BID ADDENDUM NO. 3

September 24, 2018

Johnson Student Center
Building Demolition, Increment 1 (Demolition) and Increment 2

RANCHO SANTIAGO COMMUNITY COLLEGE DISTRICT
SANTA ANA, CA

DSA App. Nos.
04-116810-1 and 04-116810-2

TO: PROSPECTIVE BIDDERS

This Addendum forms a part of the Contract Documents and modifies the original Bidding Drawings and Specifications. Acknowledge receipt of this Addendum in spaces provided on the Bid Form. Failure to acknowledge may subject Bidder to disqualification.

- **RFP Documents**
    - Revised Workbook tab "k" Specific Allowances and Allowance No. 5.
- **Drawings**

  Architectural:
    - Increment 2
        i. General Contractor to provide an Exterior Material Mock-Up, refer to design drawings. Reference new sheets A0.01 and A0.02
    - Increment 2
        i. Added new detail sheet G3.12 (signage details) for monument / site signs.

  Civil:
    - Building Demolition
        i. Revised sheet C1.00, refer to clouds and delta 3
            1. Refer to landscape, hardscape, underground wet/dry utilities being removed/demoed in their entirety in lieu of being protected.
            2. Revised/removed notes as needed for phasing of work with increment 1 and 2.
        ii. Remove sheet C2.00 in its entirety and refer to Increment 1 and 2 erosion control and grading plans.
    - Increment 2
        i. Modifications to the West Plaza: The proposed sewer lateral, serving the West Plaza kiosk, connected to the existing 12" sewer line east of the plaza. Due to conflicts with the kiosk footing and the layout of the proposed sewer later, the lateral point of connection was revised and is now proposed to connect to the existing sewer line, running east/west through the West Plaza site.
        Refer to SKC-3.01

Structural:

- Increment 2
  - Revised sheet SS1.02.1
    - Detail call out on SS1.02.1 Rear Elevation referenced F/A1.03 for the shade footing, this call out was revised to F/SS1.03.

Electrical:

- Increment 2
  i. Lighting Control System manufacturer change per District:
     1. Revised Electrical Drawings to reflect changes from WattStopper Digital Lighting Management (DLM) to "Lutron Quantum" to match campus standard. Refer to full size sheets attached.

Plumbing:

- Increment 2
  i. P2.12 added trench drain at Stair 1
  ii. P2.22 added trench drain at Stair 1

- **Specifications**
  - Increment 2
    i. Replace specification section 260923 Distributed Digital Lighting Control System in its entirety.

- **Pre-Bid Clarification (PBC) Responses**

  - Responses to PBC's, refer to attachments and list of PBC's included - below.

ATTACHMENTS

RFP Documents

- Revised Workbook tab "k" Specific Allowances

Drawings full size:

- Architectural:
  - Increment 2
    - A0.01, A0.02 and G3.12
- Civil:
  - Building Demolition
    - C1.00
- Structural
  - Increment 2
    - SS1.02.1
- Plumbing
  - Increment 2
    - P2.12 and P2.22
- Electrical:

- Increment 2
  - E0.01, E0.04, E0.05, E1.01, E2.01, E2.02, E2.03, E2.04, E2.11, E2.12. E2.13, E2.14, E3.01, E6.03 and E6.05

Sketches:

- SKC-3.01

Specifications

- 260923

Requests for Clarifications:

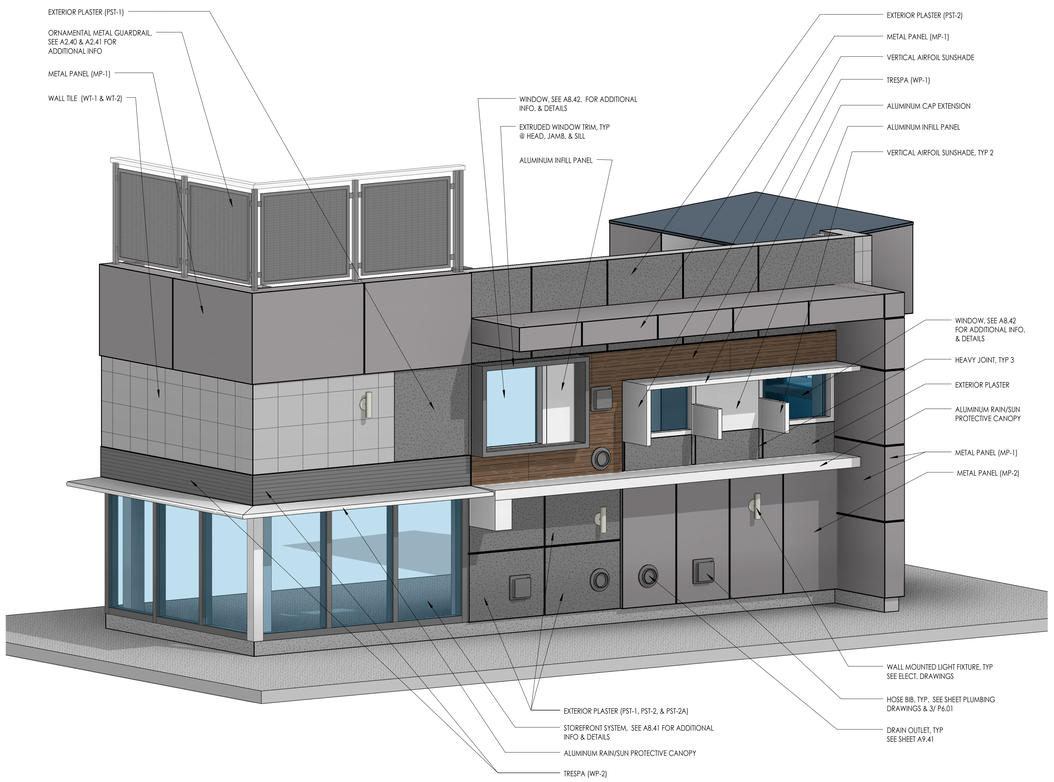
- PBC 09
- *PBC 10 was previously submitted with Addendum #2*
- PBC 11
- PBC 12
- PBC 13
- PBC 14
- PBC 15
- PBC 16
- PBC 17
- PBC 18
- PBC 19
- PBC 20
- PBC 21
- PBC 22
- PBC 23
- PBC 24
- PBC 25
- PBC 26
- PBC 27
- PBC 28
- PBC 29
- PBC 30
- PBC 31
- PBC 32
- PBC 33
- PBC 34
- PBC 35
- PBC 36
- PBC 37

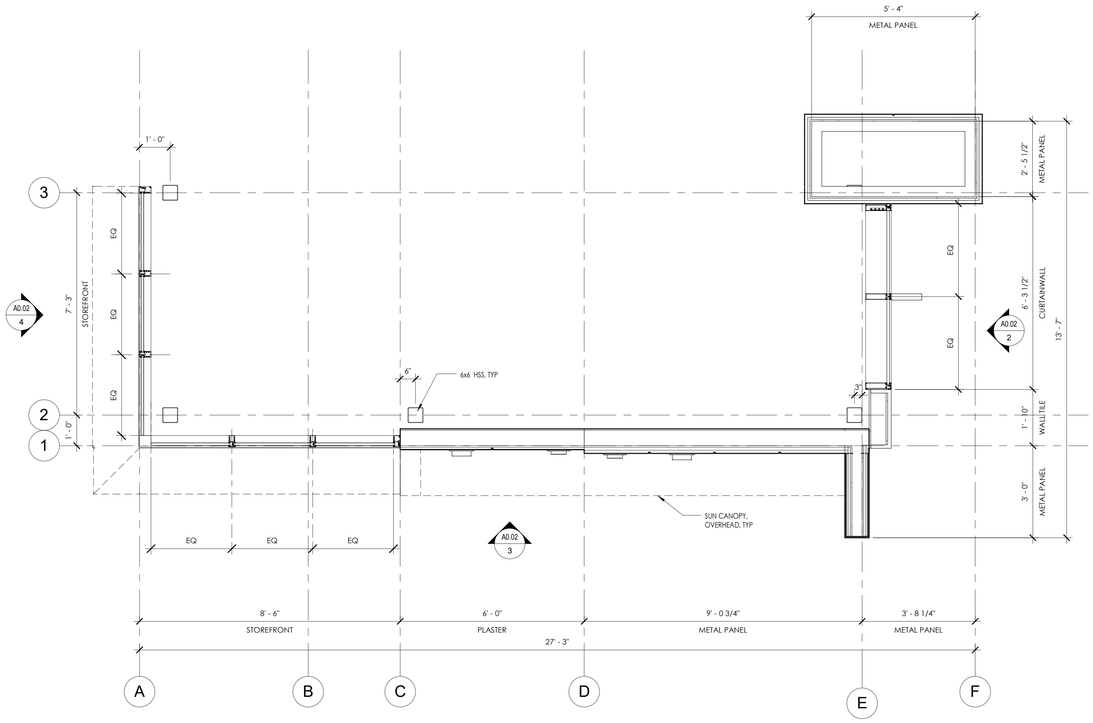
PBC Log (**Not included. Will be issued in a forthcoming Addendum**)

k) Specific Allowances

ITEM	MATERIAL	EQUIP/SUB	LABOR	TOTAL	REMARKS
1. Unforeseen conditions such as, but not limited to: existing soils, underground utilities, and unknown conditions related to hazerdous abatement.	-	-	-	$ 60,000	
2. Address soil-pumping conditions for _____ SF utilizing _____ solution	-	-	-	$ -	Contractor to Determine (unit rate x SF = total)
3. Furniture and/or equipment revisions such as, but not limited to: additional provisions for backing, power, data.	-	-	-	$ 40,000	
4. In the event on-site soils are more expansive than allowed by the geotechnical report, provide 18 inches of import engineered fill under _____ SF of concrete hardscape.	-	-	-	$ -	Contractor to Determine (unit rate x SF = total)
5. In the event concrete moisture and alkalinity test (s) fail, contractor shall apply a concrete moisture and alkalinity barrier per Specification 071920 at resilient tile and linoleum flooring areas.	-	-	-	$ -	Contractor to Determine (unit rate x SF = total)
	-	-	-	$ -	
Total	-	-			

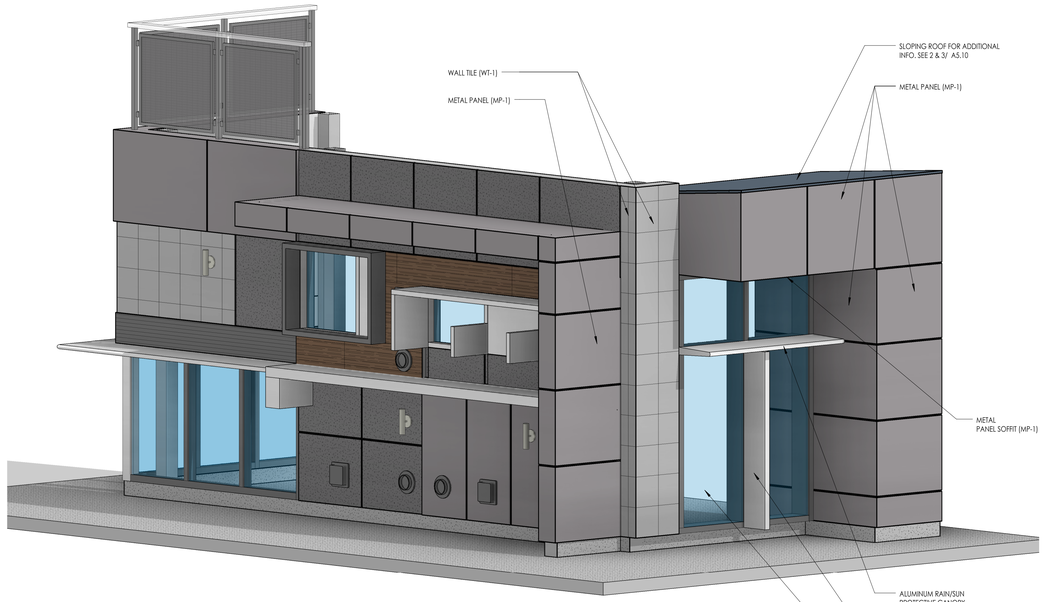
General Notes:
1) Include backup as required to support allowance request.
2) Specific allowance dollar amounts may be reallocated between the various allowance categories, as approved in writing by the District in advance.



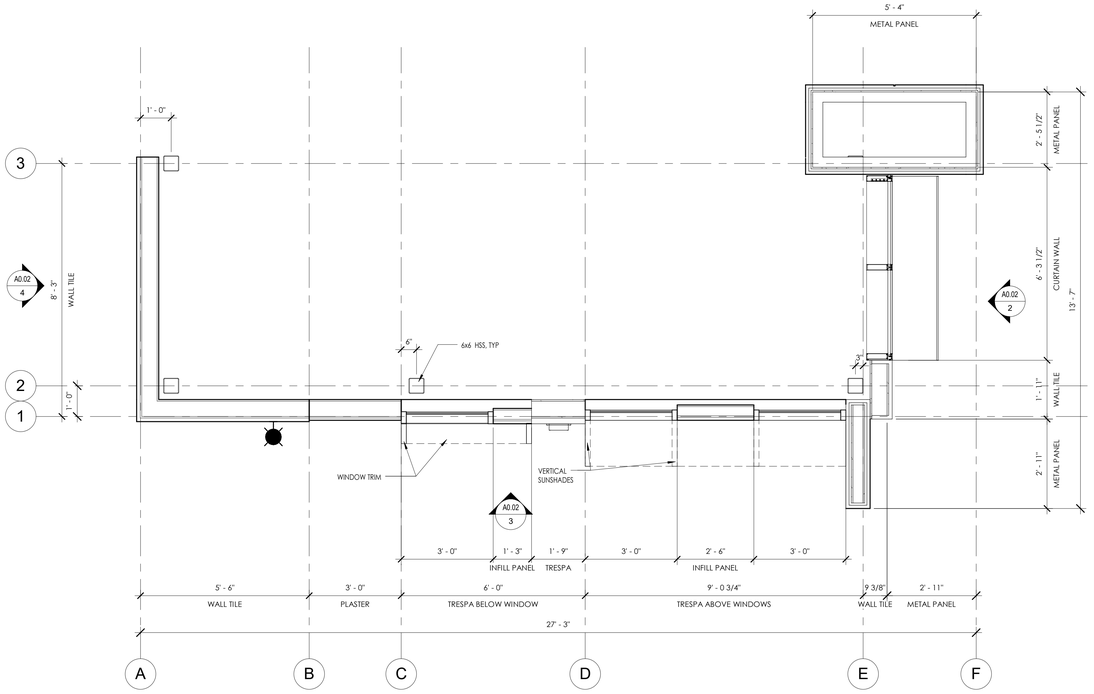


SEE A0.02
FOR GENERAL NOTES

LEVEL 1 SCALE 1/2" = 1'-0" 1



NOTE:
CONTRACTOR TO PROVIDE ALL NECESSARY TEMPORARY SUPPORT STRUCTURE AND BRACING REQUIRED FOR VERTICAL AND LATERAL SUPPORT OF THE MOCK-UP



SEE A0.02
FOR GENERAL NOTES

LEVEL 2 SCALE 1/2" = 1'-0" 2

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DATE _____

PROJECT TITLE
JOHNSON STUDENT CENTER
INCREMENT 2
1530 W 17TH ST SANTA ANA CA 92706

RANCHO SANTIAGO Community College District

SUBMITTALS

#	DATE	DESCRIPTION
	09/24/2018	ADDENDUM 3 - MOCK-UP

PROJECT IDENTIFICATION Project Number

THESE DRAWINGS ORIGINALLY CREATED IN AUTODESK REVIT V. 2016 U.O.N.

THE ORIGINAL SIZE OF THIS SHEET IS 30" X 42".

DRAWN BY MS, AMF

CHECKED BY LP

SHEET TITLE
FLOOR PLANS & 3Ds

SHEET NUMBER
ADDENDUM 3
A0.01

EXTERIOR ELEVATIONS - GENERAL NOTES

1. ALL METALS EXPOSED TO THE EXTERIOR (EXCEPT WHERE SPECIFIED TO BE PREFINISHED) INCLUDING STRUCTURAL STEEL, STEEL DECKING, MISCELLANEOUS STEEL, SHEET METAL FLASHING, TRIM, ETC., SHALL BE GALVANIZED, PREPARED, AND PAINTED AS PER SPEC SECTION 099600 HIGH PERFORMANCE COATINGS.
2. ALL GUARDRAILS WILL POSTS, TOP RAIL AND HANDRAIL WILL HAVE A STAINLESS STEEL FINISH. THE MESH INFILL PANELS & FRAME WILL HAVE A "GALVANIZED PAINTED" FINISH SEE DETAIL 14 / A9.70
3. ALL FACTORY FABRICATED METALS EXPOSED TO THE EXTERIOR INCLUDING LOUVERS, VENTS, CHAINLINK FENCES, DECORATIVE FENCES, BIKE RACKS, ETC., SHALL BE FACTORY FINISH.
4. ALL EXPOSED CONCRETE SHALL BE SACKED SMOOTH.
5. SEE SHEETS A9.40, A9.41, A9.42 FOR TYP EXTERIOR DETAILS

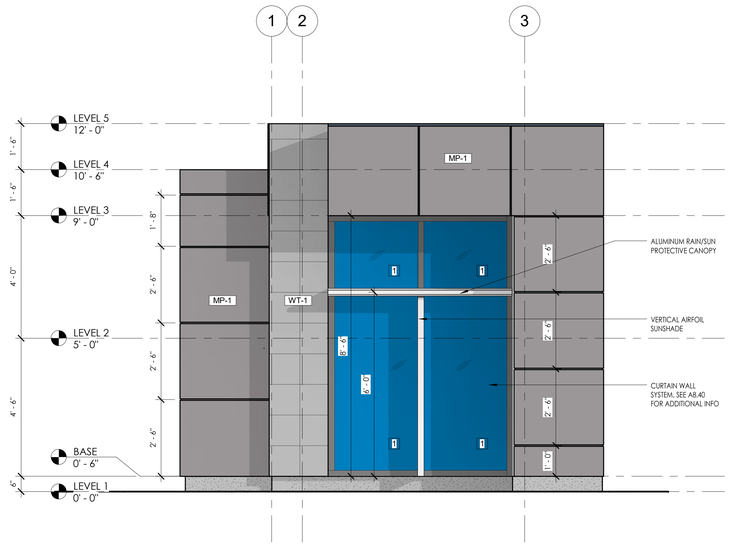
EXTERIOR MATERIAL COLOR LEGEND

NOTE: REFER TO SHEET A8.21 FOR FINISH MATERIAL SCHEDULE FOR ADDITIONAL INFORMATION.

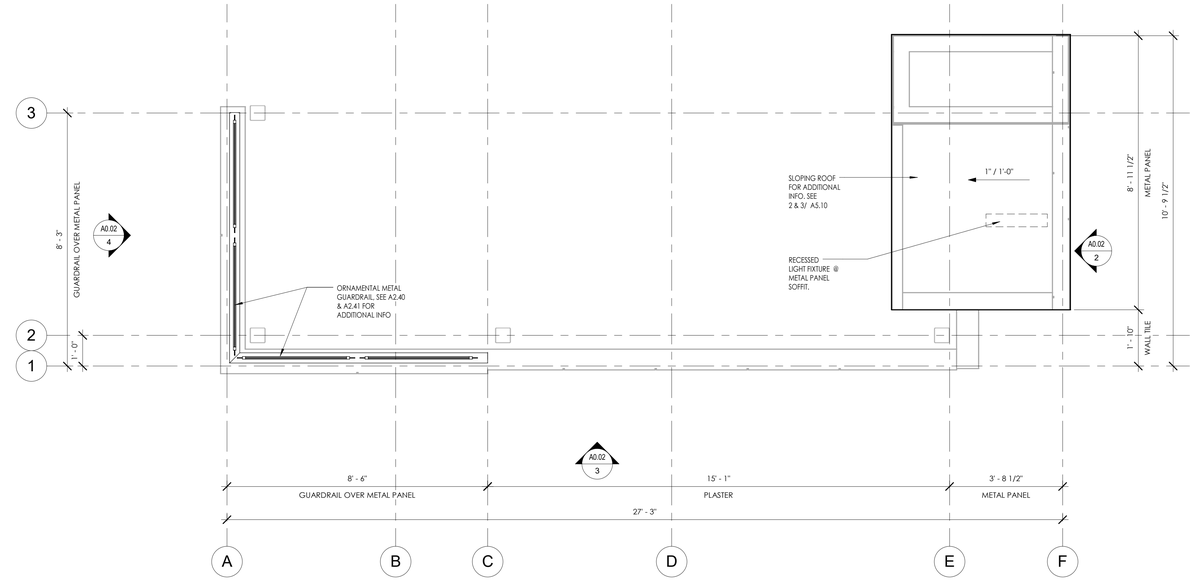
MP-1	METAL PANEL - SELECT WHITE
MP-2	METAL PANEL - T.B.D.
MPC-1	CORRUGATED METAL PANEL - COLOR 1
MPC-2	CORRUGATED METAL PANEL - COLOR 2
WP-1	DECORATIVE HIGH PRESSURE WALL PANEL (TRESPA) - COLOR 1
WP-2	DECORATIVE HIGH PRESSURE WALL PANEL (TRESPA) - COLOR 2
PST-1	EXTERIOR PLASTER - COLOR 1
PST-2	EXTERIOR PLASTER - COLOR 2
PST-2A	EXTERIOR PLASTER - COLOR 2 W/ ANTI-GRAFFITI COATING (ALTERNATE #3)
WT-1	PORCELAIN WALL TILE W/ DIGITALLY APPLIED ARTWORK (25% OF WALL AREA)
WT-2	PORCELAIN WALL TILE (75% OF WALL AREA)

GENERAL NOTES

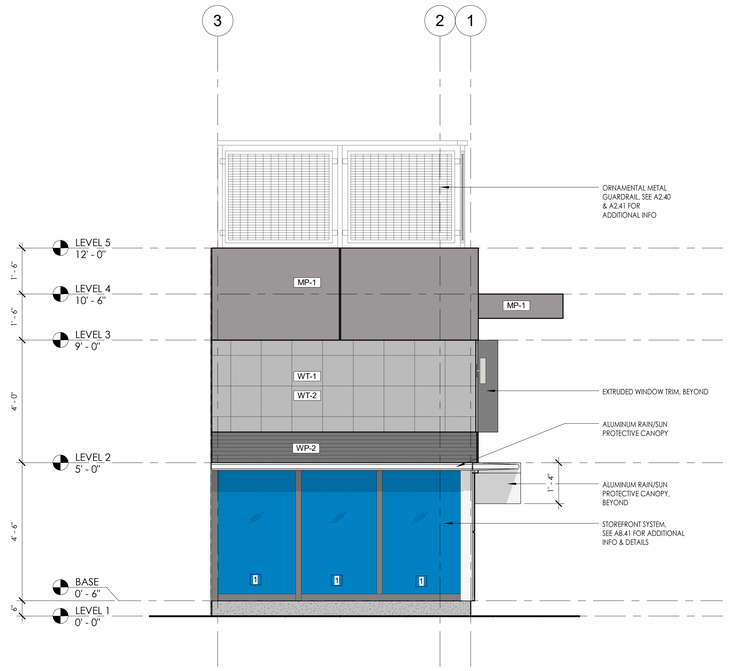
1. SHEET METAL - SHOP FAB, IS ACCEPTABLE
2. SHEET METAL - TOUCH-UP PAINT REQUIRED FOR MOCKUP
3. CONTRACTOR TO COORDINATE LOCATION OF MOCKUP ON SITE.
4. MOCKUP TO BE WORKING MOCKUP AND REVISIONS WILL BE MADE DURING CONTRUCTION AS NEEDED PER ARCHITECT'S DIRECTION.
5. REFERENCE DSA APPROVED DRAWINGS AND SPECS (A#04-116810) FOR DETAILS AND MATERIAL ID.
6. NO STRUCTURAL STEEL MOCKUP IS INTENDED TO BE FRAMED WITH STEEL STUDS AND IS SELF-SUPPORTING.
7. MOCKUP SHALL BE FRAMED WITH 16 GA. 6" STUDS @ 12" O.C. U.N.O. REF TO SHEET S6.10 FOR MORE INFO.
8. DETAIL REFERENCES ARE INTENDED TO SHOW MATERIAL TRANSITION AND ASSEMBLY REFER TO SHEET A0.01 & A0.02 FOR DIMENSIONS.



ELEVATION 2 SCALE 1/2" = 1'-0" 2

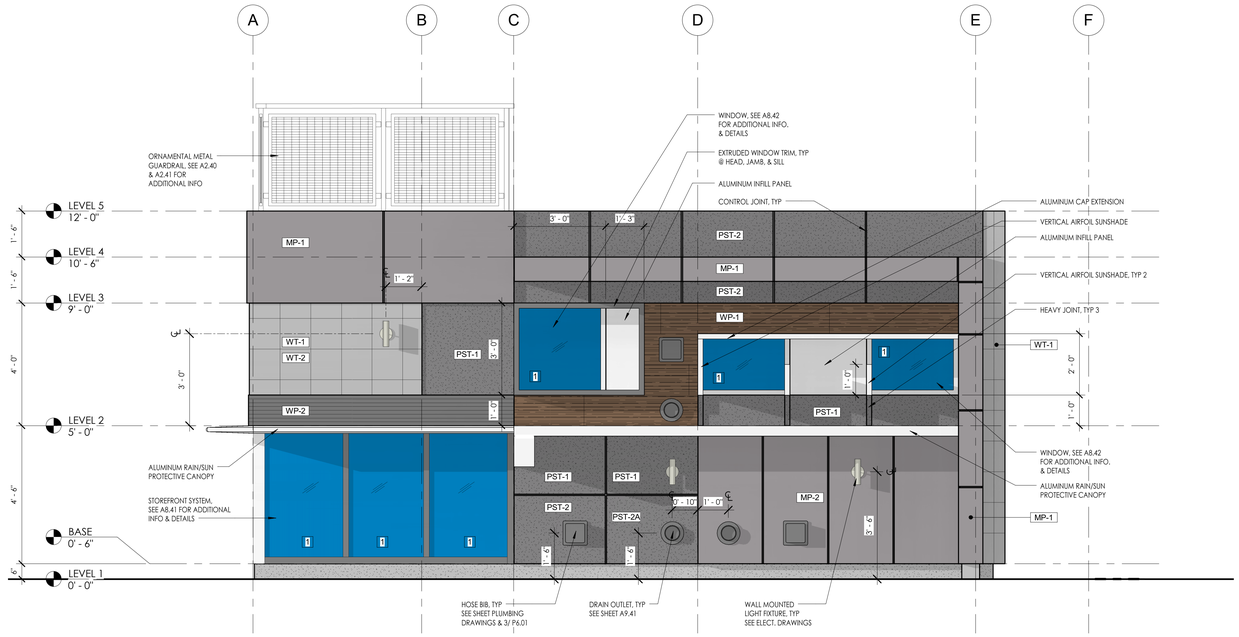


LEVEL 5 SCALE 1/2" = 1'-0" 1



NOTE:
CONTRACTOR TO PROVIDE ALL NECESSARY TEMPORARY SUPPORT STRUCTURE AND BRACING REQUIRED FOR VERTICAL AND LATERAL SUPPORT OF THE MOCK-UP

ELEVATION 4 SCALE 1/2" = 1'-0" 4



ELEVATION 3 SCALE 1/2" = 1'-0" 3

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1530 W 17TH ST SANTA ANA CA 92706

RANCHO SANTIAGO Community College District

SUBMITTALS

#	DATE	DESCRIPTION
	09/24/2018	ADDENDUM 3 - MOCK-UP

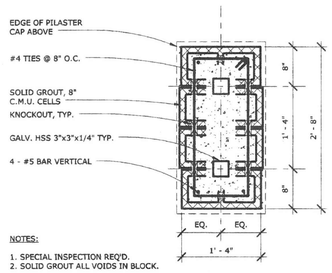
PROJECT IDENTIFICATION Project Number

DRAWN BY MS, AMF

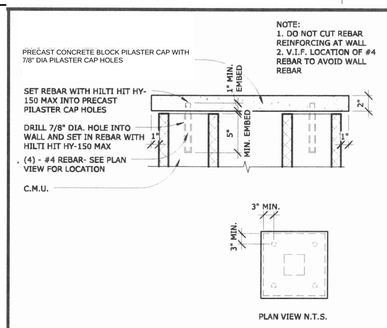
CHECKED BY LP

SHEET TITLE
FLOOR PLAN & ELEVATIONS

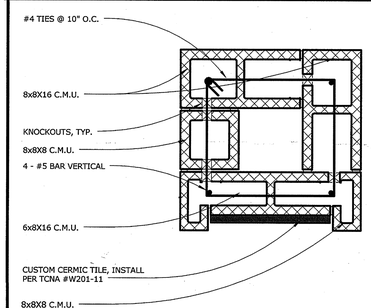
SHEET NUMBER
ADDENDUM 3
A0.02



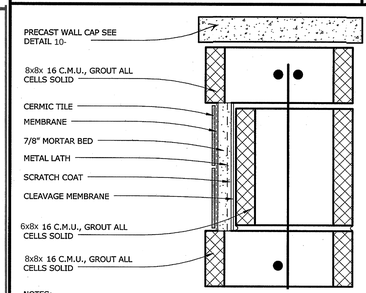
MONUMENT PLAN 1" = 1'-0" 24



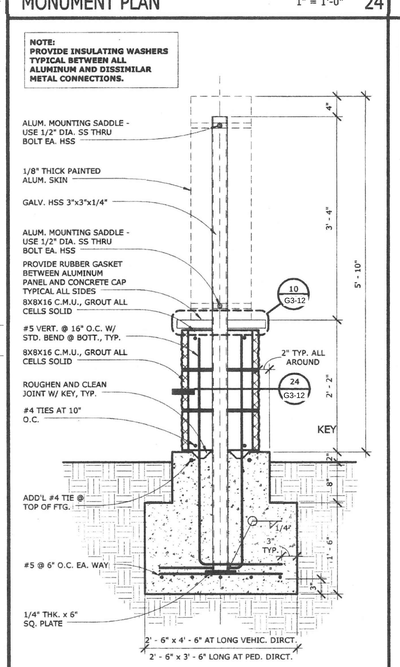
PILASTER CAP SECTION 1 1/2" = 1'-0" 10



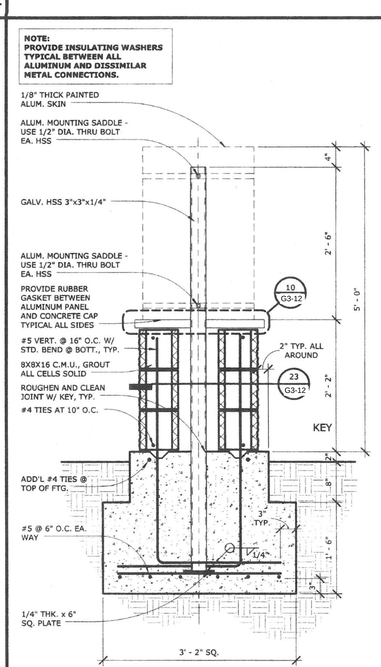
PILASTER TILE INSET 1 1/2" = 1'-0" 14



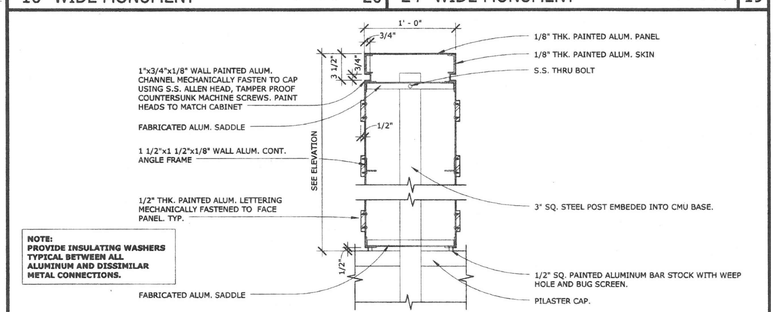
TILE AT C.M.U. WALL 3" = 1'-0" 13



16" WIDE MONUMENT 1" = 1'-0" 20



24" WIDE MONUMENT 1" = 1'-0" 19



ALUMINUM SIGN SECTION 1 1/2" = 1'-0" 17

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RANCHO SANTIAGO Community College District

SUBMITTALS		
#	DATE	DESCRIPTION
3	09/24/18	ADDENDUM 3

PROJECT IDENTIFICATION Project Number

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SHEET TITLE
SIGNAGE DETAILS

SHEET NUMBER
G3.12

DSA SUBMITTAL

EARTHWORK NOTES TO CONTRACTOR:

1. IT IS THE CONTRACTOR'S RESPONSIBILITY TO REVIEW THE PLANS THOROUGHLY PRIOR TO MOBILIZATIONS. IT IS ALSO THE GRADING CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE CIVIL OF RECORD IF ONSITE DISCREPANCIES ARE OBSERVED THAT WOULD AFFECT THE EARTHWORK.
2. THE EXISTING TOPOGRAPHY SHALL BE UTILIZED AS THE BASIS FOR ALL EARTHWORK COMPUTATIONS. SAID TOPOGRAPHY SHALL BE PRESUMED TO BE ACCEPTABLE TO ALL INTERESTED PARTIES UNLESS A DEVIATION IS FOUND PRIOR TO THE START OF GRADING IN ANY SPECIFIC AREAS, ANY DEVIATION SO DETERMINED SHALL BE PROMPTLY TRANSMITTED TO ALL INTERESTED PARTIES.
3. THE CONTRACTOR IS REQUIRED TO ESTIMATE THE QUANTITIES OF GRADING WORK TO BE DONE AND INCLUDE ALL COSTS THEREFROM WITHIN HIS BID, AND NO ADDITIONAL ALLOWANCE WILL BE MADE WITHOUT PRIOR CONSENT FROM THE OWNER.
4. OFF-SITE DISPOSAL OF EXCAVATION MATERIAL IS THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE INCLUDED IN HIS BID. THE CONTRACTOR SHALL HOLD THE OWNER AND ENGINEER HARMLESS AS A RESULT OF ANY CLAIMS ARISING FROM THE ACTIONS ENROUTE OR AWAY FROM THE SITE.
5. ANY EXPORT OR IMPORT REQUIRED TO BALANCE THE SITE SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

PROTECTION NOTES

36	PROTECT IN PLACE EXISTING STORM DRAIN
37	PROTECT IN PLACE EXISTING SEAT WALLS AND ASSOCIATED LANDSCAPING AND HARDSCAPING
38	PROTECT EXISTING MONUMENT
39	PROTECT EXISTING TREE

DEMOLITION NOTES

1*	EXISTING BUILDING TO BE DEMOLISHED (REMOVED) IN ITS ENTIRETY. REMOVE/DEMO EXISTING SLAB ON GRADE (SOG) IN ITS ENTIRETY CUT/CLEAR STEEL REINFORCEMENT T TOP OF EXISTING CAPS/GRADE BEAMS TO REMAIN. PROVIDE ENGINEERED FILL AS REQUIRED. REFER TO CIVIL, PLUMBING AND ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION. SEPARATE DEMOLISHED MATERIAL PER LEED GREEN BUILDING RATING SYSTEM WASTE MANAGEMENT.
2	REMOVE EXISTING STORM DRAIN INLET
3	REMOVE EXISTING CONRETE CULVERT/STORM DRAIN LINE AND CAP AT BOUNDARY LINE
4	REMOVE EXISTING SEAT WALLS IN THEIR ENTIRETY INCLUDING FOOTINGS, WITHIN THE DEMOLITION BOUNDARY
5	REMOVE EXISTING STAIRS IN THEIR ENTIRETY, INCLUDING ALL FOOTINGS
6	REMOVE EXISTING SITE LIGHT AND BASE IN ENTIRETY, REFER TO AS BUILT PLANS FOR FULL DESCRIPTION OF LIGHTING FIXTURES AND BASES
7	REMOVE ALL EXISTING PAVING AND ASSOCIATED REBAR/CONCRETE WITHIN DEMOLITION BOUNDARY
8	REMOVE ALL EXISTING TREES AND LANDSCAPING WITHIN THE DEMOLITION BOUNDARY, INCLUDING ALL ROOTS, ROOT BALLS 3' BEYOND TREE CANOPY.
9	REMOVE ALL EXISTING BOLLARDS WITHIN DEMOLITION BOUNDARY
10	REMOVE EXISTING MANHOLE
11	REMOVE ALL EXISTING C.L. FENCING WITHIN DEMOLITION BOUNDARY
12	REMOVE EXISTING ELECTRICAL EQUIPMENT
13	REMOVE/DEMO EXISTING SHED IN ITS ENTIRETY INCLUDING FOOTINGS, GRADE BEAMS, AND CAPS AS NOTED ON ARCHITECTURAL PLANS. LEVEL AND COMPACT BUILDING REMOVAL AREA.
14	REMOVE ALL ELEVATORS IN THEIR ENTIRETY INCLUDING ELEVATOR PITS AND THEIR FOOTINGS
15	REMOVE EXISTING SEWER.
16	REMOVE EXISTING WATER
17	REMOVE EXISTING FIRE HYDRANT

AERIAL SURVEY LEGEND

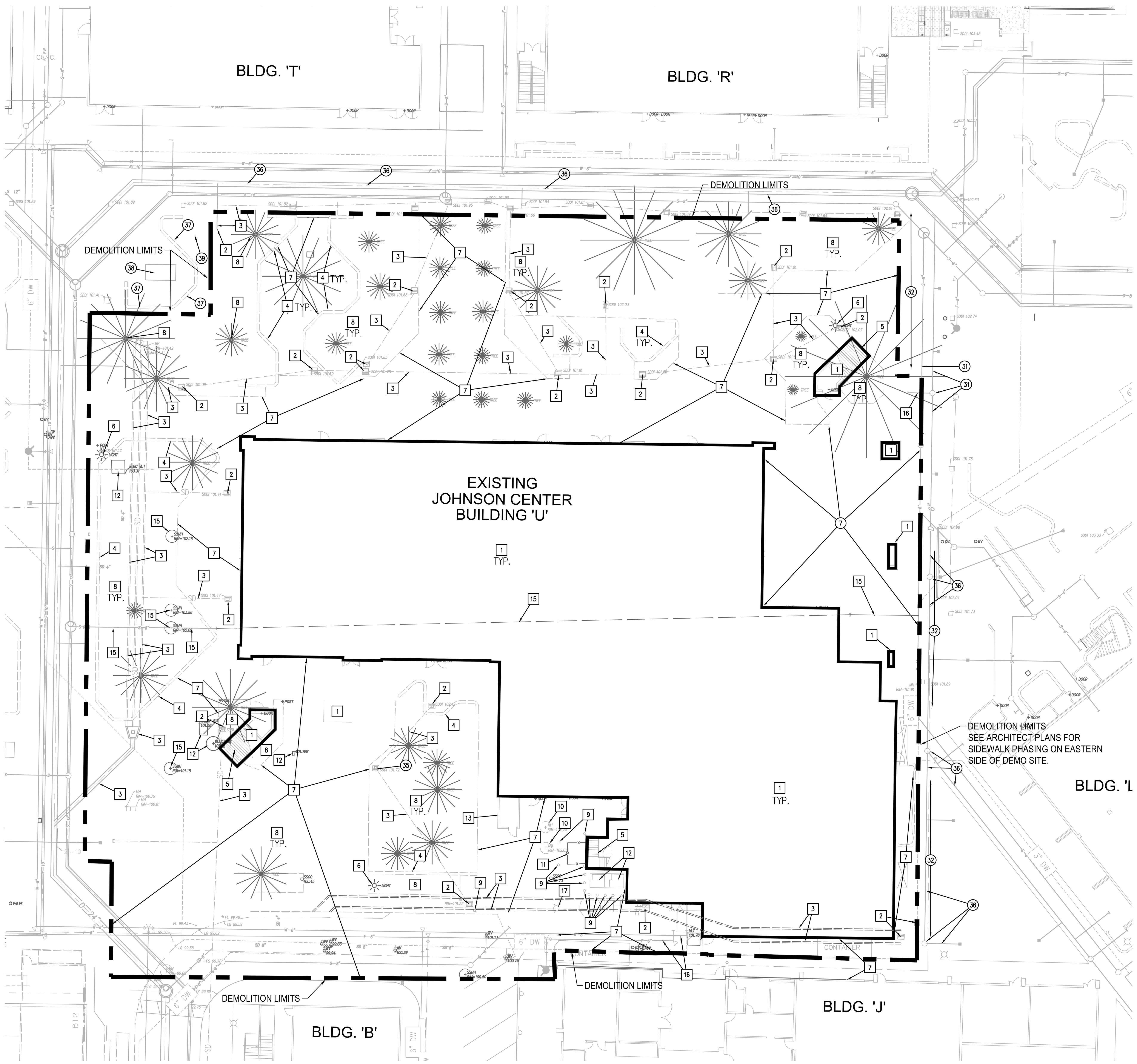
CONC CONCRETE
ASPH ASPHALT
TREE
BUSH
PALM TREE
U/O UNIDENTIFIED OBJECT
LIGHT STANDARD
TS TRAFFIC SIGNAL
STREET LIGHT
SIGN (10')
SIGN (5')
LS LARGE SIGN POST
CB CATCH BASIN
DI DROP INLET
LP LIGHT POLE
M PARKING METER
DI DROP INLET
RRS R.R. SIGNAL
S SIGN
F/H FIRE HYDRANT
POWER POLE
TRANSFORMER BOX
GUYWIRE/ANCHOR
M METER
POST (NO LABEL)
V VALVE
MH MANHOLE
HANDICAP
UB UTILITY BOX
SP STAND PIPE
FENCE
RETAIN WALL/FENCE
RETAINING WALL
TREE LINE–DRIP LINE
BRUSH LINE
×24.0 SPOT GRADE
STORM DOOR MANHOLE
WATER VALVE
SEWER MANHOLE
SIGN
UTILITY POLE
GUY ANCHOR
MANHOLE
SEWER CLEANOUT
ELECTRIC PULL BOX
CATV PULL BOX
WATER METER BOX

ABBREVIATIONS

ASPH	ASPHALT SURFACE
ATM	BANKING MACHINE
BRK	BRICK SURFACE
BWL	BRICK WALL
CD	CURB DOOR
COL	COLUMN/PILLAR
CONC	CONCRETE SURFACE
DC	DETECTOR CHECK
DNE	DO NOT ENTER
ECB	ELECT. CONTROL BOX
EG	EDGE OF GUTTER
ELM	EL. METER
EOC	EDGE OF CONCRETE
EVT	ELECT. VAULT
FDC	FIRE DETECTOR CHECK
FL	FLOW LINE
FF	FINISHED FLOOR
FR	FIRE RISER
FS	FINISHED SURFACE
GWC	GWC SIGNAGE
ICV	IRR. CONTROL VALVE
LKD	LOCKED (NO ACCESS)
MKR	MARKER
MOW	MOW STRIP
MTR	METER
NG	NATURAL GROUND
PG	PLAYGROUND AREA
PKNG	PARKING
PLT	PLANTER
PR	PILLAR
PT	PICNIC TABLE
RMP	RAMP
RW	RETAINING WALL
S	SANITARY SEWER
SB	SPEED BUMP
SCR	SCREEN WALL
SCO	SEWER CLEANOUT
SD	STORM DOOR
SDR	STORM DOOR RISER
SPDL	SPEED LIMIT SIGN
ST	STEP/STOOP
STR	STAIRCASE
T	TELEPHONE
TC	TOP OF CURB
TG	TOP OF GRATE
TVT	TEL. VAULT
W	WATER
WL	WALL
WVT	WATER VAULT
???	ORIGIN/DESTINATION UNKNOWN

FIELD SURVEY LEGEND

AIR RELEASE VALVE
BLOW OFF
BOLLARD
CABLE TELEVISION PULL BOX
DOOR
ELECTRIC METER
ELECTRICAL MANHOLE
ELECTRICAL PULL BOX
FIRE DEPARTMENT CONNECTION
FIRE HYDRANT
GAS VALVE
GAS METER
GUY WIRE
IRRIGATION CONTROL VALVE
PARKING LIGHT
MAILBOX
MANHOLE
PALM TREE
PARKING METER
SEWER MAN HOLE
SEWER CLEAN OUT
SIGN
STREET LIGHT
STREET LIGHT PULL BOX
STORM DOOR MAN HOLE
TELEPHONE MANHOLE
TELEPHONE PULL BOX
TREE
TRAFFIC SIGNAL
TRAFFIC SIGNAL PULL BOX
VENT
WATER METER
WATER MAN HOLE
WATER VALVE
UTILITY POLE
(24.00) SPOT GRADE



scale 1" = 20' feet

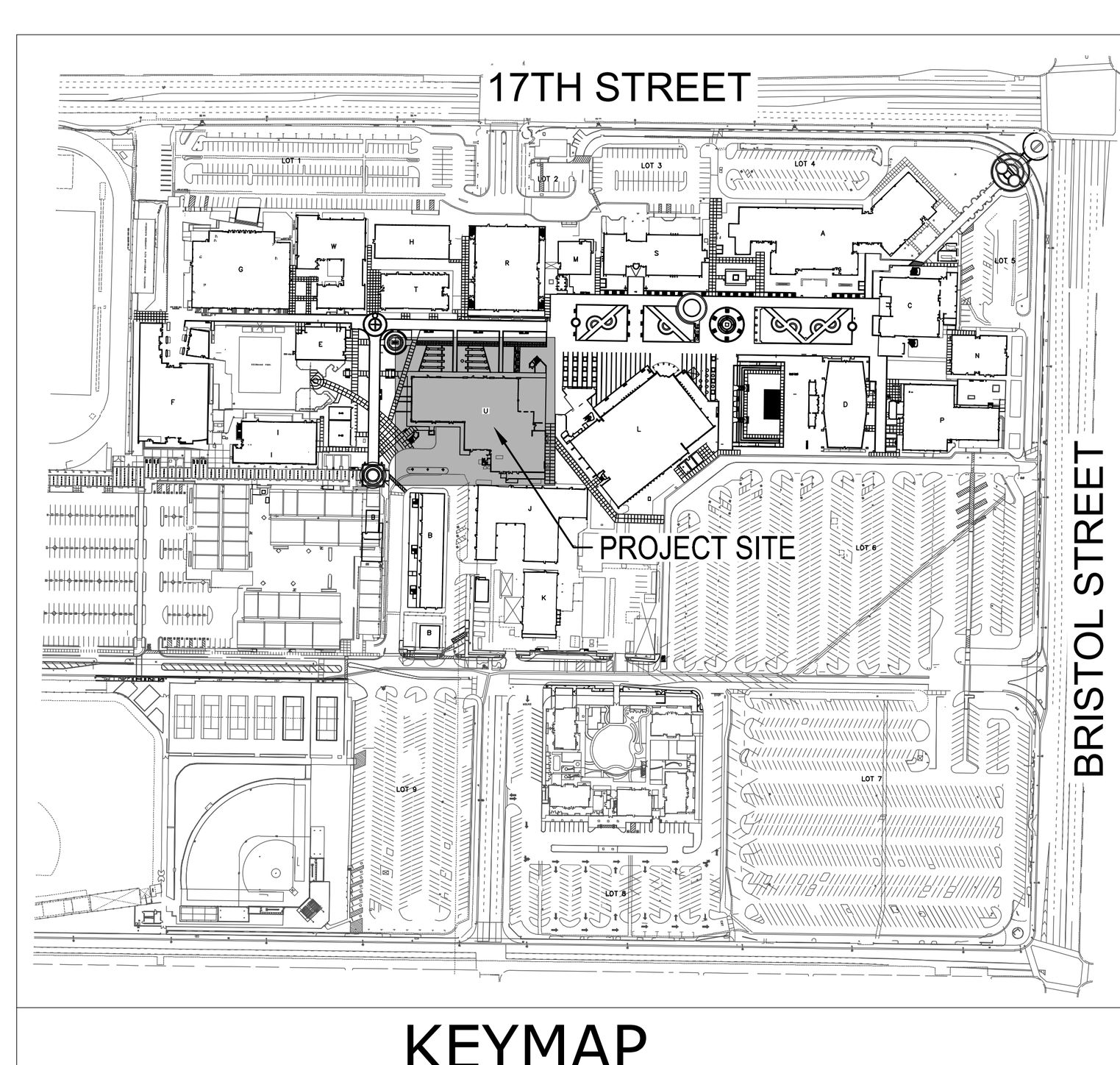
EXISTING SITE AND DEMOLITION PLAN — SCALE 1" = 20'-0" — 1

GRADING NOTES:

1. EXISTING CONCRETE, BASE ROCK, AND REBAR TO BE REMOVED. SEPARATE DEMOLISHED MATERIAL PER LEED GREEN BUILDING RATING SYSTEM WASTE MANAGEMENT. ALL EDGES TO BE SAWCUT WITH A CLEAN EDGE, OR JOINT TO JOINT, PANEL TO PANEL. FOR BID PURPOSES, CONTRACTOR SHALL ASSUME 6" OF CONCRETE OVER 6" OF BASE CONCRETE AT HARDSCAPE.SIDEWALK.
2. ALL WORK SHALL BE IN ACCORDANCE WITH THE 2013 CBC AND THE CITY OF SANTA ANA GRADING ORDINANCE AND ANY SPECIAL REQUIREMENTS.
3. CUT SLOPES SHALL BE NO LONGER THAN 2 HORIZONTAL TO 1 VERTICAL.
4. FILLS SHALL BE COMPACTED THROUGHOUT TO A MINIMUM RELATIVE COMPACTION OF 90%. TESTING SHALL BE IN ACCORDANCE WITH ASTM TEST METHODS D1556, D2937, D2922, AND D3017.
5. AREAS TO RECEIVE FILL SHALL BE PROPERLY PREPARED AND COMPACTED TO 90% RELATIVE DENSITY.
6. ANY EXISTING IRRIGATION LINES SHALL BE REMOVED OR CAPPED AT LIMITS OF DEMOLITION AND BACKFILLED PER DIRECTION OF THE OWNER'S REPRESENTATIVE.
7. ALL TRENCH BACKFILLS SHALL BE TESTED AND CERTIFIED BY THE SITE GEOTECHNICAL ENGINEER PER THE GRADING CODE.
8. THE GEOTECHNICAL ENGINEER AND ENGINEERING GEOLOGIST SHALL PERFORM SUFFICIENT TESTS AND INSPECTIONS AND BE AVAILABLE DURING GRADING AND CONSTRUCTION TO VERIFY COMPLIANCE WITH THE PLANS, POLITICIZATIONS, AND CODE WITHIN THEIR PURVIEW. ENGINEERED FILL SHALL BE TESTED FOR STRUCTURAL CAPACITY.
9. THE PERMITTEE SHALL COMPLY WITH THE GRADING CODE REQUIREMENTS WHEN AN EXCESS OF 5,000 CUBIC YARDS OF EARTH IS MOVED ON PUBLIC ROADWAYS FROM THE SITE OF EARTH GRADING OPERATION.

GENERAL NOTES:

1. PROTECT ALL ITEMS OUTSIDE OF DEMOLITION AREA DURING JOHNSON CENTER BUILDING DEMOLITION AND CONSTRUCTION
2. REMOVE INTERFERING SECTIONS OF LANDSCAPING AS REQUIRED.
3. GRADING OF CLEARED SITE TO BE DETERMINED DURING FINAL SITE IMPORT AFTER LEVELING AND COMPACTION OF ANY EXCAVATIONS. DEMOLITION AREA PERIMETER TO BE GRADED TO JOIN AND MATCH EXISTING ELEVATIONS. REFER TO SHEET C2.00 FOR FINAL GRADING.
4. REFER TO ATTACHED AS-BUILT DRAWINGS FOR FURTHER INFORMATION ON BUILDING FOUNDATION REINFORCEMENTS, PILES, AND FOOTING DEPTHS - REFERENCE ONLY.
5. REMOVE ALL CAMERAS MOUNTED ON EXISTING JOHNSON CENTER BUILDING AND TURN OVER TO DISTRICT.
6. CONTRACTOR WILL KEEP A RECORD OF AS-BUILTS AND PROVIDE AT END OF CERTIFICATION.



KEYMAP

hpi architecture
www.hpiarchitecture.com
architecture | planning | interiors
115 twenty second street, newport beach
california 92663 phone: 949.675.6442

CONSULTANTS

Hall & Foreman
A Division of David Evans and Associates, Inc.
17782 17TH STREET, SUITE 200 • TUSTIN, CA 92780 • 714-665-4500

SEALS / APPROVALS

LICENSED ARCHITECT — NO. C 11360 — STATE OF CALIFORNIA

REGISTERED PROFESSIONAL ENGINEER — No.26229 — Exp.3/31/16 — CIVIL — STATE OF CALIFORNIA

IDENTIFICATION STAMP

PROJECT TITLE

JOHNSON STUDENT CENTER DEMOLITION
1530 West 17th Street, Santa Ana, CA 92706

RANCHO SANTIAGO Community College District
2323 NORTH BROADWAY
SANTA ANA, CA 92706

SUBMITTALS

#	DATE	DESCRIPTION
	12/07/2017	100% CD SUBMITTAL

PROJECT IDENTIFICATION Project Number

THESE DRAWINGS ORIGINALLY CREATED IN AUTODESK REVIT V. 2014

THE ORIGINAL SIZE OF THIS SHEET IS 30" X 42".

DRAWN BY - SR/MO

CHECKED BY - MSO

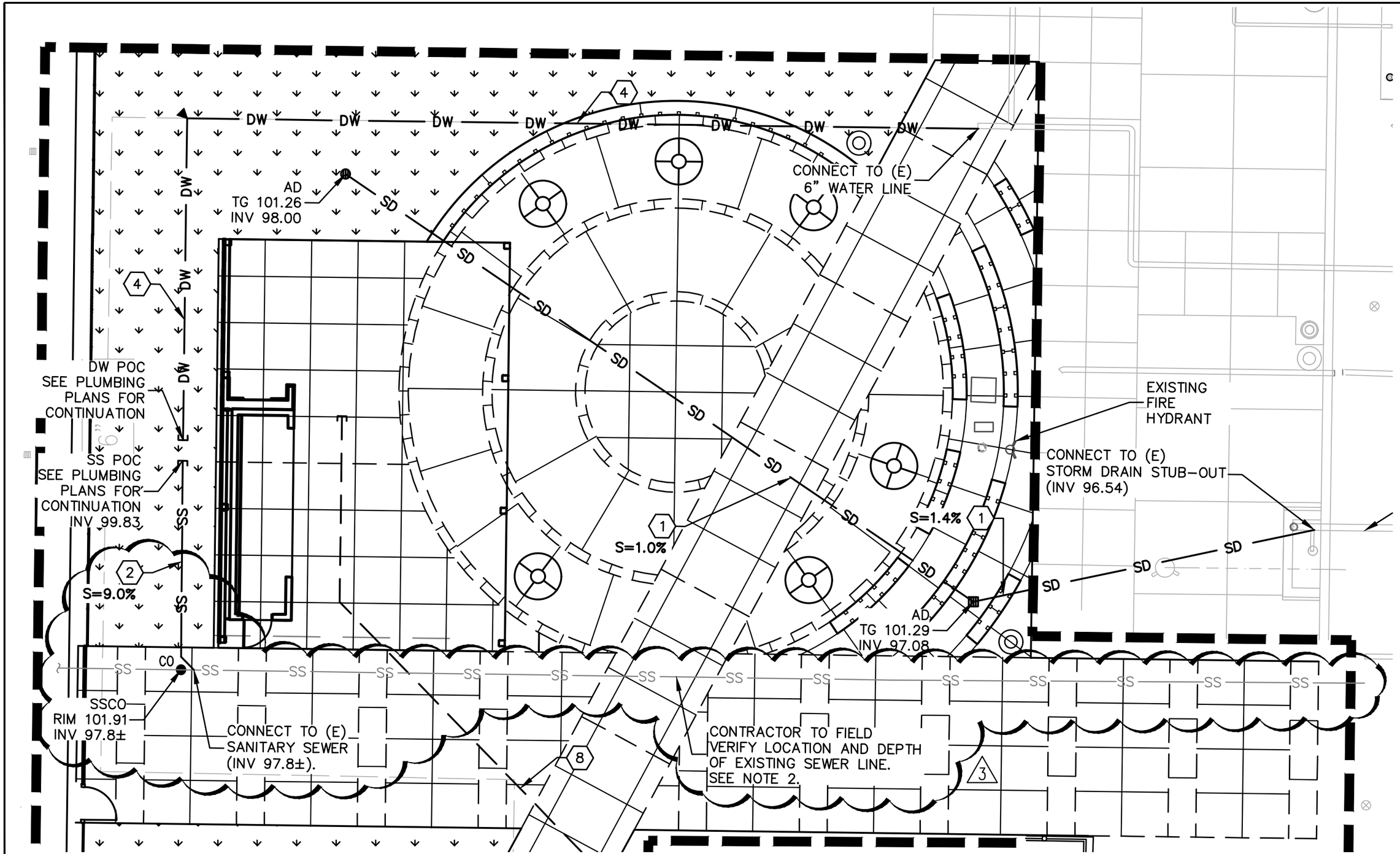
SHEET TITLE

EXISTING SITE AND DEMOLITION PLAN

SHEET NUMBER

C1.00

CONSTRUCTION DOCUMENTS



UTILITY NOTES:

1. CONTRACTOR TO CONTACT USA AT (800) 247-2600 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION, UTILITY REMOVAL AND RELOCATION.
2. SANITARY SEWER LOCATION USED IN PREPARING THIS PLAN WAS PROVIDED BY OTHERS. BKF MAKES NO REPRESENTATION AS TO THE ACCURACY OF THIS PLAN.
3. IN THE EVENT THE INFORMATION SHOWN ON THIS PLAN VARIES FROM THE ACTUAL SITE CONDITIONS, BKF SHALL BE NOTIFIED WITHIN 24 HOURS AFTER DISCOVERY OF THE CONFLICT.

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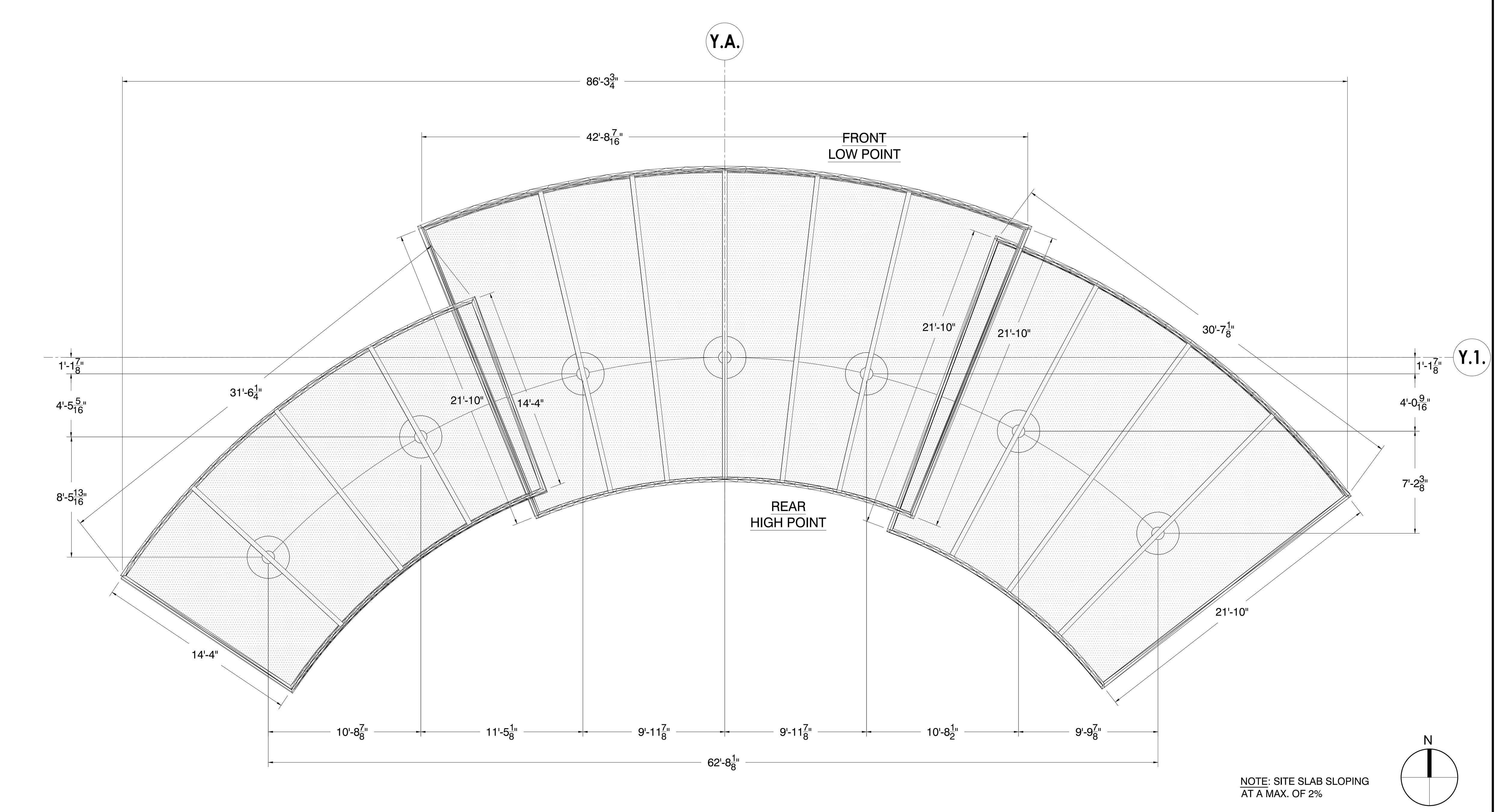
SANTA ANA COLLEGE - JOHNSON CENTER
SKC-3.01
CALIFORNIA
ORANGE COUNTY
SANTA ANA

No.	Revisions
3	ADDENDUM 3

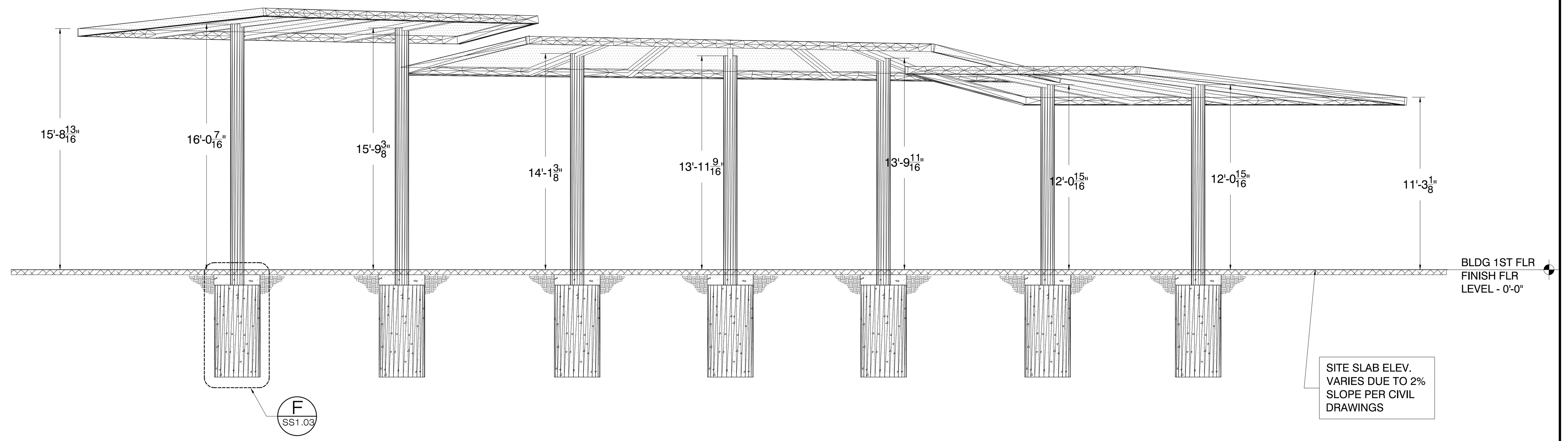
Date 10/24/18
Scale 1"=10'
Design S.S.
Drawn J.P.
Approved ES
Job No 20160332

Sheet Number:
SKC-3.01

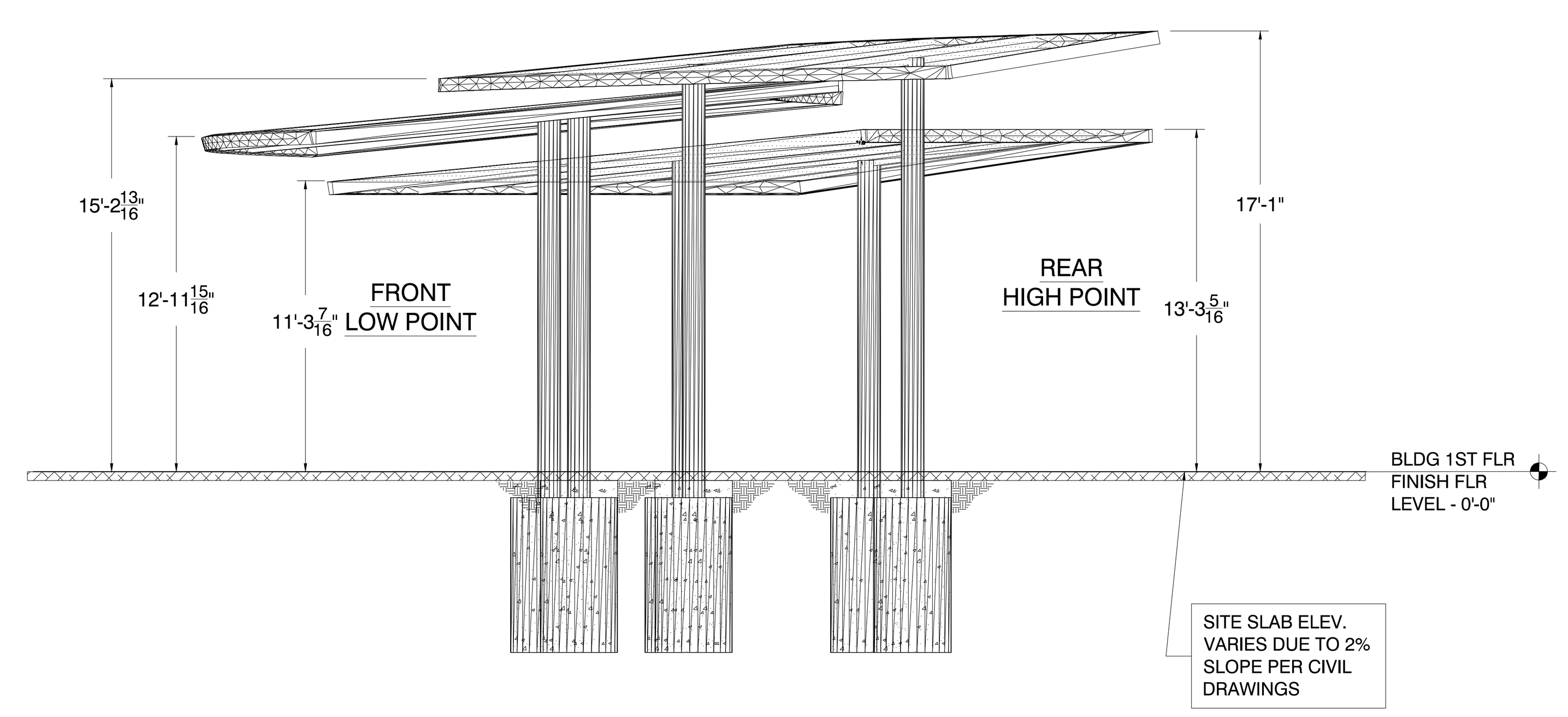
DRAWING NAME: K:\2015\152032_Santa Ana College_Johnson Student Ctr\ENG\EXHIBITS\Civil Addn 3\SKC-3.01 - W Plaza Sewer.dwg
PLOT DATE: 09-18-18
PLOTTED BY: szuc



PLAN VIEW SCALE 3/16" = 1'-0"



REAR ELEVATION SCALE 3/16" = 1'-0"



SIDE ELEVATION SCALE 3/16" = 1'-0"

GENERAL NOTES:

1. COVER/FABRIC:
   FABRIC SHEERFIL II COLOR

Omega Point Laboratories Listed Product ID #8639-9

SHEERFILL® V

SHEERFILL® V Architectural Membrane

SHEERFILL® is the trademark for a family of membranes used in permanent structures. The composite is made of fiberglass and polytetrafluoroethylene (PTFE). SHEERFILL products are available in a range of strengths and light transmission levels, providing the user with a choice of membranes to cover virtually any size structure from a full-sized stadium to a relatively small skylight. All SHEERFILL membranes conform to rigid fire and building codes for permanent buildings.

Typical Properties[1]

Property	Value	Method
Coated Fabric Weight (oz./yd.²)	29 nominal	ASTM D4851-88
Thickness (mils)	22 nominal	ASTM D4851-88
Breaking Strength (lb./in.) (Strain Rate: 2 in./min.) Dry, Warp / Dry, Fill	520 min avg / 590 min avg	ASTM D4851-88
Breaking Strength After Crease Fold (lb./in.) Dry, Warp / Dry, Fill	355 min avg / 380 min avg	ASTM D4851-88
Trapezoidal Tear (lb.) Warp / Fill	35 min avg / 60 min avg	ASTM D4851-88
Solar Transmission (%)	17.5 nominal	ASTM E424
Solar Reflectance (%)	72.5 nominal	ASTM E424
Burning Characteristics Flame Spread / Smoke Generation	0 max / 0 max	ASTM E84 Tunnel Test
Incombustibility of Substrates	Pass	ASTM E136
Fire Resistance of Roof Coverings Burning Brand	Class A	ASTM E108
Flame Resistance	Pass	NFPA 701, Small Scale
Color	White (after exposure to sunlight)	
Reinforcement Construction	Warp ß150 2/2, Fill ß150 2/3-Count W32 x F23	

1- Values listed are for virgin roll goods only. Appropriate industry safety factors need to be used to account for the in-service effects of handling, weathering, etc.

Saint-Gobain Performance Plastics
701 Daniel Webster Highway
P.O. Box 1137
Merrimack, NH 03054
Customer Service: (800) 451-6101
Tel: (603) 424-9000
Fax: (603) 424-9012

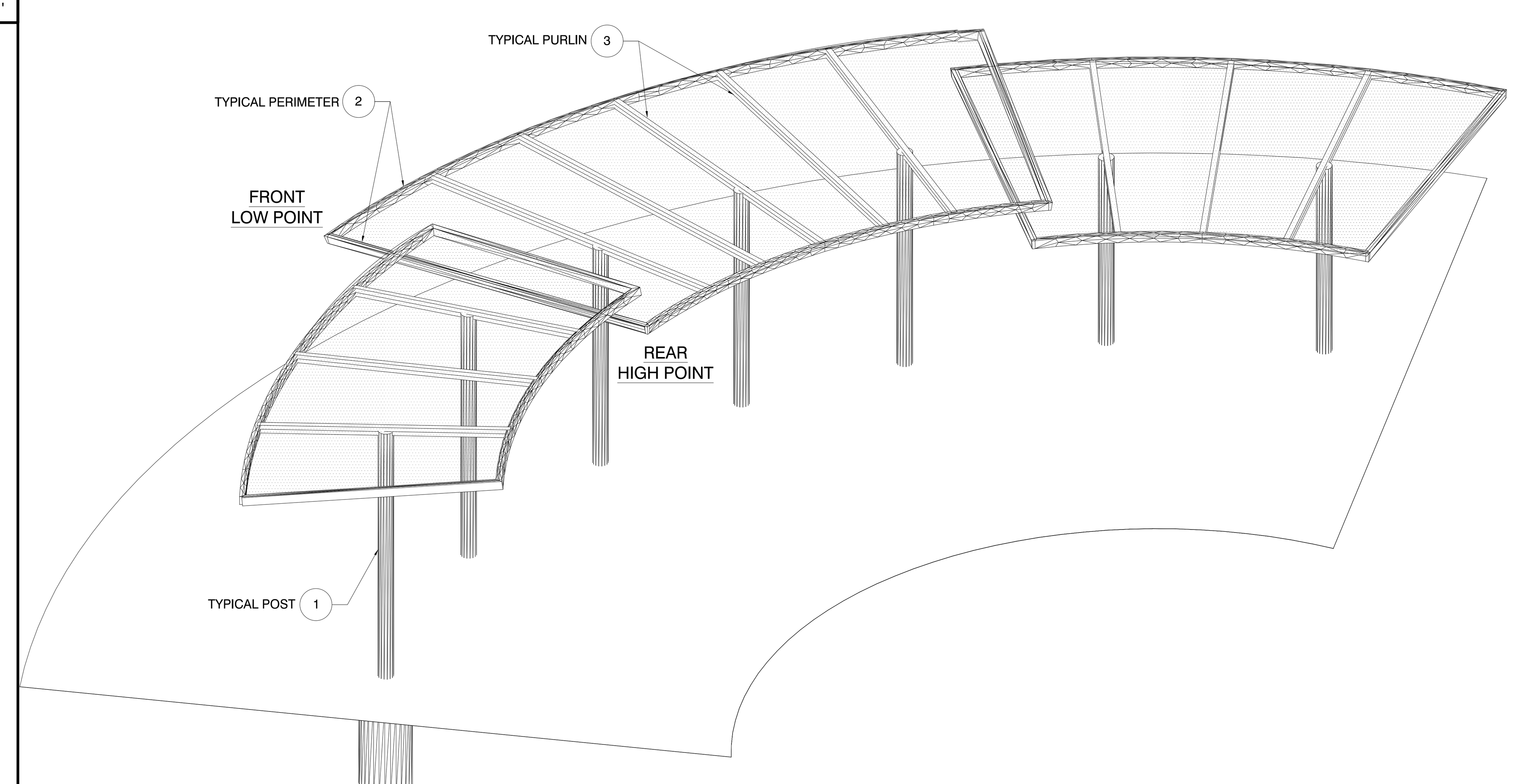
www.sheerfill.com
www.fff.saint-gobain.com

Limited Warranty: For a period of 6 months from the date of first sale, Saint-Gobain Performance Plastics Corporation warrants this product(s) to be free from defects in manufacturing. Our only obligation will be to provide replacement product for any portion proving defective, or at our option, to refund the purchase price thereof. User assumes all other risks, if any, including the risk of injury, loss or damage, whether direct or consequential, arising out of the use, misuse, or inability to use this product(s). SAINT-GOBAIN PERFORMANCE PLASTICS DISCLAIMS ANY AND ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

NOTE: Saint-Gobain Performance Plastics Corporation does not assume any responsibility or liability for any advice furnished by it, or for the performance or results of any installation or use of the product(s) or of any final product into which the product(s) may be incorporated by the purchaser and/or user. The purchaser and/or user should perform its own tests to determine the suitability and fitness of the product(s) for the particular purpose desired in any given situation.

SAINT-GOBAIN PERFORMANCE PLASTICS

F/N	QTY	U/M	Description: Tubing
1	110	Ft.	A500 Grade B HSS 10.750 0.375 (Post)
2	300	Ft.	A500 Grade B HSS 10 x 6 x 0.500 (Perimeter)
3	220	Ft.	A500 Grade B HSS 10 x 6 x 0.500 (Purlin)



PERSPECTIVE VIEW SCALE NTS

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o: 949. 675. 6442

CONSULTANTS

EIDE INDUSTRIES, INC.
16215 PIUMA AVENUE
CERRITOS, CA 90703
PHONE (562) 402-8335
FAX (562) 924-2233
www.eideindustries.com

TENSION Structures.com
Division of Eide Industries, Inc.
039169

SEPT 20, 2018

SEALS / APPROVALS

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
FILE: 30-C2
A# 0 4 - 116810
AC ________ FLS ________ SS ________
DATE ____________________

PROJECT TITLE
JOHNSON STUDENT CENTER
1530 W 17TH ST SANTA ANA CA 92706

RANCHO SANTIAGO Community College District

SUBMITTALS		
#	DATE	DESCRIPTION
	02/15/2018	DSA SUBMITTAL
3	09/24/2018	ADDENDUM 3

PROJECT IDENTIFICATION Project Number
THESE DRAWINGS ORIGINALLY CREATED IN AUTODESK REVIT V. 2016 U.O.N
THE ORIGINAL SIZE OF THIS SHEET IS 30" X 42".

DRAWN BY AD

CHECKED BY

SHEET TITLE
TENSION STRUCTURE CANOPY
PLAN VIEW, FRONT, SIDE & PERSPECTIVE VIEW

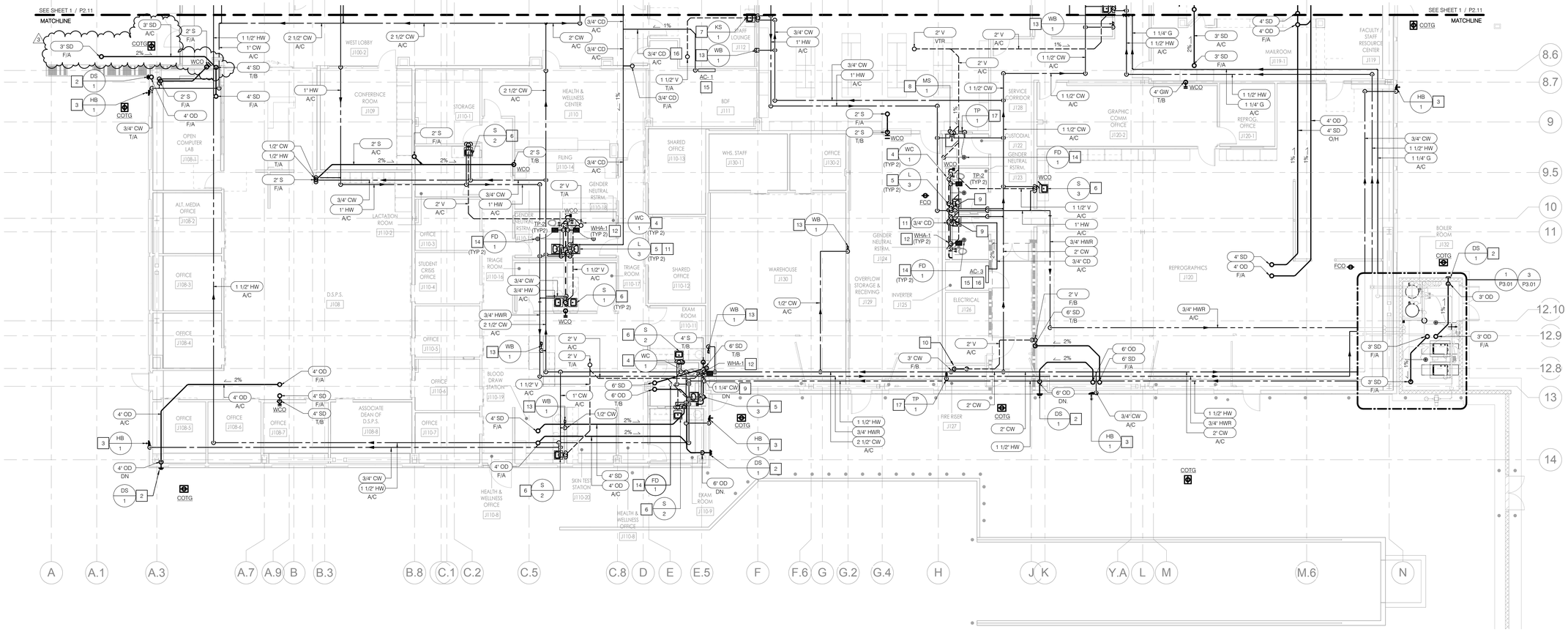
SHEET NUMBER
SS1.02.1

100% CONSTRUCTION DOCUMENTS

9/16/2018 5:10:21 PM C:\Users\Eric Gomez\Documents\7411_R16_MEPFA_Central_Eric Gomez.rvt

NOTES

1. FOR CONTINUATION REFER TO PLUMBING SITE PLAN SHEET P1.01.
2. OVERFLOW DRAIN DISCHARGE TO GRADE. TERMINATE THROUGH WALL WITH DOWNSPOUT NOZZLE (DS-1) @ 18" A.F.F.
3. PROVIDE 3/4" CW DOWN IN WALL WITH FULL-PORT SHUT-OFF VAVLE BEHIND ACCESS PANEL TO SERVE HOSE BIBB (HB-1). REFER TO DETAIL 3/P6.01.
4. PROVIDE 4" S DOWN, 2" V UP, 1-1/2" CW TO SERVE WATER CLOSET (WC-1).
5. PROVIDE 2" S DOWN, 1-1/2" V UP, 1/2" CW & 1/2" HW TO SERVE LAVATORY (L-3).
6. PROVIDE 2" S DOWN, 1-1/2" V UP, 1/2" CW & 1/2" HW TO SERVE SINK (S-1/S-2/S-3).
7. PROVIDE 2" S DOWN, 1-1/2" V UP, 1/2" CW & 1/2" HW TO SERVE KITCHEN SINK (KS-1).
8. PROVIDE 3" S DOWN, 2" V UP, 3/4" CW & 3/4" HW TO SERVE MOP SINK (MS-1). PROVIDE FULL-PORT SHUT-OFF VALVES BEHIND ACCESS PANEL.
9. PROVIDE 1-1/2" CW DOWN IN WALL TO FULL SIZE HEADER AND 1/2" HW DOWN IN WALL TO SERVE LAVATORY (L-3). PROVIDE FULL-PORT SHUT-OFF VALVES BEHIND ACCESS.
10. HUB DRAIN FOR FIRE SPRINKLER SYSTEM DISCHARGE. REFER TO DETAIL 5/P6.02.
11. ROUTE 3/4" CD DOWN IN WALL TO LAVATORY TAILPIECE PIPE CONNECTOR. REFER TO DETAIL 4/P6.03.
12. PROVIDE WATER HAMMER ARRESTOR (WHA-1) BEHIND ACCESS PANEL.
13. PROVIDE 1/2" CW DOWN IN WALL TO SERVE WATER BOX (WB-1). PROVIDE SUPPLY TUBING LINES FROM WATER BOX TO REFRIDGERATOR(S) AND ICE MAKER(S).
14. PROVIDE 2" S DOWN AND 1-1/2" V UP TO SERVE FLOOR DRAIN (FD-1). ROUTE 1/2" TP BELOW FLOOR FROM TRAP PRIMER ASSEMBLY. REFER TO DETAIL 1 & 2 ON P6.01.
15. MECHANICAL EQUIPMENT (NOT IN PLUMBING SCOPE) REFER TO MECHANICAL DRAWINGS FOR UNIT DESCRIPTION AND INFORMATION.
16. ROUTE 3/4"CD FROM CONDENSATE PUMPS OUTLET AND RUN ABOVE CEILING TOWARDS RECEPTOR WITH 1% MIN. SLOPE. CONDENSATE PUMP SHALL BE FURNISHED BY MECHANICAL CONTRACTOR, INSTALLED BY PLUMBING CONTRACTOR AND WIRED BY ELECTRICAL CONTRATOR. AVOID RUNNING OVER ELECTRICAL AND TELECOM ROOMS. REFER TO DETAIL 5/P6.03.
17. PROVIDE 1/2" CW TO SERVE ELECTRONIC TRAP PRIMER (TP-1).



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CONSULTANTS

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SEALS / APPROVALS

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
FILE: 30-C2
A# 04-116810

AC _____ FLS _____ SS _____

DATE _____

PROJECT TITLE

JOHNSON STUDENT CENTER
INCREMENT 2
1530 W 17TH ST SANTA ANA CA 92706

RANCHO SANTIAGO
Community College District

SUBMITTALS		
#	DATE	DESCRIPTION
	05/18/18	HEALTH DEPT. SUBMITTAL
	08/13/18	DSA FINAL SUBMITTAL
3	09/24/18	ADDENDUM 3

PROJECT IDENTIFICATION 7411

THESE DRAWINGS ORIGINALLY CREATED IN AUTODESK REVIT V. 2016

THE ORIGINAL SIZE OF THIS SHEET IS 30" X 42".

DRAWN BY M.Alcantara

CHECKED BY E.Gomez

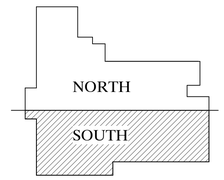
SHEET TITLE

FIRST FLOOR PLAN - SOUTH

SHEET NUMBER

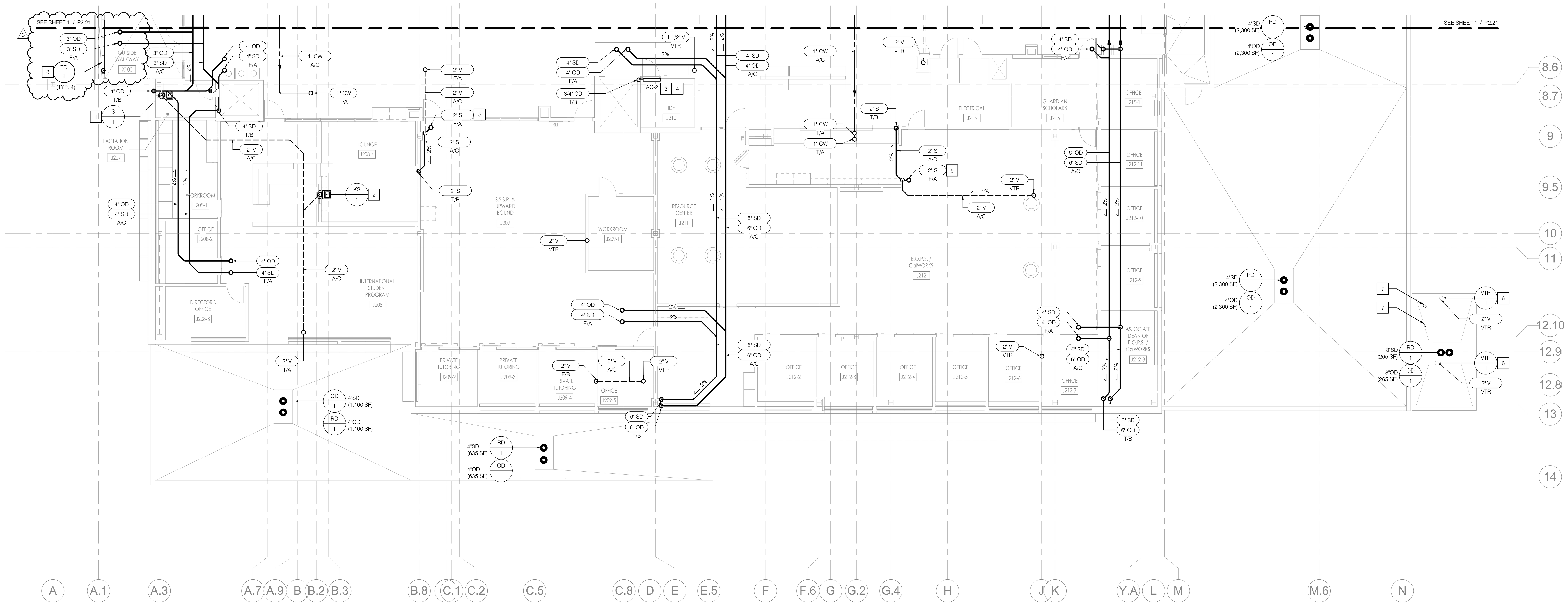
P2.12

100% CONSTRUCTION DOCUMENTS



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

P2S: 7411



GENERAL NOTES

1. FOR ROOF DRAIN/OVERFLOW DRAIN INSTALLATION REFER TO ARCHITECTURAL DETAILS 1/A9.30 & 2/A9.30.
2. FOR VENT PIPE FLASHING AND PIPE FLASHING THROUGH ROOF REFER TO ARCHITECTURAL DETAILS 3/A9.30 & 8/A9.30.
3. ROOF DRAINAGE IS BASED ON 3"/HR RAINFALL RATE.

NOTES

1. PROVIDE 2"S DOWN, 1-1/2"V UP AND 1/2" CW/HW FROM BELOW IN WALL WITH FULL-PORT SHUT-OFF VALVES BEHIND ACCESS PANEL TO SERVE SINK (S-1).
2. PROVIDE 2"S DOWN, 1-1/2"V UP AND 1/2" CW/HW FROM BELOW IN WALL WITH FULL-PORT SHUT-OFF VALVES BEHIND ACCESS PANEL TO SERVE KITCHEN SINK (KS-1).
3. MECHANICAL EQUIPMENT (NOT IN PLUMBING SCOPE) REFER TO MECHANICAL DRAWINGS FOR UNIT DESCRIPTION AND INFORMATION.
4. ROUTE 3/4"CD FROM CONDENSATE PUMPS OUTLET AND RUN ABOVE CEILING TOWARDS RECEPTOR WITH 1% MIN. SLOPE. CONDENSATE PUMP SHALL BE FURNISHED BY MECHANICAL CONTRACTOR, INSTALLED Y PLUMBING CONTRACTOR AND WIRED BY ELECTRICAL CONTRATOR. REFER TO DETAIL 5/P6.03.
5. 2" WASTE FROM ABOVE SERVING ROOF RECEPTOR (RR-1).
6. VENT THROUGH ROOF. REFER TO DETAIL 6/P6.01.
7. INTAKE AND EXHAUST VENT PIPES THRU ROOF. SIZE 3" PVC. PROVIDE CONCENTRIC VENT KIT TERMINATION FITTING BRADFORD MODEL 239-44069-01 FOR A SINGLE ROOF PENETRATION PER DETAIL 2/P6.04.
8. PROVIDE TRENCH DRAIN CHANNELS AT EDGE OF BALCONY. COORDINATE EXACT LENGTH WITH ARCHITECTURAL DRAWING 13/A6.10. REFER TO P2.12 FOR DRAIN OUTLET LOCATIONS FROM DRAIN CHANNELS.

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SEALS / APPROVALS

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
FILE: 30-C2
A# 04-116810
AC ______ FLS ______ SS ______
DATE ______

PROJECT TITLE

JOHNSON STUDENT CENTER

INCREMENT 2

1530 W 17TH ST SANTA ANA CA 92706

RANCHO SANTIAGO Community College District

SUBMITTALS		
#	DATE	DESCRIPTION
	05/18/18	HEALTH DEPT. SUBMITTAL
	08/13/18	DSA FINAL SUBMITTAL
3	09/24/18	ADDENDUM 3

PROJECT IDENTIFICATION 7411

THESE DRAWINGS ORIGINALLY CREATED IN AUTODESK REVIT V. 2016

THE ORIGINAL SIZE OF THIS SHEET IS 30" X 42".

DRAWN BY M Alcantara

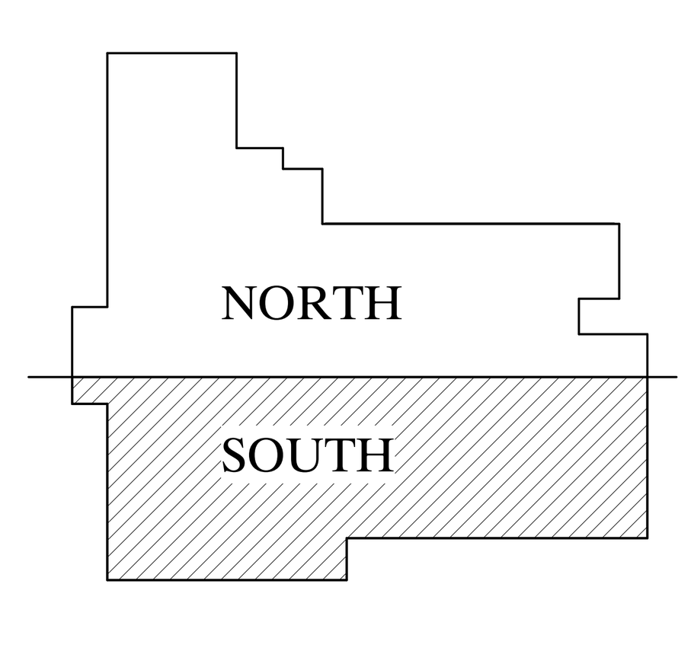
CHECKED BY E Gomez

SHEET TITLE

SECOND FLOOR PLAN - SOUTH

SHEET NUMBER

P2.22



SECOND FLOOR PLAN - SOUTH

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

100% CONSTRUCTION DOCUMENTS

LEGEND

SYMBOL	DESCRIPTION
	NOTE CALLOUT
	DETAIL CALLOUT - NUMBER ON TOP DENOTES DETAIL NUMBER - NUMBER ON BOTTOM DENOTES SHEET DETAIL IS SHOWN
	MECHANICAL EQUIPMENT CALLOUT, SEE MECHANICAL PLANS FOR EXACT LOCATION AND REQUIREMENTS
	LIGHTING FIXTURE CALLOUT, SEE FIXTURE SCHEDULE: - LETTER DENOTES FIXTURE TYPE - NUMBER DENOTES FIXTURE VOLT/AMPS
	SECTION CALLOUT
	FEEDER CALLOUT
	EXISTING FEEDER CALLCOUT
	NEW LINEWORK
	EXISTING LINEWORK
	DEMOLISHED LINEWORK
	CONDUIT CONCEALED IN WALL OR ABOVE CEILING
	CONDUIT EXPOSED
	CONDUIT CONCEALED UNDERGROUND OR BELOW FLOOR
	DENOTES PLUG LOAD CONTROLLED CIRCUIT
B	BUSWAYS
	CONDUIT EMERGENCY
	CONDUIT TURNED UP
	CONDUIT TURNED DOWN
	CONDUIT CAPPED
A-1	BRANCH CIRCUIT HOMERUN TO PANELBOARD AND CIRCUITS AS INDICATED
	3/4" CONDUIT, TICK MARKS INDICATE QUANTITY OF #12 AWG WIRES (UNLESS NOTED OTHERWISE, NO MARKS INDICATES 2#12 & 1#12 GND WIRES) - SMALL MARK DENOTES HOT WIRE - LARGE MARK DENOTES NEUTRAL WIRE - DIAGONAL DENOTES GROUND WIRE
	SWITCH
	CIRCUIT BREAKER
	2-WAY SWITCH
	FUSE
	TRANSFORMER
	GROUND CONNECTION
	MOTOR - SINGLE PHASE FRACTIONAL OR INTEGRAL HORSEPOWER
M	METER
ECM	ELECTRONIC CIRCUIT MONITOR
52	DRAWOUT BREAKER
	DRAWOUT BREAKER 2
	PANEL
	DISCONNECT SWITCH
	FUSED DISCONNECT SWITCH
	NON-FUSED DISCONNECT SWITCH
	COMBINATION STARTER/DISCONNECT SWITCH
	SPLICE
	TERMINATION
	EXISTING TERMINATION
	MODULAR SPLICE
	EXISTING MODULAR SPLICE
	2X4 LED LIGHT FIXTURE
	EMERGENCY 2X4 LED LIGHT FIXTURE
	1X4 LED LIGHT FIXTURE
	EMERGENCY 1X4 LED LIGHT FIXTURE
	LED STRIP LIGHT FIXTURE
	2X2 LED LIGHT FIXTURE
	EMERGENCY 2X2 LED LIGHT FIXTURE
	RECESSED DOWNLIGHT FIXTURE
	EMERGENCY RECESSED DOWNLIGHT FIXTURE
	RECESSED WALLWASH LIGHTING FIXTURE
	WALL MOUNTED LIGHT FIXTURE
	WALL MOUNTED LIGHT FIXTURE
	EXIT LIGHT FIXTURE WITH DIRECTIONAL ARROWS AS INDICATED. SHADED SIDE DENOTES NUMBER OF FACES
	JUNCTION BOX
	SINGLE POLE SWITCH, DEVICE SHALL BE MOUNTED +48" MAX AND +36" MIN FROM THE CENTER OF DEVICE.

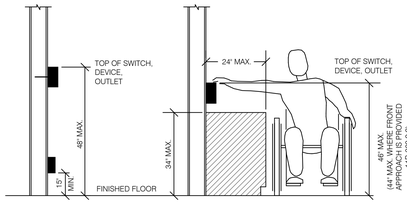
SYMBOL	DESCRIPTION
K^{ab}	20A, 120V TOGGLE SWITCH - WALL MOUNTED 'ab' REPRESENTS CONTROLLED ZONES AT THIS LOCATION. QUANTITY OF BUTTONS ON SWITCHES IS BASED ON PROGRAMMING CONFIGURATION OF THESE ZONES.
K^{3}	20A, 120V/277V 3-WAY TOGGLE SWITCH
K^{M}	30A, 277V MOTOR - RATED TOGGLE SWITCH WITH OVERLOAD HEATERS.
K^{K}	KEYED SWITCH (48" AFF MAXIMUM)
T	MINUTE DIAL - TYPE TIMER SWITCH - WALL MOUNTED. SET TIME ON THE DIAL.
OS	SWITCH WITH OCCUPANCY SENSOR
PS	PHOTOSENSOR - LUTRON #LOS-C SERIES
MS	MOTION SENSOR - CEILING MOUNTED LUTRON #LOS-C
a R R R R	LUTRON QSN-4T16-S 'a' REPRESENTS CONTROLLED ZONES. UP TO FOUR CONTROLLED ZONES. 'R' DENOTES ZONES BEING USED.
EL	LUTRON QSN-4T16-S - (1-4) 'EL' DENOTES SINGLE ZONE
PC PC PC PC	LUTRON QSN-4S20-S WITH FOUR AVAILABLE SWITCHED OUTPUTS. 'PC' DENOTES ZONES/OUTPUTS BEING USED
DT	DIGITAL TIMER SWITCH
TS	TOUCH SCREEN
L ab	LOW VOLTAGE SWITCH - LUTRON PICO SWITCH. 'ab' REPRESENTS CONTROLLED ZONES AT THIS LOCATION. QUANTITY OF BUTTONS ON SWITCHES IS BASED ON PROGRAMMING CONFIGURATION OF THESE ZONES.
	PUSHBUTTON SWITCH
	20A, 125V DUPLEX RECEPTACLE - WALL MOUNTED
U	DUPLEX RECEPTACLE - WALL MOUNTED. PROVIDE 125V, 20A HUBBELL USB20X2W RECEPTACLE WITH USB CHARGERS MINIMUM 1.5A EACH.
	20A, 125V QUAD RECEPTACLE - WALL MOUNTED
GF	20A, 125V GROUND FAULT CIRCUIT INTERRUPTER RECEPTACLE - WALL MOUNTED
	20A, 125V DEDICATED RECEPTACLE - WALL MOUNTED
	20A, 125V DUPLEX SWITCHED RECEPTACLE - WALL MOUNTED
F	20A, 125V DUPLEX SWITCHED RECEPTACLE - SYSTEM FURNITURE
	20A, 125V QUAD SWITCHED RECEPTACLE - WALL MOUNTED
F	20A, 125V QUAD SWITCHED RECEPTACLE - SYSTEM FURNITURE
	20A, 125V SINGLE RECEPTACLE - WALL MOUNTED
	JUNCTION BOX - WALL MOUNTED
	THERMOSTAT WITH A 3/4" CONDUIT TO ACCESSIBLE CEILING SPACE - WALL MOUNTED
	20A, 125V DUPLEX RECEPTACLE - SURFACE MOUNTED
	20A, 125V QUAD RECEPTACLE - SURFACE MOUNTED
	S.O. DROP CORD (SEE DETAIL 6/E6.02) A = NEMA 5-20R, 120V, 20A RECEPTACLE
	20A, 125V GROUND FAULT CIRCUIT INTERRUPTER RECEPTACLE - SURFACE MOUNTED
	20A, 125V DEDICATED RECEPTACLE - SURFACE MOUNTED
	20A, 125V SWITCHED RECEPTACLE - SURFACE MOUNTED
	20A, 125V SINGLE RECEPTACLE - SURFACE MOUNTED
	JUNCTION BOX - SURFACE MOUNTED
	20A, 125V DUPLEX - FLOOR OR CEILING MOUNTED
	20A, 125V QUAD - FLOOR OR CEILING MOUNTED
	20A, 125V GROUND FAULT CIRCUIT INTERRUPTER - FLOOR OR CEILING MOUNTED
	20A, 125V DEDICATED - FLOOR OR CEILING MOUNTED
	20A, 125V SWITCHED RECEPTACLE - FLOOR OR CEILING MOUNTED
	20A, 125V SINGLE RECEPTACLE- FLOOR OR CEILING MOUNTED
	JUNCTION BOX - FLOOR OR CEILING MOUNTED
	FIRE-RATED POKE-THROUGH TYPE DUPLEX RECEPTACLE
	FIRE-RATED POKE-THROUGH TYPE QUAD RECEPTACLE
	MODULAR FURNITURE - BASE POWER WHIP FEED CONNECTION
	MODULAR FURNITURE - POWER POLE FEED CONNECTION
	FLOOR BOX WITH FLEX WHIP CONNECTION TO FURNITURE
	PANELBOARD, 120/208V - RECESSED
	PANELBOARD, 277/480V - RECESSED
	PANELBOARD, 120/208V - SURFACE
	PANELBOARD, 277/480V - SURFACE
	DISTRIBUTION PANEL, 120/208V
	DISTRIBUTION PANEL, 277/480V

ABBREVIATIONS

ABBREVIATION	DESCRIPTION
&	AND
1/C	SINGLE CONDUCTOR
@	AT
A OR AMP	AMPERES
A.C.	ASPHALT CONCRETE
ABV	ABOVE
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISH GRADE
AIC	AMPERE INTERRUPTING CAPACITY
AL	ALUMINUM
APPROX.	APPROXIMATE
ARCH.	ARCHITECT; ARCHITECTURAL
AS	DIS. SWITCH SIZE RATING
ATC	AIR TERMINAL CHAMBER
ATS	AUTOMATIC TRANSFER SWITCH
AUTO	AUTOMATIC
AUX	AUXILIARY
AWG	AMERICAN WIRE GAUGE
B.S.	BARE STRANDED
BAT	BATTERY
BEL	BELOW
BKBD	BACKBOARD
BKR	BREAKER
BLDG	BUILDING
C	CONDUIT
C.O.	CONDUIT ONLY WITH PULL WIRE
CB	CIRCUIT BREAKER
CC	CONSTANT CURRENT
CKT	CIRCUIT
CL	CENTER LINE
CLG.	CEILING
CMU	CONCRETE MASONRY UNIT
COL	COLUMN
CP	COMMUNICATION PROCESSOR
CPT	CONTROL POWER TRANSFORMER
CR	CONTROL RELAY
CSFD	COMBINATION SMOKE FIRE DAMPER
CSU	CALIFORNIA STATE UNIVERSITY
CT	CURRENT TRANSFORMER
CU	COPPER
CW	COLD WATER
DIA	DIAGRAM
DIS	DISCONNECT
DIST.	DISTANCE
DL	DAMP LOCATION LISTING
DM	DIGITAL METER
DP	DISTRIBUTION PANEL
DWG	DRAWING
DWP	DEPARTMENT OF WATER & POWER
EA	EACH
ELEC.	ELECTRICAL
EMH	ELECTRICAL MANHOLE
EMT	ELECTRICAL METALLIC TUBING
EPO	EMERGENCY POWER OFF
EPR	ETHYLENE PROPYLENE RUBBER
EQUIP	EQUIPMENT
EXIST/(E)	EXISTING
EXP	EXPLOSION PROOF
FA	FIRE ALARM
FACP	FIRE ALARM CONTROL PANEL
FATC	FIRE ALARM TERMINAL CABINET
FFE	FINISHED FLOOR ELEVATION
FIN.	FINISH
FIP.	FIELD INTERFACE PANEL
FIXT	FIXTURE
FLA	FULL LOAD AMPS
FLR	FLOOR
FLUOR	FLUORESCENT
FO	FIBER OBTIC
FT	FEET
FTG	FOOTING
GFI	GROUND FAULT INTERRUPTER
GFR	GROUND FAULT RELAY
GG	GREEN GROUND
GND	GROUND
HOA	HAND-OFF-AUTOMATIC
HP	HORSEPOWER
HT	HEIGHT
HTR	HEATER
HV	HIGH VOLTAGE
HZ	HERTZ
IE	INVERT ELEVATION
INCAND	INCADESCENT
ISC	SHORT CIRCUIT CURRENT
JB	JUNCTION BOX
KCMIL	THOUSAND CIRCULAR MILS
KV	KILOVOLT

ABBREVIATION	DESCRIPTION
KVA	KILOVOLT-AMPERES
KW	KILOWATT
LF	LINEAR FEET
LIS	LOAD INTERRUPTER SWITCH
LOC.	LOCATION
LTG	LIGHTING
LV	LOW VOLTAGE
MAX	MAXIMUM
MCA	MINIMUM CIRCUIT AMPS
MCC	MOTOR CONTROL CENTER
MCP	MOTOR CIRCUIT PROTECTOR
MFR	MANUFACTURER
MH	MANHOLE
MI.	MECHANICAL INTERLOCK
MOCP	MAXIMUM OVERCURRENT PROTECTION
MRCT	MULTI-RATIO CURRENT TRANSFORMER
MTD	MOUNTED
MTG	MOUNTING
MTRSHD	MOTORIZED SHADE
MV	MEDIUM VOLTAGE
N	NORTH
NAC	NOTIFICATION APPLIANCE CIRCUIT
NC	NORMALLY CLOSED
NEC	NATIONAL ELECTRICAL CODE
NF	NON-FUSED
NIC	NOT IN CONTRACT
NL	NIGHT LIGHT- 24HRS ON
NO.	NUMBER
OC	ON CENTER
OD	OUTSIDE DIAMETER
OE	OVERHEAD ELECTRICAL
OFC	OIL FUSED CUTOUT
OH	OVER HEAD
OL	OIL LEVER SWITCH
P	POLE
PB	PULL BOX
PC	PHOTOCELL
PCB	POLYCHLORINATED BIPHENYL
PDS	PRESSURE DIFFERENTIAL SWITCH
PF	POWER FACTOR
PH OR Ø	PHASE
PILC	PAPER INSULATED, LEAD COVER
PIV	POST INDICATING VALVE
PL	PLATE
PNL	PANEL
POC	POINT OF CONNECTION
PRI.	PRIMARY
PVC	POLY-VINYL CHLORIDE
PWR	POWER
REC/RECEPT	RECEPTACLE
REQ'D	REQUIRED
RGS	RIGID GALVANIZED STEEL
RM	ROOM
RPBP	REDUCED PRESSURE BACK FLOW PREVENTER
SCE	SOUTHERN CALIFORNIA EDISON
SCRN	SCREEN
SF	SQUARE FEET
SHT	SHEET
SIG.	SIGNAL
SP	SPARE
SPECS	SPECIFICATIONS
ST	STREET
STD	STANDARD
SW	SWITCH
SWBD	SWITCHBOARD
SWGR	SWITCHGEAR
SWST	SWITCHING STATION
T.O.D.	TOP OF DUCTBANK
T.O.M.	TOP OF MANHOLE
TB	TERMINAL BLOCK
TEL./TELE	TELEPHONE
TMH	TELEPHONE MANHOLE
TPS	TWISTED SHIELDED PAIR
TRANSF/XFMR	TRANSFORMER
TS	TAMPER SWITCH
TYP	TYPICAL
UG	UNDERGROUND
UNO	UNLESS NOTED OTHERWISE
V	VOLTS
VA	VOLT-AMPERES
VB	VIBRATION SWITCH
VFD	VARIABLE FREQUENCY DRIVE
W	WATTS
W/	WITH
W/O	WITHOUT
WP	WEATHERPROOF
Z	IMPEDANCE

MOUNTING HEIGHT OVER OBSTRUCTION



GENERAL NOTES

1. ALL WORK SHALL COMPLY WITH THE 2016 EDITION OF THE CALIFORNIA ELECTRICAL CODE AND ALL OTHER APPLICABLE FEDERAL AND STATE. WHERE THE CONSTRUCTION DOCUMENTS INDICATE MORE RESTRICTIVE REQUIREMENTS, THE CONSTRUCTION DOCUMENTS SHALL GOVERN BUT THE CONSTRUCTION DOCUMENTS SHALL NOT BE INTERPRETED AS AUTHORITY TO VIOLATE ANY CODE OR REGULATION.

2. IN THE EVENT OF A CONFLICT OR INCONSISTENCY BETWEEN ITEMS INDICATED ON THE PLANS AND/OR SPECIFICATIONS OR WITH CODE REQUIREMENTS, THE NOTE, SPECIFICATION OR CODE WHICH PRESCRIBES AND ESTABLISHES THE MORE COMPLETE JOB OR THE HIGHER STANDARD SHALL PREVAIL.

3. OMISSIONS FROM THE DRAWINGS OR SPECIFICATIONS OR THE MISDESCRIPTION OF DETAILS OF WORK WHICH ARE MANIFESTLY NECESSARY TO CARRY OUT THE INTENT OF THE DRAWINGS AND SPECIFICATIONS, OR WHICH ARE CUSTOMARILY PERFORMED, SHALL NOT RELIEVE THE CONTRACTOR FROM PERFORMING SUCH OMITTED OR MISDESCRIBED DETAILS OF THE WORK BUT THEY SHALL BE PERFORMED AS IF FULLY AND CORRECTLY SET FORTH AND DESCRIBED IN THE DRAWINGS AND SPECIFICATIONS.

4. THE CONTRACTOR SHALL CHECK ALL DRAWINGS FURNISHED TO HIM IMMEDIATELY UPON THEIR RECEIPT AND SHALL PROMPTLY NOTIFY THE OWNER OF ANY DISCREPANCIES. FIGURES MARKED ON DRAWINGS SHALL IN GENERAL BE FOLLOWED IN PREFERENCE TO SCALE MEASUREMENTS. LARGE SCALE DRAWINGS SHALL IN GENERAL GOVERN SMALL SCALE DRAWINGS. THE CONTRACTOR SHALL COMPARE ALL DRAWINGS AND VERIFY THE FIGURES BEFORE LAYING OUT THE WORK AND WILL BE RESPONSIBLE FOR ANY ERRORS WHICH MIGHT HAVE BEEN AVOIDED THEREBY.

5. ALL MATERIALS AND EQUIPMENT SHALL BE NEW AND SHALL BEAR THE UNDERWRITERS' LABEL (UL) AND SHALL BE INSTALLED IN THE MANNER FOR WHICH THEY ARE DESIGNED AND APPROVED.

6. THE CONTRACTOR SHALL NOT BORE, NOTCH OR IN ANY WAY CUT INTO ANY STRUCTURAL MEMBER WITHOUT WRITTEN APPROVAL FROM THE ARCHITECT OR STRUCTURAL ENGINEER.

7. ALL CONDUIT CONNECTIONS TO MACHINES AND EQUIPMENT SUBJECT TO VIBRATION (INCLUDING TRANSFORMERS) SHALL BE MADE WITH SEALTIGHT FLEX CONDUIT. PROVIDE SUFFICIENT SLACK TO ELIMINATE VIBRATION. ARRANGE CONNECTIONS TO PREVENT THE ENTRANCE OF MOISTURE. PROVIDE CONTINUOUS GROUND WIRE THROUGH ALL FLEX TO ASSURE GROUND CONTINUITY.

8. FOR PURPOSES OF CLEARNESS AND LEGIBILITY, THE ELECTRICAL DRAWINGS ARE ESSENTIALLY DIAGRAMMATIC. THE SIZE AND LOCATION OF EQUIPMENT IS SHOWN TO SCALE WHEREVER POSSIBLE. THE CONTRACTOR SHALL VERIFY ALL CONDITIONS, DATA INFORMATION AS INDICATED ON THE DRAWINGS AND IN THE SPECIFICATION SECTIONS WHERE ELECTRICAL WORK INTERFACES WITH OTHER TRADES.

9. ELECTRICAL CONTRACTOR SHALL COMPLY WITH THE CALIFORNIA STATE ACCESSIBILITY LAWS WITH REGARD TO THE FOLLOWING:

   A.MOUNTING HEIGHT OF RECEPTACLES - NO OUTLET SHALL BE MOUNTED ON A WALL AT LESS THAN 15" AFF MINIMUM TO THE BOTTOM OF THE OUTLET BOX TO 48" MAXIMUM TO THE TOP OF THE OUTLET BOX.

   B. MOUNTING HEIGHT OF SWITCHES AND THERMOSTTS - DEVICES SHALL BE MOUNTED AT NO HIGHER THAN 48" AFF TO THE TOP OF THE OUTLET BOX OR DEVICE, BUT NOT LESS THAN 36" AFF.

10. THE CONTRACTOR SHALL MAINTAIN AS-BUILT DRAWINGS TO REFLECT ALL CHANGES MADE DURING CONSTRUCTION AND ANY DEVIATIONS FROM THE ELECTRICAL DRAWINGS. THIS INCLUDES DEVIATIONS FROM CIRCUIT NUMBERS AND ANY ADDITION, DELETION OR RELOCATION OF OUTLETS SHOWN ON WORKING DRAWINGS.

11. OUTLET BOXES ON OPPOSITE SIDES OF FIRE RATED WALLS SHALL BE SEPARATED BY A HORIZONTAL DISTANCE OF NOT LESS THAN 24 INCHES.

12. ALL RECEPTACLES INSTALLED IN A WET LOCATION SHALL BE WITHIN AN ENCLOSURE THAT'S WEATHERPROOF EVEN WHEN AN ATTACHMENT PLUG IS INSERTED.

13. 2016 CBC MECHANICAL, ELECTRICAL AND PLUMBING EQUIPMENT ANCHORAGE NOTES:

   ALL MECHANICAL, PLUMBING, AND ELECTRICAL COMPONENTS SHALL BE ANCHORED AND INSTALLED PER THE DETAILS ON THE DSA APPROVED CONSTRUCTION DOCUMENTS. WHERE NO DETAIL IS INDICATED, THE FOLLOWING COMPONENTS SHALL BE ANCHORED OR BRACED TO MEET THE FORCES AND DISPLACEMENT REQUIREMENTS PRESCRIBED IN THE 2016 CBC, SECTIONS 1616A.1.18 THRU 1616A.1.26 AND ASCE 7-05 CHAPTER 13, 26 & 30.

   A. ALL PERMANENT EQUIPMENT AND COMPONENTS.

   B. TEMPORARY OR MOVABLE EQUIPMENT THAT IS PERMANENTLY ATTACHED (E.G. HARD WIRED) TO THE BUILDING UTILITY SERVICES SUCH AS ELECTRICITY, GAS OR WATER.

   C. MOVABLE EQUIPMENT WHICH IS STATIONED IN ONE PLACE FOR MORE THAN 8 HOURS AND HEAVIER THAN 400 POUNDS ARE REQUIRED TO BE ANCHORED WITH TEMPORARY ATTACHMENTS.

   THE ATTACHMENT OF THE FOLLOWING MECHANICAL AND ELECTRICAL COMPONENTS SHALL BE POSITIVELY ATTACHED TO THE STRUCTURE, BUT NEED NOT BE DETAILED ON THE PLANS. THESE COMPONENTS SHALL HAVE FLEXIBLE CONNECTIONS PROVIDED BETWEEN THE COMPONENT AND ASSOCIATED DUCTWORK, PIPING, AND CONDUIT:

   A. COMPONENTS WEIGHING LESS THAN 400 POUNDS AND HAVE A CENTER OF MASS LOCATED 4 FEET OR LESS ABOVE THE ADJACENT FLOOR OR ROOF LEVEL THAT DIRECTLY SUPPORT THE COMPONENT.

   B. COMPONENTS WEIGHING LESS THAN 20 POUNDS, OR IN THE CASE OF DISTRIBUTED SYSTEMS, LESS THAN 5 POUNDS PER FOOT, WHICH ARE SUSPENDED FROM A ROOF OR FLOOR OR HUNG FROM A WALL.

   FOR THOSE ELEMENTS THAT DO NOT REQUIRE DETAILS ON THE APPROVED DRAWINGS, THE INSTALLATION SHALL BE SUBJECT TO THE APPROVAL OF THE STRUCTURAL ENGINEER OF RECORD AND THE DSA DISTRICT STRUCTURAL ENGINEER. THE PROJECT INSPECTOR WILL VERIFY THAT ALL COMPONENTS AND EQUIPMENT HAVE BEEN ANCHORED IN ACCORDANCE WITH ABOVE REQUIREMENTS.

14. PIPING, DUCTWORK, AND ELECTRICAL DISTRIBUTION SYSTEM BRACING NOTES:
    PIPING, DUCTWORK, AND ELECTRICAL DISTRIBUTION SYSTEMS SHALL BE BRACED TO COMPLY WITH THE FORCES AND DISPLACEMENTS PRESCRIBED IN ASCE 7-10 SECTION 13.3 AS DEFINED IN ASCE 7-05 SECTION 13.6.8, 13.6.7, 13.6.5.6, AND 2016 CBC, SECTIONS 1616A.1.23, 1.24, 1.25, 1.26.

    THE BRACING AND ATTACHMENTS TO THE STRUCTURE SHALL BE DETAILED ON THE APPROVED DRAWINGS OR THEY SHALL COMPLY WITH ONE OF THE OSHPD PRE-APPROVALS (OPA #) AS MODIFIED TO SATISFY ANCHORAGE REQUIREMENTS OF ACI 318, CHAPTER 17.

    COPIES OF THE MANUAL SHALL BE AVAILABLE ON THE JOBSITE PRIOR TO THE START OF HANGING AND BRACING OF THE PIPE, DUCTWORK, AND ELECTRICAL DISTRIBUTION SYSTEMS.

    THE STRUCTURAL ENGINEER OF RECORD SHALL VERIFY THE ADEQUACY OF THE STRUCTURE TO SUPPORT THE HANGER AND BRACE LOADS.

15. THE CONTRACTOR SHALL INSTALL ALL CONDUITS AND WIRES WITH A MINIMUM NUMBER OF BENDS AND IN SUCH A MANNER AS TO CONFORM TO THE STRUCTURE. AVOID OBSTRUCTIONS, PRESERVE HEAD ROOM, KEEP OPENINGS AND PASSAGEWAYS CLEAR AND MEET ALL STRUCTURAL CODE REQUIREMENTS.

16. THE CONTRACTOR SHALL PROVIDE SUPPORT FOR ALL FIXTURES AND ELECTRICAL EQUIPMENT TO COMPLY WITH THE SEISMIC REQUIREMENTS OF THE UNIFORM BUILDING CODE AND ALL LOCAL ORDINANCES.

17. PROVIDE TYPEWRITTEN DIRECTORY CARD IN ALL PANELS, IDENTIFY LOAD SERVED BY EACH CIRCUIT BREAKER.

18. ALL EXPOSED CONDUITS SHALL BE RIGID GALVANIZED STEEL (RGS) UON.

SHEET INDEX

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SIGNED: 09/06/18

SEALS / APPROVALS

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
FILE: 30-C2
A# 0 4 - 1 1 6 8 1 0
AC _____ FLS _____ SS _____
DATE _____

PROJECT TITLE
JOHNSON STUDENT CENTER
INCREMENT 2
1530 W 17TH ST SANTA ANA CA 92706

RANCHO SANTIAGO
Community College District

SUBMITTALS		
#	DATE	DESCRIPTION
	05/18/18	HEALTH DEPT. SUBMITTAL
	08/13/18	DSA FINAL SUBMITTAL
	09/24/18	ADDENDUM #3

PROJECT IDENTIFICATION 7411

THESE DRAWINGS ORIGINALLY CREATED IN AUTODESK REVIT V. 2016

THE ORIGINAL SIZE OF THIS SHEET IS 30" X 42".

DRAWN BY C Naranjo

CHECKED BY C.S Musser

SHEET TITLE
GENERAL NOTES, LEGEND, ABBREVIATIONS AND SHEET INDEX

SHEET NUMBER
E0.01

100% CONSTRUCTION DOCUMENTS

LIGHTING CONTROL SCHEDULE - LEVEL 01 EMERGENCY

DEVICE ID	SWITCH ID	NOTES	DEVICE	ROOM	ROOM NAME	OCC SENSOR	DAYLIGHTING ZONE	SWITCHING TYPE	PANEL	CIRCUIT
1	a		EL	J101	THE SPOT	Y	Y	DIMMING	INV1	1
2	h		EL	J101	THE SPOT	Y	N	DIMMING	INV1	1
3	g		EL	J101	THE SPOT	Y	Y	DIMMING	INV1	1
4	a		EL	J101	THE SPOT	Y	N	DIMMING	INV1	1
5	c		EL	J102	OFFICE OF STUDENT LIFE	Y	N	DIMMING	INV1	1
6	a		EL	J102-3	WORKROOM	Y	N	DIMMING	INV1	1
7	a		EL	J103	ASSOCIATED STUDENT GOVERNMENT	Y	N	DIMMING	INV1	1
8	d	1	EL	J107	WOMEN'S RESTROOM	Y	N	DIMMING	INV1	1
9	c	1	EL	J106	MEN'S RESTROOM	Y	N	DIMMING	INV1	1
10	d		EL	J103	ASSOCIATED STUDENT GOVERNMENT	Y	N	DIMMING	INV1	1
11	c	5	EL	J100-2	WEST LOBBY	Y	Y	DIMMING	INV1	1
12	a	5	EL	J100-2	WEST LOBBY	Y	N	DIMMING	INV1	1
13	a	5	EL	J110	HEALTH & WELLNESS CENTER	Y	N	DIMMING	INV1	2
14	a		EL	J108	D.S.P.S.	Y	N	DIMMING	INV1	2
15	a		EL	J108	D.S.P.S.	Y	N	DIMMING	INV1	2
16	a		EL	J110-1	HEALTH & WELLNESS CENTER	Y	N	DIMMING	INV1	2
17	c	3	EL			Y	N	ON/OFF	INV1	1
18	a		EL	J129	OVERFLOW STORAGE & RECEIVING	Y	N	DIMMING	INV1	2
19	d		EL	J128	SERVICE CORRIDOR	Y	N	DIMMING	INV1	2
20	a		EL	J120	REPROGRAPHICS	Y	N	DIMMING	INV1	2
20	a		EL			Y	N	DIMMING	INV1	7
21	b		EL	J120	REPROGRAPHICS	Y	N	DIMMING	INV1	2
22	d		EL	J120-2	GRAPHIC COMM OFFICE	Y	N	DIMMING	INV1	2
23	d	2	EL	J119	FACULTY / STAFF RESOURCE CENTER	Y	Y	DIMMING	INV1	2
24	c	2	EL	J119-1	MAILROOM	Y	N	DIMMING	INV1	2
26	h		EL	J117	CAMPUS STORE	Y	N	DIMMING	INV1	1
27	j		EL	J117	CAMPUS STORE	Y	N	DIMMING	INV1	1
28	b		EL	J117	CAMPUS STORE	Y	Y	DIMMING	INV1	1
29	b		EL	J118	COFFEE/JUICE BAR	Y	Y	DIMMING	INV1	1
30	a		EL			Y	Y	DIMMING	INV1	1
31	g		EL	J118-2	DRY STORAGE	Y	N	DIMMING	INV1	1
32	a	2	EL	J117	STORE OFFICES	Y	N	DIMMING	INV1	1
33	b		EL	J116	GRAB-N-GO	Y	Y	DIMMING	INV1	1
34	b	5	EL	J100-1	NORTH LOBBY	Y	N	DIMMING	INV1	1
35	a	5	EL	J100-1	NORTH LOBBY	Y	N	DIMMING	INV1	1
36	a	5	EL	J100-1	NORTH LOBBY	Y	Y	DIMMING	INV1	1
37	a	5	EL	J100-1	NORTH LOBBY	Y	N	DIMMING	INV1	1
38	g		EL	J101-2	TEXTBOOK AREA	Y	N	DIMMING	INV1	1
39	b		EL	J130	WAREHOUSE	Y	N	DIMMING	INV1	2
40	a		EL	ELEV. 2	ELEVATOR 2	Y	N	ON/OFF	INV1	1
41	a		EL			Y	N	DIMMING	INV1	1

GENERAL NOTE:

1. VERIFY TIME CLOCK SCHEDULE WITH CLIENT PRIOR TO PROGRAMMING.

2. CONTROLLED ZONES WITHIN ROOMS DO NOT DETERMINE BUTTONS ON SWITCHES. NUMBER OF BUTTONS ARE DETERMINED BY PROGRAMMING CONFIGURATION OF THESE ZONES.

3. PROVIDE ENERGI SAVR NODES QSN-2T16-S FOR CONTROL OF EMERGENCY LIGHTS. COMBINE (4) 'EL' DEVICES SHOWN ON PLAN TO (1) QSN-2T16-S DEVICE. PROVIDE LUT-ELI FOR EMERGENCY LIGHTING INTERPHASE. INSTALL PER MANUFACTURER REQUIREMENTS. REFER TO DETAIL 1/E605.

NOTES:

1. LIGHTS SHALL TURN ON AUTOMATICALLY WHEN OCCUPANT IS DETECTED. OCCUPANCY SENSOR SHALL TURN LIGHTS OFF 15 MINUTES AFTER NOT DETECTING AN OCCUPANT.

2. LIGHTS SHALL BE TURNED ON MANUALLY, OCCUPANCY SENSOR SHALL TURN LIGHTS OFF 15 MINUTES AFTER NOT DETECTING AN OCCUPANT.

3. LIGHTS SHALL BE TURNED ON AND OFF MANUALLY.

4. SITE LIGHTING SHALL BE CONTROLLED VIA PHOTOCELL. FIXTURES OVER 30W, AND FIXTURES MOUNTED 24 FEET OR LESS ABOVE GROUND SHALL BE EQUIPED WITH MOTION SENSING.

5. FIXTURES IN LOBBY AND CORRIDORS SHALL BE CONTROLLED VIA TIME CLOCK. LIGHTS SHALL BE ON MONDAY-FRIDAY 7AM-5PM. AFTER 5PM LIGHTS SHALL TURN ON AUTOMATICALLY WHEN OCCUPANT IS DETECTED. OCCUPANCY SENSOR SHALL TURN LIGHTS OFF 15 MINUTES AFTER NOT DETECTING AN OCCUPANT.

6. EXTERIOR FIXTURES MOUNTED ON BUILDING SHALL BE CONTROLLED VIA TIME CLOCK. LIGHTS SHALL TURN ON AT 6PM, TURN OFF AT 7AM ALL DAYS OF THE WEEK.

7. PROVIDE TOUCHPAD TO ALLOW FOR MULTIPLE SCENES. FINAL PROGRAMMING SHALL BE DETERMINED BY OWNER.

8. DIMMING RELAYS FOR EXTERIOR SITE LIGHTING SHALL BE LOCATED IN FIRST FLOOR ELECTRICAL ROOM J129.

LIGHTING CONTROL FOOTCANDLE AVERAGE

SPACE DESCRIPTION	AVERAGE FOOT CANDLE LEVEL (TASK TUNING)	REMARKS
CLASSROOMS	30fc	SEE NOTE 1
CONFERENCE ROOMS	35fc	SEE NOTE 1
BREAK AREAS	25fc	SEE NOTE 1
LABS	50fc	SEE NOTE 1
OPEN OFFICES	35fc	SEE NOTE 1
PRIVATE OFFICES	35fc	SEE NOTE 1
SERVER ROOMS	35fc	SEE NOTE 2
CORRIDOR & VESTIBULE	15fc	SEE NOTE 1
UTILITY & RESTROOMS	25fc	SEE NOTE 2

GENERAL NOTES:
1. AT WORK PLANE.
2. AT FLOOR LEVEL.

LIGHTING CONTROL SCHEDULE - LEVEL 01

DEVICE ID	SWITCH ID	NOTES	ROOM	ROOM NAME	OCC SENSOR	DAYLIGHTING ZONE	SWITCHING TYPE	PANEL	CIRCUIT
1-QSN	c		J101	THE SPOT	Y	Y	DIMMING	4L1	1
1-QSN	a		J101	THE SPOT	Y	Y	DIMMING	4L1	1
1-QSN	e		J101	THE SPOT	Y	Y	DIMMING	4L1	1
1-QSN	b		J101	THE SPOT	Y	Y	DIMMING	4L1	1
2-QSN	g		J101	THE SPOT	Y	Y	DIMMING	4L1	1
2-QSN	f		J101	THE SPOT	Y	N	DIMMING	4L1	1
2-QSN	h		J101	THE SPOT	Y	N	DIMMING	4L1	1
2-QSN	d		J101	THE SPOT	Y	N	DIMMING		
3-QSN	c	2	J103	ASSOCIATED STUDENT GOVERNMENT	Y	N	DIMMING	4L1	1
3-QSN	b	2	J103	ASSOCIATED STUDENT GOVERNMENT	Y	N	DIMMING	4L1	1
3-QSN	a	2	J103	ASSOCIATED STUDENT GOVERNMENT	Y	N	DIMMING	4L1	1
3-QSN	d	1	J103	ASSOCIATED STUDENT GOVERNMENT	Y	N	DIMMING	4L1	1
4-QSN	c	2	J102	OFFICE OF STUDENT LIFE	Y	N	DIMMING	4L1	1
4-QSN	a		J102	OFFICE OF STUDENT LIFE	Y	N	DIMMING	4L1	1
4-QSN	b		J102	OFFICE OF STUDENT LIFE	Y	N	DIMMING	4L1	1
4-QSN	d	2	J102	OFFICE OF STUDENT LIFE	Y	N	DIMMING	4L1	1
5-QSN	d	2	J103	ASSOCIATED STUDENT GOVERNMENT	Y	N	DIMMING	4L1	1
5-QSN	a	1	J103	ASSOCIATED STUDENT GOVERNMENT	Y	N	DIMMING	4L1	1
5-QSN	b	1	J103	ASSOCIATED STUDENT GOVERNMENT	Y	N	DIMMING	4L1	1
5-QSN	c	1	J103	ASSOCIATED STUDENT GOVERNMENT	Y	N	DIMMING	4L1	1
6-QSN	a	2	J104	CONFERENCE ROOM	Y	N	DIMMING	4L1	1
6-QSN	b	2	J104	CONFERENCE ROOM	Y	N	DIMMING	4L1	1
6-QSN	d	2	J104	CONFERENCE ROOM	Y	N	DIMMING	4L1	1
7-QSN	b	5	J100-1	NORTH LOBBY	Y	N	DIMMING	4L1	1
7-QSN	a	5	J100-1	NORTH LOBBY	Y	N	DIMMING	4L1	1
7-QSN	c	5	J100-1	NORTH LOBBY	Y	N	DIMMING		
8-QSN	a		J116	GRAB-N-GO	Y	Y	DIMMING	4L1	3
8-QSN	b		J116	GRAB-N-GO	Y	Y	DIMMING	4L1	3
8-QSN	b		J116	GRAB-N-GO	Y	N	DIMMING	4L1	3
8-QSN	c		J116	GRAB-N-GO	Y	N	DIMMING	4L1	3
9-QSN	a	2	J117	STORE OFFICES	Y	N	DIMMING	4L1	3
9-QSN	d	2	J117	STORE OFFICES	Y	N	DIMMING	4L1	3
9-QSN	c	1	J117	STORE OFFICES	Y	N	DIMMING	4L1	3
9-QSN	b	1	J117	STORE OFFICES	Y	N	DIMMING	4L1	3
10-QSN	b		J117	CAMPUS STORE	Y	Y	DIMMING	4L1	3
10-QSN	c		J117	CAMPUS STORE	Y	N	DIMMING	4L1	3
10-QSN	a		J117	CAMPUS STORE	Y	Y	DIMMING	4L1	3
11-QSN	d		J117	CAMPUS STORE	Y	Y	DIMMING	4L1	3
11-QSN	f		J117	CAMPUS STORE	Y	N	DIMMING	4L1	3
11-QSN	e		J117	CAMPUS STORE	Y	Y	DIMMING	4L1	3
12-QSN	b	2	J117	CAMPUS STORE	Y	N	DIMMING	4L1	3
12-QSN	c	3	J117	CAMPUS STORE	Y	N	ON/OFF	4L1	3
12-QSN	g		J117	CAMPUS STORE	Y	N	DIMMING	4L1	3
12-QSN	a		J117	CAMPUS STORE	Y	N	DIMMING	4L1	3
13-QSN	j		J117	CAMPUS STORE	Y	N	DIMMING	4L1	3
13-QSN	f		J117	CAMPUS STORE	Y	N	DIMMING	4L1	3
13-QSN	e		J117	CAMPUS STORE	Y	N	DIMMING	4L1	3
13-QSN	h		J117	CAMPUS STORE	Y	N	DIMMING	4L1	3
14-QSN	a	2	J118	COFFEE/JUICE BAR	Y	N	DIMMING	4L1	3
14-QSN	f		J118	COFFEE/JUICE BAR	Y	N	DIMMING	4L1	3
14-QSN	b		J118	COFFEE/JUICE BAR	Y	N	DIMMING	4L1	3
14-QSN	e		J118	COFFEE/JUICE BAR	Y	N	DIMMING	4L1	3
15-QSN	c		J118	COFFEE/JUICE BAR	Y	Y	DIMMING	4L1	3
15-QSN	b		J118	COFFEE/JUICE BAR	Y	Y	DIMMING	4L1	3
15-QSN	a		J118	COFFEE/JUICE BAR	Y	Y	DIMMING	4L1	3
16-QSN	c	2	J128	SERVICE CORRIDOR	Y	N	DIMMING	4L1	7
16-QSN	d	2	J128	SERVICE CORRIDOR	Y	Y	DIMMING	4L1	7
16-QSN	b	2	J128	SERVICE CORRIDOR	Y	N	DIMMING	4L1	7
16-QSN	a	2	J128	SERVICE CORRIDOR	Y	N	DIMMING	4L1	7
17-QSN	a	5	J100-2	WEST LOBBY	Y	N	DIMMING	4L1	1
17-QSN	b	5	J100-2	WEST LOBBY	Y	N	DIMMING	4L1	1
17-QSN	c	5	J100-2	WEST LOBBY	Y	Y	DIMMING	4L1	1
17-QSN	a	5	J100-2	WEST LOBBY	Y	N	DIMMING	4L1	1
17-QSN	c	5	J100-2	WEST LOBBY	Y	Y	DIMMING	4L1	1
17-QSN	d	5	J100-2	WEST LOBBY	Y	N	DIMMING	4L1	1
18-QSN	a	2	J108-1	OPEN COMPUTER LAB	Y	Y	DIMMING	4L1	5
18-QSN	d	2	J108-1	OPEN COMPUTER LAB	Y	N	DIMMING	4L1	5
18-QSN	c	2	J108-1	OPEN COMPUTER LAB	Y	N	DIMMING	4L1	5
18-QSN	b	2			Y	N	DIMMING	4L1	5
19-QSN	a	2	J108	D.S.P.S.	Y	N	DIMMING	4L1	5
19-QSN	b	2	J108	D.S.P.S.	Y	N	DIMMING	4L1	5
19-QSN	c	2	J108	D.S.P.S.	Y	N	DIMMING	4L1	5
19-QSN	d	2	J108	D.S.P.S.	Y	N	DIMMING	4L1	5
20-QSN	a	2	J109	CONFERENCE ROOM	Y	N	DIMMING	4L1	5
20-QSN	b	2	J109	CONFERENCE ROOM	Y	N	DIMMING	4L1	5
21-QSN	d	2	J108	D.S.P.S.	Y	N	DIMMING	4L1	5
21-QSN	c	2	J108	D.S.P.S.	Y	N	DIMMING	4L1	5
21-QSN	b	2	J108	D.S.P.S.	Y	N	DIMMING	4L1	5
21-QSN	a	2	J108	D.S.P.S.	Y	N	DIMMING	4L1	5
22-QSN	a	2	J108	D.S.P.S.	Y	N	DIMMING	4L1	5
22-QSN	b	2	J108	D.S.P.S.	Y	N	DIMMING	4L1	5
22-QSN	c	2	J108	D.S.P.S.	Y	N	DIMMING	4L1	5
22-QSN	d	2	J108	D.S.P.S.	Y	N	DIMMING	4L1	5
23-QSN	c	2	J110-3	OFFICE	Y	N	DIMMING	4L1	5
23-QSN	d	2			Y	N	DIMMING	4L1	5
23-QSN	b	2	J110-3	OFFICE	Y	N	DIMMING	4L1	5
23-QSN	a	5	J110-3	OFFICE	Y	N	DIMMING	4L1	5
24-QSN	a	1	J110-15	GENDER NEUTRAL RSTRM.	Y	N	DIMMING	4L1	5
24-QSN	b	2	J110-15	GENDER NEUTRAL RSTRM.	Y	N	DIMMING	4L1	5
24-QSN	c	2	J110-15	GENDER NEUTRAL RSTRM.	Y	N	DIMMING	4L1	5
24-QSN	d	1	J110-15	GENDER NEUTRAL RSTRM.	Y	N	DIMMING	4L1	5
25-QSN	a				Y	N	DIMMING	4L1	5
25-QSN	b				Y	N	DIMMING	4L1	5
25-QSN	c				Y	N	DIMMING	4L1	5
25-QSN	d	2			Y	N	DIMMING	4L1	5
26-QSN	a	2	J130	WAREHOUSE	Y	N	DIMMING	4L1	5
26-QSN	b	2	J130	WAREHOUSE	Y	N	DIMMING	4L1	5
26-QSN	c	2	J130	WAREHOUSE	Y	N	DIMMING	4L1	5
26-QSN	d	1	J130	WAREHOUSE	Y	N	DIMMING	4L1	5
27-QSN	b		J130	WAREHOUSE	Y	N	DIMMING	4L1	7
27-QSN	c	2	J130	WAREHOUSE	Y	N	DIMMING	4L1	7
27-QSN	d	2	J130	WAREHOUSE	Y	N	DIMMING	4L1	7
27-QSN	a	2	J130	WAREHOUSE	Y	N	DIMMING	4L1	5
28-QSN	d	3	J129	OVERFLOW STORAGE & RECEIVING	N	N	ON/OFF	4L1	7
28-QSN	c	3	J129	OVERFLOW STORAGE & RECEIVING	N	N	ON/OFF	4L1	7
28-QSN	b		J129	OVERFLOW STORAGE & RECEIVING	Y	N	DIMMING	4L1	7
28-QSN	a	2	J129	OVERFLOW STORAGE & RECEIVING	Y	N	DIMMING	4L1	7
29-QSN	a		J123	GENDER NEUTRAL RSTRM.	Y	N	DIMMING	4L1	7
29-QSN	d	1	J123	GENDER NEUTRAL RSTRM.	Y	N	DIMMING	4L1	7
29-QSN	c	2	J123	GENDER NEUTRAL RSTRM.	Y	N	DIMMING	4L1	7
29-QSN	b	2	J123	GENDER NEUTRAL RSTRM.	Y	N	DIMMING	4L1	7
30-QSN	d	2	J120	REPROGRAPHICS	Y	N	DIMMING	4L1	7
30-QSN	c	2	J120	REPROGRAPHICS	Y	N	DIMMING	4L1	7
30-QSN	a		J120	REPROGRAPHICS	N	N	ON/OFF	4L1	7
30-QSN	b		J120	REPROGRAPHICS	N	N	ON/OFF	4L1	7
31-QSN	a	3	J133	ELEV. CONTROL ROOM	Y	N	DIMMING	4L1	9

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SEALS / APPROVALS

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
FILE: 30-C2
A# 04-116810
AC _____ FLS _____ SS _____
DATE _____

PROJECT TITLE
JOHNSON STUDENT CENTER
INCREMENT 2
1530 W 17TH ST SANTA ANA CA 92706

RANCHO SANTIAGO
Community College District

SUBMITTALS

#	DATE	DESCRIPTION
	05/18/18	HEALTH DEPT. SUBMITTAL
	08/13/18	DSA FINAL SUBMITTAL
	09/24/18	ADDENDUM #3

PROJECT IDENTIFICATION 7411
THESE DRAWINGS ORIGINALLY CREATED IN AUTODESK REVIT V. 2016
THE ORIGINAL SIZE OF THIS SHEET IS 30" X 42".

DRAWN BY C Naranjo
CHECKED BY C S Musser

SHEET TITLE
LIGHTING CONTROL SCHEDULE

SHEET NUMBER
E0.04

100% CONSTRUCTION DOCUMENTS

LIGHTING CONTROL SCHEDULE - LEVEL 02 EMERGENCY

DEVICE ID	SWITCH ID	NOTES	DEVICE TYPE	ROOM	ROOM NAME	OCC SENSOR	DAYLIGHTING ZONE	SWITCHING TYPE	PANEL	CIRCUIT
1	a		EL	J201-1	FINACIAL AID-1	Y	N	DIMMING	INV1	4
2	a		EL	J202	STUDENT FINANCIAL SERVICES	Y	N	DIMMING	INV1	4
3	a	1	EL	J206	WOMEN'S RESTROOM	Y	N	DIMMING	INV1	3
4	d	1	EL	J205	MEN'S RESTROOM	Y	N	DIMMING	INV1	3
5	a	5	EL	J200-2	WEST LOBBY	Y	Y	DIMMING	INV1	3
6	b	5	EL	J200-2	WEST LOBBY	Y	N	DIMMING	INV1	3
7	a	2	EL	J208	INTERNATIONAL STUDENT PROGRAM	Y	N	DIMMING	INV1	3
8	c	2	EL	J208	INTERNATIONAL STUDENT PROGRAM	Y	N	DIMMING	INV1	3
9	a	2	EL	J209	S.S.S.P. & UPWARD BOUND	Y	N	DIMMING	INV1	3
10	a	2	EL	J209	S.S.S.P. & UPWARD BOUND	Y	N	DIMMING	INV1	3
11	b	2	EL	J212-1	WORKROOM	Y	N	DIMMING	INV1	3
12	a	2	EL	J211	RESOURCE CENTER	Y	N	DIMMING	INV1	3
13	a		EL	J212	E.O.P.S. / CalWORKS	Y	N	DIMMING	INV1	3
14	b	5	EL	J200-3	EAST LOBBY	Y	Y	DIMMING	INV1	3
15	b	5	EL	J200-3	EAST LOBBY	Y	N	DIMMING	INV1	3
16	b	2	EL	J220	BANQUET STAGING ROOM	Y	N	DIMMING	INV1	3
17	a		EL	J219-4	CONFERENCE ROOM	Y	N	DIMMING	INV1	3
18	b		EL	J219-4	CONFERENCE ROOM	Y	N	DIMMING	INV1	3
19	c		EL	J219-4	CONFERENCE ROOM	Y	N	DIMMING	INV1	3
19	c		EL	J219-3	CONFERENCE ROOM	Y	N	DIMMING	INV1	3
20	b		EL	J219-2	CONFERENCE ROOM	Y	N	DIMMING	INV1	3
21	a		EL	J219-1	CONFERENCE ROOM	Y	N	DIMMING	INV1	3
22	c	5	EL	J200-1	NORTH LOBBY	Y	N	DIMMING	INV1	3
23	b	5	EL	J200-1	NORTH LOBBY	Y	N	DIMMING	INV1	3
24	a	5	EL	J200-1	NORTH LOBBY	Y	Y	DIMMING	INV1	4
25	a	5	EL	J200-1	NORTH LOBBY	Y	Y	DIMMING	INV1	4
26	b	5	EL	J200-1	NORTH LOBBY	Y	N	DIMMING	INV1	4
27	d	5	EL	J200-1	NORTH LOBBY	Y	N	DIMMING	INV1	4
29	b	2	EL	J215	GUARDIAN SCHOLARS	Y	N	DIMMING	INV1	3
30	a	3	EL	J210	IDF	Y	N	ON/OFF	INV1	3
31	a	3	EL	ELEV. 1	ELEVATOR 1	Y	N	DIMMING	INV1	3

GENERAL NOTE:

1. VERIFY TIME CLOCK SCHEDULE WITH CLIENT PRIOR TO PROGRAMMING.

2. CONTROL LEP ZONES WITH IN ROOMS DO NOT RETERMINE BUTTONS ON SWITCHES. NUMBER OF BUTTONS ARE DETERMINED BY PROGRAMING CONFIGURATION OF THESE ZONES.

3. PROVIDE ENERGI SAVR NODESQSN-2T16-S FOR CONTROL OF EMERGENCY LIGHTS. COMBINE (4 'EL' DEVICES SHOWN ON PLAN TO (1) QSN-2T16-S DEVICE. PROVIDE LUT-ELI FOR EMERGENCY LIGHTING INTERPHASE, INSTALL PER MANUFACTURER REQUIREMENTS. REFER TO DETAIL 1/E605. 3

NOTES:

1. LIGHTS SHALL TURN ON AUTOMATICALLY WHEN OCCUPANT IS DETECTED. OCCUPANCY SENSOR SHALL TURN LIGHTS OFF 15 MINUTES AFTER NOT DETECTING AN OCCUPANT.

2. LIGHTS SHALL BE TURNED ON MANUALLY, OCCUPANCY SENSOR SHALL TURN LIGHTS OFF 15 MINUTES AFTER NOT DETECTING AN OCCUPANT.

3. LIGHTS SHALL BE TURNED ON AND OFF MANUALLY.

4. SITE LIGHTING SHALL BE CONTROLLED VIA PHOTOCELL. FIXTURES OVER 30W, AND FIXTURES MOUNTED 24 FEET OR LESS ABOVE GROUND SHALL BE EQUIPED WITH MOTION SENSING.

5. FIXTURES IN LOBBY AND CORRIDORS SHALL BE CONTROLLED VIA TIME CLOCK. LIGHTS SHALL BE ON MONDAY-FRIDAY 7AM-5PM. AFTER 5PM LIGHTS SHALL TURN ON AUTOMATICALLY WHEN OCCUPANT IS DETECTED. OCCUPANCY SENSOR SHALL TURN LIGHTS OFF 15 MINUTES AFTER NOT DETECTING AN OCCUPANT.

6. EXTERIOR FIXTURES MOUNTED ON BUILDING SHALL BE CONTROLLED VIA TIME CLOCK. LIGHTS SHALL TURN ON AT 6PM, TURN OFF AT 7AM ALL DAYS OF THE WEEK.

7. PROVIDE TOUCHPAD TO ALLOW FOR MULTIPLE SCENES. FINAL PROGRAMMING SHALL BE DETERMINED BY OWNER.

8. DIMMING RELAYS FOR EXTERIOR SITE LIGHTING SHALL BE LOCATED IN FIRST FLOOR ELECTRICAL ROOM J129.

(ALTERNATE 1)

RELAY PANEL "RP1" 1

RELAY N NO.	CONTROL TYPE	TIME CLOCK	PANEL	CIRCUIT #
R1	ON/OFF	Y	1PB	13
R2	ON/OFF	Y	1PB	15
R3	ON/OFF	Y	1PB	17
R4 (SPARE)				
R5 (SPARE)				
R6 (SPARE)				
R7 (SPARE)				
R8 (SPARE)				

RELAY PANEL "RP2" 1

RELAY N NO.	CONTROL TYPE	TIME CLOCK	PANEL	CIRCUIT #
R1	ON/OFF	Y	2R1	56
R2	ON/OFF	Y	2R1	50
R3	ON/OFF	Y	2R1	52
R4	ON/OFF	Y	2R1	54
R5 (SPARE)				
R6 (SPARE)				
R7 (SPARE)				
R8 (SPARE)				

LIGHTING CONTROL SCHEDULE "LCP-1"

RELAY N NO.	CONTROL TYPE	TIME CLOCK	PHOTOCELL	PANEL	CIRCUIT #
R1	DIMMING	Y	Y	4L1	9
R2	DIMMING	Y	Y	4L1	9
R3	DIMMING	Y	Y	4L1	9
R4	DIMMING	Y	Y	4L1	9
R5	DIMMING	Y	Y	4L1	9
R6	DIMMING	Y	Y	4L1	9
R7	DIMMING	Y	Y	4L1	9
R8	DIMMING	Y	Y	4L1	9
R9	DIMMING	Y	Y	4L2	9
R10	DIMMING	Y	Y	4L2	7
R11					
R12					

LIGHTING CONTROL SCHEDULE "LCP-2"

RELAY N NO.	CONTROL TYPE	TIME CLOCK	PHOTOCELL	PANEL	CIRCUIT #
R1	DIMMING	Y	Y	INV1	5
R2	DIMMING	Y	Y	INV1	6
R3	DIMMING	Y	Y	INV1	7
R4	DIMMING	Y	Y	INV1	8
R5	DIMMING	Y	Y	INV1	3
R6	DIMMING	Y	Y	INV1	7
R7	DIMMING	Y	Y	INV1	8
R8	DIMMING	Y	Y	INV1	7
R9					
R10					
R11					
R12					

LIGHTING CONTROL SCHEDULE - LEVEL 02

DEVICE ID	SWITCH ID	NOTES	DEVICE	ROOM	ROOM NAME	OCC SENSOR	DAYLIGHTING ZONE	SWITCHING TYPE	PANEL	CIRCUIT
1-QSN	a	2	RC	J201-2	COORDINATOR OFFICE	Y	N	DIMMING	4L2	1
1-QSN	b	2	NC	J201-2	COORDINATOR OFFICE	Y	N	DIMMING	4L2	1
1-QSN	c	2	RC	J201-2	COORDINATOR OFFICE	Y	N	DIMMING	4L2	1
1-QSN	d	2	RC	J201-2	COORDINATOR OFFICE	Y	N	DIMMING	4L2	1
2-QSN	a		RC	J201-1	FINACIAL AID-1	Y	N	DIMMING	4L2	1
2-QSN	b		NC	J201-1	FINACIAL AID-1	Y	N	DIMMING	4L2	1
3-QSN	a	2	RC	J202	STUDENT FINANCIAL SERVICES	Y	N	DIMMING	4L2	1
3-QSN	b	2	RC	J202	STUDENT FINANCIAL SERVICES	Y	Y	DIMMING	4L2	1
3-QSN	c	2	RC	J202	STUDENT FINANCIAL SERVICES	Y	N	DIMMING	4L2	1
4-QSN	c		RC	J202	STUDENT FINANCIAL SERVICES	Y	N	DIMMING	4L2	1
4-QSN	a		NC	J202	STUDENT FINANCIAL SERVICES	Y	N	DIMMING	4L2	1
4-QSN	d		RC	J202	STUDENT FINANCIAL SERVICES	Y	N	DIMMING	4L2	1
4-QSN	b		RC	J202	STUDENT FINANCIAL SERVICES	Y	N	DIMMING	4L2	1
5-QSN	b	5	RC	J200-1	NORTH LOBBY	Y	N	DIMMING	4L2	3
5-QSN	a	5	NC	J200-1	NORTH LOBBY	Y	N	DIMMING	4L2	3
5-QSN	c	5	RC	J200-1	NORTH LOBBY	Y	N	DIMMING	4L2	3
5-QSN	d	2	NC	J200-1	NORTH LOBBY	Y	N	DIMMING	4L2	3
6-QSN	a	2	RC	J202-2	OFFICE	Y	N	DIMMING	4L2	1
6-QSN	b	2	NC	J202-2	OFFICE	Y	N	DIMMING	4L2	1
6-QSN	c	2	RC	J202-2	OFFICE	Y	N	DIMMING	4L2	1
6-QSN	d	2	NC	J202-2	OFFICE	Y	N	DIMMING	4L2	1
7-QSN	a	1	RC	J205	MEN'S RESTROOM	Y	N	DIMMING	4L2	1
7-QSN	a	1	NC	J205	MEN'S RESTROOM	Y	N	DIMMING	4L2	1
7-QSN	b	1	NC	J205	MEN'S RESTROOM	Y	N	DIMMING	4L2	1
7-QSN	c	1	RC	J205	MEN'S RESTROOM	Y	N	DIMMING	4L2	1
8-QSN	a	5	RC	148	Space	Y	Y	DIMMING	4L2	3
8-QSN	b	5	NC	148	Space	Y	Y	DIMMING	4L2	3
8-QSN	c	5	RC	148	Space	Y	Y	DIMMING	4L2	3
8-QSN	d	5	NC	148	Space	Y	N	DIMMING	4L2	3
9-QSN	a	5	RC	246	OPEN TO BELOW	Y	N	DIMMING	4L2	3
9-QSN	b	5	RC	246	OPEN TO BELOW	Y	N	DIMMING	4L2	3
9-QSN	d	5	RC	246	OPEN TO BELOW	Y	N	DIMMING	4L2	3
9-QSN	c	5	RC	246	OPEN TO BELOW	Y	N	DIMMING	4L2	3
10-QSN	a		RC	J219-2	CONFERENCE ROOM	Y	N	DIMMING	4L2	3
11-QSN	a		RC	J219-2	CONFERENCE ROOM	Y	N	DIMMING	4L2	3
11-QSN	b		RC	J219-2	CONFERENCE ROOM	Y	N	DIMMING	4L2	3
11-QSN	c		RC	J219-2	CONFERENCE ROOM	Y	N	DIMMING	4L2	3
12-QSN	a		RC	J219-4	CONFERENCE ROOM	Y	N	DIMMING	4L2	3
12-QSN	b		RC	J219-4	CONFERENCE ROOM	Y	N	DIMMING	4L2	3
12-QSN	c		RC	J219-4	CONFERENCE ROOM	Y	N	DIMMING	4L2	3
12-QSN	d		RC	J219-4	CONFERENCE ROOM	Y	N	DIMMING	4L2	3
13-QSN	a	2	NC	J220	BANQUET STAGING ROOM	Y	Y	DIMMING	4L2	3
13-QSN	b	2	RC	J220	BANQUET STAGING ROOM	Y	N	DIMMING	4L2	3
13-QSN	d	1	RC	J220	BANQUET STAGING ROOM	Y	N	DIMMING	4L2	3
13-QSN	c	1	RC	J220	BANQUET STAGING ROOM	Y	N	DIMMING	4L2	3
14-QSN	d	1	NC	J200-3	EAST LOBBY	Y	N	DIMMING	4L2	3
14-QSN	a	5	RC	J200-3	EAST LOBBY	Y	Y	DIMMING	4L2	5
14-QSN	b	5	RC	J200-3	EAST LOBBY	Y	N	DIMMING	4L2	5
14-QSN	c	5	RC	J200-3	EAST LOBBY	Y	N	DIMMING	4L2	5
15-QSN	d	2	RC	J200-2	WEST LOBBY	Y	N	DIMMING	4L2	1
15-QSN	a	5	RC	J200-2	WEST LOBBY	Y	N	DIMMING	4L2	5
15-QSN	b	5	RC	J200-2	WEST LOBBY	Y	N	DIMMING	4L2	5
15-QSN	c	5	RC	J200-2	WEST LOBBY	Y	N	DIMMING	4L2	5
16-QSN	b	2	RC	J208-1	WORKROOM	Y	N	DIMMING	4L2	7
16-QSN	c	c	NC			Y	N	DIMMING	4L2	7
16-QSN	d	2	RC	J208-1	WORKROOM	Y	Y	DIMMING	4L2	7
16-QSN	a	2	RC	J208-1	WORKROOM	Y	N	DIMMING	4L2	7
17-QSN	c	2	RC	J208-4	LOUNGE	Y	N	DIMMING	4L2	7
17-QSN	b	2	RC	J208-4	LOUNGE	Y	N	DIMMING	4L2	7
17-QSN	a	2	RC	J208-4	LOUNGE	Y	N	DIMMING	4L2	7
18-QSN	d	2	RC	J209	S.S.S.P. & UPWARD BOUND	Y	N	DIMMING	4L2	7
18-QSN	b	2	RC	J209	S.S.S.P. & UPWARD BOUND	Y	N	DIMMING	4L2	7
18-QSN	a	2	RC	J209	S.S.S.P. & UPWARD BOUND	Y	N	DIMMING	4L2	7
18-QSN	c	2	RC	J209	S.S.S.P. & UPWARD BOUND	Y	N	DIMMING	4L2	7
19-QSN	a	2	RC	J209	S.S.S.P. & UPWARD BOUND	Y	N	DIMMING	4L2	7
19-QSN	b	2	RC	J209	S.S.S.P. & UPWARD BOUND	Y	N	DIMMING	4L2	7
19-QSN	c	2	RC	J209	S.S.S.P. & UPWARD BOUND	Y	N	DIMMING	4L2	7
19-QSN	d	2	NC	J209	S.S.S.P. & UPWARD BOUND	Y	N	DIMMING	4L2	7
20	d	2	NC	J208-4	LOUNGE	Y	Y	DIMMING	4L2	7
20-QSN	c	2	RC	J212-1	WORKROOM	Y	N	DIMMING	4L2	7
20-QSN	d	2	RC	J212-1	WORKROOM	Y	N	DIMMING	4L2	7
20-QSN	b		RC	J212-1	WORKROOM	Y	N	DIMMING	4L2	7
20-QSN	a		NC	J212-1	WORKROOM	Y	Y	DIMMING	4L2	7
21-QSN	c		RC	J211	RESOURCE CENTER	Y	N	DIMMING	4L2	5
21-QSN	d		RC	J211	RESOURCE CENTER	Y	N	DIMMING	4L2	7
21-QSN	a	3	NC	J211	RESOURCE CENTER	Y	N	ON/OFF	4L2	5
21-QSN	b		RC	J211	RESOURCE CENTER	Y	N	DIMMING	4L2	5
22-QSN	a	2	RC	J212-5	OFFICE	Y	N	DIMMING	4L2	7
22-QSN	b	2	RC	J212-5	OFFICE	Y	N	DIMMING	4L2	7
22-QSN	c	2	NC	J212-5	OFFICE	Y	N	DIMMING	4L2	7
22-QSN	d	2	RC	J212-5	OFFICE	Y	N	DIMMING	4L2	7
23-QSN	a		RC	J212	E.O.P.S. / CalWORKS	Y	N	DIMMING	4L2	5
23-QSN	d	2	RC	J212	E.O.P.S. / CalWORKS	Y	N	DIMMING	4L2	5
23-QSN	c	2	RC	J212	E.O.P.S. / CalWORKS	Y	N	DIMMING	4L2	5
23-QSN	b	2	RC	J212	E.O.P.S. / CalWORKS	Y	N	DIMMING	4L2	5
24-QSN	a	2	NC	J212	E.O.P.S. / CalWORKS	Y	N	DIMMING	4L2	5
24-QSN	b	2	RC	J212	E.O.P.S. / CalWORKS	Y	N	DIMMING	4L2	5
24-QSN	c	2	RC	J212	E.O.P.S. / CalWORKS	Y	N	DIMMING	4L2	5
25-QSN	d	2	NC	J200-3	EAST LOBBY	Y	N	DIMMING	4L2	5
25-QSN	c	3	NC	J200-3	EAST LOBBY	Y	N	ON/OFF	4L2	5
25-QSN	a		RC	J200-3	EAST LOBBY	Y	N	DIMMING	4L2	5
25-QSN	b		RC	J200-3	EAST LOBBY	Y	N	DIMMING	4L2	5

NOTES

1 PROVIDE RELAY PANEL WITH 8 RELAYS WITH TIMECLOCK CONTROL TO ALLOW CONTROL OF EXTERIOR RECEPTACLES.

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PROJECT TITLE

JOHNSON STUDENT CENTER
INCREMENT 2
1530 W 17TH ST SANTA ANA CA 92706

RANCHO SANTIAGO Community College District

SUBMITTALS		
#	DATE	DESCRIPTION
	05/18/18	HEALTH DEPT. SUBMITTAL
	08/13/18	DSA FINAL SUBMITTAL
	09/24/18	ADDENDUM #3

PROJECT IDENTIFICATION 7411

THESE DRAWINGS ORIGINALLY CREATED IN AUTODESK REVIT V. 2016

THE ORIGINAL SIZE OF THIS SHEET IS 30" X 42".

DRAWN BY C Naranjo

CHECKED BY C S Musser

SHEET TITLE

LIGHTING CONTROL SCHEDULE

SHEET NUMBER

E0.05

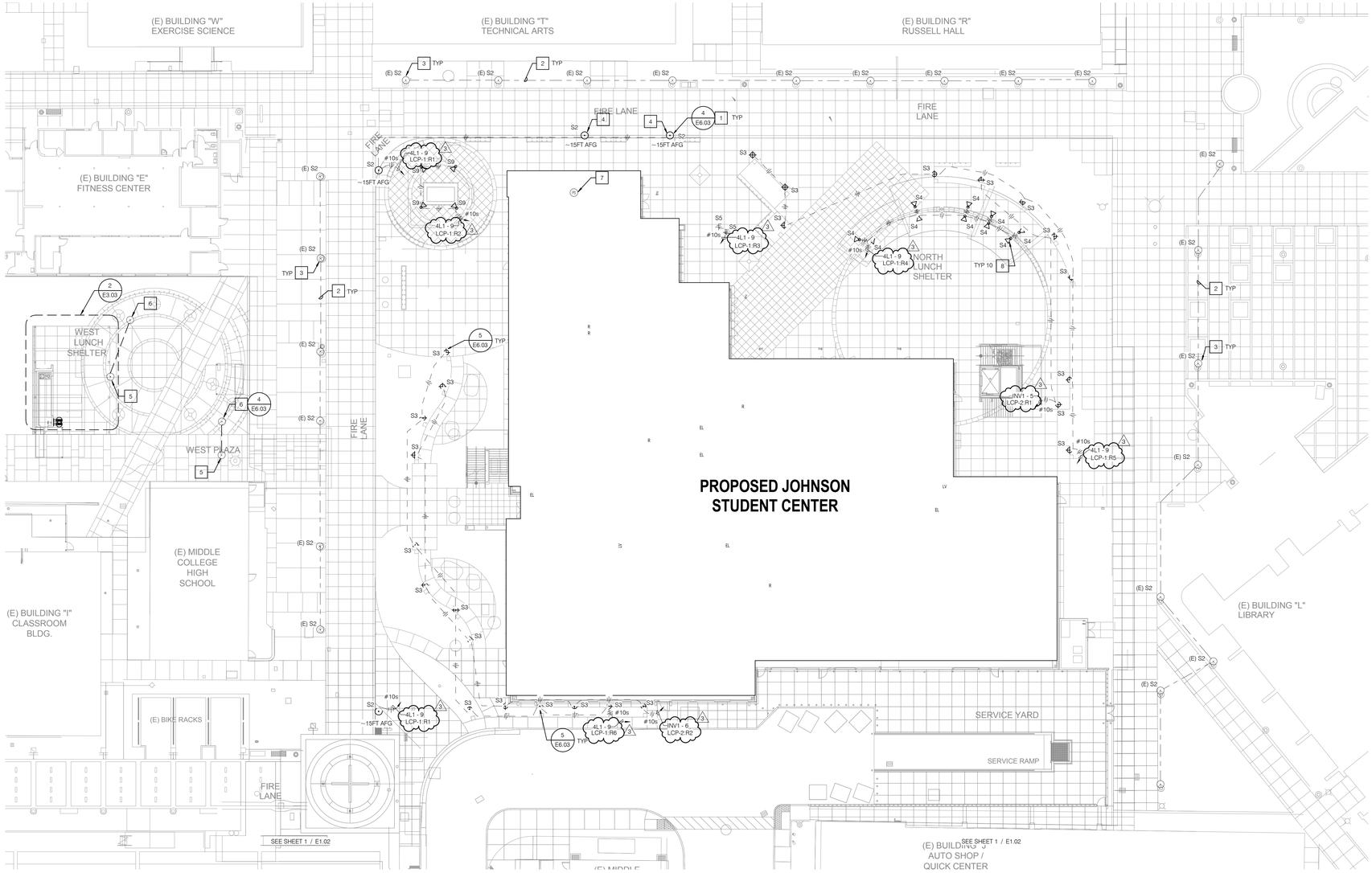
100% CONSTRUCTION DOCUMENTS

GENERAL NOTES

1. PROVIDE WATTSTOPPER #LMPC CONTROL PANEL IN FIRST FLOOR ELECTRICAL ROOM TO SERVE EXTERIOR LIGHTING. REFER TO SHEET E2.02 FOR ADDITIONAL INFORMATION.

NOTES

1. POST FIXTURE SHALL BE MOUNTED TO CAMPUS STANDARD HEIGHT AND PER ARCHITECTURAL COORDINATION. ACCOUNT FOR 15-20 FOOT HIGH POST. ACCOMMODATE 0-10V DIMMING CONTROL WIRING TO EXTERIOR LIGHTING CONTROL SYSTEM.
2. PROTECT EXISTING CIRCUITING AND RECONNECT IF DAMAGED.
3. EXISTING LIGHT FIXTURE SHALL REMAIN AND BE PROTECT IN PLACE.
4. PROVIDE ADDITIONAL 1"C TO LIGHT POLE FROM BDF TO ALLOW FOR CONNECTION OF CAMERA AND WIRELESS ACCESS POINT. REFER TO LOW VOLTAGE DRAWINGS FOR ADDITIONAL INFORMATION.
5. EXISTING LIGHT AND POLE SHALL BE CAREFULLY DISCONNECTED AND RELOCATED.
6. NEW LOCATION OF EXISTING LIGHT AND POLE. PROVIDE NEW BASE, COVER, AND ANCHOR BOLTS. EXTEND EXISTING CONDUIT TO NEW LOCATION.
7. PROVIDE PHOTOCELL ON NORTH END OF ROOF FOR EXTERIOR LIGHTING CONTROL.
8. CONTRACTOR SHALL COORDINATE LOCATION OF CONDUIT IN POLE STRUCTURE TO ALIGN WITH RECESSED JUNCTION BOX FOR LIGHT FIXTURE INSTALLATION.



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CHECKED BY C S Musser

SHEET TITLE
LIGHTING PARTIAL SITE PLAN

SHEET NUMBER
E1.01

LIGHTING SITE PLAN SCALE 1" = 20'-0" 1

100% CONSTRUCTION DOCUMENTS

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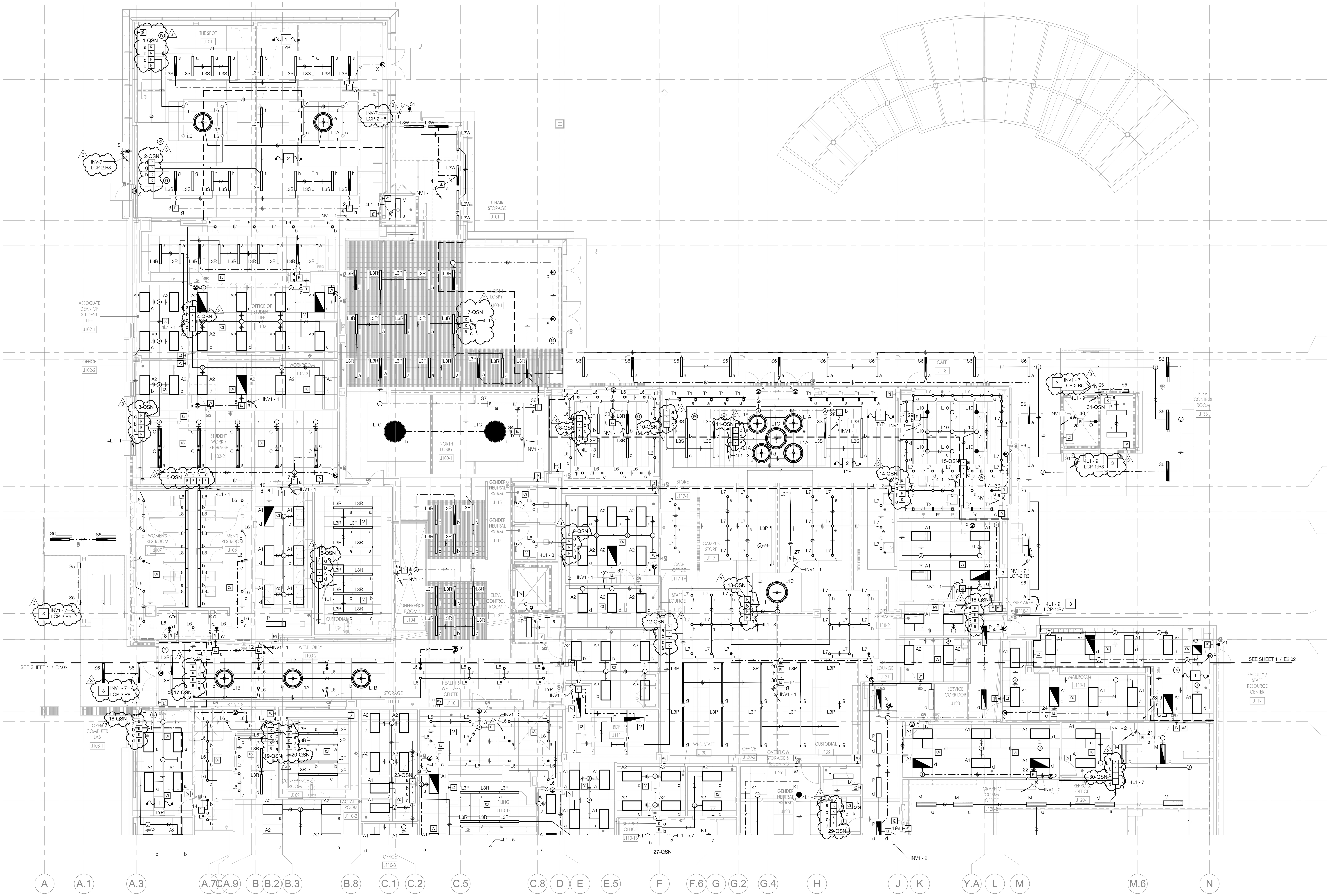
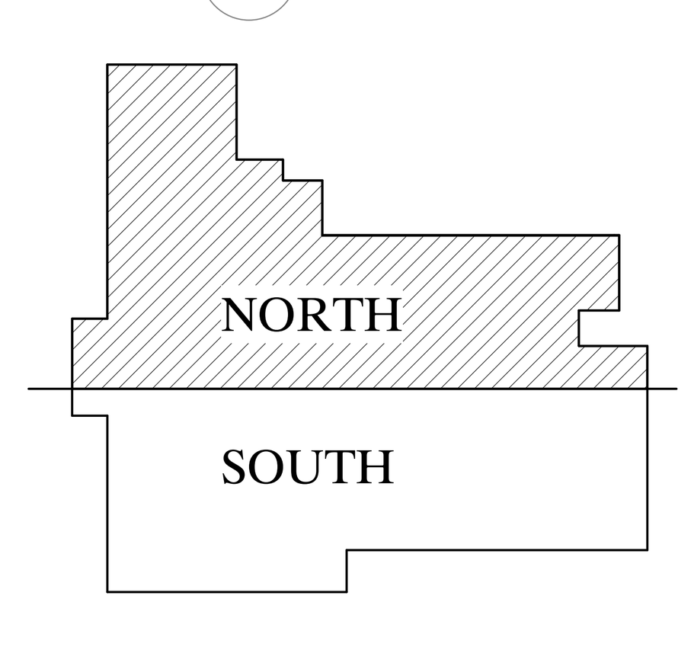


NOTES

1. PRIMARY DAYLIGHT ZONE. CONTRACTOR TO PROVIDE PHOTOSESNSOR/S FOR DAYLIGHT HARVESTING. ROOMS WHERE TOTAL WATTAGE IS UNDER 120W OR ROOMS WHERE TOTAL GLAZING AREA IS LESS THAN 24 SQUARE FEET SHALL BE EXEMPT PER SECTION 130.1(d)2.
2. SECONDARY DAYLIGHT ZONE.
3. ROUTE THROUGH LIGHTING CONTROL PANEL #LMPC LOCATED IN FIRST FLOOR ELECTRICAL ROOM. REFER TO SHEET E0.05 FOR ADDITIONAL INFORMATION.

GENERAL NOTES

1. PROVIDE UNSWITCHED FEED TO EMERGENCY RELAY/POWER PACK FROM SAME CIRCUIT SERVING NON EMERGENCY FIXTURES IN EACH AREA . 3/4"C - 2#12, 1#12 GND.
2. PROVIDE LOCAL EMERGENCY TEST SWITCH AT ALL EMERGENCY FIXTURES. ALLOW FOR HARD AND GRID CEILING INSTALLATION.
3. RELAY/POWER PACKS FOR EXTERIOR LIGHTING SHALL BE LOCATED IN FIRST FLOOR ELECTRICAL ROOM J126. SEE SHEETS E0.04 AND E0.05 FOR ADDITIONAL INFORMATION.
4. REFER TO LIGHT FIXTURE SCHEDULE SHEET E0.03 FOR LIGHT FIXTURE TYPE AND ADDITIONAL INFORMATION.
5. REFER TO LIGHTING CONTROL DETAILS ON SHEETS E6.02, E6.03 AND E6.05 FOR ADDITIONAL INFORMATION.



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

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RANCHO SANTIAGO Community College District

SUBMITTALS		
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	09/24/18	ADDENDUM #3

PROJECT IDENTIFICATION 7411
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THE ORIGINAL SIZE OF THIS SHEET IS 30" X 42".

DRAWN BY C Naranjo

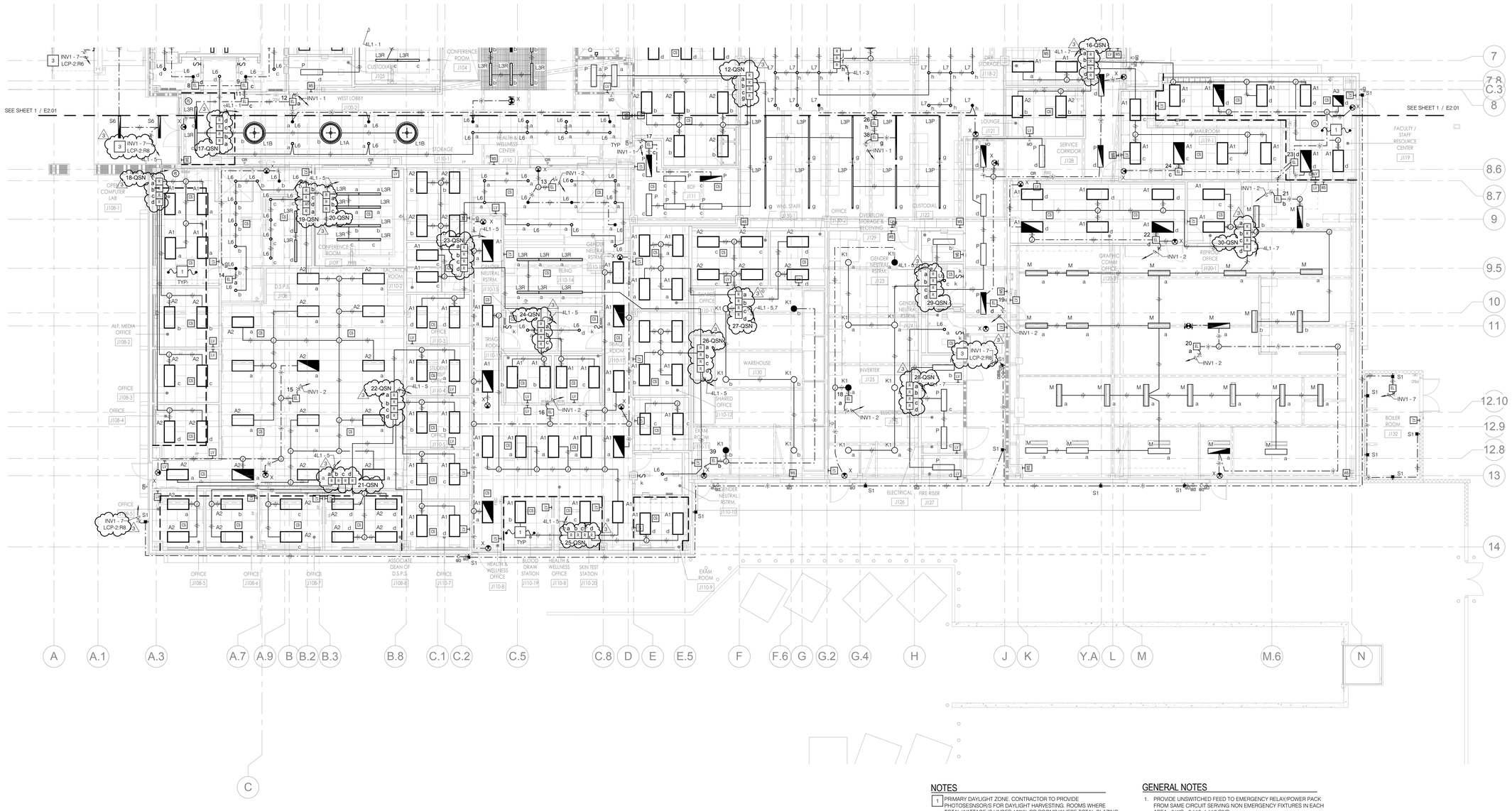
CHECKED BY C S Musser

SHEET TITLE
FIRST FLOOR LIGHTING PLAN - NORTH

SHEET NUMBER
E2.01

100% CONSTRUCTION DOCUMENTS

P2S: 7411

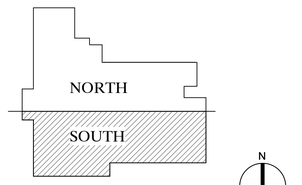


NOTES

1. PRIMARY DAYLIGHT ZONE. CONTRACTOR TO PROVIDE PHOTOSESNSOR/S FOR DAYLIGHT HARVESTING. ROOMS WHERE TOTAL WATTAGE IS UNDER 120W, OR ROOMS WHERE TOTAL GLAZING AREA IS LESS THAN 24 SQUARE FEET SHALL BE EXEMPT PER SECTION 130.1(d)2.
2. FIXTURES IN AREA TO BE CABLE MOUNTED 13.5 FT AFF.
3. ROUTE THROUGH LIGHTING CONTROL PANEL #LMPC LOCATED IN FIRST FLOOR ELECTRICAL ROOM. REFER TO SHEET E0.05 FOR ADDITIONAL INFORMATION.

GENERAL NOTES

1. PROVIDE UNSWITCHED FEED TO EMERGENCY RELAY/POWER PACK FROM SAME CIRCUIT SERVING NON EMERGENCY FIXTURES IN EACH AREA . 3/4"C - 2#12, 1#12 GND.
2. PROVIDE LOCAL EMERGENCY TEST SWITCH AT ALL EMERGENCY FIXTURES. ALLOW FOR HARD AND GRID CEILING INSTALLATION.
3. EXTERIOR LIGHTING CONTROLLERS, FIELD COORDINATE EXACT LOCATION WITH FINAL EQUIPMENT INSTALLATION IN SPACE. REFER TO DRAWING E1.01 FOR DETAILS.
4. PROVIDE TWO NETWORK MANAGER SYSTEMS FOR BUILDING LIGHTING - ONE FOR FIRST FLOOR AND EXTERIOR LIGHTING, OTHER FOR 2ND FLOOR LIGHTING. PROVIDE NETWORK TIE-IN TO BUILDING'S BMS BAC-NET SYSTEM. FIELD COORDINATE EXACT LOCATION FOR MOUNTING.
5. RELAY/POWER PACKS FOR EXTERIOR LIGHTING SHALL BE LOCATED IN FIRST FLOOR ELECTRICAL ROOM J126. SEE SHEET E0.03 FOR ADDITIONAL INFORMATION.
6. REFER TO LIGHT FIXTURE SCHEDULE SHEET E0.03 FOR LIGHT FIXTURE TYPE AND ADDITIONAL INFORMATION.
7. REFER TO LIGHTING CONTROL DETAILS ON SHEET E6.02, E6.03 AND E6.05 FOR ADDITIONAL INFORMATION.



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

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	09/24/18	ADDENDUM #3

PROJECT IDENTIFICATION 7411

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THE ORIGINAL SIZE OF THIS SHEET IS 30" X 42".

DRAWN BY C Naranjo

CHECKED BY C S Musser

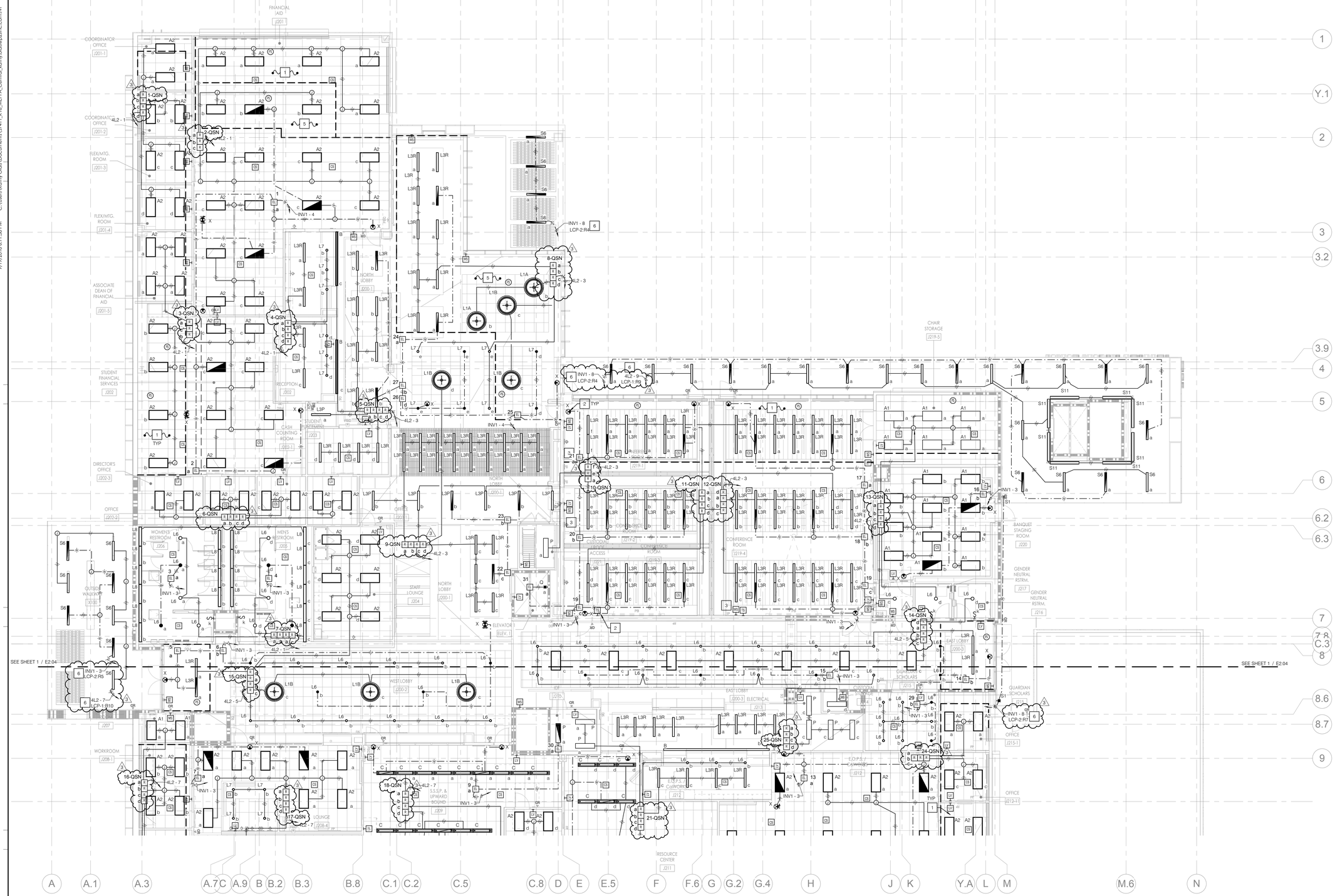
SHEET TITLE

FIRST FLOOR LIGHTING PLAN - SOUTH

SHEET NUMBER

E2.02

100% CONSTRUCTION DOCUMENTS



NOTES

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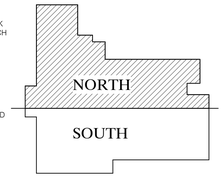
2. PROVIDE TOUCH SCREEN PANEL FOR LIGHTING AND SHADE CONTROL. WATTSTOPPER EQUINOX 73.
3. PROVIDE THE FOLLOWING FOR ROOM CONTROL SEGREGATION PER PARITION WALLS:
   A. THREE CONTROL CONTACTORS AT CEILING RAIL TO OPERATE UPON WALL CLOSURE.
   B. CONTROL CIRCUITING BETWEEN LIGHTING CONTROLS AND PARTITION OPERATORS.
   PROGRAMMING SHOULD SEGREGATE CONTROLLERS AT EACH ROOM UPON WALL CLOSURES, AND MERGE UPON OPENING. SEE WIRING DIAGRAM 6/E6.03.
4. PROVIDE TIE-IN TO MECHANICAL SHADES FROM LIGHTING CONTROL SYSTEM.
5. SECONDARY DAYLIGHT ZONE.
6. ROUTE THROUGH LIGHTING CONTROL PANEL #LMPC LOCATED IN FIRST FLOOR ELECTRICAL ROOM. REFER TO SHEET E0.05 FOR ADDITIONAL INFORMATION.
7. PROVIDE LED BACKLIGHTING. REFER TO LIGHT FIXTURE SCHEDULE FOR DETAILS.

GENERAL NOTES

1. PROVIDE UNSWITCHED FEED TO EMERGENCY RELAY/POWER PACK FROM SAME CIRCUIT SERVING NON EMERGENCY FIXTURES IN EACH AREA . 3/4"C - 2#12, 1#12 GND.
2. PROVIDE LOCAL EMERGENCY TEST SWITCH AT ALL EMERGENCY FIXTURES. ALLOW FOR HARD AND GRID CEILING INSTALLATION.
3. REFER TO LIGHT FIXTURE SCHEDULE SHEET E0.03 FOR LIGHT FIXTURE TYPE AND ADDITIONAL INFORMATION.
4. REFER TO LIGHTING CONTROL DETAILS ON SHEET E6.02, E6.03 AND E6.05 FOR ADDITIONAL INFORMATION.



SECOND FLOOR LIGHTING PLAN - NORTH — SCALE 1/8" = 1'-0" — 1

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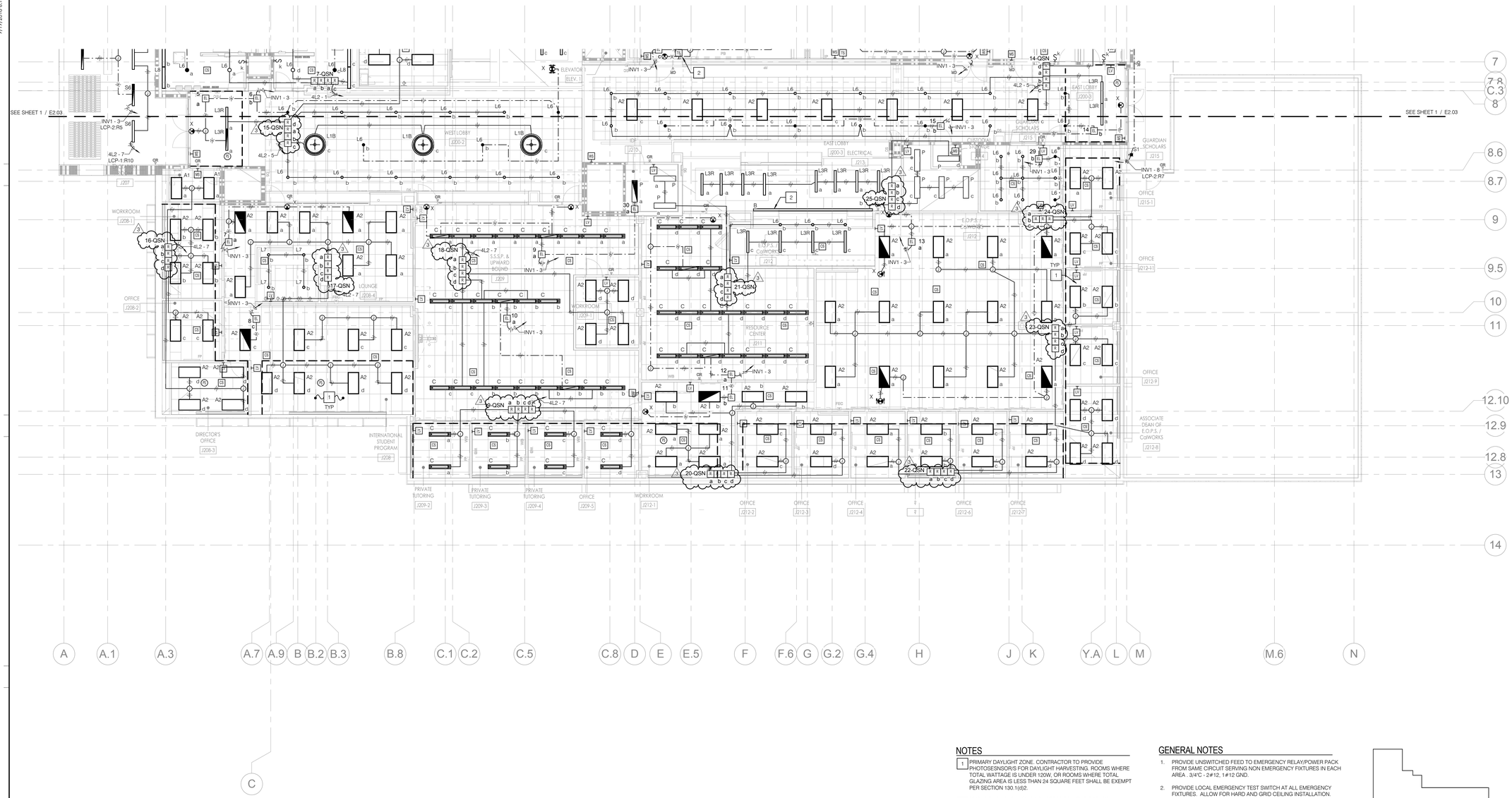
CHECKED BY C S Musser

SHEET TITLE
SECOND FLOOR LIGHTING PLAN - NORTH

SHEET NUMBER
E2.03

100% CONSTRUCTION DOCUMENTS



NOTES

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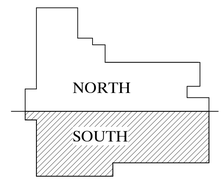
2. PROVIDE LED BACKLIGHTING. REFER TO LIGHT FIXTURE SCHEDULE FOR DETAILS.

GENERAL NOTES

1. PROVIDE UNSWITCHED FEED TO EMERGENCY RELAY/POWER PACK. FROM SAME CIRCUIT SERVING NON EMERGENCY FIXTURES IN EACH AREA . 3/4"C - 2#12, 1#12 GND.
2. PROVIDE LOCAL EMERGENCY TEST SWITCH AT ALL EMERGENCY FIXTURES. ALLOW FOR HARD AND GRID CEILING INSTALLATION.
3. REFER TO LIGHT FIXTURE SCHEDULE ON SHEET E0.03 FOR LIGHT FIXTURE TYPE AND ADDITIONAL INFORMATION.
4. REFER TO LIGHTING CONTROL DETAILS ON SHEETS E6.02, E6.03 AND E6.05 FOR ADDITIONAL INFORMATION.



N

SECOND FLOOR LIGHTING PLAN - SOUTH SCALE 1/8" = 1'-0" 1

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SUBMITTALS

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PROJECT IDENTIFICATION 7411

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DRAWN BY C Naranjo

CHECKED BY C S Musser

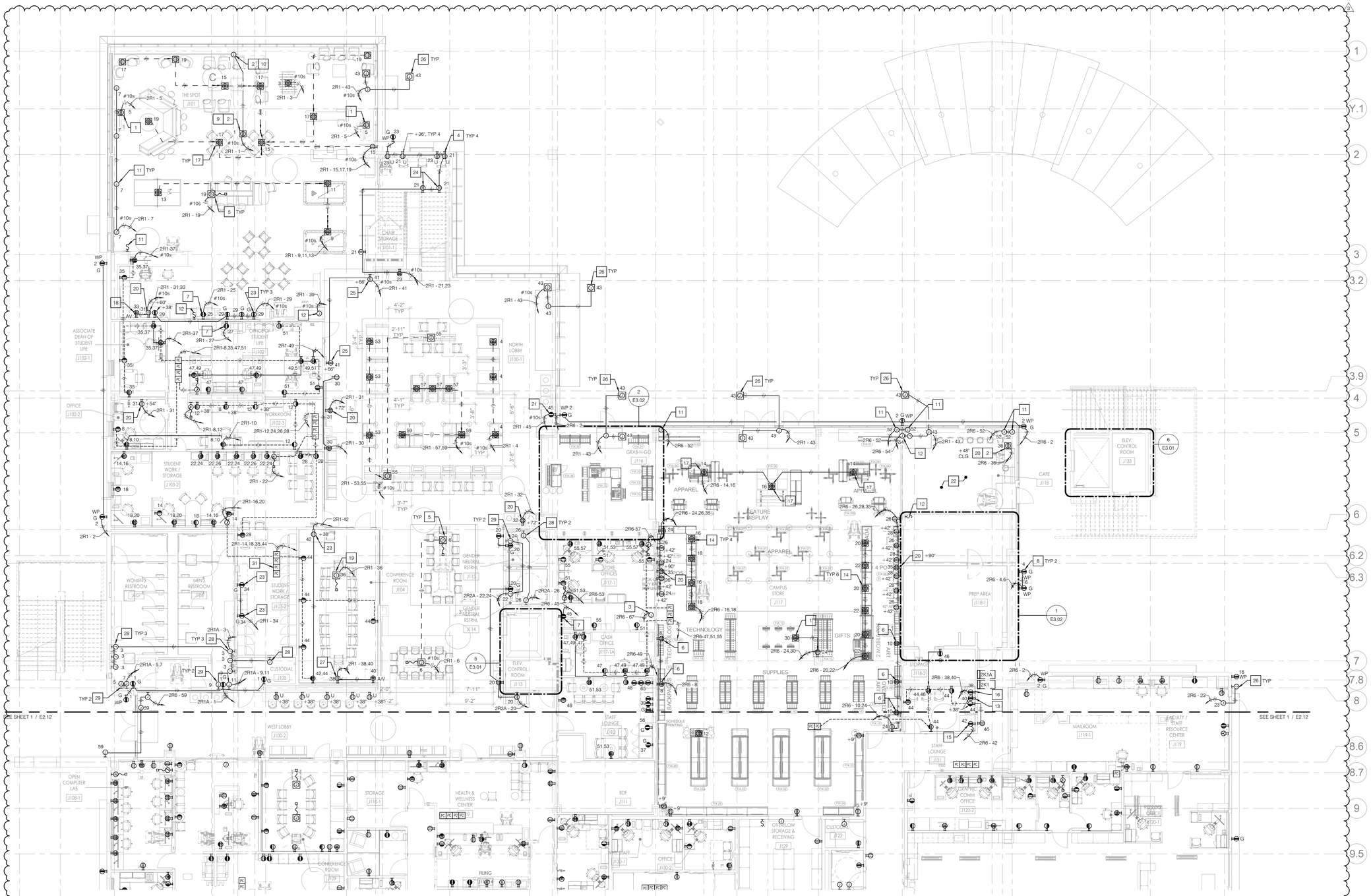
SHEET TITLE

SECOND FLOOR LIGHTING PLAN - SOUTH

SHEET NUMBER

E2.04

100% CONSTRUCTION DOCUMENTS

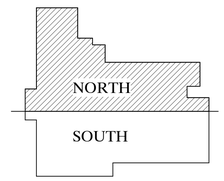


NOTES

1. PROVIDE POWER, DATA, AV FLOORBOX. PROVIDE WITH BRASS COVERPLATE. REFER TO LOW VOLTAGE PLANS FOR ADDITIONAL REQUIREMENTS AND FLOOR BOX TYPE.
2. PROVIDE PENDANT MOUNTING FOR EQUIPMENT AND OUTLET IN SPACE.
3. PROVIDE ONE 20A, 120V, 1P CIRCUIT FOR POWER DOOR OPENER.
4. PROVIDE DUAL-PORT, USB INTEGRATED DUPLEX RECEPTACLES FOR CHARGING TERMINAL AREA.
5. PROVIDE POWER FEED TO FURNITURE. COORDINATE WITH FURNITURE MANUFACTURER.
6. PROVIDE ONE DEDICATED RELAY PACK AND SWITCH TO ROOM LIGHTING CONTROLLER TO SWITCH INDICATED RECEPTACLES FOR DISPLAY CASE LIGHTING.
7. PROVIDE DEDICATED 20A, 120V, 1P RECEPTACLE FOR PRINTER/PLOTTER.
8. PROVIDE DEDICATED 20A, 120V, 1P GFI RECEPTACLE WITH IN-USE WEATHERPROOF BOX FOR VENDING MACHINES.
9. PROVIDE 20A, 120V, 1P CEILING MOUNTED RECEPTACLE FOR PROJECTOR. REFER TO LOW VOLTAGE PLANS FOR ADDITIONAL INFORMATION.
10. PROVIDE 20A, 120V, 1P CIRCUIT TO SERVE PROJECTOR SCREEN AT CEILING. PROVIDE 3/4"C, CONDUCTORS, AND CONNECT SCREEN CONTROL PER MANUFACTURER. FIELD VERIFY EXACT LOCATION PRIOR TO INSTALLATION. REFER TO LOW VOLTAGE PLANS FOR ADDITIONAL INFORMATION.
11. PROVIDE 20A, 120V, 1P CIRCUIT TO WINDOW SHADE OPERATORS, TIE INTO LIGHTING CONTROL.
12. PROVIDE 20A, 120V, 1P CIRCUIT TO MOTORIZED DOOR OPERATORS. PROVIDE 3/4"C, CONDUCTORS AND CONNECT DOOR CONTROL PER MANUFACTURER. FIELD VERIFY EXACT LOCATION PRIOR TO INSTALLATION.
13. PROVIDE DEDICATED RECEPTACLE TO SERVE COFFEE MAKER.
14. PROVIDE POWER AND DATA FLOORBOX. PROVIDE WITH BRASS COVERPLATE. REFER TO LOW VOLTAGE PLANS FOR ADDITIONAL REQUIREMENTS AND FLOOR BOX TYPE.
15. PROVIDE DEDICATED RECEPTACLE TO SERVE REFRIGERATOR.
16. PROVIDE DEDICATED RECEPTACLE TO SERVE MICROWAVE.
17. PROVIDE POWER ONLY FLOOR BOX WITH BRASS COVERPLATE LEGRAND RFB2 SERIES.
18. PROVIDE DEDICATED QUAD RECEPTACLE FOR AV RACK. REFER TO LOW VOLTAGE PLANS FOR EXACT LOCATION.
19. PROVIDE POWER FEED TO FURNITURE. REFER TO LOW VOLTAGE PLANS FOR ADDITIONAL REQUIREMENTS. COORDINATE FURNITURE FEED WITH FURNITURE MANUFACTURER.
20. PROVIDE RECEPTACLE FOR FLAT PANEL DISPLAY. FIELD COORDINATE EXACT LOCATION PRIOR TO INSTALLATION. REFER TO LOW VOLTAGE PLANS FOR ADDITIONAL INFORMATION.
21. PROVIDE DEDICATED 20A, 120V, 1P CIRCUIT TO SERVE ATM KIOSK.
22. PROVIDE STAND ALONE GFI RECEPTACLES FOR ALL CIRCUITS IN SPACE.
23. MOUNT RECEPTACLE HORIZONTAL AT 38" AFF.
24. MOUNT IN FRONT FACE OF CONCRETE BENCH.
25. PROVIDE RECEPTACLE FOR DIGITAL SIGNAGE. FIELD COORDINATE EXACT LOCATION PRIOR TO INSTALLATION. REFER TO LOW VOLTAGE PLANS FOR ADDITIONAL INFORMATION.
26. PROVIDE CONDUIT, WIRE, AND CONNECT TO ADA PADDLE WITH DOOR FINISHING. REFER TO ARCHITECTURAL PLANS FOR ADDITIONAL INFORMATION.
27. PROVIDE 20A, 120V, 1P CIRCUIT TO SERVE SHORT THROW PROJECTOR. REFER TO LOW VOLTAGE PLANS FOR ADDITIONAL INFORMATION.
28. PROVIDE CONNECTION TO SERVE PAPER TOWEL DISPENSER.
29. PROVIDE DEDICATED 20A, 120V, 1P CONNECTION TO SERVE HAND DRYER.
30. CONTROLLED RECEPTACLES SHALL BE CONTROLLED BY THE MOTION SENSOR ASSOCIATED WITH THE LIGHTING CONTROL FOR THAT ROOM. ROUTE CONTROLLED CIRCUIT AS INDICATED VIA PLUG CONTROLLER TIED INTO LIGHTING CONTROL SYSTEM.
31. PROVIDE LUTRON ENERGI SAVR MODULE FOR PLUG LOAD CONTROLUP TO FOUR PLUG LOAD ZONES). DASHED CONDUIT AND WIRE DENOTE CIRCUITS ROUTED THROUGH ENERGI SAVR MODULE.

GENERAL NOTES

1. PROVIDE (2) 20A, 120V, 1P CIRCUIT FOR MISC. SECURITY EQUIPMENT (IE DOOR BELLS, INDICATOR LIGHTS, CARD READERS, DOORHOLDERS/LOCKS).
2. PROVIDE 'IN-USE' WEATHERPROOF HOUSING FOR ALL EXTERIOR BUILDING RECEPTACLES. ALLOW FOR STRUT SUPPORT AND EXPOSED EXTERIOR RECEPTACLE BOX AT ALL EXCEPT WHERE WALL SURFACE IS AVAILABLE FOR A RECESS BOX.
3. PROVIDE GREEN PLATE FOR CONTROLLED RECEPTACLES.
4. PROVIDE DEDICATED NEUTRAL TO ALL RECEPTACLES SERVING COMPUTERS.



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FIRST FLOOR POWER PLAN - NORTH SCALE 1/8" = 1'-0" 1

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PROJECT TITLE
JOHNSON STUDENT CENTER
INCREMENT 2
1530 W 17TH ST SANTA ANA CA 92706

RANCHO SANTIAGO Community College District

SUBMITTALS

#	DATE	DESCRIPTION
	05/18/18	HEALTH DEPT. SUBMITTAL
	08/13/18	DSA FINAL SUBMITTAL
	09/24/18	ADDENDUM #3

PROJECT IDENTIFICATION 7411

THESE DRAWINGS ORIGINALLY CREATED IN AUTODESK REVIT V. 2016

THE ORIGINAL SIZE OF THIS SHEET IS 30" X 42".

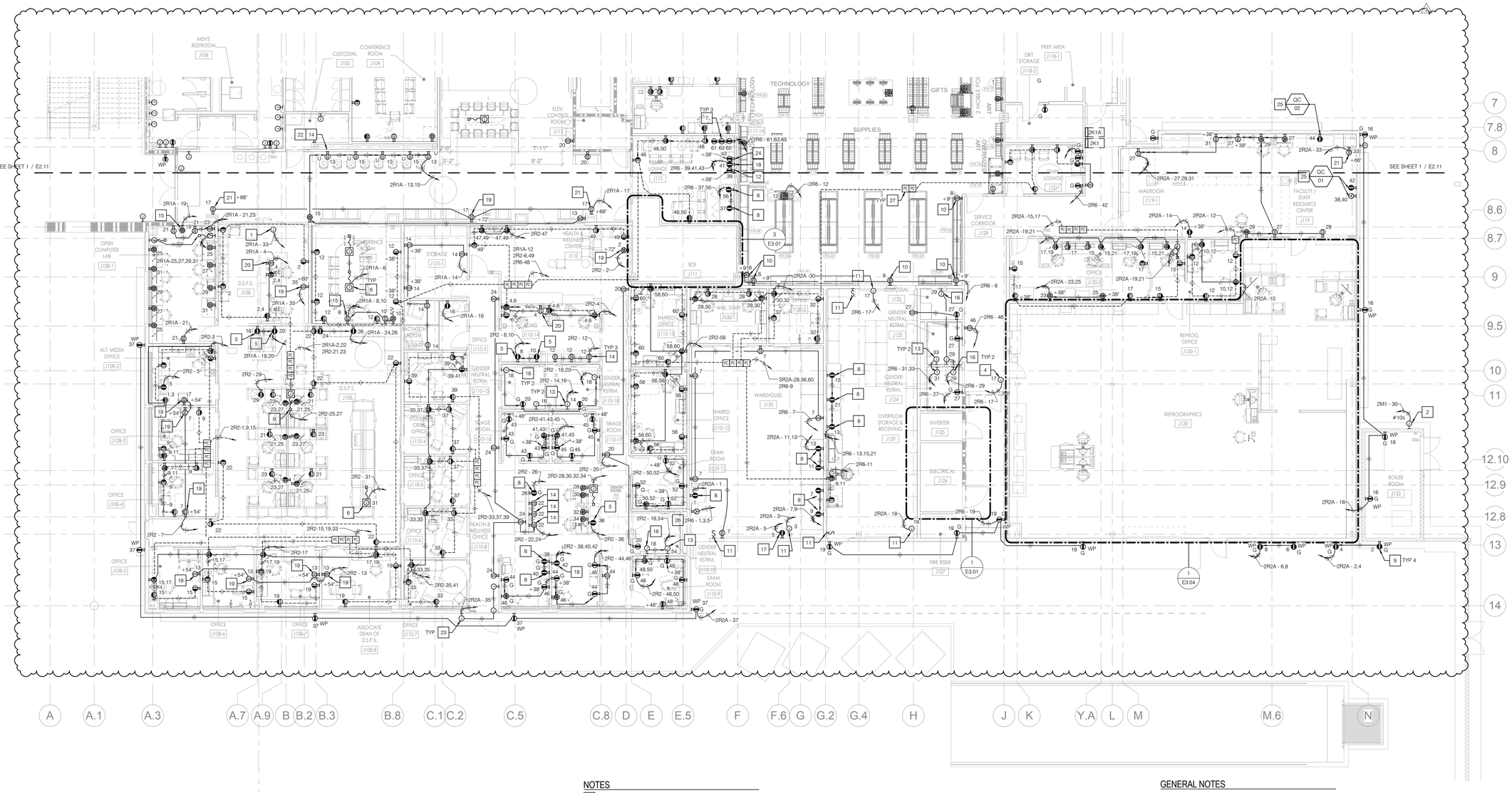
DRAWN BY C Naranjo

CHECKED BY C S Musser

SHEET TITLE
FIRST FLOOR POWER PLAN - NORTH

SHEET NUMBER
E2.11

100% CONSTRUCTION DOCUMENTS

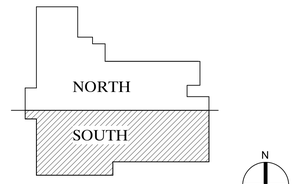


NOTES

1. PROVIDE 120V, 1P, 20A CONNECTION TO SERVE SLIDING GLASS DOOR, PROVIDE MOTOR RATED TOGGLE SWITCH. FIELD VERIFY EXACT LOCATION PRIOR TO INSTALLATION.
2. PROVIDE 20A, 120V, 1P CIRCUIT TO SERVE IRRIGATION CONTROLLER.
3. PROVIDE POWER, DATA, AV FLOORBOX. PROVIDE WITH BRASS COVERPLATE. REFER TO LOW VOLTAGE PLANS FOR ADDITIONAL REQUIREMENTS AND FLOOR BOX TYPE.
4. PROVIDE 20A, 120V, 1P CIRCUIT TO SERVE POWER TRANSFER HINGE EQUIPMENT.
5. PROVIDE DEDICATED 20A, 120V, 1P RECEPTACLE FOR PRINTER/PLOTTER/SHREDDER.
6. PROVIDE POWER FEED TO FURNITURE. REFER TO LOW VOLTAGE PLANS FOR ADDITIONAL REQUIREMENTS. COORDINATE FURNITURE FEED WITH FURNITURE MANUFACTURER.
7. STACKED MICROWAVES LOCATED HERE. PROVIDE DEDICATED 20A, 120V, 1P CIRCUIT TO EACH MICROWAVE. REFER TO ARCHITECTURAL SHEET A7.20 FOR ADDITIONAL INFORMATION.
8. PROVIDE DEDICATED 20A, 120V, 1P RECEPTACLE TO SERVE REFRIGERATOR/COOLER.
9. PROVIDE DEDICATED 20A, 120V, 1P RECEPTACLE TO SERVE ELECTRIC CART.
10. PROVIDE ONE DEDICATED RELAY PACK AND SWITCH TO ROOM LIGHTING CONTROLLER TO SWITCH INDICATED RECEPTACLES FOR DISPLAY CASE LIGHTING.
11. PROVIDE 20A, 120V, 1P CIRCUIT TO MOTORIZED DOOR OPERATORS. PROVIDE 3/4"C. CONDUCTORS AND CONNECT DOOR CONTROL PER MANUFACTURER. FIELD VERIFY EXACT LOCATION PRIOR TO INSTALLATION.
12. PROVIDE DEDICATED 20A, 120V, 1P RECEPTACLE TO SERVE COFFEE MAKER.
13. PROVIDE DEDICATED 20A, 120V, 1P CONNECTION TO SERVE HAND DRYER.
14. MOUNT RECEPTACLE HORIZONTAL AT 38" AFF.
15. PROVIDE 20A, 120V, 1P CIRCUIT TO SERVE SHORT THROW PROJECTOR. REFER TO LOW VOLTAGE PLANS FOR ADDITIONAL INFORMATION.
16. PROVIDE CONNECTION TO SERVE PAPER TOWEL DISPENSER.
17. PROVIDE DEDICATED 20A, 120V, 1P RECEPTACLE TO SERVE DELIVERY CART CHARGING.
18. PROVIDE DEDICATED CIRCUIT TO SERVE ICEMAKER.
19. PROVIDE RECEPTACLE FOR FLAT PANEL DISPLAY. FIELD COORDINATE EXACT LOCATION PRIOR TO INSTALLATION. REFER TO LOW VOLTAGE PLANS FOR ADDITIONAL INFORMATION.
20. PROVIDE RECEPTACLE FOR DVD PLAYER. REFER TO LOW VOLTAGE PLANS FOR ADDITIONAL INFORMATION.
21. PROVIDE RECEPTACLE FOR DIGITAL SIGNAGE. FIELD COORDINATE EXACT LOCATION PRIOR TO INSTALLATION. REFER TO LOW VOLTAGE PLANS FOR ADDITIONAL INFORMATION.
22. PROVIDE DUAL-PORT, USB INTEGRATED DUPLEX RECEPTACLE FOR CHARGING TERMINAL AREA.
23. PROVIDE CONDUIT, WIRE, AND CONNECT TO ADA PADDLE WITH DOOR FINISHING. REFER TO ARCHITECTURAL PLANS FOR ADDITIONAL INFORMATION.
24. PROVIDE DEDICATED 20A, 120V, 1P RECEPTACLE TO SERVE TOASTER.
25. REFER TO REPROGRAPHICS EQUIPMENT SCHEDULE ON SHEET E3.04 FOR ADDITIONAL INFORMATION.
26. PROVIDE 40A, 208V, 3P CONNECTION TO SERVE FORKLIFT CHARGER. FIELD COORDINATE EXACT LOCATION PRIOR TO INSTALLATION.
27. PROVIDE LUTRON ENERGI SAVR MODULE FOR PLUG LOAD CONTROL(UP TO FOUR PLUG LOAD ZONES). DASHED CONDUIT AND WIRE DENOTE CIRCUITS ROUTED THROUGH ENERGI SAVR MODULE.

GENERAL NOTES

1. PROVIDE BMS TIE-IN OF DOMESTIC WATER. ACCOUNT FOR 200FT RUN OF CAT6 AND 3/4"C TO NEAREST IT ROOM.
2. PROVIDE (2) 20A, 120V, 1P CIRCUIT FOR MISC. SECURITY EQUIPMENT (IE DOOR BELLS, INDICATOR LIGHTS, CARD READERS, DOORHOLDERS/LOCKS).
3. PROVIDE 'IN-USE' WEATHERPROOF HOUSING FOR ALL EXTERIOR BUILDING RECEPTACLES. ALLOW FOR STRUT SUPPORT AND EXPOSED EXTERIOR RECEPTACLE BOX AT ALL EXCEPT WHERE WALL SURFACE IS AVAILABLE FOR A RECESS BOX.
4. UON PROVIDE ALL DEVICES WITH CEILING MOUNTED, RETRACTABLE POWER CORDS AT RESPECTIVE LOCATIONS. REFER TO DRAWING E6.02, DETAIL 6 FOR MORE INFORMATION.



FIRST FLOOR POWER PLAN - SOUTH SCALE 1/8" = 1'-0" 1

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PROJECT TITLE

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INCREMENT 2
1530 W 17TH ST SANTA ANA CA 92706

RANCHO SANTIAGO Community College District

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	08/13/18	DSA FINAL SUBMITTAL
	09/24/18	ADDENDUM #3

PROJECT IDENTIFICATION 7411

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THE ORIGINAL SIZE OF THIS SHEET IS 30" X 42".

DRAWN BY C Naranjo

CHECKED BY C.S Musser

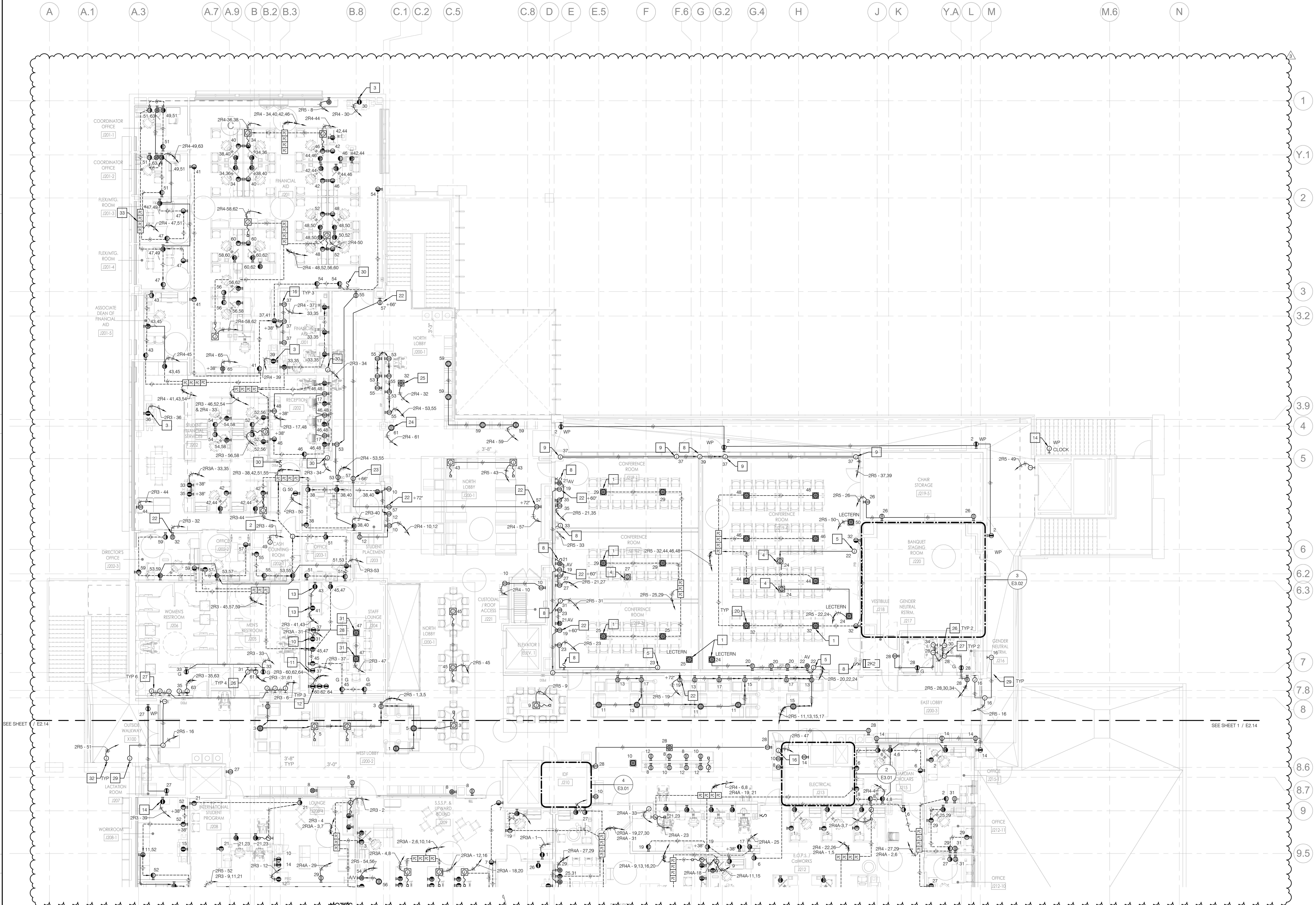
SHEET TITLE

FIRST FLOOR POWER PLAN - SOUTH

SHEET NUMBER

E2.12

100% CONSTRUCTION DOCUMENTS

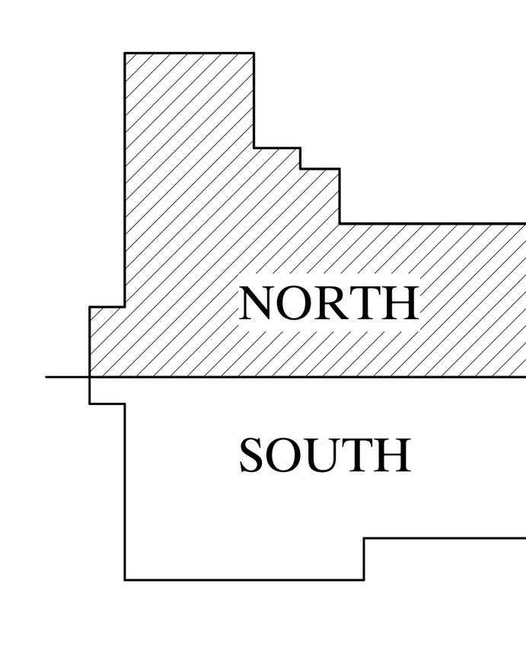


NOTES

1. PROVIDE POWER, DATA, AV FLOORBOX. PROVIDE WITH BRASS COVERPLATE. REFER TO LOW VOLTAGE PLANS FOR ADDITIONAL REQUIREMENTS AND FLOORBOX TYPE.
2. PROVIDE ONE 20A, 120V, 1P CIRCUIT FOR POWER TRANSFER HINGE EQUIPMENT.
3. PROVIDE DEDICATED 20A, 120V, 1P RECEPTACLE FOR PRINTER/PLOTTER.
4. PROVIDE 20A, 120V, 1P CEILING MOUNTED RECEPTACLE FOR PROJECTOR. REFER TO LOW VOLTAGE PLANS FOR ADDITIONAL INFORMATION.
5. PROVIDE 20A, 120V, 1P CIRCUIT PROJECTOR SCREEN AT CEILING. PROVIDE 3/4"C, CONDUCTORS AND CONNECT SCREEN CONTROL PER MANUFACTURER. FIELD VERIFY EXACT LOCATION PRIOR TO INSTALLATION. REFER TO LOW VOLTAGE PLANS FOR ADDITIONAL INFORMATION.
6. PROVIDE 20A, 120V, 1P RECEPTACLES FOR FOOD SERVICING.
7. NOT USED.
8. PROVIDE 20A, 120V, 1P CIRCUIT TO PARTITION WALL OPERATORS. PROVIDE 3/4"C, CONDUCTORS AND CONNECT PARTITION CONTROL PER MANUFACTURER. FIELD VERIFY EXACT LOCATION PRIOR TO INSTALLATION.
9. PROVIDE 20A, 120V, 1P CIRCUIT TO WINDOW SHADE OPERATORS.
10. PROVIDE DEDICATED CIRCUIT TO SERVE ICEMAKER.
11. PROVIDE DEDICATED CIRCUIT TO SERVE COFFEE MAKER.
12. PROVIDE DEDICATED 20A, 120V, 1P CIRCUIT FOR MICROWAVE.
13. PROVIDE DEDICATED 20A, 120V, 1P CIRCUIT TO FRIDGE/COOLER.
14. PROVIDE DEDICATED 20A, 120V, 1P CIRCUIT TO CLOCK AND CONTROL WIRING BACK TO 2ND FLOOR IDF ROOM 214.
15. NOT USED.
16. MOUNT RECEPTACLE HORIZONTAL AT 38" AFF.
17. NOT USED.
18. NOT USED.
19. PROVIDE INFRASTRUCTURE ONLY JUNCTION BOX WITH BLANK COVER PLATE WITH 3/4"C.O. TO ALLOW CONNECTION FOR FUTURE FLAT PANEL.
20. PROVIDE POWER ONLY FLOORBOX WITH BRASS COVERPLATE LEGRAND RFB2 SERIES.
21. NOT USED.
22. PROVIDE RECEPTACLE FOR FLAT PANEL DISPLAY. FIELD COORDINATE EXACT LOCATION PRIOR TO INSTALLATION. REFER TO LOW VOLTAGE DRAWINGS FOR ADDITIONAL INFORMATION.
23. PROVIDE RECEPTACLE FOR DIGITAL SIGNAGE. FIELD COORDINATE EXACT LOCATION PRIOR TO INSTALLATION. REFER TO LOW VOLTAGE DRAWINGS FOR ADDITIONAL INFORMATION.
24. PROVIDE 120V CONNECTION TO QMATIC KIOSK. REFER TO LOW VOLTAGE PLANS FOR ADDITIONAL INFORMATION.
25. PROVIDE CEILING MOUNTED RECEPTACLE FOR FLAT PANEL DISPLAY. FIELD COORDINATE EXACT LOCATION PRIOR TO INSTALLATION. REFER TO LOW VOLTAGE DRAWINGS FOR ADDITIONAL INFORMATION.
26. PROVIDE DEDICATED 120V, 1P, 20A CONNECTION TO SERVE HAND DRYER.
27. PROVIDE CONNECTION TO SERVE PAPER TOWEL DISPENSER.
28. PROVIDE DEDICATED 20A, 120V, 1P RECEPTACLE FOR TOASTER.
29. PROVIDE CONDUIT, WIRE, AND CONNECT TO ADA PADDLE WITH DOOR FINISHING. REFER TO ARCHITECTURAL PLANS FOR ADDITIONAL INFORMATION.
30. PROVIDE 20A, 120V, 1P CIRCUIT TO MOTORIZED DOOR OPERATORS. PROVIDE 3/4"C, CONDUCTORS AND CONNECT DOOR CONTROL PER MANUFACTURER. FIELD VERIFY EXACT LOCATION PRIOR TO INSTALLATION.
31. PROVIDE POWER AND DATA FLOORBOX. PROVIDE WITH BRASS COVERPLATE. REFER TO LOW VOLTAGE PLANS FOR ADDITIONAL REQUIREMENTS AND FLOORBOX TYPE.
32. PROVIDE 120V CONNECTION TO SERVE RESCUE ILLUMINATION SIGNAGE.
33. PROVIDE LUTRON ENERGI SAVR MODULE FOR PLUG LOAD CONTROL(UP TO FOUR PLUG LOAD ZONES). DASHED CONDUIT AND WIRE DENOTE CIRCUITS ROUTED THROUGH ENERGI SAVR MODULE.

GENERAL NOTES

1. PROVIDE TWO 120V, 1P-20A CIRCUIT FOR MISC. LOW VOLTAGE EQUIPMENT (IE DOOR BELLS, INDICATOR LIGHTS).
2. PROVIDE 'IN-USE' WEATHERPROOF HOUSING FOR ALL EXTERIOR BUILDING RECEPTACLES. ALLOW FOR STRUT SUPPORT AND EXPOSED EXTERIOR RECEPTACLE BOX AT ALL EXCEPT WHERE WALL SURFACE IS AVAILABLE FOR A RECESS BOX.



SECOND FLOOR POWER PLAN - NORTH

SCALE 1/8" = 1'-0"

1

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PROJECT TITLE

JOHNSON STUDENT CENTER
INCREMENT 2
1530 W 17TH ST SANTA ANA CA 92706

RANCHO SANTIAGO Community College District

SUBMITTALS		
#	DATE	DESCRIPTION
	05/18/18	HEALTH DEPT. SUBMITTAL
	08/13/18	DSA FINAL SUBMITTAL
	09/24/18	ADDENDUM #3

PROJECT IDENTIFICATION 7411
THESE DRAWINGS ORIGINALLY CREATED IN AUTODESK REVIT V. 2016
THE ORIGINAL SIZE OF THIS SHEET IS 30" X 42".

DRAWN BY C Naranjo

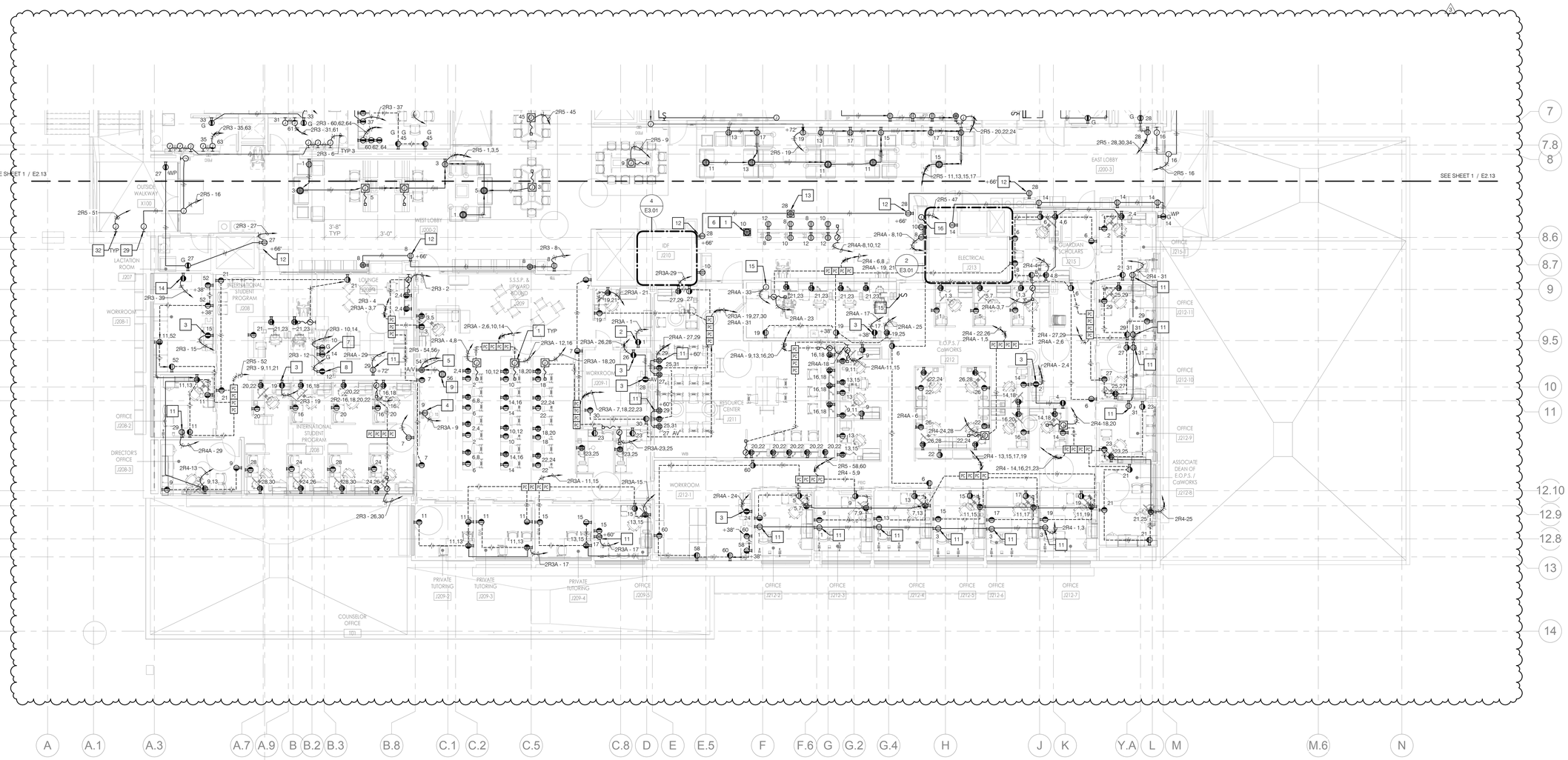
CHECKED BY C S Musser

SHEET TITLE
SECOND FLOOR POWER PLAN - NORTH

SHEET NUMBER
E2.13

100% CONSTRUCTION DOCUMENTS

P2S: 7411

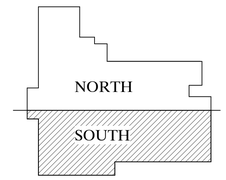


NOTES

1. PROVIDE POWER AND DATA FIRE RATED POKE-THROUGH WITH BRASS COVERPLATE (LEGRAND EVOLUTION 10AT). COORDINATE WITH LOW VOLTAGE DEVICE INSTALLATION.
2. PROVIDE DEDICATED 20A, 120V, 1P RECEPTACLE FOR LAPTOP CHARGING CART.
3. PROVIDE DEDICATED 20A, 120V, 1P RECEPTACLE FOR PRINTER/PLOTTER.
4. PROVIDE 120V, 20A, 1P CIRCUIT TO SERVE SHORT THROW PROJECTOR. REFER TO LOW VOLTAGE PLANS FOR ADDITIONAL INFORMATION.
5. PROVIDE DEDICATED QUAD RECEPTACLE FOR AV RACK. REFER TO LOW VOLTAGE PLANS FOR EXACT LOCATION.
6. PROVIDE 20A, 120V, 1P CIRCUIT TO PEDESTAL TICKET KIOSK.
7. PROVIDE DEDICATED 20A, 120V, 1P RECEPTACLE FOR MICROWAVE.
8. PROVIDE DEDICATED 20A, 120V, 1P RECEPTACLE FOR FRIDGE.
9. PROVIDE POKE THRU FOR LECTERN. FIELD COORDINATE EXACT LOCATION PRIOR TO INSTALLATION. REFER TO LOW VOLTAGE PLANS FOR ADDITIONAL INFORMATION.
10. NOT USED.
11. PROVIDE RECEPTACLE FOR FLAT PANEL DISPLAY. REFER TO TELECOM DRAWINGS FOR ADDITIONAL INFORMATION.
12. PROVIDE RECEPTACLE FOR DIGITAL SIGNAGE. FIELD COORDINATE EXACT LOCATION PRIOR TO INSTALLATION. REFER TO LOW VOLTAGE PLANS FOR ADDITIONAL INFORMATION.
13. PROVIDE CEILING MOUNTED RECEPTACLE FOR FLAT PANEL DISPLAY. REFER TO LOW VOLTAGE PLANS FOR ADDITIONAL INFORMATION.
14. PROVIDE DEDICATED 20A, 120V, 1P RECEPTACLE FOR SHREDDER.
15. PROVIDE 20A, 120V, 1P CIRCUIT TO MOTORIZED DOOR OPERATORS. PROVIDE 3/4"C. CONDUCTORS AND CONNECT DOOR CONTROL PER MANUFACTURER. FIELD VERIFY EXACT LOCATION PRIOR TO INSTALLATION.
16. PROVIDE CONNECTION TO WON-DOOR. REFER TO ARCHITECTURAL PLANS FOR ADDITIONAL INFORMATION.

GENERAL NOTES

1. PROVIDE TWO 120V, 1P-20A CIRCUIT FOR MISC. LOW VOLTAGE EQUIPMENT (IE DOOR BELLS, INDICATOR LIGHTS, CARD READERS).
2. PROVIDE 'IN-USE' WEATHERPROOF HOUSING FOR ALL EXTERIOR BUILDING RECEPTACLES. ALLOW FOR STRUT SUPPORT AND EXPOSED EXTERIOR RECEPTACLE BOX AT ALL EXCEPT WHERE WALL SURFACE IS AVAILABLE FOR A RECESS BOX.



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SECOND FLOOR POWER PLAN - SOUTH SCALE 1/8" = 1'-0" 1

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INCREMENT 2
1530 W 17TH ST SANTA ANA CA 92706

RANCHO SANTIAGO Community College District

SUBMITTALS

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	08/13/18	DSA FINAL SUBMITTAL
	09/24/18	ADDENDUM #3

PROJECT IDENTIFICATION 7411

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THE ORIGINAL SIZE OF THIS SHEET IS 30" X 42".

DRAWN BY C Naranjo

CHECKED BY C S Musser

SHEET TITLE

SECOND FLOOR POWER PLAN - SOUTH

SHEET NUMBER

E2.14

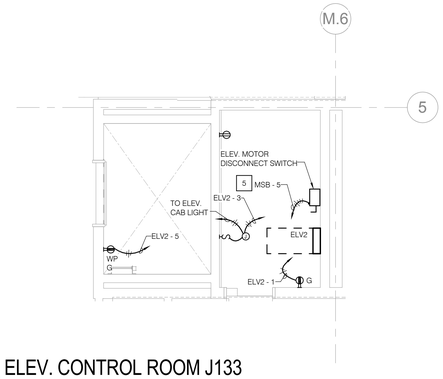
100% CONSTRUCTION DOCUMENTS

GENERAL NOTES

1. LOW VOLTAGE TRANSFORMERS SHALL BE PROVIDED WITH CLASS 220 INSULATION SYSTEM PER SPECIFICATION 262200-2.3.J.

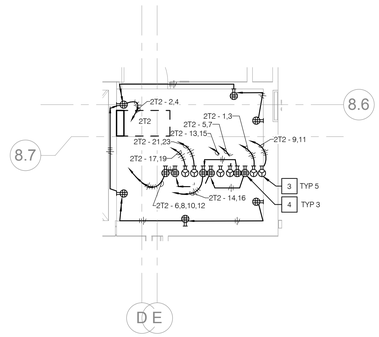
NOTES

1. PROVIDE UPS AS SHOWN. REFER TO SINGLE LINE DIAGRAM SHEET E5.01 FOR ADDITIONAL INFORMATION. FIELD COORDINATE EXACT LOCATION PRIOR TO INSTALLATION.
2. PROVIDE 120V, 1P, 20A CONNECTION TO SECURITY AND ACCESS CONTROL SYSTEM. REFER TO TELECOM PLANS FOR EXACT LOCATION.
3. PROVIDE 208V, 1P, 30A RECEPTACLE NEMA L6-30R MOUNTED ON SIDE OF CABLE TRAY. REFER TO TELECOM PLANS FOR EXACT LOCATION AND ADDITIONAL INFORMATION.
4. PROVIDE DEDICATED QUAD RECEPTACLE MOUNTED ON SIDE OF CABLE TRAY. REFER TO TELECOM PLANS FOR EXACT LOCATION AND ADDITIONAL INFORMATION.
5. PROVIDE FEEDER AND DISCONNECT PER SINGLE LINE DIAGRAM ON SHEET E5.01.
6. PROVIDE RECEPTACLE TO ALLOW CHARGING OF AUTO SCRUBBER.
7. PROVIDE (2) #CXP12-277-4-T12 LIGHTING CONTROL PANELS FOR CONTROL OF EXTERIOR LIGHTS. LCP-1 SHALL CONTROL NORMAL CIRCUITS AND LCP-2 SHALL CONTROL EMERGENCY CIRCUITS. PROVIDE LUT-ELI RELAY FOR POWER SENSING. INSTALL PER MANUFACTURER REQUIREMENTS. REFER TO SHEET E0.05 FOR RELAY SCHEDULE.
8. PROVIDE 8-RELAY PANEL LUTRON #XPS8-120V4ML-20 TO ALLOW TIMECLOCK CONTROL OF THE EXTERIOR RECEPTACLES. COORDINATE PROGRAMMING WITH COLLEGE REPRESENTATIVE. PROVIDE WITH 1-BUTTON OVERRIDE SWITCH FOR RELAY PANEL. LOCATE ADJACENT TO RELAY PANEL. REFER TO RELAY PANEL SCHEDULE ON SHEET E0.05 FOR ADDITIONAL INFORMATION.
9. PROVIDE LUTRON #QPS-1PL QUANTUM MANAGEMENT HUB.



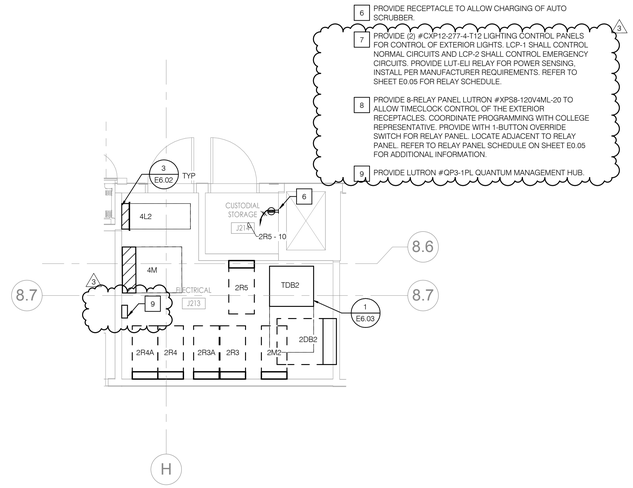
6 ELEV. CONTROL ROOM J133

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



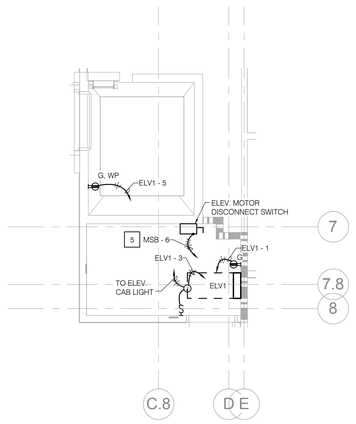
4 SECOND FLOOR IDF ROOM

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



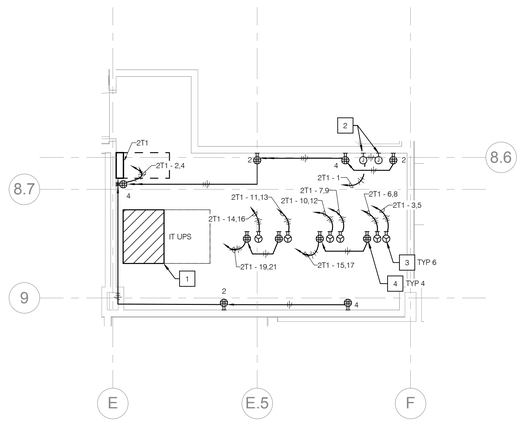
2 SECOND FLOOR ELECTRICAL ROOM

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



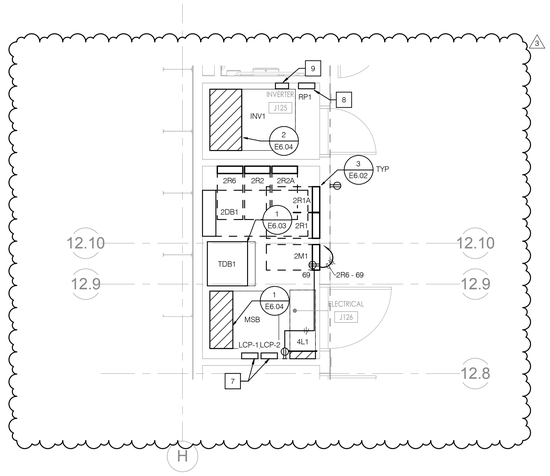
5 ELEV. CONTROL ROOM J113

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



3 FIRST FLOOR BDF ROOM

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



1 FIRST FLOOR ELECTRICAL ROOM

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

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DRAWN BY C Naranjo

CHECKED BY C S Musser

SHEET TITLE

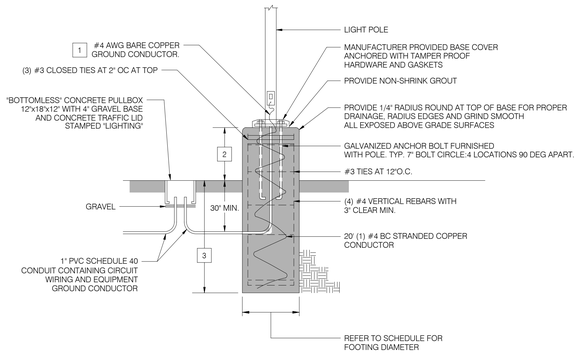
ENLARGED FLOOR PLANS

SHEET NUMBER

E3.01

100% CONSTRUCTION DOCUMENTS

6 -
NO SCALE



LIGHT POLE FOOTING SCHEDULE			
POLE HEIGHT	FOOTING HEIGHT BELOW GRADE	FOOTING DIAMETER	FOOTING HEIGHT ABOVE GRADE
0'-0" UP TO 15'-0" (WALKWAYS)	4'-0"	2'-0"	6"

KEYED NOTES

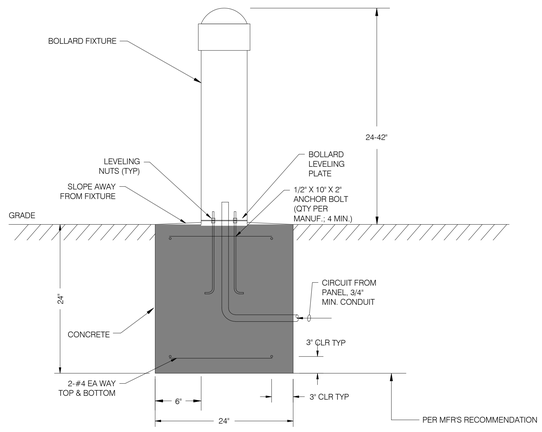
1 GROUND POLE TO GROUND CONDUCTORS IN CONDUITS.

2 REFER TO SCHEDULE FOR ABOVE GRADE HEIGHT.

3 REFER TO SCHEDULE FOR FOOTING LENGTH BELOW GRADE.

4 LIGHT POLE FOOTING
NO SCALE

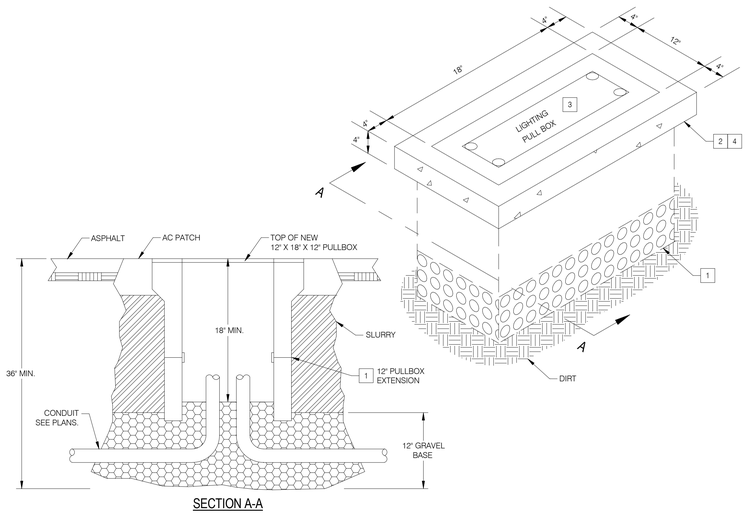
2 -
NO SCALE



NOTES:

1. DETAIL IS STRICTLY DIAGRAMATIC. COORDINATE WITH EACH FIXTURE MANUFACTURER FOR SPECIFIC REQUIREMENTS.

5 POST BOLLARD LIGHT FIXTURE
NO SCALE



SECTION A-A

NOTES

1 PULL BOX BASE. SET ON PEA GRAVEL BASE BENEATH PULL BOX. (PROVIDE EXTENSIONS AS REQ'D. IN FIELD) MIN. OF (1) EXTENSION.

2 POUR 4" CONCRETE OR AC PATCH PAD AROUND EACH PULL BOX TO PREVENT SINKING BELOW GRADE, AND SLURRY COAT AROUND. SEE SECTION A-A.

3 PROVIDE 6'-0", #6 GROUND BOND JUMPER TO COVER FROM SERVICE GROUND CONDUCTOR WITH NECESSARY APPROVED HARDWARE.

4 WATER TIGHT INSTALLATION-FOAM SEAL CONDUIT OPENINGS.

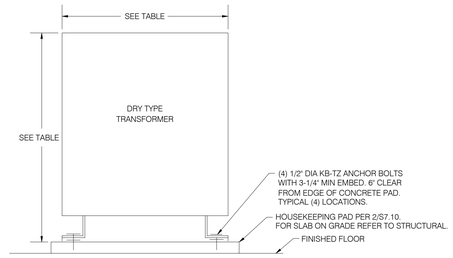
NOTES

1. LABEL EACH COVER: A) ELECTRIC PULLBOX STEEL BOLT DOWN: B) COMMUNICATION PULLBOX
2. DO NOT MIX POWER & L.V. COMM. CONDUITS.

3 HAND HOLE
NO SCALE

KVA SIZE	H	W	D	WEIGHT
112.5KVA	51"	34.5"	31.5"	1263lbs
225KVA	60"	38"	34"	1745lbs

NOTE:
1.TRANSFORMER SHALL BE CLASS 155 OR HIGHER INSULATION SYSTEM.



NOTES

1. SPECIAL INSPECTION OF EXPANSION ANCHOR INSTALLATION IS REQUIRED.
2. EXPANSION ANCHORS SHALL BE HILTI-KWIK BOLT-TZ (ICC ESR-1917).

1 DRY TYPE TRANSFORMER
NO SCALE

HPI architecture
www.hpiarchitecture.com
115 22nd street
Newport Beach, CA 92663
o: 949. 675. 6442

CONSULTANTS
P2S ENG
Long Beach | Los Angeles
San Diego San Jose
p2sinc.com

SIGNED: 08/06/18

SEALS / APPROVALS

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
FILE: 30-C2
A# 04-116810

AC _____ FLS _____ SS _____

DATE _____

PROJECT TITLE
JOHNSON STUDENT CENTER
INCREMENT 2
1530 W 17TH ST SANTA ANA CA 92706

RANCHO SANTIAGO
Community College District

SUBMITTALS		
#	DATE	DESCRIPTION
	05/18/18	HEALTH DEPT. SUBMITTAL
	08/13/18	DSA FINAL SUBMITTAL
	09/24/18	ADDENDUM #3

PROJECT IDENTIFICATION 7411

THESE DRAWINGS ORIGINALLY CREATED IN AUTODESK REVIT V. 2016

THE ORIGINAL SIZE OF THIS SHEET IS 30" X 42".

DRAWN BY C Naranjo

CHECKED BY C S Musser

SHEET TITLE
DETAILS

SHEET NUMBER
E6.03

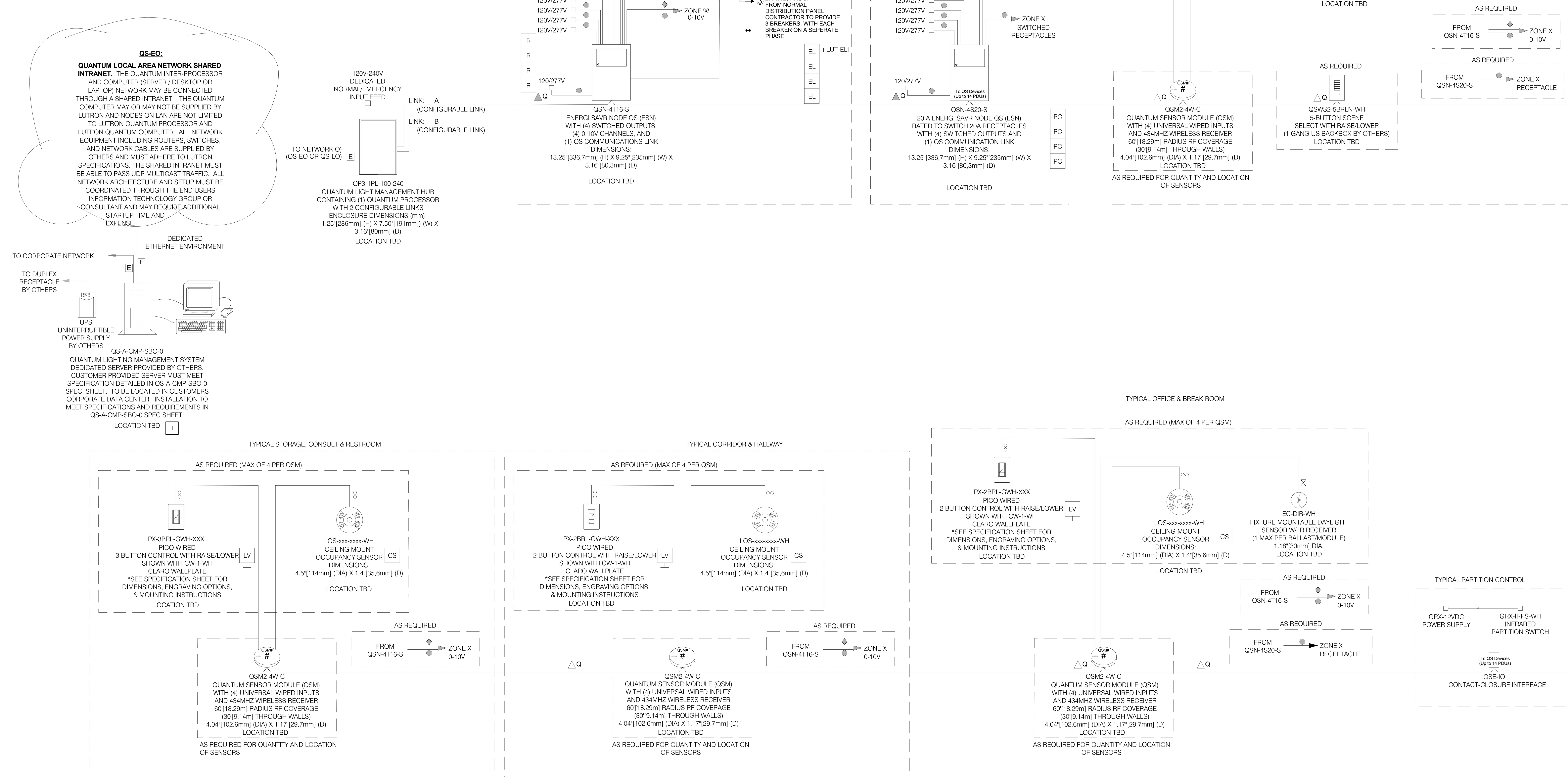
100% CONSTRUCTION DOCUMENTS

GENERAL NOTES

1. CONTRACTOR SHALL INTEGRATE LIGHTING SYSTEM TO DISTRICT'S TRIDIUM BAS SOFTWARE.
2. LUTRON PANELS SHALL BE INSTALLED WITH NATIVE BANET TO ALLOW FUTURE CONTROLS CONTRACTOR TO INSTALL FIELD CONTROLLER, WIRE AND CONDUIT BETWEEN LIGHTING PANELS AND BMS HEADEND.
3. THE TRIDIUM BAS SYSTEM SHALL HAVE FULL OVERRIDE PRIORITY OVER THE LUTRON QUANTUM SYSTEM.

NOTES

1 LUTRON QUANTUM SHALL TIE INTO CENTRAL SERVER ROOM IN SAC SCIENCE CENTER BUILDING. COORDINATE WITH COLLEGE.



WIRING LEGEND:

△Q QS CONTROL LINK (SEE WIRE DESCRIPTION BELOW)
▲Q QS CONTROL LINK (SEE WIRE DESCRIPTION BELOW) (CONNECT WIRES 1, 3 AND 4. DO NOT CONNECT WIRE # 2)

QS WIRING AS REQUIRED BY CONTROL LINK LENGTH
(REFER TO QS SMART PANEL POWER SUPPLY WIRING GUIDE FOR SHADE WIRING NOTES):

TOTAL CONTROL LINK LENGTH	WIRE GAUGE	AVAILABLE FROM LUTRON IN ONE CABLE:
LESS THAN 500ft (153 m)	POWER (TERMINALS 1&2): 1 PAIR 18 AWG (1.0 mm²)	GRX-CBL-346S OR GRX-PCBL-346S
	DATA (TERMINALS 3&4): 1 PAIR 22 AWG (0.5 mm²), TWISTED AND SHIELDED*	
500ft (153 m) TO 2,000ft (600 m)**	POWER (TERMINALS 1&2): 1 PAIR 12 AWG (4 mm²)	GRX-CBL-46L OR GRX-PCBL-46L
	DATA (TERMINALS 3&4): 1 PAIR 22 AWG (0.5 mm²), TWISTED AND SHIELDED*	

*ALTERNATE DATA-ONLY CABLE: USE APPROVED DATA LINK CABLE (22 AWG [0.5 mm ^{2}] TWISTED/SHIELDED) FROM BELDEN (MODEL # 9461).
**TOTAL LENGTH OF THE QS LINK MUST NOT EXCEED 2,000 ft (600 m).

- □ INPUT POWER (NORMAL)
- ● 2 #12AWG (4 mm ^{2})
- ◆ 0-10V SIGNAL: 2 #18AWG (1.0 mm ^{2})
- 2 #18AWG (1.0 mm ^{2})
- ∞ 3 #18AWG (1.0 mm ^{2})
- E CAT5E OR BETTER CABLE FOR LUTRON NETWORK TERMINATED WITH RJ45 CONNECTORS (TO BE PROVIDED BY OTHERS). 328 ft (100 m) MAXIMUM RUN.
- ⧖ LUTRON SENSOR CABLE C-CBL-522S OTHERWISE USE 3 #22 AWG (1.0 mm ^{2})
- ⧗ LUTRON SENSOR CABLE C-CBL-522S OTHERWISE USE 4 #22 AWG (1.0 mm ^{2})

WIRING NOTES:

QS LINK RULES

THE FOLLOWING LINK RULES MUST BE OBSERVED FOR PROPER OPERATION:

- THIS IS A TOPOLOGY-FREE LINK (T-TAP, HOME-RUN, ETC. IS OK); REFER TO TABLE BELOW FOR WIRE RUN LIMITS.
- IF WIRED DIFFERENTLY THAN WHAT IS SHOWN, POWER DRAW UNIT REQUIREMENTS NEED TO BE CONFIRMED; SEE POWER DRAW UNITS (PDUs) SPECIFICATION SHEET INCLUDED IN THIS SUBMITTAL.
- MAXIMUM OF 512 OUTPUTS (BALLASTS, SHADES, CONTACT CLOSURES, ETC).
- MAXIMUM OF 100 OCCUPANCY SENSORS, 100 DAYLIGHT SENSORS/RADIO SHADOW SENSORS AND 100 KEYPADS.
- MAXIMUM OF 100 QS DEVICES (SUCH AS A GRAFIK EYE® QS, SEETOUCH® QS KEYPAD, SMART PANEL POWER SUPPLY [QSPS-Px-10-60], ESN, OR SIVOIA® QS SHADE / DRAPERY DRIVE UNIT). QUANTUM PROCESSOR COUNTS AS 1 DEVICE PER LINK.
- MAXIMUM OF 100 ZONES - SUCH AS A SIVOIA QS SHADE / DRAPERY DRIVE UNIT, OR A LIGHTING ZONE ON A GRAFIK EYE QS (DOES NOT APPLY TO QUANTUM SYSTEMS).
- THE 10 OUTPUTS ON A QSPS-Px-10-60 CANNOT EXCEED A COMBINED LENGTH OF 2,000 ft (600 m).

QUANTUM NETWORK

WHEN A LIGHTING MANAGEMENT NETWORK (LMN) IS REQUIRED TO ENABLE COMMUNICATIONS BETWEEN INDIVIDUAL LIGHT MANAGEMENT HUBS (LMH) AND BETWEEN LMH AND THE SYSTEM SERVER/DESKTOP/LAPTOP (Q-MANAGER). THE LMN REQUIRES A DEDICATED LAN OR VLAN. IT IS THE RESPONSIBILITY OF THE NETWORK PROVIDER TO ENSURE THE RELIABILITY AND SECURITY OF THE LMN.

CAT5E OR BETTER ETHERNET CABLE TO BE RUN FOR DEDICATED LMN TERMINATED WITH RJ45 CONNECTORS (PROVIDED BY OTHERS). THE NUMBER OF ETHERNET HOPS/SEGMENTS BETWEEN THE SERVER/DESKTOP/LAPTOP (Q-MANAGER) AND ANY LMN NODE SHALL NOT EXCEED 6. TOTAL LENGTH OF ETHERNET CABLE SHALL NOT EXCEED 328 FT (100M) POINT-TO-POINT.

IF LONGER RUNS ARE REQUIRED, MULTI-MODE FIBER OPTIC CABLE CAN BE USED INSTEAD WITH APPROPRIATE FIBER OPTIC CONNECTORS (PROVIDED BY OTHERS). CONSULT WITH NETWORK PROVIDER FOR STANDARD ETHERNET AND FIBER OPTIC WIRING RULES FOR DISTANCE AND SEPARATION AS WELL AS FOR PLACEMENT OF SWITCHES, ROUTERS, HUBS, ETC.

FOR MORE INFORMATION REGARDING NETWORK EQUIPMENT REQUIREMENTS AND NETWORK CONFIGURATION, PLEASE REFER TO THE QUANTUM LIGHTING MANAGEMENT NETWORK SPECIFICATION SHEET OR CONTACT LUTRON.

CONCEPT DRAWING NOTES:
CONTROL SYSTEM DRAWING IS PROVIDED FOR CONCEPTUAL PURPOSES ONLY AND IS NOT INTENDED FOR CONSTRUCTION. EXACT EQUIPMENT REQUIREMENTS, INCLUDING LOCATIONS AND QUANTITIES, SHOULD BE VERIFIED IN ACCORDANCE WITH THE MOST UP-TO-DATE LIGHTING/ELECTRICAL REFLECTED CEILING PLANS, LIGHTING FIXTURE SCHEDULES, PANEL SCHEDULES, CONTROL INTENT AND SPECIFICATIONS. SHADE EQUIPMENT SHOULD BE VERIFIED IN ACCORDANCE WITH ARCHITECTURAL PLANS, SPECIFICATIONS AND WINDOW SCHEDULES/DETAILS.

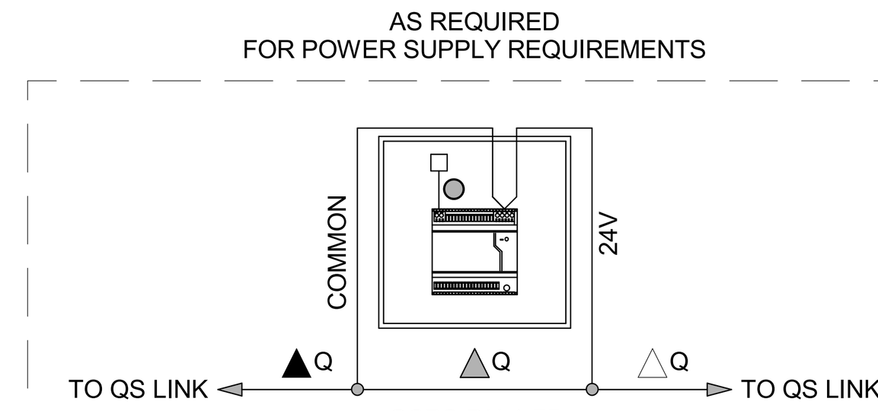
LED DIMMING REQUIRES AN EXACT MATCH BETWEEN THE LED ARRAY, DRIVER AND CONTROL. LUTRON CANNOT GUARANTEE COMPATIBILITY OR PERFORMANCE WITHOUT TESTING THIS COMBINATION.

TO CONFIRM WHAT PRODUCTS LUTRON HAS AVAILABLE OR WHAT INTERFACES MAY BE REQUIRED, CALL 1-877-DIM-LED8 OR CHECK LUTRON'S PRODUCT COMPATIBILITY MATRIX ON-LINE AT WWW.LUTRON.COM/LED.

TO REQUEST THE TESTING OF AN LED PRODUCT BY LUTRON MANUFACTURERS CAN FILL OUT AN LED EVALUATION REQUEST FORM ON-LINE AT WWW.LUTRON.COM/LED OR CONTACT LEDS@LUTRON.COM.

LUTRON CAN GUARANTEE COMPATIBILITY AND PERFORMANCE OF LUTRON HI-LUME A-SERIES LED DRIVERS USED WITH APPROPRIATE LUTRON CONTROLS. THE HI-LUME A-SERIES LED DRIVER CAN BE USED ON PRODUCTS UNDER 40 WATTS WITH SUITABLE MOUNTING LOCATIONS. PLEASE REFER TO THE SPECIFICATION SUBMITTAL SHEET FOR FURTHER INFORMATION.
IF USING UNTESTED, NON-LUTRON LED DRIVERS REQUIRING 0-10V CONTROL, PERFORMANCE AND COMPATIBILITY CANNOT BE GUARANTEED BY LUTRON. PRODUCTS FOLLOWING THE IEC STANDARD 60929 ARE MORE LIKELY TO PROVIDE ACCEPTABLE PERFORMANCE RESULTS. DETERMINATION OF RESULT ACCEPTABILITY IS UP TO THE USER'S DISCRETION.
IF USING UNTESTED, NON-LUTRON LED DRIVERS REQUIRING PHASE CONTROL, PERFORMANCE AND COMPATIBILITY CANNOT BE GUARANTEED BY LUTRON. A-SERIES OR ELV PRODUCTS PROVIDING HIGH END AND LOW END TRIM ADJUSTMENTS ARE MORE LIKELY TO PROVIDE ACCEPTABLE PERFORMANCE RESULTS. DETERMINATION OF RESULT ACCEPTABILITY IS UP TO THE USER'S DISCRETION.

AS REQUIRED FOR POWER SUPPLY REQUIREMENTS



QSPS-DH-1-75
QS LINK POWER SUPPLY
DIMENSIONS: 3.54" [90mm] (H) X 3.54" [90mm] (W) X 2.40" [61mm] (D)
LUT-8X8-ENC
LUTRON 8X8 ENCLOSURE
DIMENSIONS: 8" [203mm] (H) X 8" [203mm] (W) X 4" [102mm] (D)
LOCATION TBD

1 LIGHTING CONTROL DIAGRAM

NO SCALE

HPI architecture
www.hpiarchitecture.com
115 22nd street
Newport Beach, CA 92663
o: 949. 675. 6442

CONSULTANTS
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San Diego | San Jose
p2sinc.com

SEALS / APPROVALS

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
FILE: 30-C2
A# 04-116810
AC ________ FLS ________ SS ________
DATE ____________

PROJECT TITLE
JOHNSON STUDENT CENTER
INCREMENT 2
1530 W 17TH ST SANTA ANA CA 92706

RANCHO SANTIAGO Community College District

SUBMITTALS		
#	DATE	DESCRIPTION
	05/18/18	HEALTH DEPT. SUBMITTAL
	08/13/18	DSA FINAL SUBMITTAL
	09/24/18	ADDENDUM #3

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DRAWN BY C Naranjo
CHECKED BY C S Musser

SHEET TITLE
DETAILS

SHEET NUMBER
E6.05

100% CONSTRUCTION DOCUMENTS

SECTION 260923 - DISTRIBUTED DIGITAL LIGHTING CONTROL SYSTEM

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
   1. Digital Lighting and Plug Load Controls
   2. Relay Panels
   3. Emergency Lighting Control
   4. Wired sensors

B. Related Sections:
   1. Section 262726 - Wiring Devices
   2. Section 265100 – Interior Lighting
   3. Section 265600 – Exterior Lighting
   4. Drawings and general provision of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections apply to this Section
   5. Electrical Sections, including wiring devices, apply to the work of this Section.

C. Control Intent – Control Intent includes, but is not limited to:
   1. Defaults and initial calibration settings for such items as time delay, sensitivity, fade rates, etc.
   2. Initial sensor and switching zones
   3. Initial time switch settings
   4. Emergency Lighting control (if applicable)

1.2 REFERENCES

A. American National Standards Institute/Institute of Electrical and Electronic Engineers (ANSI/IEEE) (www.ansi.org and www.ieee.org)

B. International Electrotechnical Commission (IEC) (www.iec.ch)

C. International Organization for Standardization (ISO) (www.iso.ch):

D. National Electrical Manufacturers Association (NEMA) (www.nema.org)

E. WD1 (R2005) - General Color Requirements for Wiring Devices.

F. Underwriters Laboratories, Inc. (UL) (www.ul.com):
   1. 20 – Plug Load Controls
   2. 508 – Industrial Controls
   3. 916 – Energy Management Equipment
   4. 924 – Emergency Lighting
   5. 1310 – Class 2 Power Units
   6. 1472 – Solid-State Dimming Controls

1.3 SYSTEM DESCRIPTION & OPERATION

A. The Lighting Control and Automation system as defined under this section covers the following equipment:

1. Distributed digital lighting control on a local network – Free topology, hard wiring system for power and data to room devices.
2. Digital Room Controllers – Self-configuring, digitally addressable one, two or three relay plenum-rated controllers for on/off control. Selected models include 0-10 volt or line voltage forward phase control dimming outputs and integral current monitoring capabilities.
3. Digital Plug Load Controllers – Self-configuring, digitally addressable, single relay, plenum-rated application-specific controllers. Selected models include integral current monitoring capabilities.
4. Digital Fixture Controllers – Self-configuring, digitally addressable one relay fixture-integrated controllers for on/off/0-10V dimming control.
5. Digital Occupancy Sensors – Self-configuring, digitally addressable, calibrated occupancy sensors with LCD display and two-way active infrared (IR) communications.
6. Digital Switches – Self-configuring, digitally addressable pushbutton on/off, dimming, and scene switches with two-way active infrared (IR) communications.
7. Handheld remotes for personal control – On/Off, dimming and scene remotes for control using infrared (IR) communications. Remote may be configured in the field to control selected loads or scenes without special tools.
8. Digital Daylighting Sensors – Single-zone closed loop, multi-zone open loop and single-zone dual-loop daylighting sensors with two-way active infrared (IR) communications for daylight harvesting using switching, bi-level, tri-level or dimming control.
9. Configuration Tools – Handheld remote for room configuration and relay panel programming provides two way infrared (IR) communications to digital devices and allows complete configuration and reconfiguration of the device / room from up to 30 feet away.
10. Distributed digital lighting control central network – Linear topology, BACnet MS/TP network (1.5 twisted pair, shielded) to connect multiple local networks for centralized control.
11. Network Bridge – Provides BACnet MS/TP-compliant digital networked communication between rooms, panels and the Segment Manager or building automation system (BAS) and automatically creates BACnet objects representative of connected devices.
12. Segment Manager – BACnet MS/TP-based controller with web browser-based user interface for system control, scheduling, power monitoring, room device parameter administration and reporting.
13. Programming and Configuration Software – Optional PC-native application capable of accessing control parameters within a room, for the local network, via a USB adapter, or globally, for many segment networks simultaneously, via BACnet/IP communication.
14. Digital Lighting Management Relay Panel and Zone Controller – Provides up to 8, 24, or 48 mechanically latching relays. Relays include a manual override and a single push-on connector for easy installation or removal from the panel. Panel accepts program changes from handheld configuration tool for date and time, location, holidays, event scheduling, button binding and group programming. Provides BACnet MS/TP-compliant digital networked communication between other lighting controls and/or building automation system (BAS). Zero relay Zone Controller primarily supports Digital Fixture Controller applications.

15. Emergency Lighting Control Unit (ELCU) – Allows a standard lighting control device to control emergency lighting in conjunction with normal lighting in any area within a building

1.4 LIGHTING CONTROL APPLICATIONS

A. Unless relevant provisions of the applicable local energy codes are more stringent, provide a minimum application of lighting controls as follows:
   1. Space Control Requirements – Provide occupancy/vacancy sensors with Manual- or Partial-ON functionality in all spaces except toilet rooms, storerooms, library stacks, or other applications where hands-free operation is desirable and Automatic-ON occupancy sensors are more appropriate. Provide Manual-ON occupancy/vacancy sensors for any enclosed office, conference room, meeting room, open plan system and training room. For spaces with multiple occupants, or where line-of-sight may be obscured, provide ceiling- or corner-mounted sensors and Manual-ON switches.
   2. Bi-Level Lighting – Provide multi-level controls in all spaces except toilet rooms, storerooms, library stacks, or applications where variable dimming is used.
   3. Task Lighting / Plug Loads – Provide automatic shut off of non essential plug loads and task lighting in all spaces except toilet rooms and storerooms. Provide Automatic-ON of plug loads whenever spaces are occupied. For spaces with multiple occupants a single shut off consistent with the overhead lighting may be used for the area.
   4. Daylit Areas – Provide daylight-responsive automatic control in all spaces (conditioned or unconditioned) where daylight contribution is available as defined by relevant local building energy code:
      a. All luminaires within code-defined daylight zones shall be controlled separately from luminaires outside of daylit zones.
      b. Daytime setpoints for total ambient illumination (combined daylight and electric light) levels that initiate dimming shall be programmed in compliance with relevant local building energy codes.
      c. Multiple-level switched daylight harvesting controls may be utilized for areas marked on drawings.
      d. Provide smooth and continuous daylight dimming for areas marked on drawings. Daylighting control system may be designed to turn off electric lighting when daylight is at or above required lighting levels, only if system functions to turn lamps back on at dimmed level, rather than turning full-on prior to dimming.
   5. Conference, meeting, training, auditoriums, and multipurpose rooms shall have controls that allow for independent control of each local control zone. Rooms larger than 300 square feet shall instead have at least four preset lighting scenes unless otherwise specified. Occupancy / vacancy sensors shall be provided to turn off all lighting in the space. Spaces with up to four moveable walls shall include controls that can be reconfigured when the room is partitioned.

1.5 SUBMITTALS

A. Submittals Package: Submit the shop drawings, and the product data specified below at the same time as a package.

B. Shop Drawings:

1. Composite wiring and/or schematic diagram of each control circuit as proposed to be installed.
2. Show exact location of all digital devices, including at minimum sensors, load controllers, and switches for each area on reflected ceiling plans. (Contractor must provide AutoCAD format reflected ceiling plans.)
3. Provide room/area details including products and sequence of operation for each room or area. Illustrate typical acceptable room/area connection topologies.
4. Network riser diagram including floor and building level details. Include network cable specification and end-of-line termination details, if required. Illustrate points of connection to integrated systems. Coordinate integration with mechanical and/or other trades.

C. Product Data: Catalog sheets, specifications and installation instructions.

D. Include data for each device which:
1. Indicates where sensor is proposed to be installed.
2. Prove that the sensor is suitable for the proposed application.

1.6 QUALITY ASSURANCE

A. Manufacturer: Minimum 10 years experience in manufacture of lighting controls.

1.7 PROJECT CONDITIONS

A. Do not install equipment until following conditions can be maintained in spaces to receive equipment:
1. Ambient temperature: 0° to 40° C (32° to 104° F).
2. Relative humidity: Maximum 90 percent, non-condensing.

1.8 WARRANTY

A. Provide a five year limited manufacturer’s warranty on all room control devices and panels.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Acceptable Manufacturer:
1. Basis of design product: Lutron Quantum to match campus standard.

2.2 DIGITAL LIGHTING CONTROLS – GENERAL REQUIREMENTS

A. Furnish the Company’s system which accommodates the square-footage coverage requirements for each area controlled, utilizing control modules, digital occupancy sensors, switches, daylighting sensors and accessories which suit the lighting and electrical system parameters.

B. Shade Control Requirements:
   1. Capable of operating shades and recalling shade presets via keypad, contact closure input, infrared receiver, lighting management software, or other lighting control system interface.
   2. Capable of operating any individual, group, or subgroup of shade electronic drive units within system without requiring separate group controllers.
   3. Capable of assigning and reassigning individual, groups, and subgroups of shades to any control within system without requiring additional wiring or hardware changes.
   4. Provide 10 year power failure memory for preset stops, open and close limits, shade grouping and sub grouping and system configuration.
   5. Capable of synchronizing multiple shade electronic drive units of the same size to start, stop and move in unison.
   6. Capable of stopping shades within accuracy of 0.125 inch (3.17 mm) at any point between open and close limits.
   7. Capable of controlling lights and shades from single wall control button.
   8. Capable of adjusting shade limits from user interface.

C. Switching Requirements
   1. Rated Life of Relays: Typical of 1,000,000 cycles at fully rated 16 A for all lighting loads.
   2. Switch load in a manner that prevents arcing at mechanical contacts when power is applied to and removed from load circuits.
   3. Provide output fully rated for continuous duty for inductive, capacitive, and resistive loads.

D. Device Finishes
   1. Coordinate with Architect.

E. Interface with building automation system as specified in Section 230900.

2.3 LOCAL NETWORK

A. The local network is a free topology lighting control physical connection and communication protocol designed to control a small area of a building.

B. Features of the local network include:
   1. Automatic configuration and binding of occupancy sensors, switches and lighting loads to the most energy-efficient sequence of operation based upon the device attached.
   2. Simple replacement of any device in the local network with a standard off the shelf unit without requiring significant commissioning, configuration or setup.
   3. Configuration to change the automatic configuration, including binding and load parameters without tools, using only the buttons on the digital devices in the local network.
   4. Two-way infrared communications for control by handheld remotes, and configuration by a handheld tool including adjusting load parameters, sensor configuration and binding, within a line of sight of up to 30 feet from a sensor, wall switch or IR receiver.

C. Digital local devices connect to the local network via QS link wiring as required by manufacturer.

2.4 LIGHTING CONTROL MODULES (ROOM, PLUG LOAD AND FIXTURE CONTROLLERS)

A. Provide lighting control modules as indicated on the drawings.

B. General Requirements:
1. Listed to UL 508 as industrial control equipment.
2. Delivered and installed as a listed factory-assembled panel.
3. Passively cooled via free-convection, unaided by fans or other means.
4. Mounting: Surface.
5. Connection without interface to wired:
    a. Occupancy sensors.
    b. Daylight sensors.
    c. IR receivers for personal control.
6. Connects to lighting management hub via RS485.
7. LED status indicators confirm communication with occupancy sensors, daylight sensors, and IR receivers.
8. Contact Closure Input:
    a. Directly accept contact closure input from a dry contact closure or solid-state output without interface to:
        1) Activate scenes:
            a) Scene activation from momentary or maintained closure.
        2) Enable or disable after hours.
            a) Automatic sweep to user-specified level after user-specified time has elapsed.
            b) System will provide occupants a visual warning prior to sweeping lights to user-specified level.
            c) Occupant can reset timeout by interacting with the lighting system.
        3) Activate or deactivate demand response (load shed).
            a) Load shed event will reduce lighting load by user-specified amount.
9. Emergency Contact Closure Input:
    a. Turn all zones to full output during emergency state via direct contact closure input from UL 924 listed emergency lighting interface, security system or fire alarm system.
    b. Allow configurable zone response during emergency state.
    c. Disable control operation until emergency signal is cleared.
10. Supplies power for control link for keypads and control interfaces.
11. Distributes sensor data among multiple lighting control modules.
12. Capable of being controlled via wireless sensors and controls.
13. UL 2043 plenum rated.
14. Manual override and LED indication for each load.
15. Dual voltage (120/277 VAC, 60 Hz). Rated for 20A total load, derating to 16A required for some dimmed loads (forward phase dimming); plug load controllers carry application-specific UL 20 rating for receptacle control.
16. Zero cross circuitry for each load.
17. BACnet object information shall be available for the following objects:
    a. Load status
    b. Electrical current (when available)
    c. Total watts per controller
    d. Schedule state – normal or after-hours
    e. Demand response enable and disable

f. Room occupancy status
g. Total room lighting and plug loads watts
h. Total room watts/sq ft
i. Force on/off all loads

18. Each load shall at a minimum be configurable to operate in the following sequences based on occupancy:
    a. Auto-on/Auto-off (Follow on and off)
19. Manual-on/Auto-off (Follow off only)
20. Based on individual configuration, each load shall be capable of the following behavior on power up following the loss of normal power:
    a. Turn on to 100%
    b. Turn off
    c. Turn on to last level
21. All digital parameter data programmed into an individual room controller or plug load controller shall be retained in non-volatile FLASH memory within the controller itself. Memory shall have an expected life of no less than 10 years.
22. Lutron Energi Savr Node QSN-4T20-S

C. On/Off/Dimming enhanced Room Controllers shall include:
1. Real time current monitoring
2. Four relay configurations
3. Efficient 250 mA switching power supply
4. Four RJ-45 local network ports with integral strain relief and dust cover
5. One dimming output per relay
    a. 0-10V Dimming - Where indicated, one 0-10 volt analog output per relay for control of compatible LED drivers. The 0-10 volt output shall automatically open upon loss of power to the Energi Savr Node to assure full light output from the controlled lighting.
    b. Line Voltage, Forward Phase Dimming - Where indicated, one forward phase control line voltage dimming output per relay for control of compatible two-wire or three-wire ballasts, LED drivers, MLV, forward phase compatible ELV, neon/cold cathode and incandescent loads.
    c. Each dimming output channel shall have an independently configurable minimum and maximum calibration trim level to set the dimming range to match the true dynamic range of the connected ballast or driver.
    d. The LED level indicators on bound dimming switches shall utilize this new maximum and minimum trim.
    e. Each dimming output channel shall have an independently configurable minimum and maximum trim level to set the dynamic range of the output within the new 0-100% dimming range defined by the minimum and maximum calibration trim.
    f. Calibration and trim levels must be set per output channel.
    g. Devices that set calibration or trim levels per controller are not acceptable.
    h. All configuration shall be digital. Devices that set calibration or trim levels per output channel via trim pots or dip-switches are not acceptable.
6. Each load shall have an independently configurable preset on level for Normal Hours and After Hours events to allow different dimmed levels to be established at the start of both Normal Hours and After Hours events.
7. Fade rates for dimming loads shall be specific to bound switch buttons, and the load shall maintain a default value for any bound buttons that do not specify a unique value.
8. The following dimming attributes may be changed or selected using a wireless configuration tool:

a. Establish preset level for each load from 0-100%
b. Set high and low trim for each load
c. Set lamp burn in time for each load up to 100 hours

9. Override button for each load provides the following functions:
10. Lutron Quantum product numbers: QSN-4T16-S, QSN-4T20-S, QSN-4S16-S, QSN-4T20-S

D. Plug Load Controllers shall include:
1. Four relay configuration.
2. Configurable additive time delay to extend plug load time delay beyond occupancy sensor time delay (e.g. a 10 minute additive delay in a space with a 20 minute occupancy sensor delay ensures that plug loads turn off 30 minutes after the space is vacated).
3. Factory default operation is Auto-on/Auto-off, based on occupancy
4. Real time current monitoring of both switched and un-switched load.
5. QS communication link.
6. Efficient switching power supply
a. 150mA
b. 250mA
7. Lutron Quantum product numbers: QSN-4S20-S.

2.5 DIGITAL WALL OR CEILING MOUNTED OCCUPANCY SENSOR

A. Wall or ceiling mounted (to suit installation) passive infrared (PIR), ultrasonic or dual technology digital (passive infrared and ultrasonic) occupancy sensor.

B. Digital Occupancy Sensors shall provide graphic LCD display for digital calibration and electronic documentation. Features include the following:
1. Digital calibration and pushbutton configuration for the following variables:
a. Sensitivity – 0-100% in 10% increments
b. Time delay – 1-30 minutes in 1 minute increments
c. Test mode – Five second time delay
d. Detection technology – PIR, Ultrasonic or Dual Technology activation and/or re-activation.
e. Walk-through mode
2. Load parameters including Auto/Manual-ON, blink warning, and daylight enable/disable when photosensors are included in the local network.
3. Programmable control functionality including:
a. Each sensor may be programmed to control specific loads within a local network.
b. Sensor shall be capable of activating one of 16 user-definable lighting scenes.
c. Adjustable retrigger time period for manual-on loads. Load will retrigger (turn on) automatically within a configurable period of time (default 10 seconds) after turning off.
d. On dual technology sensors, independently configurable trigger modes are available for both Normal (NH) and After Hours (AH) time periods. The retrigger mode can be programmed to use the following technologies:
e. Ultrasonic and Passive Infrared
f. Ultrasonic or Passive Infrared
g. Ultrasonic only
h. Passive Infrared only

i. Independently configurable sensitivity settings for passive infrared and ultrasonic technologies (on dual technology sensors) for both Normal (NH) and After Hour (AH) time periods.

4. Wired connection to lighting control network.
5. Two-way infrared (IR) transceiver to allow remote programming through handheld commissioning tool and control by remote personal controls.
6. Device Status LEDs, which may be disabled for selected applications, including:
   a. PIR detection
   b. Ultrasonic detection
   c. Configuration mode
   d. Load binding
7. Assignment of occupancy sensor to a specific load within the room.
8. Manual override of controlled loads.
9. All digital parameter data programmed into an individual occupancy sensor shall be retained in non-volatile FLASH memory within the sensor itself. Memory shall have an expected life of no less than 10 years.

C. BACnet object information shall be available for the following objects:
   1. Detection state.
   2. Occupancy sensor time delay.
   3. Occupancy sensor sensitivity, PIR and Ultrasonic.

D. Units shall not have any dip switches or potentiometers for field settings.

E. Multiple occupancy sensors may be installed in a room by simply connecting them to the free topology local network. No additional configuration will be required.

F. Lutron Quantum product numbers: LOS C Series and LOS W Series

2.6 DIGITAL WALL SWITCH OCCUPANCY SENSORS

A. Wallbox mounted passive infrared PIR or dual technology (passive infrared and ultrasonic) digital occupancy sensor with 1 or 2 switch buttons.

B. Digital Occupancy Sensors shall provide scrolling LCD display for digital calibration and electronic documentation. Features include the following:
   1. Digital calibration and pushbutton configuration for the following variables:
      a. Sensitivity – 0-100% in 10% increments
      b. Time delay – 1-30 minutes in 1 minute increments
      c. Test mode – Five second time delay
      d. Detection technology – PIR, Dual Technology activation and/or re-activation.
      e. Walk-through mode
      f. Load parameters including Auto/Manual-ON, blink warning, and daylight enable/disable when photosensors are included in the local network.
   2. Programmable control functionality including:
      a. Each sensor may be programmed to control specific loads within a local network.
      b. Sensor shall be capable of activating one of 16 user-definable lighting scenes.
      c. Adjustable retrigger time period for manual-on loads. Load will retrigger (turn on) automatically during the configurable period of time (default 10 seconds) after turning off.

d. On dual technology sensors, independently configurable trigger modes are available for both Normal (NH) and After Hours (AH) time periods. The retrigger mode can be programmed to use the following technologies:
   1) Ultrasonic and Passive Infrared
   2) Ultrasonic or Passive Infrared
   3) Ultrasonic only
   4) Passive Infrared only

3. Independently configurable sensitivity settings for passive infrared and ultrasonic technologies (on dual technology sensors) for both Normal (NH) and After Hour (AH) time periods.
4. Wired connection to lighting control network.
5. Two-way infrared (IR) transceiver to allow remote programming through handheld configuration tool and control by remote personal controls.
6. Device Status LEDs including
   a. PIR detection
   b. Ultrasonic detection
   c. Configuration mode
   d. Load binding
7. Assignment of any occupancy sensor to a specific load within the room without wiring or special tools.
8. Assignment of local buttons to specific loads within the room without wiring or special tools
9. Manual override of controlled loads
10. All digital parameter data programmed into an individual wall switch sensor shall be retained in non-volatile FLASH memory within the wall switch sensor itself. Memory shall have an expected life of no less than 10 years.

C. BACnet object information shall be available for the following objects:
   1. Detection state
   2. Occupancy sensor time delay
   3. Occupancy sensor sensitivity, PIR and Ultrasonic
   4. Button state
   5. Switch lock control
   6. Switch lock status

D. Units shall not have any dip switches or potentiometers for field settings.

E. Multiple occupancy sensors may be installed in a room by simply connecting them to the free topology local network. No additional configuration will be required.

F. Two-button wall switch occupancy sensors, when connected to a single relay dimming room or fixture controller, shall operate in the following sequence as a factory default:
   1. Left button
      a. Press and release - Turn load on
      b. Press and hold - Raise dimming load
   2. Right button
      a. Press and release - Turn load off
      b. Press and hold - Lower dimming load

G. Low voltage momentary pushbuttons shall include the following features:
   1. Load/Scene Status LED on each switch button with the following characteristics:

a. Bi-level LED
b. Dim locator level indicates power to switch
c. Bright status level indicates that load or scene is active

2. The following button attributes may be changed or selected using a wireless configuration tool:
   a. Load and Scene button function may be reconfigured for individual buttons (from Load to Scene, and vice versa).
   b. Individual button function may be configured to Toggle, On only or Off only.
   c. Individual scenes may be locked to prevent unauthorized change.
   d. Fade Up and Fade Down times for individual scenes may be adjusted from 0 seconds to 18 hours.
   e. Ramp rate may be adjusted for each dimmer switch.
   f. Switch buttons may be bound to any load on any load controller or relay panel and are not load type dependent; each button may be bound to multiple loads.
   g. Lutron Quantum part numbers: Maestro Series. Available in white, light almond, ivory, grey, red and black; compatible with wall plates with decorator opening. Verify color with Architect.

2.7 DIGITAL WALL SWITCHES

A. Low voltage momentary pushbutton switches in 1, 2, 3, 4, 5 and 7 button configuration. Wall switches shall include the following features:
   1. Two-way infrared (IR) transceiver for use with personal and configuration remote controls.
   2. Removable buttons for field replacement with engraved buttons and/or alternate color buttons. Button replacement may be completed without removing the switch from the wall.
   3. Configuration LED on each switch that blinks to indicate data transmission.
   4. Load/Scene Status LED on each switch button with the following characteristics:
      a. Bi-level LED
      b. Dim locator level indicates power to switch
      c. Bright status level indicates that load or scene is active
      d. Dimming switches shall include seven bi-level LEDs to indicate load levels using 14 steps.
   5. Programmable control functionality including:
      a. Button priority may be configured to any BACnet priority level, from 1-16, corresponding to networked operation allowing local actions to utilize life safety priority
      b. Scene patterns may be saved to any button other than dimming rockers. Once set, buttons may be digitally locked to prevent overwriting of the preset levels.
   6. All digital parameter data programmed into an individual wall switch shall be retained in non-volatile FLASH memory within the wall switch itself. Memory shall have an expected life of no less than 10 years.

B. BACnet object information shall be available for the following objects:
   1. Button state
   2. Switch lock control
   3. Switch lock status

C. Wired connection to lighting control network.

D. Multiple digital wall switches may be installed in a room by simply connecting them to the free topology local network. No additional configuration shall be required to achieve multi-way switching.

E. The following switch attributes may be changed or selected using a wireless configuration tool:

F. Load and Scene button function may be reconfigured for individual buttons (from Load to Scene, and vice versa).
   1. Individual button function may be configured to Toggle, On only or Off only.
   2. Individual scenes may be locked to prevent unauthorized change.
   3. Fade Up and Fade Down times for individual scenes may be adjusted from 0 seconds to 18 hours.
   4. Ramp rate may be adjusted for each dimmer switch.
   5. Switch buttons may be bound to any load on any load controller or relay panel and are not load type dependant; each button may be bound to multiple loads.
   6. Lutron Quantum product numbers: seeTouch QS series, Pico wired control series, Ecosystem wallstation. Available in white, light almond, ivory, grey, red and black; compatible with wall plates with decorator opening. Verify color with Architect.

2.8 HANDHELD USER INTERFACE REMOTES

A. Battery-operated handheld devices in 1, 2 and 5 button configurations for remote switching or dimming control. Remote controls shall include the following features:
   1. Two-way infrared (IR) transceiver for line of sight communication with local network within up to 30 feet.
   2. LED on each button confirms button press.
   3. Load buttons may be bound to any load on a load controller or relay panel and are not load type dependant; each button may be bound to multiple loads.
   4. Inactivity timeout to save battery life.

B. A wall mount holster and mounting hardware shall be included with each remote control

C. Lutron Quantum part numbers: IR Remote.

2.9 DIGITAL DAYLIGHTING SENSORS

A. Digital daylighting sensors shall work with load controllers and relay panels to provide automatic switching, bi-level, or tri-level or dimming daylight harvesting capabilities for any load type connected to the controller or panel. Daylighting sensors shall be interchangeable without the need for rewiring.
   1. Closed loop sensors measure the ambient light in the space and control a single lighting zone.
   2. Open loop sensors measure incoming daylight in the space, and are capable of controlling up to three lighting zones.
   3. Dual loop sensors measure both ambient and incoming daylight in the space to insure that proper light levels are maintained as changes to reflective materials are made in a single zone.

B. Digital daylighting sensors shall include the following features:

1. The sensor's internal photodiode shall only measure lightwaves within the visible spectrum. The photodiode's spectral response curve shall closely match the entire photopic curve. The photodiode shall not measure energy in either the ultraviolet or infrared spectrums. The photocell shall have a sensitivity of less than 5% for any wavelengths less than 400 nanometers or greater than 700 nanometers.
2. Sensor light level range shall be from 1-6,553 footcandles (fc).
3. The capability of ON/OFF, bi-level or tri-level switching, or dimming, for each controlled zone, depending on the selection of load controller(s) and load binding to controller(s).
4. For switching daylight harvesting, the photosensor shall provide a field-selectable deadband, or a separation, between the "ON Setpoint" and the "OFF Setpoint" that will prevent the lights from cycling excessively after they turn off.
5. For dimming daylight harvesting, the photosensor shall provide the option, when the daylight contribution is sufficient, of turning lights off or dimming lights to a field-selectable minimum level.
6. Photosensors shall have a digital, independently configurable fade rate for both increasing and decreasing light level in units of percent per second.
7. Photosensors shall provide adjustable cut-off time. Cut-off time is defined by the number of selected minutes the load is at the minimum output before the load turns off. Selectable range between 0-240 minutes including option to never cut-off.
8. Optional wall switch override shall allow occupants to reduce lighting level to increase energy savings or, if permitted by system administrator, raise lighting levels for a selectable period of time or cycle of occupancy.
9. Integral infrared (IR) transceiver for configuration and/or commissioning with a handheld configuration tool, to transmit detected light level to wireless configuration tool, and for communication with personal remote controls.
10. Configuration LED status light on device that blinks to indicate data transmission.
11. Status LED indicates test mode, override mode and load binding.
12. Recessed switch on device to turn controlled load(s) ON and OFF.
13. BACnet object information shall be available for the following daylighting sensor objects, based on the specific photocell's settings:
    a. Light level
    b. Day and night setpoints
    c. Off time delay
    d. On and off setpoints
    e. Up to three zone setpoints
    f. Operating mode – on/off, bi-level, tri-level or dimming
14. Wired connection to lighting control network.
15. A choice of accessories to accommodate multiple mounting methods and building materials. The photosensors may be mounted on a ceiling tile, skylight light well, suspended lighting fixture or backbox.
16. Any load or group of loads in the room can be assigned to a daylighting zone
17. Each load within a daylighting zone can be individually enabled or disabled for discrete control (load independence).
18. All digital parameter data programmed into a photosensor shall be retained in non-volatile FLASH memory within the photosensor itself. Memory shall have an expected life of no less than 10 years.

C. Lutron Quantum part number: Radio Powr Savr ceiling mount daylight sensor (wired).

2.10 DIGITAL PARTITION CONTROLS

A. Partition controls shall enable manual or automatic coordination of lighting controls in flexible spaces with up to four moveable walls by reconfiguring the connected digital switches and occupancy sensors.

B. Four-button low voltage pushbutton switch for manual control.
   1. Two-way infrared (IR) transceiver for use with configuration remote control.
   2. Removable buttons for field replacement with engraved buttons and/or alternate color buttons. Button replacement may be completed without removing the switch from the wall.
   3. Configuration LED on each switch that blinks to indicate data transmission.
   4. Each button represents one wall; Green button LED indicates status.
   5. Wired connection to lighting control network.
   6. Lutron Quantum part number: seeTouch partition status. Available in white, light almond, ivory, grey and black; compatible with wall plates with decorator opening. Verify color with Architect.

C. Contact closure interface for automatic control via input from limit switches on movable walls (by others).
   1. Operates on Class 2 power supplied by local network.
   2. Includes 24VDC output and four input terminals for maintained third party contract closure inputs.
   3. Input max. sink/source current: 1-5mA
      a. Logic input signal voltage High: >18VDC
      b. Logic input signal voltage Low: <2VDC
   4. Five status LEDs under hinged cover indicate if walls are open or closed.
   5. Wired connection to lighting control network.
   6. Lutron Quantum part number: QSE-IO

D. Partition Status Sensor.
   1. Infrared transmitter/receiver pair detects partition movement and coordinates lighting preset functions.
   2. Automatically combines lighting preset functions when partition is open creating one large space.
   3. Lighting preset functions become independent as partition is closed creating several smaller spaces.
   4. Requires contact closure input/output interface or QS seeTouch keypad for operation.
   5. Lutron Quantum part number: GRX-IRPS-WH

2.11 HANDHELD AND COMPUTER CONFIGURATION TOOLS

A. A wireless configuration tool facilitates optional customization of local networks using two-way infrared communications, while PC software connects to each local network via a USB interface.

B. Features and functionality of the wireless configuration tool shall include but not be limited to:
   1. Two-way infrared (IR) communication with IR-enabled devices within a range of approximately 30 feet.

2. High visibility organic LED (OLED) display, pushbutton user interface and menu-driven operation.
3. Must be able to read and modify parameters for load controllers and relay panels, occupancy sensors, wall switches, daylighting sensors, network bridges, and identify devices by type and serial number.
4. Save up to eight occupancy sensor setting profiles, and apply profiles to selected sensors.
5. Temporarily adjust light level of any load(s) on the local network, and incorporate those levels in scene setting. Set room mode for testing of Normal Hours (NH) and After Hours (AH) parameter settings.
6. Adjust or fine-tune daylighting settings established during auto-configuration, and input light level data to complete configuration of open loop daylighting controls.
7. Set room mode for testing of Normal Hours (NH) and After Hours (AH) parameter settings.
8. Verify status of building level network devices.

C. Lutron Quantum Product Numbers: IR remote C-FLRC-WH.

2.12 NETWORK LIGHT MANAGEMENT HUB

A. The light management hub shall be a linear topology, BACnet-based MS/TP subnet to connect local networks and relay panels for centralized control.
1. Provides a centralized connection point for dimming and switching panels, and Lutron QS devices, including Energi Savr Node modules, GRAFIK Eye QS main units, and Sivoia QS shade.
2. Contains one Quantum processor with two links that can be individually configured to communicate with:
   a. Lutron power panels
   b. Lutron QS devices
3. Designed to control, manage, and monitor lighting and shade systems in a building or a whole campus.
4. Enables a Quantum system to scale from a single-floor to a whole campus.
5. Supports both astronomic and time-of-day events to automatically control the lights and shades in the system.
6. Allows for simple reconfiguration of a space without rewiring.
7. Ability to connect to additional Quantum light management hubs.
8. Light management hubs communicate via Ethernet.
9. QS and power panel links are wired low-voltage.
10. Connect to BACnet via Quantum Ethernet Network.

B. Lutron Quantum Product Number: QP3-1PL-100-240

2.13 0-10V DIMMING PANELS

A. Dimming panel that contains relays and branch circuit breakers to allow control of exterior lights.
1. 120V-277V input.
2. Complies with ISO-9000
3. Seismic Certified
4. 10-year power failure memory

a. Automatically restores lighting to levels prior to power interruption.

5. System Communications:
   a. Low-voltage Class 2 wiring connects 0-10V dimming panels to other components.
6. Surface mount.

B. Lutron Quantum Product Number: CXP series.

2.14 PROGRAMMING, CONFIGURATION AND DOCUMENTATION SOFTWARE

A. PC-native application for optional programming of detailed technician-level parameter information for all products, including all parameters not accessible via BACnet and the handled IR configuration tool. Software must be capable of accessing room-level parameter information locally within the room, or globally for many segment networks simultaneously utilizing standard BACnet/IP communication.

B. Additional parameters exposed through this method include but are not limited to:
1. Occupancy sensor detection LED disable for performance and other aesthetic spaces where blinking LEDs present a distraction.
2. Six occupancy sensor action behaviors for each controlled load, separately configurable for normal hours and after hours modes. Modes include: No Action, Follow Off Only, Follow On Only, Follow On and Off, Follow On Only with Override Time Delay, Follow Off Only with Blink Warn Grace Time, Follow On and Off with Blink Warn Grace Time.
3. Separate fade time adjustments per load for both normal and after hours from 0 - 4 hours.
4. Configurable occupancy sensor re-trigger grace period from 0 - 4 minutes separate for both normal hours and after hours.
5. Separate normal hours and after hours per-load button mode with modes including: Do nothing, on only, off only, on and off.
6. Load control polarity reversal so that on events turn loads off and vice versa.
7. Per-load DR (demand response) shed level in units of percent.
8. Load output pulse mode in increments of 1second.
9. Fade trip point for each load for normal hours and after hours that establishes the dimmer command level at which a switched load closes its relay to allow for staggered On of switched loads in response to a dimmer.
10. Generation of reports at the whole file, partial file, or room level. Reports include but are not limited to:
    a. Device list report: All devices in a project listed by type.
    b. Load binding report: All load controller bindings showing interaction with sensors, switches, and daylighting.
    c. BACnet points report: Per room Device ID report of the valid BACnet points for a given site's BOM.
    d. Room summary report: Device manifest for each room, aggregated by common BOM, showing basic sequence of operations.
    e. Device parameter report: Per-room lists of all configured parameters accessible via hand held IR programmer for use with O&M documentation.
    f. Scene report: All project scene pattern values not left at defaults (i.e. 1 = all loads 100%, 2 = all loads 75%, 3 = all loads 50%, 4 = all loads 25%, 5-16 = same as scene 1).
    g. Occupancy sensor report: Basic settings including time delay and sensitivity(ies) for all occupancy sensors.

C. Network-wide programming of parameter data in a spreadsheet-like programming environment including but not limited to the following operations:
   1. Set, copy/paste an entire project site of sensor time delays.
   2. Set, copy/paste an entire project site of sensor sensitivity settings.
   3. Search based on room name and text labels.
   4. Filter by product type to allow parameter set by product.
   5. Filter by parameter value to search for product with specific configurations.

D. Network-wide firmware upgrading remotely via the BACnet/IP network.
   1. Mass firmware update of entire rooms.
   2. Mass firmware update of specifically selected rooms or areas.
   3. Mass firmware upgrade of specific products.

E. Energi Savr Node Programming Interface
   1. Provide equipment required for programming of system.
   2. Provide dedicated ethernet connection.

2.15 EMERGENCY LIGHTING CONTROL DEVICES

A. Emergency Lighting Control Unit – A UL 924 listed device that monitors a switched circuit providing normal lighting to an area. The unit provides normal ON/OFF control of emergency lighting along with the normal lighting. Upon normal power failure the emergency lighting circuit will close, forcing the emergency lighting ON until normal power is restored. Features include:
   1. 120/277 volts, 50/60 Hz, 20 amp ballast rating
   2. Push to test button
   3. Auxiliary contact for remote test or fire alarm system interface

B. Lutron Quantum Product Numbers: LUT-ELI-3PH.

2.16 POWER PACKS

A. Provides both 24v power supply to operate Lutron sensors as well as the 20A line voltage relay to control the load in one compact housing.
   1. Models available for 120V ac and 277V ac.
   2. Relay contact rating:
      a. 20A: 120/230/277 V ballast
      b. 15A: 347 V ballast
      c. 15A: 120V incandescent
   3. Auxiliary relay allows for direct control of multiple lighting circuits or load types.
   4. Supports up to three Lutron LOS-C or LOS-W series wired sensors and/or auxiliary relay.
   5. 24V DC, 100mA power output

B. Lutron Quantum Product Number: PP-120H, PP-277H

PART 3 - EXECUTION

3.1 CONTRACTOR INSTALLATION AND SERVICES

A. Contractor to install all devices and wiring in a professional manner. All line voltage connections to be tagged to indicate circuit and switched legs.

B. Low voltage wiring topology must comply with manufacturer's specifications. Contractor shall route network wiring as shown in submittal drawings as closely as possible, and shall document final wiring location, routing and topology on as built drawings.

C. Install the work of this Section in accordance with manufacturer's printed instructions unless otherwise indicated. Before start up, contractor shall test all devices to ensure proper communication.

D. Calibrate all sensor time delays and sensitivity to guarantee proper detection of occupants and energy savings.
   1. Adjust time delay so that controlled area remains lighted while occupied.

E. Provide written or computer-generated documentation on the configuration of the system including room by room description including:
   1. Sensor parameters, time delays, sensitivities, and daylighting setpoints.
   2. Sequence of operation, (e.g. manual ON, Auto OFF. etc.)
   3. Load Parameters (e.g. blink warning, etc.)

F. Post start-up tuning – After 30 days from occupancy contractor shall adjust sensor time delays and sensitivities to meet the Owner's requirements. Provide a detailed report to the Architect / Owner of post start-up activity.

3.2 FACTORY SERVICES

A. Upon completion of the installation, the manufacturer's factory authorized representative shall start up and verify a complete fully functional system.

B. The electrical contractor shall provide both the manufacturer and the electrical engineer with three weeks written notice of the system start up and adjustment date.

C. Upon completion of the system start up, the factory-authorized technician shall provide the proper training to the owner's personnel on the adjustment and maintenance of the system.

3.3 ACCEPTANCE TESTING SUPPORT SERVICES

A. On all California projects, a certified lighting controls acceptance test technician (CLCATT) must verify the installation of the lighting control system. Manufacturer should include an extra day of factory technician's time to assist the CLCATT review the functionality and settings of the lighting control hardware per the requirements in the California State forms. It will be the CLCATT's responsibility to create and complete any forms required for the commissioning

process, although the manufacturer or contractor may offer spreadsheets and/or printouts to assist the CLCATT with this task.

END OF SECTION 260923

Attachment 3

PRE-BID CLARIFICATION ("PBC") FORM
(ALL questions to be submitted on this form ONLY)

PBC # *(RSCCD USE ONLY)*:	09

PROJECT NAME:	RFP #1819-224 Johnson Student Center at Santa Ana College		
PROJECT NUMBER:	3035	DSA NUMBER:	Demolition, #04-116810 INC 1 and INC 2
EMAIL:	**FacilitiesRFP@rsccd.edu**		

DATE:	09/13/2018		
FROM:	S.Monsen - McCarthy	EMAIL:	SMonsen@McCarthy.com
SPECIFICATION NUMBER:		DRAWING NUMBER:	A6.10, Detail 13 P2.21 & P2.22

REQUESTED CLARIFICATION:

Reference drawing A6.10, Detail 13 – Architectural drawing indicates trench drain at second floor, Stair 1, Keynote 221319.A4. Plumbing drawings P2.21 & P2.22 do not indicate a trench drain at this location. Please clarify.

RESPONSE TO CLARIFICATION, **SUBMITTED AS PART OF AN ADDENDUM**:

Refer to attached revised Plumbing sheets P2.12 & P2.22 showing the added trench drains (TD-1) with associated piping as part of Addendum 3.

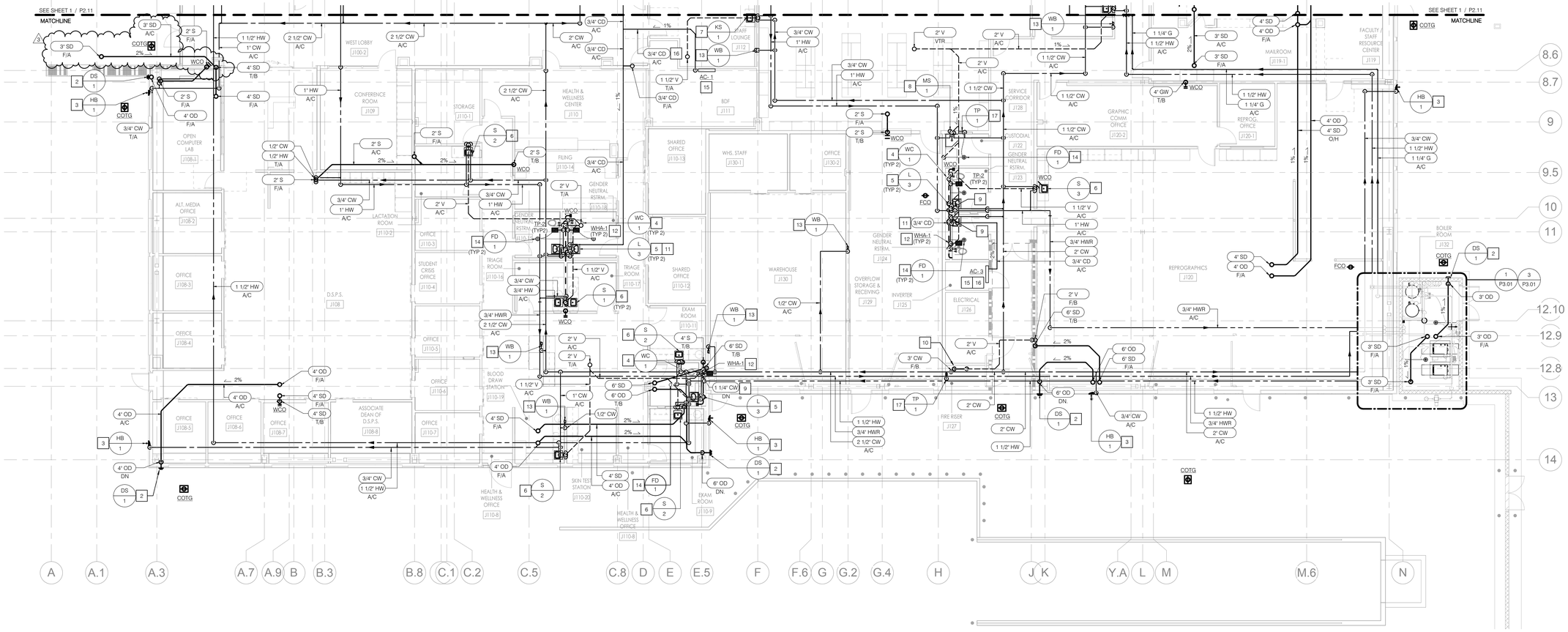
RESPONSE PROVIDED BY:	Eric Gomez - P2S Inc.	DATE:	09/17/18

Attach additional numbered sheets as necessary; however, only one (1) request shall be contained on each submitted form.

9/16/2018 5:10:21 PM C:\Users\Eric Gomez\Documents\7411_R16_MEPFA_Central_Eric Gomez.rvt

NOTES

1. FOR CONTINUATION REFER TO PLUMBING SITE PLAN SHEET P1.01.
2. OVERFLOW DRAIN DISCHARGE TO GRADE. TERMINATE THROUGH WALL WITH DOWNSPOUT NOZZLE (DS-1) @ 18" A.F.F.
3. PROVIDE 3/4" CW DOWN IN WALL WITH FULL-PORT SHUT-OFF VAVLE BEHIND ACCESS PANEL TO SERVE HOSE BIBB (HB-1). REFER TO DETAIL 3/P6.01.
4. PROVIDE 4" S DOWN, 2" V UP, 1-1/2" CW TO SERVE WATER CLOSET (WC-1).
5. PROVIDE 2" S DOWN, 1-1/2" V UP, 1/2" CW & 1/2" HW TO SERVE LAVATORY (L-3).
6. PROVIDE 2" S DOWN, 1-1/2" V UP, 1/2" CW & 1/2" HW TO SERVE SINK (S-1/S-2/S-3).
7. PROVIDE 2" S DOWN, 1-1/2" V UP, 1/2" CW & 1/2" HW TO SERVE KITCHEN SINK (KS-1).
8. PROVIDE 3" S DOWN, 2" V UP, 3/4" CW & 3/4" HW TO SERVE MOP SINK (MS-1). PROVIDE FULL-PORT SHUT-OFF VALVES BEHIND ACCESS PANEL.
9. PROVIDE 1-1/2" CW DOWN IN WALL TO FULL SIZE HEADER AND 1/2" HW DOWN IN WALL TO SERVE LAVATORY (L-3). PROVIDE FULL-PORT SHUT-OFF VALVES BEHIND ACCESS.
10. HUB DRAIN FOR FIRE SPRINKLER SYSTEM DISCHARGE. REFER TO DETAIL 5/P6.02.
11. ROUTE 3/4" CD DOWN IN WALL TO LAVATORY TAILPIECE PIPE CONNECTOR. REFER TO DETAIL 4/P6.03.
12. PROVIDE WATER HAMMER ARRESTOR (WHA-1) BEHIND ACCESS PANEL.
13. PROVIDE 1/2" CW DOWN IN WALL TO SERVE WATER BOX (WB-1). PROVIDE SUPPLY TUBING LINES FROM WATER BOX TO REFRIDGERATOR(S) AND ICE MAKER(S).
14. PROVIDE 2" S DOWN AND 1-1/2" V UP TO SERVE FLOOR DRAIN (FD-1). ROUTE 1/2" TP BELOW FLOOR FROM TRAP PRIMER ASSEMBLY. REFER TO DETAIL 1 & 2 ON P6.01.
15. MECHANICAL EQUIPMENT (NOT IN PLUMBING SCOPE) REFER TO MECHANICAL DRAWINGS FOR UNIT DESCRIPTION AND INFORMATION.
16. ROUTE 3/4"CD FROM CONDENSATE PUMPS OUTLET AND RUN ABOVE CEILING TOWARDS RECEPTOR WITH 1% MIN. SLOPE. CONDENSATE PUMP SHALL BE FURNISHED BY MECHANICAL CONTRACTOR, INSTALLED BY PLUMBING CONTRACTOR AND WIRED BY ELECTRICAL CONTRATOR. AVOID RUNNING OVER ELECTRICAL AND TELECOM ROOMS. REFER TO DETAIL 5/P6.03.
17. PROVIDE 1/2" CW TO SERVE ELECTRONIC TRAP PRIMER (TP-1).



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o: 949. 675. 6442

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San Diego San Jose

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SEALS / APPROVALS

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
FILE: 30-C2
A# 04-116810

AC _____ FLS _____ SS _____

DATE _____

PROJECT TITLE

JOHNSON STUDENT CENTER
INCREMENT 2
1530 W 17TH ST SANTA ANA CA 92706

RANCHO SANTIAGO
Community College District

SUBMITTALS		
#	DATE	DESCRIPTION
	05/18/18	HEALTH DEPT. SUBMITTAL
	08/13/18	DSA FINAL SUBMITTAL
3	09/24/18	ADDENDUM 3

PROJECT IDENTIFICATION 7411

THESE DRAWINGS ORIGINALLY CREATED IN AUTODESK REVIT V. 2016

THE ORIGINAL SIZE OF THIS SHEET IS 30" X 42".

DRAWN BY M.Alcantara

CHECKED BY E.Gomez

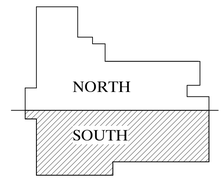
SHEET TITLE

FIRST FLOOR PLAN - SOUTH

SHEET NUMBER

P2.12

100% CONSTRUCTION DOCUMENTS



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

P2S: 7411

GENERAL NOTES

1. FOR ROOF DRAIN/OVERFLOW DRAIN INSTALLATION REFER TO ARCHITECTURAL DETAILS 1/A9.30 & 2/A9.30.
2. FOR VENT PIPE FLASHING AND PIPE FLASHING THROUGH ROOF REFER TO ARCHITECTURAL DETAILS 3/A9.30 & 8/A9.30.
3. ROOF DRAINAGE IS BASED ON 3"/HR RAINFALL RATE.

NOTES

1 PROVIDE 2"S DOWN, 1-1/2"V UP AND 1/2" CW/HW FROM BELOW IN WALL WITH FULL-PORT SHUT-OFF VALVES BEHIND ACCESS PANEL TO SERVE SINK (S-1).

2 PROVIDE 2"S DOWN, 1-1/2"V UP AND 1/2" CW/HW FROM BELOW IN WALL WITH FULL-PORT SHUT-OFF VALVES BEHIND ACCESS PANEL TO SERVE KITCHEN SINK (KS-1).

3 MECHANICAL EQUIPMENT (NOT IN PLUMBING SCOPE) REFER TO MECHANICAL DRAWINGS FOR UNIT DESCRIPTION AND INFORMATION.

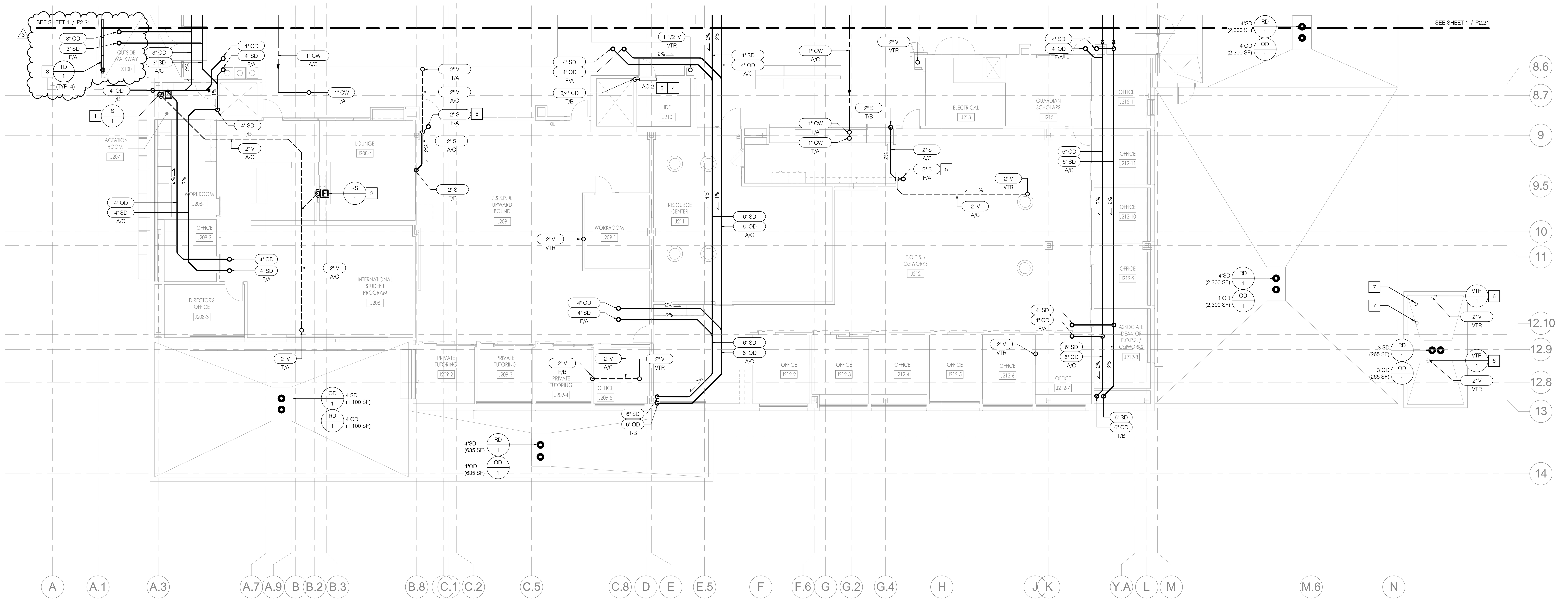
4 ROUTE 3/4"CD FROM CONDENSATE PUMPS OUTLET AND RUN ABOVE CEILING TOWARDS RECEPTOR WITH 1% MIN. SLOPE. CONDENSATE PUMP SHALL BE FURNISHED BY MECHANICAL CONTRACTOR, INSTALLED Y PLUMBING CONTRACTOR AND WIRED BY ELECTRICAL CONTRATOR. REFER TO DETAIL 5/P6.03.

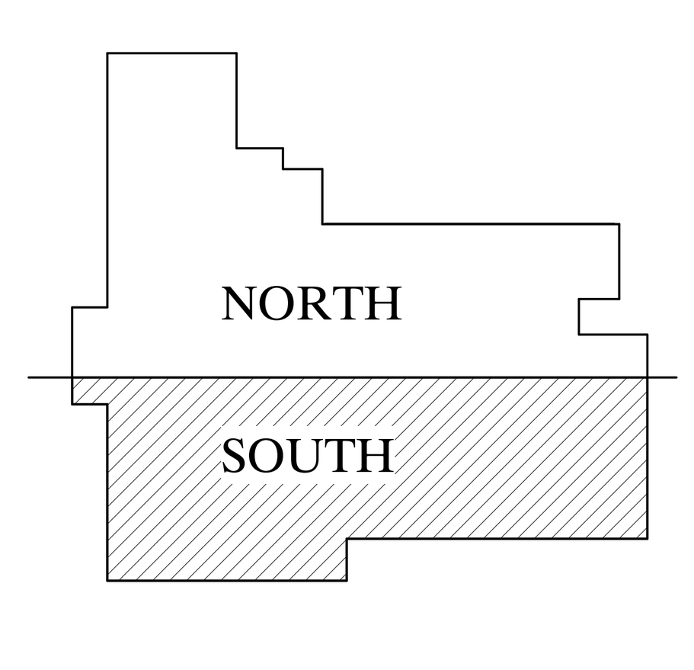
5 2" WASTE FROM ABOVE SERVING ROOF RECEPTOR (RR-1).

6 VENT THROUGH ROOF. REFER TO DETAIL 6/P6.01.

7 INTAKE AND EXHAUST VENT PIPES THRU ROOF. SIZE 3" PVC. PROVIDE CONCENTRIC VENT KIT TERMINATION FITTING BRADFORD MODEL 239-44069-01 FOR A SINGLE ROOF PENETRATION PER DETAIL 2/P6.04.

3 8 PROVIDE TRENCH DRAIN CHANNELS AT EDGE OF BALCONY. COORDINATE EXACT LENGTH WITH ARCHITECTURAL DRAWING 13/A6.10. REFER TO P2.12 FOR DRAIN OUTLET LOCATIONS FROM DRAIN CHANNELS.





SECOND FLOOR PLAN - SOUTH

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

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o: 949. 675. 6442

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SEALS / APPROVALS

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
FILE: 30-C2
A# 04-116810
AC ________ FLS ________ SS ________
DATE ________

PROJECT TITLE

JOHNSON STUDENT CENTER
INCREMENT 2
1530 W 17TH ST SANTA ANA CA 92706

RANCHO SANTIAGO Community College District

SUBMITTALS		
#	DATE	DESCRIPTION
	05/18/18	HEALTH DEPT. SUBMITTAL
	08/13/18	DSA FINAL SUBMITTAL
3	09/24/18	ADDENDUM 3

PROJECT IDENTIFICATION 7411
THESE DRAWINGS ORIGINALLY CREATED IN AUTODESK REVIT V. 2016
THE ORIGINAL SIZE OF THIS SHEET IS 30" X 42".

DRAWN BY M Alcantara

CHECKED BY E Gomez

SHEET TITLE

SECOND FLOOR PLAN - SOUTH

SHEET NUMBER

P2.22

100% CONSTRUCTION DOCUMENTS

P2S: 7411

Attachment 3

PRE-BID CLARIFICATION ("PBC") FORM
(ALL questions to be submitted on this form ONLY)

PBC # *(RSCCD USE ONLY)*: 11

PROJECT NAME:	RFP #1819-224 Johnson Student Center at Santa Ana College		
PROJECT NUMBER:	3035	DSA NUMBER:	Demolition, #04-116810 INC 1 and INC 2
EMAIL:	**FacilitiesRFP@rsccd.edu**		

DATE:	09/14/2018		
FROM:	S.Monsen - McCarthy	EMAIL:	SMonsen@McCarthy.com
SPECIFICATION NUMBER:		DRAWING NUMBER:	

REQUESTED CLARIFICATION:

a The CMU at the Boiler room is called out to be precision block with the color "Shoreline". The CMU for the Service Yard Site Wall is called out to be split face, however no color is provided. Please provide a color for bidding purposes.

b Please provide a color and type of CMU at the west lunch shelter.

c The vehicular directional signage CMU calls for CMU-6, however no spec can be found for this. It appears to be drawn as split face per detail 24&27/G3.11. Please confirm and provide the color.

RESPONSE TO CLARIFICATION, **SUBMITTED AS PART OF AN ADDENDUM**:

a. SERVICE YARD TO BE SPLIT FACE COLOR "SHORELINE"
b. PROVIDE: 8"h CMU, ANGELUS BLOCK - PRECISION "SHORELINE"
c. PROVIDE: 8"h CMU, ORCO BLOCK CO/WHITE - SPLITFACE 2-SIDES, MEDIUM WEIGHT BELOW THE SQUARE PRE-CAST CONCRETE BLOCK PILASTER 2" CAP.

REFER TO NEW DETAIL SHEET G3.12 FOR ADDITIONAL INFORMATION

RESPONSE PROVIDED BY:	Julia D. Jones / hpi	DATE:	09/24/18

Attach additional numbered sheets as necessary; however, only one (1) request shall be contained on each submitted form.

Attachment 3

PRE-BID CLARIFICATION ("PBC") FORM
(ALL questions to be submitted on this form ONLY)

PBC # *(RSCCD USE ONLY)*: 12

PROJECT NAME:	RFP #1819-224 Johnson Student Center at Santa Ana College		
PROJECT NUMBER:	3035	DSA NUMBER:	Demolition, #04-116810 INC 1 and INC 2
EMAIL:	**FacilitiesRFP@rsccd.edu**		

DATE:	09/14/2018		
FROM:	S.Monsen - McCarthy	EMAIL:	SMonsen@McCarthy.com
SPECIFICATION NUMBER:		DRAWING NUMBER:	Detail 24/G3.11

REQUESTED CLARIFICATION:

Detail 24/G3.11 calls for a Custom Thile inset flush to the CMU wall. We are assuming this should read Custom "Tile". Please confirm. Please also indicate who will provide this custom tile. If the contractor is to provide please provide details so it can be custom made.

RESPONSE TO CLARIFICATION, **SUBMITTED AS PART OF AN ADDENDUM**:

REFER TO ATTACHED DETAILS 13 AND 14/G3.12 FOR CUSTOM "TILE" INSET DETAILING.

RESPONSE PROVIDED BY:	Julia D. Jones / hpi	DATE:	09/24/18

Attach additional numbered sheets as necessary; however, only one (1) request shall be contained on each submitted form.

Attachment 3

PRE-BID CLARIFICATION ("PBC") FORM
(ALL questions to be submitted on this form ONLY)

PBC # *(RSCCD USE ONLY)*:	13

PROJECT NAME:	RFP #1819-224 Johnson Student Center at Santa Ana College		
PROJECT NUMBER:	3035	DSA NUMBER:	Demolition, #04-116810 INC 1 and INC 2
EMAIL:	**FacilitiesRFP@rsccd.edu**		

DATE:	09/14/2018		
FROM:	S.Monsen - McCarthy	EMAIL:	SMonsen@McCarthy.com
SPECIFICATION NUMBER:		DRAWING NUMBER:	Details 24 & 27/G3.11

REQUESTED CLARIFICATION:

Please provide a detailed section view of the aluminum monument sign shown in details 24 & 27 on G3.11

RESPONSE TO CLARIFICATION, **SUBMITTED AS PART OF AN ADDENDUM**:

ADDED DETAIL 17/G3.12 (NEW SHEET)

RESPONSE PROVIDED BY:	Julia D. Jones / hpi	DATE:	09/24/18

Attach additional numbered sheets as necessary; however, only one (1) request shall be contained on each submitted form.

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PRE-BID CLARIFICATION ("PBC") FORM
(ALL questions to be submitted on this form ONLY)

PBC # *(RSCCD USE ONLY)*: 14

PROJECT NAME:	RFP #1819-224 Johnson Student Center at Santa Ana College		
PROJECT NUMBER:	3035	DSA NUMBER:	Demolition, #04-116810 INC 1 and INC 2
EMAIL:	**FacilitiesRFP@rsccd.edu**		

DATE:	09/17/2018		
FROM:	S.Monsen - McCarthy	EMAIL:	SMonsen@McCarthy.com
SPECIFICATION NUMBER:	071910	DRAWING NUMBER:	A8.21

REQUESTED CLARIFICATION:

Specification Section 071910-2.1B - Concrete Floor Sealer lists Scofield, Consolideck LS by Prosoco, Degussa or ChemMasters as acceptable manufacrturers for concrete clear sealer. Sheet A8.21 Finish Schedule lists Ardex as a manufacture for Sealed Concrete. Please confirm that Ardex can be used as an "or equal" as they are not listed in the specification (071910-2.1B). Please also confirm Ardex can be added to the list of acceptable patching manufacturers (071910-2.1A).

RESPONSE TO CLARIFICATION, **SUBMITTED AS PART OF AN ADDENDUM**:

ARDEX CONCRETE SEALER AND ARDEX PATCHING COMPOUND IS ACCEPTABLE AS AN APPROVED EQUAL.

RESPONSE PROVIDED BY:	Julia D. Jones / hpi	DATE:	09/24/18

Attach additional numbered sheets as necessary; however, only one (1) request shall be contained on each submitted form.

Attachment 3

PRE-BID CLARIFICATION ("PBC") FORM
(ALL questions to be submitted on this form ONLY)

PBC # *(RSCCD USE ONLY)*:	15

PROJECT NAME:	RFP #1819-224 Johnson Student Center at Santa Ana College		
PROJECT NUMBER:	3035	DSA NUMBER:	Demolition, #04-116810 INC 1 and INC 2
EMAIL:	**FacilitiesRFP@rsccd.edu**		

DATE:	09/17/2018		
FROM:	S.Monsen - McCarthy	EMAIL:	SMonsen@McCarthy.com
SPECIFICATION NUMBER:		DRAWING NUMBER:	A8.30 and A8.31

REQUESTED CLARIFICATION:

Doors J100-2A & J200-2A are called out as Type D4 and Door J101-1A is called out as Type D3 on the Door Schedule however no D3 or D4 door is included in the Door Type Legend. Please either revise these doors in the schedule or provide the missing D3 and D4 door type.

RESPONSE TO CLARIFICATION, **SUBMITTED AS PART OF AN ADDENDUM**:

REFER TO SHEET A8.41 REFERENCE STOREFRONT SF-3 FOR DOOR J100-2A, SF-7 FOR DOOR J200-2A. FOR DOOR J101-1A TO BE A TYPE B.

RESPONSE PROVIDED BY:	Julia D. Jones / hpi	DATE:	09/24/18

Attach additional numbered sheets as necessary; however, only one (1) request shall be contained on each submitted form.

Attachment 3

PRE-BID CLARIFICATION ("PBC") FORM
(ALL questions to be submitted on this form ONLY)

PBC # *(RSCCD USE ONLY)*: 16

PROJECT NAME:	RFP #1819-224 Johnson Student Center at Santa Ana College		
PROJECT NUMBER:	3035	DSA NUMBER:	Demolition, #04-116810 INC 1 and INC 2
EMAIL:	**FacilitiesRFP@rsccd.edu**		

DATE:	09/17/2018		
FROM:	S.Monsen - McCarthy	EMAIL:	SMonsen@McCarthy.com
SPECIFICATION NUMBER:	071909, 096500, 096517, 096816	DRAWING NUMBER:	

REQUESTED CLARIFICATION:

Specification Section 071909-3.4C states "Do not allow floor coverings to be installed in areas above 3.0 pounds per ASTM F 1869 and pH levels greater than 10 or floor covering manufacturer's requirements."

1) The flooring specifications (Resilient Tile 096500 & linoleum 096517) call to "Provide barrier as specified in Division 7 Section "Concrete Moisture and Alkalinity Barrier" if test exceed floor covering limits." Since the concrete cannot be tested until it is constructed, we recommend the District include an allowance for concrete moisture and alkalinity barrier to level all bidders.

2) The Sheet Carpeting Specification 096816-1.05B calls for Powerbond Cushion installation which does not require moisture vapor emission rate (MVER) testing nor relative humidity (RH) testing provided that no free liquids are present. Please confirm that the Concrete Moisture and Alkalinity Barrier specification section 071920 does not apply to the carpeted areas.

RESPONSE TO CLARIFICATION, **SUBMITTED AS PART OF AN ADDENDUM**:

1) In the event concrete moisture and alkalinity test (s) fail, contractor shall apply a concrete moisture and alkalinity barrier per Specification 071920 at resilient tile and linoleum flooring areas. Refer to Allowance No. 5 (in red) on revised Specific Allowance list. (District Response)

2) REFER TO SPECIFICATION SECTION 096816 PART 1, 1.05.B. IF THERE IS FREE LIQUIDS AND/OR MOISTURE STAINED CONCRETE OBSERVED A MVER AND RH TESTING MUST BE DONE. (HPI Response)

RESPONSE PROVIDED BY:	Julia D. Jones / hpi	DATE:	09/24/18

Attach additional numbered sheets as necessary; however, only one (1) request shall be contained on each submitted form.

Attachment 3

PRE-BID CLARIFICATION ("PBC") FORM
(ALL questions to be submitted on this form ONLY)

PBC # *(RSCCD USE ONLY)*:	17

PROJECT NAME:	RFP #1819-224 Johnson Student Center at Santa Ana College		
PROJECT NUMBER:	3035	DSA NUMBER:	Demolition, #04-116810 INC 1 and INC 2
EMAIL:	**FacilitiesRFP@rsccd.edu**		

DATE:	09/18/2018		
FROM:	S.Monsen - McCarthy	EMAIL:	SMonsen@McCarthy.com
SPECIFICATION NUMBER:		DRAWING NUMBER:	Building Demo - Sheet C1.00

REQUESTED CLARIFICATION:

Building Demo - Sheet C1.00, Grading Note 2 refers to the City of Cerritos. Please confirm this should be Santa Ana instead.

RESPONSE TO CLARIFICATION, **SUBMITTED AS PART OF AN ADDENDUM**:

CONFIRMED TO READ CITY OF "SANTA ANA" . REFER TO REVISED SHEET C1.00

RESPONSE PROVIDED BY:	Linda Sandusky / H&F	DATE:	09/24/18

Attach additional numbered sheets as necessary; however, only one (1) request shall be contained on each submitted form.

Attachment 3

PRE-BID CLARIFICATION ("PBC") FORM
(ALL questions to be submitted on this form ONLY)

PBC # *(RSCCD USE ONLY)*: 18

PROJECT NAME:	RFP #1819-224 Johnson Student Center at Santa Ana College		
PROJECT NUMBER:	3035	DSA NUMBER:	Demolition, #04-116810 INC 1 and INC 2
EMAIL:	**FacilitiesRFP@rsccd.edu**		

DATE:	09/18/2018		
FROM:	S.Monsen - McCarthy	EMAIL:	SMonsen@McCarthy.com
SPECIFICATION NUMBER:		DRAWING NUMBER:	Building Demo - Sheet C1.00

REQUESTED CLARIFICATION:

Building Demo - Sheet C1.00 - Detail 1 - There are several utility structures & piping that are listed as "Protect in Place", however these will need to be removed. Please revise this drawing to show which specific utility items are to be protected in place & which are to be removed, especially those that are in the zone of the building over excavation.

RESPONSE TO CLARIFICATION, **SUBMITTED AS PART OF AN ADDENDUM**:

REVISED SHEET C1.00 DETAIL 1 TO SHOW ALL WET/DRY UTILITIES AND ALL ASSOCIATED ACCESSORIES TO BE REMOVED IN THEIR ENTIRETY AND CUT BACK/CAPPED IF NECESSARY AT BOUNDARY OF CONSTRUCTION

RESPONSE PROVIDED BY:	Linda Sandusky / H&F	DATE:	09/24/18

Attach additional numbered sheets as necessary; however, only one (1) request shall be contained on each submitted form.

Attachment 3

PRE-BID CLARIFICATION ("PBC") FORM
(ALL questions to be submitted on this form ONLY)

PBC # *(RSCCD USE ONLY)*:	19

PROJECT NAME:	RFP #1819-224 Johnson Student Center at Santa Ana College		
PROJECT NUMBER:	3035	DSA NUMBER:	Demolition, #04-116810 INC 1 and INC 2
EMAIL:	**FacilitiesRFP@rsccd.edu**		

DATE:	09/18/2018		
FROM:	S.Monsen - McCarthy	EMAIL:	SMonsen@McCarthy.com
SPECIFICATION NUMBER:		DRAWING NUMBER:	Building Demo - Sheets C2.00, C2.0-D Increment 2 - Sheet C6.0

REQUESTED CLARIFICATION:

Building Demo - Sheets C2.00, C2.0-D - Please confirm that these Erosion Control & Grading Plans are assumed to be superseded by Increment 2, Sheet C6.0.

RESPONSE TO CLARIFICATION, **SUBMITTED AS PART OF AN ADDENDUM**:

REMOVE SHEET C2.00 IN ITS ENTIRETY FROM THE BUILDING DEMOLITION PACKAGE. REFER TO INCREMENT 1 AND 2 FOR EROSION CONTROL & GRADING PLANS

RESPONSE PROVIDED BY:	Linda Sandusky / H&F	DATE:	09/24/18

Attach additional numbered sheets as necessary; however, only one (1) request shall be contained on each submitted form.

Attachment 3

PRE-BID CLARIFICATION ("PBC") FORM
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PBC # *(RSCCD USE ONLY)*:	20

PROJECT NAME:	RFP #1819-224 Johnson Student Center at Santa Ana College		
PROJECT NUMBER:	3035	DSA NUMBER:	Demolition, #04-116810 INC 1 and INC 2
EMAIL:	**FacilitiesRFP@rsccd.edu**		

DATE:	09/18/2018		
FROM:	S.Monsen - McCarthy	EMAIL:	SMonsen@McCarthy.com
SPECIFICATION NUMBER:	033010 & 321313	DRAWING NUMBER:	

REQUESTED CLARIFICATION:

Increment #2 - Specification Section 033010 par. 1.2-E calls for a 3x3x8-inch sample of each site wall finish for review, and Section 321313 par. 1.2-C calls for a 4x4 job site sample of each paving finish. There are numerous existing site walls and new site paving recently installed on the campus, could these "in place" samples serve as a the representative samples of finish types to match in lieu of a new mock-up, thus saving the district money.

RESPONSE TO CLARIFICATION, **SUBMITTED AS PART OF AN ADDENDUM**:

PROVIDE MOCK-UPS PER SPECIFICATION SECTIONS (DSA APPROVED CONTRACT DOCUMENTS)

RESPONSE PROVIDED BY:	Julia D. Jones / hpi	DATE:	09/24/18

Attach additional numbered sheets as necessary; however, only one (1) request shall be contained on each submitted form.

Attachment 3

PRE-BID CLARIFICATION ("PBC") FORM
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PBC # *(RSCCD USE ONLY)*:	21

PROJECT NAME:	RFP #1819-224 Johnson Student Center at Santa Ana College		
PROJECT NUMBER:	3035	DSA NUMBER:	Demolition, #04-116810 INC 1 and INC 2
EMAIL:	**FacilitiesRFP@rsccd.edu**		

DATE:	09/18/2018		
FROM:	S.Monsen - McCarthy	EMAIL:	SMonsen@McCarthy.com
SPECIFICATION NUMBER:		DRAWING NUMBER:	L5.50

REQUESTED CLARIFICATION:

Increment #2 - Sheet L5.50 - Mock-Up Requirements - Confirm that the bidders are to provide these mock-ups since the existing site-work & site walls that were recently installed could serve as representative samples of finish types to match, thus saving the District money.

RESPONSE TO CLARIFICATION, **SUBMITTED AS PART OF AN ADDENDUM**:

PROVIDE MOCK-UPS PER SPECIFICATION SECTIONS (DSA APPROVED CONTRACT DOCUMENT)

RESPONSE PROVIDED BY:	Julia D. Jones / hpi	DATE:	09/24/18

Attach additional numbered sheets as necessary; however, only one (1) request shall be contained on each submitted form.

Attachment 3

PRE-BID CLARIFICATION ("PBC") FORM
(ALL questions to be submitted on this form ONLY)

PBC # *(RSCCD USE ONLY)*: 22

PROJECT NAME:	RFP #1819-224 Johnson Student Center at Santa Ana College		
PROJECT NUMBER:	3035	DSA NUMBER:	Demolition, #04-116810 INC 1 and INC 2
EMAIL:	**FacilitiesRFP@rsccd.edu**		

DATE:	09/18/2018		
FROM:	S.Monsen - McCarthy	EMAIL:	SMonsen@McCarthy.com
SPECIFICATION NUMBER:	053123 par. 2.2-A-1	DRAWING NUMBER:	A1.03 - Detail 21

REQUESTED CLARIFICATION:

Increment #2 - Sheet A1.03 - Detail 21 - At the right, there is a callout for 053123.A2 and handwritten is "Deck D5 Type per 1/S5.11. Detail 1/S5.11 calls out D5 as Deep-Dek to be "(18GA)", however Section 053123 par. 2.2-A-1 calls for this corrugated deck to be "20GA. or greater as determined by design". Please confirm that the bid is to be based upon 18GA thick decking per the deck schedule on S5.11.

RESPONSE TO CLARIFICATION, **SUBMITTED AS PART OF AN ADDENDUM**:

MHP Response: 9/19/2018
Confirmed, provide D5 deck per detail 1/S5.11 (18GA).

-AE

RESPONSE PROVIDED BY:	Adam Egan / MHP	DATE:	09/24/18

Attach additional numbered sheets as necessary; however, only one (1) request shall be contained on each submitted form.

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PRE-BID CLARIFICATION ("PBC") FORM
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PBC # *(RSCCD USE ONLY)*: 23

PROJECT NAME:	RFP #1819-224 Johnson Student Center at Santa Ana College		
PROJECT NUMBER:	3035	DSA NUMBER:	Demolition, #04-116810 INC 1 and INC 2
EMAIL:	**FacilitiesRFP@rsccd.edu**		

DATE:	09/18/2018		
FROM:	S.Monsen - McCarthy	EMAIL:	SMonsen@McCarthy.com
SPECIFICATION NUMBER:		DRAWING NUMBER:	S2.50, S4.11, S5.17

REQUESTED CLARIFICATION:

Increment #2 - Sheet S2.50 - Detail A - The west lunch shelter is shown with an 18" concrete mat foundation. Detail 16/S4.11 does not show a mat foundation, however Detail 6/S5.17 does. Please confirm that Detail 6/S5.17 is the correct typical detail for these walls.

Please also provide the TOF elevation for this Mat Foundation as well as slab edge details at the CMU walls (thickened edge?) and slab edge details at the door openings (transitions to site concrete?).

RESPONSE TO CLARIFICATION, **SUBMITTED AS PART OF AN ADDENDUM**:

MHP Response: 9/19/2018
Detail 6/S5.17 shows the correct detailing for the mat foundation. Mat foundation TOF is per plan ref note directing to S2.11 - Foundation Plan Notes / Note 8.
Slab edge per plan ref Detail 16/S4.11 at CMU wall
Provide doweling for slab edge at opening to mat foundation similar to Detail 1S4.11
-AE

RESPONSE PROVIDED BY:	Adam Egan / MHP	DATE:	09/24/18

Attach additional numbered sheets as necessary; however, only one (1) request shall be contained on each submitted form.

Attachment 3

PRE-BID CLARIFICATION ("PBC") FORM
(ALL questions to be submitted on this form ONLY)

PBC # *(RSCCD USE ONLY)*:	24

PROJECT NAME:	RFP #1819-224 Johnson Student Center at Santa Ana College		
PROJECT NUMBER:	3035	DSA NUMBER:	Demolition, #04-116810 INC 1 and INC 2
EMAIL:	**FacilitiesRFP@rsccd.edu**		

DATE:	09/18/2018		
FROM:	S.Monsen - McCarthy	EMAIL:	SMonsen@McCarthy.com
SPECIFICATION NUMBER:		DRAWING NUMBER:	SS1.02.1

REQUESTED CLARIFICATION:

Increment #2 - Sheet SS1.02.1 - Rear Elevation - The reference call out to Detail F/A1.03 for the Shade footing should be Detail A/SS1.03 instead.

RESPONSE TO CLARIFICATION, **SUBMITTED AS PART OF AN ADDENDUM**:

MHP Response: 9/19/2018
Sheet SS1.02.1 - Rear Elevation - The reference call out Detail F/A1.03 for the shade footing should be Detail F/SS1.03
-AE

RESPONSE PROVIDED BY:	Adam Egan / MHP	DATE:	09/24/18

Attach additional numbered sheets as necessary; however, only one (1) request shall be contained on each submitted form.

Attachment 3

PRE-BID CLARIFICATION ("PBC") FORM
(ALL questions to be submitted on this form ONLY)

PBC # *(RSCCD USE ONLY)*: 25

PROJECT NAME:	RFP #1819-224 Johnson Student Center at Santa Ana College		
PROJECT NUMBER:	3035	DSA NUMBER:	Demolition, #04-116810 INC 1 and INC 2
EMAIL:	**FacilitiesRFP@rsccd.edu**		

DATE:	09/18/2018		
FROM:	S.Monsen - McCarthy	EMAIL:	SMonsen@McCarthy.com
SPECIFICATION NUMBER:		DRAWING NUMBER:	E0.03

REQUESTED CLARIFICATION:

Increment #2 - Sheet E0.03 - Exterior Fixtures S2 - Option 1 lists the model Ligman-FS-UEU-20286, however a search of the Ligman Lighting web site does not have this model, although there are some similar models which are #20281 thru #20285. Please confirm if #20286 is in production, and if not, provide the model that should be selected for this project.

RESPONSE TO CLARIFICATION, **SUBMITTED AS PART OF AN ADDENDUM**:

Model UEU-20286 does exist and is on their website. Please see attached cut sheet downloaded from their website.

RESPONSE PROVIDED BY:	Melissa Klug / P2s	DATE:	09/24/18

Attach additional numbered sheets as necessary; however, only one (1) request shall be contained on each submitted form.

UEU-20286

Eurasia 1 Small Shade Post Top

7144 NE Progress Ct | T:503.645.0500
Hillsboro.Oregon 97124 | F:503.645.8100
www.ligmanlightingusa.com

LIGMAN LIGHTING USA

Length - 16”

Height - 21”

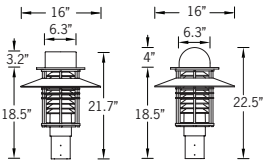
Weight - 53.5 lbs

IP55
Suitable for wet locations

IK08
Impact Resistant [Vandal Resistant]

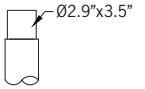
EPA - .98

POLE NOT INCLUDED

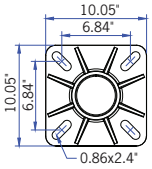


Flat Top | Dome Top

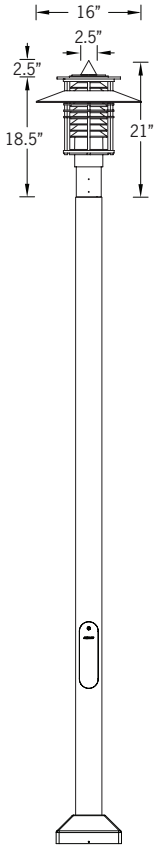
Lantern Detail



Tenon Detail



Mounting Detail



Eurasia Product Family

UEU-30216

UEU-30226

UEU-10026

UEU-10046

UEU-20406

UEU-20256

Construction

Aluminum
Less than 0.1% copper content – Marine Grade 6060 extruded & LM6 Aluminum High Pressure die casting provides excellent mechanical strength , clean detailed product lines and excellent heat dissipation.

Pre paint
8 step degrease and phosphate process that includes deoxidizing and etching as well as a zinc and nickel phosphate process before product painting.

Memory Retentive -Silicon Gasket
Provided with special injection molded “fit for purpose” long life high temperature memory retentive silicon gaskets. Maintains the gaskets exact profile and seal over years of use and compression.

Thermal management
LM6 Aluminum is used for its excellent mechanical strength and thermal dissipation properties in low and high ambient temperatures. The superior thermal heat sink design by Ligman used in conjunction with the driver, controls thermals below critical temperature range to ensure maximum luminous flux output, as well as providing long LED service life and ensuring less than 10% lumen depreciation at 50,000 hours.

Surge Suppression
Standard 10kv surge suppressor provided with all fixtures.

BUG Rating
B1 - U3 - G1

Finishing
All Ligman products go through an extensive finishing process that includes fettling to improve paint adherence.

Paint
UV Stabilized 4.9Mil thick powder coat paint and baked at 200 Deg C.
This process ensures that Ligman products can withstand harsh environments.
Rated for use in natatoriums.

Hardware
Provided Hardware is Marine grade 316 Stainless steel.

Anti Seize Screw Holes
Tapped holes are infused with a special anti seize compound designed to prevent seizure of threaded connections, due to electrolysis from heat, corrosive atmospheres and moisture.

High Impact Acrylic Lens
Manufactured with Ultra High Impact, Naturally UV Stabilized Injection Molded Acrylic.

Optics & LED
Precise optic design provides exceptional light control and precise distribution of light.
LED CRI > 80

Lumen - Maintenance Life
L80 /B10 at 50,000 hours (This means that at least 90% of the LED still achieve 80% of their original flux)

High-visual-comfort post top family. Robust but decorative urban lighting family with perfect glare-controlled lateral light distribution.

A post top decorative lantern with a symmetrical light distribution. Developed to complement the Eurasia range of pillar light, wall light and bollard luminaires using energy saving COB LED lamps.

Designed for various applications including car parks, precincts, pathways and town centers. The luminaire rated as CLASS I with integral driver. Colour temperature 2700K, 3000K, 3500K and 4000K, LED CRI >80 and life time 50,000 Hours. Low copper content die cast housing with high corrosion resistance. Stainless steel screws. Durable silicone rubber gasket and clear impact resistant UV stabilized polycarbonate diffuser.

Housing is treated with a chemical chromatized protection before powder coating, ensuring high corrosion resistance. Anodized high purity aluminum reflector.

Additional Options (Consult Factory For Pricing)

A20491
Root Mount Kit

UEU-20286

Eurasia 1 Small Shade Post Top

7144 NE Progress Ct | T:503.645.0500
Hillsboro.Oregon 97124 | F:503.645.8100
www.ligmanlightingusa.com

LIGMAN LIGHTING USA

PROJECT		DATE	
QUANTITY		TYPE		NOTE	

ORDERING EXAMPLE || UEU - 20286 - 41w - 1 - 2 - W30 - 02 - 120/277v - Options

LAMP	SHADE	TOP	LED COLOR	FINISH COLOR	VOLTAGE
41w LED 993 Lumens	1 - Swept 2 - Straight	1 - Dome Top 2 - Cone Top 3 - Pointed Top	W27 - 2700K W30 - 3000K W35 - 3500K W40 - 4000K	01 - BLACK RAL 9011 02 - DARK GREY RAL 7043 03 - WHITE RAL 9003 04 - METALLIC SILVER RAL 9006 05 - MATTE SILVER RAL 9006 06 - LIGMAN BRONZE 07 - CUSTOM RAL	120/277v Other - Specify

ADDITIONAL OPTIONS		

DIM - 0-10v Dimming
NAT - Natatorium Rated
A20491 - Root Mount Kit

Intertek

Attachment 3

PRE-BID CLARIFICATION ("PBC") FORM
(ALL questions to be submitted on this form ONLY)

PBC # *(RSCCD USE ONLY)*: 26

PROJECT NAME:	RFP #1819-224 Johnson Student Center at Santa Ana College		
PROJECT NUMBER:	3035	DSA NUMBER:	Demolition, #04-116810 INC 1 and INC 2
EMAIL:	**FacilitiesRFP@rsccd.edu**		

DATE:	09/18/2018		
FROM:	S.Monsen - McCarthy	EMAIL:	SMonsen@McCarthy.com
SPECIFICATION NUMBER:		DRAWING NUMBER:	A7.05

REQUESTED CLARIFICATION:

Increment #2 - Sheet A7.05 - Detail 4 - Keynote 055100.A9 calls for a 12" HIGH, 1-1/2" DIA. STAINLESS STEEL PIPE RAIL and then it refers to detail 19/A9.71 which shows a much different guardrail condition. Please provide correct detail for this 12" high pipe rail with mounting details.

Also Specialization section 055100 is for assembled steel stairs, stainless steel pipe rail. Please review and advise which specification section applies to this pipe rail (055213 or 057300 maybe?)

RESPONSE TO CLARIFICATION, **SUBMITTED AS PART OF AN ADDENDUM**:

DETAIL REFERENCE IS 3/A9.72. KEYNOTE TO READ 055213.A9. SPECIFICATION FOR PIPE AND TUBE RAILING, INCLUDING SS RAILING

USE SPECIFICATION 055213 PIPE AND TUBE RAILINGS

RESPONSE PROVIDED BY:	Julia D. Jones / hpi	DATE:	09/24/18

Attach additional numbered sheets as necessary; however, only one (1) request shall be contained on each submitted form.

Attachment 3

PRE-BID CLARIFICATION ("PBC") FORM
(ALL questions to be submitted on this form ONLY)

PBC # *(RSCCD USE ONLY)*: 27

PROJECT NAME:	RFP #1819-224 Johnson Student Center at Santa Ana College		
PROJECT NUMBER:	3035	DSA NUMBER:	Demolition, #04-116810 INC 1 and INC 2
EMAIL:	**FacilitiesRFP@rsccd.edu**		

DATE:	09/18/2018		
FROM:	S.Monsen - McCarthy	EMAIL:	SMonsen@McCarthy.com
SPECIFICATION NUMBER:		DRAWING NUMBER:	A7.21

REQUESTED CLARIFICATION:

Increment #2 - Sheet A7.21 - Detail 8 - Keynote 055100.A8 calls for 1-1/2" DIA. STAINLESS STEEL PIPE RAIL. There is no elevation provided for this side of the room. Please provide details to clarify the height, length and mounting requirements. Also is Spec 055100 the correct spec to be used for this item?

RESPONSE TO CLARIFICATION, **SUBMITTED AS PART OF AN ADDENDUM**:

DETAIL REFERENCE IS 3/A9.72. KEYNOTE TO READ 055213.A8. SPECIFICATION FOR PIPE AND TUBE RAILING, INCLUDING SS RAILING USE 055213 PIPE AND TUBE RAILINGS. PROVIDE LENGTH OF 19'-0" FROM CENTERLINE 2, RUNNING SOUTH

RESPONSE PROVIDED BY:	Julia D. Jones / hpi	DATE:	09/24/18

Attach additional numbered sheets as necessary; however, only one (1) request shall be contained on each submitted form.

Attachment 3

PRE-BID CLARIFICATION ("PBC") FORM
(ALL questions to be submitted on this form ONLY)

PBC # *(RSCCD USE ONLY)*: 28

PROJECT NAME:	RFP #1819-224 Johnson Student Center at Santa Ana College		
PROJECT NUMBER:	3035	DSA NUMBER:	Demolition, #04-116810 INC 1 and INC 2
EMAIL:	**FacilitiesRFP@rsccd.edu**		

DATE:	09/18/2018		
FROM:	S.Monsen - McCarthy	EMAIL:	SMonsen@McCarthy.com
SPECIFICATION NUMBER:		DRAWING NUMBER:	A7.52, A9.71

REQUESTED CLARIFICATION:

Increment #2 – Sheet A7.52 - Keynote 057300.A1 calls for ORNAMENTAL METAL GUARDRAIL - STAINLESS STEEL TOP RAIL & POST, PAINTED INFILL PANEL at the 2nd floor balcony. Detail 15/A9.71 is called out for this guardrail. This detail references details 26&27/A9.71.

1)These details call out a 1"thick post, but do not call out a stainless steel post. This should be corrected.
2)These details refer to drawings 20/S5.03 for post and stiffener plate size and connection. Sheet S5.03 does not exist. Please provide missing detail/sheet or correct this call out.

RESPONSE TO CLARIFICATION, **SUBMITTED AS PART OF AN ADDENDUM**:

1) DETAILS 26/A9.71 NOTE REFERENCING 1" THICK STEEL POST TO READ "1" THICK STEEL POST STAINLESS STEEL". 2) DETAILS 26&27/A9.71 NOTE REVISE TO READ "…STIFFENER PLATE SIZE AND CONNECTION SEE 11/S5.13". 1) DETAIL 27/A9.71 NOTE REFERENCING 1" THICK STEEL POST TO READ "1" THICK STEEL POST STAINLESS STEEL". REMOVE LEADER OF SAME NOTE THAT IS POINTING TO STRUCTURAL STIFFENER.

RESPONSE PROVIDED BY:	Julia D. Jones / hpi	DATE:	09/24/18

Attach additional numbered sheets as necessary; however, only one (1) request shall be contained on each submitted form.

Attachment 3

PRE-BID CLARIFICATION ("PBC") FORM
(ALL questions to be submitted on this form ONLY)

PBC # *(RSCCD USE ONLY)*:	29

PROJECT NAME:	RFP #1819-224 Johnson Student Center at Santa Ana College		
PROJECT NUMBER:	3035	DSA NUMBER:	Demolition, #04-116810 INC 1 and INC 2
EMAIL:	**FacilitiesRFP@rsccd.edu**		

DATE:	09/19/2018		
FROM:	S.Monsen - McCarthy	EMAIL:	SMonsen@McCarthy.com
SPECIFICATION NUMBER:		DRAWING NUMBER:	All Sheets

REQUESTED CLARIFICATION:

Increment #1 and #2 drawings have been provided in scanned format to bidders with hand written notes. Is it possible to have a clean copy provided to bidders with hand written notes incorporated into the text so that drawings are searchable?

RESPONSE TO CLARIFICATION, **SUBMITTED AS PART OF AN ADDENDUM**:

THESE ARE DSA APPROVED DOCUMENTS, SO THEY WILL NOT BE REISSUED WITH TEXT AS REQUESTED.

RESPONSE PROVIDED BY:	Julia D. Jones / hpi	DATE:	09/24/18

Attach additional numbered sheets as necessary; however, only one (1) request shall be contained on each submitted form.

Attachment 3

PRE-BID CLARIFICATION ("PBC") FORM
(ALL questions to be submitted on this form ONLY)

PBC # *(RSCCD USE ONLY)*:	30

PROJECT NAME:	RFP #1819-224 Johnson Student Center at Santa Ana College		
PROJECT NUMBER:	3035	DSA NUMBER:	Demolition, #04-116810 INC 1 and INC 2
EMAIL:	**FacilitiesRFP@rsccd.edu**		

DATE:	09/19/2018		
FROM:	S.Monsen - McCarthy	EMAIL:	SMonsen@McCarthy.com
SPECIFICATION NUMBER:		DRAWING NUMBER:	A8.20 & A8.11

REQUESTED CLARIFICATION:

Increment #2 - Please confirm that the room finish schedule on A8.20 takes precedence over the floor plans at conflicting locations. For example, Lounge room J208-4 shows RSF-4 flooring in the room finish schedule and RSF-2 on floor plan A8.11.

RESPONSE TO CLARIFICATION, **SUBMITTED AS PART OF AN ADDENDUM**:

Confirmed. Room Finish Schedule on A8.20 takes precedence over Finish Floor Plans.

RESPONSE PROVIDED BY:	Julia D. Jones / hpi	DATE:	09/24/18

Attach additional numbered sheets as necessary; however, only one (1) request shall be contained on each submitted form.

Attachment 3

PRE-BID CLARIFICATION ("PBC") FORM
(ALL questions to be submitted on this form ONLY)

PBC # *(RSCCD USE ONLY)*:	31

PROJECT NAME:	RFP #1819-224 Johnson Student Center at Santa Ana College		
PROJECT NUMBER:	3035	DSA NUMBER:	Demolition, #04-116810 INC 1 and INC 2
EMAIL:	**FacilitiesRFP@rsccd.edu**		

DATE:	09/19/2018		
FROM:	S.Monsen - McCarthy	EMAIL:	SMonsen@McCarthy.com
SPECIFICATION NUMBER:		DRAWING NUMBER:	A8.11

REQUESTED CLARIFICATION:

Increment #2 - The floor plan on A8.11 shows Stair 2 labeled with RST-1 landings and treads, however RST-1 is not found in the flooring legend. Should this call out be revised to RSF-1? Please clarify.

RESPONSE TO CLARIFICATION, **SUBMITTED AS PART OF AN ADDENDUM**:

Yes, this should be revised to RSF-1.

RESPONSE PROVIDED BY:	Julia D. Jones / hpi	DATE:	09/24/18

Attach additional numbered sheets as necessary; however, only one (1) request shall be contained on each submitted form.

Attachment 3

PRE-BID CLARIFICATION ("PBC") FORM
(ALL questions to be submitted on this form ONLY)

PBC # *(RSCCD USE ONLY)*: 32

PROJECT NAME:	RFP #1819-224 Johnson Student Center at Santa Ana College		
PROJECT NUMBER:	3035	DSA NUMBER:	Demolition, #04-116810 INC 1 and INC 2
EMAIL:	**FacilitiesRFP@rsccd.edu**		

DATE:	09/19/2018		
FROM:	S.Monsen - McCarthy	EMAIL:	SMonsen@McCarthy.com
SPECIFICATION NUMBER:		DRAWING NUMBER:	A7.02 & A8.20

REQUESTED CLARIFICATION:

Increment #2 - Gender Neutral Restrooms J110-10, J110-15 & J110-18 show the use of coved tile base in elevations and details 16, 21, 27 & 28 on A7.02. The Room Finish Schedule on A8.20 calls for RSB-2 base. Please clarify what base is required in these 3 restrooms.

RESPONSE TO CLARIFICATION, **SUBMITTED AS PART OF AN ADDENDUM**:

The base that should be used in rooms J110-10, J110-15, and J110-18 should be the RSB-2 (Forbo - Integral Cove Base).

RESPONSE PROVIDED BY:	Julia D. Jones / hpi	DATE:	09/24/18

Attach additional numbered sheets as necessary; however, only one (1) request shall be contained on each submitted form.

Attachment 3

PRE-BID CLARIFICATION ("PBC") FORM
(ALL questions to be submitted on this form ONLY)

PBC # *(RSCCD USE ONLY)*:	33

PROJECT NAME:	RFP #1819-224 Johnson Student Center at Santa Ana College		
PROJECT NUMBER:	3035	DSA NUMBER:	Demolition, #04-116810 INC 1 and INC 2
EMAIL:	**FacilitiesRFP@rsccd.edu**		

DATE:	09/19/2018		
FROM:	S.Monsen - McCarthy	EMAIL:	SMonsen@McCarthy.com
SPECIFICATION NUMBER:		DRAWING NUMBER:	A7.02 & A8.20

REQUESTED CLARIFICATION:

Increment #2 - Room Finish Schedule A8.20 contains comment "Gyp-6 behind tile" for Gender Neutral Restrooms J110-10, J110-15, and J110-18. No tile is shown in the finish schedule (FRP and Green Board is called out). Please confirm that there is no tile in these three restrooms, and remove the comment stating Gyp 6.

RESPONSE TO CLARIFICATION, **SUBMITTED AS PART OF AN ADDENDUM**:

Confirmed. There is no tile in these three restrooms.

RESPONSE PROVIDED BY:	Julia D. Jones / hpi	DATE:	09/24/18

Attach additional numbered sheets as necessary; however, only one (1) request shall be contained on each submitted form.

Attachment 3

PRE-BID CLARIFICATION ("PBC") FORM
(ALL questions to be submitted on this form ONLY)

PBC # *(RSCCD USE ONLY)*:	34

PROJECT NAME:	RFP #1819-224 Johnson Student Center at Santa Ana College		
PROJECT NUMBER:	3035	DSA NUMBER:	Demolition, #04-116810 INC 1 and INC 2
EMAIL:	**FacilitiesRFP@rsccd.edu**		

DATE:	09/19/2018		
FROM:	S.Monsen - McCarthy	EMAIL:	SMonsen@McCarthy.com
SPECIFICATION NUMBER:	101123 par. 2.2-A-4	DRAWING NUMBER:	

REQUESTED CLARIFICATION:

Increment #2 - Specification Section 101123 par. 2.2-A-4 calls for "Series 5 by Claridge" and the Panel Thickness is listed as 1 inch, however in a review of the Claridge website Series 5 lists the "O.A. panel thickness at approx. 1/2 inch". Please review and advise.

RESPONSE TO CLARIFICATION, **SUBMITTED AS PART OF AN ADDENDUM**:

TACKBOARD: CLARIDGE SERIES 5 IS CORRECT PRODUCT, 1/2" CONFIRMED WITH 5/8"

RESPONSE PROVIDED BY:	Julia D. Jones / hpi	DATE:	09/24/18

Attach additional numbered sheets as necessary; however, only one (1) request shall be contained on each submitted form.

Attachment 3

PRE-BID CLARIFICATION ("PBC") FORM
(ALL questions to be submitted on this form ONLY)

PBC # *(RSCCD USE ONLY)*: 35

PROJECT NAME:	RFP #1819-224 Johnson Student Center at Santa Ana College		
PROJECT NUMBER:	3035	DSA NUMBER:	Demolition, #04-116810 INC 1 and INC 2
EMAIL:	**FacilitiesRFP@rsccd.edu**		

DATE:	09/19/2018		
FROM:	S.Monsen - McCarthy	EMAIL:	SMonsen@McCarthy.com
SPECIFICATION NUMBER:	101123 par. 2.3-B & par.2.4-A,B,C,D	DRAWING NUMBER:	

REQUESTED CLARIFICATION:

Increment #2 - Specification Section 101123 par. 2.3-B & par.2.4-A,B,C,D - These paragraphs are the exact same as in Section 101116 Markerboards, and appear to be specifications for the fabrication of Markerboards instead of Tackboards. Please review and correct as necessary.

RESPONSE TO CLARIFICATION, **SUBMITTED AS PART OF AN ADDENDUM**:

REMOVE SPECIFICATION SECTION 101123 PAR., 2.3-B AND PAR., 2.4-A.

RESPONSE PROVIDED BY:	Julia D. Jones / hpi	DATE:	09/24/18

Attach additional numbered sheets as necessary; however, only one (1) request shall be contained on each submitted form.

Attachment 3

PRE-BID CLARIFICATION ("PBC") FORM
(ALL questions to be submitted on this form ONLY)

PBC # *(RSCCD USE ONLY)*:	36

PROJECT NAME:	RFP #1819-224 Johnson Student Center at Santa Ana College		
PROJECT NUMBER:	3035	DSA NUMBER:	Demolition, #04-116810 INC 1 and INC 2
EMAIL:	**FacilitiesRFP@rsccd.edu**		

DATE:	09/19/2018		
FROM:	S.Monsen - McCarthy	EMAIL:	SMonsen@McCarthy.com
SPECIFICATION NUMBER:		DRAWING NUMBER:	A6.01

REQUESTED CLARIFICATION:

Increment #2 - Sheet A6.01 - Detail 3 - On the east wall of J221 Custodial is a callout for Keynote 102813.B1 which is for a Bobrick B-29744, however Detail 25/A6.01 calls for Keynote 102813.A1 which is for a Bobrick B-39747 (or B-3974) instead. Please confirm which is correct.

RESPONSE TO CLARIFICATION, **SUBMITTED AS PART OF AN ADDENDUM**:

KEYNOTE ON 3/A6.01 TO READ 102813.A1

RESPONSE PROVIDED BY:	Julia D. Jones / hpi	DATE:	09/24/18

Attach additional numbered sheets as necessary; however, only one (1) request shall be contained on each submitted form.

Attachment 3

PRE-BID CLARIFICATION ("PBC") FORM
(ALL questions to be submitted on this form ONLY)

PBC # *(RSCCD USE ONLY)*: 37

PROJECT NAME:	RFP #1819-224 Johnson Student Center at Santa Ana College		
PROJECT NUMBER:	3035	DSA NUMBER:	Demolition, #04-116810 INC 1 and INC 2
EMAIL:	**FacilitiesRFP@rsccd.edu**		

DATE:	09/19/2018		
FROM:	S.Monsen - McCarthy	EMAIL:	SMonsen@McCarthy.com
SPECIFICATION NUMBER:	Section 101123	DRAWING NUMBER:	A7.19

REQUESTED CLARIFICATION:

Increment #2 - Sheet A7.19 - Keynote 101123.A3 - This keynote calls out an Acoustic Tack Board, however Section 101123 does not specify an "acoustic tackboard" product. Please provide the specifications, mfr., product, details for this item of work.

RESPONSE TO CLARIFICATION, **SUBMITTED AS PART OF AN ADDENDUM**:

ADD MANUFACTURER TO SPECIFICATION SECTION 101123 PAR., 2, 2.1-A ACOUSTIC TACKBOARD - BASIS OF DESIGN: ACOUSTICAL SOLUTIONS (ALPHASORB). ADD PRODUCT TO SPECIFICATION SECTION 101123 PAR., 2, 2.2-B Product: ALPHASORB BY ACOUSTICAL SOLUTIONS OR EQUAL:
Sizes: up to 4′ x 8′ (nominal)
Thickness: 7/8″ (3/4″ Micore + 1/8″ Fiberglass)
Tolerance: +/- 1/8″
Core: 24 lb. per cubic foot mineral fiber core + 1/8″ fiberglass
Intended Use: Interior, sound absorption
Fabric Finish: Guilford of Maine FR701 Style 2100 (other fabrics available as specified)
Fire Rating: Class 1 or A per ASTM E84
Edge Detail: Square only
Mounting options: nails and construction adhesive (provided by installer)
NRC: 7/8″ (0.60). ALUMINUM FRAME, REFER TO SPECIFICATION SECTION 101123 PAR., 2, 2.3-A

RESPONSE PROVIDED BY:	Julia D. Jones / hpi	DATE:	09/24/18

Attach additional numbered sheets as necessary; however, only one (1) request shall be contained on each submitted form.