCC-TOPO.DWG JOB 18-9896



OUTLINE OF BUILDING (EXISTING)

ACCESSORY SHEDS & STRUCTURES (EXISTING)

SITE WALKS & PAVING (REVISED)

A.C. PAVING (EXISTING TO REMAIN)

LANDSCAPING & NATURAL TERRAIN (EXISTING TO REMAIN)

TOTAL SITE AREA

Kensington

Seismic Upgrades and

Building Alterations

Community Center

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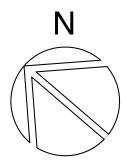
T. 510.788.5888

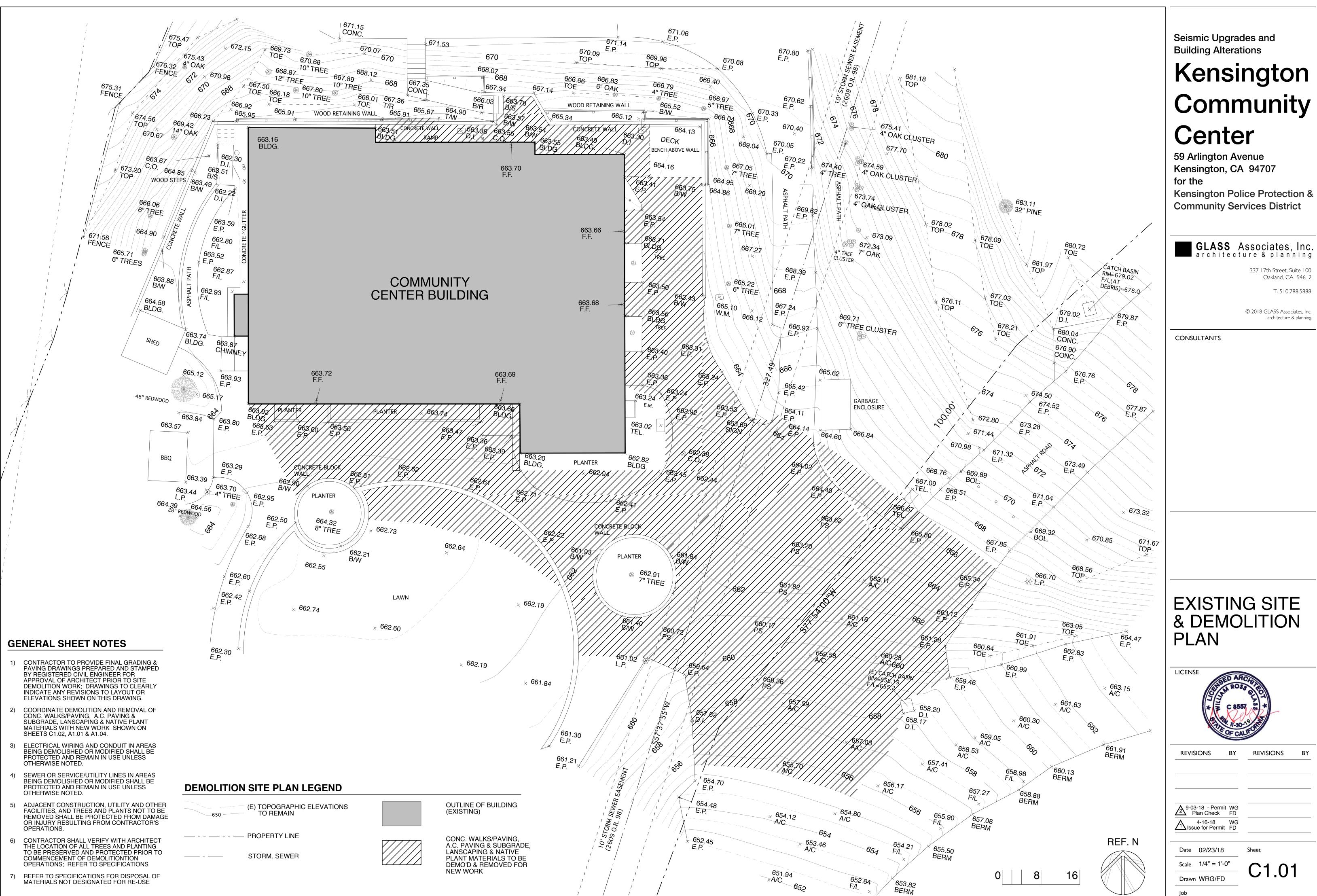
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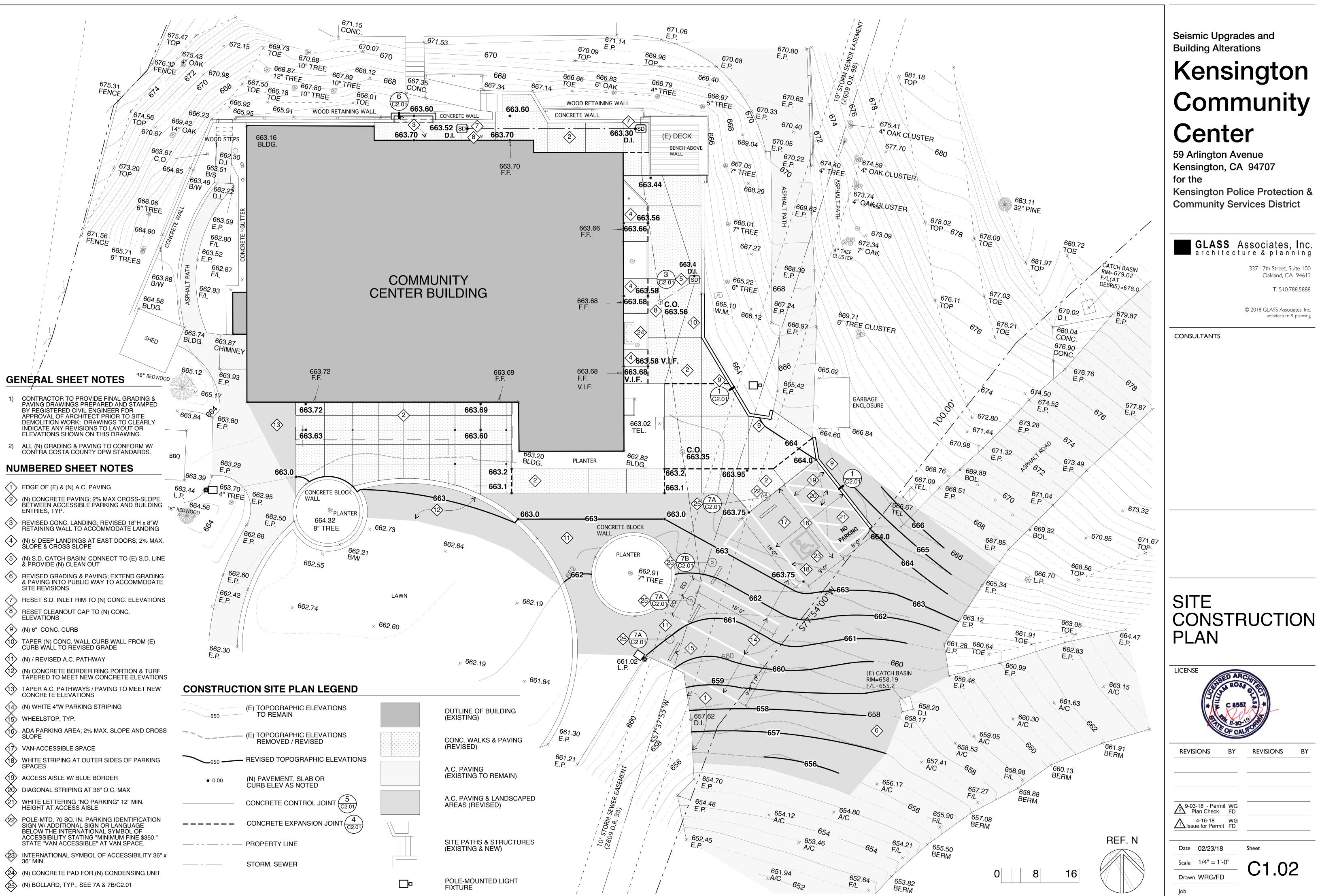
CONSULTANTS

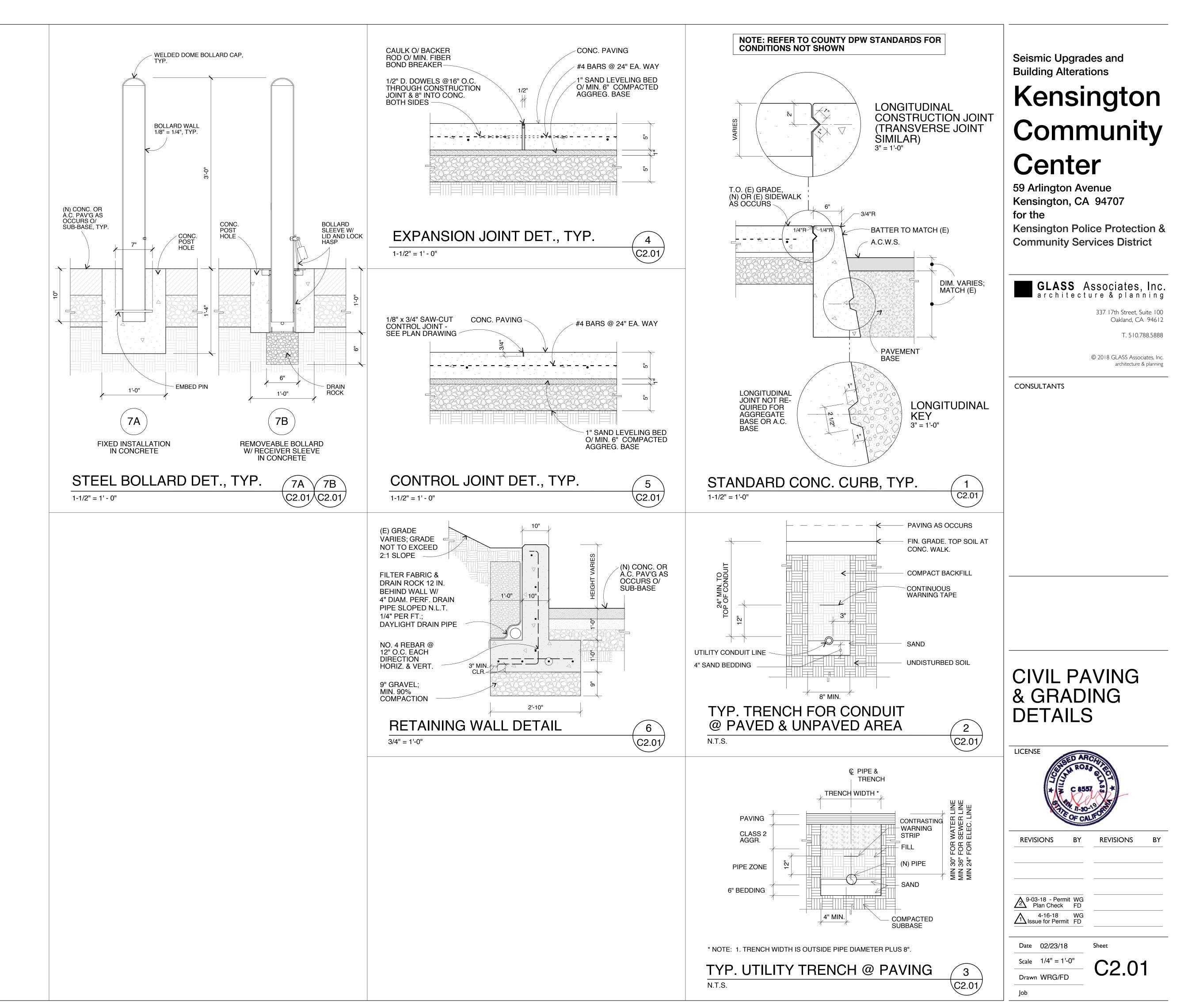
SITE PLAN

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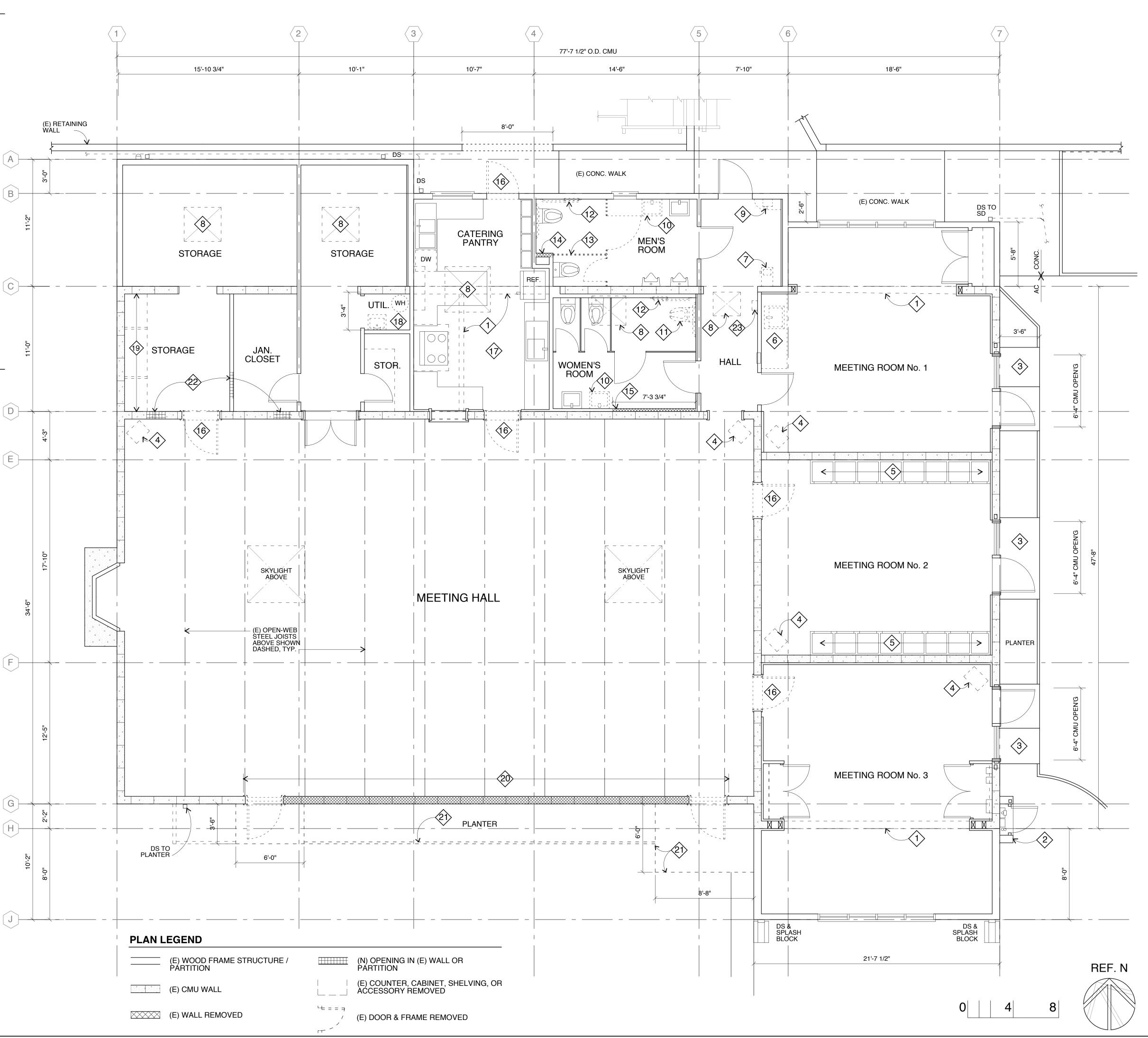
SECTION A-A

Fixed Installation in New Concrete

- 1) ALL WORK SHALL BE CARRIED OUT IN ACCORDANCE WITH THE 2016 C.B.C. AS ADOPTED BY THE COUNTY OF CONTRA COSTA.
- 2) THE EXISTING & DEMOLITION PLAN IS PROVIDED TO ASSIST CONTRACTOR IN **IDENTIFYING LOCATION OF WORK ONLY.** CONTRACTOR SHALL INCLUDE IN THE WORK ANY DEMOLITION OF EXISTING FIXTURES, FINISHES, AND EQUIPMENT NOT DESIGNATED TO REMAIN OR REQUIRED TO ALLOW COMPLETION OF THE WORK.
- 3) A HAZARDOUS MATERIALS SURVEY IS AVAILABLE FROM THE OWNER. OWNER WILL CONTRACT SEPARATELY FOR ANY **REQUIRED ABATEMENT WORK.** CONTRACTOR SHALL REFER TO SURVEY TO UNDERSTAND LOCATION OF AND ASSESS NECESSARY HANDLING AND ABATEMENT OF ANY HAZARDOUS MATERIALS THAT MAY BE DISTURBED AS PART OF DEMOLITION. CONTRACTOR SHALL IDENTIFY TO THE OWNER ANY **REQUIRED ABATEMENT WORK NOT** PREVIOUSLY COMPLETED.
- SAFE-OFF AND CAP ANY ELECTRICAL 4) WIRING AND CONDUIT REMAINING OR NOT REMOVED BY DEMOLITION.
- 5) CAP ANY PLUMBING OR SERVICE/UTILITY LINES REMAINING OR NOT REMOVED BY DEMOLITION.
- 6) SEE SHEET A1.04 FOR CONSTRUCTION PLAN
- 7) SEE SHEET A4.01 FOR REFLECTED CEILING PLAN.

KEYED NOTES

- $\langle 1 \rangle$ (E) BEAM ABOVE TO REMAIN.
- $\langle 2 \rangle$ (E) METER ENCLOSURE TO REMAIN.
- $\langle 3 \rangle$ (E) CONCRETE LANDING TO REMAIN.
- (4) REMOVE (E) GAS UNIT HEATER AND ALL ASSOCIATED MECHANICAL/PLUMBING AND ELECTRICAL PIPES/FITTINGS; REFER TO A1.04; SEE ALSO MECHANICAL/PLUMBING DRAWINGS AND ELECTRICAL DRAWINGS.
- $\langle 5 \rangle$ (E) STORAGE CABINETS TO REMAIN.
- 6 DEMO & REMOVE (E) SINK, COUNTER, CABINETS AND ASSOCIATED PLUMBING FIXTURES; REFER TO A1.04 AND SEE PLUMBING DRAWINGS.
- REMOVE (E) DRINKING FOUNTAIN; REFER TO A1.04 AND ALSO SEE PLUMBING DRAWINGS.
- $\langle 8 \rangle$ (E) SKYLIGHT ABOVE TO REMAIN.
- 9 REMOVE (E) WALL-MOUNTED PAY PHONE AND SHELF; REFER TO A1.04.
- 10 REMOVE (E) WALL MOUNTED LAVATORY.
- (1) REMOVE (E) TOILET.
- (12) REMOVE (E) ADA ACCESSORIES.
- (E) TOILET PARTITIONS TO BE REVISED. REFER TO A1.04.
- $\langle 14 \rangle$ (E) CHASE TO BE REVISED. REFER TO A1.04.
- 15 DEMO & REMOVE (E) FURRED WALL; REFER ALSO TO A1.04 AND STRUCTURAL DRAWINGS FOR NEW WORK; SHORE WALL, CEILING & ROOF STRUCTURE REMAINING AS **REQUIRED TO INSTALL (N) WORK.**
- (6) REMOVE (E) DOOR AND FRAME; DEMO/ENLÁRGE OPENING TO ACCOMMODATE (N) DOOR & FRAME; REFER TO A1.04; SEE STRÚC. DRAWINGS. 17 DEMO & REMOVE (E) COUNTERS, CABINETS & ASSOCIATED PLUMBING FIXTURES &
- APPLIANCES; REFER ALSO TO A1.04 & A6.02; SEE PLUMBING DRAWINGS.
- (18) DEMO & REMOVE (E) JANITOR'S SINK AND WATER HEATER. SEE PLUMBING DRAWINGS.
- $\langle 19 \rangle$ (E) STORAGE SHELVES ABOVE TO REMAIN. 20 DEMO & REMOVE (E) CMU WALL, WINDOWS AND DOORS; REFÈR ALSO TO A1.04, A1.05, A2.01, A5.01 AND STRUCTURAL DRAWINGS
- FOR NEW WORK; SHORE WALL, CEILING & ROOF STRUCTURE REMAINING AS REQUIRED TO INSTALL (N) WORK.
- 21 DEMO & REMOVE (E) CONCRETE LANDINGS AND (E) PLANTERS; REFER TO C1.02, A1.04 FOR NÉW WORK.
- OPENINGS IN (E) WALL TO ACCOMMODATE MECHANICAL DÚCTS; REFER TO STRUCTURAL AND MECHANICAL DRAWINGS FOR EXACT LOCATIONS AND SIZES.
- CONSULT W/ ARCHITECT TO RELOCATE EXISTING LIFE SAFETY CABINET TO COMPLY WITH ADA REGULATIONS.



Seismic Upgrades and **Building Alterations**

Kensington Community Center

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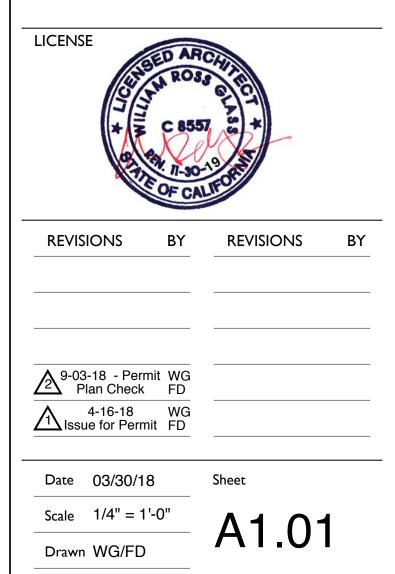
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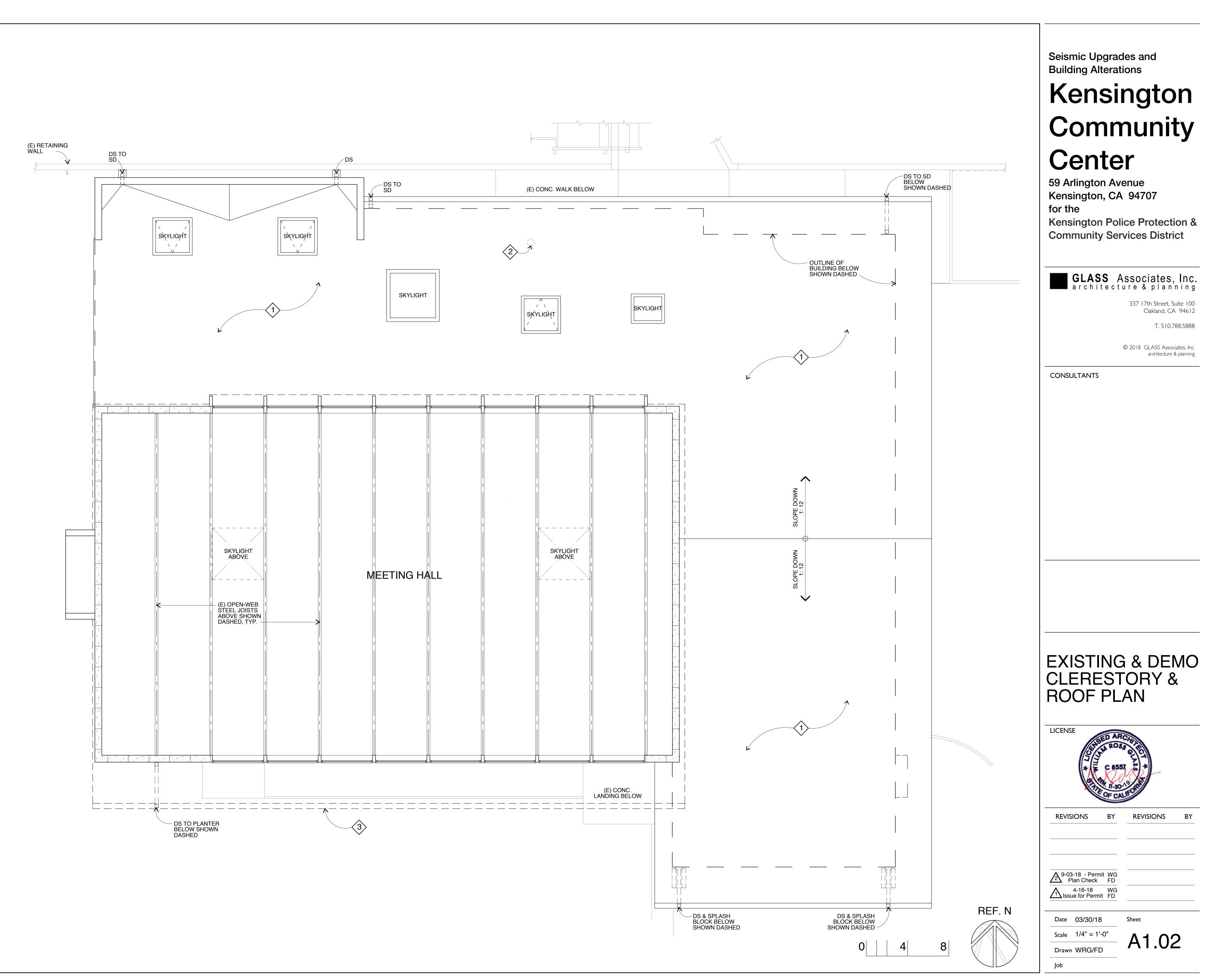
EXISTING & DEMOLITION PLAN



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- 3) A HAZARDOUS MATERIALS SURVEY IS AVAILABLE FROM THE OWNER. OWNER WILL CONTRACT SEPARATELY FOR ANY REQUIRED ABATEMENT WORK. CONTRACTOR SHALL REFER TO SURVEY TO UNDERSTAND LOCATION OF AND ASSESS NECESSARY HANDLING AND ABATEMENT OF ANY HAZARDOUS MATERIALS THAT MAY BE DISTURBED AS PART OF DEMOLITION. CONTRACTOR SHALL IDENTIFY TO THE OWNER ANY REQUIRED ABATEMENT WORK NOT PREVIOUSLY COMPLETED.
- 4) SAFE-OFF AND CAP ANY ELECTRICAL WIRING AND CONDUIT REMAINING OR NOT REMOVED BY DEMOLITION.
- 5) CAP ANY PLUMBING OR SERVICE/UTILITY LINES REMAINING OR NOT REMOVED BY DEMOLITION.
- 6) SEE SHEET A1.04 FOR CONSTRUCTION PLAN
- 7) SEE SHEET A4.01 FOR REFLECTED CEILING PLAN.

KEYED NOTES

- 1 DEMO & REMOVE (E) ROOFING MATERIAL, FASCIAS AND GUTTERS AS REQUIRED FOR (N) SHEAR PLYWD AND (N) ROOF INSTALLATION; REFER TO A1.05, A5.02 AND STRUCTURAL DRAWINGS.
- DEMO & REMOVE (E) ROOF, JOISTS, DECKING AS REQUIRED FOR INSTALLATION OF RESTROOM VENTILATION FAN. REFER TO A4.01 AND MECH/PLUMBING DRAWINGS.
- (E) UPPER ROOF & GUTTER ABOVE.



PLAN LEGEND (E) WOOD FRAME STRUCTURE / PARTITION (E) CMU WALL (E) WALL REMOVED

(E) COUNTER, CABINET, SHELVING, OR ACCESSORY REMOVED

- 1) ALL WORK SHALL BE CARRIED OUT IN ACCORDANCE WITH THE 2016 C.B.C. AS ADOPTED BY THE COUNTY OF CONTRA COSTA.
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- 6) SEE SHEET A1.04 FOR CONSTRUCTION PLAN
- SEE SHEET A4.01 FOR REFLECTED CEILING PLAN.

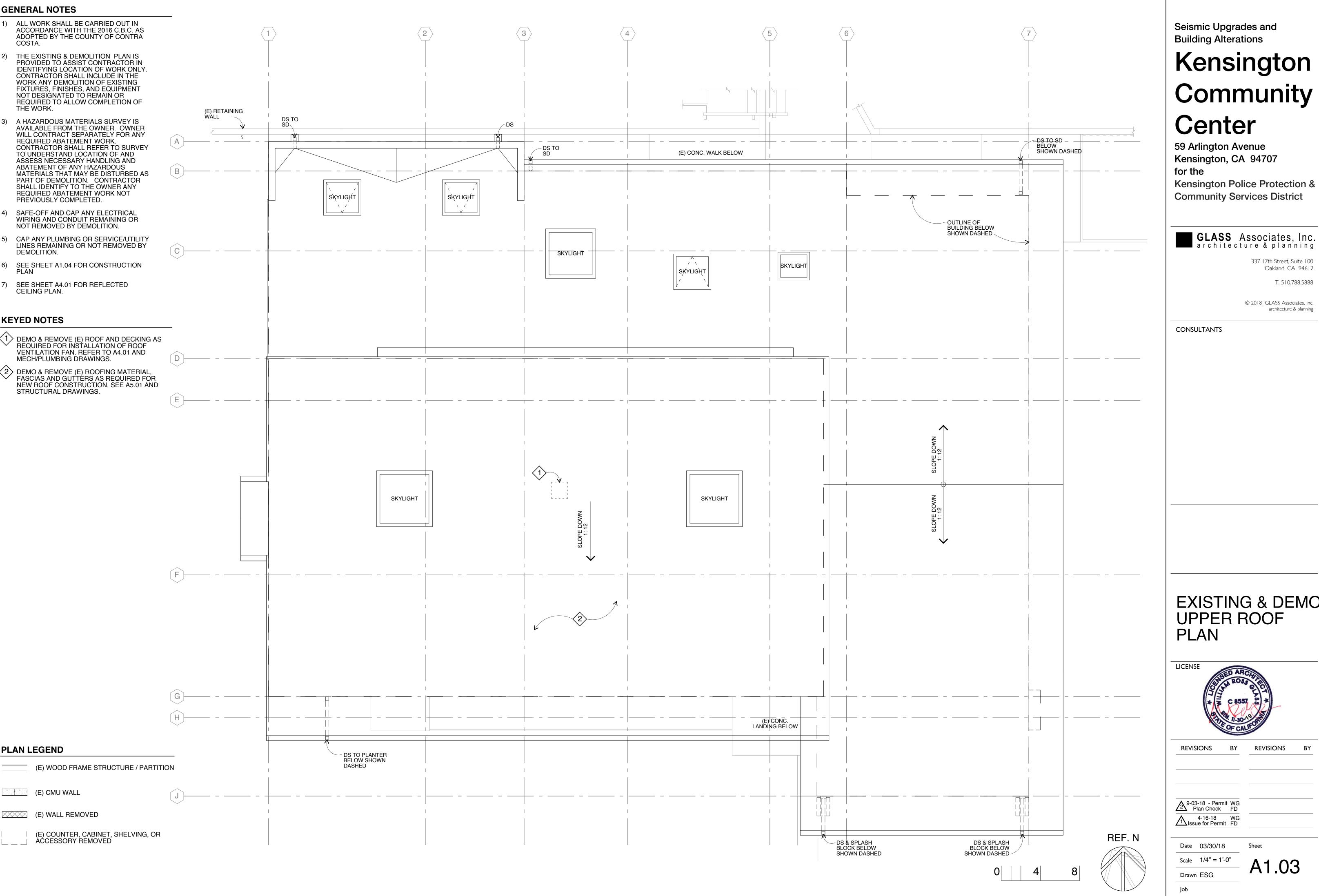
KEYED NOTES

PLAN LEGEND

(E) CMU WALL

(E) WALL REMOVED

- 1 DEMO & REMOVE (E) ROOF AND DECKING AS REQUIRED FOR INSTALLATION OF ROOF VENTILATION FAN. REFER TO A4.01 AND MECH/PLUMBING DRAWINGS.
- DEMO & REMOVE (E) ROOFING MATERIAL, FASCIAS AND GUTTERS AS REQUIRED FOR NEW ROOF CONSTRUCTION. SEE A5.01 AND STRUCTURAL DRAWINGS.



EXISTING & DEMO

- 1) ALL WORK SHALL BE CARRIED OUT IN ACCORDANCE WITH THE 2016 C.B.C. AS ADOPTED BY THE COUNTY OF CONTRA COSTA.
- 2) ALL DIMENSIONS TO FINISH FACE UNLESS OTHERWISE NOTED.
- 3) REFER TO SHEETS IN A8 SERIES FOR ADD ALTERNATIVES TO INCLUDE IN BID.
- 4) A HAZARDOUS MATERIALS SURVEY IS AVAILABLE FROM THE OWNER. OWNER WILL CONTRACT SEPARATELY FOR ANY REQUIRED ABATEMENT WORK. CONTRACTOR SHALL REFER TO SURVEY TO UNDERSTAND LOCATION OF AND ASSESS NECESSARY HANDLING AND ABATEMENT OF ANY HAZARDOUS MATERIALS THAT MAY BE DISTURBED AS PART OF DEMOLITION. CONTRACTOR SHALL IDENTIFY TO THE OWNER ANY REQUIRED ABATEMENT WORK NOT PREVIOUSLY COMPLETED.

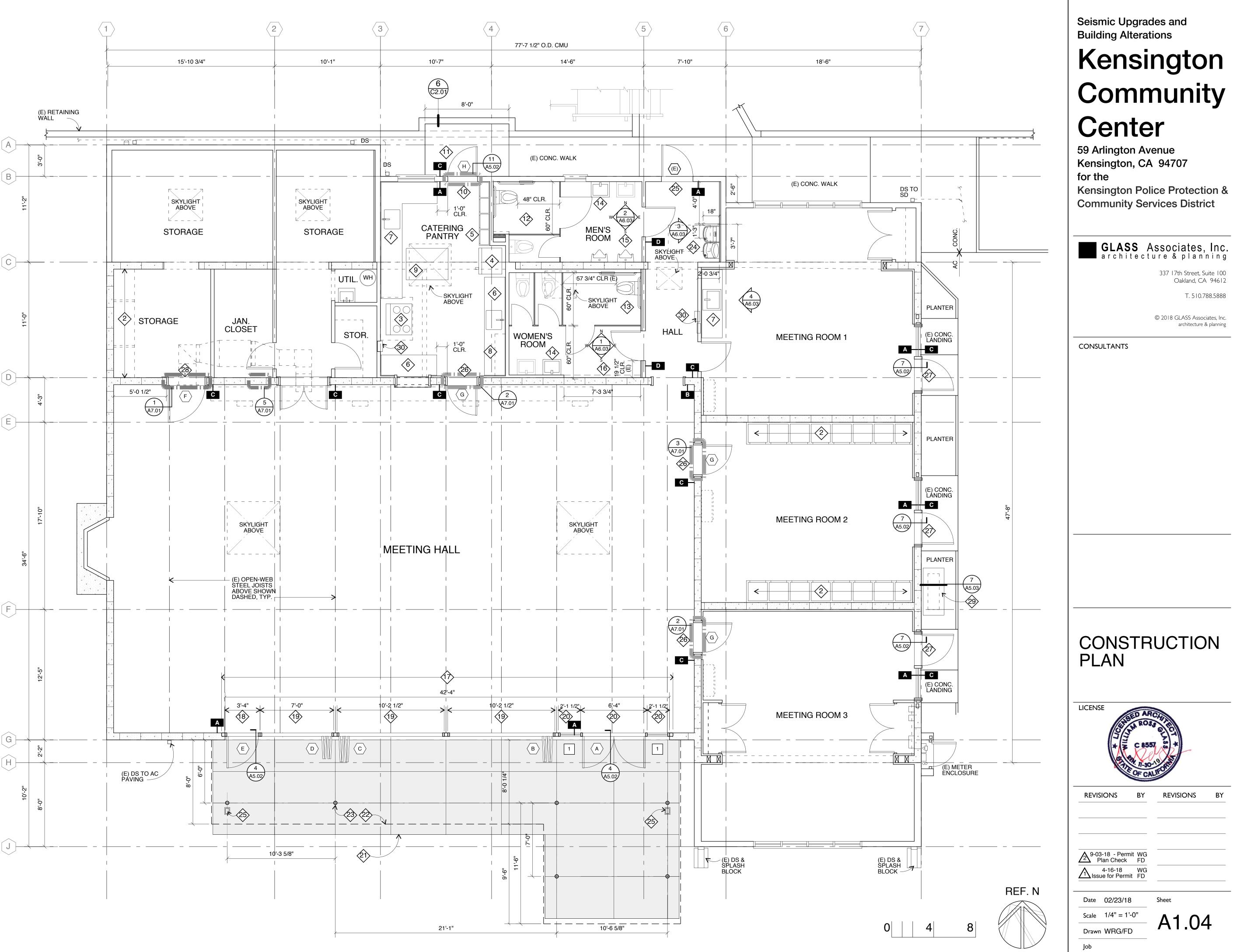
KEYED NOTES

$\langle 1 \rangle$	(N) FURNACE AND DUCTING, SEE MECH AND STRUCTURAL DWG'S		
$\langle 2 \rangle$	(E) STORAGE CABINETS (OR SHELF) TO REMAIN	C	<u> </u>
$\langle 3 \rangle$	(E) RANGE & HOOD TO REMAIN		
$\langle 4 \rangle$	(E) REFRIGERATOR TO REMAIN		
5	(N) CABINET DOORS & HARDWARE @ (E) CABINETS; CABINETS TO REMAIN	_	
	(N) LOWER CABINETS W/ COUNTER @ +36"	11'-0"	
$\langle 7 \rangle$	(N) LOWER CABINETS W/ COUNTER @ +34"; ADA SINK & ADA CLEARANCES UNDER SINK & COUNTER; OPEN RECESS @ WEST WALL FOR MOVEABLE TABLE		
8	(N) 48"W UPPER CABINET	~	
٩	(N) 48" x 36" x 28"H MOVEABLE WORK TABLE	(D)	\leftarrow
10	(N) 36" x 80" DOOR W/ VISION PANEL; REVERSE (E) SWING	~	
	(N) 5'-0" x 8'-0" CONC. LANDING	\sim	
(12)	(E) TOILET TO REMAIN; (N) ADA ACCESSORIES; TOILET PARTITIONS REVISED TO ADA CLEARANCES; CHASE REVISED TO ADA CLEARANCES; PATCH FLOORING TO MATCH (E)	(E)	
13	(N) ADA COMPLIANT TOILET; (N) ADA ACCESSORIES		
14>	(N) ADA SINK & FITTINGS @ (E) ROUGH PLUMBING LOCATION		
15	(E) ADA-CONFORMING URINAL TO REMAIN		
(16)	REMOVE (E) FURRING, REPAINT TO MATCH ADJ. WALL; PATCH FLOORING TO MATCH (E)		"01-12
	(N) TS FRAME; SEE STRUCTURAL DRAWINGS		Ĭ T
18	(N) EXIT DOOR W/ PANIC HARDWARE AND ADA SELF-CLOSER & BAR-TYPE ACTUATORS @ INSIDE & OUTSIDE	ō	
(19)	(N) ALUM. WDO WALL FRAME W/ FOLDING GLASS DOORS AND FABRIC SHADES	34 ⁻ 6"	
20>	(N) ALUM. WDO WALL FRAME W/ PR. EXIT DOORS & SIDELITE W/ PANIC HARDWARE; (N) ADA POWER ASSIST AUTOMATIC DOOR OPENER W/ BAR-TYPE ACTUATORS @ INSIDE & OUTSIDE	\frown	
21>	(N) CONCRETE PAVING	F	
22	(N) CANOPY DASHED OVERHEAD		
23	(N) 4"D PIPE COL. TYP., CANOPY STRUCTURE; SEE STRUCTURAL DRAWINGS		
24	(N) ADA HIGH/LOW DRINKING FOUNTAIN AND BOTTLE FILLING STATION; DRAIN LINE TO (E) D.F. LOCATION; SEE PLUMBING DRAWINGS		0''
25	(N) ADA POWER ASSIST AUTOMATIC DOOR OPENER W/ BAR-TYPE ACTUATORS @ INSIDE & OUTSIDE		-
26	REMOVE (E) 34" DOOR & FRAME; ENLARGE (E) MASONRY OPENING TO ACCOMMODATE 36" DOOR & FRAME; INSTALL 45 MIN. DOOR, FRAME & HDWR.; SEE STRUCTURAL DRAWINGS		
27	(N) ADA-COMPLIANT TRESHOLD @ (E) DOOR	G	5
28	REMOVE (E) DOOR & FRAME; ENLARGE (E) MASONRY OPENING TO ACCOMMODATE 42" DOOR & FRAME; SEE STRUCTURAL DRAWINGS	H-	ō
29>	CONCRETE PAD FOR CONDENSING UNIT. SEE MECH/PLUMB DWG'S.	10'-2"	
30	SEMI-RECESSED FIRE EXTINGUISHER CABINET W/ "AB" TYPE EXTINGUISHER IN MAIN HALL CORRIDOR & "K" TYPE IN CATERING PANTRY	9	
PL		J	
	(E) WOOD FRAME STRUCTURE / PARTITION		
	(E) CMU WALL		

(N) PARTITION INFILL

SIGN TYPE SYMBOL -REFER TO SHEET A7.03

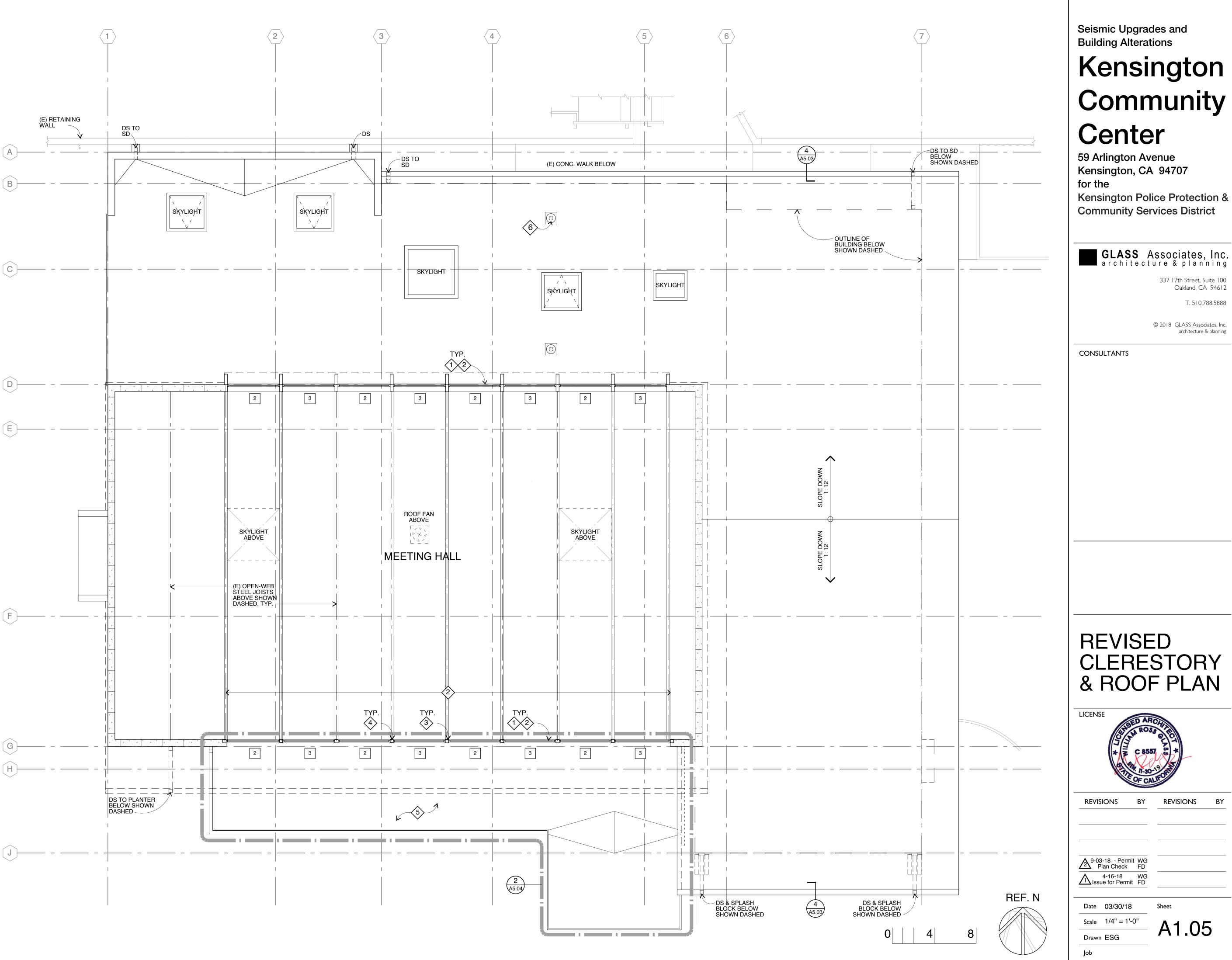
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KEYED NOTES

- (N) CLERESORY WINDOWS
- 2 EACH WINDOW TO HAVE OPERABLE FABRIC SHADE, SEE SPEC'S
- $\langle 3 \rangle$ (N) HSS MEMBER; SEE STRUCTURAL DRAWINGS
- (N) 4x4 WOOD POST
- (N) CANOPY ROOF BELOW, REFER TO A5.04 FOR CANOPY ROOF PLAN
- (N) EXHAUST FAN; SEE MECH/PLUMB DRAWINGS

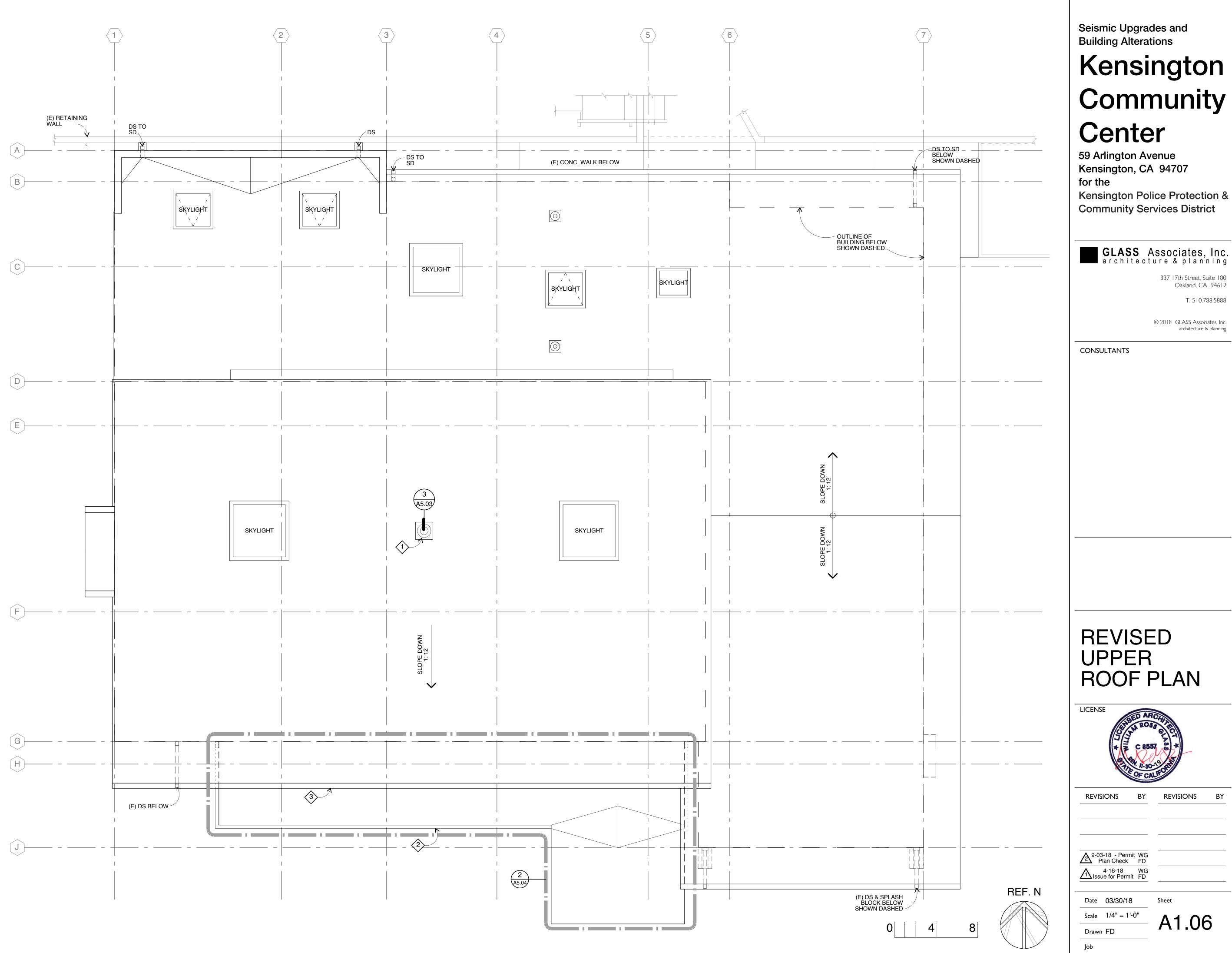


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- 5) REFER TO SHEET A5.04 FOR ADDITIONAL CANOPY ROOF INFORMATION.

KEYED NOTES

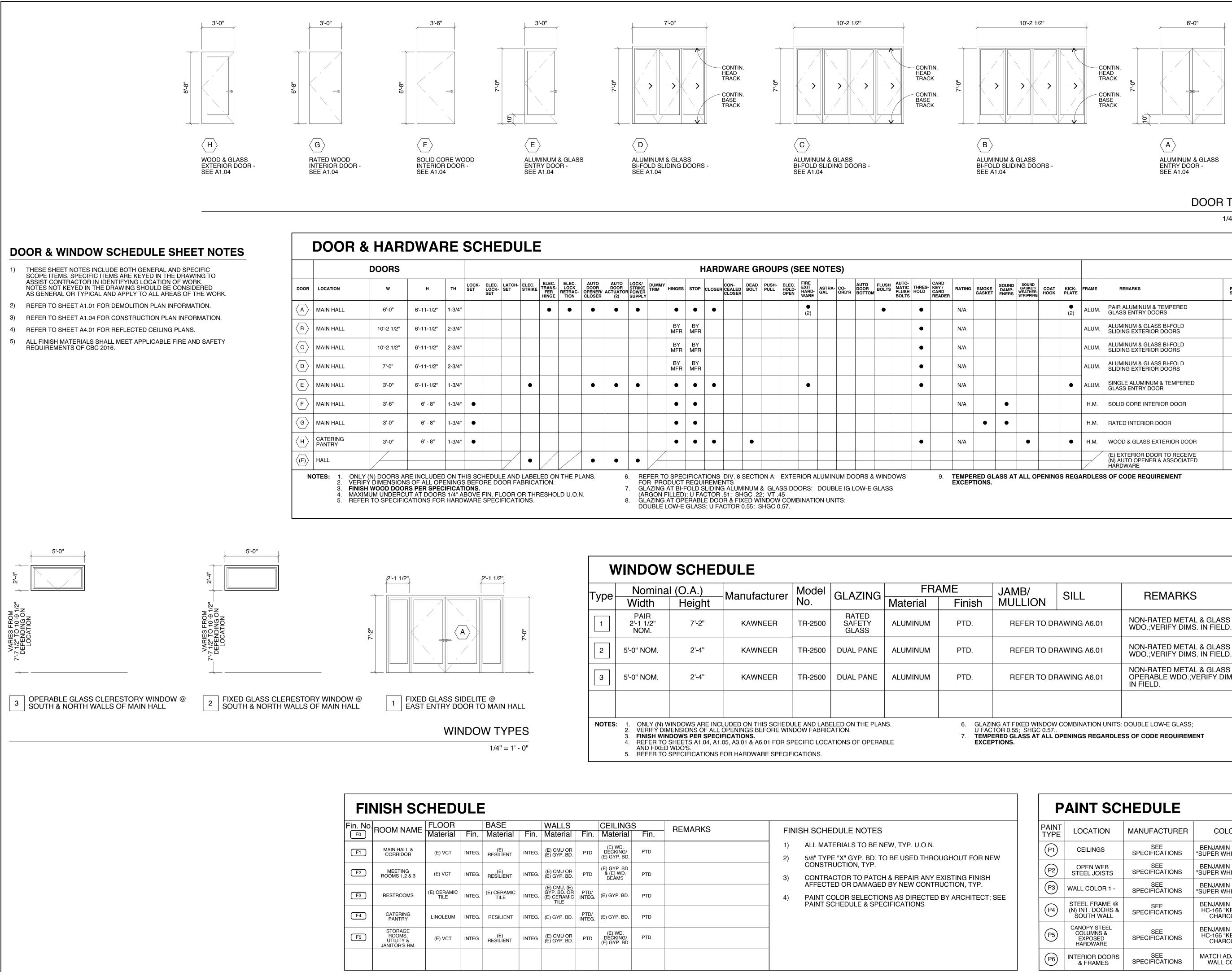


(N) CANOPY / COVER BELOW (N) GUTTER



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STORAGE ROOMS, UTILITY & JANITOR'S RM.

F5

									Н	ARDV	ARE G	ROU	PS (S		OTE	S)													
CH-	ELEC. STRIKE	ELEC. TRANS- FER HINGE	ELEC. LOCK RETRAC- TION	AUTO DOOR OPENER/ CLOSER	AUTO DOOR ACTUATOF (2)	LOCK/ STRIKE POWER SUPPLY	DUMMY TRIM	HINGES	STOP		ON- EALED OSER	PUSH- PULL	ELEC. HOLD- OPEN	FIRE EXIT HARD- WARE	ASTRA- GAL	CO- ORD'R	AUTO FI DOOR BO BOTTOM	USH AU DLTS FLU BO	TO- TIC THRES- ISH HOLD	CARD KEY / CARD READER	RATING	SMOKE GASKET	SOUND DAMP- ENERS	SOUND GASKET/ WEATHER- STRIPPING	СОАТ НООК	KICK- PLATE	FRAME	REMARKS	REQUIRED SIGNAGE
		•	•	•	•	•		•	•	•				(2)				•	•		N/A					(2)	ALUM.	PAIR ALUMINUM & TEMPERED GLASS ENTRY DOORS	•
								BY MFR	BY MFR										•		N/A						ALUM.	ALUMINUM & GLASS BI-FOLD SLIDING EXTERIOR DOORS	
								BY MFR	BY MFR										•		N/A						ALUM.	ALUMINUM & GLASS BI-FOLD SLIDING EXTERIOR DOORS	
								BY MFR	BY MFR										•		N/A						ALUM.	ALUMINUM & GLASS BI-FOLD SLIDING EXTERIOR DOORS	
	•			•	•	•		•	•	•				•					•		N/A					•	ALUM.	SINGLE ALUMINUM & TEMPERED GLASS ENTRY DOOR	•
								•	•												N/A		•				H.M.	SOLID CORE INTERIOR DOOR	
								•	•													•	•				H.M.	RATED INTERIOR DOOR	•
								•	•	•	•								•		N/A			•		•	H.M.	WOOD & GLASS EXTERIOR DOOR	•
	•			•	•	•																						(E) EXTERIOR DOOR TO RECEIVE (N) AUTO OPENER & ASSOCIATED HARDWARE	•

Туре	Nomina	I (O.A.)	Manufacturer	Model	GLAZING	FR/	ME	JAMB/	SILL	REMARKS
2	Width	Height		No.		Material	Finish	MULLION	SILL	
1	PAIR 2'-1 1/2" NOM.	7'-2"	KAWNEER	TR-2500	RATED SAFETY GLASS	ALUMINUM	PTD.	REFER TO DI	RAWING A6.01	NON-RATED METAL & GLAS WDO.;VERIFY DIMS. IN FIEL
2	5'-0" NOM.	2'-4"	KAWNEER	TR-2500	DUAL PANE	ALUMINUM	PTD.	REFER TO DI	RAWING A6.01	NON-RATED METAL & GLAS WDO.;VERIFY DIMS. IN FIELI
3	5'-0" NOM.	2'-4"	KAWNEER	TR-2500	DUAL PANE	ALUMINUM	PTD.	REFER TO DI	RAWING A6.01	NON-RATED METAL & GLAS OPERABLE WDO.;VERIFY DI IN FIELD.
NOTES	 VERIFY DIN FINISH WIN REFER TO AND FIXED 	IENSIONS OF AL IDOWS PER SPE SHEETS A1.04, A WDO'S.	CLUDED ON THIS SCHED L OPENINGS BEFORE WIN CIFICATIONS. 1.05, A3.01 & A6.01 FOR S S FOR HARDWARE SPECIF	NDOW FABRIC	CATION.		U FA0 7. TEMF	CTOR 0.55; SHGC 0.57.		S: DOUBLE LOW-E GLASS; ESS OF CODE REQUIREMENT

HED	ULE	E									
FLOOR Material	Fin.	BASE Material	Fin.	WALLS Material	Fin.	CEILINGS Material	Fin.	REMARKS	FINI	SH SCHEDULE NOTES	
(E) VCT	INTEG.	(E) RESILIENT	INTEG.	(E) CMU OR (E) GYP. BD.	PTD	(E) WD. DECKING/ (E) GYP. BD.	PTD		1) 2)	ALL MATERIALS TO BE NEW, TYP. U.O.N. 5/8" TYPE "X" GYP. BD. TO BE USED THROUGHOUT FOR NEW	
(E) VCT	INTEG.	(E) RESILIENT	INTEG.	(E) CMU OR (E) GYP. BD.	PTD	(E) GYP. BD. & (E) WD. BEAMS	PTD		3)	CONSTRUCTION, TYP. CONTRACTOR TO PATCH & REPAIR ANY EXISTING FINISH	
(E) CERAMIC TILE	INTEG.	(E) CERAMIC TILE	INTEG.	(E) CMU, (E) GYP. BD. OR (E) CERAMIC TILE	PTD/ INTEG.	(E) GYP. BD.	PTD		4)	AFFECTED OR DAMAGED BY NEW CONTRUCTION, TYP. PAINT COLOR SELECTIONS AS DIRECTED BY ARCHITECT; SEE PAINT SCHEDULE & SPECIFICATIONS	
LINOLEUM	INTEG.	RESILIENT	INTEG.	(E) GYP. BD.	PTD/ INTEG.	(E) GYP. BD.	PTD				
(E) VCT	INTEG.	(E) RESILIENT	INTEG.	(E) CMU OR (E) GYP. BD.	PTD	(E) WD. DECKING/ (E) GYP. BD.	PTD				

DOOR TYPES

1/4" = 1' - 0"

Ρ	PAINT SCHEDULE					
NT PE	LOCATION	MANUFACTURER	COLOR			
)	CEILINGS	SEE SPECIFICATIONS	BENJAMIN MOORE "SUPER WHITE" PM-1			
	OPEN WEB STEEL JOISTS	SEE SPECIFICATIONS	BENJAMIN MOORE "SUPER WHITE" PM-1			
3)	WALL COLOR 1 -	SEE SPECIFICATIONS	BENJAMIN MOORE "SUPER WHITE" PM-1			
1)	STEEL FRAME @ (N) INT. DOORS & SOUTH WALL	SEE SPECIFICATIONS	BENJAMIN MOORE HC-166 "KENDALL CHARCOAL"			
5)	CANOPY STEEL COLUMNS & EXPOSED HARDWARE	SEE SPECIFICATIONS	BENJAMIN MOORE HC-166 "KENDALL CHARCOAL"			
)	INTERIOR DOORS & FRAMES	SEE SPECIFICATIONS	MATCH ADJACENT WALL COLOR			

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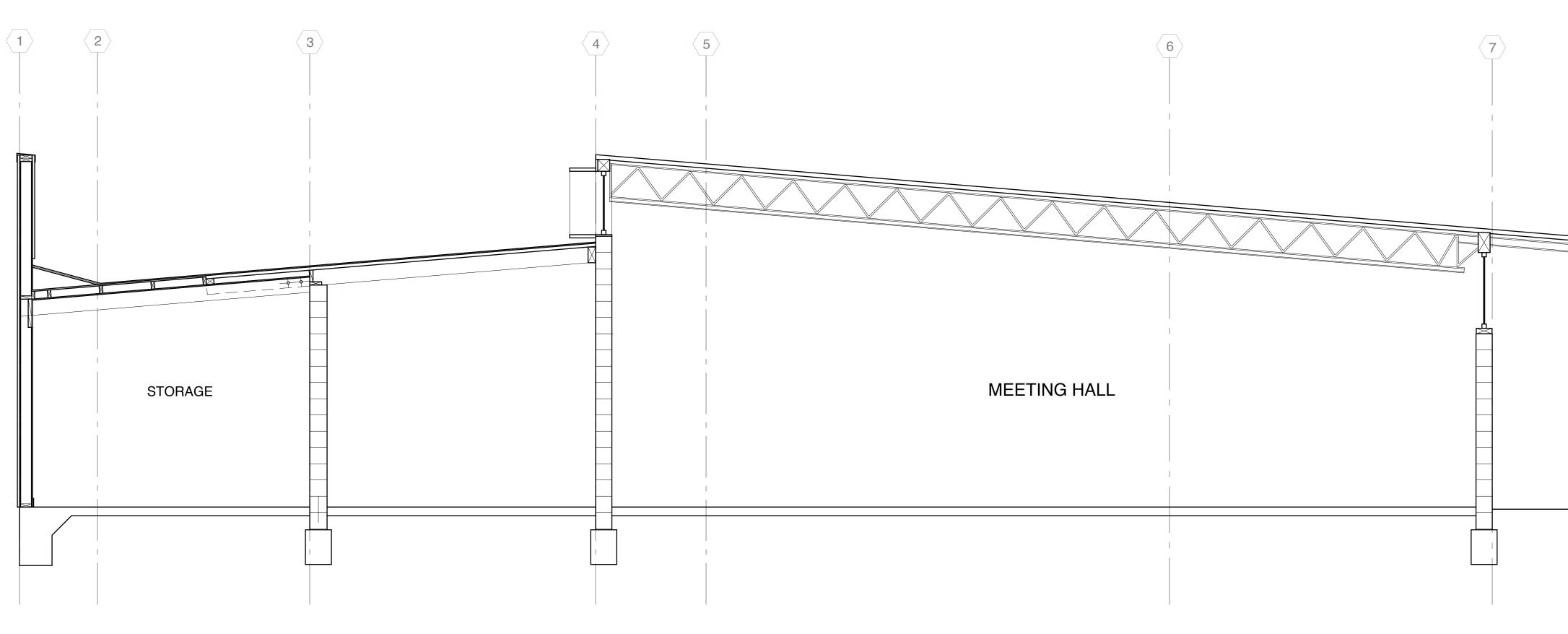
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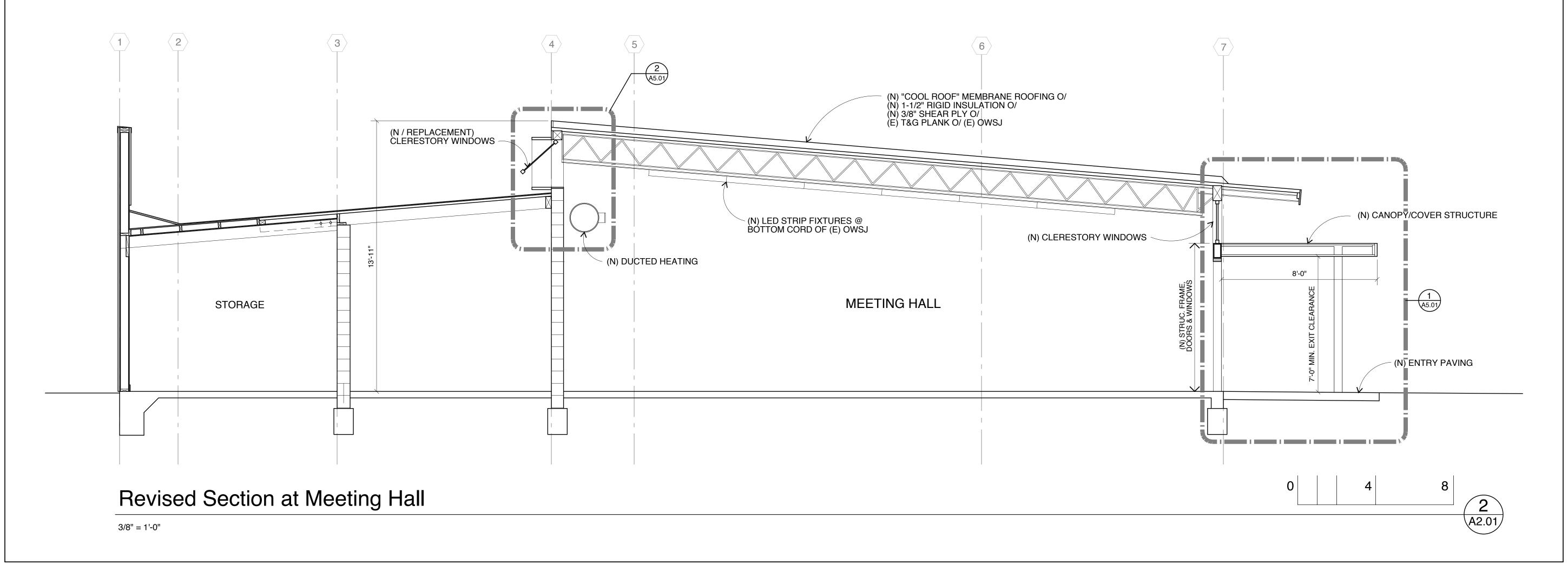
SCHEDULES

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REVISIONS BY	REVISIONS BY
9-03-18 - Permit W Plan Check FI A-16-18 FI Issue for Permit)
Date 04/01/18	Sheet
Scale AS NOTED	A1.11
Drawn FD	
Job	



Existing Section at Meeting Hall

3/8" = 1'-0"



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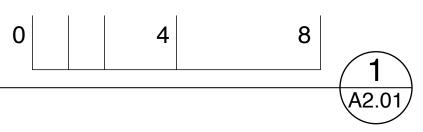
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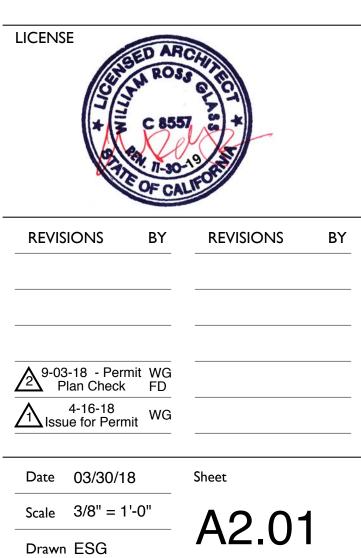
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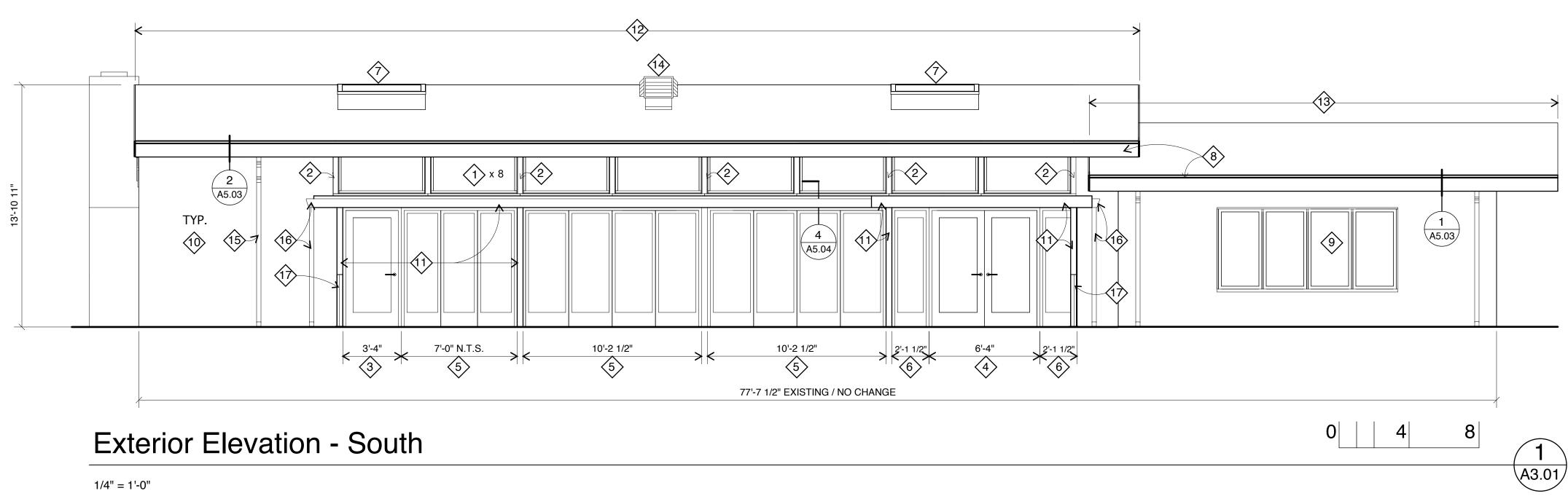


BUILDING SECTIONS



NUMBERED SHEET NOTES

- (N) DOUBLE-PANE TEMPERED CLERESTORY WINDOWS (N) TS FRAME; SEE STRUCTURAL DRAWINGS (N) EXIT DOOR W/ PANIC HARDWARE AND ADA SELF-CLOSER & BAR-TYPE ACTUATORS @ INSIDE & OUTSIDE $\langle 3 \rangle$ (N) ALUM. WDO WALL FRAME W/ PR. EXIT DOORS W/ PANIC HARDWARE; (N) ADA POWER ASSIST AUTOMATIC DOOR OPENER W/ BAR-TYPE ACTUATORS @ INSIDE & OUTSIDE (N) ALUM. WDO WALL FRAME W/ FOLDING GLASS DOORS (N) ALUM. WDO WALL FRAME W/ FIXED GLASS (E) SKYLIGHT TO REMAIN (E) FASCIA AND GUTTER, (N) PAINT (E) WINDOW, (N) PAINT AT FRAMES & TRIM (N) PAINT @ ALL EXTERIOR WALLS (N) CANOPY STRUCTURE & PAINTED 4" DIA. STEEL PIPE COLUMN; SEE STRUCTURAL DRAWINGS (N) ROOFING MEMBRANE O/ (N) RIGID INSULATION O/ (N) SHEAR PLYWD.; SEE EXTERIOR DETAILS & STRUCTURAL DRAWINGS (E) ROOF TO REMAIN $\langle 14 \rangle$ (N) EXHAUST FAN, SEE MECHANICAL DWG'S. (E) DOWNSPOUT TO REMAIN (N) GUTTER & DOWNSPOUT
- (N) BAR-TYPE ACTUATOR, SEE NOTE 4



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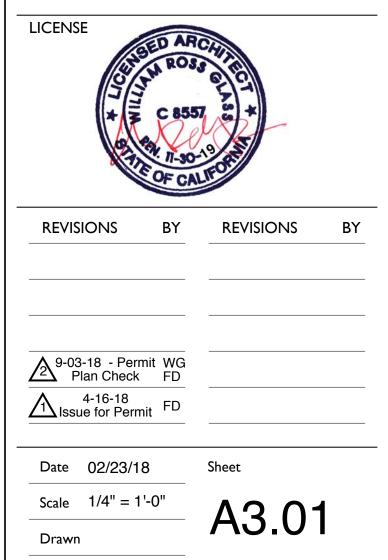
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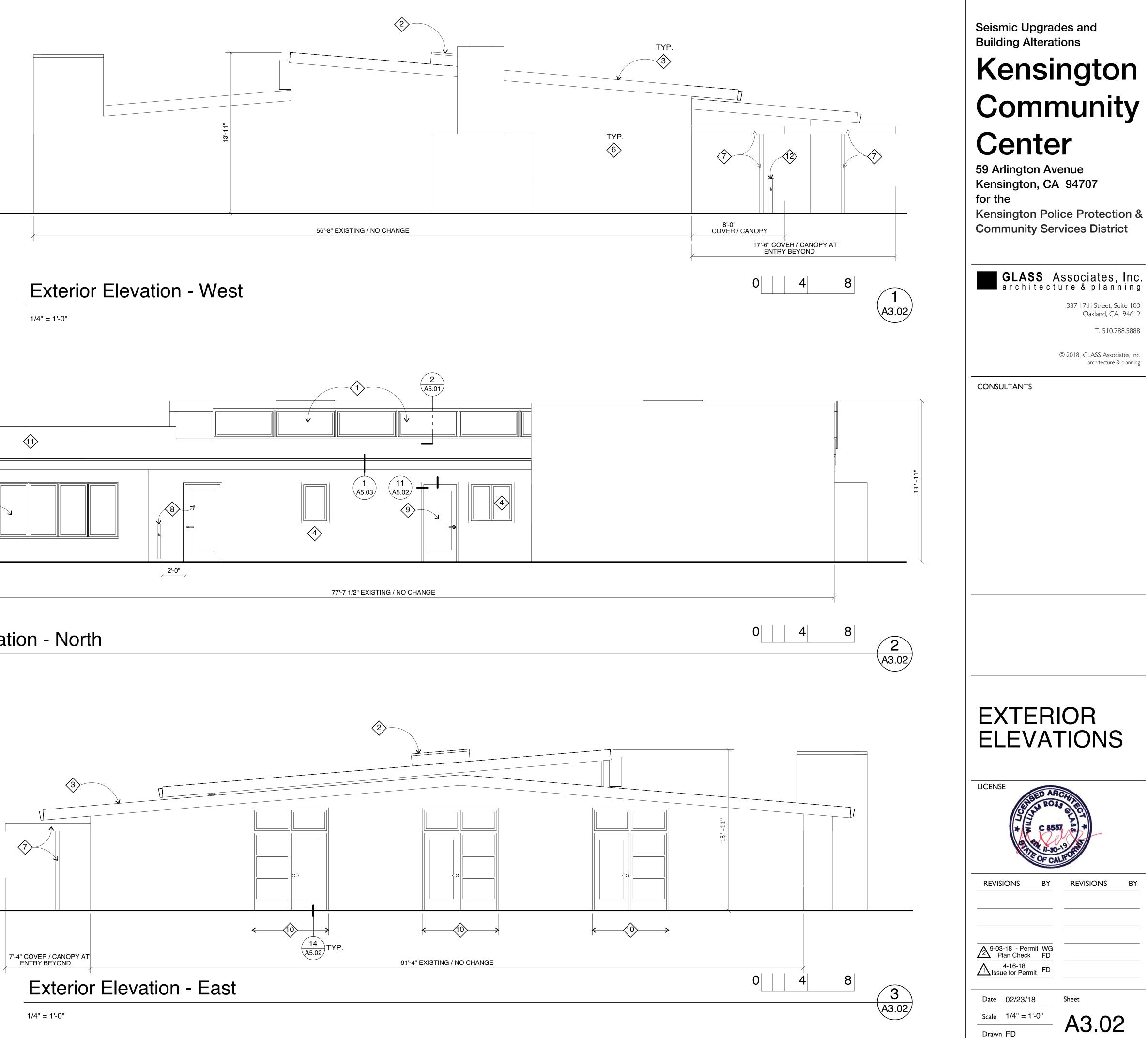




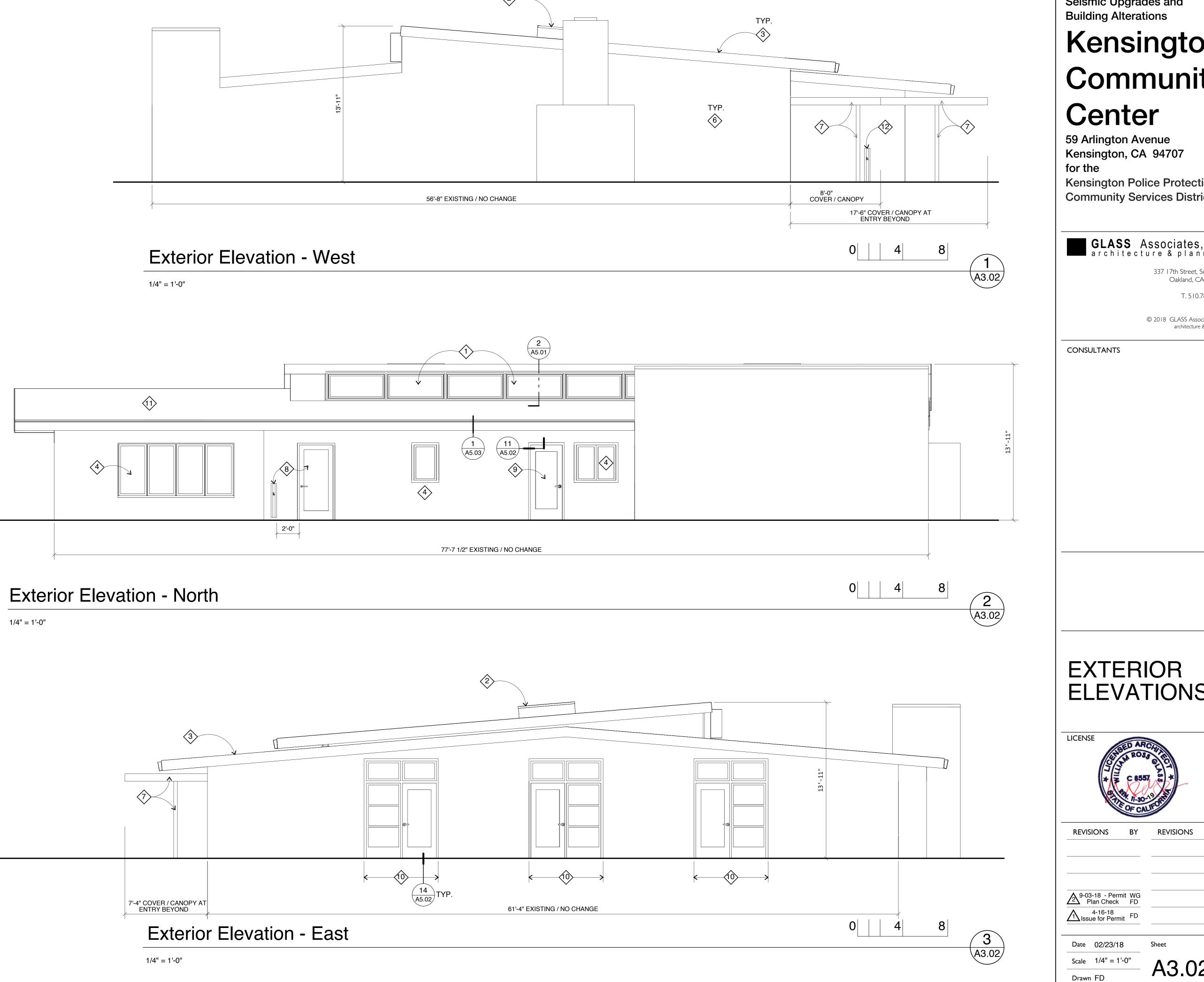
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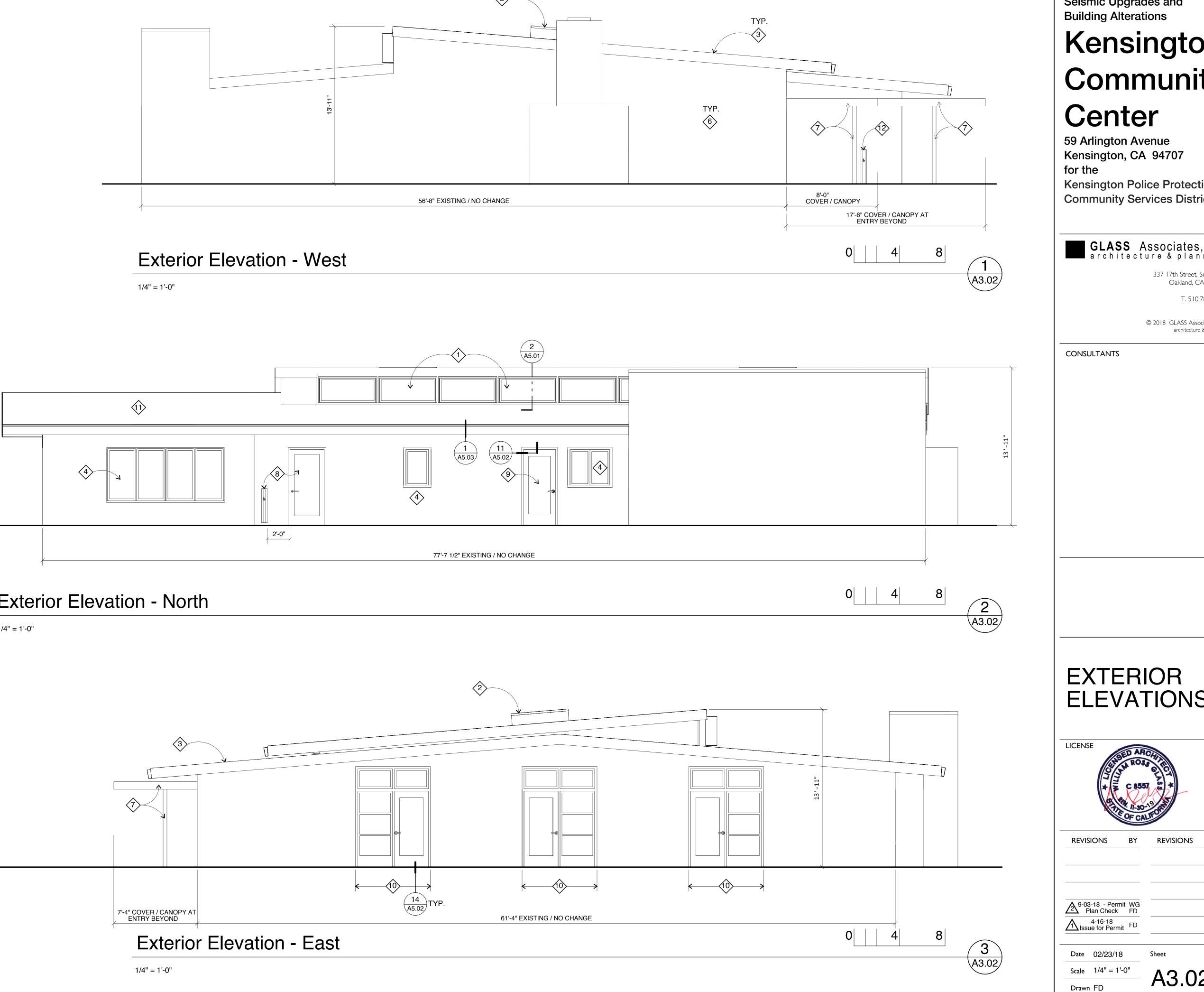
NUMBERED SHEET NOTES

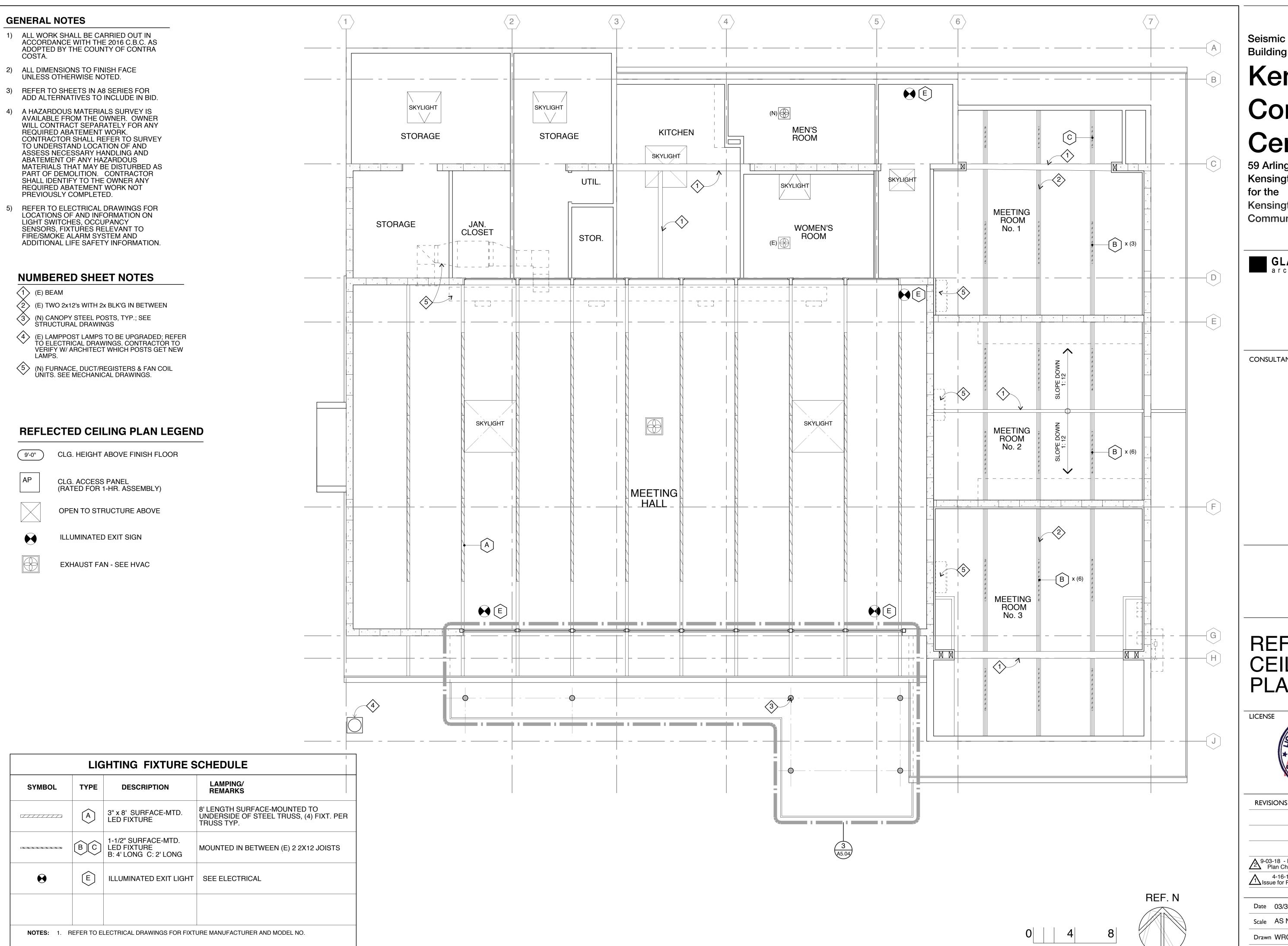
- (N) DOUBLE-PANE TEMPERED CLERESTORY WINDOWS $\langle 2 \rangle$ (E) SKYLIGHT TO REMAIN $\langle 3 \rangle$ (N) ROOF FASCIA, (N) PAINT (E) WINDOW, (N) PAINT AT FRAMES & TRIM (E) DOOR/WINDOW ASSEMBLY, (N) PAINT $\langle 6 \rangle$ (N) PAINT @ ALL EXTERIOR WALLS (N) CANOPY & COLUMN(S) BEYOND; SEE STRUCTURAL DRAWINGS (N) ADA POWER-ASSIST AUTOMATIC DOOR OPENER W/ BAR-TYPE ACTUATORS @ INSIDE & OUTSIDE (N) 36" x 80" DOOR W/ VISION PANEL; REVERSE (E) SWING (E) DOORS, SIDELITES & TRANSOM TO REMAIN; (N) PAINT AT FRAMES & TRIM (N) SHEAR PLYWD. & (N) ROOF; SEE STRUCTURAL DRAWINGS
- 12 BAR ACTUATOR MONUMENT



BY







NOTES:	1.	REFER TO EI	LECTRICAL DRAWING	S FOR FIXT	JRE MANUFACTURER AND MODEL NO.

Seismic Upgrades and **Building Alterations**

Kensington Community Center

59 Arlington Avenue Kensington, CA 94707 Kensington Police Protection & **Community Services District**

GLASS Associates, Inc.

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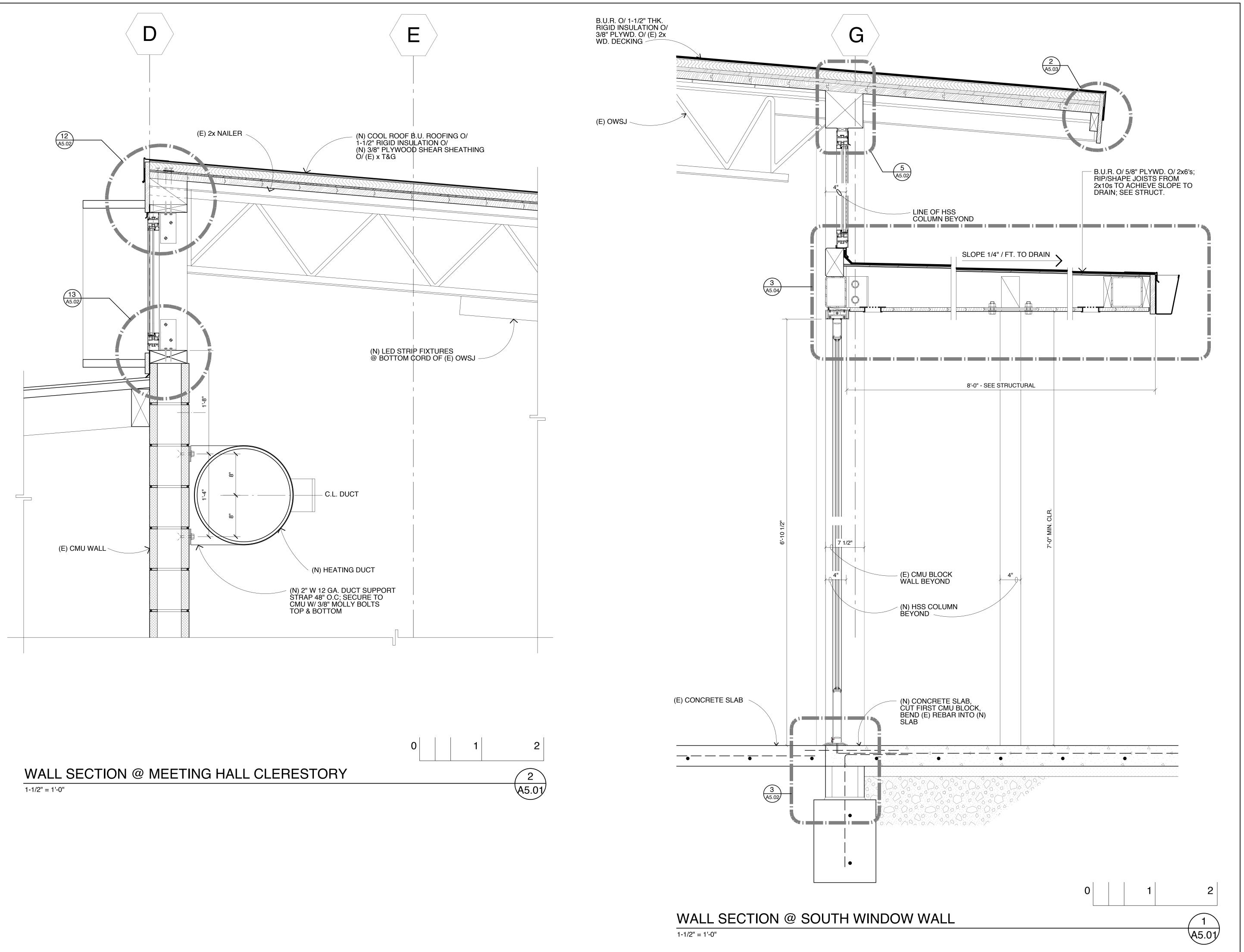
REFLECTED CEILING PLAN REVISIONS ΒY REVISIONS BY 9-03-18 - Permit WG Plan Check FD 4-16-18 FD Issue for Permit

Date 03/30/18 Scale AS NOTED Drawn WRG/FD

Job

A4.01

Sheet



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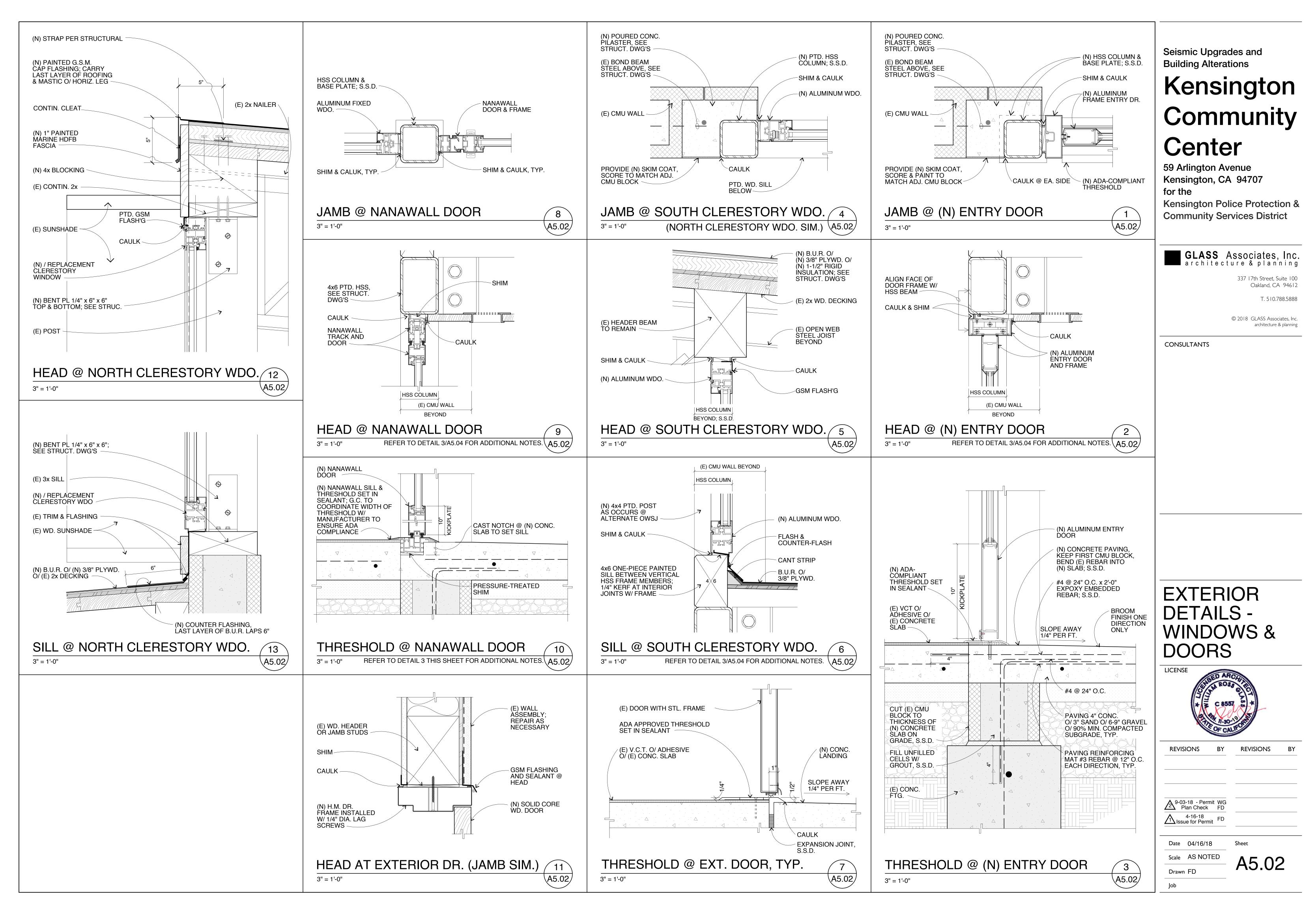
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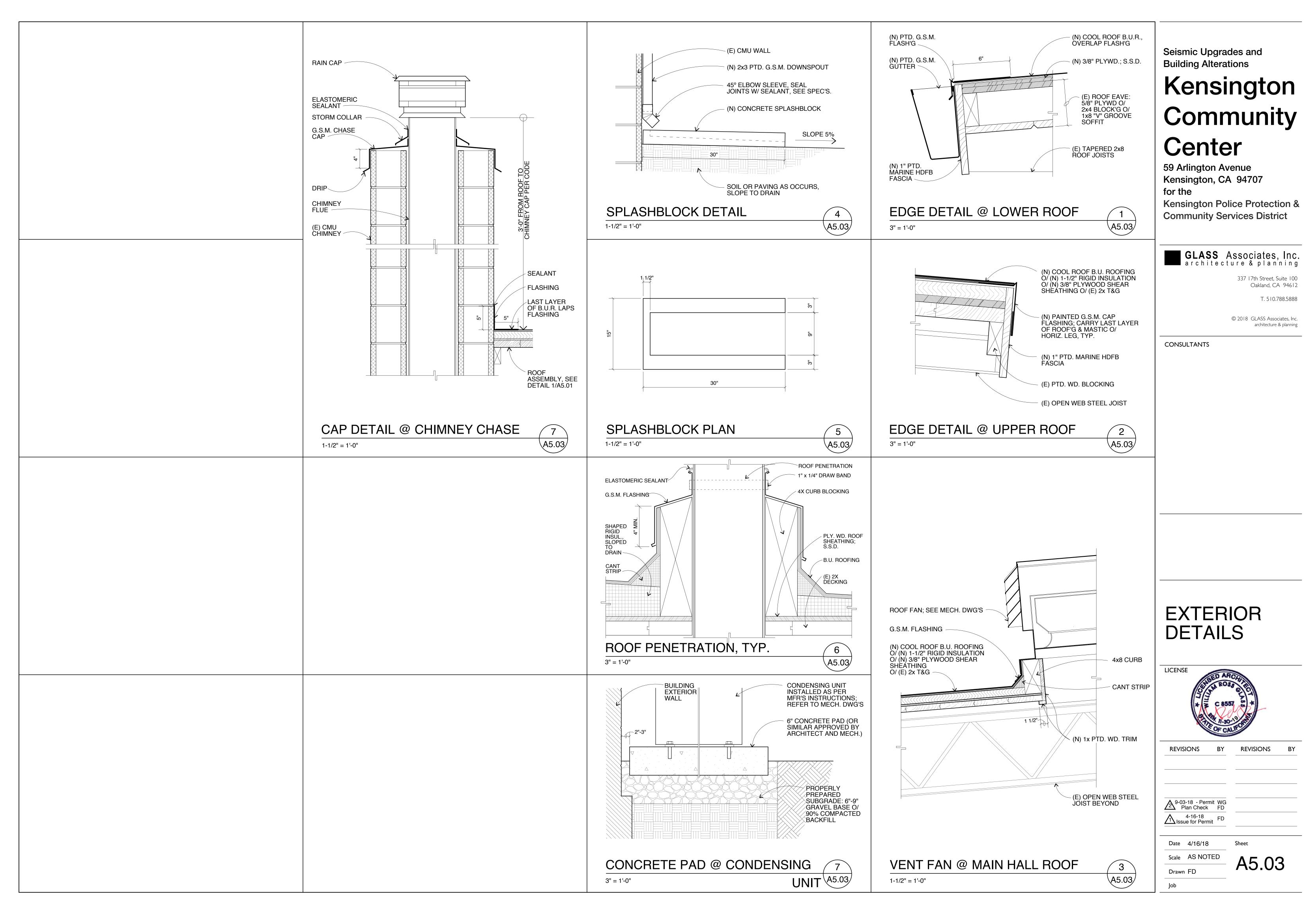
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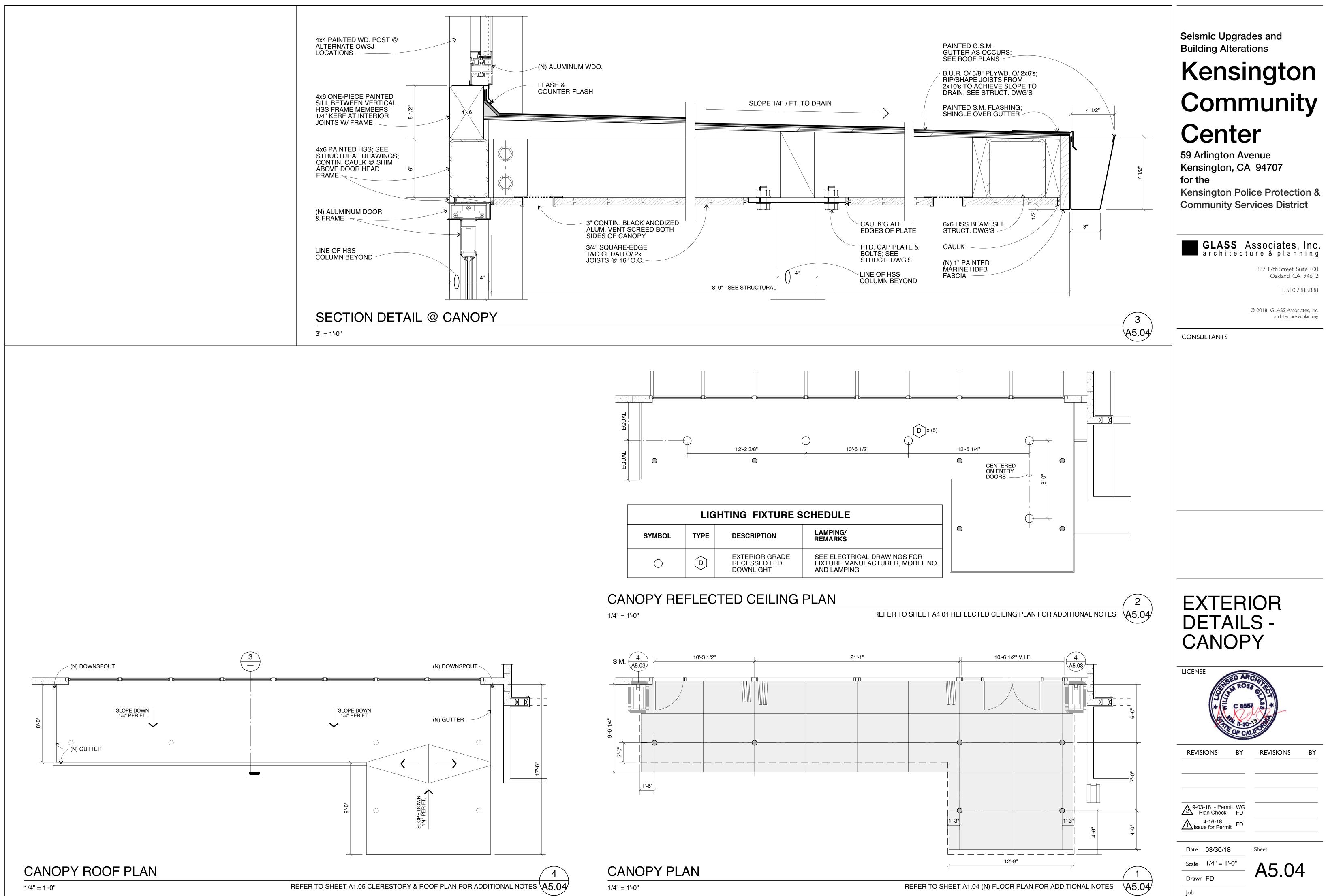
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WALL SECTIONS

LICENSE	ACIALITOPHIL
REVISIONS BY	REVISIONS BY
9-03-18 - Permit WG Plan Check FD A 4-16-18 WG Issue for Permit FD	
Date 02/23/18	Sheet
Scale 1-1/2"" = 1'-0"	A5.01
Drawn FD/WRG	
Job	



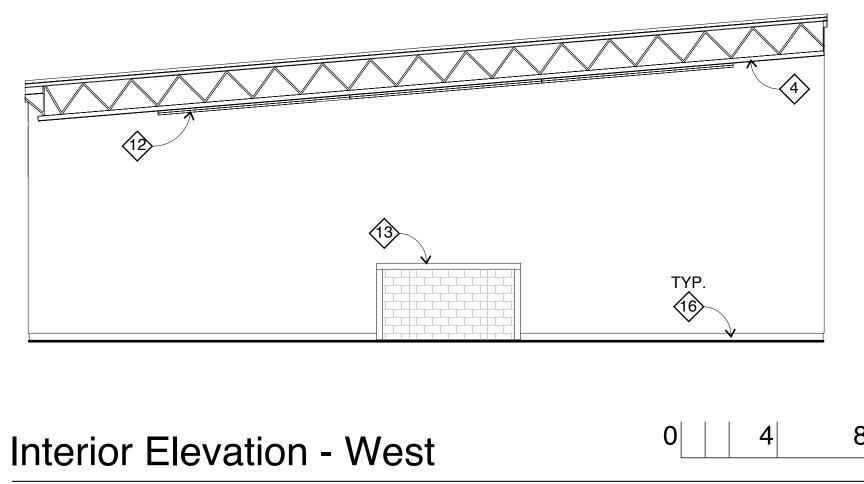




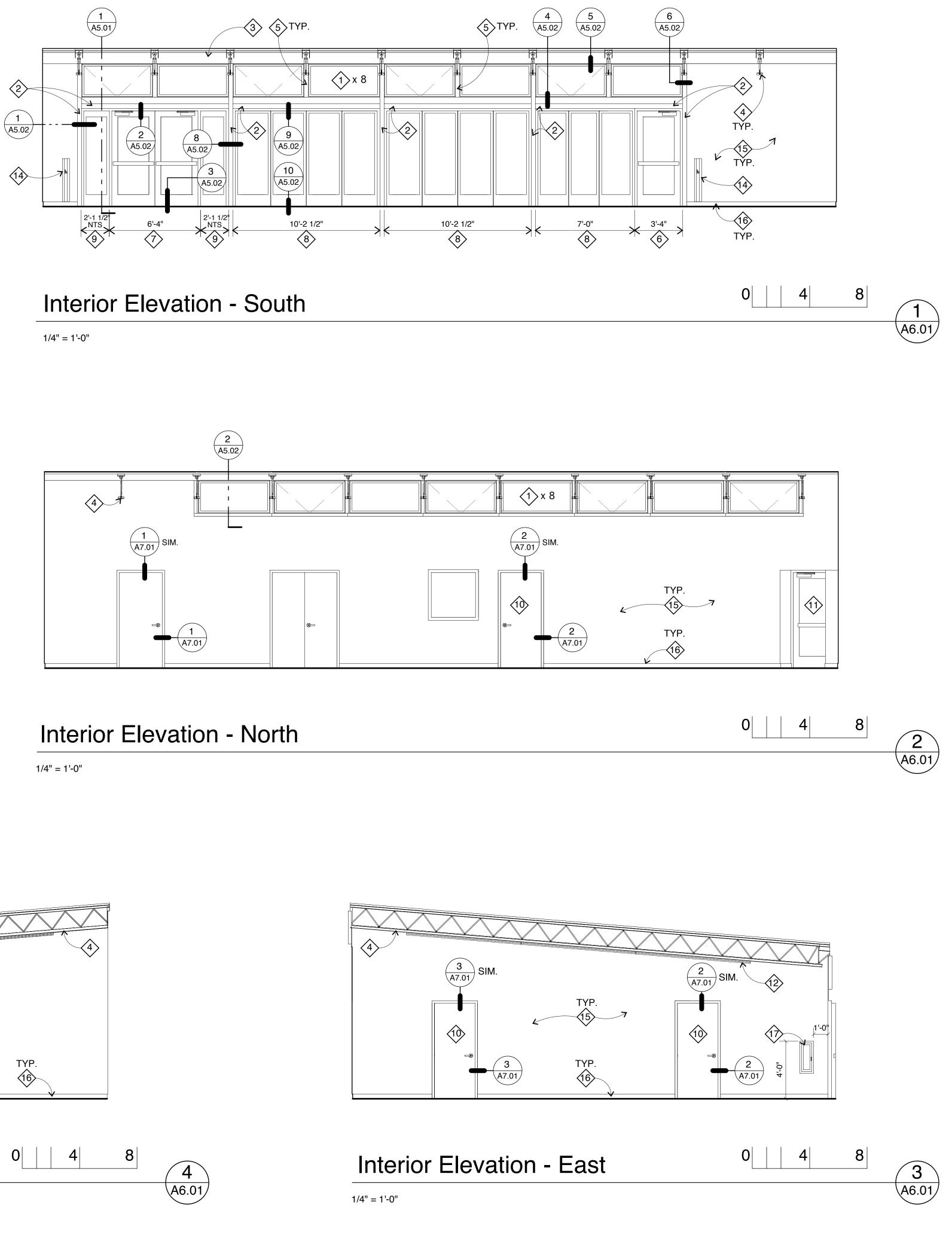
LIGHTING FIXTURE SCHEDULE				
SYMBOL	TYPE	DESCRIPTION	LAMPING/ REMARKS	
0	D	EXTERIOR GRADE RECESSED LED DOWNLIGHT	SEE ELECTRICAL DRAWINGS FOR FIXTURE MANUFACTURER, MODEL NO. AND LAMPING	

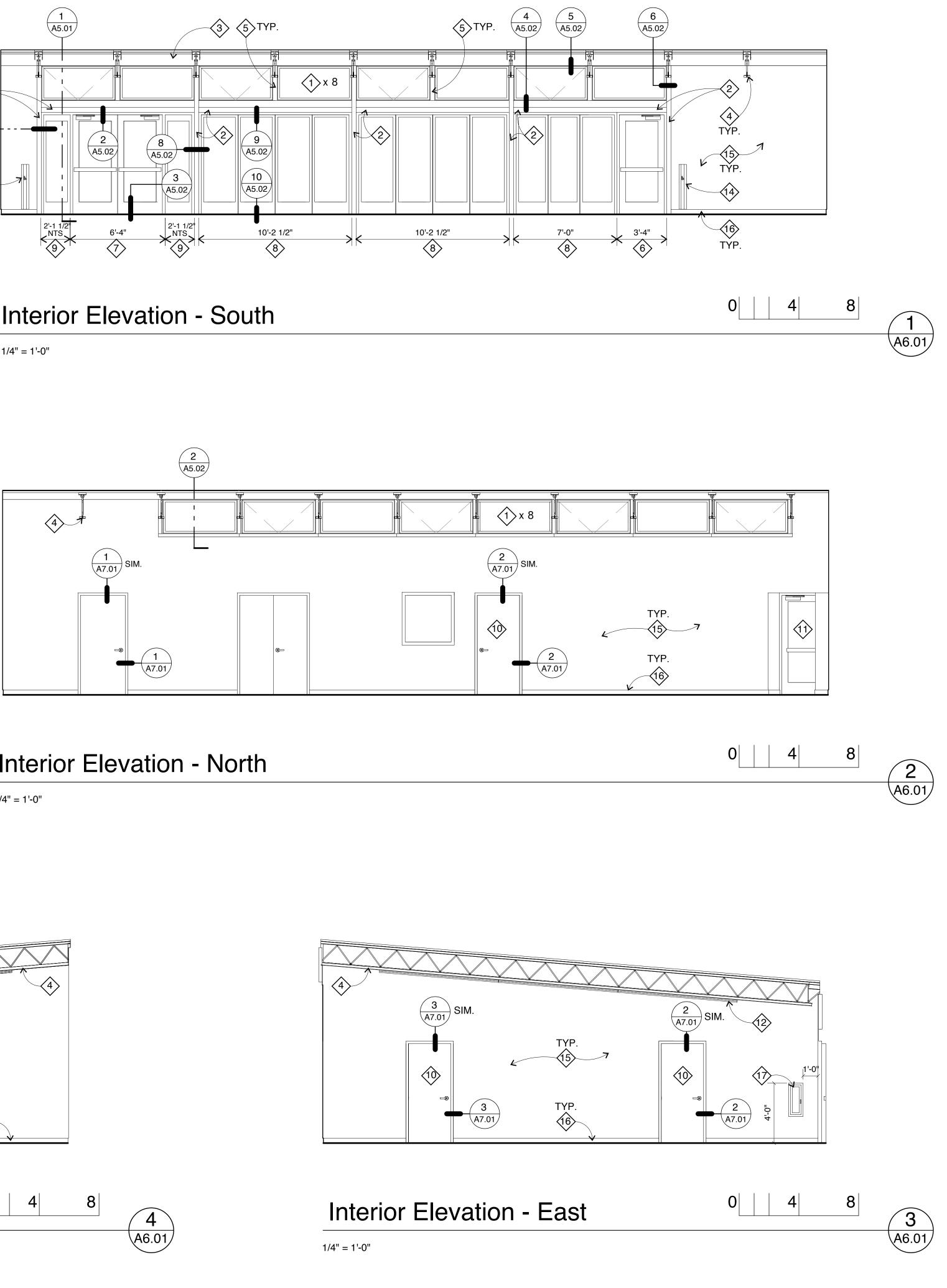
NUMBERED SHEET NOTES

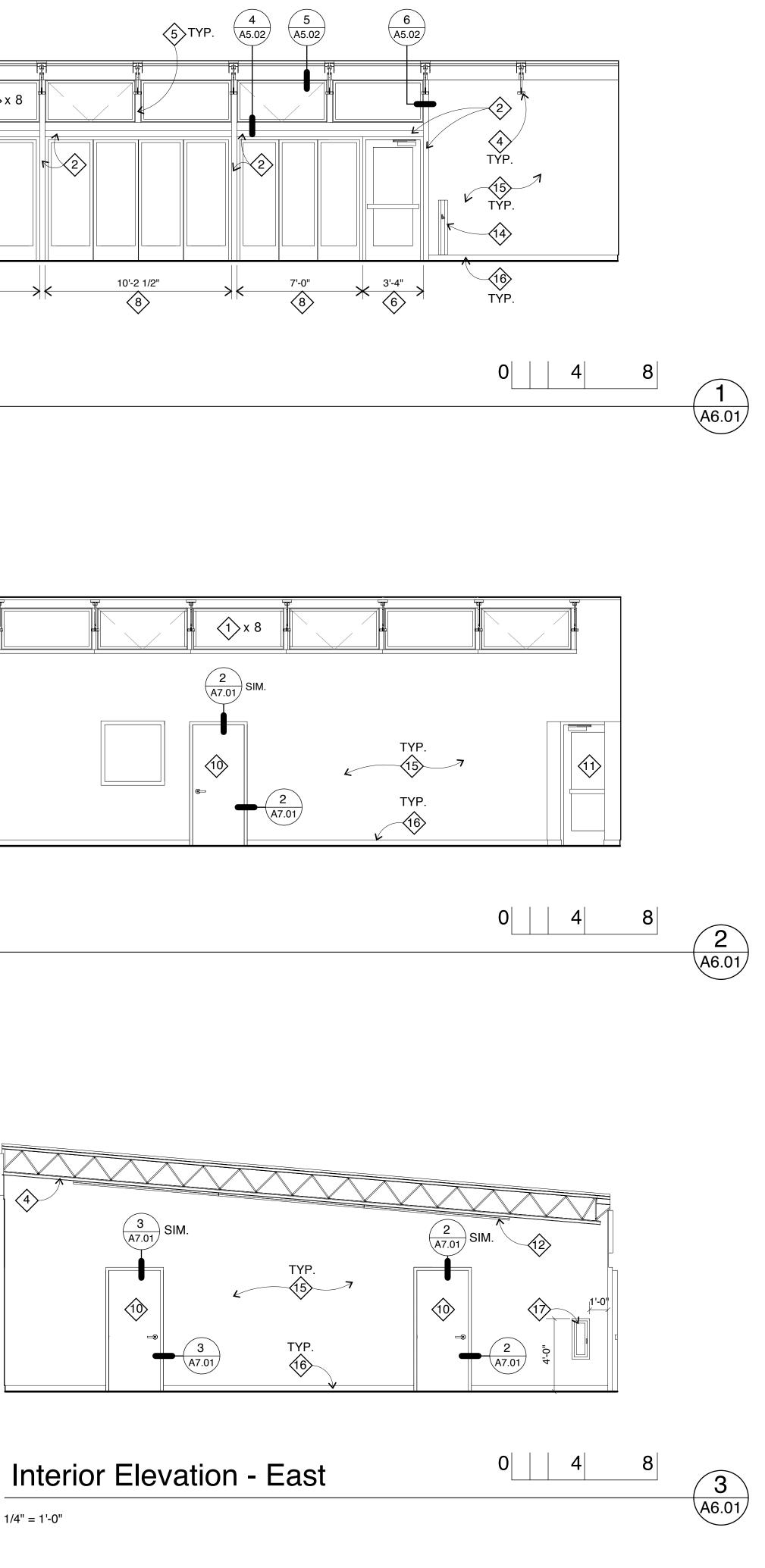
(N) DOUBLE-PANE TEMPERED CLERESTORY WINDOWS $\langle 2 \rangle$ (N) HSS MEMBERS $\langle 3 \rangle$ (E) HEADER BEAM TO REMAIN $\langle 4 \rangle$ (E) STEEL TRUSS, (N) PAINT $\langle 5 \rangle$ (N) 4x WOOD POST (N) EXIT DOOR & FIXED GLASS WINDOWS W/ PANIC HARDWARE AND ADA SELF-CLOSER & BAR-TYPE ACTUATORS @ INSIDE & OUTSIDE (N) ALUM. WDO WALL FRAME W/ PR. EXIT DOORS & W/ PANIC HARDWARE; (N) ADA POWER ASSIST AUTOMATIC DOOR OPENER W/ BAR-TYPE ACTUATORS @ INSIDE & OUTSIDE (N) ALUM. WDO WALL FRAME W/ FOLDING GLASS DOORS (N) ALUM. WDO WALL FRAME W/ FIXED GLASS WDO'S. (N) 36" x 80" DOOR & FRAME (N) ADA POWER-ASSIST AUTOMATIC DOOR OPENER W/ BAR-TYPE ACTUATORS @ INSIDE & OUTSIDE @ VESTIBULE BEYOND (N) LED STRIP LIGHT FIXTURE (E) BRICK FIREPLACE TO REMAIN; (N) BLACK PAINT @ FRAME & INSIDE FACES; CLEAN HEARTH (14) BAR ACTUATOR $\langle 15 \rangle$ (N) PAINT @ ALL INTERIOR WALLS (E) VINYL BASE TO REMAIN, TYP. (N) FIRE EXTINGUISHER CABINET W/ AB-TYPE EXTINGUISHER; MOUNT AS PER ADA COMPLIANCE



1/4" = 1'-0"







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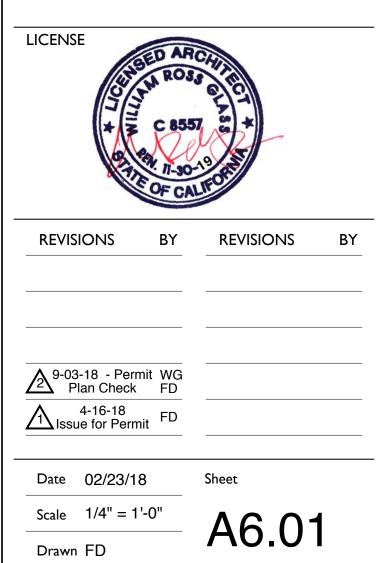
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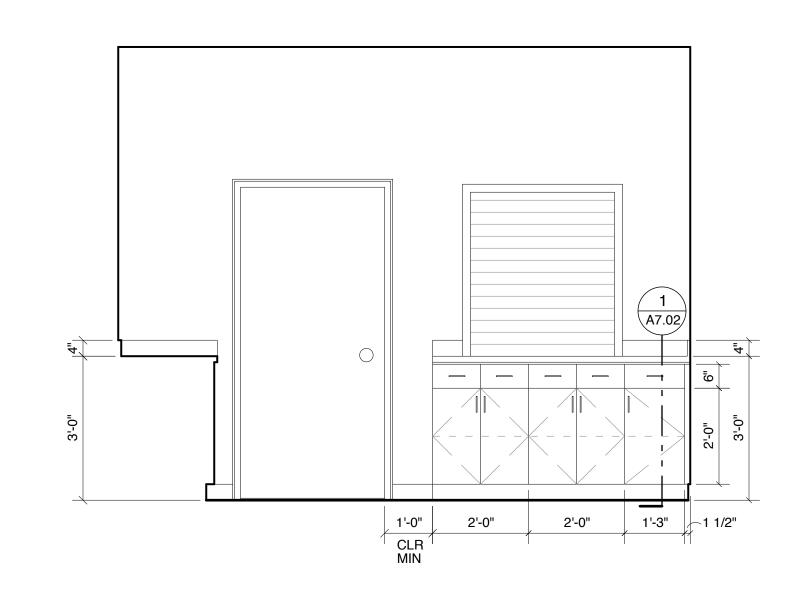
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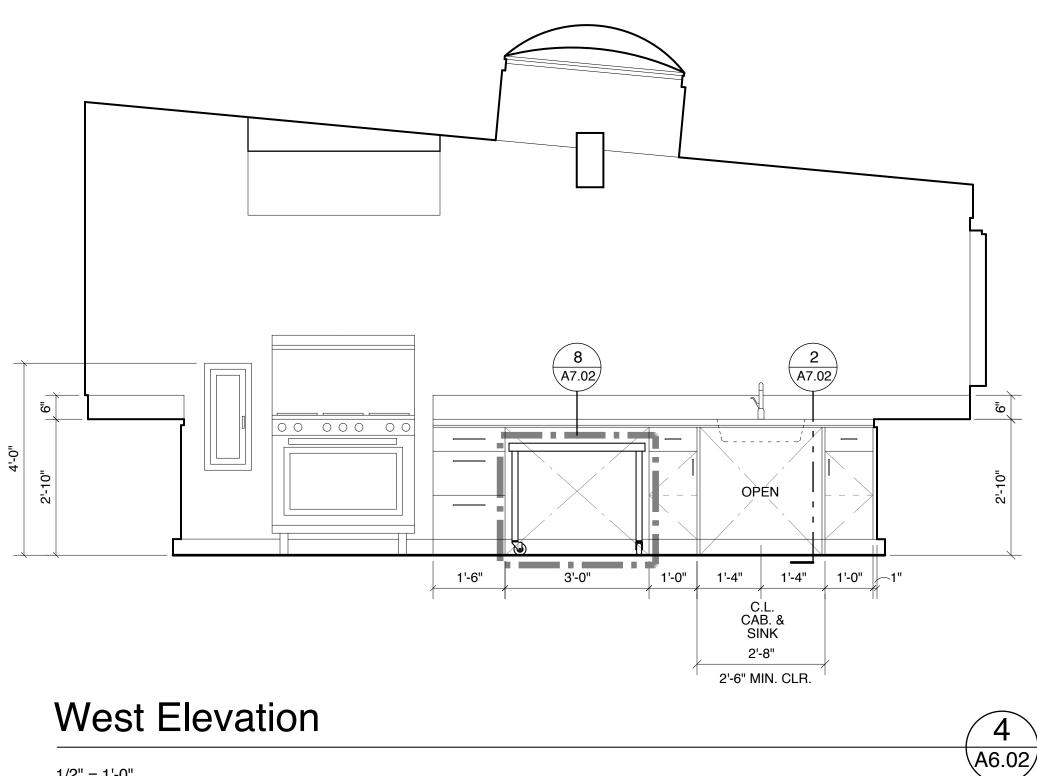
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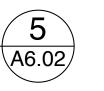
INTERIOR **ELEVATIONS -**MEETING HALL





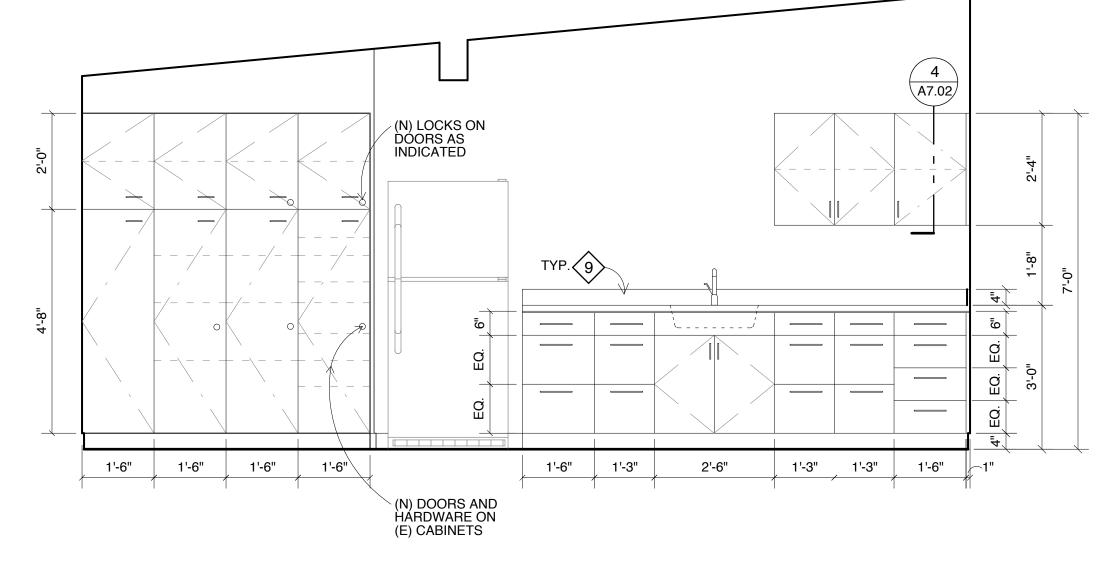


South Elevation



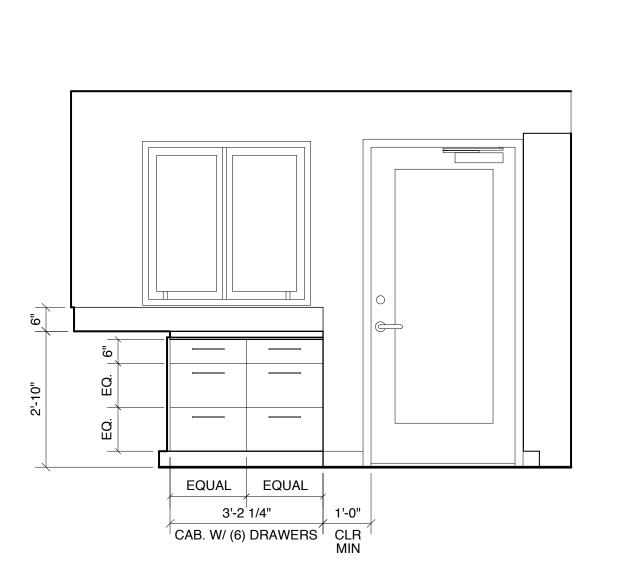
1/2" = 1'-0"

1/2" = 1'-0"



Interior Elevation - East

1/2" = 1'-0"





3

A6.02



8 3 1'-0" CLR. \rightarrow CATERING - - - -PANTRY 5 2 $\langle 7 \rangle$ _ _ _ _ _ _ _ _ $\langle 4 \rangle$ SKYLIGHT _ _ _ _ _ . ABOVE $\langle 1 \rangle$ $W \leq$ A6.02 1'-0" CLR. 6 $\langle 4 \rangle$ **Interior Elevation - East** A6.02 1/2" = 1'-0"





NUMBERED SHEET NOTES

- (E) RANGE & HOOD REMAIN
- (2) (E) REFRIGERATOR REMAINS
- (N) CABINET DOORS & HARDWARE @ (E) CABINETS; CABINETS TO REMAIN
- $\langle 4 \rangle$ (N) LOWER CABINETS W/ COUNTER @ +36"
- (N) LOWER CABINETS W/ COUNTER @ +34"; ADA SINK & ADA CLEARANCES UNDER SINK & COUNTER; OPEN RECESS @ WEST WALL FOR MOVEABLE TABLE
- (N) 48"W UPPER CABINET
- (N) 48" x 36" x 28"H MOVEABLE WORK TABLE
- (N) 36" x 80" DOOR W/ VISION PANEL; REVERSE (E) SWING PROVIDE COUNTER SPLASH AT ALL ABUTTING WALLS, 4" OR 6" SPLASH AS OCCURS, TYP.
- (N) SINK; PROVIDE GARBAGE DISPOSAL PER PLUMBING DRAWINGS
- REMOVE (E) 34" DOOR & FRAME; ENLARGE (E) MASONRY OPENING TO ACCOMMODATE 36" DOOR & FRAME; INSTALL 45 MIN. DOOR, FRAME & HDWR.
- (N) SEMI-RECESSED FIRE EXTINGUISHER CABINET W/ K-TYPE EXTINGUISHER, MOUNT AT ADA-COMPLIANT HEIGHT

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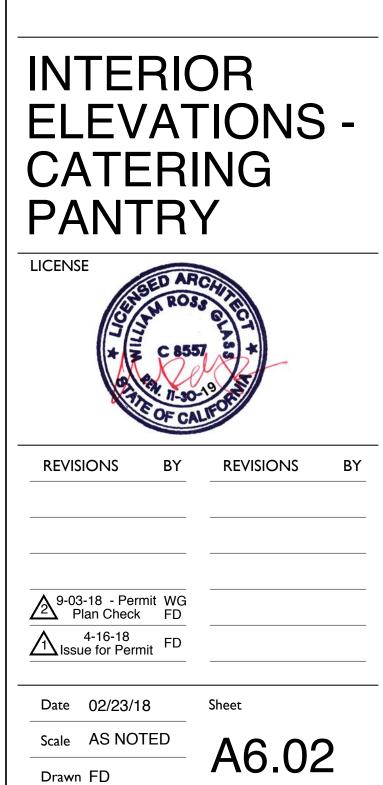
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- 1) ALL WORK SHALL BE CARRIED OUT IN ACCORDANCE WITH THE 2016 C.B.C. AS ADOPTED BY THE COUNTY OF CONTRA COSTA.
- 2) ALL DIMENSIONS TO FINISH FACE UNLESS OTHERWISE NOTED.
- 3) A HAZARDOUS MATERIALS SURVEY IS AVAILABLE FROM THE OWNER. OWNER WILL CONTRACT SEPARATELY FOR ANY **REQUIRED ABATEMENT WORK.** CONTRACTOR SHALL REFER TO SURVEY TO UNDERSTAND LOCATION OF AND ASSESS NECESSARY HANDLING AND ABATEMENT OF ANY HAZARDOUS MATERIALS THAT MAY BE DISTURBED AS PART OF DEMOLITION. CONTRACTOR SHALL IDENTIFY TO THE OWNER ANY **REQUIRED ABATEMENT WORK NOT** PREVIOUSLY COMPLETED.
- (E) WALL AND FLOOR TILE TO REMAIN 4) ÈXCEPT WHERE NOTED. PATCH AND REPAIR AS NECESSARY TO COMPLETE NEW WORK. CONTRACTOR TO VERIFY W/ ARCHITECT SELECTION OF (N) TILE TO MATCH EXISTING. (SEE SPECIFICATIONS.)
- (N) EXHAUST FANS AT CEILING OF EACH 5) BÁTHROOM. SEE (N) FLOOR PLAN A1.04, (N) ROOF & CLERÈSTORY PLAN A1.05, MECHANICAL AND ELECTRICAL DRAWINGS.

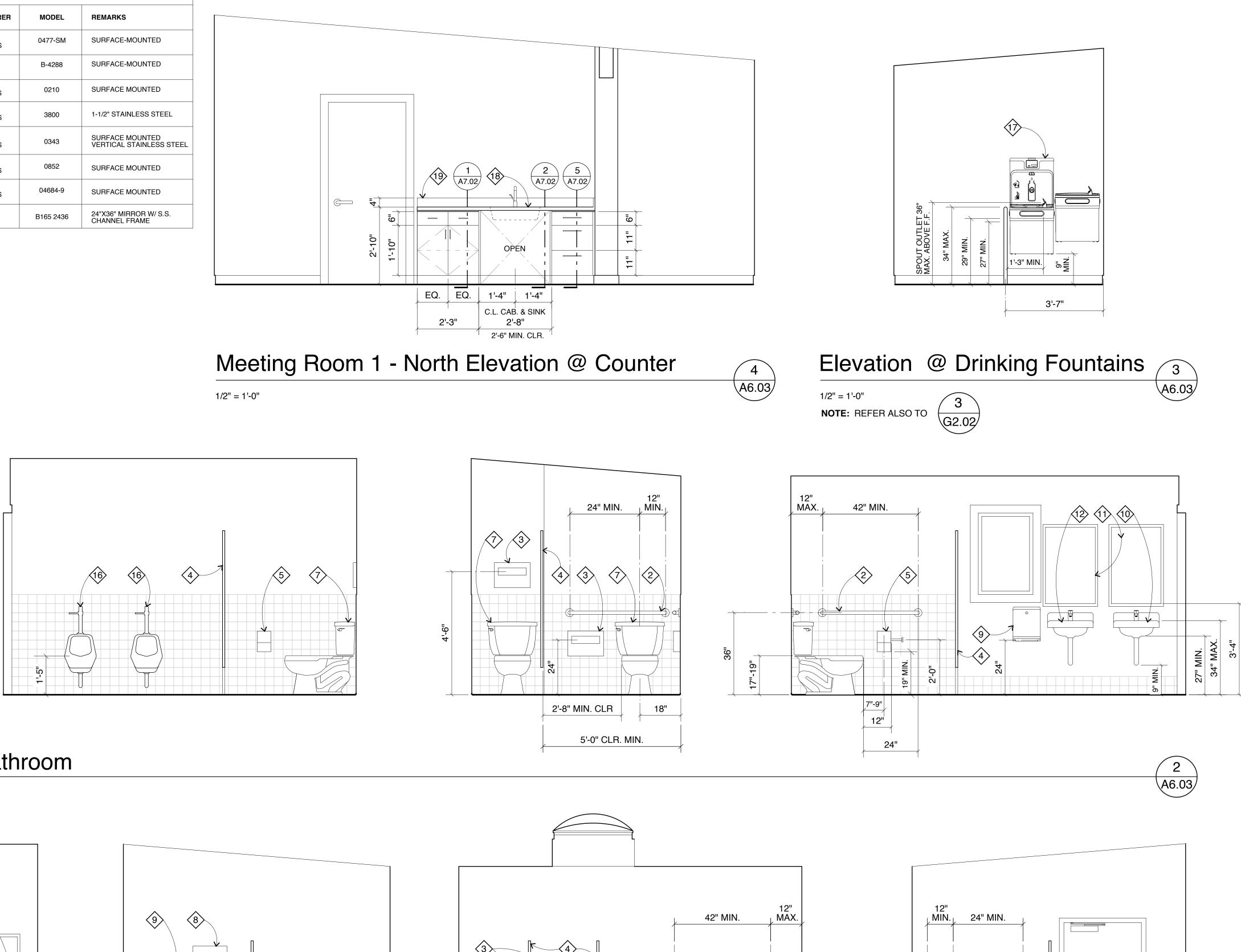
KEYED NOTES

- (N) ADA-COMPLIANT TOILET
- $\langle 2 \rangle$ (N) ADA-COMPLIANT GRAB BARS
- (N) TOILET SEAT DISPENSER
- (E) PARTITIONS, LOCATIONS TO BE REVISED TO MEET ADA CODE REQUIREMENTS.
- (N) TOILET PAPER DISPENSER
- (N) SURFACE-MTD SANITARY NAPKIN RECEPTACLE
- $\langle 7 \rangle$ (E) TOILET TO REMAIN $\langle 8 \rangle$ (N) SANITARY NAPKIN DISPENSER
- $\langle 9 \rangle$ (N) PAPER TOWEL DISPENSER
- (10) (E) LAVATORY AND FAUCET TO REMAIN
- (1) (N) MIRROR
- $\langle 12 \rangle$ (N) ADA-COMPLIANT LAVATORY AND FAUCET (E) FURRING AT THIS PART OF (E) WALL SHALL BÉ REMOVED TO MEET REQUIRED ADA CLEARANCE. REFER TO DEMO PLAN A1.01
- REPAIR AND REPAINT AS NECESSARY TO MATCH ADJACENT WALL.
- (N) TILE BASE TO MATCH ADJ.
- (15) (N) ADA COMPLIANT URINAL
- (E) URINAL TO REMAIN
- (N) HI/LO ADA-COMPLIANT DRINKING FOUNTAIN & BOTTLE FILLING STATION
- (N) LOWER CABINETS W/ COUNTER @ +34"; ADA SINK, FAUCET & ADA CLEARANCES UNDER SINK & COUNTER
- (N) COUNTER SPLASH AT ALL ABUTTING WALLS
- (E) DOOR W/ AUTOMATIC CLOSER, BRASS DOOR PULL AND KICKPLATE TO REMAIN

RESTROOM / SHOWER ACCESSORY SCHEDULE

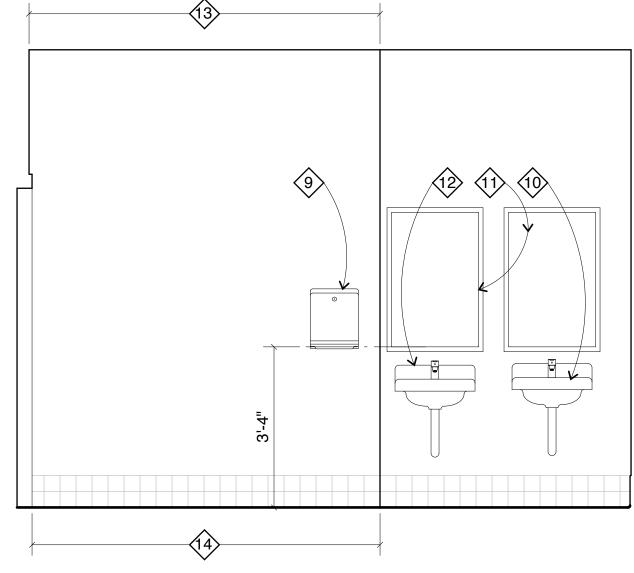
ACCESSORY DESCRIPTION	MANUFACTURER	MODEL	REMARKS
TOILET SEAT COVER DISPENSER	AMERICAN SPECIALTIES	0477-SM	SURFACE-MOUNTED
TOILET PAPER HOLDER	BOBRICK	B-4288	SURFACE-MOUNTED
PAPER TOWEL DISPENSER	AMERICAN SPECIALTIES	0210	SURFACE MOUNTED
GRAB BAR	AMERICAN SPECIALTIES	3800	1-1/2" STAINLESS STEEL
SOAP DISPENSER	AMERICAN SPECIALTIES	0343	SURFACE MOUNTED VERTICAL STAINLESS STEEL
SANITARY NAPKIN DISPOSAL	AMERICAN SPECIALTIES	0852	SURFACE MOUNTED
SANITARY NAPKIN DISPENSER	AMERICAN SPECIALTIES	04684-9	SURFACE MOUNTED
MIRROR	BOBRICK	B165 2436	24"X36" MIRROR W/ S.S. CHANNEL FRAME

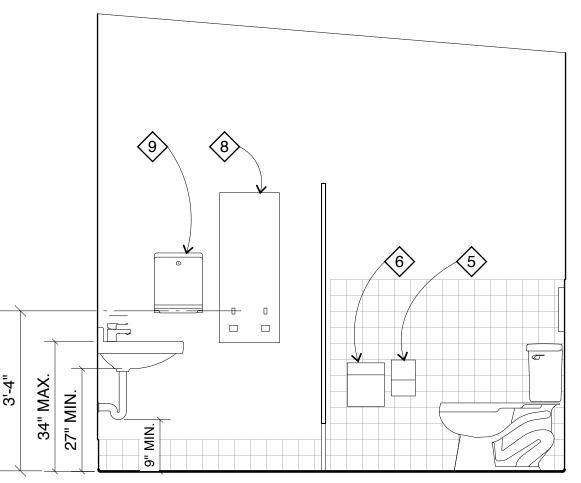




Men's Bathroom

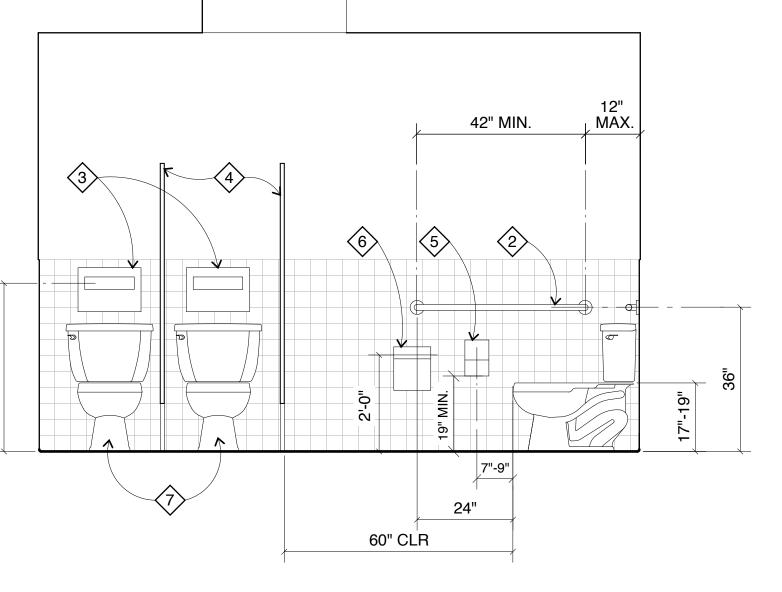
1/2" = 1'-0"

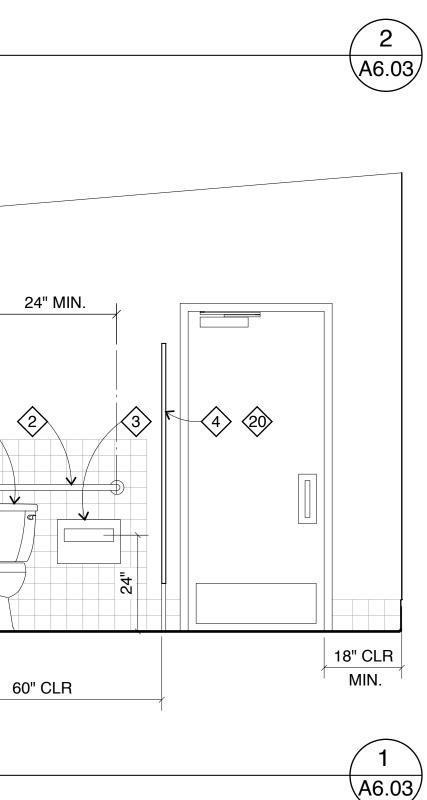




Women's Bathroom

1/2" = 1'-0"





18"

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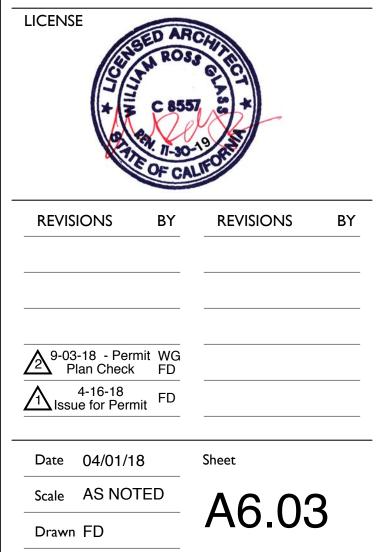
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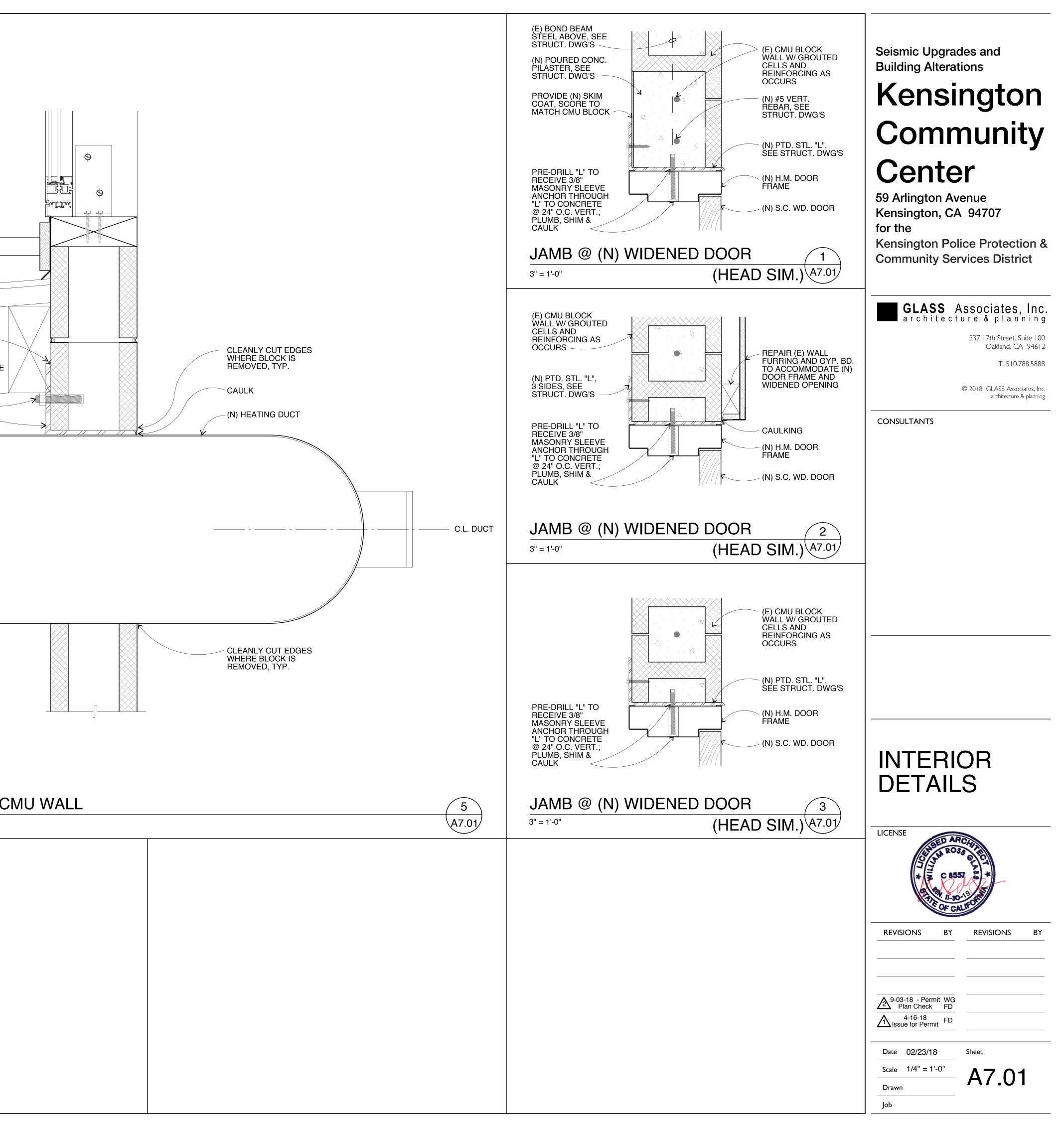
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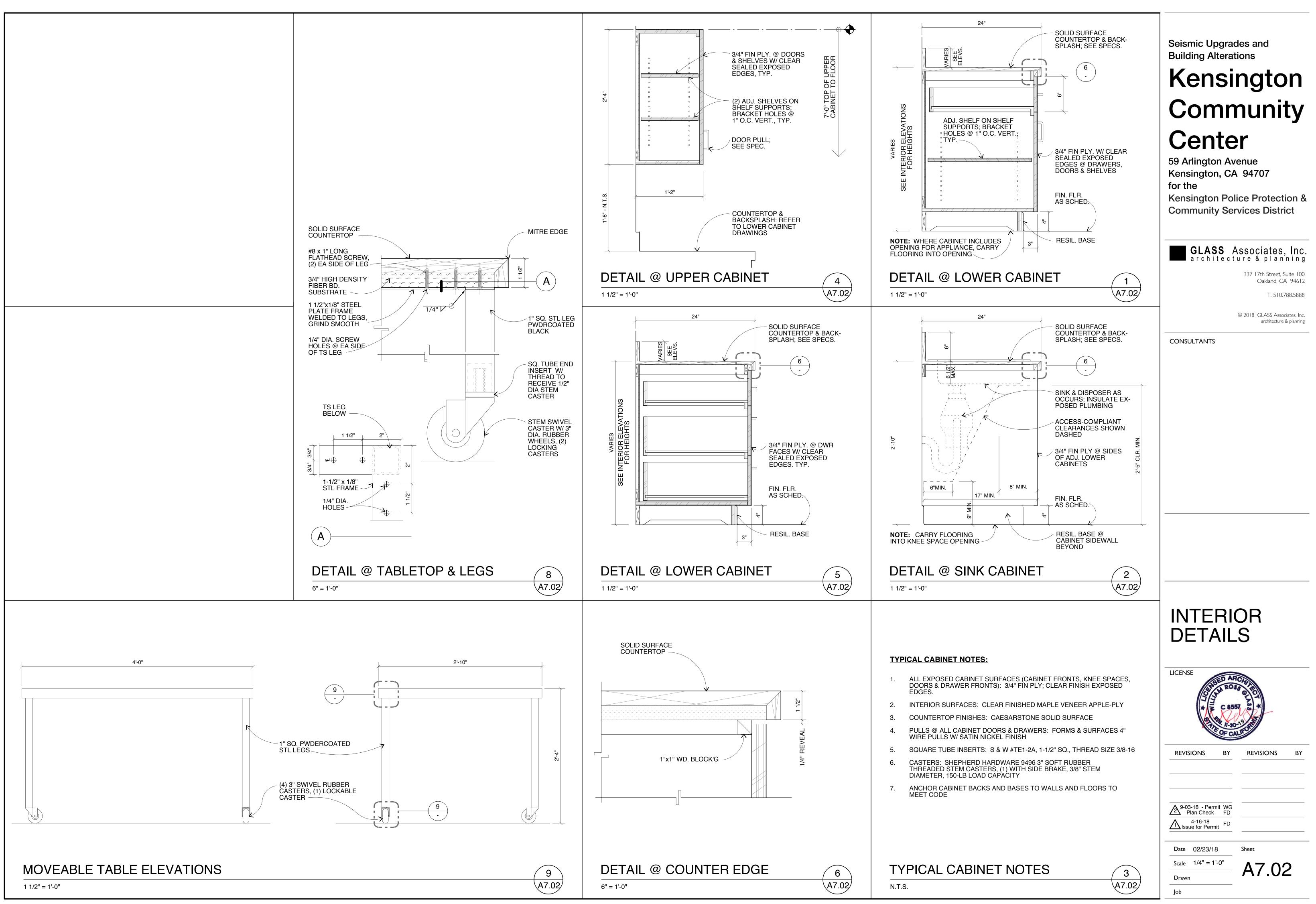
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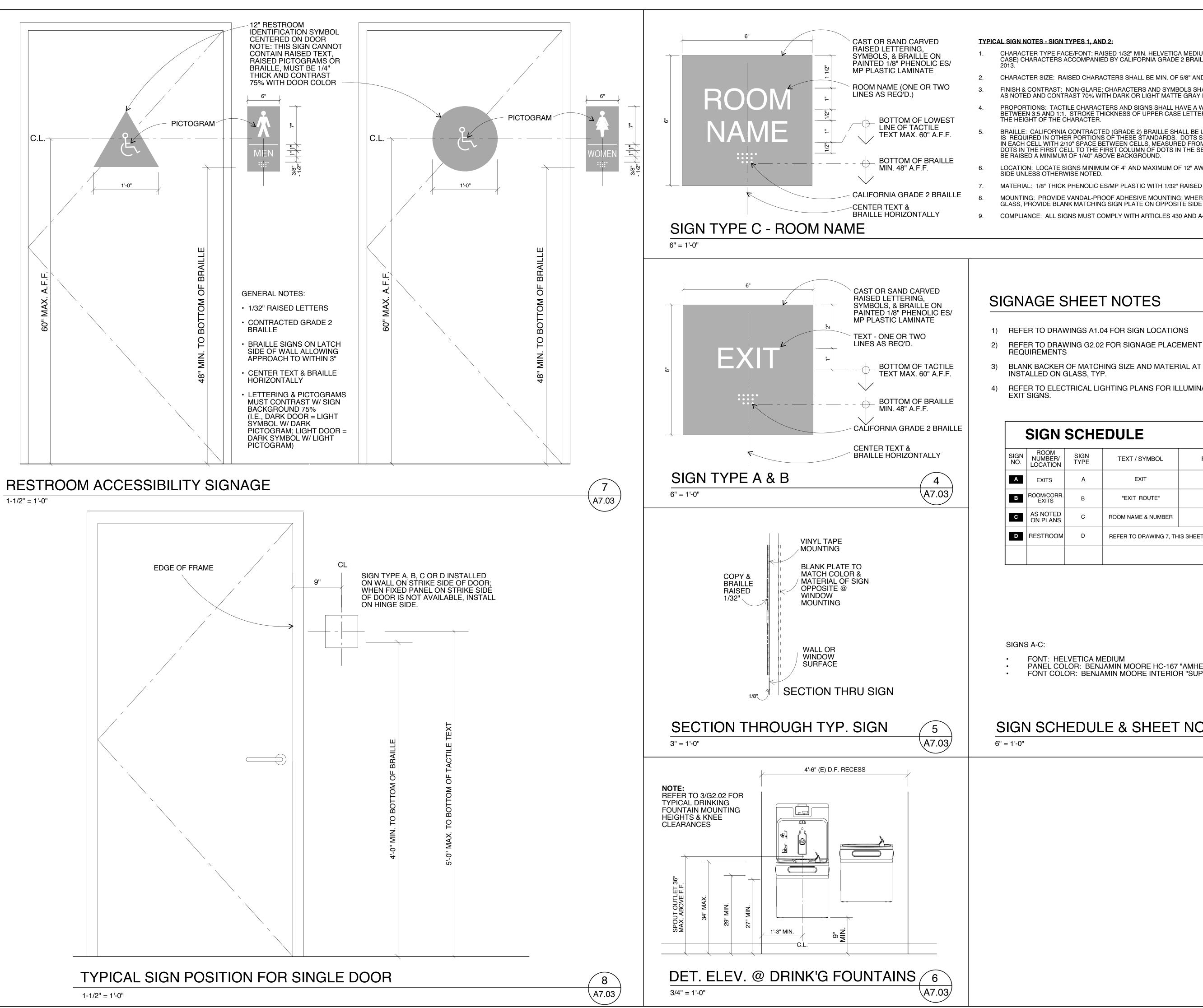


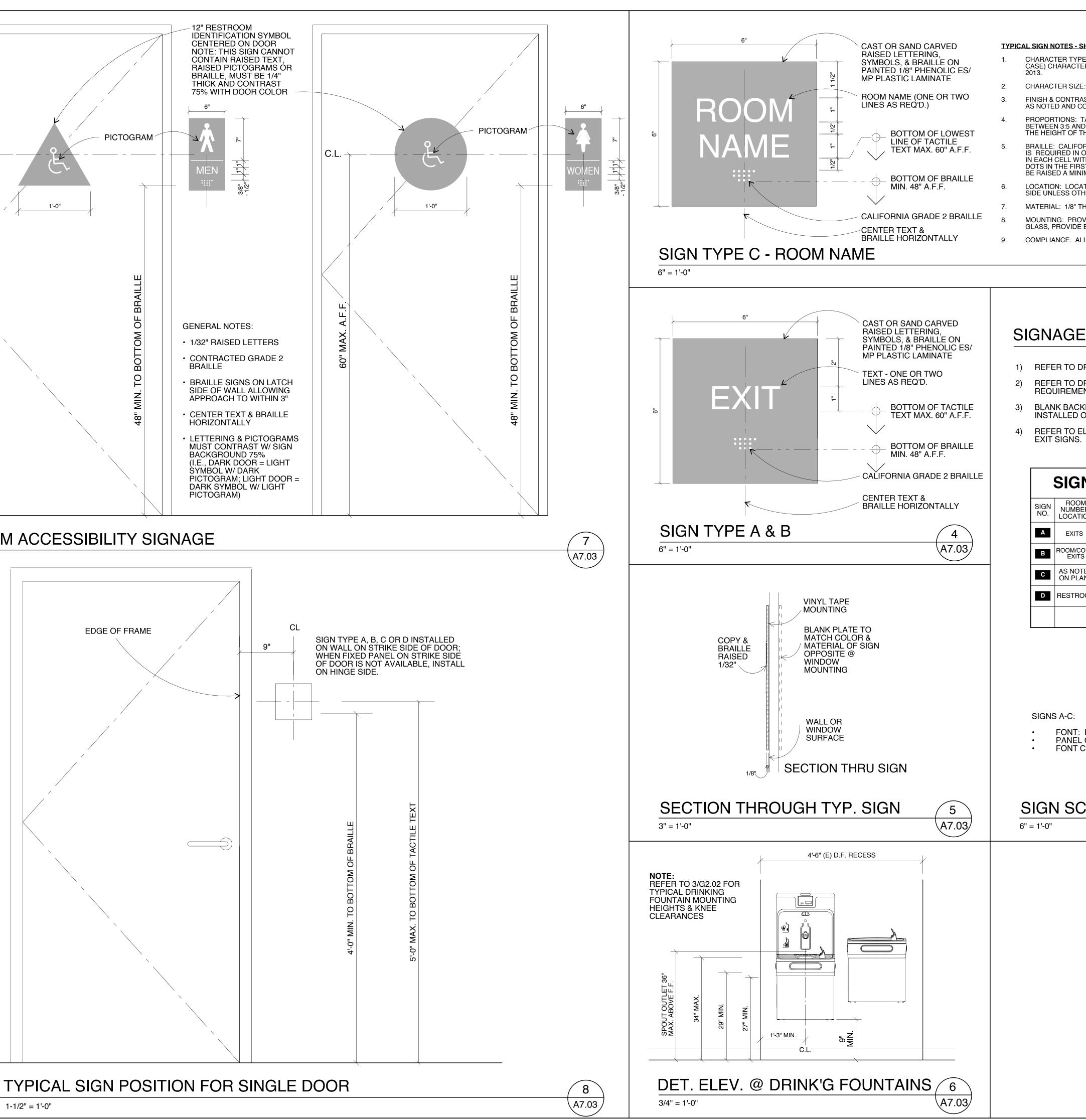


CAULK
6 x 7-1/2 x 3/8" STL. ANGLE SECURED W/ 5x5/8" DIA. SET-XP EPOXY BOLTS; S.S.D.
S.S.D.
1-4"
DUCT PENETRATION @ (
3" = 1'-0"









CHARACTER TYPE FACE/FONT: RAISED 1/32" MIN. HELVETICA MEDIUM (SAN-SERIF. UPPER CASE) CHARACTERS ACCOMPANIED BY CALIFORNIA GRADE 2 BRAILLE COMPLYING WITH CBC 2013

CHARACTER SIZE: RAISED CHARACTERS SHALL BE MIN. OF 5/8" AND MAX. OF 2" HIGH.

FINISH & CONTRAST: NON-GLARE; CHARACTERS AND SYMBOLS SHALL BE WHITE OR BLACK AS NOTED AND CONTRAST 70% WITH DARK OR LIGHT MATTE GRAY BACKGROUND.

PROPORTIONS: TACTILE CHARACTERS AND SIGNS SHALL HAVE A WIDTH:HEIGHT RATIO BETWEEN 3:5 AND 1:1. STROKE THICKNESS OF UPPER CASE LETTER "I" SHALL BE 15% MAX. OF THE HEIGHT OF THE CHARACTER.

BRAILLE: CALIFORNIA CONTRACTED (GRADE 2) BRAILLE SHALL BE USED WHEREVER BRAILLE IS REQUIRED IN OTHER PORTIONS OF THESE STANDARDS. DOTS SHALL BE 1/10" ON CENTERS IN EACH CELL WITH 2/10" SPACE BETWEEN CELLS, MEASURED FROM THE SECOND COLUMN OF DOTS IN THE FIRST CELL TO THE FIRST COLUMN OF DOTS IN THE SECOND CELL. DOTS SHALL BE RAISED A MINIMUM OF 1/40" ABOVE BACKGROUND.

LOCATION: LOCATE SIGNS MINIMUM OF 4" AND MAXIMUM OF 12" AWAY FROM DOOR STRIKE SIDE UNLESS OTHERWISE NOTED.

MATERIAL: 1/8" THICK PHENOLIC ES/MP PLASTIC WITH 1/32" RAISED LETTERS.

MOUNTING: PROVIDE VANDAL-PROOF ADHESIVE MOUNTING; WHERE SIGNS OCCUR ON GLASS, PROVIDE BLANK MATCHING SIGN PLATE ON OPPOSITE SIDE OF GLASS

COMPLIANCE: ALL SIGNS MUST COMPLY WITH ARTICLES 430 AND A430 OF A.D.A.



SIGNAGE SHEET NOTES

1) REFER TO DRAWINGS A1.04 FOR SIGN LOCATIONS

BLANK BACKER OF MATCHING SIZE AND MATERIAL AT SIGNS INSTALLED ON GLASS, TYP.

REFER TO ELECTRICAL LIGHTING PLANS FOR ILLUMINATED

Ν	N SCHEDULE					
M ER/ ION	SIGN TYPE	TEXT / SYMBOL	REMARKS			
6	А	EXIT				
ORR. S	В	"EXIT ROUTE"	(2) x			

С	ROOM NAME & NUMBER	N/A
D	REFER TO DRAWING 7, TH	IS SHEET

FONT: HELVETICA MEDIUM PANEL COLOR: BENJAMIN MOORE HC-167 "AMHERST GRAY" FONT COLOR: BENJAMIN MOORE INTERIOR "SUPER WHITE" PM-1

SIGN SCHEDULE & SHEET NOTES

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ΒY

REVISIONS

2

A7.03

REVISIONS BY

9-03-18 - Permit WG Plan Check FD 4-16-18 FD

Date 02/23/18 Scale 1/4" = 1'-0" Drawn ESG/FD

Job

A7.03

Shee

GENERAL SHEET NOTES

- 1) THE PROJECT BID ALTERNATES ("BID ALTS") ARE ALL ADDITIVE ALTERNATES. THEY ARE DESCRIBED IN THE A8. DRAWING SERIES.
- 2) THIS DRAWING IS PROVIDED TO THE CONTRACTOR TO LIST THE BID ALTERNATES INCLUDED IN THE CONTRACT BID PACKAGE. IT INCLUDES A DESCRIPTION OF BID ALT. 1 AND BID ALT. 2.
- 3) ADDITIONAL BID ALTS ARE REFERENCED BY DRAWING AND DETAIL KEYS TO OTHER SHEETS IN THE A8 SERIES
- 4) REFER ALSO TO DIVISION 1 OF THE SPECIFICATIONS.
- 5) DIVISIONS 2 10 OF THE SPECIFCATIONS INCLUDE PRODUCT AND AND INSTALLATION REQUIREMENTS FOR BOTH BASIC SCOPE WORK AND BID ALTERNATE SCOPE WORK. THE SPECIFICATIONS DO NOT DIFFERENTIATE BETWEEN BASIC SCOPE WORK AND BID ALTERNATE SCOPE WORK. CONTRACTOR SHALL REVIEW AND ADHERE TO SPECIFICATIONS RELATED TO BID ALTERNATE WORK.
- 6) A HAZARDOUS MATERIALS SURVEY IS AVAILABLE FROM THE OWNER. OWNER WILL CONTRACT SEPARATELY FOR ANY REQUIRED ABATEMENT WORK. CONTRACTOR SHALL REFER TO SURVEY TO UNDERSTAND LOCATION OF AND ASSESS NECESSARY HANDLING AND ABATEMENT OF ANY HAZARDOUS MATERIALS THAT MAY BE DISTURBED AS PART OF DEMOLITION. CONTRACTOR SHALL IDENTIFY TO THE OWNER ANY REQUIRED ABATEMENT WORK NOT PREVIOUSLY COMPLETED.

BID ALTERNATIVES

BID ALT. 1: NEW FLOORING AT MEETING HALL

- 1.1 CONTRACTOR TO PROVIDE & INSTALL (N) LINOLEUM FLOOR TILE AT THE MEETING HALL AND THE CONTIGUOUS HALLWAY LEADING TO THE NORTH EXIT.
- 1.2 THE WORK INCLUDES DEMOLITION AND REMOVAL OF THE EXISTING VINYL TILE ONLY AS CAN BE EXECUTED WITHOUT ENGAGING HAZARDOUS MATERIAL.
- 1.3 OWNER TO PROVIDE ABATEMENT WORK OF HAZARDOUS MATERIAL AS APPLICABLE.
- 1.4 CONTRACTOR SHALL REFER TO THE HAZARDOUS MATERIALS SURVEY PREPARED BY THE OWNER'S HAZARDOUS MATERIALS ABATEMENT CONSULTANT. CONTRACTOR SHOULD ASSESS THE NEED FOR ANY ADDITIONAL ABATEMENT WORK AND INFORM THE OWNER OF THE NEED FOR ANY SUCH WORK.

BID ALT. 2: NEW FLOORING AT MEETING ROOM 3

2.1 CONTRACTOR TO PROVIDE & INSTALL (N) LINOLEUM FLOOR TILE AT MEETING ROOM 3.

- 2.2 THE WORK INCLUDES DEMOLITION AND REMOVAL OF THE EXISTING VINYL TILE ONLY AS CAN BE EXECUTED WITHOUT ENGAGING HAZARDOUS MATERIAL
- 2.3 OWNER TO PROVIDE ABATEMENT WORK OF HAZARDOUS MATERIAL AS APPLICABLE
- 2.4 CONTRACTOR SHALL REFER TO THE HAZARDOUS MATERIALS SURVEY PREPARED BY THE OWNER'S HAZARDOUS MATERIALS ABATEMENT CONSULTANT. CONTRACTOR SHOULD ASSESS THE NEED FOR ANY ADDITIONAL ABATEMENT WORK AND INFORM THE OWNER OF THE NEED FOR ANY SUCH WORK.

BID ALT. 3: NEW PARTIAL-HEIGHT CABINET WORK AT WEST WALL OF MEETING HALL

3.1 CONTRACTOR TO PROVIDE & INSTALL (N) PARTIAL-HEIGHT STORAGE CABINETS, PANELING AND BENCH AS ILLUSTRATED ON SHEET A8.02.

BID ALT. 4: INTEGRATE EXISTING A.V. SYSTEM INTO NEW CABINET WORK AT WEST WALL OF MEETING HALL

4.1 CONTRACTOR TO INCORPORATE (E) AV SPEAKERS AND WIRING INTO (N) STORAGE CABINÈTS, PANELING AND BENCH PROVIDED AS ADD ALT 1 AND AS ILLUSTRATED ON SHEET A8.02.

BID ALT. 5: NEW FIREPLACE INSERT AT MEETING HALL

5.1 CONTRACTOR TO PROVIDE & INSTALL (N) FIREPLACE INSERT & MANTEL AT (E) WALL & FIREPLACE OF MEETING HALL AS ILLUSTRATED ÓN SHEET A8.03.

BID ALT. 6: NEW FIREPLACE INSERT AT MEETING HALL

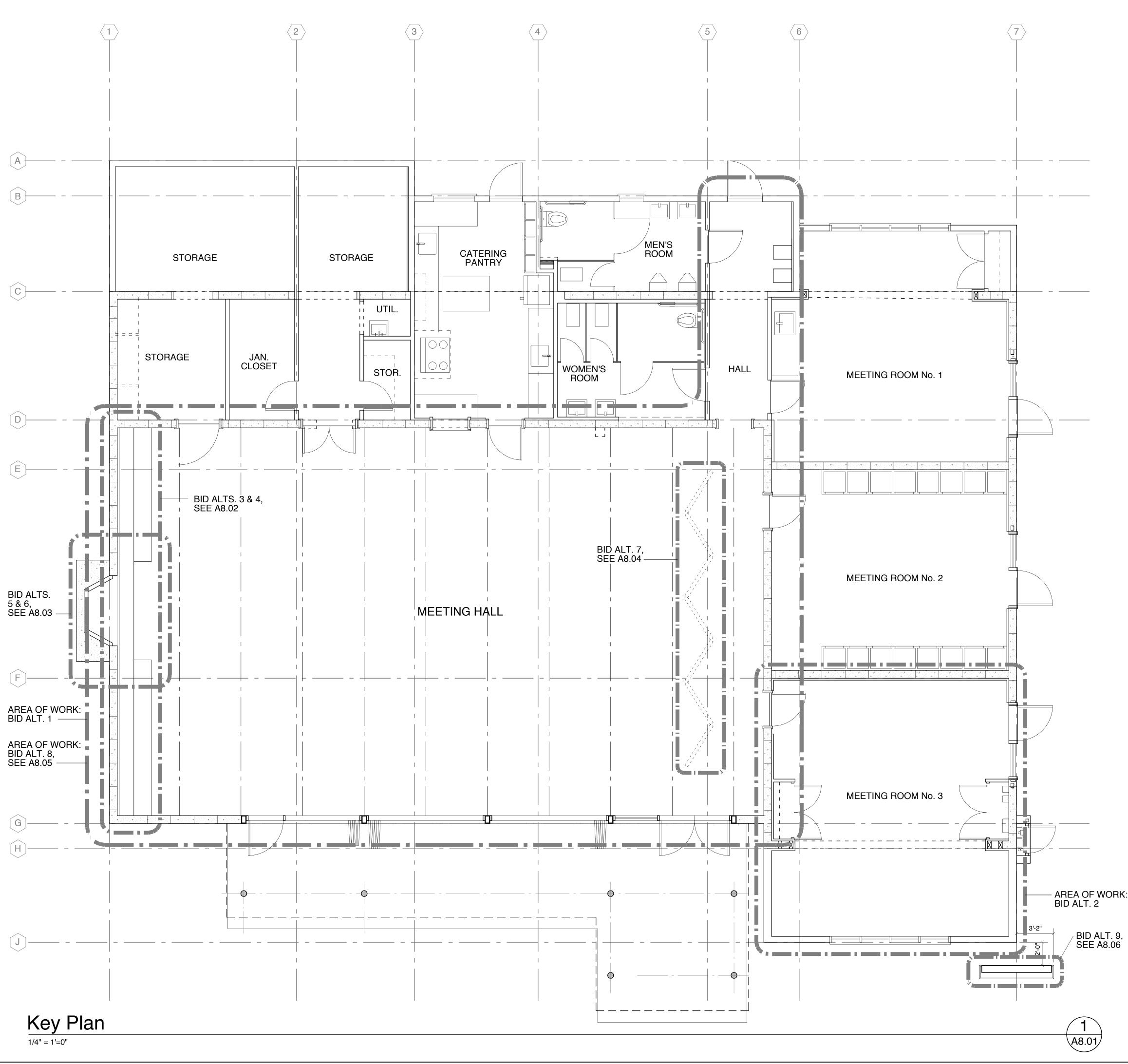
- 6.1 CONTRACTOR TO PROVIDE & INSTALL (N) FIREPLACE INSERT & MANTEL AT (N) WEST WALL STORAGE OF MEETING HALL (ADD. ALT3, ABOVE) AS ILLUSTRATED ON SHEET A8.03.
- **BID ALT. 7: NEW SCREEN PARTITION AT MEETING HALL**
- 7.1 CONTRACTOR TO PROVIDE & INSTALL (N) MOVEABLE SCREEN PARTITION AS ILLUSTRATED ON SHEET A8.04.

BID ALT. 8: NEW ACOUSTICAL CEILING TILE AT MEETING HALL

8.1 CONTRACTOR TO PROVIDE & INSTALL (N) ACOUSTICAL CEILING TILE AT MEETING HALL AS ILLUSTRATED ON SHEET A8.05.

BID ALT. 9: NEW EXTERIOR BUILDING SIGN

9.1 CONTRACTOR TO PROVIDE & INSTALL (N) EXTERIOR BUILDING SIGN AS ILLUSTRATED ON SHEET A8.06.



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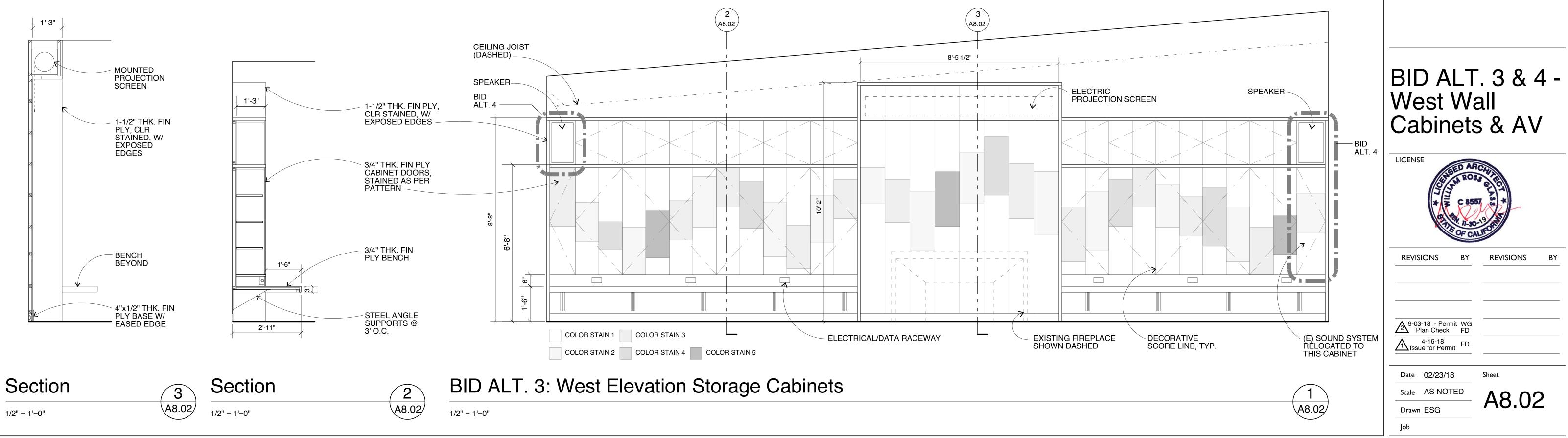
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BID ALTERNATIVES **KEY PLAN**

3Y



SHEET NOTES

BID ALT. 4: INTEGRATION OF (E) A/V SYSTEM

- (E) SOUND SYSTEM W/ SPEAKERS TO BE RELOCATED AND INTEGRATED INTO (N) CABINET WALL AT LOCATION SHOWN
- 2) (N) VIDEO/PROJECTION CAPABILITY TO BE INTEGRATED INTO CABINETS. WORK TO BE COORDINATED WITH ARCHITECT AND ELECTRICAL CONSULTANT.

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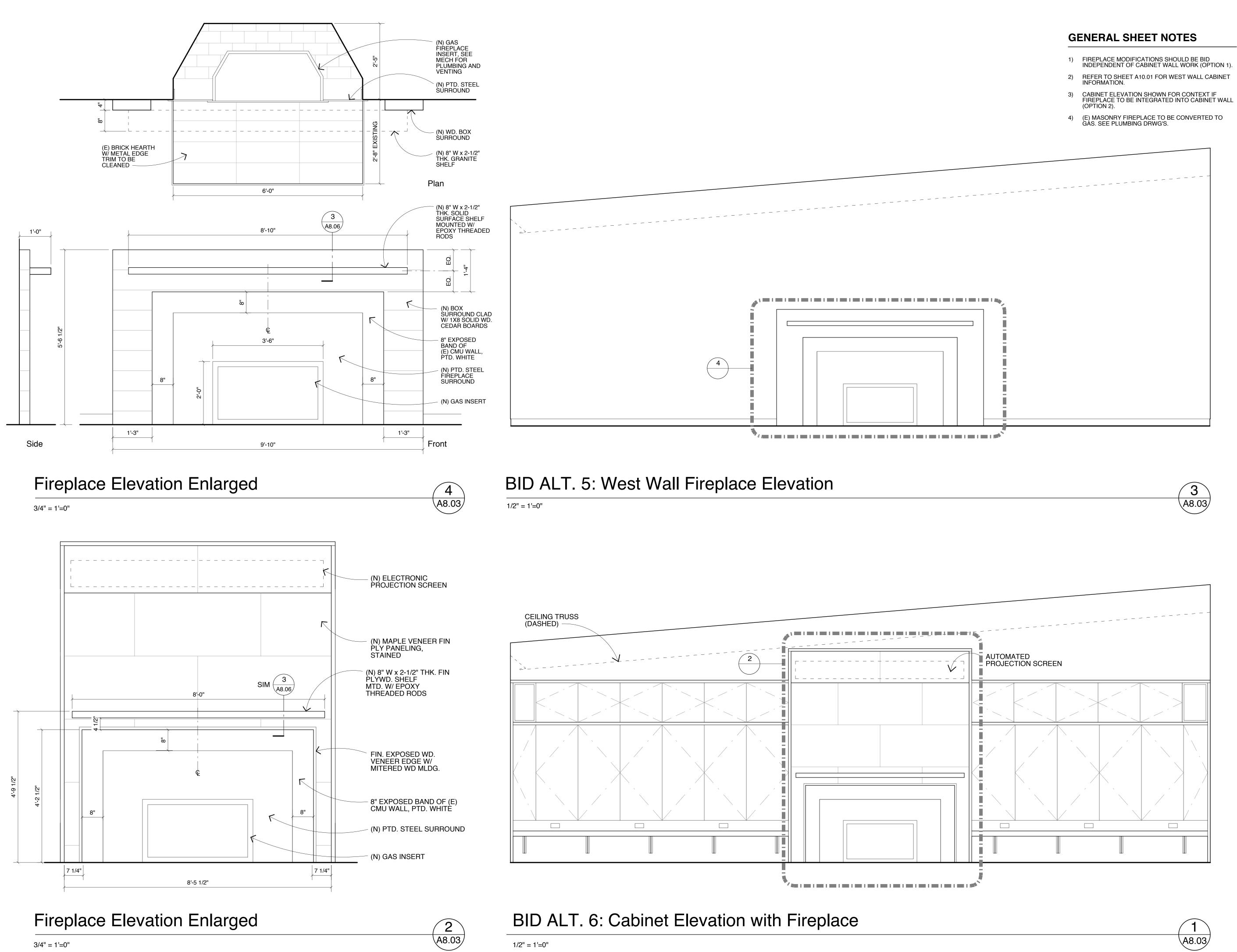
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Seismic Upgrades and **Building Alterations**

Kensington Community Center

59 Arlington Avenue Kensington, CA 94707 for the Kensington Police Protection & **Community Services District**

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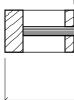
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BID ALT. 5 & 6 -Fireplace Modifications

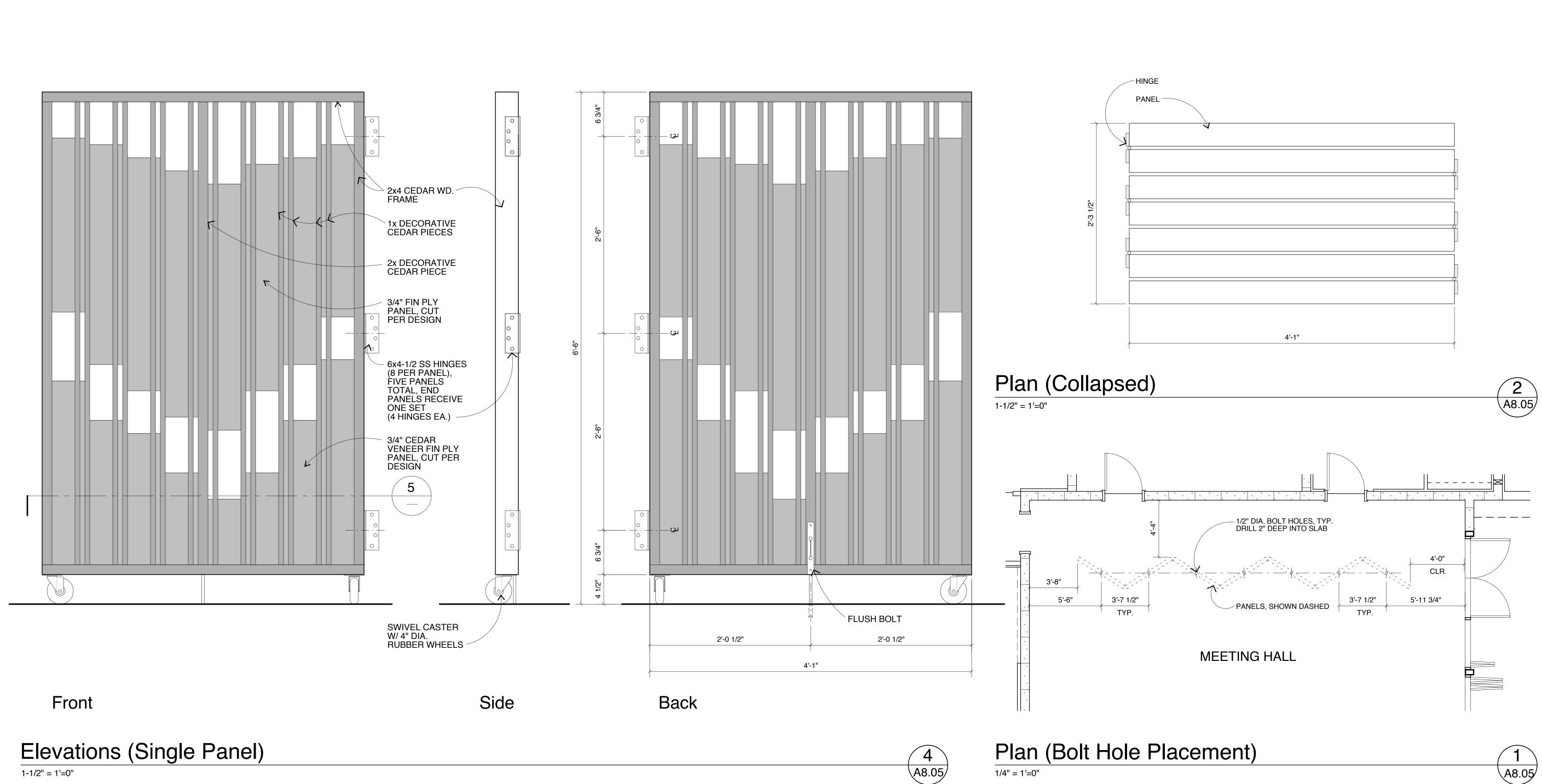
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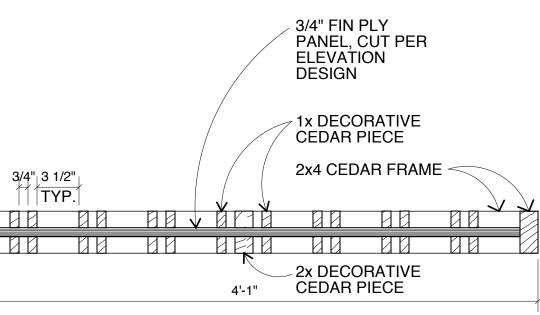
GENERAL SHEET NOTES

- 1) CONTRACTOR TO SUBMIT SHOP DRAWINGS FOR REVIEW AND APPROVAL TO ARCHITECT.
- 2) ALL HARDWARE TO BE STAINLESS STEEL OR OTHER NON-CORROSIVE









5 A8.05

1/4" = 1'=0"

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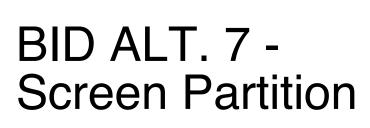
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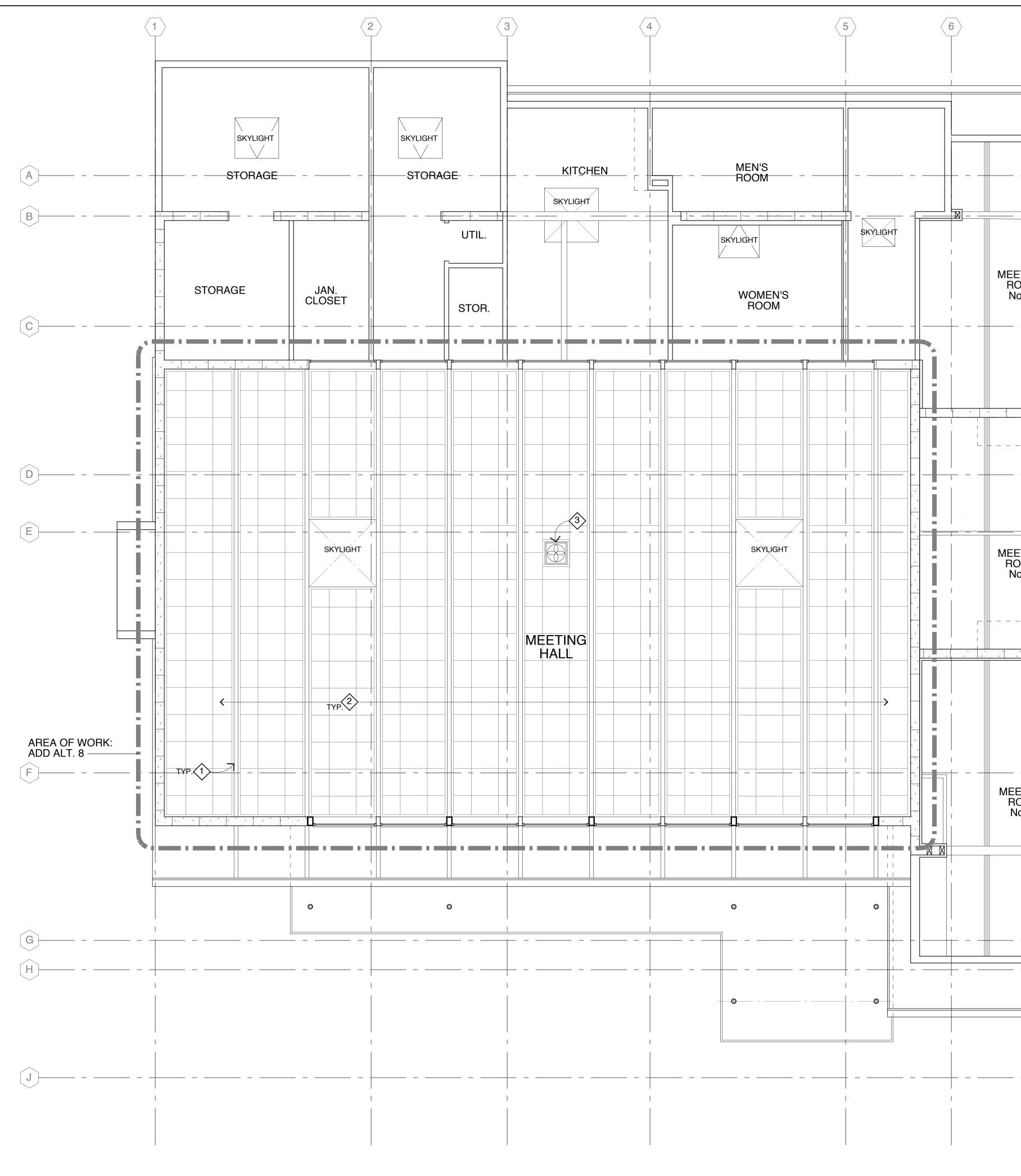
GENERAL SHEET NOTES

- 1) WORK LIMITED TO CEILING OF MAIN HALL ONLY.
- 2) (E) ACOUSTICAL CEILING TILE TO BE REMOVED.
- 3) CONTRACTOR TO PREP SURFACES AS NECESSARY TO RECEIVE (N) TILE INSTALLATION.
- 4) GENERAL CONTRACTOR SHALL REVIEW WITH ARCHITECT PLACEMENT OF CEILING TILE AS CONFLICTS ARISE WITH ANY (N) STRUCTURAL TIES/ MEMBERS AT THE CEILING EDGE.
- 5) GENERAL CONTRACTOR TO COORDINATE WITH OTHER TRADES FOR INSTALL OF FIRE/EXIT SIGNS, DETECTORS, LIGHTS, ETC. AND ANY OTHER ITEM THAT CAUSES POSSIBLE CONFLICT WITH CEILING TILE INSTALLATION.

NUMBERED SHEET NOTES

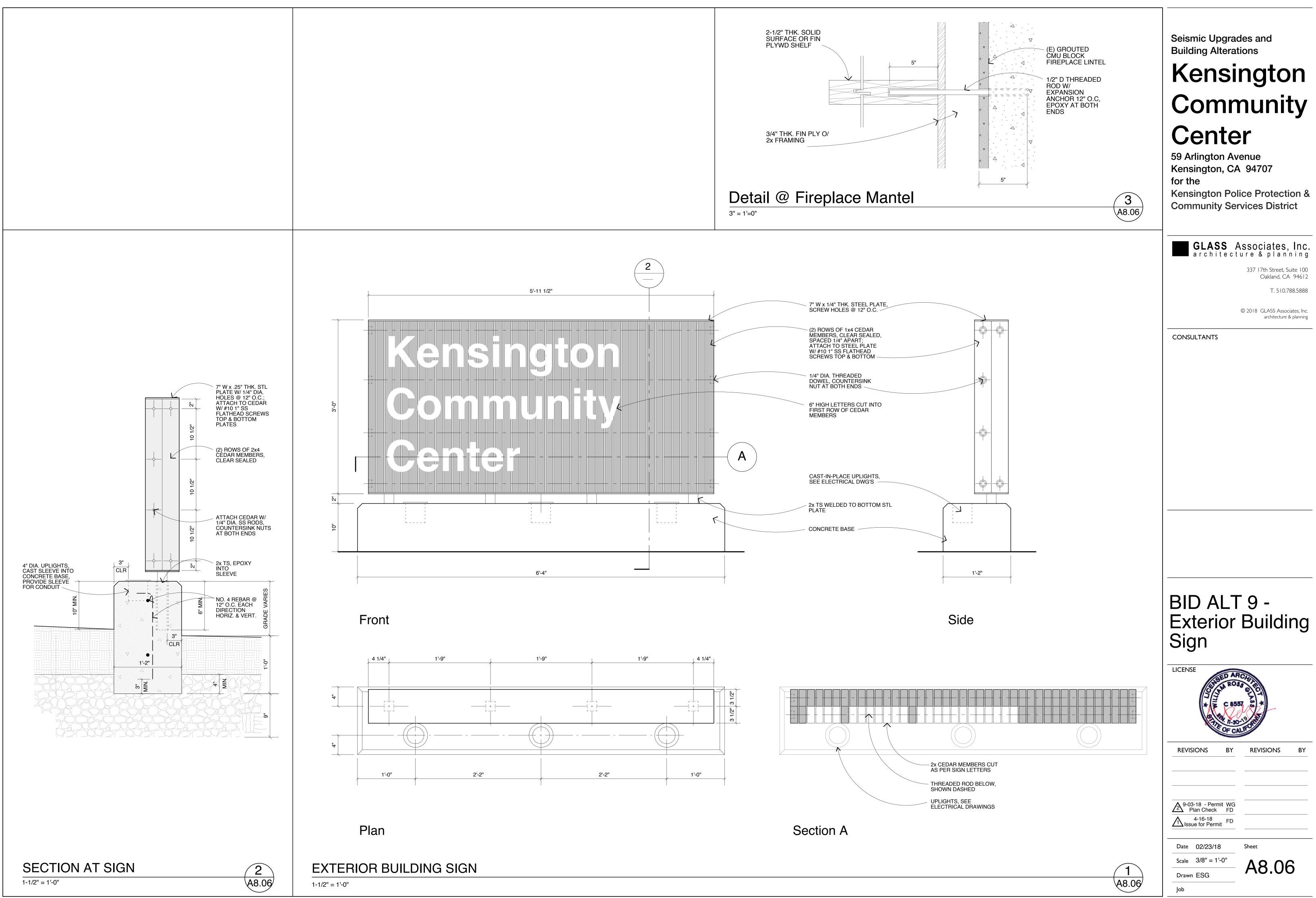
(E) OPEN WEB STEEL JOISTS

- (N) 24x24x3/4" ACOUSTICAL CEILING TILE ADHESIVELY APPLIED TO UNDERSIDE OF (E) 2x WD. DECKING
- (N) ROOF EXHAUST FAN, SEE MECH.



Reflected Ceiling Plan

		Seismic Upgrades and Building Alterations Kensington
		Community Center
ETING OOM lo. 1		59 Arlington Avenue Kensington, CA 94707 for the Kensington Police Protection & Community Services District
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ETING DOM lo. 2		
ETING OOM Io. 3		
		BID ALT. 8 - Acoustical Ceiling Tile
		LICENSE
		REVISIONS BY REVISIONS BY
		$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$
	1 A8.02	Scale AS NOTED Drawn ESG Job



SPECIFICATIONS

for

Seismic Upgrades and Building Alterations

Kensington Community Center

59 Arlington Avenue Kensington, CA 94707

DIVISION 1 - GENERAL REQUIREMENTS

SECTION A: GENERAL REQUIREMENTS

All work is shown, described, or specified on the drawings indexed on Sheet G0.01 of the Drawings entitled Seismic Upgrades and Building Alterations, Kensington Community Center, 56 Arlington Avenue, Kensington, CA 94707.

- All work shall be carried out in accordance with the California Building Code (CBC), 2016, as adopted by the County of Contra Costa, and all applicable local codes and ordinances.
- 2. Work includes all materials, labor, equipment, tools, and operations, including relocation and/or installation of utilities (e.g.: gas, water, electric, etc.), necessary for the furnishing and installation of all items shown on the drawings or specified herein.
- All areas and property adjacent to those receiving work under this contract shall be protected during construction from dirt, dust, and damage resulting from Contractor's operations.

Contractor shall cooperate in providing access for and in scheduling work by others not in this contract, including but not limited to Owner's contractors or vendors.

SECTION B: SPECIAL PROVISIONS

1. Basic SCOPE OF WORK (GENERAL) - Scope of Work includes but is not limited to:

- Selective demolition of existing structure, including associated finishes at areas а.
- affected by the work Site development work, including grading and paving, landscaping and
- irrigation, and site lighting. Provision and installation of partitions and associated doors and finishes as shown on
- the Drawings. d. Painting of all new construction and existing construction within limits of work unless
- otherwise noted. New wall, floor, and ceiling finishes as shown on the Drawings and specified herein.
- Cabinets and counters as shown on the Drawings. New electrical power, lighting, mechanical and plumbing systems as shown on the drawings and required by remodeling work.
- Restroom fixtures and accessories as shown on the Drawings.
- Kitchen fixtures as shown on the Drawings.

Scope of Work DOES NOT INCLUDE:

- Voice / data cabling and equipment are N.I.C. (By Owner) а. Furniture b
- 2. BID ALTERNATES: The project Bid Documents include Bid Alternates ("Bid Alts"). The Owner, at its discretion, may select any or none of the Bid Alts for inclusion in the Work. Should any Bid Alts be selected by the Owner, they will be included with the Bidders' Basic Scope bid to determine the overall low bidder.
 - The Bid Alts are listed below and described in the A8. drawing series. Divisions 2 - 10 of the Specifications include product and and installation requirements for both Basic Scope work and Bid Alt Scope work. The Specifications do not differentiate between Basic Scope work and Bid Alt Scope work. Contractor shall review and adhere to specifications related to Bid Alt
 - work Hazardous materials: Refer to Div. 1, B.3, below.
 - List of Bid Alts:
 - Bid Alt. 1: New flooring at Meeting Hall
 - Bid Alt. 2: New flooring at Meeting Room 3
 - Bid Alt. 3: New partial-height cabinet work at west wall of Meeting Hall Bid Alt. 4: Integrate existing A.V. system into new cabinet work at west wall of Meeting hall
 - Bid Alt. 5: New fireplace insert and mantel at Meeting Hall fireplace Bid Alt. 6: New fireplace insert and mantel at fireplace integrated into new cabinet work at west wall of Meeting hall
 - Bid Alt. 7: New screen partition at Meeting Hall
 - Bid Alt. 8: New acoustical ceiling tile at Meeting Hall Bid Alt. 9: New exterior building sign
- 3. HAZARDOUS MATERIALS: A hazardous materials survey is available from the Owner. Owner will contract separately for any required abatement work. Contractor shall refer to survey to understand location of and assess necessary handling and abatement of any hazardous materials that may be disturbed as part of demolition or new work. Contractor shall identify to the owner any required abatement work not previously completed.
- 4. DEFINITION OF TERMS USED

а.	Building Owner:	Kensington Police and Protection Services District 217 Arlington Avenue Kensington, CA 94707 Attn: Tony Costantouros, General Manager (510) 526-4141
b.	Architect:	Glass Associates, Inc. 337 17th Street, Suite 100 Oakland, CA 94612 Attn: William R. Glass, FAIA, Principal

SECTION C: GENERAL CONDITIONS OF THE CONTRACT

The Contract includes the Agreement (AIA Document A107) and its General 1. Conditions, the Drawings, and the Specifications. Two copies of each shall be signed by both parties and a signed copy of each retained by each party. The intent of these documents is to include all material, labor, tools, equipment and the performance of all operations necessary for the proper execution of the Work and the terms and conditions of payment therefore.

(415) 788-5888

2. The Documents are to be considered as one, and whatever is called for by one of the documents shall be as binding as if called for by all.

SECTION D: SUPPLEMENTAL GENERAL CONDITIONS

- The Architect shall represent the Owner in all matters with the contract by the Contractor. The Architect shall general have authority to stop the work if necessary in his opinion, execution. The Architect shall certify to the Owner when p are due and amounts to be paid. The Architect shall make Owner or Contractor in accordance with the terms of the G Agreement.
- 2. No separate measurement or payment will be made for iter than as indicated in the Agreement payment schedule.
- The Owner, through the Architect, shall obtain and pay for Contractor shall obtain and pay for all other permits and lice prosecution of the work except where otherwise specified.
- The Contractor shall comply with all laws and regulations b the work and shall notify the Architect and Owner if the Dra are at variance therewith.
- Contractor shall at its sole expense maintain in effect at all performance of its obligations under this Contract insurance
- Worker's Compensation, amounts and limits in acco а statutory requirements.
- Employers' Liability, amounts and limits to extent in Compensation insurance policy.
- The Contractor shall be responsible for any damage to any resulting from defects or obstructions or from any cause whether the second s progress of the work or at any time before its completion a shall indemnify and hold harmless the Owner and the Arch brought for, or on account of, any injuries or damage received person or persons, by or from the Contractor, by its employ construction of the work or by or in consequences of any n same, in improper materials used in its construction, or by omission of the Contractor or its agents. Such amount of Contractor under and by virtue of the Contract as shall be the Owner may be retained until disposition has been made damages as aforesaid.
- 7. The Contractor shall be subject to the laws of the State of labor, materials, and equipment furnished for the work, and payment in full of the rightful claims of all mechanics, mate installers, subcontractors, and all persons performing labor necessary services, furnishing materials, equipment, tools, performing operations contributing to the construction of th Contract. The Contractor shall also protect and indemnify the claims.
- Execution of the Work
 - All work shall be carried out in accordance with the
 - regulations: - California Building Code (CBC), 2016 Edition
 - Uniform Plumbing Code, Latest Edition
 - Uniform Mechanical Code, Latest Edition
 - National Electric Code, Latest Edition
 - The Contractor shall coordinate the work of its sub C. information required by one shall be furnished by th incorporation in the work in proper sequence and w materials, equipment, and provisions for future wor
 - d. Contractor shall arrange for job site visits and inspe required to allow for steady and continuous progres The Owner may order changes in the work, the Co
 - accordingly. All such orders and adjustments shall claims approved by the Architect before executing The Contractor shall re-execute any work that fails
 - requirements of the Contract and shall remedy de or workmanship which appear during the progress of one year from the date of completion of the Cont article apply to work performed by subcontractors a employees of Contractor.
- Construction Schedule 9.
 - An estimated construction schedule shall be submi
 - review within one week after the award of the Contr The initial schedule is to show complete sequence
- commencement and completion dates and projecte item of work as of the first working day of each mon
- C. Updated schedules accurately depicting progress a all concerned, including one copy each to Owner a
- 10. Shop Drawings, Product Data, and Samples
 - No portion of the Work requiring submission of a SI Sample shall be commenced until the submittal has
 - Architect. Such portions of work shall be in accord The Contractor shall not be relieved of responsibilit requirements of the Contract Documents by the Arc Product Data or Samples, unless the Contractor ha in writing of such deviation at the time of submission approval for the specific deviation.
- Project Record Documents: Maintain at the site, for the Ov 11. Drawings, Specifications, Addenda, Change Orders, and or to record changes made during construction, one record co Product Data, and Samples. Upon completion of the Work Drawings to the Owner with any and all modifications clear
- 12. PARKING AND ACCESS TO SITE
- The Contractor is responsible for complying with local regu for obtaining city/county parking permits as required.
- 13. CARE OF EXISTING FACILITIES
 - The Contractor shall be responsible for repair or rep а interior or exterior, damaged as a result of the perfo facilities or finishes damaged shall be repaired or reworkmanship equivalent to that employed in execut Architect's satisfaction.
 - Do not park trucks, store materials, perform work or Any plant materials damaged as a result of the perf be replaced with new plant materials equal in size payment of an amount representing the value of the determined by the Owner.
- 14. STRUCTURAL INTEGRITY

Contractor shall be responsible for and particularly supervi that may affect structural integrity of various building eleme temporary.

15. WELDING AND BURNING

Welding and burning of steel shall be eliminated as much unavoidable, welding and burning shall be done with all pos hazard. Contractor shall provide a fire watch for one-half (1/2) hour after burning stops. Contractor shall provide protection for all adjacent surfaces.

	16. WALL AND FLOOR PENETRATIONS	2. Execution
ith respect to the execution of rally observe the work and on, to insure its proper n payments under the contract	Penetrations through floor slabs and walls, made for the passage of pipes, conduits, ducts, etc., shall be neatly made. Where penetrations occur in permanently exposed surfaces, grout shall be finished neatly to permit concealing by painting.	 a. Coordination of the work: Excavation operations, p and backfill operations shall be continuous in orde temporary slopes. b. Preservation of property, trees, and plants: Adjace
ake all decisions of claims of e General Conditions of the	17. NOISE AND DUST CONTROL Contractor shall note that adjacent properties will remain in operation during the	facilities, and trees and plants to remain in place shall be damage or injury resulting from the contractor's or c. Excavation, grading and slopes: Excavation, gradi
items shown or specified other	entire construction period, and shall take all reasonable precautions to eliminate dust and minimize noise. Contractor shall also meet requirements of the County of Contra Costa for construction noise and dust control.	finished in conformance with the lines and grades debris and loose material shall be removed. When plane of the slopes shall conform to the slopes ind drawings to a variance of .5 foot, measured at righ
for the Building permit. licenses necessary for the	18. CLEAN-UP DURING CONSTRUCTION	 Materials removal, stockpiling, fill and backfill: Materials removal, stockpiling, fill and backfill: Materials
ed. s bearing on the conduct of	Maintain job in a clean, orderly fashion. Pick up and remove debris daily if required but not less frequently than weekly. If work under this Contract creates dusty, dirty or unsightly conditions in adjacent areas, the Contractor will immediately clean up the	drawings . Any fill placed shall be compacted in a requirements in the Drawings or Specifications.e. Shoring and bracing: All excavations shall be adec
Drawings and Specifications		that the earth will not slide, move or settle. Work s of Cal OSHA and local ordinances.
all times during the	 UTILITY SHUTDOWNS AND INTERRUPTIONS Coordinate with utility company to execute shutdown and all work required to re-establish 	f. Drainage: Positive surface drainage shall be proviate areas so as to direct surface runoff water away from suitably discharged from the site. Concentrated water areas so as the site areas so as to direct surface runoff water away from suitably discharged from the site.
nce coverage as follows: ccordance with state and local	service such as connections, line taps, and cable splicing shall be performed by the Contractor.	flow across slopes and paved areas. g. Disposal of excavated material: surplus excavated
t included under Worker's	20. FINAL CLEAN-UP	and disposed of at County of Contra Costa-approv construction site limits without delay. h. Contractor shall coordinate work with local authori
any person or property whatsoever during the	Clean up the entire construction area and adjacent areas affected by the performance of work under this Contract. Remove all temporary construction, tools, equipment, excess materials and debris.	ordinances, inspection and permit requirements.
n and final acceptance, and rchitect from all suits or actions	21. GUARANTEES	SECTION E: STORM DRAINAGE
ceived or sustained by any ployees or agents, in the	Article 17 of the Agreement (AIA Document A107) covers the Contractor's responsibility to	1. General: Furnish all labor, material, equipment and service reasonably incidental to the completion of the following we
y negligence in guarding the by or on account of any act or of the money due the	remedy defects due to faulty workmanship and materials which shall appear within one year from the date of project acceptance.	on the drawings and/or listed below unless specifically sh (not in contract).
be considered necessary by ade of such suits or claims for	22. CHANGE ORDERS	a. All storm sewers and other related work shown onb. All excavation and backfill required to complete the
of California regarding liens for	Article 12 of the Agreement (AIA Document A107) covers the procedures for Changes in the Work.	c. Repair of any streets, paving, sidewalks or other w the work under this section.
and shall promptly make aterials, suppliers and	DIVISION 2 - SITE WORK	NOTE: All existing storm drainage on site is directed to s catch basins located in the paving of Kensington Park Ro
bor or bestowing skill or other ols, service, utilities, or	SECTION A: ASBESTOS REMOVAL	building roof drainage will follow existing storm water lead new paving at parking areas will be a combination of cond
f the work required of the ify the Owner against all such	1. General abatement has been completed by Building Owner and an abatement	pervious pavers, with storm water directed to the native so Drawings.
	report has been prepared by the Owner's abatement contractor for the site. The abatement report is available from the Building Owner. All work by Contractor shall be performed in accordance with the recommendations of the Owner's abatement	2. Products
he following codes and	contractor.	a. Storm drain pipe shall be precast concrete or PVC regulated by the County of Contra Costa. Materials speci
	 The Contractor shall not include any costs associated with asbestos removal in its bid. However, if during the course of construction, asbestos is discovered, the removal of such asbestos will be performed by the Owner's abatement contractor. 	 PVC Pipe: a) All plastic pipe shall be new, contin
ubcontractors so that	 Should contact with asbestos-containing materials be required by Contractor's operations, any such work shall be carried out by or under the direction of the Owner's abatement contractor. 	a) All plastic pipe shall be new, contin marked with the Manufacturer's nar NSF approval, and schedule or clas b) All lines shall be plastic - Schedule
/ the others in time for d without delay of any /ork.	 If asbestos removal is involved, a Change Order will be issued by the Architect to account for any project delay and to establish a new construction Completion Date, if required. 	 Concrete Pipe (CP): ASTM C-14, latest ec strength. Bell and spigot joints.
spections by local authorities as ress of the work.		b. Granular Backfill required for backfilling sewer trer
Contract sum being adjusted all be made in writing and such	SECTION B: DEMOLITION	natural sand or gravel, or compacted fill. c. REGARDLESS OF ANY REQUIREMENTS LISTE
ng the work involved. ils to conform to the v defects due to faulty materials	 Demolition work shall be carried out in accordance with the requirements of the County of Contra Costa waste reduction & recycling ordinances. 	drawings, all materials used in portions of this wor shall meet the requirements of the governing publi over this property.
ss of the work or within a period ontract. The provisions of this	 Demolition work not specifically called for in the drawings but required to allow for new construction work included in the Project, shall be part of the work. 	SECTION E: STORM DRAINAGE (Continued)
s as well as by direct	3. Demolition work shall include, but not necessarily be limited to, the following:	3. Execution
	 a. Coring of walls and foundations to allow for installation of piping and conduit. b. Selective demolition of power, lighting, mechanical, and plumbing items associated 	a. Prior to laying any pipe, Contractor shall verify the which pipe is to be connected. If actual elevations
mitted for Owner's and Architect's ontract. ce of construction by activity, including	 b. Selective demonstron of power, lighting, mechanical, and plumbing items associated with removal, replacement, and/or relocation called for in the Work. c. Removal of excess soil and vegetative site materials resulting from grading, excavation, and landscape restoration work. 	those shown on the drawings by more than two te Architect immediately and do not proceed with the instructions.
cted percentage of completion for each nonth.	4. All demolished items not designated for re-use and debris resulting from operations shall	 Trenches for sewer pipe shall be a minimum width construction practice. Width measure at top of pip
s are to be distributed each month to r and Architect.	be immediately removed from the site and disposed of at Contractor's expense SECTION C: SITE CLEARING	outside pipe diameter plus 12". Sidewalls below to above top of pipe shall be as nearly vertical as is p Trenches shall be accurately excavated to a depth
	1. General	proper grade will be supported by undisturbed soil sand extending 4" to 8" below bottom of pipe with
Shop Drawing, Product Data or has been reviewed by the	a. The work specified in this section includes removal of all organic materials	joints.
ord with the reviewed submittals. Solity for any deviation from the Architect's review of Shop Drawings,	including vegetation, roots, and refuse only on those site areas to receive new grading, paving, and landscape work.	 Installation a. All pipe shall be laid true to line and grade. Trencl
has specifically informed the Architect sion, and the Architect has given	 These areas shall be cleared and grubbed. Clearing and grubbing shall be performed before landscape, paving, or construction operations and in 	 All pipe shall be laid true to line and grade. Trencl prior to placing pipe. Reinforced concrete pipe will laid with the minor axis vertical.
	accordance with the requirements specified herein. 2. Execution	 b. Test or check all lines before backfilling to assure obstructions, replace damaged components, and i
Owner, one record copy of Contract dother Modifications marked currently	a. Preservation of property, trees, and plants: Adjacent property, utility and other	 Backfill around pipes and for a depth of one pipe of of pipes shall be granular backfill as specified abor
I copy of reviewed Shop Drawings, ork, provide a copy of Contract early noted.	facilities, and trees and plants not to be removed shall be protected from damage or injury resulting from Contractor's operations.	layers not exceeding 6" depth. Each layer shall be pneumatic tampers. Remaining backfill required to compacted to 95% of maximum dry density (modil
	 Contractor shall verify with Architect the location of all trees and planting to be preserved and protected prior to commencement of construction 	jetting with water will not be permitted.
egulations regarding parking and	operations. (2) Protection measures shall include, at a minimum, protective fencing and	DIVISION 3 - CONCRETE & ASPHALTIC CONCRETE
	warning tape. b. Removal and disposal of materials: All material shall be removed and disposed	SECTION A: CAST-IN-PLACE CONCRETE
replacement of existing facilities,	of at County of Contra Costa-approved locations outside the construction site limits without delay.	1. Work Included:
erformance of this work. Any r replaced with materials and cuting the original work and to the		 a. Cast-in-place concrete paving b. Cast-in-place walls/retaining walls b. Peinforcing Steel
cuting the original work and to the or cross over landscaped areas.	SECTION D: EARTHWORK	 b. Reinforcing Steel c. Concrete finishing d. The following standards shall apply:
erformance of this work will either to those damaged or by	1. General	 The following standards shall apply. Specifications for Structural Concrete for I
the damaged material as	a. The work specified in this section includes performing all operations necessary to excavate earth and rock, regardless of character and subsurface conditions, necessary for the construction of the proposed paved areas, sub-grade	 Building Code Requirements for Reinforce Details and Detailing of Concrete Reinforci "Standard Specification for Coal Fly Ash ar
	grease trap and trash enclosure wall foundations; to excavate trenches for utilities and drainage pipes; to place backfill; to excavate and grade paved areas: and to prepare subgrade for the placement of these materials thereon	Pozzolan for Use as a Mineral Admixture in (ASTM C618).
rvise each operation and work ments, both permanent and	 areas; and to prepare subgrade for the placement of these materials thereon. b. A Geotechnical Investigation Report has not been prepared for the site; Contractor should assume code-minimum soil bearing for earthwork operations. 	2. Materials:
· -		a. Concrete: ASTM C150, Type I or II. Concrete Sa
h as possible. Where possible precaution to avoid fire		Class F fly ash shall be used provided fly ash cont than 35 percent of the total cementitious content. calculated based on the total cementitious content b. Reinforcement: Deformed reinforcing bars ASTM
If (1/2) hour after burning stops. ces.		finish.

on of the work: Excavation operations, paving, installation of drains, l operations shall be continuous in order to minimize exposure of slopes.

on of property, trees, and plants: Adjacent property, utility and other and plants to remain in place shall be protected from injury resulting from the contractor's operations.

, grading and slopes: Excavation, grading and slopes shall be conformance with the lines and grades indicated on the drawings. All loose material shall be removed. When completed, the average ne slopes shall conform to the slopes indicated on the contract to a variance of .5 foot, measured at right angles to the slope. emoval, stockpiling, fill and backfill: Materials removed from the is shall be selectively stockpiled for reuse as indicated on the Any fill placed shall be compacted in accordance with the

ts in the Drawings or Specifications. nd bracing: All excavations shall be adequately shored and braced so

rth will not slide, move or settle. Work shall conform to requirements A and local ordinances. Positive surface drainage shall be provided adjacent to the paved

s to direct surface runoff water away from the paving areas and scharged from the site. Concentrated water shall not be allowed to s slopes and paved areas. f excavated material: surplus excavated material shall be removed

ed of at County of Contra Costa-approved locations outside the on site limits without delay. shall coordinate work with local authorities to conform with codes,

all labor, material, equipment and services required for and/or Ital to the completion of the following work. Include all such work shown nd/or listed below unless specifically shown on the drawings as "N.I.C."

ewers and other related work shown on the drawings. ion and backfill required to complete the work under this section. any streets, paving, sidewalks or other work disturbed or damaged by nder this section.

g storm drainage on site is directed to street gutters and storm drain ed in the paving of Kensington Park Road (Refer to Survey). New age will follow existing storm water leader and storm drainage routes; king areas will be a combination of concrete, pervious concrete or vith storm water directed to the native soil substrate; refer to the

n pipe shall be precast concrete or PVC at Contractor's option and as County of Contra Costa. Materials specifications as follows: C Pipe:

All plastic pipe shall be new, continuously and permanently marked with the Manufacturer's name, kind of pipe, material, size, NSF approval, and schedule or class. All lines shall be plastic - Schedule 40 - PVC (Poly Vinyl Chloride).

ncrete Pipe (CP): ASTM C-14, latest edition, non- reinforced, extra ngth. Bell and spigot joints.

ackfill required for backfilling sewer trenches shall be clean firm nd or gravel, or compacted fill.

ESS OF ANY REQUIREMENTS LISTED HEREIN or on the all materials used in portions of this work falling in public property the requirements of the governing public agency having jurisdiction operty.

ing any pipe, Contractor shall verify the elevations of storm sewers to is to be connected. If actual elevations of existing sewers vary from vn on the drawings by more than two tenths of a foot, notify the nmediately and do not proceed with the work until receiving further

for sewer pipe shall be a minimum width consistent with sound on practice. Width measure at top of pipe shall be no greater than the be diameter plus 12". Sidewalls below top of pipe shall be vertical and of pipe shall be as nearly vertical as is possible without caving in. shall be accurately excavated to a depth such that pipe when laid to de will be supported by undisturbed soil or upon a well tamped bed of ding 4" to 8" below bottom of pipe with recesses provided for bells at

all be laid true to line and grade. Trenches shall be reasonably dry cing pipe. Reinforced concrete pipe with elliptical reinforcing shall be ne minor axis vertical.

eck all lines before backfilling to assure free flow. Remove ns, replace damaged components, and retest system until satisfactory. bund pipes and for a depth of one pipe diameter minimum above top all be granular backfill as specified above, and shall be placed in exceeding 6" depth. Each layer shall be thoroughly tamped with tampers. Remaining backfill required to fill trenches shall be to 95% of maximum dry density (modified AASHO). Flooding or water will not be permitted.

E & ASPHALTIC CONCRETE

ecifications for Structural Concrete for Buildings" (ACI 301). ilding Code Requirements for Reinforced Concrete" (ACI 318). tails and Detailing of Concrete Reinforcing" (ACI 315). andard Specification for Coal Fly Ash and Raw or Calcined Natural zolan for Use as a Mineral Admixture in Portland Cement Concrete" STM C618).

ASTM C150, Type I or II. Concrete Sack Mix: six sack (2500 psi.); ash shall be used provided fly ash content does not comprise more rcent of the total cementitious content. Water-cement ratio shall be based on the total cementitious content in the mix. nent: Deformed reinforcing bars ASTM A615, 60 ksi yield grade; plain

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Date 3/30/18	Sheet
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Drawn FD	
Job	

SECTION A: CAST-IN-PLACE CONCRETE (Continued)	SECTION B: WOOD FRAMING	7. Preparations: Coordinate work under this Section with other trades whose work adjoins, combines or aligns with same. Take such field measurements as may be required. Verify all dimensions where cabinet work involves framing between existing	5. Substrate: At K-Lath u meter per 24 hr. period
c. Fly Ash: ASTM C618, Class F, as supplied by Pozzolanic International, Western Ash, or equal.	1. Refer to Structural Drawings for grades of lumber.	required. Verify all dimensions where cabinet work involves framing between existing partitions or includes appliances. Report any major discrepancy between Drawings and field	inch laps and shingle w weather; double felts a
 d. Aggregates for Normal-Weight Concrete: ASTM C33. e. Abrasive Aggregates: Norton Co. "Alundum" carborundum,"Aloxite" grits, or approved equal; uniformly graded between those passing #12 sieve and those 	 All lumber shall comply with the grading requirements of the association recognized as covering the species, and under the grading rules it was produced. Lumber for framing shall bear the trademark of the grading agency. 	dimensions to the Architect and secure directions before proceeding.8. Installation: Set in place, scribe square and level and secure with concealed	screeds, and flashings6. Install lath and accesso
remaining on a #30 sieve; even distribution over surface f. Hardener: Hydoment, Inc. or approved equal	3. Refer to Structural Drawings for special nailing conditions and requirements.	fastenings.	drawings and in accord
g. Color: Lamp Black powder, 1/2 lb./yd. at sidewalks in public right-of-way; alternating color additives as directed by Architect for paving at walks and outdoor dining areas within the site.	4. Installation in accordance with the arrangements shown on the Drawings.	DIVISION 7 - THERMAL AND MOISTURE PROTECTION	7. Plaster Installation:a. Plaster over lat
 h. Water: Clean and not detrimental to concrete i. Finish: Delayed 3/4" thick topping containing mineral color; light broom finish 	SECTION C: ARCHITECTURAL WOODWORK	SECTION A: CAULKING AND SEALANTS	1) Comply
in quarter-turned direction at control or expansion joints.	1. The extent of Architectural Woodwork includes:	 Caulk and sealants shall be products of DAP, Inc., Dayton, Ohio. Equivalent products of other manufacturers shall be accepted only as approved by the Architect. 	2) Do not i 80 degra
3. Execution:	a. Solid wood interior trim	a. Sealant: DAP Architectural Grade Caulk	3) Protect4) Sequen
a. Survey condition of area to receive new concrete after excavation and grading; set forms and expansion joints in accordance with layout shown in the	 b. Solid-surface and plastic laminate counters c. Veneer plywood-faced cabinets 	 Primer and Back-Up: As recommended by manufacturer, compatible with caulk and sealants. 	5) Apply th
Drawings. b. Place reinforcing bars and dowels at locations shown on the drawings to the	 d. "Finply" Nordic plywood cabinetwork e. Bid Alt 3: Built-in Cabinetry 	c. Sealants and fire-safing for penetrations at fire-rated assemblies: UL-rated, as required for installation conditions.	(a)
tolerances listed in ACI 117; comply with Concrete Reinforcing Steel Institute's recommended practice for "Placing Reinforcing Bars," for details and	f. Bid Alts 4 & 5: Fireplace surround and mantel shelf g. Bid Alt 7: Screen partition panels	2. Materials shall be free from impurities and defects and shall be the products of one	(b)
methods of reinforcement placement and supports, and as called for in the Drawings.	h. Bid Alt 9: Exterior building sign	manufacturer insofar as is practical. All materials shall be compatible for use with other materials and surfaces with which they are in contact.	(C)
 c. Place concrete in accordance with ACI 301 and ASTM C94. d. Finish walls and walkways to tolerances as defined in ACI 301 and with color 	All as noted on the Drawings	3. Surfaces to receive sealant or caulk shall be in accordance with the manufacturer's	(d)
and surface specified; Saw-cut control joints within three days of removal of forms.	2. Standards	recommendations and shall be completely dry and cleaned of all dirt, dust, mortar, oil, and other foreign matter that would impair the product installation or adherence.	8. Patch and repair plaste
e. Curing: Protect freshly placed concrete from premature drying, excessive cold or hot temperature, and mechanical injury. Conform to the recommendations of	a. All architectural woodwork shall comply with the quality standards set forth in the Manual of Millwork, Woodwork Institute of California, Latest Edition.	4. Sealant or caulk shall be applied with pressure guns equipped with proper size nozzle to	of adjacent wall surface
ACI 308.	 b. Certified Wood Products: Wood products to be from forests certified "well-managed" by an agency accredited by Forest Stewardship Council (FSC) 	provide a continuous, smooth, solid bead, filling all voids and joints. Where using pressure gun is impractical, proper hand tools shall be used to provide similar results.	SECTION F: ROOFING
SECTION B: ASPHALTIC CONCRETE	including SmartWood Program and Forest Conservation Program.	Feathering joints will not be allowed.	1. The work specified in t
1. Work Included: Provide and install paving at parking area paving and extension to	3. Submittals:	5. Sealed joints on flush surfaces and at internal corners shall be neatly and fully pointed with teals designed for such purpasse. All expected evaluate shall be free of wrinkles and uniformly	tools, equipment and the
existing roadway where so noted on the Drawings.	a. Submit product data and shop drawings for each item of architectural woodwork,	tools designed for such purposes. All exposed sealant shall be free of wrinkles and uniformly smooth. Areas not to be sealed and areas adjacent to those to be sealed shall be protected by masking from stains, marks, or other damage	roofing:
2. Products, standards and Installation: Paving materials, substrate, finish and installation per Contra Costa County Department of Public Works standards.	including profiles. b. Submit finished samples of each wood species and cut as indicated in the Drawings	protected by masking from stains, marks, or other damage.	a. Built-up roofing b. Flashing at all o
	Drawings. c. Submit samples of each veneer and plastic laminate specified or indicated in the Drawings	SECTION B: INSULATION	curbs.
DIVISION 4 - MASONRY	Drawings. d. Submit product data indicating compliance with specified standards	 Work Included: Rigid foam insulation at Meeting Hall roof. Refer to Section 7.F: ROOFING 	2. Submittals:
SECTION A: CONCRETE UNIT MASONRY	4. Comply with Section 1, Manual of Millwork, "Recommended Care and Storage of Architectural Woodwork." Make no deliveries of architectural woodwork items until overhead	SECTION C: SHEET METAL	a. Submit product b. Submit min. 12'
Concrete Masonry Unit (CMU) work is limited to cutting, patching, reinforcement and repair of existing CMU walls where so noted on the Drawings. Refer to Structural Drawings.	painting and ceiling work is finished. Prefinish architectural woodwork in shop to greatest	1. Work to include flashing and counterflashing.	3. Materials:
DIVISION 5 - METALS	5. Materials:	2. Install all items in strict accordance with manufacturer's instructions.	a. Class A Asphal
SECTION A: MISCELLANEOUS METAL	a. Solid Wood Interior Trim (Interior door and window trim, miscellaneous trim):	3. Materials:	standard produ NRCA Roofing
1. Work Included: Items of miscellaneous metal and related accessory items required for the	 Solid Wood Interior Triff (interior door and window triff, miscellaneous triff). Solid clear beech, poplar, or fir; profiles as shown on the Drawings 	a. Sheet metal shall be galvanized sheet metal unless otherwise noted. Where exposed and to be painted use mill-phosphatized material suitable to receive	1) Manufa Certaint
project not specified elsewhere. Such items include but are not limited to:	 painted finish. Install wood trim using smallhead, countersunk finishing nails evenly 	paint. b. Flashing shall be painted galvanized metal, minimum 22 gauge.	2) Manufac primary
 a. Backing plates for cabinetry b. Fasteners, anchors, inserts, and moldings where shown on the Drawings or 	spaced and filled to match wood finish.Hems of continuing length such as bases and wainscot rails shall be	4. Installation	and glas surfacin
otherwise specified c. Legs for moveable kitchen table	fabricated of longest practicable lengths. Where joints are unavoidable, they shall occur in the locations shown on the Drawings or as directed by	a. Carry flashings around corners 4" minimum; metal soldered or otherwise joined	3) NRCA S addition
 d. Meeting Hall west wall bench support brackets (Bid Alt 3) e. Meeting Hall west wall mantel support brackets and fireplace insert surround/ 	the Architect, hem lengths closely butt joined to adjacent lengths of similar grain characteristics.	at the angle is not permitted. Three-way angles shall have the corners soldered watertight.	a)
filler panels (Bid Alts 4 & 5) f. Exterior building sign supports	 Finish: Painted in accordance with DIVISION 9 - FINISHES, SECTION B: PAINTING 	b. Flashings at doors and windows to extend 4" minimum behind exterior siding and building paper.	b) I
g. Parking area bollards	b. Counters:	c. Protect dissimilar metals subject to galvanic corrosion from contact with each other and from other surfaces which cause corrosion of metal.	4) Asphalt
2. Fasteners, anchors, inserts, plugs, and like items required for installation of products shown on the drawings or otherwise specified shall be galvanized iron or stainless	1) Solid surface counters and backsplash: 3/4" quartz-based synthetic		5) Glass F 6) Compos
steel.	stone counter & splash with 1-1/2" front edge on 3/4" inch medium- density, non-formaldehyde-added fiber board (MDF)	SECTION D: EXTERIOR WOOD TRIM AND FASCIA	and asp subject
3. Louvers and registers shall be sheet metal, factory prime-coated, or natural mill finish aluminum. Field paint, color to match adjacent painted surfaces.	a) Quality: WI MoM/Premium Grade	1. Work Included: Exterior trim and fascia boards as noted in the Drawings	7) Mineral surfaced
4. Legs for moveable kitchen table, Meeting Hall west wall bench support brackets (Bid Alt	 b) Material: Caesarstone Quartz Sufacing, Dupont Zodiaq, or approved equal. 	2. Products:	8) Cool Ro providin
3), Meeting Hall west wall mantel support brackets (Bid Alts 4 & 5), and exterior building sign supports: Refer to Drawings.	c) Sheets monolithic throughout without surface coating application.d) Splash all abutting wall surfaces; scribe to wall.	a. Exterior Trim noted as solid wood shall be clear surfaced cedar or redwood, certified kiln dried to 10 percent moisture content. Thickness, dimensions, and	b. Insulation for B
5. Custom sheet metal fireplace surround/filler panels:	2) Manufacturers: Quartz Products Inc. (Caesarstone U.S.A.), Inc; Dupont	 profiles as shown in the Drawings; BACK PRIMED and with painted finish. b. Exterior Trim noted as Marine HDFB shall be marine grade high density 	1) Bottom
a. Matte black painted minimum 16 ga. sheet metal	or approvel equal.	non-formaldehyde-added fiber board. Thickness, dimensions, and profiles as shown in the Drawings; BACK PRIMED and with painted finish.	R-6.3 pe in accor
 Steel angle stiffeners at panel joints an not less than 12 in. O.C. between joints; Spot weld stiffeners to sheet metal; do not allow welds to "telegraph" through to room side of panels. 	 Catering Pantry Cabinets: 3/4" maple veneer Finfly cabinet doors and drawer fronts, clear sealed or stained as noted in the Drawings. Refer to Typical Cabinet Notes in the Drawings for description of cabinet finish types. 	 Fasteners shall be hot-dipped galvanized siding nails for wood trim and galvanized or stainelss steel screws for Marine HDFB. 	a) I
 Bollards: Reliance Foundry Co. Ltd. (888-735-5680) Model R-7902 or approved equal. 	1) Counters: See 5.b. above	2. Installation:	2) Top Lay
Fixed and removeale units as noted on the Drawings. Textured black factory finish.	 Cabinets, doors, and shelves shall be 3/4" maple veneer Finply unless otherwise noted; veneers and laminates in accordance with 	a. Inspect surfaces, backing, structural systems, etc. to receive work and report any discrepancies. Starting work implies acceptance of existing conditions.	thicknes
7. Welding work is to comply with the "Code for Arc and Gas Welding in Building Construction" of the American Welding Society, AWSD.1, Current Edition.	Typical Cabinet Notes (See Drawings). Clear seal all exposed edges. Backs of cabinet doors and drawers shall have veneer finish to match	 b. Coordinate with other trades for provisions for sheathing, framing, furring, blocking, windows, special anchors, etc., and ensure that such items are 	a) I
6. Installation: Install all factory-fabricated items in accordance with Manufactuer's instructions	veneer face. 3) Sides of cabinets shall be 3/4" maple veneer Finply, clear sealed.	properly installed and located prior to installing wood trim. c. Finish in accordance with Division 9B - Painting.	F
and as noted in the Drawings. Set plumb and level and secure with concealed fastenings unless otherwise noted.	 4) Backs of cabinets shall be 1/4" clear sealed maple veneer Finply, clear sealed at inside face. 		3) Tapered
	5) Hardware:	SECTION E: LATH AND CEMENT PLASTER	a) I
DIVISION 6 - WOOD AND PLASTICS	 Pulls: Forms and Surfaces 3-1/2 " satin nickel finish "wire pulls," locations as indicated on drawings. 	1. General: Scope of Lath and Cement Plaster work includes:	
SECTION A: ROUGH CARPENTRY	 b) Hinges: Stanley or Grass concealed casework hinges, metal cups. c) Drawer slides: K & V 1300 	 Patching and repair of areas adjacent to door openings where existing openings and doors are to be modified or replaced. 	4) Cant an
1. Refer to Structural Drawings for grades of lumber and structural members.	d) Shelf Supports: U.S. Futaba "Spoon-Type" shelf support UF1241-14,1/4" diam., nickel finish	2. Samples	a) I
2. All lumber shall comply with the grading requirements of the association recognized as covering the species, and under the grading rules it was produced. Lumber for framing	d. Bid Alt. 3 - West Wall Cabinets:	a. Submit manufacturer's samples of specified finish in accordance with Section	(
shall bear the trademark of the grading agency.	1) Cabinet facing: 3/4" maple veneer Finply stained according to pattern.	1.B: Supplemental General Conditions.b. Prepare 1 ft. x 1 ft. test panel for approval of selected finish. Additional test	e. Mechanical Fas
3. Wood Product Certification: Furnish certification indicating lumber and plywood products are from "well-managed" forests by an agency accredited by Forest	Refer to Sheet A8.03 for stain design. Backs of cabinet doors shall have veneer to match veneer face.	panels not to exceed four total may be requested without additional charge to Owner.	meeting recom requirements fo
Stewardship Council (FSC) including SmartWood Program and Forest Conservation Program.	 Cabinet construction at sides, backs and toe kicks shall be clear-sealed maple veneer Fin Ply, thickness per details on Sheet A7.02 - Typical Cabinet Dataila, Clear and expressed adapts on shown on Chest A9.02 	3. Portland Cement Plaster: ANSI A42.2; 2-1/2 in. maximum slump (6 in. plaster cone).	f. Flashing in acc
4. Each panel of construction plywood shall be identified with the appropriate	 Cabinet Details. Clear seal exposed edges as shown on Sheet A8.03. Cabinet wall frame construction shall be 1-1/2" maple veneer Finply, 	a. Portland Cement: ASTM C150, Type II	4. Installation
grade-trademark of the American Plywood Association, and shall meet the requirements of the latest edition of U.S. Product Standard PS 1.	clear sealed at all exposed edges. e. Bid Alts 4 & 5 - Fireplace mantel and surround:	 b. Sand: #2, washed and graded; 4 to 5 parts sand to 1 part cement for scratch and brown c. Do not use lime or clay for workability; use 1/2 portland cement and 1/2 plastic 	a. Built-up roofing
a. All plywood which has any edge or surface permanently exposed to weather shall be exterior type.	 e. Bid Alts 4 & 5 - Fireplace mantel and surround: 1) Fireplace box surround shall be black painted sheet metal; Refer to Div. 5 	 Do not use lime or clay for workability; use 1/2 portiand cement and 1/2 plastic cement. d. Water: clean and free of deleterious material 	1) Remove of Contr
 b. Plywood for installation under finished wood floor shall have a suitable underlayment surface. 	 and the Drawings. Fireplace mantel shelf shall be as noted by Bid Alt: 2-1/2" thick solid solid 	 e. Add 3 to 4 lb. of 3/4 in. type K glass fibers per sack of cement for scratch and brown. 	2) Inspect requiren
 c. Plywood exposed at roof/ceiling structure shall be tongue-and-groove 3/4 in. thick, douglas fir-faced, placed with all joints parallel to joists concealed by 	 and the shall be as noted by bid Ait. 2-1/2 thick solid solid solid maple Finply, clear finish or solid surface similar to 5.a, above Fireplace wood surround/trim shall be 1-1/2" maple veneer Finply. 	f. Color: Painted, color as directed by Architect	3) Insulatio
joists.	f. Bid Alt. 7 - Screen Partition Panels: Maple veneer Finply and solid maple trim	4. Lath and Accessories:	insulatio
6. All wood mud sills or sill plates resting on concrete shall be Foundation Grade Redwood or Douglas Fir pressure treated with chromated zinc chloride.	as noted in the Drawings.	 Lath shall be K-Lath Products "Stucco-Rite" or USG expanded metal lath for exterior cement plaster. 	a) /
 All lumber shall be air or kiln dried to a moisture content not less than 7 percent and not more than 19 percent. 	g. Bid Alt. 9 - Exterior Building Sign: Grade A Select Cedar members, clear sealed.	 Accessories: Types recommended by plaster manufacturer for the applications indicated. Include fasteners, clips, drips, casing beads, control and expansion 	i
8. Refer to Structural Drawings for Nailing Schedule for typical nailing conditions. Nails	6. Fabrication: Shop fabricate cabinets and deliver to job in largest unit sections possible. Where field joining is required, accurately fit and align in shop and make provisions for rigid and	joints as required to produce complete installation of plaster.	
shall be "Common Wire Nails", typically. Hot dipped zinc galvanized nails shall be used at all exterior nailing.	permanent joining in field. Continuous surfaces shall match and align without offsets. Provide appropriate scribing allowances.		
 9. Refer to Structural Drawings for special nailing conditions and requirements. 			

Lath use R-15 paper (Water Vapor Permeability 73 grams per sq. period); at expanded metal lath use 30# fibre glass felts. Install with 8 ingle with 3 inch minimum horizontal laps; no tears or nails exposed to felts at all corners; properly shingle felts at all casing beads, drip shings, etc.

ccessories as required for installation of plaster as indicated in the accordance with the manufacturer's instructions.

ver lath:

omply with manufacturer's instructions for plaster installation. o not install plaster in temperatures below 40 degrees F or exceeding) degrees F.

rotect adjacent work from damage due to plastering operations. equence plastering operations with other work. oply three coat plaster to metal lath:

Scratch coat full 1/2 inch, well keyed. Care should be taken not to damage substrata membrane during installation. Apply brown coat within 12 hours to full 7/8 inch, dry rodded to full screed thickness. Protect from dryout for 24 hours. Wet cure brown coat for 72 hours after application. Fog spray 12 hours additional for each day temperature exceeds 80 degrees F. Allow 14 days additional of dry cure before application of final coat. Apply final coat, sand finish texture; minimum thickness 1/8 in.

plaster as required by new construction. Match finish and appearance surfaces.

ed in this section includes provision of materials, labor, supervision, t and the performance of all operations necessary for installing new

oofing to replace existing

at all conditions related to new work, including at new skylight

roduct data for approval by Architect nin. 12" x 12" sample of color and finish for approval by Architect

Asphalt Bitumen and Glass Fiber Reinforced Roofing: Manufacturer's products for systems specified and conforming to requirements of oofing Manual.

Ianufacturers: Johns Manville Corp.; GAF Building Materials Corp.; ertainteed Corporation; or equal.

lanufacturers listed under specific products are acceptable in addition to rimary roofing material manufacturers.System: Provide standard asphalt nd glass fiber reinforced roof membrane with mineral cap sheet urfacing.

RCA Specification: Comply with following for minimum requirements, in dition to manufacturer's system.

Insulated Deck: BU-I-A-G(3)-M, three ply plus cap sheet. Manufacturers: Johns Manville/4 G I C; GAF/I-B-4-M or I-0-4-M; Certainteed/M-C-B4; or equal.

sphalt: Minimum ASTM D312, type recommended for application. lass Felts: Minimum ASTM D2178, Type IV or Type VI omposition Flashing System: Manufacturer's premium quality glass felt nd asphalt base, wall, and penetration flashing system. Other systems bject to Architect approval. ineral Cap Sheet: ASTM D3909; manufacturer's standard mineral

urfaced cap sheet for type of roof specified. ool Roof System: Provide either painted system or comparable system roviding PG&E Cool Roof rating.

n for Built-up Roofing:

ottom Layers Insulation: Glass fiber faced isocyanurate, with nominal -6.3 per inch; Long Term Thermal Resistance (LTTR) not less than R-10 accordance with FS HH-I-1972/2.

Manufacturers: Johns Manville/UltraGard; GAF/Isotherm; International Permalite/IsoLite; or equal.

pp Layer Insulation: ASTM C728 perlite board insulation; 1/2" nominal ickness, with nominal R-1.

Manufacturers: Johns Manville/Fesco Board Roof Insulation; GAF/GAFTEMP Permalite Roof Insulation; International Permalite/Sealskin Board Insulation; or equal.

apered Insulation for Crickets: Conform to ASTM C728.

Manufacturers: Johns Manville/Fesco or UltraGard Tapered Roof Insulation; GAF/GAFTEMP Permalite Tapered Roof Insulation; International Permalite/Permalite Tapered Roof Insulation; or equal.

ant and Edge Strips: Conform to ASTM C208.

Manufacturers: Johns Manville/Fesco Cant & Edge Strips; GAF/GAFCANT and GAFEDGE Cant and Edge Strips; International Permalite/Permalite Cant & Edge Strip; or equal.

cal Fasteners: As recommended by insulation manufacturer and recommendations of NRCA and specified Quality Assurance ents for fire rating and wind blowoff resistance.

in accordance with Section B: Sheet Metal.

oofing insulation

emove existing roofing and dispose of in accordance with requirements f Contra Costa County.

spect substrate for conformance with manufacturer's installation quirements; commencement of work signifies acceptance of surfaces. sulation Application: Provide double layer insulation with plastic sulation separated from built-up roofing by glass or perlite board sulation.

Attach first layer of insulation in accordance with insulation manufacturer's instructions and NRCA recommendations for installation of specified insulation on wood deck: NRCA Specification INS-N Wood.

Seismic Upgrades and **Building Alterations**

Kensington Community Center

59 Arlington Avenue Kensington, CA 94707 for the

Kensington Police Protection & **Community Services District**

GLASS Associates, Inc. architecture & planning

337 17th Street, Suite 100 Oakland, CA 94612

T. 510.788.5888

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CONSULTANTS

LICENSE	ARCHI ROSS CLARK
	BY REVISIONS BY
	WG
Date 3/30/18	Sheet
Scale AS NOTED	A9.02
Drawn FD	
Job	

SECTIO	ON F:	ROOFING	(Continued)	SEC	TION C:	НО	LLOW METAL FRAMES
		b)	Embed additional layers of insulation into flood coat mopping of hot bitumen in accordance with insulation manufacturer's instructions	1.	Genera	al	
		C)	and NRCA recommendations. Stagger joints between layers of insulation.		a.	Provid Drawii	e pressed steel frames, including anchors a ngs.
		d) e)	Total insulation shall provide a minimum R-value of 30. Lay insulation boards to moderate contact without forcing joints.	2.	Relate	d Secti	ons:
		f)	Cut insulation to fit neatly to perimeter blocking and around projections through roof. Install tapered crickets, cants and edge strips in accordance with		a. b.		n E - Door Hardware n D -Wood doors
		g) h)	manufacturer's instructions and NRCA recommendations. Leave no insulation exposed at end of day's work, apply glaze coat	3.	D. Refere		
		,	of hot bitumen and two plies of felt over insulation and install cut-off weather-tight.	0.	a.		Door Institute (SDI): SDI-100 - Recommend
	C.	membrane i	rane and Mineral Surface Cap Sheet Application: Apply roofing in accordance with manufacturer's instructions and recommendations		b.	Steel I	Doors and Frames. al Association of Architectural Metal Manuf.
			recommendations for roof type specified.	4.	Submi	ttals	
		lap je	ly felts smooth, free from air pockets, wrinkles, fishmouths, prominent oints or tears. y felts up cant strips to vertical surfaces and secure to nailing strips		a. b.		ct Data: Submit manufacturers' literature. Drawings: Indicate general construction, cor
		and 3) Com	reglets. nply with manufacturer's recommendations for installation of position type base, wall and field flashings.	5.	D. Produc	reinfor cut-ou	cements, anchorage methods, hardware loo
		a)	Do not blanket composition flashing plys, install each ply separately with end laps staggered between plys.	5.	a.		acturers: The Ceco Corporation, Curries, Ar
		b) c)	Mechanically fasten and three-course seal top edge. Cover composition flashings not otherwise covered or coated with coat of asphalt-base emulsion.		b.	Pione approv	er Industries Division, Core Industries, Inc., o ved by Architect. es: Welded (pre-assembled) type.
			all 2-ply membrane and glaze coat for cut-off at "end of day" ation; glaze exposed felts.			1) 2)	Gage: Minimum 16 gage. Door Silencers: Manufacturer's standard re
		5) Cool	rdinate metal flashings and counterflashing. rdinate installation of roof drains and related flashings.			-)	replacement.
		7) Mop	in and seal flashings and flanges of items projecting through hbrane.		C.	Fabric	ation
	year w	ritten warran	ctor shall guarantee roofing for 3 years. Supply manufacturer's 20 ty. D WINDOWS			1) 2) 3) 4) 5)	Conform to requirements of SDI or NAAMA Reinforce and prepare frames to receive has Refer to Section E for hardware requirement Frames: Accurately form and cut mitered converses weld on inside surfaces; grind welded joints Door Silencers: Place minimum three single
SECTIO	ON A:	EXTERIOR	ALUMINUM DOORS & WINDOWS			6)	frames; space equally along strike jambs. Provide jamb anchors per SDI-100 and NA
1.	Work ii	ncludes prov	ision of new aluminum frame doors and windows with insulated lites			7)	in place. Edge Clearances:
2.	Standa	ırds					a) Between Doors and Frames: Maxinb) Door Sills: Maximum 3/8".
	а.		Kawneer and NanaWall are cited in the Drawings and Specifications ince, quality, and appearance standards. Substitutions or alternate		d.	Finish	: Prime paint; comply with requirements of D
		products wil	Il only be considered if product data is submitted to the Owner and review and approved after review "As-Equal" by the Architect.				ing application and compatibility with specific
	b.	Air Infiltratio	n: Construct and weatherseal in accordance with ASTM E283; air hall not exceed 0.37 cfm/sq.ft. of overall frame area for operable units	6.	Installa	ation	
			m/sq.ft. for fixed units.		a.	Metal	frames in accordance with SDI-100 and SD Manual" and with manufacturer's recommen
			g aluminum doors and windows shall be manufactured by Kawneer oted in Drawings.		b.	instruc Install	ctions. frames plumb and square, and with maximu
	a. b.		oors and windows shall be fully weather-stripped. fixed windows: Kawneer; sizes, types, and operating lites as	SEC-		EVTE	RIOR WOOD DOOR FRAMES
		indicated in	the Drawings. por & fixed window combination units: Kawneer; Refer to Drawings.	1.			s new wood door frame for reversed swing e
	d.		ss wall / folding door reference standard:	1.	Pantry		s new wood door frame for reversed swing e
		2) Prov	aWall Series SL45, Top Mounted with Stainless Steel Rollers vide NanaWall system pleated shades at each door panel; interior mount; eycomb room darkening option; white fabric exterior finish	2. 3.	Materia poplar Installa	, or fir,	mes, except where otherwise noted on the I painted finish, profile as indicated on the dra
	e.		es at all openings:		a.		rm to recommendations of door manufacture on drawings or specified herein.
		(Sim 2) Bi-fo U fac 3) TEM	ing and fixed windows / Operable door & fixed window combination units a. to Kawneer TR-2500): Double low-E glass; U factor 0.55; SHGC 0.57. bld Sliding Aluminum & Glass Doors: Double IG low-E glass (argon filled); ctor 0.51; SHGC 0.22; VT 0.45. IPERED GLASS AT ALL OPENINGS REGARDLESS OF CODE DUDEMENT EXCEPTIONS		b. d.	Install shall b	framess in accordance with the arrangemer be plumb, true, and allow door to operate sm paint in accordance with DIVISION 9, Paintir
	f.		QUIREMENT EXCEPTIONS.	SEC			RIOR WOOD DOORS
	I. Hardwa	-	sneu frames - white.	1.	Grade	"1-L-1'	e doors shall be flush type, solid glued block , 1-3/4 thick, with premium grade 3-ply face
		Hinges, latc	hsets and locksets: By door manufacturer ction 8.E for hardware not provided by door & window manufacturers.	2.	Wood	doors s	or Co. of Rohnert Park, California. hall be manufactured to meet the standards ction 20 - Doors, and shall be stamped "Qua
			p drawings shall be submitted to Architect for review prior to				/NWMA I.S.I. Series.
6.	Install		allation. indows in accordance with the arrangements shown on the drawings rer's instructions:	3.	by an a	agency	ade veneers shall be products from forests of accredited by Forest Stewardship Council (Forest Conservation Program.
	-		aulk openings	4.			etailed shop drawings and materials sample ding a complete door schedule, to the Archite
7.		Field measu	n opening dimensions with manufacturer ure and verify installation dimensions prior to fabrication. : installed windows from damage due to subsequent construction	5.	not be	expose	e stored flat in clean surroundings protected ed to excessive moisture, heat, dryness, or c instructions must be followed.
	operati			6.	Doors	•	onform to the drawings and door schedule a
SECTIO			ND GLAZING		a.	Doors	: Birch, clear vertical grain paint grade face
	•	C	g shall conform to the requirements of the CBC 2016. glass and glazing materials when so requested by the Architect.		b.	shop-a	applied painted finish; See Painting specifica g: N/A
	Materia		glass and glazing materials when so requested by the Architect.	_			
		ALL INTERI	IOR & EXTERIOR GLASS SHALL BE TEMPERED, REGARDLESS /ITY TO DOORS OR ELEVATION ABOVE FLOOR. ness:	7.	mount manuf	ed hard acturer	I be pre-fit to frames and pre-machined for h lware. Provide hardware cutouts in accorda 's templates or DHI, Wood Door Hardware S HS-3. All pre-machined doors shall be ident
			less than 3/8" insulated lites at aluminum & glass doors	8.	Provid	e door	manufacturer's warranty for life of installation
		3) Glas	ors: 1/4"; ease all exposed edges and framing supplier shall determine conformance of glass	SEC	TION E:	DOOF	& WINDOW HARDWARE
	C.	at th	ness with manufacturers' recommendations for the conditions of use e job site. In no case shall thickness be less than thicknesses noted or that required by the 2016 C.B.C.	1.	The ex require	ktent of ed for n	Door and Window Hardware work door har ew doors and electrical operators for new clo
		1) Clea	ar low-E at exterior glass; Refer to Section 8.A.2 & 3, above ar at mirrors	2.	Door h	nardwar	Door Schedule. e shall be the kinds, quality, and designs sp
	d.	,	clear float glass shall conform to Federal Spec. DD-G-001403.		produc a.		her manufacturers will be accepted only if a second s
			erly crated and packed to prevent damage, including damage from while in storage.		а. b. c.	Stops: Close	 Salgent of McRimey, satisfic choice plate Ives and Glynn Johnson. Dome type. sc LCN 4010 series, door mounted, pull sideements for opening pressure.
5.	All doo	rs and windo	ows to be factory-glazed in accordance with requirements herein.			. Squiri	
6.	Protec	t installed gla	ass from damage due to subsequent construction operations.				

	Relate	d Sectio	ons:			
	a. b.			oor Hardware ood doors		
	Refere	References				
	a. b.	Steel D	Doors ar al Asso	titute (SDI): SDI-100 - Recommen nd Frames. ciation of Architectural Metal Manu		
	Submi	ttals				
	a. b.	Shop [Drawing cements	Submit manufacturers' literature. s: Indicate general construction, co s, anchorage methods, hardware lo		
	Produc	cts				
	a. b.	Pionee approv	er Indust ed by A	: The Ceco Corporation, Curries, <i>I</i> tries Division, Core Industries, Inc. wchitect. ed (pre-assembled) type.		
	5.	1) 2)	Gage:	Minimum 16 gage. ilencers: Manufacturer's standard		
	C.	Fabrica	ation			
		1) 2) 3) 4) 5) 6) 7)	Reinfor Refer to Frames weld or Door S frames Provide in place	m to requirements of SDI or NAAM rce and prepare frames to receive o Section E for hardware requirem s: Accurately form and cut mitered n inside surfaces; grind welded join silencers: Place minimum three sin s; space equally along strike jambs e jamb anchors per SDI-100 and N e. Clearances:		
			a) b)	Between Doors and Frames: Max Door Sills: Maximum 3/8".		
	d.			paint; comply with requirements of cation and compatibility with speci		
	Installa	ation				
	a.	Metal I instruc	Manual" tions.	in accordance with SDI-100 and S and with manufacturer's recomme		
	b.	install	irames	plumb and square, and with maxin		
CTI	ON D:	EXTER		OOD DOOR FRAMES		
	Work includes new wood door frame for reversed swing Pantry.					
				cept where otherwise noted on the finish, profile as indicated on the d		
	Installa	ation				
	a. b.	shown Install shall b	on drav framess e plumb	commendations of door manufactu wings or specified herein. in accordance with the arrangeme , true, and allow door to operate s		
	d.	Field p	aint in a	accordance with DIVISION 9, Pain		

- ION D: INTERIOR WOOD DOORS
- New solid-core doors shall be flush type, solid glued block Grade "1-L-1", 1-3/4 thick, with premium grade 3-ply face Cal-Wood Door Co. of Rohnert Park, California.
- Wood doors shall be manufactured to meet the standards California, Section 20 - Doors, and shall be stamped "Qua with the ANSI/NWMA I.S.I. Series.
- Door paint grade veneers shall be products from forests by an agency accredited by Forest Stewardship Council Program and Forest Conservation Program.
- Submit fully detailed shop drawings and materials sample section, including a complete door schedule, to the Archite
- Doors shall be stored flat in clean surroundings protected not be exposed to excessive moisture, heat, dryness, or and handling instructions must be followed.
- Doors shall conform to the drawings and door schedule a type indicated.
- a. Doors: Birch, clear vertical grain paint grade face shop-applied painted finish; See Painting specifica b. Glazing: N/A
- All doors shall be pre-fit to frames and pre-machined for mounted hardware. Provide hardware cutouts in accorda manufacturer's templates or DHI, Wood Door Hardware S WDHS-1/WDHS-3. All pre-machined doors shall be ident
- Provide door manufacturer's warranty for life of installation

- The extent of Door and Window Hardware work door har required for new doors and electrical operators for new cle Drawings and Door Schedule.
- Door hardware shall be the kinds, quality, and designs sp products of other manufacturers will be accepted only if a
- Hinges: Sargent or McKinney; satint chrome plate Stops: Ives and Glynn Johnson. Dome type.
- Closers: LCN 4010 series, door mounted, pull side requirements for opening pressure.

s and silencers, as noted in the	 d. Power-assisted closers: LCN 460 series, door mounted, pull side e. Activator / Actuator: Vertical bar type, accessible for foot activation by persons in wheelchairs, Wikk Industries "Ingress'R," 6" x 36" tall wireless touch activated automatic door control, stainless finish; face plate Legend 3, "Push to Open" with universal accessibility symbol; Battery powered, radio signal to power 	3. Pro a.	oducts Interior Surfac previously pa existing and r
	operator; No known equal. f. Exit Devices:	b.	Edwards or B primer/sealer; Exterior Surfa
	 Exit devices shall be UL rated, shall meet the requirements of CBC and shall meet the requirements of the specified and electrified exit assemblies. 	5.	1) CMU Edwar
	 Preferred manufacturer: Von Duprin 99 Series exit device. NOTE: Coordinate exit device hardware requirements for dogging with power-assisted closer and activator specified in 8.E.2.c & d, above. 		coat p 2) Wood Sherw
nded Specifications - Standard	g. Locksets and lock cylinders: Schlage D-Series heavy duty lever with		latex e sched
uf. (NAAMM): Hollow Metal	mortised locks; "Rhodes" lever style; finish 626, satin chrome plated; Schlage cylinder. h. Strikes: Provide strikes with extended lips where required to protect trim or		3) New a and tri semi-c
	frame from being marred by latchbolt. i. Coat hooks: Alno A8480, bronze		sched
configuration, jointing methods, locations, and locations of	 j. Kick Plates: Sargent or Ives, bronze k. Thresholds: Pemko I. Electrical operators for new clerestory window: Supermaster or equal approved 	c. d.	Primers and p and finish pro
	by Architect.	u.	All paints spe volatile organ
Amweld Building Products Inc	 Suitable for project clerestory window locations and conditions (nom. size 60"W x 24"H) Controls to open & clean four (4) units simultaneously. 		rresponding produ proved by Archited
Amweld Building Products Inc. ., or equivalent products	 Controls to open & close four (4) units simultaneously Installation requirements that do not compromise weatherproofing perforance of windows 	4. Inst	tallation:
	4) Approved for use by window manufacturer	a.	Inspect all sur Commencem
I resilient type; removable for	 All locks and lock cylinders shall be keyed and master-keyed. Provide Owner with three keys per lock, labeled for identification. Keys for locksets requiring keyed-only access shall be provided with handicapped-access key fobs (access bow). Stamp master keys "Do Not 	b.	surface condi Previously pa entire surface
	Duplicate."	С.	Previously pa Sand to even
MM. e hardware.	 All door and window hardware shall conform to the requirements of Title 24 - California Access Laws and the Americans with Disabilities Act (ADA). 	d.	with suitable p Finish surface
nents. d corners of welded type frames;	5. Installation	e.	and variations shall be remo Protect all sur
ints to smooth uniform finish. ngle bumpers on single door	 a. Install all latchset hardware with the center-line of levers at 3'-0" from floor. b. Install hardware in accordance with the manufacturer's printed instructions and 	f.	Apply paint or manufacturer
s. NAAMM; weld floor jamb anchors	in accordance with the Door and Hardware Schedule. c. Coordinate work of Owner's security vendor for installation of security hardware.	SECTION	D: RESILIENT
	DIVISION 9 - FINISHES		neral: This sectioneduled in the Dra
ximum 1/8" at head and jambs.	SECTION A: GYPSUM DRYWALL SYSTEM	2. Sut	bmittals:
f Division 9 - Painting for primer cified finishes.	1. General	a. b.	Submit seami Submit for ap
	The extent of gypsum drywall and wood and metal support work is indicated on the Drawings and consists of patching, repair and furring. All gypsum board shall comply with ASTM C840. All gypsum board installation shall comply with Gypsum	3. Pro	flooring oducts:
SDI-105 or NAAMM "Hollow endations and installation	Association Standard GA-216 (latest edition). All metal support systems shall comply with ASTM C754.	з. гю а.	Linoleum: Bui
mum diagonal distortion of 1/16".	2. Related Work: Cementitious wall board provided as substrate for ceramic tile repair at	b.	Architect from Resilient Base
	Restrooms: Refer to Division 9, Section H - Ceramic Tile3. Products	с. d. e.	Adhesives an Crack filler an Floor cleaner:
g exterior door at Catering	a. Gypsum drywall and accessories shall be the products of Gold Bond Building	4. Cor	ndition of Surfaces
e Drawings, shall be clear beech,	 Products or United States Gypsum Co. b. Gypsum board shall be 5/8" thick unless otherwise noted, Type X where required for fire resistance rated assemblies. Panels shall be 4 feet wide by 	a.	Do not comm substantially (
drawings.	maximum practical length. c. Joint tape and compound shall be compatible with gypsum board products and	b.	Verify that bac construction f
urer where such covers points not	painting systems. Galvanized steel casing beads at external corners, 24 ga. minimum, shaped to protect and reinforce gypsum board external corners and equipped with flanges designed to be embedded in joint compound.	5. Inst	acceptance o tallation:
nents shown in the drawings. Frames smoothly andproperly.	d. Light gauge metal framing may be used for soffits at Contractor's option. Wall framing is lumber in accordance with Section 6A - Rough Carpentry. Metal	a.	Follow manuf
nting Section.	framing shall be 22 ga., widths as indicated in the Drawings, or heavier gauge where required to comply with manufacturer's recommendations and code requirements for minimum size based on job conditions.	b.	procedures. Fill all cracks,
	4. Installation:	с. d.	Leveling com for tile installa Spread adhes
ock or particle board core, ce panel, manufactured by	a. Long edges of panels parallel and fastened to supporting members; maximum		manufacturer manufacturer
	size boards shall be used to minimize joints; boards shall be neatly scribed around wall penetrations; edges closely fitted but not forced together; fasten to studs and joints with screw sizes as specified by gypsum drywall manufacturer;	e.	extent which of the adhesive. Linoleum Floo
rds of the Woodwork Institute of Quality Certified" in compliance	screw spacing per code.b. Casing beads shall be installed to protect exposed edges of gypsum board.		1) Where
s certified "well-managed"	Corner beads shall be applied to all horizontal and vertical corner joints. c. Joint tape and compound shall be applied in accordance with the manufacturer's printed instructions as required for a smooth surface finish.		detern 2) Make Neatly
il (FSC) including SmartWood	 Coordinate with other trades for provisions for insulation, blocking, metal backing plates, special anchors and access doors (subject to Architect's 		3) Thoro fishmo
ples of wood doors included in this hitect for approval.	approval), and ensure that such is in place prior to commencing work. SECTION B: ACOUSTICAL TREATMENT	f.	 Do no Provide edge
ed from dirt and abuse. They shall or direct sunlight. Manufacturer's storage	1. General: Work to be included as Bid Alt. 8 and includes mineral acoustical		Fasten resilie flooring.
	panels, adhesive and required installation accessories. Refer to Drawings.3. Submittals: Submit shop drawings for layouts. Show panel layouts and installation	g. h.	Complete inst Prior to accep surfaces free
e and shall be the size, thickness, and	details. Provide calculations to verify system compliance with structural requirements of governing code.		acceptance o
ce veneer and edges with ications.	 Acoustical panels shall be USG Eclipse ClimaPlus Performance, or approved equal, 3/4" thick, 24" x 24", mineral fiber ceiling panels with cleanable vinyl surface. 		otection otect installation fro
	 Ceiling panels shall be adhesively applied to existing T&G sustrate after removal of 	pro	tection immediate
r hardware except for surface	existion acoustical tiles; Install in accordance with manufacturer's recommendations.		
e Standards, Series W1/W9 and Series entified with opening numbers.	6. Coordinate installation with other trades whose work adjoins or combines with acoustical treatment. Verify work above acoustical ceiling treatment is complete and installed in manner that will not affect layout and installation of ceiling tile components. Field dimensions must be		F: RESILIENT B
tion.	verified prior to installation.	con	ncrete masonry un
	SECTION C: PAINT		mples: Submit for
nardware includes all hardware clerestory windows. Refer to	1. Painter's finish is required on all gypsum board surfaces, prime coated or painted metal surfaces, trim, and existing exterior and interior painted surfaces within the Limits of Work.	a.	Resilient Base
	Areas receiving paint include: CMU walls, steel truss joists, gypsum board surfaces (general), ceiling joists and trim, previously painted surfaces, and paint grade doors.	b.	cut lengths or type; Burke o Adhesives an
specified below. Corresponding f approved by Architect:	2. Submittals: Samples shall be provided of all finish types		e-Installation Repa
ated (626)	a. Gypsum board surfaces (general) and trim: 3 ea. 12 in. x 12 in brushouts of actual paint and color	Pat	tch and repair wall
side; conform to access law	Samples shall be resubmitted as required until paint colors and finishes match those specified.	inst	tallation of new ba

faces: CMU walls, gypsum board surfaces (general), new and painted wood doors, door and sidelite frames, ceilings (excluding d newly applied ceiling tile) and trim: Sherwin Williams, Dunn-Benjamin Moore latex eggshell enamel; 2 coats over 1 coat er; refer to color types scheduled in Drawings. rfaces:

U walls and cement plaster surfaces: Sherwin Williams, Dunnvards or Benjamin Moore latex enamel house paint; 2 coats over 1 t primer/sealer; refer to color types scheduled in Drawings. od exterior trim, sheet metal gutters, downspouts and accessories: erwin Williams, Dunn-Edwards or Benjamin Moore exterior semi-gloss x enamel paint; 2 coats over 1 coat primer/sealer; refer to color types eduled in Drawings.

and previously painted wood doors, door frames, sidelite frames trim: Sherwin Williams, Dunn-Edwards or Benjamin Moore alkyd ni-gloss enamel; 2 coats over 1 coat primer/sealer; refer to color types eduled in Drawings.

d preparative agents: As recommended by manufacturer for paint products specified. pecified in this section are to meet State and Federal standards for anic compounds.

ducts of other paint manufacturers shall be accepted only if tect.

surfaces to receive paint for suitability prior to painting operations. ement of painting operations signifies acceptance by Contractor of nditions.

painted wall surfaces: Spot prime bare or patched areas or prime ice with suitable primer. painted doors and frames: Remove existing peeling or bubbled paint;

en finish; Spot prime bare or patched areas or prime entire surface e primer. aces shall be free from runs, drips, waves, ridges, laps, brush marks,

ons in color, texture, and finish. Hardware on surfaces to be painted moved before painting or adequately masked. surfaces not receiving paint from damage due to painting operations. only under temperature and humidity conditions specified by

NT FLOORING

tion covers supply and installation of linoleum resilient flooring where rawings.

ming diagram for approval by Architect approval by Architect of color, pattern, and finish for each type of

Burkett or Forbo; Nom. 1/8" thick; one color; color as directed by om manufacturer's standard product lines.

ase: Refer to Division 9 - Section E.

and primers: As recommended by flooring manufacturer. and leveling compound: As recommended by flooring manufacturer. er: As recommended by flooring manufacturer.

ces:

mence installation until work of other trades within area has been ly completed. backing surfaces are clean, smooth, plane, and free of grease, oil,

n films, other coatings, or stains. Commencing installation implies e of surfaces.

nufacturer's specifications and recommendations for all installation

ks, minor holes, crevices, and depressions with crack filler. provide smooth and level substrate allation.

nesive uniformly and at coverage rate recommended by flooring rer. Use notched steel trowel or other devices as may be specified by ers of adhesive and flooring. Apply adhesive to areas only to the ch can be covered with flooring within the recommended "tack" time of

looring Installation:

ere linoleum has a predominant pattern direction, lay in direction ermined by the Architect. ke joints tightly butted, straight, and aligned square with room axis. atly trim material abutting other work to form a true, clean joint. broughly bond resilient flooring to backing surfaces. Blisters and mouths are not acceptable. not install any material exhibiting abnormal blotches

ge strips wherever flooring terminates with an unprotected edge. ilient strips with adhesive, top edge flush with and tightly butted to

nstallation of resilient flooring before installing base. ceptance but not less than 5 days after installation, thoroughly clean ee of adhesive, soil, and construction stains. Surfaces soiled prior to e of project shall be recleaned at no added expense to Owner.

from damage until acceptance of the project. Remove such ately prior to acceptance. Damaged material shall be replaced at the

BASE

tion covers supply and installation of resilient base at exposed unit walls and gypsum board walls, per Drawings.

for approval by Architect of color and pattern.

ase: 2-1/2 in. height or as otherwise noted on the drawings, 48 in. or roll form, 1/8 in. thick, outside corners premolded, topset cove e or approved equal. and primers: As recommended by base manufacturer

pair

all surface if required to provide uniformly smooth substrata for base.

Seismic Upgrades and **Building Alterations**

Kensington Community Center

59 Arlington Avenue Kensington, CA 94707 for the

Kensington Police Protection & Community Services District

GLASS Associates, Inc. architecture & plan'ning

337 17th Street, Suite 100 Oakland, CA 94612

T. 510.788.5888

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CONSULTANTS

LICENSE	CANTER AND
REVISIONS BY	REVISIONS BY
9-03-18 - Permit WG Plan Check FD A 4-16-18 WG Issue for Permit WG	
Date 3/30/18	Sheet
Scale AS NOTED	A9.03
Drawn FD	
Job	

SECTION F: RESILIENT BASE (Continued)

5. Condition of Surfaces:

- a. Do not commence installation until work of other
- substantially completed. b. Verify that backing surfaces are clean, smooth, pla
- construction films, other coatings, or stains. Comr acceptance of surfaces.

6. Installation:

- a. Follow manufacturer's specifications and recomm
- procedures.
 b. Fill all cracks, minor holes, crevices, and depression
 c. Thoroughly bond base to wall with bottom edge in surface. Make joints tight and surfaces aligned. In
- base less than 12 in. in length. Use premolded sh Cope internal corners. Scribe base to abutting ma

SECTION G: CERAMIC TILE

- 1. Work Included: Patch and repair of ceramic tile at Restro
- Related Work: Painted Finish for gypsum board wall surface Refer to Division 9, Section C - Paint
- 3. Submittals: Submit for approval by Architect of color, path of ceramic tile

4. Products:

- Ceramic wall tile shall match existing in size, patte or equal as approved by Architect from manufactu match to existing tile size, pattern, texture and color selections shall be as directed by Architect.
- b. Ceramic floor tile shall match existing in size, patte or equal as approved by Architect from manufactu
- match to existing tile size, pattern, texture and cold selections shall be as directed by Architect.
 c. Portland cement mortar shall be used for setting b slab has been cored or opened:
 - 1) Portland cement shall be Type I, ASTM C
 - 2) Sand shall conform to ASTM C 144.
 - 3) Hydrated lime Type S, ASTM C 206 or C
 - 4) Water shall be clear, potable, and free from
- d. Organic and epoxy adhesives for thinset application
- type, non-staining, cold-applied, and approved for Cementitious wall board: 5/8 in. thick cementitious
- USG "Densglas." Panels shall be maximum practic
 f. Portland cement grout shall be manufactured of page
- mineral pigments in color to be selected by Archite standard colors and approved for use by tile manu
- g. Grout sealant shall be liquid silicone type, approve manufacturer. Two coats applied to fully cured gro manufacturer's printed instructions.
- Mail surface mudset substrata shall include lath a suitable for installation conditions.

5. Installation

- a. Surfaces to receive ceramic tile work shall be firm,
- wax. Surfaces shall be true to within 1/8 inch in 8
 Floor tile patch and repair at concrete floor slab concrete floor sl
- existing waterproof membrane on concrete slab.
 Wall tile shall be thinset on existing substrate or 5/ occurs.
- d. Ceramic tile shall be fitted, set, bonded, grouted, s accordance with the manufacturer's printed instruct bullnose, cove, corner, and other accessory pieces complete installation.
- 6. Protection: Surfaces adjoining tile work shall be protected

DIVISION 10 - SPECIALTIES

SECTION A: METAL TOILET PARTITIONS

1. Work Included: Alterations to existing baked enamel finish Rooms, including replacement panels as neccesary, as re-

2. Submittals:

upgrades.

a. Submit product data and shop drawings for each ib. Submit finish samples of partition material

3. Materials and Products

- a. Partitions: Floor-mounted, overhead-bracedb. Finish: Baked enamel on steel with chrome access
- c. Accessories: ADA-compliant; locks, handles, coal accessories as required for complete installation
- e. Acceptable manufacturers: Sanymetal, Global Ste approved equal.
- 4. Preparations: Coordinate work under this Section with of combines or aligns with same. Take such field measurem dimensions. Remove panels to br replaced. Report any and field dimensions to the Architect and secure direction

5. Installation:

- a. Install in accordance with the arrangements indica
- b. Set in place square and plumb, shim and secure
- c. Adjoining tile surfaces shall be protected during in

SECTION B: TOILET ROOM ACCESSORIES

Refer to Drawings

SECTION C: SIGNAGE

- 1. General:
 - a. Room Identification and Regulatory Signage as incomplete with attachment devices and accessories installation; Comply with accessibility requirement and Americans with Disabilities Act Accessibility G
 - b. Exterior Building Identification Sign: Refer to Bid.

	2.	Submittals: a. Product Data: Furnish manufacturer's literature and indicate each sign type,			6) 7)	Rolle brac Scre
r trades within area has been		 style, color, and method of attachment. b. Shop Drawings: Furnish listing of sign types, lettering and locations, along with 				with area
plane, and free of grease, oil, mmencing installation implies	0	overall dimension of each sign.			8)	Case and s with
	3.	Products a. Room Identification and Regulatory Signage			9) 10)	Supp Desi
mendations for all installation		 Manufacturers: Mohawk Engraving Company, Incorporated; ASI Sign 			11)	moui Scre UL re
ssions with crack filler.		Systems Inc.; Cameo, California Metal Enameling Co.; Vomar Products, Inc.; or equal.	5.	Insta	llation	UL N
in uniform contact with floor . In general, use no pieces of shapes for external corners. materials.		 Design, lettering, and symbols: As illustrated in the Drawings; provide Braille information conforming to referenced code requirements (Refer to Drawings). Total Thickness: 0.25". 		a.	insta	all scree allation in erials an
		 Colors, Size, and Style: Conform to referenced code requirements and as indicated in the Drawings. 	DIVIS	SION 1:	2 - FUR	RNISHIN
trooms		b. Exterior Building Identification Sign: Refer to Drawings				RIC SHA
urfaces and ceiling at Restroom:	4.	Installation	1.			rovide fa
pattern, and finish for each type		 Install signs in accordance with manufacturer recommendations and installation instructions, free from distortions and defects. 			ied ope	erational
		b. Install signs level, in line, in accordance with the the arrangements shown in the Drawings, manufacturer's recommendations and ADAAG requirements.		a. b.		ually-op ctrically o
ittern, texture and color; Dal-Tile cturer's premium line. Where a		 c. Install room identification signs at doors to allow a person to approach within 3" of signs without being within a door swing. d. Clean; remove excess adhesive. 	2.	Subn	nittals	
color is not available, tile		d. Clean; remove excess adhesive.		а.		ually-op
attern, texture and color; Dal-Tile cturer's premium line. Where a color is not available, tile		TION D: FIRE EXTINGUISHERS & CABINETS			1) 2) 3)	Prod Sam Certi
g bed at floor applications where	1. 2.	Work Included: Install semi-recessed fire extinguisher cabinets as shown on plans. Related Work: Painted Finish for gypsum board wall surfaces: Refer to Division 9, Section C -			, _,	instru
C 150.	۷.	Paint		b.	Elec	trically c Prod
C 207.	3.	Submittals:			2) 3)	Sam Man
rom impurities affecting tile work.		 Product Data: Furnish manufacturer's literature and indicate each extinguisher and cabinet type, style, color, and method of attachment. 				to fal
ations shall be water-resistant for use by tile manufacturer. ous board ("Wonderboard") or	4.	Products:				a)
ctical size for patch conditions. f pure lime-proof, non-fading nitect from manufacturer's anufacturer.		 a. Cabinets Acceptable manufacturer, model: Alta 7000 series semi-recessed cabinet with satin finish or approvel equal; ADA-compliant (4 in max. projection from wall). b. Fire extinguishers: Types as noted on Drawings and compatible with fire extinguisher cabinet size; Acme Fire Extinguisher Co, Kidde, or approved equal. 				b)
oved for use by grout grout in accordance with	5.	Installation:				
and waterproof membrane		a. Install in accordance with the arrangements indicated in the Drawings			4)	Certi instru
		b. Set in place square and plumb, shim and secure within partitions.c. Adjoining surfaces shall be protected during installation.	3.	Prod	ucts	
rm, dry, clean, and free of oil and 8 feet variation.	SEC	TION E: MANUFACTURED GAS FIREPLACE INSERT		а.		iual plea tion A: E
conditions shall be thinset over 0 .	1.	Work includes Indoor gas fireplace Insert, fireplace surround and fireplace accessories		b.		trically o
^r 5/8" cementitious wall board, as d, sealed, and cleaned in	2.	as required for complete installation (Refer to Bid Alts). References				nitect; N rated wir
ructions. Installation shall include all ces as required for a		a. ANSI Z21.44 - Gas-Fired Gravity and Fan Type Direct Vent Wall Furnaces.			1) 2)	Shao ft.) o
ted during installation.	3.	Submittals			2) 3)	Spee Cont shall
		 Manufacturer's product data Shop Drawings: Provide drawing of required clearances, rough-in of enclosure and utilities 			4)	wind moto Fabr man
	4.	Products			5)	pass Shac
hish toilet partitions at Toilet s required for accessibilty		 Acceptable manufacturer: Napoleon (napoleonproducts.com) or approved equal b. For product quality and materials reference, drawings and specifications are based on Napoleon Ascent 42" Direct Vent Gas Fireplace; matte black painted finish. 			6) 7)	Acce nece finish Expo
h item		 c. Fans: Manufacturer's standard circulating fan compatible with specified fireplace. d. Custom infill panels: gage to match face panels of fireplace insert; paint to match. 			8)	appr Shao disas
	5. lı	nstallation	4.			Install : cturer's i
		 Install in accordance with manufacturer's instructions, ANSI Z21.44 and the requirements of authorities having jurisdiction. 		a.		fy rough
cessories and brackets oat hooks, and mounting n		 b. Use manufacturer's guidelines for minimum clearances to combustibles, walls, and finishes. Anches of according to the position 		b. C.	Equi	d measu ipment s ted instru
Steel Products Corp. , or	6. F	c. Anchor all components firmly in position. Protection: Protect installed products until completion of project.		d.	equi Fabr	ipment s ricate ar
n other trades whose work adjoins, rements as may be required. Verify all				e.	Equi	ided by ipment s execution
ny major discrepancy between Drawings ons before proceeding.		SION 11- EQUIPMENT		f.	Adju	isting: T xpansior
	1.	Work Included: Provide electrically-operated screen at Meeting Hall with hardware and			toler	ances.
icated in the Drawings e partitions.	2	accessories as required for complete installation (Refer to Bid Alts). Related Work:	DIVIS	SION 1;	3 - SPE	ECIAL C
installation.	2	a. Electrical service: refer to Electrical Drawings			n Conti	
	3.	Submittals	DIVIS		4 - COM	NVEYIN
		 a. Product Data: Furnish manufacturer's literature. b. Shop Drawings: Show complete details of screen, including equipment, 			n Conti	
		dimensions and field measurements.	ייייט		5 <u>-</u> ME/	CHANIC
indicated in the Drawings	4.	 Products a. Manufacturers: Da-Lite Screen Company, Inc.; Draper Screen Co.; or equal. 				BING AN
ries as required for complete ents of California Building Code		 b. Electrically Operated Projection Screen: Overhead concealed mounting. 				
y Guidelines (ADAAG). id Alt 9		 Sizes: As indicated on Drawings. Motor: Designed for purpose with ball bearings oiled for life, with automatic thermal overload cutout and integral interlocking gears 				RICAL
		 automatic thermal overload cutout and integral interlocking gears. Power: 120 V.A.C., 60 Hz, three wire quick reversal motor. Limit Switches: Provide pre-set but accessible limit switches to 	NOT	E: Refe	er also	to DIV. 8
		 4) Limit Switches. Provide pre-set but accessible infit switches to automatically stop screen fabric in "up" and "down" position; stop action shall be positive to prevent damage to coating. 4) Control: Three position control switch in flush box with cover plate; control located remote from screen at locations as indicated, or as directed by Architect where not otherwise indicated. 5) Flush mount control; match light switches. 	SEC	TION E	: DOC	OR & WI dow ope

oller: Provide rigid metal roller; mount roller on two cast aluminum ackets equipped with self-aligning bearings.

creen: Flame retardant and mildew resistant, matt white vinyl screen ith tear-resistant woven fiberglass backing allowing maximum viewing ea with matte black border. ase: Enclose viewing surface in case with double top for extra rigidity

ase. Enclose viewing surface in case with double top for extra rigidity nd sound deadening; line motor compartment with metal; finish case ith prime coat. upply heavy metal brackets for mounting screen.

esign for concealed overhead mounting with automatic recess closure, ounted to allow closure panel to be adjacent to finished ceiling. creen Unit: Complete unit Listed by Underwriters Laboratories, Inc.; with L reexamination markers.

reens in accordance with manufacturer's recommendations and n instructions, level, true to line, and in correct relation to adjacent and finishes.

HINGS

HADES

e fabric shade systems where so noted on the Drawings, ng hardware, attachments, and accessories as required for complete nal installation.

-operated pleated shades at folding glass wall / folding doors ly operated window shades at locations indicated on the Drawings

-operated pleated shades at folding glass wall / folding doors:

roduct Data: Furnish manufacturer's literature amples: Submit swatches in selected color and finish ertification of Flame Proofing or Flame Resistance: Submit certification and structions for cleaning of fabrics and of installed shade system.

ly operated window shades

roduct Data: Furnish manufacturer's literature amples: Submit swatches in selected color and finis

anufacturer's shop drawings shall be submitted to Architect for approval prior fabrication and installation.

Manufacturer shall verify that shade units specified are suitable for installation as shown. Should Contractor propose alternative manufacturer's products be approved for use by Architect, Contractor shall verify with manufacturer and installer that details shown on the Drawings are compatible with proposed substitutions. Shop drawings to show hardware and clearances; layout of openings and control locations subject to Architect approval where not clearly indicated; submit product data of system including fabric, and samples of each fabric.

ertification of Flame Proofing or Flame Resistance: Submit certification and structions for cleaning of fabrics and of installed shade system.

leated shades at folding glass wall / folding doors: Refer to Division 8 x: Exterior Aluminum Doors & Windows.

y operated window shades: Mecho Shade or equal only as approved by MechoShade system standards provided as reference for electrically window shade system

hade Width - Contracor's Option: One shade per clerestory window (nom. 5)) or one shade per clerestory bay (nom. 10 ft.); refer to Drawings peed: Minimum 12 rpm.

ontrols: Double pole, double throw switch located remotely; Meeting Room nall have one switch for south-facing windows and one switch for north-facing indows (two switches total); multiple shades shall operate simultaneously; otor logic controllers for ganged shades.

abric: Blackout type, room side finish as selected by Architect from anufacturer's full range of fabrics where not otherwise indicated; type having assed either NFPA 701 or FS CCC-T-191, test 5903.

nade Pockets: compatible with manufacturer's requirements

ccessories: Provide accessories, brackets, fittings and fastenings as ecessary for proper operation and installation of shades; conceal fasteners or hish flush, painted to match exposed metal finish.

xposed Metal Finish: Manufacturer's standard white painted finish as

pproved by Architect. hade Mounting System: Allow for shade removal and replacement without sassembling hardware assembly.

all shades in accordance with the arrangements shown on the drawings and 's instructions:

igh opening dimensions with manufacturer.

asure and verify installation dimensions prior to fabrication. In shall be installed under this contract in accordance with the manufacturer's structions and the arrangements indicated on the contract drawings. All In shall operate satisfactorily.

and install shades so when open, closed or while operating shades are not by window frame, ceiling or sill.

nt shall be protected from damage during shipment, site handling, installation, ution of adjacent work and finishing. : Thirty days after hanging of shades, inspect installation for fabric shrinkage

: Thirty days after hanging of shades, inspect installation for fabric shrinkage sion or other variations and rehang as necessary for conformance to specified s.

ING SYSTEMS

NICAL

AND MECHANICAL DRAWINGS

ICAL

L DRAWINGS

V. 8, SECTION A: EXTERIOR ALUMINUM DOORS & WINDOWS AND WINDOW HARDWARE for power supplies required to automatic door openers peners; coordinate with Electrical Work.

Seismic Upgrades and Building Alterations

Kensington Community Center

59 Arlington Avenue Kensington, CA 94707 for the

Kensington Police Protection & Community Services District

GLASS Associates, Inc. architecture & planning

337 17th Street, Suite 100 Oakland, CA 94612

T. 510.788.5888

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THE SCOPE OF THIS WORK IS A VOLUNTARY SEISMIC STRENGTHENING TO ADDRESS SEISMIC DEFICIENCES IDENTIFIED IN AN ASCE 41 ASSESSMENT. ALL CONSTRUCTION WORK SHALL BE DONE IN ACCORDANCE WITH THE 2016 CALIFORNIA BUILDING CODE.

- THESE NOTES SHALL APPLY TO ALL STRUCTURAL DRAWINGS UNLESS OTHERWISE NOTED OR SHOWN. FEATURES OF CONSTRUCTION SHOWN ARE TYPICAL AND SHALL APPLY GENERALLY THROUGHOUT SIMILAR CONDITIONS. ALL DETAILS REFERENCED. AND DETAILS NOT
- REFERENCED ON PLANS, SHALL BE CONSIDERED TYPICAL AND APPLY TO ALL SIMILAR CONDITIONS OF THE CONSTRUCTION.
- UNLESS SHOWN OTHERWISE, DETAILS SHOWN ON "TYPICAL DETAIL" SHEETS SHALL BE USED WHEREVER 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". THE STRUCTURAL DRAWINGS SHOW STRUCTURAL FEATURES. EXACT CONFIGURATION 5. OF INTERIOR PARTITION WALLS IS SHOWN ON ARCHITECTURAL DRAWINGS AND IS NOT NECESSARILY ALL 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 FOR THE FOLLOWING: FLOOR FINISHES: DEPRESSIONS AND CURBS ON FLOORS; OPENINGS REQUIRED FOR WINDOWS, DOORS, DUCTS, VENTS, PLUMBING, ETC.; FLASHING, INSERTS, ANCHORAGES, 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
- ARCHITECTURAL, PLUMBING, MECHANICAL, CIVIL, 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.
- 8. IN THE EVENT THAT CERTAIN FEATURES OF THE CONSTRUCTION ARE NOT FULLY SHOWN ON THE DRAWINGS OR CALLED FOR IN THE GENERAL NOTES. THEIR CONSTRUCTION SHALL BE OF THE SAME CHARACTER AS SHOWN FOR SIMILAR CONDITIONS
- 9. 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 THE STRUCTURAL ENGINEER CONTRACTOR SHALL VERIFY ALL DIMENSIONS IN FIELD PRIOR TO POURING CONCRETE: 10
- 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 11. THE FIELD AND DISCREPANCIES SHALL BE CALLED TO THE ATTENTION OF THE ARCHITECT
- 12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL MEANS, METHODS, TECHNIQUES AND SEQUENCES OF CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SAFETY PROGRAMS AND PROCEDURES DURING CONSTRUCTION.
- 13. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ADEQUATELY SHORE AND BRACE THE EXISTING BUILDING AS REQUIRED DURING CONSTRUCTION. 14. THE CONTRACTOR SHALL FOLLOW ALL INSTRUCTIONS, RECOMMENDATIONS AND
- SAFETY PRECAUTIONS PROVIDED BY THE MANUFACTURER OR SUPPLIER OF ANY MATERIAL OR PRODUCT NOTED IN GENERAL NOTES OR DRAWINGS. 15. SEE ARCHITECTURAL DRAWINGS FOR DETAILS ON REQUIRED VENTILATION OF ROOF
- JOISTS, FLOOR JOISTS, AND ATTIC SPACES. 16. CONTRACTOR SHALL FIELD VERIFY EXISTING FRAMING CONDITIONS AND SHALL NOTIFY ARCHITECT OF ANY VARIATION FROM CONDITIONS ASSUMED ON DRAWINGS.
- CONTRACTOR SHALL VERIFY THAT EXISTING FRAMING IS RE-SUPPORTED AND ALL LOADS ARE TRANSFERRED TO NEW OR EXISTING FOOTINGS. CONTRACTOR SHALL CONSULT WITH THE STRUCTURAL ENGINEER AS REQUIRED. 17 GRADES SHOWN ON STRUCTURAL DRAWINGS ARE APPROXIMATE AND FOR GENERAL
- REFERENCE ONLY. MECHANICAL UNIT LOCATIONS SHOWN ON STRUCTURAL DRAWINGS ARE SCHEMATIC ONLY. GENERAL CONTRACTOR TO COORDINATE STRUCTURAL TRADES WITH
- MECHANICAL CONTRACTOR TO DETERMINE EXACT LOCATION OF UNITS AND SUPPORTING STRUCTURE. 19. DO NOT SCALE DRAWINGS.

DESIGN CRITERIA

1.	VERTI	CAL LOADS:	
	Α.	DEAD LOADS:	
		i. ROOF DEAD LOAD:	15 PSF
	В.	LIVE LOADS:	
		i. ROOF LIVE LOAD:	20 PSF
2.	LATEF	RAL LOADS:	
	Α.	WIND DESIGN LOADS -PER CBC SECTION 1609:	
		BASIC WIND SPEED	110 MPH
		EXPOSURE CATEGORY	В
	В.	SEISMIC DESIGN COEFFICIENTS	
		MAPPED SHORT PERIOD ACCELERATION	Ss = 2.472 g
		SITE COEFFICIENT	Fa = 1.0
		DESIGN SHORT PERIOD ACCELERATION	SDS= 1.648 g
		MAPPED ONE SECOND PERIOD ACCELERATION	S1 = 1.027 g
		SITE COEFFICIENT	Fv = 1.5
		DESIGN ONE SECOND ACCELERATION	SD1= 1.0127 g
3.	ALLO\	WABLE SOIL PRESSURES:	-
		DEAD LOAD	1500 PSF
		DEAD + LIVE LOADS	1500 PSF
		DEAD + LIVE + LATERAL LOADS	1500 PSF

FOUNDATION NOTES

- 1. 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 1'-6". SLOPE BOTTOM OF FOOTINGS AT 1:10 MAXIMUM SLOPE AS REQUIRED TO SUIT GRADING AND ADJACENT FOOTING CONDITIONS. STEP BOTTOM OF FOOTINGS PER TYPICAL DETAIL FOR GREATER INCLINATIONS.
- 2. SOIL BEARING PRESSURES UNDER FOOTINGS AS DESIGNED DO NOT EXCEED
- ALLOWABLE SOIL PRESSURES DEFINED IN DESIGN CRITERIA ABOVE 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 INCHES DURING THIS OPERATION. FOOTINGS SHALL BE CENTERED UNDER BEARING WALLS ABOVE UNLESS OTHERWISE NOTED
- 5. 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.
- 6. VERIFY LOCATIONS FOR OPENINGS OR PENETRATIONS THROUGH CONCRETE, CONCRETE CURBS, FLOOR DEPRESSIONS, FLOOR SLOPES AND DRAINS, INSERTS, ETC.

- CONCRETE NOTES ALL CONCRETE SHALL BE REINFORCED UNLESS NOTED "NOT REINFORCED". SEE THE CALIFORNIA BUILDING CODE FOR THE REQUIREMENTS IN THE PRODUCTION,
- TESTING AND INSTALLATION OF CONCRETE.
- 3. SEE ARCHITECTURAL DRAWINGS FOR THE LOCATION AND EXTENT OF EXTERIOR WAL AND PAVEMENTS AND FOR REINFORCEMENT REQUIREMENTS. 4. REINFORCEMENT SHALL BE PER ASTM A615, GRADE 60 WITH BAR MARKS LEGIBLY
- ROLLED INTO THE SURFACE INDICATING SIZE, TYPE OF STEEL, AND YIELD STRENGT DESIGNATION. REINFORCEMENT FOR WELDING, FOR SHEAR WALLS, OR FOR MOMENT FRAMES SHAL 5.
- BE PER ASTM A706, GRADE 60 WITH BAR MARKS LEGIBLY ROLLED INTO THE SURFACE INDICATING SIZE, TYPE OF STEEL, AND YIELD STRENGTH DESIGNATION. CONCRETE SHALL CONFORM TO THE FOLLOWING CLASSES:
- PORTLAND CEMENT SHALL BE PROPORTIONED IN ACCORDANCE WITH ASTM C94. TY I OR II. 8. PROVIDE 15 MIL VAPOR BARRIER CONFORMING TO ASTM E 1745 CLASS A UNDER
- SLABS ON GRADE. REPLACE CEMENT CONTENT WITH FLYASH CONFORMING TO ASTM C618 CLASS C OF 9.
- F, OR GROUND GRANULATED BLAST FURNACE SLAG CONFORMING TO ASTM 989, CLASS 100 OR 120, PER TABLE ABOVE. 10. REINFORCEMENT, ANCHOR BOLTS, PIPE SLEEVES, AND OTHER INSERTS SHALL BE
- POSITIVELY SECURED IN PLACE BEFORE CONCRETE IS POURED. "WET-SETTING" WI NOT BE ALLOWED.
- 11. REINFORCING BARS WELDED TO STRUCTURAL STEEL SHALL BE SUPPLIED BY REINFORCING BAR SUB-CONTRACTOR AND ALL WELDING SHALL BE DONE BY STRUCTURAL STEEL SUB-CONTRACTOR.
- 12. BAR COVERAGE TO FACE OF BAR, EXCEPT AS OTHERWISE SHOWN, SHALL BE: WHERE CONCRETE IS POURED AGAINST EARTH OR AGAINST GROU
 - CONTACT FOR BARS LARGER THAN #5, WHERE CONCRETE SURFACES ARE EXPOSED TO EARTH OR TO WEATHER AFTER REMOVAL OF FORMS FOR #5 BARS OR SMALLER. WHERE CONCRETE SURFACES ARE 1-1/2"
 - EXPOSED TO EARTH OR TO WEATHER AFTER REMOVAL OF FORMS 1-1/2" FOR COLUMN SPIRAL TIES* FOR WALL BARS (DOUBLE MAT)*
 - 3/4" FOR STRUCTURAL SLAB BARS, TOP AND BOTTOM*
- *UNLESS GOVERNED ABOVE BY EXPOSURE OR NOTED ON DETAIL 13. INTERIOR SLAB ON GROUND SHALL BE REINFORCED AS SHOWN ON STRUCTURAL PLANS. LOCATIONS OF CONSTRUCTION JOINTS OTHER THAN SHOWN ON DRAWINGS MUST BE APPROVED BY THE ARCHITECT.
- 14. ALL CONCRETE CURBS ARE 6 INCHES HIGH UNLESS OTHERWISE NOTED.
- 15. WHERE NEW CONSTRUCTION IS INTEGRATED WITH EXISTING CONCRETE CONSTRUCTION CARE SHALL BE TAKEN SO AS NOT TO DAMAGE EXISTING REMAINING CONCRETE A REINFORCING. WHERE NEW CONCRETE ABUTS EXISTING CONCRETE. CLEAN EXISTING CONCRETE SURFACE WITH HIGH PRESSURE WATER SPRAY. APPLY APPROVED BONDING AGENT TO SURFACE OF EXISTING CONCRETE.
- 16. HOLES FOR GROUTED ANCHORS SHALL BE DRILLED WITH ROTARY HAMMER OR OTH SUITABLE METHODS TO ENSURE EXISTING REINFORCEMENT IS NOT DAMAGED. HOLI DIAMETER SHALL BE 1/8" GREATER THAN ANCHOR ROD DIAMETER, UNLESS OTHERWISE NOTED. GROUT SHALL BE NON-SHRINK EPOXY. LOCATE EXISTING REINFORCING BARS PRIOR TO DRILLING HOLES. DO NOT DAMAGE EXISTING REINFORCING. METHOD OF LOCATING EXISTING REINFORCING BARS SHALL BE APPROVED BY THE STRUCTURAL ENGINEER. ALL MIS-DRILLED OR UNACCEPTABLE HOLES SHALL BE GROUTED SOLID. 17. TERMINATION OF REINFORCEMENT:
- A. TERMINATE ALL BARS IN LAPS, 90 DEGREE BENDS, OR DOWELS INTO FOOTIN OR PERPENDICILAR WALLS OR COLUMNS.
- BEND TOP FOOTING BARS DOWN TO BOTTOM REINFORCING. BEND BOTTOM FOOTING BARS UP WITH STANDARD 90 DEGREE BENDS.
- END WALLS WITH HORIZONTAL BARS BENT DOWN OR HORIZONTAL OR BENT INTO PERPENDICULAR WALLS, COLUMNS OR CORNERS.
- PROVIDE DOWELS INTO FOOTINGS FOR WALLS AND COLUMNS OF THE SAME
- SIZE AND SPACING AS IN WALLS AND COLUMNS. LAP DOWELS PER THE LAF SCHEDULE AT THE BASE OF THE WALL OR COLUMN. ALL REINFORCEMENT SHALL LAP PER THE LAP SPLICE SCHEDULE. LAP NO
- MORE THAN EVERY OTHER BAR AT A SINGLE LOCATION (50% BARS), STAGGE |APS 5'-0"G. REINFORCEMENT LAPS MAY BE MADE WITH MECHANICAL COUPLERS, TYPE 1,
- WHICH CAN ACHIEVE 125% OF BAR STRENGTH OR GREATER. SUBMIT ICC EVALUATION REPORT TO STRUCTURAL ENGINEER FOR REVIEW. 18. ROUGHEN SURFACES AND KEY JOINTS AT HARDENED CONCRETE. ROUGHEN ALL
- SURFACES AT COLD JOINTS TO 1/4 INCH AMPLITUDE UNLESS NOTED OTHERWISE IN DETAILS. ROUGHEN ALL JOINTS:
- A. PROVIDE 1.5"X 3.5" KEY JOINTS AT BOTTOM OF WALLS AND AT ENDS OF WA
- AT COLUMNS, CROSS WALLS OR CORNERS PROVIDE 1.5"X 3.5"X 10"KEY JOINTS AT GRADE BEAMS.
- ROUGHEN SURFACES AT TOPS OF FOOTINGS BELOW WALLS AND COLUMNS. A ROUGHEN SURFACES AT TOPS OF ALL WALLS. COLUMNS AND JOINTS WITH ELEMENTS

CONCRETE MASONRY UNIT NOTES

- 1. CONCRETE BLOCKS SHALL CONFORM TO REQUIREMENTS OF ASTM C90 GRADE N SPECIFICATION FOR HOLLOW LOAD BEARING LIGHTWEIGHT CONCRETE MASONRY UNIT THE REQUIRED ULTIMATE COMPRESSIVE STRENGTH (f'm) OF THE CONCRETE BLOCK ASSEMBLY IS 1500 PSI.
- MORTAR SHALL CONFORM TO ASTM C270 PROPORTION SPECIFICATION TYPE S OR ASTM C387. TYPE S. MORTAR SHALL TEST NOT LESS THAN 1800 PSI AT 28 DAYS.
- GROUT SHALL CONFORM TO ASTM C476.
- GROUT SHALL TEST NOT LESS THAN 2000 PSI AT 28 DAYS.
- REINFORCEMENT SHALL BE PER ASTM A615-60. LAP ALL REINFORCING BARS 48 DIAMETERS AT SPLICES. MAINTAIN 1" MINIMUM CLEAR BETWEEN PARALLEL BARS (EXCEPT AT SPLICES), AND 1/2" CLEAR BETWEEN BAR AND ANY SURFACE OF A MASONRY UNIT. ALL MASONRY BLOCK CELLS SHALL BE FILLED SOLID WITH GROUT.
- ALL HORIZONTAL BARS SHALL BE PLACED IN BOND BEAM UNITS.
- LAY ALL CONCRETE BLOCK UNITS IN RUNNING BOND.
- 10. CONCRETE MASONRY UNIT CONSTRUCTION SHALL HAVE SPECIAL INSPECTION.

	CAR 1.	PENTRY NOTES SILLS ON CONCRETE SHALL BE PRESSURE TREATED DOUGLAS FIR LARCH 3x THICK	PRE 1.	F ABRICATED ROOF TRUSS NOTES ROOF TRUSS MANUFACTURER SHALL DESIGN ALL MEMBERS, TRUSS TYPES AND
ON,		AT ALL EXTERIOR WALLS AND INTERIOR SHEAR WALLS NOTED ON PLAN. ALL OTHER SILLS ON CONCRETE MAY BE PRESSURE TREATED DOUGLAS FIR LARCH 2x THICK.		CONNECTIONS FOR ROOF LOADS, INCLUDING MECHANICAL EQUIPMENT LOADS. DESIGN SHALL BE BY A CIVIL ENGINEER REGISTERED IN THE STATE OF CALIFORNIA, AND
ALKS		THEY SHALL BE ANCHORED WITH 5/8" DIAMETER MACHINE BOLTS WITH 7" EMBEDMENT. AT SHEAR WALLS, BOLTS SHALL HAVE NUT, CUT WASHER AND SIMPSON	2	SHALL BE IN CONFORMANCE WITH ANSI/TPI 1. ROOF TRUSS MANUFACTURER SHALL SUBMIT SHOP DRAWINGS AND CALCULATIONS TO
_Y GTH		BPS 5/8–6 BEARING PLATE. AT NON-SHEAR WALLS, BEARING PLATE IS NOT	2. z	THE ARCHITECT FOR APPROVAL PRIOR TO FABRICATION. ALL FRAMING LUMBER SHALL HAVE A MAXIMUM MOISTURE CONTENT OF 19 PERCENT.
IALL		REQUIRED. LOCATE BOLTS 6" MINIMUM AND 12" MAXIMUM FROM EACH END OF EACH STICK AND NOT OVER 48" ON CENTER BETWEEN. SEE SHEAR WALL SCHEDULE FOR	4.	APPROVED COPIES OF ROOF TRUSS DRAWINGS SHALL BE FORWARDED TO THE BUILDING INSPECTION DEPARTMENT.
		SPECIFIC SPACING OF ANCHOR BOLTS WHICH MAY BE NOTED AS LESS THAN 48" ON CENTER. THERE SHALL BE AT LEAST 2 BOLTS IN EACH STICK. WHERE NOTCHES FOR	5.	TEMPORARY BRACING PER MANUFACTURER'S RECOMMENDATIONS SHALL BE INSTALLED
TYPE		PIPES, ETC., EXCEED 1/3 THE WIDTH OF THE SILL, PLACE A BOLT WITHIN 6" OF EACH SIDE OF NOTCH. TIEDOWN BOLTS SHALL NOT BE CONSIDERED AS SILL BOLTS.		TO HOLD ROOF TRUSS TRUE AND PLUMB UNTIL PERMANENT ROOF SHEATHING IS INSTALLED.
R ALL	2.	FRAMING LUMBER: DOUGLAS FIR-LARCH, MANUFACTURED AND GRADED IN ACCORDANCE WITH THE WEST COAST LUMBER INSPECTION BUREAU "STANDARD	6.	DESIGN ROOF LOAD CRITERIA (ALLOWABLE) DEAD LOAD: [INSERT] PSF
OR		GRADING RULES NO. 17", LATEST EDITION INCLUDING ALL SUPPLEMENTS. STRUCTURAL LIGHT FRAMING: NO. 1, 2" TO 4" THICK		LIVE LOAD: [INSERT] PSF TOTAL LOAD: [INSERT] PSF*
UK		BEAMS: NO. 1, FREE OF HEART CENTER, 5" AND THICKER		NET UPLIFT LOAD PER METHOD 1, SECTION 6.4 OF ASCE 7–10: [INSERT] PSF
		POSTS: NO. 1 STUDS: 2x4 OR 3x4 – CONSTRUCTION 2x6 AND LARGER – NO. 2		DESIGN CEILING LOAD CRITERIA: DEAD LOAD: [INSERT] PSF
WILL	3.	ALL FRAMING LUMBER SHALL BE [SURFACED DRY (S–DRY)] [KILN DRIED (KD)] [HAVE		LIVE LOAD: [INSERT] PSF TOTAL LOAD: [INSERT] PSF*
		A MAXIMUM MOISTURE CONTENT OF 19 PERCENT AT TIME OF INSTALLATION]. [AIR DRIED SURFACED GREEN (S-GRN) LUMBER SHALL REQUIRE MOISTURE METER TESTING	7	*PLUS CONCENTRATED MECHANICAL LOADS. ROOF TRUSS MANUFACTURER SHALL LAYOUT AND DESIGN ALL TRUSSES TO
		BY QUALIFIED INDEPENDENT TESTING LABORATORY AND APPROVAL BY THE STRUCTURAL ENGINEER.] LUMBER USED IN WALLS AND FLOORS SHALL HAVE A	7.	ACCOMMODATE ROOF AND REFLECTED CEILING LAYOUT AS SHOWN ON THE ARCHITECTURAL DRAWINGS. THEIR DESIGN AND CONSTRUCTION SHALL BE OF THE
	4.	MAXIMUM MOISTURE CONTENT OF 19% AT THE TIME OF CLOSURE. [EXTERIOR WALLS SHALL BE CONSTRUCTED OF FIRE TREATED LUMBER AND		SAME CHARACTER AS SHOWN IN THE TYPICAL CONDITION ON THE ARCHITECTURAL DRAWINGS.
RE RMS.	5.	SHEATHING AND SHALL BE LABELED PER CBC 2303.2.4.] STUD AND POST SIZES (UNLESS OTHERWISE NOTED)	8.	ALL TRUSS-TO-TRUSS CONNECTIONS SHALL BE DESIGNED AND SPECIFIED BY THE TRUSS MANUFACTURER. SUCH CONNECTIONS SHALL BE CLEARLY NOTED ON THE
RMS		STUDS AT NEW EXTERIOR WALLS: 2x6 @ 16 [°] ON CENTER STUDS AT NEW INTERIOR WALLS: 2x4 @ 16 [°] ON CENTER	٩	SHOP DRAWINGS. PRIOR TO FABRICATION OF TRUSSES, THE FOLLOWING MATERIAL BEARING THE
	6.	POSTS: 4x6 BLOCKING AND BRIDGING - PROVIDE AS FOLLOWS:	5.	APPROVAL OF THE DESIGNER MUST BE SUBMITTED TO THE BUILDING OFFICIAL FOR REVIEW;
AILS	0.	A. 2x SOLID BLOCKING BETWEEN JOISTS AND RAFTERS OVER SUPPORT.		A. TWO SETS OF SHOP DRAWINGS B. TWO LAYOUT PLANS DELINEATING LOCATION OF ALL TRUSSES
GS		CENTER NOR MORE THAN 8'-0" FROM SUPPORT.		C. ONE SET OF DESIGN CALCULATIONS SHOWING: i. AXIAL AND BENDING STRESSES
		C. OMIT BLOCKING BETWEEN CEILING JOISTS AND RAFTERS 2x8 AND SMALLER. D. [CONTINUOUS 2" HERRINGBONE BRIDGING, SLOPE 3 IN 12, AT MID-HEIGHT OF		ii. JOINT DESIGN
TION, AND		STUDS OR SO SPACED THAT UNBRACED LENGTH OF STUDS SHALL NOT EXCEED 8'-0", EXCEPT WHERE WALL FINISH OF PLYWOOD SHEATHING AT SHEAR WALLS	STR	JCTURAL STEEL NOTES STRUCTURAL STEEL SHALL BE ASTM A36 UNLESS OTHERWISE NOTED. ALL W AND
IG	7.	CALLS FOR SOLID HORIZONTAL BLOCKING.] PIPES EXCEEDING ONE—THIRD OF THE PLATE WIDTH SHALL NOT BE PLACED IN		WT SHAPES SHALL BE ASTM A992. ALL HOLLOW STEEL SECTIONS SHALL BE ASTM A1085. ALL STEEL PIPE SECTIONS SHALL BE [A1085] [ASTM A53 GRADE B] [ASTM
THER		PARTITIONS USED AS BEARING OR SHEAR WALLS, UNLESS OTHERWISE DETAILED OR COMPLETELY FURRED CLEAR OF THE STUDS. PIPES SHALL PASS THROUGH THE	n	A1085]. ALL STRUCTURAL STEEL SHALL BE FABRICATED AND ERECTED IN ACCORDANCE WITH
DLE		CENTER OF THE PLATES USING A NEATLY BORED HOLE. NO NOTCHING WILL BE ALLOWED.	Z. 7	AISC SPECIFICATIONS, LATEST EDITION.
	8.	LAG SCREWS SHALL BE SCREWED (NOT DRIVEN) INTO PLACE. DRILL HOLES SAME DIAMETER AND DEPTH AS SHANK. THEN DRILL HOLE 60-70% OF DIAMETER AT BASE	э.	ALL BOLTED CONNECTIONS STEEL TO STEEL SHALL BE MADE WITH 1" DIAMETER HIGH-STRENGTH (A325-X) BOLTS UNLESS OTHERWISE NOTED. [BOLTED CONNECTIONS
LE		OF THREAD FOR THE THREADED PORTION. USE STEEL PLATE WASHERS AS REQUIRED FOR THE SAME BOLT SIZE.		FOR SEISMIC APPLICATIONS SHALL BE MADE WITH 1"DIAMETER HIGH-STRENGTH (A-325-SC) BOLTS]. ANCHOR BOLTS SHALL BE ASTM F1554, Fy =
	9.	BOLTS IN WOOD SHALL BE MACHINE BOLTS UNLESS OTHERWISE NOTED. ALL MACHINE BOLTS SHALL HAVE CUT THREADS.	4.	36 KSI. THREADED RODS SHALL BE PER ASTM A193 GRADE B7. ALL WELDING SHALL BE DONE BY CERTIFIED WELDERS.
TINGS	10.	BOLT HOLES IN WOOD AND STEEL SHALL BE THE DIAMETER OF THE BOLT PLUS $1/16$ ".	5.	ALL TESTING AND INSPECTION OF SHOP AND FIELD WELDING OPERATIONS SHALL BE MADE BY A CERTIFIED WELDING INSPECTOR.
	11.	PROVIDE PLATE WASHER UNDER HEAD AND NUT OF BOLT WHERE BEARING IS AGAINST WOOD. LENGTH OF THREAD SHALL BE SUCH THAT THREADS DO NOT BEAR	6.	ALL WELDS SHALL BE TESTED AND INSPECTED IN ACCORDANCE WITH A. [FOR HOSPITALS: CAC TITLE 24 DIVISION T22 SECTION T22-94361]
Т		AGAINST WOOD. ALL NUTS SHALL BE TIGHTENED WHEN PLACED AND RE-TIGHTENED AT COMPLETION OF THE JOB IMMEDIATELY BEFORE CLOSING WITH FINISH		 B. [FOR SCHOOLS: CAC TITLE 24 DIVISION T21 SECTION T21-2714] C. [THE SPECIFICATIONS]
E BAR LAP	12.	CONSTRUCTION. CONNECTORS FOR WOOD CONSTRUCTION NOTED ON PLANS AND DETAILS SHALL BE		D. [THE CALIFORNIA BUILDING CODE] E. [AWS D1.1, AS WELL AS D1.8 FOR SEISMIC ELEMENTS.]
0	13.	SIMPSON COMPANY STRONG-TIE CONNECTORS OR APPROVED EQUAL. STUDS SHALL BE ONE PIECE BETWEEN FLOORS AND FROM FLOOR TO ROOF. ALIGN		ALL WELDING ELECTRODES SHALL BE E70 SERIES. THE WELDING INSPECTOR SHALL CHECK THE WELDER'S CERTIFICATION, MATERIAL, EQUIPMENT, FIT UP AND
GGER		CENTERLINE OF STUDS WITH CENTERLINE OF FLOOR JOISTS. ALIGN CENTERLINE OF STUDS FOR FULL HEIGHT OF STRUCTURE TYPICAL.		PROCEDURES AS WELL AS THE WELDS. THE INSPECTOR SHALL USE ALL MEANS NECESSARY TO DETERMINE THE QUALITY OF THE WELDS, INCLUDING THE USE OF
1,	14.	ALL POSTS SHALL BE FULL HEIGHT FROM FOUNDATION TO ROOF. WHERE POSTS ARE DISCONTINUOUS AT JOIST SPACE AND/OR FROM TOP OF BEAMS/HEADERS TO LOWER		GAMMA RAY, MAGNAFLUX, TREPANNING, SONICS OR ANY OTHER AID TO VISUALLY INSPECT AND TO ASCERTAIN THE ADEQUACY OF THE WELDING. THE INSPECTOR
	15.	TOP PLATE, BLOCK THIS SPACE WITH STUD POST. ALL NON-BEARING PARTITIONS SHALL HAVE DOUBLE JOISTS BELOW WHERE		SHALL FURNISH THE ARCHITECT AND THE STRUCTURAL ENGINEER WITH A REPORT VERIFYING THAT ALL WELDS HAVE BEEN DONE IN CONFORMITY WITH THE PLANS,
N		PARTITIONS ARE PARALLEL TO JOISTS, AND FULL DEPTH [2x] [LSL] BLOCKING BELOW WHERE PARTITIONS ARE PERPENDICULAR TO JOISTS.		SPECIFICATIONS, AWS D1.1 AND ANY APPLICABLE CODES. UNLESS NOTED OTHERWISE ON THE DRAWINGS, THE FABRICATION AND ERECTION REQUIREMENTS MAY DICTATE
WALLS	16.	JOISTS SUPPORTING MECHANICAL EQUIPMENT SHALL BE DOUBLE JOISTS (DJ) UNLESS NOTED OTHERWISE.		FIELD WELDING AND/OR SHOP WELDING. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE METHOD OF WELDING TO FULFILL THESE REQUIREMENTS. ALL
	17.	[FASTENERS PENETRATING PRESSURE-PRESERVATIVE TREATED AND FIRE-RETARDANT TREATED WOOD SHALL BE HOT-DIPPED GALVANIZED PER ASTM A153, CLASS D.]		ASSOCIATED COSTS SHALL BE INCLUDED IN THE CONTRACT PRICE. ALL WELDS USED IN MEMBERS AND CONNECTIONS IN THE SEISMIC LOAD RESISTING SYSTEM AS DEFINED
THIN	18.	[ALL CONNECTORS FOR PRESSURE-PRESERVATIVE TREATED AND FIRE-RETARDANT TREATED WOOD SHALL BE STAINLESS STEEL. ALL NAILS, SCREWS, BOLTS, ETC. FOR		ON THE PLANS SHALL BE MADE WITH A FILLER METAL THAT CAN PRODUCE WELDS THAT HAVE A MINIMUM CHARPY V-NOTCH TOUGHNESS OF 20 FT-LB AT 0 DEGREES
		SUCH CONNECTORS SHALL BE STAINLESS STEEL. ALL MAILS, SCREWS, BOLTS, ETC. FOR		FAHRENHEIT AS DETERMINED BY THE APPROPRIATE AWS A5 CLASSIFICATION TEST METHOD OR MANUFACTURER CERTIFICATION.
NITS.		ATHING NOTES	7. 8.	SUBMIT SHOP DRAWINGS TO ARCHITECT FOR REVIEW PRIOR TO FABRICATION. WHERE CLOSER THAN AISC TOLERANCES ARE NECESSARY, SUCH AS FOR ALIGNMENT
СК	1.	ROOF, FLOORS, ALL EXTERIOR WALLS AND INTERIOR SHEAR WALLS (WHERE NOTED ON STRUCTURAL PLANS) SHALL BE SHEATHED WITH DOUGLAS FIR SHEATHING WITH		OF STEEL STUDS, MULLIONS, GFRC PANELS, ETC., FIELD WELDING WILL BE REQUIRED TO MEET THE NECESSARY TOLERANCES WITH NO ADDITIONAL COSTS TO THE OWNER.
R		EXTERIOR GLUE AS FOLLOWS: ROOF: 5/8" T&G, APA [STRUCTURAL I] RATED PLYWOOD, 40/20,	9. 10.	USE ONE TYPE OF WELDING ELECTRODE THROUGHOUT ANY ONE CONNECTION. WELDING OF REINFORCING STEEL TO STRUCTURAL STEEL SHALL BE DONE BY
		EXPOSURE 1 FLOOR: 3/4" T&G, APA [STRUCTURAL I] RATED SHEATHING, 48/24,	11.	STRUCTURAL STEEL SUB-CONTRACTOR. BOLT HOLES IN STEEL SHALL BE 1/16" OVERSIZE UNLESS OTHERWISE NOTED.
18		EXPOSURE 1 GARAGE: 1–1/8" T&G, APA [STRUCTURAL I] RATED PLYWOOD, EXPOSURE 1	12.	STRUCTURAL STEEL CONTRACTOR SHALL EXCHANGE SHOP DRAWINGS WITH STEEL DECK SUB-CONTRACTOR FOR COORDINATION.
4	2.	WALLS: 1/2", APA [STRUCTURAL I] RATED SHEATHING, 32/16, EXPOSURE 1 SHEATHING MAY BE ORIENTED STRAND BOARD OR PLYWOOD UNLESS SPECIFICALLY	EPO	XY ANCHORS AND DOWELS IN HARDENED CONCRETE OR MASONRY NOTES
	3.	NOTED AS PLYWOOD. ALL EXTERIOR WALLS SHALL BE SHEATHED.	1.	EPOXY FOR SETTING ANCHORS OR DOWELS IN HARDENED CONCRETE SHALL BE SIMPSON SET-XP (PER ESR-2508), HILTI HIT RE-500SD (PER ESR-2322), OR
	4.	ALL SHEATHING USED STRUCTURALLY SHALL EXTEND CONTINUOUSLY BEHIND ALL FINISH. WHERE IT IS TO BE PLASTERED, IT SHALL BE PROTECTED BY AN UNBROKEN	2.	APPROVED EQUAL. EPOXY FOR SETTING ANCHORS IN CONCRETE MASONRY SHALL BE SIMPSON SET-XP
	5.	LAYER OF MOISTURE-TIGHT PAPER UNDER LATHING. IN GENERAL, SHEETS SHALL BE $4'-0'' \times 8'-0''$. MINIMUM SHEET DIMENSION IS 24		(PER IAMPO REPORT 265), HILTI HY-150 MAX (PER ESR 1967) OR APPROVED EQUAL.
		INCHES, UNLESS ALL EDGES ARE FULLY SUPPORTED BY FRAMING MEMBERS OR BLOCKING. THE LONG DIMENSION MAY BE LAID EITHER HORIZONTALLY OR	3.	HOLES FOR EPOXY ANCHORS SHALL BE DRILLED WITH ROTARY HAMMER OR OTHER SUITABLE METHODS TO ENSURE EXISTING REINFORCEMENT IS NOT DAMAGED. HOLE
		VERTICALLY AT WALLS. ROOF AND FLOOR SHEETS SHALL BE LAID WITH FACE PLIES ACROSS JOISTS OR FRAMING MEMBERS AND WITH END JOINTS STAGGERED 4'-0".		DIAMETER SHALL BE AS REQUIRED BY MANUFACTURER. LOCATE EXISTING REINFORCING BARS (AS REQUIRED USING X-RAY) PRIOR TO DRILLING HOLES. DO
		USE PLYCLIPS HALFWAY BETWEEN EACH SUPPORT AT UNBLOCKED ROOFS. ALL SHEATHING JOINTS SHALL BE ACCURATELY CENTERED ON SUPPORTING ELEMENTS,		NOT DAMAGE EXISTING REINFORCING. METHOD OF LOCATING EXISTING REINFORCING BARS SHALL BE APPROVED BY THE STRUCTURAL ENGINEER. ALL MIS-DRILLED OR
		INCLUDING BLOCKING. BLOCKING BETWEEN JOISTS FOR EDGE NAILING SHALL BE 3×4 MINIMUM FLAT BLOCKING, EXCEPT WHERE DETAILED OTHERWISE. ROOF AND FLOOR	4.	UNACCEPTABLE HOLES SHALL BE GROUTED SOLID. USE SCREEN TUBE WHERE REQUIRED BY EPOXY MANUFACTURER IN HOLLOW
		SHEATHING MAY BE UNBLOCKED. GLUE FLOOR SHEATHING TO ALL SUPPORTS INCLUDING BLOCKING WITH AN ADHESIVE RECOMMENDED BY THE AMERICAN PLYWOOD		MASONRY OR BRICK CONSTRUCTION. VERIFY HOLE DIAMETER FOR SCREEN TUBE PRIOR TO DRILLING.
		ASSOCIATION FOR THIS PURPOSE.	5.	JOB TESTING AND INSPECTION: CONTINUOUS SPECIAL INSPECTION OF ALL ANCHOR AND DOWEL INSTALLATION IS REQUIRED. TESTING SHALL BE AS FOLLOWS:
	NAIL 1.	ING NOTES ALL NAILS SHALL BE COMMON WIRE NAILS. WHERE NAILS TEND TO SPLIT THE WOOD,		A. THREADED RODS: TEST FIRST 5 INSTALLED RODS OF EACH SIZE TO TENSION PROOF LOAD SHOWN ON EPOXY ANCHOR SCHEDULE. IF ALL PASS, TEST 5%
	2.	NAIL HOLES SHALL BE PRE-DRILLED. PROVIDE MINIMUM NAILING REQUIREMENTS AS SET FORTH IN CALIFORNIA BUILDING		OF REMAINING RODS. IF ANY ROD FAILS, TEST ALL RODS UNTIL 10 SUCCESSFUL CONSECUTIVE TESTS ARE MADE, THEN RESUME 5% TESTING
	3.	CODE TABLE 2304.10.1 EXCEPT THAT BOX NAILS SHALL NOT BE USED. PLYWOOD NAILING:		FREQUENCY. THE LOAD TEST SHALL BE PERFORMED IN THE PRESENCE OF THE PROJECT INSPECTOR.
		AT ROOF: 5/8" T&G PLYWOOD WITH 10d @ 4" ON CENTER ALONG SUPPORTED PANEL EDGES AND WHERE NOTED ON PLANS AND		B. HOLDOWN ANCHORS: TEST 100% OF ANCHORS USED TO TENSION PROOF LOAD PER TABLE ON TYPICAL HOLDOWN DETAIL.
		DETAILS AS EDGE NAILING (EN) AND 10d @ 12" ON CENTER ALONG INTERMEDIATE FRAMING MEMBERS.		C. REINFORCING BAR ANCHORS, #5 AND LARGER: TEST PER THREADED ROD REQUIREMENTS ABOVE
		AT FLOOR: 3/4" T&G SHEATHING WITH 10d @ 4" ON CENTER ALONG		D. REINFORCING BAR ANCHORS #4 AND SMALLER: NO TESTING REQUIRED.

- REINFORCING BAR ANCHORS #4 AND SMALLER: NO TESTING REQUIRED. AT FLOOR: 3/4" T&G SHEATHING WITH 10d @ 4" ON CENTER ALONG VISUAL OBSERVATION ONLY. SUPPORTED PANEL EDGES AND WHERE NOTED ON PLANS AND DETAILS AS EDGE NAILING (EN) AND 10d @ 10" ON CENTER ALONG
- INTERMEDIATE FRAMING MEMBERS. USE DEFORMED SHANK NAILS. AT GARAGE: 1-1/8" T&G PLYWOOD WITH 10d @ 4" ON CENTER ALONG SUPPORTED PANEL EDGES AND WHERE NOTED ON PLANS AND DETAILS AS EDGE NAILING (EN) AND 10d @ 10" ON CENTER ALONG
- INTERMEDIATE FRAMING MEMBERS. USE DEFORMED SHANK NAILS. AT WALLS: SEE SHEAR WALL SCHEDULE. MAINTAIN ACCURATE NAIL SPACING AS INDICATED. NAIL SPACING CLOSER THAN
- SPECIFIED WILL BE CAUSE FOR REJECTION OF THE WORK. NAILS PENETRATING PRESSURE-PRESERVATIVE TREATED AND FIRE-RETARDANT TREATED WOOD SHALL BE HOT-DIPPED GALVANIZED PER ASTM A153, CLASS D. [NAILS FOR STAINLESS STEEL CONNECTORS SHALL BE STAINLESS STEEL.]
- TESTS, INSPECTIONS AND OBSERVATIONS NOTES 1. TESTS AND INSPECTIONS SHALL BE PROVIDED FOR ALL ITEMS AS REQUIRED BY THE CALIFORNIA BUILDING CODE. SEE STATEMENT OF SPECIAL INSPECTIONS FOR REQUIREMENTS.
- THE OWNER SHALL BE RESPONSIBLE FOR RETAINING AN INDEPENDENT TESTING AND INSPECTION LABORATORY TO PERFORM ALL REQUIRED TESTING AND INSPECTIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING THE TESTING AND
- INSPECTION LABORATORY WITH CONSTRUCTION SCHEDULES TO ENSURE PROPER COORDINATION OF WORK.
- 4. IN ADDITION TO SPECIAL INSPECTIONS, THE FOLLOWING SPECIFIED ITEMS SHALL HAV PERIODIC STRUCTURAL OBSERVATION BY THE STRUCTURAL ENGINEER OF RECORD: HOLDOWNS IN WALLS AND CONCRETE
 - NAILING OF PLYWOOD ON WALLS, FLOORS AND ROOF
 - C. STRUCTURAL STEEL CONSTRUCTION

THE CONTRACTOR SHALL NOTIFY THE STRUCTURAL ENGINEER OR INSPECTOR A MINIMUM 48 HOURS (EXCLUDING WEEKEND DAYS) PRIOR TO THE TIME OF A REQUIRED INSPECTION.

EMBERS, TRUSS TYPES AND NICAL EQUIPMENT LOADS. DESIGN E STATE OF CALIFORNIA, AND	A/S2.1 @ &	AT AND
DRAWINGS AND CALCULATIONS TO TION. ISTURE CONTENT OF 19 PERCENT. LL BE FORWARDED TO THE	Ø OR DIA # (E) (N)	DEGREE DIAMETER NUMBER OR POUND EXISTING NEW
IMENDATIONS SHALL BE INSTALLED RMANENT ROOF SHEATHING IS	AB ADDL ADJ AFF ALT APPROX ARCH ATTN	ANCHOR BOLT ADDITIONAL ADJACENT ABOVE FINISH FLOOR ALTERNATE APPROXIMATE ARCHITECT OR ARCHITECTURAL
.4 OF ASCE 7-10:	BD BLDG BLK BLKG BM	BLOCK BLOCKING BEAM
DESIGN ALL TRUSSES TO DUT AS SHOWN ON THE INSTRUCTION SHALL BE OF THE DITION ON THE ARCHITECTURAL	BO BOT BS BTWN	BOTTOM OF BOTTOM BOTH SIDES BETWEEN
SIGNED AND SPECIFIED BY THE L BE CLEARLY NOTED ON THE	C CBC CL	CONTROL JOINT CALIFORNIA BUILDING CODE CENTERLINE
NG MATERIAL BEARING THE TO THE BUILDING OFFICIAL FOR	CLG CLR CMU	CEILING CLEAR CONCRETE MASONRY UNIT
DF ALL TRUSSES :	COL CONC COND CONN CONT CTSK	COLUMN CONCRETE OR CONCENTRATED CONDITION CONNECTION CONTINUOUS COUNTERSINK
OTHERWISE NOTED. ALL W AND STEEL SECTIONS SHALL BE ASTM 85] [ASTM A53 GRADE B] [ASTM D ERECTED IN ACCORDANCE WITH	d D DBL DEMO DET DF DIAG	PENNY DEPTH DOUBLE DEMOLISH DETAIL DOUGLAS FIR DIAGONAL
BE MADE WITH 1" DIAMETER ISE NOTED. [BOLTED CONNECTIONS 1"DIAMETER	DIAG DIM(S) DJ DL	DIMENSION(S) DOUBLE JOIST DEAD LOAD
DLTS SHALL BE ASTM F1554, Fy = 93 GRADE B7.	DN DO DP	DOWN DITTO DEEP
RS. WELDING OPERATIONS SHALL BE	DTLS DWG(S)	DETAILS
ACCORDANCE WITH 2 SECTION T22-94361] SECTION T21-2714]	EE FF	EACH EXPANSION BOLT EACH END EACH FACE
LEMENTS.] THE WELDING INSPECTOR SHALL		
UIPMENT, FIT UP AND CTOR SHALL USE ALL MEANS ELDS, INCLUDING THE USE OF	elev Embed En	ELEVATOR EMBEDMENT EDGE NAILING
ANY OTHER AID TO VISUALLY IE WELDING. THE INSPECTOR RAL ENGINEER WITH A REPORT	ENGR EQ EQUIP	ENGINEER EQUAL
CONFORMITY WITH THE PLANS, ODES. UNLESS NOTED OTHERWISE	ES ETC	EQUIPMENT EACH SIDE ETCETERA
N REQUIREMENTS MAY DICTATE IRACTOR SHALL BE RESPONSIBLE LFILL THESE REQUIREMENTS. ALL	EW EXC EXT	EACH WAY EXCAVATE EXTERIOR
ONTRACT PRICE. ALL WELDS USED AD RESISTING SYSTEM AS DEFINED TAL THAT CAN PRODUCE WELDS ESS OF 20 FT-LB AT 0 DEGREES	FDN FF FIN	FOUNDATION FINISH FLOOR FINISH
AWS A5 CLASSIFICATION TEST	FLR FOC	FLOOR FACE OF CONCRETE
SSARY, SUCH AS FOR ALIGNMENT FIELD WELDING WILL BE REQUIRED	FOM FOS FS	FACE OF MASONRY FACE OF STUD FAR SIDE
DDITIONAL COSTS TO THE OWNER. UT ANY ONE CONNECTION. STEEL SHALL BE DONE BY	FT FTG	FEET FOOTING
	GALV GB	GAGE, GAUGE GALVANIZED GRADE BEAM GLUED LAMINATED GYPSUM BOARD
OR MASONRY NOTES DENED CONCRETE SHALL BE 500SD (PER ESR-2322), OR	HD HDG	HOLDOWN HOT-DIPPED GALVANIZED
NRY SHALL BE SIMPSON SET-XP	HDR HGR HOR	HEADER HANGER HORIZONTAL
TH ROTARY HAMMER OR OTHER	HP HSS HT	HIGH POINT HOLLOW STEEL SECTION
rer. Locate existing Prior to drilling holps. Do	ID	INSIDE DIAMETER
	IF INT INV	INSIDE FACE INTERIOR INVERT
NUFACTURER IN HOLLOW DIAMETER FOR SCREEN TUBE	JST JT(S)	JOIST JOINT(S)
AL INSPECTION OF ALL ANCHOR SHALL BE AS FOLLOWS: ODS OF EACH SIZE TO TENSION	K	KIPS (1000 LBS)
HEDULE. IF ALL PASS, TEST 5% ST ALL RODS UNTIL 10	LBS LG	
THEN RESUME 5% TESTING ORMED IN THE PRESENCE OF THE	LLV	LIVE LOAD LONG LEG HORIZONTAL LONG LEG VERTICAL
RS USED TO TENSION PROOF LOAD	lp LSL	LOW POINT TIMBERSTRAND LAMINATED STRAND LUMBER
R: NO TESTING REQUIRED.	LT LTWT LVL	LIGHT LIGHTWEIGHT MICROLLAM LAMINATED VENEER LUMBER
ALL ITEMS AS REQUIRED BY THE PECIAL INSPECTIONS FOR	MATL MAX MB	MATERIAL MAXIMUM MACHINE BOLT
G AN INDEPENDENT TESTING AND ED TESTING AND INSPECTIONS.	MECH MFR	MECHANICAL MANUFACTURER
OVIDING THE TESTING AND EDULES TO ENSURE PROPER	MIN MISC MTL	MINIMUM MISCELLANEOUS METAL
ING SPECIFIED ITEMS SHALL HAVE CTURAL ENGINEER OF RECORD:		NOT IN CONTRACT
D ROOF	NOM NTS NS	NOMINAL NOT TO SCALE NEAR SIDE
eer or inspector a minimum of		

SYMBOLS AND ABBREVIATIONS

OSB OC	ORIENTED STRAND BOARD ON CENTER
OD OH	OUTSIDE DIAMETER OPPOSITE HAND
OPNG OPP	OPENING OPPOSITE
OWSJ	OPEN WEB STEEL JOIST
P#	STEEL PIPE $(\# = \text{NOMINAL DIAMETER})$
PERF PDF	PERFORATED POWDER DRIVEN FASTENER
PDP PHD	POWDER DRIVEN PIN PREDEFLECTED HOLDOWN
pl Pp Prop	PLATE PARTIAL PENETRATION WELD PROPERTY
PSF PSI	POUNDS PER SQUARE FEET POUNDS PER SQUARE INCH
PSL	PARALLAM PARALLEL STRAND LUMBER
PT PTDF	POINT PRESSURE TREATED
PTN	DOUGLAS FIR LUMBER PARTITION
PW PW EN	STRUCTURAL PLYWOOD PLYWOOD EDGE NAILING
RAD RDP	RADIUS REGISTERED DESIGN
REF	PROFESSIONAL REFERENCE
RECT	RECTANGULAR REINFORCING
REQD RET WALL	REQUIRED RETAINING WALL
RW	REDWOOD LUMBER
SAD	SEE ARCHITECTURAL DRAWING OR SEE ARCHITECTURAL DETAIL
SCD SCHED	SEE CIVIL/SITE DRAWINGS SCHEDULE
SEC SED SHT	SECTION SEE ELECTRICAL DRAWINGS SHEET
SHTG SIM	SHEATHING SIMILAR
SLD SLRS	SEE LANDSCAPE DRAWINGS SEISMIC LOAD RESISTING SYSTEM
SMD	SEE MECHANICAL DRAWINGS OR SEE MECHANICAL DETAIL
SMS SOG	SHEET METAL SCREW SLAB ON GRADE
SPD SPEC(S)	SEE PLUMBING DRAWINGS SPECIFICATION(S)
SQ SS STAG	SQUARE SOLID SAWN
STD	STAGGERED STANDARD STIFFENER
STIFF STL STRUCT	STEEL STRUCTURAL
SW SWL	SHEAR WALL SHEAR WALL LENGTH
SYM	SYMMETRICAL
TB T&B	TIE BEAM TOP & BOTTOM
T&G THK	TONGUE & GROOVE THICK
thru Tn T.o.	THROUGH TOENAIL TOP OF
TOC TOF	TOP OF CONCRETE TOP OF FOOTING
TO PW TOS	TOP OF PLYWOOD TOP OF STEEL OR SLAB
tow Typ	TOP OF WALL TYPICAL
UON	UNLESS OTHERWISE NOTED
VENT VERT	VENTILATION VERTICAL
VIF	VERIFY IN FIELD
W/ WD	WITH WOOD
WF W/O	WIDE FLANGE WITHOUT
WP WT	WATERPROOF OR WORK POINT WEIGHT
WWF WWM	WELDED WIRE FABRIC WELDED WIRE MESH
\bowtie	CONTINUOUS WOOD MEMBER
	NON-CONTINUOUS WOOD MEMBER
	IN SECTION
	NEW STUD WALL IN PLAN
	SIMPSON STRONG-TIE HOLDOWN TO 6x6 POST
n an the second s	NEW CONCRETE MASONRY UNIT WALL IN PLAN
	NEW FOUNDATION CONCRETE
	IN PLAN SEE TYPICAL DETAILS
•	STEEL MOMENT CONNECTION
	IN PLAN

Seismic Upgrades and **Building Alterations** Kensington Community Center 59 Arlington Avenue

Kensington, CA 94707 for the Kensington Police Protection & Community Services District

GLASS Associates, Inc. architecture & planning

337 17th Street, Suite 100 Oakland, CA 94612

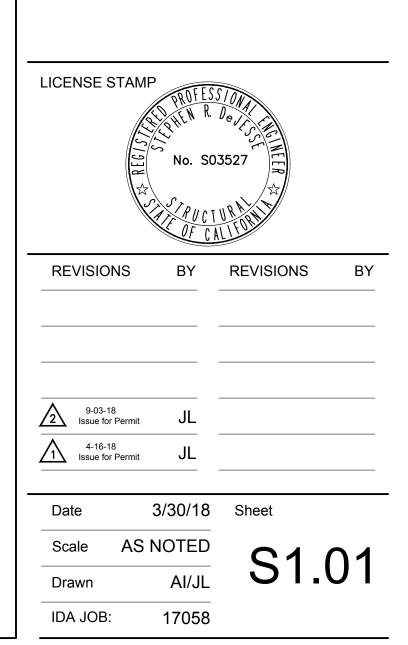
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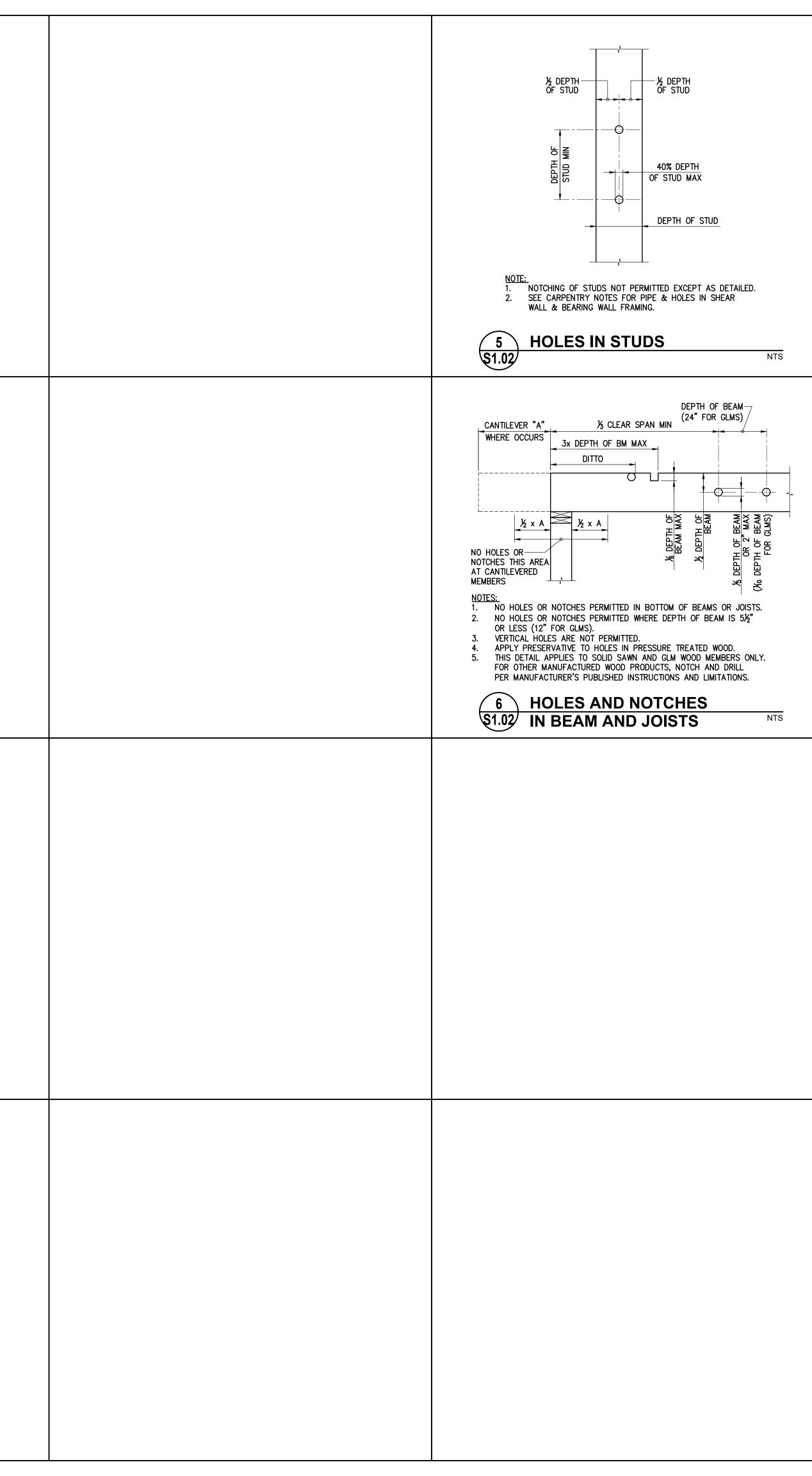
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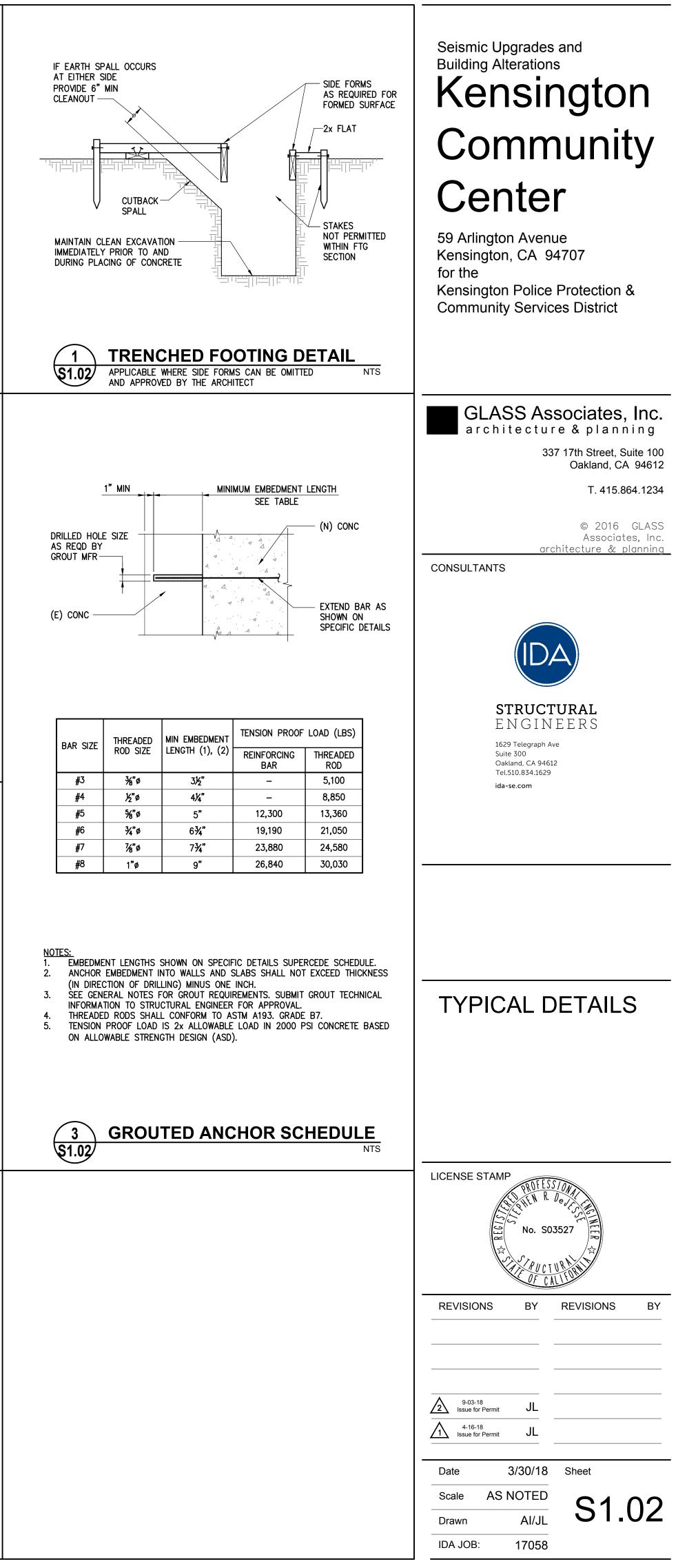
CONSULTANTS

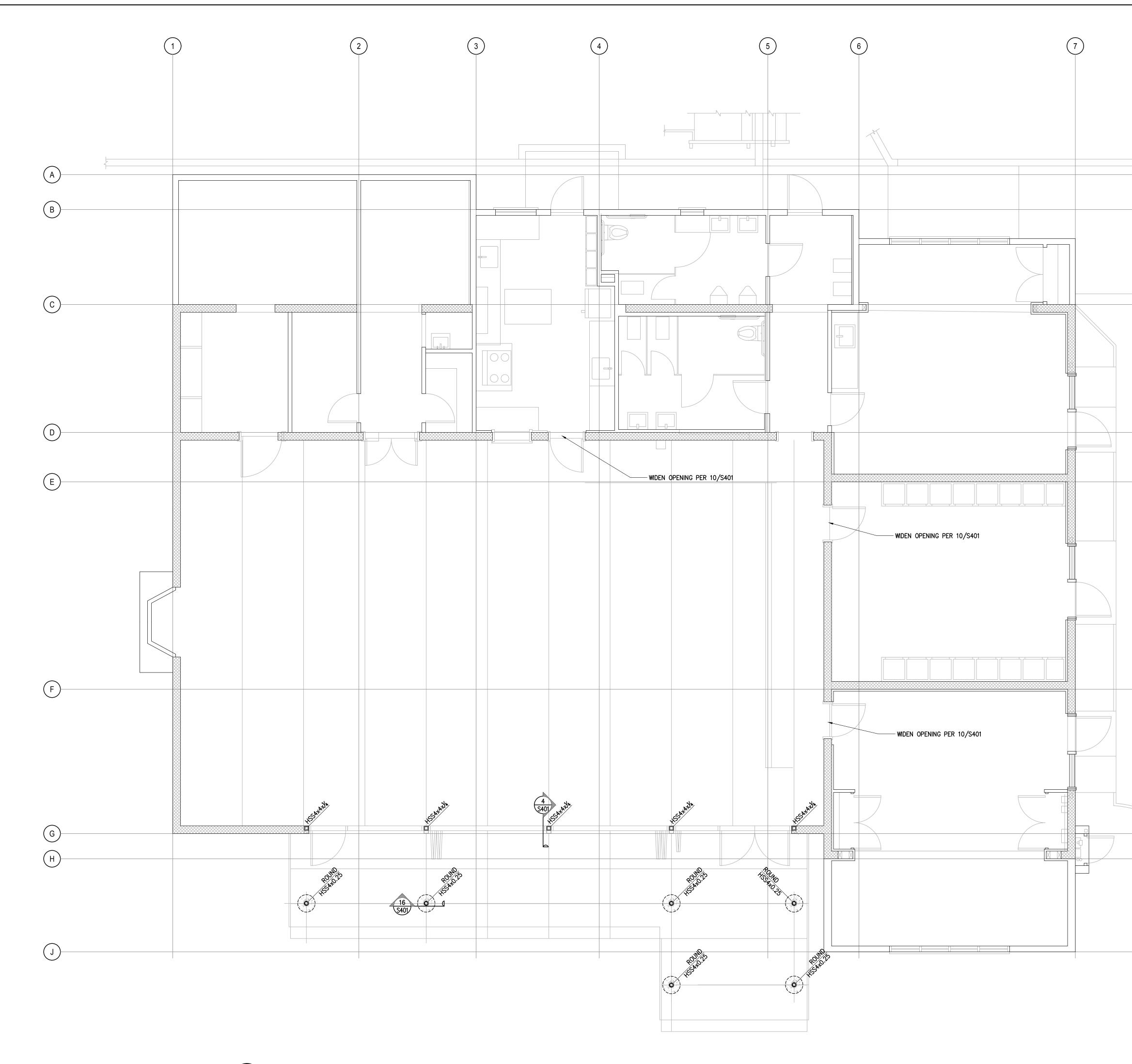


GENERAL NOTES & ABBREVIATIONS









FIRST FLOOR FOUNDATION PLAN (1) (\$2.01)

Seismic Upgrades and Building Alterations Kensington Community Center

59 Arlington Avenue Kensington, CA 94707 for the Kensington Police Protection & Community Services District

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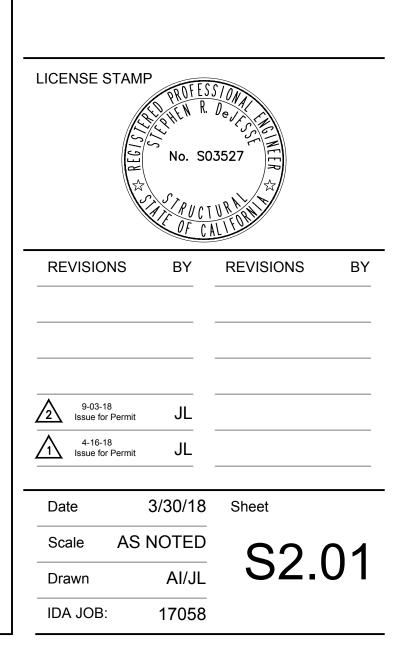
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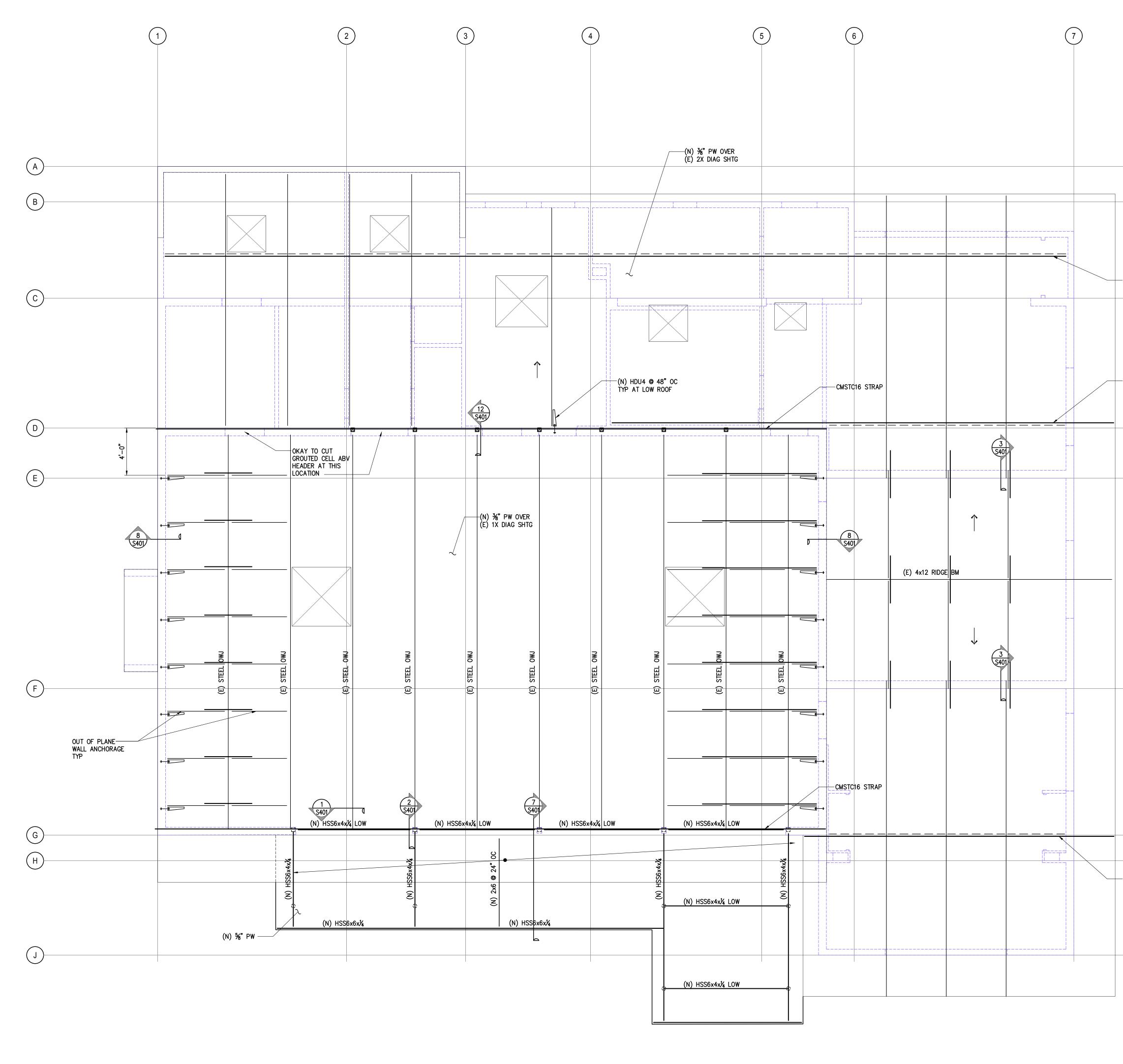
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FOUNDATION / FIRST FLOOR FRAMING PLAN





ROOF FRAMING PLAN

(<u>1</u> \$2.02

1/4"=1'-0"

—CMSTC16 STRAP AND 4X BLOCKING

-CMSTC16 STRAP AND 4X BLOCKING

Seismic Upgrades and Building Alterations Kensington Community Center

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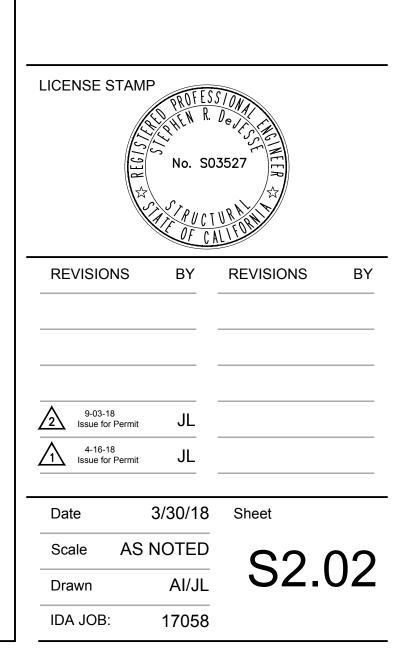
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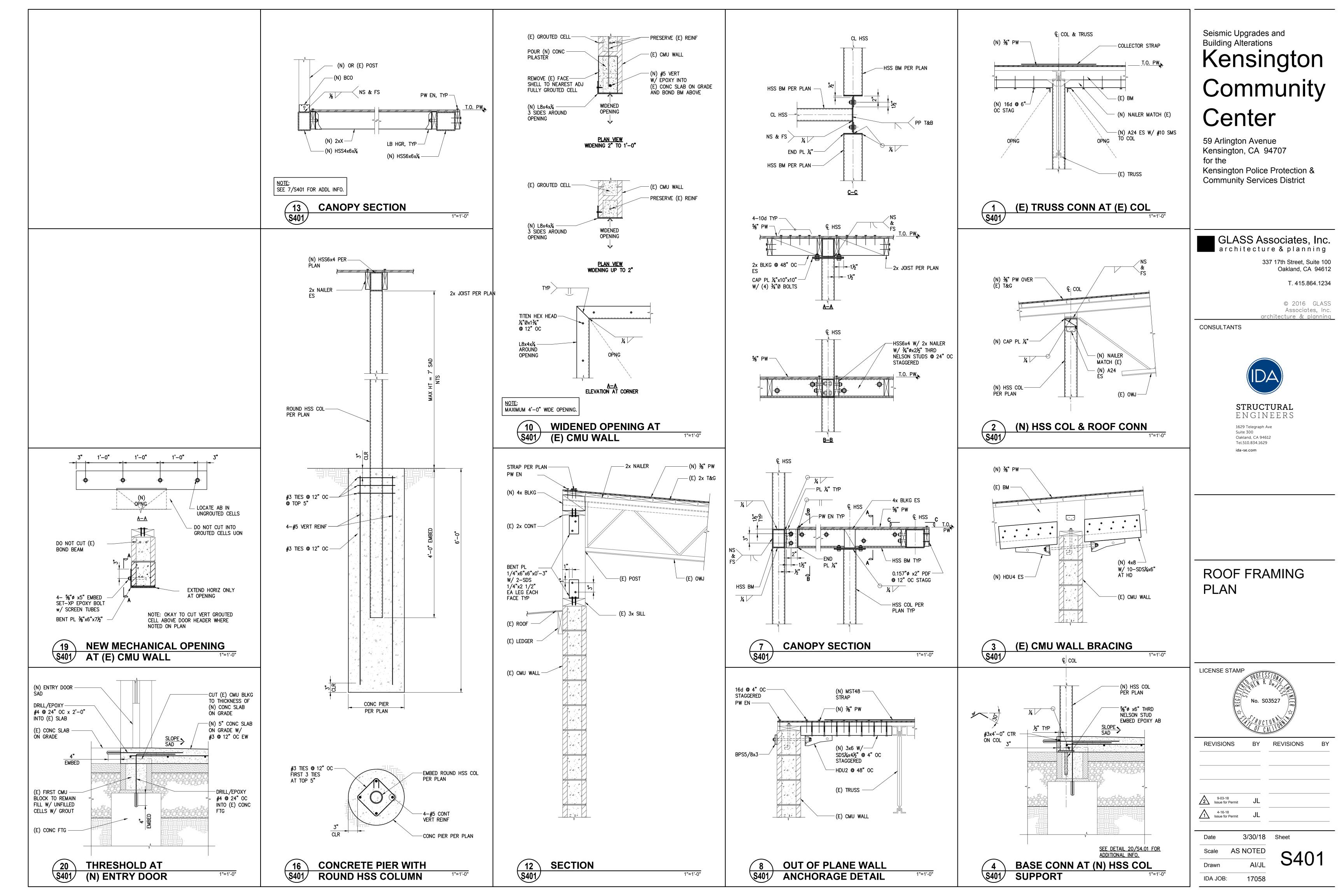
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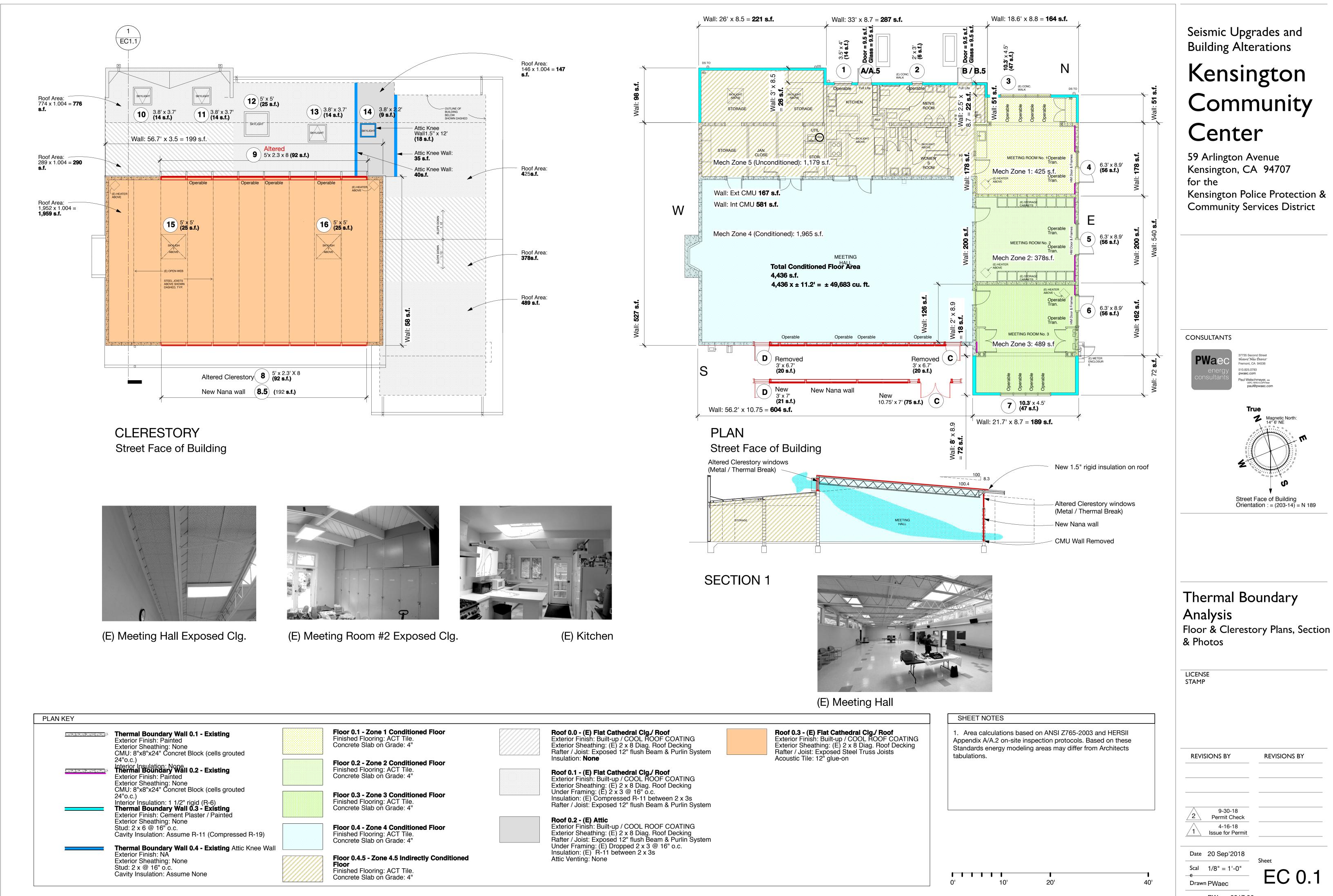
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ROOF FRAMING PLAN







REVI	SIONS BY	REVISIONS BY
2	9-30-18 Permit Check	
<u>1</u>	4-16-18 Issue for Permit	
Date	20 Sep'2018	Sheet
Scal e	1/8" = 1'-0"	_
•	n PWaec	EC 0.1
	PWaec 2017.06	3

Proje	ect Name:	Kensington Commur	ty Center			NRCC-PRF-01	1-E	Page 1 of 19	Page 1 of 19		
Proje	ect Address:	59 Arlington Ave Ker	on Ave Kensington 94707			Calculation D	Date/Time:	15:06, Thu,	Sep 20, 2018		
Com	pliance Scope:	ExistingAlteration				Input File Na	ime:	Kensington	CC (Int.Surface	Fix) FINAL.cibd16x	
A. P	ROJECT GENERAL	L INFORMATION									
1.	Project Location	(city)	Kensington		8.	Standards Ve	ersion		Compliance2	016	
2.	CA Zip Code		94707		9.	Compliance S	Software (ve	rsion)	EnergyPro 7.2	2	
3.	Climate Zone		3	1	10.	Weather File	2		OAKLAND_72	24930_CZ2010.epw	
4.	Total Conditioned	d Floor Area in Scope	3,257 ft ²	1	11.	Building Orie	entation (deg	;)	(S) 211 deg		
5.	Total Uncondition	ed Floor Area 0 ft ²		1	12.	Permitted Sc	ope of Work		ExistingAltera	ation	
6.	Total # of Stories	es (Habitable Above Grade) 1			13	Building Type	e(s)		Nonresidenti	al	
7.	Total # of dwellin	Total # of dwelling units 0			14	Gas Type			NaturalGas		
D. C				$111V + n \Delta r \sigma V + i c \Delta R R$	'Rtu/	'tt 4_vr)				16 140 1	
			NCE COMPONENTS (Annual							§ 140.1	
				BUILDING C	ON	APLIES	4. Com	pliance Marg	in (TDV)		
	1. Energy Comp		Standard Design (TDV)		ON	(TDV)	4. Com	pliance Marg	· ·	5. Percent Better than Standard	
Spac	1. Energy Comp te Heating			BUILDING C	ON	APLIES	4. Com	pliance Marg	in (TDV) -0.42 		
Spac Spac	1. Energy Comp		Standard Design (TDV) 2.16	BUILDING C	ON	APLIES (TDV) 2.58	4. Com	pliance Marg	· ·	5. Percent Better than Standard -19.	
Spac Spac Indo	1. Energy Comp re Heating re Cooling		Standard Design (TDV) 2.16 0.01	BUILDING C	ON	APLIES (TDV) 2.58 0.01	4. Com	pliance Marg	-0.42	5. Percent Better than Standard -19. 0.	
Spac Spac Indo Heat	1. Energy Comp ce Heating ce Cooling or Fans		Standard Design (TDV) 2.16 0.01	BUILDING C	ON	APLIES (TDV) 2.58 0.01 38.09	4. Com	pliance Marg	-0.42 0.73	5. Percent Better than Standard -19. 0.	
Spac Spac Indo Heat Pum	1. Energy Comp the Heating the Cooling for Fans t Rejection		Standard Design (TDV) 2.16 0.01	BUILDING C	ON	APLIES (TDV) 2.58 0.01 38.09	4. Com	pliance Marg	-0.42 0.73	5. Percent Better than Standard -19. 0.	
Spac Spac Indo Heat Pum Dom	1. Energy Comp the Heating the Cooling for Fans t Rejection thes & Misc.		Standard Design (TDV) 2.16 0.01 38.82 	BUILDING C	ON	APLIES (TDV) 2.58 0.01 38.09 	4. Com	pliance Marg	-0.42 0.73 	5. Percent Better than Standard -19. 0. 1.	
Spac Spac Indo Heat Pum Dom	1. Energy Comp e Heating ee Cooling for Fans t Rejection ps & Misc. nestic Hot Water		Standard Design (TDV) 2.16 0.01 38.82 14.47	BUILDING C	ON	APLIES (TDV) 2.58 0.01 38.09 8.79	4. Com	pliance Marg	-0.42 0.73 	5. Percent Better than Standard -19. 0. 1. 39.	
Spac Spac Indo Heat Pum Indo CON	1. Energy Comp ce Heating ce Cooling or Fans t Rejection cps & Misc. nestic Hot Water for Lighting		Standard Design (TDV) 2.16 0.01 38.82 14.47 59.83	BUILDING C	ON	APLIES (TDV) 2.58 0.01 38.09 8.79 59.83	4. Com	pliance Marg	-0.42 0.73 5.68 	5. Percent Better than Standard -19. 0. 1. 39. 0.	
Spac Spac Indo Heat Pum Indo CON Rece	1. Energy Comp e Heating the Cooling for Fans t Rejection the Rejection tops & Misc. the Stic Hot Water for Lighting MPLIANCE TOTAL		Standard Design (TDV) 2.16 0.01 38.82 14.47 59.83 115.29	BUILDING C	ON	APLIES (TDV) 2.58 0.01 38.09 8.79 59.83 109.30	4. Com	pliance Marg	-0.42 -0.73 5.68 5.99	5. Percent Better than Standard -19. 0. 1. 39. 0. 5.	
Spac Spac Indo Heat Dom Indo CON Recce Proc	1. Energy Comp e Heating the Cooling for Fans t Rejection the Rejection tops & Misc. the Stic Hot Water for Lighting MPLIANCE TOTAL		Standard Design (TDV) 2.16 0.01 38.82 14.47 59.83 115.29	BUILDING C	ON	APLIES (TDV) 2.58 0.01 38.09 8.79 59.83 109.30	4. Com	pliance Marg	-0.42 -0.73 5.68 5.99	5. Percent Better than Standard -19. 0. 1. 39. 0. 5.	
Spac Spac Indo Heat Pum Dom Indo COIV Rece Proc Othe	1. Energy Comp ce Heating ce Cooling or Fans t Rejection ops & Misc. hestic Hot Water or Lighting IPLIANCE TOTAL eptacle ess		Standard Design (TDV) 2.16 0.01 38.82 14.47 59.83 115.29	BUILDING C	ON	APLIES (TDV) 2.58 0.01 38.09 8.79 59.83 109.30	4. Com	pliance Marg	-0.42 -0.73 5.68 5.99	5. Percent Better than Standard -19. 0. 1. 39. 0. 5.	

Project Nar	me:	Kensington Community Ce	enter	NRCC-PRF-01-E		Page 4 of 19	Page 4 of 19		
Project Add	dress:	59 Arlington Ave Kensingto	on 94707	Calculation Date/Time:		e: 15:06, Thu, Sep 20, 2018			
Compliance	e Scope:	ExistingAlteration		Input File Name: Kensington CC (Int.Surface Fix) FINAL.cibd16x		ix) FINAL.cibd16x			
G. COMPL	LIANCE PAT	TH & CERTIFICATE OF COM	PLIANCE SUMMARY						
The follow	ving building	components are only eligible relevant to th	for prescriptive compliance. Indicate which are e project.	The follo	owing building	components may have mandator which are relevant to the pi	y requirements per Part 6. Indicate roject.		
Yes	NA	Prescriptive Requirement	Compliance Forms	Yes	NA	Mandatory Requirement	Compliance Forms		
		Lighting (Indoor Unconditioned) §140.6	NRCC-LTI-01 / 02 / 03 / 04 / 05-E		X X	Commissioning: §120.8 Simple Systems Complex Systems	NRCC-CXR-01 / 02 / 03 / 05-E NRCC-CXR-01 / 02 / 04 / 05-E		
	\boxtimes	Lighting (Outdoor) §140.7	NRCC-LTO-01 / 02 / 03-E			Electrical: §130.5	NRCC-ELC-01-E		
	\boxtimes	Lighting (Sign) §140.8	NRCC-LTS-01-E			Solar Ready: §110.10	NRCC-SRA-01 / 02-E		
		Solar Thermal Water Heating: §140.5	NRCC-STH-01-E		XXXX	Covered Process: §120.6 Parking Garage Commercial Refrigeration Warehouse Refrigeration Compressed Air Process Boilers	NRCC-PRC-01-E NRCC-PRC-02-E NRCC-PRC-05-E NRCC-PRC-06/07/08-E NRCC-PRC-10-E NRCC-PRC-11-E		

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CA Building Energy Efficiency Standards- 2016 Nonresidential Compliance Report Version: NRCC-PRF-01-E-08022018-5302

CA Building Energy Efficiency Standards- 2016 Nonresidential Compliance

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Project N	Name: Kei	nsington Community	y Center		NRCC-PRF-01-E	Page 7	7 of 19				
Project A	Address: 59	Arlington Ave Kensi	ngton 94707		Calculation Date/Time:	15:06,	. Thu, Sep 20, 2018				
Complia	nce Scope: Exi	istingAlteration			Input File Name:	Kensir	ngton CC (Int.Surface Fix) F	INAL.cibd16x	x		
Docume (Retain	entation Author to copies and verify for	indicate which Ce orms are complete	ATE OF ACCEPTANCE & CERTIFICAT rtificates must be submitted for the ed and signed to post in field for Fie Sections for Acceptance Tests and fi	e features eld Inspec	to be recognized for complia to row verify).		/NRCV) –	Cor	nfirmed		
Building	Component	Compliance For	ms (required for submittal)					Pass		Fail	
		□ NRCI-PRC-01	-E Covered Processes								
		□ NRCA-PRC-0	1-F- Compressed Air Systems								
			2-F- Kitchen Exhaust								
			3-F- Garage Exhaust								
Covered Process INRCA-PRC-		□ NRCA-PRC-0	4-F- Refrigerated Warehouse- Evaporator Fan Motor Controls								
		□ NRCA-PRC-0	5-F- Refrigerated Warehouse- Evaporative Condenser Controls								
		□ NRCA-PRC-0	6-F- Refrigerated Warehouse- Air Cooled Condenser Controls								
		□ NRCA-PRC-0	7F- Refrigerated Warehouse- Variable Speed Compressor								
		□ NRCA-PRC-0	8-F- Electrical Resistance Underslab He	ating Syste	em						
I. ENVE	LOPE GENERAL INF	FORMATION (See	NRCC-PRF-ENV-DETAILS for more in	nformatio	on)						
1.	Total Conditioned F	loor Area	3,257 ft ²	5.	Number of Floors Above Grade		1		Confi	rmed	
2.	Total Unconditioned	d Floor Area	0 ft ²	6.	Number of Floors Below Grade		0				
3.	Addition Conditione	ed Floor Area	0 ft ²						Ρ	_	
4.	Addition Uncondition	oned Floor Area	0 ft ²						Pass	Fail	
7. Opaqı	ue Surfaces & Orient	tation	8. Total Gross Sur	face Area	9. Total Fenestratio	n Area 10. Wind		to Wall Ratio			
North W	all			819 ft ²		177 ft ²		21.7%			
East Wal	1			715 ft ²	274 ft ²			38.3%			
South W	'all			793 ft ²		442 ft ²		55.8%			
West Wa	all			690 ft ²		0 ft ²	t ² 00.0%				
		Total		3,017 ft ²		894 ft ²		29.6%			
Roof				4,470 ft ²		126 ft ²		02.8%			

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Project Na	me:	Kensington Community Center		NRCC-PRF-01-E	Page 2 of 19	age 2 of 19			
Project Ad	dress:	59 Arlington Ave Kensington 94707		Calculation Date/Time:	15:06, Thu, Sep 20, 2018				
Complianc	e Scope:	ExistingAlteration		Input File Name:	Kensington CC (Int.Sur	rface Fix) FINAL.cibd16x			
C. PRIORI	TY PLAN CHE	CK/ INSPECTION ITEMS (in order of high	nest to lowest TDV energy saving	gs)					
1st	Domestic Hot	Water: Check mechanical	Compliance Margin By Energy Component (from Table B column 4)						
2nd	Indoor Fans: C	Check envelope and mechanical	Domestic Ho	ot Water					
3rd	Space Cooling	: Check envelope and mechanical	Indo	oor Fans		_			
4th	th Heat Rejection: Check envelope and mechanical			Cooling					
5th	Pumps & Misc	.: Check mechanical		ejection					
6th Indoor Lighting: Check lighting				& Misc. Lighting					
			Heating						
7th	Space Heating	: Check envelope and mechanical							
					Penalty	Energy Credit			
-	TIONAL COND								
		olified Geometry Performance Modeling App ESCRIPTIVE COMPLIANCE documentation (fc	•						
		cludes space(s) that are modeled with unkno or mechanical compliance in the future, or th		•		•			
This projec	t includes Dom	nestic Hot Water in the analysis. Please verify	that Domestic Hot Water is include	ed in the design for the pe	ermitted scope of work.				
		udes space(s) where the user has indicated th ill meet thermal comfort criteria defined by t			n has been modeled for	either the proposed or	standard cases.		
E. HERS V	ERIFICATION								
This Sectio	n Does Not Ap	ply							
. ADDITI	ONAL REMAR	RKS							

Project Name:	Kensington Comm	unity Ce	nter		NRCC-PRF-01-E	Page 3 of 19	
Project Address:	59 Arlington Ave K	ensingto	on 94707		Calculation Date/Time:	15:06, Thu, Sep 20, 2018	
Compliance Scope:	ExistingAlteration				Input File Name: Kensington CC (Int.Surfac		ix) FINAL.cibd16x
G. COMPLIANCE PAT		FCOM					
				ponents use the performance or pre	eccriptive path for complia	nco "NA"- not in project	
				e performance path, indicate the sh			
					munuatory notes on plans.	Location of Mandatory Notes on	
Building Component		Com	pliance Path	Compliance Forms (required for	submittal)		Plans
			Performance	NRCC-PRF-ENV-DETAILS (section	of the NRCC-PRF-01-E)		
Envelope			Prescriptive	NRCC-ENV-01 / 02 / 03 / 04 / 05	/ 06-E]
			NA				
			Performance	NRCC-PRF-MCH-DETAILS (section	n of the NRCC-PRF-01-E)		
Mechanical			Prescriptive	NRCC-MCH-01 / 02 / 03 / 04 / 05			
			NA]
			Performance	NRCC-PRF-PLB-DETAILS (section	of the NRCC-PRF-01-E)		
Domestic Hot Water			Prescriptive	NRCC-PLB-01-E			
			NA				
			Performance	NRCC-PRF-LTI-DETAILS (section o	of the NRCC-PRF-01-E)		
Lighting (Indoor Condit	ioned)		Prescriptive	NRCC-LTI-01 / 02 / 03 / 04 / 05-E			
			NA				
Covered Process:			Performance	S2 (section of the NRCC-PRF-01-	E)		
Commercial Kitchens			Prescriptive	NRCC-PRC-01/03-E			
			NA				
Covered Process:			Performance	S3 (section of the NRCC-PRF-01-	E)		
Computer Rooms			Prescriptive	NRCC-PRC-01/04-E			
			NA	ļ			ļ
Covered Process:			Performance	S4 (section of the NRCC-PRF-01-	E)		
Laboratory Exhaust			Prescriptive	NRCC-PRC-01/ 09-E			
			NA				

Project Name:	Kensi	ngton Community Center	NRCC-PRF-01-E	Page 5 of 19		
Project Address:	59 Ar	lington Ave Kensington 94707	Calculation Date/Time:	15:06, Thu, Sep 20, 2018		
Compliance Scope:	Existi	ngAlteration	nput File Name:	Kensington CC (Int.Surface Fix) F	INAL.cibd16x	
Documentation Auth (Retain copies and ve	hor to in erify fori	TION, CERTIFICATE OF ACCEPTANCE & CERTIFICATE OF VERIFICATI dicate which Certificates must be submitted for the features to be ms are completed and signed to post in field for Field Inspector to v and LTI Details Sections for Acceptance Tests and forms by equipm	ecognized for compliaterify).		Confi	rmed
Building Component		Compliance Forms (required for submittal)			Pass	Fail
Envelope		X NRCI-ENV-01-E - For all buildings				
		NRCA-ENV-02-F- NFRC label verification for fenestration				
		□ NRCI-MCH-01-E - For all buildings with Mechanical Systems				
		NRCA-MCH-02-A- Outdoor Air				
		NRCA-MCH-03-A – Constant Volume Single Zone HVAC				
		NRCA-MCH-04-H- Air Distribution Duct Leakage				
		NRCA-MCH-05-A- Air Economizer Controls				
		NRCA-MCH-06-A- Demand Control Ventilation				
		NRCA-MCH-07-A – Supply Fan Variable Flow Controls				
		NRCA-MCH-08-A- Valve Leakage Test				
		NRCA-MCH-09-A – Supply Water Temp Reset Controls				
Mechanical		NRCA-MCH-10-A- Hydronic System Variable Flow Controls				
		NRCA-MCH-11-A – Auto Demand Shed Controls				
		NRCA-MCH-12-A- Packaged Direct Expansion Units				
		NRCA-MCH-13-A- Air Handling Units and Zone Terminal Units				
		NRCA-MCH-14-A- Distributed Energy Storage				
		NRCA-MCH-15-A – Thermal Energy Storage				
		NRCA-MCH-16-A- Supply Air Temp Reset Controls				
		□ NRCA-MCH-17-A – Condensate Water Temp Reset Controls				
		□ NRCA-MCH-18-A- Energy Management Controls Systems				
		NRCV-MCH-04-H- Duct Leakage Test				

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None Provided

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Project Address:	59 Arling	ton Ave Kensington 94707		Calculation Date/Time:	15:06, Thu, Sep 20, 2018						
Compliance Scope:	ExistingA	lteration		Input File Name:	Kensington CC (Int.Surface Fix) FINAL.cibd16x						
J. FENESTRATION ASS	EMBLY SU	IMMARY						§ 110.6		Confi	irmed
1.		2.	3.	4.	5.	6.	7.	8.	9.		
Fenestration Assembly Tag or I.D.	y Name /	Fenestration Type / Product Type / Frame Type	Certification Method ¹	Assembly Method	Area ft ²	Overall U-factor	Overall SHGC	Overall VT	Status ²	Pass	Fail
Single Metal Clear		VerticalFenestration OperableWindow MetalFraming	Default Performance	Manufactured	387	0.79	0.70	0.67	E		
Double Thermal Break Tinted		VerticalFenestration FixedWindow MetalFramingWithThermalBreak	Default Performance	SiteBuilt	296	0.55	0.57	0.77	А		
Nana Wall SL45		VerticalFenestration FixedWindow N/A	NFRC Rated	Manufactured	192	0.51	0.22	0.45	N		
Single Metal Tinted		Skylight FixedWindow MetalFraming	Default Performance	Manufactured	126	1.98	0.68	0.88	E		
Single Non Metal Clear		VerticalFenestration FixedWindow NonMetalFraming	Default Performance	SiteBuilt	19	1.04	0.76	0.77	E		

Taking compliance credit for fenestration shading devices? (if "Yes", see NRCC-PRF-ENV-DETAILS for more information)

K. OPAQUE SURFACE ASSEMBLY SUMMARY										
K. OPAQUE SURFACE ASSEMBLY SUMMARY § 120.7/ § 140.3										
1.	2.	3.	4.	5.	6.	7.	8.			
Surface Name	Surface Type	Area (ft²)	Framing Type	Cavity R-Value	Continuous R-Value	U-Factor / F-Factor / C-Factor	Status ¹	Pass	Fail	
R-19 Wall6	ExteriorWall	1167	Wood	19	NA	U-Factor: 0.072	E			
8 CMU w/ int. insul10	ExteriorWall	552	Wood	6	NA	U-Factor: 0.117	E			
8 CMU13	InteriorWall	1376	NA	0	NA	U-Factor: 0.240	E			
R-0 Wall15	InteriorWall	567	NA	0	NA	U-Factor: 0.337	E			
Slab On Grade18	UndergroundFloor	4436	NA	0	NA	F-Factor: 0.730	E			
R-11 Roof No Attic20	Roof	1690	Wood	11	NA	U-Factor: 0.078	E			

CA Building Energy Efficiency Standards- 2016 Nonresidential Compliance

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				1		
Project Name:	Kensi	ngton Community Center	NRCC-PRF-01-E	Page 6 of 19		
Project Address:	59 Ar	ington Ave Kensington 94707	Calculation Date/Time:	15:06, Thu, Sep 20, 2018		
Compliance Scope:	Existi	gAlteration	Input File Name:	Kensington CC (Int.Surface Fix) FI	NAL.cibd16x	
Documentation Auth (Retain copies and v	hor to in erify fori	TION, CERTIFICATE OF ACCEPTANCE & CERTIFICATE OF licate which Certificates must be submitted for the feature are completed and signed to post in field for Field Ins and LTI Details Sections for Acceptance Tests and forms	ures to be recognized for compliant provide the provided		Confi	rmed
Building Component		Compliance Forms (required for submittal)			Pass	Fail
		NRCI-PLB-01-E - For all buildings with Plumbing Systems				
		□ NRCI-PLB-02-E - required on central systems in high-rise r	esidential, hotel/motel application.			
		□ NRCI-PLB-03-E - Single dwelling unit systems in high-rise r	residential, hotel/motel application.			
Diumbing		□ NRCI-PLB-21-E - HERS verified central systems in high-rise	residential, hotel/motel application			
Plumbing		NRCI-PLB-22-E - HERS verified single dwelling unit system	s in high-rise residential, hotel/mote	el application.		
		□ NRCV-PLB-21-H- HERS verified central systems in high-rise	e residential, hotel/motel application	۱.		
		□ NRCV-PLB-22-H - HERS verified single dwelling unit system	ns in high-rise residential, hotel/mot	el application.		
		NRCI-STH-01-E - Any solar water heating				
		□ NRCI-LTI-01-E - For all buildings				
		□ NRCI-LTI-02-E - Lighting control system, or for an Energy N	Aanagement Control System (EMCS)			
		NRCI-LTI-03-E - Line-voltage track lighting integral current energize only line-voltage track lighting	limiter, or for a supplementary over	current protection panel used to		
		□ NRCI-LTI-04-E - Two interlocked systems serving an audito	prium, a convention center, a confere	ence room, or a theater		
Indoor Lighting		NRCI-LTI-05-E - Lighting Control Credit Power Adjustment	Factor (PAF)			
		□ NRCI-LTI-06-E - Additional wattage installed in a video cor	nferencing studio			
		□ NRCA-LTI-02-A - Occupancy sensors and automatic time s	witch controls.			
		NRCA-LTI-03-A - Automatic daylighting controls				
		NRCA-LTI-04-A - Demand responsive lighting controls				
		NRCI-LTO-01-E – Outdoor Lighting				
Outdoor Lighting		NRCI-LTO-02-E- EMCS Lighting Control System				
		NRCA-LTO-02-A - Outdoor Lighting Control				
Sign Lighting		NRCI-LTS-01-E – Sign Lighting				
Electrical		NRCI-ELC-01-E - Electrical Power Distribution				
Photovoltaic		NRCI-SPV-01-E Photovoltaic Systems				

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Project Name:	Kensington Community	Center			NRC	C-PRF-01-E	Pa	age 9 o	of 19					
Project Address:	59 Arlington Ave Kensing	gton 94707			Calc	ulation Date/T	ime: 15	5:06, T	'hu, Sep 20, 2	018				
Compliance Scope:	ExistingAlteration				Inpu	t File Name:	Ke	ensing	ton CC (Int.Su	Irface Fix) FINAL	.cibd16	6x		
(. OPAQUE SURFAC	E ASSEMBLY SUMMARY									§ 120.7/ § 14	0.3		Confi	irmed
	1.		2.	3.		4.	5.		6.	7.		8.		
Surf	ace Name	Surfac	се Туре	Area (f	t²)	Framing Type	Cavity R-Valu	' I	Continuous R-Value	U-Factor / F-Fa / C-Factor		Status ¹	Pass	Fail
R-0 Ro	of No Attic25	Ro	oof	668		NA	0		NA	U-Factor: 0.3	304	E		
8 (CMU131	Exteri	orWall	1298		NA	0		NA	U-Factor: 0.273		E		
R-0 Roof	No Attic +1.548	Ro	oof	1965		Metal	0		9 U-Factor: 0.084			А		
R-11 Roof Attic75 Roof 1						Wood	11		NA	U-Factor: 0.0)75	E		
ROOFING PRODU	ICT SUMMARY										§ 1	40.3	Conf	irme
	1	2	2	4		F			6	7				
Pro	1. oduct Type	2. Product Density (Ib/ft ²)	3. Aged Solar Reflectance	4. Thermal Emittance		5. SR			6. Cool Roof Credit	7. Roofing P Descrip	roduc	t	Pass	Fall
		Product Density	Aged Solar	Thermal			1		Cool Roof	Roofing P	Product Otion	t	Pass	
R-11 R	oduct Type	Product Density (Ib/ft²)	Aged Solar Reflectance	Thermal Emittance		SR	4		Cool Roof Credit	Roofing P Descrip	Product otion	t		
R-11 R R-0 Rc	oduct Type	Product Density (lb/ft²) 5.895	Aged Solar Reflectance 0.08	Thermal Emittanco 0.75		SR N/	1 1 A		Cool Roof Credit No	Roofing P Descrip NA	Product otion	t		
R-11 R R-0 Rc R-0 Roof	oduct Type oof No Attic20 oof No Attic25	Product Density (lb/ft²) 5.895 5.895	Aged Solar Reflectance 0.08 0.08	Thermal Emittance 0.75 0.75		SR NA NA	4 A A		Cool Roof Credit No No	Roofing P Descrip NA	Product otion	t		

		Wet	System Ed
12.	13.	14.	15.
Equip Name	Equip Type	Qty	Vol (gal)
Per MECH Engr. Spec2	Storage	1	50.00
Wet System Equipment includes boiler Status: N - New, A – Altered, E – Existi		vater heat	ers, etc.

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	C	alculation Date/T	ïme:	15:06,	Thu, Sep 20, 2	018			
	In	nput File Name:		Kensin	gton CC (Int.Su	Irface Fix) FINAL.cibd1	6x		
						§ 120.7/ § 140.3		Confi	rmed
2.	3.	4.	5	i.	6.	7.	8.		
Surface Type	Area (ft²)	Framing Type	Cav R-Va	/ity alue	Continuous R-Value	U-Factor / F-Factor / C-Factor	Status ¹	Pass	Fail
Roof	668	NA	()	NA	U-Factor: 0.304	E		
ExteriorWall	1298	NA	()	NA	U-Factor: 0.273	E		
Roof	1965	Metal	()	9	U-Factor: 0.084	А		
Roof	147	Wood	1	1	NA	U-Factor: 0.075	E		

stem Eq	uipment ¹					Pur	nps			Confi	rmed
15.	16.	17.	18.	19.	20.	21.	22.	23.	24.		
ol (gal)	Rated Capacity (kBtu/h)	Efficiency	Standby Loss	Tank Ext. R Value	Qty	GPM	HP	VSD (Y/N)	Status ²	Pass	Fail
50.00	100	Thrml. Eff.: 0.95	SBLF: 0.004	NA		NA		No	Ν		

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Seismic Upgrades and Building Alterations

Kensington Community Center

59 Arlington Avenue Kensington, CA 94707 for the Kensington Police Protection & Community Services District

CONSULTANTS



37735 Second Street Historic Niles District Fremont, CA 94536 510.825.0783 pwaec.com Paul Welschmeyer, AA CEPE, HERS I & GPR Rater paul@pwaec.com

Energy Compliance Documentation Performance: Envelope + DHW

LICENSE STAMP	
REVISIONS BY	REVISIONS BY
9-30-18 2 Permit Check	
4-16-18 1 Issue for Permit	
Date 20 Sep'2018	Sheet
Scal 1/8" = 1'-0"	EC 1.1
Drawn PWaec	
PWaec 2017.06	3

Project Name: Project Address:		on Community Center ton Ave Kensington 94	707				RF-01-E tion Date/Time:	Page 10 of 19 15:06, Thu, Sep	•		
Compliance Scope:		Alteration				Input Fi	le Name:	Kensington CC (Int.Surface Fix)		
N. ECONOMIZER This Section Does N		AS SUMMARY ¹								§ 14	40.4
		aust fans are included in the N	RCC-PRF-MCH	DETAILS section							
O. EQUIPMENT C	ONTROLS 1.			2.				3.		§ 120.2	Confir Pass
	Equip Name			Equip			Fixed	Controls	trol. No DDC		_
Domesti	c Water Heater:	1 - SHW	Serv	vice Hot Wate	er, Primary Only	/		No Heat Recov			
P. SYSTEM DISTRI This Section Does N		MARY								§ 120.4/	' § 140.4
[oancy? (if "Yes", see NF	CC-PRF-M	CH-DETAILS fo	or DHW system	information)					
Q. INDOOR CONI		ITING GENERAL INFO) (see NRC	C-PRF-LTI-D	ETAILS for mo	ore info) ³					ş
1.		2.		3.		4.			5.		Cor
Occupancy Ty	pe ¹ Co	nditioned Floor Area ² (ft ²)	Install	ed Lighting P (Watts)	ower Ligh	nting Control Cro (Watts)	edits	Additional (Custom) Allowa	ince	Pass
							Area C	ategory Footnote (Watts)	s Tailored	Method (Watts) 🗆
Buildi ¹ See Table 140.6-C	ng Totals:					0		0		0	
² See NRCC-LTI-01-E for un		eled is not included in the tabl	2								
R. INDOOR COND		ITING SCHEDULE (Ad	apted fror	n NRCC-LTI-	01-E) ¹						§
This Section Does N ¹ If lighting power densitie		ompliance model Building Dep	artments will i	need to check pre	scriptive forms for L	Luminaire Schedule d	details.				
S1. COVERED PRO	CESS SUMM	ARY – ENCLOSED PAF	KING GAF	RAGES					§ 14	40.9	
This Section Does N	ot Apply										
CA Building Energy E	fficiency Standa	ards- 2016 Nonresident	ial Complia	nce	Report Versio	n: NRCC-PRF-01	L-E-08022018-53()2	Report Gener	rated at: 2018-0	9-20 15:
Project Name:	Kensingt	on Community Center					RF-01-E	Page 13 of 19			
Project Address:	59 Arling	ton Ave Kensington 94	707			Calculat	tion Date/Time:	15:06, Thu, Sep			
Compliance Scope:		Alteration				Input Fi	le Name:	Kensington CC (Int.Surface Fix)	rinal.cibd16x	
		pliance documentation		and complet	e.			I			
Documentation Aut Company: PWaec, F		Paul Welsch	meyer		s	Signature:	11-	led	1 AN		•
Address: 37735 Sec	ond Street					Signature Date:		20 Sep' 2	018		
Phone: 510.825.078		t, Fremont CA 94536				LEA Identificatio	n (If applicable):				
		RATION STATEMENT		State of Calif.	ornio:						
		y of perjury, under the eligible under the prov				Professions Cod	e to sign this doc	ument as the ners	on responsible t	for its preparati	on: and t
3 Business Responsible Envelo Company: Glass Ass Address: 519 Seven	pe Designer Nai sociates, Inc.	Code Sections 5537, 5	538 and 673	37.1.		ignature: Date Signed:					
City/State/Zip: San Phone: 415.864.123	Francisco CA 94	103			C	Declaration State	ement Type:],	license #:		
Responsible Lightin	g Designer Nam	0 0			- i	ignature: NOT	IN SCOPE	(
Company: Bay Area Address: 311 Califo		ineers, Inc				Date Signed:					
City/State/Zip: San Phone: 415.788.838		104				Declaration State	ement Type:		License #:		
	-	Name: Eddie Padillia			s	ignature: NOT	IN SCOPE				
Company: Eddie Pa Address: 274 Devor		Engineers, Inc			C	Date Signed:					
City/State/Zip: Valle Phone: 707.644.36						Declaration State	ement Type:		License #:		
CA Building Energy F	fficiency Standa	ards- 2016 Nonresident	ial Complia	nce			L-E-08022018-53			rated at: 2018-0	9-20 15:
	,										
		on Community Center ton Ave Kensington 94	707				RF-01-E tion Date/Time:	Page 16 of 19 15:06, Thu, Sep	20, 2018		
Project Name: Project Address:	ExistingA						le Name:	Kensington CC (FINAL.cibd16x	
	Į										
Project Address: Compliance Scope:	I-DETAILS -S	SECTION START-									
Project Address: Compliance Scope: NRCC-PRF-MCH		SECTION START-	ed from 2	016-NRCC-N	1СН-03-Е)						
Project Address: Compliance Scope: NRCC-PRF-MCH A. MECHANICAL This Section Does N	VENTILATION ot Apply	AND REHEAT (Adapt		016-NRCC-N	1СН-03-Е)						
Project Address: Compliance Scope: NRCC-PRF-MCH A. MECHANICAL This Section Does N	VENTILATION ot Apply 1 AND TERMIN			016-NRCC-M	1CH-03-E)						
Project Address: Compliance Scope: NRCC-PRF-MCH A. MECHANICAL This Section Does N B. ZONAL SYSTEN	VENTILATION ot Apply 1 AND TERMIN ot Apply	AND REHEAT (Adapt		016-NRCC-N	1CH-03-E)						
Project Address: Compliance Scope: NRCC-PRF-MCH A. MECHANICAL This Section Does N B. ZONAL SYSTEM This Section Does N	VENTILATION ot Apply I AND TERMIN ot Apply SUMMARY	AND REHEAT (Adapt		016-NRCC-N	1CH-03-E)						
Project Address: Compliance Scope: NRCC-PRF-MCH A. MECHANICAL This Section Does N B. ZONAL SYSTEM This Section Does N C. EXHAUST FAN This Section Does N	VENTILATION ot Apply a AND TERMIN ot Apply summary ot Apply ENT SUMMAR	AND REHEAT (Adapt NAL UNIT SUMMARY			1CH-03-E)	7.	8.	9.	§ 110.3 10.	11.	Con
Project Address: Compliance Scope: NRCC-PRF-MCH A. MECHANICAL This Section Does N B. ZONAL SYSTEM This Section Does N C. EXHAUST FAN This Section Does N D. DHW EQUIPM	VENTILATION ot Apply I AND TERMIN ot Apply SUMMARY ot Apply	AND REHEAT (Adapt	IRCC-PLB-(01)		7. Efficiency	8. Tank Insulation R-value (Int/Ext)	1	-	11. Tank Location or Ambient Condition	n Ba
Project Address: Compliance Scope: NRCC-PRF-MCH A. MECHANICAL This Section Does N B. ZONAL SYSTEM This Section Does N C. EXHAUST FAN This Section Does N D. DHW EQUIPM 1.	VENTILATION ot Apply 1 AND TERMIN ot Apply SUMMARY ot Apply ENT SUMMAR 2. Heater	AND REHEAT (Adapt	IRCC-PLB-(4.	01) 5. Tank Vol	6. Rated Input		Tank Insulation R-value	9. Standby Loss	10. Heat Pump	Tank Location or Ambient	n Ba
Project Address: Compliance Scope: NRCC-PRF-MCH A. MECHANICAL This Section Does N B. ZONAL SYSTEM This Section Does N C. EXHAUST FAN This Section Does N D. DHW EQUIPM 1. DHW Name Per MECH Engr. Spec2	VENTILATION ot Apply a AND TERMIN ot Apply SUMMARY ot Apply ENT SUMMAR ENT SUMMAR ENT SUMMAR Element Type Gas	AND REHEAT (Adapt	IRCC-PLB-I	01) 5. Tank Vol (gal)	6. Rated Input (kBtu/h)	Efficiency Thrml. Eff.:	Tank Insulation R-value (Int/Ext)	9. Standby Loss Fraction	10. Heat Pump Type	Tank Location or Ambient Condition	Pass
Project Address: Compliance Scope: NRCC-PRF-MCH A. MECHANICAL This Section Does N B. ZONAL SYSTEM This Section Does N C. EXHAUST FAN This Section Does N D. DHW EQUIPM 1. DHW Name Per MECH Engr. Spec2 E. MULTI-FAMILY This Section Does N	VENTILATION ot Apply I AND TERMIN ot Apply SUMMARY ot Apply ENT SUMMAR ENT SUMMAR 2. Heater Element Type Gas CENTRAL DHV ot Apply	AND REHEAT (Adapt	IRCC-PLB-0 4. Qty 1	01) 5. Tank Vol (gal) 50.00	6. Rated Input (kBtu/h)	Efficiency Thrml. Eff.:	Tank Insulation R-value (Int/Ext)	9. Standby Loss Fraction	10. Heat Pump Type	Tank Location or Ambient Condition	Pass
Project Address: Compliance Scope: NRCC-PRF-MCH A. MECHANICAL This Section Does N B. ZONAL SYSTEM This Section Does N C. EXHAUST FAN This Section Does N D. DHW EQUIPM 1. DHW Name Per MECH Engr. Spec2 E. MULTI-FAMILY This Section Does N	VENTILATION ot Apply 1 AND TERMIN ot Apply SUMMARY ot Apply ENT SUMMAR ENT SUMMAR CENTRAL DHV ot Apply TER HEATING	AND REHEAT (Adapt	IRCC-PLB-0 4. Qty 1	01) 5. Tank Vol (gal) 50.00	6. Rated Input (kBtu/h)	Efficiency Thrml. Eff.:	Tank Insulation R-value (Int/Ext)	9. Standby Loss Fraction	10. Heat Pump Type	Tank Location or Ambient Condition	Pass
Project Address: Compliance Scope: NRCC-PRF-MCH A. MECHANICAL This Section Does N B. ZONAL SYSTEM This Section Does N C. EXHAUST FAN This Section Does N D. DHW EQUIPM 1. DHW Name Per MECH Engr. Spec2 E. MULTI-FAMILY This Section Does N F. SOLAR HOT WA	VENTILATION ot Apply 1 AND TERMIN ot Apply SUMMARY ot Apply ENT SUMMAR ENT SUMMAR CENTRAL DHV ot Apply TER HEATING	AND REHEAT (Adapt	IRCC-PLB-0 4. Qty 1	01) 5. Tank Vol (gal) 50.00	6. Rated Input (kBtu/h)	Efficiency Thrml. Eff.:	Tank Insulation R-value (Int/Ext)	9. Standby Loss Fraction	10. Heat Pump Type	Tank Location or Ambient Condition	Pass

CA Building Energy Efficiency Standards- 2016 Nonresidential C	ompliance
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Project Name:	Kensington (Community Cente	er		NRCC-PRF-0)1-E	Page 11 of 19		
Project Address:	59 Arlington	Ave Kensington	94707		Calculation	Date/Time:	15:06, Thu, Sep 20, 2018		
Compliance Scope:	ExistingAlter	ation			Input File N	ame:	Kensington CC (Int.Surfac	e Fix) FINAL.cibd16x	
S2. COVERED PROCE	SS SUMMARY	– COMMERCI	AL KITCHENS					§ 140.9	
This Section Does Not	Apply								
		0014011750					5 4 40 0		
S3. COVERED PROCE		- COMPUTER	RUOMS				§ 140.9		
This Section Does Not	Арріу								
S4. COVERED PROCE	SS SUMMARY	– LABORATOR	Y EXHAUSTS				§ 1	40.9	
This Section Does Not	Apply						ľ		
T. UNMET LOAD HO	UKS	Cooling Unmo	t Load Hour Limit for			Heating	nmet Load Hour Limit for	1	
Thermal Zone	Name		rmal Zone	Proposed Cooling U	nmet Load Hours	Heating O	Thermal Zone	Proposed Heating Unmo	et Load Hours
1-Zone 2	1		150	3517	.75		150	22.5	
2-Zone 2	2		150	352	3		150	37.75	
3-Zone 3	3		150	3750	.75		150	13	
4-Zone 4	1		150	3207	.25		150	39.25	
U. ENERGY USE SUN	MARY								
	gy Component		Standard Design Si (MWh)	te Proposed D (MW	-	1argin VIWh)	Standard Design Site (MBtu)	Proposed Design Site (MBtu)	Margin (MBtu)
Sp	ace Heating						4.2	5.0	-0.8
Sp	ace Cooling		0.0	0.0)				
lı	ndoor Fans		5.5	5.3	3	0.2			
He	at Rejection								
Pu	mps & Misc.								
Dome	estic Hot Water						33.0	20.0	13.0
Inc	loor Lighting		8.0	8.0)	0.0			
COM	PLIANCE TOTAL		13.5	13.	3	0.2	37.2	25.0	12.2
F	Receptacle		8.6	8.6	5	0.0			
	Process								

Project Name:	Kensington Community C	enter	NE	RCC-PRF-01-E	Page 12 of 19		
Project Address:	59 Arlington Ave Kensingt	on 94707	Ca	alculation Date/Tim	ie: 15:06, Thu, Sep 20, 20	18	
Compliance Scope:	ExistingAlteration		In	put File Name:	Kensington CC (Int.Sur	face Fix) FINAL.cibd16x	
	IMARY						
Ener		Standard Design Site	Proposed Design Sit		Standard Design Site	Proposed Design Site	Margin
	gy Component	(MWh)	(MWh)	te Margin (MWh)	(MBtu)	(MBtu)	Margin (MBtu)
		J					u v

Project Name:	Kensington Community Center	NRCC-PRF-01-E	Page 14 of 19
Project Address:	59 Arlington Ave Kensington 94707	Calculation Date/Time:	15:06, Thu, Sep 20, 2018

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Compliance Scope:	ExistingAlteration	Input File Name:	Kensington CC (Int.Surface Fix) FINAL.cibd16x

NRCC-PRF-ENV-DETAILS -SECTION START-

CA Building Energy Efficiency Standards- 2016 Nonresidential Compliance

Kensington Community Center

59 Arlington Ave Kensington 94707

A. OPAQUE SURFACE ASS	EMBLY DETAILS			Confi	
1.	2.	3.	4.	Pass	Fail
Surface Name	Surface Type	Description of Assembly Layers	Notes	SSI	≝.
R-19 Wall6	ExteriorWall	Stucco - 7/8 in. Vapor permeable felt - 1/8 in. Wood framed wall, 16in. OC, 5.5in., R-19 Gypsum Board - 1/2 in.			
8 CMU w/ int. insul10	ExteriorWall	Concrete - Part Grouted and Empty - 105 lb/ft3 - 8 in. Air - Cavity - Wall Roof Ceiling - 4 in. or more Wood framed wall, 16in. OC, 1.5in., R-6 Gypsum Board - 1/2 in.			
8 CMU13	InteriorWall	Concrete - Part Grouted and Empty - 115 lb/ft3 - 8 in. Air - Cavity - Wall Roof Ceiling - 4 in. or more			
R-0 Wall15	InteriorWall	Stucco - 7/8 in. Vapor permeable felt - 1/8 in. Air - Cavity - Wall Roof Ceiling - 4 in. or more Gypsum Board - 1/2 in.			
Slab On Grade18	UndergroundFloor	Slab Type = UnheatedSlabOnGrade Insulation Orientation = None Insulation R-Value = R0			
R-11 Roof No Attic20	Roof	Asphalt shingles - 1/4 in. Vapor permeable felt - 1/8 in. Plywood - 1/2 in. Air - Cavity - Wall Roof Ceiling - 4 in. or more Wood framed roof, 16in. OC, 3.5in., R-11 Gypsum Board - 1/2 in.			
R-0 Roof No Attic25	Roof	Asphalt shingles - 1/4 in. Vapor permeable felt - 1/8 in. Plywood - 1/2 in. Air - Cavity - Wall Roof Ceiling - 4 in. or more Gypsum Board - 1/2 in.			
8 CMU131	ExteriorWall	Concrete - Part Grouted and Empty - 115 lb/ft3 - 8 in. Air - Cavity - Wall Roof Ceiling - 4 in. or more			

Report Version: NRCC-PRF-01-E-08022018-5302

NRCC-PRF-01-E

Input File Name:

Project Name:	Kensin	gton Community Center				N	IRCC-PRF-01-E	Page 15 of 19						
Project Address:	59 Arli	ington Ave Kensington 94	707			C	alculation Date/Time:	15:06, Thu, Se	p 20, 2018					
Compliance Scope:	Existin	gAlteration				In	nput File Name:	Kensington CC	(Int.Surface Fix) F	INAL.cibd	16x			
A. OPAQUE SURFACE	ASSEM	BLY DETAILS									Co	onfirm	ed	
1.		2.		3. 4.			P							
Surface Name		Surface Type			Description of A	ssem	bly Layers		Notes		Pass a		Fail	
R-0 Roof No Attic +1.54	48	Roof		Built-up roofing - 3/8 in. Vapor permeable felt - 1/8 in. Plywood - 1 1/2 in. Cellular polyisocyanurate (unfaced) - 1 1/2 in. R8.8 Metal framed floor, 24in. OC, 5.5in., R-0										
R-11 Roof Attic75		Roof	Asphalt shingles - 1/4 in. Vapor permeable felt - 1/8 in. Plywood - 1/2 in. Air - Cavity - Wall Roof Ceiling - 4 in. or more Wood framed roof, 24in. OC, 3.5in., R-11 Gypsum Board - 1/2 in.		Asphalt shingles - 1/4 in. Vapor permeable felt - 1/8 in. Plywood - 1/2 in. Air - Cavity - Wall Roof Ceiling - 4 in. or more Wood framed roof, 24in. OC, 3.5in., R-11									
	C (Ada	oted from NRCC-ENV-0	2 5)								Con	firmed		
1.	LS (Auap	2.	JZ-C)			3.			4.		Con			
1.		Z.				S. Overhang Dimensions		4. Side fin					Fail	
Fenestration Tag/	ΊD	Fenestration Orient	ation	Horizon	ntal Projection		Distance Above Window	v Ve	rtical Projection		Pass		≝.	
Winr 8 - Altered Clere	esto37	South			4.5 ft.		0.1 ft.		:: 0 ft., Right: 0 ft.					
Win/door 8.5 (NEW) -N	anaw38	South			8.0 ft.	-	0.1 ft.	Left: 0 ft., Right: 0 ft.					$\overline{\Box}$	
Door C - New Entran	ce39	South			8.0 ft.		0.1 ft.	Left	: 0 ft., Right: 0 ft.					
Door D - New door	r40	South			8.0 ft.		0.1 ft.	Left	:: 0 ft., Right: 0 ft.					
C. OPAQUE DOOR SU	MMAR	(L								Confi	irmed	
		2			3.		4.	5.	6.	7.				
1.		2.						1	+			-		
-	/ Name	 Door	Туре		Certification Meth	hod	Operation	Area	Overall U-factor	Statu		Pass	Fail	

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Report Generated at: 2018-09-20 15:17:53

¹ Status: N - New, A – Altered, E – Existing

CA Building Energy Efficiency Standards- 2016 Nonresidential Compliance

Project Name:	Kensington (Community Center		NRCC-PR	F-01-E	Page 18 of 19				
Project Address:	59 Arlington	Ave Kensington 94707		Calculati	on Date/Time:	15:06, Thu, Sep 20, 20	18			
Compliance Scope:	ExistingAlter	ration		Input File	e Name:	Kensington CC (Int.Sur	face Fix) FINAL	cibd16	iх	
C. TAILORED METH	OD CONDITION	IED LIGHTING POWER ALLOW	ANCE SUMMARY	AND CHECKLIST (Ad	apted from N	RCC-LTI-04-E)		§ 140	.6	
Additional "use it or le	ose it" (See Table	G)							0	
							Total watts		0	
D. GENERAL LIGHTI	ING POWER (Ad	dapted from NRCC-LTI-04-E)							§ 140.6-	-D
This Section Does Not	t Apply								<u></u>	
E. GENERAL LIGHTI	NG FROM SPEC	CIAL FUNCTION AREAS (Adapt	ed from NRCC-LTI-	04-E)					§ 140.6	c) 3H
Room Number	Prin	nary Function Area	Illuminance Value	Room Cavity Ratio	Allowed LP	D Floor Area (ft ²)	Allowed V	Vatts	Conf	firmed
		.,	(LUX)	(Table G)					Pass	Fail
NA		NA	NA	NA	NA	NA	NA			
Note: Tailored Method for Sp	ecial Function Areas is	s not currently implemented								
F. ROOM CAVITY R/	ATIO (Adapted	from NRCC-LTI-04-E)								
			Rect	tangular Spaces						
Room Number	Та	sk/Activity Description	Room Length (ft)	Room Wid	lth (ft)	Room Cavity Height (ft)	R	CR	_ c	onfirmed
										ass Fail
NA		NA	NA	NA		NA	N	IA	[
Non-Rectangular S	paces									
This Section Does Not										
Note: All applicable spaces a	re listed under the Noi	n-Rectangular Spaces table								
G. ADDITIONAL "U	SE IT OR LOSE I	T" (Adapted from NRCC-LTI-04	4-E)							
1.		2.		3.		4.			Con	firmed
Wall Dis	play	Combined Floor Display and Lighting		Drnamental and Speci fects Lighting	al Very	Valuable Merchandise	Allowed	Watts	Pass	Fail
0		0		0		0	0			
5. Wall Display										
This Section Does Not	t Apply									
<u>. </u>										

Report Version: NRCC-PRF-01-E-08022018-5302

CA Building Energy Efficiency Standards- 2016 Nonresidential Compliance

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Kensington CC (Int.Surface Fix) FINAL.cibd16x

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§ RA4

Fail Pass

Equipment Requiring # of Testing or Verification Domestic Water Heater1 -SHW H. EVAPORATIVE COOLER SUMMARY This Section Does Not Apply NRCC-PRF-LTI-DETAILS -SECTION START-

§ 140.6 A. INDOOR CONDITIONED LIGHTING CONTROL CREDITS (Adapted from NRCC-LTI-02-E) This Section Does Not Apply § 130.1 B. INDOOR CONDITIONED LIGHTING MANDATORY LIGHTING CONTROLS (Adapted from NRCC-LTI-02-E) This Section Does Not Apply \$130.1(a) = Manual area controls; \$130.0(b) = Multi Level; \$130.1(c) = Auto Shut-Off; \$130.1(d) = Mandatory Daylight; \$130.1(e) = Demand Responsive C. TAILORED METHOD CONDITIONED LIGHTING POWER ALLOWANCE SUMMARY AND CHECKLIST (Adapted from NRCC-LTI-04-E) § 140.6 General lighting power (see Table D) 0 General lighting power from special function areas (see Table E) NA CA Building Energy Efficiency Standards- 2016 Nonresidential Compliance Report Version: NRCC-PRF-01-E-08022018-5302 Report Generated at: 2018-09-20 15:17:53

CA Building Energy Efficiency Standards- 2016 Nonresidential Complia

ance	Report Version: NRCC-PRF-01-E-08022018-5302

Seismic Upgrades and Building Alterations

Kensington Community Center

59 Arlington Avenue Kensington, CA 94707 for the Kensington Police Protection & Community Services District

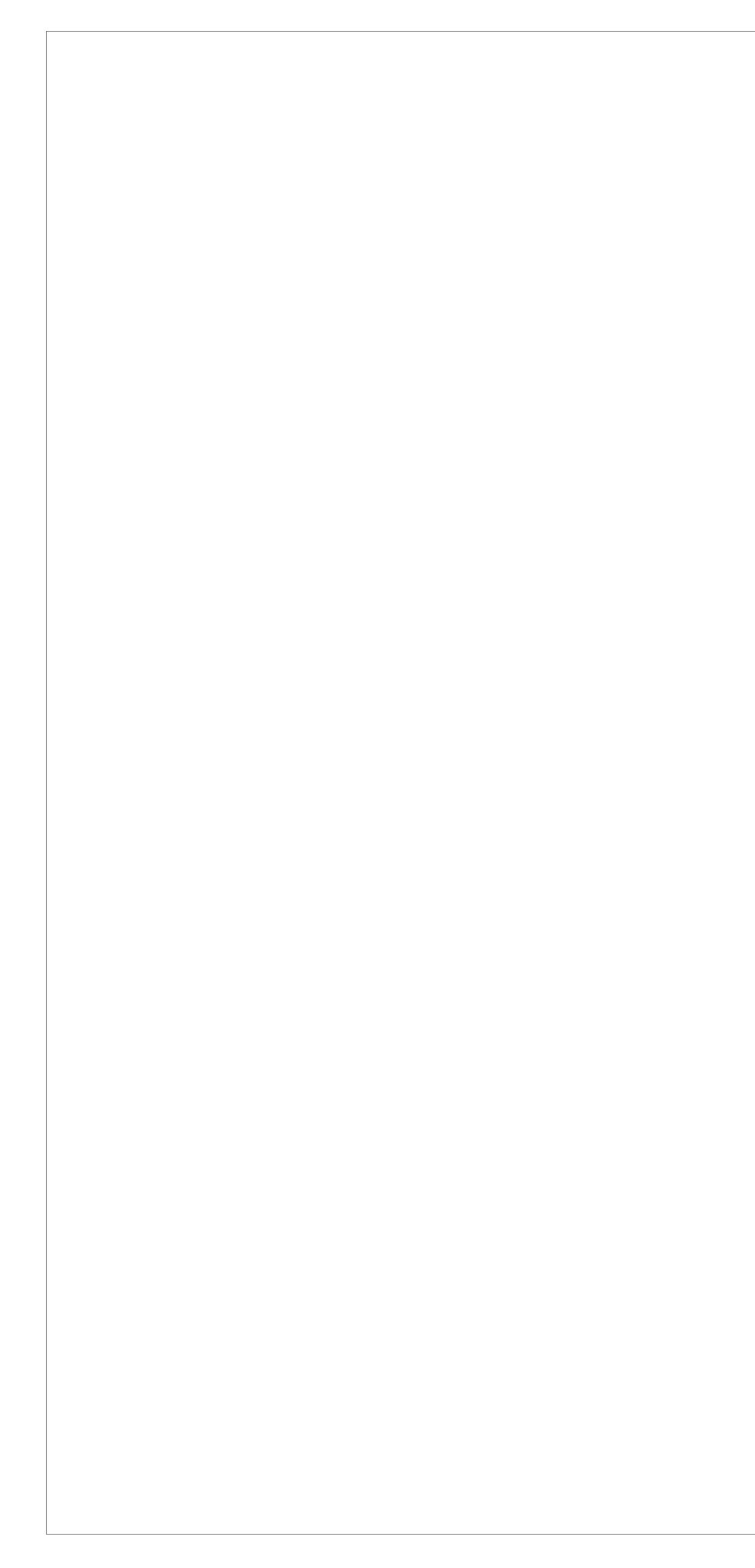
CONSULTANTS



Paul Welschmeyer, AA CEPE, HERS I & GPR Rater paul@pwaec.cor

Energy Compliance Documentation Performance: Envelope + DHW

LICENSE STAMP	
REVISIONS BY	REVISIONS BY
2 9-30-18 Permit Check	
4-16-18 Issue for Permit	
Date 20 Sep'2018	Sheet
Scal 1/8" = 1'-0"	EC 1.2
Drawn PWaec	EU 1.2
PWaec 2017.06	3



Project Name:	Kensington Community Cente	nsington Community Center					
Project Address:	59 Arlington Ave Kensington	94707					
Compliance Scope:	ExistingAlteration						
	•						
6. Floor Display and Task Lighting							
This Section Does Not Apply							
7. Combined Orname	ntal and Special Effects Ligh	ting					
This Section Does Not A	oply	_					
r		_					
8. Very Valuable Mero	chandise						
This Section Does Not A	oply						
H. INDOOR & OUTDO	OR LIGHTING ACCEPTANCE	TESTS &					
Declaration of Required	Acceptance Certificates (NRC	Declaration of Required Acceptance Certificates (NRCA) – Accep					
-							
Tes	t Description						
Tes Equipment Requiring Testing or Verification	t of units	Occ					
Equipment Requiring	t of units	Occ					
Equipment Requiring Testing or Verification	a # of units	Occ					
Equipment Requiring Testing or Verification Occupant Sensors	h 0	0cc					
Equipment Requiring Testing or Verification Occupant Sensors Automatic Time Switc	m # of units 0 h 0 g 0	Occ					

ENVELOPE MANDATORY MEASURES: NONRESIDENTIAL

CA Building Energy Efficiency Standards- 2016 Nonresidential Compliance Report Version: NRCC-PRF-01-E-08022018-5302

§110.8(a): §110.8(c): §110.8(g): §110.7(a): §110.6(a): §110.6(a): §110.6(b): §120.7(b): §120.7(b): §120.7(c):	Kensi	ingtor	1
Building En §110.8(a): §110.8(c): §110.8(c): §110.6(a): §110.6(a): §110.6(a): §110.6(b): §120.7(a): §120.7(b): §120.7(c):	DES	CRIP) "
§110.8(a): §110.8(c): §110.8(g): §110.7(a): §110.6(a): §110.6(a): §110.6(b): §120.7(b): §120.7(b): §120.7(c):	Buildi	ing Ei	n
§110.8(c): §110.7(a): §110.6(a): §110.6(a): §110.6(a): §110.6(b): §120.7(a): §120.7(b): §120.7(c):	§110.8	8(a):	1
§110.7(a): §110.6(a): §110.6(a): §110.6(a): §110.6(b): §120.7(a): §120.7(b): §120.7(c):	§110.8	8(c):	Ą
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§110.6(a) : §110.6(b): §120.7(a): §120.7(b):	§110.6	6(a):	F
§120.7(a):	§110.6	6(a):	F
§120.7(a):	§110.6	6(b):	5
§120.7(b):	§120.7	'(a):	5
8120 7(c) [.]	§120.7	'(b):	
	§120.7	/(c):	ן נ נ

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	Calculation Date/Time	: 15:06, Thu, Sep 2	0, 2018		
	Input File Name:	Kensington CC (Ir	t.Surface Fix) FINAL.cibd16x		
	•	•			
FORMS (Adapted from	n NRCC-LTI-01-E and NRCC-LTO-01	-E)		§ 1	30.4
tance Certificates that n	n NRCC-LTI-01-E and NRCC-LTO-01 nust be verified in the field. (Retain co d Inspector to verify).		s are completed and signed	-	
tance Certificates that n	nust be verified in the field. (Retain co		s are completed and signed to Outdoor	to post in	
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c Sensors / Auto Time Switch	Auto Daylight	Demand Responsive	Outdoor Controls	ass	Fail
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ENV-MM

Seismic Upgrades and Building Alterations

Kensington Community Center

59 Arlington Avenue Kensington, CA 94707 for the Kensington Police Protection & Community Services District

CONSULTANTS



37735 Second Street Historic Niles District Fremont, CA 94536 510.825.0783 pwaec.com Paul Welschmeyer, AIA CEPE, HERS I & GPR Rater paul@pwaec.com

Project Name Kensington Community Center Alterations 9/20/2018 PTION nvelope Measures: Installed insulating material shall have been certified by the manufacturer to comply with the California Quality Standards for insulating material, Title 20 Chapter 4, Article 3. All Insulating Materials shall be installed in compliance with the flame spread rating and smoke density requirements of Sections 2602 and 707 of Title 24, Part 2. Heated slab floors shall be insulated according to the requirements in Table 110.8-A. All Exterior Joints and openings in the building that are observable sources of air leakage shall be caulked, gasketed, weatherstripped or otherwise sealed. Manufactured fenestration products and exterior doors shall have air infiltration rates not exceeding 0.3 cfm/ft.² of window area, 0.3 cfm/ft.² of door area for residential doors, 0.3 cfm/ft.² of door area for nonresidential single doors (swinging and sliding), and 1.0 cfm/ft.² for nonresidential double doors (swinging). Fenestration U-factor shall be rated in accordance with NFRC 100, or the applicable default U-factor. Fenestration SHGC shall be rated in accordance with NFRC 200, or NFRC 100 for site-built fenestration, or the applicable default SHGC. Site Constructed Doors, Windows and Skylights shall be caulked between the unit and the building, and shall be weatherstripped (except for unframed glass doors and fire doors). The opaque portions of the roof/ceiling that separates conditioned spaces from unconditioned spaces or ambient air shall meet the applicable U-Factor requirements as follows: Metal Building- The weighted average U-factor of the roof assembly shall not exceed 0.098. Wood Framed and Others- The weighted average U-factor of the roof assembly shall not exceed 0.075. The opaque portions of walls that separate conditioned spaces from unconditioned spaces or ambient air shall meet the applicable U-factor as follows: Metal Building- The weighted average U-factor of the wall assembly shall not exceed 0.113. Metal Framed- The weighted average U-factor of the wall assembly shall not exceed 0.151. Light Mass Walls- A 6 inch or greater Hollow Core Concrete Masonry Unit shall have a U-factor not to exceed 0.440. Heavy Mass Walls- An 8 inch or greater Hollow Core Concrete Masonry Unit shall have a U-factor not to exceed 0.690. Wood Framed and Others- The weighted average U-factor of the wall assembly shall not exceed 0.110. Spandrel Panels and Opaque Curtain Wall- The weighted average U-factor of the spandrel panels and opaque curtain wall assembly shall not exceed 0.280. Demising Walls-. The opaque portions of framed demising walls shall meet the requirements of Item A or B below: A. Wood framed walls shall be insulated to meet a U-factor not greater than 0.099. B. Metal Framed walls shall be insulated to meet a U-factor not greater than 0.151. The opaque portions of floors and soffits that separate conditioned spaces from unconditioned spaces or ambient air shall meet the applicable U-Factor requirements as follows: Raised Mass Floors- Shall have a minimum of 3 inches of lightweight concrete over a metal deck or the weighted average U-factor of the floor assembly shall not exceed 0.269. Other Floors-The weighted average U-factor of the floor assembly shall not exceed 0.071.

Energy Compliance Documentation Performance: Envelope + DHW

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MECHANICAL LEGEND

AE

Ν	/IECHA	NICAL LEGEND
SYMBOLS	ABB'R	SERVICE
ACU 1		EQUIPMENT IDENTIFICATION
		DETAIL OR SECTION
M-1		SHEET NUMBER NORTH ARROW (REFERENCE)
		POINT OF CONNECTION
O		POINT OF DEMOLITION
#		
		SUPPLY DUCT RISER EXHAUST DUCT RISER
	S1	SUPPLY DIFFUSER
	R1	CEILING RETURN/EXHAUST FIRE SPRINKLER HEAD
	WSR(G)	WALL SUPPLY REGISTER (GRILLE)
	WER(R)	WALL EXHAUST REGISTER
┟ <u>║┍╺</u> ╷╷╶┟	R	INCLINED DUCT RISE IN FLOW DIRECTION
	AL	ACOUSTICALLY LINED DUCT
	FC	FLEXIBLE DUCT CONNECTION
	FC (N)	FLEXIBLE CONNECTION NEW
	(E)	EXISTING
\$\$		(E) PIPE TO BE REMAIN
>+ + + + + + + + + + + + + + + + + + + 	AP/AD	(E) PIPE TO BE REMOVED ACCESS PANEL/ACCESS DOOR
	VD	MANUAL VOLUME DAMPER
	UP DN	ALL SERVICES ALL SERVICES
O	UN V, VR,VTR	VENT, VENT RISE, VENT THRU ROOF
		DIRECTION OF FLOW
	GR LR	GAS REFRIGERANT PIPING
— F —	F	FIRE SPRINKLER
	CW	COLD WATER
	HW	HOT WATER HOT WATER RETURN
	V	VENT
•	FCO	FLOOR CLEANOUT
— G — — CD —	G CD	GAS CONDENSATE DRAIN
四次二		3-WAY CONTROL VALVE
X	BC	2-WAY CONTROL VALVE BALANCING COCK
*	ВС	BALANCING VALVE
		BALL VALVE
	BV	BUTTERFLY VALVE PRESSURE REDUCING VALVE
	TCV	TEMPERATURE CONTROL VALVE
	GV	GATE VALVE
	GLV	GLOBE VALVE
	CKV	CHECK VALVE STRAINER
` 	AVA	AIR VENT VALVE-AUTOMATIC
 	AVM PGA	AIR VENT VALVE-MANUAL PRESSURE GAUGE
	U PGA	UNION CONNECTION
PP T		PETE'S PLUG
 	TH T	THERMOMETER
 ©	S	FAN SWITCH/SPEED SELECTOR SWITCH
<u> </u>		TEMPERATURE GAUGE
 E9		TEMPERATURE SENSOR FLOW SWITCH/SENSOR
P		PRESSURE SENSOR/TRANSMITTER
DI D0		DIGITAL INPUT DIGITAL OUTPUT
AI		ANALOG INPUT
D0		
		ELECTRICAL CONTROL WIRING PNEUMATIC CONTROL

ABB	REVIATIONS	GENERAL NOTES	SCOPE OF W
ACU AFF AHU AP BDD BHP CFF CFH CFM CFU DN DLG CTE CU DN DT 10D (E) EA FF FC/FCU FPM FSD LPS LPR MFR (N) NC NFPA NO PG PUBG PSIG	AIR CONDITIONING UNIT ABOVE FINISH FLOOR AIR HANDLING UNIT ACCESS PANEL BACKDRAFT DAMPER BREAK HORSEPOWER CAP FOR FUTURE CUBIC FEET PER HOUR CUBIC FEET PER MINUTE CUBIC FEET PER MINUTE CEILING CONNECT TO EXISTING CONDENSING UNIT DOWN DRIP TRAP 10' DUCT DIAMETER EXISTING EXHAUST AIR EXHAUST AIR EXHAUST FAN EXTERNAL STATIC PRESSURE FIRE SPRINKLER FAN COIL UNIT FEET PER MINUTE FIRE SPRINKLER FAN COIL UNIT FEET PER MINUTE IOW PRESSURE STEAM CONDENSATE LOW PRESSURE STEAM MANUFACTURER NEW NORMALLY CLOSED NORMALLY CLOSED NORMALLY CLOSED NORMALLY CONNECTION POUND PER SQUARE INCH POUND PER SQUARE INCH POUND PER SQUARE INCH GAUGE	 ALL WORK SHALL BE IN ACCORDANCE WITH THE LATEST APPLICABLE LOCAL AND STATE CODES AND REGULATIONS. CALIFORNIA BUILDING CODE 2016 CALIFORNIA BUILDING CODE 2016 CALIFORNIA FIRE CODE 2016 CALIFORNIA FIRE CODE 2016 CALIFORNIA FIRE CODE 2016 CALIFORNIA FIRE CODE 2016 CALIFORNIA ELECTRICAL CODE 2016 CALIFORNIA ELECTRICAL CODE 2016 CALIFORNIA ELECTRICAL CODE 2016 NEPA 21 LATEST EDITION NEPA2 LATEST EDITION NEPA24 LATEST EDITION ALL DUCTS OR PIPING SHOWN ON PLANS ARE DIAGRAMMATIC AND SHALL NOT BE SCALED TO DETERNINE EXACT LOCATION. CERTIAN VERTICAL AND HORIZONTAL DIMENSIONS ARE SHOWN IN DUCTS AND PIPES TO INDICATE THEIR GENERAL POSITION IN RELATIONSHIP TO THE SYSTEMS WITHIN THE SPACE AVAILABLE FOR SYSTEM INSTALLATION. PROVIDE ADDITIONAL PIPING OFFSETS AS REQUIRED AND TO COORDINATE WITH INSTALLATION REQUIREMENTS OF OTHER SYSTEMS AT NO ADDITIONAL COST TO THE OWNER. ALL DIMENSIONS ARE IN INCHES OR OTHERWISE NOTED. WHERE EXISTING CONSTRUCTION IS CUT, DAMAGED, OR REMODELED, PATCH WITH MATERIALS TO MATCH IN KIND, QUALITY, AND PERFORMANCE. CONTRACTOR SHALL ASSUME SOLE RESPONSIBILITY FOR SAFETY OF ALL PERSONS ON OR ABOUT THE CONSTRUCTION STE. IN ACCORDANCE WITH APPLICABLE LAWS AND CODES, GLARD ALL HAZARDS IN ACCORDANCE WITH THE SAFETY PROVISIONS OF THE LATEST MANUAL OF ACCIDENT PREVENTION PUBLISHED BY THE ASSOCIATED GENERAL CONTRACTORS OF AMERICA AND OSHA. REFER TO SMACNA SEISMIC GUIDELINES AND STANDARDS FOR DUCT PIPE SUPPORT AND EQUIPMENT SEISMIC BRACING. COORDINATE WORK WITH THE OWNER AND ALL OTHER TRADES. SEAL AIR TIGHT ALL DUCT OR PIPE PENETRATIONS THROUGH WALL SEALANT SHALE BE 3M BRAND PRODUCTS BRACE ALL PIPES AND EQUIPMENT TO WITHSTAND FORCES AS REQUIRED BY THE SATE AND LOCAL CODES. PROTECT HE PUBLIC FROM INJURY DURING PROGRESS OF WORK BY POSTING WARKING SIGNS, GUAND	 GENERAL: THIS SCOPE OF NOT INTENDED TO DESCRIPARE INDICATED ON EACH DEACH D
			DRAWING I M1.0 LEGEND, GENERAL M1.1 EQUIPMENT SCHED M1.2 TITLE 24 COMPLIAN M2.0 HVAC PLAN M3.0 HVAC DETAILS M3.1 SYSTEM DIAGRAM M4.1 SPECIFICATIONS M4.2 SPECIFICATIONS M4.3 SPECIFICATIONS

OF WORK

COPE OF WORK IS AN OUTLINE OF WORK INVOLVE FOR THIS PROJECT AND IS D DESCRIBE THE COMPLETE SCOPE OF WORK. THE DETAILED REQUIREMENTS IN EACH DRAWING AND SPECIFICATIONS.

AND DISPOSE EXISTING CEILING MOUNTED GAS UNIT HEATERS AND ASSOCIATED STATS, CONTROLS, POWER SUPPLY, GAS PIPING, SUPPORTS AND ANCHORS.

NEW CEILING MOUNTED EXHAUST FAN AND CONTROL. TERMINATE EXHAUST DUCT HROOF AND TERMINATE WITH WEATHER HOOD.

ONE (1) NEW ROOF MOUNTED EXHAUST FAN COMPLETE WITH ROOF CURB, .S, SUPPORTS AND ANCHORS. PROVIDE AIR REGISTER. PROVIDE CONTROLS, ROOM STAT AND POWER SUPPLY DISCONNECT.

ONE (1) NEW CONDENSING GAS FURNACES AND ASSOCIATED GAS SUPPLY PIPING, TROLS AND ROOM THERMOSTATS, GAS DIRECT VENT PIPING AND ROOF GAS VENT TIONS, SUPPORTS AND ANCHORS. PROVIDE DUCTWORK FOR AIR DISTRIBUTION, AIR RS AND REGISTERS AND POWER SUPPLY DISCONNECT. PERFORM AIR TESTING, IG AND BALACING.

ENGINEERING SUPPORT FOR HORIZONTAL GAS FURNACE PREPARED BY LICENSED R. EQUIPMENT SUPPORT SHALL BE ENGINEERED SYSTEM BY MASON IND., VIBREX, OOTH OR EQUAL.

CEILING MOUNTED EXHAUST FAN FOR MEN'S RESTROOM AND ASSOCIATED S AND ANCHORS. FAN CONTROL SHALL BE THROUGH THE LIGHT SWITCH.

SPLIT TYPE AC UNIT FOR MEETING ROOMS 1, 2 AND 3. THE AC UNIT SHALL BE WITH OUTDOOR CONDENSING UNIT, FAN COILS, CONTROLS, REFRIGERANT PIPING, SATE PIPING AND ASSOCIATED EQUIPMENT, AND SUPPORTS INCLUDING TESTING, IONING AND TRAINING. DEMONSTRATE THE OPERATION OF THE COMPLETE COOLING PROVIDE FIELD TRAINING FOR THE OWNER DESIGNATED REPRESENTATIVE.

ELECTRICAL POWER, AND DISCONNECT SWITCH FOR THE NEW CONDENSING UNITS, , AND SYSTEM DDC CONTROLS.

120VAC CONVENIENCE OUTLET NEAR THE NEW CONDENSING UNITS.

ILL THROUGH BUILDING CONCRETE WALL FOR REFRIGERANT AND CONDENSATE ND POWER CONDUIT. SEAL PIPE PENETRATIONS WITH 3M WEATHERPROOF MATERIAL

E TEST PIPING AT 550 PSI FOR 24 HOURS WITH NO DROP IN PRESSURE. THE TEST WITNESSED AND ACCEPTED BY OWNER. TAKE SAFETY PRECAUTIONS DURING OCEDURE.

I TESTING AND AIR BALANCING FOR GAS FURNACE AND AIR DISTRIBUTION, FAN HAUST FANS, AIR DIFFUSERS AND REGISTERS, EQUIPMENT PERFORMANCE HEATING AND COOLING CAPACITY AND ELECTRICAL CONSUMPTION. SUBMIT A TESTING AND AIR BALANCING REPORT.

EQUIPMENT NAMEPLATES, IDENTIFICATION LABELS FOR PIPING AND DUCTWORK.

Seismic Upgrade and Building Alterations

Kensington Community Center

59 Arlington Avenue Kensington, CA 94707 for the Kensington Police Protection & **Community Services District**

GLASS Associates, Inc. architecture & planning

519 Seventh Street San Francisco, CA 94103

> T. 415.864.1234 F. 415.864.1141

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CONSULTANT

MECHANICAL ENGINEER: EPCE Inc. Eddie Padilla Consulting Engineers Inc. 274 Devonshire Street Vallejo, CA 94591 707-980-4049

NG INDEX

GENERAL NOTES & SCOPE OF WORK NT SCHEDULES COMPLIANCE FORMS

TITLE LEGEND, SYMBOLS GENERAL NOTES & SCOPE OF WORK

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Job:	

SYMBOL	DESCRIPTION	DESCRIPTION
S1	SUPPLY AIR DIFFUSER	TITUS 112RS 1 ¹ / ₄ " DOUBLE DEFLECTION 'AEROBLADE' GRILLE, STEEL CONSTRUCTION, EXTRUDED ALUMINI BLADES, WELDED FRAME, CONTERSUNK SCREWS WITH OPPOSED BLADE DAMPER,WALL MOUNTING FRA PROVIDE DIFFUSER WITH WHITE FINISH.
R1	RETURN OR EXHAUST CELING AIR REGISTER	TITUS 350ZRL RETURN AIR REGISTER, STEEL CONSTRUCTION, 24"X24" WALL MOUNTING FRAME. PROVIDE DIFFUSER WITH WHITE FINISH.
DRAWING NO	OTATIONS	
	AIRFLOW IN CFM TYPE OF AIR OU S - SUPPLY AIR I R - RETURN AIR E - EXHAUST AIR (E) - EXISTING (R) - RELOCAT	DIFFUSER REGISTER TO REMAIN
8D	POWER/INTERFACE FRO	
	AIR DIFFUSER OR REGIS	OR INCHES 16X10-RECTANGULAR DUCT SIZE IN INCHES
	10D-DUCT DIAMETER IN	
×		D EXHAUST REGISTER FOR EXACT LOCATION WITH ARCHITECTURAL REFLECTED CELING PLAN.
2 ALL CE3 PROVID	DINATE CEILING, WALL SUPPLY DIFFUSER AND EILING SUPPLY DIFFUSERS ARE 4-WAY THROW DE MANUAL AIR DAMPERS AT EACH BRANCH I DLUME DAMPER SHALL BE OPPOSED BLADE T	D EXHAUST REGISTER FOR EXACT LOCATION WITH ARCHITECTURAL REFLECTED CELING PLAN. V UNLESS OTHERWISE NOTED. DUCT TO A SINGLE DIFFUSER, REGISTER OR GRILLE. YPE. ROUND DUCT DAMPER SHALL BE TITUS AG-75.
2 ALL CE 3 PROVIE ALL VO	DINATE CEILING, WALL SUPPLY DIFFUSER AND SILING SUPPLY DIFFUSERS ARE 4-WAY THROW DE MANUAL AIR DAMPERS AT EACH BRANCH I DLUME DAMPER SHALL BE OPPOSED BLADE T DIUME DAMPER SHALL BE OPPOSED BLADE T	D EXHAUST REGISTER FOR EXACT LOCATION WITH ARCHITECTURAL REFLECTED CELING PLAN. VUNLESS OTHERWISE NOTED. DUCT TO A SINGLE DIFFUSER, REGISTER OR GRILLE. YPE. ROUND DUCT DAMPER SHALL BE TITUS AG-75. VARPI-FLOOV® CONTROLLER Temperature Controller Air Balance Kit Wiring Supplement ental wiring instructions for the Vari-Flow® Air Balance Kit and ly read this publication prior to any installation or maintenance
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$\left\langle \begin{array}{c} F \\ X \end{array} \right\rangle$ GAS FURNACE SCHEDULE

			CAP	PACITY				F	FAN CAPACITY			ELECT	TRILAL			BI	URNER		GAS	WEIGHT	MODEL NO.
UNIT NO.	LOCATION	SERVICE	INPUT CAPACITY BTUH	OUTPUT CAPACITY BTUH	EFFICIENCY	CFM	EXT. S.P. INCH W.C.	MOTOR HP	MOTOR FULL LOAD AMPS	NUMBER OF SPEED	FAN WHEEL DIA. DxW INCHES		UNIT AMPACITY AMP	FILTER EFF. %	GAS INPUT CFH	QTY	GAS CONN. IN.	GAS INLET PRESS. IN.W.C.	AIR/VENT SIZE IN.	LBS.	WODEL NO.
F-1	CEILING	MEETING HALL	80,000	78,000	95.5%	1600	0.5	3/4	9.6	5	11x11	115/1	13.0	30	80.0	4	1/2	4.5-13.6	6/3	160	CARRIER 59MP7A080E-16

UNITS SHALL HORIZONTAL MOUNTING, CONDENSING TYPE WITH 97% EFFICIENCY, 5-SPEED FAN AND CONTROLS.

2. UNITS SHALL HAVE SINGLE POINT ELECTRICAL CONNECTION WITH LOCAL DISCONNECT SWITCH.

3. NATURAL GAS HEATER, SILICON NITRIDE HOT SURFACE IGNITER WITH SEALED COMBUSTION SYSTEM.

DIRECT GAS VENTING WITH CONCENTRIC VENT/TWO-PIPE TERMINATION KIT.

PROVIDE WITH BOTTOM ENCLOSURE FOR RETURN AIR.

6. PROVIDE ACCESS PANEL SWITCH TO AUTOMATICALLY SHUT-OFF POWER. PROVIDE CONCENTRIC VENT PIPING AND WEATHER CAP.

9. HIGH EFFICIENT MULTI-SPEED MOTOR WITH DDC CONTROLS.

10. SOUND RATING NOT TO EXCEED 65 dBA.

11. PROVIDE PROGRAMMABLE DDC CONTROLLER, LCD AND ROOM THERMOSTAT.

12. DOOR GASKET KIT.

13. PROVIDE WITH 45% EFFICIENCY FILTERS WITH FILTER RACK.

14. PROVIDE SIGLER MODEL CT888i, MULTI-STAGE, 7-DAY PROGRAMMABLE, OCCUPIED/UNOCCUPIED.

$\left\langle \begin{array}{c} EF \\ X \end{array} \right\rangle$ FAN SCHEDULE

UNIT FAN			RATED CFM	RATED S.P.	FAN RPM	DESIGN CFM	FAN TYPE		1
NUMBER	LOCATION	SERVICE	0.111	(IN. H ₂ O)		.		BHP	N W
EF-1	CEILING	MEN'S RESTROOM EXHAUST	110	0.25	-	110	С	8.3W	8
EF-2	ROOF	MEETING HALL	1000	0.25	864	1000	С	0.075	

FAN SHALL MEET WITH THE FOLLOWING REQUIREMENTS:

- 1. ALL UNITS SHALL HAVE SINGLE POINT ELECTRICAL CONNECTION.
- EXHAUST FAN SHALL BE CENTRIFUGAL TYPE ROOF EXHAUST VENTILATOR, ALUMINUM CONSTRUCTION, WELDED HOUSING WITH VENTED MOTOR ENCLOSURE.
- 3. ALL FANS SHALL BE PROVIDED WITH HEAVY DUTY SELF-ALIGNING BALL OR ROLLER PILLOW BLOCK BEARINGS, POLISHED SOLID STEEL SHAFT AND FULLY WELDED CENTRIFUGAL WHEEL AND ADJUSTABLE PITCH DRIVE.
- 4. EF-2 SHALL BE PROVIDED WITH VIBRATION ISOLATORS, STAINLESS QUICK RELEASE LATCHES
- AND LIFTING LUGS.
- 5. ALL FANS SHALL BE PROVIDED WITH HIGH EFFICIENCY CLASS B MOTOR MEETS EPACT AND NEMA 1210. 6. EXHAUST FAN EF-2 SHALL BE PROVIDE WITH SLOPED 18-GA, 1.5" (3 LBS.) INSULATION PRE-FABRICATED METAL ROOF CURB WITH STAINLESS STEEL HINGES FOR EASY LIFT ACCESS FOR CLEANING AND BACKDRAFT DAMPER.
- 7. NOISE GENERATED SHALL NOT EXCEED THE INDICATED REQUIREMENTS.
- 8. HUMIDITY SENSOR FOR EF-1
- 9. PROVIDE EF-2 WITH ECM MOTOR 'VARI-FLOW' WITH TEMPERATURE CONTROLLER (VFTC/VFTC-N) TO MODULATE FAN SPEED FROM THE FAN MANUFACTURER. SEE DETAILED DIAGRAM ON M1.1.

	MOT	OR DATA	@ 60 HZ				MAX.		
IP	MHP/ WATTS	RPM	VOLTS	PHASE	SPEED CONTROL	DRIVE TYPE	NOISE RATING dBA	MANUFACTURER MODEL NO.	
W	8.3W	1725	115	1	NONE	DIRECT		BROAN XB110H	PROVIDE H
75	1/8	1725	115	1	YES	DIRECT	(BELOW)	LOREN COOK 136TLC17D(VF)	PROVIDE F

REQUIRED MAXIMUM FAN UNIT SOUND POWER LEVEL dB re 10 -12 WATTS

HZ	62.5	125	250	500	1000	2000	4000	
EF-1 INLET:								
EF-2 INLET:	68	64	64	58	54	53	51	ł

FAN TYPE DESIGNATION

A- CENTRIFUGAL UTILITY FAN, UPBLAST.

B- WALL MOUNTED PROPELER FAN.

C- CENTRIFUGAL FAN.

D- ROOF EXHAUST VENTILATOR

LOCATION OR	MFR MODEL	UNIT			FAN	AN DATA		COMPRE OUTDOOR AIR TEMP.	MOTOR	COMP.	DRIVEN SCROLL)	PIPING CC INCH DIA.		EFFICIENCY	GENE INDOOR AIR TEMP.	RAL CAPACITY BTUH	SOUND	WEIGHT	REMARKS
UNIT NO.	NO.	MCA AMPS	VOLTS	PHASE	CFM (QTY)	OUTPUT WATTS	F.L.A.	°FDB/°FWB	OUTPUT KW	QTY	CHARGE	LIQUID	GAS	JEER	DB°F/WB°F		LEVEL dB(A)	LBS	
CU-1	MITSUBISHI PUMY-P48NMU-BS	26	208	1	3530 (2)	86.0	-	95/75	2.4	1	R-410A	3/8"	5/8"	15.5	80/75	48,000	52	287	
					(2)														

PROVIDE THE FOLLOWING REQUIREMENTS:

(1) UNIT SHALL BE CAPABLE OF OPERATING AT 115°F MAX. AND 0°F MIN. (2) UNIT SHALL BE PROVIDED WITH INVERTER DRIVEN MOTOR.

3 PIPING, WIRING AND SUPPORT INSTALLATION AND TESTING AND COMMISSIONING SHALL PER MANUFACTURER'S RECOMMENDATION.

(4) PROVIDE LOCAL DISCONNECT SWITCH. SEE ELECTRICAL/DIV. 16. 5 PROVIDE WIRED DDC CONTROLS FOR BOTH THE FAN COIL UNIT AND CONDENSING UNIT. (6) SET R SERIES SYSTEM TO COOLING MODE ONLY.

FC X

S-SERIES AC INDOOR UNIT SCHEDULE

Γ		POWER FAN DATA								COOLING/HEATING DATA							GEI	FILTER		
	UNIT	MFR MODEL	INPUT KW	MCA	UNIT CFM	EXT	MOTOR OUTPUT	VOLTS	PHASE	outdoor Air Temp.	INDOOR AIR TEMP.	CAPA BTI	VCITY JH		g conn Dia. Br		MOISTURE REMOVAL	ENERGY EFFICIENCY	SOUND LEVEL MIN./MAX.	TYPE
	MARK	NO.	COOLING/ HEATING		HI/LO	S.P.	WATTS			°FDB/°FWB	DB°F/WB°F	COOLING	HEATING	LIQUID	GAS	DRAIN	PINTS/HR	SEER	dB(A)	
	FC-1	MITSUBISHI PKFY-P15NHMU-E	0.03/0.03	0.38	320/ 405	0.0	-	208	1	95/75	80/67	15,000	17,000	1/4"	1/2"	5/8"	-	-	34/42	1
	FC-2	MITSUBISHI PKFY-P15NHMU-E	0.03/0.03	0.38	320/ 405	0.0	-	208	1	95/75	80/67	15,000	17,000	1/4"	1/2"	5/8"	-	-	34/42	1
	FC-3	MITSUBISHI PKFY-P15NHMU-E	0.03/0.03	0.38	320/ 405	0.0	-	208	1	95/75	80/67	15,000	17,000	1/4"	1/2"	5/8"	-	-	34/42	1

PROVIDE THE FOLLOWING REQUIREMENTS:

1 ALL FAN COIL SHALL BE PROVIDED WITH HIGH EFFICIENCY DISPOSABLE FILTERS U.L. CLASS II RATED.

2 PIPING, WIRING AND SUPPORT INSTALLATION AND TESTING AND COMMISSIONING SHALL PER MANUFACTURER'S RECOMMENDATION.

(3) ALL FAN COIL UNIT SHALL BE PROVIDED WITH CONDENSATE PUMP AND CONTROLS.

(4) PROVIDE CONDENSATE REMOVAL PUMP FOR FC-9. PUMP SHALL BE REFCO 'GOBI' 3.7 GPH, 65 FT. LIFT, 328 FT. MAX. HORIZONTAL RUN 16 WATTS MOTOR, 208 VOLT/ 1PH DDC CONTROLS, AUTO-SENSING, SAFETY SWITCH, THERMAL OVERLOAD PROTECTION, BUILT-IN NON-RETURN VALVE, AUTO SHUT-OFF INDOOR AND OUTDOOR AC UNIT WHEN ON PUMP FAILURE. PUMP UNIT SHALL BE UL LISTED. UNIT SHALL BE 18 dBA NOISE LEVEL MAX ..

4 PROVIDE LOCAL DISCONNECT SWITCH PER DIV. 16.

5 ALL INDOOR FAN COIL UNITS SHALL BE PART OF MITSUBISHI CITY MULTI 'R2' SERIES.

SEE NOTES BELOW FOR ADDITIONAL REQUIREMENTS

E HUMIDITY & MOTION SENSOR

FAN SPEED AND TEMPERATURE CONTROL.

8000	LwA	dBA	SONE
			<0.3
53	62	50	6.4

R	DATA		
	AREA SQ. FT.	WEIGHT LBS	REMARKS
	-	29	REFRIGERANT R410 ONLY
	-	29	REFRIGERANT R410 ONLY
	-	29	REFRIGERANT R410 ONLY

Seismic Upgrade and Building Alterations

Kensington Community Center

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CONSULTANT

WEIGHT

POUNDS

12.2

220

MECHANICAL ENGINEER: EPCE Inc. Eddie Padilla Consulting Engineers Inc. 274 Devonshire Street Vallejo, CA 94591 707-980-4049

TITLE EQUIPMENT SCHEDULES

LICENSE STAM	P		
REGISTRA	PROFESS PROFESS AROD F. SAROD F. SAROD F. CARDO F. CA	Protection A 16-18	
REVISIONS	BY	REVISIONS	BY
9-03-18 - Permit Plan Check 4-16-18 Issued for Perm			
Date: 7/2/18		Sheet	
Scale: AS NOTED)	M1.1	
Drawn: EPCE			
Job:			

STATE OF CALIFORNIA MECHANICAL SYSTEMS

CEC-NRCC-MCH-01-E (Revised 06/14) CERTIFICATE OF COMPLIANCE

Mechanical Systems Project Name: KENSINGTON COMMUNITY CENTER, KENSING

MECHANICAL COMPLIANCE FORMS & WORKSHEETS (check box if worksheet is included)

For detailed	instructi	ons on the use of this and all Ene	rgy Ef
Note: The E	forcem	ent Agency may require all forms	to be
YES	NO	Form/Worksheet #	Titl
\boxtimes		NRCC-MCH-01-E (Part 1 of 3)	Cer
		NRCC-MCH-01-E (Part 2 of 3)	Cer
		NRCC-MCH-01-E (Part 3 of 3)	Cer
		NRCC-MCH-02-E (Part 1 of 2)	Me
		NRCC-MCH-02-E (Part 2 of 2)	Me
			syst
		NRCC-MCH-03-E	Me
			opt
		NRCC-MCH-07-E (Part 1 of 2)	Pov

NRCC-MCH-07-E (Part 2 of 2) Power Consumption of Fans, Declaration. Required on plans where applicable

MECHANICAL HVAC ACCEPTANCE FORMS (check box for required forms) Designer:

This form is to be used by the designer and attached to the plans. Listed below are all the acceptance tests for HVAC systems. The designer is required to check the applicable boxes for all acceptance tests that apply and list all equipment that requires an acceptance test. All equipment of the same type that requires a test, list the equipment description and the number of systems. Installing Contractor:

The contractor who installed the equipment is responsible to either conduct the acceptance test them self or have a qualified entity run the test for them. If more than one person has responsibility for the acceptance testing, each person shall sign and submit the Certificate of Acceptance applicable to the portion of the construction or installation for which they are responsible. Enforcement Agency:

Inspector - Before occupancy permit is granted all newly installed process systems must be tested to ensure proper operations.

пізрескої - вејоте с	ccupancy	permit is grain	ca an newly ma	italica process s	ystems must be te	stea to ensure pr	oper operations.				
Test Descript	ion	MCH-02A	MCH-03A	MCH-04A	MCH-05A	MCH-06A	MCH-07A	MCH-08A	MCH-09A	MCH-10A	MCH-11A
Equipment	# of	Outdoor	Single Zone	Air	Economizer	Demand	Supply Fan	Valve Leakage	Supply Water	Hydronic	Automatic
Requiring Testing	units	Air	Unitary	Distribution	Controls	Control	VAV	Test	Temp. Reset	System	Demand Shed
or Verification				Ducts		Ventilation				Variable Flow	Control
						(DCV)				Control	

CA Building Energy Efficiency Standards - 2013 Nonresidential Compliance

CERTIFICATE OF COMPLIANCE	CALIFORNIA ENERGY COMM	C-PLB-01-E			-E (Revised 06/14) DF COMPLIANCE		
Water Heating System General Information	(Page 2 of 2)	Water	Heating	System General Inform	nation	
Project Name: KENSINGTON COMMUNITY CENTER, KENSINGTO (CA Date Prepared: 4/10/18		Project Na	^{ne:} KEN	SINGTON COMMUNITY	CENTER, KENSIN	GTO CA
OCUMENTATION AUTHOR'S DECLARATION STATEMENT							
I certify that this Certificate of Compliance documentation is ac	curate and complete.				IFORMATION/SYSTEM ater System Name:	INFORMATION	WH-1
entation Author Name: EDGARDO F. PADILLA	Documentation Author Signature				•	ion	DOMESTIC HOT V
EDDIE PADILLA CONSULTING ENGINEERS INC.	Signature Date: 4/12/18				ater System Configurat ater System Type:		CONDENSING GAS
dress: 274 DEVONSHIRE STREET	CEA/ HERS Certification Identification (if applicable):			uilding T			COMPLICATING ON
^{/State/Zip:} VALLEJO, CA 94591	Phone: (707) 980–4049			-	nber of Water Heaters	in Systems:	ONE
VALLEJU, CA 94391	(707) 960-4049				HW Distribution Type:	in Systems.	SINGLE PASS
ESPONSIBLE PERSON'S DECLARATION STATEMENT I certify the following under penalty of perjury, under the laws	of the State of California				Jnit DHW Distribution	Type:	N.A.
The information provided on this Certificate of Compliance is t			7. D	vening		Type.	<u> </u>
2. I am eligible under Division 3 of the Business and Professions C	ode to accept responsibility for the building design or syst	em design	B. WA	TER HEA	TER INFORMATION		
identified on this Certificate of Compliance (responsible design 3. The energy features and performance specifications, materials		design or	Each w		ater type requires a sep	oarate form.	
system design identified on this Certificate of Compliance conf			1.		r Heater Type:		_
California Code of Regulations. 4. The building design features or system design features identifi	ad on this Cartificate of Compliance are consistent with the		2.	Fuel 1			GAS WATER H
 The building design reatures or system design reatures identified information provided on other applicable compliance document 			3.		er of Identical Water H	leaters:	NONE
the enforcement agency for approval with this building permit	application.		4.	Efficie	-		96%
I will ensure that a completed signed copy of this Certificate of issued for the building, and made available to the enforcement			5.	· ·	red Minimum Efficienc	-	80%
signed copy of this Certificate of Compliance is required to be i			6.		by loss percent or Stan	dby loss total:	NONE
owner at occupancy.	Responsible Designer Signature:		7.		Input		100,000 BTUH ELECTRONIC
esponsible Designer Name: EDGARDO F. PADILLA			8.		Energy:	/olumo.	
^{mpany:} EDDIE PADILLA CONSULTING ENGINEERS INC.	Date Signed: 4/12/18		<u>9.</u> 10.		r Heater Tank Storage \ or Insulation On Water		50 GALLONS
dress: 274 DEVONSHIRE STREET	License: M27070		10.		ne of Supplemental Sto		
ity/State/Zip: VALLEJO, CA 94591	Phone: (707) 980-4049		11.		al Insulation on Supple		
·			13.		or Insulation on Supple		_
				Litter			
			PLUMB	ING CO	MPLIANCE FORMS & W	ORKSHEETS (che	ck box if workshee
					uctions on the use of this	-	
			Note: T	e Enfor	ement Agency may requi	re all forms to be inc	cornorated onto the l
			YES	NO	Form/Worksheet #		
					NRCC-PLB-01-E		npliance, Declarati
					NRCI-PLB-01-E		tallation. Required
					NRCI-PLB-02-E	hotel/motel appl	tallation, required
							tallation, required
					NRCI-PLB-03-E		/motel application
					NRCI-PLB-21-H		tallation, required
				+			/motel application
					NRCI-PLB-22-H		tallation, required tial, hotel/motel ap
					NRCI-STH-01-E		tallation, required

	NRCC-MCH-01-E
	(Page 1 of 3)
Date Prepared:	4/12/18
	Date Prepared:

Efficiency Standards compliance forms, refer to the 2013 Nonresidential Manual e incorporated onto the building plans.

rtificate of Compliance, Declaration. Required on plans for all submittals.

ertificate of Compliance, Required Acceptance Tests (MCH-02A to 11A). Required on plans for all submittals. ertificate of Compliance, Required Acceptance Tests (MCH-12A to 18A). Required on plans where applicable. echanical Dry Equipment Summary is required for all submittals with Central Air Systems. It is optional on plans. lechanical Wet Equipment Summary is required for all submittals with chilled water, hot water or condenser water stems. It is optional on plans.

echanical Ventilation and Reheat is required for all submittals with multiple zone heating and cooling systems. It is ptional on plans. NRCC-MCH-07-E (Part 1 of 2) Power Consumption of Fans. Required on plans where applicable

Plancheck – The NRCC-MCH-01-E form is not considered a completed form and is not to be accepted by the building department unless the correct boxes are checked.

June 2014

ATE OF COMPLIANCE			NRCC-PLB-01-E
eating System General Information			(Page 1 of 2)
KENSINGTON COMMUNITY CENTER, KENS	NGTO CA	Date Prepared: 4/10/18	
RAL INFORMATION/SYSTEM INFORMATION			
er Heater System Name:	WH-1		
er Heater System Configuration:	DOMESTIC HOT WATER SUI	PPLY	
er Heater System Type:	CONDENSING GAS WATER	HEATER	
ding Type:	COMMUNITY CENTER		
l Number of Water Heaters in Systems:	ONE		
ral DHW Distribution Type:	SINGLE PASS		
lling Unit DHW Distribution Type:	N.A.		

ATER INFORMATION

ter heater type requires a separate form.	
Water Heater Type:	
Fuel Type	GAS WATER HEATER
Number of Identical Water Heaters:	NONE
Efficiency:	96%
Required Minimum Efficiency:	80%
Standby loss percent or Standby loss total:	NONE
Rated Input	100,000 BTUH
Pilot Energy:	ELECTRONIC
Water Heater Tank Storage Volume:	50 GALLONS
Exterior Insulation On Water Heater:	
Volume of Supplemental Storage:	
Internal Insulation on Supplemental Storage:	
Exterior Insulation on Supplemental Storage:	

MPLIANCE FORMS & WORKSHEETS (check box if worksheet is included) ructions on the use of this and all Energy Efficiency Standards compliance forms, refer to the 2013 Nonresidential Manual

Enforc	ement Agency may requii	e all forms to be incorporated onto the building plans.
NO	Form/Worksheet #	Title
	NRCC-PLB-01-E	Certificate of Compliance, Declaration. Required on plans for all submittals.
	NRCI-PLB-01-E	Certificate of Installation. Required on plans for all submittals.
	NRCI-PLB-02-E	Certificate of Installation, required on central systems in high-rise residential, hotel/motel application.
	NRCI-PLB-03-E	Certificate of Installation, required on single dwelling unit systems in high-rise residential, hotel/motel application.
	NRCI-PLB-21-H	Certificate of Installation, required on HERS verified central systems in high-rise residential, hotel/motel application.
	NRCI-PLB-22-H	Certificate of Installation, required on HERS verified single dwelling unit systems in high-rise residential, hotel/motel application.
	NRCI-STH-01-E	Certificate of Installation, required on any solar water heating

June 2014

STATE	OF CALIFORNIA
MEC	CHANICAL SYSTEMS
	RCC-MCH-01-E (Revised 06/14)
CERT	IFICATE OF COMPLIANCE
Mec	hanical Systems
Project	Name: KENSINGTON COMMUNITY CENTER, KENSINGTO CA
DOCI	JMENTATION AUTHOR'S DECLARATION STATEMENT
1.	I certify that this Certificate of Compliance documentation is accurate and compl
Docum	EDGARDO F. PADILLA
Compa	^{INY:} EDDIE PADILLA CONSULTING ENGINEERS INC.
Addres	274 DEVONSHIRE STREET
City/St	^{ate/Zip:} VALLEJO, CA 94591
	ONSIBLE PERSON'S DECLARATION STATEMENT
	I certify the following under penalty of perjury, under the laws of the State of Ca
1.	The information provided on this Certificate of Compliance is true and correct.
2.	I am eligible under Division 3 of the Business and Professions Code to accept res
	designer).
3.	The energy features and performance specifications, materials, components, and
	conform to the requirements of Title 24. Part 1 and Part 6 of the California Code

- conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations. worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.

building owner at occupancy.

Responsible Designer Name: EDGARDO F. PADILLA

Company: EDDIE PADILLA CONSULTING ENGINEERS INC.

Address: 274 DEVONSHIRE STREET

City/State/Zip: VALLEJO, CA 94591

CA Building Energy Efficiency Standards - 2013 Nonresidential Compliance

CERTIFICATE OF COMPLIANCE		
Requirements for Packaged Single-Zone Uni	ts	
roject Name KENSINGTON COMMUNITY CENTER	R, KENSINGTO CA	
Equipment Tag(s) ¹		GAS
MANDATORY MEASURES	T-24 Sections	Requireme
Heating Equipment Efficiency ⁴	110.1 or 110.2(a)	80.0%
Cooling Equipment Efficiency ⁴	110.1 or 110.2(a)	NA
Thermostats ⁵	110.2(b), 110.2(c)	YES
Furnace Standby Loss Control ⁶	110.2(d)	NA
Low Leakage AHU	110.2(f)	NA
Ventilation ⁷	120.1(b)	800 CFN
Demand Control Ventilation ⁸	120.1(c)4	NA
Occupant Sensor Ventilation Control ⁸	120.1(c)5, 120.2(e)3	NA
Shutoff and Reset Controls ⁹	120.2(e)	NA
Outdoor Air and Exhaust Damper Control	120.2(f)	NA
Automatic Demand Shed Controls	120.2(h)	NA
Economizer FDD	120.2(i)	NA
Duct Insulation	120.4	NA
PRESCRIPTIVE MEASURES	·	•
Equipment is sized in conformance with	140.4(a & b)	
140.4 (a & b)		YES
Economizer	140.4(e)	NONE
Electric Resistance Heating ¹⁰	140.4(g)	NONE
Duct Leakage Sealing and Testing. ¹¹	140.4(l)	YES
 Notes: Provide equipment tags (e.g. AC1 or AC1 to Enter the following information as appropr (enter "N/A" if no heating); and, rated cool For each requirement, enter the minimum the the units as specified. 	iate: Unit Manufacturer; Uni ling capacity (enter "N/A" if n	t Model Number o cooling). For
4. Where there is more than one requirement		
5. In the left column identify the thermostatic		dard (e.g. progra
capabilities of the thermostat as scheduled		dianta the set
 If the unit has a furnace which is rated at > indicate "N/A". 	=225,000 Btun of capacity, in	aicate the rated
7. In the left column, enter both the required		
ventilation as scheduled. If the space is na 8. If the space is required to have either DCV (
Sensor Ventilation Control is provided indic	-	
9. In the left column indicate the required tim		
	the system has electric heatir	



indicate "N/A" in the right column) olumn identify the device that provides this functionality (e.g. EMCS or programmable timeclock). h exception to 140.4(g) applies.

June 2014

Seismic Upgrade and Building Alterations

Kensingtor Community Center

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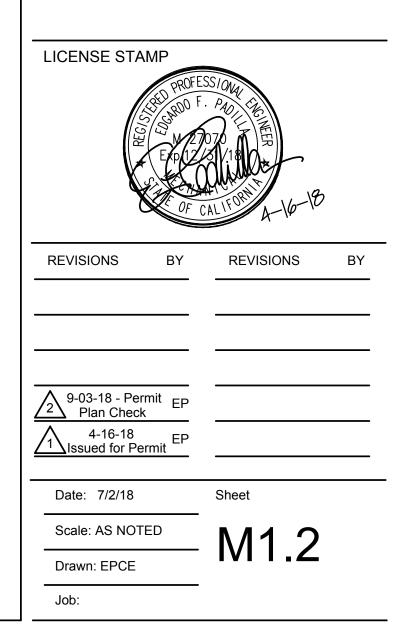
F. 415.864.1141

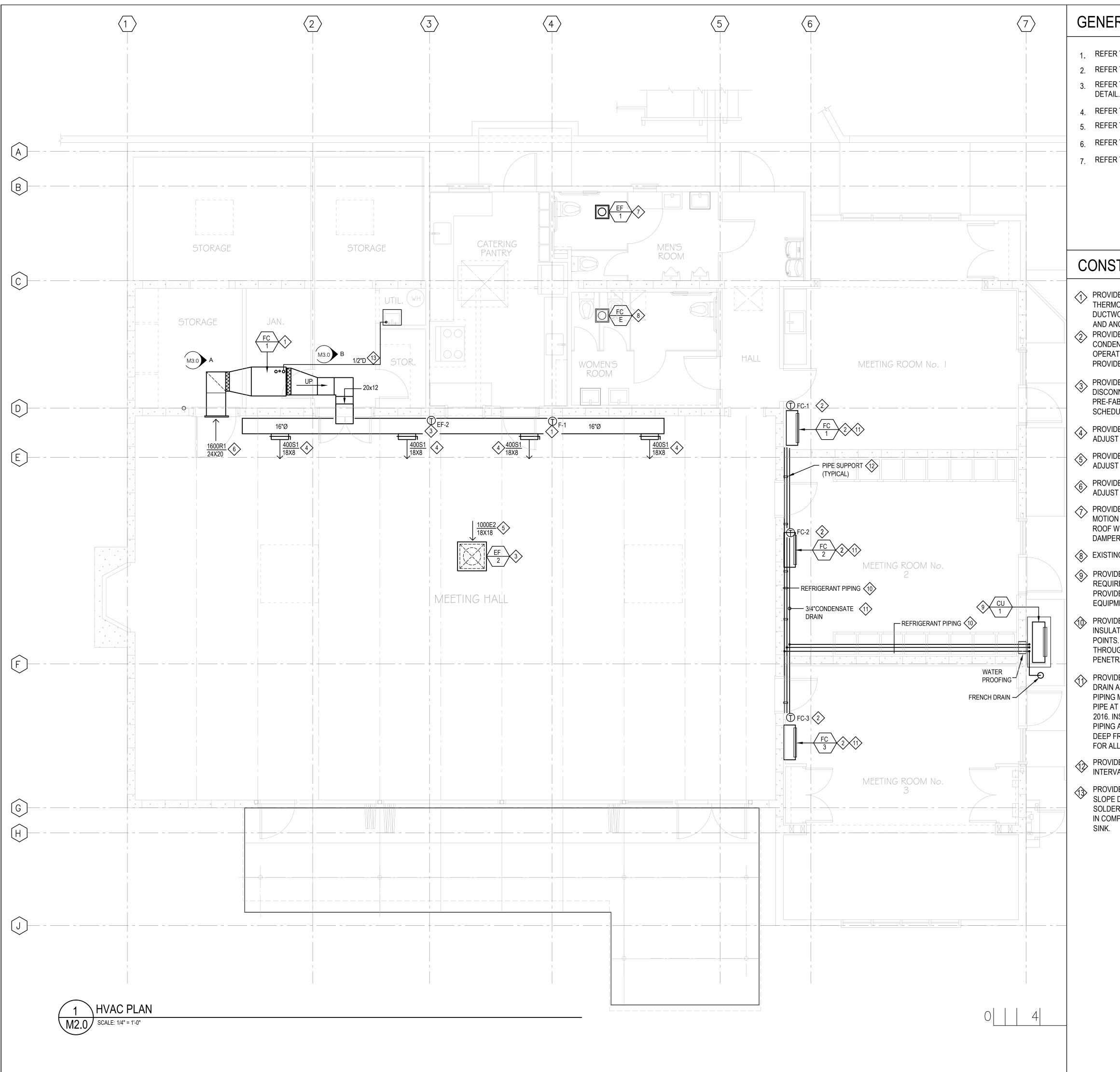
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MECHANICAL ENGINEER: EPCE Inc. Eddie Padilla Consulting Engineers Inc. 274 Devonshire Street Vallejo, CA 94591 707-980-4049

TITLE HVAC TITLE 24 COMMPLIANCE FORMS





REFER TO DETAIL 1/M3.0 FOR RECTANGULAR DUCT DETAIL.

REFER TO DETAIL 2/M3.0 FOR ROUND DUCT SUPPORT DETAIL.

REFER TO DETAIL 3/M3.0 FOR TYPICAL RECTANGULAR DUCT SUPPORT

4. REFER TO DETAIL 4/M3.0 FOR TYPICAL ROOF MOUNTED EXHAUST FAN DETAIL.

REFER TO DETAIL 5/M3.0 FOR CONDENSING UNIT MOUNTING DETAIL.

6. REFER TO DETAIL 6/M3.0 FOR FAN COIL MOUNTING DETAIL.

7. REFER TO DETAIL 7/M3.0 FOR HORIZONTAL GAS FURNACE SUPPORT DETAIL.

CONSTRUCTION HVAC KEYED NOTES:

PROVIDE NEW GAS FURNACE COMPLETE WITH CONTROLS AND ROOM THERMOSTAT FOR PRE-PROGRAMMED OPERATION FOR MEETING HALL. PROVIDE DUCTWORK AND AIR REGISTERS FOR AIR DISTRIBUTION. PROVIDE SUPPORTS AND ANCHORS.

PROVIDE MITSUBISHI CITY-MULTI SPLIT DX FAN COIL COMPLETE WITH CONDENSING UNIT, CONTROLS AND ROOM THERMOSTAT FOR PRE-PROGRAMMED OPERATION FOR MEETING ROOMS 1,2 &3. PROVIDE SUPPORTS AND ANCHORS. PROVIDE POWER DISCONNECT FOR EACH FAN COIL AND CONDENSING UNIT.

PROVIDE NEW ROOF MOUNTED EXHAUST FAN EF-2 COMPLETE WITH POWER DISCONNECT, LINE VOLTAGE DDC THERMOSTAT WITH PROGRAMMABLE TIMER, PRE-FABRICATED GALVANIZED SHEET METAL ROOF CURB. REFER TO FAN SCHEDULE ON M1.1 FOR DETAILED REQUIREMENTS.

PROVIDE SUPPLY AIR DIFFUSER. SEE M1.1 FOR SCHEDULED REQUIREMENTS. ADJUST TO AIRFLOW INDICATED.

S PROVIDE EXHAUST AIR REGISTER. SEE M1.1 FOR SCHEDULED REQUIREMENTS. ADJUST TO AIRFLOW INDICATED.

 PROVIDE RETURN AIR REGISTER. SEE M1.1 FOR SCHEDULED REQUIREMENTS. ADJUST TO AIRFLOW INDICATED.

PROVIDE NEW TOILET CEILING MOUNTED EXHAUST FAN EF-1 COMPLETE WITH MOTION SENSOR AND HUMIDITY SENSOR FOR MEN'S RESTROOM. TERMINATE ON ROOF WITH 'BROAN NUTONE' 634 ROOF CAP WITH SCREEN AND BACKDRAFT DAMPER. PROVIDE ROOF FLASHING AND COUNTER-FLASHING.

(8) EXISTING TOILET EXHAUST FAN IN WOMEN'S RESTROOM TO REMAIN.

PROVIDE NEW CONDENSING UNIT. REFER TO DRAWING M1.1 FOR SCHEDULE REQUIREMENTS. PROVIDE LOCAL DISCONNECT AND CONVENIENCE OUTLET. PROVIDE 6" THICK CONCRETE PAD AND ANCHORS. SEE DETAIL 2/M3.0 FOR EQUIPMENT MOUNTING DETAILS.

PROVIDE REFRIGERATION PIPING BETWEEN CONDENSING UNIT TO FAN COIL UNIT. INSULATE PIPE WITH PVC JACKET. PROVIDE SILICATE INSERTS AT ALL SUPPORT POINTS. PROVIDE 3M WEATHERPROOF SEALANT FOR ALL PIPE PENETRATIONS THROUGH EXTERIOR WALLS. PROVIDE 3M WATER PROOFING SEAL ON ALL PENETRATIONS THROUGH WALLS.

PROVIDE NEW 3/4" CONDENSATE DRAIN PIPING FOR ALL FAN COIL UNITS. SLOPE DRAIN AT 1/8" PER FOOT. PROVIDE CLEANOUT AT EVERY CHANGE OF DIRECTION. PIPING MATERIAL SHALL BE COPPER TYPE L WITH SOLDERED JOINTS. SUPPORT PIPE AT EVERY 5 FOOT INTERVAL. PIPING SHALL BE IN COMPLIANCE WITH CPC 2016. INSULATE DRAIN PIPE WITH 1/2" FIBERGLASS WITH ASJ. TERMINATE DRAIN PIPING AT FRENCH DRAIN NEXT TO EQUIPMENT CONCRETE PAD. PROVIDE 6"Ø X 12" DEEP FRENCH DRAIN FILLED WITH GRAVEL. PROVIDE 3M FIRE STOPPING SEALANT FOR ALL PIPE PENETRATIONS THROUGH FIRE RATED WALLS.

PROVIDE UNISTRUT PIPE SUPPORT. MAXIMUM SUPPORT SHALL BE 5'-0" MAXIMUM INTERVAL.

PROVIDE NEW 1/2" CONDENSATE DRAIN PIPING FOR CONDENSING GAS FURNACE. SLOPE DRAIN AT 1/8" PER FOOT. PIPING MATERIAL SHALL BE COPPER TYPE L WITH SOLDERED JOINTS. SUPPORT PIPE AT EVERY 5 FOOT INTERVAL. PIPING SHALL BE IN COMPLIANCE WITH CPC 2016. TERMINATE DRAIN PIPING AT THE NEW JANITOR

Seismic Upgrade and Building Alterations

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GLASS Associates, Inc. architecture & planning

519 Seventh Street San Francisco, CA 94103

> T. 415.864.1234 F. 415.864.1141

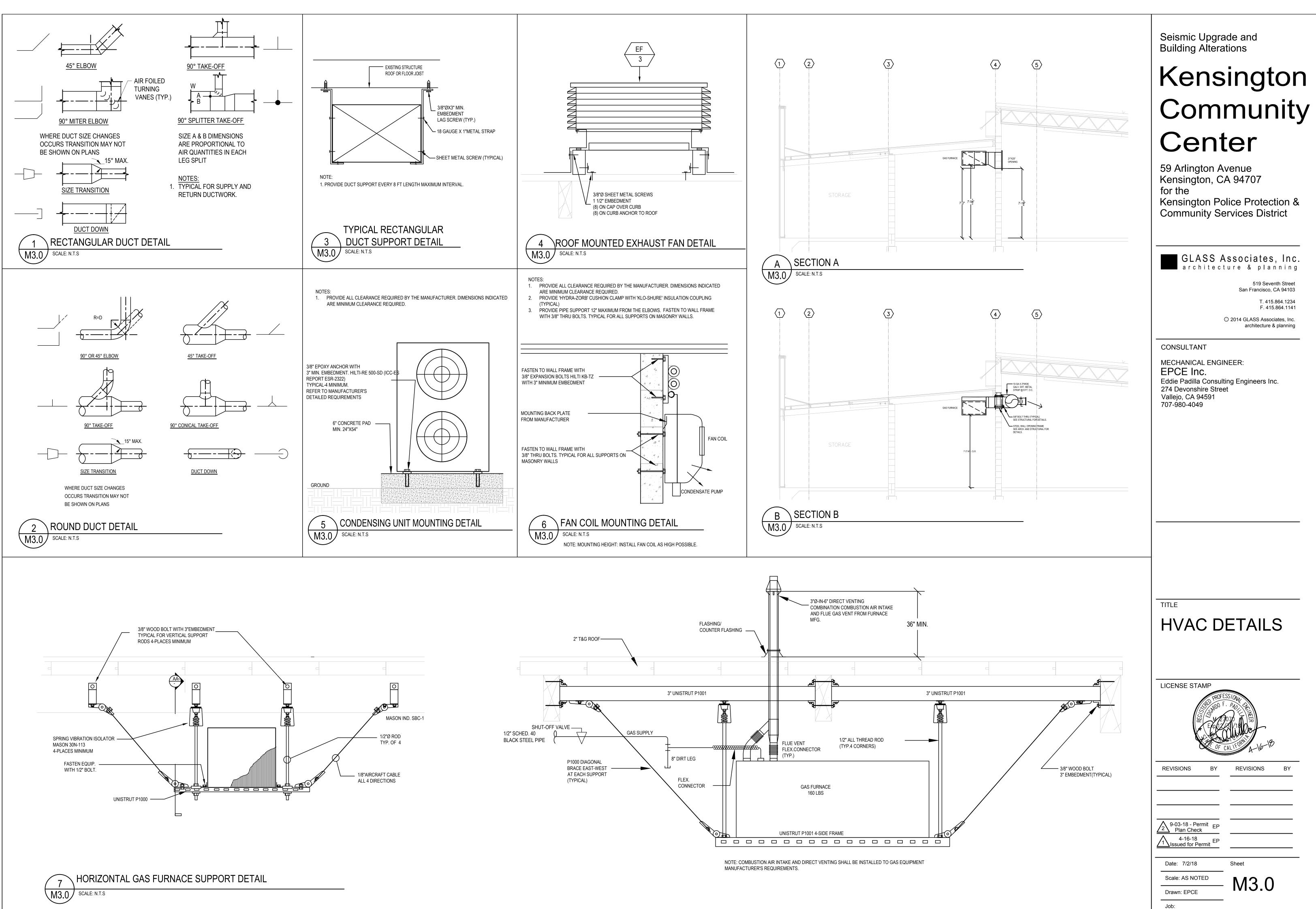
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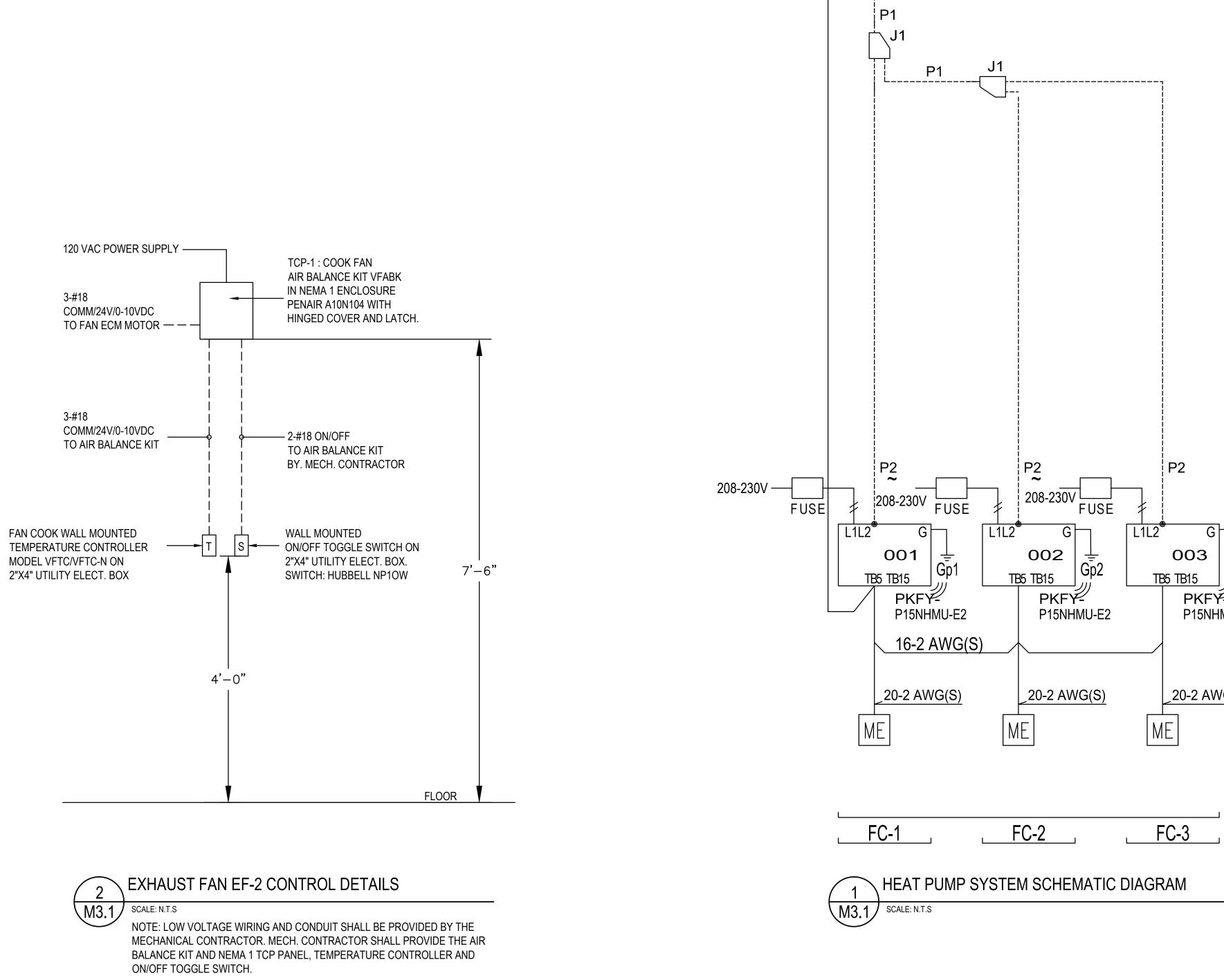
MECHANICAL ENGINEER: EPCE Inc. Eddie Padilla Consulting Engineers Inc. 274 Devonshire Street Vallejo, CA 94591 707-980-4049

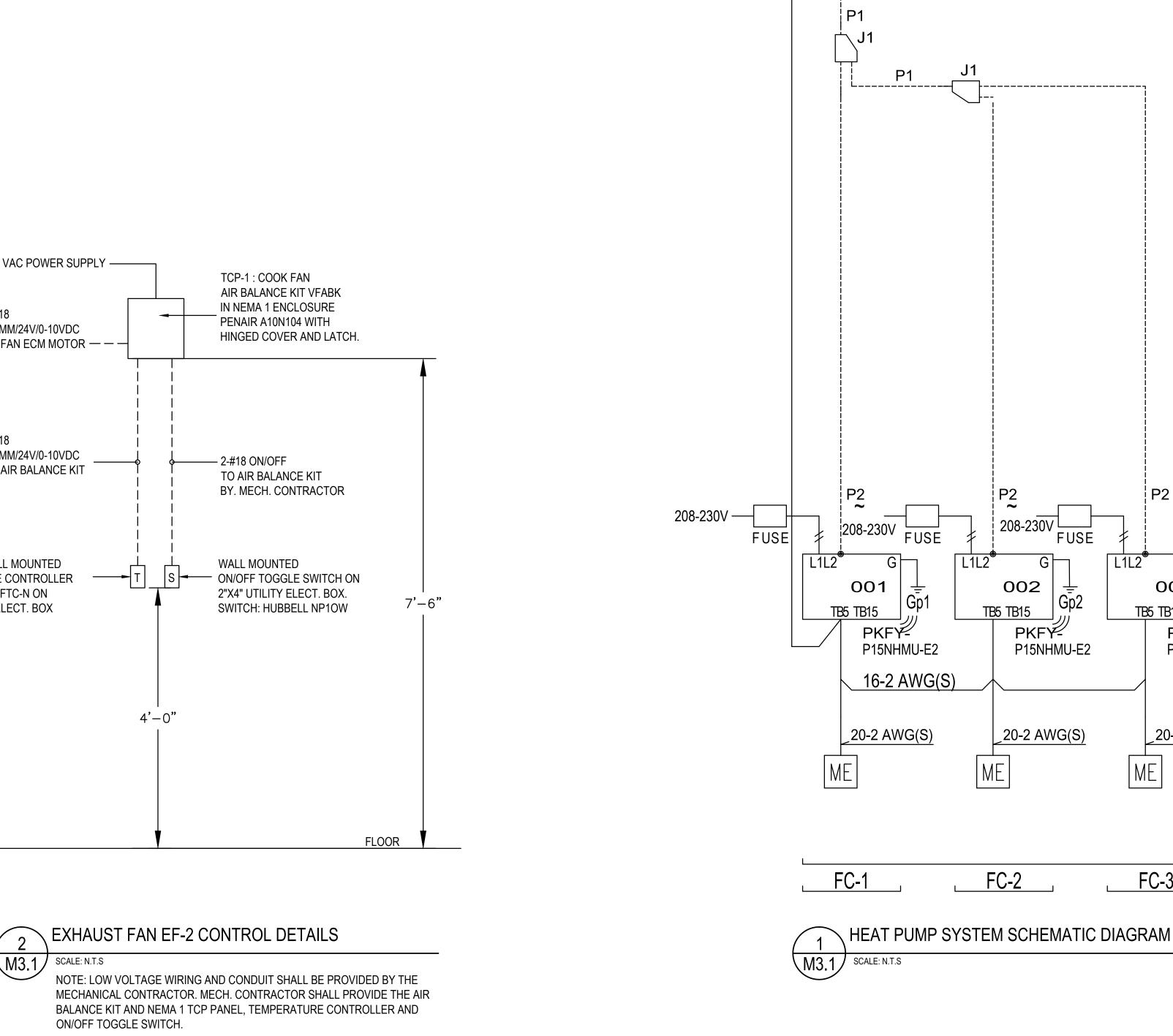
HVAC PLAN

LICENSE STAMP	
PROF PROF PROF PROF PROF PROF PROF PROF	ESS/OW F. PAD FROM A-6-18
REVISIONS BY	REVISIONS BY
9-03-18 - Permit EP	
4-16-18 EP	
Date: 7/2/18	Sheet
Scale: AS NOTED	M2.0
Drawn: EPCE	
Job:	-



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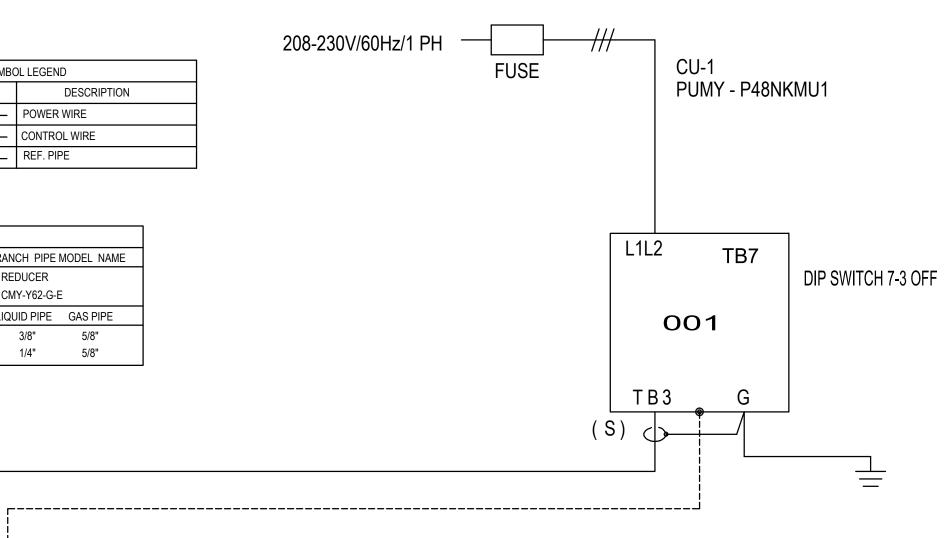




208-230V/60Hz/1 PH -----

DIAGRAM SYMBOL LEGEND				
DISPLAY DESCRIPTION				
<i>///_</i>	POWER WIRE			
CONTROL WIRE				
	REF. PIPE			

PIPING LIS	ST			
SYMBOL BRANCH PIPE MODEL NAME				
J1	REDUCER			
J2	CMY-Y62-G-E	1		
SYMBOL	LIQUID PIPE	GAS PIPE		
P1	3/8"	5/8"		
P2	1/4"	5/8"		



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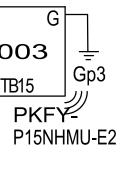
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MECHANICAL ENGINEER: EPCE Inc. Eddie Padilla Consulting Engineers Inc. 274 Devonshire Street Vallejo, CA 94591 707-980-4049

TITLE



LICENSE STAMP			
REVISIONS BY	REVISIONS BY		
9-03-18 - Permit EP Plan Check			
4-16-18 EP			
Date: 7/2/18	Sheet		
Scale: AS NOTED	M3.1		
Drawn: EPCE			
Job:			



_20-2 AWG(S)

SPECIFICATIONS

MECHANICAL GENERAL REQUIREMENTS

- GENERAL: FURNISH ALL SERVICES, SKILLED AND COMMON LABOR, AND ALL APPARATUS AND MATERIALS REQUIRED FOR THE COMPLETE INSTALLATION OF HVAC, PLUMBING AND FIRE PROTECTION AS SHOWN AND WITHIN THE INTENT OF THE DRAWINGS AND/OR THESE SPECIFICATIONS.
- QUALITY ASSURANCE:
- MANUFACTURER: COMPANY SPECIALIZING IN MANUFACTURING OF PRODUCTS SPECIFIED IN THIS SECTION, WITH DOCUMENTED EXPERIENCE OF MORE THAN FIVE (5) YEARS.
- INSTALLER: COMPANY SPECIALIZING IN EXECUTING THE SCOPE OF WORK SPECIFIED IN THIS SECTION, WITH В. DOCUMENTED EXPERIENCE OF MORE THAN FIVE (5) YEARS.
- SUBMITTALS: SHOP DRAWINGS, OPERATION AND MAINTENANCE MANUAL, A COMPLETE LIST OF MATERIALS AND EQUIPMENT 3. PROPOSED SHALL BE SUBMITTED TO THE PROJECT MANAGER FOR APPROVAL. THE LIST SHALL INCLUDE FOR EACH ITEM: THE MANUFACTURER, THE MANUFACTURER'S CATALOG NUMBER, TYPE OR CLASS, THE RATING, CAPACITY, SIZE, ETC.
 - SHOP DRAWING DATA SHALL INCLUDE THE FOLLOWING:
 - A. MANUFACTURER'S MODEL AND CATALOG DATA. B. COMPLETE WIRING, DUCT AND PIPING CONNECTION DIAGRAMS FOR EACH TRADE.
 - DIMENSIONS, CAPACITIES, RATINGS, MATERIALS AND FINISHES.
 - D. DATA SHEET CLEARLY MARKED WITH STANDARD AND OPTIONAL FACTORY ITEMS BEING PROPOSED. E. EACH SHOP DRAWING IS REQUIRED TO BEAR THE REVIEW STAMP OF THE CONTRACTOR.
- SUBSTITUTIONS: INSTALLATION OF ANY APPROVED SUBSTITUTED EQUIPMENT IS THE SUBCONTRACTOR'S RESPONSIBILITY, AND ANY CHANGES REQUIRED TO WORK INCLUDED UNDER OTHER DIVISIONS FOR INSTALLATIONS OF APPROVED SUBSTITUTED EQUIPMENT MUST BE MADE TO THE SATISFACTION OF THE OWNER AND WITHOUT CHANGE IN CONTRACT PRICE. APPROVAL BY THE OWNER OF SUBSTITUTED EQUIPMENT AND/OR DIMENSION DRAWINGS DOES NOT WAIVE THESE REQUIREMENTS.

INSTALLATION: INSTALL PRODUCTS AND MATERIALS IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. CONTRACT DRAWINGS AND REVIEWED SUBMITTALS.

- A. MATERIALS SHALL BE CAREFULLY HANDLED AND STORED UNDER COVER IN MANNER TO PREVENT DEFORMATION AND DAMAGE TO THE MATERIALS AND TO SHOP FINISHES, AND TO PREVENT RUSTING AND THE ACCUMULATION OF FOREIGN MATTER ON THE METAL WORK. WORK SHALL BE REPAIRED AND CLEANED PRIOR TO ERECTION.
- B. WORK SHALL BE ERECTED SQUARE, PLUMB AND TRUE AND ACCURATELY FITTED
- C. METAL WORK SHALL BE RIGIDLY BRACED AND SECURED TO SURROUNDING CONSTRUCTION, AND SHALL BE TIGHT AND FREE OF RATTLE. VIBRATION. OR NOTICEABLE DEFLECTION AFTER INSTALLED.
- D. WHERE DISSIMILAR METALS ARE TO COME INTO CONTACT WITH ONE ANOTHER. ISOLATE BY APPLICATION OF A HEAVY COATING OF BITUMINOUS PAINT ON CONTACT SURFACES IN ADDITION TO SHOP COAT SPECIFIED ABOVE. DO NOT PERMIT THE BITUMINOUS PAINT IN ANY WAY TO REMAIN ON SURFACES TO BE EXPOSED OR TO RECEIVE SEALANT.
- E. UNGALVANIZED FERROUS METALS UNDER THIS SECTION SHALL BE GIVEN A SHOP COAT OF RUST INHIBITIVE PRIMER OF TYPE SPECIFIED ABOVE.
- GUARANTEE REQUIREMENTS
 - A. GUARANTEE SHALL BE IN ACCORDANCE WITH DIVISION 1, AND THE REQUIREMENTS OF THE GENERAL CONDITIONS.
 - B. MANUFACTURERS SHALL PROVIDE THEIR STANDARD GUARANTEES FOR WORK UNDER THIS CONTRACT, UNLESS SPECIFIED OTHERWISE. HOWEVER, SUCH GUARANTEES SHALL BE IN ADDITION TO AND NOT IN LIEU OF ALL OTHER LIABILITIES WHICH THE MANUFACTURER AND CONTRACTOR MAY HAVE BY LAW OR BY OTHER PROVISIONS OF THE CONTRACT DOCUMENTS.
 - C. UPON RECEIPT OF NOTICE FROM THE OWNER OF FAILURE OF ANY PART OF THE SYSTEMS OR EQUIPMENT DURING THE GUARANTEE PERIOD, THE AFFECTED PART OR PARTS SHALL BE REPLACED BY THE RESPONSIBLE CONTRACTOR.

COORDINATION

1. GENERAL

- A. LOCATIONS OF PIPING, DUCTWORK, CONDUITS AND EQUIPMENT SHALL BE ADJUSTED TO ACCOMMODATE THE NEW WORK WITH INTERFERENCE ANTICIPATED AND ENCOUNTERED DURING INSTALLATION. CONTRACTOR SHALL DETERMINE THE EXACT ROUTING AND LOCATION OF SYSTEMS PRIOR TO FABRICATION OR INSTALLATION OF ANY SYSTEM COMPONENT, ACCURATE MEASUREMENTS AND COORDINATION DRAWINGS WILL HAVE TO BE COMPLETED TO VERIFY DIMENSIONS AND CHARACTERISTICS OF THE VARIOUS SYSTEMS' INSTALLATIONS.
- B. LINES WHICH PITCH SHALL HAVE THE RIGHT-OF-WAY OVER THOSE WHICH DO NOT PITCH. FOR EXAMPLE, WASTE PIPING SHALL NORMALLY HAVE THE RIGHT-OF-WAY. LINES WHOSE ELEVATIONS CANNOT BE CHANGED SHALL HAVE THE RIGHT-OF-WAY OVER LINES WHOSE ELEVATIONS CAN BE CHANGED.
- C. OFFSETS, TRANSITIONS AND CHANGES OF DIRECTION SHALL BE MADE AS REQUIRED TO MAINTAIN PROPER HEADROOM AND PITCH OF SLOPING LINES WHETHER OR NOT INDICATED ON THE DRAWINGS, CONTRACTOR SHALL PROVIDE MANUAL AIR VENTS, TRAP ASSEMBLIES AND DRAINS AS REQUIRED TO EFFECT THESE OFFSETS, TRANSITIONS AND CHANGES IN DIRECTION, AS APPLICABLE.
- D. THE CONTRACT DRAWINGS ARE DIAGRAMMATIC ONLY INTENDING TO SHOW GENERAL RUNS AND LOCATIONS OF PIPING, DUCTWORK, EQUIPMENT, TERMINALS AND SPECIALTIES AND NOT NECESSARILY SHOWING EACH REQUIRED OFFSET. DETAIL ACCESSORY OR EQUIPMENT TO BE CONNECTED. ACCURATELY LAY OUT WORK WITH WORK SPECIFIED IN OTHER SECTIONS TO AVOID CONFLICTS AND TO OBTAIN A NEAT AND WORKMANLIKE INSTALLATION WHICH WILL AFFORD MAXIMUM ACCESSIBILITY FOR OPERATION, MAINTENANCE AND HEADROOM.
- E. FINAL LOCATION OF AIR DISTRIBUTION DEVICES AND SPRINKLER HEADS SHALL BE COORDINATED WITH THE ARCHITECTURAL REFLECTED CEILING PLANS AND OTHER ARCHITECTURAL DETAILS, AS APPLICABLE. OFFSETS OF DUCTWORK, ADDED SHEET METAL, ELBOWS AND FLEXIBLE CONNECTIONS, SHALL BE PROVIDED AS REQUIRED TO COMPLY WITH THE ARCHITECTURAL REFLECTED CEILING PLANS AND INSTALLATION DETAILS. OBTAIN APPROVAL OF LOCATIONS OF ALL DEVICES FROM OWNER'S REPRESENTATIVE IN THE FIELD PRIOR TO INSTALLATION.
- F. WORK SHALL BE INSTALLED IN A WAY TO PERMIT REMOVAL (WITHOUT DAMAGE TO OTHER PARTS) OF COILS, FILTERS, CONTROL APPURTENANCES, FAN SHAFTS AND WHEELS, FILTERS, BELT GUARDS, SHEAVES AND DRIVES AND ALL OTHER SYSTEM COMPONENTS PROVIDED UNDER THIS CONTRACT REQUIRING PERIODIC REPLACEMENT OR MAINTENANCE. ALL PIPING SHALL BE ARRANGED IN A MANNER TO CLEAR THE OPENINGS OF SWINGING OVERHEAD ACCESS DOORS, CEILING TILES AND CLEANING ACCESS DOORS IN DUCTWORK.
- G. WORK SHALL INCLUDE COOPERATION WITH AND ASSISTANCE TO THE FACILITIES MONITORING AND CONTROL SYSTEM CONTRACTOR AS REQUIRED TO PROVIDE A COMPLETE AND FUNCTIONAL HVAC CONTROL SYSTEM.

AS-BUILT DOCUMENTS

- CONTRACTOR SHALL INDICATE PROGRESS BY COLORING-IN VARIOUS PIPES, DUCTS AND APPURTENANCES EXACTLY AS THEY ARE ERECTED. THIS PROCESS SHALL INCORPORA OTHER DEVIATIONS FROM THE ORIGINAL DRAWINGS WHETHER RESULTING FROM JOB C OTHER CAUSES.
- 2. UPON COMPLETION OF THE PROJECT, THE CONTRACTOR SHALL SUBMIT HIS MARKED-U REPRESENTATIVE FOR REVIEW AND COMMENT.

MATERIALS

- MATERIALS MANUFACTURERS SHALL BE AS SPECIFIED FOR EACH PRODUCT IN EACH SECTIOI SUBSTITUTIONS SHALL BE SUBJECT TO REVIEW AND APPROVAL BY THE OWNER. THE CONTR RESPONSIBLE FOR COST AND/OR ANY DELAY INCURRED IN REVIEW AND APPROVAL FOR ANY
- MATERIALS SHALL BE DELIVERED TO THE SITE AND STORED IN ORIGINAL SEALED CONTA 1 FROM THE ELEMENTS, BUT READILY ACCESSIBLE FOR INSPECTION BY THE OWNER'S RE INSTALLED. ITEMS SUBJECT TO MOISTURE DAMAGE SUCH AS CONTROLS AND FILTERS \$ HEATED SPACES.
- CONTRACTOR SHALL HAVE HIS MATERIAL TIGHTLY COVERED AND PROTECTED AGAINST OR MECHANICAL INJURY AND THEFT. AT THE COMPLETION OF THE WORK, EQUIPMENT / CLEANED, POLISHED THOROUGHLY AND TURNED OVER THE OWNER IN A CONDITION SA REPRESENTATIVE. DAMAGE OR DEFECTS DEVELOPING BEFORE ACCEPTANCE OF THE W THE CONTRACTOR'S EXPENSE.
- MAKE NECESSARY FIELD MEASUREMENTS TO ASCERTAIN SPACE REQUIREMENTS, FOR (PROVIDED AND SHALL FURNISH AND INSTALL SUCH SIZES AND SHAPES OF EQUIPMENT 1 INSTALLATION TO CONFORM TO THE DRAWINGS AND SPECIFICATIONS.
- MANUFACTURERS' DIRECTIONS SHALL BE FOLLOWED COMPLETELY IN THE DELIVERY, S INSTALLATION OF ANY EQUIPMENT. PROMPTLY NOTIFY THE OWNER'S REPRESENTATIVE BETWEEN ANY REQUIREMENTS OF THE CONTRACT DOCUMENTS AND THE MANUFACTUR THE OWNER'S REPRESENTATIVE'S WRITTEN INSTRUCTIONS BEFORE PROCEEDING WITH SHALL BEAR ALL COSTS ARISING IN CORRECTING ANY DEFICIENCIES THAT SHOULD ARIS NOT COMPLY WITH THE MANUFACTURER'S DIRECTIONS OR WRITTEN INSTRUCTIONS FR REPRESENTATIVE.
- WHERE MATERIAL OF THE ACCEPTABLE MANUFACTURERS REQUIRES DIFFERENT ARRAM FROM THOSE SHOWN, INSTALL THE EQUIPMENT TO OPERATE PROPERLY AND IN HARMC OF THE DRAWINGS AND SPECIFICATIONS. AS APPROVED BY THE OWNER'S REPRESENTA SHOWING THE PROPOSED INSTALLATION. IF THE PROPOSED INSTALLATION IS APPROVE MAKE ALL NECESSARY CHANGES INCLUDING LOCATION OF ROUGH-IN CONNECTIONS, E PIPING, SUPPORTS, INSULATION, ETC. CHANGES SHALL BE MADE AT NO INCREASE IN TH ADDITIONAL COST TO THE OWNER.
- 6. EQUIPMENT OF ONE TYPE (AIR REGISTERS, SPRINKLER HEADS, ETC.), SHALL BE THE PRO MANUFACTURER.

USE OF PREMISES

- CONFINE TOOLS, EQUIPMENT, MATERIALS AND CONSTRUCTION TO THE LIMITS INDICATI DIRECTED BY THE OWNER'S REPRESENTATIVE.
- 2. THE RESPONSIBILITY FOR THE SAFE WORKING CONDITIONS AT THE SITE SHALL REMAIN OWNER AND OWNER'S REPRESENTATIVE SHALL NOT BE DEEMED TO HAVE ANY RESPON CONNECTION THEREWITH.

EQUIPMENT AND MATERIALS

- EQUIPMENT AND MATERIALS MANUFACTURERS SHALL BE AS SPECIFIED FOR EACH PRO
- 2. CONTRACTOR SHALL HAVE EQUIPMENT TIGHTLY COVERED AND PROTECTED AGAINST MECHANICAL INJURY AND THEFT. AT THE COMPLETION OF THE WORK, EQUIPMENT AND CLEANED, POLISHED THOROUGHLY AND TURNED OVER THE OWNER IN A CONDITION SA REPRESENTATIVE. DAMAGE OR DEFECTS DEVELOPING BEFORE ACCEPTANCE OF THE THE CONTRACTOR'S EXPENSE.
- MAKE NECESSARY FIELD MEASUREMENTS TO ASCERTAIN SPACE REQUIREMENTS, FOR CONNECTIONS TO BE PROVIDED AND SHALL FURNISH AND INSTALL SUCH SIZES AND SH ALLOW FOR THE FINAL INSTALLATION TO CONFORM TO THE DRAWINGS AND SPECIFICAT
- MANUFACTURERS' DIRECTIONS SHALL BE FOLLOWED COMPLETELY IN THE DELIVERY. INSTALLATION OF ANY EQUIPMENT. PROMPTLY NOTIFY THE OWNER'S REPRESENTATIVE BETWEEN ANY REQUIREMENTS OF THE CONTRACT DOCUMENTS AND THE MANUFACTUR THE OWNER'S REPRESENTATIVE'S WRITTEN INSTRUCTIONS BEFORE PROCEEDING WITH SHALL BEAR ALL COSTS ARISING IN CORRECTING ANY DEFICIENCIES THAT SHOULD ARIS NOT COMPLY WITH THE MANUFACTURER'S DIRECTIONS OR WRITTEN INSTRUCTIONS FRU REPRESENTATIVE.
- WHERE EQUIPMENT OF THE ACCEPTABLE MANUFACTURERS REQUIRES DIFFERENT ARR FROM THOSE SHOWN, INSTALL THE EQUIPMENT TO OPERATE PROPERLY AND IN HARMO OF THE DRAWINGS AND SPECIFICATIONS. AS APPROVED BY THE OWNER'S REPRESENTA SHOWING THE PROPOSED INSTALLATION. IF THE PROPOSED INSTALLATION IS APPROVE MAKE ALL NECESSARY CHANGES INCLUDING LOCATION OF ROUGH-IN CONNECTIONS, EI PIPING, SUPPORTS, INSULATION, ETC. CHANGES SHALL BE MADE AT NO INCREASE IN TH ADDITIONAL COST TO THE OWNER.
- 6. EQUIPMENT OF ONE TYPE (SUCH AS VALVES, FANS, AIR HANDLING UNITS, AIR TERMINAL SPRINKLER HEADS, ETC.), SHALL BE THE PRODUCT OF ONE MANUFACTURER.
- 7. EQUIPMENT PREPURCHASED ON BEHALF OF THE OWNER OR BY THE OWNER, IF ASSIGN SHALL BE RECEIVED, INSPECTED AND INSTALLED, AS IF IT WAS PURCHASED BY THE COI

USE OF PREMISES

- CONFINE TOOLS, EQUIPMENT, MATERIALS AND CONSTRUCTION TO THE LIMITS INDICATE AS DIRECTED BY THE OWNER'S REPRESENTATIVE.
- THE RESPONSIBILITY FOR THE SAFE WORKING CONDITIONS AT THE SITE SHALL REMAIN OWNER AND OWNER'S REPRESENTATIVE SHALL NOT BE DEEMED TO HAVE ANY RESPON CONNECTION THEREWITH.
- START-UP AND COMMISSIONING ASSIST OWNER IN PREPARING PRIOR TO THE SCHEDULED START-UP DATE. THE PROGR DESIGN, START-UP, AND OPERATION OF THE MECHANICAL, PLUMBING, FIRE PROTECTIO SYSTEMS.

	MECHANICAL IDENTIFICATION	DUCTWORK
ID ASSOCIATED TE BOTH THE CHANGES AND CONDITIONS ENCOUNTERED OR	 PLASTIC TAGS: LAMINATED THREE-LAYER (DOUBLE-SIDED) PLASTIC WITH ENGRAVED BLACK LETTERS ON LIGHT, CONTRASTING BACKGROUND COLOR. STENCILS: WITH CLEAN-CUT SYMBOLS AND LETTERS OF FOLLOWING SIZE: OUTSIDE DIAMETER COLOR FIELD LETTER INSULATION OR PIPE LENGTH HEIGHT 	1. UNLESS OTHERWISE SPEC ACCESSORIES OF GALVAN THROUGH 1-13.
IP DRAWINGS TO THE OWNER'S	3/4" - 1-1/4" 8" 1/2" 1-1/2" - 2" 8" 3/4"	2. DUCT DIMENSIONS INDICA SHALL BE INCREASED TO
DN. EQUAL PRODUCT RACTOR SHALL BE Y SUBSTITUTIONS.	 EQUIPMENT: IDENTIFY EQUIPMENT WITH PLASTIC NAMEPLATES. VALVES: IDENTIFY VALVES IN MAIN AND BRANCH PIPING WITH TAGS INDICATING PIPING SYSTEM (PCWS/R, CHW/S & RM. NO. SERVED). 	3. THE DRAWINGS ARE DIAG AND PIPING AND SHALL BE NOT POSSIBLE TO SHOW / THE STRUCTURE; FINISH (DUCTWORK, PIPING, EQUI
AINERS, SUITABLY SHELTERED EPRESENTATIVE UNTIL SHALL BE STORED IN DRY,	5. PIPING: IDENTIFY PIPING, CONCEALED OR EXPOSED, WITH STENCILED PAINTING. TAGS MAY BE USED ON SMALL DIAMETER PIPING. IDENTIFY SERVICE, FLOW DIRECTION, AND PRESSURE. INSTALL IN CLEAR VIEW AND ALIGN WITH AXIS OF PIPING. LOCATE IDENTIFICATION NOT MORE THAN 20 FEET APART ON STRAIGHT RUNS INCLUDING RISERS AND DROPS, ADJACENT TO EACH VALVE AND TEE, AT EACH SIDE OF PENETRATION OF STRUCTURE OR ENCLOSURE,	 SO AS TO PROVIDE THE M PROJECT WITHOUT EXTRA 4. IN ADDITION TO SHEET ME FURNISHED BY OTHER SE UDODS AND PLANK OFF P
T DIRT, WATER AND CHEMICAL AND MATERIALS SHALL BE ATISFACTORY TO THE OWNER'S WORK SHALL BE MADE GOOD AT	 AND AT EACH OBSTRUCTION. 6. STENCILING AND IDENTIFICATION-STENCIL EACH PIECE OF NEW AND EXISTING EQUIPMENT INCLUDING TANKS, ETC., WITH THE EQUIPMENT TAGS SCHEDULED ON THE DRAWINGS. USE MINIMUM 2" HIGH CHARACTERS. 7. IDENTIFY ALL PIPES WITH SPECIFIED MARKERS: A. INSTALL MARKERS EVERY 10' ON MAINS, AT ALL BRANCH TAKE-OFF AND ADJACENT TO VALVES AND COCKS. 	5. DUCT SYSTEMS SPECIFIED SPECIFICATIONS, STANDA CONSTRUCTION STANDAR STANDARDS" (HEREINAFT EXCEED THE REQUIREMEN
CONNECTIONS TO BE TO ALLOW FOR THE FINAL	 B. INSTALL MARKERS EVERT TO ON MAINS, AT ALL BRANCH TAKE-OFF AND ADJACENT TO VALVES AND COCKS. B. INSTALL PIPE MARKER USING PRESSURE SENSITIVE ADHESIVE IN ACCORDANCE WITH THE MANUFACTURER'S DIRECTIONS. THE MARKER SHALL COMPLETELY COVER THE CIRCUMFERENCE OF THE PIPE AND OVERLAP ITSELF. 	6. SUBMIT DUCT FABRICATION SPECIFICATIONS, FOR REV
ATORAGE, PROTECTION AND EIN WRITING OF ANY CONFLICT RER'S DIRECTIONS AND OBTAIN H THE WORK. THE CONTRACTOR SE DUE TO WORK THAT DOES COM THE OWNER'S ANGEMENT OR CONNECTIONS DNY WITH THE ORIGINAL INTENT ATIVE, SUBMIT DRAWINGS ED, THE CONTRACTOR SHALL ELECTRICAL REQUIREMENTS, HE CONTRACT AMOUNT OR CODUCT OF ONE ED ON THE DRAWINGS AND A WITH THE CONTRACTOR. THE NSIBILITY OR LIABILITY IN COUCT. DIRT, WATER AND CHEMICAL OR MATERIALS SHALL BE ATISFACTORY TO THE OWNER'S WORK SHALL BE MADE GOOD AT REQUIPMENT AND HAPES OF EQUIPMENT TO ATIONS. STORAGE, PROTECTION AND EIN WRITING OF ANY CONFLICT RER'S DIRECTIONS AND OBTAIN	 PIPE IDENTIFICATION A. PIPING, EXCEPT THAT PIPING WHICH IS WITHIN INACCESSIBLE CHASES, SHALL BE IDENTIFIED WITH SEMI-RIGID PLASTIC DENTIFICATION MARKERS. DIRECTION OF FLOW ARROWS ARE TO BE INCLUDED ON EACH MARKER. EACH MARKER BACKGOUND SHALL BE APPROPRIATELY COLOR CODED WITH A CLEARLY PRINTED LEGEND TO IDENTIFY THE CONTENTS OF THE PIPE IN CONFORMANCE WITH THE "SCHEME FOR THE DENTIFICATION OF PIPING SYSTEMS' (ASME A13.1981), SNAP-AROUND MARKERS SHALL BE USED FOR OVERALL DAMIETTES. WHITE THE CONTENTS OF THE PIPE IN CONFORMANCE WITH THE "SCHEME FOR THE DENTIFICATION OF PIPING SYSTEMS' (ASME A13.1981), SNAP-AROUND MARKERS SHALL BE USED FOR OVERALL DAMIETTES. MARKERS SHALL BE UCATED ADJACENT TO EACH VALVE, AT EACH BRANCH, AT EACH CAP FOR FUTURE, AT EACH RISER TAKEOFF, AT EACH PIPE PASSAGE THROUGH WALL, AT EACH PIPE PASSAGE AT 20.°0 THETALS MARKERS SHALL BE UCATED ADJACENT TO EACH VALVE, AT EACH BRANCH, AT EACH CAP FOR FUTURE, AT EACH RISER TAKEOFF, AT EACH PIPE PASSAGE THROUGH WALL AT EACH PIPE PASSAGE AT 20.°0 THETALS MARKERS SHALL BE CALFORMA STATE PLUMBING CODE. IDENTIFICATION SHALL AS REQUIRED IN UC BERKELEY DESIGN STANDARDS 23 50 00, PART 18. VALVE TAGS AND CHARTS A. PROVIDE VALVE TAGS ON MAIN AND BRANCH PIPING VALVES REGARDLESS OF SERVICE. B. VALVES SHALL BE DESIGNATED BY DISTINGUISHING NUMBERS AND LETTERS CAREFULLY COORDINATED WITH A VALVE CHART. VALVE TAGS SHALL BE 19 GUICE POLISHED BRASS, 11/5 TOMARTER WITH STAMPED BACK FILLED LETTERN. LETTERING SHALL BE VIEHOF FOR TYPE SERVICE AND XF FOR VALVE NUMBERS AVALVE LIS BADVE A HUNG CEILING, THE VALVE TAGS SHALL BE 10 CATED IMMEDIATELY ABOVE THE HUNG CEILING. VALVES THAT ARE EQUIPPED WITH CHAIN OPERATORS SHALL BE LOCATED IMMEDIATELY ABOVE THE HUNG CEILING. VALVES THAT ARE EQUIPPED WITH CHAIN OPERATORS SHALL HAVE ADDITIONAL TAG SECURED TO THE HOOK OR CHAIN THAT SUPPORTS THE SWAGED CHAIN. CHURNEH AMINIMUM OF (2) TYPED VALVE LISTS TO BE FRAMED UNDER GLASS OR PLEXIGLAS. EACH CHART SHALL BE E	 GAUGES AND REINFORCE NOT BE ALLOWED UNTIL A 7. DUCT WORK SHALL BE GA THAN 0.45 OZ. OF ZINC ON HEREINAFTER SPECIFIED. PRESSURE CLASS PER SM 8. JOINT SEALING: REFER TO A. SEALANT: WATER I 50 SMOKE DEVELO RECOMMENDED BY B. PROVIDE LIQUID SE HEAVY, PERMANEN GLAZING COMPOUN C. TAPE: USE ONLY T THAT FOIL TAPE NO OR ON DRY SEALAN D. GASKETS: FOR FLA E. DUCT SEALANT SHA TERMINALS AND CE F. FACTORY MADE JO PROVIDED TEST RE G. RECTANGULAR DUG H. DUCT LEAKAGE SH I. ROD SUPPORT FOF
RER'S DIRECTIONS AND OBTAIN H THE WORK. THE CONTRACTOR ISE DUE TO WORK THAT DOES ROM THE OWNER'S RANGEMENT OR CONNECTIONS ONY WITH THE ORIGINAL INTENT 'ATIVE, SUBMIT DRAWINGS ED, THE CONTRACTOR SHALL ELECTRICAL REQUIREMENTS, HE CONTRACT AMOUNT OR LS, PLUMBING FIXTURES, NED TO THE CONTRACTOR, ONTRACTOR. ED ON THE DRAWINGS AND/OR N WITH THE CONTRACTOR. THE NSIBILITY OR LIABILITY IN RAM WILL CONSIST OF THE DN, AND BUILDING AUTOMATION	 E. IDENTIFICATION SHALL AS REQUIRED IN UC BERKELEY DESIGN STANDARDS 23 50 00, PART 18. PIPE INSULATION I. GLASS-FIBER INSULATION: GLASS FIBERS BONDED WITH A THERMOSETTING RESIN COMPLYING WITH THE FOLLOWING: PREFORMED PIPE INSULATION: 1" THICK FIBERGLASS INSULATION COMPLY WITH ASTM C 547, TYPE I, WITH FACTORY APPLIED, ALL-PURPOSE, VAPOR RETARDANT JACKET. PREFABRICATED THERMAL INSULATING FITTING COVERS: COMPLY WITH ASTM C 540 FOR DIMENSIONS USED IN PERFORMING INSULATION TO COVER VALVES, ELBOWS, TEES, AND FLANGES. TYPE A: GLASS-FIBER INSULATION; ASTM-C-547; K' VALUE OF 0.24 AT 75"F; NON COMBUSTIBLE. TYPE D: EXPANDED PERLITE; ASTM; MAXIMUM WATER-VAPOR TRANSMISSION PVC JACKET: HIGH-IMPACT, ULTRAVIOLET-RESISTANT PVC; 20 MILS THICK; ROLL STOCK READY FOR SHOP OR FIELD CUTTING AND FORMING. PVC JACKET COLOR: COLOR-CODE PIPING JACKET AS DETERMINED BY EXISTING CONDITIONS. SHAPES: 45 AND 90-DEGREE, SHORT AND LONG-RADIUS ELBOWS, TEES, VALVES, FLANGES, REDUCERS, END CAPS, SOIL-PIPE HUBS, TRAPS, MECHANICAL JOINTS, ADHESIVE: AS RECOMMENDED BY INSULATION MATERIAL MANUFACTURER. ELBOWS: PREFORMED DE SINSULATION MATERIAL MANUFACTURER. ADHESIVE: AS RECOMMENDED BY INSULATION MATERIAL MANUFACTURER. ELBOWS: PREFORMED 45 AND 90-DEGREE, SHORT AND LONG-RADIUS ELBOWS; SAME MATERIAL, FINISH, AND THICKNESS AS JACKET. INSULATION BANDS: STAINLESS STEEL ASTM A666, TYPE 304, 34 INCH WIDE; 0.02 INCH THICK STAINLESS STEEL. INSULATE FITTINGS AND VALVES WITH PRE-MOLDED INSULATION. 	

CIFIED HEREIN OR NOTED ON THE DRAWINGS, CONSTRUCT DUCTS, PLENUMS AND VIZED SHEET STEEL PER SMACNA 1995 DUCT CONSTRUCTION STANDARD (DCS), TABLES 1-3

TED ON THE DRAWINGS ARE CLEAR INSIDE DIMENSIONS. THE SHEET METAL DIMENSIONS ACCOMMODATE INTERNAL LINER WHERE LINER IS REQUIRED .

BRAMMATIC AND INDICATE THE ARRANGEMENTS OF THE PRINCIPAL APPARATUS, DUCTWORK E FOLLOWED AS CLOSELY AS POSSIBLE. BECAUSE OF THE SCALE OF THE DRAWINGS, IT IS ALL OFFSETS, RISES, DROPS, RISES, FITTINGS AND ACCESSORIES. CAREFULLY INVESTIGATE CONDITIONS, AND THE WORK OF OTHER SECTIONS AFFECTING THE WORK AND ARRANGE IPMENT AND ACCESSORIES, ACCORDINGLY. PROVIDE THE BEST POSSIBLE ARRANGEMENT MAXIMUM HEADROOM AND ACCESS TO APPARATUS. THIS WORK SHALL BE INCLUDED IN THE A CHARGE.

TAL DUCTWORK PROVIDED UNDER THIS CONTRACT FURNISH AND INSTALL, OR INSTALL AS CTIONS, ACCESSORIES AND DEVICES INCLUDING SMOKE DETECTORS, PLENUMS, CANOPY ANELS AT UNUSED LOUVER AREAS.

D TO BE INSTALLED UNDER THIS CONTRACT, SHALL CONFORM TO THE DRAWINGS, ARDS, DETAILS AND RECOMMENDATIONS OF THE LATEST EDITION OF SMACNA "HVAC DUCT RDS - METAL AND FLEXIBLE"; AND "ROUND AND INDUSTRIAL DUCT CONSTRUCTION ER REFERRED TO AS DUCT MANUAL). WHERE THE REQUIREMENTS UNDER THIS SECTION NTS OF THE DUCT MANUAL, THE SPECIFICATION SHALL GOVERN. WHEREVER THE WORD LACE WITH THE WORD "SHALL".

ON STANDARDS AND METHODS OF INSTALLATION, IN COMPLIANCE WITH SMACNA AND THESE VIEW BY THE OWNER'S REPRESENTATIVE, CLEARLY INDICATING THE COMBINATION OF METAL MENT INTENDED FOR USE FOR EACH PRESSURE CLASSIFICATION. DUCT FABRICATION SHALL SATISFACTORY REVIEW OF THIS STANDARD HAS BEEN PERFORMED.

ALVANIZED STEEL SHEET METAL SHALL CONFORM TO ASTM A653 (G-90) HAVING NOT LESS NEACH SIDE OF EACH SQUARE FOOT OF SHEET. OTHER DUCT MATERIALS SHALL BE AS AS APPLICABLE TO THIS CONTRACT. DUCTWORK SHALL BE CONSTRUCTED TO 2" W.C. IACNA STANDARDS.

O SMACNA DCS, TABLE 1-2 FOR DUCT SEALING REQUIREMENTS. BASED ELASTOMERIC COMPOUND, GUN OR BRUSH GRADE, MAXIMUM 25 FLAME SPREAD AND PED (DRY STATE) SPECIFICALLY FOR SEALING DUCTWORK. USE PRODUCTS AS Y MANUFACTURER FOR LOW, MEDIUM, OR HIGH PRESSURE SYSTEMS.

EALANT. WITH OR WITHOUT COMPATIBLE TAPE. FOR LOW CLEARANCE SLIP JOINTS AND NTLY ELASTIC MASTIC TYPE WHERE CLEARANCES ARE LARGER. OIL BASE CAULKING AND NDS ARE NOT ACCEPTABLE. DESIGN POLYMERIC #1020 OR DURO DYNE DSW, OR EQUAL.

TAPE SPECIFICALLY DESIGNATED BY THE SEALANT MANUFACTURER. SMACNA RECOMMENDS NOT BE USED AND THAT PRESSURE SENSITIVE TAPE NOT BE USED ON BARE METAL SURFACE NT

ANGED JOINTS USE MANUFACTURERS RECOMMENDATION.

HALL BE APPLIED TO ALL JOINTS, SEAMS, TAPE, FITTINGS AND CONNECTIONS TO VAV EILING SUPPLY RETURN AND EXHAUST REGISTERS.

DINTS SUCH AS DUCTMATE OR TDC LOCKFORMER DUCT JOINT SYSTEMS ARE ACCEPTABLE PORTS CERTIFY THAT THEY ARE EQUIVALENT TO SMACNA STANDARDS.

JCT LONGITUDINAL SEAMS SHALL BE PITTSBURGH LOCK 3/8" MINIMUM POCKET.

HALL NOT EXCEED 6% FOR TOTAL AC UNIT AIRFLOW CAPACITY.

R EXPOSED DUCT SHALL HAVE METAL STIFFENERS. REFER TO SMACNA STANDARDS.

Seismic Upgrade and **Building Alterations**

Kensington Community Center

59 Arlington Avenue Kensington, CA 94707 for the Kensington Police Protection &

Community Services District

GLASS Associates, Inc. architecture & planning

519 Seventh Street San Francisco, CA 94103

T. 415.864.1234 F. 415.864.1141

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CONSULTANT

MECHANICAL ENGINEER: EPCE Inc. Eddie Padilla Consulting Engineers Inc. 274 Devonshire Street Vallejo, CA 94591 707-980-4049

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CONDENSING GAS FURNACE(F-1)

- 1. PROVIDE GAS-FIRED CONDENSING GAS FURNACE FOR USE WITH NATURAL GAS.
- 2. QUALITY ASSURANCE
- A. UNIT SHALL BE DESIGNED, TESTED AND CONSTRUCTED TO CURRENT ANSI Z21.47/CSA 2.3 DESIGN STANDARD FOR GAS-FIRED CENTRAL FURNACES.
- B. UNIT SHALL BE THIRD PARTY CERTIFIED BY CSA TO THE CURRENT ANSI Z 21.47/CSA 2.3 DESIGN STANDARD FOR CENTRAL GAS-FIRED FURNACES. UNIT SHALL CARRY THE CSA BLUE STAR AND BLUE FLAME LABELS. UNIT EFFICIENCY SHALL BE TESTING SHALL BE PERFORMED TO THE CURRENT DOE TEST PROCEDURE AS LISTED IN THE FEDERAL REGISTER.
 C. UNIT SHALL BE CERTIFIED FOR CAPACITY AND EFFICIENCY AND LISTED IN THE LATEST AHRI CONSUMER'S DIRECTORY OF
- CERTIFIED EFFICIENCY RATINGS. D. UNIT SHALL CARRY THE CURRENT FEDERAL TRADE COMMISSION ENERGY GUIDE EFFICIENCY LABEL.
- D. UNIT SHALL CARRY THE CURRENT FEDERAL TRADE COMMISSION ENERGY GUIDE EFF
- 3. PERFORMANCE A. REFER TO FURNACE SCHEDULE ON THE DRAWING
- 4. CONSTRUCTION
- A. CABINET: GALVANIZED STEEL WITH BAKED-ENAMEL FINISH, EASILY REMOVED AND SECURED ACCESS DOORS, GLASS-FIBER INSULATION AND REFLECTIVE LINER AND WELDED STEEL BASE.
- B. PRIMARY HEAT EXCHANGERS SHALL BE 3-PAS CORROSION-RESISTANT ALUMINIZED STEEL OF FOLD-AND-CRIMP SECTIONAL DESIGN AND APPLIED OPERATING AT NEGATIVE PRESSURE.
- C. SECONDARY HEAT EXCHANGERS SHALL CONSTRUCTED OF STAINLESS STEEL FLOW-THROUGH FIN AND TUBE DESIGN AND APPLIED OPERATING UNDER NEGATIVE PRESSURE.
- D. COMBUSTION CHAMBER SHALL BE SEALED WELDED STAINLESS STEEL CONSTRUCTION.
- BLOWER: CENTRIFUGAL TYPE, STATICALLY AND DYNAMICALLY BALANCED; RUBBER MOUNTED WITH DIRECT DRIVE WITH HIGH EFFICIENCY PCS MOTOR, 5-SPEED, CONTINUOUS FAN OPERATION WITH PERMANENTLY LUBRICATED SLEEVE BEARINGS AND CONTROLS AND ADJUSTABLE BLOWER SPEED FOR HEATING. BLOWER SHALL BE GALVANIZED STEEL
 AIR FILTERS: 2-INCH THICK GLASS FIBER, DISPOSABLE TYPE, ARRANGED FOR EASY REPLACEMENT.
- 5. BURNER
- A. GAS BURNER: DIRECT VENT, WITH ADJUSTABLE COMBUSTION-AIR SUPPLY, EQUIPPED WITH COMBUSTION GAS VALVE AND PRESSURE REGULATOR INCORPORATING MANUAL SHUT-OFF, SILICONE NITRIDE POWER HEAT HOT SURFACE IGNITER.
 B. DIRECT VENT/SEALED COMBUSTION, VENTILATED COMBUSTION AIR.
- C. GAS BURNER SAFETY CONTROLS: THERMOCOUPLE SENSOR PREVENTS OPENING OF SOLENOID GAS VALVE UNTIL PILOT FLAME IS PROVEN AND STOPS GAS FLOW ON IGNITION FAILURE.
- 6. BURNER OPERATING CONTROLS
- A. PROVIDE DDC LOW-VOLTAGE CONTROLS, ADJUSTABLE ROOM THERMOSTATS TO MAINTAIN ROOM-TEMPERATURE SETTINGS BY CONTROLLING BURNER OPERATION.
- B. PROVIDE HIGH-LIMIT CONTROL, WITH FIXED STOP AT MAXIMUM PERMISSIBLE SETTING, TO DEENERGIZE BURNER ON
- EXCESSIVE BONNET TEMPERATURE AND ENERGIZE BURNER WHEN TEMPERATURE DROPS TO LOWER SAFE VALUE.
 C. PROVIDE CONTROLS FOR SUPPLY FAN IN ACCORDANCE WITH BONNET TEMPERATURES INDEPENDENT OF BURNER CONTROLS. INCLUDE MANUAL SWITCH FOR CONTINUOUS FAN OPERATION.
- 7. THERMOSTATS/CONTROLS
- A. SOLID-STATE THERMOSTAT: WALL-MOUNTING, PROGRAMMABLE, MICROPROCESSOR-BASED UNIT, PREFERENTIAL RATE CONTROL, SEVEN-DAY PROGRAMMABILITY WITH MINIMUM OF FOUR TEMPERATURE PRESETS PER DAY, JAND BATTERY BACKUP PROTECTION AGAINST POWER FAILURE FOR PROGRAM SETTINGS.
- B. TWO-STAGE, HEATING-ONLY THERMOSTAT: WALL-MOUNTING UNIT WITH FAN ON-AUTOMATIC SELECTOR.
- C. SELF-DIAGNOSTICS WITH BRIGHT LED
- D. CONTROL WIRING: UNSHIELDED TWISTED-PAIR CABLING.
 E. CONTROLS SHALL COMPLY WITH REQUIREMENTS IN ASHRAE/IESNA 90.1-2004, "CONTROLS."
- AIR FILTERS
 A. DISPOSABLE FILTERS: 1-INCH] INSERT THICKNESS THICK FIBERGLASS MEDIA[WITH ASHRAE 52.2 MERV RATING OF 6 OR HIGHER, IN SHEET METAL FRAME.
- 9. STANDARD FEATURES
- A. DIRECT FLUE VENT/AIR INTAKE COMBUSTION AIR PIPE AND FITTING AND ROOF TERMINATION WEATHER CAP.B. BLOWER ACCESS PANEL SWITCH AUTOMATICALLY SHUT OFF BLOWER WHEN OPEN.
- 10. INSTALLATION
- A. MOUNT FURNACES THAT ARE INSTALLED ON COMBUSTIBLE FLOORS ON ADDITIVE BASE.
- 11. CONNECTIONS
- A. VENT AND OUTSIDE-AIR CONNECTION, CONDENSING, GAS-FIRED FURNACES: CONNECT PLASTIC PIPING VENT MATERIAL TO FURNACE CONNECTIONS AND EXTEND OUTDOORS. TERMINATE VENT OUTDOORS WITH A CAP AND IN AN ARRANGEMENT THAT WILL PROTECT AGAINST ENTRY OF BIRDS, INSECTS, AND DIRT.
- B. PLASTIC PIPING SOLVENT-CEMENT JOINTS: CLEAN AND DRY JOINING SURFACES. JOIN PIPE AND FITTINGS ACCORDING TO THE FOLLOWING:
- a. REQUIREMENTS FOR LOW-EMITTING MATERIALS:
- 1) USE CPVC SOLVENT CEMENT THAT HAS A VOC CONTENT OF 490 G/L OR LESS WHEN CALCULATED ACCORDING TO 40 CFR 59, SUBPART D (EPA METHOD 24).
- 2) USE PVC SOLVENT CEMENT THAT HAS A VOC CONTENT OF 510 G/L OR LESS WHEN CALCULATED ACCORDING TO 40 CFR 59, SUBPART D (EPA METHOD 24).
- 3) USE ADHESIVE PRIMER THAT HAS A VOC CONTENT OF 550 G/L OR LESS WHEN CALCULATED ACCORDING TO 40 CFR 59, SUBPART D (EPA METHOD 24).

- 1.1 GENERAL A. FURNISH AND INSTALL HANGERS, SUPPORTS AND INCLUDE PIPING, DUCTS AND EQUIPMENT SPECIF
 - IN ADDITION TO SPECIAL HANGERS AND SUPPOR THE DRAWINGS FOR DUCTS, PIPING AND EQUIP SUPPORT FOR THE MECHANICAL SYSTEMS. SHO APPROVAL FOR ALL SUPPORTS. PIPING, DUCTW ROOMS, PENTHOUSES AND ENERGY PLANT SHA RESTRAINTS.
- C. MATERIALS SHALL BE NEW AND MANUFACTURED EQUIPMENT, PIPES, DUCTS, CONDUITS AND ACC
- D. SYSTEM COMPONENTS SHALL BE INSTALLED IN A ISOLATION AND SEISMIC RESTRAINT AS REQUIRE
- 1.3 REFERENCES A. APPLICABLE PROVISIONS OF THE FOLLOWING C THE WORK OF THIS SECTION, AND ARE HEREBY DOCUMENTS.
 - 3. MATERIAL STANDARDS SHALL BE AS SPECIFIED
 - 1. ASME B31.9 BUILDING SERVICES PIPING, TH
 - 1991 AGENDA). 2. ASHRAE 1992 SYSTEMS AND EQUIPMENT HA
 - 3. ASTM F 708 STANDARD PRACTICE FOR DES
- MSS SP-58 PIPE HANGERS AND SUPPORTS STANDARDIZATION SOCIETY OF THE VALVE
 - 5. MSS SP-69 PIPE HANGERS AND SUPPORTS
 - STANDARDIZATION SOCIETY OF THE VALVE I 6. MSS SP-89 - PIPE HANGERS AND SUPPORTS
 - MANUFACTURERS STANDARDIZATION SOCIE 7. SMACNA SEISMIC RESTRAINT GUIDELINES.
- 1.4 SUBMITTALS
 - . PROVIDE SHOP DRAWINGS, PRODUCT DATA AND
 - BRACKETS AND HANGERS SHALL BE SUBMITTED
 - SUPPORTING PIPING, DUCTWORK AND EQUIPME
- C. THE OWNER'S REPRESENTATIVE IS TO BE NOTIF INSTALLATION CAN BE INSPECTED IN THE FIELD.
- D. PROVIDE LOCATION OF INSERTS TO BE USED FO WEIGHT OF COMPONENTS (INCLUDING WATER W
- 1.5 QUALITY ASSURANCE
 - A. MANUFACTURER: COMPANY SPECIALIZING IN MA WITH DOCUMENTED EXPERIENCE OF MORE THA
 - B. INSTALLER: COMPANY SPECIALIZING IN EXECUT DOCUMENTED EXPERIENCE OF MORE THAN FIV
 - C. WELDERS: CERTIFIED IN ACCORDANCE WITH AS
 - D. PROVIDE CERTIFICATE OF COMPLIANCE FROM A WELDERS.
- E. QUALITY STANDARDS
- INSTALLATION: CONFORM TO ASME B31.9 CC DESIGN AND INSTALLATION OF PIPE HANGER
 WELDING MATERIALS AND PROCEDURES: CC REGULATIONS.
- 3. PIPING SHALL BE HUNG TO TRUE ALIGNMENT ARRANGEMENTS. WIRE AND STRAP HANGER THAT PIPING AND HANGERS WILL BE CLEAR OBSTRUCTIONS.
- THE HANGING AND SUPPORTING OF PIPING A THE MANUFACTURERS OF SAME AND AMERIC EDITION, EXCEPT WHERE REQUIREMENTS OF STANDARDS.
- 5. DUCTWORK SHALL BE SUPPORTED PER SMA
- 2.1 HANGERS AND SUPPORTS
- A. PIPE SUPPORTS SHALL BE OF TYPE AND FIGURE
 - B. MANUFACTURERS SHALL BE B-LINE, CARPENTER MANUFACTURER ARE LISTED BELOW TO ESTABL
 - C. BRACKET ASSEMBLIES FOR SUPPORTING PIPING SURFACES ARE TO BE SMOOTHED UP BY GRIND DRAWINGS SHALL BE SUBMITTED FOR REVIEW F TO BE NOTIFIED WHEN THE FIRST BRACKET IS A FIELD. EXPOSED HANGERS, SUPPORTS AND BRA OF THE COLOR AS SELECTED BY THE OWNER'S F REPRESENTATIVE'S REVIEW, THE FOLLOWING:
 - METHOD OF HANGING AND SUPPORT OF PIPIN
 LOCATION OF SUPPORT ANCHORS TO BE USE HUNG INCLUDING THE WEIGHT OF WATER, VA
 - D. PIPE SUPPORTS SHALL BE OF TYPE AND ARRAN ARRANGED AS TO PREVENT EXCESSIVE BENDIN
 - E. BRACKET CLAMP AND ROD SIZES INDICATED IN SHALL BE RESPONSIBLE FOR STRUCTURAL INTE SHALL HAVE A SAFETY FACTOR OF (5) BUILT IN. SAFETY STRAPS, DESIGNED TO FIRMLY ATTACH DOWNWARD ON THE CENTERLINE OF THE BEAM
 - F. OTHER FORMS OF HANGERS AND SUPPORTS SH CONDITIONS OR CONDITIONS NOT COVERED HE REPRESENTATIVE. WHEN SPECIAL CONDITIONS "BUILT IN", SUCH INSERTS MAY BE USED IN LOCA SHALL BE PHILLIPS "RED HEAD", HILTI, OR EQUAL STUDS OR ANCHORS WILL NOT BE PERMITTED.
 - G. PIPES SHALL BE HUNG FREE OF DEPENDENCE (
 - H. THREADED PIPE, CHAINS, WIRE AND PERFORATE SUPPORTED FROM DUCTWORK, CONDUIT OR OT INDEPENDENTLY SUPPORTED. STAGGER AND DIS OVERLOADING OF EXISTING CONSTRUCTION.
 - I. HANGERS AND SUPPORTS USED FOR SYSTEMS ACCORDANCE WITH ASTM A153-73 OR A123. ROE
 - J. HORIZONTAL WATER, DRAIN, WASTE, VENT AND HANGERS, B-LINE #B3100 OR EQUAL. GROUPS OF PITCH MAY BE SUPPORTED ON B-LINE #3160 OR #B3066 AND #B3077 OR EQUAL. INSTALL HANGEF RUNS OF CAST IRON PIPE.
 - K. UNLESS OTHERWISE NOTED, MAXIMUM PIPE HAN OF THE PIPE MANUFACTURER AND THE FOLLOW
 - 1. FOR 1 1/2" AND SMALLER COPPER PIPES:
 - FOR 2" AND LARGER COPPER PIPES:
 IN ADDITION, HANGERS SHALL BE INSTALLED V
 - SIDE OF VALVES 3" IN SIZE AND UP.
 - 4. PIPE SUPPORTS SHALL COMPLY WITH CMC 2

	M. HANGER RODS SHALL BE OF STEEL AND NOT LESS IN DIAMETER THAN:	TESTING, ADJUSTING AN
ND ASSEMBLIES FOR THE MECHANICAL SYSTEMS. THIS SHALL IFIED HEREIN AND AS SHOWN ON THE DRAWINGS	1. FOR PIPE 3" AND UNDER: 3/8" 2. FOR PIPE 6" AND UNDER: 1/2"	THE TAB CONTRACTOR AND BALANCE HVAC SYS
RTS SPECIFIED ELSEWHERE IN THIS SECTION AND SHOWN ON MENT, FURNISH AND INSTALL SAFE AND SUBSTANTIAL MEANS OF	 3. FOR PIPE 8" TO 10": 5/8" N. CHILLED WATER PIPING SHALL BE INSULATED WITH B-LINE #B3380CW OR EQUAL HIGH DENSITY HYDROUS 	1. REFERENCES: A. AABC MN-
OP DRAWINGS SHALL BE SUBMITTED FOR REVIEW AND ORK, EXHAUST PIPE, HANGERS AND SUPPORTS IN MECHANICAL ALL BE INSTALLED WITH VIBRATION ISOLATORS AND SEISMIC	 CALCIUM SILICATE SHIELDS WHERE HANGERS OCCUR. SPECIAL CARE SHALL BE EXERCISED TO ASSURE A CONTINUOUS VAPOR BARRIER INSTALLATION TO PROTECT THE SYSTEM AND PREVENT SWEATING. PIPES SUSPENDED AT AN ELBOW SHALL BE HUNG USING GRINNELL #HS.53 OR EQUAL PLATE LUGS WITH B-LINE 	SYSTEMS B. ASHRAE 1 VENTILAT REFRIGER
D FOR THE SPECIFIC PURPOSE OF SUPPORTING SYSTEMS, CESSORIES.	#B3201 OR EQUAL FORGED STEEL CLEVIS. D. SPRING HANGER LOCATIONS SHALL BE PROVIDED AS SPECIFIED HEREIN, UNDER VIBRATION ISOLATION, AND	2. SUBMITTALS A. FIELD REF
ACCORDANCE WITH LOCAL CODES INCLUDING VIBRATION ED AND SPECIFIED UNDER SECTIONS 15240 AND 15245.	 SHALL BE PRE-ENGINEERED TO MEET LOADS AND MOVEMENTS IN ACCORDANCE WITH ANSI B.31.1.10, WHERE APPLICABLE. DROP RODS FOR HANGERS MAY BE USED WHEREVER POSSIBLE AND SHALL BE INSTALLED PRIOR TO SLABS 	ADJUSTIN B. PRIOR TO EQUIPMEN C. PROVIDE
CODES AND TRADE STANDARD PUBLICATIONS SHALL APPLY TO INCORPORATED INTO, AND MADE A PART OF THE CONTRACT	 F. HANGERS USED ON UNINSULATED COPPER PLUMBING PIPE SHALL BE FELT LINED. 	WITH COV AND EQUI LOCATION
OR DETAILED HEREINAFTER AND AS FOLLOWING:	3.1 INSTALLATION	D. TEST REP CONTAINII E. INCLUDE 1
HE AMERICAN SOCIETY OF MECHANICAL ENGINEERS; 1998 (WITH	 A. HANGERS AND SUPPORTS 1. INSTALL IN ACCORDANCE WITH ASME B31.9, ASTM F 708, OR MSS SP-89 OR NFPA-13. 	a. NA b. AD c. TE
NDBOOK, CHAPTER 42. SIGN AND INSTALLATION OF RIGID PIPE HANGERS; 1992. - MATERIALS, DESIGN AND MANUFACTURE; MANUFACTURERS AND FITTINGS INDUSTRY; 1993. - SELECTION AND APPLICATION; MANUFACTURERS FITTINGS INDUSTRY; 1991. - FABRICATION AND INSTALLATION PRACTICES; STY OF THE VALVE AND FITTINGS INDUSTRY; 1991.	 INSTALL HANGERS TO PROVIDE MINIMUM ½ INCH SPACE BETWEEN FINISHED COVERING AND ADJACENT WORK. PLACE HANGERS WITH 24 INCHES OF EACH HORIZONTAL ELBOW AND ON EACH SIDE OF VALVES 3" IN SIZE AND UP. USER HANGERS WITH 1-1/2 INCH MINIMUM VERTICAL ADJUSTMENT. DESIGN HANGERS FOR PIPE MOVEMENT WITHOUT DISENGAGEMENT OF SUPPORTED PIPE. SUPPORT PIPING TO PREVENT EXCESSIVE STRESS AND STRAIN. SUPPORT VERTICAL PIPING AT EVERY FLOOR. SUPPORT RISER PIPING INDEPENDENTLY OF CONNECTED HORIZONTAL PIPING. CAST IRON NO-HUB PIPING SHALL HAVE SUPPORT AT BASE OF VERTICAL STACKS IN ACCORDANCE WITH THE CALIFORNIA PE INDIANALE FLAND ACT THE DITOL AND DAME FLED (410). PROVIDE 	d. PR e. PR f. PR g. PR h. PR i. RE 3. QUALITY ASSURA A. TESTING A OCUMENT
D SAMPLES.	 WHERE SEVERAL PIPES CAN BE INSTALLED IN PARALLEL AND AT THE PITCH AND SAME ELEVATION, PROVIDE MULTIPLE OR TRAPEZE HANGERS. CHILLED WATER, HOT WATER, STEAM AND CONDENSATE PIPING SHALL NOT BE INSTALLED TOGETHER ON TRAPEZE HANGERS. 	B. AN AABC (THE TOTA
D FOR REVIEW. INCLUDE THE METHOD OF HANGING AND ENT.	 PRIME COAT (2 COATS RUST INHIBITIVE PAINT) EXPOSED STEEL HANGERS AND SUPPORTS. HANGERS AND SUPPORTS LOCATED IN CRAWL SPACES, PIPE SHAFTS, AND SUSPENDED CEILING SPACES ARE NOT CONSIDERED EXPOSED. 	4. SYSTEM DESCRIF A. THIS PRO B. PROVIDE
FIED WHEN THE FIRST BRACKET IS ASSEMBLED SO THAT THE	B. PROVIDE CLEARANCE IN HANGERS AND FROM STRUCTURE AND OTHER EQUIPMENT FOR INSTALLATION OF INSULATION AND ACCESS TO VALVES AND FITTINGS. REFER TO SECTION 15083.	BALANCIN a. PE TH
DR HANGING DUCTWORK, PIPING AND EQUIPMENT AND THE NEIGHT).	C. PROVIDE ACCESS WHERE VALVES, DAMPERS AND CONTROLLERS ARE NOT EXPOSED. (COORDINATE SIZE AND LOCATION OF ACCESS DOORS).	b. PE 6. NOTIFICATION AN
	D. SLOPE PIPING AND ARRANGE SYSTEMS TO DRAIN AT LOW POINTS. USE ECCENTRIC REDUCERS ON HORIZONTAL HYDRONIC PIPING TO MAINTAIN TOP OF PIPE LEVEL.	A. THE SCHE COORDIN/ REPRESEI
ANUFACTURING OF PRODUCTS SPECIFIED IN THIS SECTION, AN TEN (10) YEARS.	E. WHERE PIPE SUPPORT MEMBERS ARE WELDED TO STRUCTURAL BUILDING FRAMING, SCRAPE, BRUSH CLEAN AND APPLY TWO COATS OF ZINC RICH PRIMER TO WELDS.	B. THE TEST DETERMIN C. BEFORE T
ING THE SCOPE OF WORK SPECIFIED IN THIS SECTION, WITH E (5) YEARS. SME.	F. PREPARE EXPOSED UNFINISHED PIPE, FITTINGS, SUPPORTS, AND ACCESSORIES, READY FOR FINISH PAINTING.	NOTIFICA FOR BALA
AUTHORITY HAVING JURISDICTION, INDICATING APPROVAL OF	MECHANICAL SEISMIC RESTRAINTS 1.1 GENERAL	7. GENERAL A. THE TAB (SYSTEMS.
ODE FOR INSTALLATION OF PIPING SYSTEM AND ASTM F708 FOR RS	A. FURNISH AND INSTALL NECESSARY SEISMIC RESTRAINTS FOR MECHANICAL PIPING, DUCTWORK, AND EQUIPMENT IN ACCORDANCE WITH THE CALIFORNIA BUILDING CODE AND THE REQUIREMENTS OF THIS SPECIFICATION.	TO BALAN IN THE FIN B. IN THE EV THE BALA
DNFORM TO ASME (BPV IX) AND APPLICABLE STATE LABOR	 B. THE WORK IN THIS SECTION SHALL INCLUDE THE FOLLOWING: 1. SEISMIC RESTRAINTS FOR ISOLATED EQUIPMENT AND PIPING. 2. SEISMIC RESTRAINTS FOR NON-ISOLATED EQUIPMENT AND PIPING. 	8. THE TAB CONTRA
S WILL NOT BE PERMITTED. HANGERS SHALL BE LOCATED SO OF OTHER PIPING, HANGERS, CONDUITS, LIGHTING AND OTHER	 SUBMITTALS A. THE SUBMITTAL SHALL BE PREPARED AND STAMPED BY A CIVIL OR STRUCTURAL ENGINEER REGISTERED IN THE STATE OF CALIFORNIA. 	A. ALL FAN C B. THE DRAV MEASURE C. IN ADDITIO
AND EQUIPMENT SHALL CONFORM TO RECOMMENDATIONS OF CAN NATIONAL STANDARD, ANSI/MSS SP-58 AND SP-69 LATEST F THIS SPECIFICATION EXCEED THE ABOVE REFERENCED	 B. THE FOLLOWING INFORMATION SHALL BE INCLUDED FOR EACH PIECE OF EQUIPMENT OR SYSTEM: DIMENSIONS, WEIGHT AND CENTER OF GRAVITY, CALCULATION, THE SEISMIC RESTRAINT DETAIL, INCLUDING ANCHORING METHODS APPROPRIATE FOR THE SUPPORTING STRUCTURE. 	SCHEMAT DROP, BH D. THE DRAV OF REPRO
ACNA GUIDELINES.	B. QUALIFICATIONS	ALL COST BALANCIN
E NUMBER AS SPECIFIED. R & PATTERSON, GRINNELL, OR EQUAL. PRODUCTS OF A SINGLE	 MANUFACTURER: COMPANY SPECIALIZING IN THE DESIGN AND MANUFACTURING OF SEISMIC RESTRAINTS SPECIFIED IN THIS SECTION, WITH DOCUMENTED EXPERIENCE OF MORE THAN FIVE (5) YEARS. INSTALLER: COMPANY SPECIALIZING IN EXECUTING THE SCOPE OF WORK SPECIFIED IN THIS SECTION WITH DOCUMENTED EXPERIENCE OF MORE THAN FIVE (5) YEARS. 	10. SYSTEM PERFOR A. AT THE TII THE OWN
LISH MINIMUM STANDARDS.	C. QUALITY STANDARDS: UPON COMPLETION OF SEISMIC RESTRAINT INSTALLATION, THE CONTRACTOR AND THE ANCHORAGE ENGINEER SHALL INDICATE THAT, TO THE BEST OF THEIR KNOWLEDGE, THE SEISMIC ANCHORAGE	MOTION R B. POINTS AN C. MEASURE
ONNE AND APPROVED BY THE OWNER'S REPRESENTATIVE. SHOP FOR EACH TYPE BRACKET. THE OWNER'S REPRESENTATIVE IS ASSEMBLED SO THAT INSTALLATION CAN BE INSPECTED IN THE ACKETS ARE TO BE GIVEN (2) COATS OF RUST RESISTANT PAINT REPRESENTATIVE. ADDITIONALLY, PROVIDE FOR OWNER'S	WAS INSTALLED ACCORDING TO THE APPROVED SUBMITTAL AND ANY APPROVED REVISIONS THERETO. THIS REPORT SHALL ALSO IDENTIFY CHANGES MADE FROM THE APPROVED SUBMITTAL. REPORTS MAY BE SUBMITTED BY SYSTEM, OR BY LIKE GROUPS OF COMPONENTS, OR FOR THE ENTIRE INSTALLATION COVERED BY THIS SPECIFICATION SECTION.	CERTIFIED D. SELECTIO NUMBER 1 RECHECK E. FOLLOWIN
ING, DUCTS AND OTHER EQUIPMENT.	1.3 SEISMIC RESTRAINT REQUIREMENTS	SETTINGS MARKED E ANY TIME.
ED FOR HANGING DUCTWORK, PIPING AND EQUIPMENT TO BE ALVES AND INSULATION.	 A. GENERAL 1. FLOOR OR ROOF MOUNTED MECHANICAL EQUIPMENT, REGARDLESS OF WEIGHT OR VIBRATION ISOLATION REQUIREMENTS, SHALL BE RESTRAINED TO THE STRUCTURE TO ALLOW FOR REQUIRED ACCELERATION. 2. DESIGN OF RESTRAINTS MUST CONSIDER CAPACITY OF STRUCTURAL ELEMENTS. PROJECT STRUCTURAL 	
IGEMENT AS HEREINAFTER SPECIFIED. THEY SHALL BE SO NG STRESSES BETWEEN SUPPORTS. THIS SPECIFICATION ARE MINIMUM SIZES ONLY. CONTRACTOR	 DESIGN OF RESTRAINTS MUST CONSIDER CAPACITY OF STRUCTURAL ELEMENTS. PROJECT STRUCTURAL ENGINEER SHALL BE CONSULTED PRIOR TO DESIGN OF RESTRAINTS FOR LARGE OR UNUSUAL LOADS. B. PIPING RESTRAINT REQUIREMENTS 	
EGRITY OF ALL SUPPORTS. STRUCTURAL HANGING MATERIALS BEAM CLAMPS SHALL BE 2-SIDED STEEL CLAMPS, WITH LISTED TO THE FLANGE OF THE BEAM WITH THE LOAD DIRECTED WEB. BEAM CLAMPS SHALL BE B-LINE #B3055, OR EQUAL.	 PIPE BRACING SHALL BE: 40'-0" MAXIMUM TRANSVERSELY; 80'-0" MAXIMUM LONGITUDINALLY; AND WITHIN 4'-0" EACH CHANGE OF DIRECTION. LONGITUDINAL RESTRAINTS SHALL BE COORDINATED WITH PIPE ANCHOR AND GUIDE LOCATIONS NECESSARY TO CONTROL THERMAL EXPANSION. 	
HALL BE USED TO ACCOMMODATE SPECIAL OR UNUSUAL JOB EREIN, SUBJECT TO THE APPROVAL OF THE OWNER'S REQUIRE THE USE OF CONCRETE INSERTS WHICH ARE NOT ATIONS APPROVED BY THE OWNER'S REPRESENTATIVE AND AL. EXPLOSIVE POWDER STUDS OR DETONATOR ASSISTED	 SEISMIC RESTRAINTS ARE NOT REQUIRED ON THE FOLLOWING: PIPING LESS THAN 1 ½", WITHIN MECHANICAL EQUIPMENT ROOMS. OTHER PIPING LESS THAN 2 1/2". THE EXCLUSION FOR BRACING COVERED BY FOOTNOTE 11 OF TABLE 16-0 OF THE CBC CAN ONLY BE USED FOR PIPES AND DUCTS WITH HANGERS LESS THAN 12" IN LENGTH. SUSPENDED PIPE, NOT EXCLUDED BY DIAMETER OR DISTANCE FROM STRUCTURE ALLOWANCES, SHALL HAVE SEISMIC RESTRAINT. 	
ON PIPE SLEEVES FOR SUPPORT. ED STRAPS WILL NOT BE ACCEPTED. NO PIPING SHALL BE THER PIPING. SYSTEM COMPONENTS AND EQUIPMENT SHALL BE	4. TRAPEZE HANGERS SUPPORT PIPING WHERE EACH INDIVIDUAL ELEMENT DOES NOT REQUIRE BRACING, WILL REQUIRE SEISMIC RESTRAINT WHEN THE AGGREGATE WEIGHT OF ALL ELEMENTS SUPPORTED ON THE TRAPEZE ASSEMBLY EXCEEDS 10 POUNDS PER FOOT. WEIGHT SHALL BE DETERMINED ASSUMING ALL PIPES AND CONDUIT ARE FILLED WITH WATER.	
ISTRIBUTE HANGERS ON PARALLEL PIPING TO AVOID	C. ISOLATED EQUIPMENT RESTRAINT REQUIREMENTS: PROVIDE SEISMIC RESTRAINT FOR VIBRATION ISOLATORS FOR PUMP.	
EXPOSED TO WEATHER SHALL BE HOT DIPPED GALVANIZED IN DS AND NUTS SHALL BE ELECTRO-GALVANIZED.	D. NON-ISOLATED EQUIPMENT RESTRAINT REQUIREMENTS	
RAINWATER PIPING SHALL BE HUNG WITH CLEVIS STEEL OF PIPES IN THE SAME HORIZONTAL PLANE AND WITH THE SAME EQUAL GANG HANGERS. WALL BRACKETS SHALL BE B-LINE RS ON BOTH SIDES OF EACH HUBLESS COUPLING ON STRAIGHT	 2.1 SEISMIC RESTRAINT - GENERAL A. MANUFACTURER OF VIBRATION ISOLATOR TYPE SEISMIC RESTRAINT SHALL BE MASON INDUSTRIES (MI), VIBREX, AMBER/BOOTH (AB), KINETICS NOISE CONTROL (KNC), VIBRATION ELIMINATOR CO. (VEC), VIBRATION MOUNTINGS & CONTROLS (VMC), OR EQUAL. PRODUCTS OF MASON INDUSTRIES ARE LISTED BELOW TO ESTABLISH MINIMUM CONTROLS (VMC). 	
NGER SPACING SHALL NOT EXCEED THE RECOMMENDATIONS VING:	ESTABLISH MINIMUM STANDARDS. B. SEISMIC RESTRAINTS SHALL BE CAPABLE OF ACCEPTING, WITHOUT FAILURE, SEISMIC FORCES DETERMINED IN	
6'-0" O.C. 10'-0" O.C. D WITHIN 2'-0" OF EACH CHANGE IN DIRECTION AND ON EACH	ACCORDANCE WITH THE CALIFORNIA STATE BUILDING CODE. THEY SHALL MAINTAIN THE EQUIPMENT IN A CAPTIVE POSITION AND NOT SHORT CIRCUIT ISOLATION DURING NORMAL OPERATING CONDITIONS. ISOLATORS SHALL HAVE PROVISIONS FOR BOLTING AND/OR WELDING TO THE STRUCTURE.	
2016 TABLE 313.3.	C. METAL PARTS OF SEISMIC RESTRAINT EQUIPMENT INSTALLED OUT-OF-DOORS SHALL BE COLD DIP GALVANIZED, CADMIUM PLATED, OR NEOPRENE OR PVC COATED AFTER FABRICATION. GALVANIZING SHALL MEET ASTM ALT SPRAY TEST STANDARDS AND FEDERAL TEST STANDARD #14.	

AND BALANCING

SHALL PROVIDE LABOR, INSTRUMENTS AND MATERIALS NECESSARY TO COMPLETELY TEST, ADJUST /STEMS AND EQUIPMENT INSTALLED UNDER THIS CONTRACT.

N-1-NATIONAL STANDARD FOR TESTING AND BALANCING HEATING, VENTILATING AND AIR CONDITIONING S; 1989. 111 - PRACTICES FOR MEASUREMENT, TESTING, ADJUSTING AND BALANCING OF BUILDING HEATING, TION, AIR-CONDITIONING AND FRATION SYSTEMS; 1988.

PORTS: INDICATE DEFICIENCIES, RECOMMEND IN SYSTEMS THAT WOULD PREVENT PROPER TESTING, NG AND BALANCING OF SYSTEMS. O COMMENCING WORK, SUBMIT REPORT FORMS OR OUTLINES INDICATING ADJUSTING, BALANCING AND

ENT DATA REQUIRED. E REPORTS IN LETTER SIZE, 3 RING BINDER MANUAL, COMPLETE WITH INDEX PAGE AND INDEXING TABS OVER IDENTIFICATION AT FRONT AND SIDE. INCLUDE SET OF REDUCED DRAWINGS WITH AIR OUTLETS JIPMENT IDENTIFIED TO CORRESPOND WITH DATA SHEETS AND INDICATING THERMOSTAT

PORTS: INDICATE DATA ON AABC MN-1 FORMS, FORMS PREPARED FOLLOWING ASHRAE 111, OR FORMS ING INFORMATION INDICATED IN SCHEDULES.

THE FOLLOWING ON THE TITLE PAGE OF EACH REPORT. AME OF TESTING, ADJUSTING AND BALANCING AGENCY.

DDRESS OF TESTING, ADJUSTING AND BALANCING AGENCY.

ELEPHONE NUMBER OF TESTING, ADJUSTING AND BALANCING AGENCY. ROJECT NAME.

ROJECT LOCATION.

ROJECT OWNER'S REPRESENTATIVE.

ROJECT ENGINEER. ROJECT CONTRACTOR.

EPORT DATE.

ANCE

AND BALANCING AGENCY SHALL BE A MEMBER OF AABC WITH A MINIMUM OF TEN (10) YEARS OF

NTED EXPERIENCE. C CERTIFIED TESTING AND BALANCE ENGINEER (TBE) SHALL BE RESPONSIBLE FOR CERTIFICATION OF TAL WORK OF THIS SECTION.

ION

DJECT REQUIRES THE BALANCING OF NEW GAS FURNACES AND EXHAUST FANS. THE SERVICES OF AN INDEPENDENT TEST AND BALANCE FIRM THAT SPECIALIZES IN TESTING AND NG OF HVAC SYSTEMS. THE FOLLOWING SERVICES SHALL BE PROVIDED:

ERFORM AIR SYSTEM TESTING, ADJUSTING AND BALANCING FOR

HE GAS FURNACES AND EXHAUST FANS. ERFORM FUNCTIONAL TESTING FOR THE GAS FURNACES.

AND SCHEDULING

IEDULE FOR TESTING AND BALANCING THE HVAC SYSTEM SHALL BE ESTABLISHED BY THE OWNER, IN NATION WITH THE TESTING AND BALANCING AGENCY, AND APPROVED BY THE OWNER'S ENTATIVE.

STING AND BALANCING AGENCY IS RESPONSIBLE FOR INITIATING THIS CONTINUING COORDINATION TO MINE SCHEDULE FOR FINAL TESTING AND BALANCING SERVICES. E TESTING AND BALANCING COMMENCES, THE TESTING AND BALANCING AGENCY SHALL RECEIVE ATION, IN WRITING, FROM THE OWNER THAT THE SYSTEM IS OPERATIONAL, COMPLETE, AND READY ANCING.

CONTRACTOR SHALL PROVIDE ALL TESTING INSTRUMENTS USED FOR BALANCING AIR AND WATER S. TESTING INSTRUMENTS SHALL HAVE BEEN CALIBRATED WITHIN A PERIOD OF SIX (6) MONTHS PRIOR NCING. TYPES, SERIAL NUMBERS AND DATES OF CALIBRATION OF ALL INSTRUMENTS SHALL BE LISTED INAL AIR BALANCE REPORTS HEREIN SPECIFIED. VENT IT BECOMES NECESSARY FOR THEOWNER TO BALANCE THE HVAC SYSTEMS CORRECTLY, AFTER

ANCING IS COMPLETE, THE COST OF THIS WORK WILL BE BACK CHARGED TO THE TAB CONTRACTOR.

RACTOR SHALL PREPARE SCHEMATIC DIAGRAMMATIC DRAWINGS FOR THE FOLLOWING: COIL UNITS.

WINGS WILL BE 1-LINE AIRFLOW SCHEMATICS. THE DRAWINGS SHALL INDICATE THE AIR QUANTITIES ED AT AIR OUTLETS, INLETS. AND TEMPERATURE SETPOINT. ION TO THE DUCT SCHEMATIC DRAWINGS, THE TAB CONTRACTOR SHALL PREPARE INDIVIDUAL

TIC DRAWINGS FOR EACH GAS FURNACES AND FANS INDICATING THE UNIT CFM, TOTAL PRESSURE HP, MOTOR FLA, RPM.

WINGS SHALL BE PRODUCED ON AUTOCAD RELEASE 2010 (OR HIGHER), AND A DISC AND ONE (1) SET RODUCIBLE VELLUMS SHALL BE SUBMITTED TO THE OWNER THROUGH THE ARCHITECT, FOR HIS USE. ITS ASSOCIATED WITH THE PRODUCTION OF THE DOCUMENTS SHALL BE INCLUDED UNDER THE NG CONTRACTOR'S CONTRACT.

RMANCE VERIFICATION

TIME OF FINAL INSPECTION, THE TEST AND BALANCE AGENCY SHALL RECHECK, IN THE PRESENCE OF NER'S REPRESENTATIVE, SPECIFIC AND RANDOM SELECTIONS OF DATA, AIR QUANTITIES, AND AIR RECORDED IN THE CERTIFIED REPORT.

AND AREAS FOR RECHECK SHALL BE SELECTED BY THE OWNER'S REPRESENTATIVE. EMENT AND TEST PROCEDURES SHALL BE THE SAME AS APPROVED FOR WORK FORMING BASIS OF

ED REPORT. ONS FOR RECHECK, SPECIFIC PLUS RANDOM, WILL NOT NORMALLY EXCEED 25% OF THE TOTAL TABULATED IN THE REPORT, EXCEPT THAT SPECIAL AIR SYSTEMS MAY REQUIRE A COMPLETE

CK FOR SAFETY REASONS. /ING SYSTEM VERIFICATION OF THE CERTIFIED REPORT BY THE OWNER'S REPRESENTATIVE, THE GS OF ALL VALVES, SPLITTERS, DAMPERS, AND OTHER ADJUSTMENT DEVICES SHALL BE PERMANENTLY

BY THE TESTING AND BALANCING AGENCY SO THAT ADJUSTMENT CAN BE RESTORED IF DISTURBED AT E. DEVICES SHALL NOT BE MARKED UNTIL AFTER SYSTEM VERIFICATION.

Seismic Upgrade and Building Alterations

Kensington Community Center

59 Arlington Avenue Kensington, CA 94707 for the Kensington Police Protection & Community Services District

GLASS Associates, Inc. architecture & planning

519 Seventh Street San Francisco, CA 94103

T. 415.864.1234 F. 415.864.1141

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CONSULTANT

MECHANICAL ENGINEER: EPCE Inc. Eddie Padilla Consulting Engineers Inc. 274 Devonshire Street Vallejo, CA 94591 707-980-4049

SPECIFICATIONS

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SPECIFICATIONS

REFRIGERANT PIPING SYSTEMS

- L1 SUMMARY A. MATERIALS AND OPERATIONS REQUIRED FOR THE INSTALLATION OF PACKAGED SPLIT SYSTEM REFRIGERATION SYSTEMS, INCLUDING PIPING, FITTINGS, EQUIPMENT, REFRIGERATION ACCESSORIES, REFRIGERANTS, AND
- LUBRICATING OIL, JOINTS, TESTING, EVACUATION AND CHARGING, AND VIBRATION ISOLATORS. B. PIPING MATERIAL, FITTINGS, JOINTS, AND SPECIALTIES SHALL BE SUITABLE FOR REFRIGERANT R-410A WITH MAXIMUM OPERATING PRESSURE OF 623 PSI. THE PIPING MATERIAL AND INSTALLATION SHALL BE REVIEWED AND APPROVED BY MITSUBISHI AUTHORIZED REPRESENTATIVE. FABRICATOR AND INSTALLER SHALL BE CERTIFIED AND BE SHALL BE UNDER THE SUPERVISION OF MITSUBISHI AUTHORIZED REPRESENTATION.
- C. RELATED SECTIONS: REFER THE TO FOLLOWING SECTIONS FOR RELATED WORK;

1.2 SUBMITTALS

D. PACKAGED SPLIT SYSTEMS: REFRIGERANT PIPING INDICATED IS SCHEMATIC ONLY. PROVIDE THE EQUIPMENT MANUFACTURER'S "INSTALLATION MANUAL" INCLUDING REQUIRED PIPING SCHEMATIC. SIZE PIPING AND DESIGN THE ACTUAL PIPING LAYOUT, INCLUDING OIL TRAPS, DOUBLE RISERS, SPECIALTIES, SLOPES OF RUNS, REQUIRED CONTROLS, AND PIPE AND TUBE SIZES, TO ENSURE PROPER OPERATION AND COMPLIANCE WITH WARRANTIES OF CONNECTED EQUIPMENT.

2.1 COPPER TUBE AND FITTINGS

- A. DRAWN-TEMPER COPPER TUBE: ASTM B 280, TYPE ACR, CLEAN, DRY AND CAPPED, WITH WALL THICKNESS NO LESS
- 1. 0.030 INCH FOR 1/4" TO 3/8" PIPE DIAMETER WITH 1569 PSI WORKING PRESSURE RATING.
- 2. 0.035 INCH FOR 1/2" PIPE DIAMETER WITH 1341 PSI WORKING PRESSURE RATING. 3. 0.040 INCH FOR 5/8" PIPE DIAMETER WITH 1242 PSI WORKING PRESSURE RATING.
- 4. 0.042 INCH FOR 3/4" PIPE DIAMETER WITH 1080 PSI WORKING PRESSURE RATING.
- 5. 0.045 INCH FOR 7/8" PIPE DIAMETER WITH 1062 PSI WORKING PRESSURE RATING. WROUGHT-COPPER FITTINGS: ASME B16.50.
- C. BRAZED JOINTS: AWS A5.8, CLASSIFICATION BAG-7 (50 % SILVER), BCUP5 (15% SILVER)

2.5 REFRIGERANT: R-410A HYDROFLUOROCARBON (HFC)

3.1 GENERAL

A. PACKAGED SPLIT SYSTEMS: INSTALL ALL PIPING AND COMPONENTS REQUIRED AND RECOMMENDED BY THE EQUIPMENT MANUFACTURER TO ENSURE PROPER OPERATION AND COMPLIANCE WITH WARRANTIES OF CONNECTED EQUIPMENT. REFRIGERANT PIPING INDICATED IS SCHEMATIC ONLY. SIZE PIPING AND DESIGN THE ACTUAL PIPING LAYOUT, INCLUDING OIL TRAPS, DOUBLE RISERS, SPECIALTIES, SLOPES OF RUNS, REQUIRED CONTROLS, AND PIPE AND TUBE SIZES. WHEN PIPING AND COMPONENTS ARE RECOMMENDED BUT NOT SUPPLIED BY THE MANUFACTURER, PROVIDE PIPING AND COMPONENTS TO MEET THE REQUIREMENTS OF THIS SPECIFICATION. AS A MINIMUM, THE FOLLOWING COMPONENTS SHALL BE INSTALLED ON SYSTEMS OF NOMINAL 20 TONS AND LARGER:

- B. LIQUID LINE COMPONENTS: REPLACEABLE CORE FILTER DRYER, ISOLATION VALVES FOR THE FILTER DRYER. ACCESS PORT FOR CHARGING (SERVICE VALVES), SOLENOID VALVE, MOISTURE INDICATING SITE GLASS, AND EXPANSION VALVES.
- C. SUCTION LINE COMPONENTS: REPLACEABLE CORE FILTER, ACCESS PORT (SERVICE VALVES), ISOLATION VALVES FOR THE FILTER. D. PROVIDE ISOLATION VALVES AT THE CONDENSER TO ISOLATE THE REFRIGERANT CHARGE DURING MAINTENANCE.
- E. INSTALLATION SHALL CONFORM TO ANSI 31.5, REFRIGERATION PIPING AND ASHRAE 15, SAFETY CODE FOR MECHANICAL REFRIGERATION.

3.2 COORDINATION

- A. COORDINATE LAYOUT AND INSTALLATION OF REFRIGERANT PIPING AND SUSPENSION SYSTEM COMPONENTS WITH OTHER CONSTRUCTION, INCLUDING LIGHT FIXTURES, HVAC EQUIPMENT, FIRE-SUPPRESSION-SYSTEM COMPONENTS. AND PARTITION ASSEMBLIES.
- 3. COORDINATE PIPE SLEEVE INSTALLATIONS FOR FOUNDATION WALL PENETRATIONS.
- C. COORDINATE INSTALLATION OF ROOF CURBS, EQUIPMENT SUPPORTS, AND ROOF PENETRATIONS D. COORDINATE PIPE SLEEVE INSTALLATIONS FOR PENETRATIONS IN EXTERIOR WALLS AND FLOOR ASSEMBLIES.
- COORDINATE WITH REQUIREMENTS FOR FIRESTOPPING FOR MATERIALS AND METHODS FOR SEALING PIPE PENETRATIONS THROUGH FIRE AND SMOKE BARRIERS. E. COORDINATE PIPE FITTING PRESSURE CLASSES WITH PRODUCTS SPECIFIED IN RELATED SECTIONS

3.3 SYSTEM DESIGN PRESSURES

F. SELECT PIPE, FITTINGS, AND COMPONENTS THAT HAVE DESIGN PRESSURE RATINGS PER ASHRAE 15 BUT NOT LESS THAN THE FOLLOWING SYSTEM DESIGN PRESSURES: 185 PSIG, R-410 LOW SIDE, 623 HIGH SIDE 623 PSIG.

PIPING INSTALLATION

- A. PIPE SHALL BE CUT ACCURATELY TO MEASUREMENTS ESTABLISHED AT THE CONSTRUCTION SITE AND SHALL BE WORKED INTO PLACE WITHOUT SPRINGING OR FORCING. PIPES SHALL BE INSTALLED AS TO PERMIT FREE EXPANSION AND CONTRACTION WITHOUT DAMAGE TO JOINTS OR HANGERS.
- B. WHEN PRE-CHARGED, COILED TUBING IS FURNISHED WITH SPLIT SYSTEM, THE EXCESS TUBING SHALL BE COILED AND PLACED OUT OF VIEW. C. ARRANGE PIPING TO ALLOW INSPECTION AND SERVICE OF COMPRESSOR AND OTHER EQUIPMENT. INSTALL
- VALVES AND SPECIALTIES IN ACCESSIBLE LOCATIONS TO ALLOW FOR SERVICE AND INSPECTION. INSTALLED PIPING SHALL NOT INTERFERE WITH THE OPERATION OR ACCESSIBILITY OF DOORS OR WINDOWS AND SHALL NOT ENCROACH ON AISLES, PASSAGEWAYS, AND EQUIPMENT.
- D. INSTALL PIPING WITH ADEQUATE CLEARANCE BETWEEN PIPE AND ADJACENT WALLS AND HANGERS OR BETWEEN PIPES FOR INSULATION INSTALLATION. USE SLEEVES THROUGH FLOORS, WALLS, OR CEILINGS, SIZED TO PERMIT INSTALLATION OF 3.05 HANGERS AND ANCHORS:
- E. ALL PIPING SHALL BE RIGIDLY SUPPORTED FROM THE BUILDING STRUCTURE BY MEANS OF ADJUSTABLE RING-TYPE HANGERS. (WELDING TO BUILDING STRUCTURE WILL NOT BE PERMITTED.) UNISTRUT TYPE TRAPEZE HANGERS SHALL BE USED WHERE PIPES RUN SIDE BY SIDE. HANGER SPACING SHALL BE AS FOLLOWS:

HORIZONTAL: <u>COPPER PIPING</u> <u>MAXIMUM SPACING</u>

3/8" AND UNDER	5'-0"
1/2" THROUGH 3/4"	6'-0"
1" THROUGH 1-1/2"	8'-0"
2" AND LARGER	10'-0'

VERTICAL: COPPER PIPING SHALL BE SUPPORTED AT 10 FEET INTERVALS MAXIMUM.

F. ROUND RODS SUPPORTING THE PIPE HANGERS SHALL BE OF THE FOLLOWING DIMENSIONS: 2" PIPE AND UNDER 3/8" ROD

1/2" ROD 2-1/2" TO 3" PIPE

- G. RODS FOR TRAPEZE HANGERS SHALL BE A MINIMUM OF 3/8" AND SHALL HAVE THE EQUIVALENT CROSS SECTION LISTED ABOVE PER PIPE SUPPORTED. THE USE OF PIPE HOOKS, CHAINS, PERFORATED IRON STRAPPING OR WIRE
- FOR PIPE SUPPORTS WILL NOT BE PERMITTED H. INSULATED PIPES SHALL BE PROTECTED USING GALVANIZED STEEL SHIELD SIMILAR TO GRINNEL FIGURE 167 OR 360 GALVANIZED STEEL SHIELD BY PIPE SHIELDS INCORPORATED.
- I. HANGER RODS SHALL BE CARBON STEEL PER ASTM A307, GRADE B, THREADED PER ANSI B1.1 COARSE THREAD SERIES, CLASS 2A FIT. HANGER RODS SHALL HAVE MINIMUM 6" THREADED ENDS.
- J. PLACE A HANGER WITHIN 1'-0" OF EACH SIDE FOR EACH HORIZONTAL ELBOW. K. USE HANGERS WHICH ARE VERTICALLY ADJUSTABLE 1-1/2" MINIMUM AFTER PIPING IS ERECTED.

L. USE PLASTIC COATED STRAPS ON COPPER PIPE.

- 3.6 BRAZED JOINTS:
- A. WHEN BRAZING, REMOVE SOLENOID-VALVE COILS AND SIGHT GLASSES; ALSO REMOVE VALVE STEMS, SEATS, AND PACKING, AND ACCESSIBLE INTERNAL PARTS OF REFRIGERANT SPECIALTIES. DO NOT APPLY HEAT NEAR EXPANSION VALVE BULB. JOINTS SHALL BE COOL BEFORE REASSEMBLING VALVE.
- B. TUBING SHALL BE CUT SQUARE, REAMED, AND BURRS REMOVED. C. BOTH INSIDE OF FITTINGS AND OUTSIDE OF TUBING SHALL BE WELL CLEANED WITH AN ABRASIVE CLOTH OR
- STAINLESS-STEEL WIRE BRUSH BEFORE BRAZING. STEEL WOOL IS NOT PERMITTED.
- D. DURING BRAZING AN INERT GAS (SUCH AS DRY NITROGEN, ARGON) SHALL BE CONTINUOUSLY PASSED THROUGH THE SYSTEM AT A FLOW RATE SUFFICIENT TO MAINTAIN AN OXYGEN-FREE ENVIRONMENT TO PREVENT THE FORMATION OF COPPER OXIDE SCALE. E. CARE SHALL BE TAKEN TO PREVENT ANNEALING OF FITTINGS AND TUBING WHEN MAKING CONNECTIONS.
- F. COPPER TO COPPER JOINTS SHALL BE BRAZED WITH A COPPER-PHOSPHOROUS BRAZING ALLOY CONTAINING A MINIMUM OF 15% SILVER AND CONFORMING TO AWS A5.8, BCUP5.
- G. COPPER TO BRASS JOINTS SHALL BE BRAZED WITH A SILVER BRAZING ALLOY CONTAINING A MINIMUM OF 50% SILVER AND CONFORMS TO AWS 5.8, BAG-7.
- H. COPPER TO STAINLESS STEEL JOINTS SHALL BE BRAZED WITH A SILVER BRAZING ALLOY CONTAINING A MINIMUM OF 50% SILVER AND CONFORMS TO AWS 5.8, BAG-7.
- I. ALL BRAZED JOINTS SHALL BE CLEANED TO REMOVE RESIDUAL FLUX.
- 3.7 LEAK TESTING OF REFRIGERATION PIPING SYSTEMS

A. THE HIGHSIDE AND LOWSIDE OF EACH COMPLETED REFRIGERATION PIPING SYSTEM SHALL BE PRESSURE TESTED AT 550 PSI FOR 24 HOURS WITHOUT PRESSURE LOSS PER MANUFACTURER'S PROCEDURES AND REQUIREMENTS. THE TESTING MEDIA SHALL BE DRY NITROGEN. THE CONTRACTOR SHALL PERFORM THE LEAK TEST BEFORE INSULATING, EVACUATING AND CHARGING, IN THE PRESENCE OF THE UNIVERSITY.

ISOLATE THE COMPRESSOR FROM THE LEAK TEST BY FIRMLY CLOSING THE SUCTION AND DISCHARGE VALVES. WHERE PRESSURE RELIEF VALVES ARE INSTALLED, POSITION THE THREE-WAY DUAL SHUT-OFF VALVES SO THAT FULL TEST PRESSURE IS APPLIED TO BOTH RELIEF VALVES.

DO NOT ATTEMPT TO REPAIR ANY LEAK WHILE THE SYSTEM IS PRESSURIZED. IF ANY LEAKS ARE FOUND, RELIEVE THE TEST PRESSURE AND PERFORM REPAIRS.

RECHARGE THE SYSTEM, AS PREVIOUSLY DESCRIBED, AND ALLOW IT TO REMAIN UNDER PRESSURE FOR 24 HOURS. MAXIMUM PRESSURE DROP SHALL BE 5 PSIG IN 24 HOURS, AT CONSTANT AMBIENT TEMPERATURE. FOR EVERY 100F DROP IN AMBIENT TEMPERATURE. FROM START OF TEST. THE MAXIMUM PRESSURE DROP MAY INCREASE BY 3 PSIG.

3.8 EVACUATION AND CHARGING

- A. AFTER COMPLETION OF THE PIPING PRESSURE TEST, THE REFRIGERATION WITH A VACUUM PUMP. THE FOLLOWING PROCEDURE SHALL BE USED UM CONNECT TO THE SYSTEM, AN ACCURATE HIGH VACUUM GAUGE WITH A I
- B. CONNECT THE VACUUM PUMP TO BOTH THE HIGH AND LOW SIDE OF THE DISCHARGE SERVICE VALVES CLOSED. START THE VACUUM PUMP.
- KEEP AMBIENT AIR TEMPERATURES ABOVE 600F DURING THE EVACUATION
- OPERATE THE VACUUM PUMP UNTIL THE SYSTEM IS EVACUATED TO 500 M
- BREAK THE SYSTEM VACUUM WITH DRY NITROGEN. OPEN THE COMPRESS RE-EVACUATE THE SYSTEM TO 500 MICRONS HG.

- 3.10 TEST AND BALANCE A. THE ENTIRE REFRIGERATION SYSTEM, INCLUDING ALL CONTROL SYSTEM PRESENCE OF THE UNIVERSITY BEFORE THE CONTRACTOR MAY REQUES
- 3.11 ADJUSTING
- A. ADJUST THERMOSTATIC EXPANSION VALVE TO OBTAIN PROPER EVAPORA B. ADJUST HIGH- AND LOW-PRESSURE SWITCH SETTINGS TO MAINTAIN A ST
- C. ADJUST SET-POINT TEMPERATURE OF THE CONDITIONED AIR OR CHILLEE
- TEMPERATURE. D. PERFORM THE FOLLOWING ADJUSTMENTS BEFORE OPERATING THE REFI
- WRITTEN INSTRUCTIONS:
- 1. CHECK COMPRESSOR OIL LEVEL FOR PROPER CHARGE.
- 2.0PEN COMPRESSOR SUCTION AND DISCHARGE VALVES. 3. OPEN REFRIGERANT VALVES, EXCEPT BYPASS VALVES THAT ARE USED
- 4.CHECK COMPRESSOR-MOTOR ALIGNMENT, AND LUBRICATE MOTORS AN

PIPING INSULATION

- PIPING INSULATION REQUIREMENTS INSULATION THICKNESS CONCE SERVICE PIPE SIZ MATERIAL (INCHES) JACKE ELASTOMERIC CLOSED CELL COND. DRAIN REFRIGERANT UP TO $1\frac{1}{2}$ ELASTOMERIC CLOSED CELL 1"
- A. INSULATION SCHEDULE NOTES
- PROVIDE CALCIUM SILICATE INSULATION AT HANGER LOCATIONS FO
- CHILLED WATER PIPING 2-1/2 INCH PIPE SIZE AND ABOVE. 2. PROVIDE VAPOR BARRIER ON COLD WATER PIPING.
- PIPING INSULATION GENERAL A. MANUFACTURERS SHALL INCLUDE OWENS-CORNING FIBERGLAS (OCF), C KNAUF (K), OR EQUAL. PRODUCTS OF A SINGLE MANUFACTURER ARE LIST

2.3 PREFORMED ELASTOMERIC CLOSED CELL INSULATION

- A. PREFORMED. FLEXIBLE ELASTOMERIC CELLULAR THERMAL INSULATION. OR HCFC'S FORMALDEHYDE FREE, LOW VOC'S, FIBER FREE, DUST FREE, PROTECTION. CLOSED CELL INSULATION SHALL BE ARMACELL AP/ ARMAF THERMAL CONDUCTIVITY OF 0.27 AT 75°F MEAN TEMPERATURE.
- B. AT PIPE HANGER LOCATIONS PROVIDE HARD CALCIUM SILICATE INSULAT INSTALLED THROUGH THE HANGERS WITHOUT THE USE OF SHIELDS AND SHALL EXTEND 12 INCHES TO EITHER SIDE OF HANGER. COORDINATE THIS INCLUDED HEREIN UNDER SPECIFIED.
- 2.4JACKETS A. ALUMINUM JACKETS SHALL CONSIST OF WELDED 20 GAUGE FOR EXTERIO ALUMINUM WITH 2 INCH LAPS ON LONGITUDINAL AND CIRCUMFERENTI POSITIONED TO SHED WATER. JOINTS SHALL BE SEALED WITH A CLEAR S WITH 3/4 INCH WIDE BY 0.015 INCH ALUMINUM BANDS 18 INCHES ON CENT
- B. MOLDED FIBER GLASS PIPE AND CELLULAR FOAM GLASS INSULATION IN E A FACTORY APPLIED JACKET, OWENS-CORNING FIBERGLASS ASJ OR EQU
- VAPOR BARRIER LAMINATE HAVING A VAPOR PERMEANCE OF 0.02 PERMS C. PIPING EXPOSED TO WEATHER SHALL BE INSULATED AS HEREIN SPECIFI
- 1. PIPE INSULATION AND FITTINGS SHALL BE COVERED WITH CEEL-TITI CEEL-TITE OR EQUAL PIPE INSULATION JACKETINGS SHALL BE PROV
- SEAMS (LONGITUDINAL) SHALL BE WELDED TOGETHER WITH CEEL-T
- ADJACENT JACKETING SHALL OVERLAP 3/4 INCH AND ALL CIRCUMFE CEEL-TITE WELDING #300 ADHESIVE, OR EQUAL.
- 5. FITTING COVERS SHALL OVERLAP TO ADJACENT PIPE INSULATION JA SEAMS SHALL BE WELDED TOGETHER WITH CEEL-TITE #300 ADHESIN
- A BEAD OF CEEL-TITE #300 ADHESIVE OR APPROVED EQUAL, 1/8 INCI OVERLAPPING JOINTS AND TO OUTSIDE OF OVERLAP AND SHALL BE
- CAP OFF ENDS WITH CEEL-TITE 300 SERIES OR EQUAL CAPS. CAPS \$
- FLANGES, VALVE COVERS AND OTHER ACCESSORIES. 8. GARLOCK WASHER SHALL BE INSTALLED UNDERNEATH THE CAP.
- 9. A HIGH TEMPERATURE SILICONE CAULKING SHALL BE APPLIED BETW 10. DUE TO THERMAL EXPANSION OF JACKETING, A SIMPLE SLIP JOINT S PIPE (EVERY 24' - 0" TO 30' -0") AND BETWEEN FITTINGS IF THE DISTAL USED BETWEEN FIXED SUPPORTS. A SLIP JOINT CAN BE MADE BY EX INCHES BEYOND NORMAL

2.5 ADHESIVES, COATINGS AND SEALANTS

2.7 ACCESSORIES AND FASTENING MATERIALS

FINISH.

APPLICATION.

OTHER REASON.

3.1 INSTALLATION OF PIPING INSULATION

INSULATION MATERIAL WILL NOT BE PERMITTED.

SURFACE AND INSULATION WHERE EXPOSED.

- A. ADHESIVES, COATINGS AND SEALANTS SHALL BE COMPATIBLE WITH OTH THE MANUFACTURER. THE FOLLOWING IS A PARTIAL LIST OF SERVICES A OTHER EQUAL PRODUCTS AS RECOMMENDED BY MANUFACTURER MAY B REPRESENTATIVE:
 - FOR SEALING VAPOR BARRIERS:

INSULATION SHALL BE DRY AT THE TIME OF INSTALLATION AND BEFORE AND DURING THE PROCESS OF FINISHED

A. The ENTIRE REFRIGERATION SYSTEM. INCLUDING ALL CONTRACTOR MAY REQUEST SIN. FURNISHED TEST AND BALANCE SERVICE. PRESENCE OF THE UNIVERSITY BEFORE THE CONTRACTOR MAY REQUEST SIN. FURNISHED TEST AND BALANCE SERVICE. 1 ADJUSTING A. ADJUST INERNOSTATICE EXPANSION VALVE TO OBTAIN PROPER EXPAPORATOR SUPERHEAT REQUIREMENTS IF REQUIRED. A. ADJUST INERNOSTATURE OF THE CONTRACTOR MAY REQUEST SIN. FURNISHED TEST AND BALANCE SERVICE. C. ADJUST INERNOSTATURE OF THE CONTRACTOR MAY REQUEST SIN. FURNISHE OPERATIONS TO MAILTAIN AS TABLE OPERATION SYSTEM. A. ADJUST INE FOLLOWING ADJUSTMENTS DE MAILTAIN AS TABLE OPERATION SYSTEM. A. ADJUST INE FOLLOWING ADJUSTMENTS DE MAILTAIN STABLE OPERATION SYSTEM. ADJUST INE FOLLOWING ADJUSTMENTS DE MARKA OR CHILLED-WATER CONTROLLERS TO THE SYSTEM DESIGN TEMPERATURE. D. PERFORM THE FOLLOWING ADJUSTMENTS DE BEFORE OPERATION SYSTEM. FOLLOW ALL MANUFACTURERS WITTEN INFORMATION. THE CONTROL OF REFRIGERATION SYSTEM. FOLLOW ALL MANUFACTURERS ACHERY SAN JUST BEFORE OPERATING THE REFRIGERATION SYSTEM. FOLLOW ALL MANUFACTURERS ACHERY SAN JUST BEFORE OPERATING THE REFRIGERATION SYSTEM. FOLLOW ALL MANUFACTURERS ACHERY SAN JUST BEFORE OPERATING THE REFRIGERATION SYSTEM. FOLLOW ALL MANUFACTURERS ACHERY SAN JUST BEFORE OPERATING THE REFRIGERATION SYSTEM. FOLLOW ALL MANUFACTURERS ACHERY SAN JUST BEFORE OPERATING THE REFRIGERANT PHORESES ACHERY SAN JUST BEFORE OPERATING. DEFENSION SULTON RECOMPRESSON MOTOR ALLOWING THAN THE UNDOOR UNIT ACHERY SAN JUST BEFORE OPERATING. THE INDOOR UNIT SAN ALL BEFORE THE UNTON SAN DE BEARINGS. THE INDOOR UNIT THE WIRESES ON ADTRAL ADATION SAN DE BEARINGS. THE INDOOR UNIT THE WIRESES ON ADTRAL ADATORS AND SAN BEARINGS. THE INDOOR UNIT THE WIRESES ON ADTRAL ADATORS AND ADATOR SAN DE AND TEST ALL HAVE A MOOTER ADD THE SANL		
 A. Source and a status of any of an	EVACUATION AND CHARGING	
 Charlen Lander La	WITH A VACUUM PUMP. THE FOLLOWING PROCEDURE SHALL BE USED UNLESS OTHERWISE NOTED:	
 Hersen Participant Production Science (1997) Production Science (199		GENERAL REQUIREMENTS.
 All And All Andre All A	KEEP AMBIENT AIR TEMPERATURES ABOVE 600F DURING THE EVACUATION PROCESS.	A. THE AIR CONDITIONING SYSTEM SHALL BE A ELECTRIC SPLIT SYSTEM WITH VARIABLE SPEED INVERTER
 Bellow Construction Co	OPERATE THE VACUUM PUMP UNTIL THE SYSTEM IS EVACUATED TO 500 MICRONS HG.	,
 All and a product of the control of the co		A. THE UNITS SHALL BE TESTED BY A NATIONALLY RECOGNIZED TESTING LABORATORY (NRTL) AND SHALL BEAR THE
 A standard of the sta	•	B. ALL WIRING SHALL BE IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE (N.E.C.).
 Historian and the device state of the device state and the devi	PLACE AFTER 1 HOURS, THE SYSTEM MAY BE CHARGED. THIS TEST SHALL BE MADE IN THE PRESENCE OF THE UNIVERSITY. THE CONTRACTOR SHALL FURNISH AND INSTALL FULL CHARGE OF REFRIGERANT REQUIRED TO DEVELOP THE SYSTEM TO ITS FULL RATING. ALSO, DURING THE WARRANTY PERIOD, THE CONTRACTOR SHALL REPLACE, WITHOUT COST, ALL REFRIGERANT LOST DUE TO EQUIPMENT FAILURE OR SYSTEM LEAKS. REFRIGERANT TYPE AND CHARGE SHALL BE AS LISTED ON EQUIPMENT	STANDARD 210 / 240 AND BEAR THE AHRI CERTIFICATION LABEL. D. THE UNITS SHALL BE MANUFACTURED IN A FACILITY REGISTERED TO ISO 9001 AND ISO 14001, WHICH ARE A SET OF STANDARDS APPLYING TO PRODUCT AND MANUFACTURING QUALITY AND ENVIRONMENTAL MANAGEMENT AND
 The second sec	THE CONTRACTOR SHALL PROVIDE THE INITIAL CHARGE OF LUBRICATING OIL FOR ALL REFRIGERATION EQUIPMENT AND RELATED APPARATUS.	A. PRODUCT DATA: PROVIDE TYPICAL CATALOG OF INFORMATION INCLUDING ARRANGEMENTS, CONTROLS, COIL DATA,
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 C. Musch and L. Marken K. B. 1990 Marken K. 1990 M	A. ADJUST THERMOSTATIC EXPANSION VALVE TO OBTAIN PROPER EVAPORATOR SUPERHEAT REQUIREMENTS IF REQUIRED.	
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 ADMALTY THE LANSAN SPECIFIC UP LANSAN SPE	2.OPEN COMPRESSOR SUCTION AND DISCHARGE VALVES. 3.OPEN REFRIGERANT VALVES, EXCEPT BYPASS VALVES THAT ARE USED FOR OTHER PURPOSES.	SHALL BE ALL FACTORY WIRING AND INTERNAL PIPING, CONTROL CIRCUIT BOARD, FAN, AND FAN MOTOR AND
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 If LATS 12 UP 14 YOF Second Display A Latter A La	MATERIAL (INCHES) JACKET JACKET	FAN. THE FANS SHALL BE STATICALLY AND DYNAMICALLY BALANCED AND RUN ON A MOTOR WITH PERMANENTLY
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 NAMEN DE SELEM. HERCHES A SINCE VALUEZ UNIX ALL REAL TRANSPORTES INTERNATIONS INSTANCE. PERCENTER DE SENSE DE SENSE DE CENTRE VALUEZ UNIX ALL REAL TRANSPORTES ON THE THE DE SERSE NEESE ON THE SENSE DE SERVICE DE LEAST TRANSPORTES DATA DE LES DE SERVICE DE LEAST TRANSPORTES DATA DE LES DE SERVICE DE LES DE LES DE SERVICE DE LES DE LES DE SERVICE DE LES DE SERVICE DE LES DE SERVICE DE LES DE LES DE SERVICE DE LES DE LES DE SERVICE DE LES DE LES DE SERVICE DE LES DE LES		
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 A FACTORY APRILED ACCET. OWNER COMMING FERRIC ASS ASJ, OF CAULL, CONSIGNING OF VMIL CATED AN EMBOSED WORD BARREEL AWARDE HWILE A VAPOR FERRIAVES OF COLOR. DO ASPECTANCE OF CAUCHING AND CONSIGNING HWILE AND COMPLEXES AND AND CONSIGNING HWILE AND CONSIGNING HWILE AND CONSIGNING HWILE AND COMPLEXES AND AND CONSIGNING HWILE AND COMPLEXES AND COMPLEXES AND AND CONSIGNING HWILE AND CONSIGNING HWILE AND COMPLEXES AND AND CONSIGNING HWILE AND CONSIGNING	WITH 3/4 INCH WIDE BY 0.015 INCH ALUMINUM BANDS 18 INCHES ON CENTER.	
 There resultantion was primes shall be covered with cells three values as sets one could. Coefficient of Rouid. Prime National Shall be conceptibility including strategy and strategy and	A FACTORY APPLIED JACKET, OWENS-CORNING FIBERGLASS ASJ OR EQUAL, CONSISTING OF VINYL COATED AND EMBOSSED VAPOR BARRIER LAMINATE HAVING A VAPOR PERMEANCE OF 0.02 PERMS AND A BEACH PUNCTURE OF MINIMUM OF 50 UNITS.	INTERCONNECTED BY A-CONTROL. THIS THREE (3) CONDUCTOR 14 GA. AWG WIRE WITH GROUND METHOD SHALL PROVIDE POWER FEED AND BI-DIRECTIONAL DIGITAL CONTROL TRANSMISSION BETWEEN THE OUTDOOR AND
 A DUACGIT JACKETING SMULTONES AND OFFICE OF AND ALL OPERATED SMUTS SMULTE WELDED TOGETHER WITH CREET. THE VELDING SMUTS AND EXERCISES OF APPROVED EQUAL. FITTING COVERS SMULTO KERAPT TO ALLOCAT. TIPE INJURION LANGETING, LONGTUDINAL AND DIRCUMFERENTIAL SEANS SMULTONE CARE TO ALLOCATE PIPE INJURIONAL AND CREATING STOLED UNDER COVERLAPPING, JOINTS AND TO UTSTBE OF ORDER AND BMULTE RESTAND. A BEAD OF CEST. THE KIDA ADHESKUE OR REQUIL, IS BINGT NUMBER SHALL BE APPLIED UNDER COVER LAPPING, JOINTS AND TO UTSTBE OF ORDER AND BMULTE RESTAND. C AP OFE FLOS WITH CEST. THE SWITH CEST. THE SWI	 PIPE INSULATION AND FITTINGS SHALL BE COVERED WITH CEEL-TITE 300 UVR SERIES OR EQUAL, 0.020 INCH THICK. CEEL-TITE OR EQUAL PIPE INSULATION JACKETINGS SHALL BE PROVIDED WITH A MINIMUM OF 1INCH OVERLAP. 	B. THE SYSTEM SHALL BE CAPABLE OF AUTOMATIC RESTART WHEN POWER IS RESTORED AFTER POWER
 SEAMS SHALLE BE WELDED TOGETHER WITH CEEL THE \$200 ADMESSIVE OR REQUAL. C. AD OF CEEL THE \$200 ADMESSIVE OR APROVE DEGUAL, (INC NOT NO ADMETTER SHALL BE APPLIED UNDER OVERLAPPING JOINTS AND TO OUTSIDE OF OVERLAP AND SHALL BE FEATHERED. C. AD OF TERS WITH CEEL THE 300 STREED SECOND COMMONS STREED WELDE BED OR UNIONS, REDUCERS, FLANGES, VALXE COVERS AND OTHER ACCESSORIES. C. AD KONK WASHER SHALL BE INSTALLE DURDERNATH THE ORP. C. AT HEIN TERMENDERNATION FLANDE DE USED FOR UNIONS, REDUCERS, FLANGES, VALXE COVERS AND OTHER ACCESSORIES. C. AT HEIN TERMENDERNATION FLANDE DE USED FOR UNIONS, REDUCERS, FLANGES, VALXE COVERS AND OTHER ACCESSORIES. C. THE INDOOR UNIT SHALL BE CONNECTED TO A DELUXE WALL MOVEL THE OVER DUE TO TERMAL DEPARTOR SHALL BE APPLIED BETWEEN THE CAP AND THE PIPE. DUE TO TERMAL DEPARTOR NOT ACCENTS AND SECTION OF LANCE THE OXITED OUTROL LER, MODEL PAR-21 MAA, TO PERFORM NEUT FLUCTIONS AND SECTION OF ADACETING SHALL BE APPLIED BETWEEN THE CAP AND THE PIPE. DUE TO TERMAL DEPARTOR OF ADACETING SHALL BE APPLIED BETWEEN THE CAP AND THE PIPE. DUE TO TERMAL DEPARTOR OF ADACETING SHALL BE APPLIED BETWEEN THE CAP AND THE PIPE. DUE TO THE AND THE MADE SHALL BE APPLIED BETWEEN THE CAP AND THE PIPE. DUE TO THE AND THE OWNERS AND SECTION OF ADACETING SHALL BE APPLIED BETWEEN THE CAP AND THE OWNERS DUE OF THE MANUE ADMILTION OF ADACETING SHALL BE APPLIED BETWEEN THE CAP AND THE PIPE. DUE TO THE AND THE AND THE CAP AND THE CAP AND THE PIPE. DUE TO THE AND THE ADD THE ADD THE ADD THE ADD THE DEPORD AND THE CONTROLLER AND THE OWNERS THE ADD THE ADD THE ADD THE DEPORD AND THE CONTROLLER ADD THE OWNERS AND THE OWNERS A	 ADJACENT JACKETING SHALL OVERLAP 3/4 INCH AND ALL CIRCUMFERENTIAL SEAMS SHALL BE WELDED TOGETHER WITH CEEL-TITE WELDING #300 ADHESIVE, OR EQUAL. 	RUN TIME. DIAGNOSTICS CODES FOR INDOOR AND OUTDOOR UNITS SHALL BE DISPLAYED ON THE WIRED
 1. CAP OPF ENDS WITH CETL ITTE 300 SENES OF EQUIA CAPS: CAPS SHALL ALSO BE USED FOR UNIONS, REDUCERS, FLANGES SAND OTHER ACCESSORES 8. GARLOCK WASHER SHALL BE INSTALLED UNDERNEATH THE CAP. 9. A HIGH TEMPERATURE SLOWE CALLUNDER SHALL BE APRESSING. SHALL BE APPENDED SH	SEAMS SHALL BE WELDED TOGETHER WITH CEEL-TITE #300 ADHESIVE OR EQUAL. 6. A BEAD OF CEEL-TITE #300 ADHESIVE OR APPROVED EQUAL, 1/8 INCH IN DIAMETER SHALL BE APPLIED UNDER	TEMPERATURE AND INDOOR COIL TEMPERATURE, RECEIVING AND PROCESSING COMMANDS FROM THE WIRED
 8. GARLOCK WASHER SHALL BE INSTALLED UNDERNEATH THE CAP. 9. A HICH TEMPERATURES SUICONE CALLURS INCLIDE DE EVENE THE CAP AND THE PIPE. 10. DUE TO THERMAL EXPANSION OF LACKETING, A SIMPLE SUICONE CALLURS WILL DE DE EVENE THE CAST PLOY THE OTATIONE EVENED ON LONG CONTINUOUS RUNS OF PIPIE (PENY 24 ~ 10 THE DISTANCE EVENED SITUE) THE DISTANCE EVENED SILP (DIST SHALL BE DISTANCE DISTANCE ON THATRIX LOUID CRYSTAL DISPLAY. (LOUD PRESENTING CONTENTS IN ELIDITA DISTANCE DOST ON THAN DISTANCE ON THAT IS IN ELIDITA DISTANCE DISTANCE ON THAT IS IN ELIDITA DISTANCE ON THE INSULATION MATERIALS AS RECOMMENDED BY THE INSULATION MATERIALS AS RECOMMENDED BY THE INSULATION EXAMPLES IN EXAMPLES IN ELIDITAN THE CONTROLLES INSULATION AND ACHECK MARY BE USED. SUBJECT TO APPROVAL OF THE OWNERS REPERSISTATIVE. 1. FOR SEALING WARD RARRERS: F 58.20 OR EQUAL 2. FOR SEALING WARD RARRERS: F 58.20 OR EQUAL 3. FOR SEALING WARD RARRERS: F 58.20 OR EQUAL 3. FOR SEALING WARD AND EXCLUSING STREEL USE OF STAPLES SHALL BE ENTITIES IN ELIDITANCE AND EXCLUSION SELICITORS AND EXCLUSING STREEL USE OF STAPLES SHALL BE ON THE ONTERNE SERVISING STELL USE OF STAPLES SHALL BE ON ORTHORIZATION AND ACHECK STARLE BE ON THE ONTERNE SERVISION THE ENTITIES AND ADDITION ALL LONGTON ALL DON'S DIVINGE AND ADDITION AND ACHECK STARLE BE	7. CAP OFF ENDS WITH CEEL-TITE 300 SERIES OR EQUAL CAPS. CAPS SHALL ALSO BE USED FOR UNIONS, REDUCERS,	
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ADHESIVES, COATINGS AND SEALANTS A. ADHESIVES, COATINGS AND SEALANTS SHALL BE A BUILT-IN WEEKLY TIMER WITH UP TO EIGH THERNETATURE BUTTONS, AUTO J COULDRY / THE MANUFACTURER. THE FOLLOWING IS A PARTIELLS I OF SERVICES AND THE CORRESPONDING MATERIAL TO BE USED. OTHER E COULD WING IS A PARTIAL LIST OF SERVICES AND THE CORRESPONDING MATERIAL TO USED. OTHER E COULD PROVIDED BY MANUFACTURER MEN USED BY MANUFACTURER MEY BUTTONS. A FAN SPEED SELECTOR, A TIMER MENU BUTTON, ATTIMER OWOOFB BUTTON, AT TEST RUN BUTTONS, AT AN SPEED SELECTOR, A VANE POSITION SELECTOR, A LOUVER SWING BUTTON, AT EST RUN BUTTON, AT A D A CHECK MODE BUTTON. THE CONTROLLER SHALL HAVE A BUILT-IN THEREATURE SENSOR. TEMPERATURE SHALL BE DISPLAYED REPRESENTATIVE: 1. FOR SEALING VAROR BARRIERS: 5. F65-20 OR EQUAL 2. FITTINGS, VALVES, FLANGES FOR COLD WATER AND DRAIN PIPING: F30.35 OR EQUAL 3. FOR SEALING VAROR BARRIERS: A. STAPLES SHALL BE ON OT THE OUTWARD CLINCHING TYPE OF CORROSION RESISTING STEEL. USE OF STAPLES SHALL BE A. STAPLES SHALL BE ON OT THE OUTWARD CLINCHING TYPE OF CORROSION RESISTING STEEL. USE OF STAPLES SHALL BE INSTALLOTION MANUFACTURER. A. WIRE PON SECURING INSULATION AND JACKETS SHALL BE #16 AWG COPPER, CLAD STEEL OR NICKEL COPPER ALLOY. C. WIRE NOT THE SULATION AND JACKETS SHALL BE #16 AWG COPPER, CLAD STEEL OR NICKEL COPPER ALLOY. C. WIRE NOT FINE SULATION AND JACKETS SHALL BE #16 AWG, VINCH OR 1 INCH MESH GALVANIZED D. PREMOLDED FIBER GLASS SPIEL BE OVER THE ONSULATION TO BE CEMENT FINISHED SHALL BE #16 AWG, VINCH OR 1 INCH MESH GALVANIZED D. PREMOLDED FIBER GLASS PRE TITINGS SHALL BE HIS AUL DE GORDER OF THE OWNERS NISTALLATION OF PIPING INSULATION AND JACKETS SHALL BE ENSUL-COUSTIC, INSULAR OR EOUAL E. WIELED STEEL WIRE FABRIC SHALL BE ENSULATED AND COCORDANCE WITH ASTMA 185. INSTALLATION OF PIPING INSULATION A. TEST, INSPECT AND CLEAN SURFACES TO BE INSULATION.	PIPE (EVERY 24' - 0" TO 30' -0") AND BETWEEN FITTINGS IF THE DISTANCE EXCEEDS 8' -0". A SLIP JOINT SHOULD ALSO BE USED BETWEEN FIXED SUPPORTS. A SLIP JOINT CAN BE MADE BY EXTENDING THE OVERLAPPING SECTION 6 TO 10	DIFFERENT LANGUAGES, INCLUDING ENGLISH, FRENCH, CHINESE, GERMAN, JAPANESE, SPANISH, RUSSIAN, AND
THE MANUFACTURER. THE FOLLOWING IS A PARTIAL LIST OF SERVICES AND THE CORRESPONDING MATERIAL TO BE USED. OTHER EQUAL PRODUCTS AS RECOMMENDED BY MANUFACTURER MAY BE USED, SUBJECT TO APPROVAL OF THE OWNERS REPRESENTATIVE: 1. FOR SEALING VAPOR BARRIERS: F 85-20 OR EQUAL 2. FITTINGS, VALVES, FLANGES FOR COLD WATER AND DRAIN PIPING: F 30-35 OR EQUAL 3. FOR SEALING JOINTS IN FIBERGLASS ASJ: ASJ JOINT SEALING TAPE ACCESSORIES AND FASTENING MATERIALS A. STAPLES SHALL BE ON OF THE OUTWARD CLINCHING TYPE OF CORROSION RESISTING STEEL. USE OF STAPLES SHALL BE LIMITED TO MATERIALS AND LOCATIONS, AS APPROVED BY THE OWNERS REPRESENTATIVE: 1. WIRE FOR SECURING INSULATION LAPS SHALL BE ON VERLAPPED AND GLUED WITH GLUE AS RECOMMENDED BY THE INSULATION MANUFACTURER. 8. WIRE FOR SECURING INSULATION ADJ SCHETS SHALL BE INSUL-COUSTIC, INSULATED AND LEAD STELL OR NICKEL COPPER ALLOY. C. WIRE NETTING FOR SECURING INSULATION TO BE CEMENT FINISHED SHALL BE #16 AWG, ½ INCH OR 1 INCH MESH GALVANIZED. D. PREMOLDED FIBER GLASS PIPE FITTINGS SHALL BE INSUL-COUSTIC, INSULAT OR EQUAL. 2. WISTELE WIRE FARRIC SHALL BE GAUGE, 66 MESH IN ACCORDANCE WITH ASTM A185. INSTALLATION OF PIPING INSULATION A. TEST, INSPECT AND CLAN SURFACES TO BE INSULATED BEFORE APPLYING INSULATION.	ADHESIVES, COATINGS AND SEALANTS	SHALL CONSIST OF AN ON/OFF BUTTON, INCREASE/DECREASE SET TEMPERATURE BUTTONS, A AUTO / COOL / DRY /
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	A. TEST, INSPECT AND CLEAN SURFACES TO BE INSULATED BEFORE APPLYING INSULATION.	

C. PIPING OR SURFACES WHERE SUBJECT TO CONDENSATION ON THE OUTSIDE SHALL BE INSULATED INCLUDING VAPORSEAL D. SURFACES TO BE INSULATED SHALL BE CLEAN, DRY AND FREE FROM RUST AND SCALE WHEN INSULATION IS BEING APPLIED.

E. BUTT ENDS WILL NOT BE ALLOWED. HOWEVER, WHERE REQUIRED AND APPROVED BY OWNER'S REPRESENTATIVE, JACKET MATERIAL SHALL BE PASTED OVER EXPOSED ENDS AND BANDED TO GIVE A NEAT AND FINISHED APPEARANCE. EXPOSED

SURFACES OR INSULATION SHALL BE SMOOTH, EVEN AND TRUE TO LINE WITH JACKETS DRAWN TIGHT AND SMOOTHLY SECURED. SCRAP PIECES OF INSULATION SHALL NOT BE USED WHERE A FULL LENGTH SECTION WILL FIT.

G. WHERE NOT SPECIFICALLY DETAILED, IT IS INTENDED THAT THEY ARE EQUAL OR EXCEED THE MANUFACTURER'S PUBLISHED RECOMMENDATIONS, EXISTING AT TIME OF BID OPENING, SUBJECT TO THE APPROVAL OF THE OWNER'S REPRESENTATIVE. H. BUTT COVERING NEATLY TO WALLS, FLOORS, CEILING. APPLY BAND AT END AND POSITION SO BAND COVERS GAP BETWEEN

FASTENINGS: PROVIDE WHERE REQUIRED TO SECURELY HOLD INSULATION, FASTEN COVERING WITH ALUMINUM BANDS AT MIDPOINT AND AT END OF SECTIONS. APPLY ADHESIVE ON EXPOSED RISERS TO PREVENT SLIPPING AND TURNING. J. THICKNESS OF INSULATION SHALL NOT BE COMPROMISED DUE TO PIPING INTERFERENCES, IMPROPER INSTALLATION OR ANY

K. PIPE LABELS, INCLUDING FLOW ARROWS, SHALL BE APPLIED TO THE OUTSIDE OF THE FINISHED INSULATION SYSTEM/JACKET. INDICATE LOCATION OF PIPE UNIONS AND FLANGES ON THE OUTSIDE OF THE FINISHED INSULATION SYSTEM/JACKET.

F. THE WIRED CONTROLLER SHALL DISPLAY OPERATING CONDITIONS SUCH AS SET TEMPERATURE, ROOM TEMPERATURE, PIPE TEMPERATURES (I.E. LIQUID, DISCHARGE, INDOOR AND OUTDOOR), COMPRESSOR OPERATING CONDITIONS (INCLUDING RUNNING CURRENT, FREQUENCY, INPUT VOLTAGE, ON/OFF STATUS AND OPERATING TIME), LEV OPENING PULSES, SUB COOLING AND DISCHARGE SUPER HEAT.

2.4 CONTROL (CONT.)

METERS).

2.5 OUTDOOR UNITS

G. NORMAL OPERATION OF THE WIRED CONTROLLER SHALL PROVIDE INDIVIDUAL SYSTEM CONTROL IN WHICH ONE WIRED CONTROLLER AND ONE INDOOR UNIT ARE INSTALLED IN THE SAME ROOM. TEMPERATURE SENSING SHALL BE DONE BY A THERMISTOR MOUNTED IN THE RETURN AIR STREAM OF THE INDOOR UNIT. AN ALTERNATE TEMPERATURE SENSOR SHALL BE LOCATED WITHIN THE WALL CONTROLLER. SELECTION OF THE SENSOR IS BY SWITCH IN THE INDOOR UNIT.

H. THE CONTROLLER SHALL HAVE THE CAPABILITY OF CONTROLLING UP TO A MAXIMUM OF SIXTEEN INDOOR UNITS. ALL UNITS WILL BE IN THE SAME MODE, WITH THE SAME SET POINT, FAN SPEED, AND ALL FUNCTIONS.

I. CONTROLLER SHALL OPERATE OVER A MAXIMUM DEVELOPED CONTROL CABLE DISTANCE OF 1,650 FEET (500

J. THE CONTROL VOLTAGE FROM THE WIRED CONTROLLER TO THE INDOOR UNIT SHALL BE A DIGITAL +/-24 VOLTS, DC SIGNAL. THE CONTROL SIGNAL BETWEEN THE INDOOR AND OUTDOOR UNIT SHALL BE PULSE SIGNAL 24 VOLTS DC. UP TO TWO WIRED CONTROLLERS SHALL BE ABLE TO BE USED TO CONTROL ONE UNIT.

K. CONTROL SYSTEM SHALL CONTROL THE CONTINUED OPERATION OF THE AIR SWEEP LOUVERS, AS WELL AS PROVIDE ON/OFF AND MODE SWITCHING. THE CONTROLLER SHALL HAVE THE CAPABILITY TO PROVIDE SEQUENTIAL STARTING WITH UP TO FIFTY SECONDS DELAY.

L. A TWO WIRE (ONE PAIR) TWISTED, STRANDED, 18 GAUGE (AWG), JACKETED, CONTROL CABLE SHALL BE USED TO CONNECT THE CONTROLLER TO THE INDOOR UNIT.

A. THE CONNECTED INDOOR UNIT MUST BE OF THE SAME CAPACITY AS THE OUTDOOR UNIT.

B. THE OUTDOOR UNIT SHALL BE EQUIPPED WITH A CONTROL BOARD THAT INTERFACES WITH THE INDOOR UNIT TO PERFORM ALL NECESSARY OPERATION FUNCTIONS.

C. THE OUTDOOR UNIT SHALL BE ABLE TO OPERATE WITH A MAXIMUM HEIGHT DIFFERENCE OF 100 FEET (30 METERS) BETWEEN INDOOR AND OUTDOOR UNITS. UNITS SHALL ALSO HAVE A MAXIMUM REFRIGERANT TUBING LENGTH CAPABILITY OF 254 FEET (75 METERS) BETWEEN INDOOR AND OUTDOOR UNITS WITHOUT THE NEED FOR LINE SIZE CHANGES, TRAPS OR ADDITIONAL OIL. UNITS SHALL BE PRE-CHARGED FOR A MAXIMUM OF 100 FEET (30 METERS) OF REFRIGERANT TUBING. THE OUTDOOR UNIT SHALL BE COMPLETELY FACTORY ASSEMBLED, PIPED, AND WIRED. EACH UNIT MUST BE TEST RUN AT THE FACTORY. BOTH REFRIGERANT LINES FROM THE OUTDOOR UNIT TO INDOOR UNITS SHALL BE INDIVIDUALLY INSULATED.

D. THE OUTDOOR UNIT SHALL HAVE AN HEAT INTERCHANGER CIRCUIT CONSISTING OF A HEAT INTERCHANGER CIRCUIT FOR SUB-COOLING LIQUID PRIOR TO ENTERING THE OUTDOOR COIL DURING THE HEATING MODE. THE INTERCHANGER SHALL BE OF A COPPER TUBE WITHIN A TUBE CONSTRUCTION. THE INTERCHANGER CIRCUIT REFRIGERANT FLOW SHALL BE CONTROLLED BY AN ELECTRONIC EXPANSION VALVE.

E. THE OUTDOOR UNIT SHALL BE CAPABLE OF OPERATING IN COOLING MODE AT 0°F (-18°C) AMBIENT TEMPERATURE WITHOUT ADDITIONAL LOW AMBIENT CONTROLS (OPTIONAL WIND BAFFLES - TWO PIECES - ARE REQUIRED).

F. THE OUTDOOR UNIT SHALL HAVE RATED PERFORMANCE FOR HEAT OPERATION AT -13F OUTDOOR AMBIENT TEMPERATURE WITHOUT ADDITIONAL LOW AMBIENT CONTROLS.

G. OUTDOOR UNIT SHALL HAVE A SOUND RATING NO HIGHER THAN 53 DB(A)

H. THE OUTDOOR UNIT SHALL HAVE AN ACCUMULATOR WITH REFRIGERANT LEVEL SENSORS AND CONTROLS.

I. THE OUTDOOR UNIT SHALL HAVE A HIGH PRESSURE SAFETY PROTECTION, OVER-CURRENT PROTECTION AND DC BUS PROTECTION.

J. CABINET: THE CASING SHALL BE CONSTRUCTED FROM GALVANIZED STEEL PLATE, COATED WITH A FINISHED WITH AN ELECTROSTATICALLY APPLIED, THERMALLY FUSED ACRYLIC OR POLYESTER POWDER COATING FOR CORROSION PROTECTION AND HAVE A MUNSELL 3Y 7.8/1.1 FINISH. THE FAN GRILLE SHALL BE OF ABS PLASTIC.

K. FAN: THE FAN MOTORS SHALL BE OF AERODYNAMIC DESIGN FOR QUIET OPERATION, AND THE FAN MOTOR BEARINGS SHALL BE PERMANENTLY LUBRICATED. THE OUTDOOR UNIT SHALL HAVE HORIZONTAL DISCHARGE AIRFLOW. THE FAN SHALL BE MOUNTED IN FRONT OF THE OUTDOOR COIL, PULLING AIR ACROSS THE COIL FROM THE REAR AND DISPELLING IT THROUGH THE FRONT. THE FAN SHALL BE PROVIDED WITH A RAISED GUARD TO PREVENT CONTACT WITH MOVING PARTS.

COIL: THE L SHAPED CONDENSER COIL SHALL BE OF COPPER TUBING WITH FLAT ALUMINUM FINS TO REDUCE DEBRIS BUILD UP. THE COIL SHALL BE PROTECTED WITH AN INTEGRAL METAL GUARD. REFRIGERANT FLOW FROM THE CONDENSER SHALL BE CONTROLLED BY MEANS OF AN ELECTRONIC LINEAR EXPANSION VALVE (LEV) METERING DEVICE. THE LEV SHALL BE CONTROLLED BY A MICROPROCESSOR ACTIVATED STEPPER DEVICE.

M. COMPRESSOR: THE COMPRESSOR SHALL BE A MITSUBISHI ELECTRIC. DC SCROLL COMPRESSOR WITH VARIABLE COMPRESSOR SPEED INVERTER TECHNOLOGY. THE COMPRESSOR SHALL BE DRIVEN BY INVERTER CIRCUIT TO CONTROL COMPRESSOR SPEED. THE COMPRESSOR SPEED SHALL DYNAMICALLY VARY CAPACITY TO MATCH THE ZONE LOAD FOR SIGNIFICANTLY INCREASING THE EFFICIENCY OF THE SYSTEM WHICH WILL RESULT IN CONSIDERABLE ENERGY SAVINGS. TO PREVENT LIQUID FROM ACCUMULATING IN THE COMPRESSOR DURING THE OFF CYCLE, A MINIMAL AMOUNT OF CURRENT SHALL BE INTERMITTENTLY APPLIED TO THE COMPRESSOR MOTOR WINDINGS TO MAINTAIN ENOUGH HEAT TO EVAPORATE THE LIQUID. THE COMPRESSOR SHALL BE MOUNTED TO AVOID THE TRANSMISSION OF VIBRATION.

N. THE OUTDOOR UNIT SHALL BE EQUIPPED WITH A PROPERLY SIZED REFRIGERANT ACCUMULATOR AND HIGH PRESSURE SAFETY SWITCH.

O. ELECTRICAL: THE ELECTRICAL POWER OF THE UNIT SHALL BE 208 / 230 VOLTS, 1-PHASE, 60 HERTZ. THE UNIT SHALL BE CAPABLE OF SATISFACTORY OPERATION WITHIN VOLTAGE LIMITS OF 198 VOLTS TO 253 VOLTS. THE OUTDOOR UNIT SHALL BE CONTROLLED BY THE MICROPROCESSOR LOCATED IN THE INDOOR UNIT.

P. THE CONTROL SIGNAL BETWEEN THE INDOOR UNIT AND THE OUTDOOR UNIT SHALL BE PULSE SIGNAL +/- 24 VOLTS DC. THE UNIT SHALL HAVE PULSE AMPLITUDE MODULATION CIRCUIT TO UTILIZE 98% OF INPUT POWER SUPPLY.

CONDENSATE PUMP: 'LITTLE GIANT' EC-OP-K LOW NOISE AND VIBRATION COMPLETE WITH STOP/START WITH FLOAT LEVEL CONTROLS, FILTER, CLEAR RESERVOIR FOR VISUAL INSPECTION OF WATER LEVEL, FLOAT AND FILTER, SAFETY ALARM, 8aAMP RESISTIVE 250 ALARM CONTACT, INLET AND DISCHARGE TUBING, IP 54 PROTECTION, 80°C THERMAL PROTECTION, SAFETY ALARM READY FOR BMS SYSTEM, MOUNTING BRACKET. CAPACITY 1 GALLON/HR AT 20 FT HEAD PRESSURE. CONSTRUCTION: FLAME RESISTANT ABS.

Seismic Upgrade and **Building Alterations**

Kensington Community Center

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Community Services District

🗖 GLASS Associates, Inc. architecture & planning

519 Seventh Street San Francisco, CA 94103

> T. 415.864.1234 F. 415.864.1141

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CONSULTANT

MECHANICAL ENGINEER: EPCE Inc. Eddie Padilla Consulting Engineers Inc. 274 Devonshire Street Vallejo, CA 94591 707-980-4049

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PLUMBING LEGEND

SYMBOLS	ABB'R	SERVICE
К 1		EQUIPMENT IDENTIFICATION
(1) (P1.0)		DETAIL OR SECTION SHEET NUMBER
		NORTH ARROW (REFERENCE)
		POINT OF CONNECTION (POC) OR EXTENT OF WORK
		POINT OF DEMOLITION
1		KEYED NOTE
•		FIRE SPRINKLER HEAD
	FP	FLEXIBLE CONNECTION
,		(E) PIPE TO BE REMAIN
, <u>* * * * *</u> {		(E) PIPE TO BE REMOVED
	(N)	NEW
	(E)	EXISTING
	AP/AD	ACCESS PANEL/ACCESS DOOR
0	UP	ALL SERVICES
	DN	ALL SERVICES
0	VR-VTR	VENT RISE - VENT THRU ROOF
		DIRECTION OF FLOW
— S/W —	S/W	SANITARY OR WASTE
— SD — — FS —	SD FS	
	FS CW	FIRE SPRINKLER COLD WATER
	HW	HOT WATER
	HWR	HOT WATER RETURN
	V	VENT
—_G—	G	GAS
— CD—	CD	CONDENSATE DRAIN
日本		3-WAY CONTROL VALVE
ц Ц Ц		2-WAY CONTROL VALVE
	BC	BALANCING COCK
<u>`</u>		BALANCING VALVE
<u> </u>		BALL VALVE
<u> </u>	BV	BUTTERFLY VALVE
	PRV	PRESSURE REDUCING VALVE
	TCV	
	GV	GATE VALVE
	GLV	GLOBE VALVE
	CKV	CHECK VALVE STRAINER
' '>' ſ₹	AVA	AIR VENT VALVE-AUTOMATIC
<u> </u>	AVA	AIR VENT VALVE-MANUAL
	PGA	PRESSURE GAUGE
	U	UNION CONNECTION
PP T	-	PETE'S PLUG
	TH	THERMOMETER
<u> </u>	Т	THERMOSTAT
P		TEMPERATURE GAUGE
Ò		TEMPERATURE SENSOR
FS		FLOW SWITCH/SENSOR
- - -		PRESSURE SENSOR/TRANSMITTER
MS		MAGNETIC STARTER
DI		DIGITAL INPUT
D0		DIGITAL OUTPUT
AI		ANALOG INPUT
D0		ANALOG OUTPUT
		ELECTRICAL CONTROL WIRING
<u> </u>		PNEUMATIC CONTROL

ABBREVIATIONS

CU	AIR CONDITIONING UNIT
FF	ABOVE FINISH FLOOR
HU	AIR HANDLING UNIT
P	ACCESS PANEL
HP	BRAKE HORSEPOWER/BOILER HORSEPOWER
OP	BOTTOM OF PIPE
FF	CAP FOR FUTURE
FH	CUBIC FEET PER HOUR
FM	CUBIC FEET PER MINUTE
LG	CEILING
TE	CONNECT TO EXISTING
N	DOWN
D)	DISPOSE
Ξ)	EXISTING
F	EXHAUST FAN
SP	EXTERNAL STATIC PRESSURE
F	FIRE SPRINKLER
C	FLEXIBLE CONNECTION
ЪW	FEET PER MINUTE
SD	FIRE SMOKE DETECTOR
TR	HEATER
IW	HOT WATER
80KHW	180 KITCHEN HOT WATER
IWR	RECIRCULATING HOT WATER
FR	MANUFACTURER
N)	NEW
IC	NORMALLY CLOSED
PA	NATIONAL FIRE PROTECTION ASSOCIATION
Ю	NORMALLY OPEN
G	PRESSURE GAUGE
BG	PLUMBING
C	POINT OF CONNECTION
SI	POUND PER SQUARE INCH
SIG	POUND PER SQUARE INCH GAUGE
२)	RELOCATED
RF	RETURN FAN
२)	RELOCATE
10	
PM	REVOLUTION PER MINUTE
5)	SALVAGE TO BE RE-INSTALLED
F	SUPPLY FAN
SS D	STAINLESS STEEL STANDARD
ГL	STEEL
H	THERMOMETER
SP (P	TOTAL STATIC PRESSURE
NO	UNLESS NOTED OTHERWISE
ſR	VENT THRU ROOF
PD	WATER PRESSURE DROP
/P	WEATHER OR WATER PROOF
/T	WEIGHT

	ENERAL NOTES	SCOPE
1.	 ALL WORK SHALL BE IN ACCORDANCE WITH THE LATEST APPLICABLE LOCAL AND STATE CODES AND REGULATIONS: CALIFORNIA BUILDING CODE 2016 CALIFORNIA MECHANICAL CODE 2016 CALIFORNIA PLUMBING CODE 2016 CALIFORNIA FIRE CODE 2016 CALIFORNIA FIRE CODE 2016 	GENERAL: THIS SC NOT INTENDED TO ARE INDICATED ON 1. REMOVE AND
2.	ALL PIPING SHOWN ON PLANS ARE DIAGRAMMATIC AND SHALL NOT BE SCALED TO DETERMINE EXACT LOCATION. CERTAIN VERTICAL AND HORIZONTAL DIMENSIONS ARE SHOWN IN DUCTS AND PIPES TO INDICATE THEIR GENERAL POSITION IN RELATIONSHIP TO THE SYSTEMS WITHIN THE SPACE AVAILABLE FOR SYSTEM INSTALLATION. PROVIDE ADDITIONAL PIPING OFFSETS AS REQUIRED, AND TO COORDINATE WITH INSTALLATION REQUIREMENTS OF OTHER SYSTEMS AT NO ADDITIONAL COST TO THE OWNER. ALL DIMENSIONS ARE IN INCHES OR OTHERWISE NOTED.	 PROVIDE NEW NECESSARY. PROVIDE NEW NECESSARY. REMOVE AND PROVIDE NEW
3.	WHERE EXISTING CONSTRUCTION IS CUT, DAMAGED, OR REMODELED, PATCH WITH MATERIALS TO MATCH IN KIND, QUALITY, AND PERFORMANCE.	6. PROVIDE NEW
4.	CONTRACTOR SHALL ASSUME SOLE RESPONSIBILITY FOR SAFETY OF ALL PERSONS IN OR ABOUT THE CONSTRUCTION SITE, IN ACCORDANCE WITH APPLICABLE LAWS AND CODES. GUARD ALL HAZARDS IN ACCORDANCE WITH THE SAFETY PROVISIONS OF THE LATEST MANUAL OF ACCIDENT PREVENTION PUBLISHED BY THE ASSOCIATED GENERAL CONTRACTORS OF AMERICA AND CAL-OSHA.	FILLER AS IND 7. PROVIDE NEW EXISTING PLU 8. PRESSURE TE
5.	REFER TO SMACNA SEISMIC GUIDELINES AND STANDARDS FOR PIPE SUPPORT AND EQUIPMENT SEISMIC BRACING.	FOR A PERIOD 9. PRESSURE TE PERIOD OF 24
	COORDINATE WORK WITH THE OWNER AND ALL OTHER TRADES. SEAL AIR TIGHT ALL PIPE PENETRATIONS THROUGH WALL. SEALANT SHALL BE 3M BRAND PRODUCTS. BRACE ALL PIPES AND EQUIPMENT TO WITHSTAND FORCES AS REQUIRED BY THE STATE AND LOCAL CODES.	10. FLUSH AND DE WATER SAMPL
8.	PROTECT THE PUBLIC FROM INJURY DURING PROGRESS OF WORK BY POSTING WARNING SIGNS, GUARD LIGHTS AND BARRICADES.	11. BID ALTERNAT PROVIDE SHU
9.	THE CONTRACTOR SHALL PROVIDE DUST BARRIER PLASTIC COVERS, SCREEN AND TENTING AT ALL TIMES TO CONTAIN DUST AND DEBRIS WITHIN THE DESIGNATED WORK AREA. LOCATING AND INSTALLATION OF DUST PROTECTION COVERS AND TENTING TO BE APPROVED BY THE OWNER PRIOR TO INSTALLING. CONTRACTOR SHALL CLEAN WORK AREA AND REMOVE DEBRIS AT THE END OF EACH WORKING DAY. DISPOSAL OF DEBRIS AND EXCESS MATERIAL SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.	CONNECTION. PROVIDE SUPI
10.	THE EXISTING MECHANICAL AND ELECTRICAL SYSTEMS SHALL BE MAINTAINED IN OPERATION DURING THE DEMOLITION AND INSTALLATION OF NEW WORK. WHEN A SYSTEM SHUTDOWN IS NECESSARY, OBTAIN A WRITTEN APPROVAL FROM THE OWNER MINIMUM 10 WORKING DAYS PRIOR TO SHUTTING DOWN OF ANY MECHANICAL ELECTRICAL SYSTEMS.	
11.	VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS. VERIFY DIMENSIONS OF OWNER FURNISHED EQUIPMENT TO ENSURE PROPER COORDINATION WITH CONSTRUCTION DOCUMENTS. NOTIFY ARCHITECT/ENGINEER OF ANY DISCREPANCIES FOUND. NO ALLOWANCE SHALL BE MADE FOR ANY EXPENSE TO WHICH THE CONTRACTOR MAY INCUR DUE TO FAILURE OR NEGLECT ON HIS PART TO MAKE SUCH VERIFICATION.	
12.	ANY ERRORS, OMISSIONS OR CONFLICTS FOUND IN THE VARIOUS PARTS OF THE CONSTRUCTION DOCUMENTS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT OR ENGINEER AND OWNER BEFORE PROCEEDING WITH THE WORK.	
13.	CUTTING OR PENETRATIONS THROUGH EXISTING CONCRETE WALL, FLOOR OR ROOF SHALL BE VERIFIED FOR STRUCTURAL REINFORCEMENTS. X-RAY ARE REQUIRED TO LOCATE EXISTING REINFORCING BARS PRIOR TO CONCRETE CORE DRILLING OR CUTTING. OBTAIN STRUCTURAL ENGINEER'S WRITTEN APPROVAL PRIOR TO CORE DRILLING AND CUTTING. DRILLING INTO REINFORCING BAR IS PROHIBITED.	
14.	CONTRACTOR SHALL BE RESPONSIBLE FOR CORRECTION OF WORK AT HIS OWN EXPENSE FOR WORK INSTALLED IN CONFLICT WITH CONSTRUCTION DOCUMENTS.	
15.	CONTRACTOR SHALL LEAVE PREMISES AND ALL AFFECTED AREAS CLEAN AND IN ORDERLY MANNER READY FOR MOVE-IN OR FACILITY OPERATION.	
16.	PROVIDE ADEQUATE CLEARANCE AND ACCESS TO EQUIPMENT FOR SERVICE AND MAINTENANCE. EQUIPMENT CLEARANCES SHALL MEET THE REQUIREMENT OF THE MANUFACTURER AND APPLICABLE BUILDING CODES.	
17.	EXPLORATORY WORK TO SEARCH FOR PIPING, PLUMBING OR DUCT FOR CONNECTIONS TO EXISTING BUILDING SYSTEM INCLUDING POINT OF CONNECTIONS UNDER FLOOR SLAB, IN WALLS AND CEILING SHALL BE INCLUDED AT NO COST TO THE OWNER. CUTTING, PATCHING AND RESTORATION OF FLOORS, WALLS, CEILING AND FINISH SHALL BE INCLUDED IN THIS WORK AT NO COST TO THE OWNER. RESTORATION OF WALL OR FLOOR FINISH SHALL MATCH EXISTING.	
18.	ALL PLUMBING PIPING MATERIAL, PLUMBING FIXTURE, VALVE, FITTINGS AND ACCESSORIES SHALL BE 'LEAD-FREE' IN ACCORDANCE WITH CALIFORNIA REGULATION AB1953. PROVIDE SUBMITTAL FROM MANUFACTURER'S FOR COMPLIANCE.	
19.	THE EXISTING MECHANICAL AND ELECTRICAL SYSTEMS SHALL BE MAINTAINED IN OPERATION DURING THE DEMOLITION AND INSTALLATION OF NEW WORK. WHEN A SYSTEM SHUTDOWN IS NECESSARY, OBTAIN A WRITTEN APPROVAL FROM THE OWNER PRIOR TO SHUTTING DOWN OF ANY MECHANICAL AND ELECTRICAL SYSTEMS.	
20.	CLEANOUTS FOR SANITARY SEWER BRANCH SERVING WATER CLOSET SHALL BE INSTALLED ABOVE THE RIM OF BOWL.	DRAWIN
21.	ALL PIPE PENETRATIONS THROUGH FIRE RATED WALLS AND FLOORS SHALL PROVIDED WITH APPROVED 3M FIRE STOPPING. REFER FOR ARCHITECTURAL DRAWINGS FOR DETAILS.	P1.0 PLUMBING L P2.0 PLUMBING F P3.0 PLUMBING E

WORK

WORK IS AN OUTLINE OF WORK INVOLVE FOR THIS PROJECT AND IS RIBE THE COMPLETE SCOPE OF WORK. THE DETAILED REQUIREMENTS DRAWING AND SPECIFICATION SECTION.

SE EXISTING WATER CLOSET AND LAVATORIES AS INDICATED.

SSIBLE WATER CLOSET AS INDICATED. MODIFY EXISTING PLUMBING AS

SSIBLE LAVATORIES AS INDICATED. MODIFY EXISTING PLUMBING AS

SE EXISTING SINK AS INDICATED.

RCOUNTER SINK. MODIFY EXISTING PLUMBING AS NECESSARY.

SSIBLE HIGH AND LOW DRINKING FOUNTAIN WITH HYDRATION BOTTLE D. MODIFY EXISTING PLUMBING AS NECESSARY.

DENSING GAS WATER HEATER AND GAS FURNACE AS INDICATED. MODIFY AS NECESSARY.

NEW WATER PIPING AND VALVES. PRESSURE TEST PIPING TO 150 PSI HOURS WITH NO LOST OF PRESSURE.

NITARY WASTE AND VENT PIPING TO 10 FEET OF WATER COLUMN FOR A S WITHOUT LOSS OF PRESSURE. PIPING SHALL BE PRESSURE TESTED TO F THE OWNER.

T NEW DOMESTIC WATER HOT AND COLD PIPING PER CPC 2016. TEST THE SATISFACTION OF THE OWNER.

E PROVIDE GAS PIPING AND CONNECTION TO NEW GAS FIRE PLACE. ALVE, PRESSURE REGULATOR, 6" DRIP LEG AND FLEXIBLE PIPE IDE FLUE VENT THROUGH CHIMNEY AND TERMINATE WITH RAINHOOD. AND ANCHORS.

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GLASS Associates, Inc. architecture & planning

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CONSULTANT

MECHANICAL ENGINEER: EPCE Inc. Eddie Padilla Consulting Engineers Inc. 274 Devonshire Street Vallejo, CA 94591 707-980-4049

TITLE PLUMBING LEGEND SYMBOLS, GEN. NOTES & SCOPE OF WORK

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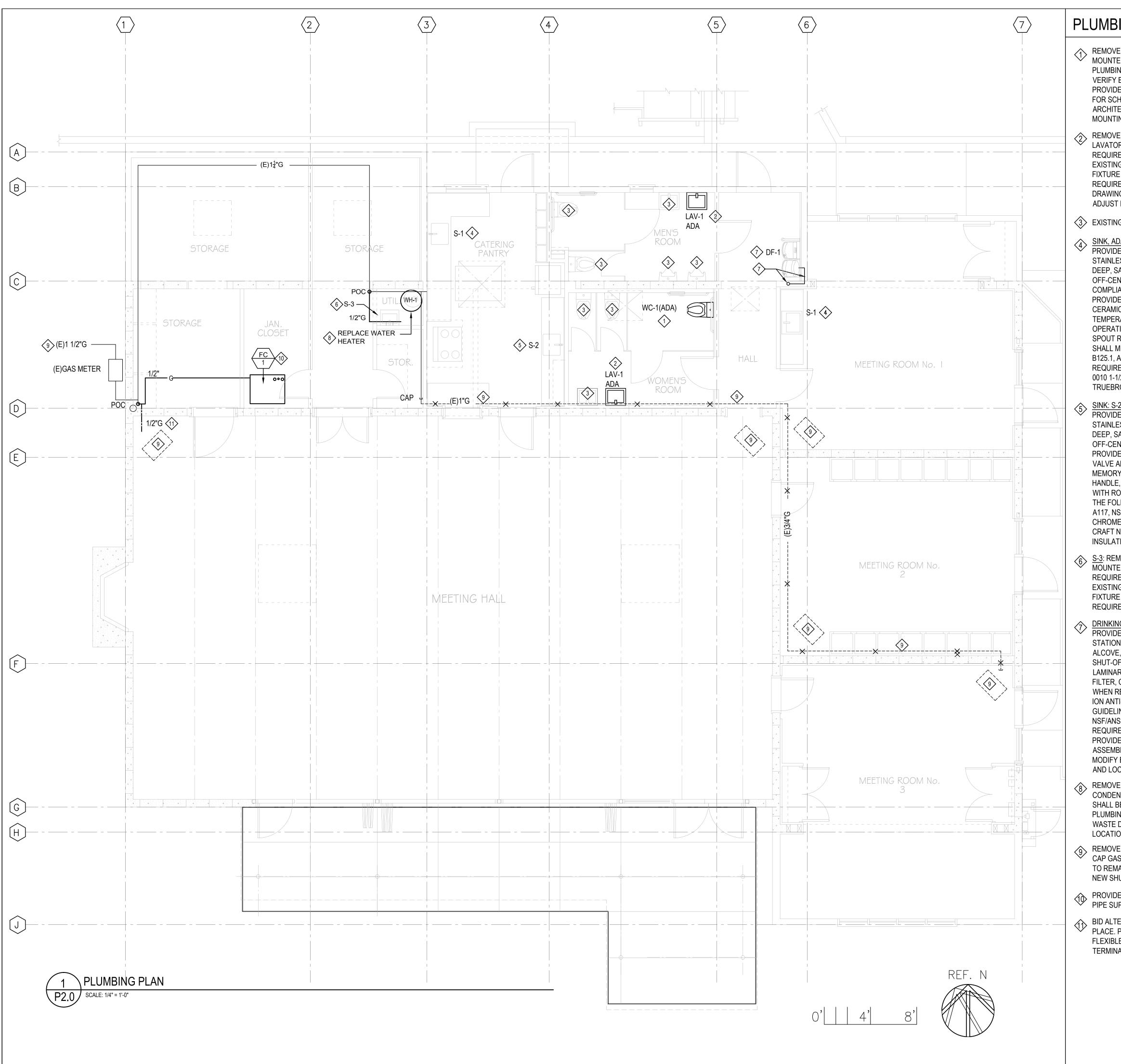
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INDEX

, SYMBOLS, ABBREVIATIONS, GENERAL NOTES & SCOPE OF WORK

., SCHEDULE & SPECIFICATIONS.



PLUMBING KEYED NOTES:

REMOVE AND DISPOSE EXISTING WATER CLOSET. PROVIDE NEW FLOOR MOUNTED WATER CLOSET (ADA) ACCESSIBLE. MODIFY AND EXTEND EXISTING PLUMBING AS REQUIRED FOR COLD WATER, SANITARY WASTE DRAIN AND VENTS. VERIFY EXISTING PIPING CONNECTION CONDITION, LOCATION AND SIZES. PROVIDE NEW FIXTURE SUPPORT CARRIER AND ANCHORS. SEE DRAWING P3.0 FOR SCHEDULED REQUIREMENTS AND PIPING CONNECTIONS. REFER TO ARCHITECTURAL DRAWING FOR ADA ACCESSIBILITY EXACT LOCATION AND MOUNTING HEIGHT. ADJUST PIPING AND SUPPORT ACCORDINGLY.

REMOVE AND DISPOSE EXISTING LAVATORY. PROVIDE NEW WALL MOUNTED LAVATORY (ADA) ACCESSIBLE. MODIFY AND EXTEND EXISTING PLUMBING AS REQUIRED FOR COLD WATER, SANITARY WASTE DRAIN AND VENTS. VERIFY EXISTING PIPING CONNECTION CONDITION, LOCATION AND SIZES. PROVIDE NEW FIXTURE SUPPORT CARRIER AND ANCHORS. SEE DRAWING P3.0 FOR SCHEDULED REQUIREMENTS AND PIPING CONNECTIONS. REFER TO ARCHITECTURAL DRAWING FOR ADA ACCESSIBILITY EXACT LOCATION AND MOUNTING HEIGHT. ADJUST PIPING AND SUPPORT ACCORDINGLY.

(3) EXISTING PLUMBING FIXTURES TO REMAIN.

SINK, ADA COMPLIANT: S-1

PROVIDE COUNTER TOP 18-GAUGE, SEAMLESS FORMED SINGLE COMPARTMEN STAINLESS STEEL SINK, UNDERMOUNT ELKAY 'ELUHAD281645', 31"X22"X4 1/5" DEEP, SATIN DECK FINISH, LUSTER BASIN FINISH WITH UNDERCOATING, OFF-CENTERED REAR CONNECTION AND ONE CENTERED FAUCET HOLE, ADA COMPLIANT AND SHALL MEET ASME A112.19.3/CSA B45.4, ICC/ANSI A117.1 PROVIDE KOHLER 'PURIST' K-7507, ADA COMPLIANT, ONE-PIECE, SELF CONTAINED CERAMIC DISC VALVE ALLOW BOTH VOLUME AND TEMPERATURE CONTROL TEMPERATURE MEMORY, HIGH-TEMPERATURE LIMIT SETTING. METAL LEVER OPERATION HANDLE, DECK MOUNTED, INTEGRAL VACUUM BREAKER, 8" SWING SPOUT REACH WITH ROTATING SPOUT, 1.8 GPM MAXIMUM FLOW RATE. FAUCET SHALL MEET THE FOLLOWING CODES AND STANDARDS: ASME A112.18.1/CSA B125.1, ACC/ANSI A117, NSF 61 AND CALIFORNIA AB1953 'LEAD-FREE' REQUIREMENTS. PROVIDE CHROME FINISH, 1-1/2" TAILPIECE, BRASS CRAFT NO. 0010 1-1/2" P-TRAP, BRASS CRAFT NO. R1512A CHROME FLEXIBLE SUPPLIES, TRUEBRO HANDI-LAV GUARD INSULATION KIT.

PROVIDE COUNTER TOP 18-GAUGE, SEAMLESS FORMED SINGLE COMPARTMENT STAINLESS STEEL SINK, UNDERMOUNT ELKAY 'ELUHAD281645', 31.5"X18.5"X9" DEEP, SATIN DECK FINISH, LUSTER BASIN FINISH WITH UNDERCOATING, OFF-CENTERED REAR CONNECTION AND ONE CENTERED FAUCET HOLE, PROVIDE KOHLER 'PURIST' K-7507, ONE-PIECE, SELF CONTAINED CERAMIC DISC VALVE ALLOW BOTH VOLUME AND TEMPERATURE CONTROL, TEMPERATURE MEMORY, HIGH-TEMPERATURE LIMIT SETTING. METAL LEVER OPERATION HANDLE, DECK MOUNTED, INTEGRAL VACUUM BREAKER, 8" SWING SPOUT REACH WITH ROTATING SPOUT, 1.8 GPM MAXIMUM FLOW RATE. FAUCET SHALL MEET THE FOLLOWING CODES AND STANDARDS: ASME A112.18.1/CSA B125.1, ACC/ANSI A117, NSF 61 AND CALIFORNIA AB1953 'LEAD-FREE' REQUIREMENTS. PROVIDE CHROME FINISH, 1-1/2" TAILPIECE, BRASS CRAFT NO. 0010 1-1/2" P-TRAP, BRASS CRAFT NO. R1512A CHROME FLEXIBLE SUPPLIES, TRUEBRO HANDI-LAV GUARD INSULATION KIT.

6 S-3: REMOVE AND DISPOSE EXISTING JANITOR SINK. PROVIDE NEW WALL MOUNTED JANITOR SINK. MODIFY AND EXTEND EXISTING PLUMBING AS REQUIRED FOR COLD WATER, SANITARY WASTE DRAIN AND VENTS. VERIFY EXISTING PIPING CONNECTION CONDITION, LOCATION AND SIZES. PROVIDE NEW FIXTURE SUPPORT CARRIER AND ANCHORS. SEE DRAWING P3.0 FOR SCHEDULED REQUIREMENTS AND PIPING CONNECTIONS.

DRINKING FOUNTAIN: (ADA ACCESSIBLE) DF-1

PROVIDE ELKAY MODEL LZSTLDDWS FOUNTAINS WITH INTEGRAL BOTTLE FILLING STATION. UNIT SHALL BE STAINLESS STEEL CONSTRUCTION WITH PLASTIC ABS ALCOVE, UNIT SHALL HAVE SENSOR-ACTIVATION WITH AN AUTO 20-SECOND SHUT-OFF TIMER. BOTTLE FILLER SHALL PROVIDE 1.5 GPM FLOW RATE WITH LAMINAR FLOW, INCLUDE THE 'WATERSENTRY PLUS 3000-GALLON' CAPACITY FILTER, CERTIFIED TO NSF/ANSI 42 AND 53, WITH VISUAL MONITOR TO INDICATE WHEN REPLACEMENT IS NECESSARY. UNIT SHALL INCLUDE INTEGRATED SILVER ION ANTI-MICROBIAL PROTECTION IN KEY AREAS. UNIT SHALL MEET ADA GUIDELINES. UNIT SHALL BE LEAD-FREE DESIGN WHICH IS CERTIFIED TO NSF/ANSI 61 AND 372 AND MEETS FEDERAL AND STATE LOW-LEAD REQUIREMENTS. UNIT SHALL BE CERTIFIED TO UL399 AND CAN/CSA 22.2 NO. 120. PROVIDE P-TRAP, WATER STOPS, IN-WALL SUPPORTS MOUNTING PLATE ASSEMBLY AND HARDWARES. INSTALL PER MANUFACTURER'S REQUIREMENTS. MODIFY EXISTING PLUMBING AND EXTEND TO THE NEW LOCATION. VERIFY SIZE AND LOCATION OF POINT OF CONNECTION. TO EXISTING.

REMOVE AND DISPOSE EXISTING GAS WATER HEATER. PROVIDE NEW CONDENSING GAS WATER HEATER, ANCHOR AND SUPPORT. WATER HEATER SHALL BE 50 GALLON STORAGE, 100,000 BTUH. MODIFY AND EXTEND EXISTING PLUMBING AS REQUIRED FOR GAS, DRAIN, HOT AND COLD WATER, SANITARY WASTE DRAIN AND VENTS. VERIFY EXISTING PIPING CONNECTION CONDITION, LOCATION AND SIZES. PROVIDE NEW SUPPORT, SEISMIC BRACES AND ANCHORS.

(9) REMOVE AND DISPOSE (4) EXISTING HUNG GAS FURNACES. DISCONNECT AND CAP GAS PIPING. EXISTING GAS METER AND ASSOCIATED PIPING DISTRIBUTION TO REMAIN. PROVIDE NEW GAS CONNECTIONS TO NEW GAS FURNACE. PROVIDE NEW SHUTOFF VALVES AND FLEXIBLE PIPING CONNECTION.

PROVIDE GAS SUPPLY TO THE NEW GAS FURNACE. PROVIDE SHUTOFF VALVE, PIPE SUPPORTS AND FLEXIBLE CONNECTION.

BID ALTERNATE 5 & 6: PROVIDE GAS PIPING AND CONNECTION TO NEW GAS FIRE PLACE. PROVIDE SHUTOFF VALVE, PRESSURE REGULATOR, 6" DRIP LEG AND FLEXIBLE PIPE CONNECTION. PROVIDE FLUE VENT THROUGH CHIMNEY AND TERMINATE WITH RAINHOOD. PROVIDE SUPPORTS AND ANCHORS.

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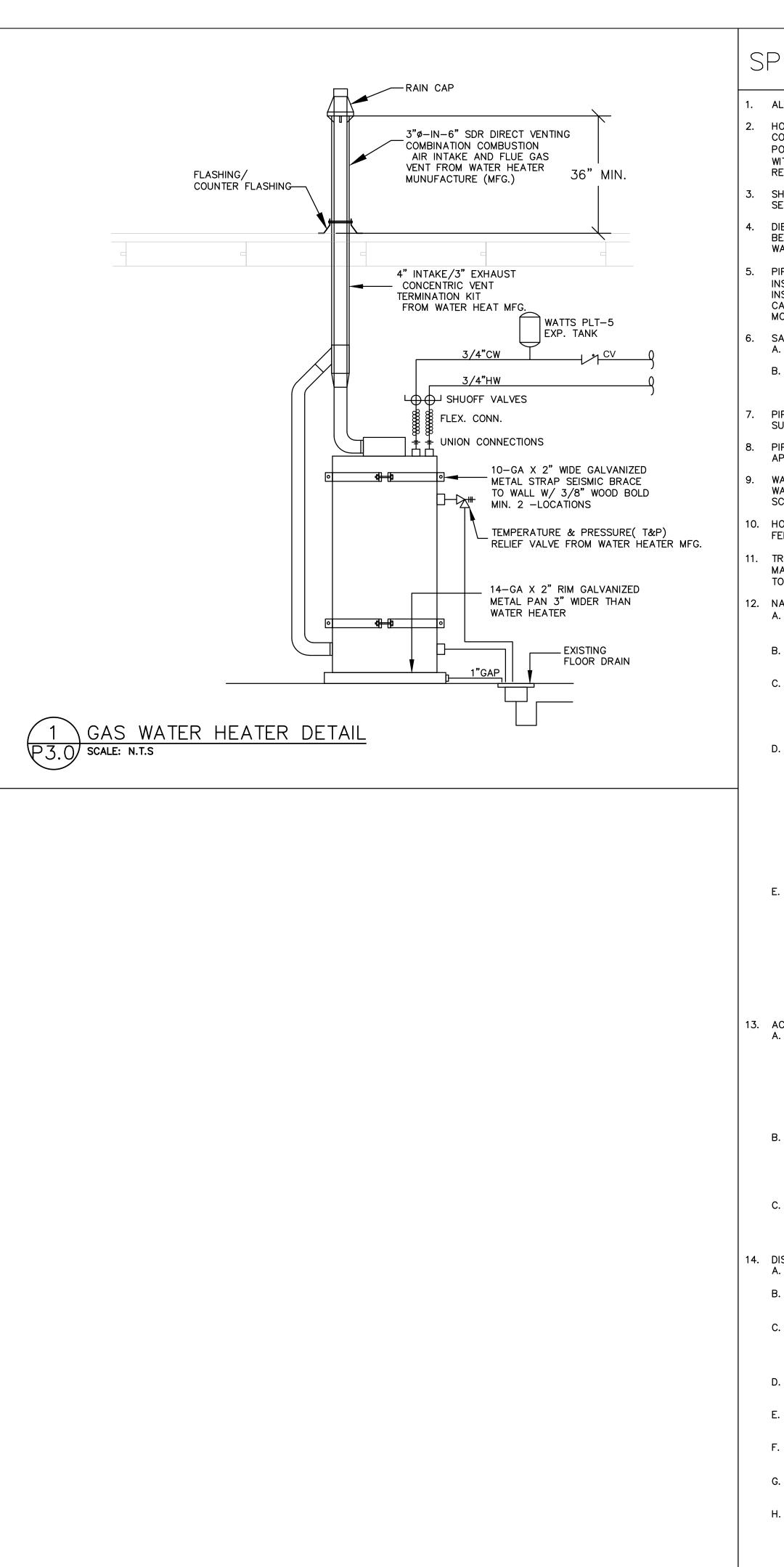
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SPECIFICATIONS

ALL WORK SHALL BE IN ACCORDANCE WITH THE CALIFORNIA PLUMBING CODE 2016.

HOT. COLD AND TEMPERED WATER: COPPER TUBE TYPE L. HARD DRAWN ASTM M-88 WITH WROUGHT COPPER FITTINGS WITH 95% TIN. 5% ANTIMONY SOLDER JOINTS. PIPING BELOW GRADE SHALL FACTORY POLYETHYLENE COATED COPPER TYPE K WITH BRAZED JOINTS AS MANUFACTURED BY 'AQUA-SHIELD' OR WITH 'PLUMBEST' 10 MIL PVC PIPE WRAP .. TYPE OF COATING SHALL BE PER MANUFACTURER'S **RECOMMENDATIONS.**

SHUTOFF VALVES: BALL VALVE 600 WOG, TWO-PIECE BRONZE BODY ASTM B-584 WITH TFE SEATS AND SEAL WITH BRONZE TRIM. BALL VALVE SHALL BE NIBCO OR APPROVED EQUAL. PROVIDE ACCESS PANEL.

DIELECTRIC COUPLER: PROVIDE DIELECTRIC COUPLER BETWEEN DISSIMILAR PIPING MATERIAL. COUPLERS SHALL BE RED BRASS NIPPLE, WITH MINIMUM LENGTH OF 6 TIMES PIPE DIAMETER. COUPLER SHALL BE DIELECTRIC WATERWAY STYLE 4 OR APPROVED EQUAL.

PIPE INSULATION: INSULATE BOTH HOT AND COLD WATER WITH 1/2" THICK FIBERGLASS FOR INDOOR INSTALLATION. PROVIDE 1" THICK FIBERGLASS INSULATION WITH ALUMINUM JACKET FOR OUTDOOR INSTALLATION. INSULATION SHALL BE OWENS CORNING SSLII WITH ASJ OR APPROVED EQUAL. PROVIDED CALCIUM SILICATE INSERTS AT SUPPORT POINTS. INSERTS SHALL BE CLEMENT INSULATED PIPE SUPPORT MODEL HW OR APPROVED EQUAL.

SANITARY WASTE AND VENT PIPING:

EQUIPMENT WASTE ABOVE GROUND - COPPER DWV. ASTM B-306 WITH DRAINAGE WYE FITTINGS WITH 95% TIN. 5% ANTIMONY SOLDER JOINTS. BELOW GRADE - CAST IRON, HEAVY WEIGHT, BELL AND SPIGOT ENDS WITH SEALITE NO.110 CAULKING, NEOPRENE GASKET OR MECHANICAL JOINTS. SUPPORT FROM FLOOR SLAB AT 5 FEET INTERVAL MAXIMUM.

PIPE SUPPORT: UNISTRUT, CLAMP AND ANCHORS. SUPPORT WATER PIPING AT 6 FEET ON CENTER; SUPPORT SANITARY SEWER AND VENTS AT 5 FEET ON CENTER.

PIPING IDENTIFICATION: LABEL PIPING TO ASME ANSI STANDARDS. LABELS SHALL BE DURAMARK OR APPROVED EQUAL.

WALL CLEANOUT ACCESS PANEL: ZURN Z1441 WALL CLEANOUT, DURA-COATEDCAST IRON BODY, GAS AND WATERTIGHT TAPERED THREAD PLUG, AND ROUND, SMOOTH STAINLESS STEEL ACCESS COVER WITH SECURING SCREW.

10. HOSE BIBB (HB-1): 1/2" NIBCO QT56X SERIES QUARTER-TURN, 3/4" ANGLED HOSE CONNECTION. PROVIDE FEBCO SERIES715 VACUUM BREAKER.

11. TRAP PRIMER (TP-1): PRECISION PLUMBING PRODUCT 'PPP, MODEL P-2, "" CONNECTION, THREADED MACHINED BRASS, NO SPRING OR DIAPHRAGM 30 TO 75 PSIG OPERATING RANGE. MOUNT 12" ABOVE TRAP TO BE PRIMED. PROVIDE ACCESS PANEL.

12. NATURAL GAS PIPING

- A. ABOVE GROUND NATURAL GAS: BLACK STEEL PIPE, SCHEDULE 40 (CONFORMING TO ASTM A 120-74 (SEAMLESS TYPE). FITTINGS SHALL BE BLACK MALLEABLE SCREWED TYPE CONFORMING TO ANSI B16.3-71 FOR PIPE 2-1/2 AND SMALLER.. GAS PIPING DROPPING INSIDE CONCRETE BLOCK PARTITIONS SHALL BE FACTORY WRAPPED FOR CORROSION PROTECTION.
- C. NATURAL GAS VALVES:
 - VALVES 3 AND SMALLER SHALL BE APOLLO SERIES 70-100-07 THREADED BRONZE BALL VALVE, а. 600 PSI, WOG.
 - ALL NATURAL GAS VALVES SHALL BE APPROVED STATE AND LOCAL CODES. PROVIDE SEISMIC GAS SAFETY SHUT-OFF VALVE ON GAS MAIN AT METER.

D. NATURAL GAS PIPING INSTALLATION

- GAS PIPING PROVIDED UNDER THIS CONTRACT SHALL BE WITHIN THE PROJECT AREA. ALL PIPING SHALL PITCH TO DRAINS AT DRIP LEGS AT LEAST 6" LONG. BRANCH CONNECTIONS SHALL BE TAKEN OFF THE TOP OR SIDE OF THE PIPING MAIN. AT EACH EQUIPMENT CONNECTION, ON THE DOWNSTREAM SIDE OF ANY REQUIRED EQUIPMENT
- REGULATORS, PROVIDE SHUTOFF VALVE AND UNION WITH DRIP LEG. ALL GAS VALVES SHALL BE INSTALLED IN ACCESSIBLE LOCATIONS. VALVES SHALL BE PROVIDED d.
- AT EACH BRANCH RUNOUT FROM THE SUPPLY MAIN. THE CONTRACTOR SHALL INSTALL ALL GAS VALVES SUPPLIED BY EQUIPMENT SUPPLIERS. PIPING SHALL BE SECURELY FASTENED, SEPARATELY HUNG AND SHALL NOT BE STRAPPED OR SUPPORTING OTHER SYSTEMS. PIPING DROPS IN CONCRETE BLOCK WALLS OR BURIED SHALL BE FACTORY WRAPPED FOR PROTECTION FROM CORROSION

E. NATURAL GAS TESTING

- a. MAINTAIN A MINIMUM OF 150% OF THE WORKING PRESSURE BUT NOT LESS THAN 3 PSIG FOR 30 MINUTES
- THE NATURAL GAS DISTRIBUTION SYSTEM SHALL BE TESTED TWICE FOR ODORANT LEVEL PRIOR TO OCCUPANCY. THE FIRST TEST SHALL OCCUR AFTER SYSTEM PURGE ON EACH LEVEL WHERE GAS IS PROVIDED AT FURTHEST OUTLET FROM SOURCE. ODORANT LEVEL SHALL BE PER PG&E. THE SECOND TEST SHALL OCCUR ONE (1) MONTH AFTER FIRST TEST AND SHALL RETEST AT SAME LOCATIONS AS FIRST TEST. IF ODORANT LEVEL HAS FADED BELOW MINIMUM ALLOWED BY PG&E, CONTRACTOR SHALL PROVIDE SUPPLEMENT ODORIZATION UNTIL PIPELINE IS CONDITIONED AND RETEST. ALL TESTING SHALL BE BY INDEPENDENT AGENT (PG&E) WITH REPORT SUBMITTED AFTER EACH TEST TO CAMPUS FIRE MARSHAL FOR REVIEW AND APPROVAL.

13. ACCESS DOORS

- A. ACCESS DOORS SHALL BE INSTALLED WHERE VALVES, SWITCHES, DAMPERS, CONTROLLERS OR OTHER SIMILAR EQUIPMENT ARE INSTALLED ABOVE GWB CEILINGS OR BEHIND WALLS OR ANYWHERE THEY BECOME INACCESSIBLE FOR INSPECTION, MAINTENANCE OR SERVICING. ACCESS DOORS SHALL BE 24" BY 24" IN GENERAL AND A MINIMUM OF 10" BY 18", EXCEPT PLUMBING VALVE ACCESS DOORS IN THE AREAS, SHALL BE 8 X 8 OR 12 X 12 TO MATCH TILE DIMENSIONS UNLESS OTHERWISE INDICATED. ACCESS DOORS SHALL BE SIZED TO SUIT THE ACCESS REQUIREMENT TO SERVICE THE EQUIPMENT AND SHALL BE LOCATED INDIVIDUALLY AND IN A MANNER APPROVED BY THE OWNER'S REPRESENTATIVE AND TO MEET REQUIREMENTS SPECIFIED HERE AND ELSEWHERE, FOR SPECIFIC APPLICATIONS.
- ACCESS DOORS SHALL BE SET SQUARE AND FLUSH. ACCESS PANELS SHALL BE LOCATED IN CLOSETS, STORAGE ROOMS AND/OR OTHER NON-PUBLIC AREAS AND SHALL BE CONSTRUCTED IN A WORKMANLIKE MANNER. DOORS SHALL BE POSITIONED SO THAT THE JUNCTION CAN BE EASILY REACHED. WHERE ACCESS PANELS ARE REQUIRED IN CORRIDORS, LOBBIES OR OTHER HABITABLE AREAS, THEY WILL BE LOCATED AS APPROVED BY THE OWNER'S REPRESENTATIVE.
- C. ACCESS DOORS SHALL BE CONSTRUCTED OF STEEL WITH PRIMER COAT OF RUST INHIBITIVE PAINT AND SHALL HAVE CONTINUOUS PIANO HINGE, AS MANUFACTURED BY INLAND STEEL PRODUCTS MILCOR, MIAMI, WALSH-HANNON OR EQUAL. DOOR LOCKS SHALL BE SCREWDRIVER OPERATED WITH STAINLESS STEEL CAM AND STUDS.

14. DISINFECTION PROCEDURE:

MFT

A. RAIN ENTIRE DOMESTIC WATER SYSTEM TO THEEXISTING VALVE AT POINT OF CONNECTION.

- B. POST SUITABLE WARNING SIGNS AT EACH OUTLET: WARNING DO NOT USE WATER SYSTEM BEING CHLORINATED'.
- C. INJECT DISINFECTANT SOLUTION INTO THE SYSTEM THROUGH THE SERVICE COCK BY MEANS OF A PUMP, OR OTHER PRESSURE DEVICE, AT A SLOW CONTINUOUS RATE, SIMULTANEOUS WITH A REDUCED FLOW FROM THE WATER MAIN, UNTIL THE ORTHOTOLIDIN TEST FOR RESIDUAL CHLORINE AT EACH OUTLET SHOWS A CONCENTRATION OF AT LEAST 50PPM, BUT NOT MORE THAN 100 PPM.
- CLOSE ALL OUTLETS AND VALVES, INCLUDING THE SERVICE VALVE AT THE MAIN AND THE INJECTION COCK. RETAIN THE CHLORINATED WATER IN THE SYSTEM FOR 24 HOURS.
- E. AFTER 24 HOUR HOLDING PERIOD, THE RESIDUAL CHLORINE CONCENTRATION SHALL BE NOT LESS THE 50 PPM AS SHOWN BY THE ORTHOTOLIDIN TEST.
- DRAIN AND FLUSH ENTIRE DOMESTIC WATER SYSTEM UNTIL ORTHOLIDIN TEST SHOW BACKGROUND RESIDUAL CHLORINE CONCENTRATION AT ANY OUTLET.
- G. ENVIRONMENTAL, HEALTH AND SAFETY (EH&S) WILL DETERMINE WHETHER SAMPLES OF WATER MUST BE COLLECTED AND ANALYZED FOR THE DETERMINATION OF BACTERIOLOGICAL QUALITY.
- H. STANDARDS NECESSARY FOR APPROVAL: a. THE WATER SYSTEM SHALL BE UNIFORMLY CHLORINATED UNDER THE SUPERVISION OF
- ENVIRONMENTAL, HEALTH AND SAFETY (EH&S) AS OUTLINED IN THE 'DISINFECTION PROCEDURE'. THE RESULT OF WATER SAMPLE ANALYSIS SHALL BE NEGATIVE FOR THE COLIFORM ORGANISM. c. IF THE TEST FOR THE BACTERIOLOGICAL QUALITY OF THE WATER IN THE SYSTEM DOES NOT MEET THE STANDARDS, REPEAT THE DISINFECTION PROCEDURE UNTIL THE SPECIFIED STANDARDS ARE

FINAL APPROVAL: ENVIRONMENTAL, HEALTH AND SAFETY (EH&S) WILL GIVE WRITTEN APPROVAL TO THE OWNER FOR ACCEPTANCE AND USE OF THE WATER SYSTEM AFTER THE ABOVE PROCEDURES HAVE BEEN SUCCESSFULLY COMPLETED AND THE STANDARDS MET.

FIXTURE TAG	DESCRIPTIONS
FIATURE TAG	DESCRIPTIONS
WC-1	WATER CLOSET
LAV-1	LAVATORY
DF-1	DRINKING FOUNTAIN
1. ALL	WATER CLOSETS SHALL USE A MAXIMU
MAX	LAVATORY FAUCETS SHALL BE FITTED IMUM OF 0.5 GPM. LAVATORIES SHALL F. PROVIDE LEONARD 170A—LF THERMO
3 REFE	R TO ARCHITECTURAL DRAWING FOR P

PLUMBING FIXTURES & EQUIPMENT SPECIFICATIONS

- WATER CLOSET (WC-1): FURNISH TOTO "ENTRADA' CLOSE COUPLED CST 244EF (R) 16 1/8" FLOOR-MOUNT, ELONGATED BOWL AND TANK SET, WHITE, VITREOUS CHINA, 1.28 GPF, HIGH TRIP LEVER. TOILET SHALL BE ADA COMPLIANT. ANCHOR AS RECOMMENDED BY FIXTURE MANUFACTURER. FURNISH TOILET SEAT AND COVER, WHITE COLOR. PROVIDE FLUSH LEVER ON THE WIDE SIDE FOR ACCESSIBLE (ADA) ACCESS.
- 2000.110 SINGLE CONTROL, 4" CENTER SET FAUCET, CHROME FINISH, VANDAL-RESISTANT, SOLID BRASS CONSTRUCTION WITH POP-UP DRAIN AND ADJUSTABLE HOT LIMIT SAFETY STOP. PROVIDE ARMS OR WALL BRACKETS AS RECOMMENDED BY THE FIXTURE MANUFACTURER.
- 3. SINK, ADA COMPLIANT (S-1): PROVIDE COUNTER TOP 18-GAUGE, SEAMLESS FORMED SINGLE CERAMIC DISC VALVE ALLOW BOTH VOLUME AND TEMPERATURE CONTROL, TEMPERATURE MEMORY, HIGH-TEMPERATURE LIMIT SETTING. METAL LEVER OPERATION HANDLE, DECK MOUNTED, INTEGRAL SUPPLIES, TRUEBRO HANDI-LAV GUARD INSULATION KIT.
- 4. SINK (S-2): PROVIDE COUNTER TOP 18-GAUGE, SEAMLESS FORMED SINGLE COMPARTMENT, FAUCET HOLE, PROVIDE KOHLER 'PURIST' K-7507, ADA COMPLIANT, ONE-PIECE, SELF CONTAINED CERAMIC DISC VALVE ALLOW BOTH VOLUME AND TEMPERATURE CONTROL, TEMPERATURE MEMORY, HIGH-TEMPERATURE LIMIT SETTING. METAL LEVER OPERATION HANDLE, DECK MOUNTED, INTEGRAL SUPPLIES, TRUEBRO HANDI-LAV GUARD INSULATION KIT.
- WITH INTEGRAL BOTTLE FILLING STATION. UNIT SHALL BE STAINLESS STEEL CONSTRUCTION WITH TIMER. BOTTLE FILLER SHALL PROVIDE 1.5 GPM FLOW RATE WITH LAMINAR FLOW. INCLUDE THE 'WATERSENTRY PLUS 3000-GALLON' CAPACITY FILTER. CERTIFIED TO NSF/ANSI 42 AND 53. WITH 120. PROVIDE P-TRAP, WATER STOPS, IN-WALL SUPPORTS MOUNTING PLATE ASSEMBLY AND HARDWARES. INSTALL PER MANUFACTURER'S REQUIREMENTS.
- 6. REFER TO ARCHITECTURAL DRAWINGS FOR ALL PLUMBING FIXTURE LOCATION AND MOUNTING HEIGHT.
- GAS WATER HEATER (WH-1): PROVIDE CONDENSING GAS WATER HEATER A.O SMITH CYCLONE XI MODEL BTX 100, 100 MBH NATURAL GAS INPUT RATE, 50 GALLON STORAGE, LIGHT DUTY, POWER AND MAXIMUM 430 BTUH STAND-BY LOSS. WATER HEATER SHALL BE EQUIP WITH ELECTRONIC WALL SEISMIC SUPPORTS. PROVIDE 3-YEAR WARRANTY FOR TANK AND 1-YEAR WARRANTY FOR PARTS.

PLUMBING FIXTURE SCHEDULE

	RO	UGH-I	NS		
SS	V	CW	нพ	ΤW	REMARKS
4"	2"	1/2"	Ι	1	FLOOR MOUNTED, ADA ACCESSIBLI WHERE INDICATED.
2"	1 1/2"	1/2"	1/2"	_	WALL HUNG, ADA ACCESSIBLE WHERE INDICATED.
2"	1 1/2"	1/2"			

UM OF 1.28 GALLONS PER FLUSH.

WITH AN APPROVED FLOW CONTROL DEVICE ALLOWING A HAVE CONTROLS TO LIMIT THE WATER TEMPERATURE TO OSTATIC MIXER.

3. REFER TO ARCHITECTURAL DRAWING FOR PLUMBING FIXTURE LOCATION AND MOUNTING HEIGHT.

EFFICIENCY E-MAX FLUSHING SYSTEM TOILET. TOILET SHALL HAVE HIGH PROFILE TANK WITH CHROME

2. LAVATORY (LAV-1): PROVIDE LUCERN 4" CENTER HOLE, WALL-HUNG LAVATORY, VITREOUS CHINA 20 1/2" X 18-1/4", FRONT OVERFLOW FAR ADA INSTALLATION. FURNISH AMERICAN STANDARD CERAMIX TAILPIECE, BRASS CRAFT NO. 0010 1-1/4" P-TRAP, BRASS CRAFT NO. R1512A CHROME FLEXIBLE SUPPLIES, TRUEBRO HANDI-LAV GUARD INSULATION KIT. PROVIDE NEW CONCEALED FIXTURE SUPPORT

COMPARTMENT, STAINLESS STEEL SINK, UNDER-MOUNT ELKAY 'ELUHAD281645', 31"X22"X4 1/5" DEEP, SATIN DECK FINISH, LUSTER BASIN FINISH WITH UNDERCOATING, OFF-CENTERED REAR CONNECTION AND ONE CENTERED FAUCET HOLE, ADA COMPLIANT AND SHALL MEET ASME A112.19.3/CSA B45.4, ICC/ANSI A117.1. PROVIDE KOHLER 'PURIST' K-7507, ADA COMPLIANT, ONE-PIECE, SELF CONTAINED VACUUM BREAKER, 8" SWING SPOUT REACH WITH ROTATING SPOUT, 1.8 GPM MAXIMUM FLOW RATE. FAUCET SHALL MEET THE FOLLOWING CODES AND STANDARDS: ASME A112.18.1/CSA B125.1, ACC/ANSI A117. NSF 61 AND CALIFORNIA AB1953 'LEAD-FREE' REQUIREMENTS. PROVIDE CHROME FINISH. 1-1/2" TAILPIECE, BRASS CRAFT NO. 0010 1-1/2" P-TRAP, BRASS CRAFT NO. R1512A CHROME FLEXIBLE

STAINLESS STEEL SINK, UNDERMOUNT ELKAY 'HDU32189F', 31.5"X18.5"X9" DEEP, SATIN DECK FINISH, LUSTER BASIN FINISH WITH UNDERCOATING, OFF-CENTERED REAR CONNECTION AND ONE CENTERED VACUUM BREAKER, 8" SWING SPOUT REACH WITH ROTATING SPOUT, 1.8 GPM MAXIMUM FLOW RATE. FAUCET SHALL MEET THE FOLLOWING CODES AND STANDARDS: ASME A112.18.1/CSA B125.1, ACC/ANSI A117, NSF 61 AND CALIFORNIA AB1953 'LEAD-FREE' REQUIREMENTS. PROVIDE CHROME FINISH, 1-1/2" TAILPIECE, BRASS CRAFT NO. 0010 1-1/2" P-TRAP, BRASS CRAFT NO. R1512A CHROME FLEXIBLE

DRINKING FOUNTAIN: ADA ACCESSIBLE (DF-1): PROVIDE ELKAY MODEL LZSTLDDWS(VR)K FOUNTAINS PLASTIC ABS ALCOVE, UNIT SHALL HAVE SENSOR-ACTIVATION WITH AN AUTO 20-SECOND SHUT-OFF VISUAL MONITOR TO INDICATE WHEN REPLACEMENT IS NECESSARY. UNIT SHALL INCLUDE INTEGRATED SILVER ION ANTI-MICROBIAL PROTECTION IN KEY AREAS. UNIT SHALL MEET ADA GUIDELINES. UNIT SHALL BE LEAD-FREE DESIGN WHICH IS CERTIFIED TO NSF/ANSI 61 AND 372 AND MEETS FEDERAL AND STATE LOW-LEAD REQUIREMENTS. UNIT SHALL BE CERTIFIED TO UL399 AND CAN/CSA 22.2 NO.

DIRECT VENT, COMMERCIAL GRADE WITH HELICAL HEAT EXCHANGER WITH 96% THERMAL EFFICIENCY CONTROLS, LARGE LED DISPLAY, AND ADVANCE DIAGNOSTICS. BURNER HAVE TOP FIRED ULTRA-LOW NOX IN COMPLIANCE WITH BAAQMD WITH LESS THAN 14ng/L OR 20 PPM. ANODE RODS SHALL HAVE STAINLESS STEEL CORE. TANK SHALL BE HAVE 'BLUE DIAMOND' GLASS COATING. UNIT SHALL BE LEAD-FREE DESIGN WHICH IS CERTIFIED TO NSF/ANSI 61 AND 372 AND MEETS FEDERAL AND STATE LOW-LEAD REQUIREMENTS. UNIT SHALL BE CERTIFIED TO CSA INTERNATIONAL ACCORDING TO ANSI Z21.10.3, CSA 4.3 STANDARDS. MEET DOE AND CURRENT EDITION ASHRAE/ IES 90.1. CSA CERTIFIED AND ASME RATED T&P RELIEF VALVE.. INSTALL PER MANUFACTURER'S REQUIREMENTS AND PROVIDE

Seismic Upgrade and **Building Alterations**

Kensington Community Center

59 Arlington Avenue Kensington, CA 94707 for the Kensington Police Protection & **Community Services District**

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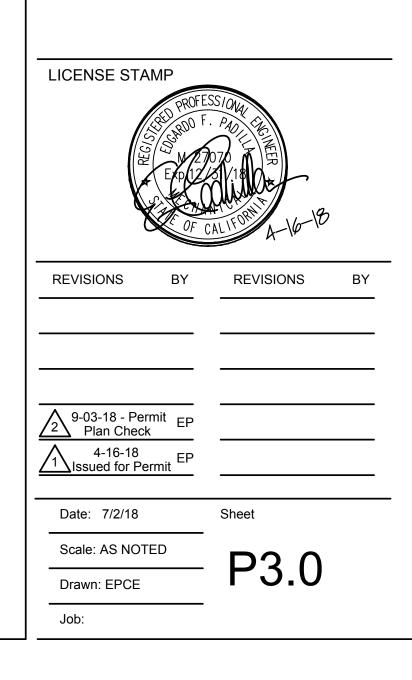
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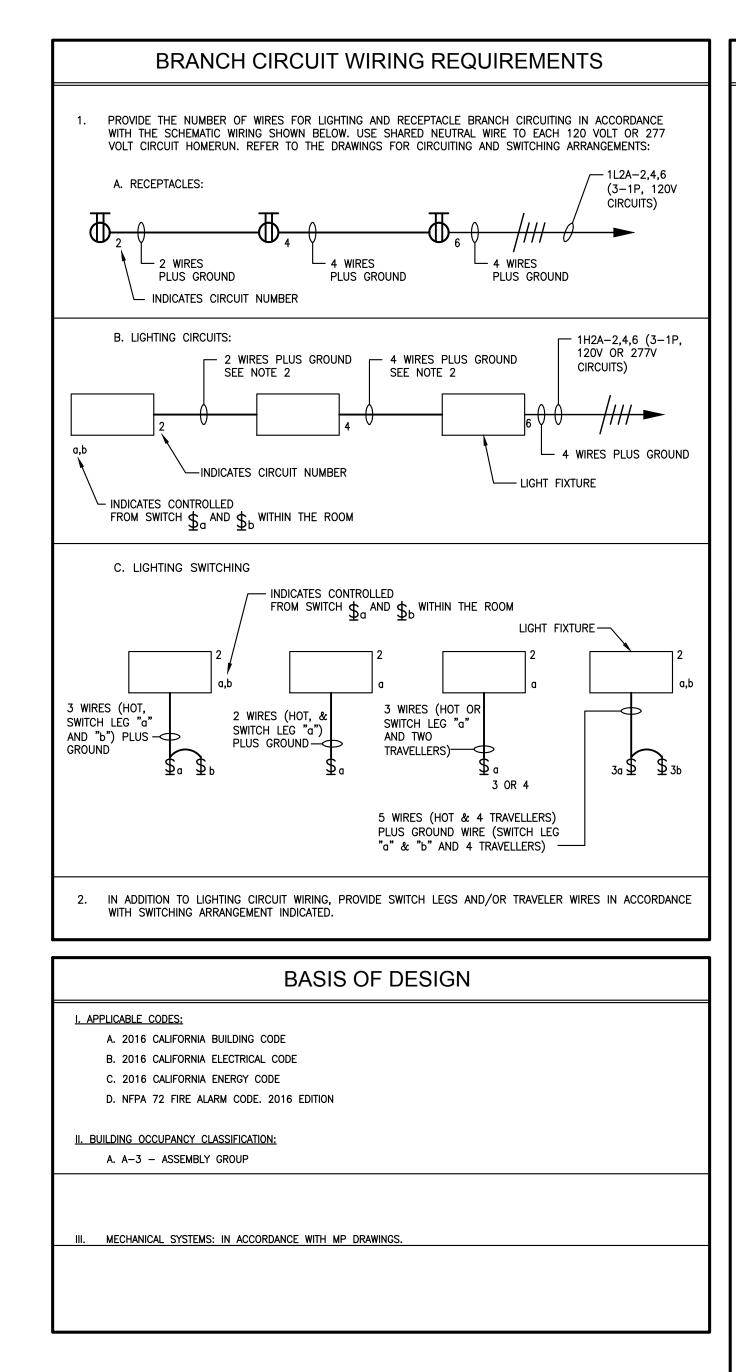
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CONSULTANT

MECHANICAL ENGINEER: EPCE Inc. Eddie Padilla Consulting Engineers Inc. 274 Devonshire Street Vallejo, CA 94591 707-980-4049

TITLE EQUIPMENT SCHEDULES





SECTION 26 0000 ELECTRICAL SPECIFICATIONS	SYMBOL	WIRING DEVICES
PART 1 GENERAL	₩C ¹⁵	DUPLEX RECEPTACLE, 20-AMPERE, 125-VOLT, 2-PC 3-WIRE GROUNDING, WALL MOUNTED 15" AFF TO THE
1. ALL WORK AND MATERIALS SHALL BE IN ACCORDANCE WITH 2016 CALIFORNIA ELECTRICAL CODE, (2014 NATIONAL ELECTRICAL CODE WITH CALIFORNIA AMENDMENTS).		BOTTOM OF THE OUTLET BOX, UON. SUBSCRIPTS IND
2. ALL MATERIALS SHALL BE NEW AND U.L. LISTED, AND SHALL BE DELIVERED TO THE JOB IN UNBROKEN PACKAGES.		15 = CIRCUIT NUMBER '15' C = MOUNTED 9" ABOVE COUNTER G,GFI = WITH GROUND FAULT INTERRUPTER
3. CONTRACTOR SHALL NOT ENTER ANY AREAS OF THE BUILDING NOT REQUIRED FOR CONSTRUCTION WORK AND SHALL COMPLY WITH OWNER'S REQUIREMENTS FOR ALL AREAS ENTERED.	H⊕	DOUBLE DUPLEX RECEPTACLE, 20-AMPERE, 125-VOL 2-POLE, 3-WIRE GROUNDING, WALL MOUNTED 15" AF
4. CLEANUP SHALL BE PERFORMED AT THE END OF EACH WORKING DAY. MATERIALS SHALL BE BROUGHT TO THE JOB IN LIMITED QUANTITIES TO AVOID STORAGE PROBLEMS.	4	THE BOTTOM OF THE OUTLET BOX, UON. SWITCH, DECORA ROCKER STYLE, 15-AMPERE,
5. CONTRACTOR SHALL NOT USE THE OWNER'S DUMPSTER FOR ANY PURPOSE.	\$₀	125/277-VOLT, 1-POLE, WALL MOUNTED 48" AFF MA TO TOP OF OUTLET BOX, SUBSCRIPTS INDICATE
 CONTRACTOR SHALL BE RESPONSIBLE FOR THE SECURITY OF HIS OWN EQUIPMENT AND SUPPLIES. THE OWNER IS NOT RESPONSIBLE FOR ANY LOSSES OF CONTRACTOR'S TOOLS, MATERIALS, SUPPLIES AND EQUIPMENT. 		a = CONTROLS OUTLET 'a' 3 = 3-WAY SWITCH
 ALL WORK, INCLUDING THE INTERRUPTION OF EXISTING FEEDERS, BRANCH CIRCUITS, USE OF OWNER'S FACILITIES, AND INTERRUPTION OF ON-GOING BUILDING UTILITIES SHALL BE COORDINATED WITH THE OWNER. 	● \$⊤	PUSH SWITCH PLATE TOGGLE DISCONNECT SWITCH
8. ELECTRICAL DRAWINGS ARE DIAGRAMMATIC. VERIFY CORRECT DIMENSIONS AT THE JOB SITE. 9. SEAL ALL FIRE WALL PENETRATIONS, USING STATE FIRE MARSHAL APPROVED SEALING MATERIALS.		WALL MOUNTED JUNCTION BOX
10. USE RED DEVICES AND COVER PLATES WHERE SERVE FROM EMERGENCY POWER.	aC	WALL MOUNTED WINDOW CONTROL UNIT, 48" AFF MA> a = CONTROL MOTOR UNIT "a"
PART 2 PRODUCTS		a = CONTROL MOTOR UNIT a
 ALL LIGHTING AND POWER WIRING SHALL BE INSULATED COPPER CABLES, #12 AWG MINIMUM, TYPE THHN OR THWN, INSTALLED IN CONDUIT. ALL WIRES SHALL BE RATED 600V, AND SHALL BE BROUGHT TO THE JOB IN UNBROKEN PACKAGES. WIRE COLOR CODE SHALL BE AS FOLLOWS: 	SYMBOL	LIGHTING
120/208–VOLT, 3–PHASE, 4–WIRE A PHASE – BLACK B PHASE – RED B PHASE – ORANGE		2'x4' LAY-IN LED LIGHT FIXTURE, CEILING MOUNTED, SUBSCRIPTS INDICATE
C PHASE – BLUE C PHASE – YELLOW NEUTRAL – WHITE NEUTRAL – WHITE OR GRAY GROUND – GREEN GROUND – GREEN	F1 2a	F1 = FIXTURE TYPE 'F1' 2 = CIRCUIT NUMBER '2'
NOTE: WHERE WIRE COLOR CODING EXISTS, NEW WIRES SHALL MATCH EXISTING.	2 ′×2'	a = CONTROLLED BY SWITCH 'a'
2. CONDUITS SHALL BE EMT WITH SET SCREW TYPE FITTINGS. RUN CONCEALED IN CEILING SPACES AND WALLS. WATERTIGHT FLEXIBLE CONDUIT MAY BE USED FOR SHORT RUNS WHERE IT IS NECESSARY TO "FISH" THE CONDUIT TO AVOID UNDUE CUTTING AND PATCHING. MINIMUM CONDUITS SHALL BE 1/2" UNLESS OTHERWISE NOTED ON THE DRAWINGS. USE RIGID	0 4 - 0-	
GALVANIZED CONDUITS WHEN INSTALLED AT EXTERIOR LOCATIONS. 3. ALL RECEPTACLE GROUNDING SHALL BE ACCOMPLISHED AS FOLLOWS: RECEPTACLES SHALL BE GROUNDED WITH A #12	**	ILLUMINATED EXIT SIGN, CEILING (WALL) MOUNTED UO
COPPER GROUND WIRE RUN TO THE RECEPTACLE FROM THE GROUND BUS IN THE PANELBOARD. SPECIAL PURPOSË RECEPTACLES SHALL HAVE LARGER SIZE GROUND WIRES AS NOTED. USE GROUND FAULT INTERRUPTER TYPE RECEPTACLES FOR OUTDOOR LOCATIONS. BATHROOMS, AND TOILETS.		EMERGENCY LIGHT UNIT, CEILING OR WALL MOUNTED AFF TO BOTTOM OF FIXTURE AS SHOWN
 JUNCTION, PULL, DEVICE AND FIXTURE BOXES SHALL BE GALVANIZED SHEET STEEL FOR CONCEALED WORK AND SHALL HAVE VOLUMES IN ACCORDANCE WITH NEC REQUIREMENTS. NO BOXES SMALLER THAN 4" SQUARE (OR OCTAGON FOR 		1'X4' FIXTURE, CEILING MOUNTED
LIGHTING OUTLETS) SHALL BE INSTALLED. SINGLE GANG BOXES ARE NOT ALLOWED. PLASTIC BOXES SHALL NOT BE PERMITTED.	۶	FIXTURE, WALL MOUNTED E = EXISTING R = REMOVE
5. CIRCUITS BREAKERS TO 225A SHALL BE THERMAL MAGNETIC. CIRCUIT BREAKERS OVER 225A SHALL HAVE SOLID STATE TRIP UNITS WITH LONG TIME PICK—UP AND DELAY, SHORT TIME PICK—UP AND DELAY, AND INSTANTANEOUS SETTINGS (LSI).	-¢-	EXISTING LAMPOST
NEW BREAKERS TO EXISTING PANELS ARE TO MATCH EXISTING EQUIPMENT. 6. SWITCHES SHALL BE DECORA ROCKER STYLE, 15A, 120/277V RATED, HEAVY DUTY, WHITE COLOR. ACCEPTABLE	A-9	EXISTING LAMPOST WITH NEW LIGHT FIXTURE
MANUFACTURERS: HUBBELL, LEVITON, PASS & SEYMOUR, OR EQUAL. 7. DUPLEX RECEPTACLES SHALL BE HEAVY DUTY, 20A, 125V, 2-POLE, 3 WIRE GROUNDING, WHITE COLOR. USE 20A, 125V	Д н	H = FIXTURE TYPE 'F1' A-9 = CIRCUIT NUMBER '2'
DUPLEX RECEPTACLE FOR DEDICATED RECEPTACLE OR ONE DUPLEX RECEPTACLE SERVED BY 20 AMPERE, 120V, BRANCH BREAKER. ACCEPTABLE MANUFACTURERS: HUBBELL, LEVITON, PASS & SEYMOUR, OR EQUAL. USE RED DEVICES WHERE SERVE FROM EMERGENCY POWER.		* REFER TO LIGHT FIXTURE SCHEDULE FOR DESCRIP
8. PROVIDE GROUND FAULT INTERRUPTER DUPLEX RECEPTACLES, 20A, 125V WHERE SHOWN. ACCEPTABLE MANUFACTURERS:		a = CONTROLS DEVICE 'a'
HUBBELL, LEVITON, PASS & SEYMOUR, OR EQUAL. 9. COVER PLATES: SMOOTH THERMOPLASTIC, WHITE COLOR. ACCEPTABLE MANUFACTURERS: HUBBELL, LEVITON, PASS &	B A-5	LIGHT FIXTURE, CEILING MOUNTED
SEYMOUR, OR EQUAL. USE RED COVER PLATES WHERE SERVE FROM EMERGENCY POWER.		
10. OUTLET BOXES SHALL BE STAMPED STEEL, MINIMUM 4"X4"X2–1/8" DEEP WITH 5/8" DEEP RAISED DEVICE RING.	SYMBOL	FOUIPMENT
10. OUTLET BOXES SHALL BE STAMPED STEEL, MINIMUM 4"X4"X2-1/8" DEEP WITH 5/8" DEEP RAISED DEVICE RING. 11. USE SOLID OR STRANDED CONDUCTORS FOR WIRE SIZE NO. 12 AND SMALLER.	SYMBOL	EQUIPMENT
11. USE SOLID OR STRANDED CONDUCTORS FOR WIRE SIZE NO. 12 AND SMALLER. 12. USE STRANDED CONDUCTORS FOR WIRE SIZE NO. 10 AND LARGER.		277/480–VOLT PANELBOARD SURFACE WALL (RECESS MOUNTED 6'–6" AFF TO TOP OF PANELBOARD
 USE SOLID OR STRANDED CONDUCTORS FOR WIRE SIZE NO. 12 AND SMALLER. USE STRANDED CONDUCTORS FOR WIRE SIZE NO. 10 AND LARGER. MINIMUM WIRE SIZE NO. 14 FOR MECHANICAL CONTROLS WIRING. DISCONNECT SWITCHES SHALL BE HEAVY DUTY, HP-RATED FOR MOTOR LOADS, COPPER BUS, AND NEMA 1 ENCLOSURE 		277/480–VOLT PANELBOARD SURFACE WALL (RECESS
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 USE SOLD OR STRANDED CONDUCTORS FOR WIRE SIZE NO. 12 AND SMALLER. USE STRANDED CONDUCTORS FOR WIRE SIZE NO. 10 AND LARGER. MINIMUM WIRE SIZE NO. 14 FOR MECHANICAL CONTROLS WIRNO. DECONNECT SWITCHES SHALL BE HEAVY DUTY, HP-ARTED FOR MOTOR LOADS, COPPER BUS, AND NEMA 1 ENCLOSURE FOR MOTOR AND NEMA ST FOR OUTDOORS. USE FUSIBLE DISCONNECT SWITCHES WITH DUAL ELEMENT FUSES WHERE SHOWN. MOTOR TADIN NEMA ST FOR OUTDOORS. MURTER SHALL BE MOTOR CIRCUIT PROTECTOR TYPE WITH OVERLOAD RELAYS, 120-VOLT CONTROL POWER TRANSFORMER, H-D-A CONTROL SWITCH, RED RUNNING LED PILOT LIGHT, AND NEMA 1 ENCLOSURE FOR INDOOR LOCATION AND NEMA ST ENCLOSURE FOR OUTDOORS. MURTER SHALL NOT BE USED FOR ANY PART OF THE JOB. MERCISTING CONDITIONS: ALL ABANDONED OUTLISTS AND FIXTURES SHALL HAVE THEIR WIRING PULLED BACK TO THE NEAREST JUNCTION BOX AND TERMINATED AT THAT BOX. ALL INSTALLATION SHALL MEET APPLICABLE CODE REQUIREMENTS FOR SEISMIC BRACING. DISPOSE OFF STE ALL REMOVED AND UNUSED MATERNALS. PROVIDE ORGAVED NUMERITES TO POWER PANELS. DISCONNECT SWITCHES, AND MOTOR CONTROLLERS / STARTERS, NAMERVATES SHALL ER LATER BOLK CO.OR WITH 1/2-INCH HIGH WIRE LETTERING. SHOW EQUIPMENT, VOLTAGE AND SOURCE OF SETE ALL REMOVED AND UNUSED MATERNALS. PROVED ENGRAVED NAMEPLATES TO POWER PANEL S. DISCONNECT SWITCHES, AND MOTOR CONTROLLERS / STARTERS, NAMERVATES, FOR THE ALL REMOVED AND UNUSED MATERNALS. PROR TO INSTALLATION, VENEY SIZE OF FEEDER CABLES AND CONTROL WIRES. USE 12-CAUGE STHUT CHANNELS AND METAL STRAPS TO SECURE CONDUITS, STARTERS, WIREWAYS, PANEL AND EQUIPMENT TO THE WALLS. VEST 141. CIRCUITS, MOTORS, AND FANS FOR INTENDED OPERATION AFTER INSTALLATION. PROVIDE ORGAVED THAT RECEIPTACLES LABLES AND CONTROL WIRES. USE 12-CAUGE STRUT CHANNELS AND METAL STRAPS TO SECURE CONDUITS, STARTERS, STICK-ON, WITH PANEL NAME AND RECOUTS FOR HE	CI DEMOLITION WP RPA1 WP RPA1 WP CRPA1 WP CRPA1 C C C C C C C C C C C C C	277/480-VOLT PANELBOARD SURFACE WALL (RECESS MOUNTED 6'-6" AFF TO TOP OF PANELBOARD 120/208-VOLT PANELBOARD SURFACE WALL (RECESS MOUNTED 6'-6" AFF TO TOP OF PANELBOARD MOTOR CONNECTION NON-FUSED DISCONNECT SWITCH, HP RATED FOR MOTOR LOAD EQUIPMENT DESIGNATION, PANEL RPA1 JUNCTION BOX CIRCUIT BREAKER UNDERGROUND CONDUIT AND WIRES EXISTING CONDUIT AND WIRES CONDUIT AND WIRES CONDUIT AND WIRES, RUN EXPOSED INDIVIDUAL CONDUIT HOMERUN WITH WIRES TO DESIG EQUIPMENT OR PANEL. MINIMUM 2 CONDUCTORS PLU GROUND WIRE NUMBER OF HASH MARKS INDICATE QUANTITY OF WIRES PLUS GROUND WIRE, LONG MARI INDICATES NEUTRAL WIRE AND SHORT MARKS INDICATE QUANTITY OF WIRES PLUS GROUND WIRE, LONG MARI INDICATES NEUTRAL WIRE AND SHORT MARKS INDICATE PLASE WIRE, LP-1,3,5 INDICATES HOMERUN TO PANE INDICATES SIZE OF CONDUCTORS OTHER THAN #12 A EMERGENCY POWER CONDUIT AND WIRES PLAN (SHOWING EXISTING CONDITIONS) IS SUPPLIED FOR PURPOSE ONLY. IT IS THE CONTRACTOR'S RESPONSIBIL IILLAR WITH THE SITE & ALL EXISTING CONDITIONS BEFOO SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION O DOR ANY UNUSUAL OR SUBSTANTIAL WORK THAT IS NO THE DRAWINGS NOR COVERED IN THE NOTES OF NS SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION O DRE SUBMITTING BID. JTTING IN SUCH A MANNER AS TO PREVENT DAMAGE TO URFACES OR NEW WORK. FINISH CUT OR PATCHED SURF

- A. NOTIFY KENSINGTON COMMUNITY CENTER AND BUILDING MANAGEMENT OF ANY SHUTDOWNS MINIMUM OF 3 WEEKS PRIOR TO ANY SHUTDOWN.
- B. SUBMIT DETAILED WORK PLAN AND DURATION OF ANY SHUTDOWN TO KENSINGTON COMMUNITY CENTER AND BUILDING MANAGEMENT FOR REVIEW AND APPROVAL.
- C. PERFORM SHUTDOWN WORK IN ACCORDANCE WITH KENSINGTON COMMUNITY CENTER AND BUILDING MANAGEMENT SCHEDULE REQUIREMENTS.

		SYMBOL	MISCELLANEOUS	Seismic Upgrades and Building Alterations
₩C ¹⁵	DUPLEX RECEPTACLE, 20-AMPERE, 125-VOLT, 2-POLE, 3-WIRE GROUNDING, WALL MOUNTED 15" AFF TO THE BOTTOM OF THE OUTLET BOX, UON. SUBSCRIPTS INDICATE	EF 1	EQUIPMENT IDENTIFICATION (EXHAUST FAN NO. 1)	
	15 = CIRCUIT NUMBER '15' C = MOUNTED 9" ABOVE COUNTER G,GFI = WITH GROUND FAULT INTERRUPTER	2 E2.1	DETAIL OR SECTION SHEET NUMBER	Kensington
₩	DOUBLE DUPLEX RECEPTACLE, 20–AMPERE, 125–VOLT, 2–POLE, 3–WIRE GROUNDING, WALL MOUNTED 15" AFF TO	REF. N	NORTH ARROW (REFERENCE)	Community
\$ ª	THE BOTTOM OF THE OUTLET BOX, UON. SWITCH, DECORA ROCKER STYLE, 15-AMPERE, 125/277-VOLT, 1-POLF, WALL MOUNTED 48" AFF MAXIMUM		KEYED NOTE	Community
	125/277-VOLT, 1-POLE, WALL MOUNTED 48" AFF MAXIMUM TO TOP OF OUTLET BOX, SUBSCRIPTS INDICATE a = CONTROLS OUTLET 'a' 3 = 3-WAY SWITCH		ABBREVIATIONS	Center
● \$ ⊺	PUSH SWITCH PLATE TOGGLE DISCONNECT SWITCH	A AFF	AMPERE ABOVE FINISHED FLOOR	
Ψ	WALL MOUNTED JUNCTION BOX	AFF C CB CEC	CONDUIT CIRCUIT BREAKER CALIFORNIA ELECTRICAL CODE	59 Arlington Avenue Kensington, CA 94707
۵C	WALL MOUNTED WINDOW CONTROL UNIT, 48" AFF MAX a = CONTROL MOTOR UNIT "a"	CKT CO CSFM	CIRCUIT CONDUIT ONLY CALIFORNIA STATE FIRE MARSHAL	for the
SYMBOL	LIGHTING	(E) OR E (ER) OR ER EM	EXISTING EXISTING RELOCATED EMERGENCY POWER CIRCUIT	Kensington Police Protection & Community Services District
	2'x4' LAY—IN LED LIGHT FIXTURE, CEILING MOUNTED,	FA FSD G H-O-A	FIRE ALARM FIRE AND SMOKE DAMPER GROUND HAND-OFF-AUTO	
F1 2a	SUBSCRIPTS INDICATE F1 = FIXTURE TYPE 'F1' 2 = CIRCUIT NUMBER '2' a = CONTROLLED BY SWITCH 'a'	HP KCMIL MCA	HORSEPOWER THOUSAND CIRCULAR MILS MINIMUM CIRCUIT AMPACITY	
0	LED DOWNLIGHT	MCC MOCP NEC	MOTOR CONTROL CENTER MAXIMUM OVERCURRENT PROTECTION NATIONAL ELECTRICAL CODE	GLASS Associates, Inc.
ক্ষিক্ষ	ILLUMINATED EXIT SIGN, CEILING (WALL) MOUNTED UON	NO (N) OR N P	NUMBER NEW POLE PHASE	337 17th Street, Suite 10(
₩	EMERGENCY LIGHT UNIT, CEILING OR WALL MOUNTED 82" AFF TO BOTTOM OF FIXTURE AS SHOWN	(R) OR R (RE) OR RE TV	REMOVE RELOCATE EXISTING TELEVISION	Oakland, CA 94612 T. 415.864.1234
Ĕ₽	1'X4' FIXTURE, CEILING MOUNTED FIXTURE, WALL MOUNTED	TYP UON V	TYPICAL UNLESS OTHERWISE NOTED VOLT	© 2018 GLASS Associates, In
-	E = EXISTING R = REMOVE	VFD W XFMR	VARIABLE FREQUENCY DRIVE WIRE TRANSFORMER	architecture & planning
- ¢- <u>A-9</u>	EXISTING LAMPOST		DRAWING INDEX	CONSULTANTS
А-9 Ю Н	EXISTING LAMPOST WITH NEW LIGHT FIXTURE H = FIXTURE TYPE 'F1' A-9 = CIRCUIT NUMBER '2'	E0.01	ELECTRICAL LEGEND, ABBREVIATIONS, GENERAL NOTES, AND	
	* REFER TO LIGHT FIXTURE SCHEDULE FOR DESCRIPTION	E0.02	DRAWING INDEX TITLE 24 INDOOR LIGHTING COMPLIANCE FORMS	
B A-5	a = CONTROLS DEVICE 'a' LIGHT FIXTURE, CEILING MOUNTED	E0.03	TITLE 24 INDOOR LIGHTING POWER ALLOWANCE COMPLIANCE FORMS AND INSTALLATION FORMS	BAY AREA CONSULTING 235 MONTGOMERY STREET, SUITE 308
		E0.04 E0.05	TITLE 24 INDOOR LIGHTING INSTALLATION FORMS AND OUTDOOR LIGHTING COMPLIANCE FORMS TITLE 24 OUTDOOR LIGHTING COMPLIANCE FORMS	ENGINEERS SAN FRANCISCO, CA 94104 T (415) 788-8388 F (415) 373-9388
SYMBOL		E0.05	AND LIGHTING CONTROLS FORMS TITLE 24 OUTDOOR LIGHTING POWER ALLOWANCE	
	277/480–VOLT PANELBOARD SURFACE WALL (RECESS) MOUNTED 6'–6" AFF TO TOP OF PANELBOARD 120/208–VOLT PANELBOARD SURFACE WALL (RECESS)	E0.07	COMPLIANCE FORMS TITLE 24 OUTDOOR LIGHTING INSTALLATION AND ACCEPTANCE FORMS	
M	MOUNTED 6'-6" AFF TO TOP OF PANELBOARD MOTOR CONNECTION	E0.08	LIGHT FIXTURE SCHEDULE AND DETAILS	
	NON-FUSED DISCONNECT SWITCH, HP RATED FOR MOTOR LOAD	E1.01 E1.02	SITE PLAN DEMOLITION SITE PLAN NEW WORK	
(RPA1)	EQUIPMENT DESIGNATION, PANEL RPA1 JUNCTION BOX	E2.01 E2.02	LIGHTING DEMOLITION PLAN	
¢	CIRCUIT BREAKER	E3.01	POWER AND DATA DEMOLITION PLAN	
		E3.02 E3.03	POWER AND DATA NEW WORK PLAN CLERESTORY POWER NEW WORK PLAN	
SYMBOL	RACEWAYS	E4.01 E5.01	RISER DIAGRAM AND PANEL SCHEDULES TELECOMMUNICATIONS DETAIL	
(E)	UNDERGROUND CONDUIT AND WIRES EXISTING CONDUIT AND WIRES			
#10	CONDUIT AND WIRES, RUN EXPOSED INDIVIDUAL CONDUIT HOMERUN WITH WIRES TO DESIGNATED EQUIPMENT OR PANEL. MINIMUM 2 CONDUCTORS PLUS	LIGHTI	NG & RECEPTACLE CONTROL	
LP-1,3,5	GROUND WIRE NUMBER OF HASH MARKS INDICATE QUANTITY OF WIRES PLUS GROUND WIRE, LONG MARK INDICATES NEUTRAL WIRE AND SHORT MARKS INDICATE PHASE WIRE. LP-1,3,5 INDICATES HOMERUN TO PANEL LP	SYSTE	M TITLE 24 CA ENERGY CODE	ELECTRICAL LEGEND,
-	CIRCUITS 1,3,5. USE MINIMUM #12 AWG WIRES. #10 INDICATES SIZE OF CONDUCTORS OTHER THAN #12 AWG.	\$_Da	DIGITAL DIMMING WALL SWITCH (FOR LARGER AREA AND USED WITH CEILING OCCUPANCY SENSOR) WITH MANUAL ON-OFF CONTROL, WALL MOUNTED +48" MAXIMUM TO TOP OF OUTLET	ABBREVIATIONS,
L	EMERGENCY POWER CONDUIT AND WIRES	•	BOX. SUBSCRIPTS INDICATE: a = CONTROLS DEVICE 'a' DIGITAL WALL SWITCH OCCUPANCY SENSOR WITH DIMMING	GENERAL NOTES, AND
	GENERAL NOTES	\$ <u>м</u>	CONTROLS (FOR SMALLER AREA WHERE CEILING OCCUPANCY SENSOR IS NOT USED.) WITH MANUAL ON-OFF CONTROL, WALL MOUNTED +48" MAXIMUM TO TOP OF OUTLET BOX.	
	PLAN (SHOWING EXISTING CONDITIONS) IS SUPPLIED FOR I PURPOSE ONLY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO	•	SUBSCRIPTS INDICATE: a = CONTROLS DEVICE 'a'	LICENSE STAMP
BECOME FAM BIDDING THE COVERED IN	MILIAR WITH THE SITE & ALL EXISTING CONDITIONS BEFORE JOB. ANY UNUSUAL OR SUBSTANTIAL WORK THAT IS NOT THE DRAWINGS NOR COVERED IN THE NOTES OR	€ ⊠ ∯	CEILING MOUNTED OCCUPANCY SENSOR FOR LIGHTING AND CONTROLLED RECEPTACLES	PROFESS/ONAL DE. MACO
OWNER BEFO	ONS SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF DRE SUBMITTING BID. JTTING IN SUCH A MANNER AS TO PREVENT DAMAGE TO	D _M	DIGITAL ON/OFF/0-10 VOLT DIMMING ROOM CONTROLLER FOR LIGHT FIXTURES, LOCATE IN SUSPENDED CEILING SPACE	No. E11374 Exp. Dec. 31, 2019
ADJACENT S TO MATCH A AND CANNOT	URFACES OR NEW WORK. FINISH CUT OR PATCHED SURFACES ADJACENT FINISHES. REPLACE MATERIALS WHICH ARE DAMAGED T BE NEATLY REPAIRED AS A RESULT OF CUTTING AND	69	PHOTOSENSOR FOR AUTOMATIC DAYLIGHTING CONTROLS, CEILING MOUNTED	HAT STATESTICA IN
	EMOLITION, CUTTING AND PATCHING WILL BE REQUIRED IN SOME	© Ø	DUAL TECHNOLOGY OCCUPANCY SENSOR, CEILING MOUNTED	and
PANELS, ANI PIPES, CONI	THE INSTALLATION OF CONDUITS, PLUMBING LINES, ELECTRICAL D BACKING PLATES, ETC. REMOVE ALL EXISTING, ABANDONED DUITS AND SUPPORTS IN THE VICINITY OF THE DEMOLITION TO AREA FREE OF UNUSED MATERIALS AND DEBRIS.			REVISIONS BY
G4 WHEN COND ANCHORS FO	UITS ARE REMOVED, REMOVE ALL SUPPORTS, CLIPS AND DR SUCH ITEMS. COORDINATE DEMOLITION OF ALL DISCIPLINES. DUITS HAVE BEEN REMOVED, FILL ALL OPENINGS IN RATED WALLS	SYMBOL	TELECOMMUNICATIONS	
AND FLOORS G6 PRIOR TO DI	S WITH APPROVED MATERIALS. EMOLITION OF WIRING, VERIFY AT THE JOB SITE THAT NO ROOMS	_C ⊻ ₂	TELEPHONE AND DATA STATION WITH 3/4"C CONDUIT WITH PULL ROPE IN ACCESSIBLE CEILING SPACE, WALL MOUNTED	
OUTSIDE OF	THE PROJECT ARE AFFECTED. UITING AND ACTUAL LOCATION OF WIRING AND HOMERUNS AT		+15" AFF TO BOTTOM OF OUTLET BOX U.O.N. C = MOUNTED ABOVE COUNTER, +44" AFF 2 = NUMBER OF DATA JACKS	9-03-18 Plan Check LM
G8 ALL EXTERIO	IE. DR ELECTRICAL DEVICES AND EQUIPMENT SHALL BE DOF TYPE, NEMA 3R.	<u>©</u>	SPEAKER, WALL MOUNTED	4-16-18 Alssue for Permit LM
-		e		Date 03/30/18 Sheet

_____ Job

Scale NONE

Drawn BAC

E0.01

state of california =B8CCF`@; <H=B; ¨Ë`@; <H=B; `7CBHFC@G COMMISS CERTIFICATE OF COMPLIANCE NRCC-LTI-02-E Indoor Lighting - Lighting Controls (Page 1 of 3) Project Name: Kensington Community Center Date Prepare July 6, 2018

A. Mandatory Lighting Control Declaration Statements (Indicate if the measure applies by checking yes or no below.) YES NO Control Requirements

Efficiency Regulations in accordance with Section 110.9. Image: State of the state	
 Shall be submitted in accordance with Section 130.4(b). One or more Track Lighting Integral Current Limiters shall be installed which have been certified to the Energy Commission in accordance with §110.9 §130.0. Additionally, an Installation Certificate shall be submitted in accordance with Section 130.4(b). A Track Lighting Supplementary Overcurrent Protection Panel shall be installed in accordance with Section 110.9 and Section 130.0. Additionally, an Installation Certificate shall be installed in accordance with Section 110.9 and Section 130.0. Additionally, an Installation Certificate shall be installed in accordance with Section 130.4(b). A Track Lighting Supplementary Overcurrent Protection Panel shall be installed in accordance with Section 130.4(b). All lighting controls and equipment shall comply with the applicable requirements in §110.9 and shall be installed in accordance with the manufacturer' 	
o shall be submitted in accordance with Section 130.4(b). O Image: Constraint of the submitted in accordance with Section 130.4(b). O Image: Constraint of the submitted in accordance with Section 130.4(b). O Image: Constraint of the submitted in accordance with Section 130.4(b). O Image: Constraint of the submitted in accordance with Section 130.4(b). O Image: Constraint of the submitted in accordance with Section 130.4(b). A Track Lighting Supplementary Overcurrent Protection Panel shall be installed in accordance with Section 110.9 and Section 130.0. Additionally, an Installation Certificate shall be installed in accordance with Section 130.4(b). All lighting controls and equipment shall comply with the applicable requirements in \$110.9 and shall be installed in accordance with the manufacturer'	
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Image: State of the state	;
 Installation Certificate shall be installed in accordance with Section 130.4(b). All lighting controls and equipment shall comply with the applicable requirements in §110.9 and shall be installed in accordance with the manufacturer' 	;
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All lighting controls and equipment shall comply with the applicable requirements in §110.9 and shall be installed in accordance with the manufacturer	3
• O instructions in accordance with Section 130.1.	
All luminaires shall be functionally controlled with manual ON and OFF lighting controls in accordance with Section 130.1(a).	
All luminaires shall be functionally controlled with manual ON and OFF lighting controls in accordance with Section 130.1(a).	
General lighting shall be separately controlled from all other lighting systems in an area. Floor and wall display, window display, case display, ornamer	tal,
O 💰 and special effects lighting shall each be separately controlled on circuits that are 20 amps or less. When track lighting is used, general, display,	
ornamental, and special effects lighting shall each be separately controlled; in accordance with Section 130.1(a)4.	
The general lighting of any enclosed area 100 square feet or larger, with a connected lighting load that exceeds 0.5 watts per square foot shall meet the	e
multi-level lighting control requirements in accordance with Section 130.1(b).	
O of All installed indoor lighting shall be equipped with controls that meet the applicable Shut-OFF control requirements in Section 130.1(c).	
O S Lighting in all Daylit Zones shall be controlled in accordance with the requirements in Section 130.1(d) and daylit zones are shown on the plans.	
C Lighting power in buildings larger than 10,000 square feet shall be capable of being automatically reduced in response to a Demand Responsive Signa	l in
accordance with Section 130.1(e).	
Before an occupancy permit is granted for a newly constructed building or area, or a new lighting system serving a building, area, or site is operated for	
normal use, indoor lighting controls serving the building, area, or site shall be certified as meeting the Acceptance Requirements for Code Compliance	in
accordance with Section 130.4.(a). The controls required to meet the Acceptance Requirements include automatic daylight controls, automatic shut-O	۶F
controls, and demand responsive controls.	

CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance

state of california -B8CCF '@; <HB; 'Ë'@; <HB; '7CBHFC@G

NRCC-LTI-02-E CERTIFICATE OF COMPLIANCE Indoor Lighting - Lighting Controls (Page 2 of 3) Date Prepar Project Name: Kensington Community Center

A separate document must be filled out for Conditioned and Unconditioned Spaces. This page is used only for the following: CONDITIONED SPACES UNCONDITIONED SPACES

	PAF Cred							lit Calc	ulation 2			-			
Lighting Control Schedule					Standards Complying With ¹ (all that apply, or leave empty if Exempted)						PAF	Control Credit (11 x 12)	if Acceptance Test Required		Field Inspector
01	02	03	04	05	06	07	08	09	10	11	12	13	14	1	15
Location in Building	Type/ Description of Lighting Control (i.e.: occupancy sensor, automatic time switch, dimmer, automatic daylight, etc)	# of Units	§130.1(a)	§130.0(b)	§130.1(c)	§130.1(d)	§130.1(e)	§140.6(a)2	§140.6(d)					Pass	Fail
Meeting Hall	P.S.,O.S.,Dimming Controller, Dimming Wall Switch	14	✓	✓		✓								0	0
														0	0
														0	0
														0	0
														0	0
														0	0
														0	0
										m of Columr	,				
IF	MULTIPLE PAGES ARE USED, ENTER	R SUM TO	DIAL OF	· Contro	ol Cred	it for all	pages	HERE	(Sum o	t all Column	13):				
												Enter Control Credit total			al

into NRCC-LTI-01-E; Page Da áða í } æ Á að @ð * Á { } d [|• Á 9 • æ 4|^ å Á (Á æ) Áæ Ú OB LÁ F I € É G DÍN Ú / ^• & á a cr ^ Á / A & ^ À æ ^ Â / æ Ó Dé æ j a @ÓD [} d [|• È 2. Check Table 140.6-A for correct Factor. PAFs shall not be traded between conditioned and unconditioned spaces. As a condition to earn a PAF, an Installation Certificate is

CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance

also required to be filled out, signed, and submitted.

CEC-NRCC-LTI-02-E (Revised 01/16)		CALIFORNIA ENERGY COMMISSION
CERTIFICATE OF COMPLIANCE		NRCC-LT
Indoor Lighting - Lighting Controls		(Page
Project Name: Kensington Community Center	Date Prepared:	July

,	this Certificate of Compliance documentation is accura	
Documentation Author	Name: ANGELITO E. MAGBITANG, PE	Documentation Author Signature:
Company:	BAY AREA CONSULTING ENGINEERS	Signature Date: July 6, 2018
Address:	235 MONTGOMERY STREET, SUITE 308	CEA Certification Identification (if applicable): E-11374
City/State/Zip:	SAN FRANCISCO, CA 94101	Phone: (415) 788-8388
RESPONSIBLE	PERSON'S DECLARATION STATEMENT	
 (responsible 3. The energy for Compliance 4. The building documents, v 5. I will ensure to enforcement 	designer). eatures and performance specifications, materials, compo conform to the requirements of Title 24, Part 1 and Part 6 design features or system design features identified on th worksheets, calculations, plans and specifications submit that a completed signed copy of this Certificate of Compli	accept responsibility for the building design or system design identified on this Certificate of Compliance inents, and manufactured devices for the building design or system design identified on this Certificate of of the California Code of Regulations. is Certificate of Compliance are consistent with the information provided on other applicable compliance ed to the enforcement agency for approval with this building permit application. ance shall be made available with the building permit(s) issued for the building, and made available to the completed signed copy of this Certificate of Compliance is required to be included with the documentation the
 (responsible The energy for Compliance The building documents, v I will ensure to enforcement builder provided to the second se	designer). eatures and performance specifications, materials, comport conform to the requirements of Title 24, Part 1 and Part 6 design features or system design features identified on the worksheets, calculations, plans and specifications submit that a completed signed copy of this Certificate of Compli- agency for all applicable inspections. I understand that a des to the building owner at occupancy.	nents, and manufactured devices for the building design or system design identified on this Certificate of of the California Code of Regulations. is Certificate of Compliance are consistent with the information provided on other applicable compliance ed to the enforcement agency for approval with this building permit application. ance shall be made available with the building permit(s) issued for the building, and made available to the
 (responsible The energy for Compliance The building documents, via the build ensure the enforcement builder provid Responsible Designer 	designer). eatures and performance specifications, materials, comport conform to the requirements of Title 24, Part 1 and Part 6 design features or system design features identified on the worksheets, calculations, plans and specifications submit that a completed signed copy of this Certificate of Compli- agency for all applicable inspections. I understand that a des to the building owner at occupancy. Name:	nents, and manufactured devices for the building design or system design identified on this Certificate of of the California Code of Regulations. is Certificate of Compliance are consistent with the information provided on other applicable compliance ed to the enforcement agency for approval with this building permit application. ance shall be made available with the building permit(s) issued for the building, and made available to the completed signed copy of this Certificate of Compliance is required to be included with the documentation the
 (responsible The energy for Compliance The building documents, v I will ensure to enforcement 	designer). eatures and performance specifications, materials, comport conform to the requirements of Title 24, Part 1 and Part 6 design features or system design features identified on the worksheets, calculations, plans and specifications submit that a completed signed copy of this Certificate of Compli- agency for all applicable inspections. I understand that a des to the building owner at occupancy. "Name: ANGELITO E. MAGBITANG, PE	Inents, and manufactured devices for the building design or system design identified on this Certificate of of the California Code of Regulations. Is Certificate of Compliance are consistent with the information provided on other applicable compliance ed to the enforcement agency for approval with this building permit application. In ance shall be made available with the building permit(s) issued for the building, and made available to the completed signed copy of this Certificate of Compliance is required to be included with the documentation the Responsible Designer Signature:

STATE OF CALIFORNIA -E (Revised 04/⁻

CERTIFICATE OF COMPLIANCE Indoor Lighting Project Name: Kensington Community Center

"=bghU`YX`DcfhUV`Y`@;a]bUjfYg`]b`CZZjWYg'Ë'9IWYdh]cb`hc`GYWYjcb`%(\$"*fUL This section shall be filled out ONLY for portable luminaires in offices (As defined in §100.1). All other planned portable luminaires shall be documented on next page of this compliance document.

- This section is used to determine if greater than 0.3 watts of portable lighting is planned for any office

- Fill out a separate line for each different office. Small offices that are typical (having the same general and portable lighting) may be grouped together. This allowance shall not be traded between offices having different lighting systems. Office Portable Luminaire Schedule Office Installed Portable Luminaire W/ft2 Office Location Field Inspector 05 06 02 03 01 04 08 09 10 07 Installed If G06 ≤ 0.3, Luminaire of watts luminaire si per enter zero; Identify Office area in

Complete Luminaire Description (i.e., LED, under cabinet, furniture mounted direct/indirect)	Watts per Luminaire	oer of naires	watts in this office (G02 x G03)	office	square foot (G04 / G05)	lf G06 > 0.3, (G06-0.3)	(GU5 X GU7)	which these portable luminaires are installed	ass	aii
									0	0
									0	0
									0	0
									0	0
									0	0
								Enter sum total of all pages	s into N	RCC-LTI-
Total installed port		01-E; Page 2								

A Separate Lighting Schedule Must Be Filled Out for Conditioned and Unconditioned Spaces. Installed Lighting Power listed on this Lighting Schedule is only for:

03

Lur Va

Installed Watts

05 06

Num Lumi Tota Watt (H03

375

45

04

9

S1:

25 🔲 🗍 15

15 🔲 🗐 3

INSTALLED WATTS PAGE TOTAL:

50 🔲 🔲 30 1,500

How wattage was determined

fr G

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COMMISSION

Date Prepared:

Date Prepared:

Location

07

Primary Function area in which

these luminaires are installed

1,920 Enter sum total of all pages into NRCC-LTI-01-E; Page 2

Date Prepared:

NRCC-LTI-01-E

(Page 4 of 6)

July 6, 2018

STATE OF CALIFOR	GHTING												
CERTIFICATI	E OF CON	MPLIAN	NCE						NRCC-LTI-01-E				
Indoor Lightin	g								(Page 1 of 6)				
Project Name: Kensington Community Center Date Prepared: July									July 6, 2018				
A. General Info	o r mation												
Climate Zone:		Conditi	ioned Fl	oor Ar	ea: 4,252 sq. ft.								
3		Uncond	ditioned	Floor	Area:								
Building Type:				N	onresidential		High-Rise Residential		Hotel/Motel				
Schools	hools 🔲 Relocatable Public Schools 🗹 Conditioned Spaces					Unconditioned Spaces							
Phase of Construction:				Ne	ew Construction		Addition		Alteration				
Method of Com	pliance:			Co	omplete Building	M	Area Category		Tailored				
Project Address	3:												
B. Lighting Con	npliance Do	ocument	ts (selec	t yes f	for each document included)								
For detailed inst	ructions on a	the use c	of this an	d all Ei	nergy Efficiency Standards compli	iance do	cuments, refer to the Nonresiden	tial Manual publ	ished by the California Energy Commission.				
YES	NO		COMP.	DOC.	. TITLE								
Ś	0	Ν	NRCC-LT	I-01-E	Certificate of Compliance. All Pa	ages req	uired on plans for all submittals.						
Ś	0	Ν	NRCC-LT	I-02-E	Lighting Controls, Certificate of	Complia	ance, and PAF Calculation. All Pa	ges required on	plans for all submittals.				
Ś	0	Ν	NRCC-LT	I-03-E	Indoor Lighting Power Allowanc	e							
0	Ś	Ν	NRCC-LT	I-04-E	Tailored Method Worksheets								
0	ଟ	Ν	NRCC-LT	I-05-E	Line Voltage Track Lighting Wo	e Voltage Track Lighting Worksheets							

B. Lighting Compliance Documents (select yes for each document included)										
For detailed instructions on the use of this and all Energy Efficiency Standards compliance										
YES	NO	COMP. DOC.	TITLE							
ð	0	NRCC-LTI-01-E	Certificate of Compliance. All Pages							
8	0	NRCC-LTI-02-E	Lighting Controls, Certificate of Com							
Ś	0	NRCC-LTI-03-E	Indoor Lighting Power Allowance							
0	Ś	NRCC-LTI-04-E	Tailored Method Worksheets							
0	8	NRCC-LTI-05-E	Line Voltage Track Lighting Workshe							
0	Ś	NRCC-LTI-06-E	Indoor Lighting Existing Conditions							

۲

COMMISS

CALIFORNIA E

Indoor Lighting

01

or

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В

CERTIFICATE OF COMPLIANCE

Project Name: Kensington Community Center

CONDITIONED SPACE UNCONDITIONED SPACE

H. Indoor Lighting Schedule and Field Inspection Energy Checklist Luminaire Schedule

Complete Luminaire Description

(i.e, 3 lamp fluorescent troffer,

F32T8, one dimmable electronic ballast)

A 3"x8' LED LIGHT SEMI FROST LENS

1 1/2"x4' LONG LED LIGHT

1/2'x2' LONG LED LIGHT



NRCC-LTI-01-E

Field Inspector 1

08

Fail

0

0

0

Pass

0

0

0

0 0

0 0

0 0

COMMIS

NRCC-LTI-01-E

(Page 6 of 6)

July 6, 2018

(Page 5 of 6)

July 6, 2018

COMMISSION

ATE OF 0	CALIFORNIA	Efficiency Standards - 2016 Nonresidential Complia	nce				April 2016
	R LIGHT				CALIFORM	IA ENERGY	
		COMPLIANCE			X		NRCC-LTI-01-E
	ighting						(Page 2 of 6)
Project N	^{ame:} Kens	sington Community Center			Date Prepared:		July 6, 2018
	-	wed Lighting Power					
Conditio	ned and Uno	conditioned space Lighting must not be combined for Indoor Lighting Power for Conditioned Spaces		npliance	Indoor Lighting Power for Uncond	itionad	20000
Ī		Indoor Lighting Power for Conditioned Spaces	5	Watts			Watts
		Installed Lighting		vvalis	Installed Ligh	ina 📙	walls
01		NRCC-LTI-01-E, Table H, page 5	+	1,920	NRCC-LTI-01-E, Table H, pag		
02		Portable Only for Offices					
02		NRCC-LTI-01-E, Table G, page 4	+				r
03		Minus Lighting Control Credits	-		Minus Lighting Control Cre		
		NRCC-LTI-02-E, page 2 Adjusted Installed Lighting Power			NRCC-LTI-02-E, pag Adjusted Installed Lighting Po	vor	
04		(row 1 plus row 2 minus row 3)	=	1,920	(row 1 minus rov	_	
	:	# `\VO``@ ``* ``"			# `\VO``@ ``"	• •11	
		Allowed Lighting Power			Allowed Lighting Power		
		Conditioned NRCC-LTI-03-E, page 1			Unconditioned NRCC-LTI-03-E, page 1		
05	50/35%lo	ations with replacement luminaires that have at least ower power compared to the original existing luminaire tead use the allowed wattage from NRCC-LTI-06, page 2		4,195.8	Alterations with replacement luminaires that have at least 50/35% lower power compared to the original existing luminaires, may instead use the allowed wattage from NRCC-LTI-06, page 2		
]	<u>I</u>		
D. Decla	aration of Re	equired Certificates of Installation					
Declare	by selecting	yes for all of the Certificates that will be submitted.	(Reta	in copies and veri	fy forms are completed and signed.)		
YES	NO	Form/Title					
đ	0	NRCI-LTI-01-E - Must be submitted for all building	gs			Field	nspector
		NRCI-LTI-02-E - Must be submitted for a lighting	contr	ol system, or for a	n Energy Management Control System (EMCS).		
đ	0	to be recognized for compliance.				L Field	nspector
		NRCI-LTI-03-E - Must be submitted for a line-volt	age t	rack lighting integ	ral current limiter, or for a supplementary		noncotor
0	ď	overcurrent protection panel used to energize onl	y line	-voltage track ligh	ting, to be recognized for compliance.		nspector
		NRCI-LTI-04-E - Must be submitted for two interlo	ockec	I systems serving	an auditorium, a convention center, a	🗖 Field I	nspector
0	ď	conference room, a multipurpose room, or a theat	ter to	be recognized for	r compliance.		hapeetoi
0	ø	NRCI-LTI-05-E - Must be submitted for a Power A	Adjus	tment Factor (PAF) to be recognized for compliance.	🔲 Field	nspector
		NRCI-LTI-06-E - Must be submitted for additional	watt	age installed in a	video conferencing studio to be recognized for	Eiold	nepoetor
0	S	compliance.					nspector
CA Build	ling Energy B	Efficiency Standards - 2016 Nonresidential Complia	nce				April 2016
	5	,					

NDOC	CALIFORNIA DR LIGHT C-LTI-01-E (Revis			CALIFO		
		COMPLIANCE		· · · · · ·	NRCC-LTI-01-E	
Indoor	Lighting				(Page 2 of 6)	
Project N	lame: Kens	sington Community Center		Date Prepared:	July 6, 2018	
C. Sum	mary of Allo	owe d L ighting P owe r				
Conditi	oned and Un	conditioned space Lighting must not be combined for co	mpliance			
		Indoor Lighting Power for Conditioned Spaces		Indoor Lighting Power for Uncor	n d itione d S paces	
			Watts		Watts	
01		Installed Lighting NRCC-LTI-01-E, Table H, page 5 +	1,920	Installed Lig NRCC-LTI-01-E, Table H, p		
02		Portable Only for Offices NRCC-LTI-01-E, Table G, page 4 +				
03		Minus Lighting Control Credits NRCC-LTI-02-E, page 2		Minus Lighting Control Cr NRCC-LTI-02-E, pa		
04		Adjusted Installed Lighting Power =		Adjusted Installed Lighting P		
04		(row 1 plus row 2 minus row 3)	1,920	(row 1 minus r		
		# `\VO`@ `° '" · · •" ·		# \VO`@ `"		
	Allowed Lighting Power Conditioned NRCC-LTI-03-E, page 1			Allowed Lighting Power Unconditioned NRCC-LTI-03-E, page 1		
05	Alterations with replacement luminaires that have at least			Alterations with replacement luminaires that have	e at least	
	50/35%l	ower power compared to the original existing luminaires, stead use the allowed wattage from NRCC-LTI-06, page 2	4,195.8	50/35% lower power compared to the original existing luminaires, may instead use the allowed wattage from NRCC-LTI-06, page 2		
			•		•	
D. Decl	a r ation of R	equired Certificates of Installation				
Declare	by selecting	yes for all of the Certificates that will be submitted. (Ret	ain copies and veri	ify forms are completed and signed.)		
YES	NO	Form/Title				
Ś	0	NRCI-LTI-01-E - Must be submitted for all buildings			Field Inspector	
đ		NRCI-LTI-02-E - Must be submitted for a lighting con	trol system, or for a	an Energy Management Control System (EMCS),	Field Inspector	
đ	0	to be recognized for compliance.	to a la Pala Para tata a			
0	ø	NRCI-LTI-03-E - Must be submitted for a line-voltage overcurrent protection panel used to energize only lin			Field Inspector	
		NRCI-LTI-04-E - Must be submitted for two interlocke	d systems serving	an auditorium, a convention center, a	Field Inspector	
0	S	conference room, a multipurpose room, or a theater t	o be recognized for	r compliance.		
0	Ś	NRCI-LTI-05-E - Must be submitted for a Power Adju	stment Factor (PAF	⁻) to be recognized for compliance.	Field Inspector	
0	୶	NRCI-LTI-06-E - Must be submitted for additional wat compliance.	ttage installed in a	video conferencing studio to be recognized for	Field Inspector	
0	, v	compliance.				

April 2016

INDOOR LIGHTING

CEC-NRCC-LTI-01-E (Revised 04/16)						
CERTIFICATE OF COMPLIANCE						
Indoor Lig	nting					
Project Name	^{e:} Kensi	ington Community Center				
E. Declarat	ion of R e	quired Certificates of Acceptance				
Declare by	selecting	yes for all of the Certificates of Acceptar				
YES	NO	FORM/TITLE				
0	0	NRCA-LTI-02-A - Must be submitted for				
0	0	NRCA-LTI-03-A - Must be submitted for				
0	0	NRCA-LTI-04-A - Must be submitted for				
0	0	NRCA-LTI-05-A - Must be submitted f				
A Separate	A Separate Lighting Schedule Must Be Filled Out for Condition					
for: 🗹 C	for: 🗹 CONDITIONED SPACE 🛛 UNCONDITIONED					

F. Indoor L	Lighting Schedule and Field Inspection Energy Checklist
The ac	ctual indoor lighting power listed on the next 2 pages includes all installed permanent and planned portable lighting systems.
When	Complete Building Method is used for compliance, list each different type of luminaire on separate lines.
U When	Area Category Method or Tailored Method is used for compliance, list each different type of luminaire by each different function area on separate lines
Also in	nclude track lighting in schedule, and submit the track lighting compliance document (NRCC-LTI-05-E) when line-voltage track lighting is installed.

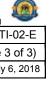
CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance

STATE OF CALIFORNIA CEC-NRCC-I TI-01-E (Revised 04/1

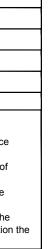
Indoor Lighting

CERTIFICATE OF COMPLIANCE

Project Name: Kensington Community Center



January 2016



January 2016

 DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

 1.
 I certify that this Certificate of Compliance documentation is accurate and complete
 tion Author Name: ANGELITO E. MAGBITANG, PE BAY AREA CONSULTING ENGINEERS July 6, 2018 A Certification Identification (if applicable): 235 MONTGOMERY STREET, SUITE 308 -11374 SAN FRANCISCO, CA 94101 (415) 788-8388

RESPONSIBLE PERSON'S DECLARATION STATEMENT I certify the following under penalty of perjury, under the laws of the State of California:

The information provided on this Certificate of Compliance is true and correct.

I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer). The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.

The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application. I will ensure that a completed signed copy of this Certificate of Compliance shall be made available with the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections. I understand that a completed signed copy of this Certificate of Compliance is required to be included with the documentation the

builder provides to	the building owner at occupancy.						
Responsible Designer Name:	ANGELITO E. MAGBITANG, PE	Responsible Designer Signature:	an				
Company :	BAY AREA CONSULTING ENGINEERS	Date Signed:	July 6, 2018	6-	R		
Address:	235 MONTGOMERY STREET, SUITE 308	License:	E-11374	0	\bigcirc)	
City/State/Zip:	SAN FRANCISCO, CA 94101	Phone:	(415) 788-8388				

NRCC-LTI-01-E
(Page 3 of 6)
July 6, 2018

ce that will be submitted. (Retain copies and verify forms are completed and signed.)				
or occupancy sensors and automatic time switch controls.	Field Inspector			
or automatic daylight controls.	Field Inspector			
or demand responsive lighting controls.	Field Inspector			
for institutional tuning power adjustment factor (PAF).				

litioned and Unconditioned Spaces. Installed Lighting Power listed on this Lighting	Schedule is only
ED SPACE	

Seismic Upgrades and **Building Alterations**

Kensington Community Center

59 Arlington Avenue Kensington, CA 94707 for the

Kensington Police Protection & **Community Services District**



337 17th Street, Suite 100 Oakland, CA 94612

T. 415.864.1234

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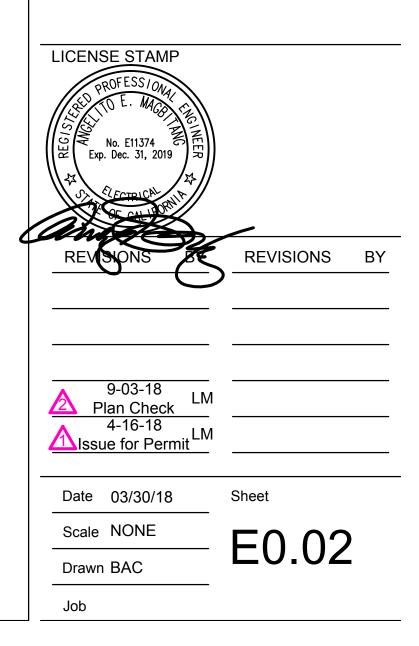
CONSULTANTS



LECTRICAL ENGINEERS

SAN FRANCISCO, CA 94104 **ENGINEERS** SAN FRANCISCO, CA 94104 T (415) 788-8388 F (415) 373-9388

TITLE 24 INDOOR LIGHTING COMPLIANCE FORMS



April 2016

CERTIFICATE OF INSTALLATION	NC			LIFORNIA ENI	١	NRCI-LTI-01-E	CERTIFICATE OF	COMPLIANCE
Indoor Lighting						(Page 1 of 2)		mpliance - Indoor
Project Name: Kensington Communi	ty Center	Enforceme City:			Permit Number: Zip Code:	-	Project Name: Ken:	sington Community
59 Arlington Avenue		K	ensington, CA		_p	94707	A soparato page	e must be filled o
GENERAL INFORMATION							CONDITION	
DATE OF BUILDING PERMIT:			MIT NUMBER:	-				1
	Nonresidential		esidential (common area)		Notel (Comm	,	C-3 AREA CATE	
PHASE OF CONSTRUCTION:	New Construction	Addition		Alterati	ion 🔟	Unconditioned	01	02
SCOPE OF RESPONSIBILITY Enter the date of approval by en	forcement agency of th	e Certificate of C	ompliance that provides th	e	Date:		Duineaur	Sq Ft
specifications for the energy efficiency Certificate.					20101		Primary Function	Linear
In the table below identify all appresented by this Installation Cert		cuments that spe	cify the requirements for t	he scope of	responsibili	ity		
Document Title or	Description	Арр	licable Sheets or Pages, T	ables,		pproved By		
	•		Schedules, etc.		Enforce	ment Agency		
					_			
							1 Use known foot	
							 Use linear feet Additional wat 	•
								mercial and indu
							· O	
					_		CA Building Energy l	Efficiency Standard
					_			5
							STATE OF CALIFORNI	
							CEC-NRCC-LTI-03-E (F	Revised 04/16)
							CERTIFICATE OF	COMPLIANCE mpliance - Indoor
								sington Community
								<u></u>
							DOCUMENTATI	
							1. I certify that t Documentation Author	his Certificate of Co Name:
							Company:	ANGELITO
							Address:	BAY AREA
CA Building Energy Efficiency Sf	andards 2013 Nonres	idential Complia	200			nuary 2016	City/State/Zip:	235 MONTO
CA building Energy Enciency Si	andards - 2013 Nomes		ice		Ja	inuary 2010		SAN FRAN
TATE OF CALIFORNIA								PERSON'S DEC
EC-NRCI-LTI-01-E (Revised 01/16)			CA	LIFORNIA EN	ERGY COMMI			ion provided on this under Division 3 of
CERTIFICATE OF INSTALLATIO	N				١	NRCI-LTI-01-E	(responsible	designer).
Project Name: Kensington Communi		Enforceme	nt Agency:		Permit Number:	(Page 2 of 2)		eatures and perforn conform to the requ
Project Address: 59 Arlington Avenue		City: K	ensington, CA		Zip Code:	- 94707	4. The building of	design features or s
DOCUMENTATION AUTHOR'S			5					worksheets, calcula that a completed sig
1. I certify that this Certificate			e and complete.					agency for all applied as to the building
Documentation Author Name: ANGE	LITO E. MAGBITANG, PE		Documentation Author Signatu	re:			Responsible Designer N	
Documentation Author Company Name: BAY A	REA CONSULTING ENGINE	ERS	Date Signed:		July 6, 2018		Company :	BAY AREA
Address: 235 MG	ONTGOMERY STREET, SUI	TE 308	CEA Certificate Identification (I	f applicable).	E-11374		Address:	235 MONTO
City / State/ Zip: SAN F	RANCISCO, CA 94101		Phone:		(415) 788-8388	3	City/State/Zip:	SAN FRAN
RESPONSIBLE PERSON'S DE	CLARATION STATEME	ENT						
I certify the following under pen								
 The information provided or I am eligible under Division 				ation to acce	ept responsi	ibility for the		
system design, construction identified on this Certificate			-		•			
otherwise I am an authorize	ed representative of the	responsible build	der/installer.					
 The constructed or installed Certificate of Installation co 								
given on the plans and spe	cifications approved by	the enforcement	agency.					
4. I reviewed a copy of the Ce for the scope of constructio	n or installation identifie	ed on this Certific	• •					
that apply to the construction			allation shall be posted, or	made avails	able with the	building		
 that apply to the construction 5. I will ensure that a complete permit(s) issued for the bu completed signed copy of t 	ed signed copy of this (ilding, and made availa	Certificate of Insta ble to the enforce	ement agency for all applic	able inspec	tions. I unde	erstand that a	CA Building Energy I	Efficiency Standards

the building owner at occupancy.						
	Responsible Builder/Installer Name:	Responsible Builder/Installer Signature	2			
	Company Name: (Installing Subcontractor or General Contractor Builder/Owner)	Position With Company (Title):				
	Address:	CSLB License:				
	City/State/Zip:	Phone:	Date Signed:			

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Building Energy Efficiency Standards - 2016 Nonresidential Compliance			April 2016 CA	Building Energy Efficiency Standards - 2016 Nonresid	ential Compliance
TE OF CALIFORNIA DOOR LIGHTING POWER ALLOWANCE C-NRCC-LTI-03-E (Revised 04/16)		CALIFORNIA ENERGY COMMISSIC	in 😥	ATE OF CALIFORNIA IDOOR LIGHTING POWER ALLOW C-NRCC-LTI-03-E (Revised 04/16)	ANCE
ERTIFICATE OF COMPLIANCE		NRC	C-LTI-03-E C	ERTIFICATE OF COMPLIANCE	
ertificate of Compliance - Indoor Lighting Power Allowance		(Pr	age 4 of 4) C	ertificate of Compliance - Indoor Lighting Power	Allowance
^{ject Name:} Kensington Community Center		Date Prepared:	July 6, 2018	Kensington Community Center	
OCUMENTATION AUTHOR'S DECLARATION STATEMENT I certify that this Certificate of Compliance documentation is accurate and cumentation Author Name: ANGELITO E. MAGBITANG, PE	complete. Documentation Author Signature:	In Contraction		A separate page must be filled out for Conditio CONDITIONED spaces	ned and Unconditioned Spa UNCONDITIONED spaces
mpany: BAY AREA CONSULTING ENGINEERS	Signature Date: July 6,	2018	С	-2 AREA CATEGORY METHOD GENERAL LIC	GHTING POWER ALLOWA
ldress: 235 MONTGOMERY STREET, SUITE 308	CEA Certification Identification (if applicable): E-1137		- I	Do not include portable lighting for offices. Por	
y/State/Zip: SAN FRANCISCO, CA 94101	Phone: (415) 7	788-8388	i	o · · · · · · ·	
ESPONSIBLE PERSON'S DECLARATION STATEMENT					01
certify the following under penalty of perjury, under the laws of the State of C	alifornia:			° k- ° '#° u 8∖ k' ` 7	· · · · #
The information provided on this Certificate of Compliance is true and corr				Location in Building	Primary Function Area
 I am eligible under Division 3 of the Business and Professions Code to acce (responsible designer). 	pt responsibility for the building design or system des	ign identified on this Certificate of Compliance	N	MEETING HALL, MEETING ROOMS 1, 2, AND 3	MEETING CENTER AREAS
 The energy features and performance specifications, materials, componen Compliance conform to the requirements of Title 24, Part 1 and Part 6 of t The building design features or system design features identified on this Compliance 	he California Code of Regulations. ertificate of Compliance are consistent with the inform	nation provided on other applicable compliance			
 documents, worksheets, calculations, plans and specifications submitted t I will ensure that a completed signed copy of this Certificate of Compliance enforcement agency for all applicable inspections. I understand that a com 	e shall be made available with the building permit(s) is	ssued for the building, and made available to the	the		
builder provides to the building owner at occupancy.					
ANGELITO E. MAGBITANG, PE	Responsible Designer Signature:	mat			
BAY AREA CONSULTING ENGINEERS	Date Signed: July 6,	2018			
ddress: 235 MONTGOMERY STREET, SUITE 308	License: E-1137				
ty/State/Zip: SAN FRANCISCO, CA 94101	Phone: (415) 7	788-8388			

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ing Energy Efficiency Standards - 2016 Nonresidential Compliance	April 2016	CA Building Energy Efficiency Standards - 2016 Non
CALIFORNIA OR LIGHTING POWER ALLOWANCE C-LTI-03-E (Revised 04/16)		STATE OF CALIFORNIA INDOOR LIGHTING POWER ALL CEC-NRCC-LTI-03-E (Revised 04/16)
ICATE OF COMPLIANCE	NRCC-LTI-03-E	CERTIFICATE OF COMPLIANCE
cate of Compliance - Indoor Lighting Power Allowance	(Page 4 of 4)	Certificate of Compliance - Indoor Lighting Po
ne: Kensington Community Center	Date Prepared: July 6, 2018	Project Name: Kensington Community Center
MENTATION AUTHOR'S DECLARATION STATEMENT ertify that this Certificate of Compliance documentation is accurate and complete. tation Author Name: ANGELITO E. MAGBITANG, PE	Documentation Author Signature:	A separate page must be filled out for Con CONDITIONED spaces
BAY AREA CONSULTING ENGINEERS	Signature Date: July 6, 2018	C -2 AREA CATEGORY METHOD GENERA
235 MONTGOMERY STREET, SUITE 308	CEA Certification Identification (if applicable): E-11374	- Do not include portable lighting for offices.
/Zip: SAN FRANCISCO, CA 94101	Phone: (415) 788-8388	. <u>o</u>
ONSIBLE PERSON'S DECLARATION STATEMENT		
the following under penalty of perjury, under the laws of the State of California:		° k- ° `#° u 8∖ k' ` ′
e information provided on this Certificate of Compliance is true and correct. m eligible under Division 3 of the Business and Professions Code to accept responsibility	y for the building decign or system decign identified on this Cartificate of Compliance	Location in Building
esponsible designer).	y for the building design of system design identified on this certificate of compliance	MEETING HALL, MEETING ROOMS 1, 2, AND
e energy features and performance specifications, materials, components, and manufac	ctured devices for the building design or system design identified on this Certificate of	
ompliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Co e building design features or system design features identified on this Certificate of Cor		
ocuments, worksheets, calculations, plans and specifications submitted to the enforcem		
vill ensure that a completed signed copy of this Certificate of Compliance shall be made	available with the building permit(s) issued for the building, and made available to the	
iforcement agency for all applicable inspections. I understand that a completed signed o ilder provides to the building owner at occupancy.	copy of this Certificate of Compliance is required to be included with the documentation the	
ble Designer Name:	Responsible Designer Signature:	
ANGELITO E. MAGBITANG, PE	Date Signed:	
BAY AREA CONSULTING ENGINEERS	July 6, 2018	
235 MONTGOMERY STREET, SUITE 308	License: E-11374	
e/Zip: SAN FRANCISCO, CA 94101	Phone: (415) 788-8388	

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ding Energy Efficiency Standards - 2016 Nonresidential Compliance April 2016	CA Building Energy Efficiency Standards - 2016 Non
DF CALIFORNIA OR LIGHTING POWER ALLOWANCE CC-LTI-03-E (Revised 04/16) CALIFORNIA ENERGY COMMISSION	STATE OF CALIFORNIA INDOOR LIGHTING POWER ALL CEC-NRCC-LTI-03-E (Revised 04/16)
FICATE OF COMPLIANCE NRCC-LTI-03-E	CERTIFICATE OF COMPLIANCE
icate of Compliance - Indoor Lighting Power Allowance (Page 4 of 4)	Certificate of Compliance - Indoor Lighting Po
ame: Kensington Community Center July 6, 201	8 Project Name: Kensington Community Center
UMENTATION AUTHOR'S DECLARATION STATEMENT certify that this Certificate of Compliance documentation is accurate and complete. Intation Author Name: ANGELITO E. MAGBITANG, PE	A separate page must be filled out for Con CONDITIONED spaces
ANGELITO E. MAGBITANG, PE	C -2 AREA CATEGORY METHOD GENERA
CEA Certification Identification (if applicable):	- Do not include portable lighting for offices
te/7in: Phone:	
SAN FRANCISCO, CA 94101 (415) 788-8388	
PONSIBLE PERSON'S DECLARATION STATEMENT	°k-°`#°u-8∖k'∵
fy the following under penalty of perjury, under the laws of the State of California: he information provided on this Certificate of Compliance is true and correct.	
am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance	Location in Building
responsible designer).	MEETING HALL, MEETING ROOMS 1, 2, AND
he energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.	
he building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance	
locuments, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.	
will ensure that a completed signed copy of this Certificate of Compliance shall be made available with the building permit(s) issued for the building, and made available to the	
enforcement agency for all applicable inspections. I understand that a completed signed copy of this Certificate of Compliance is required to be included with the documentation the building owner at occupancy.	
sible Designer Name: ANGELITO E. MAGBITANG, PE	1
hy: BAY AREA CONSULTING ENGINEERS Date Signed: July 6, 2018	1
SE 235 MONTGOMERY STREET, SUITE 308	
tte/Zip: SAN FRANCISCO, CA 94101 Phone: (415) 788-8388	

CA Building Energy Efficiency Standards - 2013 Nonresidential Compliance

OOR LIGHTING POWER ALLOWANCE

tificate of Compliance - Indoor Lighting Power Allowance Kensington Community Center

NRCC-LTI-03-E (Page 3 of 4)

July 6, 2018

CALIFORNIA ENERG

Date Prepared:

STATE OF CALIFORNIA INDOOR LIGHTING POWER ALLOWANCE					
CEC-NRCC-LTI-03-E (Revised 04/16)			CALIFORNIA E	NERGY C	
CERTIFICATE OF COMPLIANCE					NRCC-LTI-03-
Certificate of Compliance - Indoor Lighting Power Allowance					(Page 1 of 4
Project Name: Kensington Community Center		Date Prepare	d:		July 6, 201
A separate page must be filled out for Conditioned and Unconditioned Spaces. This page is only for: ✓ CONDITIONED spaces					
A. SUMMARY TOTALS OF LIGHTING POWER ALLOWANCES					
If using Complete Building Method for compliance, use only the total in column (a) as total allowed bu If using Area Category Method, Tailored Method, or a combination of Area Category and Tailored Met allowed building watts	0	pliance,	use only the total in	column	(b) as the total
			(a)		(b)
01 Complete Building Method Allowed Watts. Documented in section B of NRCC-LTI-03-E (below on this	page)				
02 Area Category Method Allowed Watts. Documented in section C-1 of NRCC-LTI-03-E (below on this pa	age)				-
03 Tailored Method Allowed Watts. Documented in section A of NRCC-LTI-04-E					
TOTAL ALLOWED BUILDING WATTS. Enter number into correct cell on NRCC-LTI-01, F	Page 2, Row	1			
☐ Check here if building contains both conditioned and unconditioned areas.			•		
B. COMPLETE BUILDING METHOD LIGHTING POWER ALLOWANCE					
01	02		03		04
	WATTS	5	X COMPLETE	_	ALLOWED
u'h ∖7″y@)@/8΄7 ′u ″	PER ft2		BLDG. AREA	-	WATTS
x			2982.6		
	Total A				
Total Watts. Enter Total Watt	ts into sectio	n A, row	1 (Above on this page	ge)	
C -1 AREA CATEGORY METHOD TOTAL LIGHTING POWER ALLOWANCES			I		Watts
		Tot	al from section C-2.		Valla
			al from section C-3.		-
Total Watts. Enter Total Watts into	o section A r				
7 ° \ k · · · u ° ‡ · · ·			·····	•	

eparate page must be filled out for Conditioned and Unconditioned Spaces. This page is only for: UNCONDITIONED spaces

01	02	03	04	05	06	07
						ALLOWED
		Additional	Wattage			WATTS
Primary	Sq Ft or	Watts	Allowance	Description(s) and Quantity of Special	Total Design	Smaller of
Function	Linear ft	Allowed	(02 x 03)	Luminaire Types in each Primary Function Area	Watts	04 or 06
Tunction	Linear it	Thewea	(02 x 00)	Luminal o Types in each triminaly tanction filed	Watts	010100
			├ ───┥ ├ ─			
					—	
					—	
			├			

se linear feet only for additional allowance for white board or chalk board. All other additional Area Category allowances shall use watts per square toot. dditional watts are available only when allowed according to the footnotes on bottom of Table 140.6-C, which include: Specialized task work; Ornamental lighting; recision commercial and industrial work; Per linear foot of white board or chalk board; Accent, display and feature lighting; and Videoconferencing studio lighting.

CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance April 2016

- 1. EACH AREA ENCLOSED BY CEILING HEIGHT PARTITIONS SHALL BE INDEPENDENTLY CONTROLLED. 2.
- EXCEEDS 0.5 WATTS PER SQ. FT. SHALL BE PROVIDED WITH MULTILEVEL LIGHTING CONTROLS.
- 3. <u>SECTION 130.1(c)</u> SHUT-OFF CONTROLS THE SPACE IS TYPICALLY UNOCCUPIED.
- SECTION 130.1(d) AUTOMATIC DAYLIGHTING CONTROLS 4. OPERATE ACCORDING TO ALL OF THE FOLLOWING: 1. PHOTOSENSORS THAT ARE NOT READILY ACCESSIBLE TO UNAUTHORIZED PERSONNEL. 2. PROVIDE FUNCTIONAL MULTILEVEL LIGHTING. IN SKYLIT DAYLIGHT ZONE AND PRIMARY SIDELIGHT DAYLIGHT ZONE.
- SECTION 130.1(e) DEMAND RESPONSIVE CONTROLS 5. CONSISTENT WITH UNIFORM LEVEL OF ILLUMINATION REQUIREMENTS IN TABLE 130.1-A. TOTAL LIGHTING POWER.

uilding Energy Efficiency Standards - 2016 Nonresidential Compliance

residential Compliance		April 2016
OWANCE		
		NRCC-LTI-03-E
ower Allowance		(Page 2 of 4)
	Date Prepared:	July 6, 2018
ditioned and Unconditioned Spaces. This page is only for:		
UNCONDITIONED spaces		
L LIGHTING POWER ALLOWANCE		
Portable lighting for offices shall be documented only in Section	G of NRCC-LTI-01-E.	
· · · · · · · ·		

	01	02		03		04
к' [·] 7	'''' #	WATTS	1 1		1 ľ	ALLOWED
	Primary Function Area per Table 140.6-C	PER ft2	X	AREA (ft2)	=	WATTS
ND 3	MEETING CENTER AREAS	2,997		1.4		4,195.8
		TOTAL	S			
nter sur	n total Area Category allowed watts into section C-1	of NRCC-LTI-03-E (t	his con	npliance docume	ent)	4,195.8
					-	WATTS

April 2016

TITLE 24 INDOOR LIGHTING CONTROLS

SECTION 130.1(a) AREA CONTROLS A. ALL LUMINAIRES SHALL BE FUNCTIONALLY CONTROLLED WITH MANUALLY SWITCHED ON AND OFF LIGHTING CONTROLS.

<u>SECTION 130.1(b) MULTILEVEL LIGHTING CONTROLS</u> A. THE GENERAL LIGHTING OF ANY ENCLOSED AREA 100 SQ. FT. OR LARGER, WITH A CONNECTED LIGHTING LOAD THAT

A. IN ADDITION TO LIGHTING CONTROLS REQUIRED PER SECTION 130.1(a) AND 130.1(b), INDOOR LIGHTING SHALL BE CONTROLLED THAT MEETS THE FOLLOWING: OCCUPANT SENSOR CONTROL, AUTOMATIC TIME SWITCH CONTROL, SIGNAL FROM ANOTHER BUILDING SYSTEM, OR OTHER CONTROL CAPABLE OF AUTOMATICALLY SHUTTING OFF ALL LIGHTING WHEN

A. LUMINAIRES IN DAYLIGHT ZONES SHALL BE PROVIDED WITH AUTOMATIC DAYLIGHTING CONTROLS AND CONFIGURED TO

B. AUTOMATIC DAYLIGHTING CONTROLS ARE NOT REQUIRED FOR ROOMS WITH LIGHTING POWER OF LESS THAN 120 WATTS

A. LIGHTING POWER IN BUILDINGS LARGER THAN 10,000 SQ. FT. SHALL BE CAPABLE OF BEING AUTOMATICALLY REDUCED IN RESPONSE TO A DEMAND RESPONSE SIGNAL; SO THAT THE BUILDING'S TOTAL LIGHTING POWER CAN BE LOWERED BY A MINIMUM OF 15 PERCENT BELOW THE TOTAL INSTALLED LIGHTING POWER. LIGHTING SHALL BE REDUCED IN MANNER B. SPACES THAT ARE NON-HABITABLE SHALL NOT BE USED TO COMPLY WITH THIS REQUIREMENT, AND SPACES WITH A LIGHTING POWER DENSITY OF LESS THAN 0.5 WATTS PER SQ. FT. SHALL NOT BE COUNTED TOWARD THE BUILDING'S

Seismic Upgrades and **Building Alterations**

Kensington Community Center

59 Arlington Avenue Kensington, CA 94707 for the

Kensington Police Protection & **Community Services District**



337 17th Street, Suite 100 Oakland, CA 94612

T. 415.864.1234

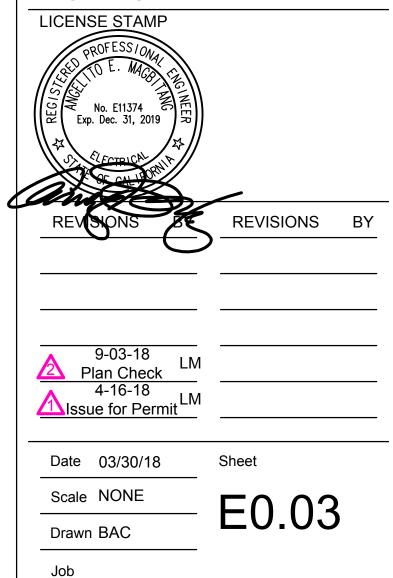
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CONSULTANTS



LECTRICAL ENGINEERS SAN FRANCISCO, CA 94104

TITLE 24 INDOOR LIGHTING POWER ALLOWANCE COMPLIANCE FORMS AND INSTALLATION FORMS



STATE OF CALIFORNIA				(B)
CEC-NRCC-LTO-01-E (Revised 04/16)			CALIFO	RNIA ENERGY COMMISSION
CERTIFICATE OF COMPLI	ANCE			NRCC-LTO-01-E
Outdoor Lighting			- F	(Page 1 of 4
Project Name: Kensington Comm	unity Center		Date Prepared:	July 6, 2018
A. General Information				
Project Address: 59 Arlington Aven	ue		Total Illu	minated Hardscape Area:
Phase of Construction:	v Construction	Addition	Alteratio	n
Outdoor Lighting Zone (LZ)	☐ LZ-1	LZ-2	🔲 LZ-3	LZ-4
I have confirmed with the AHJ wh	ich LZ applies to this site. For def	ault lighting zone designations	, see Title 24 P	art 6, §10-114
B. Lighting Compliance Documen	ts (check box for each document	included)		
For detailed instructions on the us	se of this and all Energy Efficiency	y Standards compliance docun	nents, refer to tl	he Nonresidential Manual
published by the California Energ	y Commission.			
NRCC-LTO-01-E	Certificate of Compliance			
NRCC-LTO-02-E	Outdoor Lighting Controls	Certificate of Compliance		
NRCC-LTO-03-E	Outdoor Lighting Power A	Ilowance Certificate of Compli	ance	
NRCC-LTO-04-E	Outdoor Lighting Existing	Conditions Certificate of Com	oliance	
C. Summary of Allowed Outdoo	or Lighting Power			Watts
Sum Total ALLOWE	O Outdoor Lighting Wattage from	NRCC-LTO-03-E, page 1		

Complies ONLY if Installed (Box 02) ≤ Allowed (Box 01)

Declare by checking all Installation Certificates that will be submitted. (Retain copies and verify compliance documents are completed and

Declare by checking all of the Certificates of Acceptance that will be submitted. (Retain copies and verify compliance documents are completed

Description of exempt luminaire in accordance with the exemptions

Field Inspector

Field Inspector

Field Inspector

Alterations with NO increase of connected lighting load may instead use the

02 Sum Total INSTALLED Outdoor Lighting Wattage from NRCC-LTO-01-E, page 3.

D. Declaration of Required Installation Certificates

▼ NRCI-LTO-01-E - Must be submitted for all buildings

E. Declaration of Required Certificates of Acceptance

NRCA-LTO-02-A - Must be submitted for outdoor lighting controls.

CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance

System (EMCS), to be recognized for compliance.

signed.)

and signed.)

allowed wattage from NRCC-LTO-04, page 2.

NRCI-LTO-02-E - Must be submitted for a lighting control system, or for an Energy Management Control

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STATE OF CALIFORNIA **ENERGY MANAGEMENT CONTROL SYSTEM OR LIGHTING CONTROL SYSTEM** C-NRCI-LTI-02-E (Revised 01/1

CERTIFICATE OF INSTALLATION Energy Management Control System or Lighting Co Kensington Community Center Project Address: 59 Arlington Avenue

PART 3 Requirements for which the control is being installed to complied with: Identify all requirements in the Standards for which the EMCS or Lighting Control System is installed to function as and complies with:

Check all that are applicable A. Section 130.1(a) Area Controls.

- B. Section 130.1(b) Multi-Level Lighting Controls
- C. Section 130.1 (c) Shut-OFF Controls
- D. Section 130.1 (d) Automatic Daylighting Controls.
- E. Section 130.1 (e) Demand Responsive Controls.

F. Section 130.5 (d) Circuit Controls for 120-Volt Receptacles.

Installation Certificate.

- areas above workstations, in accordance with TABLE 140.6-A
- TABLE 140.6-A
- J. To qualify for the PAF for a Demand Responsive Control in TABLE 140.6-A

il 2016	
	CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance

STATE OF CALIFORNIA OUTDOOR LIGHTING

01

Name or Symbol

OUTDOOR LIGHTING	<u>@</u>
CEC-NRCC-LTO-01-E (Revised 04/16)	CALIFORNIA ENERGY COMMISSION
CERTIFICATE OF COMPLIANCE	NRCC-LTO-01-E
Outdoor Lighting	(Page 2 of 4)
Project Name: Kensington Community Center	Date Prepared: July 6 2018

"GWIYXi`Y`cZ@a]bU]fYg`9IYadhZica`h\Y`7ihcZZFYei]fYaYbhg`]b`Ÿ%\$"&fWŁ 01 Name or Symbol Description of exempt luminaire in accordance with the exemptions

< "GW YXi `Y`cZ@ a]bUjfYg'9I Ya dhZica `h Y`Ci hXccf`@[\ h]b[`7 cblfc``F Yei]fYa Ybhg']b`Ÿ`% \$"&fWL</p>

CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance

01	02
Name or Symbol	Description of exempt luminaire in accordance with the exemptions

STATE OF CALIFORNI ENERGY MANAGEMENT CONTROL SYSTEM OR LIGHTING CONTROL SYSTEM CEC-NRCI-LTI-02-E (Revised 01/16) CERTIFICATE OF INSTALLATION

Energy Management Control System or Lighting Control System			
Project Name:	Kensington Community Center	Enforcement Age	
Project Address:	59 Arlington Avenue	City: Kensir	

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT I certify that this Certificate of Installation documentation is accurate and complete

	Documentation Author Name:	ANGELITO E. MAGBITANG, PE
	Documentation Author Compan	y Name: BAY AREA CONSULTING ENGINEERS
1	A 1.1	

City/State/Zip SAN FRANCISCO, CA 94101

235 MONTGOMERY STREET, SUITE 308

RESPONSIBLE PERSON'S DECLARATION STATEMENT certify the following under penalty of perjury, under the laws of the State of California:

- The information provided on this Certificate of Installation is true and correct I am eligible under Division 3 of the Business and Professions Code in the applicable classification to accept responsibility for the system design, construction, or installation of features, materials, components, or manufactured devices for the scope of work identified on this Certificate of Installation and attest to the declarations in this statement (responsible builder/installer), otherwise I am an authorized representative of the responsible builder/installer
- The constructed or installed features, materials, components or manufactured devices (the installation) identified on this Certificate of Installation conforms to all applicable codes and regulations, and the installation conforms to the requirements given on the plans and specifications approved by the enforcement agency.
- I reviewed a copy of the Certificate of Compliance approved by the enforcement agency that identifies the specific requirements for the scope of construction or installation identified on this Certificate of Installation, and I have ensured that the requirements that apply to the construction or installation have been met
- I will ensure that a completed signed copy of this Certificate of Installation shall be posted, or made available with the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections. I understand that a completed signed copy of this Certificate of Installation is required to be included with the documentation the builder provides to
- the building owner at occupancy. esponsible Builder/Installer Name:

Company Name: (Installing Subcontractor or General Contractor or Builder/Owner)

City/State/Zip:

	CALIFORNIA ENERGY COMMISSION
	NRCI-LTI-02-E
ontrol System	(Page 5 of 6)
Enforcement Agency:	Permit Number:
City: Kensington, CA	Zip Code: 94707

Enforcement Agenc

^{*} Kensington, CA

CEA Certification Identification (If

esponsible Builder/Installer Signature:

Date Signed:

Position With Company (Title):

CSLB License:

F-11374

(415) 788-8388

If installed to gualify for a Power Adjustment Factor, submit this Installation Certificate in addition to the PAF

G. To qualify for the PAF for a Partial-ON Occupant Sensing Control in TABLE 140.6-A. H. To qualify for the PAF for an occupant sensing control controlling the general lighting in large open plan office

I. To qualify for the PAF for a Manual Dimming System PAF or a Multiscene Programmable Dimming System PAF in

K. To qualify for the PAF for Combined Manual Dimming plus Partial-ON Occupant Sensing Control in TABLE 140.6-A

ITATE OF CALIFORNIA	-
ENERGY MANAGEMENT CONTROL SYSTEM OR LIGHTING C	
EC-NRCI-LTI-02-E (Revised 01/16)	CALIFORNIA ENERGY COMMISSION
CERTIFICATE OF INSTALLATION	NRCI-LTI-02-E
Energy Management Control System or Lighting Control System	(Page 3 of 6

Kensington Community Center

Project Address

59 Arlington Avenue 94707 Kensington, CA 1. Automatic Daylight Controls meet all requirements for Automatic Daylight Control devices in the Title 20

Appliance Efficiency Regulations, including the following: a. Is capable of reducing the power consumption in response to measured daylight either directly or

provide the second seco

- by sending and receiving signals;
- b. If the system includes a dimmer, complies with the Dimmer Control device requirements in the Title 20 Appliance Efficiency Regulations.
- c. Automatically return to its most recent time delay settings within 60 minutes when put in calibration mode;
- d. Has a set point control that easily distinguishes settings to within 10% of full scale adjustment;
- e. Has a light sensor that has a linear response within 5% accuracy over the range of illuminance measured by the light sensor;
- f. Has a light sensor that is physically separated from where the calibration adjustments are made, or is capable of being calibrated in a manner that the person initiating the calibration is remote
- from the sensor during calibration to avoid influencing calibration accuracy; and g. Complies with the Title 20 requirements for photo controls if the system contains a photo control component.
- 2. Photo Controls meet all requirements for Photo Control devices in the Title 20 Appliance Efficiency Regulations, including the following that it does not have a mechanical device that permits disabling of the control.
- G. The EMCS or Lighting Control System functions as a Dimmer and meets all requirements for a Dimmer Control device in the Title 20 Appliance Efficiency Regulations, including the following:
 - 1. Is capable of reducing power consumption by a minimum of 65% when the dimmer is at its lowest level:
 - 2. Includes an off position which produces a zero lumen output; and
 - 3. Does not consume more than 1 watt per lighting dimmer switch leg when in the off position. 4. Dimmer controls that can directly control lamps provide electrical outputs to lamps for reduced flicker operation through the dimming range so that the light output has an amplitude modulation of less than
 - 30% for frequencies less than 200 Hz without causing premature lamp failure. 5. If designed for use in three way circuits is capable of turning lights off, and to the level set by the dimmer if the lights are off.

H. The EMCS or Lighting Control System meets the following requirements: 1. Is capable of automatically turning off controlled lights in the area no more than 30 minutes after the

- area has been vacated; 2. Allows all lights to be manually turned off regardless of the status of occupancy; and
- 3. Has a visible status signal that indicates that the device is operating properly, or that it has failed or malfunctioned. The visible status signal may have an override switch that turns off the signal.
- 4. All occupant sensing devices that utilize ultrasonic radiation for detection of occupants meet the Ultrasound Maximum Decibel Values in the Title 20 Appliance Efficiency Regulations
- 5. All occupant sensing devices that utilize microwave radiation for detection of occupants meet the radiation requirements in the Title 20 Appliance Efficiency Regulations

7. The EMCS or Lighting Control System functions as one or more of the Occupant Sensing Controls

6. Occupant sensing devices incorporating dimming comply with the requirements for dimmer controls in the Title 20 Appliance Efficiency Regulations

CA Building

Energy Management Control System or Lighting Control System

Kensington Community Center

ng	Energy	Efficiency	Standards -	2016 Nonre	esidential C	ompliance	

ENERGY MANAGEMENT CONTROL SYSTEM OR LIGHTING CONTROL SYSTEM

			·	
	STATE OF CALIFORNIA ENERGY MANAGEMENT CONTROL SYST CEC-NRCI-LTI-02-E (Revised 01/16)	EM OR LIGHTING CONTROL SYSTI CALIFORNIA ENERGY CO		۲
Ξ	CERTIFICATE OF INSTALLATION		NRCI-LT	I-02-E
)	Energy Management Control System or Lighting Cor	trol System	(Page 2	2 of 6)
	Project Name: Kensington Community Center	Enforcement Agency:	Permit Numb	er:
)7	Project Address: 59 Arlington Avenue	^{City:} Kensington, CA	Zip Code:	94707

Lighting Control System.

3. Multi-Level Astronomical Time-Switch Controls, in addition to meeting all of the requirements for Astronomical Time-Switch Controls, includes at least 2 separately programmable steps per zone.

F. The EMCS or Lighting Control System functions as one or more of the Daylighting Controls listed below:

January 2016

NRCI-LTI-02-E

Permit Numbe

(Page 6 of 6)

94707

STATE OF CALIFORNI

CERTIFICATE OF INSTALLATION

59 Arlington Avenue

Checked Below:

January 2016

ii. Has a grace period of no more than 30 seconds and no less than 15 seconds to turn on lighting automatically after the sensor has timed out; and iii. Does not have an override switch that disables the sensor. d. Partial-ON Sensors meeting all applicable requirements for partial on sensing devices in the Title 20 Appliance Efficiency Regulations, including the following:

Kensington, CA

a. Occupant Sensors meeting all applicable requirements for Occupant Sensor Control devices in

b. Motion Sensors meeting all applicable requirements for Motion Sensor Controls devices in the

c. Vacancy Sensors meeting all applicable requirements for Vacancy Sensor Controls devices in

manual means, for conversion between manual and automatic functionality;

Title 20 Appliance Efficiency Regulations, including that motion sensors are rated for outdoor use.

i. Does not turn on lighting automatically and does not incorporate DIP switches, or other

i. Has two poles each with automatic-off functionality;

the Title 20 Appliance Efficiency Regulations, including the following:

- ii. Has one pole that is manual-on and does not incorporate DIP switches, or other manual means, for conversion between manual and automatic functionality; and
- iii. Has one pole that is automatic-on and is not be capable of conversion by the user to
- manual-on functionality.
- e. Partial-OFF Sensors meet all applicable requirements for partial off sensing devices in the Title 20 Appliance Efficiency Regulations, including the following:
- Has two poles;

the Title 20 Appliance Efficiency Regulations.

- ii. Has one pole that is manual-on and manual off; and
- iii. Has one pole that is automatic-on and automatic-off and is not capable of conversion by the user to manual-on only functionality.
- f. Occupant Sensing Control systems consist of a combination of single or multi-level Occupant, Motion, or Vacancy Sensor Controls, and all components installed to comply with manual-on requirements are not capable of conversion by the user from manual-on to automatic-on functionality.

January 2016

NRCI-LTI-02-E

rmit Numb

(Page 4 of 6)

94707

before and after sunrise or sunset.

1. Automatic Time-Switch Controls meeting all requirements for Automatic Time Switch Control devices in the Title 20 Appliance Efficiency Regulations, including the requirements below: a. Residential automatic time-switch controls have program backup capabilities that prevent the loss of the device's schedule for at least 7 days, and the device's date and time for at least 72

B. The manufacturer has provided instructions for calibration.

power per indicator light. D. Components that are regulated by the Title 20 Appliance Efficiency Regulations have been certified to the

Energy Commission.

below, and complies with all of the following requirements:

C. If indicator lights are integral to any components, such indicator lights consumes no more than 1 watt of

E. The EMCS or Lighting Control System functions as one or more of the Time-Switch Lighting Controls checked

hours if power is interrupted. b. Commercial automatic time-switch controls meet the following requirements:

- function as.

Check all that apply:

PART 1

STATE OF CALIFORNIA

Zip Code:

EC-NRCI-LTI-02-E (Revised)

Installation Certificate.

to demand response signals. The Energy Management Control System has been installed to function as a lighting control required by Part 6 and functionally meets all applicable requirements for each application for which it is installed, in accordance with Sections 110.9, 130.0 through 130.5, 140.6 through 150.0, and 150.2; and complies with Reference Nonresidential Appendix NA7.7.2.

ENERGY MANAGEMENT CONTROL SYSTEM OR LIGHTING CONTROL SYSTEM

CERTIFICATE OF INSTALLATION						NRCI-LTI-02-E
Energy Management	Energy Management Control System or Lighting Control System					
Project Name: Kensingto	on Commur	nity Center		Enforcement Agency:		Permit Number:
Project Address: 59 Arlington Avenue			City: Kensington, CA		Zip Code: 94707	
GENERAL INFORM	GENERAL INFORMATION					
DATE OF BUILDING PERMIT PERMIT #						
BUILDING TYPE	Monr	esidential	🔲 High	-Rise Res (Common Area)	Hotel/Motel ((Common Area)
PHASE OF CONSTRUCTION	□ New	Construction	Add	ition	Alteration	
SCOPE OF RESPONSIBILITY						
Enter the date of approval by enforcement agency of the Certificate of Compliance that provides the specifications for the energy efficiency measures for the scope of responsibility for this					Date:	

Requirements in the Standards:

§130.4(b) Before an Energy Management Control System (EMCS), or Lighting Control System can be recognized for compliance with the lighting control requirements in Part 6 of Title 24, the person who is eligible under Division 3 of the Business and Professions Code to accept responsibility for the construction or installation of features, materials, components, or manufactured devices shall sign and submit this Installation Certificate.

If any of the requirements in this Installation Certificate fail the Energy Management Control System or Lighting Control System installation requirements, these options for controlling lighting shall not be recognized for compliance with the Building Energy Efficiency Standards.

What type of Lighting Control System has been installed?

A. Energy Management Control System (EMCS) - Is a computerized control system designed to regulate the energy consumption of a building by controlling the operation of energy consuming systems, such as the heating, ventilation and air conditioning (HVAC), lighting, and water heating systems, and is capable of monitoring environmental and system loads, and adjusting HVAC operations in order to optimize energy usage and respond

The EMCS has been separately tested for each respective lighting control system for which it is installed to

B. Lighting Control System - Requires two or more components to be installed in the building to provide all of the functionality required to make up a fully functional and compliant lighting control.

The installed Lighting Control System complies with the requirements checked below; and all components of the system considered together as installed meet all applicable requirements for the application for which they are installed as required in Sections 130.0 through 130.5, Sections 140.6 through 140.8, Section 141.0, and Section 150.0(k).

CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance

January 2016

PART 2 Lighting Control Functional requirements: Check all that apply when verifying the installation of an EMCS or

A. All lighting controls and equipment have been installed in accordance with the manufacturer's instructions.

- i. Has program backup capabilities that prevent the loss of the device's schedule for at least 7 days, and the device's date and time for at least 72 hours if power is interrupted;
- ii. Is capable of providing manual override to each connected load and shall resume normally scheduled operation after manual override is initiated within 2 hours for each connected load: and
- iii. Incorporates an automatic holiday shutoff feature that turns off all connected loads for at least 24 hours and then resumes normally scheduled operation.

2. Astronomical Time-Switch Controls meeting all requirements for Astronomical Time-Switch Control devices in the Title 20 Appliance Efficiency Regulations, including the requirements below:

a. Meets the requirements of an automatic time-switch control;

- b. Has sunrise and sunset prediction accuracy within plus-or-minus 15 minutes and timekeeping accuracy within 5 minutes per year;
- c. Is capable of displaying date, current time, sunrise time, sunset time, and switching times for each step during programming; d. Has an automatic daylight savings time adjustment; and
- e. Has the ability to independently offset the on and off for each channel by at least 99 minutes

CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance

January 2016

Seismic Upgrades and **Building Alterations**

Kensington Community Center

59 Arlington Avenue Kensington, CA 94707

for the Kensington Police Protection & **Community Services District**

GLASS Associates, Inc. architecture&planning

337 17th Street, Suite 10(Oakland, CA 94612

T. 415.864.1234

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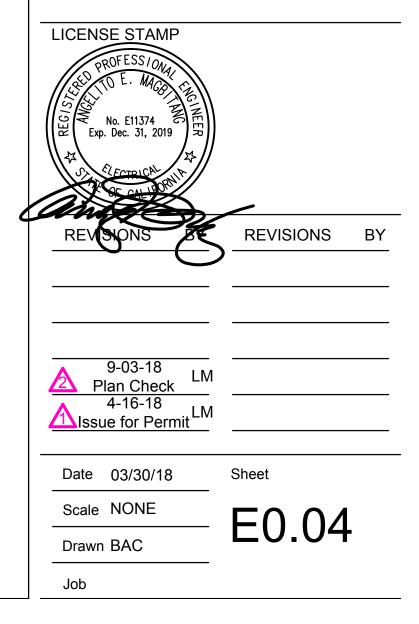
CONSULTANTS

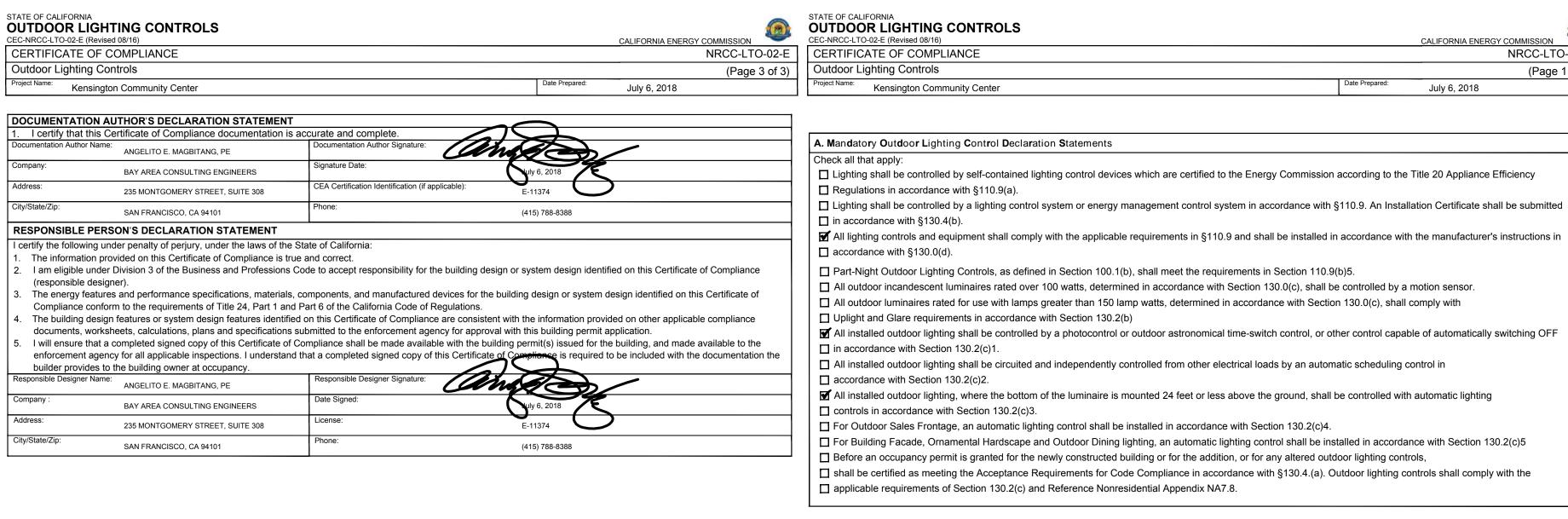


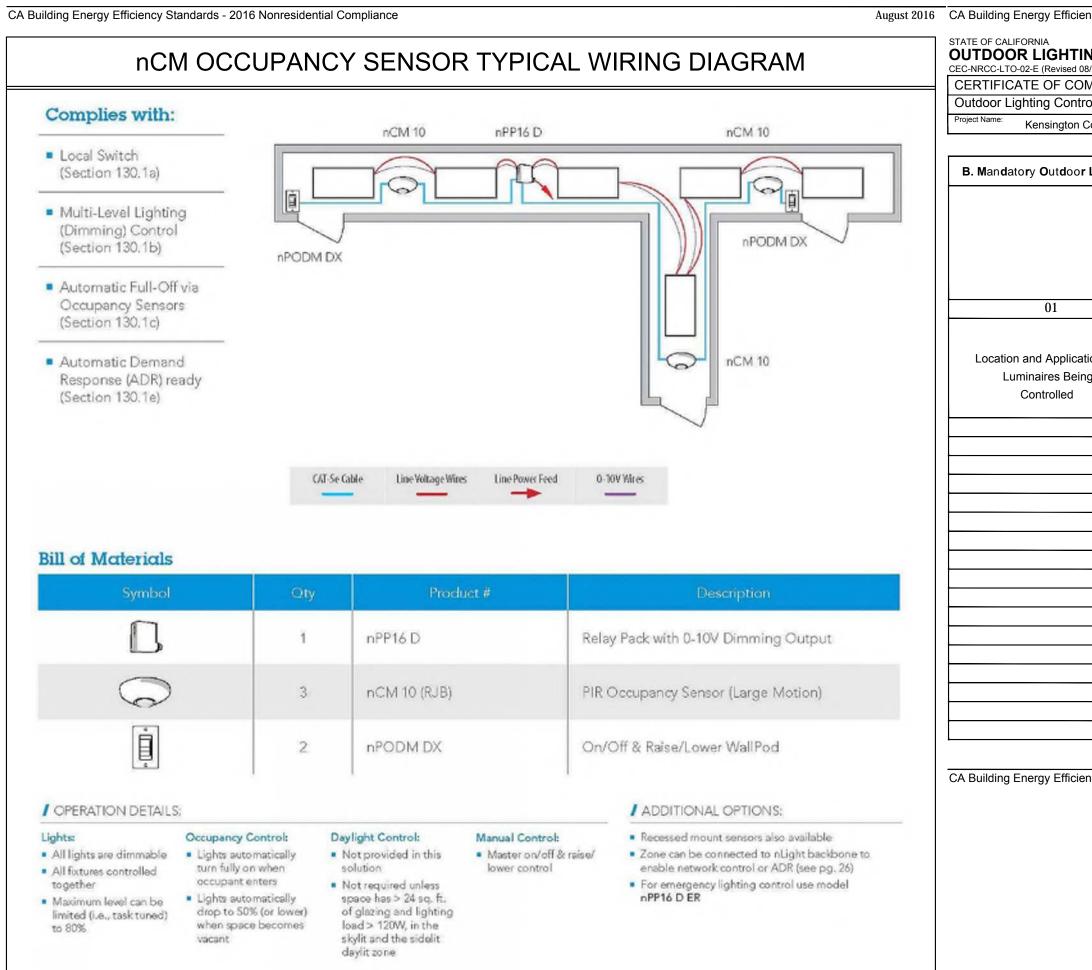
LECTRICAL ENGINEERS

LTING 235 MONTGOMERY STREET, SUITE 308 SAN FRANCISCO, CA 94104 **ENGINEERS** SAN FRANCISCO, CA 94 104 T (415) 788-8388 F (415) 373-9388

TITLE 24 INDOOR LIGHTING INSTALLATION FORMS AND OUTDOOR LIGHTING COMPLIANCE FORMS







A. Mandatory Outdoor Lighting Control Declaration Statements

Lighting shall be controlled by self-contained lighting control devices which are certified to the Energy Commission according to the Title 20 Appliance Efficiency

ate Prepare

July 6, 2018

All lighting controls and equipment shall comply with the applicable requirements in §110.9 and shall be installed in accordance with the manufacturer's instructions in

Part-Night Outdoor Lighting Controls, as defined in Section 100.1(b), shall meet the requirements in Section 110.9(b)5.

All outdoor incandescent luminaires rated over 100 watts, determined in accordance with Section 130.0(c), shall be controlled by a motion sensor.

All outdoor luminaires rated for use with lamps greater than 150 lamp watts, determined in accordance with Section 130.0(c), shall comply with

Uplight and Glare requirements in accordance with Section 130.2(b)

I all installed outdoor lighting shall be controlled by a photocontrol or outdoor astronomical time-switch control, or other control capable of automatically switching OFF

All installed outdoor lighting, where the bottom of the luminaire is mounted 24 feet or less above the ground, shall be controlled with automatic lighting

For Outdoor Sales Frontage, an automatic lighting control shall be installed in accordance with Section 130.2(c)4.

For Building Facade, Ornamental Hardscape and Outdoor Dining lighting, an automatic lighting control shall be installed in accordance with Section 130.2(c)5

Before an occupancy permit is granted for the newly constructed building or for the addition, or for any altered outdoor lighting controls, shall be certified as meeting the Acceptance Requirements for Code Compliance in accordance with §130.4.(a). Outdoor lighting controls shall comply with the

applicable requirements of Section 130.2(c) and Reference Nonresidential Appendix NA7.8.

I. Outdoor Li	ighting Schedule and Field Inspection Energy C	hecklist
	Luminaire Schedule	
01	02	03
Name or Item Tag	Complete Luminaire Description	Watts per Luminaire
D	10" Ø LED DOWNLIGHT	40
Н	4" Ø DECORATIVE LED LIGHTS	70
		INS

iency Standards - 2016 Nonresidential Compliance	August 2016
OMPLIANCE	NRCC-LTO-02-E
trols	(Page 2 of 3)
n Community Center	Date Prepared: July 6, 2018

B. Mandatory Outdoor Lighting Control Schedule and Field Inspection Checklist

Outdoo	or Lighting Control Schedule				nat apply	omplying , or leave e mpted)		(if Acceptance Test Required	רופומ וווצטפכנטו	
	02	03	±€]4	₽\$5	₿6	₽7	₩8	\$€9	10	1	1
ntion of ng	Type/ Description of Lighting Control (i.e. outdoor motion sensor, outdoor photocontrol, outdoor astronomical time- switch control, automatic scheduling control, part-night outdoor lighting control)	# of Units	Ϋ%' \$"&A	Ϋ́ %' \$"&A	Ϋ%'\$"&fl	Ϋ́ %' \$"&A	Ϋ́%' \$ "&A	Ϋ́%' \$ "&A		Pass	Fail

16 CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance

STATE OF CALIFORNIA OUTDOOR LIGHTING -NRCC-LTO-01-E (Revised 04/16

CERTIFICATE OF COMPLIANCE Outdoor Lighting

ct Nan	^{ne:} Kensington Co	mmunity Center
DO	CUMENTATION AU	THOR'S DECLARATION STATEMENT
1.	I certify that this Ce	rtificate of Compliance documentation is accurate and
Docu	mentation Author Name:	ANGELITO E. MAGBITANG, PE
Com	pany:	BAY AREA CONSULTING ENGINEERS
Addr	ess:	235 MONTGOMERY STREET, SUITE 308
City/	State/Zip:	SAN FRANCISCO, CA 94101
RE	SPONSIBLE PERS	ON'S DECLARATION STATEMENT
1. 2. 3. 4. 5.	The information prov I am eligible under E (responsible designe The energy features Compliance conform The building design documents, workshe I will ensure that a c enforcement agency	er penalty of perjury, under the laws of the State of Califo rided on this Certificate of Compliance is true and correct. Division 3 of the Business and Professions Code to accep er). and performance specifications, materials, components, n to the requirements of Title 24, Part 1 and Part 6 of the 0 features or system design features identified on this Certi eets, calculations, plans and specifications submitted to th ompleted signed copy of this Certificate of Compliance sh / for all applicable inspections. I understand that a comple he building owner at occupancy.
	, and the second s	ANGELITO E. MAGBITANG, PE
Com	pany :	BAY AREA CONSULTING ENGINEERS
ام ام	ress:	235 MONTGOMERY STREET, SUITE 308
Addi		

CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance

August 2016 CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance

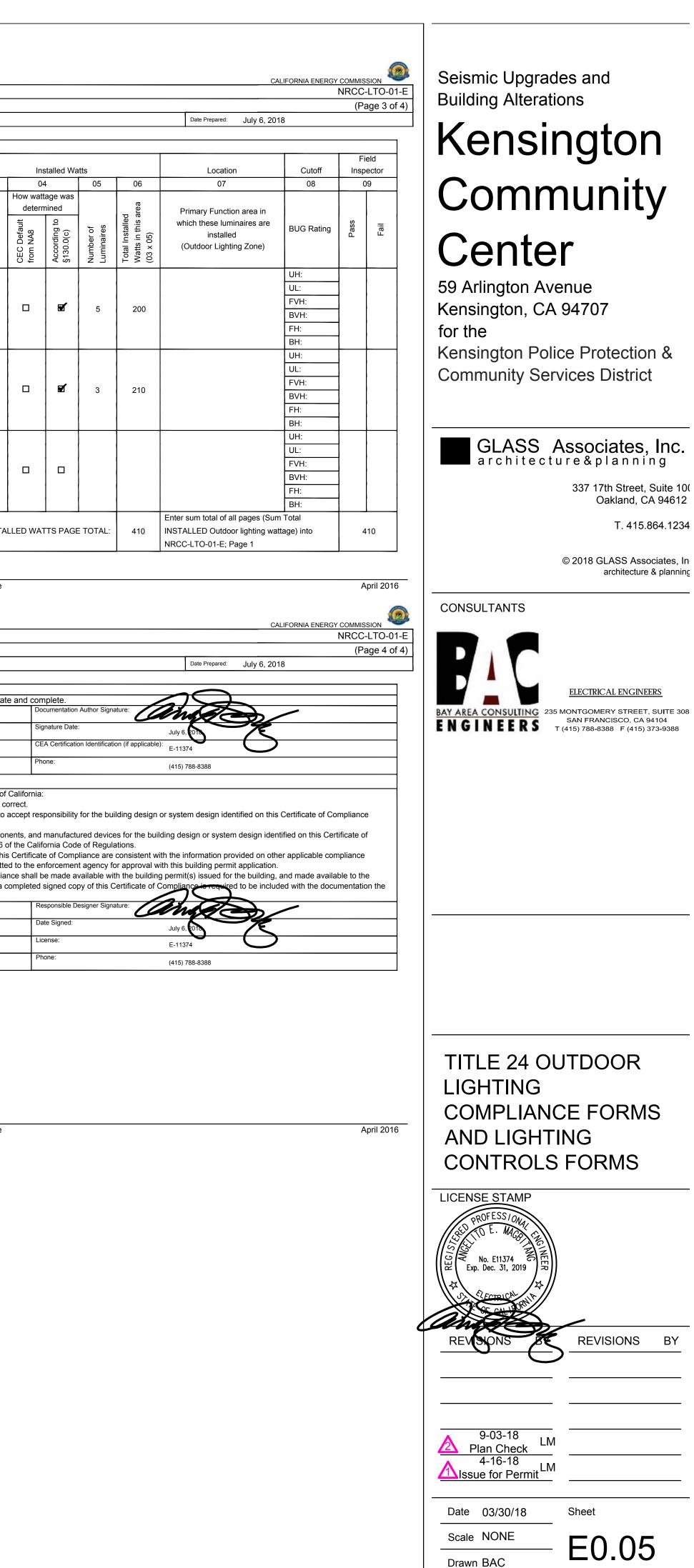
OUTDOOR LIGHTING CERTIFICATE OF COMPLIANCE Outdoor Lighting

STATE OF CALIFORNIA

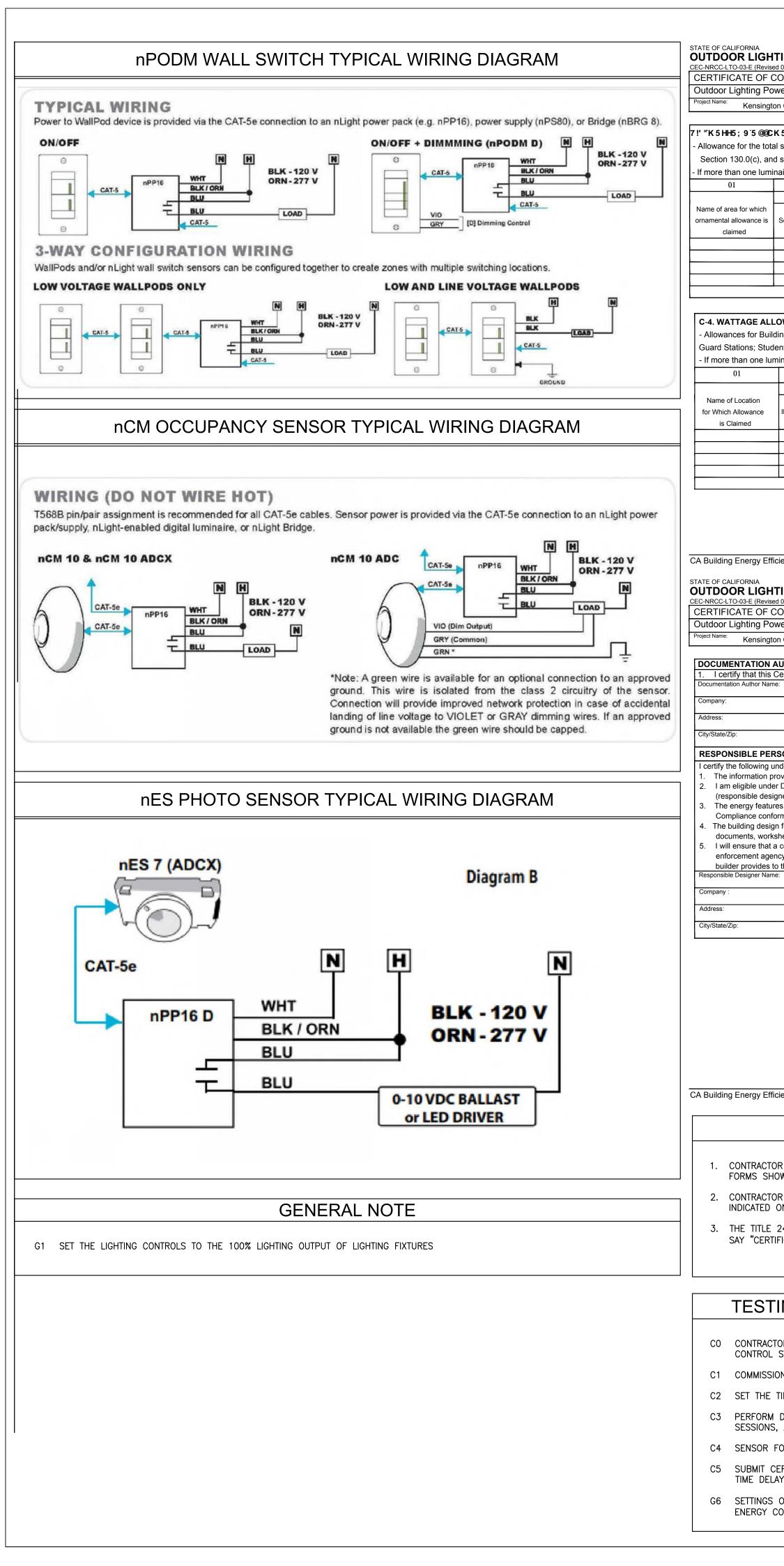
NRCC-LTO-02-E

(Page 1 of 3)

Kensington Community Center



Job



TING POWER ALLOWANCES	STATE OF CALIFORNIA OUTDOOR LIGHTING POWER ALLOWANCES	irades and			
101/16) CALIFORNIA ENERGY COMMISSION OMPLIANCE NRCC-LTO-03-E ver Allowances (Page 3 of 4)	B-E CERTIFICATE OF COMPLIANCE NRCC-LTO-03-E Building Alterations				
n Community Center Date Prepared: July 6, 2018	Project Name:				
、5 B7 9 D9 F GE1 5 F9 : CCH C: `<5 F8 G7 5 D9 5 F95 'fCfbUa YbHJ '@[\ h]b[どË HUV Y %(\$"+!6 site illuminated hardscape area. Luminaires qualifying for this allowance shall be rated for 100 watts or less as determined in accordance with	A. OUTDOOR LIGHTING POWER ALLOWANCE SUMMARY 1. General Hardscape Lighting Power Allowance (Site Total from Section B of NRCC-LTO-03-E) 1.	sington			
shall be post-top luminaires, lanterns, pendant luminaires, or chandeliers. aire type is used per location, use multiple rows for that location	2. Additional Specific "use it or lose it" Lighting Power Allowances listed in each of these cells shall be identical to total allowed watts determined in Section C-1 to C-4 of NRCC-LTO-03-E.	munity			
02 03 04 05 06 07 08 09 10 ALLOTTED WATTS DESIGN WATTS		munity			
Wattage Allotted Luminaire Square Feet of Allowance per Watts Code or Hardscape Square Feet of Square Feet of Output:	from Section C-1 (SALES FRONTAGE) from Section C-2 (ORNAMENTAL LIGHTING) from Section C-3 from Section C-4. = 2. 3. Sum Total ALLOWED Outdoor Lighting Wattage (add rows 1 and 2) 3. 3. 3. 3.	' or			
Hardscape Square Foot (02 x 03) Symbol Luminaire Description Quantity Luminaire (07 x 08) (smaller of 04 or 09) Image: Constraint of the symbol Image: Consthe symbol Image: Constraint of					
	B. GENERAL HARDSCAPE LIGHTING POWER ALLOWANCE FROM TABLE 140.7-A				
Sum total allowance for ornamental lighting on the site:.	Area Wattage Allowance (AWA) Linear Wattage Allowance (LWA) Initial Wattage Allowance (IWA) Total General Hardscape Lighting Allowance Kensington, 01 02 03 04 05 06 07 08 09	CA 94707			
OWANCE PER SQUARE FOOT OF SPECIFIC AREA - Table 140.7-B ing Facades; Outdoor Sales Lots; Vehicle Service Station Hardscape; Vehicle Service Station Canopies; Sales Canopies; Non-sales Canopies; Tunnels;	Name of Area	Police Protection &			
ent Pick-up/Drop-off zone: Outdoor Dining; Special Security Lighting for Retail Parking and Pedestrian Hardscape. inaire type is used per location, use multiple rows for that location	CONC PAVING COMMUNITY COMMUNITY	Services District			
02 03 04 05 06 07 08 09 10 ALLOTTED WATTS					
Wattage Allotted Luminaire Illuminated Area Allowance per Watts Code or of Application Square Foot (02 x 03) Symbol Luminaire Description Quantity Luminaire (07 x 08)		S Associates, Inc.			
		ecture&planning			
		337 17th Street, Suite 10 Oakland, CA 94612			
Sum total allowance for specific area on the site:		T. 415.864.123			
		© 2018 GLASS Associates,			
siency Standards - 2016 Nonresidential Compliance January 2016	6 CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance January 2016	architecture & plannin			
	STATE OF CALIFORNIA OUTDOOR LIGHTING POWER ALLOWANCES				
d 01/16) CALIFORNIA ENERGY COMMISSION OMPLIANCE NRCC-LTO-03-E	CEC-NRCC-LTO-03-E (Revised 01/16) CERTIFICATE OF COMPLIANCE CERTIFICATE OF COMPLIANCE	1			
ver Allowances (Page 4 of 4) n Community Center July 6, 2018	Outdoor Lighting Power Allowances (Page 2 of 4) Project Name: Kensington Community Center				
AUTHOR'S DECLARATION STATEMENT Certificate of Compliance documentation is accurate and complete.	7 "588+++CB5@11G9`++1CF`@CG9`++1`CI H8CCF`@; <h+b; 5b79g`:="" 9f`5@0ck="" `dck="" cf`gd97="7`5DD@75H+CBG</td"><td>ELECTRICAL ENGINEERS</td></h+b;>	ELECTRICAL ENGINEERS			
ANGELITO E. MAGBITANG, PE	Image: Description of the additional specific outdoor lighting power allowance shall be the smaller of the allowed lighting power or the actual lighting power used. BAY AREA CONSULTINE Image: Description of the additional specific outdoor lighting power allowance shall be the smaller of the allowed lighting power or the actual lighting power used. BAY AREA CONSULTINE Image: Description of the additional specific outdoor Lighting Zone (OLZ) that is documented on page 1 of NRCC-LTO-01-E to calculate the specific wattage allowances. End of the additional specific outdoor Lighting Zone (OLZ) that is documented on page 1 of NRCC-LTO-01-E to calculate the specific wattage allowances. End of the additional specific outdoor Lighting Zone (OLZ) that is documented on page 1 of NRCC-LTO-01-E to calculate the specific wattage allowances. End of the additional specific outdoor Lighting Zone (OLZ) that is documented on page 1 of NRCC-LTO-01-E to calculate the specific wattage allowances. End of the additional specific outdoor Lighting Zone (OLZ) that is documented on page 1 of NRCC-LTO-01-E to calculate the specific wattage allowances. End of the additional specific outdoor Lighting Zone (OLZ) that is documented on page 1 of NRCC-LTO-01-E to calculate the specific wattage allowances. End of the additional specific outdoor Lighting Zone (OLZ) that is documented on page 1 of NRCC-LTO-01-E to calculate the specific wattage allowances. End of the additional specific outdoor Lighting Zone (DLZ) that is documented on page 1 of NRCC-LTO-01-E to calculate the specific wattage allowances.	S 235 MONTGOMERY STREET, SUITE 30 SAN FRANCISCO, CA 94104 T (415) 788-8388 F (415) 373-9388			
BAY AREA CONSULTING ENGINEERS July 6, 2018 235 MONTGOMERY STREET, SUITE 308 CEA Certification Identification (if applicable): E-11374	7!%"K5HH5;9`5@@CK5B79`D9F`5DD@#75H+CB`Ë`HUV`Y`%{\$"+!6				
SAN FRANCISCO, CA 94101 Phone: (415) 788-8388 SON'S DECLARATION STATEMENT (415) 788-8388	Available only for qualifying locations, which include Building Entrances or Exits; Primary Entrances to Senior Care Facilities, Police Stations, Hospitals, Fire Stations, and Emergency Vehicle Facilities; Drive Up Windows; Vehicle Service Station Uncovered Fuel Dispenser, ATM Machine Lighting				
nder penalty of perjury, under the laws of the State of California: ovided on this Certificate of Compliance is true and correct. r Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance	If more than one luminaire type is used per location, use multiple rows for that location 01 02 03 04 05 06 07 08 09 10				
iner). es and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of rm to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.	ALLOTTED WATTS DESIGN WATTS Name of Location Number of Allowance per Allotted Luminaire				
n features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance heets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.	Name of Location Number of Allowance per Allotted Luminaire Luminaire Allowed Watts for Which Allowance Qualifying Qualifying Watts Code or Luminaire Luminaire Watts per Design Watts (smaller of 04 or is Claimed Locations Location (02 x 03) Symbol Luminaire Description Quantity Luminaire (07 x 08) 09)				
completed signed copy of this Certificate of Compliance shall be made available with the building permit(s) issued for the building, and made available to the cy for all applicable inspections. I understand that a completed signed copy of this Certificate of Compliance is required to be included with the documentation the o the building owner at occupancy.					
ANGELITO E. MAGBITANG, PE BAY AREA CONSULTING ENGINEERS Responsible Designer Signature: Date Signed: July 6, 2018					
235 MONTGOMERY STREET, SUITE 308 License: E-11374	Sum total allowance per application on this site:				
SAN FRANCISCO, CA 94101 (415) 788-8388	C-2. WATTAGE ALLOWANCE PER UNIT LENGTH (Sales Frontage) from Table 140.7-B				
	01 02 03 04 05 06 07 08 09 10 ALLOTTED WATTS				
	Name of Location Wattage Allotted Luminaire for Which Allowance Linear Feet of Allowance per Watts Code or is Claimed Sales Frontage Linear Foot (02 x 03) Symbol Luminaire Description Quantity Luminaire (07 x 08) 09)				
		OUTDOOR			
ciency Standards - 2016 Nonresidential Compliance January 2016	6 CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance Sum total allowance for sales frontage on the site: January 2016 COMPLIA				
	EORMS				
ACCEPTANCE DOCUMENTS					
R AND MANUFACTURER REPRESENTATIVE OF LIGHTING CONTROL SYSTEM SHALL PERFORM ALL TASKS INDICATED ON ALL DWN ON THIS DRAWING.	1. nLIGHT CONTROLS. LICENSE STAMP 2. WATTSTOPPER DLM. PROFESS/ONAL				
R AND MANUFACTURER REPRESENTATIVE OF LIGHTING CONTROL SYSTEM SHALL COMPLETE ALL ITEMS AND TASKS ON THE FORMS SHOWN ON THIS PAGE AND SHALL ATTEST AND SIGN THESE FORMS.	3. OR EQUAL.				
24 FORMS THAT CONTRACTOR AND MANUFACTURER REPRESENTATIVE OF LIGHTING CONTROL SYSTEM ARE FORMS THAT					
FICATE OF INSTALLATION" OR AS NOTED ON THE FORMS.	PRODUCT DATA SHEETS AND WIRING DIAGRAM SUBMITTALS				
	S1 SUBMIT PRODUCT DATA SHEETS AND ELECTRICAL MATERIALS TO BE USED ON THE PROJECT FOR REVIEW AND APPROVAL.	ALL			
ING AND COMMISSIONING OF LIGHTING CONTROL SYSTEMS	S2 SUBMIT WIRING DIAGRAMS OF LIGHTING CONTROL SYSTEM INDICATING THE SEQUENCE OF OPERATION AND WIRING BETWEEN LIGHTING CONTROL DEVICES, LIGHT FIXTURES AND NORMAL AND EMERGENCY POWER SOURCES. SUBMIT WIRING DIAGRAMS IN CAD AND PDF FOR REVIEW AND APPROVAL.	REVISIONS BY			
OR AND MANUFACTURER REPRESENTATIVE OF LIGHTING CONTROL SYSTEM SHALL TEST AND COMMISSION THE LIGHTING	S3 ALL LIGHTING CONTROL DEVICES ARE WHITE COLOR, UNLESS OTHERWISE NOTED.				
SYSTEM AS SPECIFIED HEREIN. ON AND TEST THE LIGHTING CONTROL SYSTEM.					
TIME DELAY OF OCCUPANCY SENSORS TO 15 MINUTES BEFORE LIGHTS ARE TO TURNED OFF.	BRANCH WIRING 9-03-18 Plan Check	LM			
DEMONSTRATION AND TRAINING OF THE LIGHTING CONTROL SYSTEM TO THE FACILITY ENGINEERS AND STAFF FOR TWO AT TWO HOURS PER SESSION.	B1 NEW WIRING SHALL BE INSTALLED IN RACEWAYS AND CONCEALED IN CEILING SPACES AND WALLS IN AREAS WITH SUSPENDED CEILING SPACES AND FURRED WALLS. EXPOSED CONDUITES ARE THE BASIS IF INSTALLATION IN AREAS WITHOUT SUSPENDED CEILING SPACES				
OR AUTOMATIC ON SHALL HAVE NO TIME DELAY.	SUCH AS THE OVERHEAD LINE SHOPS, OVERHEAD LINES, ELECTRICAL ROOM, CENTRAL WAREHOUSE, AND SIMILAR SPACES.	Chart			
ERTIFIED TEST AND COMMISSIONING REPORT OF THE LIGHTING CONTROL SYSTEM INDICATING EACH ROOM, EACH DEVICE, AY SETTING, AUTOMATIC ON, ALL DEVICES ARE WORKING, DIMMING MODULES, MANAGER, ETC.	B2 CONDUCTORS FOR 0-10V DIMMING CONTROL CAN OCCUPY THE RACEWAYS OF 277V LIGHTING CIRCUITS PROVIDED THAT THE VOLTAGE INSULATION CLASS OF THE 0-10V CONDUCTORS IS 600V OR EQUAL TO THE VOLTAGE INSULATION CLASS OF THE 277V LIGHTING CIRCUITS. CONDUCTORS IS 600V OR EQUAL TO THE VOLTAGE INSULATION CLASS OF THE 277V LIGHTING CIRCUITS AND A CONDUCTORS IS 600V OR EQUAL TO THE VOLTAGE INSULATION CLASS OF THE 277V LIGHTING CIRCUITS.	Sheet			
OF PHOTOSENSORS SHALL BE PER LIGHTING CONTROL SYSTEM MANUFACTURER'S RECOMMENDATIONS AND PER CALIFORNIA	Drawn BAC	— E0.06			
	BASIS OF DESIGN: nLIGHT CONTROLS				

STATE OF CALIFORNIA OUTDOOR LIGHTING ACCEPTANCE TESTS

roject Address:	City:
roject Name: Kensington Community Center	Enforcement
Dutdoor Lighting Acceptance Tests	
CERTIFICATE OF ACCEPTANCE	
C-NRCA-LTO-02-A (Revised 04/16)	

Project Address:	59 Arlington Avenue	City:	Ker
			-

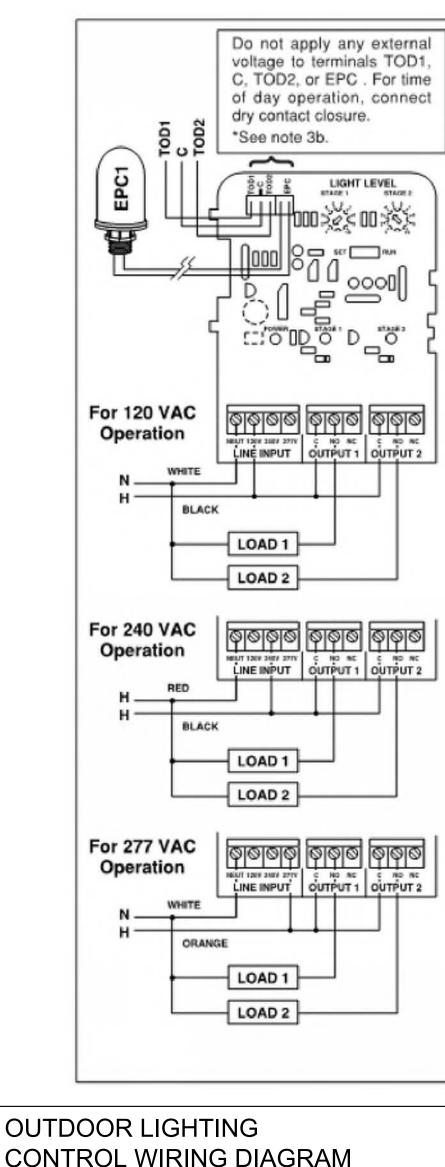
- I certify the following under penalty of perjury, under the laws of the Stat I am the Field Technician, or the Field Technician is acting on my b
- information provided on this Certificate of Acceptance. I am eligible under Division 3 of the Business and Professions Cod
- system design, construction or installation of features, materials, c identified on this Certificate of Acceptance and attest to the declara The information provided on this Certificate of Acceptance substan Certificate of Acceptance complies with the acceptance requirement
- enforcement agency, and conforms to the applicable acceptance re Appendix NA7. I have confirmed that the Certificate(s) of Installation for the constru
- been completed and is posted or made available with the building p I will ensure that a completed, signed copy of this Certificate of Acc permit(s) issued for the building, and made available to the enforce signed copy of this Certificate of Acceptance is required to be inclu-

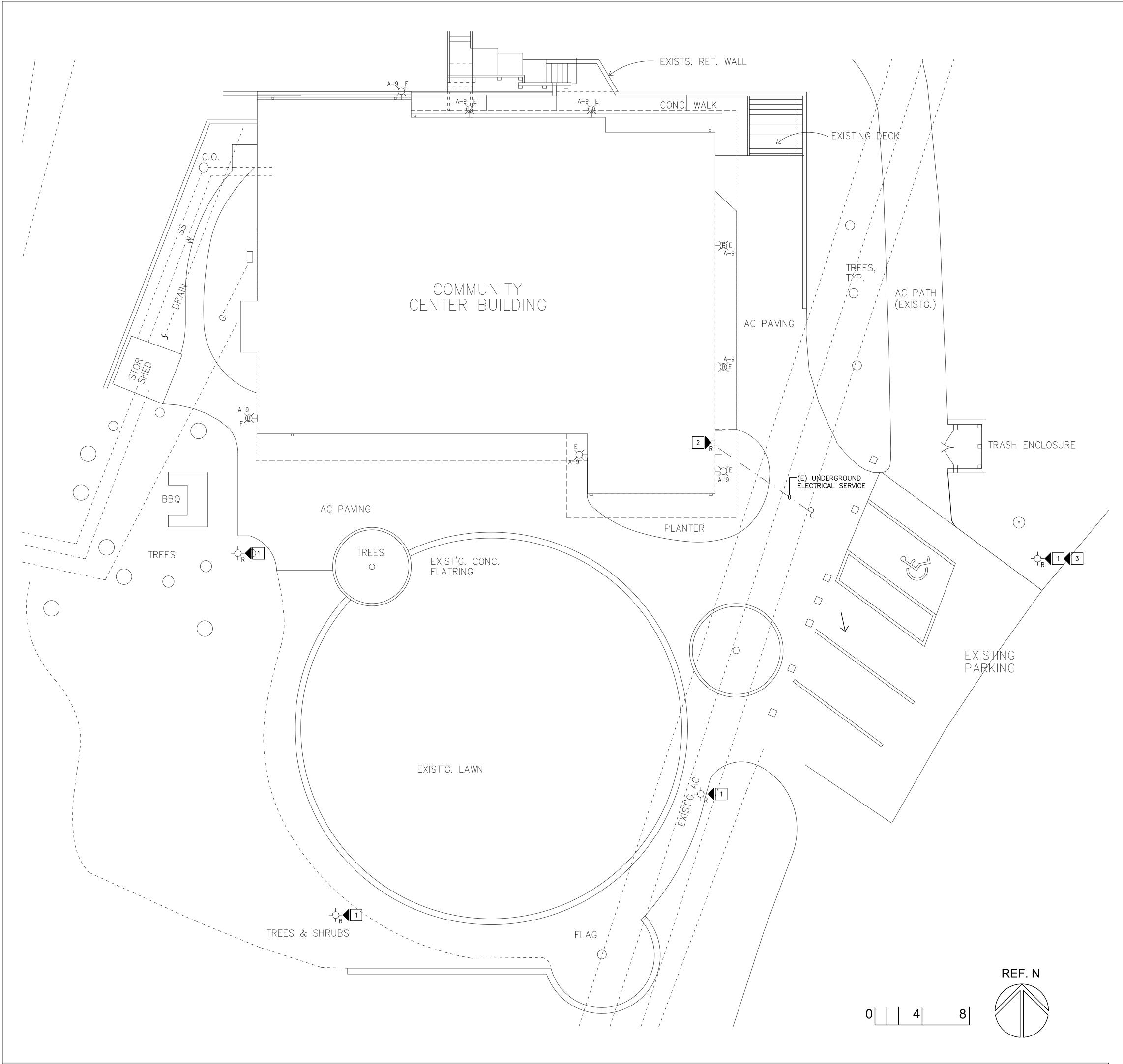
Address:

CALIFORNIA ENERGY COMMISSION	STATE OF CALIFORNIA OUTDOOR LIGHTING ACCEPTANCE TESTS CEC-NRCA-LTO-02-A (Revised 04/16) CERTIFICATE OF ACCEPTANCE NRCA-LTO-02-A	STATE OF CALIFORNIA OUTDOOR LIGHTING CEC-NRCI-LTO-01-E (Revised 01/16) CERTIFICATE OF INSTALLATION	
(Page 3 of 4) Agency: Permit Number:	Outdoor Lighting Acceptance Tests (Page 1 of 4) Project Name: Kensington Community Center	Outdoor Lighting (F Project Name: Kensington Community Center	Building Alterations
sington, CA Zip Code: 94707	Project Address: 59 Arlington Avenue City: Kensington, CA Zip Code: 94707	Project Address: 59 Arlington Avenue City: Kensington, CA Zip Code: GENERAL INFORMATION	⁹⁴⁷⁰⁷ Kensington
r.	Note: Submit one Certificate of Acceptance for each system Enforcement Agency Use: Checked by/Date that must demonstrate compliance. Enforcement Agency Use: Checked by/Date	DATE OF BUILDING PERMIT: PERMIT NUMBER: BUILDING TYPE: Image: Contract of the second	
to the area lit by the controlled lights near the motion	NA7.8.1 and NA7.8.2 Motion Sensor	PHASE OF CONST CTION: Image: New Construction Image: Addition Image: Addition	
ne sensor.	A. Construction Inspection 01. Motion Sensor Construction Inspection	SCOPE OF RESPONSIBILITY Enter the date of approval by enforcement agency of the Certificate of Compliance that provides the	
e of the controlled area.	 Motion sensor has been located to minimize false signals. Sensor is not triggered by motion outside of controlled area. 	specifications for the energy efficiency measures for the scope of responsibility for this Installation Date: Certificate.	Center
	Desired motion sensor coverage is not blocked by obstruction that could adversely affect performance.	In the table below, identify all construction documents that show that the outdoor lighting and controls were installed it was proposed in the Certificates of Compliance. Description Applicable Sheets or Pages, Tables, Date App	59 Ariington Avenue
	B. Functional Testing 01. Simulate motion in area under lights controlled by the motion sensor. Verify and document the following: □ Status indicator operates correctly. □ Lights controlled by motion sensors turn on immediately upon entry into the area lit by the controlled lights near the motion sensor.	Document Title or Description	
ig including both ON schedule and OFF schedule, for	□ Signal sensitivity is adequate to achieve desired control. 02. Simulate no motion in area with lighting controlled by the sensor. Verify and document the following: □ Lights controlled by the sensor reduce light output within a maximum of 20 minutes from the start of an unoccupied condition.		
	 The sensor does not trigger a false "on" from movement outside of the controlled area. Signal sensitivity is adequate to achieve desired control. 		GLASS Associates, Inc.
ed off. ned on in accordance with the ON schedule.	NA7.8.3 and NA7.8.4 Photocontrol		337 17th Street, Suite 10(Oakland, CA 94612
ned off in accordance with the OFF schedule.	C. Construction Inspection 01. Verify and document the following:		T. 415.864.1234
	 The photocontrol is installed. D. Functional Testing 01. Verify and document the following: 		© 2018 GLASS Associates, In architecture & planning
	 During daytime simulation, all controlled outdoor lights are turned off. During nighttime simulation, all controlled outdoor lights are turned on. 		CONSULTANTS
			ELECTRICAL ENGINEERS
npliance April 2016	CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance April 2016		BAY AREA CONSULTING ENGINEERS 235 MONTGOMERY STREET, SUITE 308 SAN FRANCISCO, CA 94104 T (415) 788-8388 T (415) 788-8388 F (415) 373-9388
	STATE OF CALIFORNIA		
CALIFORNIA ENERGY COMMISSION	OUTDOOR LIGHTING ACCEPTANCE TESTS CALIFORNIA ENERGY COMMISSION CEC-NRCA-LTO-02-A (Revised 04/16) CALIFORNIA ENERGY COMMISSION CERTIFICATE OF ACCEPTANCE NRCA-LTO-02-A	STATE OF CALIFORNIA	nuary 2016
(Page 4 of 4) Agency: Permit Number:	Outdoor Lighting Acceptance Tests (Page 2 of 4) Project Name: Kensington Community Center	OUTDOOR LIGHTING CEC-NRCI-LTO-01-E (Revised 12/15) CERTIFICATE OF INSTALLATION NRC	<u>ON</u> I-LTO-01-E
sington, CA	Project Address: City: Zip Code: 59 Arlington Avenue Kensington, CA 94707		2age 2 of 2)
	NA7.8.5 and NA7.8.6 Astronomical Time-Switch Control	Project Address: 59 Arlington Avenue City: Kensington, CA Zip Code:	94707
Documentation Author Signature:	E. Construction Inspection 01. Prior to Functional Testing, confirm and document the following:	DOCUMENTATION AUTHOR'S DECLARATION STATEMENT 1. I certify that this Ceritifcate of Installation documentation is accurate and complete. Documentation Author Name: Documentation Author Name:	
April 16, 2018 CEA/ATT Certification Identification (If applicable): E-11374 Phone:	Image: Strain of the relational result g, command document the following. Image: Strain of the relational result g, command document the following. Image: Strain of the relational result g, command document the following. Image: Strain of the relational result g, command document the following. Image: Strain of the relational result g, command document the following. Image: Strain of the relational result g, command document the following. Image: Strain of the relational result g, command document the following. Image: Strain of the relational result g, command document the following. Image: Strain of the relational result g, command document the following. Image: Strain of the relational result g, command document the following. Image: Strain of the relational result g, command document the following. Image: Strain of the relational result g, command document the following. Image: Strain of the relational result g, command document the following. Image: Strain of the relational result g, command document the following. Image: Strain of the relational result g, command document the following. Image: Strain of the relational result g, command document g, command docum	Documentation Author Name: ANGELITO E. MAGBITANG, PE Documentation Author Signature. Documentation Author Company Name: BAY AREA CONSULTING ENGINEERS Date Signed: April 16, 2018 Address: 235 MONTGOMERY STREET. SUITE 308 CEA Certification Identification (If applicable):	
(415) 788-8388 te of California:	Demonstrate and document for the time switch programming including ON schedule and OFF schedule, for weekday, weekend, and holidays (if applicable).	City/State/Zip: SAN FRANCISCO, CA 94101 Phone: (415) 788-8388	
and correct. d on this Certificate of Acceptance (Field Technician).	Verify the correct time and date is properly set in the control.	RESPONSIBLE PERSON'S DECLARATION STATEMENT I certify the following under penalty of perjury, under the laws of the State of California: 1. The information provided on this Certificate of Installation is true and correct.	
eptance complies with the applicable acceptance requirements ent agency, and conforms to the applicable acceptance al Appendix NA7.	F. Functional Testing 01. Verify and document the following:	2. I am eligible under Division 3 of the Business and Professions Code in the applicable classification to accept responsible system design, construction, or installation of features, materials, components, or manufactured devices for the scope of	
uction or installation identified on this Certificate of Acceptance has I has been posted or made available with the building permit(s) Field Technician Signature:	 During daytime simulation, all controlled outdoor lights are turned off. During nighttime simulation, all controlled outdoor lights are turned on in accordance with the astronomical schedule. During nighttime simulation, all controlled outdoor lights are turned off in accordance with the programmed schedule. 	 identified on this Certificate of Installation and attest to the declarations in this statement (responsible builder/installer), otherwise I am an authorized representative of the responsible builder/installer. 3. The constructed or installed features, materials, components or manufactured devices (the installation) identified on this Certificate of Installation conforms to all applicable codes and regulations, and the installation conforms to the requirement of the requirement of the applicable codes and regulations. 	ients
Position with Company (Title): ATT Certification Identification (if applicable):		 given on the plans and specifications approved by the enforcement agency. I reviewed a copy of the Certiticate of Compliance approved by the enforcement agency that identifies the specific requirement for the scope of construction or installation identified on this Certificate of Installation, and I have ensured that the requirement apply to the construction or installation have been met. 	
Phone: Date Signed:	NA7.8.7 and NA7.8.8 Part-Night Outdoor Lighting Control	 I will ensure that a completed signed copy of this Certificate of Installation shall be posted, or made available with the b permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections. I underst 	
te of California: behalf as my employee or my agent and I have reviewed the	G. Construction Inspection 01. Prior to Functional Testing for time based control type, confirm and document the following: Verify the part night outdoor lighting control is installed	completed signed copy of this Certificate of Installation is required to be included with the documentation the builder protection of the building owner at occupancy. Responsible Builder/Installer Name: Responsible Builder/Installer Signature:	FORMS
le in the applicable classification to accept responsibility for the opponents, or manufactured devices for the scope of work	 Verify the part-night outdoor lighting control is installed. Verify the control is programmed with acceptable schedules. Demonstrate and desument for the lighting control programming including both ON schedule and OEE schedule, for 	Company Name: (Installing Subcontractor or General Contractor or Builder/Owner) Position With Compnay (Title): Address: CSLB License:	
ations in this statement (responsible acceptance person). atiates that the construction or installation identified on this into indicated in the plans and specifications approved by the equirements and procedures specified in Reference Nonresidential	 Demonstrate and document for the lighting control programming including both ON schedule and OFF schedule, for weekday, weekend, and holidays (if applicable). Verify the correct time and date is properly set in the control. Prior to Functional Testing for occupancy-based control type, verify and document the following: 	City/State/Zip: Phone: Date Signed:	LICENSE STAMP
uction or installation identified on this Certificate of Acceptance has permit(s) issued for the building. septance shall be posted, or made available with the building ement agency for all applicable inspections. I understand that a	 Sensor has been located to minimize false signals. Sensor is not triggered by motion outside of adjacent area. Desired sensor coverage is not blocked by obstructions that could adversely affect performance. 		No. E11374 Exp. Dec. 31, 2019
Responsible Acceptance Person Signature:	H. Functional Testing		ZZ CTPICAL ZZ
Position with Company (Title):	01. For time-based control type, verify and document the following: □ During daytime simulation, all controlled outdoor lights are turned off.		antes
CSLB License: Phone: Date Signed:	 During nighttime simulation, all controlled outdoor lights are turned on in accordance with the ON schedule. During nighttime simulation, all controlled outdoor lights are turned off or reduced in light level in accordance with the OFF schedule. For occupancy-based control type, verify and document the following: 		REVISIONS BY
npliance April 2016	CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance April 2016		9-03-18 Plan Check LM 4-16-18 Issue for Permit LM
		CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance Jan	Date 03/30/18 Sheet
			Drawn BAC

STATE OF CALIFORNIA OUTDOOR LIGHTING ACCEPTANCE TESTS CEC-NRCA-LTO-02-A (Revised 04/16)	CALIFORNIA ENERGY COMMISSION	STATE OF CALIFORNIA OUTDOOR LIGHTING ACCEPTANCE TESTS CEC-NRCA-LTO-02-A (Revised 04/16) CALIFORNIA ENERGY COMMISSION CALIFORNIA ENERGY COMMISSION	STATE OF CALIFORNIA OUTDOOR LIGHTING CEC-NRCI-LTO-01-E (Revised 01/16) CALIFORNIA ENERGY COMMISSION	Seismic Upgrades and
CERTIFICATE OF ACCEPTANCE Outdoor Lighting Acceptance Tests	NRCA-LTO-02-A (Page 3 of 4)	CERTIFICATE OF ACCEPTANCENRCA-LTO-02-AOutdoor Lighting Acceptance Tests(Page 1 of 4)	CERTIFICATE OF INSTALLATION NRCI-LTO-01-E Outdoor Lighting (Page 1 of 2)	Building Alterations
Rensington Community Center	Zip Code: 04707	Project Name: Kensington Community Center Enforcement Agency: Permit Number: Project Address: F0 Address: City: Zip Code: 0.1707	Project Name: Kensington Community Center Enforcement Agency: Permit Number: - Project Address: 59 Arlington Avenue City: Kensington, CA Zip Code: 94707	Koncington
59 Arlington Avenue	Kensington, CA 94707	59 Arlington Avenue Kensington, CA 94707	GENERAL INFORMATION	Kensington
Step 1: Simulate motion in area under lights controlled by the Status indicator operates correctly.	sensor.	Note: Submit one Certificate of Acceptance for each system Enforcement Agency Use: Checked by/Date that must demonstrate compliance. Enforcement Agency Use: Checked by/Date	DATE OF BUILDING PERMIT: PERMIT NUMBER: BUILDING TYPE: Image: Constraint of the second secon	
Lights controlled by sensors turn on immediately upon er sensor.	ntry into the area lit by the controlled lights near the motion	NA7.8.1 and NA7.8.2 Motion Sensor	PHASE OF CONST CTION: Image: New Construction Image: Addition Image: Addition	Community
☐ Signal sensitivity is adequate to achieve desired control. Step 2: Simulate no occupancy in areas with lighting controlle	d by the sensor	A. Construction Inspection	SCOPE OF RESPONSIBILITY Enter the date of approval by enforcement agency of the Certificate of Compliance that provides the	
Lights controlled by the sensor are off or reduces light ou unoccupied condition.		01. Motion Sensor Construction Inspection Image: Description of the sensor has been located to minimize false signals.	specifications for the energy efficiency measures for the scope of responsibility for this Installation Date: Certificate.	Center
The sensor does not trigger a false "on" from movement	outside of the controlled area.	 Sensor is not triggered by motion outside of controlled area. Desired motion sensor coverage is not blocked by obstruction that could adversely affect performance. 	In the table below, identify all construction documents that show that the outdoor lighting and controls were installed as	59 Arlington Avenue
☐ Signal sensitivity is adequate to achieve desired control.			it was proposed in the Certificates of Compliance. Document Title or Description Applicable Sheets or Pages, Tables, Date Approved By Standards	Kensington, CA 94707
NA7.8.9 and NA7.8.10 Automatic Scheduling Control		B. Functional Testing 01. Simulate motion in area under lights controlled by the motion sensor. Verify and document the following:	Schedules, etc. Enforcement Agency	for the
I. Construction Inspection		 Status indicator operates correctly. Lights controlled by motion sensors turn on immediately upon entry into the area lit by the controlled lights near the 		Kensington Police Protection &
01. Prior to Functional Testing, confirm and document the follo	owing:	Imotion sensor. Imotion sensor. Imotion sensor.		Community Services District
Verify the control is programmed with acceptable schedu		02. Simulate no motion in area with lighting controlled by the sensor. Verify and document the following:		
 Demonstrate and document for the lighting control prograweekday, weekend, and holidays (if applicable). Verify the correct time and date is properly set in the control programme contro	amming including both ON schedule and OFF schedule, for	 Condition. The sensor does not trigger a false "on" from movement outside of the controlled area. 		
		Image: Interest of the control of		GLASS Associates, Inc.
J. Functional Testing 01. Verify and document the following:				337 17th Street, Suite 10(
 During daytime simulation, all controlled outdoor lights at During nighttime simulation, all controlled outdoor lights at 		NA7.8.3 and NA7.8.4 Photocontrol		Oakland, CA 94612
During nighttime simulation, all controlled outdoor lights		C. Construction Inspection 01. Verify and document the following:		T. 415.864.1234
		The photocontrol is installed.		© 2018 GLASS Associates, In
		D. Functional Testing 01. Verify and document the following:		architecture & planning
		During daytime simulation, all controlled outdoor lights are turned off.		CONSULTANTS
		During nighttime simulation, all controlled outdoor lights are turned on.		
				BAY AREA CONSULTING 235 MONTGOMERY STREET, SUITE 308
CA Building Energy Efficiency Standards - 2016 Nonresidentia	al Compliance April 2016	CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance April 2016		ENGINEERS SAN FRANCISCO, CA 94104 T (415) 788-8388 F (415) 373-9388
			CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance January 2016	
OUTDOOR LIGHTING ACCEPTANCE TESTS CEC-NRCA-LTO-02-A (Revised 04/16) CERTIFICATE OF ACCEPTANCE	CALIFORNIA ENERGY COMMISSION	OUTDOOR LIGHTING ACCEPTANCE TESTS CALIFORNIA ENERGY COMMISSION CEC-NRCA-LTO-02-A (Revised 04/16) CALIFORNIA ENERGY COMMISSION CERTIFICATE OF ACCEPTANCE NRCA-LTO-02-A	STATE OF CALIFORNIA	
Outdoor Lighting Acceptance Tests	(Page 4 of 4) rcement Agency: Permit Number:	Outdoor Lighting Acceptance Tests (Page 2 of 4) Project Name: Enforcement Agency:	OUTDOOR LIGHTING CEC-NRCI-LTO-01-E (Revised 12/15) CALIFORNIA ENERGY COMMISSION	
Project Name. Kensington Community Center City: Project Address: 59 Arlington Avenue City:	Kensington, CA	Project Address: 59 Arlington Avenue City: Kensington, CA Zip Code: 94707	CERTIFICATE OF INSTALLATION NRCI-LTO-01-E Outdoor Lighting (Page 2 of 2)	
DOCUMENTATION AUTHOR'S DECLARATION STATEMEN	NT	NA7.8.5 and NA7.8.6 Astronomical Time-Switch Control	Project Name: Kensington Community Center Enforcement Agency: Permit Number: Project Address: 59 Arlington Avenue City: Kensington, CA	
1. I certify that this Certificate of Acceptance documentation		E. Construction Inspection	DOCUMENTATION AUTHOR'S DECLARATION STATEMENT 1. I certify that this Certificate of Installation documentation is accurate and complete.	
Documentation Author Name: Documentation Author Company Name: BAY AREA CONSULTING ENGINEERS	Date Signed: April 16, 2018	01. Prior to Functional Testing, confirm and document the following:	Documentation Author Name: ANGELITO E. MAGBITANG, PE Documentation Author Signature:	
Address: 235 MONTGOMERY STREET, SUITE 308 City/State/Zip:	CEA/ATT Certification Identification (If applicable): E-11374	 Verify the astronomical time-switch control is installed. Verify the astronomical time switch control is programmed with acceptable ON schedule and OFF schedule. 	Documentation Author Company Name: BAY AREA CONSULTING ENGINEERS Date Signed: Address: April 16, 2018 Address: 235 MONTGOMERY STREET, SUITE 308 CEA Certification Identification (If applicable):	
SAN FRANCISCO, CA 94101 FIELD TECHNICIAN'S DECLARATION STATEMENT	(415) 788-8388	Demonstrate and document for the time switch programming including ON schedule and OFF schedule, for weekday, weekend, and holidays (if applicable).	City/State/Zip: SAN FRANCISCO, CA 94101 Phone: (415) 788-8388	
I certify the following under penalty of perjury, under the laws of the second	s true and correct.	Verify the correct time and date is properly set in the control.	RESPONSIBLE PERSON'S DECLARATION STATEMENT I certify the following under penalty of perjury, under the laws of the State of California:	
3. The construction or installation identified on this Certificate of indicated in the plans and specifications approved by the end	of Acceptance complies with the applicable acceptance requirements forcement agency, and conforms to the applicable acceptance	F. Functional Testing 01. Verify and document the following:	 The information provided on this Certificate of Installation is true and correct. I am eligible under Division 3 of the Business and Professions Code in the applicable classification to accept responsibility for the system design, construction, or installation of features, materials, components, or manufactured devices for the scope of work 	
	sidential Appendix NA7. construction or installation identified on this Certificate of Acceptance has ller and has been posted or made available with the building permit(s)	During daytime simulation, all controlled outdoor lights are turned off.	identified on this Certificate of Installation and attest to the declarations in this statement (responsible builder/installer), otherwise I am an authorized representative of the responsible builder/installer.	
issued for the building. Field Technician Name:	Field Technician Signature:	 During nighttime simulation, all controlled outdoor lights are turned on in accordance with the astronomical schedule. During nighttime simulation, all controlled outdoor lights are turned off in accordance with the programmed schedule. 	3. The constructed or installed features, materials, components or manufactured devices (the installation) identified on this Certificate of Installation conforms to all applicable codes and regulations, and the installation conforms to the requirements	
Field Technician Company Name:	Position with Company (Title):		 given on the plans and specifications approved by the enforcement agency. I reviewed a copy of the Certiticate of Compliance approved by the enforcement agency that identifies the specific requirements for the scope of construction or installation identified on this Certificate of Installation, and I have ensured that the requirements 	TITLE 24 OUTDOOR
Address: City/State/Zip:	ATT Certification Identification (if applicable): Phone: Date Signed:	NA7.8.7 and NA7.8.8 Part-Night Outdoor Lighting Control	 that apply to the construction or installation have been met. I will ensure that a completed signed copy of this Certificate of Installation shall be posted, or made available with the building 	LIGHTING INSTALLATION
RESPONSIBLE PERSON'S DECLARATION STATEMENT		G. C onstruction Inspection	permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections. I understand that a completed signed copy of this Certificate of Installation is required to be included with the documentation the builder provides to the building owner at occupancy.	AND ACCEPTANCE
I certify the following under penalty of perjury, under the laws of the field Technician, or the Field Technician is acting or information provided on this Certificate of Acceptance.	he State of California: on my behalf as my employee or my agent and I have reviewed the	 01. Prior to Functional Testing for time based control type, confirm and document the following: Verify the part-night outdoor lighting control is installed. 	Responsible Builder/Installer Name: Responsible Builder/Installer Signature: Company Name: (Installing Subcontractor or General Contractor or Builder/Owner) Position With Company (Title):	FORMS
2. I am eligible under Division 3 of the Business and Profession system design, construction or installation of features, mater	ns Code in the applicable classification to accept responsibility for the rials, components, or manufactured devices for the scope of work	 Verify the control is programmed with acceptable schedules. Demonstrate and document for the lighting control programming including both ON schedule and OFF schedule, for 	Address: CSLB License:	
3. The information provided on this Certificate of Acceptance s	declarations in this statement (responsible acceptance person). Substantiates that the construction or installation identified on this uirements indicated in the plans and specifications approved by the	 weekday, weekend, and holidays (if applicable). Verify the correct time and date is properly set in the control. 	City/State/Zip: Phone: Date Signed:	LICENSE STAMP
enforcement agency, and conforms to the applicable accept Appendix NA7.	ance requirements and procedures specified in Reference Nonresidential	02. Prior to Functional Testing for occupancy-based control type, verify and document the following:		TO E. MAGE CE
been completed and is posted or made available with the bu	construction or installation identified on this Certificate of Acceptance has nilding permit(s) issued for the building. To f Acceptance shall be posted, or made available with the building	Sensor is not triggered by motion outside of adjacent area.		S (2) No. E11374 Exp. Dec. 31, 2019
permit(s) issued for the building, and made available to the e	enforcement agency for all applicable inspections. I understand that a be included with the documentation the builder provides to the building	Desired sensor coverage is not blocked by obstructions that could adversely affect performance.		47 LAC. 01, 2013 25
owner at occupancy. Responsible Acceptance Person Name:	Responsible Acceptance Person Signature:	H. Functional Testing 01. For time-based control type, verify and document the following:		Contraction of the second seco
Responsible Acceptance Person Company Name: Address:	Position with Company (Title): CSLB License:	 During daytime simulation, all controlled outdoor lights are turned off. During nighttime simulation, all controlled outdoor lights are turned on in accordance with the ON schedule. 		REVISIONS BE REVISIONS BY
City/State/Zip:	Phone: Date Signed:	During nighttime simulation, all controlled outdoor lights are turned on in accordance with the ON schedule. During nighttime simulation, all controlled outdoor lights are turned off or reduced in light level in accordance with the OFF schedule.		
		02. For occupancy-based control type, verify and document the following:		
CA Building Energy Efficiency Standards - 2016 Nonresidentia	al Compliance April 2016	CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance April 2016		9-03-18 I M
				<u> Plan Check</u> <u> </u>
				Issue for Permit ^{LIM}
			CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance January 2016	Date 03/30/18 Sheet
				Drawn BAC E0.07
				Job

LIGHT AND RECEPTACLE CONTROLS SCHEDULE	NEW LIGHT FIXTURE	SCHEDULE		Seismic Upgrades and
SYMBOL IMAGE DESCRIPTION MOUNTING MANUFACTURER CATALOG NUMBER	TYPE IMAGE DESCRIPTION LAMPS	MOUNTING MANUFACTURER	CATALOG NUMBER	Building Alterations
STMBOL IMAGE DESCRIPTION IMAGE CATALOG NOMDER \$\subset_D\$ LOW VOLTAGE MANUAL ON-OFF WALL MOUNT WALL nLIGHT nLIGHT nPODM D OR APPROVED EQUAL	A	SURFACE MOUNTED TO UNDERSIDE OF STEEL TRUSS	8TSNLED-LD4-60SL-LN-UNV-L835-CD1-U	Kensington
Low voltage manual on-off wall mount switch with dimming control and occupancy sensor Wall nLight NLight NLight NLight NLight NLight NLight NLight NLight NC	B 1 1/2" SURFACE MOUNTED LED FIXTURE 4' 25-WATTS LED LONG, 3000 LUMENS, 4000K,120-277V	SURFACE MOUNTED LITHONIA LIGHTING	ZL1N L48 3000LM FST MVOLT 40K 80CRI WH	Community
	C 1 1/2" SURFACE MOUNTED LED FIXTURE 2' 15–WATTS LED LONG, 1500 LUMENS, 4000K, 120–277V	SURFACE MOUNTED	ZL1N L24 1500LM FST MVOLT 40K 80CRI WH	Center 59 Arlington Avenue
\$ \$ <td>D 6" DIAMETER LED DOWNLIGHT, 0-10V CONTROL/DIMMER 4000 LUMENS, 3500K, 120V 13-WATTS LED</td> <td>RECESSED LITHONIA LIGHTING</td> <td>WF6 LED 35K 120V MW</td> <td>Kensington, CA 94707 for the Kensington Police Protection &</td>	D 6" DIAMETER LED DOWNLIGHT, 0-10V CONTROL/DIMMER 4000 LUMENS, 3500K, 120V 13-WATTS LED	RECESSED LITHONIA LIGHTING	WF6 LED 35K 120V MW	Kensington, CA 94707 for the Kensington Police Protection &
\$3 DIMMING OCCUPANCY WALL SWITCH WALL SENSOR SWITCH nLIGHT WSX D OR APPROVED EQUAL	E SURFACE MOUNTED EMERGENCY EXIT LIGHT 3-WATTS LED WITH RED LED EXIT SIGN, 90-MINUTE BATTERY AND CHARGER, REMOTE HEAD	SURFACE MOUNTED DUAL-LITE	EVC-U-G-W-D4-I SERIES, EMERGI-LITE, OR EQUAL	Community Services District
Image: Celling mount occupancy sensor Celling nLight nCM 10 OR APPROVED EQUAL	F CAPABILITY, SELF DIAGNOSTIC, 120V, WHITE F Image: Capability in the second secon		MRP_LED-42C-700mA-40K-SE5-MVOLT- DDBXD_OR_EQUAL	GLASS Associates, Inc. architecture&planning 337 17th Street, Suite 10(Oakland, CA 94612
Image: Constraint of the second se	G EXTERIOR GRADE UPLIGHT, LED ACCENT/FLOOD LUMINAIRE, 4000K, 12V	SURFACE MOUNTED COOPER LIGHTING	203-FL-10LED4041-12V-CS NOTE: CONTRACTOR TO PROVIDE ADDITIONAL ACCESSORIES FOR A COMPLETE CONCRETE	T. 415.864.1234 © 2018 GLASS Associates, In architecture & planninc
Image: Second			ENCASED MOUNTING. COORDINATE WITH ARCHITECT THE PROJECTILE ILLUMINATION DISTANCE PRIOR TO INSTALLATION.	CONSULTANTS
Image: Market with the second seco	NOTE: 1. PRIOR TO DELIVERY OF ANY LIGHT FIXTURES TO THE JOBSITE CONTRACTOR IS TO REVIEW ALL LIGHT FIXTURES SO THAT T REFLECTED CEILING PLANS. CONTRACTOR SHALL INFORM THE EEOR ELECTRICAL ENGINEER OF RECORD IN WRITING OF ANY 2. CONTRACTOR SHALL REVIEW THE DIMMING REQUIREMENTS OF ANY LIGHT FIXTURES WITH THE DIMMERS THAT ARE TO BE U	Y VARIANCES BETWEEN ELECTRICAL AND ARCHITECTURAL DRAWING	S. BID ALT. 9 —	ELECTRICAL ENGINEERS BAY AREA CONSULTING ENGINEERS 235 MONTGOMERY STREET, SUITE 308 SAN FRANCISCO, CA 94104 T (415) 788-8388 F (415) 373-9388
Do not apply any external voltage to terminals TOD1, C, TOD2, or EPC . For time of day operation, connect dry contact closure. *See note 3b.	PANEL 7UPSN 100A, 120/208 V FED FROM DISTRIBUTION PANEL UPS-DPA NOTES: 1. NORMAL POWER: WHITE LETTERS ON BLACK BACKGROUND. 2. EMERGENCY POWER: WHITE LETTERS ON RED BACKGROUND. 3. LETTERINGS ARE 1/2" HIGH. 4. PROVIDE FOR PANELS, STARTERS, CONTROLLERS, ENCLOSED BREAKERS, DISCONNECT SWITCHES, TRANSFORMERS, ATS SWITCH, ETC. 2 ENGRAVED NAMEPLATE DETAIL	BÉHIND THE COVER PLATE	OUTLET CIRCUIT	
For 120 VAC Improve Open Operation Improve Open Improve Open Improve Open	CONDUIT CON	ALIGN THE TOP OF COVER PLATES	CEILING LINE	LIGHT FIXTURE SCHEDULE AND DETAILS
5 OUTDOOR LIGHTING CONTROL WIRING DIAGRAM	4 OUTLET BOX IN WALL	DEVICES MOUNTING DETAIL IN W	ALLS	Scale NONE E0.08





TITLE 24 OUTDOOR LIGHTING CONTROLS

- SECTION 130.2(c) CONTROLS FOR OUTDOOR LIGHTING 1. ALL INSTALLED OUTDOOR LIGHTING SHALL BE CONTROLLED BY PHOTOCONTROL OR OUTDOOR ASTRONOMICAL TIME-SWITCH CONTROL THAT AUTOMATICALLY TURNS OFF THE OUTDOOR LIGHTING WHEN DAYLIGHT IS AVAILABLE.
 - 2. ALL INSTALLED OUTDOOR LIGHTING SHALL BE CIRCUITED AND INDEPENDENTLY CONTROLLED FROM OTHER ELECTRICAL LOADS BY AN AUTOMATIC SCHEDULING CONTROL.
 - 3. ALL INSTALLED OUTDOOR LIGHTING, WHERE THE BOTTOM OF THE LUMINAIRE IS MOUNTED 24 FEET OR LESS ABOVE THE GROUND, SHALL BE CONTROLLED WITH AUTOMATIC LIGHTING CONTROLS THAT MEET ALL THE FOLLOWING REQUIREMENTS:
 - A. SHALL BE MOTION SENSORS OR OTHER LIGHTING CONTROL SYSTEMS THAT AUTOMATICALLY CONTROLS LIGHTING IN ACCORDANCE WITH ITEM B IN RESPONSE TO THE AREA BEING
 - VACATED OF OCCUPANTS; AND B. SHALL BE CAPABLE OF AUTOMATICALLY REDUCING THE LIGHTING POWER OF EACH LUMINAIRE BY AT LEAST 40% BUT NOT EXCEEDING 80%, OR PROVIDE CONTINUOUS DIMMING
 - THROUGH A RANGE THAT INCLUDE 40% THOUGH 80%, AND C. SHALL EMPLOY AUTO-ON FUNCTIONALITY WHEN THE AREA BECOMES OCCUPIED; AND
 - D. NO MORE THAN 1,500 WATTS OF LIGHTING POWER SHALL BE CONTROLLED TOGETHER.
 4. FOR BUILDING FACADE, AN AUTOMATIC LIGHTING CONTROL SHALL BE
 - . FOR BUILDING FACADE, AN AUTOMATIC LIGHTING CONTROL SHALL BE INSTALLED THAT MEETS ONE OR MORE OF THE FOLLOWING REQUIREMENTS:
 - A. PART-NIGHT OUTDOOR LIGHTING CONTROLB. MOTION SENSORS CAPABLE OF AUTOMATICALLY REDUCING
 - LIGHTING POWER BY AT LEAST 40% BUT NOT EXCEEDING 80%, AND WHICH HAVE AUTO-ON FUNCTIONALLY.
 - C. A CENTRALIZED TIME-BASED ZONE LIGHTING CONTROL CAPABLE OF AUTOMATICALLY REDUCING LIGHTING POWER BY AT LEAST 50%.
 - D. OUTDOOR WALL MOUNTED LUMINAIRES HAVING A BILATERALLY SYMMETRIC DISTRIBUTION AS DESCRIBED IN THE IES HANDBOOK (TYPICALLY REFERRED TO AS "WALL PACKS") WHERE BOTTOM OF THE LUMINAIRE IS MOUNTED 24 FT OR LESS ABOVE THE GROUND SHALL COMPLY WITH ITEM #3.
- EXCEPTION: 1. BELOW ARE EXCEPTIONS TO ITEM #3: A. POLE MOUNTED LUMINAIRS EACH WITH A MAXIMUM RATED
 - WATTAGE OF 75 WATTS; OR B. NON-POLE MOUNTED LUMINAIRES WITH A MAXIMUM RATED
 - WATTAGE OF 30 WATTS; OR C. LINEAR LIGHTING WITH A MAXIMUM WATTAGE OF 4 WATTS PER LINEAR FOOT OF LUMINAIRE.
 - D. LIGHTING FOR BUILDING FACADE.

GENERAL NOTES

- G1 DO NOT WORK ON ANY ENERGIZED WIRING AND PANELS. TURN OFF PANEL AND CIRCUIT BREAKERS WHEN WORKING WITH AFFECTED WIRING AND OUTLETS.
- G2 CONFORM TO OWNER REQUIREMENTS WHEN WORKING WITH ENERGIZED EQUIPMENT SUCH AS ELECTRICAL PANELS.
- G3 VERIFY PANEL AND CIRCUIT NUMBERS OF ALL LIGHT FIXTURES AT THE JOB SITE.
- G4 VERIFY LOCATION OF EXISTING HOMERUNS AND CONNECTIONS AT THE JOB SITE.
- G5 PRIOR TO DEMOLITION WORK, VERIFY THAT ANY LIGHTS OUTSIDE OF THE DEMOLITION THAT ARE AFFECTED BY DEMOLITION OF WIRING SHALL BE KEPT OPERATIONAL BY PROVIDING WIRING TO MAINTAIN ITS WIRING CONTINUITY. VERIFY THIS CONDITION BY CHECKING THE EXISTING DRAWINGS AND CONFIRMING IT AT THE JOBSITE. CONFIRMATION OF THIS CONDITION AT THE JOBSITE SHALL BE PERFORMED BY TURNING OFF THE CIRCUIT BREAKERS ONE BY ONE AND DOCUMENTING WHAT LIGHTS OUTSIDE THE DEMOLITION AREA ARE AFFECTED AND THAT SHALL BE REWIRED.
- G6 RE-USE EXISTING CIRCUITS AND HOMERUNS WHERE POSSIBLE. VERIFY LOCATION AT THE JOB SITE.
- G7 DISPOSE OFFSITE ALL REMOVED MATERIALS.
- G8 ELECTRICAL WORK SHOWN WITH PREFIX E IS EXISTING WORK TO REMAIN.
- G9 ELECTRICAL WORK SHOWN WITH PREFIX R IS WORK TO BE DISCONNECTED AND REMOVED.
- G10 ALL EXISTING POLE MOUNTED LIGHT FIXTURE ARE TO BE REPLACED WITH THE LED LIGHT FIXTURE.
- G11 RESTORE ANY DISTURBED LANDSCAPE AREA TO ORIGINAL CONDITION.
- G12 PROVIDE ALL REQUIRE TRENCHING AND BACK FILING.

SHEET NOTES

EXISTING EXTERIOR LAMPPOST WILL BE REPLACED WITH NEW LIG	GHT
2 EXISTING TIME CLOCK TO BE REPLACED WITH NEW OUTDOOR LIV CONTROLLER.	GHTING
3 LAMPPOST AT FAR MEDIAN INCLUDED IN PROJECT SCOPE.	

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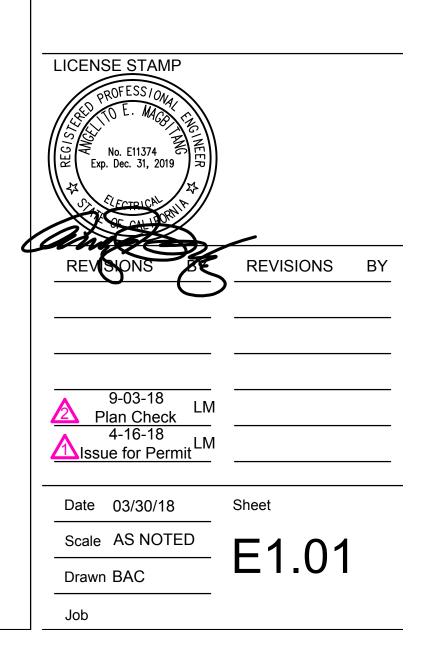
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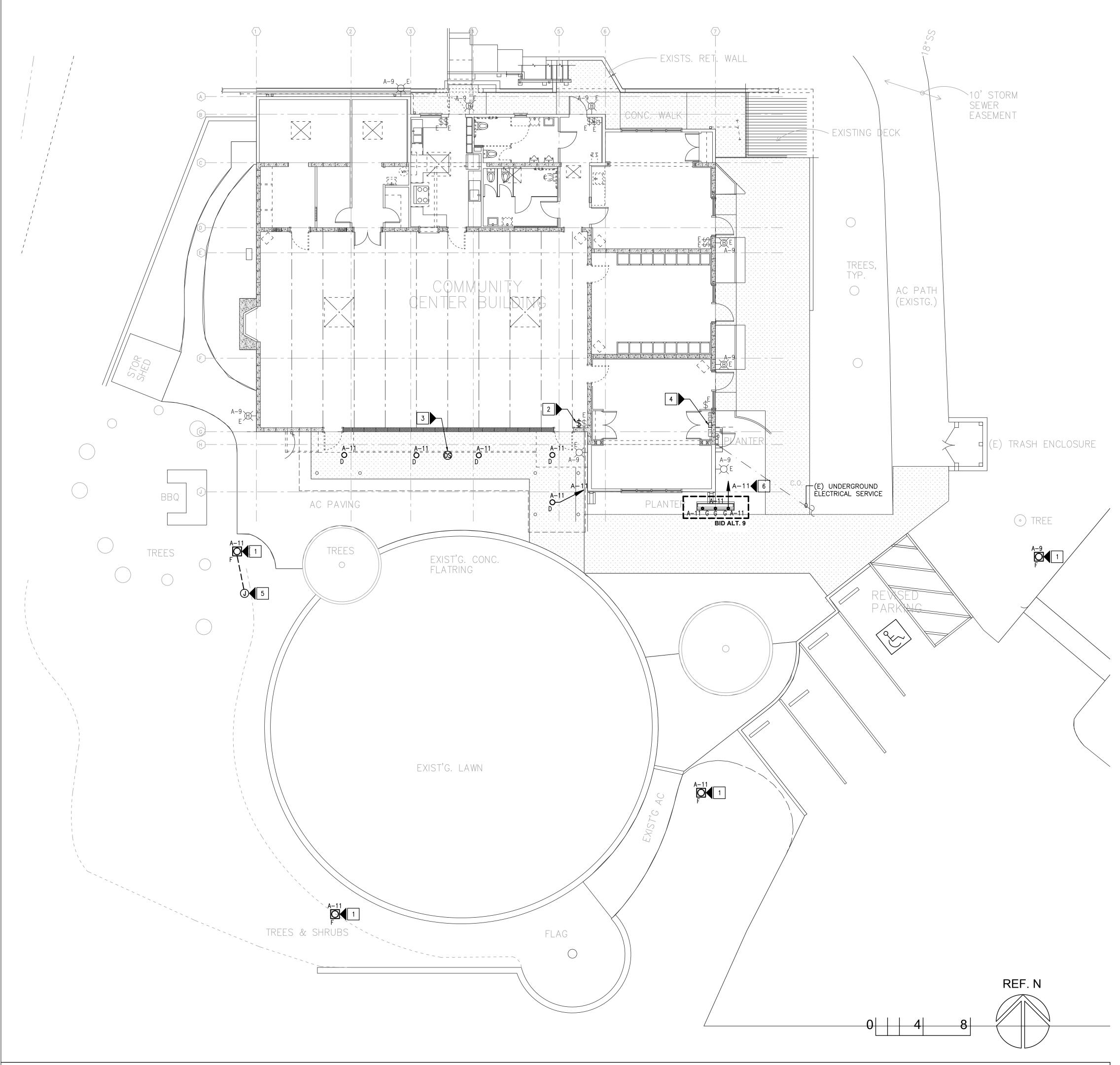


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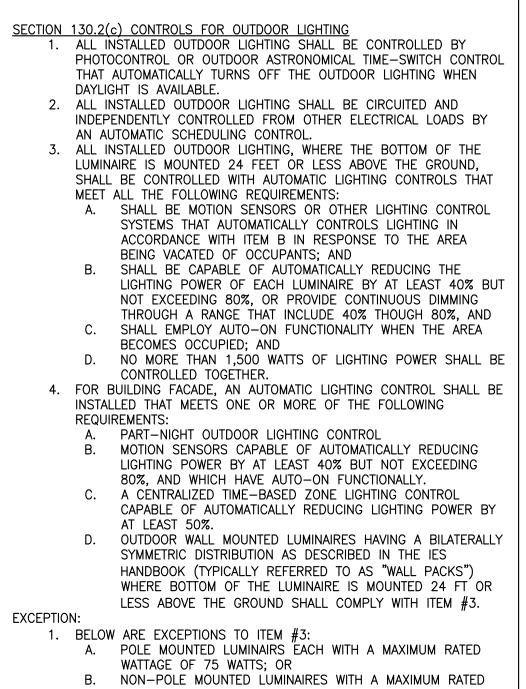
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SITE PLAN DEMOLITION





TITLE 24 OUTDOOR LIGHTING CONTROLS



- - WATTAGE OF 30 WATTS; OR
 - LINEAR LIGHTING WITH A MAXIMUM WATTAGE OF 4 WATTS PER LINEAR FOOT OF LUMINAIRE.
 - LIGHTING FOR BUILDING FACADE

SHOP DRAWINGS

SUBMIT THE FOLLOWING PRIOR TO INSTALLATION FOR REVIEW AND APPROVAL BY EEOR:

- LIGHTING DISTRIBUTION OF EACH LIMINAIRE IN ACCORDANCE WITH IES ILLUMINATING ENGINEERING SOCIETY.
- 2. INDICATE ON THE SHOP DRAWINGS THE LIGHTING DISTRIBUTION OF EACH LIMINAIRE SUCH AS TYPE II, III, IV OR V FOR OPTIMUM PERFORMANCE AND GLARE CONTROL.

SEQUENCE OF OUTDOOR LIGHTING CONTROL

- A. LIGHTING CIRCUITS ARE TURN ON AND OFF BY ASTRONOMICAL TIME CLOCK.
- B. EACH FIXTURE HAS BUILT-IN OCCUPANCY SENSOR THAT WILL DIM FIXTURE TO 25 PERCENT WHEN OCCUPANCY SENSOR IS NOT ACTIVATED.

GENERAL NOTES

- G1 NEW UNDERGROUND CONDUITS SHALL BE MINIMUM 24" BELOW TOP OF FINISHED GRADE.
- G2 ALL NEW LIGHT FIXTURES ARE FED FROM PANEL A.
- G3 PROVIDE CIRCUIT INDICATING PANEL NAME AND CIRCUIT NUMBERS TO ALL FIXTURES.
- G4 ROUTING OF CONDUIT SHALL BE VERIFIED AT THE JOB SITE.
- G5 UPDATE CIRCUIT DIRECTORIES OF ALL AFFECTED PANELS.
- G6 RESTORE ANY DISTURBED LANDSCAPE AREAS TO ITS ORIGINAL CONDITION.
- G7 PROVIDE ALL REQUIRE TRENCHING AND BACKFILLING.

SHEET NOTES

1	REPLACE EXTERIOR LAMPPOSTS WITH NEW LIGHT FIXTURES. RE-USE EXISTING CIRCUIT.
2	FURNISH AND INSTALL WALL SWITCH TO CONTROL LIGHT FIXTURE D.
3	PROVIDE OUTDOOR WEATHERPROOF MOTION SENSOR TO CONTROL FIXTURE TYPE D ON CIRCUIT A-5. LITHONIA LIGHTING CAT. NO. MS270WM12.
4	FURNISH AND INSTALL ELECTRONIC ASTRONOMICAL TIME SWITCH, AND INTERMATIC ET8000 FOR OUTDOOR LIGHTING.
5	10" DIAMATER UNDERGROUND JUNCTION BOX, CARSON L SERIES 910, FOR FUTURE OUTDOOR LANDSCAPE LIGHTING.
6	HOMERUN CIRCUIT VIA 12-VOLT LIGHTING TRANSFORMER AND OUTDOOR LIGHTING CONTROLLER

BID ALT. 9: NEW EXTERIOR BUILDING SIGN

9.1 CONTRACTOR TO PROVIDE AND INSTALL NEW EXTRIOR BUILDING SIGN AS ILLUSTRATED ON SHEET A8.06.

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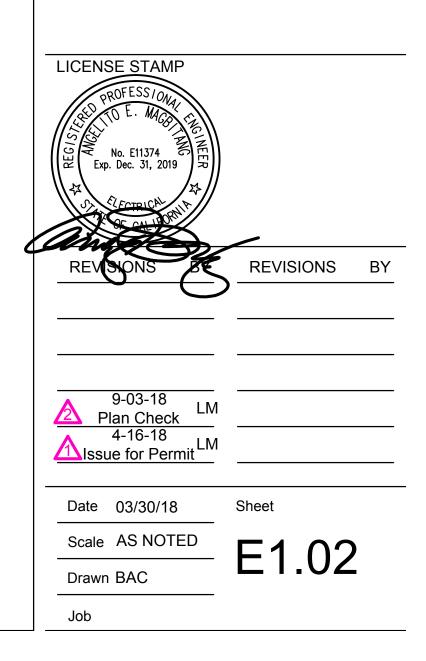
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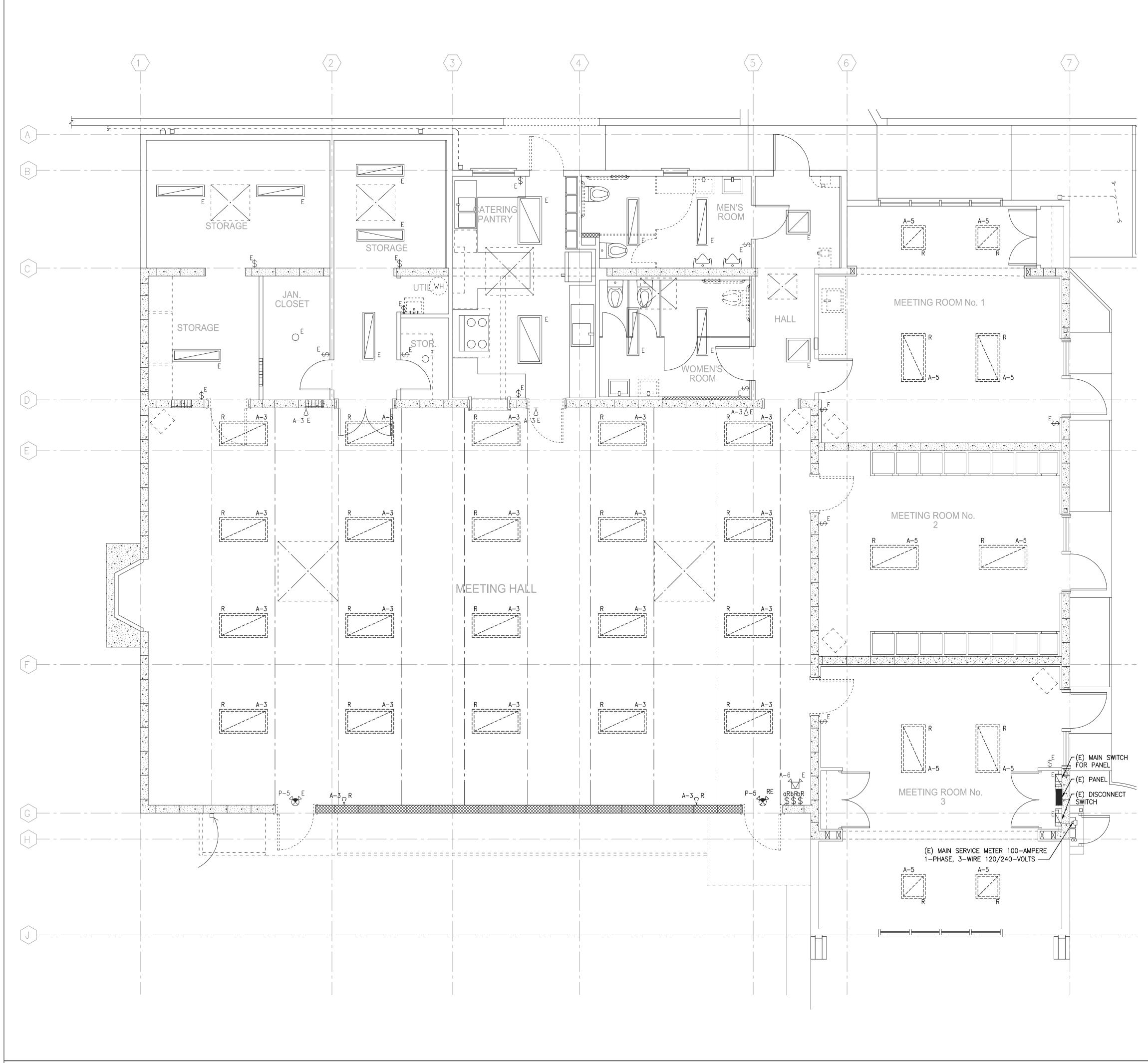


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SITE PLAN NEW WORK





- G2 VERIFY PANEL AND CIRCUIT NUMBERS OF ALL LIGHT FIXTURES AT THE JOB SITE.
- G3 VERIFY LOCATION OF EXISTING HOMERUNS AND CONNECTIONS AT THE JOB SITE.
- G4 PRIOR TO DEMOLITION WORK, VERIFY THAT ANY LIGHTS OUTSIDE OF THE DEMOLITION THAT ARE AFFECTED BY DEMOLITION OF WIRING SHALL BE KEPT OPERATIONAL BY PROVIDING WIRING TO MAINTAIN ITS WIRING CONTINUITY. VERIFY THIS CONDITION BY CHECKING THE EXISTING DRAWINGS AND CONFIRMING IT AT THE JOBSITE. CONFIRMATION OF THIS CONDITION AT THE JOBSITE SHALL BE PERFORMED BY TURNING OFF THE CIRCUIT BREAKERS ONE BY ONE AND DOCUMENTING WHAT LIGHTS OUTSIDE THE DEMOLITION AREA ARE AFFECTED AND THAT SHALL BE REWIRED.
- G5 UPDATE CIRCUIT DIRECTORIES OF AFFECTED PANELS.
- G6 RE-USE EXISTING CIRCUITS AND HOMERUNS WHERE POSSIBLE. VERIFY LOCATION AT THE JOB SITE.
- G7 DISCONNECT AND REMOVE CEILING LIGHT FIXTURES, OCCUPANCY SENSORS, SPEAKERS, AND EXIT SIGNS IN ROOMS WHERE CEILINGS ARE TO BE DEMOLISHED.
- G8 DISCONNECT AND REMOVE LIGHT SWITCHES IN ROOMS WHERE WALLS ARE TO BE DEMOLISHED.
- G9 DISPOSE OFFSITE ALL REMOVED MATERIALS.
- G10 ELECTRICAL WORK SHOWN WITH PREFIX E IS EXISTING WORK TO REMAIN.
- G11 ELECTRICAL WORK SHOWN WITH PREFIX R IS WORK TO BE DISCONNECTED AND REMOVED.

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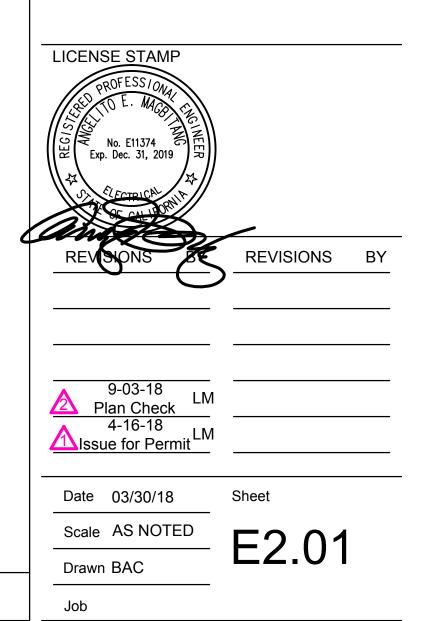
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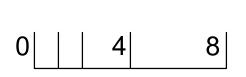


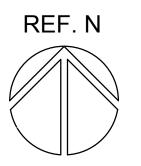
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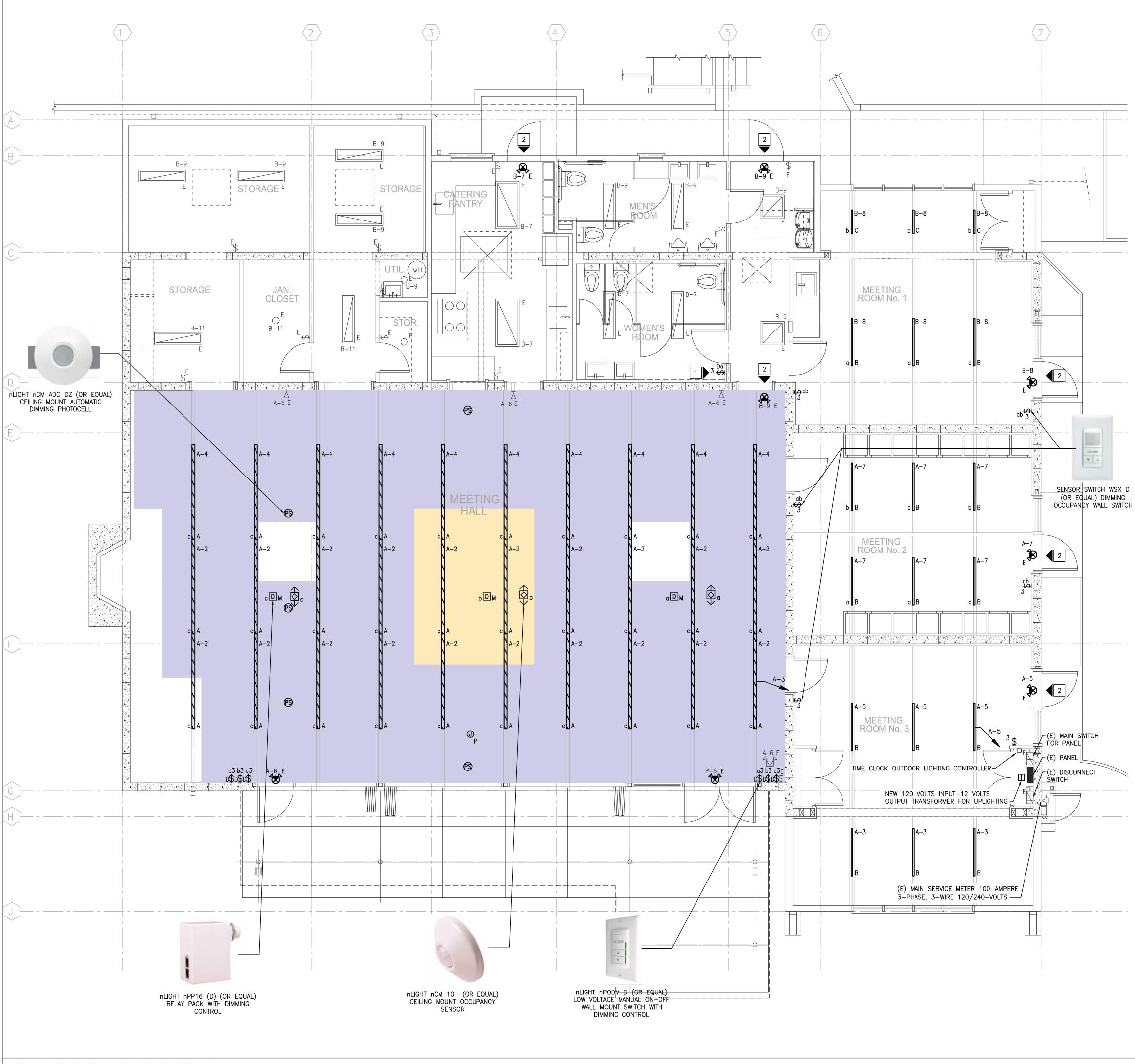
LIGHTING **DEMOLITION PLAN**







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



- G1 VERIFY PANEL AND CIRCUIT NUMBERS OF ALL LIGHT FIXTURES AT THE JOB SITE.
- G2 VERIFY LOCATION OF EXISTING HOMERUNS AND CONNECTIONS AT THE JOB SITE.
- G4 UPDATE CIRCUIT DIRECTORIES OF AFFECTED PANELS.
- G5 RE-USE EXISTING CIRCUITS AND HOMERUNS WHERE POSSIBLE. VERIFY LOCATION AT THE JOB SITE.
- G6 ELECTRICAL WORK SHOWN WITH PREFIX E IS EXISTING WORK TO REMAIN. G7 ELECTRICAL WORK SHOWN WITH PREFIX R IS WORK TO BE
- DISCONNECTED AND REMOVED. G8 PROVIDE CIRCUIT LABELS TO NEW LIGHT FIXTURES, CONTROLS, AND
- SWITCHES. G9 PROVIDE FIRESTOP TO ALL WALL PENETRATIONS AND OPENINGS TO THE FIRE-RATED CORRIDORS.
- G10 REFER TO EX.X FOR LIGHTING CONTROL WIRING DIAGRAM.
- G11 CIRCUIT FOR EXIT SIGN SHOULD BE CONNECTED AHEAD TO THE LIGHT SWITCH.

TITLE 24 INDOOR LIGHTING CONTROLS

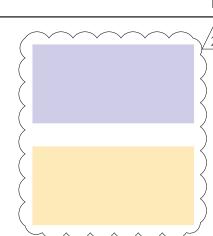
- SECTION 130.1(a) AREA CONTROLS A. ALL LUMINAIRES SHALL BE FUNCTIONALLY CONTROLLED WITH MANUALLY SWITCHED ON AND OFF LIGHTING CONTROLS. EACH AREA ENCLOSED BY CEILING HEIGHT PARTITIONS SHALL BE INDEPENDENTLY CONTROLLED.
- SECTION 130.1(b) MULTILEVEL LIGHTING CONTROLS 2. A. THE GENERAL LIGHTING OF ANY ENCLOSED AREA 100 SQ. FT. OR LARGER, WITH A CONNECTED LIGHTING LOAD THAT EXCEEDS 0.5 WATTS PER SQ. FT. SHALL BE PROVIDED WITH MULTILEVEL LIGHTING CONTROLS.
- SECTION 130.1(c) SHUT-OFF CONTROLS 3.
- A. IN ADDITION TO LIGHTING CONTROLS REQUIRED PER SECTION 130.1(a) AND 130.1(b), INDOOR LIGHTING SHALL BE CONTROLLED THAT MEETS THE FOLLOWING: OCCUPANT SENSOR CONTROL, AUTOMATIC TIME SWITCH CONTROL, SIGNAL FROM ANOTHER BUILDING SYSTEM, OR OTHER CONTROL CAPABLE OF AUTOMATICALLY SHUTTING OFF ALL LIGHTING WHEN THE SPACE IS TYPICALLY UNOCCUPIED.
- SECTION 130.1(d) AUTOMATIC DAYLIGHTING CONTROLS 4. A. LUMINAIRES IN DAYLIGHT ZONES SHALL BE PROVIDED WITH AUTOMATIC DAYLIGHTING CONTROLS AND CONFIGURED TO OPERATE ACCORDING TO ALL OF THE FOLLOWING: 1. PHOTOSENSORS THAT ARE NOT READILY ACCESSIBLE TO UNAUTHORIZED PERSONNEL. 2. PROVIDE FUNCTIONAL MULTILEVEL LIGHTING.
 - AUTOMATIC DAYLIGHTING CONTROLS ARE NOT REQUIRED FOR ROOMS WITH LIGHTING POWER OF LESS THAN 120 WATTS IN SKYLIT DAYLIGHT ZONE AND PRIMARY SIDELIGHT DAYLIGHT ZONE.

SHOP DRAWINGS

SUBMIT THE FOLLOWING PRIOR TO INSTALLATION FOR REVIEW AND APPROVAL BY EEOR:

- LIGHTING DISTRIBUTION OF EACH LIMINAIRE IN ACCORDANCE WITH IES ILLUMINATING ENGINEERING SOCIETY.
- 2. INDICATE ON THE SHOP DRAWINGS THE LIGHTING DISTRIBUTION OF EACH LIMINAIRE SUCH AS TYPE II, III, IV OR V FOR OPTIMUM PERFORMANCE AND GLARE CONTROL.

LEGEND



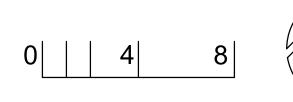
PRIMARY SKYLIT/SIDELIT ZONE

SECONDARY SIDELIT ZONE

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SHEET NOTES

WALL SWITCH OCCUPANCY SENSOR WITH DIMMER COMBINATION TYPICAL TO ALL CLOUDED AREA. SET TIME DELAY TO 15 MINUTES. 2 CONNECT WIRES INTO NEAREST EXISTING LIGHTING CIRCUIT. EMERGENCY LIGHT/ EXIT SIGN COMBO SHALL BE CONNECTED AHEAD OF THE LIGHT SWITCH.





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

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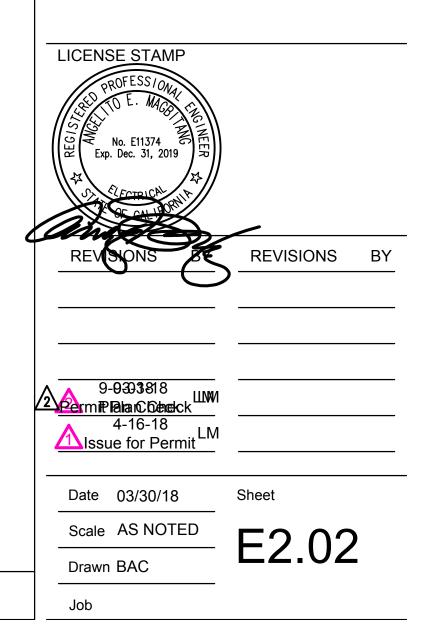
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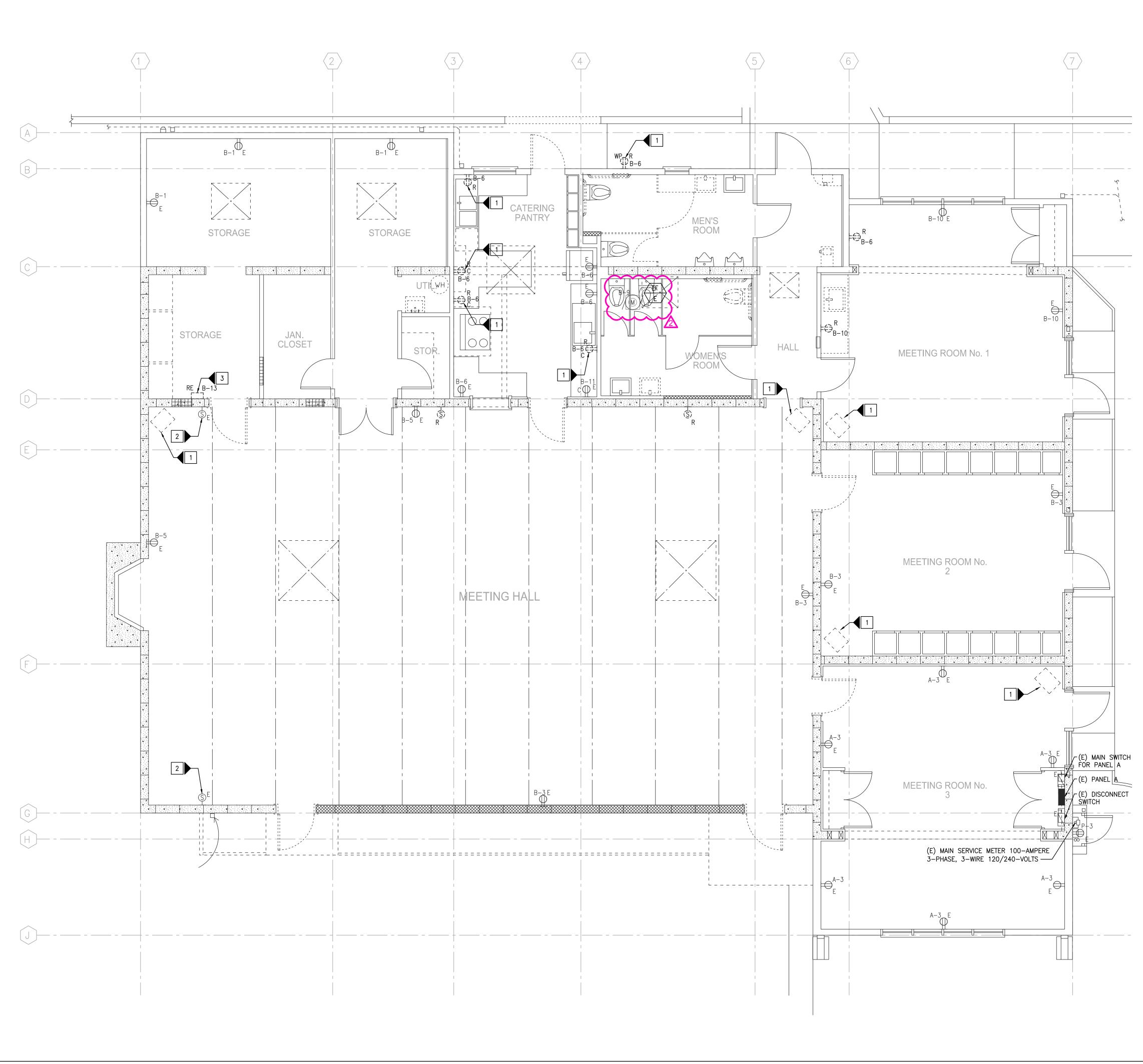


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LIGHTING NEW WORK PLAN





- G1 DO NOT WORK ON ANY ENERGIZED WIRING AND PANELS. TURN OFF PANEL AND CIRCUIT BREAKERS WHEN WORKING WITH AFFECTED WIRING AND OUTLETS.
- G2 VERIFY PANEL AND CIRCUIT NUMBERS OF ALL OUTLETS AT THE JOB SITE.
- G3 VERIFY LOCATION OF EXISTING HOMERUNS AND CONNECTIONS AT THE JOB SITE.
- G4 UPDATE CIRCUIT DIRECTORIES OF AFFECTED PANELS.
- G5 RE-USE EXISTING CIRCUITS AND HOMERUNS WHERE POSSIBLE. VERIFY LOCATION AT THE JOB SITE.
- G6 DISCONNECT AND REMOVE DUPLEX RECEPTACLES AND DATA OUTLETS INCLUDING BOXES, CONDUITS, SUPPORTS AND WIRES IN WALLS AND CASEWORKS THAT ARE TO BE DEMOLISHED.
- G7 DISCONNECT AND REMOVE JUNCTION BOXES IN WALLS THAT ARE TO BE DEMOLISHED.
- G8 DISCONNECT AND REMOVE ALL UNUSED WIRING ALL THE WAY TO PANEL, CABINETS OR DATA PATCH PANELS.
- G9 REMOVE OUTLET BOXES OF DEVICES TO BE REMOVED. PATCH OPENINGS AND FINISH PAINT THE WALLS. BLANK COVER PLATES ARE NOT ACCEPTABLE.
- G10 ELECTRICAL WORK SHOWN WITH PREFIX E IS EXISTING WORK TO REMAIN.
- G11 ELECTRICAL WORK SHOWN WITH PREFIX R IS WORK TO BE DISCONNECTED AND REMOVED.
- G12 DISPOSE OFFSITE ALL REMOVED MATERIALS.

SHEET NOTES

- EXISTING RECEPTACLES ARE TO BE REPLACED WITH NEW GFCI RECEPTACLE. RE-USE EXISTING CIRCUIT.
- **2** FOR THE BASE BID THESE SPEAKERS ARE TO REMAIN IN PLACE. FOR BID ALT 4, THEY MOVE INTO THE NEW CABINETS.
- **BASE BID:** AUDIO, EQUIPMENT CABINET IS TO BE PROTECTED IN PLACE. **ALT BID 4:** AUDIO, EQUIPMENT CABINET IS TO BE RELOCATED AS SHOWN ON SHEET E3.02.

SHEET NOTES

1 DISCONNECT AND REMOVE ALL ELECTRICAL DEVICES AND ASSOCIATED WIRING TO THE HEATER.

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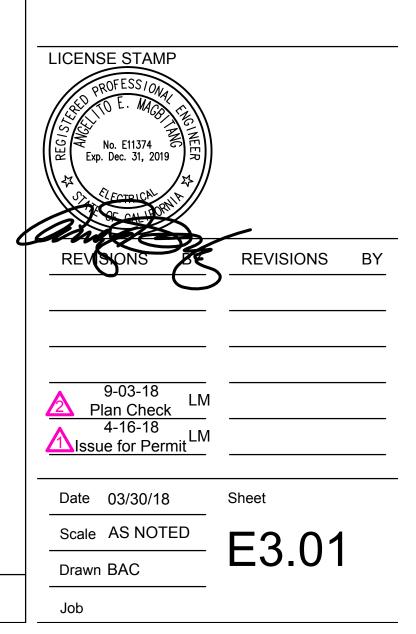
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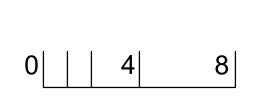


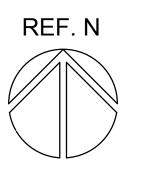
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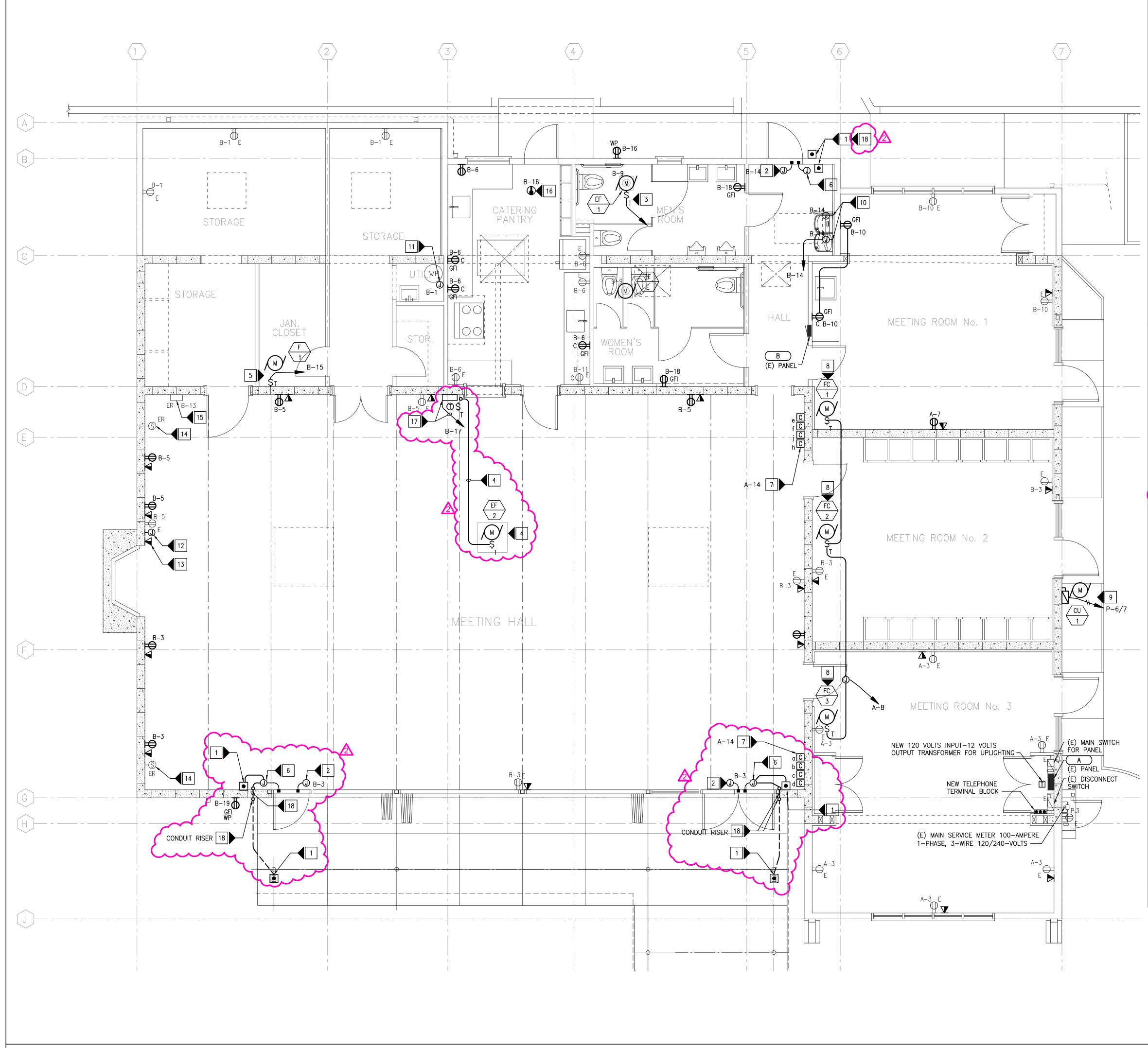
POWER & DATA **DEMOLITION PLAN**







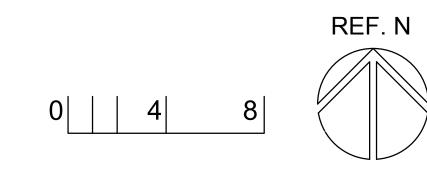
| SCALE: 1/4"=1'-0"



- G1 DO NOT WORK ON ANY ENERGIZED WIRING AND PANELS. TURN OFF PANEL AND CIRCUIT BREAKERS WHEN WORKING WITH AFFECTED WIRING AND OUTLETS.
- G2 VERIFY PANEL AND CIRCUIT NUMBERS OF ALL OUTLETS AT THE JOB SITE.
- G3 VERIFY LOCATION OF EXISTING HOMERUNS AND CONNECTIONS AT THE JOB SITE.
- G4 UPDATE CIRCUIT DIRECTORIES OF AFFECTED PANELS.
- G5 RE-USE EXISTING CIRCUITS AND HOMERUNS WHERE POSSIBLE. VERIFY LOCATION AT THE JOB SITE.
- G6 ELECTRICAL WORK SHOWN WITH PREFIX E IS EXISTING WORK TO REMAIN.
- G7 ELECTRICAL WORK SHOWN WITH PREFIX R IS WORK TO BE DISCONNECTED AND REMOVED.
- G8 ALL NEW RECEPTACLES LOCATED WITHIN 6' OF SINKS SHALL BE PROTECTED WITH GFI PER CEC ARTICLE 210.8.
- G9 COORDINATE LOCATION AND MOUNTING HEIGHT OF DUPLEX RECEPTACLES AND DATA OUTLETS WITH EQUIPMENT.
- G10 PROVIDE CIRCUIT LABELS TO NEW OUTLETS.
- G11 NEW CONDUITS ARE TO BE INSIDE WALLS AND SUSPENDED CEILING SPACES. EXPOSED CONDUITS ARE NOT ALLOWED.
- G12 ALL EQUIPMENT AND DEVICES ARE NEW UNLESS OTHERWISE NOTED.
- G13 PRIOR TO INSTALLATION, CONTRACTOR SHALL PERFORM A PRE-INSTALLATION SURFACE MOUNTED RACEWAY JOB WALK WITH OWNER AND ARCHITECT FOR CONTRACTOR TO FIELD VERIFY STRUCTURAL EXISTING CONDITIONS AND EXACT ROUTING OF ANY AND ALL SURFACE MOUNTED RACEWAYS .

SHEET NOTES

1	CONNECT LOW VOLTAGE WIRES IN 3/4" CONDUIT FROM OPERATOR TO EACH PUSH SWITCH PLATE PER MANUFACTURE'S REQUIREMENT.
2	PROVIDE JUNCTION BOX FOR AUTOMATIC DOOR OPERATOR POWER.
3	PROVIDE TOGGLE SWITCH FOR RESTROOM EXHAUST FAN. 120–VOLT 1–PHASE, 8.3–WATTS. CONNECT WIRING TO EXISTING LIGHT SWITCH VIA $2\#12$, $1\#12G-3/4$ °C.
4	PROVIDE TOGGLE SWITCH WITH WEATHERPROOF COVER FOR EXHAUST FAN EF-2 MOUNTED ON THE ROOF. PROVIDE BRANCH CIRCUIT WIRING VIA $2\#12$, $1\#12G-3/4$ °C TO AIR BALANCE KIT AS SHOWN ON SHEET NOTE 17.
5	PROVIDE TOGGLE SWITCH FOR GAS FURNACE F-1. HOMERUN BRANCH CIRCUIT WIRING VIA 2#12, 1#12G- 3/4"C. 115-VOLT 13.0-AMPERE.
6	PROVIDE JUNCTION BOX FOR AUTOMATIC DOOR OPERATOR CONTROL
7	PROVIDE WINDOW CONTROL UNIT, SENTRY 11 WLS BRAND FOR EACH MOTORIZED WINDOW.
8	PROVIDE TOGGLE DISCONNECT SWITCH FOR MITSUBISHI CITY-MULTI SPLIT DX FAN COIL, 208-VOLT 1-PHASE, MCA: 0.38 AMPERE.
9	PROVIDE FUSIBLE DISCONNECT WITH 40-AMPERE FUSE, 60-AMPERE SWITCH, 250 VOLTS, NEMA-3R ENCLOSURE, FOR CONDENSING UNIT. 208-VOLT 1-PHASE, MCA: 31 AMPERE. PROVIDE CONTROL CABLING AND ACCESSORIES PER MECHANICAL SHOP DRAWINGS.
10	WALL OUTLET BOX FOR DRINKING FOUNTAIN, 15 WATTS. VERIFY EXACT LOCATION PRIOR TO ROUGH-IN.
11	FOR GAS WATER HEATER (WH -1). CONNECT TO THE NEAREST CIRCUIT # B -1 RECEPTACLE. COORDINATE EXACT LOCATION WITH PLUMBING PRIOR TO ROUGH $-IN$.
12	BID ALT. 3: POWER PROVISION FOR PROJECTOR SCREEN, SPECTRUM SERIES, MODEL NO. ELECTRIC100H. PROVIDE 3-WAY WALL SWITCH TO BE PLUGGED DIRECTLY INTO THE SCREEN'S RJ-45 INPUT. SEE ARCHITECTURAL DRAWING, BID ALT. 3 ON SHEET A8.02 FOR EXACT LOCATION.
13	BID ALT. 3: PROVIDE 5–12 VOLT ADAPTOR AND 5–12 VOLT TRIGGER CABLE FOR PROJECTOR SCREEN. SEE ARCHITECTURAL DRAWING BID ALT. 3 ON SHEET A8.02 FOR EXACT LOCATION. CONTRACTOR TO COORDINATE WITH THE MANUFACTURER FOR ALL ADDITIONAL ACCESSORIES FOR A FULLY OPERATIONAL PROJECTOR SCREEN SYSTEM.
14	BID ALT. 4: NEW LOCATION OF EXISTING SPEAKER. REFER TO ARCHITECTURAL DRAWINGS SHEETS A8.01 & A8.02. COORDINATE LOCATION WITH ARCHITECT.
15	BID ALT. 4: NEW LOCATION OF EXISTING AUDIO, EQUIPMENT CABINET TO BE WALL MOUNTED. RE-USE EXISTING WIRES AND EXTEND NEW WIRES AND NECESSARY TO ACCOMMODATE THE NEW SPEAKER LOCATIONS AND AS PART OF BID ALT. 4 SHOWN ON ARCHITECTURAL DRAWING ON SHEET A8.02.
16	FURNISH AND INSTALL HEAT ALARM, 120–VOLTS, 60HZ WITH MONITORED 9V BATTERY BACKUP, BRK, CAT NO. HD6135FB. CONNECT POWER TO THE NEAREST EXISTING 120–VOLT CIRCUIT.
17	POWER PROVISION FOR EXHAUST FAN EF-2. HOMERUN BRANCH CIRCUIT WIRING VIA $2#12$, $1#12G$ - $3/4$ °C. FURNISH AND INSTALL NEMA-1 ENCLOSURE, PENAIR A10N104 HINGED COVER AND LATCH FOR AIR BALANCE KIT. COORDINATE EXACT LOCATION WITH MECHANICAL.
18	ROUTE CONDUIT RISE UP TO ABOVE ROOF. COORDINATE INSTALLATION WITH ARCHITECT POSSIBLE LOCATION OF ROOF PENETRATION.
	$\underline{\mathbb{A}}$



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

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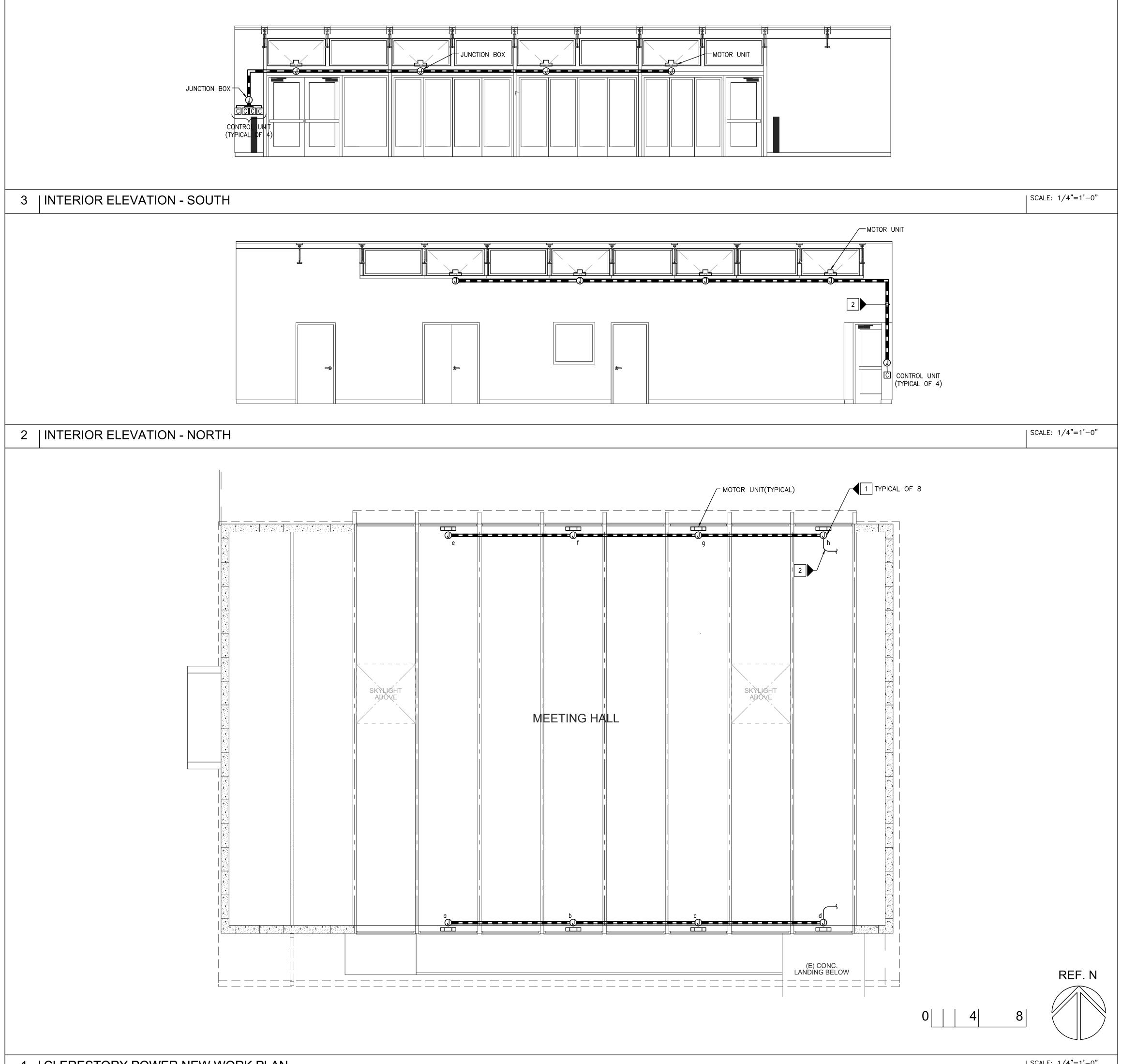


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POWER & DATA NEW WORK PLAN

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- G1 DO NOT WORK ON ANY ENERGIZED WIRING AND PANELS. TURN OFF PANEL AND CIRCUIT BREAKERS WHEN WORKING WITH AFFECTED WIRING AND OUTLETS.
- G2 VERIFY PANEL AND CIRCUIT NUMBERS OF ALL OUTLETS AT THE JOB SITE.
- G3 VERIFY LOCATION OF EXISTING HOMERUNS AND CONNECTIONS AT THE JOB SITE.
- G4 UPDATE CIRCUIT DIRECTORIES OF AFFECTED PANELS.
- G5 RE-USE EXISTING CIRCUITS AND HOMERUNS WHERE POSSIBLE. VERIFY LOCATION AT THE JOB SITE.
- G6 COORDINATE LOCATION AND MOUNTING HEIGHT OF DUPLEX RECEPTACLES AND DATA OUTLETS WITH EQUIPMENT.
- G7 ALL EQUIPMENT AND DEVICES ARE NEW UNLESS OTHERWISE NOTED.

SHEET NOTES

- PROVIDE JUNCTION BOX FOR CLERESTORY WINDOW MOTOR WINDOW SENTRY II WLS BRAND. VERIFY CONTROL CABLES AND ANY ADDITIONAL ACCESSORIES AND SUPPORT, ETC. PER MANUFACTURER'S SUBMITTAL AND SHOP DRAWINGS. SEE DETAIL 2 ON SHEET E4.01 FOR WIRING DIAGRAM.
- 2
 ROUTE WIREMOLD 500 SERIES RACEWAY DOWN TO MOTORIZED WINDOW

 CONTROL UNIT. PROVIDE SIZE AND NUMBER OF WIRES PER

 MANUFACTURER'S REQUIREMENTS. SEE SHEET E3.02 FOR THE LOCATIONS OF EACH WINDOW CONTROL UNIT.

	POWER WINDOW LEGEND
	MOTOR UNIT WITH COVER
C	WALL MOUNTED CONTROL UNIT WITH COVER PLATE
	WIREMOLD 500 SERIES RACEWAY
Ū	WALL MOUNTED JUNCTION COX

Seismic Upgrades and **Building Alterations**

Kensington Community Center

59 Arlington Avenue Kensington, CA 94707 for the Kensington Police Protection & Community Services District



337 17th Street, Suite 10(Oakland, CA 94612

T. 415.864.1234

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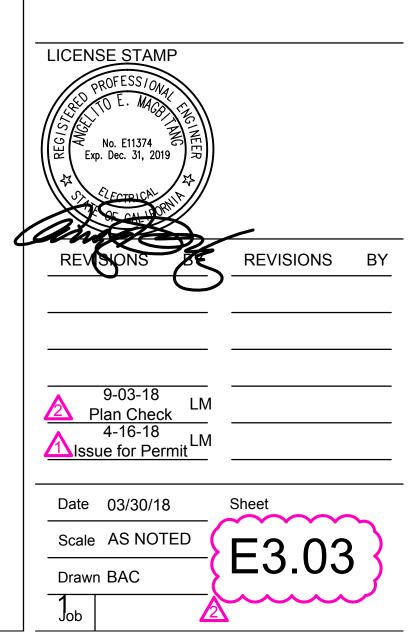
CONSULTANTS

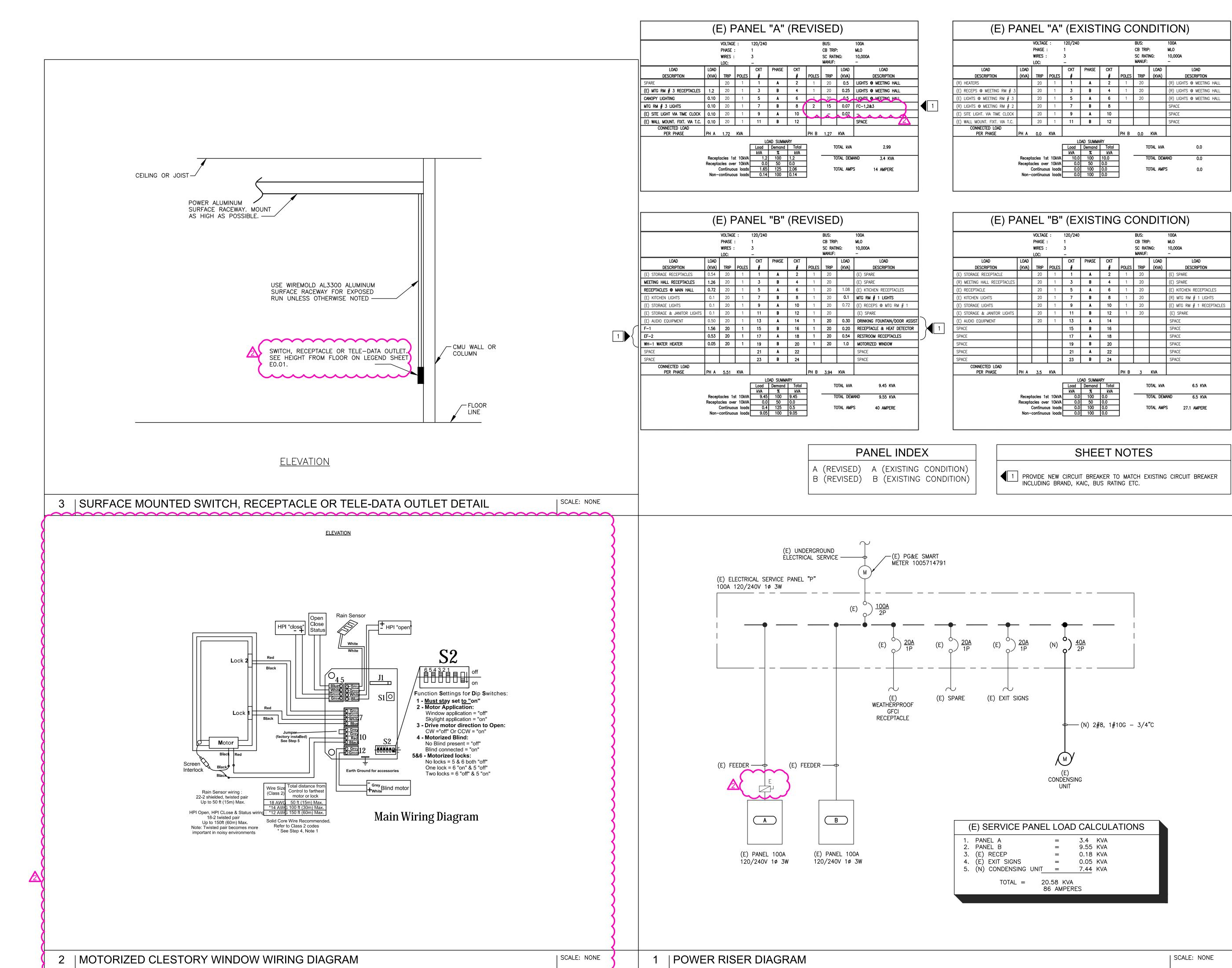


ELECTRICAL ENGINEERS

ENGINEERS SAN FRANCISCO, CA 94104 T (415) 788-8388 F (415) 373-9388

CLERESTORY POWER NEW WORK PLAN





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337 17th Street, Suite 100 Oakland, CA 94612

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					_
RVICE P	ANEL	LOAD	CAL	CULATIONS	
- A - B ECEP XIT SIGNS CONDENSING	UNIT	= = = =	3.4 9.55 0.18 0.05 7.44	KVA KVA KVA	
TOTAL =		58 KVA AMPERE	ES		

RISER DIAGRAM AND PANEL SCHEDULES

