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PUBLIC VENTURA COUNTY WORKS

ENGINEERING SERVICES



KRUGER BENSEN ZIEMER ARCHITECTS, INC.

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PERMIT APPROVAL STAMP BID SET 10/14/2025

Table with 3 columns: NO, REVISION, DATE. Row 1: 1, Initial, 10/14/2025

PUBLIC WORKS PROJECT MANAGER PRINCIPAL-IN-CHARGE RAVISH RAVEENDRA RAO, PE DRAWN BY TPI/JM/TM CHECKED BY RRR/HM ARCHITECTS JOB NO 24004 DATE 10/08/2025 PROJECT TITLE AND ADDRESS

E. P. FOSTER LIBRARY MODERNIZATION

651 E MAIN ST, VENTURA, CA 93001 COUNTY SPEC NUMBER COUNTY PROJECT NUMBER P6T24008 COUNTY DWG NO SHEET OF SHEET TITLE

MECHANICAL EQUIPMENT CUTSHEETS M-400

FOR REFERENCE ONLY

STRUCTURALLY CALCULATED VIBRATION ISOLATION ROOF CURBS FOR PREDATOR (SUN PRO) UNITS. Includes diagrams of roof curb assembly, tables for anchorage bolts and screws, and project information.

WELDMENT AND BOLTING DETAIL. Includes diagrams of steel and wood attachment details, tables for anchorage bolts and screws, and project information.

WELDMENT AND BOLTING DETAIL. Includes diagrams of base curb support and bolt on isolators, tables for anchorage bolts and screws, and project information.

DOWN DISCHARGE CENTRIFUGAL POWER EXHAUST AND ECONOMIZER FOR SSE YORK UNITS. Includes features, technical specifications, diagrams, and project information.

FOR REFERENCE ONLY

STATE OF CALIFORNIA
Mechanical Systems
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE NRCC-MCH-E
This document is used to demonstrate compliance for mechanical systems that are within the scope of the permit application and are demonstrating compliance using the prescriptive path outlined in 140.4, 170.2(b) or 141.0(b) and 180.2(b) for alterations.

Project Name: E.P. FOSTER LIBRARY Report Page: (Page 1 of 27)
Project Address: 2025-10-06T11:51:48-04:00 Date Prepared:

A. GENERAL INFORMATION

01 Project Location (city)	VENTURA	04 Total Conditioned Floor Area	27230
02 Climate Zone	6	05 Total Unconditioned Floor Area	0
03 Occupancy Types Within Project:	06 # of Stories (Habitable Above Grade)		2

Library

B. PROJECT SCOPE
This table includes mechanical systems or components that are within the scope of the permit application and are demonstrating compliance using the prescriptive path outlined in 140.4, 170.2(b) or 141.0(b) and 180.2(b) for alterations.

01 Air System(s)	02 Wet System Components	03 Dry System Components
<input checked="" type="checkbox"/> Heating Air System	<input type="checkbox"/> Water Economizer	<input checked="" type="checkbox"/> Air Economizer
<input checked="" type="checkbox"/> Cooling Air System	<input type="checkbox"/> Pumps	<input type="checkbox"/> Electric Resistance Heat
<input type="checkbox"/> Mechanical Controls	<input type="checkbox"/> System Piping	<input type="checkbox"/> Fan Systems
<input type="checkbox"/> Mechanical Controls (existing to remain, altered or new)	<input type="checkbox"/> Cooling Towers	<input checked="" type="checkbox"/> Ductwork (existing to remain, altered or new)
<input type="checkbox"/> Chillers	<input type="checkbox"/> Boilers	<input checked="" type="checkbox"/> Ventilation
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Zonal Systems/ Terminal Boxes

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STATE OF CALIFORNIA
Mechanical Systems
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE NRCC-MCH-E
Project Name: E.P. FOSTER LIBRARY Report Page: (Page 2 of 27)
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C. COMPLIANCE RESULTS
Table C will indicate if the project data input into the compliance document is compliant with mechanical requirements. This table is not editable by the user. If this table says "DOES NOT COMPLY" or "COMPLIES with Exceptional Conditions" refer to Table D, or the table indicated as not compliant for guidance.

01 System Summary	02 Pumps	03 Fans/Economizers	04 System Controls	05 Ventilation	06 Terminal Box Controls	07 Distribution	08 Cooling Towers	09 Compliance Results
110.1, 110.2, 140.4, 170.2(c)	140.4(k), 170.2(c)4f	140.4(c), 140.4(e), 170.2(c)	110.2, 120.2, 140.4(f), 170.2(c)	120.1, 160.2	140.4(d), 170.2(c)4B	120.3, 140.4(i), 160.2, 160.3	110.2(e)2	
(See Table F)	(See Table G)	(See Table H)	(See Table I)	(See Table J)	(See Table K)	(See Table L)	(See Table M)	
Yes	AND	AND	AND	AND	AND	AND	AND	COMPLIES

D. EXCEPTIONAL CONDITIONS
This table is auto-filled with uneditable comments because of selections made or data entered in tables throughout the form.

E. ADDITIONAL REMARKS
This table includes remarks made by the permit applicant to the Authority Having Jurisdiction.

F. HVAC SYSTEM SUMMARY (DRY & WET SYSTEMS)
Space Conditioning System Information

01 System Name	02 Quantity	03 System Serving	04 System Status	05 Space Type	06 Utilizing Recovered Heat
PKU-1	1	Multi-zone			<input type="checkbox"/>
PKU-2	1	Multi-zone			<input type="checkbox"/>
PKU-3	1	Multi-zone			<input type="checkbox"/>
PKU-4	1	Multi-zone			<input type="checkbox"/>

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STATE OF CALIFORNIA
Mechanical Systems
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F. HVAC SYSTEM SUMMARY (DRY & WET SYSTEMS)
Space Conditioning System Information

01 System Name	02 Quantity	03 System Serving	04 System Status	05 Space Type	06 Utilizing Recovered Heat
PKU-5	1	Multi-zone			<input type="checkbox"/>
PKU-6	1	Multi-zone			<input type="checkbox"/>
PKU-7	1	Multi-zone			<input type="checkbox"/>

Dry System Equipment Sizing (includes air conditioners, condensers, heat pumps, VRF, furnaces and unit heaters and DOAS systems)

01 Name or Item Tag	02 Equipment Category per Tables 110.2, 140.4(a)2 and 170.2(c)3aii	03 Equipment Type per Tables 110.2 and Title 20	04 Smallest Size Available ¹ 140.4(a) and 170.2(c)1	05 Per Design (kBtu/h)	06 Rated (kBtu/h)	07 Supp. Heating Output (kBtu/h)	08 Sensible Per Design (kBtu/h)	09 Rated (kBtu/h)	10 Total Heating Load (kBtu/h)	11 Total Sensible Cooling Load (kBtu/h)
PKU-1	Unitary Heat Pumps	Air-cooled, pkg (3 phase)	Yes	148,000	148,000	0	124,800	156,000	148,000	156,000
PKU-2	Unitary Heat Pumps	Air-cooled, pkg (3 phase)	Yes	148,000	148,000	0	124,800	156,000	148,000	156,000
PKU-3	Unitary Heat Pumps	Air-cooled, pkg (3 phase)	Yes	148,000	148,000	0	124,800	156,000	148,000	156,000
PKU-4	Unitary Heat Pumps	Air-cooled, pkg (3 phase)	Yes	148,000	148,000	0	124,800	156,000	148,000	156,000
PKU-5	Unitary Heat Pumps	Air-cooled, pkg (3 phase)	Yes	148,000	148,000	0	124,800	156,000	148,000	156,000
PKU-6	Unitary Heat Pumps	Air-cooled, pkg (3 phase)	Yes	148,000	148,000	0	124,800	156,000	148,000	156,000
PKU-7	Unitary Heat Pumps	Air-cooled, pkg (3 phase)	Yes	148,000	148,000	0	124,800	156,000	148,000	156,000

¹FOOTNOTES: Equipment shall be the smallest size, within the available options of the desired equipment line, necessary to meet the design heating and cooling loads of the building per 140.4(a) and 170.2(c)1. Healthcare facilities are exempted.
²It is common practice to show rated output capacity on the equipment schedule. Sensible cooling output comes from specification sheet tables.
³If equipment is heating only, leave cooling output and load blank. If equipment is cooling only, leave heating output and load blank.
⁴Authority Having Jurisdiction may ask for load calculations used for compliance per 140.4(b) and 170.2(c).

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STATE OF CALIFORNIA
Mechanical Systems
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F. HVAC SYSTEM SUMMARY (DRY & WET SYSTEMS)
Dry System Equipment Efficiency (other than Package Terminal Air Conditioners (PTAC) and Package Terminal Heat Pumps (PTHP), DX-DOAS and Dual Fuel Heat Pumps)

01 Name or Item Tag	02 Size Category (Btu/h)	03 Rating Condition (°F)	04 Efficiency Unit	05 Minimum Efficiency Required per Tables 110.2 / Title 20	06 Design Efficiency	07 Efficiency Unit	08 Minimum Efficiency Required per Tables 110.2 / Title 20	09 Design Efficiency
PKU-1	>=135,000 and <240,000	47°Fdb/43°Fwb OSA	COP	3.3	3.3	EER	10.6	10.8
PKU-2	>=135,000 and <240,000	47°Fdb/43°Fwb OSA	COP	3.3	3.3	EER	10.6	10.8
PKU-3	>=135,000 and <240,000	47°Fdb/43°Fwb OSA	COP	3.3	3.3	EER	10.6	10.8
PKU-4	>=135,000 and <240,000	47°Fdb/43°Fwb OSA	COP	3.3	3.3	EER	10.6	10.8
PKU-5	>=135,000 and <240,000	47°Fdb/43°Fwb OSA	COP	3.3	3.3	EER	10.6	10.8
PKU-6	>=135,000 and <240,000	47°Fdb/43°Fwb OSA	COP	3.3	3.3	EER	10.6	10.8
PKU-7	>=135,000 and <240,000	47°Fdb/43°Fwb OSA	COP	3.3	3.3	EER	10.6	10.8

G. PUMPS
This section does not apply to this project.

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STATE OF CALIFORNIA
Mechanical Systems
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H. FAN SYSTEMS & AIR ECONOMIZERS
This table is used to demonstrate compliance with prescriptive requirements found in 140.4(c), 140.4(e), 140.4(m), 170.2(c)3, and 170.2(c)4A for fan systems. Fan systems serving only process loads are exempt from these requirements and do not need to be included in Table H.

01 System Name	02 PKU-1	03 Quantity	04 1	05 Fan System Status	06 New	07 System Zoning	08 all other systems	09 Serving Dwelling Units	10 Not Serving Dwelling Units	11 Fan System Airflow (cfm)	12 5,000	13 Site Elevation	14 30	15 Economizer	16 Differential Temperature
Fan Name or Item Tag	Fan Type	Qty	Component	Airflow through Component (%)	Water Gauge (w.g.)	Component Allowance (watt/cfm)	Fan Allowance (watt/cfm) ³	Design Electrical Input Power Method	Motor Nameplate Horsepower	Fan Electrical Input Power (kW)	0.9				
PKU-1	Supply	1	Hydronic/DX cooling coil or heat pump coil	80		0.139	0.1112	Manufacturer provided			0.9				
Supply Fan Base Allowance (watt/cfm)			Exhaust/Return/Relief/Transfer Fan Base Allowance(watt/cfm)			Fan System Allowance (kW) ³		Fan System Electrical Input Power (kW)			0.9				

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STATE OF CALIFORNIA
Mechanical Systems
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H. FAN SYSTEMS & AIR ECONOMIZERS

01 System Name	02 PKU-2	03 Quantity	04 1	05 Fan System Status	06 New	07 System Zoning	08 all other systems	09 Serving Dwelling Units	10 Not Serving Dwelling Units	11 Fan System Airflow (cfm)	12 5,000	13 Site Elevation	14 30	15 Economizer	16 Differential Temperature
Fan Name or Item Tag	Fan Type	Qty	Component	Airflow through Component (%)	Water Gauge (w.g.)	Component Allowance (watt/cfm)	Fan Allowance (watt/cfm) ³	Design Electrical Input Power Method	Motor Nameplate Horsepower	Fan Electrical Input Power (kW)	0.9				
PKU-2	Supply	1	Hydronic/DX cooling coil or heat pump coil	80		0.139	0.1112	Manufacturer provided			0.9				
Supply Fan Base Allowance (watt/cfm)			Exhaust/Return/Relief/Transfer Fan Base Allowance(watt/cfm)			Fan System Allowance (kW) ³		Fan System Electrical Input Power (kW)			0.9				

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STATE OF CALIFORNIA
Mechanical Systems
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H. FAN SYSTEMS & AIR ECONOMIZERS

01 System Name	02 PKU-3	03 Quantity	04 1	05 Fan System Status	06 New	07 System Zoning	08 all other systems	09 Serving Dwelling Units	10 Not Serving Dwelling Units	11 Fan System Airflow (cfm)	12 5,000	13 Site Elevation	14 30	15 Economizer	16 Differential Temperature
Fan Name or Item Tag	Fan Type	Qty	Component	Airflow through Component (%)	Water Gauge (w.g.)	Component Allowance (watt/cfm)	Fan Allowance (watt/cfm) ³	Design Electrical Input Power Method	Motor Nameplate Horsepower	Fan Electrical Input Power (kW)	0.9				
PKU-3	Supply	1	Hydronic/DX cooling coil or heat pump coil	80		0.139	0.1112	Manufacturer provided			0.9				
Supply Fan Base Allowance (watt/cfm)			Exhaust/Return/Relief/Transfer Fan Base Allowance(watt/cfm)			Fan System Allowance (kW) ³		Fan System Electrical Input Power (kW)			0.9				

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STATE OF CALIFORNIA
Mechanical Systems
CALIFORNIA ENERGY COMMISSION

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H. FAN SYSTEMS & AIR ECONOMIZERS

01 System Name	02 PKU-4	03 Quantity	04 1	05 Fan System Status	06 New	07 System Zoning	08 all other systems	09 Serving Dwelling Units	10 Not Serving Dwelling Units	11 Fan System Airflow (cfm)	12 5,000	13 Site Elevation	14 30	15 Economizer	16 Differential Temperature
Fan Name or Item Tag	Fan Type	Qty	Component	Airflow through Component (%)	Water Gauge (w.g.)	Component Allowance (watt/cfm)	Fan Allowance (watt/cfm) ³	Design Electrical Input Power Method	Motor Nameplate Horsepower	Fan Electrical Input Power (kW)	0.9				
PKU-4	Supply	1	Hydronic/DX cooling coil or heat pump coil	80		0.139	0.1112	Manufacturer provided			0.9				
Supply Fan Base Allowance (watt/cfm)			Exhaust/Return/Relief/Transfer Fan Base Allowance(watt/cfm)			Fan System Allowance (kW) ³		Fan System Electrical Input Power (kW)			0.9				

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STATE OF CALIFORNIA
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H. FAN SYSTEMS & AIR ECONOMIZERS

01 System Name	02 PKU-5	03 Quantity	04 1	05 Fan System Status	06 New	07 System Zoning	08 all other systems	09 Serving Dwelling Units	10 Not Serving Dwelling Units	11 Fan System Airflow (cfm)	12 5,000	13 Site Elevation	14 30	15 Economizer	16 Differential Temperature
Fan Name or Item Tag	Fan Type	Qty	Component	Airflow through Component (%)	Water Gauge (w.g.)	Component Allowance (watt/cfm)	Fan Allowance (watt/cfm) ³	Design Electrical Input Power Method	Motor Nameplate Horsepower	Fan Electrical Input Power (kW)	0.9				
PKU-5	Supply	1	Hydronic/DX cooling coil or heat pump coil	80		0.139	0.1112	Manufacturer provided			0.9				
Supply Fan Base Allowance (watt/cfm)			Exhaust/Return/Relief/Transfer Fan Base Allowance(watt/cfm)			Fan System Allowance (kW) ³		Fan System Electrical Input Power (kW)			0.9				

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PROFESSIONAL SEALS

PERMIT APPROVAL STAMP

BID SET
10/14/2025

PERMIT NO	NO	REVISION	DATE
	△		

PUBLIC WORKS PROJECT MANAGER

PRINCIPAL-IN-CHARGE
RAVISH RAVEENDRA RAO, PE

DRAWN BY
TPJ/JMT

CHECKED BY
RR/HM

ARCHITECT'S JOB NO
24004

DATE
10/08/2025

PROJECT TITLE AND ADDRESS

E. P. FOSTER LIBRARY MODERNIZATION
651 E MAIN ST.
VENTURA, CA 93001

COUNTY SPEC NUMBER
-

COUNTY PROJECT NUMBER
P6T24008

COUNTY DWG NO
SHEET ___ OF ___

SHEET TITLE
ENERGY NOTES

EN-001

STATE OF CALIFORNIA
Mechanical Systems
CALIFORNIA ENERGY COMMISSION
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System Name	PKU-6	Quantit y	1	Fan System Status	New	System Zoning	all other systems	Serving Dwelling Units	Not Serving Dwelling Units	Fan System Airflow (cfm)	5,000	Site Elevation	30	Economizer	Differential Temperature	
01	02	03	04			05			06	07	08	09			10	11
Fan Name or Item Tag	Fan Type	Qty	Component			Airflow through Component (%)	Water Gauge (w.g)	Component Allowance (watt/cfm)	Fan Allowance (watt/cfm)	Design Electrical Input Power Method			Motor Nameplate Horsepower	Fan Electrical Input Power (kW)		
PKU-6	Supply	1	Hydronic/DX cooling coil or heat pump coil			80		0.139	0.1112	Manufacturer provided				0.9		
Supply Fan Base Allowance (watt/cfm)	Exhaust/Return/Relief/Transfer Fan Base Allowance(watt/cfm)			Fan System Allowance (kW) ³			Fan System Electrical Input Power (kW)			0.9						

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Mechanical Systems
CALIFORNIA ENERGY COMMISSION
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System Name	PKU-7	Quantit y	1	Fan System Status	New	System Zoning	all other systems	Serving Dwelling Units	Not Serving Dwelling Units	Fan System Airflow (cfm)	5,000	Site Elevation	30	Economizer	Differential Temperature	
01	02	03	04			05			06	07	08	09			10	11
Fan Name or Item Tag	Fan Type	Qty	Component			Airflow through Component (%)	Water Gauge (w.g)	Component Allowance (watt/cfm)	Fan Allowance (watt/cfm)	Design Electrical Input Power Method			Motor Nameplate Horsepower	Fan Electrical Input Power (kW)		
PKU-7	Supply	1	Hydronic/DX cooling coil or heat pump coil			80		0.139	0.1112	Manufacturer provided				0.9		
Supply Fan Base Allowance (watt/cfm)	Exhaust/Return/Relief/Transfer Fan Base Allowance(watt/cfm)			Fan System Allowance (kW) ³			Fan System Electrical Input Power (kW)			0.9						

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I. SYSTEM CONTROLS

²FOOTNOTES: Gravity gas wall heaters, gravity floor heaters, gravity room heaters, non-central electric heaters, fireplaces or decorative gas appliances, wood stoves are not required to have setback thermostats.

J. VENTILATION AND INDOOR AIR QUALITY

This table is used to demonstrate compliance with mandatory ventilation requirements in 120.1.120.2(c)(38) 140.4(p) and 140.4(a) for all nonresidential and hotel/motel and d24refpolink/160.2, 160.3(a)3D, 170.2(a)4N, 170.2(b)4D for high-rise residential occupancies. For alterations, only ventilation systems being altered within the scope of the permit application need to be documented in this table. In lieu of this table, the required outdoor ventilation rates and airflow may be shown on the plans or the calculations can be presented in a spreadsheet.

01	02	03	04			05			06			07						
01	<input type="checkbox"/>	<input type="checkbox"/>	Check the box if the project is showing ventilation calculations on the plans, or attaching the calculations instead of completing this table.			Air Filtration per 120.1(c) 141.0(b)2 and 160.2(c)21 ²			Provided			Yes						
02	<input type="checkbox"/>	<input type="checkbox"/>	Check this box if the project included Nonresidential, Hotel/Motel Spaces or Multifamily Common Use Spaces			Mechanical Ventilation Required per 120.1(c)3 ³ & 160.2(c)3			Exh. Vent per 120.1(c)4 & 160.2(c)4			DCV or Sensor Controls per 120.1(d)3, 120.1(d)5, and 120.1(e)3 ³ 160.2(c)5D 160.2(c)5E 160.2(c)5D						
03	<input type="checkbox"/>	<input type="checkbox"/>	Check the box if the project is using natural ventilation in any nonresidential or hotel/motel spaces to meet required ventilation rates per 120.1(c)2.			Occupancy Type ⁴			Conditioned Floor Area (ft ²)	# of Shower heads/ toilets	# of people ⁵	Required Min OA CFM	Required Min CFM	Provided per Design CFM	DCV	Provided per \$120.1(d)4		
Nonresidential and Hotel/ Motel Multifamily Common Use Ventilation Systems			04			05			06			07						
System Name	PKU-1	System Design OA CFM Airflow ¹	1500	System Design Transfer Air CFM	0	Air Filtration per 120.1(c) 141.0(b)2 and 160.2(c)21 ²			Provided			Yes						
08	09	10	11	12	13	14	15	Mechanical Ventilation Required per 120.1(c)3 ³ & 160.2(c)3			Exh. Vent per 120.1(c)4 & 160.2(c)4			DCV or Sensor Controls per 120.1(d)3, 120.1(d)5, and 120.1(e)3 ³ 160.2(c)5D 160.2(c)5E 160.2(c)5D				
Space Name or Item Tag	Occupancy Type ⁴	Conditioned Floor Area (ft ²)	# of Shower heads/ toilets	# of people ⁵	Required Min OA CFM	Required Min CFM	Provided per Design CFM	DCV	Provided per \$120.1(d)4	Occup Sensor	Provided per \$120.1(d)5	Total System Required Min OA CFM			310.05	18	Ventilation for this System Complies?	Yes
Topping Room, Vestibule	Conference/ meeting	2067			310.05				Provided per \$120.1(d)4	Occup Sensor	Provided per \$120.1(d)5	Total System Required Min OA CFM			310.05	18	Ventilation for this System Complies?	Yes
17	Total System Required Min OA CFM			663.75	18	Ventilation for this System Complies?			Yes									

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J. VENTILATION AND INDOOR AIR QUALITY

This table is used to demonstrate compliance with mandatory ventilation requirements in 120.1.120.2(c)(38) 140.4(p) and 140.4(a) for all nonresidential and hotel/motel and d24refpolink/160.2, 160.3(a)3D, 170.2(a)4N, 170.2(b)4D for high-rise residential occupancies. For alterations, only ventilation systems being altered within the scope of the permit application need to be documented in this table. In lieu of this table, the required outdoor ventilation rates and airflow may be shown on the plans or the calculations can be presented in a spreadsheet.

04	05	06	07															
System Name	PKU-2	System Design OA CFM Airflow ¹	550	System Design Transfer Air CFM	0	Air Filtration per 120.1(c) 141.0(b)2 and 160.2(c)21 ²			Provided			Yes						
08	09	10	11	12	13	14	15	Mechanical Ventilation Required per 120.1(c)3 ³ & 160.2(c)3			Exh. Vent per 120.1(c)4 & 160.2(c)4			DCV or Sensor Controls per 120.1(d)3, 120.1(d)5, and 120.1(e)3 ³ 160.2(c)5D 160.2(c)5E 160.2(c)5D				
Space Name or Item Tag	Occupancy Type ⁴	Conditioned Floor Area (ft ²)	# of Shower heads/ toilets	# of people ⁵	Required Min OA CFM	Required Min CFM	Provided per Design CFM	DCV	Provided per \$120.1(d)4	Occup Sensor	Provided per \$120.1(d)5	Total System Required Min OA CFM			457.2	18	Ventilation for this System Complies?	Yes
Technology Center	Computer (not printing)	3048			457.2				Provided per \$120.1(d)4	Occup Sensor	Provided per \$120.1(d)5	Total System Required Min OA CFM			457.2	18	Ventilation for this System Complies?	Yes
17	Total System Required Min OA CFM			630	18	Ventilation for this System Complies?			Yes									

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J. VENTILATION AND INDOOR AIR QUALITY

This table is used to demonstrate compliance with mandatory ventilation requirements in 120.1.120.2(c)(38) 140.4(p) and 140.4(a) for all nonresidential and hotel/motel and d24refpolink/160.2, 160.3(a)3D, 170.2(a)4N, 170.2(b)4D for high-rise residential occupancies. For alterations, only ventilation systems being altered within the scope of the permit application need to be documented in this table. In lieu of this table, the required outdoor ventilation rates and airflow may be shown on the plans or the calculations can be presented in a spreadsheet.

04	05	06	07															
System Name	PKU-6	System Design OA CFM Airflow ¹	550	System Design Transfer Air CFM	0	Air Filtration per 120.1(c) 141.0(b)2 and 160.2(c)21 ²			Provided			Yes						
08	09	10	11	12	13	14	15	Mechanical Ventilation Required per 120.1(c)3 ³ & 160.2(c)3			Exh. Vent per 120.1(c)4 & 160.2(c)4			DCV or Sensor Controls per 120.1(d)3, 120.1(d)5, and 120.1(e)3 ³ 160.2(c)5D 160.2(c)5E 160.2(c)5D				
Space Name or Item Tag	Occupancy Type ⁴	Conditioned Floor Area (ft ²)	# of Shower heads/ toilets	# of people ⁵	Required Min OA CFM	Required Min CFM	Provided per Design CFM	DCV	Provided per \$120.1(d)4	Occup Sensor	Provided per \$120.1(d)5	Total System Required Min OA CFM			542.7	18	Ventilation for this System Complies?	Yes
Juvenile Fiction, Homework Center	Library - reading room/ stacks	3618			542.7				Provided per \$120.1(d)4	Occup Sensor	Provided per \$120.1(d)5	Total System Required Min OA CFM			542.7	18	Ventilation for this System Complies?	Yes
17	Total System Required Min OA CFM			663.75	18	Ventilation for this System Complies?			Yes									

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J. VENTILATION AND INDOOR AIR QUALITY

This table is used to demonstrate compliance with mandatory ventilation requirements in 120.1.120.2(c)(38) 140.4(p) and 140.4(a) for all nonresidential and hotel/motel and d24refpolink/160.2, 160.3(a)3D, 170.2(a)4N, 170.2(b)4D for high-rise residential occupancies. For alterations, only ventilation systems being altered within the scope of the permit application need to be documented in this table. In lieu of this table, the required outdoor ventilation rates and airflow may be shown on the plans or the calculations can be presented in a spreadsheet.

04	05	06	07															
System Name	PKU-7	System Design OA CFM Airflow ¹	600	System Design Transfer Air CFM	0	Air Filtration per 120.1(c) 141.0(b)2 and 160.2(c)21 ²			Provided			Yes						
08	09	10	11	12	13	14	15	Mechanical Ventilation Required per 120.1(c)3 ³ & 160.2(c)3			Exh. Vent per 120.1(c)4 & 160.2(c)4			DCV or Sensor Controls per 120.1(d)3, 120.1(d)5, and 120.1(e)3 ³ 160.2(c)5D 160.2(c)5E 160.2(c)5D				
Space Name or Item Tag	Occupancy Type ⁴	Conditioned Floor Area (ft ²)	# of Shower heads/ toilets	# of people ⁵	Required Min OA CFM	Required Min CFM	Provided per Design CFM	DCV	Provided per \$120.1(d)4	Occup Sensor	Provided per \$120.1(d)5	Total System Required Min OA CFM			587.1	18	Ventilation for this System Complies?	Yes
Homework Center, Lobby, Staff	Library - reading room/ stacks	3914			587.1				Provided per \$120.1(d)4	Occup Sensor	Provided per \$120.1(d)5	Total System Required Min OA CFM			587.1	18	Ventilation for this System Complies?	Yes
17	Total System Required Min OA CFM			587.1	18	Ventilation for this System Complies?			Yes									

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System Name	PKU-3	Quantit y	1	Fan System Status	New	System Zoning	all other systems	Serving Dwelling Units	Not Serving Dwelling Units	Fan System Airflow (cfm)	5,000	Site Elevation	30	Economizer	Differential Temperature	
01	02	03	04			05			06	07	08	09			10	11
Fan Name or Item Tag	Fan Type	Qty	Component			Airflow through Component (%)	Water Gauge (w.g)	Component Allowance (watt/cfm)	Fan Allowance (watt/cfm)	Design Electrical Input Power Method			Motor Nameplate Horsepower	Fan Electrical Input Power (kW)		
PKU-3	Supply	1	Embedded Fan <SHP or <4.1kW							Manufacturer provided				0.9		
Supply Fan Base Allowance (watt/cfm)	Exhaust/Return/Relief/Transfer Fan Base Allowance(watt/cfm)			Fan System Allowance (kW) ³			Fan System Electrical Input Power (kW)			0.9						

I. SYSTEM CONTROLS

This table is used to demonstrate compliance with mandatory controls in 110.2 and 120.2 and prescriptive controls in 140.4(f) and (n), 170.2(c)4D 170.2(c)4L or requirements in 141.0(b)2E 180.2(b)2 for altered space conditioning systems.

01	02	03	04			05			06			07			08			09			10		
System Name	PKU-1	System Zoning	Conditioned Floor Area Being Served (ft ²)	Thermostats 110.2(b) & (c) ¹ , 120.2(a) 160.3(a)2A or 141.0(b)2E & 180.2(b)2	Shut-Off Controls 120.2(e) & 160.3(a)2D	Isolation Zone Controls 120.2(g) & 160.3(a)2F	Demand Response 110.12 120.2(b) & 160.3(a)2B	Supply Air Temp. Reset 140.4(f) & 170.2(c)4D	Window Interlocks per 140.4(n) & 170.2(c)4D	Direct Digital Control (DDC) per 120.2													
PKU-1	Multi-zone	<= 25,000 ft ²	Setback	4 Hour Timer	NA: Servs < 25k ft ²	DR Tstat per 110.12	Included	NA: No operable windows	Provided														
PKU-2	Multi-zone	<= 25,000 ft ²	Setback	4 Hour Timer	NA: Servs < 25k ft ²	DR Tstat per 110.12	Included	NA: No operable windows	Provided														
PKU-3	Multi-zone	<= 25,000 ft ²	Setback	4 Hour Timer	NA: Servs < 25k ft ²	DR Tstat per 110.12	Included	NA: No operable windows	Provided														
PKU-4	Multi-zone	<= 25,000 ft ²	Setback	4 Hour Timer	NA: Servs < 25k ft ²	DR Tstat per 110.12	Included	NA: No operable windows	Provided														
PKU-5	Multi-zone	<= 25,000 ft ²	Setback	4 Hour Timer	NA: Servs < 25k ft ²	DR Tstat per 110.12	Included	NA: No operable windows	Provided														
PKU-6	Multi-zone	<= 25,000 ft ²	Setback	4 Hour Timer	NA: Servs < 25k ft ²	DR Tstat per 110.12	Included	NA: No operable windows	Provided														
PKU-7	Multi-zone	<= 25,000 ft ²	Setback	4 Hour Timer	NA: Servs < 25k ft ²	DR Tstat per 110.12	Included	NA: No operable windows	Provided														

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J. VENTILATION AND INDOOR AIR QUALITY

This table is used to demonstrate compliance with mandatory ventilation requirements in 120.1.120.2(c)(38) 140.4(p) and 140.4(a) for all nonresidential and hotel/motel and d24refpolink/160.2, 160.3(a)3D, 170.2(a)4N, 170.2(b)4D for high-rise residential occupancies. For alterations, only ventilation systems being altered within the scope of the permit application need to be documented in this table. In lieu of this table, the required outdoor ventilation rates and airflow may be shown on the plans or the calculations can be presented in a spreadsheet.

04	05	06	07															
System Name	PKU-4	System Design OA CFM Airflow ¹	900	System Design Transfer Air CFM	0	Air Filtration per 120.1(c) 141.0(b)2 and 160.2(c)21 ²			Provided			Yes						
08	09	10	11	12	13	14	15	Mechanical Ventilation Required per 120.1(c)3 ³ & 160.2(c)3			Exh. Vent per 120.1(c)4 & 160.2(c)4			DCV or Sensor Controls per 120.1(d)3, 120.1(d)5, and 120.1(e)3 ³ 160.2(c)5D 160.2(c)5E 160.2(c)5D				
Space Name or Item Tag	Occupancy Type ⁴	Conditioned Floor Area (ft ²)	# of Shower heads/ toilets	# of people ⁵	Required Min OA CFM	Required Min CFM	Provided per Design CFM	DCV	Provided per \$120.1(d)4	Occup Sensor	Provided per \$120.1(d)5	Total System Required Min OA CFM			871.5	18	Ventilation for this System Complies?	Yes
Juvenile/Adult Non-Fiction, Conference, Documents, Staff	Library - reading room/ stacks	5810			871.5				Provided per \$120.1(d)4	Occup Sensor	Provided per \$120.1(d)5	Total System Required Min OA CFM			871.5	18	Ventilation for this System Complies?	Yes
17	Total System Required Min OA CFM			630	18	Ventilation for this System Complies?			Yes									

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L. DISTRIBUTION (DUCTWORK AND PIPING)

This table is used to demonstrate compliance with mandatory ductwork and piping requirements in 120.3 and 120.4(g) for duct sealing. Examples of spaces which require lighting occupancy sensors include offices 250ft² or smaller, multipurpose rooms less than 1,000 ft², classrooms, conference rooms, restrooms, corridors, and open areas in warehouses, library book stack aisles, corridors, stairwells, parking garages, and loading and unloading zones, unless excepted by 130.1(c).

11	12	13	14	15	16	17	18	19	20	21	22	23																										
11	No	The scope of the project includes only duct systems serving healthcare facilities	12	Yes	Duct system provides conditioned air to an occupiable space for a constant volume, single zone, space-conditioning system.	13	Yes	The space conditioning system serves less than 5,000 ft ² of conditioned floor area.	14	No	The combined surface area of the ducts is more than 25% of the total surface area of the entire duct system.	15	No	The scope of the project includes extending an existing duct system, which is constructed, insulated or sealed with asbestos.	16	No	The scope of the project includes an existing duct system that is documented to have been previously sealed as confirmed through field verification and diagnostic testing in accordance with procedures in the Reference Nonresidential Appendix NA2.	17	Yes	All Ductwork and plenums with pressure class ratings shall be constructed to Seal Class A	18	No	All ductwork is an extension of an existing duct system	19	No	Ductwork serving individual dwelling unit	20		< 25 ft of new or replacement space conditioning ducts installed	21	R-8	Duct Insulation R-value	22	No	Ductwork Existing To Remain	23	No	Duct System Connected To Altered Space Conditioning System

The answers to the questions below apply to the following



COUNTY OF VENTURA Library

PUBLIC VENTURA COUNTY WORKS

ENGINEERING SERVICES



KRUGER BENSEN ZIEMER ARCHITECTS, INC. 199 FIGUEROA STREET, SUITE 100A VENTURA, CA 93001 TELEPHONE (805) 943-1726

TODD A JESPersen AIA PRINCIPAL-IN-CHARGE JONATHAN D LEE AIA PROJECT MANAGER

All items, design arrangements and plans indicated or represented by this drawing are owned by and are the property of Kruger-Bensen-Ziemer, AIA, architects, and were created, evolved and developed for use on, and in connection with, the specified projects. None of such items, design, arrangements or plans shall be made by or disclosed to any person, firm or corporation for any purpose whatsoever without the written permission of Kruger-Bensen-Ziemer.



AE Group Mechanical Engineers 838 East Front Street Ventura, California 93001 (805) 653-1722 hugh@aegrp.com



BID SET 10/14/2025

Table with 3 columns: NO, REVISION, DATE. Includes a revision entry for a permit approval stamp.

PERMIT APPROVAL STAMP PUBLIC WORKS PROJECT MANAGER

PRINCIPAL-IN-CHARGE RAVISH RAVEENDRA RAO, PE DRAWN BY TP/LJMT CHECKED BY RRR/HM ARCHITECT'S JOB NO DATE 10/08/2025 PROJECT TITLE AND ADDRESS

E. P. FOSTER LIBRARY MODERNIZATION 651 E MAIN ST, VENTURA, CA 93001 COUNTY SPEC NUMBER COUNTY PROJECT NUMBER P6T24008 COUNTY DWG NO SHEET OF SHEET TITLE

ENERGY NOTES

EN-003

STATE OF CALIFORNIA Mechanical Systems CERTIFICATE OF COMPLIANCE NRCC-MCH-E Project Name: E.P. FOSTER LIBRARY Report Page: (Page 21 of 27) Date Prepared: 2025-10-06T11:51:48-04:00 L. DISTRIBUTION (DUCTWORK and PIPING) Dwelling Units: Total duct leakage of duct system shall not exceed 12% or duct system to outside shall not exceed 6% per RA3.1.4 required for systems? Duct leakage testing per CMC Section 603.9.2 required for these systems? Yes

STATE OF CALIFORNIA Mechanical Systems CERTIFICATE OF COMPLIANCE NRCC-MCH-E Project Name: E.P. FOSTER LIBRARY Report Page: (Page 24 of 27) Date Prepared: 2025-10-06T11:51:48-04:00 L. DISTRIBUTION (DUCTWORK and PIPING) Dwelling Units: Total duct leakage of duct system shall not exceed 12% or duct system to outside shall not exceed 6% per RA3.1.4 required for systems? Duct leakage testing per CMC Section 603.9.2 required for these systems? Yes

STATE OF CALIFORNIA Mechanical Systems CERTIFICATE OF COMPLIANCE NRCC-MCH-E Project Name: E.P. FOSTER LIBRARY Report Page: (Page 27 of 27) Date Prepared: 2025-10-06T11:51:48-04:00 DOCUMENTATION AUTHOR'S DECLARATION STATEMENT I certify that this Certificate of Compliance documentation is accurate and complete. Documentation Author Name: Ravish Rao Signature Date: 10/06/2025 RESPONSIBLE PERSON'S DECLARATION STATEMENT certify the following under penalty of perjury, under the laws of the State of California: 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 responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer) of the 24, Part 1 and Part of the California Code of Regulations. 3. 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 the building design 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. 4. 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 building provides to the building owner at occupancy. Responsible Designer Name: RAVISH RAO Signature Date: 10/06/2025 License: No. A33461 City/State/Zip: Ventura, CA 93001

STATE OF CALIFORNIA Mechanical Systems CERTIFICATE OF COMPLIANCE NRCC-MCH-E Project Name: E.P. FOSTER LIBRARY Report Page: (Page 20 of 27) Date Prepared: 2025-10-06T11:51:48-04:00 L. DISTRIBUTION (DUCTWORK and PIPING) Dwelling Units: Total duct leakage of duct system shall not exceed 12% or duct system to outside shall not exceed 6% per RA3.1.4 required for systems? Duct leakage testing per CMC Section 603.9.2 required for these systems? Yes

STATE OF CALIFORNIA Mechanical Systems CERTIFICATE OF COMPLIANCE NRCC-MCH-E Project Name: E.P. FOSTER LIBRARY Report Page: (Page 23 of 27) Date Prepared: 2025-10-06T11:51:48-04:00 L. DISTRIBUTION (DUCTWORK and PIPING) Dwelling Units: Total duct leakage of duct system shall not exceed 12% or duct system to outside shall not exceed 6% per RA3.1.4 required for systems? Duct leakage testing per CMC Section 603.9.2 required for these systems? Yes

STATE OF CALIFORNIA Mechanical Systems CERTIFICATE OF COMPLIANCE NRCC-MCH-E Project Name: E.P. FOSTER LIBRARY Report Page: (Page 26 of 27) Date Prepared: 2025-10-06T11:51:48-04:00 P. DECLARATION OF REQUIRED CERTIFICATES OF VERIFICATION There are no NRCV forms required for this project. Q. MANDATORY MEASURES DOCUMENTATION LOCATION This table is used to indicate where mandatory measures are documented in the plan set or construction documentation. 01 Plan sheet or construction document location 02 Mandatory Measures Note Block Compliance with Mandatory Measures documented through MCH Yes Plan sheet or construction document location M-001

STATE OF CALIFORNIA Mechanical Systems CERTIFICATE OF COMPLIANCE NRCC-MCH-E Project Name: E.P. FOSTER LIBRARY Report Page: (Page 19 of 27) Date Prepared: 2025-10-06T11:51:48-04:00 L. DISTRIBUTION (DUCTWORK and PIPING) Dwelling Units: Total duct leakage of duct system shall not exceed 12% or duct system to outside shall not exceed 6% per RA3.1.4 required for systems? Duct leakage testing per CMC Section 603.9.2 required for these systems? Yes

STATE OF CALIFORNIA Mechanical Systems CERTIFICATE OF COMPLIANCE NRCC-MCH-E Project Name: E.P. FOSTER LIBRARY Report Page: (Page 22 of 27) Date Prepared: 2025-10-06T11:51:48-04:00 L. DISTRIBUTION (DUCTWORK and PIPING) Dwelling Units: Total duct leakage of duct system shall not exceed 12% or duct system to outside shall not exceed 6% per RA3.1.4 required for systems? Duct leakage testing per CMC Section 603.9.2 required for these systems? Yes

STATE OF CALIFORNIA Mechanical Systems CERTIFICATE OF COMPLIANCE NRCC-MCH-E Project Name: E.P. FOSTER LIBRARY Report Page: (Page 25 of 27) Date Prepared: 2025-10-06T11:51:48-04:00 N. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION Selections have been made based on information provided in previous tables of this document. If any selection needs to be changed, please explain why in Table E Additional Remarks. These documents must be provided to the building inspector during construction and can be found online at https://www.energy.ca.gov/programs-and-topics/programs/building-energy-efficiency-standards/2022-building-energy-efficiency-4 Form/Title NRC-MCH-01-E - Must be submitted for all buildings O. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE Selections have been made based on information provided in previous tables of this document. If any selection needs to be changed, please explain why in Table E Additional Remarks. These documents must be provided to the building inspector during construction and can be found online at https://www.energy.ca.gov/programs-and-topics/programs/building-energy-efficiency-standards/2022-building-energy-efficiency-4 Form/Title NRCA-MCH-02-A - Outdoor Air must be submitted for all newly installed HVAC units. Note: MCH-02-A can be performed in conjunction with MCH-07-A Supply Fan VFD Acceptance (if applicable) since testing activities overlap. NRCA-MCH-05-A - Air Economizer Controls NRCA-MCH-06-A Demand Control Ventilation Systems must be submitted for all systems required to employ demand controlled ventilation (refer to I20.1(c)(3) can vary outside ventilation flow rates based on maintaining interior carbon dioxide (CO2) concentration setpoints. NRCA-MCH-13-A Automatic FDD for Air Handling Units and Zone Terminal Units Acceptance NRCA-MCH-16-A Supply Air Temperature Reset Controls

PLUMBING NOTES

1. SCOPE OF WORK: PLUMBING WORK INCLUDES THE FOLLOWING: DEMOLITION OF EXISTING PLUMBING FIXTURES & PIPING BOTH BELOW GRADE & ABOVE GRADE PIPING INDICATED ON THE THE PLUMBING AND ARCHITECTURAL DRAWINGS. FURNISH AND INSTALL ALL PIPING AND PLUMBING FIXTURES SHOWN ON THE PLUMBING AND ARCHITECTURAL DRAWINGS AND DESCRIBED IN THESE NOTES AND THE BOOK SPECIFICATIONS, UNLESS OTHERWISE DIRECTED BY BUILDING OWNER, CONTRACTOR SHALL ARRANGE FOR AND PAY ALL FEES FOR CONNECTIONS TO UTILITIES FOR WATER AND SEWER. IN CONNECTION WITH THIS WORK, CONTRACTOR SHALL ALSO FURNISH AND INSTALL ALL NECESSARY LABOR, DEVICES, HARDWARE AND SYSTEMS REQUIRED TO MAKE SAID SYSTEMS PROPERLY AND SAFELY OPERABLE, INCLUDING, BUT NOT LIMITED TO, CONCRETE SAW CUTTING, TRENCHING AND BACKFILL, MOUNTING AND SUPPORT HARDWARE, FRAMING, INSULATION, VALVES, CLEANOUTS AND PATCHING & PAINTING.

2. EXAMINATION OF SITE AND CONTRACT DOCUMENTS. EACH BIDDER SHALL, AT ITS SOLE COST AND EXPENSE, INSPECT THE SITE OF THE PROPOSED WORK TO BECOME FULLY ACQUAINTED WITH CONDITIONS RELATING TO THE WORK AND TO FULLY UNDERSTAND THE FACILITIES, DIFFICULTIES AND RESTRICTIONS ATTENDING THE EXECUTION OF THE WORK UNDER THE CONTRACT DOCUMENTS AND COST THEREOF. BIDDERS SHALL THOROUGHLY REVIEW AND BE FAMILIAR WITH THE CONTRACT DOCUMENTS, INCLUDING WITHOUT LIMITATION, THE SPECIFICATIONS AND THE DRAWINGS, THE FAILURE OR OMISSION OF ANY BIDDER TO RECEIVE OR EXAMINE ANY OF THE CONTRACT DOCUMENTS, FORMS, INSTRUMENTS, ADDENDA, OR OTHER DOCUMENTS OR TO INSPECT THE SITE SHALL NOT RELIEVE SUCH BIDDER FROM ANY OBLIGATIONS WITH RESPECT TO THE BID PROPOSAL, THE CONTRACT OR THE WORK REQUIRED UNDER THE CONTRACT DOCUMENTS. THE OWNER ASSUMES NO RESPONSIBILITY OR LIABILITY TO ANY BIDDER FOR, NOR SHALL THE OWNER BE BOUND BY, ANY UNDERSTANDINGS, REPRESENTATIONS OR AGREEMENTS OF THE OWNER'S AGENTS, EMPLOYEES OR OFFICERS CONCERNING THE CONTRACT DOCUMENTS OR THE WORK MADE PRIOR TO EXECUTION OF THE CONTRACT. THE SUBMISSION OF A BID PROPOSAL SHALL BE DEEMED PRIMA FACIE EVIDENCE OF THE BIDDERS FULL COMPLIANCE WITH THE REQUIREMENTS OF THIS SECTION.

3. INTERPRETATION OF DRAWINGS, SPECIFICATIONS OR CONTRACT DOCUMENTS. IF ANY BIDDER IS IN DOUBT AS TO THE TRUE MEANING OF ANY PART OF THE DRAWINGS, THE SPECIFICATIONS OR OTHER PORTIONS OF THE CONTRACT DOCUMENTS, FINDS DISCREPANCIES, ERRORS OR OMISSIONS THEREIN, OR FINDS VARIANCES IN ANY OF THE CONTRACT DOCUMENTS WITH APPLICABLE RULES, REGULATIONS, ORDINANCES AND/OR LAWS, A WRITTEN REQUEST FOR AN INTERPRETATION OR CORRECTION THEREOF MAY BE SUBMITTED TO THE ENGINEER. IT IS THE SOLE AND EXCLUSIVE RESPONSIBILITY OF THE BIDDER TO SUBMIT SUCH REQUEST IN SUFFICIENT TIME FOR THE PREPARATION OF A RESPONSE THERE TO AND DELIVERY OF SUCH RESPONSE TO ALL BIDDERS PRIOR TO THE SCHEDULED CLOSING FOR RECEIPT OF BID PROPOSALS. ANY REQUEST OF ANY BIDDER, PURSUANT TO THE FOREGOING SENTENCE THAT IS MADE LESS THAN SEVEN DAYS PRIOR TO THE SCHEDULED CLOSING DATE FOR THE RECEIPT OF BID PROPOSALS SHALL BE DEEMED UNTIMELY. ANY INTERPRETATION OR CORRECTION OF THE CONTRACT DOCUMENTS WILL BE MADE ONLY BY WRITTEN ADDENDUM DULY ISSUED BY THE OWNER OR THE ENGINEER. A COPY OF ANY SUCH ADDENDUM WILL BE MAILED OR OTHERWISE DELIVERED TO EACH BIDDER RECEIVING A COPY OF THE CONTRACT DOCUMENTS. NO PERSON IS AUTHORIZED TO RENDER AN ORAL INTERPRETATION OR CORRECTION OF ANY PORTION OF THE CONTRACT DOCUMENTS TO ANY BIDDER, AND NO BIDDER IS AUTHORIZED TO RELY ON ANY SUCH ORAL INTERPRETATION OR CORRECTION. FAILURE TO REQUEST INTERPRETATION OR CLARIFICATION OF THE DRAWINGS, THE SPECIFICATIONS OR OTHER PORTIONS OF THE CONTRACT DOCUMENTS PURSUANT TO THE FOREGOING SHALL BE DEEMED TO BE A WAIVER OF ANY DISCREPANCY, DEFECT, OR CONFLICT THEREIN.

4. DIMENSIONS. ALL DIMENSIONS SHALL HAVE PREFERENCE OVER SCALE. ALL DIMENSIONS SHALL BE VERIFIED IN THE FIELD. BIDDER SHALL BE NOTIFIED OF ANY DISCREPANCIES BETWEEN ARCHITECTURAL AND ENGINEERING DRAWINGS BEFORE PROCEEDING WITH WORK. IN NO CASE SHALL WORKING DIMENSIONS BE SCALED FROM PLANS, SECTIONS, OR DETAILS ON WORKING DRAWINGS. ALL SIZES OF EQUIPMENT AND MATERIALS SHALL BE VERIFIED WITH EQUIPMENT MANUFACTURER. ALL PLUMBING FIXTURES SHALL BE INSTALLED PER THE DIMENSIONS ON THE ARCHITECTURAL DRAWINGS.

5. CODES AND STANDARDS: ALL WORK SHALL COMPLY WITH THE REQUIREMENTS OF THE TITLE 24 2022 CALIFORNIA CODE OF REGULATIONS (CCR), 2022 CALIFORNIA PLUMBING CODE, PART 5, TITLE 24 CCR, THE 2022 CALIFORNIA MECHANICAL CODE, PART 4, TITLE 24 CCR, THE 2022 CALIFORNIA BUILDING CODE, 2022 CALIFORNIA GREEN BUILDING STANDARDS CODE, 2022 CALIFORNIA FIRE CODE, VENTURA COUNTY BUILDING CODE, THE STATE OF CALIFORNIA, THE LOCAL JURISDICTION, AND STANDARD CONSTRUCTION PRACTICES. ALL PLUMBING FIXTURES SHALL BE IN STRICT ACCORDANCE WITH THE FIXTURE SCHEDULE, AND SHALL BE NEW AND FREE FROM DEFECTS. CONTRACTOR SHALL OBTAIN AND PAY FOR ALL REQUIRED PERMITS AND FEES, AND SHALL OBTAIN APPROVED INSPECTIONS FOR ALL WORK AS REQUIRED BY OWNER, AND LOCAL JURISDICTION. CONTRACTOR SHALL MAINTAIN IN EFFECT ALL INSURANCE REQUIRED BY STATE LAWS, LOCAL JURISDICTION, AND GENERAL CONTRACTOR OWNER, WHERE CONFLICT OR VARIATION EXISTS AMONGST CODES, STANDARDS SPECIFICATIONS, OR DRAWINGS, THE MOST STRINGENT SHALL GOVERN.

6. SUBMITTALS REQUIRED: PRIOR TO ORDERING FIXTURES AND MATERIALS, CONTRACTOR SHALL FURNISH SUBMITTALS OF ALL FIXTURES AND MATERIALS PROPOSED FOR USE IN THIS PROJECT. ALL FIXTURES AND MATERIALS SHALL BE INSTITUTIONAL GRADE HEAVY DUTY QUALITY. ORDERING OF FIXTURES AND MATERIALS SHALL ONLY PROCEED AFTER SATISFACTORY REVIEW OF ALL SUBMITTALS BY ENGINEER / OWNER. COPIES OF ALL OWNERS' MANUALS, WARRANTIES, AND OTHER WRITTEN INFORMATION REGARDING SYSTEMS SHALL BE SUBMITTED TO OWNER.

7. CONSTRUCTION OBSERVATION: IN ADDITION TO THE REQUIREMENT FOR OBTAINING INSPECTIONS BY THE LOCAL JURISDICTION, CONTRACTOR SHALL NOTIFY ENGINEER AT APPROPRIATE TIMES DURING THE CONSTRUCTION PROCESS SO THAT ENGINEER CAN VISIT SITE TO BECOME GENERALLY FAMILIAR WITH THE PROGRESS AND QUALITY OF CONTRACTOR'S WORK AND TO DETERMINE IF THE WORK IS PROCEEDING IN GENERAL ACCORDANCE WITH THE CONTRACT DOCUMENTS.

8. TRENCHING: MATERIAL SHALL BE EXCAVATED FROM TRENCHES AND PILED ADJACENT TO THE TRENCH. MATERIAL SHALL BE PILED IN SUCH A MANNER THAT WILL CAUSE A MINIMUM OF INCONVENIENCE TO PUBLIC TRAVEL. ALL ROCK, BOULDERS, AND STONES SHALL BE REMOVED TO PROVIDE A MINIMUM CLEARANCE OF SIX (6) INCHES UNDER AND AROUND PIPES. EXCAVATIONS SHALL BE KEPT FREE OF WATER. TRENCHES SHALL BE DUG TO TRUE AND SMOOTH BOTTOM GRADES AND IN ACCORDANCE WITH THE LINES INDICATED ON DRAWINGS AND AROUND DIRECTED TRENCH WIDTHS SHALL NOT EXCEED 30 INCHES OR THE OUTSIDE DIAMETER OF THE PIPE PLUS 18 INCHES WHICHEVER IS GREATER. MINIMUM TRENCH WIDTH SHALL BE THE OUTSIDE DIAMETER OF PIPE INSTALLED PLUS 12 INCHES.

DEPTH OF TRENCHING FOR WATER PIPING SHALL BE SUCH AS TO GIVE A MINIMUM COVER OF 18 INCHES OVER THE TOP OF THE PIPE. DEEPER EXCAVATION MAY BE REQUIRED DUE TO LOCALIZED BREAKS IN GRADE, OR TO INSTALL THE NEW PIPING UNDER EXISTING CULVERTS OR OTHER UTILITIES WHERE NECESSARY.

TRENCHING FOR SEWERS AND DRAINS SHALL BE OF SUFFICIENT WIDTH TO PERMIT PROPER JOINTING OF THE PIPE AND BACKFILLING OF MATERIAL ALONG THE SIDES OF THE PIPE. TRENCH WIDTH AT THE SURFACE OF THE GROUND SHALL BE KEPT TO THE MINIMUM AMOUNT NECESSARY TO INSTALL THE PIPE IN A SAFE MANNER. TRENCHES SHALL BE EXCAVATED BELOW THE BARREL OF THE PIPE A SUFFICIENT DISTANCE TO PROVIDE FOR BEDDING MATERIAL.

WHERE THE TRENCH BOTTOM IS IN A MATERIAL WHICH IS UNSUITABLE FOR FOUNDATION OR WHICH WILL MAKE IT DIFFICULT TO OBTAIN UNIFORM BEARING FOR THE PIPE, SUCH MATERIAL SHALL BE REMOVED AND A STABLE FOUNDATION PROVIDED. THIS SHALL INCLUDE THE PREPARATION OF THE NATIVE TRENCH BOTTOM AND/OR THE TOP OF THE FOUNDATION MATERIAL TO A UNIFORM GRADE SO THAT THE ENTIRE LENGTH OF PIPE RESTS FIRMLY ON A SUITABLE PROPERLY COMPACTED MATERIAL. GRAVEL TO BE USED FOR FOUNDATION PURPOSES SHALL BE OF A TYPE AND GRADATION TO PROVIDE A SOLID COMPACT BEDDING IN THE TRENCH.

9. BACKFILL: CONTRACTOR SHALL PROTECT BURIED CAST IRON PIPING WITH DOUBLE-WRAPPED 8-MIL POLYETHYLENE, AND PROVIDE BACKFILL 6" MIN. ALL AROUND PIPE USING CLEAN SAND BACKFILL PER THE SOILS REPORT.

TAKE ALL PRECAUTIONS NECESSARY TO PROTECT THE PIPE FROM DAMAGE, MOVEMENT AND SHIFTING. COMPACTION EQUIPMENT USED ABOVE THE PIPE ZONE SHALL BE OF A TYPE THAT DOES NOT INJURE THE PIPE. WHERE ORIGINAL EXCAVATED MATERIAL IS UNSUITABLE FOR TRENCH BACKFILL, BACKFILL GRAVEL SHALL BE PLACED. UNSUITABLE MATERIAL SHALL BE REMOVED TO A DISPOSAL AREA. WHEREVER A TRENCH IS EXCAVATED IN A PAVED ROADWAY, SIDEWALK OR OTHER AREA WHERE MINOR SETTLEMENTS WOULD BE DETRIMENTAL AND WHERE NATIVE EXCAVATED MATERIAL IS NOT SUITABLE FOR COMPACTAS AS BACKFILL, TRENCH SHALL BE BACKFILLED WITH BACKFILL GRAVEL. WARNING TAPE MARKERS AND TRACER WIRES SHALL BE INSTALLED DURING BACKFILL OPERATIONS.

WHERE BACKFILL IS REQUIRED TO BE COMPACTED TO A SPECIFIED DENSITY, TESTS FOR COMPLIANCE SHALL BE PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF THE GOVERNING AUTHORITY. ALLOW TESTING SERVICE TO INSPECT AND APPROVE EACH SUBGRADE AND FILL LAYER BEFORE FURTHER FILL, BACKFILL OR CONSTRUCTION WORK IS PERFORMED.

10. UNDERGROUND ALERT: BEFORE LAYING OUT PIPING AND PERFORMING TRENCHING, CONTRACTOR SHALL DETERMINE LOCATIONS OF EXISTING UNDERGROUND UTILITIES. CONTACT "DIG ALERT" / UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA" - 1-800-422-4133. CONTRACTOR SHALL ALSO CONTACT OWNER'S REPRESENTATIVE TO ASCERTAIN LOCATIONS OF UNDERGROUND PIPING AND OTHER CONDITIONS AFFECTING TRENCHING, AND SHALL PERFORM TESTING AND SUBSURFACE EXPLORATION AS NECESSARY TO LOCATE UTILITIES. CONFIRM PIPE ELEVATION AT POINTS OF CONNECTION.

11. PIPING LOCATIONS: PIPING LOCATIONS SHOWN ARE DIAGRAMMATIC ONLY. CONTRACTOR SHALL VERIFY LOCATIONS OF ALL LATERAL STUBS, OFFSETS, OBSTRUCTIONS, ETC. REQUIRED IN THE FIELD. THE ACTUAL LOCATIONS OF LINES, CLEANOUTS AND CONNECTIONS MAY VARY PROVIDED THAT COMPLETE SYSTEMS ARE SIZED AND INSTALLED IN COMPLIANCE WITH CODES. ANY SIGNIFICANT DEVIATIONS FROM THE PLANS SHALL BE CALLED TO THE ATTENTION OF THE ENGINEER PRIOR TO INSTALLATION.

12. CORRECTION OF WORK: THE CONTRACTOR SHALL PROMPTLY CORRECT ALL WORK THE OWNER FINDS DEFECTIVE OR FAILING TO CONFORM TO THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL BEAR ALL COSTS REQUIRED BY THE CONTRACT DOCUMENTS, IF ANY OF THE WORK IS FOUND TO BE DEFECTIVE OR NOT IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL CORRECT IT PROMPTLY AFTER RECEIPT OF A WRITTEN NOTICE FROM THE OWNER TO DO SO.

13. WATER PIPING: ALL ABOVE GROUND COLD AND HOT WATER PIPES IN BUILDINGS SHALL BE U.S. MANUFACTURED TYPE "L" HARD COPPER WITH U.S. MANUFACTURED WROUGHT COPPER FITTINGS AND (NON-LEAD) SOLDER SWEAT JOINTS. ALL UNDERGROUND WATER PIPING IN BUILDINGS SHALL BE U.S. MANUFACTURED TYPE "K" SOFT COPPER, WITH NO JOINTS ALLOWED UNDER SLABS. UNDERGROUND JOINTS NOT UNDER SLABS SHALL BE BRAZED. ALL WATER SHUT-OFF VALVES SHALL BE BALL TYPE OF BRONZE CONSTRUCTION, NIBCO S-685-80-LF, OR EQUAL. WHERE PIPES PIERCE FINISHED SURFACES, CHROME PLATED CAST BRASS ESCUTCHEONS WITH SET SCREW (BRASSRAT) CB SERIES OR EQUAL) SHALL BE INSTALLED. LAVATORY AND SINK STOPS SHALL BE HEAVY PATTERN, ANGLE, 1/2" FIP INLET, 1/2" MIP OUTLET, WITH LOOSE KEY, CHROME PLATED C36000 BRASS, MCGUIRE LFBV02, CHICAGO FAUCET 442-LKABCP, OR EQUAL. CONNECT STOPS WITH CHROME PLATED BRASS NIPPLES INTO FIP ADAPTERS BEHIND ESCUTCHEONS. SUPPLY TUBES SHALL BE BRAIDED STAINLESS STEEL WITH 1/2" FITTINGS AT BOTH ENDS, FLUIDMASTER NO-BURST.

14. WATER PRESSURE: WATER PRESSURE SHALL BE MAINTAINED AT A MINIMUM OF 60 PSI. IF WATER PRESSURE IS IN EXCESS OF 80 PSI, AN APPROVED WATER PRESSURE REGULATOR AND PRESSURE RELIEF VALVE SHALL BE INSTALLED.

15. WASTE, VENT, & RAINWATER PIPING: ALL DRAINS, VENTS, RAINWATER, FITTINGS, AND THE BUILDING DRAIN SHALL BE U.S. MANUFACTURED "NO-HUB" CAST IRON WITH FOUR-BAND NSF-CERTIFIED STAINLESS STEEL BAND CLAMPS. ALL BURIED CAST IRON PIPING SHALL BE DOUBLE-WRAPPED WITH 8 MIL POLYETHYLENE AND BACKFILLED WITH CLEAN SAND MINIMUM 6" ALL AROUND. (SEE NOTE 9.) THE BUILDING SEWER (BEYOND 5 FEET OF FOUNDATION) SHALL BE PVC PLASTIC GRAVITY SEWER PIPE MEETING THE REQUIREMENTS OF ASTM D3034-SDR35. EXTENSIONS TO SERVE CLEANOUTS AT GRADE SHALL BE NO-HUB CAST IRON WITH STAINLESS STEEL BAND CLAMPS. ALL LINES SHALL BE SLOPED @ 1/4"/FT MIN OR IN COMPLIANCE WITH CODE. WHERE VENT PIPES PENETRATE THE ROOF, PIPING SHALL BE FLASHED AND COUNTER-FLASHED. VANDAL-PROOF VENT CAPS (JR SMITH 1748, ZURN Z-193, OR EQUAL) SHALL BE INSTALLED ON EVERY PLUMBING VENT. SINKS SHALL BE INSTALLED WITH ADA COMPLIANT OFFSET PERFORATED GRID DRAIN ASSEMBLIES. AMER STD, OR EQUAL, LAVATORY AND SINK P-TRAPS SHALL BE INSTITUTIONAL GRADE CHROME PLATED VANDAL-PROOF HEAVY DUTY CAST BRASS, MCGUIRE MFG CO "VANDAL TRAP", OR EQUAL. FOR SINK INSTALLATIONS WITH HOT WATER ONLY, WITH MCGUIRE PROVWRAP ADA INSULATION. WHERE DRAINS PENETRATE WALLS, CHROME PLATED CAST BRASS ESCUTCHEONS WITH SET SCREWS SHALL BE INSTALLED.

16. CLEANOUTS: WALL CLEANOUTS SHALL BE CAST IRON CLEANOUT TEE WITH COUNTERSUNK BRONZE PLUG AND ROUND STAINLESS STEEL COVER WITH VANDAL-PROOF -SCREWS - J.R. SMITH 4532S-UY, ZURN Z-1446-BP-VP, OR EQUAL. FLOOR CLEANOUTS SHALL BE CAST IRON BODY WITH BRONZE PLUG AND SQUARE ADJUSTABLE NON-SKID NICKEL-BRONZE TOP WITH VANDAL PROOF TOP FOR FINISHED FLOOR, J.R. SMITH 4043S-PB, ZURN ZN-1400-TVP, OR EQUAL. CLEANOUTS TO GRADE SHALL BE J.R. SMITH 4253S OR EQUAL WITH BRONZE PLUG AND NON-SKID COVER WITH LIFTING DEVICE SET FLUSH WITH SURFACE FOR PAVED AREAS, NON-TRAFFIC OR NON-SURFACED AREAS SHALL BE INSTALLED WITH CAST IRON CLEANOUT RISERS TERMINATING WITH BRONZE PLUG WITHIN CONCRETE YARD BOX WITH CAST IRON COVER AND THE WORDS "BUILDING SEWER CLEANOUT" MARKED ON COVER.

17. PIPING SUPPORT: ALL PIPING SHALL BE SUPPORTED IN ACCORDANCE WITH THE REQUIREMENTS OF THE 2022 CALIFORNIA PLUMBING CODE. HORIZONTAL WATER PIPES AND CONDENSATE DRAINS SHALL BE HUNG WITH SUPERSTRUT C-727-F ADJUSTABLE FELT-LINED PIPE HANGERS, THREADED ROD, AND BEAM ATTACHMENT BRACKETS, LOCATED AT SIX FOOT MAXIMUM INTERVALS. VERTICAL WATER PIPES AND CONDENSATE DRAINS SHALL BE SUPPORTED AT EACH FLOOR OR AT TEN FOOT MAXIMUM INTERVALS. TO PREVENT SWAYING, PROVIDE LATERAL BRACING AT SIX FOOT INTERVALS ANCHORED TO OVERHEAD FRAMING.

HORIZONTAL CAST IRON PIPING SHALL BE HUNG WITH SUPERSTRUT C-710 ADJUSTABLE CLEVIS HANGERS, THREADED ROD, AND BEAM ATTACHMENT BRACKETS, LOCATED AT FIVE FOOT MAXIMUM INTERVALS. TO PREVENT SWAYING, PROVIDE LATERAL BRACING AT FIVE FOOT INTERVALS ANCHORED TO OVERHEAD FRAMING. VERTICAL PIPING SHALL BE SUPPORTED AT EACH FLOOR WITH SUPERSTRUT C-720 RISER CLAMPS AND AT MIDSPAN WITH C-708 CLAMPS INTO SUPERSTRUT CHANNEL.

18. INSULATION: INSULATE DRAIN TRAPS BELOW LAVS WITH MCGUIRE PROVWRAP ADA INSULATION, TRUEBRO VANDAL PROOF LAV GUARDS WRAP, OR LAVSHIELD.

19. TESTING: ALL PIPING AND FIXTURES INSTALLED SHALL BE TESTED IN ACCORDANCE WITH THE REQUIREMENTS OF THE 2022 CALIFORNIA PLUMBING CODE. ALL FIXTURES AND EQUIPMENT SHALL BE FUNCTION TESTED WITH A WRITTEN REPORT PROVIDED DETAIL THE PROPER OPERATION AND ADJUSTMENT OF EACH FIXTURE OR PIECE OF EQUIPMENT.

20. ROUGH-IN: EXCEPT WHERE INDICATED IN THE FIXTURE SCHEDULE FOR ACCESSIBLE FIXTURES, PIPING ROUGH-IN SHALL BE IN PRECISE ACCORDANCE WITH THE STANDARD ROUGH-IN DIMENSIONS PUBLISHED BY THE MANUFACTURER. ALL FIXTURES SHALL BE LOCATED IN STRICT CONFORMANCE WITH THE ARCHITECTURAL PLANS. COORDINATE W/ FRAMING & CONCRETE CONTRACTORS FOR BACKING AS REQD.

21. STERILIZATION: ALL WATER PIPING SHALL BE FLUSHED AND STERILIZED. FLUSH EACH UNIT OF WATER SUPPLY AND DISTRIBUTION SYSTEM THOROUGHLY WITH CLEAN WATER AT THE HIGHEST VELOCITIES ATTAINABLE. STERILIZE WATER LINES BY FILLING WITH A SOLUTION CONTAINING FIFTY (50) PARTS OF CHLORINE PER MILLION PARTS OF WATER AND HOLDING THE SOLUTION THEREIN FOR AT LEAST EIGHT (8) HOURS WITH A WATER HEAD OF AT LEAST FIVE FEET ABOVE THE HIGHEST POINT IN THE SYSTEM. CONTINUE FLUSHING UNTIL THE RESIDUAL CHLORINE IS APPROXIMATELY 2.0 PARTS PER MILLION. TAKE SAMPLES FOR ANALYSIS. FOLLOW LOCAL LAB REQUIREMENTS AND PROVIDE TEST RESULTS. IF HARMFUL BACTERIA ARE PRESENT, REDO STERILIZATION PROCEDURE.

22. LOW-FLOW FIXTURES: THE PLUMBING FIXTURES AND PLUMBING FITTINGS SHALL MEET THE FOLLOWING STANDARDS NOTED BELOW. CPC 402.0. REF. TABLE 5.303.2.2 (CGBC)

- a) WATER CLOSETS = 1.28 GALLONS PER FLUSH MAX.
- b) LAVATORY FAUCETS - 0.5 GPM MAX.
- c) SINK FAUCETS - 1.5 GPM MAX.

23. MAINTAIN A MINIMUM OF FIFTEEN FEET OF CLEARANCE BETWEEN ANY AIR INTAKE AND ALL VENTS AND FLUES.

24. AS-BUILT DRAWINGS SHALL BE GIVEN TO THE OWNER PRIOR TO ACCEPTANCE OF THE PROJECT.

25. WARRANTY: THE CONTRACTOR SHALL WARRANT THAT ALL SYSTEMS, SUBSYSTEMS, AND COMPONENT PARTS ARE FULLY FREE FROM DEFECTIVE DESIGN, MATERIALS, AND WORKMANSHIP FOR A PERIOD OF ONE YEAR FROM THE DATE OF FINAL ACCEPTANCE BY THE OWNER.

26. CLEANUP: CONTRACTOR SHALL THOROUGHLY CLEAN ENTIRE JOBSITE EVERY DAY OF ALL DEBRIS ASSOCIATED WITH MECHANICAL & PLUMBING INSTALLATION.

27. COORDINATION DURING CONSTRUCTION: THE CONTRACTOR SHALL COORDINATE ANY NECESSARY CHANGES IN WORK SCHEDULING WITH OWNER TO MINIMIZE THE DISRUPTION. THE CONTRACTOR SHALL COORDINATE WITH OTHER TRADES. THE CONTRACTOR SHALL REPAIR ANY DAMAGE CAUSED BY HIS WORK TO BUILDING(S), SITE IMPROVEMENTS AND EQUIPMENT AT NO ADDITIONAL COST TO THE OWNER.

28. CUTTING, BORING, SAWCUTTING OR DRILLING THROUGH THE NEW OR EXISTING STRUCTURAL ELEMENTS TO BE DONE ONLY WHEN SO DETAILED IN THE DRAWINGS OR ACCEPTED BY THE ARCHITECT AND ENGINEER.

29. HOT WATER PIPING SHALL BE INSULATED AS PER ENERGY CONSERVATION STANDARDS, CBC 115B.4.3 ITEM 4. T-24 ENERGY. MINERAL-FIBER, PREFORMED PIPE INSULATION, TYPE I, 1" THICK, WITH KRAFT PAPER VAPOR BARRIER JACKET AND PVC FITTING COVERS.

30. HOT WATER MAX TEMPERATURE SHALL BE 120 DEGREES.

31. CONDENSATE PIPE SHALL BE U.S. MANUFACTURED COPPER TYPE "L" WITH SOLDERED WROT COPPER FITTINGS. PROVIDE TEE WITH BRASS PLUG AT CHANGES OF DIRECTION. INSTALL CLEANOUTS PER CODE. SLOPE CONDENSATE MINIMUM 1/8"/FT TO DRAIN. WHERE PIPES PIERCE FINISHED SURFACES, PROVIDE CHROME PLATED CAST BRASS ESCUTCHEONS WITH SET SCREW. INSULATE INTERIOR COPPER CONDENSATE PIPE W/ 1" THICK FIBER-FREE ARMACELL AP ARMAFLEX WHITE TUBE INSULATION WITH FITTING COVERS W/ NO GAPS.

GREEN BUILDING NOTES

1. GENERAL CONTRACTOR SHALL ESTABLISH A CONSTRUCTION WASTE MANAGEMENT PLAN FOR THE DIVERTED MATERIALS, OR MEET LOCAL CONSTRUCTION AND DEMOLITION WASTE MANAGEMENT ORDINANCE, WHICHEVER IS MORE STRINGENT. WASTE MANAGEMENT PLAN SHALL:

- A.) IDENTIFY THE MATERIALS TO BE DIVERTED FROM DISPOSAL BY EFFICIENT USAGE, RECYCLING, REUSE ON THE PROJECT OR SALVAGE FOR FUTURE USE OR SALE.
- B.) DETERMINE IF MATERIAL WILL BE SORTED ON-SITE OR MIXED
- C.) IDENTIFY DIVERSION FACILITIES WHERE MATERIALS COLLECTED WILL BE TAKEN.
- D.) SPECIFY THE AMOUNT OF MATERIALS DIVERTED WHICH SHALL BE CALCULATED BY WEIGHT OR VOLUME, BUT NOT BOTH.

2. RECYCLE WASTE MATERIAL BEING REMOVED FROM SITE TO THE GREATEST EXTENT POSSIBLE. RECORD ALL AMOUNTS DISPOSED AND ALL AMOUNTS RECYCLED.

PLUMBING FIXTURE SCHEDULE

SYMBOL	WASTE	VENT	CW	HW	DESCRIPTION
	4	2	1-1/4	-	TOILET, WHITE VITREOUS CHINA, ELONGATED BOWL, WALL MOUNT, KOHLER "KINGSTON" K-4325-0, WITH BEMIS EXTRA HEAVY DUTY SOLID PLASTIC SEAT. W/ SLOAN MANUAL FLUSHOMETER MODEL ROYAL 3910168-111, 1.28 GPF. SEE ARCHITECTURAL PLANS FOR ADA COMPLIANT REQUIREMENTS FOR HEIGHTS AND LOCATIONS FOR EACH TOILET. INSTALL ON JR SMITH OR ZURN FLOOR MOUNTED CARRIER.
	2	2	1	-	URINAL, WHITE BARDON, WALL HUNG, KOHLER MODEL K4904-ET-0, URINAL & FLUSHOMETER COMBO, 1/8 GALLON PER FLUSH, 2" SPUD, SLOAN MANUAL FLUSHOMETER MODEL 186. INSTALL ON JR SMITH OR ZURN FLOOR MOUNTED CARRIER. SEE ARCHITECTURAL PLANS FOR ADA COMPLIANT INSTALLATION REQTS.
	2	1-1/2	1/2	1/2	LAVATORY, WALL MOUNT, WHITE VITREOUS CHINA, KOHLER "BRENHAM" K-1997-SS1H-0, W/ SINGLE HOLE, WITH SLOAN FAUCET EAF-275-ISM, SOLAR POWERED, SENSOR ACTIVATED, WITH INTEGRAL SPOUT TEMPERATURE MIXER. PROVIDE TRUEBRO LAV SHIELD. SEE ARCHITECTURAL PLANS FOR ADA COMPLIANT REQUIREMENTS FOR HEIGHTS AND LOCATIONS FOR EACH LAVATORY. INSTALL ON JR SMITH OR ZURN FLOOR MOUNTED CARRIER.
	2	1-1/2	1/2	-	DRINKING FOUNTAIN: ELAKY MODEL LZS8VSVRSK, BOTTLE FILLING STATION WITH SINGLE ADA COOLER, WALL MOUNTED, STAINLESS STEEL, VANDAL-RESISTANT, REFRIGERATED. INCLUDE HANGER BRACKET. SEE ARCHITECTURAL DETAILS FOR ADA INSTALLATION DIMENSIONS. POWER: 115V/ 60HZ, 5 FLA..
	2	1-1/2	1/2	-	DRINKING FOUNTAIN: ELKAY MODEL LVRCTLDDWSK, DUAL HEIGHT BOTTLE FILLING STATION, WALL MOUNTED, STAINLESS STEEL, VANDAL-RESISTANT, REFRIGERATED, INCLUDE HANGER BRACKET. SEE ARCHITECTURAL DETAILS FOR ADA INSTALLATION DIMENSIONS. POWER: 115V/ 60HZ, 1 FLA.
	2	1-1/2	1/2	1/2	SINK, ELKAY MODEL LRAD332165, STAINLESS STEEL, TWO COMPARTMENT, DROP-IN, 2-HOLE, 8" CENTERS, WITH CHICAGO FAUCET 1100-GN8AE35-317AB, 8" CENTERS, 4" WRISTBLADE HANDLES, 1.5 GPM, COLD & HOT WATER, PROVIDE SUPPLY TUBES, ANGLE STOPS, & ESCUTCHEONS. SEE ARCHITECTURAL PLANS FOR ADA COMPLIANT REQUIREMENT FOR HEIGHTS AND LOCATIONS.
	3	2	3/4	3/4	MOP SINK, FIAT PRODUCTS MODEL TSB3000, PROVIDE W/ MOP SERVICE BASIN FITTING, HOSE AND HOSE BRACKET, AND STAINLESS STEEL WALL GUARDS. CHICAGO FAUCET MODEL 897-RCF W/ WALL BRACE, & VACUUM BREAKER SPOUT WITH PAIL HOOK.
	2	1-1/2	1/2	(TP)	FLOOR SINK, ZURN MODEL #ZN1910-2NH-2-32-KC, JR SMITH FIG. 3101Y-C-U-12, 8-1/2" SQUARE TOP, NICKEL BRONZE RIM, HALF GRATE, & SEDIMENT BUCKET.
	2	1-1/2	1/2	(TP)	FLOOR DRAIN, ZURN MODEL #ZN415-2NH-5S-P, JR SMITH MODEL #2005Y-B-P, OR EQUAL. WITH SQUARE TOP, NO HUB AND TRAP PRIMER CONNECTION.
	-	-	1	-	WATER HAMMER ARRESTOR, ZURN Z-1700 #200, JR SMITH 5010, OR EQUAL. LOCATE INSIDE WALL WITH JR SMITH 4730-U-NB, STAINLESS STEEL ACCESS COVER WITH VANDAL-PROOF SCREWS.
	-	-	1/2	-	TRAP PRIMER, MIFAB M-500, INSTALL IN COLD WATER LINE WITH JR SMITH 4730-U-NB STAINLESS STEEL ACCESS COVER PER DETAIL 7/P-501. INSTALL W/MI-DU DISTRIBUTION UNIT WHERE MULTIPLE TRAPS ARE SERVED.
	-	-	-	-	SHUT-OFF VALVE, NIBCO S-685-80-LF, 1/2" THRU 2", BRONZE BALL VALVE, FULL PORT, SOLDER END, S-FP-600A-LF, 2-1/2" & LARGER, BRASS BALL VALVE, FULL PORT, SOLDER END. WHEN LOCATED IN RESTROOM CEILING BEHIND JR SMITH, 15x15, 4730-U-NB STAINLESS STEEL ACCESS COVER W/ VANDAL PROOF SCREWS, TO PROVIDE INDIVIDUAL RESTROOM ISOLATION FOR SERVICE. SIZE ON PLANS.
	-	-	1/2	-	HYDRANT, POLISHED BRASS, KEYED, NIBCO "WOODFOOD" 24P POLISHED BRASS WITH VACUUM BREAKER AND LOOSE TEE KEY.
	-	-	3/4	3/4	ELECTRIC TANK WATER HEATER, AMERICAN WATER HEATER, MODEL E61-12U-0155V, 12-GALLON COMPACT UNIT, 1,500W @ 120V, TOP 3/4" WATER CONNECTIONS, 6.9 GPH RECOVERY 90° RISE , FUSED CERAMIC SHIELD LINED TANK, INCLUDES T&P RELIEF VALVE & CIRCULATING PUMP(MODEL #BELL & GOSSETT NBF-10S)
	-	-	3/4	3/4	TEMPERING VALVE WATTS MODEL LFN170-M3 W/ UNIONS AND MOUNT ON WALL. SEE WATER HEATER PIPING DIAGRAM DETAIL 2/P.4.3

CIRCULATING PUMP, GRUNDFOS PUMP MODEL ALPHA 2 15-55SF WITH OPEN ON RISE AQUASTAT & INTERMATIC TIMER. ELECTRICAL DATA 110V 0.65 AMPS. 12 LBS

ROOF DRAIN, ZURN MODEL #Z100-NH-R-C-VP, 15" DIAMETER, NO-HUB WITH SUMP RECEIVER, UNDERDECK CLAMP, AND CAST IRON DOME. SIZE ON PLANS. ALTERNATE: J.R. SMITH 1010Y-C-R-CID. INSTALL PER DETAIL ARCH. DETAILS.

ROOF DRAIN OVERFLOW, ZURN MODEL #Z100-NH-R-C-VP-89, 15" DIAMETER, NO-HUB WITH SUMP RECEIVER, UNDERDECK CLAMP, CAST IRON DOME AND 2" EXTERIOR WATER DAM. SIZE ON PLANS. ALTERNATE: J.R. SMITH 1080Y-C-R-CID.

OVERFLOW TERMINATION, ZURN MODEL ZANB199-NH, CAST BRONZE. SAME SIZE AS OVERFLOW OR ROOF DRAIN. ALTERNATE: J.R. SMITH 1770.

VERIFY FIXTURES WITH OWNER

ABBREVIATIONS

ABBREV.	ABBREVIATIONS
ABV.	ABOVE
AFF	ABOVE FINISHED FLOOR
ACC.	ACCESSIBLE
APPROX.	APPROXIMATELY
BLW.	BELOW
BOT	BOTTOM
BLDG	BUILDING
CLD	CEILING
CG	CEILING DIFFUSER
CL	CENTERLINE
COTG	CLEAN OUT TO GRADE
CW	COLD WATER
CONT	CONTINUED
CFM	CUBIC FEET PER MINUTE
DIA	DIAMETER
DWN	DOWN
DS	DRAIN SPOUT
DWG	DRAWING
EA	EACH
ELEC	ELECTRIC
ELEV	ELEVATION
EQ	EQUIPMENT
EQUIP	EQUIPMENT
EXH	EXHAUST
(E)	EXISTING
FIN	FINISHED
FLR	FLOOR
FCO	FLOOR CLEAN OUT
FRM	FROM
GPM	GALLONS PER MINUTE
GS	GAS
MAX.	MAXIMUM
MIN.	MINIMUM
(N)	NEW
ON CENTER	POINT OF CONNECTION
POC	POINT OF CONNECTION
RA	RETURN AIR
RD	ROOF DRAIN
RO	ROOF OVERFLOW
SHT	SHEET
SOV	SHUT-OFF VALVE
SR	SIDEWALL REGISTER
TYP	TYPICAL
UGND	UNDERGROUND
V.T.R.	VENT TO ROOF
WH	WATER HEATER
WCO	WALL CLEAN-OUT
YB	YARD BOX

SYMBOL LEGEND

	CLEAN-OUT TO GRADE IN YARD BOX
	FLOOR CLEAN-OUT
	WALL CLEAN-OUT
	SHUT-OFF VALVE
	POINT OF DISCONNECTION
	POINT OF CONNECTION
	FIXTURE TAG
	SEE PLUMB SCHEDULE
	RISER TAG
	SEE PLUMB PLANS
	DETAIL TAG
	SEE PLUMB PLANS

LINE LEGEND

	(N) COLD WATER
	(N) HOT WATER
	(N) VENT
	(N) WASTE
	TEE

NOTE: CONTRACTOR SHALL FIRST OFFER ALL REMOVED FIXTURES TO THE OWNER. IF NOT WANTED BY THE OWNER, CONTRACTOR SHALL PROPERLY DISPOSE / RECYCLE.

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P2.1	SECOND FLOOR PLUMBING DEMOLITION PLAN
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P3.0	DRAINAGE FLOOR PLAN-LEVEL ONE
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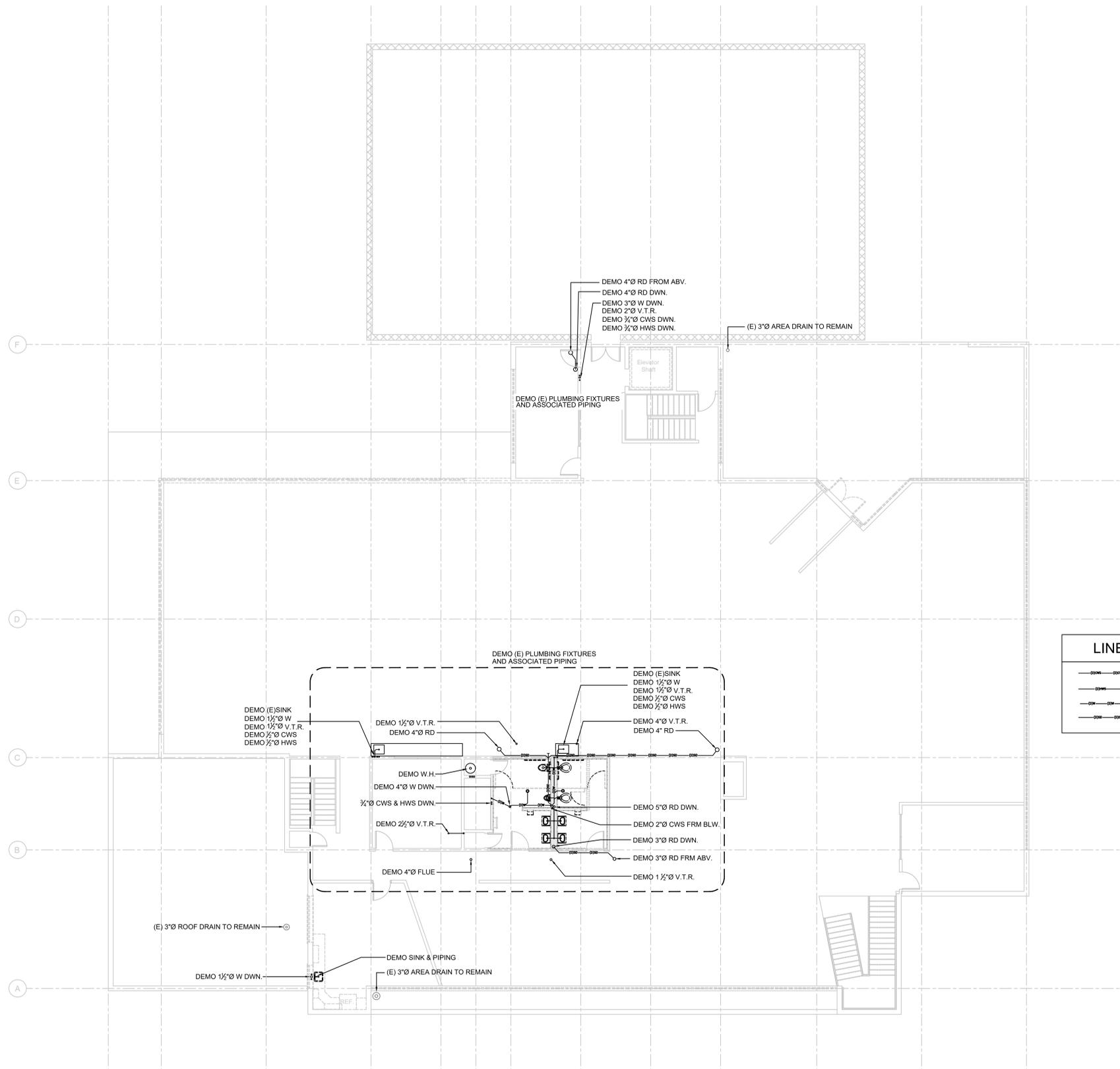
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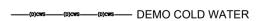
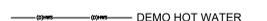


PROFESSIONAL SEALS

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LINE LEGEND	
	DEMO COLD WATER
	DEMO HOT WATER
	DEMO WASTE
	DEMO STORM DRAIN

EP LIBRARY
SECOND FLOOR PLUMBING DEMOLITION PLAN
① Scale: 1/8"=1'-0"



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SHEET TITLE

SECOND FLOOR

PLUMBING DEMOLITION

PLAN

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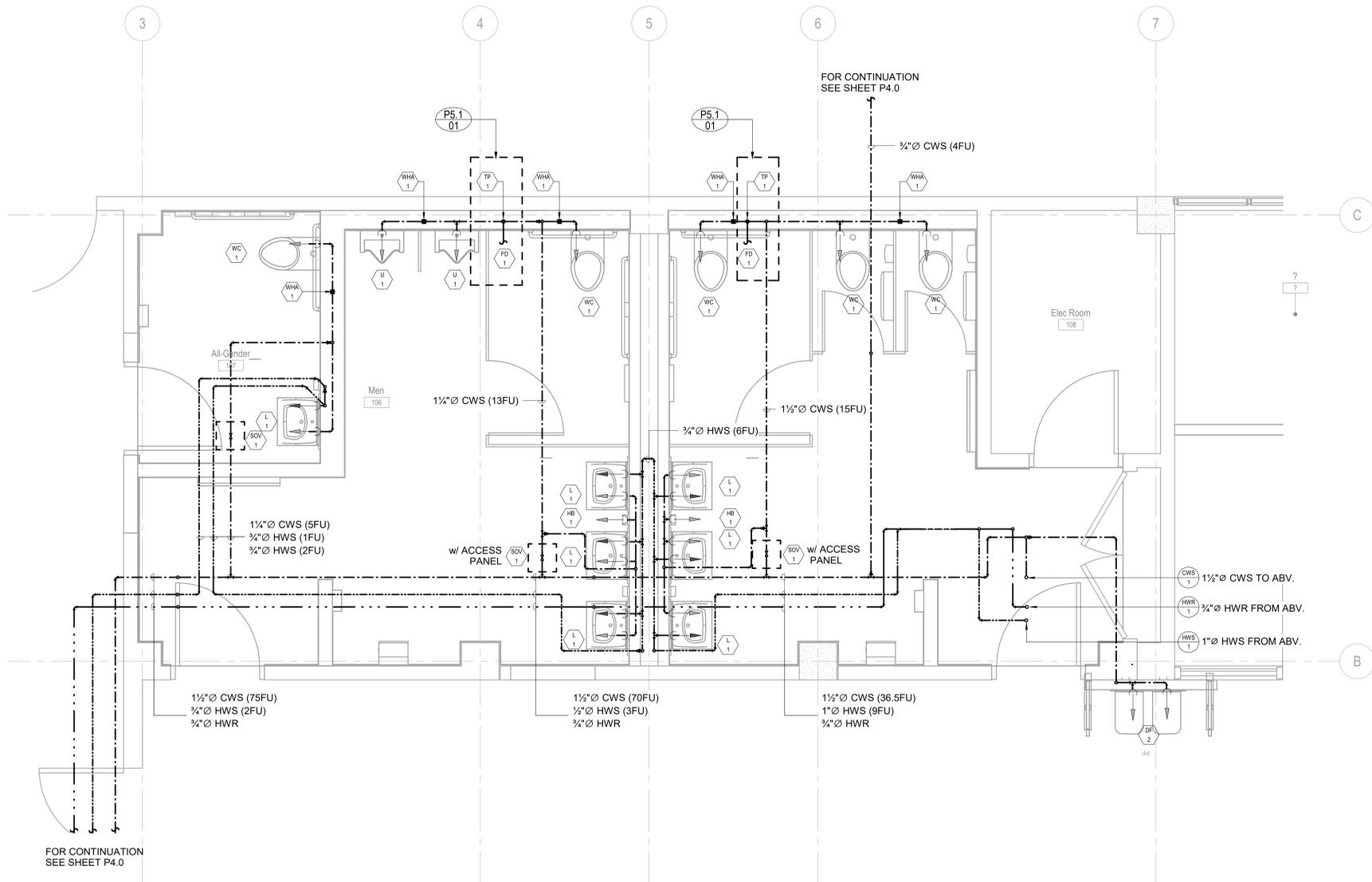
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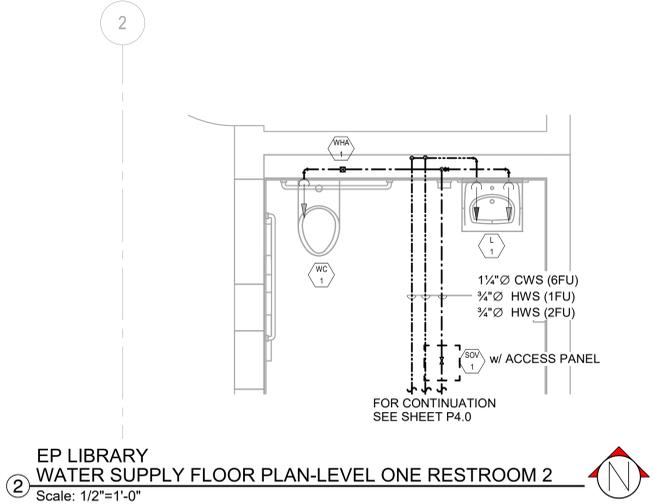
WATER SUPPLY
ENLARGED PLANS

SHEET NO

P4.2



EP LIBRARY
1 WATER SUPPLY FLOOR PLAN-LEVEL ONE RESTROOM 1
Scale: 1/2"=1'-0"



EP LIBRARY
2 WATER SUPPLY FLOOR PLAN-LEVEL ONE RESTROOM 2
Scale: 1/2"=1'-0"

LINE LEGEND	
---	COLD WATER SUPPLY
...	HOT WATER SUPPLY
- . - .	HOT WATER RETURN



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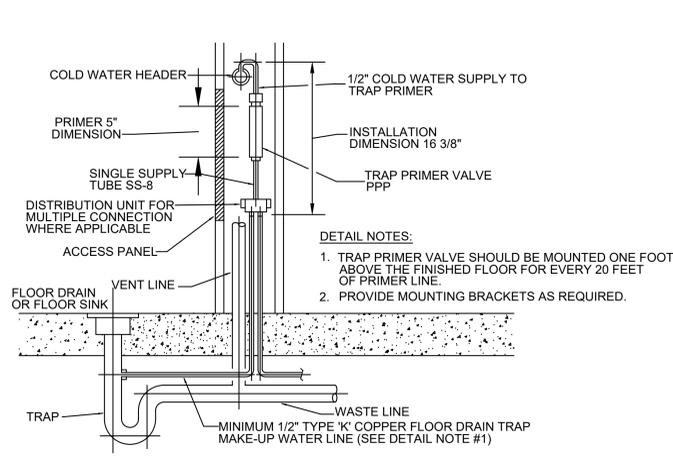
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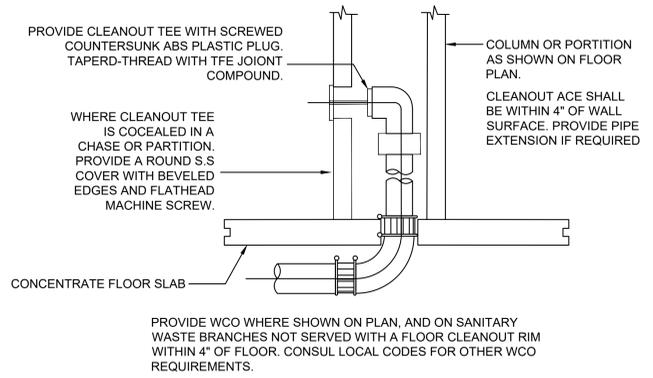


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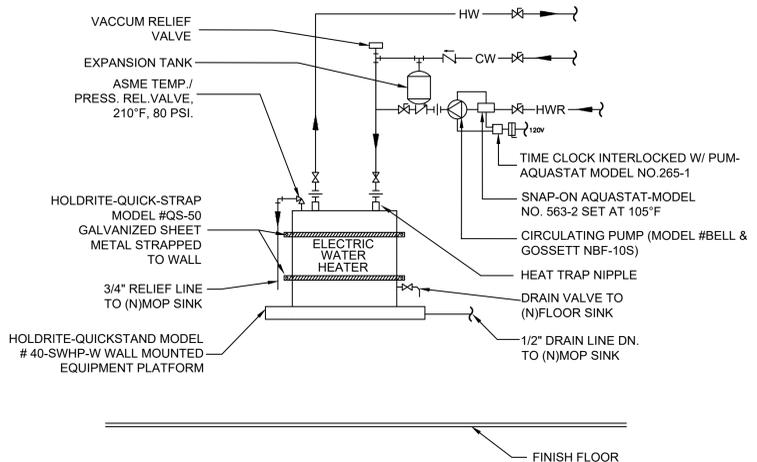
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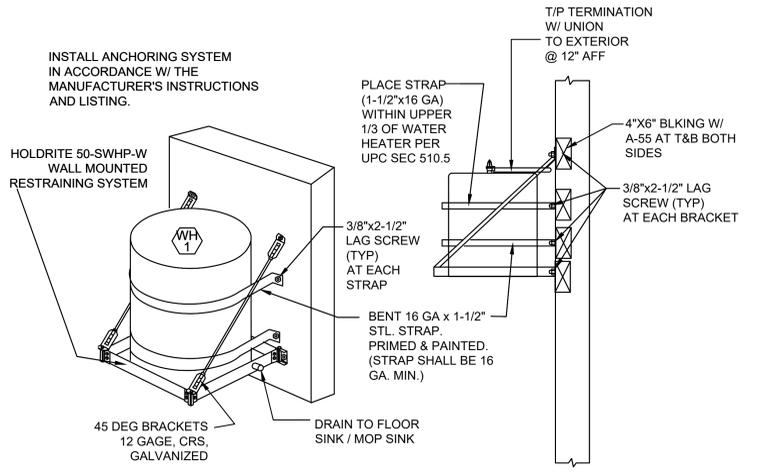
TRAP PRIMER INSTALLATION DETAIL 1
SCALE: NONE



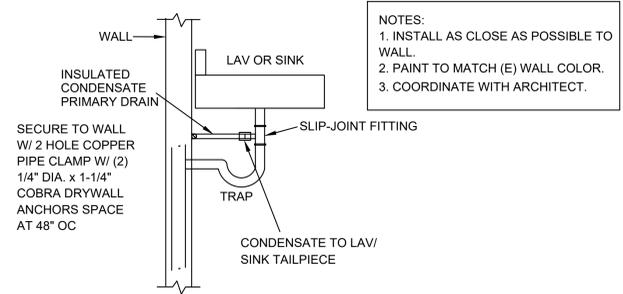
WALL CLEAN OUT DETAIL 2
SCALE: NONE



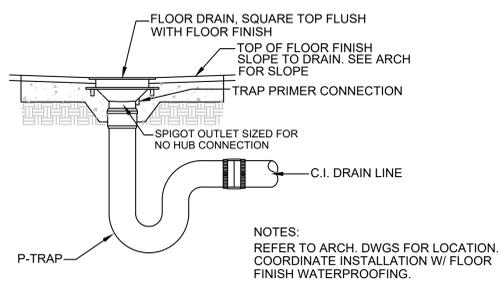
WATER HEATER DETAIL 3
SCALE: NONE



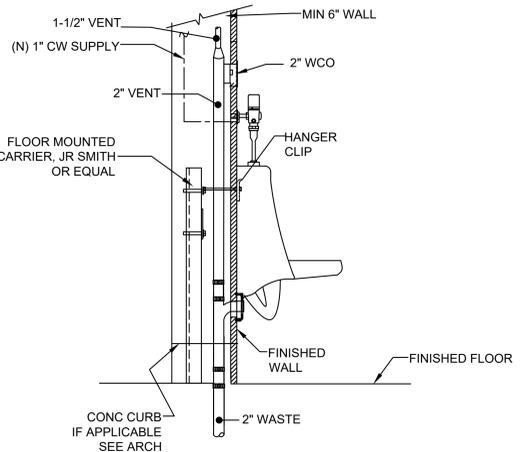
WATER HEATER SUPPORT DETAIL 4
SCALE: NONE



CONDENSATE TO LAV / SINK TAILPIECE DETAIL 5
SCALE: NONE



FLOOR DRAIN DETAIL 6
SCALE: NO SCALE



URINAL DETAIL 7
SCALE: NO SCALE

FIXTURE DATA AND WATER CALCULATION						
DESCRIPTION	NUMBER OF FIXTURES	WATER SUPPLY FIXTURE UNIT	DRAINAGE FIXTURE UNIT	TOTAL FIXTURE UNIT		
				COLD WATER	HOT WATER	SEWER
WATER CLOSET (FV)	9	5.0	4.0	45.0	0.0	36.0
LAVATORY	12	1.0	1.0	12.0	12.0	12.0
URINAL (FV)	3	4.0	2.0	12.0	0.0	6.0
SINK	1	1.0	1.0	1.0	1.0	1.0
SERVICE SINK	1	3.0	3.0	3.0	3.0	3.0
DRINKING FOUNTAIN	2	0.5	0.5	1.0	0.0	1.0
DRINKING FOUNTAIN 2	1	0.5	0.5	0.5	0.0	0.5
FLOOR SINK	5	0.0	2.0	0.0	0.0	10.0
HOSE BIBB	4	2.5	0.0	5.5	0.0	0.0
TOTAL				80.0	16.0	69.5

DOMESTIC WATER SYSTEM CALCULATIONS			
(E) METER = 5 ON SITE PIPING = 3 TOTAL LOSSES = 8			
MAX PRESS: AT BUILDING:	-	MIN PRESS: 68	AT ELEV.: 60
GIVEN BY:	-	DATE:	-
FIXTURE UNITS:	80	GPM:	39
ADDITIONAL UNITS:	-	GPM:	-
IRRIGATION:	-	GPM:	-
MECHANICAL:	-	GPM:	-
TOTAL:	80	GPM:	39
METER:	- YES - NO	MAKE (E)	MODEL (E)
BFP:	- YES - NO	MAKE (E)	MODEL (E)
PRV:	- YES - NO	MAKE (E)	MODEL (E)
A. PRESSURE AVAILABLE AT THE REGULATOR:	+/- 60 psi		
B. LOSS THROUGH WATER HEATER	- 5 psi		
C. LOSS OVER PIPE LENGTH IN BUILDING	- x (3.4 psi/100 ft) -		
D. LOSS THROUGH SUB-METER:	- -		
E. RESIDUAL PRESSURE:	- 20.0 psi		
F. STATIC HEAD LOSS:	20 ft x 0.434 - 8.66 psi		
G. TOTAL PRESSURE LOSSES:	- 33.66 psi		
H. PRESSURE AVAILABLE FOR LOSSES:	- 26.34 psi		
H/EQUIVALENT LENGTH X 100 FT OF TYPE "L" COPPER PIPE	26.34/170.5 X 100 = - 15.44 psi		

WATER PIPE SIZE SCHEDULE											
PIPE SIZE	FLUSH TANK (8 FT/SEC MAX.)		FLUSH VALVE (8 FT/SEC MAX.)		HOT WATER (5 FT/SEC MAX.)						
	FU	GPM	FU	GPM	FU	GPM					
1/2"	4	4	0	0	3	3					
3/4"	13	10	0	0	8	7					
1"	30	20	0	0	16	12					
1-1/4"	56	31	14	31	28	19					
1-1/2"	103	44	35	44	46	27					
2"	254	76	132	76	119	48					
2-1/2"	455	115	329	115	245	74					
3"	719	165	666	165	406	105					

PEAK FLOW: 39 gpm

PIPE SIZE IS BASED ON 12.6 PSI/100FT AND TOTAL EQUIVALENT LENGTH: 170.5 FT.

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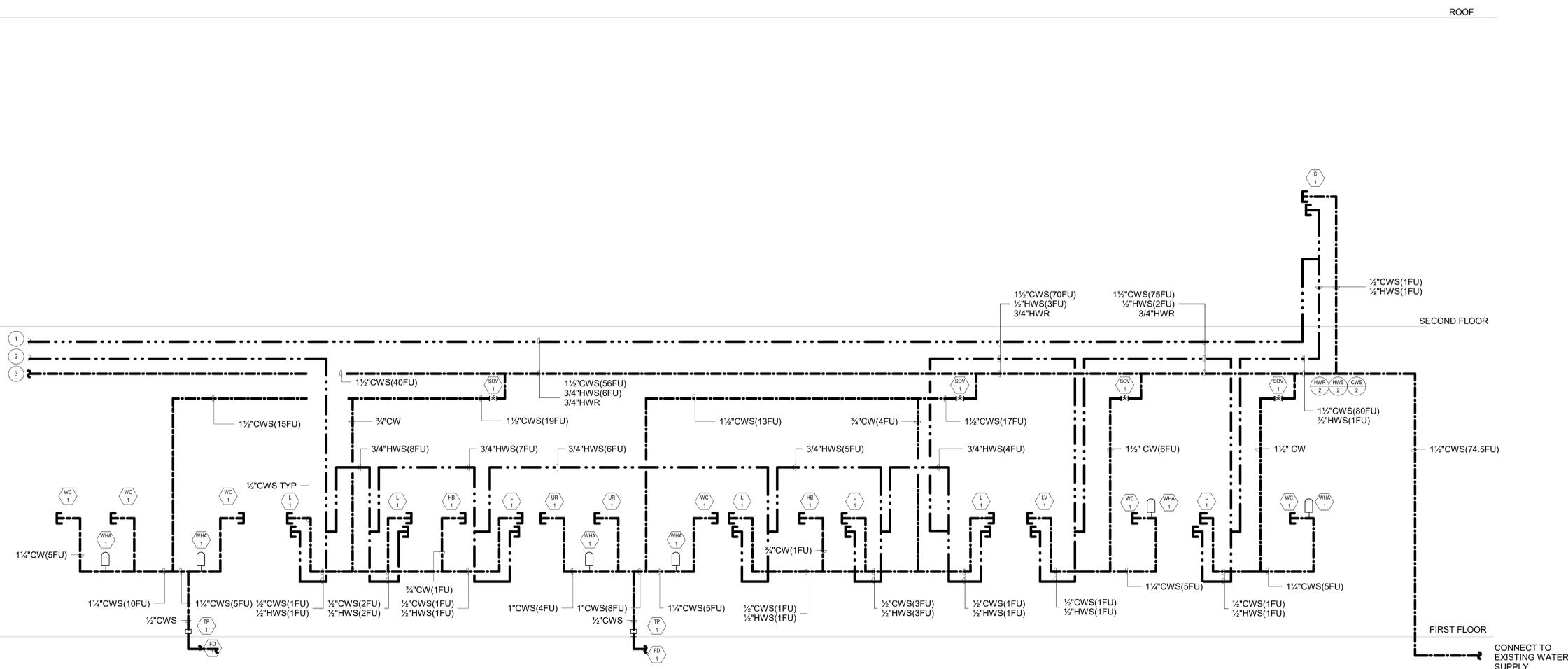
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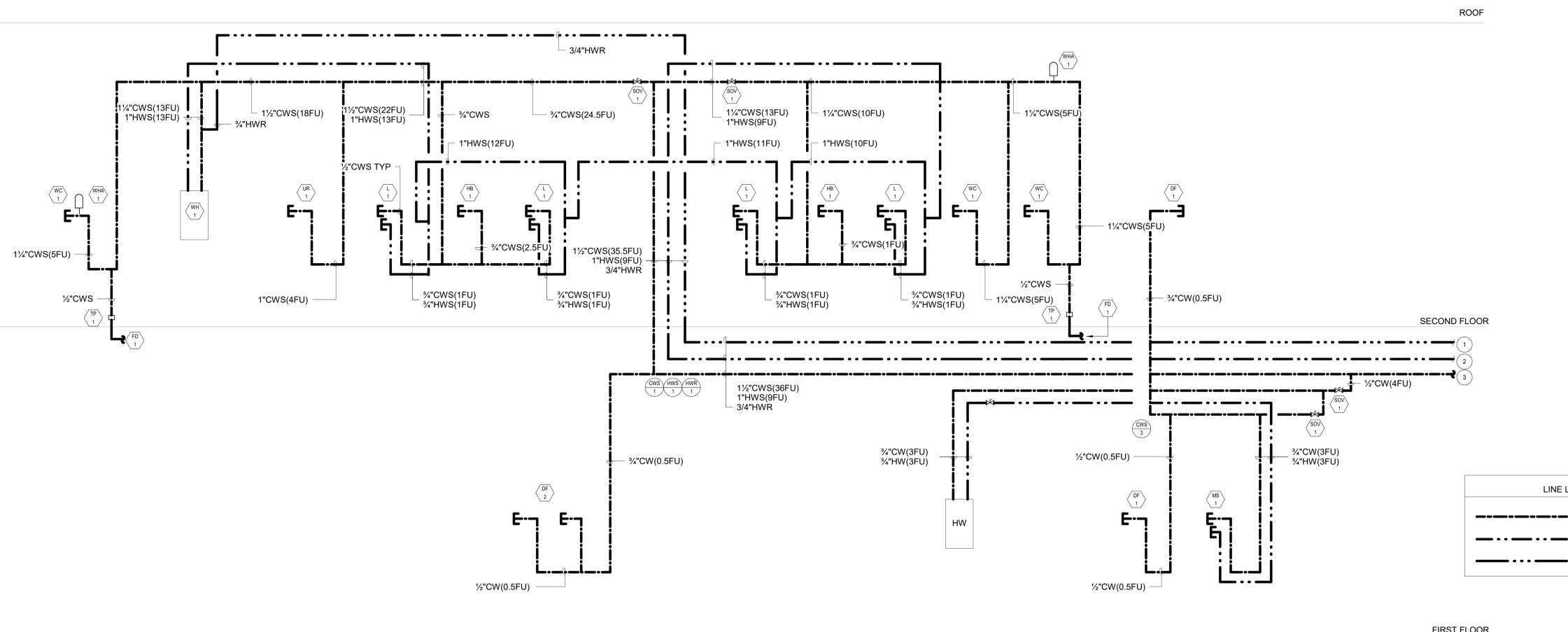
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1		
2		
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7		
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9		
10		



WATER SUPPLY RISER DIAGRAM 1



LINE LEGEND

	COLD WATER SUPPLY
	HOT WATER SUPPLY
	HOT WATER RETURN

WATER SUPPLY RISER DIAGRAM 2



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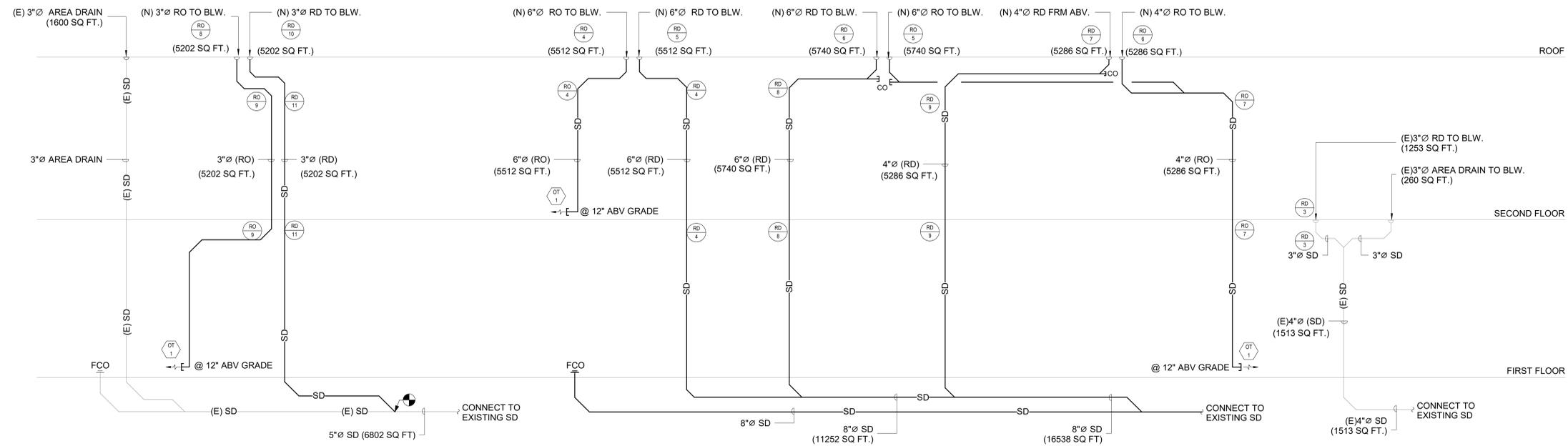
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LINE LEGEND

—SD—SD—	STROM DRAIN
—(E)SD—	(E)STROM DRAIN

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STROM DRAIN RISER
DIAGRAM
SHEET NO

ABBREVIATIONS		INTERMEDIATE DISTRIBUTION FRAME	
AC	AMPERES	IF	ISOLATED DISTRIBUTION FRAME
ACF	ALTERNATING CURRENT	IS	ISOLATED
AF	AMP FRAME/AMP FUSE	JB	JUNCTION BOX
AFC	AVAILABLE FAULT CURRENT	KV	KILO VOLT
AFB	ABOVE FINISHED FLOOR	KVA	KILO VOLT AMPS=1000VA
AFG	ABOVE FINISHED GRADE	KW	KILOWATT
AFC	AMPERES INTERRUPTING CAPACITY	KMIL	THOUSANDS CIRCULAR MILS
AL	ALUMINUM	KL	KILO LIGHTING
ARCH	ARCHITECT	LC	LIGHTING CONTROLLER
AS	AMP SWITCH RATING	LV	LOW VOLTAGE
AT	AMP TRIP	LV	LONG CONTINUOUS LOAD
ATS	AUTOMATIC TRANSFER SWITCH	MD	MAIN DISTRIBUTION FRAME
AV	AUDIO VIDEO	MT	MAIN TELEPHONE BACKBOARD
AWG	AMERICAN WIRE GAGE	MTD	MAIN TELEPHONE DISTRIBUTION BOARD
BBSD	BACKBOARD	MV	MERCURY VAPOR
BLD	BUILDING	MW	METAL HALIDE
BLS	BASIC IMPULSE LEVEL	MFG	MANUFACTURER
C	CONDUIT	MP	MAIN POINT OF ENTRY
CB	CIRCUIT BREAKER	NC	NEW
CBC	CALIFORNIA BUILDING CODE	NC	NORMALLY CLOSED
CEC	CALIFORNIA ELECTRICAL CODE	NEC	NATIONAL ELECTRICAL CODE
CF	COMPACT FLUORESCENT	NI	NOT IN CONTRACT
CF	COMPACT FUSE CODE	NL	NIGHT LIGHT
CONT.	CONTINUATION	NO	NORMALLY OPEN
CKT	CIRCUIT	NPS	NOT TO SCALE
CLS	CEILING	NO	NORMALLY OPEN
CO	CONDUIT ONLY	PBO	POWER OR POLE
CSFM	CA STATE FIRE MARSHALL	PNL	PANEL
CVE	CABLE TELEVISION	PT	REMOVED
CT	CABLE TELEVISION	R	REMOVED
(CU)	COPPER	RGS	RIGID GALVANIZED STEEL CONDUIT
CW	COLD WATER PIPE	RM	ROOM
COMM	COMMUNICATION	RT	RETRACT
DIS	DISCONNECT	TC	TIME CLOCK
DIS	DISCONNECT SWITCH	TE	TELEPHONE TERMINAL BOARD
DWG	DRAWING	TIC	TELEPHONE TERMINAL CABINET
EL	ELECTRICAL CONTRACTOR	TRF	TRANSFORMER
(F)	FRONT	TYF	TYPICAL
FAU	FORCED AIR UNIT	UNSW	UNLESS OTHERWISE NOTED
FS	SHALLOW FLOOR BOX	UNSW	UNSWITCHED
GC	GENERAL CONTRACTOR	VA	VOLT AMPS
GF	GROUND FAULT INTERRUPTER	V	VOLTS/VOLTAGE
GRD	GROUND	W	WATTS/WATTAGE
HID	HIGH INTENSITY DISCHARGE	WP	WEATHERPROOF
HSP	HORSHPOWER	W	EXISTING
HV	HIGH VOLTAGE	(X)	EXISTING
HZ	HERTZ		

U.L. STANDARD 486B TORQUING RECOMMENDATIONS

WIRE SIZE	SLOTTED HEAD TORQUE, POUND - INCHES		HEXAGONAL HEAD/EXTERNAL TORQUE, POUND - INCHES	
	NO. 10 AND LARGER (a)	NO. 10 AND LARGER (b)	SPLIT-BOLT CONNECTORS	OTHER CONNECTORS
18-10 AWG	20	35	20	35
8	25	40	25	40
6	35	45	35	45
4	45	50	45	50
3	50	50	50	50
2	50	50	50	50
1/2	50	50	50	50
1/0	50	50	50	50
2/0	50	50	50	50
3/0	50	50	50	50
4/0	50	50	50	50
250 kcmil	50	50	50	50
300	50	50	50	50
350	50	50	50	50
400	50	50	50	50
500	50	50	50	50
600	50	50	50	50
700	50	50	50	50
750	50	50	50	50
800	50	50	50	50
900	50	50	50	50
1000	50	50	50	50
1250	50	50	50	50
1500	50	50	50	50
1750	50	50	50	50
2000	50	50	50	50

THIS TABLE GIVES RECOMMENDED CONNECTOR INSTALLING TORQUES FOR COPPER AND ALUMINUM CONDUCTORS. THEY ARE FOR GUIDANCE ONLY WHERE NO TIGHTENING TORQUE IS AVAILABLE AND SHOULD NOT BE USED TO REPLACE MANUFACTURER'S INSTRUCTIONS WHICH SHOULD ALWAYS BE FOLLOWED.

(a) CLAMPING SCREWS WITH MULTIPLE TIGHTENING MEANS, FOR EXAMPLE, FOR A SLOTTED HEXAGONAL HEAD SCREW, USE THE HIGHEST TORQUE VALUE ASSOCIATED WITH THE DIFFERENT TIGHTENING MEANS.

(b) PERCENT VALUES OF SLOT WIDTH OR LENGTH OTHER THAN THOSE SPECIFIED, SELECT THE LARGEST TORQUE VALUE ASSOCIATED WITH CONDUCTOR SIZE.

CEC ART. 310 CONDUCTOR DERATING

NUMBER OF CURRENT-CARRYING CONDUCTORS	PERCENT OF VALUES IN TABLES AS ADJUSTED FOR AMBIENT TEMPERATURE	
	4 THROUGH 9	10 THROUGH 20
1 THROUGH 20	80	70
21 THROUGH 30	70	60
31 THROUGH 40	60	50
41 AND ABOVE	45	35

WHERE SINGLE CONDUCTORS OR MULTICONDUCTOR CABLES ARE STACKED OR BUNDLED LONGER THAN 24 INCHES (610 mm) WITHOUT MAINTAINING SPACING AND ARE NOT SHOWN IN DRAWINGS, THE ALLOWABLE AMPACITY OF EACH CONDUCTOR SHALL BE REDUCED AS SHOWN IN THE ABOVE TABLE.

EXCEPTION NO. 1: WHERE CONDUCTORS OF DIFFERENT SYSTEMS, AS PROVIDED IN SECTION 300-3, ARE INSTALLED IN A COMMON RACEWAY OR CABLE, THE DERATING FACTORS SHOWN ABOVE SHALL APPLY TO THE NUMBER OF POWER AND LIGHTING (ARTICLES 210, 215, 220, AND 230) CONDUCTORS ONLY.

EXCEPTION NO. 2: FOR CONDUCTORS INSTALLED IN CABLE TRAYS, THE PROVISIONS OF SECTION 392.11 SHALL APPLY.

EXCEPTION NO. 3: DERATING FACTORS SHALL NOT APPLY TO CONDUCTORS IN NIPPLES HAVING A LENGTH NOT EXCEEDING 24 INCHES (600mm).

EXCEPTION NO. 4: DERATING FACTORS SHALL NOT APPLY TO UNDERGROUND CONDUCTORS ENTERING OR LEAVING AN OUTDOOR TRENCH IF THOSE CONDUCTORS HAVE PHYSICAL PROTECTION IN THE FORM OF RIGID METAL CONDUIT, INTERMEDIATE METAL CONDUIT, OR RIGID NONMETALLIC CONDUIT HAVING A LENGTH NOT EXCEEDING 10 FEET (3050mm) ABOVE GRADE AND THE NUMBER OF CONDUCTORS DOES NOT EXCEED FOUR.

CEC WIRE FILL TABLE 314.16(a)

JUNCTION BOX DIMENSION, INCHES TRADE SIZE OR TYPE	MIN. CU. IN. CAP.	MAXIMUM NUMBER OF CONDUCTORS					
		NO.14	NO.12	NO.10	NO.8	NO.6	
4 x 1-1/4 ROUND OR OCTAGONAL	12.5	6	5	5	5	2	
4 x 1-1/2 ROUND OR OCTAGONAL	15.5	7	6	6	5	3	
4 x 2-1/8 ROUND OR OCTAGONAL	21.5	10	9	8	7	4	
4 x 1-1/4 SQUARE	18.0	9	8	7	6	3	
4 x 1-1/2 SQUARE	21.0	10	9	8	7	4	
4 x 2-1/8 SQUARE	26.5	15	13	12	10	6	
4-1/16 x 1-1/4 SQUARE	28.5	12	11	10	8	5	
4-1/16 x 1-1/2 SQUARE	30.5	14	13	11	9	5	
4-1/16 x 2-1/8 SQUARE	42.0	21	18	16	14	8	
3 x 2 x 1-1/2 DEVICE	7.5	3	3	3	2	1	
3 x 2 DEVICE	10.0	3	4	4	3	2	
3 x 2 x 1/4 DEVICE	10.5	5	4	4	3	2	
3 x 2 x 1/2 DEVICE	12.5	6	5	5	4	2	
3 x 2 x 3/4 DEVICE	14.0	7	6	5	4	2	
3 x 2 x 1/2 DEVICE	18.0	9	8	7	6	3	
4 x 2-1/8 x 1-1/2 DEVICE	10.3	5	4	4	3	2	
4 x 2-1/8 x 1-7/8 DEVICE	13.0	6	5	5	4	2	
4 x 2-1/8 x 2-1/8 DEVICE	14.5	7	6	5	4	2	
3-3/4 x 2-1/2 MASONRY BOX / GANG	14.0	7	6	5	4	2	
3-3/4 x 2-3/4 MASONRY BOX / GANG	21.0	10	9	8	7	4	
FS - MINIMUM INTERNAL DEPTH 1-3/4 SINGLE COVER / GANG	13.5	6	6	5	4	2	
FD - MINIMUM INTERNAL DEPTH 2-3/8 SINGLE COVER / GANG	18.0	9	8	7	6	3	
FS - MINIMUM INTERNAL DEPTH 1-3/4 MULTIPLE COVER / GANG	18.0	9	8	7	6	3	
FD - MINIMUM INTERNAL DEPTH 2-3/8 MULTIPLE COVER / GANG	24.0	12	10	9	8	4	

GENERAL ELECTRICAL NOTES

- GENERAL**
 - SCOPE**
THE DRAWINGS AND THESE GENERAL NOTES DESCRIBE THE SCOPE OF WORK AND SYSTEMS. THE MATERIAL REQUIRED FOR THE WORK SHALL BE PROVIDED BY THE CONTRACTOR UNLESS SPECIFICALLY NOTED OTHERWISE. THE WORK INCLUDES BUT IS NOT LIMITED TO THE FOLLOWING PRINCIPAL SYSTEMS AND EQUIPMENT.
 - PERMITS AND CHARGES**
OBTAIN AND PAY FOR ALL NECESSARY CONSTRUCTION PERMITS, INSPECTION FEES, AND OTHER CHARGES BY AGENCIES HAVING JURISDICTION.
 - REGULATIONS AND CODES**
PROVIDE AND INSTALL ALL MATERIALS IN CONFORMANCE WITH THE NATIONAL ELECTRICAL CODE, CALIFORNIA ADMINISTRATIVE CODE TITLE 8, AND OTHER CODES AND REGULATIONS HAVING JURISDICTION. INSTALL ALL EQUIPMENT IN ACCORDANCE WITH THE REQUIREMENTS OF THE INSPECTING AUTHORITY AND THE MANUFACTURER'S RECOMMENDATIONS.
- CONSTRUCTION SHALL COMPLY WITH THE FOLLOWING:**
APPLICABLE CODES
2022 BUILDING STANDARDS ADMINISTRATIVE CODE, PART 1, TITLE 24 C.C.R.;
2022 CALIFORNIA MECHANICAL CODE (CMC), PART 2, TITLE 24 C.C.R.;
2022 CALIFORNIA ELECTRICAL CODE (CEC), PART 3, TITLE 24 C.C.R.;
2022 CALIFORNIA BUILDING CODE (CBC), PART 4, TITLE 24 C.C.R.;
2022 CALIFORNIA PLUMBING CODE (CPC), PART 5, TITLE 24 C.C.R.;
2022 CALIFORNIA FIRE CODE (FC), PART 9, TITLE 24 C.C.R.;
2022 CALIFORNIA REFERENCED STANDARDS CODE, PART 12, TITLE 24 C.C.R.;
2022 TITLE 19 C.C.R. PUBLIC SAFETY, STATE FIRE MARSHAL REGULATIONS
- CONSTRUCTION SHALL COMPLY WITH THE FOLLOWING:**
NFPA 13-AUTOMATIC SPRINKLER SYSTEMS, 2016 EDITION
NFPA 14-STANDPIPES SYSTEMS, 2019 EDITION
NFPA 17A-WET CHEMICAL SYSTEMS, 2017 EDITION
NFPA 24-PRIVATE FIRE MAINS, 2019 EDITION+ PART OF NFPA 13 CHAPTER 5
NFPA 72 (CALIFORNIA AMENDED)-NATIONAL FIRE ALARM CODES, 2019 EDITION
NFPA 101 LIFE SAFETY CODE, 2018 EDITION
NFPA 253-CRITICAL RADIANT FLOOR COVERING SYSTEMS, 2019 EDITION
NFPA 2001-CLEAN AGENT FIRE EXTINGUISHING SYSTEMS, 2018 EDITION
- VERIFYING EXISTING CONDITIONS**
BEFORE SUBMITTING BID, BECOME THOROUGHLY FAMILIAR WITH ACTUAL EXISTING CONDITIONS AT THE BUILDING SITE. THE INTENT OF THE WORK IS SHOWN ON THE DRAWINGS AND DESCRIBED HEREIN. BY THE ACT OF SUBMITTING A BID PROPOSAL FOR THE WORK, THE CONTRACTOR SHALL BE DEEMED TO HAVE MADE SUCH STUDY AND EXAMINATION AND TO ACCEPT ALL CONDITIONS AS SHOWN AND DESCRIBED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE EXISTING CONDITIONS AND TO CORRECT ANY DEFICIENCIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE EXISTING CONDITIONS AND TO CORRECT ANY DEFICIENCIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE EXISTING CONDITIONS AND TO CORRECT ANY DEFICIENCIES.
- COORDINATION**
COORDINATE ALL WORK WITH OTHER TRADES. OBTAIN ALL DRAWINGS THAT WILL REQUIRE COORDINATION AND PROVIDE ALL ELECTRICAL CONNECTION, DEVICES, RACEWAYS, WIRING, LIGHT FIXTURES, CONTROLS, ETC. REQUIRED WHETHER SHOWN ON ELECTRICAL DRAWINGS OR NOT.
- ELECTRICAL EQUIPMENT LOCATIONS INDICATED ARE SHOWN DIAGRAMMATICALLY. EXACT LOCATION SHALL BE VERIFIED.**
- SERVICE CONTINUITY**
UNINTERRUPTED EXISTING ELECTRICAL POWER SHALL BE MAINTAINED TO OTHER TRADES FOR TEMPORARY POWER AREAS OF THE SITE DURING CONSTRUCTION. PROVIDE ANY TEMPORARY SERVICES AS MAY BE REQUIRED. IDENTIFY AT BID TIME ALL WORK TO BE DONE ON PREMIUM TIME AND THE TOTAL OVERTIME MAN-HOURS REQUIRED FOR COMPLETION.
- AS BUILT**
PROVIDE RECORD DRAWINGS TO THE OWNER WITH ALL CHANGES NOTED THEREON AT THE COMPLETION OF THE PROJECT. RECORD DRAWINGS SHALL BE SIGNED AND DATED BY CONTRACTOR PRIOR TO RELEASE OF FINAL RETENTION OF ALL MONIES.
- MARK PROJECT RECORD DOCUMENTS DAILY TO INDICATE ALL CHANGES MADE IN THE FIELD.**
A) IN ADDITION TO GENERAL REQUIREMENTS OF PROJECT RECORD DRAWINGS, INDICATE ON DRAWINGS CHANGES OF EQUIPMENT LOCATIONS AND RATINGS, TRIP SIZES, AND SETTINGS ON CIRCUIT BREAKERS, ALTERNATIONS IN RACEWAYS RUNS AND SIZES, CHANGES IN WIRE SIZES, CIRCUIT DESIGNATIONS, INSTALLATION DETAILS, ONE-LINE DIAGRAMS, CONTROL DIAGRAMS AND SCHEDULES.
- USE GREEN TO INDICATE DELETIONS AND RED TO INDICATE ADDITIONS.**
A) USE THE SAME SYMBOLS AND FOLLOW THE SAME DRAFTING PROCEDURES USED ON THE CONTRACT DRAWINGS.
- LOCATE UNDERGROUND CONDUIT SUBBED-OUT FOR FUTURE USE, UNDERGROUND FEEDER CONDUITS, AND FEEDER PULL BOX LOCATIONS USING BUILDING LINES BY INDICATING ON THE PROJECT RECORD DRAWINGS.**
- AT THE COMPLETION OF UNDERGROUND CONDUIT INSTALLATION PROVIDE UNDERGROUND CONDUIT RECORD DOCUMENTS TO OWNER'S REPRESENTATIVE.**
- TWO COPIES, IN BINDER FORM, OF ALL TEST RESULTS AS REQUIRED BY THESE DOCUMENTS.**
- TWO COPIES OF LOCAL AND/OR STATE CODE ENFORCING AUTHORITIES FINAL INSPECTION CERTIFICATES.**
- TWO COPIES, IN BINDER FORM, OF ELECTRICAL EQUIPMENT CUT SHEETS, MANUFACTURER'S INSTALLATION INSTRUCTIONS, WARRANTY CERTIFICATES, AND PRODUCT LITERATURE FOR ALL PRODUCTS UTILIZED ON PROJECT.**
- GUARANTEE**
CONTRACTOR SHALL UNCONDITIONALLY GUARANTEE ALL LABOR AND MATERIALS ON ALL WORK AGAINST DEFECTS IN WORKMANSHIP AND MATERIALS FOR A PERIOD OF ONE YEAR.
- SHOP DRAWINGS**
SUBMIT SHOP DRAWINGS AND MATERIAL LIST FOR REVIEW PRIOR TO COMMENCING ANY WORK. ALL EQUIPMENT TO BEAR U.L. LABEL. THAT OF ANOTHER ACCEPTABLE TESTING LABORATORY. SHOP DRAWINGS MUST BE STAMPED BY THE CONTRACTOR FOR CONFORMANCE PRIOR TO SUBMITTAL.
SUBMIT SIX SETS OF SHOP DRAWINGS FOR REVIEW PRIOR TO PURCHASING ALL BREAKER MOUNTING HARDWARE, DISCONNECT SWITCHES, FUSES, CONTROLLERS, LIGHTING FIXTURES, LIGHT SWITCHES, RECEPTACLES, ETC.
- CONTRACTOR BID**
CONTRACTOR'S BID SHALL BE BASED ON ALL WORK SHOWN ON THE PLANS AND AS SPECIFIED. IF CONTRACTOR PROPOSES TO SUBSTITUTE FOR EQUIPMENT SPECIFIED, HE SHALL SUBMIT HIS REQUEST FOR CONSIDERATION OF THE OWNER AND ENGINEER PRIOR TO BIDDING. ALL SUBSTITUTIONS MUST BE REVIEWED BY THE ENGINEER IN WRITING. SUCH REVIEW SHALL NOT RELIEVE THE CONTRACTOR FROM COMPLYING WITH THE REQUIREMENTS OF THE DRAWINGS AND SPECIFICATIONS, AND THE CONTRACTOR SHALL BE RESPONSIBLE AT HIS OWN EXPENSE FOR ANY CHARGES RESULTING FROM HIS PROPOSED SUBSTITUTIONS WHICH AFFECT OTHER PARTS OF HIS OWN WORK, THE OWNER, ENGINEER OF RECORD OR THE WORK OF OTHER CONTRACTORS.

B. MATERIAL AND INSTALLATION

ALL WORK AND MATERIAL SHALL CONFORM TO THE LATEST RULES OF THE GOVERNING ELECTRICAL CODE AND INSTALLATION SHALL BE OF THE LATEST INDUSTRY STANDARDS OF WORKMANSHIP.

ALL MATERIALS SHALL BE NEW AND LISTED BY UNDERWRITERS LABORATORY (U.L.).

- CONDUITS**
CONDUIT SHALL BE EMT, PVC, INCL. RIGID OR FLEXIBLE STEEL TYPE. CONDUIT SHALL BE MANUFACTURED IN ACCORDANCE WITH U.L.-1. A GROUND WIRE IS REQUIRED IN ALL FLEXIBLE CONDUIT AND UNDERGROUND CONDUIT. BUSHINGS SHALL BE INSTALLED ON ALL COMMUNICATION, TELEPHONE & SPEAKER CONDUITS. PROVIDE 3/16" NYLON PLUG STRUNG IN ALL EMPTY CONDUITS. NO. 6X OR 8X30 SHALL BE PERMITTED.
- SWITCHES AND RECEPTACLES**
PROVIDE 20AMP NEMA RATED SWITCHES AND RECEPTACLES OF SPECIFICATION GRADE. ALL SWITCHES SHALL BE RATED FOR 120 AND/OR 277 VOLT AND RECEPTACLES SHALL BE NEMA 5-20R. IN ALL OFFICES AND OFFICE AREAS DEVICES SHALL BE DECORA TYPE WITH COLOR SELECTION BY CONTRACTOR/OWNER'S REPRESENTATIVE.
- FEEDERS AND BRANCH CIRCUITS IDENTIFICATION**
IDENTIFY FEEDERS WITH THE CORRESPONDING CIRCUIT DESIGNATION AT THE OVER-CURRENT DEVICE, LOAD END, AND IN PULL BOXES WITH E-2 CODE OR OTHER APPROVED WIRE MARKER.
IDENTIFY BRANCH CIRCUITS WITH I.D. MARKERS, THE CORRESPONDING CIRCUIT DESIGNATION AT THE OVER-CURRENT DEVICE, LOAD END, AND IN PULL BOXES WITH E-2 CODE OR OTHER APPROVED WIRE MARKER.
IDENTIFY SIGNAL & COMMUNICATION CABLES AT TERMINAL AND OUTLET.
- CONDUCTORS**
DELIVER ALL CONDUCTORS TO THE JOB SITE IN ORIGINAL UNBROKEN CARTON OR REEL, PROPERLY TAGGED WITH U.L. LABEL, SIZE, TYPE, MANUFACTURER, TRADE NAME AND DATE OF MANUFACTURE. (MUST BE MANUFACTURED WITHIN 6 MONTHS)
PROVIDE COPPER CONDUCTORS #12 AWG MINIMUM UNLESS SPECIFICALLY NOTED OTHERWISE ON THE DRAWINGS. PROVIDE STRANDED COPPER CONDUCTORS FOR ALL WIRING. USE CONDUCTORS WITH THHN/THWN 600 VOLTS INSULATION, UNLESS OTHERWISE NOTED.
- LIGHTING FIXTURES**
PROVIDE LIGHTING FIXTURES WITH LED DRIVER PER SCHEDULE, PROVIDE WITH LED BY G.E., PHILIPS OR SYLVANIA.
- PANELBOARDS (RIG SQUARE D)**
DISTRIBUTION AND LIGHTING PANELBOARDS WITHIN PROJECT AREA SHALL BE OF THE COPPER BUS THREE PHASE, FOUR WIRE DISTRIBUTED PHASING TYPE. CIRCUITING SHALL BE ARRANGED TO PROVIDE, AS NEARLY AS POSSIBLE, AN EVENLY BALANCED LOAD ON ALL PHASES. PANELBOARDS SHALL BE BOLT-ON CIRCUIT BREAKER TYPE. AVAILABLE FAULT CURRENT IS STATED ON PANELBOARD SCHEDULE. PROVIDE PANEL IDENTIFICATION NAMEPLATE (ENGRAVED OR ADHESIVE 1/2" MINIMUM LETTERS) AND TYPENRITIALIZED LIST OF CIRCUITS IN THE DIRECTORY FRAME.
- STRUCTURAL SUPPORT**
EACH SECTION OF FLOOR MOUNTED SWITCHBOARD, DISTRIBUTION BOARD, MCC, ETC. SHALL BE BOLTED TO THE CONCRETE HOUSEKEEPING PAD USING (6) 3/4"-10 GRADE 2 BOLTS AND CONICAL WASHERS TORQUED TO 70LB-FT. PROVIDE MINIMUM 4000 PSI STRENGTH CONCRETE BELOW ALL FLOOR MOUNTED STRUCTURE. EQUIPMENT, TIE THE TOP OF ALL FLOOR MOUNTED ELECTRICAL EQUIPMENT TO THE BUILDING STRUCTURE IN A SEISMICALLY APPROVED MANNER.

CEC 110.34(C)

CONTRACTOR SHALL PROVIDE PERMANENT SIGNAGE AT ALL HIGH VOLTAGE ENCLOSURES, FENCING, ROOMS, VAULTS, ETC. PER CEC 110.34(C). SIGNAGE SHALL READ "DANGER-HIGH VOLTAGE-KEEP OUT"

CEC 110.16

ALL SWITCHBOARDS & PANELBOARDS SHALL BE FIELD MARKED TO WARN QUALIFIED PERSONS OF POTENTIAL ELECTRICAL ARC FLASH HAZARDS. PER CEC 110.16 THE MARKING SHALL BE LOCATED SO AS TO BE CLEARLY VISIBLE TO QUALIFIED PERSONS BEFORE EXAMINATION, ADJUSTMENT, SERVICING, OR MAINTENANCE OF THE EQUIPMENT.

GENERAL ELECTRICAL NOTES

- DEMOLITION**
NOTIFY THE OWNER IMMEDIATELY WHEREVER EXISTING EQUIPMENT IS ENCOUNTERED WHICH MUST BE RELOCATED DUE TO THE NEW CONSTRUCTION, AND WHICH IS NOT INDICATED ON THE PLANS.
- ALL REMOVED MATERIALS AND EQUIPMENT WHICH ARE SALVAGEABLE SHALL REMAIN THE PROPERTY OF THE OWNER. DELIVER SUCH SALVAGED MATERIALS AND EQUIPMENT ON THE PREMISES AS DIRECTED BY OWNER, AND NEARLY PILE OR STORE THEM AND PROTECT FROM DAMAGE. REMOVE FROM PREMISES AND DISPOSE OF ALL MATERIALS CONSIDERED BY THE OWNER TO BE SCRAP.**
- ALL DEVICES, CIRCUITS CONDUCTORS, FEEDERS ETC., WHEN NOTED TO BE REMOVED, SHALL BE REMOVED TO THE LAST ACTIVE DEVICE. ALL OVER-CURRENT PROTECTION AND DISCONNECT DEVICES NO LONGER UTILIZED BUT REMAINING AS LAST ACTIVE DEVICE SHALL BE LABELED AS 'SPARE'. COORDINATE ALL OUTAGES WITH OWNERS REPRESENTATIVE.**
- EXECUTION**
CAREFULLY PROTECT ALL WALLS, TRIM, FLOORS, EQUIPMENT UTILITY LINES AND MATERIALS. WHEN WORKING ON FINISHED SURFACES, LIMIT DAMAGE TO THE CONFINES AS MUCH AS POSSIBLE AND RESTORE TO THE ORIGINAL CONDITION ALL SURFACES WHICH ARE DAMAGED BECAUSE OF THE INSTALLATION OF THIS WORK.
- EQUIPMENT, MATERIALS AND SUPPLIES REMOVED FOR PROTECTION SHALL BE REPLACED IN ORIGINAL LOCATIONS. ANY MATERIALS DAMAGED SHALL BE REPLACED WITH NEW MATERIALS OF LIKE KIND AND QUALITY.**
- DO ALL DRILLING, CUTTING, CHANNELING AND PATCHING REQUIRED TO INSTALL ELECTRICAL WORK AS INDICATED OR HEREIN SPECIFIED. ALL HOLES, CURBS, ETC. IN FLOORS, CEILINGS AND WALLS SHALL BE PATCHED, UNLESS INDICATED OTHERWISE. PAINT ALL NEW ELECTRICAL RACEWAYS, CABINETS, ENCLOSURES AND FITTINGS PENETRATING INTO FIRE RATED ENVELOPES, SPACES, ETC.**
- ALL CONDUIT RUNS SHALL BE CONCEALED, UNLESS SHOWN OTHERWISE. PROVIDE A PULL WIRE IN ALL EMPTY CONDUITS.**
- EXISTING CONDITION SHOWN IS FROM AVAILABLE RECORD DRAWINGS AND VISUAL FIELD SURVEY AND SHOWN FOR REFERENCE ONLY. CONTRACTOR SHALL VERIFY ACTUAL EXISTING CONDITION AT SITE.**
- ALL WORK SHOWN IS NEW UNLESS SPECIFICALLY INDICATED AS EXISTING (X). ALL ELECTRICAL EQUIPMENT MOUNTING AND ANCHORAGE MUST CONFORM WITH LOCAL AND STATE SEISMIC CODES.**
- VOLTAJE DATA SYSTEMS**
PROVIDE RACEWAYS, CAT 6 CABLEING, PATCH PANELS, JACKS, TERMINATIONS, BOXES, SUPPORTS, AND ALL MATERIAL INCLUDING PULLING NEW CABLE FROM IDF TO OUTLET AT DESK OR WORKSTATION.
- GROUNDING & BONDING**
FURNISH AND INSTALL COMPLETE BONDING AND GROUNDING SYSTEM AS REQUIRED BY CODES. CONTINUITY OF GROUNDING SHALL BE MAINTAINED MECHANICALLY AND ELECTRICALLY THROUGHOUT THE SYSTEM. A GREEN GROUNDING CODE SIZED CONDUCTOR SHALL BE CARRIED IN ALL CONDUITS.
- INSTALLATION**
IT IS THE INTENT OF THESE PLANS AND SPECIFICATIONS THAT A COMPLETE AND WORKABLE ELECTRICAL INSTALLATION BE PROVIDED FOR ALL THE EQUIPMENT DESCRIBED OR SHOWN AS BEING IN THIS CONTRACT. TOWARD THIS END FURNISH ALL LABOR AND TOOLS NECESSARY AND FURNISH AND INSTALL ALL APPARATUS, MATERIALS AND EQUIPMENT IN A FASHION COMPLYING WITH ALL APPLICABLE CODES. UNLESS ITEMS REQUIRED BUT NOT NORMALLY SHOWN, SUCH AS LAMPS, COUPLINGS, HANGERS, BRACKETS, CLAMPS, BOXES, CONNECTORS AND HARDWARE, REFER ALSO TO WRITTEN SPECIFICATIONS FOR GENERAL, MECHANICAL AND ELECTRICAL SECTIONS.
- PROCURE ALL PERMITS FROM LEGALLY CONSTITUTED AUTHORITIES, ARRANGE FOR ALL INSPECTIONS AND PAY ALL COSTS FOR FEES AND TESTS IN CONNECTION THEREWITH. COMPLY WITH CODES: NOTHING IN THESE PLANS AUTHORIZES DEVIATION FROM APPLICABLE CODES.**
- DETERMINE EXACT ROUTING OF CONCEALED FEEDERS AND BRANCH HOMERUNS IN COOPERATION WITH OTHER TRADES TO SIMPLIFY INSTALLATION WHEREVER POSSIBLE BUT SUBJECT TO APPROVAL OF ARCHITECT FOR VISUAL AND STRUCTURAL REASONS.**
- PROVIDE A CODE APPROVED DISCONNECT SWITCH OR BREAKER WITHIN SIGHT OF EVERY MOTOR AND FEED MOTOR NOT EQUIPPED WITH "BUILT IN" PROTECTION THROUGH A MAGNETIC OR MANUAL STARTER WITH OVERLOAD HEATERS SIZED TO COMPLY WITH MOTOR MANUFACTURER'S RECOMMENDATIONS AND APPLICABLE CODES.**
- FOR CONNECTIONS TO EXHAUST FANS, PUMPS, COMPRESSORS, SPACE HEATERS, WATER HEATERS, AQUASTATS, SOLENOID VALVES AND OTHER MECHANICAL EQUIPMENT AND FOR CONDENSERS AND WATER HEATERS BUT NOT NECESSARILY SHOWN ON THESE DRAWINGS REFER TO MECHANICAL PLANS AND DETERMINE EXACT LOCATIONS UNDER DIRECTION OF HEATING AND VENTILATING CONTRACTOR.**
- DO NOT RUN ANY CONDUIT IN SLAB IF ITS OUTSIDE DIAMETER EXCEEDS 1/3 THE THICKNESS OF THE SLAB. LOCATE CONDUITS WITHIN THE MIDDLE OF THE SLAB, WHERE CONDUITS ARE GROUPED IN PARALLEL RUNS, SPACE THEM 3" OR MORE APART, WHERE CONDUITS CROSS EACH OTHER, TRUCKED SLAB PROPORTIONATELY OVER A HORIZONTAL AREA EQUAL TO TEN TIMES THE DIAMETER OF THE LARGEST CONDUIT. REFER ALSO TO DETAILS SHOWN.**
- SIZE OUTLET BOXES IN CONFORMITY WITH CODE FOR NUMBER AND GAUGE OF CONDUCTORS THEREIN, EXCEPT WHERE NOTED TO BE LARGER. MINIMUM BOX SIZE SHALL BE 4" SQUARE BY 1-1/2" DEEP.**
- EXAMINE PLANS TO DISCERN CELINGS WITH A FIRE RATING OF ONE HOUR OR MORE, PROVIDE A ONE HOUR FIRE-RATED ENCLOSURE OVER EACH LIGHT FIXTURE RECESSED THEREIN.**
- ELECTRICAL WORK SHALL BE INSTALLED SO AS TO BE READILY ACCESSIBLE FOR OPERATING, SERVICING, MAINTAINING AND REPAIRING. ALL CONDUIT SHALL BE CONCEALED WHERE POSSIBLE. EXPOSED CONDUIT SHALL BE IN STRAIGHT LINES PARALLEL TO RIGHT ANGLES TO COLUMN LINES OR BEAMS AND SEPARATED BY AT LEAST THREE (3) INCHES FROM WATER LINES WHENEVER THEY RUN LONG SIDE OR ACROSS SUCH LINES. CONDUIT SHALL NOT BE RUN BELOW CABLE TRAYS OR LIGHT FIXTURES WITHOUT SPECIFIC APPROVAL OF THE OWNERS REPRESENTATIVE. HANGERS SHALL BE FASTENED TO STEEL CONCRETE OR MASONRY, BUT NOT TO PIPING, HANGERS AND SUPPORT SYSTEMS ARE AN INTEGRAL PART OF THE VISUAL ENVIRONMENT. ALL HANGERS AND SUPPORTS EXPOSED TO PUBLIC VIEW MUST BE SHOWN IN DETAIL ON PLANS SUBMITTED TO CONTRACTOR FOR APPROVAL OF ARCHITECT. ALL HANGERS MUST BE UNIFORM IN APPEARANCE. UNLESS INSTALLED WITH NO EXCESS MATERIAL BEYOND WHAT IS REQUIRED FOR THE SUPPORT FUNCTION, CONTRACTOR SHALL SELECT ACCESSORIES AND HARDWARE WITH A SMOOTH, NEAT FINISHED APPEARANCE AND PAINT ALL EXPOSED CONDUIT HANGERS TO MATCH THE ADJACENT FINISHES.**
- ALL WALL SWITCHES AND RECEPTACLES SHALL BE MOUNTED BETWEEN 18" AND 48" TO TOP OF OUTLET BOX PER ADA REQUIREMENTS UNLESS NOTED OTHERWISE.**
- ELECTRICAL SWITCHES, CONTROLS AND SWITCHES INTENDED TO BE USED BY THE OCCUPANT OF THE ROOM OR AREA TO CONTROL LIGHTING AND RECEPTACLE OUTLETS, APPLIANCES OR COOLING, HEATING AND VENTILATING EQUIPMENT, SHALL BE LOCATED NO MORE THAN 48 INCHES MEASURED FROM THE TOP OF OUTLET BOX NOR LESS THAN 15 INCHES MEASURED FROM THE BOTTOM OF THE RECEPTACLE OUTLET BOX TO THE LEVEL OF THE FINISH FLOOR OR WORKING PLATFORM.**
- ALL DISTRIBUTION BOARDS, SWITCHBOARDS AND TRANSFORMERS THAT ARE FLOOR MOUNTED SHALL BE MOUNTED ON 4" THICK MASONRY OR CONCRETE PAD. TRANSFORMER SHALL BE ON VIBRATION ISOLATION PADS AND CONNECTED WITH FLEXIBLE CONDUIT.**
- CONTRACTOR SHALL EXAMINE PLANS AND VERIFY IN FIELD LOCATIONS OF ALL FIRE RATED WALLS, CEILINGS AND FLOORS. CONTRACTOR SHALL SEAL ALL ELECTRICAL SYSTEM PENETRATIONS THROUGH FIRE RATED WALLS, CEILINGS AND FLOORS WITH U.L. LISTED MATERIAL APPROVED BY THE AUTHORITY HAVING JURISDICTION.**
- SURFACE MOUNTED RACEWAY COMPLETENESS: CONTRACTOR SHALL PROVIDE ALL RACEWAY, FITTINGS, SUPPORTS, BOXES, DEVICES, PLATES, ETC. NECESSARY FOR A COMPLETE AND WORKABLE SURFACE MOUNTED ELECTRICAL RACEWAY SYSTEM. PRIOR TO INSTALLATION CONTRACTOR SHALL PERFORM A PREINSTALLATION SURFACE MOUNTED RACEWAY JOB WALK WITH OWNER & ARCHITECT FOR CONTRACTOR TO FIELD VERIFY EXACT ROUTING OF ANY & ALL SURFACE MOUNTED RACEWAYS.**

FIRE ALARM SYSTEM (DESIGN BUILD) BY CONTRACTOR

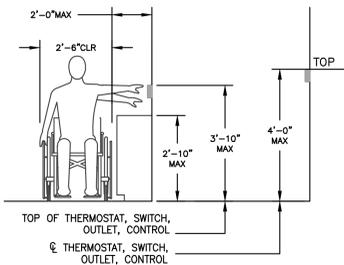
CONTRACTOR SHALL PROVIDE AND INSTALL A FIRE ALARM SYSTEM FOR THE PROJECT AREA TO INCLUDE:

- SMOKE DETECTORS IN ALL REQUIRED AREAS
- HEAT DETECTORS IN ALL REQUIRED AREAS
- DUCT DETECTORS IN ALL REQUIRED SPACES
- STROBE/ALARMS IN ALL REQUIRED AREAS
- CARBON MONOXIDE DETECTORS IN ALL REQUIRED AREAS
- PULL STATIONS AT ALL LEGAL FIRE EXITS - WHERE REQUIRED
- TAMPER AND FLOW SWITCHES AT THE SPRINKLER RISERS & BACKFLOW PREVENTERS
- BRANCH CIRCUIT & CONTROL WIRING TO FIRE SPRINKLER ALARM BELLS
- ELEVATOR SMOKE DETECTORS, RECALL PANEL, SHUNT TRIP, ETC. AS REQUIRED.
- SMOKE / FIRE DAMPER / HANG UNIT SHUNT DOWN BRANCH CIRCUIT WIRING
- CONTROL WIRING, CONTROL DEVICES, RELAYS, ETC. SEE MECHANICAL PLANS FOR ADDITIONAL INFORMATION.
- PROVIDE REMOTE INDICATORS BELOW CEILINGS FOR ALL DUCT DETECTORS, SMOKE FIRE DAMPERS, ETC. WHERE INSTALLED IN RECESSED LOCATIONS PER NFPA 72 & LOCAL AUTHORITY HAVING JURISDICTION.
- ALL VALVES CONTROLLING THE WATER SUPPLY FOR AUTOMATIC SPRINKLER SYSTEMS, PUMP, WATER FLOW SWITCHES ON ALL SPRINKLER SYSTEMS SHALL BE ELECTRICALLY SUPERVISED.

DATA SYSTEM RACEWAYS

- ALL DATA SYSTEM CABLEING SHALL BE IN A RACEWAY. DATA CABLEING & DATA SYSTEM RACEWAYS SHALL BE RECESSED TO THE MAXIMUM EXTENT POSSIBLE. ALL EXTERIOR DATA SYSTEM

GENERAL ELECTRICAL SPECIFICATIONS SHEET



MOUNTING HEIGHT OVER OBSTRUCTION

SCALE: _____

CALIFORNIA BUILDING CODE NOTES:

CBC 11B-308.1.2 - ALL WORK FOR THIS PERMIT SHALL COMPLY WITH CBC ACCESSIBILITY STANDARDS.

CBC 11B-308.2 - FORWARD REACH OBSTRUCTED - ELECTRICAL RECEPTACLE OUTLETS SHALL BE LOCATED NO MORE THAN 44 INCHES MEASURED FROM THE TOP OF THE RECEPTACLE OUTLET BOX WHEN THE OBSTRUCTION IS OVER 20" AND DOES NOT EXCEED 25". WHEN THE DEPTH IS LESS THAN 20" HEIGHT CAN INCREASE TO 48". (DESK COUNTERS)

CBC 11B-308.3 - SIDE REACH OBSTRUCTED - ELECTRICAL RECEPTACLE OUTLETS SHALL BE LOCATED NO MORE THAN 46 INCHES MEASURED FROM THE TOP OF THE RECEPTACLE OUTLET BOX WHEN THE OBSTRUCTION IS OVER 10" AND DOES NOT EXCEED 24". WHEN THE DEPTH IS LESS THAN 10" HEIGHT CAN BE INCREASED TO 48"

MEP COMPONENT ANCHORAGE NOTE

ALL MECHANICAL, PLUMBING, AND ELECTRICAL COMPONENTS SHALL BE ANCHORED AND INSTALLED PER THE DETAILS ON THE DSA APPROVED CONSTRUCTION DOCUMENTS. THE FOLLOWING COMPONENTS SHALL BE ANCHORED OR BRACED TO MEET THE FORCE AND DISPLACEMENT REQUIREMENTS PRESCRIBED IN THE 2022 CBC SECTIONS 1617A.1.18 THROUGH 1617A.1.26 AND AGC 7-1.6 CHAPTERS 13.6.3-5.

1. ALL PERMANENT EQUIPMENT AND COMPONENTS.
2. TEMPORARY, MOVABLE OR MOBILE EQUIPMENT THAT IS PERMANENTLY ATTACHED (E.G. HARD WIRED) TO THE BUILDING UTILITY SERVICES SUCH AS ELECTRICITY, GAS, OR WATER, PERMANENTLY ATTACHED SHALL INCLUDE ALL ELECTRICAL CONNECTIONS EXCEPT FLEXIBLE CABLE.
3. TEMPORARY, MOVABLE OR MOBILE EQUIPMENT WHICH IS HEAVIER THAN 400 POUNDS OR HAS A CENTER OF MASS LOCATED 4 FEET OR MORE ABOVE ADJACENT FLOOR OR ROOF LEVEL THAT DIRECTLY SUPPORT THE COMPONENT IS REQUIRED TO BE RESTRAINED IN A MANNER APPROVED BY DSA.

THE FOLLOWING MECHANICAL AND ELECTRICAL COMPONENTS SHALL BE POSITIVELY ATTACHED TO THE STRUCTURE BUT DEMONSTRATE DESIGN COMPLIANCE WITH THE REFERENCES NOTED ABOVE. THESE COMPONENTS SHALL HAVE FLEXIBLE CONNECTIONS PROVIDED BETWEEN THE COMPONENT AND ASSOCIATED DUCTWORK, PIPING, AND CONDUIT. FLEXIBLE CONNECTIONS MUST ALLOW MOVEMENT IN BOTH TRANSVERSE AND LONGITUDINAL DIRECTIONS:

- A. COMPONENTS WEIGHING LESS THAN 400 POUNDS AND HAVE A CENTER OF MASS LOCATED 4 FEET OR LESS ABOVE THE ADJACENT FLOOR OR ROOF LEVEL THAT DIRECTLY SUPPORT THE COMPONENT.
- B. COMPONENTS WEIGHING LESS THAN 20 POUNDS, OR IN THE CASE OF DISTRIBUTED SYSTEMS, LESS THAN 5 POUNDS PER FOOT, WHICH ARE SUSPENDED FROM A ROOF OR FLOOR OR HUNG FOR A WALL.

THE ANCHORAGE OF ALL MECHANICAL, ELECTRICAL AND PLUMBING COMPONENTS SHALL BE SUBJECT TO THE APPROVAL OF THE DESIGN PROFESSIONAL IN GENERAL RESPONSIBLE CHARGE OR STRUCTURAL ENGINEER DELEGATED RESPONSIBILITY AND ACCEPTANCE BY DSA. THE PROJECT INSPECTOR WILL VERIFY THAT ALL COMPONENTS AND EQUIPMENT HAVE BEEN ANCHORED IN ACCORDANCE WITH THE ABOVE REQUIREMENTS.

PIPING, DUCTWORK AND ELECTRICAL DISTRIBUTION SYSTEM BRACING NOTE

PIPING, DUCTWORK, AND ELECTRICAL DISTRIBUTION SYSTEMS SHALL BE BRACED TO COMPLY WITH THE FORCES AND DISPLACEMENT PRESCRIBED IN AGC 7-1.6 SECTION 13.3, AS DEFINED IN AGC 7-1.6 SECTIONS 13.6.5, 13.6.6, 13.6.7, 13.6.8, AND 2022 CBC, SECTIONS 1617A.1.24, 1617A.1.25 AND 1617A.1.26.

THE METHOD OF SHOWING BRACING AND ATTACHMENT TO THE STRUCTURE FOR THE IDENTIFIED DISTRIBUTION SYSTEM ARE AS NOTED BELOW. WHEN BRACING AND ATTACHMENTS ARE BASED ON A PREAPPROVED INSTALLATION GUIDE (E.G. H24 0PM FOR 2013 CBC OR LATER), COPIES OF THE BRACING SYSTEM INSTALLATION GUIDE OR MANUAL SHALL BE AVAILABLE ON THE JOB SITE PRIOR TO THE START OF AND DURING THE HANGING AND BRACING OF THE DISTRIBUTION SYSTEMS. THE STRUCTURAL ENGINEER OF RECORD SHALL VERIFY THE ADEQUACY OF THE STRUCTURE TO SUPPORT THE HANGER AND BRACE LOADS.

MECHANICAL PIPING (MP), MECHANICAL DUCTS (MD), PLUMBING PIPING (PP), ELECTRICAL DISTRIBUTION SYSTEMS (E):

- MP MD PP E - OPTION 1: DETAILED ON THE APPROVED DRAWINGS WITH PROJECT SPECIFIC NOTES AND DETAILS.
 MP MD PP E - OPTION 2: SHALL COMPLY WITH HCA PRE-APPROVAL (OPM) # _____

ALL ELECTRICAL EQUIPMENT ON THIS PROJECT IS DISCRETE. ELECTRICAL COMPONENTS AND EQUIPMENT THAT ARE ATTACHED TO THE BUILDING AND ANCHORAGE IS DETAILED ON THE PLANS. ALL ELECTRICAL EQUIPMENT AND ITS COMPONENT WEIGHTS ARE 400LB. OR LESS. FURTHERMORE, THE CENTER OF MASS IS LOCATED 4 FT. OR LESS ABOVE THE ADJACENT FLOOR OR ROOF LEVEL THAT DIRECTLY SUPPORTS THE COMPONENT. FLEXIBLE CONNECTIONS ARE PROVIDED BETWEEN THE COMPONENT CONDUIT WHERE REQUIRED.

10 GENERAL

IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE A COMPLETE AND OPERABLE ELECTRICAL SYSTEM AS SHOWN ON THE DRAWINGS. THE COMPLETE INSTALLATION SHALL MEET REQUIREMENTS OF THE LATEST NATIONAL ELECTRICAL CODE AND ALL LOCALLY ADOPTED AMENDMENTS, INCLUDING BUT NOT NECESSARILY LIMITED TO THE FOLLOWING:

- CALIFORNIA ELECTRICAL CODE - LATEST EDITION
1. CALIFORNIA ADMINISTRATIVE CODE, TITLE 24
 2. CALIFORNIA ADMINISTRATIVE CODE, TITLE 19, FIRE CODE
 3. UNDERWRITERS LABORATORY
 4. AMERICAN NATIONAL STANDARD INSTITUTE
 5. NEMA (NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION)
 6. ALL OTHER APPLICABLE STATE, LOCAL LAWS AND REGULATIONS 7.

WHERE THESE SPECIFICATIONS CALL FOR A HIGHER STANDARD THAN THE ABOVE-MENTIONED RULES, THE SPECIFICATIONS SHALL GOVERN.

IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO INSTALL ALL WORK IN ACCORDANCE WITH STAMPED PLANS APPROVED BY THE ELECTRICAL DIVISION OF THE DEPARTMENT OF BUILDING AND SAFETY.

PRIOR TO CONTRACTOR SUBMITTING HIS BID, HE SHALL VISIT THE JOB SITE TO BECOME COMPLETELY FAMILIAR WITH ALL ASPECTS OF THE NEW CONSTRUCTION AND ALL REQUIREMENTS THAT MAY BE IMPOSED BY THE OWNER. FAILURE TO DO THIS WILL RELIEVE OWNER FROM ANY FINANCIAL OBLIGATION FOR EXTRA WORK OR COST INCURRED BY THE CONTRACTOR. CONTRACTOR TO TAKE NOTE OF ALLOWABLE WORK HOURS, ON-SITE STORAGE FACILITIES, AND AVAILABLE PARKING AND INCLUDE THIS IN HIS BID.

ALL PERMITS SHALL BE OBTAINED AND PAID FOR BY THE CONTRACTOR.

ACCURATE RECORD DRAWINGS SHALL BE MAINTAINED AND PRESENTED TO THE OWNER AND THE ELECTRICAL ENGINEER AT THE TIME OF OCCUPANCY PERMIT.

THE CONTRACTOR SHALL UNCONDITIONALLY GUARANTEE ALL HIS WORK FOR ONE YEAR AFTER ACCEPTANCE AND FURNISH ALL MANUFACTURER WARRANTIES FOR THE EQUIPMENT HE FURNISHES.

THE CONTRACTOR SHALL INSTALL ALL ELECTRIC EQUIPMENT IN A NEAT AND WORKMANLIKE MANNER. ELECTRICAL EQUIPMENT SHALL BE FIRMLY SECURED TO THE SURFACE ON WHICH IT IS MOUNTED.

THE ELECTRICAL CONTRACTOR SHALL SUBMIT SIX (6) COPIES OF THE SHOP DRAWINGS TO THE ARCHITECT FOR APPROVAL WITHIN THIRY (30) DAYS AFTER THE AWARD OF THE GENERAL CONTRACT. IF SUCH A PERMIT IS REQUIRED, THE CONTRACTOR SHALL SUBMIT A STANDARD PRODUCT OF AN ESTABLISHED MANUFACTURER. THE SHOP DRAWING SHALL GIVE ALL ELECTRICAL INFORMATION ON THE PROPOSED EQUIPMENT. EACH ITEM OF THE SHOP DRAWINGS SHALL BE PROPERLY LABELED, INDICATING THE INTENDED SERVICE OF THE MATERIAL, THE JOB NAME AND ELECTRICAL CONTRACTOR'S NAME.

WHERE EQUIPMENT IS IDENTIFIED BY MANUFACTURER AND CATALOG NUMBER, IT SHALL BE CONSTRUED AS THE BASE OF REQUIREMENTS FOR QUALITY AND PERFORMANCE. WHERE MANUFACTURERS FOR EQUIPMENT ARE IDENTIFIED BY NAME, THE ELECTRICAL SUBCONTRACTOR MAY OPT FOR APPROVAL, SUPPORTING EQUIPMENT OF OTHER MANUFACTURERS AS SUBSTITUTION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE SUFFICIENT SUPPLYING DATA TO PERMIT EVALUATION OF THE PROPOSED SUBSTITUTE WITH RESPECT TO QUALITY, PERFORMANCE, SERVICEABILITY, AND WARRANTY. THE ENGINEER'S DECISION AS TO WHETHER THE SUBMITTED EQUIPMENT IS ACCEPTABLE SHALL BE FINAL AND BINDING.

ALL CHANGES NECESSARY TO ACCOMMODATE THE SUBSTITUTED EQUIPMENT SHALL BE MADE AT THE CONTRACTOR'S EXPENSE, AND SHALL BE AS APPROVED BY THE ENGINEER. DETAILED DRAWINGS INDICATING THE REQUIRED CHANGES SHALL BE SUBMITTED FOR APPROVAL AT THE TIME THE SUBSTITUTION IS REQUESTED.

IF SUBSTITUTIONS ARE MADE IN LIEU OF THE LIGHTING FIXTURES SPECIFIED, THE CONTRACTOR SHALL SUBMIT PHOTOMETRIC CALCULATIONS, PHOTOMETRIC PERFORMANCE, FORM, DIMENSION, DESIGN AND PROFILE SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

AT COMPLETION OF WORK, THIS CONTRACTOR SHALL CLEAN UP AND REMOVE ALL DEBRIS AND MATERIAL NOT INSTALLED IN WORK, DISPOSE IN AN ENVIRONMENTALLY APPROVED MANNER, LEAVING PREMISES CLEAN.

ELECTRICAL CONTRACTOR SHALL PROVIDE A TEMPORARY CONSTRUCTION SERVICE IF REQUIRED FOR THIS PROJECT TO MAINTAIN ESSENTIAL SERVICES DURING CIRCUIT CUT-OVER PERIODS.

CUT PERMISSION FROM THE OWNER BEFORE PERFORMING ANY CUTTING OR PATCHING WORK WHICH IS LIKELY TO AFFECT THE STRENGTH OF A STRUCTURAL MEMBER. ALL PENETRATIONS THROUGH CONCRETE CONSTRUCTION SHALL BE DONE BY THE MEANS DENOTED BY ARCHITECT. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO INSTALL EQUIPMENT AND WIRING AS REQUIRED AND AS INDICATED ON THE ELECTRICAL AND MECHANICAL DRAWINGS AND SPECIFICATIONS. SEE IF FINANCIAL INFORMATION FOR EXACT EQUIPMENT LAYOUTS AND REQUIREMENTS INCLUDING: VOLTAGES, CONTROL, WIRING, CONTROL DEVICES TO BE FURNISHED AND/OR INSTALLED, LOCATIONS AND OTHER REQUIREMENTS.

CONDUIT RUNS ARE SHOWN DIAGRAMMATICALLY. EXACT LOCATIONS AND ROUTING TO BE DETERMINED IN THE FIELD TO SUIT CONDITIONS.

THE CONTRACTOR SHALL BE RESPONSIBLE TO MAKE AND OBTAIN APPROVAL FOR ALL NECESSARY ADJUSTMENTS IN CIRCUITING AS REQUIRED TO ACCOMMODATE THE RELOCATIONS OF EQUIPMENT AND/OR DEVICES WHICH ARE AFFECTED BY ANY APPROVED AUTHORIZED CHANGE.

ALL CHANGES SHALL BE CLEARLY INDICATED ON THE RECORD (AS-BUILT) DRAWINGS.

ALL MATERIAL AND EQUIPMENT SHALL BE NEW, UL LISTED, APPROVED BY THE LOCAL JURISDICTION AND, UNLESS OTHERWISE NOTED, SHALL BE FURNISHED AND INSTALLED BY THE ELECTRICAL CONTRACTOR. EQUIPMENT EXPOSED TO WEATHER SHALL BE UL LISTED WEATHERPROOF.

ALL MOTORS OR EQUIPMENT LOCATED OUT OF SIGHT OR MORE THAN 50 FEET FROM THE PANEL SHALL HAVE HORSEPOWER RATED DISCONNECTS INSTALLED AT THE MOTOR EQUIPMENT.

ALL REQUIRED POWER OUTAGES THAT ARE NECESSARY IN ORDER TO COMPLETE ANY PORTION OF THE WORK SHALL BE ENTIRELY AT THE OWNER'S CONVENIENCE AND AT A TIME DESIGNATED BY HIM AND BE FULLY COORDINATED WITH THE OWNER'S REPRESENTATIVE. A MINIMUM OF 48 HOURS OF ADVANCED NOTICE SHALL BE GIVEN TO THE OWNER OF THE SOURCE OF POWER FOR EACH PORTION OF OUTAGE BEFORE THIS CONTRACTOR DISCONNECTS ANY CIRCUITS. CONTRACTOR SHALL FURNISH, INSTALL, AND REMOVE ANY TEMPORARY JUMPERS ETC. TO MAINTAIN ALL LOADS THAT THE OWNER DESIGNATES AS NOT BEING ABLE TO SHUT DOWN DURING CONSTRUCTION.

SHOULD ANY CONDITIONS EXIST THAT DIFFER FROM WHAT IS INDICATED ON THESE DRAWINGS THAT CAUSE DEVIATIONS IN THE WORK SHOWN, THE CONTRACTOR SHALL, IN A TIMELY MANNER SO NOT TO IMPAIR THE CONSTRUCTION SCHEDULE OR SEQUENCE OF EVENTS, SUBMIT A WRITTEN REPORT OF THE CONDITIONS FOUND TO THE OWNER'S REPRESENTATIVE FOR APPROPRIATE DIRECTION ON HOW TO COMPLETE THE WORK IN QUESTION.

PRIOR TO START OF INSTALLATION THE CONTRACTOR SHALL COORDINATE THE FINAL LOCATION OF EACH LIGHT FIXTURE, SWITCH, DISCONNECT, RACEWAY, PANELBOARD, OUTLET, OCCUPANCY SENSOR, WIREMOLD, FIRE ALARM DEVICE, DATA POINT, SPEAKER, MISCELLANEOUS PROJECT DEVICE, ETC. WITH THE OWNER'S REPRESENTATIVE. THE OWNER RESERVES THE RIGHT TO RELOCATE ANY OUTLET OR DEVICE UP TO 8 FEET FROM THE LOCATION INDICATED ON THE PLANS AT NO ADDITIONAL COST.

ALL FEEDER LENGTHS INDICATED ON SINGLE LINE DIAGRAMS OR FEEDER SCHEDULE ARE FOR VOLTAGE DROP PURPOSES ONLY AND ARE NOT TO BE USED FOR MATERIAL TAKE-OFF OR BIDDING PURPOSES.

COORDINATE ALL EXT SIGN LOCATIONS WITH THE LOCAL FIRE MARSHAL PRIOR TO BEGINNING WORK.

THE CONTRACTOR SHALL REFER TO THE ARCHITECTURAL DRAWINGS TO VERIFY DIMENSIONS, CLEARANCES, OBSTRUCTIONS, TYPE OF CONSTRUCTION, DOOR SWINGS, SINK AND SPLASH BOARD DIMENSIONS AND BATH MIRRORS, TO CLEAR SWITCHES AND RECEPTACLES PRIOR TO INSTALLATION.

WHERE ACCESS PANELS FOR ACCOMMODATING ELECTRICAL WORK ARE LOCATED AND/OR SIZED ON THESE DRAWINGS, OR DRAWINGS PREPARED UNDER SEPARATE DIVISIONS OF THE WORK, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO RE-SIZE AND/OR PROVIDE SUITABLE ACCESS PANELS FOR THE CONDITIONS. WHERE INSUFFICIENT SPACE EXISTS TO ACCOMMODATE LARGER ACCESS PANELS, A SUITABLE ALTERNATE IS TO ACQUIRE AND INSTALL A DOOR OR DOOR WITH THE BACKSIDE OF THE HINGED DOOR WITH AN APPROPRIATELY SIZED AND CODE APPROVED FLEXIBLE FITTING, THIS ALLOWING ACCESS TO ELECTRICAL COMPONENTS FROM THE OCCUPIED SPACE IN LIEU OF THE ATTIC.

WHERE ELECTRICAL RACEWAYS ARE INSTALLED THROUGH 2 TO 4-HOUR RATED FLOORS OR WALLS, THE CONTRACTOR SHALL PROVIDE SUITABLE APPROPRIATE FITTINGS APPROVED BY ALL LOCAL AUTHORITIES FOR THE INTENDED PURPOSE AND APPLICATION. FITTINGS SHALL SEAL TIGHT THE INTERIOR AND EXTERIOR OF EACH RACEWAY PENETRATION TO PROHIBIT FIRE PASSING FROM ONE AREA TO ANOTHER. WHERE EMPTY CONDUITS ARE INSTALLED FOR FUTURE USE, THE CONTRACTOR SHALL PROPERLY SEAL THE RACEWAY TO COMPLY WITH THE PROVISIONS INDICATED ABOVE. THE ELECTRICAL CONTRACTOR SHALL SUBMIT TO THE ENGINEER FOR REVIEW THE PROPOSED FITTINGS TO BE USED AND DETAILS REGARDING THE INSTALLATION METHODS PRIOR TO THEIR INSTALLATION. THE INSTALLATION SHALL NOT BE COMPLETED UNTIL FINAL APPROVAL HAS BEEN RECEIVED FROM THE ARCHITECT TO PROCEED.

AS A CONDITION FOR FURNISHING MATERIAL TO THIS PROJECT, THE MANUFACTURERS AND SUPPLIERS AGREE TO DEFEND, HOLD HARMLESS, AND TO INDEMNIFY OWNER, ARCHITECT, ELECTRICAL ENGINEER, AND ALL RELATED SUBSIDIARIES AGAINST ANY LIABILITY ARISING OUT OF PRODUCT FAILURE OR MANUFACTURING DEFECT OF THE EQUIPMENT THEY FURNISH.

20 DEMOLITION
 THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL OF THE NECESSARY DEMOLITION WORK REQUIRED TO ACCOMMODATE THE REMODELING WITHIN THE VARIOUS AREAS. RESTORE CONTINUITY OF ALL EXISTING CIRCUITING THAT IS TO REMAIN THAT BECOMES DISTURBED AS A RESULT OF THE NEW WORK. FURNISH ALL LABOR AND MATERIAL TO REROUTE CIRCUITRY TO REMAIN, CONCEAL FROM VIEW IN PUBLIC AREAS AND MAINTAIN ALL CODE REQUIRED CLEARANCES AND ACCESSIBILITY.

FIELD VERIFY ALL EXISTING AND REQUIREMENTS PRIOR TO STARTING WORK. WHERE EXISTING CONDUITS BECOME EXPOSED AS A RESULT OF NEW WORK, CONTRACTOR SHALL REWORK AS REQUIRED TO SUIT CONDITIONS TO CONCEAL SUCH CONDUIT FROM VIEW IN ALL PUBLIC AND BACK OF HOUSE AREAS.

ALL WIRING WITHIN EXISTING OUTLETS ARE TO BE RE-IDENTIFIED WITH EASY-MARKERS TO REFLECT THE NEW CIRCUIT DESIGNATIONS. WHERE REWORK OR FIXTURES IS REQUIRED TO COMPLETE NEW WORK.

ALL EXISTING ELECTRICAL EQUIPMENT AND MATERIAL THAT IS REMOVED AS A PART OF THIS WORK SHALL BE DELIVERED TO OWNER AT A LOCATION ON THE PROPERTY THAT HE DESIGNATES.

WHERE EXISTING OUTLETS, AFFECTED BY THE NEW WORK ARE TO BE ABANDONED, REMOVE EXISTING OUTLET AND WIRING, CUT OFF AND PLUG EXISTING CONDUIT. WHERE THERE IS A POSSIBILITY TO REUSE A PORTION OF THE EXISTING CONDUIT SYSTEM, EXTEND EXISTING CONDUIT TO NEAREST ACCESSIBLE LOCATION AND PROVIDE JUNCTION BOX WITH SUITABLE COVER. COORDINATE EXTENT OF THIS WORK WITH OWNER'S REPRESENTATIVE.

60 WIRE AND CABLE
 ALL WIRING SHALL BE COPPER, MINIMUM SIZE #12-ANL. USE THIN IN DRY LOCATIONS ONLY WITHIN IN WET LOCATIONS.

ALL FIXED ELECTRICAL APPLIANCES SHALL BE WIRED IN APPROVED WIRING ENCLOSURES.

ALL FINAL FLEX CONDUIT CONNECTIONS TO ANY EQUIPMENT SHALL INCLUDE SUFFICIENT SLACK IN LINE TO MOVE WITH THE EQUIPMENT.

ALL CONDUCTORS SHALL BE IDENTIFIED FOR USE AND SYSTEM PER NEC ARTICLE 300. CONDUIT CODE SECONDARY SYSTEMS SHALL BE FEEDER AND BRANCH CIRCUIT CONDUCTORS WITH FACTORY APPLIED COLOR AS FOLLOWS:

208Y/120 VOLTS	PHASE	480Y/277 VOLTS
RED	B	ORANGE
YELLOW	Y	YELLOW
GREEN	W	GREEN
WHITE	NEUTRAL	GRAY
BLACK	GROUND	W/ YELLOW STRIPE

CONTRACTOR SHALL FURNISH AND INSTALL ALL WIRE TERMINATORS, STRESS CONES, COMPRESSION PIN ADAPTERS, LUGS, WIRE NUTS, ETC. AS REQUIRED TO TERMINATE ANY AND ALL CONDUCTORS.

40 CONDUIT
 ALL CONDUIT INSTALLED WITHIN CONCEALED AREAS MAY BE EMT OR RIGID STEEL IN EXPOSED AREAS SUBJECT TO CONDUIT DAMAGE. ONLY GALVANIZED RIGID STEEL MAY BE USED. ALL CONDUIT IN FINISHED AREAS TO BE CONCEALED.

A MAXIMUM OF 4" OF CONDUIT AND WIRE SHALL BE SOLAR EXPOSED. ALL CONDUITS INSTALLED UNDERGROUND SHALL BE MINIMUM 1" UNDERGROUND CONDUIT SHALL BE PVC, SCHEDULE 40 ELECTRICAL CONDUIT FOR 0-800 VOLT SYSTEMS, SCHEDULE 80 ELECTRICAL CONDUIT FOR 800 TO 250V SYSTEMS, AS MANUFACTURED BY CARLON OR EQUAL UNLESS NOTED OTHERWISE.

CONDUITS SHOWN ON THE DRAWINGS HAVE BEEN SIZED BASED ON THE NATIONAL ELECTRICAL CODE. ELECTRICAL CONTRACTOR MAY OPT TO USE SCHEDULE 40 PVC WHERE PERMITTED BY CODE AND THE OWNER. IF PVC IS USED, ELECTRICAL CONTRACTOR SHALL SIZE SUCH CONDUITS AS REQUIRED TO INCLUDE GROUND CONDUCTOR, AND SHALL SIZE GROUND WIRE PER CODE. PVC RACEWAYS SHALL NOT BE INSTALLED ABOVE GROUND. ALL FLEX CONDUITS SHALL INCLUDE A GROUNDING CONDUCTOR SIZED PER THE NEC.

ALL PVC UNDERGROUND CONDUITS SHALL UTILIZE COATED OR WRAPPED RIGID STEEL ELBOWS AND RISERS WHEN RISING ABOVE GRADE, EXCEPT IN AREAS NOT SUBJECT TO MECHANICAL DAMAGE AND WITH PRIOR APPROVAL FROM THE ELECTRICAL ENGINEER.

MAINTAIN A MINIMUM OF 6" CLEARANCE BETWEEN ALL CONDUIT SLEEVES. VERIFY WITH GENERAL CONTRACTOR.

THE ELECTRICAL CONTRACTOR SHALL PROVIDE EXPANSION/DEFLECTION FITTINGS FOR CONDUITS CROSSING SPRAWN JOINTS. FITTINGS SHALL BE SUITABLE FOR CONDITIONS TO BE ENCOUNTERED. VERIFY WITH OWNER'S REPRESENTATIVE PRIOR TO COMMENCING WORK. SUBMIT SHOP DRAWINGS FOR REVIEW.

UNDERGROUND CONDUITS SHALL HAVE A MINIMUM 24" OF COVER.

60 OUTLET, PULL AND JUNCTION BOXES
 JUNCTION BOXES AND OUTLET BOXES SHALL BE SIZED PER CODE, BUT IN NO CASE LESS THAN THE FOLLOWING: OUTLETS WITH 9 OR LESS #12 CONDUCTORS SHALL BE 4 1/2" X 2 1/2" D AND OUTLETS WITH 10 THROUGH 18 CONDUCTORS SHALL BE 4 1/2" X 2 1/2" X 2 1/2" D.

ALL JUNCTION BOXES SHALL CLEARLY INDICATE WITH PERMANENT BLACK MARKER, IN 1/2-INCH LETTERING THE CIRCUIT NUMBERS AND THE SOURCE OF POWER OF ALL CONDUCTORS CONTAINED WITHIN THAT JUNCTION BOX.

OUTLETS FOR THE ATTACHMENT OF THE FIXTURES TO BE PROVIDED WITH 3/8" MALLEABLE IRON FIXTURE STUDS AND BOX HANGERS WHERE REQUIRED.

TELEPHONE OUTLETS SHALL BE DOUBLE GANG BOX WITH SINGLE GANG 1-HOLE TELEPHONE COVER PLATE, UNLESS OTHERWISE NOTED ON DRAWINGS.

CABLE TELEVISION OUTLETS SHALL BE DOUBLE GANG BOX WITH SINGLE GANG 1-HOLE CATV COVER PLATE, UNLESS OTHERWISE NOTED ON DRAWINGS.

INTERIOR BOXES SHALL BE GALVANIZED STEEL. MANUFACTURERS: B & C METAL STAMPING, BRYANT, GENERAL ELECTRIC, LEVITON COMPANY, MORRIS STEEL CITY, GROUSE-HINDS, APPLETON, PACO, CARLON.

EXTERIOR BOXES SHALL BE "ST" TYPE BOXES WITH THREADED HUBS AS REQUIRED AND FULLY GASKETED UNLESS OTHERWISE NOTED.

ALL IN-GRADE PULLBOXES SHALL BE H/20 TRAFFIC RATED WITH SOLID CONCRETE BOTTOM AND MOUNTED ON 6" DEEP AGGREGATE BASE UNLESS OTHERWISE NOTED.

60 PANELBOARDS AND SWITCHBOARDS
 ALL SWITCHBOARDS AND PANELBOARDS SHALL BE CONSTRUCTED PER THE NATIONAL ELECTRICAL CODE AND ALL LOCALLY ADOPTED AMENDMENTS. WHERE REGULATIONS APPLY, CONSTRUCTION SHALL MEET REQUIREMENTS OF SERVING UTILITY.

ALL SWITCHBOARDS AND MOTOR CONTROL CENTERS SHALL HAVE WITHSTAND RATINGS GREATER THAN THE AVAILABLE FAULT CURRENT WITH 42,000 AMP BEING THE MINIMUM. CONTROL CONDITIONS WITH SERVING UTILITY. SUBMIT CERTIFICATION OF COMPLIANCE WITH SHOP DRAWINGS.

ALL OVERCURRENT DEVICES IN EQUIPMENT SHALL BE UL LISTED TO INTERRUPT THE AVAILABLE FAULT CURRENT.

ALL PANELBOARD SWITCHBOARDS SHALL BE GROUNDED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE AND ALL LOCALLY ADOPTED AMENDMENTS.

WALL-MOUNTED PANELS SHALL BE PROVIDED WITH TRIM AND DOOR CONSTRUCTED OF CODE GAUGE SHEET STEEL AND SHALL HAVE FACTORY FINISH. DOOR SHALL BE FITTED WITH HINGES, SPRING CATCH LATCH AND CYLINDER LOCK. PROVIDE 2 KEYS WITH EACH PANEL. PROVIDE DIRECTORY CARD HOLDER AND TYPEWRITTEN PANEL SCHEDULE. PANELBOARD SHALL BE SO CONSTRUCTED AS TO PROVIDE FOR ADJUSTABLE ALIGNMENT OF TRIM AND INTERIOR PANELS.

PROVIDE ENGRAVED NAMEPLATES IDENTIFYING SWITCHBOARDS AND PANELBOARDS. ALL EQUIPMENT NAMEPLATE IDENTIFICATIONS SHOWN ON THE DRAWINGS ARE FOR REFERENCE ONLY. PRIOR TO FABRICATING THE FINISHED NAMEPLATES, CONSULT WITH THE OWNER'S BUILDING ENGINEER FOR THE ACTUAL NOMENCLATURE TO BE USED.

PROVIDE PANELBOARDS WITH SEPARATE GROUND BAR. UNLESS OTHERWISE INDICATED ON PLANS, PANEL SHALL BE INSTALLED WITH TOP OF CABINET AT 4'-0" A.F.F.

MANUFACTURERS SHALL BE SQUARE D OR EQUAL APPROVED BY ENGINEER PRIOR TO BID PROPOSAL.

WHERE LOADS ARE ADDED TO EXISTING PANELBOARDS, THE PANEL SCHEDULE SHALL BE UPDATED AND SHALL INDICATE THE LOCATION AND DESCRIPTION OF THE LOADS.

ALL LUG CONNECTIONS TO PANEL BUSSELING, SWITCHES, AND BREAKERS TO BE SIZED TO ACCOMMODATE CONDUCTOR SIZES INDICATED ON THESE DRAWINGS. REDUCTION OF CIRCULAR MIL CAPACITY OF CONDUCTORS IS NOT PERMITTED. ALL LUGS SHALL BE RATED FOR 75° C.

ALL SWITCHBOARDS & PANELBOARDS SHALL BE FIELD MARKED TO WARN QUALIFIED PERSONS OF POTENTIAL ELECTRICAL ARC FLASH HAZARDS. PER NEC 110.16 THE MARKING SHALL BE LOCATED SO AS TO BE CLEARLY VISIBLE TO QUALIFIED PERSONS BEFORE EXAMINATION, ADJUSTMENT, SERVICING, OR MAINTENANCE OF THE EQUIPMENT.

CONTRACTOR SHALL PROVIDE PERMANENT SIGNAGE AT ALL HIGH VOLTAGE ENCLOSURES, FENCING, ROOMS, VAULTS, ETC. PER NEC 110.34(C). SIGNAGE SHALL READ "DANGER-HIGH VOLTAGE-KEEP OUT"

70 CIRCUIT BREAKERS
 ALL CIRCUIT BREAKERS RATED 1200 AMPS OR HIGHER SHALL BE PROVIDED WITH ARC ENERGY REDUCTION PER NEC REQUIREMENTS, BY ENERGY REDUCING MEDIUM STATUS INDICATOR, OR OTHER CEC APPROVED METHOD.

MOLDED CASE CIRCUIT BREAKERS SHALL BE OF THE QUICK-MAKE, QUICK-BREAK, TRIP-FREE, THERMAL MAGNETIC BOLT-ON TYPE WITH ON-OFF-TRIPPED POSITIONS.

CIRCUIT BREAKERS ABOVE 225 AMPERE TRIP RATING SHALL HAVE INTERCHANGEABLE TRIP ELEMENTS.

ALL BREAKERS SHALL BE CALIBRATED FOR OPERATION IN AN AMBIENT TEMPERATURE OF 40° C.

ALL MULTI-POLE BREAKERS SHALL BE SO DESIGNED THAT AN OVERLOAD IN ONE POLE AUTOMATICALLY CAUSES ALL POLES TO OPEN.

ALL PANELBOARD CIRCUIT BREAKERS USED FOR DIRECT SWITCHING OR LIGHTING CIRCUITS, SHALL BE SWITCH DUTY RATED.

ALL CIRCUIT BREAKERS SHALL HAVE A MINIMUM 10,000 ACI RATING. ALL 250V PANELS AND 14,000 ACI RATING FOR 600V PANELS.

ALL MULTIWIRE BRANCH CIRCUIT HOMERUNS & WIRING WITH A SHARED NEUTRAL SHALL BE SUPPLIED WITH A MULTIPOLE CIRCUIT BREAKER PER CEC 210.4(B).

60 FUSES
 ALL FUSES SHALL BE AS MANUFACTURED BY GUILD SHAMUT, LITTELFUSE, OR BUSSMANN MANUFACTURING CO.

60 WIRING DEVICES
 SINGLE-POLE SWITCHES SHALL BE 20 AMPERES, 120/277 VOLT, AC. VERIFY FINISH COLOR WITH ARCHITECT. SIDE AN D BACK WIRED, HUBBELL CAT. #HBL-1221-W EQUAL BY, G.E., PASS & SEYMOUR, OR LEVITON.

THREE-WAY SWITCHES SHALL BE 20 AMPERES, 120/277 VOLT, AC. VERIFY FINISH COLOR WITH ARCHITECT. SIDE AN D BACK WIRED, HUBBELL CAT. #HBL-1223-W OR EQUAL BY, G.E., PASS & SEYMOUR, OR LEVITON.

DIMMER SWITCHES SHALL BE SLIDE CONTROL 800W, 120 VOLT, AC, FOR LED LOADS OR AS INDICATED ON PLANS.

DUPLEX RECEPTACLES FOR 120 VOLT, SINGLE-PHASE SERVICE TO BE RATED 20 AMPERES, 125 VOLT, BACK AND SIDE WIRED, 2-WIRE (NEMA 5-20R) GFCI TYPE, WP, HUBBELL CAT. #F33362MA WITH COVER BY TAYMAC CORPORATION EXTRA DUTY METAL IN-USE LOCKABLE #HX3200 OR EQUAL.

DOUBLE DUPLEX RECEPTACLES (4-PLX) TO BE SAME AS DUPLEX RECEPTACLES. TWO DUPLEX RECEPTACLES IN 4" X 4" OUTLET BOX WITH ONE TWO-GANG FACEPLATE. LEVITON, PASS & SEYMOUR, G.E., OR HUBBELL.

RECEPTACLES THAT ARE LOCATED WITHIN RESTROOMS SHALL BE LISTED TAMPER-RESISTANT AND SHALL EMPLOY A LISTED TAMPER-RESISTANT COVER WHICH WILL HAVE A GREEN DOT ON ITS FACE, AND A "T" ON THE TOP RIGHT OF THE RECEPTACLE PER CEC 517. HUBBELL #H300TRA OR EQUAL.

ALL DEVICE PLATES SHALL BE OF THE UNBREAKABLE PLASTIC TYPE, MANUFACTURED BY PASS & SEYMOUR, LUTRON, LEVITON G.E., OR HUBBELL AND OF VERIFY FINISH COLOR WITH ARCHITECT. DEVICE PLATES FOR EQUIPMENT, STORAGE, AND KITCHEN AREAS SHALL BE STAINLESS STEEL.

OUTLETS AND DEVICES SHALL BE SET RIGID, PLUMB, FASTENED SECURELY; WHEN CONCEALED, SET FLUSH WITH FINISH SURFACE.

WIRING CONNECTIONS: CURL WIRE AROUND TERMINAL SCREWS AND TIGHTEN SCREWS FIRMLY. SNAP-IN, PRESSURE-TYPE TERMINALS NOT ACCEPTABLE.

EXTERIOR DUPLEX RECEPTACLES FOR 120 VOLT, SINGLE-PHASE SERVICE TO BE RATED 20 AMPERES, 125 VOLT, BACK AND SIDE WIRED, 2-WIRE (NEMA 5-20R) GFCI TYPE, WP, HUBBELL CAT. #F33362MA WITH COVER BY TAYMAC CORPORATION EXTRA DUTY METAL IN-USE LOCKABLE #HX3200 OR EQUAL.

ALL RECEPTACLE AND SWITCH COVER PLATES SHALL CLEARLY INDICATE, WITH PERMANENT BLACK MARKER ON THE INSIDE OF THE PLATE, THE CIRCUIT NUMBER AND THE SOURCE OF POWER FEEDING THAT SWITCH OR RECEPTACLE.

ALL WALL SWITCHES AND RECEPTACLES SHALL BE MOUNTED BETWEEN 18" AND 48" TO TOP OF OUTLET BOX PER ADA REQUIREMENTS UNLESS NOTED OTHERWISE.

ELECTRICAL SWITCHES, CONTROLS AND SWITCHES INTENDED TO BE USED BY THE OCCUPANT OF THE ROOM OR AREA TO CONTROL LIGHTING AND RECEPTACLE OUTLETS, APPLIANCES OR COOLING, HEATING AND VENTILATING EQUIPMENT, SHALL BE LOCATED NO MORE THAN 48 INCHES MEASURED FROM THE TOP OF OUTLET BOX NOR LESS THAN 15 INCHES MEASURED FROM THE BOTTOM OF THE OUTLET BOX TO THE LEVEL OF THE FINISH FLOOR OR WORKING PLATFORM.

ELECTRICAL RECEPTACLE OUTLETS, ELECTRICAL RECEPTACLE OUTLETS ON BRANCH CIRCUITS OF 30 AMPERES OR LESS AND COMMUNICATION SYSTEM RECEPTACLES SHALL BE LOCATED NO MORE THAN 48 INCHES MEASURED FROM THE TOP OF THE RECEPTACLE OUTLET BOX OR RECEPTACLE HOUSING NOR LESS THAN 15 INCHES MEASURED FROM THE BOTTOM OF THE RECEPTACLE OUTLET BOX OR RECEPTACLE HOUSING TO THE LEVEL OF THE FINISH FLOOR OR WORKING PLATFORM.

60 GROUNDING

GENERAL: PROVIDE A COMPLETE GROUNDING SYSTEM AND SAFELY GROUND ALL SERVICE DISTRIBUTION EQUIPMENT AND RELATED METALLIC EQUIPMENT IN AN APPROVED MANNER AND AS REQUIRED BY CEC AND AS SHOWN ON DRAWINGS.

GROUNDING CONNECTIONS SHALL BE MADE WITH THE FOLLOWING TYPES OF CONNECTORS AS MANUFACTURED BY BURNOY, ILLSCO OR AN EQUIVALENT MANUFACTURER.

- | | |
|----------------------------|------------|
| A. CABLE TO WATER PIPE | TYPE "QAR" |
| B. CABLE TO REEFER SYSTEM | TYPE "QAR" |
| C. CABLE TO BOX OR CABINET | TYPE "QAB" |

ALL GROUNDING CONDUCTORS SHALL BE RUN IN CONDUIT AND SHALL BE INSULATED AS SPECIFIED.

THE MAIN GROUNDING CONNECTIONS FOR THE SERVICE EQUIPMENT SHALL BE MADE TO THE UPFR GROUNDING SYSTEM AND TO THE WATER MAIN OR NEAREST ACCESSIBLE WATER PIPE WITH CLAMP OR FITTINGS MADE OF COPPER, BRONZE, OR OTHER SIMILAR NON-FERROUS MATERIAL.

RESISTANCE TO GROUND SHALL NOT EXCEED 25 OHMS AS MEASURED BY EITHER THE "FALL OF POTENTIAL" METHOD OR BY "DIRECT READING GROUND RESISTANCE."

CONNECTIONS TO THE WATER MAIN SHALL BE MADE ON THE "STREET SIDE" OF THE WATER METERS. IF THE CONNECTION IS MADE ON THE "BUILDING SIDE" OF THE METERS, SUITABLE COPPER JUMPERS OF FLEXIBLE STRANDED INSULATED CABLE, BY-PASSING ALL METERS, SHALL BE PROVIDED AND INSTALLED, ALL IN ACCORDANCE WITH LOCAL CODE.

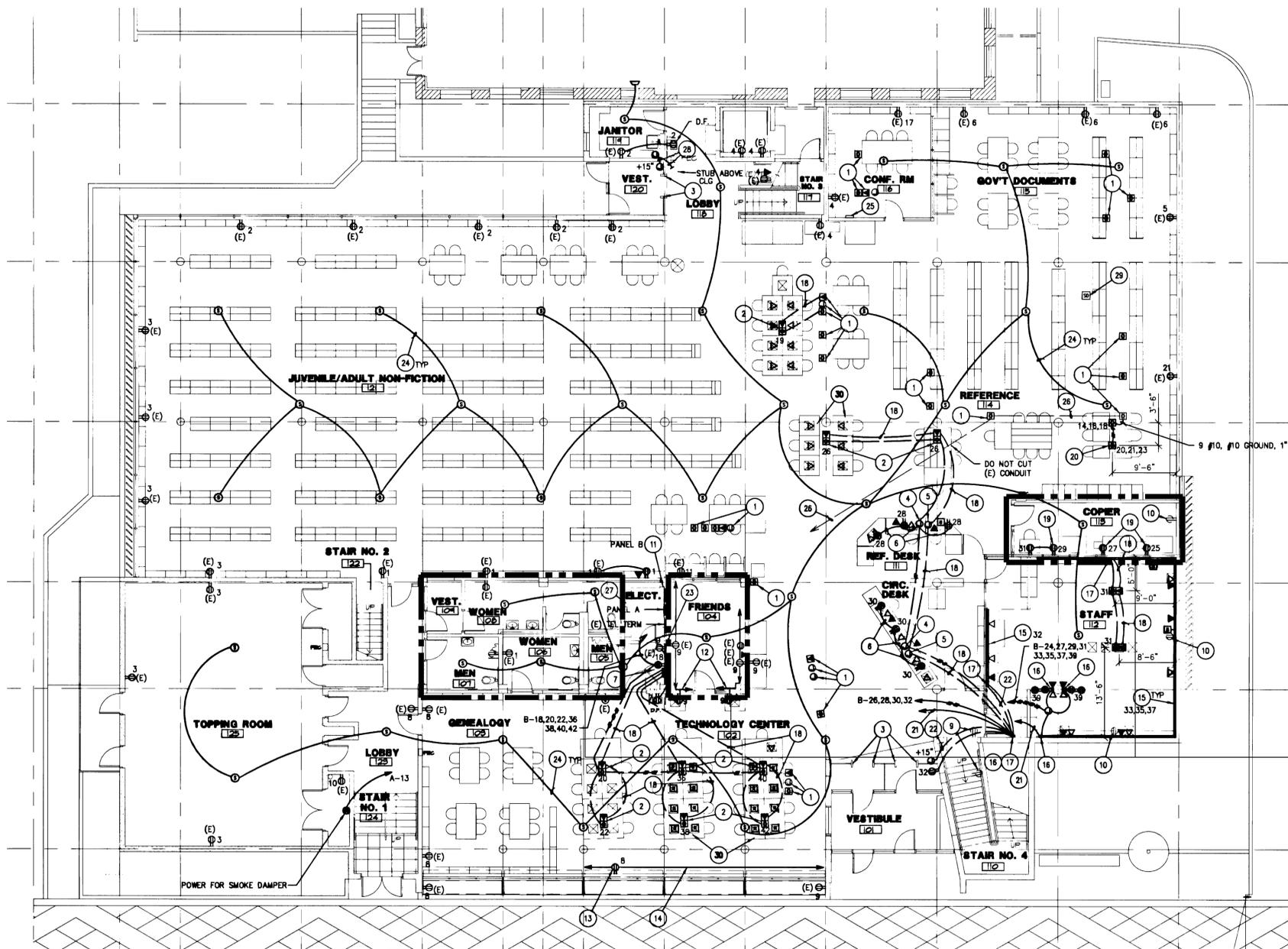
ALL GROUNDING CONDUCTORS SHALL BE PROTECTED FROM MECHANICAL INJURY AND SHALL BE RIGIDLY SUPPORTED. UNLESS OTHERWISE SHOWN, GROUND CONDUCTORS SHALL NOT BE RUN IN CONCRETE THROUGH FILL UNLESS PROTECTED BY STEEL CONDUIT AND BOTH ENDS OF THE CONDUIT SHALL BE PROTECTED BY AN

MINOR ELECTRICAL DEMOLITION FOR REMODELING

- 1.0 EXAMINATION
- A. OBTAIN RECORD DRAWINGS / AS-BUILTS FROM OWNER. VERIFY FIELD MEASUREMENTS AND CIRCUITING ARRANGEMENTS ARE AS SHOWN ON RECORD DRAWINGS.
 - B. VERIFY THAT ABANDONED WIRING AND EQUIPMENT SERVE ONLY ABANDONED FACILITY.
 - C. DEMOLITION DRAWINGS ARE BASED ON CASUAL FIELD OBSERVATION AND EXISTING RECORD DOCUMENTS. REPORT DISCREPANCIES TO OWNER AND ARCHITECT/ENGINEER BEFORE DISTURBING EXISTING INSTALLATION.
 - D. BEGINNING OF DEMOLITION MEANS INSTALLER ACCEPTS EXISTING CONDITIONS.
- 2.0 PREPARATION
- A. DISCONNECT AND MAKE SAFE ALL ELECTRICAL SYSTEMS IN WALLS, FLOORS, AND CEILINGS SCHEDULED FOR REMOVAL.
 - B. COORDINATE UTILITY SERVICE OUTAGES WITH UTILITY COMPANY AND OWNER'S REPRESENTATIVE.
 - C. PROVIDE WIRING AND CONNECTIONS TO MAINTAIN REQUIRED EXISTING SYSTEMS IN SERVICE DURING CONSTRUCTION. WHEN WORK MUST BE PERFORMED ON ENERGIZED EQUIPMENT OR CIRCUITS, USE PERSONNEL EXPERIENCED IN SUCH OPERATIONS.
 - D. EXISTING ELECTRICAL SERVICE: MAINTAIN EXISTING SYSTEM IN SERVICE UNTIL NEW SYSTEM IS COMPLETE AND READY FOR SERVICE. DISABLE SYSTEM ONLY TO MAKE SWITCHOVERS AND CONNECTIONS. OBTAIN PERMISSION FROM OWNER AT LEAST 72 HOURS BEFORE PARTIALLY OR COMPLETELY DISABLING SYSTEM. MINIMIZE OUTAGE DURATION. MAKE TEMPORARY CONNECTIONS TO MAINTAIN SERVICE IN AREAS ADJACENT TO WORK AREA WHEN OUTAGE AFFECTS BUSINESS OPERATION.
 - E. EXISTING FIRE ALARM SYSTEM: MAINTAIN EXISTING SYSTEM IN SERVICE UNTIL NEW SYSTEM IS ACCEPTED. DISABLE SYSTEM ONLY TO MAKE SWITCHOVERS AND CONNECTIONS. NOTIFY OWNER AND LOCAL FIRE SERVICE AT LEAST 72 HOURS BEFORE PARTIALLY OR COMPLETELY DISABLING SYSTEM. MINIMIZE OUTAGE DURATION. MAKE TEMPORARY CONNECTIONS TO MAINTAIN SERVICE IN AREAS ADJACENT TO WORK AREA.
- 3.0 DEMOLITION AND EXTENSION OF EXISTING WORK
- A. DEMOLISH AND EXTEND EXISTING ELECTRICAL WORK UNDER PROVISIONS OF THIS SECTION.
 - B. REMOVE, RELOCATE, AND EXTEND EXISTING INSTALLATIONS TO ACCOMMODATE NEW CONSTRUCTION.
 - C. REMOVE ABANDONED WIRING TO SOURCE OF SUPPLY AND RE-LABEL DEVICES AS SPARES.
 - D. REMOVE EXPOSED ABANDONED CONDUIT, INCLUDING ABANDONED CONDUIT ABOVE ACCESSIBLE CEILING FINISHES. CUT CONDUIT FLUSH WITH WALLS AND FLOORS, AND PATCH SURFACES.
 - E. DISCONNECT ABANDONED OUTLETS AND REMOVE DEVICES. REMOVE ABANDONED OUTLETS IF CONDUIT SERVING THEM IS ABANDONED AND REMOVED. PROVIDE BLANK COVER FOR ABANDONED OUTLETS WHICH ARE NOT REMOVED.
 - F. DISCONNECT AND REMOVE ABANDONED PANELBOARDS AND DISTRIBUTION EQUIPMENT.
 - G. DISCONNECT AND REMOVE ELECTRICAL DEVICES AND EQUIPMENT SERVING UTILIZATION EQUIPMENT THAT HAS BEEN REMOVED.
- 4.0 CLEANING AND REPAIR
- A. CLEAN AND REPAIR EXISTING MATERIALS AND EQUIPMENT WHICH REMAIN OR ARE TO BE REUSED.
 - B. SWITCHBOARDS & PANELBOARDS: CLEAN EXPOSED SURFACES AND CHECK TIGHTNESS OF ELECTRICAL CONNECTIONS. REPLACE DAMAGED CIRCUIT BREAKERS AND PROVIDE CLOSURE PLATES FOR VACANT POSITIONS. REPLACE ALL MISSING DEAD FRONT FITTINGS & COVERS. PROVIDE TYPED CIRCUIT DIRECTORY SHOWING REVISED CIRCUITING ARRANGEMENT.
- 5.0 INSTALLATION
- A. INSTALL RELOCATED MATERIALS AND AS REQUIRED BY THIS SECTION AND OWNER'S REPRESENTATIVE.
- F. EXISTING TELEPHONE SYSTEM: MAINTAIN EXISTING SYSTEM IN SERVICE.
- G. EXISTING SECURITY SYSTEM: MAINTAIN EXISTING SYSTEM IN SERVICE.
- H. DISCONNECT AND REMOVE ABANDONED LUMINAIRES. REMOVE BRACKETS, STEMS, HANGERS, AND OTHER ACCESSORIES.
- I. DISCONNECT AND REMOVE ABANDONED CONDUIT.
- J. REPAIR ADJACENT CONSTRUCTION AND FINISHES DAMAGED DURING DEMOLITION AND EXTENSION WORK.
- K. MAINTAIN ACCESS TO EXISTING ELECTRICAL INSTALLATIONS WHICH REMAIN ACTIVE. MODIFY INSTALLATION OR PROVIDE ACCESS PANEL AS APPROPRIATE.
- L. EXTEND EXISTING INSTALLATIONS USING MATERIALS AND METHODS COMPATIBLE WITH EXISTING ELECTRICAL INSTALLATIONS, AND IN COMPLIANCE WITH NEW PROJECT SPECIFICATIONS.
- M. MODIFY EXISTING AS-BUILT DRAWINGS TO NOTE CHANGES.

DEMOLITION NOTES

1. SCOPE: PROVIDE AND PERFORM DEMOLITION, PREPARATORY AND MISCELLANEOUS WORK IN AREAS AS INDICATED AND SPECIFIED, COMPLETE.
2. DEMOLITION AND REMOVAL OF EXISTING ELECTRICAL CONDUIT, WIRING AND EQUIPMENT REQUIRED TO COMPLETE THE PROJECT.
3. PREPARATION OF THE EXISTING BUILDING TO RECEIVE OR CONNECT THE NEW WORK.
4. MISCELLANEOUS DEMOLITION, CUTTING, ALTERATION, AND REPAIR WORK ON EXISTING SITE AND IN THE EXISTING BUILDING NECESSARY FOR THE COMPLETION OF THE ENTIRE PROJECT.
5. DISCONNECTING AND RECONNECTION OF ELECTRICAL EQUIPMENT AS REQUIRED BY THE CONSTRUCTION MODIFICATIONS.
6. EXISTING CONDITIONS: PRIOR TO BID MAKE A DETAILED SURVEY OF THE EXISTING CONDITIONS PERTAINING TO THE WORK. CHECK THE LOCATIONS OF ALL EXISTING STRUCTURES, EQUIPMENT AND WIRING (BRANCH CIRCUITING AND CONTROLS). CHECK FOR ANY HAZARDOUS MATERIALS WHICH MAY REQUIRE SPECIAL HANDLING.
7. SALVAGE AND DISPOSAL: ALL REMOVED MATERIAL OTHER THAN ITEMS TO BE REUSED SHALL BE RETURNED TO THE OWNER OR DISPOSED OF IN ACCORDANCE WITH INSTRUCTIONS FROM THE OWNER'S REPRESENTATIVE. DISPOSAL SHALL BE DONE IN ACCORDANCE WITH EPA AND GOVERNING BODY REQUIREMENTS AND REGULATIONS. CONTRACTOR SHALL PAY FEES AND CHARGES FOR DISPOSAL.
8. TWO WEEKS PRIOR TO START OF ANY WORK CONTRACTOR SHALL SCHEDULE ALL WORK AND ELECTRICAL SYSTEM OUTAGES WITH OWNERS WRITTEN APPROVAL.
9. PROTECT ALL EXISTING POWER, MOTORS AND RELATED EQUIPMENT, ALARM SYSTEM, LIGHTING AND CONTROL SYSTEMS, AND TELEPHONE EQUIPMENT IN PLACE, UNLESS OTHERWISE NOTED.
10. CONTRACTOR SHALL LEAVE ALL POWER AND SIGNAL CIRCUITS ENERGIZED, VIA JUNCTION BOX, TO DEVICES IN AREAS OUTSIDE OF DEMOLITION AREA EVEN IF SYSTEMS ARE ROUTED THROUGH DEMOLITION AREA.
11. CONTRACTOR SHALL FIELD VERIFY LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO ANY TRENCHING. CONTRACTOR SHALL PROTECT ALL EXISTING / REMAINING UNDERGROUND UTILITY SYSTEMS IN PLACE. CONTRACTOR SHALL REPAIR ANY UTILITY SYSTEM DAMAGE DURING CONSTRUCTION.



DEMOLITION SCOPE OF WORK:

- REMOVE & REPLACE EXISTING LIGHTING SYSTEMS WITH NEW
- REMOVE & REPLACE EXISTING INTERCOM/PAGING SYSTEM WITH NEW
- REMOVE & REPLACE EXISTING FIRE ALARM SYSTEM WITH NEW
- REMOVE & REPLACE POWER, LIGHTING, FIRE ALARM, AND COMMUNICATION SYSTEMS IN RESTROOMS, LOUNGE, ETC. ROOMS AS NOTED.
- REMOVE & REPLACE EXISTING HVAC POWER SYSTEMS
- REPAIR/RENOVATE/REFINISH EXISTING POWER PANELS & SWITCHGEAR

RECORD DRAWING SHOWN FOR PROJECT AREA REFERENCE AREAS ONLY

NOTE:
DEMOLITION PROJECT AREAS, CONTRACTOR SHALL FIELD VERIFY & REMOVE ELECTRICAL OUTLETS & ELECTRICAL DEVICES, ETC. FROM DEMOLITION AREAS UNLESS OTHERWISE NOTED TO BE PROTECTED IN PLACE. PREPARE AREA TO RECEIVE NEW WORK AS INDICATED ON PLANS.

1 FIRST FLOOR DEMOLITION POWER PLAN
SCALE: NONE



PUBLIC
VENTURA COUNTY
WORKS



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VENTURA, CA 93001
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TODD A. JESPERSEN AIA
PRINCIPAL-IN-CHARGE
JONATHAN D. LEE AIA
PROJECT MANAGER

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Ventura, California 93001 Fax (805) 641-0450
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BID SET
10/14/2025

PERMIT NO	NO	REVISION	DATE
	1		

PRINCIPAL-IN-CHARGE: CRAIG HOOD, P.E.
DRAWN BY: ANSEL WILSON
ENGINEER'S JOB NO: 23-438
PROJECT TITLE AND ADDRESS: E. P. FOSTER LIBRARY MODERNIZATION

E. P. FOSTER
LIBRARY
MODERNIZATION

651 E MAIN ST.
VENTURA, CA 93001
COUNTY SPEC NUMBER: -
COUNTY PROJECT NUMBER: P6T24008
COUNTY DWG NO: SHEET OF

SHEET TITLE: FIRST FLOOR DEMOLITION POWER PLAN

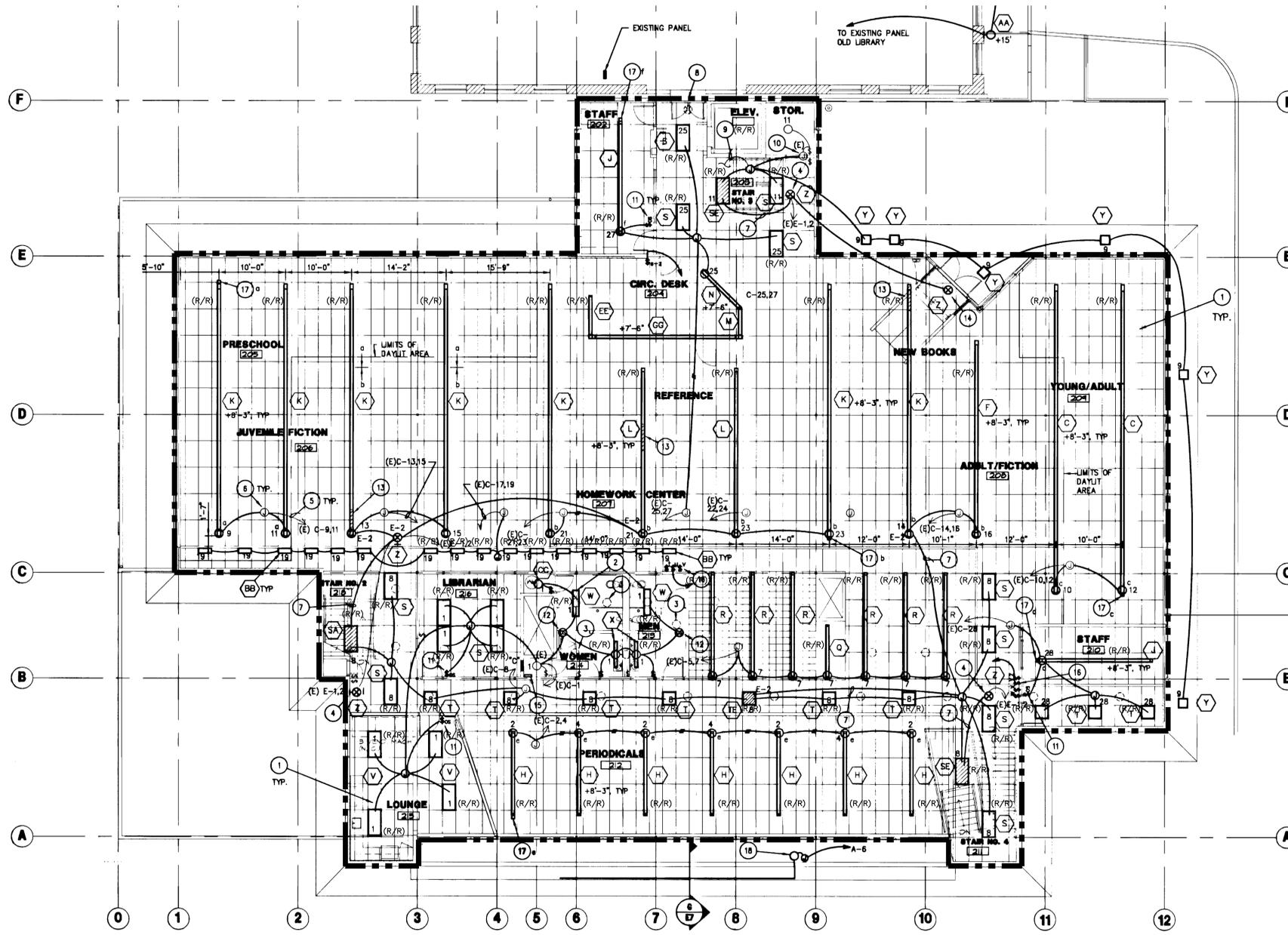
SHEET NO: E-300

MINOR ELECTRICAL DEMOLITION FOR REMODELING

- 1.0 EXAMINATION
- A. OBTAIN RECORD DRAWINGS / AS-BUILTS FROM OWNER. VERIFY FIELD MEASUREMENTS AND CIRCUITING ARRANGEMENTS ARE AS SHOWN ON RECORD DRAWINGS.
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 - D. BEGINNING OF DEMOLITION MEANS INSTALLER ACCEPTS EXISTING CONDITIONS.
- 2.0 PREPARATION
- A. DISCONNECT AND MAKE SAFE ALL ELECTRICAL SYSTEMS IN WALLS, FLOORS, AND CEILINGS SCHEDULED FOR REMOVAL.
 - B. COORDINATE UTILITY SERVICE OUTAGES WITH UTILITY COMPANY AND OWNER'S REPRESENTATIVE.
 - C. PROVIDE WIRING AND CONNECTIONS TO MAINTAIN REQUIRED EXISTING SYSTEMS IN SERVICE DURING CONSTRUCTION. WHEN WORK MUST BE PERFORMED ON ENERGIZED EQUIPMENT OR CIRCUITS, USE PERSONNEL EXPERIENCED IN SUCH OPERATIONS.
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 - G. EXISTING SECURITY SYSTEM: MAINTAIN EXISTING SYSTEM IN SERVICE.
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- A. DEMOLISH AND EXTEND EXISTING ELECTRICAL WORK UNDER PROVISIONS OF THIS SECTION.
 - B. REMOVE, RELOCATE, AND EXTEND EXISTING INSTALLATIONS TO ACCOMMODATE NEW CONSTRUCTION.
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- 5.0 INSTALLATION
- A. INSTALL RELOCATED MATERIALS AND AS REQUIRED BY THIS SECTION AND OWNER'S REPRESENTATIVE.
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8. REPAIR ADJACENT CONSTRUCTION AND FINISHES DAMAGED DURING DEMOLITION AND EXTENSION WORK.
9. MAINTAIN ACCESS TO EXISTING ELECTRICAL INSTALLATIONS WHICH REMAIN ACTIVE. MODIFY INSTALLATION OR PROVIDE ACCESS PANEL AS APPROPRIATE.
10. EXTEND EXISTING INSTALLATIONS USING MATERIALS AND METHODS COMPATIBLE WITH EXISTING ELECTRICAL INSTALLATIONS, AND IN COMPLIANCE WITH NEW PROJECT SPECIFICATIONS.
11. MODIFY EXISTING AS-BUILT DRAWINGS TO NOTE CHANGES.

DEMOLITION NOTES

1. SCOPE: PROVIDE AND PERFORM DEMOLITION, PREPARATORY AND MISCELLANEOUS WORK IN AREAS AS INDICATED AND SPECIFIED, COMPLETE.
2. DEMOLITION AND REMOVAL OF EXISTING ELECTRICAL CONDUIT, WIRING AND EQUIPMENT REQUIRED TO COMPLETE THE PROJECT.
3. PREPARATION OF THE EXISTING BUILDING TO RECEIVE OR CONNECT THE NEW WORK.
4. MISCELLANEOUS DEMOLITION, CUTTING, ALTERATION, AND REPAIR WORK ON EXISTING SITE AND IN THE EXISTING BUILDING NECESSARY FOR THE COMPLETION OF THE ENTIRE PROJECT.
5. DISCONNECTING AND RECONNECTION OF ELECTRICAL EQUIPMENT AS REQUIRED BY THE CONSTRUCTION MODIFICATIONS.
6. EXISTING CONDITIONS: PRIOR TO BID MAKE A DETAILED SURVEY OF THE EXISTING CONDITIONS PERTAINING TO THE WORK. CHECK THE LOCATIONS OF ALL EXISTING STRUCTURES, EQUIPMENT AND WIRING (BRANCH CIRCUITING AND CONTROLS). CHECK FOR ANY HAZARDOUS MATERIALS WHICH MAY REQUIRE SPECIAL HANDLING.
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8. TWO WEEKS PRIOR TO START OF ANY WORK CONTRACTOR SHALL SCHEDULE ALL WORK AND ELECTRICAL SYSTEM OUTAGES WITH OWNERS WRITTEN APPROVAL.
9. PROTECT ALL EXISTING POWER, MOTORS AND RELATED EQUIPMENT, ALARM SYSTEM, LIGHTING AND CONTROL SYSTEMS, AND TELEPHONE EQUIPMENT IN PLACE, UNLESS OTHERWISE NOTED.
10. CONTRACTOR SHALL LEAVE ALL POWER AND SIGNAL CIRCUITS ENERGIZED, VIA JUNCTION BOX, TO DEVICES IN AREAS OUTSIDE OF DEMOLITION AREA EVEN IF SYSTEMS ARE ROUTED THROUGH DEMOLITION AREA.
11. CONTRACTOR SHALL FIELD VERIFY LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO ANY TRENCHING. CONTRACTOR SHALL PROTECT ALL EXISTING / REMAINING UNDERGROUND UTILITY SYSTEMS IN PLACE. CONTRACTOR SHALL REPAIR ANY UTILITY SYSTEM DAMAGE DURING CONSTRUCTION.



DEMOLITION SCOPE OF WORK:

- REMOVE & REPLACE EXISTING LIGHTING SYSTEMS WITH NEW
- REMOVE & REPLACE EXISTING INTERCOM/PAGING SYSTEM WITH NEW
- REMOVE & REPLACE EXISTING FIRE ALARM SYSTEM WITH NEW
- REMOVE & REPLACE POWER, LIGHTING, FIRE ALARM, AND COMMUNICATION SYSTEMS IN RESTROOMS, LOUNGE, ETC. ROOMS AS NOTED.
- REMOVE & REPLACE EXISTING HVAC POWER SYSTEMS
- REPAIR/RENOVATE/REFINISH EXISTING POWER PANELS & SWITCHGEAR

RECORD DRAWING SHOWN FOR PROJECT AREA REFERENCE AREAS ONLY

NOTE:
DEMOLITION PROJECT AREA: CONTRACTOR SHALL FIELD VERIFY & REMOVE LIGHTING FIXTURES FROM DEMOLITION AREAS UNLESS OTHERWISE NOTED TO BE PROTECTED IN PLACE. PREPARE AREA TO RECEIVE NEW WORK AS INDICATED ON PLANS.

NOTE:
CONTRACTOR SHALL INCLUDE IN BID PROPOSAL ALL COSTS REQUIRED TO RE-SUPPORT ALL ABOVE CEILING ELECTRICAL SYSTEMS, RACEWAYS, BOXES, WIRING, ETC. IN COMPLIANCE WITH CURRENT CEC REQUIREMENTS. IN MANY OF THE PROJECT AREA ABOVE CEILING CONDITIONS THE EXISTING ELECTRICAL SYSTEMS ARE UNSUPPORTED AND IN VIOLATION OF CEC SUPPORT REQUIREMENTS. CONTRACTOR SHALL INCLUDE THE COSTS REQUIRED TO SUPPORT ALL ELECTRICAL SYSTEMS, BOTH NEW & EXISTING, PER CEC REQUIREMENTS. CONTRACTOR SHALL FIELD VERIFY ABOVE CEILING CONDITIONS PRIOR TO SUBMITTING BID PROPOSAL.

DEMOLITION LEGEND

(R/R) REMOVE EXISTING LIGHT FIXTURE AND REPLACE WITH NEW.

1 SECOND FLOOR DEMOLITION LIGHTING PLAN
SCALE: NONE



PUBLIC VENTURA COUNTY WORKS

ENGINEERING SERVICES



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VENTURA, CA 93001
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TODD A. JESPERSEN AIA
PRINCIPAL-IN-CHARGE
JONATHAN D. LEE AIA
PROJECT MANAGER

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C. HOOD & ASSOCIATES, INC.
CONSULTING ELECTRICAL ENGINEERS

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Ventura, California 93001 Fax (805) 641-0450
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BID SET
10/14/2025

PERMIT NO.	NO.	REVISION	DATE
	1		

PUBLIC WORKS PROJECT MANAGER
PRINCIPAL-IN-CHARGE: CRAIG HOOD, P.E.
DRAWN BY: ANGELO MONZON CHECKED BY: CRAIG HOOD, P.E.
ENGINEER'S JOB NO: 23-438 DATE: 10/8/2025
PROJECT TITLE AND ADDRESS:

E. P. FOSTER LIBRARY MODERNIZATION

651 E MAIN ST.
VENTURA, CA 93001

COUNTY SPEC NUMBER:
COUNTY PROJECT NUMBER:
COUNTY DWG NO: P6T24008 SHEET OF

SHEET TITLE:
SECOND FLOOR DEMOLITION LIGHTING PLAN

SHEET NO:
E-401

Drawing Number: _____ Date: _____ Project: _____

OVERVIEW

The nLIGHT AIR (PODLA) is a wireless, line-powered wall switch that provides a user with local control of a lighting zone. These single gang detector style devices have soft click buttons and a green LED indicator for each button. The PODLA will switch communicate with other nLIGHT AIR devices via radio frequency (RF). A line-powered wall switch can work with any nLIGHT AIR enabled fixture or power pack to provide toggle switch operation with multi-level and preset scene control. Wall switches with the DX option have the added ability to adjust the level of any nLIGHT AIR controlled dimmable light fixture or on/off/dimming control of a single zone for preset scene switches.

FEATURES

- Communicates with nLIGHT AIR devices via radio frequency (RF) in the 900MHz spectrum
- Soft click push-button control with LED feedback upon press
- Remotely configurable/upgradable
- Single pole or two pole on/off control with optional miswire-tolerance ("DX" option)
- 2 or 4 preset scene control fully configurable via C.A.M.B.Y™ - mobile app
- Maximum of 16 total preset scenes per nLIGHT AIR group
- Wireless multi location preset scene recall and on/off/dimming control

CUSTOM BUTTON ENGRAVING

- Custom lettering for units can be specified and ordered at: nLight.com
- To ensure color uniformity, ordering templates facilitate specifying all buttons on a unit as custom lettered. Replacing single buttons is not recommended.
- Custom buttons will ship separately and require field installation.

Warranty

Five-year limited warranty. This is the only warranty provided and no other statements in this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at: www.acuitybrands.com/support/warranty/terms-and-conditions

Note: Actual performance may differ as a result of end-user environment and application. Specifications subject to change without notice.

Capable Luminaire

This item is an A+ capable luminaire, which has been designed and tested to provide consistent color appearance and out-of-the-box control compatibility with simple commissioning when used with Acuity Brands control products. All configurations of this luminaire are calibrated and tested to meet the Acuity Brands' specifications for chromatic consistency - including color rendering, color fidelity, and color temperature tolerance around standard CIE chromatic coordinates.

To learn more about Acuity A+ standards, specifications, and testing visit www.acuitybrands.com/aplus

design select

Items marked by a **design select** qualify for the Design Select program and ship in 15 days or less. To learn more about Design Select, visit www.acuitybrands.com/designselect. See ordering tree for details.

nLIGHT, nLIGHT AIR and the Acuity Control and Acuity Brands logos are trademarks of Acuity Brands. Bluetooth is a trademark of Bluetooth SIG, Inc. and is used by Acuity Brands under license. Apple and the Apple logo are trademarks of Apple Inc. Android and Google Play are trademarks of Google, Inc. Other trademarks are property of their respective owners.



**nLight® AIR
rPODLA:
Wireless Line Powered
Wall Switches**



Note: nLIGHT AIR devices are only compatible with other nLIGHT AIR enabled devices and are not cross-compatible with other nLIGHT product lines at this time.

Acuity Brands | One Lithonia Way, Cary, GA 30012 | Phone: 800.533.2465 | www.acuitycontrols.com | P0DLA 1 of 4

CONNECT AND PROGRAM nLIGHT AIR LED DIMMER SWITCHES, OCCUPANCY SENSOR, POWER PACK/RELAYS, nLIGHT AIR PHOTO CELLS, nLIGHT AIR AUTOMATIC DAYLIGHT DIMMING DEVICES, MISCELLANEOUS nLIGHT AIR DEVICES, ETC. FOR A FULLY OPERATIONAL nLIGHT LIGHTING CONTROL SYSTEM. VERIFY AND PROVIDE nLIGHT AIR LIGHTING CONTROL CABLING REQUIREMENTS PER LIGHTING CONTROL VENDOR'S SHOP DRAWINGS AND SUBMITTALS.

IN ALL PROJECT AREAS NOT REQUIRED BY SECTION 130.1(b) THE OCCUPANT SENSING CONTROLS SHALL FUNCTION AS AN OCCUPANCY SENSOR. IN ADDITION, CONTROLS SHALL BE PROVIDED THAT ALLOW THE LIGHTS TO BE MANUALLY SHUT-OFF IN ACCORDANCE WITH SECTION 130.1(c) REGARDLESS OF THE SENSOR STATUS.

ALL nLIGHT SYSTEM PROGRAMMING SHALL BE BY LOCAL ACUITY BRANDS REPRESENTATIVE STEVE DOMINGUEZ, 805-701-8156.

Ⓟ	nLIGHT AIR WIRELESS LINE POWERED WALL SWITCH - MODEL #RPODLA
ⓅⓅ	nLIGHT AIR POWER/RELAY PACK
ⓅⓄ	LINE VOLTAGE OCCUPANCY SENSOR WALL SWITCH - HP RATED -MODEL #WSAX-SSA
Ⓞ	LINE VOLTAGE CEILING OCCUPANCY SENSOR

SWITCH LIGHTING CONTROL ZONE

ⓄⓄⓄⓄ nLIGHT AIR ON/OFF WALL DIMMER SWITCH - RPODLA-4S-DX-MVOLT-WH-G2-WS XPODA-1GNG-WH

DESIGNATED SWITCH "a" CONTROLS LIGHT FIXTURES IN ZONE "a". CONTRACTOR SHALL PROGRAM nLIGHT LED DIMMER SWITCH AND CORRESPONDING LIGHT FIXTURES LABELED "a" ON LIGHTING PLAN AS LIGHTING CONTROL ZONE "a". CONTRACTOR SHALL JOB WALK AND VERIFY LIGHTING CONTROL ZONES WITH OWNER PRIOR TO BID.

2 nLIGHT AIR WIRELESS LINE POWERED SWITCH
SCALE: NONE

Drawing Number: _____ Date: _____ Project: _____

SENSOR SWITCH AIR OVERVIEW

The Sensor Switch AIR enabled solution offers a wireless, app-free approach to single room lighting control. Absolutely no mobile apps are needed to install and pair SensorSwitch AIR enabled products, allowing for lightning speed installation right out of the box.

WSXA SSA OVERVIEW

The WWSXA SSA wall switch sensor uses Bluetooth® Low Energy (BLE) technology to enable room level dimming, occupancy sensing and daylight harvesting. This simple, cost-effective solution is ideal for small commercial indoor spaces that require small motion detectors up to 20 ft (6.10 m) such as private offices, conference rooms, closets, copy rooms or any other individual room level space. WWSXA SSA is only compatible with SensorSwitch AIR-enabled fixtures and controls. Pairing in-circuit SensorSwitch AIR-enabled devices is initiated with the provisioning button using the provisioning tool provided with each unit. Once pairing is complete, settings can be changed using changing push-button programming or the Clarity™ mobile app. WWSXA SSA units come pre-configured for neutral-less wiring. If a connection with neutral wiring is required, contractors can convert the unit in seconds.

FEATURES

- Wireless dimming and switching
- Product pairing without mobile apps and laptops
- Functions with or without a neutral connection
- Occupancy and daylight sensing for code compliance
- Ideal for both new construction and renovation projects
- 100% positive detection
- Small motion detector up to 20 ft
- Programmable via push-button or Clarity™ mobile app
- Passive dual technology (PDT) utilizes PIR/Microbeam™ detection
- Vandal resistant lens
- Fully meets NEC 2017 Section 404.2C neutral requirements - no current leakage to ground when connected to neutral
- International Regulatory Certification (ICCESD)
- A SensorSwitch AIR group can support up to 40 nodes
- Fully compatible with JOT deployments

Warranty

Five-year limited warranty. This is the only warranty provided and no other statements in this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at: www.acuitybrands.com/support/warranty/terms-and-conditions

Note: Actual performance may differ as a result of end-user environment and application. Specifications subject to change without notice.

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**WSXA SSA
Wireless Wall Switch Sensor
with Dimming, Occupancy
Detection and Daylight
Harvesting**

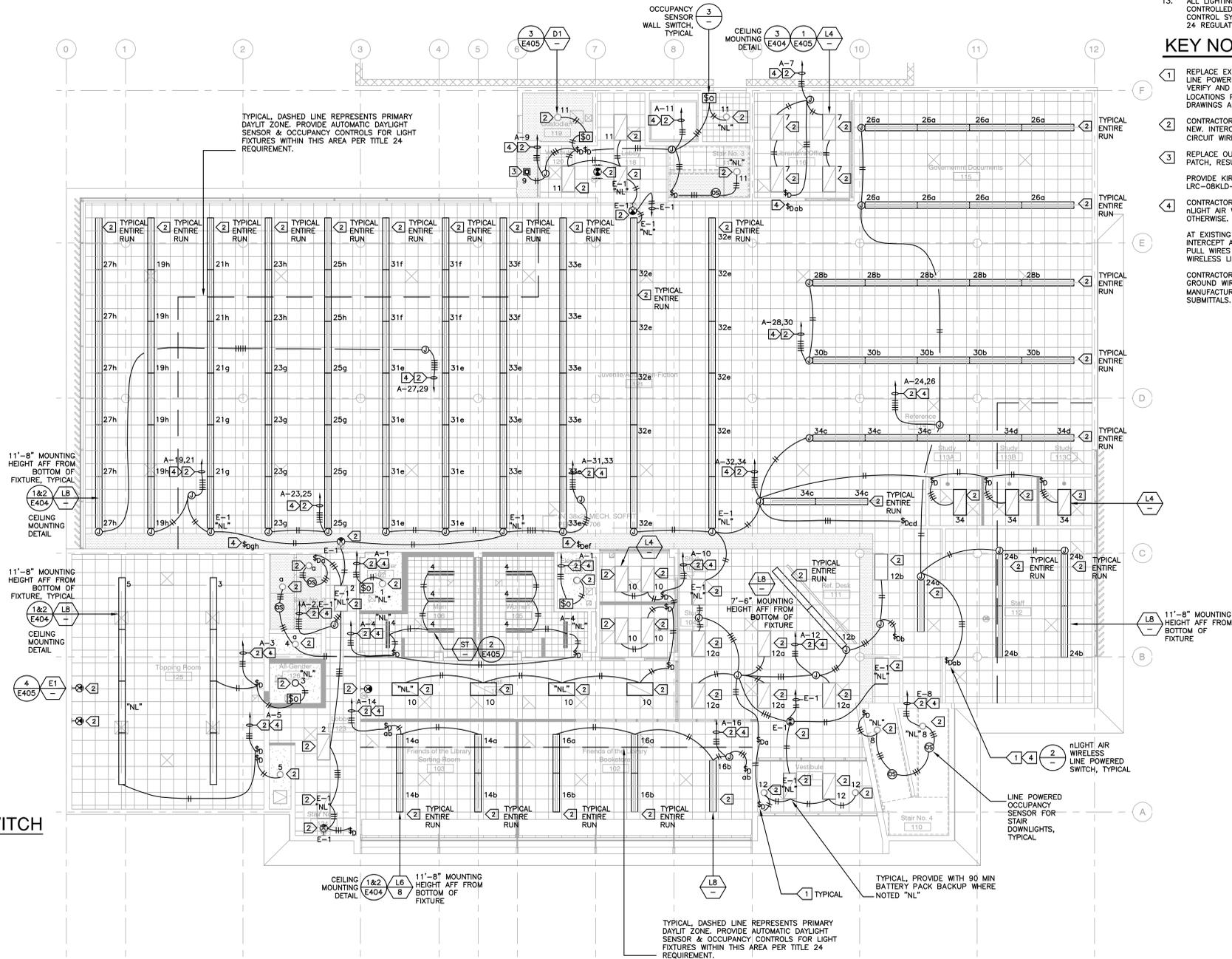


Note: 1. Matching wall plate provided for 120-277 VAC.

Series	Detection Mode	Dimming	Operating Mode	Voltage	Color
WSXA SSA	Wireless Wall Occupancy Sensor and Ambient Light Sensor	PDT / PhotoCell	DX Wireless Dimming	120-277 VAC / 347 VAC	WH White / IV Ivory / GY Grey / AL Lt. Almond / BK Black

Acuity Brands | One Lithonia Way, Cary, GA 30012 | Phone: 800.533.2465 | www.acuitybrands.com/sensorswitch | WWSXA SSA 1 of 3

3 LINE POWERED OCCUPANCY SENSOR WALL SWITCH
SCALE: NONE



1 FIRST FLOOR LIGHTING PLAN
SCALE: 1/8"=1'-0"

SHEET NOTES

- CONTRACTOR SHALL VERIFY LOCATION, CEILING TYPE, TRIM, AND REQUIREMENTS OF ALL LIGHT FIXTURES AND CONTROL PRIOR TO BID PROPOSAL, ROUGH-IN, AND FINISH INSTALLATION.
- CONTRACTOR SHALL, IN ROUTING ALL CIRCUITS, INCREASE CONDUIT & CONDUIT SIZE TO ALLOW FOR VOLTAGE DROP SHOULD THE CONTRACTOR EXCEED ROUTING INDICATED ON DRAWING. ENGINEER OF RECORD MUST BE NOTIFIED PRIOR TO ANY DEVIATIONS FROM APPROVED PLAN CHECK (PERMIT SET) DRAWINGS.
- CONTRACTOR SHALL FURNISH AND INSTALL PULL BOXES AS REQUIRED TO INSTALL CONDUCTORS PER CONDUCTOR MANUFACTURER'S REQUIREMENTS. PER THE NATIONAL ELECTRICAL CODE AND PER LOCAL AUTHORITIES HAVING JURISDICTION.
- 3/4" CONDUIT MINIMUM UNLESS OTHERWISE NOTED.
- ALL LIGHTING FIXTURES SHALL BE SECONDARILY SUPPORTED WITH SAFETY CABLES, PROVIDED BY CONTRACTOR.
- VERIFY LOCATION OF ALL DEVICES ON ARCHITECTURAL PLANS AND IN FEED PRIOR TO ROUGH IN.
- MAINTAIN A MAXIMUM 2% VOLTAGE DROP ON ALL LIGHTING HOMERUNS.
- ALL EXIT SIGNS ARE +12" TO CENTER LINE OF FIXTURE ABOVE DOOR FRAME UNLESS OTHERWISE NOTED.
- CONTRACTOR SHALL PROVIDE ALL BACKING, BRACKETS, SUPPORTS, AND MOUNTING HARDWARE NECESSARY TO PROPERLY INSTALL LIGHTING FIXTURES.
- VERIFY THE EXACT ROUTING OF ALL EXPOSED CONDUIT WITH OWNER PRIOR TO INSTALLATION.
- COORDINATE WORK WITH OTHER TRADES. OBTAIN ALL DRAWINGS THAT WILL REQUIRE COORDINATION AND PROVIDE ALL ELECTRICAL CONNECTIONS, DEVICES, AND WIRING REQUIRED WHETHER SHOWN ON ELECTRICAL DRAWINGS OR NOT.
- PROVIDE CODE SIZED EQUIPMENT GROUNDING CONDUCTOR IN ALL LIGHTING SYSTEM CONDUITS.
- ALL LIGHTING FIXTURES, EXCEPT EMERGENCY, SHALL BE CONTROLLED BY CONTRACTOR PROVIDED AUTOMATIC LIGHTING CONTROL SYSTEM AS REQUIRED BY STATE OF CALIFORNIA TITLE 24 REGULATIONS.

KEY NOTES

- REPLACE EXISTING LIGHT SWITCH WITH nLIGHT AIR WIRELESS LINE POWERED WALL BOX SWITCH, UNLESS OTHERWISE NOTED. VERIFY AND PROVIDE NEUTRAL AND GROUND WIRES AT SWITCH LOCATIONS PER nLIGHT MANUFACTURER'S APPROVED SHOP DRAWINGS AND SUBMITTALS.
 - CONTRACTOR SHALL REPLACE EXISTING LIGHT FIXTURES WITH NEW, INTERCEPT AND EXTEND EXISTING BRANCH CIRCUIT WIRING TO FEED NEW/REPLACED LIGHT FIXTURES.
 - REPLACE OUTDOOR FIXTURE WITH NEW, CONTRACTOR SHALL PATCH, RESURFACE, AND PAINT SURROUNDING CEILING AREA. PROVIDE KIRLIN LIGHTING: LRC-08KLD-2500L-UNV-SKL-WFL-35K-EM-94-17
 - CONTRACTOR SHALL REPLACE EXISTING LIGHT SWITCHES WITH nLIGHT AIR WIRELESS LINE POWERED SWITCHES UNLESS NOTED OTHERWISE.
- AT EXISTING LIGHTING CEILING JUNCTION BOX LOCATIONS, INTERCEPT AND EXTEND NEUTRAL AND GROUND WIRES AND FULL WIRES THROUGH EXISTING RACEWAYS TO nLIGHT AIR WIRELESS LINE POWERED SWITCH LOCATIONS.
- CONTRACTOR SHALL VERIFY AND PROVIDE NEUTRAL AND GROUND WIRES AT REPLACED SWITCH LOCATIONS PER nLIGHT MANUFACTURER'S APPROVED SHOP DRAWINGS AND SUBMITTALS.



ENGINEERING SERVICES



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TODD A. JESPERSEN AIA
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PUBLIC WORKS PROJECT MANAGER
PRINCIPAL-IN-CHARGE CRAIG HOOD, P.E.
DRAWN BY ANSEL WILSON **CHECKED BY** CRAIG HOOD, P.E.
ENGINEER'S JOB NO 23-438 **DATE** 10/8/2025
PROJECT TITLE AND ADDRESS

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VENTURA, CA 93001

COUNTY SPEC NUMBER -
COUNTY PROJECT NUMBER -
COUNTY DWG NO P6T24008 SHEET OF
SHEET TITLE

FIRST FLOOR LIGHTING PLAN

SHEET NO E-402

MINOR ELECTRICAL DEMOLITION FOR REMODELING

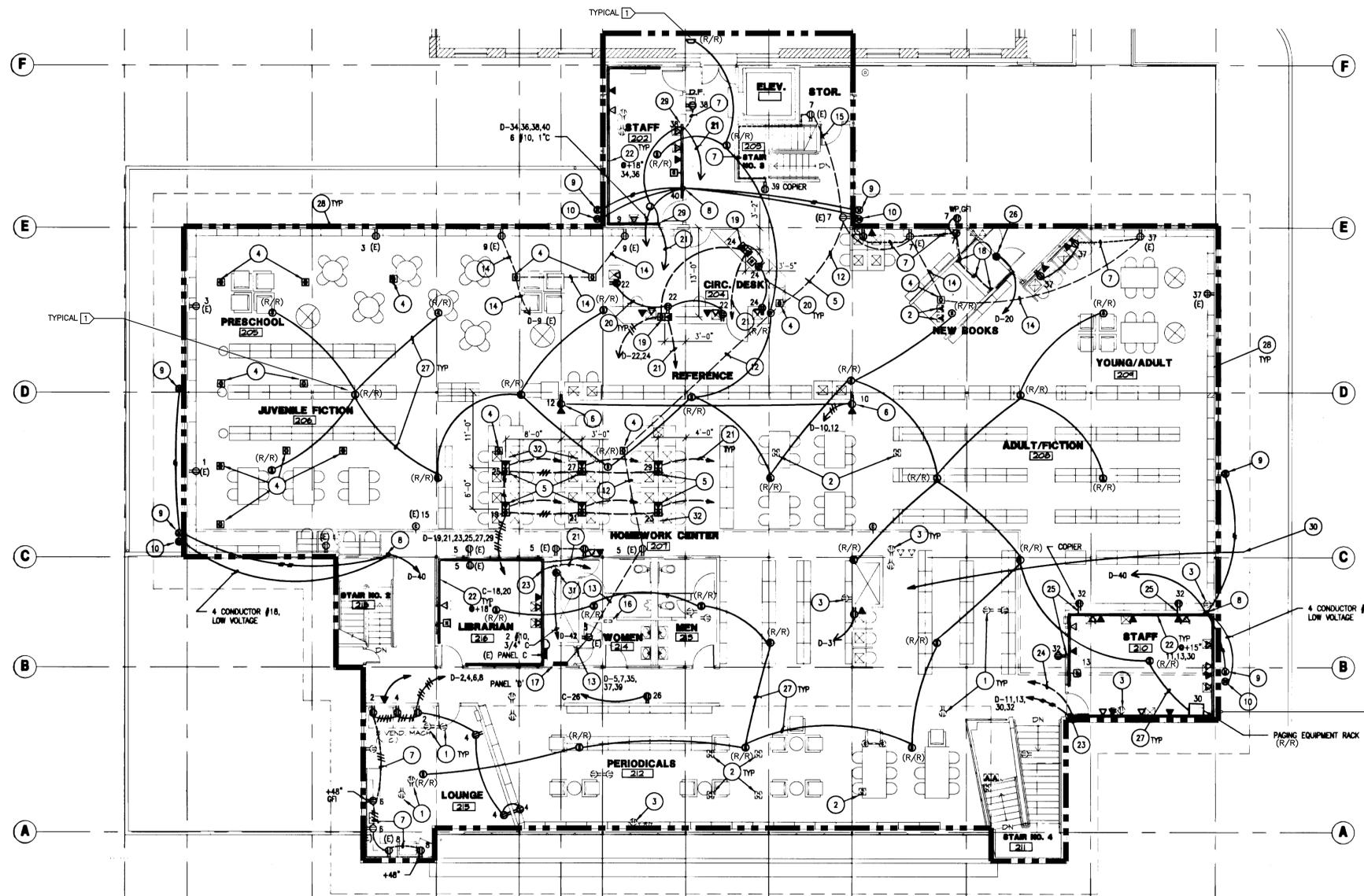
- 1.0 EXAMINATION**
- A. OBTAIN RECORD DRAWINGS / AS-BUILTS FROM OWNER. VERIFY FIELD MEASUREMENTS AND CIRCUITING ARRANGEMENTS ARE AS SHOWN ON RECORD DRAWINGS.
 - B. VERIFY THAT ABANDONED WIRING AND EQUIPMENT SERVE ONLY ABANDONED FACILITIES
 - C. DEMOLITION DRAWINGS ARE BASED ON CASUAL FIELD OBSERVATION AND EXISTING RECORD DOCUMENTS. REPORT DISCREPANCIES TO OWNER AND ARCHITECT/ENGINEER BEFORE DISTURBING EXISTING INSTALLATION.
 - D. BEGINNING OF DEMOLITION MEANS INSTALLER ACCEPTS EXISTING CONDITIONS.
- 2.0 PREPARATION**
- A. DISCONNECT AND MAKE SAFE ALL ELECTRICAL SYSTEMS IN WALLS, FLOORS, AND CEILINGS SCHEDULED FOR REMOVAL.
 - B. COORDINATE UTILITY SERVICE OUTAGES WITH UTILITY COMPANY AND OWNER'S REPRESENTATIVE.
 - C. PROVIDE WIRING AND CONNECTIONS TO MAINTAIN REQUIRED EXISTING SYSTEMS IN SERVICE DURING CONSTRUCTION. WHEN WORK MUST BE PERFORMED ON ENERGIZED EQUIPMENT OR CIRCUITS, USE PERSONNEL EXPERIENCED IN SUCH OPERATIONS.
 - D. EXISTING ELECTRICAL SERVICE: MAINTAIN EXISTING SYSTEM IN SERVICE UNTIL NEW SYSTEM IS COMPLETE AND READY FOR SERVICE. DISABLE SYSTEM ONLY TO MAKE SWITCHOVERS AND CONNECTIONS. OBTAIN PERMISSION FROM OWNER AT LEAST 72 HOURS BEFORE PARTIALLY OR COMPLETELY DISABLING SYSTEM. MINIMIZE OUTAGE DURATION. MAKE TEMPORARY CONNECTIONS TO MAINTAIN SERVICE IN AREAS ADJACENT TO WORK AREA WHEN OUTAGE AFFECTS BUSINESS OPERATION.
 - E. EXISTING FIRE ALARM SYSTEM: MAINTAIN EXISTING SYSTEM IN SERVICE.
 - F. EXISTING TELEPHONE SYSTEM: MAINTAIN EXISTING SYSTEM IN SERVICE.
 - G. EXISTING SECURITY SYSTEM: MAINTAIN EXISTING SYSTEM IN SERVICE.
- 3.0 DEMOLITION AND EXTENSION OF EXISTING WORK**
- A. DEMOLISH AND EXTEND EXISTING ELECTRICAL WORK UNDER PROVISIONS OF THIS SECTION.
 - B. REMOVE, RELOCATE, AND EXTEND EXISTING INSTALLATIONS TO ACCOMMODATE NEW CONSTRUCTION.
 - C. REMOVE ABANDONED WIRING TO SOURCE OF SUPPLY AND RE-LABEL DEVICES AS SPARES.
 - D. REMOVE EXPOSED ABANDONED CONDUIT, INCLUDING ABANDONED CONDUIT ABOVE ACCESSIBLE CEILING FINISHES. CUT CONDUIT FLUSH WITH WALLS AND FLOORS, AND PATCH SURFACES.
 - E. DISCONNECT ABANDONED OUTLETS AND REMOVE DEVICES. REMOVE ABANDONED OUTLETS IF CONDUIT SERVING THEM IS ABANDONED AND REMOVED. PROVIDE BLANK COVER FOR ABANDONED OUTLETS WHICH ARE NOT REMOVED.
 - F. DISCONNECT AND REMOVE ABANDONED PANELBOARDS AND DISTRIBUTION EQUIPMENT.
 - G. DISCONNECT AND REMOVE ELECTRICAL DEVICES AND EQUIPMENT SERVING UTILIZATION EQUIPMENT THAT HAS BEEN REMOVED.
- 4.0 CLEANING AND REPAIR**
- A. CLEAN AND REPAIR EXISTING MATERIALS AND EQUIPMENT WHICH REMAIN OR ARE TO BE REUSED.
 - B. SWITCHBOARDS & PANELBOARDS: CLEAN EXPOSED SURFACES AND CHECK TIGHTNESS OF ELECTRICAL CONNECTIONS. REPLACE DAMAGED CIRCUIT BREAKERS AND PROVIDE CLOSURE PLATES FOR VACANT POSITIONS. PROVIDE TYPED CIRCUIT DIRECTORY SHOWING REVISED CIRCUITING ARRANGEMENT.
- 5.0 INSTALLATION**
- A. INSTALL RELOCATED MATERIALS AND AS REQUIRED BY THIS SECTION AND OWNER'S REPRESENTATIVE.
- H. DISCONNECT AND REMOVE ABANDONED LUMINAIRES. REMOVE BRACKETS, STEMS, HANGERS, AND OTHER ACCESSORIES.**
- I. DISCONNECT AND REMOVE ABANDONED CONDUIT.**
- J. REPAIR ADJACENT CONSTRUCTION AND FINISHES DAMAGED DURING DEMOLITION AND EXTENSION WORK.**
- K. MAINTAIN ACCESS TO EXISTING ELECTRICAL INSTALLATIONS WHICH REMAIN ACTIVE. MODIFY INSTALLATION OR PROVIDE ACCESS PANEL AS APPROPRIATE.**
- L. EXTEND EXISTING INSTALLATIONS USING MATERIALS AND METHODS COMPATIBLE WITH EXISTING ELECTRICAL INSTALLATIONS, AND IN COMPLIANCE WITH NEW PROJECT SPECIFICATIONS.**
- M. MODIFY EXISTING AS-BUILT DRAWINGS TO NOTE CHANGES.**

DEMOLITION NOTES

1. SCOPE: PROVIDE AND PERFORM DEMOLITION, PREPARATORY AND MISCELLANEOUS WORK IN AREAS AS INDICATED AND SPECIFIED, COMPLETE.
2. DEMOLITION AND REMOVAL OF EXISTING ELECTRICAL CONDUIT, WIRING AND EQUIPMENT REQUIRED TO COMPLETE THE PROJECT.
3. PREPARATION OF THE EXISTING BUILDING TO RECEIVE OR CONNECT THE NEW WORK.
4. MISCELLANEOUS DEMOLITION, CUTTING, ALTERATION, AND REPAIR WORK ON EXISTING SITE AND IN THE EXISTING BUILDING NECESSARY FOR THE COMPLETION OF THE ENTIRE PROJECT.
5. DISCONNECTING AND RECONNECTION OF ELECTRICAL EQUIPMENT AS REQUIRED BY THE CONSTRUCTION MODIFICATIONS.
6. EXISTING CONDITIONS: PRIOR TO BID MAKE A DETAILED SURVEY OF THE EXISTING CONDITIONS PERTAINING TO THE WORK. CHECK THE LOCATIONS OF ALL EXISTING STRUCTURES, EQUIPMENT AND WIRING (BRANCH CIRCUITING AND CONTROLS). CHECK FOR ANY HAZARDOUS MATERIALS WHICH MAY REQUIRE SPECIAL HANDLING.
7. SALVAGE AND DISPOSAL: ALL REMOVED MATERIAL OTHER THAN ITEMS TO BE REUSED SHALL BE RETURNED TO THE OWNER OR DISPOSED OF IN ACCORDANCE WITH INSTRUCTIONS FROM THE OWNER'S REPRESENTATIVE. DISPOSAL SHALL BE DONE IN ACCORDANCE WITH EPA AND GOVERNING BODY REQUIREMENTS AND REGULATIONS. CONTRACTOR SHALL PAY FEES AND CHARGES FOR DISPOSAL.
8. TWO WEEKS PRIOR TO START OF ANY WORK CONTRACTOR SHALL SCHEDULE ALL WORK AND ELECTRICAL SYSTEM OUTAGES WITH OWNERS WRITTEN APPROVAL.
9. PROTECT ALL EXISTING POWER, MOTORS AND RELATED EQUIPMENT, ALARM SYSTEM, LIGHTING AND CONTROL SYSTEMS, AND TELEPHONE EQUIPMENT IN PLACE, UNLESS OTHERWISE NOTED.
10. CONTRACTOR SHALL LEAVE ALL POWER AND SIGNAL CIRCUITS ENERGIZED, VIA JUNCTION BOX, TO DEVICES IN AREAS OUTSIDE OF DEMOLITION AREA EVEN IF SYSTEMS ARE ROUTED THROUGH DEMOLITION AREA.
11. CONTRACTOR SHALL FIELD VERIFY LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO ANY TRENCHING. CONTRACTOR SHALL PROTECT ALL EXISTING / REMAINING UNDERGROUND UTILITY SYSTEMS IN PLACE. CONTRACTOR SHALL REPAIR ANY UTILITY SYSTEM DAMAGE DURING CONSTRUCTION.

KEY NOTES

- 1 TYPICAL EXISTING SPEAKERS TO BE REPLACED WITH NEW. SEE NEW INTERCOM PLAN FOR LOCATIONS.



1 SECOND FLOOR DEMOLITION INTERCOM PLAN
SCALE: NONE

DEMOLITION LEGEND	
(R/R)	REMOVE EXISTING SPEAKER AND REPLACE WITH NEW.



PUBLIC WORKS



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CONSULTING ELECTRICAL ENGINEERS
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PRINCIPAL-IN-CHARGE: CRAIG HOOD, P.E.
DRAWN BY: ANSEL MCKENZON
ENGINEER'S JOB NO: 23-438
PROJECT TITLE AND ADDRESS: 10/8/2025

CHECKED BY: CRAIG HOOD, P.E.
DATE: 10/8/2025

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SHEET TITLE: SECOND FLOOR DEMOLITION INTERCOM PLAN

SHEET NO: E-501

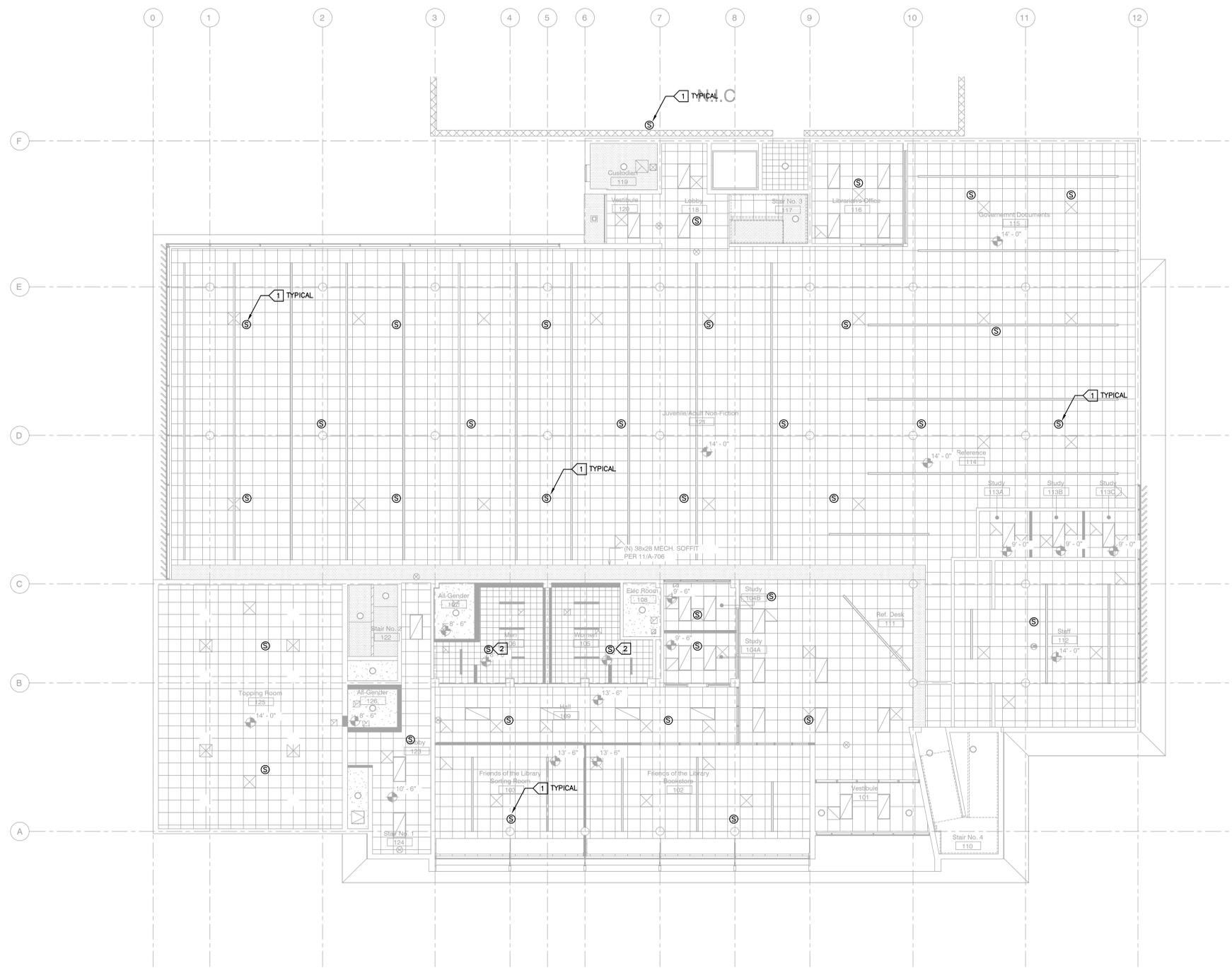


SHEET NOTES

- CONTRACTOR SHALL VERIFY LOCATION & REQUIREMENTS OF ALL DEVICES REQUIRING ELECTRICAL CONNECTION PRIOR TO BID PROPOSAL, ROUGH-IN AND FINISH.
- CONTRACTOR SHALL, IN ROUTING ALL CIRCUITS, INCREASE CONDUCTOR & CONDUIT SIZE TO ALLOW FOR VOLTAGE DROP SHOULD THE CONTRACTOR EXCEED ROUTING INDICATED ON DRAWING. ENGINEER OF RECORD MUST BE NOTIFIED PRIOR TO ANY DEVIATIONS FROM APPROVED PLAN CHECK (PERMIT SET) DRAWINGS.
- COORDINATE WORK WITH OTHER TRADES. OBTAIN ALL DRAWINGS THAT WILL REQUIRE COORDINATION AND PROVIDE ALL ELECTRICAL CONNECTIONS, DEVICES, AND WIRING REQUIRED WHETHER SHOWN ON ELECTRICAL DRAWINGS OR NOT.
- CONTRACTOR SHALL FURNISH AND INSTALL PULL BOXES AS REQUIRED TO INSTALL CONDUCTORS PER CONDUCTOR MANUFACTURERS RECOMMENDATIONS, PER THE NATIONAL ELECTRICAL CODE AND PER LOCAL AUTHORITIES HAVING JURISDICTION.
- 3/4" CONDUIT MINIMUM U.O.N.
- PROVIDE CODE SIZE EQUIPMENT GROUNDING CONDUCTORS IN ALL OCCUPIED CONDUITS.
- ALL DEVICES WITH IG SUBSCRIPT, ARE ISOLATED GROUND RECEPTACLES WITH SEPARATE IG CONDUCTOR TO PANELBOARD.
- PROVIDE CONTROLS FOR MECHANICAL EQUIPMENT PER MECHANICAL DOCUMENTS. VERIFY LOCATION AND REQUIREMENTS OF MECHANICAL EQUIPMENT ON MECHANICAL DOCUMENTS.
- VERIFY LOCATION OF ALL DEVICES ON ARCHITECTURAL PLANS.
- VERIFY THE EXACT ROUTING OF ALL EXPOSED CONDUIT WITH OWNER PRIOR TO INSTALLATION.
- ALL WALL MOUNTED ELECTRICAL AND COMMUNICATION BOXES SHALL BE COVERED ENTIRELY WITH ONE HOUR FIRE PUTTY.
- ALL WALL MOUNTED ELECTRICAL AND COMMUNICATION BOXES SHALL BE SEPARATED BY A MINIMUM OF 24".

KEY NOTES

- EXISTING SPEAKERS TO BE REPLACED WITH NEW, TYPICAL. CONTRACTOR SHALL LOCATE NEW SPEAKERS IN EXISTING SPEAKER LOCATIONS WHERE SHOWN ON PLAN. CONTRACTOR SHALL PROVIDE NEW SPEAKER CABLING FOR A FULLY OPERATIONAL SPEAKER SYSTEM.
- NEW SPEAKERS IN REMODELED RESTROOM AREAS TO BE RELOCATED TO LOCATION SHOWN ON PLAN. CONTRACTOR SHALL PROVIDE NEW SPEAKER CABLING FOR A FULLY OPERATIONAL SPEAKER SYSTEM.



1 FIRST FLOOR INTERCOM PLAN
SCALE: 1/8" = 1'-0"

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ENGINEER'S JOB NO	PROJECT TITLE AND ADDRESS

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SHEET TITLE
FIRST FLOOR
INTERCOM PLAN

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E-502





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ENGINEER'S JOB NO: 23-438
DATE: 10/8/2025
PROJECT TITLE AND ADDRESS:

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COUNTY PROJECT NUMBER:
P&T24008
COUNTY DWG NO: SHEET OF
SHEET TITLE:

SECOND FLOOR INTERCOM PLAN

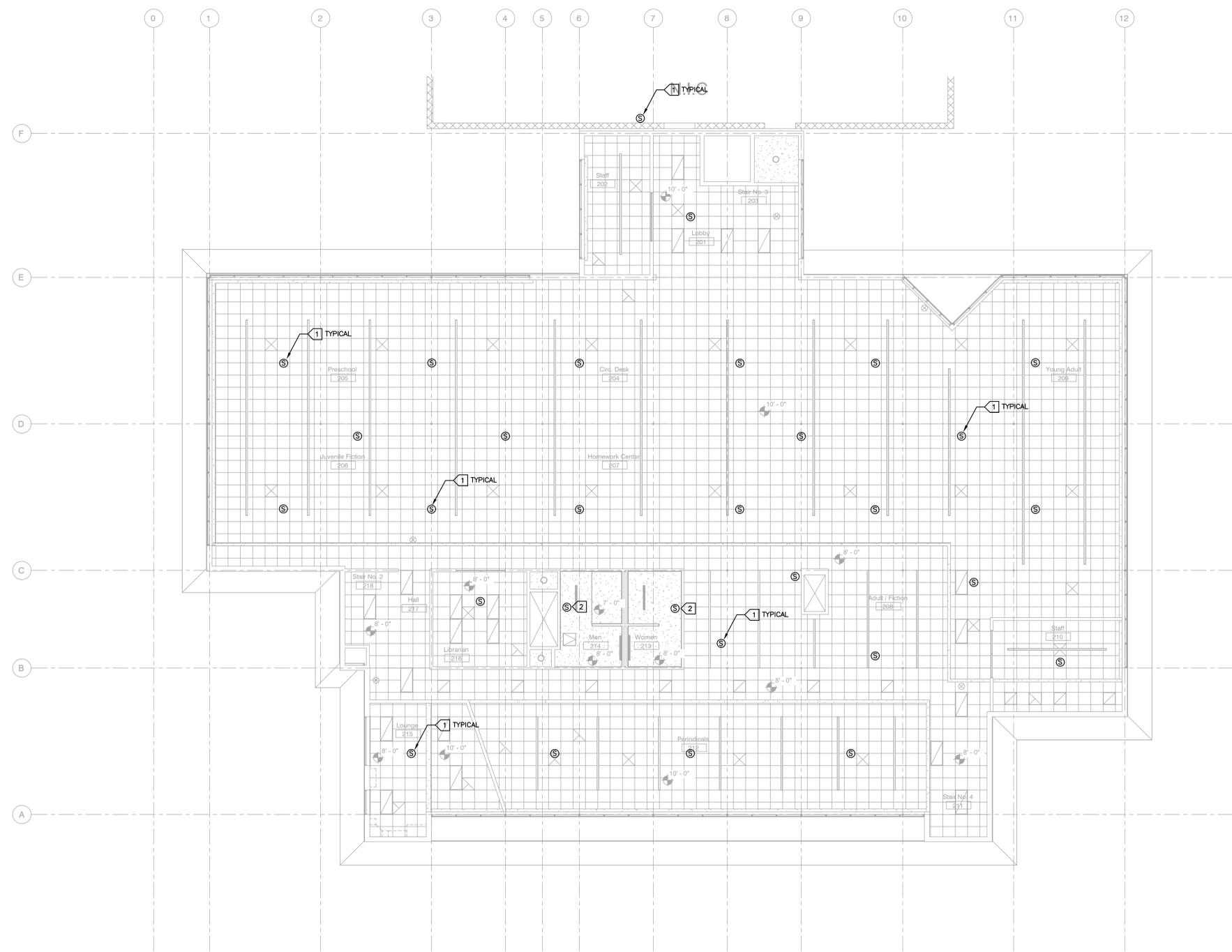
SHEET NO. E-503

SHEET NOTES

- CONTRACTOR SHALL VERIFY LOCATION & REQUIREMENTS OF ALL DEVICES REQUIRING ELECTRICAL CONNECTION PRIOR TO BID PROPOSAL, ROUGH-IN AND FINISH.
- CONTRACTOR SHALL, IN ROUTING ALL CIRCUITS, INCREASE CONDUCTOR & CONDUIT SIZE TO ALLOW FOR VOLTAGE DROP SHOULD THE CONTRACTOR EXCEED ROUTING INDICATED ON DRAWING. ENGINEER OF RECORD MUST BE NOTIFIED PRIOR TO ANY DEVIATIONS FROM APPROVED PLAN CHECK (PERMIT SET) DRAWINGS.
- COORDINATE WORK WITH OTHER TRADES. OBTAIN ALL DRAWINGS THAT WILL REQUIRE COORDINATION AND PROVIDE ALL ELECTRICAL CONNECTIONS, DEVICES, AND WIRING REQUIRED WHETHER SHOWN ON ELECTRICAL DRAWINGS OR NOT.
- CONTRACTOR SHALL FURNISH AND INSTALL PULL BOXES AS REQUIRED TO INSTALL CONDUCTORS PER CONDUCTOR MANUFACTURERS RECOMMENDATIONS, PER THE NATIONAL ELECTRICAL CODE AND PER LOCAL AUTHORITIES HAVING JURISDICTION.
- 3/4" CONDUIT MINIMUM U.O.N.
- PROVIDE CODE SIZE EQUIPMENT GROUNDING CONDUCTORS IN ALL OCCUPIED CONDUITS.
- ALL DEVICES WITH IG SUBSCRIPT, ARE ISOLATED GROUND RECEPTACLES WITH SEPARATE IG CONDUCTOR TO PANELBOARD.
- PROVIDE CONTROLS FOR MECHANICAL EQUIPMENT PER MECHANICAL DOCUMENTS. VERIFY LOCATION AND REQUIREMENTS OF MECHANICAL EQUIPMENT ON MECHANICAL DOCUMENTS.
- VERIFY LOCATION OF ALL DEVICES ON ARCHITECTURAL PLANS.
- VERIFY THE EXACT ROUTING OF ALL EXPOSED CONDUIT WITH OWNER PRIOR TO INSTALLATION.
- ALL WALL MOUNTED ELECTRICAL AND COMMUNICATION BOXES SHALL BE COVERED ENTIRELY WITH ONE HOUR FIRE PUTTY.
- ALL WALL MOUNTED ELECTRICAL AND COMMUNICATION BOXES SHALL BE SEPARATED BY A MINIMUM OF 24".

KEY NOTES

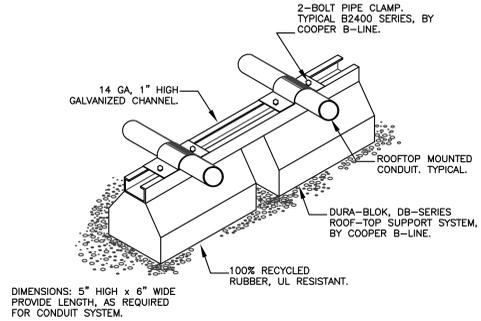
- EXISTING SPEAKERS TO BE REPLACED WITH NEW, TYPICAL. CONTRACTOR SHALL LOCATE NEW SPEAKERS IN EXISTING SPEAKER LOCATIONS WHERE SHOWN ON PLAN. CONTRACTOR SHALL PROVIDE NEW SPEAKER CABLING FOR A FULLY OPERATIONAL SPEAKER SYSTEM.
- NEW SPEAKERS IN REMODELED RESTROOM AREAS TO BE RELOCATED TO LOCATION SHOWN ON PLAN. CONTRACTOR SHALL PROVIDE NEW SPEAKER CABLING FOR A FULLY OPERATIONAL SPEAKER SYSTEM.



1 SECOND FLOOR INTERCOM PLAN
SCALE: 1/8" = 1'-0"

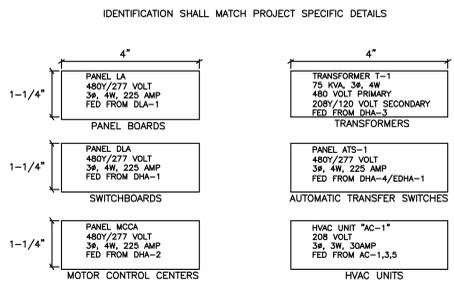


NOTE: SET ROOFTOP CONDUIT SUPPORT AT 6FT. O.C. MAXIMUM. PROVIDE ADDITIONAL SUPPORTS, AS REQUIRED, PER NATIONAL ELECTRICAL CODE.

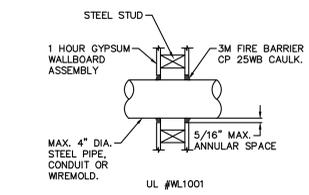


11 TYPICAL ROOFTOP CONDUIT SUPPORT DETAIL
SCALE: NONE

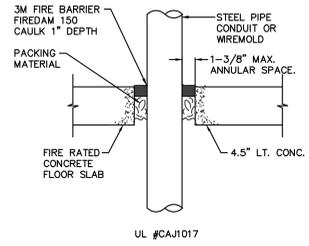
NOTE: CONTRACTOR SHALL PROVIDE NAMEPLATES ON ALL ELECTRICAL EQUIPMENT INCLUDING, BUT NOT LIMITED TO: PANELBOARDS, FEEDER BREAKERS, PULLBOXES, GENERATORS, TRANSFER SWITCHES, DISCONNECTS, ETC.



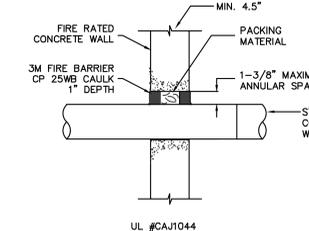
8 TYPICAL NAMEPLATE DETAILS
SCALE: NONE



PENETRATION THRU GYPSUM BOARD WALL
NO SCALE



PENETRATION THRU CONCRETE FLOOR
NO SCALE

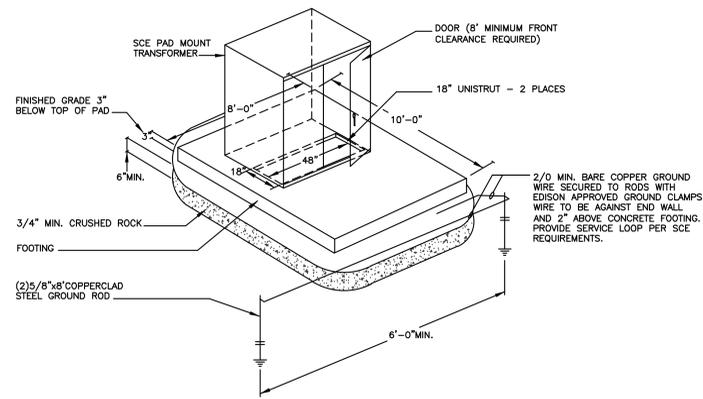


PENETRATION THRU CONCRETE WALL
NO SCALE

DETAIL NOTES:

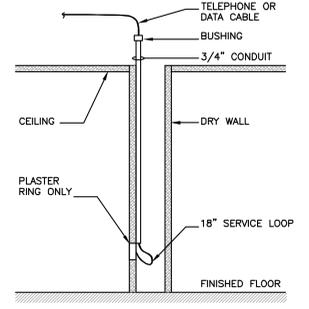
- PAD OVERHANG TO REST ON UNDISTURBED EARTH OR WELL COMPACTED BACKFILL TO PREVENT FUTURE SUBSIDENCE.
- AN 8" MINIMUM CLEARANCE IS REQUIRED DIRECTLY IN FRONT OF TRANSFORMER FOR OPERATION.
- SLAB, GROUND RODS, CLAMPS, AND WIRE SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR. SEE UGS 703 FOR APPROVED GROUNDING MATERIALS. GROUND WIRE TO BE A MINIMUM OF 2/0 BARE COPPER.
- SIDE OR BACK OF PAD TO BE MINIMUM 3' FROM ADJACENT BUILDING SURFACE.
- CONTRACTOR SHALL PROVIDE PROTECTIVE BARRIERS PER SCE REQUIREMENTS.

NOTE: VERIFY AND PROVIDE PER UTILITY COMPANY REQUIREMENTS

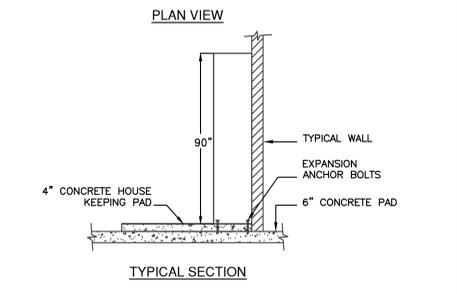
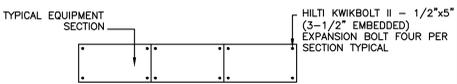


1 SERVICE TRANSFORMER PAD MOUNT DETAIL
SCALE: NONE

NOTE: ALL COMMUNICATION SYSTEM CABLEING SHALL BE INSTALLED IN CABLE TRAY TO THE MAXIMUM EXTENT POSSIBLE PER NEC ART 800 REQUIREMENTS. WHERE COMMUNICATION SYSTEM CABLEING IS NOT IN CONDUIT OR CABLE TRAY IT SHALL BE SUPPORTED BY THE BUILDING STRUCTURE ON CONTRACTOR PROVIDED J-HOOKS, ON MAXIMUM 4'-0" CENTERS.



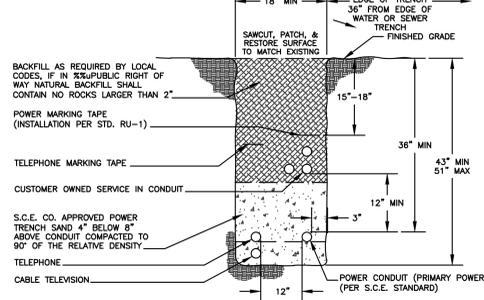
12 TYPICAL COMM. CABLE RISER DETAIL
SCALE: N.T.S.



9 STAND UP ELECTRICAL EQUIPMENT ANCHORAGE DETAIL
SCALE: NONE

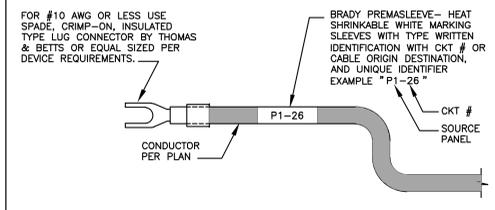
DETAIL NOTES:

- TRENCH DEPTH SHALL BE 43" MIN. BELOW ELEVATION OF FINISHED GRADE.
- REFER TO S.C.E. U.G. STANDARD FOR INSTALLATION OF CONDUIT.
- FOR "SOLE USE" TRENCH WITH ONE CONDUIT ONLY, TRENCH WIDTH MAY BE REDUCED TO TWO TIMES THE NOMINAL DIAMETER OF THE CONDUIT, BUT IN NO CASE LESS THAN 6 INCHES.

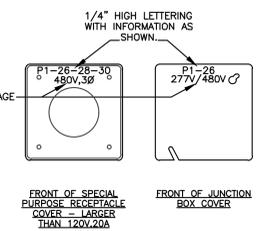
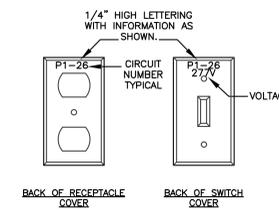


4 TYPICAL SCE DUCT BANK DETAIL
SCALE: NONE

NOTE: CONTRACTOR SHALL PROVIDE CONDUCTOR AND JUNCTION BOX LABELING TO ALL POWER FEEDERS, BRANCH CIRCUITS, GROUNDED CONDUCTORS, CONTROL, COMMUNICATION, FIRE ALARM, & SECURITY CONDUCTORS.



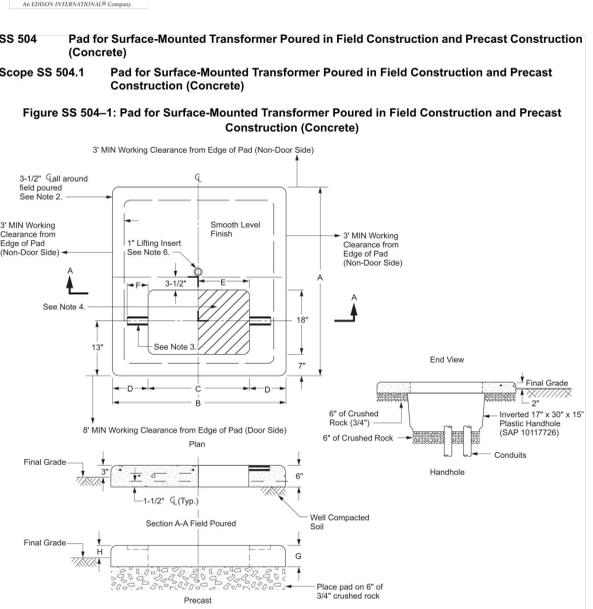
TYPICAL CONDUCTOR LABEL



TYPICAL DEVICE COVER PLATE LABELING

2 TYPICAL LABELING DETAIL
SCALE: N.T.S.

Underground Structures Standards



Approved by:	Pad for Surface-Mounted Transformer Poured in Field Construction and Precast Construction (Concrete)	SS 504
Effective Date:	07-27-2018	1 of 2
	What's Changed?	UGS
		SCE Public 4

10 SCE PAD MOUNTED TRANSFORMER
SCALE: NONE

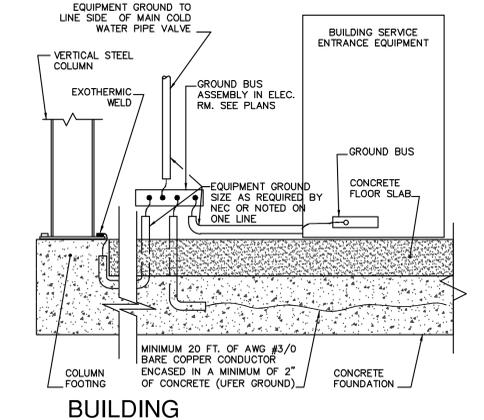
NOTE: DO NOT CUT OR DAMAGE REBARS.
SYSTEM NO. WL1001 (FORMERLY SYSTEM NO. 147)
F RATINGS - 1,2,3, AND 4 HR (SEE ITEMS 2 AND 3)
T RATINGS - 0,1,2,3, AND 4 HR (SEE ITEM 3)
L RATING AT AMBIENT - LESS THAN 1 CFM/SQ FT (SEE ITEM 3)
L RATING AT 400 F - LESS THAN 1 CFM/SQ FT (SEE ITEM 3)

- WALL ASSEMBLY - THE 1, 2, 3, OR 4 HR FIRE RATED GYPSUM WALL BOARD/STUD WALL ASSEMBLY SHALL BE CONSTRUCTED OF THE MATERIALS AND IN THE MANNER DESCRIBED IN THE INDIVIDUAL U300 OR U400 SERIES WALL OR PARTITION DESIGN IN THE UL FIRE RESISTANCE DIRECTORY AND SHALL INCLUDE THE FOLLOWING CONSTRUCTION FEATURES:
 - STUDS - WALL FRAMING MAY CONSIST OF EITHER WOOD STUDS (MAX. 2 HR FIRE RATED ASSEMBLIES) OR STEEL CHANNEL STUDS, WOOD STUDS TO CONSIST OF NOM 2 BY 4 IN. LUMBER SPACED IN 18 IN. OC WITH NOM 2 BY 4 IN. LUMBER AND CROSS BRACES. STEEL STUDS TO BE MIN 3-5/8 IN. WIDE BY 1-3/8 IN. DEEP CHANNELS SPACED MAX 24 IN. CC.
 - WALLBOARD, GYPSUM - NOM 1/2 OR 5/8 IN. THICK, 4 FT. WIDE WITH SQUARE OR TAPERED EDGES. THE GYPSUM WALLBOARD RYPS, THICKNESS, NUMBER OF LAYERS, FASTENER TYPE AND SHEET ORIENTATION SHALL BE SPECIFIED IN THE INDIVIDUAL U300 OR U400 SERIES DESIGN IN THE UL FIRE RESISTANCE DIRECTORY. MAX DIA. OF OPENING IS 13-1/2 IN.
- PIPE OR CONDUIT - NOM 12 IN. DIA. (OR SMALLER) SCHEDULE 10 (OR HEAVIER) STEEL PIPE NOM 6 IN. DIA.(OR SMALLER) STEEL CONDUIT, NOM 4 IN. DIA. (OR SMALLER) STEEL ELECTRICAL METALLIC TUBING OR TYPE L (OR HEAVIER) COPPER TUBING NOM 1 IN. DIA. (OR SMALLER) FLEXIBLE STEEL CONDUIT. WHEN COPPER PIPE OR FLEXIBLE STEEL CONDUIT IS USED, MAX F RATING OF FIRESTOP SYSTEM (ITEM CONSTRUCTED USING STEEL CHANNEL STUDS) A MAX OF ONE PIPE OR CONDUIT IS PERMITTED IN THE FIRESTOP SYSTEM. PIPE OR CONDUIT TO BE INSTALLED NEAR CENTER OF STUD CAVITY WIDTH AND TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF WALL ASSEMBLY.
- FILL, VOID OR CAVITY MATERIAL - CAULK - CAULK FILL MATERIAL INSTALLED TO COMPLETELY FILL ANGULAR SPACE BETWEEN PIPE OR CONDUIT AND GYPSUM WALLBOARD AND WITH A MIN 1/4 IN. DIA. BOARD OF CAULK APPLIED TO PERIMETER OF PIPE OR CONDUIT AT ITS EGRESS FROM THE WALL. CAULK INSTALLED SYMMETRICALLY ON BOTH SIDES OF WALL ASSEMBLY. THE HOURLY F RATING OF THE FIRESTOP SYSTEM IS DEPENDENT UPON THE HOURLY FIRE RATING OF THE WALL ASSEMBLY IN WHICH IT IS INSTALLED, AS SHOWN IN THE FOLLOWING TABLE. THE HOURLY T RATING OF THE FIRESTOP SYSTEM IS DEPENDENT UPON THE TYPE OR SIZE OF THE PIPE OR CONDUIT AND THE HOURLY FIRE RATING OF THE WALL ASSEMBLY IN WHICH IT IS INSTALLED, AS TABULATED BELOW.

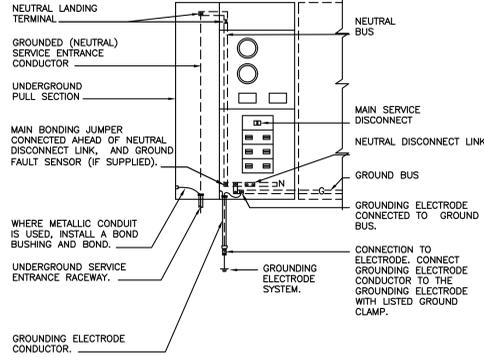
MAX PIPE OR CONDUIT DIAM, IN	ANGULAR SPACE IN	F RATING HR	T RATING HR
1	0 TO 3/16	0 OR 2	0 + 1 OR 2
1	1/4 TO 1/2	3 OR 4	3 OR 4
4	0 TO 1/4	1 OR 2	0
6	1/4 TO 1/2	3 OR 4	0
12	3/16 TO 3/8	1 OR 2	0

+ WHEN COPPER PIPE IS USED, T RATING IS 0 NOM. MINNESOTA MINING & MFG. CO.
- TYPES CP-25 S/L, CP-25 N/8, CP-25 WS, CP-25 WS
+ (NOTE: L RATINGS APPLY WHEN TYPE CP-25 WS+ CAULK IS USED.)

7 TYPICAL RATED WALL PENETRATION
SCALE: NONE



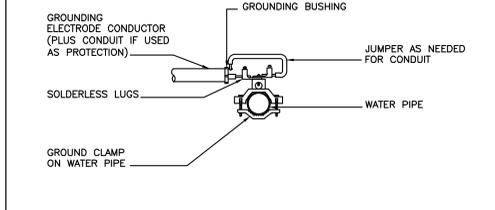
5 BUILDING SERVICE EQUIPMENT GROUNDING
SCALE: NONE



6 TYP. SWITCHBOARD INSTALLATION
SCALE: NONE

DETAIL NOTES:

- BOND METAL PIPING SYSTEMS AT EACH BUILDING PER NEC. ART. 250 REQUIREMENTS.



3 COLD WATER GROUND DETAIL
SCALE: NONE



PUBLIC VENTURA COUNTY WORKS
ENGINEERING SERVICES



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199 FIGUEROA STREET, SUITE 100A
VENTURA, CA 93001
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JONATHAN D LEE AIA
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CONSULTING ELECTRICAL ENGINEERS
858 East Front Street Phone (805) 641-6012
Ventura, California 93001 Fax (805) 641-0450
www.choodassociates.com
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PERMIT APPROVAL STAMP
BID SET
10/14/2025

PERMIT NO	REVISION	DATE
NO		
Δ		

PUBLIC WORKS PROJECT MANAGER
PRINCIPAL-IN-CHARGE CRAIG HOOD, P.E.
DRAWN BY ANSEL MCKENZON CHECKED BY CRAIG HOOD, P.E.
ENGINEER'S JOB NO DATE 10/8/2025
PROJECT TITLE AND ADDRESS

E. P. FOSTER LIBRARY MODERNIZATION
651 E MAIN ST.
VENTURA, CA 93001
COUNTY SPEC NUMBER -
COUNTY PROJECT NUMBER -
COUNTY DWG NO P6214008 SHEET OF
SHEET TITLE ELECTRICAL DETAILS

SHEET NO E-700

ELECTRICAL POWER DISTRIBUTION CEC-NRCC-ELC-E

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

1. I certify that this Certificate of Compliance documentation is accurate and complete.

Documentation Author Name: CRAIG HOOD, P.E.	Documentation Author Signature:
Documentation Author Company Name: C HOOD AND ASSOCIATES, INC	Date Signed: 7-9-2025
Address: 858 EAST FRONT STREET	CEA Certification Identification (if applicable):
City/State/Zip: VENTURA, CA 93001	Phone: 805-641-4012

RESPONSIBLE PERSON'S DECLARATION STATEMENT

2. 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 understand that a registered 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, and I will take the necessary steps to accomplish this requirement.
- I understand that a registered copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy, and I will take the necessary steps to accomplish these requirements.

Responsible Designer Name: CRAIG HOOD, P.E.	Responsible Designer Signature:
Company: C HOOD AND ASSOCIATES, INC	Date Signed: 7-9-2025
Address: 858 EAST FRONT STREET	License:
City/State/Zip: VENTURA, CA 93001	Phone: 805-641-4012

For assistance or questions regarding the Energy Standards, contact the Energy Hotline at: 1-800-772-3300

CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance January 2022

ELECTRICAL POWER DISTRIBUTION CEC-NRCC-ELC-E

E. ADDITIONAL REMARKS

This table includes remarks made by the installer to the Authority Having Jurisdiction.

F. SERVICE ELECTRICAL METERING

This table includes new or replacement electrical service systems OR equipment to demonstrate compliance with §130.5(a)/§160.6(a). For multifamily occupancies, submetered systems that provide power to common use areas must meet the following metering requirements. Submetered systems providing power to dwelling units do not.

01 Electrical Service Designation/Description	02 Rating ¹ (kVA)	F. SERVICE ELECTRICAL METERING 03 Required Metering Capabilities per Table 130.5-A				04 Location of Requirements in Construction Documents	05 Field Inspector	
		Instantaneous Demand (kW)	Historical Peak Demand (kW)	Tracking kWh for user-defined period	kWh per rate period		Pass	Fail
MSC	363kVA	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	E201	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>

¹FOOTNOTES: If common use areas in a multifamily occupancy are submetered, rating is for submeter size serving common use areas.

CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance January 2022

ELECTRICAL POWER DISTRIBUTION CEC-NRCC-ELC-E

CERTIFICATE OF COMPLIANCE

This document is used to demonstrate compliance with mandatory requirements in §130.5 for electrical systems in newly constructed nonresidential and hotel/motel occupancies and §160.6 and §160.9 for electrical systems in newly constructed multifamily occupancies. Additions and alterations to electrical service systems in nonresidential & hotel/motel occupancies will also use this document to demonstrate compliance per §141.0(a) or §141.0(b)2P for alterations. For multifamily addition or alterations compliance will be documented per §180.1(a) or §180.2(b)4Bvii.

Project Name: EP FOSTER LIBRARY	Enforcement Agency:
Dwelling Address: 851 E MAIN STREET	Permit Number:
City and Zip Code: VENTURA, CA 93001	Permit Application Date:

A. GENERAL INFORMATION

01	Project Location (city)	02	Climate Zone
<input type="checkbox"/>	Office	<input type="checkbox"/>	Retail
<input type="checkbox"/>	High-Rise Residential Multifamily/ MF Mixed-use >= 4 stories (new construction)	<input type="checkbox"/>	Warehouse
<input type="checkbox"/>	Auditorium	<input type="checkbox"/>	Healthcare Facilities
<input type="checkbox"/>	Classroom	<input checked="" type="checkbox"/>	Library
		<input type="checkbox"/>	Relocatable
		<input type="checkbox"/>	Gymnasium
		<input type="checkbox"/>	Commercial/ Industrial
		<input type="checkbox"/>	Grocery Store
		<input type="checkbox"/>	Religious Facility
		<input type="checkbox"/>	Restaurant/ Commercial Kitchen
		<input type="checkbox"/>	All Others
		<input type="checkbox"/>	Theater
		<input type="checkbox"/>	Financial Institution
		<input type="checkbox"/>	Hotel/ Motel
		<input type="checkbox"/>	Parking Garage
		<input type="checkbox"/>	School
		<input type="checkbox"/>	Support Areas
		<input type="checkbox"/>	Sports Arena
		<input type="checkbox"/>	Convention Center
		<input type="checkbox"/>	Medical Clinic

CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance January 2022

ELECTRICAL POWER DISTRIBUTION CEC-NRCC-ELC-E

Gas/ Propane Clothes Dryers in Common Areas

08	Yes	Requirement
	<input type="checkbox"/>	Conductors or raceway shall be installed with termination points at the main electrical panel, via subpanels panels if applicable, to a location no more than 3 feet from each gas outlet or a designated location of future electric replacement equipment. Both ends of the conductors or raceway shall be labelled "Future 240V Use." The conductors or raceway and any intervening subpanels, panelboards, switchboards, and busbars shall be sized to meet the future electric power requirements, at the service voltage to the point at which the conductors serving the building connect to the utility distribution system, as specified below. The capacity requirements may be adjusted for demand factors in accordance with the California Electric Code. Gas flow rates shall be determined in accordance with the California Plumbing Code. Capacity shall be one of the following: - 24 amps at 208/240 volts per clothes dryer; - 2.6 kVA for each 10,000 Btu per hour of rated gas input or gas pipe capacity; or - The electrical power required to provide equivalent functionality of the gas-powered equipment as calculated by the responsible person.

K. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION

Selections have been made based on information provided in this document. If any selections have been changed by the permit applicant, an explanation should be included in Table E. Additional Remarks. These documents must be provided to the building inspector during construction and can be found online.

YES	NO	Form/Title	Field Inspector
<input checked="" type="radio"/>	<input type="radio"/>	NRCC-ELC-E - Must be submitted for all buildings.	<input type="checkbox"/>

L. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE

There are no Certificates of Acceptance applicable to electrical power distribution requirements.

CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance January 2022

ELECTRICAL POWER DISTRIBUTION CEC-NRCC-ELC-E

G. SEPARATION OF ELECTRICAL CIRCUITS FOR ENERGY MONITORING

This table includes entirely new or complete replacement electrical power distribution systems to demonstrate compliance with §130.5(b)/§160.6(b). Any load types that are not included in the service do not need to be shown. For multifamily occupancies, submetered systems that provide power to dwelling units do not need to meet these separation requirements and therefore load types on those submetered systems also do not need to be shown.

01 Electrical Service Designation/ Description:		02	03	04	05 Field Inspector	
Load Type per Table 130.5-B ¹	Minimum Required Separation of Load per Table 130.5-B	Compliance Method ²	Location of Requirements in Construction Documents	Pass	Fail	
HVAC LOAD	PANEL AC	METHOD 1	E201	<input type="checkbox"/>	<input type="checkbox"/>	

¹NOTES If "Other" is selected under Compliance Method above, please indicate how compliance has been achieved in the space provided below.
²FOOTNOTES: For each separate load type, up to 10% of the connected load may be of any type.
³Method 1: Switchboards/ motor control centers/ panelboard loads disaggregated for each load type.
Method 2: Switchboards/ motor control centers/ panelboard loads disaggregated for each load type.
Method 3: Branch circuits serve load types individually & provisions for adding future branch circuit monitoring.
Method 4: Complete metering system measures and reports loads by type.
See Chapter 8 of the Nonresidential Compliance Manual for more detail on Compliance Methods.

CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance January 2022

ELECTRICAL POWER DISTRIBUTION CEC-NRCC-ELC-E

B. PROJECT SCOPE

This table includes electrical service systems that are within the scope of the permit application.

01	02	03	04	05	06 Demand Response Controls		07
Electrical Service Designation/ Description	Scope of Work ²	Rating ³ (kVA)	Utility Provided Metering System Exception to §130.5(a)/§160.6(a) ³	System subject to CA Elec Code Article S17 Exception to §130.5(a)&(b)	Where required, demand response controls must be specified which are capable of receiving and automatically responding to at least one standard based messaging protocol which enables demand response after receiving a demand response signal. Sections §120.2/§160.3, §130.1/§160.5 and §130.3/§160.5 and mechanical, indoor lighting, and sign lighting Certificate of Compliance documents will indicate when demand response controls are required.		Provides power to dwelling units/common living areas only in multifamily occupancy
MSC	MSC FEEDER	363kVA	<input checked="" type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>

¹FOOTNOTES: Adding only new feeders and branch circuits triggers Voltage Drop §130.5(c)/160.6(c), no other requirements from 130.5/160.6 are required.
² If common use areas in a multifamily occupancy are submetered, rating is for submeter size serving common use areas.
³ Applicable if the utility company is providing a metering system that indicates instantaneous kW demand and kWh for a utility-defined period.

CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance January 2022

ELECTRICAL POWER DISTRIBUTION CEC-NRCC-ELC-E

H. VOLTAGE DROP

This table includes entirely new or complete replacement electrical power distribution systems, or alterations that add, modify or replace both feeders and branch circuits to demonstrate compliance with §130.5(c)/§160.6(c). For alterations, only the altered circuits must demonstrate compliance per §141.0(b)2Piii/§180.2(b) 4Bvii.

¹NOTES If "Permitted by CA Elec Code" is selected under Compliance Method above, please indicate where the exception applies in the space provided below.

01 Electrical Service Designation/ Description	02 Combined Voltage Drop on Installed Feeder/Branch Circuit Conductors Compliance Method	03 Location of Voltage Drop Calculations ¹	04 Sheet Number for Voltage Drop Calculations in Construction Documents	05 Field Inspector	
	<input checked="" type="checkbox"/> Voltage drop ≤ 5% <input type="checkbox"/> Permitted by CA Elec Code (Exception to §130.5(c)) ¹	E201 FEEDER TAG SCHEDULE	E201 FEEDER TAG SCHEDULE	Pass	Fail
MSC	<input checked="" type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>

¹ FOOTNOTES: Voltage drop calculations may be attached to the permit application outside the construction documents if allowed by the Authority Having Jurisdiction. Select "attached" if applicable. If calculations will be the responsibility of the installing contractor, select "Contractor Responsible".

CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance January 2022

ELECTRICAL POWER DISTRIBUTION CEC-NRCC-ELC-E

C. COMPLIANCE RESULTS

Results in this table are automatically calculated from data input and calculations in Tables F through J.

Note: If any cell on this table says "COMPLIES with Exceptional Conditions" refer to Table D. Exceptional Conditions for guidance or see the applicable Table referenced below.

01	02	03	04	05	06				
Service Electrical Metering §130.5(a)/ §160.6(a)	AND	Separation for Monitoring §130.5(b)/ §160.6(b)	AND	Voltage Drop §130.5(c)/ §160.6(c)	AND	Controlled Receptacles §130.5(d)/ §160.6(d)	AND	Electric Ready §160.9	Compliance Results
(See Table F)		(See Table G)		(See Table H)		(See Table I)		(See Table J)	
YES	AND	YES	AND	YES	AND	N/A	AND	N/A	COMPLIES

D. EXCEPTIONAL CONDITIONS

This table is auto-filled with uneditable comments because of selections made or data entered in tables throughout the form.

CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance January 2022

ELECTRICAL POWER DISTRIBUTION CEC-NRCC-ELC-E

PERMIT NO

NO	REVISION	DATE
△		

PUBLIC WORKS PROJECT MANAGER

PRINCIPAL-IN-CHARGE
CRAIG HOOD, P.E.

DRAWN BY
ANGEL MONTON

CHECKED BY
CRAIG HOOD, P.E.

ENGINEER'S JOB NO
23-438

DATE
10/8/2025

PROJECT TITLE AND ADDRESS
E. P. FOSTER LIBRARY MODERNIZATION
651 E MAIN ST,
VENTURA, CA 93001

COUNTY SPEC NUMBER
-

COUNTY PROJECT NUMBER
P6T24008

COUNTY DWG NO
SHEET OF

SHEET TITLE
TITLE 24 DOCUMENTATION

SHEET NO
E-800

CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance January 2022

COUNTY OF VENTURA Library

PUBLIC WORKS

ENGINEERING SERVICES

KBZ

KRUGER BENSEN ZIEMER ARCHITECTS, INC.
199 FIGUEROA STREET, SUITE 100A
VENTURA, CA 93001
TELEPHONE (805) 963-1726

TODD A. JESPERSEN AIA
PRINCIPAL-IN-CHARGE

JONATHAN D LEE AIA
PROJECT MANAGER

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CONSULTING ELECTRICAL ENGINEERS

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Exp. 08/31/27
State of California

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REGISTERED PROFESSIONAL ARCHITECT
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Exp. 08/31/27
State of California

PERMIT APPROVAL STAMP

BID SET
10/14/2025



INDOOR LIGHTING

CEC-NRCC-LTI-E

Mandatory Controls

Table with 5 columns: 15, 16, 17, 18, 19. Rows include RESTROOMS, SW DIMMER, OCCUPANCY SENSOR.

R. 80% LIGHTING POWER FOR ALTERATIONS- CONTROLS EXCEPTIONS

Indoor lighting alteration spaces complying prescriptively with §141.0(b)2(iii)/§180.2(b)4Bivb are included in this table to document the power reduction. If the Percent of Indoor Lighting Power Allowance exceeds 80%, the compliance status in Table C for Controls will say "DOES NOT COMPLY".

Table with 9 columns: 01-09. Includes Area Description, Complete Building or Area Category, CALCULATED ALLOWANCE (Watts), Luminaires Name or Item Tag, Watts per Luminaire, # of Luminaires, Total Design Watts.

CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance January 2022



INDOOR LIGHTING

CEC-NRCC-LTI-E

F. INDOOR LIGHTING FIXTURE SCHEDULE

This table includes all planned permanent and portable lighting other than dwelling unit/ hotel/ motel room lighting. Multifamily dwelling unit and hotel/motel room lighting is documented in Table T. If using Table T to document lighting in multifamily common use areas providing shared provisions for living, eating, cooking or sanitation, those luminaires are not included here.

Table with 10 columns: 01-10. Includes Name or Item Tag, Complete Luminaire Description, Modular (Track) Fixture, Small Aperture & Color Change, Watts per luminaire, How Wattage is Determined, Total Number Luminaires, Excluded per §140.6(a)3/§170.2(e)2C, Design Watts, Field Inspector.

1 FOOTNOTE: Design Watts for small aperture and color changing luminaires which qualify per §140.6(a)4B/§170.2(e)2D is adjusted to be 75%/80% of their rated wattage. Table F automatically makes this adjustment, the permit applicant should enter full rated wattage in column 05.

Table with 10 columns: 01-10. Includes Name or Item Tag, Complete Luminaire Description, Modular (Track) Fixture, Small Aperture & Color Change, Watts per luminaire, How Wattage is Determined, Total Number Luminaires, Excluded per §140.6(a)3/§170.2(e)2C, Design Watts, Field Inspector.

CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance January 2022 23,305 TOTAL DESIGN WATTS



INDOOR LIGHTING

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CERTIFICATE OF COMPLIANCE

This document is used to demonstrate compliance with requirements in §110.9, §110.12(c), §130.0, §130.1, §140.6, and §141.0(b)2 for indoor lighting scopes using the prescriptive path for nonresidential and hotel/motel occupancies in low-rise multifamily mixed-use buildings. It is also used to document compliance with requirements in §160.5, §170.2(e) and §180.2(b)4 for indoor lighting scopes using the prescriptive path for multifamily occupancies. Multifamily includes dormitory and senior living facilities.

Table with 2 columns: Project Name, EP FOSTER LIBRARY; Dwelling Address, 651 E MAIN ST.; City and Zip Code, VENTURA, CA 93001.

A. GENERAL INFORMATION

Table with 4 columns: 01-04. Includes Project Location (city), Climate Zone, Occupancy Types Within Project, Office, Retail, Warehouse, Healthcare Facilities, etc.

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INDOOR LIGHTING

CEC-NRCC-LTI-E

V. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE

Selections have been made based on information provided in this document. If any selections have been changed by the permit applicant, an explanation should be included in Table E. Additional Remarks. These documents must be provided to the building inspector during construction and any with "-A" in the form name must be completed through an Acceptance Test Technician Certification Provider (ATTCP).

Table with 4 columns: Yes, No, Form/Title, Field Inspector (Pass/Fail). Rows include LMCA-LTI-02-A, LMCA-LTI-03-A, LMCA-LTI-04-A, LMCA-LTI-05-A, LMCA-ENV-03-F.

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INDOOR LIGHTING

CEC-NRCC-LTI-E

H. INDOOR LIGHTING CONTROLS (Not Including PAFs)

This table includes lighting controls for conditioned and unconditioned spaces. When a control having a * is shown, the notes section of this table provides more detail on how compliance is achieved. The lighting controls section of the Compliance Summary Table on the first page will show "DOES NOT COMPLY" if the notes are left blank.

Table with 3 columns: 01, 02, 03. Includes Mandatory Demand Response, LCP, Shut-off Controls, Field Inspector.

Area Level Controls

Table with 12 columns: 04-12. Includes Area Description, Complete Building or Area Category, Manual Area Controls, Multi-Level Controls, Shut-off Controls, Primary/Skylight Daylighting, Secondary Daylighting, Interlocked Systems, Field Inspector.

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B. PROJECT SCOPE

This table includes any lighting systems that are within the scope of the permit application and are demonstrating compliance using the prescriptive path outlined in §140.6/§170.2(e) or §141.0(b)2/§180.2(b)4 for alterations.

Table with 5 columns: 01-05. Includes Scope of Work, Calculation Method, Area (ft²), Calculation Method, Area (ft²).

ALERT! The Rated Power Reduction Method for alterations may only be used for one-for-one luminaire alterations within a building or tenant space of 5,000 ft2 or less per §141.0(b)2(iii)/§180.2(b)4.

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INDOOR LIGHTING

CEC-NRCC-LTI-E

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

Table with 2 columns: Documentation Author Name, CRAIG HOOD, P.E.; Documentation Author Company Name, CRAIG HOOD, P.E.; Address, 858 E. FRONT STREET; City/State/Zip, VENTURA, CA.

RESPONSIBLE PERSON'S DECLARATION STATEMENT

- 1. 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).

Table with 2 columns: Responsible Designer Name, CRAIG HOOD, P.E.; Company, CRAIG HOOD, P.E.; Address, 858 E. FRONT STREET; City/State/Zip, VENTURA, CA.

CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance January 2022



INDOOR LIGHTING

CEC-NRCC-LTI-E

I. LIGHTING POWER ALLOWANCE: COMPLETE BUILDING OR AREA CATEGORY METHODS

Each area complying using the Complete Building or Area Category Methods per §140.6(b) are included in this table. Column 06 indicates if additional lighting power allowances per §140.6(c) or adjustments per §140.6(a) are being used.

Table with 6 columns: 01-06. Includes Area Description, Complete Building or Area Category, Allowed Density (W/ft2), Area (ft²), Allowed Wattage (watts), Additional Allowance/ Adjustment.

Unconditioned Spaces

Table with 6 columns: 01-06. Includes Area Description, Complete Building or Area Category, Allowed Density (W/ft2), Area (ft²), Allowed Wattage (watts), Additional Allowance/ Adjustment.

Table with 6 columns: 01-06. Includes AGING EYE\RR, AGING EYE\STAIR, OFFICES UNDER 250SQFT, etc.

CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance January 2022 24,856 TOTAL ALLOWED WATTS



INDOOR LIGHTING

CEC-NRCC-LTI-E

C. COMPLIANCE RESULTS

Lighting in conditioned and unconditioned spaces must not be combined for compliance per §140.6(b)1/§170.2(e). If any cell on this table says "DOES NOT COMPLY" or "COMPLIES with Exceptional Conditions" refer to Table D. for guidance.

Table with 9 columns: 01-09. Includes Allowed Lighting Power per §140.6(b)/§170.2(e) (Watts), Adjusted Lighting Power per §140.6(a)/§170.2(e) (Watts), Compliance Results.

Controls Compliance (See Table H for Details) COMPLIES with Exceptional Conditions or COMPLIES or DOES NOT COMPLY

Rated Power Reduction Compliance (See Table Q for Details) COMPLIES or DOES NOT COMPLY or NOT APPLICABLE

CA Building Energy Efficiency Standards - 2022 Nonresidential Compliance January 2022



ENGINEERING SERVICES



KRUGER BENSEN ZIEMER ARCHITECTS, INC.

199 FIGUEROA STREET, SUITE 100A VENTURA, CA 93001

TODD A. JESPERSEN AIA PRINCIPAL-IN-CHARGE

JONATHAN D LEE AIA PROJECT MANAGER

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Table with 3 columns: PERMIT NO, REVISION, DATE.

PRINCIPAL-IN-CHARGE CRAIG HOOD, P.E. CHECKED BY ANSEL MONZON ENGINEER'S JOB NO 23-438 DATE 10/8/2025

E. P. FOSTER LIBRARY MODERNIZATION

651 E MAIN ST, VENTURA, CA 93001

COUNTY SPEC NUMBER -

COUNTY PROJECT NUMBER P6T24008

COUNTY DWG NO SHEET OF SHEET TITLE

TITLE 24 DOCUMENTATION

SHEET NO E-801