FOOTHILLS ADULT EDUCATION CENTER

GROSSMONT ADULT EDUCATION
1550 MELODY LANE, EL CAJON, CA 92019
GROSSMONT UNION HIGH SCHOOL DISTRICT

RUHNAU CLARKE ARCHITECTS

3775 TENTH STREET, RIVERSIDE CALIFORNIA 92501 (951) 684 4664 / 5751 PALMER WAY, SUITE C, CARLSBAD CALIFORNIA 92010 (760) 438 5899

AGENCY APPROVAL
File No: 37-H4

STAMPS

LICENSED ARCHITECT — David Ruhnau — C-20662 — 03-31-2021 — RENEWAL DATE — STATE OF CALIFORNIA

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-119728 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/18/2021

CONSULTANT BRANDING

RUHNAU CLARKE ARCHITECTS

@	AT	MACH	MACHINE
&	AND	MAX	MAXIMUM
<	ANGLE	MECH	MECHANICAL
		MIN	MINIMUM
ACPL	ACOUSTIC PLASTER	MH	MANHOLE
ACT	ACOUSTIC TILE	MFR	MANUFACTURER
AFF	ABOVE FINISHED FLOOR	MO	MASONRY OPENING
		MTL	METAL
BLKG	BLOCKING	ML	METAL LATHE
BD	BOARD	MS	METAL STUD
BOS	BOTTOM OF STRUCTURE	MTD	MOUNTED
BB	BULTTETIN BOARD		
		NIC	NOT IN CONTRACT
CAB	CABINET	NTC	NOT IN CONTRACT
CPT	CARPET	NTS	NOT TO SCALE
CSWK	CASEWORK	NO	NUMBER
CLG	CEILING		
CEM	CEMENT	OC	ON CENTER
CPL	CEMENT PLASTER	OD	OUTSIDE DIAMETER
CL	CENTERLINE	OFCI	OWNER FURNISHED/ CONTRACTOR INSTALLED
CT	CERAMIC TILE		
CLF	CHAIN LINK FNECE	OFOI	OWNER FURNUSHED/ OWNER INSTALLED
CLR	CLEAR		
COL	COLUMN	OH	OPPOSITE HAND/OVERHEAD
CONC	CONCRETE	OPNG	OPENING
CMU	CONCRETE MASONRY UNIT	OPP	OPPOSITE
CJ	COLD JOINT		
CONT	CONTINUOUS	PA	PLANTING AREA
CF	CUBIC FEET	PFIN	PRE FINISHED
		PL	PLATE/PROPERTY LINE
DP	DEMOUNTABLE PARTITION	PLAS	PLASTIC
DET	DETAIL	PLWD	PLYWOOD
DIM	DIMENSION	PTD	PAINTED
DR	DOOR	PTN	PARTITION
DRF	DOOR FRAME		
DL	DOOR LOUVER	R	RADIUS/RISER
DN	DOWN	RD	ROOF DRAIN
DS	DOWN SPOUT	REF	REFERENCE
DF	DRINKING FOUNTAIN	REINF	REINFORCED
DSA	DIVISION OF STATE ARCHITECT	REQD	REQUIRED
DWGS	DRAWINGS	RO	ROUGH OPENING
		RQMT	REQUIREMENT
EA	EACH	RSLB	RESILIENT BASE
ELEC	ELECTRIC	RT	RUBBER TREAD
EWC	ELECTRIC WATER COOLER	RWL	RAIN WATER LEADER
ELEV	ELEVATION		
ENCL	ENCLOSURE	O	ROUND
EQ	EQUAL		
EQUIP	EQUIPMENT	SRF	SEAMLESS RESILIENT FLOORING
(E)	EXISTING	SS	SERVICE SINK/ STAINLESS STEEL
EXP	EXPANSION/EXPOSED		
EJ	EXPANSION JOINT	SHT	SHEET
EW	EACH WAY	SMTH	SHEATHING
EXT	EXTERIOR	SC	SOLID CORE
		SB	SPLASH BLOCK
FS	FLOOR SINK	STN	STAIN
FOF	FACE OF FINISH	STD	STANDARD
FOM	FACE OF MASONRY	STL	STEEL
FOS	FACE OF STUD	STR	STRUCTURAL/STRUCTURE
FIN	FINISH	SUSP	SUSPENDED
FC	FINISH CEILING	SM	SHEET METAL
FG	FINISH GRADE	SIM	SIMILAR
FF	FINISH FLOOR GRADE		
FEC	FIRE EXTINGUISER CABINET	TB	TACK BOARD
FHC	FIRE HOSE CABINET	TJ	TOOLED JOINT
FRPF	FIREPROOF/FIREPROOFING	TC	TOP OF CONCRETE CURB
FD	FLOOR DRAIN	TS	TUBE STEEL
FLR	FLOOR	TW	TOP OF WALK
FURN	FURNISH/FURNITURE	TYP	TYPICAL
		TEL	TELEPHONE
GA	GAUGE	TEMP	TEMPERATURE
GALV	GALVANIZED	TOC	TOP OF CANOPY
GL	GLASS	TOR	TOP OF ROOF
GLU LAM	GLUE LAMINATED	TOS	TOP OF STRUCTURE
GB	GRAB BAR	TOP	TOP OF PARAPET
GPL	GYPSUM PLASTER	TOW	TOP OF WALL
GWB	GYPSUM WALLBOARD		
GWR	WATER RESISTANT GWB	UC	UNDER CUT/ UNDER COUNTER
GC	GENERAL CONTRACTOR	UNO	UNLESS NOTED OTHERWISE
H	HIGH		
HDW	HARDWARE		
HORIZ	HORIZONTAL	VERT	VERTICAL
HR	HOUR	VC	VINYL COATED
HT	HEIGHT	VCT	VINYL COMPOSITION TILE
		VT	VINYL TILE
ID	INSIDE DIAMETER	VSF	VINYL SHEET FLOORING
INSUL	INSULATION	VWC	VINYL WALL COVERING
INT	INTERIOR	VIF	VERIFIED IN FIELD
		VTR	VENT THROUGH ROOF
JH	JOIST HANGER		
JT	JOINT	WWF	WELD WIRE FABRIC
JST	JOIST	WI	WOODWORKING INSTITUTE
		WIN	WINDOW
LAM	LAMINATE	W/	WITH
LT	LIGHT	WD	WOOD
LVR	LOUVER	W/O	WITHOUT

TYPICAL ABBREVIATIONS

1. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, SEQUENCE, TECHNIQUES OR PROCEDURES NECESSSARY FOR PERFORMING, SUPERINTENDING OR COORDINATING ALL PORTIONS OF THE WORK OF CONSTRUCTION IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND ANY HEALTH OR SAFETY PRECAUTIONS REQUIRED BY ANY REGULATORY AGENCIES.
2. THE CONTRACTOR SHALL COMPLY WITH CALIFORNIA FIRE CODE, CHAPTER 33 FOR FIRE SAFETY DURING CONSTRUCTION.
3. CONTRACTOR WILL BE REQUIRED TO PROVIDE AND INSTALL ALL EQUIPMENT, MATERIALS, AND RELATED ITEMS AS SHOWN IN THESE DOCUMENTS AND AS SPECIFIED. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND LOCATIONS OF EXISTING CONDITIONS IN THE FIELD PRIOR TO BID AND START OF THIS CONTRACT, AND TO DETERMINE THE WORK NECESSARY TO COMPLETE THE PROJECT.
4. ALL WORK SHALL CONFORM TO TITLE 24, CALIFORNIA CODE OF REGULATIONS (C.C.R.) AND SECTION 4-333.
5. STRUCTURAL MODIFICATIONS SHALL BE MADE BY ADDENDUM OR CONSTRUCTION CHANGE DOCUMENT (C.C.D.) APPROVED BY DSA PER SECTION 4-338, PART 1, TITLE 24.
6. A PROJECT INSPECTOR EMPLOYED BY THE DISTRICT, (OWNER) AND APPROVED BY THE DIVISION OF THE STATE ARCHITECT, SHALL PROVIDE CONTINUOUS INSPECTION OF THE WORK. THE DUTIES OF THE INSPECTOR ARE DEFINED IN SECTION 4-342, PART 1, TITLE 24, C.C.R. THE INSPECTOR OF RECORD SHALL BE CLASS **"3"** (IOR)
7. THE ARCHITECT OF RECORD SHALL HAVE THE RIGHT TO MAKE FINAL JUDGMENTS RELATIVE TO SUBMITTAL DRAWING REVISIONS IN ORDER TO ENSURE COMPLIANCE WITH ENGINEERING STANDARDS, APPLICABLE CODES, AND ARCHITECTURAL INTENT.
8. NOTIFY THE ARCHITECT IMMEDIATELY OF ANY DISCREPANCIES, ERRORS, OMISSIONS OR INCONSISTENCIES BETWEEN ACTUAL FIELD CONDITIONS AND INFORMATION SHOWN ON THE CONSTRUCTION DOCUMENTS, AS WELL AS IN THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ARCHITECT REGARDING ANY DISCREPANCIES, ERRORS, OMISSIONS OR INCONSISTENCIES AND SHALL NOT PROCEED WITH THE WORK UNTIL CLARIFICATION HAS BEEN ISSUED BY THE ARCHITECT. THE APPLICABLE CATEGORY CONTRACTOR SHALL NOT PROCEED WITH THE WORK UNTIL NOTIFICATION HAS BEEN ISSUED TO THE ARCHITECT. EXISTING CONDITIONS ARE INDICATED BASED ON INFORMATION SHOWN ON AVAILABLE DOCUMENTS. ANY DAMAGE TO EXISTING CONDITIONS IS THE SOLE RESPONSIBILITY OF THE APPLICABLE CATEGORY CONTRACTOR.
9. THE EXISTENCE OR LOCATION OF ANY UNDERGROUND UTILITIES, PIPES, AND/OR STRUCTURE SHOWN ON THESE PLANS WERE OBTAINED BY A SEARCH OF AVAILABLE RECORDS. TO THE BEST OF OUR KNOWLEDGE, EXISTING UTILITIES ARE AS SHOWN ON THESE PLANS. THE APPLICABLE CATEGORY CONTRACTOR SHALL ASCERTAIN THE TRUE VERTICAL AND HORIZONTAL LOCATION AND SIZE OF ALL UNDERGROUND UTILITIES AND SHALL BE RESPONSIBLE FOR DAMAGE TO PUBLIC OR PRIVATE UTILITIES, SHOWN OR NOT SHOWN HEREIN.
10. UNDER NO CIRCUMSTANCE SHALL WORKING DIMENSIONS BE SCALED FROM PLANS, SECTIONS, OR DETAILS ON THE DRAWINGS.
11. CHANGES TO THE APPROVED DRAWINGS AND SPECIFICATIONS SHALL BE MADE BY WRITTEN ADDENDA OR A C.D APPROVED BY THE STATE ARCHITECT, AS REQUIRED BY SECTION 4-338, PART 1, TITLE 24, CCR.
12. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ADEQUACY AND SAFETY OF THE DESIGN/ERECTION OF BRACING, SHORING, TEMPORARY SUPPORTS AND SCAFFOLDING.
13. THE ARCHITECTURAL SITE DRAWINGS SHALL BE REFERENCED FOR DETERMINING THE INTENDED LIMITS OF CONSTRUCTION.
14. WHERE CONFLICTS EXIST IN THE DRAWINGS PERTAINING TO QUANTITIES OF EQUIPMENT OR DEVICES SHOWN, THE LARGER QUANTITY SHALL GOVERN.
15. ALL STANDARDS, MATERIALS AND WORKMANSHIP SHALL COMPLY WITH THE ADOPTED STATE AND LOCAL BUILDING CODES AND ALL OTHER GOVERNING CODES, ORDINANCES, REGULATIONS AND LAWS.
16. WHERE ANY CONFLICT OCCURS BETWEEN THE REQUIREMENTS OF FEDERAL, STATE AND LOCAL LAWS, CODES, ORDINANCES, RULES AND REGULATIONS, THE MOST STRINGENT SHALL GOVERN.
17. ITEMS MARKED "TYP." OR "TYPICAL" SHALL APPLY IN ALL CASES UNLESS SPECIFICALLY INDICATED OTHERWISE.
18. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION OF REQUIREMENTS BETWEEN THE DISCIPLINES (ARCHITECTURAL, STRUCTURAL, PLUMBING, MECHANICAL, AND ELECTRICAL, ETC.) AND BETWEEN DRAWINGS AND SPECIFICATIONS IN ORDER TO ENSURE THAT ALL ITEMS SHOWN IN RELATIONSHIP TO ONE ANOTHER OR SHOWN IN MULTIPLE LOCATIONS ARE IN AGREEMENT.
19. DETERIORATION OR EXISTING NON-COMPLIANT CONSTRUCTION: IF ANY CONDITION IS DISCOVERED WHICH, IF LEFT UNCORRECTED, WOULD MAKE THE BUILDING NON-COMPLIANT WITH THE REQUIREMENTS OF THE EDITION OF THE CBC IN FORCE AT THE TIME OF ORIGINAL CONSTRUCTION, THE CONDITION MUST BE CORRECTED IN ACCORDANCE WITH CURRENT CODE REQUIREMENTS. A CONSTRUCTION CHANGE DOCUMENT OR A SEPARATE SET OF PLANS AND SPECIFICATIONS DETAILING AND SPECIFYING THE REQUIRED REPAIR WORK SHALL BE SUBMITTED TO AND APPROVED BY DSA BEFORE PROCEEDING WITH THE REPAIR WORK.
20. ALL WORK SHALL COMPLY WITH THE RECOMMENDATIONS IN THE HAZARDOUS MATERIALS SURVEY REPORT PREPARED BY TITAN ENVIRONMENTAL SOLUTIONS ON JANUARY 15, 2020. REPORT #081417-AS,XRF,LS,OT

GENERAL NOTES

PARTIAL LIST OF APPLICABLE CODES AS OF JANUARY 1, 2020

2019 CALIFORNIA ADMINISTRATIVE CODE, PART 1, TITLE 24 C.C.R.
2019 CALIFORNIA BUILDING CODE (CBC), PART 2, TITLE 24 C.C.R.
(2018 INTERNATIONAL BUILDING CODE VOLUMES 1-2 & 2019 CALIFORNIA AMENDMENTS)
2019 CALIFORNIA ELECTRICAL CODE (CEC), PART 3, TITLE 24 C.C.R.
(2017 NATIONAL ELECTRICAL CODE AND 2019 CALIFORNIA AMENDMENTS)
2019 CALIFORNIA MECHANICAL CODE (CMC) PART 4, TITLE 24 C.C.R.
(2018 IAPMO UNIFORM MECHANICAL CODE AND 2019 CALIFORNIA AMENDMENTS)
2019 CALIFORNIA PLUMBING CODE (CPC), PART 5, TITLE 24 C.C.R.
(2018 IAPMO UNIFORM PLUMBING CODE AND 2019 CALIFORNIA AMENDMENTS)
2019 CALIFORNIA ENERGY CODE, PART 6, TITLE 24 C.C.R.
2019 CALIFORNIA FIRE CODE, PART 9, TITLE 24 C.C.R.
(2018 INTERNATIONAL FIRE CODE AND 2019 CALIFORNIA AMENDMENTS)
2019 CALIFORNIA EXISTING BUILDING CODE (CEBC) PART 10, TITLE 24 C.C.R.
(2018 INTERNATIONAL EXISTING BUILDING CODE AND 2019 CALIFORNIA AMMENDMENTS)

2019 CALIFORNIA GREEN BUILDING STANDARDS CODE, PART 11, TITLE 24 C.C.R.
2019 CALIFORNIA REFERENCED STANDARDS, PART 12, TITLE 24 C.C.R.
TITLE 19 C.C.R., PUBLIC SAFETY, STATE FIRE MARSHAL REGULATIONS.
2016 ASME A17.1/CSA B44-16 SAFETY CODE FOR ELEVATORS AND ESCALATORS. (PER 2019 CBC PART 2 CH 35)
NOTE: CAL/OSHA ELEVATOR UNIT ENFORCES CCR TITLE 8 AND USES THE 2004 ASME A17.1 BY ADOPTION

PARTIAL LIST OF APPLICABLE STANDARDS

NFPA 13	STANDARD FOR THE INSTALLATION OF SPRINKLER SYSTEMS (CA AMEND)	2016 EDITION
NFPA 14	STANDARD FOR THE INSTALLATION OF STANDPIPE AND HOSE SYSTEMS (CA AMEND)	2016 EDITION
NFPA 17	STANDARD FOR DRY CHEMICAL EXTINGUISHING SYSTEMS	2017 EDITION
NFPA 17A	STANDARD FOR WET CHEMICAL EXTINGUISHING SYSTEMS	2017 EDITION
NFPA 20	STANDARD FOR INSTALLATION OF STATIONAY PUMPS FOR FIRE PROTECTION	2016 EDITION
NFPA 22	STANDARD FOR WATER TANKS FOR PRIVATE FIRE PROTECTION	2013 EDITION
NFPA 24	STANDARD FOR THE INSTALLATION OF PRIVATE FIRE MAINS & THEIR APPURTENANCES (CA AMEND)	2016 EDITION
NFPA 25	STANDARD FOR INSPECTION, TESTING AND MAINTENANCE OF WATER-BASED FIRE PROTECTION SYSTEMS	2013 EDITION
NFPA 72	NATIONAL FIRE ALARM CODE & SIGNALING CODE (CA AMEND)	2016 EDITION
NFPA 80	STANDARD FOR FIRE DOORS AND OTHER OPENING PROTECTIVES	2016 EDITION
NFPA 92	STANDARD FOR SMOKE CONTROL SYSTEMS	2015 EDITION
NFPA 253	CRITICAL RADIANT FLUX OF FLOOR COVERING SYSTEMS	2015 EDITION
NFPA 2001	STANDARD ON CLEAN AGENT FIRE EXTINGUISHING SYSTEMS (CA AMEND)	2015 EDITION
ICC 300	ICC STANDARDS ON BLEACHERS, FOLDING AND TELESCOPING SEATING AND GRAND STANDS	2017 (R2012)
UL 300	STANDARD FOR FIRE TESTING OF FIRE EXTINGUISHING SYSTEMS FOR PROTECTION OF COMMERCIAL COOKING EQUIPMENT	2005 EDITION
UL 464	AUDIBLE SIGNALING DEVICES FOR FIRE ALARM AND SIGNALING SYSTEMS, INCLUDING ACCESSORIES	2003 EDITION
UL 521	STANDARD FOR HEAT DETECTORS FOR FIRE PROTECTIVE SIGNALING SYSTEMS	1999 EDITION
UL 1971	STANDARD FOR SIGNALING DEVICES FOR THE HEARING IMPAIRED	2002 (R2010)
ICC 300	STANDARD FOR BLEACHERS, FOLDING AND TELESCOPIC SEATING AND GRANDSTANDS	2017 (R2012)

FOR A COMPLETE LIST OF APPLICABLE NFPA STANDARDS, REFER TO 2019 CBC (SFM) CHAPTER 35 AND CALIFORNIA FIRE CODE CHAPTER 80

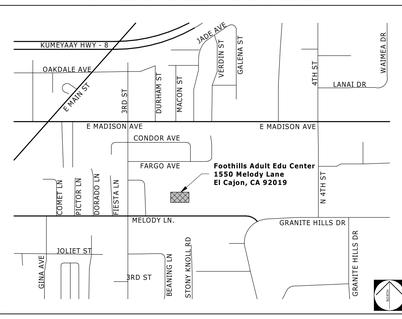
SEE CALIFORNIA BUILDING CODE CHAPTER 35 FOR STATE OF CALIFORNIA AMMENDMENTS TO THE NFPA STANDARDS

APPLICABLE CODES

STATE OF CALIFORNIA

DEPARTMENT OF GENERAL SERVICES
DIVISION OF THE STATE ARCHITECT
10920 VIA FRONTERA ROAD, STE. 300
SAN DIEGO, CA 92127
TEL: (858) 674-5400

APPLICABLE AGENCIES



VICINITY MAP

BUILDING SECTION
DIRECTION OF VIEW CUT
DIRECTION OF VIEW
VIEW ON SHEET
SHEET ON WHICH DETAIL OCCURS

EXTERIOR ELEVATION
DIRECTION OF VIEW
VIEW ON SHEET
SHEET ON WHICH DETAIL OCCURS

INTERIOR ELEVATION
INTERIOR ELEVATION VIEW NUMBER
SHEET ON WHICH INTERIOR ELEVATION OCCURS
FINISH SCHEDULE ELEVATION NUMBER

DETAIL REFERENCE TO DRAWINGS
VIEW ON SHEET
SHEET ON WHICH DETAIL OCCURS
DIRECTION OF VIEW

ROOM TAG
ROOM NAME
ROOM NUMBER

DOOR TAG
DOOR TAG
DOOR RATING

WINDOW TAG
WINDOW TAG

KEYNOTE
DEMO CONSTRUCTION KEY NOTE
NEW CONSTRUCTION KEY NOTE
NUMBER
ASSOCIATED DETAIL REFERENCE

CASEWORK IDENTIFICATION
DEPTH
HEIGHT
INDICATES SPECIAL CONDITION
W.I.C. NUMBER
LENGTH
LOCK
EXPLANATION OF SPECIAL CONDITION IF NEEDED

WALL TAG
WALL TYPE
STUD SIZE
SEE SHEET AD1.1 FOR WALL TYPE DESCRIPTIONS

SIGN TAG
SIGN TYPE MARK

ARCHITECTURAL SYMBOLS

GENERAL

T1	TITLE SHEET
A0-0.1	EGRESS PLAN/ BUILDING CODE ANALYSIS

GENERAL SHEET COUNT: 2

CIVIL

C-1.0	GRADING AND DRAINAGE
C-1.1	GRADING AND DRAINAGE

CIVIL SHEET COUNT: 2

LANDSCAPE

LI-1	IRRIGATION PLAN
LI-2	IRRIGATION LEGEND AND DETAILS
LP-1	PLANTING PLAN
LP-2	PLANTING LEGEND & DETAILS

LANDSCAPE SHEET COUNT: 4

ARCHITECTURAL

AS-1.1A	DEMOLITION SITE PLAN
AS-1.1	OVERALL SITE PLAN
AS-1.2	ENLARGED SITE PLANS
A1-1.1	FLOOR PLAN- DEMO
A1-1.2	FLOOR PLAN - NEW
A1-2.1	REFLECTED CEILING PLAN - DEMO
A1-2.2	REFLECTED CEILING PLAN - NEW
A1-5.1	BUILDING SECTIONS
A1-6.1	WALL SECTIONS
A1-7.1	ENLARGED PLANS / INTERIOR ELEVATIONS
A1-7.2	INTERIOR ELEVATIONS
A1-7.3	INTERIOR ELEVATIONS
A1-7.4	ENLARGED PLANS & INTERIOR ELEVATIONS
A1-7.5	ENLARGED PLANS & INTERIOR ELEVATIONS
A1-7.6	INTERIOR ELEVATIONS
A1-7.7	INTERIOR ELEVATIONS
A8.1	DOOR SCHEDULE & WINDOW TYPES
AD1.1	WALL DETAILS
AD4.1	CEILING DETAILS
AD5.1	ACCESSIBILITY & SIGNAGE
AD6.1	DOOR & WINDOW DETAILS
AD7.1	DETAILS
AD8.1	CASEWORK
ID-1.0	FINISHES PLAN / FINISH SCHEDULE & CMF LEGEND

ARCHITECTURAL SHEET COUNT: 24

STRUCTURAL

S0-1.1	GENERAL NOTES
S0-2.1	TYPICAL METAL STUD WALL FRAMING DETAILS
S1-1.2	FOUNDATION PLAN
S1-3.1	ROOF FRAMING PLAN
S2-1.1	DETAILS
S2-1.2	DETAILS

STRUCTURAL SHEET COUNT: 6

MECHANICAL

M0-1.0	MECHANICAL LEGEND, GENERAL NOTES
M1-1.0A	DEMO FLOOR PLAN
M1-1.0B	DEMO FLOOR PLAN
M1-2.0A	NEW ZONING PLAN
M1-2.0B	NEW ZONING PLAN
M1-2.1A	NEW FLOOR PLAN
M1-2.1B	NEW FLOOR PLAN
M5-1.0	MECHANICAL DETAILS
M5-1.1	MECHANICAL DETAILS

MECHANICAL SHEET COUNT: 9

PLUMBING

P0-1.0	PLUMBING LEGEND, GENERAL NOTES
P1-1.0	DEMO FLOOR PLAN
P1-1.1	DEMO FLOOR PLAN
P1-2.0	NEW FLOOR PLAN
P1-2.1	NEW FLOOR PLAN
P1-3.1	ENLARGED PLANS

PLUMBING SHEET COUNT: 6

ELECTRICAL

E1.0	ELECTRICAL SYMBOLS AND NOTES
E1.1	OVERALL SITE PLAN
E2.0	TITLE 24
E2.1	FLOOR PLAN_NEW A - LIGHTING
E2.2	FLOOR PLAN _NEW B - LIGHTING
E2.3	LIGHTING FIXTURE SCHEDULES
E2.4	LIGHTING DETAILS CIVIL
E2.5	LIGHTING CONTROL RISER DIAGRAM
E2.6	LIGHTING CONTROL DIAGRAMS
E3.1	FLOOR PLAN_NEW A - POWER
E3.2	FLOOR PLAN_NEW B - POWER
E3.3	POWER DETAILS
E4.0	COMMUNICATION LEGEND & NOTES
E4.1	FLOOR PLAN_NEW A - COMMUNICATIONS
E4.2	FLOOR PLAN_NEW B - COMMUNICATIONS
E4.3	COMMUNICATION RISER DIAGRAM
E4.4	COMMUNICATIONS DETAILS
E4.5	COMMUNICATIONS DETAILS
E4.6	COMMUNICATIONS DETAILS
E4.7	AUDIO VISUAL SYSTEM DETAILS
E5.1	FLOOR PLAN_ NEW A - FIRE ALARM
E5.2	FLOOR PLAN_NEW B - FIRE ALARM
E5.3	FIRE ALARM SCHEDULE
E5.4	FIRE ALARM RISER DIAGRAM
E5.5	FIRE ALARM CALCULATIONS
E7.1	ONE-LINE DIAGRAM
E9.1	PANEL SCHEDULES
E10.1	FLOOR PLAN_DEMO A
E10.2	FLOOR PLAN_DEMO B

ELECTRICAL SHEET COUNT: 29

FIRE PROTECTION

FP-1.0	FIRE PROTECTION GENERAL NOTES
FP-1.1	SITE FIRE PIPING PLAN
FP-2.0	LVL 1 PIPING PLAN - EXISTING
FP-2.1	LVL 1 PIPING PLAN - NEW
FP-3.0	LVL 1 REFLECTED CEILING PLAN - EXISTING
FP-3.1	LVL 1 REFLECTED CEILING PLAN - NEW
FP-4.0	FIRE PROTECTION DETAILS
FP-4.1	FIRE PROTECTION SECTIONS

FIRE PROTECTION SHEET COUNT: 8

SHADE STRUCT. - PC#04-117140

P.C. T-1.0	P.C. TITLE SHEET
P.C. T-2.0	DSA 103 FORMS
S.1-1000	PRODUCT INFORMATION
S.2-2000	REACTIONS

SHADE STRUCTURE SHEET COUNT: 4

TOTAL SHEET COUNT: 94

TOTAL SHEET COUNT: 94

SHEET LIST

FOR ARCHITECT/ENGINEERS WHO UTILIZE PLANS, INCLUDING BUT NOT LIMITED TO SHOP DRAWINGS, PREPARED BY OTHER LICENSED DESIGN PROFESSIONALS AND/OR CONSULTANTS

☒ THE DRAWINGS OR SHEETS LISTED ON THE INDEX SHEET

☐ THIS DRAWING, PAGE OF SPECIFICATIONS/CALCULATIONS

HAVE BEEN PREPARED BY OTHER DESIGN PROFESSIONALS OR CONSULTANTS WHO ARE LICENSED AND/OR AUTHORIZED TO PREPARE SUCH DRAWINGS IN THIS STATE. IT HAS BEEN EXAMINED BY ME FOR:

1) DESIGN INTENT AND APPEARS TO MEET THE APPROPRIATE REQUIREMENT OF TITLE 24, CALIFORNIA CODE OF REGUATIONS AND THE PROJECT SPECIFICATIONS PREPARED BY ME, AND
2) COORDINATION WITH THE PLANS AND SPECIFICATIONS AND IS ACCEPTABLE FOR INCOPORATION INTO THE CONSTRUCTION OF THIS PROJECT

THE STATEMENT OF GENERAL CONFORMANCE "SHALL NOT BE CONSTRUED AS RELIEVING ME OF MY RIGHTS, DUTIES, AND RESPONSIBILITIES UNDER SECTIONS 17802 AND 81138 OF THE EDUCATION CODE AND SECTIONS 4-336, 4-341, AND 4-344" OF TITLE 24, PART 1, (TITLE 24, PART 1, SECTION 4-317(b))

I FIND THAT: ☒ ALL DRAWINGS OR SHEETS LISTED ON THE COVER OR INDEX SHEET
☐ THIS DRAWINGS OR PAGE

☒ IS/ARE IN GENERAL CONFORMANCE WITH THE PROJECT DESIGN, AND

☒ HAS/HAVE BEEN COORDINATED WITH THE PROJECT PLANS AND SPECIFICATIONS

SIGNATURE — 2.16.21 DATE

ARCHITECT OR ENGINEER DESIGNATED TO BE IN GENERAL RESPONSIBLE CHARGE

DAVID RUHNAU — PRINT NAME

C-20662 — LICENSE NUMBER — **3-31-21** EXPIRATION DATE

STATEMENT OF GENERAL CONFORMANCE

1. ALTERATIONS TO ONE CLASSROOM BUILDING - A
2. CONSTRUCTION OF ONE SHADE SHELTER

SCOPE OF WORK

Owner
Grossmont Union High School District
1100 Murray Drive
El Cajon, CA 92020-5664
Phone: 619.454.8150
Contact: Katy Wright
kwright@guhsd.net

Civil
Cross Civil Engineering
4653 Carmel Mtn. Rd., Suite 308
San Diego, CA 92130
Phone:858.519.7783
Contact: Jeff Cross
jeff@crosscivilengineering.com

Specifications
Spec Studio, LLC
9783 E. Maplewood Ave.
Englewood, CO 80111
Phone: (909) 374-2011
Contact: Richard Conner
specstudio@icloud.com

Mechanical & Plumbing
MA Engineers
5160 Carroll Canyon Road
San Diego, CA 92121
Phone: (858) 200-0030
Contact: David Noji
dnoji@ma-engr.com
Michael Akavan
makavan@ma-engr.com
Roy Campbell
rcampbell@ma-engr.com

Sprinklers
Protection Design and Consulting
2851 Camino Del Rio South, Suite 210
San Diego, CA 92108
Phone: 619.255.8964 ext. 102
Contact: Steve Leyton
steve@protectiondesign.com

Architect
Ruhnau Clarke Architects
3775 Tenth St.
Riverside, CA 92501
Phone:951.684.4664
Contact: Elizabeth Sabol
esabol@ruhnauclarke.com
Contact: David Ruhnau
druhnau@rrcarch.com

Structural
KNA Structural Engineers, INC.
9931 Muirlands Blvd.
Irvine, CA 92618
Phone: (949) 462-3200
Contact: Larry Kaprielian
lkaprielian@knastructural.com

Landscape
MM+LA Associates
1982 White Birch Drive
Vista, CA 92081
Phone: (760) 525-2343
Contact: Brandt Maughan
bmaughan@mmlandarc.com

Electrical
Johnson Consulting Engineers
12875 Bookprinter Pl. #300
Poway, CA 92064
Phone: (858) 679-4030
Contact: John Frisbee
jfrisbee@JCE-INC.com

PC SHADE STRUCTURE
Shade Structures, INC
USA SHADE & Fabric Structures
1085 N. Main Ste. C
Orange, CA 92867
Phone: (949) 466-4592
Contact: Patti Abrecht
pabrecht@usa-shade.com

CONTACT LIST

FEBRUARY 17, 2020 - DSA SUBMITTAL

PROJECT No. :1-30-47
2/16/2021 5:17:17 PM
DRAWN BY: CHECKED BY:

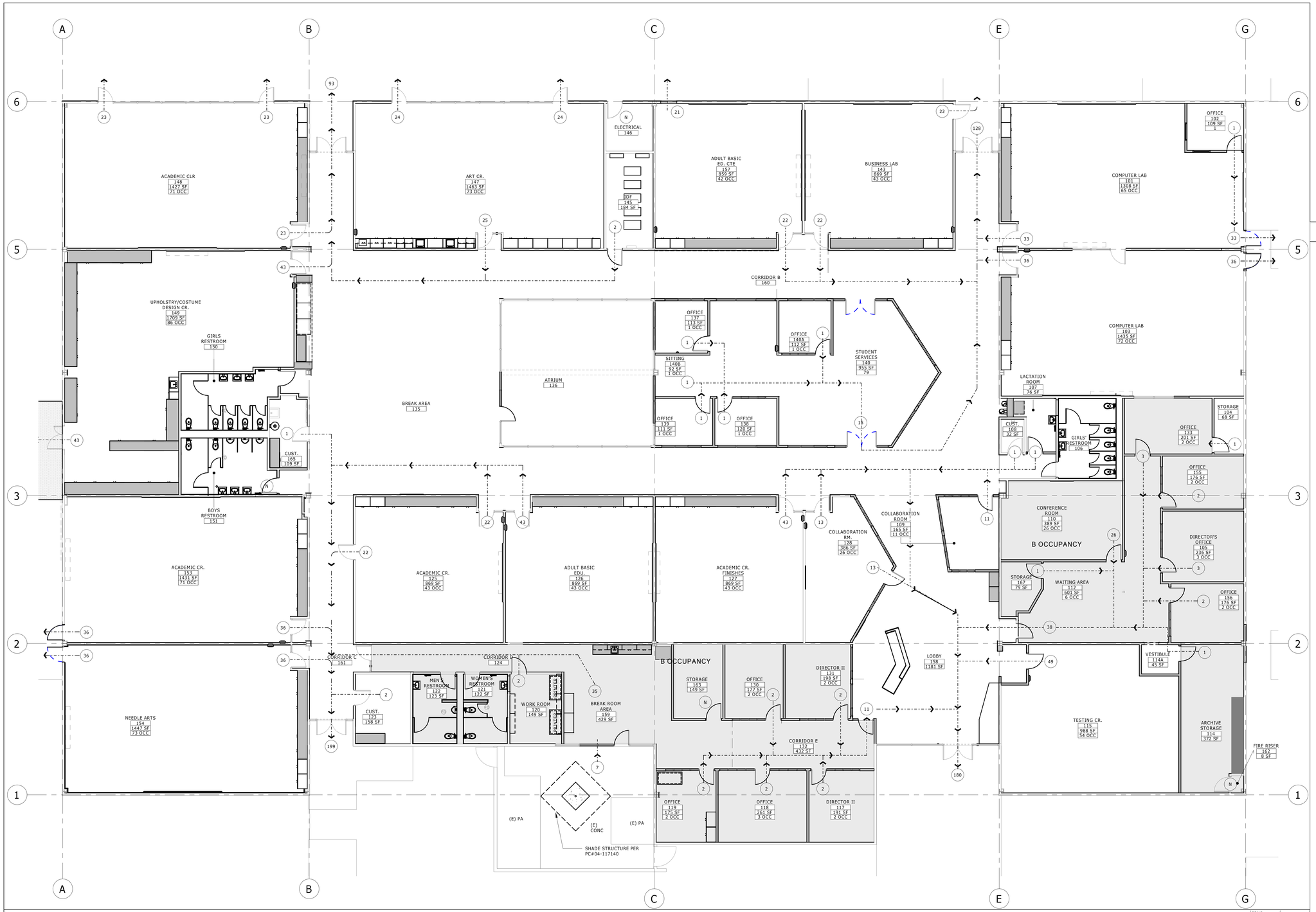
REVISION:____ DATE ____ DESCRIPTION ____

GROSSMONT UNION HIGH SCHOOL DISTRICT

TITLE SHEET

T1

1-30-47



EGRESS PLAN — SCALE: 1/8" = 1'-0" — REF.: 4/A1.7-6 — 1

BUILDING NAME	BUILDING ANALYSIS							SECTION 508.3.3			TABLE 601 & 602							TABLE 705.8
	OCC. TYPE	CONST. TYPE	STORY (ALLOWABLE) TABLE 504.4	STORY (ACTUAL)	BUILDING HT ALLOWABLE (TABLE 504.3)	BUILDING HT (ACTUAL)	ALLOWABLE BLDG AREA (TABLE 506.2)	MIXED OCCUPANCY SINGLE STORY	MIXED USE OCCUPANCY	SEPARATION BETWEEN OCCUPANCY	AUTO SPRINKLER SYSTEM	FIRE RESITIVE REQUIREMENTS FOR BUILDING ELEMENTS (TYPE V B)							
												PRIMARY STRUCT FRAME	BEARING WALLS		NON-BEARING WALLS		FLOOR CONSTRUCTION	ROOF CONSTRUCTION	MAX AREA OF WALL OPENING
													INTERIOR WALLS	EXTERIOR WALLS	INTERIOR WALLS	EXTERIOR WALLS			
A	B	V-B	3	1	40'	14'-6"	36,000 SF	5,016 SF	5,016/36,000 =.139 26,864/38,000 =.706 1,000/6,000 =.167	NON SEPERATED OCCUPANCIES 508.3	YES	0	0	0	0	0	0	0	N/A
	E	V-B	2	1	60'	14'-6"	38,000 SF	26,864 SF											
SHADE STRUCTURE	A-2	V-B	1	1	40'	15'-5" (MAX)	6,000 SF	100 SF	1.01< =2		NO								

BUILDING CODE ANALYSIS — SCALE: 12" = 1'-0" — REF.: / — 2

AGENCY APPROVAL
File No: 37-H4

LICENSED ARCHITECT — David Ruhnau — C-20662 — 03/31-2021 — RENEWAL DATE — STATE OF CALIFORNIA

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-119728 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/18/2021

STAMPS

CONSULTANT BRANDING

RUHNAU CLARKE ARCHITECTS

EGRESS LEGEND

- E OCCUPANCY
- B OCCUPANCY
- FIRE EXTINGUISHER CABINET PER DETAIL 16 AD1.1

FEBRUARY 17, 2020 - DSA SUBMITTAL

PROJECT No. :1-30-47
2/16/2021 4:56:54 PM
DRAWN BY: CHECKED BY:

REVISION:____ DATE ____ DESCRIPTION ____

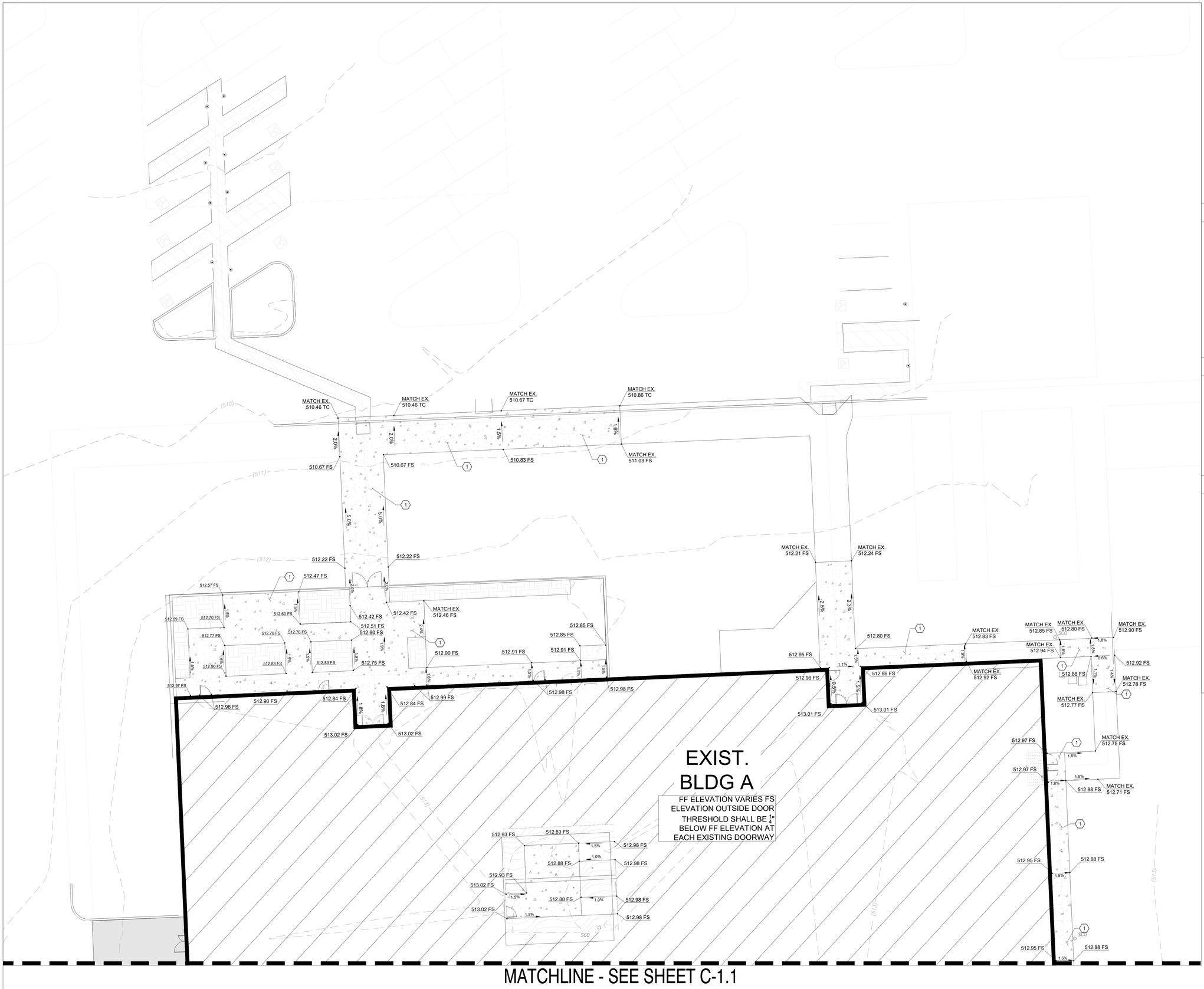
RUHNAUCLARKE.COM
3775 TENTH STREET, RIVERSIDE CALIFORNIA 92501 (951) 684 4664 / 5751 PALMER WAY, SUITE C, CARLSBAD CALIFORNIA 92010 (760) 438 5899

FOOTHILLS ADULT EDUCATION CENTER
1550 Melody Lane El Cajon, CA 92019
GROSSMONT UNIFIED HIGH SCHOOL DISTRICT

EGRESS PLAN/ BUILDING CODE ANALYSIS

A0-0.1

1-30-47



AGENCY APPROVAL
File No:

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-119728 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/18/2021

STAMPS

CROSS CIVIL ENGINEERING
4653 CARMEL MOUNTAIN RD, SUITE 308, SAN DIEGO, CA 92130

CONSULTANT BRANDING

RUHNAU CLARKE ARCHITECTS

CONSTRUCTION KEY NOTES

1 PROVIDE CONCRETE FLATWORK PER ARCHITECTURAL PLANS.

GENERAL NOTES

A. PROTECT IN PLACE ALL EXISTING IMPROVEMENTS, STRUCTURES AND UNDERGROUND UTILITIES WHICH ARE TO REMAIN. MAINTAIN UTILITY SERVICES TO ALL EXISTING FACILITIES AT ALL TIMES, UNLESS OTHERWISE SPECIFIED.

B. THE LOCATION AND EXISTENCE OF EXISTING UNDERGROUND UTILITIES SHOWN ON THE DRAWINGS WERE OBTAINED FROM RECORD DRAWINGS PROVIDED BY THE CITY OF ENCINITAS AND THE SDUHSD. THE CONTRACTOR SHALL POTHOLE EXISTING UTILITIES AT POINTS OF CONNECTIONS AND ALL UTILITY CROSSINGS TO DETERMINE EXACT LOCATION PRIOR TO STARTING WORK.

C. THE CONTRACTOR SHALL NOTIFY DIGALERT (811) AT LEAST TWO DAYS PRIOR TO STARTING WORK AND SHALL ARRANGE FOR AND COORDINATE ANY UTILITY SHUT DOWNS. THE CONTRACTOR SHALL HIRE PRIVATE UTILITY LOCATION SERVICES IN LOCATIONS ONSITE NOT COVERED BY DIGALERT.

D. COORDINATE LOCATION OF ALL UNDERGROUND UTILITIES AND STORM DRAINS WITH LANDSCAPE TREE LOCATIONS, ELECTRICAL AND PLUMBING UTILITIES, AND OTHER INSTALLATIONS. REFER TO EACH DISCIPLINES PLANS FOR ADDITIONAL INFORMATION.

E. CONTRACTOR SHALL PROVIDE ALL EROSION CONTROL MEASURES DURING CONSTRUCTION, PER STATE CONSTRUCTION GENERAL PERMIT AND CAL GREEN BUILDING CODE.

CIVIL LEGEND

- PROPOSED CONCRETE PAVING
- PROPOSED ASPHALT PAVING
- PROPOSED ATRIUM PLANTING
- PROPOSED LANDSCAPING
- PROPOSED SPOT ELEVATION — 21.70 FS
- EXISTING CONTOUR — (100)
- EXISTING SEWER PIPING — S
- EXISTING WATER PIPING — W
- EXISTING STORM PIPING — SD
- EXISTING FIRE WATER PIPING — FW
- EXISTING GAS PIPING — G

GRAPHIC SCALE
10 0 10 20
(IN FEET)
1 INCH = 10 FT

FEBRUARY 17, 2020 - DSA SUBMITTAL

PROJECT No. : 1-30-47
DRAWN BY: CHECKED BY:

REVISION:____ DATE _____ DESCRIPTION _____

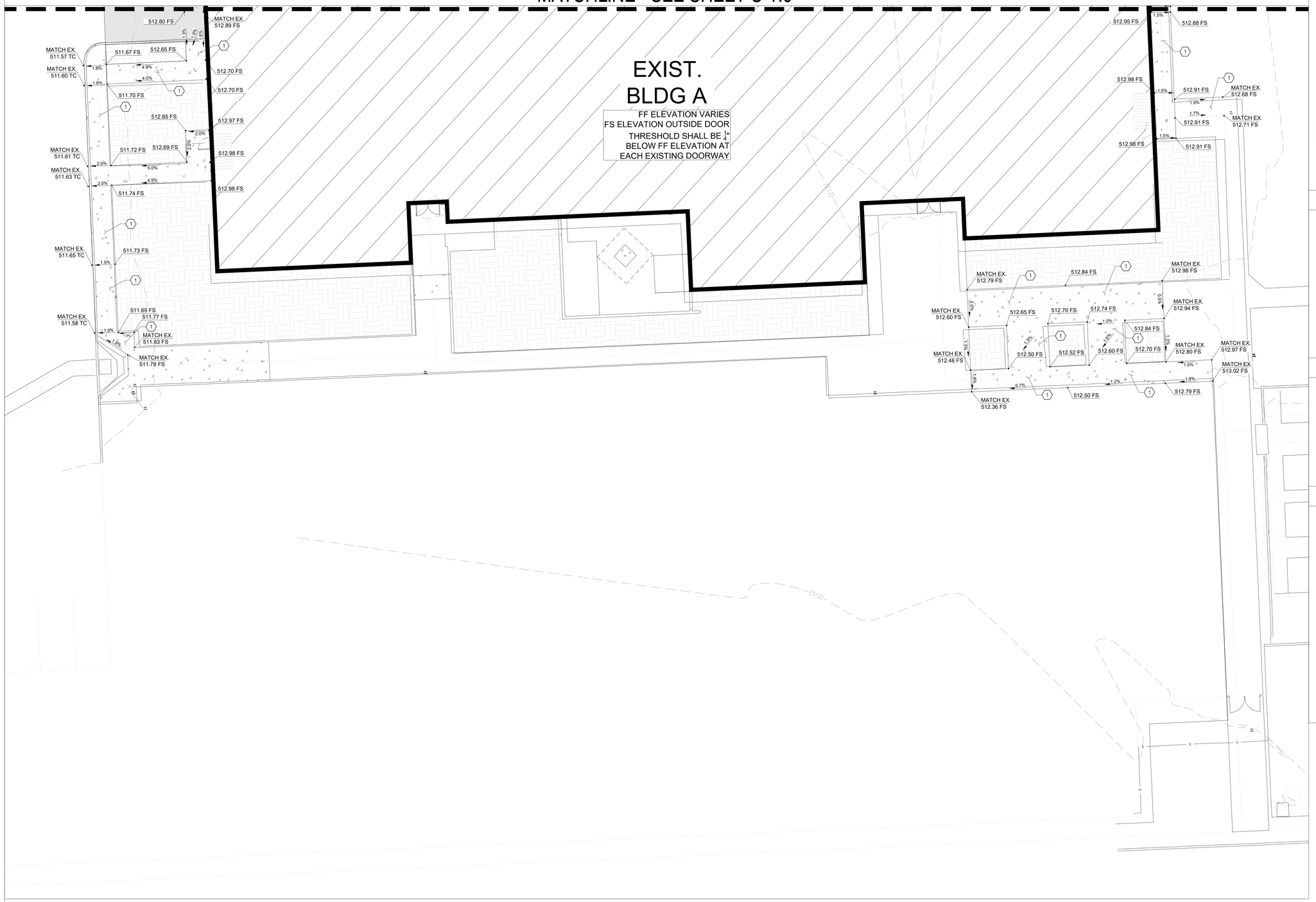
GROSSMONT UNION HIGH SCHOOL DISTRICT

RUHNAUCLARKE.COM
3775 TENTH STREET, RIVERSIDE CALIFORNIA 92501(951) 684 4664 / 5751 PALMER WAY, SUITE C, CARLSBAD CALIFORNIA 92(760) 438 5899

FOOTHILLS ADULT EDUCATION CENTER
1550 Melody Lane El Cajon, CA 92019
GROSSMONT UNIFIED HIGH SCHOOL DISTRICT

GRADING AND DRAINAGE

C-1.0



AGENCY APPROVAL
File No:

PROFESSIONAL ENGINEER — MATT RENO CROSS — NO. 67530 — Expires 6/30/2021 — CIVIL — STATE OF CALIFORNIA

LICENSED ARCHITECT — Ruhnau Clarke — C-20662 — 03-31-2021 RENEWAL DATE — STATE OF CALIFORNIA

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-119728 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/18/2021

STAMPS

CROSS CIVIL ENGINEERING
4653 CARMEL MOUNTAIN RD, SUITE 308, SAN DIEGO, CA 92130
CONSULTANT BRANDING

RUHNAU CLARKE ARCHITECTS

CONSTRUCTION KEY NOTES

1. PROVIDE CONCRETE FLATWORK PER ARCHITECTURAL PLANS.

GENERAL NOTES

A. PROTECT IN PLACE ALL EXISTING IMPROVEMENTS, STRUCTURES AND UNDERGROUND UTILITIES WHICH ARE TO REMAIN. MAINTAIN UTILITY SERVICES TO ALL EXISTING FACILITIES AT ALL TIMES, UNLESS OTHERWISE SPECIFIED.

B. THE LOCATION AND EXISTENCE OF EXISTING UNDERGROUND UTILITIES SHOWN ON THE DRAWINGS WERE OBTAINED FROM RECORD DRAWINGS PROVIDED BY THE CITY OF ENCINITAS AND THE SDUHSD. THE CONTRACTOR SHALL POTHOLE EXISTING UTILITIES AT POINTS OF CONNECTIONS AND ALL UTILITY CROSSINGS TO DETERMINE EXACT LOCATION PRIOR TO STARTING WORK.

C. THE CONTRACTOR SHALL NOTIFY DIGALERT (811) AT LEAST TWO DAYS PRIOR TO STARTING WORK AND SHALL ARRANGE FOR AND COORDINATE ANY UTILITY SHUT DOWNS. THE CONTRACTOR SHALL HIRE PRIVATE UTILITY LOCATION SERVICES IN LOCATIONS ONSITE NOT COVERED BY DIGALERT.

D. COORDINATE LOCATION OF ALL UNDERGROUND UTILITIES AND STORM DRAINS WITH LANDSCAPE TREE LOCATIONS, ELECTRICAL AND PLUMBING UTILITIES, AND OTHER INSTALLATIONS. REFER TO EACH DISCIPLINES PLANS FOR ADDITIONAL INFORMATION.

E. CONTRACTOR SHALL PROVIDE ALL EROSION CONTROL MEASURES DURING CONSTRUCTION, PER STATE CONSTRUCTION GENERAL PERMIT AND CAL GREEN BUILDING CODE.

CIVIL LEGEND

PROPOSED CONCRETE PAVING	
PROPOSED ASPHALT PAVING	
PROPOSED ATRIUM PLANTING	
PROPOSED LANDSCAPING	
PROPOSED SPOT ELEVATION	21.70 FS
EXISTING CONTOUR	(100)
EXISTING SEWER PIPING	S
EXISTING WATER PIPING	W
EXISTING STORM PIPING	SD
EXISTING FIRE WATER PIPING	FW
EXISTING GAS PIPING	G

GRAPHIC SCALE
10 0 10 20
(IN FEET)
1 INCH = 10 FT

FEBRUARY 17, 2020 - DSA SUBMITTAL

PROJECT No. : 1-30-47

DRAWN BY: CHECKED BY:

REVISION:____ DATE _____ DESCRIPTION _____

GROSSMONT UNION HIGH SCHOOL DISTRICT

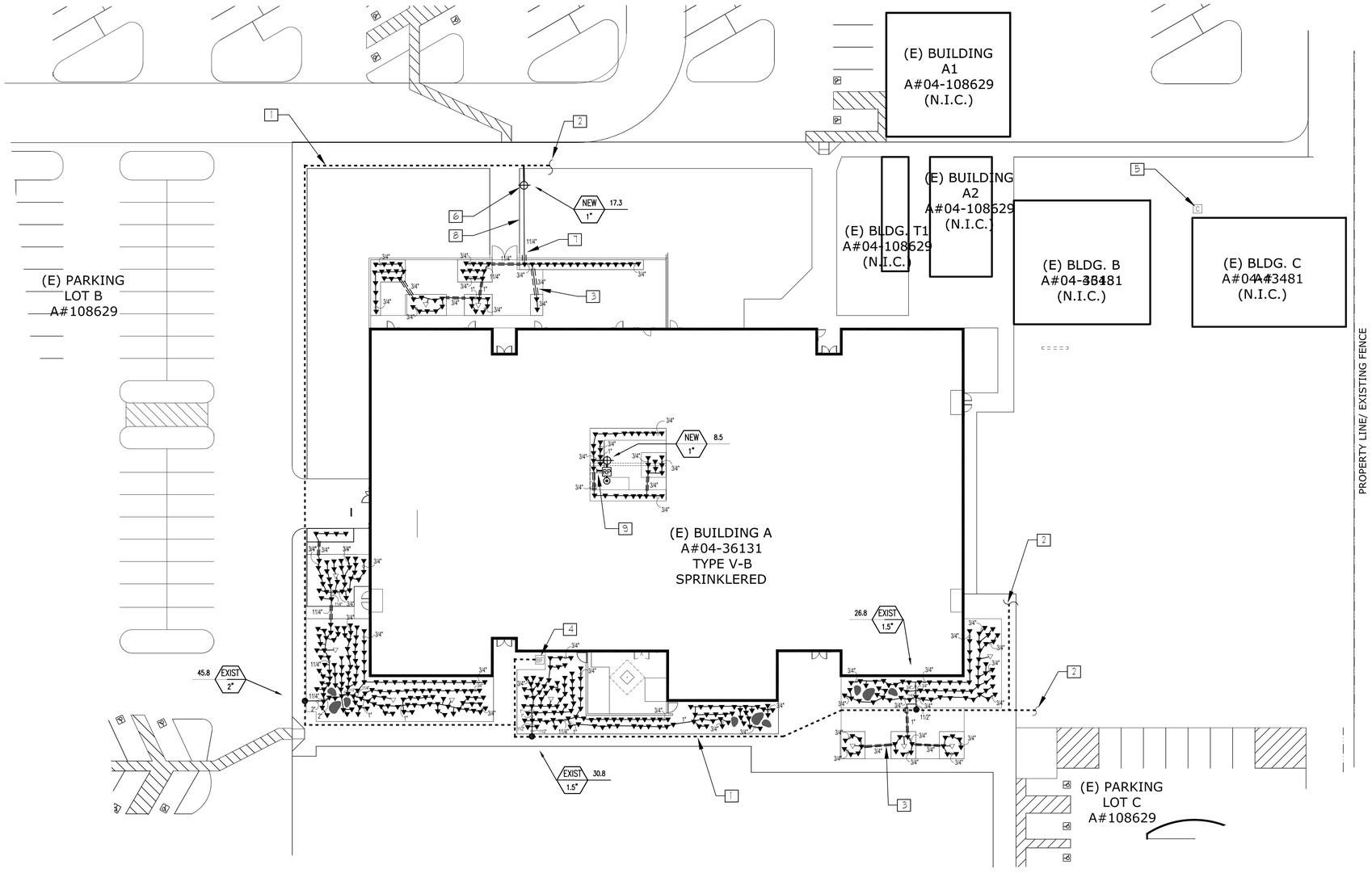
RUHNAUCLARKE.COM

3775 TENTH STREET, RIVERSIDE CALIFORNIA 92501(951) 684 4664 / 5751 PALMER WAY, SUITE C, CARLSBAD CALIFORNIA 92010 438 5899

FOOTHILLS ADULT EDUCATION CENTER
1550 Melody Lane El Cajon, CA 92019
GROSSMONT UNIFIED HIGH SCHOOL DISTRICT

GRADING AND DRAINAGE

C-1.1



GENERAL IRRIGATION NOTES

1. ALL LOCAL MUNICIPAL AND STATE LAWS, RULES AND REGULATIONS GOVERNING OR RELATING TO ANY PORTION OF THIS WORK ARE HEREBY INCORPORATED INTO AND MADE A PART OF THIS WORK AND THEIR PROVISIONS SHALL BE CARRIED OUT BY THE CONTRACTOR.
2. THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL EXISTING UTILITIES, STRUCTURES AND SERVICES BEFORE COMMENCING WORK. THE LOCATIONS OF UTILITIES, STRUCTURES AND SERVICES SHOWN IN THESE PLANS ARE APPROXIMATE ONLY. ANY DISCREPANCIES BETWEEN THESE PLANS AND ACTUAL FIELD CONDITIONS SHALL BE REPORTED TO THE OWNER'S REPRESENTATIVE.
3. THE CONTRACTOR SHALL OBTAIN THE PERTINENT ENGINEERING OR ARCHITECTURAL PLANS BEFORE BEGINNING WORK.
4. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS REQUIRED TO PERFORM THE WORK INDICATED HEREIN BEFORE BEGINNING WORK.
5. THIS DESIGN IS DIAGRAMMATIC. ALL EQUIPMENT SHOWN IN PAVED AREAS IS FOR DESIGN CLARITY ONLY AND IS TO BE INSTALLED WITHIN PLANTING AREAS.
6. THE CONTRACTOR SHALL NOT WILLFULLY INSTALL ANY EQUIPMENT AS SHOWN ON THE PLANS WHEN IT IS OBVIOUS IN THE FIELD THAT UNKNOWN CONDITIONS EXIST THAT WERE NOT EVIDENT AT THE TIME THESE PLANS WERE PREPARED. ANY SUCH CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE PRIOR TO ANY WORK OR THE IRRIGATION CONTRACTOR SHALL ASSUME ALL RESPONSIBILITY FOR ANY FIELD CHANGES DEEMED NECESSARY BY THE OWNER.
7. INSTALL ALL EQUIPMENT AS SHOWN IN THE DETAILS AND SPECIFICATIONS. CONTRACTOR SHALL BE RESPONSIBLE TO COMPLY WITH LOCAL CITY, COUNTY AND STATE REQUIREMENTS FOR BOTH EQUIPMENT AND INSTALLATION.
8. ALL PIPE UNDER PAVED AREAS TO BE INSTALLED IN SLEEVING TWICE THE DIAMETER OF THE PIPE CARRIED. SEE LEGEND FOR TYPE. ALL WIRE UNDER PAVED AREAS TO BE INSTALLED IN A SCH. 40 SLEEVE THE SIZE REQUIRED TO EASILY PULL WIRE THROUGH. ALL SLEEVES TO BE INSTALLED WITH A MINIMUM DEPTH AS SHOWN ON THE SLEEVING DETAILS. SLEEVES TO EXTEND AT LEAST 12" PAST THE EDGE OF THE PAVING.
9. THE CONTRACTOR SHALL ADJUST ALL SPRINKLERS, AS REQUIRED TO ACCOMMODATE ANY VERTICAL OBSTRUCTIONS THAT MAY OCCUR, INCLUDING BUT NOT LIMITED TO LIGHT POLES, FIRE HYDRANTS, ETC. VERIFY ALL HEAD LAYOUT WITH OWNER'S AUTHORIZED REPRESENTATIVE PRIOR TO STARTING WORK.
10. ONCE THE SYSTEM IS INSTALLED, THE CONTRACTOR SHALL COORDINATE WITH THE DISTRICT REPRESENTATIVE TO REPROGRAM THE EXISTING CONTROLLER TO INCORPORATE VALVE STATIONING.
11. THE CONTRACTOR SHALL PROTECT EXISTING MAINLINE AND REMOTE CONTROL WIRING, IN PLACE, WHEN TRENCHING IN GENERAL AREA ADJACENT TO THIS EQUIPMENT AND SHALL REPORT ANY DAMAGE TO EXISTING PIPING AND WIRING. CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIR AND PAYMENT OF SUCH DAMAGE.

SITE SPECIFIC IRRIGATION NOTES:

1. EXISTING IRRIGATION MAINLINE AND REMOTE CONTROL WIRES TO REMAIN. THESE ARE LOCATED IN PLANTING AREAS AND SHALL BE PROTECTED IN PLACE DURING TRENCHING FOR NEW SYSTEM.
2. CONTINUATION OF EXISTING IRRIGATION MAINLINE AND REMOTE CONTROL WIRES - APPROXIMATE LOCATION.
3. PROPOSED LOCATION OF SLEEVING / BORING BENEATH EXISTING CONCRETE. CONTRACTOR SHALL USE EXISTING SLEEVES IF THEY ARE IN THE CORRECT LOCATION AND ARE THE CORRECT SIZE. COORDINATE WITH DISTRICT REPRESENTATIVE FOR SLEEVE LOCATIONS.
4. EXISTING 3" REDUCED PRESSURE BACKFLOW DEVICE FOR IRRIGATION SYSTEM. RELOCATE, AS REQUIRED, TO NEW PLANTING AREA. COORDINATE LOCATION WITH DISTRICT REPRESENTATIVE.
5. EXISTING SITE IRRIGATION CONTROLLER. COORDINATE WITH DISTRICT REPRESENTATIVE, FOLLOWING INSTALLATION, FOR CONTROLLER ACCESS. COORDINATE VALVE STATION NUMBERING AND TIMING.
6. INSTALL NEW REMOTE CONTROL VALVE - BATTERY OPERATED. REFER TO IRRIGATION LEGEND FOR NOMENCLATURE. CONNECT TO EXISTING MAINLINE PIPING WITH BATTERY CONTROL.
7. CORE THROUGH EXISTING WALL, ABOVE FOOTINGS AND BELOW GRADE FOR PROPOSED IRRIGATION LATERAL PIPING. INSTALL NEW PIPING IN PVC SLEEVE THROUGH WALL AND BENEATH PAVEMENT TO PLANTING AREA.
8. CONTRACTOR SHALL MAKE ADJUSTMENTS TO EXISTING SPRAY / ROTOR HEADS AT EDGE OF EXISTING WALKWAY TO INSURE THAT NEW TURF IS SUFFICIENTLY IRRIGATED THROUGHOUT MAINTENANCE PERIOD.
9. EXISTING ATRIUM HOSE BIB. REMOVE HOSE BIB AND MAKE PERMANENT COPPER/BRASS HOT CONNECTION - 1" LINE. ADD REDUCED PRESSURE BACKFLOW DEVICE. INSTALL BOTH QUICK COUPLER AND REMOTE CONTROL VALVE DOWNSTREAM OF BACKFLOW DEVICE. QUICK COUPLER WILL ALLOW FOR CONTINUED USE OF HOSE CONNECTION.

LANDSCAPE IRRIGATION WATER BUDGET (FOR NEW LANDSCAPE AREAS ONLY)
(based on MWELO)

PROJECT: Foothills Adult Education Center
Grossmont Unified High School District
El Cajon, California

Project ETo: 51.10

MAXIMUM APPLIED WATER ALLOWANCE:
(GALLONS PER YEAR)

MAWA=(ETo)x(.62)x[(.65)(LA)+(.35)(SLA)]

51.10 x 0.62 x 4,604 + 60 = **147,747** Gal/yr.
Hundred Cu. Ft. / Yr. (divide by748) = **198** CCF/yr.

ESTIMATED APPLIED WATER USED:
(GALLONS PER YEAR)

ETWU=(ETo) x (.62) x [(Plant Factorxi(Hydrozone Sq. Ft.)) / Irrigation Efficiency] + SLA

HYDROZONE # 1: (Shrub Areas - Bubblers)
51.10 x 0.62 x 0.5 x 7,083 / 0.9 + 0 = 124,669 Gal/yr.

HYDROZONE # 2: (Turf Areas - Spray Heads)
51.10 x 0.62 x 0.7 x 170 / 0.75 + 0 = 5,027 Gal/yr.

MAXIMUM APPLIED WATER ALLOWANCE: 147,747 Gal/yr.

TOTAL ESTIMATED WATER USE: 129,696 Gal/yr.
173 CCF/yr.

Water Conservation Note: This is an existing school modernization project. New landscape areas consist of decomposed granite and tree and shrub plantings. Existing frontage grass areas are being removed. Spray irrigation systems are being removed and replaced with bubblers. Water saving strategies are being implemented in the improved areas.

SEE SHEET LI-2 FOR IRRIGATION LEGEND AND DETAILS.

0 10 20 40 80 NORTH
SCALE 1"=20'-0"

STAMPS

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-119728 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/18/2021

CONSULTANT BRANDING

MM+LA ASSOCIATES
1982 White Birch Drive, Vista, CA 92081
Tel. 760-525-2343

RUHNAU CLARKE ARCHITECTS

FEBRUARY 17, 2021 - DSA BACKCHECK

PROJECT No. : 1-30-47
2/16/2021 4:27 PM

DRAWN BY: CHECKED BY:

ISSUE No._____ DATE_____ DESCRIPTION_____
ISSUE No._____ DATE_____ DESCRIPTION_____
ISSUE No._____ DATE_____ DESCRIPTION_____
ISSUE No._____ DATE_____ DESCRIPTION_____

REVISION No._____ DATE_____ DESCRIPTION_____
REVISION No._____ DATE_____ DESCRIPTION_____
REVISION No._____ DATE_____ DESCRIPTION_____
REVISION No._____ DATE_____ DESCRIPTION_____

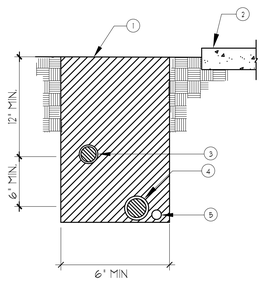
RUHNAUCLARKE.COM
3775 TENTH STREET, RIVERSIDE CALIFORNIA 92501 (951) 684 4664 / 5751 PALMER WAY, SUITE C, CARLSBAD CALIFORNIA 92010 (760) 438 5899

FOOTHILLS ADULT EDUCATION CENTER
1550 Melody Lane, El Cajon, CA 92019
GROSSMONT UNIFIED HIGH SCHOOL DISTRICT

Irrigation Plan

LI-1

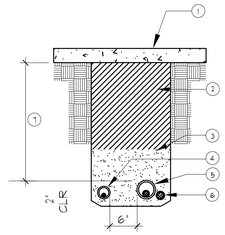
1-30-47



1. SATURATE AND COMPACT BACKFILL TO 90%.
2. FINISH SURFACE.
3. NON-PRESSURE LATERAL LINE.
4. PRESSURE MAIN LINE.
5. DIRECT BURIAL, LOW VOLTAGE CONTROL WIRES, BUNDLE AT 10 FT. O.C. HARD WIRE AT CONTROLLER.

NOTE: 1. SEE SLEEVING DETAIL FOR TRENCHING IN PAVED AREAS.
2. INSTALL TRACER WIRE PARALLEL WITH MAIN LINE WHERE CONTROL WIRES DO NOT OCCUR.

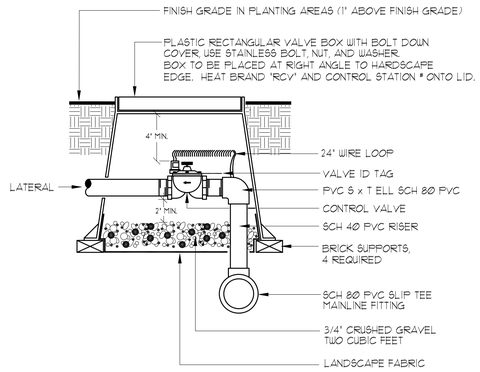
A TRENCHING DETAIL
NO SCALE



ALL SLEEVES TO BE PVC, SCH. 40 AND TWICE THE DIA. OF THE WORKING PIPE.
ALL SLEEVES TO RUN A MIN. OF 12" BEYOND HARDSCAPE EDGES.
CLEAN BACKFILL SHALL BE CLASS A CLEAN FILL SAND.

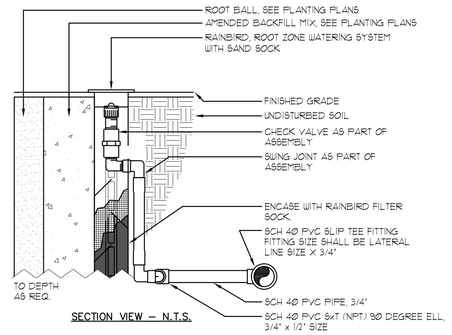
1. HARDSCAPE SURFACE.
2. CLEAN BACKFILL AS REQ. TO BE SET IN 6" LIFTS.
3. CLEAN SAND.
4. LATERAL LINE W/ SLEEVE.
5. PRESSURE MAIN LINE W/ SLEEVE.
6. CONTROL WIRES & RELAY WIRE SLEEVE. INSTALL TRACER WIRE PARALLEL WITH MAIN LINE WHERE CONTROL WIRES DO NOT OCCUR.
7. MIN. DEPTH: 24" UNDER WALKS. 30" UNDER DRIVEWAYS.

B SLEEVING DETAIL
NO SCALE



SECTION VIEW - N.T.S.

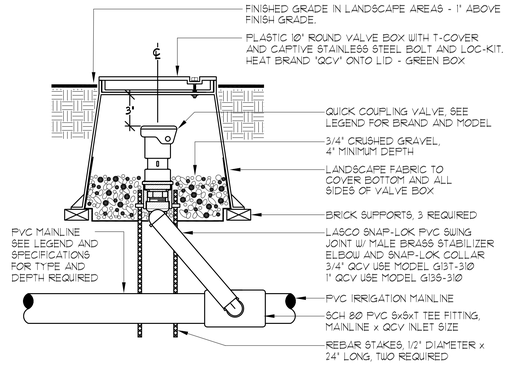
C REMOTE CONTROL VALVE
NO SCALE



SECTION VIEW — N.T.S.

NOTE:
INSTALL BUBBLER SO THAT WATER IS APPLIED TO ROOT BALL AND SURROUNDING SOIL.
USE TEFLON TAPE ON ALL THREADED CONNECTIONS.

D SUB-SURFACE BUBBLER - TREES AND SHRUBS
NO SCALE



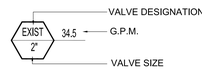
SECTION VIEW — N.T.S.

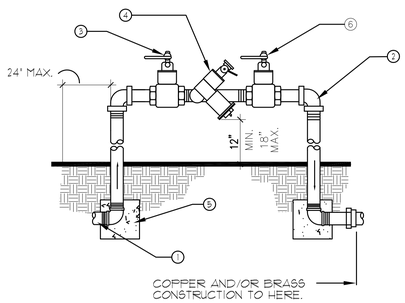
NOTE:
USE AN APPROVED, NON-HARDENING, TEFLON ASSEMBLY PASTE ON ALL THREADED FITTINGS.

E QUICK COUPLER DETAIL
NO SCALE

IRRIGATION MATERIAL LEGEND

SYMBOL	MANUFACT.	MODEL NO. / DESCRIPTION	GPM	PSI	RADIUS	DETAIL
▼	RAINBIRD	RWS-S-B-C-1401 SERIES SHRUB BUBBLER W/ RWS SOCK	.25	30	N/A	D/LI-2
▽	RAINBIRD	RWS-B-C-1402 SERIES BUBBLER W/ RWS SOCK EACH SYMBOL REPRESENTS TWO BUBBLERS PER TREE	.50 (1.0)	30	N/A	D/LI-2
⊕	RAINBIRD	MODEL EFB-CP-PRS-D (1") SERIES REMOTE CONTROL VALVE. INSTALL HUNTER NODE-200 BATTERY POWERED WATERPROOF CONTROLLER IN VALVE BOX. WIRE TO VALVE AND PROGRAM TIMING FOR WATERING PLANTING IN PATIO AT NORTH SIDE OF BUILDING AND AT ATRIUM. VERIFY OPERATION WITH DISTRICT REPRESENTATIVE.				C/LI-2
●	EXISTING	REMOTE CONTROL VALVE ATTACHED TO SYSTEM REMOTE CONTROL WIRING. PROTECT IN PLACE WHILE WORKING ADJACENT.				N/A
C	EXISTING	AUTOMATIC IRRIGATION CONTROLLER - COORDINATE STATIONING AND TIMING WITH DISTRICT REPRESENTATIVE.				N/A
BF	EXISTING	3" REDUCED PRESSURE BACKFLOW DEVICE - RELOCATE AS DIRECTED BY DISTRICT REPRESENTATIVE PER PLUMBING CODES.				N/A
RP	FEBCO	825Y - 1" REDUCED PRESSURE BACKFLOW DEVICE - INSTALL PER MANUFACTURER'S RECOMMENDATIONS.				F/LI-2
◉	RAINBIRD	33-DRC QUICK COUPLER VALVE W/ QUICK COUPLER KEY, INSTALL WITHIN 10" ROUND GREEN VALVE BOX.				E/LI-2
———	AS APPROVED	PVC PIPE 3/4" - 1-1/4" SCH. 40 AS LATERAL LINES 12" BELOW GRADE.				A/LI-2
— - —	AS APPROVED	PVC PIPE - 1-1/2" CL. 315 - PIPE SHALL BE SOLVENT WELD AS MAINLINES 18" BELOW GRADE.				A/LI-2
- - - - -	EXISTING	PVC MAINLINE PIPE - PROTECT IN PLACE DURING CONSTRUCTION.				N/A
= = = = =	AS APPROVED	PVC PIPE SCH. 40 AS SLEEVING, TWICE THE DIAMETER OF PIPE OR WIRE BUNDLE CARRIED. PLACE BELOW ALL PAVING, HARDSCAPE ETC. AND AS DIRECTED BY THE DISTRICT'S AUTHORIZED REPRESENTATIVE. USE EXISTING SLEEVING WHERE LOCATION AND SIZE MATCHES NEW DESIGN.				B/LI-2
NO SYMBOL	EXISTING	IRRIGATION CONTROL WIRE ADJACENT TO PVC MAINLINE. PROTECT IN PLACE DURING CONSTRUCTION.				N/A
NO SYMBOL	3M	DBY-6 DIRECT BURIAL WATER-PROOF WIRE CONNECTORS FOR USE ON ALL WIRE CONNECTIONS (U.L. APPROVED).				C/LI-2
NO SYMBOL	CARSON	ALL NEW VALVE BOXES SHALL BE GREEN PLASTIC WITH STAINLESS STEEL BOLTS, NUTS AND WASHERS AND CHRISTY'S VALVE IDENTIFICATION TAGS. USE CARSON MODELS 910-4B AND 1419-12-2B, HINGED.				C/LI-2
NO SYMBOL	AS APPROVED	ALL SLIP PVC FITTINGS SHALL BE SCHEDULE 40 PVC TYPE - FOR MAINLINE USE SCHEDULE 80 PVC.				N/A
NO SYMBOL	AS APPROVED	ALL THREADED PVC FITTINGS AND NIPPLES FOR MAINLINE SHALL BE SCHEDULE 80 PVC TYPE.				N/A





1. APPROPRIATE SIZED COPPER OR THREADED BRASS PIPE - CONNECT TO EXISTING WATER LINE.
2. COPPER 90° ELL SWEAT OR THREADED BRASS.
3. NO.1 BALL VALVE - BRASS BODIED.
4. REDUCED PRESSURE BACKFLOW DEVICE.
5. THRUST BLOCK (TYPICAL).
6. NO. 2 BALL VALVE.

CONSTRUCTION NOTES:

1. REDUCED PRESSURE PRINCIPLE ASSEMBLIES SHALL BE AS APPROVED BY THE AGENCY HAVING JURISDICTION AND SHALL BE INSTALLED IN SUCH A MANNER THAT THEY SHALL BE READILY ACCESSIBLE FOR INSPECTION AND REPAIR.
2. STRAINERS SHALL NOT BE INSTALLED BEFORE NO. 1 BALL VALVE.
3. ALL JOINTS SHALL BE THREADED OR BRAZED. (BRAZING SHALL BE WITH LEAD FREE OR SILVER SOLDER).
4. REQUIRED MAINTENANCE OF THE ASSEMBLY AND ASSOCIATED PIPING SHALL NOT BE PERFORMED BY THE AGENCY HAVING JURISDICTION.

F REDUCED PRESSURE BACKFLOW DEVICE
NO SCALE

STAMPS

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-119728 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/18/2021

CONSULTANT BRANDING

MM+LA ASSOCIATES
1982 White Birch Drive, Vista, CA 92081
Tel. 760-525-2343

RUHNAU CLARKE ARCHITECTS

FEBRUARY 17, 2021 - DSA BACKCHECK

EXISTING TREES TO REMAIN (TYP.) - REFER TO LEGEND SHEET LP-2.

V | 12 | 5 GAL | PIT VAR

31 | 5 GAL | LAN MON

6 | 36" BOX | LAG NAT

60 | 5 GAL | SAL GRE

(E) BUILDING A1 A#04-108629 (N.I.C.)

(E) BUILDING A2 A#04-108629 (N.I.C.)

(E) BLDG. T1 A#04-108629 (N.I.C.)

(E) BLDG. B A#04-36481 (N.I.C.)

(E) BLDG. C A#04-36481 (N.I.C.)

(E) PARKING LOT B A#108629

(E) BUILDING A A#04-36131 TYPE V-B SPRINKLERED

(E) PARKING LOT C A#108629

4 | 5 GAL | LAN YEL

44 | 5 GAL | LEU RB.

153 | 5 GAL | LAN YEL

STABILIZED DECOMPOSED GRANITE - SEE LEGEND SHEET LP-2 FOR SOURCE AND COLOR

26 | 5 GAL | HES PAR

50 | 5 GAL | CAL LJ.

19 | 5 GAL | LAV OQ.

27 | 15 GAL | AGA ATT

3 | 36" BOX | PHO ROE

ROOT CONTROL BARRIER (TYP.) REFER TO SHEET LP-2 FOR DETAILS

2 | 36" BOX | ARB MAR

51 | 5 GAL | CAR G.C.

PLANTING NOTES

NOTE A:
CONTRACTOR SHALL CHECK IRRIGATION COVERAGE IN ALL NEW LANDSCAPE AREAS PRIOR TO INSTALLATION OF PLANT MATERIALS.

NOTE B:
CONTRACTOR SHALL INSURE THAT ALL LANDSCAPE AREAS ARE FINE GRADED AND THAT DRAINAGE IS ADEQUATE PRIOR TO INSTALLATION OF PLANT MATERIAL.

NOTE C:
CONTRACTOR SHALL SECURE HORTICULTURAL SOILS TEST IMMEDIATELY FOLLOWING ROUGH GRADING TO DETERMINE TYPE AND QUANTITY OF SOIL AMENDMENTS - REFER TO SPECIFICATIONS FOR TESTING REQUIREMENTS.

GENERAL PLANTING NOTES:

1. EXISTING HOLLYWOOD JUNIPERS (3) TO BE REMOVED INCLUDING ROOTS AND ROOTBALL. DISPOSE OF OFF SITE.
2. EXISTING CAMPUS LANDSCAPE TO REMAIN. CONTRACTOR SHALL COORDINATE WITH DISTRICT REPRESENTATIVE TO INSURE THAT EXISTING CAMPUS LANDSCAPE WATER SERVICE IS NOT CUT OF DURING CONSTRUCTION.
3. EXISTING DISEASED EVERGREEN PEARS (2) TO BE REMOVED NCLUDING ROOTS AND ROOTBALLS. DISPOSE OF OFF SITE.
4. EXISTING ATRIUM - REPLANT AS SHOWN. ACCESS IS FROM INSIDE BUILDING.
5. INSTALL NEW SODDED TURF TO REPAIR EXISTING TURF DAMAGED FROM IRRIGATION TRENCHING. REFER TO PLANT LEGEND.

SEE SHEET LP-2 FOR PLANTING LEGEND AND DETAILS.

0 10 20 40 80 NORTH

SCALE 1"=20'-0"

STAMPS

REGISTERED LANDSCAPE ARCHITECT BRANDT MACGREGOR No. 5870 STATE OF CALIFORNIA

LICENSED ARCHITECT David Ruhnau C-20662 03/31-2021 RENEWAL DATE STATE OF CALIFORNIA

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-119728 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/18/2021

CONSULTANT BRANDING

MM+LA ASSOCIATES
1982 White Birch Drive, Vista, CA 92081
Tel. 760-525-2343

RUHNAU CLARKE ARCHITECTS

FEBRUARY 17, 2021 - DSA BACKCHECK

PROJECT No. : 1-30-47
2/16/2021 4:24 PM

DRAWN BY: CHECKED BY:

ISSUE No.____ DATE____ DESCRIPTION____
REVISION No.____ DATE____ DESCRIPTION____

RUHNAUCLARKE.COM

3775 TENTH STREET, RIVERSIDE CALIFORNIA 92501 (951) 684 4664 / 5751 PALMER WAY, SUITE C, CARLSBAD CALIFORNIA 92010 (760) 438 5899

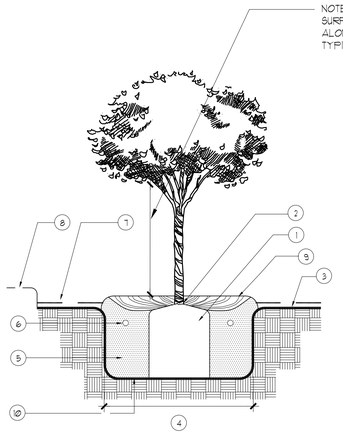
FOOTHILLS ADULT EDUCATION CENTER

1550 Melody Lane, El Cajon, CA 92019
GROSSMONT UNIFIED HIGH SCHOOL DISTRICT

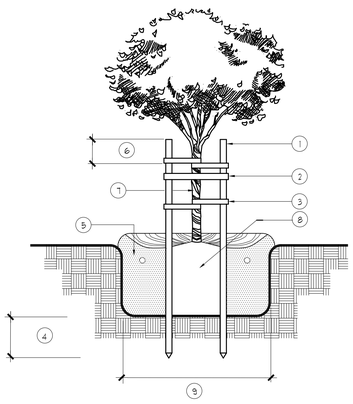
Planting Plan

LP-1

1-30-47



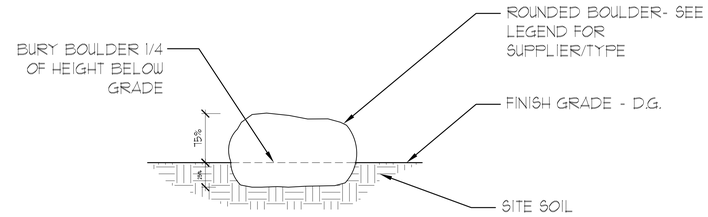
A TREE PLANTING
NO SCALE



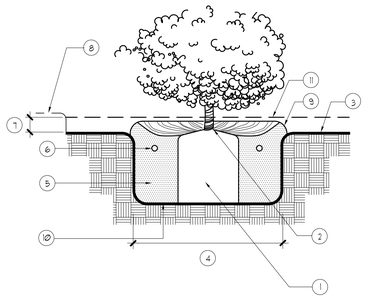
B DOUBLE STAKING DETAIL
NO SCALE

PLANT LEGEND

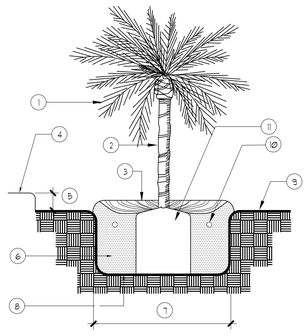
SYM.	ABR.	SCIENTIFIC NAME - COMMON NAME	SIZE	QTY.	REMARKS	WATER REQ'D	FACTOR
TREES							
	ARB MAR	ARBUTUS 'MARINA' - STRAWBERRY TREE	36" BOX	2	STANDARD	LOW	Ø.2
	LAG NAT	LAGERSTROEMIA I. 'NATCHEZ' - WHITE CRAPE MYRTLE	36" BOX	6	STANDARD	MODERATE	Ø.5
	PHO ROE	PHOENIX ROEBELENII - PIGMY DATE PALM	36" BOX	3	STANDARD - SINGLE TRUNK - 4' BTH	MODERATE	Ø.5
+		EXISTING TREES TO REMAIN - CONTRACTOR SHALL PROTECT IN PLACE DURING CONSTRUCTION AND SHALL INSURE THAT WATER SERVICE TO EXISTING TREES IS NOT DISTURBED DURING CONSTRUCTION.					
SHRUBS							
A	AGA ATT	AGAVE ATTENUATA - FOXTAIL AGAVE	15 GAL	27	3' ON CENTER	LOW	Ø.2
	CAL L.J.	CALLISTEMON 'LITTLE JOHN' - DWARF BOTTLE BRUSH	5 GAL.	50	3' ON CENTER	MODERATE	Ø.5
+	CAR G.C.	CARISSA 'GREEN CARPET' - THORNLESS NATAL PLUM	5 GAL.	51	3' ON CENTER	MODERATE	Ø.5
◇	HES PAR	HESPERALOE PARVIFLORA - RED YUCCA	5 GAL.	26	30" ON CENTER	LOW	Ø.2
•	LAN MON	LANTANA MONTEVIDENSIS - TRAILING PURPLE LANTANA	5 GAL.	31	3' ON CENTER	LOW	Ø.2
✳	LAN YEL	LANTANA 'SPREADING SUNSHINE' - YELLOW LANTANA	5 GAL.	157	3' ON CENTER	LOW	Ø.2
O	LAV O.Q.	LAVANDULA 'OTTO QUAST' - SPANISH LAVENDER	5 GAL.	19	2' ON CENTER	LOW	Ø.2
L	LEU R.B.	LEUCOPHYLLUM L. 'RIO BRAVO' - RIO BRAVO SAGE	5 GAL.	44	4' ON CENTER	LOW	Ø.2
V	PIT VAR	PITTOSPORUM T. 'VARIEGATA' - VARIEGATED TOBIRA	5 GAL.	12	4' ON CENTER	MODERATE	Ø.5
⊘	SAL GRE	SALVIA GREGII - AUTUMN SAGE	5 GAL.	60	3' ON CENTER	LOW	Ø.2
GROUNDCOVER							
		STABILIZED DECOMPOSED GRANITE - 3" LAYER OVER WEED BARRIER FABRIC. SUPPLIED BY SOUTHWEST BOULDER AND STONE - 877-792-7625 - 'MOJAVE GOLD FINES'. COLOR AND SUPPLIER APPROVED BY DISTRICT.					
		ROUNDED BOULDERS SUPPLIED BY SOUTHWEST BOULDER AND STONE 877-792-7625. USE 'DESERT SAND' TYPE. BURY 1/4 PER DETAIL BELOW. QUANTITIES: 3-5' DIAMETER, 6-4' DIAMETER.					
		TIFGREEN 328 HYBRID BERMUDA SOD - 5/8 INCH THICKNESS - IF INSTALLED BETWEEN OCTOBER AND APRIL SOD SHALL BE OVERSEEDED AT PLACE OF GROWTH WITH PERENNIAL RYE. PREPARE SOIL AND PROVIDE AMENDMENTS AS RECOMMENDED BY THE SOILS REPORT PRIOR TO INSTALLATION OF SOD.					



E BOULDER INSTALLATION DETAIL
NO SCALE

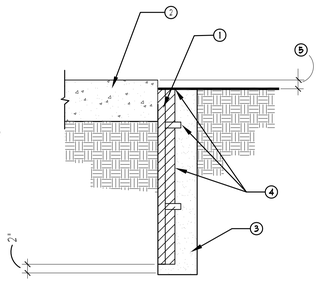


C SHRUB PLANTING
NO SCALE



D PALM PLANTING DETAIL
NO SCALE

NOTE: USE IN ALL APPLICATIONS WHERE TREE TRUNK IS LOCATED WITHIN 5' OF EDGE OF ADJACENT HARDSCAPE PAVEMENT.



NOTE: BARRIER SHALL BE FLUSH WITH VERTICAL CONCRETE SURFACE.

F ROOT CONTROL BARRIER
NO SCALE

STAMPS

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-119728 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/18/2021

CONSULTANT BRANDING

MM+LA ASSOCIATES
1982 White Birch Drive, Vista, CA 92081
Tel. 760-525-2343

RUHNAU CLARKE ARCHITECTS

FEBRUARY 17, 2021 - DSA BACKCHECK

PROJECT No. : 1-30-47
2/16/2021 4:29 PM

DRAWN BY: CHECKED BY:

ISSUE No._____ DATE_____ DESCRIPTION_____
ISSUE No._____ DATE_____ DESCRIPTION_____
ISSUE No._____ DATE_____ DESCRIPTION_____
ISSUE No._____ DATE_____ DESCRIPTION_____

REVISION No._____ DATE_____ DESCRIPTION_____
REVISION No._____ DATE_____ DESCRIPTION_____
REVISION No._____ DATE_____ DESCRIPTION_____
REVISION No._____ DATE_____ DESCRIPTION_____

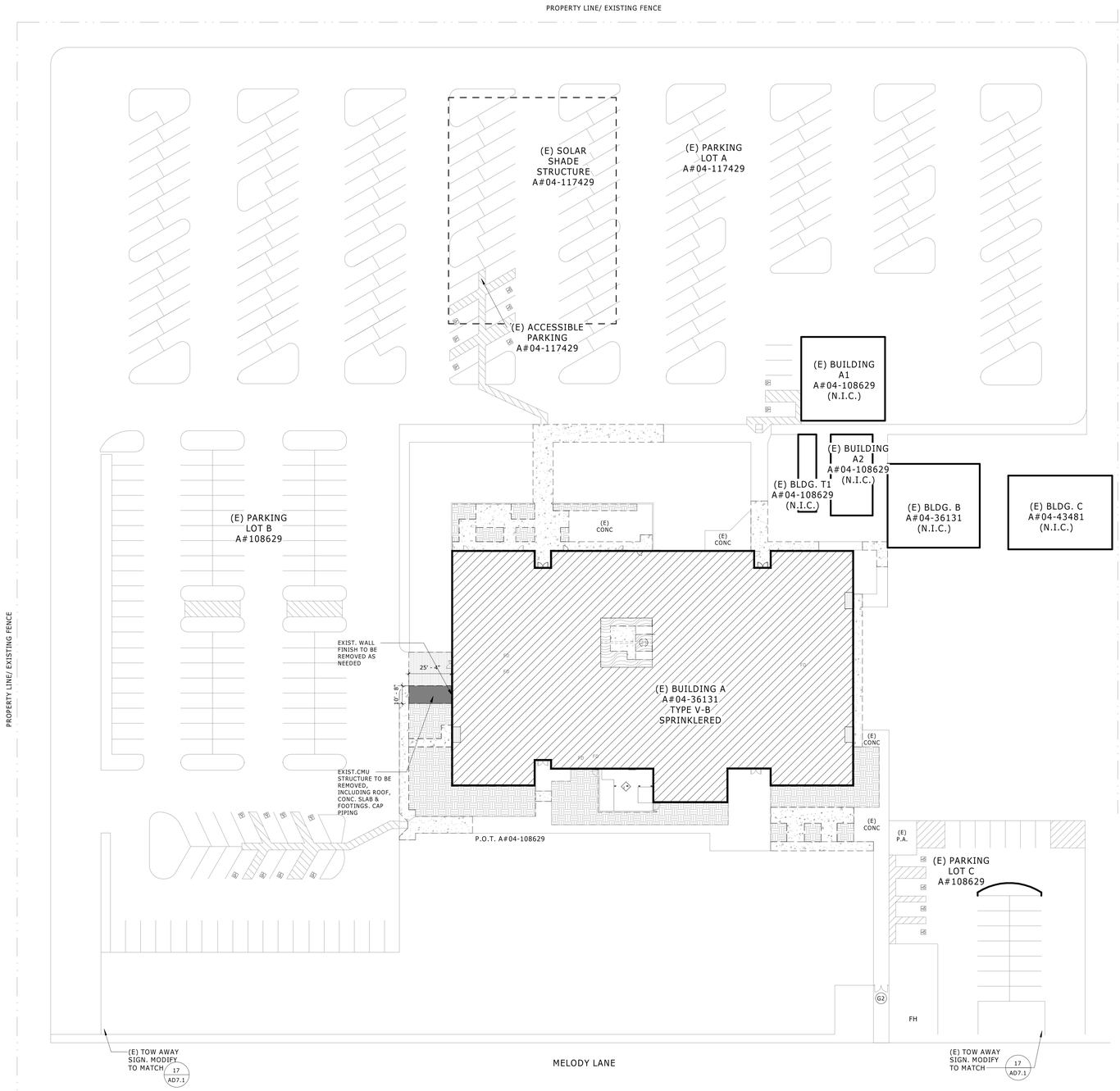
RUHNAUCLARKE.COM
3775 TENTH STREET, RIVERSIDE CALIFORNIA 92501 (951) 684 4664 / 5751 PALMER WAY, SUITE C, CARLSBAD CALIFORNIA 92010 (760) 438 5899

FOOTHILLS ADULT EDUCATION CENTER
1550 Melody Lane, El Cajon, CA 92019
GROSSMONT UNIFIED HIGH SCHOOL DISTRICT

Planting Legend & Details

LP-2

1-30-47



AGENCY APPROVAL
File No: 37-H4

LICENSED ARCHITECT David Ruhnau C-20662 03/31/2021 RENEWAL DATE STATE OF CALIFORNIA

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-119728 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/18/2021

STAMPS

RUHNAU CLARKE ARCHITECTS

CONSULTANT BRANDING

DEMO SITE LEGEND

EXISTING CONCRETE TO BE REMOVED

BUILDING/ PORTION OF BUILDING TO BE DEMOLISHED

EXISTING LANDSCAPING TO BE REMOVED

CONTRACTOR SHALL REMOVE EXISTING LANDSCAPE FOR ALL AREAS DESIGNATED TO RECEIVE NEW LANDSCAPE. THIS INCLUDES: 1) REMOVAL OF ALL TREES, SHRUBS, GROUNDCOVER AND TURF INCLUDING TREE ROOTS TO A DEPTH OF 18"; 2) REMOVAL OF ALL GRASS AND THATCH TO A DEPTH OF 6" BELOW THE TOP OF ADJACENT PAVEMENT; 3) REMOVAL OF EXISTING IRRIGATION HEADS AND LATERAL PIPING (SALVAGE MAINLING PIPING, REMOTE CONTROL WIRES AND REMOTE CONTROL VALVES); 4) REMOVE EXISTING BARK MULCH GROUNDCOVER AND DO NOT REUSE. CLEAN AND RAKE ALL LANDSCAPE AREAS RECEIVING NEW LANDSCAPE AND BREAK UP ALL CLODS LARGER THAN 2" DIAMETER. FINISH GRADE OF PLANTING AREAS AFTER DEMOLITION SHALL BE 6" BELOW TOP OF ADJACENT PAVEMENT PRIOR TO AMENDMENT AND PLANTING OPERATIONS. REFER TO LANDSCAPE DRAWINGS FOR INSTALLATION OF IRRIGATION, PLANT MATERIALS AND WEED BARRIER FABRIC.

NORTH

OVERALL DEMOLITION SITE PLAN 1

SCALE: 1" = 20'-0"
REF.: 4/A1-7.6

FEBRUARY 17, 2020 - DSA SUBMITTAL

PROJECT No. :1-30-47
2/16/2021 5:00:47 PM
DRAWN BY: CHECKED BY:

REVISION:___ DATE ___ DESCRIPTION ___

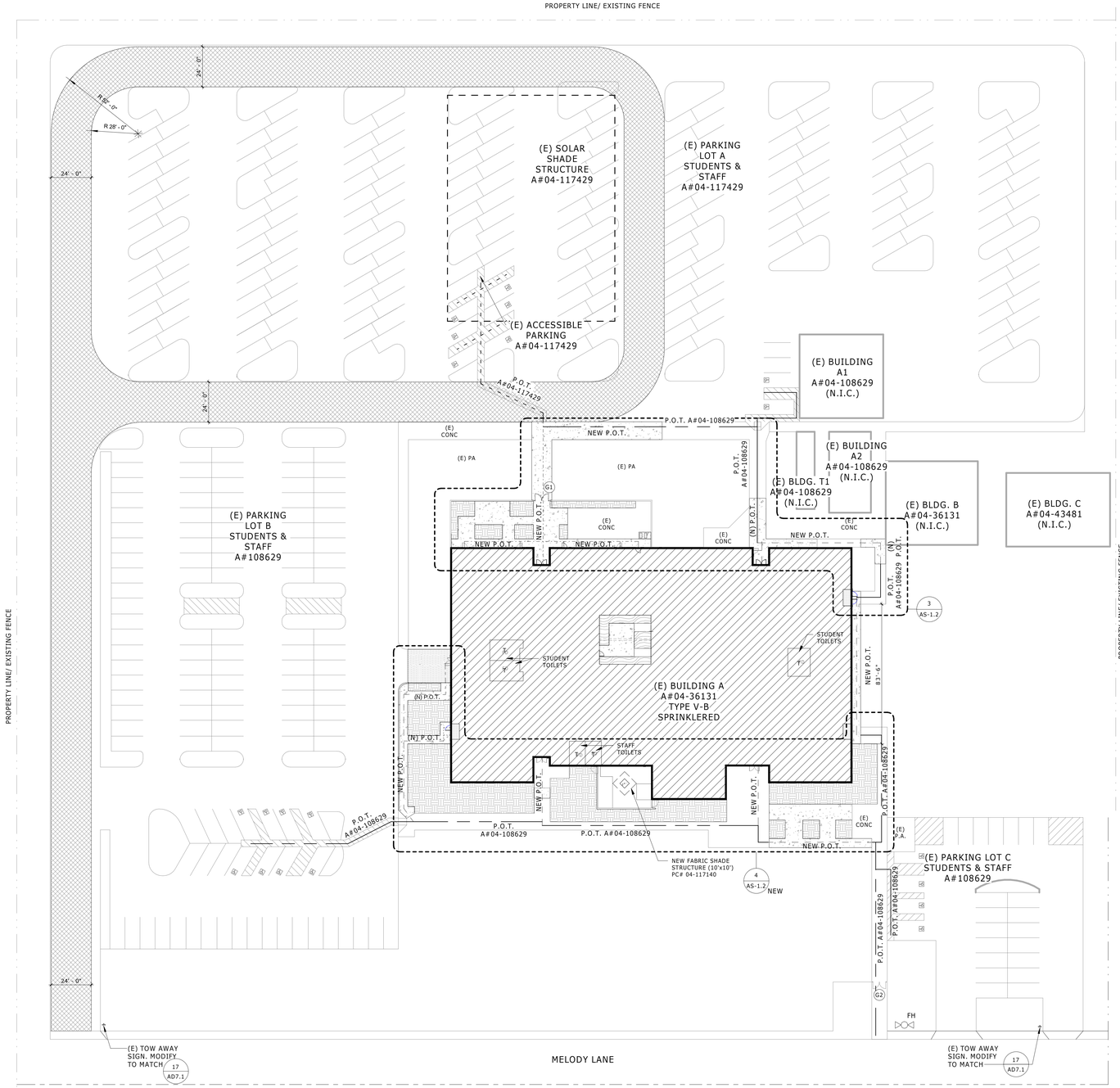
RUHNAUCLARKE.COM
3775 TENTH STREET, RIVERSIDE CALIFORNIA 92501 (951) 684 4664 / 5751 PALMER WAY, SUITE C, CARLSBAD CALIFORNIA 92010 (760) 438 5899

FOOTHILLS ADULT EDUCATION CENTER
1550 Melody Lane El Cajon, CA 92019
GROSSMONT UNIFIED HIGH SCHOOL DISTRICT

DEMOLITION SITE PLAN

AS-1.1A

1-30-47



AGENCY APPROVAL
File No: 37-H4

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-119728 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/18/2021

STAMPS

RUHNAU CLARKE ARCHITECTS

CONSULTANT BRANDING

CODE/EGRESS PLAN LEGEND

- EXISTING PATH OF TRAVEL PER A# 04-117429
- EXISTING PATH OF TRAVEL PER A# 04-108629
- NEW PATH OF TRAVEL
- BUILDING/ PORTION OF BUILDING TO BE MODERNIZED
- NEW LANDSCAPE AREA. SEE LANDSCAPE DRAWINGS
- NEW ATRIUM PLANTING. SEE LANDSCAPE DRAWINGS
- NEW CONCRETE PAVING SEE DETAILS
  - CONCRETE EDGE 11/AD7.1
  - CONCRETE JOINING 12/AD7.1
  - CONCRETE JOINTS 13/AD7.1
- NEW AC PAVING. SEE DETAIL 5/AD7.1, 27/AD7.1 AC EDGE, 6/AD7.1 AC JOINING
- EXISTING FIRE LANE

PATH OF TRAVEL (P.O.T.) AS INDICATED IS A BARRIER FREE ACCESS ROUTE WITHOUT ANY ABRUPT VERTICAL CHANGES EXCEEDING 1/2" BEVELED AT 1:2 MAXIMUM SLOPE, EXCEPT THAT LEVEL CHANGES DO NOT EXCEED 1/4" VERTICAL AND IS AT LEAST 48" WIDE. SURFACE IS SLIP RESISTANT, STABLE, FIRM AND SMOOTH. CROSS-SLOPE DOES NOT EXCEED 2% AND SLOPE IN THE DIRECTION OF TRAVEL IS LESS THAN 5% UNLESS OTHERWISE INDICTED. (POT) SHALL BE MAINTAINED FREE OF OVERHANGING OBSTRUCTIONS TO 80" MINIMUM AND PROTRUDING OBJECTS GREATER THAN 4" PROJECTION FROM WALL AND ABOVE 27" AND LESS THAN 80". ARCHITECT TO VERIFY THAT ALL BARRIERS IN THE PATH OF TRAVEL HAVE BEEN REMOVED OR WILL BE REMOVED UNDER THIS PROJECT, AND PATH OF TRAVEL COMPLIES WITH CBC 11B-303 & 11B-304

DESIGN PROFESSIONAL IN GENERAL RESPONSIBLE CHARGE STATEMENT: THE P.O.T. IDENTIFIED IN THESE CONSTRUCTION DOCUMENTS IS COMPLIANT WITH THE CURRENT APPLICABLE CALIFORNIA BUILDING CODE ACCESSIBILITY PROVISIONS FOR PATH OF TRAVEL REQUIREMENTS FOR ALTERATIONS, ADDITIONS AND STRUCTURAL REPAIRS. AS PART OF THE DESIGN OF THIS PROJECT, THE P.O.T. WAS EXAMINED AND ANY ELEMENTS, COMPONENTS OR PORTIONS OF THE P.O.T. THAT WERE DETERMINED TO BE NONCOMPLIANT 1.) HAVE BEEN IDENTIFIED AND 2.) THE CORRECTIVE WORK NECESSARY TO BRING THEM INTO COMPLIANCE HAS BEEN INCLUDED WITHIN THE SCOPE OF THIS PROJECT'S WORK THROUGH DETAILS, DRAWINGS AND SPECIFICATIONS INCORPORATED INTO THESE CONSTRUCTION DOCUMENTS. ANY NONCOMPLIANT ELEMENTS, COMPONENTS OR PORTIONS OF THE P.O.T. THAT WILL NOT BE CORRECTED BY THIS PROJECT BASED ON VALUATION THRESHOLD LIMITATIONS OR A FINDING OF UNREASONABLE HARDSHIP ARE SO INDICATED IN THESE CONSTRUCTION DOCUMENTS. DURING CONSTRUCTION, IF P.O.T. ITEMS WITHIN THE SCOPE OF THE PROJECT REPRESENTED AS CODE COMPLIANT ARE FOUND TO BE NONCONFORMING BEYOND REASONABLE CONSTRUCTION TOLERANCES, THEY SHALL BE BROUGHT INTO COMPLIANCE WITH THE CBC AS A PART OF THIS PROJECT BY MEANS OF A CONSTRUCTION CHANGE DOCUMENT.

PARKING ANALYSIS

PARKING LOT	TOTAL PARKING SPACES	STANDARD PARKING		ACCESSIBLE PARKING				
		QTY. COVERED	TOTAL COVERED	CODE REQUIRED STANDARD	CODE REQUIRED VAN ACCESS	QTY. PROVIDED	QTY. COVERED	TOTAL COVERED
A	215	27	13%	5	2	8	3	43%
B	115	-	-	7	1	8	-	NA
C	25	-	-	3	1	4	-	NA

GATE SCHEDULE

NO.	GATE SIZE	MATERIAL	PANIC HARDWARE	TYPE	HARDWARE SET	NOTES	ELEV. DETAIL
G1	PR 8'-0"Wx8'-0"H	METAL	*		G01	1	21/AD7.1
G2	(E) PR 7'-8"Wx7'-8"H	METAL	*		G02	1,2	21/AD7.1

GATE NOTES

1. PROVIDE PANIC HARDWARE
2. EXISTING GATE TO BE MODIFIED TO MATCH DETAIL 21/ AD7.1

CLF CHAIN LINK FENCE
GALV. GALVANIZED STEEL, TOUCH UP GALVANIZATION
VCCL VINYL COATED CHAIN LINK

NORTH

OVERALL SITE PLAN SCALE: 1" = 30'-0" REF.: / 1

FEBRUARY 17, 2020 - DSA SUBMITTAL

PROJECT No. :1-30-47
2/16/2021 5:00:39 PM
DRAWN BY: CHECKED BY:

REVISION:___ DATE ___ DESCRIPTION ___

RUHNAUCLARKE.COM

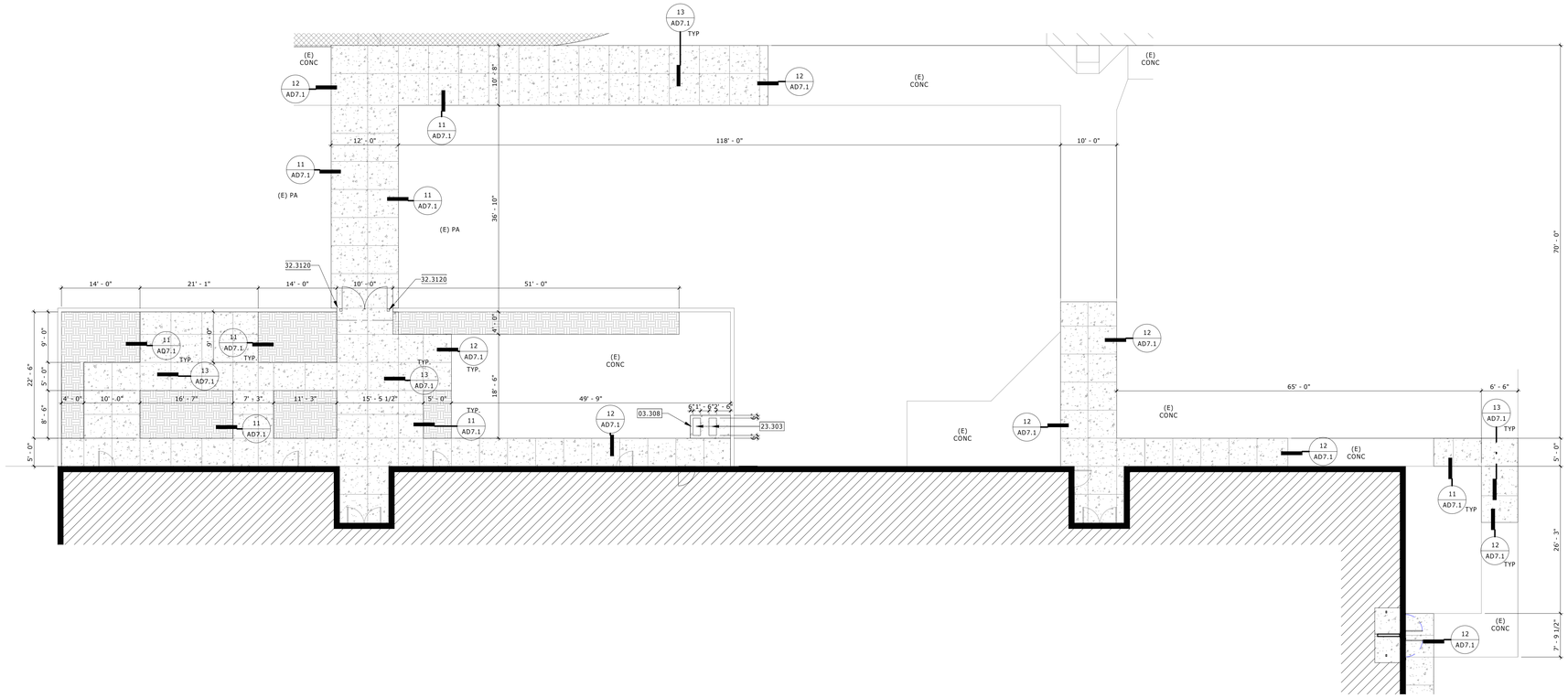
3775 TENTH STREET, RIVERSIDE CALIFORNIA 92501 (951) 684 4664 / 5751 PALMER WAY, SUITE C, CARLSBAD CALIFORNIA 92010 (760) 438 5899

FOOTHILLS ADULT EDUCATION CENTER
1550 Melody Lane El Cajon, CA 92019
GROSSMONT UNIFIED HIGH SCHOOL DISTRICT

OVERALL SITE PLAN

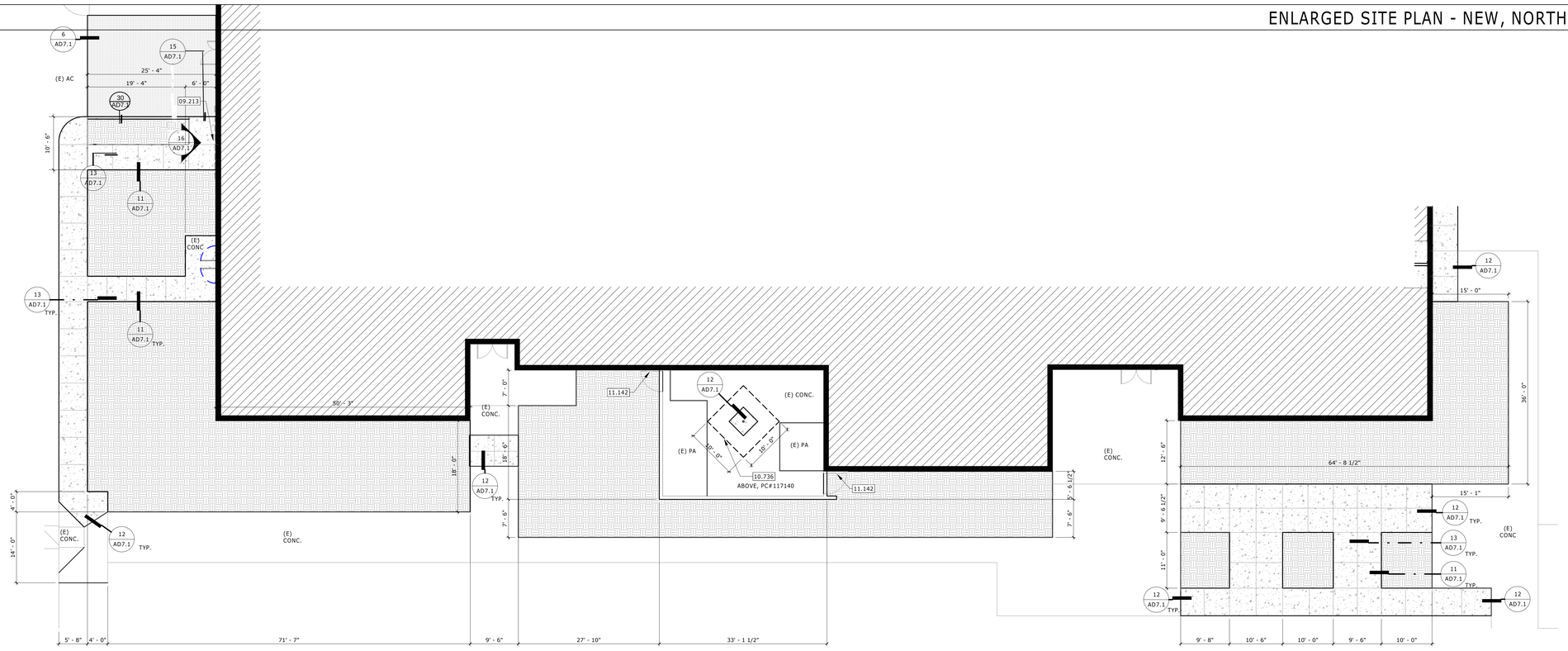
AS-1.1

1-30-47



ENLARGED SITE PLAN - NEW, NORTH

SCALE: 1" = 10'-0" REF.: 1/AS-1.1 — 3



ENLARGED SITE PLAN - NEW, SOUTH

SCALE: 1" = 10'-0" REF.: 1/AS-1.1 — 4

NEW SITE LEGEND

- NEW CONCRETE PAVING. SEE DETAILS
- CONCRETE EDGE 11 AD7.1 — CONCRETE JOINING 12 AD7.1 — CONCRETE JOINTS 13 AD7.1
- NEW LANDSCAPE AREA. SEE LANDSCAPE DRAWINGS
- NEW AC PAVING. SEE DETAIL 5 AD7.1 — 27 AD7.1 AC EDGE — 6 AD7.1 AC JOINING

AGENCY APPROVAL
File No: 37-H4

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-119728 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/18/2021

LICENSED ARCHITECT — David Ruhnau Clarke — C-20662 — 03/31-2021 RENEWAL DATE — STATE OF CALIFORNIA

STAMPS

RUHNAU CLARKE ARCHITECTS

CONSULTANT BRANDING

FEBRUARY 17, 2020 - DSA SUBMITTAL

PROJECT No. :1-30-47
2/16/2021 5:00:55 PM
DRAWN BY: CHECKED BY:

REVISION:____ DATE ____ DESCRIPTION ____

RUHNAUCLARKE.COM
3775 TENTH STREET, RIVERSIDE CALIFORNIA 92501 (951) 684 4664 / 5751 PALMER WAY, SUITE C, CARLSBAD CALIFORNIA 92010 (760) 438 5899

FOOTHILLS ADULT EDUCATION CENTER
1550 Melody Lane El Cajon, CA 92019
GROSSMONT UNIFIED HIGH SCHOOL DISTRICT

ENLARGED SITE PLANS | **AS-1.2**

1-30-47

AGENCY APPROVAL
File No: 37-H4

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-119728 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/18/2021

STAMPS

CONSULTANT BRANDING

RUHNAU CLARKE ARCHITECTS

GENERAL DEMO NOTES

1. AT LOCATIONS WHERE ANY ITEM IS TO BE REMOVED, PATCH AND REPAIR ALL SURFACES AS NEEDED TO MATCH EXISTING ADJACENT MATERIALS AND FINISHES, UNLESS NOTED OTHERWISE.
2. VERIFY WITH ARCHITECT BEFORE ALTERING OR REMOVING ANY STRUCTURAL ITEMS INCLUDING BUT NOT LIMITED TO HOLD DOWNS, SHEAR WALLS, BEARING WALLS UNLESS IDENTIFIED ON THE DRAWINGS AND APPROPRIATE DETAILS ARE APPROVED BY THE DEPARTMENT OF THE STATE ARCHITECT.
3. RESTORE ALL SURROUNDING AREAS AFFECTED BY THE WORK.
4. PROTECT ITEMS TO REMAIN.
5. REMOVE ALL INTERIOR FINISHES TO SUBSTRATE, U.N.O. AND PREPARE AREA TO RECEIVE NEW INTERIOR FINISHES.
6. FOR HAZARDOUS MATERIAL ABATEMENT, TYP. REFER TO HAZ MAT REPORT BY TITAN ENVIRONMENTAL SOLUTIONS #081417-AS,XRF,LS,OT, PREPARED JANUARY 15, 2020

LEGEND

- EXISTING 2x WALL REMOVE ALL EXISTING INTERIOR GYP. BOARD PER RECOMMENDATIONS IN HAZ MAT REPORT. PROTECT IN PLACE 6" WIDE STRIP OF GYP BOARD AT CEILING FRAME ATTACHMENT LOCATIONS. EXTERIOR PLASTER FINISH TO REMAIN, U.N.O.
- DEMOLISH EXISTING WALL/ITEM (AND CONC. CURB WHERE OCCURS). PATCH AND REPAIR SURROUNDING SURFACES
- REMOVE EXISTING DOORS, FRAMES, & HARDWARE U.N.O.
- EXISTING DOORS TO REMAIN, U.N.O
- EXISTING WINDOW TO REMAIN, U.N.O.
- FLOOR OUTLET TO REMAIN, U.N.O.
- DEMO, & REMOVE (E) CASEWORK
- EXISTING FLOOR-MOUNTED ELECTRICAL OUTLET. PROTECT IN PLACE, WHERE POSSIBLE
- PORTION OF EXISTING CONCRETE SLAB TO BE SAWCUT AND REMOVED
- EXISTING LANDSCAPE TO BE REMOVED

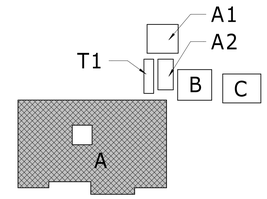
*ALL DEMOLITION SHALL COMPLY WITH CHAPTER 33 CBC AND CHAPTER 33 CFC. REFER TO HAZ MAT REPORT FOR ADDITIONAL DEMOLITION RECOMMENDATIONS

KEYNOTES

02.210	(D) MARKERBOARD
02.211	(D) REFRIGERATOR
02.220	(D) PLUMBING FIXTURE. CAP PIPE AT WALL
02.221	(E) WATER HEATER TO BE RELOCATED.
02.260	(E) LIGHT POLE OUTLET TO BE REMOVED.
02.416	(D) BUILDING
02.417	(D) PLASTIC WATER FEATURE AND DECORATIVE ROCKS. CAP PIPES AND DRAINS.
02.418	(D) WOOD TRELLIS, POSTS & SUPPORTS. PATCH WALL AT SUPPORT CONNECTION LOCATIONS. MATCH ADJACENT COLORS & FINISHES.
02.421	(D) PORTION OF WALL AS NEEDED FOR INSTALLATION OF NEW DOOR OPENING/ DOOR FRAME
02.422	(D) LANDSCAPING
02.520	(D) PROJECTION SCREEN
02.601	(D) CASEWORK
02.602	REMOVE FURNITURE. STORE PER DISTRICT DIRECTION
02.801	(D) DOOR
02.901	(D) FLOORING
02.902	(D) FLOORING, INCLUDING TILE, COVE BASE & MORTAR BED. DEMO WALL FINISHES TO EXPOSE EXISTING METAL STUDS. REMOVE ALL PLUMBING FIXTURES & CARRIERS. CAP PIPES AT WALL.
03.355	PORTION OF CONCRETE SLAB TO BE TRENCHED/REMOVED. CONTRACTOR IS RESPONSIBLE FOR DETERMINING LIMITS OF TRENCHING TO ACHIEVE DESIGN INTENT
05.409	PORTION OF (E) METAL STUD EXTERIOR WALL TO BE MODIFIED WITH INTERIOR FINISHES
05.505	(E) ROOF ACCESS LADDER
08.321	(E) SLIDING GLASS DOOR TO BE REMOVED. REPLACE STOREFRONT PANELS WITH GLAZING TO MATCH EXISTING ADJACENT GLAZING.
08.401	(E) STOREFRONT/CURTAIN WALL
08.402	(E) STOREFRONT TO BE MODIFIED FOR ACCESSIBLE DOOR
09.214	(D) WALL FINISHES AS NEEDED FOR INSTALLATION OF CASEWORK BACKING
09.215	REMOVE DAMAGED PLASTER AS NEEDED TO APPLY PLASTER PATCH
10.443	(E) FIRE EXTINGUISHER TO BE REMOVED AND REINSTALLED AT THE SAME LOCATION, AFTER WALL FINISHES HAVE BEEN REPLACED. SEE DETAIL 17/AD1.1
22.151	(E) FLOOR DRAIN. SEE PLUMBING DRAWINGS. RECONNECT AT THE SAME LOCATION FOLLOWING SLAB WORK & FLOOR FINISH REPLACEMENT. PROVIDE NEW COVER
22.400	(E) PLUMBING FIXTURE TO REMAIN. PROTECT IN PLACE
22.415	(E) FLOOR SINK TO REMAIN. PROTECT IN PLACE

FOR HAZARDOUS MATERIAL ABATEMENT, TYP. REFER TO HAZ MAT REPORT BY TITAN ENVIRONMENTAL SOLUTIONS #081417-AS,XRF,LS,OT, PREPARED JANUARY 15, 2020

KEY PLAN



NORTH

FLOOR PLAN - DEMO

SCALE: 1/8" = 1'-0"
REF.: 4/A1-7.6

1

FEBRUARY 17, 2020 - DSA SUBMITTAL

PROJECT No. :1-30-47
2/16/2021 4:57:15 PM
DRAWN BY: CHECKED BY:

REVISION:____ DATE _____ DESCRIPTION _____

RUHNAUCLARKE.COM

3775 TENTH STREET, RIVERSIDE CALIFORNIA 92501 (951) 684 4664 / 5751 PALMER WAY, SUITE C, CARLSBAD CALIFORNIA 92010 (760) 438 5899

FOOTHILLS ADULT EDUCATION CENTER
1550 Melody Lane El Cajon, CA 92019
GROSSMONT UNIFIED HIGH SCHOOL DISTRICT

FLOOR PLAN- DEMO

A1-1.1

1-30-47

AGENCY APPROVAL
File No: 37-H4

LICENSED ARCHITECT Brad Ruhnau STATE OF CALIFORNIA C-20662 03/31-2021 RENEWAL DATE

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-119728 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/18/2021

STAMPS

RUHNAU CLARKE ARCHITECTS

CONSULTANT BRANDING

GENERAL NOTES

1. VERIFY ALL DIMENSIONS PRIOR TO CONSTRUCTION.
2. ALL DIMENSIONS ARE TO FACE OF STUD, CENTERLINE OF COLUMN OR EDGE OF SLAB, U.N.O.
3. SEE SHEET **AD1.1** FOR WALL TYPE INFORMATION.
4. GYPSUM BOARD AND INSULATION SHALL EXTEND FULL HEIGHT OF WALL TO UNDERSIDE OF ROOF STRUCTURE.
5. PROVIDE STUD BRACING AND SUPPORT FOR ALL WALL MOUNTED FIXTURES AND ACCESSORIES. PER DETAIL 16/S0-2.1
6. SEE SHEET **A8.1** FOR DOOR AND WINDOW INFORMATION
7. SET DOORS ADJACENT TO WALLS A MIN. OF 4" AWAY FROM WALL U.N.O.
8. ALL BACK TO BACK DEVICES IN WALLS WITH AN STC RATING OF 45 OR GREATER SHALL BE OFFSET BY MIN. 16 INCHES PER DETAIL 2/AD1.1

MODERNIZATION LEGEND

- EXISTING MTL STUD WALL TO REMAIN, U.N.O
- NEW 2X6 MTL STUD @ 16" O.C. W/ BATT SOUND INSULATION. SEE WALL TYPE TAGS ON PLAN FOR FINISHES. REF STRUCT DWGS. METAL STUD WALL FRAMING PER 3/S0-2.1, TYP.
- NEW LANDSCAPE. REFER TO LANDSCAPE DRAWINGS.
- NEW CONCRETE FLOOR SLAB AS REQUIRED TO INSTALL NEW WORK
- WALL TYPE / STUD SIZE — WALL TAG. SEE WALL DETAILS ON SHEET AD1.1
- 101 — DOOR IDENTIFICATION, SEE DOOR SCHEDULE A8.1 & DETAIL SHEET AD6.1 FOR SIZE, HARDWARE, AND HEADER, JAMB, AND SILL DETAILS
- A — WINDOW IDENTIFICATION, SEE WINDOW TYPES A8.1

KEYNOTES

03.356	SHADE STRUCTURE FOOTING. SEE PC DRAWINGS
05.407	METAL STUD INTERIOR WALL INFILL PER DET. 12/AD1.1
05.408	METAL STUD EXTERIOR WALL INFILL PER 23/AD1.1
05.409	PORTION OF (E) METAL STUD EXTERIOR WALL TO BE MODIFIED WITH INTERIOR FINISHES
06.156	PATCH & REPAIR WALL WERE PLUMBING FIXTURE WAS REMOVED. MATCH ADJACENT FINISHES
06.403	(N) CASEWORK. SEE INTERIOR ELEVATIONS FOR TYPES/ DIMENSIONS
06.411	COUNTERTOP
06.412	PLASTIC LAMINIATE COUNTERTOP
08.171	3'-0" WIDE 8' HIGH CASED OPENING IN WALL
08.321	(E) SLIDING GLASS DOOR TO BE REMOVED. REPLACE STOREFRONT PANELS WITH GLAZING TO MATCH EXISTING ADJACENT GLAZING.
08.361	(N) DOOR PER DOOR SCHEDULE
08.401	(E) STOREFRONT/CURTAIN WALL
08.402	(E) STOREFRONT TO BE MODIFIED FOR ACCESSIBLE DOOR
08.403	(E) STOREFRONT TO BE MODIFIED
08.430	(E) STOREFRONT. PROTECT IN PLACE
08.431	(N) ALUMINUM STOREFRONT
09.213	PATCH PLASTER. MATCH (E) ADJACENT COLORS AND FINISHES
10.112	(N) MARKERBOARD. SEE MOUNTING DETAIL 19/AD1.1
10.115	VISUAL DISPLAY BOARD PER INTERIOR ELEVATIONS
10.142	BUILDING IDENTIFICATION SIGNAGE
10.143	ROOM IDENTIFICATION SIGNAGE. REFER TO DETAIL 3/ADS.1
10.145	EXIT SIGNAGE. REFER TO DETAIL 2/ADS.1
10.151	ASSISTIVE LISTENING SYSTEM SIGNAGE PER DETAIL 4/ADS.1
10.153	FIRE RISER ROOM SIGNAGE PER DETAIL 30/ADS.1
10.441	FIRE EXTINGUISHER CABINET PER DETAIL 16/AD1.1
10.443	(E) FIRE EXTINGUISHER TO BE REMOVED AND REINSTALLED AT THE SAME LOCATION, AFTER WALL FINISHES HAVE BEEN REPLACED. SEE DETAIL 17/AD1.1
10.510	METAL LOCKER, CFCI. SEE DETAIL 13/A1-7.6
10.736	FABRIC SHADE STRUCTURE
11.142	LANDSCAPE SERVICE GATE TO REMAIN. PROTECT IN PLACE
11.212	VENDING EQUIPMENT TO COMPLY WITH CBC SECTION 118-804.6.2, O.F.O.I.
11.413	REFRIGERATOR, N.I.C.
11.524	TELEVISION OFCI. MOUNT PER 21/AD8.1
11.525	(E) PROJECTOR SCREEN TO BE REMOVED AND REINSTALLED AFTER WALL/CEILING FINISHES ARE REPLACED
22.415	(E) FLOOR SINK TO REMAIN. PROTECT IN PLACE
23.814	(N) WALL MOUNTED SPLIT-SYSTEM FAN COIL UNIT. SEE MECHANICAL
26.103	(E) FLOOR MOUNTED ELECTRICAL RECEPTACLE TO REMAIN. PROTECT IN PLACE.
26.243	(E) ELECTRICAL PANEL TO REMAIN. PROTECT IN PLACE
27.201	(N) SERVER RACK PER ELECTRICAL

NORTH

FLOOR PLAN - NEW | SCALE: 1/8" = 1'-0" | 1

KEY PLAN

FEBRUARY 17, 2020 - DSA SUBMITTAL

PROJECT No. :1-30-47
2/16/2021 4:57:28 PM
DRAWN BY: CHECKED BY:

REVISION:____ DATE____ DESCRIPTION____

GROSSMONT UNION HIGH SCHOOL DISTRICT

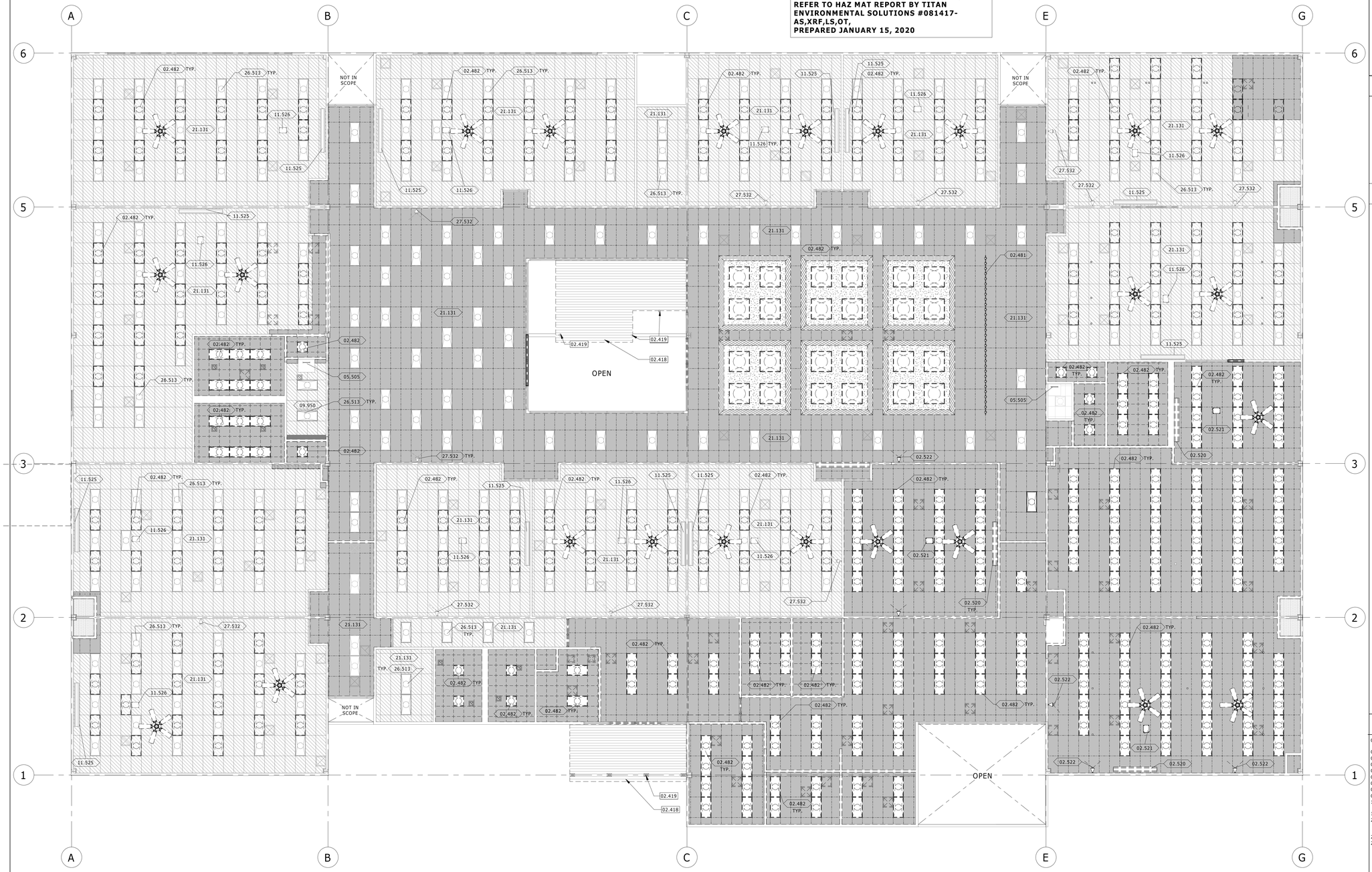
RUHNAUCLARKE.COM
3775 TENTH STREET, RIVERSIDE CALIFORNIA 92501 (951) 684 4664 / 5751 PALMER WAY, SUITE C, CARLSBAD CALIFORNIA 92010 (760) 438 5899

FOOTHILLS ADULT EDUCATION CENTER
1550 Melody Lane El Cajon, CA 92019
GROSSMONT UNIFIED HIGH SCHOOL DISTRICT

FLOOR PLAN - NEW

A1-1.2

1-30-47



REFLECTED CEILING PLAN - DEMO — SCALE: 1/8" = 1'-0" — REF.: 4/A1-7.0 — 1

AGENCY APPROVAL
File No: 37-H4

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-119728 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/18/2021

STAMPS

LICENSED ARCHITECT — David Ruhnau — C-20662 — 03/31-2021 RENEWAL DATE — STATE OF CALIFORNIA

CONSULTANT BRANDING

RUHNAU CLARKE ARCHITECTS

GENERAL NOTES

1. BEFORE REMOVING CEILING TILES, CONTRACTOR MUST DISCONNECT ALL ELECTRICAL ITEMS IN THE AFFECTED AREA INCLUDING SMOKE DETECTORS, FIRE ALARM COMPONENTS, SECURITY CAMERAS ETC. ALL ITEMS THAT AREN'T BEING REPLACED ARE TO BE REINSTALLED IN THE SAME LOCATIONS ONCE CEILING WORK IS COMPLETE.
2. FOR HAZARDOUS MATERIAL ABATEMENT, TYP. REFER TO HAZ MAT REPORT BY TITAN ENVIRONMENTAL SOLUTIONS #081417-AS,XRF,LS,OT,
PREPARED JANUARY 15, 2020

LEGEND

- EXISTING 2X4 CEILING TILES TO BE REMOVED. PROTECT IN PLACE EXISTING CEILING FRAME
- EXISTING 2X4 TROFFER LIGHT TO REMAIN. PROTECT IN PLACE
- EXISTING 2X4 CEILING FRAME & TILES TO BE DEMOLISHED,, INCLUDINGF ALL SUPPORT, BRACING WIRES AND ANCHORING DEVICES
- EXISTING 2X4 TROFFER LIGHT TO BE REMOVED, INCLUDING ALL SUPPORT, BRACING WIRES AND ANCHORAGE DEVICES
- EXISTING 2X2 CEILING FRAME & TILES TO BE DEMOLISHED, INCLUDING ALL SUPPORT, BRACING WIRES AND ANCHORAGE DEVICES
- EXISTING 2X4 TROFFER LIGHT TO BE REMOVED, INCLUDING ALL SUPPORT, BRACING WIRES AND ANCHORAGE DEVICES
- EXISTING 2X2 LIGHT TO REMAIN. PROTECT IN PLACE
- EXISTING CEILING FRAME TO REMAIN. PROTECT IN PLACE
- EXISTING 4X4 TROFFER LIGHT TO BE REMOVED
- EXISTING CORK CEILING TO BE REMOVED
- EXISTING GYP. BOARD CEILING TO BE REMOVED
- EXISTING PLASTER AT SOFFIT TO BE REMOVED
- EXISTING CEILING FAN TO BE REMOVED
- EXISTING PROJECTOR SCREEN TO BE REMOVED AND REINSTALLED AFTER WALL/ CEILING FINISHES ARE REPLACED
- EXISTING CLOCK/ SPEAKER TO REMAIN. PROTECT IN PLACE
- EXISTING CLOCK/SPEAKER TO BE REMOVED
- EXISTING SUPPLY REGISTER TO REMAIN. PROTECT IN PLACE
- EXISTING SUPPLY REGISTER TO BE REMOVED
- EXISTING RETURN REGISTER TO REMAIN. PROTECT IN PLACE
- EXISTING RETURN REGISTER TO BE REMOVED
- EXISTING CEILING MOUNTED PROJECTOR. PROTECT IN PLACE

KEYNOTES

02.418	(D) WOOD TRELLIS, POSTS & SUPPORTS. PATCH WALL AT SUPPORT CONNECTION LOCATIONS. MATCH ADJACENT COLORS & FINISHES.
02.419	(D) PORTION OF WALL
02.481	(D) TRACK LIGHTING
02.482	(D) LIGHT FIXTURE
02.520	(D) PROJECTION SCREEN
02.521	(D) PROJECTOR
02.522	(D) CLOCK/ SPEAKER
05.505	(E) ROOF ACCESS LADDER
09.950	(E) CEILING GRID TO BE ADJUSTED FOR NEW WALLS
11.525	(E) PROJECTOR SCREEN TO BE REMOVED AND REINSTALLED AFTER WALL/CEILING FINISHES ARE REPLACED
11.526	(E) PROJECTOR TO BE REMOVED AND REINSTALLED AFTER WALL/ CEILING FINISHES ARE REPLACED
21.131	(E) FIRE-SUPPRESSION SPRINKLER SYSTEM. DISCONNECT FIRE-SUPPRESSION COMPONENTS AS NEEDED TO PERFORM CEILING WORK. ONCE CEILING WORK IS COMPLETED, REINSTALL ALL COMPONENTS.
26.513	(E) LIGHT FIXTURE TO BE REFURBISHED AND REINSTALLED, PER ELECTRICAL
27.532	(E) SPEAKER/ CLOCK SYSTEM TO REMAIN. PROTECT IN PLACE

FEBRUARY 17, 2020 - DSA SUBMITTAL

PROJECT No. :1-30-47
2/16/2021 4:57:40 PM
DRAWN BY: CHECKED BY:

REVISION:____ DATE ____ DESCRIPTION ____

RUHNAUCLARKE.COM
3775 TENTH STREET, RIVERSIDE CALIFORNIA 92501 (951) 684 4664 / 5751 PALMER WAY, SUITE C, CARLSBAD CALIFORNIA 92010 (760) 438 5899

FOOTHILLS ADULT EDUCATION CENTER
1550 Melody Lane El Cajon, CA 92019
GROSSMONT UNIFIED HIGH SCHOOL DISTRICT

REFLECTED CEILING PLAN - DEMO

A1-2.1

1-30-47

AGENCY APPROVAL
File No: 37-H4

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-119728 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/18/2021

STAMPS

CONSULTANT BRANDING

RUHNAU CLARKE ARCHITECTS

GENERAL NOTES

1. ALL LIGHT FIXTURES TO BE CENTERED IN SPACE, U.N.O.
2. ALL CEILING HEIGHTS ARE RELATIVE TO THE FINISH FLOOR DIRECTLY BENEATH.
3. ACOUSTICAL CEILING TILES AND GRID TO BE CENTERED IN ROOM. SEE SHEET **AD4.1** FOR SUSPENDED CEILING SEISMIC BRACING DETAILS AND TRAPEZE DETAILS
4. ALL EXPOSED STRUCTURE, INCLUDING MECHANICAL & PLUMBING EQUIPMENT TO BE PAINTED
5. ALL MECHANICAL, ELECTRICAL AND PLUMBING EQUIPMENT TO BE HELD AS TIGHT AS POSSIBLE TO CEILING STRUCTURE
6. ALL CONDUIT IN EXPOSED AREAS WHERE CEILING STRUCTURE IS EXPOSED CAN ONLY PENETRATE WALLS AT ROOF
7. REFER TO ELECTRICAL & MECHANICAL DRAWINGS FOR CEILING COMPONENT CALLOUTS AND FIXTURE TYPES
8. PAINT ALL SUPPLY & RETURNS OF ALL ACCENT PAINTED CEILING AREAS

MODERNIZATION LEGEND

- (N) 2'-0" x 4'-0" SUSPENDED TEE BAR ACOUSTICAL CEILING GRID & TILES
- (N) 2'-0" X 4'-0" SUSPENDED TEE BAR ACOUSTICAL CEILING TILES IN (E) GRID; (E) GRID TO BE PAINTED TO MATCH (N) GRID
- (E) 2X4 TROFFER LIGHT. REFURBISH PER ELECTRICAL AND REINSTALL AT THE SAME LOCATION.
- (N) 2X4 TROFFER LIGHT. MATCH EXISTING U.N.O.
- (N) 2X2 TROFFER LIGHT. MATCH EXISTING U.N.O.
- (E) LIGHT. REFURBISH PER ELECTRICAL. REINSTALL AT THE SAME LOCATION. PROTECT IN PLACE
- (E) CEILING GRID TO REMAIN. PROTECT IN PLACE
- (N) METAL JOIST FRAMED GYP. BOARD CEILING, PAINT
- (N) PROJECTOR SCREEN

KEYNOTES

05.505	(E) ROOF ACCESS LADDER
09.949	(E) GYP. BD. CEILING TO REMAIN. PROTECT IN PLACE
11.525	(E) PROJECTOR SCREEN TO BE REMOVED AND REINSTALLED AFTER WALL/CEILING FINISHES ARE REPLACED
11.526	(E) PROJECTOR TO BE REMOVED AND REINSTALLED AFTER WALL/ CEILING FINISHES ARE REPLACED
21.131	(E) FIRE-SUPPRESSION SPRINKLER SYSTEM. DISCONNECT FIRE-SUPPRESSION COMPONENTS AS NEEDED TO PERFORM CEILING WORK. ONCE CEILING WORK IS COMPLETED, REINSTALL ALL COMPONENTS.
26.511	SURFACE MOUNTED LIGHT PER ELECTRICAL. SEE DETAIL 13/AD4.1
26.513	(E) LIGHT FIXTURE TO BE REFURBISHED AND REINSTALLED, PER ELECTRICAL
26.515	(N) LIGHT FIXTURE PER ELECTRICAL.
27.532	(E) SPEAKER/ CLOCK SYSTEM TO REMAIN. PROTECT IN PLACE

FEBRUARY 17, 2020 - DSA SUBMITTAL

REFLECTED CEILING PLAN - NEW

SCALE: 1/8" = 1'-0"
REF.: 4/A1-7.6

1

PROJECT No. :1-30-47
2/16/2021 4:57:49 PM
DRAWN BY: CHECKED BY:

REVISION:____ DATE ____ DESCRIPTION ____

RUHNAUCLARKE.COM

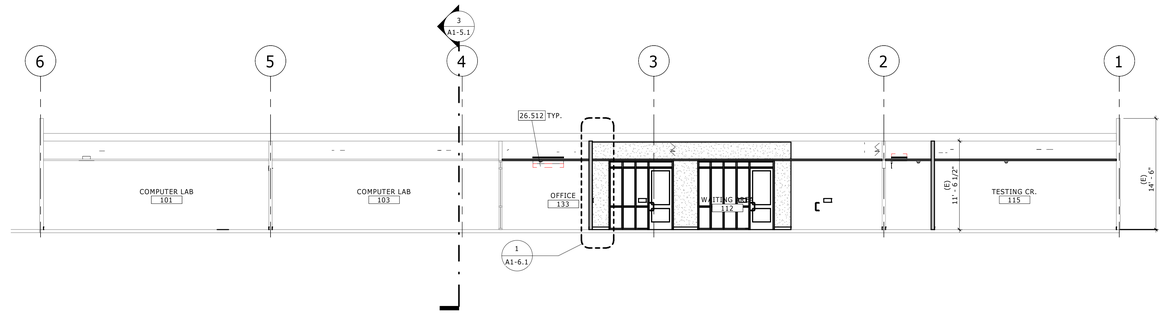
3775 TENTH STREET, RIVERSIDE CALIFORNIA 92501 (951) 684 4664 / 5751 PALMER WAY, SUITE C, CARLSBAD CALIFORNIA 92010 (760) 438 5899

FOOTHILLS ADULT EDUCATION CENTER
1550 Melody Lane El Cajon, CA 92019
GROSSMONT UNIFIED HIGH SCHOOL DISTRICT

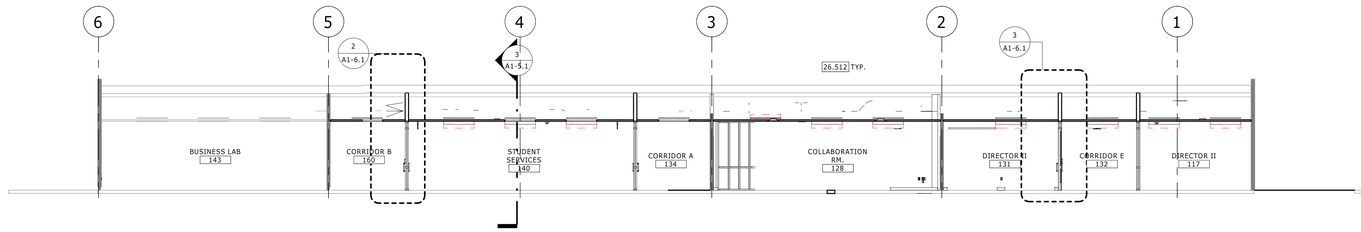
REFLECTED CEILING PLAN - NEW

A1-2.2

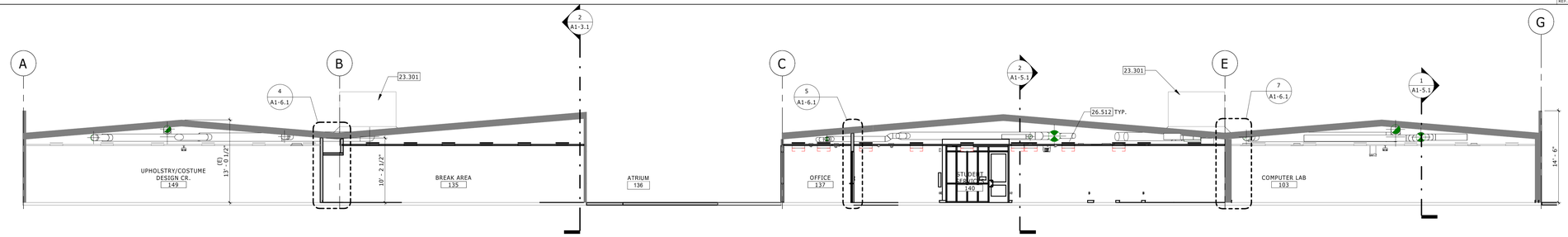
1-30-47



Section A SCALE: 1/8" = 1'-0" REF.: 1/A1-1.2 1



Section B SCALE: 1/8" = 1'-0" REF.: 1/A1-1.2 2



Section C SCALE: 1/8" = 1'-0" REF.: 1/A1-1.2 3

AGENCY APPROVAL
File No: 37-H4

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-119728 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/18/2021

STAMPS

RUHNAU CLARKE ARCHITECTS

CONSULTANT BRANDING

GENERAL NOTES

1. SLAB ON GRADE: 0'-0"
2. PROVIDE BATT INSULATION AT ALL NEW EXTERIOR WALLS, U.N.O. GYPSUM BOARD AND INSULATION SHALL EXTEND FULL HEIGHT OF WALL TO UNDERSIDE OF ROOF STRUCTURE

KEYNOTES

23.301	(E) ROOFTOP-MOUNTED MECHANICAL UNIT. PROTECT IN PLACE
26.512	LIGHT. SEE ELECTRICAL

FEBRUARY 17, 2020 - DSA SUBMITTAL

PROJECT No. :1-30-47
2/16/2021 4:57:56 PM
DRAWN BY: CHECKED BY:

REVISION:____ DATE _____ DESCRIPTION _____
REVISION:____ DATE _____ DESCRIPTION _____
REVISION:____ DATE _____ DESCRIPTION _____
REVISION:____ DATE _____ DESCRIPTION _____
REVISION:____ DATE _____ DESCRIPTION _____
REVISION:____ DATE _____ DESCRIPTION _____
REVISION:____ DATE _____ DESCRIPTION _____
REVISION:____ DATE _____ DESCRIPTION _____
REVISION:____ DATE _____ DESCRIPTION _____

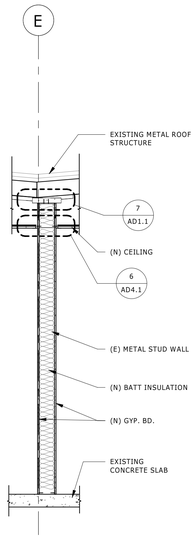
RUHNAUCLARKE.COM
3775 TENTH STREET, RIVERSIDE CALIFORNIA 92501 (951) 684 4664 / 5751 PALMER WAY, SUITE C, CARLSBAD CALIFORNIA 92010 (760) 438 5899

FOOTHILLS ADULT EDUCATION CENTER
1550 Melody Lane El Cajon, CA 92019
GROSSMONT UNIFIED HIGH SCHOOL DISTRICT

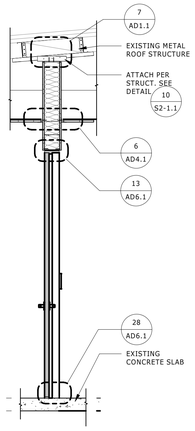
BUILDING SECTIONS

A1-5.1

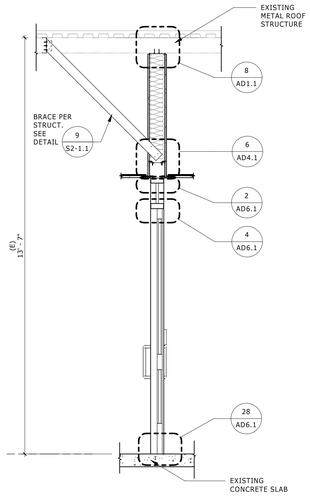
1-30-47



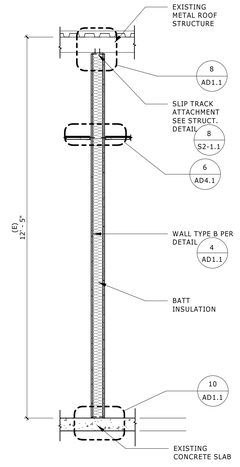
SECTION C3 SCALE: 1/2" = 1'-0" REF.: 3/A1-5.1 7



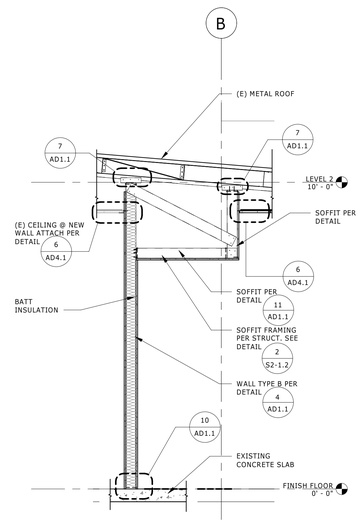
SECTION C2 SCALE: 1/2" = 1'-0" REF.: 3/A1-5.1 5



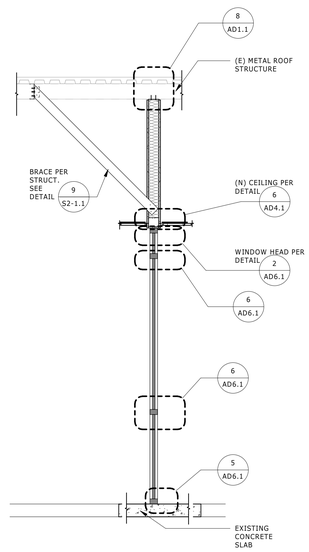
SECTION B2 SCALE: 1/2" = 1'-0" REF.: 2/A1-5.1 3



Section A1 SCALE: 1/2" = 1'-0" REF.: 1/A1-5.1 1



SECTION C1 SCALE: 1/2" = 1'-0" REF.: 3/A1-5.1 4



SECTION B1 SCALE: 1/2" = 1'-0" REF.: 2/A1-5.1 2

AGENCY APPROVAL
File No: 37-H4

STAMPS

LICENSED ARCHITECT David Ruhnau C-20662 03/31/2021 RENEWAL DATE STATE OF CALIFORNIA

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-119728 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/18/2021

CONSULTANT BRANDING

RUHNAU CLARKE ARCHITECTS

GENERAL NOTES

1. SLAB ON GRADE: 0'-0"
2. PROVIDE BATT INSULATION AT ALL NEW EXTERIOR WALLS, U.N.O. GYPSUM BOARD AND INSULATION SHALL EXTEND FULL HEIGHT OF WALL TO UNDERSIDE OF ROOF STRUCTURE

FEBRUARY 17, 2020 - DSA SUBMITTAL

PROJECT No. :1-30-47
2/16/2021 4:58:01 PM
DRAWN BY: CHECKED BY:

REVISION:___ DATE ___ DESCRIPTION ___

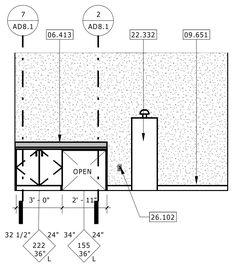
RUHNAUCLARKE.COM
3775 TENTH STREET, RIVERSIDE CALIFORNIA 92501 (951) 684 4664 / 5751 PALMER WAY, SUITE C, CARLSBAD CALIFORNIA 92010 (760) 438 5899

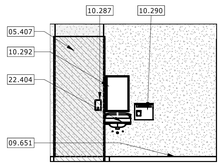
FOOTHILLS ADULT EDUCATION CENTER
1550 Melody Lane El Cajon, CA 92019
GROSSMONT UNIFIED HIGH SCHOOL DISTRICT

WALL SECTIONS

A1-6.1

1-30-47

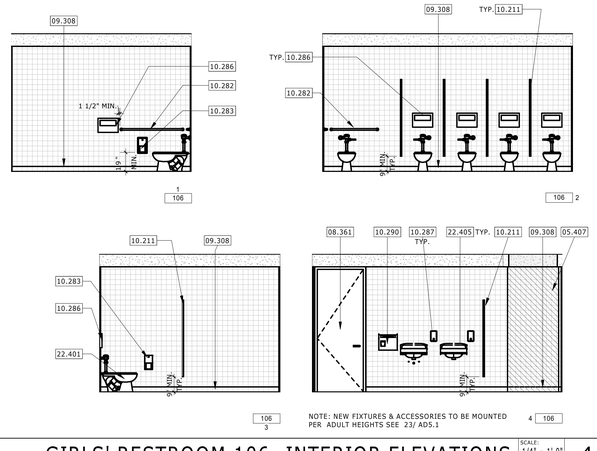




NOTE: NEW FIXTURES & ACCESSORIES TO BE MOUNTED PER ADULT HEIGHTS SEE 23/ AD5.1

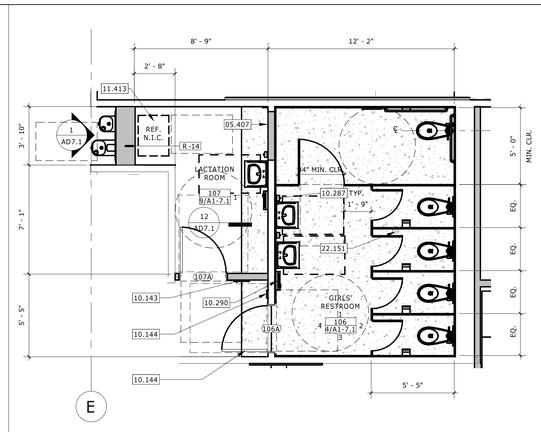
CUST 165 - INT. ELEV. SCALE: 1/4" = 1'-0" REF.: 3/A1-7.1 12

RM #107 - INT. ELEV. SCALE: 1/4" = 1'-0" REF.: / 9

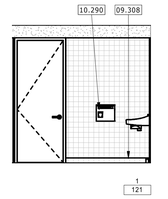


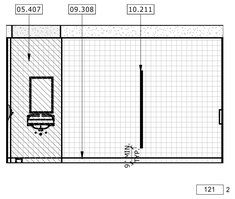
NOTE: NEW FIXTURES & ACCESSORIES TO BE MOUNTED PER ADULT HEIGHTS SEE 23/ AD5.1

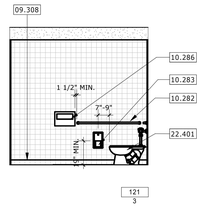
GIRLS' RESTROOM 106 -INTERIOR ELEVATIONS SCALE: 1/4" = 1'-0" REF.: / 4

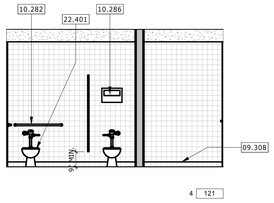


GIRLS' RESTROOM 106 - ENL. PLAN SCALE: 1/4" = 1'-0" REF.: 1/A1-1.2 1



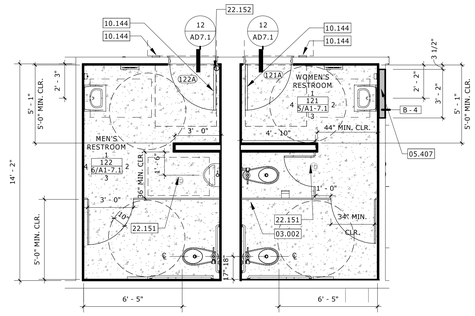




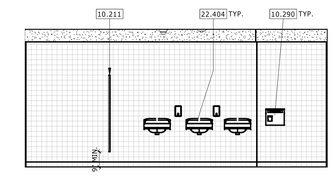


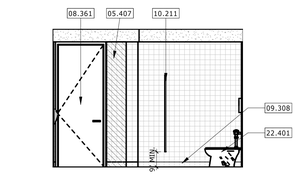
NOTE: NEW FIXTURES & ACCESSORIES TO BE MOUNTED PER ADULT HEIGHTS SEE 23/ AD5.1

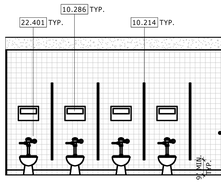
WOMENS' RESTROOM 121 - INTERIOR ELEVATIONS SCALE: 1/4" = 1'-0" REF.: / 5

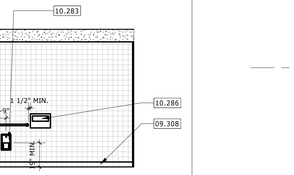


STAFF RESTROOMS 121 & 122 - ENL. PLANS SCALE: 1/4" = 1'-0" REF.: 1/A1-1.2 2



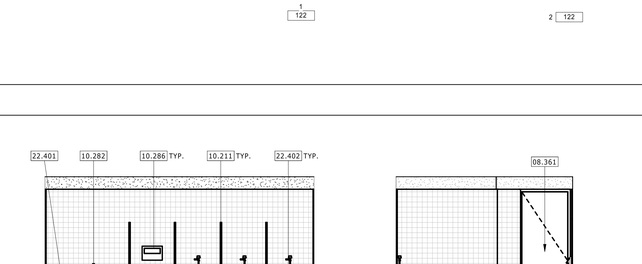






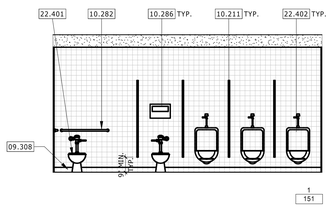
NOTE: NEW FIXTURES & ACCESSORIES TO BE MOUNTED PER ADULT HEIGHTS SEE 23/ AD5.1

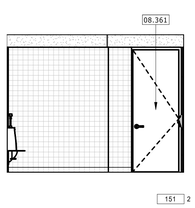
MEN'S RESTROOM 122 - INTERIOR ELEVATIONS SCALE: 1/4" = 1'-0" REF.: / 6

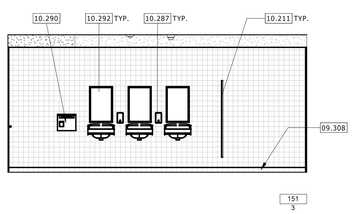


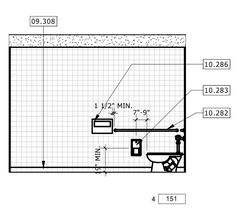
NOTE: NEW FIXTURES & ACCESSORIES TO BE MOUNTED PER ADULT HEIGHTS SEE 23/ AD5.1

GIRLS' RESTROOM 150 - INTERIOR ELEVATIONS SCALE: 1/4" = 1'-0" REF.: / 7



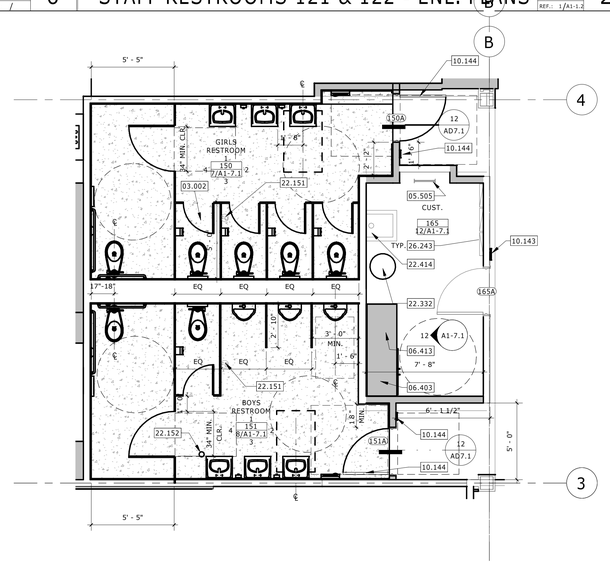






NOTE: NEW FIXTURES & ACCESSORIES TO BE MOUNTED PER ADULT HEIGHTS SEE 23/ AD5.1

BOYS' RESTROOM 151 - INTERIOR ELEVATIONS SCALE: 1/4" = 1'-0" REF.: / 8



ENLARGED GIRLS & BOYS RR. SCALE: 1/4" = 1'-0" REF.: 1/A1-1.2 3

GENERAL NOTES

1. ALL DIMENSIONS SHOWN ON THIS SHEET INDICATE FIXTURES AND ACCESSORIES MINIMUM REQUIREMENTS FOR ACCESSIBILITY. REFER TO BOTH PLANS AND ELEVATIONS FOR LOCATIONS AND INFORMATION.
2. REFER TO DETAIL 23/ADS.1 FOR TYPICAL MOUNTING HEIGHTS FOR TOILET ACCESSORIES PLUMBING FIXTURES
3. ALL WATER AND DRAIN PIPES UNDER LAVATORY SHALL BE INSULATED. THERE SHALL BE NO SHARP OR ABRASIVE OBJECTS OR SURFACES UNDER THE LAVATORY. PER CBC 2019 11B-606.5
4. CONTRACTOR SHALL PATCH AND REPAIR ALL FINISHES DAMAGED DURING DEMOLITION.
5. SELF-CLOSING FAUCET CONTROL VALVES ARE ALLOWED IF THE FAUCET REMAINS OPEN FOR AT LEAST 10 SECONDS. PER CBC 2019 11B-606.4
6. A CLEAR FLOOR SPACE 30" BY 48" COMPLY WITH CBC 2019 11B-305.3 SHALL BE PROVIDED IN FRONT OF A LAVATORY TO ALLOW FORWARD APPROACH. SUCH CLEAR FLOOR SPACE SHALL ADJOIN OR OVERLAP AN ACCESSIBLE ROUTE. PER CBC 2019 11B-305
7. WATER CLOSET AND URINAL FLUSH VALVE CONTROLS, AND FAUCET AND OPERATING MECHANISM CONTROLS, SHALL BE OPERABLE WITH ONE HAND, SHALL NOT REQUIRE TIGHT GRASPING, PINCHING, OR TWISTING OF THE WRIST, AND SHALL BE MOUNTED NO MORE THAN 44" ABOVE THE FLOOR (PER CBC 2019 11B-308) AND REQUIRE A FORCE TO OPERATE TO BE NO GREATER THAN 5 LBF. MAX. (PER CBC 2019 11B-309.4). CONTRACTOR TO FIELD VERIFY EXISTING CONDITIONS AND CORRECT AS NECESSARY TO COMPLY WITH CODE.
8. SEE REFELCTED CEILING PLANS DRAWINGS FOR RESTROOM CEILING PLAN INFORMATION

LEGEND

(E) SURFACE MOUNTED FIRE EXTINGUISHER. REMOVE AND REINSTALL AFTER WALL FINISHES ARE INSTALLED 17/AD1.1

(N) FIRE EXTINGUISHER & CABINET PER DETAIL 16/AD1.1

CERAMIC WALL TILE PER FINISH SCHEDULE. INSTALL PER 15/AD1.1

INFILL AT EXISTING WALL PER DETAIL 12/AD1.1

INTERIOR PAINTING	ACOUSTICALWALL PANEL
P-3	AWP-1
P-4	AWP-2
P-5	AWP-3

NOTE: SEE CMF LEGEND ON SHEET ID-1.0 FOR ADDITIONAL INFORMATION REGARDING FINISHES

KEYNOTES

03.002	PATCH CONCRETE AT LOCATION OF TRENCH/ SLAB REMOVAL. PROVIDE FLUSH TRANSITION
05.407	METAL STUD INTERIOR WALL INFILL PER DET. 12/AD1.1
05.505	(E) ROOF ACCESS LADDER
06.403	(N) CASEWORK. SEE INTERIOR ELEVATIONS FOR TYPES/ DIMENSIONS
06.413	PLASTIC LAMINATE COUNTERTOP WITH BACKSPLASH
08.361	(N) DOOR PER DOOR SCHEDULE
09.308	TILE BASE
09.651	RESILIENT BASE PER FINISH SCHEDULE
10.143	ROOM IDENTIFICATION SIGNAGE. REFER TO DETAIL 3/ADS.1
10.144	RESTROOM IDENTIFICATION SIGNAGE. REFER TO DETAIL 8/ADS.1
10.211	TOILET PARTITION
10.214	PLASTIC TOILET PARTITION
10.282	GRAB BAR
10.283	TOILET PAPER DISPENSER
10.286	TOILET SEAT COVER DISPENSER
10.287	SOAP DISPENSER
10.290	ELECTRIC HAND DRYER
10.292	GLASS MIRROR
11.413	REFRIGERATOR, N.I.C.
22.151	(E) FLOOR DRAIN. SEE PLUMBING DRAWINGS. RECONNECT AT THE SAME LOCATION FOLLOWING SLAB WORK & FLOOR FINISH REPLACEMENT. PROVIDE NEW COVER
22.152	(E) CLEAN OUT. SEE PLUMBING DRAWINGS. PROVIDE NEW COVER AFTER FLOOR FINISHES HAVE BEEN REPLACED
22.332	(E) RELOCATED WATER HEATER.
22.401	WATER CLOSET
22.402	URINAL
22.404	(N) LAVATORY
22.405	SINK
22.414	(E) MOP SINK TO REMAIN. PROTECT IN PLACE
26.102	ELECTRICAL RECEPTACLE PER ELECTRICAL DRAWINGS
26.243	(E) ELECTRICAL PANEL TO REMAIN. PROTECT IN PLACE
26.512	LIGHT. SEE ELECTRICAL

AGENCY APPROVAL File No: 37-H4

LICENSED ARCHITECT David Ruhnau STATE OF CALIFORNIA

IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT C-20662 03/31-2021 RENEWAL DATE

APP: 04-119728 INC: REVIEWED FOR SS ☑ FLS ☑ ACS ☑ DATE: 02/18/2021

STAMPS

CONSULTANT BRANDING

RUHNAU CLARKE ARCHITECTS

FEBRUARY 17, 2020 - DSA SUBMITTAL

PROJECT No. :1-30-47
2/16/2021 4:58:25 PM
DRAWN BY: CHECKED BY:

REVISION:____ DATE ____ DESCRIPTION ____
REVISION:____ DATE ____ DESCRIPTION ____
REVISION:____ DATE ____ DESCRIPTION ____
REVISION:____ DATE ____ DESCRIPTION ____
REVISION:____ DATE ____ DESCRIPTION ____
REVISION:____ DATE ____ DESCRIPTION ____
REVISION:____ DATE ____ DESCRIPTION ____
REVISION:____ DATE ____ DESCRIPTION ____

GROSSMONT UNION HIGH SCHOOL DISTRICT

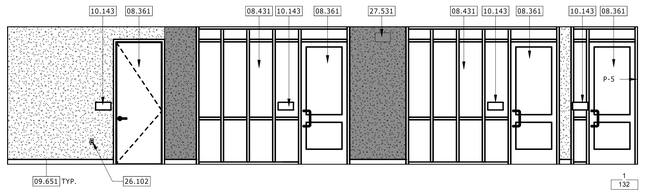
RUHNAUCLARKE.COM

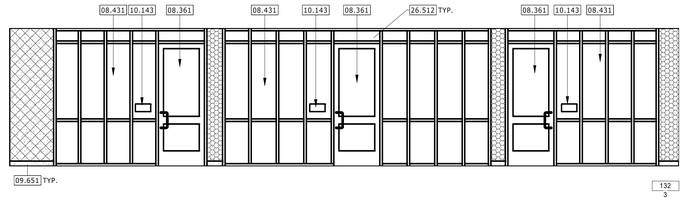
3775 TENTH STREET, RIVERSIDE CALIFORNIA 92501 (951) 684 4664 / 5751 PALMER WAY, SUITE C, CARLSBAD CALIFORNIA 92010 (760) 438 5899

FOOTHILLS ADULT EDUCATION CENTER

1550 Melody Lane El Cajon, CA 92019
GROSSMONT UNIFIED HIGH SCHOOL DISTRICT

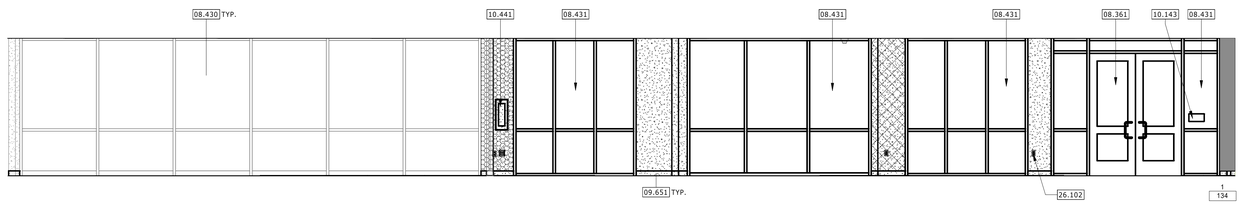
ENLARGED PLANS / INTERIOR ELEVATIONS **A1-7.1**

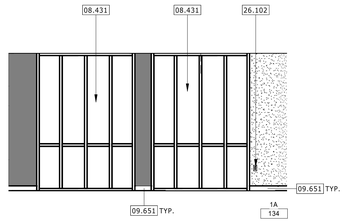


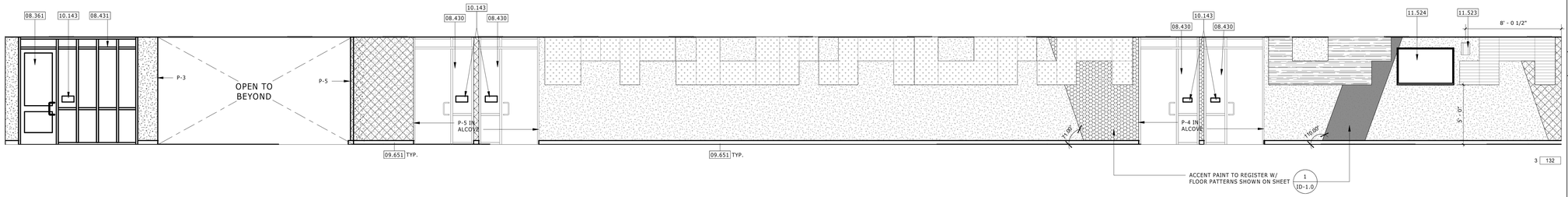


CORRIDOR E (RM 132) - INTERIOR ELEVATIONS

SCALE: 1/4" = 1'-0" REF.: 9/A1-7.5 — 1

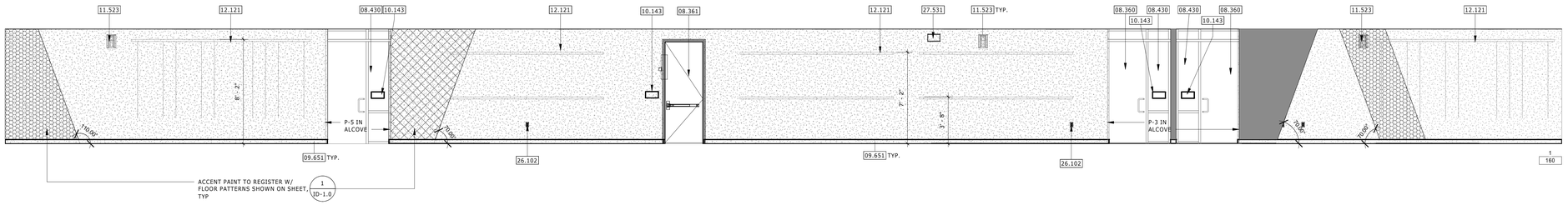


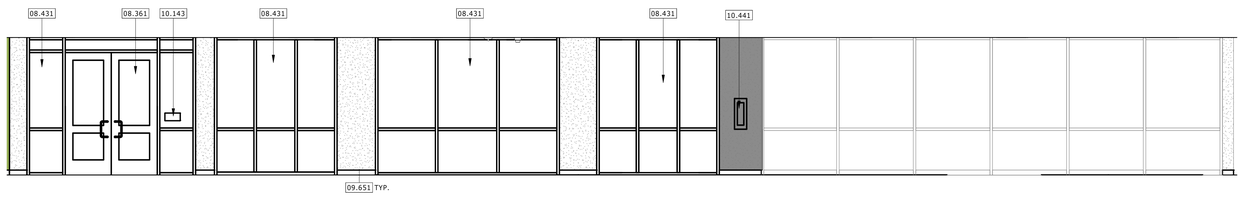




CORRIDOR A (RM 134) - INTERIOR ELEVATION NORTH

SCALE: 1/4" = 1'-0" REF.: / — 2





CORRIDOR B (RM 160) - INTERIOR ELEVATIONS

SCALE: 1/4" = 1'-0" REF.: / — 4

GENERAL NOTES

1. VERIFY ALL DIMENSIONS PRIOR TO CONSTRUCTION.
2. PROVIDE STUD BRACING AND SUPPORT FOR ALL WALL MOUNTED FIXTURES AND ACCESSORIES. PER DETAIL 16/SO-2.1
3. PROVIDE GROMMETS AND RINGS IN COUNTERTOPS, 60°O.C. FOR POWER AND DATA
4. ALL WALLS TO BY GYP. BD. U.N.O.

INTERIOR ELEVATIONS LEGEND

- (E) SURFACE MOUNTED FIRE EXTINGUISHER. REMOVE AND REINSTALL AFTER WALL FINISHES ARE INSTALLED — 17/AD1.1
- (N) FIRE EXTINGUISHER & CABINET PER DETAIL — 16/AD1.1
- CERAMIC WALL TILE PER FINISH SCHEDULE. INSTALL PER — 15/AD1.1
- INFILL AT EXISTING WALL PER DETAIL — 12/AD1.1

INTERIOR PAINTING

- P-3
- P-4
- P-5

ACOUSTICALWALL PANEL

- AWP-1
- AWP-2
- AWP-3

NOTE: SEE CMF LEGEND ON SHEET - ID-1.0 FOR ADDITIONAL INFORMATION REGARDING FINISHES

KEYNOTES

08.360	(E) DOOR. PROTECT IN PLACE
08.361	(N) DOOR PER DOOR SCHEDULE
08.430	(E) STOREFRONT. PROTECT IN PLACE
08.431	(N) ALUMINUM STOREFRONT
09.651	RESILIENT BASE PER FINISH SCHEDULE
10.143	ROOM IDENTIFICATION SIGNAGE. REFER TO DETAIL 3/AD5.1
10.441	FIRE EXTINGUISHER CABINET PER DETAIL 16/AD1.1
11.523	(N) SPEAKER, PER ELECTRICAL DRAWINGS
11.524	TELEVISION OFCI. MOUNT PER 21/AD8.1
12.121	HANGING ART DISPLAY SYSTEM, REF SPEC SECTION 12 15 00
26.102	ELECTRICAL RECEPTACLE PER ELECTRICAL DRAWINGS
26.512	LIGHT. SEE ELECTRICAL
27.531	SPEAKER/ CLOCK SYSTEM. SEE ELECTRICAL DRAWINGS

AGENCY APPROVAL
File No: 37-H4

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-119728 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/18/2021

LICENSED ARCHITECT David Ruhnau C-20662 03-31-2021 RENEWAL DATE STATE OF CALIFORNIA

STAMPS

RUHNAU CLARKE ARCHITECTS

CONSULTANT BRANDING

FEBRUARY 17, 2020 - DSA SUBMITTAL

PROJECT No. :1-30-47
2/16/2021 4:58:35 PM
DRAWN BY: CHECKED BY:

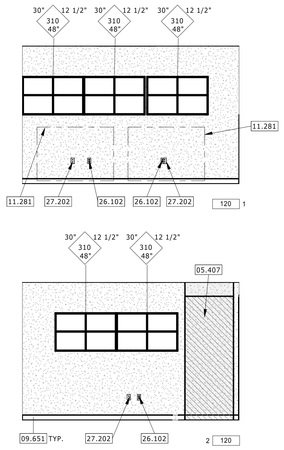
REVISION:____ DATE _____ DESCRIPTION _____

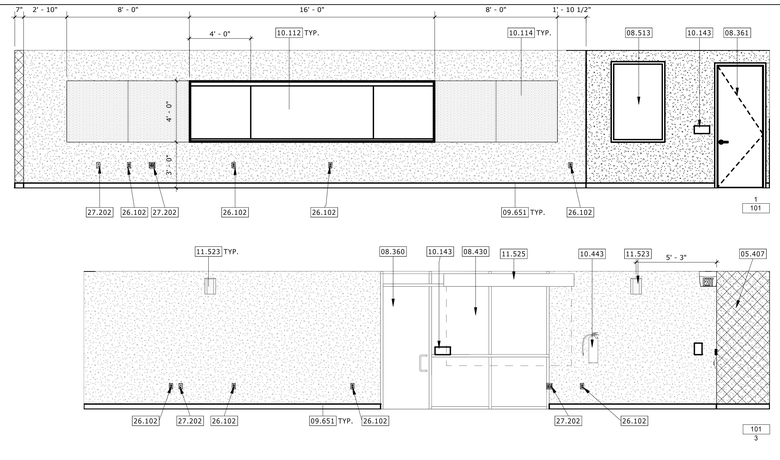
RUHNAUCLARKE.COM

3775 TENTH STREET, RIVERSIDE CALIFORNIA 92501 (951) 684 4664 / 5751 PALMER WAY, SUITE C, CARLSBAD CALIFORNIA 92010 (760) 438 5899

FOOTHILLS ADULT EDUCATION CENTER
1550 Melody Lane El Cajon, CA 92019
GROSSMONT UNIFIED HIGH SCHOOL DISTRICT

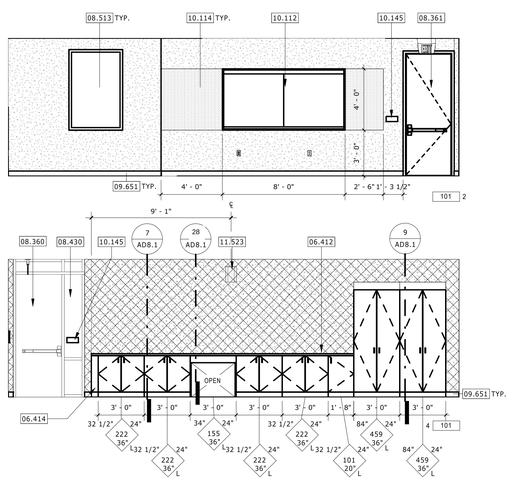
INTERIOR ELEVATIONS | **A1-7.2**





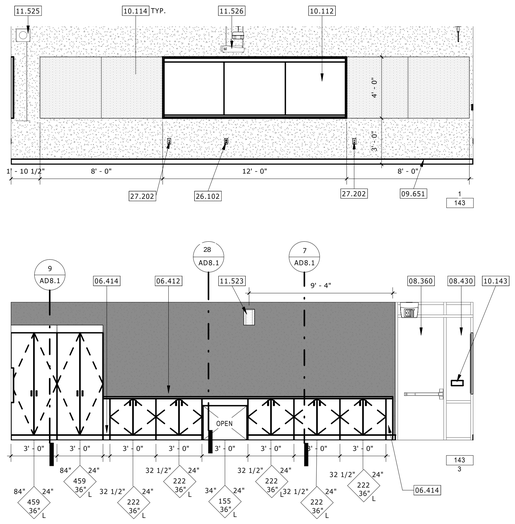
ROOM #120 INT. ELEVS.

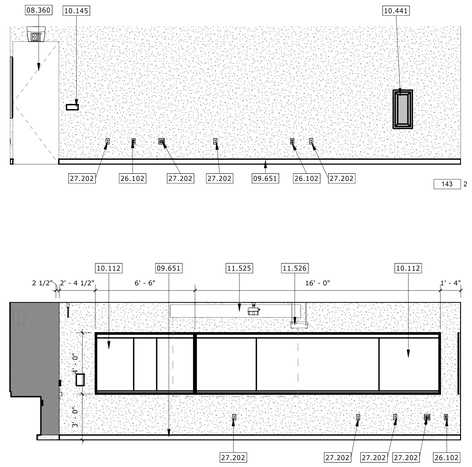
SCALE: 1/4" = 1'-0" REF.: 15



RM #101 COMPUTER LAB - INTERIOR ELEVATION

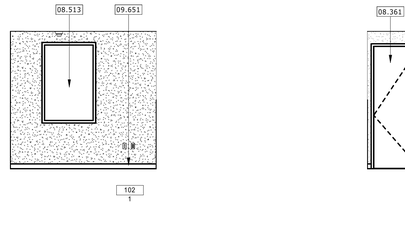
SCALE: 1/4" = 1'-0" REF.: 1





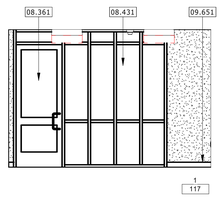
RM #143 BUSINESS LAB - INTERIOR ELEVATION NORTH

SCALE: 1/4" = 1'-0" REF.: 6



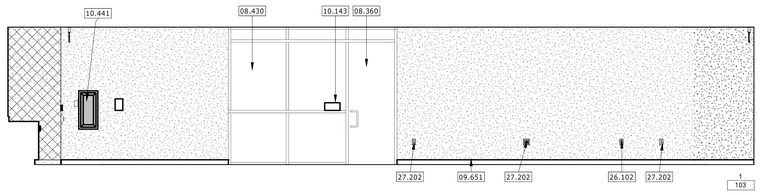
RM #102 OFFICE - INTERIOR ELEVATION WEST

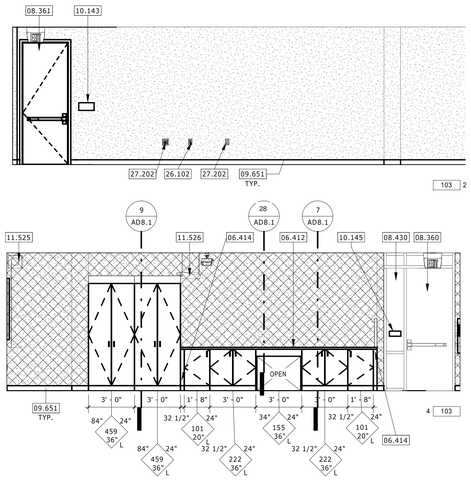
SCALE: 1/4" = 1'-0" REF.: 2



RM #117 - INT. ELEVATION

SCALE: 1/4" = 1'-0" REF.: 3





RM #103 - COMPUTER LAB - INTERIOR ELEVATION NORTH

SCALE: 1/4" = 1'-0" REF.: 10

GENERAL NOTES

1. VERIFY ALL DIMENSIONS PRIOR TO CONSTRUCTION.
2. PROVIDE STUD BRACING AND SUPPORT FOR ALL WALL MOUNTED FIXTURES AND ACCESSORIES. PER DETAIL 16/50-2.1
3. PROVIDE GROMMETS AND RINGS IN COUNTERTOPS, 60°O.C. FOR POWER AND DATA
4. ALL WALLS TO BY GYP. BD. U.N.O.

INTERIOR ELEVATIONS LEGEND

- (E) SURFACE MOUNTED FIRE EXTINGUISHER. REMOVE AND REINSTALL AFTER WALL FINISHES ARE INSTALLED — 17/AD1.1
- (N) FIRE EXTINGUISHER & CABINET PER DETAIL — 16/AD1.1
- CERAMIC WALL TILE PER FINISH SCHEDULE. INSTALL PER — 15/AD1.1
- INFILL AT EXISTING WALL PER DETAIL — 12/AD1.1

INTERIOR PAINTING		ACOUSTICALWALL PANEL	
	P-3		AWP-1
	P-4		AWP-2
	P-5		AWP-3

NOTE: SEE CMF LEGEND ON SHEET ID-1.0 FOR ADDITIONAL INFORMATION REGARDING FINISHES

KEYNOTES

05.407	METAL STUD INTERIOR WALL INFILL PER DET. 12/AD1.1
06.412	PLASTIC LAMINATE COUNTERTOP
06.414	PLASTIC LAMINIATE FILLER PANEL
08.360	(E) DOOR. PROTECT IN PLACE
08.361	(N) DOOR PER DOOR SCHEDULE
08.430	(E) STOREFRONT. PROTECT IN PLACE
08.431	(N) ALUMINUM STOREFRONT
08.513	(N) WINDOW PER WINDOW TYPES ON SHEET A8.1
09.651	RESILIENT BASE PER FINISH SCHEDULE
10.112	(N) MARKERBOARD. SEE MOUNTING DETAIL 19/AD1.1
10.114	TACKABLE WALL PANEL SYSTEM
10.143	ROOM IDENTIFICATION SIGNAGE. REFER TO DETAIL 3/AD5.1
10.145	EXIT SIGNAGE. REFER TO DETAIL 2/AD5.1
10.441	FIRE EXTINGUISHER CABINET PER DETAIL 16/AD1.1
10.443	(E) FIRE EXTINGUISHER TO BE REMOVED AND REINSTALLED AT THE SAME LOCATION, AFTER WALL FINISHES HAVE BEEN REPLACED. SEE DETAIL 17/AD1.1
11.281	COPIER/ PRINTER N.I.C.
11.523	(N) SPEAKER, PER ELECTRICAL DRAWINGS
11.525	(E) PROJECTOR SCREEN TO BE REMOVED AND REINSTALLED AFTER WALL/CEILING FINISHES ARE REPLACED
11.526	(E) PROJECTOR TO BE REMOVED AND REINSTALLED AFTER WALL/ CEILING FINISHES ARE REPLACED
26.102	ELECTRICAL RECEPTACLE PER ELECTRICAL DRAWINGS
27.202	DATA RECEPTACLE PER ELECTRICAL DRAWINGS

AGENCY APPROVAL
File No: 37-H4

STAMPS

LICENSED ARCHITECT David Ruhnau C-20662 03/31-2021 RENEWAL DATE STATE OF CALIFORNIA

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-119728 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/18/2021

CONSULTANT BRANDING

RUHNAU CLARKE ARCHITECTS

FEBRUARY 17, 2020 - DSA SUBMITTAL

PROJECT No. :1-30-47
2/16/2021 4:58:52 PM
DRAWN BY: CHECKED BY:

REVISION:____ DATE ____ DESCRIPTION ____

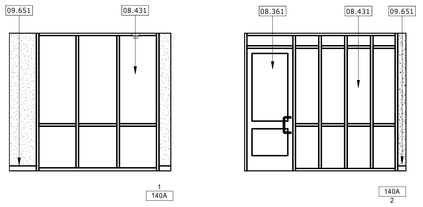
RUHNAUCLARKE.COM

3775 TENTH STREET, RIVERSIDE CALIFORNIA 92501 (951) 684 4664 / 5751 PALMER WAY, SUITE C, CARLSBAD CALIFORNIA 92010 (760) 438 5899

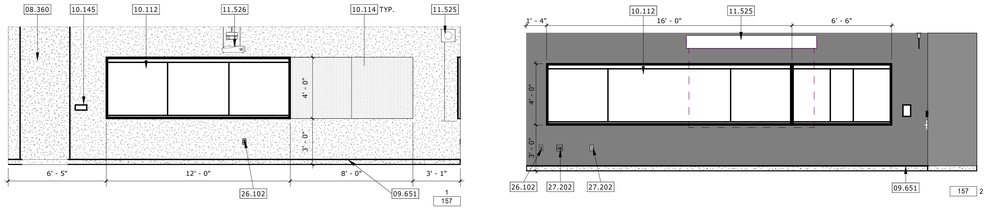
FOOTHILLS ADULT EDUCATION CENTER
1550 Melody Lane El Cajon, CA 92019
GROSSMONT UNIFIED HIGH SCHOOL DISTRICT

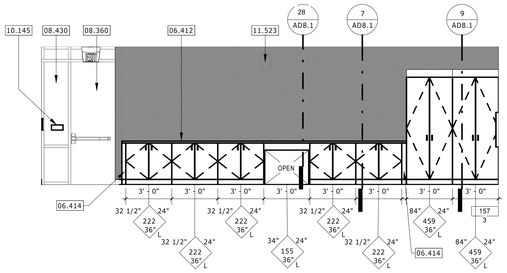
INTERIOR ELEVATIONS | A1-7.3

1-30-47

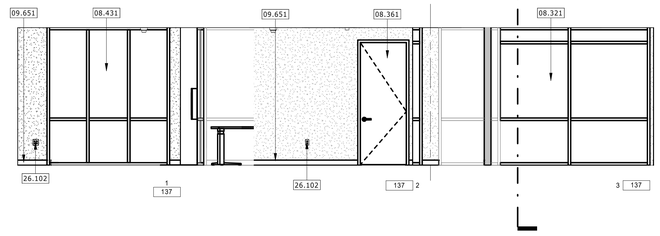


ROOM 140A OFFICE - INTERIOR ELEV. SCALE: 1/4" = 1'-0" REF.: / 14

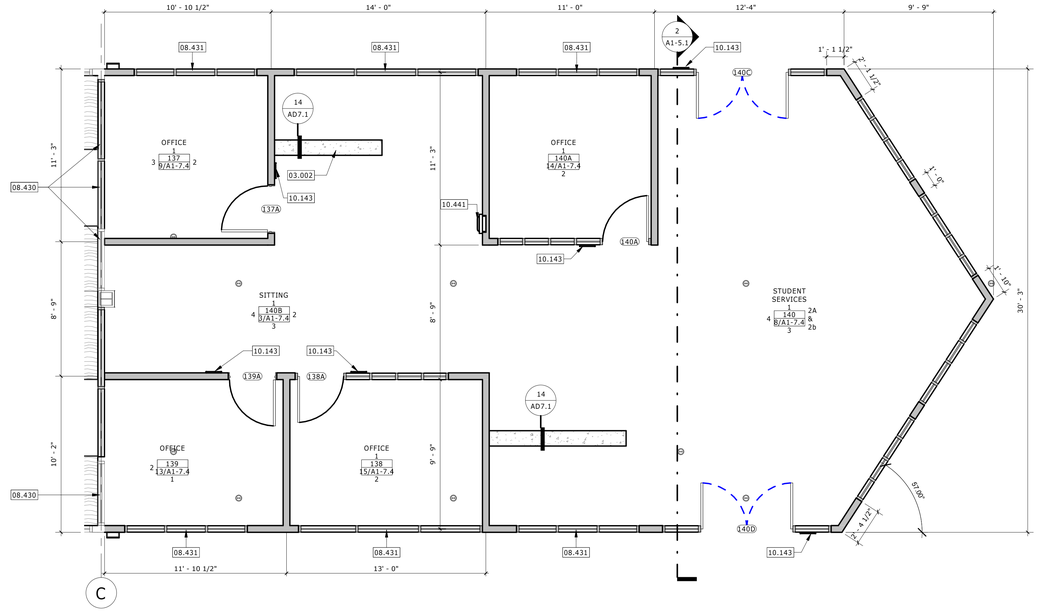




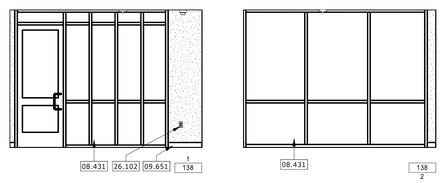
RM# 157 ADULT BASIC ED - INTERIOR ELEVATIONS SCALE: 1/4" = 1'-0" REF.: / 1



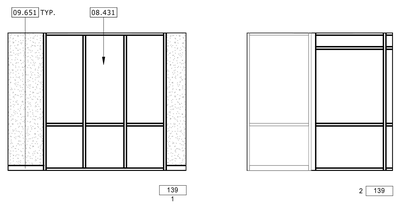
ROOM 137 OFFICE INTERIOR ELEVATION SCALE: 1/4" = 1'-0" REF.: / 9



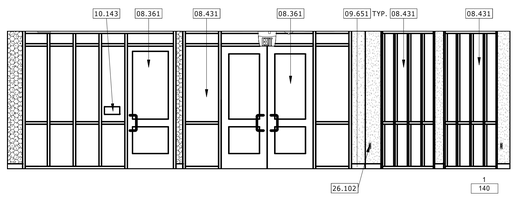
ENLARGED PLAN - ROOMS 137, 138, 139, 140, 140A SCALE: 1/4" = 1'-0" REF.: /A1-1.2 2

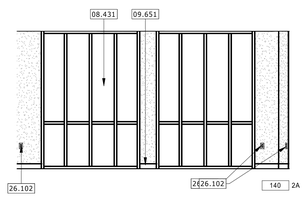


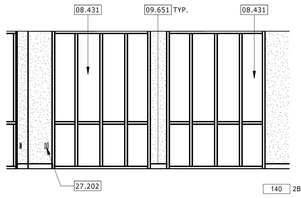
ROOM 138 OFFICE - INTERIOR ELEV. SCALE: 1/4" = 1'-0" REF.: / 15

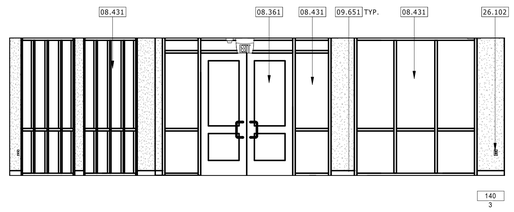


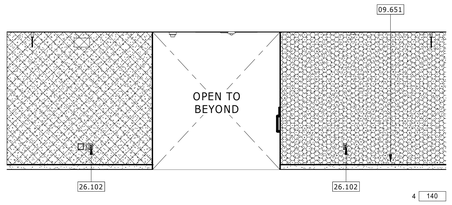
ROOM 139 OFFICE - INTERIOR ELEV. SCALE: 1/4" = 1'-0" REF.: / 13



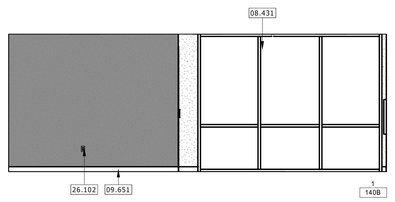


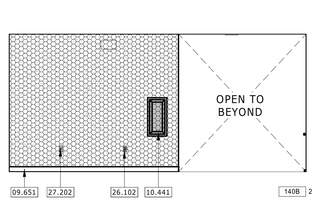


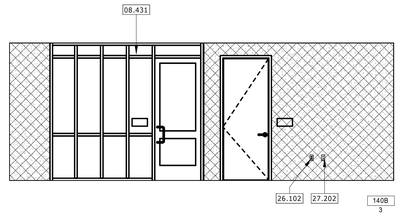


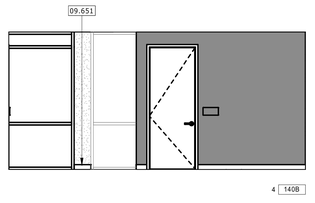


ROOM 140 STUDENT SERVICES - INTERIOR ELEVATION SCALE: 1/4" = 1'-0" REF.: / 8









ROOM 140B SITTING - INTERIOR ELEVATIONS SCALE: 1/4" = 1'-0" REF.: / 3

GENERAL NOTES

1. VERIFY ALL DIMENSIONS PRIOR TO CONSTRUCTION.
2. PROVIDE STUD BRACING AND SUPPORT FOR ALL WALL MOUNTED FIXTURES AND ACCESSORIES. PER DETAIL 16/SO-2.1
3. PROVIDE GROMMETS AND RINGS IN COUNTERTOPS, 60°O.C. FOR POWER AND DATA
4. ALL WALLS TO BY GYP. BD. U.N.O.

INTERIOR ELEVATIONS LEGEND

- (E) SURFACE MOUNTED FIRE EXTINGUISHER. REMOVE AND REINSTALL AFTER WALL FINISHES ARE INSTALLED — 17/AD1.1
- (N) FIRE EXTINGUISHER & CABINET PER DETAIL — 16/AD1.1
- CERAMIC WALL TILE PER FINISH SCHEDULE. INSTALL PER — 15/AD1.1
- INFILL AT EXISTING WALL PER DETAIL — 12/AD1.1

INTERIOR PAINTING

- P-3
- P-4
- P-5

ACOUSTICALWALL PANEL

- AWP-1
- AWP-2
- AWP-3

NOTE: SEE CMF LEGEND ON SHEET -/D-1.0 FOR ADDITIONAL INFORMATION REGARDING FINISHES

KEYNOTES

03.002	PATCH CONCRETE AT LOCATION OF TRENCH/ SLAB REMOVAL. PROVIDE FLUSH TRANSITION
06.412	PLASTIC LAMINATE COUNTERTOP
06.414	PLASTIC LAMINATE FILLER PANEL
08.321	(E) SLIDING GLASS DOOR TO BE REMOVED. REPLACE STOREFRONT PANELS WITH GLAZING TO MATCH EXISTING ADJACENT GLAZING.
08.360	(E) DOOR. PROTECT IN PLACE
08.361	(N) DOOR PER DOOR SCHEDULE
08.430	(E) STOREFRONT. PROTECT IN PLACE
08.431	(N) ALUMINUM STOREFRONT
09.651	RESILIENT BASE PER FINISH SCHEDULE
10.112	(N) MARKERBOARD. SEE MOUNTING DETAIL 19/AD1.1
10.114	TACKABLE WALL PANEL SYSTEM
10.143	ROOM IDENTIFICATION SIGNAGE. REFER TO DETAIL 3/AD5.1
10.145	EXIT SIGNAGE. REFER TO DETAIL 2/AD5.1
10.441	FIRE EXTINGUISHER CABINET PER DETAIL 16/AD1.1
11.523	(N) SPEAKER, PER ELECTRICAL DRAWINGS
11.525	(E) PROJECTOR SCREEN TO BE REMOVED AND REINSTALLED AFTER WALL/CEILING FINISHES ARE REPLACED
11.526	(E) PROJECTOR TO BE REMOVED AND REINSTALLED AFTER WALL/ CEILING FINISHES ARE REPLACED
26.102	ELECTRICAL RECEPTACLE PER ELECTRICAL DRAWINGS
27.202	DATA RECEPTACLE PER ELECTRICAL DRAWINGS

AGENCY APPROVAL File No: 37-H4

LICENSED ARCHITECT David Ruhnau C-20662 03/31-2021 RENEWAL DATE STATE OF CALIFORNIA

IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT
APP: 04-119728 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/18/2021

STAMPS

RUHNAU CLARKE ARCHITECTS

CONSULTANT BRANDING

FEBRUARY 17, 2020 - DSA SUBMITTAL

PROJECT No. :1-30-47
2/16/2021 4:59:09 PM
DRAWN BY: CHECKED BY:

REVISION:____ DATE ____ DESCRIPTION ____

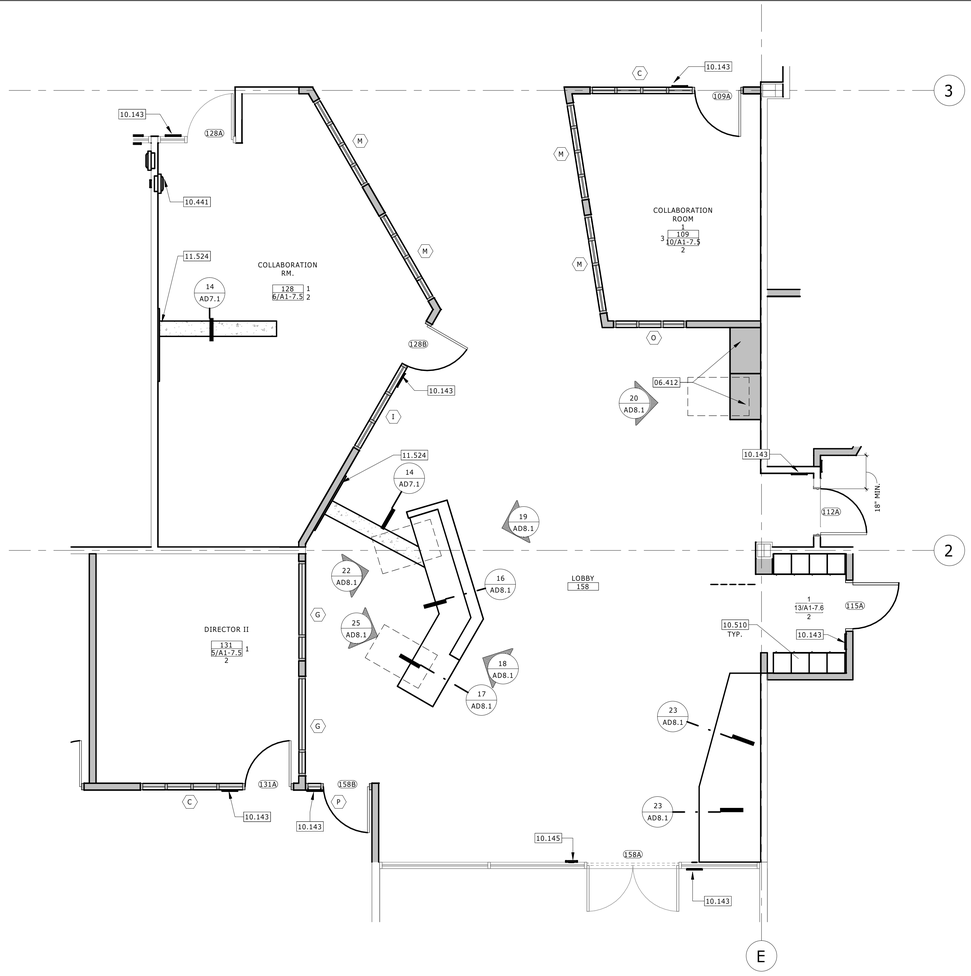
RUHNAUCLARKE.COM

3775 TENTH STREET, RIVERSIDE CALIFORNIA 92501 (951) 684 4664 / 5751 PALMER WAY, SUITE C, CARLSBAD CALIFORNIA 92010 (760) 438 5899

FOOTHILLS ADULT EDUCATION CENTER
1550 Melody Lane El Cajon, CA 92019
GROSSMONT UNIFIED HIGH SCHOOL DISTRICT

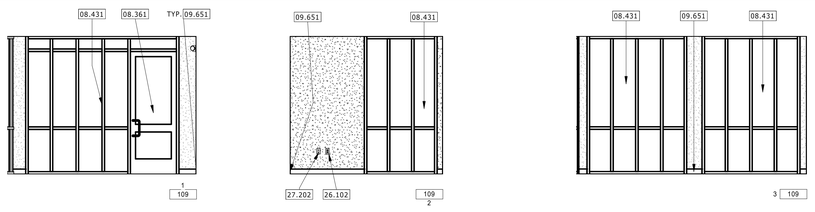
ENLARGED PLANS & INTERIOR ELEVATIONS **A1-7.4**

1-30-47

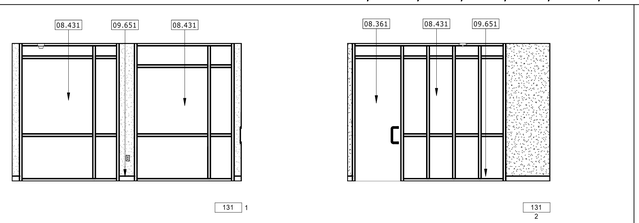


ENLARGED FLOOR PLAN ROOMS 109, 128, 131, 158 — SCALE: 1/4" = 1'-0" — REF.: 1/A1-1.2 — 9

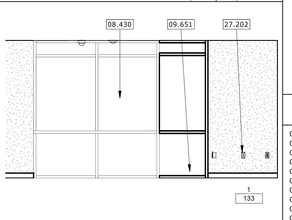
ROOMS 104, 105,110,133,153, 155,156, 164 - ENLARGED PLAN — SCALE: 1/4" = 1'-0" — REF.: 1/A1-1.2 — 1



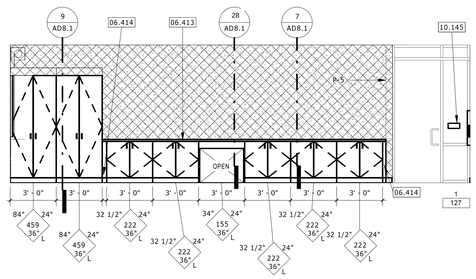
RM #109 COLLABORATION ROOM - INTERIOR ELEVATIONS — SCALE: 1/4" = 1'-0" — REF.: / — 10



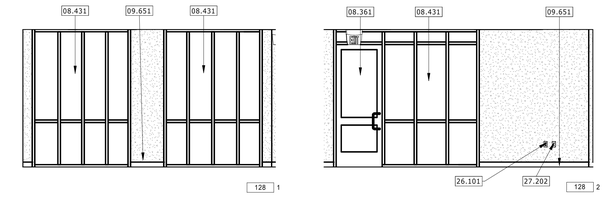
ROOM #131 PRINCIPAL - INTERIOR ELEVATIONS — SCALE: 1/4" = 1'-0" — REF.: / — 5



RM# 133 INT ELEV. — SCALE: 1/4" = 1'-0" — REF.: / — 2



RM #127 ACADEMIC CR FINISHES - INTERIOR ELEVATIONS — SCALE: 1/4" = 1'-0" — REF.: 9/A1-7.5 — 11



RM #128 -COLLABORATION ROOM - INT. ELEVATIONS — SCALE: 1/4" = 1'-0" — REF.: / — 6

AGENCY APPROVAL
File No: 37-H4

LICENSED ARCHITECT David Ruhnau No. C-20662 03/31-2021 RENEWAL DATE STATE OF CALIFORNIA

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-119728 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/18/2021

STAMPS

CONSULTANT BRANDING

RUHNAU CLARKE ARCHITECTS

GENERAL NOTES

1. VERIFY ALL DIMENSIONS PRIOR TO CONSTRUCTION.
2. PROVIDE STUD BRACING AND SUPPORT FOR ALL WALL MOUNTED FIXTURES AND ACCESSORIES. PER DETAIL 16/SO-2.1
3. PROVIDE GROMMETS AND RINGS IN COUNTERTOPS, 60°O.C. FOR POWER AND DATA
4. ALL WALLS TO BY GYP. BD. U.N.O.

INTERIOR ELEVATIONS LEGEND

(E) SURFACE MOUNTED FIRE EXTINGUISHER. REMOVE AND REINSTALL AFTER WALL FINISHES ARE INSTALLED 17/AD1.1

(N) FIRE EXTINGUISHER & CABINET PER DETAIL 16/AD1.1

CERAMIC WALL TILE PER FINISH SCHEDULE. INSTALL PER 15/AD1.1

INFILL AT EXISTING WALL PER DETAIL 12/AD1.1

INTERIOR PAINTING
P-3
P-4
P-5

ACOUSTICALWALL PANEL
AWP-1
AWP-2
AWP-3

NOTE: SEE CMF LEGEND ON SHEET ID-1.0 FOR ADDITIONAL INFORMATION REGARDING FINISHES

KEYNOTES

05.408	METAL STUD EXTERIOR WALL INFILL PER 23/AD1.1
06.412	PLASTIC LAMINATE COUNTERTOP
06.413	PLASTIC LAMINATE COUNTERTOP WITH BACKSPLASH
06.414	PLASTIC LAMINATE FILLER PANEL
08.322	(E) DOOR TO BE REINSTALLED WITH REVERSE SWING. REMOVE CLOSER. SEE DOOR SCHEDULE.
08.361	(N) DOOR PER DOOR SCHEDULE
08.403	(E) STOREFRONT TO BE MODIFIED
08.430	(E) STOREFRONT. PROTECT IN PLACE
08.431	(N) ALUMINUM STOREFRONT
09.651	RESILIENT BASE PER FINISH SCHEDULE
10.143	ROOM IDENTIFICATION SIGNAGE. REFER TO DETAIL 3/AD5.1
10.145	EXIT SIGNAGE. REFER TO DETAIL 2/AD5.1
10.441	FIRE EXTINGUISHER CABINET PER DETAIL 16/AD1.1
10.510	METAL LOCKER, CFCI. SEE DETAIL 20/AD-7.6
11.524	TELEVISION OFCI. MOUNT PER 21/AD8.1
26.101	(E) ELECTRICAL EQUIPMENT TO REMAIN. PROTECT IN PLACE
26.102	ELECTRICAL RECEPTACLE PER ELECTRICAL DRAWINGS
26.103	(E) FLOOR MOUNTED ELECTRICAL RECEPTACLE TO REMAIN. PROTECT IN PLACE.
27.202	DATA RECEPTACLE PER ELECTRICAL DRAWINGS

FEBRUARY 17, 2020 - DSA SUBMITTAL

PROJECT No. :1-30-47
2/16/2021 4:59:20 PM
DRAWN BY: CHECKED BY:

REVISION:____ DATE ____ DESCRIPTION ____

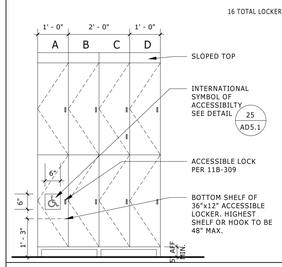
GROSSMONT UNION HIGH SCHOOL DISTRICT

RUHNAUCLARKE.COM
3775 TENTH STREET, RIVERSIDE CALIFORNIA 92501 (951) 684 4664 / 5751 PALMER WAY, SUITE C, CARLSBAD CALIFORNIA 92010 (760) 438 5899

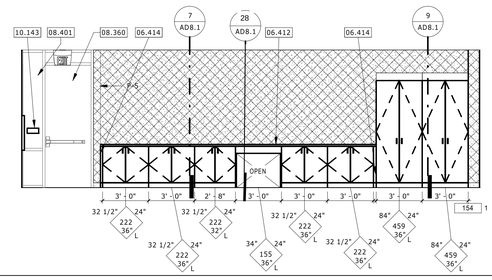
FOOTHILLS ADULT EDUCATION CENTER
1550 Melody Lane El Cajon, CA 92019
GROSSMONT UNIFIED HIGH SCHOOL DISTRICT

ENLARGED PLANS & INTERIOR ELEVATIONS | **A1-7.5**

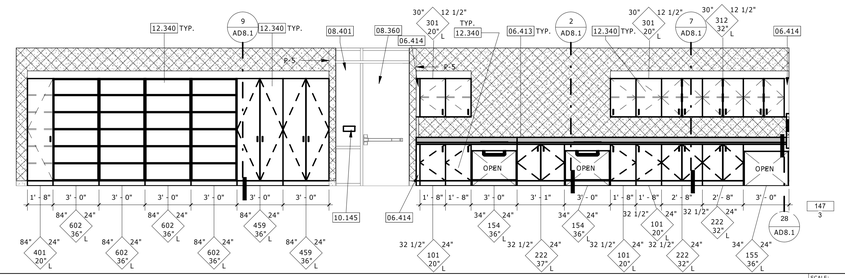
1-30-47



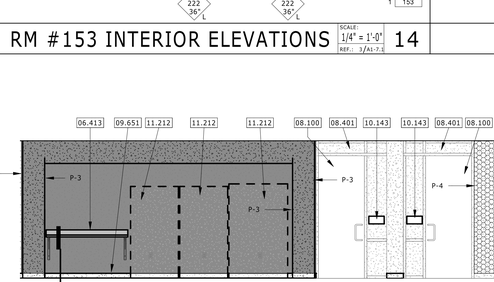
TYP. LOCKER ELEVATIONS — SCALE: 1/2" = 1'-0" — REF.: — 20



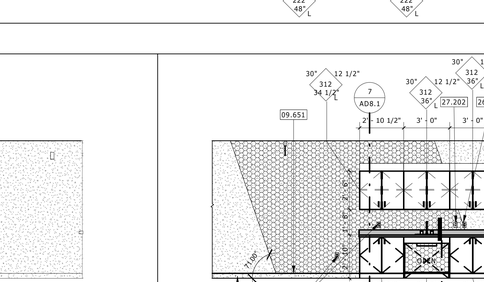
RM #154 - INTERIOR ELEVATIONS — SCALE: 1/4" = 1'-0" — REF.: — 11



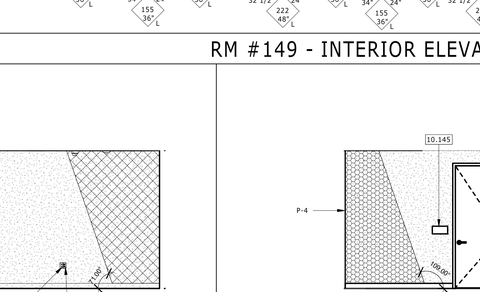
RM #147 - INTERIOR ELEVATION — SCALE: 1/4" = 1'-0" — REF.: — 1



RM #126 INT ELEV NORTH — SCALE: 1/4" = 1'-0" — REF.: — 12



RM #125 INT ELEV NORTH — SCALE: 1/4" = 1'-0" — REF.: — 7



RM #148 INTERIOR ELEVATION — SCALE: 1/4" = 1'-0" — REF.: — 2

#115A LOCKERS INT. ELEVS. — SCALE: 1/4" = 1'-0" — REF.: — 13

RM #149 - INTERIOR ELEVATIONS — SCALE: 1/4" = 1'-0" — REF.: — 4

RM #153 INTERIOR ELEVATIONS — SCALE: 1/4" = 1'-0" — REF.: 3/A1-7.6 — 14

BREAK AREA RM 135 - INT ELEV — SCALE: 1/4" = 1'-0" — REF.: — 15

RM #124 - INT. ELEVATION — SCALE: 1/4" = 1'-0" — REF.: — 5

GENERAL NOTES

1. VERIFY ALL DIMENSIONS PRIOR TO CONSTRUCTION.
2. PROVIDE STUD BRACING AND SUPPORT FOR ALL WALL MOUNTED FIXTURES AND ACCESSORIES. PER DETAIL 16 SO-2.1
3. PROVIDE GROMMETS AND RINGS IN COUNTERTOPS, 60°O.C. FOR POWER AND DATA
4. ALL WALLS TO BY GYP. BD. U.N.O.

INTERIOR ELEVATIONS LEGEND

- (E) SURFACE MOUNTED FIRE EXTINGUISHER. REMOVE AND REINSTALL AFTER WALL FINISHES ARE INSTALLED — 17 AD1.1
- (N) FIRE EXTINGUISHER & CABINET PER DETAIL — 16 AD1.1
- CERAMIC WALL TILE PER FINISH SCHEDULE. INSTALL PER — 15 AD1.1
- INFILL AT EXISTING WALL PER DETAIL — 12 AD1.1

INTERIOR PAINTING

- P-3
- P-4
- P-5

ACOUSTICALWALL PANEL

- AWP-1
- AWP-2
- AWP-3

NOTE: SEE CMF LEGEND ON SHEET — ID-1.0 — FOR ADDITIONAL INFORMATION REGARDING FINISHES

KEYNOTES

06.412	PLASTIC LAMINIATE COUNTERTOP
06.413	PLASTIC LAMINIATE COUNTERTOP WITH BACKSPLASH
06.414	PLASTIC LAMINIATE FILLER PANEL
08.100	(E) DOOR AND FRAME
08.360	(E) DOOR. PROTECT IN PLACE
08.401	(E) STOREFRONT/CURTAIN WALL
09.651	RESILIENT BASE PER FINISH SCHEDULE
10.112	(N) MARKERBOARD. SEE MOUNTING DETAIL 19/AD1.1
10.114	TACKABLE WALL PANEL SYSTEM
10.143	ROOM IDENTIFICATION SIGNAGE. REFER TO DETAIL 3/AD5.1
10.145	EXIT SIGNAGE. REFER TO DETAIL 2/AD5.1
10.441	FIRE EXTINGUISHER CABINET PER DETAIL 16/AD1.1
10.510	METAL LOCKER, CFCI. SEE DETAIL 20/AD-7.6
11.212	VENDING EQIPMENT TO COMPLY WITH CBC SECTION 11B-804.6.2, O.F.O.I.
11.413	REFRIGERATOR, N.L.C.
11.521	PROJECTION SCREEN
11.522	PROJECTOR
12.340	MANUFACTURED PLASTIC-LAMINATE-CLAD CASEWORK
12.360	COUNTERTOP
22.405	SINK
26.102	ELECTRICAL RECEPTACLE PER ELECTRICAL DRAWINGS
27.202	DATA RECEPTACLE PER ELECTRICAL DRAWINGS

AGENCY APPROVAL
File No: 37-H4

STAMPS

LICENSED ARCHITECT — David Ruhnau — C-20662 — 03-31-2021 RENEWAL DATE — STATE OF CALIFORNIA

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-119728 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/18/2021

CONSULTANT BRANDING

RUHNAU CLARKE ARCHITECTS

FEBRUARY 17, 2020 - DSA SUBMITTAL

PROJECT No. :1-30-47
2/16/2021 4:59:38 PM
DRAWN BY:
CHECKED BY:

REVISION:____ DATE ____ DESCRIPTION ____

RUHNAUCLARKE.COM

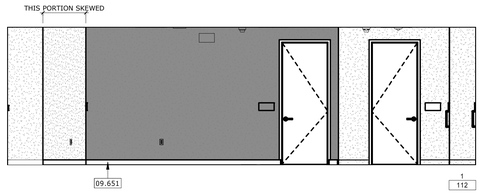
3775 TENTH STREET, RIVERSIDE CALIFORNIA 92501 (951) 684 4664 / 5751 PALMER WAY, SUITE C, CARLSBAD CALIFORNIA 92010 (760) 438 5899

FOOTHILLS ADULT EDUCATION CENTER

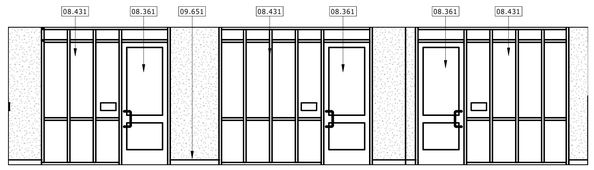
1550 Melody Lane El Cajon, CA 92019
GROSSMONT UNIFIED HIGH SCHOOL DISTRICT

INTERIOR ELEVATIONS — A1-7.6

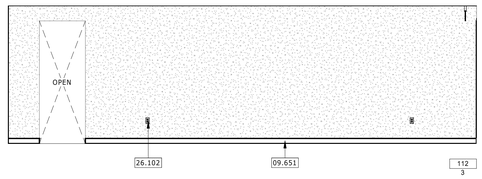
1-30-47



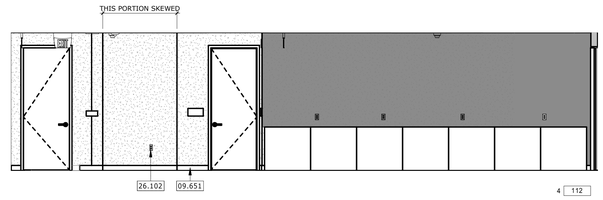
1 112



112 2



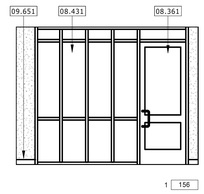
112 3



4 112

ROOM 112 WAITING - INTERIOR ELEVATIONS

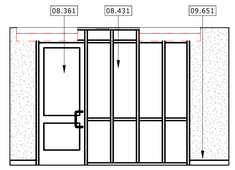
SCALE: 1/4" = 1'-0" REF.: 9/A1-7.5 — 1



1 156

ROOM 156 OFFICE - INTERIOR ELEVATIONS

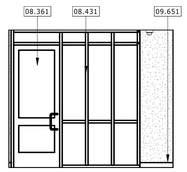
SCALE: 1/4" = 1'-0" REF.: / — 2



1 105

ROOM 105 DIRECTOR - INTERIOR ELEVATIONS

SCALE: 1/4" = 1'-0" REF.: / — 3



1 155

ROOM 155 OFFICE - INTERIOR ELEVATIONS

SCALE: 1/4" = 1'-0" REF.: / — 4

AGENCY APPROVAL
File No: 37-H4

LICENSED ARCHITECT David Ruhnau C-20662 03/31-2021 RENEWAL DATE STATE OF CALIFORNIA

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-119728 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/18/2021

STAMPS

RUHNAU CLARKE ARCHITECTS

CONSULTANT BRANDING

GENERAL NOTES

1. VERIFY ALL DIMENSIONS PRIOR TO CONSTRUCTION.
2. PROVIDE STUD BRACING AND SUPPORT FOR ALL WALL MOUNTED FIXTURES AND ACCESSORIES. PER DETAIL 16/SO-2.1
3. PROVIDE GROMMETS AND RINGS IN COUNTERTOPS, 60°O.C. FOR POWER AND DATA
4. ALL WALLS TO BY GYP. BD. U.N.O.

INTERIOR ELEVATIONS LEGEND

(E) SURFACE MOUNTED FIRE EXTINGUISHER. REMOVE AND REINSTALL AFTER WALL FINISHES ARE INSTALLED 17/AD1.1

(N) FIRE EXTINGUISHER & CABINET PER DETAIL 16/AD1.1

CERAMIC WALL TILE PER FINISH SCHEDULE. INSTALL PER 15/AD1.1

INFILL AT EXISTING WALL PER DETAIL 12/AD1.1

INTERIOR PAINTING

P-3
P-4
P-5

ACOUSTICALWALL PANEL

AWP-1
AWP-2
AWP-3

NOTE: SEE CMF LEGEND ON SHEET -/ID-1.0 FOR ADDITIONAL INFORMATION REGARDING FINISHES

KEYNOTES

08.361	(N) DOOR PER DOOR SCHEDULE
08.431	(N) ALUMINUM STOREFRONT
09.651	RESILIENT BASE PER FINISH SCHEDULE
26.102	ELECTRICAL RECEPTACLE PER ELECTRICAL DRAWINGS

FEBRUARY 17, 2020 - DSA SUBMITTAL

PROJECT No. :1-30-47
2/16/2021 4:59:47 PM
DRAWN BY: CHECKED BY:

REVISION:___ DATE ___ DESCRIPTION ___

GROSSMONT UNION HIGH SCHOOL DISTRICT

RUHNAUCLARKE.COM
3775 TENTH STREET, RIVERSIDE CALIFORNIA 92501 (951) 684 4664 / 5751 PALMER WAY, SUITE C, CARLSBAD CALIFORNIA 92010 (760) 438 5899

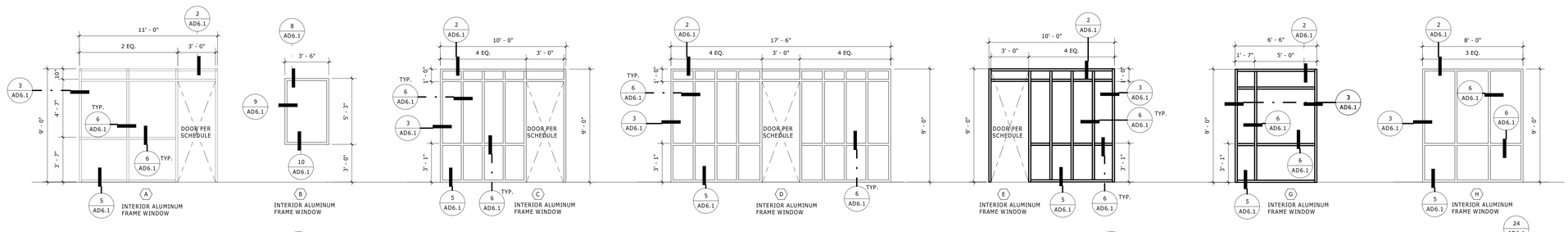
FOOTHILLS ADULT EDUCATION CENTER
1550 Melody Lane El Cajon, CA 92019
GROSSMONT UNIFIED HIGH SCHOOL DISTRICT

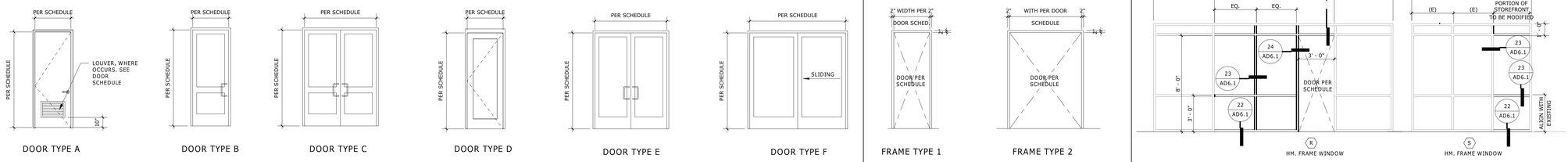
INTERIOR ELEVATIONS | **A1-7.7**

1-30-47

DOOR SCHEDULE

DOOR No.	(E)/(N)	ROOM No.	ROOM NAME	DOOR TYPE	FRAME TYPE	DOOR MEASUREMENTS WIDTH	DOOR MEASUREMENTS HEIGHT	DOOR MEASUREMENTS THICKNESS	HDWR GROUP	PANIC HDWR	DOOR MATERIAL	DOOR FINISH	DOOR COLOR	FRAME MATERIAL	FRAME FINISH	FRAME COLOR	DETAILS HEAD	DETAILS JAMB	DETAILS SILL	FIRE RATING	STC RATING	REMARKS
101B	N	101	COMPUTER LAB	A	1	3' - 0"	8' - 0"	1 3/4"	15	*	HM	PSG	P-6	HM	PSG	P-6	12/AD6.1	7/AD6.1 & 30/AD1.1	11/AD6.1	-	-	
102A	N	102	OFFICE	A	1	3' - 0"	8' - 0"	1 3/4"	02		HM	PSG	P-6	HM	PSG	P-6	8/AD6.1	9/AD6.1	28/AD6.1	-	-	
103B	N	103	COMPUTER LAB	A	1	3' - 0"	8' - 0"	1 3/4"	15	*	HM	PSG	P-6	HM	PSG	P-6	12/AD6.1	7/AD6.1 & 30/AD1.1	11/AD6.1	-	-	
104A	N	104	STORAGE	A	1	3' - 0"	8' - 0"	1 3/4"	31A		HM	PSG	P-6	HM	PSG	P-6	8/AD6.1	9/AD6.1	28/AD6.1	-	-	
105A	N	105	DIRECTOR'S OFFICE	B	1	3' - 0"	8' - 0"	1 3/4"	SF-02		ALUM	FF	ALUM-1	ALUM	FF	ALUM-1	13/AD6.1	14/AD6.1	28/AD6.1			
106A	N	106	GIRLS' RESTROOM	A	1	3' - 0"	8' - 0"	1 3/4"	21B		HM	PSG	P-6	HM	PSG	P-6	8/AD6.1 SIM.	9/AD6.1	28/AD6.1	-	-	16"X24" LOUVER
107A	N	107	LACTATION ROOM	A	1	3' - 0"	8' - 0"	1 3/4"	07A		HM	PSG	P-6	HM	PSG	P-6	8/AD6.1	9/AD6.1	28/AD6.1	-	-	
109A	N	109	COLLABORATION ROOM	B	1	3' - 0"	8' - 0"	1 3/4"	34		ALUM	FF	ALUM-1	ALUM	FF	ALUM-1	13/AD6.1	14/AD6.1	28/AD6.1			
110A	N	110	CONFERENCE ROOM	A	1	3' - 0"	8' - 0"	1 3/4"	04		HM	PSG	P-6	HM	PSG	P-6	8/AD6.1	9/AD6.1	28/AD6.1	-	-	
112A	N	112	WAITING AREA	A	1	3' - 0"	8' - 0"	1 3/4"	EXST-01		HM	PSG	P-6	HM	PSG	P-6	8/AD6.1	9/AD6.1	28/AD6.1	-	-	EXISTING DOOR @ (E) OPENING. REVERSE SWING. REMOVE CLOSER.
114A	N	114	ARCHIVE STORAGE	A	1	3' - 0"	8' - 0"	1 3/4"	02		HM	PSG	P-6	HM	PSG	P-6	8/AD6.1	9/AD6.1	28/AD6.1	-	-	
115A	N	115	TESTING CR.	A	1	3' - 0"	8' - 0"	1 3/4"	04		HM	PSG	P-6	HM	PSG	P-6	8/AD6.1	9/AD6.1	28/AD6.1			
117A	N	117	DIRECTOR II	B	1	3' - 0"	8' - 0"	1 3/4"	SF-02		ALUM	FF	ALUM-1	ALUM	FF	ALUM-1	13/AD6.1	14/AD6.1	28/AD6.1			
118A	N	118	OFFICE	B	1	3' - 0"	8' - 0"	1 3/4"	SF-02		ALUM	FF	ALUM-1	ALUM	FF	ALUM-1	13/AD6.1	14/AD6.1	28/AD6.1			
119A	N	119	OFFICE	B	1	3' - 0"	8' - 0"	1 3/4"	SF-02		ALUM	FF	ALUM-1	ALUM	FF	ALUM-1	13/AD6.1	14/AD6.1	28/AD6.1			
120A	N	120	WORK ROOM	A	1	3' - 0"	8' - 0"	1 3/4"	05		HM	PSG	P-6	HM	PSG	P-6	8/AD6.1	9/AD6.1	28/AD6.1	-	-	
128B	N	128	COLLABORATION RM.	B	1	3' - 0"	8' - 0"	1 3/4"	SF-03		ALUM	FF	ALUM-1	ALUM	FF	ALUM-1	13/AD6.1	14/AD6.1	28/AD6.1			
130A	N	130	OFFICE	B	1	3' - 0"	8' - 0"	1 3/4"	SF-02		ALUM	FF	ALUM-1	ALUM	FF	ALUM-1	13/AD6.1	14/AD6.1	28/AD6.1			
131A	N	131	DIRECTOR II	B	1	3' - 0"	8' - 0"	1 3/4"	SF-02		ALUM	FF	ALUM-1	ALUM	FF	ALUM-1	13/AD6.1	14/AD6.1	28/AD6.1			
133A	N	133	OFFICE	A	1	3' - 0"	8' - 0"	1 3/4"	02		HM	PSG	P-6	HM	PSG	P-6	8/AD6.1	9/AD6.1	28/AD6.1	-	-	
135B	N	135	BREAK AREA	B	1	3' - 0"	8' - 0"	1 3/4"	SF-06		ALUM	FF	ALUM-1	ALUM	FF	ALUM-1	24/AD6.1	24/AD6.1	25/AD6.1			
137A	N	137	OFFICE	A	1	3' - 0"	8' - 0"	1 3/4"	02		HM	PSG	P-6	HM	PSG	P-6	8/AD6.1	9/AD6.1	28/AD6.1	-	-	
138A	N	138	OFFICE	B	1	3' - 0"	8' - 0"	1 3/4"	SF-02		ALUM	FF	ALUM-1	ALUM	FF	ALUM-1	13/AD6.1	14/AD6.1	28/AD6.1			
139A	N	139	OFFICE	A	1	3' - 0"	8' - 0"	1 3/4"	02		HM	PSG	P-6	HM	PSG	P-6	8/AD6.1	9/AD6.1	28/AD6.1	-	-	
140A	N	140A	OFFICE	B	1	3' - 0"	8' - 0"	1 3/4"	SF-02		ALUM	FF	ALUM-1	ALUM	FF	ALUM-1	13/AD6.1	14/AD6.1	28/AD6.1			
140C	N	140	STUDENT SERVICES	C	2	6' - 0"	8' - 0"	1 3/4"	SF-04		ALUM	FF	ALUM-1	ALUM	FF	ALUM-1	13/AD6.1	14/AD6.1	28/AD6.1			
140D	N	140	STUDENT SERVICES	C	2	6' - 0"	8' - 0"	1 3/4"	SF-04		ALUM	FF	ALUM-1	ALUM	FF	ALUM-1	13/AD6.1	14/AD6.1	28/AD6.1			
150A	N	150	GIRLS RESTROOM	A	1	3' - 0"	8' - 0"	1 3/4"	21B		HM	PSG	P-6	HM	PSG	P-6	8/AD6.1	9/AD6.1	28/AD6.1	-	-	16"X24" LOUVER
151A	N	151	BOYS RESTROOM	A	1	3' - 0"	8' - 0"	1 3/4"	21A		HM	PSG	P-6	HM	PSG	P-6	8/AD6.1	9/AD6.1	28/AD6.1	-	-	16"X24" LOUVER
153B	N	153	ACADEMIC CR.	A	1	3' - 0"	8' - 0"	1 3/4"	15	*	HM	PSG	P-6	HM	PSG	P-6	12/AD6.1	7/AD6.1 & 30/AD1.1	11/AD6.1	-	-	
154B	N	154	NEEDLE ARTS	A	1	3' - 0"	8' - 0"	1 3/4"	15	*	HM	PSG	P-6	HM	PSG	P-6	12/AD6.1	7/AD6.1 & 30/AD1.1	11/AD6.1	-	-	
155A	N	155	OFFICE	B	1	3' - 0"	8' - 0"	1 3/4"	SF-02		ALUM	FF	ALUM-1	ALUM	FF	ALUM-1	13/AD6.1	14/AD6.1	28/AD6.1			
156A	N	156	OFFICE	B	1	3' - 0"	8' - 0"	1 3/4"	SF-02		ALUM	FF	ALUM-1	ALUM	FF	ALUM-1	13/AD6.1	14/AD6.1	28/AD6.1			
158B	N	158	LOBBY	B	1	3' - 0"	8' - 0"	1 3/4"	SF-05	*	ALUM	FF	ALUM-1	ALUM	FF	ALUM-1	13/AD6.1	14/AD6.1	28/AD6.1			
159A	N	159	BREAK ROOM AREA	B	1	3' - 0"	8' - 0"	1 3/4"	SF-06A		ALUM	FF	ALUM-1	ALUM	FF	ALUM-1	24/AD6.1	24/AD6.1	25/AD6.1			
163A	N	163	STORAGE	A	1	3' - 0"	8' - 0"	1 3/4"	35		HM	PSG	P-6	HM	PSG	P-6	8/AD6.1	9/AD6.1	28/AD6.1	-	-	
167A	N	167	STORAGE	A	1	3' - 0"	8' - 0"	1 3/4"	35		HM	PSG	P-6	HM	PSG	P-6	8/AD6.1	9/AD6.1	28/AD6.1	-	-	
101A	E	101	COMPUTER LAB	A	(E)	3' - 0"	8' - 0"	1 3/4"	EXST-01	*	(E)	PSG	P-6	(E)	PSG	P-6	(E)	(E)	(E)			
103A	E	103	COMPUTER LAB	B	(E)	3' - 0"	8' - 0"	1 3/4"	EXST-01	*	(E)	(E)	(E)	(E)	(E)	(E)	(E)	(E)	(E)			
103C	E	103	COMPUTER LAB	A	(E)	3' - 0"	8' - 0"	1 3/4"	EXST-01	*	(E)	PSG	P-6	(E)	PSG	P-6	(E)	(E)	(E)			
108A	E	108	CUST.	A	(E)	3' - 0"	8' - 0"	1 3/4"	EXST-02		(E)	PSG	P-6	(E)	PSG	P-6	(E)	(E)	(E)	-	-	(E) 16" x 24" LOUVER
121A	E	121	WOMEN'S RESTROOM	A	(E)	3' - 0"	8' - 0"	1 3/4"	EXST-03		(E)	PSG	P-6	(E)	PSG	P-6	(E)	(E)	(E)	-	-	(E) 20"X20" LOUVER. EXISTING DOOR & FRAME TO BE MODIFIED. REVERSE SWING.
122A	E	122	MEN'S RESTROOM	A	(E)	3' - 0"	8' - 0"	1 3/4"	EXST-03		(E)	PSG	P-6	(E)	PSG	P-6	(E)	(E)	(E)	-	-	(E) 16" x 24" LOUVER. EXISTING DOOR & FRAME TO BE MODIFIED. REVERSE SWING.
123A	E	123	CUST.	A	(E)	3' - 0"	8' - 0"	1 3/4"	EXST-02		(E)	PSG	P-6	(E)	PSG	P-6	(E)	(E)	(E)	-	-	
124A	E	124	CORRIDOR D	A	(E)	3' - 0"	8' - 0"	1 3/4"	EXST-01	*	(E)	PSG	P-6	(E)	PSG	P-6	(E)	(E)	(E)			
125A	E	125	ACADEMIC CR.	A	(E)	3' - 0"	8' - 0"	1 3/4"	EXST-01		(E)	PSG	P-6	(E)	PSG	P-6	(E)	(E)	(E)			
125B	E	125	ACADEMIC CR.	A	(E)	3' - 0"	8' - 0"	1 3/4"	EXST-01		(E)	PSG	P-6	(E)	PSG	P-6	(E)	(E)	(E)	-	-	
126B	E	126	ADULT BASIC EDU.	A	(E)	3' - 0"	8' - 0"	1 3/4"	EXST-01		(E)	PSG	P-6	(E)	PSG	P-6	(E)	(E)	(E)			
127A	E	127	ACADEMIC CR. FINISHES	A	(E)	3' - 0"	8' - 0"	1 3/4"	EXST-01		(E)	PSG	P-6	(E)	PSG	P-6	(E)	(E)	(E)			
128A	E	128	COLLABORATION RM.	A	(E)	3' - 0"	8' - 0"	1 3/4"	EXST-01		(E)	PSG	P-6	(E)	PSG	P-6	(E)	(E)	(E)			
143A	E	143	BUSINESS LAB	A	(E)	3' - 0"	8' - 0"	1 3/4"	EXST-01		(E)	PSG	P-6	(E)	PSG	P-6	(E)	(E)	(E)			
143B	E	143	BUSINESS LAB	A	(E)	3' - 0"	8' - 0"	1 3/4"	EXST-04		(E)	PSG	P-6	(E)	PSG	P-6	(E)	(E)	(E)	-		
145A	E	145	IDF	A	(E)	3' - 0"	8' - 0"	1 3/4"	EXST-05		(E)	PSG	P-6	(E)	PSG	P-6	(E)	(E)	(E)	-	-	NO CLOSER, MODIFY DOOR SWING
146A	E	146	ELECTRICAL	A	(E)	3' - 0"	8' - 0"	1 3/4"	EXST-06		(E)	PSG	P-6	(E)	PSG	P-6	(E)	(E)	(E)	-	-	
147A	E	147	ART CR.	A	(E)	3' - 0"	8' - 0"	1 3/4"	EXST-04-AL	*	(E)	PSG	P-6	(E)	PSG	P-6	(E)	(E)	(E)			
147B	E	147	ART CR.	A	(E)	3' - 0"	8' - 0"	1 3/4"	EXST-04-AL	*	(E)	PSG	P-6	(E)	PSG	P-6	(E)	(E)	(E)			
147C	E	147	ART CR.	A	(E)	3' - 0"	8' - 0"	1 3/4"	EXST-01	*	(E)	PSG	P-6	(E)	PSG	P-6	(E)	(E)	(E)			
148A	E	148	ACADEMIC CLR	A	(E)	3' - 0"	8' - 0"	1 3/4"	EXST-04A-AL	*	(E)	PSG	P-6	(E)	PSG	P-6	(E)	(E)	(E)			
148B	E	148	ACADEMIC CLR	A	(E)	3' - 0"	8' - 0"	1 3/4"	EXST-04-AL	*	(E)	PSG	P-6	(E)	PSG	P-6	(E)	(E)	(E)			
148C	E	148	ACADEMIC CLR	A	(E)	3' - 0"	8' - 0"	1 3/4"	EXST-01	*	(E)	PSG	P-6	(E)	PSG	P-6	(E)	(E)	(E)			
149A	E	149	UPHOLSTRY/COSTUME DESIGN CR.	A	(E)	3' - 0"	8' - 0"	1 3/4"	EXST-01	*	(E)	PSG	P-6	(E)	PSG	P-6	(E)	(E)	(E)			
149B	E	149	UPHOLSTRY/COSTUME DESIGN CR.	A	(E)	4' - 8"	8' - 0"	1 3/4"	EXST-07-AL	*	(E)	PSG	P-6	(E)	PSG	P-6	(E)	(E)	(E)			(E) DOOR- 1 LEAF 3'X8', 1 LEAF 1'-8"
153A	E	153	ACADEMIC CR.	A	(E)	3' - 0"	8' - 0"	1 3/4"	EXST-01	*	(E)	PSG	P-6	(E)	PSG	P-6	(E)	(E)	(E)			
154A	E	154	NEEDLE ARTS	A	(E)	3' - 0"	8' - 0"	1 3/4"	EXST-01	*	(E)	PSG	P-6	(E)	PSG	P-6	(E)	(E)	(E)			
157A	E	157	ADULT BASIC ED. CTE	A	(E)	3' - 0"	8' - 0"	1 3/4"	EXST-01		(E)	PSG	P-6	(E)	PSG	P-6	(E)	(E)	(E)			
158A	E	158	LOBBY	F	(E)	6' - 0"	8' - 0"	1 3/4"	EX-SF-01	•	(E)	(E)	(E)	(E)	(E)	(E)	(E)	(E)	(E)	-		
160A	E	160	CORRIDOR B	C	(E)	6' - 0"	8' - 0"	1 3/4"	EX-SF-01	•	(E)	(E)	(E)	(E)	(E)	(E)	(E)	(E)	(E)	-		
160B	E	160	CORRIDOR B	E	(E)	6' - 0"	8' - 0"	1 3/4"	EX-SF-01	•	(E)	(E)	(E)	(E)	(E)	(E)	(E)	(E)	(E)	-		
161A	E	161	CORRIDOR C	C	(E)	6' - 0"	8' - 0"	1 3/4"	EX-SF-01	•	(E)	(E)	(E)	(E)	(E)	(E)	(E)	(E)	(E)	-		
162A	E	162	FIRE RISER	A	(E)	3' - 0"	8' - 0"	1 3/4"	EXST-05		(E)	PSG	P-6	(E)	PSG	P-6	(E)	(E)	(E)	-	-	
165A	E	165	CUST.	A	(E)	3' - 0"	8' - 0"	1 3/4"	EXST-02		(E)	PSG	P-6	(E)	PSG	P-6	(E)	(E)	(E)	-	-	(E) 16" x 24" LOUVER





DOOR TYPES — SCALE: 1/4" = 1'-0" — REF.: /

DOOR FRAME TYPES — SCALE: 1/4" = 1'-0" — REF.: /

WINDOW TYPES — SCALE: 1/4" = 1'-0" — REF.: / — 2

AGENCY APPROVAL
File No: 37-H4

LICENSED ARCHITECT — Ruhnau Clarke — C-20662 — 03/31-2021 — RENEWAL DATE — STATE OF CALIFORNIA

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-119728 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/18/2021

STAMPS

RUHNAU CLARKE ARCHITECTS

CONSULTANT BRANDING

GENERAL NOTES

1. SEE SHEET AD6.1 FOR HOLLOW METAL FRAME DETAILS
2. SET DOORS ADJACENT TO WALLS A MIN. OF 4" AWAY FROM WALL U.N.O.
3. ALL GLAZING IN DOORS, AND WINDOWS BELOW 8'-0" A.F.F., ARE TEMPERED OR AS REQUIRED BY SECTION 2406 OF THE 2019 CBC
4. PROVIDE DOOR STOPS AT ALL INTERIOR DOORS. PROVIDE BACKING PLATE PER DETAIL 14/S0-2.1
5. ALL EXTERIOR DOORS ARE TO SWING OUT AND OPEN WITH A MIN. OF 110 DEGREES FROM ITS CLOSED POSITION WHERE POSSIBLE, U.O.N.
   EXCEPTION: WHERE TACTILE SIGNAGE IS LOCATED ON HINGE SIDE OF DOOR, DOORS TO HAVE A 90 DEGREE SWING LIMIT
6. ALL EXTERIOR DOORS SHALL HAVE A POLYSTYRENE CORE (THERMAL RESISTANCE)
7. PROVIDE AIR SEALS/WEATHER STRIPPING AT ALL EXTERIOR DOORS TO CONDITIONED SPACES.
8. ALL FLOOR MATERIAL CHANGE SHALL BE LOCATED UNDER THE CENTERLINE OF DOOR WHERE OCCURS, TYP.
9. ALL EXTERIOR DOORS SHALL BE OPERABLE FROM THE INTERIOR WITHOUT THE USE OF A KEY OR ANY SPECIAL KNOWLEDGE OR EFFORT. DEAD BOLTS ARE ONLY PERMITTED WHEN OPERABLE WITH A SINGLE EFFORT LEVER TYPE HARDWARE.
10. HAND ACTIVATED DOOR OPENING HARDWARE SHALL BE MOUNTED 34"-48" A.F.F.
11. ALL DOORS SHALL BE LOCKABLE FROM THE INTERIOR SIDE
12. PER SECTION 1010.1.10 IN THE CBC 2019, DOOR SERVING ROOMS OR SPACES WITH AN OCCUPANT LOAD OF 50 OR MORE ARE REQUIRED TO HAVE PANIC HARDWARE OR FIRE EXIT HARDWARE.
13. PER CBC 2019 11B-404.2.5, THRESHOLDS SHALL BE 1/4" HIGH MAX., SEE DETAIL 11/AD6.1
14. THE BOTTOM 10" OF ALL DOORS EXTENDING THE FULL WIDTH SHALL HAVE A SMOOTH UNINTERRUPTED SURFACE TO ALLOW THE DOOR TO BE OPENED BY A WHEELCHAIR FOOTREST WITHOUT CREATING A TRAP OR HAZARDOUS CONDITION. CBC 2019 11B-404.2.10
15. MAXIMUM EFFORT TO OPERATE ALL DOORS SHALL NOT EXCEED 5 LBS FOR BOTH EXTERIOR AND INTERIOR DOORS. FIRE DOORS SHALL NOT EXCEED 15 LBS. CBC 2019 11B-404.2.9
16. REFER TO SPECIFICATION SECTION 08 71 00(VERIFY) FOR DOOR HARDWARE INFORMATION

ABBREVIATIONS

ALUM	ALUMINUM
AN	ANODOZIED
FF	FACTORY FINISH
HM	HOLLOW METAL
HC	HOLLOW CORE
GALV.	GALVANIZED
STL	STEEL
PSG	PAINT: SEMI-GLOSS

GLAZING NOTES

GLAZING TYPES

1 TYPE GL-1

GENERAL GLAZING NOTES

1. VERIFY ALL DIMENSIONS AND ROUGH OPENINGS IN FIELD PRIOR TO FABRICATION.
3. ALL INTERIOR GLAZING TO BE TYPE 1 U.N.O.
   SINGLE PANE, TEMPERED STARFIRE GLASS 'CLEAR'
4. TEMPERED GLAZING T SHALL INCLUDE:
   ALL GLAZING IN DOORS
   ALL DOOR SIDELIGHTS WITHIN 24" OF DOOR FRAME
   ALL DOOR TRANSOMS
   ALL WINDOW GLAZING WITHIN A DISTANCE OF 36" HORIZONTALLY FROM A WALKING PATH AND UP TO 60" FROM GRADE
   ALL GLAZING WITHIN THE SWING OF A DOOR

FEBRUARY 17, 2020 - DSA SUBMITTAL

PROJECT No. :1-30-47
2/16/2021 4:59:48 PM
DRAWN BY: CHECKED BY:

REVISION:___ DATE ___ DESCRIPTION ___

GROSSMONT UNION HIGH SCHOOL DISTRICT

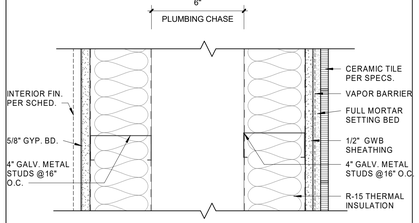
RUHNAUCLARKE.COM
3775 TENTH STREET, RIVERSIDE CALIFORNIA 92501 (951) 684 4664 / 5751 PALMER WAY, SUITE C, CARLSBAD CALIFORNIA 92010 (760) 438 5899

FOOTHILLS ADULT EDUCATION CENTER
1550 Melody Lane El Cajon, CA 92019
GROSSMONT UNIFIED HIGH SCHOOL DISTRICT

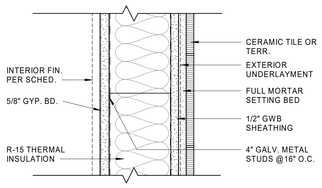
DOOR SCHEDULE & WINDOW TYPES

A8.1

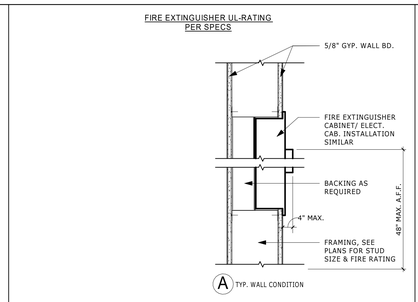
1-30-47



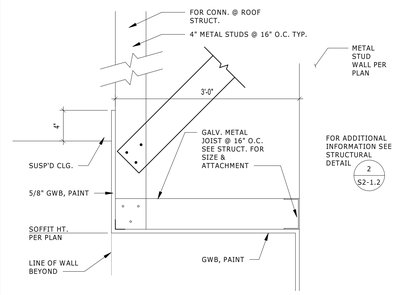
WALL TYPE - R | SCALE: 3" = 1'-0" | REF.: / | 20



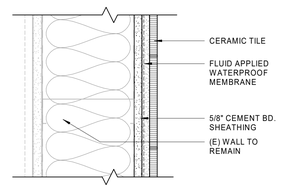
WALL TYPE - E | SCALE: 3" = 1'-0" | REF.: / | 21



FIRE EXTINGUISHER CABINET | SCALE: 1 1/2" = 1'-0" | REF.: / | 16



SOFFIT DETAIL | SCALE: 1 1/2" = 1'-0" | REF.: 1/A1-2.2 | 11



WALL TYPE F- TILE @ (E) WALL | SCALE: 3" = 1'-0" | REF.: / | 6

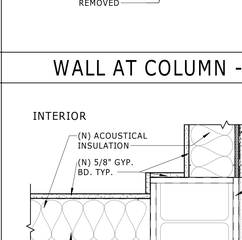
AGENCY APPROVAL
File No: 37-H4

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-119728 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/18/2021

STAMPS

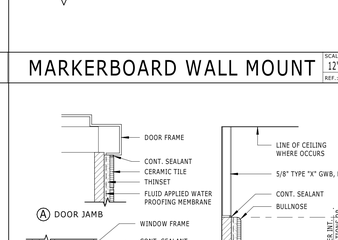
RUHNAU CLARKE ARCHITECTS

CONSULTANT BRANDING

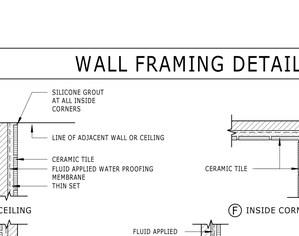


1. EXISTING WALL
2. NEW DOOR/ WINDOW FRAME. SHIM
3. CUT AND REMOVE (E) PLASTER ON (E) WALL APPROXIMATELY 12" WIDE. DO NOT DAMAGE THE (E) CONSTRUCTION PAPER
4. CAREFULLY CUT THE CONSTRUCTION PAPER AND METAL LATH ALL ALONG THE NEW WALL
5. BEND UP A PORTION OF THE CONSTRUCTION PAPER AND LATH
6. NOT USED
7. INSTALL NEW CONSTRUCTION PAPER AND LATH, EXTEND UNDER (E) PAPER AND LATH.
8. BEND DOWN UPPER POTION OF THE (E) CONSTRUCTION PAPER AND LATH, SEE ITEMS 4 & 5.
9. PATCH EXTERIOR PLASTER, TEXTURE TO MATCH (E) ADJACENT PLASTER.
10. INSTALL NEW EXTERIOR PLASTER. TEXTURE TO MATCH EXISTING ADJACENT PLASTER.

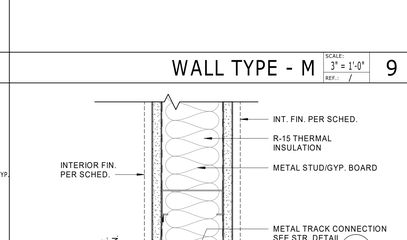
PLASTER PATCH | SCALE: 3" = 1'-0" | REF.: 16/AD7.1 | 22



WALL MTD. FIRE EXTING. | SCALE: 1" = 1'-0" | REF.: / | 17

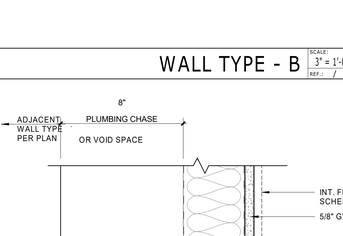


INT. WALL INFILL | SCALE: 3" = 1'-0" | REF.: / | 12



HEAD OF WALL @ ROOF JOIST | SCALE: 3" = 1'-0" | REF.: 4/A1-6.1 | 7

NOTE: WALL TO ACHIEVE STC RATING OF 45 MIN.



PENETRATION @ ACOUS. WALL | SCALE: 1 1/2" = 1'-0" | REF.: / | 2

EXT. WALL INFILL | SCALE: 3" = 1'-0" | REF.: / | 23

MARKERBOARD WALL MOUNT | SCALE: 12" = 1'-0" | REF.: / | 19

WALL FRAMING DETAIL | SCALE: 1" = 1'-0" | REF.: 1/A1-1.2 | 14

HEAD OF WALL AT ROOF-PERP. | SCALE: 3" = 1'-0" | REF.: 1/A1-6.1 | 8

WALL TYPE - A | SCALE: 3" = 1'-0" | REF.: / | 3

PLASTER DEMO AT COLUMN | SCALE: 1 1/2" = 1'-0" | REF.: 1/A1-1.1 | 29

WALL AT COLUMN - DEMO | SCALE: 1 1/2" = 1'-0" | REF.: 1/A1-1.1 | 24

WALL FRAMING DETAIL | SCALE: 1" = 1'-0" | REF.: 1/A1-1.2 | 14

WALL TYPE - M | SCALE: 3" = 1'-0" | REF.: / | 9

WALL TYPE - B | SCALE: 3" = 1'-0" | REF.: / | 4

DOOR AT COLUMN | SCALE: 1 1/2" = 1'-0" | REF.: 1/A1-1.2 | 30

WALL AT COLUMN - NEW | SCALE: 1 1/2" = 1'-0" | REF.: 1/A1-1.2 | 25

CERAMIC TILE INSTALLATION | SCALE: 3" = 1'-0" | REF.: / | 15

TOE OF WALL | SCALE: 3" = 1'-0" | REF.: 1/A1-6.1 | 10

WALL TYPE - C | SCALE: 3" = 1'-0" | REF.: / | 5

FEBRUARY 17, 2020 - DSA SUBMITTAL

PROJECT No. :1-30-47
2/16/2021 4:59:56 PM
DRAWN BY: CHECKED BY:

REVISION:___ DATE ___ DESCRIPTION ___

GROSSMONT UNIFIED HIGH SCHOOL DISTRICT

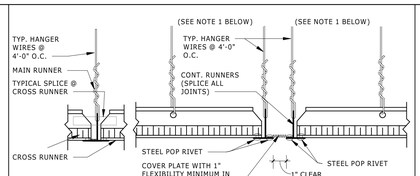
RUHNAUCLARKE.COM
3775 TENTH STREET, RIVERSIDE CALIFORNIA 92501 (951) 684 4664 / 5751 PALMER WAY, SUITE C, CARLSBAD CALIFORNIA 92010 (760) 438 5899

FOOTHILLS ADULT EDUCATION CENTER
1550 Melody Lane El Cajon, CA 92019
GROSSMONT UNIFIED HIGH SCHOOL DISTRICT

WALL DETAILS

AD1.1

1-30-47

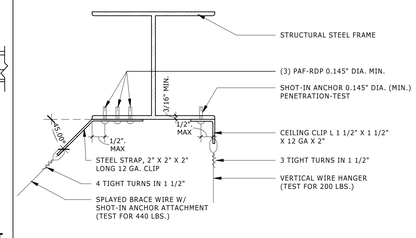


EXPANSION JOINTS AT THE INTERSECTION OF CORRIDORS AND AT JUNCTIONS OF CORRIDORS AND LOBBIES OR OTHER SIMILAR AREAS

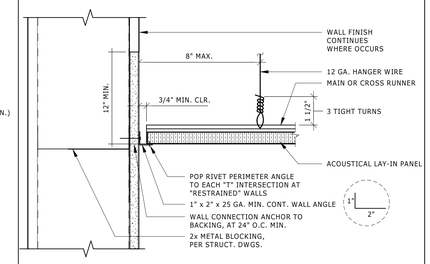
NOTES:
1. PROVIDE #12 GAGE HANGER WIRES AT THE ENDS OF ALL MAIN AND CROSS RUNNERS WITHIN EIGHT (8) INCHES OF THE SUPPORT OR WITHIN ONE-FOURTH (1/4) OF THE LENGTH OF THE END TEE, WHICHEVER IS LESS, FOR THE PERIMETER OF THE CEILING AREA. PERIMETER WIRES ARE NOT REQUIRED WHEN THE LENGTH OF THE END TEE IS EIGHT (8) INCHES OR LESS.

SUSPENDED ACOUSTICAL CEILING EXPANSION JOINT AT INTERSECTIONS

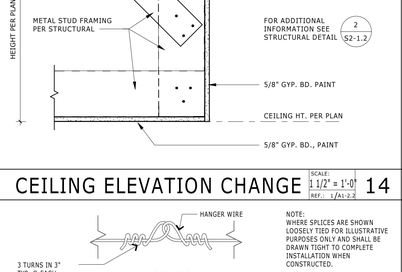
EXPANSION JOINT — SCALE: 3" = 1'-0" — REF.: 1/A1-2.2 — 16



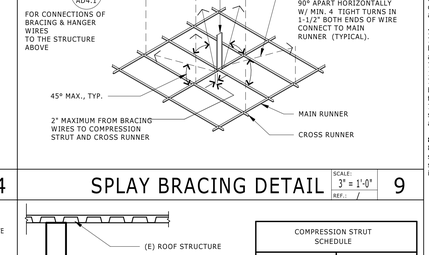
WIRE CONN. @ STEEL FRAME — SCALE: 3" = 1'-0" — REF.: / — 11



PERIM. "RESTRAINED" COND. — SCALE: 3" = 1'-0" — REF.: 1/A1-6.1 — 6



FIXTURE SUPPORT SECTION — SCALE: 3" = 1'-0" — REF.: / — 12



OPPOSITE WALL OF STARTER "RESTRAINED" WALL

PERIMETER "FREE" COND. — SCALE: 3" = 1'-0" — REF.: / — 7

SURFACE MTD. LIGHT FIXTURE — SCALE: 3" = 1'-0" — REF.: / — 13

GYPSUM BD. CEILING — SCALE: 3" = 1'-0" — REF.: / — 8

CEILING ELEVATION CHANGE — SCALE: 1 1/2" = 1'-0" — REF.: 1/A1-2.2 — 14

SPLAY BRACING DETAIL — SCALE: 3" = 1'-0" — REF.: / — 9

CEILING WIRE SPLICE — SCALE: 12" = 1'-0" — REF.: / — 15

COMPRESSION STRUT SCHEDULE	
LENGTH OF STRUT (L)	STRUT
LESS THAN 5' - 0"	250S125-33
5' - 0" TO 6' - 10"	250S137-33
6' - 10" TO 8' - 0"	362S137-33
8' - 0" TO 8' - 10"	250137-43
8' - 10" TO 10' - 10"	400S137-43

STRUT @ CEILING FRAMING — SCALE: 1/4" = 1'-0" — REF.: / — 10

SUSPENDED CEILING GRID — SCALE: 12" = 1'-0" — REF.: / — 5

AGENCY APPROVAL
File No: 37-H4

LICENSED ARCHITECT Brad Ruhnau REG. EXP. 03/31/2021 STATE OF CALIFORNIA

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
C-20662
APP: 04-119728 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/18/2021

STAMPS

RUHNAU CLARKE ARCHITECTS

CONSULTANT BRANDING

GRID CEILING NOTES

CEILING SYSTEM GENERAL NOTES FOR LAY-IN PANEL CEILINGS: CBC 2016 (IR 25-2.13 Rev. 11.9.17)

CEILING SYSTEM GENERAL NOTES:

1.01 Ceiling system components shall comply with ASTM C635-07 and Section 5.1 of ASTM E580-10a.
1.02 The ceiling grid system must be rated heavy duty as defined by ASTM C635-08.
1.03 Ceiling systems. The following ceiling system(s) is/are part of the scope of this project: ***[For each system used, the RDP shall indicate in the construction documents, the information that follows]***
Manufacturer's Name: ARMSTRONG or equal.
Product Evaluation Report Type and Number: ICC ESR - 1308
Manufacturer's Model Number - main runner: XL 7301
Manufacturer's catalog number - cross runner: XL7328, XL7340
1.04 Seismic Wall Clip: ***[RDP to specify if used]***
Manufacturer's Model: BERC2 Clip.
1.05 Ceiling panels shall not support any light fixtures, air terminals or devices.
1.06 For ceiling installations utilizing acoustical tile panels of mineral or glass fiber, it is not mandatory to provide ¾" clearance between the acoustical tile panels and the wall on the sides of the ceiling which are free to slip. For all other ceiling panel types, provide ¾" clearance between the ceiling panel and the wall on the sides of the ceiling free to slip.

2. MATERIALS:
2.01 Ceiling wire shall be Class 1 zinc coated (galvanized) carbon steel conforming to ASTM A641-09a. Wire shall be #12 gage (0.106" diameter) with soft temper and minimum tensile strength = 70 ksi.
2.02 Galvanized sheet steel (including that used for metal stud and track compression struts/post) shall conform to ASTM A653-11, or other equivalent sheet steel listed in Section A2.1 of the North American Specification for the Design of Cold-Formed Steel Structural Members 2007, including supplement 2 dated 2010 (AISI S100-07/S2-10). Material 43 mil (18 gage) and lighter shall have minimum yield strength of 33 ksi. Material 54 mil (16 gage) and heavier shall have a minimum yield strength of 50 ksi.
2.03 Electrical metallic tube (EMT) shall be ANSI C80.3/UL 797 carbon steel with G90 galvanizing. EMT shall have minimum yield strength (Fy) of 30 ksi and minimum ultimate strength (Fu) of 48 ksi.

3. ATTACHMENT OF HANGER AND BRACING WIRES:
3.01 Separate all ceiling hanger and bracing wires at least six (6) inches from all unbraced ducts, pipes, conduit, etc.
3.02 Hanger and bracing wires shall not attach to or bend around obstructions including but not limited to: piping, ductwork, conduit and equipment.
3.03 Hanger wires that are more than one (horizontal) in six (vertical) out of plumb shall have counter-sloping wires.
3.04 Slack safety wires shall be considered hanger wires for installation and testing requirements.
3.05 Hanger and bracing wire anchorage to the structure shall be installed in such a manner that the direction of the anchorage aligns closely with the direction of the wire. (e.g. bracing wire ceiling clips must be bent as shown in the details and rotated as required to align closely with the direction of the wire, screw eyes in wood must be installed so they align closely with the direction of the wire, etc.)

4. FASTENERS AND WELDING:
4.01 Sheet metal screws shall comply with ASTM C1513-10, ASME B18.6.4-89 (R2005). Penetration of screws through joined material shall not be less than three exposed threads.
4.02 Expansion anchors shall be: [RDP to indicate manufacturer, product, evaluation report number and load for each size specified per CBC 1913A.7.2.]
4.03 Power-Actuated Fasteners shall be: [RDP to indicate manufacturer, product, evaluation report number]
4.04 If not otherwise specified in the evaluation report, power-actuated fasteners installed in steel shall be installed so the entire pointed end of the fastener is driven through the steel member.
4.05 Power-actuated fasteners in concrete are not permitted for bracing wires.
4.06 Concrete reinforcement and prestressing tendons shall be located by non-destructive means prior to installing post - installed anchor.
4.07 Welding shall be in accordance with AWS D1.3 using E60XX series electrodes.

5. TESTING: All field testing must be performed in the presence of the project inspector.
5.01 Post-installed anchors in concrete used to support hanger wires shall be tested at a frequency of 10 percent. Power actuated fasteners in concrete shall be field tested for 200 lbs. in tension. All other post-installed anchors in concrete shall be tested in accordance with CBC Section 1913A.7.
5.02 Post-installed anchors in concrete used to attach bracing wires shall be tested at a frequency of 50 percent in accordance with CBC Section 1913A.7.

6. LIGHT FIXTURES:
6.01 All light fixtures shall be positively attached to the ceiling suspension systems by mechanical means to resist a horizontal force equal to the weight of the fixture. A minimum of two screws or approved fasteners are required at each light fixture, per ASTM E580, Section 5.3.1.
6.02 Surface-mounted light fixtures shall be attached to the main runner with at least two positive clamping devices. The clamping device shall completely surround the supporting ceiling runner and be made of steel with a minimum thickness of #14 gage. Rotational spring catches do not comply. A #12 gage slack safety wire shall be connected from each clamping device to the structure above. Provide additional supports when light fixtures are eight (8) feet or longer or exceed 56 lb. Maximum spacing between supports shall not exceed eight (8) feet.
6.03 Light fixtures weighing less than or equal to 10 lb. shall have a minimum of one (1) #12 gage slack safety wire connected from the fixture housing to the structure above.
6.04 Light fixtures weighing less than or equal to 10 lb. shall have a minimum of one (1) #12 gage slack safety wire connected from the fixture housing to the structure above.
6.05 Light fixtures weighing greater than 10 lb. but less than or equal to 56 lbs. may be supported directly on the ceiling runners, but they shall have a minimum of two (2) #12 gage slack safety wires connected from the fixture housing at diagonal corners to the structure above.

Exception: All light fixtures greater than two by four feet weighing less than 56 lbs. shall have a #12 gage slack safety wire at each corner.
6.06 All Light fixtures weighing greater than 56 lb. shall be independently supported by not less than four (4) taut #12 gage hanger wires (one at each corner) attached from the fixture housing to the structure above or other approved hangers. The four (4) taut #12 gage wires or other approved hangers, including their attachment to the structure above, shall be capable of supporting four (4) times the weight of the fixture.

7. SERVICES WITHIN THE CEILING:
7.01 All flexible sprinkler hose fitting mounting brackets, ceiling-mounted air terminals or other services shall be positively attached to the ceiling suspension systems by mechanical means. Screws or approved fasteners are required. A minimum of two attachments are required at each component.
7.02 Ceiling-mounted air terminals or other services weighing less than or equal to 20 lb. shall have one (1) # 12 gage slack safety wire attached from the terminal or service to the structure above.
7.03 Flexible sprinkler hose fittings, ceiling-mounted air terminals or other services weighing more than 20 lb. but less than or equal to 56 lb. shall have two (2) #12 gage slack safety wires (at diagonal corners) connected from the terminal or service to the structure above.
7.04 Flexible sprinkler hose fittings, ceiling-mounted air terminals or other services weighing more than 56 lb. shall be supported directly from the structure above by not less than four (4) taut #12 gage hanger wires attached from the terminal or service to the structure above or other approved hangers.

8. OTHER DEVICES WITHIN THE CEILING:
8.01 All lightweight miscellaneous devices, such as strobe lights, occupancy sensors, speakers, exit signs, etc., shall be attached to the ceiling grid. In addition, devices weighing more than 10 lbs. shall have a #12 gage slack safety wire anchored to the structure above. Devices weighing more than 20 lb. shall be supported independently from the structure above.

FEBRUARY 17, 2020 - DSA SUBMITTAL

PROJECT No. :1-30-47
2/16/2021 5:00:01 PM
DRAWN BY: CHECKED BY:

REVISION:___ DATE ___ DESCRIPTION ___
REVISION:___ DATE ___ DESCRIPTION ___
REVISION:___ DATE ___ DESCRIPTION ___
REVISION:___ DATE ___ DESCRIPTION ___
REVISION:___ DATE ___ DESCRIPTION ___
REVISION:___ DATE ___ DESCRIPTION ___
REVISION:___ DATE ___ DESCRIPTION ___
REVISION:___ DATE ___ DESCRIPTION ___

GROSSMONT UNION HIGH SCHOOL DISTRICT

RUHNAUCLARKE.COM
3775 TENTH STREET, RIVERSIDE CALIFORNIA 92501 (951) 684 4664 / 5751 PALMER WAY, SUITE C, CARLSBAD CALIFORNIA 92010 (760) 438 5899

FOOTHILLS ADULT EDUCATION CENTER
1550 Melody Lane El Cajon, CA 92019
GROSSMONT UNIFIED HIGH SCHOOL DISTRICT

CEILING DETAILS

AD4.1

1-30-47

MOUNTING HEIGHTS

DIMENSIONS:	ADULTS	ELEMENTARY (9-12)	KINDERGARTEN (5-8)
TOILET CENTERLINE FROM WALL	17" - 18"	15"-18"	12"-15"
TOILET SEAT HEIGHT (TO TOP OF SEAT)	17" - 19"	15"-17"	12"-15"
GRAB BAR HEIGHT (SIDE)	33" TOP OF G.B.	25"-27"	20"-25"
GRAB BAR (DISTANCE FROM WALL)	12" MAX	-	-
TOILET PAPER HEIGHT (TO OUTLET)	19" MIN.	17"-19"	14"-17"
TOILET PAPER IN FRONT OF TOILET (TO CL)	7"-9"	7"-9"	7"-9"
NAPKIN DISPOSAL SEE NOTE 2 BELOW	12" MAX.	12" MAX.	12" MAX.
DISPENSER	40" MAX.	36" MAX.	36" MAX.
MIRROR / SOAP DISPENSER (TO BOTTOM)	40" MAX.	34" MAX.	34" MAX.
LAVATORY/SINK TOP HEIGHT	34" MAX.	31" MAX.	31" MAX.
LAVATORY APRON CLEARANCE	29" MAX.		
LAVATORY/SINK KNEE CLEARANCE	27" MAX.	24" MIN.	24" MIN.
URINAL LIP HEIGHT	17" MAX.	15" MAX.	15" MAX.
URINAL FLUSH HANDLE HEIGHT	44" MAX.	36" MAX.	36" MAX.

NOTE:
CONTRACTOR TO PROVIDE MOUNTING HEIGHTS INDICATED. VERIFY INTENDED USE OF EACH RESTROOM PRIOR TO ROUGH IN. PROVIDE BACKING PER STRUCTURAL DRAWINGS AS REQUIRED.

NOTE 2: WALL MOUNTED AND LOCATED ON THE SIDEWALL BETWEEN THE REAR WALL OF THE TOILET AND THE TOILET PAPER DISPENSER, ADJACENT TO THE TOILET PAPER DISPENSER

ACCESSORY AND EQUIPMENT KEYNOTES

ACCESSORIES

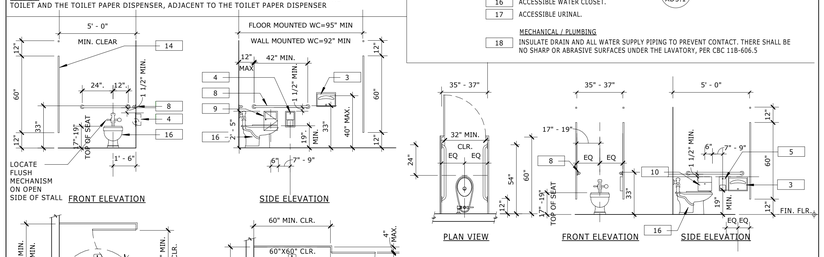
BOBRICK B-166	1	18" X 30" TEMPERED GLASS MIRROR
BOBRICK B-3944	2	RECESSED PAPER TOWEL DISPENSER AND WASTE RECEPTACLE
BOBRICK B-221	3	SURFACE MOUNTED TOILET SEAT COVER DISPENSER
BOBRICK B-3888	4	RECESSED TOILET TISSUE DISPENSER - 3" MAX PROJECTION
BOBRICK B-4288	5	SURFACE MOUNTED TOILET TISSUE DISPENSER
BOBRICK B-7128	6	SURFACE MOUNTED, SENSOR CONTROLLED ELECTRIC HAND DRYER
BOBRICK B-4112	7	SURFACE MOUNTED LIQUID SOAP DISPENSER, INSTALLED AT +40" A.F.F. (OVER OBSTRUCTION)
BOBRICK B-6806	8	GRAB BARS (SIDE = 48" L. X 1-1/2" DIA., REAR = 36" L. X 1-1/2" DIA.) FOR ANCHORAGE SEE DETAIL 24 / AD5.1
BOBRICK B-353	9	RECESSED MOUNTED FEMININE NAPKIN DISPOSAL (WOMENS ONLY) - 3" MAX PROJECTION
	~~10~~	~~SURFACE MOUNTED FEMININE NAPKIN DISPOSAL~~

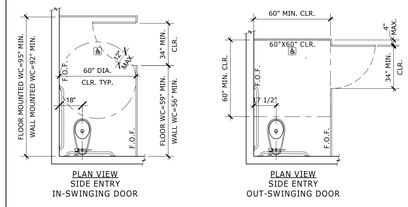
EQUIPMENT

11	ACCESSIBLE LAVATORY.
~~12~~	~~NON-ACCESSIBLE WATER CLOSET~~
~~13~~	~~NON-ACCESSIBLE URINAL~~
14	TOILET PARTITION, FOR ANCHORAGE SEE DETAIL 29 / AD5.1
15	URINAL SCREEN, FOR ANCHORAGE SEE DETAIL 29 / AD5.1
16	ACCESSIBLE WATER CLOSET.
17	ACCESSIBLE URINAL.

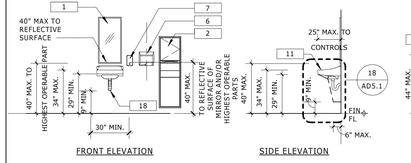
MECHANICAL / PLUMBING

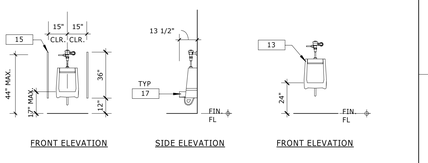
18	INSULATE DRAIN AND ALL WATER SUPPLY PIPING TO PREVENT CONTACT. THERE SHALL BE NO SHARP OR ABRASIVE SURFACES UNDER THE LAVATORY, PER CBC 11B-606.5





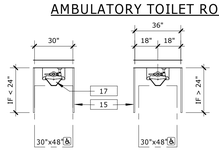
ACCESSIBLE TOILET ROOM STALL





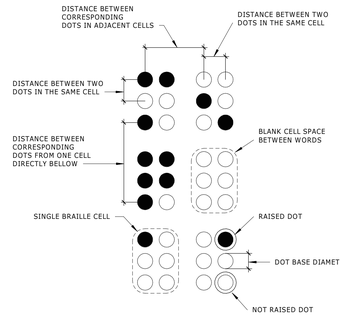
ACCESSIBLE URINAL NON-ACCESSIBLE URINAL

AMBULATORY TOILET ROOM STALL



MEASUREMENT RANGE	MINIMUM INCHES MAXIMUM IN INCHES
DOT BASE DIAMETER	0.059 (1.5mm) to 0.063 (1.6mm)
DISTANCE BETWEEN TWO DOTS IN THE SAME CELL 1	0.090 (2.3mm) to 0.100 (2.5mm) 0.100 FOR CALIFORNIA
DISTANCE BETWEEN CORRESPONDING DOTS IN ADJACENT CELLS 1	0.241 (6.1mm) to 0.300 (7.6mm) 0.300 FOR CALIFORNIA
DOT HEIGHT	0.025 (0.6mm) to 0.037 (0.9mm)
DISTANCE BETWEEN CORRESPONDING DOTS IN FROM ONE CELL DIRECTLY BELOW 1	0.395 (10mm) to 0.400 (10.2mm)

1 MEASURE FROM CENTER TO CENTER

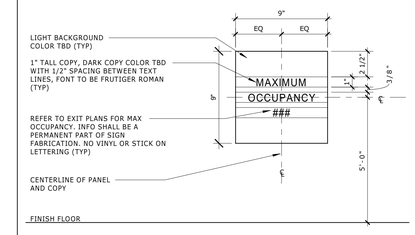


CHARACTER TYPE: CHARACTERS ON SIGNS SHALL BE RIASED 1/32" MINIMUM AND SHALL BE SAN SERIF UPPER CHARACTERS ACCOMPANIED BY CONTRACTED GRADE 2 BRAILLE.

CHARACTER SIZE: RAISED CHARACTERS SHALL BE A MINIMUM OF 5/8" AND A MAXIMUM OF 2" HIGH.

FINISH AND CONTRAST: CONTRAST BETWEEN CHARACTERS, SYMBOLS AND THE BACKGROUNDS MUST BE 70% MINIMUM AND HAVE A NON-GLARE FINISH.

PROPORTIONS: CHARACTERS SHALL BE SELECTED FROM FONTS WHERE THE WIDTH OF THE UPPER CASE LETTER "O" IS 60 PERCENT MINIMUM AND 110 PERCENT MAXIMUM OF THE HEIGHT OF THE UPPERCASE LETTER "I".



OCCUPANCY SIGNAGE SCALE: 2" REF.: / 6

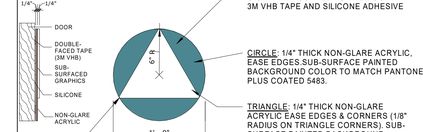
1/8" THICK NON-GLARE ACRYLIC. SUB-SURFACE PAINTED BACKGROUND COLOR TO BE CONFORMING TO FS. COLOR 15090 OF FED STD.595C - TO MATCH PANTONE PLUS COATED 5483

CALIFORNIA CONTRACTED GRADE 2 BRAILLE - RAISED 1/32" MIN. W/ DOMED DOTS

5/8" MIN. - 2" MAX. NEUTRA UPPERCASE TEXT OF CONTRASTING COLOR
- RAISED 1/32" MIN. ROWMARK TEXT & GRAPHICS. COLOR WHITE (311-201)
SEE FLOOR PLAN FOR LOCATION. FOLLOW CBC 11B SECTIONS 703.1, 703.2, 703.3 & 703.5. AS REQUIRED.

SEE DETAIL 5/AD5.1 FOR TYPICAL SIGNAGE MOUNTING HEIGHTS.

SIGNAGE REQUIREMENTS SCALE: 6" = 1'-0" REF.: / 17

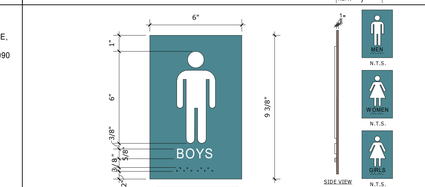


NOTE:
ALL PICTOGRAMS, BACKGROUND COLOR, LETTERING AND BORDERS TO BE PAINTED ON INTERIOR FACE OF CLEAR PLASTIC.

BACKGROUND COLOR SHOULD CONTRAST THE DOOR COLOR.

EDGES AND VERTICES ON GEOMETRIC SYMBOLS SHALL BE EASED OR ROUNDED AT 1/16" MINIMUM OR CHAMFERED AT 1/8" MAX. VERTICES SHALL BE RADIUSES BETWEEN 1/8" AND 1/4".

UNISEX ACCESSIBLE SYMBOL SCALE: 1 1/2" = 1'-0" REF.: / 7

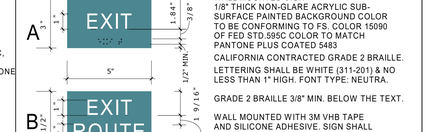


1/8" THICK NON-GLARE ACRYLIC. SUB-SURFACE PAINTED BACKGROUND COLOR TO BE CONFORMING TO FS. COLOR 15090 OF FED STD.595C COLOR TO MATCH PANTONE PLUS COATED 5483
CALIFORNIA CONTRACTED GRADE 2 BRAILLE - RAISED 1/32" MIN. W/ DOMED DOTS

5/8" MIN. - 2" MAX. NEUTRA UPPERCASE TEXT OF CONTRASTING COLOR
- RAISED 1/32" MIN. ROWMARK TEXT & GRAPHICS. COLOR WHITE (311-201)
SEE FLOOR PLAN FOR LOCATION. FOLLOW CBC 11B SECTIONS 703.1, 703.2, 703.3 & 703.5. AS REQUIRED.

SEE DETAIL 5/AD5.1 FOR TYPICAL SIGNAGE MOUNTING HEIGHTS.

ACCESS/EXIT SIGNS SCALE: 1 1/2" = 1'-0" REF.: / 2



WALL MOUNTED SIGN
1/8" THICK NON-GLARE ACRYLIC SUB-SURFACE PAINTED BACKGROUND COLOR TO BE CONFORMING TO FS. COLOR 15090 OF FED STD.595C COLOR TO MATCH PANTONE PLUS COATED 5483

CALIFORNIA CONTRACTED GRADE 2 BRAILLE.

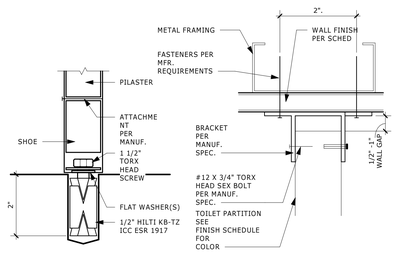
LETTERING SHALL BE WHITE (311-201) & NO LESS THAN 1" HIGH. FONT TYPE: NEUTRA.

GRADE 2 BRAILLE 3/8" MIN. BELOW THE TEXT.

WALL MOUNTED WITH 3M VHB TAPE AND SILICONE ADHESIVE. SIGN SHALL BE MOUNTED ON THE WALL ADJACENT TO THE LATCH SIDE OF ADJACENT TO THE LATCH SIDE OF THE DOOR OR ON THE NEAREST ADJACENT WALL 60" MAX. A.F.F. TO THE BASELINE OF THE HIGHEST TEXT & 48" MIN. A.F.F. TO THE BASELINE OF THE LOWEST BRAILLE CELLS ABOVE THE FLOOR.

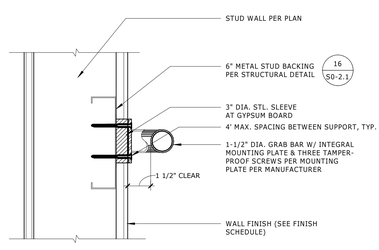
FOR SIGNAGE REQUIREMENTS SEE DETAIL 17 / AD5.1

FIXTURE & ACCESSORY CLEARANCES SCALE: 1/4" REF.: / 23



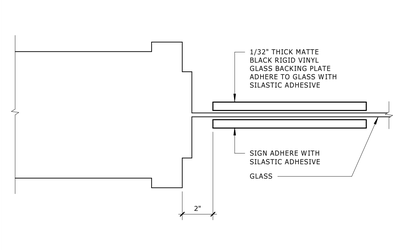
NOTE: REFER TO MANUFACTURER'S INSTALLATION MANUAL FOR SPECIFIC HARDWARE AND ATTACHMENT.

T. PARTITION ANCHORAGE SCALE: 6" REF.: / 29

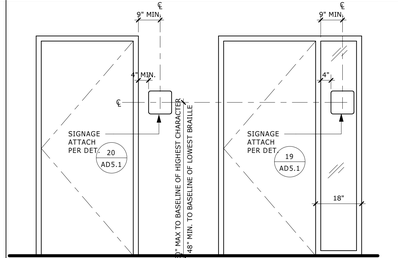


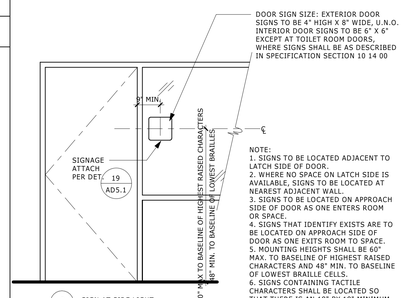
NOTE:
REFERENCE TO TOILET STALL ELEVATIONS FOR MOUNTING HEIGHT PER CBC SEC 11B-604.8

GRAB BAR SCALE: 3" = 1'-0" REF.: / 24

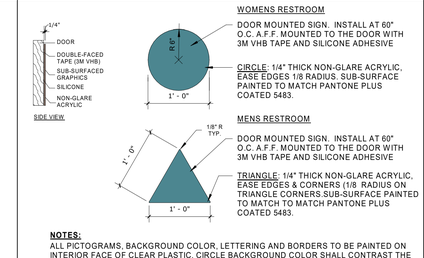


TYP. ATTACHMENT @ GLASS SCALE: 3" REF.: / 19





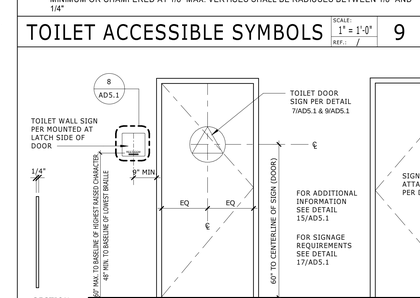
DOOR SIGN LOCATIONS SCALE: 1/2" REF.: / 15



NOTES:
ALL PICTOGRAMS, BACKGROUND COLOR, LETTERING AND BORDERS TO BE PAINTED ON INTERIOR FACE OF CLEAR PLASTIC. CIRCLE BACKGROUND COLOR SHALL CONTRAST THE DOOR COLOR. TRIANGLE BACKGROUND COLOR SHALL CONTRAST W/ CIRCLE COLOR.

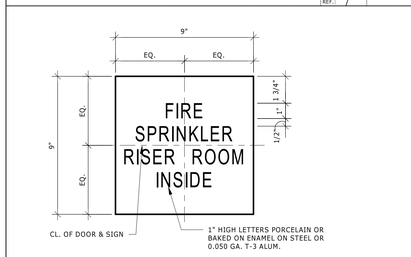
EDGES AND VERTICES ON GEOMETRIC SYMBOLS SHALL BE EASED OR ROUNDED AT 1/16" MINIMUM OR CHAMFERED AT 1/8" MAX. VERTICES SHALL BE RADIUSES BETWEEN 1/8" AND 1/4"

TOILET ACCESSIBLE SYMBOLS SCALE: 1" = 1'-0" REF.: / 9



ROOM SIGN SCALE: 3" = 1'-0" REF.: 5/AD5.1 3

ASSISTIVE LISTENING SIGN SCALE: 3" = 1'-0" REF.: 5/AD5.1 4



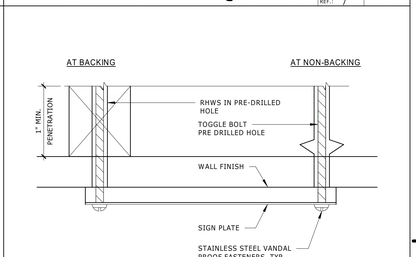
NOTES:
1. LETTERS TO BE WHITE ON CONTRASTING BACKGROUND
2. MOUNTING HEIGHT PER DETAIL 5/AD-5.0

FIRE RISER ROOM SIGN SCALE: 3" = 1'-0" REF.: / 30

INTERNATIONAL SYMBOL OF ACCESSIBILITY

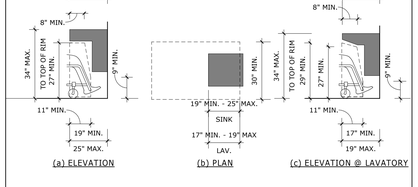
NOTES:
1. LOCATE PER ACCESSIBLE LOCKER LOCATIONS
2. VISUALLY CENTER SYMBOL WITHIN LOCKER
3. SYMBOL PROPORTION TO MATCH CBC FIGURE 11-B-703.7.2.1

LOCKER EMBLEM SCALE: 6" = 1'-0" REF.: / 25



TYP. SIGN ATTACH AT WALL SCALE: NTS REF.: / 20

KNEE CLEARANCE SCALE: 3/8" = 1'-0" REF.: 23/AD5.1 18



11B-306.3 KNEE CLEARANCE

ACCESSIBLE FACE PLATE SCALE: 3" = 1'-0" REF.: / 13

SIGN TYPE: INTERNATIONAL SYMBOL OF ACCESSIBILITY
1/8" PHENOLIC PLASTIC LAMINATE, BACKGROUND COLOR TO BE CONFORMING TO FS. COLOR 15090 OF FED STD.595C

WALL MOUNTED EXTERIOR ROOM ID SIGN
PROVIDE SIGNS BASED ON DIVISION TEN SIGNAGE INC, SIGNS MANUFACTURED USING SANDSMOOTH GRAPHIC PROCESS SERIES 10A. PHENOLIC , PLASTIC LAMINATE 1/8" THICK WITH A CONTRASTING CORE COLOR, NON-STATIC, FIRE RETARDANT AND SELF-EXTINGUISHING. COLOR TO BE CONFORMING TO FS. COLOR 15090 OF FED STD.595C
WALL MOUNT WITH #6 COUNTERSUNK FLAT TORX WITH PLASTIC ANCHOR.
INSTALL AT:
60" A.F.F. O.C.A.F.F.

NOTE:
WHERE USED ISA SHALL MATCH COLOR AND PROPORTIONS TO FIG. 11B-703.7.2.1cbc

ACC. RESTROOM SIGN SCALE: 3" = 1'-0" REF.: 5/AD5.1 8

NOTES:
ALL PICTOGRAMS, BACKGROUND COLOR, LETTERING AND BORDERS TO BE PAINTED ON INTERIOR FACE OF CLEAR PLASTIC. CIRCLE BACKGROUND COLOR SHALL CONTRAST THE DOOR COLOR. TRIANGLE BACKGROUND COLOR SHALL CONTRAST W/ CIRCLE COLOR.

EDGES AND VERTICES ON GEOMETRIC SYMBOLS SHALL BE EASED OR ROUNDED AT 1/16" MINIMUM OR CHAMFERED AT 1/8" MAX. VERTICES SHALL BE RADIUSES BETWEEN 1/8" AND 1/4"

AGENCY APPROVAL
File No: 37-H4

LICENSED ARCHITECT Ruhnau Clarke STATE OF CALIFORNIA C-20662 EXP. 03-31-2021 RENEWAL DATE

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-119728 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/18/2021

STAMPS

RUHNAU CLARKE ARCHITECTS

CONSULTANT BRANDING

FEBRUARY 17, 2020 - DSA SUBMITTAL

PROJECT No. :1-30-47
2/16/2021 5:00:08 PM
DRAWN BY: CHECKED BY:

REVISION:____ DATE _____ DESCRIPTION _____

GROSSMONT UNION HIGH SCHOOL DISTRICT

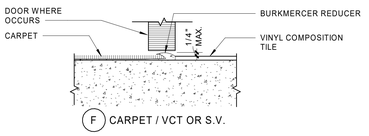
RUHNAUCLARKE.COM
3775 TENTH STREET, RIVERSIDE CALIFORNIA 92501 (951) 684 4664 / 5751 PALMER WAY, SUITE C, CARLSBAD CALIFORNIA 92010 (760) 438 5899

FOOTHILLS ADULT EDUCATION CENTER
1550 Melody Lane El Cajon, CA 92019
GROSSMONT UNIFIED HIGH SCHOOL DISTRICT

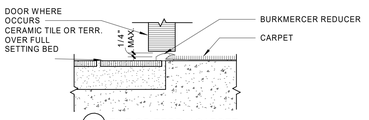
ACCESSIBILITY & SIGNAGE

AD5.1

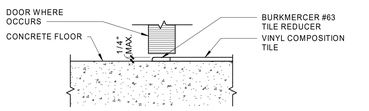
1-30-47



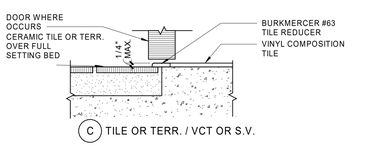
F CARPET / VCT OR S.V.



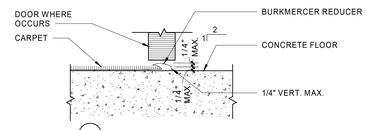
E TILE OR TERR. / CARPET



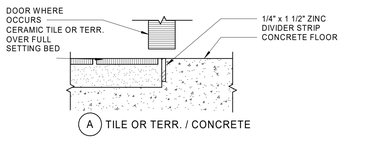
D CONCRETE / VCT OR S.V.



C TILE OR TERR. / VCT OR S.V.

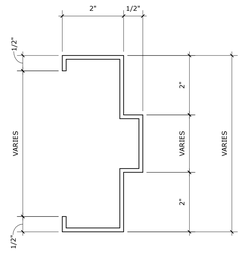


B CARPET / CONCRETE

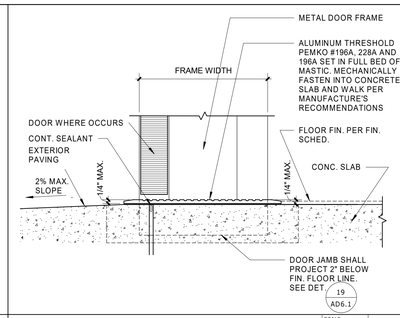


A TILE OR TERR. / CONCRETE

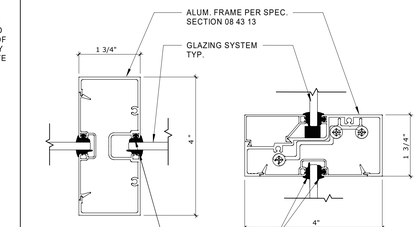
FLOOR TRANSITIONS — SCALE: 3" = 1'-0" — REF.: 3/A1-6.1 — 28



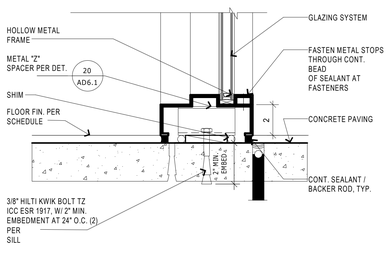
HOLLOW METAL FRAME — SCALE: 6" = 1'-0" — REF.: / — 16



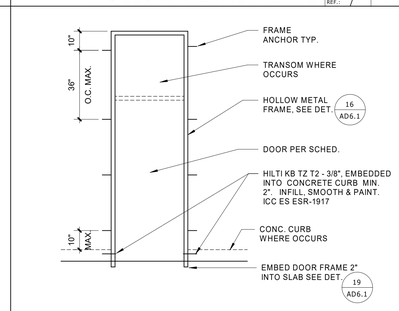
EXT. DOOR THRESHOLD — SCALE: 3" = 1'-0" — REF.: / — 11



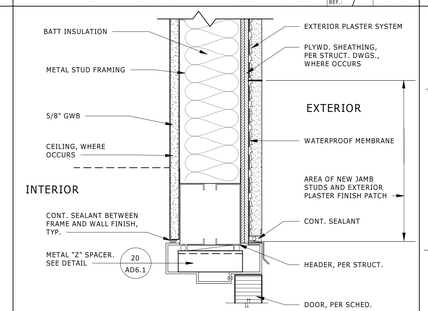
INT ALUM. WINDOW MULLION — SCALE: 6" = 1'-0" — REF.: 2/A1-6.1 — 6



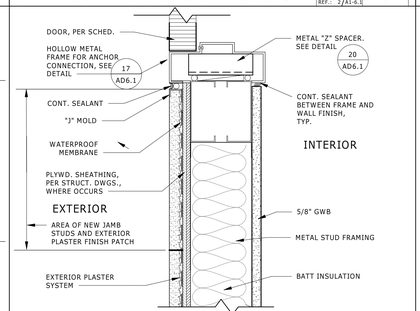
HM WINDOW SILL — SCALE: 3" = 1'-0" — REF.: 14/A8.1 — 22



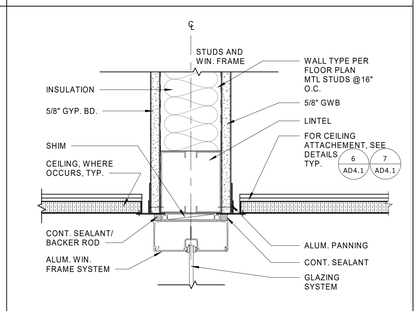
EXT. H.M. DOOR FRM. ATTACH. — SCALE: 3/8" = 1'-0" — REF.: / — 17



EXT. HM DOOR HEAD — SCALE: 3" = 1'-0" — REF.: / — 12

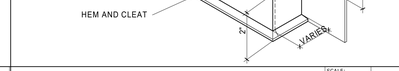


EXT. HM DOOR JAMB — SCALE: 3" = 1'-0" — REF.: / — 7



INT. ALUM. WINDOW HEAD — SCALE: 3" = 1'-0" — REF.: 2/A1-6.1 — 2

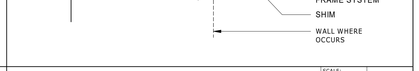
HM MULLION — SCALE: 3" = 1'-0" — REF.: 14/A8.1 — 23



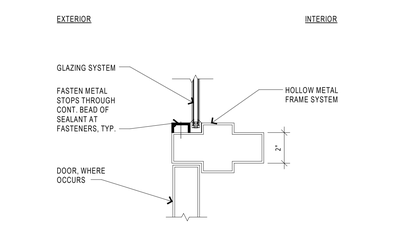
TYP. DRIP FLASHING — SCALE: 3" = 1'-0" — REF.: / — 18

INT. ALUM DOOR HEAD — SCALE: 3" = 1'-0" — REF.: 5/A1-6.1 — 13

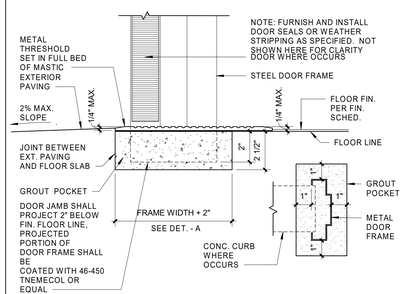
INT. HM WINDOW HEAD — SCALE: 3" = 1'-0" — REF.: 1/A8.1 — 8



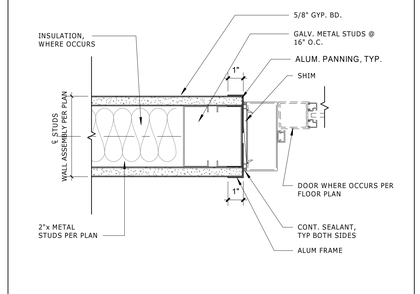
INT. ALUM WINDOW JAMB — SCALE: 3" = 1'-0" — REF.: 2/A8.1 — 3



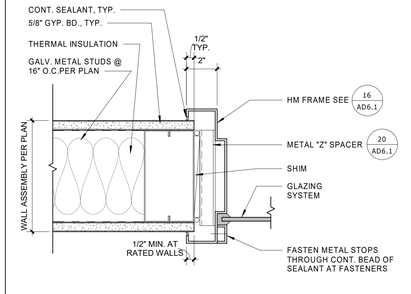
HM DOOR HEAD & JAMB — SCALE: 3" = 1'-0" — REF.: 14/A8.1 — 24



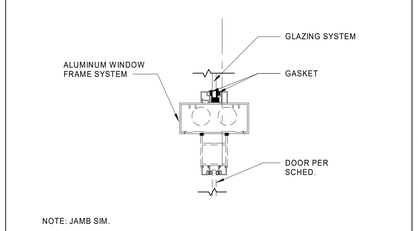
EXT. DOOR FRAME ANCHOR — SCALE: 3" = 1'-0" — REF.: / — 19



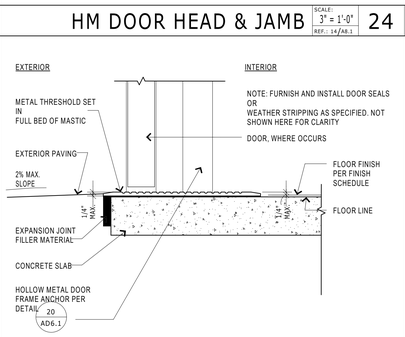
INT. ALUM. DOOR JAMB — SCALE: 3" = 1'-0" — REF.: / — 14



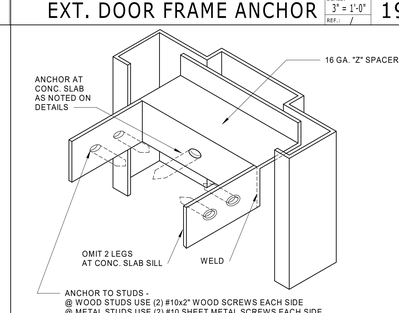
INT. HM WINDOW JAMB — SCALE: 3" = 1'-0" — REF.: 1/A8.1 — 9



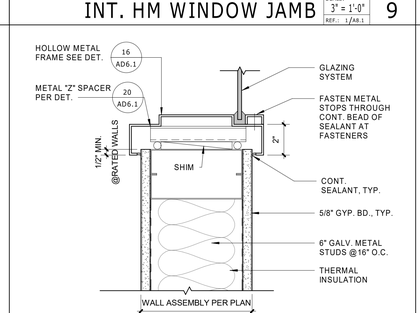
INT. ALUM DR HEAD @ TRANS. — SCALE: 3" = 1'-0" — REF.: 3/A1-6.1 — 4



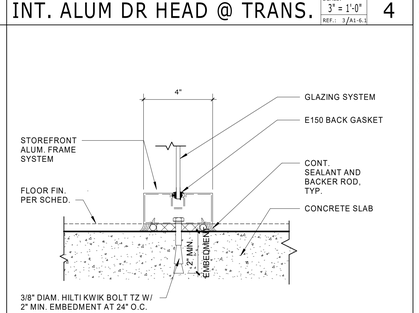
EXT. HM THRESHOLD — SCALE: 3" = 1'-0" — REF.: / — 25



HOLLOW MTL. FRAME ANCHOR — SCALE: 12" = 1'-0" — REF.: / — 20



INT HM WINDOW SILL — SCALE: 3" = 1'-0" — REF.: 1/A8.1 — 10



INT. ALUM. SILL @ FLOOR — SCALE: 3" = 1'-0" — REF.: 2/A1-6.1 — 5

FEBRUARY 17, 2020 - DSA SUBMITTAL

PROJECT No. :1-30-47
2/16/2021 5:00:14 PM
DRAWN BY: CHECKED BY:

REVISION:___ DATE ___ DESCRIPTION ___
REVISION:___ DATE ___ DESCRIPTION ___
REVISION:___ DATE ___ DESCRIPTION ___
REVISION:___ DATE ___ DESCRIPTION ___
REVISION:___ DATE ___ DESCRIPTION ___
REVISION:___ DATE ___ DESCRIPTION ___
REVISION:___ DATE ___ DESCRIPTION ___
REVISION:___ DATE ___ DESCRIPTION ___

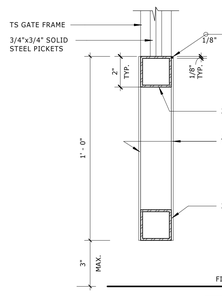
RUHNAUCLARKE.COM
3775 TENTH STREET, RIVERSIDE CALIFORNIA 92501 (951) 684 4664 / 5751 PALMER WAY, SUITE C, CARLSBAD CALIFORNIA 92010 (760) 438 5899

FOOTHILLS ADULT EDUCATION CENTER
1550 Melody Lane El Cajon, CA 92019
GROSSMONT UNIFIED HIGH SCHOOL DISTRICT

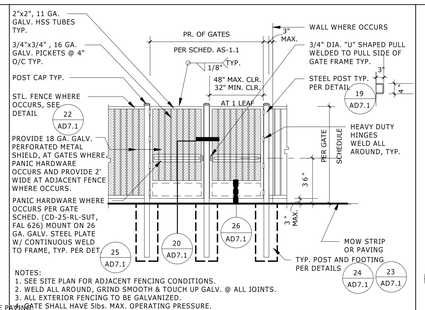
DOOR & WINDOW DETAILS

AD6.1

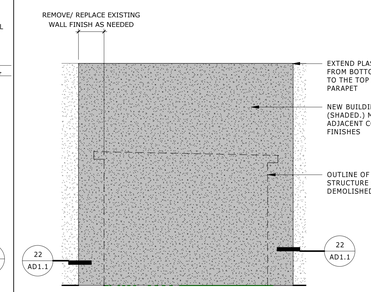
1-30-47



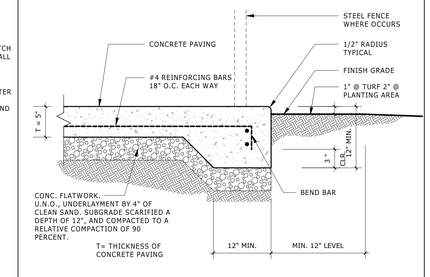
STEEL GATE KICK PLATE — SCALE: 3" = 1'-0" — REF.: / — 26



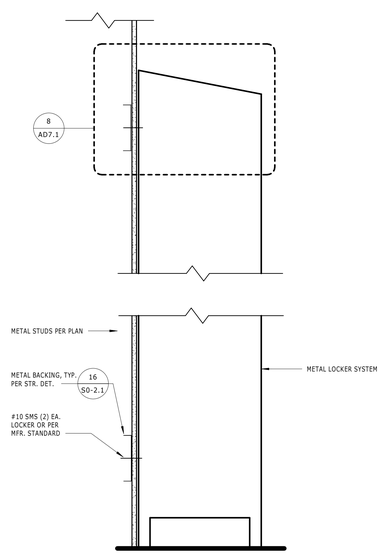
ORN. STEEL GATE ELEV. — SCALE: 1/4" = 1'-0" — REF.: / — 21



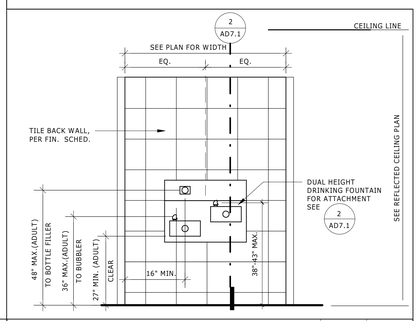
WALL PATCH ELEVATION — SCALE: 1/4" = 1'-0" — REF.: / — 16



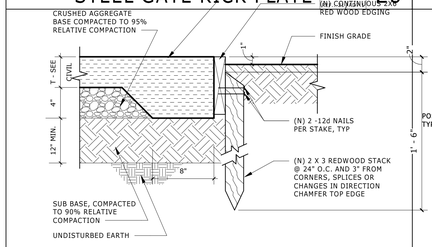
CONCRETE PAVING EDGE — SCALE: 1 1/2" = 1'-0" — REF.: 1/A1-1.2 — 11



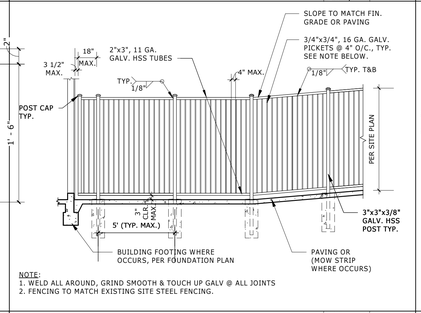
LOCKER SECTION — SCALE: 1 1/2" = 1'-0" — REF.: 8/A1-7.6 — 7



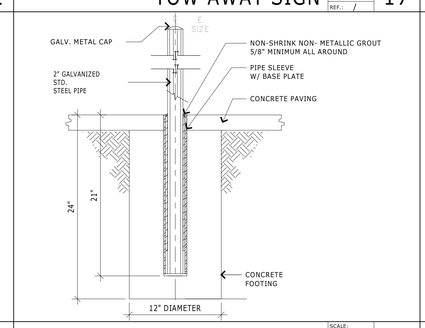
HI-LO (ALCOVE) FOUNTAIN — SCALE: 1/2" = 1'-0" — REF.: / — 1



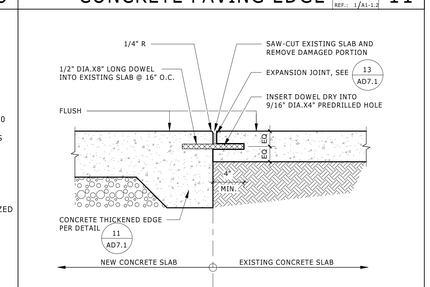
AC PAVING EDGE — SCALE: 1 1/2" = 1'-0" — REF.: / — 27



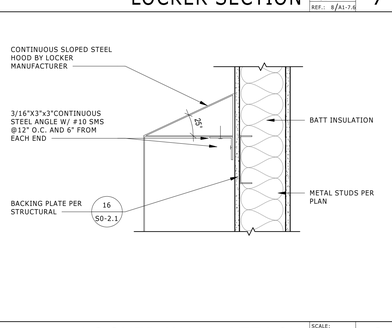
ORN STEEL FENCE ELEV. — SCALE: 1/4" = 1'-0" — REF.: 23/AD7.1 — 22



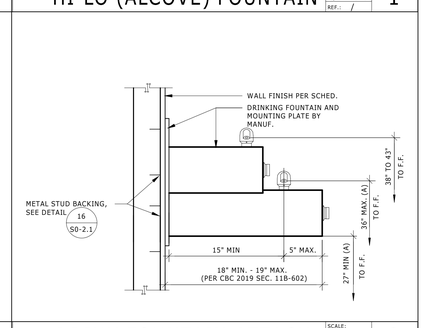
TOW AWAY SIGN — SCALE: 1 1/2" = 1'-0" — REF.: / — 17



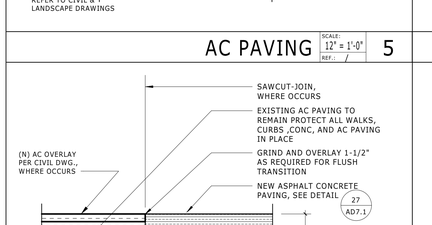
CONCRETE PAVING JOINING — SCALE: 1 1/2" = 1'-0" — REF.: 1/A1-1.2 — 12



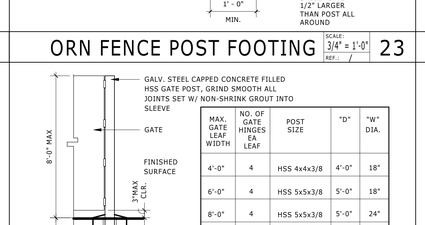
LOCKER WALL ATTACH — SCALE: 1 1/2" = 1'-0" — REF.: 7/AD7.1 — 8



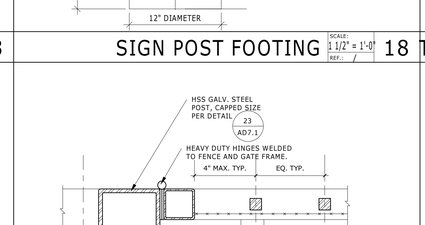
DRINK FOUNTAIN ATTACH. — SCALE: 1 1/2" = 1'-0" — REF.: 1/AD7.1 — 2



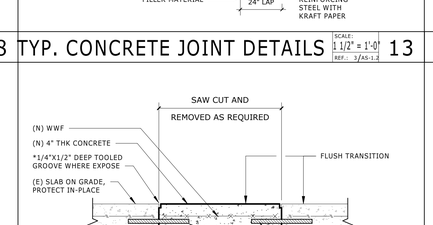
AC PAVING — SCALE: 12" = 1'-0" — REF.: / — 5



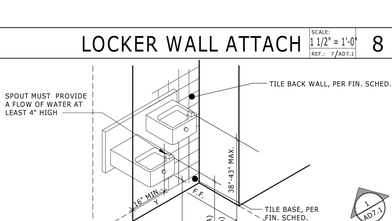
ORN FENCE POST FOOTING — SCALE: 3/4" = 1'-0" — REF.: / — 23



SIGN POST FOOTING — SCALE: 1 1/2" = 1'-0" — REF.: / — 18

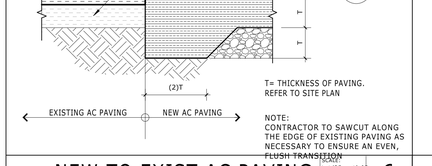


TYP. CONCRETE JOINT DETAILS — SCALE: 1 1/2" = 1'-0" — REF.: 3/AS-1.2 — 13



MOUNTING HEIGHTS	ADULTS (A)	KINDER AGES 5-8 (K)	ELEM. AGES 9-12 (E)	2019 CBC REFER.
HIGH DRINKING FOUNTAIN SPOUT HEIGHT	38"-43"	38"-43"	38"-43"	S 11B-602.7
LOW DRINKING FOUNTAIN SPOUT HEIGHT & LOCATION	36" MAX A.F.F. & 5" MAX FROM FRONT EDGE OF UNIT	30" MAX A.F.F. & 3 1/2"* MAX FROM FRONT EDGE OF UNIT	30" MAX A.F.F. & 3 1/2"* MAX FROM FRONT EDGE OF UNIT	S 11B-602.7 *EXCEPTION* S 11B-602.4 S 11B-602.5
DRINKING FOUNTAIN OPERABLE PARTS	5" MAX FROM FRONT EDGE OF UNIT	6" MAX FROM FRONT EDGE OF UNIT	6" MAX FROM FRONT EDGE OF UNIT	S 11B-602.3
CANTILEVER DRINKING FOUNTAIN PROJECTION	18"-19"	18"-19"	18"-19"	S 11B-602.8

ALCOVE (HI LO) FOUNTAIN — SCALE: 1/2" = 1'-0" — REF.: / — 3



NEW TO EXIST AC PAVING — SCALE: 1 1/2" = 1'-0" — REF.: 4/AS-1.2 — 6

MAX. GATE LEAF WIDTH	NO. OF GATE HINGES EA LEAF	POST SIZE	"D"	"W" DIA.
4'-0"	4	HSS 4x4x3/8	4'-0"	18"
6'-0"	4	HSS 5x5x3/8	5'-0"	18"
8'-0"	4	HSS 5x5x3/8	5'-0"	24"
10'-0"	6	HSS 6x6x1/2	5'-0"	24"
12'-0"	8	HSS 6x6x1/2	6'-0"	24"
18'-0"	10	HSS 8x8x1/2	6'-0"	24"

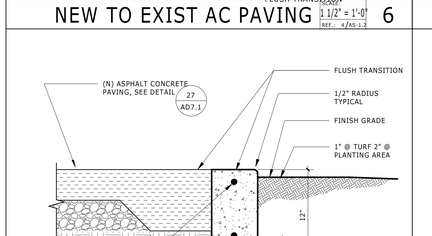
NOTES:
1. HEAVY DUTY HINGES, WELD ALL AROUND TO POST AND GATE FRAME
2. POST SLEEVE, 3/4" MIN. CLEAR AROUND POST
3. FILL POSTS WITH CONCRETE

GATE POST — SCALE: 1/4" = 1'-0" — REF.: / — 24

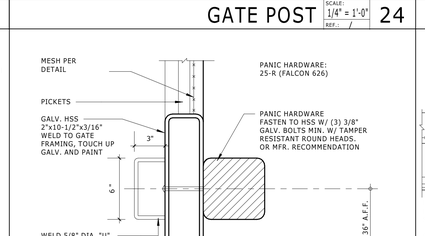
STEEL GATE HINGE POST — SCALE: 3" = 1'-0" — REF.: / — 19

CONCRETE PAVING PATCH — SCALE: 1 1/2" = 1'-0" — REF.: 1/A1-1.2 — 14

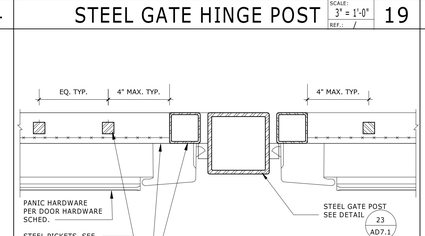
ALCOVE (HI LO) FOUNTAIN — SCALE: 1/2" = 1'-0" — REF.: / — 3



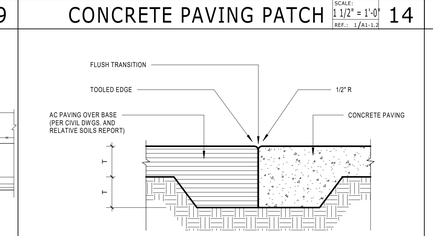
CONC. CURB @ LANDSCAPE — SCALE: 1 1/2" = 1'-0" — REF.: / — 30



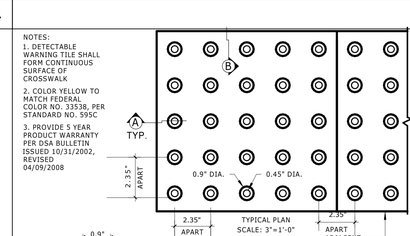
STEEL GATE P.H. — SCALE: 1" = 1'-0" — REF.: / — 25



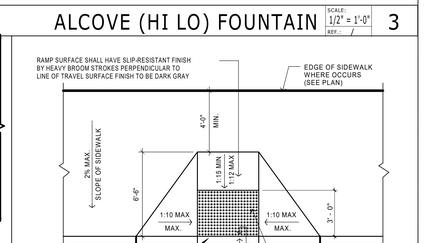
STEEL GATE LATCH POST — SCALE: 1" = 1'-0" — REF.: / — 20



CONC. PAVING @ AC PAVING — SCALE: 1 1/2" = 1'-0" — REF.: 4/AS-1.2 — 15



DETECTABLE WARNING TILE — SCALE: 3" = 1'-0" — REF.: / — 10



CURB RAMP — SCALE: 1/4" = 1'-0" — REF.: / — 4

AGENCY APPROVAL File No: 37-H4

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-119728 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/18/2021

LICENSED ARCHITECT David Ruhnau Clarke C-20662 03-31-2021 RENEWAL DATE STATE OF CALIFORNIA

STAMPS

RUHNAU CLARKE ARCHITECTS

CONSULTANT BRANDING

FEBRUARY 17, 2020 - DSA SUBMITTAL

PROJECT No. :1-30-47
2/16/2021 5:00:22 PM
DRAWN BY: CHECKED BY:

REVISION:___ DATE ___ DESCRIPTION ___

GROSSMONT UNION HIGH SCHOOL DISTRICT

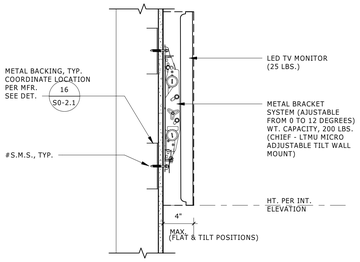
RUHNAUCLARKE.COM
3775 TENTH STREET, RIVERSIDE CALIFORNIA 92501 (951) 684 4664 / 5751 PALMER WAY, SUITE C, CARLSBAD CALIFORNIA 92010 (760) 438 5899

FOOTHILLS ADULT EDUCATION CENTER
1550 Melody Lane El Cajon, CA 92019
GROSSMONT UNIFIED HIGH SCHOOL DISTRICT

DETAILS

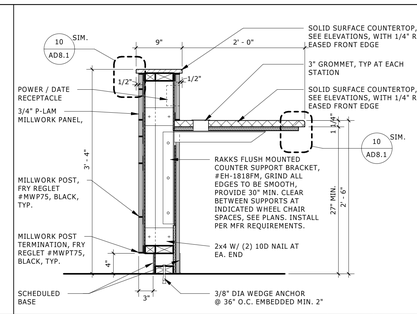
AD7.1

1-30-47



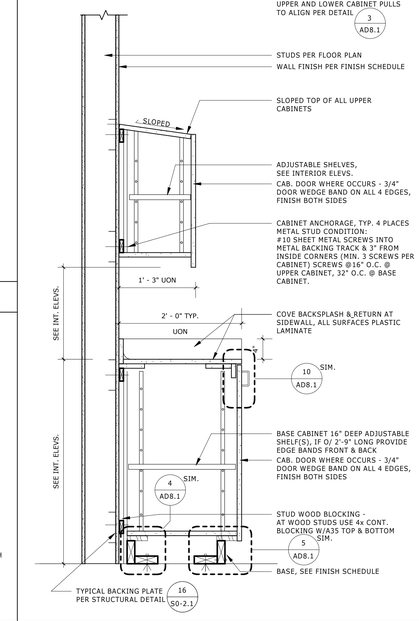
TV MOUNT

SCALE: 1 1/2" = 1'-0" | REF.: 9/A1-7.5 | 21



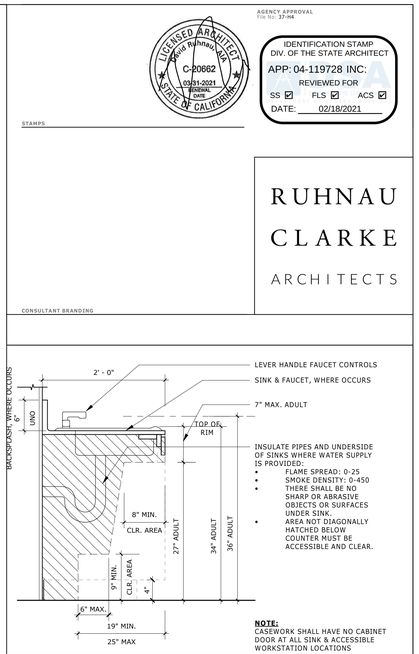
RECEPTION DESK

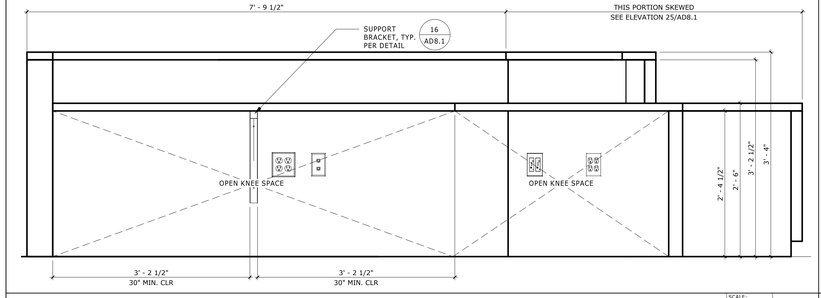
SCALE: 1" = 1'-0" | REF.: 9/A1-7.5 | 16



UPPER & BASE CABINET

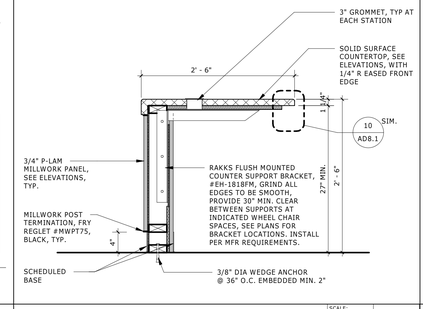
SCALE: 1" = 1'-0" | REF.: 12/A1-7.1 | 7





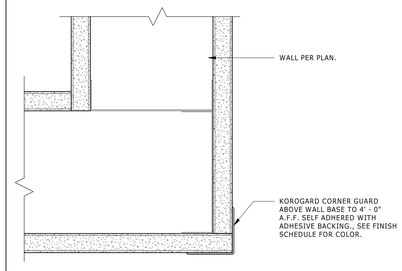
RECEPTION ELEV. 3

SCALE: 1" = 1'-0" | REF.: / | 22



RECEPTION DESK 3

SCALE: 1" = 1'-0" | REF.: 9/A1-7.5 | 17

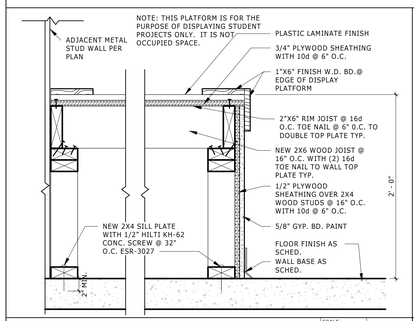


CORNER GUARD

SCALE: 6" = 1'-0" | REF.: / | 12

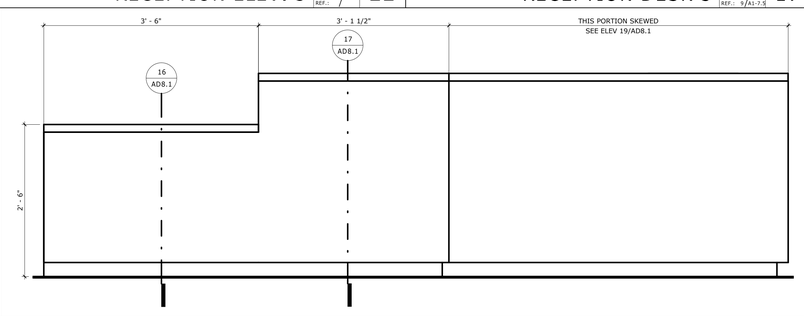
ACCESSIBLE CABINET

SCALE: 1" = 1'-0" | REF.: 12/A1-7.1 | 2



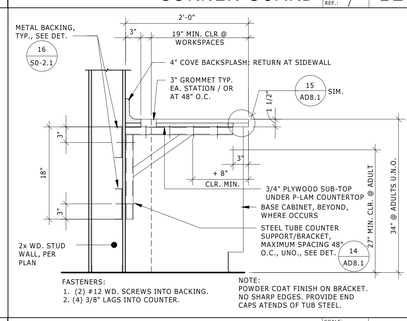
DISPLAY PLATFORM EDGE

SCALE: 1 1/2" = 1'-0" | REF.: 9/A1-7.5 | 23



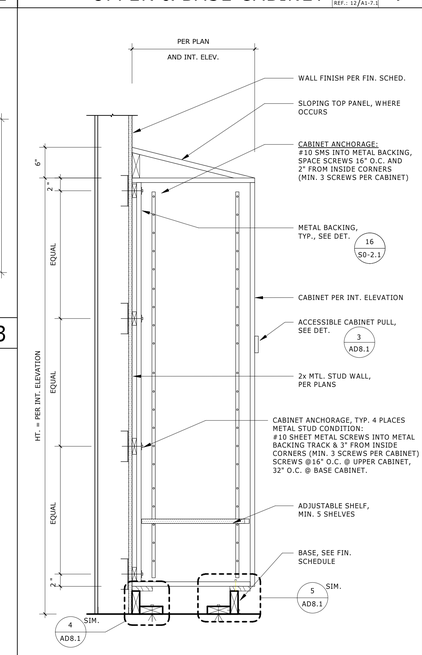
RECEPTION ELEV.

SCALE: 1" = 1'-0" | REF.: / | 18



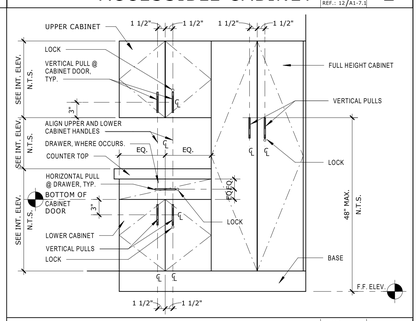
COUNTER SUPPORT BRACKET

SCALE: 1" = 1'-0" | REF.: 15/A1-7.6 | 13



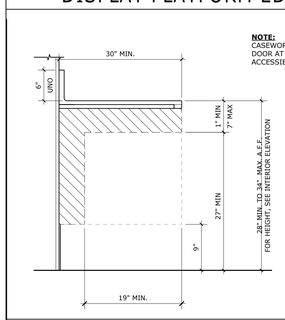
FULL HEIGHT CABINET

SCALE: 1" = 1'-0" | REF.: 2/A1-7.3 | 9



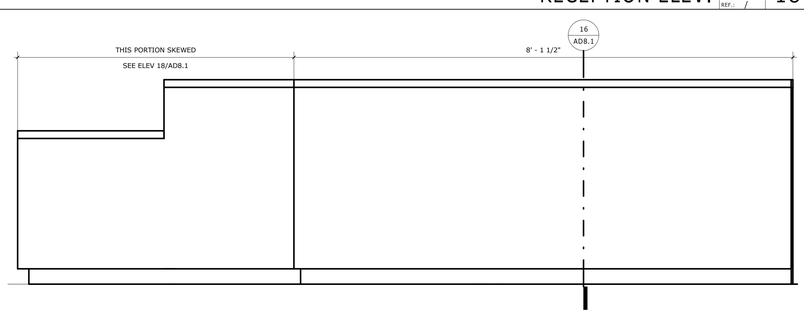
TYP. CABINET PULLS

SCALE: 1" = 1'-0" | REF.: / | 3



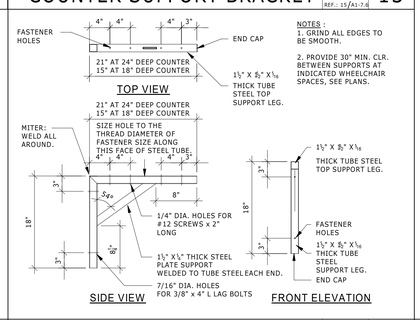
ACCESSIBLE WORKSPACE

SCALE: 1" = 1'-0" | 28



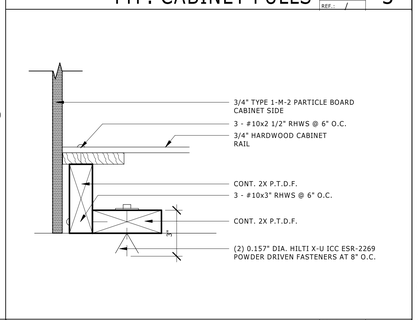
RECEPTION ELEV. 2

SCALE: 1" = 1'-0" | REF.: / | 19



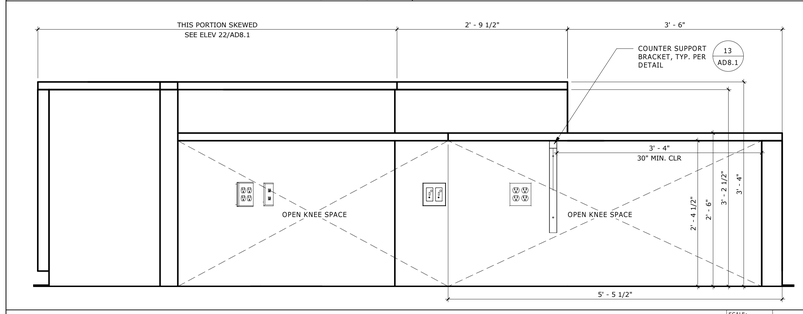
CAB. SUPPORT/ BRACKET

SCALE: 1" = 1'-0" | REF.: / | 14



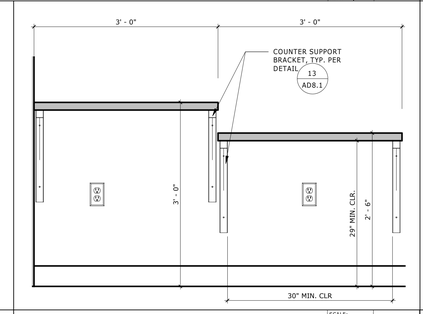
REAR CABINET BASE ANCHOR

SCALE: 3" = 1'-0" | REF.: 7/AD8.1 | 4



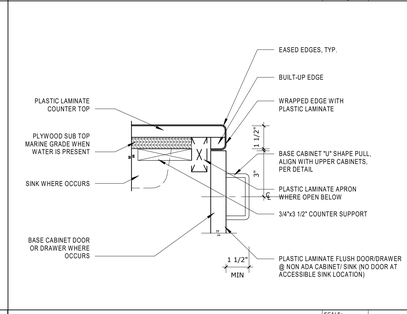
RECEPTION ELEV. 4

SCALE: 1" = 1'-0" | REF.: / | 25



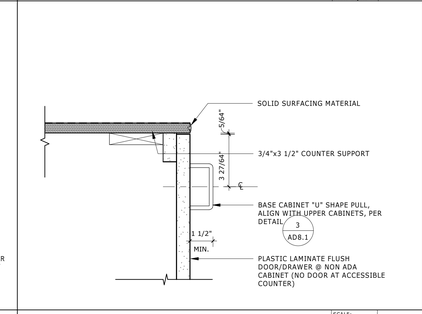
COUNTER ELEVATION

SCALE: 1" = 1'-0" | REF.: / | 20



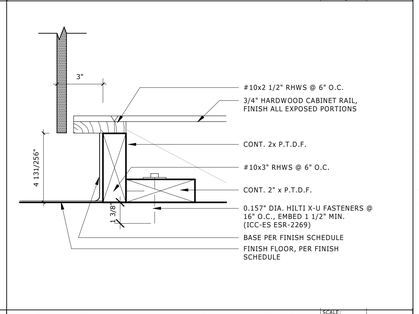
PLAM COUNTER EDGE

SCALE: 3" = 1'-0" | REF.: / | 15



SOLID SURFACE EDGE

SCALE: 3" = 1'-0" | REF.: 7/AD8.1 | 10



FRONT CABINET BASE ANCHOR

SCALE: 3" = 1'-0" | REF.: 7/AD8.1 | 5

FEBRUARY 17, 2020 - DSA SUBMITTAL

PROJECT No. :1-30-47
2/16/2021 5:00:30 PM
DRAWN BY: CHECKED BY:

REVISION:___ DATE ___ DESCRIPTION ___

RUHNAUCLARKE.COM

3775 TENTH STREET, RIVERSIDE CALIFORNIA 92501 (951) 684 4664 / 5751 PALMER WAY, SUITE C, CARLSBAD CALIFORNIA 92010 (760) 438 5899

FOOTHILLS ADULT EDUCATION CENTER
1550 Melody Lane El Cajon, CA 92019
GROSSMONT UNIFIED HIGH SCHOOL DISTRICT

CASEWORK

AD8.1

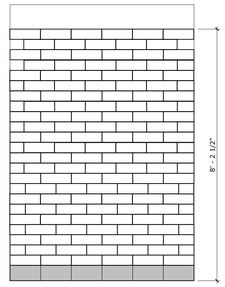
1-30-47

ROOM FINISH SCHEDULE

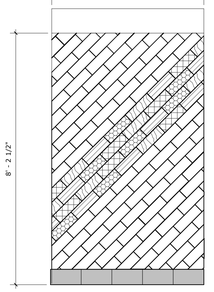
ROOM NO.	ROOM NAME	FLOOR		BASE		WAINSCOT			ELEVATION 1			ELEVATION 2			ELEVATION 3			ELEVATION 4			CEILING			REMARKS	ROOM NO.
		MATERIAL	COLOR	MATERIAL	COLOR	MATERIAL	COLOR	HEIGHT	MATERIAL	FINISH	COLOR	MATERIAL	FINISH	COLOR	MATERIAL	FINISH	COLOR	MATERIAL	FINISH	COLOR	MATERIAL	FINISH	COLOR		
100	PATIO	-	-	-	-				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		100
101	COMPUTER LAB	CPT	CPT-1,4,5	RB	RB-1				GWB/ TWP	PES/ FF	P-1/ TWP-1	GWB/ TWP	PES/ FF	P-1/ TWP-1	GWB	PES	P-1,5	GWB	PES	P-5	(E)/ ACT	FF	ACT-1		101
102	OFFICE	CPT	CPT-1	RB	RB-1				TWP	FF	TWP-5	GWB	PES	P-1	GWB	PES	P-1	GWB	PES	P-1	ACT	FF	ACT-1		102
103	COMPUTER LAB	CPT	CPT-1,4,5	RB	RB-1				GWB	PES	P-1,5	GWB	PES	P-1	GWB/ TWP	PES/ FF	P-1/ TWP-1	GWB	PES	P-5	(E)/ ACT	FF	ACT-1		103
104	STORAGE	CPT	CPT-1	RB	RB-1				GWB	PES	P-1	GWB	PES	P-1	GWB	PES	P-1	GWB	PES	P-1	ACT	FF	ACT-1		104
105	DIRECTOR'S OFFICE	CPT	CPT-1	RB	RB-1				GWB	PES	P-1	TWP	FF	TWP-5	GWB	PES	P-1	GWB	PES	P-1	ACT	FF	ACT-1		105
106	GIRLS' RESTROOM	T	T-1	T	T-1	T	T-	8'-2 1/2"	T	FF	T-2	T	FF	T-2	T	FF	T-2	T	FF	T-2,3,4,5,6	GWB/B	PSG	P-2		106
107	LACTATION ROOM	RF	RF-1	RB	RB-1				GWB	PES	P-1	T	FF	T-4	GWB	PES	P-1	GWB	PES	P-1	GWB	PES	P-1		107
108	CUST.	CONC	CONC-1	RB	RB-1				GWB	PSG	P-1	GWB	PSG	P-1	GWB	PSG	P-1	GWB	PSG	P-1	(E)	(E)	(E)		108
109	COLLABORATION ROOM	CPT	CPT-1	RB	RB-1				GWB	PES	P-1	TWP	FF	TWP-2	GWB	PES	P-1	GWB	PES	P-1	ACT	FF	ACT-1		109
110	CONFERENCE ROOM	CPT	CPT-1	RB	RB-1				GWB/ TWP	PES/ FF	P-1/ TWP-5	GWB	PES	P-1	GWB	PES	P-1	GWB	PES	P-1	ACT	FF	ACT-1		110
112	WAITING AREA	CPT	CPT-1,2	RB	RB-1				GWB	PES	P-1,3	GWB	PES	P-1	GWB	PES	P-2	GWB	PES	P-1,3	ACT	FF	ACT-1		112
114	ARCHIVE STORAGE	RF	RF-1	RB	RB-1				GWB	PES	P-1	GWB	PES	P-1	GWB	PES	P-1	GWB	PES	P-1	ACT	FF	ACT-1		114
114A	VESTIBULE	CPT	CPT-1	RB	RB-1				GWB	PES	P-1	GWB	PES	P-1	GWB	PES	P-1	GWB	PES	P-1	ACT	FF	ACT-1		114A
115	TESTING CR.	CPT	CPT-1,3	RB	RB-1				GWB	PES	P-4	GWB	PES	P-1,4	TWP	FF	TWP-1	GWB	PES	P-1,4	ACT	FF	ACT-1		115
115A	LOCKERS	CONC	CONC-1	RB	RB-1				GWB	PES	P-1,4	GWB	PES	P-4	GWB	PES	P-1,4	GWB	PES	P-1	ACT	FF	ACT-1		115A
117	DIRECTOR II	CPT	CPT-1	RB	RB-1				GWB	PES	P-1	GWB	PES	P-1	TWP	FF	TWP-5	GWB	PES	P-1	ACT	FF	ACT-1		117
118	OFFICE	CPT	CPT-1	RB	RB-1				GWB	PES	P-1	GWB	PES	P-1	TWP	FF	TWP-5	GWB	PES	P-1	ACT	FF	ACT-1		118
119	OFFICE	CPT	CPT-1	RB	RB-1				GWB	PES	P-1	GWB	PES	P-1	TWP	FF	TWP-5	GWB	PES	P-1	ACT	FF	ACT-1		119
120	WORK ROOM	RF	RF-1	RB	RB-1				GWB	PES	P-1	GWB	PES	P-1	GWB	PES	P-1	GWB	PES	P-1	ACT	FF	ACT-1		120
121	WOMEN'S RESTROOM	T	T-1	T	T-1	T	T-	8'-2 1/2"	T	FF	T-2	T	FF	T-2,3,4,5,6	T	FF	T-2	T	FF	T-2	GWWB	PSG	P-2		121
122	MEN'S RESTROOM	T	T-1	T	T-1	T	T-	8'-2 1/2"	T	FF	T-2	T	FF	T-2	T	FF	T-2	T	FF	T-2,3,4,5,6	GWWB	PSG	P-2		122
123	CUST.	CONC	CONC-1	RB	RB-1				GWB	PSG	P-1	GWB	PSG	P-1	GWB	PSG	P-1	GWB	PSG	P-1	(E)/ ACT	FF	ACT-1		123
124	CORRIDOR D	RF	RF-1,3	RB	RB-1				GWB	PES	P-1,4	-	-	-	GWB	PSG	P-1,4	GWB	PSG	P-1	(E)/ ACT	FF	ACT-1		124
125	ACADEMIC CR.	RF	RF-1,3	RB	RB-1				GWB	PES	P-4	GWB/ TWP	PES/ FF	P-1,4/ TWP-3	GWB	PES	P-1	GWB	PES	P-1	(E)/ ACT	FF	ACT-1		125
126	ADULT BASIC EDU.	RF	RF-1,3	RB	RB-1				GWB	PES	P-4	GWB	PES	P-1	GWB	PES	P-1	GWB/ TWP	PSG/ FF	P-1,4/ TWP-3	(E)/ ACT	FF	ACT-1		126
127	ACADEMIC CR. FINISHES	CPT	CPT-1,4	RB	RB-1				GWB	PES	P-5	GWB/ TWP	PES/ FF	P-1,5/ TWP-4	GWB	PES	P-1	GWB	PES	P-1	(E)/ ACT	FF	ACT-1		127
128	COLLABORATION RM.	CPT	CPT-1	RB	RB-1				GWB	PES	P-1	GWB	PES	P-1	GWB	PES	P-1	TWP	FF	TWP-4	ACT	FF	ACT-1		128
130	OFFICE	CPT	CPT-1	RB	RB-1				TWP	FF	TWP-5	GWB	PES	P-1	GWB	PES	P-1	GWB	PES	P-1	ACT	FF	ACT-1		130
131	DIRECTOR II	CPT	CPT-1	RB	RB-1				TWP	FF	TWP-5	GWB	PES	P-1	GWB	PES	P-1	GWB	PES	P-1	ACT	FF	ACT-1		131
132	CORRIDOR E	RF	RF-1,2,3,4	RB	RB-1				GWB	PES	P-1,3	GWB	PES	P-5	GWB	PES	P-4,5	GWB	PES	P-1	ACT	FF	ACT-1		132
133	OFFICE	CPT	CPT-1	RB	RB-1				GWB	PES	P-1	GWB	PES	P-1	GWB	PES	P-1	TWP	FF	TWP-5	ACT	FF	ACT-1		133
134	CORRIDOR A	CONC	CONC-1,2,3,4	RB	RB-1				GWB	PSG	P-1,3,4,5	-	-	-	GWB/ AWP	PSG/ FF	P-1,3,4,5/ AWP-1,2,3	-	-	-	ACT/ GWB	FF/ PES	ACT-1/ P-1		134
135	BREAK AREA	CONC	CONC-1,2,3,4	RB	RB-1				GWB	PES	P-	GWB	PES	P-	GWB	PES	P-	GWB	PES	P-	ACT/ GWB	FF/ PES	ACT-1/ P-3		135
136	ATRIUM	-	-	-	-				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		136
137	OFFICE	CPT	CPT-1	RB	RB-1				GWB	PES	P-1	GWB	PES	P-1	TWP	FF	TWP-5	GWB	PES	P-1	ACT	FF	ACT-1		137
138	OFFICE	CPT	CPT-1	RB	RB-1				GWB	PES	P-	GWB	PES	P-1	GWB	PES	P-1	TWP	FF	TWP-5	ACT	FF	ACT-1		138
139	OFFICE	CPT	CPT-1	RB	RB-1				GWB	PES	P-1	TWP	FF	TWP-5	GWB	PES	P-1	GWB	PES	P-1	ACT	FF	ACT-1		139
140	STUDENT SERVICES	CPT	CPT-1	RB	RB-1				GWB	PES	P-1,3,4	GWB	PES	P-1,4	GWB	PES	P-1,5	GWB	PES	P-1,3,4,5	ACT	FF	ACT-1		140
140A	OFFICE	CPT	CPT-1	RB	RB-1				GWB	PES	P-1	TWP	FF	TWP-5	GWB	PES	P-1	GWB	PES	P-1	ACT	FF	ACT-1		140A
140B	SITTING	CPT	CPT-1	RB	RB-1				GWB	PES	P-3	-	-	-	GWB	PES	P-5	GWB	PES	P-1	ACT	FF	ACT-1		140B
143	BUSINESS LAB	RF	RF-1,2	RB	RB-1				GWB/ TWP	PES/ FF	P-1/ TWP-1	GWB	PES	P-1	GWB	PES	P-3	GWB	PES	P-1,3	(E)/ ACT	FF	ACT-1		143
145	IDF	CONC	CONC-1	RB	RB-1				GWB	PF	P-1	GWB	PF	P-1	GWB	PF	P-1	GWB	PF	P-1	(E)/ ACT	FF	ACT-1		145
146	ELECTRICAL	(E)	(E)	(E)	(E)				GWB	PF	P-1	GWB	PF	P-1	GWB	PF	P-1	GWB	PF	P-1	(E)	(E)	(E)		146
147	ART CR.	CONC	CONC-1	RB	RB-1				GWB	PSG	P-1	GWB/ TWP	PSG/ FF	P-1,5/ TWP-1	GWB	PSG	P-5	GWB/ TWP	PSG/ FF	P-1,5/ TWP-1	(E)/ ACT	FF	ACT-1		147
148	ACADEMIC CLR	CPT	CPT-1,3,5	RB	RB-1				GWB	PES	P-1	GWB	PES	P-4	GWB/ TWP	PES/ FF	P-1,4/ TWP-3	GWB	PES	P-1	(E)/ ACT	FF	ACT-1		148
149	UPHOLSTRY/COSTUME DESIGN CR.	RF	RF-1,2	RB	RB-1				GWB/ TWP	PES/ FF	P-1/ TWP-2	GWB	PES	P-3	GWB	PES	P-1,3	GWB	PES	P-1	(E)/ ACT	FF	ACT-1		149
150	GIRLS RESTROOM	T	T-1	T	T-1	T	T-	8'-2 1/2"	T	FF	T-2,3,4,5,6	T	FF	T-2	T	FF	T-2	T	FF	T-2	GWWB	PSG	P-2		150
151	BOYS RESTROOM	T	T-1	T	T-1	T	T-	8'-2 1/2"	T	FF	T-2	T	FF	T-2	T	FF	T-2,4,5,6	T	FF	T-2	GWWB	PSG	P-2		151
153	ACADEMIC CR.	CPT	CPT-1,4,5	RB	RB-1				GWB	PES	P-1	GWB	PES	P-5	GWB/ TWP	PES/ FF	P-1,5/ TWP-4	GWB	PES	P-1	(E)/ ACT	FF	ACT-1		153
154	NEEDLE ARTS	CPT	CPT-1,4,5	RB	RB-1				GWB/ TWP	PES/ FF	P-1,5/ TWP-4	GWB	PES	P-5	GWB	PES	P-1	GWB	PES	P-1	(E)/ ACT	FF	ACT-1		154
155	OFFICE	CPT	CPT-1	RB	RB-1				GWB	PES	P-1	GWB	PES	P-1	TWP	FF	TWP-5	GWB	PES	P-1	ACT	FF	ACT-1		155
156	OFFICE	CPT	CPT-1	RB	RB-1				GWB	PES	P-1	TWP	FF	TWP-5	GWB	PES	P-1	GWB	PES	P-1	ACT	FF	ACT-1		156
157	ADULT BASIC ED. CTE	RF	RF-1,2	RB	RB-1				GWB/ TWP	PES/ FF	P-1/ TWP-1	GWB	PES	P-1,3	GWB	PES	P-3	GWB	PES	P-1	(E)/ ACT	FF	ACT-1		157
158	LOBBY	CONC	CONC-1,2,3	RB	RB-1				GWB	PES	P-	GWB	PES	P-	GWB	PES	P-	GWB	PES	P-	ACT	FF	ACT-1		158
159	BREAK ROOM AREA	RF	RF-1,3,4	RB	RB-1				GWB	PES	P-1,4	GWB	PES	P-1,5	GWB	PES	P-1	GWB	PES	P-4	ACT	FF	ACT-1		159
160	CORRIDOR B	CONC	CONC-1,2,3,4	RB	RB-1				GWB	PSG	P-1,3,4,5	GWB	PSG	P-	GWB	PSG	P-1,3	-	-	-	ACT	FF	ACT-1		160
161	CORRIDOR C	CONC	CONC-1,4	RB	RB-1				-	-	-	GWB/ AWP	PSG/ FF	P-1,5/ AWP-3	GWB	PSG	P-1	GWB	PSG	P-1,5	(E)/ ACT/ GWB	FF/ PES	ACT-1/ P-5		161
162	FIRE RISER	RF	RF-1	RB	RB-1				GWB	PF	P-1	GWB	PF	P-1	GWB	PF	P-1	GWB	PF	P-1	UOS	PF	P-1		162
163	STORAGE	RF	RF-1	RB	RB-1				GWB	PES	P-1	GWB	PES	P-1	GWB	PES	P-1	GWB	PES	P-1	ACT	FF	ACT-1		163
165	CUST.	CONC	CONC-1	RB	RB-1				GWB	PSG	P-1	GWB	PSG	P-1	GWB	PSG	P-1	GWB/ FRP	PSG/ FF	P-1/ FRP-1	(E)/ ACT	FF	ACT-1		165
167	STORAGE	CPT	CPT-1	RB	RB-1				GWB	PSG	P-1	GWB	PSG	P-1	GWB	PSG	P-1	GWB	PSG	P-1	ACT	FF	ACT-1		167

COLORS, MATERIALS & FINISHES LEGEND

ITEM	MATERIAL	LOCATION
03 35 11 - CONCRETE FLOOR FINISHES		
CONC-1	PROSOCO, COLORHARD, 'CONCRETE GRAY', DENSIFIED W/ LS/ CS AND PROTECTED W/ POLISHGUARD	TYPICAL
CONC-2	PROSOCO, COLORHARD, 'CARIBBEAN BLUE', DENSIFIED W/ LS/ CS AND PROTECTED W/ POLISHGUARD	ACCENT
CONC-3	PROSOCO, COLORHARD, 'EMERALD', DENSIFIED W/ LS/ CS AND PROTECTED W/ POLISHGUARD	ACCENT
CONC-4	PROSOCO, COLORHARD, 'GEORGIA CLAY', DENSIFIED W/ LS/ CS AND PROTECTED W/ POLISHGUARD	ACCENT
06 41 00 - ARCHITECTURAL WOOD CASEWORK		
PL-1	WILSONART, STANDARD HPL FINISH, 'VERANDA TEAK' #209K-28, GLOSS LINE FINISH	TYPICAL @ CASEWORK
PL-2	FORMICA, COLOR CORE2, 'FOLKSTONE' #927C-58, MATTE FINISH	TYPICAL @ COUNTERTOPS/ LOBBY DISPLAY AREA
06 83 16 - FIBERGLASS REINFORCED PANELING		
FRP-1	MARLITE, STANDARD FRP 'BRIGHT WHITE' #P-199 PEBBLE	CUSTODIAN
08 43 13 - ALUMINUM-FRAMED STOREFRONTS		
ALUM-1	ARCADIA, ANODIZED ALUMINUM 'CLEAR AC-2' #11	TYPICAL
08 80 00 - GLAZING (GRAPHIC FILM)		
GF-2	3M SCOTCHAL, TRANSLUCENT FILM SERIES #3630, CUSTOM COLOR TO MATCH PANTONE #TBD	ACCENT @ GLAZING
09 30 00 - TILING		
T-1	DALTILE, PORTFOLIO, 'IRON GREY' #PF06, 6"x24" CUSTOM FACTORY CUT TO 6"x12" W/ COVE BASE #P36C9TP36C9T, 6"x12"	FLOOR TILE/ COVE BASE
T-2	DALTILE, COLOR WHEEL COLLECTION, 'ARCTIC WHITE DT' #0190, 4"x12"	RR WALL TILE TYPICAL
T-3	DALTILE, COLOR WHEEL COLLECTION, 'MATTE DESERT GRAY' #X714, 4"x12"	RR WALL TILE ACCENT
T-4	DALTILE, COLOR WHEEL COLLECTION, 'OCEAN BLUE' #Q049, 4"x12"	RR/ LACTATION ROOM WALL TILE ACCENT
T-5	DALTILE, COLOR WHEEL COLLECTION, 'GREEN APPLE' #QF30, 4"x12"	RR WALL TILE ACCENT
T-6	DALTILE, COLOR WHEEL COLLECTION, 'MARMALADE' #QF71, 4"x12"	RR WALL TILE ACCENT
09 30 00 - TILING (GROUT)		
G-1	CUSTOM BUILDING PRODUCTS, 'DOVE GRAY' #370	GROUT @ FLOOR TILE
G-2	CUSTOM BUILDING PRODUCTS, 'SNOW WHITE' #11	GROUT @ WALL TILE
09 51 00 - ACOUSTICAL CEILINGS		
ACT-1	ARMSTRONG, SCHOOL ZONE FINE FISSURED, ANGELED TEGULAR 'WHITE' #1824, 2'x4'x3/4" W/ 15/16" PRELUDE XL SUSPENSION SYSTEM, NRC:0.70	TYPICAL
09 65 00 - RESILIENT FLOORING		
RF-1	FORBO, MARMOLEUM, CONCRETE 'NEBULA' #3723	TYPICAL
RF-2	FORBO, MARMOLEUM, PIANO 'ATLANTIC BLUE' #3652	ACCENT
RF-3	FORBO, MARMOLEUM, CONCRETE 'GREEN GLOW' #3742	ACCENT
RF-4	FORBO, MARMOLEUM, CONCRETE 'ORANGE GLOW' #3738	ACCENT
09 65 00 - RESILIENT FLOORING (RUBBER BASE)		
RB-1	BURKE 'CHARCOAL' #217	TYPICAL
09 68 13 - TILE CARPETING		
CPT-1	SHAW CONTRACT, ALTERED COLLECTION, MANIPULATE TILE #5T130, CUSTOM COLOR TRYK #F865535/ CAD SPEC #443130, 9" X 36" TILE USING ASHLAR INSTALLATION	TYPICAL
CPT-2	SHAW CONTRACT, TRU COLOURS #59368, 'SAXONY BLUE' #68405, 24"x24" TILE USING QUARTER TURN INSTALLATION	ACCENT
CPT-3	SHAW CONTRACT, TRU COLOURS #59368, 'BRITE GREEN' #68325, 24"x24" TILE USING QUARTER TURN INSTALLATION	ACCENT
CPT-4	SHAW CONTRACT, TRU COLOURS #59368, 'ORANGE' #68675, 24"x24" TILE USING QUARTER TURN INSTALLATION	ACCENT
CPT-5	SHAW CONTRACT, SET UP COLLECTION, PATH TILE #5T034, 'STERLING' #34557, 24"x24" TILE USING QUARTER TURN INSTALLATION	WALK-OFF
09 72 16.26 - ARCHITECTURAL VINYL GRAPHIC FILMS		
GF-1	3M SCOTCHAL, ELECTROCUT GRAPHICS FILM SERIES, 2MM THICK ADHESIVE #7725-10 WHITE	ACCENT @ DOORS
09 72 60 - RESILIENT TACKABLE WALL COVERING		
TWP-1	FORBO, BULLETIN BOARD WALL SYSTEM, 'DUCK EGG' #2162	TYPICAL
TWP-2	FORBO, BULLETIN BOARD WALL SYSTEM, 'BLUE BERRY' #2214	ACCENT
TWP-3	FORBO, BULLETIN BOARD WALL SYSTEM, 'BABY LETTUCE' #2213	ACCENT
TWP-4	FORBO, BULLETIN BOARD WALL SYSTEM, 'TANGERINE ZEST' #2211	ACCENT
09 84 30 - SOUND-ABSORBING WALL AND CEILING UNITS		
AWP-1	LAMVIN, ECO-SONIC TACKABLE HIGH-IMPACT PANEL 1" THICK, ROTOFAST CLIP, SQUARE EDGE, FABRIC: CARNEGIE XOREL, METEOR, #6427-737 (BLUE)	ACCENT @ CORRIDORS
AWP-2	LAMVIN, ECO-SONIC TACKABLE HIGH-IMPACT PANEL 1" THICK, ROTOFAST CLIP, SQUARE EDGE, FABRIC: CARNEGIE XOREL, METEOR, #6427-730 (GREEN)	ACCENT @ CORRIDORS
AWP-3	LAMVIN, ECO-SONIC TACKABLE HIGH-IMPACT PANEL 1" THICK, ROTOFAST CLIP, SQUARE EDGE, FABRIC: CARNEGIE XOREL, METEOR, #6427-721 (ORANGE)	ACCENT @ CORRIDORS
09 91 23 - INTERIOR PAINTING		
P-1	DUNN EDWARDS, 'WHITE PICKET FENCE' #DET648	TYPICAL WALL COLOR/ GWB CEILING/ (E) CEILING GRID
P-2	DUNN EDWARDS, 'SHINY NICKEL' #DE6338	ACCENT/ GWWB CEILING
P-3	DUNN EDWARDS, 'DEEP LAGOON' #DE5740	ACCENT
P-4	DUNN EDWARDS, 'ASPARAGUS FERN' #DE5551	ACCENT
P-5	DUNN EDWARDS, 'ORANGE JEWEL' #DEA115	ACCENT
P-6	DUNN EDWARDS, 'HAMILTON BLUE' #DE6333	HM DOORS/ FRAMES/ EXPOSED STRUCTURE + MECH/ PLUMB EQUIPMENT
10 11 00 - VISUAL DISPLAY UNITS (TACKABLE WALL PANELS)		
TWP-5	KOROSEAL, LINO, 'SHEER' #LN21-01	ADMIN
10 14 00 - SIGNAGE		
SIGN-1	CUSTOM COLOR TO MATCH P-6	TYPICAL BACKGROUND
SIGN-2	CUSTOM COLOR TO MATCH P-1	TEXT/ SYMBOLS
10 21 13.19 - PLASTIC TOILET COMPARTMENTS		
TP-1	SCRANTON, HINY HIDERS, MOSAIC, 'SANDSTONE' W/ OP TEXTURE	TYPICAL @ RESTROOMS
10 26 00 - WALL AND DOOR PROTECTION		
WP-1	KOROSEAL, KORODARD CORNER GUARD #GS10, STAINLESS STEEL TYPE 304 WITH #4 SATIN FINISH, ADHESIVE MOUNTED (NO TAPE OR SCREWS), 1" LEG	CORNER GUARDS
10 51 13 - METAL LOCKERS		
LOCK-1	LIST INDUSTRIES INC., 'POPULAR GRAY' #746	TESTING CENTER
12 36 00 - COUNTERTOPS		
SSM-1	AVONITE TBD	ACCENT @ LOBBY DESK
13 31 33.10 - SINGLE POST FABRIC SHADE STRUCTURE		
FSS-1	USA-SHADE, SINGLE POST, COLOURSHADE FR FABRIC 'TERRACOTTA'	EXTERIOR
32 13 13 - SITE CONCRETE		
CONC-5	SCOFIELD, TO MATCH EXISTING	EXTERIOR

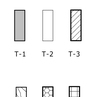


TYPICAL



ACCENT @ SINK WALL

R.R. TILE LEGEND



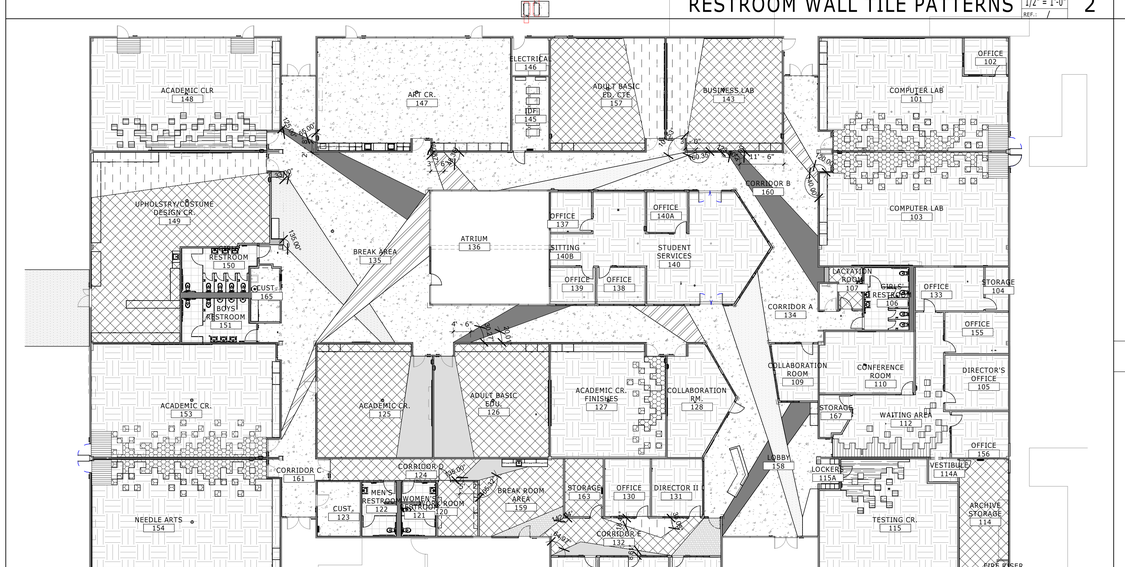
NOTE:
SEE C.M.F SCHEDULE
FOR MORE INFORMATION

RESTROOM WALL TILE PATTERNS

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

FLOOR PLAN - FINISHES

SCALE: 1/16" = 1'-0" REF.: <A1>/A-0 1



FINISH ABBREVIATIONS

ACP	ACOUSTICAL CEILING PANEL (SUSPENDED)
ACT	ACOUSTICAL CEILING TILE
AWP	ACOUSTIC WALL PANEL
CGD	CORNER GUARD
CMU	CONCRETE MASONRY UNIT
CONC	CONCRETE
CPL	CEMENT PLASTER
CPT	CARPET
CT	CERAMIC TILE
DIS	DISPLAY CASE
ECO	ECORESIN PANEL
EPOXY	EPOXY FLOOR
EPT	EPOXY TERRAZZO
EXP	EXPOSED
F	FACTORY FINISH
FRP	FIBERGLASS REINFORCED PANEL
G	GROUT
GPL	GYPSUM PLASTER
GWB	GYPSUM WALLBOARD
GWWB	WATER RESISTANC G/WB
ICB	INTEGRAL COVED BASE
LINO	LINOLEUM
LVT	LUXURY VINYL TILE
MESH	METAL MESH SYSTEM
MPS	METAL PANEL SYSTEM
OP	OPERABLE PARTITION
PCPL	PORTLAND CEMENT PLASTER OVER METAL LATH, SAND FINISH
PES	PAINT - EGGSHELL
PL	PLASTIC LAMINATE
PLAS	PLASTER
PF	PAINT, FLAT
PG	PAINT, GLOSS
PSG	PAINT, SEMI-GLOSS
QT	QUARRY TILE
RES	RESINOUS/EPOXY FLOORING
RF	RUBBER FLOORING
RS	ROLLER SHADE SYSTEM
S	SEAL
SAF	SYNTHETIC ATHLETIC FLOORING
SCW	SOLID CORE WOOD
SEAL	SEALED CONCRETE
SSM	SOLID SURFACE MATERIAL
ST	STAIN WOOD COLOR
STV	STONE TILE VENEER
SV	SHEET VINYL
TSRB	TOP SET RUBBER BASE
TWP	TACKABLE WALL PANEL
U.O.S.	UNDERSIDE OF STRUCTURE
VCB	VENTED COVED BASE
VCT	VINYL COMPOSITION TILE
VF	VINYL FABRIC
VWC	VINYL WALL COVERING
WACP	WASHABLE ACOUSTICAL CEILING PANEL (SUSPENDED)
WAF	WOOD ATHLETE FLOORING
WD	WOOD
WGM	WOOD MASIVE FLOORING
WP	WALL PADDING
WS	WALL SYSTEM

FINISH NOTES

1. ALL FINISHES SHALL COMPLY WITH CBC CHAPTERS 3, 8 & 10, CFC AND CCR TITLE 19
2. WALL AND CEILING MATERIALS SHALL NOT EXCEED THE FLAME SPREAD CLASSIFICATIONS IN CBC TABLE 803.9
3. ALL ADJACENT DISSIMILAR FINISH MATERIALS TO RECEIVE BEAD OF CAULK, U.N.O.
4. SEE INTERIOR ELEVATION SHEETS FOR ACCENT PAINT LOCATIONS
5. ALL EXPOSED STEEL, HOLLOW METAL DOORS AND FRAMES, AND LOUVERS TO BE PAINTED
6. TOILET ROOM, TOILET ROOM VESTIBULES, AND FOOD SERVICE AREA WALLS AND CEILINGS NOT COVERED BY EITHER TILE OR F.R.P. TO HAVE MOISTURE RESISTANT GYP. BD., U.N.O.
7. COORDINATE FINISHES WITH MECHANICAL FOR PLUMBING FIXTURES
8. FOR EXTENT AND PATTERN OF CEILING FINISH, SEE REFLECTED CEILING PLAN
9. AT COVE BASE, PROVIDE CONT. 3/8" RADIUS
10. FOR TYPICAL CERAMIC TILE DETAILS, REFER TO DETAIL 15/AD1.1
11. FOR TYPICAL FLOOR TRANSITION DETAILS, REFER TO DETAIL 28/AD6.1
12. FOR MORE INFO, ON COLORS, FINISHES & MATERIALS, REFER TO SHEET ID-1.0
13. ALL FLOOR FINISHES SHALL BE STABLE, FIRM & SLIP RESISTANT.
14. SEE SHEET **AD6.1** FOR ALL TRANSITION DETAILS IF IT IS NOT A FLUSH TRANSITION BETWEEN ANY TWO FLOOR FINISHES.
15. ALL FLOOR FINISHES SHALL EXTEND BELOW ACCESSIBLE WORKSTATIONS, SINKS, ETC. FOR THE REQUIRED TOE/KNEE CLEARANCE.

FLOOR FINISH LEGEND

CONCRETE

CONC-1
CONC-2
CONC-3
CONC-4

CORNER GUARDS

PER SPEC SECTION 10 26 00

RESILIENT SHEET FLOORING

RF-1
RF-2
RF-3
RF-4

CARPET TILE

CPT-1
CPT-2
CPT-3
CPT-4
CPT-5

TILE

T-1

AGENCY APPROVAL
File No: 37-H4

LICENSED ARCHITECT Brad Ruhnau C-20662 03-31-2021 RENEWAL DATE STATE OF CALIFORNIA

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-119728 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/18/2021

STAMPS

RUHNAU CLARKE ARCHITECTS

CONSULTANT BRANDING

FEBRUARY 17, 2020 - DSA SUBMITTAL

PROJECT No. :1-30-47
2/16/2021 5:01:11 PM
DRAWN BY: CHECKED BY:

REVISION:____ DATE _____ DESCRIPTION _____

RUHNAUCLARKE.COM

3775 TENTH STREET, RIVERSIDE CALIFORNIA 92501 (951) 684 4664 / 5751 PALMER WAY, SUITE C, CARLSBAD CALIFORNIA 92010 (760) 438 5899

FOOTHILLS ADULT EDUCATION CENTER
1550 Melody Lane El Cajon, CA 92019
GROSSMONT UNIFIED HIGH SCHOOL DISTRICT

FINISHES PLAN / FINISH SCHEDULE & CMF LEGEND

ID-1.0

1-30-47

LIST OF ABBREVIATIONS

ADD'L.	ADDITIONAL
ALT.	ALTERNATE
ACI	AMERICAN CONCRETE INSTITUTE
APA	AMERICAN PLYWOOD ASSOCIATION
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
AWS	AMERICAN WELDING SOCIETY
A.B.	ANCHOR BOLT(S)
APPROX.	APPROXIMATELY
ARCH.	ARCHITECT / ARCHITECTURAL
@	AT
B. PL.	BASE PLATE
BM.	BEAM
BRG.	BEARING
BTWN.	BETWEEN
BLK.	BLOCK
BLKG.	BLOCKING
B.E.	BOTH ENDS
BOT. OR BOTT.	BOTTOM
B.N.	BOUNDARY NAILS
BLDG.	BUILDING
C	CAMBER
CBC	CALIFORNIA BUILDING CODE
CIP	CAST IN PLACE
CLG.	CEILING
CJ	CEILING JOIST OR CONSTRUCTION JOINT OR CONTROL JOINT
CJP	COMPLETE JOINT PENETRATION WELD
℄	CENTER LINE
CLR.	CLEAR
COL.	COLUMN
CONC.	CONCRETE
CMU	CONCRETE MASONRY UNIT
COND.	CONDITION
CONN.	CONNECTION
CONSTR.	CONSTRUCTION
CONT'D	CONTINUED
CONT.	CONTINUOUS
CONTR.	CONTRACTOR
CSK.	COUNTERSINK
DL	DEAD LOAD
DP.	DEEP
DEMO.	DEMOLISH
DTL. OR DET.	DETAIL
DIAG.	DIAGONAL
DIA. OR ø	DIAMETER
DIM.	DIMENSION
DO	DITTO
DBL.	DOUBLE
D.F.	DOUGLAS FIR
DWL.	DOWEL
DN.	DOWN
DWG.	DRAWING
EA.	EACH
E.F.	EACH FACE
E.S.	EACH SIDE
E.W.	EACH WAY
E.N.	EDGE NAIL(S)
ELEC.	ELECTRICAL
ELEV.	ELEVATION
EMBED.	EMBEDMENT
ENG.	ENGINEER
EQ.	EQUAL
EQUIP.	EQUIPMENT
EXCAV.	EXCAVATION
(E)	EXISTING
EXP.	EXPANSION
EJ	EXPANSION JOINT
ES	EVALUATION SERVICE
ESR	EVALUATION SERVICE REPORT
EXT.	EXTERIOR
F.O.C.	FACE OF CONCRETE
F.O.M.	FACE OF MASONRY
F.O.S.	FACE OF STUD OR FACE OF SLAB
F.S.	FAR SIDE
FIN.	FINISH
F.F.	FINISHED FLOOR
FHWS	FLAT HEAD WOOD SCREW
FLR.	FLOOR
FD	FLOOR DRAIN
FTG.	FOOTING
FNDN.	FOUNDATION
FRMG.	FRAMING
GALV.	GALVANIZE
GA.	GAUGE
GLU-LAM	GLUED LAMINATED
GLB	GLUED LAMINATED BEAM
GR.	GRADE
HGR.	HANGER
HR	HARDROCK
HDR.	HEADER
HT.	HEIGHT
HD	HOLD DOWN
HSS	HOLLOW STRUCTURAL SECTION
HORIZ.	HORIZONTAL
INFO.	INFORMATION
I.D.	INSIDE DIAMETER
INT.	INTERIOR
IBC	INTERNATIONAL BUILDING CODE
ICC	INTERNATIONAL CODE COUNCIL
INV.	INVERT
JST.	JOIST
KP	KING POST
KSI	KIPS PER SQUARE INCH
LAM.	LAMINATED
LDGR.	LEDGER
LT. WT. OR LW	LIGHT WEIGHT
LL	LIVE LOAD
LG.	LONG OR LENGTH
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
LO-HY	LOW HYDROGEN
M.B.	MACHINE BOLT(S)
MFR.	MANUFACTURER
MAS.	MASONRY
M.O.	MASONRY OPENING
MATL.	MATERIAL
MAX.	MAXIMUM
MECH.	MECHANICAL
MTL.	METAL
MIN.	MINIMUM
MISC.	MISCELLANEOUS
MU	MECHANICAL UNIT
N.F.	NEAR FACE
N.S.	NEAR SIDE
NSA	NELSON STUD ANCHOR
(N)	NEW
NIC.	NOT IN CONTRACT
NTS.	NOT TO SCALE
NO. OR #	NUMBER
O.C.	ON CENTER
OPNG.	OPENING
OPP.	OPPOSITE
O.H.	OPPOSITE HAND
O.D.	OUTSIDE DIAMETER
PHWS	PAN HEAD WOOD SCREW
P.J.	PANEL JOINT
d	PENNY
PIL.	PILASTER
PL. OR ℗	PLATE (STEEL OR WOOD)
PLY.	PLYWOOD
PWJ	PLYWOOD WEB JOIST
PCF	POUNDS PER CUBIC FOOT
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PT	PRESSURE TREATED
PTDF	PRESSURE TREATED DOUGLAS FIR
PL	PROPERTY LINE

LIST OF ABBREVIATIONS (CONT'D)

RAD.	RADIUS
RFTR.	RAFTER
REF.	REFERENCE
REINF.	REINFORCING
REQ'D	REQUIRED
REQMT.	REQUIREMENT
RF.	ROOF
R.D.	ROOF DRAIN
RO.	ROUGH
R.O.	ROUGH OPENING
SCHED.	SCHEDULE
SEC.	SECTION
SEL.	SELECT
SEP.	SEPARATION
SFRS.	STRUCTURAL FORCE RESISTING SYSTEM
SHTG.	SHEATHING
SHT.	SHEET
S.M.	SHEET METAL
SMS	SHEET METAL SCREWS
SIM.	SIMILAR
SIMP.	SIMPSON
SPCG.	SPACING
SPECS.	SPECIFICATION
SQ.	SQUARE
STGR.	STAGGER
S.S.	STAINLESS STEEL
SPC	STANDARD PIPE COLUMN
STD.	STANDARD
STL.	STEEL
STIFF.	STIFFENER
STIRR.	STIRRUP
STRUCT.	STRUCTURAL
SYM.	SYMMETRICAL
TSG	TAPERED STEEL GIRDER
THK.	THICK
K OR KIP	1,000 POUNDS
THRU	THROUGH
TN	TOE NAIL
T&G	TONGUE AND GROOVE
T&B	TOP AND BOTTOM
T.O.F.	TOP OF FOOTING
T.O.L.	TOP OF LEDGER
T.O.S.	TOP OF STEEL OR TOP OF SHEATHING
T.O.W.	TOP OF WALL
TL	TOTAL LOAD
TS	TUBE STEEL
TYP.	TYPICAL
U.N.O.	UNLESS NOTED OTHERWISE
VIF	VERIFY IN FIELD
VERT.	VERTICAL
WT.	WEIGHT
WWF	WELDED WIRE FABRIC
W/	WITH
W/O	WITHOUT
WD.	WOOD
WJI	WOOD-I-JOIST
WP	WORK POINT
W.S.	WOOD SCREW

GENERAL

1. THESE STRUCTURAL DRAWINGS AND SPECIFICATIONS, INCLUDING ANY ADDENDA (COLLECTIVELY "THE PLANS") INCORPORATE ALL LEGAL AND INDUSTRY REQUIREMENTS AND STANDARDS INCLUDING WITHOUT LIMITATION THE FOLLOWING:
   - THE CALIFORNIA CODE OF REGULATIONS, TITLE 24, PART 1 (CALIFORNIA ADMINISTRATIVE CODE), 2019 EDITION.
   - THE CALIFORNIA CODE OF REGULATIONS, TITLE 24, PART 2 (CALIFORNIA BUILDING CODE), 2019 EDITION.
   - OTHER REGULATING AGENCIES WHICH MAY HAVE AUTHORITY OVER ANY PORTION OF THE WORK, INCLUDING THE STATE OF CALIFORNIA DIVISION OF INDUSTRIAL SAFETY, AND THOSE CODES AND STANDARDS LISTED IN THESE NOTES AND SPECIFICATIONS.
   - THE FUNCTIONALITY STANDARDS SET FORTH IN TITLE 7 OF THE CALIFORNIA CIVIL CODE (THE "RIGHT TO REPAIR ACT").
   - THE MANUFACTURER'S REQUIREMENTS OR RECOMMENDATIONS FOR ANY INCORPORATED PRODUCTS.
   - THE MOST CURRENT APPROVED ISSUES OF ANY NOTED SPECIFICATIONS, CODES AND STANDARDS, INCLUDING SUPPLEMENTS, UNLESS NOTED OTHERWISE.
2. THE PLANS REPRESENT ONLY THE FINISHED STRUCTURE, AND THEY ARE NOT INTENDED TO INDICATE OR REQUIRE ANY CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES. IN PARTICULAR AND WITHOUT LIMITATION, THE CONTRACTOR SHALL BE FULLY AND SOLELY RESPONSIBLE FOR ANY AND ALL EXCAVATION, DEMOLITION, SHORING AND ERECTION PROCEDURES AND FOR ANY AND ALL SAFETY PROGRAMS AND PRECAUTIONS.
3. IN USING THE PLANS FOR BIDDING OR CONSTRUCTION PURPOSES, THE CONTRACTOR IS REQUIRED TO REVIEW ALL OF THE PROJECT'S CONSTRUCTION DOCUMENTS AS A WHOLE IN ORDER TO IDENTIFY ALL REQUIREMENTS THAT DIRECTLY OR INDIRECTLY AFFECT ITS PORTION OF THE STRUCTURAL WORK, EVEN REQUIREMENTS LOCATED IN SECTIONS DESIGNATED AS APPLICABLE TO OTHER TRADES. IN CASE OF CONFLICTS, THE CONTRACTOR SHALL EITHER OBTAIN DIRECTION FROM AN APPROPRIATE OWNER REPRESENTATIVE OR OTHERWISE APPLY THE MORE STRINGENT REQUIREMENT.
4. IN INTERPRETING THE PLANS, THE FOLLOWING GENERAL RULES APPLY:
   - WRITTEN DIMENSIONS SHALL TAKE PRECEDENCE OVER SCALED DRAWINGS.
   - SPECIFIC NOTES AND DETAILS SHALL TAKE PRECEDENCE OVER GENERAL NOTES AND TYPICAL DETAILS.
   - WORK NOT PARTICULARLY SHOWN OR SPECIFIED SHALL BE THE SAME AS SIMILAR PARTS THAT ARE SHOWN OR SPECIFIED.
   - SCALED DIMENSIONS AND GRAPHICALLY SHOWN LOCATIONS ARE TO BE CONSIDERED ONLY APPROXIMATE.
5. IN IMPLEMENTING THE PLANS, THE FOLLOWING GENERAL RULES APPLY:
   - BECAUSE THE PLANS ARE INTENDED TO SET FORTH THE REQUIREMENTS FOR CONSTRUCTION IN ONLY AN INDUSTRY-STANDARD LEVEL OF QUALITY AND DETAIL, AND THEREFORE ARE INTENDED TO BE SUPPLEMENTED BY APPROPRIATE REQUESTS FOR CLARIFICATION AND INFORMATION, ERRORS AND OMISSIONS ARE TO BE EXPECTED AND ANTICIPATED; AND THE CONTRACTOR IS REQUIRED TO CAREFULLY REVIEW THE PLANS FOR ERRORS AND OMISSIONS AND TO BRING THESE ERRORS AND OMISSIONS TO THE ATTENTION OF AN APPROPRIATE OWNER REPRESENTATIVE IN A TIMELY MANNER AND ASSUMES THE RISK OF THE CONSEQUENCES OF FAILING TO DO SO BEFORE BIDDING OR OTHERWISE PROCEEDING.
   - THE CONTRACTOR SHALL REVIEW AND VERIFY ALL DIMENSIONS PRIOR TO STARTING CONSTRUCTION, AND NOTIFY THE ARCHITECT IMMEDIATELY OF ANY DISCREPANCIES OR INCONSISTENCIES.
6. SUBMITTALS WILL BE REVIEWED BY THE STRUCTURAL ENGINEER, IF AT ALL, ONLY PURSUANT TO THE INDUSTRY-STANDARD PROTOCOL SET FORTH IN AIA DOCUMENT A201, AND IN NO EVENT WILL THE SUBMITTAL REVIEW PROCESS RELIEVE OR LESSEN THE SUBMITTING CONTRACTOR'S RESPONSIBILITY FOR AN INAPPROPRIATE SUBMITTAL.
7. IN NO EVENT WILL ANY SITE VISITS BY THE STRUCTURAL ENGINEER CONCERN CONSTRUCTION MEANS AND METHODS OR CONSTRUCTION SAFETY, AND ALL SUCH MATTERS SHALL REMAIN THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
8. COPIES OF THE PLANS PROVIDED IN ANY ELECTRONIC FORM ARE SUBJECT TO THE SAME PROVISIONS AS THE OTHER INSTRUMENTS OF SERVICE PREPARED BY OR ON BEHALF OF STRUCTURAL ENGINEER FOR THE PROJECT, INCLUDING WITHOUT LIMITATION THE ENGINEER'S COMMON LAW, STATUTORY OR OTHER RESERVED RIGHTS, INCLUDING COPYRIGHTS. A RECIPIENT IS GRANTED AT MOST A TRANSFERABLE NONEXCLUSIVE LICENSE TO REUSE THE PLANS SOLELY FOR PROJECT PURPOSES; AND NO RECIPIENT IS AUTHORIZED TO USE OR TO ALLOW THE USE OF ALL OR ANY PORTION OF THESE PLANS FOR ANY OTHER PURPOSE, AND ANY USE FOR ANY OTHER PURPOSE WOULD CONSTITUTE ACTIONABLE PLAGIARISM. STRUCTURAL ENGINEER PROVIDES DOCUMENTS IN AN ELECTRONIC FORM ONLY IN ITS STANDARD FORMATS AND CONVENTIONS AND WITH NO GUARANTEE OF COMPATIBILITY WITH ANY RECIPIENT'S SOFTWARE OR HARDWARE, AND ANY USE WITH OR CONVERSION TO OTHER FORMATS OR CONVENTIONS, OR THE USE WITH ANY PARTICULAR SOFTWARE OR HARDWARE, IS AT THE RECIPIENT'S SOLE RISK.

PROJECT DESIGN CRITERIA

1. DESIGN EARTHQUAKE FORCES ON NON STRUCTURAL COMPONENTS:

TOTAL BASE SHEAR $F_P = \dfrac{0.4 a_p S_{DS} W_p}{\left(\frac{R_p}{I_p}\right)} \left(1 + 2\frac{z}{h}\right)$

BUT SHALL NOT BE LESS THAN $F_P = 0.3 S_{DS} I_p W_p$

BUT NEED NOT NOT EXCEED $F_P = 1.6 S_{DS} I_p W_p$

SITE CLASS = D-DEFAULT

SEISMIC DESIGN CATEGORY = D

$S_S = 0.75$

$F_A = 1.2$

$S_{DS} = 0.6$

$I_P = 1.0$

a_p = PER ASCE 7-16, TABLES 13.5-1 & 13.6-1

R_P = PER ASCE 7-16, TABLES 13.5-1 & 13.6-1

EXISTING CONDITIONS

1. ALL INFORMATION SHOWN ON THE PLANS RELATIVE TO EXISTING CONDITIONS IS GIVEN AS THE BEST PRESENT KNOWLEDGE FROM PLANS SUPPLIED BY THE OWNER, BUT WITHOUT GUARANTEE OF ACCURACY.
2. WHERE ACTUAL CONDITIONS ARE NOT IN ACCORDANCE WITH THE INFORMATION PRESENTED, THE ARCHITECT SHALL BE NOTIFIED IMMEDIATELY. NO MODIFICATIONS OF THE PLANS FOR NEW CONSTRUCTION SHALL BE MADE WITHOUT THE WRITTEN APPROVAL OF THE ARCHITECT.

EXISTING UNDERGROUND UTILITIES

1. THE ARCHITECT AND ENGINEERS ARE NOT RESPONSIBLE FOR THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES WHETHER OR NOT SHOWN ON THE DRAWINGS. THE LOCATION OF ANY EXISTING UNDERGROUND UTILITIES SHOWN ON THE DRAWINGS, IF ANY, IS APPROXIMATE. THE CONTRACTOR SHALL EXERCISE EXTREME CAUTION IN EXCAVATING AND TRENCHING ON THE SITE. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ARCHITECT SHOULD ANY SUCH UNIDENTIFIED CONDITIONS BE DISCOVERED.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGES WHICH MAY RESULT FROM HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ALL EXISTING UNDERGROUND UTILITIES.

DEMOLITION

1. ALL DEMOLITION SHALL BE CARRIED ON IN SUCH A WAY AS NOT TO DAMAGE EXISTING ELEMENTS, WHICH ARE TO REMAIN IN THE FINISHED STRUCTURE.
2. ALL ELEMENTS OF THE STRUCTURE, WHICH ARE TO REMAIN, AND WHICH ARE DAMAGED DURING DEMOLITION WORK SHALL BE REPLACED AT NO ADDITIONAL COST. EXISTING ELEMENTS SHALL BE PROTECTED TO THE FULLEST EXTENT POSSIBLE, IN ORDER TO MITIGATE DAMAGE.
3. CONTRACTOR IS RESPONSIBLE FOR REMOVAL AND REPLACEMENT OF ALL EXISTING ELEMENTS THAT ARE NECESSARY FOR THE INSTALLATION OF ALL NEW WORK.
4. DO NOT CORE OR CUT NEW OPENINGS IN EXISTING CONCRETE OR MASONRY WITHOUT SPECIFIC APPROVAL OF THE STRUCUTRAL ENGINEER. SUBMIT DIMENSIONED LAYOUT OF ALL PROPOSED NEW OPENINGS TO ARCHITECT FOR REVIEW AND APPROVAL PRIOR TO CORING OR CUTTING OPENINGS. CONTRACTOR, AT HIS OWN EXPENSE, SHALL USE NON-DESTRUCTIVE METHODS TO LOCATE EXISTING REINFORCING. EXISTING REINFORCING SHALL NOT BE CUT WITHOUT SPECIFIC APPROVAL OF THE STRUCTURAL ENGINEER.

COLD-FORMED STEEL FRAMING

1. ALL PORTIONS OF WORK PERTAINING TO COLD-FORMED STEEL CONSTRUCTION SHALL CONFORM TO TITLE 24, PART 2, CHAPTER 22A.
2. ALL LIGHT GAUGE METAL FRAMING SHALL BE GALVANIZED AND SHALL CONFORM TO ASTM A-653 SS, GRADE 50, CLASS 1, WITH A MINIMUM YIELD STRENGTH OF 50 KSI FOR 16 GAUGE AND HEAVIER FRAMING, AND ASTM A-653 SS, GRADE 33, WITH A MINIMUM YIELD STRENGTH OF 33 KSI FOR 18 GAUGE AND LIGHTER FRAMING.
3. DIMENSIONS, PROPERTIES AND TYPES NOTED ARE BASED ON METAL STUDS AND TRACKS BY STEEL STUD MANUFACTURERS ASSOCIATION, ICC NO. ESR-3064P, UNLESS NOTED OTHERWISE.
4. ALL STUDS AT JAMBS OF DOOR AND WINDOW OPENINGS SHALL BE 16 GAUGE, UNLESS NOTED OTHERWISE.
5. WELDING SHALL BE IN ACCORDANCE WITH THE STRUCTURAL WELDING CODE - SHEET STEEL, AWS D1.3, BY THE AMERICAN WELDING SOCIETY.
6. ALL SHEET METAL SCREWS SHALL PROTRUDE 3 EXPOSED THREADS MINIMUM THROUGH BASE METAL FRAMING.
7. ALL METAL STUDS SHALL HAVE STIFFENED FLANGES.
8. SEE ARCHITECTURAL AND STRUCTURAL DRAWINGS FOR SIZE AND GAUGE OF STUDS.

CONCRETE

1. ALL PORTIONS OF WORK PERTAINING TO CONCRETE CONSTRUCTION SHALL CONFORM TO TITLE 24, PART 2, CHAPTER 19A.
2. CONCRETE MIXES SHALL BE DESIGNED BY A QUALIFIED TESTING LABORATORY. MIX DESIGNS SHALL CONFORM TO ACI 318, SEC. 26.4, CBC SEC.1903A AND 1904A. MIX DESIGNS SHALL INCORPORATE THE FOLLOWING CRITERIA:
   - MINIMUM OF 5 SACKS OF CEMENT PER CUBIC YARD OF CONCRETE. MAXIMUM OF 7 SACKS OF CEMENT PER YARD OF CONCRETE.
   - MAXIMUM WATER/CEMENT RATIO (BY WEIGHT) OF CONCRETE IN CONTACT WITH SOIL SHALL BE 0.45.
   - MAXIMUM SLUMP SHALL NOT EXCEED 3" ± 1" FOR FOOTINGS, SLABS ON GRADE, AND MASS CONCRETE; AND 4" ± 1" FOR OTHER CONCRETE. SLUMP LIMITATIONS NOTED SHALL APPLY TO CONCRETE MIX PRIOR TO THE ADDITION OF ANY WATER-REDUCING ADMIXTURES OR SUPER-PLASTICIZERS. MAXIMUM SLUMP MAY BE INCREASED TO 5 +/- 1" FOR MIX INCLUDING WATER-REDUCING ADMIXTURES OR SUPER-PLASTICIZERS.
   - CALCIUM CHLORIDE OR ADMIXTURES CONTAINING CHLORIDE(S) SHALL NOT BE USED.
3. SCHEDULE OF STRUCTURAL CONCRETE 28 DAY MINIMUM STRENGTHS AND TYPES:
   - SLABS ON GRADE 145 PCF, f'c = 3000 PSI (NOTE: 2,500 PSI USED FOR DESIGN)
4. PORTLAND CEMENT SHALL CONFORM TO ASTM C-150, TYPE II. CEMENT USED FOR CONCRETE IN CONTACT WITH SOIL SHALL CONFORM TO ASTM C-150, TYPE V.
5. AGGREGATE FOR NORMAL WEIGHT CONCRETE SHALL CONFORM TO ASTM C-33. COMBINED AGGREGATE GRADATION OF ⅜" MAXIMUM (PEA GRAVEL) SHALL NOT BE USED.
6. AGGREGATE FOR LIGHTWEIGHT CONCRETE SHALL CONFORM TO ASTM C-330. THE COURSE AGGREGATE SIZE SHALL NOT EXCEED ¾" AND THE ABSOLUTE VOLUME OF COARSE AGGREGATE SHALL NOT EXCEED 9.0 CUBIC FEET PER CUBIC YARD OF CONCRETE.
7. READY MIXED CONCRETE SHALL CONFORM TO ASTM C-94.
8. PLACEMENT OF CONCRETE SHALL CONFORM TO ACI 304. CLEAN AND ROUGHEN TO ¼" AMPLITUDE ALL CONCRETE SURFACES AGAINST WHICH CONCRETE IS TO BE PLACED.
9. ALL REINFORCING BARS, ANCHOR BOLTS AND OTHER CONCRETE INSERTS SHALL BE SECURED IN POSITION PRIOR TO PLACING CONCRETE.
10. CONCRETE FOR SLAB ON GRADE DOES NOT REQUIRE BATCH PLANT INSPECTION. A MINIMUM OF ONE SET OF CYLINDERS SHALL BE TAKEN AND TESTED FOR EACH 50 CUBIC YARDS OF CONCRETE OR FRACTION THEREOF.

REINFORCING STEEL

1. ALL PORTIONS OF WORK PERTAINING TO FABRICATION AND PLACEMENT OF REINFORCING STEEL SHALL CONFORM TO TITLE 24, PART 2, CHAPTER 19A.
2. REINFORCING BARS SHALL CONFORM TO ASTM A-615 GRADE 60, EXCEPT #3 BARS MAY BE GRADE 40. REINFORCING BARS THAT ARE TO BE WELDED SHALL CONFORM TO ASTM A-706, GRADE 60.
3. WELDING OF REINFORCEMENT SHALL BE WITH LOW HYDROGEN ELECTRODES AND SHALL CONFORM TO STRUCTURAL WELDING CODE - REINFORCING STEEL, AWS D1.4, BY THE AMERICAN WELDING SOCIETY AND SEC. 1903A.8. WELDING RODS USED FOR THE WELDING OF REINFORCING SHALL BE E80XX. ALL WELDING SHALL BE PERFORMED BY CERTIFIED WELDERS.
4. ALL REINFORCING BAR BENDS SHALL BE MADE COLD. ALL #5 OR LARGER REINFORCING BARS SHALL NOT BE RE-BENT.
5. FUSION WELDED REINFORCING STEEL ASSEMBLIES SHALL CONFORM TO SEC. 1903A.8. TIES/STIRRUP BARS IN FUSION WELDED ASSEMBLIES SHALL CONFORM TO ASTM A-706, AND LONGITUDINAL HOLDING WIRES SHALL CONFORM TO ASTM A-1064.
6. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A-185, AND SHALL BE LAPPED 1½ SPACES AND 12" MINIMUM.
7. DOWELS BETWEEN FOOTINGS AND WALLS OR COLUMNS SHALL BE THE SAME GRADE, SIZE, SPACING AND NUMBER AS THE VERTICAL REINFORCEMENT, RESPECTIVELY.
8. REINFORCING SPLICES SHALL BE MADE AS INDICATED ON THE DRAWINGS.
9. ALL VERTICAL REINFORCING SHALL BE CONTINUOUS BETWEEN TWO DIAPHRAGM LEVELS, UNLESS NOTED OTHERWISE.

STAMPS

STRUCTURAL ENGINEER — No. 3795 — EXP. 09-30-21 — STATE OF CALIFORNIA

LICENSED ARCHITECT — David Ruhnau — C-20662 — 03-31-2021 RENEWAL DATE — STATE OF CALIFORNIA

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-119728 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/18/2021
FILE NO. 120-007 EXPIRATION

KNA STRUCTURAL ENGINEERS
9931 Muirlands Boulevard, Irvine, CA 92618
Tel (949) 462-3200, Fax (949) 462-3201
KNA JOB NO: 203.550 CONSULTANT

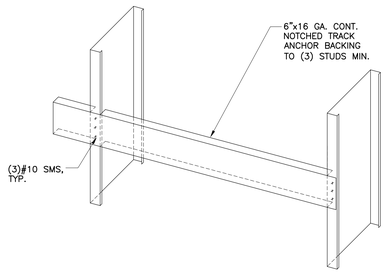
RUHNAU CLARKE ARCHITECTS

FEBRUARY 17, 2021 - DSA BACKCHECK

PROJECT No. : 1-30-47
2/4/2020 10:38:56 AM

DRAWN BY: CHECKED BY:

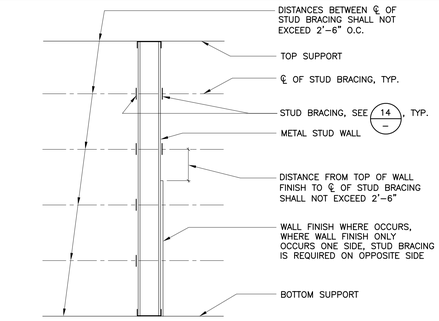
1ISSUE No.____	DATE_____	DESCRIPTION_____	REVISION No.____	DATE_____	DESCRIPTION_____
1ISSUE No.____	DATE_____	DESCRIPTION_____	REVISION No.____	DATE_____	DESCRIPTION_____
1ISSUE No.____	DATE_____	DESCRIPTION_____	REVISION No.____	DATE_____	DESCRIPTION_____
1ISSUE No.____	DATE_____	DESCRIPTION_____	REVISION No.____	DATE_____	DESCRIPTION_____



NOTE:
USE #10 SMS WHEN ATTACHING ITEMS TO BACKING, U.N.O.

MS–117 SCALE: NO SCALE

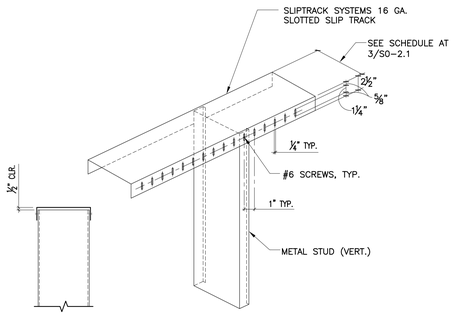
BACKING AT METAL STUDS | 16



NOTE:
WHERE WALL FINISH OCCURS BOTH SIDES OF WALL, FOR FULL HEIGHT OF STUD, BRACING IS NOT REQUIRED, U.N.O.

MS–113 SCALE: NO SCALE

WALL STUD BRACING LOCATION | 12

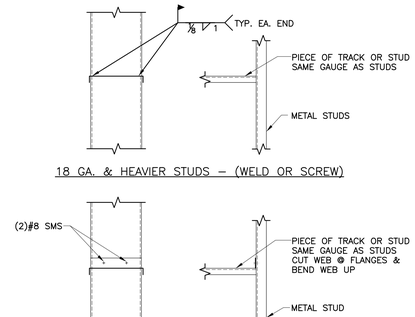


SECTION ISOMETRIC VIEW

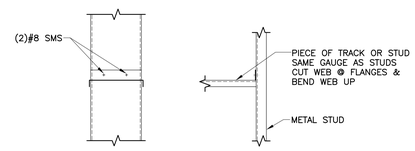
(NON–BEARING)

MS–118 SCALE: NO SCALE

METAL STUD TOP TRACK | 17



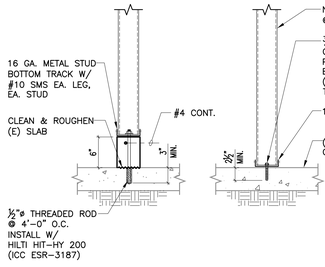
18 GA. & HEAVIER STUDS – (WELD OR SCREW)



20 GA. & LIGHTER STUDS – (NO WELDING PERMITTED)

MS–114 SCALE: NO SCALE

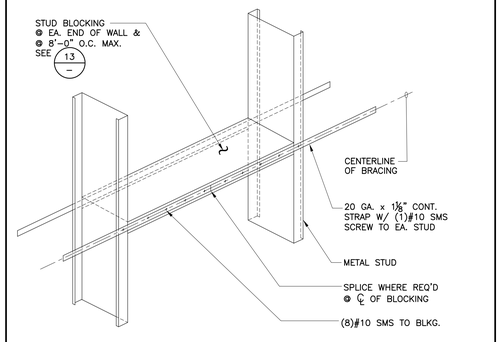
METAL STUD BLOCKING | 13



AT CURB WITHOUT CURB

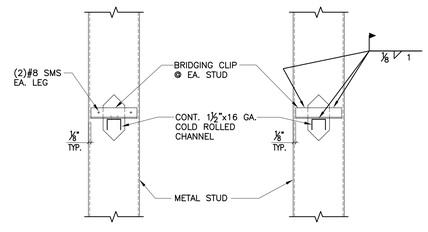
MS–202 SCALE: NO SCALE

DETAIL | 18



MS–115 SCALE: NO SCALE

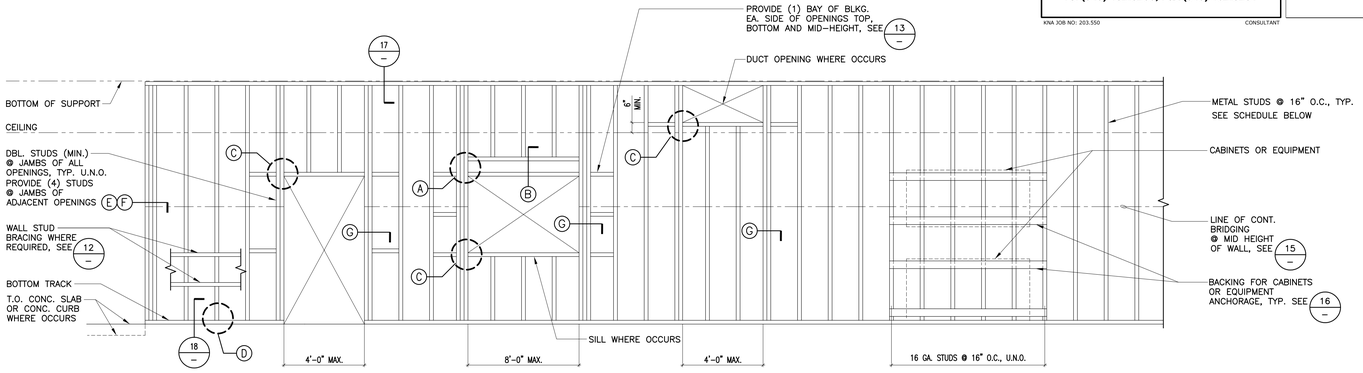
METAL STUD BRACING | 14



AT SCREWABLE STUD AT WELDED STUD

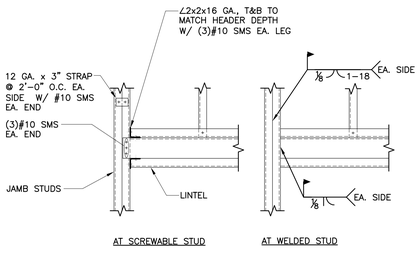
MS–116 SCALE: NO SCALE

METAL STUD BRIDGING | 19



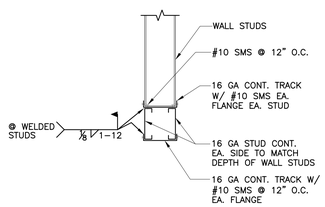
METAL STUD WALL ELEVATION – FULL HEIGHT

METAL STUD WALL FRAMING | 15

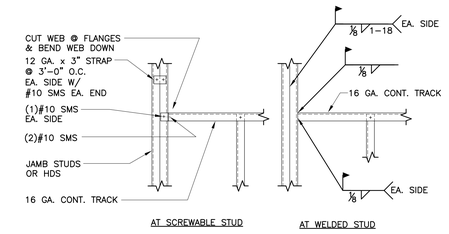


AT SCREWABLE STUD AT WELDED STUD

LINTEL TO JAMB (A)

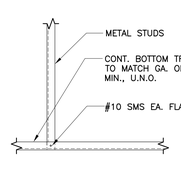


LINTEL SECTION (B)



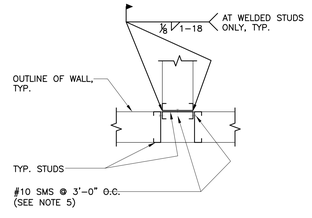
AT SCREWABLE STUD AT WELDED STUD

TRACK TO JAMB (C)

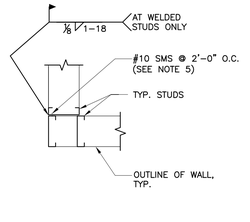


AT SCREWABLE STUD

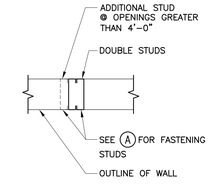
STUD TO TRACK (D)



TYP. INTERSECTION (E)



TYPICAL CORNER (F)



MULTIPLE STUDS (G)

STUD SCHEDULE

DEPTH	GAUGE	B	C	AREA (IN^2)	I (IN^4)	S (IN^3)	MAX INTERIOR STUD WALL HT.*	SSMA DESIGNATION
2½"	16	1⅝"	.433"	.358	.370	.296	15'–0"	250S162–54
4"	16	1⅝"	.563"	.443	1.098	.549	22'–1"	400S162–54
6"	16	1⅝"	.563"	.556	2.860	.953	30'–4"	600S162–54
4"	18	1⅝"	.563"	.357	.892	.446	17'–0"	400S162–43

* MAX. HEIGHT PER SCHEDULE BASED ON SSMA CATALOG FOR INTERIOR, NON–BEARING WALLS WITH 5 PSF LATERAL LOAD @ L/240 @ 16" O.C.

TRACK SCHEDULE

		DEPTH	GAUGE	B	AREA (IN^2)	I (IN^4)	S (IN^3)	SSMA DESIGNATION
STANDARD TRACK		2½"	16	1½"	.311	.368	.273	250T150–54
		4"	16	1½"	.396	1.025	.489	400T150–54
		6"	16	1½"	.509	2.611	.843	600T150–54
		8"	16	1½"	.622	5.214	1.272	800T150–54
DEEP LEG TRACK		2½"	12	2"	.594	.647	.518	250T200–54
		4"	12	2"	.756	1.872	.936	400T200–54
		6"	12	2"	.903	4.364	1.488	600T200–54

NOTES:
1. SEE ARCHITECTURAL AND STRUCTURAL DRAWINGS FOR SIZE OF STUDS.
2. ALL TOP AND BOTTOM TRACKS SHALL BE SAME GAUGE AS STUDS, U.N.O.
3. ALL STUDS AT JAMBS OF DOOR AND WINDOW OPENINGS SHALL BE 16 GAUGE, U.N.O.
4. WELDING SHALL BE IN ACCORDANCE WITH UBC (STRUCTURAL CODE SHEET STEEL, AWS D1.3, BY THE AMERICAN WELDING SOCIETY).
5. OMIT SHEET METAL SCREWS @ WELDED STUD CONDITIONS.

MS–104 SCALE: NO SCALE

METAL STUD WALL FRAMING | 3

STAMPS

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-119728 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/18/2021
PAGE NO. 000187 EXPIRATION

KNA STRUCTURAL ENGINEERS
9931 Muirlands Boulevard, Irvine, CA 92618
Tel (949) 462-3200, Fax (949) 462-3201
KNA JOB NO: 203.550 CONSULTANT

RUHNAU CLARKE ARCHITECTS

FEBRUARY 17, 2021 - DSA BACKCHECK

PROJECT No. :1-30-47
2/4/2020 10:38:56 AM

DRAWN BY: CHECKED BY:

ISSUE No.____ DATE____ DESCRIPTION____
ISSUE No.____ DATE____ DESCRIPTION____
ISSUE No.____ DATE____ DESCRIPTION____
ISSUE No.____ DATE____ DESCRIPTION____

REVISION No.____ DATE____ DESCRIPTION____
REVISION No.____ DATE____ DESCRIPTION____
REVISION No.____ DATE____ DESCRIPTION____
REVISION No.____ DATE____ DESCRIPTION____

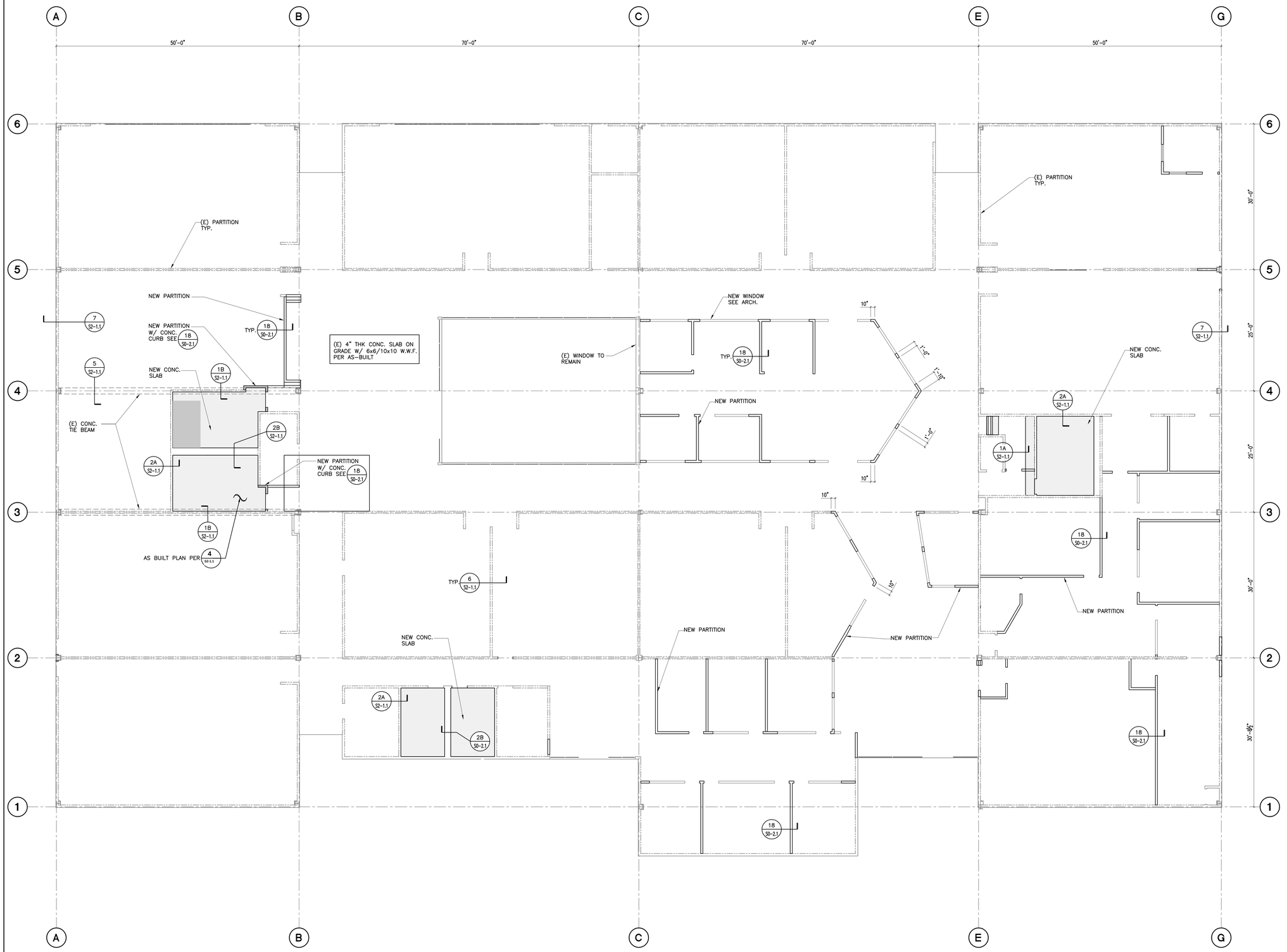
RUHNAUCLARKE.COM
3775 TENTH STREET, RIVERSIDE CALIFORNIA 92501 (951) 684 4664 / 5751 PALMER WAY, SUITE C, CARLSBAD CALIFORNIA 92010 (760) 438 5899

FOOTHILLS ADULT EDUCATION CENTER
1550 Melody Lane El Cajon , CA 92019
GROSSMONT UNIFIED HIGH SCHOOL DISTRICT

TYPICAL METAL STUD WALL FRAMING DETAILS

S0-2.1

1-30-47



STAMPS

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-119728 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/18/2021

KNA STRUCTURAL ENGINEERS
9931 Muirlands Boulevard, Irvine, CA 92618
Tel (949) 462-3200, Fax (949) 462-3201
KNA JOB NO: 203.550 CONSULTANT

RUHNAU CLARKE ARCHITECTS

FOUNDATION PLAN NOTES

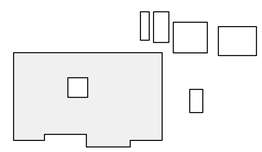
1. SEE SHEETS S0-1.1 FOR GENERAL NOTES.
2. SEE SHEETS S0-2.1 TYPICAL METAL STUD WALL FRAMING DETAILS.
3. SEE ARCHITECTURAL DRAWINGS FOR FINISH FLOOR ELEVATIONS.
4. SEE ARCHITECTURAL DRAWINGS FOR ALL EXTERIOR CONCRETE PAVING, SLABS, BASES, CURBS, SITE WALLS, ETC.
5. FOR ANY DIMENSIONAL INFORMATION NOT SHOWN, SEE ARCHITECTURAL DRAWINGS.
6. SEE PLANS AND ARCHITECTURAL DRAWINGS FOR DEPRESSIONS AND/OR SLOPES IN CONCRETE SLABS.
7. ALL DIMENSIONS SHOWN ARE FROM FACE OF STUD, CENTER LINE OF COLUMN.
8. SEE ARCHITECTURAL DRAWINGS FOR SIZE AND LOCATION OF ALL DOOR AND WINDOW OPENINGS IN PARTITION WALLS.
9. CONCRETE CURBS ARE NOT SHOWN ON STRUCTURAL DRAWINGS.
10. SEE ARCHITECTURAL, PLUMBING, MECHANICAL, ELECTRICAL, FOR ADDITIONAL EMBEDDED ITEMS AND SLAB PENETRATIONS.

LEGEND

: INDICATES NEW PARTITION WALL PER DETAIL 3/S0-2.1
ALL NEW PARTITION WALL SHOULD BE 4"x18GA. (400S162-43)
METAL STUD @ 16" O.C. MIN.

: INDICATES EXISTING PARTITION WALL

: INDICATES NEW 4" MIN. CONC. SLAB ON GRADE W/ #4 @ 18" O.C. EACH WAY, SEE SPEC AND ARCH. DRAWINGS FOR ADD. INFORMATION. SEE ARCH. AND PLUMBING DRAWING FOR LOCATION AND SIZE OF ALL SAW-CUT SLABS.



KEY PLAN

FEBRUARY 17, 2021 - DSA BACKCHECK

PROJECT No. : 1-30-47
2/4/2020 10:38:56 AM

DRAWN BY: CHECKED BY:

ISSUE No.	DATE	DESCRIPTION
ISSUE No.	DATE	DESCRIPTION
ISSUE No.	DATE	DESCRIPTION
ISSUE No.	DATE	DESCRIPTION

REVISION No.	DATE	DESCRIPTION
REVISION No.	DATE	DESCRIPTION
REVISION No.	DATE	DESCRIPTION
REVISION No.	DATE	DESCRIPTION

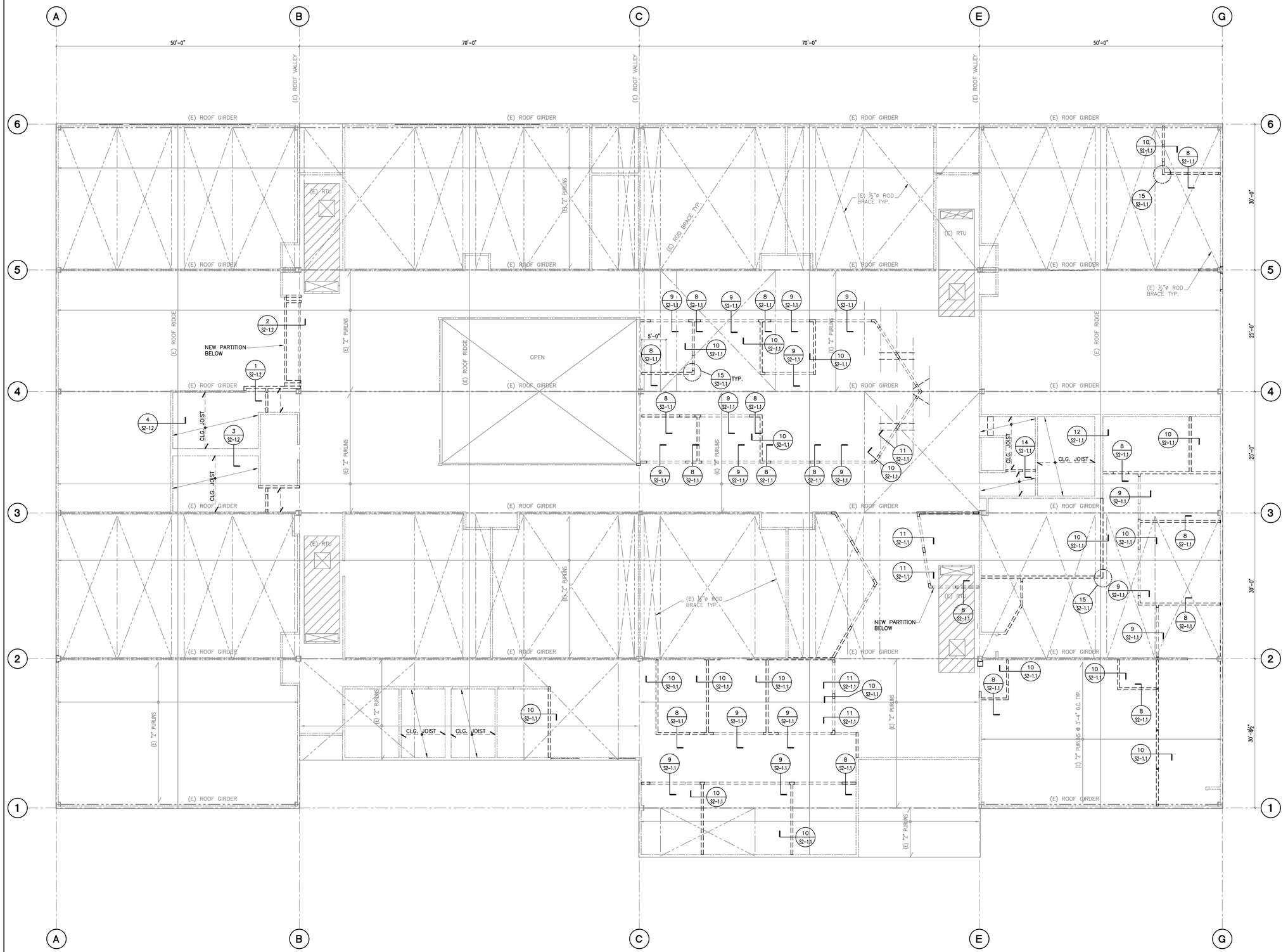
RUHNAUCLARKE.COM
3775 TENTH STREET, RIVERSIDE CALIFORNIA 92501 (951) 684 4664 / 5751 PALMER WAY, SUITE C, CARLSBAD CALIFORNIA 92010 (760) 438 5899

FOOTHILLS ADULT EDUCATION CENTER
1550 Melody Lane El Cajon , CA 92019
GROSSMONT UNIFIED HIGH SCHOOL DISTRICT

FOUNDATION PLAN

S1-1.2

1-30-47



STAMPS

KNA STRUCTURAL ENGINEERS
9931 Muirlands Boulevard, Irvine, CA 92618
Tel (949) 462-3200, Fax (949) 462-3201
KNA JOB NO: 203.550 CONSULTANT

RUHNAU CLARKE ARCHITECTS

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-119728 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/18/2021

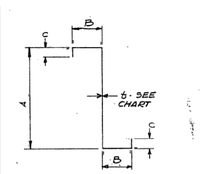
ROOF FRAMING PLAN NOTES

1. SEE ARCHITECTURAL DRAWINGS FOR ALL TOP OF SHEATHING AND TOP OF WALL/PARAPET ELEVATIONS.
2. SEE ARCHITECTURAL, PLUMBING, MECHANICAL, AND ELECTRICAL DRAWINGS FOR SIZE AND LOCATION OF ROOF OPENINGS NOT SHOWN ON ROOF FRAMING PLANS.

LEGEND

: INDICATES NEW PARTITION WALL BELOW.

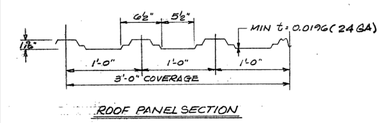
CLG. JOIST : INDICATES NEW 400S 162-43 CLG JOIST @ 16" O.C.



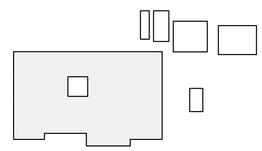
TYPICAL PURLIN

SPAN	"b"	A	B	C
19'-10½"	0.075	8¼	2⅝	¾
25'-0"	0.0766	10⅜	3	1⅛
26'-6"	0.0766	10⅜	3	1⅛
30'-0"	0.0766	11⅝	3	1⅛
30'-0"A/C	0.087			

PURLIN CHART



ROOF PANEL SECTION



KEY PLAN

FEBRUARY 17, 2021 - DSA BACKCHECK

PROJECT No. : 1-30-47
2/4/2020 10:38:56 AM

DRAWN BY: CHECKED BY:

ISSUE No.	DATE	DESCRIPTION
ISSUE No.	DATE	DESCRIPTION
ISSUE No.	DATE	DESCRIPTION
ISSUE No.	DATE	DESCRIPTION

REVISION No.	DATE	DESCRIPTION
REVISION No.	DATE	DESCRIPTION
REVISION No.	DATE	DESCRIPTION
REVISION No.	DATE	DESCRIPTION

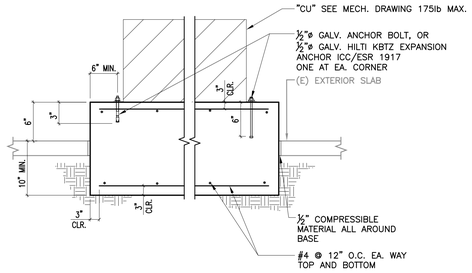
RUHNAUCLARKE.COM
3775 TENTH STREET, RIVERSIDE CALIFORNIA 92501 (951) 684 4664 / 5751 PALMER WAY, SUITE C, CARLSBAD CALIFORNIA 92010 (760) 438 5899

FOOTHILLS ADULT EDUCATION CENTER
1550 Melody Lane El Cajon , CA 92019
GROSSMONT UNIFIED HIGH SCHOOL DISTRICT

ROOF FRAMING PLAN

S1-3.1

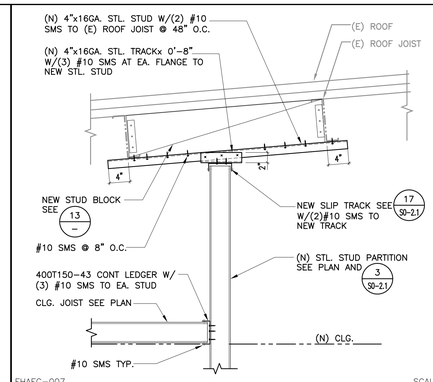
1-30-47



NOTES:
SEE MECHANICAL AND ARCH. DRAWINGS FOR THE FOLLOWING:
1. LOCATION AND DIMENSIONS OF BASES.
2. LOCATION AND NUMBER BOLTS.

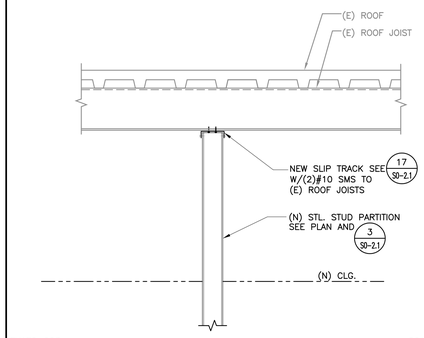
C209-0 SCALE: NO SCALE

CONCRETE BASE FOR EQUIPMENT 16



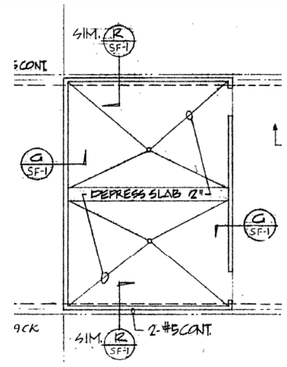
FHAEC-007 SCALE: 1"=1'-0"

DETAIL 12

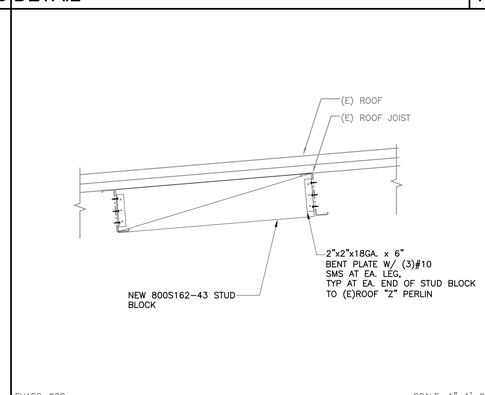


FHAEC-003 SCALE: 1"=1'-0"

DETAIL 8

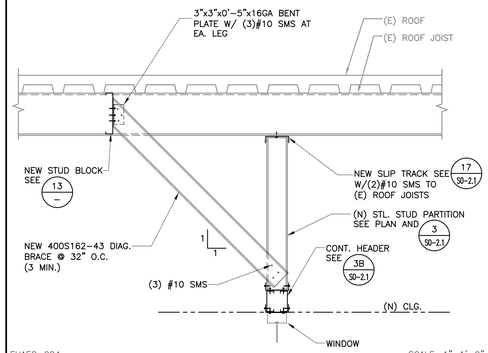


COPY OF AS-BUILT PARTIAL PLAN 4



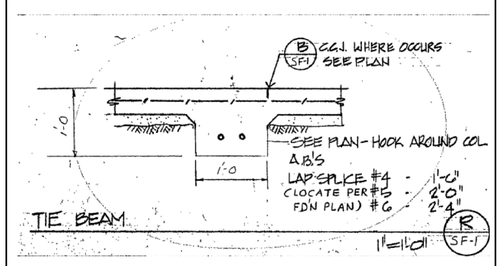
FHAEC-008 SCALE: 1"=1'-0"

DETAIL 13

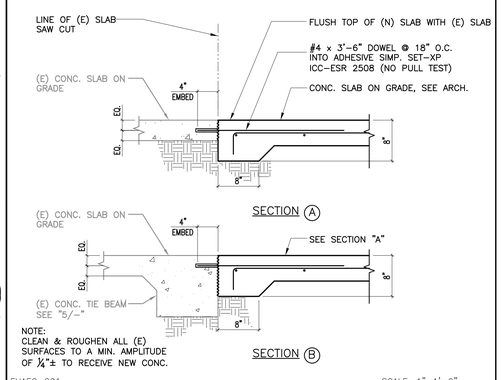


FHAEC-004 SCALE: 1"=1'-0"

DETAIL 9



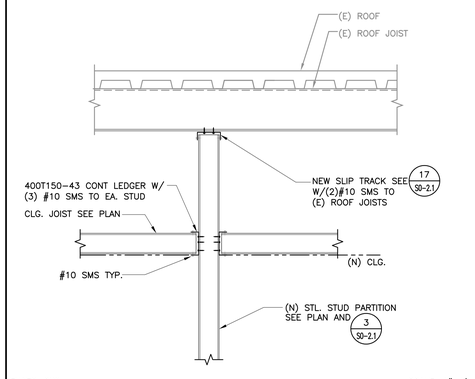
COPY OF AS-BUILT "R/SF-1" 5



NOTE:
CLEAN & ROUGHEN ALL (E) SURFACES TO A MIN. AMPLITUDE OF ¼"± TO RECEIVE NEW CONC.

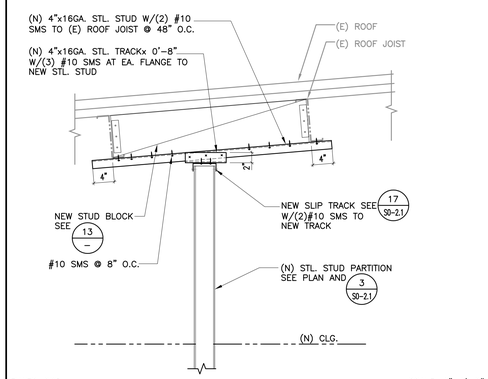
FHAEC-001 SCALE: 1"=1'-0"

NEW SLAB TO (E) SLAB 1



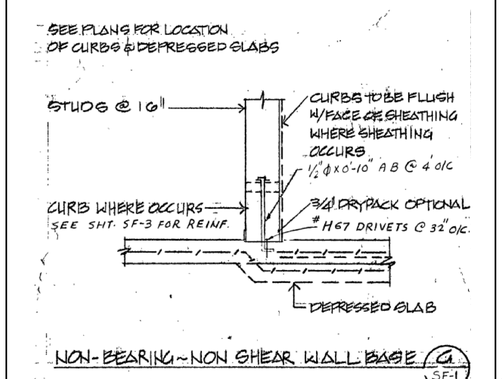
FHAEC-009 SCALE: 1"=1'-0"

DETAIL 14

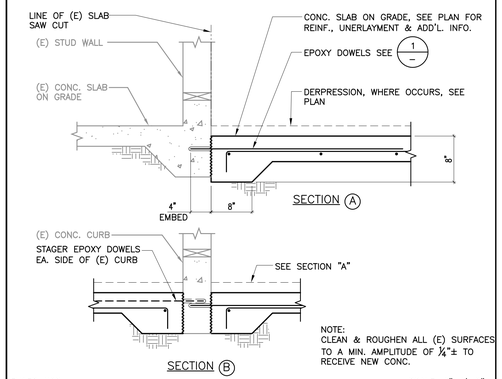


FHAEC-005 SCALE: 1"=1'-0"

DETAIL 10



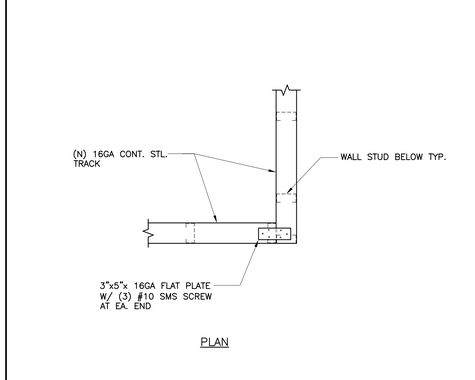
COPY OF AS-BUILT "G/SF-1" 6



NOTE:
CLEAN & ROUGHEN ALL (E) SURFACES TO A MIN. AMPLITUDE OF ¼"± TO RECEIVE NEW CONC.

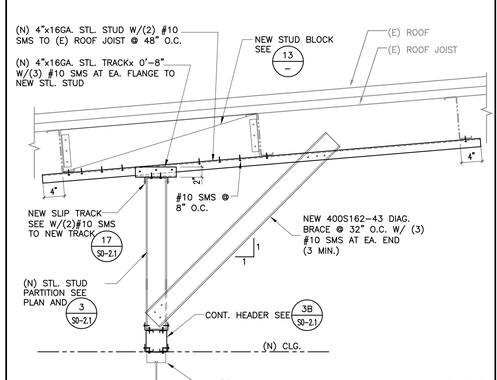
FHAEC-002 SCALE: 1"=1'-0"

NEW DEPRESSED SLAB TO (E) SLAB 2



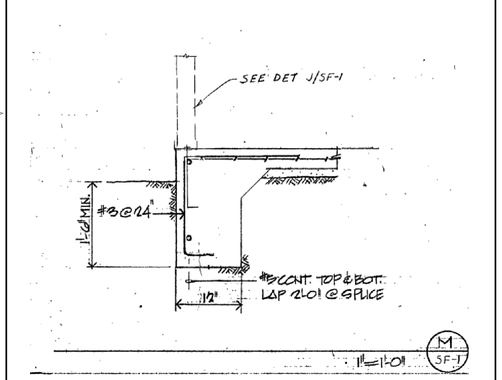
FHAEC-010 SCALE: 1"=1'-0"

DETAIL 19

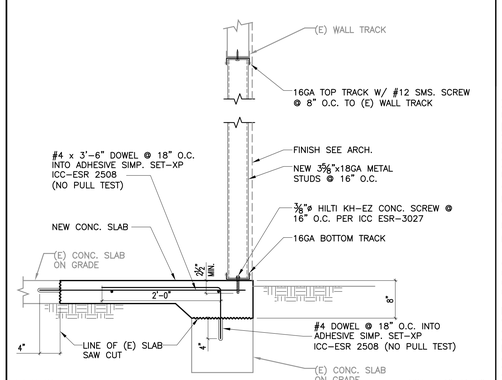


FHAEC-006 SCALE: 1"=1'-0"

DETAIL 15



COPY OF AS-BUILT "M/SF-1" 7



FHAEC-013 SCALE: 1"=1'-0"

NEW WALL INFILL 3

FEBRUARY 17, 2021 - DSA BACKCHECK

PROJECT No. : 1-30-47
2/4/2020 10:38:56 AM

DRAWN BY: CHECKED BY:

ISSUE No.____	DATE____	DESCRIPTION____	REVISION No.____	DATE____	DESCRIPTION____
ISSUE No.____	DATE____	DESCRIPTION____	REVISION No.____	DATE____	DESCRIPTION____
ISSUE No.____	DATE____	DESCRIPTION____	REVISION No.____	DATE____	DESCRIPTION____
ISSUE No.____	DATE____	DESCRIPTION____	REVISION No.____	DATE____	DESCRIPTION____

RUHNAUCLARKE.COM

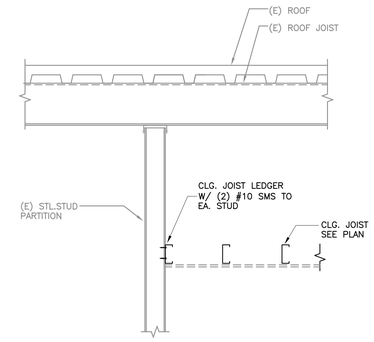
3775 TENTH STREET, RIVERSIDE CALIFORNIA 92501 (951) 684 4664 / 5751 PALMER WAY, SUITE C, CARLSBAD CALIFORNIA 92010 (760) 438 5899

FOOTHILLS ADULT EDUCATION CENTER
1550 Melody Lane El Cajon , CA 92019
GROSSMONT UNIFIED HIGH SCHOOL DISTRICT

DETAILS

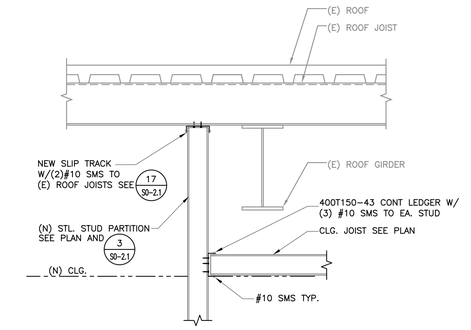
S2-1.1

1-30-47



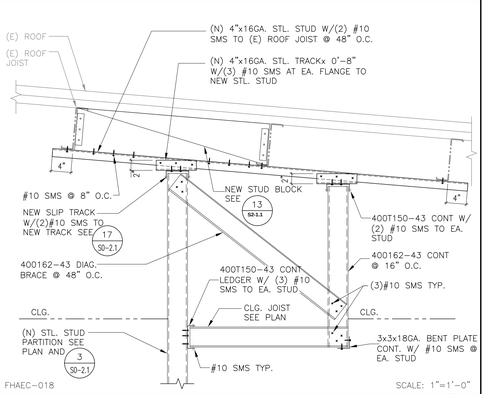
FHAEC-020 SCALE: 1"=1'-0"

16 | 12 | 8 | DETAIL | 4



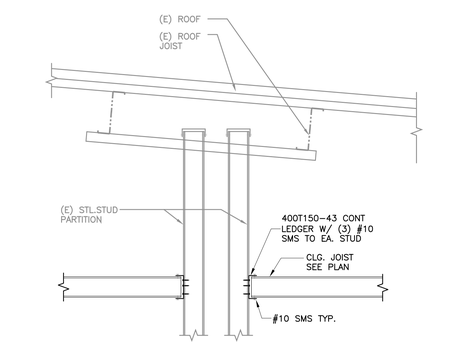
FHAEC-011 SCALE: 1"=1'-0"

17 | 13 | 9 | 5 | DETAIL | 1



FHAEC-018 SCALE: 1"=1'-0"

18 | 14 | 10 | 6 | DETAIL | 2



FHAEC-019 SCALE: 1"=1'-0"

19 | 15 | 11 | 7 | DETAIL | 3

STAMPS

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-119728 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/18/2021

KNA STRUCTURAL ENGINEERS
9931 Muirlands Boulevard, Irvine, CA 92618
Tel (949) 462-3200, Fax (949) 462-3201
KNA JOB NO: 203.550 CONSULTANT

RUHNAU CLARKE ARCHITECTS

FEBRUARY 17, 2021 - DSA BACKCHECK

PROJECT No. : 1-30-47
2/4/2020 10:38:56 AM

DRAWN BY: CHECKED BY:

ISSUE No.____	DATE_____	DESCRIPTION_____	REVISION No.____	DATE_____	DESCRIPTION_____
ISSUE No.____	DATE_____	DESCRIPTION_____	REVISION No.____	DATE_____	DESCRIPTION_____
ISSUE No.____	DATE_____	DESCRIPTION_____	REVISION No.____	DATE_____	DESCRIPTION_____
ISSUE No.____	DATE_____	DESCRIPTION_____	REVISION No.____	DATE_____	DESCRIPTION_____

RUHNAUCLARKE.COM

3775 TENTH STREET, RIVERSIDE CALIFORNIA 92501 (951) 684 4664 / 5751 PALMER WAY, SUITE C, CARLSBAD CALIFORNIA 92010 (760) 438 5899

FOOTHILLS ADULT EDUCATION CENTER
1550 Melody Lane El Cajon , CA 92019
GROSSMONT UNIFIED HIGH SCHOOL DISTRICT

DETAILS

S2-1.2

1-30-47

MECHANICAL LEGEND

SYMBOL	ABBREV.	DESCRIPTION	SYMBOL	ABBREV.	DESCRIPTION
		REMOVE EXISTING EQUIPMENT OR PIPING SHOWN DASHED			DUCT TRANSITION
		DEMOLITION		CD	CEILING DIFFUSER
	POC	POINT OF CONNECTION		RR	RETURN REGISTER
	POD	POINT OF DISCONNECT		ER	EXHAUST REGISTER
E		COORDINATE WITH ELECTRICAL	T AC-3	TSTAT	THERMOSTAT OR TEMPERATURE SENSOR (NUMBER INDICATES EQUIPMENT ZONE SERVED)
	HHWS	HEATING HOT WATER SUPPLY	H	HSTAT	HUMIDISTAT
	HHWR	HEATING HOT WATER RETURN	S	SENSOR	OCCUPANCY SENSOR
	CHW	CHILLED WATER	SW	SWITCH	CONTROL SWITCH
	CHWR	CHILLED WATER RETURN	CO2		CARBON DIOXIDE SENSOR
	CHWS	CHILLED WATER SUPPLY		CFM	CUBIC FEET PER MINUTE
	CD	CONDENSATE DRAIN (A.C)	A OR B		SYMBOL, SEE EQUIPMENT SCHEDULE
	CWR	CONDENSER WATER RETURN		AD/AP	ACCESS DOOR / ACCESS PANEL
	CWS	CONDENSER WATER SUPPLY		AFF	ABOVE FINISHED FLOOR
	D	DRAIN		BDD	BACK DRAFT DAMPER
	ST	STEAM		BOD	BOTTOM OF DUCT
	LPS	LOW PRESSURE STEAM		BOP	BOTTOM OF PIPE (ABOVE FIN. FLR.)
	MPS	MEDIUM PRESSURE STEAM		CD	CEILING DIFFUSER
	HPS	HIGH PRESSURE STEAM		CLG.	CEILING
	CR	STEAM CONDENSATE RETURN		CFM	CUBIC FEET PER MINUTE
	RD	REFRIGERANT DISCHARGE		CONC.	CONCRETE
	RL	REFRIGERANT LIQUID		CONT.	CONTINUATION
	RS	REFRIGERANT SUCTION		°F	DEGREES FAHRENHEIT
		PIPE DOWN	Ø	DIA.	DIAMETER
		PIPE UP		DN.	DOWN
UP		PIPE RISE (OR DN. FOR DROP)		DWGS.	DRAWINGS
DN		DIRECTION OF FLOW IN PIPE		DB	DRY BULB
	AV	AIR VENT (VALVE)		DTR	DUCT THRU ROOF
	CHV	CHECK VALVE		(E)	EXISTING
	SD	SUCTION DIFFUSER		EA	EXHAUST AIR
	CV (2W)	CONTROL VALVE (2-WAY)		ER	EXHAUST REGISTER
	CV (3W)	CONTROL VALVE (3-WAY)		EFF.	EFFICIENCY
FCD	FCD	AUTOMATIC FLOW CONTROL DEVICE		ELEV.	ELEVATION
	GV	GATE VALVE		ENT.	ENTERING
		GLOBE/BALL/BUTTERFLY VALVE		EWT	ENTERING WATER TEMPERATURE
	BV	COMBINATION BALANCING & SHUT-OFF VALVE		EXH.	EXHAUST
	FEV	FLOW ELEMENT VENTURI		EXIST.	EXISTING
		VALVE ON RISE OR DROP		FF	FINISHED FLOOR
	STR.	STRAINER		FIN.	FINISH
	CL	CAPPED LINE		FLR.	FLOOR
	DN.	DOWN OR DROP		GPM	GALLONS PER MINUTE
	UP	RISE OR RISER		IN.	INCH
	RV	PRESSURE RELIEF VALVE		HD.	HEAD
PG	PG	PRESSURE GAUGE WITH BALL VALVE		HOA	HAND-OFF-AUTOMATIC
	R.	ECCENTRIC REDUCER		HP	HORSEPOWER
	R.	CONCENTRIC REDUCER		LD	LINEAR DIFFUSER
	FC	FLEXIBLE CONNECTION (PIPE)		LVG.	LEAVING
	TW	TEST WELL (PETE'S PLUG) - PRESSURE AND/OR TEMPERATURE		LWT	LEAVING WATER TEMPERATURE
	TI	THERMOMETER		MAX.	MAXIMUM
	PA	PIPE ANCHOR		MBH	ONE THOUSAND B.T.U.'s PER HOUR
	U	UNION		MECH.	MECHANICAL
10x6		DUCTWORK (1ST NUMBER INDICATES WIDTH SHOWN), NET INSIDE DIMENSION		MIN.	MINIMUM
				MTD.	MOUNTED
8x10	TV	SQUARE ELBOW WITH TURNING VANES		MTG.	MOUNTING
10x8		RADIUS ELBOW		NC	NORMALLY CLOSED
				NO	NORMALLY OPEN
	MVD	MANUAL VOLUME DAMPER		OBD	OPPOSED BLADE DAMPER
	MOD	MOTOR OPERATED DAMPER		OA	OUTSIDE AIR
	BDD	BACKDRAFT DAMPER		PD	PRESSURE DROP
FD/A	FD	FIRE DAMPER		PSIG	POUNDS PER SQUARE INCH GAUGE
SD	SD	DUCT MOUNTED SMOKE DETECTOR		RA	RETURN AIR
SFD	SFD	AUTOMATIC SMOKE AND FIRE DAMPER		REG.	REGISTER
	FLEX	FLEXIBLE CONNECTION (DUCTWORK)		RR	RETURN REGISTER
	FLEX	FLEXIBLE CONNECTION OR SEISMIC JOINT		SA	SUPPLY AIR
		LINED DUCTWORK (OR PLENUM)		SF	SQUARE FEET
UP		DUCT RISE IN DIRECTION OF FLOW		SS	STAINLESS STEEL
DN		DUCT DROP IN DIRECTION OF FLOW		ST	STEAM
		ROUND DUCT UP		TYP.	TYPICAL
		ROUND DUCT DOWN		U/C	UNDER CUT
		SUPPLY DUCT UP		UNO	UNLESS NOTED OTHERWISE
		SUPPLY DUCT DOWN		UOS	UNLESS OTHERWISE SPECIFIED
	RA/OA	RETURN AIR DUCT/OUTSIDE AIR DUCT UP		UTR	UP THRU ROOF
		RETURN AIR DUCT/OUTSIDE AIR DUCT DOWN		VAV	VARIABLE AIR VOLUME
		EXHAUST AIR DUCT UP		VFD	VARIABLE FREQUENCY DRIVE
		EXHAUST AIR DUCT DOWN		VTR	VENT THRU ROOF
				WG	WATER GAUGE
				WB	WET BULB
				W/	WITH

EXISTING AC UNIT AND EF MODIFICATION NOTES

1. PRIOR TO DEMOLITION, ORDERING MATERIALS OR PREPARING SHOP DRAWINGS, SUBMIT A PRELIMINARY AIR BALANCE REPORT TO CONFIRM EACH EXISTING AC UNIT TOTAL CFM, DAMPER ZONE CFM, AND EF CFM. REFER TO DEMO FLOOR PLANS AND GENERAL DEMOLITION NOTES LOCATED ON M1-1.0A AND M1-1.0B.
2. RECONFIGURE EXISTING MULTI-ZONE DAMPERS TO PROVIDE ADJUSTED CFM PER EXISTING AC UNIT ZONE CFM SCHEDULE BELOW. MODIFICATIONS AND RECONFIGURATIONS OF ALL EXISTING AC UNITS TO BE PERFORMED BY "SEASONS 4" AC UNIT FACTORY REPRESENTATIVE. CONTACT ROBERT BAYER WITH BAYER HVAC AT (714) 244-8500 OR RFBAYER@BAYERHVAC.COM.
3. RECONFIGURE MZ-4 WITH AN ADDITIONAL ZONE Z-9. ADD A NEW THERMOSTAT FOR Z-9 WITH WIRING, CONTROL, ETC. TO MATCH EXISTING THERMOSTATS.
4. PRIOR TO DEMOLITION, ORDERING MATERIALS OR PREPARING SHOP DRAWINGS, LOCATE EACH EXISTING MZ-4 AC UNIT ZONE DAMPER ROOM THERMOSTAT AND CONFIRM EACH ZONE DAMPER NUMBER SERVED BY EACH THERMOSTAT. RECONNECT EACH ZONE DAMPER NUMBER WIRING TO THE DAMPER NUMBER SERVED SHOWN ON ZONING SHEETS M1-2.0A AND M1-2.0B AND FLOOR PLAN SHEET M1-2.1B AS REQUIRED.
5. RECOMISSION ALL EXISTING AC UNITS AND MULTI-ZONE DAMPERS. RECOMISSIONING OF ALL EXISTING AC UNITS AND MULTI-ZONE DAMPERS TO BE PERFORMED BY "SEASONS 4" AC UNIT FACTORY REPRESENTATIVE. CONTACT ROBERT BAYER WITH BAYER HVAC AT (714) 244-8500 OR RFBAYER@BAYERHVAC.COM.
6. REBALANCE AND RECOMISSION ALL EXISTING EXHAUST FANS NOTED.
7. CONVERT EXISTING BUILDING HVAC CONTROL SYSTEM TO NEW SCHOOL DISTRICT WIDE DDC SYSTEM.

EXISTING AC UNIT ZONE CFM SCHEDULE

AC	ZONE	EXISTING CFM	ADJUSTED CFM	MIN OA CFM	NOTES
MZ-1	Z-1	2400	2400		
	Z-2	5025	5025		
	Z-3	2400	2400		
	Z-4	2900	2900		
	TOTAL	12725	12725	3300	
MZ-2	Z-1	2700	2700		
	Z-2	1400	1400		
	Z-3	5375	5375		
	Z-4	1400	1400		
	TOTAL	10875	10875	2800	
MZ-3	Z-1	2300	2300		
	Z-2	2300	2300		
	Z-3	1100	1100		
	Z-4	600	600		
	Z-5	1200	1200		
	Z-6	1200	1200		
	Z-7	1200	1200		
	TOTAL	9900	9900	2900	
MZ-4	Z-1	750	750		
	Z-2	500	540		
	Z-3	1200	1060		
	Z-4	2325	1620		
	Z-5	2700	2300		
	Z-6	2700	2210		
	Z-7	500	810		
	Z-8	2700	1050		
	Z-9	--	660		ADDED ZONE
	TOTAL	13375	11000	3000	

AIR DISTRIBUTION SCHEDULE

SYMBOL	TYPE	NECK SIZE	CFM RANGE	MODEL	ACCESSORIES	STYLE
A	SUPPLY AIR	8x8	0-230	FOR INSTALLATION IN LAY-IN CEILING: PRICE PDMC PERFORATED FACE. FOR INSTALLATION IN HARD CEILING, DUCTWORK OR FOR NECK SIZES ABOVE 18x18: PRICE SMCD	OPPOSED BLADE DAMPERS	MODULAR CORE
		10x10	231-350			
		12x12	351-500			
		14x14	501-680			
		16x16	681-840			
		18x18	841-960			
		NECK SIZE	MAX CFM			
B	RETURN OR EXHAUST AIR	8x8	200	FOR INSTALLATION IN LAY-IN CEILING: PRICE PDDR PERFORATED FACE. FOR INSTALLATION IN HARD CEILING, DUCTWORK OR FOR NECK SIZES ABOVE 22x22: PRICE 530	OPPOSED BLADE DAMPERS	RETURN OR EXHAUST GRILLE
		10x10	300			
		12x12	450			
		14x14	600			
		16x16	800			
		18x18	1000			
		20x20	1200			
		22x22	1400			
C	SUPPLY AIR	SEE PLANS	SEE PLANS	FOR SIDEWALL-MOUNTED PRICE MODEL 520D S STANDARD FRAME STEEL CONSTRUCTION	OPPOSED BLADE DAMPERS	SUPPLY REGISTER
D	RETURN OR EXHAUST AIR	SEE PLANS	SEE PLANS	FOR SIDEWALL-MOUNTED PRICE MODEL 535 45° DEFLECTION STEEL CONSTRUCTION	OPPOSED BLADE DAMPERS	RETURN OR EXHAUST REGISTER

ANCHORAGE NOTES:

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 2019 CBC, SECTIONS 1617A.1.18 THROUGH 1617A.1.26 AND ASCE 7-16 CHAPTER 13, 26 AND 30.

1. ALL PERMANENT EQUIPMENT AND COMPONENTS.
2. TEMPORARY OR MOVABLE EQUIPMENT THAT IS PERMANENTLY ATTACHED (E.G.: HARD-WIRED) TO BUILDING UTILITY SERVICES SUCH AS ELECTRICITY, GAS, OR WATER. "PERMANENTLY ATTACHED" SHALL INCLUDE ALL ELECTRICAL CONNECTIONS EXCEPT PLUGS FOR 110/220 VOLT RECEPTACLES HAVING A 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 THE 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 HAVING 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 FROM A WALL.

THE ANCHORAGE OF ALL MECHANICAL, ELECTRICAL, AND PLUMBING COMPONENTS SHALL BE SUBJECT TO THE APPROVAL OF THE DESIGN PROFFESIONAL IN GENERAL RESPONSIBLE CHARGE OR STRUCTURAL ENGINEER DELEGATED RESPONSIBILTY 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 DISPLACEMENTS PRESCRIBED IN ASCE 7-16 SECTION 13.3 AS DEFINED IN ASCE 7-16 SECTION 13.6.5, 13.6.6, 13.6.7, 13.6.8; AND 2019 CBC, SECTIONS 1617A.1.24, 1617A.1.25 AND 1617A.1.26.

THE METHOD OF SHOWING BRACING AND ATTACHMENTS 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., OSHPD OPM 2013 CBC OR LATER), COPIES OF THE BRACING SYSTEM INSTALLATION GUIDE OR MANUAL SHALL BE AVAILABLE ON THE JOBSITE PRIOR TO THE START OF AND DURNING THE HANGING AND BRACING OF THE DISTRIBUTION SYSTEMS. THE STRUCTURAL ENGINEER OF RECORDS 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(X) PP(X) E( ) - OPTION 2: SHALL COMPLY WITH THE APPLICABLE OSHPD PRE-APPROVAL (OPM #) # OPM-0043-13.

GENERAL NOTES:

1. THESE DRAWINGS ARE A GENERAL GRAPHIC PRESENTATION OF THE WORK. DUCTWORK, PIPING, AND EQUIPMENT, AS SHOWN, ARE SCHEMATIC. FABRICATE AND INSTALL BASED ON ACTUAL FIELD MEASUREMENT. COORDINATE WITH OTHER TRADES. PROVIDE A COMPLETE SET OF SHOP DRAWINGS REFLECTING ACTUAL DIMENSIONS, ACCESS REQUIREMENTS, AND DETAILS BASED UPON THE ACTUAL EQUIPMENT PROCURED. MAINTAIN AN UP TO DATE SET OF AS-BUILT DRAWINGS AT THE JOB SITE.
2. THESE DRAWINGS ARE TO BE CONSIDERED NOT FOR CONSTRUCTION UNTIL THEY ARE STAMPED, SIGNED, AND PERMITTED. UNTIL THEN THEY ARE SUBJECT TO CHANGE WITHOUT NOTICE.
3. COMPLY WITH CALIFORNIA MECHANICAL CODE (CMC), CALIFORNIA PLUMBING CODE (CPC), AND NATIONAL FIRE PROTECTION AGENCY (NFPA), AND GOVERNING CODES. THERE SHALL BE NO EXCEPTION. REPORT DEFICIENCIES WITHIN THIRTY (30) DAYS UPON AUTHORIZATION TO PROCEED.
4. REVIEW ALL DRAWINGS AND SPECIFICATIONS INCLUDING ARCHITECTURAL, STRUCTURAL, CIVIL, MECHANICAL, PLUMBING, AND ELECTRICAL. ANY QUESTIONS SHALL BE BROUGHT UP, IN WRITING, TO THE ATTENTION OF THE ENGINEER BEFORE THE START OF CONSTRUCTION.
5. PROVIDE ACCESS AND CLEARANCE FOR MAINTENANCE FOR MECHANICAL EQUIPMENT AND COMPONENTS AS RECOMMENDED BY EQUIPMENT MANUFACTURER AND APPLICABLE CODES.
6. HANDLE, STORE AND INSTALL EQUIPMENT PER MANUFACTURER'S INSTRUCTIONS.
7. INSTALL VALVES WITH UNIONS OR FLANGES AT EACH PIECE OF EQUIPMENT ARRANGED TO ALLOW SERVICE MAINTENANCE, AND EQUIPMENT REMOVAL WITHOUT SYSTEM SHUT-DOWN.
8. BRACE AND SUPPORT PIPES, CONDUIT, AND DUCTWORK IN ACCORDANCE WITH SMACNA GUIDELINES FOR SEISMIC RESTRAINTS OF MECHANICAL AND PLUMBING PIPING SYSTEM. REFERENCE ANCHORAGE NOTES OPM 0043-13 FOR ANCHORAGE.
9. REFER TO ARCHITECTURAL REFLECTED CEILING PLAN FOR EXACT LOCATION OF DIFFUSERS, REGISTERS, GRILLES, AND ACCESS PANELS.
10. ALL DUCT DIMENSIONS, AS SHOWN ON MECHANICAL DRAWINGS ARE CLEAR INSIDE DIMENSIONS.
11. INSULATION AND FLEXIBLE DUCT SHALL COMPLY WITH STATE FIRE MARSHALL CRITERIA AND SHALL NOT EXCEED FLAME SPREAD OF 25 AND SMOKE DEVELOPED OF 50 PER ASTM-84, NFPA-223, AND UL 723.
12. INSULATE PIPING AND DUCTWORK IN ACCORDANCE WITH THE GOVERNING CODES.
13. COMMISSION AND START-UP THE MECHANICAL SYSTEMS TO ASSURE A COMPLETE AND OPERATIONAL HVAC SYSTEM IN ACCORDANCE WITH ASHRAE AND NEBB.
14. ALL SQUARE ELBOWS IN DUCTWORK SHALL HAVE DOUBLE THICKNESS TURNING VANES. ALL RADIUS ELBOWS IN DUCTWORK SHALL BE MINIMUM 1.5W (1.5xWIDTH) AND HAVE 3 SPLITTER VANES. PROVIDE MANUAL VOLUME DAMPER AT EACH BRANCH DUCT TAKE- OFF SERVING EACH AIR TERMINAL DEVICE. PROVIDE BALANCING DAMPERS FOR EACH MAIN DUCT TAKE-OFF IN ACCORDANCE WITH SMACNA IN ORDER TO ASSURE A COMPLETELY BALANCED SYSTEM.
15. FIRE DAMPER ASSEMBLIES, INCLUDING LOCATION, SLEEVES, AND INSTALLATION PROCEDURES SHALL BE APPROVED BY THE BUILDING INSPECTOR PRIOR TO PROCUREMENT AND INSTALLATION. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATION OF FIRE RATED WALLS AND SMOKE SEPARATIONS.
16. COORDINATE WITH ELECTRICAL AND CONTROL CONTRACTORS FOR ALL POWER REQUIREMENTS PRIOR TO BID.
17. COORDINATE WITH ELECTRICAL AND CONTROL CONTRACTORS FOR ALL POWER REQUIREMENTS PRIOR TO ORDERING ANY EQUIPMENT.
18. UPON INSTALLATION OF ALL EQUIPMENT, DEVICES, VIBRATION ISOLATION, ETC., PROVIDE WRITTEN CONFIRMATION BY EQUIPMENT MANUFACTURER'S REPRESENTATIVES TO ENSURE COMPLIANCE WITH MANUFACTURER'S REQUIREMENTS.
19. PROVIDE DETAILS AND SEISMIC CALCULATIONS FOR ALL EQUIPMENT ON VIBRATION ISOLATION. ALL DETAILS SHALL BE STAMPED BY A STRUCTURE ENGINEER FROM VIBRATION ISOLATION MANUFACTURER.

PROJECT NOTES

1. CONTRACTOR SHALL COORDINATE ARCHITECTURAL REFLECTED CEILINGS PLANS WITH ALL DISCIPLINES TO VERIFY CLEARANCES BETWEEN HVAC DUCTS, HVAC PIPING, LIGHT FIXTURES, ELECTRICAL DATA CONDUITS, PLUMBING LINES, FIRE PROTECTION LINES, STRUCTURAL MEMBERS, ETC. SPECIAL ATTENTION IS REQUIRED ALONG THE LENGTH OF MAIN MECHANICAL SUPPLY AND RETURN AIR DUCTS WHERE THERE IS LIMITED CLEARANCE FOR PASSAGE OR ROUTING OF UTILITIES.
2. THE SPACE FOR DUCT WORK & MECHANICAL EQUIPMENT FOR THIS PROJECT IS LIMITED. COORDINATION WITH OTHER TRADES IS CRITICAL. PROCEED WITH PREPARATION OF SHOP DRAWINGS IMMEDIATELY UPON RECEIVING AN AUTHORIZATION TO PROCEED FOR THE PROJECT. COMPLETE SHOP DRAWINGS PRIOR TO MATERIAL FABRICATION AND INSTALLATION. SHOP DRAWINGS SHALL BE REVIEWED BY COMMISSIONING AGENT PRIOR TO SUBMITTAL.
3. PROVIDE ORIGINALLY PREPARED CONTRACTOR'S SHOP DRAWINGS IN ELECTRONIC FORMAT. IN ADDITION TO THE REQUIREMENTS SPECIFIED ELSEWHERE, THE SHOP DRAWINGS SHALL INCLUDE THE FOLLOWING:
   a. DUCT, PIPE AND PLUMBING ELEVATIONS.
   b. DOUBLE LINE DUCTWORK AND PIPING (6" AND LARGER).
   c. ACTUAL SIZE OF PURCHASED EQUIPMENT. PER APPROVED CONTRACTOR'S SHOP DRAWINGS.
   d. ACCESS PANELS INCLUDING CEILING PANELS.
   e. ACCESS CLEARANCES FOR EQUIPMENT.
   f. ACTUAL LOCATIONS OF CEILING DIFFUSERS, REGISTERS, AND RETURN REGISTERS.
   g. LOCATIONS OF STRUCTURAL MEMBERS SUCH AS BEAMS.
   h. ACTUAL LOCATIONS OF CONTROL PANELS AND POWER CONNECTIONS TO EQUIPMENT.
   i. COLOR CODED DUCT AND PIPING BASED ON MATERIAL USED.
   j. MINIMUM 1/4"=1'0" SCALE DRAWINGS.
   k. LABEL AND TAG SCHEDULE FOR EQUIPMENT.
   l. DUCT TRANSITIONS TO CLEAR BEAMS OR TIGHT AREAS.
   m. ROOM TEMPERATURE SENSOR LOCATIONS.
   n. POINT OF CONNECTION TO UTILITIES OUTSIDE THE BUILDING.
   o. SECTIONS OR 3-D DRAWINGS OF CONGESTED AREAS.
   p. GRID LINES.
   q. UTILITY PROFILES FOR UNDERGROUND PIPING.
4. DO NOT COMMENCE WITH ANY INSTALLATION, ORDERING OF ANY EQUIPMENT OR MATERIAL FABRICATION WITHOUT AN APPROVED SHOP DRAWING SUBMITTAL.
5. FOR EACH SUBMITTAL, THE CONTRACTOR SHALL PROVIDE A LETTER (ON COMPANY LETTERHEAD) AND SIGNED BY THE PROJECT MANAGER INDICATING THE SUBMITTAL HAS BEEN FULLY IN HOUSE REVIEWED TO ENSURE FULL COMPLIANCE WITH THE CONTRACT DOCUMENTS AND COORDINATION WITH OTHER TRADES. ANY EXCEPTIONS TO THE CONTRACT DOCUMENTS SHALL BE CLEARLY INDICATED ON THIS LETTER. ANY DISCREPANCIES/EXCEPTIONS NOT IDENTIFIED IN WRITING SHALL BE CORRECTED AT THE SOLE EXPENSE OF THE CONTRACTOR AND AT NO EXPENSE TO THE OWNER AND ENGINEER.

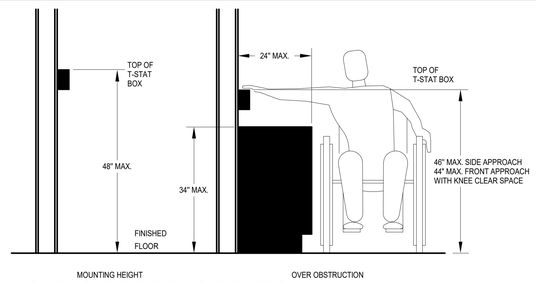
PLAN CHECK NOTES

1. CERTIFICATE OF ACCEPTANCE (MECH-2A AND ENV-2A) AND ALL RELATED ACCEPTANCE DOCUMENTS SHALL BE SUBMITTED TO THE FIELD INSPECTOR DURING CONSTRUCTION. CERTIFICATE OF OCCUPANCY WILL NOT BE ISSUED UNTIL THESE FORMS ARE REVIEWED AND APPROVED.
2. ALL PIPING AND DUCT WORK SHALL BE INSULATED CONSISTENT WITH THE REQUIREMENTS OF SECTIONS 118, 123, 124 TITLE 24 ENERGY STANDARDS AND CHAPTER 6 OF CMC.
3. ALL HVAC SYSTEMS SHALL MEET THE CONTROL REQUIREMENTS PER SECTION 112 AND 122 E.E.S.
4. ALL HVAC EQUIPMENT AND APPLIANCES SHALL MET THE REQUIREMENTS PER SECTION 111-113, 115, 120-124 TITLE 24 ENERGY STANDARDS.
5. PROVIDE SMOKE DETECTORS IN MAIN SUPPLY AIR DUCTS OF AIR MOVING SYSTEMS EXCEEDING 2000 CFM PER SECTION 609.0 CMC.

SPLIT SYSTEM HEAT PUMP & COOLING ONLY SCHEDULE

SYMBOL	DESCRIPTION	SERVES	INDOOR FAN SECTION													OUTDOOR SECTION							COMBINED CAPACITY										REMARKS
			INDOOR FAN MOTOR										FILTERS		OPER. WT. LBS.			ELECTRICAL DATA						OPER. WT. LBS.	COOLING					HEATING			MIN. OSA CFM	
			CFM	E.S.P.	H.P.	DRIVE	V	PH	Hz	MCA	FLA	MOCP	TK.	MIN. A FT²			RLA	MCA	MOCP	V	PH	Hz		TOTAL CAP MBH	SENSIBLE CAP. MBH	AMB °F	ENT DB °F	ENT WB °F	SEER	AMB °F	OUTPUT MBH	HSPF		
FC 1	CARRIER 40MAQB24B–3	IDF - 145	780	--	--	DIRECT	208	1	60	0.40	0.23	20.0	--	--	50	CU 1	CARRIER 38MAQB24R–3	14.0	20.0	30.0	208	1	60	175	24.0	18.0	95	80	67	20.5	--	--	--	--	1 2 3
FC 2	CARRIER 40MAQB24B–3	IDF - 145	780	--	--	DIRECT	208	1	60	0.40	0.23	20.0	--	--	50	CU 2	CARRIER 38MAQB24R–3	14.0	20.0	30.0	208	1	60	175	24.0	18.0	95	80	67	20.5	--	--	--	--	1 2 3

* 100% EQUIPMENT PROCESS LOAD (NO OCCUPANTS) (1) CONTROLS CONTRACTOR SHALL PROVIDE AND INSTALL EMS DDC ROOM TEMPERATURE SENSOR FOR MONITORING, TRENDING AND ALARMING. (2) FC SHALL BE CONTROLLED BY FC UNIT MANUFACTURER PROVIDE HARD WIRED CONTROLS. LOW VOLTAGE CONTROLS ARE TO BE WIRED AND INSTALLED BY THE CONTROLS CONTRACTOR. (3) PROVIDE 2" THICK FILTERS.



2 MOUNTING HEIGHT OVER OBSTRUCTION
NO SCALE

REGISTERED PROFESSIONAL ENGINEER — TROY C. CAMPBELL — No. M 025911 — EXP. 6-30-21 — MECHANICAL — STATE OF CALIFORNIA

LICENSED ARCHITECT — Ruhnau Clarke — C-20662 — 03-31-2021 RENEWAL DATE — STATE OF CALIFORNIA

AGENCY APPROVAL
File No:

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-119728 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/18/2021

STAMPS

MA ENGINEERS
5160 Carroll Canyon Rd, Suite 200
San Diego, California 92121
Consulting Mechanical Engineers
T 858 200-0030 F 858 200-0037
www.ma-engr.com

CONSULTANT BRANDING

RUHNAU CLARKE ARCHITECTS

KEY NOTES

GENERAL NOTES

FEBRUARY 17, 2021 - DSA BACKCHECK

PROJECT No. :5003
2/15/2021 10:02:35 AM
DRAWN BY: CHECKED BY:

REVISION:____ DATE _____ DESCRIPTION _____
REVISION:____ DATE _____ DESCRIPTION _____
REVISION:____ DATE _____ DESCRIPTION _____
REVISION:____ DATE _____ DESCRIPTION _____
REVISION:____ DATE _____ DESCRIPTION _____
REVISION:____ DATE _____ DESCRIPTION _____
REVISION:____ DATE _____ DESCRIPTION _____
REVISION:____ DATE _____ DESCRIPTION _____
REVISION:____ DATE _____ DESCRIPTION _____

RUHNAUCLARKE.COM
3775 TENTH STREET, RIVERSIDE CALIFORNIA 92501 (951) 684 4664 / 5751 PALMER WAY, SUITE C, CARLSBAD CALIFORNIA 92010 (760) 438 5899

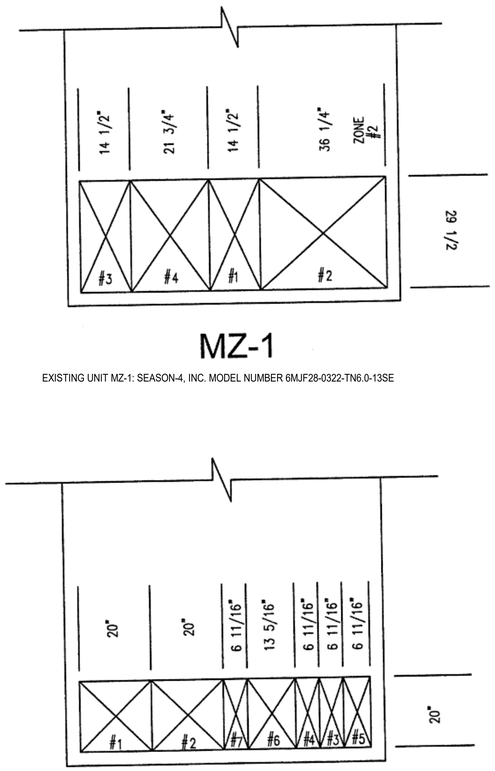
FOOTHILLS ADULT EDUCATION CENTER
1550 Melody Lane El Cajon, CA 92019
GROSSMONT UNIFIED HIGH SCHOOL DISTRICT

MECHANICAL LEGEND, GENERAL NOTES

M0-1.0

5003

EQ	ZONE	ROOM #	TOTAL CFM
MZ-1	1	CLASSROOM #7	2400
	2	STUDENT LOUNGE	5025
	3	CLASSROOM #8	2400
	4	CLASSROOM #9	2900
TOTAL			12725
MZ-2	1	CLASSROOM #4	2700
	2	CLASSROOM #5	1400
	3	LOBBY	5375
	4	CLASSROOM #6	1400
TOTAL			10875
MZ-3	1	CLASSROOM #11	2300
	2	CLASSROOM #10	2300
	3	FACULTY LOUNGE	1100
	4	COPY ROOM	600
	5	CLASSROOM #14	1200
	6	CLASSROOM #12	1200
	7	CLASSROOM #13	1200
TOTAL			9900
MZ-4	1	SECRETARY	750
	2	PRINCIPAL/COUNSELOR #1	500
	3	CLASSROOM #15	1200
	4	ENTRY	2100
	5	CLASSROOM #3	2700
	6	CLASSROOM #1	2700
	7	GED OFFICE	500
	8	SECRETARIAL CLASSROOM #2	2700
TOTAL			13150

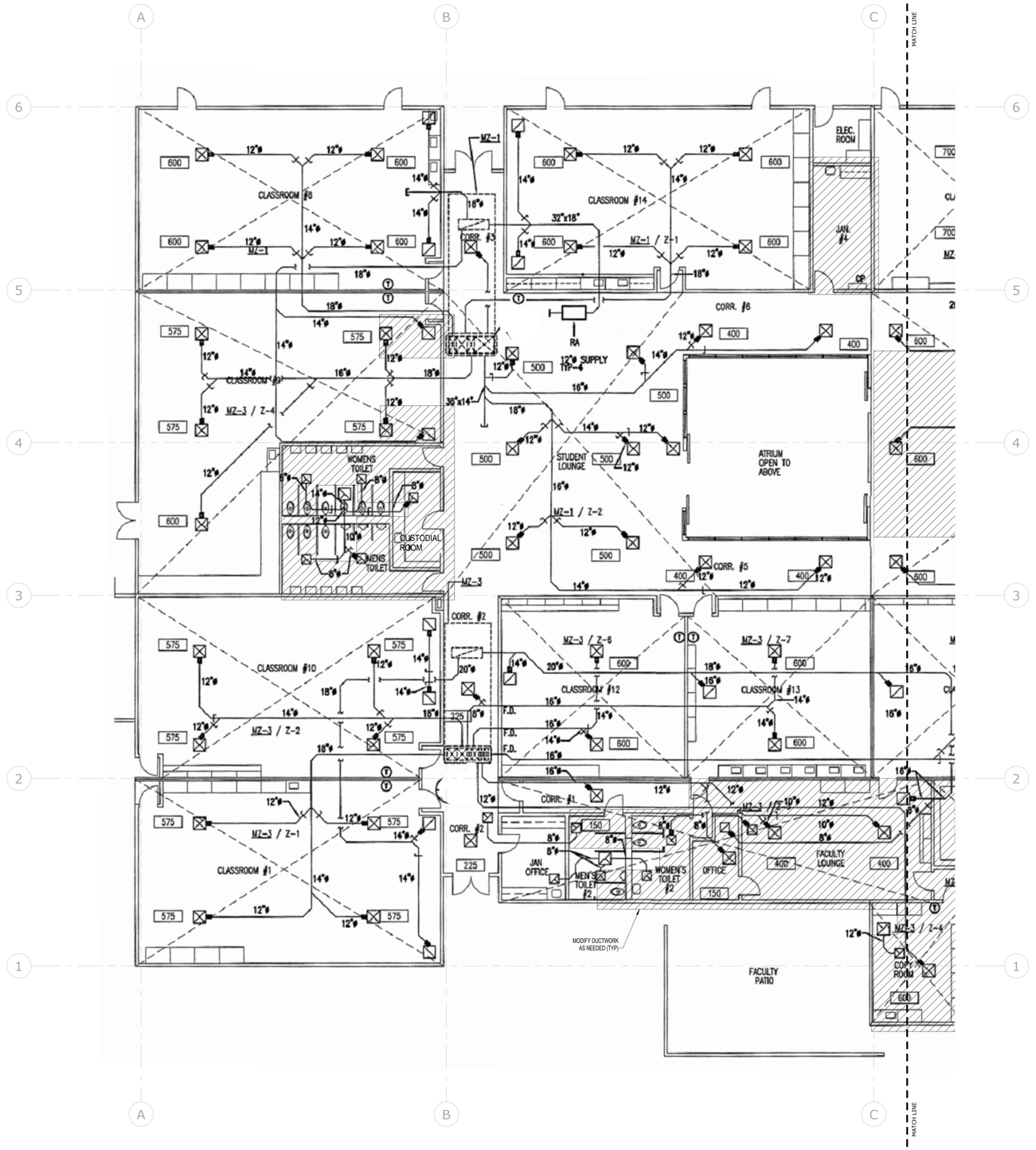


MZ-1

EXISTING UNIT MZ-1: SEASON-4, INC. MODEL NUMBER 6MJF28-0322-TN6.0-13SE

MZ-3

EXISTING UNIT MZ-3: SEASON-4, INC. MODEL NUMBER 6MJB22-0272-TN3.5-10SE



DEMO FLOOR PLAN AREA A

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

1

REGISTERED PROFESSIONAL ENGINEER — TROY C. CAMPBELL — No. M 025911 — EXP. 6-30-21 — MECHANICAL — STATE OF CALIFORNIA

LICENSED ARCHITECT — David Ruhnau — C-20662 — 03-31-2021 RENEWAL DATE — STATE OF CALIFORNIA

AGENCY APPROVAL
File No:

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-119728 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/18/2021

STAMPS

MA ENGINEERS
5160 Carroll Canyon Rd, Suite 200
San Diego, California 92121
Consulting Mechanical Engineers
T 858 200-0030 F 858 200-0037
www.ma-engr.com

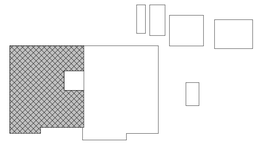
CONSULTANT BRANDING

RUHNAU CLARKE ARCHITECTS

KEY NOTES

GENERAL DEMOLITION NOTES

1. CLEAN ALL THE EXISTING DUCTWORK AND AFTER THAT, PROVIDE A PRELIMINARY AIR BALANCE AT ALL THE EXISTING OUTLETS/INLETS. THIS WILL LOCATE AREAS THAT HAVE EXISTING PROBLEMS (BLOCKED DUCTWORK, LOOSE INSULATION, INADEQUATE AIR, ETC.) WHERE IT'S EASIER TO PINPOINT & CORRECT PRIOR TO ANY MODIFICATIONS.
2. PRIOR TO DEMOLITION OF EXISTING DUCTWORK, NOTIFY THE DESIGN EOR AFTER DEMOLITION OF EXISTING CEILINGS PER ARCHITECTURAL DRAWINGS. PRIOR TO DEMOLITION OF EXISTING DUCTWORK, THE EXISTING CEILING SPACE TO REMAIN OPEN FOR EOR REVIEW.
3. REFER TO ARCHITECTURAL DEMOLITION FLOOR PLAN A1-1.1 AND RCP PLAN A1-2.1 FOR WALL AND CEILING DEMOLITION.
4. REFER TO "EXISTING AC UNIT AND EF MODIFICATION NOTES" LOCATED ON SHEET M0-1.0 PRIOR TO DEMOLITION, ORDERING MATERIALS OR PREPARING SHOP DRAWINGS.



KEY PLAN

FEBRUARY 17, 2021 - DSA BACKCHECK

PROJECT No. :5003
2/15/2021 10:02:35 AM
DRAWN BY: CHECKED BY:

REVISION:____ DATE _____ DESCRIPTION _____

RUHNAUCLARKE.COM
3775 TENTH STREET, RIVERSIDE CALIFORNIA 92501 (951) 684 4664 / 5751 PALMER WAY, SUITE C, CARLSBAD CALIFORNIA 92010 (760) 438 5899

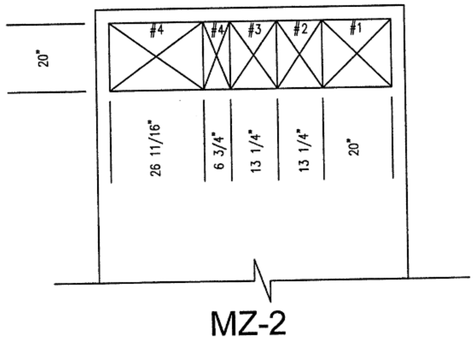
FOOTHILLS ADULT EDUCATION CENTER
1550 Melody Lane El Cajon, CA 92019
GROSSMONT UNIFIED HIGH SCHOOL DISTRICT

DEMO FLOOR PLAN

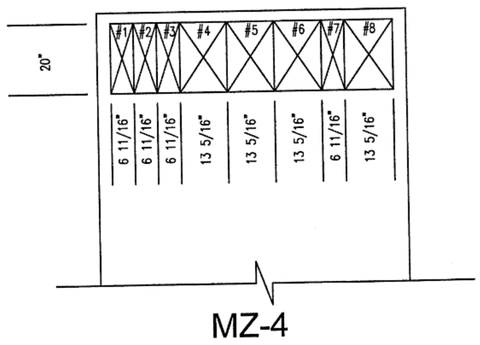
M1-1.0A

5003

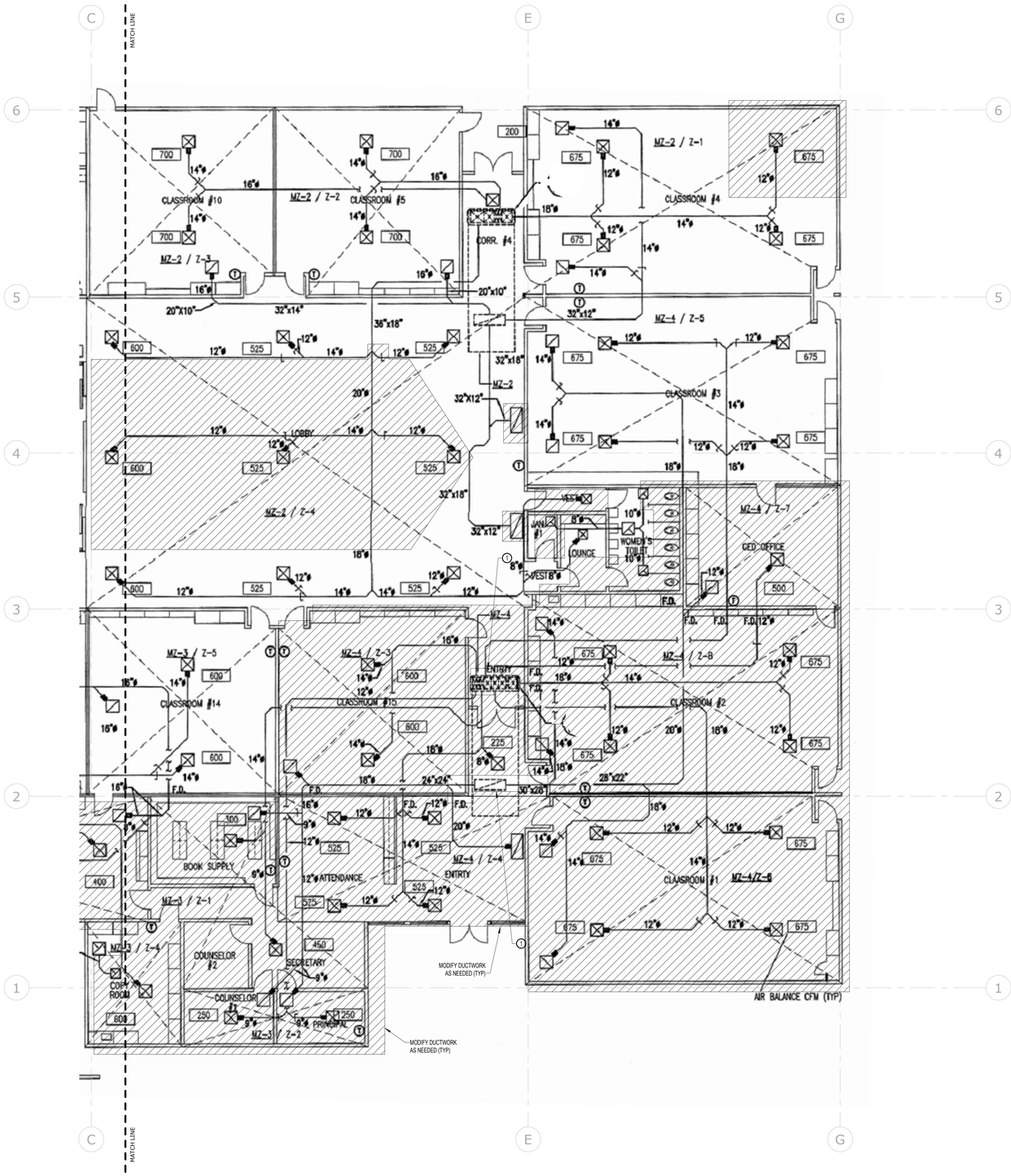
EQ	ZONE	ROOM #	TOTAL CFM
MZ-1	1	CLASSROOM #7	2400
	2	STUDENT LOUNGE	5025
	3	CLASSROOM #8	2400
	4	CLASSROOM #9	2900
TOTAL			12725
MZ-2	1	CLASSROOM #4	2700
	2	CLASSROOM #5	1400
	3	LOBBY	5375
	4	CLASSROOM #6	1400
TOTAL			10875
MZ-3	1	CLASSROOM #11	2300
	2	CLASSROOM #10	2300
	3	FACULTY LOUNGE	1100
	4	COPY ROOM	600
	5	CLASSROOM #14	1200
	6	CLASSROOM #12	1200
	7	CLASSROOM #13	1200
TOTAL			9900
MZ-4	1	SECRETARY	750
	2	PRINCIPAL/COUNSELOR #1	500
	3	CLASSROOM #15	1200
	4	ENTRY	2100
	5	CLASSROOM #3	2700
	6	CLASSROOM #1	2700
	7	GED OFFICE	500
	8	SECRETARIAL CLASSROOM #2	2700
TOTAL			13150



EXISTING UNIT MZ-2: SEASON-4, INC. MODEL NUMBER 6MJB22-0272-TN3.5-11SE



EXISTING UNIT MZ-4: SEASON-4, INC. MODEL NUMBER 6MJB22-0312-TN3.5-11SE



REGISTERED PROFESSIONAL ENGINEER
TROY C. CAMPBELL
No. M 025911
EXP. 6-30-21
MECHANICAL
STATE OF CALIFORNIA

LICENSED ARCHITECT
David Ruhnau Clarke
C-20662
03-31-2021
RENEWAL DATE
STATE OF CALIFORNIA

AGENCY APPROVAL
File No:

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-119728 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/18/2021

STAMPS

MA ENGINEERS
5160 Carroll Canyon Rd, Suite 200
San Diego, California 92121
Consulting Mechanical Engineers
T 858 200-0030 F 858 200-0037
www.ma-engr.com

CONSULTANT BRANDING

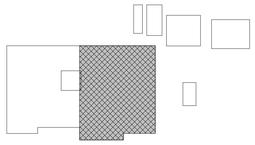
RUHNAU CLARKE ARCHITECTS

KEY NOTES

1. EXISTING DUCT CONNECTIONS BELOW ROOF TO REMAIN FOR AC UNIT MZ-4 ALONG WITH PORTIONS DUCTWORK SHADED ON SHEET M1-2.1B.

GENERAL DEMOLITION NOTES

1. CLEAN ALL THE EXISTING DUCTWORK AND AFTER THAT, PROVIDE A PRELIMINARY AIR BALANCE AT ALL THE EXISTING OUTLETS/INLETS. THIS WILL LOCATE AREAS THAT HAVE EXISTING PROBLEMS (BLOCKED DUCTWORK, LOOSE INSULATION, INADEQUATE AIR, ETC.) WHERE IT'S EASIER TO PINPOINT & CORRECT PRIOR TO ANY MODIFICATIONS.
2. PRIOR TO DEMOLITION OF EXISTING DUCTWORK, NOTIFY THE DESIGN EOR AFTER DEMOLITION OF EXISTING CEILINGS PER ARCHITECTURAL DRAWINGS. PRIOR TO DEMOLITION OF EXISTING DUCTWORK, THE EXISTING CEILING SPACE TO REMAIN OPEN FOR EOR REVIEW.
3. REFER TO ARCHITECTURAL DEMOLITION FLOOR PLAN A1-1.1 AND RCP PLAN A1-2.1 FOR WALL AND CEILING DEMOLITION.
4. REFER TO "EXISTING AC UNIT AND EF MODIFICATION NOTES" LOCATED ON SHEET M0-1.0 PRIOR TO DEMOLITION, ORDERING MATERIALS OR PREPARING SHOP DRAWINGS.



FEBRUARY 17, 2021 - DSA BACKCHECK

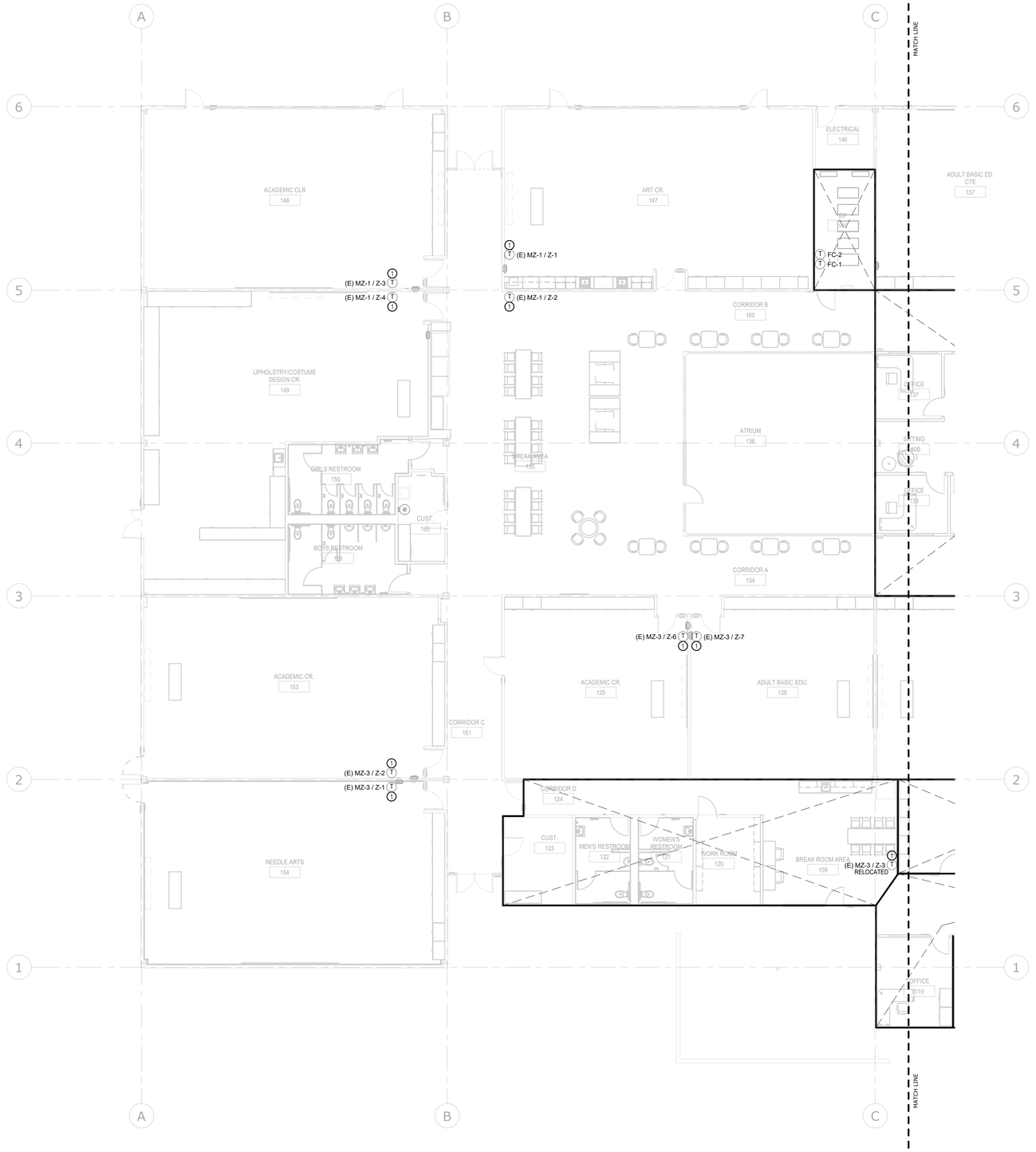
NORTH

DEMO FLOOR PLAN AREA B | SCALE: 1/8" = 1'-0" | 1

KEY PLAN

PROJECT No. :5003
2/15/2021 10:02:36 AM
DRAWN BY: CHECKED BY:

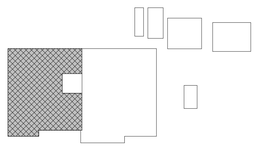
REVISION:____ DATE_____ DESCRIPTION _____
REVISION:____ DATE_____ DESCRIPTION _____
REVISION:____ DATE_____ DESCRIPTION _____
REVISION:____ DATE_____ DESCRIPTION _____
REVISION:____ DATE_____ DESCRIPTION _____
REVISION:____ DATE_____ DESCRIPTION _____
REVISION:____ DATE_____ DESCRIPTION _____
REVISION:____ DATE_____ DESCRIPTION _____
REVISION:____ DATE_____ DESCRIPTION _____



NEW ZONING PLAN AREA A — SCALE: 1/8" = 1'-0" — 1

NORTH

KEY PLAN



KEY NOTES

(1) REPLACE EXISTING THERMOSTATS WITH NEW DDC THERMOSTATS PER CONVERSION TO NEW SCHOOL DISTRICT WIDE DDC SYSTEM.

GENERAL NOTES

REGISTERED PROFESSIONAL ENGINEER — Troy C. Campbell — No. M 025911 — EXP. 6-30-21 — MECHANICAL — STATE OF CALIFORNIA

LICENSED ARCHITECT — David Ruhnau — C-20662 — 03-31-2021 RENEWAL DATE — STATE OF CALIFORNIA

STAMPS

AGENCY APPROVAL
File No:

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-119728 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/18/2021

MA ENGINEERS

5160 Carroll Canyon Rd, Suite 200
San Diego, California 92121
Consulting Mechanical Engineers
T 858 200-0030 F 858 200-0037
www.ma-engr.com

CONSULTANT BRANDING

RUHNAU CLARKE ARCHITECTS

FEBRUARY 17, 2021 - DSA BACKCHECK

PROJECT No. :5003
2/15/2021 10:02:42 AM
DRAWN BY: CHECKED BY:

REVISION:___ DATE _____ DESCRIPTION _____

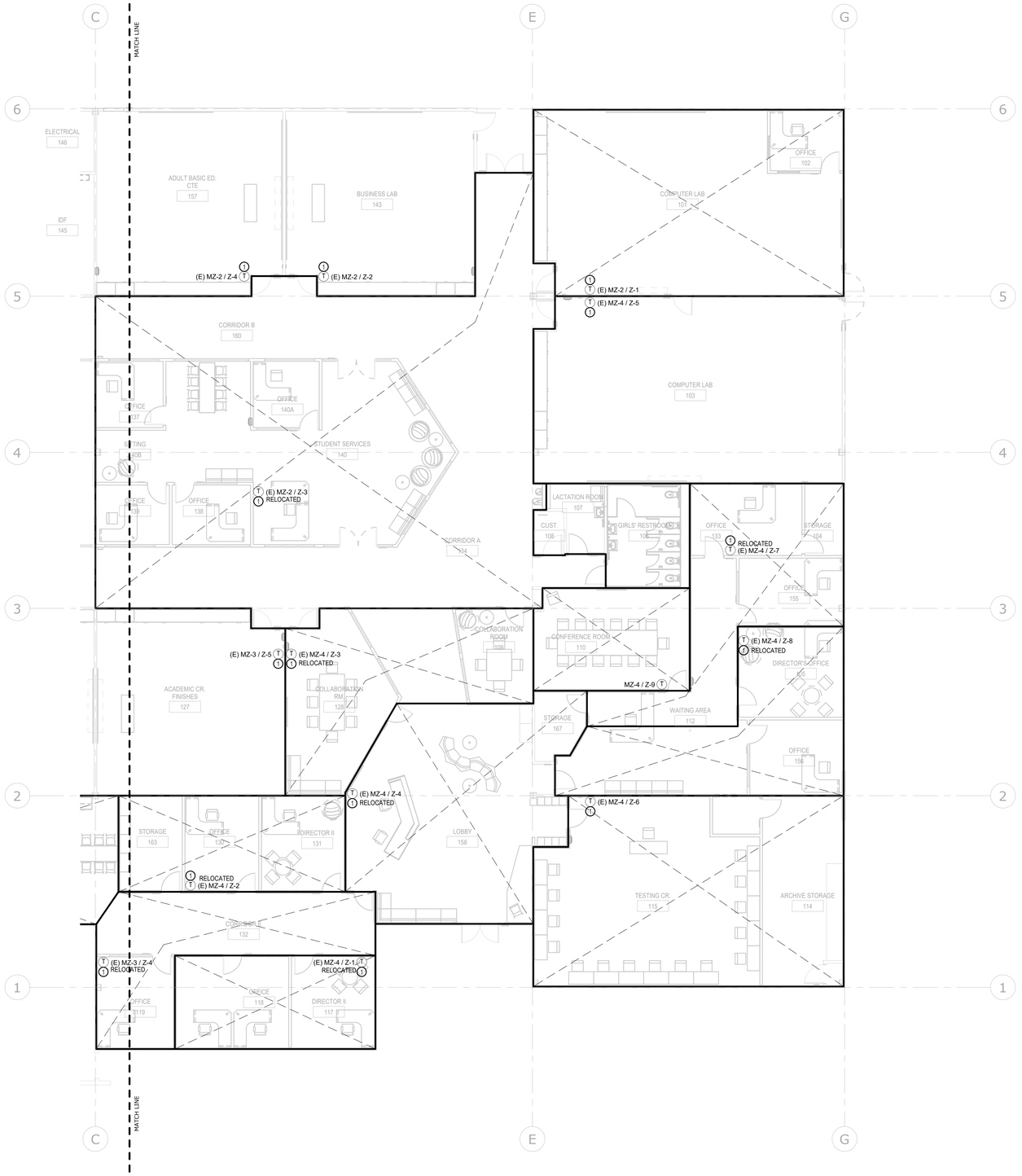
RUHNAUCLARKE.COM

3775 TENTH STREET, RIVERSIDE CALIFORNIA 92501 (951) 684 4664 / 5751 PALMER WAY, SUITE C, CARLSBAD CALIFORNIA 92010 (760) 438 5899

FOOTHILLS ADULT EDUCATION CENTER
1550 Melody Lane El Cajon, CA 92019
GROSSMONT UNIFIED HIGH SCHOOL DISTRICT

NEW ZONING PLAN — **M1-2.0A**

5003



NEW ZONING PLAN AREA B

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

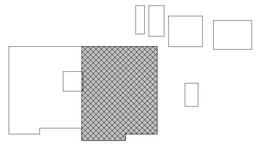
1

KEY PLAN

KEY NOTES

1 REPLACE EXISTING THERMOSTATS WITH NEW DDC THERMOSTATS PER CONVERSION TO NEW SCHOOL DISTRICT WIDE DDC SYSTEM.

GENERAL NOTES



FEBRUARY 17, 2021 - DSA BACKCHECK

AGENCY APPROVAL
File No:

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-119728 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/18/2021

STAMPS

MA ENGINEERS
5160 Carroll Canyon Rd, Suite 200
San Diego, California 92121
Consulting Mechanical Engineers
T 858 200-0030 F 858 200-0037
www.ma-engr.com

CONSULTANT BRANDING

RUHNAU CLARKE ARCHITECTS

PROJECT No. :5003
2/15/2021 10:02:46 AM
DRAWN BY: CHECKED BY:

REVISION:___ DATE ___ DESCRIPTION ___

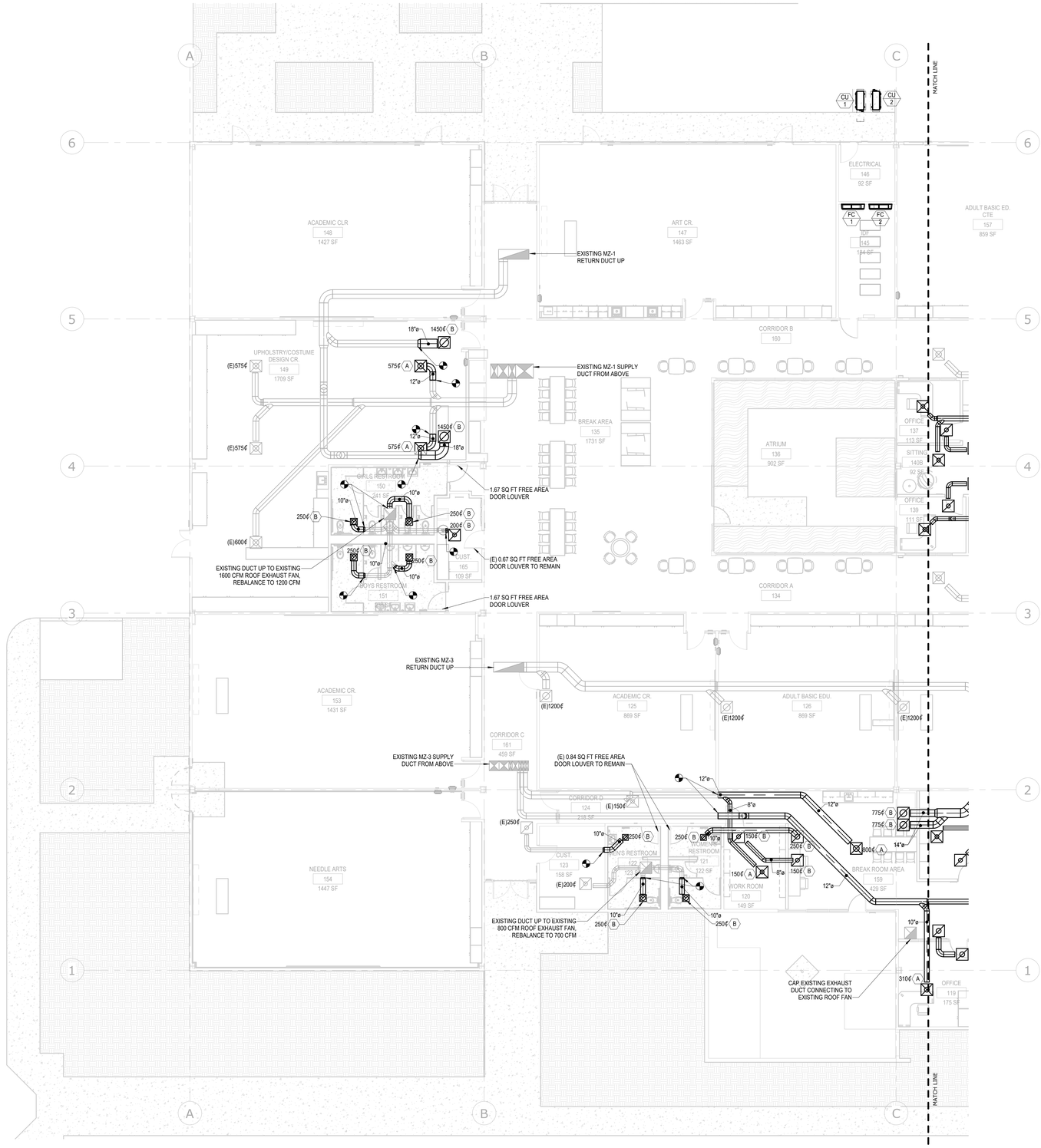
RUHNAUCLARKE.COM
3775 TENTH STREET, RIVERSIDE CALIFORNIA 92501 (951) 684 4664 / 5751 PALMER WAY, SUITE C, CARLSBAD CALIFORNIA 92010 (760) 438 5899

FOOTHILLS ADULT EDUCATION CENTER
1550 Melody Lane El Cajon, CA 92019
GROSSMONT UNIFIED HIGH SCHOOL DISTRICT

NEW ZONING PLAN

M1-2.0B

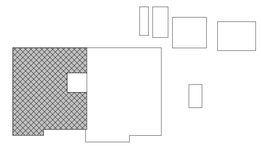
5003



NEW FLOOR PLAN AREA A | SCALE: 1/8" = 1'-0" | 1

NORTH

KEY PLAN



KEY NOTES

GENERAL NOTES

1. PRIOR TO INSTALLATION OF NEW DUCTWORK, CONFIRM REQUIRED CEILING SPACE IS AVAILABLE AND COORDINATED WITH OTHER TRADES PER SHOP DRAWING REQUIREMENTS.
2. REFER TO "EXISTING AC UNIT AND EF MODIFICATION NOTES" LOCATED ON SHEET M0-1.0 PRIOR TO DEMOLITION, ORDERING MATERIALS OR PREPARING SHOP DRAWINGS.
3. SEE DETAIL 1, M5-1.0, FOR AIR DISTRIBUTION CONNECTION.
4. SEE DETAIL 2, M5-1.0, FOR HIGH PROFILE CEILING DIFFUSER CONNECTION.
5. SEE DETAIL 3, M5-1.0, FOR TYPICAL MANUAL VOLUME DAMPER LOCATION.
6. SEE DETAIL 4, M5-1.0, FOR BRANCH DUCT TAKE OFF.
7. SEE DETAIL 5, M5-1.0, FOR DUCT SUPPORT.
8. SEE DETAIL 6, M5-1.0, FOR DUCTLESS SPLIT SYSTEM REFRIGERANT PIPING AND CONDENSING UNIT MOUNTING.
9. SEE DETAIL 7, M5-1.0, FOR DUCTLESS FAN COIL MOUNT.
10. SEE DETAIL 8, M5-1.0, FOR SPLIT SYSTEM UNIT TEMP CONTROL

REGISTERED PROFESSIONAL ENGINEER — TROY C. CAMPBELL — No. M 025911 — EXP. 6-30-21 — MECHANICAL — STATE OF CALIFORNIA

LICENSED ARCHITECT — David Ruhnau — C-20662 — 03-31-2021 RENEWAL DATE — STATE OF CALIFORNIA

AGENCY APPROVAL
File No:

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-119728 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/18/2021

STAMPS

MA ENGINEERS
5160 Carroll Canyon Rd, Suite 200
San Diego, California 92121
Consulting Mechanical Engineers
T 858 200-0030 F 858 200-0037
www.ma-engr.com

CONSULTANT BRANDING

RUHNAU CLARKE ARCHITECTS

FEBRUARY 17, 2021 - DSA BACKCHECK

PROJECT No. :5003
2/15/2021 10:02:52 AM
DRAWN BY: CHECKED BY:

REVISION:____ DATE _____ DESCRIPTION _____
REVISION:____ DATE _____ DESCRIPTION _____
REVISION:____ DATE _____ DESCRIPTION _____
REVISION:____ DATE _____ DESCRIPTION _____
REVISION:____ DATE _____ DESCRIPTION _____
REVISION:____ DATE _____ DESCRIPTION _____
REVISION:____ DATE _____ DESCRIPTION _____
REVISION:____ DATE _____ DESCRIPTION _____
REVISION:____ DATE _____ DESCRIPTION _____

RUHNAUCLARKE.COM
3775 TENTH STREET, RIVERSIDE CALIFORNIA 92501 (951) 684 4664 / 5751 PALMER WAY, SUITE C, CARLSBAD CALIFORNIA 92010 (760) 438 5899

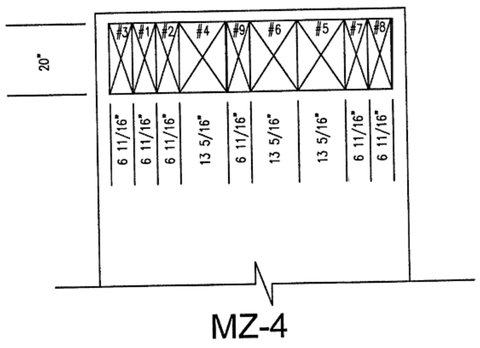
FOOTHILLS ADULT EDUCATION CENTER
1550 Melody Lane El Cajon, CA 92019
GROSSMONT UNIFIED HIGH SCHOOL DISTRICT

NEW FLOOR PLAN

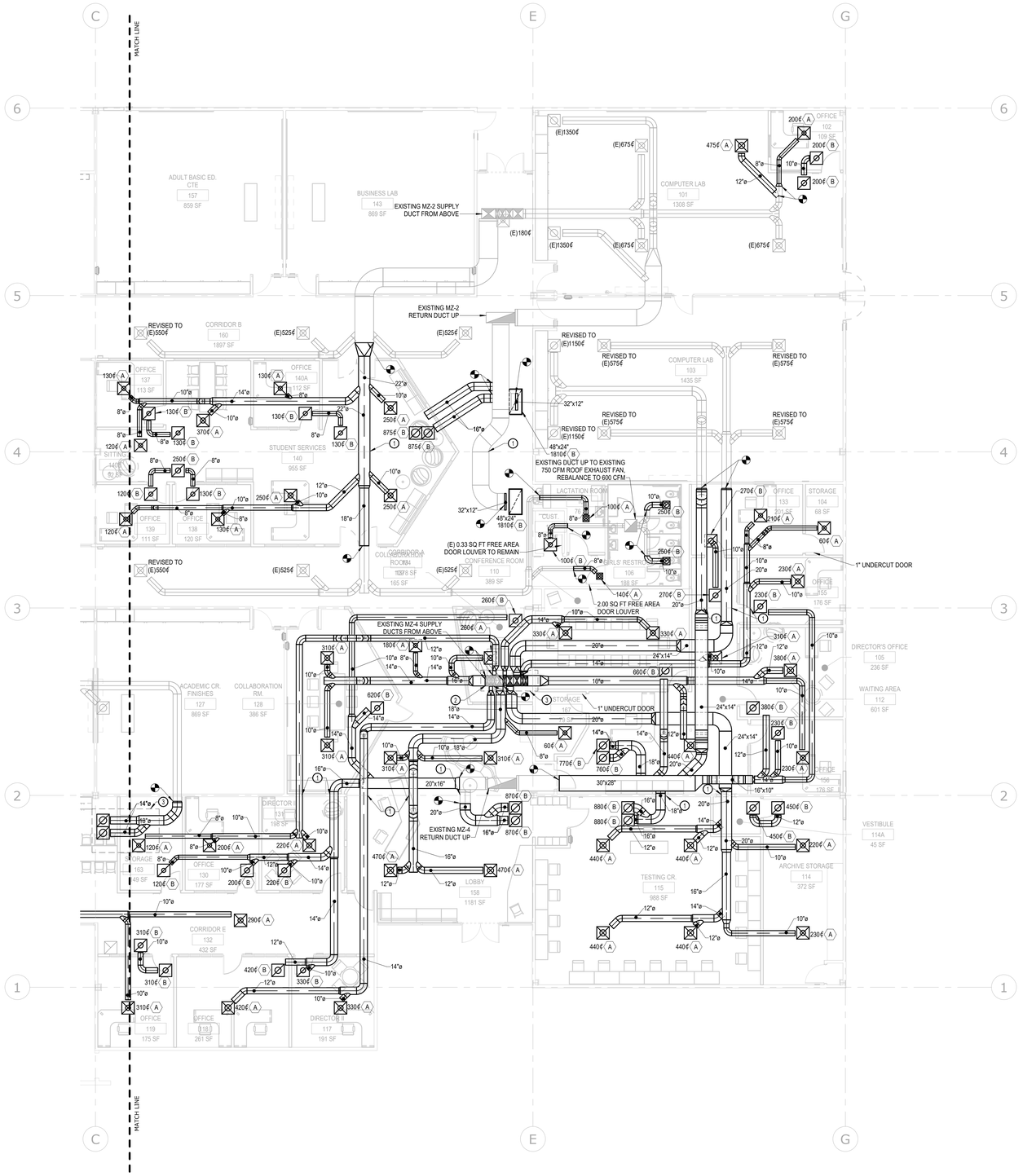
M1-2.1A

5003

EXISTING UNIT MZ-4: SEASON-4, INC. MODEL NUMBER 6MJB22-0312-TN3.5-11SE



REVISED ZONING UNIT MZ-4: SEASON-4, INC. MODEL NUMBER 6MJB22-0312-TN3.5-11SE

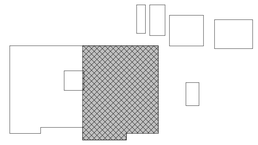


KEY NOTES

1. PRIOR TO PREPARING SHOP DRAWINGS OR ORDERING (FABRICATING) DUCTWORK, SUBMIT EXISTING DUCT AND EXISTING ROOF GIRDER BOTTOM ELEVATIONS ABOVE FLOOR, GIRDER PENETRATION OPENING SIZES AND LOCATIONS TO THE MECHANICAL EOR FOR REVIEW.
   THE SUBMITTAL SHALL INCLUDE A PHOTOGRAPH AND A CLEARLY MARKED UP FLOOR PLAN WITH DIMENSIONED LOCATION AND SIZE DISTANCES FROM GRID LINES AND ELEVATIONS ABOVE THE FLOOR.
2. INSTALL RECTANGULAR DUCT ELBOW WITH TURNING VANES AT EACH ZONE SUPPLY DUCT FROM ABOVE.
   THE RECTANGULAR DUCT SHALL BE THE SAME SIZE AS THE ZONE SUPPLY DUCT CONNECTION SIZE.
3. SUBMIT EXISTING DUCT AND EXISTING ROOF STRUCTURE BOTTOM ELEVATIONS ABOVE FLOOR PER KEYNOTE 1 ABOVE.

GENERAL NOTES

1. PRIOR TO INSTALLATION OF NEW DUCTWORK, CONFIRM REQUIRED CEILING SPACE IS AVAILABLE AND COORDINATED WITH OTHER TRADES PER SHOP DRAWING REQUIREMENTS.
2. REFER TO "EXISTING AC UNIT AND EF MODIFICATION NOTES" LOCATED ON SHEET M0.1-0 PRIOR TO DEMOLITION, ORDERING MATERIALS OR PREPARING SHOP DRAWINGS.
3. SEE DETAIL 1, M5-1.0, FOR AIR DISTRIBUTION CONNECTION.
4. SEE DETAIL 2, M5-1.0, FOR HIGH PROFILE CEILING DIFFUSER CONNECTION.
5. SEE DETAIL 3, M5-1.0, FOR TYPICAL MANUAL VOLUME DAMPER LOCATION.
6. SEE DETAIL 4, M5-1.0, FOR BRANCH DUCT TAKE OFF.
7. SEE DETAIL 5, M5-1.0, FOR DUCT SUPPORT.



KEY PLAN

NORTH

NEW FLOOR PLAN AREA B | SCALE: 1/8" = 1'-0" | 1

REGISTERED PROFESSIONAL ENGINEER
TROY C. CAMPBELL
No. M 025911
EXP. 6-30-21
MECHANICAL
STATE OF CALIFORNIA

LICENSED ARCHITECT
David Ruhnau
C-20662
03-31-2021
RENEWAL DATE
STATE OF CALIFORNIA

STAMPS

AGENCY APPROVAL
File No:

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-119728 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/18/2021

MA ENGINEERS
5160 Carroll Canyon Rd, Suite 200
San Diego, California 92121
Consulting Mechanical Engineers
T 858 200-0030 F 858 200-0037
www.ma-engr.com

CONSULTANT BRANDING

RUHNAU CLARKE ARCHITECTS

FEBRUARY 17, 2021 - DSA BACKCHECK

PROJECT No. :5003
2/15/2021 10:02:58 AM
DRAWN BY: CHECKED BY:

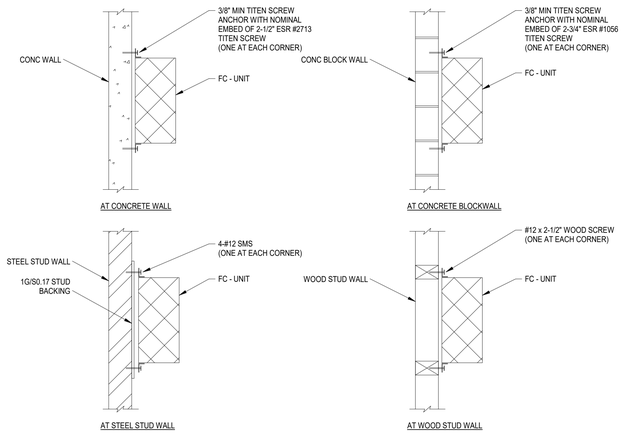
REVISION:____ DATE _____ DESCRIPTION _____

RUHNAUCLARKE.COM
3775 TENTH STREET, RIVERSIDE CALIFORNIA 92501 (951) 684 4664 / 5751 PALMER WAY, SUITE C, CARLSBAD CALIFORNIA 92010 (760) 438 5899

FOOTHILLS ADULT EDUCATION CENTER
1550 Melody Lane El Cajon, CA 92019
GROSSMONT UNIFIED HIGH SCHOOL DISTRICT

NEW FLOOR PLAN **M1-2.1B**

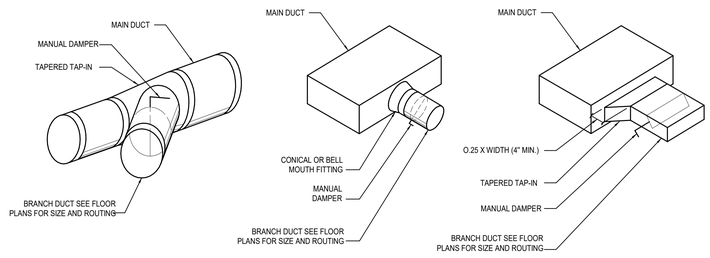
5003



DUCTLESS FC MOUNT DETAIL

NO SCALE

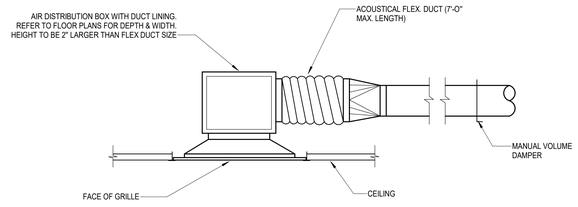
7 M5-1.0



BRANCH DUCT TAKE OFF DETAIL

NO SCALE

4 M5-1.0



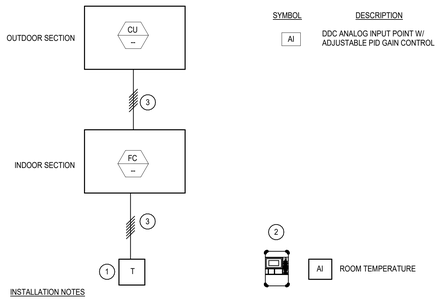
BRANCH DUCT SIZES SUPPLY AIR	
MAX. CFM	SIZE
0-95	6"Ø
95-210	8"Ø
210-370	10"Ø
370-600	12"Ø
600-900	14"Ø
900-1290	16"Ø
1290-1750	18"Ø
1750-2300	20"Ø

BRANCH DUCT SIZES RETURN / EXHAUST AIR	
MAX. CFM	SIZE
0-190	8"Ø
190-340	10"Ø
340-560	12"Ø
560-840	14"Ø
840-1190	16"Ø
1190-1610	18"Ø
1610-2150	20"Ø
2150-2750	22"Ø

AIR DISTRIBUTION CONNECTION DETAIL

NO SCALE

1 M5-1.0



SYMBOL	DESCRIPTION
AI	DDC ANALOG INPUT POINT W/ ADJUSTABLE PID GAIN CONTROL

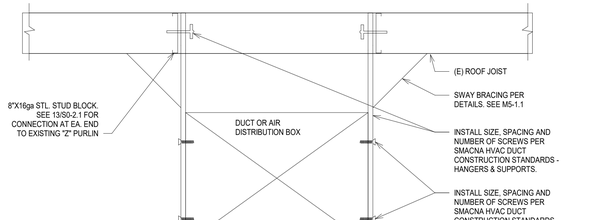
INSTALLATION NOTES

1. ROOM THERMOSTAT PROVIDED BY THE AC UNIT MANUFACTURER FOR UNIT CONTROL
2. ROOM TEMPERATURE SENSOR PROVIDED BY THE BMS CONTRACTOR FOR REMOTE MONITORING AND ALARMING IN THE BMS.
3. VERIFY EXACT NUMBER OF CONDUCTORS WITH THE UNIT MANUFACTURER.

SPLIT SYSTEM UNIT TEMP CONTROL DETAIL

NO SCALE

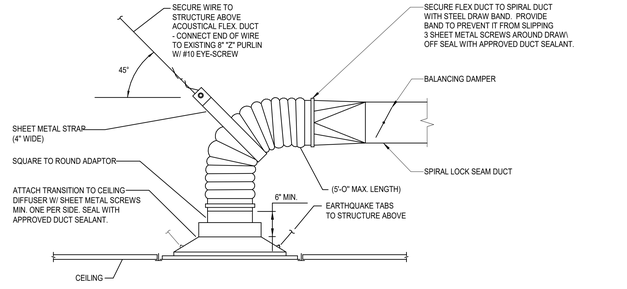
8 M5-1.0



DUCT SUPPORT DETAIL

NO SCALE

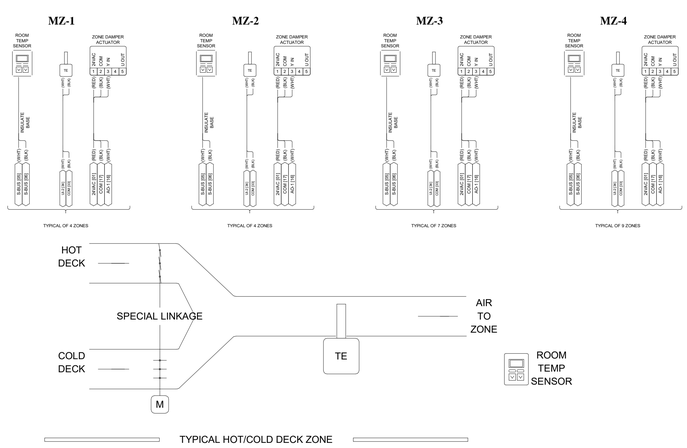
5 M5-1.0



HIGH PROFILE CEILING DIFFUSER CONNECTION DETAIL

NO SCALE

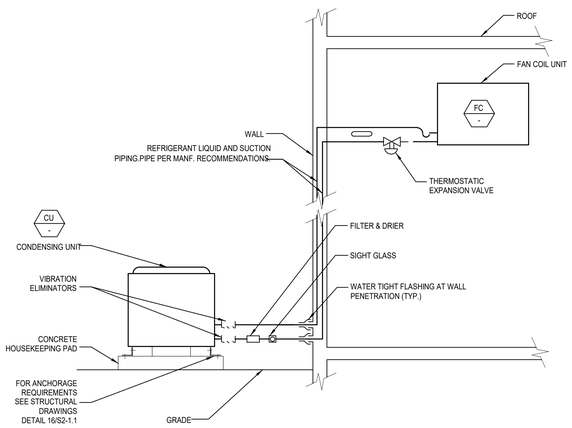
2 M5-1.0



MULTI-ZONE UNIT CONTROLS DETAIL

NO SCALE

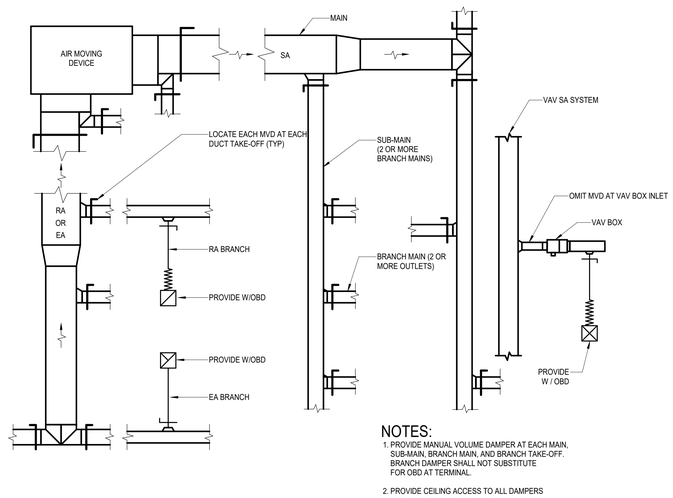
9 M5-1.0



DUCTLESS SPLIT SYSTEM REFRIGERANT PIPING AND CU MOUNTING DETAIL

NO SCALE

6 M5-1.0



NOTES:

1. PROVIDE MANUAL VOLUME DAMPER AT EACH MAIN, SUB-MAIN, BRANCH MAIN, AND BRANCH TAKE-OFF. BRANCH DAMPER SHALL NOT SUBSTITUTE FOR OBD AT TERMINAL.
2. PROVIDE CEILING ACCESS TO ALL DAMPERS

TYPICAL MANUAL VOLUME DAMPER LOCATION DIAGRAM

NO SCALE

3 M5-1.0

REGISTERED PROFESSIONAL ENGINEER — TROY C. CAMPBELL — No. M 025911 — EXP. 6-30-21 — MECHANICAL — STATE OF CALIFORNIA

LICENSED ARCHITECT — David Ruhnau Clarke — C-20662 — 03-31-2021 RENEWAL DATE — STATE OF CALIFORNIA

AGENCY APPROVAL
File No:

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-119728 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/18/2021

STAMPS

MA ENGINEERS
5160 Carroll Canyon Rd, Suite 200
San Diego, California 92121
Consulting Mechanical Engineers
T 858 200-0030 F 858 200-0037
www.ma-engr.com

CONSULTANT BRANDING

RUHNAU CLARKE ARCHITECTS

KEY NOTES

GENERAL NOTES

FEBRUARY 17, 2021 - DSA BACKCHECK

PROJECT No. :5003
2/15/2021 10:02:59 AM
DRAWN BY: CHECKED BY:

REVISION:___ DATE _____ DESCRIPTION _____

RUHNAUCLARKE.COM
3775 TENTH STREET, RIVERSIDE CALIFORNIA 92501 (951) 684 4664 / 5751 PALMER WAY, SUITE C, CARLSBAD CALIFORNIA 92010 (760) 438 5899

FOOTHILLS ADULT EDUCATION CENTER
1550 Melody Lane El Cajon, CA 92019
GROSSMONT UNIFIED HIGH SCHOOL DISTRICT

MECHANICAL DETAILS

M5-1.0

5003

RECTANGULAR DUCT	SEISMIC SOLID BRACING INSTALLATION REQUIREMENTS	LATERAL FORCE Fp = 0.5g (ASD) VERTICAL FORCE Fpv = 0.375g (ASD)

Fp = 0.5g
Fpv = 0.375g

SOLID (RIGID) BRACING FOR 45° BRACE ANGLE
BRACE SPACING - OPTION #1

DUCT SUPPORT AT 10'-0" MAX.		INSTALLATION DETAILS					
		BRACE DIRECTION/SPACING			HANGER ATTACHMENT TYPE		BRACE ATTACHMENT TYPE
		TRANS./ 30 FT	LONG./ 60 FT	ALL-DIR./ 60 FT	TRANS./LONG. BRACE LOCATION	ALL-DIR. BRACE LOCATION	
DUCT WEIGHT (LBS/FT)	10	D2.10	D2.11	D2.12	36D	36D	50C
	20	D2.10	D2.11	D2.12	38F	38K	50E
	30	D2.20	D2.21	D2.22	50H	50M	50G
	40	D2.20	D2.21	D2.32	63K	63N	63H
	50	D2.30	D2.31	D2.32	63L	63P	63J
	60	D2.30	D2.31		63M		63K

Fp = 0.5g
Fpv = 0.375g

SOLID (RIGID) BRACING FOR 45° BRACE ANGLE
BRACE SPACING - OPTION #2

DUCT SUPPORT AT 10'-0" MAX.		INSTALLATION DETAILS					
		BRACE DIRECTION/SPACING			HANGER ATTACHMENT TYPE		BRACE ATTACHMENT TYPE
		TRANS./ 20 FT	LONG./ 40 FT	ALL-DIR./ 40 FT	TRANS./LONG. BRACE LOCATION	ALL-DIR. BRACE LOCATION	
DUCT WEIGHT (LBS/FT)	10	D2.10	D2.11	D2.12	38C	38F	50B
	20	D2.10	D2.11	D2.12	38E	38J	50D
	30	D2.10	D2.11	D2.12	38G	38L	50E
	40	D2.20	D2.21	D2.22	50H	50M	50F
	50	D2.20	D2.21	D2.22	50J	50N	50G
	60	D2.20	D2.31	D2.32	63L	63P	63H

Fp = 0.5g
Fpv = 0.375g

SOLID (RIGID) BRACING FOR 45° BRACE ANGLE
BRACE SPACING - OPTION #3

DUCT SUPPORT AT 10'-0" MAX.		INSTALLATION DETAILS					
		BRACE DIRECTION/SPACING			HANGER ATTACHMENT TYPE		BRACE ATTACHMENT TYPE
		TRANS./ 15 FT	LONG./ 30 FT	ALL-DIR./ 30 FT	TRANS./LONG. BRACE LOCATION	ALL-DIR. BRACE LOCATION	
DUCT WEIGHT (LBS/FT)	10	D2.10	D2.11	D2.12	38E	38J	50D
	20	D2.10	D2.11	D2.12	38G	38L	50E
	30	D2.20	D2.21	D2.22	50H	50M	50F
	40	D2.20	D2.21	D2.22	50J	50N	50G
	50	D2.20	D2.31	D2.32	63L	63P	63J
	60	D2.30	D2.31	D2.32	63M	63R	63K
	100	D2.30	D2.31	D2.32	63N	63S	63L

SOLID (RIGID) BRACING FOR 45° BRACE ANGLE
BRACE SPACING - OPTION #1

DUCT SUPPORT AT 10'-0" MAX.		INSTALLATION DETAILS					
		BRACE DIRECTION/SPACING			HANGER ATTACHMENT TYPE		BRACE ATTACHMENT TYPE
		TRANS./ 30 FT	LONG./ 60 FT	ALL-DIR./ 60 FT	TRANS./LONG. BRACE LOCATION	ALL-DIR. BRACE LOCATION	
DUCT WEIGHT (LBS/FT)	10	D2.10	D2.11	D2.12	36D	36D	50A
	20	D2.10	D2.11	D2.12	38E	38F	50C
	30	D2.20	D2.21	D2.22	50G	50K	50E
	40	D2.20	D2.21	D2.22	50H	50L	50F
	50	D2.20	D2.21	D2.22	50J	50M	50G
	60	D2.30	D2.31	D2.32	63K	63N	63H
	100	D2.30	D2.31	D2.32	63L	63P	63J

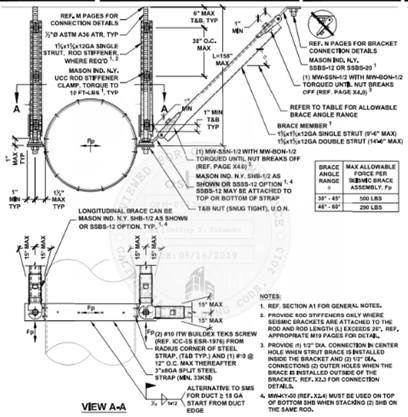
SOLID (RIGID) BRACING FOR 45° BRACE ANGLE
BRACE SPACING - OPTION #2

DUCT SUPPORT AT 10'-0" MAX.		INSTALLATION DETAILS					
		BRACE DIRECTION/SPACING			HANGER ATTACHMENT TYPE		BRACE ATTACHMENT TYPE
		TRANS./ 20 FT	LONG./ 40 FT	ALL-DIR./ 40 FT	TRANS./LONG. BRACE LOCATION	ALL-DIR. BRACE LOCATION	
DUCT WEIGHT (LBS/FT)	10	D2.10	D2.11	D2.12	38C	38F	50B
	20	D2.10	D2.11	D2.12	38E	38J	50D
	30	D2.10	D2.11	D2.12	38G	38L	50E
	40	D2.20	D2.21	D2.22	50H	50M	50F
	50	D2.20	D2.21	D2.22	50J	50N	50G
	60	D2.20	D2.31	D2.32	63L	63P	63H

SOLID (RIGID) BRACING FOR 45° BRACE ANGLE
BRACE SPACING - OPTION #3

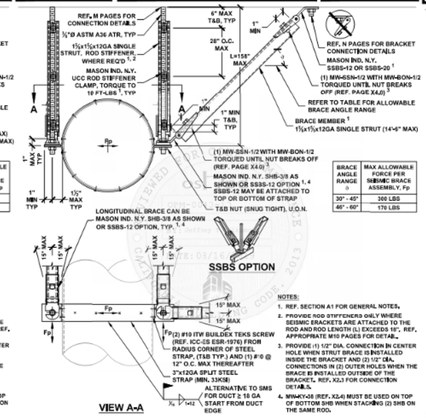
DUCT SUPPORT AT 10'-0" MAX.		INSTALLATION DETAILS					
		BRACE DIRECTION/SPACING			HANGER ATTACHMENT TYPE		BRACE ATTACHMENT TYPE
		TRANS./ 15 FT	LONG./ 30 FT	ALL-DIR./ 30 FT	TRANS./LONG. BRACE LOCATION	ALL-DIR. BRACE LOCATION	
DUCT WEIGHT (LBS/FT)	10	D2.10	D2.11	D2.12	38E	38J	50D
	20	D2.10	D2.11	D2.12	38G	38L	50E
	30	D2.20	D2.21	D2.22	50H	50M	50F
	40	D2.20	D2.21	D2.22	50J	50N	50G
	50	D2.20	D2.31	D2.32	63L	63P	63H
	60	D2.30	D2.31	D2.32	63M	63R	63K
	100	D2.30	D2.31	D2.32	63N	63S	63L

HANGER ROD DIAMETER = ½"	ROUND DUCT ALL-DIRECTIONAL SEISMIC SOLID BRACING SYSTEM 60 PLF MAX	KIT OPTIONS TS12A TS1220A TSH412A TSH420A



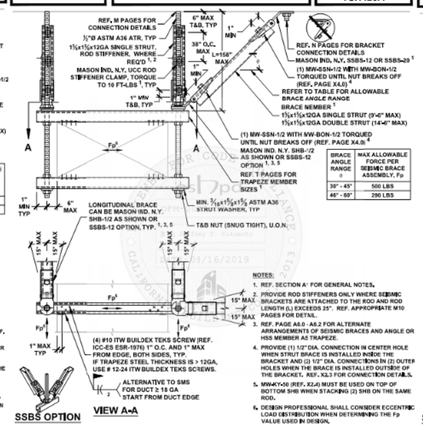
NOTES:
1. REF. SECTION A1 FOR GENERAL NOTES.
2. PROVIDE ROD STIFFENERS ONLY WHERE SEISMIC BRACKETS ARE ATTACHED TO THE ROD AND ROD LENGTH (L) EXCEEDS 25", REF. APPROPRIATE M10 PAGES FOR DETAIL.
3. PROVIDE (1) 1/2" DIA. CONNECTION IN CENTER HOLE WHEN STRUT BRACE IS INSTALLED INSIDE THE BRACKET AND (2) 1/2" DIA. CONNECTIONS IN (2) OUTER HOLES WHEN THE BRACE IS INSTALLED OUTSIDE OF THE BRACKET, REF. X2.3 FOR CONNECTION DETAILS.
4. MWKY-60 (REF. X2.4) MUST BE USED ON TOP OF BOTTOM SHB WHEN STACKING (2) SHB ON THE SAME ROD.

HANGER ROD DIAMETER = ⅝"	ROUND DUCT ALL-DIRECTIONAL SEISMIC SOLID BRACING SYSTEM 30 PLF MAX	KIT OPTIONS TS12A TS1220A TSH312A TSH320A



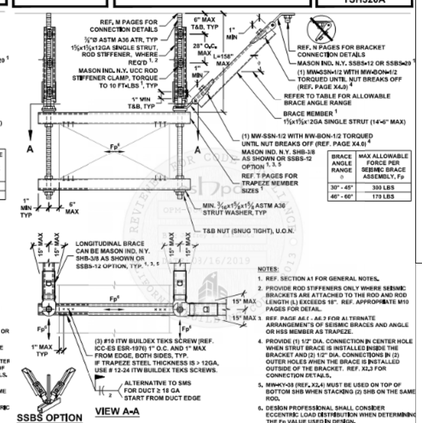
NOTES:
1. REF. SECTION A1 FOR GENERAL NOTES.
2. PROVIDE ROD STIFFENERS ONLY WHERE SEISMIC BRACKETS ARE ATTACHED TO THE ROD AND ROD LENGTH (L) EXCEEDS 25", REF. APPROPRIATE M10 PAGES FOR DETAIL.
3. PROVIDE (1) 1/2" DIA. CONNECTION IN CENTER HOLE WHEN STRUT BRACE IS INSTALLED INSIDE THE BRACKET AND (2) 1/2" DIA. CONNECTIONS IN (2) OUTER HOLES WHEN THE BRACE IS INSTALLED OUTSIDE OF THE BRACKET, REF. X2.3 FOR CONNECTION DETAILS.
4. MWKY-60 (REF. X2.4) MUST BE USED ON TOP OF BOTTOM SHB WHEN STACKING (2) SHB ON THE SAME ROD.

HANGER ROD DIAMETER = ½"	RECTANGULAR DUCT ALL-DIRECTIONAL SEISMIC SOLID BRACING SYSTEM 60 PLF MAX	KIT OPTIONS TS12A TS1220A TSH412A TSH420A



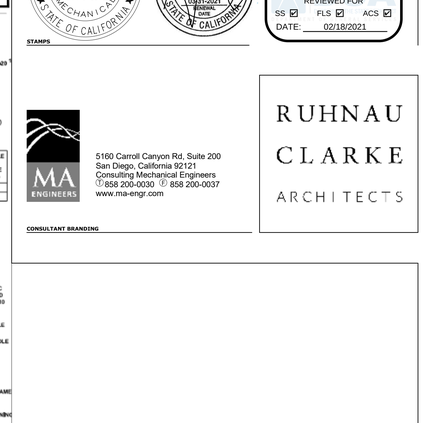
NOTES:
1. REF. SECTION A1 FOR GENERAL NOTES.
2. PROVIDE ROD STIFFENERS ONLY WHERE SEISMIC BRACKETS ARE ATTACHED TO THE ROD AND ROD LENGTH (L) EXCEEDS 25", REF. APPROPRIATE M10 PAGES FOR DETAIL.
3. REF. PAGE A4.0 - A4.2 FOR ALTERNATE ARRANGEMENTS OF SEISMIC BRACES AND ANGLE OR HSS MEMBER AS TRAPEZE.
4. PROVIDE (1) 1/2" DIA. CONNECTION IN CENTER HOLE WHEN STRUT BRACE IS INSTALLED INSIDE THE BRACKET AND (2) 1/2" DIA. CONNECTIONS IN (2) OUTER HOLES WHEN THE BRACE IS INSTALLED OUTSIDE OF THE BRACKET, REF. X2.3 FOR CONNECTION DETAILS.
5. DESIGN PROFESSIONAL SHALL CONSIDER ECCENTRIC LOAD DISTRIBUTION WHEN DETERMINING THE Fp VALUE USED IN DESIGN.

HANGER ROD DIAMETER = ⅝"	RECTANGULAR DUCT ALL-DIRECTIONAL SEISMIC SOLID BRACING SYSTEM 30 PLF MAX	KIT OPTIONS TS12A TS1220A TSH312A TSH320A



NOTES:
1. REF. SECTION A1 FOR GENERAL NOTES.
2. PROVIDE ROD STIFFENERS ONLY WHERE SEISMIC BRACKETS ARE ATTACHED TO THE ROD AND ROD LENGTH (L) EXCEEDS 25", REF. APPROPRIATE M10 PAGES FOR DETAIL.
3. REF. PAGE A4.0 - A4.2 FOR ALTERNATE ARRANGEMENTS OF SEISMIC BRACES AND ANGLE OR HSS MEMBER AS TRAPEZE.
4. PROVIDE (1) 1/2" DIA. CONNECTION IN CENTER HOLE WHEN STRUT BRACE IS INSTALLED INSIDE THE BRACKET AND (2) 1/2" DIA. CONNECTIONS IN (2) OUTER HOLES WHEN THE BRACE IS INSTALLED OUTSIDE OF THE BRACKET, REF. X2.3 FOR CONNECTION DETAILS.
5. DESIGN PROFESSIONAL SHALL CONSIDER ECCENTRIC LOAD DISTRIBUTION WHEN DETERMINING THE Fp VALUE USED IN DESIGN.

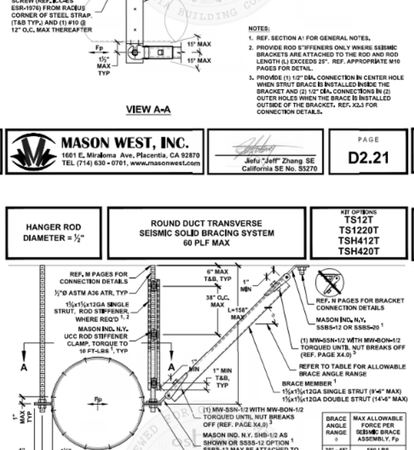
HANGER ROD DIAMETER = ⅝"	RECTANGULAR DUCT ALL-DIRECTIONAL SEISMIC SOLID BRACING SYSTEM 30 PLF MAX	KIT OPTIONS TS12A TS1220A TSH312A TSH320A



NOTES:
1. REF. SECTION A1 FOR GENERAL NOTES.
2. PROVIDE ROD STIFFENER ONLY WHERE SEISMIC BRACKET IS ATTACHED TO THE ROD AND ROD LENGTH (L) EXCEEDS 25", REF. APPROPRIATE M10 PAGES FOR DETAIL.
3. REF. PAGE A4.0 - A4.2 FOR ALTERNATE ARRANGEMENTS OF SEISMIC BRACES AND ANGLE OR HSS MEMBER AS TRAPEZE.
4. PROVIDE (1) 1/2" DIA. CONNECTION IN CENTER HOLE WHEN STRUT BRACE IS INSTALLED INSIDE THE BRACKET AND (2) 1/2" DIA. CONNECTIONS IN (2) OUTER HOLES WHEN THE BRACE IS INSTALLED OUTSIDE OF THE BRACKET, REF. X2.3 FOR CONNECTION DETAILS.
5. DESIGN PROFESSIONAL SHALL CONSIDER ECCENTRIC LOAD DISTRIBUTION WHEN DETERMINING THE Fp VALUE USED IN DESIGN.

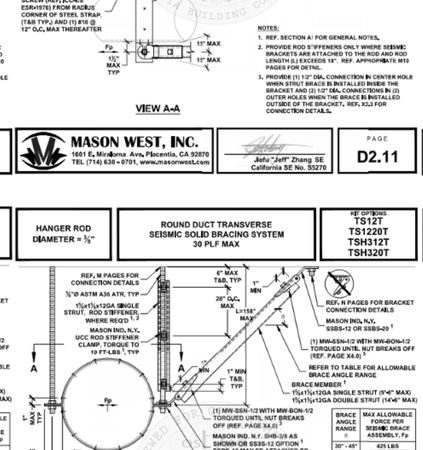
ROUND DUCT	SEISMIC SOLID BRACING INSTALLATION REQUIREMENTS	LATERAL FORCE Fp = 0.5g (ASD) VERTICAL FORCE Fpv = 0.375g (ASD)

HANGER ROD DIAMETER = ½"	ROUND DUCT LONGITUDINAL SEISMIC SOLID BRACING SYSTEM 60 PLF MAX	KIT OPTIONS TS12L TS1220L TSH412L TSH420L



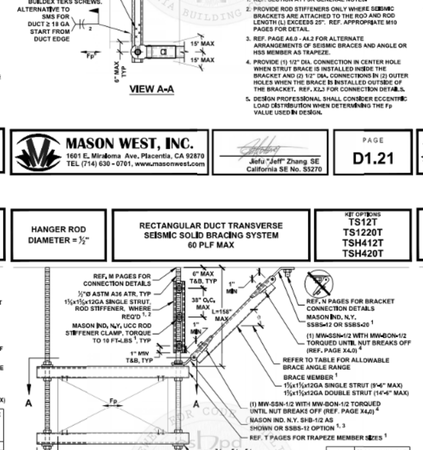
NOTES:
1. REF. SECTION A1 FOR GENERAL NOTES.
2. PROVIDE ROD STIFFENERS ONLY WHERE SEISMIC BRACKETS ARE ATTACHED TO THE ROD AND ROD LENGTH (L) EXCEEDS 25", REF. APPROPRIATE M10 PAGES FOR DETAIL.
3. PROVIDE (1) 1/2" DIA. CONNECTION IN CENTER HOLE WHEN STRUT BRACE IS INSTALLED INSIDE THE BRACKET AND (2) 1/2" DIA. CONNECTIONS IN (2) OUTER HOLES WHEN THE BRACE IS INSTALLED OUTSIDE OF THE BRACKET, REF. X2.3 FOR CONNECTION DETAILS.
4. ANGLE MAY BE INCREASED UP TO 15°, REF. PAGE A5.0

HANGER ROD DIAMETER = ⅝"	ROUND DUCT LONGITUDINAL SEISMIC SOLID BRACING SYSTEM 30 PLF MAX	KIT OPTIONS TS12L TS1220L TSH312L TSH320L



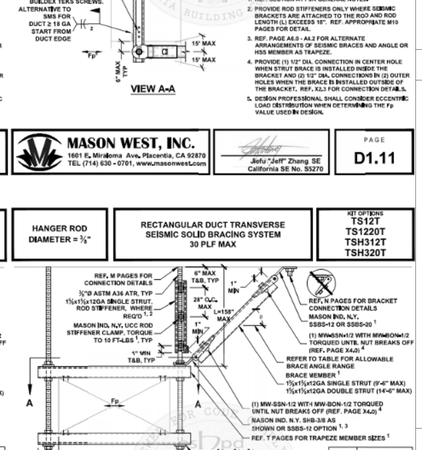
NOTES:
1. REF. SECTION A1 FOR GENERAL NOTES.
2. PROVIDE ROD STIFFENER ONLY WHERE SEISMIC BRACKET IS ATTACHED TO THE ROD AND ROD LENGTH (L) EXCEEDS 19", REF. APPROPRIATE M10 PAGES FOR DETAIL.
3. PROVIDE (1) 1/2" DIA. CONNECTION IN CENTER HOLE WHEN STRUT BRACE IS INSTALLED INSIDE THE BRACKET AND (2) 1/2" DIA. CONNECTIONS IN (2) OUTER HOLES WHEN THE BRACE IS INSTALLED OUTSIDE OF THE BRACKET, REF. X2.3 FOR CONNECTION DETAILS.
4. ANGLE MAY BE INCREASED UP TO 15°, REF. PAGE A5.0

HANGER ROD DIAMETER = ½"	RECTANGULAR DUCT LONGITUDINAL SEISMIC SOLID BRACING SYSTEM 60 PLF MAX	KIT OPTIONS TS12L TS1220L TSH412L TSH420L



NOTES:
1. REF. SECTION A1 FOR GENERAL NOTES.
2. PROVIDE ROD STIFFENER ONLY WHERE SEISMIC BRACKETS ARE ATTACHED TO THE ROD AND ROD LENGTH (L) EXCEEDS 25", REF. APPROPRIATE M10 PAGES FOR DETAIL.
3. REF. PAGE A4.0 - A4.2 FOR ALTERNATE ARRANGEMENTS OF SEISMIC BRACES AND ANGLE OR HSS MEMBER AS TRAPEZE.
4. PROVIDE (1) 1/2" DIA. CONNECTION IN CENTER HOLE WHEN STRUT BRACE IS INSTALLED INSIDE THE BRACKET AND (2) 1/2" DIA. CONNECTIONS IN (2) OUTER HOLES WHEN THE BRACE IS INSTALLED OUTSIDE OF THE BRACKET, REF. X2.3 FOR CONNECTION DETAILS.
5. DESIGN PROFESSIONAL SHALL CONSIDER ECCENTRIC LOAD DISTRIBUTION WHEN DETERMINING THE Fp VALUE USED IN DESIGN.

HANGER ROD DIAMETER = ⅝"	RECTANGULAR DUCT LONGITUDINAL SEISMIC SOLID BRACING SYSTEM 30 PLF MAX	KIT OPTIONS TS12L TS1220L TSH312L TSH320L



NOTES:
1. REF. SECTION A1 FOR GENERAL NOTES.
2. PROVIDE ROD STIFFENER ONLY WHERE SEISMIC BRACKET IS ATTACHED TO THE ROD AND ROD L

PLUMBING FIXTURE SCHEDULE

SYMBOL	FIXTURE	ROUGH-IN HW	ROUGH-IN CW	ROUGH-IN W	ROUGH-IN TRAP	ROUGH-IN V	REMARKS
WC 1	WATER CLOSET	--	1"	4"	INTEGRAL	2"	AMERICAN STANDARD, MADERA, FLOOR MOUNTED, WHITE VITREOUS CHINA, ELONGATED BOWL WITH ZURN ZER6000PL-HET_CPM SENSOR OP, FLUSH VALVE, 1.28 GPF.
WC 2	WATER CLOSET - ACCESSIBLE	--	1"	4"	INTEGRAL	2"	AMERICAN STANDARD, MADERA, FLOOR MOUNTED, WHITE VITREOUS CHINA, ELONGATED BOWL WITH ZURN ZER6000PL-HET_CPM SENSOR OP, FLUSH VALVE, 1.28 GPF, ACCESSIBLE.
UR 1	URINAL	--	3/4"	2"	2"	1 1/2"	AMERICAN STANDARD, WASHBROOK, VITREOUS CHINA, ELONGATED RIM.
UR 2	URINAL - ACCESSIBLE	--	3/4"	2"	2"	1 1/2"	AMERICAN STANDARD, WASHBROOK, VITREOUS CHINA, ELONGATED RIM, ACCESSIBLE.
L 1	LAVATORY	1/2"	1/2"	2"	1 1/2"	1 1/2"	AMERICAN STANDARD, LUCERNE LAVATORY #0355.012, WALL HUNG, WHITE VITREOUS CHINA, SYMMONS FAUCET SLC 6000, METERING, 0.125 GPM.
L 2	LAVATORY ACCESIBLE	1/2"	1/2"	2"	1 1/2"	1 1/2"	AMERICAN STANDARD, LUCERNE LAVATORY #0355.012, WALL HUNG, WHITE VITREOUS CHINA, SYMMONS FAUCET SLC 6000, METERING, 0.125 GPM, ACCESSIBLE.
S 1	SINK - ACCESSIBLE	1/2"	1/2"	2"	1 1/2"	1 1/2"	JUST, SL-ADA-1921-A-GR, STAINLESS STEEL, SINGLE COMPARTMENT, GARBAGE DISPOSER, ACCESSIBLE.
S 2	SINK - ACCESSIBLE	1/2"	1/2"	2"	1 1/2"	1 1/2"	JUST, SL-ADA-1921-A-GR, STAINLESS STEEL, SINGLE COMPARTMENT, ACCESSIBLE.
HS 1	HYDRATION STATION	1/2"	1/2"	2"	2"	1 1/2"	HAWS #1119-1920, STAINLESS STEEL, BOTTLE FILLER, ACCESSIBLE.
RB 1	REFRIGERATOR BOX	--	1/2"	--	--	--	GUY GRAY, LEAD-FREE, POWDER-COATED.
AS 1	ART SINK	1/2"	1/2"	2"	1 1/2"	1 1/2"	JUST, SLX-1921-A-GR, 18 GA. STAINLESS STEEL, SINGLE COMPARTMENT, JUST FAUCET, J-1174-KS, SWIVELING GOOSENECK SPOUT.
AS 2	ART SINK - ACCESSIBLE	1/2"	1/2"	2"	1 1/2"	1 1/2"	JUST, SLX-1921-A-GR, 18 GA. STAINLESS STEEL, SINGLE COMPARTMENT, JUST FAUCET, J-1174-KS, SWIVELING GOOSENECK SPOUT, ACCESSIBLE.

PLUMBING EQUIPMENT SCHEDULE

SYMBOL	TYPE	ELECTRICAL DATA POWER (HP)	VOLTS (V)	PHASE (PH)	HERTZ (HZ)	CAPACITY INPUT (MBH)	OUTPUT (MBH)	STORAGE VOLUME (GALLON)	WEIGHT (LBS)	DESCRIPTION	LOCATION
GD 1	GARBAGE DISPOSER	1/2	120	1	--	--	--	--	--	BADGER 5, 1/2 HP, 120V-SINGLE PHASE.	BREAK ROOM AREA 159

PLUMBING LEGEND AND ABBREVIATIONS

SYMBOL	ABBREV.	DESCRIPTION
	POC	POINT OF CONNECTION
	POD	POINT OF DISCONNECT - POINT OF DETACHMENT
	W	WASTE OR SEWER BELOW SLAB
	W	WASTE OR SEWER ABOVE SLAB
	V	SANITARY VENT
	CW	COLD WATER
	HW	HOT WATER
	HWR	HOT WATER RETURN
	SOV	SHUT OFF VALVE
	FD	FLOOR DRAIN
	FCO	FLOOR CLEAN-OUT
	WCO	WALL CLEAN-OUT
	GCO	GRADE CLEAN-OUT
	DN	DOWN OR DROP
	UP	RISE OR RISER
	HB	HOSE BIBB
		VALVE ON RISE OR DROP
	U	UNION
	TP	TRAP PRIMER
	WHA	WATER HAMMER ARRESTOR
	-	DEMO HATCHING

SYMBOL	ABBREV.	DESCRIPTION
	ABV	ABOVE
	A/C	ABOVE CEILING
	A.F.F.	ABOVE FINISH FLOOR
	A.F.G.	ABOVE FINISH GRADE
	A/G	ABOVE GRADE
	A.P.	ACCESS PANEL
	B/F	BELOW FLOOR
	B/G	BELOW GRADE
	CFH	CUBIC FEET PER HOUR
	CO	CLEAN-OUT
	DWGS.	DRAWINGS
	EA.	EACH
	EXIST.	EXISTING
	(E)	EXISTING
	FT.	FEET OR FOOT
	FLR.	FLOOR
	G.P.F.	GALLONS PER FLUSH
	G.P.H.	GALLONS PER HOUR
	G.P.M.	GALLONS PER MINUTE
	I.E.	INVERT ELEVATION
	NTS	NOT TO SCALE
	POD	POINT OF DETACHMENT
	SF	SQUARE FEET
	TP	TRAP PRIMER
	V.T.R.	VENT THROUGH ROOF
	W.C.	WATER COLUMN
	WHA	WATER HAMMER ARRESTOR

CGC TABLE 5.303.2.3 FIXTURE FLOW RATES

FIXTURE TYPE	FLOW RATE	MAXIMUM FLOW RATE AT @ 20 PERCENT REDUCTION
FAUCETS	2.2 GPM @ 60 PSI	1.0 GPM @ 60 PSI
METERING FAUCETS	0.25 GPC	0.125 GPC
FLUSHOMETER VALVE WATER CLOSETS	1.28 GALLONS/FLUSH	1.28 GALLONS/FLUSH
URINALS	0.5 GALLONS/FLUSH	0.125 GALLONS/FLUSH

NOTES:
INCLUDES SINGLE AND DUAL FLUSH WATER CLOSETS WITH AN EFFECTIVE FLUSH OR 1.28 GALLONS OR LESS. SINGLE FLUSH TOILETS- THE EFFECTIVE FLUSH VOLUME SHALL NOT EXCEED 1.28 GALLONS (4.8 LITERS). THE EFFECTIVE FLUSH VOLUME IS THE AVERAGE FLUSH VOLUME WHEN TESTED IN ACCORDANCE WITH ASME A112.19.233.2. DUAL FLUSH TOILETS- THE EFFECTIVE FLUSH VOLUME SHALL NOT EXCEED 1.28 GALLONS (4.8 LITERS). THE EFFECTIVE FLUSH VOLUME IS DEFINED A S THE COMPOSITE, AVERAGE FLUSH VOLUME OF TWO REDUCED FLUSHES AND ONE FULL FLUSH. FLUSH VOLUMES WILL BE TESTED IN ACCORDANCE WITH ASME A112.19.2 AND ASME A112.19.14.

CW PIPING SIZING CHART 5 psi / 100 ft

SIZE	GPM	FIXTURE UNITS FLUSH TANK	FIXTURE UNITS FLUSH VALVE	VELOCITY (FPS)
1/2"	2.4	1	---	3.2
3/4"	6.4	7	---	4.3
1"	13	18	---	5.2
1 1/4"	22	34	5	5.9
1 1/2"	36	69	21	6.8
2"	73	236	116	8
2 1/2"	120	479	365	8
3"	170	748	700	8
4"	280	1583	1583	8
5"	425	2911	2911	8
6"	670	5110	5110	8

HW PIPING SIZING CHART 5 psi / 100 ft

SIZE	GPM	FIXTURE UNITS FLUSH TANK	FIXTURE UNITS FLUSH VALVE	VELOCITY (FPS)
1/2"	2.4	1	---	3.2
3/4"	6.4	7	---	4.3
1"	13	18	---	5
1 1/4"	18	26	---	5
1 1/2"	28	49	---	5
2"	48	119	---	5
2 1/2"	82	284	---	5
3"	113	479	---	5
4"	180	809	---	5
5"	280	1583	---	5

GENERAL NOTES

1. NO PLUMBING SHALL BE INSTALLED UNTIL ALL REQUIRED PLUMBING PLAN CHECK PERMITS AND APPROVALS HAVE BEEN OBTAINED FROM ALL REQUIRED AGENCIES.
2. LAVATORY FAUCETS, SINK FAUCETS (NOT INCLUDING SERVICE SINK FAUCETS OR FAUCETS DESIGNATED AS INSTITUTIONAL) SHALL MEET THE FLOW REQUIREMENTS OUTLINED IN THE APPLIANCE EFFICIENCY STANDARDS.
3. COORDINATE WITH THE ARCHITECTURAL DRAWINGS FOR EXACT LOCATION OF PLUMBING FIXTURES AND DRAINS.
4. PROVIDE ALL TAILPIECES, TRAPS, STOPS, SUPPLY PIPES TO LAVATORIES DESIGNED AS ACCESSIBLE, WITH PREFORMED INSULATION JACKET.
5. COORDINATE AND VERIFY SIZES, LOCATIONS, DEPTHS AND PRESSURIZED PIPING PRESSURES OF ALL BUILDING UTILITIES WITH CIVIL.
6. COORDINATE AND SCHEDULE TIMING FOR UTILITY SERVICE CONNECTION.
7. ALL LINES BELOW SLAB ON GRADE TO BE LOCATED AWAY FROM ALL LOAD BEARING FOOTINGS.
8. FOR PIPE PENETRATION THROUGH STRUCTURAL MEMBERS, SEE STRUCTURAL DRAWINGS FOR CONSTRUCTION.
9. ALL VENTS THRU ROOF SHALL BE MINIMUM OF 18 INCHES VERTICAL AND FIFTEEN FEET HORIZONTAL AWAY FROM ALL AIR CONDITIONING FRESH AIR INTAKES AND PROVIDED WITH VANDAL PROOF HOODS.
10. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CUTTING AND PATCHING OF WALLS, ROOFS, FOOTINGS, FLOORS, INCLUDING ALL SAW CUTTING AND CORE DRILLING. COORDINATE ALL SAW CUTTING AND CORE DRILLING WITH STRUCTURAL DRAWINGS. ANY CUTTING AND DRILLING REQUIRED OF STRUCTURAL ELEMENTS THAT IS NOT SPECIFICALLY SHOWN ON THE PLANS SHALL BE BROUGHT TO THE ARCHITECTS ATTENTION PRIOR TO CUTTING AND DRILLING. CONTRACTOR SHALL SUBMIT PROPOSED LOCATION AND SIZES OF SUCH CUTTING AND DRILLING FOR THE ARCHITECTS AND STRUCTURAL ENGINEERS APPROVAL.
11. COORDINATE ALL EQUIPMENT LOCATIONS, PIPE PENETRATIONS AND EQUIPMENT PAD LOCATIONS WITH STRUCTURAL DRAWINGS PRIOR TO WORK.
12. COORDINATE INSTALLATION OF ALL EQUIPMENT AND PIPING WITH OTHER TRADES PRIOR TO INSTALLATION. ENSURE THAT ALL CONTROL DEVICES, SHUT-OFF VALVES, ETC. ARE ACCESSIBLE FOR MAINTENANCE. WHERE ACCESS PANELS IN FINISHED SPACES, OTHER THAN THAT SHOWN, CONTRACTOR SHALL PROVIDE AND COORDINATE EXACT LOCATION OF PANELS WITH ARCHITECT PRIOR TO INSTALLATION.
13. INSTALL VALVES WITH UNIONS OR FLANGES AT EACH PIECE OF EQUIPMENT ARRANGED TO ALLOW SERVICE, MAINTENANCE, AND EQUIPMENT REMOVAL WITHOUT SYSTEM SHUT-DOWN.
14. ANY STRUCTURAL FIREPROOFING DAMAGED DURING INSTALLATION OF PLUMBING EQUIPMENT, PIPING, ETC. SHALL BE REPAIRED AT NO COST TO THE OWNER. REPAIRS SHALL BE AS DIRECTED BY THE ARCHITECT.
15. FAUCETS, OTHER THAN LAVATORIES, SHALL BE 1.8 GPM MAXIMUM.
16. PROVIDE EXPANSION TANK OR OTHER APPROVED METHOD OF RELIEVING PRESSURE (SECTION 608.3 CPC).
17. CROSS CONNECTION PROTECTION SHALL BE PROVIDED AT ALL POTABLE WATER SUPPLIED APPLIANCES AND EQUIPMENT.
18. COORDINATE WITH ELECTRICAL AND CONTROL CONTRACTORS FOR ALL POWER REQUIREMENTS PRIOR TO BID.
19. COORDINATE WITH ELECTRICAL AND CONTROL CONTRACTORS FOR ALL POWER REQUIREMENTS PRIOR TO ORDERING ANY EQUIPMENT.
20. UPON INSTALLATION OF ALL EQUIPMENT, DEVICES, VIBRATION ISOLATION, ETC., PROVIDE WRITTEN CONFIRMATION BY EQUIPMENT MANUFACTURER'S REPRESENTATIVES TO ENSURE COMPLIANCE WITH MANUFACTURER'S REQUIREMENTS.
21. PROVIDE DETAILS AND SEISMIC CALCULATIONS FOR ALL EQUIPMENT ON VIBRATION ISOLATION. ALL DETAILS SHALL BE STAMPED BY A STRUCTURAL ENGINEER FROM VIBRATION ISOLATIONS MANUFACTURER.
22. FOR EACH SUBMITTAL, THE CONTRACTOR SHALL PROVIDE A LETTER (ON COMPANY LETTERHEAD) AND SIGNED BY THE PROJECT MANAGER INDICATING THE SUBMITTAL HAS BEEN FULLY IN HOUSE REVIEWED TO ENSURE FULL COMPLIANCE WITH THE CONTRACT DOCUMENTS AND COORDINATION WITH OTHER TRADES. ANY EXCEPTIONS TO THE CONTRACT DOCUMENTS SHALL BE CLEARLY INDICATED ON THIS LETTER. ANY DISCREPANCIES/EXCEPTIONS NOT IDENTIFIED IN WRITING SHALL BE CORRECTED AT THE SOLE EXPENSE OF THE CONTRACTOR AND AT NO EXPENSE TO THE OWNER AND ENGINEER.
23. THE CONTRACTOR SHALL SELECT ALL CIRCUIT SETTERS/BALANCING VALVES FOR ACTUAL FLOW THROUGH THE PIPE AND THE PROPER PRESSURE DROP TO ENSURE PROPER OPERATION AND NOT BASED ON PIPE SIZES.
24. THESE DRAWINGS ARE A GENERAL GRAPHIC PRESENTATION OF THE WORK. DUCTWORK, PIPING AND EQUIPMENT AS SHOWN, ARE SCHEMATIC. FABRICATE AND INSTALL BASED ON ACTUAL FIELD MEASUREMENT. COORDINATE WITH OTHER TRADES. PROVIDE A COMPLETE SET OF SHOP DRAWINGS REFLECTING ACTUAL INSTALL, ACCESS REQUIREMENTS AND DETAILS BASED UPON THE ACTUAL EQUIPMENT PROCURED. MAINTAIN AN UP TO DATE SET OF AS-BUILT DRAWINGS AT THE JOB SITE.
25. BUILDING DRAIN AND VENT PIPING MATERIALS SHALL COMPLY WITH SECTIONS 701.0 AND 903.0 OF THE CALIFORNIA PLUMBING CODE.
25. ALL SANITARY SYSTEM MATERIALS SHALL BE LISTED BY AN APPROVED LISTING AGENCY.
27. EACH VENT SHALL RISE VERTICALLY TO A POINT NOT LESS THAN SIX INCHES ABOVE THE FLOOD-LEVEL RIM OF THE FIXTURE SERVED BEFORE OFFSETTING HORIZONTALLY OR BEFORE BEING CONNECTED TO ANY OTHER VENT.
28. LAVATORY FAUCETS IN RESTROOMS SHALL BE THE SELF CLOSING TYPE AND SHALL NOT EXCEED A WATER FLOW OF 0.20 GAL/USE.
29. DOMESTIC HOT WATER PIPING SHALL BE INSULATED PER SECTION 609.11 CPC.

AGENCY APPROVAL
File No:

REGISTERED PROFESSIONAL ENGINEER — TROY C. CAMPBELL — No. M 025911 — EXP. 6-30-21 — MECHANICAL — STATE OF CALIFORNIA

LICENSED ARCHITECT — David Ruhnau — C-20662 — 03-31-2021 RENEWAL DATE — STATE OF CALIFORNIA

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-119728 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/18/2021

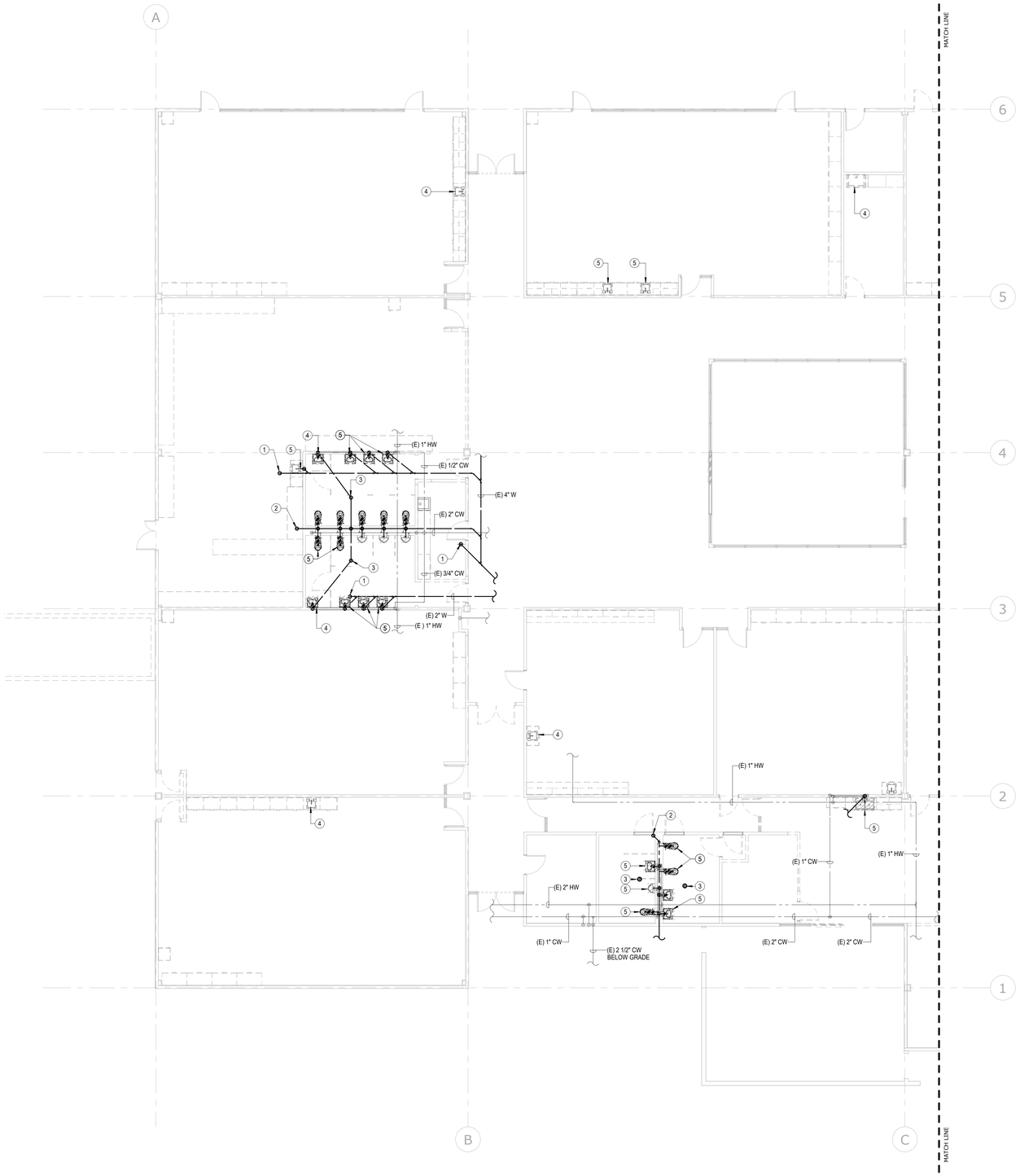
STAMPS

MA ENGINEERS
5160 Carroll Canyon Rd, Suite 200
San Diego, California 92121
Consulting Mechanical Engineers
T 858 200-0030 F 858 200-0037
www.ma-engr.com

CONSULTANT BRANDING

RUHNAU CLARKE ARCHITECTS

FEBRUARY 17, 2021 - DSA BACKCHECK

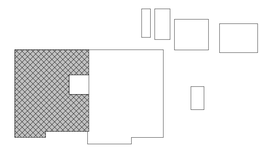


KEY NOTES

1 (E) 2" FCO TO REMAIN.
2 (E) 4" FCO TO REMAIN.
3 (E) FD TO REMAIN.
4 REMOVE ALL (E) PLUMBING FIXTURES AND ASSOCIATED PIPING.
5 REMOVE ALL (E) PLUMBING FIXTURES, RECONDITION (E) ROUGH-IN FOR NEW FIXTURES.

DEMO FLOOR PLAN AREA A | SCALE: 1/8" = 1'-0" | 1

KEY PLAN



NORTH

DEMO FLOOR PLAN

P1-1.0

FEBRUARY 17, 2021 - DSA BACKCHECK

AGENCY APPROVAL
File No:

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-119728 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/18/2021

STAMPS

REGISTERED PROFESSIONAL ENGINEER — TROY C. CAMPBELL — No. M 025911 — EXP. 6-30-21 — MECHANICAL — STATE OF CALIFORNIA

LICENSED ARCHITECT — David Ruhnau — C-20662 — 03-31-2021 RENEWAL DATE — STATE OF CALIFORNIA

CONSULTANT BRANDING

MA ENGINEERS
5160 Carroll Canyon Rd, Suite 200
San Diego, California 92121
Consulting Mechanical Engineers
T 858 200-0030 F 858 200-0037
www.ma-engr.com

RUHNAU CLARKE ARCHITECTS

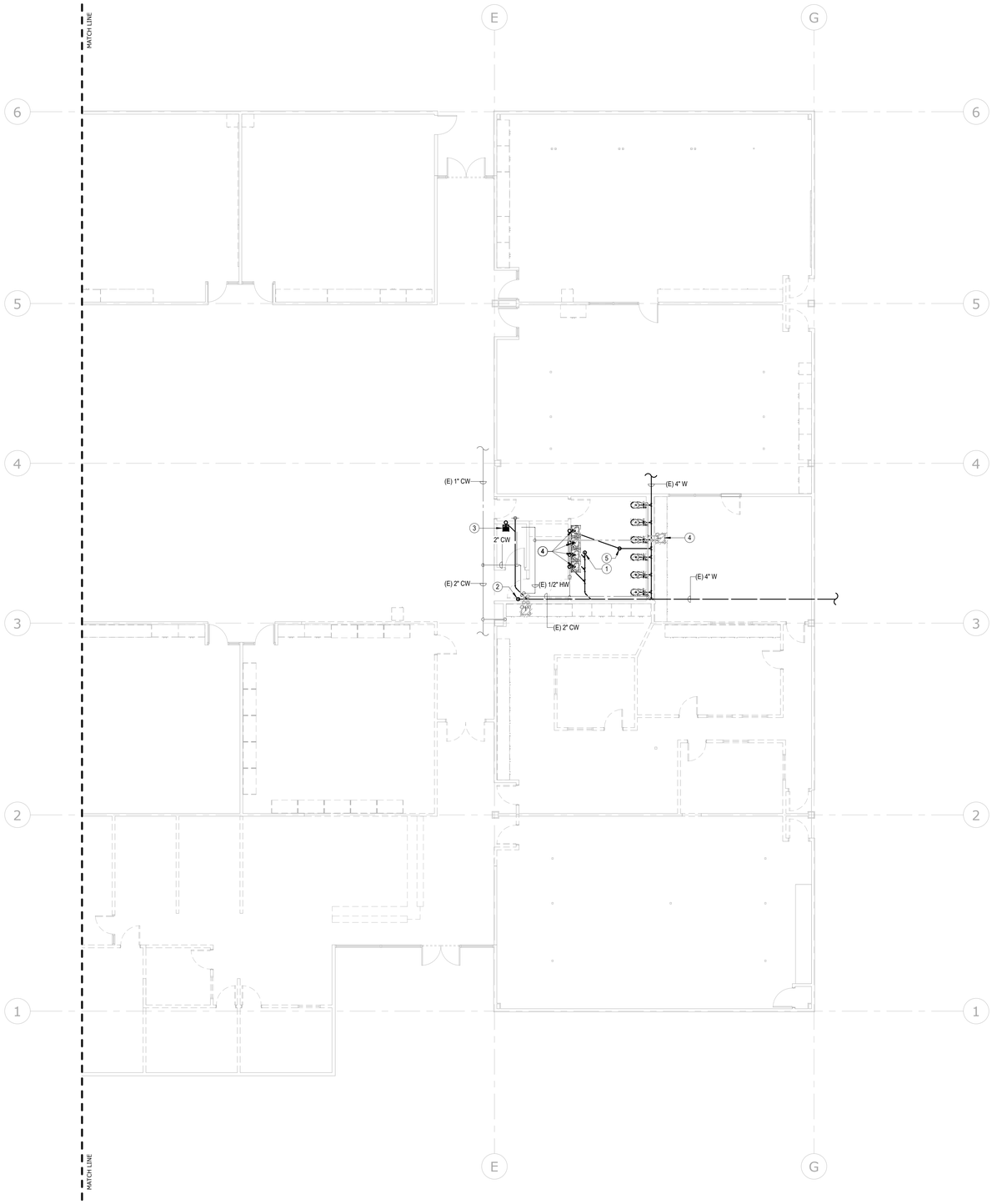
PROJECT No. :5003
2/12/2021 11:07:26 AM
DRAWN BY: CHECKED BY:

REVISION:____ DATE _____ DESCRIPTION _____
REVISION:____ DATE _____ DESCRIPTION _____
REVISION:____ DATE _____ DESCRIPTION _____
REVISION:____ DATE _____ DESCRIPTION _____
REVISION:____ DATE _____ DESCRIPTION _____
REVISION:____ DATE _____ DESCRIPTION _____
REVISION:____ DATE _____ DESCRIPTION _____
REVISION:____ DATE _____ DESCRIPTION _____
REVISION:____ DATE _____ DESCRIPTION _____

RUHNAUCLARKE.COM
3775 TENTH STREET, RIVERSIDE CALIFORNIA 92501 (951) 684 4664 / 5751 PALMER WAY, SUITE C, CARLSBAD CALIFORNIA 92010 (760) 438 5899

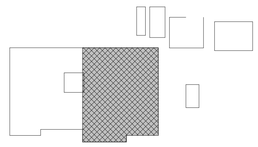
FOOTHILLS ADULT EDUCATION CENTER
1550 Melody Lane El Cajon, CA 92019
GROSSMONT UNIFIED HIGH SCHOOL DISTRICT

5003



KEY NOTES

1 (E) 2" FCO TO REMAIN.
2 (E) 4" FCO TO REMAIN.
3 (E) FLOOR SINK TO REMAIN.
4 REMOVE ALL (E) PLUMBING FIXTURES, RECONDITION (E) ROUGH-IN FOR NEW FIXTURES.
5 (E) FD TO REMAIN.



DEMO FLOOR PLAN AREA B — SCALE: 1/8" = 1'-0" — 1

KEY PLAN

DEMO FLOOR PLAN

P1-1.1

FEBRUARY 17, 2021 - DSA BACKCHECK

AGENCY APPROVAL
File No:

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-119728 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/18/2021

STAMPS

REGISTERED PROFESSIONAL ENGINEER — TROY C. CAMPBELL — No. M 025911 — EXP. 6-30-21 — MECHANICAL — STATE OF CALIFORNIA

LICENSED ARCHITECT — David Ruhnau — C-20662 — 03-31-2021 RENEWAL DATE — STATE OF CALIFORNIA

MA ENGINEERS
5160 Carroll Canyon Rd, Suite 200
San Diego, California 92121
Consulting Mechanical Engineers
T 858 200-0030 F 858 200-0037
www.ma-engr.com

CONSULTANT BRANDING

RUHNAU CLARKE ARCHITECTS

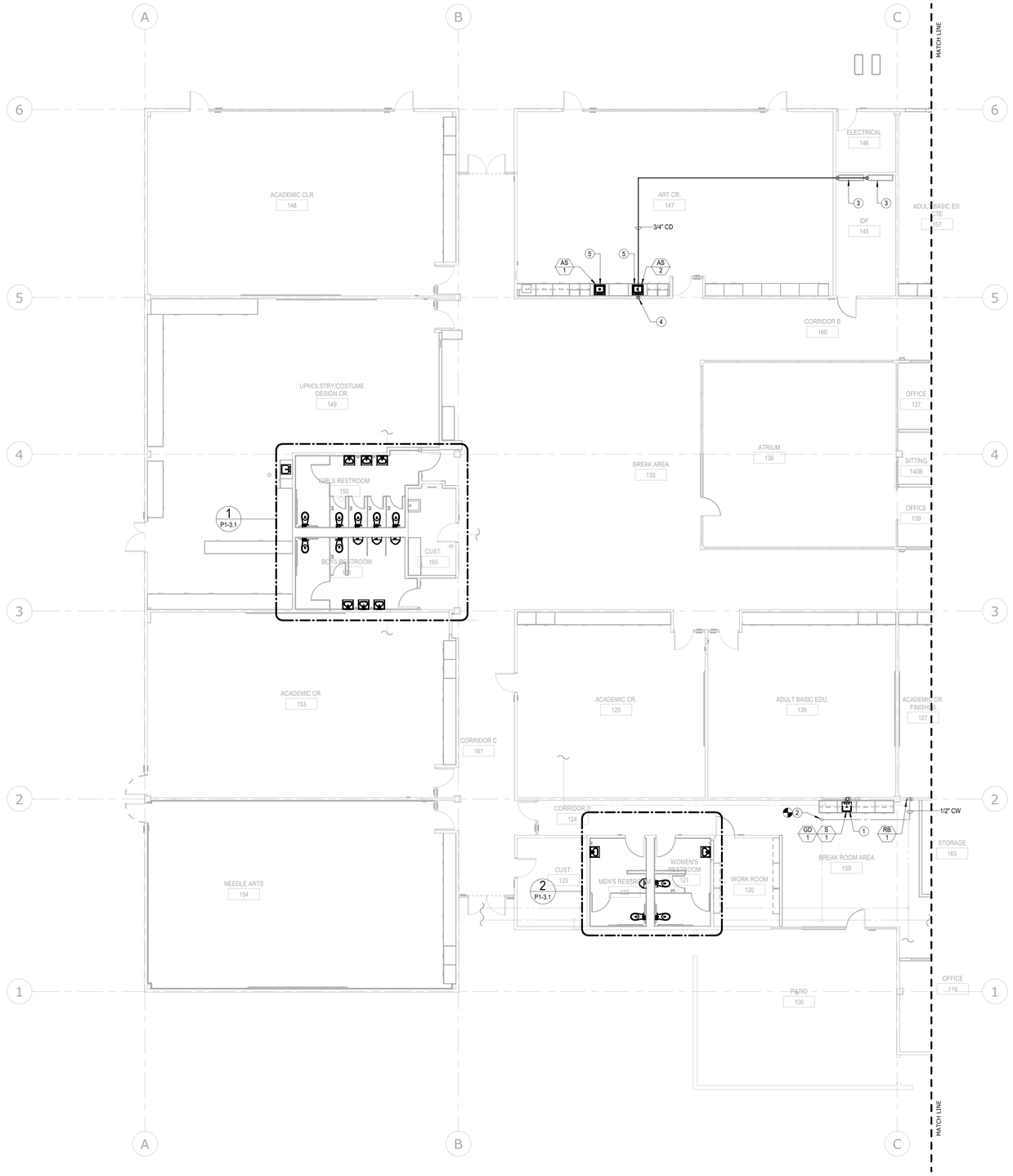
PROJECT No. :5003
2/12/2021 11:07:28 AM
DRAWN BY: CHECKED BY:

REVISION:____ DATE _____ DESCRIPTION _____

RUHNAUCLARKE.COM

3775 TENTH STREET, RIVERSIDE CALIFORNIA 92501 (951) 684 4664 / 5751 PALMER WAY, SUITE C, CARLSBAD CALIFORNIA 92010 (760) 438 5899

FOOTHILLS ADULT EDUCATION CENTER
1550 Melody Lane El Cajon, CA 92019
GROSSMONT UNIFIED HIGH SCHOOL DISTRICT



NEW FLOOR PLAN AREA A | SCALE: 1/8" = 1'-0" | 1

KEY PLAN

KEY NOTES

1 EXTENDING (E) UTILITIES TO NEW PLUMBING FIXTURE.
2 1/2" CW POINT OF CONNECTION TO EXISTING CW.
3 MECHANICAL EQUIPMENT SHOWN FOR REFERENCE ONLY. SEE MECHANICAL DRAWINGS (TYP.)
4 3/4" CONDENSATE DRAIN DOWN IN WALL. EXTEND TO SINK'S TRAP WYE BRANCH TAILPIECE. SEE DETAIL 8/P5(0.
5 RECONNECT TO EXISTING PLUMBING UTILITIES.

NORTH

REGISTERED PROFESSIONAL ENGINEER — Jason C. Campbell — No. M 025911 — EXP. 6-30-21 — MECHANICAL — STATE OF CALIFORNIA

LICENSED ARCHITECT — David Ruhnau — C-20662 — 03-31-2021 RENEWAL DATE — STATE OF CALIFORNIA

STAMPS

AGENCY APPROVAL
File No:

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-119728 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/18/2021

MA ENGINEERS
5160 Carroll Canyon Rd, Suite 200
San Diego, California 92121
Consulting Mechanical Engineers
T 858 200-0030 F 858 200-0037
www.ma-engr.com

CONSULTANT BRANDING

RUHNAU CLARKE ARCHITECTS

FEBRUARY 17, 2021 - DSA BACKCHECK

PROJECT No. :5003
2/12/2021 11:07:31 AM
DRAWN BY: CHECKED BY:

REVISION:___ DATE _____ DESCRIPTION _____

RUHNAUCLARKE.COM

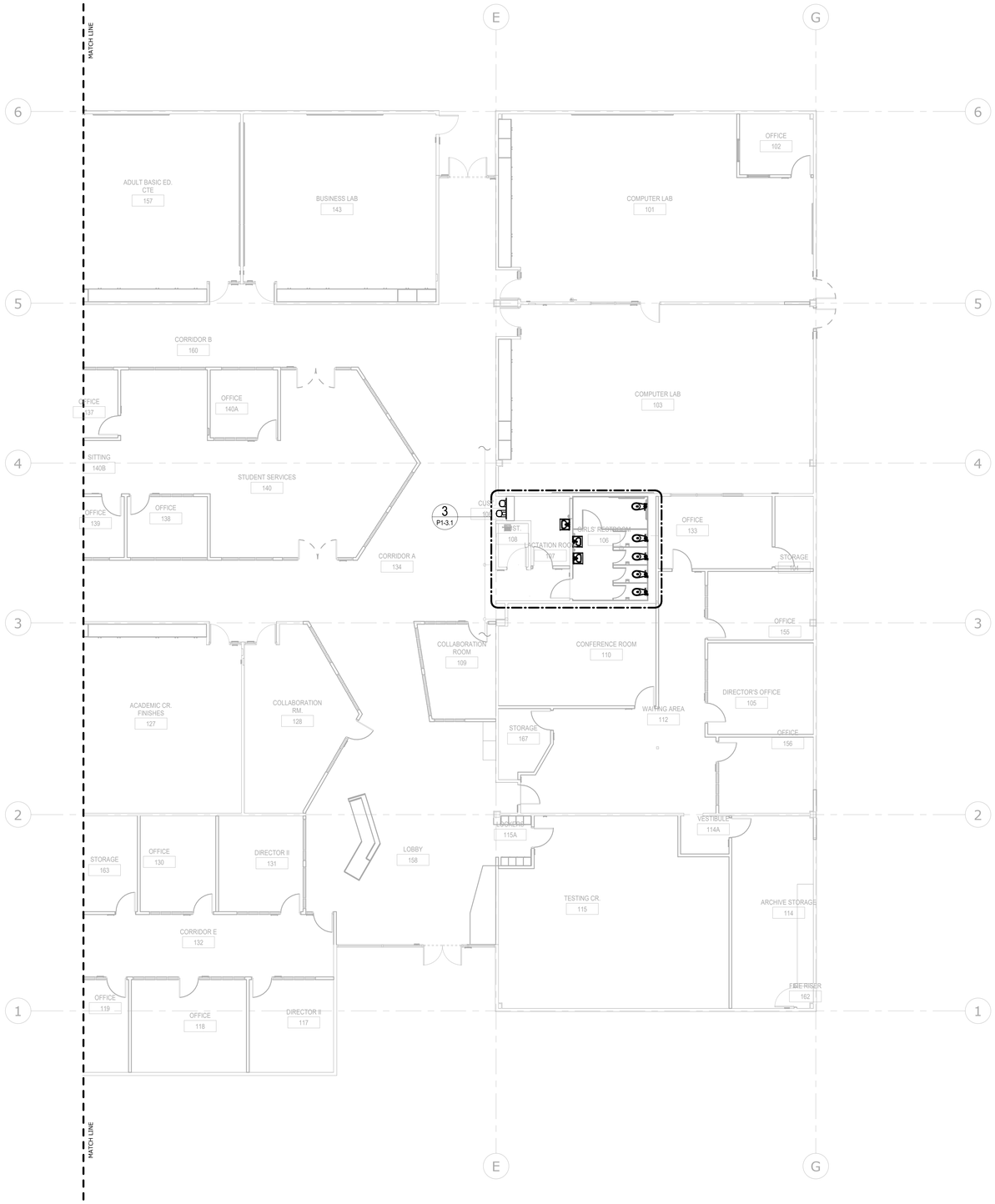
3775 TENTH STREET, RIVERSIDE CALIFORNIA 92501 (951) 684 4664 / 5751 PALMER WAY, SUITE C, CARLSBAD CALIFORNIA 92010 (760) 438 5899

FOOTHILLS ADULT EDUCATION CENTER
1550 Melody Lane El Cajon, CA 92019
GROSSMONT UNIFIED HIGH SCHOOL DISTRICT

NEW FLOOR PLAN

P1-2.0

5003



NEW FLOOR PLAN AREA B | SCALE: 1/8" = 1'-0" | 1

KEY PLAN

NORTH

REGISTERED PROFESSIONAL ENGINEER
TROY C. CAMPBELL
No. M 025911
EXP. 6-30-21
MECHANICAL
STATE OF CALIFORNIA

LICENSED ARCHITECT
David Ruhnau, AIA
C-20662
03/31/2021
RENEWAL DATE
STATE OF CALIFORNIA

AGENCY APPROVAL
File No:

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-119728 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/18/2021

STAMPS

MA ENGINEERS
5160 Carroll Canyon Rd, Suite 200
San Diego, California 92121
Consulting Mechanical Engineers
T 858 200-0030 F 858 200-0037
www.ma-engr.com

CONSULTANT BRANDING

RUHNAU CLARKE ARCHITECTS

FEBRUARY 17, 2021 - DSA BACKCHECK

PROJECT No. :5003
2/12/2021 11:07:33 AM
DRAWN BY: CHECKED BY:

REVISION:____ DATE _____ DESCRIPTION _____
REVISION:____ DATE _____ DESCRIPTION _____
REVISION:____ DATE _____ DESCRIPTION _____
REVISION:____ DATE _____ DESCRIPTION _____
REVISION:____ DATE _____ DESCRIPTION _____
REVISION:____ DATE _____ DESCRIPTION _____
REVISION:____ DATE _____ DESCRIPTION _____
REVISION:____ DATE _____ DESCRIPTION _____
REVISION:____ DATE _____ DESCRIPTION _____

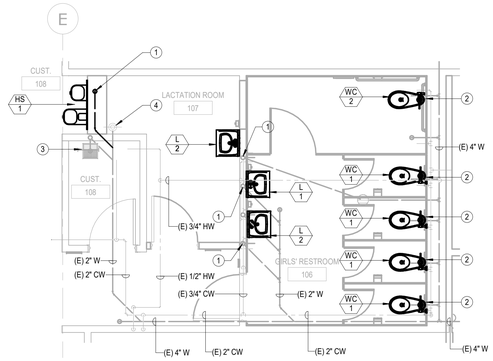
RUHNAUCLARKE.COM
3775 TENTH STREET, RIVERSIDE CALIFORNIA 92501 (951) 684 4664 / 5751 PALMER WAY, SUITE C, CARLSBAD CALIFORNIA 92010 (760) 438 5899

FOOTHILLS ADULT EDUCATION CENTER
1550 Melody Lane El Cajon, CA 92019
GROSSMONT UNIFIED HIGH SCHOOL DISTRICT

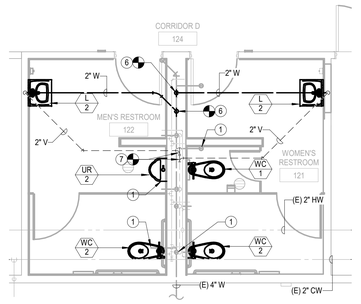
NEW FLOOR PLAN

P1-2.1

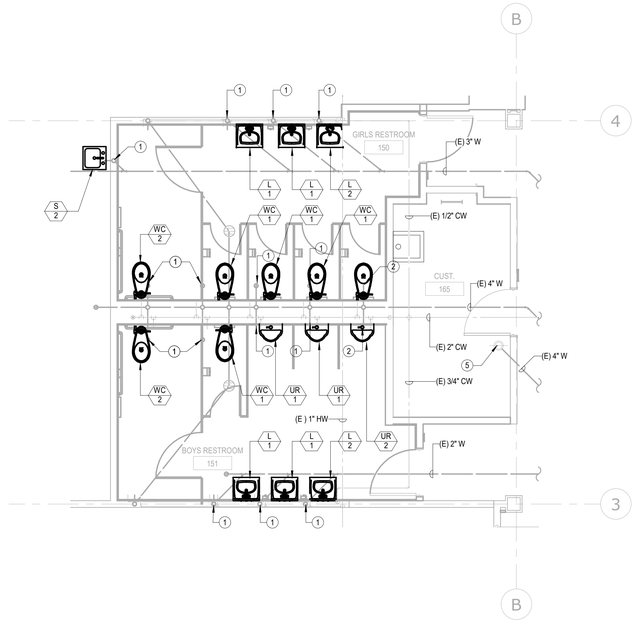
5003



ENLARGED GIRL'S RESTROOM SCALE: 1/4" = 1'-0" REF.: 1/P1-2.1 3



ENLARGED STAFF RESTROOM SCALE: 1/4" = 1'-0" REF.: 1/P1-2.0 2



ENLARGED GIRLS & BOYS RR SCALE: 1/4" = 1'-0" REF.: 1/P1-2.0 1

KEY NOTES

1 EXTENDING (E) UTILITIES TO NEW PLUMBING FIXTURE.
2 RECONNECT TO EXISTING PLUMBING UTILITIES.
3 (E) FLOOR SINK TO REMAIN.
4 (E) 2" FCO TO REMAIN.
5 (E) 4" FCO TO REMAIN.
6 2" WASTE POINT OF CONNECTION TO (E) 4" WASTE.
7 2" VENT POINT OF CONNECTION TO (E) 2" VENT.

REGISTERED PROFESSIONAL ENGINEER — Jason C. Campbell — No. M 025911 — EXP. 6-30-21 — MECHANICAL — STATE OF CALIFORNIA

LICENSED ARCHITECT — David Ruhnau — C-20662 — 03-31-2021 RENEWAL DATE — STATE OF CALIFORNIA

AGENCY APPROVAL
File No:

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-119728 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/18/2021

STAMPS

MA ENGINEERS
5160 Carroll Canyon Rd, Suite 200
San Diego, California 92121
Consulting Mechanical Engineers
T 858 200-0030 F 858 200-0037
www.ma-engr.com

CONSULTANT BRANDING

RUHNAU CLARKE ARCHITECTS

FEBRUARY 17, 2021 - DSA BACKCHECK

PROJECT No. :5003
2/12/2021 11:07:38 AM
DRAWN BY: CHECKED BY:

REVISION:____ DATE_____ DESCRIPTION_____
REVISION:____ DATE_____ DESCRIPTION_____
REVISION:____ DATE_____ DESCRIPTION_____
REVISION:____ DATE_____ DESCRIPTION_____
REVISION:____ DATE_____ DESCRIPTION_____
REVISION:____ DATE_____ DESCRIPTION_____
REVISION:____ DATE_____ DESCRIPTION_____
REVISION:____ DATE_____ DESCRIPTION_____
REVISION:____ DATE_____ DESCRIPTION_____

RUHNAUCLARKE.COM
3775 TENTH STREET, RIVERSIDE CALIFORNIA 92501 (951) 684 4664 / 5751 PALMER WAY, SUITE C, CARLSBAD CALIFORNIA 92010 (760) 438 5899

FOOTHILLS ADULT EDUCATION CENTER
1550 Melody Lane El Cajon, CA 92019
GROSSMONT UNIFIED HIGH SCHOOL DISTRICT

ENLARGED PLANS

P1-3.1

5003

ABBREVIATIONS

A	AMPERE (AMPS)
AC	ALTERNATING CURRENT
AF	AMPS-FRAME (RATING)
AIC	AMP INTERRUPTING CURRENT
AM	AMMETER
AS	AMP SWITCH (FUSED SWITCH RATING)
AT	AMPS-TRIP (RATING)
AWG	AMERICAN WIRE GAUGE
BC	BARE COPPER
BLDG	BUILDING
C	CONDUIT
CB	CIRCUIT BREAKER
CO	CONDUIT ONLY
CT	CURRENT TRANSFORMER
CU	COPPER
CFOI	CONTRACTOR FURNISHED OWNER INSTALLED
CFCI	CONTRACTOR FURNISHED CONTRACTOR INSTALLED
DPDT	DOUBLE POLE DOUBLE THROW
DPST	DOUBLE POLE SINGLE THROW
DWG	DRAWING
EX	EXISTING
FLA	FULL LOAD AMPS
FVR	FULL VOLTAGE REVERSING
FVNR	FULL VOLTAGE NON-REVERSING
GFI	GROUND FAULT INTERRUPTER
GRD/GND	GROUND
HID	HIGH INTENSITY DISCHARGE
HOA	HAND-OFF-AUTOMATIC
HP	HORSEPOWER
HPS	HIGH PRESSURE SODIUM
HZ	HERTZ
KW	KILOWATT
LCL	LONG CONTINUOUS LOAD
LRA	LOCKED ROTOR AMPS
LTG	LIGHTING
MCC	MOTOR CONTROL CENTER
MCM (KCM)	THOUSAND CIRCULAR MILS
MECH	MECHANICAL
NC	NORMALLY CLOSED
NF	NON-FUSED
NO	NORMALLY OPEN/NUMBER
OFCI	OWNER FURNISHED CONTRACTOR INSTALLED
OFOI	OWNER FURNISHED OWNER INSTALLED
P	POLE
PH	PHASE
POC	POINT OF CONNECTION
PRS	PVC COATED RIGID STEEL (CONDUIT)
PT	POTENTIAL TRANSFORMER
PVC	POLYVINYL CHLORIDE DUCT
PZ	PRIMARY DAYLIGHT ZONE
SWBD	SWITCHBOARD
SZ	SECONDARY DAYLIGHT ZONE
TYP	TYPICAL
UG	UNDERGROUND
UON	UNLESS OTHERWISE NOTED
V	VOLT
VA	VOLTAMPERES
VM	VOLTMETER
VL	VERIFY LOCATION
W	WIRE/WATTS
WP	WEATHERPROOF (NEMA TYPE 3R)
WT	WATERTIGHT
XP	EXPLOSION PROOF (RATED FOR AREA HAZARD)

ELECTRICAL SYMBOL LEGEND

LIGHTING

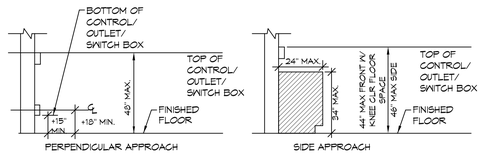
- (A) — LIGHTING FIXTURE DESIGNATION
- LIGHTING FIXTURE, CEILING OR WALL MOUNTED AS SHOWN.
- LED LIGHT FIXTURE
- LIGHTING FIXTURE ON EMERGENCY CIRCUIT (LIFE SAFETY BRANCH OR BATTERY PACK).
- EXIT SIGN WITH DIRECTION ARROWS AS INDICATED. SHADED QUADRANT INDICATES FACE.
- b b — EMERGENCY LIGHTING UNIT, WALL MOUNTED 12" BELOW CEILING (U.O.N.) LETTER INDICATES CIRCUIT CONTROLLED. SEE DETAIL 1/E2.5
- LED STRIP LIGHT
- S_a — SINGLE POLE SWITCH, SUBSCRIPT WHEN SHOWN INDICATES FIXTURES CONTROLLED +48" A.F.F. (U.O.N.) HEIGHT PER DETAILS #1/E1.0.
- S_3 — THREE-WAY SWITCH +48" A.F.F. (U.O.N.) HEIGHT PER DETAILS #1/E1.0
- S_4 — FOUR-WAY SWITCH +48" A.F.F. (U.O.N.) HEIGHT PER DETAILS #1/E1.0
- S_P — SWITCH WITH PILOT LIGHT +48" A.F.F. (U.O.N.) HEIGHT PER DETAILS #1/E1.0
- S_2 — DOUBLE POLE SWITCH +48" A.F.F. (U.O.N.) HEIGHT PER DETAILS #1/E1.0
- S_{WP} — WEATHER PROOF SWITCH +48" A.F.F. (U.O.N.) HEIGHT PER DETAILS #1/E1.0
- S_K — KEY OPERATED SWITCH +48" A.F.F. (U.O.N.) HEIGHT PER DETAILS #1/E1.0
- SURFACE MOUNTED TRACK LIGHTING FIXTURES
- EXTERIOR SITE LIGHTING FIXTURE AND POLE
- EXTERIOR DECORATIVE SITE LIGHTING FIXTURE AND POLE
- LANDSCAPE LIGHTING FIXTURE
- SPORTSLIGHTING FIXTURES AND POLES
- CEILING MOUNTED OCCUPANCY SENSOR LIGHTING CONTROL — E2.6
- S_{LV} — LOW VOLTAGE LIGHT SWITCH. HEIGHT PER DETAILS #1/E1.0
- DIGITAL LIGHTING CONTROL TYPICAL ROOM REQUIREMENTS. — E2.6

DISTRIBUTION EQUIPMENT

- DRAW OUT TYPE EQUIPMENT
- VACUUM CIRCUIT BREAKER, RATING AS NOTED.
- AIR INTERRUPTER SWITCH AND FUSE
- AIR INTERRUPTER
- FUSE
- POWER TRANSFORMER, RATING AS NOTED
- POWER CIRCUIT BREAKER DRAWOUT
- AUTOMATIC TRANSFER SWITCH. SEE SCHEDULE
- (A) — AMMETER
- (V) — VOLTMETER
- CIRCUIT BREAKER
  - 200AF — 200AMP FRAME
  - 200AT — 200AMP TRIP
  - 3P — 3 POLE
  - 10,000AIC — 10,000 AMPS INTERRUPTING CURRENT
- FUSED SWITCH
  - 200AS — 200AMP SWITCH
  - 200AF — 200AMP FUSE
  - 3P — 3 POLE
- (M) — UTILITY COMPANY METER

POWER CONTINUED

- DUPLEX RECEPTACLE, FLOOR MOUNTED
- DUPLEX RECEPTACLE, WALL MOUNTED, +18" A.F.F. (U.O.N.)
- HORZ — RECEPTACLE, WALL MOUNTED HORIZONTALLY, +18" A.F.F. (U.O.N.)
- FOURPLEX RECEPTACLE, WALL MOUNTED, +18" A.F.F. (U.O.N.)
- RECEPTACLE MOUNTED +6" ABOVE COUNTER BACKSPLASH SEE ARCHITECTURAL PLANS FOR REQUIRED MOUNTING HEIGHT PRIOR TO ROUGH-IN.
- LCD — PROVIDE (2) DUPLEX RECEPTACLE CEILING MOUNTED LOCATE ADJACENT TO PROJECTOR. FIELD VERIFY EXACT LOCATION PRIOR TO ROUGH-IN.
- SINGLE RECEPTACLE, WALL MOUNTED +18" A.F.F. (U.O.N.)
- C — SINGLE RECEPTACLE (CLOCK HANGER TYPE) WALL MOUNTED +7'-0" A.F.F. (U.O.N.)
- CONTROLLED DUPLEX RECEPTACLE +18" U.O.N.
- CONTROLLED FOURPLEX RECEPTACLE, WALL MOUNTED, +18" A.F.F. (U.O.N.) (1) DUPLEX, (1) CONTROLLED DUPLEX
- GFI — DUPLEX GROUND FAULT INTERRUPTING RECEPTACLE +18" A.F.F. (U.O.N.)
- DUPLEX RECEPTACLE ON EMERGENCY CIRCUIT +18" A.F.F. (U.O.N.)
- WP — DUPLEX RECEPTACLE IN WEATHERPROOF ENCLOSURE +18" A.F.F. (U.O.N.)
- WP/L — DUPLEX RECEPTACLE IN WEATHERPROOF "LOCKING" ENCLOSURE +18" A.F.F. (U.O.N.) (SEE TYPICAL DETAILS E3 SERIES SHEETS AND SPECIFICATIONS FOR REQUIRED TYPE).
- 1G — DUPLEX RECEPTACLE (ORANGE) ISOLATED GROUND WALL MOUNTED +18" A.F.F. (U.O.N.) PROVIDE DEDICATED GROUNDING CONDUCTOR FOR EACH CIRCUIT
- 1G — FOURPLEX RECEPTACLE (ORANGE) ISOLATED GROUND WALL MOUNTED +18" A.F.F. (U.O.N.) PROVIDE DEDICATED GROUNDING CONDUCTOR FOR EACH CIRCUIT
- TP — DUPLEX RECEPTACLE SAFETY TYPE / TAMPER PROOF. WALL MOUNTED +18" A.F.F. (U.O.N.)
- DUPLEX COMPUTER RECEPTACLE (GREY), WALL MOUNTED +18" A.F.F. (U.O.N.)
- DUPLEX COMPUTER RECEPTACLE (BLUE) ISOLATED GROUND, SURGE SUPPRESSION, WALL MOUNTED +18" A.F.F. (U.O.N.)
- A — SINGLE RECEPTACLE 30 AMP, 250V, 4W, GROUNDING, WALL MOUNTED +18" A.F.F. (U.O.N.). FIELD VERIFY EXACT OUTLET CONFIGURATION WITH EQUIPMENT PRIOR TO ROUGH-IN.
- FP — DUPLEX RECEPTACLE, WALL MOUNTED ADJACENT TO FLAT PANEL OUTLET, SEE SIGNAL PLAN FOR EXACT LOCATION.
- JUNCTION BOX, FLOOR MOUNTED
- J — JUNCTION BOX, CEILING OR WALL MOUNTED
- HD J — HAND DRYER CONNECTION, SEE ARCHITECTURAL FOR MOUTNING HEIGHT.
- FUSED DISCONNECT SWITCH, WHERE SHOWN NF = NON-FUSED.
- S_M — MANUAL MOTOR STARTER +48" A.F.F. OR ON EQUIPMENT (U.O.N.)
- (1) — MOTOR CONNECTION, NUMERAL INDICATES HORSEPOWER.
- AC 1 — MECHANICAL EQUIPMENT TAG (SEE MECHANICAL DRAWINGS FOR DESCRIPTION)
- CONDUIT AND WIRE, CONCEALED IN CEILING OR WALL
- CONDUIT AND WIRE, CONCEALED IN OR UNDER FINISHED FLOOR OR UNDER FINISHED GRADE.
- FLEXIBLE CONDUIT CONNECTION
- BRANCH CIRCUIT HOMERUN TO PANEL. SLASHES INDICATE NUMBER OF CONDUCTORS. EQUIPMENT GROUND WIRE NOT INDICATED U.O.N. #12 CONDUCTORS ARE MINIMUM, NO HASH MARKS = MIN (2) #12
- 3/4" CONDUIT STUBBED FROM DEVICE TO ABOVE ACCESSIBLE CEILING
- #D — BRANCH CIRCUIT HOMERUN, NUMBER INDICATES INCREASED CONDUCTOR SIZE, CONDUCTORS SHALL REMAIN AS INDICATED FOR SIZE THROUGHOUT THE ENTIRE CIRCUIT.
- PANELBOARD, SURFACE MOUNTED.
- PANELBOARD, RECESSED
- T — STEP-DOWN TRANSFORMER
- DISTRIBUTION SWITCHBOARD



NOTE: MAINTAIN MINIMUM 30"X48" CLEAR FLOOR SPACE AT EACH APPROACH.

MOUNTING HEIGHT OVER OBSTRUCTION — 1/E0.00

NO SCALE

GENERAL PROJECT NOTES:

1. UNLESS WHERE OTHERWISE NOTED, ALL WORK INDICATED ON THESE DRAWINGS SHALL BE CONSIDERED NEW WORK.
2. UNLESS WHERE OTHERWISE NOTED, ALL DIMENSIONS ARE TO BE CENTERLINE OF THE DEVICE.
3. "GENERAL NOTES" SHOWN ON AN INDIVIDUAL DRAWING APPLY TO ALL WORK SHOWN ON THAT SHEET. "KEY NOTES" ONLY APPLY TO SPECIFIC ITEMS WHERE ANNOTATED AT SPECIFIC LOCATIONS. SOME KEY NOTES MAY NOT APPLY TO ANY SPECIFIC ITEMS.
4. UNLESS SPECIFICALLY SHOWN ON THESE PLANS, NO STRUCTURAL MEMBER SHALL BE CUT, NEITHER DRILLED NOR NOTCHED WITHOUT PRIOR WRITTEN AUTHORIZATION FROM THE STRUCTURAL ENGINEER AND THE DIVISION OF THE STATE ARCHITECT.

GENERAL DEMOLITION NOTES:

1. ALL ELECTRICAL EQUIPMENT, EXPOSED RACEWAY AND CONDUIT, OUTLET BOXES AND RINGS, AND DEVICES ARE TO BE REMOVED, EXCEPT WHERE SHOWN TO REMAIN. EXISTING WIRING, WHETHER EXPOSED, IN CONDUIT OR RACEWAY IS TO BE REMOVED TO THE GREATEST EXTENT POSSIBLE.
2. THE ELECTRICAL CONTRACTOR IS TO DIRECT THE REMOVAL OF THE ABOVE LISTED WORK.

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 2019 CBC SECTIONS 1617A.1.18 THROUGH 1617A.1.26 AND ASCE 7- 16 CHAPTERS 13, 26, AND 30:

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 PLUGS FOR 110/220 VOLT RECEPTACLES HAVING A 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 THE 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 NEED NOT 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 HAVING 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 FROM 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 DISPLACEMENTS PRESCRIBED IN ASCE 7-16 SECTION 13.3 AS DEFINED IN ASCE 7-16 SECTIONS 13.6.5, 13.6.6, 13.6.7, 13.6.8; AND 2019 CBC, SECTIONS 1617A.1.24, 1617A.1.25 AND 1617A.1.26.
THE METHOD OF SHOWING BRACING AND ATTACHMENTS 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., OSHPD OPM FOR 2013 CBC OR LATER), COPIES OF THE BRACING SYSTEM INSTALLATION GUIDE OR MANUAL SHALL BE AVAILABLE ON THE JOBSITE 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 THE APPLICABLE OSHPD PRE-APPROVED (OPM#) = _____

FIRE RATED ASSEMBLIES NOTE:

1. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT DESCRIPTION AND DETAIL OF ALL FIRE RATED ASSEMBLIES.

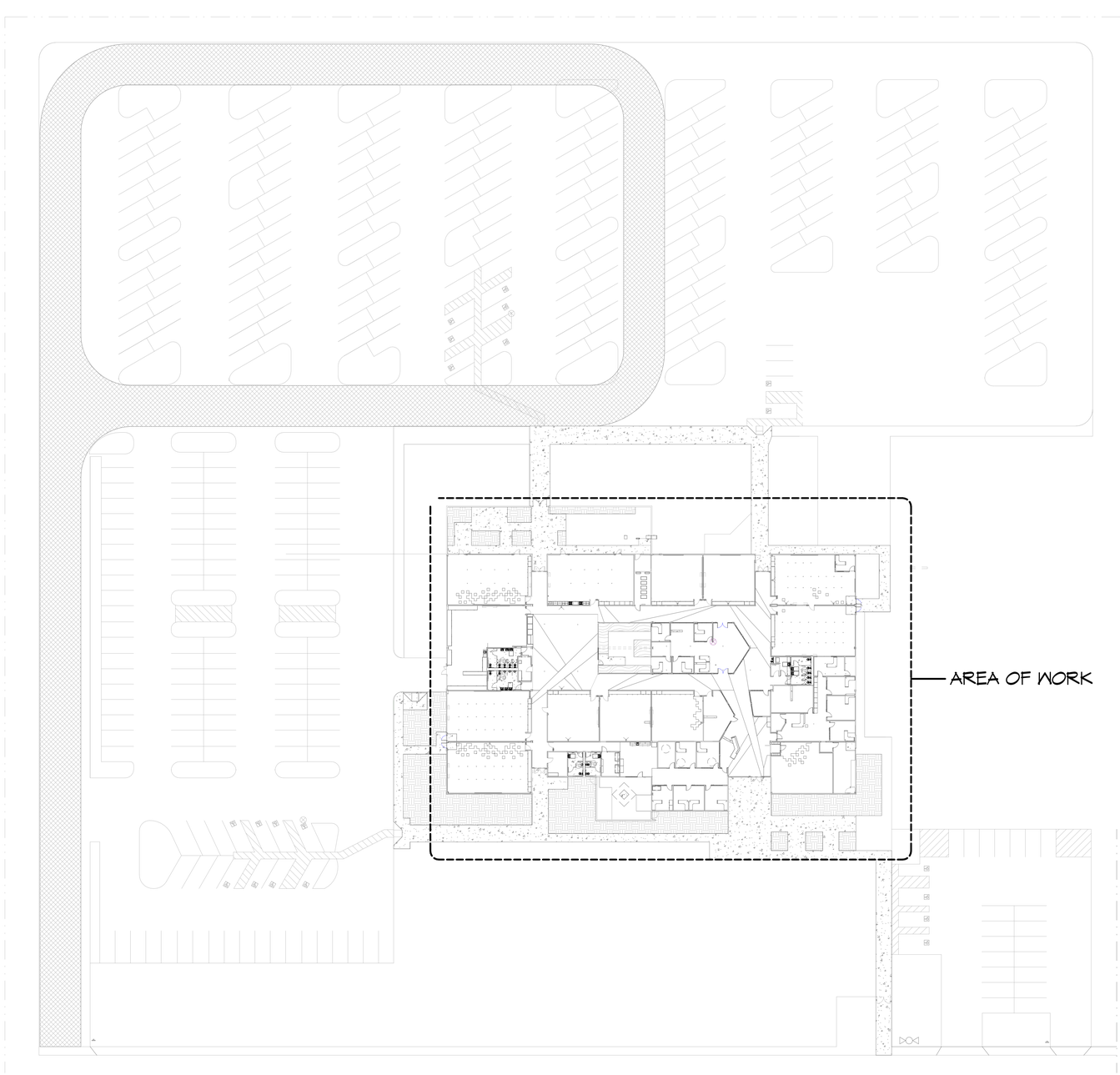
STATE OF CALIFORNIA — DIVISION OF THE STATE ARCHITECT — LICENSED ARCHITECT — Richard Ruhnau — C-20662 — 03-31-2021 — RENEWAL DATE
#20005 STAMPS 2/12/2021 8:

AGENCY APPROVAL File No: A#

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-119728 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/18/2021

JOHNSON CONSULTING ENGINEERS, INC.
Power | Lighting | Multimedia
Communications | Data Networking
12875 Brookprinter Place, Suite 300
Poway, CA 92064
P 858.679.4030 | F 858.513.0559
www.jce-inc.com
CONSULTANT BRANDING

RUHNAU CLARKE ARCHITECTS



JOHNSON
CONSULTING ENGINEERS, INC.
Power | Lighting | Multimedia
Communications | Data Networking
12875 Brookprinter Place, Suite 300
Poway, CA 92064
P 858.679.4030 | F 858.513.0559
www.jce-inc.com
CONSULTANT BRANDING

RUHNAU
CLARKE
ARCHITECTS

AGENCY APPROVAL
File No: A#

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-119728 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/18/2021

#20005
STAMPS
2/12/2021 8:

PROJECT No. :1-30-47
2/12/2021 8:47:55 AM
DRAWN BY: CHECKED BY:

REVISION:____ DATE _____ DESCRIPTION _____

RUHNAUCLARKE.COM
3775 TENTH STREET, RIVERSIDE CALIFORNIA 92501 (951) 684 4664 / 5751 PALMER WAY, SUITE C, CARLSBAD CALIFORNIA 92010 (760) 438 5899

FOOTHILLS ADULT EDUCATION CENTER
1550 Melody Lane El Cajon, CA 92019
GROSSMONT UNIFIED HIGH SCHOOL DISTRICT

OVERALL SITE PLAN

E1.1

1-30-47

STATE OF CALIFORNIA
Indoor Lighting
NRCC-LTI-E (Created 10/20) CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-LTI-E
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.	
Project Name: FOOTHILLS ADULT EDUCATION CENTER	Report Page: Page 1 of 7
Project Address: 1550 MELODY LANE, EL CAJON, CA 92019	Date Prepared: 2/11/21

A. GENERAL INFORMATION

01	Project Location (city)	EL CAJON	04	Total Conditioned Floor Area (ft²)	31,880
02	Climate Zone	7	05	Total Unconditioned Floor Area (ft²)	
03	Occupancy Types Within Project (select all that apply):		06	# of Stories (Habitable Above Grade)	

☐ Office ☐ Retail ☐ Warehouse ☐ Hotel/Motel ☑ School ☐ Support Areas
☐ Parking Garage ☐ High-Rise Residential ☐ Relocatable ☐ Healthcare ☐ Other (write in):

B. PROJECT SCOPE

Table Instructions: Include any lighting systems that are within the scope of the permit application and are demonstrating compliance using the prescriptive path outlined in §140.6 or §141.0(b)2 for alterations. WARNING: Changing the Calculation Method in this table will result in the deletion of data previously input. If you need to change the calculation method, please open a new form or use "Save As".

Scope of Work	Conditioned Spaces		Unconditioned Spaces	
01	02	03	04	05
My Project Consists of (check all that apply):	Calculation Method	Area (ft²)	Calculation Method	Area (ft²)
☑ New Lighting System	Complete Building	31,880		
☐ Altered Lighting System				
Total Area of Work (ft²):	**31,880**			

C. COMPLIANCE RESULTS

Table Instructions: If any cell on this table says "DOES NOT COMPLY" or "COMPLIES with Exceptional Conditions" refer to Table D. for guidance.

Lighting in conditioned and unconditioned spaces must not be combined for compliance per §140.6(b)1	Allowed Lighting Power per §140.6(b) (Watts)						Adjusted Lighting Power per §140.6(a) (Watts)						Compliance Results
	01	02	03	04		05	06	07		08			09
	Complete Building §140.6(c)1	Area Category §140.6(c)2	Area Category Additional §140.6(c)2G (+)	Tailored §140.6(c)3 (+)	=	Total Allowed (Watts)	Total Designed (Watts)	Adjustments PAF Control Credits §140.6(a)2 (-)	=	Total Adjusted (Watts) *Includes Adjustments			
	(See Table I)	(See Table I)	(See Table J)	(See Table K)	=	20,722	(See Table F)	(See Table P)	=	12,217.6			COMPLIES
Conditioned:	20,722				=	**20,722**	12,217.6		=	**12,217.6**			**05 Must be ≥ 08** §140.6
Unconditioned:					=				=				

Table Continued

STATE OF CALIFORNIA
Indoor Lighting
NRCC-LTI-E (Created 10/20) CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-LTI-E
Project Name: FOOTHILLS ADULT EDUCATION CENTER	Report Page: Page 4 of 7
Project Address: 1550 MELODY LANE, EL CAJON, CA 92019	Date Prepared: 2/11/21

01	02	03	04	05	06	
Area Description	Complete Building or Area Category Primary Function Area	Allowed Density (W/ft²)	Area (ft²)	Allowed Wattage (Watts)	Additional Allowances / Adjustment	
					Area Category	PAF
SCHOOL BUILDING	School Building	0.65	31,880	20,722	☐	☐
		TOTAL:	**31,880**	**20,722**	See Tables J or P for detail	

J. ADDITIONAL LIGHTING ALLOWANCE: AREA CATEGORY METHOD QUALIFYING LIGHTING SYSTEM
This Section Does Not Apply

K. TAILORED METHOD GENERAL LIGHTING POWER ALLOWANCE
This Section Does Not Apply

L. ADDITIONAL LIGHTING ALLOWANCE: TAILORED WALL DISPLAY
This Section Does Not Apply

M. ADDITIONAL LIGHTING ALLOWANCE: TAILORED FLOOR AND TASK LIGHTING
This Section Does Not Apply

N. ADDITIONAL LIGHTING ALLOWANCE: TAILORED ORNAMENTAL/SPECIAL EFFECTS
This Section Does Not Apply

O. ADDITIONAL LIGHTING ALLOWANCE: TAILORED VERY VALUABLE MERCHANDISE
This Section Does Not Apply

P. POWER ADJUSTMENT: LIGHTING CONTROL CREDIT (POWER ADJUSTMENT FACTOR (PAF))
This Section Does Not Apply

Q. RATED POWER REDUCTION COMPLIANCE FOR ALTERATIONS
This Section Does Not Apply

STATE OF CALIFORNIA
Indoor Lighting
NRCC-LTI-E (Created 10/20) CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-LTI-E
Project Name: FOOTHILLS ADULT EDUCATION CENTER	Report Page: Page 7 of 7
Project Address: 1550 MELODY LANE, El CAJON, CA 92019	Date Prepared: 2/11/21

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

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

Documentation Author Name:	MONICA HANSEN	Documentation Author Signature:	Monica Hansen
Company:	JOHNSON CONSULTING ENGINEERS	Signature Date:	2/11/21
Address:	12875 BROOKPRINTER PL, SUITE 300	CEA/ HERS Certification Identification (if applicable):	
City/State/Zip:	POWAY, CA 92064	Phone:	858-679-4030

RESPONSIBLE PERSON'S DECLARATION STATEMENT

I certify the following under penalty of perjury, under the laws of the State of California:

1. The information provided on this Certificate of 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)
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 Title 24, Part 1 and Part 6 of the California Code of Regulations.
4. 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.
5. I will ensure that a completed signed copy of this Certificate of Compliance shall be made available with the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections. I understand that a completed signed copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy.

Responsible Designer Name:	MONICA HANSEN	Responsible Designer Signature:	Monica Hansen
Company :	JOHNSON CONSULTING ENGINEERS	Date Signed:	2/11/21
Address:	12875 BROOKPRINTER PL, SUITE 300	License:	E 14781
City/State/Zip:	POWAY, CA 92064	Phone:	858-679-4030

STATE OF CALIFORNIA
Indoor Lighting
NRCC-LTI-E (Created 10/20) CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-LTI-E
Project Name: FOOTHILLS ADULT EDUCATION CENTER	Report Page: Page 2 of 7
Project Address: 1550 MELODY LANE, EL CAJON, CA 92019	Date Prepared: 2/11/21

Controls Compliance (See Table H for Details)	**DOES NOT COMPLY**
Rated Power Reduction Compliance (See Table Q for Details)	**Not Applicable**

D. EXCEPTIONAL CONDITIONS

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

Table H Indoor Lighting Controls Permit Applicant Notes:
OFFICE: LESS THAN 120W IN PRIMARY DAYLIGHT ZONE

Selections made in Table U have been changed by the permit applicant. See Table E. Additional Remarks for permit applicant's explanation.

E. ADDITIONAL REMARKS

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

F. INDOOR LIGHTING FIXTURE SCHEDULE

Table Instructions: Include all permanent designed lighting and all portable lighting in offices.

Designed Wattage: Conditioned Spaces

01	02	03	04	05	06	07	08	09	10	
Name or Item Tag	Complete Luminaire Description	Modular (Track) Fixture	Small Aperture & Color Change[1]	Watts per luminaire[1]	How Wattage is determined	Total number luminaires	Exempt per §140.6(a)3	Design Watts	Field Inspector	
									Pass	Fail
A1	LED 2X4 RECESSED TROFFER	☐	☐	31	Mfr. Spec²	112	☐	3,472	☐	☐
A2	LED 2X2 RECESSED TROFFER	☐	☐	39.1	Mfr. Spec²	8	☐	312.8	☐	☐
AR	LEX 2X4 RETROFIT	☐	☐	33.2	Mfr. Spec²	254	☐	8,432.8	☐	☐
					Total Designed Watts CONDITIONED SPACES:			**12,217.6**		

[1] FOOTNOTE: Design Watts for small aperture and color changing luminaires which qualify per §140.6(a)4B is adjusted to be 75% of their rated wattage. Table F automatically makes this adjustment, the permit applicant should enter full rated wattage in column 05.
[2] Authority Having Jurisdiction may ask for Luminaire cut sheets to confirm wattage used for compliance per §130.0(c) Wattage used must be the maximum rated for the luminaire, not the lamp.

STATE OF CALIFORNIA
Indoor Lighting
NRCC-LTI-E (Created 10/20) CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-LTI-E
Project Name: FOOTHILLS ADULT EDUCATION CENTER	Report Page: Page 5 of 7
Project Address: 1550 MELODY LANE, EL CAJON, CA 92019	Date Prepared: 2/11/21

R. 80% LIGHTING POWER FOR ALTERATIONS - CONTROLS EXCEPTIONS
This Section Does Not Apply

S. DAYLIGHT DESIGN POWER ADJUSTMENT FACTOR (PAF)
This Section Does Not Apply

T. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION

Table Instructions: 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://ww2.energy.ca.gov/title24/2019standards/2019_compliance_documents/Nonresidential_Documents/NRCI/

YES	NO	Form/Title	Field Inspector	
			Pass	Fail
◉	○	NRCI-LTI-01-E - Must be submitted for all buildings	☐	☐
○	◉	NRCI-LTI-02-E - Must be submitted for a lighting control system, or for an Energy Management Control System (EMCS), to be recognized for compliance.	☐	☐
○	◉	NRCI-LTI-04-E - Must be submitted for two interlocked systems serving an auditorium, a convention center, a conference room, a multipurpose room, or a theater to be recognized for compliance.	☐	☐
○	◉	NRCI-LTI-05-E - Must be submitted for a Power Adjustment Factor (PAF) to be recognized for compliance.	☐	☐
○	◉	NRCI-LTI-06-E - Must be submitted for additional wattage installed in a video conferencing studio to be recognized for compliance.	☐	☐

STATE OF CALIFORNIA
Indoor Lighting
NRCC-LTI-E (Created 10/20) CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-LTI-E
Project Name: FOOTHILLS ADULT EDUCATION CENTER	Report Page: Page 3 of 7
Project Address: 1550 MELODY LANE, EL CAJON, CA 92019	Date Prepared: 2/11/21

G. MODULAR LIGHTING SYSTEMS
This Section Does Not Apply

H. INDOOR LIGHTING CONTROLS (Not Including PAFs)

*Table Instructions: Please include lighting controls for conditioned and unconditioned spaces in this table. When an option having a * is selected, the notes section of this table must be completed. The lighting controls section of the Compliance Summary Table on the first page will show "DOES NOT COMPLY" if the notes are left blank.*

Building Level Controls

01	02	03	
Mandatory Demand Response §110.12(c)	Shut-Off Controls §130.1(c)	Field Inspector	
		Pass	Fail
Required > 10,000 SF	See Area/Space Level Controls	☐	☐

Area Level Controls

04	05	06	07	08	09	10	11	12	
Area Description	Complete Building or Area Category Primary Function Area	Area Controls §130.1(a)	Multi-Level Controls §130.1(b)	Shut-Off Controls §130.1(c)	Primary/Skylit Daylighting §130.1(d)	Secondary Daylighting §140.6(d)	Interlocked Systems §140.6(a)1	Field Inspector	
								Pass	Fail
CLASSROOM	Classroom, Lecture, Training, Vocational	Manual ON/ OFF	Dimmer	Occ. Sensor	Included	Included	☐	☐	☐
OFFICE	Office (> 250 square feet)	Manual ON/ OFF	Dimmer	Occ. Sensor	Exempt*	Exempt*	☐	☐	☐
							☐	☐	☐

*NOTES: Controls with a * require a note in the space below explaining how compliance is achieved.
EX: Conference 1: Primary/Skylight Daylighting: Exempt because less than 120 watts of general lighting;
EXCEPTION 1 to §130.1(d)2

13
Plan Sheet Showing Daylit Zones:

OFFICE	*LESS THAN 120W IN PRIMARY DAYLIGHT ZONE*

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

Table Instructions: Complete the table for each area complying using the Complete Building or Area Category Methods per §140.6(b). Indicate if additional lighting power allowances per §140.6(c) or adjustments per §140.6(a) are being used.

Conditioned Spaces

STATE OF CALIFORNIA
Indoor Lighting
NRCC-LTI-E (Created 10/20) CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-LTI-E
Project Name: FOOTHILLS ADULT EDUCATION CENTER	Report Page: Page 6 of 7
Project Address: 1550 MELODY LANE, EL CAJON, CA 92019	Date Prepared: 2/11/21

U. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE

Table Instructions: 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 any with "-A" in the form name must be completed through an Acceptance Test Technician Certification Provider (ATTCP). For more information visit: http://www.energy.ca.gov/title24/attcp/providers.html

YES	NO	Form/Title	Field Inspector	
			Pass	Fail
○	◉	NRCA-LTI-02-A - Must be submitted for occupancy sensors and automatic time switch controls.	☐	☐
○	◉	NRCA-LTI-03-A - Must be submitted for automatic daylight controls.	☐	☐
○	◉	NRCA-LTI-04-A - Must be submitted for demand responsive lighting controls.	☐	☐
○	◉	NRCA-LTI-05-A - Must be submitted for institutional tuning power adjustment factor (PAF).	☐	☐
○	◉	NRCA-ENV-03-F - Must be submitted for daylighting design power adjustment factors (PAF).	☐	☐

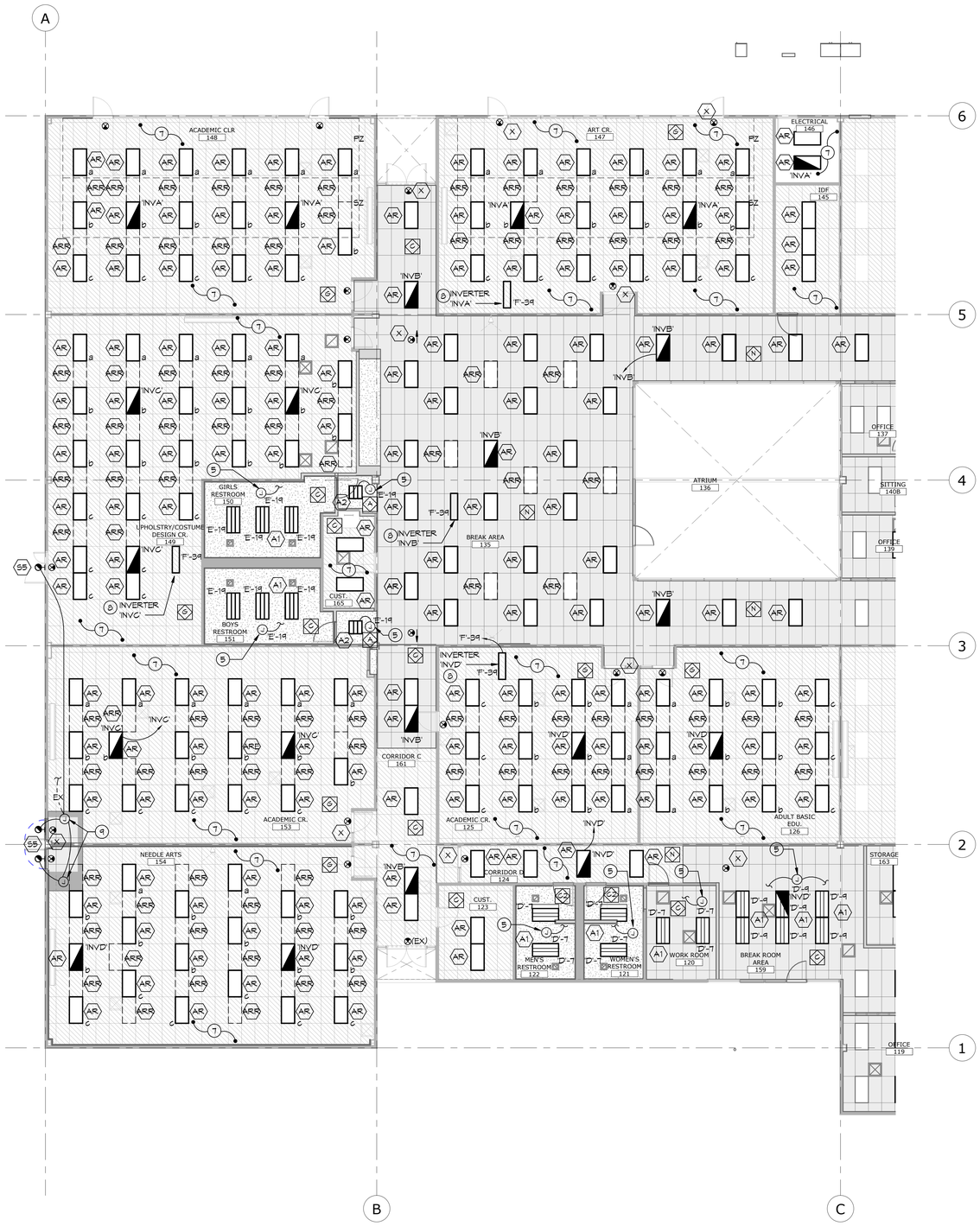
MONICA HANSEN No. E 14781 Exp. 6-30-2021 CERTIFIED ENERGY ANALYST STATE OF CALIFORNIA
LICENSED ARCHITECT Monica Hansen C-20662 03-31-2021 RENEWAL DATE STATE OF CALIFORNIA
#20005 STAMPS 2/12/2021

AGENCY APPROVAL File No: A#

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-119728 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/18/2021

JOHNSON CONSULTING ENGINEERS, INC.
Power | Lighting | Multimedia
Communications | Data Networking
12875 Brookprinter Place, Suite 300
Poway, CA 92064
P 858.679.4030 | F 858.513.0559
www.jce-inc.com
CONSULTANT BRANDING

RUHNAU CLARKE ARCHITECTS



STAMPS

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-119728 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/18/2021

AGENCY APPROVAL
File No: A#

JOHNSON
CONSULTING ENGINEERS, INC.
Power | Lighting | Multimedia
Communications | Data Networking
12875 Brookprinter Place, Suite 300
Poway, CA 92064
P 858.679.4030 | F 858.513.0559
www.jce-inc.com
CONSULTANT BRANDING

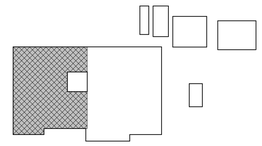
RUHNAU CLARKE ARCHITECTS

GENERAL NOTES:

1. REFERENCE ARCHITECTURAL REFLECTED CEILING PLANS FOR EXACT LOCATION OF ALL LIGHTING FIXTURES.
2. REFERENCE E2 SERIES SHEETS FOR ALL FIXTURE TYPES AND FOR TYPICAL DETAILS.
3. LETTERS IN OR ADJACENT TO EACH FIXTURE OR FIXTURE ROW INDICATES SWITCH AND OR OCCUPANCY SENSOR WHICH CONTROLS THE LIGHTING FIXTURE.
4. CIRCUIT HOMERUNS ARE INDICATED TO SHOW THE LOCATION AND NUMBER OF CIRCUITS TO BE GROUPED TOGETHER.
5. PROVIDE MINIMUM 3/4" CONDUIT AND #12 CIRCUIT CONDUCTORS AS REQUIRED TO CONNECT EACH LIGHTING FIXTURES TO THEIR INDICATED CONTROL DEVICES. (U.O.N.)
6. NEW ROOM LIGHTING CONTROL DEVICES SHALL BE PWOERED FROM EXISTING LIGHTING CIRCUIT ABOVE CEILING IN THE ROOM AS REQUIRED. IF THERE ARE MULTIPLE LIGHTING CIRCUITS SERVING THE ROOM LIGHTING, PROVIDE DEDICATED ROOM CONTROLLER FOR EACH LIGHTING CIRCUIT AND ROUTE EACH LIGHTING CIRCUIT VIA ITS DEDICATED ROOM CONTROLLER PRIOR TO EXTEND POWER AND DIMMING WIRING TO EACH DESIGNATED FIXTURE AS REQUIRED.
7. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING LIGHTING CIRCUITS ABOVE CEILING IN EACH ROOM/ENCLOSED SPACE.

KEY NOTES:

1. SEE ARCHITECTURAL PLANS FOR MOUNTING HEIGHT.
2. 2 #12 (HOT), 1 #10 (NEUTRAL), 1 #12 (GND), 3/4"C.
3. 3 #12 (HOT), 1 #10 (NEUTRAL), 1 #12 (GND), 3/4"C.
4. 4 #12 (HOT), 2 #10 (NEUTRAL), 1 #12 (GND), 3/4"C.
5. INTERCEPT EXISTING LIGHTING CIRCUITS ABOVE CEILING AND EXTEND TO NEW LIGHTING FIXTURES AND LIGHTING CONTROL DEVICES IN THE ROOM AS REQUIRED. FIELD VERIFY EXACT LOCATION OF EXISTING CIRCUITS PRIOR TO INTERCEPTION.
6. PROVIDE WITH FACTORY BATTERY BACK UP (1400 LUMENS FOR 90 MIN.) PROVIDE CONSTANT HOT (3/4"C. 2 #12, 1 #12) FROM THE DESIGNATED PANELBOARD AND CIRCUIT TO THE FIXTURE FOR BATTERY CHARGING.
7. SEE FIXTURE SCHEDULE ON E2.3 FOR RETROFITTING AND REMOVAL WORK OF EXISTING FIXTURES IN THIS ROOM.
8. CEILING RECESSED EMERGENCY LIGHTING INVERTER. 225VA, 120V-120V, MYERS #1LVM-2-6, OR EQUAL.
9. EXISTING EXTERIOR RECESSED CAN LIGHT IN THIS LOCAITON SHALL BE DISCONNECTED AND REMOVED. FIELD VERIFY EXACT FIXTURE AND CIRCUIT LOCATON. PROVIDE J-BOX ABOVE CEILING TO EXTEND NIGHT LIHGT (CONSTANT HOT) CIRCUIT TO NEW EXTERIOR WALL PACK AND EMERSENCY BATTERY PACK AS REQUIRED.



KEY PLAN

PROJECT No. :1-30-47
2/12/2021 8:48:04 AM
DRAWN BY: CHECKED BY:

REVISION:____ DATE_____ DESCRIPTION _____

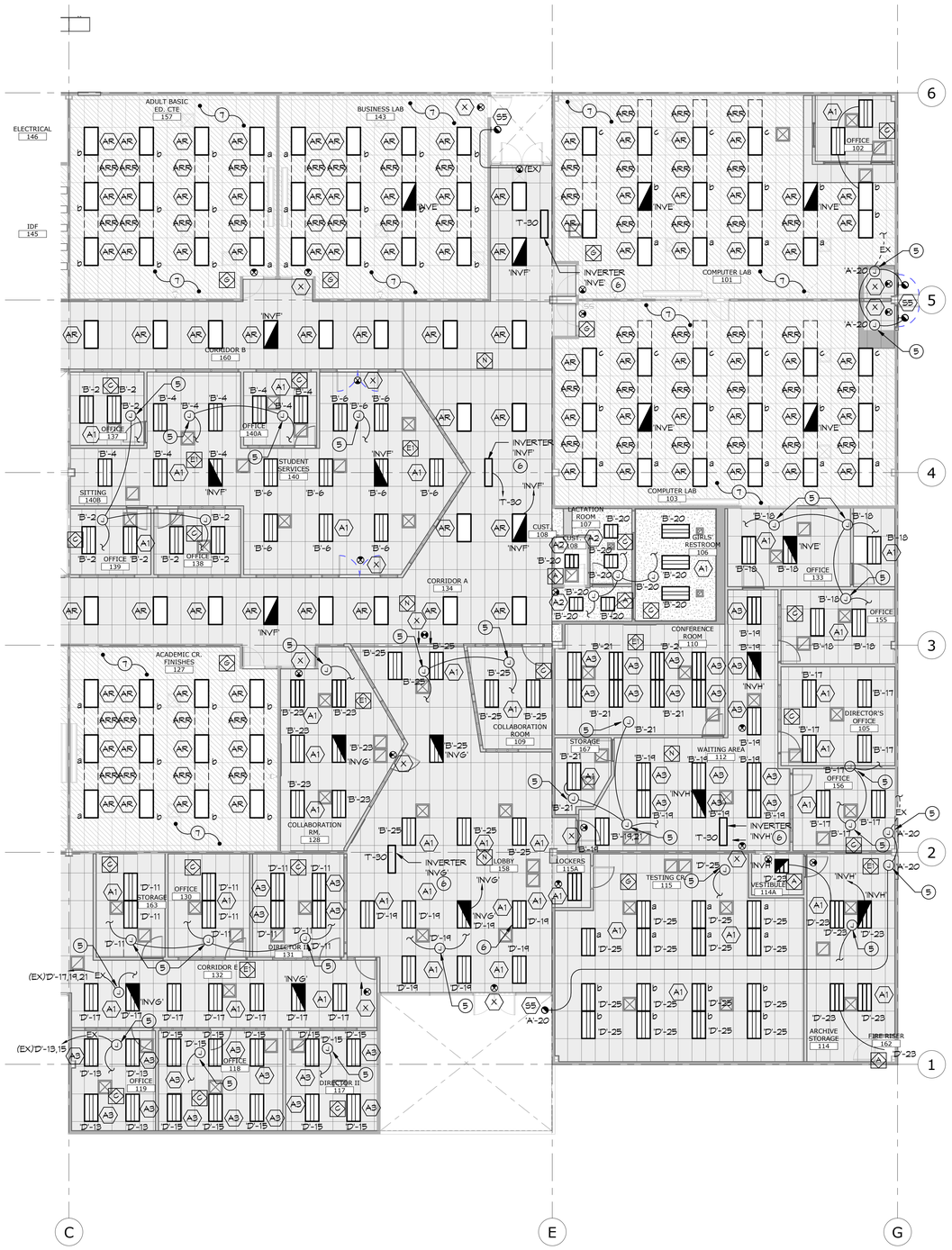
RUHNAUCLARKE.COM
3775 TENTH STREET, RIVERSIDE CALIFORNIA 92501 (951) 684 4664 / 5751 PALMER WAY, SUITE C, CARLSBAD CALIFORNIA 92010 (760) 438 5899

FOOTHILLS ADULT EDUCATION CENTER
1550 Melody Lane El Cajon, CA 92019
GROSSMONT UNIFIED HIGH SCHOOL DISTRICT

FLOOR PLAN_NEW A - LIGHTING

E2.1

1-30-47



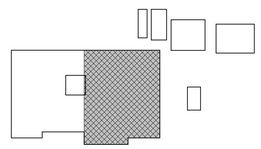
GENERAL NOTES:

1. REFERENCE ARCHITECTURAL REFLECTED CEILING PLANS FOR EXACT LOCATION OF ALL LIGHTING FIXTURES.
2. REFERENCE E2 SERIES SHEETS FOR ALL FIXTURE TYPES AND FOR TYPICAL DETAILS.
3. LETTERS IN OR ADJACENT TO EACH FIXTURE OR FIXTURE ROW INDICATES SWITCH AND OR OCCUPANCY SENSOR WHICH CONTROLS THE LIGHTING FIXTURE.
4. CIRCUIT HOMERUNS ARE INDICATED TO SHOW THE LOCATION AND NUMBER OF CIRCUITS TO BE GROUPED TOGETHER.
5. PROVIDE MINIMUM 3/4" CONDUIT AND #12 CIRCUIT CONDUCTORS AS REQUIRED TO CONNECT EACH LIGHTING FIXTURES TO THEIR INDICATED CONTROL DEVICES. (U.O.N.)
6. NEW ROOM LIGHTING CONTROL DEVICES SHALL BE PWOERED FROM EXISTING LIGHTING CIRCUIT ABOVE CEILING IN THE ROOM AS REQUIRED. IF THERE ARE MULTPLE LIGHTING CIRCUITS SERVING THE ROOM LIGHTING, PROVIDE DEDICATED ROOM CONTROLLER FOR EACH LIGHTING CIRCUIT AND ROUTE EACH LIGHTING CIRCUIT VIA ITS DEDICATED ROOM CONTROLLER PRIOR TO EXTEND POWER AND DIMMING WIRING TO EACH DESIGNATED FIXTURE AS REQUIRED.
7. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING LIGHTING CIRCUITS ABOVE CEILING IN EACH ROOM/ENCLOSED SPACE.

KEY NOTES:

1. SEE ARCHITECTURAL PLANS FOR MOUNTING HEIGHT.
2. 2 #12 (HOT), 1 #10 (NEUTRAL), 1 #12 (GND), 3/4"C.
3. 3 #12 (HOT), 1 #10 (NEUTRAL), 1 #12 (GND), 3/4"C.
4. 4 #12 (HOT), 2 #10 (NEUTRAL), 1 #12 (GND), 3/4"C.
5. INTERCEPT EXISTING LIGHTING CIRCUITS ABOVE CEILING AND EXTEND TO NEW LIGHTING FIXTURES AND LIGHTING CONTROL DEVICES IN THE ROOM AS REQUIRED. FIELD VERIFY EXACT LOCATION OF EXISTING CIRCUITS PRIOR TO INTERCEPTION.
6. CEILING RECESSED EMERGENCY LIGHTING INVERTER. 225VA, 120V-120V, MYERS #1LVM-2-G, OR EQUAL.
7. EXISTING EXTERIOR RECESSED CAN LIGHT IN THIS LOCAITON SHALL BE DISCONNECTED AND REMOVED. PROVIDE J-BOX ABOVE CEILING TO EXTEND NIGHT LIHGT (CONSTANT HOT) CIRCUIT TO NEW EXTERIOR WALL PACK AND EMERGENCY BATTERY PACK AS REQUIRED.
8. EXISTING EXTERIOR RECESSED CAN LIGHT IN THIS LOCAITON SHALL BE DISCONNECTED AND REMOVED. FIELD VERIFY EXACT FIXTURE AND CIRCUIT LOCATON. PROVIDE J-BOX ABOVE CEILING TO EXTEND NIGHT LIHGT (CONSTANT HOT) CIRCUIT TO NEW EXTERIOR WALL PACK AND EMERGENCY BATTERY PACK AS REQUIRED.

KEY PLAN



JOHNSON CONSULTING ENGINEERS, INC.
Power | Lighting | Multimedia
Communications | Data Networking
12875 Brookprinter Place, Suite 300
Poway, CA 92064
P 858.679.4030 | F 858.513.0559
www.jce-inc.com
CONSULTANT BRANDING

RUHNAU CLARKE ARCHITECTS

AGENCY APPROVAL
File No: A#

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-119728 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/18/2021

#20005
STAMPS
2/12/2021 8:

PROJECT No. :1-30-47
2/12/2021 8:48:11 AM
DRAWN BY: CHECKED BY:

REVISION:____ DATE _____ DESCRIPTION _____

RUHNAUCLARKE.COM
3775 TENTH STREET, RIVERSIDE CALIFORNIA 92501 (951) 684 4664 / 5751 PALMER WAY, SUITE C, CARLSBAD CALIFORNIA 92010 (760) 438 5899

FOOTHILLS ADULT EDUCATION CENTER
1550 Melody Lane El Cajon, CA 92019
GROSSMONT UNIFIED HIGH SCHOOL DISTRICT

FLOOR PLAN_NEW B - LIGHTING

E2.2

1-30-47

LIGHTING FIXTURE SCHEDULE KEY NOTES:

1. ALTERNATE MANUFACTURER'S TO THOSE SPECIFIED MAY BE SUBMITTED FOR APPROVAL. ALTERNATE MANUFACTURER'S MUST MEET THE MINIMUM CRITERIA INDICATED IN THE DESCRIPTION AND OPTIONS COLUMNS OF THIS SCHEDULE, AND MUST BE EQUAL TO THE SPECIFIED FIXTURE AS DETERMINED BY THE SPECIFYING ENGINEER. (ALTERNATE FIXTURES MUST BE APPROVED PRIOR TO BID, ALLOW 72 HOURS FOR ENGINEER REVIEW AND APPROVED). WHERE NO KNOWN EQUAL' IS INDICATED THE FIXTURE DOES NOT HAVE AN EQUAL TO MEET THE PROJECT REQUIREMENTS, AND ALTERNATE SELECTIONS WILL NOT BE ACCEPTED.
2. COMPLETE CATALOG NUMBERS HAVE NOT BEEN PROVIDED, REFERENCE THE DESCRIPTION AND OPTIONS COLUMNS OF THIS SCHEDULE FOR COMPLETE FIXTURE REQUIREMENTS.

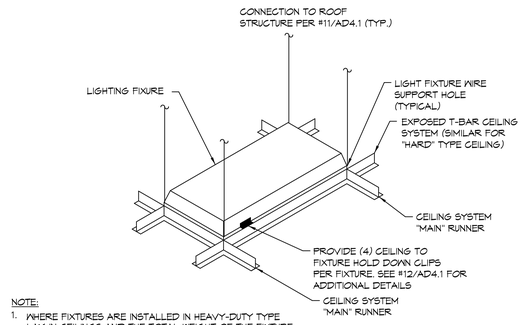
LIGHTING FIXTURE SCHEDULE

Mark	Approved Manufacturer's (See Key Note No. 1)	Catalog Series Type (See Key Note No. 2)	FIXTURE: OTHER	FIXTURE: LED	Fixture Watts	MOUNTING: Recessed / Ceiling	Surface / Ceiling	Wall	Recessed / Wall	Pendant	Surface / Wall	Pole	Description
A1	LITHONIA	2VTL4 SERIES	☐	■	31.4w	■	☐	☐	☐	☐	☐	☐	2'X4' VOLUMETRIC T-GRID/GYP CEILING WITH ACRYLIC LINEAR PRISMATIC DIFFUSER. MINIMUM 4,281 LUMEN AT 4000K. DRIVER VOLTAGE UNIVERSAL.
	METALUX	CRUZ ST 2X4	Driver										
			■ 120/277v										
			■ 0-10v Dim										
			☐										
			☐										
						☐ Provide Emergency Ballast Type 'EM'			☐ Provide Custom Color Finish, to be selected at time submittal			☐ See Detail	
A2	LITHONIA	2VTL2 SERIES	☐	■	39.1w	■	☐	☐	☐	☐	☐	☐	2'X2' VOLUMETRIC T-GRID/GYP CEILING WITH ACRYLIC LINEAR PRISMATIC DIFFUSER. MINIMUM 4800 LUMEN AT 4000K. DRIVER VOLTAGE UNIVERSAL. SEE FLOOR PLAN EMERGENCY BATTERY BACKUP REQUIREMENT AT THE SPECIFIED FIXTURES.
	METALUX	CRUZ ST 2X2	Driver										
			■ 120/277v										
			■ 0-10v Dim										
			☐										
			☐										
						☐ Provide Emergency Ballast Type 'EM'			☐ Provide Custom Color Finish, to be selected at time submittal			☐ See Detail	
A3	LITHONIA	2VTL4 SERIES	☐	■	26.4w	■	☐	☐	☐	☐	☐	☐	2'X4' VOLUMETRIC T-GRID/GYP CEILING WITH ACRYLIC LINEAR PRISMATIC DIFFUSER. MINIMUM 3836 LUMEN AT 4000K. DRIVER VOLTAGE UNIVERSAL. SEE FLOOR PLAN EMERGENCY BATTERY BACKUP REQUIREMENT AT THE SPECIFIED FIXTURES.
	METALUX	CRUZ ST 2X4	Driver										
			■ 120/277v										
			■ 0-10v Dim										
			☐										
			☐										
						☐ Provide Emergency Ballast Type 'EM'			☐ Provide Custom Color Finish, to be selected at time submittal			☐ See Detail	
AR	LITHONIA	2VTL4 LED RETROFIT SERIES	☐	■	33.2w	☐	☐	☐	☐	☐	■	☐	2'X4' LED RETROFIT KIT FOR T-GRID APPLICATION. MIN. 4501 LUMENS AT 4000K CCT, ACRYLIC LINEAR PRISMATIC DIFFUSER, 0-10V DIMMING. FXITURE SHALL HAVE THE SAME PHYSICAL APPEARANE AS TYPE 'A1' AND 'A3'
	METALUX	CRUZ 2X4 LED RETROFIT SERIES	Driver										
			■ 120/277v										
			■ 0-10v Dim										
			☐										
			☐										
						☐ Provide Emergency Ballast Type 'EM'			☐ Provide Custom Color Finish, to be selected at time submittal			☐ See Detail	
ARR	EXISTING FIXTURE	TO BE REMOVED	☐	☐	NA	☐	☐	☐	☐	☐	☐	☐	EXISTING WHOLE 2X4 FIXTURE ASSEMBLY INCLUSING LAMPS, HOUSING, WIRING, BALLASTS&OTHER PARTS& SUPPORT ASSOCIATED WITH THE FIXTURE TO BE DISCONNECT& REMOVED. PROVIDE JUNCTION BOX ABOVE CEILING TO EXTEND CONDUIT AND WIRING FROM THE LAST ACTIVE FIXTURE TO THE NEXT ACTIVE FIXTURE AND MAIN CIRCUIT CONTINUITY AS REQUIRED.
			Driver										
			☐ 120/277v										
			☐ 0-10v Dim										
			☐										
			☐										
						☐ Provide Emergency Ballast Type 'EM'			☐ Provide Custom Color Finish, to be selected at time submittal			☐ See Detail	
S5	LITHONIA	ARC1	☐	☐	25w	☐	■	☐	☐	☐	☐	☐	MIN. 3021 LUMENS AT 4000 CCT, MIN. 80 CRI. PROVIDE INTEGRAL EMERGENCY BATTERY BACKUP. PROVIDE FACTORY INSTALLED PHOTOCELL. DARK BRONZE FINISH. WET LOCAITON LISTED.
	OR EQUAL		Driver										
			☐ 120/277v										
			☐ 0-10v Dim										
			☐										
			☐										
						☐ Provide Emergency Ballast Type 'EM'			☐ Provide Custom Color Finish, to be selected at time submittal			☐ See Detail	
X	ISOLITE	SLX-60	☐	☐	NA	☐	☐	☐	☐	☐	☐	☐	SELF LUMINOUS EXIT SIGN. GREEN STENCIL, WHITE FRAME, 20 YEAR LIFE WITH UNIVERSAL MOUNTING BRACKET. SEE FLOOR PLAN FOR FACE AND ARROW REQUIREMENTS.
	MERIT	P-180	Driver										
	EVENLITE	LEX	☐ 120/277v										
			☐ 0-10v Dim										
			☐										
			☐										
						☐ Provide Emergency Ballast Type 'EM'			☐ Provide Custom Color Finish, to be selected at time submittal			☐ See Detail	

Michael Ruhnau, NCIDQ, NCARB, LEED AP, NO.E 14781, Exp. 6-30-2021, ELECTRICAL, STATE OF CALIFORNIA
Licensed Architect, David Ruhnau, C-20662, 03-31-2021, RENEWAL DATE, STATE OF CALIFORNIA
#20005 STAMPS 2/12/2021 8:
AGENCY APPROVAL File No: A#
IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT
APP: 04-119728 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/18/2021

JOHNSON CONSULTING ENGINEERS, INC.
Power | Lighting | Multimedia
Communications | Data Networking
12875 Brookprinter Place, Suite 300
Poway, CA 92064
P 858.679.4030 | F 858.513.0559
www.jce-inc.com
CONSULTANT BRANDING

RUHNAU CLARKE ARCHITECTS



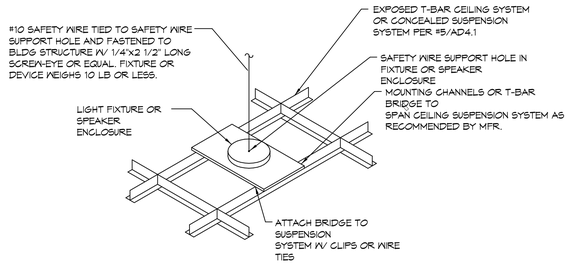
NOTE:

1. WHERE FIXTURES ARE INSTALLED IN HEAVY-DUTY TYPE LAY-IN CEILINGS AND THE TOTAL WEIGHT OF THE FIXTURE IS LESS THAN 56 LBS. REDUCE THE QUANTITY OF HANGER WIRES TO (2) SLACK WIRES AT DIAGONAL CORNERS.

   REFERENCE ARCHITECTURAL PLANS FOR ADDITIONAL
2. CEILING ANCHORAGE REQUIREMENTS.

LED FIXTURE SEISMIC RESTRAINT DETAIL1 — 1 / E2.4

NO SCALE



LUMINAIRE AND SPEAKER ENCLOSURE SEISMIC RESTRAINT DETAIL1 — 2 / E2.4

NO SCALE

STAMPS — 2/12/2021 8:

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-119728 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/18/2021

AGENCY APPROVAL
File No: A#

JOHNSON CONSULTING ENGINEERS, INC.
Power | Lighting | Multimedia
Communications | Data Networking
12875 Brookprinter Place, Suite 300
Poway, CA 92064
P 858.679.4030 | F 858.513.0559
www.jce-inc.com
CONSULTANT BRANDING

RUHNAU CLARKE ARCHITECTS

PROJECT No. :1-30-47
2/12/2021 8:48:16 AM
DRAWN BY: CHECKED BY:

REVISION:____ DATE _____ DESCRIPTION _____

RUHNAUCLARKE.COM

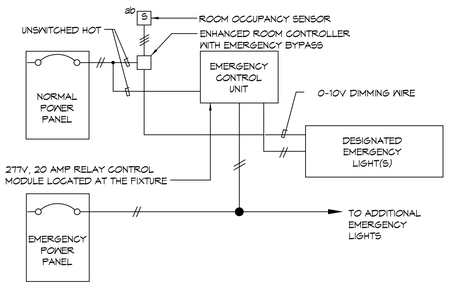
3775 TENTH STREET, RIVERSIDE CALIFORNIA 92501 (951) 684 4664 / 5751 PALMER WAY, SUITE C, CARLSBAD CALIFORNIA 92010 (760) 438 5899

FOOTHILLS ADULT EDUCATION CENTER
1550 Melody Lane El Cajon, CA 92019
GROSSMONT UNIFIED HIGH SCHOOL DISTRICT

LIGHTING DETAILS

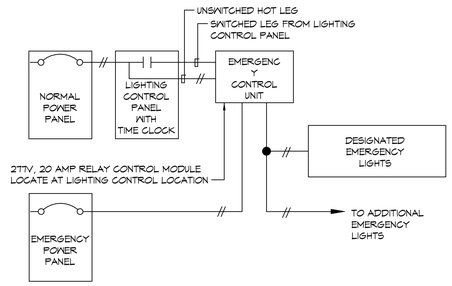
E2.4

1-30-47



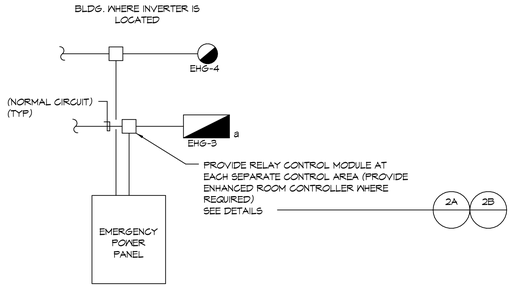
FIXTURE WIRING DIAGRAM (ROOM SENSOR AND/OR LOCAL SWITCH) — 2A

NO SCALE



FIXTURE WIRING DIAGRAM (LOW VOLTAGE CONTROL SYSTEM) — 2B

NO SCALE

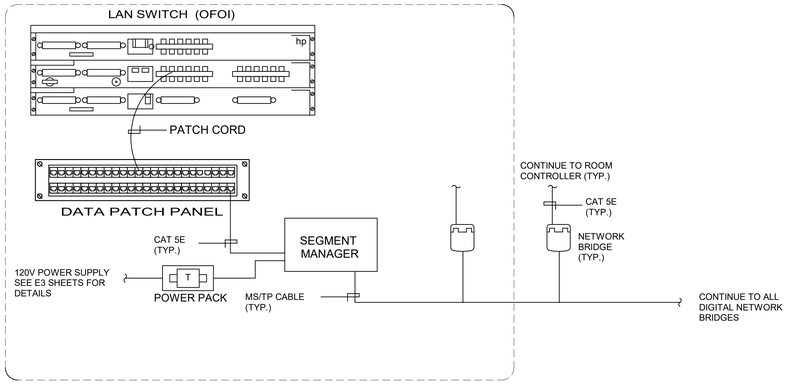


EMERGENCY LIGHTING POWER CONFIGURATION DIAGRAM — 2C

NO SCALE

EMERGENCY LIGHTING CONTROL DIAGRAM — 1 / E2.5

NO SCALE



DIGITAL LIGHTING CONTROL RISER DIAGRAM — 2 / E2.5

NO SCALE

JOHNSON CONSULTING ENGINEERS, INC.
Power | Lighting | Multimedia
Communications | Data Networking
12875 Brookprinter Place, Suite 300
Poway, CA 92064
P 858.679.4030 | F 858.513.0559
www.jce-inc.com
CONSULTANT BRANDING

RUHNAU CLARKE ARCHITECTS

AGENCY APPROVAL
File No: A#

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-119728 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/18/2021

#20005
STAMPS
2/12/2021 8:

PROJECT No. :1-30-47
2/12/2021 8:48:19 AM
DRAWN BY: CHECKED BY:

REVISION:____ DATE_____ DESCRIPTION _____

RUHNAUCLARKE.COM
3775 TENTH STREET, RIVERSIDE CALIFORNIA 92501 (951) 684 4664 / 5751 PALMER WAY, SUITE C, CARLSBAD CALIFORNIA 92010 (760) 438 5899

FOOTHILLS ADULT EDUCATION CENTER
1550 Melody Lane El Cajon, CA 92019
GROSSMONT UNIFIED HIGH SCHOOL DISTRICT

LIGHTING CONTROL DIAGRAMS

E2.6

TO NETWORK BRIDGE
CAT 5E (TYP.)
0-10V DIMMING
ROOM CONTROLLER
DIMMABLE LOAD
'a'
'b'
'c'
EXISTING ROOM LIGHTING CIRCUIT
NEUTRAL
HOT
NOTE
1. SEE E2 SHEET9 FOR DAYLIGHT ZONES

TYPICAL ROOM TYPE - R.C./P.D./CUST.
NO SCALE
4 E2.6

TO NETWORK BRIDGE
CAT 5E (TYP.)
0-10V DIMMING
ROOM CONTROLLER
DIMMABLE LOAD
'a'
'b'
'c'
EXISTING ROOM LIGHTING CIRCUIT
NEUTRAL
HOT
NOTE
1. SEE E2 SHEET9 FOR DAYLIGHT ZONES
2. SEE FLOOR PLAN FOR QUANTITY AND LOCATION OF OCCUPANCY SENSORS.
3. PLACE DAYLIGHT SENSORS IN PRIMARY DAYLIGHT ZONES AS REQUIRED AND FIELD VERIFY LOCATION AND QUANTITY OF DAYLIGHT SENSORS AS REQUIRED.

TYPICAL ROOM TYPE - CORRIDOR
NO SCALE
6 E2.6

TO NETWORK BRIDGE
CAT 5E (TYP.)
0-10V DIMMING
ROOM CONTROLLER
DIMMABLE LOAD
'a'
'b'
'c'
EXISTING ROOM LIGHTING CIRCUIT
NEUTRAL
HOT
NOTE
1. SEE E2 SHEET9 FOR DAYLIGHT ZONES
2. SEE FLOOR PLAN FOR QUANTITY AND LOCATION OF OCCUPANCY SENSORS.
3. PLACE DAYLIGHT SENSORS IN PRIMARY DAYLIGHT ZONES AS REQUIRED AND FIELD VERIFY LOCATION AND QUANTITY OF DAYLIGHT SENSORS AS REQUIRED.

TYPICAL ROOM TYPE - CLASSROOM
NO SCALE
3 E2.6

TO NETWORK BRIDGE
CAT 5E (TYP.)
0-10V DIMMING
ROOM CONTROLLER
LIGHTING LOAD
'a'
EXISTING ROOM LIGHTING CIRCUIT
NEUTRAL
HOT

TYPICAL ROOM TYPE - STOR./R.W./R./IDF
NO SCALE
2 E2.6

TO NETWORK BRIDGE
CAT 5E (TYP.)
0-10V DIMMING
ROOM CONTROLLER
DIMMABLE LOAD
'a'
EXISTING ROOM LIGHTING CIRCUIT
NEUTRAL
HOT

TYPICAL ROOM TYPE - STORAGE/RESTROOM
NO SCALE
1 E2.6

TO NETWORK BRIDGE
CAT 5E (TYP.)
0-10V DIMMING
ROOM CONTROLLER
DIMMABLE LOAD
'a'
'b'
'c'
EXISTING ROOM LIGHTING CIRCUIT
NEUTRAL
HOT
NOTE
1. SEE E2 SHEET9 FOR DAYLIGHT ZONES
2. SEE FLOOR PLAN FOR QUANTITY AND LOCATION OF OCCUPANCY SENSORS.
3. PLACE DAYLIGHT SENSORS IN PRIMARY DAYLIGHT ZONES AS REQUIRED AND FIELD VERIFY LOCATION AND QUANTITY OF DAYLIGHT SENSORS AS REQUIRED.

TYPICAL ROOM TYPE - R.R.
NO SCALE
5 E2.6

TO NETWORK BRIDGE
CAT 5E (TYP.)
0-10V DIMMING
ROOM CONTROLLER
DIMMABLE LOAD
'a'
'b'
'c'
EXISTING ROOM LIGHTING CIRCUIT
NEUTRAL
HOT
NOTE
1. SEE E2 SHEET9 FOR DAYLIGHT ZONES
2. SEE FLOOR PLAN FOR QUANTITY AND LOCATION OF OCCUPANCY SENSORS.
3. PLACE DAYLIGHT SENSORS IN PRIMARY DAYLIGHT ZONES AS REQUIRED AND FIELD VERIFY LOCATION AND QUANTITY OF DAYLIGHT SENSORS AS REQUIRED.
4. ALL 0-10V WIRING AND CAT 5E WIRING MAY BE INSTALLED AS OPEN WIRE WHERE ABOVE ACCESSIBLE CEILINGS. WHERE ABOVE INACCESSIBLE OR EXPOSED CEILINGS IT SHALL BE INSTALLED IN CONDUIT.
5. REFERENCE 1 E2.8 FOR LIGHTING ON EMERGENCY SYSTEM.
5. REFERENCE 2 E2.8 FOR RISER DIAGRAM

SYMBOL LEGEND

H S	WALL MOUNTED MANUAL ON AND OFF SWITCH +48" U.O.N.
H S DT	WALL MOUNTED DUAL TECH OCCUPANCY SENSOR WITH MANUAL ON AND OFF 48" U.O.I
	CEILING MOUNTED OCCUPANCY SENSOR (DUAL TECHNOLOGY WITH EXTENDED RANGE)ppos STAMPS
S	WALL MOUNTED OCCUPANCY SENSOR (DUAL TECH) +94" U.O.N.
RC1	SINGLE CIRCUIT ROOM CONTROLLER FOR ROOMS WITH ONE DIMMING ZONE.
RC2	SINGLE CIRCUIT ROOM CONTROLLER FOR ROOMS WITH TWO DIMMING ZONES.
RC3	SINGLE CIRCUIT ROOM CONTROLLER FOR ROOMS WITH THREE DIMMING ZONES.
PL	PLUG LOAD CONTROLLER
PS	DAYLIGHT SENSOR
H S T	4 SCENE DIMMING CONTROL STATION, LOCATED ON WALL NEAR FREEDENTER/PODIUM
H S K	MANUAL ON AND OFF KEY SWITCH
H S a	MAIN ENTRY MANUAL ON AND OFF WITH DIMMER FOR ZONE 'a'
H S ab	MAIN ENTRY MANUAL ON AND OFF WITH DIMMER FOR ZONE 'a'&'b'
H S abc	MAIN ENTRY MANUAL ON AND OFF WITH DIMMER FOR ZONE 'a'&'b'&'c'

GENERAL NOTES

1. REFERENCE SPECIFICATION SECTION 260923 DIGITAL LIGHTING CONTROL SYSTEM FOR ADDITIONAL SCOPE OF WORK.
2. ITEMS RC1 RC2 RC3 PL TO BE WALL MOUNTED ABOVE THE ROOM ENTRY DOOR, ABOVE THE CEILING IN ALL ROOMS WITH T-BAR CEILINGS.
3. ITEMS RC1 RC2 RC3 PL TO BE LOCATED WITHIN A 24" X 24" RECESSED ENCLOSURE WITH HINGED LOCKING COVER, LOCATED ABOVE THE ROOM ENTRY DOOR IN ALL ROOMS WITH INACCESSIBLE CEILINGS.
4. ALL 0-10V WIRING AND CAT 5E WIRING MAY BE INSTALLED AS OPEN WIRE WHERE ABOVE ACCESSIBLE CEILINGS. WHERE ABOVE INACCESSIBLE OR EXPOSED CEILINGS IT SHALL BE INSTALLED IN CONDUIT.
5. REFERENCE 1 E2.8 FOR LIGHTING ON EMERGENCY SYSTEM.
5. REFERENCE 2 E2.8 FOR RISER DIAGRAM

RUHNAU CLARKE ARCHITECTS

JOHNSON CONSULTING ENGINEERS, INC.
Power | Lighting | Multimedia
Communications | Data Networking
12875 Brookprinter Place, Suite 300
Poway, CA 92064
P 858.679.4030 | F 858.513.0559
www.jce-inc.com
CONSULTANT STAMP/SIGNING

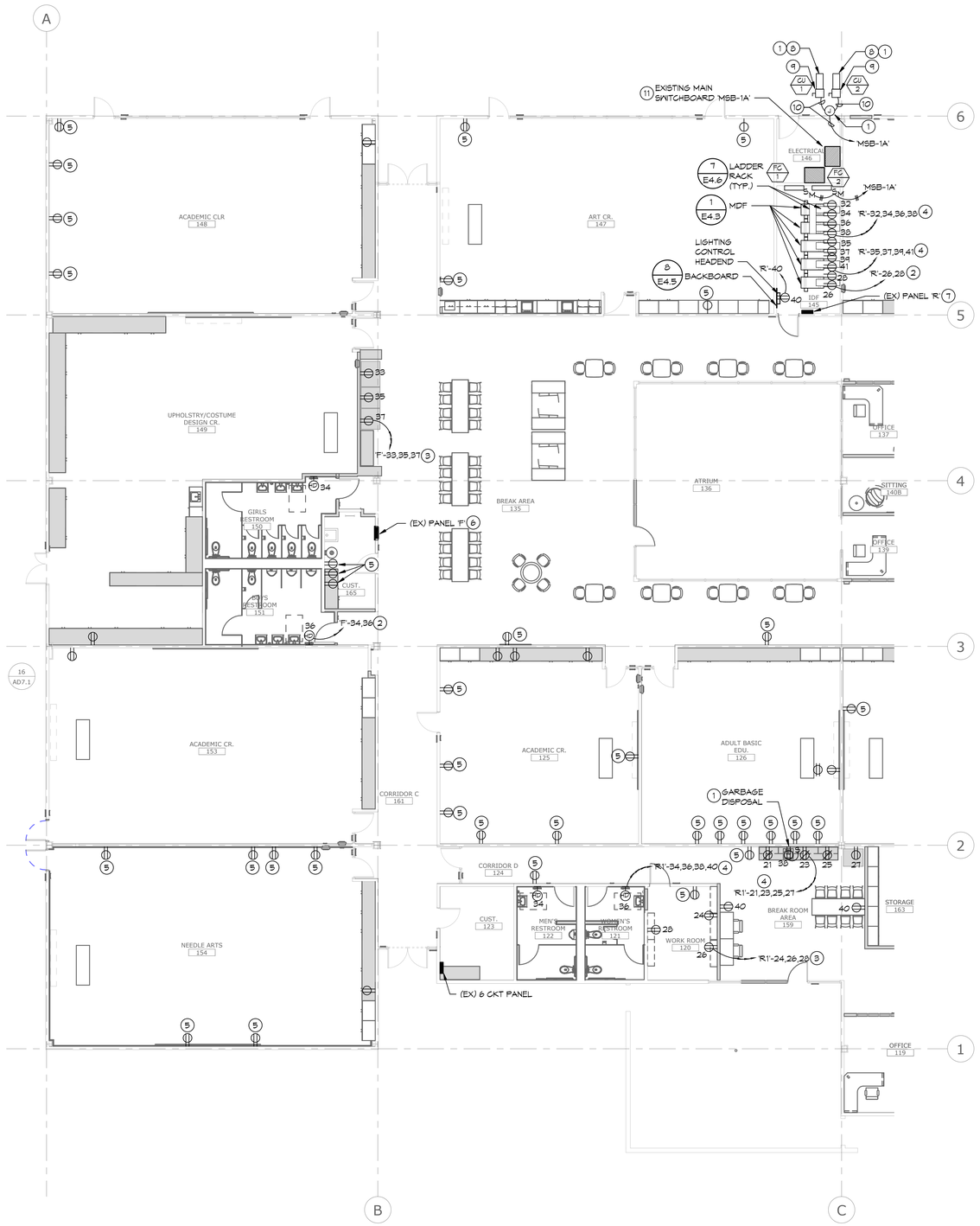
IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP.: 04-119728 INC:
REVIEWED FOR
SS ☑ FLS ☐ ACS ☐
DATE: 02/18/2021

LICENSED ARCHITECT C-20862 Exp. 08/31/2021 STATE OF CALIFORNIA

ELECTRICAL ENGINEER No.E 14791 Exp. 6-30-2021 STATE OF CALIFORNIA

2/12/2021 8:46:22 AM

AGENCY APPROVAL
File No.:
By:



JOHNSON CONSULTING ENGINEERS, INC.
Power | Lighting | Multimedia
Communications | Data Networking
12875 Brookprinter Place, Suite 300
Poway, CA 92064
P 858.679.4030 | F 858.513.0559
www.jce-inc.com
CONSULTANT BRANDING

RUHNAU CLARKE ARCHITECTS

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-119728 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/18/2021

AGENCY APPROVAL
File No:
A#

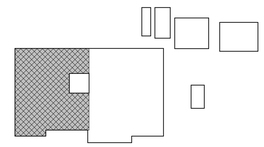
#20005
STAMPS
2/12/2021 8:

GENERAL NOTES:

1. REFERENCE ARCHITECTURAL INTERIOR ELEVATIONS FOR EXACT LOCATION OF ALL WALL MOUNTED POWER DEVICES WHERE INDICATED AT MOUNTING HEIGHTS OTHER THAN +18".
2. REFERENCE E3 SERIES SHEETS FOR TYPICAL CONDUIT AND BACKBOX INSTALLATION DETAILS.
3. NUMBERS ADJACENT TO EACH POWER DEVICE INDICATES THE CIRCUIT NUMBER TO WHICH THE DEVICE IS TO BE CONNECTED.
4. CIRCUIT HOMERUNS ARE INDICATED TO SHOW THE LOCATION AND NUMBER OF CIRCUITS TO BE GROUPED TOGETHER.
5. PROVIDE MINIMUM 3/4" CONDUIT AND #12 CIRCUIT CONDUCTORS AS REQUIRED TO CONNECT EACH POWER DEVICE TO THEIR INDICATED CIRCUIT (U.O.N.).
6. FIELD VERIFY EXACT ROUTING LOCATION FOR CONCEALED CONDUITS AND RECEPTACLES PRIOR TO ROUGH-IN.

KEY NOTES:

1. FIELD VERIFY EXACT LOCATION PRIOR TO ROUGH-IN.
2. 2 #12 (HOT), 1 #10 (NEUTRAL), 1 #12 (GND), 3/4"C.
3. 3 #12 (HOT), 1 #10 (NEUTRAL), 1 #12 (GND), 3/4"C.
4. 4 #12 (HOT), 2 #10 (NEUTRAL), 1 #12 (GND), 3/4"C.
5. NEW RECEPTABLE IN EXISTING LOCATION. EXTEND EXISTING CONDUIT AND CONDUCTORS FROM CEILING SPACE TO THE RECEPTACLE AS REQUIRED.
6. PROVIDE (6) 20A/1P BREAKERS IN EXISTING SPACE #33, # 35, #37, #38, #34 AND #36. PATCH, REPAIR AND REPAINT THE WALL TO MATCH EXISTING.
7. PROVIDE (4) 20A/1P BREAKERS IN EXISTING SPACE #39, 40, 41 AND 42.
8. UNIT LOCATED OUTDOOR. SEE MECHANICAL DRAWINGS FOR EXACT LOCATION.
9. 30A/3P/3R DISCONNECT SWITCH WITH 30A FUSES. FIELD VERIFY EXACT LOCATION AND COORDINATE WITH HVAC CONTRACTOR.
10. 1-1/4"C. 3 # 4, 1 #8 GND.
11. PROVIDE (1) 60A/2P BREAKERS IN EXISTING SPACES TO FEED CU-1 AND CU-2 ON ROOF. PROVIDE (1) 20A/2P BREAKER TO FEED FC-1 AND FC-2.



KEY PLAN

PROJECT No. :1-30-47
2/12/2021 8:48:28 AM
DRAWN BY: CHECKED BY:

REVISION:____ DATE _____ DESCRIPTION _____

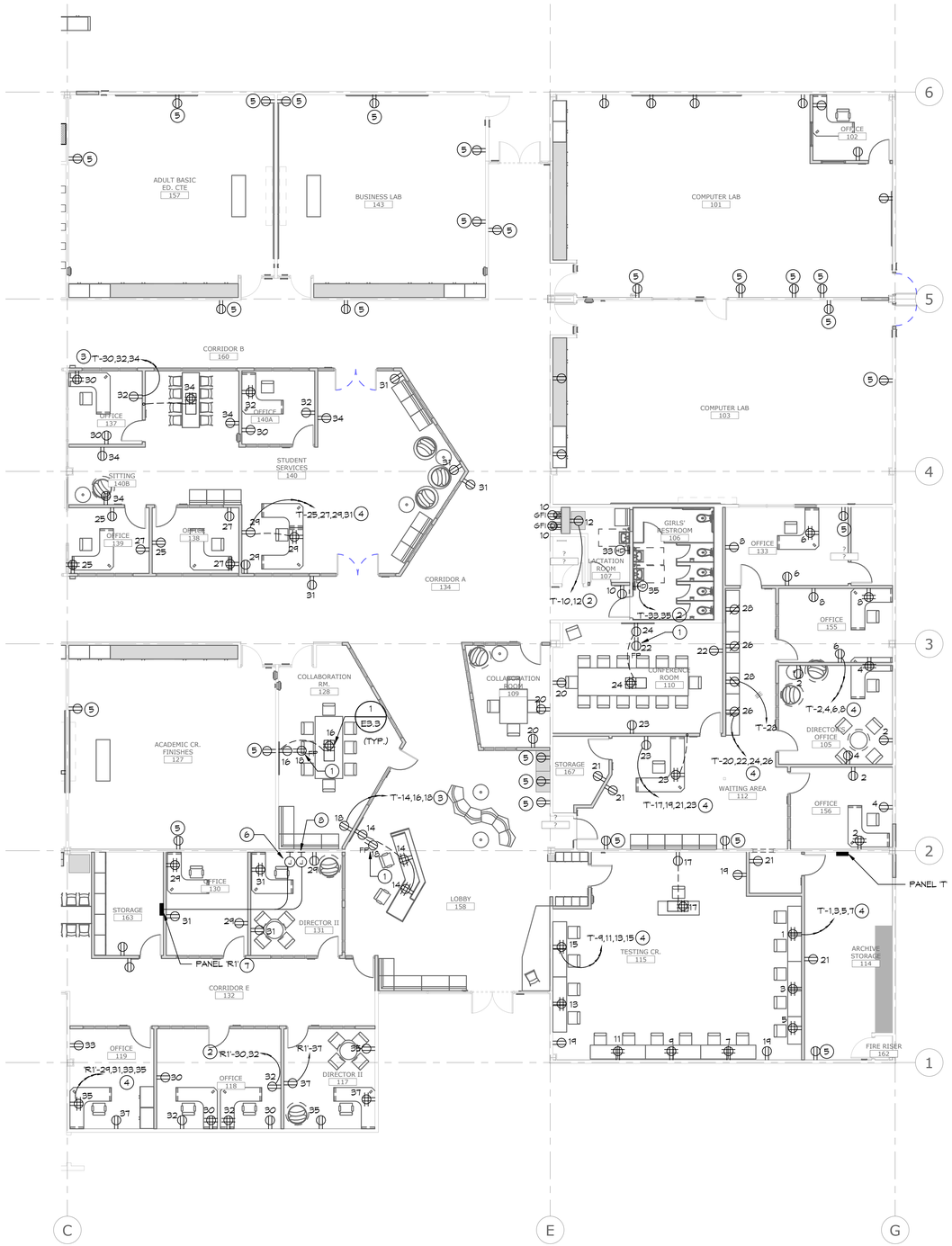
RUHNAUCLARKE.COM
3775 TENTH STREET, RIVERSIDE CALIFORNIA 92501 (951) 684 4664 / 5751 PALMER WAY, SUITE C, CARLSBAD CALIFORNIA 92010 (760) 438 5899

FOOTHILLS ADULT EDUCATION CENTER
1550 Melody Lane El Cajon, CA 92019
GROSSMONT UNIFIED HIGH SCHOOL DISTRICT

FLOOR PLAN_NEW A - POWER

E3.1

1-30-47



JOHNSON CONSULTING ENGINEERS, INC.
Power | Lighting | Multimedia
Communications | Data Networking
12875 Brookprinter Place, Suite 300
Poway, CA 92064
P 858.679.4030 | F 858.513.0559
www.jce-inc.com
CONSULTANT BRANDING

RUHNAU CLARKE ARCHITECTS

AGENCY APPROVAL
File No:
A#

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-119728 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/18/2021

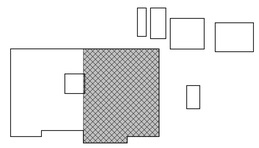
#20005
STAMPS
2/12/2021 8:

GENERAL NOTES:

1. REFERENCE ARCHITECTURAL INTERIOR ELEVATIONS FOR EXACT LOCATION OF ALL WALL MOUNTED POWER DEVICES WHERE INDICATED AT MOUNTING HEIGHTS OTHER THAN +18".
2. REFERENCE E8 SERIES SHEETS FOR TYPICAL CONDUIT AND BACKBOX INSTALLATION DETAILS.
3. NUMBERS ADJACENT TO EACH POWER DEVICE INDICATES THE CIRCUIT NUMBER TO WHICH THE DEVICE IS TO BE CONNECTED.
4. CIRCUIT HOMERUNS ARE INDICATED TO SHOW THE LOCATION AND NUMBER OF CIRCUITS TO BE GROUPED TOGETHER.
5. PROVIDE MINIMUM 3/4" CONDUIT AND #12 CIRCUIT CONDUCTORS AS REQUIRED TO CONNECT EACH POWER DEVICE TO THEIR INDICATED CIRCUIT (U.O.N.).
6. FIELD VERIFY EXACT ROUTING LOCATION FOR CONCEALED CONDUITS AND RECEPTACLES PRIOR TO ROUGH-IN.

KEY NOTES:

1. FIELD VERIFY EXACT LOCATION PRIOR TO ROUGH-IN.
2. 2 #12 (HOT), 1 #10 (NEUTRAL), 1 #12 (GND), 3/4"C.
3. 3 #12 (HOT), 1 #10 (NEUTRAL), 1 #12 (GND), 3/4"C.
4. 4 #12 (HOT), 2 #10 (NEUTRAL), 1 #12 (GND), 3/4"C.
5. NEW RECEPTABLE IN EXISTING LOCATION. EXTEND EXISTING CONDUIT AND CONDUCTORS FROM CEILING SPACE TO THE RECEPTACLE AS REQUIRED.
6. INTERCEPT EXISTING 2"C. 4 # 1, 1 #6 GND. (FROM MAIN SWITCHBOARD 'MSB') ABOVE CEILING AND EXTEND TO PANEL 'R1' AS REQUIRED. FIELD VERIFY EXACT LOCAITON OF INTERCEPTION.
7. EXISTING PANEL 'R1' INSTALLED IN NEW LOCATION. PROVIDE (
8. INTERCEPT TOTAL OF (24) EXISTING BRANCH CIRCUITS SREVING AUDIO VISUAL EQUIPMENT THROUGHOUT THE BUILDING ABOVE CEILING AND EXTEND TO NEW PANEL 'R1' LOCATION. FIELD VERIFY EXACT LOCAITON OF INTERCEPTION. RECONNECT ALL CONDUCTORS TO ASSOCIATED BREAKERS AS REREQUIRED. MATCH BREAKER AND TAG CONDUCTORS CONDUCTORS PER EXISTING PANEL SCHEDULE.



KEY PLAN

PROJECT No. :1-30-47
2/12/2021 8:48:33 AM
DRAWN BY: CHECKED BY:

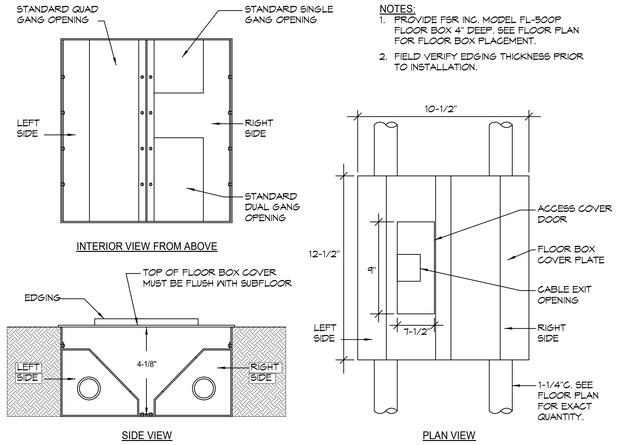
REVISION:____ DATE _____ DESCRIPTION _____
REVISION:____ DATE _____ DESCRIPTION _____
REVISION:____ DATE _____ DESCRIPTION _____
REVISION:____ DATE _____ DESCRIPTION _____
REVISION:____ DATE _____ DESCRIPTION _____
REVISION:____ DATE _____ DESCRIPTION _____
REVISION:____ DATE _____ DESCRIPTION _____
REVISION:____ DATE _____ DESCRIPTION _____
REVISION:____ DATE _____ DESCRIPTION _____

FOOTHILLS ADULT EDUCATION CENTER
1550 Melody Lane El Cajon, CA 92019
GROSSMONT UNIFIED HIGH SCHOOL DISTRICT

FLOOR PLAN_NEW B - POWER

E3.2

1-30-47



NOTES:
1. PROVIDE FSR INC. MODEL FL-300P FLOOR BOX 4" DEEP. SEE FLOOR PLAN FOR FLOOR BOX PLACEMENT.
2. FIELD VERIFY EDGING THICKNESS PRIOR TO INSTALLATION.

TYPICAL FLOOR BOX

NO SCALE

1
E3.3

STAMPS 2/12/2021 8:

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-119728 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/18/2021

AGENCY APPROVAL
File No: A#

JOHNSON
CONSULTING ENGINEERS, INC.
Power | Lighting | Multimedia
Communications | Data Networking
12875 Brookprinter Place, Suite 300
Poway, CA 92064
P 858.679.4030 | F 858.513.0559
www.jce-inc.com
CONSULTANT BRANDING

RUHNAU CLARKE ARCHITECTS

PROJECT No. :1-30-47
2/12/2021 8:48:36 AM
DRAWN BY: CHECKED BY:

REVISION:____ DATE _____ DESCRIPTION _____
REVISION:____ DATE _____ DESCRIPTION _____
REVISION:____ DATE _____ DESCRIPTION _____
REVISION:____ DATE _____ DESCRIPTION _____
REVISION:____ DATE _____ DESCRIPTION _____
REVISION:____ DATE _____ DESCRIPTION _____
REVISION:____ DATE _____ DESCRIPTION _____
REVISION:____ DATE _____ DESCRIPTION _____
REVISION:____ DATE _____ DESCRIPTION _____

BACKBOX AND RING LEGEND

TYPE	DESCRIPTION
'B1'	4 11/16" square 2 1/8" deep box with single gang ring.
'B2'	4 11/16" square 2 1/8" deep box with dual gang ring.
'B3'	4" square 1 1/2" deep box with single gang ring.
'B4'	Single gang box, 2 1/8" deep.
'B5'	4-11/16" Square 3" deep box with dual gang ring.
'B6'	SURFACE MOUNT QUICK PORT BOX

'C1'	Provided by 27 10 00 contractor.
'C3'	Provided by 27 20 00 contractor.

FACEPLATE LEGEND

TYPE	DESCRIPTION
'AR'	As required to accommodate the number of ports designated.
'BP'	Blank faceplate.

'C1'	Provided by 27 10 00 contractor.
'C3'	Provided by 27 20 00 contractor.

CONDUIT / RACEWAY LEGEND

TYPE	DESCRIPTION
'3/4-S'	3/4" conduit stubbed from box into accessible ceiling space, unless detailed otherwise on drawings.
'1-S'	1" conduit stubbed from box into accessible ceiling space, unless detailed otherwise on drawings.
'1 1/4-S'	1 1/4" conduit stubbed from box into accessible ceiling space, unless detailed otherwise on drawings.

TECHNOLOGY SYMBOL LEGEND

SYMBOL	DESCRIPTION	BACKBOX & RING	FACE PLATE	CONDUIT / RACEWAY
	Single port data outlet, +18" A.F.F. (U.O.N.)	Type 'B1'	Type 'AR'	Type '1-S'
VP	Single port data outlet for classroom style wall phone, +48" A.F.F. (U.O.N.)	Type 'B1'	Type 'AR'	Type '1-S'
2P	Dual port data outlet, +18" A.F.F. (U.O.N.)	Type 'B1'	Type 'AR'	Type '1-S'
3P	Triple port data outlet, +18" A.F.F. (U.O.N.)	Type 'B1'	Type 'AR'	Type '1-S'
4P	Quad port data outlet, +18" A.F.F. (U.O.N.)	Type 'B1'	Type 'AR'	Type '1-S'
6P	Six port data outlet, +18" A.F.F. (U.O.N.)	Type 'B1'	Type 'AR'	Type '1 1/4-S'
7P	Seven port data outlet in Audio-Visual Enclosure (7)	N/A	Type 'AR' (7)	N/A
	Stand Alone 'Local Origination' Input Wall Plate Location @ +18" AFF (U.O.N.)	Type 'B5'	Type 'C3'	Type '1 1/4-S'
2P 1V	Local origination with dual port data (D) and single port voice (V) outlet, +18" A.F.F. (2) (U.O.N.)	Type 'B1' (D/V) Type 'B5' (LO) side by side. (1) (2)	Type 'AR' (D/V) Type 'C3' (LO)	Type '1-S' (D/V) Type '11/4-S' (LO)
3P 1V	Local origination with triple port data (D) and single port voice (V) outlet, +18" A.F.F. (U.O.N.) (2)	Type 'B1' (D/V) Type 'B5' (LO) side by side. (1) (2)	Type 'AR' (D/V) Type 'C3' (LO)	Type '1-S' (D/V) Type '11/4-S' (LO)
	Same device as required on legend, mounted +6" above backsplash (U.O.N.)	Same as required for device indicated on legend.	Same as required for device indicated on legend.	Same as required for device indicated on legend.
	Same device as required on legend, except in floor box.	Floorbox per E3 series drawings.	Same as required for device indicated on legend.	Same as required for device indicated on legend.
AP	Single port data outlet at wireless access point location mounted in accessible ceiling (U.O.N.)	See detail 2/E4.6	Type 'C1'	Not required in accessible ceiling.
AP	Single port data outlet at wireless access point wall mounted @+8'-0" AFF (U.O.N.)	See detail 2/E4.6	Type 'C1'	Type '3/4-S'
2P FP S	Flat Panel Location Audio-Visual Connection with Dual Port Data Outlet. Height per details. S = Soundbar. See Specs for information. (2)	Type 'B1' (Data) Type 'B4' (A/V) 9/E4.5	Type 'C1' (Data) Type 'C3' (A/V) 9/E4.5 (2)	Type '1-S' (Data) Type '1 1/4-S' (A/V)

COMMUNICATION / SECURITY SYMBOL LEGEND

SYMBOL	DESCRIPTION	BACKBOX & RING	FACE PLATE	CONDUIT / RACEWAY
FM	Direct Phone Trunk outlet, +18" A.F.F. (U.O.N.)	Type 'B3'	Type 'C1'	Type '3/4-S'
WG	Clock wall mounted at, +8'-0" A.F.F (U.O.N.). (WG indicates wireguard)	Not required.	Not required.	Not required.
K	Security keypad wall mounted at +48" A.F.F (U.O.N.) Height per detail 1/E1.0	Type 'B2'	Type 'C5'	Type '3/4-S'
	Security motion sensor ceiling mounted.	Type 'B3'	Type 'C5'	Type '3/4-S' Not Required in Accessible Ceiling.
	Security motion sensor wall mounted at 6" below ceiling, or +10'-0" A.F.F. (U.O.N.) whichever is lower.	Type 'B3'	Type 'C5'	Type '3/4-S'
J	J-Box for Future Low-Voltage Devices @ +18" AFF (U.O.N.)	Type 'B1'	Blank Plate Color to Match	Type '1-S'
	Conduit sleeve through wall, above accessible ceiling.	Not required. (1) E4.6	Not required.	(1) 3"C. for open low voltage wiring.
2"C.	Conduit sleeve through wall, above accessible ceiling.	Not required . (1) E4.6	Not required.	(1) Conduit for open low voltage wiring, size as indicated.
(2) 2"C.	Conduit sleeve through wall, above accessible ceiling.	Not required. (1) E4.6	Not required.	Multiple Conduits for open low voltage wiring, size and quantity as indicated.
	Conduit stubbed above accessible ceiling.	Not required.	Not required.	1" conduit for open low voltage wiring.
1 1/2"C.	Conduit stubbed above accessible ceiling.	Not required.	Not required.	(1) conduit for open low voltage wiring. size as indicated.
(2) 1"C.	Conduit stubbed above accessible ceiling.	Not required.	Not required.	Conduit for open low voltage wiring. size and quantity as indicated.

REGISTERED PROFESSIONAL ENGINEER — Matthew Lewis — NO.E 14781 — Exp. 6-30-2021 — ELECTRICAL — STATE OF CALIFORNIA

LICENSED ARCHITECT — Ruhnau Clarke — C-20662 — 03-31-2021 RENEWAL DATE — STATE OF CALIFORNIA

AGENCY APPROVAL File No: A#

IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT APP: 04-119728 INC: REVIEWED FOR SS ☑ FLS ☑ ACS ☑ DATE: 02/18/2021

#20005 STAMPS 2/12/2021 8:

JOHNSON CONSULTING ENGINEERS, INC.
Power | Lighting | Multimedia
Communications | Data Networking
12875 Brookprinter Place, Suite 300
Poway, CA 92064
P 858.679.4030 | F 858.513.0559
www.jce-inc.com
CONSULTANT BRANDING

RUHNAU CLARKE ARCHITECTS

GENERAL NOTES:

1. ALL CONDUITS WHICH ARE REQUIRED AS A PART OF SYSTEMS SPECIFIED FOR COMMUNICATIONS, TELEPHONE, INTERCOM, CLOCK FIRE ALARM, SECURITY, SOUND SYSTEMS, DATA NETWORKING, OR AUDIO-VISUAL SYSTEMS SHALL BE FURNISHED AND INSTALLED BY THE ELECTRICAL CONTRACTOR.

   1.1 THE ELECTRICAL CONTRACTOR SHALL COORDINATE ALL CONDUIT REQUIREMENTS WITH EACH SYSTEM SUPPLIER PRIOR TO BID TO DETERMINE SPECIAL CONDUIT SYSTEM REQUIREMENTS.

   1.2 THE ELECTRICAL CONTRACTOR SHALL PROVIDE CONDUIT SLEEVES FOR ALL OPEN CABLE INSTALLATIONS THROUGH RATED WALLS, BLOCK WALLS AND WHERE SHOWN ON THE DRAWINGS. PROVIDE CONDUIT FROM EACH BUILDING MAIN TERMINATION CABINET OR BACKBOARD TO THE NEAREST ACCESSIBLE CEILING FOR ACCESS INTO ALL ELECTRICAL OR COMMUNICATIONS ROOMS.

   1.3 ALL CONDUIT, BOXES, AND RINGS SHALL BE FURNISHED AND INSTALLED BY ELECTRICAL CONTRACTOR.

   1.4 ALL BLANK PLATES SHALL BE FURNISHED AND INSTALLED BY ELECTRICAL CONTRACTOR. (UNLESS OTHERWISE NOTED)

   1.5 ALL CONDUITS SHALL BE FURNISHED WITH PULL STRINGS BY ELECTRICAL CONTRACTOR. COMMUNICATION CONTRACTOR TO PROVIDE POLYARIMID PULL TAPE WITH NBA CABLING INTO ALL CONDUITS BETWEEN BUILDINGS. SEE SPECIFICATIONS FOR REQUIREMENTS.

   1.6 CONTRACTOR TO REVIEW ARCHITECTURAL CEILING PLANS TO DETERMINE LOCATIONS OF ACCESSIBLE CEILINGS PRIOR TO BID.

   1.7 (271000) NUMBERS INDICATE MATCHING SPECIFICATION SECTION RESPONSIBLE FOR THIS WORK.

2. IN ADDITION TO THE ABOVE REQUIREMENTS, THE FOLLOWING REQUIREMENTS SHALL APPLY TO ALL DATA,VOICE, PAGING, AUDIO-VISUAL, SECURITY AND CLOCK CONDUITS:

   2.1 FLEXIBLE METAL CONDUIT MAY BE USED ONLY WHERE REQUIRED AT BUILDING SEISMIC AND/OR EXPANSION JOINTS.

   2.2 ALL UNDERGROUND CONDUITS SHALL BE PROVIDED WITH MINIMUM 24" RADIUS ELBOWS.

   2.3 NO LENGTH OF CONDUIT SHALL BE INSTALLED TO EXCEED 150 FEET BETWEEN PULL BOXES, OR POINTS OF CONNECTION, UNLESS WHERE SPECIFICALLY DETAILED ON THE DRAWINGS.

   2.4 NO LENGTH OF CONDUIT SHALL BE INSTALLED TO EXCEED TWO 90 DEGREE BENDS BETWEEN PULL BOXES, OR POINTS OF CONNECTION, UNLESS WHERE SPECIFICALLY DETAILED ON THE DRAWINGS.

KEY NOTES:

(1) JUNCTION BOXES FOR VOICE/DATA AND AUDIO-VISUAL CONNECTIONS MUST BE SEPARATE. AUDIO-VISUAL JUNCTION BOX OR BOXES SHALL BE FURNISHED AS SHOWN IN THE DRAWING DETAILS. PROVIDE (1) OR (2) TYPE 'B2' PER DETAILS.

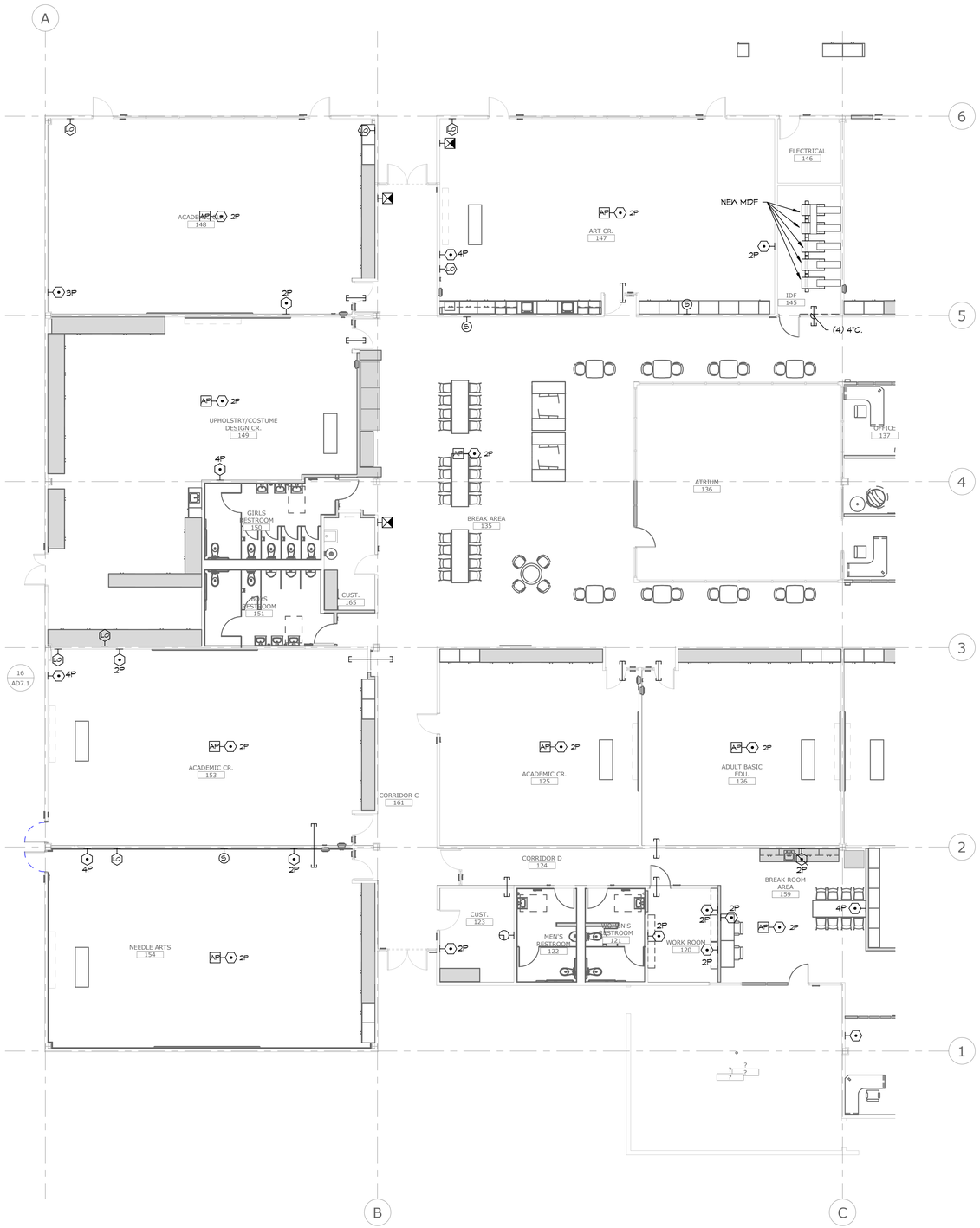
(2) DATA CABLING AND FACEPLATE FOR SYMBOL FURNISHED AND INSTALLED BY 271000 CONTRACTOR.

(3) FLAT PANEL DETAIL REFERENCED FOR J-BOX HEIGHTS AND LOCATIONS ONLY. DO NOT PROVIDE FLAT PANEL MOUNT.

(4) IP ADDRESSABLE SPEAKER BACKBOX AND DEVICE TO BE FURNISHED AND INSTALLED BY 271000 CONTRACTOR.

(5) IP ADDRESSABLE SPEAKER OR HORN BACKBOX AND DEVICE TO BE FURNISHED BY 271000 CONTRACTOR. BACKBOX TO BE INSTALLED BY THE DIVISION 26 CONTRACTOR.

(6) IP DIGITAL CAMERA LOCATIONS SHALL BE FURNISHED WITH (2) DATA CABLES TERMINATED ON SURFACE MOUNT JACK INSTALLED IN JUNCTION BOX. DATA CONNECTIONS FURNISHED AND INSTALLED BY 271000 CONTRACTOR. SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.



Mark Clarke NO.E 14781 Exp. 6-30-2021 ELECTRICAL STATE OF CALIFORNIA

LICENSED ARCHITECT David Ruhnau C-20662 03-31-2021 RENEWAL DATE STATE OF CALIFORNIA

#20005 STAMPS 2/12/2021 8:

AGENCY APPROVAL File No: A#

IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT
APP: 04-119728 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/18/2021

JOHNSON CONSULTING ENGINEERS, INC.
Power | Lighting | Multimedia
Communications | Data Networking
12875 Brookprinter Place, Suite 300
Poway, CA 92064
P 858.679.4030 | F 858.513.0559
www.jce-inc.com
CONSULTANT BRANDING

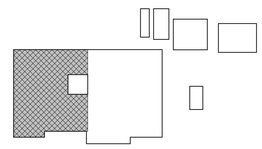
RUHNAU CLARKE ARCHITECTS

GENERAL NOTES:

1. REFERENCE ARCHITECTURAL INTERIOR ELEVATIONS FOR EXACT LOCATION OF ALL WALL MOUNTED DEVICES.
2. REFERENCE E4 SERIES SHEETS FOR TYPICAL CONDUIT AND BACKBOX INSTALLATION DETAILS.
3. REFERENCE E4 SERIES SHEETS FOR TYPICAL COMMUNICATION SYSTEMS RISER DIAGRAM.
4. REFERENCE RISER DIAGRAMS FOR TYPICAL CONDUIT SIZES AND ROUTINGS.
5. LOCATION OF PROJECTORS IS DIAGRAMMATICAL. EXACT LOCATION OF PROJECTOR AND PROJECTOR MOUNT IS TO BE COORDINATED WITH LOCATION AND SIZE OF PROJECTOR SCREEN IN EACH ROOM SHOWN WITH AN AUDIO-VISUAL SYSTEM.
6. HEIGHT SHOWN ON DRAWINGS FOR PROJECTOR SCREEN IS TO TOP OF IMAGE ON SCREEN. DO NOT MOUNT CASE AT HEIGHT SHOWN.
7. LOCATIONS OF AUDIO-VISUAL SYSTEMS COMPONENTS MOUNTED IN CEILINGS OR ON WALLS IS DIAGRAMMATICAL. FIELD VERIFY LOCATIONS OF SPEAKERS, IR DEVICES, AV SYSTEMS SWITCH ENCLOSURES AND FLAT PANELS PRIOR TO INSTALLATION.
8. FIELD VERIFY ALL EQUIPMENT AND DEVICES THAT REQUIRE DATA CONNETION IN THE BUILDING AND ON BUILDING EXTERIOR AND PROVIDE DATA CONNECTION TO THEM VIA THE SHORTEST ROUTE FROM NEW MDF AS REQUIRED.

KEY NOTES:

1. 3/4"C. TO BUILDING COMMUNICATIONS BACKBOARD.
2. 1"C. TO BUILDING COMMUNICATIONS BACKBOARD.
3. 1 1/4"C. TO BUILDING COMMUNICATIONS BACKBOARD.
4. 3/4"C. TO BUILDING 'IDF' LOCATION.
5. 1"C. TO BUILDING 'IDF' LOCATION.
6. 1 1/4"C. TO BUILDING 'IDF' LOCATION.



KEY PLAN

PROJECT No. :1-30-47
2/12/2021 8:48:44 AM
DRAWN BY: CHECKED BY:

REVISION:____ DATE _____ DESCRIPTION _____

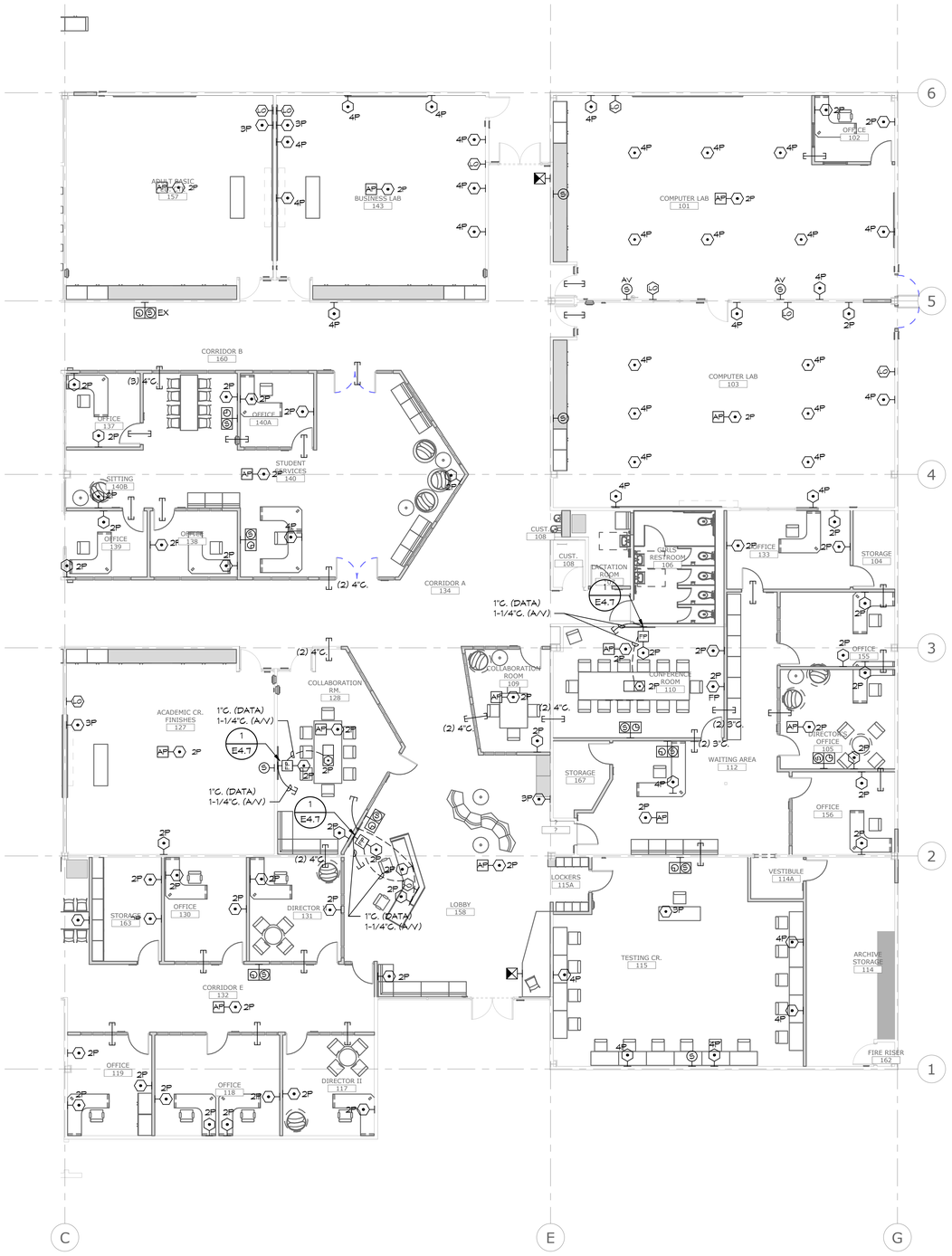
RUHNAUCLARKE.COM
3775 TENTH STREET, RIVERSIDE CALIFORNIA 92501 (951) 684 4664 / 5751 PALMER WAY, SUITE C, CARLSBAD CALIFORNIA 92010 (760) 438 5899

FOOTHILLS ADULT EDUCATION CENTER
1550 Melody Lane El Cajon, CA 92019
GROSSMONT UNIFIED HIGH SCHOOL DISTRICT

FLOOR PLAN_NEW A - COMMUNICATIONS

E4.1

1-30-47



Mechanical Engineer — No. E 14781 — Exp. 6-30-2021 — Electrical — State of California

Licensed Architect — David Ruhnau — C-20662 — 03-31-2021 — General — State of California

AGENCY APPROVAL
File No: A#

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-119728 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/18/2021

#20005
STAMPS
2/12/2021 8:

JOHNSON
CONSULTING ENGINEERS, INC.
Power | Lighting | Multimedia
Communications | Data Networking
12875 Brookprinter Place, Suite 300
Poway, CA 92064
P 858.679.4030 | F 858.513.0559
www.jce-inc.com
CONSULTANT BRANDING

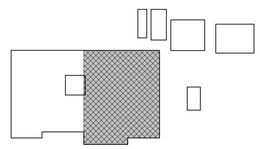
RUHNAU CLARKE ARCHITECTS

GENERAL NOTES:

1. REFERENCE ARCHITECTURAL INTERIOR ELEVATIONS FOR EXACT LOCATION OF ALL WALL MOUNTED DEVICES.
2. REFERENCE E4 SERIES SHEETS FOR TYPICAL CONDUIT AND BACKBOX INSTALLATION DETAILS.
3. REFERENCE E4 SERIES SHEETS FOR TYPICAL COMMUNICATION SYSTEMS RISER DIAGRAM.
4. REFERENCE RISER DIAGRAMS FOR TYPICAL CONDUIT SIZES AND ROUTINGS.
5. LOCATION OF PROJECTORS IS DIAGRAMMATICAL. EXACT LOCATION OF PROJECTOR AND PROJECTOR MOUNT IS TO BE COORDINATED WITH LOCATION AND SIZE OF PROJECTOR SCREEN IN EACH ROOM SHOWN WITH AN AUDIO-VISUAL SYSTEM.
6. HEIGHT SHOWN ON DRAWINGS FOR PROJECTOR SCREEN IS TO TOP OF IMAGE ON SCREEN. DO NOT MOUNT CASE AT HEIGHT SHOWN.
7. LOCATIONS OF AUDIO-VISUAL SYSTEMS COMPONENTS MOUNTED IN CEILINGS OR ON WALLS IS DIAGRAMMATICAL. FIELD VERIFY LOCATIONS OF SPEAKERS, IR DEVICES, AV SYSTEMS SWITCH ENCLOSURES AND FLAT PANELS PRIOR TO INSTALLATION.
8. FIELD VERIFY ALL EQUIPMENT AND DEVICES THAT REQUIRE DATA CONNETION IN THE BUILDING AND ON BUILDING EXTERIOR AND PROVIDE DATA CONNECTION TO THEM VIA THE SHORTEST ROUTE FROM NEW MDF AS REQUIRED.

KEY NOTES:

1. 3/4"C. TO BUILDING COMMUNICATIONS BACKBOARD.
2. 1"C. TO BUILDING COMMUNICATIONS BACKBOARD.
3. 1 1/4"C. TO BUILDING COMMUNICATIONS BACKBOARD.
4. 3/4"C. TO BUILDING 'IDF' LOCATION.
5. 1"C. TO BUILDING 'IDF' LOCATION.
6. 1 1/4"C. TO BUILDING 'IDF' LOCATION.



KEY PLAN

PROJECT No. :1-30-47
2/12/2021 8:48:49 AM
DRAWN BY: CHECKED BY:

REVISION:____ DATE _____ DESCRIPTION _____
REVISION:____ DATE _____ DESCRIPTION _____
REVISION:____ DATE _____ DESCRIPTION _____
REVISION:____ DATE _____ DESCRIPTION _____
REVISION:____ DATE _____ DESCRIPTION _____
REVISION:____ DATE _____ DESCRIPTION _____
REVISION:____ DATE _____ DESCRIPTION _____
REVISION:____ DATE _____ DESCRIPTION _____
REVISION:____ DATE _____ DESCRIPTION _____

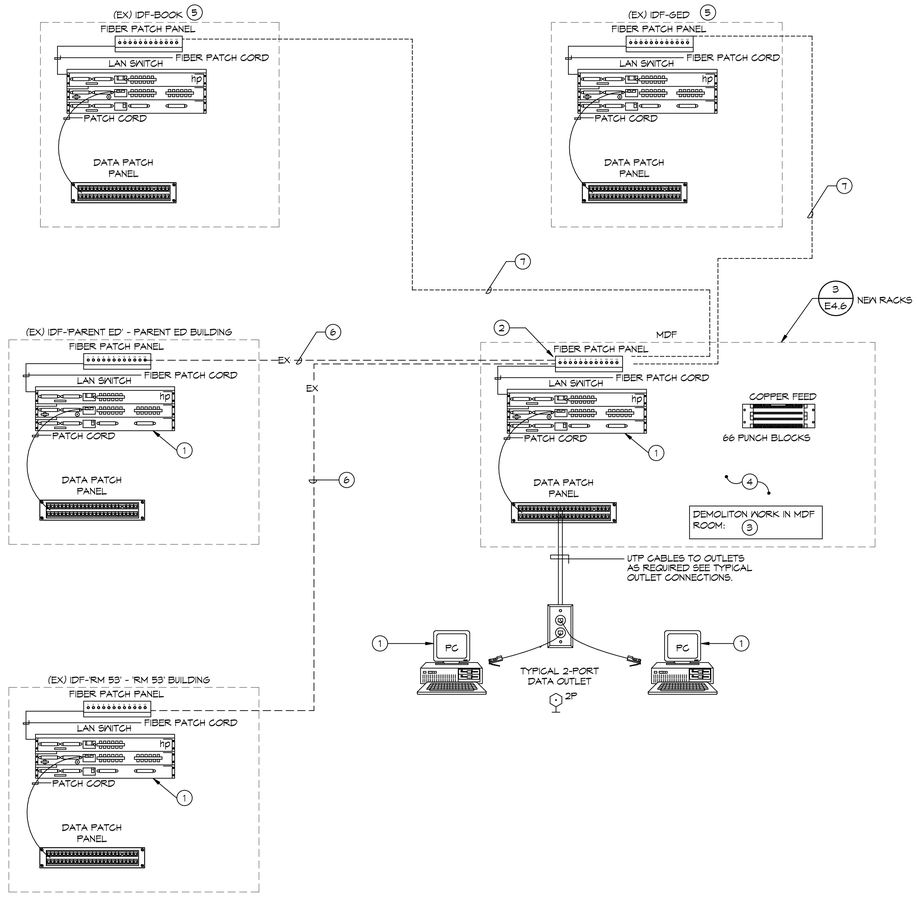
RUHNAUCLARKE.COM
3775 TENTH STREET, RIVERSIDE CALIFORNIA 92501 (951) 684 4664 / 5751 PALMER WAY, SUITE C, CARLSBAD CALIFORNIA 92010 (760) 438 5899

FOOTHILLS ADULT EDUCATION CENTER
1550 Melody Lane El Cajon, CA 92019
GROSSMONT UNIFIED HIGH SCHOOL DISTRICT

FLOOR PLAN_NEW B - COMMUNICATIONS

E4.2

1-30-47



COMMUNICATION RISER DIAGRAM
NO SCALE

1
E4.3

JOHNSON CONSULTING ENGINEERS, INC.
Power | Lighting | Multimedia
Communications | Data Networking
12875 Brookprinter Place, Suite 300
Poway, CA 92064
P 858.679.4030 | F 858.513.0559
www.jce-inc.com
CONSULTANT BRANDING

RUHNAU CLARKE ARCHITECTS

AGENCY APPROVAL
File No: A#

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-119728 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/18/2021

#20005
STAMPS
2/12/2021 8:

GENERAL NOTES:

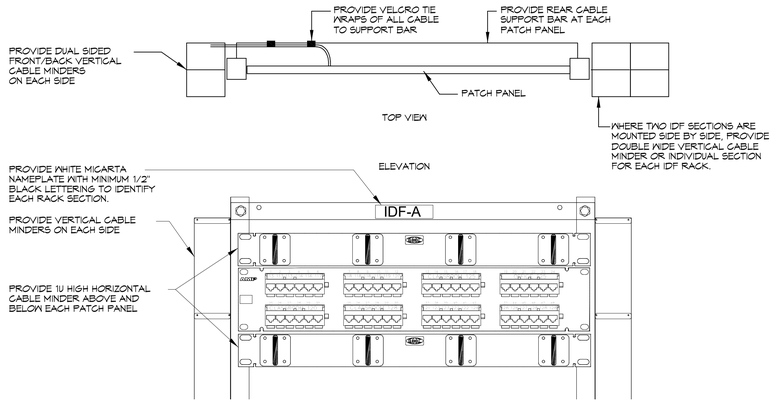
1. UNLESS OTHERWISE NOTED ALL ITEMS ARE TO BE FURNISHED AND INSTALLED BY 271000 CONTRACTOR.
2. ALL CONDUITS, POWER OUTLETS AND GROUNDING CONNECTIONS, BACKBOARDS TO BE PROVIDED BY ELECTRICAL CONTRACTOR.
3. REFERENCE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS, AND FLOOR PLANS FOR ADDITIONAL EQUIPMENT ITEMS REQUIRED, AND THEIR LOCATIONS.
4. WHERE OPEN CONDUCTORS ARE INSTALLED ABOVE ACCESSIBLE CEILINGS, ALL CONDUCTORS SHALL BE NEATLY BUNDLED TOGETHER AND SUPPORTED FROM ROOF STRUCTURE. WHERE BUNDLED WITH OTHER COMMUNICATIONS SYSTEMS, IDENTIFYING TAGS SHALL BE PROVIDED TO IDENTIFY THESE CONDUCTORS FROM OTHER SYSTEMS.
5. CONTRACTOR TO COORDINATE QUANTITY, SIZE AND LOCATION OF CONDUIT SLEEVES THRU RATED WALLS WITH ELECTRICAL CONTRACTOR PRIOR TO BID. ELECTRICAL CONTRACTOR SHALL PROVIDE CONDUIT SLEEVES AND FIRE PENETRATION SEAL AFTER CABLES ARE INSTALLED.

KEY NOTES:

1. FURNISHED AND INSTALLED BY DISTRICT.
2. DISCONNECT EXISTING 12-STRAND FIBER OPTIC CABLES SERVICING 'PARENT ED' BUILDING AND 'RM 53' BUILDING FROM EXISTING FIBER PATCH PANEL. PROTECT IN PLACE THE EXISTING FIBER AND CONNECTORS. RECONNECT TO NEW MDF RACK FIBER PATCH PANEL UPON COMPLETION OF THE MDF RECONSTRUCTION WORK.
3. EXISTING (4) 4-POST DATA RACKS, CABLE RUNWAYS, WIRING MANAGEMENT, PATCH PANELS AND COPPER SHALL BE DISCONNECTED AND REMOVED. ALL RACK MOUNTED AND PDU'S UPS SHALL BE REMOVED AND RETURNED TO THE DISTRICT. ALL NETWORKING ELECTRONICS SHALL BE DISCONNECTED AND REMOVED FROM THE EXISTING RACKS PRIOR TO REMOVAL OF THE RACKS. COORDINATE WITH DISTRICT.
4. FIELD VERIFY ALL EQUIPMENT AND DEVICES THAT REQUIRE DATA CONNETION IN THE BUILDING AND ON BUILDING EXTERIOR AND PROVIDE DATA CONNECTION TO THEM VIA THE SHORTEST ROUTE FROM NEW MDF AS REQUIRED.
5. EXISTING IDF CABINET SHALL BE DISCONNECTED AND REMOVED. RETURN ALL NETWORKING ELECTRONICS AND PDU'S TO THE DISTRICT. ALL EXISTINTG DATA CABLING AND FIBER OPTIC CABLES SHALL BE DISCONNECTED AND REMOVED.
6. EXISTING FIBER TO REMAIN.
7. EXISITING FIBER TO BE REMOVED.

PROJECT No. :1-30-47
2/12/2021 8:48:53 AM
DRAWN BY: CHECKED BY:

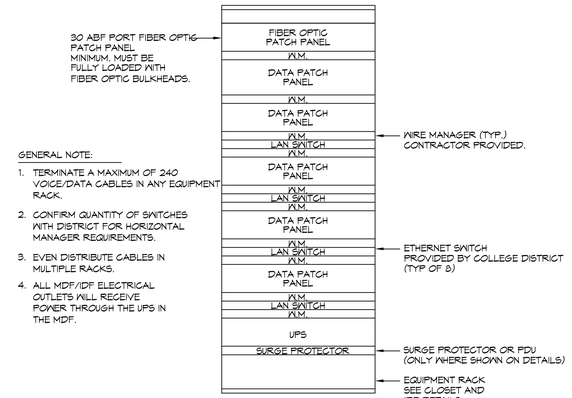
REVISION:____ DATE _____ DESCRIPTION _____
REVISION:____ DATE _____ DESCRIPTION _____
REVISION:____ DATE _____ DESCRIPTION _____
REVISION:____ DATE _____ DESCRIPTION _____
REVISION:____ DATE _____ DESCRIPTION _____
REVISION:____ DATE _____ DESCRIPTION _____
REVISION:____ DATE _____ DESCRIPTION _____
REVISION:____ DATE _____ DESCRIPTION _____
REVISION:____ DATE _____ DESCRIPTION _____



TYPICAL IDF/MDF LABELING AND CABLE SUPPORT DETAIL

NO SCALE

1 / E4.4



GENERAL NOTE:

1. TERMINATE A MAXIMUM OF 240 VOICE/DATA CABLES IN ANY EQUIPMENT RACK.
2. CONFIRM QUANTITY OF SWITCHES WITH DISTRICT FOR HORIZONTAL MANAGER REQUIREMENTS.
3. EVEN DISTRIBUTE CABLES IN MULTIPLE RACKS.
4. ALL MDF/IDF ELECTRICAL OUTLETS WILL RECEIVE POWER THROUGH THE UPS IN THE MDF.

MAXIMUM EQUIPMENT RACK POPULATION DETAIL

NO SCALE

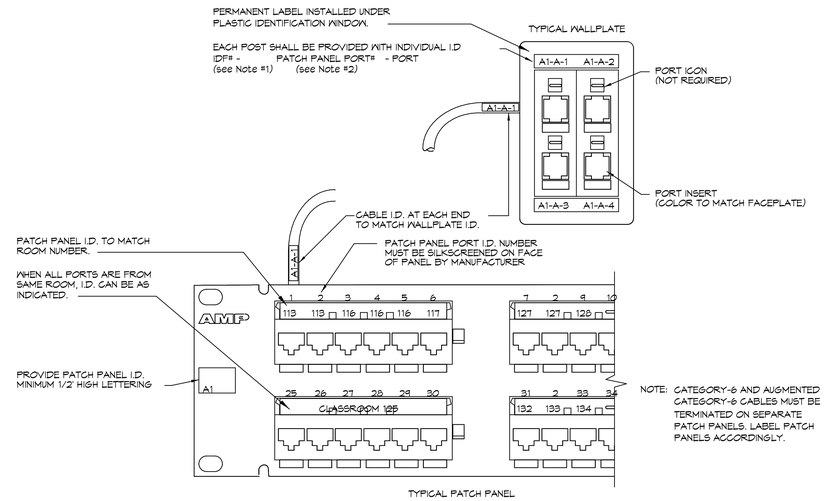
2 / E4.4

NOTE:

1. EACH IDF SHALL BE NUMBERED TO MATCH THE BUILDING NAME (IDF-A or IDF-100, FOR BUILDINGS WITH MULTIPLE IDF'S (IDF-A1, A2 or IDF-100A, 100B)
2. NUMBER TO MATCH MANUFACTURER'S PREPRINTED NUMBERS 1-48 ON PATCH PANEL
3. BOTH ROOM NUMBER AND PATCH PANEL PORT ASSIGNMENT MUST BE SHOWN ON PATCH PANEL.

GENERAL NOTES:

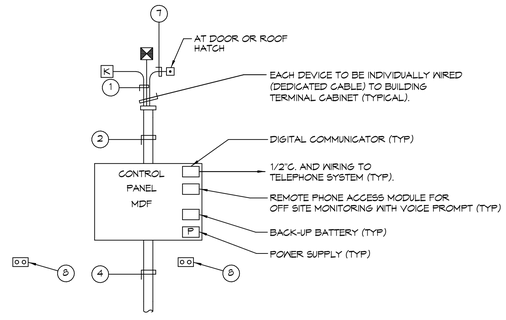
1. ALL IDENTIFICATIONS SHALL BE MACHINE MADE, NO HAND WRITTEN LABELS, SEE SPECIFICATIONS. VERIFY IN WRITING ALL ROOM IDENTIFICATIONS WITH ARCHITECT PRIOR TO MAKING ANY LABELS.
2. ALL LABELING FORMATS ARE SUBJECT TO APPROVAL BY THE DISTRICT IT DEPARTMENT. CONTRACTOR MUST CONFIRM ALL LABELING FORMATS PRIOR TO INSTALLATION OF ANY LABELS AND MUST HAVE WRITTEN APPROVAL.



TYPICAL DATA NETWORKING LABELING REQUIREMENT

NO SCALE

3 / E4.4



GENERAL NOTES:

1. ALL CONDUITS, POWER OUTLETS AND GROUNDING CONNECTIONS, BACKBOARDS AND REMOTE BUILDING COMMUNICATIONS CABINETS TO BE PROVIDED BY ELECTRICAL CONTRACTOR.
2. REFERENCE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS, AND FLOOR PLANS FOR ADDITIONAL EQUIPMENT ITEMS REQUIRED, AND THEIR LOCATIONS.
3. WHERE OPEN CONDUCTORS ARE INSTALLED ABOVE ACCESSIBLE CEILINGS, ALL CONDUCTORS SHALL BE NEATLY BUNDLED TOGETHER AND SUPPORTED FROM ROOF STRUCTURE. WHERE BUNDLED WITH OTHER COMMUNICATION SYSTEMS, IDENTIFYING TAGS SHALL BE PROVIDED TO IDENTIFY THESE CONDUCTORS FROM OTHER SYSTEMS.
4. PROVIDE I.D. LABEL ON EACH END OF EACH CABLE.
5. ALL SECURITY CABLING MUST BE SUPPORTED FROM THE STRUCTURE THE SAME AS REQUIRED FOR VOICE/DATA CABLING. SEE DETAIL 2 / E4.5 FOR REQUIREMENTS.

KEY NOTES:

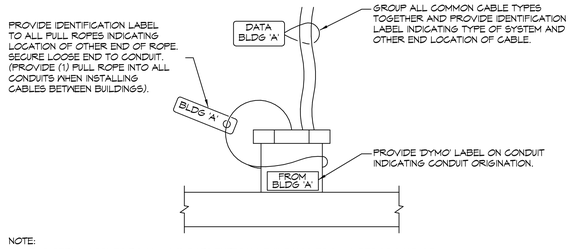
1. WIRING AS REQUIRED BY MANUFACTURER.
2. PROVIDE MINIMUM (3) 2"C. CONDUIT STUBBED INTO ACCESSIBLE CEILING SPACE. PROVIDE PLASTIC BUSHINGS AT EACH END.
3. COMMUNICATIONS BACKBOARD. SEE FLOOR PLANS FOR IDF ROOMS WITH A COMMUNICATIONS BACKBOARD. PROVIDE ADEQUATE SPACE FOR FUTURE PUNCH BLOCKS.
4. SITE CONDUIT CONNECTION TO COMMUNICATIONS BACKBOARD PROVIDE PLASTIC BUSHINGS AT EACH END.
5. SEE IDF-36A FOR TYPICAL NOTES.
6. ALL SITE DISTRIBUTION CABLES SHALL BE MULTI- CONDUCTOR. PROVIDE CABLE TO EACH BUILDING. PLUS 25% EXPANSION CAPABILITY
7. CONTINUE CONDUCTORS TO ADDITIONAL DEVICES AS REQUIRED.
8. DUPLEX RECEPTACLE LOCATED 6" BELOW CABINET. FIELD VERIFY EXACT LOCATION WITH MANUFACTURER PRIOR TO ROUGH IN.
9. POWER SUPPLY SIZED 50% SPARE CAPACITY.

TYPICAL SECURITY/INTRUSION DETECTION SYSTEM DIAGRAM

NO SCALE

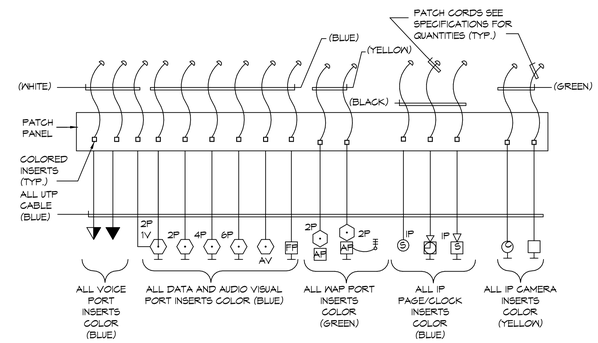
4 / E4.4

STATE OF CALIFORNIA — REGISTERED PROFESSIONAL ENGINEER — Matthew Lewis — NO. E 14781 — Exp. 6-30-2021 — ELECTRICAL
LICENSED ARCHITECT — David Ruhnau — C-20662 — 03-31-2021 RENEWAL DATE — STATE OF CALIFORNIA
#20005 STAMPS 2/12/2021 8:
AGENCY APPROVAL File No: A#
IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT APP: 04-119728 INC: REVIEWED FOR SS ☑ FLS ☑ ACS ☑ DATE: 02/18/2021
JOHNSON CONSULTING ENGINEERS, INC.
Power | Lighting | Multimedia
Communications | Data Networking
12875 Brookprinter Place, Suite 300
Poway, CA 92064
P 858.679.4030 | F 858.513.0559
www.jce-inc.com
CONSULTANT BRANDING
RUHNAU CLARKE ARCHITECTS

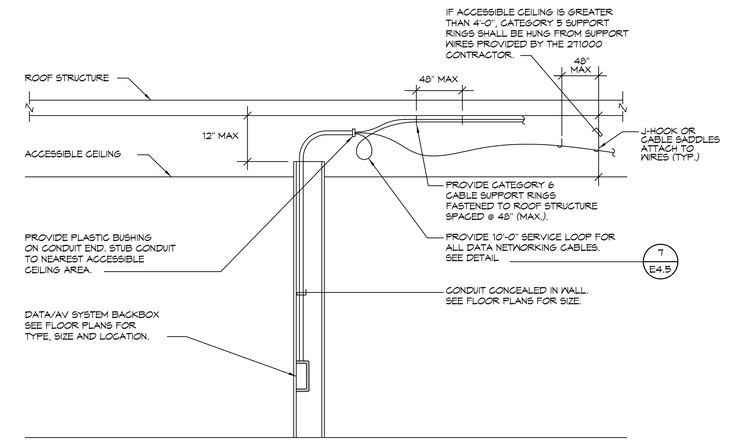


NOTE:
1. THIS DETAIL APPLIES TO ALL CONDUITS ENTERING BUILDINGS FROM UNDERGROUND OR OVERHEAD WHERE CONDUITS ENTER UNDERGROUND HANDHOLES, PROVIDE SIMILAR LABELING EXCEPT USE WATERPROOF LABELS.
2. HAND WRITTEN LABELS ARE NOT PERMITTED.

COMMUNICATION CABLE TYPICAL LABELING DETAIL
NO SCALE — 1 / E4.5

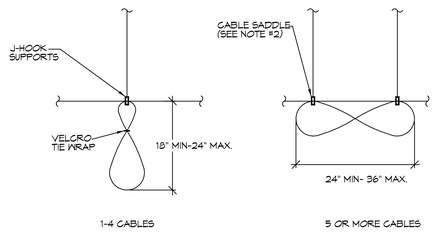


COMMUNICATIONS SYSTEM OPEN WIRE/CONDUIT STUB TYPICAL DETAIL
NO SCALE — 2 / E4.5



NOTES:
#1 REFERENCE CONTRACT DOCUMENTS FOR WHICH SYSTEMS, AND IN WHAT AREAS OPEN WIRE INSTALLATIONS ARE PERMITTED.
#2 SECURITY SYSTEMS CONTRACTOR MUST INSTALL THEIR OWN SUPPORT SYSTEM, SEPARATE FROM THE VOICE/DATA CABLING SUPPORT SYSTEM.

TYPICAL SERVICE LOOP
NO SCALE — 3 / E4.5



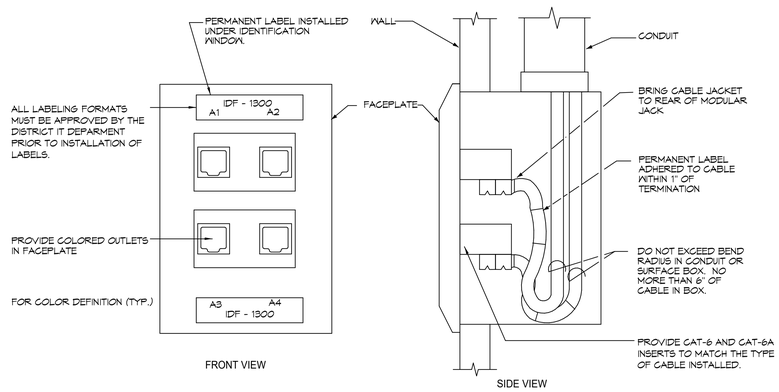
NOTE:
1. ALL SERVICE LOOPS SHALL BE FORMED IN FIGURE 8 CONFIGURATION.
2. SADDLE SHALL BE SIZED TO HOLD QUANTITY OF CABLES REQUIRED PER MANUFACTURE REQ.

TYPICAL CABLE/INSERT COLOR SCHEME DETAIL
NO SCALE — 4 / E4.5

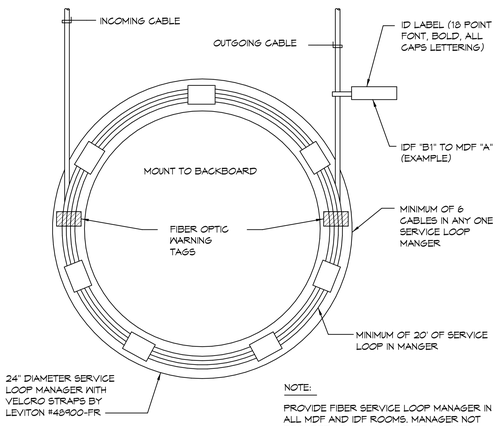
TYPICAL BACKBONE LABELING DETAIL
NO SCALE — 5 / E4.5

NOTES:
1. LABEL BOTH ENDS OF BACKBONE CABLES AND IN EACH ROOM IN WHICH THE CABLE ROUTES THROUGH.
2. ROOM DESIGNATIONS SHOWN IN DETAIL ARE AN EXAMPLE AND MAY NOT REFLECT ACTUAL ROOM INFORMATION.

TYPICAL FACEPLATE LABELING DETAIL
NO SCALE — 6 / E4.5

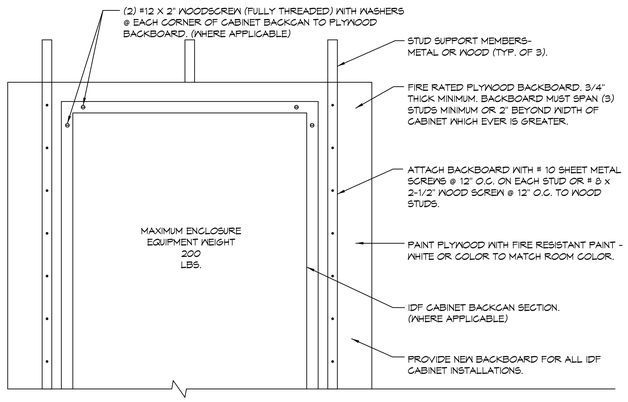


TYPICAL FIBER OPTIC FEED SERVICE LOOP DETAIL
NO SCALE — 7 / E4.5

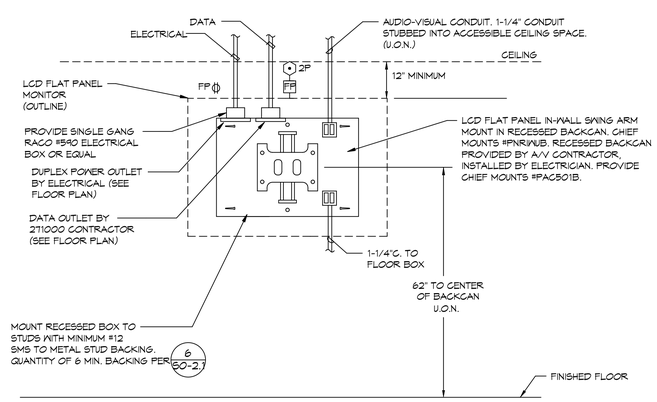


NOTE:
PROVIDE FIBER SERVICE LOOP MANAGER IN ALL MDF AND IDF ROOMS. MANAGER NOT REQUIRED AT WALL MOUNT IDF CABINET.

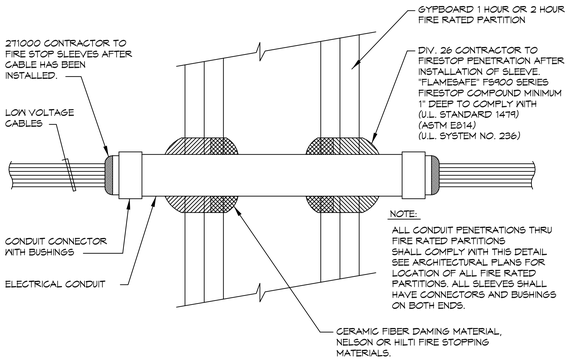
TYPICAL BACKBOARD DETAIL
NO SCALE — 8 / E4.5



LCD FLAT PANEL INSTALLATION DETAIL - RECESSED BACKBOX
NO SCALE — 9 / E4.5



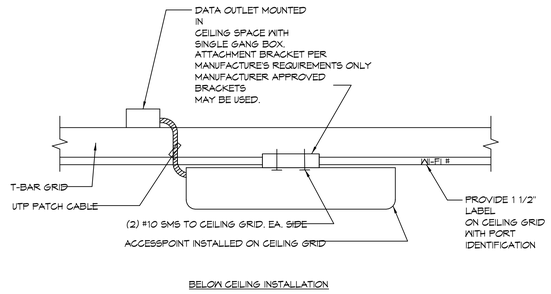
MICHAEL RUHNAU — No. E 14781 — Exp. 6-30-2021 — ELECTRICAL — STATE OF CALIFORNIA
LICENSED ARCHITECT — David Ruhnau — C-20662 — 03-31-2021 RENEWAL DATE — STATE OF CALIFORNIA
#20005 STAMPS 2/12/2021 8:
AGENCY APPROVAL File No: A#
IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT
APP: 04-119728 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/18/2021
JOHNSON CONSULTING ENGINEERS, INC.
Power | Lighting | Multimedia
Communications | Data Networking
12875 Brookprinter Place, Suite 300
Poway, CA 92064
P 858.679.4030 | F 858.513.0559
www.jce-inc.com
CONSULTANT BRANDING
RUHNAU CLARKE ARCHITECTS



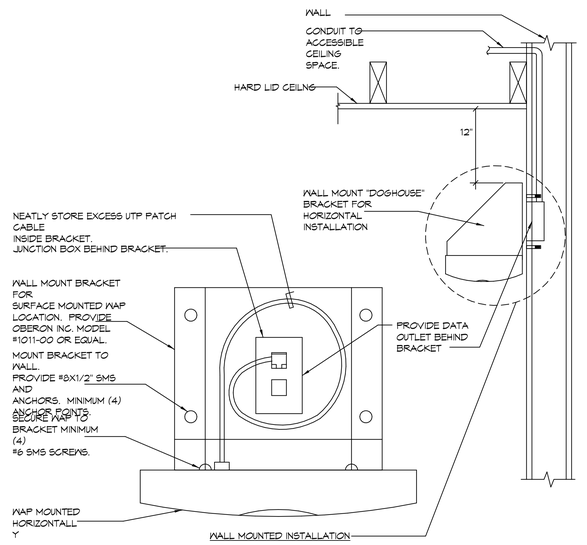
VOICE/DATA SLEEVE PENETRATION THRU FIRE RATED PARTITIONS

NO SCALE

1 / E4.6



BELOW CEILING INSTALLATION



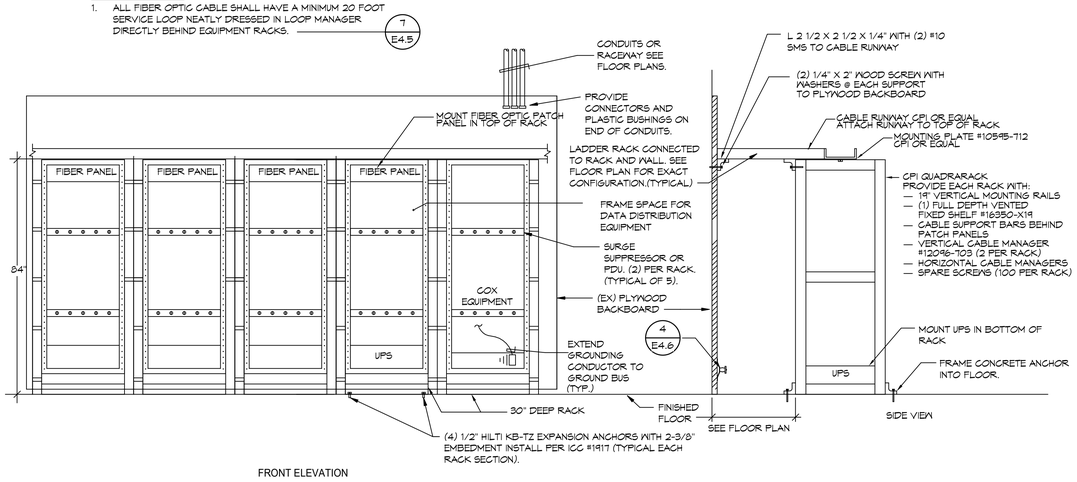
WIRELESS ACCESS POINT ANTENNA MOUNTING DETAILS

NO SCALE

2 / E4.6

GENERAL NOTE:

1. ALL FIBER OPTIC CABLE SHALL HAVE A MINIMUM 20 FOOT SERVICE LOOP NEATLY DRESSED IN LOOP MANAGER DIRECTLY BEHIND EQUIPMENT RACKS. (7 / E4.5)

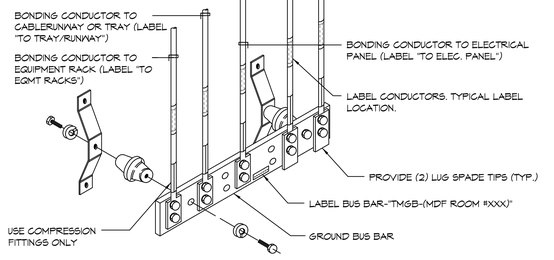


FRONT ELEVATION

DATA DISTRIBUTION FRAME DETAIL - IDF 2-RACK DETAIL

NO SCALE

3 / E4.6

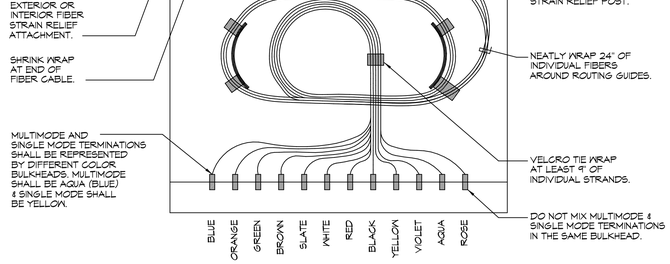


PROVIDE "CPI # 40158-012" GROUND BAR ASSEMBLY OR EQUAL. (PROVIDE INSULATOR ASSEMBLIES)

DATA/COMMUNICATIONS GROUNDING DETAIL

NO SCALE

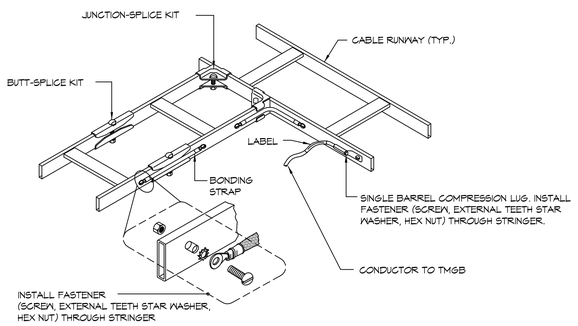
4 / E4.6



FIBER TERMINATION DETAIL (CABLE TYPE MAY DIFFER)

NO SCALE

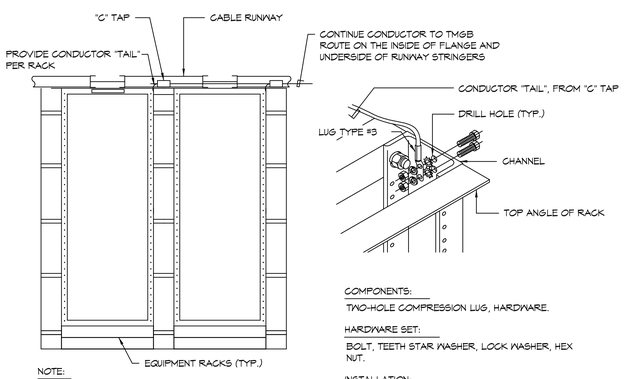
5 / E4.6



TYPICAL CABLE RUNWAY BONDING IN MDF/IDF ROOM

NO SCALE

6 / E4.6



NOTE:

BOND EQUIPMENT RACKS INDIVIDUALLY TO BUS BAR.

COMPONENTS:

TWO-HOLE COMPRESSION LUG, HARDWARE.

HARDWARE SET:

BOLT, TEETH STAR WASHER, LOCK WASHER, HEX NUT.

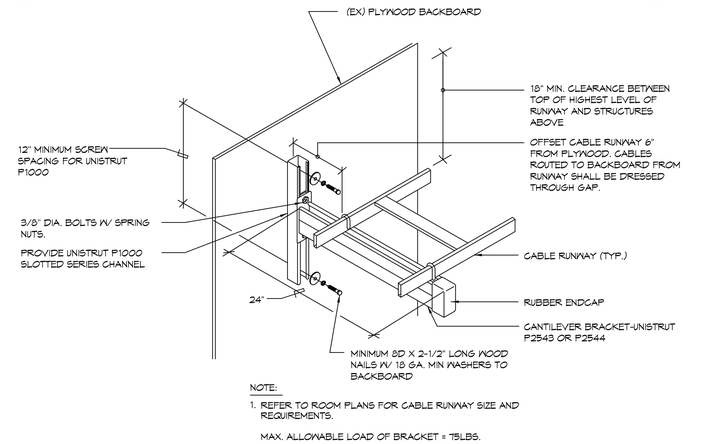
INSTALLATION:

DRILL HOLES THROUGH MOUNTING CHANNEL OF RACK AND VERTICAL MANGER. INSTALL FASTENERS THROUGH CHANNEL AND VERTICAL MANAGER.

TYPICAL EQUIPMENT RACK BONDING IN MDF/IDF ROOM

NO SCALE

8 / E4.6



NOTE:

1. REFER TO ROOM PLANS FOR CABLE RUNWAY SIZE AND REQUIREMENTS.

MAX. ALLOWABLE LOAD OF BRACKET = 75LBS.

TYPICAL CABLE RUNWAY INSTALLATION ALONG WALL DETAIL

NO SCALE

7 / E4.6

Mathew Ruhnau, No. E 14781, Exp. 6-30-2021, Electrical, State of California, Registered Professional Engineer
Edward Ruhnau, No. C-20662, Licensed Architect, 03-31-2021, Renewal Date, State of California
#20005 STAMPS 2/12/2021 8:
AGENCY APPROVAL File No: A#
IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT
APP: 04-119728 INC:
REVIEWED FOR SS ☑ FLS ☑ ACS ☑
DATE: 02/18/2021
JOHNSON CONSULTING ENGINEERS, INC.
Power | Lighting | Multimedia
Communications | Data Networking
12875 Brookprinter Place, Suite 300
Poway, CA 92064
P 858.679.4030 | F 858.513.0559
www.jce-inc.com
CONSULTANT BRANDING
RUHNAU CLARKE ARCHITECTS

PROJECT No. :1-30-47
2/12/2021 8:49:03 AM
DRAWN BY: CHECKED BY:

REVISION:____ DATE _____ DESCRIPTION _____

RUHNAUCLARKE.COM

3775 TENTH STREET, RIVERSIDE CALIFORNIA 92501 (951) 684 4664 / 5751 PALMER WAY, SUITE C, CARLSBAD CALIFORNIA 92010 (760) 438 5899

FOOTHILLS ADULT EDUCATION CENTER
1550 Melody Lane El Cajon, CA 92019
GROSSMONT UNIFIED HIGH SCHOOL DISTRICT

COMMUNICATIONS DETAILS

E4.6

1-30-47

Mark Ruhnau
No. E 14781
Exp. 6-30-2021
ELECTRICAL
STATE OF CALIFORNIA

LICENSED ARCHITECT
David Ruhnau
C-20662
03-31-2021
RENEWAL DATE
STATE OF CALIFORNIA

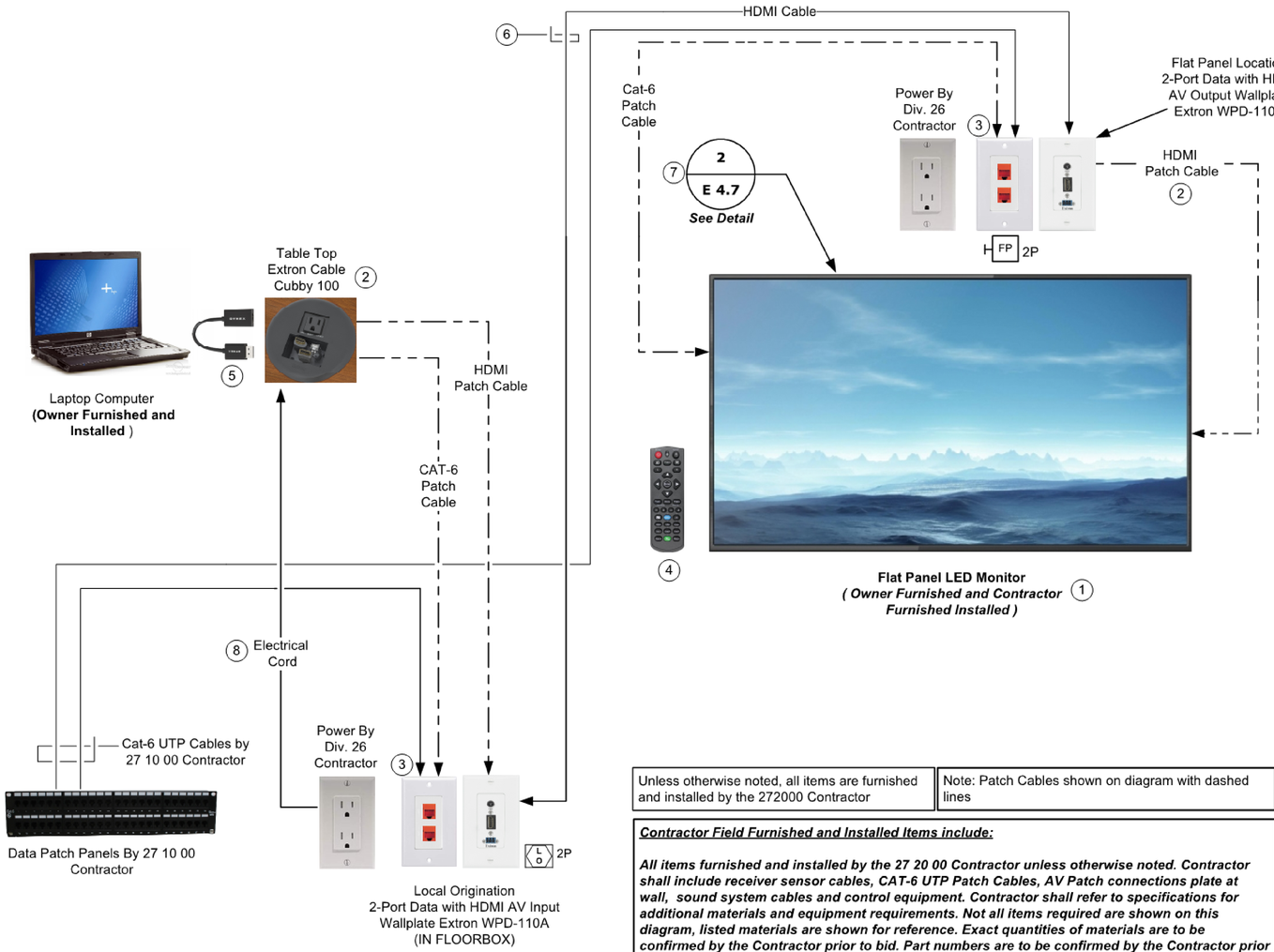
#20005
STAMPS
2/12/2021

AGENCY APPROVAL
File No: A#
IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-119728 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/18/2021

JOHNSON
CONSULTING ENGINEERS, INC.
Power | Lighting | Multimedia
Communications | Data Networking
12875 Brookprinter Place, Suite 300
Poway, CA 92064
P 858.679.4030 | F 858.513.0559
www.jce-inc.com
CONSULTANT BRANDING

RUHNAU
CLARKE
ARCHITECTS

Flat Panel AV System – Single Input - Passive Connection



DETAIL KEYNOTES:

1. Flat Panel Mount furnished and Installed by the Contractor. Coordinate mount requirements with Flat Panel Size and Weight
2. Provide Extron Cable Cubby 100 with HDMI and Category-6 Patch Cable. Extend patch cables down to floor box. Provide cable loom for patch cables and neatly dress to floor box.
3. Category-6 UTP Data Cables, Outlet Wallplates and Surface Jacks furnished and installed by the 27 10 00 Contractor
4. Contractor shall set up Flat Panel Remote Control for proper operation of all inputs and image properties.
5. HDMI patch cable assembly shall be furnished with a HDMI to DisplayPort Adapter. See specifications for requirements.
6. Provide hybrid Fiber Optic-type HDMI cable from Flat Panel location to Floor Box. See specifications for additional requirements.
7. Refer to the floor plans for the type of mount required and for any changes to the mounting height. Height of junction boxes shall adjust relative to the height of the mount. Distance from the center of the mount to the junction boxes shall remain the same.
8. Provide 120V Power Cord from Cable Cubby Electrical Outlet to Power Outlet in Floor Box. Cable must be neatly dressed separately from Low Voltage Patch Cables.

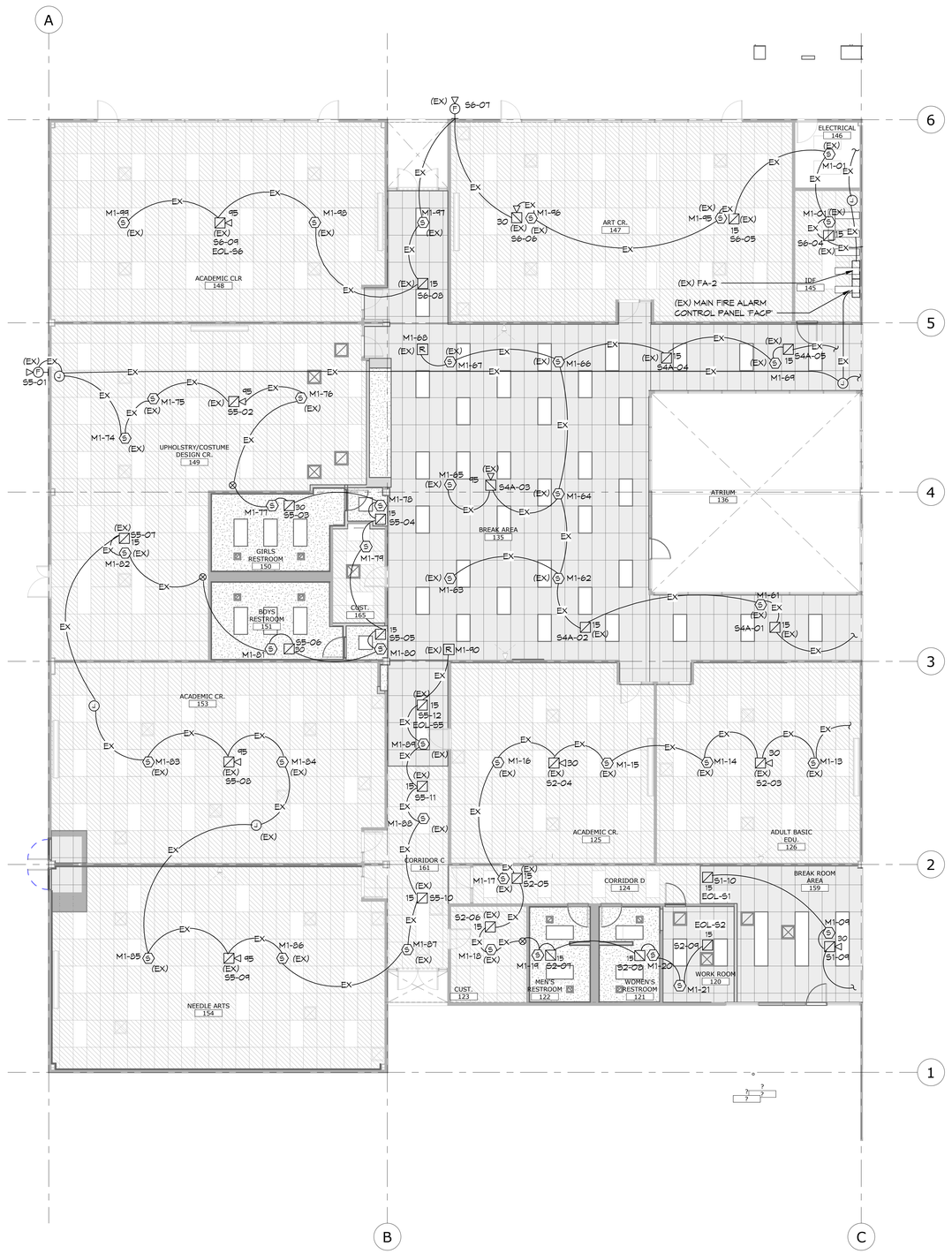
Unless otherwise noted, all items are furnished and installed by the 272000 Contractor	Note: Patch Cables shown on diagram with dashed lines

Contractor Field Furnished and Installed Items include:

All items furnished and installed by the 27 20 00 Contractor unless otherwise noted. Contractor shall include receiver sensor cables, CAT-6 UTP Patch Cables, AV Patch connections plate at wall, sound system cables and control equipment. Contractor shall refer to specifications for additional materials and equipment requirements. Not all items required are shown on this diagram, listed materials are shown for reference. Exact quantities of materials are to be confirmed by the Contractor prior to bid. Part numbers are to be confirmed by the Contractor prior to bid.

AUDIO VISUAL SYSTEM DIAGRAM - FLAT PANEL
NO SCALE

1
E4.7



KEY PLAN

FIRE ALARM NOTE:
THIS FIRE ALARM DESIGN IS A COMPLETE PLAN SUBMITTAL IN ACCORDANCE WITH 2019 CBC 907.1.

FULLY AUTOMATIC FIRE ALARM DESIGN:
THIS PROJECT IS DESIGNED TO COMPLY WITH ALL REQUIREMENTS FOR A FULLY PROTECTED AUTOMATIC FIRE ALARM SYSTEM.

EXPANSION OF EXISTING SYSTEM:
THIS PROJECT ADDS TO AND OR MODIFIES AN EXISTING SYSTEM, PREVIOUSLY APPROVED BY DSA. ALL NEW COMPONENTS ARE COMPATIBLE WITH THE EXISTING SYSTEM EQUIPMENT.

Mitchell Ruhnau — NO.E 14781 — Exp. 6-30-2021 — ELECTRICAL — STATE OF CALIFORNIA

LICENSED ARCHITECT — David Ruhnau — C-20662 — 03-31-2021 RENEWAL DATE — STATE OF CALIFORNIA

#20005
STAMPS 2/12/2021 8:

AGENCY APPROVAL
File No: A#

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-119728 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/18/2021

JOHNSON CONSULTING ENGINEERS, INC.
Power | Lighting | Multimedia
Communications | Data Networking
12875 Brookprinter Place, Suite 300
Poway, CA 92064
P 858.679.4030 | F 858.513.0559
www.jce-inc.com
CONSULTANT BRANDING

RUHNAU CLARKE ARCHITECTS

GENERAL NOTES:
1. REFERENCE ARCHITECTURAL INTERIOR ELEVATIONS FOR EXACT LOCATION OF ALL WALL MOUNTED DEVICES.
2. REFERENCE E5 SERIES SHEETS FOR TYPICAL CONDUIT AND BACKBOX INSTALLATION DETAILS.
3. REFERENCE RISER DIAGRAMS FOR TYPICAL CONDUIT SIZES AND INITIATION ZONE CIRCUIT IDENTIFICATIONS.
4. REFERENCE MECHANICAL PLANS FOR EXACT LOCTION OF ALL DUCT DETECTORS AND SMOKE DAMPER LOCATIONS.
5. UNLESS OTHERWISE NOTED SOLID LINES BETWEEN DEVICES SHALL BE 1" E.M.T. ROUTED CONCEALED ABOVE CEILINGS OR IN WALLS. DASHED LINES INDICATE 1" P.V.C. UNDERGROUND CONDUIT. ALL WIRING TO BE PROVIDED PER MANUFACTURER SHOP DRAWINGS.
6. CONTRACTOR SHALL PROVIDE CEILING ACCESS PANEL AT ALL NON-LAYIN TYPE CEILINGS, WHERE HEAT DETECTOR ABOVE CEILING IS INDICATED.
7. PROVIDE WIRE PROTECTIVE GUARD OVER ALL FIRE ALARM DEVICES LOCATED IN THE FOLLOWING AREAS: GYMNASIUM, LOCKER ROOMS, SHOP AREAS, AND ANY OTHER AREA WHERE DEVICES MAY BE SUBJECT TO CONTACT.

KEY NOTES:
(1) PROVIDE DEDICATED 120 VOLT CIRCUIT TO PANEL CONNECT TO "RED LOCK ON BREAKER". REFER TO POWER E3 SERIES SHEETS FOR CIRCUIT INFORMATION.
(2) PROVIDE CONNECTION TO "FACP",

FIRE ALARM SYMBOLS LEGEND:
- SI / 15 — CEILING MOUNTED FLASHING LIGHT STROBE (15 = STROBE CANDELA RATING) (SI = SIGNAL CIRCUIT IDENTIFICATION)
- SI / 15 — CEILING MOUNTED COMBINATION HORN/STROBE (15 = STROBE CANDELA RATING) (SI = SIGNAL CIRCUIT IDENTIFICATION)
- (F) — (EXISTING) WALL MOUNTED WEATHERPROOF EXTERIOR HORN MOUNTED +90" A.F.F. TO BOTTOM OF DEVICE (SI= SIGNAL CIRCUIT IDENTIFICATION)
- (S) — CEILING MOUNTED SMOKE DETECTOR
- FACP — (EXISTING) MAIN FIRE ALARM CONTROL PANEL
- FA — REMOTE FIRE ALARM POWER EXTENDER
- ANN — (EXISTING) REMOTE ANNUNCIATOR
- R — ADDRESSABLE RELAY MODULE
- M — ADDRESSABLE MONITOR MODULE
- EOL — END OF LINE RESISTOR

PROJECT No. :1-30-47
2/12/2021 8:49:09 AM
DRAWN BY: CHECKED BY:

REVISION:____ DATE_____ DESCRIPTION_____

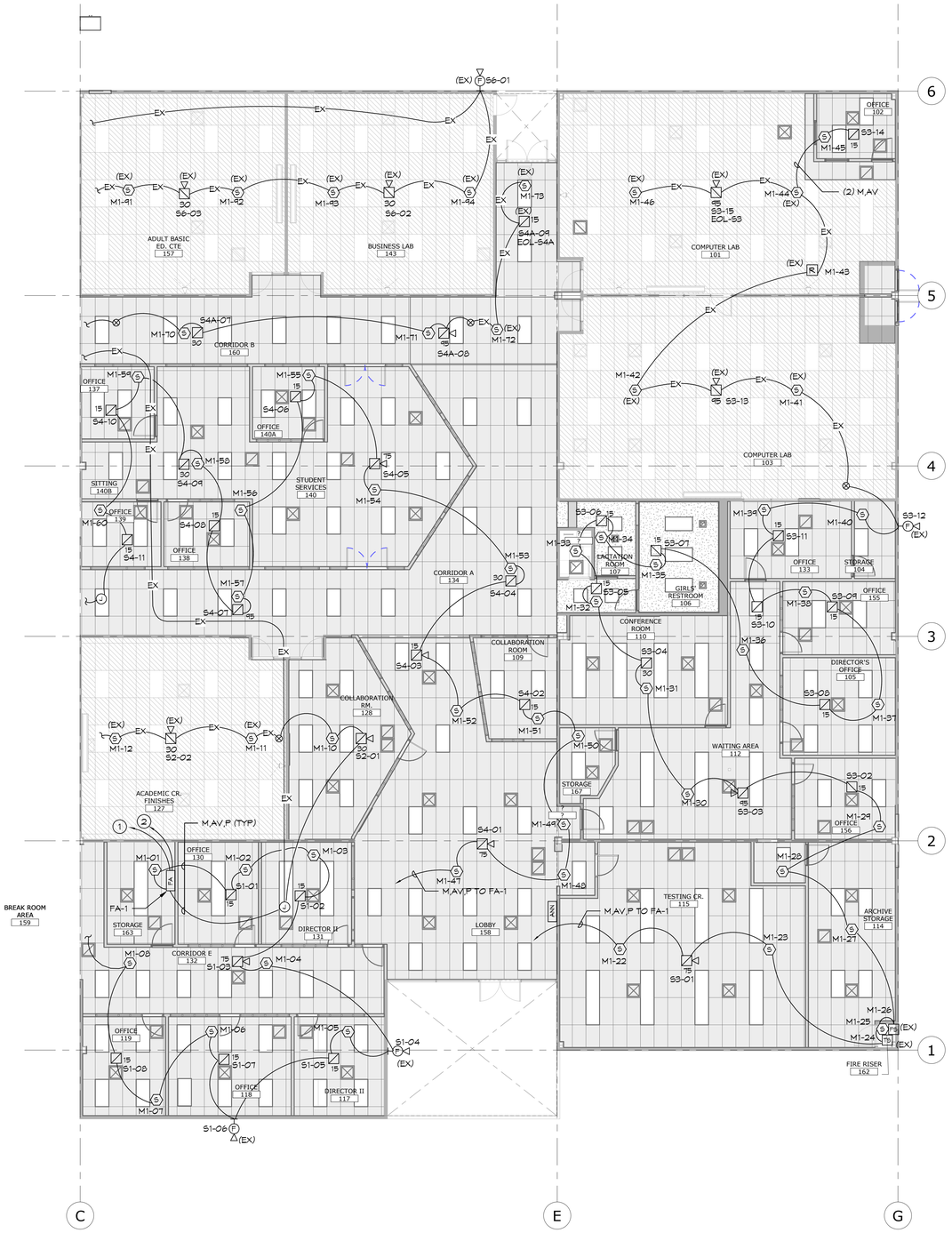
RUHNAUCLARKE.COM
3775 TENTH STREET, RIVERSIDE CALIFORNIA 92501 (951) 684 4664 / 5751 PALMER WAY, SUITE C, CARLSBAD CALIFORNIA 92010 (760) 438 5899

FOOTHILLS ADULT EDUCATION CENTER
1550 Melody Lane El Cajon, CA 92019
GROSSMONT UNIFIED HIGH SCHOOL DISTRICT

FLOOR PLAN_NEW A - FIRE ALARM

E5.1

1-30-47



FIRE ALARM NOTE:
THIS FIRE ALARM DESIGN IS A COMPLETE PLAN SUBMITTAL IN ACCORDANCE WITH 2019 CBC 907.1.

FULLY AUTOMATIC FIRE ALARM DESIGN:
THIS PROJECT IS DESIGNED TO COMPLY WITH ALL REQUIREMENTS FOR A FULLY PROTECTED AUTOMATIC FIRE ALARM SYSTEM.

EXPANSION OF EXISTING SYSTEM:
THIS PROJECT ADDS TO AND OR MODIFIES AN EXISTING SYSTEM, PREVIOUSLY APPROVED BY DSA. ALL NEW COMPONENTS ARE COMPATIBLE WITH THE EXISTING SYSTEM EQUIPMENT.

Mark Ruhnau No.E 14781 Exp. 6-30-2021 ELECTRICAL STATE OF CALIFORNIA

LICENSED ARCHITECT David Ruhnau C-20662 03-31-2021 RENEWAL DATE STATE OF CALIFORNIA

#20005 STAMPS 2/12/2021 8:

AGENCY APPROVAL File No: A#

IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT
APP: 04-119728 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/18/2021

JOHNSON CONSULTING ENGINEERS, INC.
Power | Lighting | Multimedia
Communications | Data Networking
12875 Brookprinter Place, Suite 300
Poway, CA 92064
P 858.679.4030 | F 858.513.0559
www.jce-inc.com
CONSULTANT BRANDING

RUHNAU CLARKE ARCHITECTS

GENERAL NOTES:

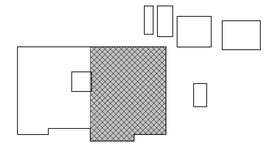
1. REFERENCE ARCHITECTURAL INTERIOR ELEVATIONS FOR EXACT LOCATION OF ALL WALL MOUNTED DEVICES.
2. REFERENCE E8 SHEETS FOR TYPICAL CONDUIT AND BACKBOX INSTALLATION DETAILS.
3. REFERENCE RISER DIAGRAMS FOR TYPICAL CONDUIT SIZES AND INITIATION ZONE CIRCUIT IDENTIFICATIONS.
4. REFERENCE MECHANICAL PLANS FOR EXACT LOCTION OF ALL DUCT DETECTORS AND SMOKE DAMPER LOCATIONS.
5. UNLESS OTHERWISE NOTED SOLID LINES BETWEEN DEVICES SHALL BE 1" E.M.T. ROUTED CONCEALED ABOVE CEILINGS OR IN WALLS. DASHED LINES INDICATE 1" P.V.C. UNDERGROUND CONDUIT. ALL WIRING TO BE PROVIDED PER MANUFACTURER SHOP DRAWINGS.
6. CONTRACTOR SHALL PROVIDE CEILING ACCESS PANEL AT ALL NON-LAYIN TYPE CEILINGS, WHERE HEAT DETECTOR ABOVE CEILING IS INDICATED.
7. PROVIDE WIRE PROTECTIVE GUARD OVER ALL FIRE ALARM DEVICES LOCATED IN THE FOLLOWING AREAS: GYMNASIUM, LOCKER ROOMS, SHOP AREAS, AND ANY OTHER AREA WHERE DEVICES MAY BE SUBJECT TO CONTACT.

KEY NOTES:

1. PROVIDE DEDICATED 120 VOLT CIRCUIT TO PANEL CONNECT TO "RED LOCK ON BREAKER". REFER TO POWER E3 SERIES SHEETS FOR CIRCUIT INFORMATION.
2. PROVIDE CONNECTION TO "FACP",

FIRE ALARM SYMBOLS LEGEND:

- SI / 15 — CEILING MOUNTED FLASHING LIGHT STROBE (15 = STROBE CANDELA RATING) (SI = SIGNAL CIRCUIT IDENTIFICATION)
- SI / 15 — CEILING MOUNTED COMBINATION HORN/STROBE (15 = STROBE CANDELA RATING) (SI = SIGNAL CIRCUIT IDENTIFICATION)
- (P) — (EXISTING) WALL MOUNTED WEATHERPROOF EXTERIOR HORN MOUNTED +90" A.F.F. TO BOTTOM OF DEVICE (SI= SIGNAL CIRCUIT IDENTIFICATION)
- (S) — CEILING MOUNTED SMOKE DETECTOR
- FACP — (EXISTING) MAIN FIRE ALARM CONTROL PANEL
- FA — REMOTE FIRE ALARM POWER EXTENDER
- ANN — (EXISTING) REMOTE ANNUNCIATOR
- R — ADDRESSABLE RELAY MODULE
- M — ADDRESSABLE MONITOR MODULE
- EOL — END OF LINE RESISTOR



KEY PLAN

PROJECT No. :1-30-47
2/12/2021 8:49:14 AM
DRAWN BY: CHECKED BY:

REVISION:____ DATE _____ DESCRIPTION _____

RUHNAUCLARKE.COM
3775 TENTH STREET, RIVERSIDE CALIFORNIA 92501 (951) 684 4664 / 5751 PALMER WAY, SUITE C, CARLSBAD CALIFORNIA 92010 (760) 438 5899

FOOTHILLS ADULT EDUCATION CENTER
1550 Melody Lane El Cajon, CA 92019
GROSSMONT UNIFIED HIGH SCHOOL DISTRICT

FLOOR PLAN_NEW B - FIRE ALARM

E5.2

1-30-47

FCI MODEL E3					
	SYM	MODEL NO.	DESCRIPTION	C.S.F.M. LISTING	MFG.
001	FA	GFPS-6	REMOTE POWER SUPPLY	7300-1703:0167	GAMEWELL FCI
002	DSM	SERIES DMS	SYNC MODULE	7300-0785:0132	COOPER WHEELOCK
003	S	ASD-PL3	INTELLIGENT SMOKE DETECTOR	7272:1703:0501	GAMEWELL FCI
003.1		B300-6	SENSOR BASE	7300-1653:0109	SYSTEM SENSOR
004		PCZWL	HORN/STROBE (15/30/75) cd (CEIL MNT)	7125-1653:0188	SYSTEM SENSOR
005		SCRL	STROBE (15/30/75/110) cd (CEIL MNT)	7125-1653:0504	SYSTEM SENSOR
006		TYPE FPL	SIGNAL LINE CIRCUIT CONDUCTORS ('M')	7161-0859:0101	WEST PENN
007		TYPE THHN	AUDIO VISUAL AND POWER CONDUCTORS (AV,P)	N/A	WINDY CITY WIRE

→ IF OTHER MANUFACTURER IS USED IT IS TO BE UL. AND CSFM LISTED.

ANNUNCIATOR ZONE SCHEDULE

	ROOM SMOKE OR HEAT DETECTORS	ABOVE CEILING HEAT DETECTORS	MANUAL PULL STATIONS	DUCT DETECTORS	SPRINKLER SYSTEM	TROUBLE INDICATION
BLDG.	YES	YES	YES	YES	N/A	YES

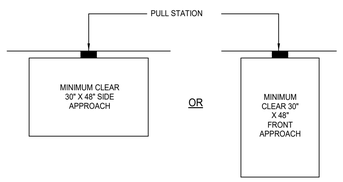
NOTES:

1. ALL SMOKE DETECTORS, HEAT DETECTORS ABOVE CEILING DETECTORS, DUCT DETECTORS MANUAL PULL STATIONS, FLOW SWITCHES, TAMPER SWITCHES SHALL BE INDIVIDUALLY ADDRESSABLE.
2. PROVIDE (1) ANNUNCIATOR WHICH WILL PROVIDE LED LIGHT INDICATORS TO IDENTIFY THE ABOVE ZONE SCHEDULE (IN ADDITION TO ANNUNCIATOR NOTED IN NOTE # 3).
3. PROVIDE (1) 32 CHARACTER BACK-LIGHTED ALPHA-NUMERIC DISPLAY ANNUNCIATOR WITH KEYPAD FOR OPERATOR CONTROL, PROGRAMMING AND TESTING.

WIRING SCHEDULE

DES	CONDUCTOR TYPE	WIRE COLOR	CIRCUIT TYPE
M	(1) 1 PR #14 TWISTED SHIELDED	RED/BLACK/SHIELD	SIGNAL LINE CIRCUIT
AV	(2) #12 THHN (UON ON CALCS)	BLUE/WHITE	NOTIFICATION APP. CIRCUIT (NAC)
P	(2) #12 THHN	RED/BLACK	POWER

CLEAR SPACE REQUIREMENTS AT
FIRE ALARM PULL STATIONS:



FIRE ALARM MONITORING NOTE:

1. AUTOMATIC FIRE ALARM SYSTEMS SHALL TRANSMIT THE ALARM, SUPERVISORY AND TROUBLE SIGNALS TO AN APPROVED SUPERVISING STATION AS REQUIRED BY NFPA 72 AS AMENDED BY CFC SECTION 907. THE SUPERVISING STATION SHALL BE LISTED AS EITHER UUFX OR UUJS BY UNDERWRITERS LABORATORY OR SHALL MEET THE REQUIREMENTS OF FACTORY MUTUAL RESEARCH APPROVAL STANDARD 3011. SUPERVISION OF SYSTEM AND LEASED TELEPHONE LINES SHALL BE ARRANGED BY OWNER.

FIRE ALARM GENERAL REQUIREMENTS:

1. THE COMPLETE INSTALLATION SHALL BE REVIEWED AND APPROVED BY THE ABOVE LOCAL MANUFACTURERS REPRESENTATIVE. SEE SPECIFICATIONS (28 30 00), FOR ADDITIONAL CONTRACTOR QUALIFICATIONS AND REQUIREMENTS.
2. UNLESS OTHERWISE NOTED SOLID LINES BETWEEN DEVICES SHALL BE 1" E.M.T. ROUTED CONCEALED ABOVE CEILINGS OR IN WALLS. DASHED LINES INDICATE 1" P.V.C. UNDERGROUND CONDUIT. ALL WIRING TYPES AND QUANTITIES SHOWN ARE FOR INFORMATION ONLY. THE CONTRACTOR SHALL PROVIDE ALL WIRING AS REQUIRED TO MAKE A FULLY OPERATIONAL SYSTEM. SHOP DRAWINGS AND OR AS-BUILT DOCUMENTS SHALL INDICATE ALL WIRING PROVIDED.
3. THE AUDIBILITY OF FIRE ALARM WARNING DEVICES SHALL BE AUDIBLE THROUGH THE OCCUPANCY WITH A MINIMAL SOUND LEVEL 15 db's OVER THE AMBIENT NOISE LEVEL. ADD ADDITIONAL DEVICES AS REQUIRED.
4. UPON COMPLETION OF THE INSTALLATION OF THE FIRE ALARM SYSTEM, A REACCEPTANCE TEST OF THE ENTIRE SYSTEM SHALL BE PERFORMED IN THE PRESENCE OF THE ENFORCING AGENCY AND IN ACCORDANCE WITH SPECIFICATIONS (28 30 00). THE CONTRACTOR SHALL FURNISH db METERS AND ALL OTHER EQUIPMENT TO PERFORM THESE TESTS.
5. ALL CONDUIT PENETRATIONS THROUGH FIRE RATED PARTITIONS SHALL PREVENT THE PASSAGE OF HEAT, SMOKE AND FIRE GASES. ALL PENETRATIONS SHALL COMPLY WITH U.L. ASSEMBLY #UL-1001. REFER TO THROUGH-PENETRATION FIRESTOP DETAIL ON THE DETAIL SHEET.
6. ALL OPERATING HARDWARE AT INITIATING DEVICES SHALL NOT REQUIRE TIGHT GRASPING, PINCHING OR TWISTING OF THE WRIST, AND THE FORCE REQUIRED TO OPERATE SHALL BE LESS THAN 5 POUNDS.

SEE SHEET T1 FOR APPLICABLE CODES

SEE SHEET T1 FOR APPLICABLE STANDARDS

MAXIMUM NUMBER OF CONDUCTORS IN TRADE SIZES OF CONDUIT OR TUBING MINIMUM CONDUIT SIZE FOR THIS PROJECT IS 3/4"

CONDUIT TRADE SIZE (INCHES)		1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	3 1/2	4	5
TYPE LETTERS	CONDUCTOR SIZE AWG, kcmil											
THWN	14 12	13 10	24 18	39 29	69 51	94 70	154 114	164				
THHN	10 8	6 3	11 5	18 9	32 16	44 22	73 36	104 51	160 79	106	136	

TRADE SIZE	INTERNAL DIAMETER INCHES	AREA—SQUARE INCHES								
			PERCENT REDUCTION PER NUMBER OF 18AWG TWISTED SHIELD PAIRS							
		100% INCHES	OVER 2 COND 40%	1	2	3	4	5	6	7	8
1/2	.622	.30	.12	38%	66%	99%	X	X	X	X	X
3/4	.824	.53	.21	19%	38%	57%	76%	95%	X	X	X
1	1.049	.86	.34	12%	24%	36%	48%	60%	72%	84%	96%
1 1/4	1.380	1.50	.60	7%	14%	21%	28%	35%	42%	49%	56%
1 1/2	1.610	2.04	.82	5%	10%	15%	20%	25%	30%	35%	40%
2	2.067	3.36	1.34	3%	6%	9%	12%	15%	18%	21%	24%

FIRE ALARM SEQUENCE OF OPERATION

DEVICE / ACTION	MANUAL PULL STATION	AREA/DUCT SMOKE/HEAT DETECTOR	AC POWER FAILURE	SPRINKLER ACTIVATION TAMPER SW.	SPRINKLER ACTIVATION FLOW SW.
SOUND ALARM TROUGHOUT BLDG.	YES	YES	NO	N/A	YES
ACTIVATE RELAY FOR MONITORING	YES	YES	YES	N/A	YES
ANNUNCIATE AT PANEL AND ANNUNCIATOR	YES	YES	YES	N/A	YES
SOUND TROUBLE BUZZER	ON WIRING FAULT	ON WIRING FAULT	YES	N/A	ON WIRING FAULT
SOUND SPRINKLER BELL	NO	NO	NO	N/A	YES
REPORT TO MONITORING STATION	YES	YES	YES	YES	YES
INITIATE SHUTDOWN OF HVAC UNITS	YES	YES	NO	N/A	YES

#20005
STAMPS

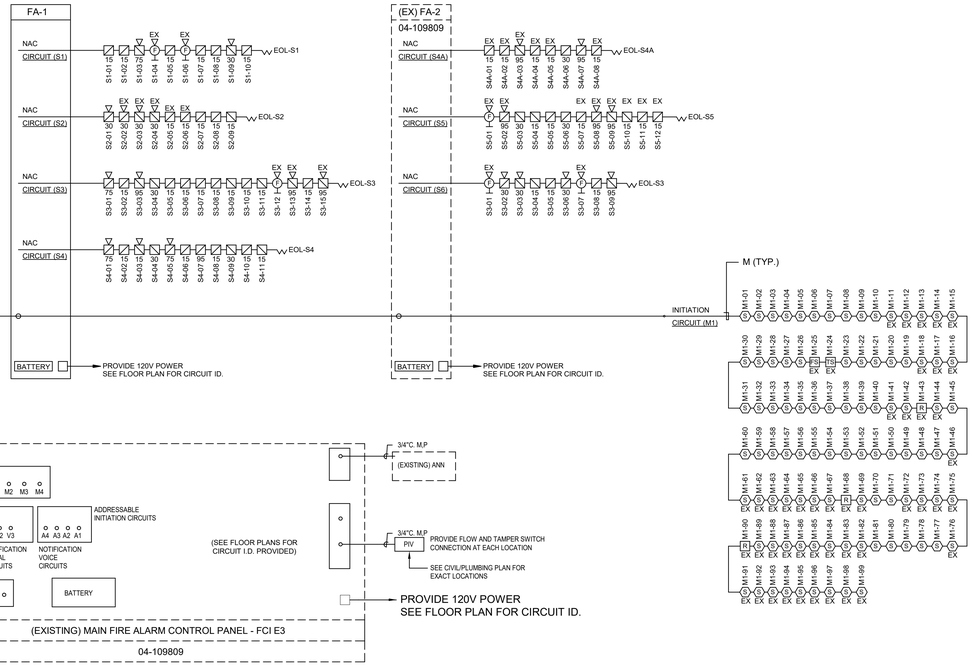
2/12/2021 8:

AGENCY APPROVAL
File No: A#

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-119728 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/18/2021

JOHNSON
CONSULTING ENGINEERS, INC.
Power | Lighting | Multimedia
Communications | Data Networking
12875 Brookprinter Place, Suite 300
Poway, CA 92064
P 858.679.4030 | F 858.513.0559
www.jce-inc.com
CONSULTANT BRANDING

RUHNAU CLARKE ARCHITECTS



GENERAL NOTES:

1. ALL WIRING INDICATED IS FOR GENERAL REFERENCE ONLY. CONTRACTOR SHALL PROVIDE ALL WIRING AND COMPONENTS NEEDED TO PROVIDE A COMPLETE OPERATIONAL SYSTEM.
2. REFERENCE FLOOR PLANS FOR EXACT QUANTITY, TYPE, AND LOCATION OF ALL DEVICES.

Mark Ruhnau — NICET III — NO.E 14781 — Exp. 6-30-2021 — ELECTRICAL — STATE OF CALIFORNIA

LICENSED ARCHITECT — David Ruhnau — C-20662 — 03-31-2021 — RENEWAL DATE — STATE OF CALIFORNIA

#20005 STAMPS — 2/12/2021 8:

AGENCY APPROVAL
File No: A#

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-119728 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/18/2021

JOHNSON CONSULTING ENGINEERS, INC.
Power | Lighting | Multimedia
Communications | Data Networking
12875 Brookprinter Place, Suite 300
Poway, CA 92064
P 858.679.4030 | F 858.513.0559
www.jce-inc.com
CONSULTANT BRANDING

RUHNAU CLARKE ARCHITECTS

Main Fire Alarm Control Panel

FACP FCI E3 Battery Calculations

BLDG. (EX FACP-1)

Type of Device Or Equipment	Standby Amperage Qty	Current	Total	Alarm Amperage Quantity	Current	Total
Control Panel Devices :						
INI-VG	1	0.1500	0.1500	1	0.1500	0.1500
AMS-16	1	0.0110	0.0110	1	0.0110	0.0110
AA SERIES AMP	1	0.3060	0.3060	1	1.8500	1.8500
ANU-48	1	0.0110	0.0110	1	0.0110	0.0110
ILI-F3 SERIES	1	0.0810	0.0810	1	0.1500	0.1500
SLC Devices						
Duct Type Smoke Detector w/Base	0	0.000450	0.0000	0	0.065000	0.0000
Smoke Detector w/ Base	94	0.000359	0.0337	94	0.002000	0.1880
Heat Detector w/ Base	0	0.000190	0.0000	0	0.002000	0.0000
Relay Module	3	0.000375	0.0011	3	0.000650	0.0020
Monitor Module	1	0.000375	0.0004	1	0.000600	0.0006
Remote Annunciator	1	0.030000	0.0300	1	0.065000	0.0650
Smoke / CO Detector w/ Base	0	0.000800	0.0000	0	0.042200	0.0000
	0	0.000000	0.0000	0	0.000000	0.0000
Pull Station	0	0.000300	0.0000	0	0.003000	0.000
Exterior Horn	0	0.000	0.0000	0	0.05000	0.000
Dual Sync Module	0	0.035	0.000	0	0.035	0.000
15cd Wall Horn/Strobe				0	0.030	0.000
30cd Wall Horn/Strobe				0	0.040	0.000
75cd Wall Horn/Strobe				0	0.115	0.000
110cd Wall Horn/Strobe				0	0.200	0.000
0				0	0.000	0.000
0				0	0.000	0.000
15cd (Ceiling) Horn/Strobe				0	0.041	0.000
30cd (Ceiling) Horn/Strobe				0	0.063	0.000
75cd (Ceiling) Horn/Strobe				0	0.111	0.000
95cd (Ceiling) Horn/Strobe				0	0.134	0.000
15cd Wall Strobe				0	0.057	0.000
30cd Wall Strobe				0	0.085	0.000
75cd Wall Strobe				0	0.135	0.000
110cd Wall Strobe				0	0.182	0.000
135cd Wall Strobe				0	0.205	0.000
185cd Wall Strobe				0	0.253	0.000
15cd (Ceiling) Strobe				0	0.041	0.000
30cd (Ceiling) Strobe				0	0.063	0.000
75cd (Ceiling) Strobe				0	0.111	0.000
95cd (Ceiling) Strobe				0	0.134	0.000
0				0	0.000	0.000
Speaker only @ 1/4 watt tap				0	0.00357	0.000
Speaker only @ 2 watt tap				0	0.02857	0.000
Total Standby Amperage			**0.624**	**Total Alarm Amperage**		**2.428**

Standby Time Required

24 Hours x Total Standby Amperage = 24 x 0.624 = 14.982 Amp Hours

Alarm Time Required

.25 (15 Min.) x Total Alarm Amperage = 0.25 x 2.428 = 0.607 Amp Hours

Total Required = **15.589** Amp Hours
x120% = 18.7065498
Provide Battery & Minimum Battery Amp Hour Required = **30** Amp Hours

(FA-1)

Remote Extender Panel
Supplementary Notification Appliance Circuit Battery Calculations

Type of Device Or Equipment	Standby Amperage Qty	Current	Total	Alarm Amperage Quantity	Current	Total
Exterior Horn	3	0.000	0.000	3	0.05000	0.150
Dual Sync Module	4	0.000	0.000	4	0.035	0.140
15cd Wall Horn/Strobe				0	0.030	0.000
30cd Wall Horn/Strobe				0	0.040	0.000
75cd Wall Horn/Strobe				0	0.115	0.000
110cd Wall Horn/Strobe				0	0.200	0.000
0				0	0.000	0.000
0				0	0.000	0.000
15cd (Ceiling) Horn/Strobe				5	0.041	0.205
30cd (Ceiling) Horn/Strobe				1	0.063	0.063
75cd (Ceiling) Horn/Strobe				4	0.111	0.444
95cd (Ceiling) Horn/Strobe				3	0.134	0.402
0				0	0.000	0.000
0				0	0.000	0.000
0				0	0.000	0.000
15cd Wall Strobe				0	0.057	0.000
30cd Wall Strobe				0	0.085	0.000
75cd Wall Strobe				0	0.135	0.000
110cd Wall Strobe				0	0.182	0.000
135cd Wall Strobe				0	0.205	0.000
185cd Wall Strobe				0	0.253	0.000
15cd (Ceiling) Strobe				25	0.041	1.025
30cd (Ceiling) Strobe				3	0.063	0.189
75cd (Ceiling) Strobe				0	0.111	0.000
95cd (Ceiling) Strobe				1	0.134	0.134
0				0	0.000	0.000
Speaker only @ 1/4 watt tap				0	0.00357	0.000
Speaker only @ 2 watt tap				0	0.02857	0.000
	Total Standby Amperage		**0.000**	**Total Alarm Amperage**		**2.752**

Standby Time Required

24 Hours x Total Standby Amperage = 24 x 0.000 = 0.000 Amp Hours

Alarm Time Required

25(1 5 Min.) x Total Alarm Amperage = .25 x 2.752 = 0.688 Amp Hours

Total Required = **0.688** Amp Hours
x120% = 0.8256
Provide Battery & Minimum Battery Amp Hour Required = **5** Amp Hours

(EX) FA-2

Remote Extender Panel
Supplementary Notification Appliance Circuit Battery Calculations

Type of Device Or Equipment	Standby Amperage Qty	Current	Total	Alarm Amperage Quantity	Current	Total
Exterior Horn	3	0.000	0.000	3	0.05000	0.150
Dual Sync Module	3	0.000	0.000	3	0.035	0.105
15cd Wall Horn/Strobe	0			0	0.030	0.000
30cd Wall Horn/Strobe	0			0	0.040	0.000
75cd Wall Horn/Strobe	0			0	0.115	0.000
110cd Wall Horn/Strobe	0			0	0.200	0.000
	0			0	0.000	0.000
	0			0	0.000	0.000
15cd (Ceiling) Horn/Strobe	6			6	0.041	0.246
30cd (Ceiling) Horn/Strobe	5			5	0.063	0.315
75cd (Ceiling) Horn/Strobe	0			0	0.111	0.000
95cd (Ceiling) Horn/Strobe	3			3	0.134	0.402
	0			0	0.000	0.000
	0			0	0.000	0.000
	0			0	0.000	0.000
15cd Wall Strobe	0			0	0.057	0.000
30cd Wall Strobe	0			0	0.085	0.000
75cd Wall Strobe	0			0	0.135	0.000
110cd Wall Strobe	0			0	0.182	0.000
135cd Wall Strobe	0			0	0.205	0.000
185cd Wall Strobe	0			0	0.253	0.000
15cd (Ceiling) Strobe	8			8	0.041	0.328
30cd (Ceiling) Strobe	1			1	0.063	0.063
75cd (Ceiling) Strobe	0			0	0.111	0.000
95cd (Ceiling) Strobe	3			3	0.134	0.402
0	0			0	0.000	0.000
Speaker only @ 1/4 watt tap	0			0	0.00357	0.000
Speaker only @ 2 watt tap	0			0	0.02857	0.000
	Total Standby Amperage		**0.000**	**Total Alarm Amperage**		**2.011**

Standby Time Required

24 Hours x Total Standby Amperage = 24 x 0.000 = 0.000 Amp Hours

Alarm Time Required

.25 (15 Min.) x Total Alarm Amperage = .25 x 2.011 = 0.503 Amp Hours

Total Required = **0.503** Amp Hours
x120% = 0.6033
Provide Battery & Minimum Battery Amp Hour Required = **5** Amp Hours

Fire Alarm Voltage Drop Calculations

Calculation Formula:

Total Current x Feet x 21.6 / Circular Mills (Voltage Drop)

Circular Mils Using #10 wire =10380
Circular Mils Using #12 wire = 6530
Circular Mils Using #14 wire = 4110
Circular Mils Using #18 wire = 1620

Voltage Drop / 24 Volts x 100 Percent = Percentage Voltage Drop

(FA-1)

Device Type	Circuit: S1 Devices x Current		Total Current	Circuit: S2 Devices x Current		Total Current	Circuit: S3 Devices x Current		Total Current	Circuit: S4 Devices x Current		Total Current
Exterior Horn	2	0.05000	0.100	0	0.05000	0.000	1	0.05000	0.050	1	0.05000	0.050
Dual Sync Module	1	0.035	0.035	1	0.035	0.035	1	0.035	0.035	1	0.035	0.035
15cd Wall Horn/Strobe	0	0.030	0.000	0	0.030	0.000	0	0.030	0.000	0	0.030	0.000
30cd Wall Horn/Strobe	0	0.040	0.000	0	0.040	0.000	0	0.040	0.000	0	0.040	0.000
75cd Wall Horn/Strobe	0	0.115	0.000	0	0.115	0.000	0	0.115	0.000	0	0.115	0.000
110cd Wall Horn/Strobe	0	0.200	0.000	0	0.200	0.000	0	0.200	0.000	0	0.200	0.000
	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
15cd (Ceiling) Horn/Strobe	0	0.041	0.000	6	0.041	0.164	6	0.041	0.000	1	0.041	0.041
30cd (Ceiling) Horn/Strobe	1	0.063	0.063	0	0.063	0.000	0	0.063	0.000	0	0.063	0.000
75cd (Ceiling) Horn/Strobe	1	0.111	0.111	0	0.111	0.000	1	0.111	0.111	2	0.111	0.222
95cd (Ceiling) Horn/Strobe	0	0.134	0.000	0	0.134	0.000	3	0.134	0.402	0	0.134	0.000
	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
15cd Wall Strobe	0	0.057	0.000	0	0.057	0.000	0	0.057	0.000	0	0.057	0.000
30cd Wall Strobe	0	0.085	0.000	0	0.085	0.000	0	0.085	0.000	0	0.085	0.000
75cd Wall Strobe	0	0.135	0.000	0	0.135	0.000	0	0.135	0.000	0	0.135	0.000
110cd Wall Strobe	0	0.182	0.000	0	0.182	0.000	0	0.182	0.000	0	0.182	0.000
135cd Wall Strobe	0	0.205	0.000	0	0.205	0.000	0	0.205	0.000	0	0.205	0.000
185cd Wall Strobe	0	0.253	0.000	0	0.253	0.000	0	0.253	0.000	0	0.253	0.000
15cd (Ceiling) Strobe	6	0.041	0.246	5	0.041	0.205	9	0.041	0.369	5	0.041	0.205
30cd (Ceiling) Strobe	0	0.063	0.000	0	0.063	0.000	1	0.063	0.063	1	0.063	0.063
75cd (Ceiling) Strobe	0	0.111	0.000	0	0.111	0.000	0	0.111	0.000	1	0.111	0.111
95cd (Ceiling) Strobe	0	0.134	0.000	0	0.134	0.000	0	0.134	0.000	1	0.134	0.134
0	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Speaker only @ 1/4 watt tap	0	0.00357	0.000	0	0.00357	0.000	0	0.00357	0.000	0	0.00357	0.000
Speaker only @ 2 watt tap	0	0.02857	0.000	0	0.02857	0.000	0	0.02857	0.000	0	0.02857	0.000
		Total	0.555		**Total**	0.404		**Total**	1.030		**Total**	0.811
Circuit Length:	350			350			300			350		
Circular mils:	6530			6530			6530			6530		
Volts dropped:	0.64			0.47			1.02			0.94		
Percent voltage drop:	**2.68%**			**1.95%**			**4.26%**			**3.91%**		

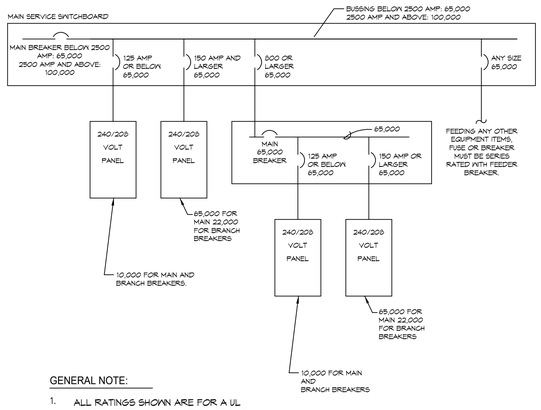
(EX) FA-2

Device Type	Circuit: S4A Devices x Current		Total Current	Circuit: S5 Devices x Current		Total Current	Circuit: S6 Devices x Current		Total Current	Circuit: 0 Devices x Current		Total Current
Exterior Horn	0	0.05000	0.000	1	0.05000	0.050	2	0.05000	0.100	0	0.05000	0.000
Dual Sync Module	1	0.035	0.035	1	0.035	0.035	1	0.035	0.035	0	0.035	0.000
15cd Wall Horn/Strobe	0	0.030	0.000	0	0.030	0.000	0	0.030	0.000	0	0.030	0.000
30cd Wall Horn/Strobe	0	0.040	0.000	0	0.040	0.000	0	0.040	0.000	0	0.040	0.000
75cd Wall Horn/Strobe	0	0.115	0.000	0	0.115	0.000	0	0.115	0.000	0	0.115	0.000
110cd Wall Horn/Strobe	0	0.200	0.000	0	0.200	0.000	0	0.200	0.000	0	0.200	0.000
	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
15cd (Ceiling) Horn/Strobe	0	0.041	0.000	6	0.041	0.246	0	0.041	0.000	0	0.041	0.000
30cd (Ceiling) Horn/Strobe	0	0.063	0.000	2	0.063	0.126	3	0.063	0.189	0	0.063	0.000
75cd (Ceiling) Horn/Strobe	0	0.111	0.000	0	0.111	0.000	0	0.111	0.000	0	0.111	0.000
95cd (Ceiling) Horn/Strobe	2	0.134	0.268	0	0.134	0.000	1	0.134	0.134	0	0.134	0.000
	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
15cd Wall Strobe	0	0.057	0.000	0	0.057	0.000	0	0.057	0.000	0	0.057	0.000
30cd Wall Strobe	0	0.085	0.000	0	0.085	0.000	0	0.085	0.000	0	0.085	0.000
75cd Wall Strobe	0	0.135	0.000	0	0.135	0.000	0	0.135	0.000	0	0.135	0.000
110cd Wall Strobe	0	0.182	0.000	0	0.182	0.000	0	0.182	0.000	0	0.182	0.000
135cd Wall Strobe	0	0.205	0.000	0	0.205	0.000	0	0.205	0.000	0	0.205	0.000
185cd Wall Strobe	0	0.253	0.000	0	0.253	0.000	0	0.253	0.000	0	0.253	0.000
15cd (Ceiling) Strobe	5	0.041	0.205	0	0.041	0.000	3	0.041	0.123	2	0.041	0.082
30cd (Ceiling) Strobe	1	0.063	0.063	0	0.063	0.000	0	0.063	0.000	1	0.063	0.063
75cd (Ceiling) Strobe	0	0.111	0.000	0	0.111	0.000	0	0.111	0.000	0	0.111	0.000
95cd (Ceiling) Strobe	0	0.134	0.000	3	0.134	0.402	0	0.134	0.000	0	0.134	0.000
0	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000	0	0.000	0.000
Speaker only @ 1/4 watt tap	0	0.00357	0.000	0	0.00357	0.000	0	0.00357	0.000	0	0.00357	0.000
Speaker only @ 2 watt tap	0	0.02857	0.000	0	0.02857	0.000	0	0.02857	0.000	0	0.02857	0.000
		Total	0.571		**Total**	0.859		**Total**	0.581		**Total**	0.145
Circuit Length:	350			350			300			0		
Circular mils:	6530			6530			6530			6530		
Volts dropped:	0.66			0.99			0.58			0.00		
Percent voltage drop:	**2.75%**			**4.14%**			**2.40%**			**0.00%**		

JOHNSON CONSULTING ENGINEERS, INC.
Power | Lighting | Multimedia
Communications | Data Networking
12875 Brookprinter Place, Suite 300
Poway, CA 92064
P 858.679.4030 | F 858.513.0559
www.jce-inc.com
CONSULTANT BRANDING

RUHNAU CLARKE ARCHITECTS

AGENCY APPROVAL File No: A#
IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT
APP: 04-119728 INC:
REVIEWED FOR SS ☑ FLS ☑ ACS ☑
DATE: 02/18/2021
#20005 STAMPS 2/12/2021 8:



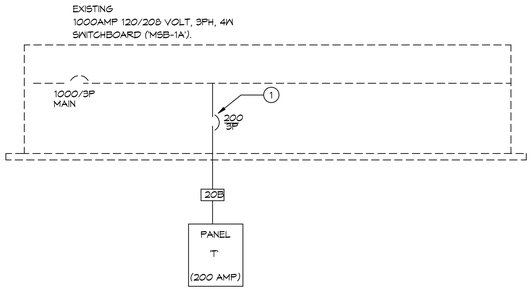
GENERAL NOTE:

1. ALL RATINGS SHOWN ARE FOR A UL LISTED SERIES COMBINATION OF THE BREAKERS INDICATED.

TYPICAL 208/240 VOLT SERVICE AIC EQUIPMENT RATING

NO SCALE

2 / E7.1



ELECTRICAL ONE-LINE DIAGRAM

NO SCALE

1 / E7.11

GENERAL NOTES:

1. A FAULT CURRENT AND TIME CURRENT STUDY MUST BE PROVIDED AS DESCRIBED IN THE SPECIFICATIONS PRIOR TO FINAL APPROVAL OF THE POWER EQUIPMENT.
2. REFERENCE DETAIL 2 / E7.1 FOR ALL EQUIPMENT FAULT CURRENT RATINGS.
3. UNLESS WHERE OTHERWISE NOTED, ALL WORK INDICATED ON THESE DRAWINGS SHALL BE CONSIDERED NEW WORK.
4. ALL ELECTRICAL GEAR AND EQUIPMENT SHOWN ON ONE-LINE DIAGRAM SHALL BE NEMA 1 UNLESS OTHERWISE NOTED.

KEY NOTES:

(1) PROVIDE (1) 200A/3P BREAKER IN EXISTING SPACE.

600V FEEDER SCHEDULE LEGEND

MS — REFERENCE MECHANICAL EQUIPMENT SCHEDULE FOR SIZE

2 | CO — 2 | | INDICATES QUANTITY OF CONDUITS REQUIRED = (2)

| 4 — INDICATES SIZE OF CONDUITS REQUIRED = 4"

| | CO — INDICATES "CONDUIT ONLY"

600V FEEDER SCHEDULE GENERAL NOTES:

1. ALL CONDUCTOR SHALL BE PROVIDED WITH TYPE THWN-2 INSULATION. REFERENCE SPECIFICATION SECTION 26 05 19 FOR ADDITIONAL REQUIREMENTS.
2. PROVIDE 60 DEGREE COPPER/ALUMINUM RATED TERMINATION FOR ALL FEEDERS SIZED WITH #2 OR SMALLER CONDUCTORS. PROVIDE 75 DEGREE COPPER/ALUMINUM RATED TERMINATIONS FOR ALL FEEDERS SIZED WITH #1 OR LARGER CONDUCTORS.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR ORDERING LUG CONFIGURATION AN ALL EQUIPMENT, BREAKER OF DISCONNECTS TO MATCH FEEDER CONFIGURATIONS INDICATED.
4. WHERE MULTIPLE CONDUIT QUANTITIES ARE INDICATED, CONDUCTOR QUANTITIES AND SIZES SHOWN IN SCHEDULE SHALL BE PROVIDED IN EACH CONDUIT.

600Volt Feeder Schedule

I.D.	Type	Ampacity	Copper Conduit	Copper Conductors	Aluminum Conduit	Aluminum Conductors
2A		20	(1) 3/4"	3 # 12, 1# 12 Gnd	NA	NA
2B		20	(1) 3/4"	4 # 12, 1# 12 Gnd	NA	NA
3A		30	(1) 3/4"	3 # 10, 1# 10 Gnd	NA	NA
3B		30	(1) 3/4"	4 # 10, 1# 10 Gnd	NA	NA
4A		40	(1) 1"	3 # 8, 1# 10 Gnd	NA	NA
4B		40	(1) 1"	4 # 8, 1# 10 Gnd	NA	NA
5A		50	(1) 1"	3 # 6, 1# 10 Gnd	NA	NA
5B		50	(1) 1"	4 # 6, 1# 10 Gnd	NA	NA
6A		60	(1) 1 1/4"	3 # 4, 1# 8 Gnd	NA	NA
6B		60	(1) 1 1/4"	4 # 4, 1# 8 Gnd	NA	NA
7A		70	(1) 1 1/4"	3 # 4, 1# 8 Gnd	NA	NA
7B		70	(1) 1 1/4"	4 # 4, 1# 8 Gnd	NA	NA
8A		80	(1) 1 1/4"	3 # 3, 1# 8 Gnd	NA	NA
8B		80	(1) 1 1/4"	4 # 3, 1# 8 Gnd	NA	NA
9A		90	(1) 1 1/2"	3 # 2, 1# 8 Gnd	NA	NA
9B		90	(1) 1 1/2"	4 # 2, 1# 8 Gnd	NA	NA
10A		100	(1) 1 1/2"	3 # 1, 1# 6 Gnd	NA	NA
10B		100	(1) 1 1/2"	4 # 1, 1# 6 Gnd	NA	NA
12A		125	(1) 2"	3 # 1, 1# 6 Gnd	(1) 2"	3 # 2/0, 1# 3 Gnd
12B		125	(1) 2"	4 # 1, 1# 6 Gnd	(1) 2"	4 # 2/0, 1# 3 Gnd
15A		150	(1) 2"	3 # 1/0, 1# 6 Gnd	(1) 2"	3 # 3/0, 1# 3 Gnd
15B		150	(1) 2"	4 # 1/0, 1# 6 Gnd	(1) 2"	4 # 3/0, 1# 3 Gnd
17A		175	(1) 2"	3 # 2/0, 1# 6 Gnd	(1) 2"	3 # 4/0, 1# 3 Gnd
17B		175	(1) 2"	4 # 2/0, 1# 6 Gnd	(1) 2"	4 # 4/0, 1# 3 Gnd
20A		200	(1) 3"	3 # 3/0, 1# 4 Gnd	(1) 3"	3 # 250, 1# 2 Gnd
20B		200	(1) 3"	4 # 3/0, 1# 4 Gnd	(1) 3"	4 # 250, 1# 2 Gnd
22A		225	(1) 3"	3 # 4/0, 1# 4 Gnd	(1) 3"	3 # 300, 1# 2 Gnd
22B		225	(1) 3"	4 # 4/0, 1# 4 Gnd	(1) 3"	4 # 300, 1# 2 Gnd
25A		250	(1) 3"	3 # 250, 1# 4 Gnd	(1) 3"	3 # 350, 1# 2 Gnd
25B		250	(1) 3"	4 # 250, 1# 4 Gnd	(1) 3"	4 # 350, 1# 2 Gnd
30A		300	(1) 3"	3 # 350, 1# 4 Gnd	(1) 3"	3 # 500, 1# 2 Gnd
30B		300	(1) 3"	4 # 350, 1# 4 Gnd	(1) 3"	4 # 500, 1# 2 Gnd
35A		350	(2) 2"	3 # 2/0, 1# 2 Gnd	(2) 2"	3 # 4/0, 1# 1 Gnd
35B		350	(2) 2"	4 # 2/0, 1# 2 Gnd	(2) 2"	4 # 4/0, 1# 1 Gnd
40A		400	(2) 3"	3 # 3/0, 1# 2 Gnd	(2) 3"	3 # 250, 1# 1/0 Gnd
40B		400	(2) 3"	4 # 3/0, 1# 2 Gnd	(2) 3"	4 # 250, 1# 1/0 Gnd
45A		450	(2) 3"	3 # 4/0, 1# 2 Gnd	(2) 3"	3 # 300, 1# 1/0 Gnd
45B		450	(2) 3"	4 # 4/0, 1# 2 Gnd	(2) 3"	4 # 300, 1# 1/0 Gnd
50A		500	(2) 3"	3 # 250, 1# 2 Gnd	(2) 3"	3 # 350, 1# 1/0 Gnd
50B		500	(2) 3"	4 # 250, 1# 2 Gnd	(2) 3"	4 # 350, 1# 1/0 Gnd
60A		600	(2) 3"	3 # 350, 1# 1 Gnd	(2) 3"	3 # 500, 1# 2/0 Gnd
60B		600	(2) 3"	4 # 350, 1# 1 Gnd	(2) 3"	4 # 500, 1# 2/0 Gnd
70A		700	(3) 3"	3 # 4/0, 1# 1/0 Gnd	(3) 3"	3 # 300, 1# 3/0 Gnd
70B		700	(3) 3"	4 # 4/0, 1# 1/0 Gnd	(3) 3"	4 # 300, 1# 3/0 Gnd
80A		800	(3) 3"	3 # 300, 1# 1/0 Gnd	(3) 3"	3 # 500, 1# 3/0 Gnd
80B		800	(3) 3"	4 # 300, 1# 1/0 Gnd	(3) 3"	4 # 500, 1# 3/0 Gnd
100B		1000	(4) 3"	4 # 250, 1# 2/0 Gnd	(4) 3"	4 # 400, 1# 4/0 Gnd
120B		1200	(4) 4"	4 # 350, 1# 3/0 Gnd	(4) 4"	4 # 500, 1# 250 Gnd
160B		1600	(5) 4"	4 # 400, 1# 4/0 Gnd	(5) 4"	4 # 600, 1# 350 Gnd
200B		2000	(6) 4"	4 # 500, 1# 250 Gnd	(6) 4"	4 # 600, 1# 400 Gnd
250B		2500	(7) 4"	4 # 500, 1# 350 Gnd	(7) 4"	4 # 750, 1# 600 Gnd
300B		3000	(8) 4"	4 # 500, 1# 350 Gnd	(8) 4"	4 # 750, 1# 600 Gnd
350B		3500	(12) 4"	4 # 350, 1# 400 Gnd	(12) 4"	4 # 500, 1# 600 Gnd
400B		4000	(12) 4"	4 # 400, 1# 400 Gnd	(12) 4"	4 # 600, 1# 750 Gnd

STAMPS — 2/12/2021 8:

AGENCY APPROVAL — File No: — A#

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-119728 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/18/2021

JOHNSON CONSULTING ENGINEERS, INC.
Power | Lighting | Multimedia
Communications | Data Networking
12875 Brookprinter Place, Suite 300
Poway, CA 92064
P 858.679.4030 | F 858.513.0559
www.jce-inc.com
CONSULTANT BRANDING

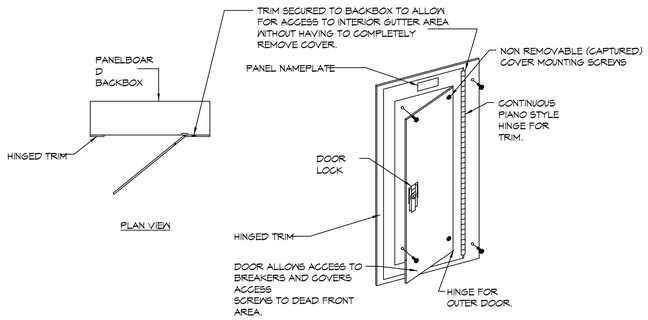
RUHNAU CLARKE ARCHITECTS

120/208	120/208 3PH, 4WIRE		200 AMP	Main	Breaker	X		ENCLOSURE TYPE	ENCLOSURE NOTE
	200% Neutral Bus				Lug		X	NEMA TYPE 1	
	(INTEGRAL)TVSS Protection	X		Enclosure	Recessed			NEMA TYPE 3R	
T	(REMOTE)TVSS Protection				Surface	X		NEMA TYPE 4X	
	Service Entrance Rated		GENERAL DISTRIBUTION				PROVIDE LOCK ON BREAKER DEVICES FOR ALL EMERGENCY LIGHTING,		
	Load Side Feed thru Lugs		BREAKER REQUIREMENTS :				MOTORS, AND FIRE ALARM EQUIPMENT SERVED FROM THIS PANEL		

LCL	NHL	CIRCUIT DESCRIPTION	AMP	POLE	NO	PHASE A	PHASE B	PHASE C	NO	AMP	POLE	CIRCUIT DESCRIPTION	LCL	NHL
		RECEPTACLES	20	1	1	1000			2	20	1	RECEPTACLE		
		RECEPTACLES	20	1	3	800	1000		4	20	1	RECEPTACLE		
		RECEPTACLES	20	1	5		800	1000	6	20	1	RECEPTACLE		
		RECEPTACLES	20	1	7	1000		800	8	20	1	RECEPTACLE		
		RECEPTACLES	20	1	9	800	1000		10	20	1	RECEPTACLE		
		RECEPTACLES	20	1	11		800	1000	12	20	1	RECEPTACLE		
		RECEPTACLES	20	1	13	1000		800	14	20	1	RECEPTACLE		
		RECEPTACLES	20	1	15	1000	1000		16	20	1	RECEPTACLE		
		RECEPTACLES	20	1	17		600	500	18	20	1	RECEPTACLE		
		RECEPTACLES	20	1	19	600		800	20	20	1	RECEPTACLE		
		RECEPTACLES	20	1	21	800	800		22	20	1	RECEPTACLE		
		RECEPTACLES	20	1	23		800	1000	24	20	1	RECEPTACLE		
		RECEPTACLES	20	1	25	800	1000		26	20	1	RECEPTACLE		
		RECEPTACLES	20	1	27	800	1000		28	20	1	RECEPTACLE		
		RECEPTACLES	20	1	29			800	30	20	1			
		RECEPTACLES	20	1	31	800			32	20	1			
		HAND DRYER	20	1	33		1400		34	20	1			
		HAND DRYER	20	1	35			1400	36	20	1			
		SPACE	20	1	37				38	20	1	SPACE		
		SPACE	20	1	39				40	20	1	SPACE		
		SPACE	20	1	41				42	20	1	SPACE		
SPECIAL PANEL									NOTE #1					
NOTE									NOTE #2					
NHL= Non Harmonic Load		TOTAL LOAD PER PHASE				9600	10000	8900						
LCL= Long Continuous Load		25% LONG CONTINUOUS LOADS				0	0	0						
		SUB PANEL												
Max. Neut. Load		SUB PANEL												
142 AMPS		TOTAL CONNECTED LOAD				9600	10000	8900						

HIGH PHASE 10000 / 0.9pf = VA @ 120V **92.6 AMPS**
ALL PHASES 28500 / 0.9pf = VA @ 208V/3PH **88.0 AMPS**
DEMAND PER _____ CEC 220-86 _____ **AMPS**

M:\Panel Schedule\2020\20005 Foothills Adult ED\T - 3PH - Panel.xls 12:32 PM2/11/2021



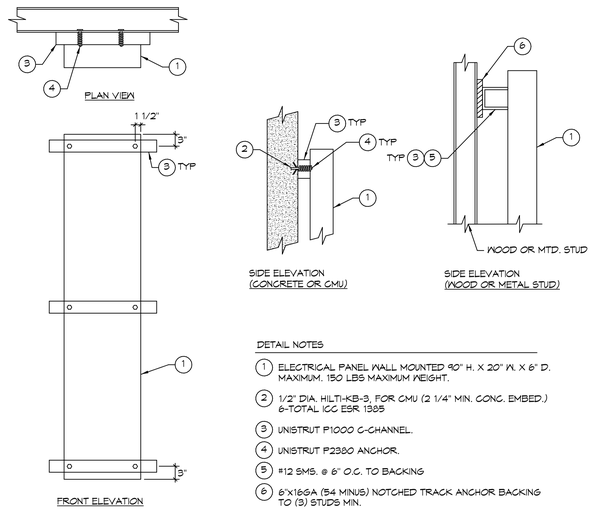
DETAIL GENERAL NOTES

1. PROVIDE FOR ALL PANELBOARDS FOR THIS PROJECT - SURFACE, RECESSED NEMA 1, OR NEMA 3R CONFIGURATION.
2. SEE REFERENCE ONE LINE DIAGRAM FOR ALL PANELBOARD AIC RATINGS.

TYPICAL PANELBOARD DOOR/TRIM DETAIL1

NO SCALE

1 / E9.1



DETAIL NOTES

1. ELECTRICAL PANEL WALL MOUNTED 90" H. X 20" W. X 6" D. MAXIMUM. 150 LBS MAXIMUM WEIGHT.
2. 1/2" DIA. HILTI-KB-3, FOR CMU (2 1/4" MIN. CONC. EMBED.) 6-TOTAL ICC ESR 1385
3. UNISTRUT P1000 C-CHANNEL.
4. UNISTRUT P2380 ANCHOR.
5. #12 SMS. @ 6" O.C. TO BACKING
6. 6"X16GA (54 MINUS) NOTCHED TRACK ANCHOR BACKING TO (3) STUDS MIN.

SURFACE WALL MOUNTED ELECTRICAL PANEL DETAIL

NO SCALE

3 / E9.1

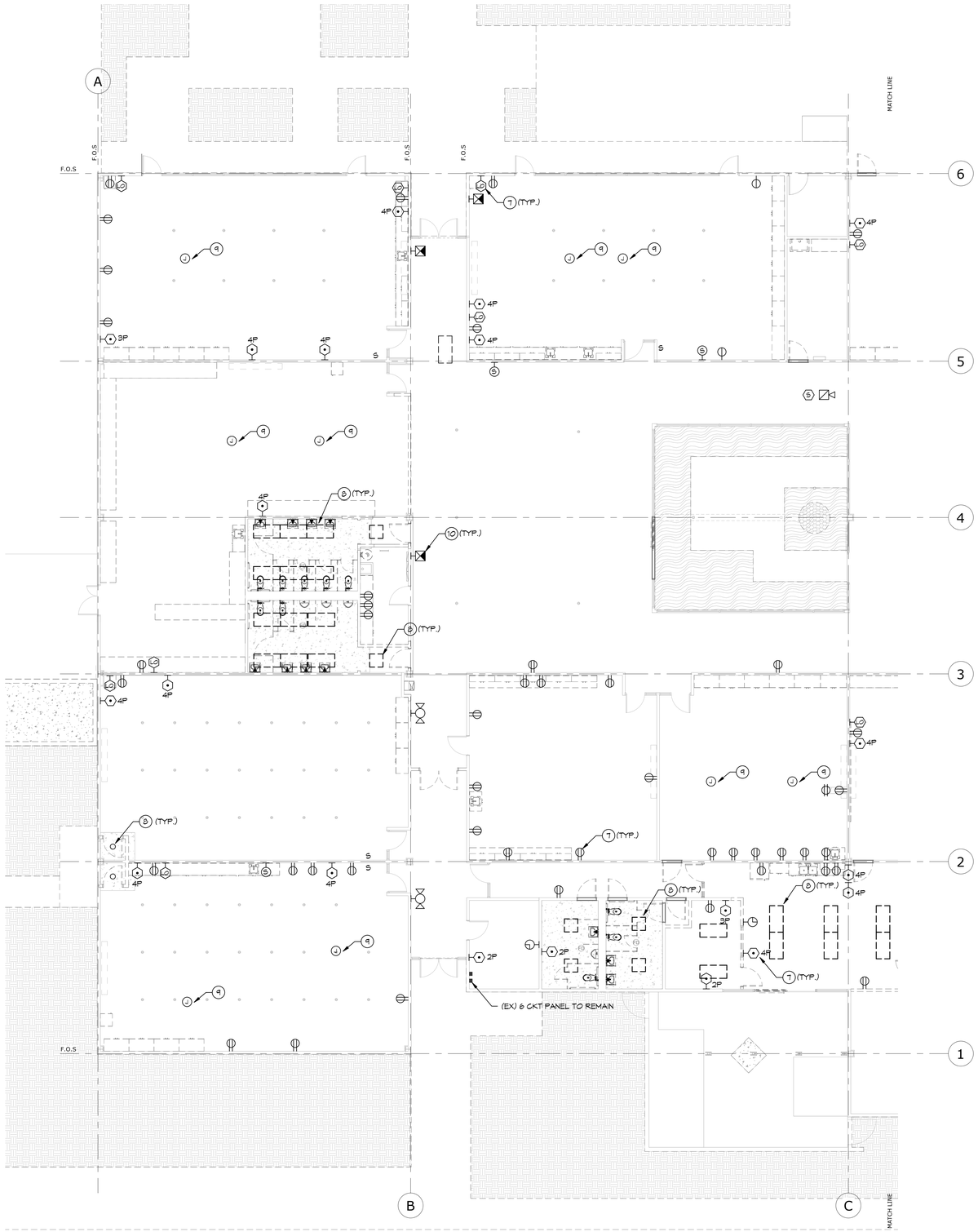
AGENCY APPROVAL File No: A#

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-119728 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/18/2021

#20005 STAMPS 2/12/2021 8:

JOHNSON CONSULTING ENGINEERS, INC.
Power | Lighting | Multimedia
Communications | Data Networking
12875 Brookprinter Place, Suite 300
Poway, CA 92064
P 858.679.4030 | F 858.513.0559
www.jce-inc.com
CONSULTANT BRANDING

RUHNAU CLARKE ARCHITECTS



STAMPS

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-119728 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/18/2021

AGENCY APPROVAL
File No: A#

JOHNSON
CONSULTING ENGINEERS, INC.
Power | Lighting | Multimedia
Communications | Data Networking
12875 Brookprinter Place, Suite 300
Poway, CA 92064
P 858.679.4030 | F 858.513.0559
www.jce-inc.com
CONSULTANT BRANDING

RUHNAU CLARKE ARCHITECTS

DEMOLITION GENERAL NOTES:

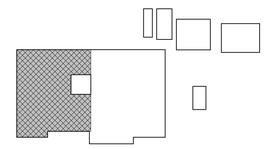
1. ALL ITEMS SHOWN ON THIS DRAWING ARE EXISTING TO BE REMOVED UNLESS OTHERWISE NOTED. SEE REQUIREMENTS BELOW FOR SCOPE OF WORK. ALL OTHER ELECTRICAL ITEMS IN THIS BUILDING ARE EXISTING TO REMAIN, MAINTAIN POWER CIRCUIT CONTINUITY UNTIL NEW SOURCE IS ENERGIZED AND READY FOR TRANSFER, REFER TO POWER AND LIGHTING PLANS.
2. ALL ELECTRICAL DEMOLITION WORK SHALL BE DIRECTED BY THE ELECTRICAL CONTRACTOR.

GENERAL DEMOLITION REQUIREMENTS:

1. LIGHTING FIXTURES
   WHERE EXISTING LIGHTING FIXTURES ARE TO BE REMOVED, AND ARE NOT RELOCATED, CONTRACTOR SHALL DISPOSE OF ALL FIXTURES INCLUDING LAMPS AND BALLAST.
2. WIRING DEVICES
   WHERE EXISTING SWITCHES OR RECEPTACLES ARE TO BE REMOVED, THE CONTRACTOR SHALL DISPOSE OF ALL DEVICES AS REQUIRED.
3. COMMUNICATION DEVICES
   WHERE EXISTING TELEPHONE/INTERCOM AND CLOCK HEAD END EQUIPMENT, PHONES, SPEAKERS AND OTHER ASSOCIATED EQUIPMENT ARE TO BE REMOVED, THE CONTRACTOR SHALL DISPOSED OF ALL DEVICES AND EQUIPMENT AS REQUIRED.
4. FIRE ALARM
   WHERE EXISTING FIRE ALARM PANELS AND ASSOCIATED SMOKE, HEAT, DUCT DETECTORS, PULL STATIONS AND STROBE OR HORN UNITS ARE TO BE REMOVED, THE CONTRACTOR SHALL DISPOSED OF ALL DEVICES AND EQUIPMENT AS REQUIRED.
5. INTRUSION ALARM
   EXISTING INTRUSION ALARM SENSORS AND EQUIPMENT SHALL BE REMOVED WHERE INDICATED. RETURN ALL DEVICES TO THE SCHOOL DISTRICT MAINTENANCE FACILITIES.
6. POWER EQUIPMENT
   WHERE EXISTING SWITCHBOARDS, PANELBOARDS, LOAD CENTERS, TRANSFORMERS, DISCONNECT SWITCHES OR OTHER DISTRIBUTION EQUIPMENT ARE TO BE REMOVED, THE CONTRACTOR SHALL DISPOSED OF ALL DEVICES AND EQUIPMENT AS REQUIRED.
7. ALL BOXES, EXPOSED CONDUIT, WIRE, AND OTHER ITEMS ASSOCIATED WITH ELECTRICAL EQUIPMENT TO BE REMOVED, SHALL BE DISCONNECTED, REMOVED AND DISPOSED OF BY THE CONTRACTOR AS REQUIRED, UNLESS SPECIFICALLY NOTED OTHERWISE. CUT AND CAP CONCEALED CONDUITS. PATCH, SEAL AND REPAIR SURFACE TO MATCH ADJACENT AREA WHERE BOXES ARE REMOVED.

KEY NOTES:

1. EXISTING ELECTRICAL DEVICE OR EQUIPMENT TO REMAIN.
2. ALL DEVICES AND EQUIPMENT IN THIS ROOM ARE EXISTING TO REMAIN.
3. ALL DEVICES AND EQUIPMENT THIS WALL ARE EXISTING TO REMAIN.
4. EXISTING LIGHT FIXTURE TO REMAIN.
5. ALL LIGHT FIXTURES IN THIS ROOM ARE EXISTING TO REMAIN.
6. EQUIPMENT OR DEVICE TO BE REMOVED, PROTECTED AND RE-INSTALLED AT CONCLUSION OF WORK.
7. EXISTING OUTLET INCLUDING BACKBOX AND SURFACE RACEWAY TO BE DISCONNECTED, AND REMOVED. PROVIDE NEW BACKBOXES, FACEPLATES AND RECESS OUTLETS IN NEW DRYWALLS AS REQUIRED. EXTEND CONDUIT AND WIRING FROM CEILING SPACE TO NEW OUTLETS AS REQUIRED. SEE E3 AND E4 SHEETS FOR OUTLET LOCATIONS.
8. EXISTING LIGHT FIXTURES AND ASSOCIATED WALL SWITCHES TO BE DISCONNECTED AND REMOVED. EXISTING CIRCUIT AND POWER CONNECTION SHALL BE SAFED OFF AND PROTECTED IN PLACE. EXTEND EXISTING CIRCUIT TO NEW LIGHTING FIXTURES ON E2 SHEETS AS REQUIRED (TYP.).
9. EXISTING CEILING FANS AND ASSOCIATED WALL SWITCHES SHALL BE DISCONNECTED AND REMOVED. DISCONNECT AND REMOVE EXISTING CIRCUIT BACK TO SOURCE. EXISTING CONDUCTOR SHALL BE REMOVED. FIELD VERIFY EXACT LOCATION OF EXISTING PANEL FEEDING THE CEILIGN FAN PRIOR TO DISCONNECTING AND REMOVING THE FAN.
10. SECURITY SYSTEM DEVICES TO BE DISCONNECTED, REMOVED AND PROTECTED IN PLACE. REINSTALL IN NEW WALL/CEILING AND RECONNECT EXISTING WIRING TO THE DEVICE AS REQUIRED.



KEY PLAN

PROJECT No. :1-30-47
2/12/2021 8:49:36 AM
DRAWN BY: CHECKED BY:

REVISION:____ DATE _____ DESCRIPTION _____

RUHNAUCLARKE.COM
3775 TENTH STREET, RIVERSIDE CALIFORNIA 92501 (951) 684 4664 / 5751 PALMER WAY, SUITE C, CARLSBAD CALIFORNIA 92010 (760) 438 5899

FOOTHILLS ADULT EDUCATION CENTER
1550 Melody Lane El Cajon, CA 92019
GROSSMONT UNIFIED HIGH SCHOOL DISTRICT

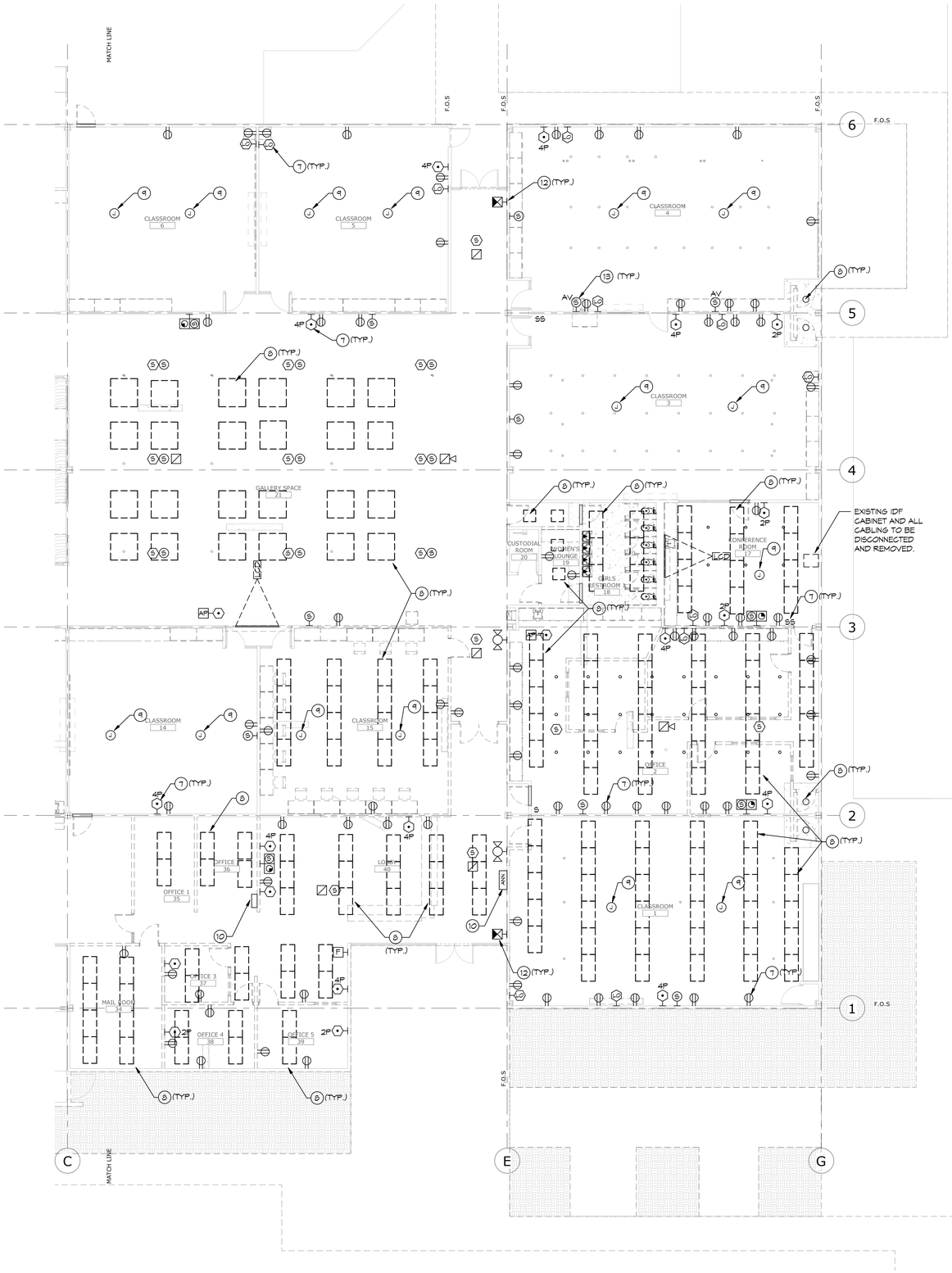
FLOOR PLAN_DEMO A

E10.1

1-30-47

KEY NOTES (CONTINUED):

(13) EXISTING WALL SPEAKER TO BE DISCONNECTED, REMOVED, AND PROTECTED IN PLACE. RE-INSTALL IN NEW DRYWALL AS REQUIRED.



DEMOLITION GENERAL NOTES:

1. ALL ITEMS SHOWN ON THIS DRAWING ARE EXISTING TO BE REMOVED UNLESS OTHERWISE NOTED. SEE REQUIREMENTS BELOW FOR SCOPE OF WORK. ALL OTHER ELECTRICAL ITEMS IN THIS BUILDING ARE EXISTING TO REMAIN. MAINTAIN POWER CIRCUIT CONTINUITY UNTIL NEW SOURCE IS ENERGIZED AND READY FOR TRANSFER. REFER TO POWER AND LIGHTING PLANS.
2. ALL ELECTRICAL DEMOLITION WORK SHALL BE DIRECTED BY THE ELECTRICAL CONTRACTOR.

GENERAL DEMOLITION REQUIREMENTS:

1. LIGHTING FIXTURES
   WHERE EXISTING LIGHTING FIXTURES ARE TO BE REMOVED, AND ARE NOT RELOCATED, CONTRACTOR SHALL DISPOSE OF ALL FIXTURES INCLUDING LAMPS AND BALLAST.
2. WIRING DEVICES
   WHERE EXISTING SWITCHES OR RECEPTACLES ARE TO BE REMOVED, THE CONTRACTOR SHALL DISPOSE OF ALL DEVICES AS REQUIRED.
3. COMMUNICATION DEVICES
   WHERE EXISTING TELEPHONE/INTERCOM AND CLOCK HEAD END EQUIPMENT, PHONES, SPEAKERS AND OTHER ASSOCIATED EQUIPMENT ARE TO BE REMOVED, THE CONTRACTOR SHALL DISPOSED OF ALL DEVICES AND EQUIPMENT AS REQUIRED.
4. FIRE ALARM
   WHERE EXISTING FIRE ALARM PANELS AND ASSOCIATED SMOKE, HEAT, DUCT DETECTORS, PULL STATIONS AND STROBE OR HORN UNITS ARE TO BE REMOVED, THE CONTRACTOR SHALL DISPOSED OF ALL DEVICES AND EQUIPMENT AS REQUIRED.
5. INTRUSION ALARM
   EXISTING INTRUSION ALARM SENSORS AND EQUIPMENT SHALL BE REMOVED WHERE INDICATED. RETURN ALL DEVICES TO THE SCHOOL DISTRICT MAINTENANCE FACILITIES.
6. POWER EQUIPMENT
   WHERE EXISTING SWITCHBOARDS, PANELBOARDS, LOAD CENTERS, TRANSFORMERS, DISCONNECT SWITCHES OR OTHER DISTRIBUTION EQUIPMENT ARE TO BE REMOVED, THE CONTRACTOR SHALL DISPOSED OF ALL DEVICES AND EQUIPMENT AS REQUIRED.
7. ALL BOXES, EXPOSED CONDUIT, WIRE, AND OTHER ITEMS ASSOCIATED WITH ELECTRICAL EQUIPMENT TO BE REMOVED, SHALL BE DISCONNECTED, REMOVED AND DISPOSED OF BY THE CONTRACTOR AS REQUIRED, UNLESS SPECIFICALLY NOTED OTHERWISE. CUT AND CAP CONCEALED CONDUITS. PATCH, SEAL AND REPAIR SURFACE TO MATCH ADJACENT AREA WHERE BOXES ARE REMOVED.

KEY NOTES:

(1) EXISTING ELECTRICAL DEVICE OR EQUIPMENT TO REMAIN.

(2) ALL DEVICES AND EQUIPMENT IN THIS ROOM ARE EXISTING TO REMAIN.

(3) ALL DEVICES AND EQUIPMENT THIS WALL ARE EXISTING TO REMAIN.

(4) EXISTING LIGHT FIXTURE TO REMAIN.

(5) ALL LIGHT FIXTURES IN THIS ROOM ARE EXISTING TO REMAIN.

(6) EQUIPMENT OR DEVICE TO BE REMOVED, PROTECTED AND RE-INSTALLED AT CONCLUSION OF WORK.

(7) EXISTING OUTLET INCLUDING BACKBOX AND SURFACE RACEWAY TO BE DISCONNECTED, AND REMOVED. PROVIDE NEW BACKBOXES, FACEPLATES AND RECESS OUTLETS IN NEW DRYWALLS AS REQUIRED. EXTEND CONDUIT AND WIRING FROM CEILING SPACE AS REQUIRED. SEE E3 AND E4 SHEETS FOR OUTLET LOCATIONS.

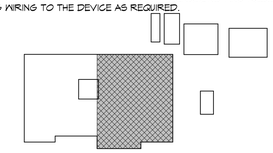
(8) EXISTING LIGHT FIXTURES AND ASSOCIATED WALL SWITCHES TO BE DISCONNECTED AND REMOVED. EXISTING CIRCUIT AND POWER CONNECTION SHALL BE SAFED OFF AND PROTECTED IN PLACE. EXTEND EXISTING CIRCUIT TO NEW LIGHTING FIXTURES ON E2 SHEETS AS REQUIRED (TYP.).

(9) EXISTING CEILING FANS AND ASSOCIATED WALL SWITCHES SHALL BE DISCONNECTED AND REMOVED. DISCONNECT AND REMOVE EXISTING CIRCUIT BACK TO SOURCE. EXISTING CONDUCTOR SHALL BE REMOVED. FIELD VERIFY EXACT LOCATION OF EXISTING PANEL FEEDING THE CEILIGN FAN PRIOR TO DISCONNECTING AND REMOVING THE FAN.

(10) EXISTING REMOTE ANNUNCIATOR TO BE CAREFULLY DISCONNECTED AND REMOVED. PROTECT IN PLACE AND RE-INSTALL IN NEW WALL AS REQUIRED. SEE E5 SHEETS FOR NEW LOCATION.

(11) EXISTING FIRE ALARM EXTENDER PANEL TO BE DISCONNECTED AND REMOVED.

(12) SECURITY SYSTEM DEVICES TO BE DISCONNECTED, REMOVED AND PROTECTED IN PLACE. REINSTALL IN NEW WALL/CEILING AND RECONNECT EXISTING WIRING TO THE DEVICE AS REQUIRED.



KEY PLAN

Mark Clarke, No. E 14781, Exp. 6-30-2021, Electrical, State of California, Professional Engineer

Licensed Architect, David Ruhnau, C-20662, 03-31-2021, Renewal Date, State of California

AGENCY APPROVAL
File No: A#

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-119728 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/18/2021

#20005
STAMPS
2/12/2021 8:

JOHNSON CONSULTING ENGINEERS, INC.
Power | Lighting | Multimedia
Communications | Data Networking
12875 Brookprinter Place, Suite 300
Poway, CA 92064
P 858.679.4030 | F 858.513.0559
www.jce-inc.com
CONSULTANT BRANDING

RUHNAU CLARKE ARCHITECTS

FOOTHILLS ADULT EDUCATION CENTER
FIRE SPRINKLER SYSTEM

FIRE LEGEND

SYMBOL	ABBR	DESCRIPTION
		NEW PIPING
		EXISTING PIPING
		RECLAIMED FIRE SERVICE PER CIVIL C3.1
		EXISTING PIPING TO BE REMOVED
		PIPE HANGER LOCATION
		PIPE HANGER RESTRAINT
		FLANGED CONNECTION
		"RIDGID" GRV COUPLING
		"FLEXIBLE" GRV COUPLING
		SCREWED CAP
		FIRE HYDRANT
#2(1'-2")		HANGER TYPE AND LENGTH
		SCREWED PLUG
	2-WAY	2-WAY SEISMIC BRACE
	4-WAY	4-WAY SEISMIC BRACE
	FDC	FIRE DEPT. CONN.
	TB	UNDERGROUND THRUST BLOCK
	RS	FIRE SPRINKLER RISER
		FIRE ALARM BELL
		TAMPER SWITCH
		KEY VALVE
CL-900 AFF		PIPING ELEVATION
1		HYDRAULIC REF. POINT
L01		BRANCH LINE NUMBER
P01		WELDED BRANCH LINE PIECE NO.
M01		WELDED MAIN PIECE NO.
		WALL PENETRATION SLEEVE
	PIV/FDC	POST INDICATING VALVE W/ FIRE DEPT CONNECTION
	BFP	BACK FLOW PREVENTOR

ABBREVIATIONS

AHJ	AUTHORITY HAVING JURISDICTION
AWWA	AMERICAN WATER WORKS ASSOCIATION
BFP	BACK FLOW PREVENTER
CBC	CALIFORNIA BUILDING CODE
CFC	CALIFORNIA FIRE CODE
CPVC	CHLORINATED POLYVINYL CHLORIDE
DSA	DIVISION OF THE STATE ARCHITECT
FDC	FIRE DEPARTMENT CONNECTION
FM	FACTORY MUTUAL
IBC	INTERNATIONAL BUILDING CODE
N.F.P.A.	NATIONAL FIRE PROTECTION ASSOCIATION
PVC	POLYVINYL CHLORIDE
PIV	POST INDICATOR VALVE
PSI	PRESSURE PER SQUARE INCH
RPDA	REDUCED PRESSURE DETECTOR ASSEMBLY
SQ. IN.	SQUARE INCHES
SQ. FT.	SQUARE FEET
UL	UNDERWRITES LABRATORY

PIPE TABLES

C-900, DR-18 PVC PIPE I.D.	
NOMINAL	ACTUAL
4"	4.80
6"	6.90
8"	9.05
10"	11.10
12"	13.20

SCHEDULE 10 PIPE I.D.	
NOMINAL	ACTUAL
2-1/2"	2.635
3"	3.260
4"	4.260
6"	6.357
8"	8.329

SCHEDULE 40 PIPE I.D.	
NOMINAL	ACTUAL
1"	1.049
1-1/4"	1.442
1-1/2"	1.682
2"	2.067

DSA BUILDING SYSTEM GENERAL NOTES

1. 2016 NFPA 13, 10.10.2.1.1: UNDERGROUND MAINS AND LEAD-IN CONNECTIONS TO SYSTEM RISERS SHALL BE COMPLETELY FLUSHED BEFORE CONNECTION IS MADE TO OVERHEAD SPRINKLER PIPING. WHERE UNDERGROUND PIPING IS FLUSHED AND NOT IMMEDIATELY CONNECTED TO OVERHEAD PIPING, THE RISER SHALL BE CAPPED OR OTHERWISE PROTECTED TO PREVENT DEBRIS, DIRT, OR ANIMALS FROM ENTERING INTO THE UNDERGROUND PIPING (WITNESSED BY THE PROJECT INSPECTOR) .
2. CERTIFIED OR WET-SIGNED WATER FLOW TEST DATA SHALL BE NO MORE THAN 12 MONTHS OLD AT THE TIME OF SUBMITTAL AND INDICATE THE LOCATIONS AND HEIGHT ELEVATIONS OF THE TEST AND RESIDUAL FLOW HYDRANTS, WATER FLOW TEST DATA MUCH BE PROVIDED BY OR WITNESSED BY THE LOCAL WATER PURVEYOR, UTILITIES COMPANY, OR LOCAL FIRE DEPARTMENT.
3. 2016 NFPA 13 FIGURE 10.10.1: A COPY OF COMPLETED AND SIGNED "CONTRACTOR'S MATERIALS & TEST CERTIFICATE FOR UNDERGROUND PIPING" SHALL BE INCLUDED IN THE CLOSE-OUT DOCUMENTS FOR BUILDING SYSTEM.
4. 2016 NFPA 13, 10.10.2.2.1: ALL PIPING AND ATTACHED APPURTENANCES SUBJECTED TO SYSTEM WORKING PRESSURE SHALL BE HYDROSTATICALLY TESTED AT 200 PSI, OR 50 PSI IN EXCESS OF THE SYSTEM WORKING PRESSURE, WHICHEVER IS GREATER, AND SHALL MAINTAIN THAT PRESSURE WITHOUT LOSS FOR 2 HOURS. (WITNESSED BY PROJECT INSPECTOR) .
5. 2016 NFPA 13, 6.2.9.1: PROVIDE SUPPLY OF SPARE SPRINKLERS IN A PROTECTIVE CABINET, INCLUDING SPRINKLER WRENCH FOR EACH TYPE INSTALLED. SUPPLY SHALL BE NO FEWER THAN 6 SPARE SPRINKLERS MATCHING THE TYPES AND TEMPERATURES RATING IN EACH PROTECTED AREA FOR SYSTEMS LESS THAN 300 SPRINKLERS. (12 SPARE SPRINKLER HEADS FOR SYSTEMS 300 TO 1000 SPRINKLERS.)
6. 2016 NFPA 13, 9.3.6.1: FURNISH RESTRAINT OF BRANCH LINES. THE END SPRINKLER ON EACH LINE SHALL BE RESTRAINED AGAINST EXCESSIVE VERTICAL AND LATERAL MOVEMENT (9.3.6.3) . BRANCH LINES SHALL BE LATERALLY RESTRAINED AT INTERVALS NOT EXCEEDING THOSE SPECIFIED IN Table 9.3.6.4 (a) and (b) (9.3.6.4) .
7. 2019 CBC 903.4.2 AND NFPA 13 8.17.4.2.3: THE INSPECTORS TEST VALVE LOCATION SHALL BE ACCESSIBLE. THE PIPE SHALL BE NO LESS THAN 1 INCH, WITH A SMOOTH BORE, CORROSION- RESISTANT ORIFICE, PROVIDING THE EQUIVALENT FLOW OR THE SMALLEST ORIFICE OF THE SPRINKLER TYPES INSTALLED WITHIN THE SYSTEM, THE DISCHARGE SHALL BE TO A DRAIN CONNECTION OR AN APPROVED LOCATION AT THE EXTERIOR OF THE BUILDING.
8. THE SPRINKLER FLOW SWITCH SHALL BE TESTED TO CONFIRM THAT WHEN THE INSPECTOR'S TEST VALVE IS ACTIVATED AN ALARM WILL SOUND NO MORE THAN 90 SECONDS AFTER INITIAL FLOW (WITNESSED BY THE PROJECT INSPECTOR)
9. 2019 CBC 904.4.2: CONNECTIONS TO PROTECTED PREMISES AND SUPERVISING STATION FIRE ALARM SYSTEMS SHALL BE TESTED TO VERIFY PROPER IDENTIFICATION AND TRANSMISSION OF ALARMS FROM AUTOMATIC FIRE EXTINGUISHING SYSTEMS (WITNESSED BY PROJECT INSPECTOR)
10. 2016 NFPA 13 SEC 25.6.1.1: SIGNAGE SHALL BE PROVIDED AS REQUIRED, INCLUDING RISER ROOM IDENTIFICATION.
11. 2019 CBC SEC 903.4.1: THE MAIN FIRE ALARM PANEL VALVE MONITORING AND WATER FLOW ALARM AND TROUBLE SIGNALS SHALL BE DISTINCTLY DIFFERENT AND SHALL BE AUTOMATICALLY TRANSMITTED TO AN APPROVED CENTRAL STATION MONITORING COMPANY.
12. 2016 NFPA 13 SEC 25.5.1: A PERMANENT HYDRAULIC CALCULATIONS DESIGN DATA PLACARD SHALL BE ATTACHED TO EACH RISER.
13. 2016 NFPA 13 SEC 6.9.1,AND 2019 CBC 903.4.2: FLOW SWITCH SHALL BE CONNECTED TO A 10 INCH OUTSIDE ALARM BELL OR OTHER AUDIBLE ALARM DEVICE AT EACH RISER. APPROVED IDENTIFICATION SIGNS SHALL BE PROVIDED ON THE OUTSIDE ALARM BELL , SPRINKLER FIRE ALARM- WHEN ALARM SOUNDS CALL 911/ FIRE DEPARTMENT.
14. TITLE 19 ARTICLE 906 (A) : A LABEL OF THE SELF-ADHESIVE TYPE SHALL BE PLACED ON THE FIRE DEPARTMENT CONNECTION OR ON THE RISER FOR FIRE SPRINKLER SYSTEM AND SHALL INCLUDE THE DATA OF INSTALLATION AND/ OR DATE SERVICE WAS PERFORMED AND LICENSE NUMBER OF PERSON PERFORMING SERVICE WORK.
15. 2016 NFPA 13 FIGURE 25.1: INSTALLING CONTRACTOR SHALL COMPLETE AND SIGN CONTRACTOR'S MATERIAL & TEST CERTIFICATE FOR THE ABOVEGROUND PIPING. THIS FORM SHALL BE GIVEN TO THE PROJECT INSPECTOR WHO WILL FORWARD TO DSA FOR FILING IN PROJECT RECORDS.

GENERAL CODE DATA

GOVERNING CODES:
BUILDING CODE: CALIFORNIA BUILDING CODE, 2019 ED.
FIRE CODE: CALIFORNIA FIRE CODE, 2019 ED
N.F.P.A. 13 2016 ED.

FIRE SPRINKLERED IN LIEU OF RATED CONSTRUCTION: NO

BLDG "A" TYPE OF CONSTRUCTION: II-B
NUMBER OF STORIES: 1
AREA BLDG. A: 31,880 S.F.
BUILDING HEIGHT: 14' - 6"
OCCUPANCY CLASS: GROUP B/E

WATER DEPARTMENT NOTES

1. ARRANGEMENT OF FIRE PROTECTION WATER SUPPLY AND DEVICES SHALL STRICTLY CONFORM TO THE REQUIREMENTS OF HELIX WATER DISTRICT.
2. BACKFLOW PREVENTION DEVICE TO BE REDUCED PRESSURE DETECTOR ASSEMBLY (RPDA) , ASSEMBLY SHALL BE FURNISHED WITH 2 U.L. LISTED BUTTERFLY GATE VALVES, EQUIPPED WITH APPROVED TAMPER SWITCHES. BACKFLOW ASSEMBLY SHALL BE UL , CLASSIFIED, AND AWWA APPROVED FOR FIRE SERVICE INSTALLATIONS AND LISTED BY THE CROSS-CONNECTION INSTITUTE AT THE UNIVERSITY OF SOUTHERN CALIFORNIA.
3. BACKFLOW PREVENTION ASSEMBLY SHALL BE TESTED UPON INSTALLATION BY ACERTIFIED BACKFLOW TECHNICIAN, PRIOR TO ACCEPTANCE OF BACKFLOW ASSEMBLY BY THE WATER DEPARTMENT.
4. CONTRACTOR SHALL FURNISH VALVE SUPPORT STANDS AS REQUIRED AND SHALL MAINTAIN ALL INSTALLATION CLEARANCES AND HEIGHTS AS SHOWN ON THE DRAWINGS AND STANDARD DETAILS FOR THE SERVING WATER DEPARTMENT.
5. CONCRETE SLAB TO BE MINIMUM 4" THICK AND SLOPED TO DRAIN. PAD ELEVATION TO BE 1" ABOVE FINISH GRADE IN LAWN AREAS AND 2" ABOVE FINISH GRADE IN ALL OTHER AREAS. OVERALL ALL DIMENSIONS OF PAD SHALL BE AS SHOWN ON THE DRAWINGS AND STANDARD DETAILS FOR THE SERVING WATER AND FIRE DEPARTMENTS.

GENERAL BUILDING SYSTEM NOTES

1. INSTALLATION SHALL CONFORM TO THE FOLLOWING CODES AND STANDARDS:
   A. CALIFORNIA BUILDING CODE, 2019 ED.
   B. CALIFORNIA FIRE CODE, 2019 ED.
   C. N.F.P.A. 13, 2016 ED.
   D. N.F.P.A. 14, 2016 ED.
   E. N.F.P.A. 24, 2016 ED.
   F. N.F.P.A. 72, 2016 ED.
   G. ASCE 7-16 ED.
   H. APPLICABLE LOCAL CODES AND AMENDMENTS
2. ALL MATERIALS INSTALLED SHALL BE NEW, U.L. LISTED AND / OR F.M. APPROVED FOR FIRE PROTECTION SYSTEMS.
3. INSTALLING CONTRACTOR SHALL OBTAIN ALL REQUIRED PERMITS.
4. CUTTING, NOTCHING, WELDING AND PENETRATION OF STRUCTURAL MEMBERS SHALL BE DONE ONLY IN ACCORDANCE WITH THE APPROVED PLANS OR UPON WRITTEN DIRECTIONS AND / OR APPROVAL OF THE ARCHITECT OR PROJECT STRUCTURAL ENGINEER OF RECORD.
5. ALL PIPING PENETRATIONS OF A FIRE-RATED WALL AND FLOOR ASSEMBLIES SHALL BE FURNISHED WITH A LISTED / APPROVED FIRE STOP WITH A FIRE RESISTANCE RATING EQUAL TO OR GREATER THAN THAT OF THE ASSEMBLY BEING PENETRATED. ROOF PENETRATIONS SHALL BE FLASHED AND SEALED AS APPROVED BY THE ARCHITECT.
6. WHERE VALVES OR OPERABLE SYSTEM COMPONENTS ARE PROPOSED FOR INSTALLATION IN WALL OR CEILING CAVITIES, INSTALLING CONTRACTOR SHALL FURNISH ACCESS PANELS WITH APPROVED SIGNAGE IDENTIFYING LOCATION AND FUNCTION OF COMPONENTS WITHIN.
7. FURNISH A SUPPLY OF SPARE SPRINKLERS IN ACCORDANCE WITH N.F.P.A. 13, INCLUDING WRENCHES OR SPECIAL FITTIGNS REQUIRED FOR EACH TYPE OF SPRINKLER INSTALLED. THE NUMBER OF EACH TYPE OF SPRINKLER AND THE TOTAL NUMBER OF SPRINKLERS SHALL BE AS DESCRIBED IN N.F.P.A. 13.
8. ALL PIPING SHALL BE SUPPORTED, RESTRAINED, AND SEISMICALLY BRACED STRICTLY PER N.F.P.A. 13 AND ASCE 7-16. RESTRAINTS AND LATERAL SWAY BRACING MAY BE OMITTED WHERE ROD-TYPE HANGERS DO NOT EXCEED 0'-6" IN THE MEASURED DISTANCE FROM POINT OF CONNECTION TO TOP OF PIPING.
9. FLEXIBLE AND NON-FLEXIBLE GROOVED COUPLINGS SHALL BE USED ACCORDING TO THE REQUIREMENTS FOR SEISMIC PROTECTION OF PIPING AND LOCATION OF SWAY BRACING PER N.F.P.A. 13 UNLESS NOTED OTHERWISE. WHERE GROOVED COUPLINGS ARE SHOWN ON PLANS, THEY SHALL BE CONSIDERED NON-FLEXIBLE TYPE UNLESS NOTED AS FLEXIBLE TYPE.
10. SYSTEMS OF GREATER THAN 20 SPRINKLERS SHALL BE MONITORED BY AN OFF-SITE SUPERVISORY STATION. SUPERVISORY SYSTEM AND CENTRAL STATION SHALL BE U.L. LISTED AND / OR F.M. APPROVED, AND ACCEPTABLE TO THE SERVING FIRE DEPARTMENT. SUPERVISORY SYSTEM SHALL MONITOR ALL VALVES CONTROLLING FIRE PROTECTION SYSTEM WATER SUPPLIES AND FLOW SWITCHES INSTALLED ON THE SYSTEM (S) .
11. ELECTRICAL ROOMS, TRANSFORMER VAULTS AND OTHER ROOMS WHERE DIRECT WATER APPLICATION IS UNDESIRABLE MAY BE PROVIDED WITH SHIELD TO DIRECT WATER AWAY FROM EQUIPMENT. WHERE APPROVED BY THE LOCAL FIRE OFFICIAL, APPROVED SMOKE DETECTION DEVICES MAY BE FURNISHED IN LIEU OF FIRE SPRINKLERS. DETECTION EQUIPMENT SHALL BE MONITORED WITH THE FIRE SPRINKLER SYSTEM.
12. PRIOR TO COMMISSIONING AND FINAL ACCEPTANCE TESTING, CONTRACTOR SHALL AFFIX A PERMANENT AND DURABLE HYDRAULIC DESIGN PLATE STATING THE BASIS OF DESIGN AND DEMAND FOR EACH HYDRAULICALLY DESIGNED SYSTEM PER N.F.P.A. 13. WHERE A HYDRAULIC INFORMATION PLATE IS REQUIRED AT THE FIRE DEPARTMENT CONNECTION BY N.F.P.A. 13 OR 14, SUCH SIGNAGE SHALL BE INSTALLED IN SUCH A MANNER AND FABRICATED OF SUCH MATERIALS AS TO BE PROTECTED FROM EXPOSURE TO THE ELEMENTS AND PHYSICAL DAMAGE.
13. ALL VALVES SHALL BE EQUIPPED WITH IDENTIFICATION SIGNS STATING THE PURPOSE AND FUNCTION OF THE VALVE, AND ALSO THE EXISTENCE AND LOCATION OF ANY OTHER VALVES THAT ARE REQUIRED TO BE OPERATED IN ORDER TO CONTROL OR TEST THE WATER SUPPLY TO ANY SYSTEM OR PART OF THE SYSTEM.
14. WHERE REQUIRED BY THE SERVING FIRE DEPARTMENT (LOCAL FIRE AUTHORITY) ALL CONTROL VALVES SHALL BE SUPERVISED AND/OR LOCKED IN THE OPEN POSITION. COMMON KEYED PADLOCKS SUCH AS KNOX OR EQUIVALENT SHALL BE PROVIDED BY OTHERS.
15. ELECTRICAL ALARM SWITCHES AND BELLS, AS REQUIRED TO PROVIDE INTERCONNECTION TO THE FIRE ALARM SYSTEM AND TO PROVIDE AN AUDIBLE LOCAL WATERFLOW ALARM SHALL BE PROVIDED BY THE FIRE SPRINKLER CONTRACTOR. ALL ALARM DEVICES SHALL COMPLY WITH NFPA 72 AND BE U.L. LISTED AND/OR F.M. APPROVED, AND LISTED BY CALIFORNIA STATE FIRE MARSHAL:

A. BELL OR OTHER AUDIBLE APPLIANCE (S) AS REQUIRED BY SERVING FIRE DEPARTMENT.

B. WATERFLOW ALARM SWITCH FOR MAIN SYSTEM RISER AND ALL SECTIONAL/FLOOR CONTROL ASSEMBLIES AS REQUIRED.

C. SUPERVISORY (TAMPER) SWITCHES ON ALL VALVES CONTROLLING FIRE PROTECTION WATER SUPPLIES.

16. EACH WATER FLOW ALARM SWITCH SHALL BE CONNECTED TO A 10" 120 VAC EXTERIOR ALARM BELL OR BELL/STROBE OR APPROVED HORN/STROBE UNIT, LOCATED AS APPROVED BY RESPONDING FIRE DEPARTMENT OR LOCAL FIRE AGENCY. FURNISH IDENTIFYING SIGNAGE AT EXTERIOR ALARM DEVICE. THERE SHALL BE ONE EXTERIOR AUDIBLE ALARM FOR EVERY SPRINKLER SYSTEM. WHERE A BUILDING FIRE ALARM SYSTEM IS INSTALLED, ACTUATION OF THE SPRINKLER SYSTEM SHALL ALSO ACTUATE THE FIRE ALARM SYSTEM.
17. ACTIVATION OF THE WATER FLOW ALARM SHALL SIGNAL THE FIRE ALARM SYSTEM AND/OR SOUND THE AUDIBLE ALARM IN ACCORDANCE WITH NFPA 72.
18. ALL WIRING OF ELECTRICAL ALARM DEVICES SHALL BE SPECIFIED IN OTHER SECTIONS OF THIS CONTRACT AND THE WORK DONE BY OTHERS.
19. POWER FOR ALL FIRE SPRINKLER ALARMS SHALL BE TAKEN FROM A DESIGNATED CIRCUIT FOR FIRE ALARM USE ONLY AND SHALL BE SUPPLIED AFTER THE METER BUT AHEAD OF THE MAIN PANEL DISCONNECT. PERMANENT POWER SUPPLY MUST BE IN SERVICE BEFORE FINAL INSPECTION BY AUTHORITIES HAVING JURISDICTION.
20. PIPING SHALL BE INSTALLED SO THAT ENTIRE SYSTEM CAN BE DRAINED THROUGH MAIN AND/OR AUXILIARY DRAIN VALVES IN ACCORDANCE WITH NFPA 13.
21. MAIN DRAIN, AUXILIARY DRAIN AND INSPECTOR'S TEST CONNECTIONS SHALL DISCHARGE TO AN APPROVED LOCATION CAPABLE OF SAFELY RECEIVING THE FULL FLOW DISCHARGE OF THE DRAIN OR TEST CONNECTION.
22. CONTRACTOR SHALL MAKE PIPING ABOVE SUSPENDED CEILING ACCESSIBLE TO FIRE DEPARTMENT PERSONNEL FOR VISUAL INSPECTIONS AS A CONDITION FOR FINAL APPROVAL.
23. ALL WELDED PIPE SHALL BE MADE AVAILABLE FOR INSPECTION BY AUTHORITIES HAVING JURISDICTION BEFORE START OF INSTALLATION. CERTIFIED WELDER SHALL PROVIDE I.D. STAMP ON EACH WELD.
24. BUILDING SPRINKLER SYSTEM SHALL NOT CONNECT TO SITE UNDERGROUND MAIN UNTIL SITE PIPING HAS BEEN TESTED AND FLUSHED PER NFPA 13 AND/OR ALL TESTING AND FLUSHING SHALL BE WITNESSED AND APPROVED BY PROJECT INSPECTOR OF RECORD AND/OR AUTHORITIES HAVING JURISDICTION. INSTALLING CONTRACTOR SHALL EXECUTE AND FURNISH A COMPLETED AND SIGNED COPY OF THE "CONTRACTOR'S MATERIAL & TEST CERTIFICATE FOR UNDERGROUND PIPING"PER NFPA 13.WHEN UNDERGROUND PIPING IS TESTED AND FLUSHED BUT NOT IMMEDIATELY CONNECTED TO THE BUILDING SYSTEM PIPING, IT SHALL BE CAPPED OR OTHERWISE PROTECTED AGAINST ENTRY OF DEBRIS, DIRT OR ANIMALS.
25. ALL PIPING AND ATTACHED APPURTENANCES SHALL BE HYDROSTATICALLY TESTED AT 200 PSI OR 50 PSI OVER THE MAXIMUM SYSTEM WORKING PRESSURE, WHICHEVER IS GREATER, FOR A PERIOD OF AT LEAST TWO HOURS WITH NO LOSS OF PRESSURE. HYDROSTATIC TESTING SHALL BE WITNESSED AND ATTESTED TO BY PROJECT INSPECTOR OF RECORD AND/OR AUTHORITIES HAVING JURISDICTION.
26. UPON COMPLETION OF ALL TESTS AND INSPECTIONS, BUILDING SYSTEM CONTRACTOR SHALL EXECUTE AND FURNISH A COMPLETED AND SIGNED COPY OF THE "CONTRACTOR'S MATERIAL & TEST CERTIFICATE FOR ABOVEGROUND PIPING" PER NFPA 13.
27. UPON OCCUPANCY OF THE BUILDING, THE OWNER SHALL BE RESPONSIBLE FOR CONFORMANCE TO THE REQUIREMENTS OF TITLE 19 AND THE CALIFORNIA FIRE CODE FOR INSPECTIONS, TESTING AND MAINTENANCE OF THE SPRINKLER SYSTEM (S, AS-BUILT DRAWINGS SHALL BE KEPT ON PREMISES FOR THREE YEARS AND/OR IN THE CUSTODY OF THE OWNER OR DESIGNATED REPRESENTATIVE FOR THE LIFE OF THE BUILDING.

COORDIANTION NOTES

1. INSTALLING CONTRACTOR SHALL PREPARE A SHOP DRAWING SUBMITTAL PRIOR TO START OF WORK. THE FIRE SPRINKLER SYSTEM SUBMITTAL SHALL INCLUDE WORKING PLANS IN ACCORDANCE WITH NFPA13 SECTION 23.1 AND SUBMITTAL GUIDELINES OF THE AUTHORITY HAVING JURISDICTION (DIVISION OF THE STATE ARCHITECT) . DEVIATION FROM APPROVED PLANS SHALL REQUIRE PERMISSION OF THE DIVISION OF THE STATE ARCHITECT PER NFPA 13, 23.1.2.
2. CONFIGURATION OF PIPING AND SPRINKLERS SHOWN ON THESE PLANS SHALL BE USED AS A BASIS FOR LAYOUT AND INSTALLATION. CHANGES IN ELEVATION SHALL BE UNDERTAKEN BY THE INSTALLING CONTRACTOR AS REQUIRED TO EFFECT COORDINATION WITH OTHER TRADES AND/OR MAINTAIN PROPER CLEARANCES. ALL SUCH REVISIONS SHALL BE SHOWN ON CONTRACTOR'S WORKING PLANS.
3. ALL DIMENSIONS SHOWN ON THESE PLANS ARE CENTERLINE-TO-CENTERLINE. INSTALLING CONTRACTOR SHALL INSPECT AND CONFIRM THE ACTUAL AS-BUILT CONDITIONS OF ALL WORK AREAS AND SHALL COORDINATE THE INSTALLATION OF FIXED FIRE PROTECTION SYSTEMS WITH ALL WORK BY OTHER TRADES.
   A. THE EXACT LOCATION AND ELEVATION OF INSTALLED PIPING AND THE CUT LENGTHS OF ALL PIPING AND HANGERS SHALL BE THE RESPONSIBILITY OF THE INSTALLING CONTRACTOR.
   B. INSTALLING CONTRACTOR SHALL COORDINATE THE INSTALLATION WITH OBSTRUCTIONS SUCH AS STRUCTURE, DUCTWORK, CABLE TRAYS AND OTHER SUCH BUILDING UTILITY SYSTEMS AND WORK BY OTHER TRADES.
   C. WHERE FIELD CONFLICTS REQUIRE THAT PIPING BE REVISED, SUCH CHANGES SHALL BE INCLUDED IN CONTRACTOR'S WORKING PLANS AND SUBMITTED TO ARCHITECT FOR REVIEW, TO ASSURE CONFORMANCE TO APPROVED DESIGN.
   D. CONTRACTOR SHALL NOT SUBMIT COPIES OF APPROVED CONSTRUCTION DOCUMENTS PRIOR TO COORDINATION OR IN LIEU OF COORDINATED WORKING PLANS.
4. WHERE PENDENT SPRINKLERS ARE SHOWN IN OR NEAR THE EXACT CENTER OF SUSPENDED CEILING TILES, CONTRACTOR SHALL BE CONFIRM THE ACTUAL TILE PATTERN AND SPRINKLER LOCATIONS, SO THAT THE FINAL INSTALLATION IS EXACTLY CENTERED. WHERE CEILING TILES ARE 2'X4' "SECOND LOOK" TYPE WITH 2'X2' MODULES, SPRINKLERS SHALL BE SHALL BE IN THE EXACT CENTER OF THE 2'X2' MODULE. WHERE CEILING TILES ARE CONVENTIONAL 2'X4', SPRINKLERS SHALL BE CENTERED IN THE 2' DIRECTION AND SHALL BE LOCATED AT LEAST 6" CLEAR FROM ANY T-BAR.
5. CONTRACTOR SHALL FURNISH AND COORDINATE CONNECTION POINTS BETWEEN FIRE SPRINKLER SYSTEM SIGNALING DEVICES AND THE FIRE DETECTION AND ALARM SYSTEM. THIS SHALL INCLUDE BUT IS NOT LIMITED TO THE LOCATION OF ALL BELLS AND HORNS, FLOW SWITCHES AND TAMPER SWITCHES REQUIRING CONNECTION TO THE FIRE ALARM AND SUPERVISORY SYSTEMS.
6. CONTRACTOR SHALL UNDERTAKE MEETINGS AND CORRESPONDENCE WITH ALL AGENCIES HAVING JURISDICTION, AS REQUIRED TO CONFIRM SPECIFIC REQUIREMENTS REGARDING LOCATIONS AND METHODS OF DISCHARGING WATER FROM TEST AND DRAIN LOCATIONS. WHERE SHOWN ON PLANS, ALL WASTEWATER SHALL DISCHARGE INTO DEDICATED RECEPTORS AND BE COORDINATED WITH THE PLUMBING AND SEWER DESIGNS.

SCOPE OF WORK

REMOVE AND REPLACE THE EXISTING SPRINKLERS IN THE REMODELED AREA AT FOOTHILLS ADULTS CENTER PER N.F.P.A. 13, 2016 ed. AND THE DIVISION OF THE STATE ARCHITECT STANDARDS. ALL SPRINKLERS SHALL BE EQUAL HYDRAULICALLY TO THE ONES THEY ARE REPLACING.

DESIGN NOTES

1. SPRINKLERS
   A. LOCATION: DA-01 STUDENT SERVICES
      HAZARD GROUP: LIGHT HAZARD
      DISCHARGE DENSITY: .10
      QR AREA REDUCTION: YES
      HOSE STREAM ALLOWANCE
      OUTSIDE: 250
      INSIDE: 0
      COMBINED: 250
      CONSTRUCTION CLASSIFICATION
      UNOBSTRUCTED / INCOMBUSTIBLE
2. BUILDING SYSTEM PIPE TYPES (SEE PIPE TABLES)
   A. MAIN PIPING: BLACK STEEL, SCHEDULE 10
      FITTINGS: GROOVED/WELDED
   B. BRANCH PIPING: BLACK STEEL, SCHEDULE 40
      FITTINGS: THREADED CAST/MALLEABLE IRON
3. SEE SPRINKLER LEGEND ON PLANS FOR SPACING OF SPRINKLERS AND FINISHES

SHEET INDEX

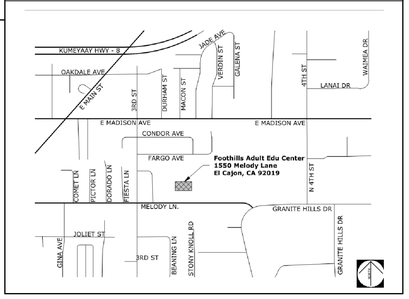
FP-1.0 FIRE PROTECTION GENERAL NOTES
FP-1.1 UNDERGROUND SITE FIRE PIPING PLAN
FP-2.0 LVL 1 PIPING PLAN EXISTING
FP-2.1 LVL 1 PIPING PLAN NEW
FP-3.0 LVL 1 REFLECTED CEILING PLAN EXISTING
FP-3.1 LVL 1 REFLECTED CEILING PLAN NEW
FP-4.0 FIRE PROTECTION DETAILS
FP-4.1 FIRE PROTECTION BUILDING SECTIONS

WATER FLOW TEST DATA

LOCATION: 1550 MELODY LANE
EL CAJON CA
PITOT PSI:
STATIC PSI: 70 PSI
RESIDUAL PSI: 50 PSI

FURNISHED BY: HELIX WATER DISTRICT

VICINITY MAP



AGENCY APPROVAL
File No.:

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-119728 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/18/2021

STAMPS

PROTECTION DESIGN AND CONSULTING
2851 Camino Del Rio S. # 210
San Diego, California 92108
www.protectiondesign.com
phone 619.255.8964
fax 619.255.9547

CONSULTANT BRANDING

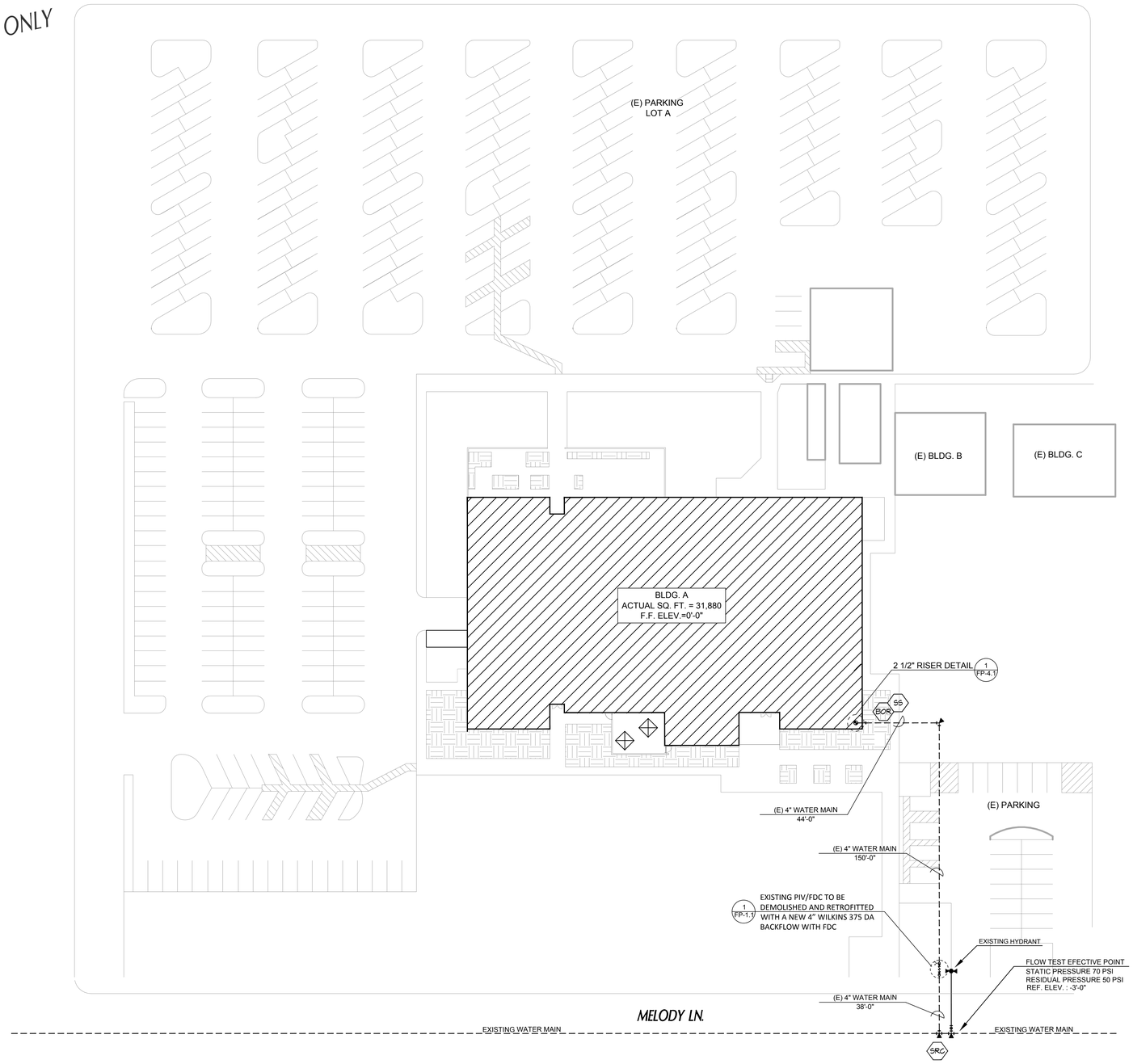
RUHNAU CLARKE ARCHITECTS

FEBRUARY 17, 2021 - DSA BACKCHECK

PROJECT No. :1-30-47
12/16/2020 5:51:00 PM
DRAWN BY: CHECKED BY:

REVISION:____ DATE _____ DESCRIPTION _____

SITE PIPING SHOWN
FOR HYDRAULIC REFERENCE ONLY

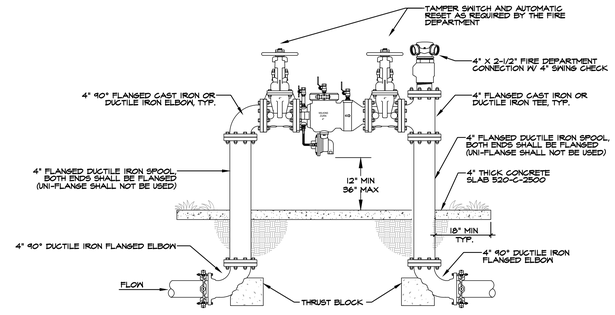


UNDERGROUND SITE FIRE PIPING PLAN

PLAN NORTH

SCALE: 1" = 30'-0"

0' 15' 30' 60' 90'



NOTES:

1). BACKFLOW PREVENTER ASSEMBLY SHALL BE TESTED UPON INSTALLATION BY A CERTIFIED BACKFLOW ASSEMBLY TESTER. CONTRACTOR SHALL PROVIDE THE ENGINEER WITH WRITTEN TEST RESULTS COMPLETED BY A CERTIFIED BACKFLOW TESTER PRIOR TO BACKFLOW PREVENTER ASSEMBLY'S ACCEPTANCE.

2). ALL PIPE BELOW GRADE SHALL BE WRAPPED AS REQUIRED BY THE SPECIFICATIONS.

3). CONCRETE PAD SHALL BE 2" ABOVE GRADE UNLESS INSTALLED IN LAWN AREA WHERE IT WILL BE 1" ABOVE GRADE, SLOPE TO DRAIN.

4). VALVE SUPPORTS AS REQUIRED BY THE SPECIFICATIONS.

5). LOCATION SHALL BE APPROVED BY PUBLIC UTILITIES DEPARTMENT, WATER OPERATIONS DIVISION, METER / BACKFLOW GROUP AND SHOWN ON PLANS.

NEW 4" WILKINS 375 DA BACKFLOW WITH FDC

NOT TO SCALE — SHOWN ON PLAN AS GMMD — 1 / FP-1.1

AGENCY APPROVAL
File No:

STAMPS

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-119728 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/18/2021

CONSULTANT BRANDING

PROTECTION DESIGN AND CONSULTING
2851 Camino Del Rio S. # 210
San Diego, California 92108
www.protectiondesign.com
phone 619.255.8964
fax 619.255.9547

RUHNAU CLARKE ARCHITECTS

FEBRUARY 17, 2021 - DSA BACKCHECK

PROJECT No. :1-30-47
12/16/2020 5:51:00 PM
DRAWN BY: CHECKED BY:

REVISION: DATE DESCRIPTION

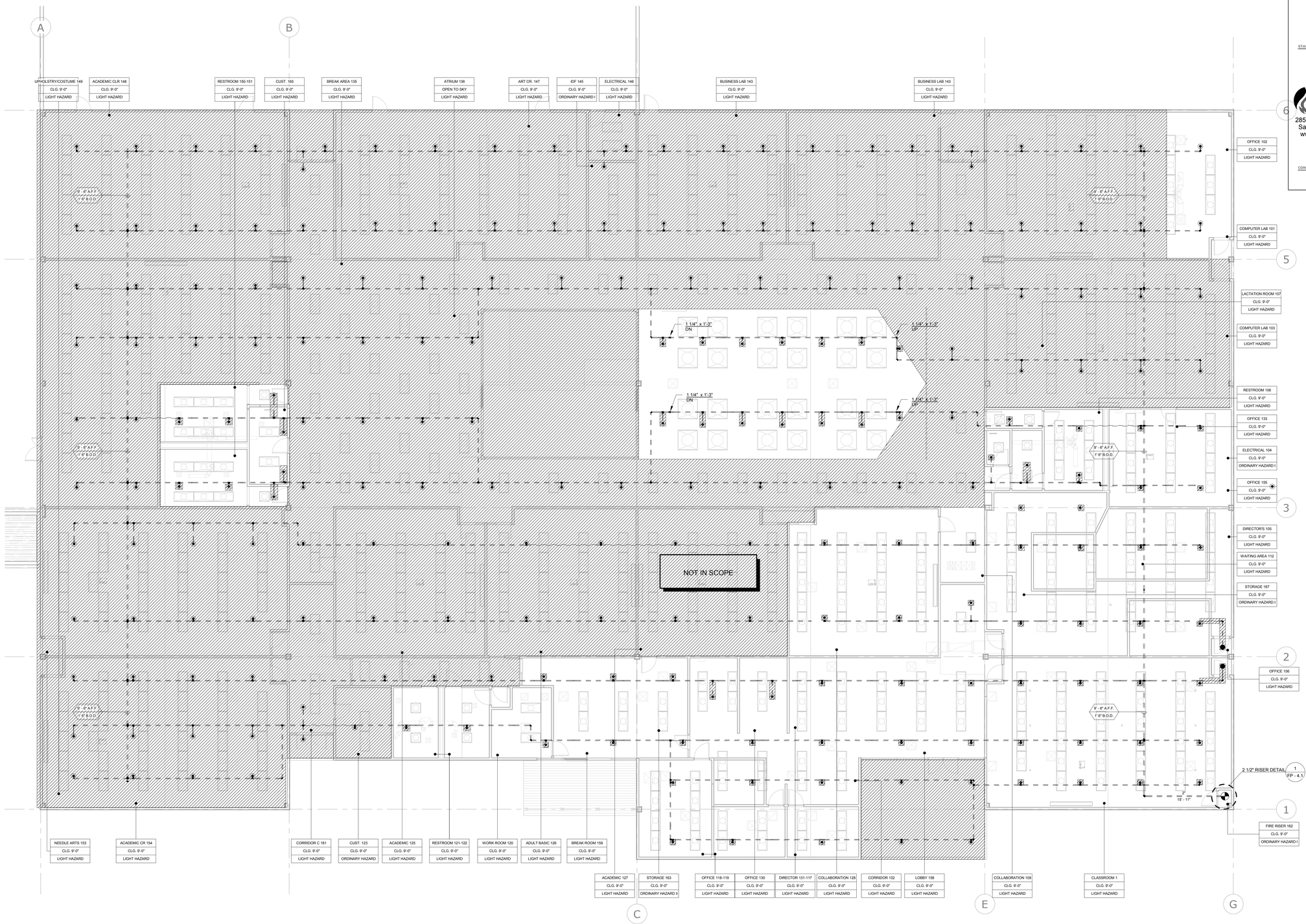
RUHNAUCLARKE.COM
3775 TENTH STREET, RIVERSIDE CALIFORNIA 92501(951) 684 4664 / 5751 PALMER WAY, SUITE C, CARLSBAD CALIFORNIA 92008) 438 5899

FOOTHILLS ADULT EDUCATION CENTER
1550 Melody Lane El Cajon, CA 92019
GROSSMONT UNIFIED HIGH SCHOOL DISTRICT

SITE FIRE PIPING PLAN

FP-1.1

1-30-47



1 LEVEL 1 PIPING PLAN EXISTING
1/8" = 1'-0"

NEW PIPING
EXISTING PIPING
EXISTING PIPE TO BE REMOVED

FIRE SPRINKLER LEGEND											SPACING			ESCUTCHEON		COMMENTS	TOTAL
SYM	LOCATION	MFR	MODEL	SIN	SR/QR	K-FAC	TYPE	TEMP	FIN	THRD	MIN	MAX	AREA	TYPE	FIN		
	FINISHED CEILING	VIKING	MICROFAST	VK302	QR	5.6 K	SSP	155°	WHITE	1/2"	6'-0"	15'-0"	225 S.F.	RECESSED	WHITE	EXISTING TO REPLACE	83
																TOTAL THIS SHEET	83

AGENCY APPROVAL
File No:

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-119728 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/18/2021

STAMPS

LICENSED ARCHITECT David Ruhnau Clarke C-20662 03-31-2021 RENEWAL DATE STATE OF CALIFORNIA

PROTECTION DESIGN AND CONSULTING
2851 Camino Del Rio S. # 210
San Diego, California 92108
www.protectiondesign.com
phone 619.255.8964
fax 619.255.9547

REGISTERED PROFESSIONAL ENGINEER JOSEPH S. MISITI FP 1559 Exp. 6/30/21 FIRE PROTECTION STATE OF CALIFORNIA

CONSULTANT BRANDING

RUHNAU CLARKE ARCHITECTS

FEBRUARY 17, 2021 - DSA BACKCHECK

PROJECT No. :1-30-47
2/9/2021 5:52:35 PM
DRAWN BY: CHECKED BY:

REVISION:____ DATE _____ DESCRIPTION _____
REVISION:____ DATE _____ DESCRIPTION _____
REVISION:____ DATE _____ DESCRIPTION _____
REVISION:____ DATE _____ DESCRIPTION _____
REVISION:____ DATE _____ DESCRIPTION _____
REVISION:____ DATE _____ DESCRIPTION _____
REVISION:____ DATE _____ DESCRIPTION _____
REVISION:____ DATE _____ DESCRIPTION _____
REVISION:____ DATE _____ DESCRIPTION _____

GROSSMONT UNION HIGH SCHOOL DISTRICT

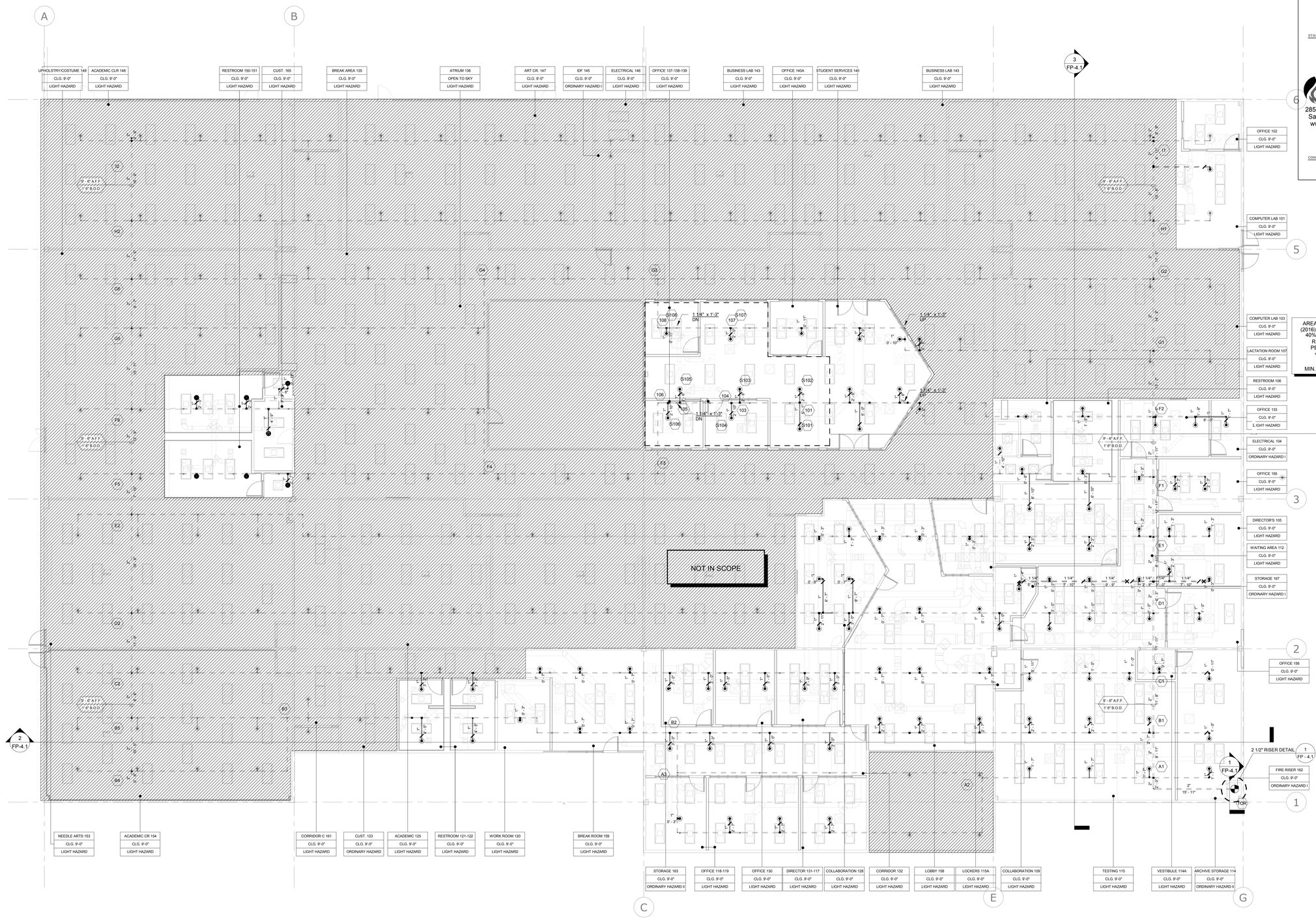
RUHNAUCLARKE.COM
3775 TENTH STREET, RIVERSIDE CALIFORNIA 92501 (951) 684 4664 / 5751 PALMER WAY, SUITE C, CARLSBAD CALIFORNIA 92010 (760) 438 5899

FOOTHILLS ADULT EDUCATION CENTER
1550 Melody Lane El Cajon, CA 92019
GROSSMONT UNIFIED HIGH SCHOOL DISTRICT

LVL 1 PIPING PLAN EXISTING

FP-2.0

1-30-47



1 LEVEL 1 PIPING PLAN NEW
1/8" = 1'-0"

NEW PIPING
EXISTING PIPING
EXISTING PIPE TO BE REMOVED

AREA REDUCTION PER NFPA 13 (2016) AREA HAS BEEN REDUCED 40%%FOR THE USE OF QUICK RESPONSE SPRINKLERS PER CHAPTER 11.2.3.2.3.1
Y= (-3 x 9 FT) / 2 + 55
Y= 40%%
MIN. DESIGN AREA: 900 SQ FT.

DA-01
225 SF/HD MAX
0.10 DENSITY
926 S.Q.F.T.

HYDRAULIC SYSTEM

This building is protected by a Hydraulically Designed Automatic Sprinkler System

Location: STUDENT SVCS — DA-01

Sprinkler Information

NUMBER OF FLOWING SPRINKLERS	8	
MANUFACTURE	VIKING	
MODEL	VK302	
155°	QUICK RESPONSE	
1/2 ORIFICE	5.6 K-FACTOR	

Basis of Design

STANDARD	NFPA 13, 2016 EDITION	
HAZARD GROUP	LIGHT HAZARD	
DENSITY	0.10	GPM/S.Q. F.T.
DESIGNED AREA OF DISCHARGE	926	S.Q. F.T.

System Demand

GPM DEMAND AT THE BASE OF THE RISER	158.6	GPM
RESIDUAL PRESSURE AT THE BASE OF THE RISER	42.2	PSI
GPM DEMAND AT THE WATER SUPPLY SOURCE	258.6	GPM
RESIDUAL PRESSURE AT THE WATER SUPPLY SOURCE	45.7	PSI
SAFETY PRESSURE	22.6	PSI
HOSE STREAM ALLOWANCE	100	GPM INSIDE
	0	GPM OUTSIDE
	100	GPM TOTAL
REMOTE SPRINKLER FLOW	17.7 GPM @ 10.0 PSI	

PROTECTION DESIGN AND CONSULTING
2851 Camino Del Rio S. # 210
San Diego, California 92108
www.protectiondesign.com
phone 619.255.8964
fax 619.255.9547

INSTALLATION NOTES:

PIPE TYPES

1. BRANCH LINES TO BE BLACK SCHEDULE 40 STEEL PIPE, U.O.N.

PIPE SIZES

1. BRANCH LINES TO BE **1 1/4" & 1"** NOMINAL DIAMETER PIPE, U.O.N.
3. ARMO OVERS AND DROPS TO BE 1" NOMINAL DIAMETER PIPE, U.O.N.

HANGERS

1. HANG LINES & MAINS TO STEEL BEAMS AT ELEVATIONS NOTED PER DETAIL — 1,2,3 / FP-4.0
- DENOTES HANGER LOCATION
3. FURNISH RESTRAINING TYPE HANGERS AT THE ENDS OF ALL BRANCHLINES AND AT EVERY **26** FT ALONG THE LINES
- DENOTES LATERAL RESTRAINT — 4 / FP-4.0
4. SEE SHEET **FP-4.0** FOR DETAILS

FIRE SPRINKLER LEGEND																	
											SPACING			ESCUTCHEON			
SYM	LOCATION	MFR	MODEL	SIN	SR/QR	K-FAC	TYPE	TEMP	FIN	THRD	MIN	MAX	AREA	TYPE	FIN	COMMENTS	TOTAL
◉	FINISHED CEILING	VIKING	MICROFAST	VK302	QR	5.6 K	SSP	155°	WHITE	1/2"	6'-0"	15'-0"	225 S.F.	RECESSED	WHITE		97
																TOTAL THIS SHEET	97

MAXIMUM SPACING OF RESTRAINTS (ft) STEEL PIPE				
PROJECT NAME				
SEISMIC COEFFICIENT (Cp)				
PIPE SIZE	Cp < 0.50	0.5< Cp <0.71	0.71< Cp <1.40	Cp > 1.40
1"	43'	36'	26'	22'
1-1/4"	46'	39'	27'	24'
1-1/2"	49'	41'	29'	25'
2"	53'	45'	31'	27'

FEBRUARY 17, 2021 - DSA BACKCHECK

AGENCY APPROVAL
File No:

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-119728 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/18/2021

STAMPS

PROTECTION DESIGN AND CONSULTING
2851 Camino Del Rio S. # 210
San Diego, California 92108
www.protectiondesign.com
phone 619.255.8964
fax 619.255.9547

CONSULTANT BRANDING

RUHNAU CLARKE ARCHITECTS

PROJECT No. :1-30-47
2/9/2021 5:54:33 PM
DRAWN BY: CHECKED BY:

REVISION:____ DATE _____ DESCRIPTION _____

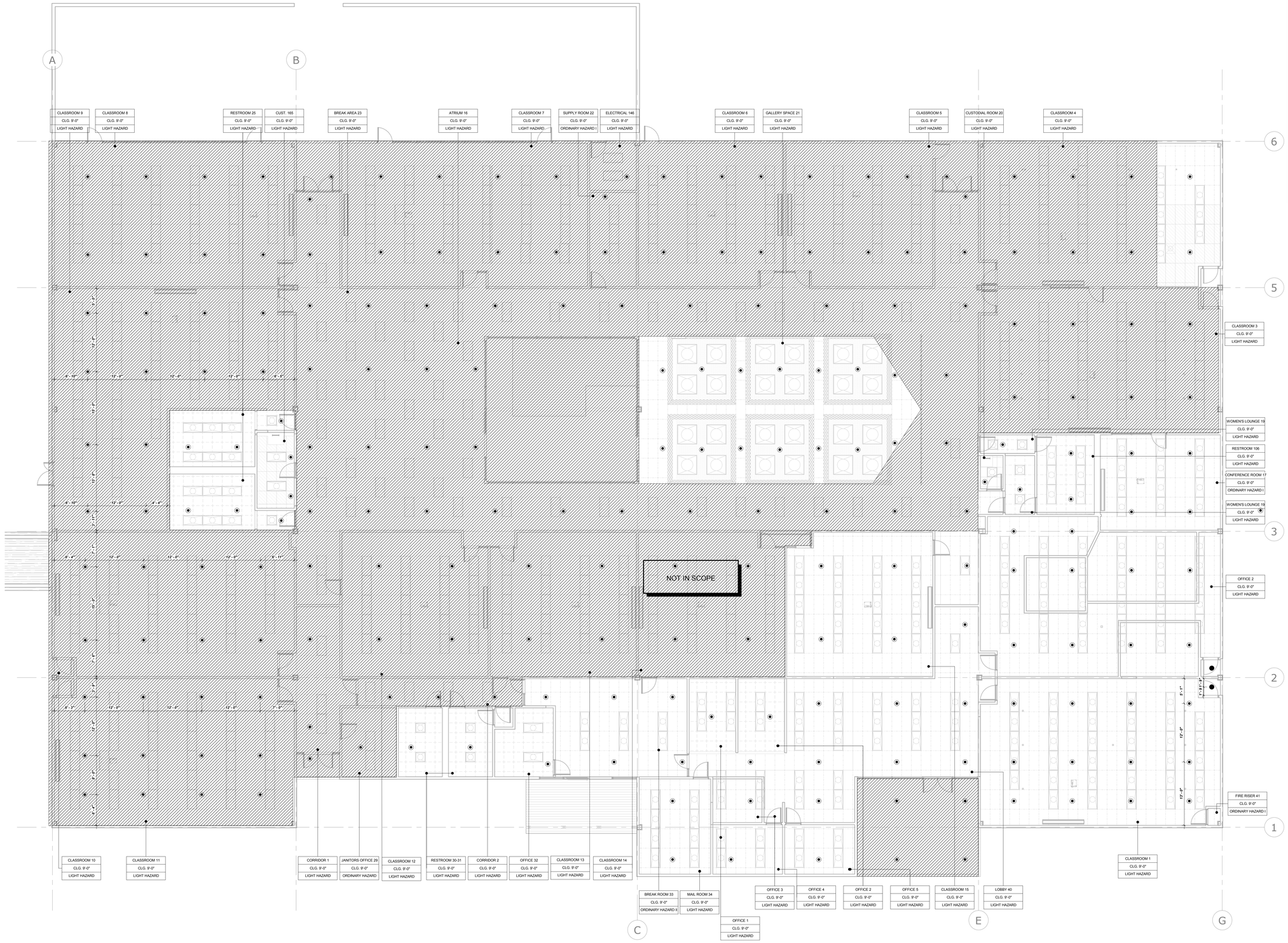
RUHNAUCLARKE.COM
3775 TENTH STREET, RIVERSIDE CALIFORNIA 92501 (951) 684 4664 / 5751 PALMER WAY, SUITE C, CARLSBAD CALIFORNIA 92010 (760) 438 5899

FOOTHILLS ADULT EDUCATION CENTER
1550 Melody Lane El Cajon, CA 92019
GROSSMONT UNIFIED HIGH SCHOOL DISTRICT

LVL 1 PIPING PLAN NEW

FP-2.1

1-30-47



LEVEL 1 REFLECTED CEILING PLAN
EXISTING
1/8" = 1'-0"

AGENCY APPROVAL
File No:

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-119728 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/18/2021

STAMPS

PROTECTION DESIGN AND CONSULTING
2851 Camino Del Rio S. # 210
San Diego, California 92108
www.protectiondesign.com
phone 619.255.8964
fax 619.255.9547

CONSULTANT BRANDING

RUHNAU CLARKE ARCHITECTS

FEBRUARY 17, 2021 - DSA BACKCHECK

PROJECT No. :1-30-47
2/9/2021 5:56:15 PM
DRAWN BY: CHECKED BY:

REVISION:____ DATE _____ DESCRIPTION _____

RUHNAUCLARKE.COM
3775 TENTH STREET, RIVERSIDE CALIFORNIA 92501 (951) 684 4664 / 5751 PALMER WAY, SUITE C, CARLSBAD CALIFORNIA 92010 (760) 438 5899

FOOTHILLS ADULT EDUCATION CENTER
1550 Melody Lane El Cajon, CA 92019
GROSSMONT UNIFIED HIGH SCHOOL DISTRICT

LVL 1 REFLECTED CEILING PLAN EXISTING

FP-3.0

1-30-47

1 LEVEL 1 REFLECTED CEILING PLAN NEW
1/8" = 1'-0"

AGENCY APPROVAL
File No.:

LICENSED ARCHITECT David Ruhnau CLARKE C-20662 03-31-2021 RENEWAL DATE STATE OF CALIFORNIA

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-119728 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/18/2021

STAMPS

PROTECTION DESIGN AND CONSULTING
2851 Camino Del Rio S. # 210
San Diego, California 92108
www.protectiondesign.com
phone 619.255.8964
fax 619.255.9547

REGISTERED PROFESSIONAL ENGINEER JONATHAN S. KIRSCHT FP 1559 Exp. 6/30/21 FIRE PROTECTION STATE OF CALIFORNIA

CONSULTANT BRANDING

RUHNAU CLARKE ARCHITECTS

FEBRUARY 17, 2021 - DSA BACKCHECK

PROJECT No. :1-30-47
2/9/2021 5:57:02 PM
DRAWN BY: CHECKED BY:

REVISION:___ DATE ___ DESCRIPTION ___
REVISION:___ DATE ___ DESCRIPTION ___
REVISION:___ DATE ___ DESCRIPTION ___
REVISION:___ DATE ___ DESCRIPTION ___
REVISION:___ DATE ___ DESCRIPTION ___
REVISION:___ DATE ___ DESCRIPTION ___
REVISION:___ DATE ___ DESCRIPTION ___
REVISION:___ DATE ___ DESCRIPTION ___

GROSSMONT UNION HIGH SCHOOL DISTRICT

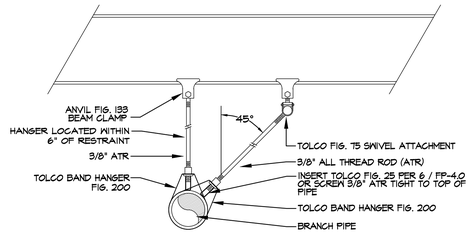
RUHNAUCLARKE.COM
3775 TENTH STREET, RIVERSIDE CALIFORNIA 92501 (951) 684 4664 / 5751 PALMER WAY, SUITE C, CARLSBAD CALIFORNIA 92010 (760) 438 5899

FOOTHILLS ADULT EDUCATION CENTER
1550 Melody Lane El Cajon, CA 92019
GROSSMONT UNIFIED HIGH SCHOOL DISTRICT

LVL 1 REFLECTED CEILING PLAN NEW

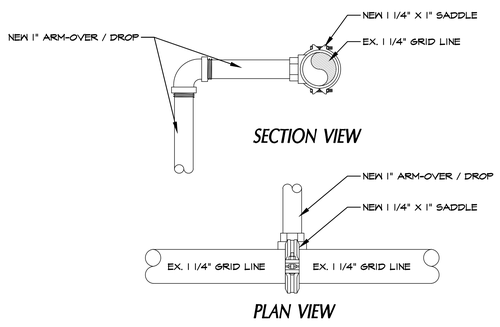
FP-3.1

1-30-47



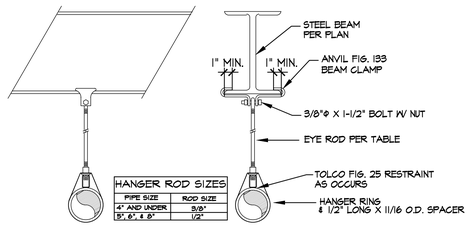
STEEL STRUCTURE RESTRAINT DETAIL

NO SCALE — SHOWN ON PLAN AS — 4 / FP-4.0



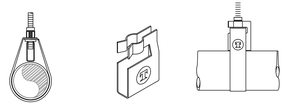
MECHANICAL T CONNECTION DETAIL

NOT TO SCALE — 7 / FP-4.0



BEAM CLAMP HANGER DETAIL

NOT TO SCALE — SHOWN ON PLAN AS — 3 / FP-4.0



TOLCO FIG. 25 SURGE RESTRAINT

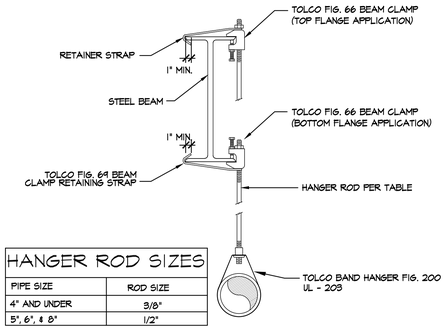
TYPE 1- FOR 1" AND 1-1/4" PIPE AND HANGER
TYPE 2 - FOR 1-1/2" AND 2" PIPE AND HANGER

TOLCO FIG. 25 IS DESIGNED TO BE USED ONLY WITH TOLCO BAND HANGERS FIG. 200 TO RESTRAIN THE UPWARD MOVEMENT OF PIPE AS IT OCCURS DURING SPRINKLER HEAD ACTIVATION OR SEISMIC ACTIVITY

LATERAL RESTRAINTS SHALL BE LOCATED WITHIN 2'-0" OF HANGER. THIS HANGER SHALL BE USED ALONG WITH VERTICAL RESTRAINTS.

VERTICAL RESTRAINT

NOT TO SCALE — SHOWN ON PLAN AS — 6 / FP4.0

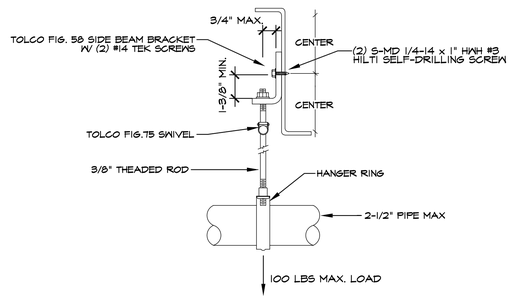


BEAM CLAMP HANGER DETAIL

NOT TO SCALE — SHOWN ON PLAN AS — 2 / FP4.0

ROD STIFFENER DETAIL

NOT TO SCALE — SHOWN ON PLAN AS — 5 / FP4.0



PURLIN HANGER DETAIL

NO SCALE — SHOWN ON PLAN AS — 1 / FP4.0

AGENCY APPROVAL
File No.:

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-119728 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/18/2021

STAMPS

PROTECTION DESIGN AND CONSULTING
2851 Camino Del Rio S. # 210
San Diego, California 92108
www.protectiondesign.com
phone 619.255.8964
fax 619.255.9547

FP 1559 Exp. 6/30/21

CONSULTANT BRANDING

RUHNAU CLARKE ARCHITECTS

FEBRUARY 17, 2021 - DSA BACKCHECK

PROJECT No. :1-30-47
12/16/2020 5:51:00 PM
DRAWN BY: CHECKED BY:

REVISION:___ DATE _____ DESCRIPTION _____

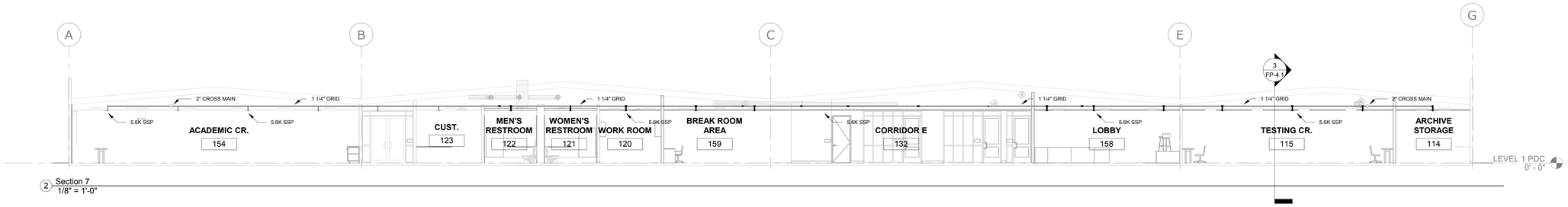
RUHNAUCLARKE.COM
3775 TENTH STREET, RIVERSIDE CALIFORNIA 92501(951) 684 4664 / 5751 PALMER WAY, SUITE C, CARLSBAD CALIFORNIA 92010 438 5899

FOOTHILLS ADULT EDUCATION CENTER
1550 Melody Lane El Cajon, CA 92019
GROSSMONT UNIFIED HIGH SCHOOL DISTRICT

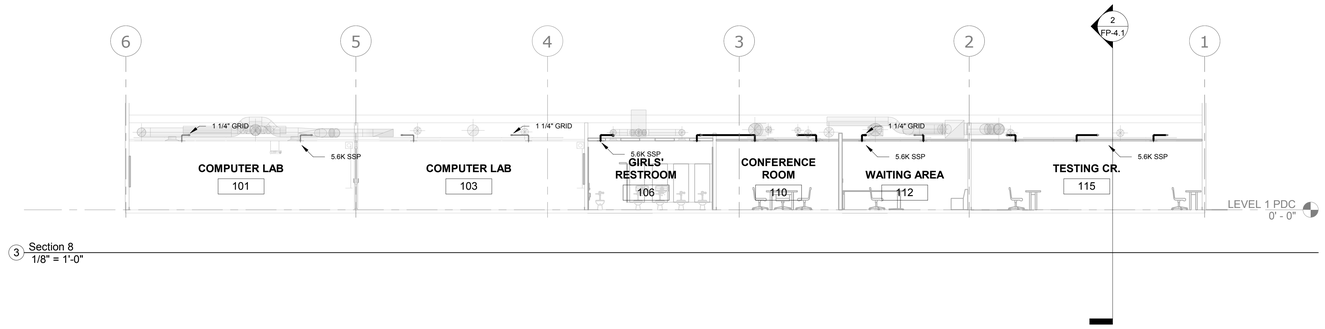
FIRE PROTECTION DETAILS

FP-4.0

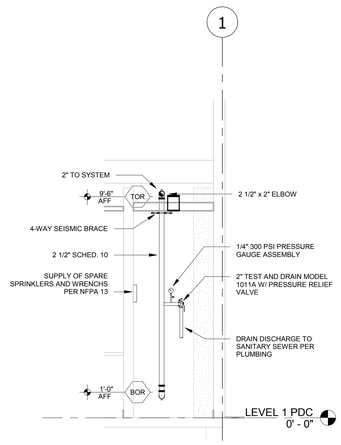
1-30-47



2 Section 7
1/8" = 1'-0"



3 Section 8
1/8" = 1'-0"



1 SECTION RISER DETAIL
3/8" = 1'-0"

AGENCY APPROVAL
File No:

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-119728 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/18/2021

STAMPS

PROTECTION DESIGN AND CONSULTING
2851 Camino Del Rio S. # 210
San Diego, California 92108
www.protectiondesign.com
phone 619.255.8964
fax 619.255.9547

CONSULTANT BRANDING

RUHNAU CLARKE ARCHITECTS

FEBRUARY 17, 2021 - DSA BACKCHECK

PROJECT No. :1-30-47
2/8/2021 5:46:44 PM
DRAWN BY: CHECKED BY:

REVISION:____ DATE _____ DESCRIPTION _____

RUHNAUCLARKE.COM
3775 TENTH STREET, RIVERSIDE CALIFORNIA 92501 (951) 684 4664 / 5751 PALMER WAY, SUITE C, CARLSBAD CALIFORNIA 92010 (760) 438 5899

FOOTHILLS ADULT EDUCATION CENTER
1550 Melody Lane El Cajon, CA 92019
GROSSMONT UNIFIED HIGH SCHOOL DISTRICT

FIRE PROTECTION SECTIONS

FP-4.1

1-30-47

FABRIC SHADE STRUCTURE
DSA P.C. 04-117140

SITE SPECIFIC APPLICATION TITLE SHEET SHALL INCLUDE:

APPLICABLE CODES

- 2016 BUILDING STANDARDS ADMINISTRATIVE CODE, PART 1, TITLE 24 C.C.R. *
- 2016 CALIFORNIA BUILDING CODE (CBC), PART 2, TITLE 24 C.C.R. (2015 INTERNATIONAL BUILDING CODE VOLUMES 1-2 AND 2016 CALIFORNIA AMENDMENTS)
- 2016 CALIFORNIA ELECTRICAL CODE (CEC) , PART 3, TITLE 24 C.C.R. (2014 NATIONAL ELECTRICAL CODE AND 2016 CALIFORNIA AMENDMENTS)
- 2016 CALIFORNIA MECHANICAL CODE (CMC), PART 4, TITLE 24 C.C.R. (2015 UNIFORM MECHANICAL CODE AND 2016 CALIFORNIA AMENDMENTS)
- 2016 CALIFORNIA PLUMBING CODE (CPC), PART 5, TITLE 24 C.C.R. (2015 UNIFORM PLUMBING CODE AND 2016 CALIFORNIA AMENDMENTS)
- 2016 CALIFORNIA ENERGY CODE (CEC), PART 6, TITLE 24 C.C.R. *
- 2016 CALIFORNIA FIRE CODE, PART 9, TITLE 24 C.C.R. (2015 INTERNATIONAL FIRE CODE AND 2016 CALIFORNIA AMENDMENTS)
- 2016 CALIFORNIA GREEN BUILDING STANDARDS CODE, PART 11, TITLE 24 C.C.R.
- 2016 CALIFORNIA REFERENCED STANDARDS, PART 12, TITLE 24 C.C.R.
- TITLE 19 C.C.R., PUBLIC SAFETY, STATE FIRE MARSHAL REGULATIONS
- 2013 ASME A17.1 SAFETY CODE FOR ELEVATORS AND ESCALATORS

PARTIAL LIST OF APPLICABLE STANDARDS

NFPA 13	AUTOMATIC FIRE SPRINKLER SYSTEMS	2016 EDITION
NFPA 14	STANDPIPE AND HOSE SYSTEMS	2013 EDITION
NFPA 17	DRY CHEMICAL EXTINGUISHING SYSTEMS	2013 EDITION
NFPA 17a	WET CHEMICAL EXTINGUISHING SYSTEMS	2013 EDITION
NFPA 20	STATIONARY PUMPS FOR FIRE PROTECTION	2016 EDITION
NFPA 22	WATER TANKS FOR PRIVATE FIRE PROTECTION	2013 EDITION
NFPA 24	PRIVATE FIRE MAINS & THEIR APPURTENANCES	2016 EDITION
NFPA 25	STANDARD FOR INSPECTION, TESTING AND MAINTENANCE OF WATER-BASED FIRE PROTECTION SYSTEMS	2013 EDITION
NFPA 72	NATIONAL FIRE ALARM & SIGNALING CODE	2016 EDITION
NFPA 80	FIRE DOORS AND OTHER OPENING PROTECTIVES	2016 EDITION
NFPA 92	STANDARD FOR SMOKE CONTROL SYSTEMS	2015 EDITION
NFPA 253	CRITICAL RADIANT FLUX OF FLOOR COVERING SYSTEMS	2015 EDITION
NFPA 2001	CLEAN AGENT FIRE EXTINGUISHING SYSTEMS	2015 EDITION
ICC 300	ICC STANDARDS ON BLEACHERS, FOLDING AND TELESCOPING SEATING, AND GRAND STANDS	2012 EDITION
UL 300	FIRE TESTING OF FIRE EXTINGUISHING SYSTEMS FOR PROTECTION OF RESTAURANT COOKING AREAS	2005 EDITION
UL 464	AUDIBLE SIGNAL APPLIANCES	2003 EDITION
UL521	HEAT DETECTORS FOR FIRE PROTECTIVE SIGNALING SYSTEMS	1999 EDITION

REFERENCE CODE SECTION FOR NFPA STANDARDS-2016 CBC (SFM) CHAPTER 35. SEE CHAPTER 35 FOR STATE OF CALIFORNIA AMENDMENTS TO NFPA STANDARDS.

SEE INDIVIDUAL STRUCTURAL DRAWINGS FOR SPECIFIC DESIGN NOTES AND LOADING.

ALL WORK SHALL CONFORM TO 2016 EDITION TITLE 24, CALIFORNIA CODE OF REGULATIONS (C.C.R.)

BUILDING CODE DATA

SITE SPECIFIC APPLICATION SITE PLAN SHALL INCLUDE:

1. ACTUAL DIMENSIONS OF SHADE STRUCTURES.
2. DIMENSIONS FROM ADJACENT STRUCTURES AND PROXIMITY OF ASSUMED OR ACTUAL PROPERTY LINES.
3. PROVIDE CODE ANALYSIS INCLUDING ACTUAL SHADE STRUCTURE AREA (SQ. FT.), OCCUPANCY TYPE (A-3), AND TYPE OF CONSTRUCTION (V-B). INDICATE OCCUPANT LOAD FACTOR per 2016 CBC, SECTION 1004.
4. INDICATE LOCATIONS OF FIRE EXTINGUISHER WITHIN 75 FEET.
5. SHOW LOCATIONS OF AUDIBLE FIRE ALARM.
6. INDICATE DIMENSIONS FROM THE ROOF TO THE HIGHER STRUCTURE OR TERRAIN FEATURE. MINIMUM DIMENSION OF 20' FOR SNOW LOAD MODEL (ASCE 7-10).
7. ACTUAL SITE ELEVATION (FT.) TO DETERMINE SITE OCCURS AT OR BELOW THE UPPER ELEVATION LIMIT FOR THE GROUND SNOW LOAD SHOWN IN ASCE 7-10 (FOR SNOW LOAD MODEL).
8. FOR RECESSED BASE PLATE (RBP) OPTION: ARCHITECT/ENGINEER OF RECORD TO SPECIFY THE LOWEST ANTICIPATED SERVICE TEMPERATURE (LAST), AS DEFINED IN AISC 341-10 SECTION A.3.4b, A4.1 AND A4.2 PER NOTE ON EACH INDIVIDUAL MODEL ENGINEERING DRAWING WHICH RELATES TO DEMAND CRITICAL WELD AND "L.A.S.T." TEMPERATURE (EITHER STRUCTURAL STEEL NOTE #14).
9. COMPLETE SCOPE OF WORK INCLUDING THE SHADE STRUCTURE MODEL NUMBER, P.C. NUMBER, AND SPECIFIC SIZE OF SHADE STRUCTURE.
10. ALL SADDLES, CLAMPS AND FITTINGS SHALL CONFORM TO THE GUIDELINES AS SPECIFIED IN APPENDICES "A, B & C" RESPECTIVELY IN ASCE 19-10, "STRUCTURAL APPLICATIONS OF STEEL CABLES FOR BUILDINGS."
11. ARCHITECTS OF RECORD TO DETERMINE IF SPECIFIC SITE IS IN MAPPED GEOLOGIC HAZARD ZONE. GEOHAZARD REPORT REQUIREMENTS PER DSA IR A-4.

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-119728 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/18/2021

GENERAL NOTES

THESE PLANS AND SPECIFICATIONS ARE THE PROPERTY OF USA SHADE AND FABRIC STRUCTURES AND SHALL NOT BE REPRODUCED WITHOUT THEIR WRITTEN PERMISSION.

USASHADE & Fabric Structures®

CORPORATE HEADQUARTERS
8505-A CHANCELLOR ROW
DALLAS, TX, 75247
800-966-5005

CERTIFICATIONS:

IAS CERTIFICATION No: FA-428

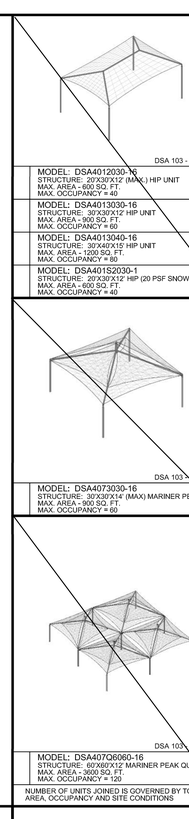
CLARK COUNTY MANUFACTURER CERTIFICATION NUMBER (NEVADA): 355

DSA PC APPLICATION STAMP:

FILE NUMBER: PC-SS
IDENTIFICATION STAMP
DIVISION OF THE STATE ARCHITECT
APP. NO: 04 - 117140 INCR :
AC DF FLS DS SS VN
DATE: 08/14/2018

CODE UPDATE FOR 04-113245

PRE-CHECK (PC) DOCUMENT
Code : 2016 CBC
A separate project application for construction is required.



UNIT SELECTION AND DESCRIPTION

	DRAWING NUMBER	DRAWING DESCRIPTION	STRUCTURE TYPE	MAX SIZE	MODEL NUMBER
X	P.C. T-1.0	P.C. TITLE SHEET			
X	P.C. T-2.0	DSA 103 FORMS			
	1.1-1000	PRODUCT INFORMATION	HIP	20 X 30	DSA4012030-16
	1.2-2000	REACTIONS	HIP	20 X 30	DSA4012030-16
	2.1-1000	PRODUCT INFORMATION	HIP	30 X 30	DSA4013030-16
	2.2-2000	REACTIONS	HIP	30 X 30	DSA4013030-16
	3.1-1000	PRODUCT INFORMATION	HIP	30 X 40	DSA4013040-16
	3.2-2000	REACTIONS	HIP	30 X 40	DSA4013040-16
	4.1-1000	PRODUCT INFORMATION	HIP (20# SNOW LOAD)	20 X 30	DSA401S2030-16
	4.2-2000	REACTIONS	HIP (20# SNOW LOAD)	20 X 30	DSA401S2030-16
X	5.1-1000	PRODUCT INFORMATION	SINGLE POST PYRAMID	14 X 14	DSA1031414-16
X	5.2-2000	REACTIONS	SINGLE POST PYRAMID	14 X 14	DSA1031414-16
	6.1-1000	PRODUCT INFORMATION	MARINER	30 X 30	DSA4073030-16
	6.2-2000	REACTIONS	MARINER	30 X 30	DSA4073030-16
	7.1-1000	PRODUCT INFORMATION	JOINED MARINER	30 X 200	DSA407J3060-16
	7.2-2000	REACTIONS	JOINED MARINER	30 X 200	DSA407J3060-16
	8.1-1000	PRODUCT INFORMATION	QUAD MARINER	60 X 60	DSA407Q6060-16
	8.2-2000	REACTIONS	QUAD MARINER	60 X 60	DSA407Q6060-16
	9.1-1000	PRODUCT INFORMATION	FULL CANTILEVER	20 X 30	DSA2022030-16
	9.2-2000	REACTIONS	FULL CANTILEVER	20 X 30	DSA2022030-16
	10.1-1000	PRODUCT INFORMATION	FULL CANTILEVER JOINED	20 X 300	DSA3022060-16
	10.2-2000	REACTIONS	FULL CANTILEVER JOINED	20 X 300	DSA3022060-16
	11.1-1000	PRODUCT INFORMATION	TRI TRUSS CANTILEVER	20 X 30	DSA2062030-16
	11.2-2000	REACTIONS	TRI TRUSS CANTILEVER	20 X 30	DSA2062030-16
	12.1-1000	PRODUCT INFORMATION	TRI TRUSS CANTILEVER JOINED	20 X 300	DSA3052060-16
	12.2-2000	REACTIONS	TRI TRUSS CANTILEVER JOINED	20 X 300	DSA3052060-16
	13.1-1000	PRODUCT INFORMATION	THREE POINT SAILS	30 X 200	DSA30730-16
	13.2-2000	REACTIONS	THREE POINT SAILS	30 X 200	DSA30730-16
	14.1-1000	PRODUCT INFORMATION	FOUR-POINT SAILS	20 X 300	DSA4182020-16
	14.2-2000	REACTIONS	FOUR-POINT SAILS	20 X 300	DSA4182020-16
	15.1-1000	PRODUCT INFORMATION	FOUR POINT SAILS	30 X 200	DSA4183030-16
	15.2-2000	REACTIONS	FOUR POINT SAILS	30 X 200	DSA4183030-16

SHEET INDEX - P.C. DRAWINGS

HIGGINSON ARCHITECTS INCORPORATED
707 Brookside Avenue
Redlands, CA 92373
(909)375-3030
www.haarchinc.com

ARCHITECT OF RECORD

LICENSED ARCHITECT
DAVID HIGGINSON
NO.C19168
REN. 10-31-19
STATE OF CALIFORNIA
08/10/2018 10:19:20 AM

Mark Lowe, S.E.
Structural Engineer

19471 Misty Ridge Lane
Trabuco Canyon, California 923679
949-400-1265
malowe@me.com

REGISTERED PROFESSIONAL ENGINEER
ALBERT MARK LOWE
No. 5693
STRUCTURAL
STATE OF CALIFORNIA
8/10/2018

ENGINEER OF RECORD

	DESCRIPTION	DATE	DRW	CHK	ENG
REV.					

SITE PROJECT NAME: Foothills Adult Education Center
DISTRICT/OWNER: Grossmont Union HS District
LOCATON/ADDRESS: 1550 Melody Lane El Cajon, CA 92019

Eng. By :	DWH	08/07/18
Design By :	DWH	08/07/18
Approved By :	DWH	08/07/18

SCALE: AS NOTED

DRAWING SIZE:

DRAWING DESCRIPTION:
P.C. TITLE SHEET

DWG.

SHEET
P.C. T-1.0

REV.

FEBRUARY 17, 2021 - DSA BACKCHECK

Page 1 of 6

DSA DIVISION OF THE STATE ARCHITECT — DEPARTMENT OF GENERAL SERVICES

DSA-103 Issued 9/1/2017
List of Required Structural Tests & Special Inspections - 2016 CBC

INCREMENT # | DSA File No.: | Application No.: | Date Submitted: | Revised: | Revised:

School Name | District

IMPORTANT: This form is only a summary list of structural tests and some of the special inspections required for the project. Generally, the structural tests and special inspections noted on this form are those that will be performed by the Geotechnical Engineer of Record, Laboratory of Record, or Special Inspector. The actual complete test and inspection program must be performed as detailed on the DSA approved documents. The appendix at the bottom of this form identifies work NOT subject to DSA requirements for special inspection or structural testing. The project inspector is responsible for providing inspection of all facets of construction, including but not limited to, special inspections not listed on this form such as structural wood framing, high-load wood diaphragms, cold-formed steel framing, anchorage of non-structural components, etc., per Title 24, Part 2, Chapter 17A.
NOTE: This form is also available for projects submitted for review under the 2007, 2010, and 2013 CBC.

INSTRUCTIONS: Click a plus sign (+) before any category or subcategory to reveal additional tests and special inspections. A shaded box indicates a test or special inspection that may be required, depending on the scope of the construction and other issues. A shaded box can be clicked indicating your selection of that test. **Note:** A minus (-) on a category or subcategory heading indicates that it can be collapsed. However, any selections you may have made will be cleared. Click on the "COMPILE" button to show only the tests and inspections finally selected. **For more information on use of this form, see DSA-103.INSTR.**

Note: References are to the 2016 edition of the California Building Code (CBC) unless otherwise noted.

REQUIRED		TEST OR SPECIAL INSPECTION	TYPE[1]	PERFORMED BY[2]	CODE REFERENCE AND NOTES
-		**SOILS**			
-		**1. GENERAL:**	Table 1705A.6		
X	a.	Verify that: • site has been prepared properly prior to placement of controlled fill and/or excavations for foundations, • foundation excavations are extended to proper depth and have reached proper material, and • materials below footings are adequate to achieve the design bearing capacity.	Periodic	GE*	* By geotechnical engineer or his or her qualified representative. (See Appendix for exemptions.)
-		**4. CAST-IN-PLACE DEEP FOUNDATIONS (PIERS):**	Table 1705A.8		
X	a.	Inspect drilling operations and maintain complete and accurate records for each pier.	Continuous	GE*	* By geotechnical engineer or his or her qualified representative. (See Appendix for exemptions.)
X	c.	Verify pier locations, diameters, plumbness, bell diameters (if applicable), lengths, and embedment into bedrock (if applicable). Record concrete or grout volumes.	Continuous	GE*	* By geotechnical engineer or his or her qualified representative. (See Appendix for exemptions.)
X	d.	Confirm adequate end strata bearing capacity.	Continuous	GE*	* By geotechnical engineer or his or her qualified representative. (See Appendix for exemptions.)
X	e.	Concrete piers.	Provide tests and inspections per CONCRETE section below.		
-		**CONCRETE**	Table 1705A.3, ACI 318-14 Sections 26.12 & 26.13		
-		**7. CAST IN PLACE CONCRETE**			
		Material Verification and Testing:			
X	a.	Verify use of required design mix.	Periodic	SI*	Table 1705A.3 Item 5, 1910A.1 (1909.2.3+). * To be performed by qualified batch-plant inspector and concrete sampling technician

DSA-103 (Issued 9-1-17) + In the CODE REFERENCE AND NOTES column indicates DSA-SS/CC sections that may be used by community colleges, per 2016 CBC Sec. 1.9.2.2.

Page 2 of 6

DSA-103 Issued 9/1/2017 **List of Required Structural Tests & Special Inspections - 2016 CBC**

X	b.	Identify, sample, and test reinforcing steel.	Test	LOR	1910A.2 (1909.2.4+); ACI 318-14 Section 26.6.1.2. DSA IR 17-10.16
X	c.	During concrete placement, fabricate specimens for strength tests, perform slump and air content tests, and determine the temperature of the concrete.	Test	LOR	Table 1705A.3 Item 6; ACI 318-14 Sections 26.5 & 26.12
X	d.	Test concrete (f'c).	Test	LOR	1905A.1.16 (1909.3.7+); ACI 318-14 Section 26.12.
		Inspection:			
X	h.	Welding of reinforcing steel.	Provide special inspection per STEEL, category 19.1(d) & (e) and/or 19.2(g) & (h) below.		
+		**MASONRY**	TMS 402-13/ACI 530-13/ASCE 5-13 Table 3.1.3 & TMS 602-13/ACI 530.1-13/ASCE 6-13 Table 5		
-		**STEEL, ALUMINUM**	Table 1705A.2.1, AISC 303-10, AISC 360-10, AISC 341-10, AISC 358-10, AISI S100-07/S2-10		
-		**17. STRUCTURAL STEEL, COLD-FORMED STEEL, AND ALUMINUM USED FOR STRUCTURAL PURPOSES**			
		Material Verification:			
X	a.	Verify identification of all materials and: • Mill certificates indicate material properties that comply with requirements. • Material sizes, types and grades comply with requirements.	Periodic	*	2203A.1 (2203.1+), Table 1705A.2.1 Item 3a-3c; AISI S100-07/S2-10 Section A2.1 & A2.2, AISI S200-12 Section A3, AISI S220-11 Section A4. * By special inspector or qualified technician when performed off-site.
X	b.	Test unidentified materials	Test	LOR	2203A.1 (2203.1+).
X	c.	Examine seam welds of HSS shapes	Periodic	SI	DSA IR 17-3.
		Inspection:			
X	e.	Verify and document steel fabrication per DSA approved construction documents.	Periodic	SI	Not applicable to cold-formed steel light-frame construction, except for trusses (1705A.2.4).
-		**18. HIGH STRENGTH BOLTS:**	RCSC 2009		
		Material Verification of High-Strength Bolts, Nuts, and Washers:			
X	a.	Verify identification markings and manufacturer's certificates of compliance conform to ASTM standards specified in the DSA approved documents.	Periodic	SI	Table 1705A.2.1 Item 1, 2203A.1; RCSC 2009 Section 2.1. DSA IR 17-9
X	b.	Test high-strength bolts, nuts and washers.	Test	LOR	2213A.1 (2212.6.1+). RCSC 2009 Section 7.2 DSA IR 17-8.15
		Inspection of High-Strength Bolt Installation:			
X	c.	Bearing-type ("snug tight") connections.	Periodic	SI	Table 1705A.2.1 Item 2e; RCSC 2009 Section 9.1. DSA IR 17-9
-		**19. WELDING:**			1705A.2.5, Table 1705A.2.1 Items 4 & 5; DSA IR 17-3, AWS D1.1 and AWS D1.8 for structural steel, AWS D1.2 for Aluminum, AWS D1.3 for cold-formed steel, AWS D1.4 for reinforcing steel. (See Appendix for exemptions.)
		Verification of Materials, Equipment, Welders, etc:			
X	a.	Verify weld filler material identification markings per AWS designation listed on the DSA approved documents and the WPS.	Periodic	SI	DSA IR 17-3.
X	b.	Verify weld filler material manufacturer's certificate of compliance.	Periodic	SI	DSA IR 17-3.
X	c.	Verify WPS, welder qualifications and equipment.	Periodic	SI	DSA IR 17-3.
-		**19.1 SHOP WELDING:**			
X	a.	Inspect groove welds, multi-pass fillet welds, single pass fillet welds > 5/16", plug and slot welds	Continuous	SI	Table 1705A.2.1 Item 5a1-4. Per AISC 360-10 (and AISC 341-10 as applicable). DSA IR 17-3.
X	b.	Inspect single-pass fillet welds ≤ 5/16", floor and roof deck welds	Periodic	SI	1705A.2.2, Table 1705A.2.1 Item 5a.5 & 5a.6. Per AISC 360-10 (and AISC 341-10 as applicable). DSA IR 17-3.

DSA-103 (Issued 9-1-17) + In the CODE REFERENCE AND NOTES column indicates DSA-SS/CC sections that may be used by community colleges, per 2016 CBC Sec. 1.9.2.2.

Page 3 of 6

DSA-103 Issued 9/1/2017 **List of Required Structural Tests & Special Inspections - 2016 CBC**

+	**WOOD**
-	**OTHER**

DSA-103 (Issued 9-1-17) + In the CODE REFERENCE AND NOTES column indicates DSA-SS/CC sections that may be used by community colleges, per 2016 CBC Sec. 1.9.2.2.

Page 4 of 6

DSA-103 Issued 9/1/2017 **List of Required Structural Tests & Special Inspections - 2016 CBC**

X	28 SHADE FABRIC MATERIAL CERT	CERT		CERTIFICATION BY MANUFACTURER, ACCEPTED BY INSPECTOR OF RECORD
X	29 SHADE FABRIC FIRE MARSHALL CERT	CERT		CERTIFICATION BY MANUFACTURER, ACCEPTED BY INSPECTOR OF RECORD

List of required verified report(s):

1 Soils testing and Inspection: Geotechnical Verified Report - Form DSA-293
2 All Structural Testing: Laboratory Verified Report - Form DSA-291
3 ~~Concrete Batch Plant Inspection: Laboratory Verified Report - Form DSA-291~~
4 Shop Welding Inspection: Laboratory Verified Report - Form DSA-291, or, for independently contracting SI, Special Inspection Verified Report - Form DSA-292
5 HS Bolt Installation Inspection: Laboratory Verified Report - Form DSA-291, or, for independently contracting SI, Special Inspection Verified Report - Form DSA-292

KEY to Columns

1 Type -	2 Performed By -
Continuous – Indicates that a continuous special inspection is required	**GE** – Indicates that the special inspection is to be performed by a registered geotechnical engineer or his or her authorized representative
Periodic – Indicates that a periodic special inspection is required	**LOR** – Indicates that the test or inspection is to be performed by a testing laboratory accepted in the DSA Laboratory Evaluation and Acceptance (LEA) Program. See section 4-335, 2013 CCR Title 24, Part 1.
Test – Indicates that a test is required	**SI** – Indicates that the special inspection is to be performed by a special inspector

Name of Architect or Engineer in general responsible charge
Name of Structural Engineer (When structural design has been delegated)
Signature of Architect or Structural Engineer date

IDENTIFICATION STAMP
DIV OF THE STATE ARCHITECT
APP. #
AC N/A F/LS N/A SS____
DATE________

DSA-103 (Issued 9-1-17) + In the CODE REFERENCE AND NOTES column indicates DSA-SS/CC sections that may be used by community colleges, per 2016 CBC Sec. 1.9.2.2.

Page 5 of 6

DSA-103 Issued 9/1/2017 **List of Required Structural Tests & Special Inspections - 2016 CBC**

Appendix: Work Exempt from DSA Requirements for Special Inspection or Structural Testing

Exempt items given in IR A-22 or the 2016 CBC (including DSA amendments) and those items identified below with an "X" by the design professional are NOT subject to DSA requirements for the structural tests or special inspections noted. Items marked as exempt shall be identified by either: 1) listing specific details/sheets noted in the spaces provided below OR 2) on the approved construction documents. The project inspector shall verify all construction complies with the approved construction documents.

Exempted by Design Prof.	Soils:
X	1. Deep foundations acting as a cantilever footing designed based on minimum allowable pressures per 2016 CBC Table 1806A.2 and having no geotechnical report for the following types of structures: free standing sign, scrolling message sign, scoreboard, covered walkway or shade structure with dead load less than 5 psf and other light-weight structures of which the apex is less than 8' above the highest adjacent grade.
X	2. Shallow foundations meeting the exception item #1 criteria specified in 2016 CBC Section 1803A.2.
	(Optional) List details for applicable exempt items:
	Concrete/Masonry:
X	1. Post-installed anchors for the following: 1) exempt non-structural components (e.g., mechanical, electrical, plumbing equipment - see item 7 for "Welding") given in CBC Section 1616A.1.18 (which replaces ASCE 7-10, Section 13.1.4) or 2) interior nonstructural wall partitions meeting criteria listed in exempt item 3 for "Welding."
X	2. Concrete batch plant inspection is not required for items given in CBC Section 1705A.3.3.2 subject to the requirements and limitations in that section.

Exempted by Design Prof.	Welding:
X	1. Solid-clad and open-mesh gates with maximum leaf span or rolling section for rolling gates of 10' and apex height less than 8'-0" above lowest adjacent grade. When located above circulation or occupied space below, these gates are not located within 1.5x gate/fence height (max 8'-0") to the edge of floor or roof.
X	2. Handrails, guardrails, and modular or relocatable ramps associated with walking surfaces less than 30" above adjacent grade (excluding post base connections per the 'Exception' language in Section 1705A.2.1); fillet welds cannot be ground flush.
X	3. Non-structural interior cold-formed steel framing spanning less than 15'-0", such as in interior partitions, interior soffits, etc. supporting only self weight and light-weight finishes or adhered tile, masonry, stone, or terra cotta veneer no more than 5/8" thickness and apex less than 20'-0" in height and not over an exit way. Maximum tributary load to a member shall not exceed the equivalent of that occurring from a 10'x10' opening in a 15' tall wall for a header or king stud.
X	4. Manufactured support frames and curbs using hot rolled or cold-formed steel (i.e., light gauge) for mechanical, electrical, or plumbing equipment weighing less than 2000# (equipment only) (connections of such frames to superstructure elements using welding will require special inspection as noted in selected item(s) for section 19, 19.1 and/or 19.2 of listing above).
X	5. Manufactured components (e.g., Tolco, B-Line, Afcon, etc.) for mechanical, electrical, or plumbing hanger support and bracing (connections of such components to superstructure elements using welding will require special inspection as noted in selected item(s) for section 19, 19.1 and/or 19.2 of listing above).
X	6. TV Brackets, projector mounts with a valid listing (see DSA IR A-5) and recreational equipment (e.g., playground structures, basketball backstops, etc.) (connections of such elements to superstructure elements using welding will require special inspection as noted in selected item(s) for section 19, 19.1 and/or 19.2 of listing above).

DSA-103 (Issued 9-1-17) + In the CODE REFERENCE AND NOTES column indicates DSA-SS/CC sections that may be used by community colleges, per 2016 CBC Sec. 1.9.2.2.

Page 6 of 6

DSA-103 Issued 9/1/2017 **List of Required Structural Tests & Special Inspections - 2016 CBC**

X	3. Masonry retaining walls less than 4'-0" above the top of foundation not supporting a surcharge and free standing nonbearing non-shear masonry walls up to 6'-0" above adjacent grade do not require grout, mortar or masonry core testing or DSA special inspection.
X	4. Epoxy shear dowels in site flatwork.
	(Optional) List details for applicable exempt items:

X	7. Any support for exempt non-structural components given in CBC Section 1616A.1.18 (which replaces ASCE 7-10, Section 13.1.4) meeting the following: 1) when supported on a floor/roof, <400# and resulting composite center of mass (including component's center of mass) <= 4' above supporting floor/roof, 2) when hung from a wall or roof/floor, <20# for discrete units or <5 plf for distributed systems.
	(Optional) List details for applicable exempt items:

DSA-103 (Issued 9-1-17) + In the CODE REFERENCE AND NOTES column indicates DSA-SS/CC sections that may be used by community colleges, per 2016 CBC Sec. 1.9.2.2.

ADDITIONAL TESTING AND INSPECTION NOTES:

1. THE PROJECT INSPECTOR AND TESTING AGENCY SHALL BE SELECTED BY THE SCHOOL DISTRICT AND APPROVED BY DSA AND THE ARCHITECT OF RECORD.
2. THE SITE PROJECT INSPECTOR SHALL BE CLASS 2 (CLASS 3 MAY BE SELECTED FOR STRUCTURES OF DEOVERED AREAS LESS THAN 200 SQUARE FEET).
3. THE COSTS OF THE PROJECT INSPECTOR AND TESTING AGENCY SHALL BE BORN BY THE SCHOOL DISTRICT.
4. COPIES OF VERIFIED REPORTS SHALL BE SENT TO DSA, THE ARCHITECT, THE SCHOOL DISTRICT, THE CONTRACTOR, AND THE PROJECT INSPECTOR.
5. THE IN PLANT INSPECTOR SHALL BE WELDING SPECIAL INSPECTOR FOR MATERIAL VERIFICATION AND WELDING.
6. PER 2016 CBC, SECTION 1705A.3.3.2 & 1705A.3.3.1, BATCH PLANT INSPECTION MAY BE WAIVED WHEN THE FOLLOWING REQUIREMENTS ARE MET:
   - 6.1. A LICENSED WEIGHMASTER SHALL POSITIVELY IDENTIFY QUANTITY OF MATERIALS AND CERTIFY EACH LOAD BY A BATCH TICKET.
   - 6.2. BATCH TICKETS, INCLUDING MATERIAL QUANTITIES AND WEIGHTS SHALL ACCOMPANY THE LOAD, SHALL BE TRANSMITTED TO THE INSPECTOR OF RECORD BY THE TRUCK DRIVER WITH LOAD IDENTIFIED THEREON. THE LOAD SHALL NOT BE PLACED WITHOUT A BATCH TICKET IDENTIFYING THE MIX. THE INSPECTOR OF RECORD SHALL KEEP A DAILY RECORD OF PLACEMENTS, IDENTIFYING EACH TRUCK IT'S LOAD, AND TIME OF RECEIPT AT THE JOBSITE, AND APPROXIMATE LOCATION OF DEPOSIT IN THE STRUCTURE AND SHALL MAINTAIN A COPY OF THE DAILY RECORD AS REQUIRED BY THE ENFORCEMENT AGENCY.

THE EXAMPLE DSA-103 FORM SHOWN ON THIS SHEET IS FOR ILLUSTRATION PURPOSES ONLY TO ASSIST IN THE COMPLETION OF FUTURE PROJECT SPECIFIC FORM DSA-103'S. A CURRENT DSA-103 FORM IS TO BE COMPLETED FOR EACH APPLICATION THAT THIS PC IS BEING INCORPORATED INTO AND ALL EXAMPLE DSA-103'S ARE TO BE CROSSED OUT ON THIS DRAWING.

SAMPLE DSA 103 STATEMENT OF STRUCTURAL TESTS AND INSPECTION FORMS FOR CANTILEVER AND SINGLE POST UNITS | --- | 1

Page 1 of 5

DSA-103 Issued 9/1/2017 **List of Required Structural Tests & Special Inspections - 2016 CBC** (same content as Page 1 of 6 above: IMPORTANT, INSTRUCTIONS, SOILS items 1a, 4a, 4c, 4d, 4e; CONCRETE 7a)

Page 2 of 5

DSA-103 Issued 9/1/2017 **List of Required Structural Tests & Special Inspections - 2016 CBC** (same content as Page 2 of 6 above, items b through 19.1 b)

+	**WOOD**
-	**OTHER**

Page 3 of 5

X	28 SHADE FABRIC MATERIAL CERT	CERT		CERTIFICATION BY MANUFACTURER, ACCEPTED BY INSPECTOR OF RECORD
X	29 SHADE FABRIC FIRE MARSHALL CERT	CERT		CERTIFICATION BY MANUFACTURER, ACCEPTED BY INSPECTOR OF RECORD

List of required verified report(s):

1 Soils testing and Inspection: Geotechnical Verified Report - Form DSA-293
2 All Structural Testing: Laboratory Verified Report - Form DSA-291
3 ~~Concrete Batch Plant Inspection: Laboratory Verified Report - Form DSA-291~~
4 Shop Welding Inspection: Laboratory Verified Report - Form DSA-291, or, for independently contracting SI, Special Inspection Verified Report - Form DSA-292

KEY to Columns, signature lines and IDENTIFICATION STAMP (AC N/A F/LS N/A SS) as on Page 4 of 6 above.

Page 4 of 5

Appendix: Work Exempt from DSA Requirements for Special Inspection or Structural Testing — same content as Page 5 of 6 above.

Page 5 of 5

Masonry item 3, Epoxy item 4 and Welding item 7 — same content as Page 6 of 6 above.

ADDITIONAL TESTING AND INSPECTION NOTES: items 1–6.2 and "THE EXAMPLE DSA-103 FORM SHOWN ON THIS SHEET IS FOR ILLUSTRATION PURPOSES ONLY …" — same text as above.

SAMPLE DSA 103 STATEMENT OF STRUCTURAL TESTS AND INSPECTION FORMS FOR ALL UNITS EXCEPT CANITLEVER AND SINGLE POST | --- | 2

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-119728 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/18/2021

FEBRUARY 17, 2021 - DSA BACKCHECK

LICENSED ARCHITECT DAVID HIGGINSON NO.C19168 REN. 10-31-19 STATE OF CALIFORNIA
08/10/2018 10:19:44 A

HIGGINSON ARCHITECTS INCORPORATED
707 Brookside Avenue
Redlands, CA
(909)375-30
www.haarchin

ARCHITECT

REGISTERED PROFESSIONAL ENGINEER MARK ALBERT LOWE No. 3693 STRUCTURAL STATE OF CALIFORNIA
8/10/2018

Mark Lowe, S.E.
Structural Engineer

19471 Misty Ridge Lane
Trabuco Canyon, California 923679
949-400-1265
malowe@me.com

ENGINEER

THESE PLANS AND SPECIFICATIONS ARE THE PROPERTY OF USA SHADE AND FABRIC STRUCTURES AND SHALL NOT BE REPRODUCED WITHOUT THEIR WRITTEN PERMISSION.

USA SHADE & Fabric Structures®

CORPORATE HEADQUARTERS
8505-A CHANCELLOR ROW
DALLAS, TX, 75247
800-966-5005

CERTIFICATIONS:
IAS CERTIFICATION No: FA-428
CLARK COUNTY MANUFACTURER CERTIFICATION NUMBER (NEVADA): 355

DSA PC APPLICATION STAMP:

~~FILE NUMBER: PC-SS~~
~~IDENTIFICATION STAMP~~
~~DIVISION OF THE STATE ARCHITECT~~
~~APP. NO: 04 - 117140 INCR :~~
~~AC DF FLS DS SS VN~~
~~DATE 08/14/2018~~

CODE UPDATE FOR 04-113245

PRE-CHECK (PC) DOCUMENT
Code : 2016 CBC
A seperate project application for construction is required.

SCALE: AS NOTED
DRAWING SIZE:

SITE PROJECT NAME: Foothills Adult Education Center
DISTRICT/OWNER: Grossmont Union HS District
LOCATON/ADDRESS: 1550 Melody Lane El Cajon, CA 92019

REV	DESCRIPTION	DATE	DRW	CHK	ENG

Eng. By :	DWH	08/07/18
Design By :	DWH	08/07/18
Approved By :	DWH	08/07/18

DRAWING DESCRIPTION:
DSA 103 FORMS

DWG.

SHEET P.C. T-2.0

REV.

FEBRUARY 17, 2021 - DSA BACKCHECK

GENERAL NOTES

DESIGN LOADS

BUILDING CODE	CBC 2016 (BASED ON IBC 2015)
LIVE LOADS	5 PSF
SNOW LOAD	5 PSF
WIND LOADS	115 MPH (3-Sec. Gust); EXPOSURE C; TOPOGRAPHIC FACTOR , Kzt = 1.0

1.- SPECIAL INSPECTION REQUIREMENTS SHALL FOLLOW THE ATTACHED SAMPLE TEST AND INSPECTION LIST (T & I LIST) APPROVED BY DSA. THE SHOP WELDING INSPECTION SHALL INCLUDE WELDING OF ALL STEEL MEMBERS AND IDENTIFICATION OF STEEL THROUGH MILL CERTIFICATE OR MATERIAL TESTING, UNCERTIFIED STEEL SHALL BE TESTED TO THE REQUIREMENTS OF CBC 2016 CHAPTER 17A. THE FIELD SPECIAL INSPECTION SHALL INCLUDE COMPRESSION CYLINDER TESTS FOR THE CONCRETE FOUNDATION.

2.- STRUCTURE SHALL BE IN THE LOCATION SHOWN ON THE SITE SPECIFIC DSA APPLICATION DRAWING.

3.- FOUNDATION DESIGN BASED ON CBC 2016, TABLE 1806A.2, SOIL CLASS 5 (ALLOWABLE FOUNDATION PRESSURE 1500 PSF)

4.- DESIGN PER FOLLOWING CODES: CBC 2016, ASCE 7-10, AISC 360-10, AISC 341-10, ACI 318-14, ASCE 55-10 & ASCE 19-10

STRUCTURAL STEEL

1.- FABRICATION OF THE STEEL STRUCTURES SHALL BE PERFORMED BY SHADE STRUCTURES OR AN AUTHORIZED LICENSEE. MATERIAL TESTING (OR MILL CERTIFICATES) AND INSPECTION OF WELDING SHALL BE CONDUCTED PER CBC 2016 SECTIONS 1704A, 1705A, 1705A.2, AND TABLE 1705A.2,1.

2.- ONLY CALIFORNIA LICENSED CONTRACTORS AUTHORIZED BY SHADE STRUCTURES SHALL INSTALL THE SHADE STRUCTURES.

3.- ALL WORK SHALL CONFORM TO CBC 2016 EDITION, TITLE 24, CALIFORNIA CODE OF REGULATIONS (CCR).

4.- ALL GALVANIZED STEEL TUBE PRODUCTS MANUFACTURED BY ALLIED TUBE & CONDUIT FOR THIS STRUCTURE SHALL BE, AND CONFORM TO ASTM A500-10: GRADE "B", IN ITS' ENTIRETY.
TYPICAL MECHANICAL PROPERTIES ARE:
ROUND TUBE 42,000 PSI YIELD STRESS / 58,000 PSI TENSILE STRESS

5.- ALL STRUCTURAL SHAPES SHALL BE COLD FORMED HSS ASTM A500 GRADE B, UNLESS OTHERWISE NOTED. TYPICAL MECHANICAL PROPERTIES ACHIEVED FOR HSS PRODUCTS:
SQUARE AND RECTANGULAR 46,000 PSI YIELD STRESS / 58,000 PSI TENSILE STRESS
ROUND PIPE 42,000 PSI YIELD STRESS / 58,000 PSI TENSILE STRESS

6.- ALL PLATES PRODUCTS SHALL COMPLY WITH ASTM A572 GRADE 50.

7.- STRUCTURAL STEEL SHALL BE DETAILED, FABRICATED AND ERECTED IN ACCORDANCE WITH A.I.S.C. SPECIFICATIONS.

8.- ALL WELDING TO CONFORM WITH AMERICAN WELDING SOCIETY STANDARDS AND SHALL BE INSPECTED BY AN AWS/CWI INSPECTOR. AWS D1.1 FOR HOT ROLLED. AWS D1.3 FOR SHEET/COLD FORMED. AWS D1.8 SEISMIC SUPPLEMENT.

9.- ALL FULL PENETRATION WELD SHALL BE CONTINUOUSLY INSPECTED PER AWS D1.1 & D1.8.

10.- SHOP CONNECTIONS SHALL BE WELDED UNLESS NOTED OTHERWISE. FIELD CONNECTIONS SHALL BE AS INDICATED ON THE DRAWINGS (IF REQUIRED). ALL FILLET WELDS SHALL BE A MINIMUM OF 3/16" ER70SX ELECTRODES UNLESS OTHERWISE NOTED. EITHER SMAW OR GMAW IS ACCEPTABLE.

11.- ALL STAINLESS STEEL BOLTS SHALL COMPLY WITH ASTM F-593, FYS = 60 KSI, FS = 95KSI ,ALLOY GROUP 1 OR 2 ALL NUTS SHALL COMPLY WITH ASTM F-594 ALLOY GROUP 1 OR 2. REFERRING TO RCSC, ASTM F-593 IS NOT CONSIDERED AS HIGH STRENGTH BOLTS.

12.- ALL HIGH STRENGTH BOLTS SHALL COMPLY WITH ASTM A325 GRADE BD (GALVANIZED). ALL NUTS SHALL COMPLY WITH ASTM A563DH, AND WASHERS SHALL COMPLY WITH ASTM F436. ALL HIGH STRENGTH BOLTS SHALL BE TIGHTENED TO A SNUG TIGHT CONDITION.

13.- ALL STRUCTURAL STEEL (ITEMS FROM NOTE 5) SHALL BE PAINTED WITH ONE SHOP COAT (2.5 TO 3.5 MILS THICK MIN) OF ZINC-RICH PRIMER, UNDERCOAT, AND FINISH COAT, OR EQUIVALENT PAINT SYSTEM. THIS COAT IS A WEATHER RESISTANT POWDER COATING BASED ON POLYESTER TGIC (MANUFACTURED BY SHERWIN WILLIAMS OR TIGER DRYLAC). TO ACHIEVE OPTIMUM ADHESION, IT IS RECOMMENDED THAT THE PROPER TREATMENT AND DRYING TAKE PLACE BEFORE COATING. POLYESTER POWDER (TGIC) SPECIFICATIONS SHALL BE AS FOLLOWS: - PENCIL HARDNESS (ASTM D-3363). - HUMIDITY (ASTM D-2247).
- SOLVENT RESISTANCE (PCI METHOD) - 50 DBL RUBS SL. SOFTNESS.

14.- ALL STEEL ROUND TUBING (ITEMS FROM NOTE 4) SHALL BE TRIPLE COATED FOR RUST PROTECTION USING THE IN-LINE ELECTROPLATING COAT PROCESS. TUBING SHALL BE INTERNALLY COATED WITH ZINC AND ORGANIC COATINGS TO PREVENT CORROSION AS MANUFACTURED BY ALLIED TUBE & CONDUIT.

15.- COLD-FORMED STEEL MEMBERS SHALL BE 55% ALUMINUM ZINC ALLOY COATED PER ASTM A792/A792M STANDARD IN ACCORDANCE TO AISI S200 TABLE A4-1, CP 90 COATING DESIGNATION. ALL EXPOSED STEEL FASTENERS, INCLUDING CAST-IN-PLACE ANCHOR BOLTS/RODS, SHALL BE STAINLESS STEEL (TYPE 304 MINIMUM). HOT DIP GALVANIZED (ASTM A153, CLASS D MINIMUM OR ASTM F2329), OR PROTECTED WITH CORROSION PREVENTIVE COATING THAT DEMONSTRATED NO MORE THAN 2% OF RED RUST IN MINIMUM 1,000 HOURS OF EXPOSURE IN SALT SPRAY TEST PER ASTM B117. ZINC-PLATED FASTENERS DO NOT COMPLY WITH THIS REQUIREMENT.

CONCRETE SPECIFICATION

1.- CONCRETE SHALL BE TESTED PER CBC 2016 SECTION 1903A & SHALL BE INSPECTED PER SECTION 1903A.

2.- CONCRETE TO BE F'c= 4500 PSI, TYPE V CEMENT, WATER/CEMENT RATIO OF 0.45, PER ACI 318-14 CHAPTER 5. REINFORCING STEEL TO BE Fy= 60000 PSI , MIN. GR. 60

3.- ALL ANCHOR BOLTS SET IN NEW CONCRETE (WHEN APPLICABLE) SHALL COMPLY WITH ASTM F-1554 GRADE 55 (GALVANIZED). ANCHOR BOLT'S EMBEDMENT NEEDS TO BE AS FOLLOW:
A) ANCHOR BOLT Ø1 1/4" 30 IN (MINIMUM EMBEDMENT)

4.- CERTIFIED MILL TEST REPORTS ARE TO BE PROVIDED FOR EACH SHIPMENT OF REINFORCEMENT.

5.- ALL NON-SHRINK GROUT SHALL HAVE A MINIMUM 28 DAYS COMPRESSIVE STRENGTH OF 5000 PSI, AND SHALL COMPLY THE REQUIREMENTS OF ASTM C109, ASTM C939, ASTM C1090, ASTM C1107, WHEN APPLICABLE.

FABRIC SPECIFICATION

REGISTERED FLAME RESISTANT PRODUCT
COLOURSHADE 190/F5
REGISTRATION NO. F-52001

1.- FABRIC SHALL BE MANUFACTURED BY MULTIKNIT LTD. OR OTHER COMPANY WHO CAN MANUFACTURE FABRIC, WHICH MEETS THE SPECIFICATIONS LISTED ON PAGE 2000, AND SHALL BE FABRICATED FROM POLYETHYLENE MATERIALS.

2.- THE FABRIC SHALL RETAIN 80% OF ITS TENSILE AND TEARING STRENGTH AFTER ULTRAVIOLET EXPOSURE PER ASTM G53 USING A 313 NM LIGHT SOURCE FOR 500 HOURS WHILE MOISTENED FOR 1 HOUR EVERY 12 HOURS.

3.- PROVIDE CERTIFICATION BY MANUFACTURER AND STATE FIRE MARSHALL TO DSA AT SITE SPECIFIC INSTALLATION.

4.- FABRIC SHALL REQUIRE ANNUAL INSPECTION AND MAINTENANCE BY THE DISTRICT. FABRICS SAMPLES OF THE SAME MATERIAL WHICH ARE MAINTAINED AT THE PROJECTS SITE SHALL BE TESTED TO BE IN COMPLIANCE WITH ASTM D5034 AND D2261. THE ANNUAL TESTING ON THE APPROVED PLANS SHALL BE COMPARED TO THE FABRIC SPECIFICATIONS INDICATED IN NOTE 1 OF "FABRIC SPECIFICATION" ON THE APPROVED PLANS. THE FABRIC SHALL BE REPLACED WHEN THE TEST RESULTS RETURN LESS THAN 50% OF THE ULTIMATE VALUES IN NOTE 1 OF "FABRIC SPECIFICATION".

5.- FABRIC TOP NEEDS TO BE REMOVED IF SNOW EXCEEDING 5 PSF ARE ANTICIPATED, FABRIC TOP NEEDS TO BE REMOVED IF WINDS EXCEEDING 115 MPH ARE ANTICIPATED.

6.- A VISUAL INSPECTION LOOKING FOR TEAR AND ABNORMAL WEAR IN FABRIC MATERIAL AND THREAD IS REQUIRED PRIOR TO RE-INSTALLATION. SHADE STRUCTURE SHALL BE NOTIFIED IF SIGNIFICANT DAMAGE IS PRESENT BEFORE RE-INSTALLATION.

AIRCRAFT CABLE

1.- FOR FABRIC ATTACHMENT USE 1/4" 7x19 GALV. CABLE PER ASTM A1023A, ASTM 1023M-02. WITH A BREAKING STRENGTH VALUE OF 7,000 LBS. CABLE SHALL BE TENSIONED TO 250 LBS MINIMUM. THE MAXIMUM CALCULATED CABLE TENSION IS 1229 LB.

2.- CABLES SHALL BE FED THROUGH THE FABRIC SLEEVES AROUND THE PERIMETER OF THE CANOPY AND TENSIONED UNTIL THE FABRIC PANELS (DESIGNED PURPOSELY UNDERSIZED) REACH A TAUT APPEARANCE. ANY LONG TERM CABLE SAG SHALL BE MINIMIZED DURING THE MAINTENANCE RE-TIGHTING VISITS AS REQUIRED.

2016 CBC PC DESIGN NOTES

FLOOR LIVE LOAD	N/A	
ROOF LIVE LOAD	RLL	5 PSF
ALLOWABLE SOIL PRESSURE:		
DL + LL (CONC FTG)		1500 PSF
DL + LL + SEISMIC (CONC FTG)		1500 PSF
LATERAL BEARING DESIGN VALUE		100 PSF/FT BELOW NATURAL GRADE, PER TABLE 1806A.2

TWO TIMES THE TABULAR VALUE IS USED (200 PSF/FT)
PER CBC SECTION 1806A.3.4,
ALLOWABLE PIER FRICTIONAL RESISTANCE 250 PSF MAXIMUM
BASED ON SECTION 1810A.3.3.1.4 (ONE-SIXTH OF THE BEARING VALUE).
UPLIFT FRICTIONAL RESISTANCE HAVE A SAFETY FACTOR OF 3.

ROOF SNOW LOAD		5 PSF
FLOOD HAZARD AREA		NO

WHEN A SITE SPECIFIC PROJECT IS LOCATED IN A FLOOD ZONE OTHER THAN ZONE X, A LETTER STAMPED AND SIGNED FROM A SOILS ENGINEER IS NEEDED TO VALIDATE THE ALLOWABLE SOIL VALUES SPECIFIED IN THE PC ARE STILL APPLICABLE.

WIND DESIGN DIRECTIONAL PROCEDURE: ASCE 7-10, SECTION 27.4.3

-ULTIMATE DESIGN WIND SPEED (3 SEC GUST)	V	115 MPH
-WIND EXPOSURE FACTOR	C	
-TOPOGRAPHIC FACTOR	Kzt	1
-RISK CATEGORY	II	
-VELOCITY PRESSURE EXPOSURE COEFFICIENT	Kz	0.85
-VELOCITY PRESSURE	qz	24.46 PSF

SEISMIC DESIGN:

-SITE CLASS	D	
	SS	3.00g
	S1	1.389g
-SPECTRAL RESPONSE COEFFICIENTS	SDS	2.00
	SD1	1.39

-LATERAL FORCE RESISTING SYSTEM G.2 ORDINARY CANTILEVERED COLUMN SYSTEM.

-SEISMIC IMPORTANCE FACTOR	I	1.0
-DESIGN BASE SHEAR	V	1029 LB
-SEISMIC RESPONSE COEFFICIENTS	Cs	1.6
-RESPONSE MODIFICATION FACTOR	R	1.25
-ANALYSIS PROCEDURE		EQUIVALENT LATERAL FORCE
-RISK CATEGORY		II
-SEISMIC DESIGN CATEGORY		E
-SITE COEFFICIENT CATEGORY	Fa	1
	Fv	1.5

GEOHAZARD REPORT IS NOT REQUIRED FOR OPEN FABRIC STRUCTURES 1,600 SQF OR LESS COMPLYING WITH THE REQUIREMENTS OF IR A-4 SECTION 3.1.1. OPEN FABRIC SHADE STRUCTURES GREATER THAN 1,600 SQUARE FEET UP TO A MAXIMUM OF 4,000 SQUARE FEET AND COMPLYING WITH THE REQUIREMENTS NOTED IN IR A-4 SECTION 3.1.1 DO NOT REQUIRE A GEOHAZARD REPORT PROVIDED A GEOTECHNICAL REPORT INDICATES THAT NO LIQUEFACTION POTENTIAL EXISTS.

ARCHITECT OF RECORD TO DETERMINE IF SPECIFIC SITE IS IN GEOLOGIC HAZARD ZONE. GEOHAZARD REPORT REQUIREMENTS PER DSA IR A-4.

PC OPTIONS SHALL NOT INCLUDE LIQUEFIABLE SOIL (EXCEPTION: OPEN FABRIC SHADE STRUCTURES 1,600 SQUARE FEET OR LESS COMPLYING WITH REQUIREMENTS OF IR A-4 SECTION 3.1.1), IF STRUCTURE IS LOCATED IN AN AREA WITH LIQUEFIABLE SOIL OR SITE CLASS F, OVER-THE-COUNTER SUBMITTAL IS NOT ALLOWED AND REGULAR PROJECT SUBMITTAL IS REQUIRED. IF SITE IS NOT IN A MAPPED LIQUEFACTION HAZARD ZONE, IT MAY BE PRESUMED THAT NO LIQUEFACTION HAZARD EXISTS ON THAT SITE UNLESS A SITE-SPECIFIC GEOTECHNICAL REPORT IDENTIFIES SUCH HAZARD.

MINIMUM FOUNDATION SETBACK LIMIT IN ADJACENT SLOPE: THE DEPTH OF REQUIRED PIER EMBEDMENT SHALL START FROM AN ELEVATION THAT CORRESPONDS WITH A HORIZONTAL CLEAR DISTANCE OF 14 FEET THAT INTERSECT WITH THE SLOPE (DAYLIGHTING). IF SETBACK LIMITS ARE SMALLER THAN CBC REQUIRES, A SITE-SPECIFIC SOILS REPORT IS REQUIRED.

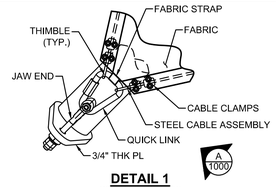
MINIMUM CLASS 2 PROJECT INSPECTOR REQUIRED.

CODE ANALYSIS

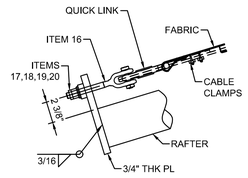
BUILDING	OCCUPANCY	CONST. TYPE	AREA (SQ. FT.)	OCCUPANT LOAD FACTOR	OCCUPANT LOAD
SHADE STRUCTURE					

MAXIMUM OCCUPANT LOAD (PER CBC 2016 TABLE 1604A.5)

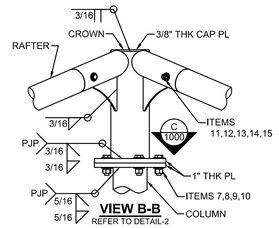
-K-12:	250 PERSONS
-PUBLIC ASSEMBLY:	300 PERSONS
-EDUCATIONAL OCCUPANCIES ABOVE 12TH GRADE:	500 PERSONS



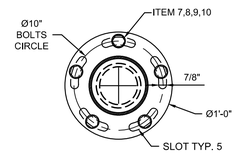
DETAIL 1
REFER TO TOP VIEW



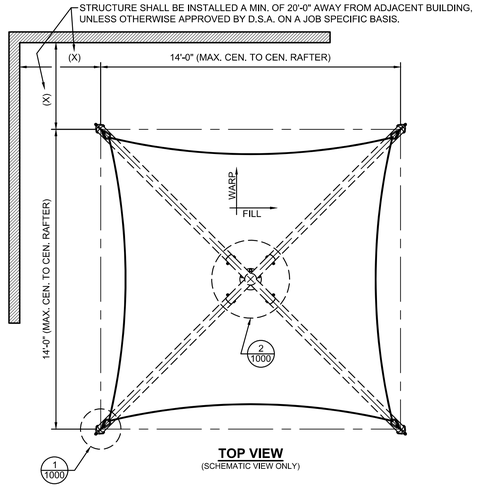
VIEW-A-A
REFER TO DETAIL-1



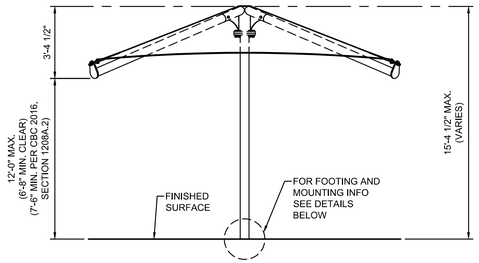
VIEW B-B
REFER TO DETAIL-2



VIEW C-C
REFER TO VIEW B-B



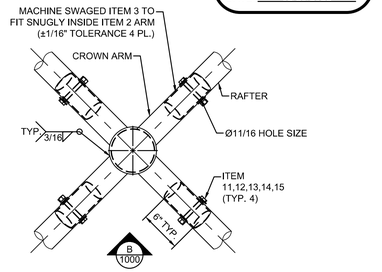
TOP VIEW
(SCHEMATIC VIEW ONLY)



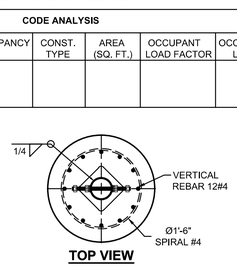
FRONT & SIDE VIEW
(SCHEMATIC VIEW ONLY)

LIST OF MATERIALS			
ITEM	QTY	DESCRIPTION	MATERIAL
1	1	COLUMN	HSS 5.0 x 0.375
2	1	CROWN	HSS 6.625 x 0.28
3	4	RAFTER (GALVANIZED STEEL TUBE)	4.50 GA 7 RD. TUBE (4.5 x 0.188)
4	1	FABRIC TOP	FR COLOURSHADE Z25
5	4	Ø1/4" CABLE	GALVANIZED STEEL
6	16	Ø1/4" CABLE CLAMP	GALVANIZED
7	5	Ø3/4"-10NC x 3 1/2" HEX BOLT	ASTM A325 GALVANIZED
8	5	Ø3/4"-10NC HEX NUT	ASTM A563 GALVANIZED
9	5	Ø3/4" SPLIT LOCK WASHER	ASTM F436 GALVANIZED
10	10	Ø3/4" FLAT WASHER	ASTM F436 GALVANIZED
11	4	Ø5/8"-11NC x 6" HEX BOLT	18-8 SS
12	4	Ø5/8"-11NC HEX NUT	18-8 SS
13	8	Ø5/8" FLAT WASHER	18-8 SS
14	8	Ø5/8" FLAT WASHER	DELRIN (ACETAL)
15	4	Ø5/8" SPLIT LOCK WASHER	18-8 SS
16	4	5/8" x 6" JAW END	GALVANIZED
17	4	5/8" FLAT WASHER	GALVANIZED
18	4	5/8"-11NC HEX NUT	GALVANIZED
19	4	5/8"-11NC JAM NUT	GALVANIZED
20	4	5/8" SPHERICAL WASHER+CUP	GALVANIZED
21	4	5/8" QUICK LINK	ZINC PLATED

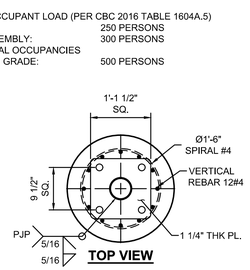
IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-119728 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/18/2021



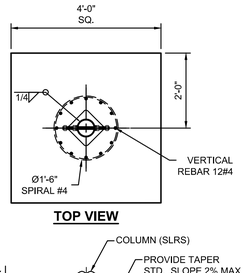
DETAIL 2
REFER TO TOP VIEW



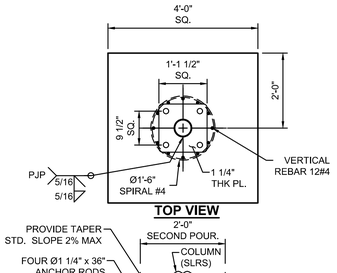
TOP VIEW



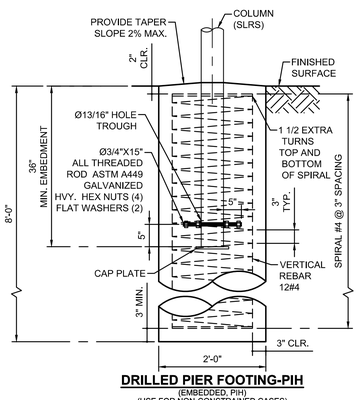
TOP VIEW



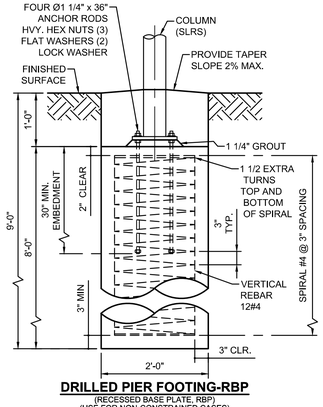
TOP VIEW



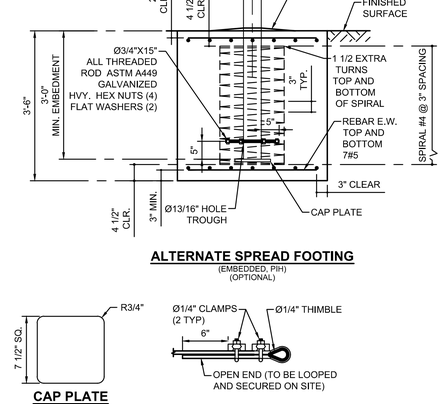
TOP VIEW



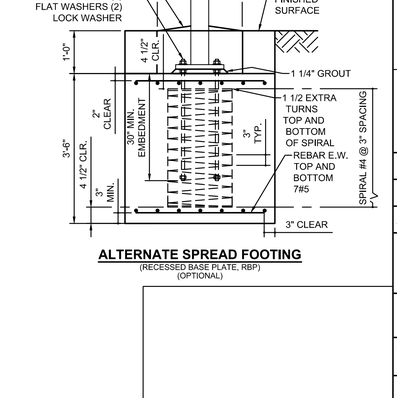
DRILLED PIER FOOTING-PIH
(EMBEDDED, PIH)
(USE FOR NON-CONSTRAINED CASES)



DRILLED PIER FOOTING-RBP
(RECESSED BASE PLATE, RBP)
(USE FOR NON-CONSTRAINED CASES)
(OPTIONAL)



ALTERNATE SPREAD FOOTING
(EMBEDDED, PIH)
(OPTIONAL)



ALTERNATE SPREAD FOOTING
(RECESSED BASE PLATE, RBP)
(OPTIONAL)

CAP PLATE
(3/4" THK)
(BOTTOM OF PIH COLUMNS)

Ø1/4" CABLE ASSEMBLY
(TYPICAL)

THESE PLANS AND SPECIFICATIONS ARE THE PROPERTY OF USA SHADE AND FABRIC STRUCTURES AND SHALL NOT BE REPRODUCED WITHOUT THEIR WRITTEN PERMISSION.

USASHADE & Fabric Structures

CORPORATE HEADQUARTERS
8505-A CHANCELLOR ROW
DALLAS, TX, 75247
800-966-5005

CERTIFICATIONS:
IAS CERTIFICATION No: FA-428
CLARK COUNTY MANUFACTURER CERTIFICATION NUMBER (NEVADA): 355

CUSTOMER:
Grossmont Union HS Dist.

PROJECT NAME:
Foothills Adult Education Ctr

LOCATION:
1550 Melody Lane
El Cajon, CA 92019

MODEL NUMBER:
DSA1031414-16

STRUCTURE TYPE:
SINGLE POST PYRAMID DSA

SIZE: **MAXIMUM**
14' x 14 x 12'e MAX.

SCALE : NONE

DRAWING SIZE: **D**

LICENSED ARCHITECT DAVID HIGGINSON NO.C19168 REN. 10-31-19 STATE OF CALIFORNIA
08/10/2018 10:05:00 AM

REGISTERED PROFESSIONAL ENGINEER ALBERT CLARK No. 3093 STRUCTURAL STATE OF CALIFORNIA
8/10/2018
FILE NUMBER: PC-SS
IDENTIFICATION STAMP
DIVISION OF THE STATE ARCHITECT
APP. NO: 04 - 117149 INCR :
AC DF FLS DS SS VN
DATE 08/14/2018

PRE-CHECK (PC) DOCUMENT
Code : 2016 CBC
A separate project application for construction is required.

Eng. By :	JO	03/12/18
Design By :	MP	03/12/18
Approved By :	JO	03/12/18

DRAWING DESCRIPTION:
PRODUCT INFORMATION

DWG. **DSA1031414-16**

SHEET **5.1-1000**

REV. **NC**

REV	DESCRIPTION	DATE	DRW	CHK	ENG

FEBRUARY 17, 2021 - DSA BACKCHECK

ENVELOPE JOINT REACTIONS

Shear resultant = $\sqrt{Px^2 + Py^2 + Pz^2}$ Moment resultant = $\sqrt{Mx^2 + My^2 + Mz^2}$

ASD REACTIONS

Node No.		Support Forces [kip] P_x	P_y	P_z	Support Moments [kipft] M_x	M_y	M_z		Support Forces [kip] SHEAR RESULTANT	Support Moments [kipft] MOMENT RESULTANT	Support Forces [kip] UPLIFT	Support Forces [kip] AXIAL
						MAXIMUM REACTIONS			0.945	11.101	0.448	-1.998
Node No.		Support Forces [kip] P_x	P_y	P_z	Support Moments [kipft] M_x	M_y	M_z					
137	Max	0.945	0.945	0.448	0.000	11.101	0.000					
	Min	0.000	0.000	-1.998	-11.101	0.000	0.000					
	Max P_x	**0.945**	0.000	-0.208	0.000	10.979	0.000	CO 18	0.945	10.979		-0.208
	Min P_x	**0.000**	0.000	0.000	0.000	0.000	0.000		0.000	0.000		
	Max P_y	0.000	**0.945**	-0.208	-10.979	0.000	0.000	CO 19	0.945	10.979		-0.208
	Min P_y	0.000	**0.000**	0.000	0.000	0.000	0.000		0.000	0.000		
	Max P_z	0.365	0.000	**0.448**	0.000	2.654	0.000	CO 33	0.365	2.654	0.448	
	Min P_z	0.328	0.000	**-1.998**	0.000	2.489	0.000	CO 10	0.328	2.489		-1.998
	Max M_x	0.440	0.000	-1.539	**0.000**	3.308	0.000	CO 6	0.440	3.308		-1.539
	Min M_x	0.000	0.945	-0.831	**-11.101**	0.000	0.000	CO 17	0.945	11.101		-0.831
	Max M_y	0.945	0.000	-0.831	0.000	**11.101**	0.000	CO 16	0.945	11.101		-0.831
	Min M_y	0.000	0.000	-1.559	0.000	**0.000**	0.000	CO 1	0.000	0.000		-1.559
	Max M_z	0.727	0.000	-0.649	0.000	8.512	**0.000**	CO 25	0.727	8.512		-0.649
	Min M_z	0.707	0.000	-1.468	0.000	8.413	**0.000**	CO 14	0.707	8.413		-1.468

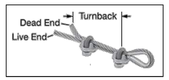
Forged Single-Saddle Wire Rope Clamps—Not for Lifting

A forged fabrication allows these to be used in critical applications such as tie downs and support lines. They must be oriented with the saddle on the long (live) end and U-bolt on the short (dead) end. Also known as wire rope clips.

Galvanized steel clamps have a thick coating for corrosion resistance.

316 stainless steel clamps are the most corrosion resistant fittings we offer. They provide excellent resistance to salt water and chemicals.

Warning: Test all assemblies for required strength before use. Do not use with coated rope unless the coating is removed.



For Rope Dia.	No. of Clamps Required	Rope Turnback	Required Torque, ft.-lbs.	Clamp Ht.	Clamp Wd.	Clamp Thick.	Capacity	Specifications Met
Galvanized Steel								
1/8"	2	3 1/4"	4.5	1 1/8"	1"	13/16"	80% of the Rope's Capacity	—
3/16"	2	3 3/4"	7.5	1 1/2"	1 3/16"	1"	80% of the Rope's Capacity	—
1/4"	2	4 3/4"	15	1 3/4"	1 7/16"	1 1/4"	80% of the Rope's Capacity	Fed. Spec. FF-C-450
5/16"	2	5 1/4"	30	2 1/8"	1 11/16"	1 5/16"	80% of the Rope's Capacity	Fed. Spec. FF-C-450
3/8"	2	6 1/2"	45	2 7/16"	2"	1 11/16"	80% of the Rope's Capacity	Fed. Spec. FF-C-450
7/16"	2	7"	65	3 1/16"	2 5/16"	1 15/16"	80% of the Rope's Capacity	Fed. Spec. FF-C-450
1/2"	3	11 1/2"	65	3 1/16"	2 5/16"	1 15/16"	80% of the Rope's Capacity	Fed. Spec. FF-C-450
9/16"	3	12"	95	3 5/8"	2 1/2"	2 1/16"	80% of the Rope's Capacity	Fed. Spec. FF-C-450
5/8"	3	12"	95	3 5/8"	2 1/2"	2 1/16"	80% of the Rope's Capacity	Fed. Spec. FF-C-450
3/4"	4	18"	130	4 3/16"	2 7/8"	2 1/4"	80% of the Rope's Capacity	Fed. Spec. FF-C-450
7/8"	4	19"	225	4 3/4"	3 3/16"	2 1/2"	80% of the Rope's Capacity	Fed. Spec. FF-C-450
1"	5	26"	225	5 5/16"	3 1/2"	2 11/16"	90% of the Rope's Capacity	Fed. Spec. FF-C-450
1 1/8"	6	34"	225	5 13/16"	3 5/8"	2 13/16"	90% of the Rope's Capacity	Fed. Spec. FF-C-450
1 1/4"	7	44"	360	6 5/8"	4 3/16"	3 3/16"	90% of the Rope's Capacity	Fed. Spec. FF-C-450
1 3/8"	7	44"	360	6 3/4"	4 1/4"	3 3/16"	90% of the Rope's Capacity	Fed. Spec. FF-C-450
1 1/2"	8	54"	360	7 7/16"	4 1/2"	3 7/16"	90% of the Rope's Capacity	Fed. Spec. FF-C-450

Aircraft Cable

Preformed, made in accordance with commercial specifications military and federal specification rope available.

Carbon Steel (Aircraft Cable) - Galvanized cable has the highest strength and greatest fatigue life of the materials offered. It has good to fair corrosion resistance in rural to industrial atmosphere environments. This material is most widely used for small diameter cables. Tin over galvanized cable offers greater corrosion resistance and reduced friction over pulleys.

7 x 19

7 x 19 Dia. (in)	Approx. Wt 1000 Ft/lbs	Galvanized Min. Breaking Strengths (lbs)
3/32	17.	1,000
1/8	29.	2,000
5/32	45.	2,800
3/16	65.	4,200
7/32	86.	5,800
1/4	110.	7,000
9/32	139.	8,000
5/16	173.	9,800
3/8	243.	14,400

THESE PLANS AND SPECIFICATIONS ARE THE PROPERTY OF USA SHADE AND FABRIC STRUCTURES AND SHALL NOT BE REPRODUCED WITHOUT THEIR WRITTEN PERMISSION.

USA SHADE & Fabric Structures

CORPORATE HEADQUARTERS
8505-A CHANCELLOR ROW
DALLAS, TX, 75247
800-966-5005

CERTIFICATIONS:
IAS CERTIFICATION No: FA-428
CLARK COUNTY MANUFACTURER CERTIFICATION NUMBER (NEVADA): 355

CUSTOMER:
Grossmont Union HS Dist

PROJECT NAME:
Foothills Adult Education Ctr

LOCATION:
1550 Melody Lane
El Cajon, CA 92019

MODEL NUMBER:
DSA1031414-16

STRUCTURE TYPE:
SINGLE POST PYRAMID DSA

SIZE: **MAXIMUM**
14' x 14 x 12'e MAX.

SCALE : NONE

DRAWING SIZE: **D**

LICENSED ARCHITECT DAVID HIGGINSON NO.C19168 REN. 10-31-19 STATE OF CALIFORNIA
08/10/2018 10:05:24 AM

REGISTERED PROFESSIONAL ENGINEER ALBERT CLARK No. 36913 STRUCTURAL STATE OF CALIFORNIA 8/10/2018
FILE NUMBER: PC-SS
IDENTIFICATION STAMP
DIVISION OF THE STATE ARCHITECT
APP. NO: 04 117140 INCR :
AC DF FLS DS SS VN
DATE: 08/14/2018

PRE-CHECK (PC) DOCUMENT
Code : 2016 CBC
A separate project application for construction is required.

Eng. By :	JO	03/12/18
Design By :	MP	03/12/18
Approved By :	JO	03/12/18

DRAWING DESCRIPTION:
REACTIONS

DWG. **DSA1031414-16**

SHEET **5.2-2000**

REV. **NC**

DESCRIPTION | DATE | DRW | CHK | ENG | REV

FEBRUARY 17, 2021 - DSA BACKCHECK

Multiknit INTERNATIONAL — 190/F5 Fire rated specifications

Standard range

Revision 0 28-Oct-12

Colour	Shade %	UV Block %	Average GSM	Average Warp break strength kgs	Average Elongation %	Average Weft Break strength kgs	Average Elongation %	Average Burst Kpa	Average Burst to Mass ratio
Desert Sand	80	92	185	50	40	72	73	156	0.84
Blue	80	85	185	50	40	72	73	156	0.84
Brown	85		185	50	40	72	73	156	0.84
Green	80	85	185	50	40	72	73	156	0.84
Red	80	86	185	50	40	72	73	156	0.84
Silver	80	81	185	50	40	72	73	156	0.84
Terracotta	75	82	185	50	40	72	73	156	0.84
Yellow*	80	89	185	50	40	72	73	156	0.84
				110 LB		159 LB		3258 PSF	

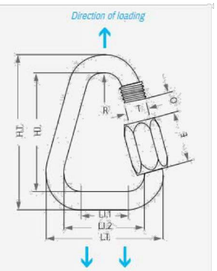
CONVERSION TO IMPERIAL UNITS:
185 GSM = .0378 psf
50 KGS = 110 Lb
72 KGS = 159 Lb
156 Kpa = 3258 psf

Notes:
1. 190/F5 conforms to The California State Fire Marshal Title 19 Test for Small scale Fabrics
2. Tear tests are done using a 50mm Wide strip and a cross head speed of 500mm/min.
3. This report has been compiled using the mean results from all tests conducted on the above sample by our Quality Control Laboratory. The information provided is considered to be a good reflection of the relevant properties of the fabric tested. These results must only be used as an indication of the quality and characteristics of the fabric tested. Company cannot be held responsible or liable in any way whatsoever should this information either in total or in part be used for any purpose.

Deon Joubert
General Manager - Multiknit (Pty) Ltd

Tommy Rogers
Managing Director - Multiknit (Pty) Ltd

Delta Maillon rapide



Delta shape: developed after the ever-increasing development of webbing-fitted systems; perfect for webbing uphold onto its lower flat part.

Zinc plated steel | Other materials and finishes: Stainless steel | Zicral

Reference	Diameter mm	Diameter inches	Dimensions - mm L.T.	L.I.1	L.I.2	H.T.	H.I.	O	E	R	T	Weight g	WLL kg	BL kg	Quote Qty
MRDZ02.5	2,5	3/32"	22	10	17	27	22	3,5	8	3,5	3,5	3	25	125	
MRDZ03.0	3	7/64"	27	12,5	21	30	24	4	9	4,25	4	6	40	200	
MRDZ03.5	3,5	1/8"	31	14	24	36	29	5	11	5	5	9	70	350	
MRDZ04.0	4	5/32"	35,5	16	27,5	40	32	5,5	12,5	5,75	6	14	100	500	
MRDZ05.0	5	3/16"	40	17	30	48	38	6,5	16	6,5	7	23	150	750	
MRDZ06.0	6	1/4"	47	20,5	35	56	44	7,5	19	7,25	9	39	250	1250	
MRDZ07.0	7	9/32"	51	21	37	63	49	8,5	21,5	8	10	58	400	2000	
MRDZ08.0	8	5/16"	56	22,5	40	73	57	10	24	8,85	11	88	550	2750	
MRDZ09.0	9	3/8"	60	23	42	78	60	11	26	9,5	12	115	700	3500	
MRDZ10.0	10	7/16"	66	25,5	46	87	67	12	29	10,25	13	153	900	4500	
MRDZ12.0	12	1/2"	75	27,5	51	104	80	15	33	11,75	15	256	1100	5500	
MRDZ14.0	14	9/16"	85	30,5	57	123	95	17	38,5	13,25	17	404	1800	9000	
MRDZ16.0	16	5/8"	93	31,5	61	138	106	19	45	14,75	19	612	2200	11000	
MRDZ18.0	18	11/16"	102	32,5	66	155	119	23	52	16,25	22	845	2600	13000	
MRDZ20.0	20	25/32"	112	31,5	72	176	136	24	60	17,75	24	1185	3000	15000	

*WLL: Working load limit.
*BL: Breaking load.

Other materials and dimensions: Stainless steel | Zicral

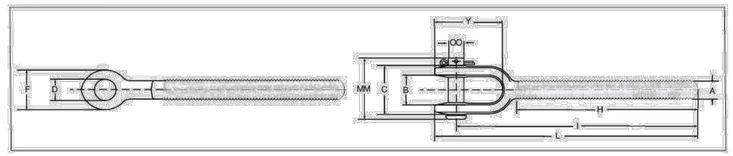
5/8" QUICK LINK UNITS CONVERSION

LT [in]	LI1 [in]	LI2 [in]	HT [in]	HI [in]	O [in]	E [in]	R [in]	T [in]	WEIGHT [lb]	WORKING LOAD [lb]	BREAKING LOAD [lb]
3.661	1.240	2.402	5.433	4.173	0.748	1.772	0.581	0.748	1.35	4850	24250

Turnbuckles - Jaw End Fittings

Jaw End Fittings

- Quenched and Tempered or Normalized
- Hot dip galvanized steel.
- Forged jaw ends are fitted with bolts and nuts on sizes 1/4" through 5/8", and pins and cotters on sizes 3/4" through 2-3/4".
- Modified UNJ thread for improved fatigue properties.
- Fatigue Rated.



Jaw End Fittings

Shank Dia. & Take Up (in.)	RH Jaw Stock No.	LH Jaw Stock No.	Working Load Limit (lbs.)	Weight Each (lbs.)	Dimensions (in.) A	B	C	D	F	H	I Nom. Min.	L Nom. Min.	Y	MM	OO Bolt Pin
* 1/4 x 4	1072298	1072911	500	.11	.25	.45	.91	.30	.63	2.59	3.72	4.09	1.13	1.41	.25
* 5/16 x 4 1/2	1072314	1072939	800	.17	.31	.50	1.02	.30	.69	3.00	4.41	4.81	1.39	1.41	.25
* 3/8 x 6	1072332	1072957	1200	.28	.38	.53	1.15	.36	.81	3.88	5.28	5.75	1.47	1.58	.31
1/2 x 6	1072350	1072975	2200	.56	.50	.64	1.36	.42	1.00	4.19	6.51	7.07	1.81	1.87	.37
1/2 x 9	1072378	1072993	2200	.63	.50	.64	1.36	.42	1.00	5.69	8.01	8.57	1.81	1.87	.37
1/2 x 12	1072396	1073019	2200	.72	.50	.64	1.36	.42	1.00	7.19	9.51	10.07	1.81	1.87	.37
5/8 x 6	1072412	1073037	3500	1.05	.63	.79	1.75	.55	1.31	4.31	7.12	7.91	2.36	2.44	.50
5/8 x 9	1072430	1073055	3500	1.18	.63	.79	1.75	.55	1.31	5.81	8.62	9.41	2.36	2.44	.50
5/8 x 12	1072458	1073073	3500	1.31	.63	.79	1.75	.55	1.31	7.31	10.12	10.91	2.36	2.44	.50
3/4 x 6	1072476	1073091	5200	1.65	.75	.97	2.09	.69	1.63	4.56	7.86	8.84	2.81	2.56	.63
3/4 x 9	1072494	1073117	5200	1.84	.75	.97	2.09	.69	1.63	6.06	9.36	10.34	2.81	2.56	.63
3/4 x 12	1072519	1073135	5200	2.03	.75	.97	2.09	.69	1.63	7.56	10.86	11.84	2.81	2.56	.63
3/4 x 18	1072537	1073153	5200	2.41	.75	.97	2.09	.69	1.63	10.56	13.86	14.84	2.81	2.56	.63
7/8 x 12	1072555	1073171	7200	2.88	.88	1.16	2.56	.81	1.88	7.81	11.70	12.81	3.25	3.09	.75
7/8 x 18	1072573	1073199	7200	3.25	.88	1.16	2.56	.81	1.88	10.81	14.70	15.81	3.25	3.09	.75
1 x 6	1072591	1073215	10000	3.56	1.00	1.34	2.76	.94	2.12	5.06	9.35	10.59	3.73	3.44	.88
1 x 12	1072617	1073233	10000	4.22	1.00	1.34	2.76	.94	2.12	8.06	12.35	13.59	3.73	3.44	.88
1 x 18	1072635	1073251	10000	4.89	1.00	1.34	2.76	.94	2.12	11.06	15.35	16.59	3.73	3.44	.88
1 x 24	1072653	1073279	10000	5.56	1.00	1.34	2.76	.94	2.12	14.06	18.35	19.59	3.73	3.44	.88
1-1/4 x 12	1072671	1073297	15200	8.10	1.25	1.84	3.72	1.19	2.63	8.38	14.25	15.79	4.92	4.53	1.13
1-1/4 x 18	1072699	1073313	15200	9.14	1.25	1.84	3.72	1.19	2.63	11.38	17.25	18.79	4.92	4.53	1.13
1-1/4 x 24	1072715	1073331	15200	10.2	1.25	1.84	3.72	1.19	2.63	14.38	20.25	21.79	4.92	4.53	1.13
1-1/2 x 12	1072733	1073359	21400	12.3	1.50	2.06	4.16	1.47	3.12	8.75	15.07	16.84	5.27	5.13	1.38
1-1/2 x 18	1072751	1073377	21400	13.8	1.50	2.06	4.16	1.47	3.12	11.75	18.07	19.84	5.27	5.13	1.38
1-1/2 x 24	1072779	1073395	21400	15.3	1.50	2.06	4.16	1.47	3.12	14.75	21.07	22.84	5.27	5.13	1.38
1-3/4 x 18	1072813	1073439	28000	18.9	1.75	2.60	4.66	1.72	3.50	12.16	18.49	20.58	6.25	6.00	1.63
1-3/4 x 24	1072831	1073457	28000	21.0	1.75	2.60	4.66	1.72	3.50	15.16	21.49	23.58	6.25	6.00	1.63
2 x 24	1072859	1073475	37000	35.3	2.00	2.62	5.61	2.09	4.19	15.59	23.82	26.36	7.28	6.88	2.00
2-1/2 x 24	1072877	1073493	60000	55.8	2.50	3.06	5.84	2.38	5.62	17.20	25.61	29.09	9.04	7.50	2.25
2-3/4 x 24	1072895	1073518	75000	72.4	2.75	3.69	6.57	2.88	6.12	17.35	26.75	30.75	9.56	8.38	2.75

* Mechanical Galvanized

Leveling Washers

Also known as spherical washers, these consist of a male and female washer that, when nested, swivel slightly to compensate for tolerance variations and uneven surfaces. They're good for die and fixturing applications.

Black-oxide steel washers are mildly corrosion resistant in dry environments.

CAD For technical drawings and 3-D models, click on a part number.

Washers

For Screw Size	Male ID (A)	Male OD (B)	Male Radius	Female ID (C)	Female OD (D)	Female Radius	Thick. (E)	Max. Angle of Correction	Hardness
Black-Oxide Steel									
No. 4	0.116"	0.281"	0.031"	0.156"	0.375"	—	0.188"-0.218"	3°	Rockwell C48
No. 6	0.144"	0.281"	0.031"	0.172"	0.375"	—	0.188"-0.218"	3°	Rockwell C48
No. 8	0.169"	0.312"	0.031"	0.188"	0.375"	—	0.188"-0.218"	3°	Rockwell C48
No. 10	0.196"	0.375"	0.078"	0.219"	0.438"	—	0.219"-0.249"	3°	Rockwell C48
1/4"	0.257"	0.438"	0.109"	0.281"	0.500"	—	0.251"-0.281"	3°	Rockwell C48
1/4"	0.281"	0.625"	0.750"	0.281"	0.625"	0.750"	0.173"-0.203"	5°	Rockwell C48
5/16"	0.323"	0.500"	0.063"	0.344"	0.562"	—	0.312"-0.344"	3°	Rockwell C48
3/8"	0.386"	0.625"	0.094"	0.406"	0.688"	—	0.407"-0.438"	3°	Rockwell C48
3/8"	0.406"	0.875"	1.250"	0.406"	0.875"	1.250"	0.235"-0.265"	3°	Rockwell C48
1/2"	0.531"	1.125"	1.500"	0.531"	1.125"	1.500"	0.298"-0.328"	2°	Rockwell C48
5/8"	0.656"	1.375"	1.750"	0.656"	1.375"	1.750"	0.298"-0.328"	2°	Rockwell C48
3/4"	0.781"	1.625"	2.250"	0.781"	1.625"	2.250"	0.360"-0.390"	3°	Rockwell C48
7/8"	0.938"	1.750"	2.500"	0.969"	1.750"	2.500"	0.360"-0.390"	3°	Rockwell C48
1"	1.062"	2.000"	2.750"	1.094"	2.000"	2.750"	0.485"-0.515"	3°	Rockwell C48
1 1/8"	1.188"	2.250"	3.000"	1.250"	2.250"	3.000"	0.485"-0.515"	3°	Rockwell C48
1 1/4"	1.312"	2.500"	3.000"	1.375"	2.500"	3.000"	0.485"-0.515"	3°	Rockwell C48
1 1/2"	1.562"	2.875"	3.000"	1.625"	2.875"	3.000"	0.485"-0.515"	3°	Rockwell C48
1 5/8"	1.688"	3.250"	3.500"	1.750"	3.250"	3.500"	0.673"-0.703"	3°	Rockwell C48
1 3/4"	1.812"	3.250"	3.500"	1.875"	3.250"	3.500"	0.673"-0.703"	3°	Rockwell C48
2"	2.062"	3.875"	3.500"	2.125"	3.875"	3.500"	0.735"-0.765"	3°	Rockwell C48

BASIC LOAD CASES

DEAD LOAD	0.0378 PSF (FABRIC)
FLOOR LIVE LOAD	N/A
ROOF LIVE LOAD	5 PSF
ROOF SNOW LOAD	5 PSF
SUPERIMPOSED LOADS	N/A
WIND LOAD	
ULTIMATE DESIGN WIND SPEED (3 SEC GUST)	115 MPH
VELOCITY PRESSURE qz	24.46 PSF
COMPONENT AND CLADDING qz	
(CABLE AND CABLE HARDWARE ONLY)	24.46 PSF
SEISMIC LOAD	
SEISMIC RESPONSE COEFFICIENTS Cs	1.6
DESIGN BASE SHEAR	1029 LB

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-119728 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 02/18/2021