

IMPERIAL COMMUNITY COLLEGE DISTRICT

IMPERIAL VALLEY COLLEGE

BUILDING 200, 300 AND 800 MODERNIZATION

380 EAST ATEN RD.
IMPERIAL, CA 92251
(760) 352-8320

BOARD OF SCHOOL TRUSTEES:

MARK EDNEY - CLERK JERRY HART - PRESIDENT DR. MARTHA GARCIA - SECRETARY
RUDY CARDENAS ROMUALDO J. MEDINA STEVEN TAYLOR
LOUIS WONG KARLA SIGMOND

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP. 04-118720 INC.
REVIEWED FOR
SS FLS ACS
DATE: 01.16.20

APPROVALS

SHEET INDEX KEY / KEY PLAN

DISCIPLINE (eg. A = ARCHITECTURAL, P = PLUMBING, etc.)
BUILDING NUMBER (eg. 2=200, 3=300, 8=800, etc.)
DRAWING TYPE (eg. FLOOR PLAN, ARCHITECTURAL SECTIONS, etc.)
A2.2 ARCHITECTURAL SECTIONS
DRAWING DESCRIPTION

TESTING AND INSPECTION EXEMPTION KEY

EXEMPTION NUMBER
TYPICAL DETAIL DESIGNATION
DETAIL DISCIPLINE: **CL, WS** SCALE: **3/4" = 1'-0"** **26**

CONSULTANTS

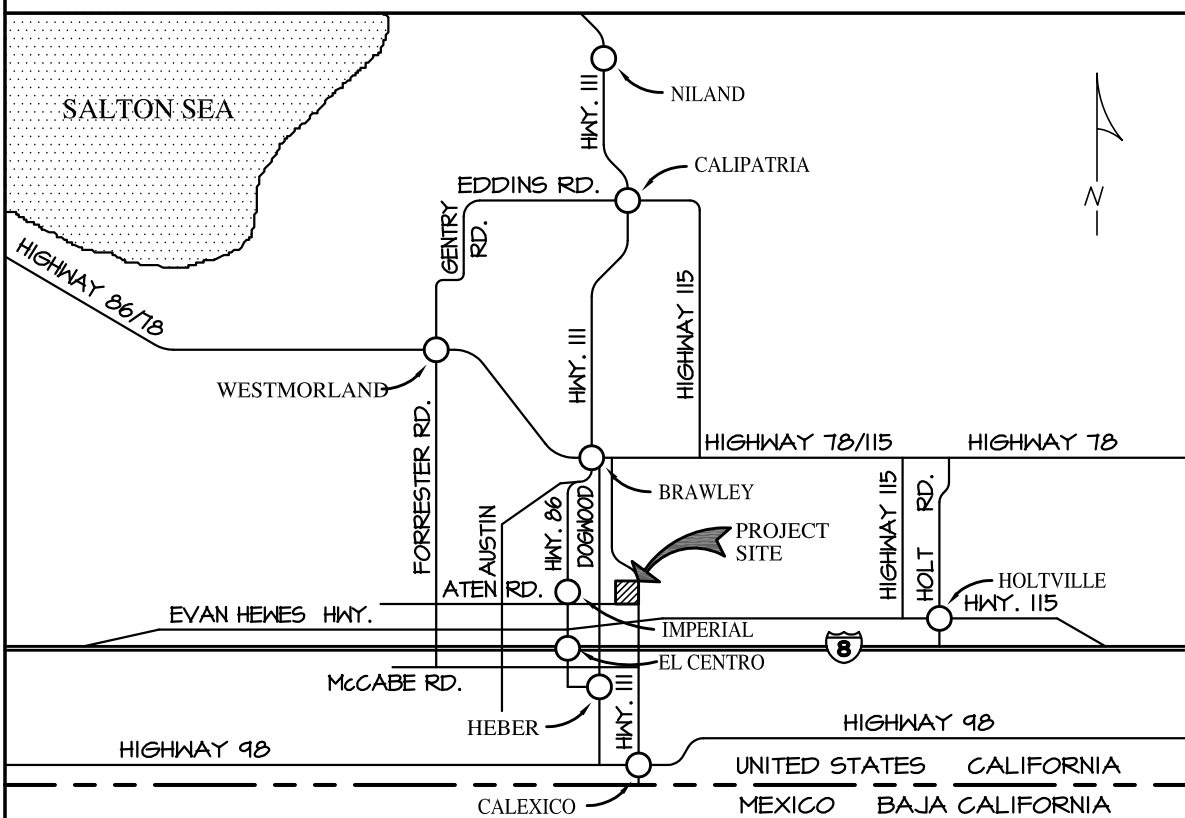
MECHANICAL/PLUMBING
DIVISION 15 CONSULTING SERVICES
TOM F. GREEN
1180 TURQUOISE CIRCLE
DEWEY AZ 86327
(928) 712-8448

STRUCTURAL
ORIE² ENGINEERING
DONALD ORIE
4750 MIRAMAR ROAD, SUITE 310
SAN DIEGO, CA 92128
(619) 335-1643

ELECTRICAL
KRUSE AND ASSOCIATES
KEITH KRUSE
12245 WORLD TRADE DRIVE
SUITE E
SAN DIEGO, CA 92128
(619) 676-9716

FIRE ALARM
JOHNSON CONTROLS (SIMPLEX)
JOHN ROGUS
3568 RUFFIN ROAD
SAN DIEGO, CA 92123
(619) 494-4103

VICINITY MAP



GENERAL NOTES

1. EXAMINATION OF SITE AND CONTRACT DOCUMENTS:
EACH BIDDER SHALL VISIT THE SITE OF THE PROPOSED WORK AND FULLY ACQUAINT HIMSELF WITH THE CONDITIONS RELATING TO THE CONSTRUCTION AND LABOR SO THAT HE MAY FULLY UNDERSTAND THE FACILITIES, DIFFICULTIES AND RESTRICTIONS ATTENDING THE EXECUTION OF THE WORK UNDER THE CONTRACT. BIDDERS SHALL THOROUGHLY EXAMINE AND BE FAMILIAR WITH THE DRAWINGS AND PROJECT MANUAL. THE FAILURE OR OMISSION OF ANY BIDDER TO RECEIVE OR EXAMINE ANY CONTRACT, FORM, INSTRUMENT, ADDENDUM, OR OTHER DOCUMENT OR TO VISIT THE SITE AND ACQUAINT HIMSELF WITH CONDITIONS THERE EXISTING SHALL IN NO WISE RELIEVE ANY BIDDER FROM OBLIGATIONS WITH RESPECT TO HIS BID OR TO THE CONTRACT. THE SUBMISSION OF A BID SHALL BE TAKEN AS PRIMA FACIE EVIDENCE OF COMPLIANCE WITH THIS SECTION. THE ARCHITECT SHALL BE NOTIFIED PRIOR TO BID, OF ANY UNUSUAL CONDITIONS OR DISCREPANCIES IN THE CONTRACT DOCUMENTS OR INTENT OF WORK TO BE ACCOMPLISHED, WHEREIN A CLARIFICATION OR ADDENDUM MAY BE ISSUED.

2. SCOPE OF WORK:
TO PROVIDE THE DISTRICT WITH A MODERNIZATION OF EXISTING BUILDING 200, 300 AND 800 INCLUDING BUT NOT LIMITED TO THE FOLLOWING:
- COMPLETE MECHANICAL REHABILITATION PER CALIFORNIA CODE OF STRUCTURAL CODE PART 1, SECTION 4-306.1, AND PART 10, SECTION 4-301.1
- NEW WATER AND WASTE SERVICE
- NEW GAS SERVICE
- NEW TELEPHONE SERVICE
- NEW POWER LIGHTING AND ELECTRICAL SERVICE
- NEW COMMUNICATIONS SYSTEM
- NEW HVAC SYSTEM
- NEW FIRE ALARM SYSTEM
- NEW DOOR AND WINDOWS
- NEW ACCESSIBLE TOILET
- NEW SUSPENDED CEILING
- NEW INTERIOR WALL AND FLOOR FINISHES
- NEW SPRAY-ON INTERIOR INSULATION
- REPAIR EXTERIOR MASONRY
- NEW ROOF SCREEN

3. GEOLOGICAL AND SOILS REPORT:
NONE THIS PROJECT

4. CODES AND STANDARDS:
APPLICABLE CODES:
ALL WORK SHALL CONFORM TO TITLE 24, CALIFORNIA CODE OF REGULATIONS (CCR).
2019 BUILDING STANDARDS ADMINISTRATIVE CODE, PART I, TITLE 24, CCR
2016 CALIFORNIA BUILDING CODE (CBC), PART 2, TITLE 24, CCR
2016 CALIFORNIA ELECTRICAL CODE (CEC), PART 3, TITLE 24, CCR
(2014 NATIONAL ELECTRICAL CODE AND 2016 CALIFORNIA AMENDMENTS)
2016 CALIFORNIA MECHANICAL CODE (CMC), PART 4, TITLE 24, CCR
(2015 UNIFORM MECHANICAL CODE AND 2016 CALIFORNIA AMENDMENTS)
2016 CALIFORNIA PLUMBING CODE (CPC), PART 5, TITLE 24, CCR
(2015 UNIFORM PLUMBING CODE WITH CALIFORNIA 2016 AMENDMENTS)
2016 CALIFORNIA ENERGY CODE, PART 6, TITLE 24, CCR
2016 CALIFORNIA FIRE CODE (CFC), PART 9, TITLE 24, CCR
(2015 INTERNATIONAL FIRE CODE WITH CALIFORNIA 2016 AMENDMENTS)
2016 CALIFORNIA GREEN BUILDING STANDARDS CODE, PART 11, TITLE 24, CCR
2016 CALIFORNIA REFERENCED STANDARDS, PART 12, TITLE 24, CCR
TITLE 18 CCR, PUBLIC SAFETY, STATE FIRE MARSHAL REGULATIONS
2013 ASHRAE ATU1 SAFETY CODE FOR ELEVATORS AND ESCALATORS

PARTIAL LIST OF APPLICABLE STANDARDS:

NFPA 13	AUTOMATIC SPRINKLER SYSTEM	2016 EDITION
NFPA 14	STANDPIPE SYSTEMS	2013 EDITION
NFPA 17	DRY CHEMICAL EXTINGUISHING SYSTEMS	2013 EDITION
NFPA 17A	WET CHEMICAL SYSTEMS	2013 EDITION
NFPA 20	STATIONARY PUMPS FOR FIRE PROTECTION	2016 EDITION
NFPA 22	WATER TANKS FOR PRIVATE FIRE PROTECTION	2013 EDITION
NFPA 24	PRIVATE FIRE MAINS & THEIR APPURTENANCES	2016 EDITION
NFPA 25	STANDARD FOR INSPECTION, TESTING AND MAINTENANCE OF WATER-BASED FIRE PROTECTION SYSTEMS	2013 EDITION
NFPA 72	NATIONAL FIRE ALARM AND SIGNALING CODE	2016 EDITION
NFPA 80	FIRE DOORS AND OTHER OPENING PROTECTIVES	2016 EDITION
NFPA 92	STANDARD SMOKE CONTROL SYSTEMS	2015 EDITION
NFPA 253	CRITICAL RADIANT FLOW OF FLOOR COVERING SYSTEMS	2015 EDITION
NFPA 2001	CLEAN AGENT FIRE EXTINGUISHING SYSTEMS	2013 EDITION
ICC 300	ICC STANDARDS ON BLEACHERS, FOLDING AND TELESCOPING SEATING AND GRANDSTANDS	2012 EDITION
UL 300	FIRE TESTING OF FIRE EXTINGUISHING SYSTEMS FOR	2005 EDITION
UL 464	PROTECTION OF RESTAURANT COOKING AREAS	2003 EDITION
UL 521	AUDIBLE SIGNAL APPLIANCES	1994 EDITION
	HEAT DETECTORS FOR FIRE PROTECTIVE SIGNALING SYSTEMS	

REFERENCE CODE SECTION FOR NFPA STANDARDS = 2016 CBC (914) CHAP 35, SEE CHAP 35 FOR STATE OF CALIFORNIA AMENDMENTS TO NFPA STANDARDS

GENERAL NOTES

5. TESTING AND INSPECTION:
A DSA ACCEPTED TESTING LABORATORY DIRECTLY EMPLOYED BY THE DISTRICT (OWNER) SHALL PROVIDE CONTINUOUS INSPECTION OF THE PROJECT.
A DSA CERTIFIED PROJECT INSPECTOR EMPLOYED BY THE DISTRICT (OWNER) AND APPROVED BY DSA SHALL PROVIDE CONTINUOUS INSPECTION OF THE WORK. THE DUTIES OF THE INSPECTOR ARE DEFINED IN SECTION 4-342, PART I, TITLE 24, CCR. THIS PROJECT SHALL REQUIRE ALL ITEMS PER DSA-103 LIST OF REQUIRED STRUCTURAL TESTS & SPECIAL INSPECTIONS. THIS PROJECT SHALL REQUIRE INSPECTOR OF RECORD, CLASS 3.
WORK EXEMPT FROM SPECIAL INSPECTION AND STRUCTURAL TESTING, THE PROJECT INSPECTOR SHALL VERIFY ALL CONSTRUCTION COMPLIES WITH THE APPROVED CONSTRUCTION DOCUMENTS (SEE TESTING AND INSPECTION EXEMPTION KEY).

C1	CONCRETE / MASONRY #1
C2	CONCRETE / MASONRY #2
C3	CONCRETE / MASONRY #3
C4	CONCRETE / MASONRY #4
C5	CONCRETE / MASONRY #5
W1	WELDING #1
W2	WELDING #2
W3	WELDING #3
W4	WELDING #4
W5	WELDING #5
W6	WELDING #6
W7	WELDING #7

6. CHANGES TO APPROVED DRAWINGS:
CHANGES TO THE APPROVED DRAWINGS AND SPECIFICATIONS SHALL BE MADE BY AN ADDENDA OR A CONTRACT CHANGE DIRECTIVE (CCD) APPROVED BY THE DIVISION OF THE STATE ARCHITECT, AS REQUIRED BY SECTION 4-336, PART I, TITLE 24, CCR.

7. DEFERRED APPROVALS:
THE PROJECT HAS NO DEFERRED APPROVALS.

8. D.S.A. CLOSE-OUT CERTIFICATION:
THIS PROJECT SHALL NOT BE CLOSED OUT UNTIL THE FOLLOWING PROJECTS HAVE BEEN CLOSED OUT WITH COMPLIANCE:
NONE THIS PROJECT

9. BUILDING DATA:

BUILDING 200 - CLASSROOMS	
OCCUPANCY	A-3, B
CONSTRUCTION TYPE	TYPE III-B
FIRE SPRINKLER SYSTEM	NONE
NUMBER OF STORIES	1
CONSTRUCTION AREA	4,014 SQ. FT.
ALLOWABLE AREA	4,500 SQ. FT. (TABLE 506.2)
AREA INCREASE	NONE
	4,014 < 4,500 = OK
BUILDING 300 - CLASSROOMS	
OCCUPANCY	BVA-3
CONSTRUCTION TYPE	TYPE III-B
FIRE SPRINKLER SYSTEM	NONE
NUMBER OF STORIES	1
CONSTRUCTION AREA	4,014 SQ. FT.
ALLOWABLE AREA	4,500 SQ. FT. (TABLE 506.2)
AREA INCREASE	NONE
	4,014 < 4,500 = OK
BUILDING 800 - CLASSROOMS	
OCCUPANCY	BVA-3
CONSTRUCTION TYPE	TYPE III-B
FIRE SPRINKLER SYSTEM	NONE
NUMBER OF STORIES	1
CONSTRUCTION AREA	4,014 SQ. FT.
ALLOWABLE AREA	4,500 SQ. FT. (TABLE 506.2)
AREA INCREASE	NONE
	4,014 < 4,500 = OK

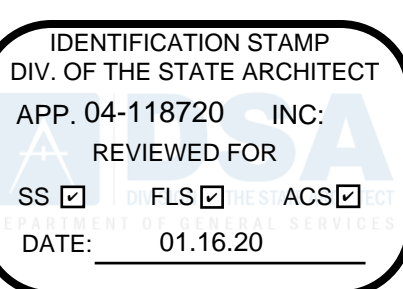
10. EXISTING CONDITIONS:
SHOULD ANY EXISTING CONDITIONS SUCH AS DETERIORATION OR NONCOMPLYING CONSTRUCTION BE DISCOVERED WHICH IS NOT COVERED BY THE DSA APPROVED DOCUMENTS WHEREIN THE FINISHED WORK WILL NOT COMPLY WITH TITLE 24, CALIFORNIA CODE OF REGULATIONS, A CHANGE ORDER OR A SEPARATE SET OF PLANS AND SPECIFICATIONS DETAILING AND SPECIFYING THE REQUIRED REPAIR WORK SHALL BE SUBMITTED TO AND APPROVED BY DSA BEFORE PROCEEDING WITH THE REPAIR WORK.

Sanders, INC.
Architecture/Engineering
102 INDUSTRY WAY, SUITE A
EL CENTRO, CA 92243
760 353 5440 FAX 760 353 5442

Project Title
**IMPERIAL VALLEY COLLEGE
BUILDING 200, 300 AND 800 MODERNIZATION**

Sheet Title
TITLE SHEET - GENERAL NOTES

	Document Date	Project Number
	Date Last Revised	19-121V
		Sheet Number
		T1



SHEET INDEX

SHEET INDEX

SHEET INDEX

SHEET INDEX

SHEET INDEX

APPROVALS

SHEET INDEX

ES1.2	SITE ELECTRICAL
ES1.3	SITE ELECTRICAL
FIRE ALARM	
FA-001	COVER SHEET
FA-002	SITE PLAN
FA-101	BUILDING 200
FA-102	BUILDING 300
FA-103	BUILDING 800
FA-201	RISER - BUILDING 200
FA-202	RISER - BUILDING 300
FA-203	RISER - BUILDING 800
FA-501	PANEL DETAIL - TPR1
FA-502	PANEL DETAIL - TPR2
FA-503	PANEL DETAIL - TPR3
FA-601	CALCS - TPR1
FA-602	CALCS - TPR2
FA-603	CALCS - TPR3
FA-701	WIRING TYPICALS
FA-702	WIRING TYPICALS
COMMUNICATIONS	
CM0.1	COMMUNICATIONS SITE PLAN
CM0.2	COMMUNICATIONS DETAILS
CM0.3	COMMUNICATIONS DETAILS
CM2	COMMUNICATIONS PLAN
CM3	COMMUNICATIONS PLAN
CM8	COMMUNICATIONS PLAN

SHEET TOTAL: 166

Sanders, INC. Architecture/Engineering

102 INDUSTRY WAY, SUITE A EL CENTRO, CA 92243 760 353 5440 FAX 760 353 5442

Project Title IMPERIAL VALLEY COLLEGE BUILDING 200, 300 AND 800 MODERNIZATION

SHEET INDEX

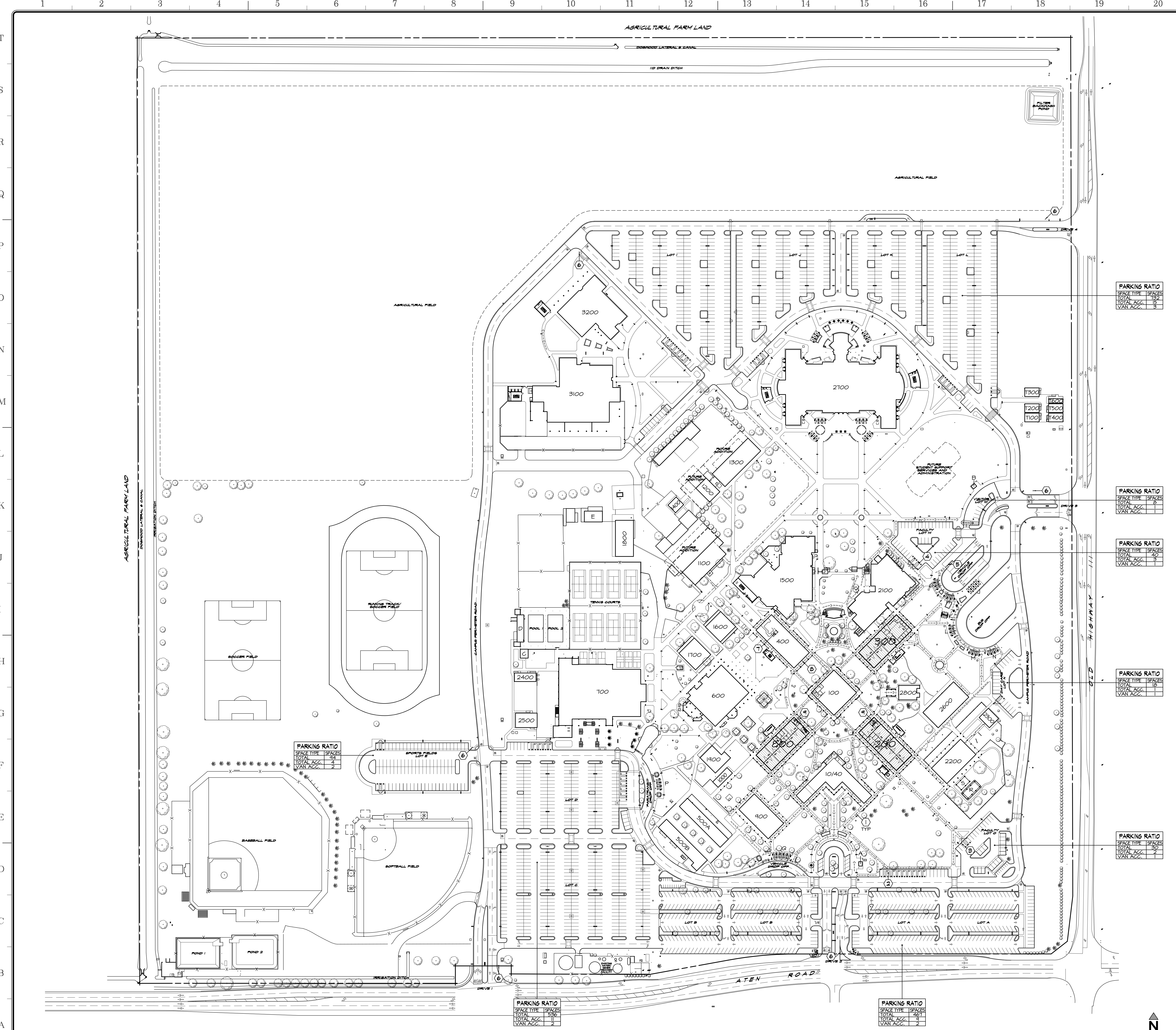
	Document Date	12-18-19	Project Number	19-121V
	Date Last Revised		Sheet Number	T2

T1	TITLE SHEET - GENERAL NOTES
T2	SHEET INDEX
ARCHITECTURAL SITE	
AS1	ACCESSIBILITY SITE PLAN
AS2	FIRE ACCESS SITE PLAN
AS3	SITE SURVEY AND DEMOLITION PLAN
AS4	HARDSCAPE
AS5	SITE UTILITIES PLAN
ASX1	SITE DETAILS
ASX2	SITE DETAILS
ASX3	SITE ACCESSIBILITY DETAILS
ARCHITECTURAL	
BUILDING 200	
A2.0	BUILDING DATA
A2.1.1	DEMOLITION PLAN
A2.1.2	FLOOR PLAN - DIMENSIONAL
A2.1.3	FLOOR PLAN - ARCHITECTURAL
A2.2	ARCHITECTURAL SECTIONS
A2.3	REFLECTED CEILING PLAN
A2.4.1	INTERIOR ELEVATIONS
A2.4.2	INTERIOR ELEVATIONS
A2.4.3	INTERIOR ELEVATIONS
A2.5	EXTERIOR ELEVATIONS
A2.6	ROOF PLAN
A2.7	FLOORING PLAN
A2.8	SIGNAGE PLAN
BUILDING 300	
A3.0	BUILDING DATA
A3.1.1	DEMOLITION PLAN
A3.1.2	FLOOR PLAN - DIMENSIONAL
A3.1.3	FLOOR PLAN - ARCHITECTURAL
A3.2	ARCHITECTURAL SECTIONS
A3.3	REFLECTED CEILING PLAN
A3.4.1	INTERIOR ELEVATIONS
A3.4.2	INTERIOR ELEVATIONS
A3.4.3	INTERIOR ELEVATIONS
A3.4.4	INTERIOR ELEVATIONS
A3.5	EXTERIOR ELEVATIONS
A3.6	ROOF PLAN
A3.7	FLOORING PLAN
A3.8	SIGNAGE PLAN
BUILDING 800	
A8.0	BUILDING DATA
A8.1.1	DEMOLITION PLAN
A8.1.2	FLOOR PLAN - DIMENSIONAL
A8.1.3	FLOOR PLAN - ARCHITECTURAL
A8.2	ARCHITECTURAL SECTIONS
A8.3	REFLECTED CEILING PLAN
A8.4.1	INTERIOR ELEVATIONS
A8.4.2	INTERIOR ELEVATIONS
A8.4.3	INTERIOR ELEVATIONS
A8.5	EXTERIOR ELEVATIONS
A8.6	ROOF PLAN
A8.7	FLOORING PLAN
A8.8	SIGNAGE PLAN
GENERAL	
AX1.1	ROOM FINISH SCHEDULE
AX1.2	DOOR SCHEDULE
AX1.3	WINDOW SCHEDULE
AX1.4	DOOR AND WINDOW TYPES
AX1.5	DOOR AND WINDOW DETAILS
AX2.1	ENLARGED FLOOR PLANS
AX3.1	ACCESS COMPLIANCE DETAILS
AX4.1	CASEWORK DETAILS
AX4.2	CASEWORK DETAILS
AX5.1	INTERIOR ARCHITECTURAL DETAILS
AX5.2	NON-BEARING METAL FRAMING
AX5.3	THROUGH-PENETRATION FIRESTOPS
AX6.1	EXTERIOR ARCHITECTURAL DETAILS
AX7.1	ARCHITECTURAL SOFFIT DETAILS
RS-0	ROOF SCREEN COVER SHEET
RS-1	ROOF SCREEN PLAN
RS-2	ROOF SCREEN PLAN
RS-3	ROOF SCREEN PLAN
RS-4	ROOF SCREEN FRAME DETAILS
RS-5	ROOF SCREEN PART AND ASSEMBLY DETAILS
RS-6	ROOF SCREEN PART AND ASSEMBLY DETAILS
STRUCTURAL	
TYPICAL	
S0.1	TYPICAL STRUCTURAL NOTES
S0.2	TYPICAL STRUCTURAL DETAILS
BUILDING 200	
S2.1	FOUNDATION PLAN
S2.2	ROOF FRAMING PLAN
BUILDING 300	
S3.1	FOUNDATION PLAN

S3.2	ROOF FRAMING PLAN
S3.3	PLATFORM FRAMING PLAN
BUILDING 800	
S8.1	FOUNDATION PLAN
S8.2	ROOF FRAMING PLAN
GENERAL	
SX 1	FRAMING DETAILS
SX 2	FRAMING DETAILS
SX 3	PLATFORM FRAMING DETAILS
SX 4	STRUCTURAL DETAILS
PLUMBING	
TYPICAL	
P0.1	LEGEND AND NOTES
P0.2	PLUMBING DETAILS
P0.3	PLUMBING SITE PLAN
BUILDING 200	
P2.1	WASTE AND VENT
P2.2	HOT AND COLD WATER
P2.3	PLUMBING ROOF PLAN
BUILDING 300	
P3.1	WASTE AND VENT
P3.2	HOT AND COLD WATER
P3.3	PLUMBING ROOF PLAN
BUILDING 800	
P8.1	WASTE AND VENT
P8.2	HOT AND COLD WATER
P8.3	PLUMBING ROOF PLAN
MECHANICAL	
TYPICAL	
M0.1	HVAC GENERAL NOTES, SCHEDULES
M0.2	HVAC DETAILS
BUILDING 200	
M2.1	HVAC PLAN
M2.2	HVAC PIPING PLAN
M2.3.1	ENERGY CALCULATIONS - 200
M2.3.2	ENERGY CALCULATIONS - 200
M2.3.3	ENERGY CALCULATIONS - 200
M2.3.4	ENERGY CALCULATIONS - 200
BUILDING 300	
M3.1	HVAC PLAN
M3.2	HVAC PIPING PLAN
M3.3.1	ENERGY CALCULATIONS - 300
M3.3.2	ENERGY CALCULATIONS - 300
M3.3.3	ENERGY CALCULATIONS - 300
M3.3.4	ENERGY CALCULATIONS - 300
BUILDING 800	
M8.1	HVAC PLAN
M8.2	HVAC PIPING PLAN
M8.3.1	ENERGY CALCULATIONS - 800
M8.3.2	ENERGY CALCULATIONS - 800
M8.3.3	ENERGY CALCULATIONS - 800
M8.3.4	ENERGY CALCULATIONS - 800
M8.3.5	ENERGY CALCULATIONS - 800
GENERAL	
M9.1	HVAC CONTROLS
ELECTRICAL	
TYPICAL	
E0.1	SYMBOLS LIST
E0.2	FIXTURE SCHEDULE AND PHOTOS
E0.3	DETAILS
E0.4	SYSTEM RISER DIAGRAM
BUILDING 200	
E1.1	LIGHTING PLAN
E1.2	POWER PLAN
E1.3	ROOF POWER PLAN
E1.4	PANEL SCHEDULES
BUILDING 300	
E2.1	LIGHTING PLAN
E2.2	POWER PLAN
E2.3	ROOF POWER PLAN
E2.4	PANEL SCHEDULES
BUILDING 800	
E3.1	LIGHTING PLAN
E3.2	POWER PLAN
E3.3	ROOF POWER PLAN
E3.4	PANEL SCHEDULES
GENERAL	
E4.1	SINGLE LINE DIAGRAM
E5.1	BUILDING 200 - TITLE 24
E5.2	BUILDING 200 - TITLE 24
E5.3	BUILDING 300 - TITLE 24
E5.4	BUILDING 300 - TITLE 24
E5.5	BUILDING 800 - TITLE 24
E5.6	BUILDING 800 - TITLE 24
ES1.1	SITE ELECTRICAL

T S R Q P O N M L K J I H G F E D C B A

T S R Q P O N M L K J I H G F E D C B A



IDENTIFICATION STAMP
 DIV. OF THE STATE ARCHITECT
 APP. 04-118720 INC.
 REVIEWED FOR
 SS FLS ACS
 DATE: 01.16.20

APPROVALS

BUILDING IDENTIFICATION:

NUMBER	DESCRIPTION	CONC	OCCUPANCY	FIRE	DSA APPL. NO.	CLOSED DSA COMPLANT
100	ADMINISTRATION	III-B	B	N	A-2614	Y
100	ADMINISTRATION	III-B	B	N	A-2614, 35564	Y, Y
200	CONSELING / FINANCIAL AID	III-B	A-3, B	N	A-2614, 04-18120	Y, OPEN
300	FINE ARTS	III-B	A-3, B	N	A-2614, 04-18120	Y, OPEN
400	ASSEMBLY CENTER / CLASSROOMS	III-B	B	N	A-2614	Y
500A	ENGLISH / MATHEMATICS	V	B	N	A-20204, 2614	Y, Y
500B	DEMOGRAPHICS / PARKING	V	B	N	A-20204, 2614	Y, Y
600	COLLEGE CENTER	III-B	A-2, B	N	A-2614, 26291, 35500	Y, Y, Y
700	GYMNASIUM	III-B	A-2, B	Y	A-2614, 26153, 27294, 28370	Y, Y, Y, Y
800	BUSINESS	III-B	A-3, B	N	A-2614, 26291, 04-18120	Y, Y, OPEN
1000	METER BUSINESS BUILDING	V-B	B	N	A-3542, 52343	Y, Y
1000	STUDENT AFFAIRS OFFICE	V-B	B	N	A-3542	Y
1100	AUTO TECHNOLOGY	III-B	S-1	N	A-2614	Y
1200	HELDING	III-B	H-3	N	A-35352	Y
1300	AUTO TECHNOLOGY / HUMANITIES	V-B	B	N	A-35352	Y
1400	TOOL STORAGE	V-B	B	N	UNKNOWN	Y
1500	LIBRARY MEDIA CENTER	V-A	A-3, B	Y	A-36444, 100260, 102597	Y, Y, Y
1600	TECHNOLOGY CENTER	V-B	B	N	A-35376	Y
1700	HORSEFORCE DEVELOPMENT CENTER	V-B	B	N	UNKNOWN	Y
1800	MAINTENANCE / WAREHOUSE	V-B	B	N	A-2614, A-30401	Y, Y
1900	BOOKSTORE	V-B	B	N	UNKNOWN	Y
2000	NOT USED	-	-	-	NA	-
2100	SHADE STRUCTURE / DISABLED STUDENT	V-B	A-3, B	N	A-10279	Y
2200	FRESHGARD	III-B	E	N	A-54425	Y
2300	INFANT TODDLER CENTER	V-B	E	N	A-100746	Y
2400	HUMAN RESOURCES	V-B	B	N	NONE	-
2500	ATHLAD CENTER	V-B	B	N	UNKNOWN	Y
2600	READING / WRITING / LANGUAGE LABORATORY	V-B	B	N	A-103704	Y
2700	SCIENCE	III-A	A-3, B	Y	A-10553	Y
2800	ART GALLERY	V-B	A-3	N	A-10775	Y
3100	CAREER TECHNICAL	III-B	B, H-3	Y	A-112064	Y
3200	CAREER TECHNICAL	III-B	B	Y	A-112064	Y
100-1000	RELOCATABLE CLASSROOMS	V-B	B	N	A-110473	Y
A	INFORMATION BOOTH "A"	V	B	N	NA	-
B	INFORMATION BOOTH "B"	V	B	N	NA	-
C	SHOWERS / TOILETS	V-B	B	N	UNKNOWN	Y
D	POOLS AND GRANDSTANDS	V-B	A-3	N	A-36433	Y
E	CARPENTER SHOP	V-B	B	N	UNKNOWN	Y
F	NOT USED	-	-	-	NA	-
G	SHADE STRUCTURE	III-B	B	N	A-102551	Y
H	SHADE STRUCTURE	III-B	B	N	A-102551	Y
I	SHADE STRUCTURE	III-B	B	N	A-102551	Y
J	SHADE STRUCTURE	III-B	B	N	A-102551	Y
K	NOT USED	-	-	-	NA	-
L	SHADE STRUCTURE	III-B	B	N	A-102551	Y
M	SHADE STRUCTURE	III-B	B	N	A-102551	Y
N	SHADE STRUCTURE	III-B	B	N	A-102551	Y
O	SHADE STRUCTURE	III-B	A-3	N	A-11843	Y
P	SHADE STRUCTURE	III-B	A-3	N	A-11843	Y
Q	SHADE STRUCTURE	III-B	A-3	N	A-54425	Y
R	SHADE STRUCTURE	III-B	A-3	N	A-54425	Y
S	SHADE STRUCTURE	III-B	A-3	N	A-102106	Y

KEYNOTES:

- DESIGN PROFESSIONAL IN GENERAL RESPONSIBLE CHARGE STATEMENT: THE P.O.T. IDENTIFIED IN THESE CONSTRUCTION DOCUMENTS IS COMPLIANT WITH THE CURRENT APPLICABLE CALIFORNIA BUILDING CODE ACCESSIBILITY PROVISIONS FOR PATH OF TRAVEL REQUIREMENTS FOR ALTERATIONS, ADDITIONS AND STRUCTURAL REPAIRS. AS PART OF THE DESIGN OF THIS PROJECT, THE P.O.T. HAS EXAMINED ANY ELEMENTS, COMPONENTS OR PORTIONS OF THE P.O.T. THAT WERE DETERMINED TO BE NON-COMPLIANT. HAVE BEEN IDENTIFIED AND 2) THE CORRECTIVE WORK NECESSARY TO BRING THEM INTO COMPLIANCE HAS BEEN INCLUDED WITHIN THE SCOPE OF THIS PROJECT'S WORK THROUGH DETAILS, DRAWINGS AND SPECIFICATIONS INCORPORATED INTO THESE CONSTRUCTION DOCUMENTS. ANY NON-COMPLIANT ELEMENTS, COMPONENTS OR PORTIONS OF THE P.O.T. THAT WILL NOT BE CORRECTED BY THIS PROJECT BASED ON VALUATION THRESHOLD LIMITATIONS OR A FINDING OF UNREASONABLE HARDSHIP ARE SO INDICATED IN THESE CONSTRUCTION DOCUMENTS. CURABLE CONSTRUCTION ITEMS WITHIN THE SCOPE OF THE PROJECT REPRESENTED AS CODE COMPLIANT ARE FOUNDING BEYOND REASONABLE CONSTRUCTION TOLERANCES. THEY SHALL BE BROUGHT INTO COMPLIANCE WITH THE CBC AS A PART OF THIS PROJECT BY MEANS OF A CONSTRUCTION CHANGE DOCUMENT.
- PROPOSED ACCESSIBLE PARKING - UPDATE PER **1** ASB3
- PROPOSED ACCESSIBLE PARKING - UPDATE PER **1** ASB3
- PROPOSED ACCESSIBLE PARKING - UPDATE PER **10** ASB3
- PROPOSED ACCESSIBLE RAMP - UPDATE PER **9** ASB3
- PROPOSED TOW-AWAY SIGN - UPDATE PER **3** ASB3
- EXISTING ACCESSIBLE MEN'S AND WOMEN'S FACULTY TOILETS - DSA# 04-11262
- EXISTING ACCESSIBLE DRINKING FOUNTAIN - DSA# 04-11262
- PROPOSED ACCESSIBLE MEN'S AND WOMEN'S STUDENT TOILETS

LEGEND:

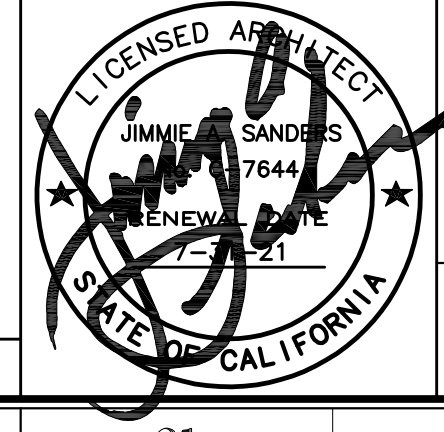
--- Existing Accessible Path of Travel - DSA #04-11262

Sanders, INC.
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Project Title
**IMPERIAL VALLEY COLLEGE
 BUILDING 200, 300 AND 800 MODERNIZATION**

ACCESSIBILITY SITE PLAN

Document Date 09-13-19	Project Number 19-121V
Date Last Revised	Sheet Number AS1





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 APP. 04-118720 INC.
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APPROVALS

BUILDING IDENTIFICATION:

NUMBER	DESCRIPTION	CONC	OCCUPANCY	FIRE	DSA	APPL. NO.	CLOSED DSA
10	ADMINISTRATION	III-B	B	N	A-2614		Y
100	CONSELING / FINANCIAL AID	III-B	B	N	A-2614, 35564		Y, Y
200	SOCIAL SCIENCES / ENGLISH	III-B	A-3, B	N	A-2614, 04-18120		Y, OPEN
300	FINE ARTS	III-B	A-3, B	N	A-2614, 04-18120		Y, OPEN
400	ASSEMBLY CENTER / CLASSROOMS	III-B	B	N	A-2614		Y
500A	ENGLISH / MATHEMATICS	V	B	N	A-20204, 2614		Y, Y
500B	DEMOGRAPHICS / PARKING	V	B	N	A-20204, 2614		Y, Y
600	COLLEGE CENTER	III-B	A-2, B	N	A-2614, 21291, 55500		Y, Y, Y
700	GYMNASIUM	III-B	A-2, B	Y	A-2614, 26153, 21291, 28370		Y, Y, Y, Y
800	BUSINESS	III-B	A-3, B	N	A-2614, 21291, 04-18120		Y, Y, OPEN
1000	METER BUSINESS BUILDING	V-B	B	N	A-3542, 52343		Y, Y
1000	STUDENT AFFAIRS OFFICE	V-B	B	N	A-3542		Y
1100	AUTO TECHNOLOGY	III-B	S-I	N	A-2614		Y
1200	HELDING	III-B	H-3	N	A-3552		Y
1300	AUTO TECHNOLOGY / HUMANITIES	V-B	B	N	A-3552		Y
1400	TOOL STORAGE	V-B	B	N	UNKNOWN		Y
1500	LIBRARY MEDIA CENTER	V-A	A-3, B	Y	A-36644, 100262, 10557		Y, Y, Y
1600	TECHNOLOGY CENTER	V-B	B	N	A-3575		Y
1700	HORSEFORCE DEVELOPMENT CENTER	V-B	B	N	UNKNOWN		Y
1800	MAINTENANCE / WAREHOUSE	V-B	B	N	A-2614, A-30401		Y, Y
1900	BOOKSTORE	V-B	B	N	UNKNOWN		Y
2000	NOT USED	-	-	-	NA		Y
2100	HEALTH SERVICES / DISABLED STUDENT	V-B	A-3, B	Y	A-10729		Y
2200	PRESCHOOL	III-B	E	N	A-54425		Y
2300	INFANT TODDLER CENTER	V-B	E	N	A-100748		Y
2400	HUMAN RESOURCES	V-B	B	N	NONE		Y
2500	MATH LAB CENTER	V-B	B	N	UNKNOWN		Y
2600	READING / WRITING / LANGUAGE LABORATORY	V-B	B	N	A-10754		Y
2700	SCIENCE	III-A	A-3, B	Y	A-10553		Y
2800	ART GALLERY	V-B	A-3	N	A-10775		Y
3100	CAREER TECHNICAL	III-B	B, H-3	Y	A-12064		Y
3200	CAREER TECHNICAL	III-B	B	Y	A-12064		Y
100-1000	RELOCATABLE CLASSROOMS	V-B	B	N	A-11073		Y
A	INFORMATION BOOTH "A"	V	B	N	NA		Y
B	INFORMATION BOOTH "B"	V	B	N	NA		Y
C	SHOWERS / TOILETS	V-B	B	N	UNKNOWN		Y
D	POOLS AND GRANDSTANDS	V-B	A-5	N	A-36433		Y
E	CARPENTER SHOP	V-B	B	N	UNKNOWN		Y
F	NOT USED	-	-	-	NA		Y
G	SHADE STRUCTURE	III-B	B	N	A-10251		Y
H	SHADE STRUCTURE	III-B	B	N	A-10251		Y
I	SHADE STRUCTURE	III-B	B	N	A-10251		Y
J	NOT USED	-	-	-	NA		Y
K	SHADE STRUCTURE	III-B	B	N	A-10251		Y
L	SHADE STRUCTURE	III-B	B	N	A-10251		Y
M	SHADE STRUCTURE	III-B	B	N	A-10251		Y
N	SHADE STRUCTURE	III-B	B	N	A-10251		Y
O	SHADE STRUCTURE	III-B	B	N	A-10251		Y
P	SHADE STRUCTURE	III-B	B	N	A-10251		Y
Q	SHADE STRUCTURE	III-B	B	N	A-10251		Y
R	SHADE STRUCTURE	III-B	B	N	A-10251		Y
S	SHADE STRUCTURE	III-B	B	N	A-10251		Y

KEYNOTES:

- (A) PAVED FIRE ACCESS ROUTE
- (B) EXISTING FIRE ALARM CONTROL PANEL - DSA# A-100260
- (C) EXISTING FIRE ALARM CONTROL PANEL - DSA# A-108533
- (D) EXISTING FIRE ALARM CONTROL PANEL - DSA# N/A
- (E) 30,000 SQ. FT. SAFE DISPERSAL AREA = 30,000 / 5 = 6,000 PEOPLE
- (F) "SAFE DISPERSAL AREA" SIGN PER (AB3)

LEGEND:

- EXISTING FIRE HYDRANT w/ GATE VALVE
- FIRE TRUCK ACCESS ROUTES (ALL WEATHER SURFACE)
- ASSUMED PROPERTY LINE
- ←←←← PEDESTRIAN EGRESS PATH OF TRAVEL

BUILDING DATA:

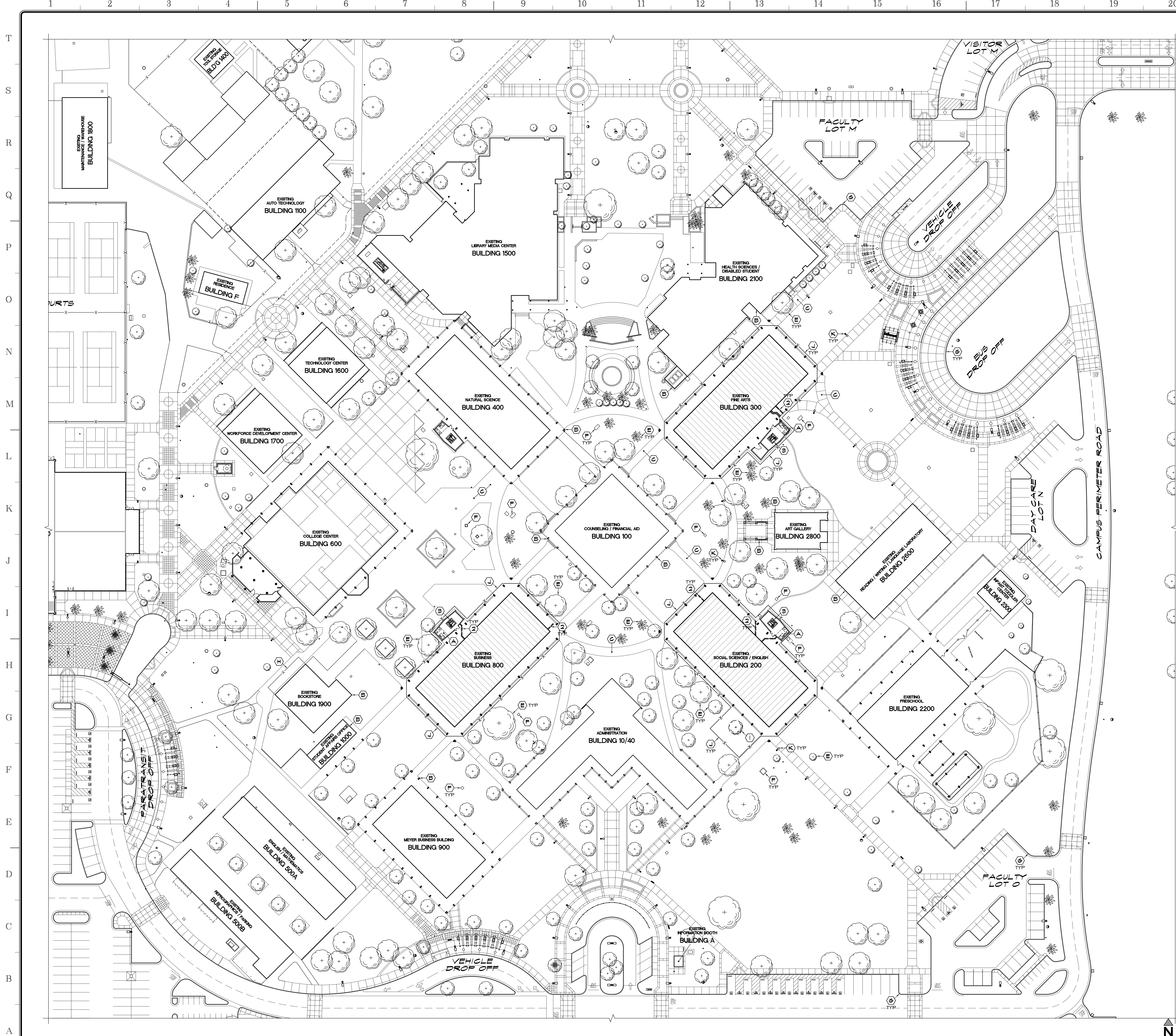
BUILDING	CLASSROOMS	OCCUPANCY	CONSTRUCTION TYPE	FIRE SPRINKLER SYSTEM	NUMBER OF STORIES	CONSTRUCTION AREA	ALLOWABLE AREA	AREA INCREASE
BUILDING 200	CLASSROOMS	A-3, B	TYPE III-B	NONE	4,014 SQ. FT.	4,500 SQ. FT. (TABLE 506.2)	4,500 SQ. FT.	NONE
BUILDING 300	CLASSROOMS	A-3, B	TYPE III-B	NONE	4,014 SQ. FT.	4,500 SQ. FT. (TABLE 506.2)	4,500 SQ. FT.	NONE
BUILDING 800	CLASSROOMS	A-3, B	TYPE III-B	NONE	4,014 SQ. FT.	4,500 SQ. FT. (TABLE 506.2)	4,500 SQ. FT.	NONE

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FIRE ACCESS SITE PLAN

	Document Date	Project Number
	09-13-19	19-121V
	Date Last Revised	Sheet Number
		AS2



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KEYNOTES:

- (A) EXISTING MECHANICAL EQUIPMENT - PROTECT
- (B) EXISTING STRUCTURE - PROTECT
- (C) EXISTING SITE CONCRETE - PROTECT
- (D) EXISTING CONCRETE / ASPHALT PAVING - PROTECT
- (E) EXISTING TREE / SHRUB - PROTECT
- (F) EXISTING UTILITIES - PROTECT
- (G) EXISTING CONCRETE CURB / GUTTER - PROTECT
- (H) EXISTING CHAINLINK FENCE - PROTECT
- (J) CONSTRUCTION FENCING - SEE EROSION AND SEDIMENTATION PLAN
- (K) EXISTING LIGHT POLE - PROTECT

DEMOLITION KEYNOTES:

- (1) REMOVE EXISTING TREE / SHRUB AND ROOT BALL
- (2) REMOVE EXISTING SITE CONCRETE TO EXTENTS SHOWN
- (3) REMOVE EXISTING MECHANICAL UNIT

LEGEND:

- 36.55 BENCH MARK
- 43.4 EXISTING ELEVATION FROM TOPOGRAPHY SURVEY
- EXISTING ELEVATION (SITE CONCRETE UNO.)
- 30.80 PROPOSED ELEVATION (SITE CONCRETE UNO.)
- DIRECTION OF SLOPE w/ SLOPE NOTED
- 32 RADIUS - NOTED IN DECIMAL FEET
- SB GRADE BREAK
- SD STORM DRAIN
- o FIRE HYDRANT
- o IRRIGATION HYDRANT
- o POWER POLE
- o LIGHT STANDARDS - SEE ELECTRICAL DRAWINGS
- o MANHOLE
- o STORM DRAIN CATCH BASIN
- x EXISTING CHAIN LINK FENCE
- NS NATURAL SOIL
- TC TOP OF CURB
- FL FLOW LINE
- TL TOP OF BENCH
- TP TOP OF PLANTER
- PB POLE BASE
- D DRAIN
- *LENSEN MODEL #D12424 PRECAST CONCRETE AREA DRAIN

NOTES:

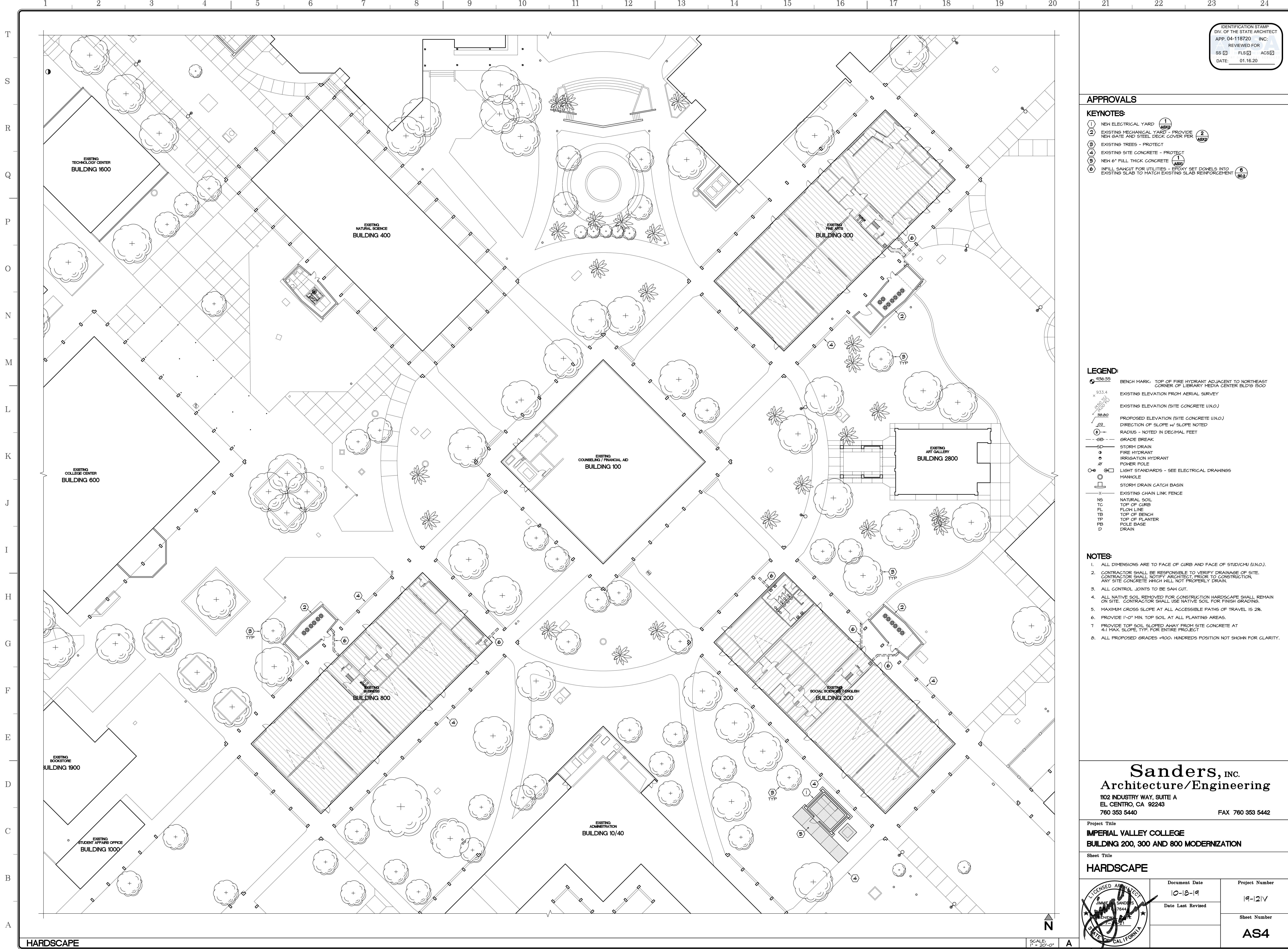
1. ALL DIMENSIONS ARE TO FACE OF CURB AND FACE OF STUDY/CHU (UNO.)
2. CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY DRAINAGE OF SITE. CONTRACTOR SHALL NOTIFY ARCHITECT PRIOR TO CONSTRUCTION, ANY SITE CONCRETE WHICH WILL NOT PROPERLY DRAIN.
3. ALL CONTROL JOINTS TO BE SAW CUT.
4. ALL NATIVE SOIL REMOVED FOR CONSTRUCTION HARDSCAPE SHALL REMAIN ON SITE. CONTRACTOR SHALL USE NATIVE SOIL FOR FINISH GRADING.
5. MAXIMUM CROSS SLOPE AT ALL ACCESSIBLE PATHS OF TRAVEL IS 2%. NOTE: ALL NEW PATHS SHALL BE ACCESSIBLE.
6. PROVIDE 1'-0" MIN. TOP SOIL AT ALL PLANTING AREAS.
7. PROVIDE TOP SOIL SLOPED AWAY FROM SITE CONCRETE AT 4:1 MAX. SLOPE, TYP. FOR ENTIRE PROJECT.
8. ALL PROPOSED GRADES +900. HUNDREDS POSITION NOT SHOWN FOR CLARITY.

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Project Title
**IMPERIAL VALLEY COLLEGE
 BUILDING 200, 300 AND 800 MODERNIZATION**

Sheet Title
SITE SURVEY AND DEMOLITION PLAN

	Document Date 10-18-19	Project Number 19-121V
	Date Last Revised	Sheet Number AS3



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KEYNOTES:

- 1 NEW ELECTRICAL YARD - 1 ABX
- 2 EXISTING MECHANICAL YARD - PROVIDE NEW GATE AND STEEL DECK COVER PER 2 ABX
- 3 EXISTING TREES - PROTECT
- 4 EXISTING SITE CONCRETE - PROTECT
- 5 NEW 6" FULL THICK CONCRETE - 1 ABX
- 6 INFILL SAWCUT FOR UTILITIES - EPOXY SET CONEELS INTO EXISTING SLAB TO MATCH EXISTING SLAB REINFORCEMENT - 6 802

LEGEND:

- 936.55 BENCH MARK - TOP OF FIRE HYDRANT ADJACENT TO NORTHEAST CORNER OF LIBRARY MEDIA CENTER BLD'G 1500
- 933.4 EXISTING ELEVATION FROM AERIAL SURVEY
- 36.80 EXISTING ELEVATION (SITE CONCRETE U.N.O.)
- 22 PROPOSED ELEVATION (SITE CONCRETE U.N.O.)
- 22 DIRECTION OF SLOPE W/ SLOPE NOTED
- 1 RADIUS - NOTED IN DECIMAL FEET
- 6B GRADE BREAK
- SD STORM DRAIN
- o FIRE HYDRANT
- o IRRIGATION HYDRANT
- o POWER POLE
- o LIGHT STANDARDS - SEE ELECTRICAL DRAWINGS
- o MANHOLE
- o STORM DRAIN CATCH BASIN
- x EXISTING CHAIN LINK FENCE
- NS NATURAL SOIL
- TC TOP OF CURB
- FL FLOW LINE
- TB TOP OF BENCH
- TP TOP OF PLANTER
- FEB FOLE BASE
- D DRAIN

NOTES:

- 1. ALL DIMENSIONS ARE TO FACE OF CURB AND FACE OF STUD/CHU (U.N.O.).
- 2. CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY DRAINAGE OF SITE. CONTRACTOR SHALL NOTIFY ARCHITECT PRIOR TO CONSTRUCTION. ANY SITE CONCRETE WHICH WILL NOT PROPERLY DRAIN.
- 3. ALL CONTROL JOINTS TO BE SAW CUT.
- 4. ALL NATIVE SOIL REMOVED FOR CONSTRUCTION HARDSCAPE SHALL REMAIN ON SITE. CONTRACTOR SHALL USE NATIVE SOIL FOR FINISH GRADINGS.
- 5. MAXIMUM CROSS SLOPE AT ALL ACCESSIBLE PATHS OF TRAVEL IS 2%.
- 6. PROVIDE 1'-0" MIN. TOP SOIL AT ALL PLANTING AREAS.
- 7. PROVIDE TOP SOIL SLOPED AWAY FROM SITE CONCRETE AT 4:1 MAX. SLOPE, TYP. FOR ENTIRE PROJECT.
- 8. ALL PROPOSED GRADES <400; HUNDREDS POSITION NOT SHOWN FOR CLARITY.

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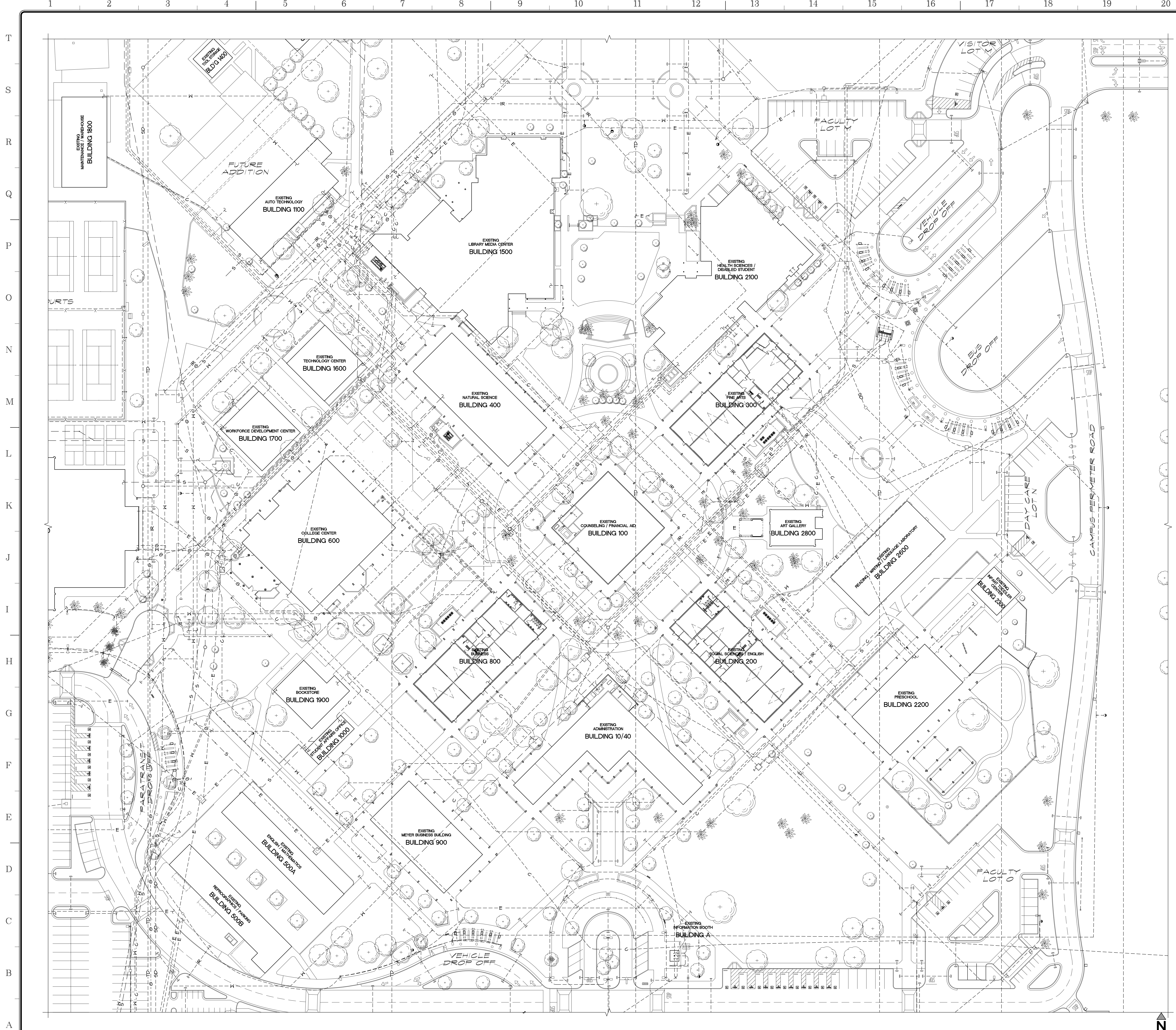
Project Title
**IMPERIAL VALLEY COLLEGE
 BUILDING 200, 300 AND 800 MODERNIZATION**

HARDSCAPE

	Document Date	Project Number
	10-18-19	19-121V
	Date Last Revised	Sheet Number
		AS4

HARDSCAPE

SCALE: 1" = 20'-0"



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LEGEND:

- S --- SEWER LINE
- W --- WATER LINE
- G --- GAS LINE
- E --- ELECTRICAL LINE
- C --- COMMUNICATIONS LINE
- IR --- IRRIGATION LINE
- SD --- STORM DRAIN LINE
- TD --- TILE DRAIN LINE
- NEW SEWER LINE - SEE PLUMBING DRAWINGS
- NEW WATER LINE - SEE PLUMBING DRAWINGS
- NEW GAS LINE - SEE PLUMBING DRAWINGS
- NEW ELECTRICAL LINE - SEE ELECTRICAL DRAWINGS
- NEW COMMUNICATIONS LINE - SEE COMMUNICATION DRAWINGS
- NEW STORM DRAIN LINE - SEE HARDSCAPE
- FIRE HYDRANT
- IRRIGATION HYDRANT
- MANKHOLE
- POWER POLE
- LIGHT STANDARD

NOTES:

1. CONTRACTOR SHALL REPAIR OR REPLACE ANY LINE BROKEN OR DAMAGED DURING COURSE OF PLACEMENT OF NEW LINES, CONSTRUCTION OF TRENCHING, OR HEAVY EQUIPMENT ON SITE AT NO COST TO OWNER.
2. PRIOR TO ANY EXCAVATION THE SITE SHALL BE VISITED BY A "DIG ALERT" COMPANY FOR THE PURPOSE OF LOCATING ALL UNDERGROUND UTILITY LINES.
3. CAP ALL STUBBED OUT CONDUIT FOR FUTURE.
4. PROVIDE FULL STRING FOR ALL CONDUIT.
5. ALL UTILITY LINES ARE EXISTING UNLESS NOTED OTHERWISE - PROTECT
6. SAWCUT EXISTING SITE CONCRETE FOR NEW UTILITIES TO NEAREST CONTROL JOINT, PROVIDE NEW FLUSH CONCRETE TO EXISTING PER
7. NEW UTILITY TRENCHING SHALL BE PER

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 BUILDING 200, 300 AND 800 MODERNIZATION**

Sheet Title
SITE UTILITIES PLAN

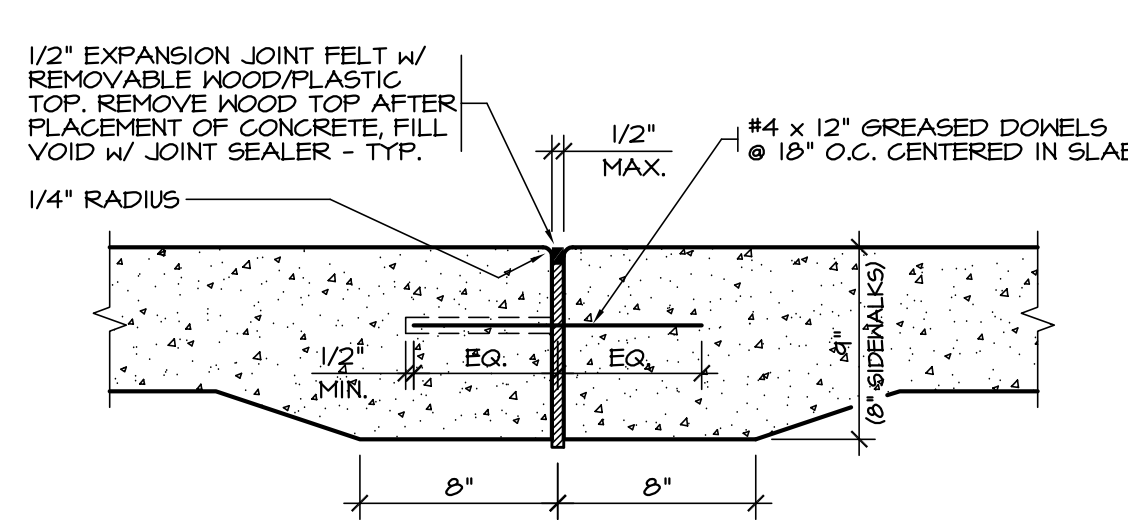
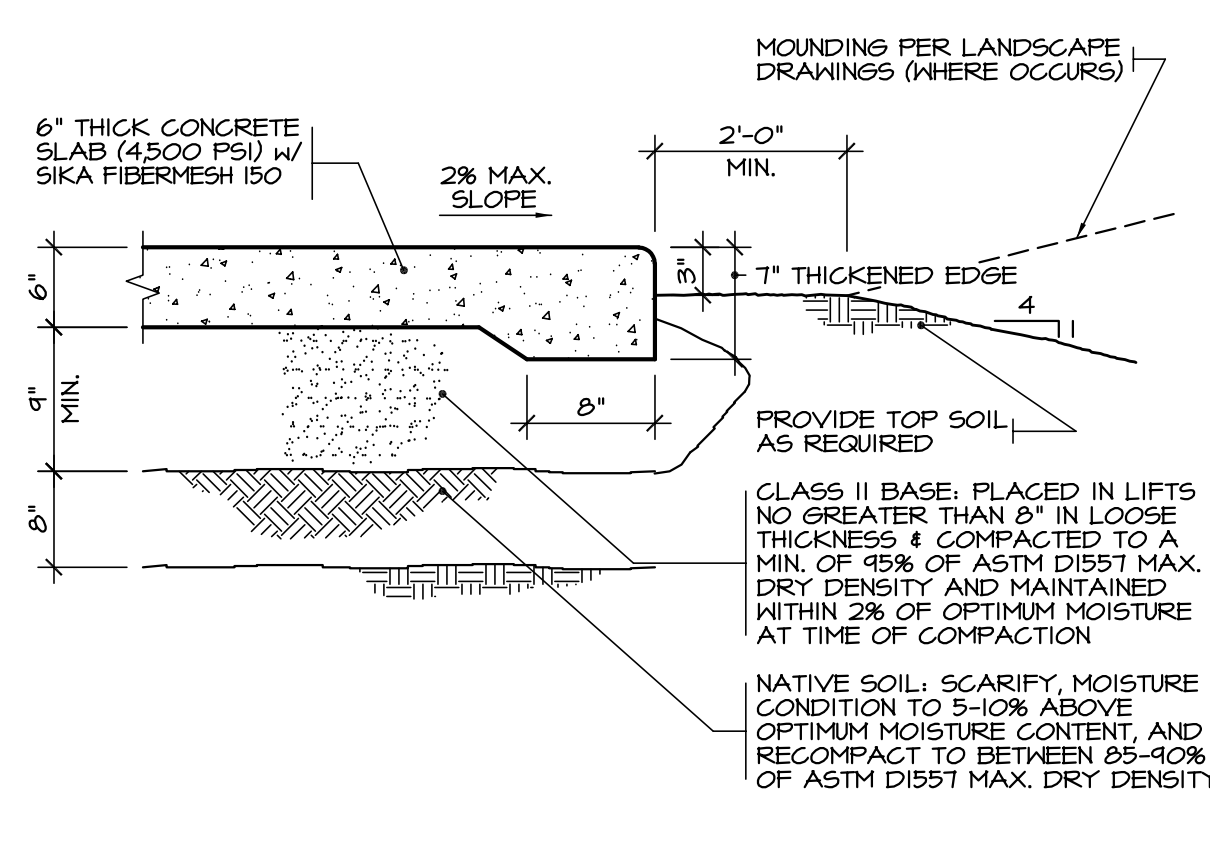
	Document Date	Project Number
	Date Last Revised	Sheet Number
	10-18-19	19-121V
		AS5

SITE UTILITIES PLAN

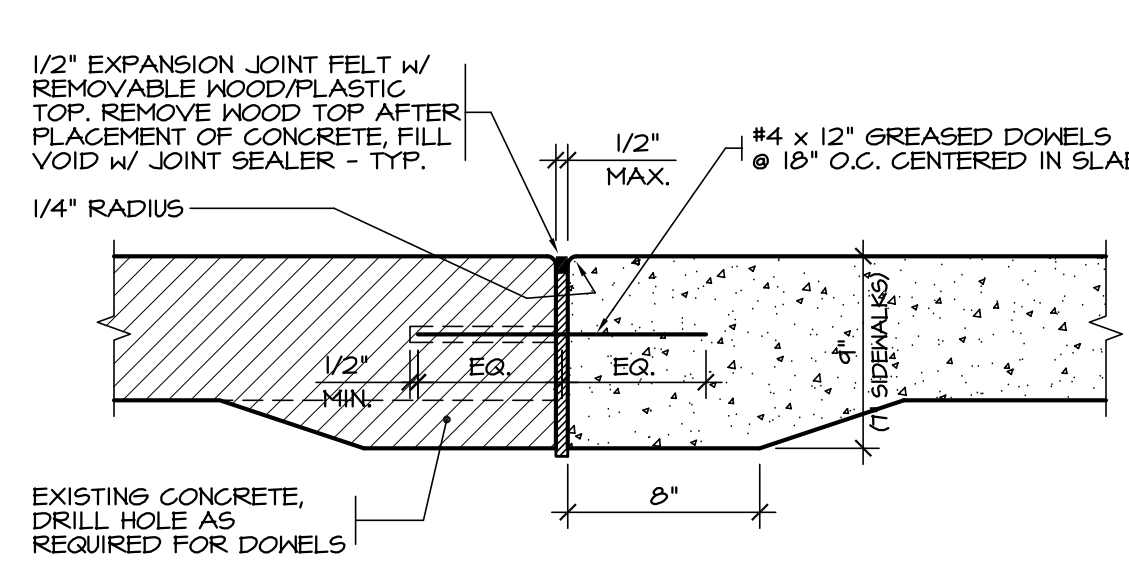
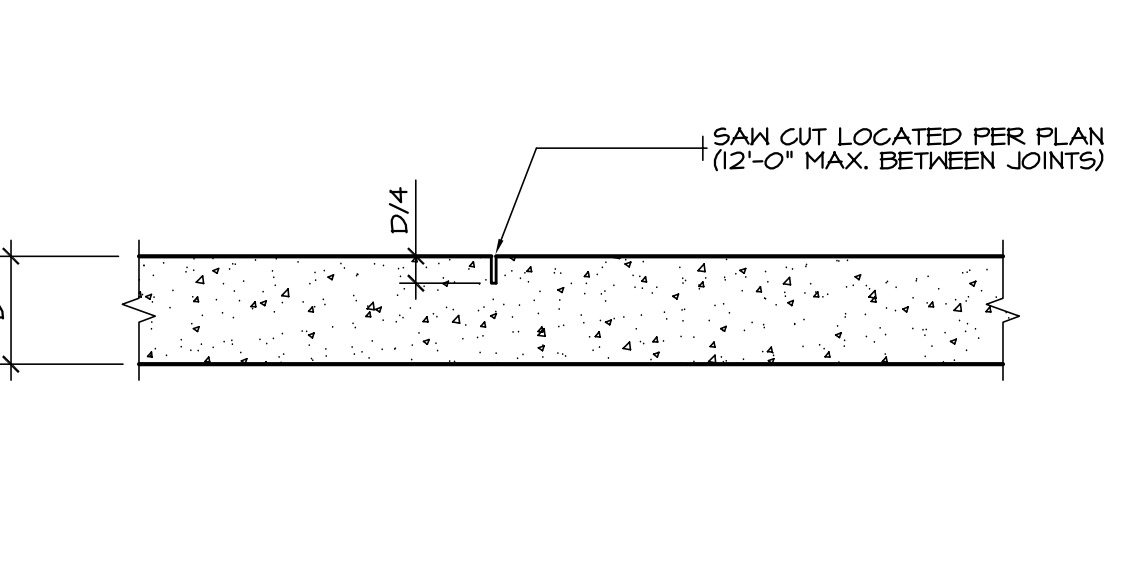
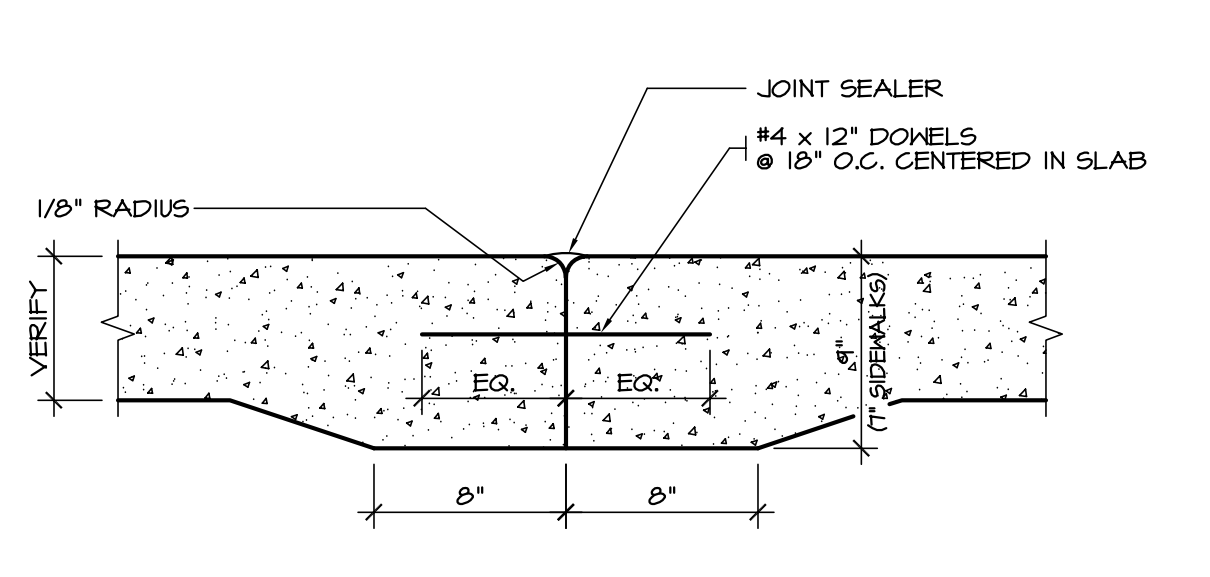
SCALE: 1" = 40'-0"

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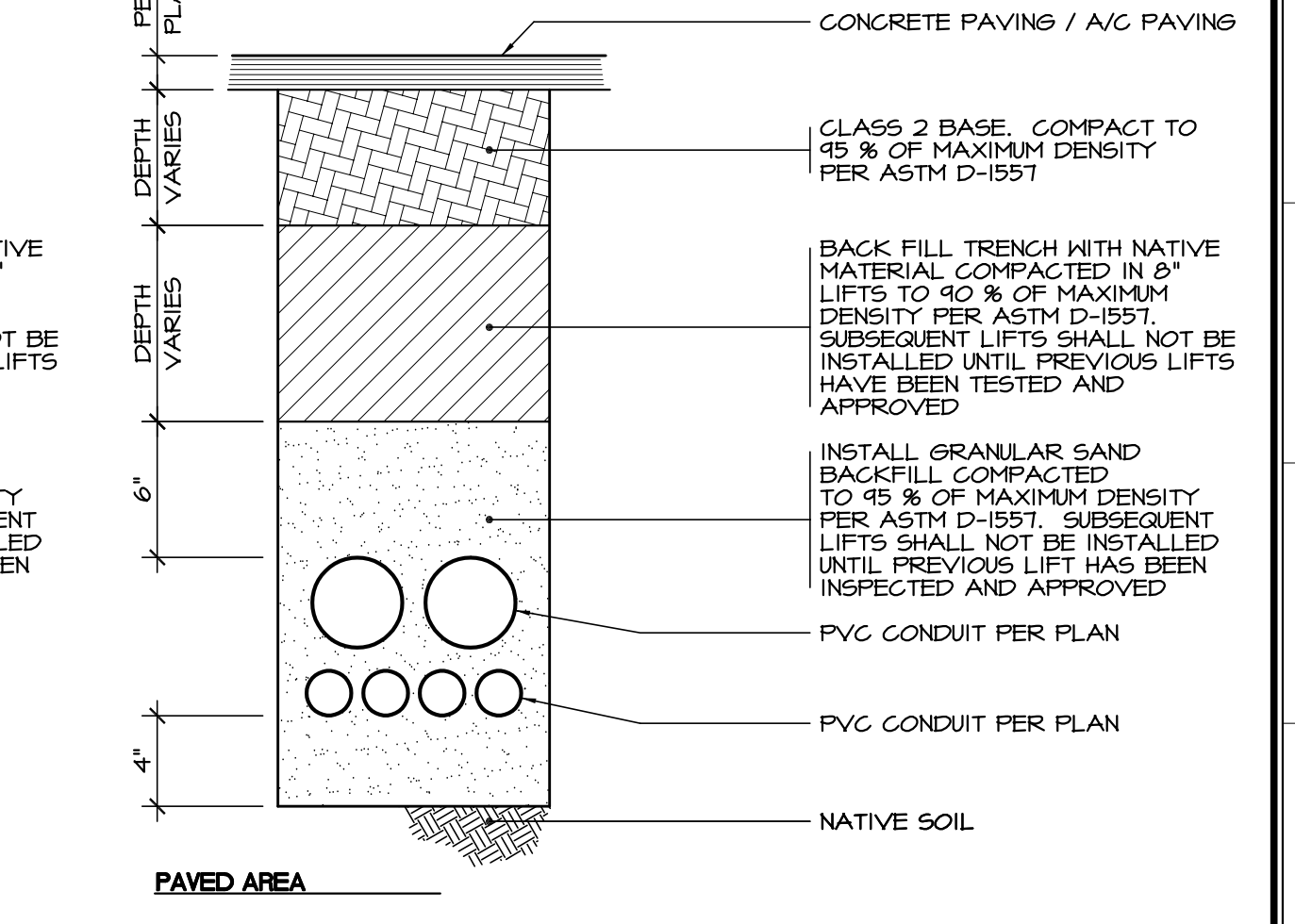
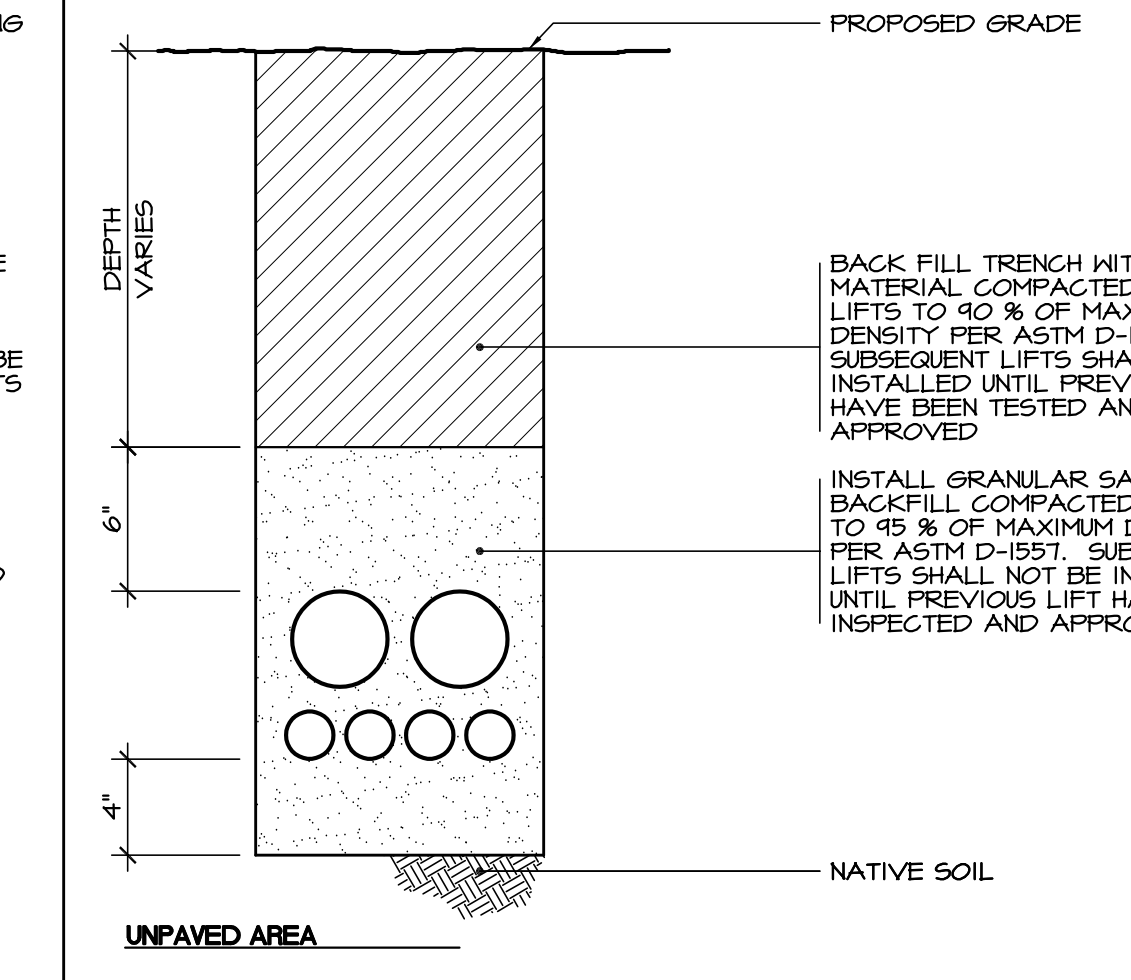
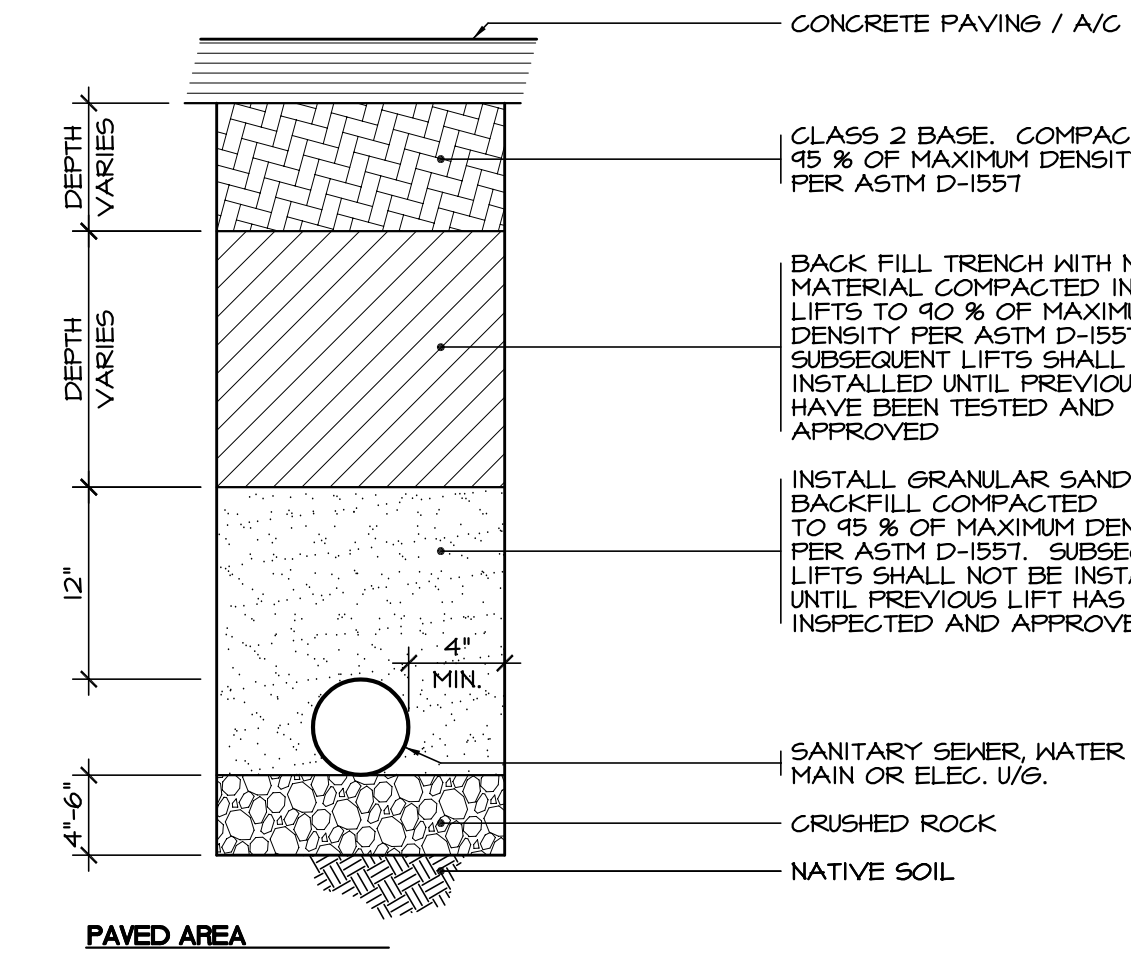
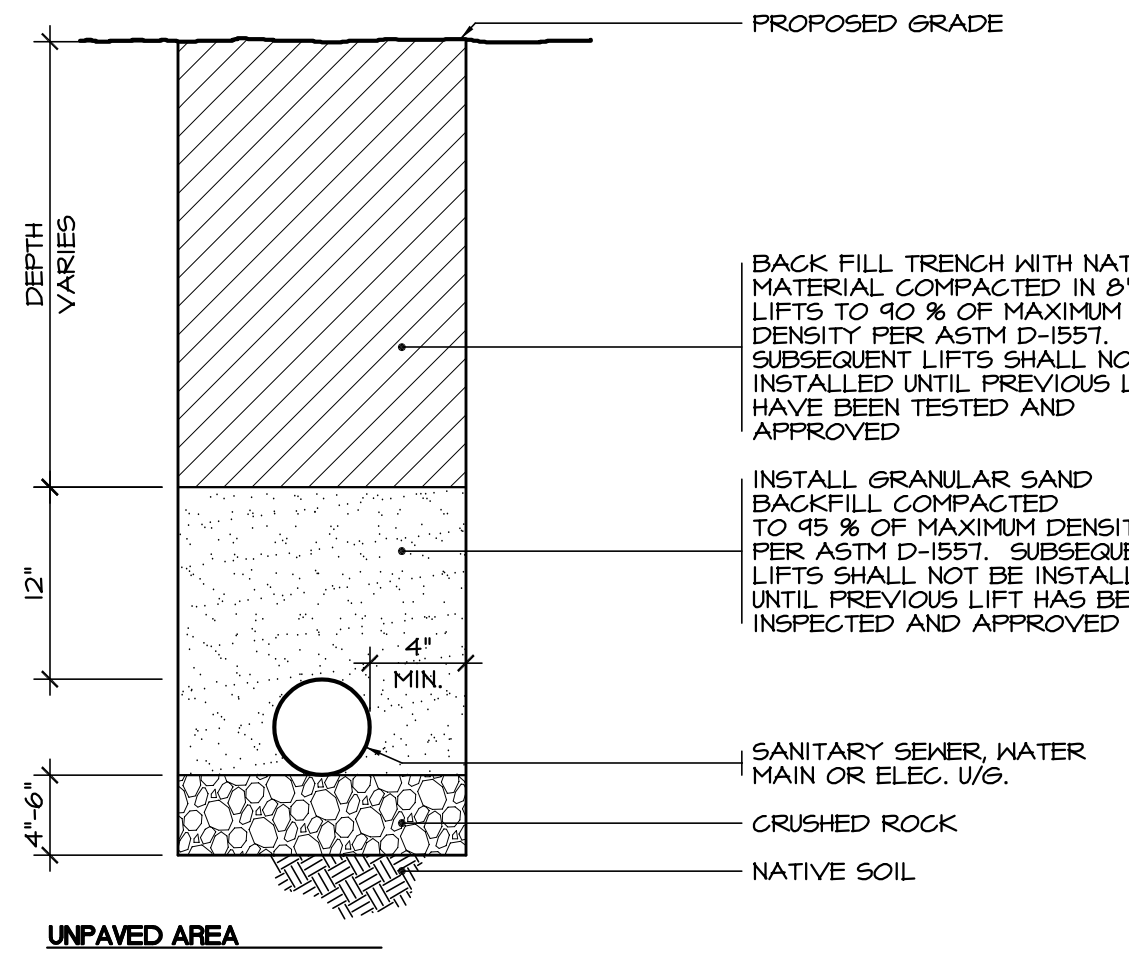
APPROVALS



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
SITE CONCRETE SECTION				EXEMPTION C2	SCALE: 1" = 1'-0"	1	NOT USED		2	NOT USED		3	NOT USED		4	EXPANSION JOINT		SCALE: 1/2" = 1'-0"	5				



CONSTRUCTION JOINT				EXEMPTION C2, C4	SCALE: 1/2" = 1'-0"	6	CONTROL JOINT, SAW CUT		EXEMPTION C2	SCALE: 1/2" = 1'-0"	7	NEW TO EXISTING CONCRETE		EXEMPTION C2, C4	SCALE: 1/2" = 1'-0"	8	NOT USED		9	NOT USED		10	NOT USED		11
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NOT USED				12	NOT USED		13	TYPICAL TRENCH DETAIL		SCALE: N.T.S.	14	TYPICAL TRENCH DETAIL		SCALE: N.T.S.	15							
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NOT USED				16																		
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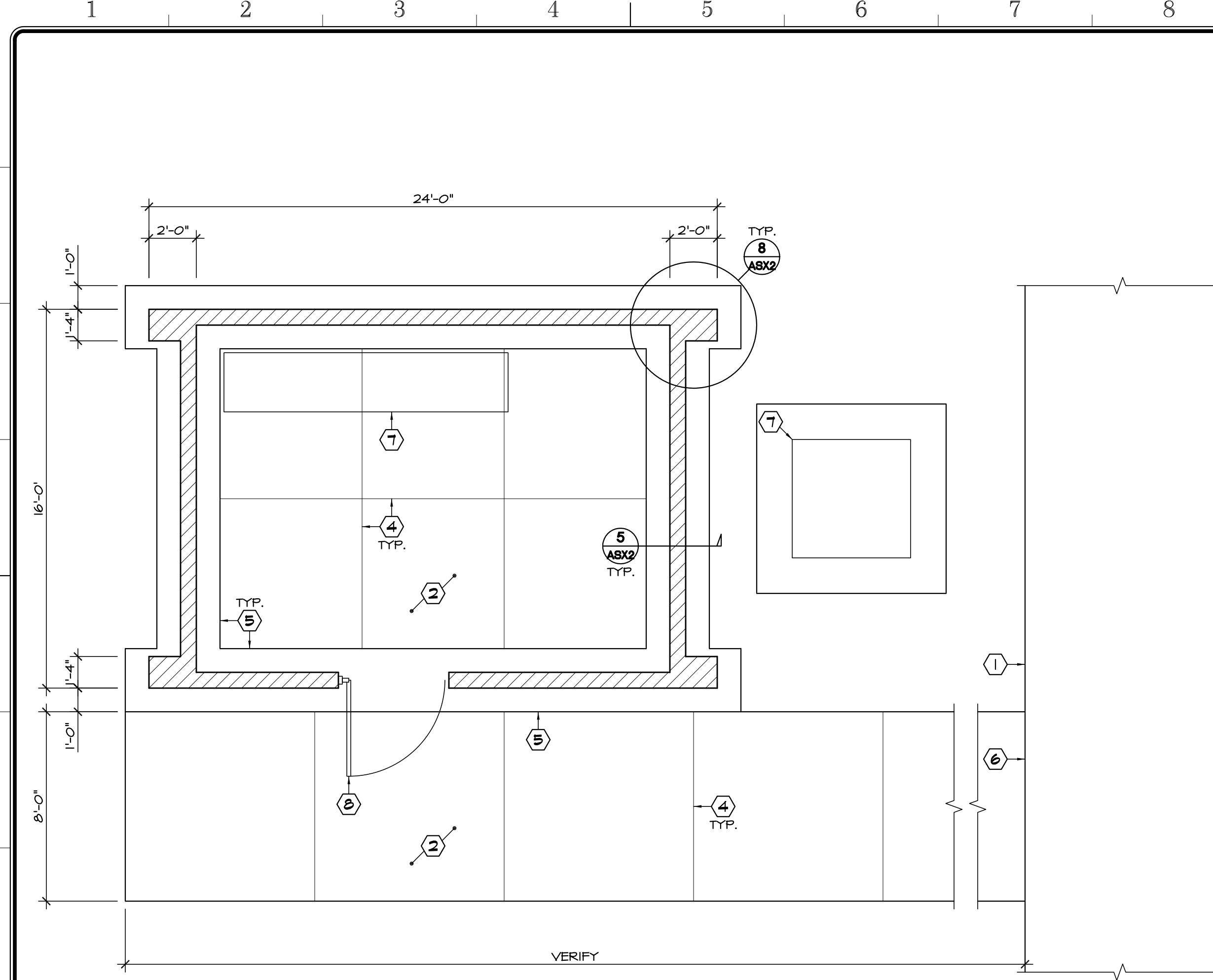
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Project Title
**IMPERIAL VALLEY COLLEGE
 BUILDING 200, 300 AND 800 MODERNIZATION**

Sheet Title
SITE DETAILS

	Document Date	Project Number
	Date Last Revised	Sheet Number

10-18-19
 19-121V
ASX1

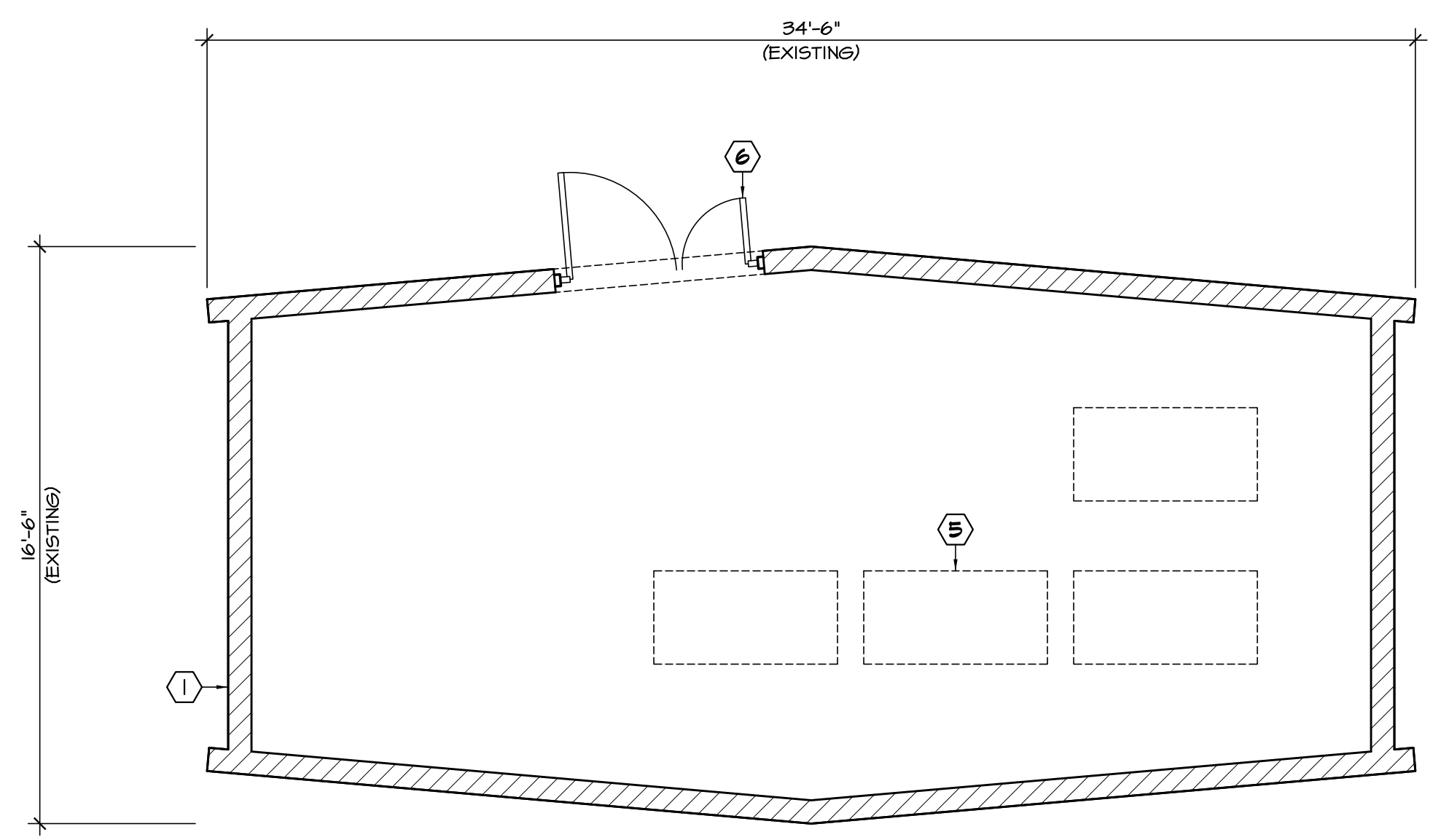


ENLARGED PLAN - PROPOSED ELECTRICAL YARD

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

- KEYNOTES:**
- 1 EXISTING CONCRETE WALK - PROTECT
 - 2 6" FULL THICK CONCRETE WALK
 - 3 CONSTRUCTION JOINT
 - 4 CONTROL JOINT
 - 5 EXPANSION JOINT
 - 6 NEW TO EXISTING MATCH EXISTING ELEVATION
 - 7 ELECTRICAL EQUIPMENT, SEE ELECTRICAL PLAN
 - 8 STEEL GATE

- NOTES:**
1. ALL DIMENSIONS ARE TO FACE OF CURB AND FACE OF STUD/CMU (W/O).
 2. CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY DRAINAGE OF SITE. CONTRACTOR SHALL NOTIFY ARCHITECT PRIOR TO CONSTRUCTION ANY SITE CONCRETE WHICH WILL NOT PROPERLY DRAIN.
 3. ALL CONTROL JOINTS TO BE SAW CUT.



ENLARGED PLAN - EXISTING MECHANICAL YARD

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

APPROVALS

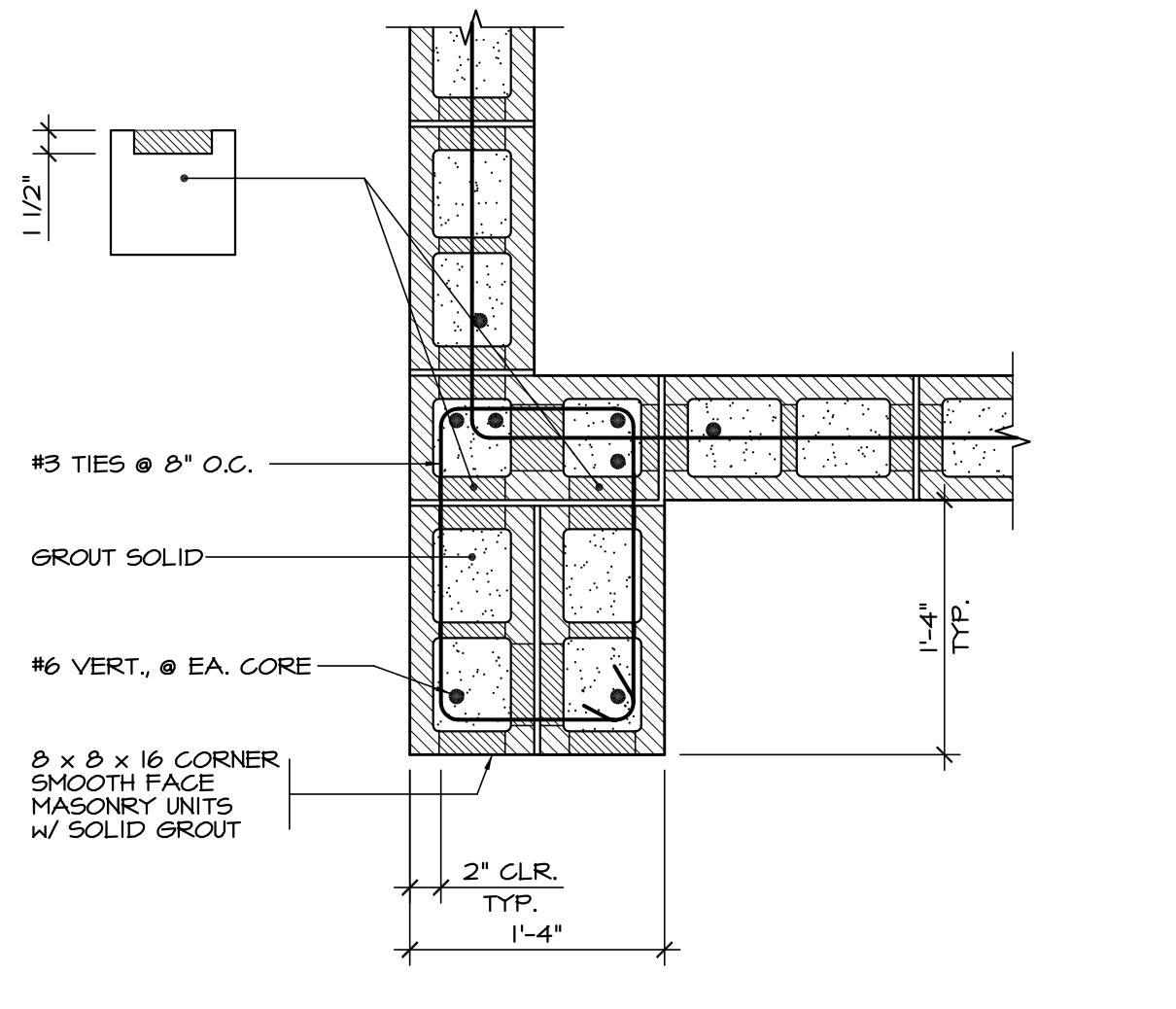
- KEYNOTES:**
- 1 EXISTING SOLID GROUT MASONRY WALL
 - 2 NOT USED
 - 3 NEW HSS 12 x 6 x 1/4 STEEL BEAM
 - 4 NOT USED
 - 5 MECHANICAL EQUIPMENT PER PLAN
 - 6 NEW STEEL GATE

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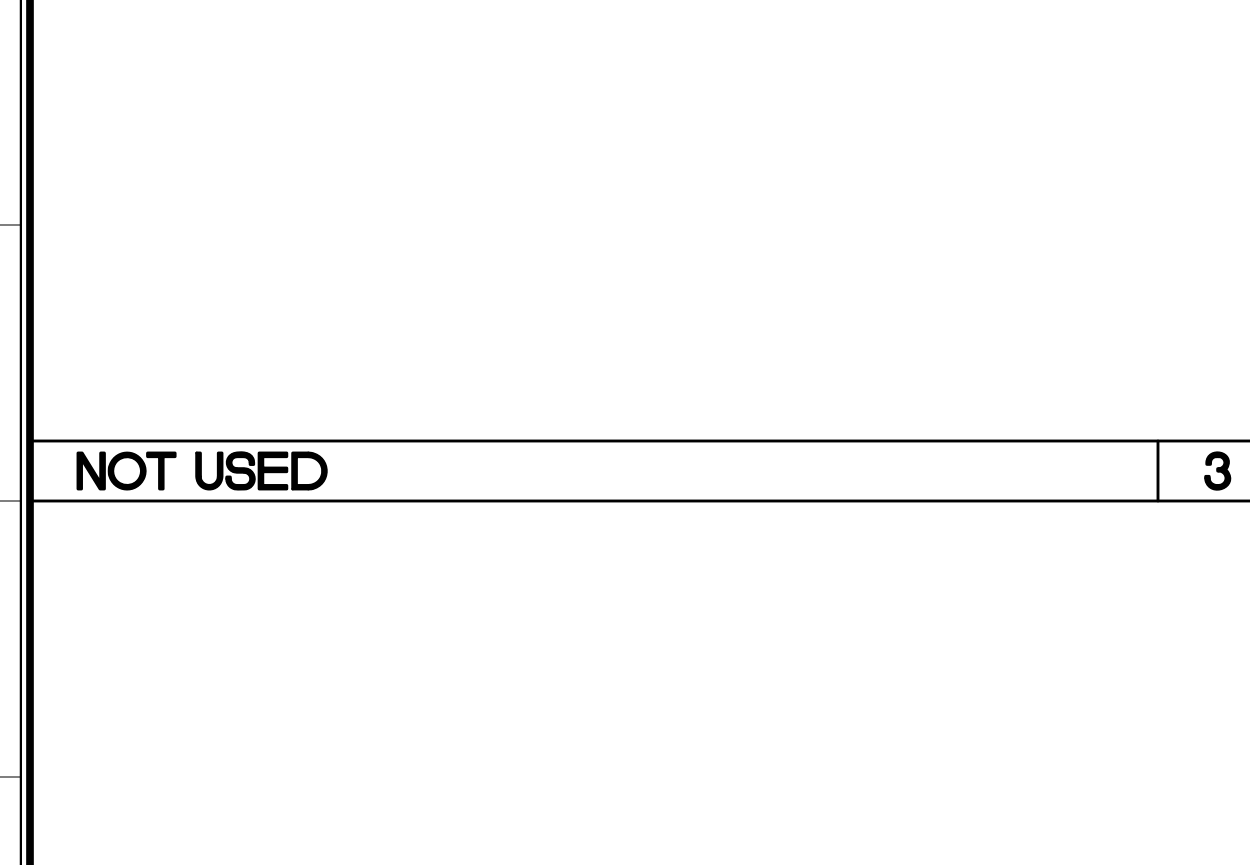
MASONRY WALL

SCALE: 1" = 1'-0" 5



MASONRY THICKENED ENDWALL

SCALE: 1" = 1'-0" 8



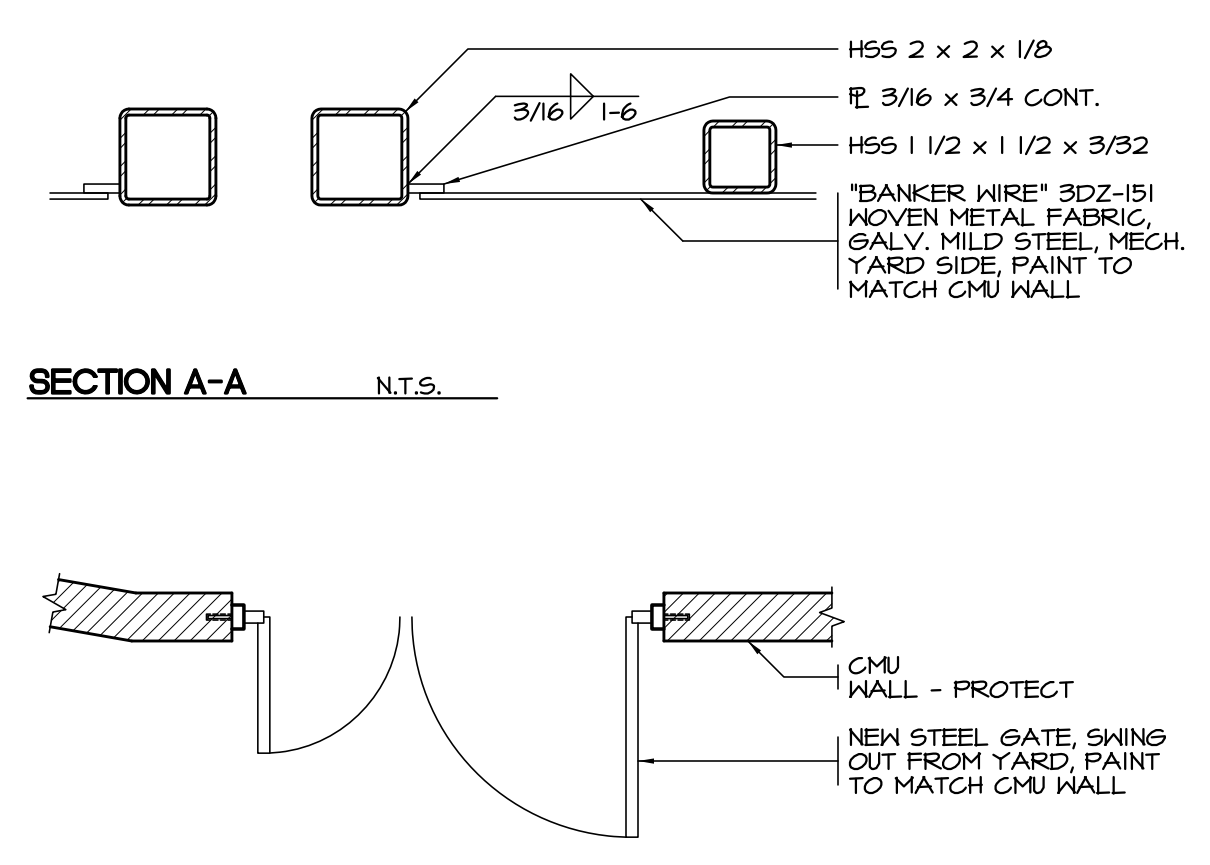
MASONRY WALL ELEVATION

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



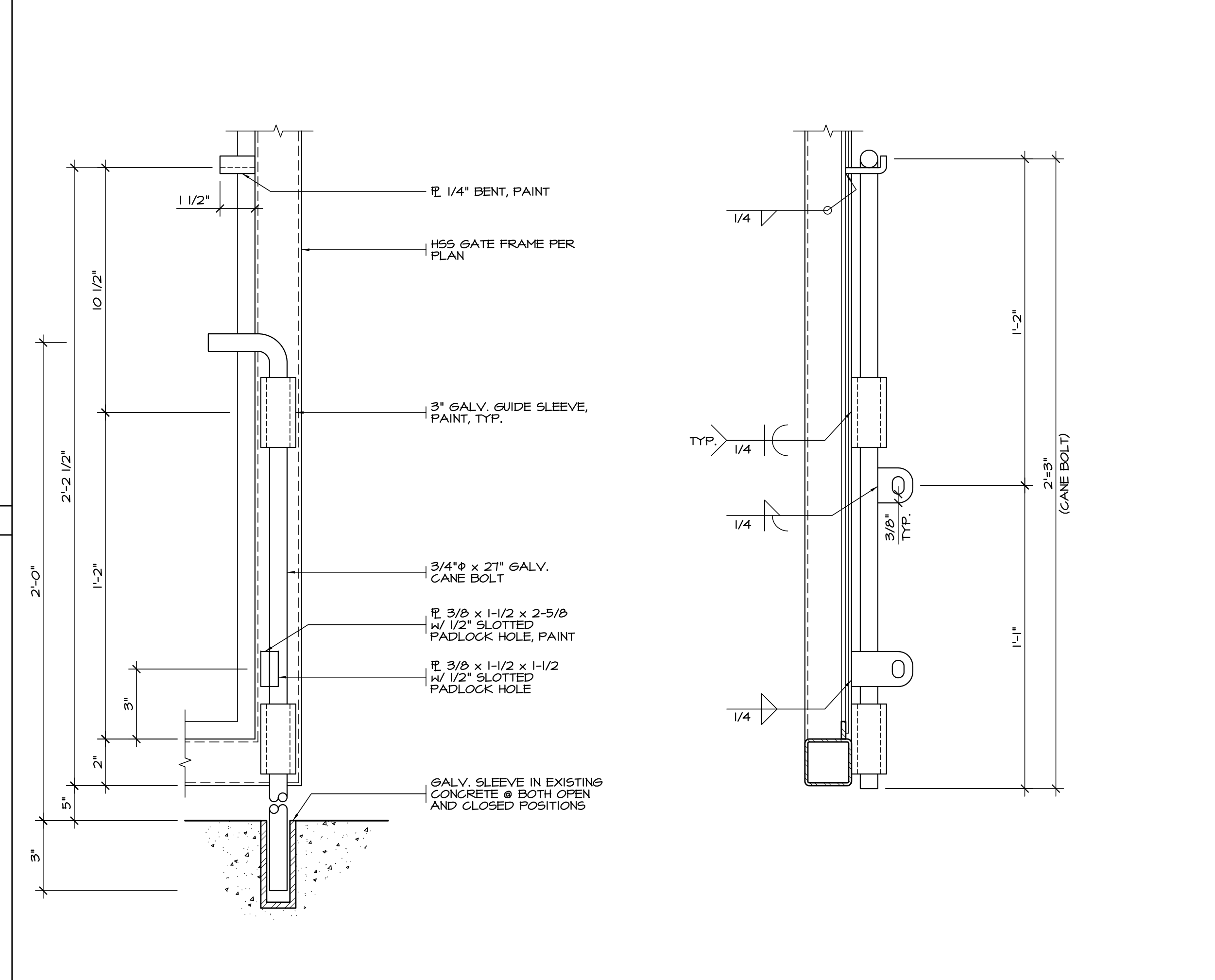
CMU WALL CAP

EXEMPTION C4 SCALE: 3/8" = 1'-0" 7



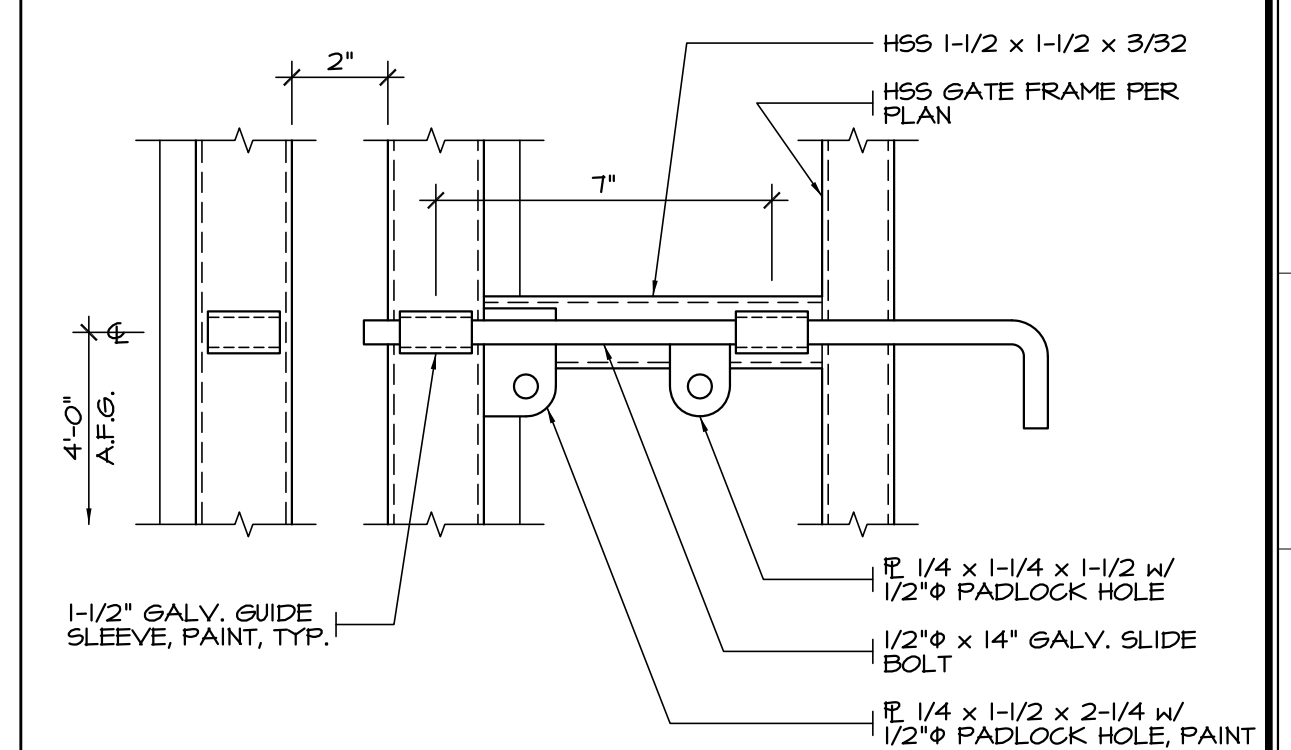
STEEL GATE

SCALE: 3/8" = 1'-0" 9

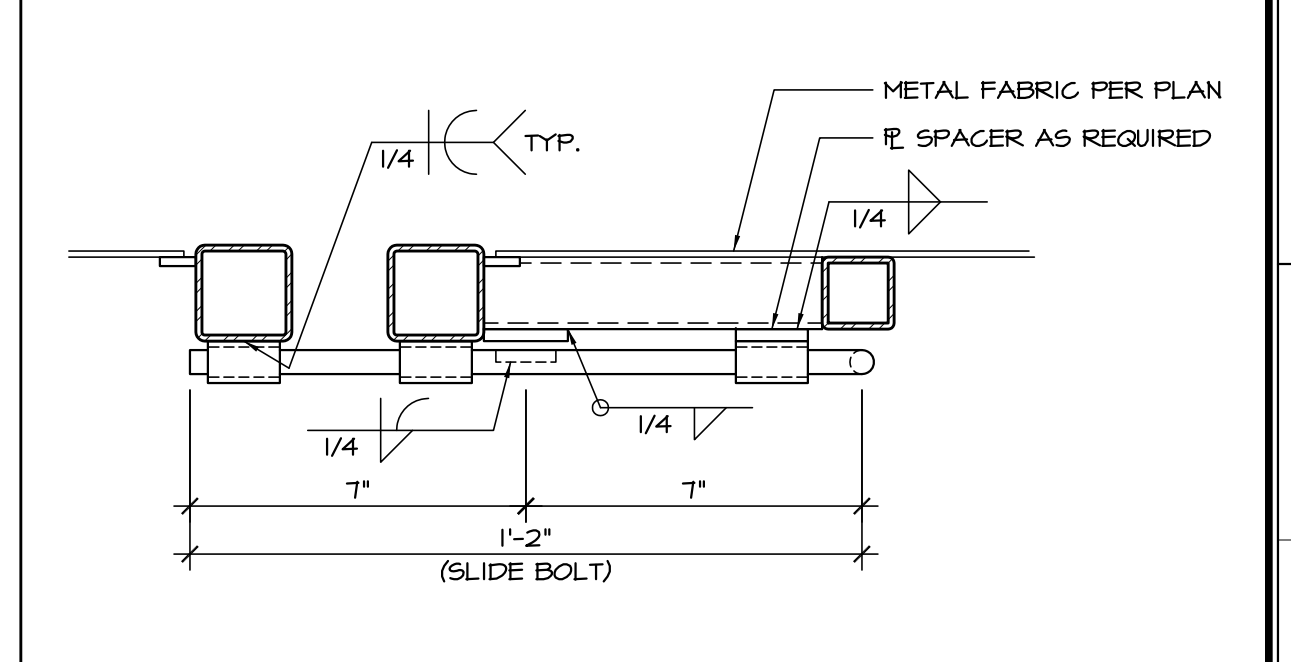


STEEL GATE

EXEMPTION W SCALE: 3/8" = 1'-0" 12



ELEVATION



PLAN VIEW

GATE CANE BOLT

EXEMPTION W SCALE: 3/8" = 1'-0" 11

NOT USED

NOT USED

NOT USED

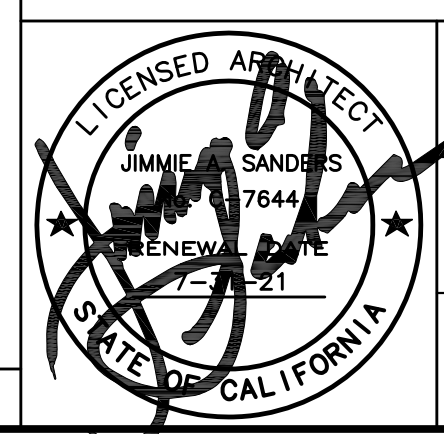
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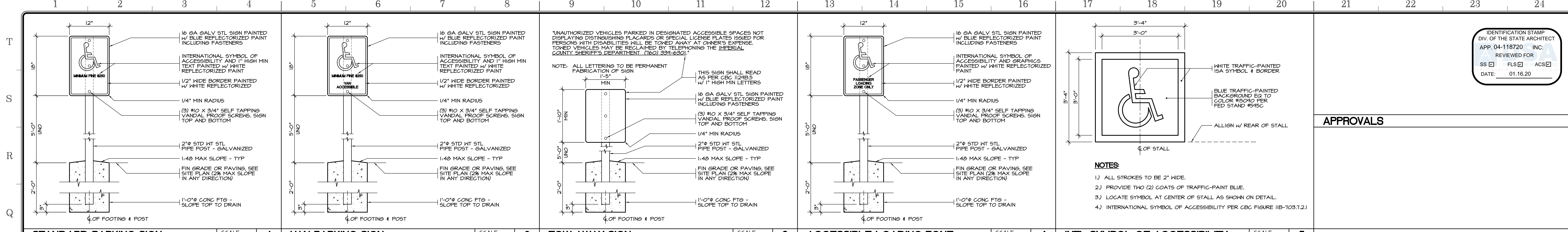
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Project Title
**IMPERIAL VALLEY COLLEGE
BUILDING 200, 300 AND 800 MODERNIZATION**

Sheet Title
SITE DETAILS

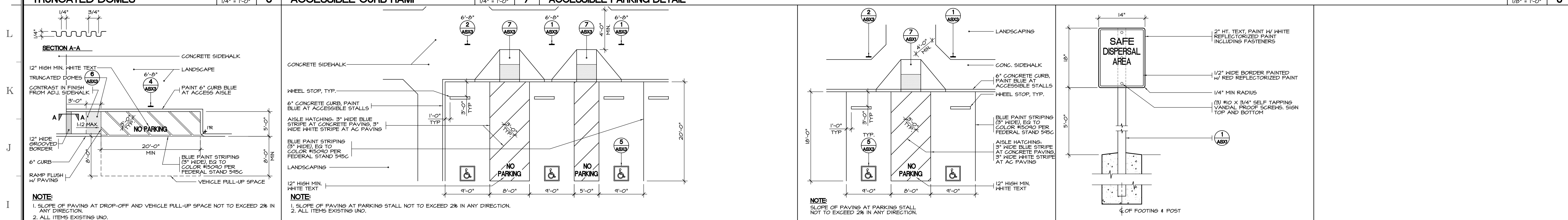
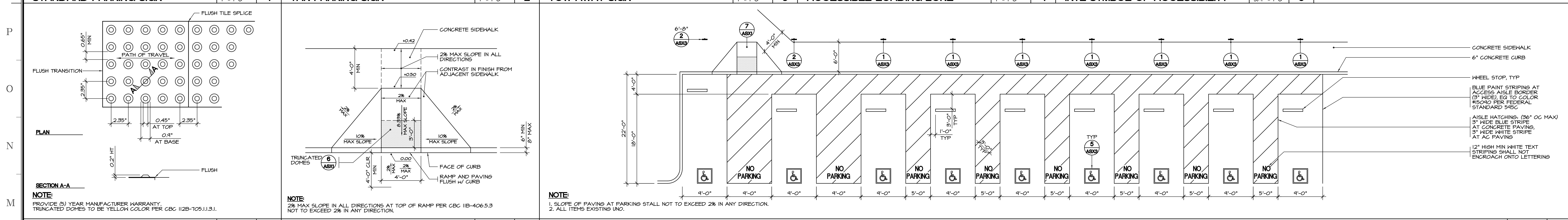
Document Date 10-18-19	Project Number 19-121V
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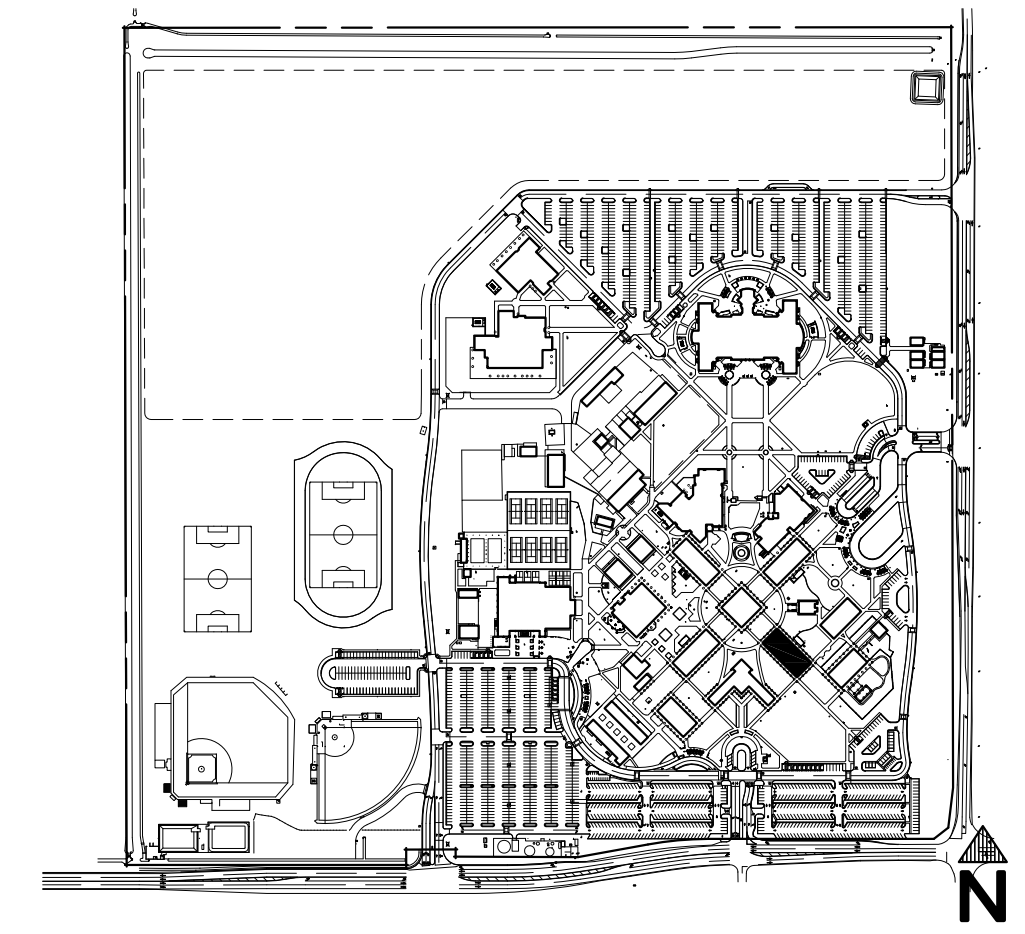
Project Title
**IMPERIAL VALLEY COLLEGE
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Sheet Title
SITE ACCESSIBILITY DETAILS

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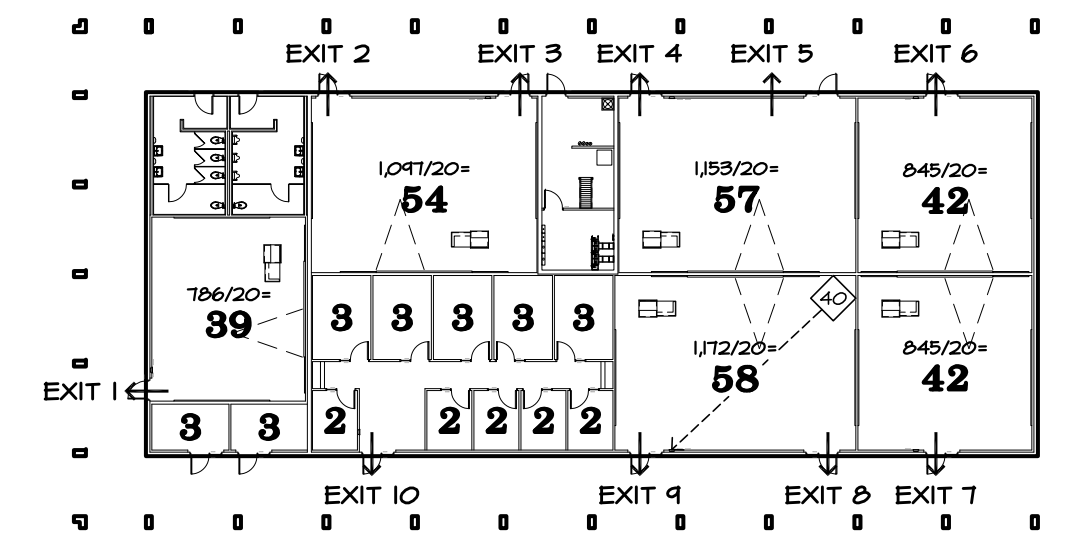
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KEY PLAN - BLDG 200

BUILDING DATA:

BUILDING 200 - CLASSROOMS
 OCCUPANCY A-3 B
 CONSTRUCTION TYPE TYPE III-B
 FIRE SPRINKLER SYSTEM NONE
 NUMBER OF STORIES 1
 CONSTRUCTION AREA 4,014 SQ. FT. (TABLE 506.2)
 ALLOWABLE AREA 4,500 SQ. FT.
 AREA INCREASE NONE
 4,014 < 4,500 = OK



EXIT WIDTH:

EXIT #	CLASSROOM EXIT	CLASSROOM EXIT	CLASSROOM EXIT	CLASSROOM EXIT	CLASSROOM EXIT	CLASSROOM EXIT	CLASSROOM EXIT	CLASSROOM EXIT	CLASSROOM EXIT	CLASSROOM EXIT
1	34	27	27	24	24	42	42	21	4	10
MIN EXIT WIDTH (A)	32"	32"	32"	32"	32"	32"	32"	32"	32"	32"
WIDTH PROVIDED	33.75"	33.75"	33.75"	33.75"	33.75"	33.75"	33.75"	33.75"	33.75"	33.75"

(A) 0.2 INCHES PER PERSON FOR DOORS,
 0.25 INCHES PER PERSON FOR STAIRS.

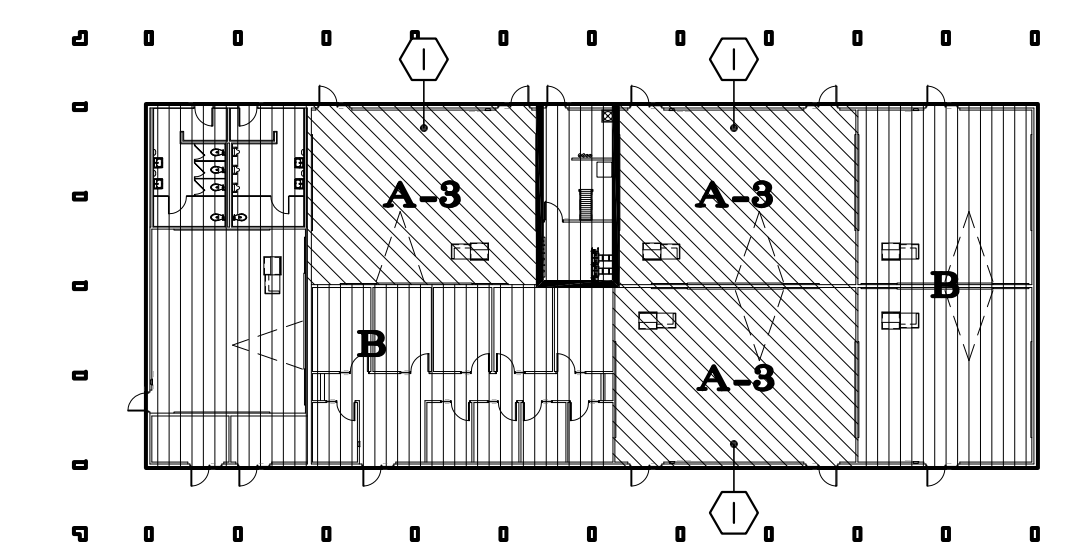
LEGEND:

- EXIT
- PATH OF TRAVEL TO FIRE EXTINGUISHER
- ◇ FARTHEST TRAVEL DISTANCE TO FIRE EXTINGUISHER (PER GFC, TABLE 906.3(1))



EXITING PLAN

SCALE: 1/32" = 1'-0" **A**



- 1-HR STORAGE ROOM SEPARATION
- ⊙ NONSEPARATED MIXED OCCUPANCY IN ACCORDANCE WITH CBC 508.3



OCCUPANCY PLAN

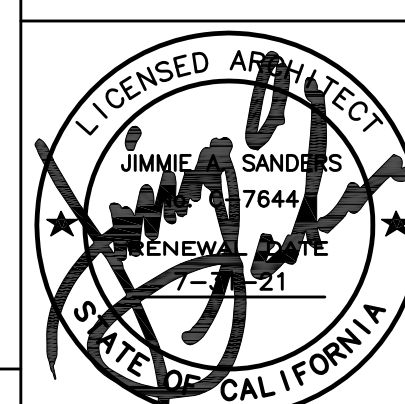
SCALE: 1/32" = 1'-0" **B**

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**IMPERIAL VALLEY COLLEGE
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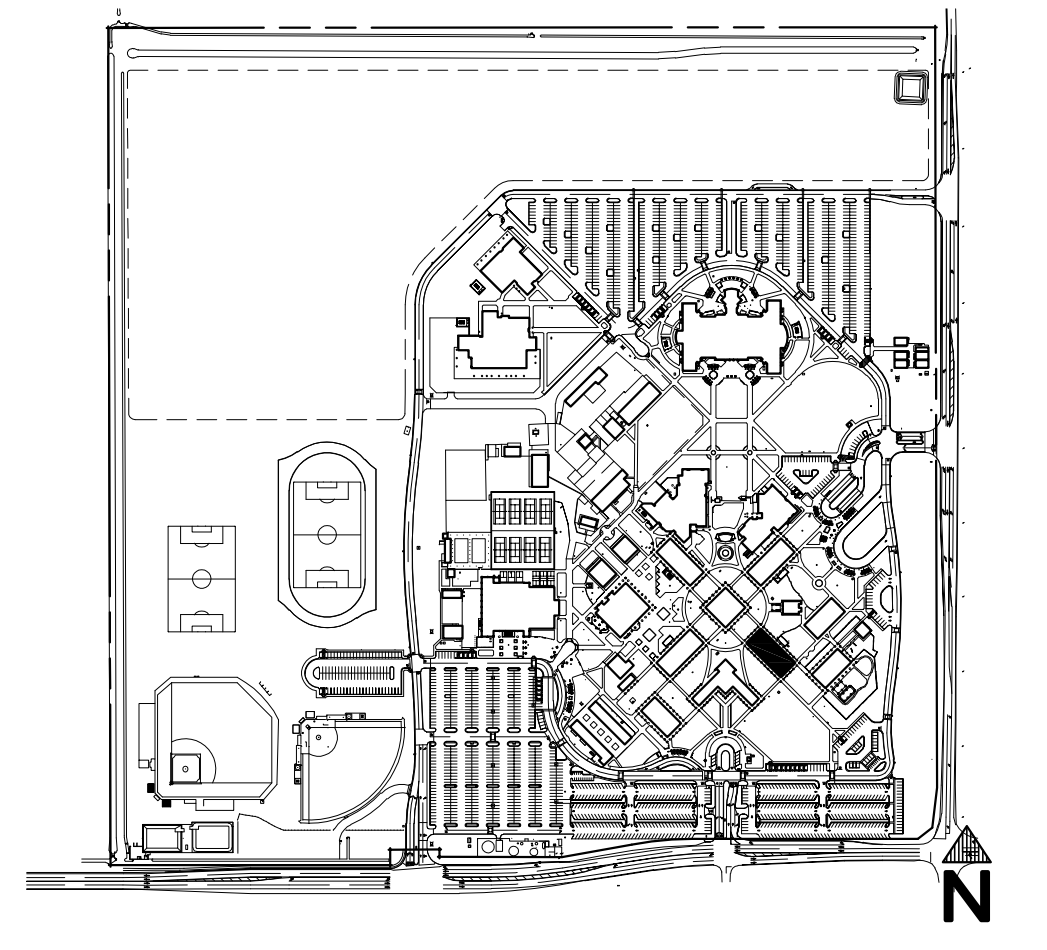
BUILDING DATA

Document Date	10-18-19	Project Number	19-121V
Date Last Revised		Sheet Number	A2.0



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KEY PLAN - BLDG 200

KEYNOTES:

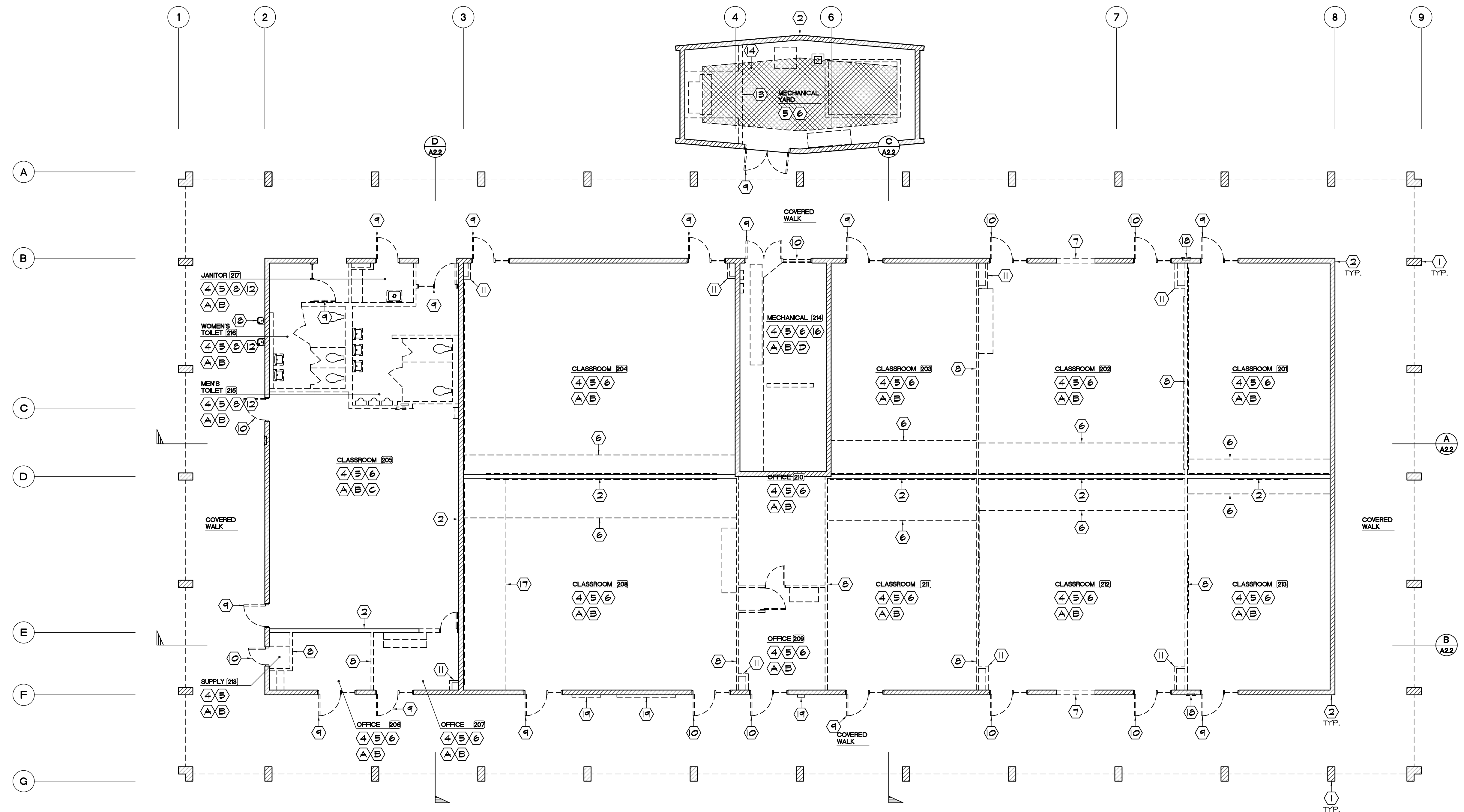
- (1) EXISTING CMU COLUMNS - PROTECT
- (2) EXISTING HALL TO REMAIN - PROTECT
- (3) EXISTING STEEL COLUMN / WOOD POST - PROTECT
- (4) REMOVE ALL EXISTING CASEWORK
- (5) REMOVE EXISTING POWER AND LIGHTING
- (6) REMOVE EXISTING HVAC SYSTEM INCLUDING DUCT FRAMING, CONCRETE HOUSE KEEPING PADS AND CONCRETE CURBS
- (7) REMOVE EXISTING CMU / CONCRETE HALL
- (8) REMOVE EXISTING NON-BEARING FRAMED HALL AND CONCRETE CURB (WHERE OCCURS)
- (9) REMOVE EXISTING DOOR, HARDWARE AND DOOR FRAME
- (10) REMOVE EXISTING DOOR AND FRAME - INFILL OPENING W/ CMU
- (11) REMOVE EXISTING DUCT CHASE AND INFILL FOUNDATION (8/202)
- (12) REMOVE ALL EXISTING PLUMBING FIXTURES
- (13) REMOVE EXISTING STEEL ROOF DECK
- (14) REMOVE EXISTING CONCRETE SLAB AND CONCRETE HOUSE KEEPING PADS - SANKUT @ EDGE OF EXISTING FOOTING
- (15) REMOVE EXISTING SUSPENDED ALUMINUM PLANETARIUM DOME AND SUPPORTING ELEMENTS
- (16) INFILL EXISTING FLOOR UTILITY CHASES (8/202)
- (17) REMOVE EXISTING PLATFORM
- (18) REMOVE ALL EXISTING EXTERIOR DRINKING FOUNTAINS AND RECESSED FIRE EXTINGUISHER CABINETS - REPAIR / INFILL ALL DAMAGED OR MISSING CMU
- (19) REMOVE ALL EXISTING EXTERIOR DISPLAY CASES AND LOCK BOXES - TURN OVER TO OWNER

HAZARDOUS MATERIAL KEYNOTES:

- (A) REMOVE ASBESTOS FLOORING AND MASTIC
- (B) SEE PCB SPECIFICATION FOR LIGHT BALLAST REMOVAL AND MERCURY SPECIFICATION FOR LIGHT TUBE REMOVAL
- (C) REMOVE ASBESTOS INSULATION
- (D) REMOVE ASBESTOS MECHANICAL ROOM FLUE INSULATION
- (E) REMOVE ASBESTOS DESK

NOTES:

1. DEMOLITION KEYNOTES ARE NOT INTENDED TO SHOW ALL DEMOLITION REQUIRED FOR PROPOSED IMPROVEMENTS. CONTRACTOR RESPONSIBLE TO REMOVE ALL EXISTING IMPROVEMENTS / CONDITIONS REQUIRED TO COMPLETE WORK FOR PROPOSED IMPROVEMENTS.
2. DO NOT ALTER OR DAMAGE ANY EXISTING SHEAR WALLS OR BEARING WALLS UNO.
3. ALL DEMOLITION SHALL COMPLY WITH CH. 34 CBC AND ARTICLE 01 CFC.
4. SEE SPECIFICATIONS FOR REMOVAL OF HAZARDOUS MATERIAL INCLUDING BUT NOT LIMITED TO ASBESTOS, LEAD PAINT, PCB, AND MERCURY.
5. REMOVE ALL CEILING TILES AND CEILING FRAMING INCLUDING 2x3 STRIPING AT BOTTOM CHORD OF TRUSS - COORDINATE W/ HAZARDOUS MATERIAL ABATEMENT.
6. REMOVE ALL EXTERIOR SURFACE MTD. CONDUIT TO SOURCE
7. REMOVE ALL FLOOR FINISHES AND WALL BASE MATERIAL, COORDINATE W/ HAZARDOUS MATERIAL ABATEMENT.
8. REMOVE ALL HVAC EQUIPMENT INDOOR AND OUTDOOR. REMOVE ALL RIGID AND FLEX SUPPLY / RETURN DUCTS, SUPPORTS, REGISTERS, WALL GRILLES, ROOF PLATFORMS - INFILL FLUSH ALL ABANDONED ROOF PENETRATIONS



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**IMPERIAL VALLEY COLLEGE
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Sheet Title
DEMOLITION PLAN

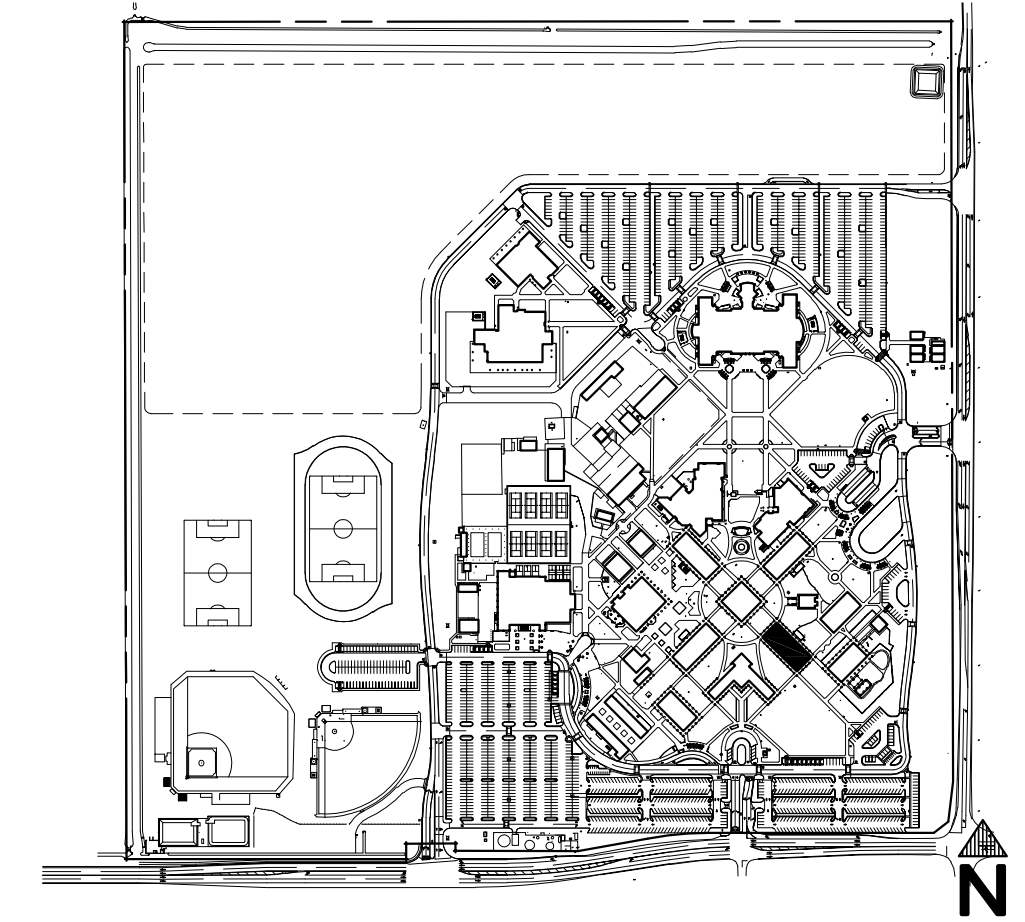
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	Date Last Revised	Sheet Number
	09-13-19	10-18-19
		A2.11

DEMOLITION PLAN

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

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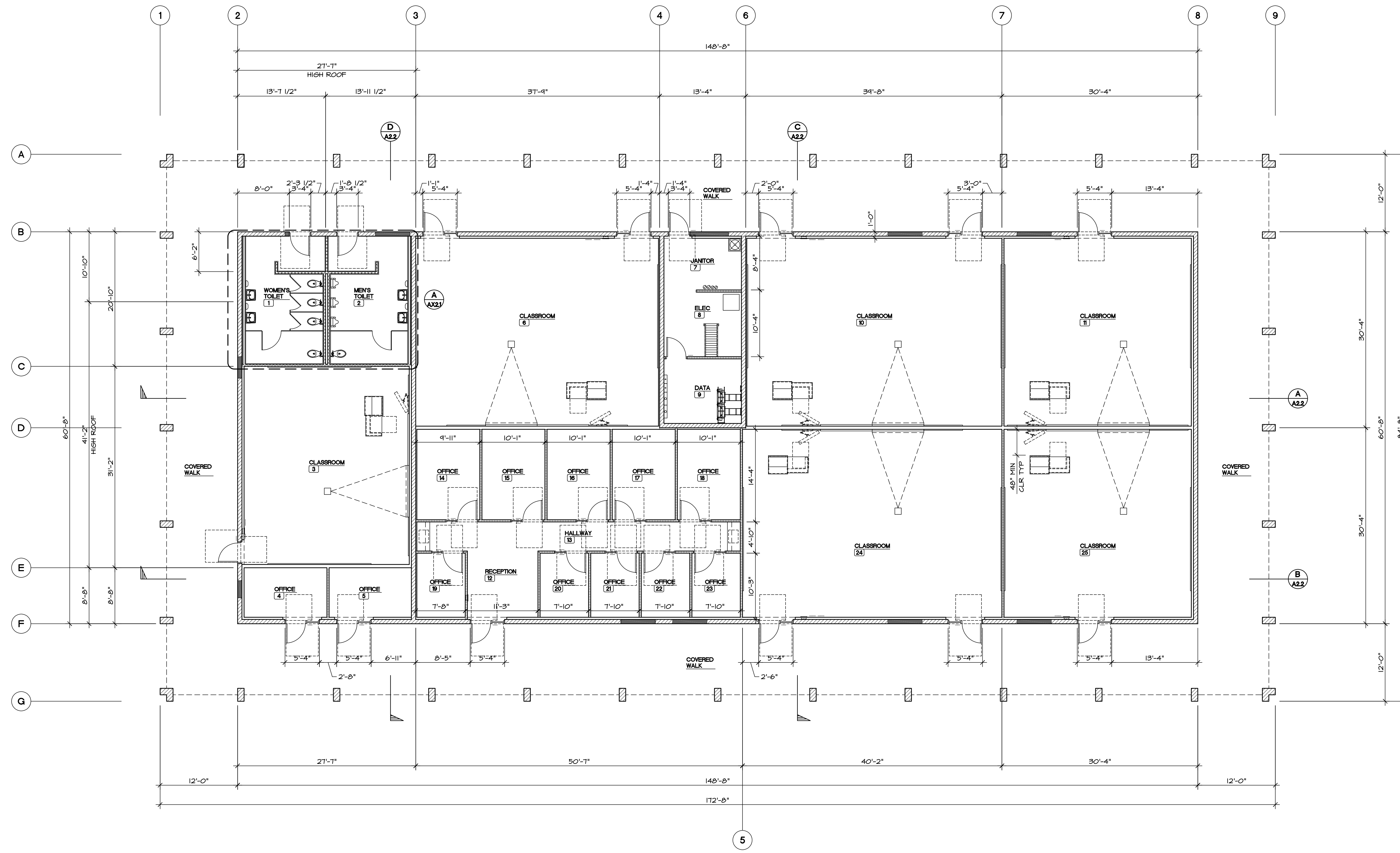
KEY PLAN - BLDG 200

WALL TYPES:

- EXISTING 2-HR 8" CMU WALL
- EXISTING 2x WOOD STUD WALL
- NEW 8" CMU WALL
- NEW 8" CMU OPENING INFILL
- NEW 4" METAL STUD @ 16" O.C.
- NEW 12" HALL W (2) 4" METAL STUD @ 16" O.C.
- NEW 1-HR 6" METAL STUD @ 16" O.C.
- 4" METAL STUD W 6" CONCRETE CURB

LEGEND:

- 30" x 48" CLEAR FLOOR SPACE (2% MAX. SLOPE IN ALL DIRECTIONS)
- 60" DIAMETER CLEAR FLOOR SPACE (2% MAX. SLOPE IN ALL DIRECTIONS)
- 60" x 60" CLEAR FLOOR SPACE AT FULL SIDE OF EXTERIOR DOOR (2% MAX. SLOPE IN ALL DIRECTIONS)
- 60" x 54" CLEAR SPACE AT FULL SIDE OF INTERIOR DOOR (2% MAX. SLOPE IN ALL DIRECTIONS)
- 48" x 48" CLEAR SPACE AT FISH SIDE OF DOOR (2% MAX. SLOPE IN ALL DIRECTIONS)
- STRUCTURAL GRID TAG



DIMENSIONAL FLOOR PLAN

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

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Sheet Title
FLOOR PLAN - DIMENSIONAL

	Document Date	Project Number
	Date Last Revised	Sheet Number
		A2.1.2

Document Date: 10-18-19
 Project Number: 19-121V
 Date Last Revised: [blank]
 Sheet Number: A2.1.2

WALL TYPES:

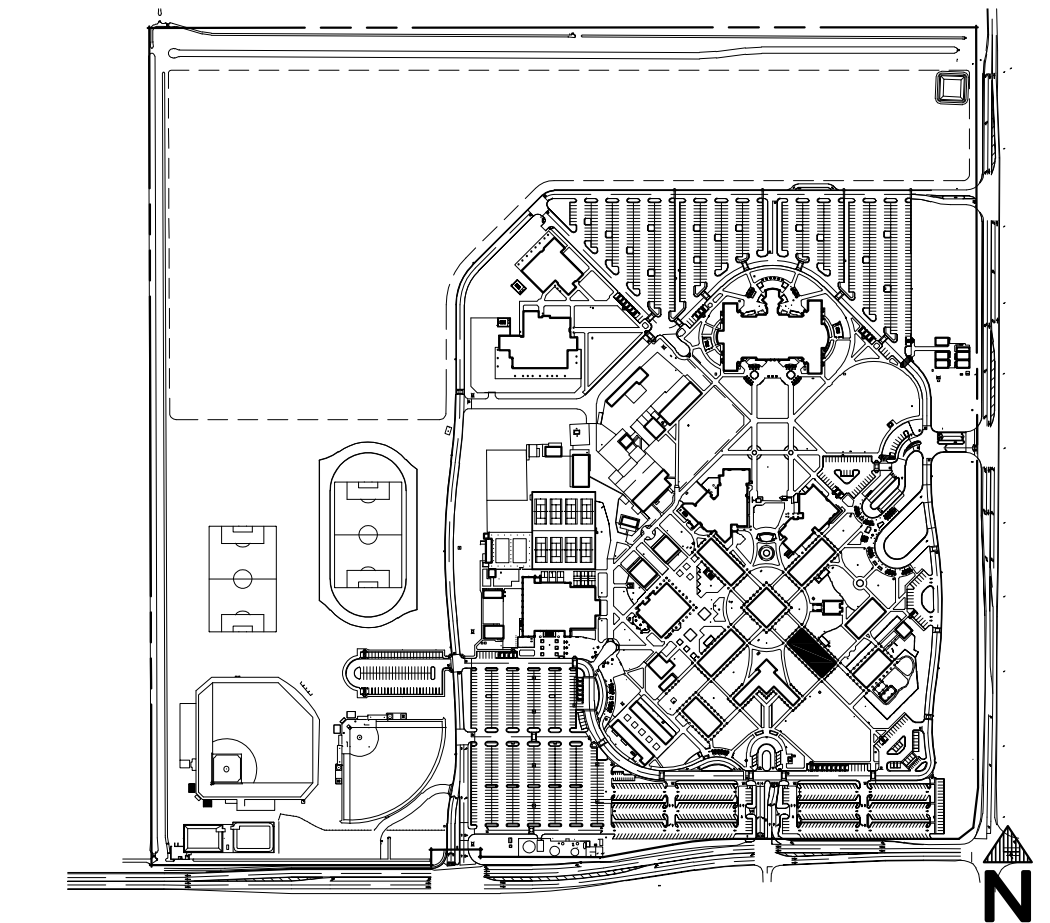
- EXISTING 2-HR 8" CMU WALL
- EXISTING 2x WOOD STUD WALL
- NEW 8" CMU WALL
- NEW 8" CMU OPENING INFILL
- NEW 4" METAL STUD @ 16" O.C.
- NEW 12" WALL W/ (2) 4" METAL STUD @ 16" O.C.
- NEW 1-HR 6" METAL STUD @ 16" O.C.
- 4" METAL STUD W/ 6" CONCRETE CURB

FURRING TYPES:

- 6" METAL STUD @ 16" O.C.
- 4" METAL STUD @ 16" O.C.
- 4" METAL STUD @ 16" O.C. W/ 2" GAP TO WALL AND 6" CONCRETE CURB
- 2" METAL STUD @ 16" O.C.

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KEY PLAN - BLDG 200

KEYNOTES:

- ① LINE OF EXISTING COVERED WALK
- ② EXISTING CMU COLUMN
- ③ HPL CASE WORK - SEE INTERIOR ELEVATIONS
- ④ ACCESSIBLE WORKSTATION - SEE INTERIOR ELEVATIONS
- ⑤ HPL LECTERN
- ⑥ MARKER BOARD / TACK BOARD - SEE INTERIOR ELEVATIONS
- ⑦ PLUMBING FIXTURE - SEE PLUMBING DRAWINGS
- ⑧ RECESSED FIRE EXTINGUISHER CABINET W/ TEMPERED GLASS - 45° TO EXTINGUISHER HANDLE. CABINET HANDLE SHALL BE OPERABLE W/ ONE HAND AND SHALL NOT REQUIRE GRASPING, PINCHING, OR TWISTING OF THE WRIST AND HAVE A MAX. OPERATING FORCE OF 5 LBS.
- ⑨ SOFFIT OR CHANGE IN CEILING HEIGHT
- ⑩ FIRE ALARM CONTROL PANEL - SEE FIRE ALARM DRAWINGS
- ⑪ RETRACTABLE RECESSED CEILING MOUNTED PROJECTOR SCREEN
- ⑫ VIDEO PROJECTOR - SEE COMMUNICATION DRAWINGS
- ⑬ FLAT PANEL MONITOR - MOUNT TO WALL W/ (2) #2 SWS, PROVIDE BACKING PER
- ⑭ ELECTRICAL EQUIPMENT - SEE ELECTRICAL DRAWINGS
- ⑮ COMMUNICATIONS EQUIPMENT - SEE COMMUNICATIONS DRAWINGS
- ⑯ ROOF ACCESS SHIP'S LADDER AND HATCH

LEGEND:

- DOOR NUMBER - SEE DOOR SCHEDULE
- ① WINDOW NUMBER - SEE WINDOW SCHEDULE
- P.H. PANIC HARDWARE
- 11 STRUCTURAL GRID TAG

NOTES:

1. FOR ALL RATED WALL ASSEMBLY DESIGNS SEE
2. 5% MIN. OF EACH TYPE OF FURNITURE ITEMS TO MEET ACCESSIBILITY REQUIREMENTS PER 2016 CBC.
3. ALL FURRINGS ON EXTERIOR WALLS TO HAVE BATT INSULATION (R-11 @ 6", R-11 @ 4")
4. ALL FRAMED INTERIOR WALLS TO HAVE SOUND ATTENUATION BATT INSULATION.
5. FLAME SPREAD RATINGS NOT FOR WALL INSULATION NOT TO EXCEED 25 AND SMOKE DEVELOPED INDEX NOT TO EXCEED 450 WHEN TESTED IN ACCORDANCE WITH ASTM E 84.

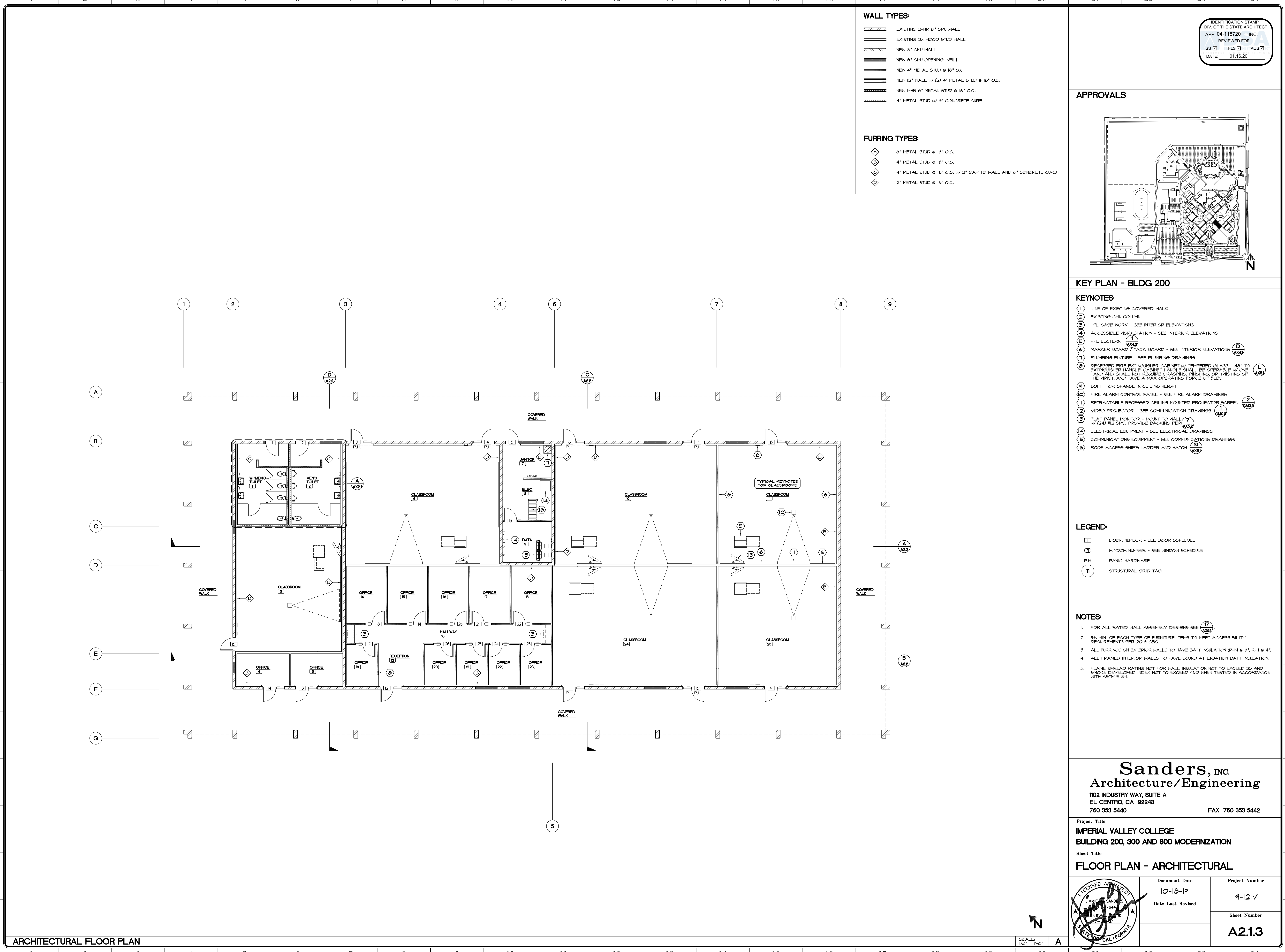
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Project Title
**IMPERIAL VALLEY COLLEGE
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Sheet Title
FLOOR PLAN - ARCHITECTURAL

	Document Date	Project Number
	10-18-19	19-121V
	Date Last Revised	Sheet Number
		A2.13

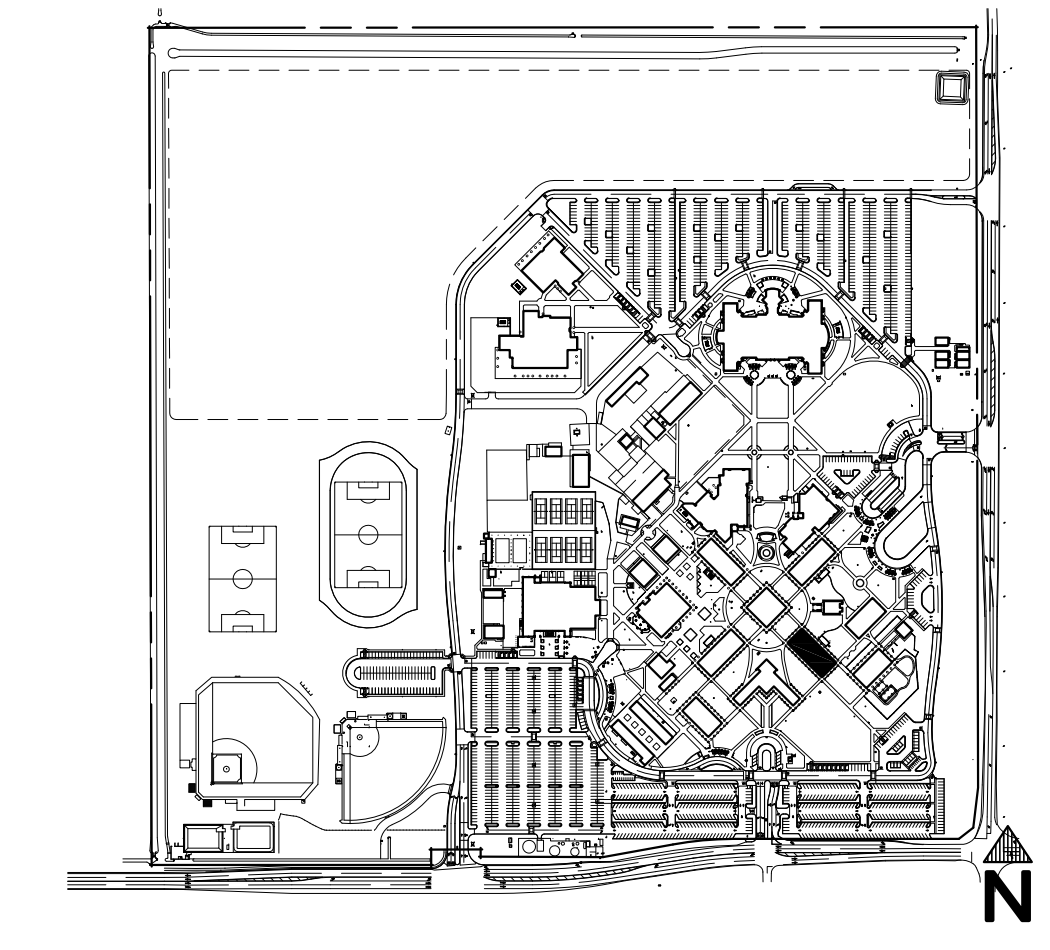
SCALE: 1/8" = 1'-0" A



ARCHITECTURAL FLOOR PLAN

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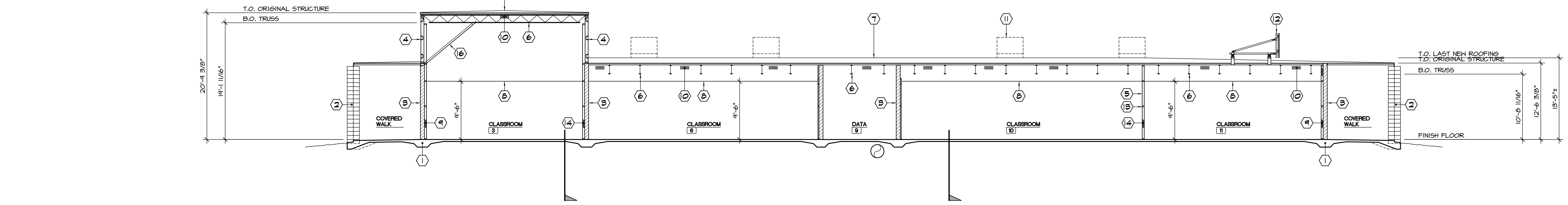
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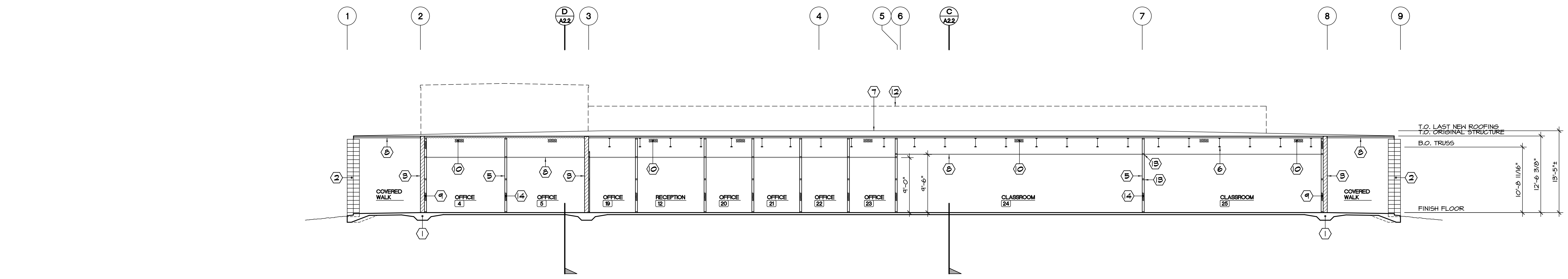
KEY PLAN - BLDG 200

KEYNOTES:

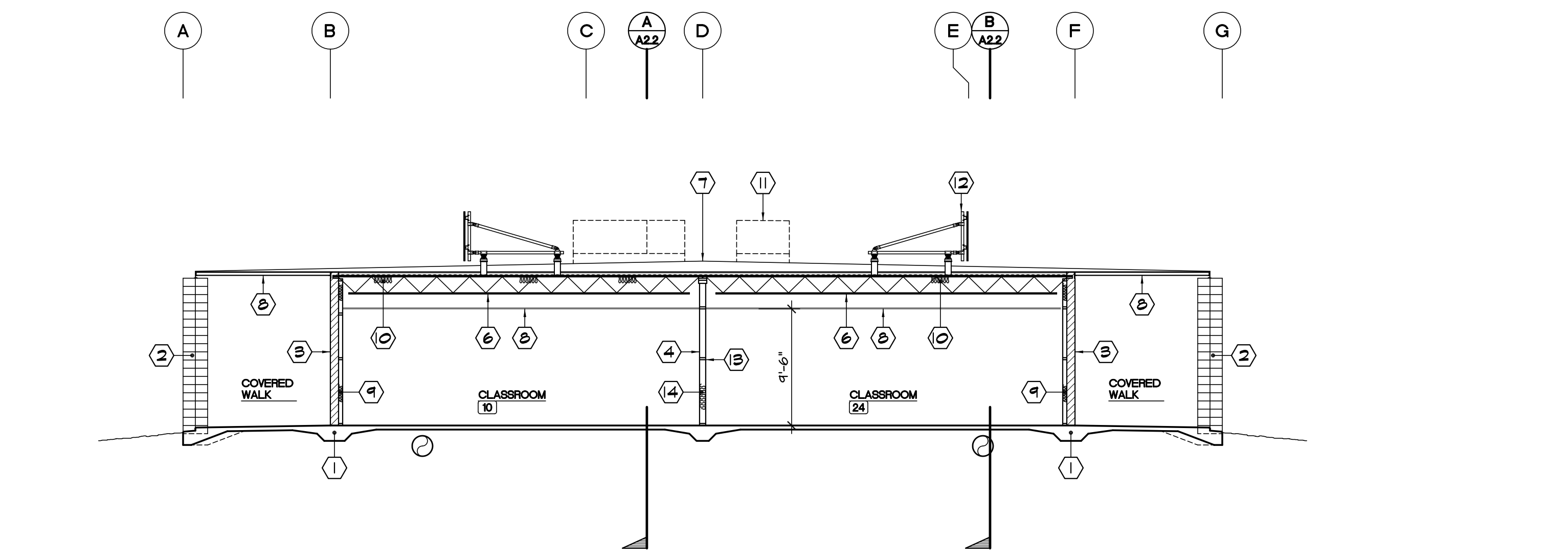
- ① EXISTING CONCRETE FOUNDATION
- ② EXISTING CMU COLUMN
- ③ EXISTING CMU WALL
- ④ EXISTING STUD WALL
- ⑤ NEW STUD WALL PER PLAN
- ⑥ EXISTING ROOF TRUSS
- ⑦ EXISTING SINGLE PLY PVC ROOFING
- ⑧ CEILING LINE - SEE REFLECTED CEILING PLAN
- ⑨ R-19 BATT INSULATION - TYP. ALL NEW EXTERIOR HALL FURRINGS
- ⑩ 4" MIN. CLOSED-CELL SPRAY FOAM INSULATION w/ INTUMESCENT FIRE RETARDANT COATING AT BOTTOM OF ROOF DECK (BSR 286-9)
- ⑪ MECHANICAL EQUIPMENT - SEE MECHANICAL DRAWINGS
- ⑫ MECHANICAL EQUIPMENT SCREEN (A)
- ⑬ FIRE BLOCKING PER C.B.C. 708.2
- ⑭ SOUND ATTENUATING BATT INSULATION - TYP. ALL INTERIOR WALLS
- ⑮ NEW CMU WALL INFILL
- ⑯ EXISTING FRAMING - PROTECT - SEE STRUCTURAL



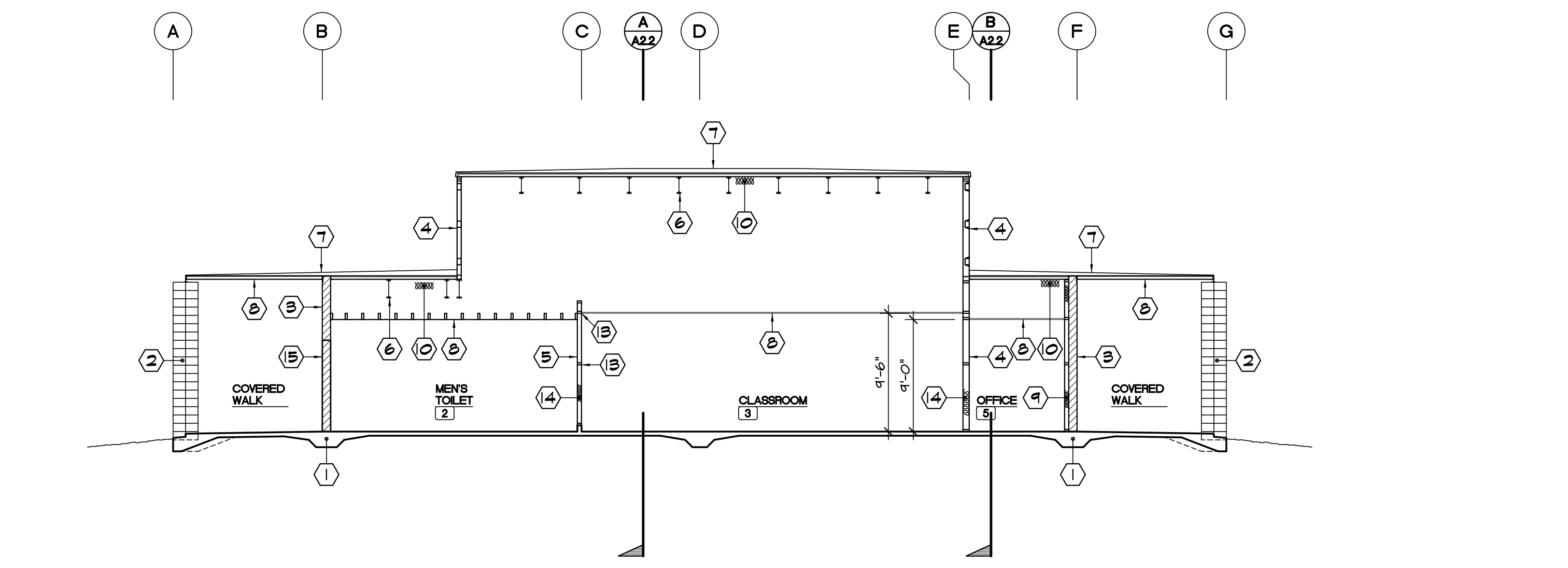
SECTION A SCALE: 1/8" = 1'-0"



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



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



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

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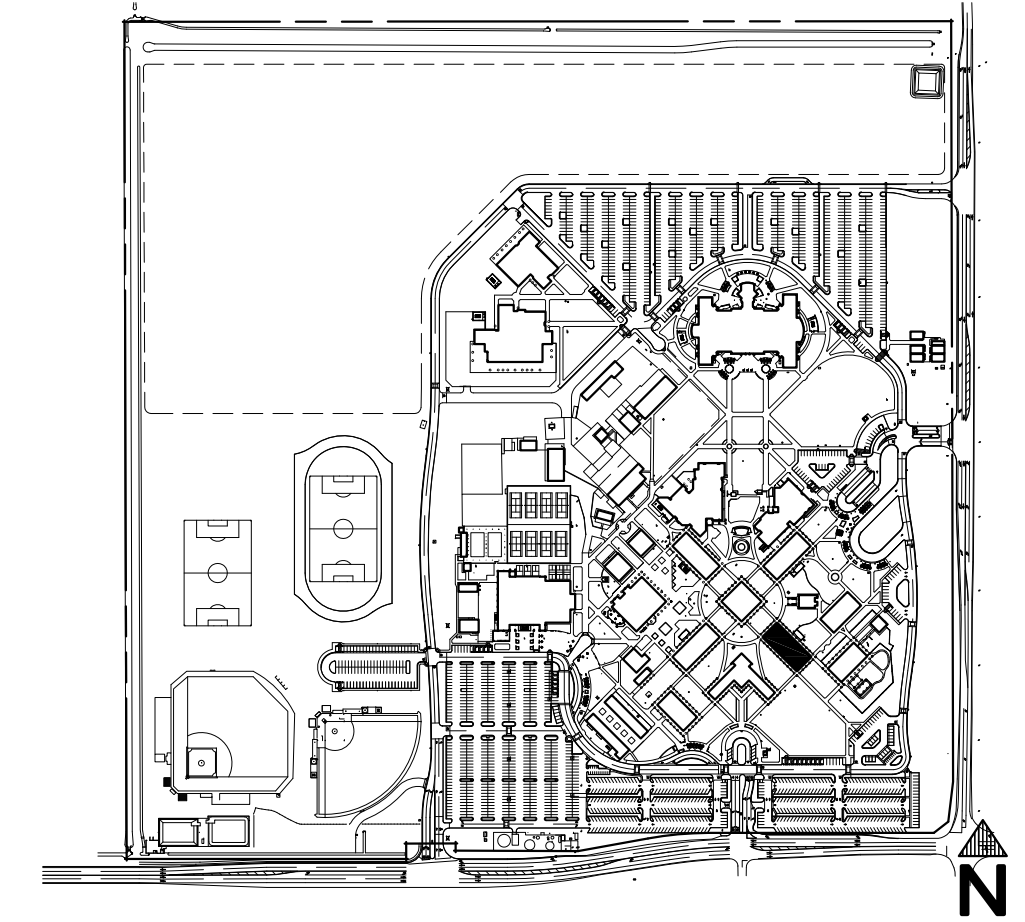
Project Title
**IMPERIAL VALLEY COLLEGE
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Sheet Title
ARCHITECTURAL SECTIONS

	Document Date	Project Number
	10-18-19	19-121V
Date Last Revised		Sheet Number
		A2.2

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KEY PLAN - BLDG 200

KEYNOTES:

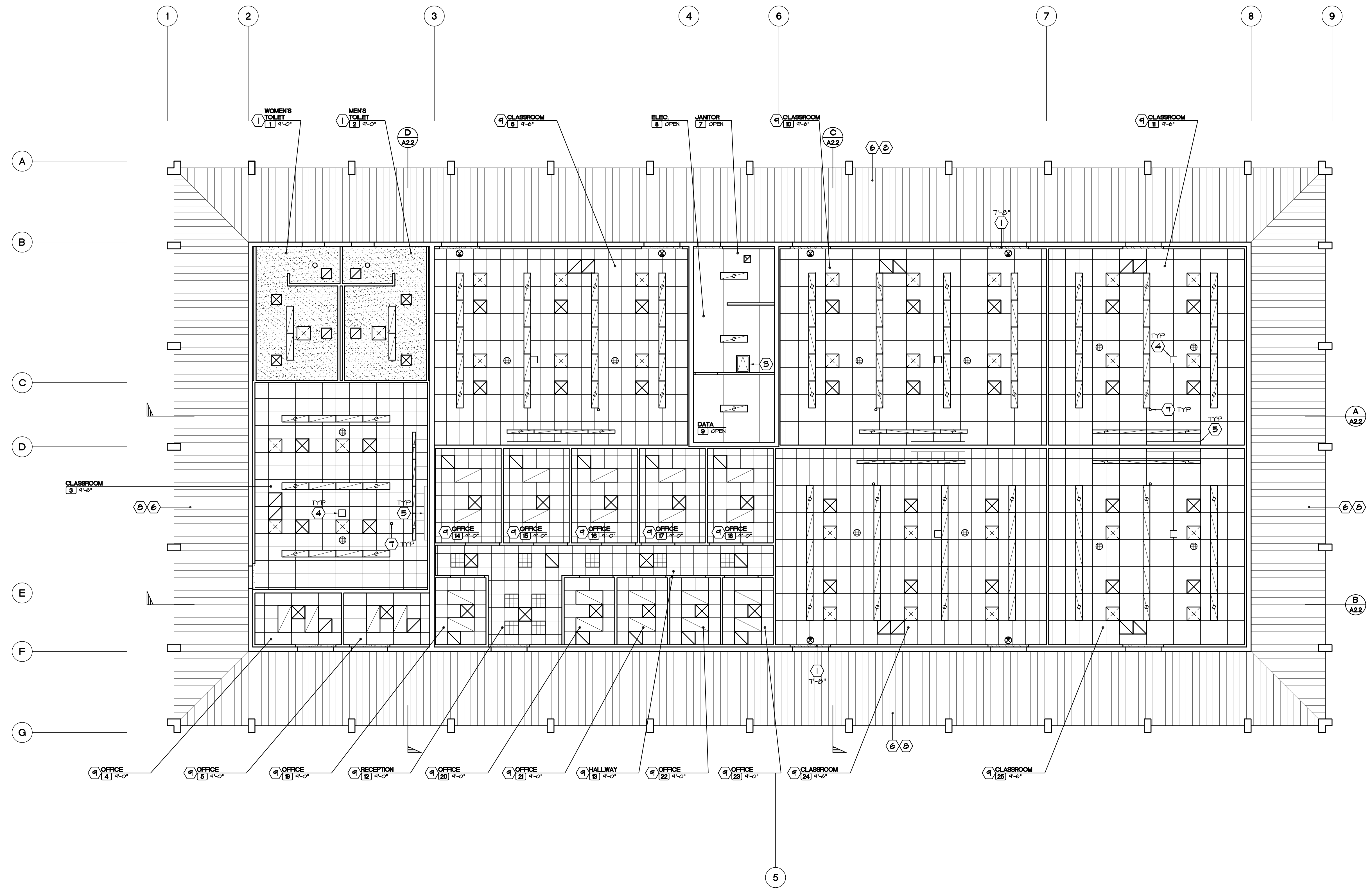
- ① GYPSUM BOARD - PAINT PRIME COLOR, TEXTURE TO MATCH WALLS
- ② GYPSUM BOARD - PAINT ACCENT COLOR, TEXTURE TO MATCH WALLS
- ③ ROOF ACCESS HATCH (10' X 5')
- ④ VIDEO PROJECTOR CEILING MOUNT - SEE COMMUNICATIONS DRAWINGS
- ⑤ RECESSED PROJECTOR SCREEN - SEE COMMUNICATIONS DRAWINGS
- ⑥ EXISTING EXPOSED METAL DECK - PRESSURE WASH CLEAN, ABRASIVE BLAST ALL RUST, PRIME AND PAINT
- ⑦ CEILING MOUNTED DOCUMENT CAMERA - SEE SPECIFICATIONS - BOTTOM OF CAMERA TO BE 80" MIN OFF
- ⑧ TRIM EXISTING EXPOSED SCREENS (MIN. 3 EXPOSED THREADS) AND PROVIDE METAL FISH CAP
- ⑨ 24"x24" LAY-IN ACOUSTICAL CEILING TILE
- ⑩ 24 x 30 CEILING ACCESS PANEL

LEGEND:

- LED LIGHT FIXTURE - SEE ELECTRICAL DRAWINGS
- LED LIGHT FIXTURE - SEE ELECTRICAL DRAWINGS
- PENDANT LED LIGHT FIXTURE - SEE ELECTRICAL DRAWINGS
- LIGHT FIXTURE - SEE ELECTRICAL DRAWINGS
- PENDANT LIGHT FIXTURE - SEE ELECTRICAL DRAWINGS
- RECESSED LIGHT FIXTURE - SEE ELECTRICAL DRAWINGS
- RECESSED LIGHT FIXTURE - SEE ELECTRICAL DRAWINGS
- SURFACE MOUNT LIGHT FIXTURE - SEE ELECTRICAL DRAWINGS
- WALL MOUNT LIGHT FIXTURE - SEE ELECTRICAL DRAWINGS
- TUBULAR SKYLIGHT DIFFUSER - SEE SPECIFICATIONS
- TUBULAR SKYLIGHT DIFFUSER - SEE SPECIFICATIONS
- CEILING DIFFUSER - SUPPLY AIR - SEE MECHANICAL DRAWINGS
- RETURN AIR REGISTER - SEE MECHANICAL DRAWINGS
- EXHAUST REGISTER - SEE MECHANICAL DRAWINGS
- RECESSED CEILING MOUNTED SPEAKER - SEE COMMUNICATION DRAWINGS
- WALL MOUNTED ILLUMINATED EXIT SIGN - SEE ELECTRICAL DRAWINGS
- CEILING MOUNTED ILLUMINATED EXIT SIGN - SEE ELECTRICAL DRAWINGS

NOTES:

1. SEE SHEET AXS.I FOR NOTES AND DETAILS.
2. SEE ELECTRICAL AND MECHANICAL DRAWINGS FOR FIXTURES AND EQUIPMENT.
3. SEE (12) FOR PENDANT LIGHT FIXTURE.



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Project Title
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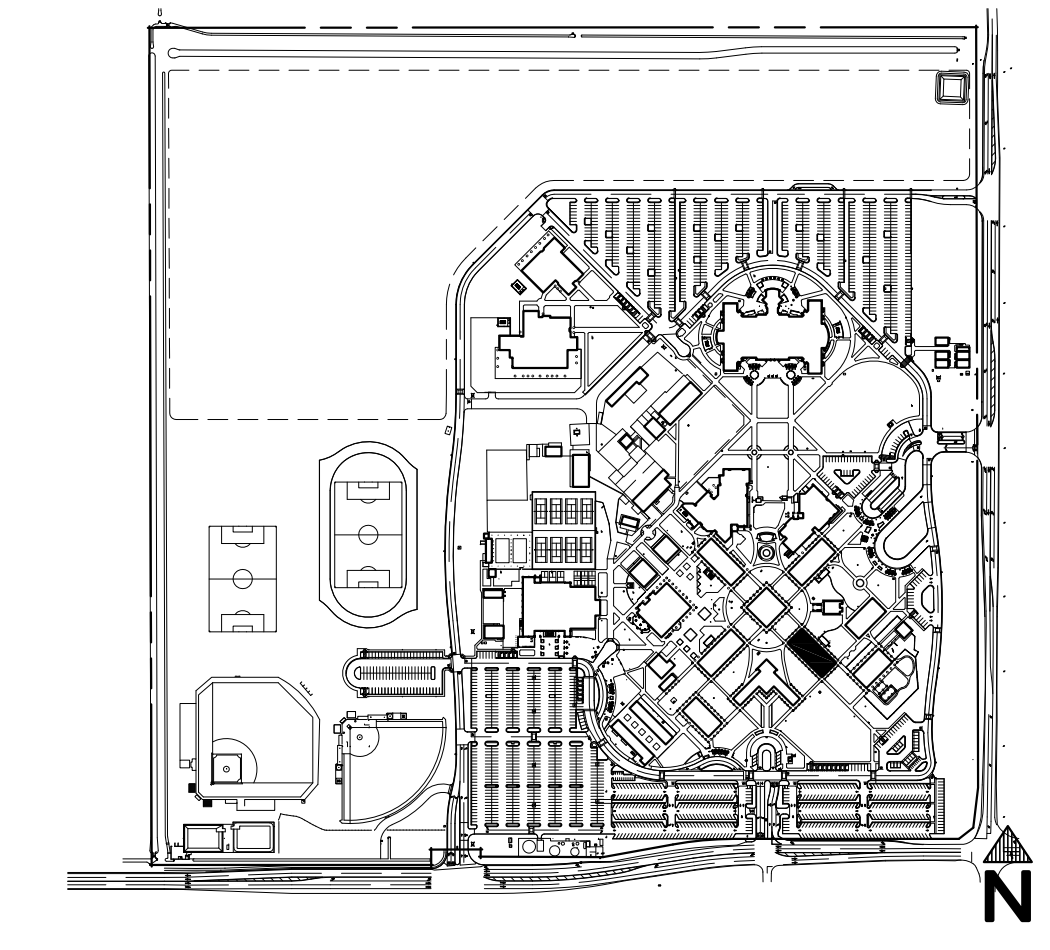
Sheet Title
REFLECTED CEILING PLAN

	Document Date	Project Number
	10-18-19	19-121V
	Date Last Revised	Sheet Number
		A2.3

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

FLOOR PLAN

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KEY PLAN - BLDG 200

KEYNOTES:

- (1) GYPSUM BOARD - TEXTURE, PAINT
- (2) CERAMIC TILE (B)
- (3) SMOOTH FACE CONCRETE MASONRY - CLEAN, SANDBLAST OLD PAINT
- (4) TACK BOARD - SIZE NOTED (D)
- (5) MARKER BOARD w/ TRAY - SIZE NOTED (D)
- (6) 6" RUBBER BASE TYPICAL, 4" @ CABINET TOE KICK
- (7) 6" CARPET BASE TYPICAL, 4" @ CABINET TOE KICK
- (8) NOT USED
- (9) DOOR / WINDOW PER PLAN
- (10) ILLUMINATED EXIT SIGN - SEE ELECTRICAL DRAWINGS
- (11) SIGNAGE - PER SIGNAGE PLAN
- (12) RECESSED FIRE EXTINGUISHER CABINET w/ TEMPERED GLASS - 48" TO EXTINGUISHER HANDLE w/ 4" MAX PROJECTION TO CABINET HANDLE
- (13) HPL MODULAR CASEWORK - SEE DETAILS (G) (H) (I) (J)
- (14) HPL TOP AND 6" SPLASH, SPLASH @ END OF COUNTER
- (15) HPL MODULAR CASEWORK w/ ADJUSTABLE OPEN SHELVES
- (16) HPL ADJUSTABLE SHELVES
- (17) ACCESSIBLE WORK STATION (D)
- (18) ACCESSIBLE WATER CLOSET - SEE PLUMBING DRAWINGS
- (19) ACCESSIBLE URINAL (B) - SEE PLUMBING DRAWINGS
- (20) ACCESSIBLE LAVATORY (B) - SEE PLUMBING DRAWINGS
- (21) MOP SERVICE BASIN w/ STAINLESS STEEL WALL GUARD - SEE PLUMBING DRAWINGS
- (22) BROOM / MOP RACK - VERIFY MOUNTING HEIGHT - SEE SPECIFICATIONS
- (23) GRAB BARS - FOR ANCHORAGE SEE (B) (E)
- (24) MIRROR w/ STAINLESS STEEL FRAME (B) (AX3)
- (25) SOAP DISPENSER (B) (AX3)
- (26) TYP HEAVY DUTY TOILET PARTITION, HEAD RAIL BRACES - FOR ANCHORAGE SEE (21) (AX3)
- (27) HAND DRYER (MAX 4" PROJECTION) (B) (AX3)
- (28) RECESSED TOILET PAPER HOLDER (B) (AX3) (K)
- (29) RECESSED FEMINE NAPKIN DISPOSAL (B) (AX3) (AX3)
- (30) RECESSED TOILET SEAT COVER DISPENSER (B) (AX3)
- (31) WATER HEATER - SEE PLUMBING DRAWINGS
- (32) WATER HEATER SHELF (N)
- (33) PENDANT LIGHT FIXTURE - SEE ELECTRICAL DRAWINGS
- (34) 12" WALL CLOCK - SEE SPECIFICATIONS
- (35) FLAT PANEL MONITOR - SEE SPECIFICATIONS (4) (AX3)
- (36) 4' x 8' x 3/4" PLYWOOD, PAINT
- (37) ELECTRICAL EQUIPMENT - SEE ELECTRICAL DRAWINGS
- (38) COMMUNICATIONS EQUIPMENT - SEE COMMUNICATIONS DRAWINGS
- (39) ALUMINUM ROOF ACCESS SHIP'S LADDER - SEE SPECIFICATIONS (10) (AX3)
- (40) NOT USED
- (41) FURNITURE ITEM - SEE SPECIFICATIONS
- (42) MECHANICAL PIPING - SEE MECHANICAL DRAWINGS
- (43) 1-1/2" STAINLESS STEEL HANDRAIL (E) (AX3)

NOTES:

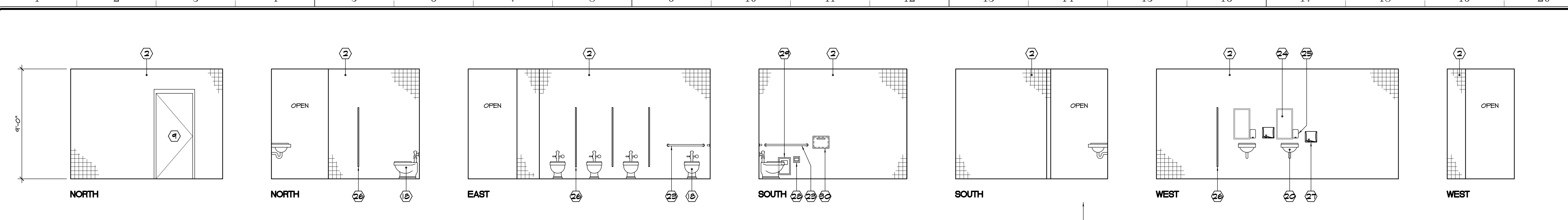
1. FOR FIXTURE MOUNTING HEIGHTS SEE (B) (AX3)
2. FOR TOILET ROOM ACCESSORIES SEE SPECIFICATIONS.

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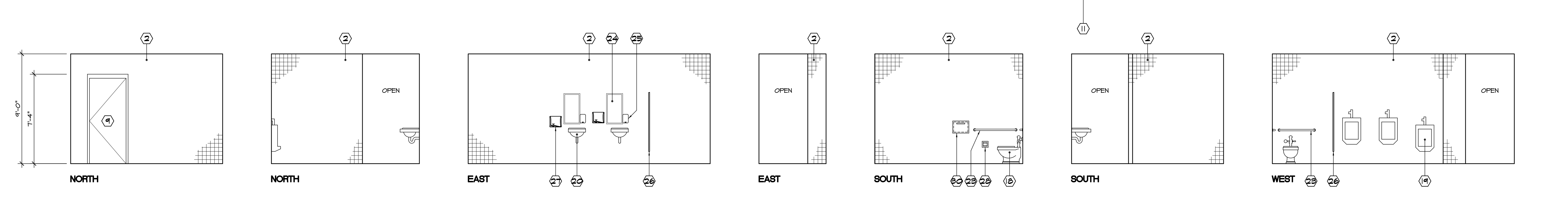
Project Title
**IMPERIAL VALLEY COLLEGE
 BUILDING 200, 300 AND 800 MODERNIZATION**

Sheet Title
INTERIOR ELEVATIONS

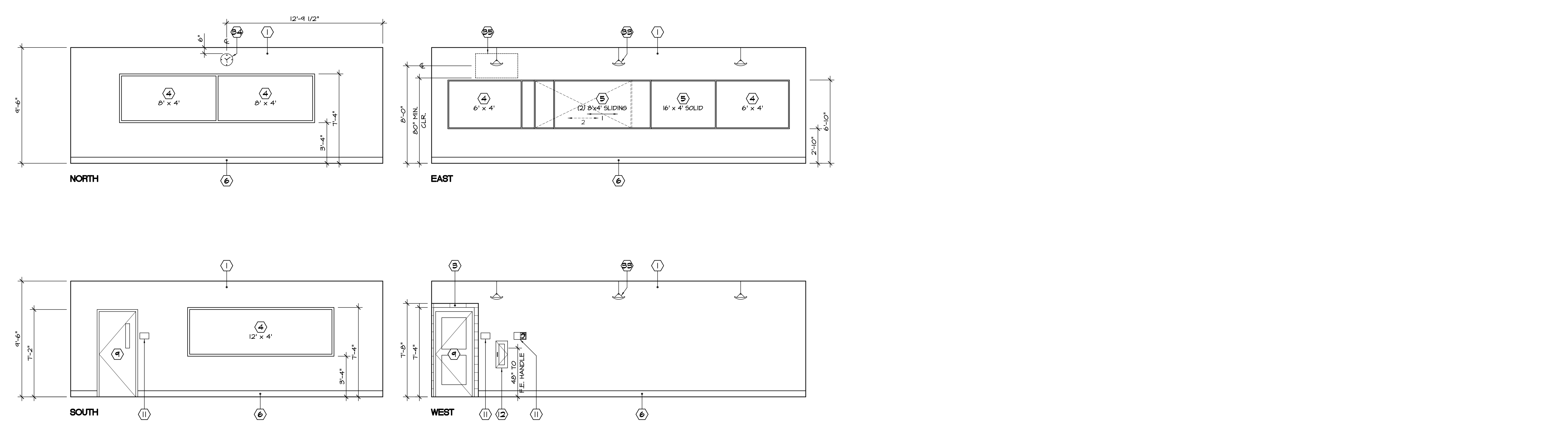
	Document Date	Project Number
	10-18-19	19-121V
	Date Last Revised	Sheet Number
		A2.4.1



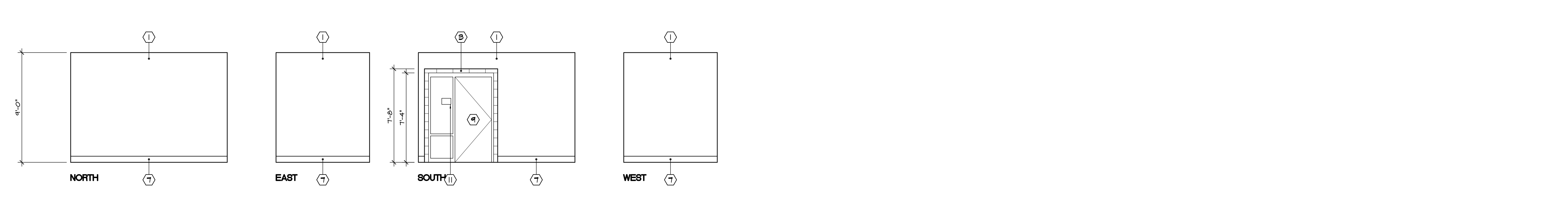
WOMEN'S TOILET 1 SCALE: 1/4" = 1'-0" A



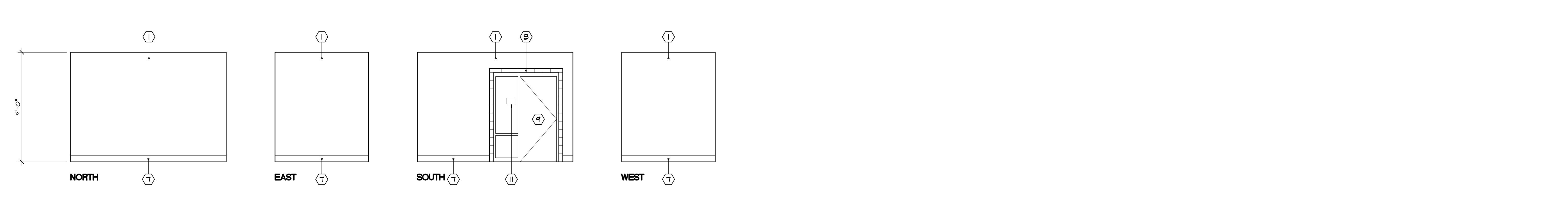
MEN'S TOILET 2 SCALE: 1/4" = 1'-0" B



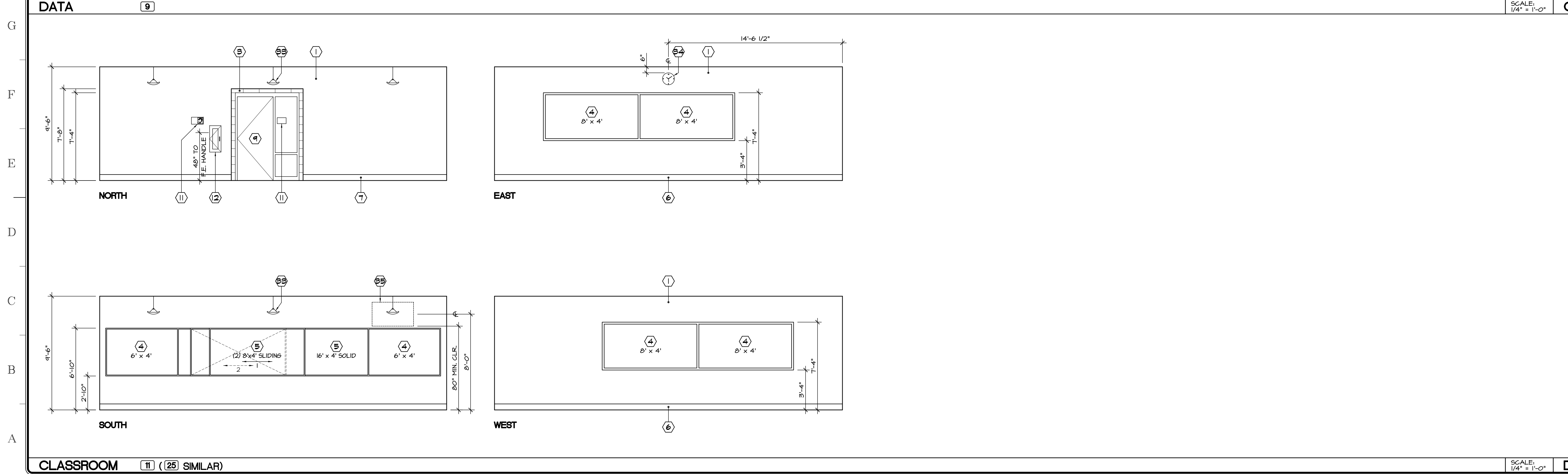
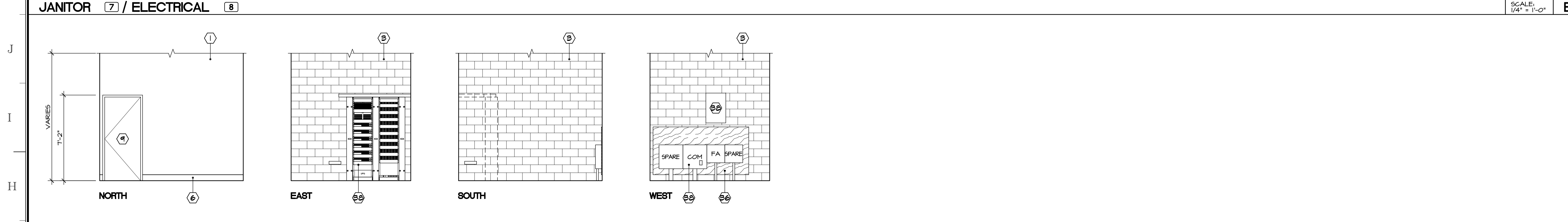
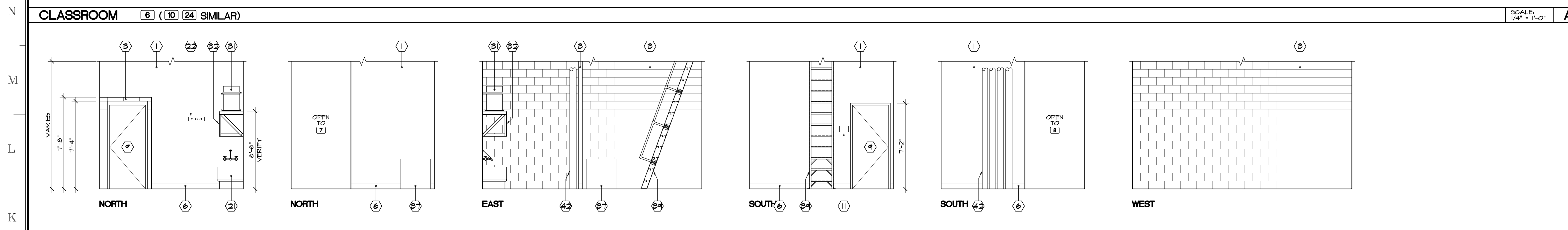
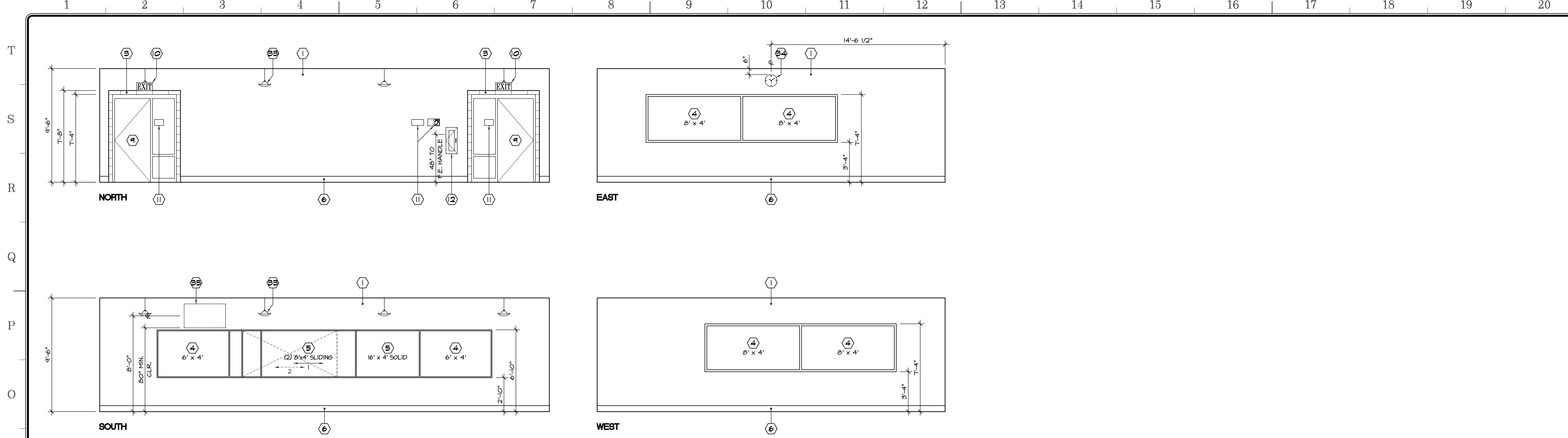
CLASSROOM 3 SCALE: 1/4" = 1'-0" C



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

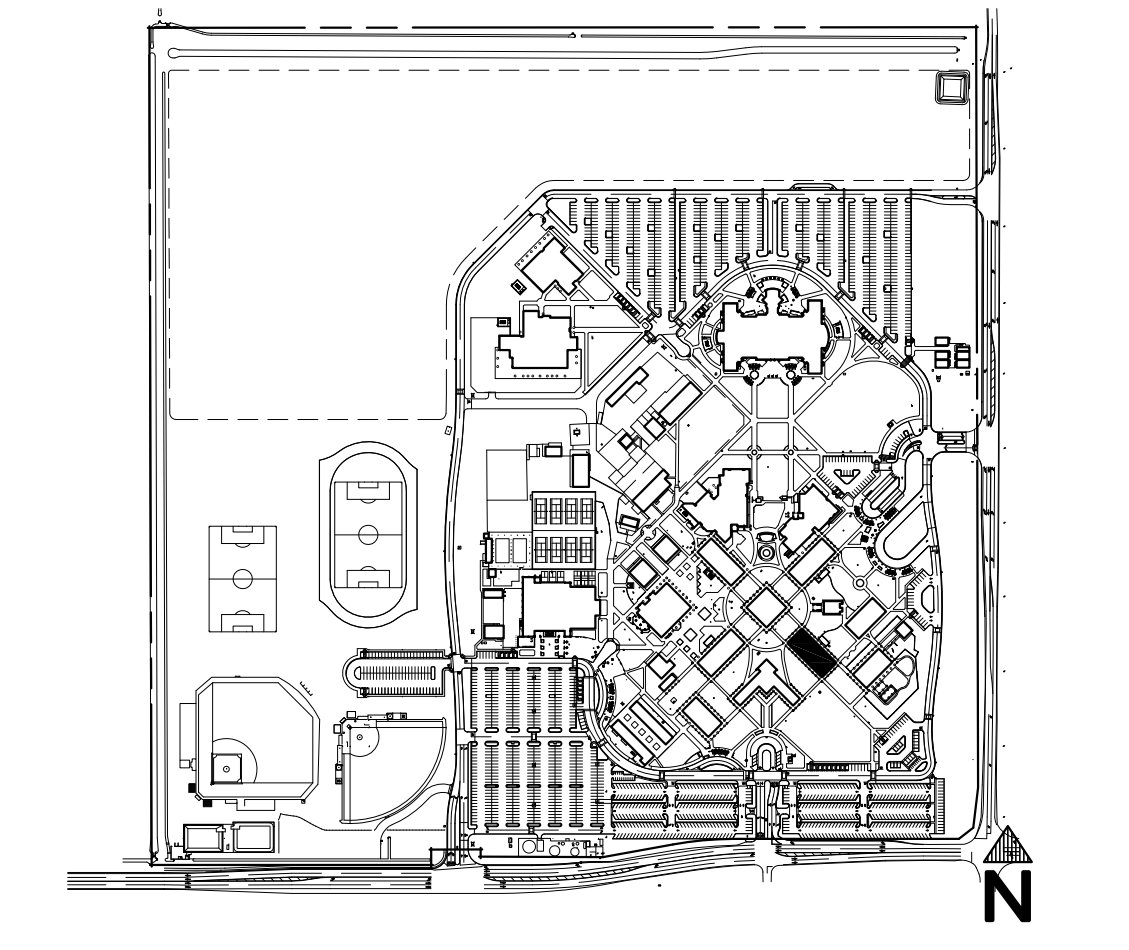


OFFICE 5 SCALE: 1/4" = 1'-0" E



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KEY PLAN - BLDG 200

KEYNOTES:

- ① 6" GYPSUM BOARD - TEXTURE, PAINT
- ② CERAMIC TILE (B) (AX31)
- ③ SMOOTH FACE CONCRETE MASONRY - CLEAN, SANDBLAST OLD PAINT
- ④ TACK BOARD - SIZE NOTED (D) (AX41)
- ⑤ MARKER BOARD w/ TRAY - SIZE NOTED (D) (AX41)
- ⑥ 6" RUBBER BASE TYPICAL, 4" @ CABINET TOE KICK
- ⑦ 6" CARPET BASE TYPICAL, 4" @ CABINET TOE KICK
- ⑧ NOT USED
- ⑨ DOOR / WINDOW PER PLAN
- ⑩ ILLUMINATED EXIT SIGN - SEE ELECTRICAL DRAWINGS
- ⑪ SIGNAGE - PER SIGNAGE PLAN
- ⑫ RECESSED FIRE EXTINGUISHER CABINET w/ TEMPERED GLASS - 48" TO EXTINGUISHER HANDLE w/ 4" MAX PROJECTION TO CABINET HANDLE
- ⑬ HPL MODULAR CASEWORK - SEE DETAILS (G) (H) (AX41)
- ⑭ HPL TOP AND 6" SPLASH, SPLASH @ END OF COUNTER
- ⑮ HPL MODULAR CASEWORK w/ ADJUSTABLE OPEN SHELVES
- ⑯ HPL ADJUSTABLE SHELVES
- ⑰ ACCESSIBLE WORK STATION (D) (AX31)
- ⑱ ACCESSIBLE WATER CLOSET - SEE PLUMBING DRAWINGS
- ⑲ ACCESSIBLE URINAL (B) (AX31) - SEE PLUMBING DRAWINGS
- ⑳ ACCESSIBLE LAVATORY (B) (AX31) - SEE PLUMBING DRAWINGS
- ㉑ MOP SERVICE BASIN w/ STAINLESS STEEL WALL GUARD - SEE PLUMBING DRAWINGS
- ㉒ BROOM / MOP RACK - VERIFY MOUNTING HEIGHT - SEE SPECIFICATIONS
- ㉓ GRAB BARS - FOR ANCHORAGE SEE (B) (AX31) (E)
- ㉔ MIRROR w/ STAINLESS STEEL FRAME (B) (AX31) (AX31)
- ㉕ SOAP DISPENSER (B) (AX31)
- ㉖ TYP HEAVY DUTY TOILET PARTITION, HEAD RAIL BRACES - FOR ANCHORAGE SEE (B) (AX31) (21) (AX31)
- ㉗ HAND DRYER (MAX 4" PROJECTION) (B) (AX31)
- ㉘ RECESSED TOILET PAPER HOLDER (B) (AX31) (B) (Y) (K) (AX31)
- ㉙ RECESSED FEMINE NAPKIN DISPOSAL (B) (AX31) (AX31)
- ㉚ RECESSED TOILET SEAT COVER DISPENSER (B) (AX31)
- ㉛ WATER HEATER - SEE PLUMBING DRAWINGS
- ㉜ WATER HEATER SHELF (N) (AX41)
- ㉝ 12" WALL CLOCK - SEE SPECIFICATIONS (12) (AX31)
- ㉞ PENDANT LIGHT FIXTURE - SEE ELECTRICAL DRAWINGS (4) (AX31)
- ㉟ 12" WALL CLOCK - SEE SPECIFICATIONS
- ㊱ FLAT PANEL MONITOR - SEE SPECIFICATIONS (4) (AX31)
- ㊲ 4' x 8' x 3/4" PLYWOOD, PAINT
- ㊳ ELECTRICAL EQUIPMENT - SEE ELECTRICAL DRAWINGS
- ㊴ COMMUNICATIONS EQUIPMENT - SEE COMMUNICATIONS DRAWINGS
- ㊵ ALUMINUM ROOF ACCESS SHIP'S LADDER - SEE SPECIFICATIONS (10) (AX31)
- ㊶ NOT USED
- ㊷ FURNITURE ITEM - SEE SPECIFICATIONS
- ㊸ MECHANICAL PIPING - SEE MECHANICAL DRAWINGS
- ㊹ 1-1/2" STAINLESS STEEL HANDRAIL (E) (AX31)

NOTES:

1. FOR FIXTURE MOUNTING HEIGHTS SEE (B) (AX31)
2. FOR TOILET ROOM ACCESSORIES SEE SPECIFICATIONS.

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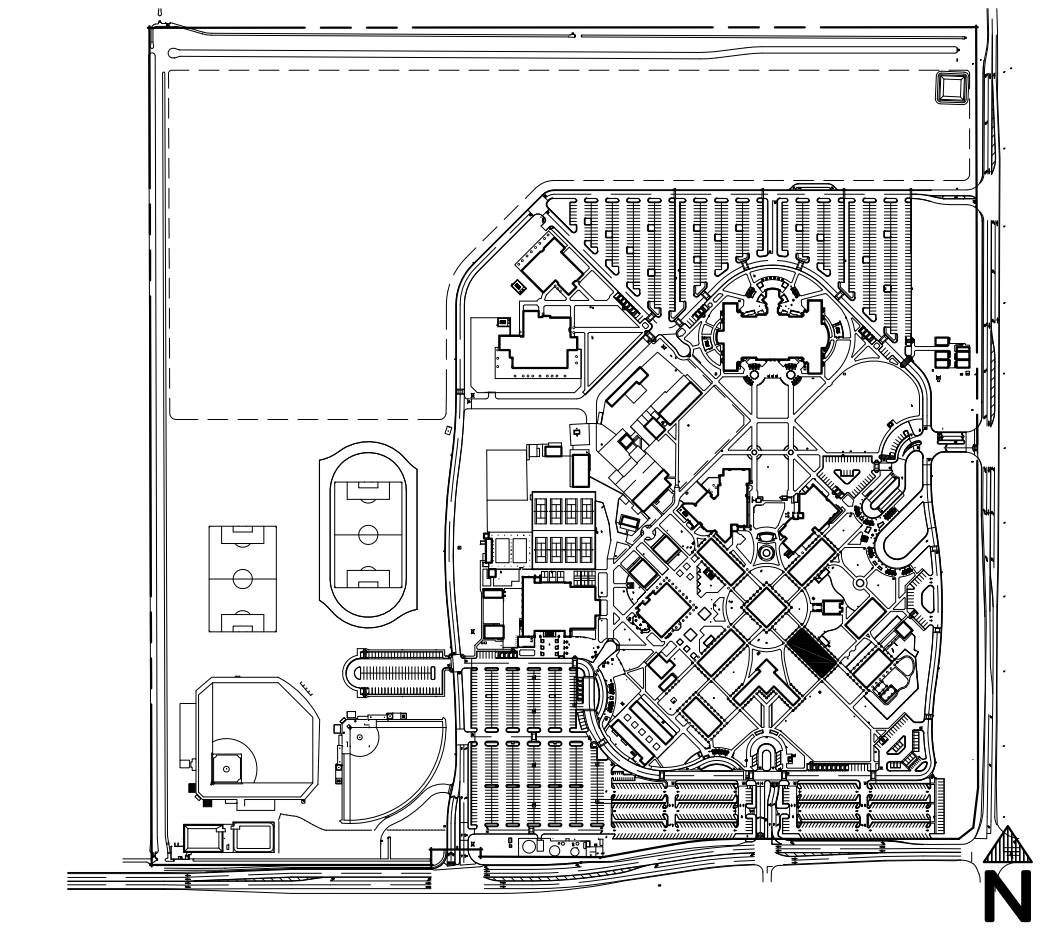
Project Title
**IMPERIAL VALLEY COLLEGE
 BUILDING 200, 300 AND 800 MODERNIZATION**

INTERIOR ELEVATIONS

	Document Date	Project Number
	10-18-19	19-121V
Date Last Revised		Sheet Number
		A2.4.2

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APPROVALS



KEY PLAN - BLDG 200

KEYNOTES:

- ① GYPSUM BOARD - TEXTURE, PAINT
- ② CERAMIC TILE (B)
- ③ SMOOTH FACE CONCRETE MASONRY - CLEAN, SANDBLAST OLD PAINT
- ④ TACK BOARD - SIZE NOTED (D)
- ⑤ MARKER BOARD w/ TRAY - SIZE NOTED (D)
- ⑥ 6" RUBBER BASE TYPICAL, 4" @ CABINET TOE KICK
- ⑦ 6" CARPET BASE TYPICAL, 4" @ CABINET TOE KICK
- ⑧ NOT USED
- ⑨ DOOR / WINDOW PER PLAN
- ⑩ ILLUMINATED EXIT SIGN - SEE ELECTRICAL DRAWINGS
- ⑪ SIGNAGE - PER SIGNAGE PLAN
- ⑫ RECESSED FIRE EXTINGUISHER CABINET w/ TEMPERED GLASS - 48" TO EXTINGUISHER HANDLE w/ 4" MAX PROJECTION TO CABINET HANDLE
- ⑬ HPL MODULAR CASEWORK - SEE DETAILS (G) (H) (I) (J)
- ⑭ HPL TOP AND 6" SPLASH, SPLASH @ END OF COUNTER
- ⑮ HPL MODULAR CASEWORK w/ ADJUSTABLE OPEN SHELVES
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- ⑰ ACCESSIBLE WORK STATION (D) (AX3)
- ⑱ ACCESSIBLE WATER CLOSET - SEE PLUMBING DRAWINGS
- ⑲ ACCESSIBLE URINAL (B) - SEE PLUMBING DRAWINGS
- ⑳ ACCESSIBLE LAVATORY (B) (AX3) - SEE PLUMBING DRAWINGS
- ㉑ MOP SERVICE BASIN w/ STAINLESS STEEL WALL GUARD - SEE PLUMBING DRAWINGS
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- ㉗ HAND DRYER (MAX 4" PROJECTION) (B) (AX3)
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- ㉜ WATER HEATER SHELF (N) (AX3)
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- ㉟ FLAT PANEL MONITOR - SEE SPECIFICATIONS (4) (CM3)
- ㊱ 4' x 8' x 3/4" PLYWOOD, PAINT
- ㊲ ELECTRICAL EQUIPMENT - SEE ELECTRICAL DRAWINGS
- ㊳ COMMUNICATIONS EQUIPMENT - SEE COMMUNICATIONS DRAWINGS
- ㊴ ALUMINUM ROOF ACCESS SHIP'S LADDER - SEE SPECIFICATIONS (10) (AX3)
- ㊵ NOT USED
- ㊶ FURNITURE ITEM - SEE SPECIFICATIONS
- ㊷ MECHANICAL PIPING - SEE MECHANICAL DRAWINGS
- ㊸ 1-1/2" STAINLESS STEEL HANDRAIL (E) (AX3)

NOTES:

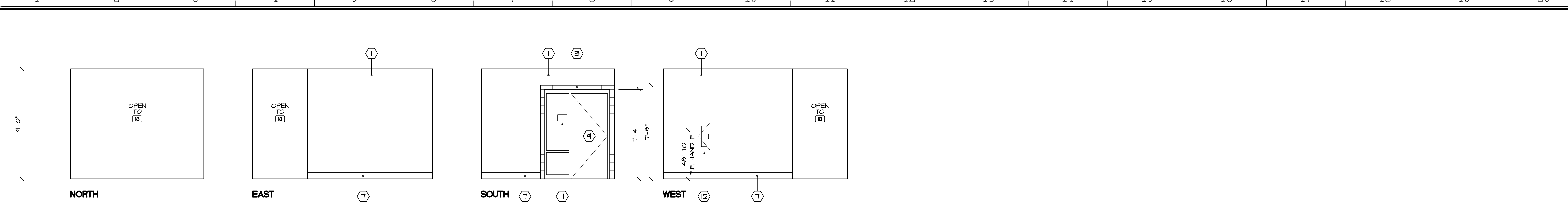
1. FOR FIXTURE MOUNTING HEIGHTS SEE (B) (AX3)
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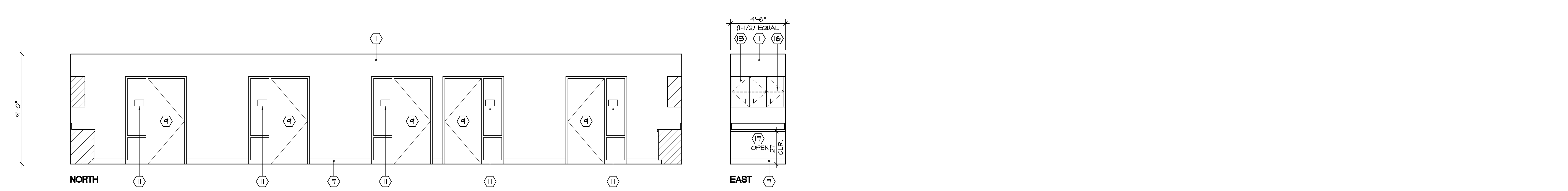
Project Title
**IMPERIAL VALLEY COLLEGE
 BUILDING 200, 300 AND 800 MODERNIZATION**

Sheet Title
INTERIOR ELEVATIONS

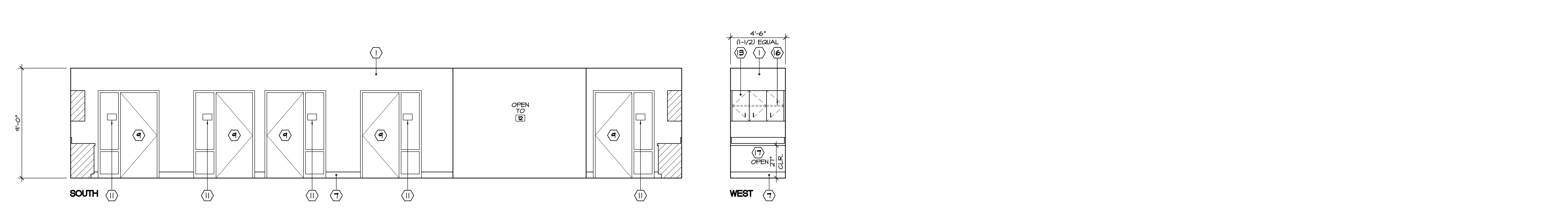
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	10-18-19	19-121V
	Date Last Revised	Sheet Number
		A2.4.3



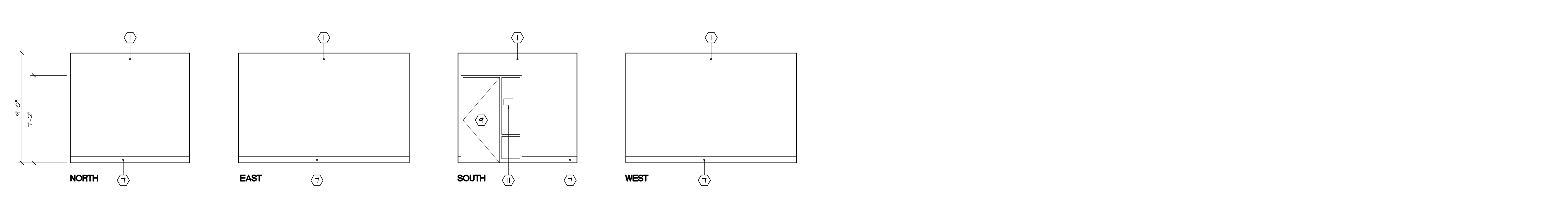
RECEPTION (12) SCALE: 1/4" = 1'-0" A



HALLWAY (18) SCALE: 1/4" = 1'-0" B



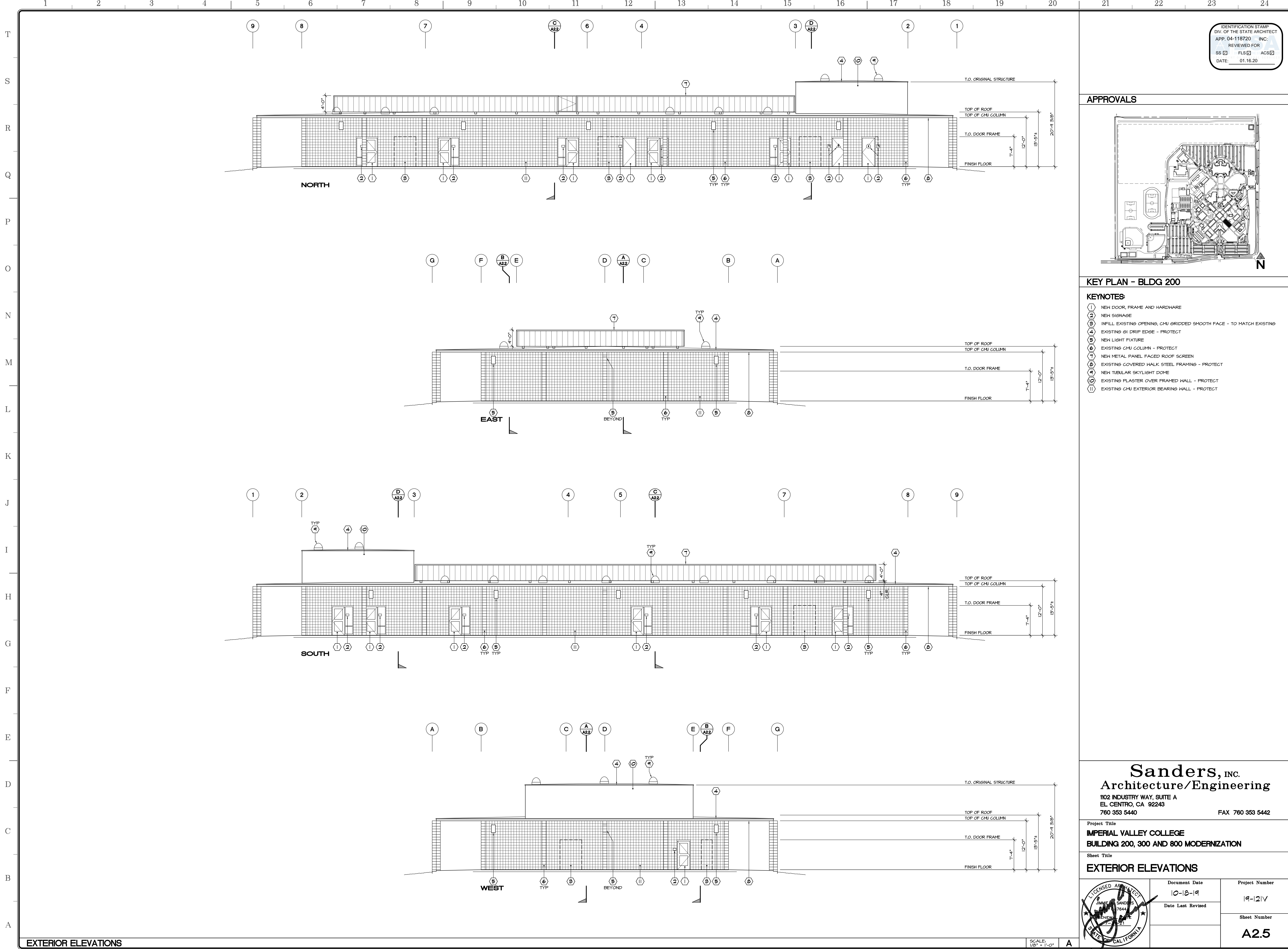
OFFICE (14) (15) (16) (17) (18) SIMILAR SCALE: 1/4" = 1'-0" C



OFFICE (19) (20) (21) (22) (23) SIMILAR SCALE: 1/4" = 1'-0" C

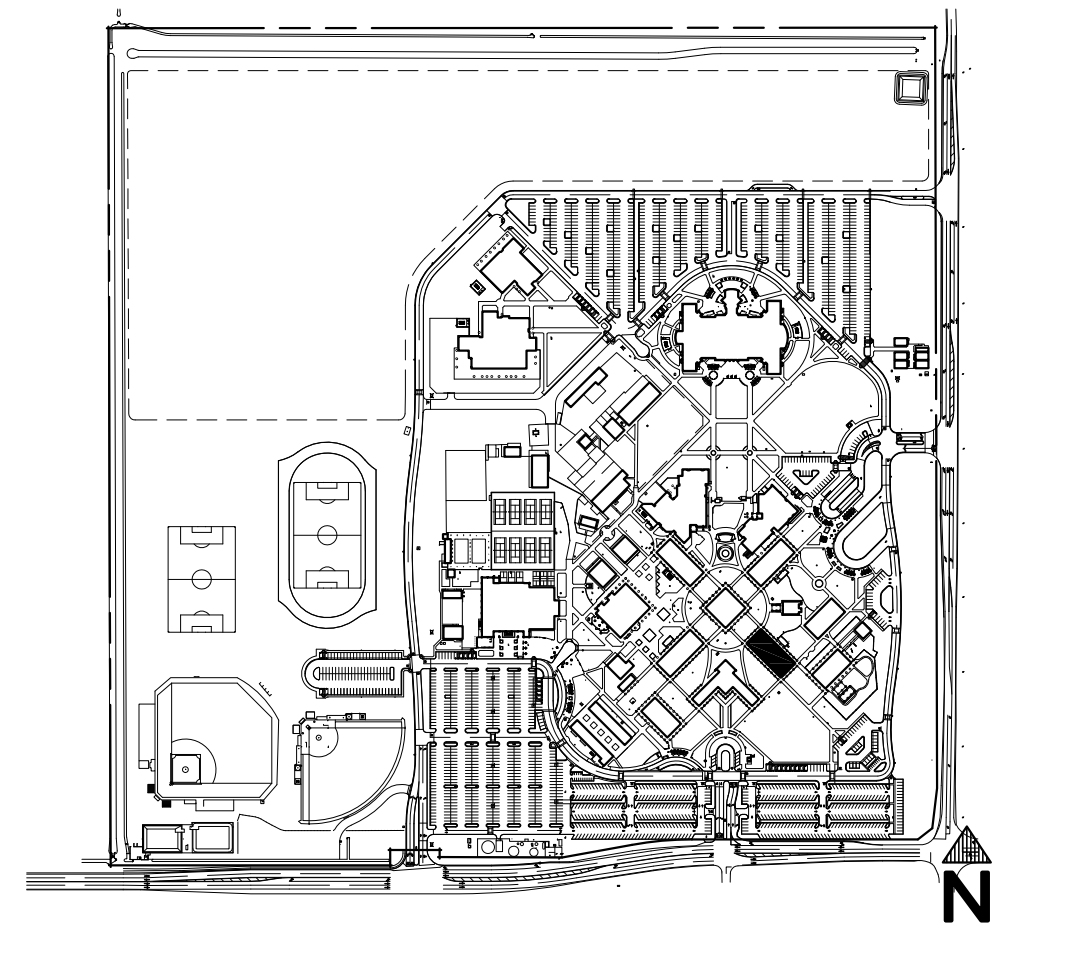


OFFICE (19) (20) (21) (22) (23) SIMILAR SCALE: 1/4" = 1'-0" C



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KEY PLAN - BLDG 200

- KEYNOTES:**
- ① NEW DOOR, FRAME AND HARDWARE
 - ② NEW SIGNAGE
 - ③ INFILL EXISTING OPENING, CMU GRIDDED SMOOTH FACE - TO MATCH EXISTING
 - ④ EXISTING GI DRIP EDGE - PROTECT
 - ⑤ NEW LIGHT FIXTURE
 - ⑥ EXISTING CMU COLUMN - PROTECT
 - ⑦ NEW METAL PANEL FACED ROOF SCREEN
 - ⑧ EXISTING COVERED WALK STEEL FRAMING - PROTECT
 - ⑨ NEW TUBULAR SKYLIGHT DOME
 - ⑩ EXISTING PLASTER OVER FRAMED WALL - PROTECT
 - ⑪ EXISTING CMU EXTERIOR BEARING WALL - PROTECT

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EXTERIOR ELEVATIONS

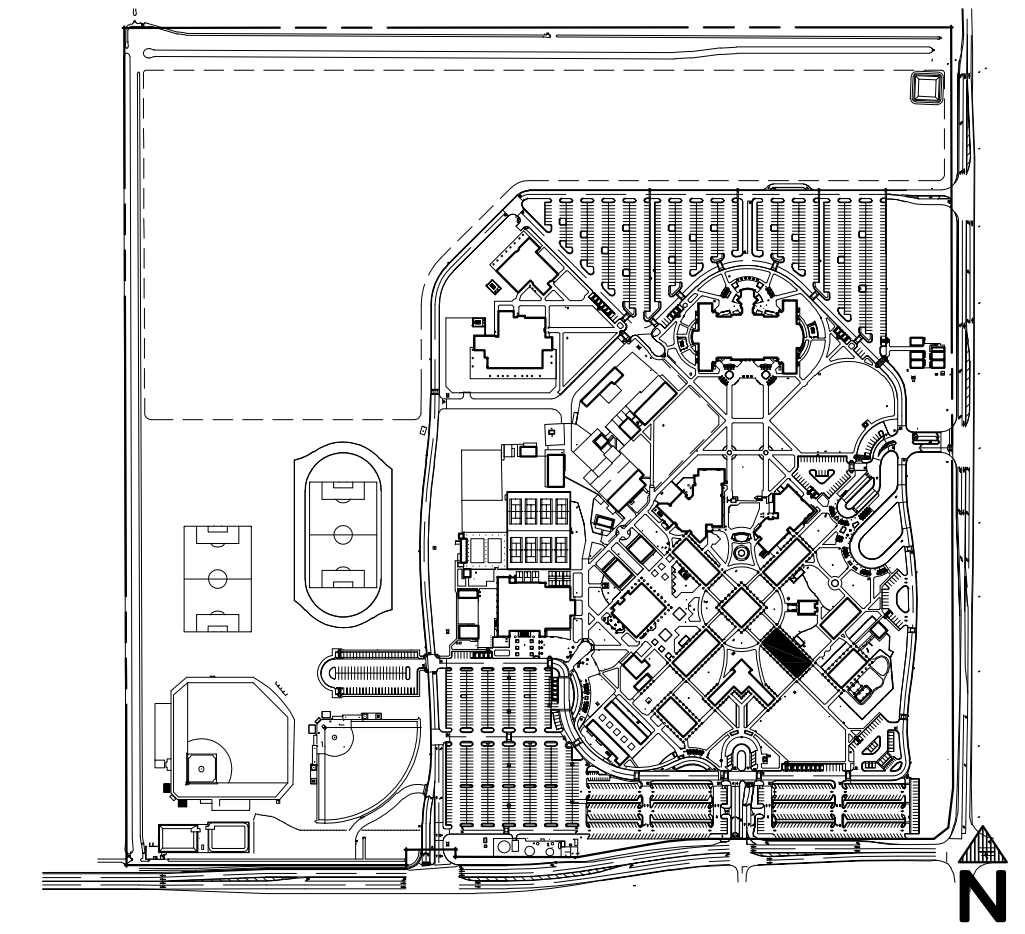
	Document Date	Project Number
	Date Last Revised	Sheet Number
	10-18-19	19-121V
		A2.5

EXTERIOR ELEVATIONS

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

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 DIV. OF THE STATE ARCHITECT
 APP. 04-118720 INC.
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APPROVALS



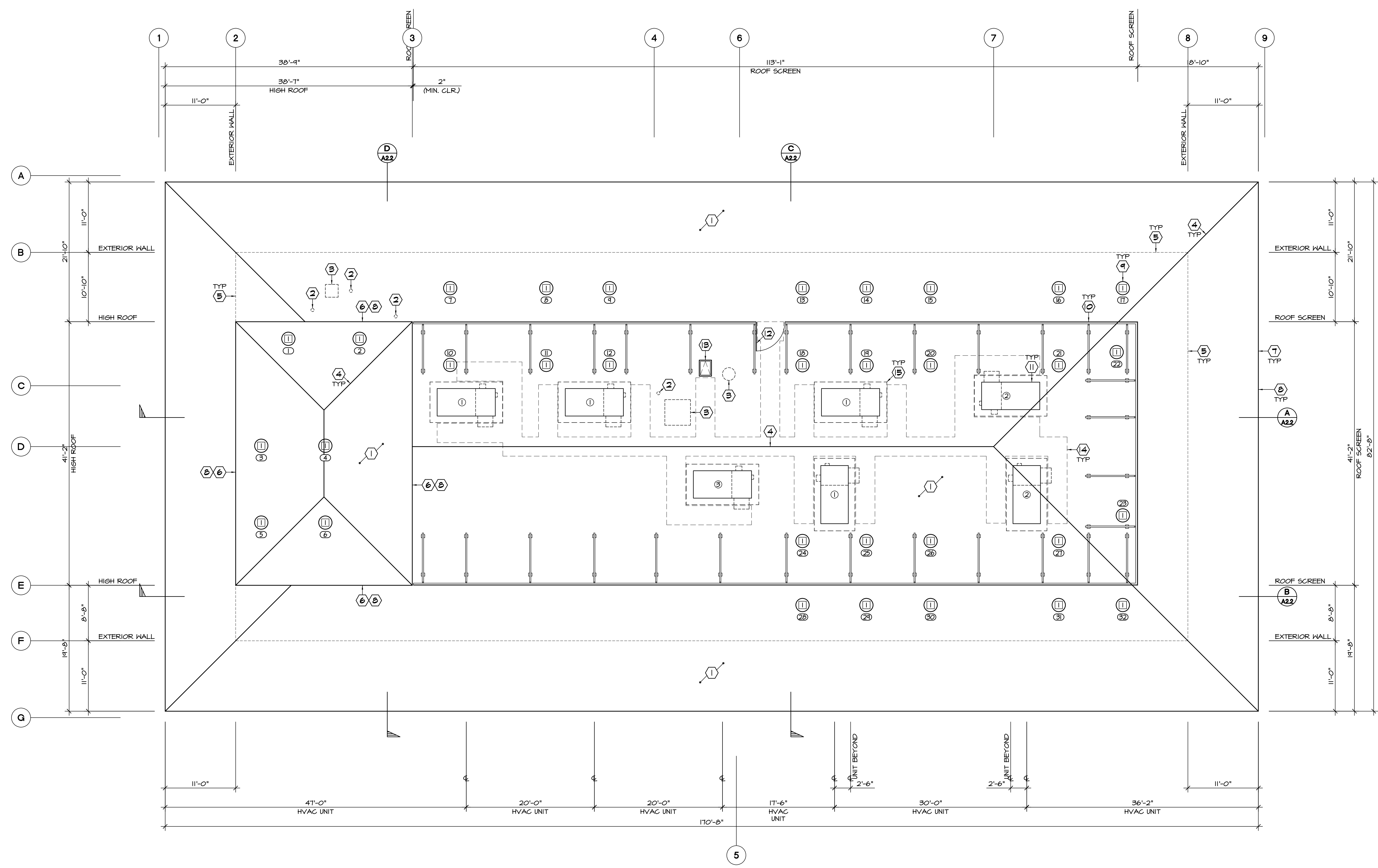
KEY PLAN - BLDG 200

KEYNOTES:

- ① EXISTING 1.5" REINFORCED PVC MEMBRANE OVER 1/4" DENSDECK OVER TAPERED EXPANDED POLYSTYRENE (EPS) BOARD OVER BUILT-UP ASPHALT ROOF
- ② EXISTING PIPE PENETRATION - REMOVE AND PATCH ROOF
- ③ EXISTING VENT HOOD - REMOVE AND PATCH ROOF
- ④ RIDGE / VALLEY LINE OF TAPERED EPS BOARD
- ⑤ LINE OF EXTERIOR WALL BELOW ROOF
- ⑥ LINE OF HIGH ROOF
- ⑦ TOP OF CMJ COLUMN - PROTECT
- ⑧ EXISTING G.I. W/ LAMINATED PVC DRIP EDGE - PROTECT
- ⑨ NEW TUBULAR SKYLIGHT - SEE SPECIFICATIONS
- ⑩ "ROOFSCREEN MFG" METAL PANEL ROOF SCREEN
- ⑪ NEW HVAC UNIT, PATCH INSULATION AND ROOFING AT NEW CURB - SEE MECHANICAL DRAWINGS
- ⑫ PROVIDE GATE TO FIT ROOF SCREEN FRAME MODULE - GATE
- ⑬ ROOF ACCESS HATCH
- ⑭ PROVIDE PVC ROOF WALKPADS - SEE SPECIFICATIONS WALKPADS
- ⑮ NEW HVAC UNIT PLATFORM - SEE STRUCTURAL DRAWINGS

NOTES:

1. ALL ROOFS TO BE CLASS A (NO) W/ 1.5MM REINFORCED PVC MEMBRANE OVER 1/4" COVERBOARD.
2. CONTRACTOR RESPONSIBLE TO VERIFY EXACT PLACEMENT OF ROOF MOUNTED MECHANICAL EQUIPMENT TO AVOID CONFLICTS WITH ELECTRICAL ITEMS, PLUMBING LINES, OR OTHER MECHANICAL EQUIPMENT.
3. ROOF EQUIPMENT DEAD LOADS:
 MECHANICAL LOADS
 ① FAN COIL / ERV - ROOF TOP 640 lb
 ② FAN COIL / ERV - ROOF TOP 640 lb
 ③ FAN COIL / ERV - ROOF TOP 1,085 lb
 SKYLIGHTS
 ① 21" TUBULAR SKYLIGHT (WINDOW NUMBER NOTED) 30 lb
 ②



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**IMPERIAL VALLEY COLLEGE
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Sheet Title
ROOF PLAN

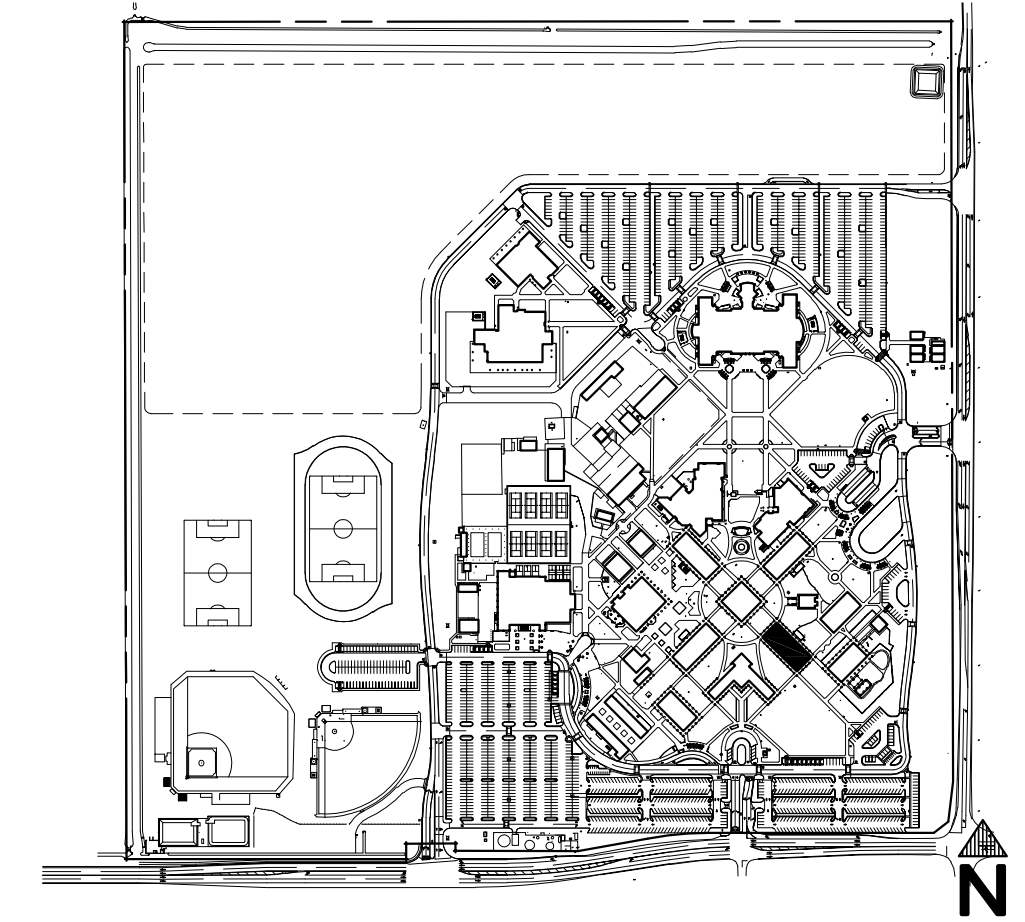
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	Date Last Revised	Sheet Number
	10-18-19	19-121V
		A2.6

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

ROOF PLAN

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 DATE: 01.16.20

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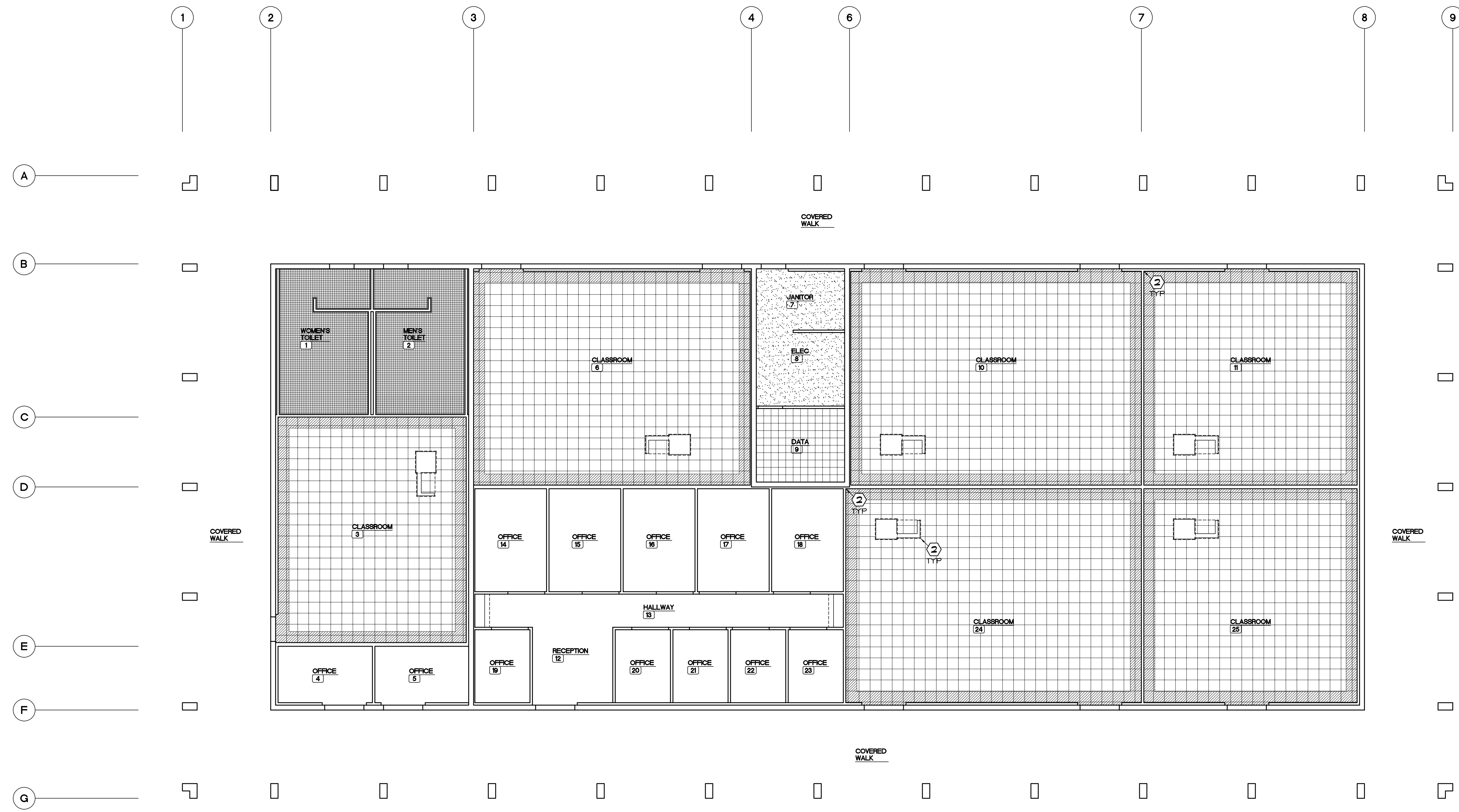
KEY PLAN - BLDG 200

LEGEND:

- RUBBER TILE (18"x18") - FIELD COLOR
- RUBBER TILE (18"x18") - ACCENT COLOR
- RUBBER TILE (18"x18") - WALK OFF
- CERAMIC TILE (2'x2') - FIELD COLOR
- CERAMIC TILE (2'x2') - ACCENT COLOR
- PORCELAIN TILE (12"x12") - FIELD COLOR
- PORCELAIN TILE (12"x12") - ACCENT COLOR
- SEALED CONCRETE
- SHEET CARPET
- CARPET TILE (36"x36")
- CARPET TILE - WALK-OFF

KEYNOTES:

- ① NOT USED
- ② PROVIDE MOLDED RUBBER OUTSIDE OR INSIDE CORNER TERMINATION PIECE FOR WALL BASE



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

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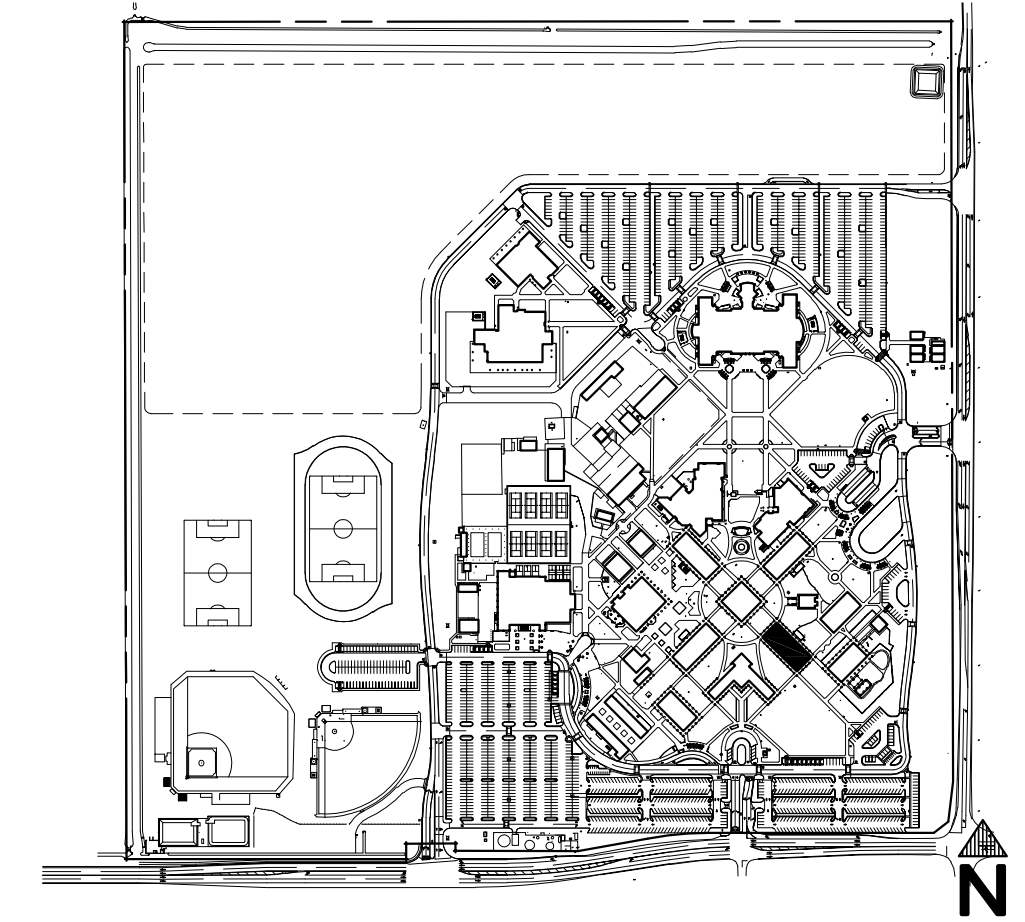
Sheet Title
FLOORING PLAN

	Document Date	Project Number
	Date Last Revised	Sheet Number
	10-18-19	19-121V
		A2.7

FLOORING PLAN

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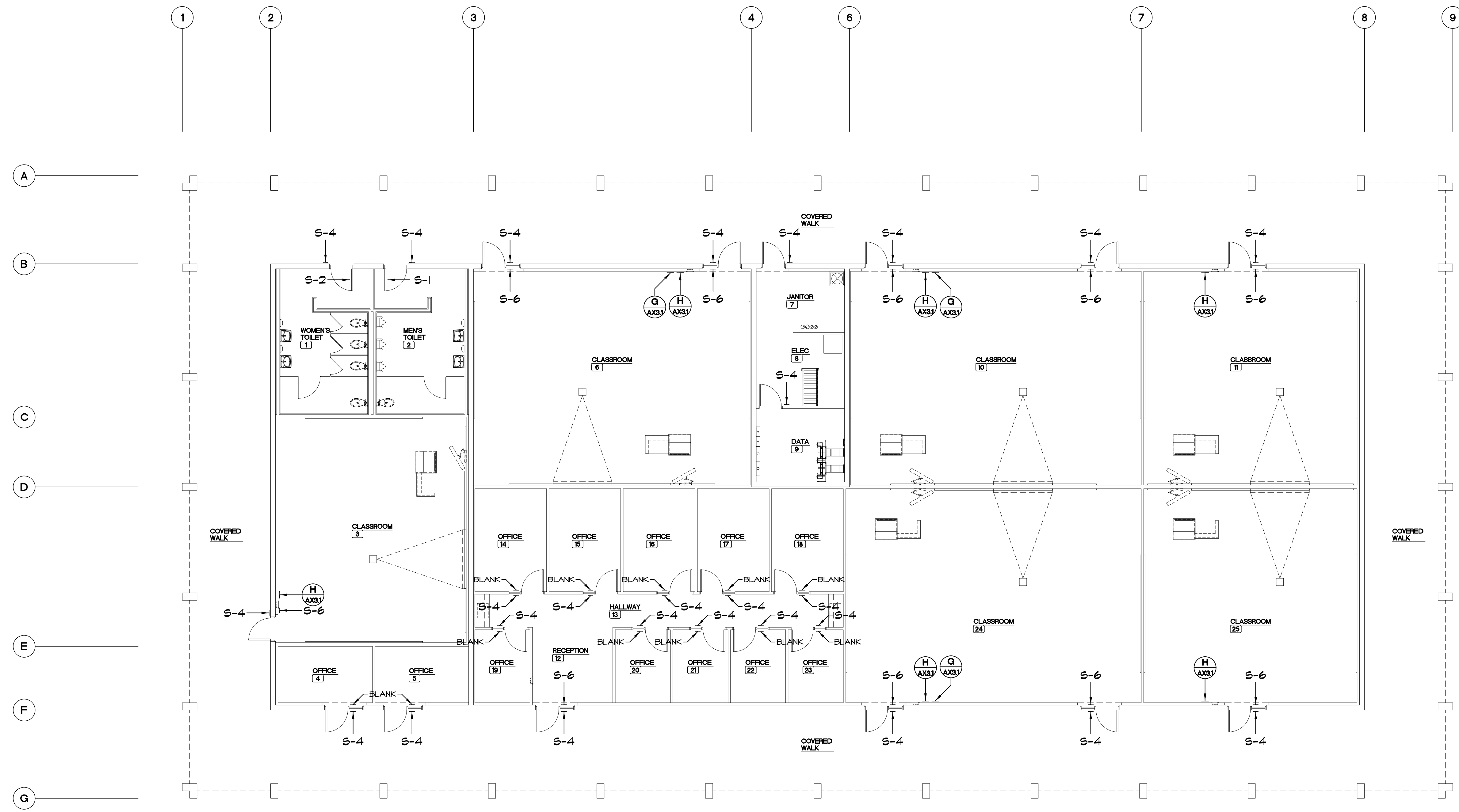
APPROVALS



KEY PLAN - BLDG 200

NOTES:

- FOR SIGN TYPES SEE 
- GLAZING MOUNTED SIGNS TO HAVE MATCHING BLANK SIGN ON OPPOSING SIDE AT LOCATIONS WITHOUT SIGN SPECIFIED ON BOTH SIDES.



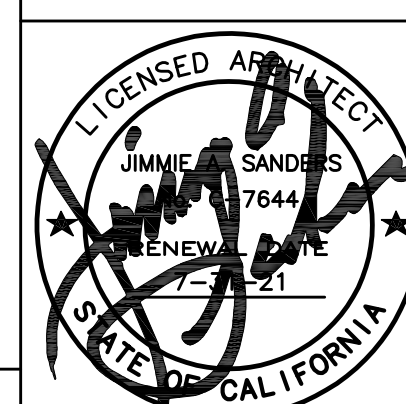
SCALE: 1/8" = 1'-0"



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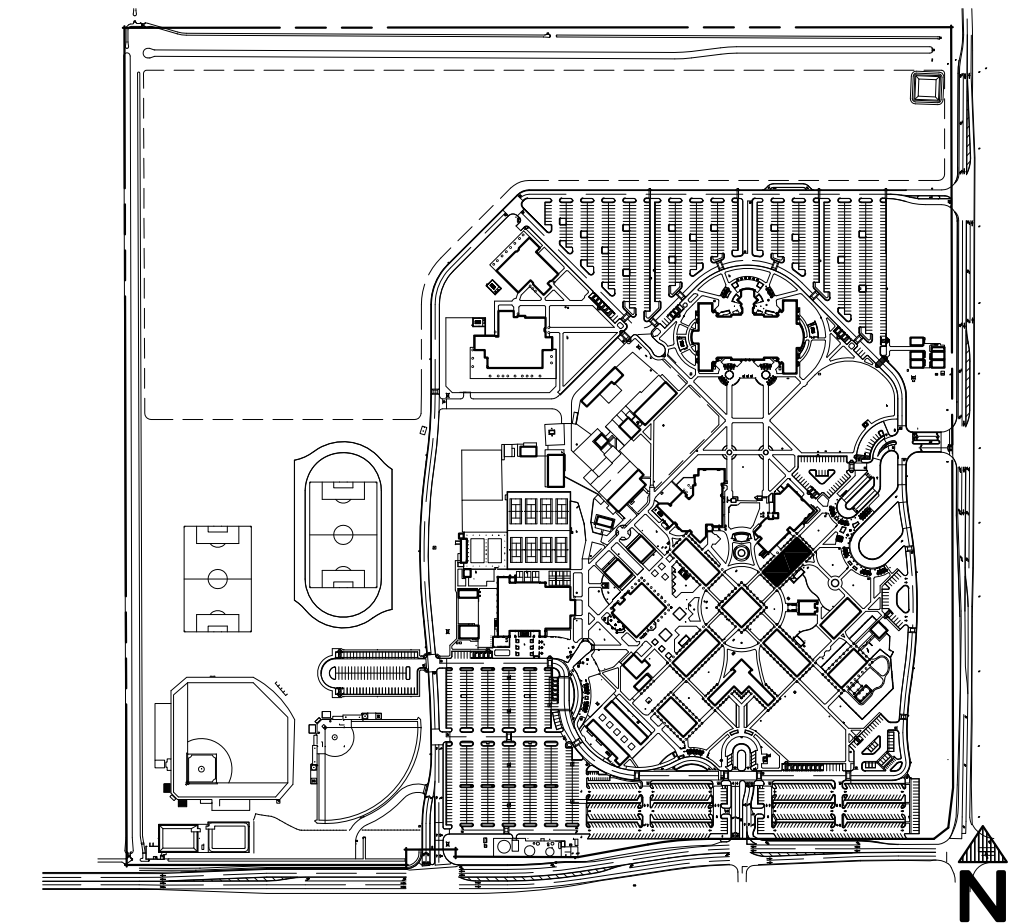
Sheet Title
SIGNAGE PLAN

	Document Date 10-18-19	Project Number 19-121V
	Date Last Revised	Sheet Number A2.8

SIGNAGE PLAN

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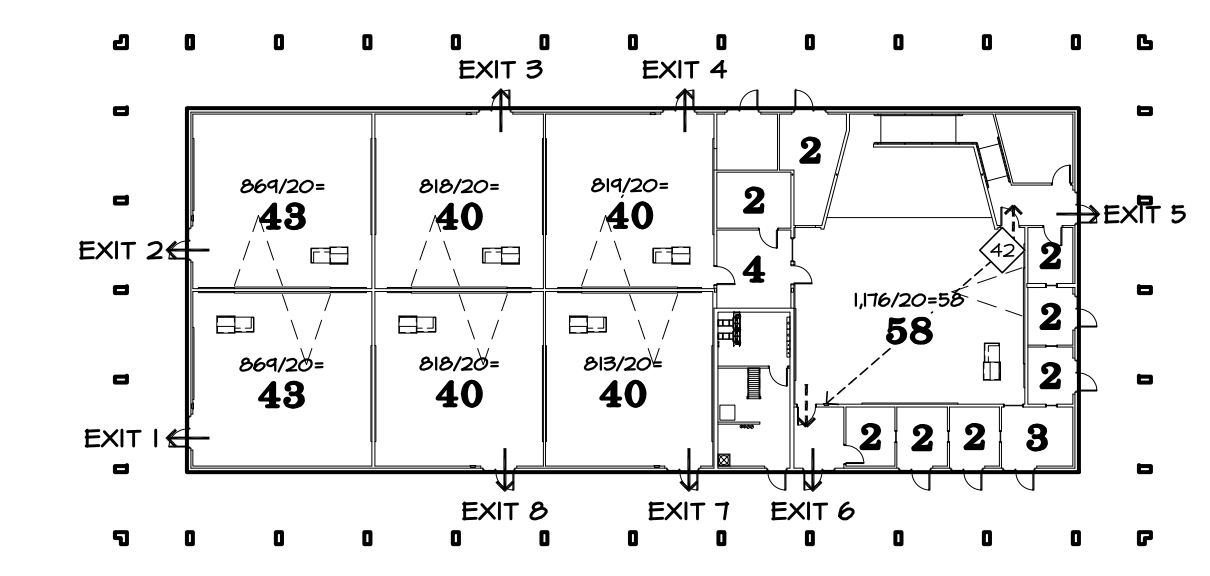
APPROVALS



KEY PLAN - BLDG 300

BUILDING DATA:

BUILDING 300 - CLASSROOMS
 OCCUPANCY A-3 B
 CONSTRUCTION TYPE TYPE III-B
 FIRE SPRINKLER SYSTEM NONE
 NUMBER OF STORIES 1
 CONSTRUCTION AREA 4,014 SQ. FT.
 ALLOWABLE AREA 4,500 SQ. FT. (TABLE 506.2)
 AREA INCREASE NONE
 4,014 < 4,500 = OK



EXIT WIDTH:

EXIT #	CLASSROOM	CLASSROOM	CLASSROOM	CLASSROOM	CLASSROOM	CLASSROOM	CLASSROOM	CLASSROOM	CLASSROOM
1	48	48	40	40	2	6	1	4	4
MIN EXIT WIDTH (A)	32"	32"	32"	32"	32"	32"	32"	32"	32"
WIDTH PROVIDED	33.75"	33.75"	33.75"	33.75"	33.75"	33.75"	33.75"	33.75"	33.75"

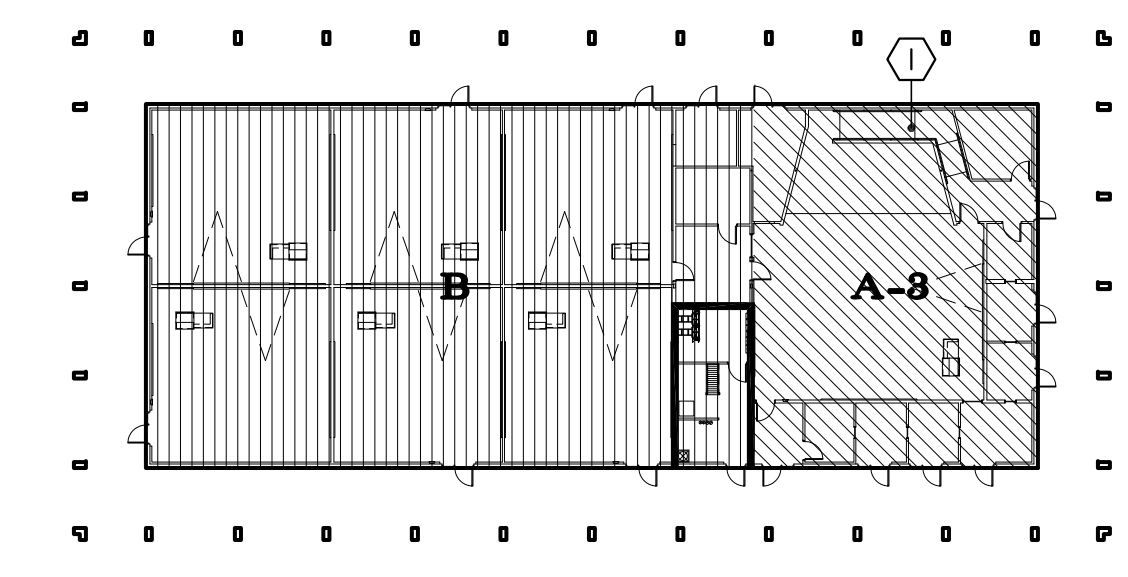
(A) 0.2 INCHES PER PERSON FOR DOORS,
 0.25 INCHES PER PERSON FOR STAIRS.

LEGEND:

- EXIT
- PATH OF TRAVEL TO FIRE EXTINGUISHER
- ◇ FARTHEST TRAVEL DISTANCE TO FIRE EXTINGUISHER (PER CFC TABLE 906.2(1))

EXITING PLAN

SCALE: 1/32" = 1'-0"
A



OCCUPANCY PLAN

SCALE: 1/32" = 1'-0"
B

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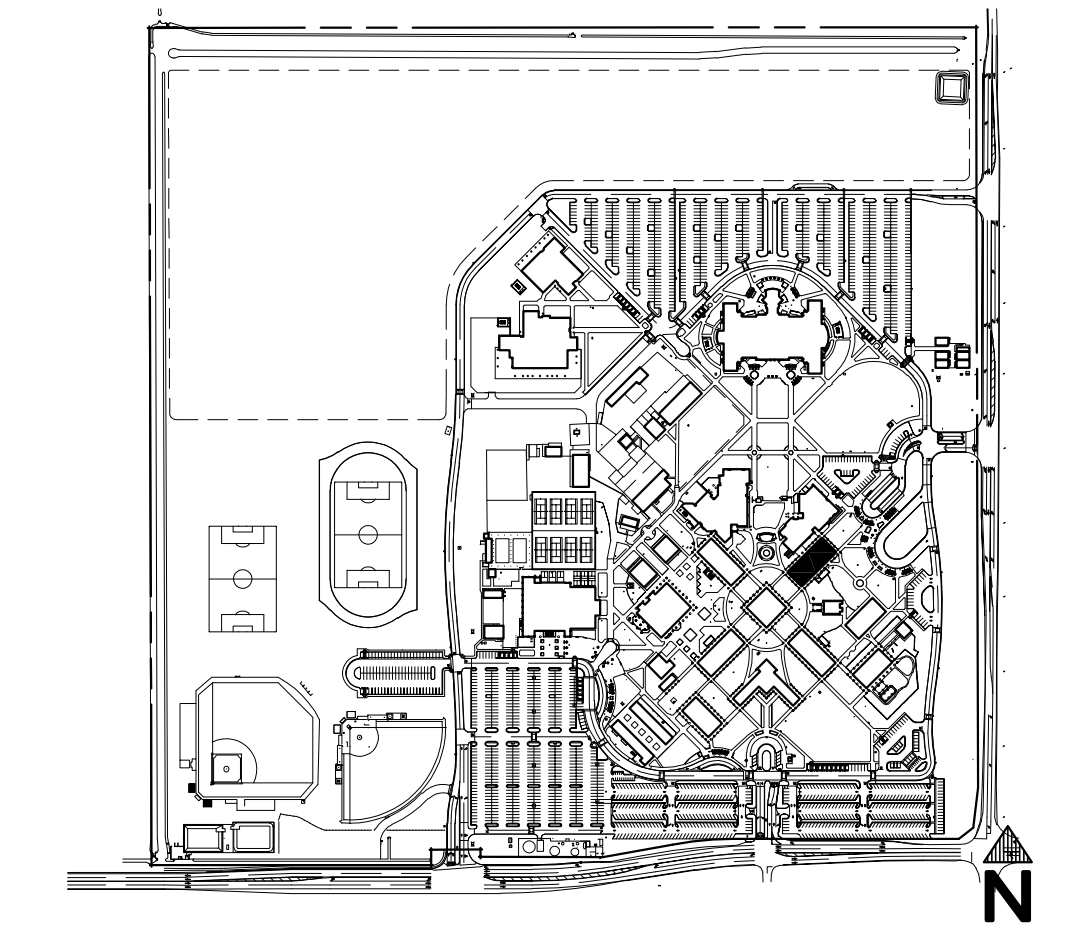
Project Title
**IMPERIAL VALLEY COLLEGE
 BUILDING 200, 300 AND 800 MODERNIZATION**

BUILDING DATA

	Document Date	Project Number
	10-18-19	19-121V
	Date Last Revised	Sheet Number
		A3.0

IDENTIFICATION STAMP
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 APP. 04-118720 INC.
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APPROVALS



KEY PLAN - BLDG 300

KEYNOTES:

- (1) EXISTING CMU COLUMNS - PROTECT
- (2) EXISTING HALL TO REMAIN - PROTECT
- (3) EXISTING STEEL COLUMN / WOOD POST - PROTECT
- (4) REMOVE ALL EXISTING CASEWORK
- (5) REMOVE EXISTING POWER AND LIGHTING
- (6) REMOVE EXISTING HVAC SYSTEM INCLUDING DUCT FRAMING, CONCRETE HOUSE KEEPING PADS AND CONCRETE CURBS
- (7) REMOVE PORTION OF EXISTING CMU / CONCRETE WALL
- (8) REMOVE EXISTING NON-BEARING FRAMED HALL AND CONCRETE CURB (WHERE OCCURS)
- (9) REMOVE EXISTING DOOR, HARDWARE AND DOOR FRAME
- (10) REMOVE EXISTING DOOR AND FRAME - INFILL OPENING w/ CMU
- (11) REMOVE EXISTING DUCT CHASE AND INFILL FOUNDATION (5/802)
- (12) REMOVE ALL EXISTING PLUMBING FIXTURES
- (13) REMOVE EXISTING STEEL ROOF DECK
- (14) REMOVE EXISTING CONCRETE SLAB AND CONCRETE HOUSE KEEPING PADS - SANKUT @ EDGE OF EXISTING FOOTING
- (15) NOT USED
- (16) INFILL EXISTING FLOOR UTILITY CHASES (5/802)
- (17) REMOVE EXISTING PLASTER
- (18) REMOVE ALL EXISTING EXTERIOR DRINKING FOUNTAINS AND RECESSED FIRE EXTINGUISHER CABINETS - REPAIR / INFILL ALL DAMAGED OR MISSING CMU
- (19) REMOVE ALL EXISTING EXTERIOR DISPLAY CASES AND LOCK BOXES - TURN OVER TO OWNER
- (20) REMOVE EXISTING CURVED PLASTER CEILING

HAZARDOUS MATERIAL KEYNOTES:

- (A) REMOVE ASBESTOS FLOORING AND MASTIC
- (B) SEE PCB SPECIFICATION FOR LIGHT BALLAST REMOVAL AND MERCURY SPECIFICATION FOR LIGHT TUBE REMOVAL
- (C) REMOVE ASBESTOS INSULATION
- (D) REMOVE ASBESTOS MECHANICAL ROOM FLUE INSULATION
- (E) REMOVE ASBESTOS DESK

NOTES:

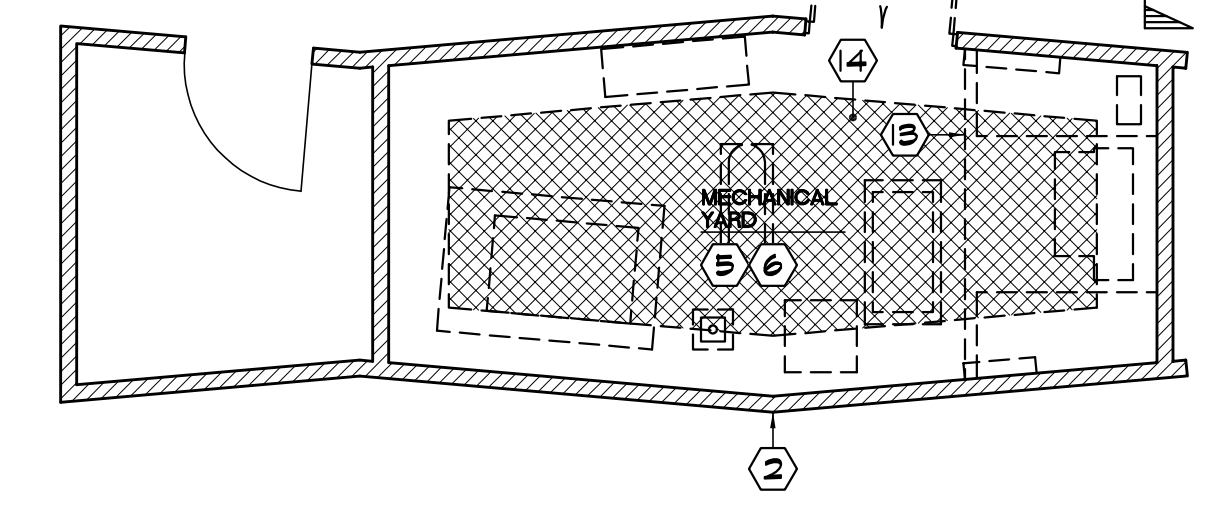
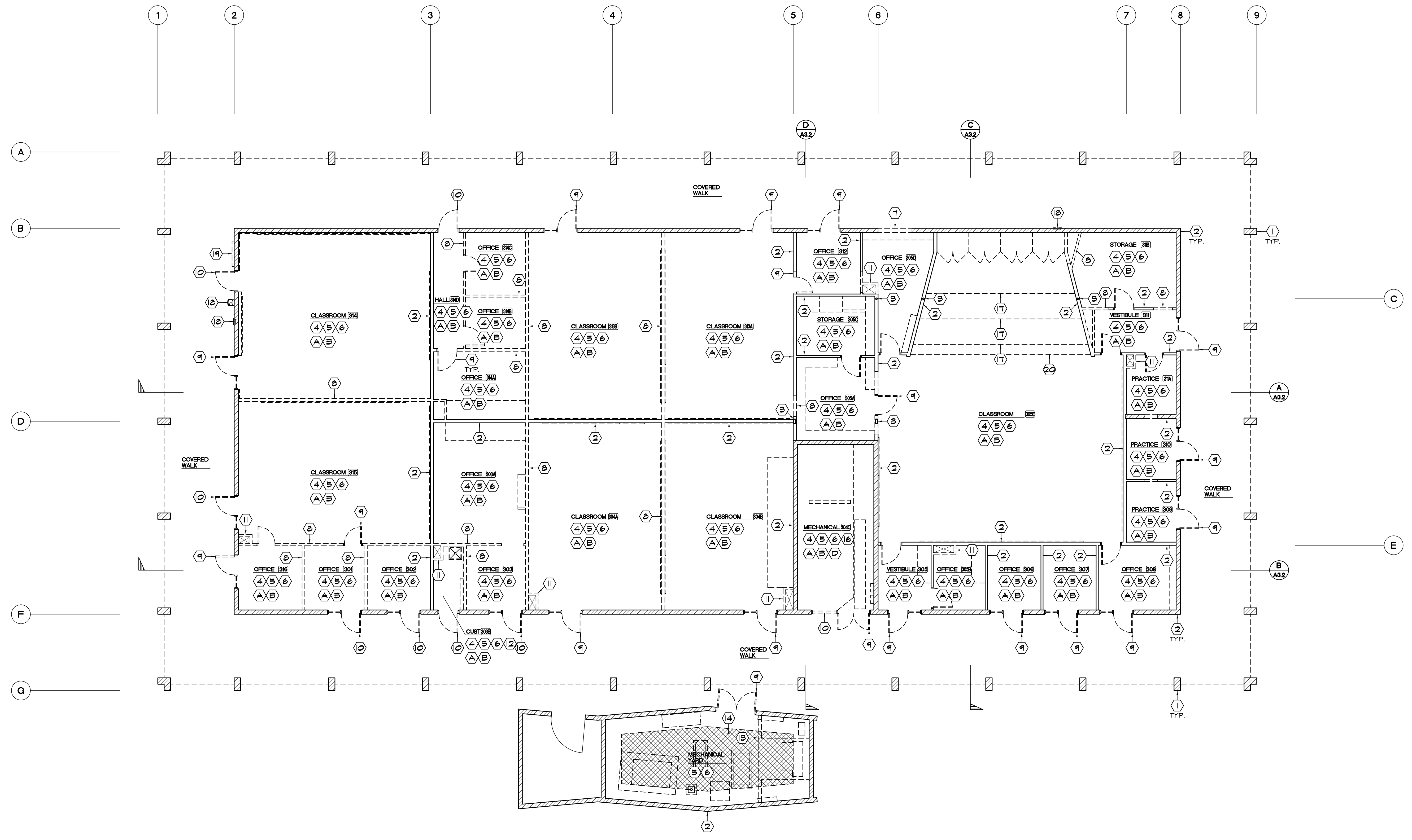
1. DEMOLITION KEYNOTES ARE NOT INTENDED TO SHOW ALL DEMOLITION REQUIRED FOR PROPOSED IMPROVEMENTS. CONTRACTOR RESPONSIBLE TO REMOVE ALL EXISTING IMPROVEMENTS / CONDITIONS REQUIRED TO COMPLETE WORK FOR PROPOSED IMPROVEMENTS.
2. DO NOT ALTER OR DAMAGE ANY EXISTING SHEAR WALLS OR BEARING WALLS UNDO.
3. ALL DEMOLITION SHALL COMPLY WITH CH. 34 CBC AND ARTICLE 01 CFC.
4. SEE SPECIFICATIONS FOR REMOVAL OF HAZARDOUS MATERIAL INCLUDING BUT NOT LIMITED TO ASBESTOS, LEAD PAINT, PCB, AND MERCURY.
5. REMOVE ALL CEILING TILES AND CEILING FRAMING INCLUDING 2x3 STRIPING AT BOTTOM CHORD OF TRUSS - COORDINATE W/ HAZARDOUS MATERIAL ABATEMENT.
6. REMOVE ALL EXTERIOR SURFACE MTD. CONDUIT TO SOURCE
7. REMOVE ALL FLOOR FINISHES AND WALL BASE MATERIAL, COORDINATE W/ HAZARDOUS MATERIAL ABATEMENT.
8. REMOVE ALL HVAC EQUIPMENT INDOOR AND OUTDOOR. REMOVE ALL RIGID AND FLEX SUPPLY / RETURN DUCTS, SUPPORTS, REGISTERS, WALL GRILLES, ROOF PLATFORMS - INFILL FLUSH ALL ABANDONED ROOF PENETRATIONS

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Project Title
**IMPERIAL VALLEY COLLEGE
 BUILDING 200, 300 AND 800 MODERNIZATION**

Sheet Title
DEMOLITION PLAN

	Document Date	Project Number
	Date Last Revised	Sheet Number
	10-18-19	19-121V
		A3.11



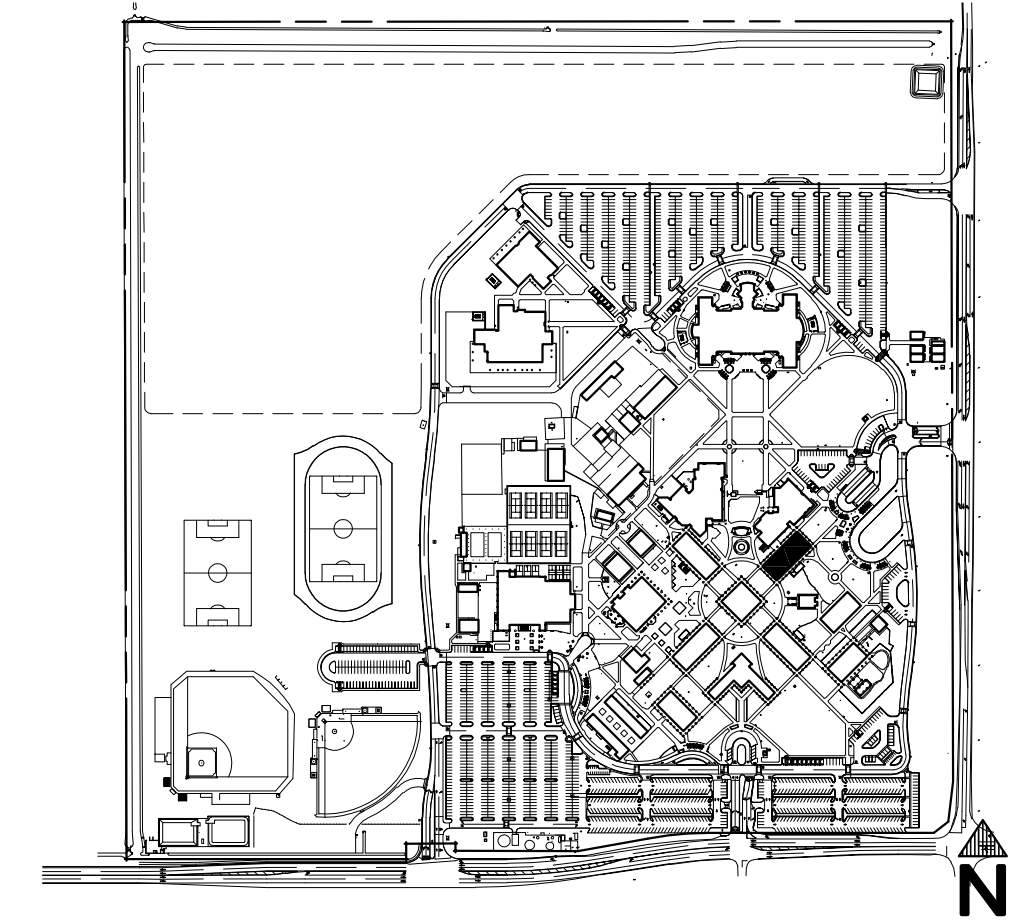
DEMOLITION PLAN

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



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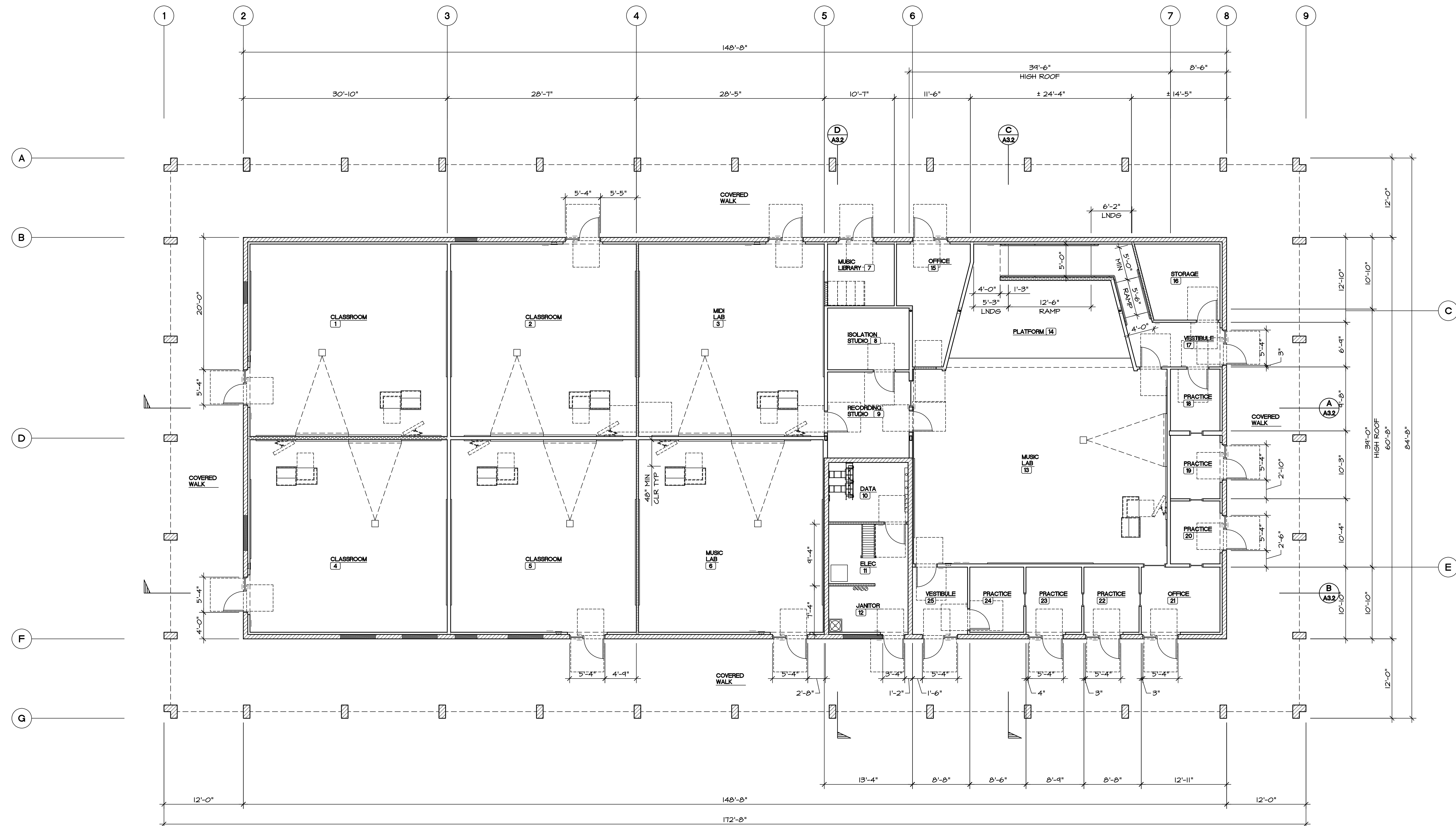
KEY PLAN - BLDG 300

WALL TYPES:

- EXISTING 2-HR 8' CMU WALL
- EXISTING 2x WOOD STUD WALL
- NEW 8' CMU WALL
- NEW 8' CMU OPENING INFILL
- NEW 6' METAL STUD @ 16' O.C.
- NEW 4' METAL STUD @ 16' O.C.
- NEW 12' WALL W/ (2) 4' METAL STUD @ 16' O.C.
- NEW 1-HR 6' METAL STUD @ 16' O.C.

LEGEND:

- 30' x 48' CLEAR FLOOR SPACE (2% MAX. SLOPE IN ALL DIRECTIONS)
- 60' DIAMETER CLEAR FLOOR SPACE (2% MAX. SLOPE IN ALL DIRECTIONS)
- 60' x 60' CLEAR FLOOR SPACE AT FULL SIDE OF EXTERIOR DOOR (2% MAX. SLOPE IN ALL DIRECTIONS)
- 60' x 54' CLEAR SPACE AT FULL SIDE OF INTERIOR DOOR (2% MAX. SLOPE IN ALL DIRECTIONS)
- 48' x 48' CLEAR SPACE AT FLUSH SIDE OF DOOR (2% MAX. SLOPE IN ALL DIRECTIONS)
- 11 STRUCTURAL GRID TAG



DIMENSIONAL FLOOR PLAN

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

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**IMPERIAL VALLEY COLLEGE
 BUILDING 200, 300 AND 800 MODERNIZATION**





Sheet Title
FLOOR PLAN - DIMENSIONAL

	Document Date	Project Number
	Date Last Revised	Sheet Number
	10-18-19	19-121V
		A3.1.2

WALL TYPES:

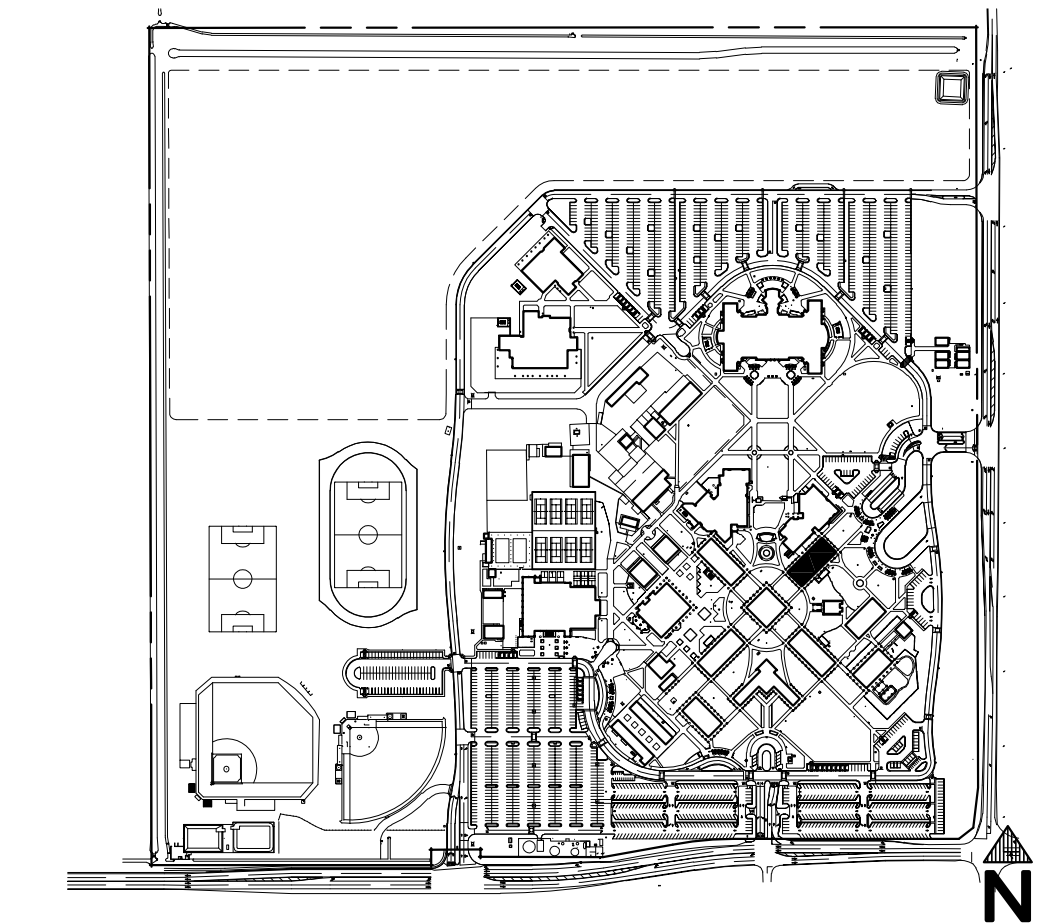
-  EXISTING 2-HR 8" CMU WALL
-  EXISTING 2x WOOD STUD WALL
-  NEW 8" CMU WALL
-  NEW 8" CMU OPENING INFILL
-  NEW 6" METAL STUD @ 16" O.C.
-  NEW 4" METAL STUD @ 16" O.C.
-  NEW 12" WALL W/ (2) 4" METAL STUD @ 16" O.C.
-  NEW 1-HR 6" METAL STUD @ 16" O.C.

FURRING TYPES:

-  6" METAL STUD @ 16" O.C.
-  4" METAL STUD @ 16" O.C.
-  4" METAL STUD @ 16" O.C. W/ 2" GAP TO WALL AND 6" CONCRETE CURB
-  2" METAL STUD @ 16" O.C.

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KEY PLAN - BLDG 300

KEYNOTES:

- ① LINE OF EXISTING COVERED WALK
- ② EXISTING CMU COLUMN
- ③ HPL CASE WORK - SEE INTERIOR ELEVATIONS
- ④ ACCESSIBLE WORKSTATION - SEE INTERIOR ELEVATIONS
- ⑤ HPL LECTERN
- ⑥ MARKER BOARD / TACK BOARD - SEE INTERIOR ELEVATIONS
- ⑦ FLOORING FIXTURE - SEE PLUMBING DRAWINGS
- ⑧ RECESSED FIRE EXTINGUISHER CABINET W/ TEMPERED GLASS - 45° TO EXTINGUISHER HANDLE. CABINET HANDLE SHALL BE OPERABLE W/ ONE HAND AND SHALL NOT REQUIRE GRASPING, PINCHING, OR TWISTING OF THE WRIST AND HAVE A MAX. OPERATING FORCE OF 5 LBS
- ⑨ SOFFIT OR CHANGE IN CEILING HEIGHT
- ⑩ FIRE ALARM CONTROL PANEL - SEE FIRE ALARM DRAWINGS
- ⑪ RETRACTABLE RECESSED CEILING MOUNTED PROJECTOR SCREEN
- ⑫ VIDEO PROJECTOR - SEE COMMUNICATION DRAWINGS
- ⑬ FLAT PANEL MONITOR - MOUNT TO WALL W/ (2) #12 SMS, PROVIDE BACKING PER
- ⑭ ELECTRICAL EQUIPMENT - SEE ELECTRICAL DRAWINGS
- ⑮ COMMUNICATIONS EQUIPMENT - SEE COMMUNICATIONS DRAWINGS
- ⑯ ROOF ACCESS SHIP'S LADDER AND HATCH
- ⑰ SHEET MUSIC FILE CABINET

LEGEND:

-  DOOR NUMBER - SEE DOOR SCHEDULE
-  WINDOW NUMBER - SEE WINDOW SCHEDULE
- P.H. PANIC HARDWARE
- 11 STRUCTURAL GRID TAG

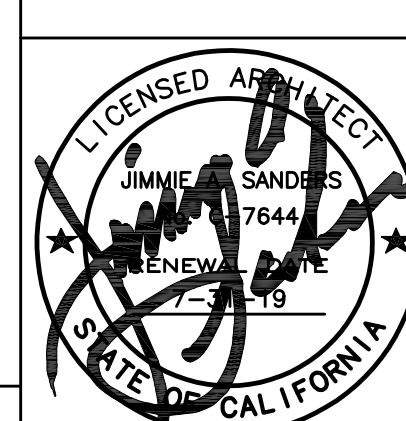
NOTES:

1. FOR ALL RATED WALL ASSEMBLY DESIGNS SEE
2. 5% MIN. OF EACH TYPE OF FURNITURE ITEMS TO MEET ACCESSIBILITY REQUIREMENTS PER 2016 CBC.
3. ALL FURRINGS ON EXTERIOR WALLS TO HAVE BATT INSULATION (R-11 @ 6", R-11 @ 4")
4. ALL FRAMED INTERIOR WALLS TO HAVE SOUND ATTENUATION BATT INSULATION.
5. FLAME SPREAD RATINGS NOT FOR WALL INSULATION NOT TO EXCEED 25 AND SMOKE DEVELOPED INDEX NOT TO EXCEED 450 WHEN TESTED IN ACCORDANCE WITH ASTM E 84.

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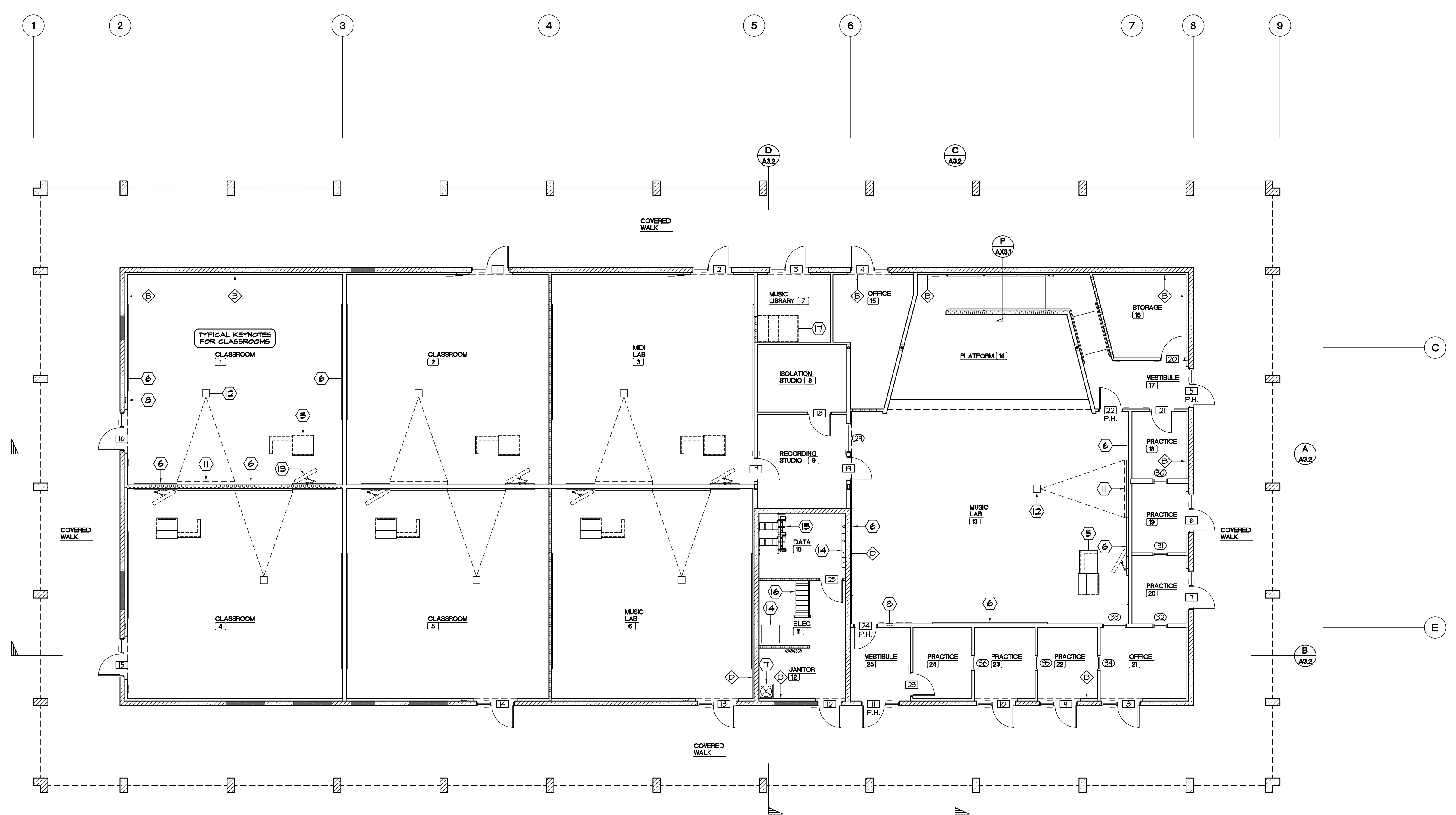
Project Title
**IMPERIAL VALLEY COLLEGE
 BUILDING 200, 300 AND 800 MODERNIZATION**

Sheet Title
FLOOR PLAN - ARCHITECTURAL

	Document Date	Project Number
	10-18-19	19-121V
Date Last Revised		Sheet Number
		A3.13

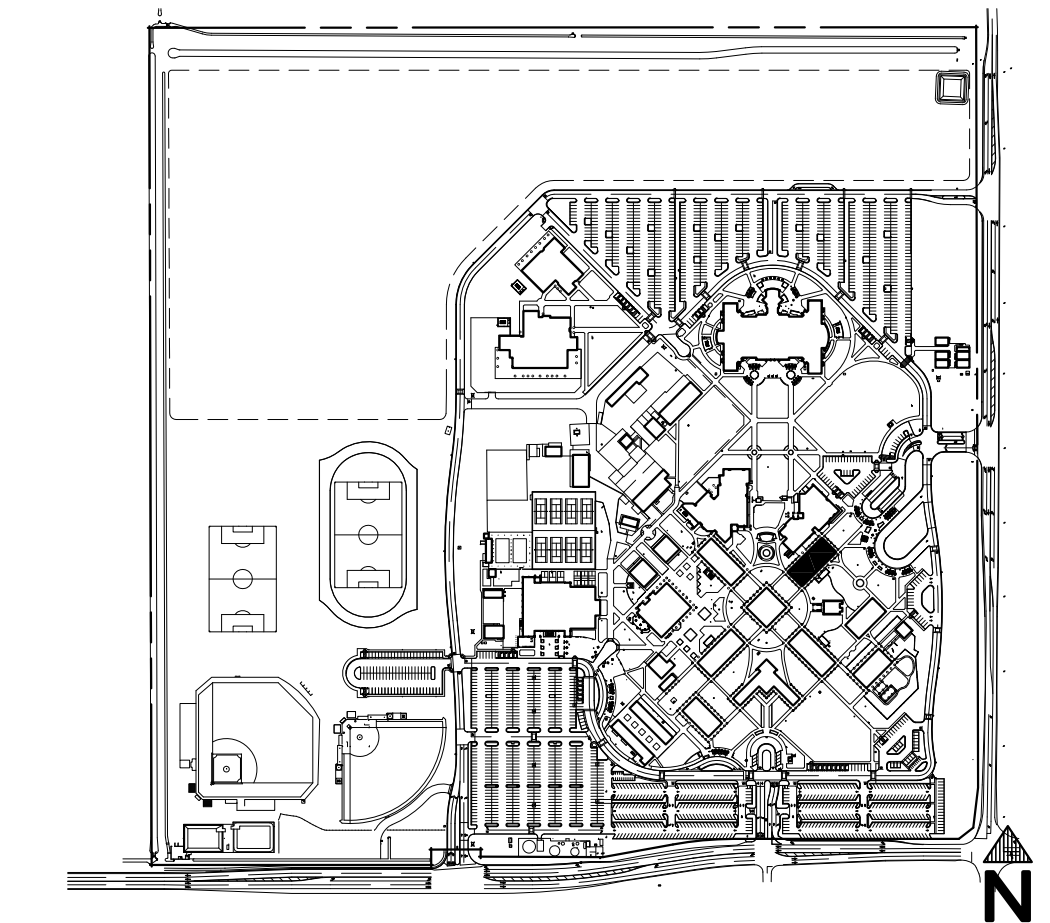
SCALE: 1/8" = 1'-0" A

ARCHITECTURAL FLOOR PLAN



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KEY PLAN - BLDG 300

KEYNOTES:

- 1 EXISTING CONCRETE FOUNDATION
- 2 EXISTING CMU COLUMN
- 3 EXISTING CMU WALL
- 4 EXISTING STUD WALL
- 5 NEW STUD WALL PER PLAN
- 6 EXISTING ROOF TRUSS
- 7 EXISTING SINGLE PLY PVC ROOFING
- 8 CEILING LINE - SEE REFLECTED CEILING PLAN
- 9 R-19 BATT INSULATION - TYP. ALL NEW EXTERIOR HALL FURRINGS
- 10 4" MIN. CLOSED-CELL SPRAY FOAM INSULATION w/ INTUMESCENT FIRE RETARDANT COATING AT BOTTOM OF ROOF DECK (BSR-2869)
- 11 MECHANICAL EQUIPMENT - SEE MECHANICAL DRAWINGS
- 12 MECHANICAL EQUIPMENT SCREEN (A)
- 13 FIRE BLOCKING PER C.B.C. 708.2
- 14 SOUND ATTENUATING BATT INSULATION - TYP. ALL INTERIOR WALLS
- 15 NEW CMU WALL INFILL
- 16 STAGE LIGHTING - SEE ELECTRICAL DRAWINGS (B, 21)
- 17 TUBULAR SKYLIGHT - SEE WINDOW SCHEDULE (A32, A33)

SECTION

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

A

SECTION

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

B

SECTION

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

SECTION

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

D

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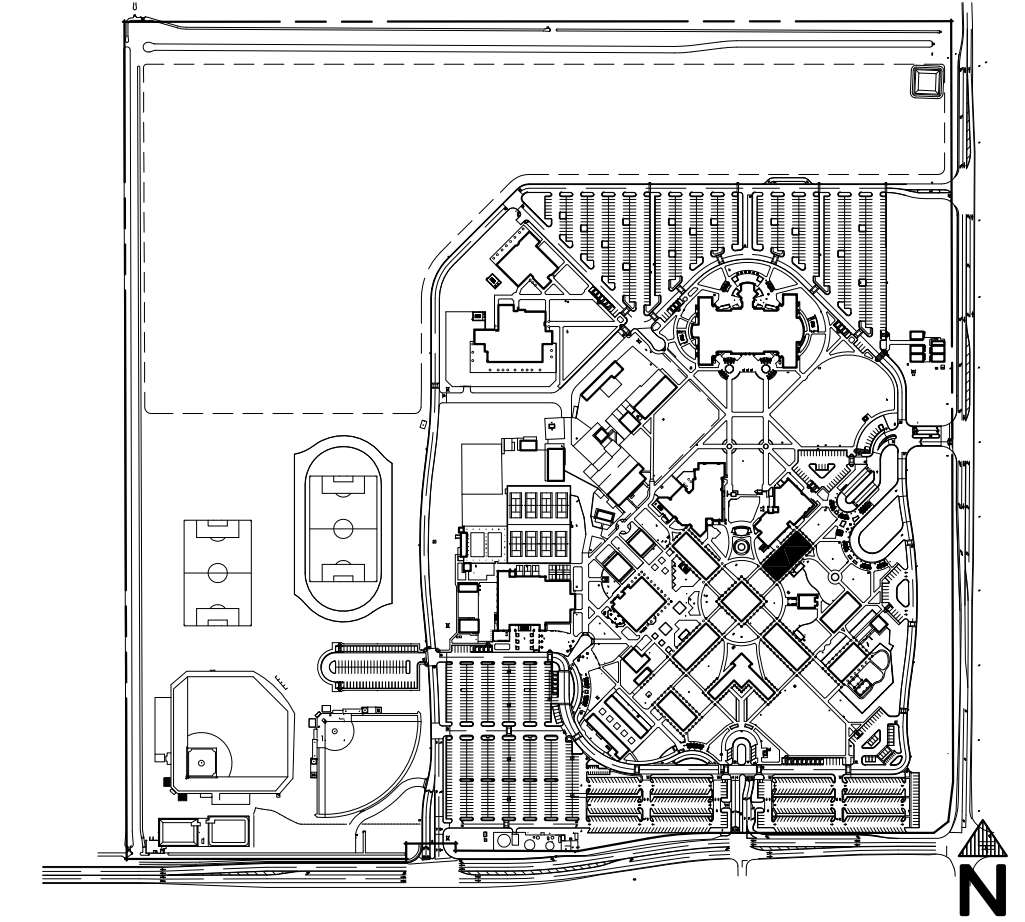
Project Title
**IMPERIAL VALLEY COLLEGE
 BUILDING 200, 300 AND 800 MODERNIZATION**

Sheet Title
ARCHITECTURAL SECTIONS

	Document Date	Project Number
	Date Last Revised	Sheet Number
	10-18-19	19-121V
		A3.2

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 APP. 04-118720 INC.
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 DATE: 01.16.20

APPROVALS



KEY PLAN - BLDG 300

KEYNOTES:

- ① EXISTING GYPSUM BOARD - PAINT PRIME COLOR, TEXTURE TO MATCH WALLS
- ② GYPSUM BOARD - PAINT ACCENT COLOR, TEXTURE TO MATCH WALLS
- ③ ROOF ACCESS HATCH (10) AXIS
- ④ VIDEO PROJECTOR CEILING MOUNT - SEE COMMUNICATIONS DRAWINGS (1) AXIS
- ⑤ RECESSED PROJECTOR SCREEN - SEE COMMUNICATIONS DRAWINGS (2) AXIS
- ⑥ EXISTING EXPOSED METAL DECK - PRESSURE WASH CLEAN, ABRASIVE BLAST ALL RUST, PRIME AND PAINT
- ⑦ CEILING MOUNTED DOCUMENT CAMERA - SEE SPECIFICATIONS - BOTTOM OF CAMERA TO BE 80" MIN AFF
- ⑧ TRIM EXISTING EXPOSED SCREENS (MIN. 3 EXPOSED THREADS) AND PROVIDE METAL FISH CAP
- ⑨ 24"x24" LAY-IN ACOUSTICAL CEILING TILE (1) AXIS (2) AXIS
- ⑩ 24 x 30 CEILING ACCESS PANEL

LEGEND:

- LED LIGHT FIXTURE - SEE ELECTRICAL DRAWINGS
- LED LIGHT FIXTURE - SEE ELECTRICAL DRAWINGS
- PENDANT LED LIGHT FIXTURE - SEE ELECTRICAL DRAWINGS
- LIGHT FIXTURE - SEE ELECTRICAL DRAWINGS
- PENDANT LIGHT FIXTURE - SEE ELECTRICAL DRAWINGS
- RECESSED LIGHT FIXTURE - SEE ELECTRICAL DRAWINGS
- RECESSED LIGHT FIXTURE - SEE ELECTRICAL DRAWINGS
- SURFACE MOUNT LIGHT FIXTURE - SEE ELECTRICAL DRAWINGS
- WALL MOUNT LIGHT FIXTURE - SEE ELECTRICAL DRAWINGS
- TUBULAR SKYLIGHT DIFFUSER - SEE SPECIFICATIONS (16) AXIS (16) AXIS
- TUBULAR SKYLIGHT DIFFUSER - SEE SPECIFICATIONS (16) AXIS (16) AXIS
- CEILING DIFFUSER - SUPPLY AIR - SEE MECHANICAL DRAWINGS
- RETURN AIR REGISTER - SEE MECHANICAL DRAWINGS
- EXHAUST REGISTER - SEE MECHANICAL DRAWINGS
- RECESSED CEILING MOUNTED SPEAKER - SEE COMMUNICATION DRAWINGS
- WALL MOUNTED ILLUMINATED EXIT SIGN - SEE ELECTRICAL DRAWINGS
- CEILING MOUNTED ILLUMINATED EXIT SIGN - SEE ELECTRICAL DRAWINGS

NOTES:

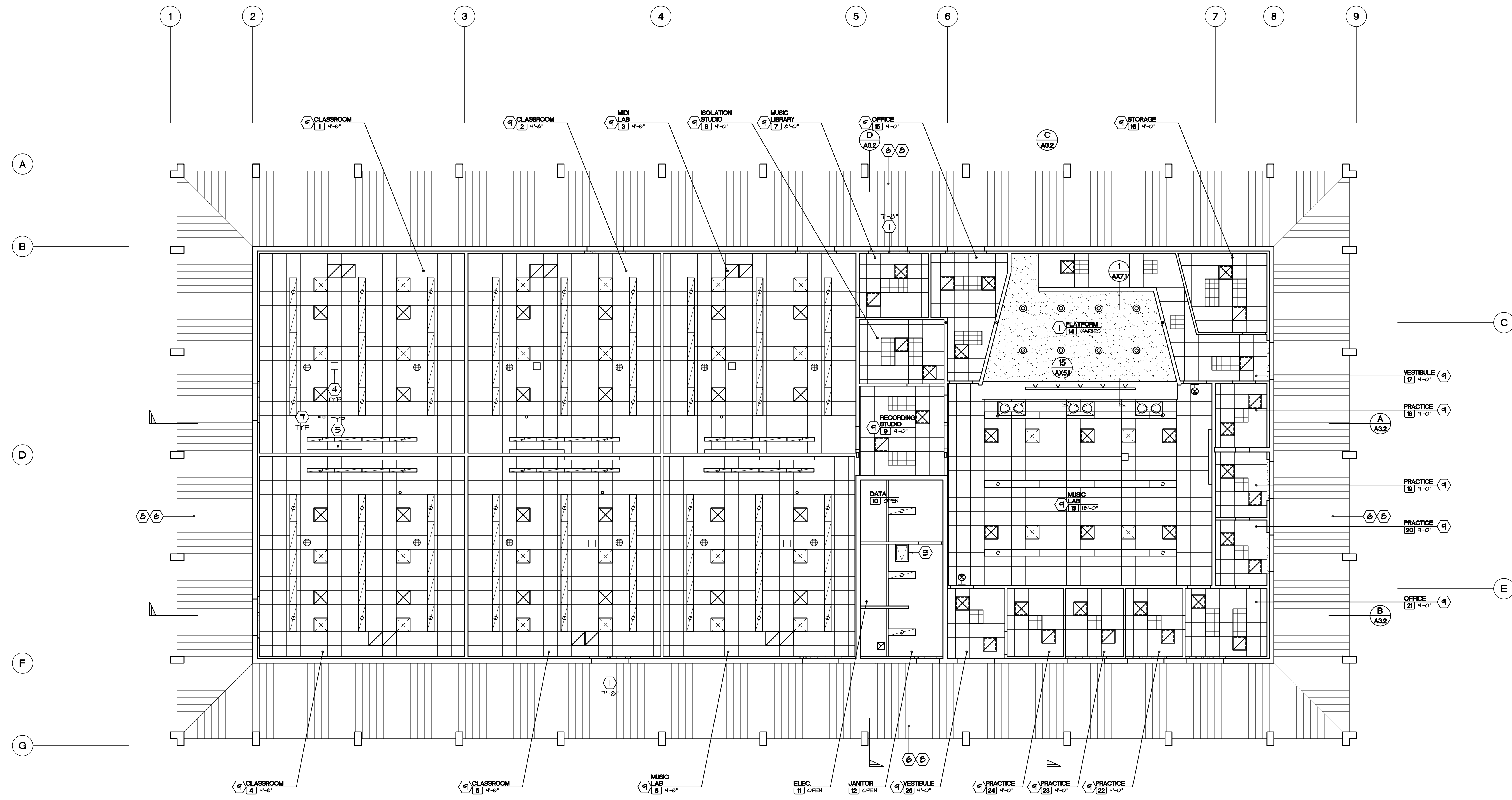
1. SEE SHEET AXIS.1 FOR NOTES AND DETAILS.
2. SEE ELECTRICAL AND MECHANICAL DRAWINGS FOR FIXTURES AND EQUIPMENT.
3. SEE (12) AXIS.1 FOR PENDANT LIGHT FIXTURE.

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Project Title
**IMPERIAL VALLEY COLLEGE
 BUILDING 200, 300 AND 800 MODERNIZATION**

Sheet Title
REFLECTED CEILING PLAN

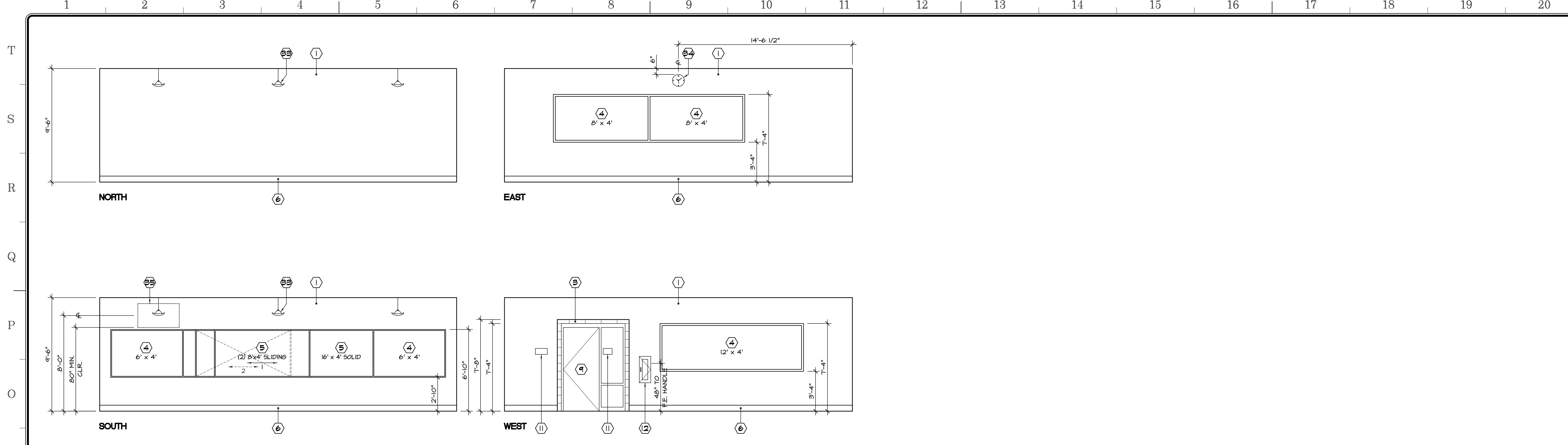
	Document Date	Project Number
	Date Last Revised	Sheet Number
	10-18-19	19-121V
		A3.3



REFLECTED CEILING PLAN

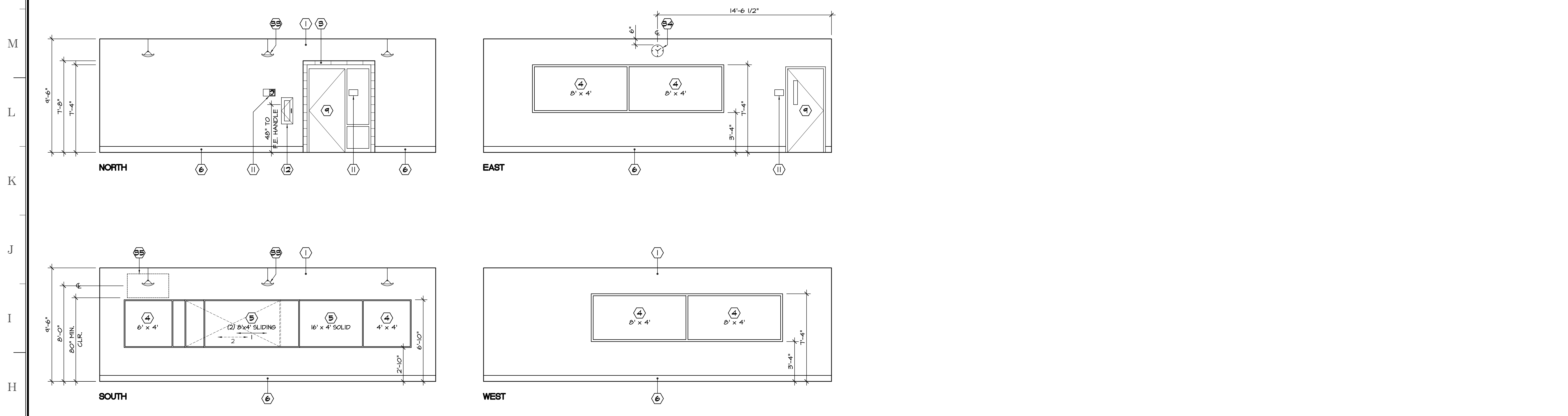
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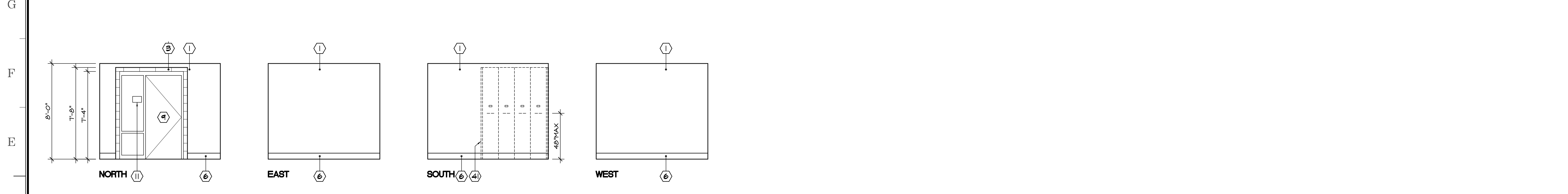
CLASSROOM 1 (4 SIMILAR)

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



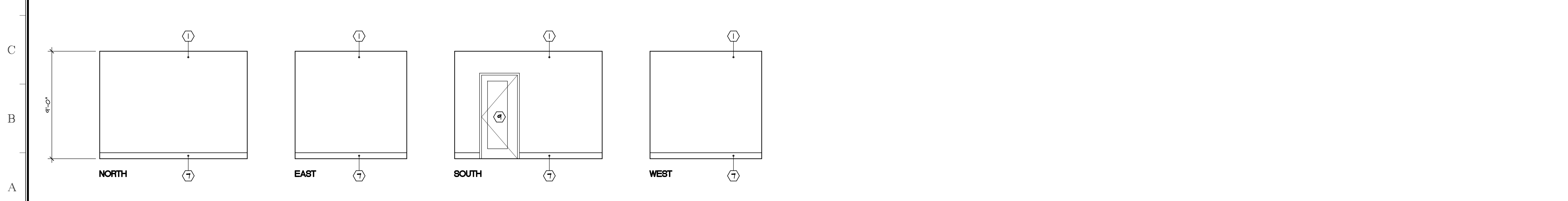
CLASSROOM 2 (3 5 6 SIMILAR)

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



MUSIC LIBRARY 7

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

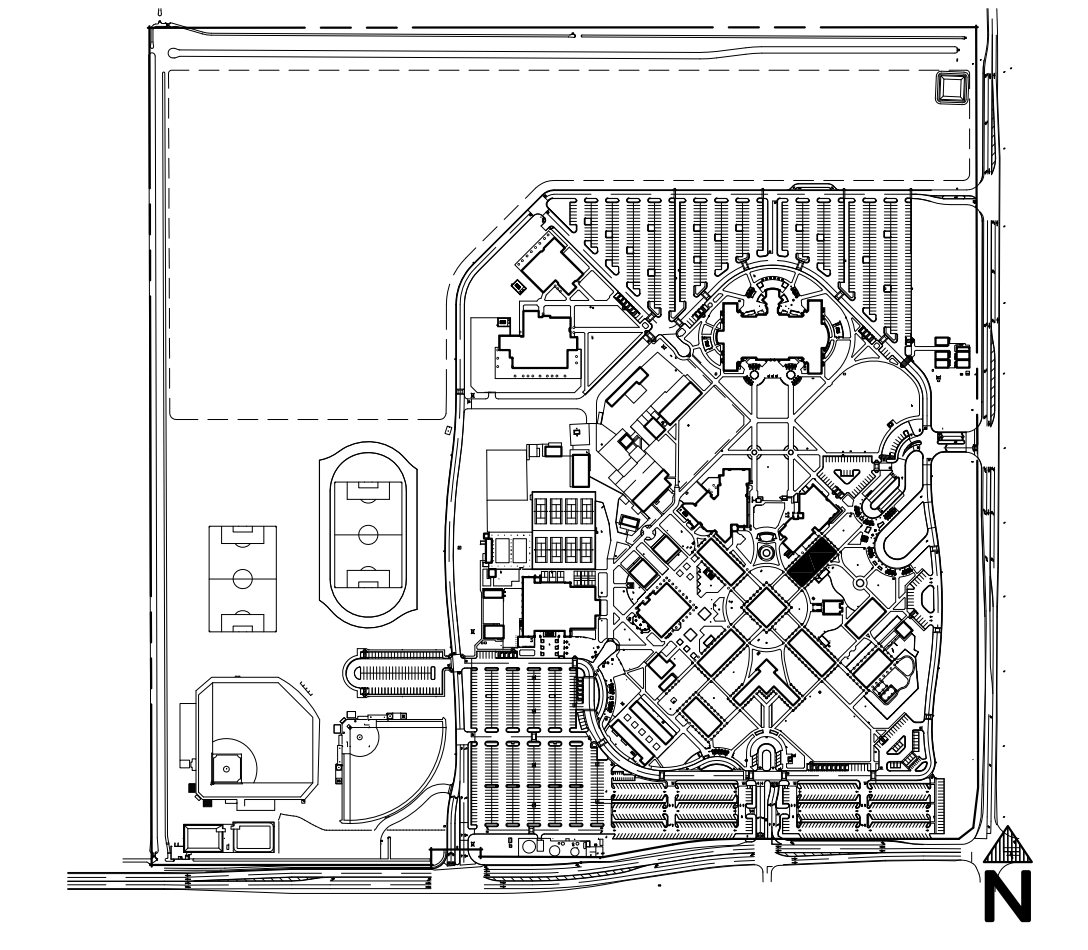


ISOLATION STUDIO 8

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

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KEY PLAN - BLDG 300

KEYNOTES:

- 1 GYPSUM BOARD - TEXTURE, PAINT
- 2 CERAMIC TILE (B)
- 3 SMOOTH FACE CONCRETE MASONRY - CLEAN, SANDBLAST OLD PAINT
- 4 TACK BOARD - SIZE NOTED (D)
- 5 MARKER BOARD w/ TRAY - SIZE NOTED (D)
- 6 6" RUBBER BASE TYPICAL, 4" @ CABINET TOE KICK
- 7 6" CARPET BASE TYPICAL, 4" @ CABINET TOE KICK
- 8 NOT USED
- 9 DOOR / WINDOW PER PLAN
- 10 ILLUMINATED EXIT SIGN - SEE ELECTRICAL DRAWINGS
- 11 SIGNAGE - PER SIGNAGE PLAN
- 12 RECESSED FIRE EXTINGUISHER CABINET w/ TEMPERED GLASS - 48" TO EXTINGUISHER HANDLE w/ 4" MAX PROJECTION TO CABINET HANDLE
- 13 HPL MODULAR CASEWORK - SEE DETAILS (G) (H) (I) (J)
- 14 HPL TOP AND 6" SPLASH, SPLASH @ END OF COUNTER
- 15 HPL MODULAR CASEWORK w/ ADJUSTABLE OPEN SHELVES
- 16 HPL ADJUSTABLE SHELVES
- 17 ACCESSIBLE WORK STATION (D)
- 18 ACCESSIBLE WATER CLOSET - SEE PLUMBING DRAWINGS
- 19 ACCESSIBLE URINAL (B) - SEE PLUMBING DRAWINGS
- 20 ACCESSIBLE LAVATORY (B) - SEE PLUMBING DRAWINGS
- 21 MOP SERVICE BASIN w/ STAINLESS STEEL WALL GUARD - SEE PLUMBING DRAWINGS
- 22 BROOM / MOP RACK - VERIFY MOUNTING HEIGHT - SEE SPECIFICATIONS
- 23 GRAB BARS - FOR ANCHORAGE SEE (B) (E)
- 24 MIRROR w/ STAINLESS STEEL FRAME (B) (K)
- 25 SOAP DISPENSER (B)
- 26 TYP HEAVY DUTY TOILET PARTITION, HEAD RAIL BRACES - FOR ANCHORAGE SEE (21) (AX3)
- 27 HAND DRYER (MAX 4" PROJECTION) (B) (AX3)
- 28 RECESSED TOILET PAPER HOLDER (B) (K)
- 29 RECESSED FEMININE NAPKIN DISPOSAL (B) (K)
- 30 RECESSED TOILET SEAT COVER DISPENSER (B)
- 31 WATER HEATER - SEE PLUMBING DRAWINGS
- 32 WATER HEATER SHELF (N)
- 33 PENDANT LIGHT FIXTURE - SEE ELECTRICAL DRAWINGS
- 34 12" WALL CLOCK - SEE SPECIFICATIONS
- 35 FLAT PANEL MONITOR - SEE SPECIFICATIONS (4) (CM3)
- 36 4' x 8' x 3/4" PLYWOOD, PAINT
- 37 ELECTRICAL EQUIPMENT - SEE ELECTRICAL DRAWINGS
- 38 COMMUNICATIONS EQUIPMENT - SEE COMMUNICATIONS DRAWINGS
- 39 ALUMINUM ROOF ACCESS SHIP'S LADDER - SEE SPECIFICATIONS (10) (AX3)
- 40 NOT USED
- 41 FURNITURE ITEM - SEE SPECIFICATIONS
- 42 MECHANICAL PIPING - SEE MECHANICAL DRAWINGS
- 43 1-1/2" STAINLESS STEEL HANDRAIL (E) (AX3)

NOTES:

1. FOR FIXTURE MOUNTING HEIGHTS SEE (B) (AX3)
2. FOR TOILET ROOM ACCESSORIES SEE SPECIFICATIONS.

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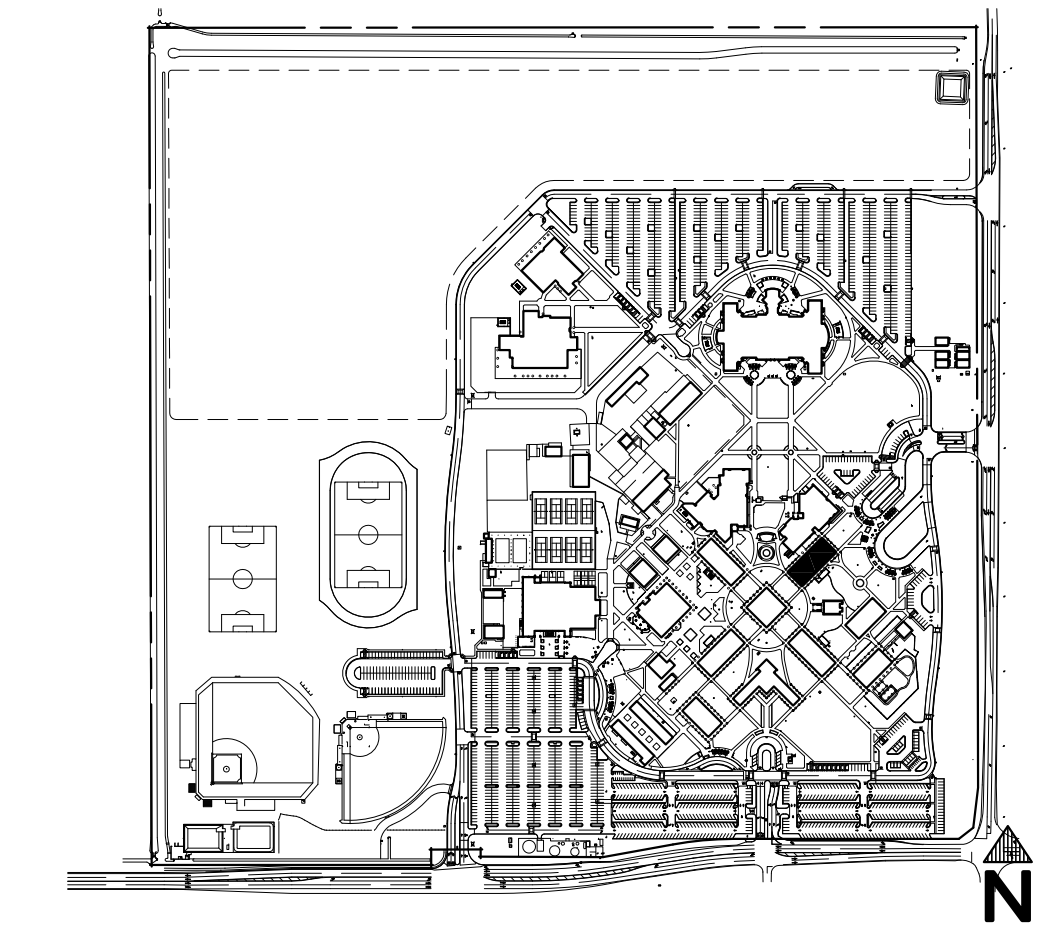
Project Title
**IMPERIAL VALLEY COLLEGE
BUILDING 200, 300 AND 800 MODERNIZATION**

Sheet Title
INTERIOR ELEVATIONS

	Document Date	Project Number
	10-18-19	19-21V
Date Last Revised		Sheet Number
		A3.4.1

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KEY PLAN - BLDG 300

KEYNOTES:

- ① 6" GYPSUM BOARD - TEXTURE, PAINT
- ② CERAMIC TILE (B)
- ③ SMOOTH FACE CONCRETE MASONRY - CLEAN, SANDBLAST OLD PAINT
- ④ TACK BOARD - SIZE NOTED (D)
- ⑤ MARKER BOARD w/ TRAY - SIZE NOTED (D)
- ⑥ 6" RUBBER BASE TYPICAL, 4" @ CABINET TOE KICK
- ⑦ 6" CARPET BASE TYPICAL, 4" @ CABINET TOE KICK
- ⑧ NOT USED
- ⑨ DOOR / WINDOW PER PLAN
- ⑩ ILLUMINATED EXIT SIGN - SEE ELECTRICAL DRAWINGS
- ⑪ SIGNAGE - PER SIGNAGE PLAN
- ⑫ RECESSED FIRE EXTINGUISHER CABINET w/ TEMPERED GLASS - 48" TO EXTINGUISHER HANDLE w/ 4" MAX PROJECTION TO CABINET HANDLE
- ⑬ HPL MODULAR CASEWORK - SEE DETAILS (G) (H) (I) (J)
- ⑭ HPL TOP AND 6" SPLASH, SPLASH @ END OF COUNTER
- ⑮ HPL MODULAR CASEWORK w/ ADJUSTABLE OPEN SHELVES
- ⑯ HPL ADJUSTABLE SHELVES
- ⑰ ACCESSIBLE WORK STATION (D) (AX3)
- ⑱ ACCESSIBLE WATER CLOSET - SEE PLUMBING DRAWINGS
- ⑲ ACCESSIBLE URINAL (B) - SEE PLUMBING DRAWINGS
- ⑳ ACCESSIBLE LAVATORY (B) (AX3) - SEE PLUMBING DRAWINGS
- ㉑ MOP SERVICE BASIN w/ STAINLESS STEEL WALL GUARD - SEE PLUMBING DRAWINGS
- ㉒ BROOM / MOP RACK - VERIFY MOUNTING HEIGHT - SEE SPECIFICATIONS
- ㉓ GRAB BARS - FOR ANCHORAGE SEE (B) (AX3) (E)
- ㉔ MIRROR w/ STAINLESS STEEL FRAME (B) (AX3)
- ㉕ SOAP DISPENSER (B) (AX3)
- ㉖ TYP HEAVY DUTY TOILET PARTITION, HEAD RAIL BRACES - FOR ANCHORAGE SEE (21) (AX3)
- ㉗ HAND DRYER (MAX 4" PROJECTION) (B) (AX3)
- ㉘ RECESSED TOILET PAPER HOLDER (B) (AX3) (K)
- ㉙ RECESSED FEMININE NAPKIN DISPOSAL (B) (AX3) (AX3)
- ㉚ RECESSED TOILET SEAT COVER DISPENSER (B) (AX3)
- ㉛ WATER HEATER - SEE PLUMBING DRAWINGS
- ㉜ WATER HEATER SHELF (N)
- ㉝ 12" WALL CLOCK - SEE SPECIFICATIONS
- ㉞ PENDANT LIGHT FIXTURE - SEE ELECTRICAL DRAWINGS
- ㉟ 12" WALL CLOCK - SEE SPECIFICATIONS
- ㊱ FLAT PANEL MONITOR - SEE SPECIFICATIONS (4) (AX3)
- ㊲ 4' x 8' x 3/4" PLYWOOD, PAINT
- ㊳ ELECTRICAL EQUIPMENT - SEE ELECTRICAL DRAWINGS
- ㊴ COMMUNICATIONS EQUIPMENT - SEE COMMUNICATIONS DRAWINGS
- ㊵ ALUMINUM ROOF ACCESS SHIP'S LADDER - SEE SPECIFICATIONS (10) (AX3)
- ㊶ NOT USED
- ㊷ FURNITURE ITEM - SEE SPECIFICATIONS
- ㊸ MECHANICAL PIPING - SEE MECHANICAL DRAWINGS
- ㊹ 1-1/2" STAINLESS STEEL HANDRAIL (E) (AX3)

NOTES:

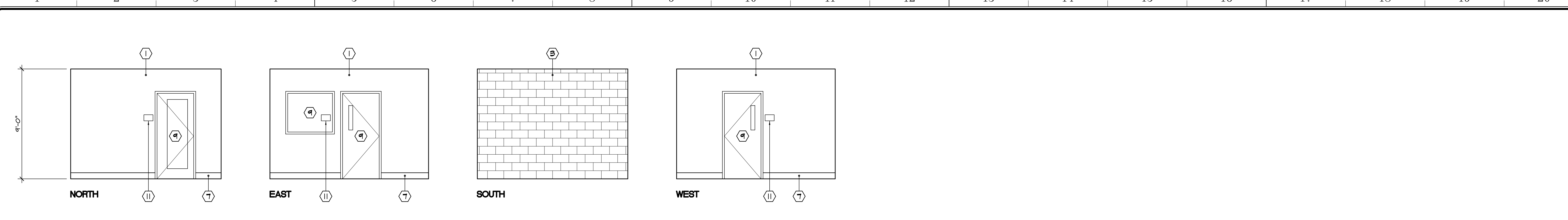
1. FOR FIXTURE MOUNTING HEIGHTS SEE (B) (AX3)
2. FOR TOILET ROOM ACCESSORIES SEE SPECIFICATIONS.

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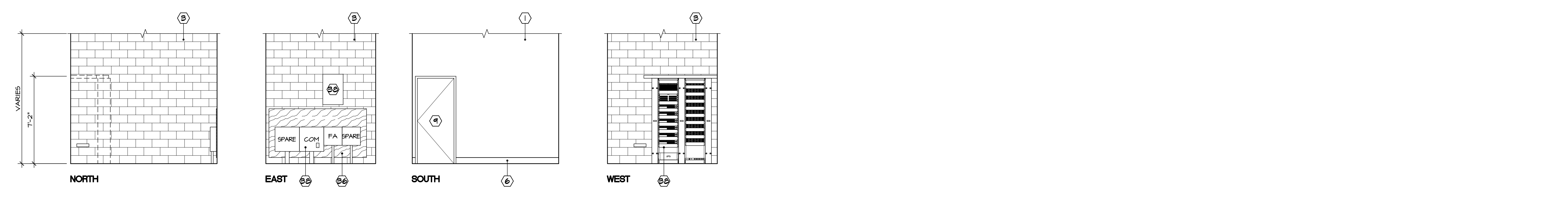
Project Title
**IMPERIAL VALLEY COLLEGE
 BUILDING 200, 300 AND 800 MODERNIZATION**

Sheet Title
INTERIOR ELEVATIONS

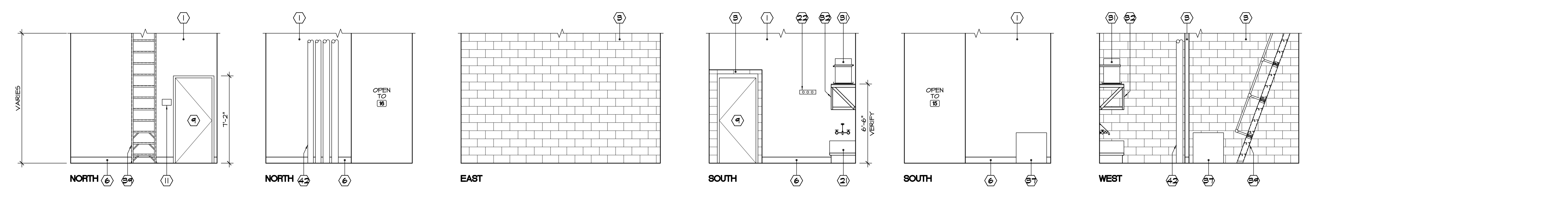
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	Date Last Revised	Sheet Number A3.4.2



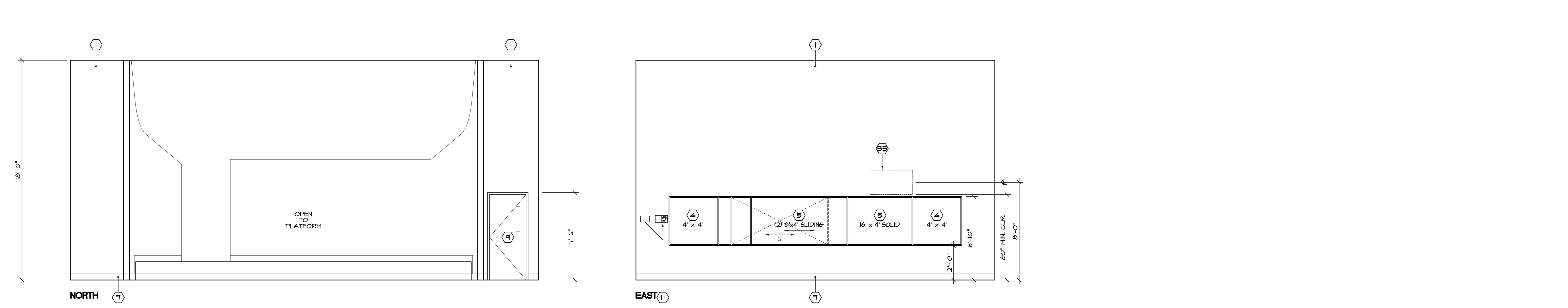
RECORDING STUDIO 9 SCALE: 1/4" = 1'-0" **A**



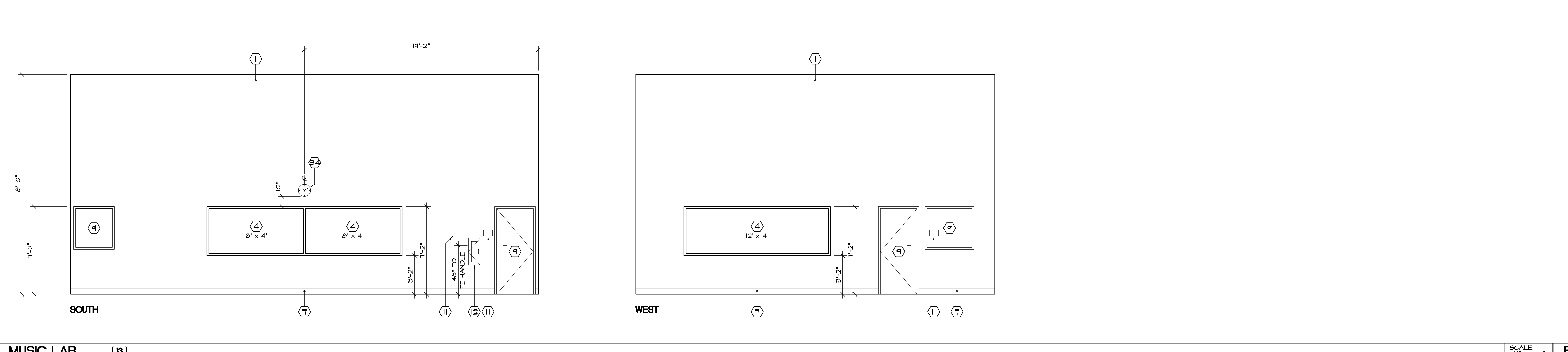
DATA 10 SCALE: 1/4" = 1'-0" **B**



ELECTRICAL 11 / JANITOR 12 SCALE: 1/4" = 1'-0" **C**



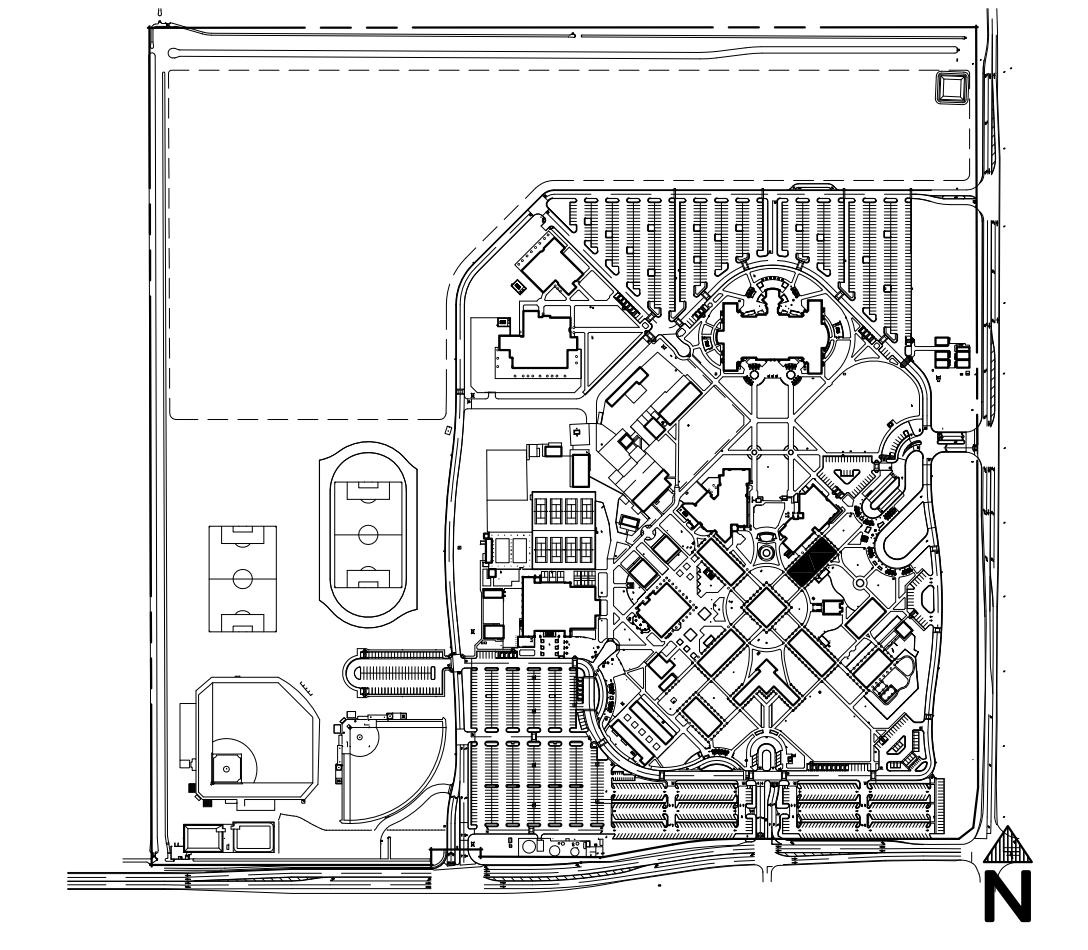
MUSIC LAB 18 SCALE: 1/4" = 1'-0" **F**



MUSIC LAB 18 SCALE: 1/4" = 1'-0" **F**

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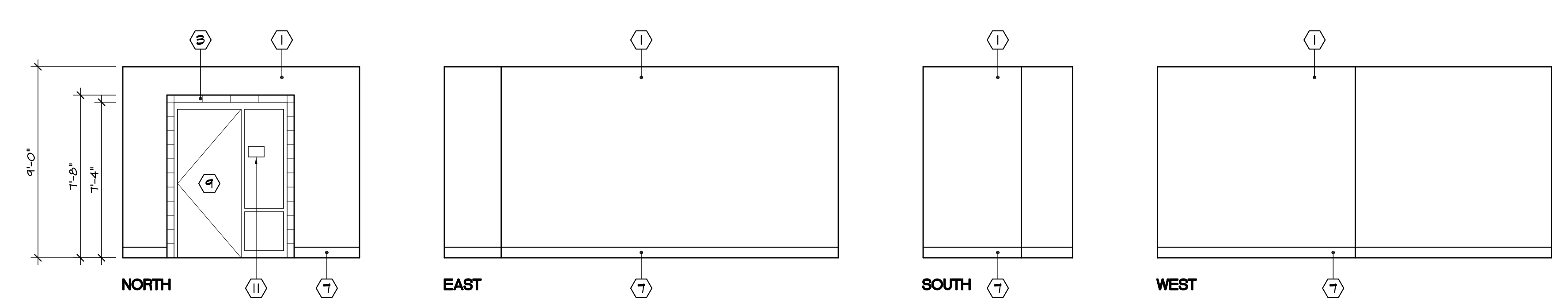
KEY PLAN - BLDG 300

KEYNOTES:

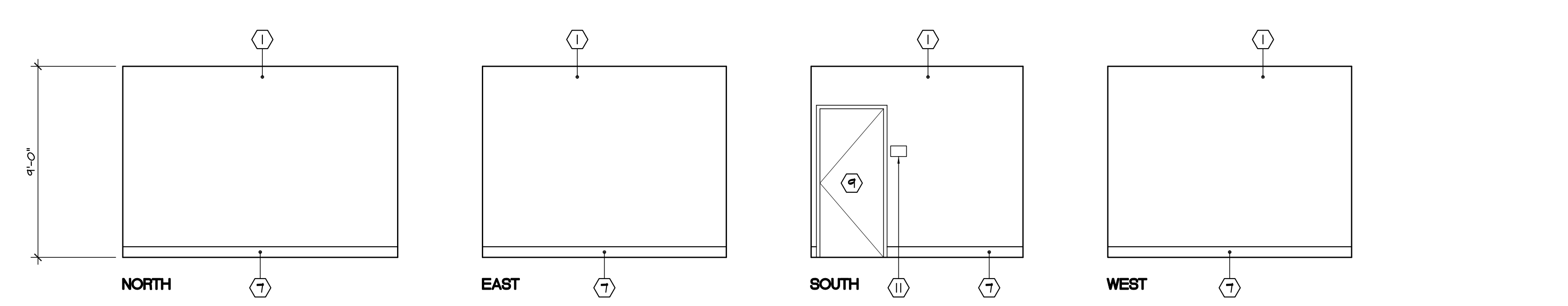
- ① GYPSUM BOARD - TEXTURE, PAINT
- ② CERAMIC TILE (B)
- ③ SMOOTH FACE CONCRETE MASONRY - CLEAN, SANDBLAST OLD PAINT
- ④ TACK BOARD - SIZE NOTED (D)
- ⑤ MARKER BOARD w/ TRAY - SIZE NOTED (D)
- ⑥ 6" RUBBER BASE TYPICAL, 4" @ CABINET TOE KICK
- ⑦ 6" CARPET BASE TYPICAL, 4" @ CABINET TOE KICK
- ⑧ NOT USED
- ⑨ DOOR / WINDOW PER PLAN
- ⑩ ILLUMINATED EXIT SIGN - SEE ELECTRICAL DRAWINGS
- ⑪ SIGNAGE - PER SIGNAGE PLAN
- ⑫ RECESSED FIRE EXTINGUISHER CABINET w/ TEMPERED GLASS - 48" TO EXTINGUISHER HANDLE w/ 4" MAX PROJECTION TO CABINET HANDLE
- ⑬ HPL MODULAR CASEWORK - SEE DETAILS (G) (H) (I) (J)
- ⑭ HPL TOP AND 6" SPLASH, SPLASH @ END OF COUNTER
- ⑮ HPL MODULAR CASEWORK w/ ADJUSTABLE OPEN SHELVES
- ⑯ HPL ADJUSTABLE SHELVES
- ⑰ ACCESSIBLE WORK STATION (D)
- ⑱ ACCESSIBLE WATER CLOSET - SEE PLUMBING DRAWINGS
- ⑲ ACCESSIBLE URINAL (B) - SEE PLUMBING DRAWINGS
- ⑳ ACCESSIBLE LAVATORY (B) - SEE PLUMBING DRAWINGS
- ㉑ MOP SERVICE BASIN w/ STAINLESS STEEL WALL GUARD - SEE PLUMBING DRAWINGS
- ㉒ BROOM / MOP RACK - VERIFY MOUNTING HEIGHT - SEE SPECIFICATIONS
- ㉓ GRAB BARS - FOR ANCHORAGE SEE (B) (E)
- ㉔ MIRROR w/ STAINLESS STEEL FRAME (B) (AX3)
- ㉕ SOAP DISPENSER (B) (AX3)
- ㉖ TYP HEAVY DUTY TOILET PARTITION, HEAD RAIL BRACES - FOR ANCHORAGE SEE (21) (AX3)
- ㉗ HAND DRYER (MAX 4" PROJECTION) (B) (AX3)
- ㉘ RECESSED TOILET PAPER HOLDER (B) (AX3) (K)
- ㉙ RECESSED FEMINE NAPKIN DISPOSAL (B) (AX3) (AX3)
- ㉚ RECESSED TOILET SEAT COVER DISPENSER (B) (AX3)
- ㉛ WATER HEATER - SEE PLUMBING DRAWINGS
- ㉜ WATER HEATER SHELF (N) (AX4)
- ㉝ 12" WALL CLOCK - SEE SPECIFICATIONS (4) (AX3)
- ㉞ PENDANT LIGHT FIXTURE - SEE ELECTRICAL DRAWINGS
- ㉟ 4" x 8" x 3/4" PLYWOOD, PAINT
- ㊱ ELECTRICAL EQUIPMENT - SEE ELECTRICAL DRAWINGS
- ㊲ COMMUNICATIONS EQUIPMENT - SEE COMMUNICATIONS DRAWINGS
- ㊳ ALUMINUM ROOF ACCESS SHIP'S LADDER - SEE SPECIFICATIONS (10) (AX3)
- ㊴ NOT USED
- ㊵ FURNITURE ITEM - SEE SPECIFICATIONS
- ㊶ MECHANICAL PIPING - SEE MECHANICAL DRAWINGS
- ㊷ 1-1/2" STAINLESS STEEL HANDRAIL (E) (AX3)

PLATFORM 14

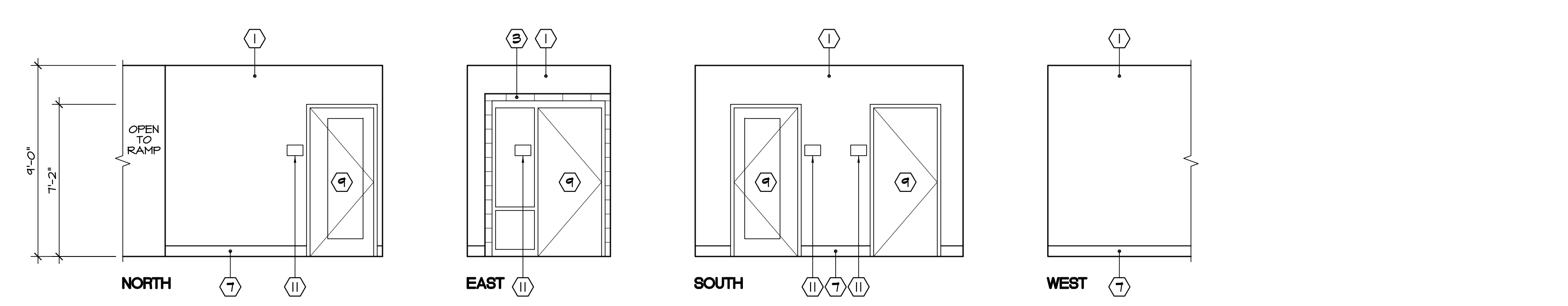
SCALE: 1/4" = 1'-0" A



OFFICE 15



STORAGE 16



VESTIBULE 17

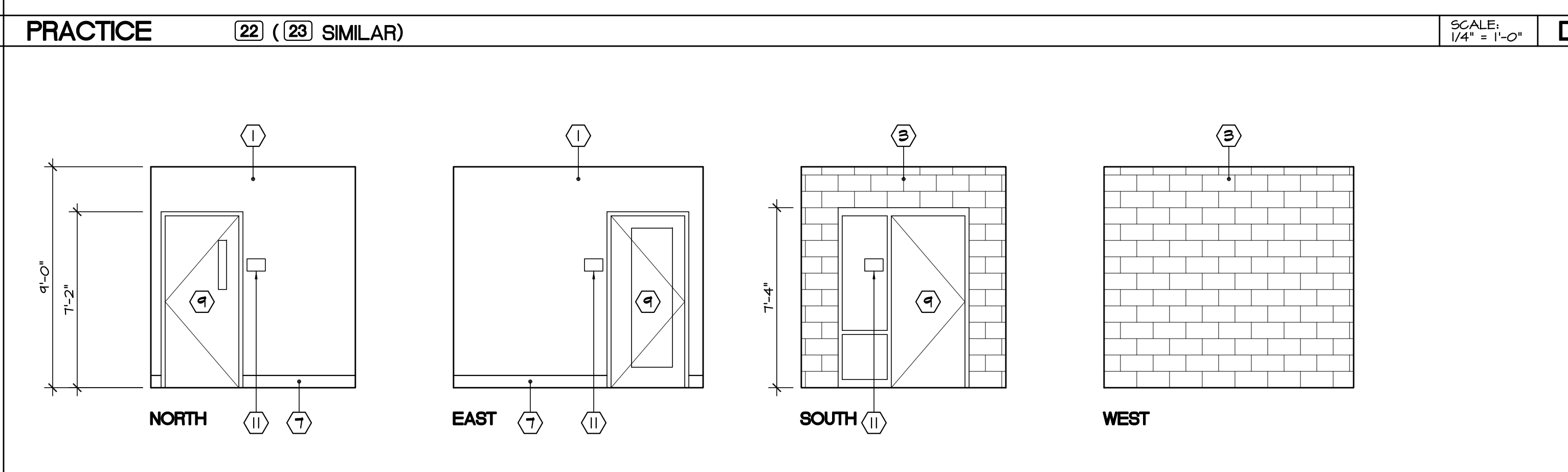
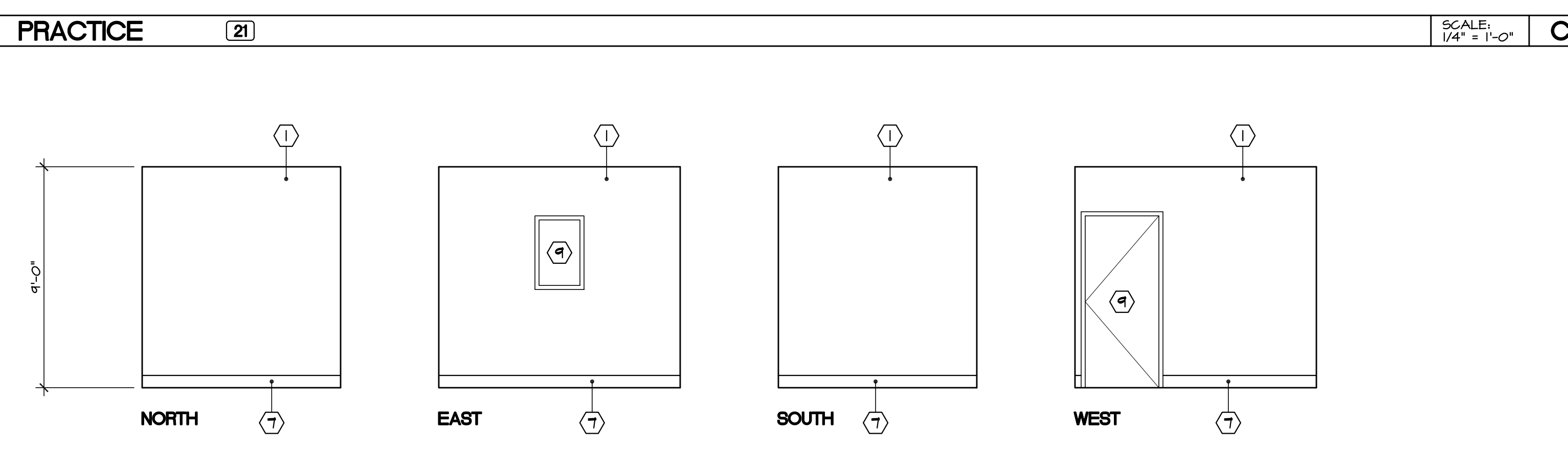
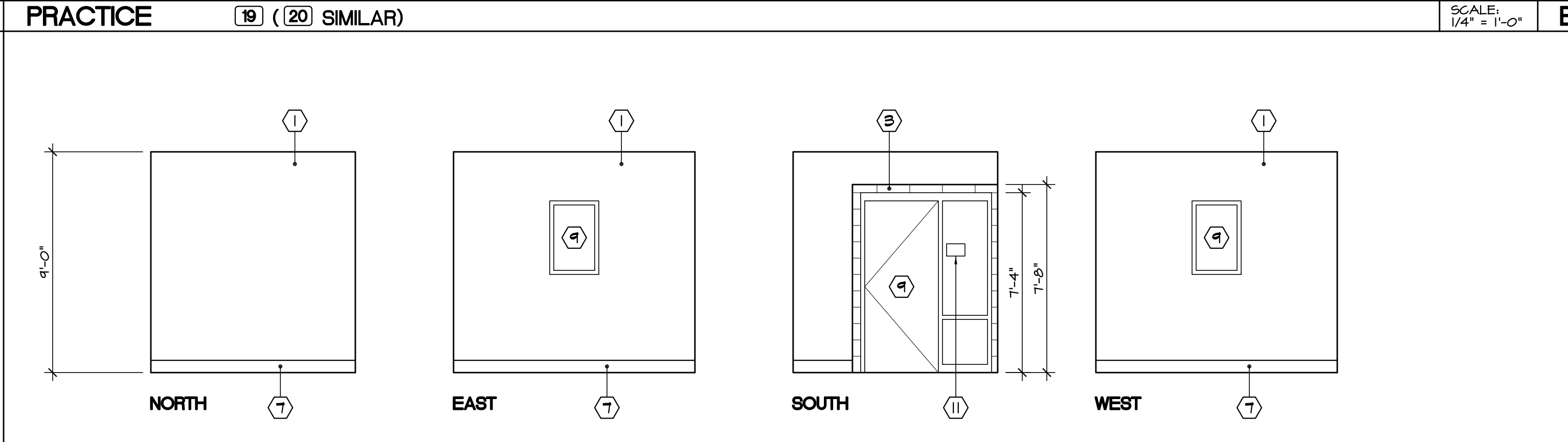
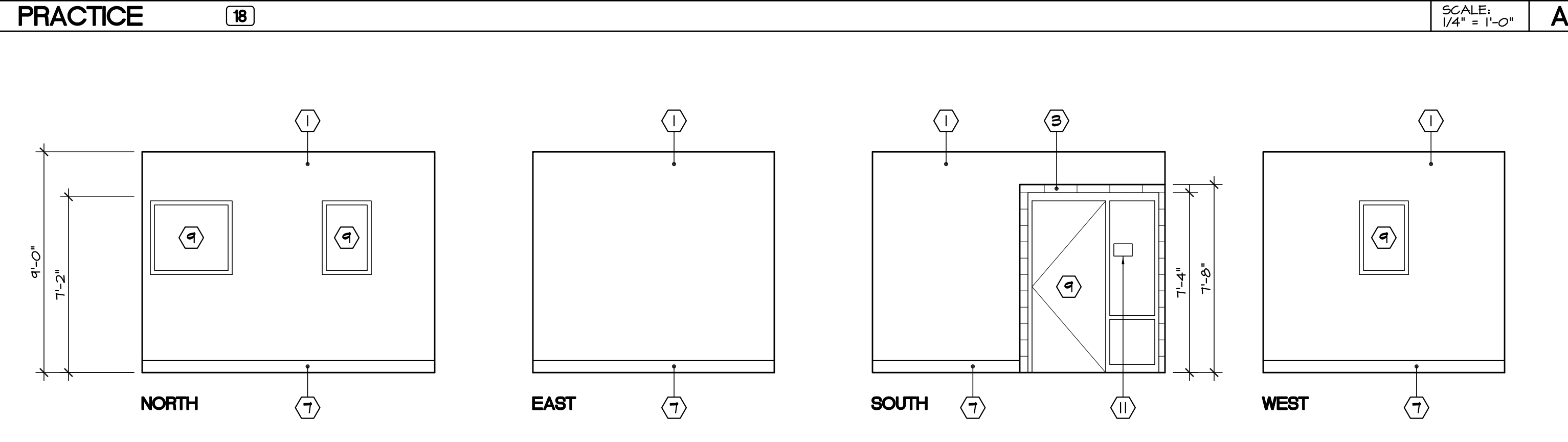
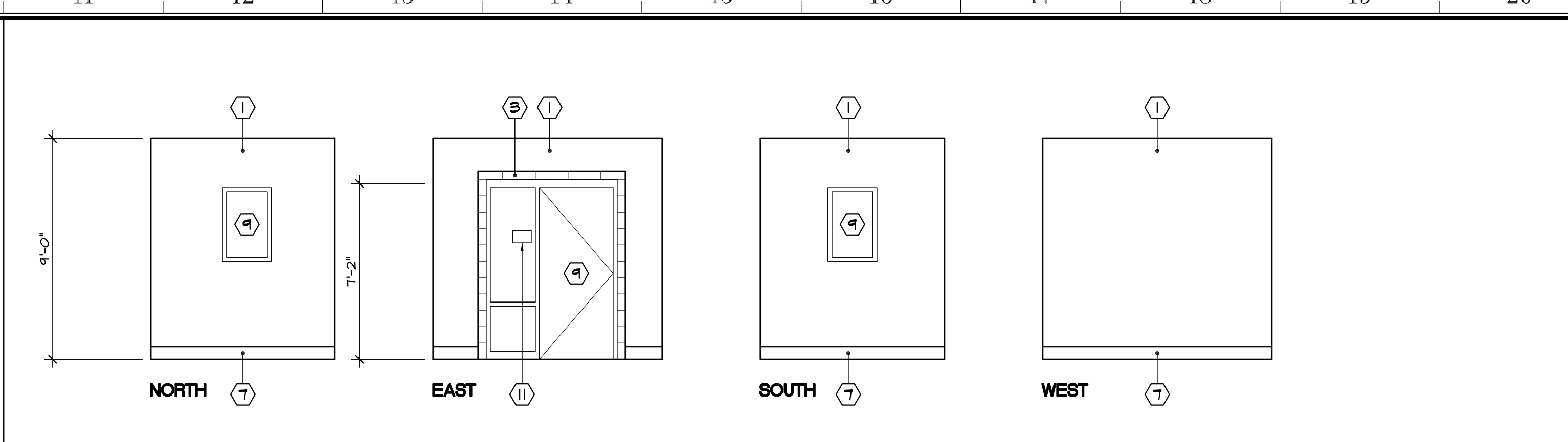
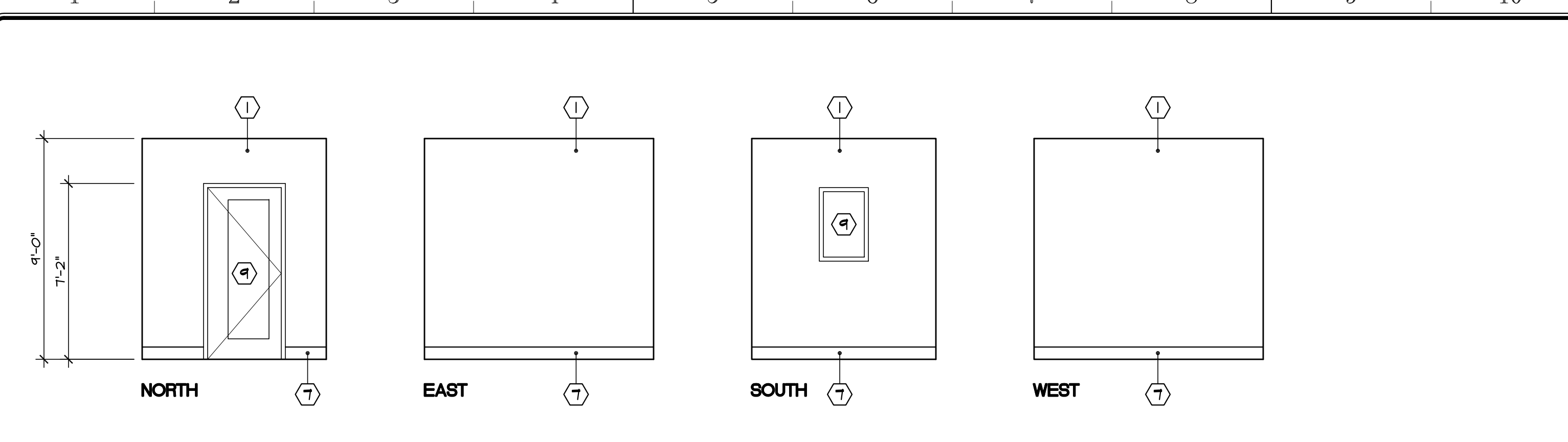
SCALE: 1/4" = 1'-0" B

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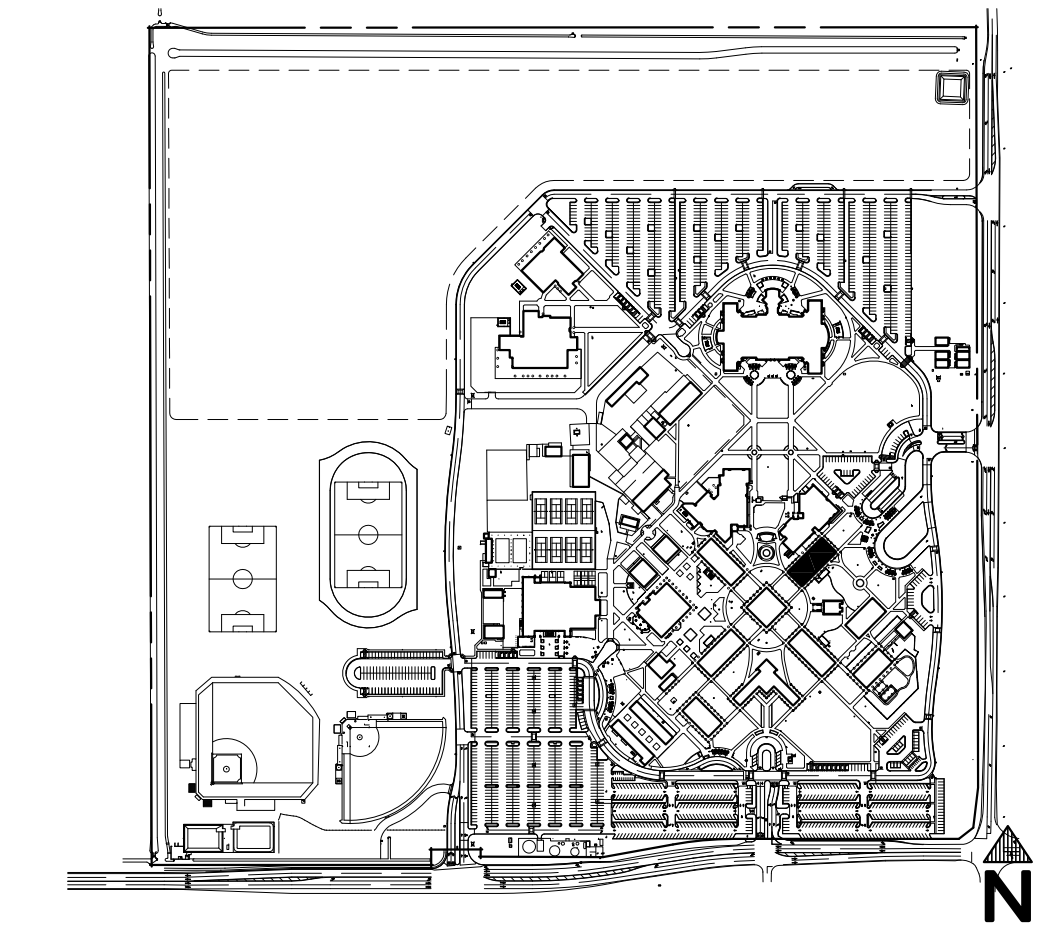
Project Title
**IMPERIAL VALLEY COLLEGE
 BUILDING 200, 300 AND 800 MODERNIZATION**

INTERIOR ELEVATIONS

	Document Date	Project Number
	10-18-19	19-121V
Date Last Revised		Sheet Number
		A3.4.3



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KEYNOTES:

- 1 GYPSUM BOARD - TEXTURE, PAINT
- 2 CERAMIC TILE (B) (AX3)
- 3 SMOOTH FACE CONCRETE MASONRY - CLEAN, SANDBLAST OLD PAINT
- 4 TACK BOARD - SIZE NOTED (D) (AX4)
- 5 MARKER BOARD w/ TRAY - SIZE NOTED (D) (AX4)
- 6 6" RUBBER BASE TYPICAL, 4" @ CABINET TOE KICK
- 7 6" CARPET BASE TYPICAL, 4" @ CABINET TOE KICK
- 8 NOT USED
- 9 DOOR / WINDOW PER PLAN
- 10 ILLUMINATED EXIT SIGN - SEE ELECTRICAL DRAWINGS
- 11 SIGNAGE - PER SIGNAGE PLAN
- 12 RECESSED FIRE EXTINGUISHER CABINET w/ TEMPERED GLASS - 48" TO EXTINGUISHER HANDLE w/ 4" MAX PROJECTION TO CABINET HANDLE
- 13 HPL MODULAR CASEWORK - SEE DETAILS (G) (H) (AX4)
- 14 HPL TOP AND 6" SPLASH, SPLASH @ END OF COUNTER
- 15 HPL MODULAR CASEWORK w/ ADJUSTABLE OPEN SHELVES
- 16 HPL ADJUSTABLE SHELVES
- 17 ACCESSIBLE WORK STATION (D) (AX3)
- 18 ACCESSIBLE WATER CLOSET - SEE PLUMBING DRAWINGS
- 19 ACCESSIBLE URINAL (B) (AX3) - SEE PLUMBING DRAWINGS
- 20 ACCESSIBLE LAVATORY (B) (AX3) - SEE PLUMBING DRAWINGS
- 21 MOP SERVICE BASIN w/ STAINLESS STEEL WALL GUARD - SEE PLUMBING DRAWINGS
- 22 BROOM / MOP RACK - VERIFY MOUNTING HEIGHT - SEE SPECIFICATIONS
- 23 GRAB BARS - FOR ANCHORAGE SEE (B) (AX3) (E)
- 24 MIRROR w/ STAINLESS STEEL FRAME (B) (AX3)
- 25 SOAP DISPENSER (B) (AX3)
- 26 TYP HEAVY DUTY TOILET PARTITION, HEAD RAIL BRACES - FOR ANCHORAGE SEE (B) (AX3)
- 27 HAND DRYER (MAX 4" PROJECTION) (B) (AX3)
- 28 RECESSED TOILET PAPER HOLDER (B) (AX3) (K)
- 29 RECESSED FEMINE NAPKIN DISPOSAL (B) (AX3) (AX3)
- 30 RECESSED TOILET SEAT COVER DISPENSER (B) (AX3)
- 31 WATER HEATER - SEE PLUMBING DRAWINGS
- 32 WATER HEATER SHELF (N) (AX4)
- 33 12" WALL LIGHT FIXTURE - SEE ELECTRICAL DRAWINGS (12) (AX3)
- 34 12" WALL CLOCK - SEE SPECIFICATIONS
- 35 FLAT PANEL MONITOR - SEE SPECIFICATIONS (4) (AX3)
- 36 4' x 8' x 3/4" PLYWOOD, PAINT
- 37 ELECTRICAL EQUIPMENT - SEE ELECTRICAL DRAWINGS
- 38 COMMUNICATIONS EQUIPMENT - SEE COMMUNICATIONS DRAWINGS
- 39 ALUMINUM ROOF ACCESS SHIP'S LADDER - SEE SPECIFICATIONS (10) (AX3)
- 40 NOT USED
- 41 FURNITURE ITEM - SEE SPECIFICATIONS
- 42 MECHANICAL PIPING - SEE MECHANICAL DRAWINGS
- 43 1-1/2" STAINLESS STEEL HANDRAIL (E) (AX3)

NOTES:

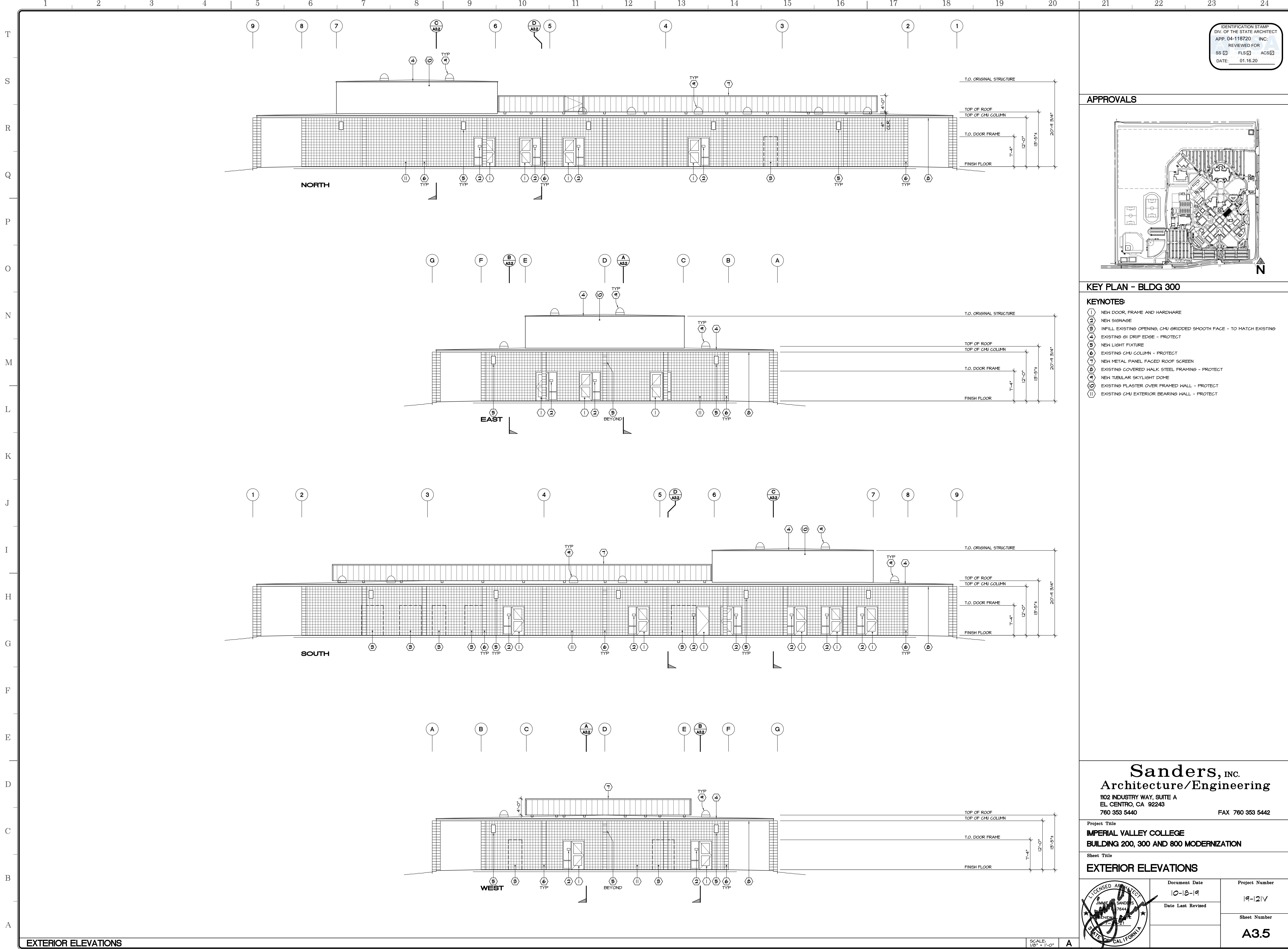
1. FOR FIXTURE MOUNTING HEIGHTS SEE (B) (AX3)
2. FOR TOILET ROOM ACCESSORIES SEE SPECIFICATIONS.

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Project Title
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 BUILDING 200, 300 AND 800 MODERNIZATION**

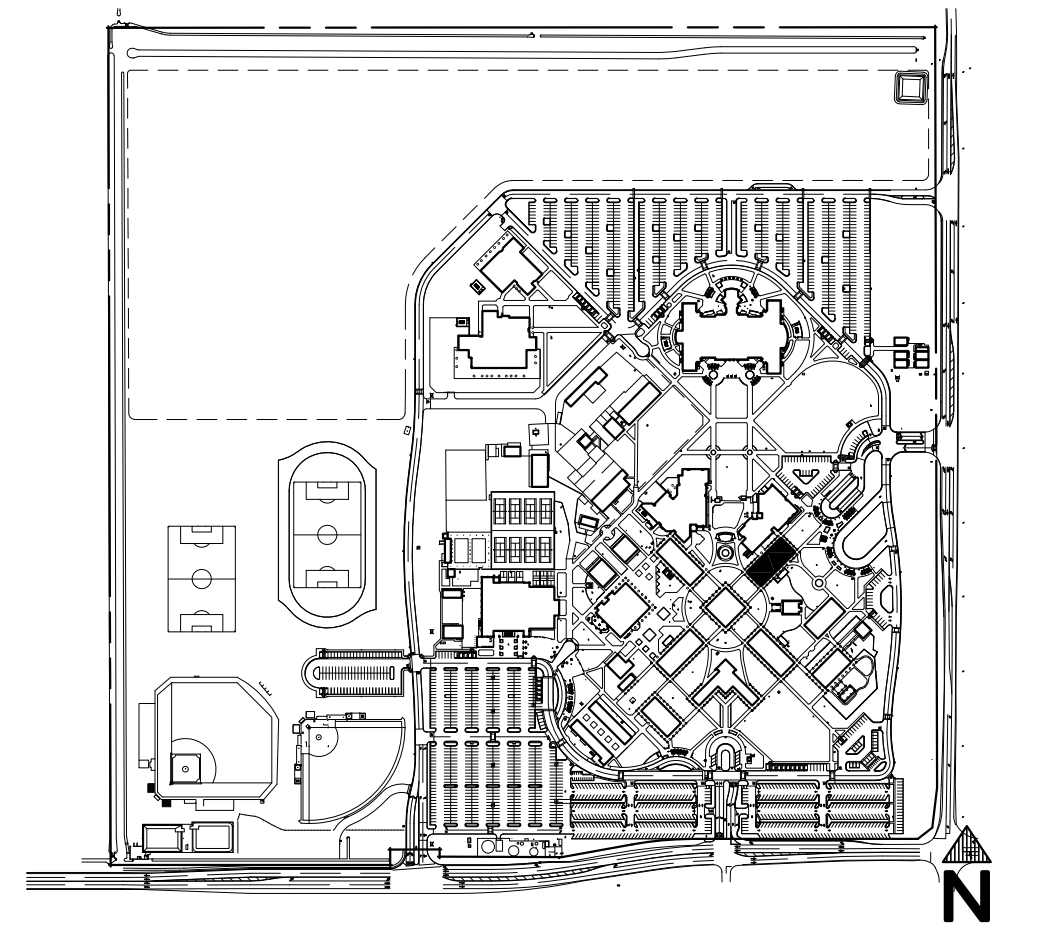
Sheet Title
INTERIOR ELEVATIONS

	Document Date	Project Number
	10-18-19	19-121V
Date Last Revised		Sheet Number
		A3.4.4



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KEY PLAN - BLDG 300

- KEYNOTES:**
- ① NEW DOOR, FRAME AND HARDWARE
 - ② NEW SIGNAGE
 - ③ INFILL EXISTING OPENING, CMU GRIDDED SMOOTH FACE - TO MATCH EXISTING
 - ④ EXISTING GI DRIP EDGE - PROTECT
 - ⑤ NEW LIGHT FIXTURE
 - ⑥ EXISTING CMU COLUMN - PROTECT
 - ⑦ NEW METAL PANEL FACED ROOF SCREEN
 - ⑧ EXISTING COVERED WALK STEEL FRAMING - PROTECT
 - ⑨ NEW TUBULAR SKYLIGHT DOME
 - ⑩ EXISTING PLASTER OVER FRAMED WALL - PROTECT
 - ⑪ EXISTING CMU EXTERIOR BEARING WALL - PROTECT

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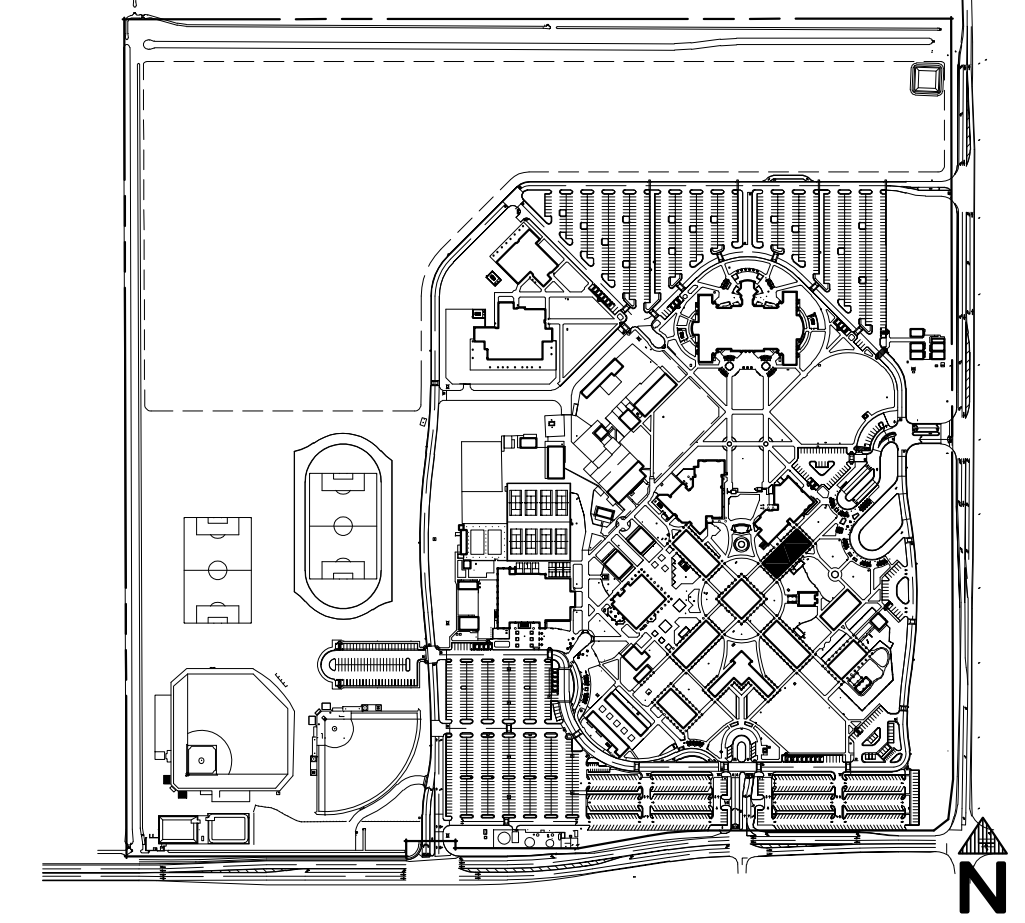
Project Title
**IMPERIAL VALLEY COLLEGE
 BUILDING 200, 300 AND 800 MODERNIZATION**

Sheet Title
EXTERIOR ELEVATIONS

	Document Date	Project Number
	Date Last Revised	Sheet Number
	10-18-19	19-121V
		A3.5

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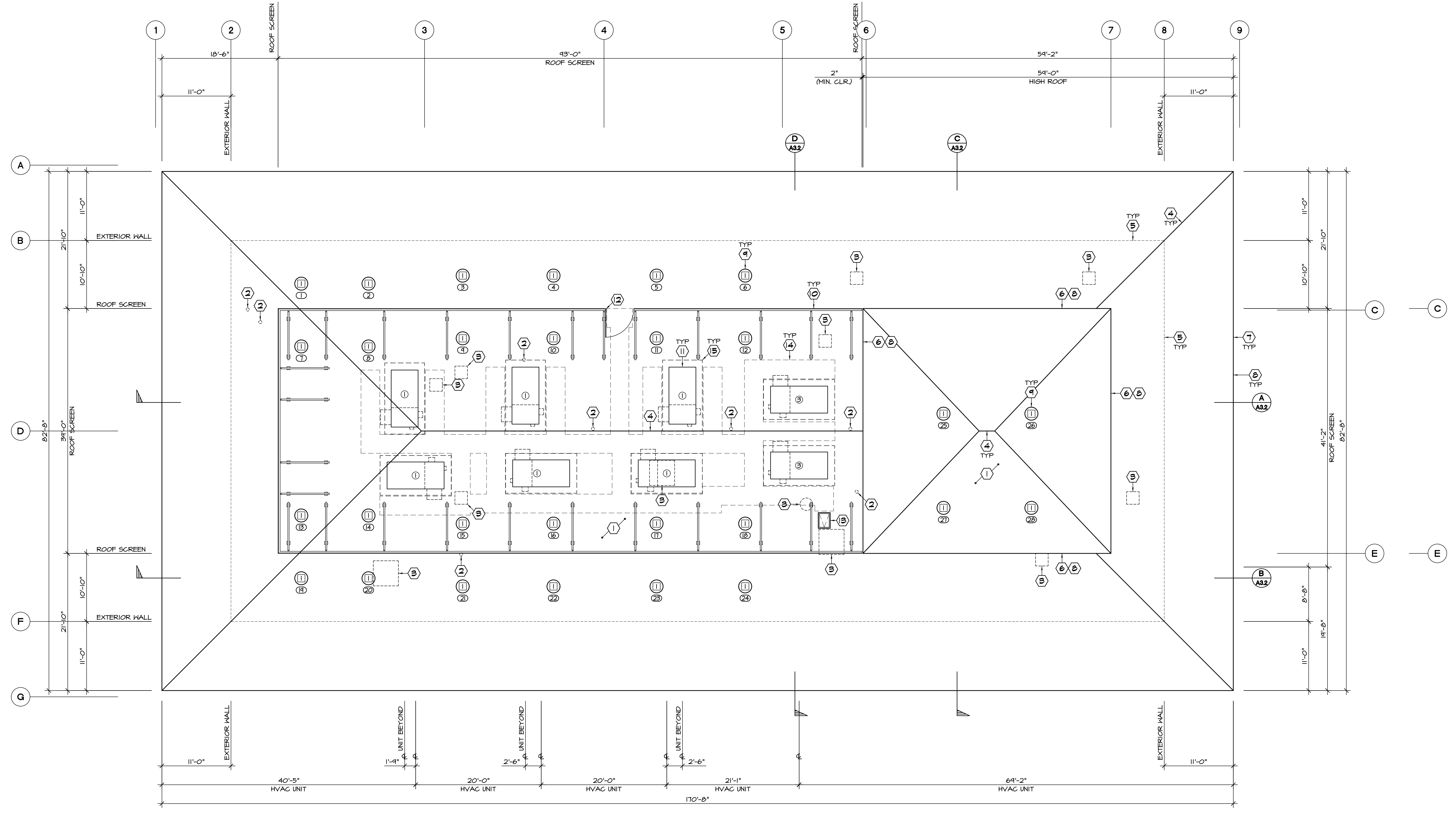
KEY PLAN - BLDG 300

KEYNOTES:

- ① EXISTING 15 mm REINFORCED PVC MEMBRANE OVER 1/4" DENSDECK OVER TAPERED EXPANDED POLYSTYRENE (EPS) BOARD OVER BUILT UP ASPHALT ROOF
- ② EXISTING PIPE PENETRATION - REMOVE AND PATCH ROOF
- ③ EXISTING VENT HOOD - REMOVE AND PATCH ROOF
- ④ RIDGE / VALLEY LINE OF TAPERED EPS BOARD
- ⑤ LINE OF EXTERIOR WALL BELOW ROOF
- ⑥ LINE OF HIGH ROOF
- ⑦ TOP OF CMU COLUMN - PROTECT
- ⑧ EXISTING G.I. W/ LAMINATED PVC DRIP EDGE - PROTECT
- ⑨ NEW TUBULAR SKYLIGHT - SEE SPECIFICATIONS
- ⑩ "ROOFSCREEN MFG" METAL PANEL ROOF SCREEN
- ⑪ NEW HVAC UNIT, PATCH INSULATION AND ROOFING AT NEW CURB - SEE MECHANICAL DRAWINGS
- ⑫ PROVIDE GATE TO FIT ROOF SCREEN FRAME MODULE - GATE FACE TO MATCH ROOF SCREEN PANEL
- ⑬ ROOF ACCESS HATCH
- ⑭ PROVIDE PVC ROOF WALKPADS - SEE SPECIFICATIONS WALKPADS
- ⑮ NEW HVAC UNIT PLATFORM - SEE STRUCTURAL DRAWINGS

NOTES:

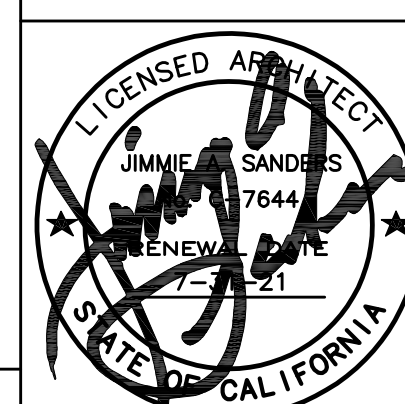
1. ALL ROOFS TO BE CLASS A (UND) W/ 15MM REINFORCED PVC MEMBRANE OVER 1/4" COVERBOARD.
2. CONTRACTOR RESPONSIBLE TO VERIFY EXACT PLACEMENT OF ROOF MOUNTED MECHANICAL EQUIPMENT TO AVOID CONFLICTS WITH ELECTRICAL ITEMS, PLUMBING LINES, OR OTHER MECHANICAL EQUIPMENT.
3. ROOF EQUIPMENT DEAD LOADS:
 MECHANICAL LOADS
 ① FAN COIL / ERV - ROOF TOP 640 lb
 ② N/A N/A lb
 ③ FAN COIL / ERV - ROOF TOP 1,085 lb
 SKYLIGHTS
 ① 21" TUBULAR SKYLIGHT (WINDOW NUMBER NOTED) 30 lb
 ②



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Sheet Title ROOF PLAN		Document Date 10-18-19	Project Number 19-121V
		Date Last Revised	Sheet Number A3.6

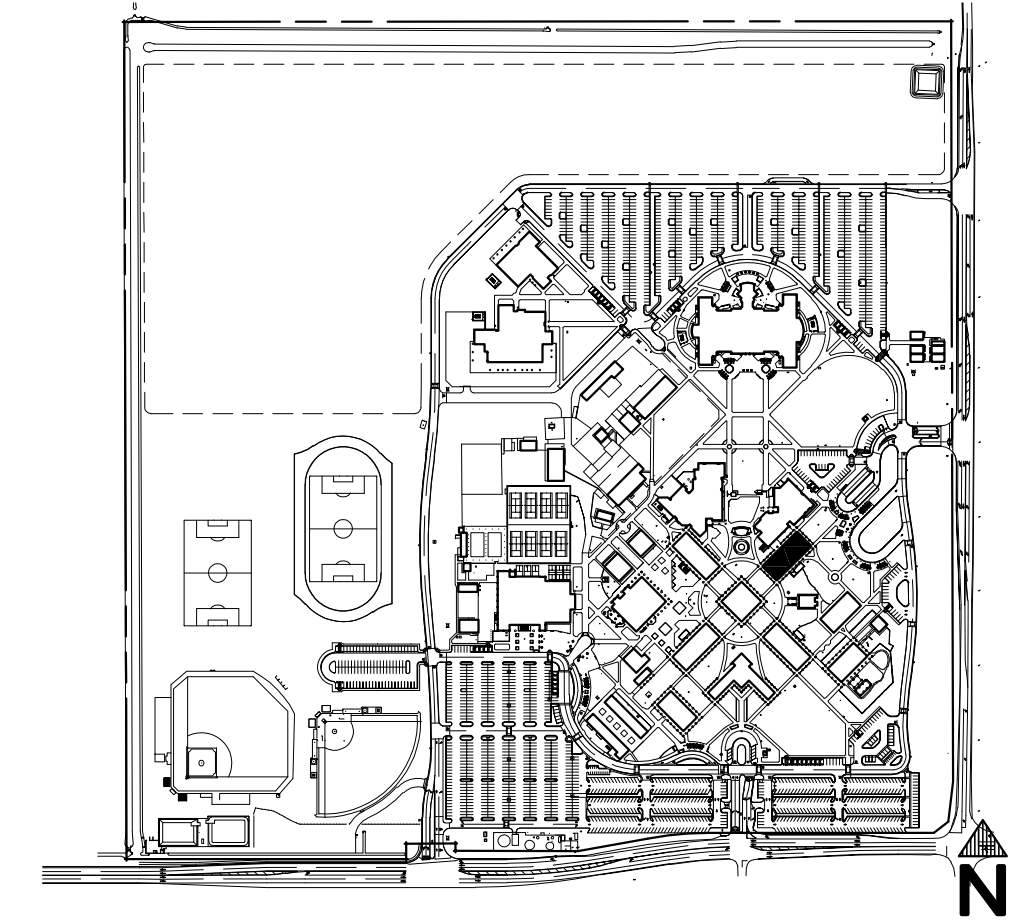


ROOF PLAN

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

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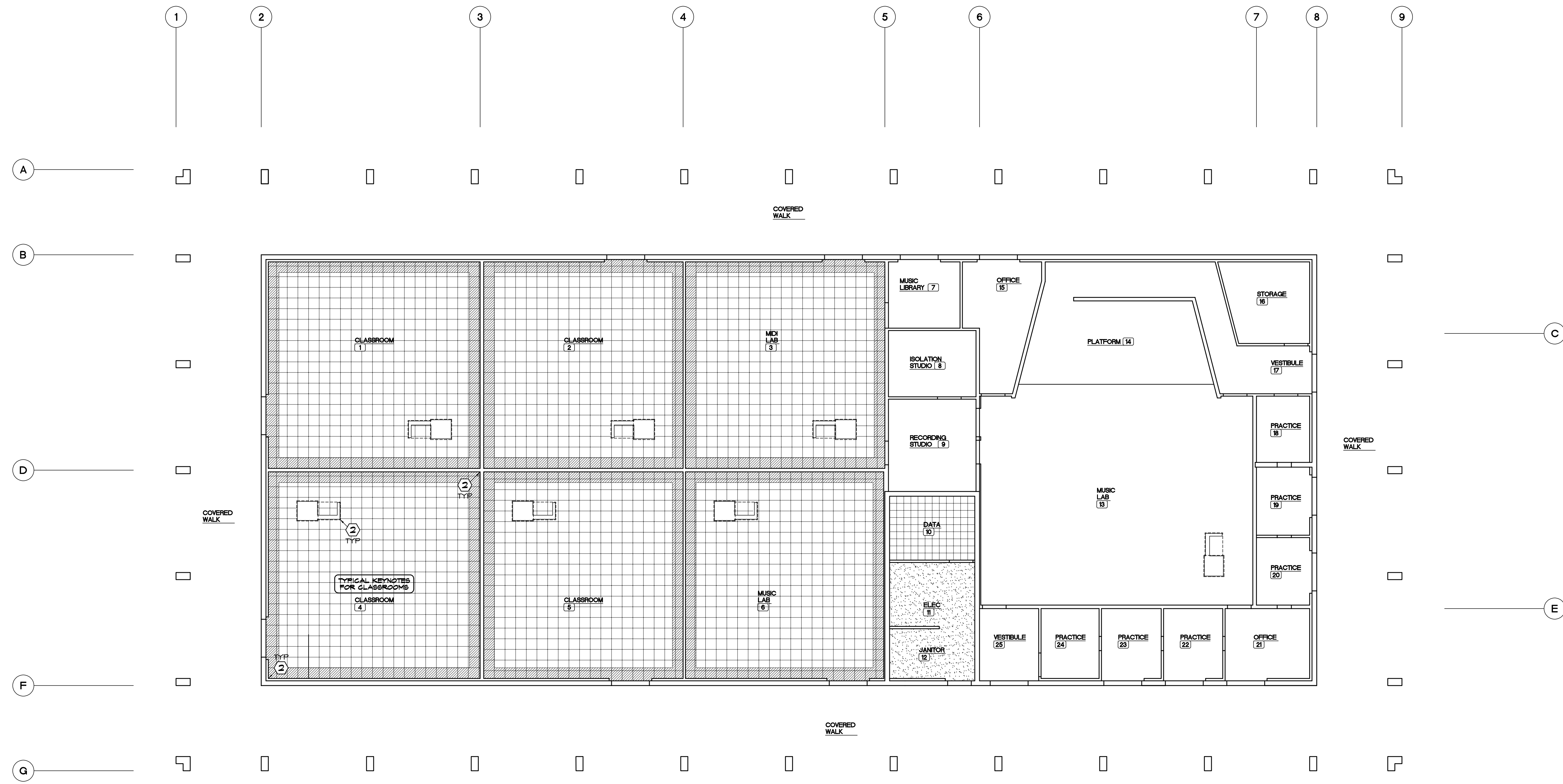
KEY PLAN - BLDG 300

LEGEND:

- RUBBER TILE (18"x18") - FIELD COLOR
- RUBBER TILE (18"x18") - ACCENT COLOR
- RUBBER TILE (18"x18") - WALK OFF
- CERAMIC TILE (2'x2') - FIELD COLOR
- CERAMIC TILE (2'x2') - ACCENT COLOR
- PORCELAIN TILE (12"x12") - FIELD COLOR
- PORCELAIN TILE (12"x12") - ACCENT COLOR
- SEALED CONCRETE
- SHEET CARPET
- CARPET TILE (36"x36")
- CARPET TILE - WALK-OFF

KEYNOTES:

- ① NOT USED
- ② PROVIDE MOLDED RUBBER OUTSIDE OR INSIDE CORNER TERMINATION PIECE FOR WALL BASE



FLOORING PLAN

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

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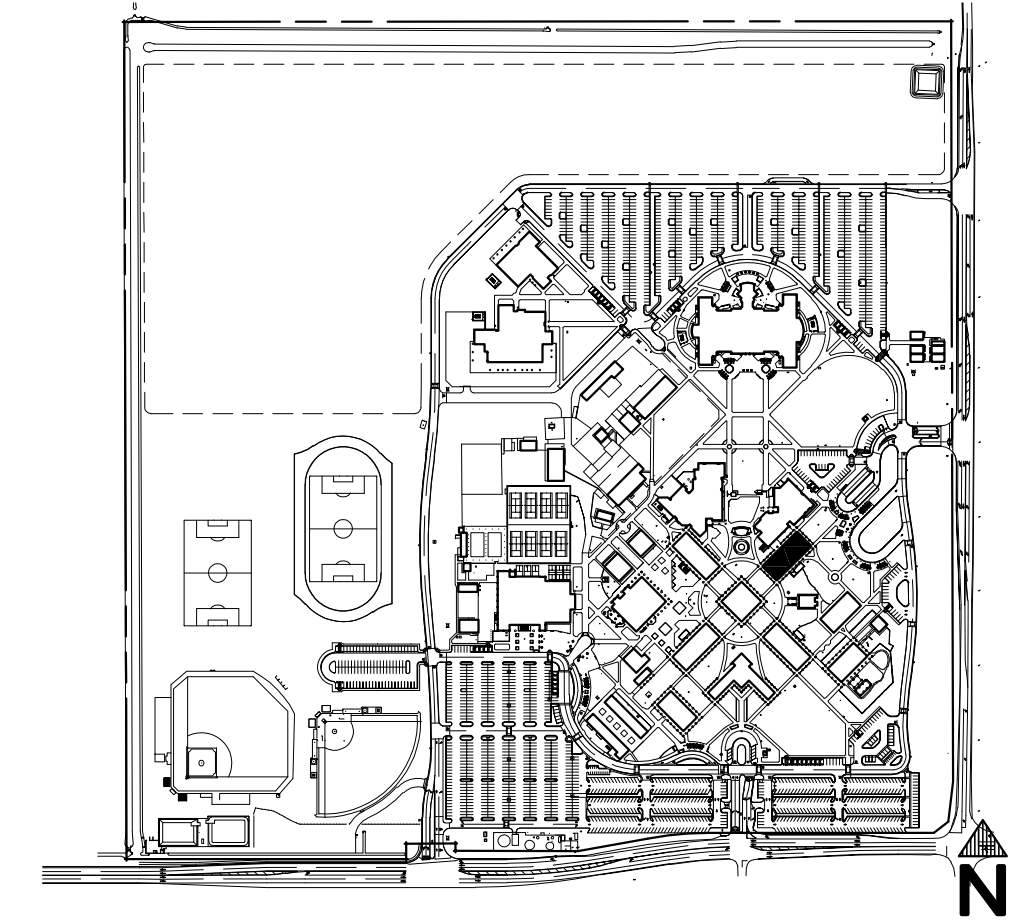
Project Title
**IMPERIAL VALLEY COLLEGE
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Sheet Title
FLOORING PLAN

	Document Date	10-18-19	Project Number	19-121V
	Date Last Revised		Sheet Number	A3.7

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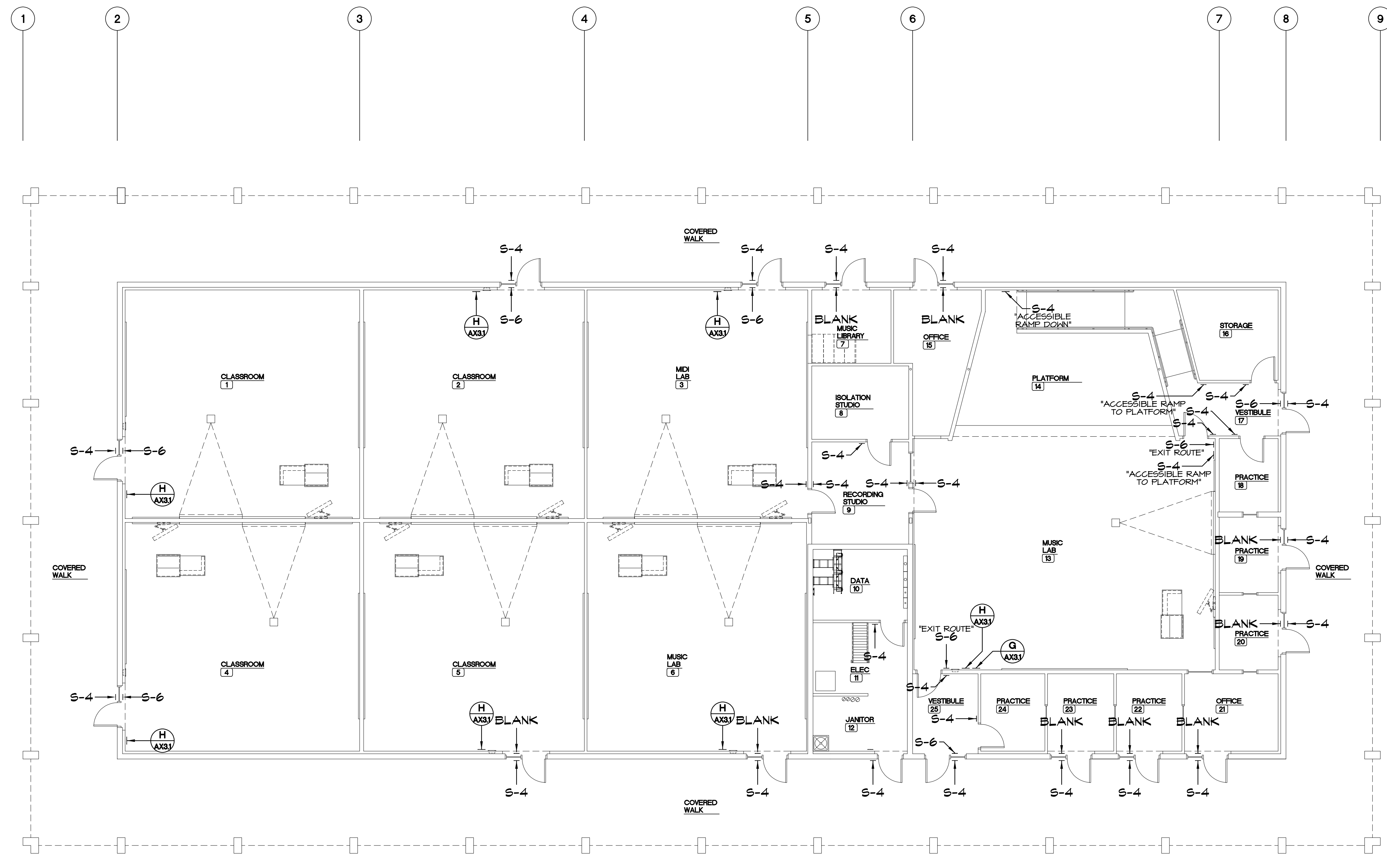
APPROVALS



KEY PLAN - BLDG 300

NOTES:

- FOR SIGN TYPES SEE
- GLAZING MOUNTED SIGNS TO HAVE MATCHING BLANK SIGN ON OPPOSING SIDE AT LOCATIONS WITHOUT SIGN SPECIFIED ON BOTH SIDES.



SIGNAGE PLAN

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

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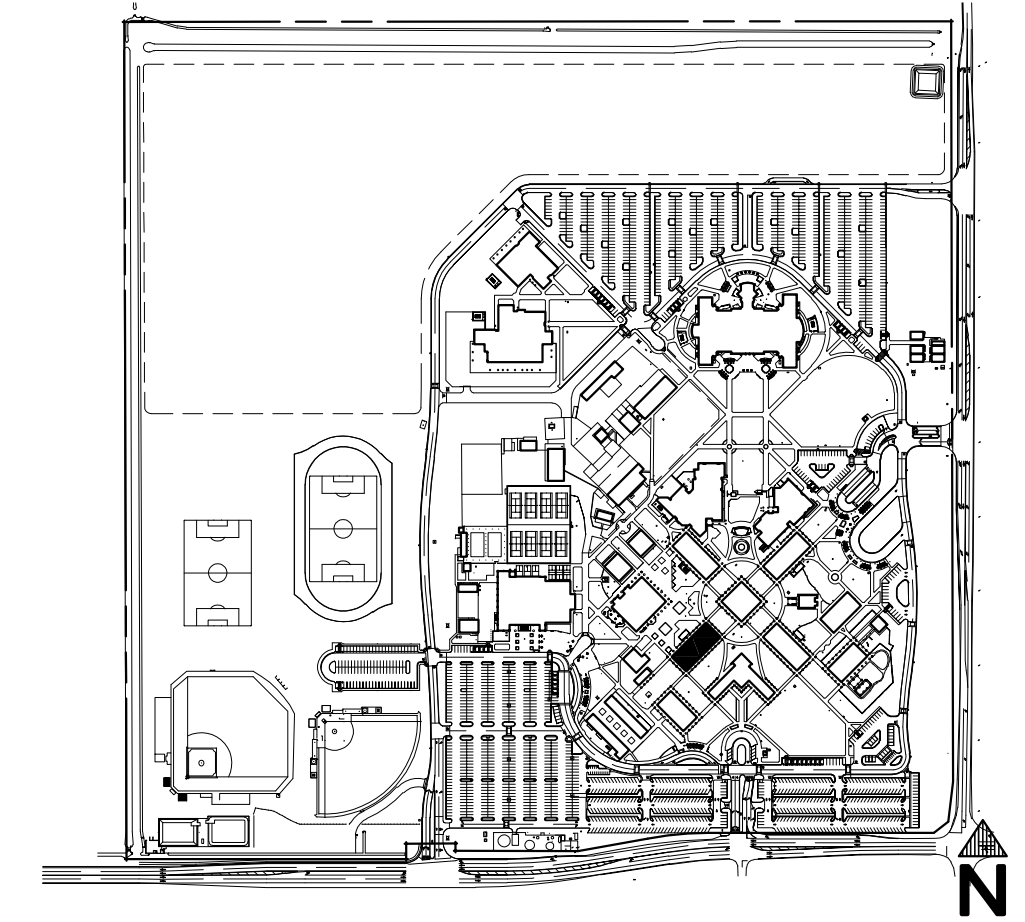
Project Title
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Sheet Title
SIGNAGE PLAN

	Document Date	Project Number
	Date Last Revised	Sheet Number
	10-18-19	19-121V
		A3.8

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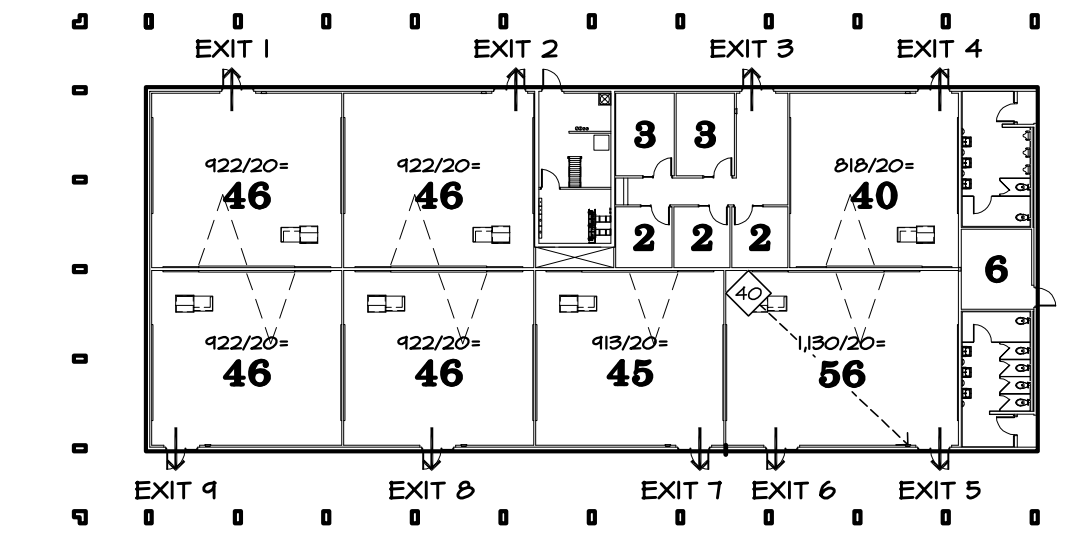
APPROVALS



KEY PLAN - BLDG 800

BUILDING DATA:

BUILDING 800 - CLASSROOMS
 OCCUPANCY A-3-B
 CONSTRUCTION TYPE TYPE III-B
 FIRE SPRINKLER SYSTEM NONE
 NUMBER OF STORIES 1
 CONSTRUCTION AREA 4,014 SQ. FT.
 ALLOWABLE AREA 4,500 SQ. FT. (TABLE 506.2)
 AREA INCREASE NONE
 4,014 < 4,500 = OK



EXIT WIDTH:

EXIT #	CLASSROOM	CLASSROOM	CLASSROOM	CLASSROOM	CLASSROOM	CLASSROOM	CLASSROOM	CLASSROOM	CLASSROOM	CLASSROOM
1	46	46	12	21	25	25	45	46	46	46
MIN EXIT WIDTH (A)	32"	32"	32"	32"	32"	32"	32"	32"	32"	32"
WIDTH PROVIDED	33.75"	33.75"	33.75"	33.75"	33.75"	33.75"	33.75"	33.75"	33.75"	33.75"

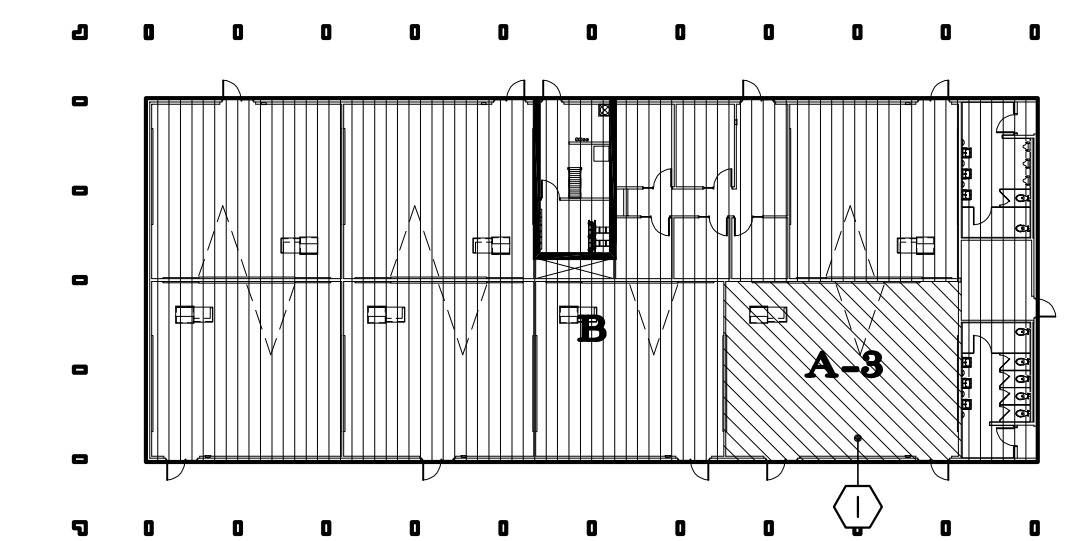
(A) 0.2 INCHES PER PERSON FOR DOORS.
 0.25 INCHES PER PERSON FOR STAIRS.

LEGEND:

- EXIT
- PATH OF TRAVEL TO FIRE EXTINGUISHER
- ◇ FARTHEST TRAVEL DISTANCE TO FIRE EXTINGUISHER (PER IFC TABLE 906.3(1))

EXITING PLAN

SCALE: 1/32" = 1'-0" **A**



- 1-HR STORAGE ROOM SEPARATION
- ① NONSEPARATED MIXED OCCUPANCY IN ACCORDANCE WITH CBC 508.3

OCCUPANCY PLAN

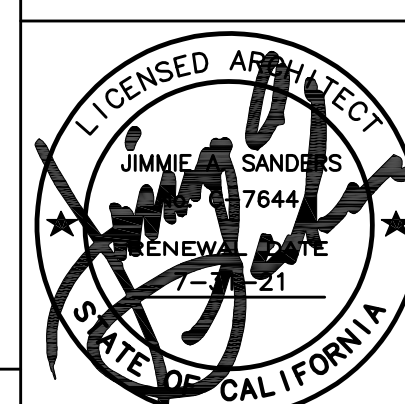
SCALE: 1/32" = 1'-0" **B**

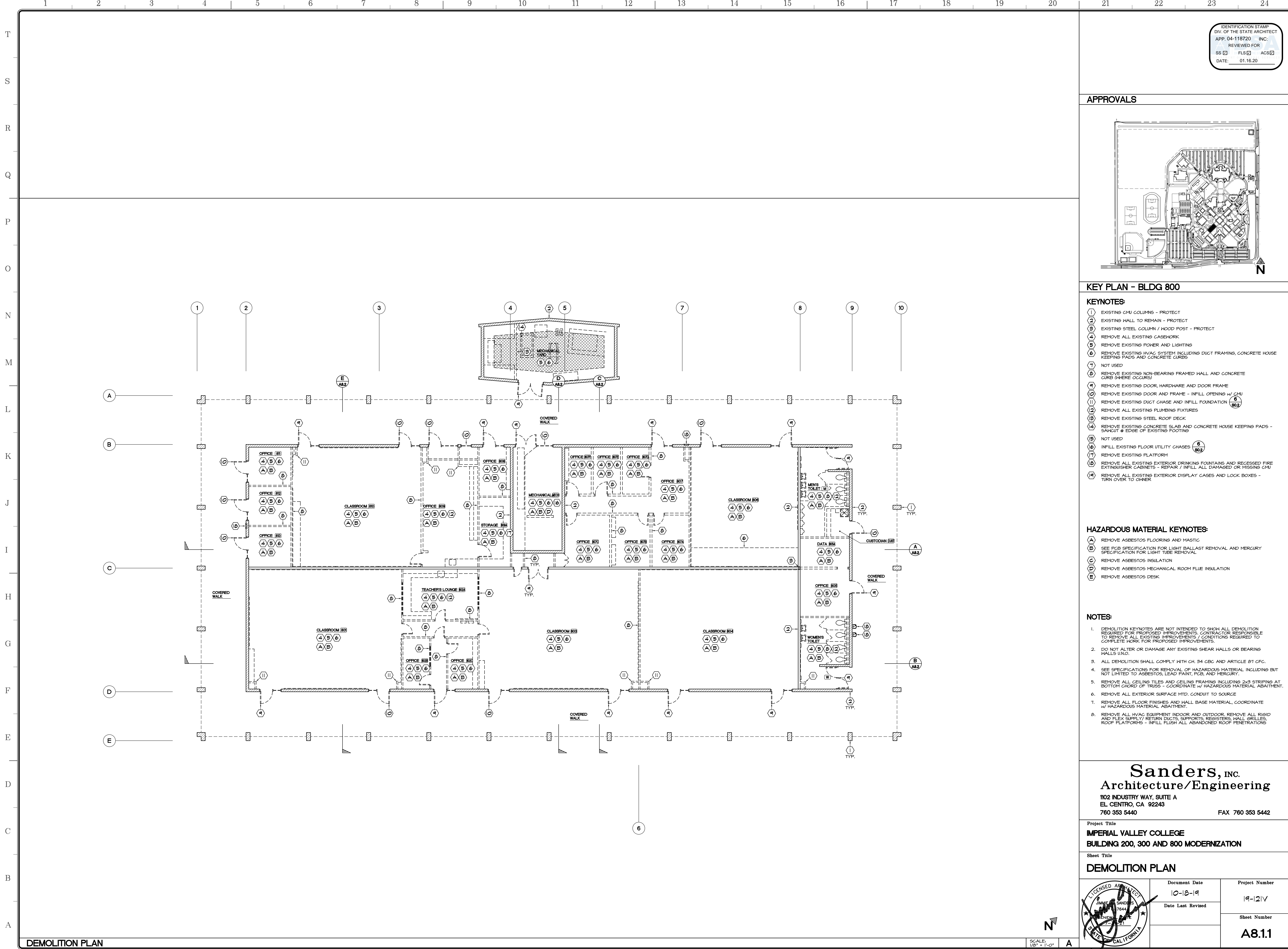
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Project Title
**IMPERIAL VALLEY COLLEGE
 BUILDING 200, 300 AND 800 MODERNIZATION**

BUILDING DATA

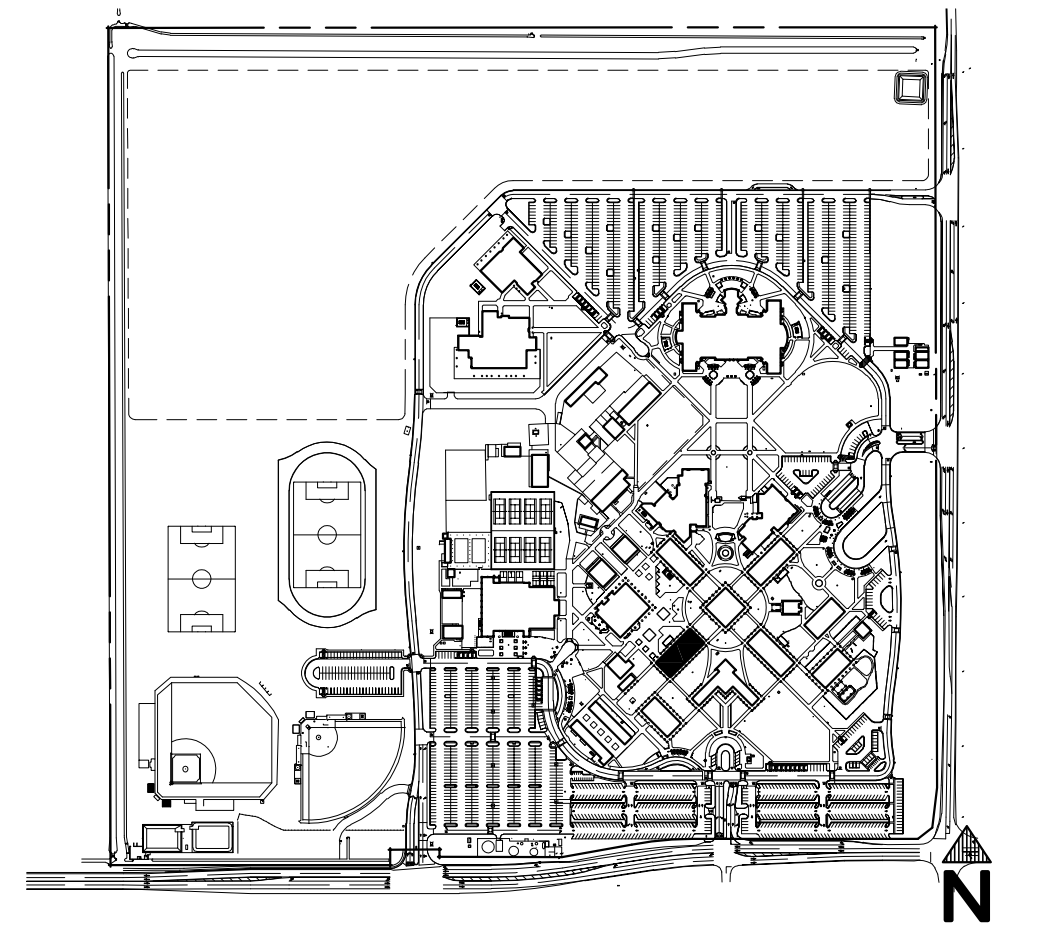
Document Date	10-18-19	Project Number	19-121V
Date Last Revised		Sheet Number	A8.0





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 SS FLS ACS
 DATE: 01.16.20

APPROVALS



KEY PLAN - BLDG 800

KEYNOTES:

- (1) EXISTING CMU COLUMNS - PROTECT
- (2) EXISTING HALL TO REMAIN - PROTECT
- (B) EXISTING STEEL COLUMN / WOOD POST - PROTECT
- (4) REMOVE ALL EXISTING CASEWORK
- (5) REMOVE EXISTING POWER AND LIGHTING
- (6) REMOVE EXISTING HVAC SYSTEM INCLUDING DUCT FRAMING, CONCRETE HOUSE KEEPING PADS AND CONCRETE CURBS
- (T) NOT USED
- (B) REMOVE EXISTING NON-BEARING FRAMED WALL AND CONCRETE CURB (WHERE OCCURS)
- (4) REMOVE EXISTING DOOR, HARDWARE AND DOOR FRAME
- (C) REMOVE EXISTING DOOR AND FRAME - INFILL OPENING w/ CMU
- (11) REMOVE EXISTING DUCT CHASE AND INFILL FOUNDATION (S/R2)
- (12) REMOVE ALL EXISTING PLUMBING FIXTURES
- (B) REMOVE EXISTING STEEL ROOF DECK
- (4) REMOVE EXISTING CONCRETE SLAB AND CONCRETE HOUSE KEEPING PADS - SANKUT @ EDGE OF EXISTING FOOTING
- (B) NOT USED
- (6) INFILL EXISTING FLOOR UTILITY CHASES (S/R2)
- (T) REMOVE EXISTING PLATFORM
- (B) REMOVE ALL EXISTING EXTERIOR DRINKING FOUNTAINS AND RECESSED FIRE EXTINGUISHER CABINETS - REPAIR / INFILL ALL DAMAGED OR MISSING CMU
- (14) REMOVE ALL EXISTING EXTERIOR DISPLAY CASES AND LOCK BOXES - TURN OVER TO OWNER

HAZARDOUS MATERIAL KEYNOTES:

- (A) REMOVE ASBESTOS FLOORING AND MASTIC
- (B) SEE PCB SPECIFICATION FOR LIGHT BALLAST REMOVAL AND MERCURY SPECIFICATION FOR LIGHT TUBE REMOVAL
- (C) REMOVE ASBESTOS INSULATION
- (D) REMOVE ASBESTOS MECHANICAL ROOM FLUE INSULATION
- (E) REMOVE ASBESTOS DESK

NOTES:

1. DEMOLITION KEYNOTES ARE NOT INTENDED TO SHOW ALL DEMOLITION REQUIRED FOR PROPOSED IMPROVEMENTS. CONTRACTOR RESPONSIBLE TO REMOVE ALL EXISTING IMPROVEMENTS / CONDITIONS REQUIRED TO COMPLETE WORK FOR PROPOSED IMPROVEMENTS.
2. DO NOT ALTER OR DAMAGE ANY EXISTING SHEAR WALLS OR BEARING WALLS UNO.
3. ALL DEMOLITION SHALL COMPLY WITH CH. 34 CBC AND ARTICLE 01 CFC.
4. SEE SPECIFICATIONS FOR REMOVAL OF HAZARDOUS MATERIAL INCLUDING BUT NOT LIMITED TO ASBESTOS, LEAD PAINT, PCB, AND MERCURY.
5. REMOVE ALL CEILING TILES AND CEILING FRAMING INCLUDING 2x3 STRIPING AT BOTTOM CHORD OF TRUSS - COORDINATE W/ HAZARDOUS MATERIAL ABATEMENT.
6. REMOVE ALL EXTERIOR SURFACE MTD. CONDUIT TO SOURCE
7. REMOVE ALL FLOOR FINISHES AND WALL BASE MATERIAL, COORDINATE W/ HAZARDOUS MATERIAL ABATEMENT.
8. REMOVE ALL HVAC EQUIPMENT INDOOR AND OUTDOOR. REMOVE ALL RIGID AND FLEX SUPPLY / RETURN DUCTS, SUPPORTS, REGISTERS, WALL GRILLES, ROOF PLATFORMS - INFILL FLUSH ALL ABANDONED ROOF PENETRATIONS

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Project Title
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Sheet Title
DEMOLITION PLAN

	Document Date	Project Number
	Date Last Revised	Sheet Number
	10-18-19	19-121V
		A8.11

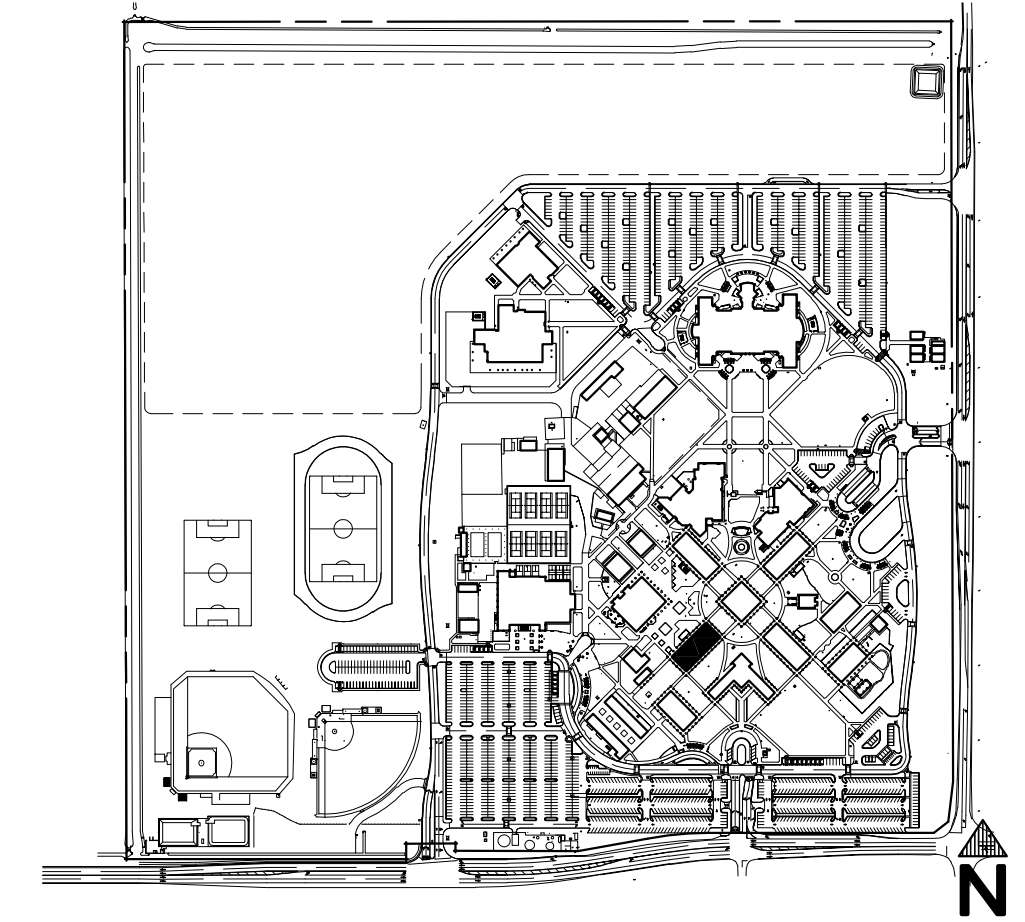
DEMOLITION PLAN

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



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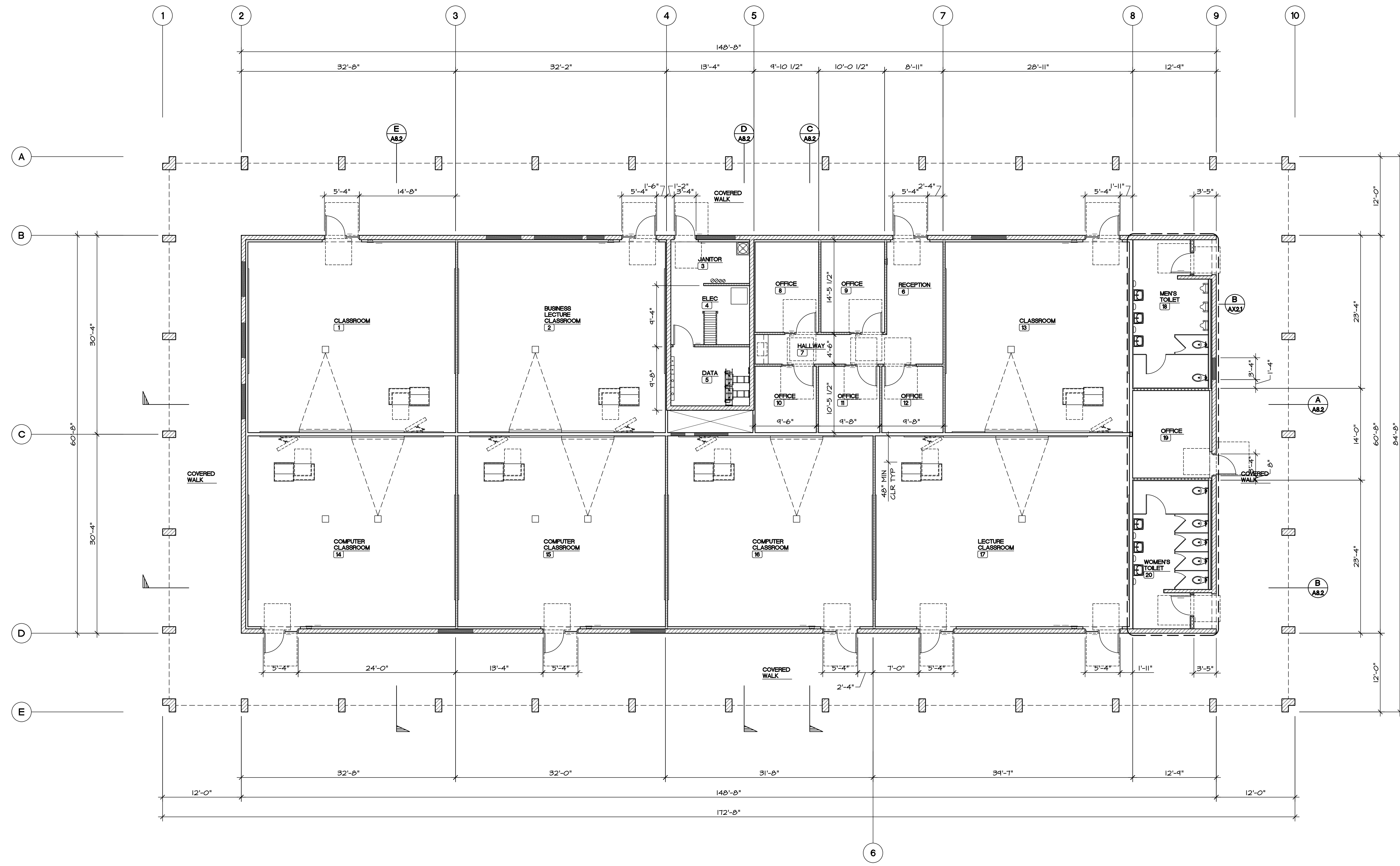
KEY PLAN - BLDG 800

WALL TYPES:

- EXISTING 2-HR 8" CMU WALL
- EXISTING 2x HOOD STUD WALL
- NEW 8" CMU WALL
- NEW 8" CMU OPENING INFILL
- NEW 4" METAL STUD @ 16" O.C.
- NEW 12" HALL W (2) 4" METAL STUD @ 16" O.C.
- NEW 1-HR 6" METAL STUD @ 16" O.C.
- 4" METAL STUD W 6" CONCRETE CURB

LEGEND:

- 30" x 48" CLEAR FLOOR SPACE (2% MAX. SLOPE IN ALL DIRECTIONS)
- 60" DIAMETER CLEAR FLOOR SPACE (2% MAX. SLOPE IN ALL DIRECTIONS)
- 60" x 60" CLEAR FLOOR SPACE AT FULL SIDE OF EXTERIOR DOOR (2% MAX. SLOPE IN ALL DIRECTIONS)
- 60" x 54" CLEAR SPACE AT FULL SIDE OF INTERIOR DOOR (2% MAX. SLOPE IN ALL DIRECTIONS)
- 48" x 48" CLEAR SPACE AT FISH SIDE OF DOOR (2% MAX. SLOPE IN ALL DIRECTIONS)
- 11 STRUCTURAL GRID TAG



DIMENSIONAL FLOOR PLAN

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Project Title
**IMPERIAL VALLEY COLLEGE
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Sheet Title
FLOOR PLAN - DIMENSIONAL

	Document Date	Project Number
	Date Last Revised	Sheet Number
	10-18-19	19-121V
		A8.1.2

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

WALL TYPES:

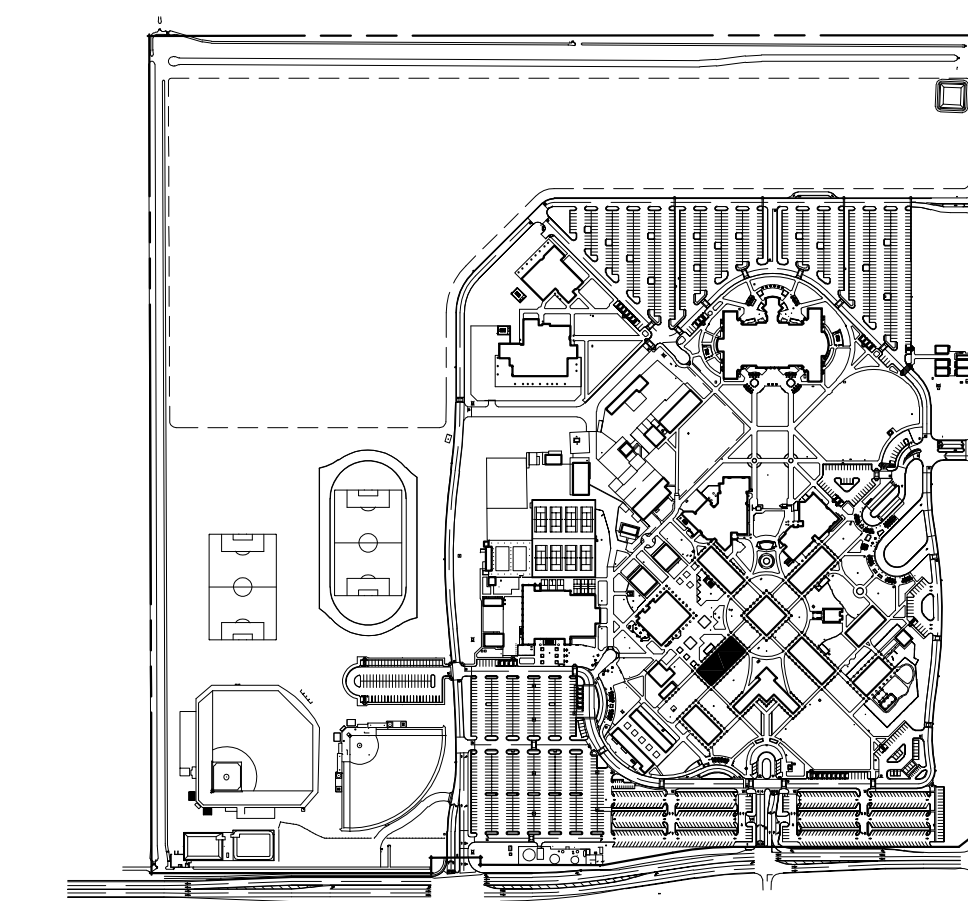
- EXISTING 2-HR 8" CMU WALL
- EXISTING 2x WOOD STUD WALL
- NEW 8" CMU WALL
- NEW 8" CMU OPENING INFILL
- NEW 4" METAL STUD @ 16" O.C.
- NEW 12" WALL W/ (2) 4" METAL STUD @ 16" O.C.
- NEW 1-HR 6" METAL STUD @ 16" O.C.
- 4" METAL STUD W/ 6" CONCRETE CURB

FURRING TYPES:

- 6" METAL STUD @ 16" O.C.
- 4" METAL STUD @ 16" O.C.
- 4" METAL STUD @ 16" O.C. W/ 2" GAP TO WALL AND 6" CONCRETE CURB
- 2" METAL STUD @ 16" O.C.

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KEY PLAN - BLDG 800

KEYNOTES:

- ① LINE OF EXISTING COVERED WALK
- ② EXISTING CMU COLUMN
- ③ HPL CASE WORK - SEE INTERIOR ELEVATIONS
- ④ ACCESSIBLE WORKSTATION - SEE INTERIOR ELEVATIONS
- ⑤ HPL LECTERN
- ⑥ MARKER BOARD / TACK BOARD - SEE INTERIOR ELEVATIONS
- ⑦ PLUMBING FIXTURE - SEE PLUMBING DRAWINGS
- ⑧ RECESSED FIRE EXTINGUISHER CABINET W/ TEMPERED GLASS - 45° TO EXTINGUISHER HANDLE. CABINET HANDLE SHALL BE OPERABLE W/ ONE HAND AND SHALL NOT REQUIRE GRASPING, PINCHING, OR TWISTING OF THE WRIST AND HAVE A MAX OPERATING FORCE OF 5 LBS
- ⑨ SOFFIT OR CHANGE IN CEILING HEIGHT
- ⑩ FIRE ALARM CONTROL PANEL - SEE FIRE ALARM DRAWINGS
- ⑪ RETRACTABLE RECESSED CEILING MOUNTED PROJECTOR SCREEN
- ⑫ VIDEO PROJECTOR - SEE COMMUNICATION DRAWINGS
- ⑬ FLAT PANEL MONITOR - MOUNT TO WALL W/ (2) #2 SMS, PROVIDE BACKING PER
- ⑭ ELECTRICAL EQUIPMENT - SEE ELECTRICAL DRAWINGS
- ⑮ COMMUNICATIONS EQUIPMENT - SEE COMMUNICATIONS DRAWINGS
- ⑯ ROOF ACCESS SHIP'S LADDER AND HATCH

LEGEND:

- DOOR NUMBER - SEE DOOR SCHEDULE
- WINDOW NUMBER - SEE WINDOW SCHEDULE
- P.H. PANIC HARDWARE
- ⑪ STRUCTURAL GRID TAG

NOTES:

1. FOR ALL RATED WALL ASSEMBLY DESIGNS SEE
2. 5% MIN. OF EACH TYPE OF FURNITURE ITEMS TO MEET ACCESSIBILITY REQUIREMENTS PER 2016 CBC.
3. ALL FURRINGS ON EXTERIOR WALLS TO HAVE BATT INSULATION (R-11 @ 6", R-11 @ 4")
4. ALL FRAMED INTERIOR WALLS TO HAVE SOUND ATTENUATION BATT INSULATION.
5. FLAME SPREAD RATINGS NOT FOR WALL INSULATION NOT TO EXCEED 25 AND SMOKE DEVELOPED INDEX NOT TO EXCEED 450 WHEN TESTED IN ACCORDANCE WITH ASTM E 84.

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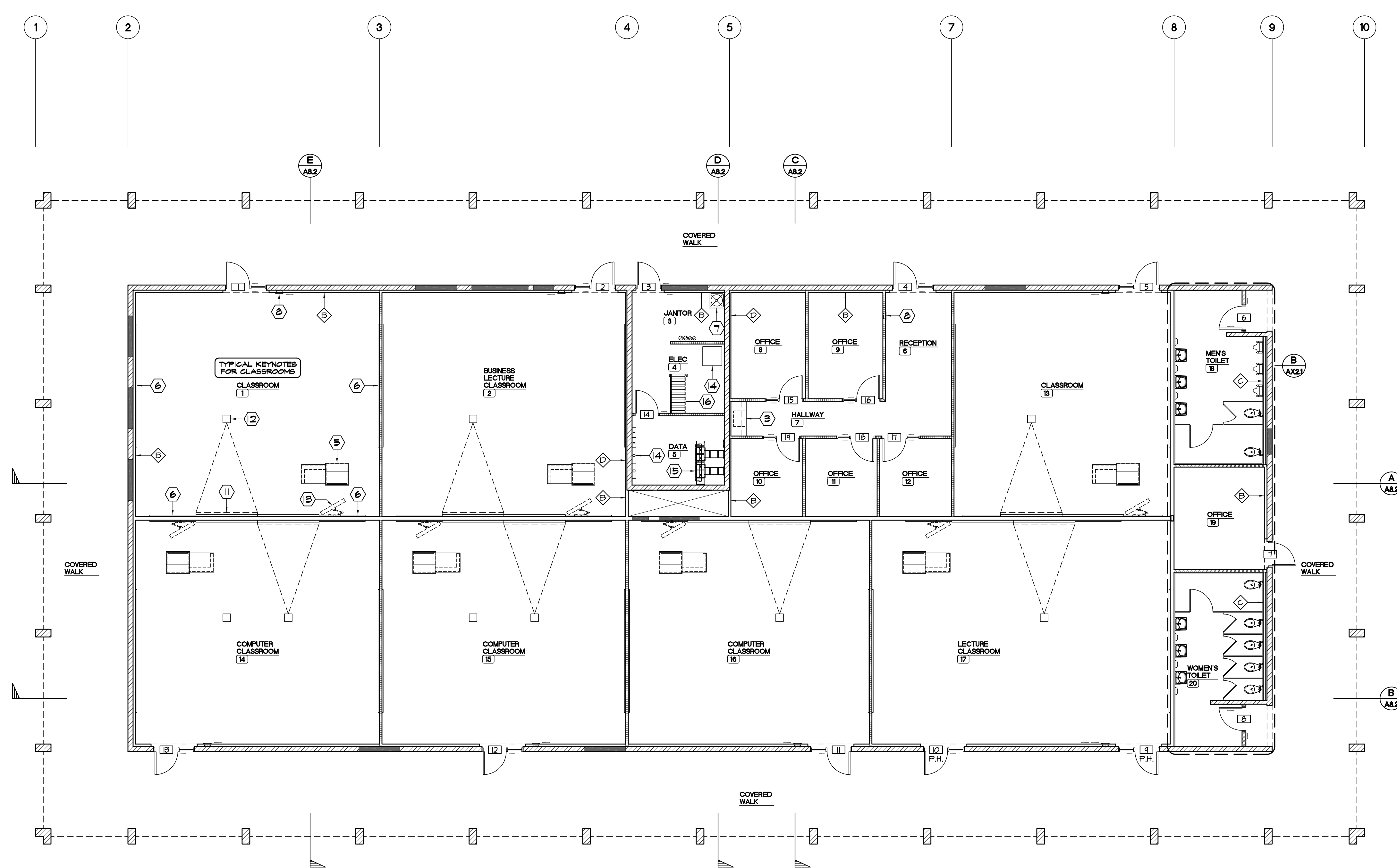
Project Title
**IMPERIAL VALLEY COLLEGE
 BUILDING 200, 300 AND 800 MODERNIZATION**

Sheet Title
FLOOR PLAN - ARCHITECTURAL

	Document Date	Project Number
	10-18-19	19-121V
	Date Last Revised	Sheet Number
		A8.13

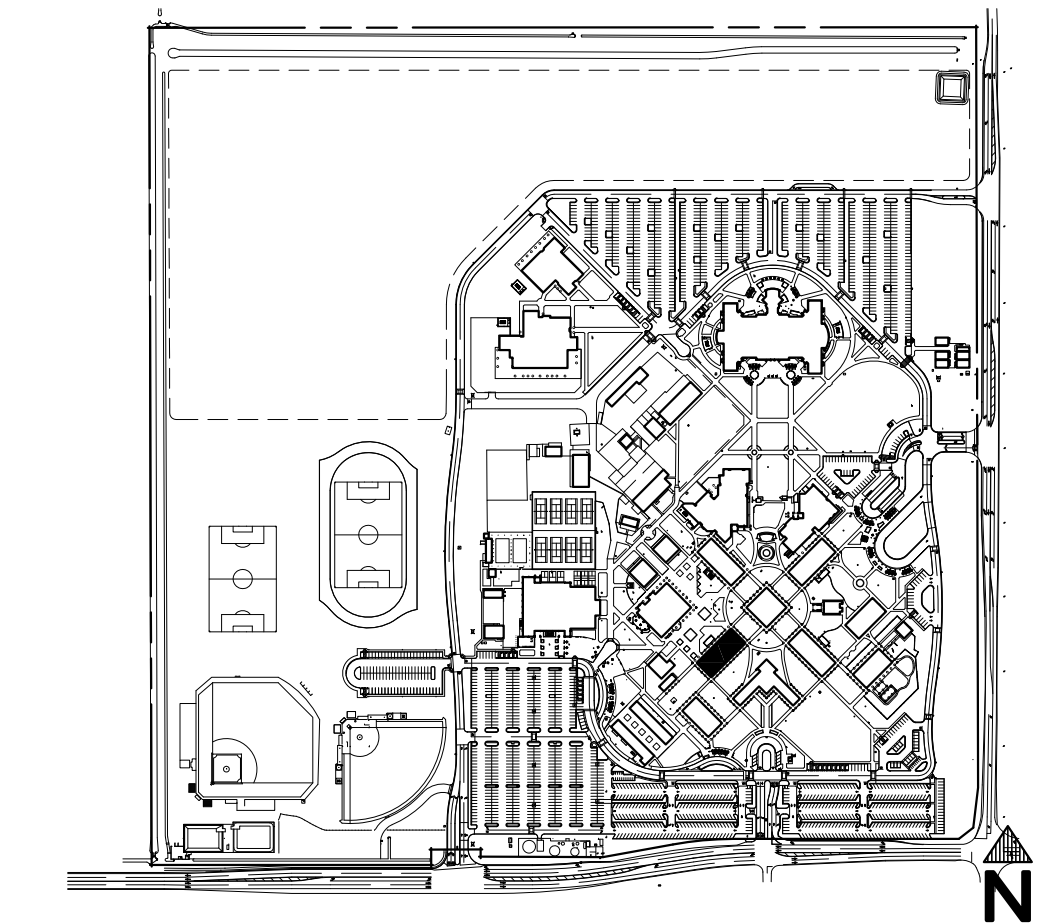
SCALE: 1/8" = 1'-0"

ARCHITECTURAL FLOOR PLAN



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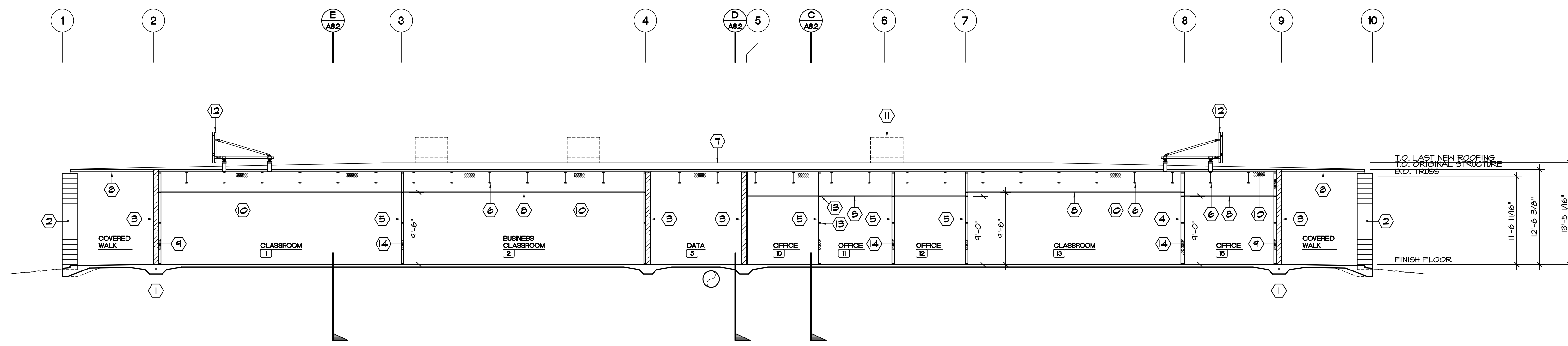
APPROVALS



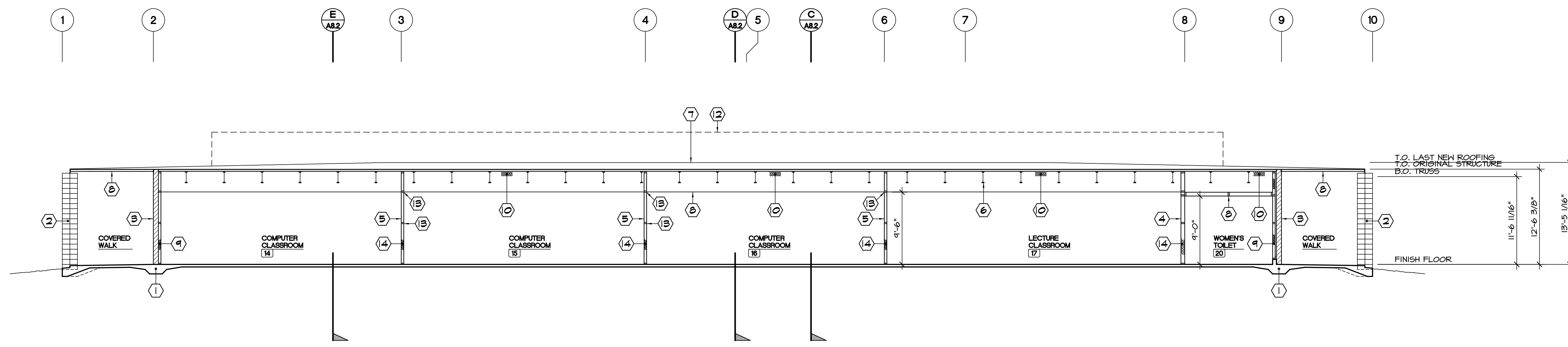
KEY PLAN - BLDG 800

KEYNOTES:

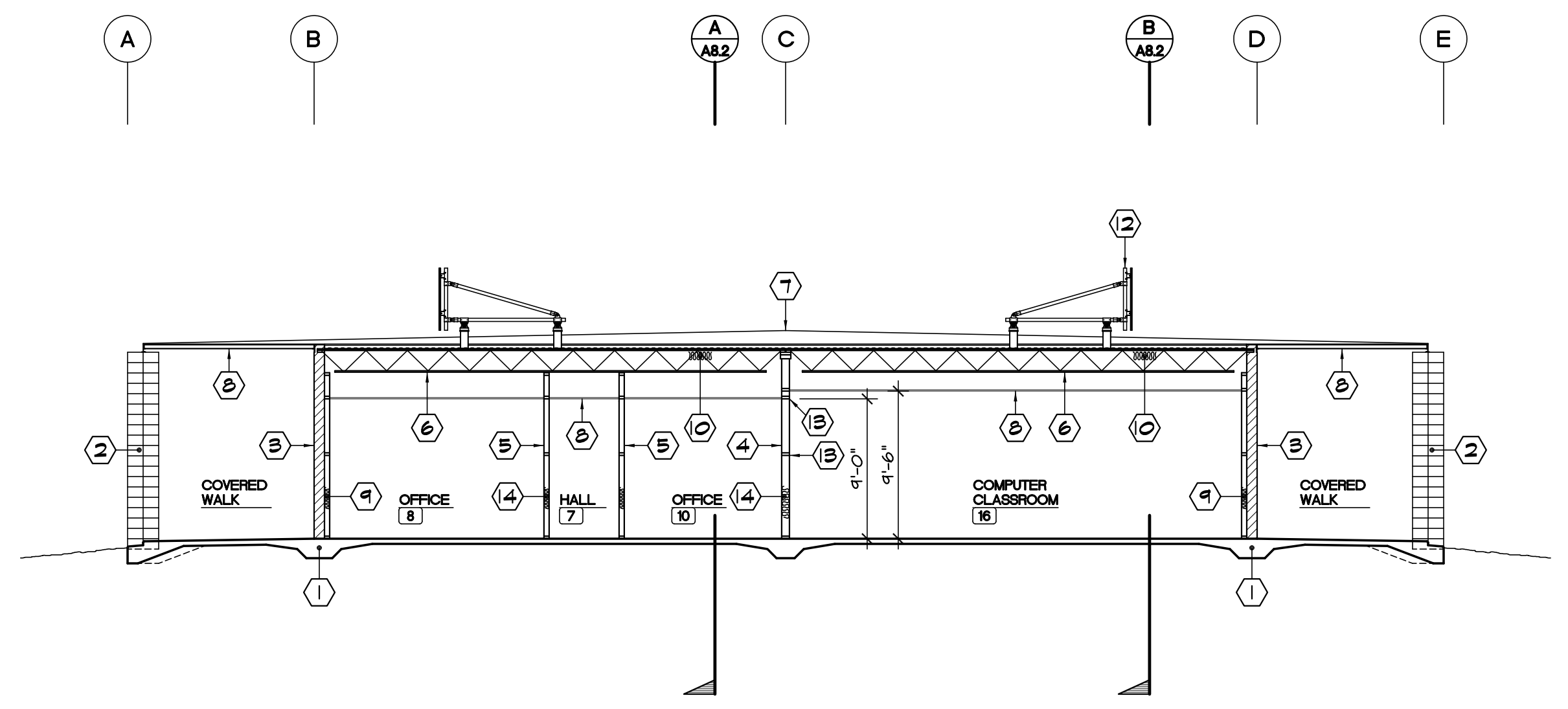
- 1 EXISTING CONCRETE FOUNDATION
- 2 EXISTING CMU COLUMN
- 3 EXISTING CMU WALL
- 4 EXISTING STUD WALL
- 5 NEW STUD WALL PER PLAN
- 6 EXISTING ROOF TRUSS
- 7 EXISTING SINGLE PLY PVC ROOFING
- 8 CEILING LINE - SEE REFLECTED CEILING PLAN
- 9 R-19 BATT INSULATION - TYP. ALL NEW EXTERIOR HALL FURRINGS
- 10 4" MIN. CLOSED-CELL SPRAY FOAM INSULATION w/ INTUMESCENT FIRE RETARDANT COATING AT BOTTOM OF ROOF DECK (BSR-2869)
- 11 MECHANICAL EQUIPMENT - SEE MECHANICAL DRAWINGS
- 12 MECHANICAL EQUIPMENT SCREEN (A)
- 13 FIRE BLOCKING PER C.B.C. 708.2
- 14 SOUND ATTENUATING BATT INSULATION - TYP. ALL INTERIOR WALLS
- 15 NEW CMU WALL INFILL



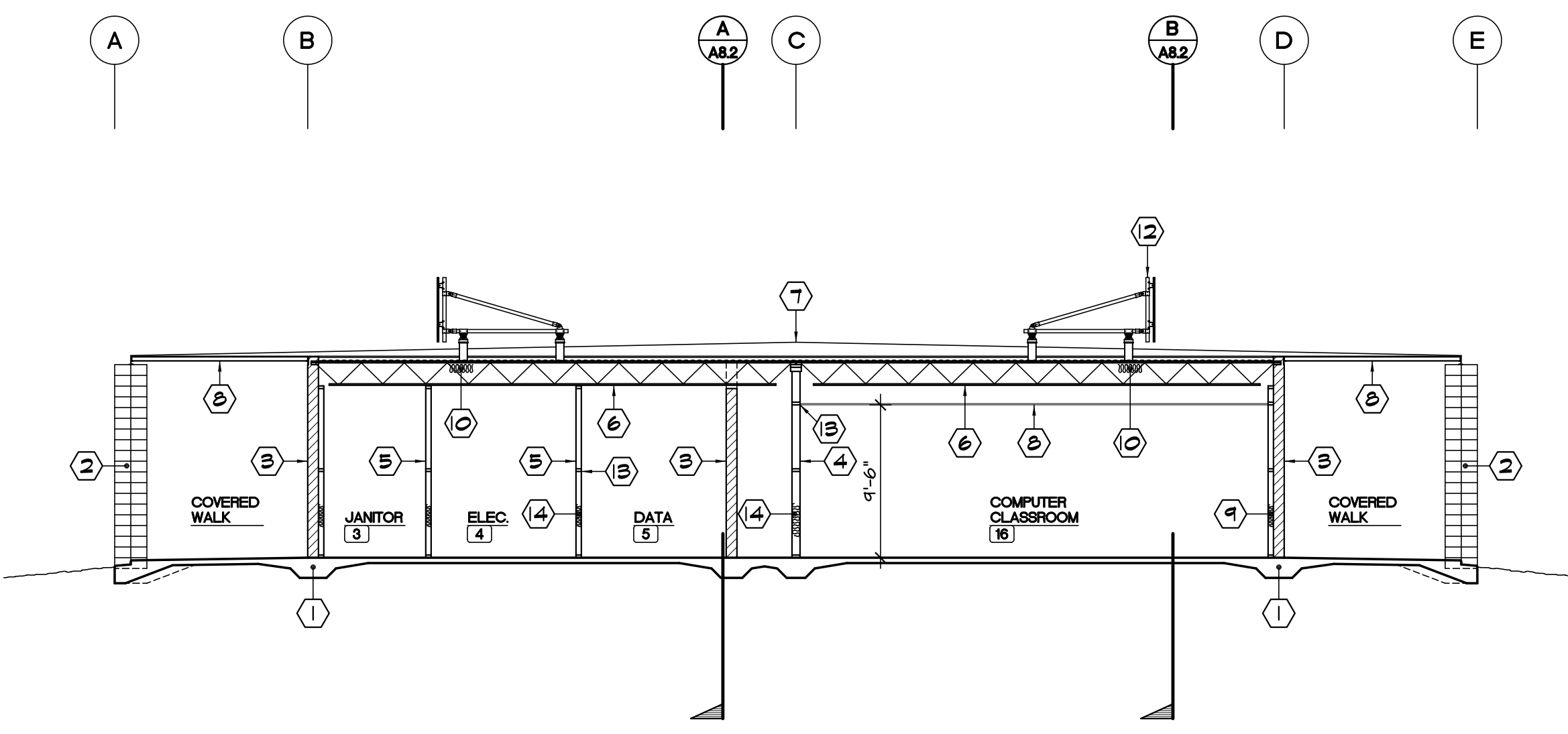
SECTION A SCALE: 1/8" = 1'-0"



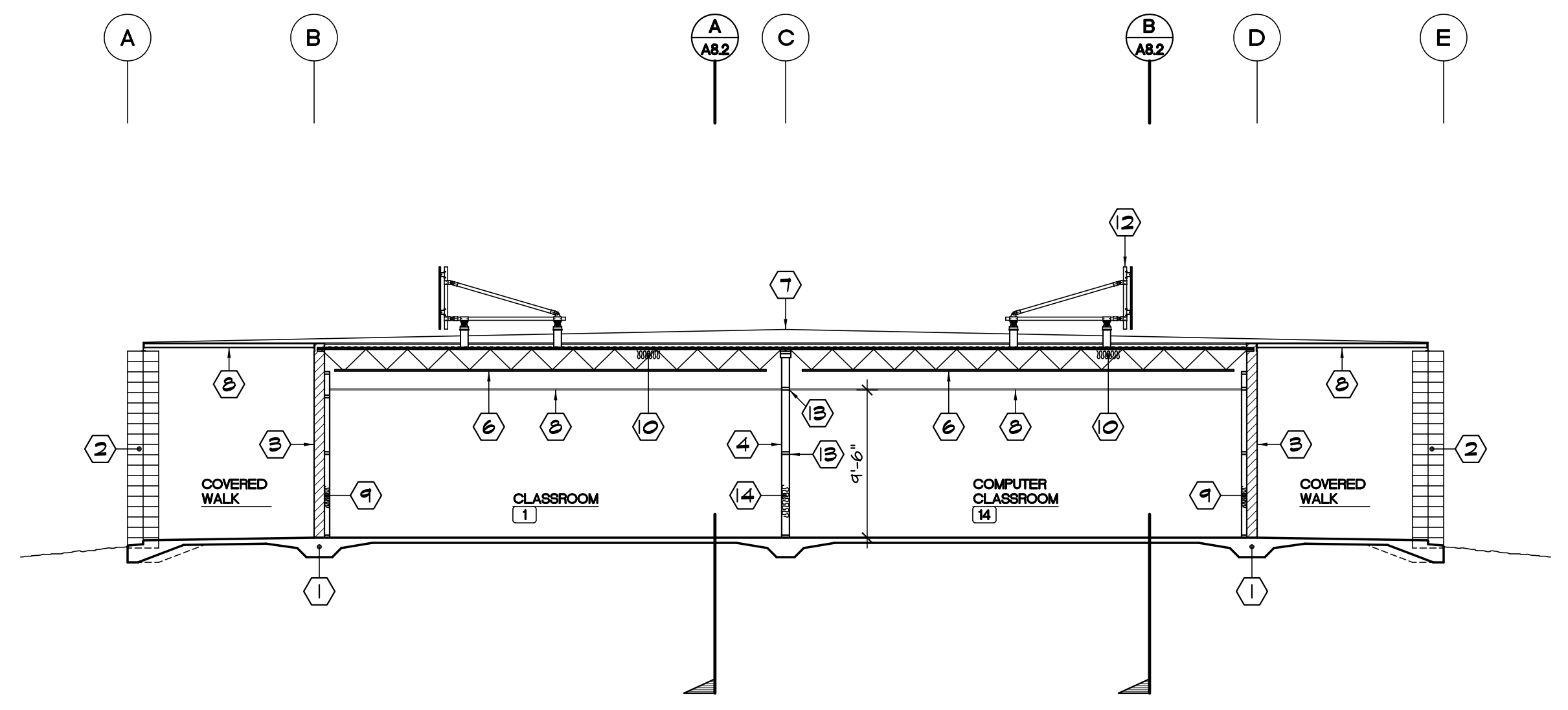
SECTION B SCALE: 1/8" = 1'-0"



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



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



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

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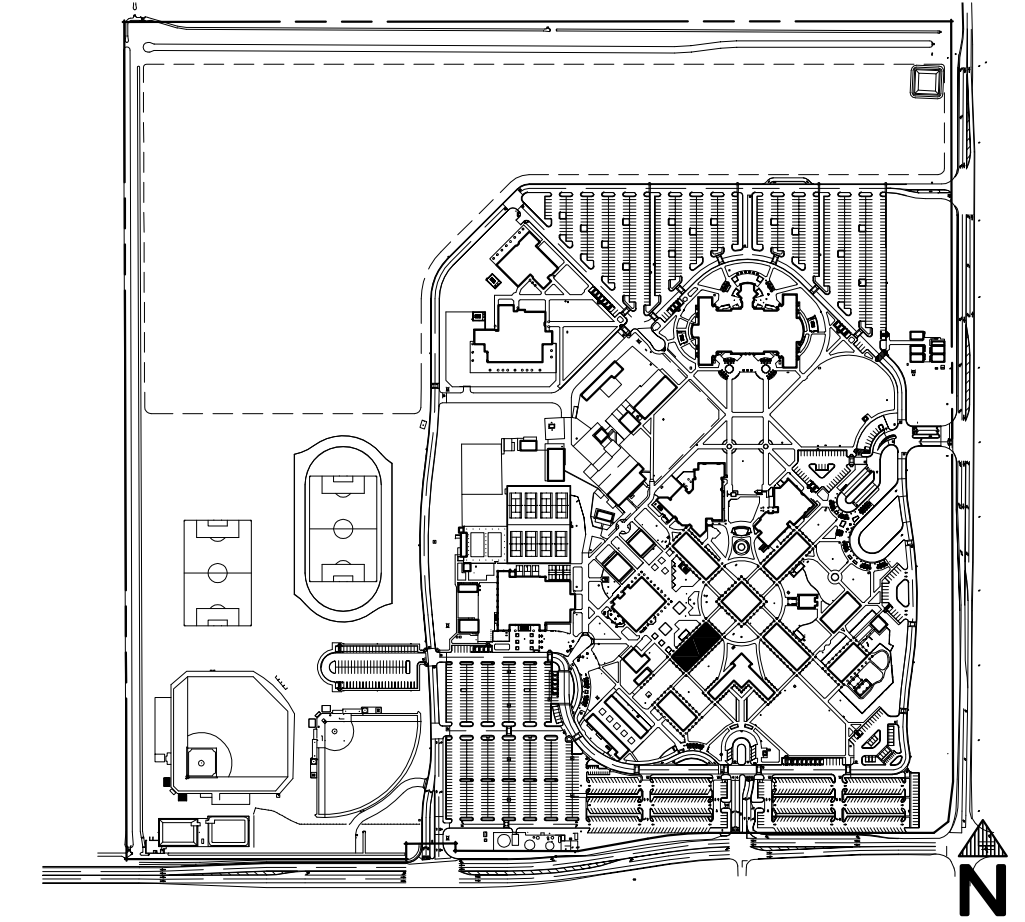
Project Title
**IMPERIAL VALLEY COLLEGE
 BUILDING 200, 300 AND 800 MODERNIZATION**

Sheet Title
ARCHITECTURAL SECTIONS

	Document Date	Project Number
	10-18-19	19-121V
	Date Last Revised	Sheet Number
		A8.2

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KEY PLAN - BLDG 800

KEYNOTES:

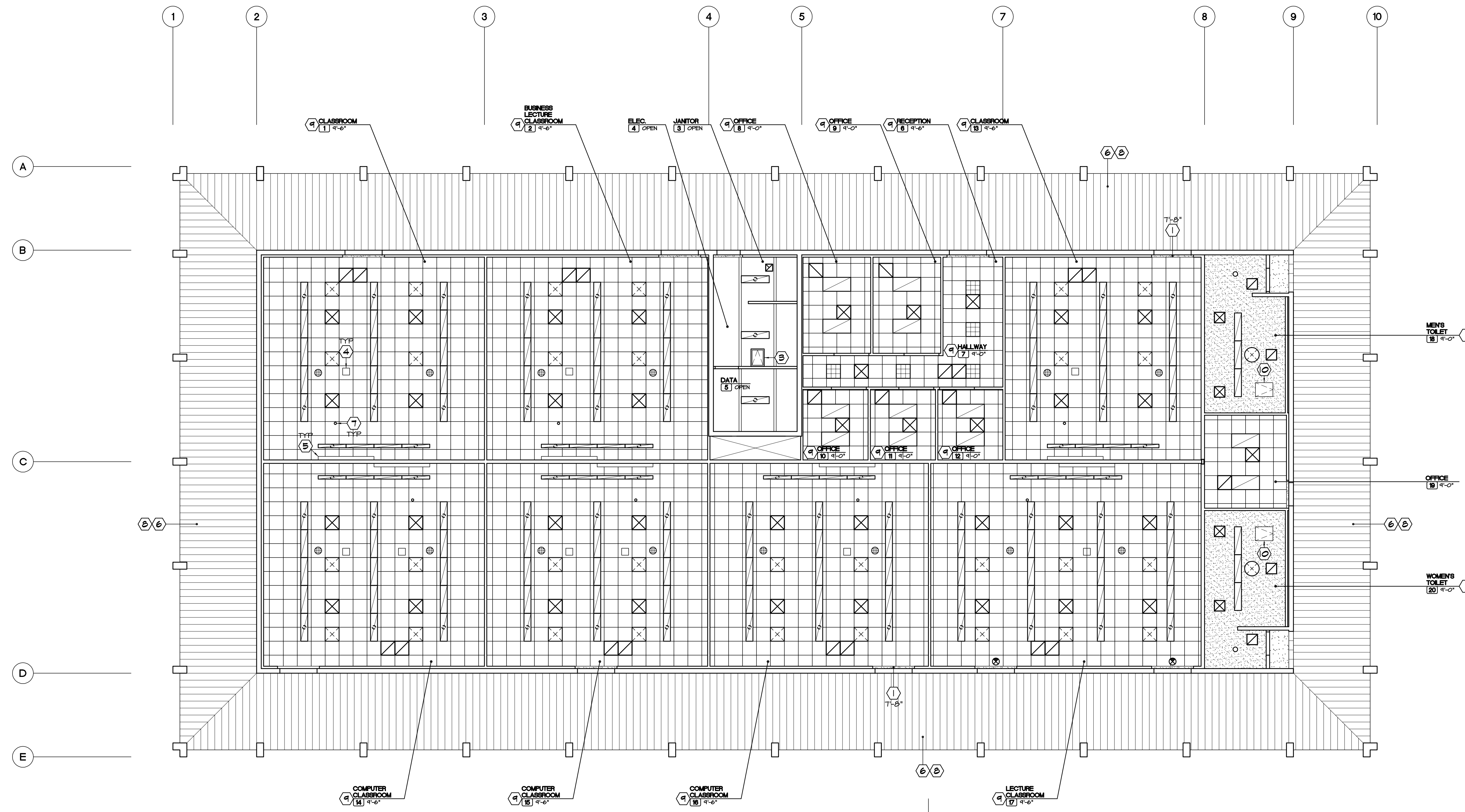
- ① GYPSUM BOARD - PAINT PRIME COLOR, TEXTURE TO MATCH WALLS
- ② GYPSUM BOARD - PAINT ACCENT COLOR, TEXTURE TO MATCH WALLS
- ③ ROOF ACCESS HATCH
- ④ VIDEO PROJECTOR CEILING MOUNT - SEE COMMUNICATIONS DRAWINGS
- ⑤ RECESSED PROJECTOR SCREEN - SEE COMMUNICATIONS DRAWINGS
- ⑥ EXISTING EXPOSED METAL DECK - PRESSURE WASH CLEAN, ABRASIVE BLAST ALL RUST, PRIME AND PAINT
- ⑦ CEILING MOUNTED DOCUMENT CAMERA - SEE SPECIFICATIONS - BOTTOM OF CAMERA TO BE 80" MIN AFF
- ⑧ TRIM EXISTING EXPOSED SCREENS (MIN. 3 EXPOSED THREADS) AND PROVIDE METAL FISH CAP
- ⑨ 24"x24" LAY-IN ACOUSTICAL CEILING TILE
- ⑩ 24 x 30 CEILING ACCESS PANEL

LEGEND:

- ▭ LED LIGHT FIXTURE - SEE ELECTRICAL DRAWINGS
- ▭ LED LIGHT FIXTURE - SEE ELECTRICAL DRAWINGS
- ▭ PENDENT LED LIGHT FIXTURE - SEE ELECTRICAL DRAWINGS
- LIGHT FIXTURE - SEE ELECTRICAL DRAWINGS
- ⊕ PENDENT LIGHT FIXTURE - SEE ELECTRICAL DRAWINGS
- RECESSED LIGHT FIXTURE - SEE ELECTRICAL DRAWINGS
- RECESSED LIGHT FIXTURE - SEE ELECTRICAL DRAWINGS
- ⊙ SURFACE MOUNT LIGHT FIXTURE - SEE ELECTRICAL DRAWINGS
- ⊕ WALL MOUNT LIGHT FIXTURE - SEE ELECTRICAL DRAWINGS
- ⊗ TUBULAR SKYLIGHT DIFFUSER - SEE SPECIFICATIONS
- ⊗ TUBULAR SKYLIGHT DIFFUSER - SEE SPECIFICATIONS
- ⊗ CEILING DIFFUSER - SUPPLY AIR - SEE MECHANICAL DRAWINGS
- ⊗ RETURN AIR REGISTER - SEE MECHANICAL DRAWINGS
- ⊗ EXHAUST REGISTER - SEE MECHANICAL DRAWINGS
- ⊗ RECESSED CEILING MOUNTED SPEAKER - SEE COMMUNICATION DRAWINGS
- ⊗ WALL MOUNTED ILLUMINATED EXIT SIGN - SEE ELECTRICAL DRAWINGS
- ⊗ CEILING MOUNTED ILLUMINATED EXIT SIGN - SEE ELECTRICAL DRAWINGS

NOTES:

1. SEE SHEET AXS.1 FOR NOTES AND DETAILS.
2. SEE ELECTRICAL AND MECHANICAL DRAWINGS FOR FIXTURES AND EQUIPMENT.
3. SEE SHEET AXS.1 FOR PENDANT LIGHT FIXTURE.



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Project Title
**IMPERIAL VALLEY COLLEGE
 BUILDING 200, 300 AND 800 MODERNIZATION**

Sheet Title
REFLECTED CEILING PLAN

	Document Date	Project Number
	10-18-19	19-121V
	Date Last Revised	Sheet Number
		A8.3

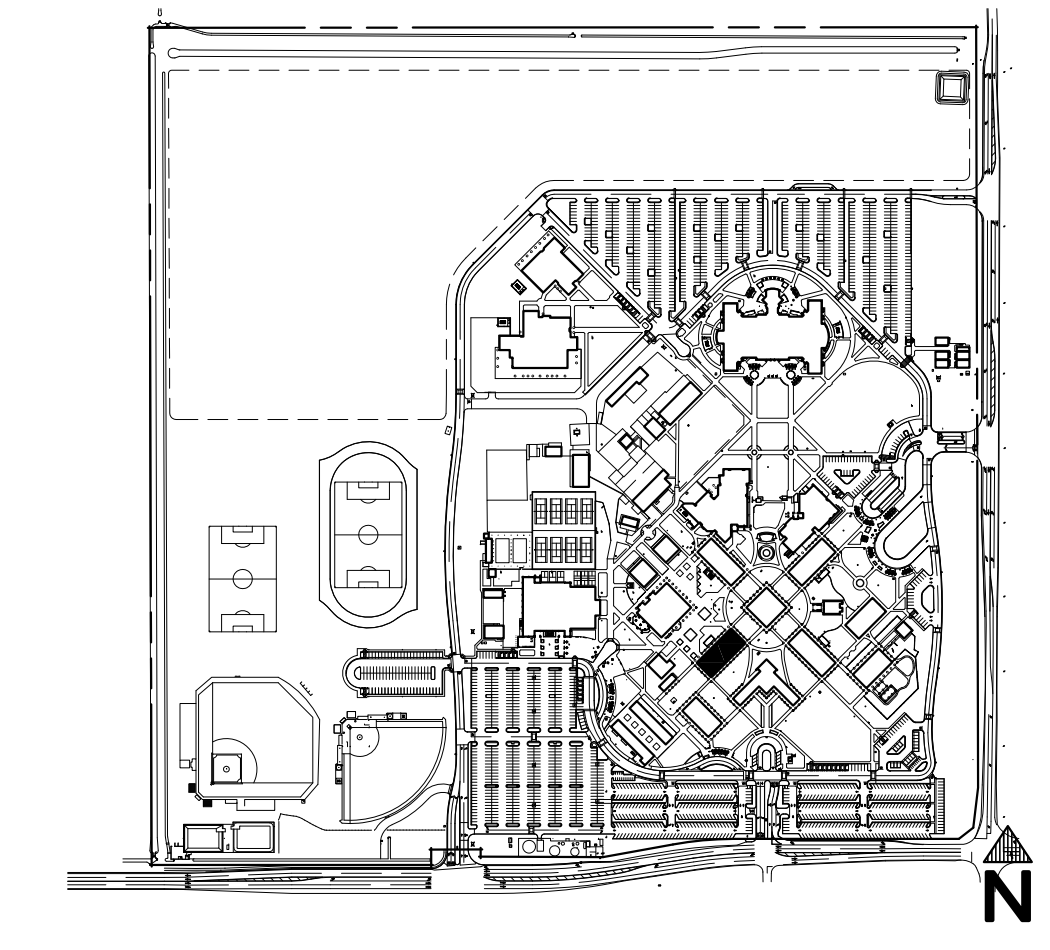
REFLECTED CEILING PLAN

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



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APPROVALS



KEY PLAN - BLDG 800

KEYNOTES:

- 1 GYPSUM BOARD - TEXTURE, PAINT
- 2 CERAMIC TILE (18)
- 3 SMOOTH FACE CONCRETE MASONRY - CLEAN, SANDBLAST OLD PAINT
- 4 TACK BOARD - SIZE NOTED (D)
- 5 MARKER BOARD w/ TRAY - SIZE NOTED (D)
- 6 6" RUBBER BASE TYPICAL, 4" @ CABINET TOE KICK
- 7 6" CARPET BASE TYPICAL, 4" @ CABINET TOE KICK
- 8 NOT USED
- 9 DOOR / WINDOW PER PLAN
- 10 ILLUMINATED EXIT SIGN - SEE ELECTRICAL DRAWINGS
- 11 SIGNAGE - PER SIGNAGE PLAN
- 12 RECESSED FIRE EXTINGUISHER CABINET w/ TEMPERED GLASS - 48" TO EXTINGUISHER HANDLE w/ 4" MAX PROJECTION TO CABINET HANDLE
- 13 HPL MODULAR CASEWORK - SEE DETAILS (G) (H) (I) (J)
- 14 HPL TOP AND 6" SPLASH, SPLASH @ END OF COUNTER
- 15 HPL MODULAR CASEWORK w/ ADJUSTABLE OPEN SHELVES
- 16 HPL ADJUSTABLE SHELVES
- 17 ACCESSIBLE WORK STATION (D)
- 18 ACCESSIBLE WATER CLOSET - SEE PLUMBING DRAWINGS
- 19 ACCESSIBLE URINAL (B) - SEE PLUMBING DRAWINGS
- 20 ACCESSIBLE LAVATORY (B) - SEE PLUMBING DRAWINGS
- 21 MOP SERVICE BASIN w/ STAINLESS STEEL WALL GUARD - SEE PLUMBING DRAWINGS
- 22 BROOM / MOP RACK - VERIFY MOUNTING HEIGHT - SEE SPECIFICATIONS
- 23 GRAB BARS - FOR ANCHORAGE SEE (B) (E)
- 24 MIRROR w/ STAINLESS STEEL FRAME (B) (AX3)
- 25 SOAP DISPENSER (B)
- 26 TYP HEAVY DUTY TOILET PARTITION
- 27 HEAD RAIL BRACES - FOR ANCHORAGE SEE (21)
- 28 HAND DRYER (MAX 4" PROJECTION) (B)
- 29 RECESSED TOILET PAPER HOLDER (B) (K)
- 30 RECESSED FEMINE NAPKIN DISPOSAL (B) (AX3)
- 31 RECESSED TOILET SEAT COVER DISPENSER (B)
- 32 WATER HEATER - SEE PLUMBING DRAWINGS
- 33 WATER HEATER SHELF (N)
- 34 PENDANT LIGHT FIXTURE - SEE ELECTRICAL DRAWINGS
- 35 12" WALL CLOCK - SEE SPECIFICATIONS
- 36 FLAT PANEL MONITOR - SEE SPECIFICATIONS (4)
- 37 4' x 8' x 3/4" PLYWOOD, PAINT
- 38 ELECTRICAL EQUIPMENT - SEE ELECTRICAL DRAWINGS
- 39 COMMUNICATIONS EQUIPMENT - SEE COMMUNICATIONS DRAWINGS
- 40 ALUMINUM ROOF ACCESS SHIP'S LADDER - SEE SPECIFICATIONS (10)
- 41 NOT USED
- 42 FURNITURE ITEM - SEE SPECIFICATIONS
- 43 MECHANICAL PIPING - SEE MECHANICAL DRAWINGS
- 44 1-1/2" STAINLESS STEEL HANDRAIL (E)

NOTES:

1. FOR FIXTURE MOUNTING HEIGHTS SEE (B)
2. FOR TOILET ROOM ACCESSORIES SEE SPECIFICATIONS.

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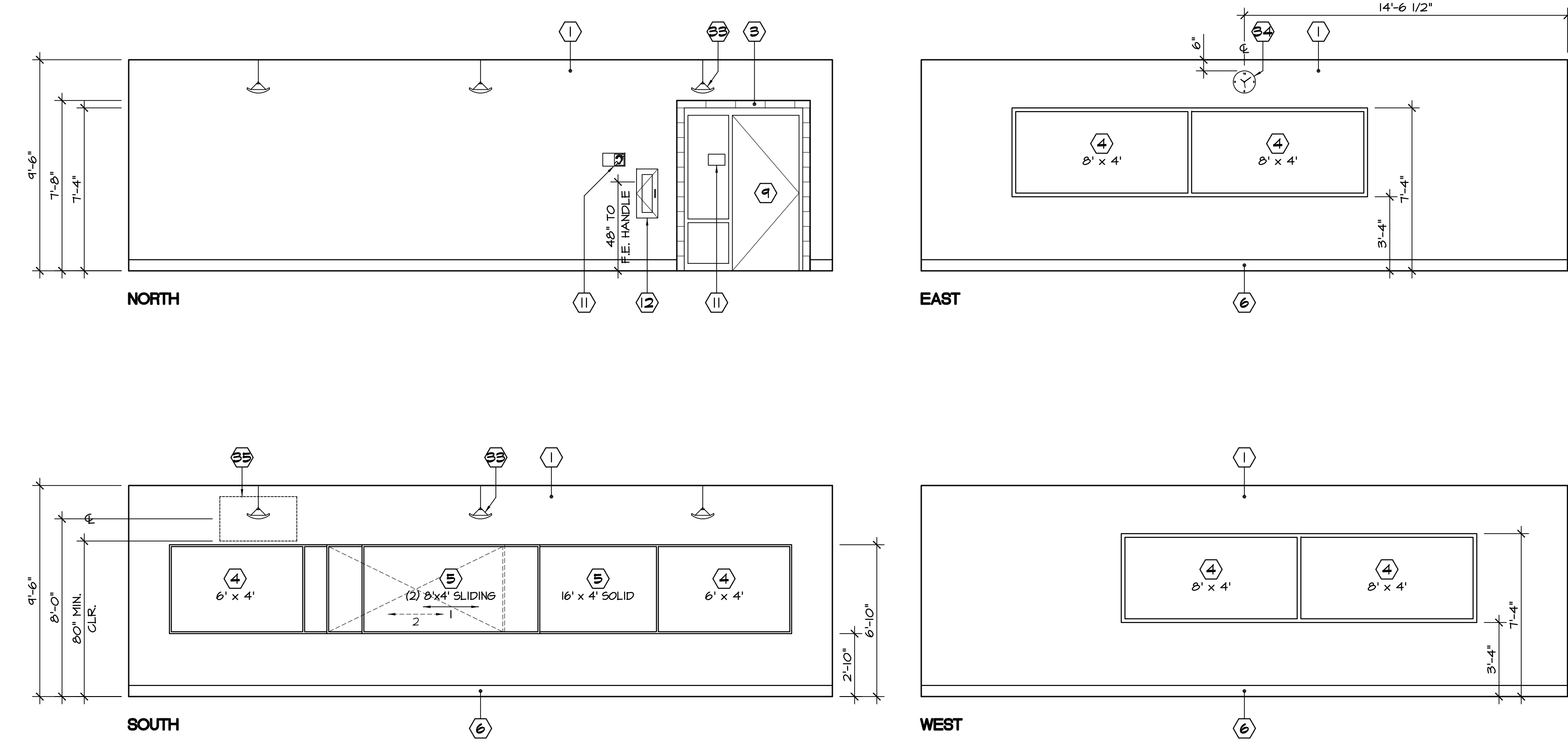
Project Title
**IMPERIAL VALLEY COLLEGE
 BUILDING 200, 300 AND 800 MODERNIZATION**

Sheet Title
INTERIOR ELEVATIONS

	Document Date	Project Number
	Date Last Revised	Sheet Number
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		A8.4.1

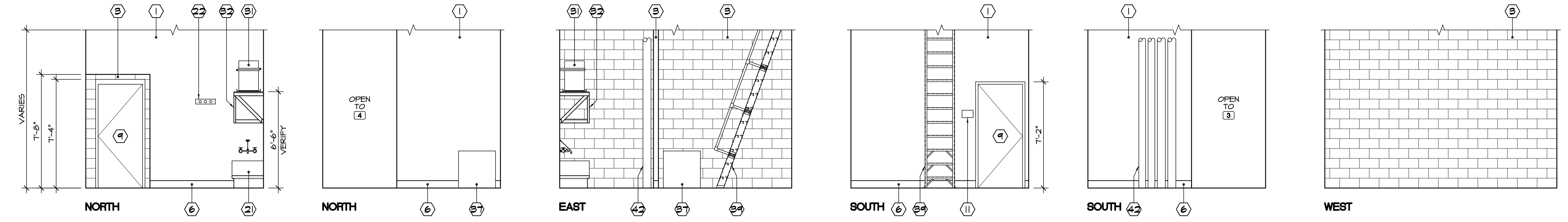
CLASSROOM 1 (15) SIMILAR

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



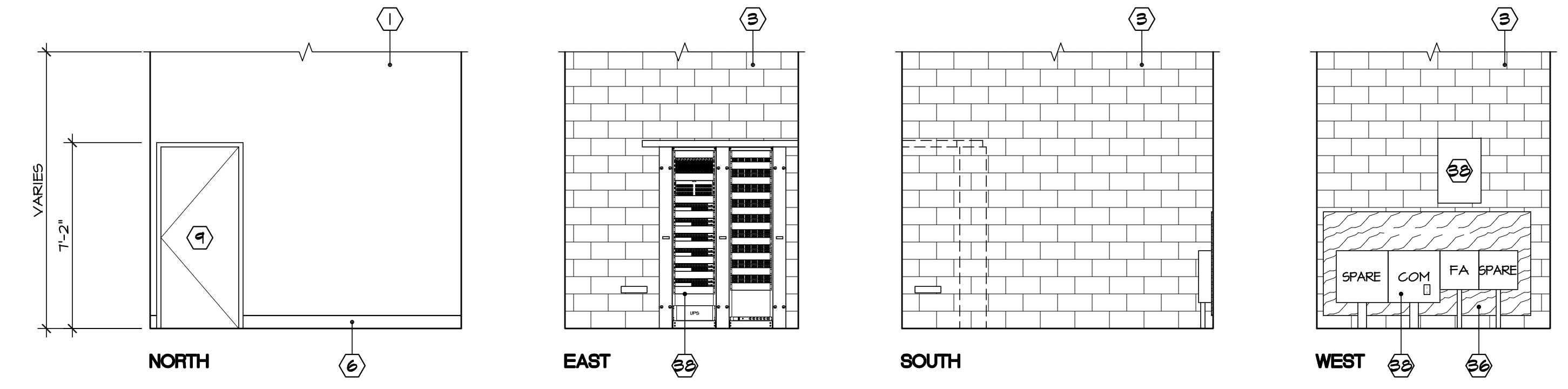
CLASSROOM 2 (14) (16) SIMILAR

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



JANITOR 3 / ELECTRICAL 4

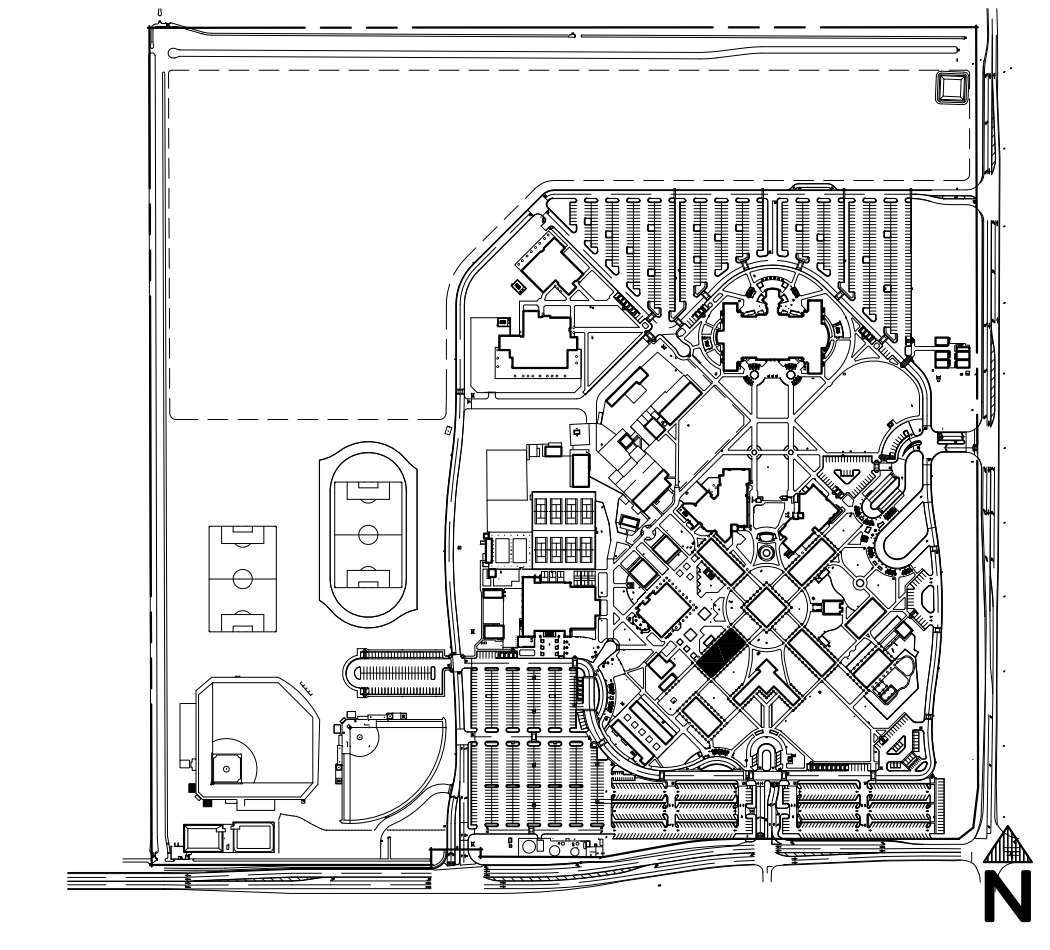
SCALE: 1/4" = 1'-0" C



DATA 5

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

APPROVALS



KEY PLAN - BLDG 800

KEYNOTES:

- (1) GYPSUM BOARD - TEXTURE, PAINT
- (2) CERAMIC TILE (B)
- (3) SMOOTH FACE CONCRETE MASONRY - CLEAN, SANDBLAST OLD PAINT
- (4) TACK BOARD - SIZE NOTED (D)
- (5) MARKER BOARD w/ TRAY - SIZE NOTED (D)
- (6) 6" RUBBER BASE TYPICAL, 4" @ CABINET TOE KICK
- (7) 6" CARPET BASE TYPICAL, 4" @ CABINET TOE KICK
- (8) NOT USED
- (9) DOOR / WINDOW PER PLAN
- (10) ILLUMINATED EXIT SIGN - SEE ELECTRICAL DRAWINGS
- (11) SIGNAGE - PER SIGNAGE PLAN
- (12) RECESSED FIRE EXTINGUISHER CABINET w/ TEMPERED GLASS - 48" TO EXTINGUISHER HANDLE w/ 4" MAX PROJECTION TO CABINET HANDLE
- (13) HPL MODULAR CASEWORK - SEE DETAILS (G) (H) (I) (J)
- (14) HPL TOP AND 6" SPLASH, SPLASH @ END OF COUNTER
- (15) HPL MODULAR CASEWORK w/ ADJUSTABLE OPEN SHELVES
- (16) HPL ADJUSTABLE SHELVES
- (17) ACCESSIBLE WORK STATION (D) (AX3)
- (18) ACCESSIBLE WATER CLOSET - SEE PLUMBING DRAWINGS
- (19) ACCESSIBLE URINAL (B) - SEE PLUMBING DRAWINGS
- (20) ACCESSIBLE LAVATORY (B) (AX3) - SEE PLUMBING DRAWINGS
- (21) MOP SERVICE BASIN w/ STAINLESS STEEL WALL GUARD - SEE PLUMBING DRAWINGS
- (22) BROOM / MOP RACK - VERIFY MOUNTING HEIGHT - SEE SPECIFICATIONS
- (23) GRAB BARS - FOR ANCHORAGE SEE (B) (E) (AX3) (AX3)
- (24) MIRROR w/ STAINLESS STEEL FRAME (B) (AX3)
- (25) SOAP DISPENSER (B) (AX3)
- (26) TYP HEAVY DUTY TOILET PARTITION, HEAD RAIL BRACES - FOR ANCHORAGE SEE (B) (AX3)
- (27) HAND DRYER (MAX 4" PROJECTION) (B) (AX3)
- (28) RECESSED TOILET PAPER HOLDER (B) (AX3) (B) (K) (AX3)
- (29) RECESSED FEMINE NAPKIN DISPOSAL (B) (AX3) (AX3)
- (30) RECESSED TOILET SEAT COVER DISPENSER (B) (AX3)
- (31) WATER HEATER - SEE PLUMBING DRAWINGS
- (32) WATER HEATER SHELF (N) (AX4)
- (33) 12" WALL CLOCK - SEE SPECIFICATIONS (4) (AX3)
- (34) PENDANT LIGHT FIXTURE - SEE ELECTRICAL DRAWINGS
- (35) 12" WALL CLOCK - SEE SPECIFICATIONS
- (36) FLAT PANEL MONITOR - SEE SPECIFICATIONS (4) (AX3)
- (37) 4' x 8' x 3/4" PLYWOOD, PAINT
- (38) ELECTRICAL EQUIPMENT - SEE ELECTRICAL DRAWINGS
- (39) COMMUNICATIONS EQUIPMENT - SEE COMMUNICATIONS DRAWINGS
- (40) ALUMINUM ROOF ACCESS SHIP'S LADDER - SEE SPECIFICATIONS (10) (AX3)
- (41) NOT USED
- (42) FURNITURE ITEM - SEE SPECIFICATIONS
- (43) MECHANICAL PIPING - SEE MECHANICAL DRAWINGS
- (44) 1-1/2" STAINLESS STEEL HANDRAIL (E) (AX3)

NOTES:

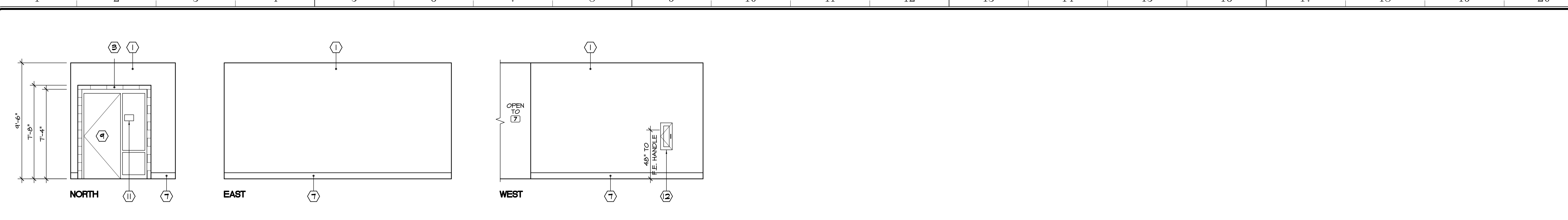
1. FOR FIXTURE MOUNTING HEIGHTS SEE (B) (AX3)
2. FOR TOILET ROOM ACCESSORIES SEE SPECIFICATIONS.

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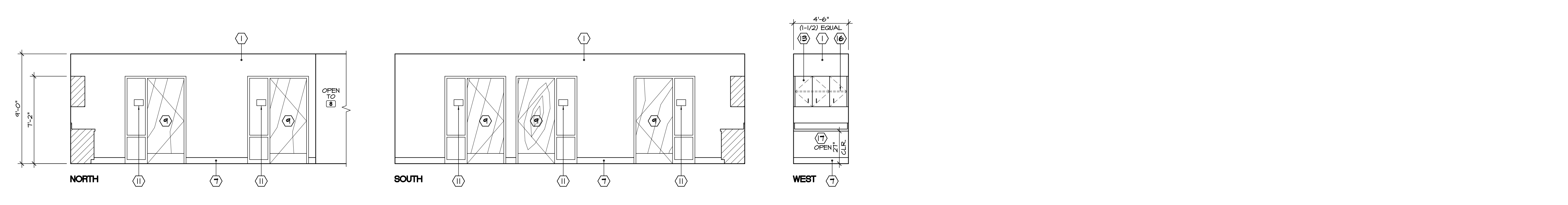
Project Title
**IMPERIAL VALLEY COLLEGE
 BUILDING 200, 300 AND 800 MODERNIZATION**

Sheet Title
INTERIOR ELEVATIONS

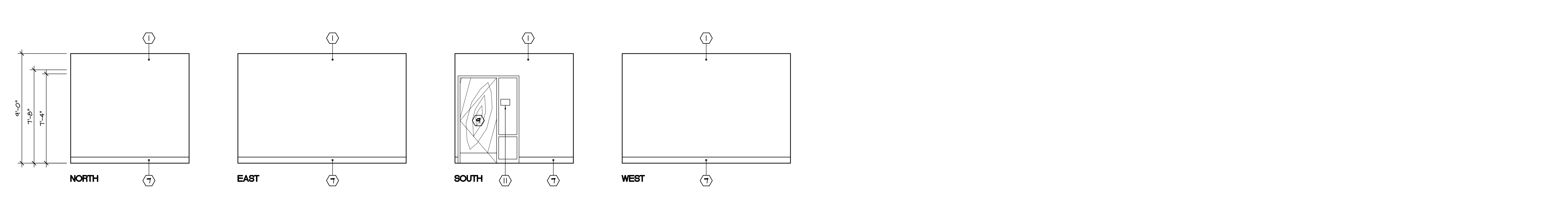
	Document Date	Project Number
	10-18-19	19-121V
Date Last Revised		Sheet Number
		A8.4.2



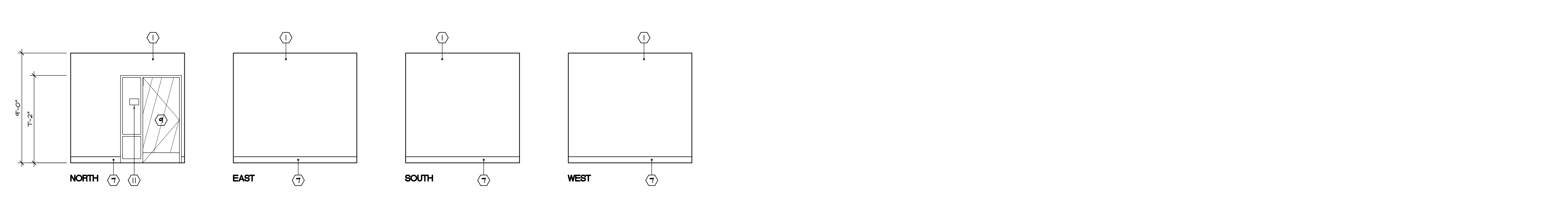
RECEPTION (6) SCALE: 1/4" = 1'-0" **A**



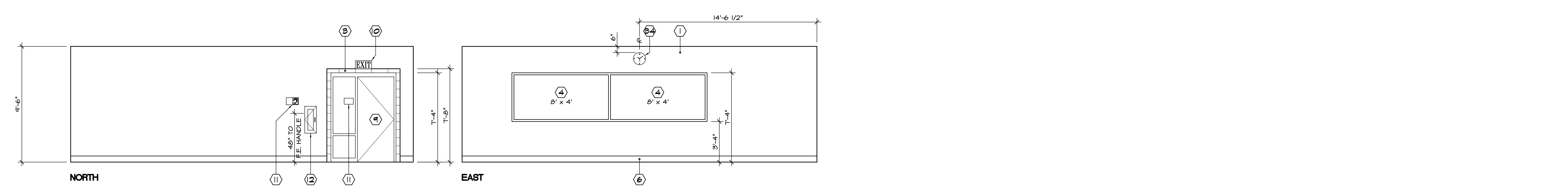
HALLWAY (7) SCALE: 1/4" = 1'-0" **B**



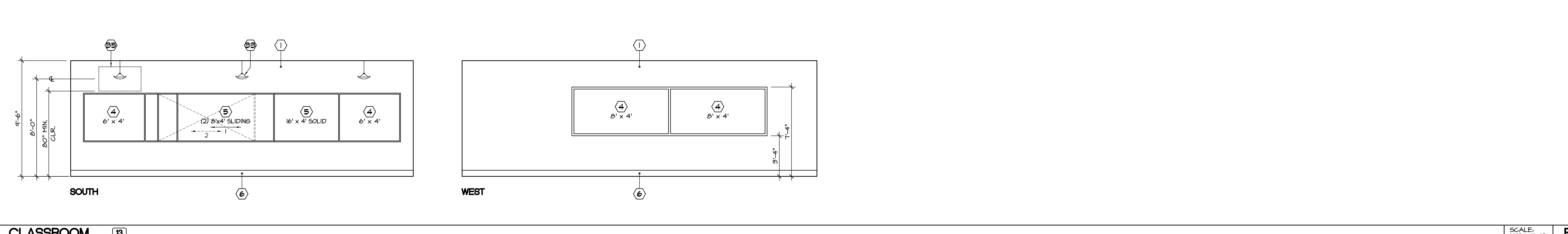
OFFICE (8) ((9) SIMILAR) SCALE: 1/4" = 1'-0" **C**



OFFICE (10) ((11) (12) SIMILAR) SCALE: 1/4" = 1'-0" **D**



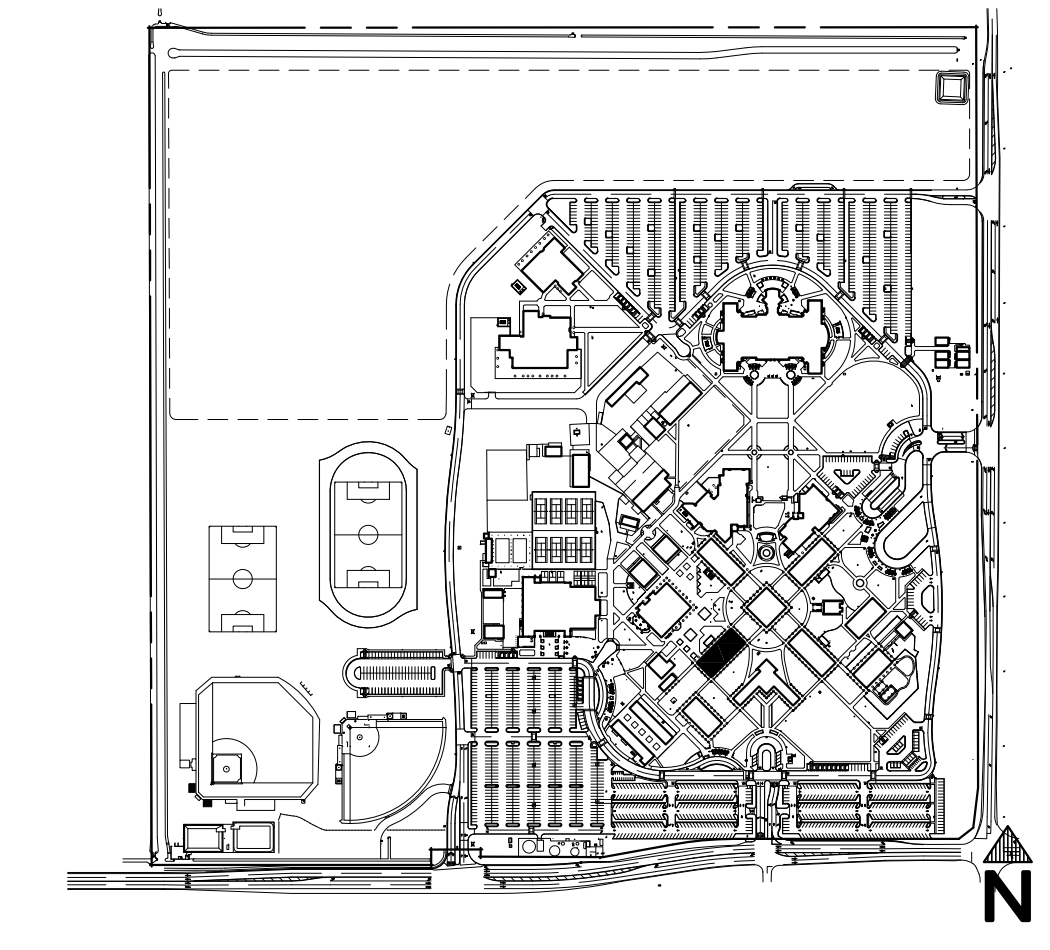
CLASSROOM (13) SCALE: 1/4" = 1'-0" **E**



CLASSROOM (13) SCALE: 1/4" = 1'-0" **E**

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APPROVALS



KEY PLAN - BLDG 800

KEYNOTES:

- ① GYPSUM BOARD - TEXTURE, PAINT
- ② CERAMIC TILE (B) (AX31)
- ③ SMOOTH FACE CONCRETE MASONRY - CLEAN, SANDBLAST OLD PAINT
- ④ TACK BOARD - SIZE NOTED (D) (AX41)
- ⑤ MARKER BOARD w/ TRAY - SIZE NOTED (D) (AX41)
- ⑥ 6" RUBBER BASE TYPICAL, 4" @ CABINET TOE KICK
- ⑦ 6" CARPET BASE TYPICAL, 4" @ CABINET TOE KICK
- ⑧ NOT USED
- ⑨ DOOR / WINDOW PER PLAN
- ⑩ ILLUMINATED EXIT SIGN - SEE ELECTRICAL DRAWINGS
- ⑪ SIGNAGE - PER SIGNAGE PLAN
- ⑫ RECESSED FIRE EXTINGUISHER CABINET w/ TEMPERED GLASS - 48" TO EXTINGUISHER HANDLE w/ 4" MAX PROJECTION TO CABINET HANDLE
- ⑬ HPL MODULAR CASEWORK - SEE DETAILS (G) (H) (AX41)
- ⑭ HPL TOP AND 6" SPLASH, SPLASH @ END OF COUNTER
- ⑮ HPL MODULAR CASEWORK w/ ADJUSTABLE OPEN SHELVES
- ⑯ HPL ADJUSTABLE SHELVES
- ⑰ ACCESSIBLE WORK STATION (D) (AX31)
- ⑱ ACCESSIBLE WATER CLOSET - SEE PLUMBING DRAWINGS
- ⑲ ACCESSIBLE URINAL (B) (AX31) - SEE PLUMBING DRAWINGS
- ⑳ ACCESSIBLE LAVATORY (B) (AX31) - SEE PLUMBING DRAWINGS
- ㉑ MOP SERVICE BASIN w/ STAINLESS STEEL WALL GUARD - SEE PLUMBING DRAWINGS
- ㉒ BROOM / MOP RACK - VERIFY MOUNTING HEIGHT - SEE SPECIFICATIONS
- ㉓ GRAB BARS - FOR ANCHORAGE SEE (B) (AX31) (E)
- ㉔ MIRROR w/ STAINLESS STEEL FRAME (B) (AX31)
- ㉕ SOAP DISPENSER (B) (AX31)
- ㉖ TYP HEAVY DUTY TOILET PARTITION, HEAD RAIL BRACES - FOR ANCHORAGE SEE (21) (AX31)
- ㉗ HAND DRYER (MAX 4" PROJECTION) (B) (AX31)
- ㉘ RECESSED TOILET PAPER HOLDER (B) (AX31) (K)
- ㉙ RECESSED FEMINE NAPKIN DISPOSAL (B) (AX31) (AX31)
- ㉚ RECESSED TOILET SEAT COVER DISPENSER (B) (AX31)
- ㉛ WATER HEATER - SEE PLUMBING DRAWINGS
- ㉜ WATER HEATER SHELF (N) (AX41)
- ㉝ PENDANT LIGHT FIXTURE - SEE ELECTRICAL DRAWINGS
- ㉞ 12" WALL CLOCK - SEE SPECIFICATIONS
- ㉟ FLAT PANEL MONITOR - SEE SPECIFICATIONS (4) (AX31)
- ㊱ 4' x 8' x 3/4" PLYWOOD, PAINT
- ㊲ ELECTRICAL EQUIPMENT - SEE ELECTRICAL DRAWINGS
- ㊳ COMMUNICATIONS EQUIPMENT - SEE COMMUNICATIONS DRAWINGS
- ㊴ ALUMINUM ROOF ACCESS SHIP'S LADDER - SEE SPECIFICATIONS (10) (AX31)
- ㊵ NOT USED
- ㊶ FURNITURE ITEM - SEE SPECIFICATIONS
- ㊷ MECHANICAL PIPING - SEE MECHANICAL DRAWINGS
- ㊸ 1-1/2" STAINLESS STEEL HANDRAIL (E) (AX31)

NOTES:

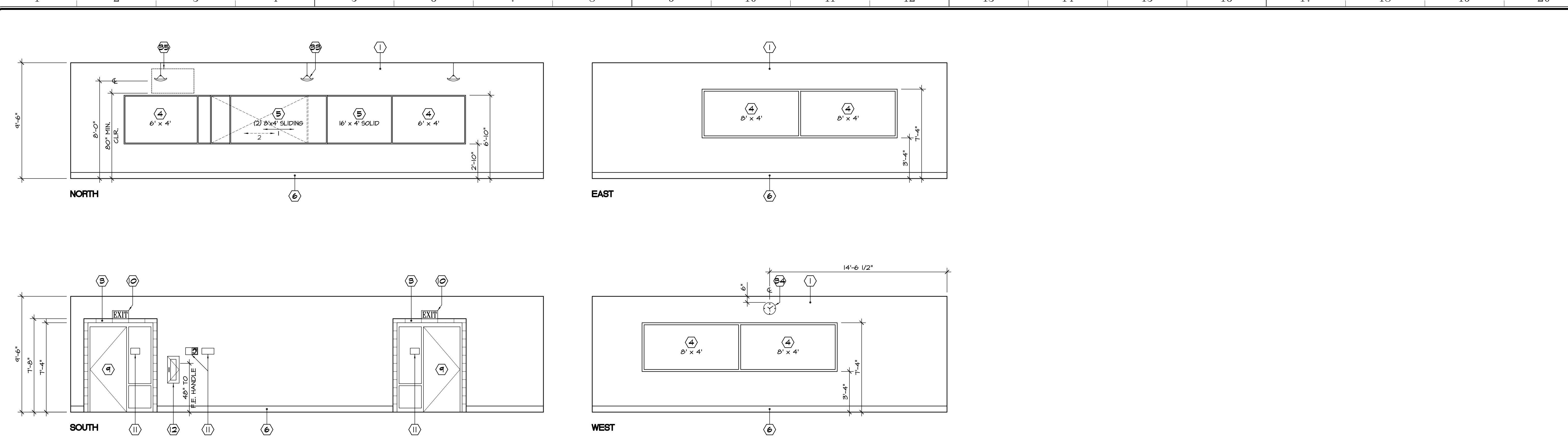
1. FOR FIXTURE MOUNTING HEIGHTS SEE (B) (AX31)
2. FOR TOILET ROOM ACCESSORIES SEE SPECIFICATIONS.

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Project Title
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 BUILDING 200, 300 AND 800 MODERNIZATION**

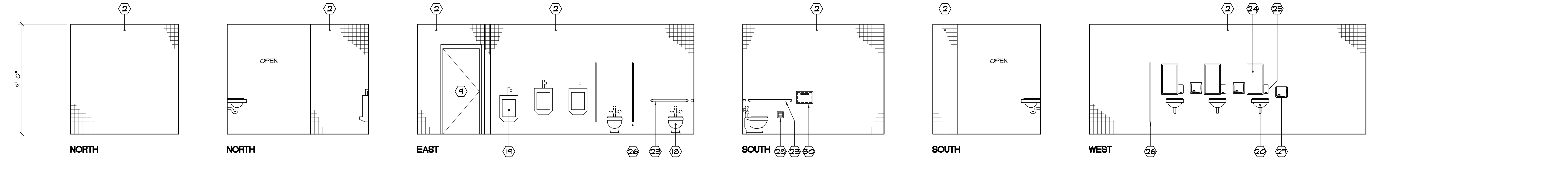
Sheet Title
INTERIOR ELEVATIONS

	Document Date	Project Number
	Date Last Revised	Sheet Number
	10-18-19	19-121V
		A8.4.3



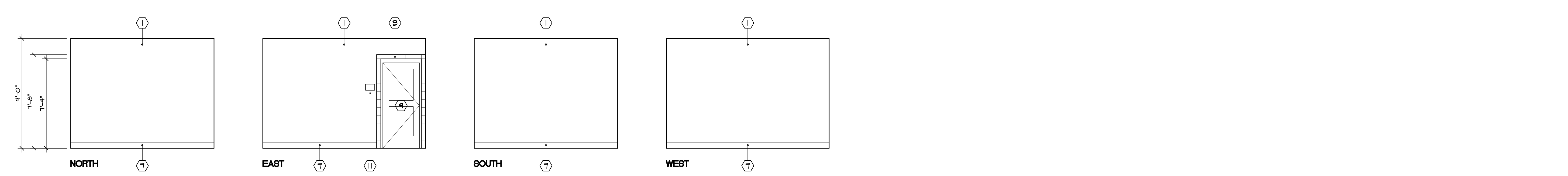
LECTURE CLASSROOM 17

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



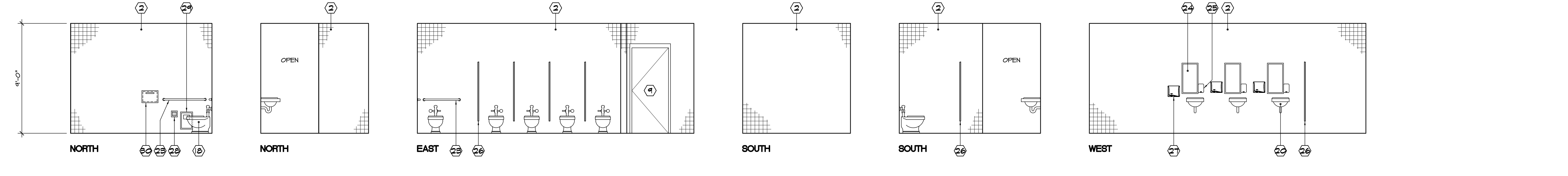
MEN'S TOILET 18

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



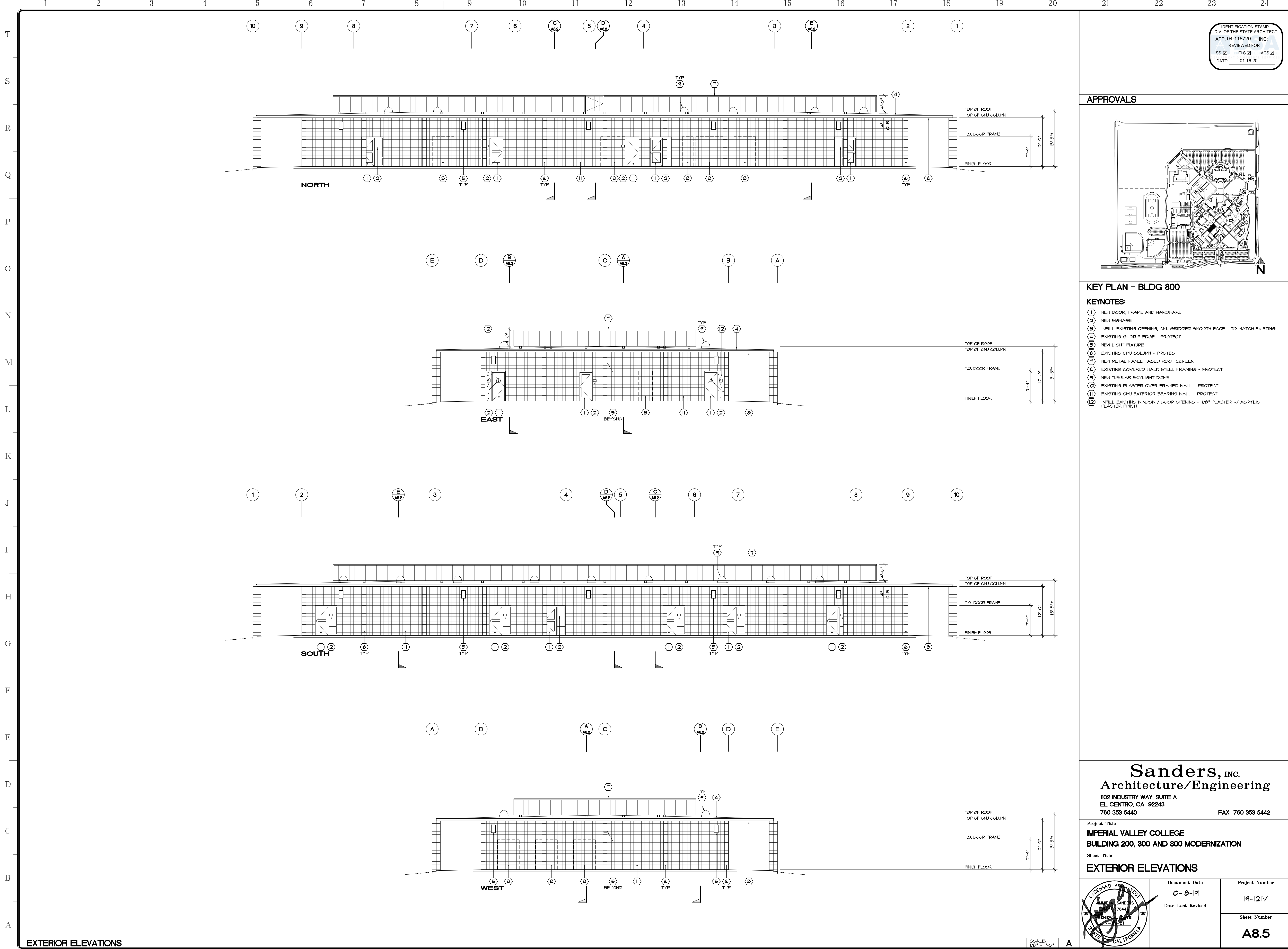
OFFICE 19

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



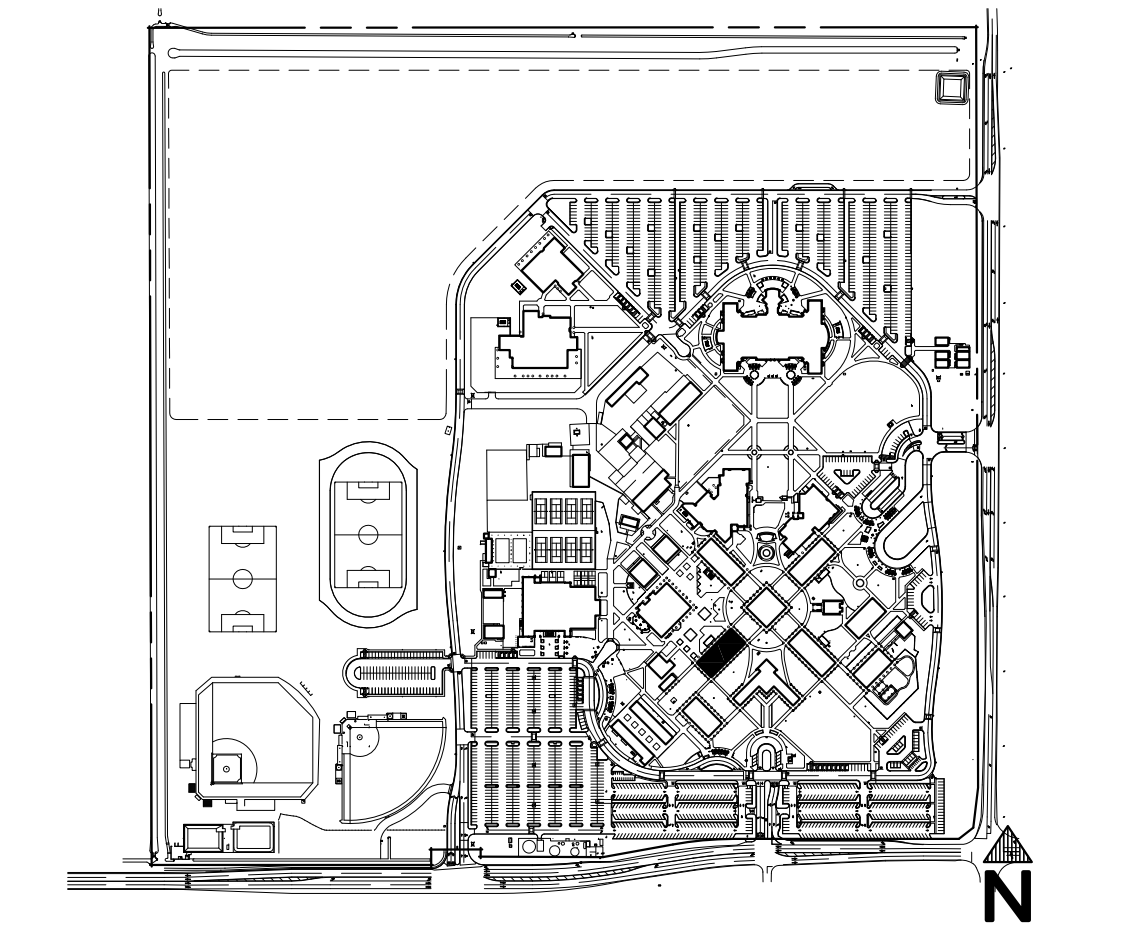
WOMEN'S TOILET 20

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



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KEY PLAN - BLDG 800

- KEYNOTES:**
- ① NEW DOOR, FRAME AND HARDWARE
 - ② NEW SIGNAGE
 - ③ INFILL EXISTING OPENING, CMU GRIDDED SMOOTH FACE - TO MATCH EXISTING
 - ④ EXISTING GI DRIP EDGE - PROTECT
 - ⑤ NEW LIGHT FIXTURE
 - ⑥ EXISTING CMU COLUMN - PROTECT
 - ⑦ NEW METAL PANEL FACED ROOF SCREEN
 - ⑧ EXISTING COVERED WALK STEEL FRAMING - PROTECT
 - ⑨ NEW TUBULAR SKYLIGHT DOME
 - ⑩ EXISTING PLASTER OVER FRAMED WALL - PROTECT
 - ⑪ EXISTING CMU EXTERIOR BEARING WALL - PROTECT
 - ⑫ INFILL EXISTING WINDOW / DOOR OPENING - 7/8" PLASTER W/ ACRYLIC PLASTER FINISH

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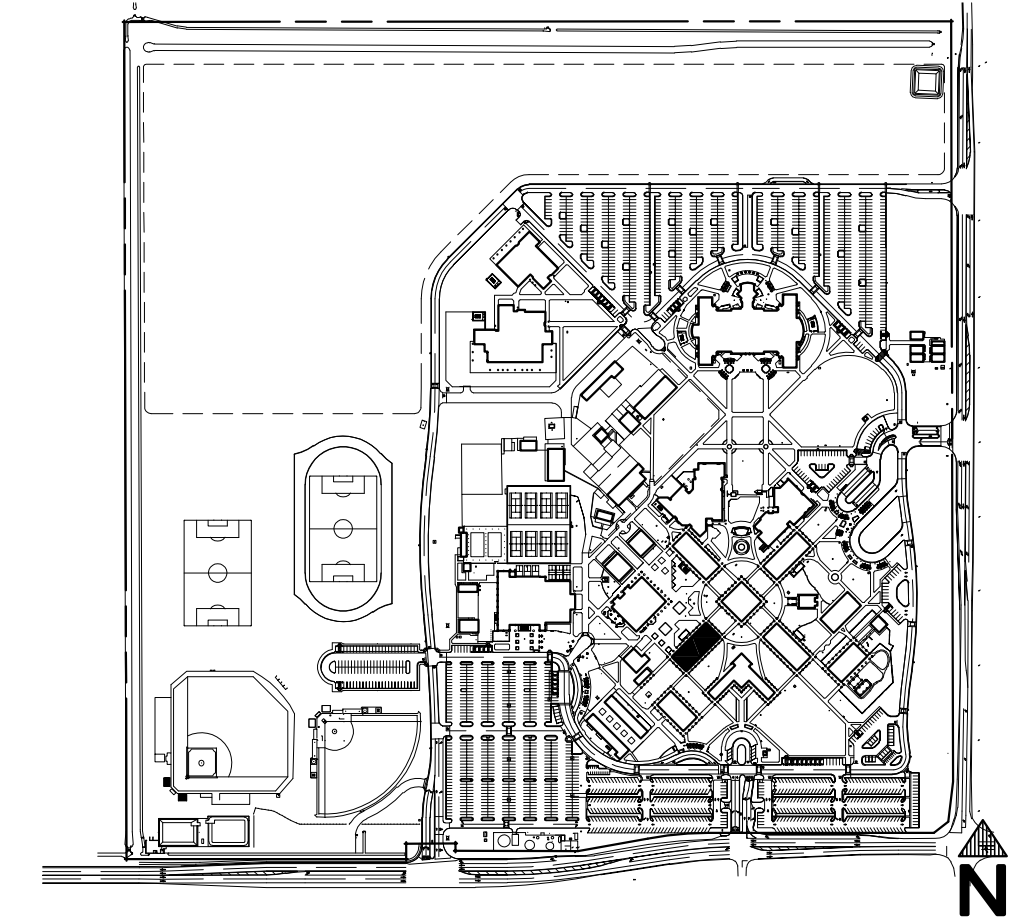
Project Title
**IMPERIAL VALLEY COLLEGE
 BUILDING 200, 300 AND 800 MODERNIZATION**

EXTERIOR ELEVATIONS

	Document Date	Project Number
	Date Last Revised	Sheet Number
	10-18-19	19-121V
		A8.5

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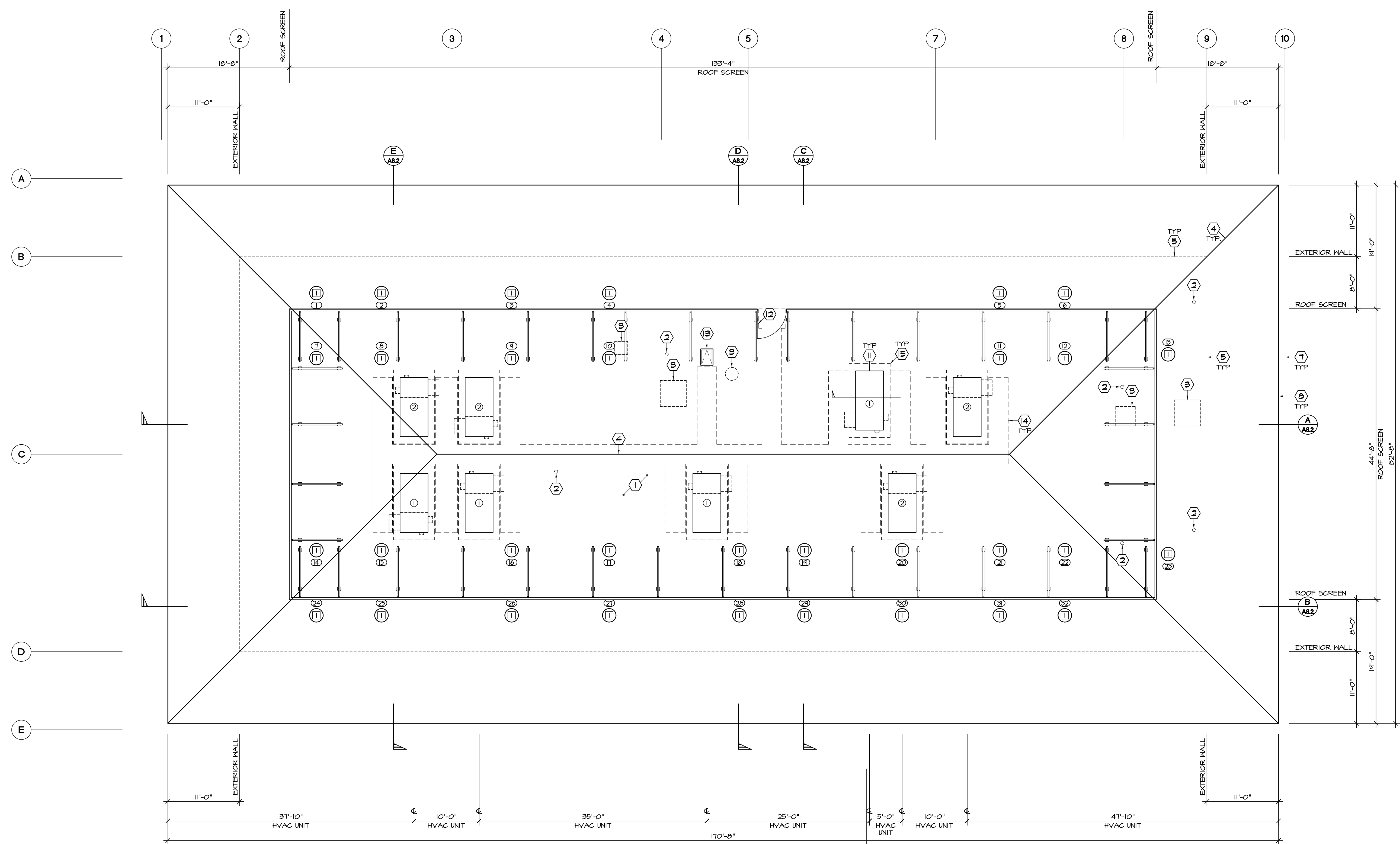
KEY PLAN - BLDG 800

KEYNOTES:

- ① EXISTING 1.5 mm REINFORCED PVC MEMBRANE OVER 1/4" DENSDECK OVER TAPERED EXPANDED POLYSTYRENE (EPS) BOARD OVER BUILT-UP ASPHALT ROOF
- ② EXISTING PIPE PENETRATION - REMOVE AND PATCH ROOF
- ③ EXISTING VENT HOOD - REMOVE AND PATCH ROOF
- ④ RIDGE / VALLEY LINE OF TAPERED EPS BOARD
- ⑤ LINE OF EXTERIOR WALL BELOW ROOF
- ⑥ LINE OF HIGH ROOF
- ⑦ TOP OF CMJ COLUMN - PROTECT
- ⑧ EXISTING G.I. W/ LAMINATED PVC DRIP EDGE - PROTECT
- ⑨ NEW TUBULAR SKYLIGHT - SEE SPECIFICATIONS
- ⑩ ROOFSCREEN MFG" METAL PANEL ROOF SCREEN
- ⑪ NEW HVAC UNIT, PATCH INSULATION AND ROOFING AT NEW CURB - SEE MECHANICAL DRAWINGS
- ⑫ PROVIDE GATE TO FIT ROOF SCREEN FRAME MODULE - GATE
- ⑬ ROOF ACCESS HATCH
- ⑭ PROVIDE PVC ROOF WALKPADS - SEE SPECIFICATIONS WALKPADS
- ⑮ NEW HVAC UNIT PLATFORM - SEE STRUCTURAL DRAWINGS

NOTES:

1. ALL ROOFS TO BE CLASS A (NO) W/ 1.5MM REINFORCED PVC MEMBRANE OVER 1/4" COVERBOARD.
 2. CONTRACTOR RESPONSIBLE TO VERIFY EXACT PLACEMENT OF ROOF MOUNTED MECHANICAL EQUIPMENT TO AVOID CONFLICTS WITH ELECTRICAL ITEMS, PLUMBING LINES, OR OTHER MECHANICAL EQUIPMENT.
 3. ROOF EQUIPMENT DEAD LOADS:
 MECHANICAL LOADS
 ① FAN COIL / ERV - ROOF TOP 640 lb
 ② FAN COIL / ERV - ROOF TOP 640 lb
 ③ N/A N/A lb
- SKYLIGHTS
 ① 21" TUBULAR SKYLIGHT (WINDOW NUMBER NOTED) 30 lb
 ②



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Sheet Title
ROOF PLAN

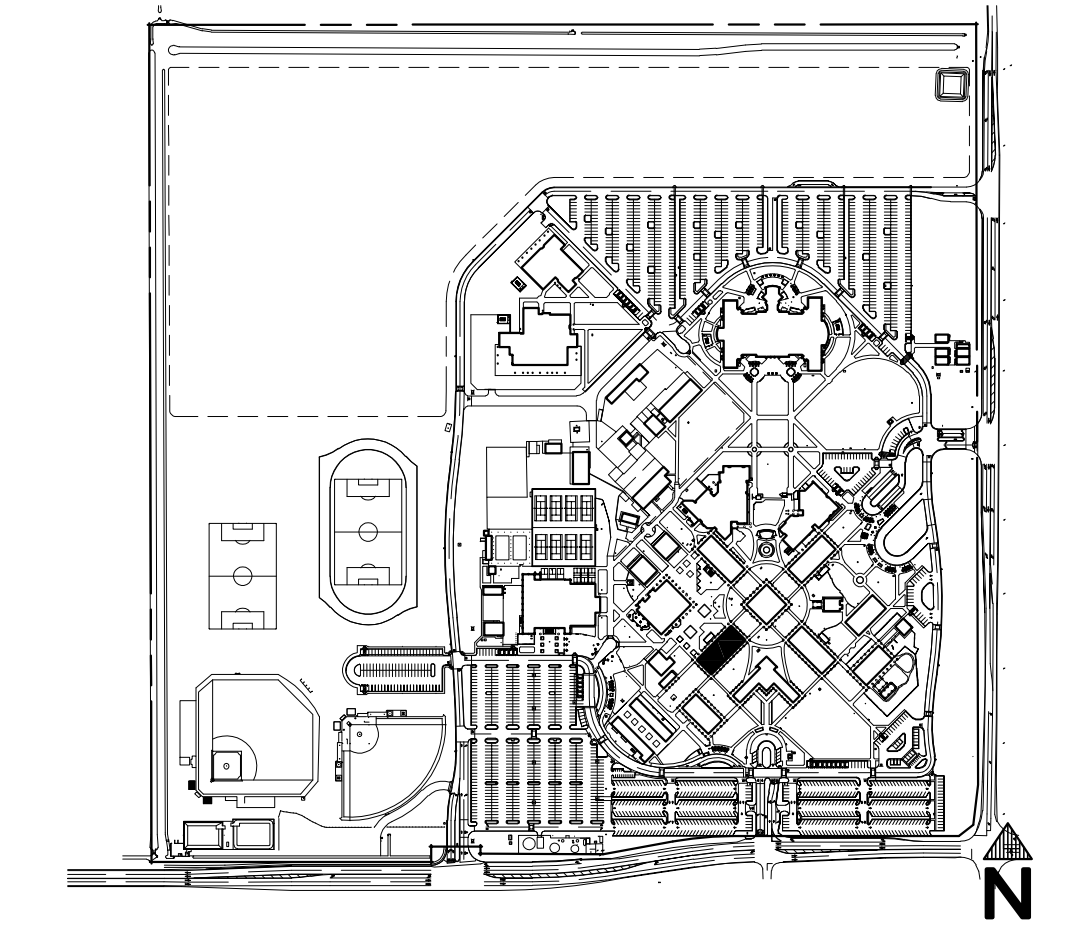
	Document Date	Project Number
	Date Last Revised	Sheet Number
	10-18-19	19-121V
		A8.6

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

ROOF PLAN

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KEY PLAN - BLDG 800

LEGEND:

- RUBBER TILE (18"x18") - FIELD COLOR
- RUBBER TILE (18"x18") - ACCENT COLOR
- RUBBER TILE (18"x18") - WALK-OFF
- CERAMIC TILE (2"x2") - FIELD COLOR
- CERAMIC TILE (2"x2") - ACCENT COLOR
- PORCELAIN TILE (12"x12") - FIELD COLOR
- PORCELAIN TILE (12"x12") - ACCENT COLOR
- SEALED CONCRETE
- SHEET CARPET
- CARPET TILE (36"x36")
- CARPET TILE - WALK-OFF

KEYNOTES:

- ① NOT USED
- ② PROVIDE MOLDED RUBBER OUTSIDE OR INSIDE CORNER TERMINATION PIECE FOR WALL BASE



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Sheet Title
FLOORING PLAN

	Document Date	Project Number
	Date Last Revised	Sheet Number
	10-18-19	19-121V
		A8.7

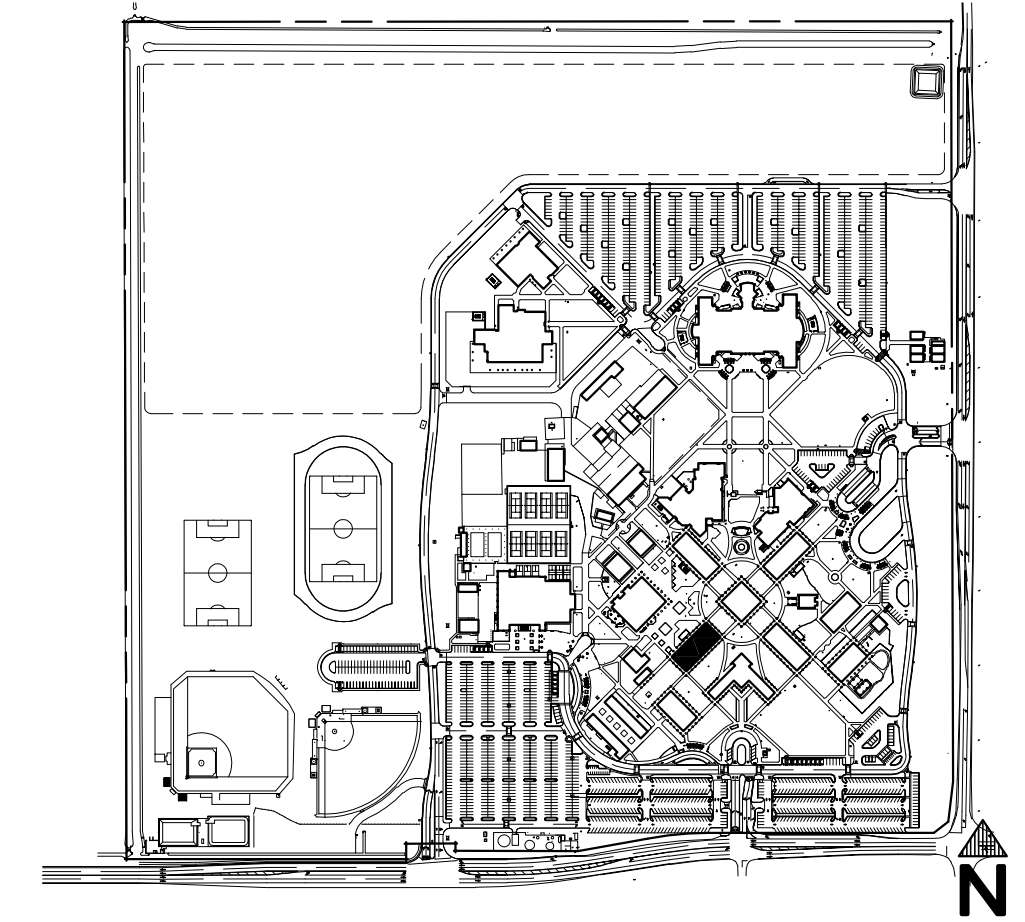
FLOORING PLAN

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



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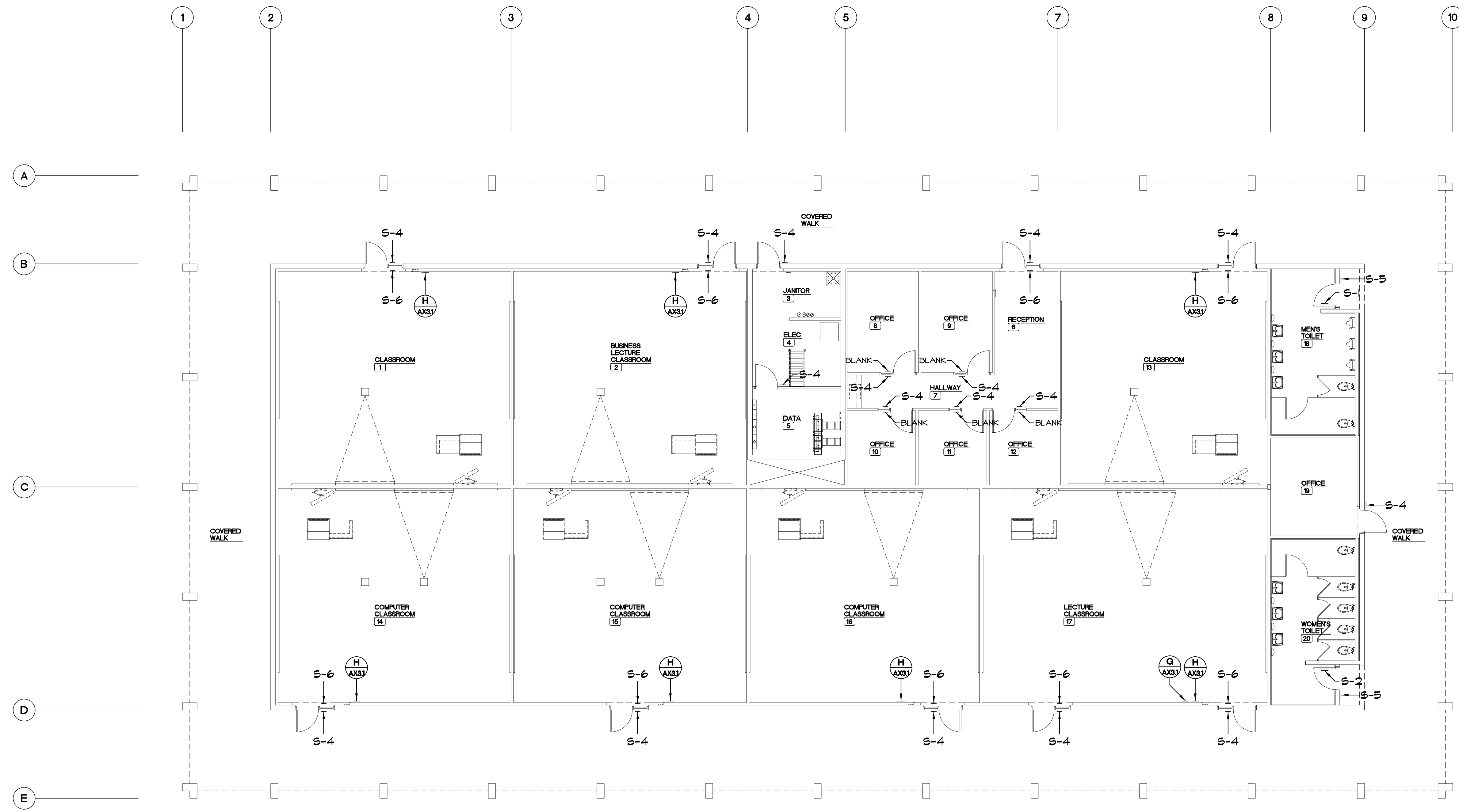
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KEY PLAN - BLDG 800

NOTES:

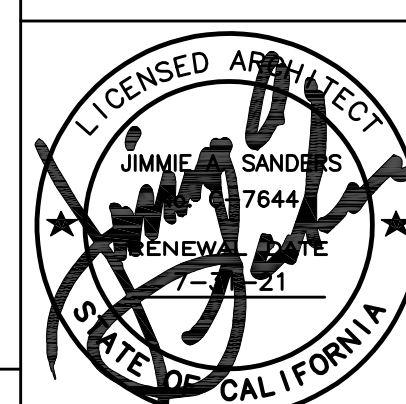
- FOR SIGN TYPES SEE 
- GLAZING MOUNTED SIGNS TO HAVE MATCHING BLANK SIGN ON OPPOSING SIDE AT LOCATIONS WITHOUT SIGN SPECIFIED ON BOTH SIDES.



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Sheet Title
SIGNAGE PLAN

	Document Date	Project Number
	Date Last Revised	Sheet Number
	10-18-19	19-121V
		A8.8



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

SIGNAGE PLAN

ROOM FINISH SCHEDULE

MODULE	RM NO.	NAME	FLOOR	BASE		WALLS				WAINSCOT		CEILING		CABINETRY		REMARKS
				HT.	MATERIAL	NORTH	EAST	SOUTH	WEST	HT.	MATERIAL	HT.	MATERIAL	HT.	MATERIAL	
BUILDING 200	1	WOMEN'S TOILET	PORCELAIN TILE	N/A	N/A	CERAMIC TILE	CERAMIC TILE	CERAMIC TILE	CERAMIC TILE	N/A	N/A	4'-0"	GYP. BD., PAINT	N/A	N/A	
	2	MEN'S TOILET	PORCELAIN TILE	N/A	N/A	CERAMIC TILE	CERAMIC TILE	CERAMIC TILE	CERAMIC TILE	N/A	N/A	4'-0"	GYP. BD., PAINT	N/A	N/A	
	3	CLASSROOM	RUBBER TILE	6"	RUBBER	GYP. BD., PAINT	GYP. BD., PAINT	GYP. BD., PAINT	GYP. BD., PAINT	N/A	N/A	4'-6"	SUSPENDED CEILING	N/A	N/A	
	4	OFFICE	CARPET	6"	CARPET	GYP. BD., PAINT	GYP. BD., PAINT	GYP. BD., PAINT	GYP. BD., PAINT	N/A	N/A	4'-0"	SUSPENDED CEILING	N/A	N/A	
	5	OFFICE	CARPET	6"	CARPET	GYP. BD., PAINT	GYP. BD., PAINT	GYP. BD., PAINT	GYP. BD., PAINT	N/A	N/A	4'-0"	SUSPENDED CEILING	N/A	N/A	
	6	CLASSROOM	RUBBER TILE	6"	RUBBER	GYP. BD., PAINT	GYP. BD., PAINT	GYP. BD., PAINT	GYP. BD., PAINT	N/A	N/A	4'-6"	SUSPENDED CEILING	N/A	N/A	
	7	JANITOR	CONCRETE, SEALED	6"	RUBBER	GYP. BD., PAINT	MASONRY	GYP. BD., PAINT	MASONRY	N/A	N/A	OPEN	MTL. ROOF DECK	N/A	N/A	
	8	ELECTRICAL	CONCRETE, SEALED	6"	RUBBER	GYP. BD., PAINT	MASONRY	GYP. BD., PAINT	MASONRY	N/A	N/A	OPEN	MTL. ROOF DECK	N/A	N/A	
	9	DATA	CONCRETE, SEALED	6"	RUBBER	GYP. BD., PAINT	MASONRY	MASONRY	MASONRY	N/A	N/A	OPEN	MTL. ROOF DECK	N/A	N/A	
	10	CLASSROOM	RUBBER TILE	6"	RUBBER	GYP. BD., PAINT	GYP. BD., PAINT	GYP. BD., PAINT	GYP. BD., PAINT	N/A	N/A	4'-6"	SUSPENDED CEILING	N/A	N/A	
	11	CLASSROOM	RUBBER TILE	6"	RUBBER	GYP. BD., PAINT	GYP. BD., PAINT	GYP. BD., PAINT	GYP. BD., PAINT	N/A	N/A	4'-6"	SUSPENDED CEILING	N/A	N/A	
	12	RECEPTION	CARPET	6"	CARPET	GYP. BD., PAINT	GYP. BD., PAINT	GYP. BD., PAINT	GYP. BD., PAINT	N/A	N/A	4'-0"	SUSPENDED CEILING	N/A	N/A	
	13	HALLWAY	CARPET	6"	CARPET	GYP. BD., PAINT	GYP. BD., PAINT	GYP. BD., PAINT	GYP. BD., PAINT	N/A	N/A	4'-0"	SUSPENDED CEILING	7'-2"	H.P.L.	
	14	OFFICE	CARPET	6"	CARPET	GYP. BD., PAINT	GYP. BD., PAINT	GYP. BD., PAINT	GYP. BD., PAINT	N/A	N/A	4'-0"	SUSPENDED CEILING	N/A	N/A	
	15	OFFICE	RUBBER TILE	6"	RUBBER	GYP. BD., PAINT	GYP. BD., PAINT	GYP. BD., PAINT	GYP. BD., PAINT	N/A	N/A	4'-0"	SUSPENDED CEILING	N/A	N/A	
	16	OFFICE	RUBBER TILE	6"	RUBBER	GYP. BD., PAINT	GYP. BD., PAINT	GYP. BD., PAINT	GYP. BD., PAINT	N/A	N/A	4'-0"	SUSPENDED CEILING	N/A	N/A	
	17	OFFICE	RUBBER TILE	6"	RUBBER	GYP. BD., PAINT	GYP. BD., PAINT	GYP. BD., PAINT	GYP. BD., PAINT	N/A	N/A	4'-0"	SUSPENDED CEILING	N/A	N/A	
	18	OFFICE	RUBBER TILE	6"	RUBBER	GYP. BD., PAINT	GYP. BD., PAINT	GYP. BD., PAINT	GYP. BD., PAINT	N/A	N/A	4'-0"	SUSPENDED CEILING	N/A	N/A	
	19	OFFICE	RUBBER TILE	6"	RUBBER	GYP. BD., PAINT	GYP. BD., PAINT	GYP. BD., PAINT	GYP. BD., PAINT	N/A	N/A	4'-0"	SUSPENDED CEILING	N/A	N/A	
	20	OFFICE	RUBBER TILE	6"	RUBBER	GYP. BD., PAINT	GYP. BD., PAINT	GYP. BD., PAINT	GYP. BD., PAINT	N/A	N/A	4'-0"	SUSPENDED CEILING	N/A	N/A	
	21	OFFICE	RUBBER TILE	6"	RUBBER	GYP. BD., PAINT	GYP. BD., PAINT	GYP. BD., PAINT	GYP. BD., PAINT	N/A	N/A	4'-0"	SUSPENDED CEILING	N/A	N/A	
	22	OFFICE	RUBBER TILE	6"	RUBBER	GYP. BD., PAINT	GYP. BD., PAINT	GYP. BD., PAINT	GYP. BD., PAINT	N/A	N/A	4'-0"	SUSPENDED CEILING	N/A	N/A	
	23	OFFICE	RUBBER TILE	6"	RUBBER	GYP. BD., PAINT	GYP. BD., PAINT	GYP. BD., PAINT	GYP. BD., PAINT	N/A	N/A	4'-0"	SUSPENDED CEILING	N/A	N/A	
	24	CLASSROOM	RUBBER TILE	6"	RUBBER	GYP. BD., PAINT	GYP. BD., PAINT	GYP. BD., PAINT	GYP. BD., PAINT	N/A	N/A	4'-6"	SUSPENDED CEILING	N/A	N/A	
	25	CLASSROOM	RUBBER TILE	6"	RUBBER	GYP. BD., PAINT	GYP. BD., PAINT	GYP. BD., PAINT	GYP. BD., PAINT	N/A	N/A	4'-6"	SUSPENDED CEILING	N/A	N/A	

BUILDING 300	1	CLASSROOM	RUBBER TILE	6"	RUBBER	GYP. BD., PAINT	GYP. BD., PAINT	GYP. BD., PAINT	GYP. BD., PAINT	N/A	N/A	4'-6"	SUSPENDED CEILING	N/A	N/A	
	2	CLASSROOM	RUBBER TILE	6"	RUBBER	GYP. BD., PAINT	GYP. BD., PAINT	GYP. BD., PAINT	GYP. BD., PAINT	N/A	N/A	4'-6"	SUSPENDED CEILING	N/A	N/A	
	3	MIDI LAB	RUBBER TILE	6"	RUBBER	GYP. BD., PAINT	GYP. BD., PAINT	GYP. BD., PAINT	GYP. BD., PAINT	N/A	N/A	4'-6"	SUSPENDED CEILING	N/A	N/A	
	4	CLASSROOM	RUBBER TILE	6"	RUBBER	GYP. BD., PAINT	GYP. BD., PAINT	GYP. BD., PAINT	GYP. BD., PAINT	N/A	N/A	4'-6"	SUSPENDED CEILING	N/A	N/A	
	5	CLASSROOM	RUBBER TILE	6"	RUBBER	GYP. BD., PAINT	GYP. BD., PAINT	GYP. BD., PAINT	GYP. BD., PAINT	N/A	N/A	4'-6"	SUSPENDED CEILING	N/A	N/A	
	6	MUSIC LAB	RUBBER TILE	6"	RUBBER	GYP. BD., PAINT	GYP. BD., PAINT	GYP. BD., PAINT	GYP. BD., PAINT	N/A	N/A	4'-6"	SUSPENDED CEILING	N/A	N/A	
	7	MUSIC LIBRARY	CARPET	6"	CARPET	GYP. BD., PAINT	GYP. BD., PAINT	GYP. BD., PAINT	GYP. BD., PAINT	N/A	N/A	8'-0"	SUSPENDED CEILING	N/A	N/A	
	8	ISOLATION STUDIO	CARPET	6"	CARPET	GYP. BD., PAINT	GYP. BD., PAINT	GYP. BD., PAINT	GYP. BD., PAINT	N/A	N/A	4'-0"	SUSPENDED CEILING	N/A	N/A	
	9	RECORDING STUDIO	CARPET	6"	CARPET	GYP. BD., PAINT	GYP. BD., PAINT	GYP. BD., PAINT	GYP. BD., PAINT	N/A	N/A	4'-0"	SUSPENDED CEILING	N/A	N/A	
	10	DATA	CONCRETE, SEALED	6"	RUBBER	MASONRY	MASONRY	GYP. BD., PAINT	MASONRY	N/A	N/A	OPEN	MTL. ROOF DECK	N/A	N/A	
	11	ELECTRICAL	CONCRETE, SEALED	6"	RUBBER	GYP. BD., PAINT	MASONRY	GYP. BD., PAINT	MASONRY	N/A	N/A	OPEN	MTL. ROOF DECK	N/A	N/A	
	12	JANITOR	CONCRETE, SEALED	6"	RUBBER	GYP. BD., PAINT	MASONRY	GYP. BD., PAINT	MASONRY	N/A	N/A	OPEN	MTL. ROOF DECK	N/A	N/A	
	13	MUSIC LAB	RUBBER TILE	6"	RUBBER	GYP. BD., PAINT	GYP. BD., PAINT	GYP. BD., PAINT	GYP. BD., PAINT	N/A	N/A	18'-0"	SUSPENDED CEILING	N/A	N/A	
	14	PLATFORM	CARPET	6"	CARPET	GYP. BD., PAINT	GYP. BD., PAINT	GYP. BD., PAINT	GYP. BD., PAINT	N/A	N/A	VARIES	SUSP. / GYP. BD., PAINT	N/A	N/A	
	15	OFFICE	CARPET	6"	CARPET	GYP. BD., PAINT	GYP. BD., PAINT	GYP. BD., PAINT	GYP. BD., PAINT	N/A	N/A	4'-0"	SUSPENDED CEILING	N/A	N/A	
	16	STORAGE	CARPET	6"	CARPET	GYP. BD., PAINT	GYP. BD., PAINT	GYP. BD., PAINT	GYP. BD., PAINT	N/A	N/A	4'-0"	SUSPENDED CEILING	N/A	N/A	
	17	VESTIBULE	CARPET	6"	CARPET	GYP. BD., PAINT	GYP. BD., PAINT	GYP. BD., PAINT	GYP. BD., PAINT	N/A	N/A	4'-0"	SUSPENDED CEILING	N/A	N/A	
	18	PRACTICE	CARPET	6"	CARPET	GYP. BD., PAINT	GYP. BD., PAINT	GYP. BD., PAINT	GYP. BD., PAINT	N/A	N/A	4'-0"	SUSPENDED CEILING	N/A	N/A	
	19	PRACTICE	CARPET	6"	CARPET	GYP. BD., PAINT	GYP. BD., PAINT	GYP. BD., PAINT	GYP. BD., PAINT	N/A	N/A	4'-0"	SUSPENDED CEILING	N/A	N/A	
	20	PRACTICE	CARPET	6"	CARPET	GYP. BD., PAINT	GYP. BD., PAINT	GYP. BD., PAINT	GYP. BD., PAINT	N/A	N/A	4'-0"	SUSPENDED CEILING	N/A	N/A	
	21	VESTIBULE	CARPET	6"	CARPET	GYP. BD., PAINT	GYP. BD., PAINT	GYP. BD., PAINT	GYP. BD., PAINT	N/A	N/A	4'-0"	SUSPENDED CEILING	N/A	N/A	
	22	PRACTICE	CARPET	6"	CARPET	GYP. BD., PAINT	GYP. BD., PAINT	MASONRY	GYP. BD., PAINT	N/A	N/A	4'-0"	SUSPENDED CEILING	N/A	N/A	
	23	PRACTICE	CARPET	6"	CARPET	MASONRY	GYP. BD., PAINT	GYP. BD., PAINT	GYP. BD., PAINT	N/A	N/A	4'-0"	SUSPENDED CEILING	N/A	N/A	
	24	PRACTICE	CARPET	6"	CARPET	GYP. BD., PAINT	GYP. BD., PAINT	GYP. BD., PAINT	GYP. BD., PAINT	N/A	N/A	4'-0"	SUSPENDED CEILING	N/A	N/A	
	25	VESTIBULE	CARPET	6"	CARPET	GYP. BD., PAINT	GYP. BD., PAINT	GYP. BD., PAINT	GYP. BD., PAINT	N/A	N/A	4'-0"	SUSPENDED CEILING	N/A	N/A	

BUILDING 800	1	CLASSROOM	RUBBER TILE	6"	RUBBER	GYP. BD., PAINT	GYP. BD., PAINT	GYP. BD., PAINT	GYP. BD., PAINT	N/A	N/A	4'-6"	SUSPENDED CEILING	N/A	N/A	
	2	BUSINESS LECTURE CLASSROOM	RUBBER TILE	6"	RUBBER	GYP. BD., PAINT	GYP. BD., PAINT	GYP. BD., PAINT	GYP. BD., PAINT	N/A	N/A	4'-6"	SUSPENDED CEILING	N/A	N/A	
	3	JANITOR	CONCRETE, SEALED	6"	RUBBER	GYP. BD., PAINT	MASONRY	GYP. BD., PAINT	MASONRY	N/A	N/A	OPEN	MTL. ROOF DECK	N/A	N/A	
	4	ELECTRICAL	CONCRETE, SEALED	6"	RUBBER	GYP. BD., PAINT	MASONRY	GYP. BD., PAINT	MASONRY	N/A	N/A	OPEN	MTL. ROOF DECK	N/A	N/A	
	5	DATA	CONCRETE, SEALED	6"	RUBBER	GYP. BD., PAINT	MASONRY	MASONRY	MASONRY	N/A	N/A	OPEN	MTL. ROOF DECK	N/A	N/A	
	6	RECEPTION	CARPET	6"	CARPET	GYP. BD., PAINT	GYP. BD., PAINT	GYP. BD., PAINT	GYP. BD., PAINT	N/A	N/A	4'-6"	SUSPENDED CEILING	7'-2"	H.P.L.	
	7	HALLWAY	CARPET	6"	CARPET	GYP. BD., PAINT	GYP. BD., PAINT	GYP. BD., PAINT	GYP. BD., PAINT	N/A	N/A	4'-0"	SUSPENDED CEILING	7'-2"	H.P.L.	
	8	OFFICE	CARPET	6"	CARPET	GYP. BD., PAINT	GYP. BD., PAINT	GYP. BD., PAINT	GYP. BD., PAINT	N/A	N/A	4'-0"	SUSPENDED CEILING	N/A	N/A	
	9	OFFICE	CARPET	6"	CARPET	GYP. BD., PAINT	GYP. BD., PAINT	GYP. BD., PAINT	GYP. BD., PAINT	N/A	N/A	4'-0"	SUSPENDED CEILING	N/A	N/A	
	10	OFFICE	CARPET	6"	CARPET	GYP. BD., PAINT	GYP. BD., PAINT	GYP. BD., PAINT	GYP. BD., PAINT	N/A	N/A	4'-0"	SUSPENDED CEILING	N/A	N/A	
	11	OFFICE	CARPET	6"	CARPET	GYP. BD., PAINT	GYP. BD., PAINT	GYP. BD., PAINT	GYP. BD., PAINT	N/A	N/A	4'-0"	SUSPENDED CEILING	N/A	N/A	
	12	OFFICE	CARPET	6"	CARPET	GYP. BD., PAINT	GYP. BD., PAINT	GYP. BD., PAINT	GYP. BD., PAINT	N/A	N/A	4'-0"	SUSPENDED CEILING	N/A	N/A	
	13	CLASSROOM	RUBBER TILE	6"	RUBBER	GYP. BD., PAINT	GYP. BD., PAINT	GYP. BD., PAINT	GYP. BD., PAINT	N/A	N/A	4'-6"	SUSPENDED CEILING	N/A	N/A	
	14	COMPUTER CLASSROOM	RUBBER TILE	6"	RUBBER	GYP. BD., PAINT	GYP. BD., PAINT	GYP. BD., PAINT	GYP. BD., PAINT	N/A	N/A	4'-6"	SUSPENDED CEILING	N/A	N/A	
	15	COMPUTER CLASSROOM	RUBBER TILE	6"	RUBBER	GYP. BD., PAINT	GYP. BD., PAINT	GYP. BD., PAINT	GYP. BD., PAINT	N/A	N/A	4'-6"	SUSPENDED CEILING	N/A	N/A	
	16	COMPUTER CLASSROOM	RUBBER TILE	6"	RUBBER	GYP. BD., PAINT	GYP. BD., PAINT	GYP. BD., PAINT	GYP. BD., PAINT	N/A	N/A	4'-6"	SUSPENDED CEILING	N/A	N/A	
	17	LECTURE CLASSROOM	RUBBER TILE	6"	RUBBER	GYP. BD., PAINT	GYP. BD., PAINT	GYP. BD., PAINT	GYP. BD., PAINT	N/A	N/A	4'-6"	SUSPENDED CEILING	N/A	N/A	
	18	MEN'S TOILET	PORCELAIN TILE	N/A	N/A	CERAMIC TILE	CERAMIC TILE	CERAMIC TILE	CERAMIC TILE	N/A	N/A	4'-0"	GYP. BD., PAINT	N/A	N/A	
	19	OFFICE	CARPET	6"	CARPET	GYP. BD., PAINT	GYP. BD., PAINT	GYP. BD., PAINT	GYP. BD., PAINT	N/A	N/A	4'-0"	SUSPENDED CEILING	N/A	N/A	
	20	WOMEN'S TOILET	PORCELAIN TILE	N/A	N/A	CERAMIC TILE	CERAMIC TILE	CERAMIC TILE	CERAMIC TILE	N/A	N/A	4'-0"	GYP. BD., PAINT	N/A	N/A	

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APPROVALS

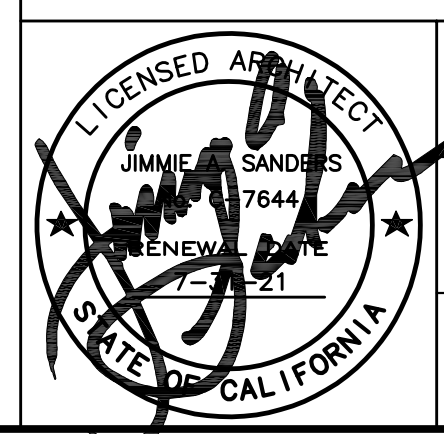
ROOM FINISH SCHEDULE NOTES:

1. ALL OUTSIDE GYP. BRD. CORNERS & WALLS AND SOFFITS SHALL BE FINISHED WITH "BULLNOSE" PAPER FACED METAL CORNER BEAD.
2. GYP. BOARD FINISH AT WALLS & CEILING TO BE TEXTURED "LIGHT SKIP TROWEL". PROVIDE SAMPLE FOR APPROVAL.
3. ALL INTERIOR FINISHES SHALL COMPLY W/ CBC CHAPTER 8, CFC CHAPTER 8, AND CGR TITLE 19, 3.08 AND 3.21.
4. SLIP RESISTANT TILE. SLIP RESISTANT TILE SHALL HAVE SUFFICIENT ABRASIVES ADDED SUCH THAT THE STATIC COEFFICIENT OF FRICTION (SCOF) SHALL BE NOT LESS THAN 0.6 FOR WALKING SURFACES AND 0.8 FOR RAMPS WHEN TESTED IN ACCORDANCE W/ ASTM DESIGNATION: C 1029.
5. ALL ONE HOUR RATED CEILING AND WALLS SHALL BE AS PER C.B.C. TABLE 7201, 14-1.3.
6. ALL INTERIOR FINISHES SHALL BE OF MAX. FLAME SPREAD CLASS I W/ AN INDEX OF 26-75.
7. SEE (B) (2) FOR FLOORING TRANSITION DETAIL.

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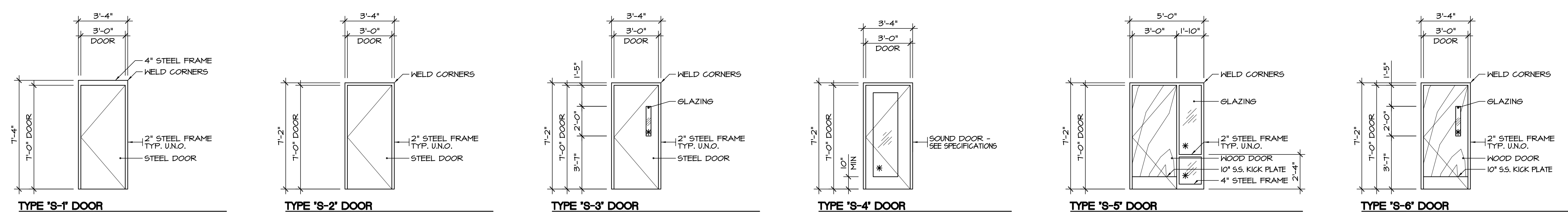
Project Title
**IMPERIAL VALLEY COLLEGE
BUILDING 200, 300 AND 800 MODERNIZATION**

ROOM FINISH SCHEDULES

	Document Date 10-18-19	Project Number 19-121V
	Date Last Revised	Sheet Number AX11

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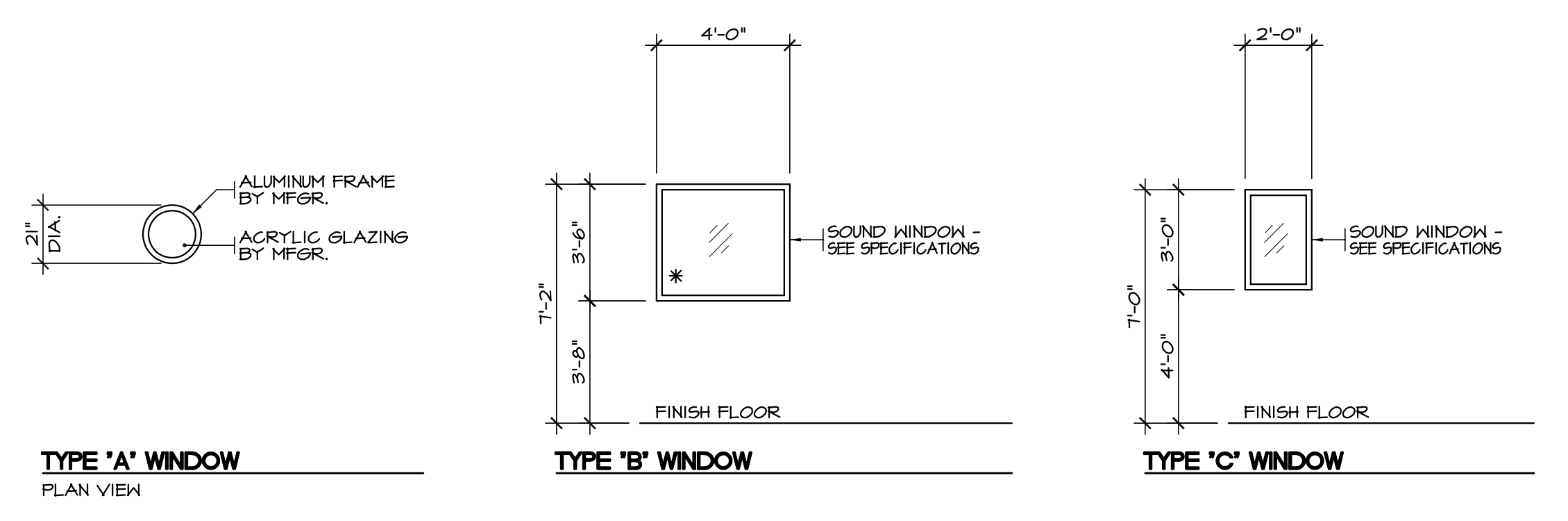
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STEEL FRAME DOOR TYPES SCALE: 1/4" = 1'-0" **A**



ALUMINUM FRAME DOOR TYPES SCALE: 1/4" = 1'-0" **B**



WINDOW TYPES SCALE: 1/4" = 1'-0" **C**

APPROVALS

- DOOR NOTES:**
- GLAZING WITH * INDICATES REQUIRED SAFETY GLAZING AS REQUIRED BY CBC 2406.
 - SEE (17) FOR TYPICAL INSULATED GLAZING.

WINDOW NOTES:

- GLAZING WITH * INDICATES REQUIRED SAFETY GLAZING AS REQUIRED BY CBC 2406.
- SEE (17) FOR TYPICAL INSULATED GLAZING.

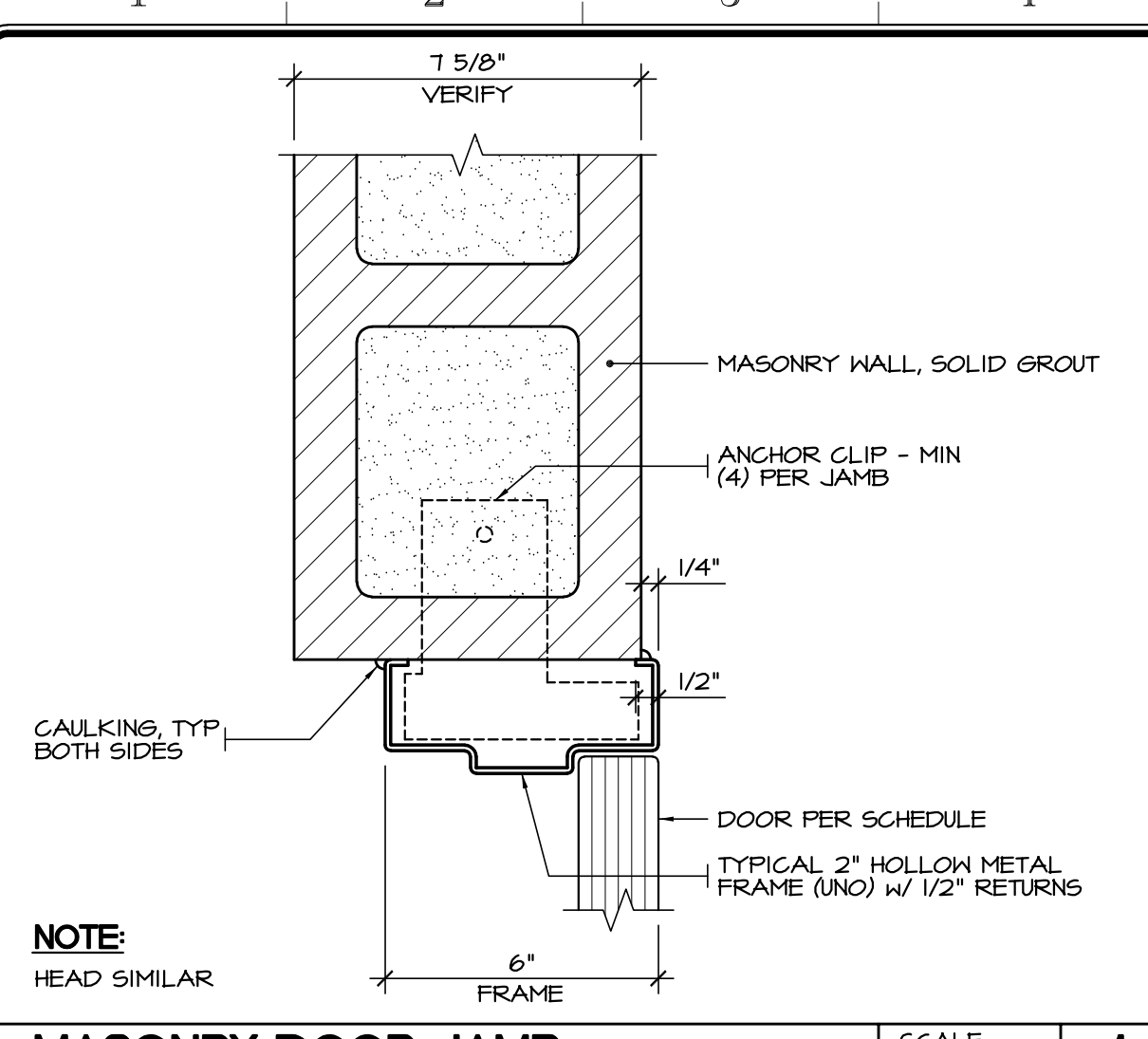
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Project Title
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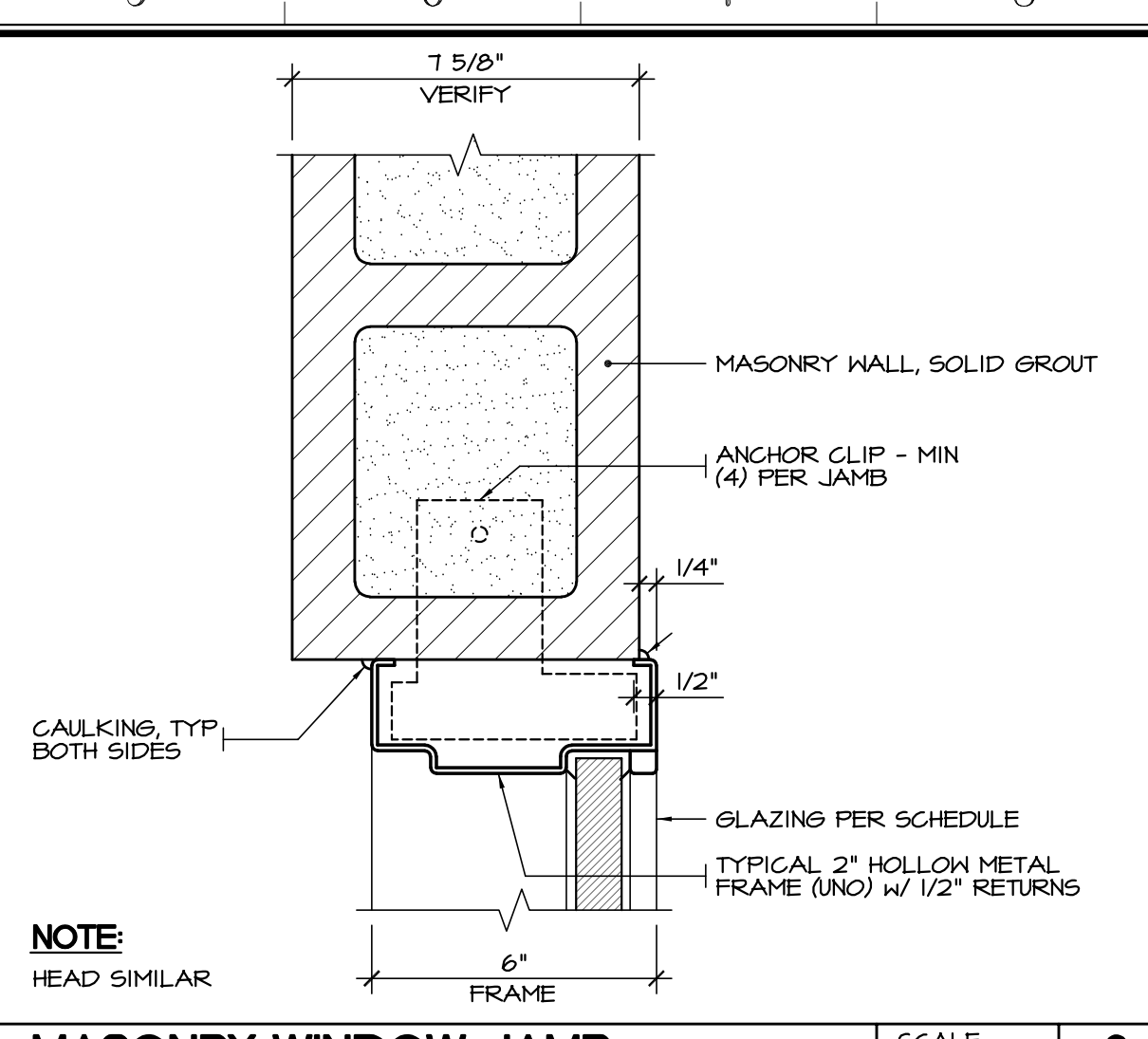
DOOR AND WINDOW TYPES

	Document Date 10-18-19	Project Number 19-121V
	Date Last Revised	Sheet Number AX14

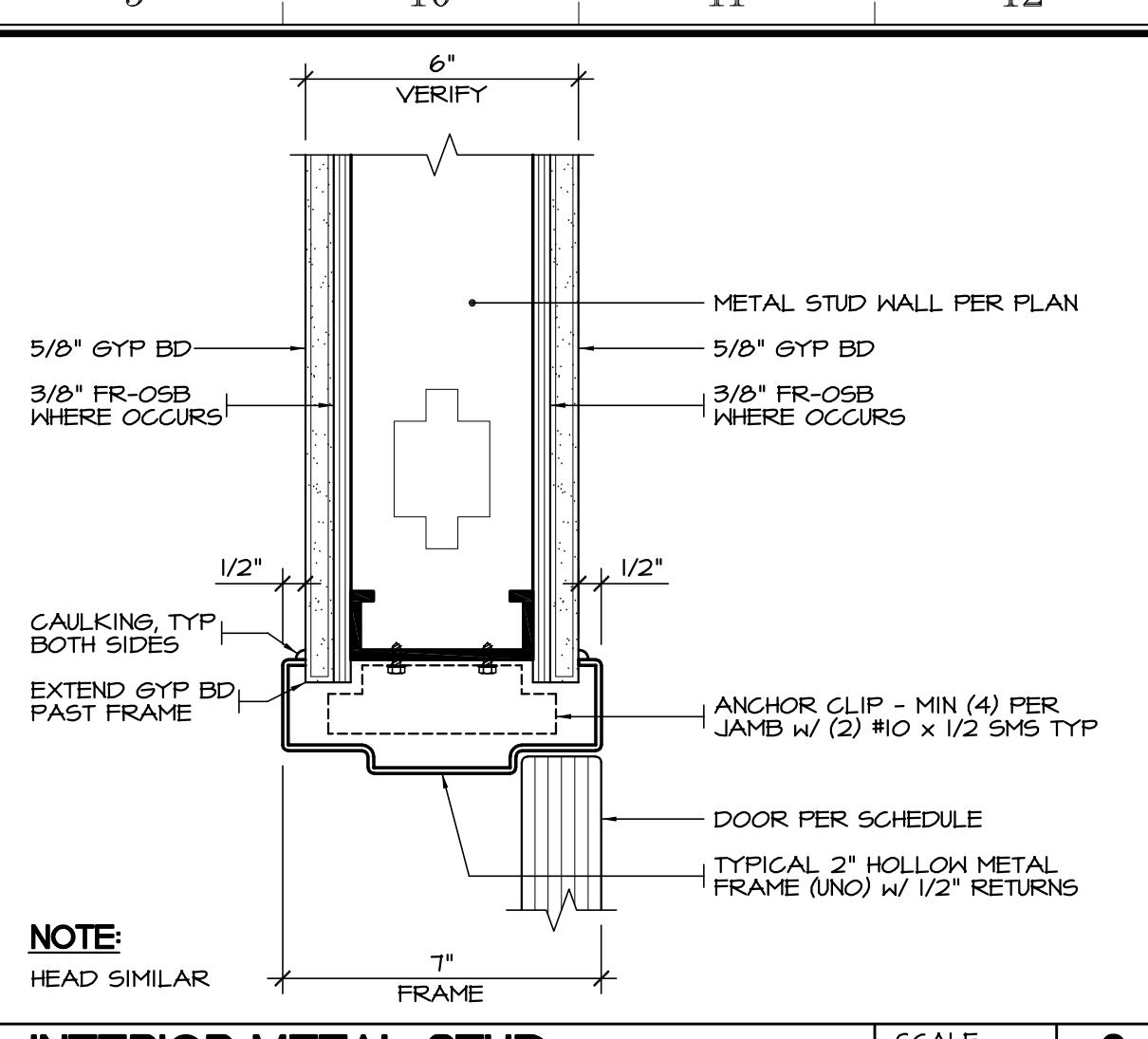
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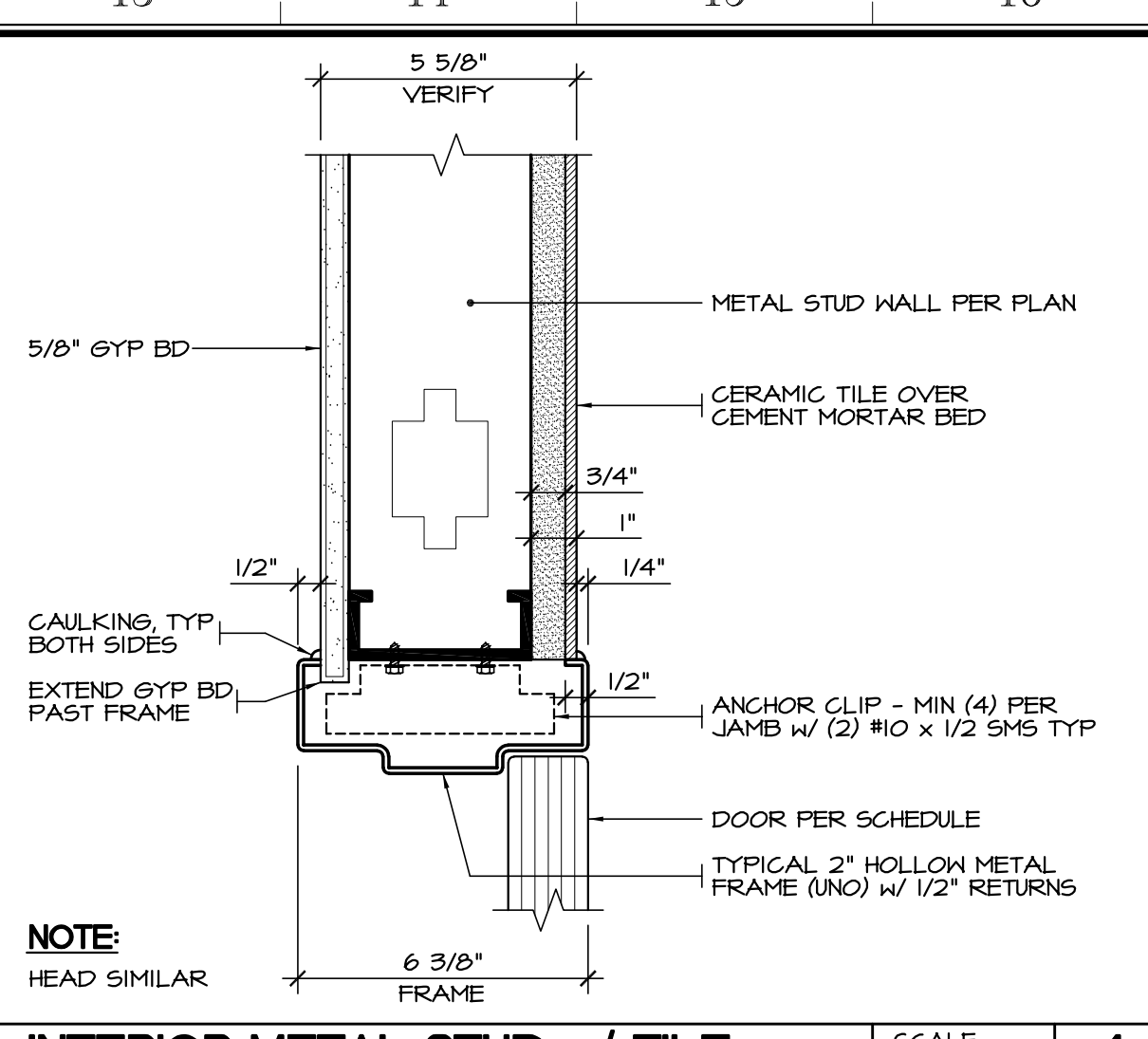
MASONRY DOOR JAMB SCALE: 3" = 1'-0" 1



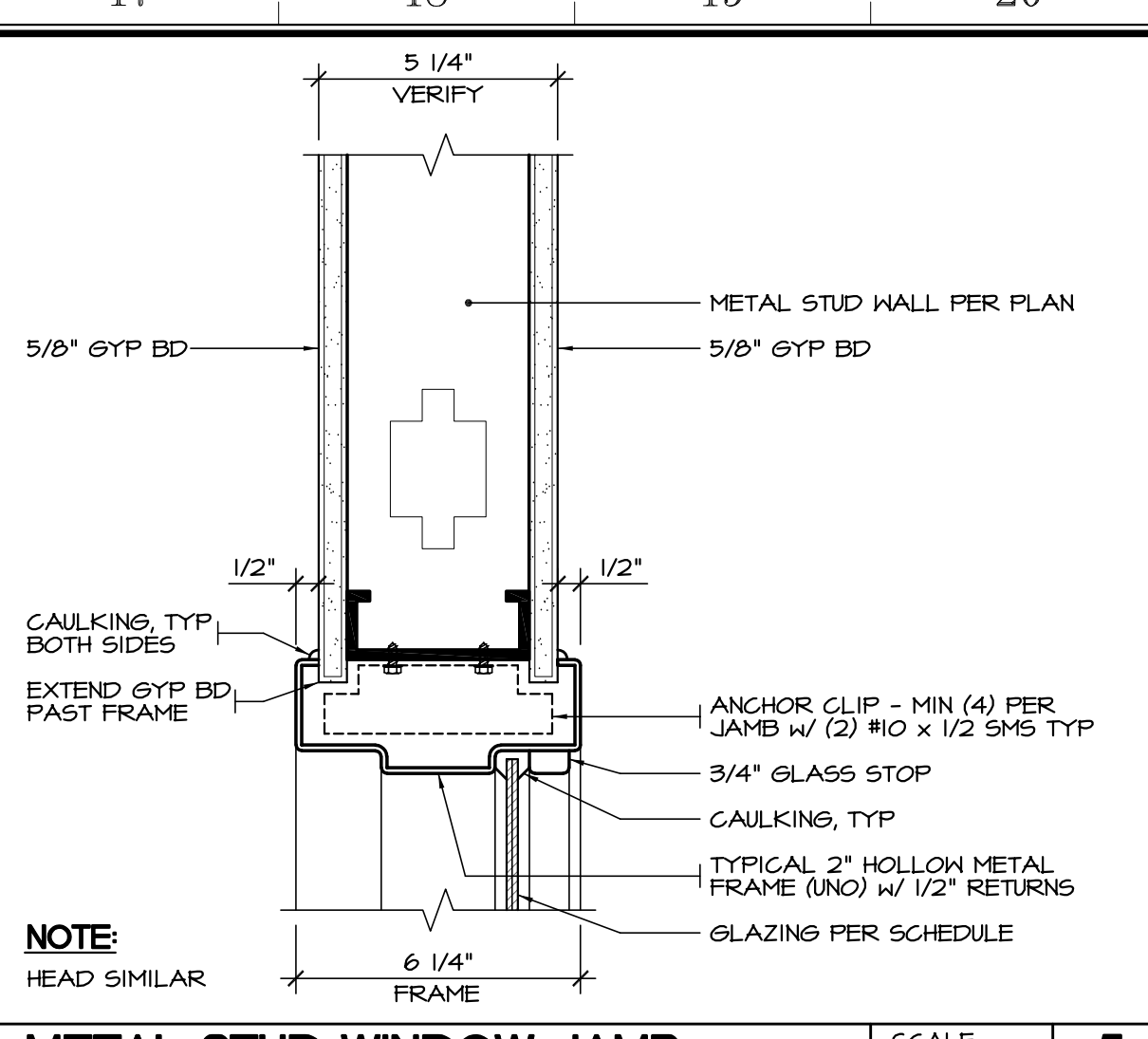
MASONRY WINDOW JAMB SCALE: 3" = 1'-0" 2



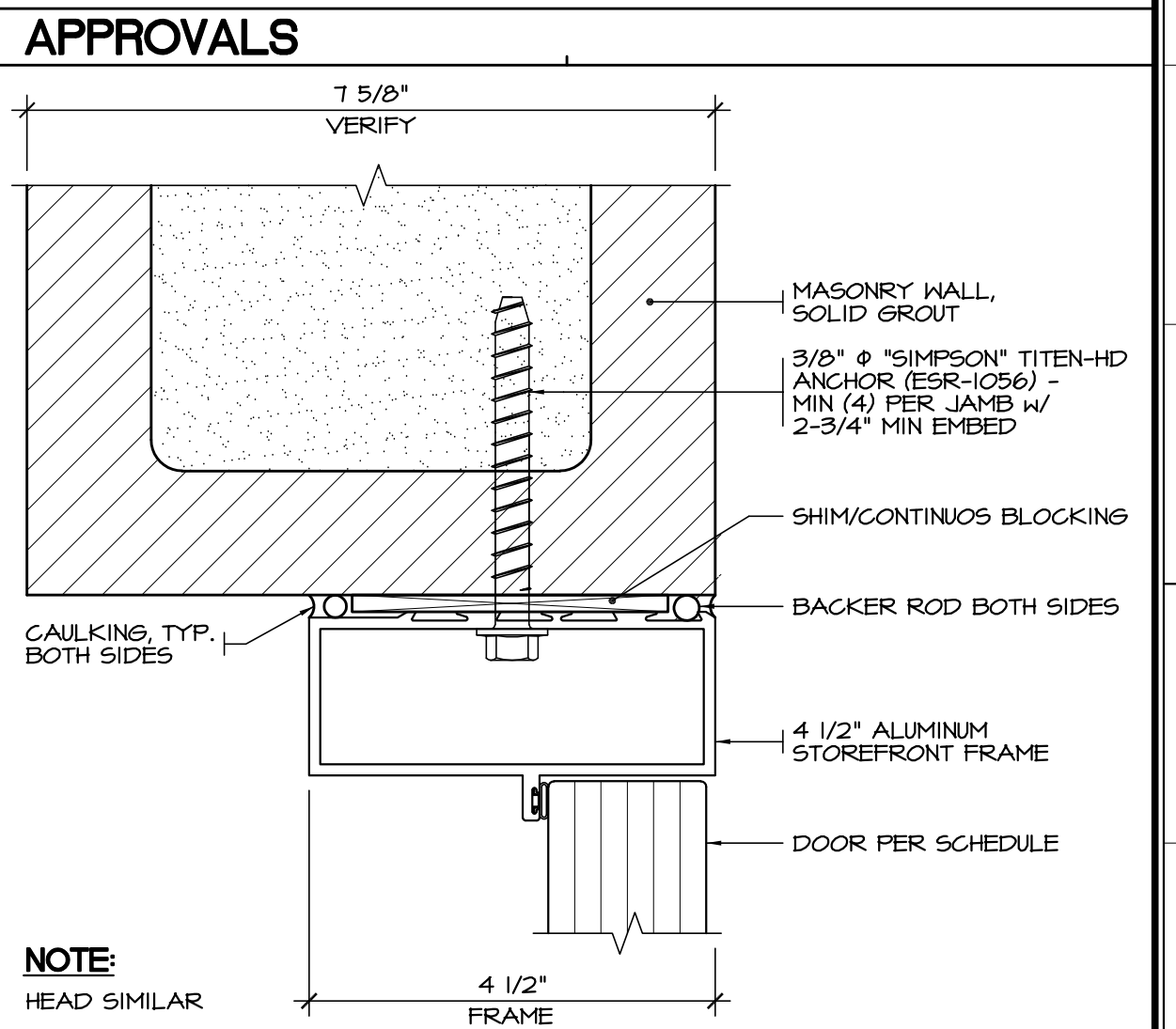
INTERIOR METAL STUD SCALE: 3" = 1'-0" 3



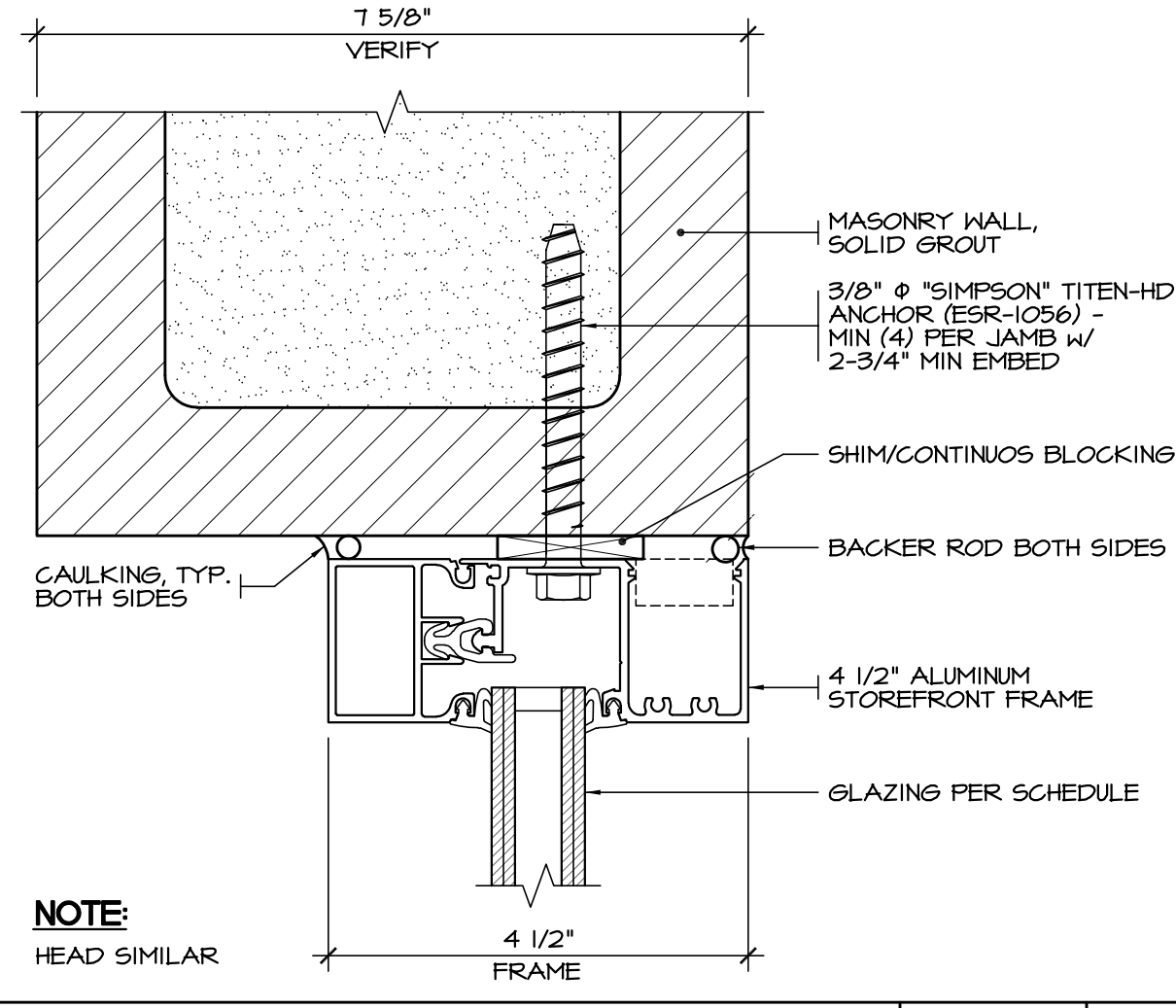
INTERIOR METAL STUD w/ TILE SCALE: 3" = 1'-0" 4



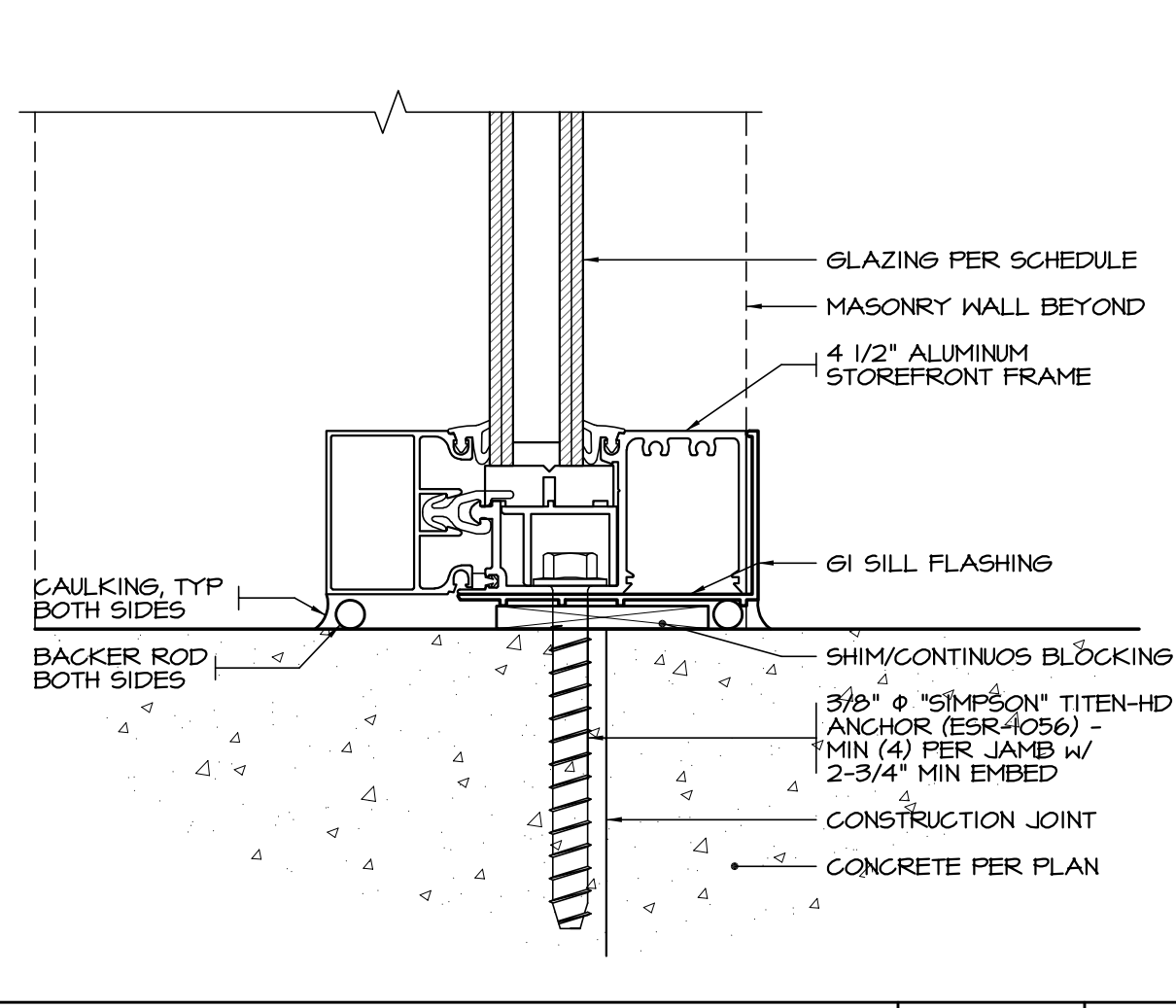
METAL STUD WINDOW JAMB SCALE: 3" = 1'-0" 5



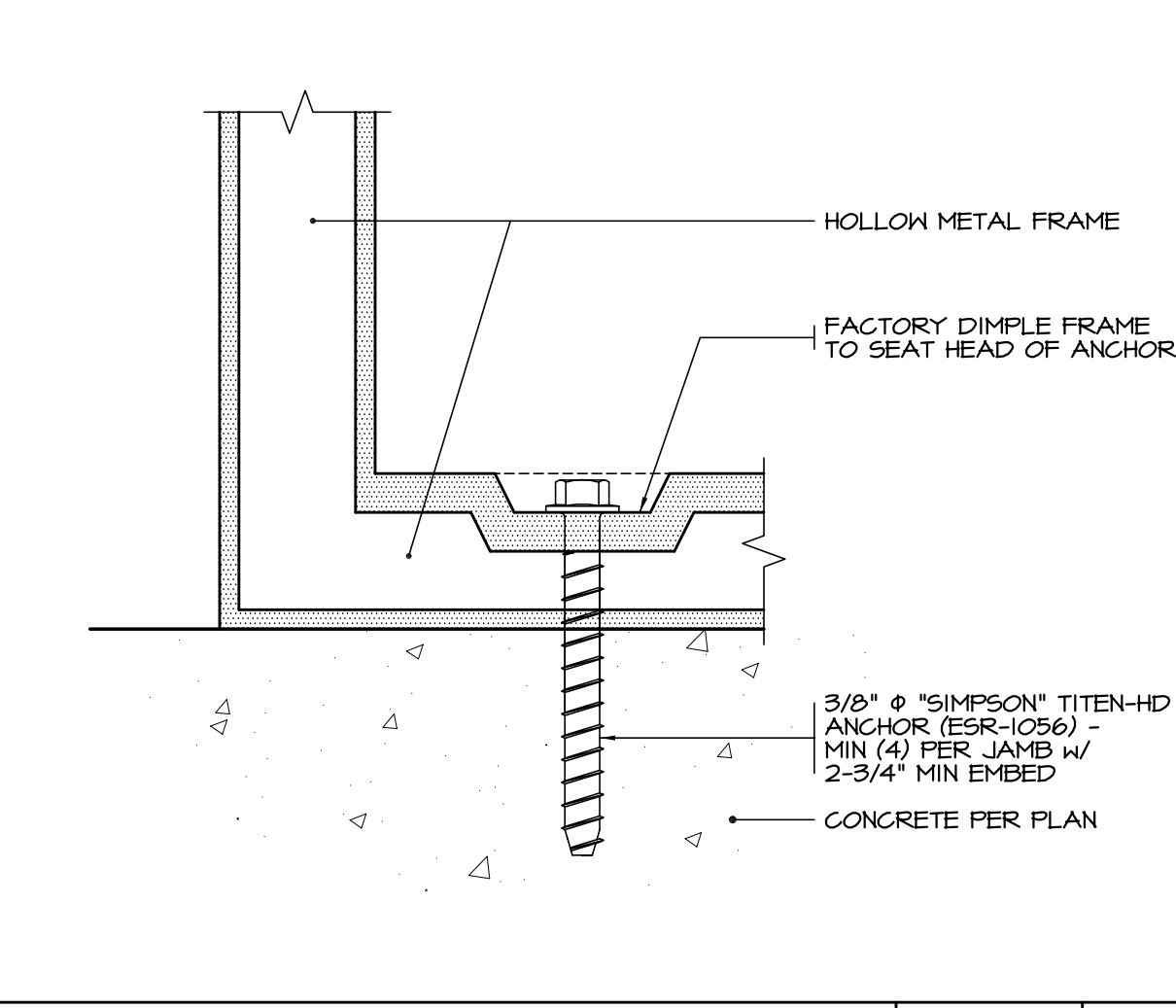
APPROVALS SCALE: 6" = 1'-0" 6



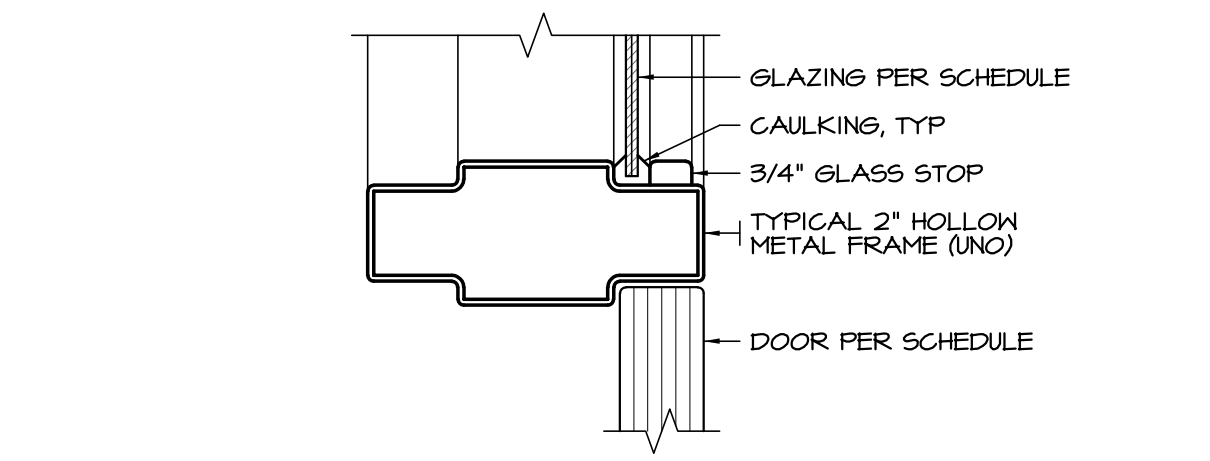
MASONRY WINDOW JAMB SCALE: 6" = 1'-0" 7



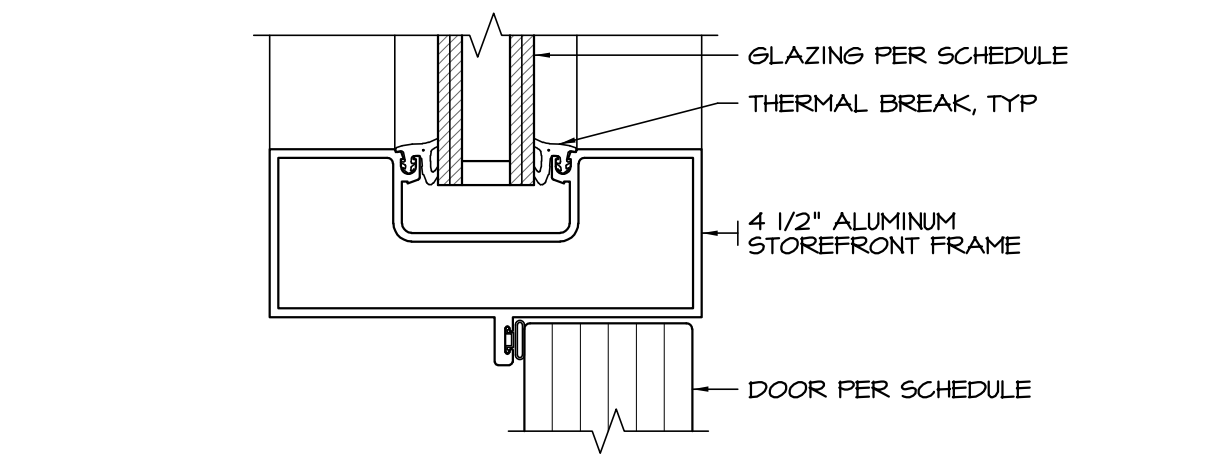
WINDOW SILL ANCHOR SCALE: 6" = 1'-0" 8



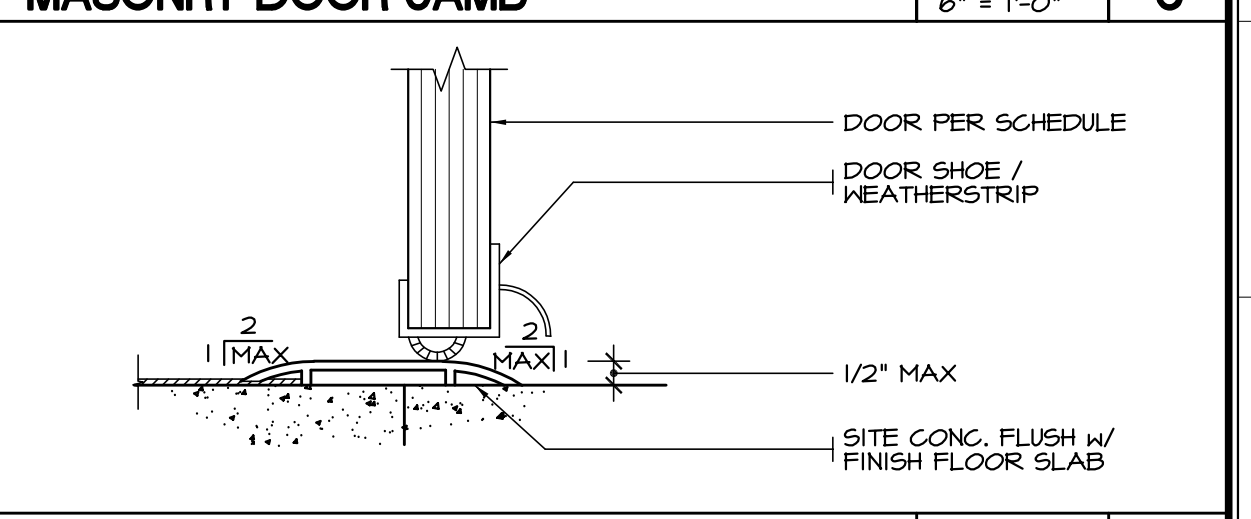
WINDOW FRAME SILL ANCHOR SCALE: N.T.S. 9



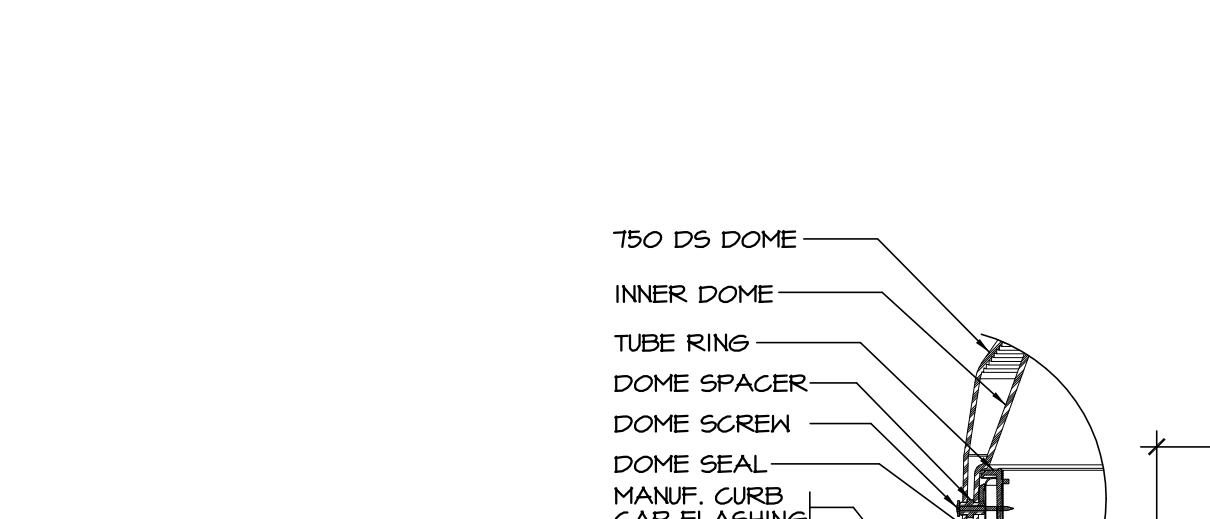
DOOR JAMB AND GLAZING SCALE: 3" = 1'-0" 10



DOOR AND GLAZING SCALE: 6" = 1'-0" 12



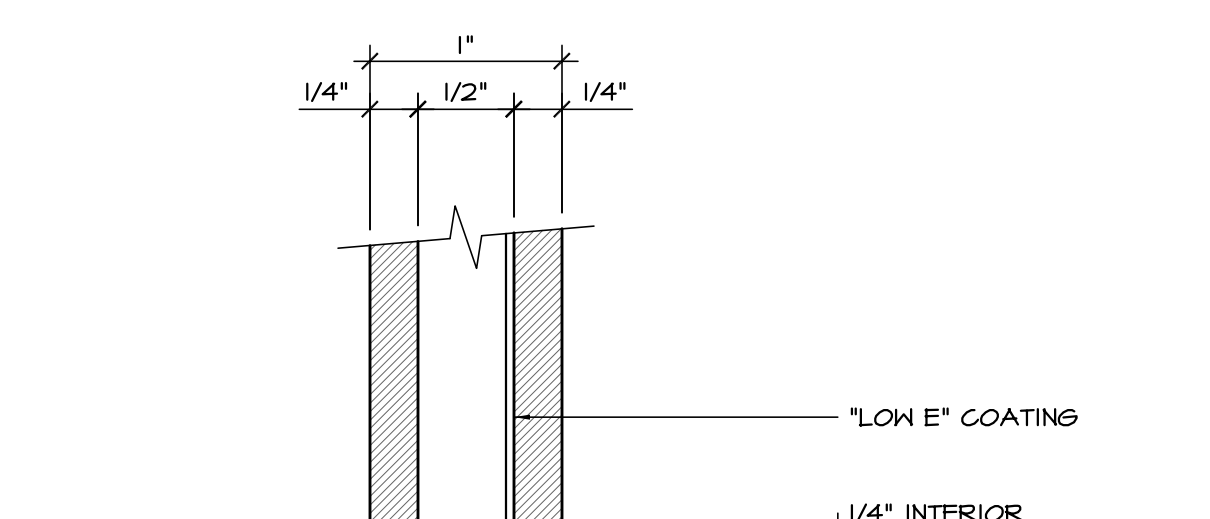
MASONRY DOOR JAMB SCALE: 6" = 1'-0" 14



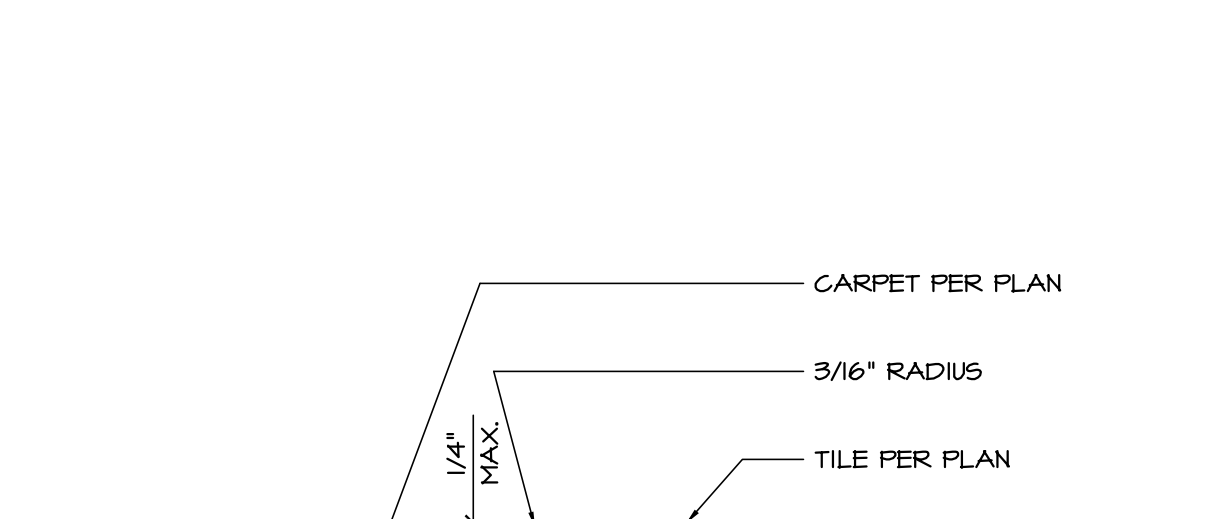
MASONRY WINDOW JAMB SCALE: 6" = 1'-0" 7



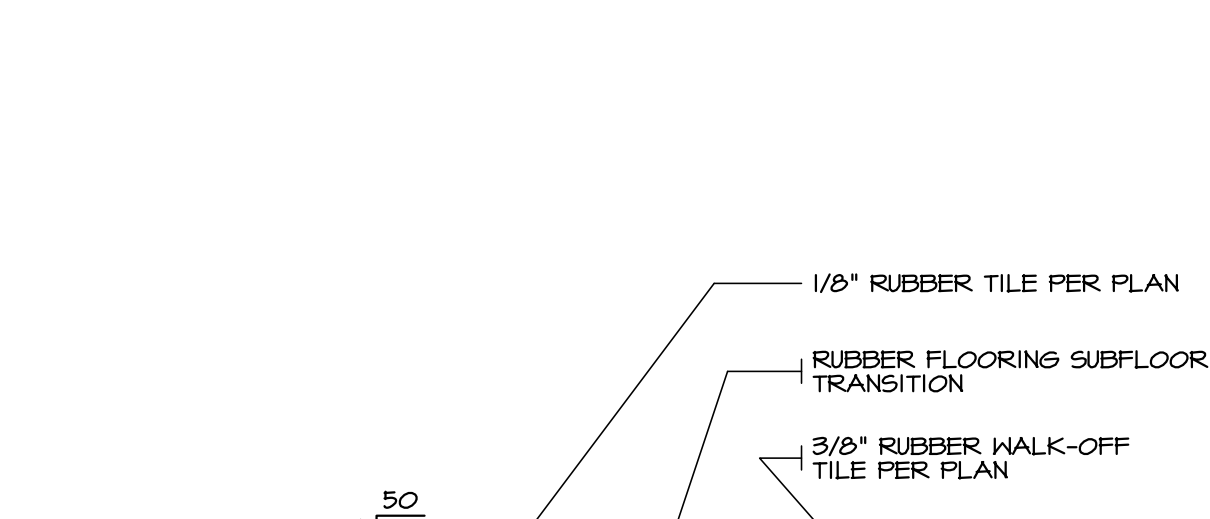
WINDOW SILL ANCHOR SCALE: 6" = 1'-0" 8



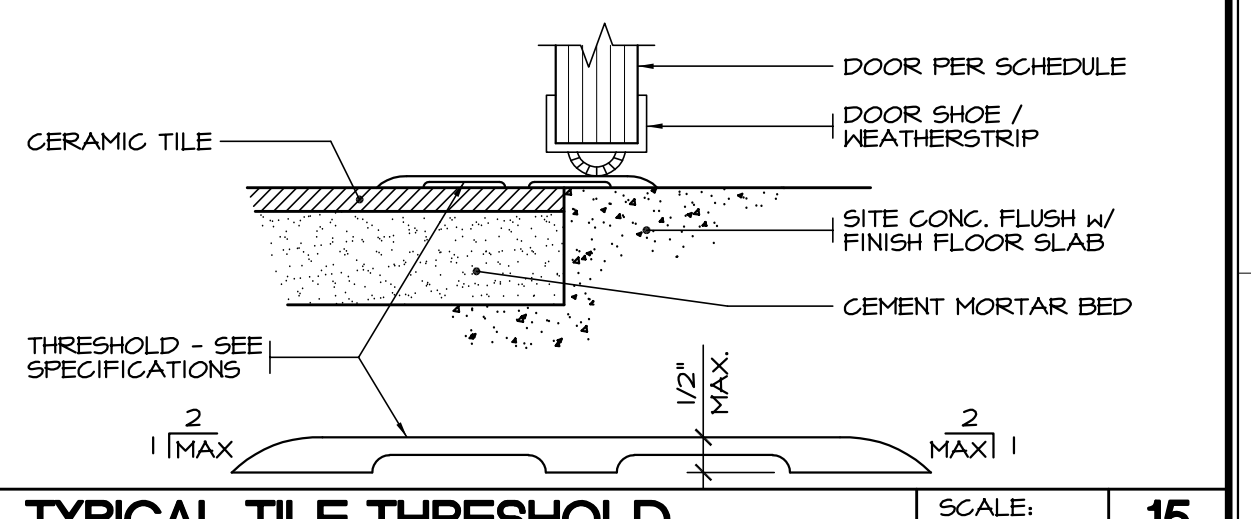
WINDOW FRAME SILL ANCHOR SCALE: N.T.S. 9



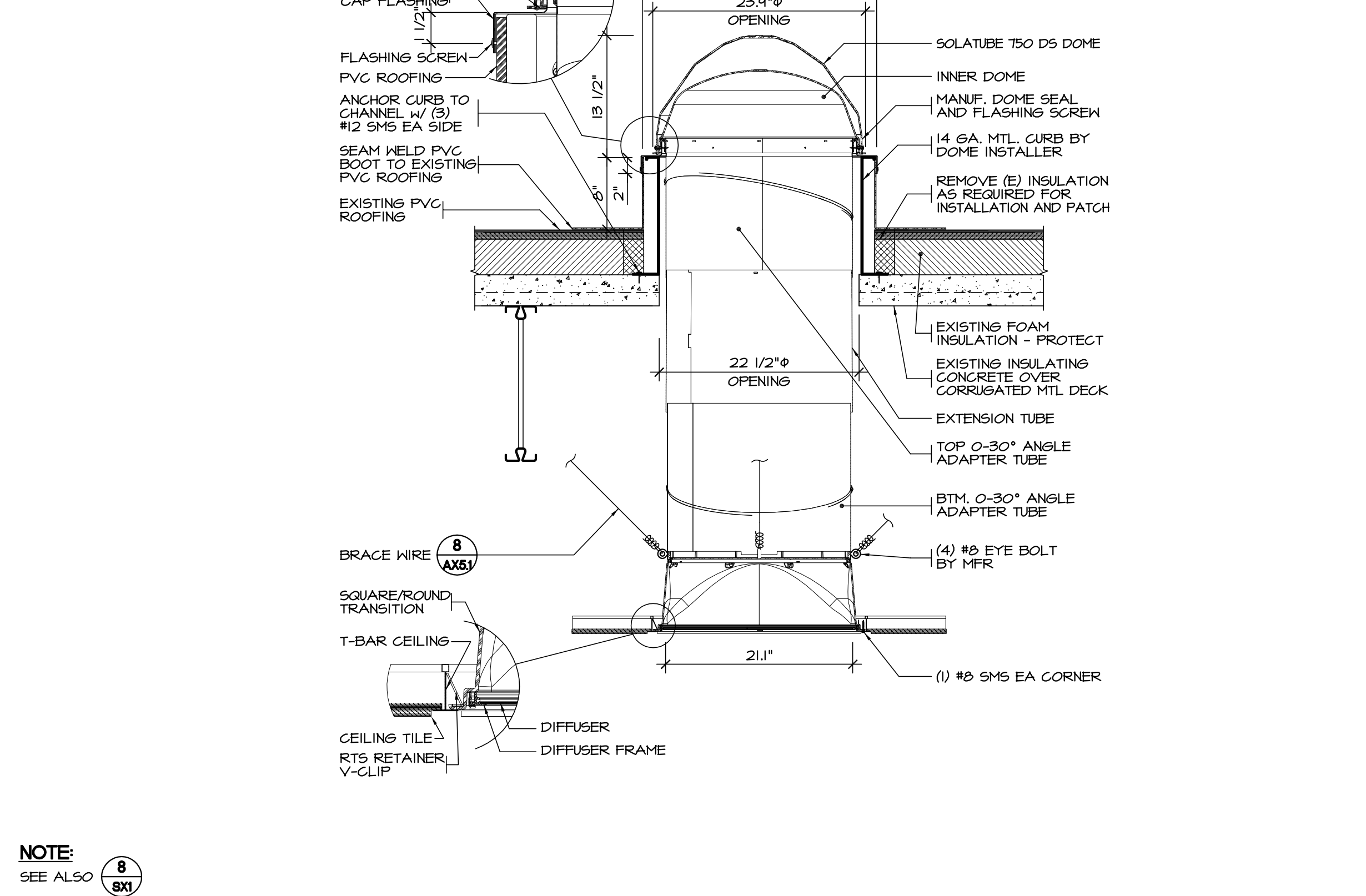
INSULATED GLAZING SCALE: 1'-0" = 1'-0" 17



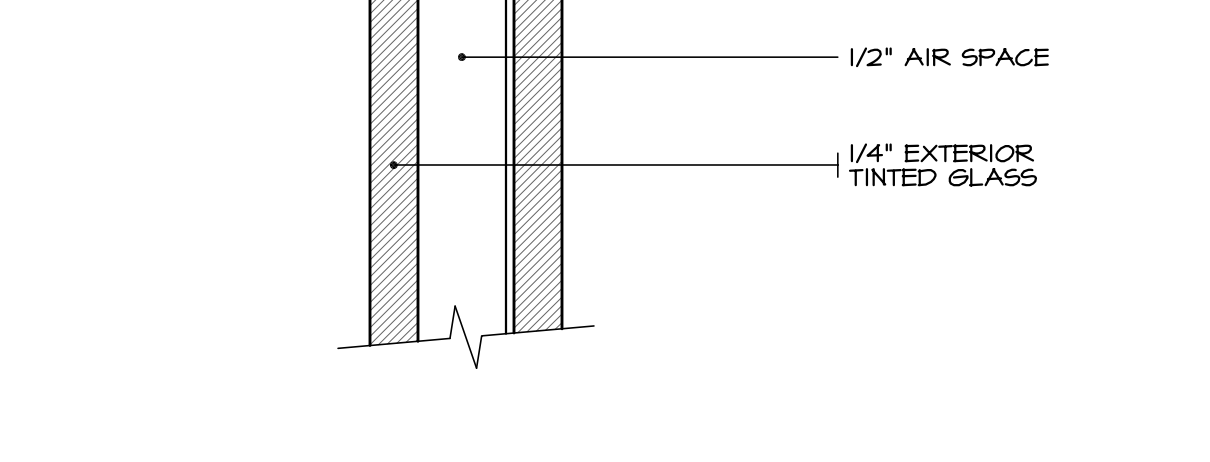
FLOORING TRANSITION SCALE: 3" = 1'-0" 18



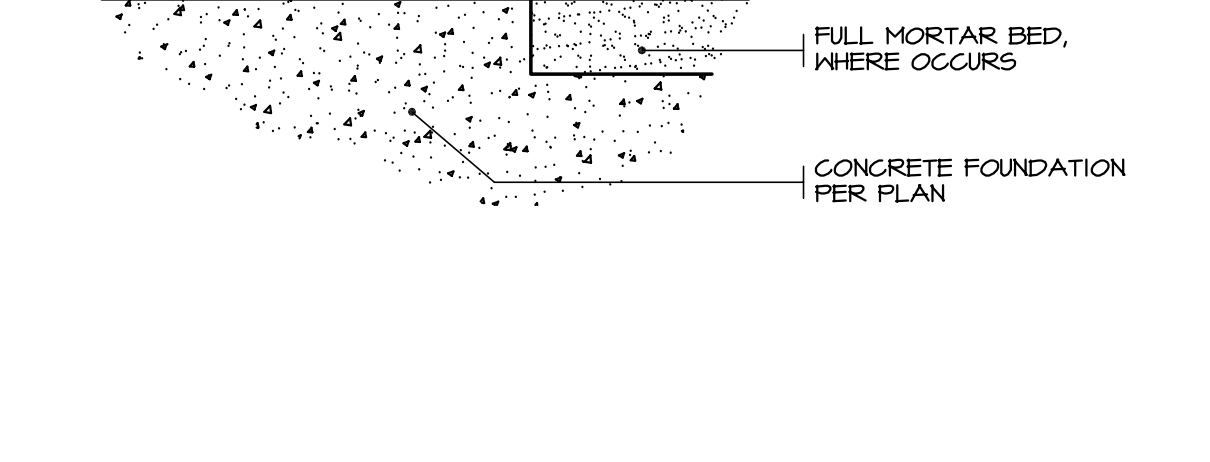
TYPICAL THRESHOLD SCALE: 3" = 1'-0" 14



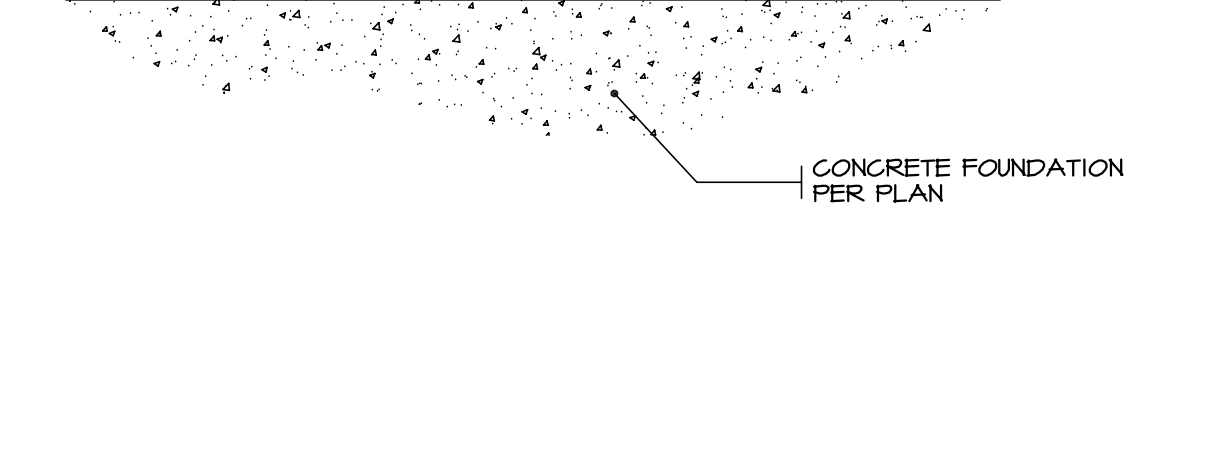
TUBULAR SKYLIGHT IDENTIFICATION W4 SCALE: NONE 16



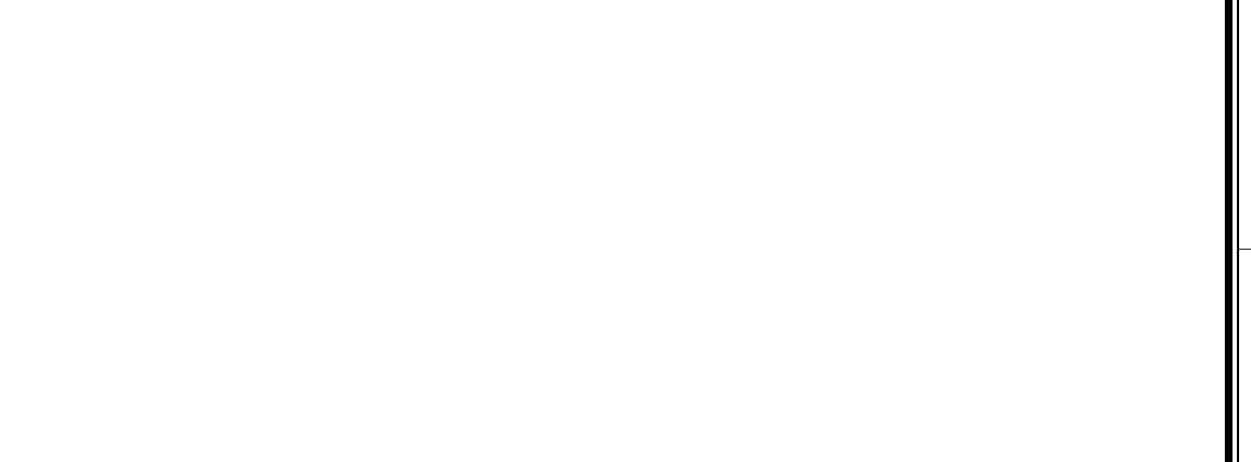
INSULATED GLAZING SCALE: 1'-0" = 1'-0" 17



FLOORING TRANSITION SCALE: 3" = 1'-0" 18



FLOORING TRANSITION SCALE: N.T.S. 19



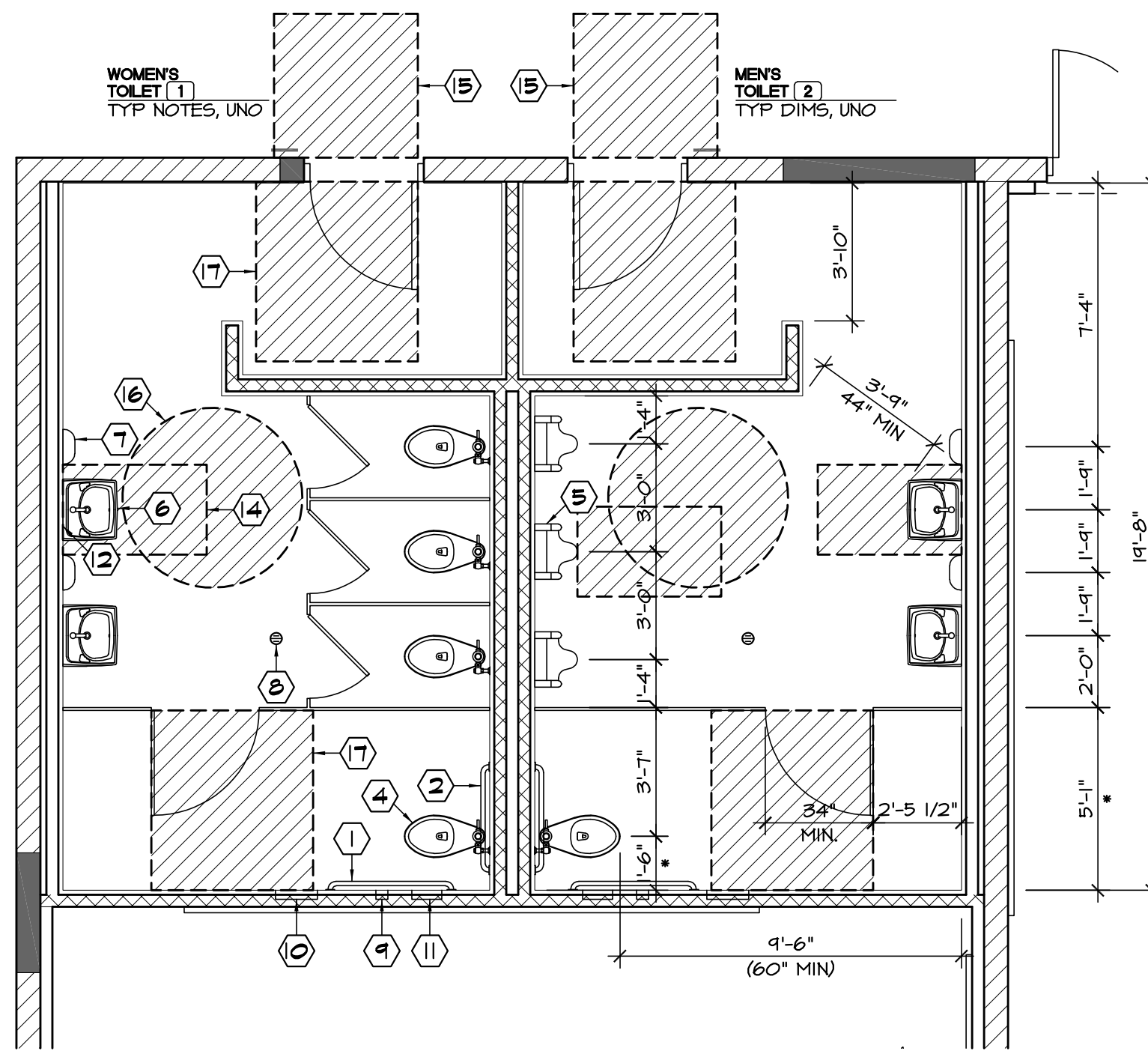
TYPICAL TILE THRESHOLD SCALE: 3" = 1'-0" 15

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Project Title
**IMPERIAL VALLEY COLLEGE
 BUILDING 200, 300 AND 800 MODERNIZATION**

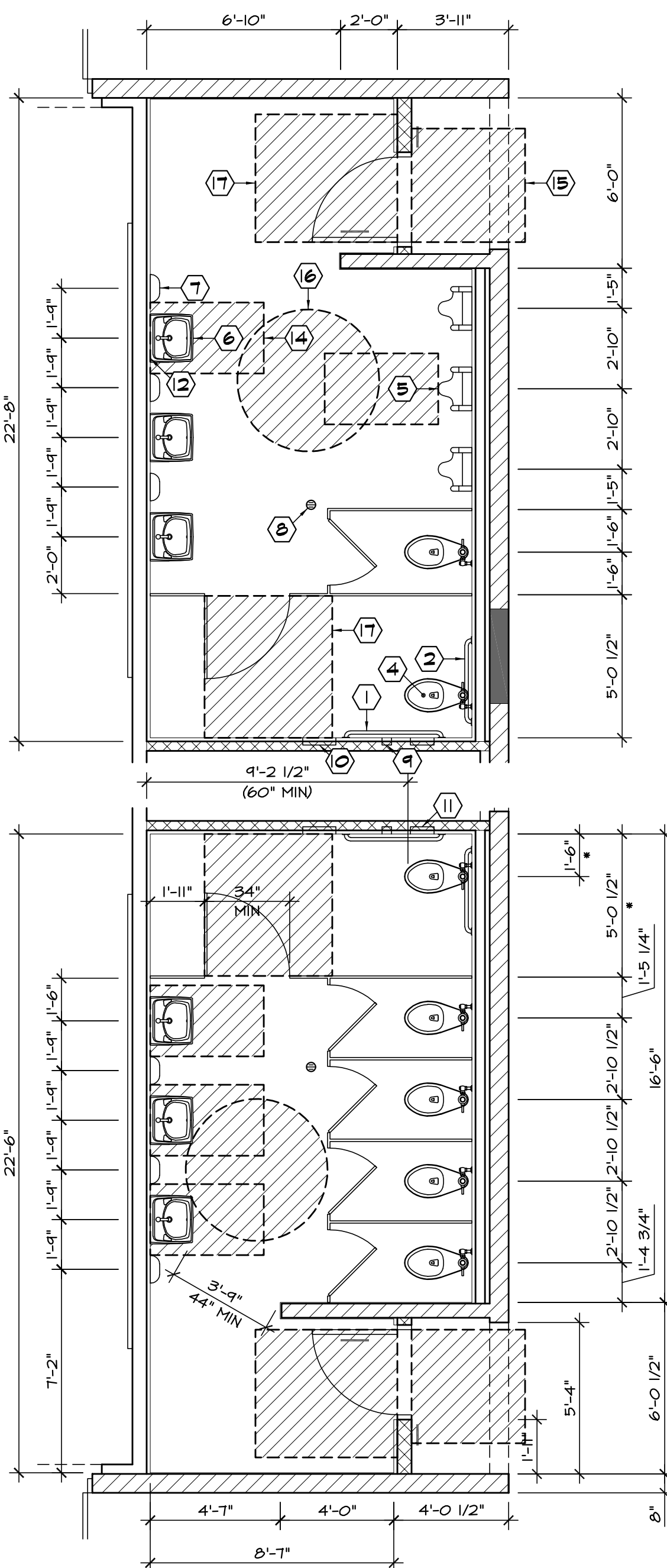
Sheet Title
DOOR AND WINDOW DETAILS

	Document Date	Project Number
	10-18-19	19-121V
	Date Last Revised	Sheet Number
		AX15



STUDENT TOILETS - BUILDING 200

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



STUDENT TOILETS - BUILDING 800

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

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APPROVALS

KEYNOTES:

- 1 42" MIN GRAB BAR
- 2 36" MIN GRAB BAR
- 3 RECESSED TOWEL DISPENSER / WASTE RECEPTACLE
- 4 ACCESSIBLE TOILET
- 5 ACCESSIBLE URINAL
- 6 ACCESSIBLE LAVATORY
- 7 HAND DRYER (4" MAX PROJECTION)
- 8 FLOOR DRAIN, 2% MAX SLOPE TO DRAIN - SEE PLUMBING DRAWINGS
- 9 RECESSED TISSUE DISPENSER
- 10 RECESSED TOILET SEAT COVER DISPENSER
- 11 RECESSED FEMININE NAPKIN DISPOSAL
- 12 MIRROR
- 13 NOT USED
- 14 30" x 48" CLEAR FLOOR SPACE
- 15 48" x 48" CLEAR FLOOR SPACE
- 16 60" DIAMETER CLEAR FLOOR SPACE
- 17 60" x 54" CLEAR FLOOR SPACE

NOTES:

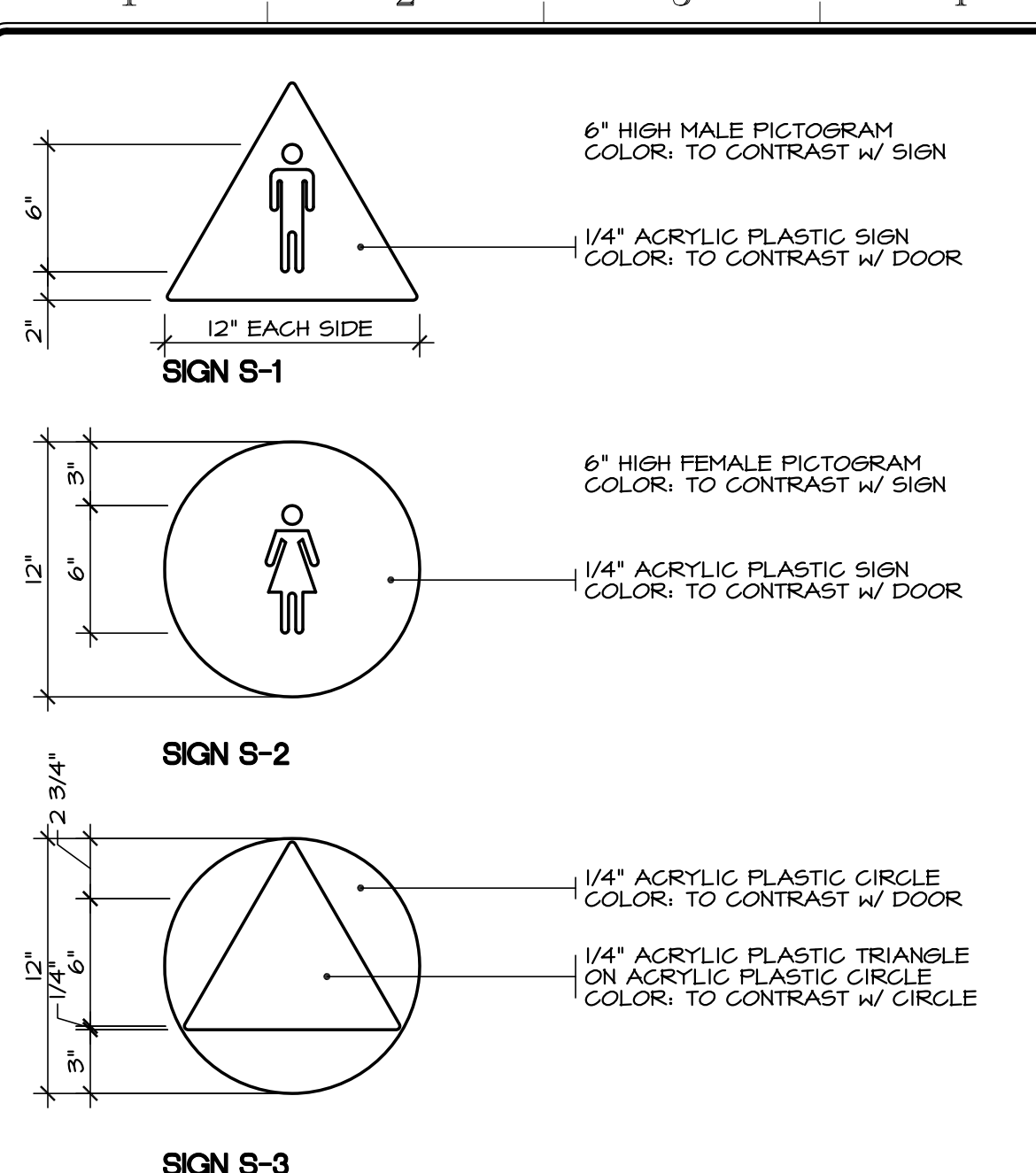
- 1. SEE KEYNOTES FOR ALL FIXTURE MOUNTING HEIGHTS.
- 2. FOR WALL TYPES AND FURRING SEE ARCHITECTURAL FLOOR PLANS.
- 3. DIMENSION WITH * INDICATES CLEAR TO FACE OF FINISH.
- 4. ALL ACCESSIBLE TOILET STALLS SHALL HAVE:
 - A. SELF-CLOSING HINGE STALL DOOR.
 - B. SLIDE BOLT OR FLIP-OVER TYPE LATCH ON STALL DOOR.
 - C. LOOP OR U-SHAPED WIRE PULLS BOTH SIDES OF STALL DOOR, 34" - 44" AFF.
 - D. COAT HOOK AT 48" AFF ON STALL DOOR.
 - E. RECESSED TOILET PAPER DISPENSER.
 - F. 5 LBS MAX ENTRY DOOR OPERATING PRESSURE.

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Project Title
**IMPERIAL VALLEY COLLEGE
 BUILDING 200, 300 AND 800 MODERNIZATION**

Sheet Title
ENLARGED FLOOR PLANS

	Document Date	Project Number
	Date Last Revised	Sheet Number
	10-18-19	19-121V
		AX2.1

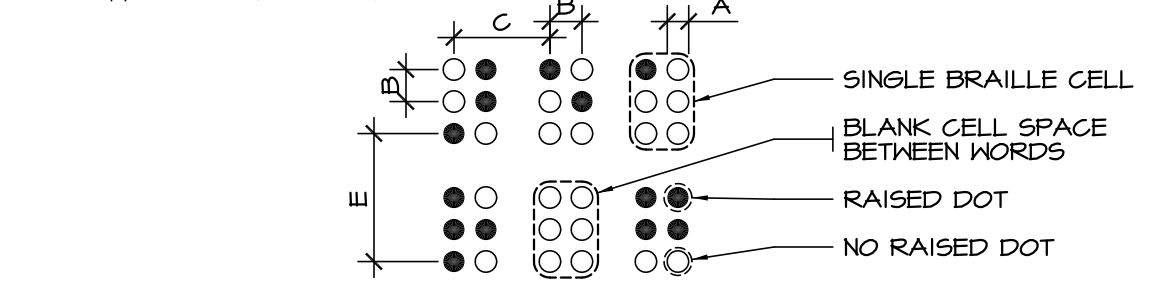


NOTES:

- CHARACTER TYPE: CHARACTERS ON TACTILE SIGNS SHALL BE RAISED 1/32 INCH (0.762 mm) MINIMUM AND SHALL BE SANS SERIF UPPERCASE CHARACTERS ACCORDING TO CONTRACTED (GRADE 2) BRAILLE (SEE NOTE 5 BELOW). (CFC 11B-103.2)
- CHARACTER SIZE: RAISED CHARACTERS SHALL BE A MINIMUM OF 5/8 INCH (5.9 mm) AND A MAXIMUM OF 2 INCHES (51 mm) HIGH. (CFC 11B-103.2.5)
- FINISH AND CONTRAST: CONTRAST BETWEEN CHARACTERS, SYMBOLS AND THEIR BACKGROUND MUST BE 70% MINIMUM AND HAVE A NON-GLARE FINISH. (CFC 11B-103.3)
- PROPORTIONS: CHARACTERS SHALL BE SELECTED FROM FONTS WHERE THE WIDTH OF THE UPPERCASE LETTER 'O' IS 60% MIN AND 108% MAX OF THE HEIGHT OF THE UPPERCASE LETTER 'I'. (CFC 11B-103.2.4) STROKE THICKNESS OF THE UPPERCASE LETTER 'I' SHALL BE 15% MAX OF THE HEIGHT OF THE CHARACTER. (CFC 11B-103.2.6)
- BRAILLE: BRAILLE SHALL BE CONTRACTED (GRADE 2) AND SHALL COMPLY WITH SECTIONS 11B-103.3 AND 11B-103.4.

POSITION: BRAILLE SHALL BE POSITIONED BELOW THE CORRESPONDING TEXT IN A HORIZONTAL FORMAT, FLUSH LEFT OR CENTERED. IF TEXT IS MULTI-LINED, BRAILLE SHALL BE PLACED BELOW THE ENTIRE TEXT. BRAILLE SHALL BE SEPARATED 3/8 INCH (9.5 mm) MINIMUM AND 1/2 INCH (12.7 mm) MAXIMUM FROM ANY OTHER TACTILE CHARACTERS AND 3/8 INCH (9.5 mm) MINIMUM FROM RAISED BORDERS AND DECORATIVE ELEMENTS.

KEYNOTE	MEASUREMENT RANGE	MINIMUM IN INCHES	MINIMUM IN MILLIMETERS
A	DOT BASE DIAMETER	0.029 (0.7 mm)	0.263 (6.6 mm)
B	DISTANCE BETWEEN TWO DOTS IN THE SAME CELL	0.100 (2.5 mm)	N/A
C	DISTANCE BETWEEN CORRESPONDING DOTS IN ADJACENT CELLS	0.300 (7.6 mm)	N/A
D	DOT HEIGHT	0.025 (0.6 mm)	0.251 (6.4 mm)
E	DISTANCE BETWEEN CORRESPONDING DOTS FROM ONE CELL DIRECTLY BELOW	0.395 (10 mm)	0.400 (10.2 mm)



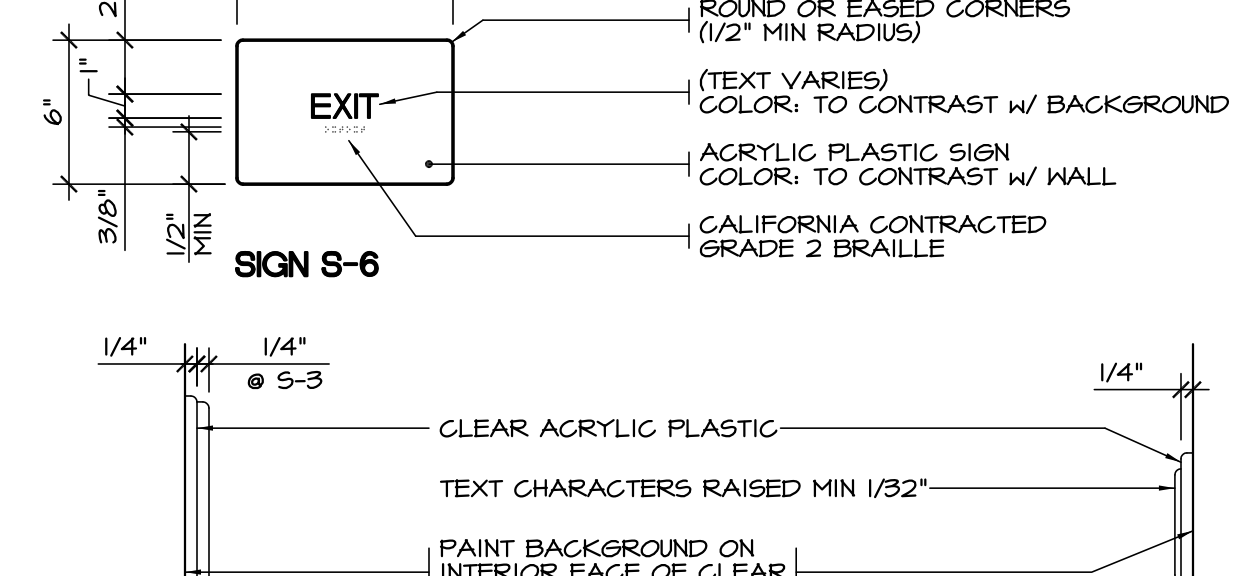
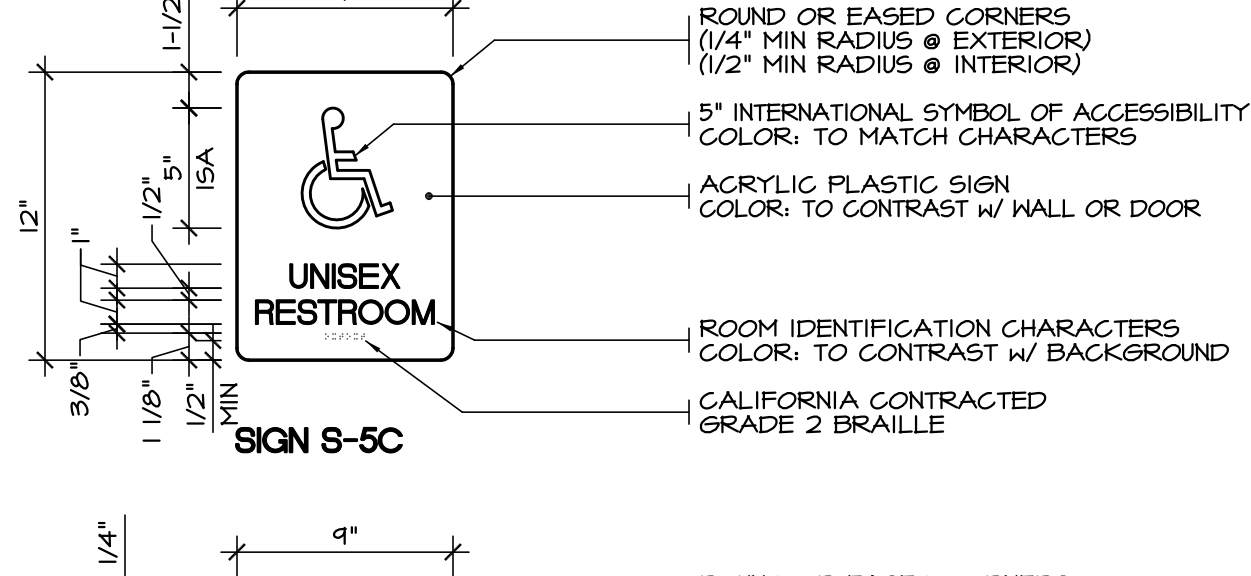
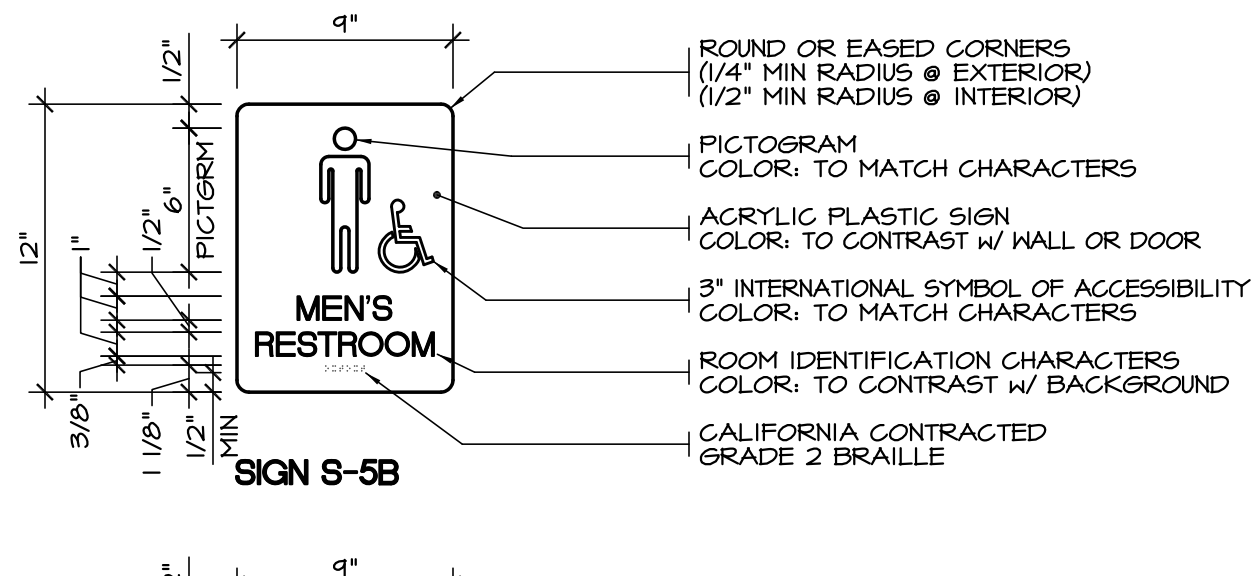
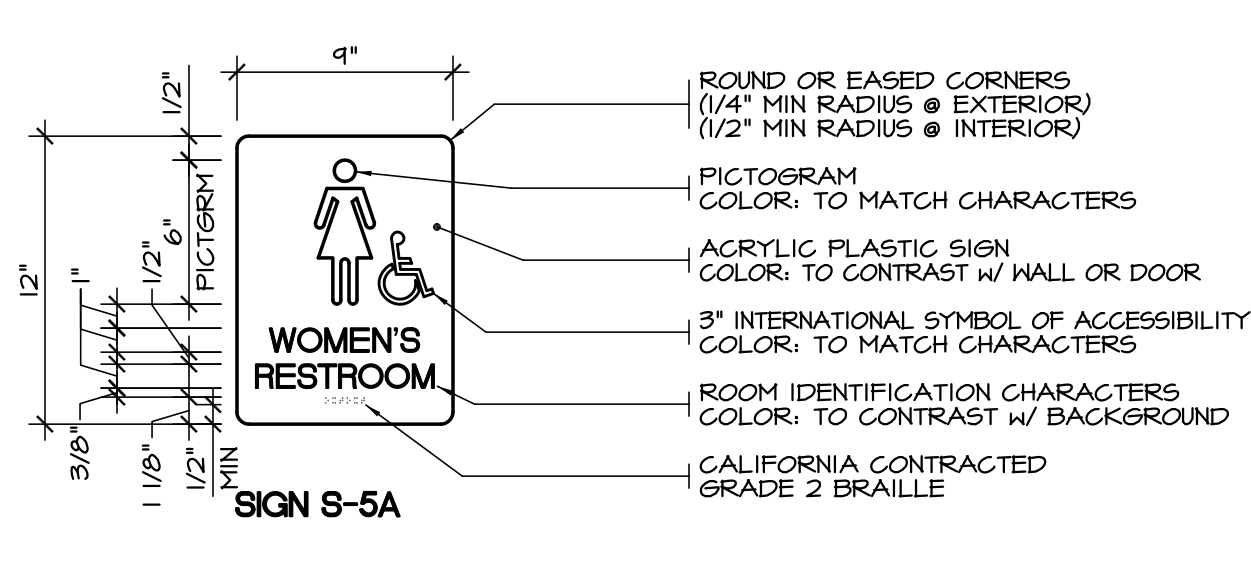
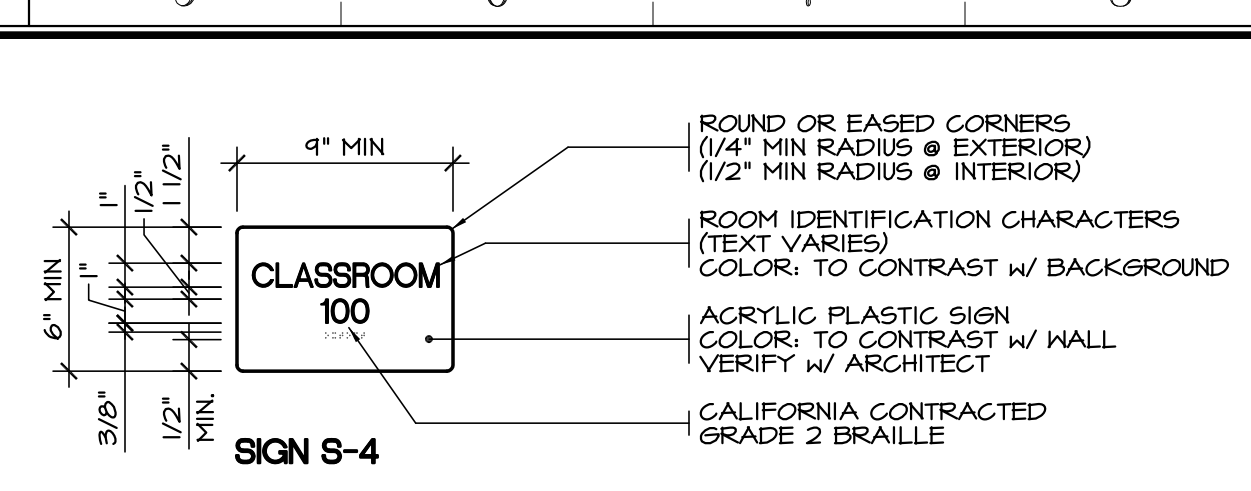
6. MOUNTING LOCATIONS: FOR ALL MOUNTING LOCATIONS SEE DETAIL (F) AX31

7. ALL INTERNATIONAL SYMBOL OF ACCESSIBILITY (ISA) PROPORTIONS SHALL MATCH CFC FIGURE 11B-103.1.2.

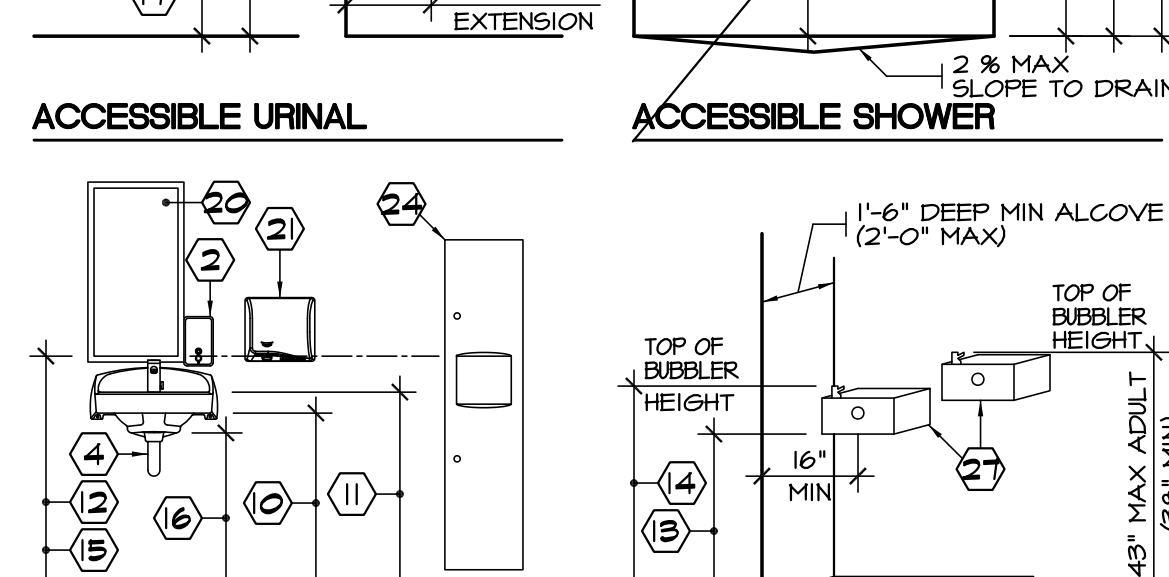
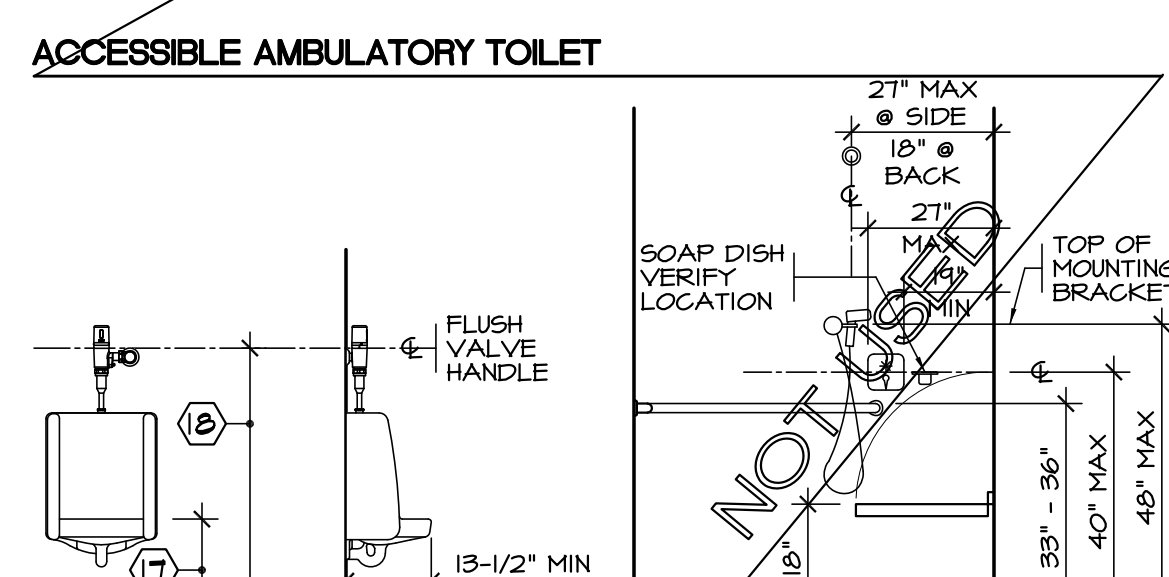
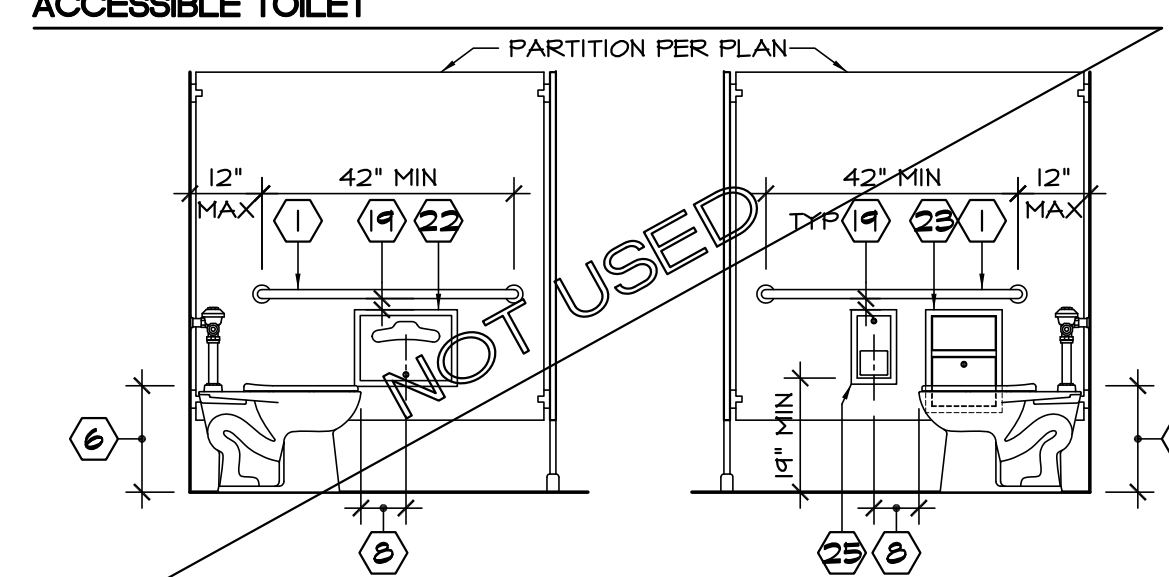
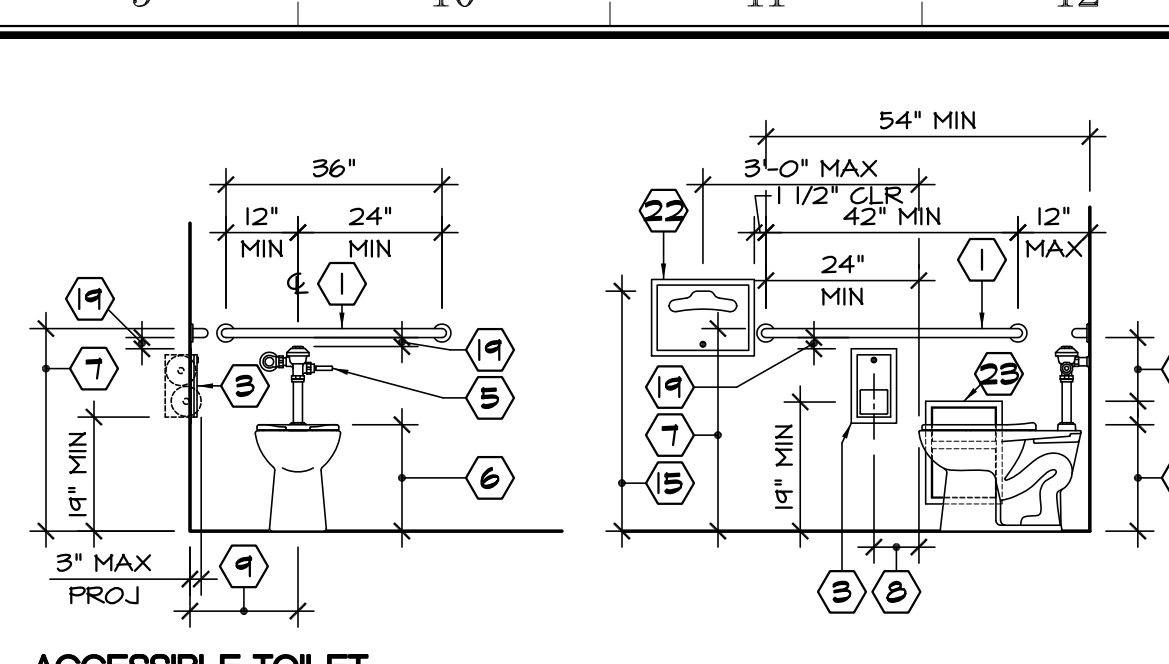
8. EDGES AND VERTICES ON GEOMETRIC SYMBOLS: EDGES SHALL BE EASED OR ROUNDED AT 1/16 INCH MIN, OR CHAMFERED AT 1/8 INCH MAX. VERTICES SHALL BE ROUNDED BETWEEN 1/8 INCH MIN AND 1/4 INCH MAX (CFC 11B-103.1.2.6.4) AND SHALL COMPLY WITH CFC FIGURE 11B-103.1.2.6.4.



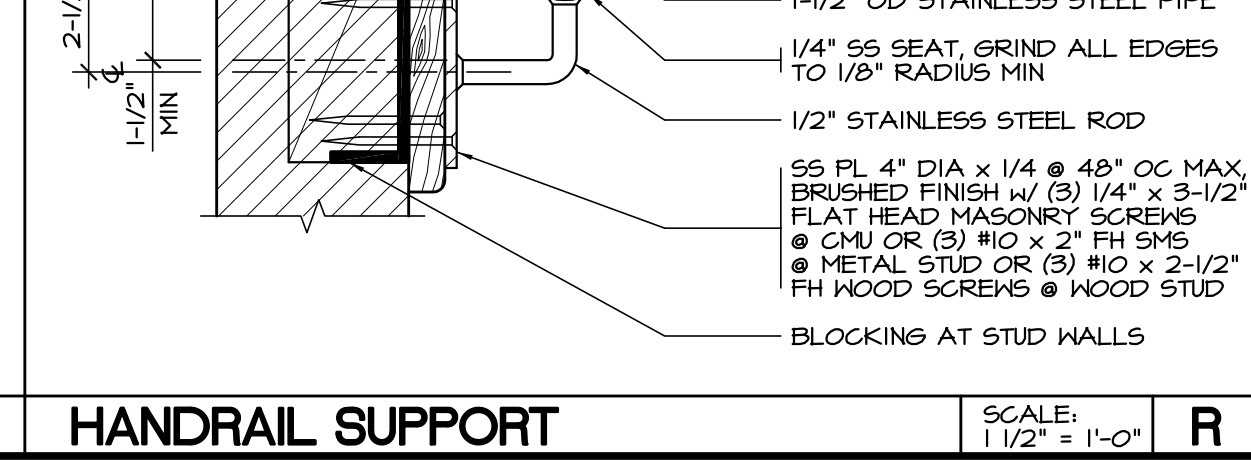
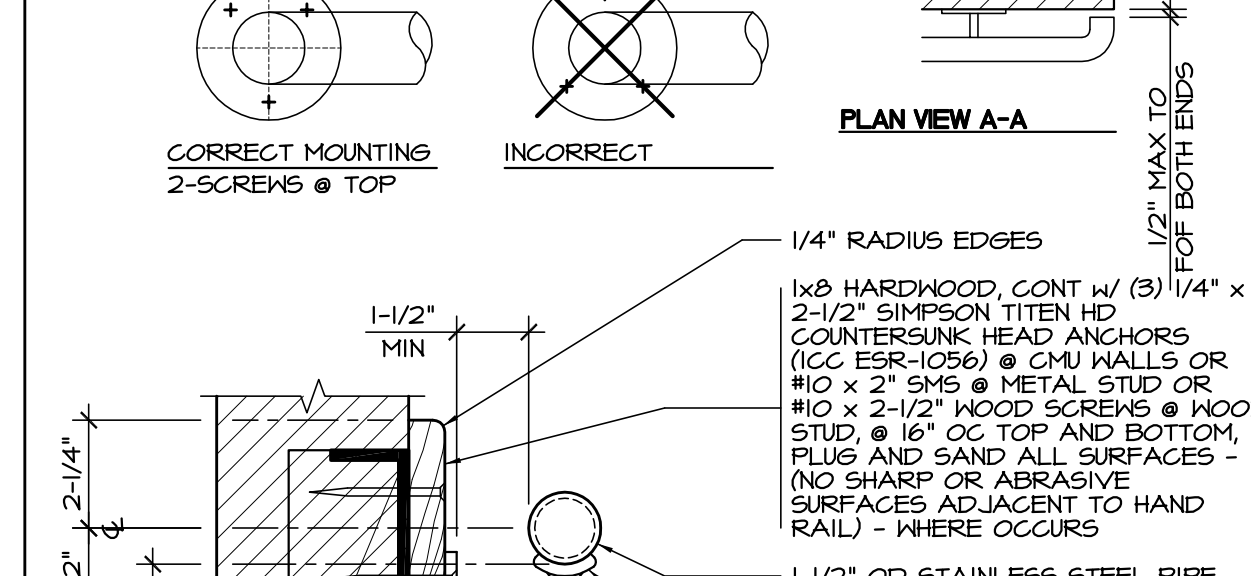
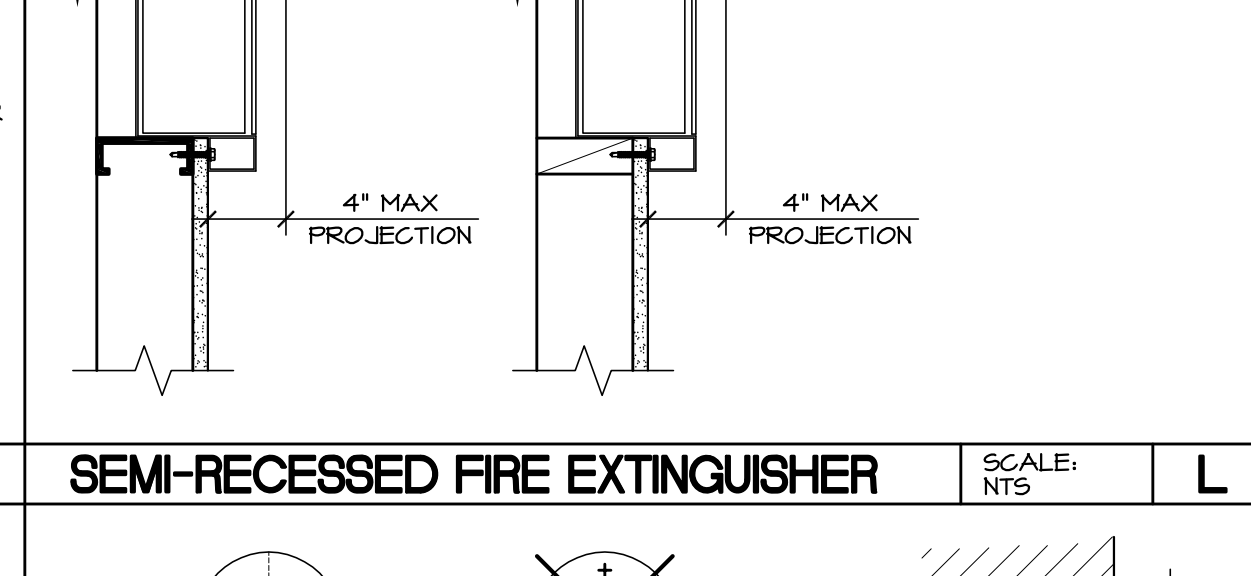
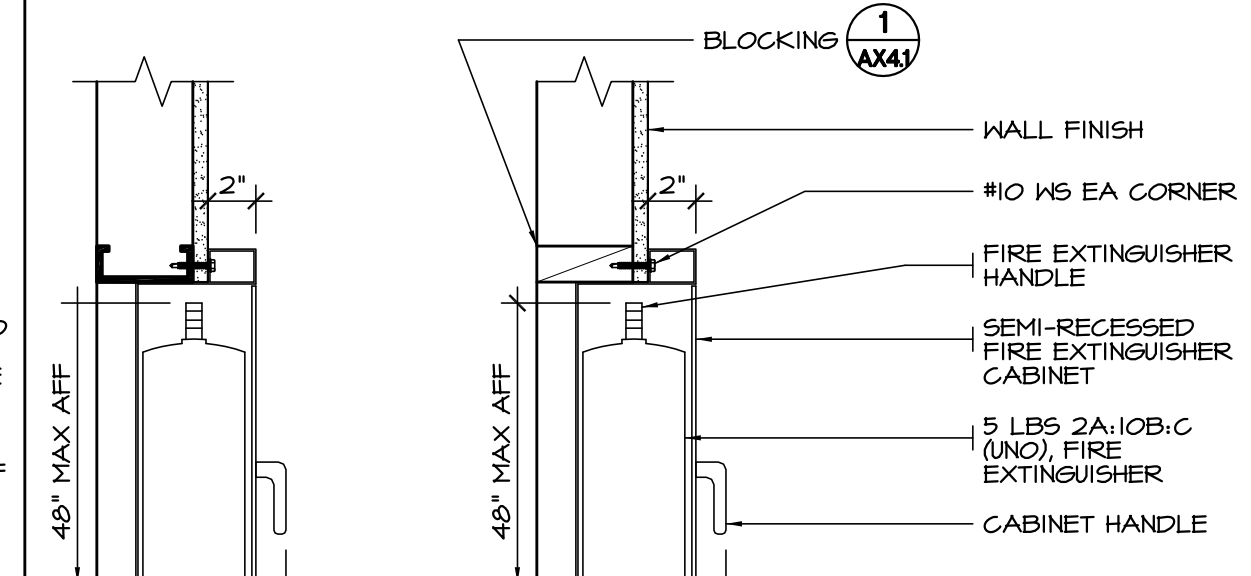
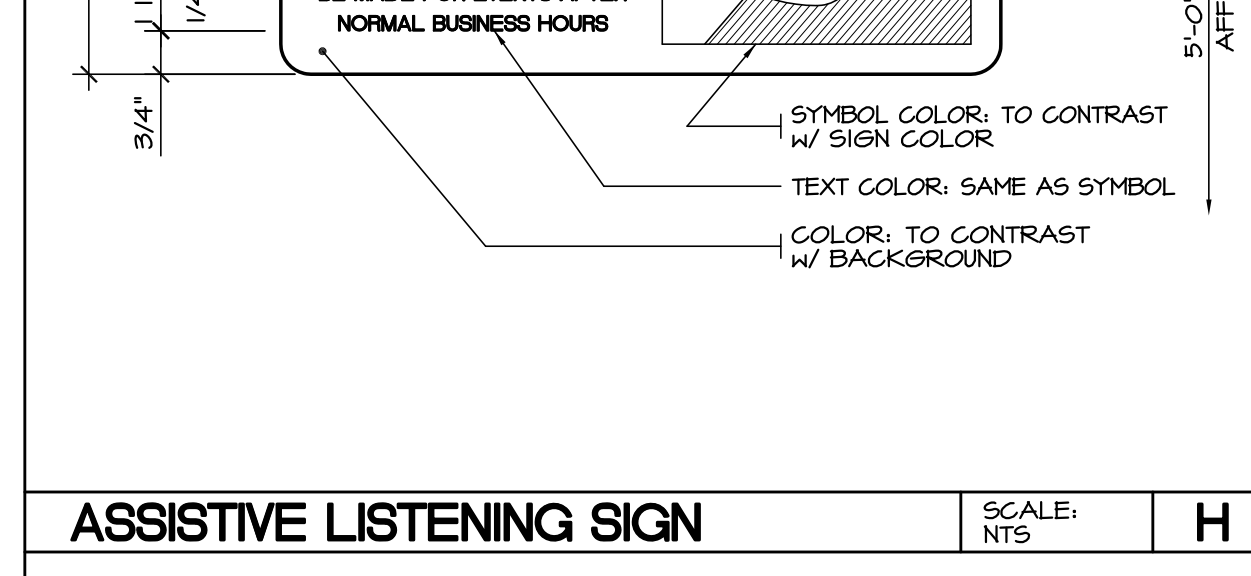
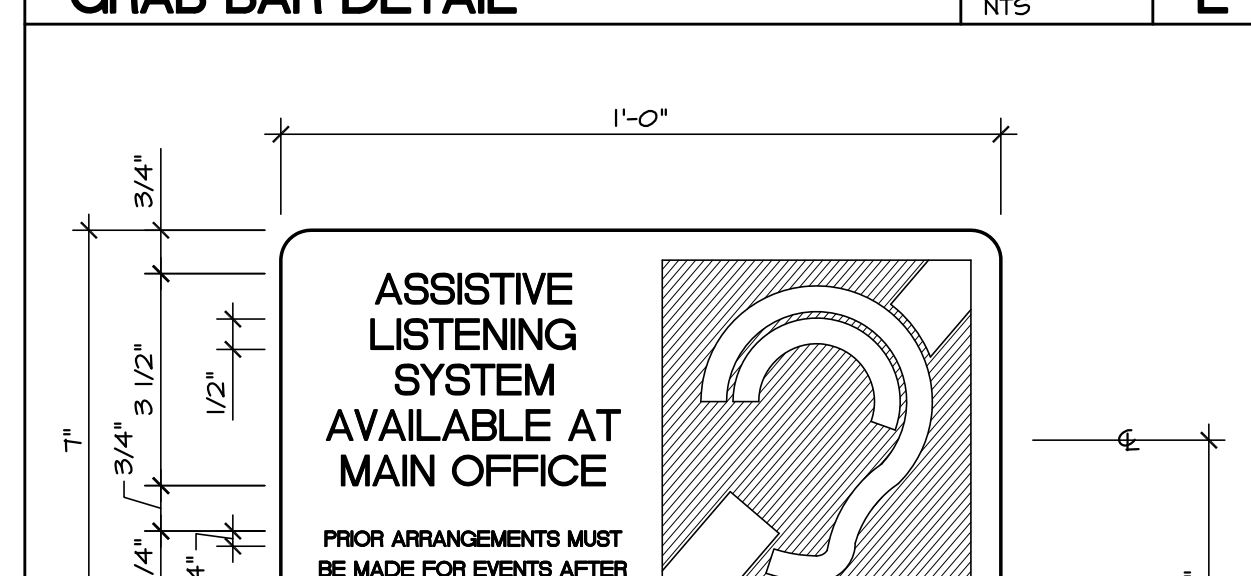
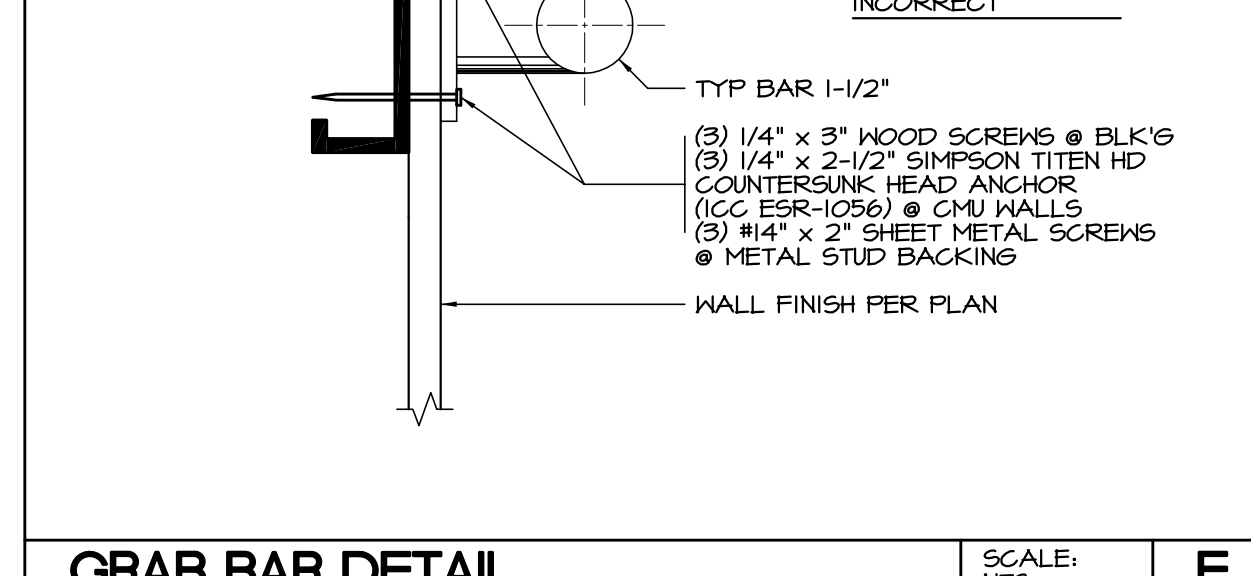
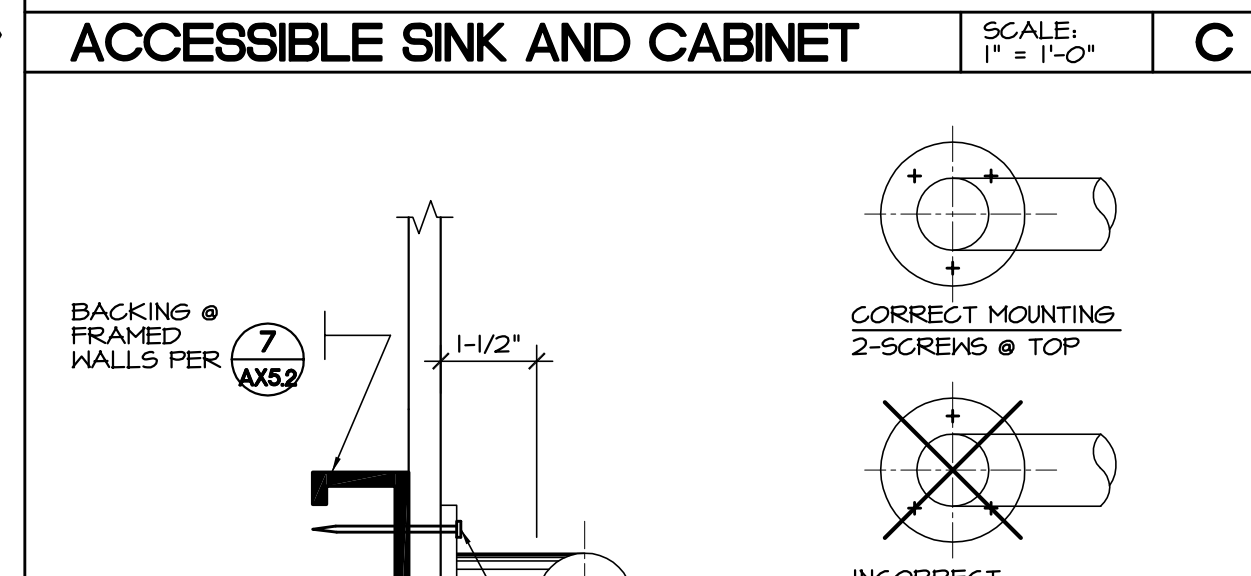
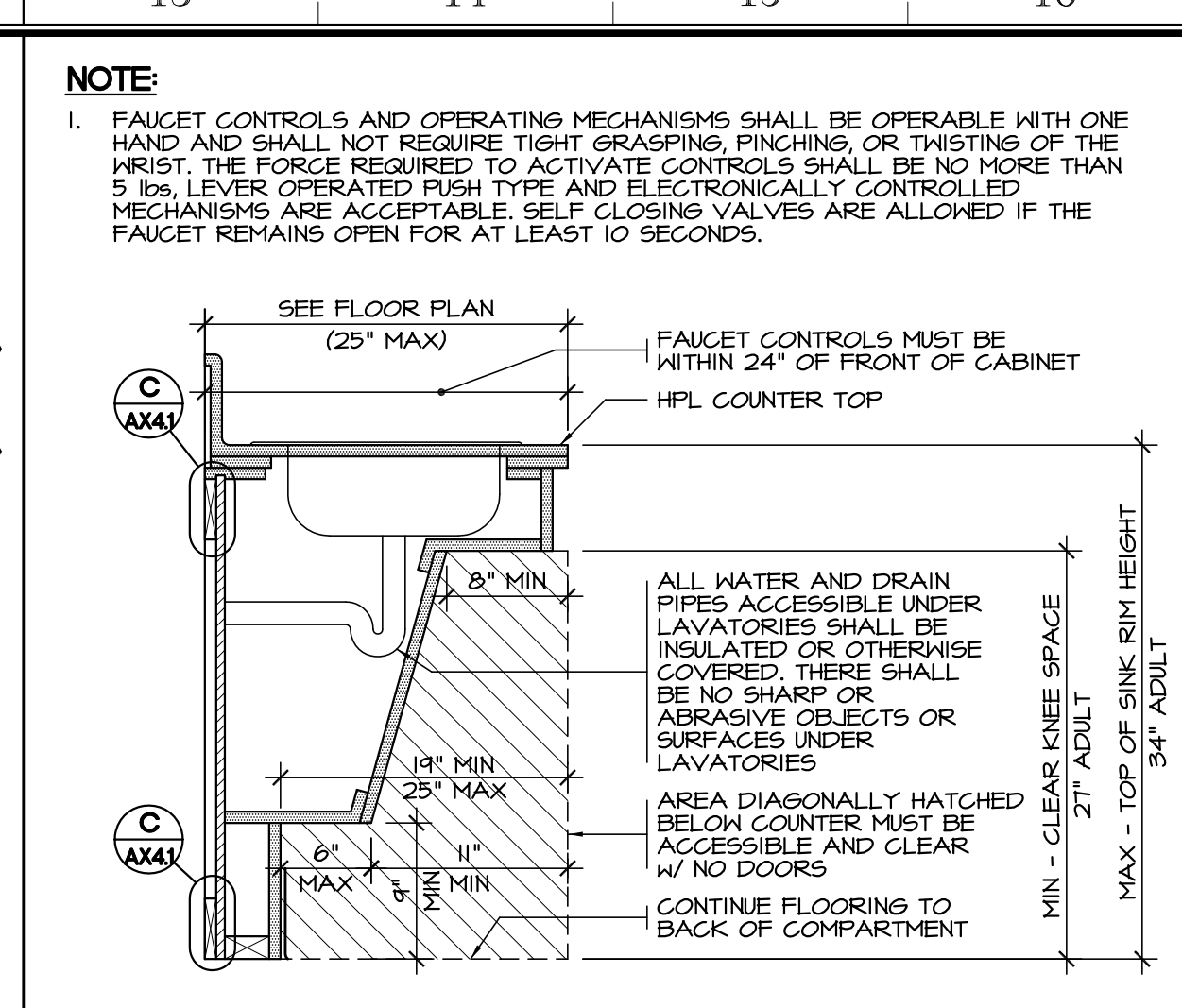
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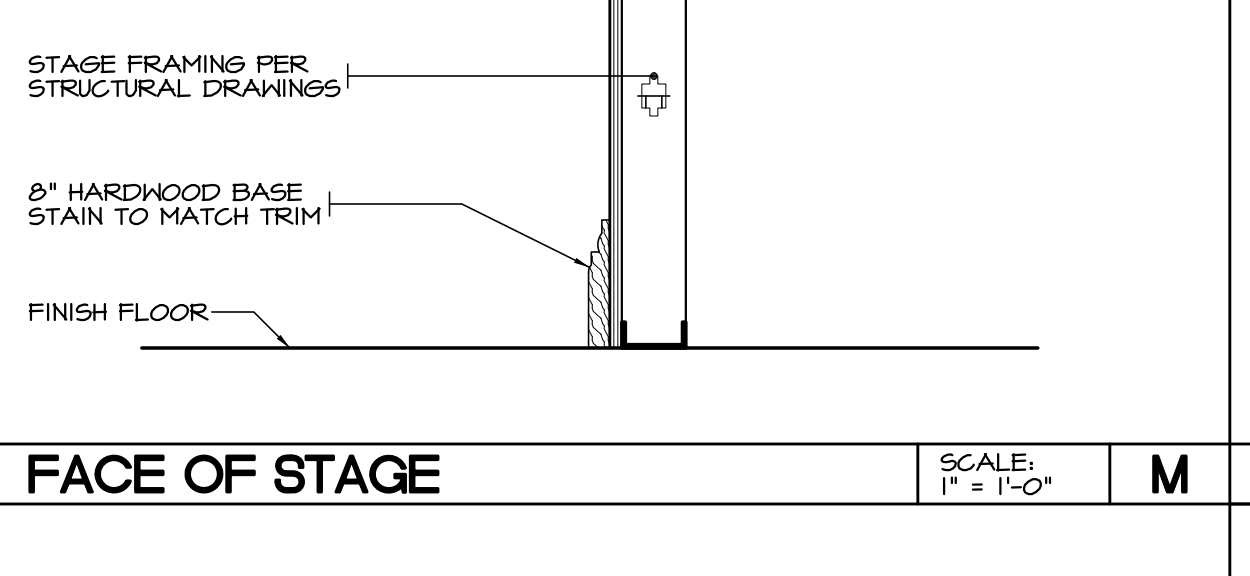
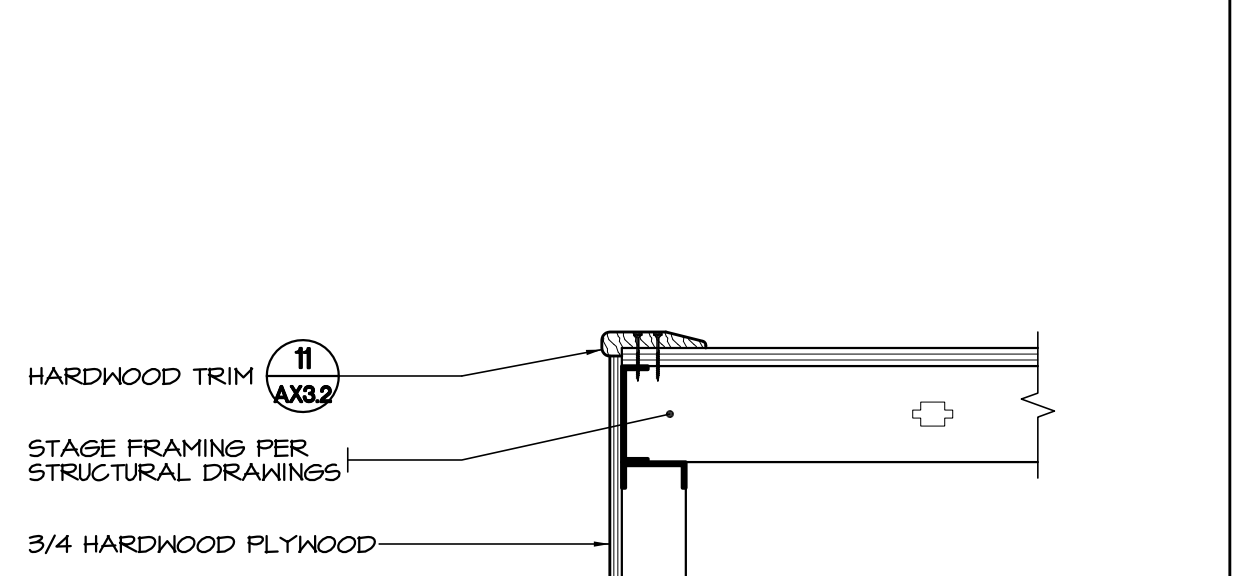
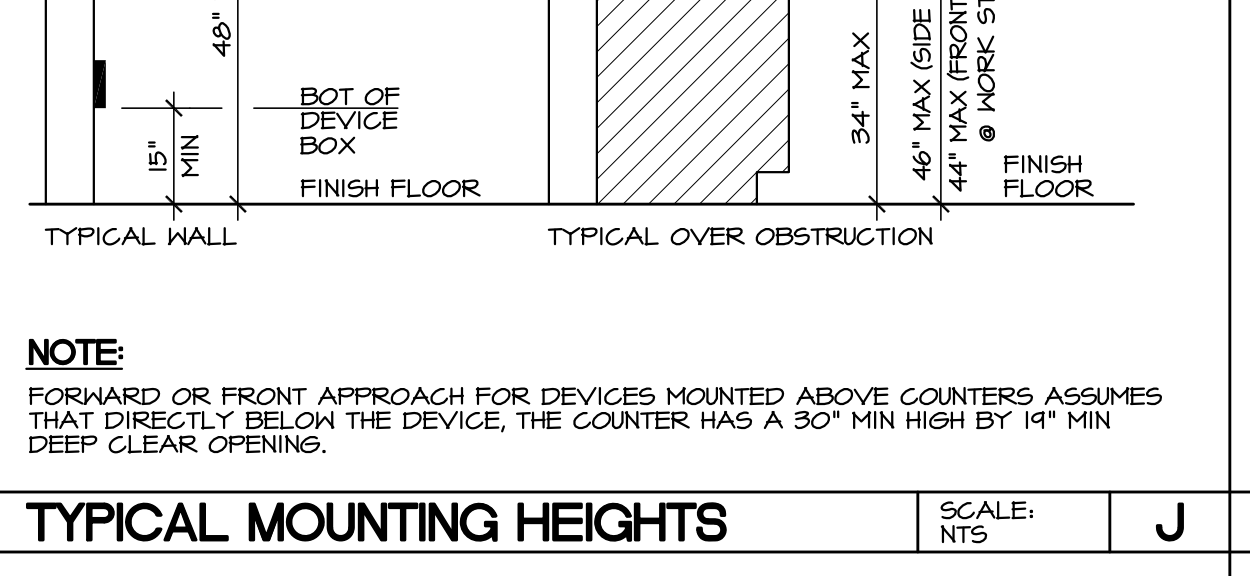
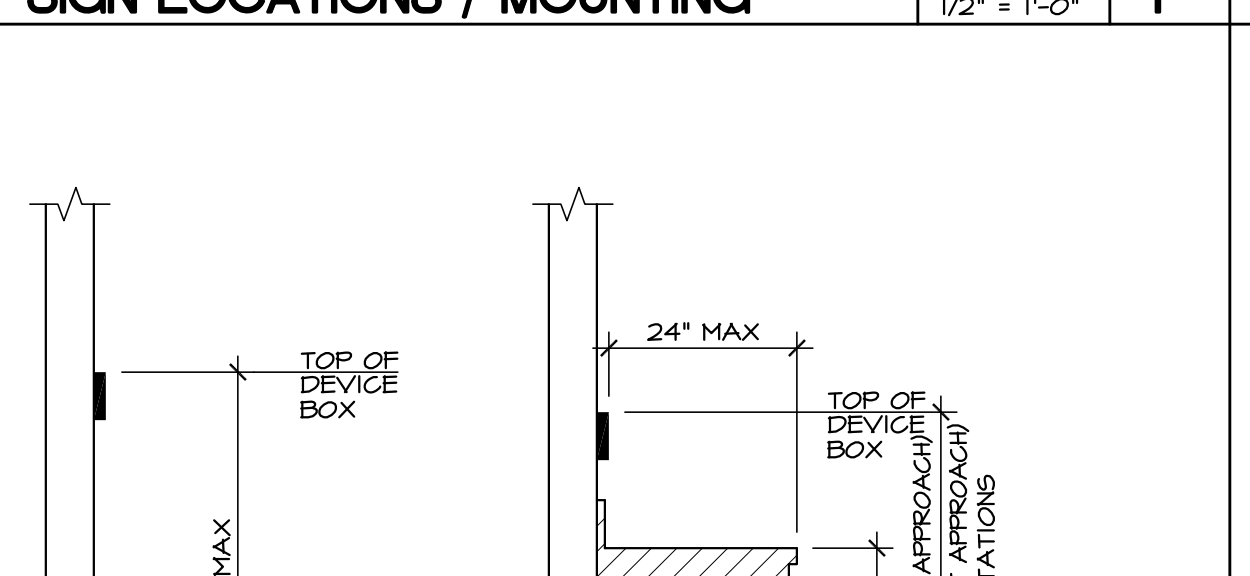
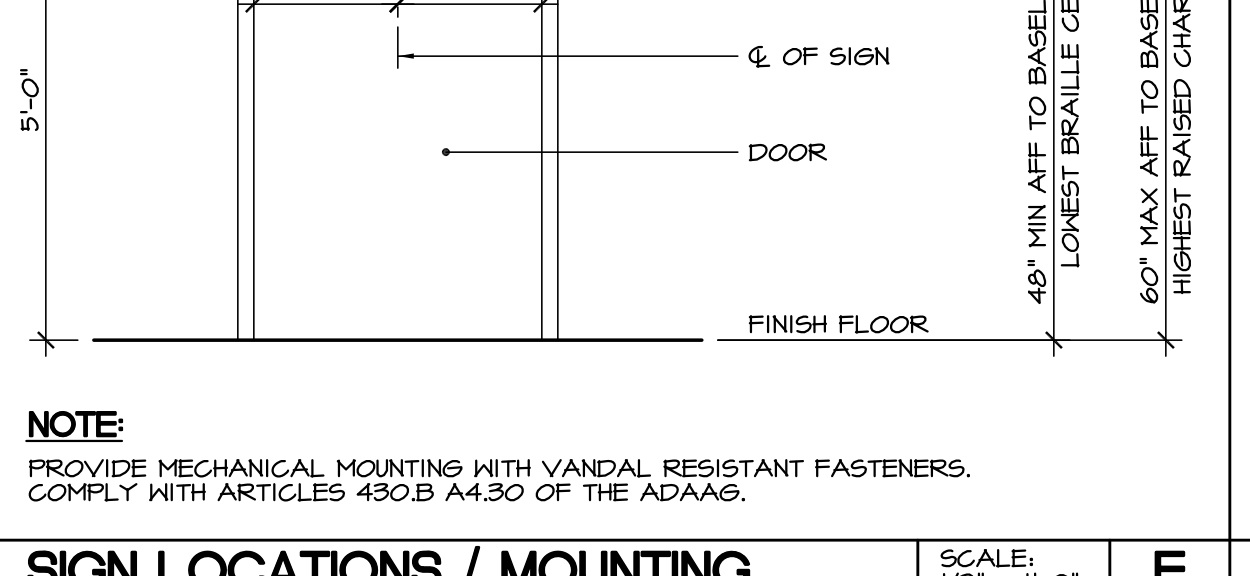
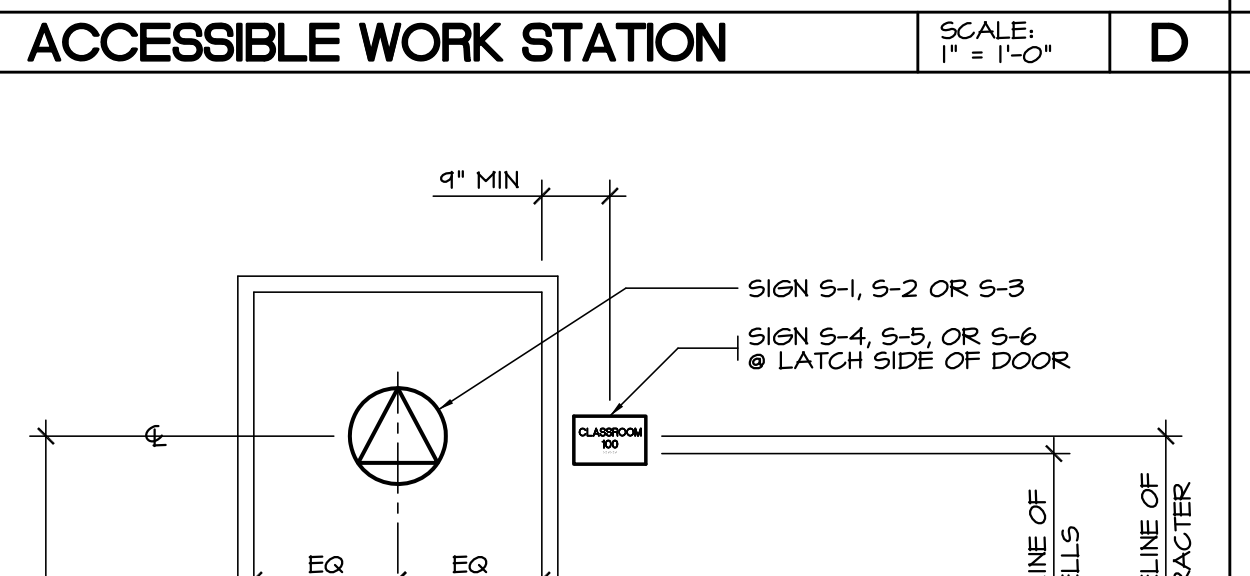
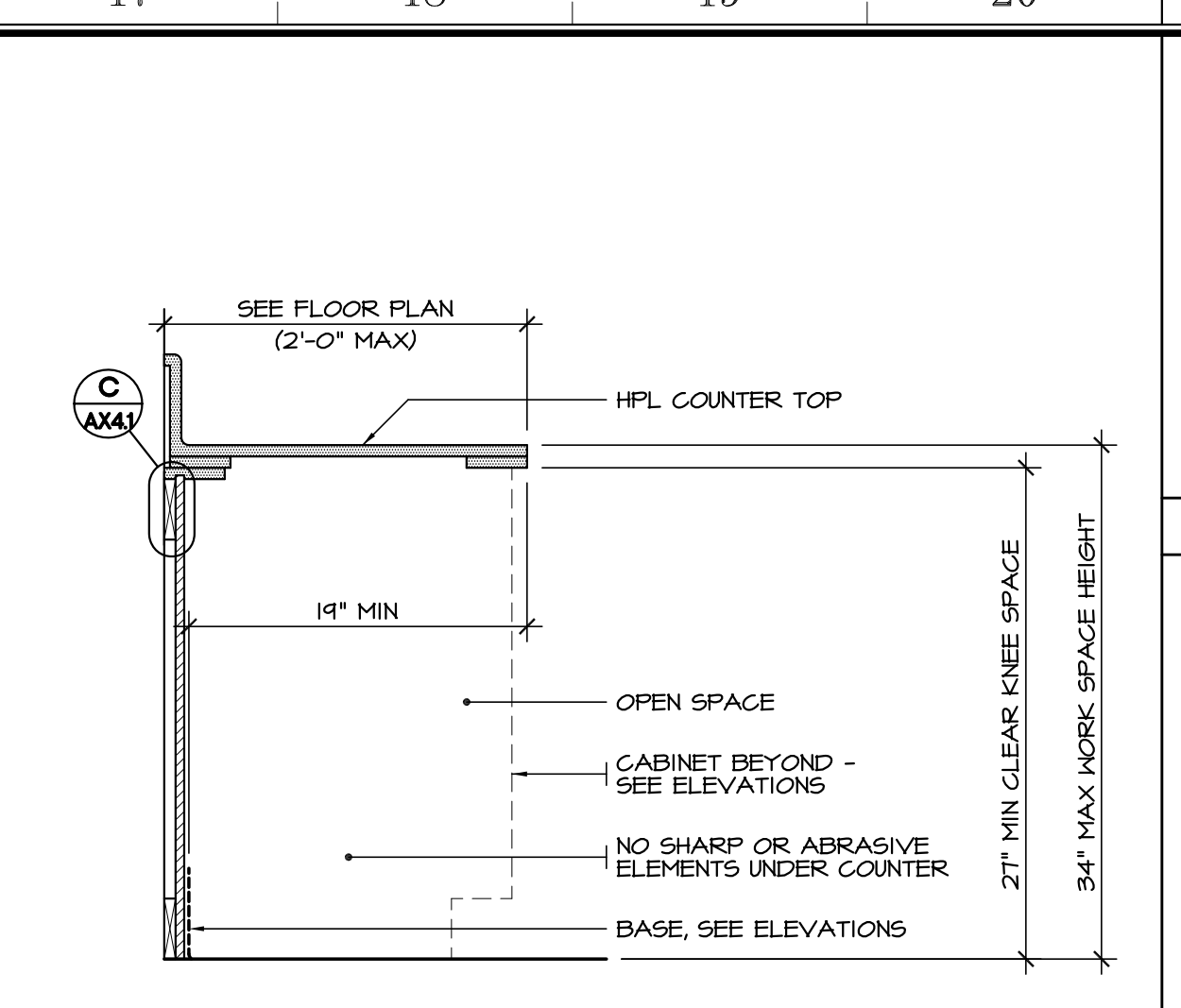
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FIXTURE MOUNTING HEIGHTS SCALE: 3/8" = 1'-0" B



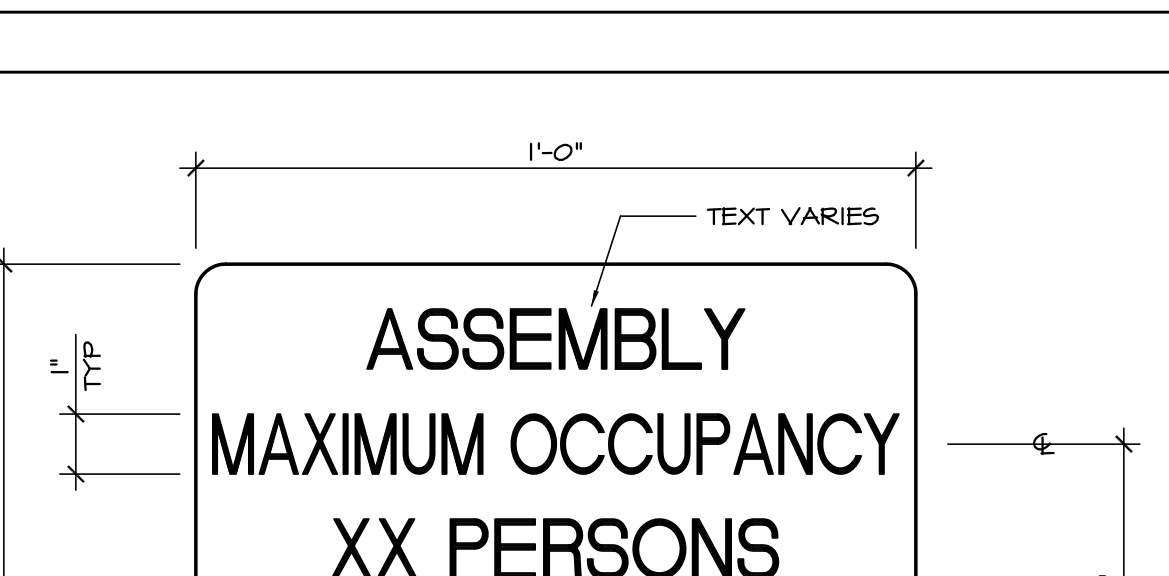
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HARDWOOD TRIM SCALE: 3/8" = 1'-0" N

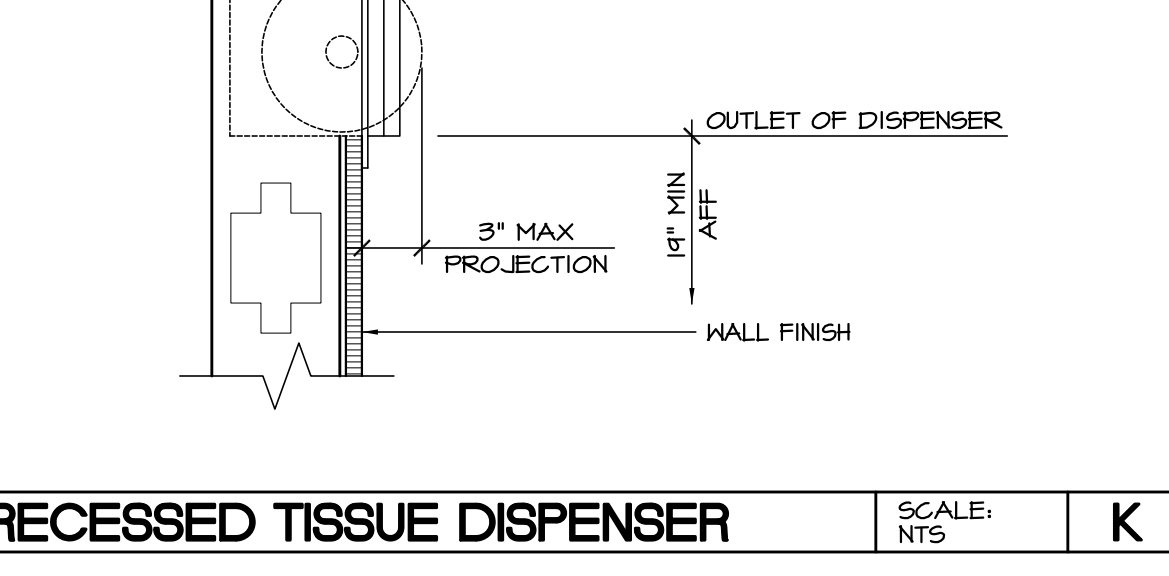
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DIV. OF THE STATE ARCHITECT
APP. 04-118720 INC.
REVIEWED FOR
SS [] FLS [] ACS []
DATE: 01.16.20

APPROVALS



ROOM #	TEXT	MAX PERSONS
200-06	CLASSROOM	54
200-10	CLASSROOM	57
200-14	CLASSROOM	50
300-13	MUSIC LAB	55
800-11	LECTURE CLASSROOM	55

MAXIMUM OCCUPANCY SIGN SCALE: NTS G



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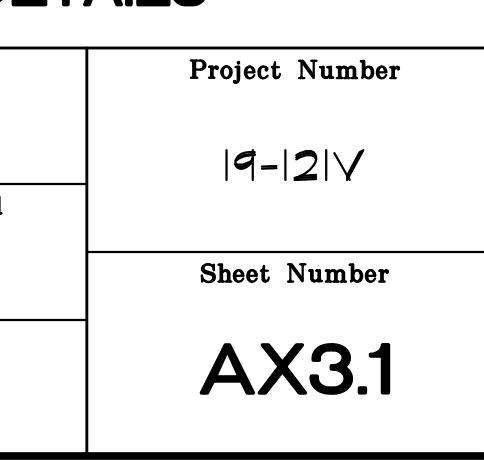
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**IMPERIAL VALLEY COLLEGE
BUILDING 200, 300 AND 800 MODERNIZATION**

Document Date
10-18-19

Date Last Revised
19-12-19

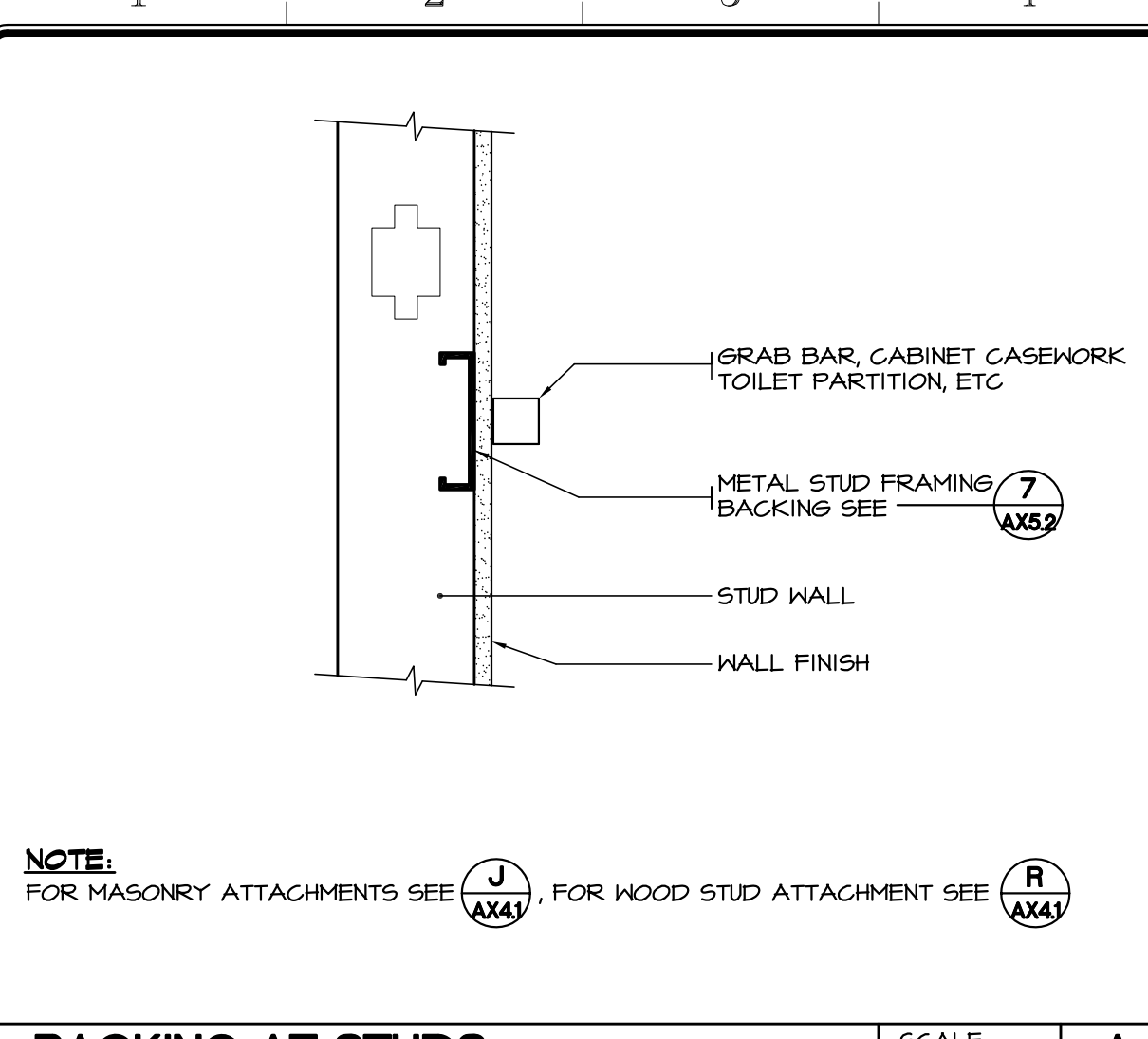
Project Number
19-121V

Sheet Number
AX3.1

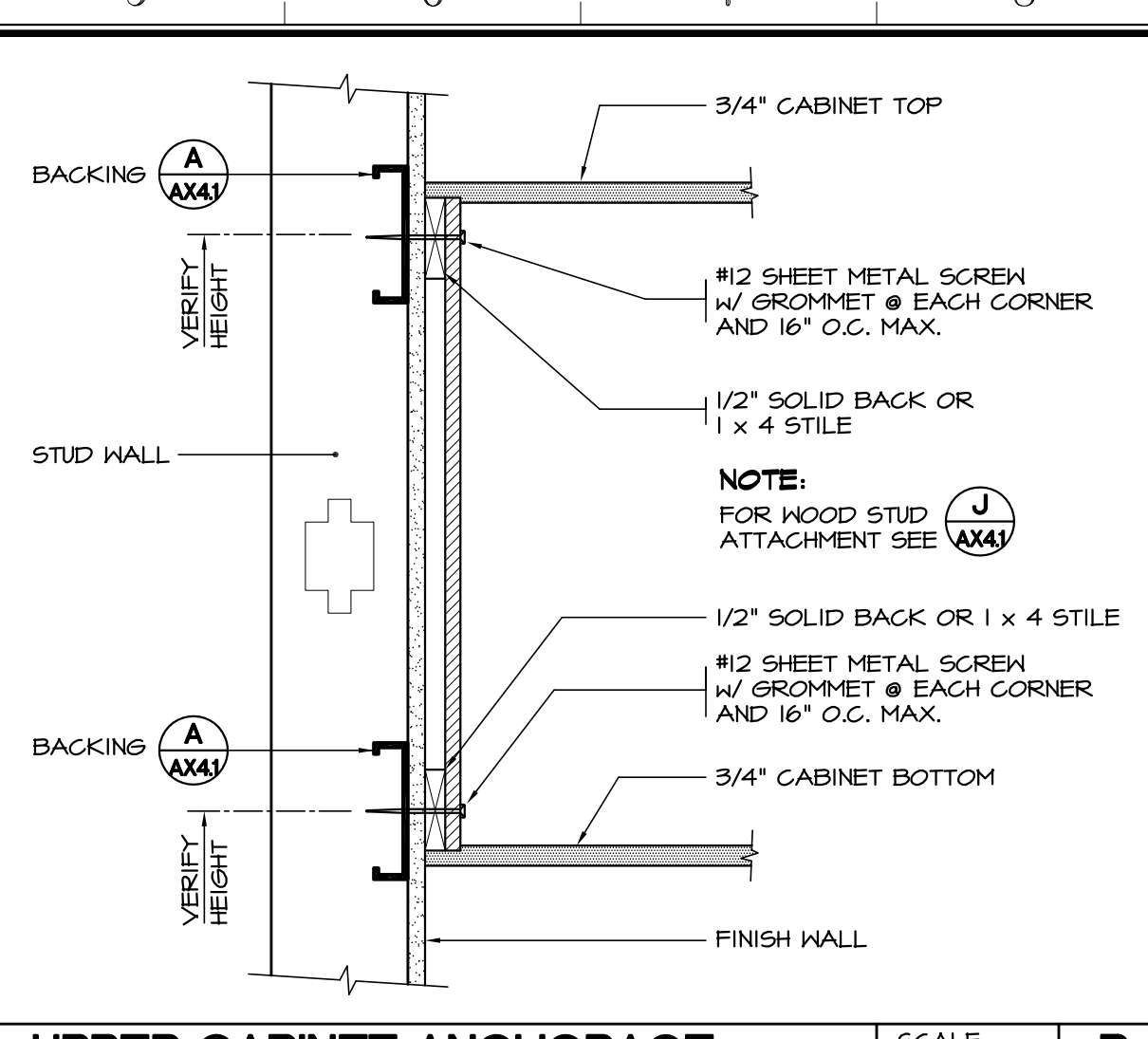


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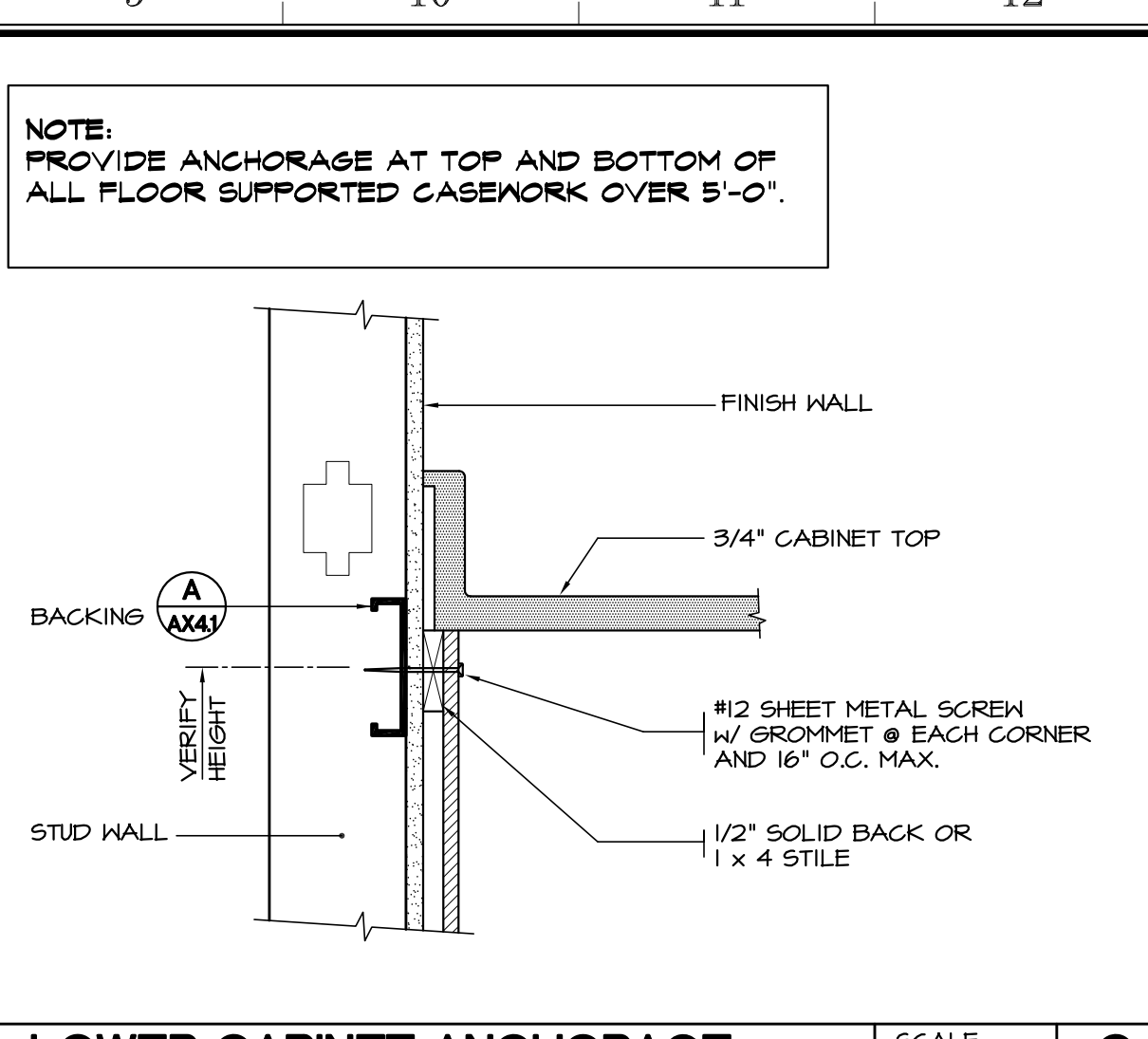
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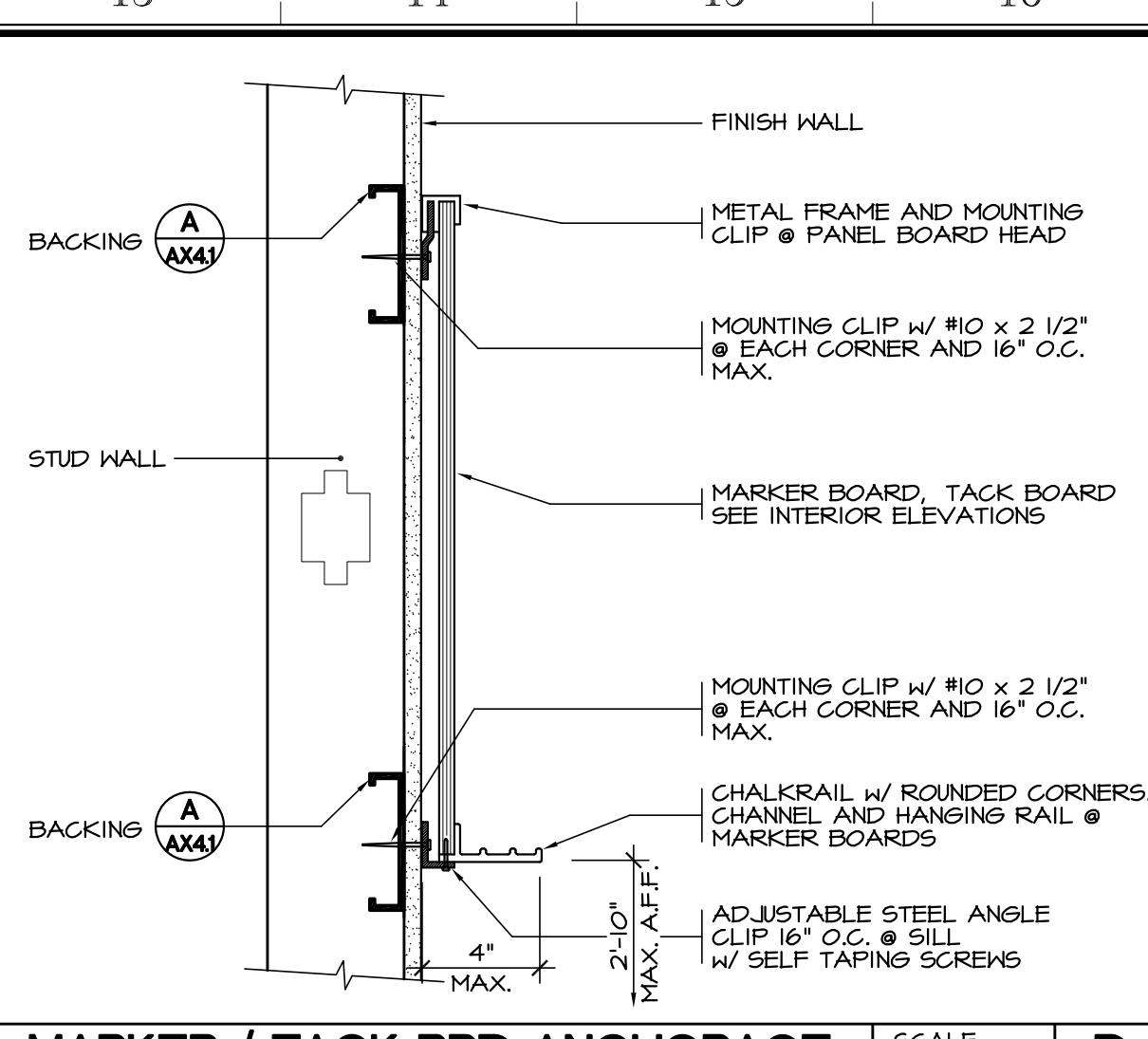
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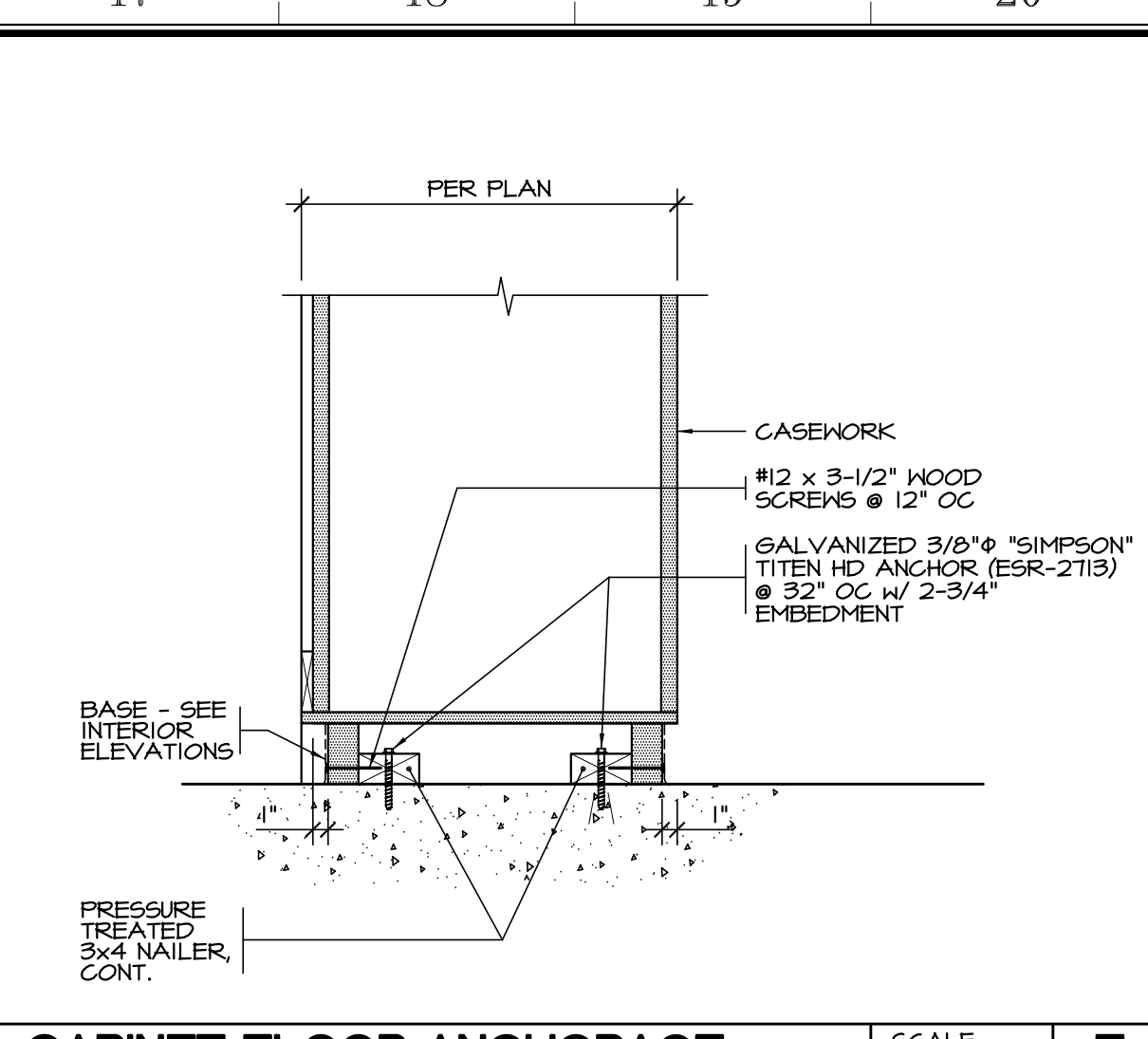
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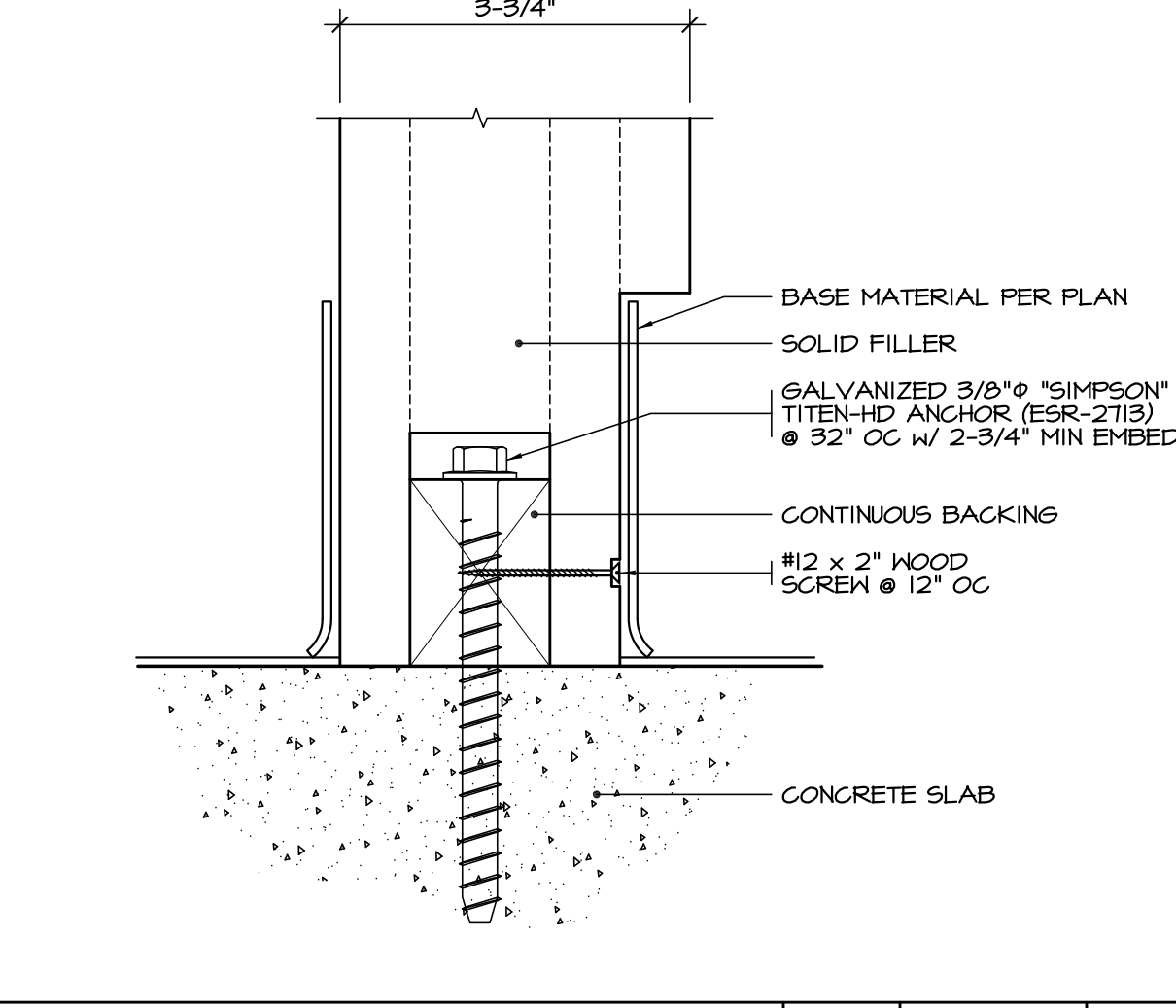
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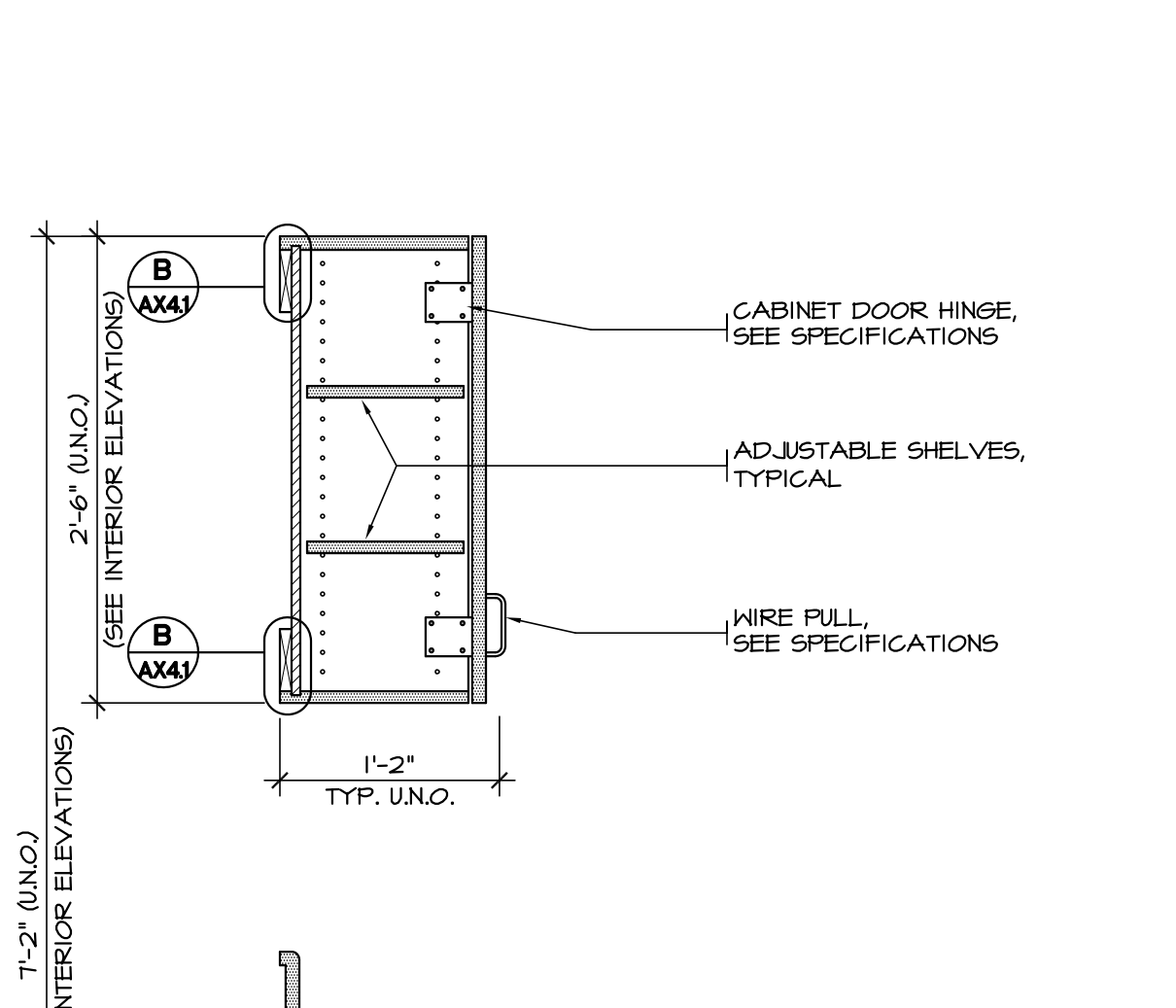
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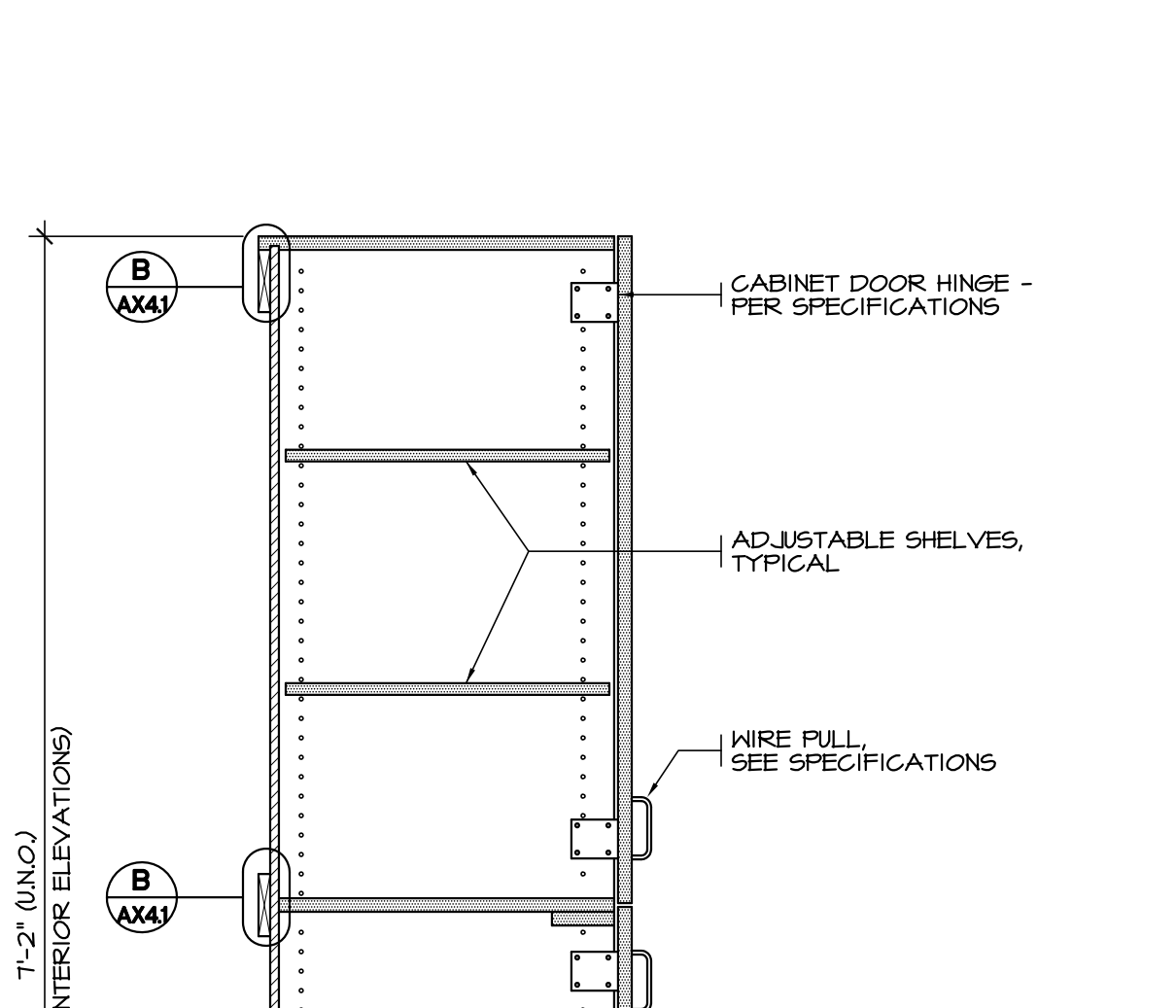
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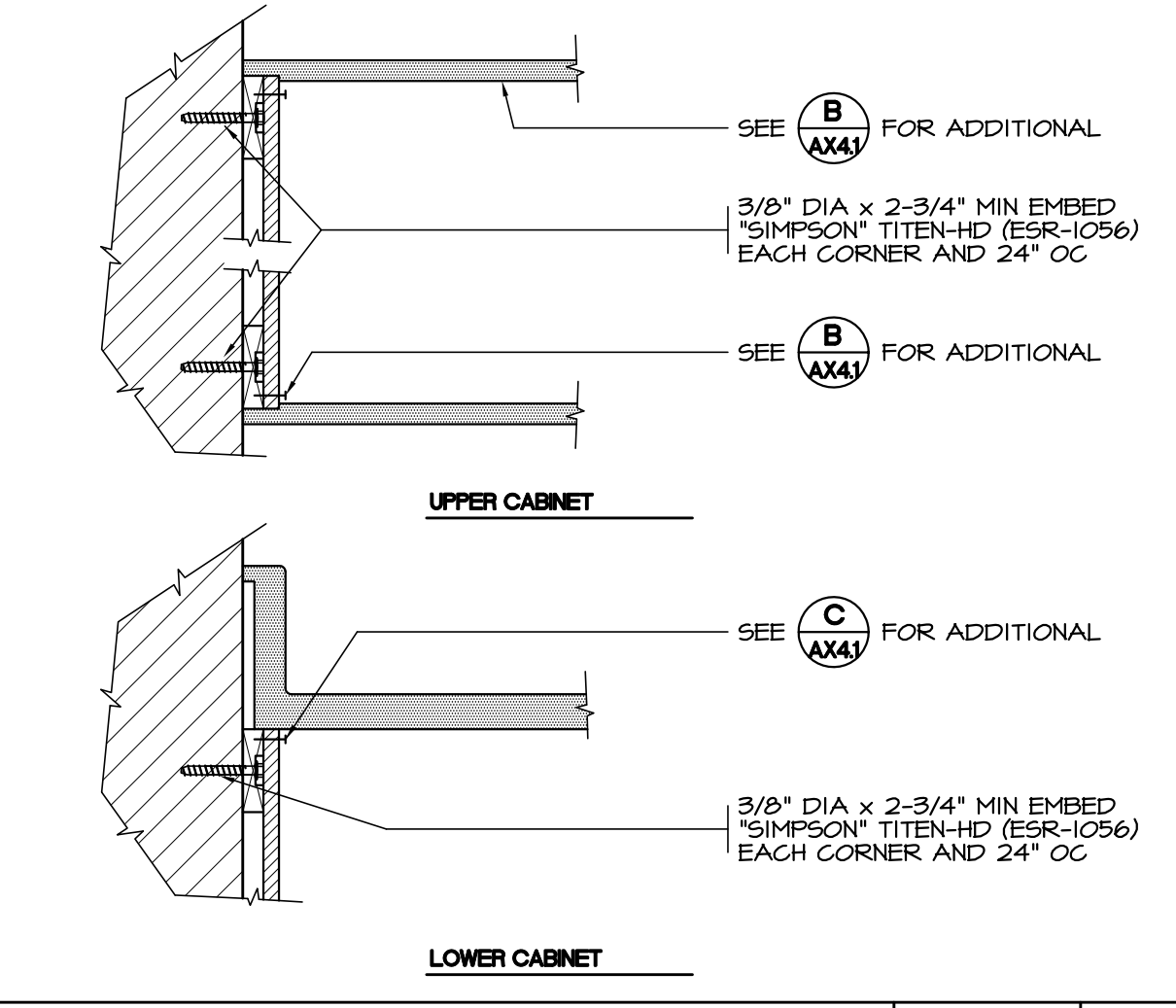
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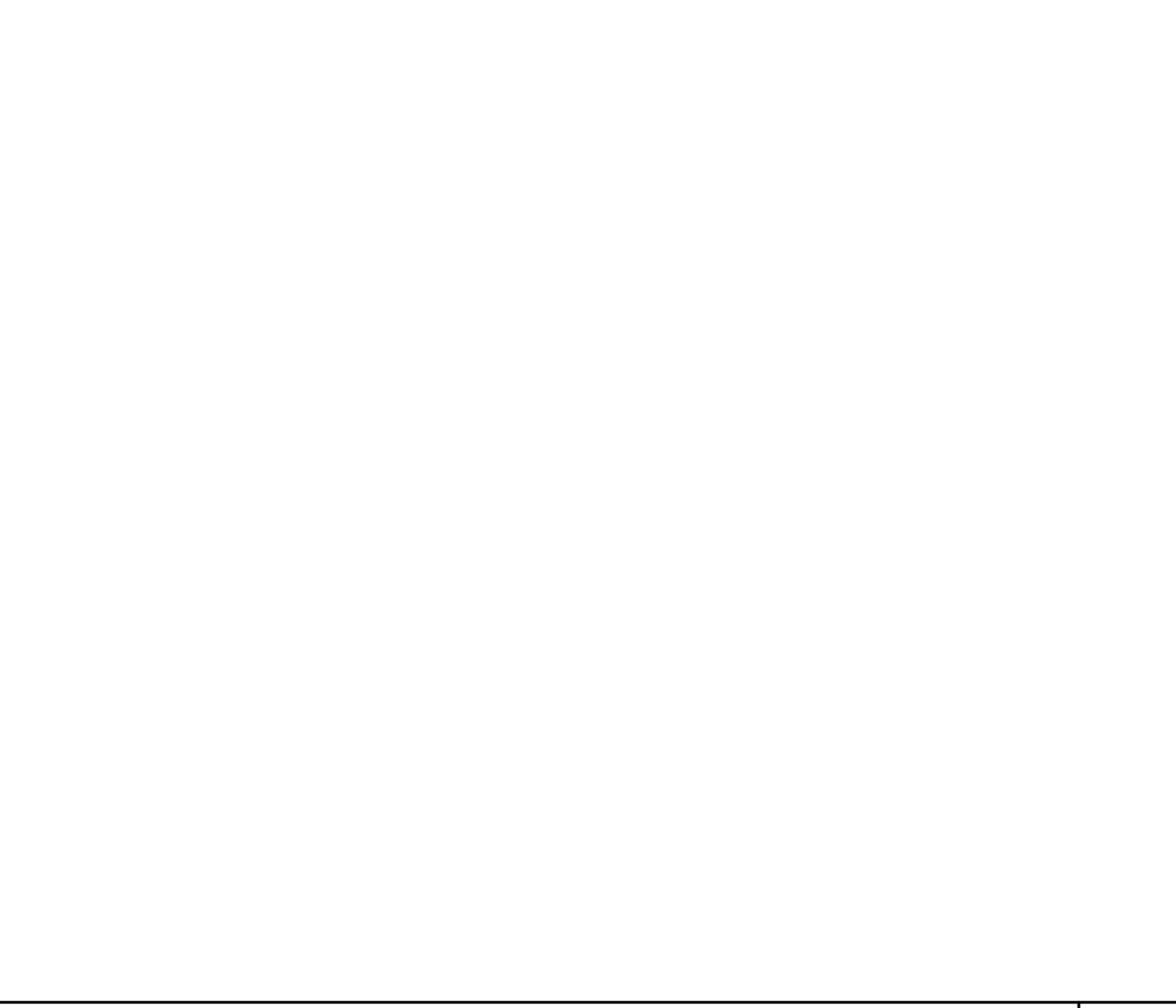
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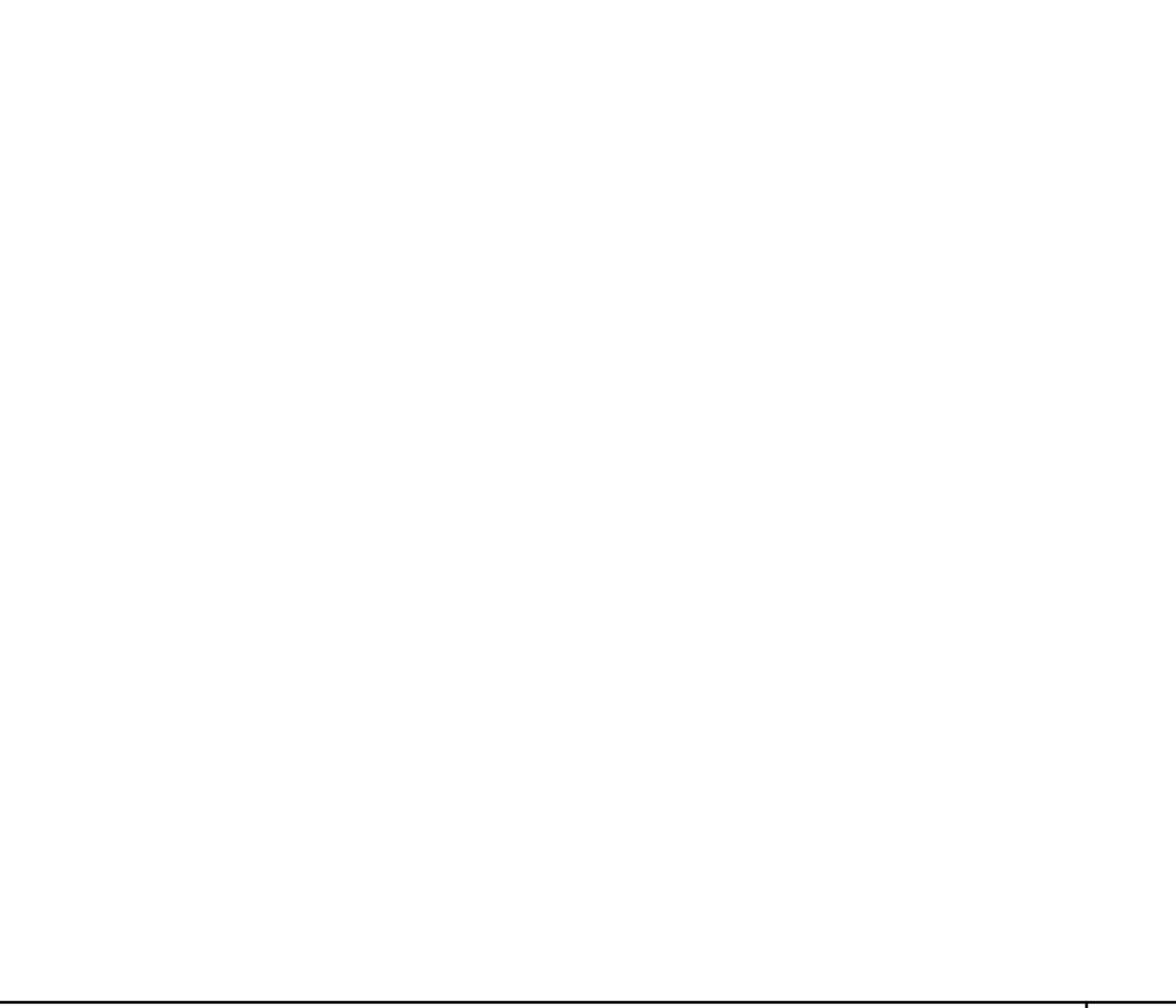
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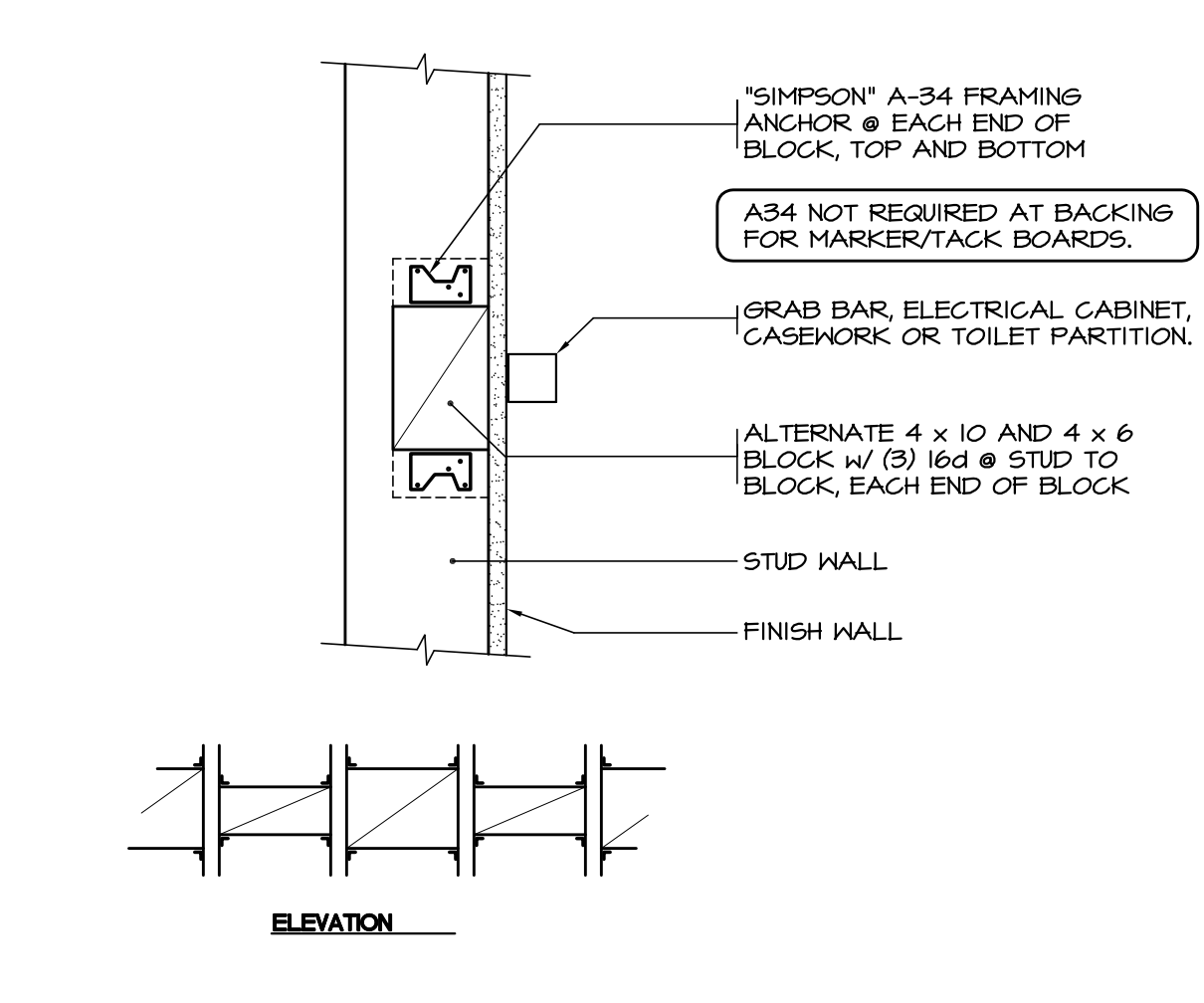
CABINET ANCHORAGE TO MASONRY SCALE: 1/2\"/>



NOT USED K



NOT USED L



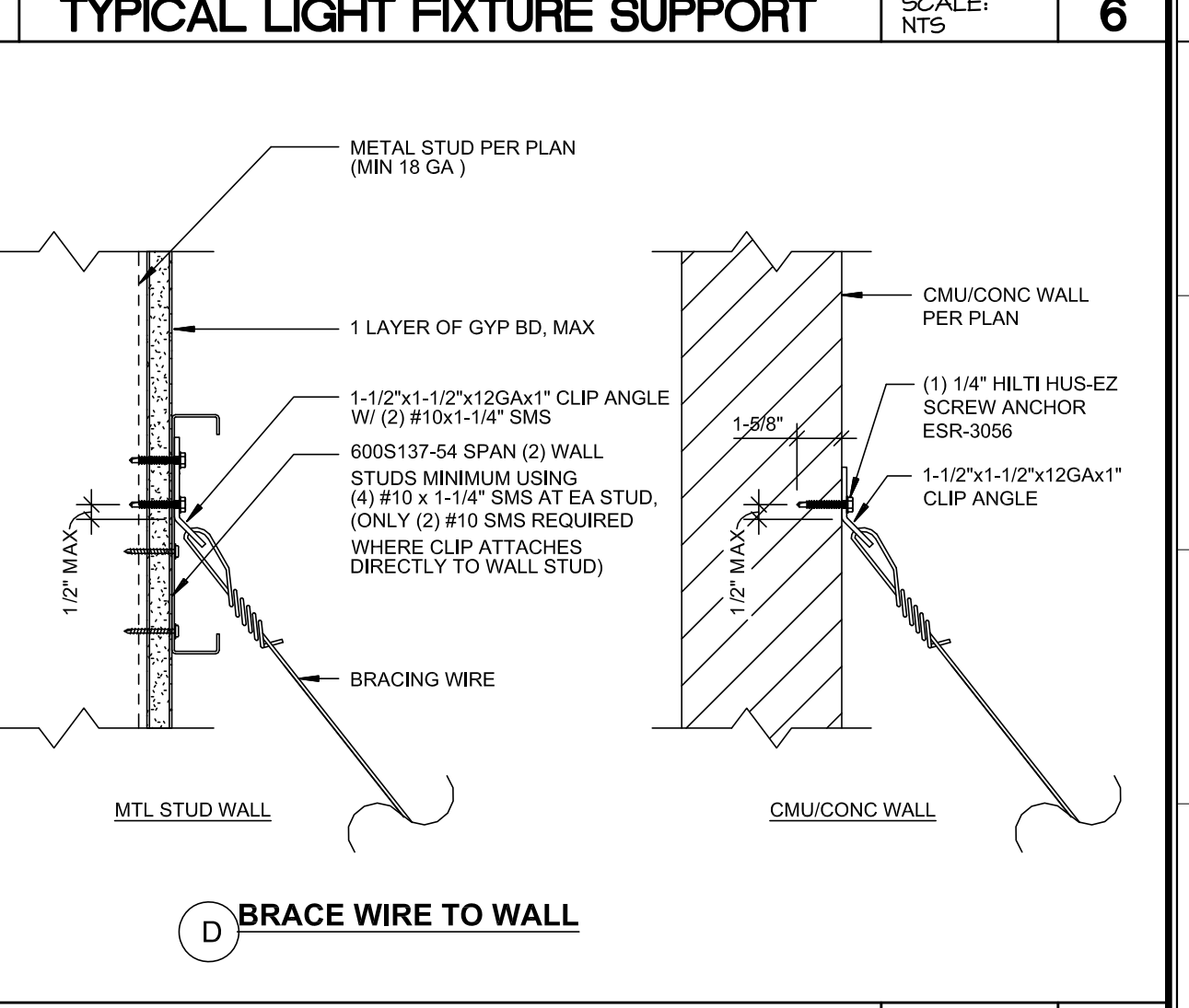
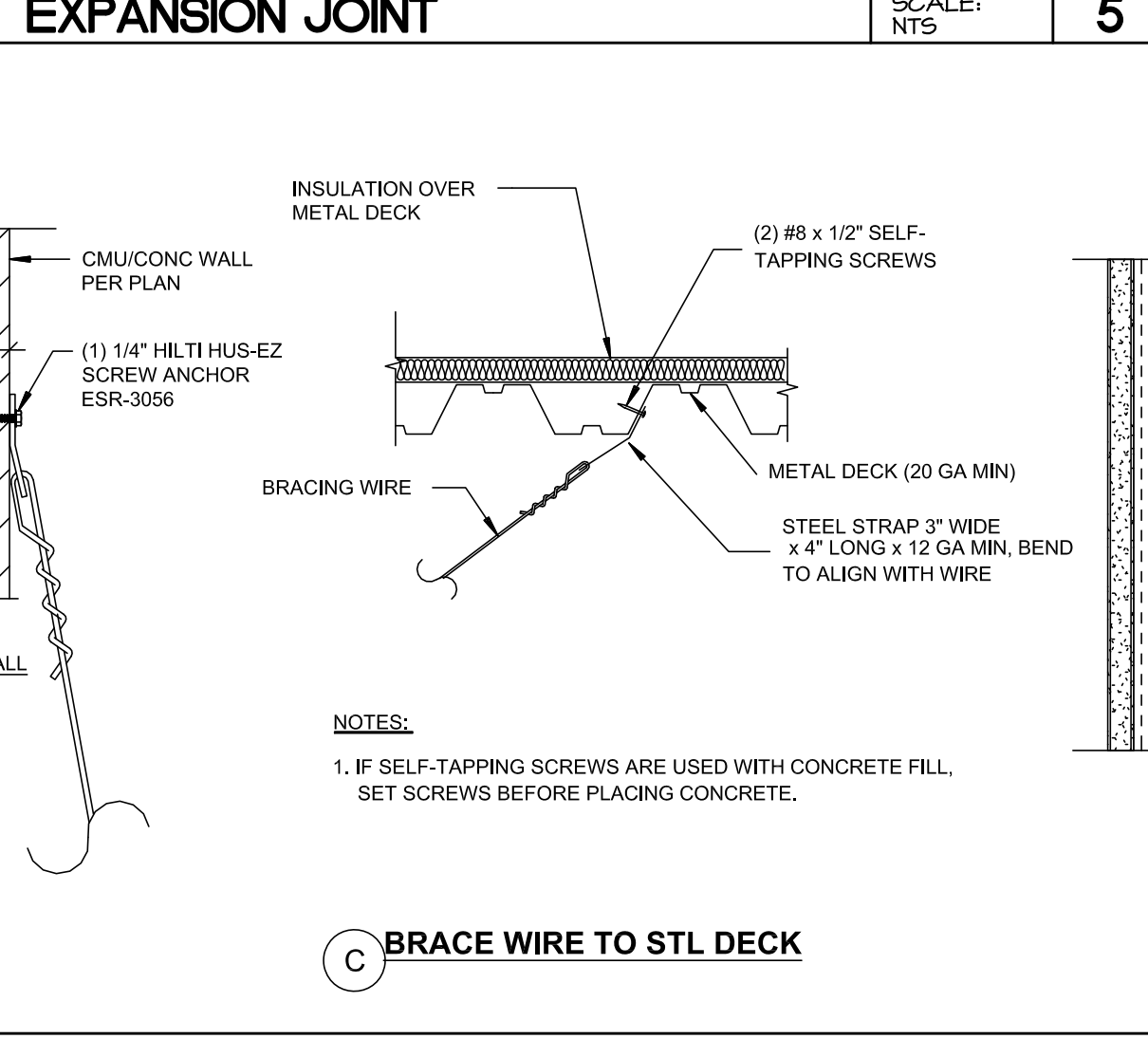
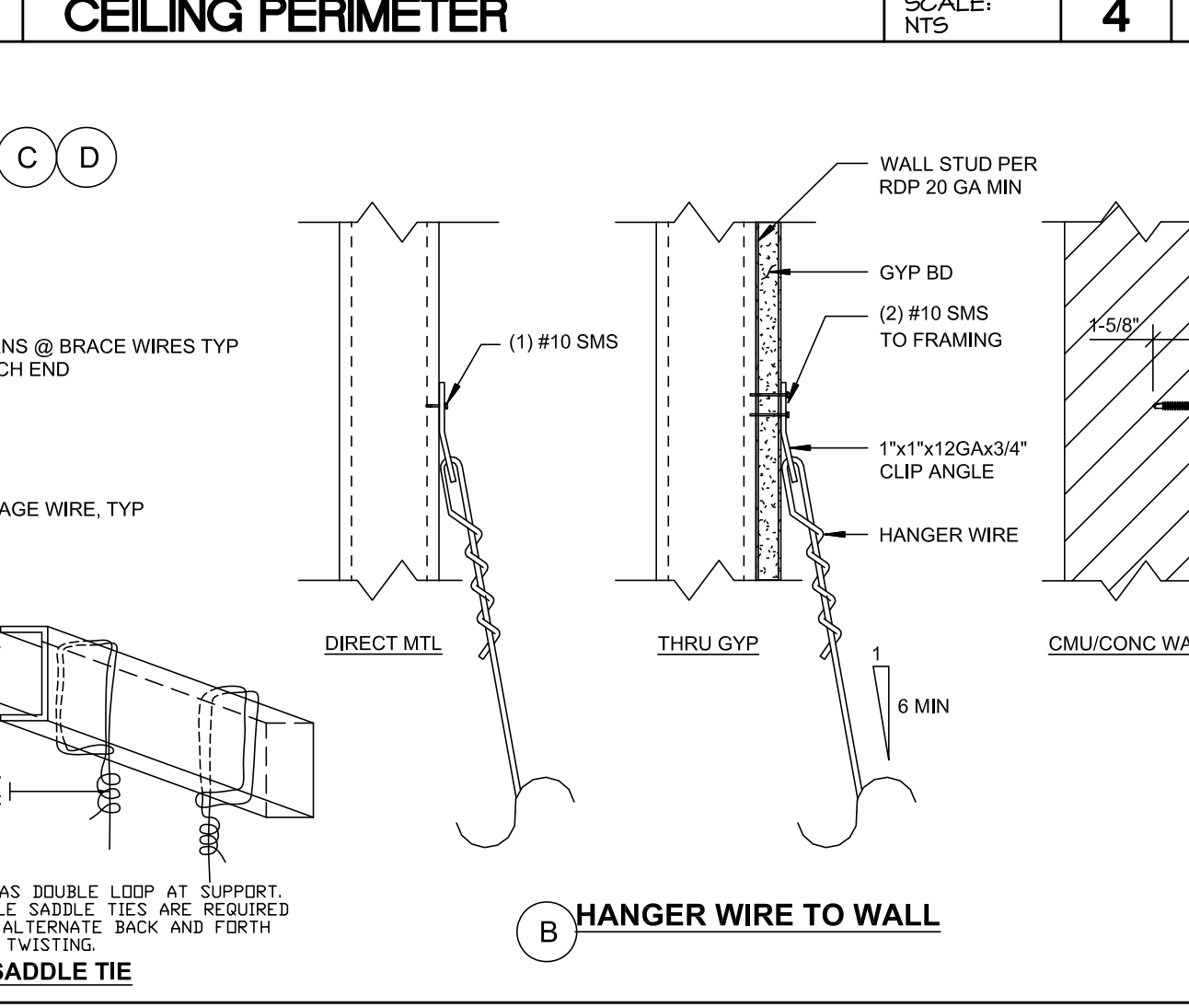
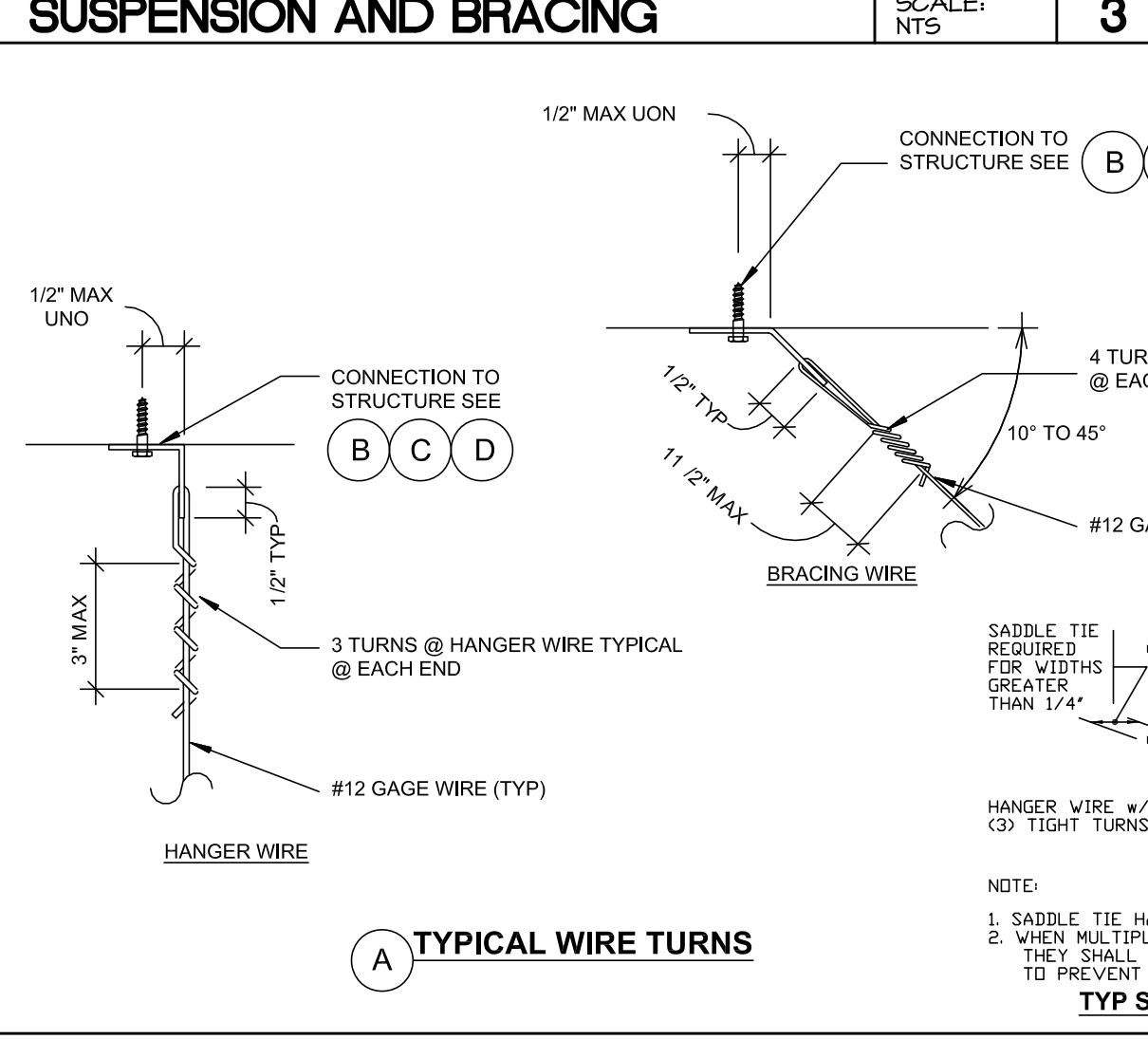
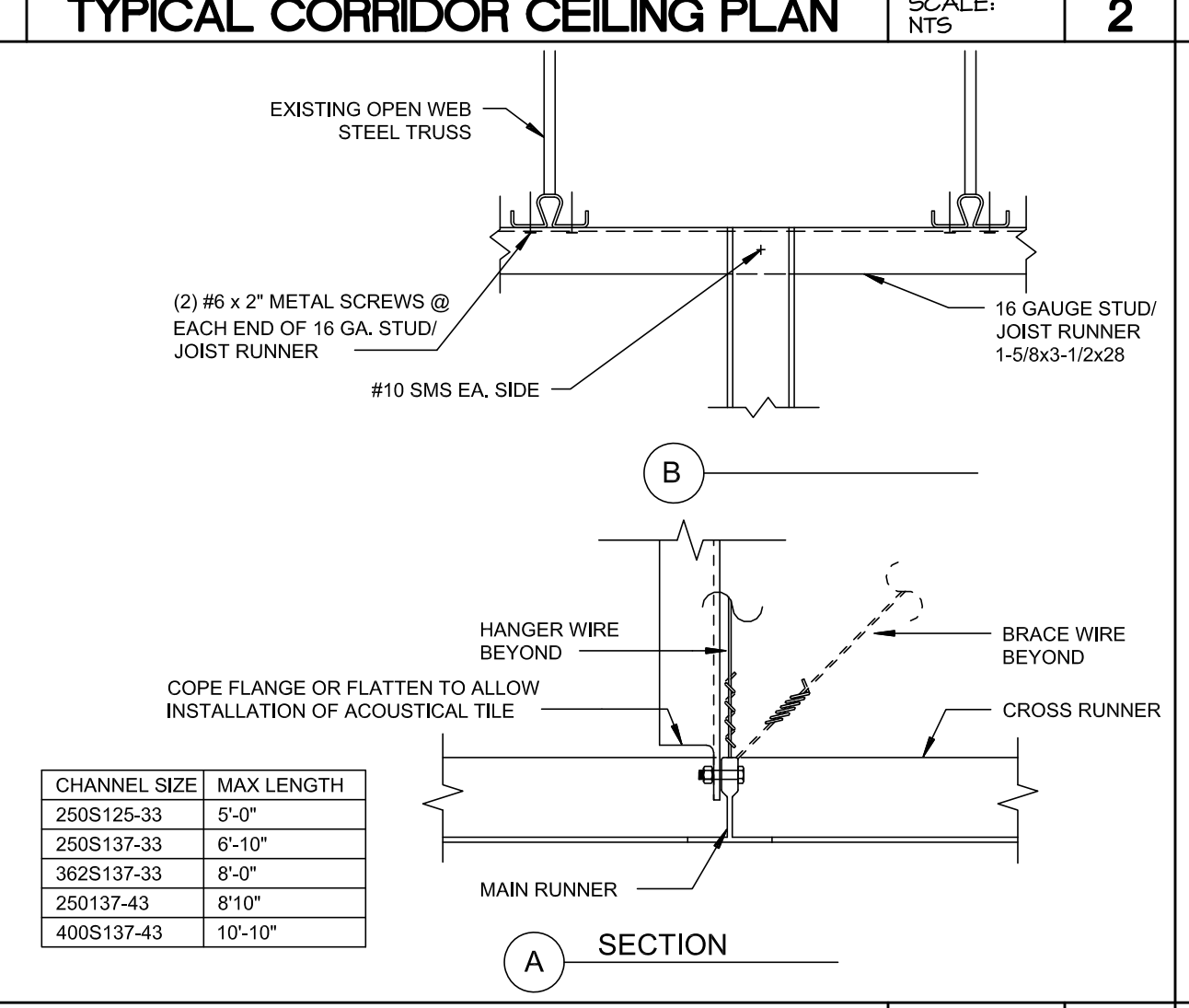
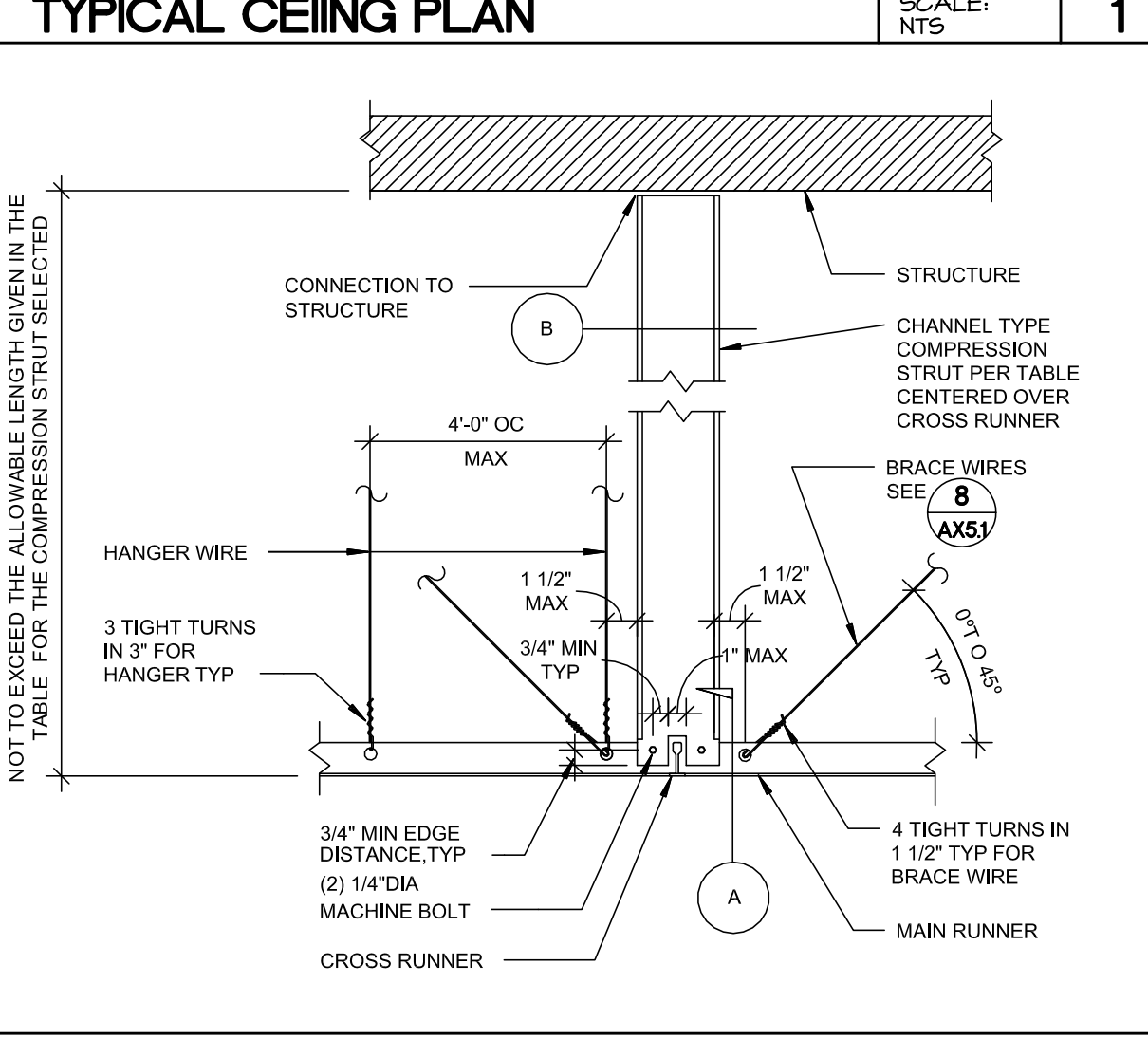
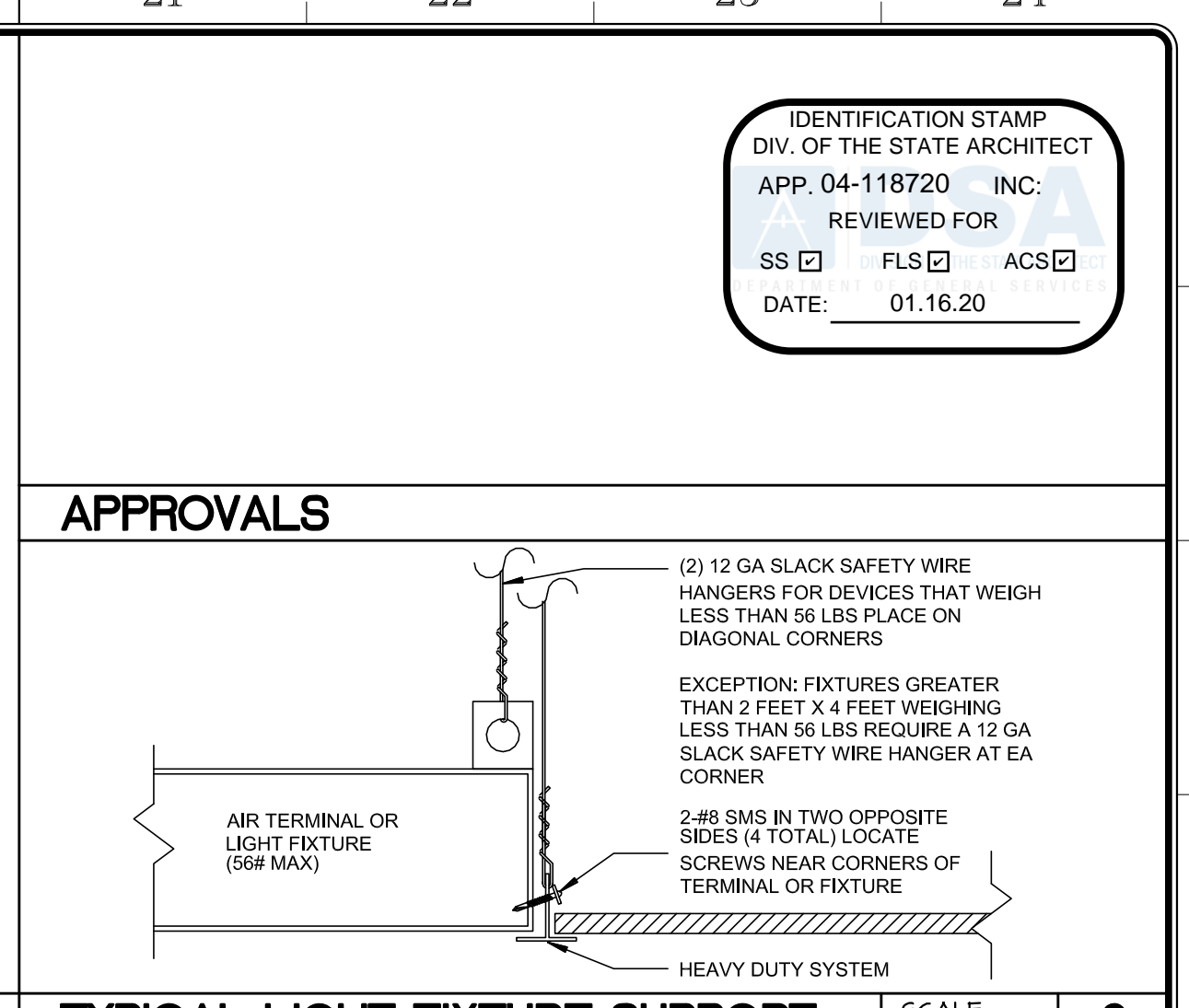
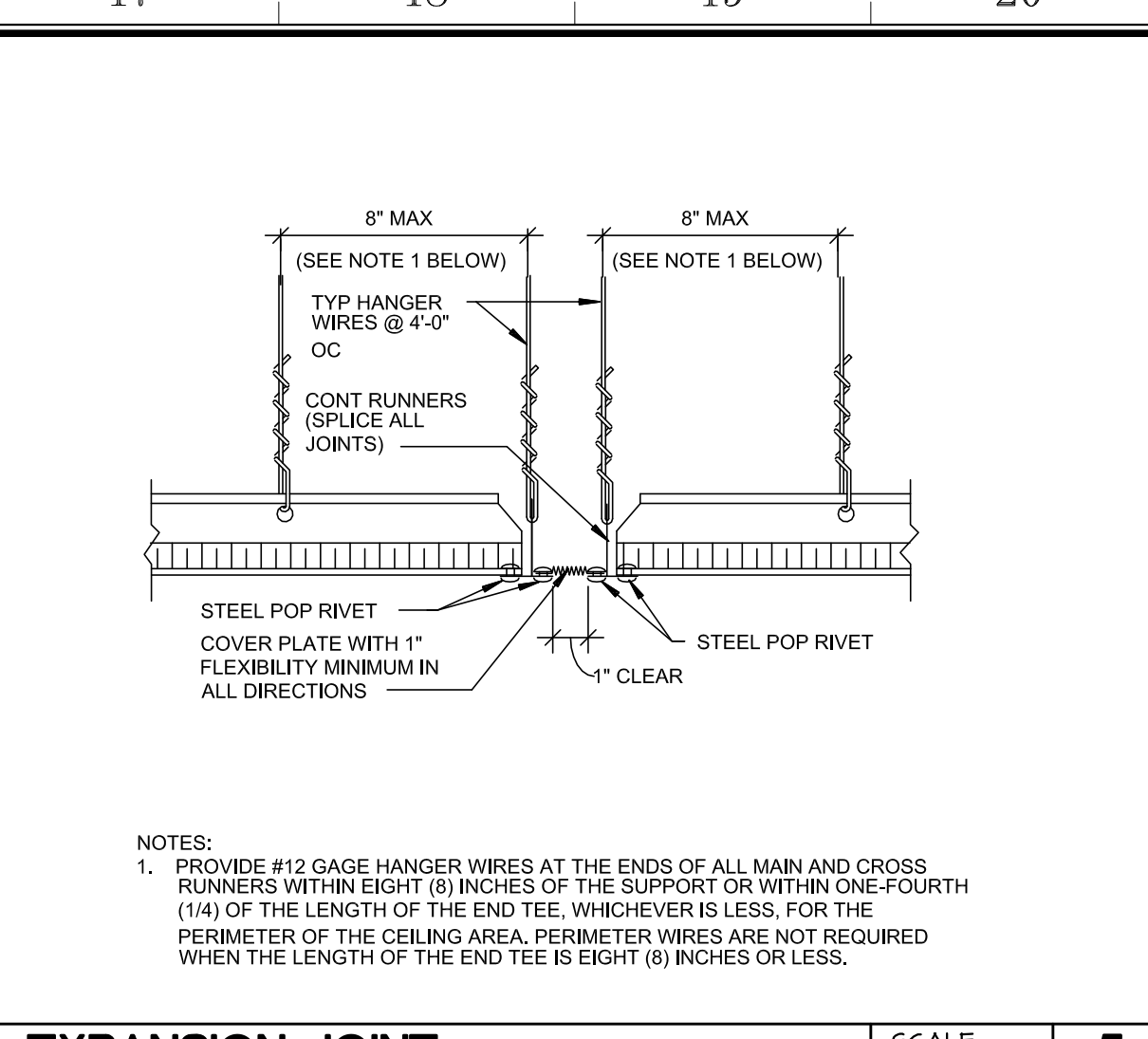
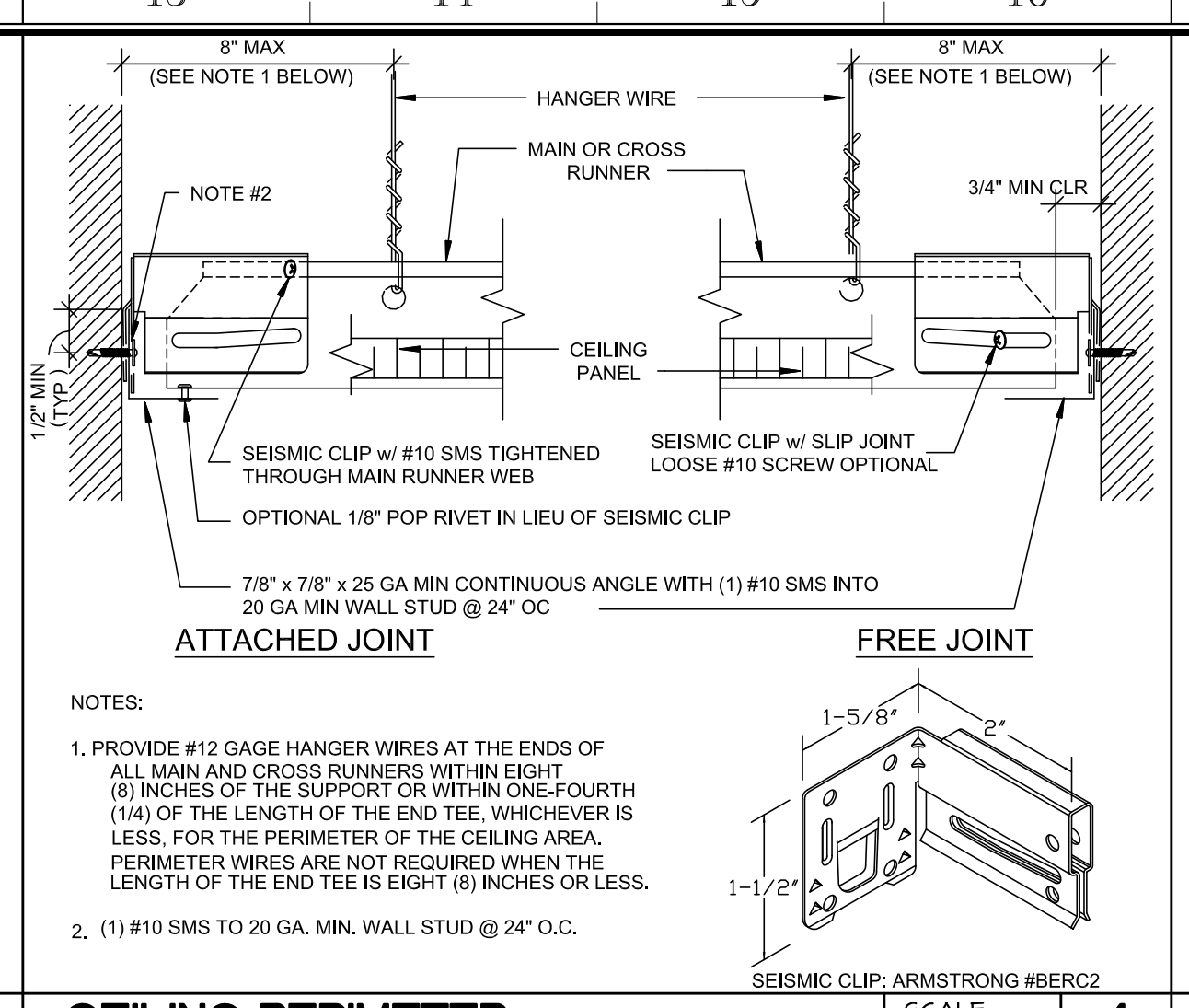
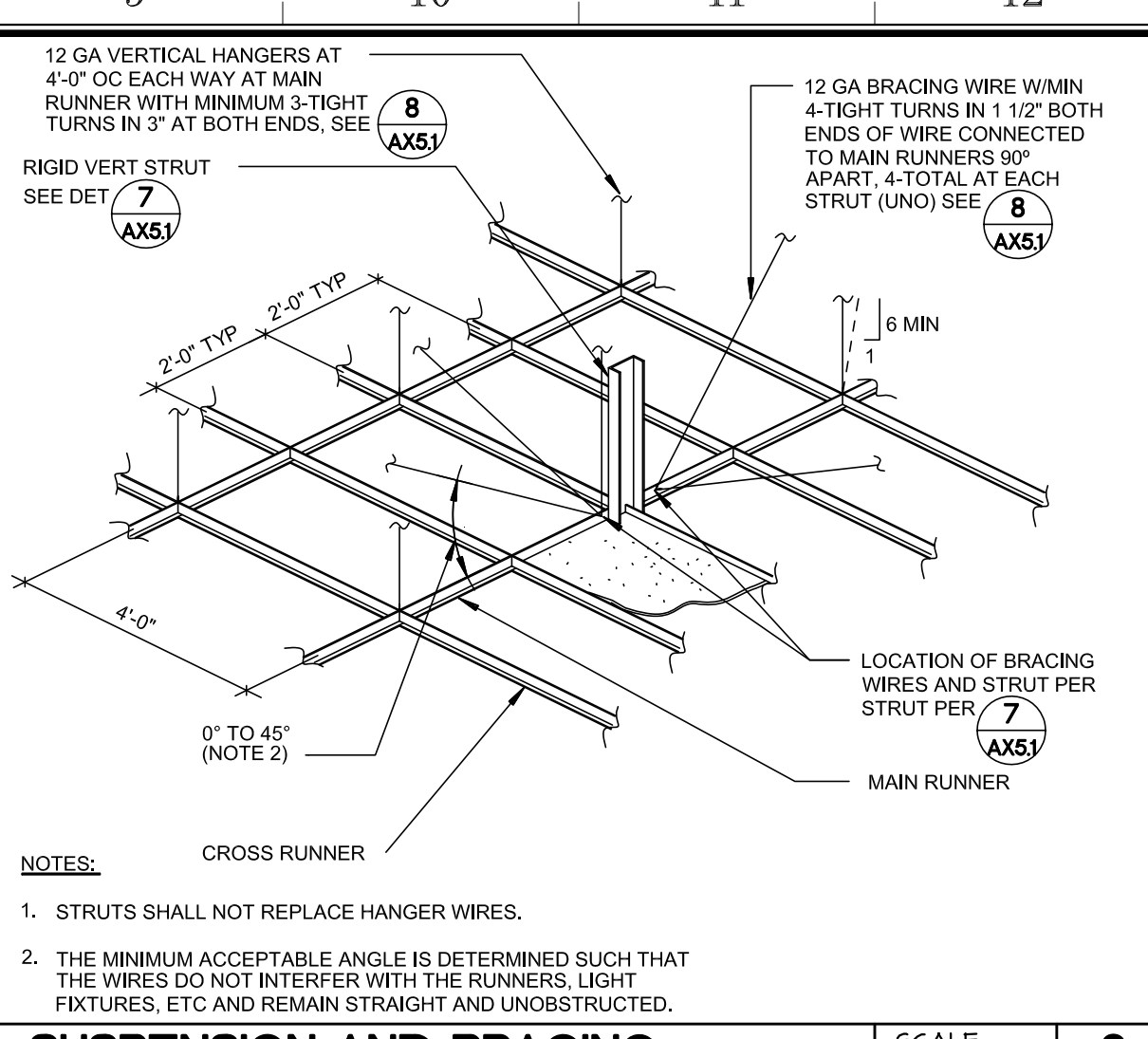
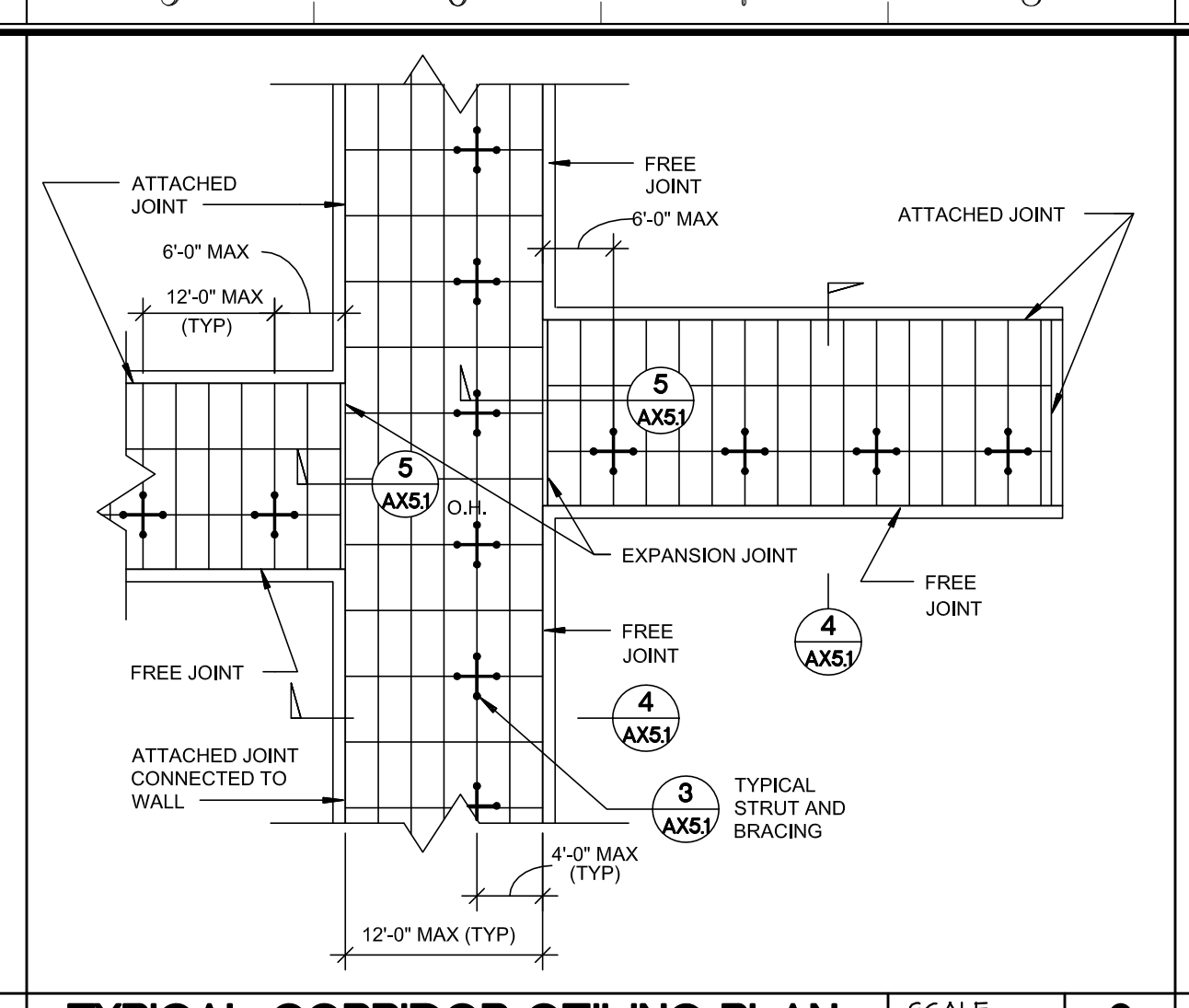
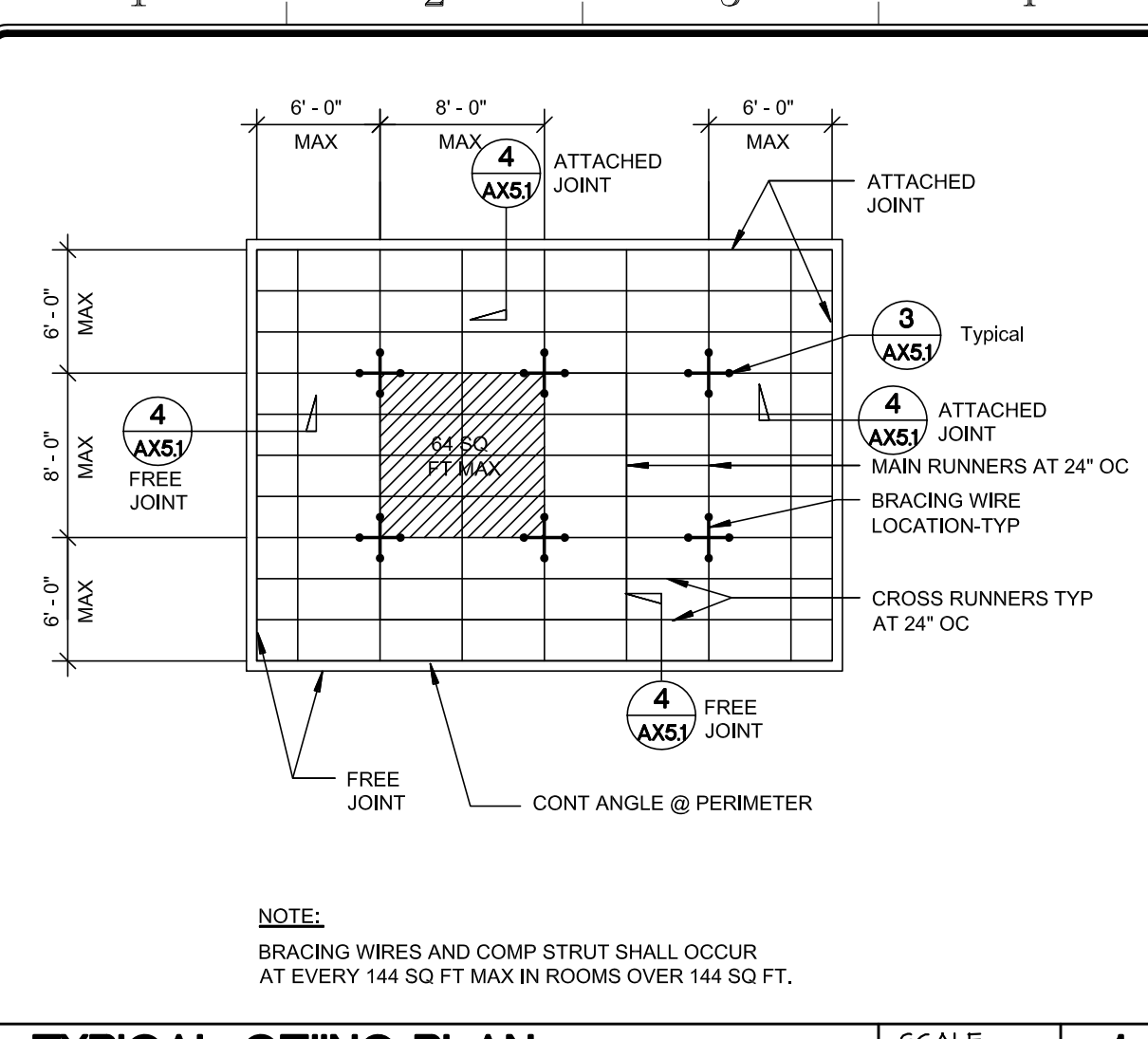
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Project Title
**IMPERIAL VALLEY COLLEGE
 BUILDING 200, 300 AND 800 MODERNIZATION**

Sheet Title
CASEWORK DETAILS

	Document Date	Project Number
	Date Last Revised	Sheet Number
	10-18-19	19-121V
		AX4.1



1. CEILING SYSTEM GENERAL NOTES:

- Ceiling system components shall comply with ASTM C635-07 and Section 5.1 of ASTM E580-10a.
- The ceiling grid system must be rated heavy duty as defined by ASTM C635-08.
- Ceiling systems, the following ceiling system(s) is/are part of the scope of this project:
Manufacturer's Name: ARMSTRONG
Product Evaluation Report Type and Number: ESR-1308
Manufacturer's Model Number - main runner: PREDUCE XL #7301
Manufacturer's catalog number - cross runner: PREDUCE XL #X12341 (4ft), #X12328 (2ft)
Manufacturer's Model: BERCC (ESR-1308)
- Ceiling panels shall not support any light fixtures, air terminals or devices.
- For ceiling installations utilizing acoustical tile panels of mineral or glass fiber, it is not mandatory to provide 1/2" clearance between the acoustical tile panels and the wall on the sides of the ceiling which are free to slip. For all other ceiling panel types, provide 3/4" clearance between the ceiling panel and the wall on the sides of the ceiling free to slip.

2. MATERIALS:

- Ceiling wire shall be Class 1 zinc coated (galvanized) carbon steel conforming to ASTM A641-09a. Wire shall be #12 gage (0.105" diameter) with soft temper and minimum tensile strength = 70 ksi.
- Galvanized steel sheet (including that used for metal stud and track compression struts) shall conform to ASTM A653-11, or other equivalent sheet steel listed in Section A2.1 of the North American Specification for the Design of Cold-Formed Steel Structural Members, 2007, including supplement 2 dated 2010 (AISI S100-07/52-10). Material #43 mil (18 gage) and lighter shall have minimum yield strength of 33 ksi. Material #4 mil (16 gage) and heavier shall have a minimum yield strength of 50 ksi.
- Electrical metallic tube (EMT) shall be ANSI C80.3/UL 797 carbon steel with G90 galvanizing. EMT shall have minimum yield strength (Fy) of 30 ksi and minimum ultimate strength (Fu) of 48 ksi.

3. ATTACHMENT OF HANGER AND BRACING WIRES:

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

4. FASTENERS AND WELDING:

- Sheet metal screws shall comply with ASTM C1513-10, ASME B18.6-4-89 (R2005). Penetration of screws through joined material shall not be less than three exposed threads.
- Expansion anchors shall be: As detailed on drawings.
- Power-Actuated Fasteners shall be: As detailed on drawings.
- If not otherwise specified in the evaluation report, power-actuated fasteners installed in steel shall be installed so the entire pointed end of the fastener is driven through the steel member.
- Power-actuated fasteners in concrete are not permitted for bracing wires.
- Concrete reinforcement and prestressing tendons shall be located by non-destructive means prior to installing post - installed anchor.
- Welding shall be in accordance with AWS D1.3 using E60XX series electrodes.

5. TESTING: All field testing must be performed in the presence of the project inspector.
1. Post-installed anchors in concrete used to support hanger wires shall be tested at a frequency of 10 percent. Power actuated fasteners in concrete shall be field tested for

200 lbs. in tension. All other post-installed anchors in concrete shall be tested in accordance with CBC Section 1913A.7.
2. Post-installed anchors in concrete used to attach bracing wires shall be tested at a frequency of 50 percent in accordance with CBC Section 1913A.7.

6. LIGHT FIXTURES:

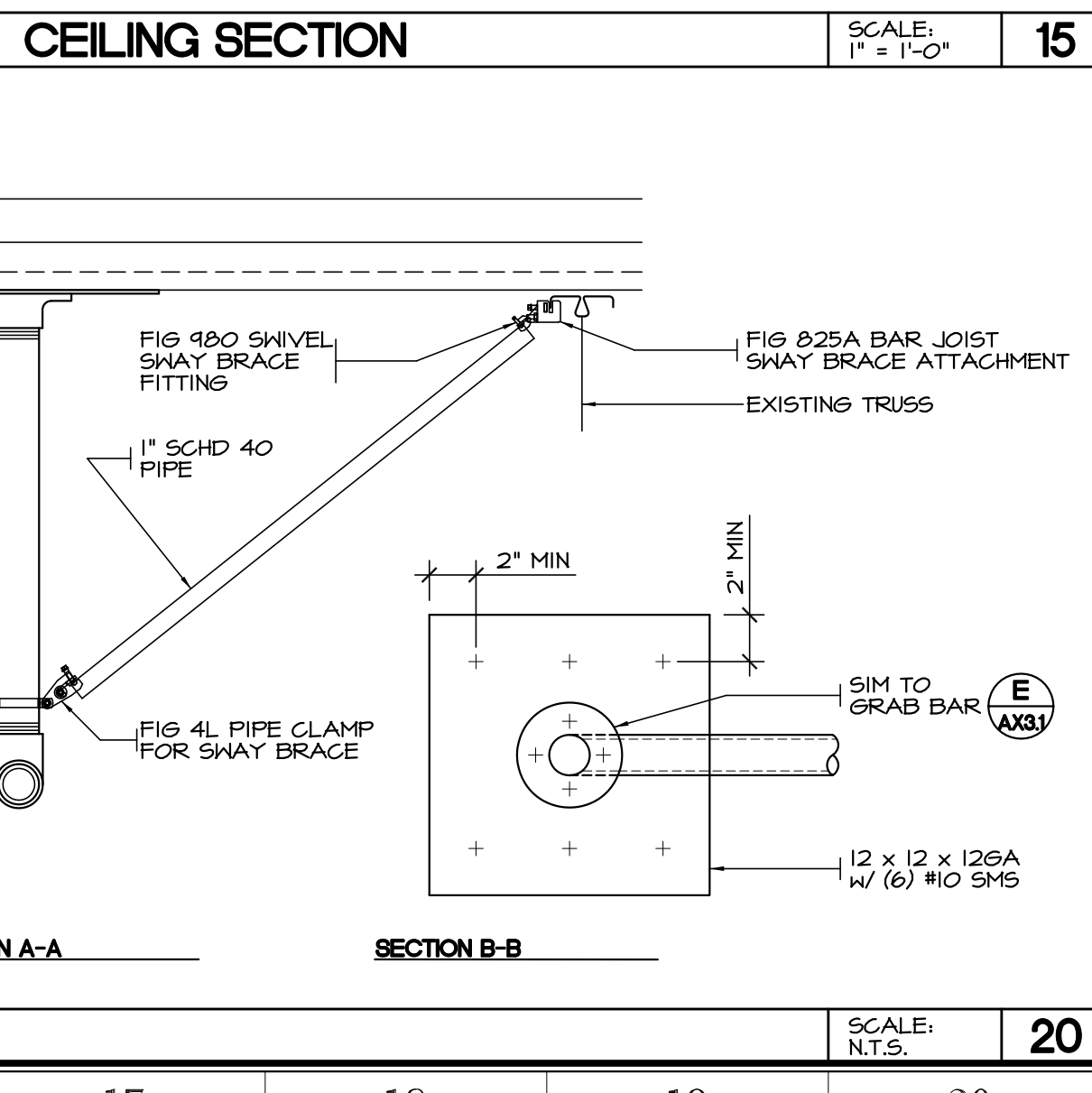
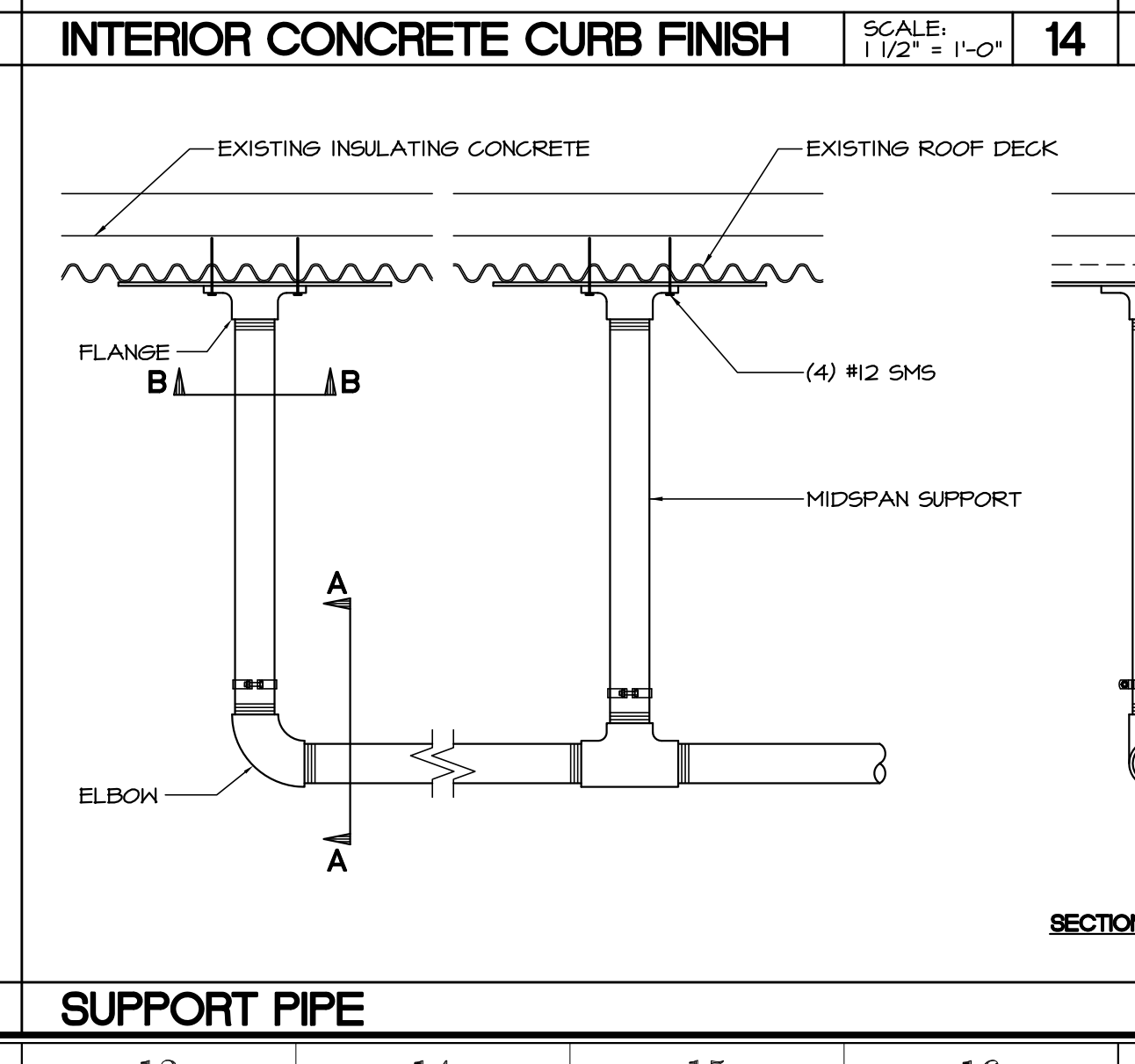
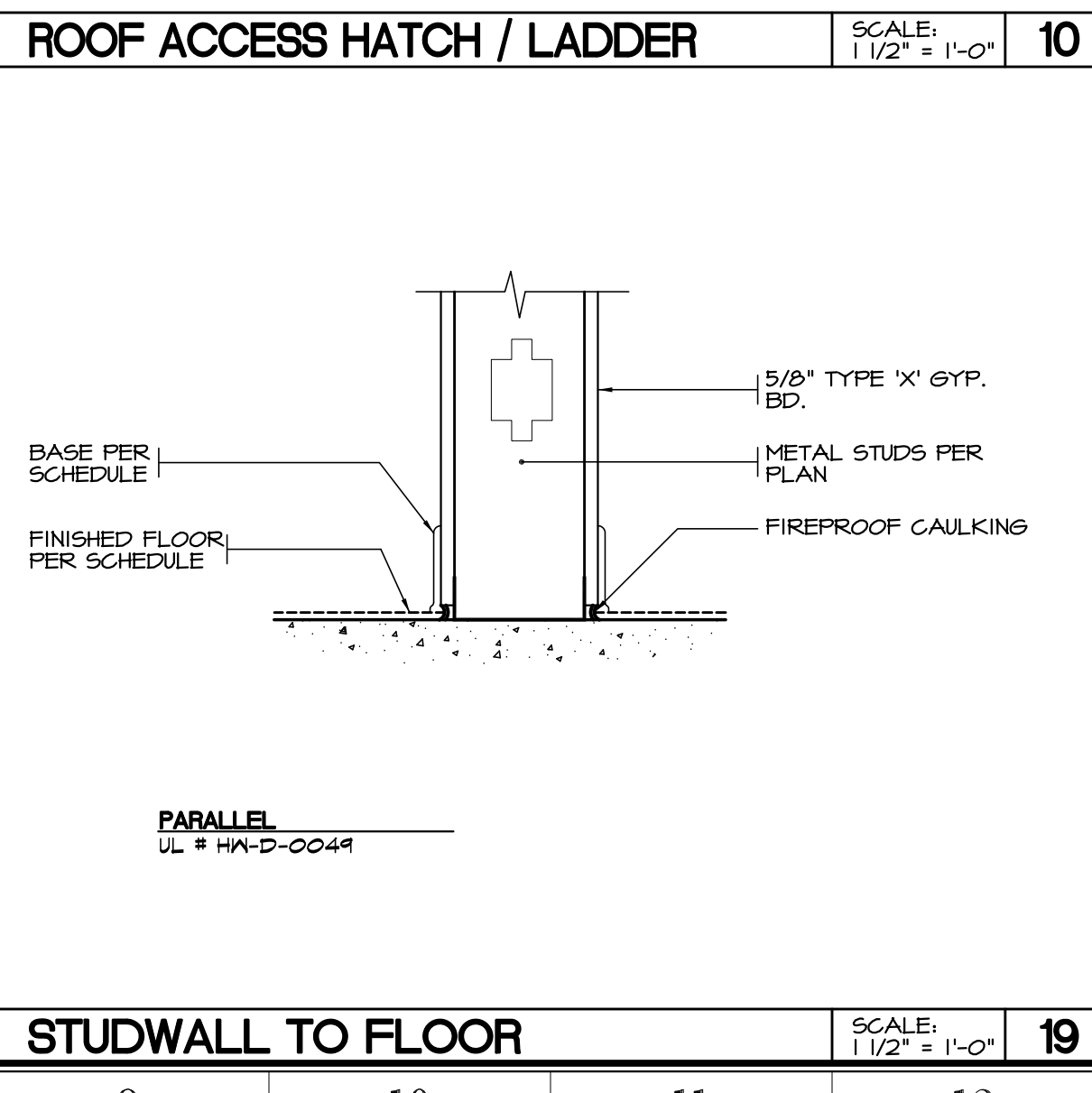
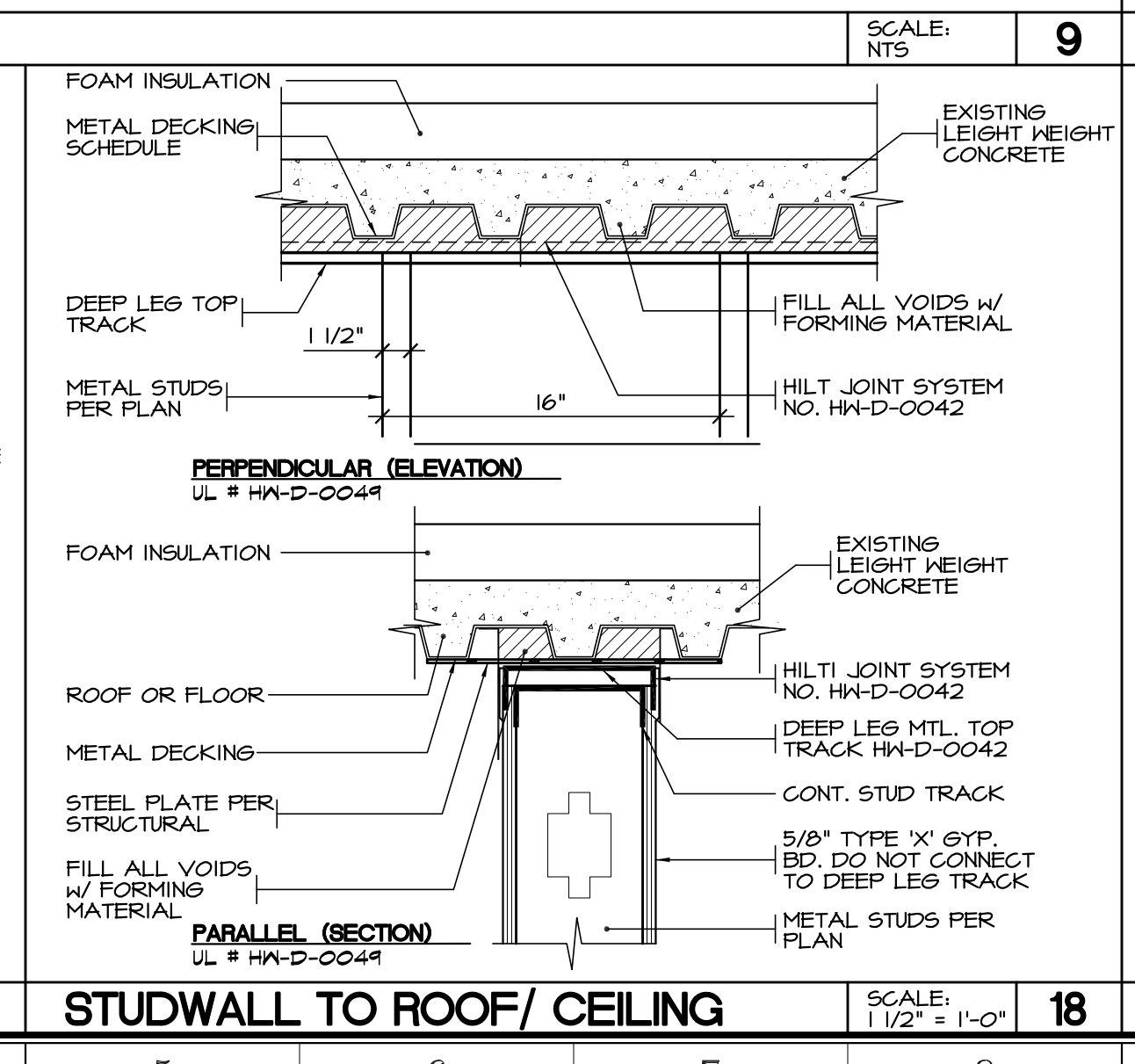
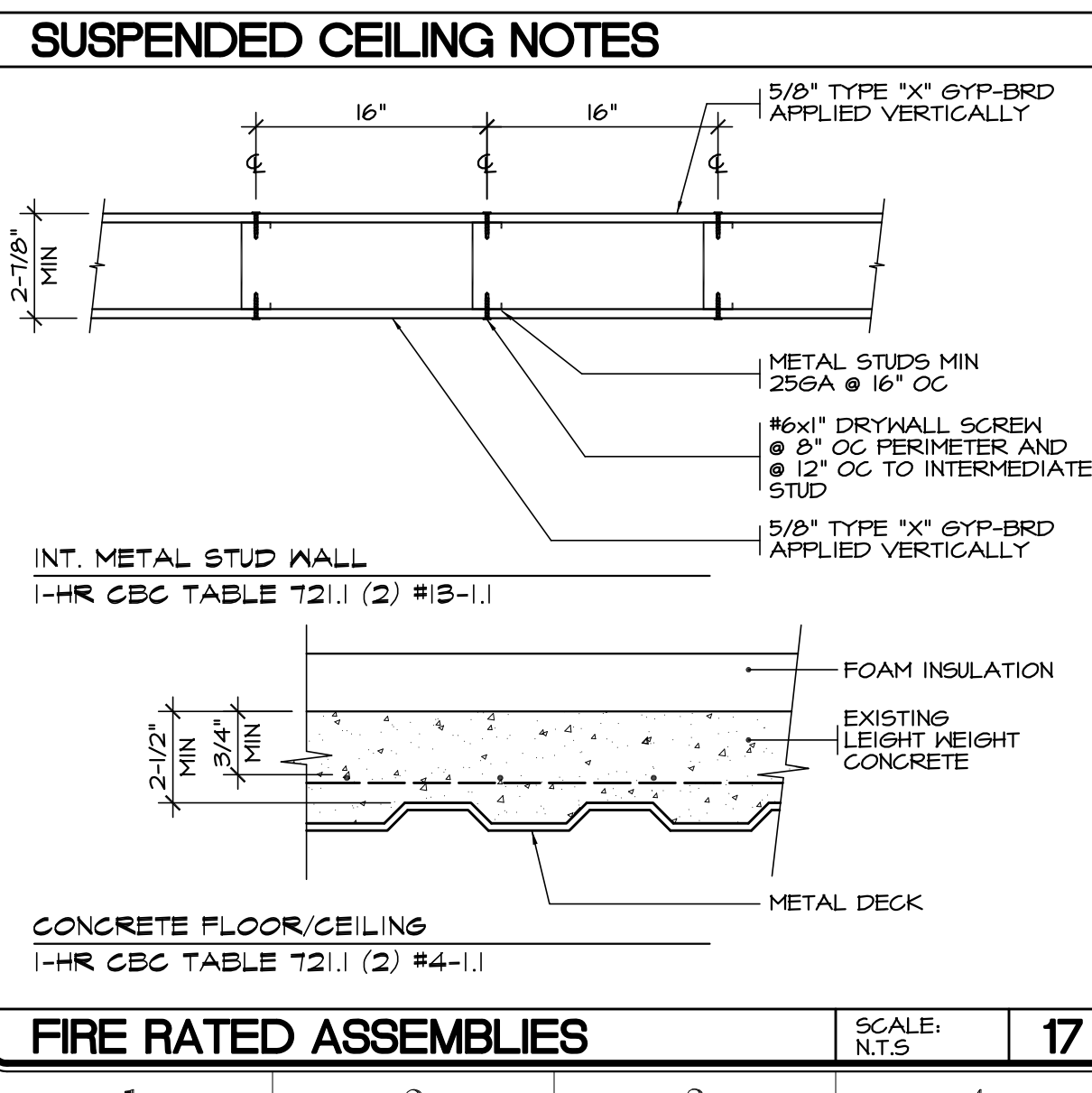
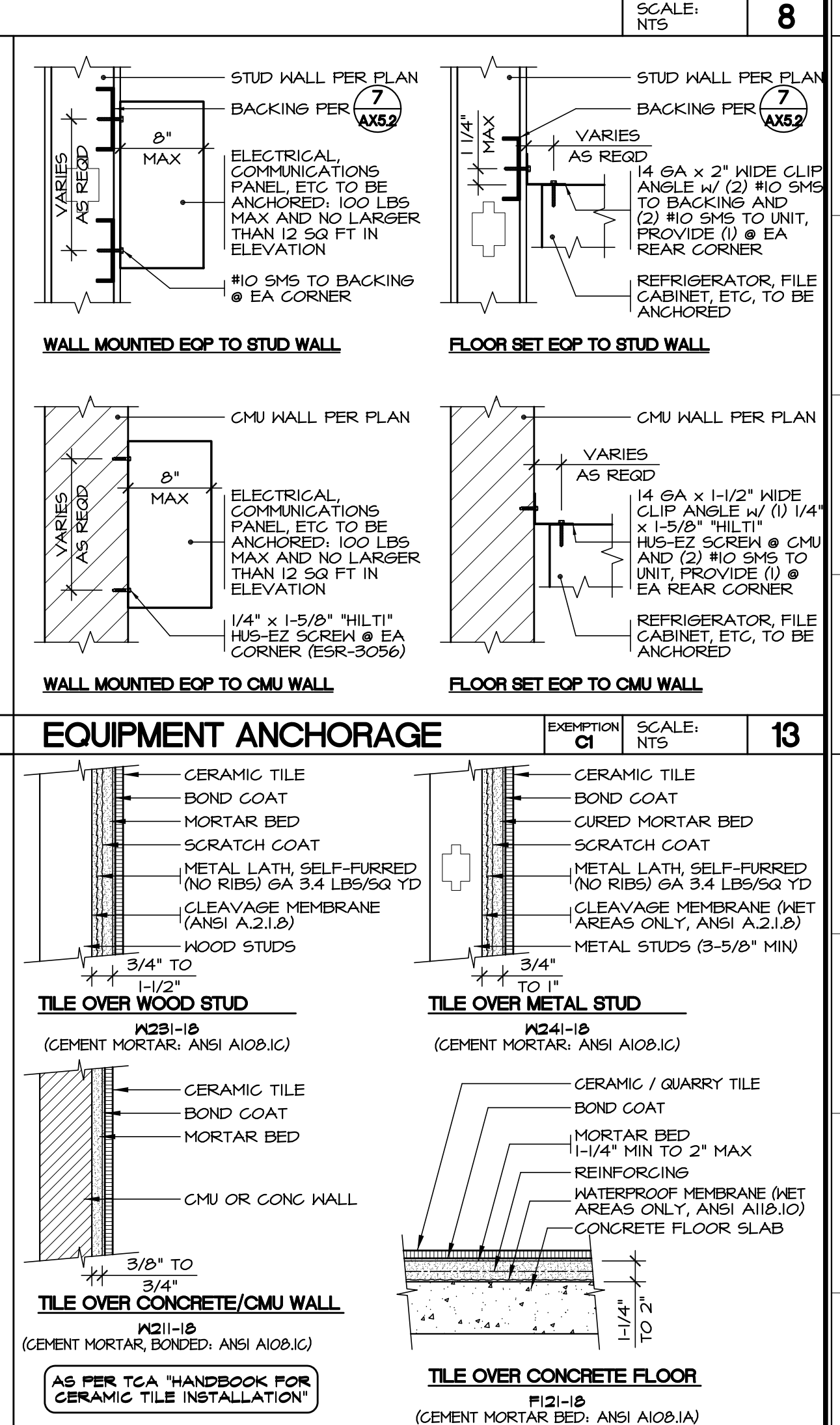
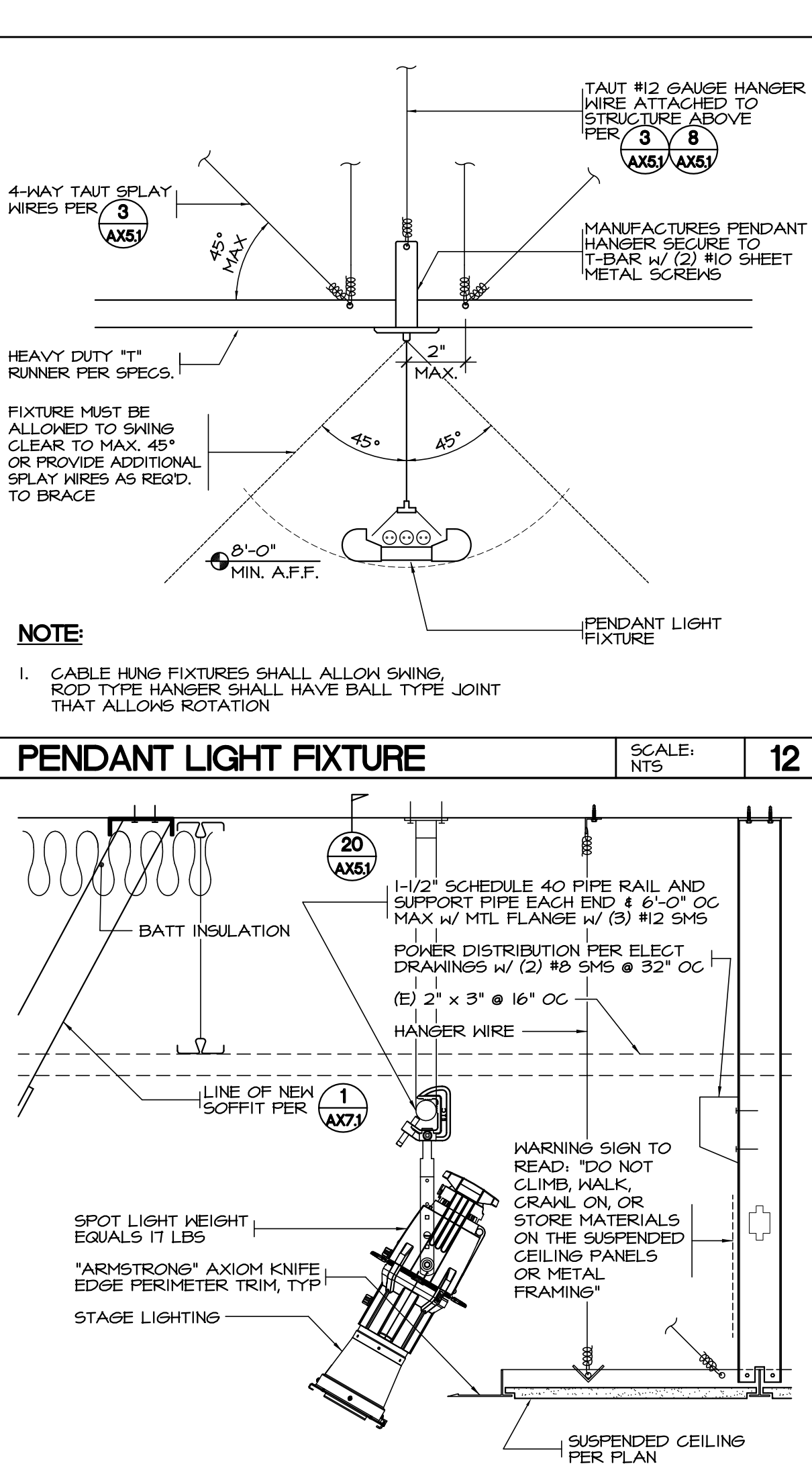
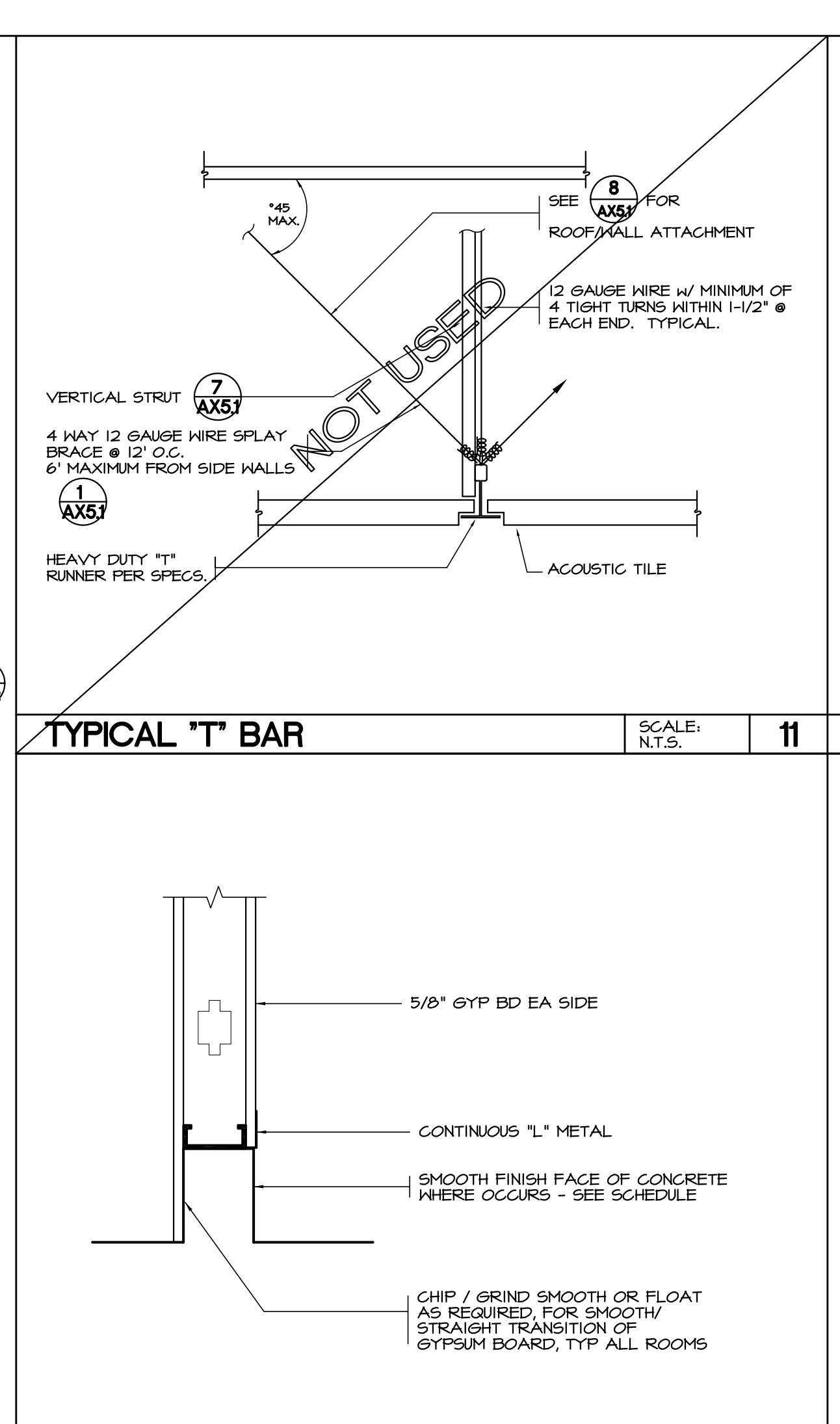
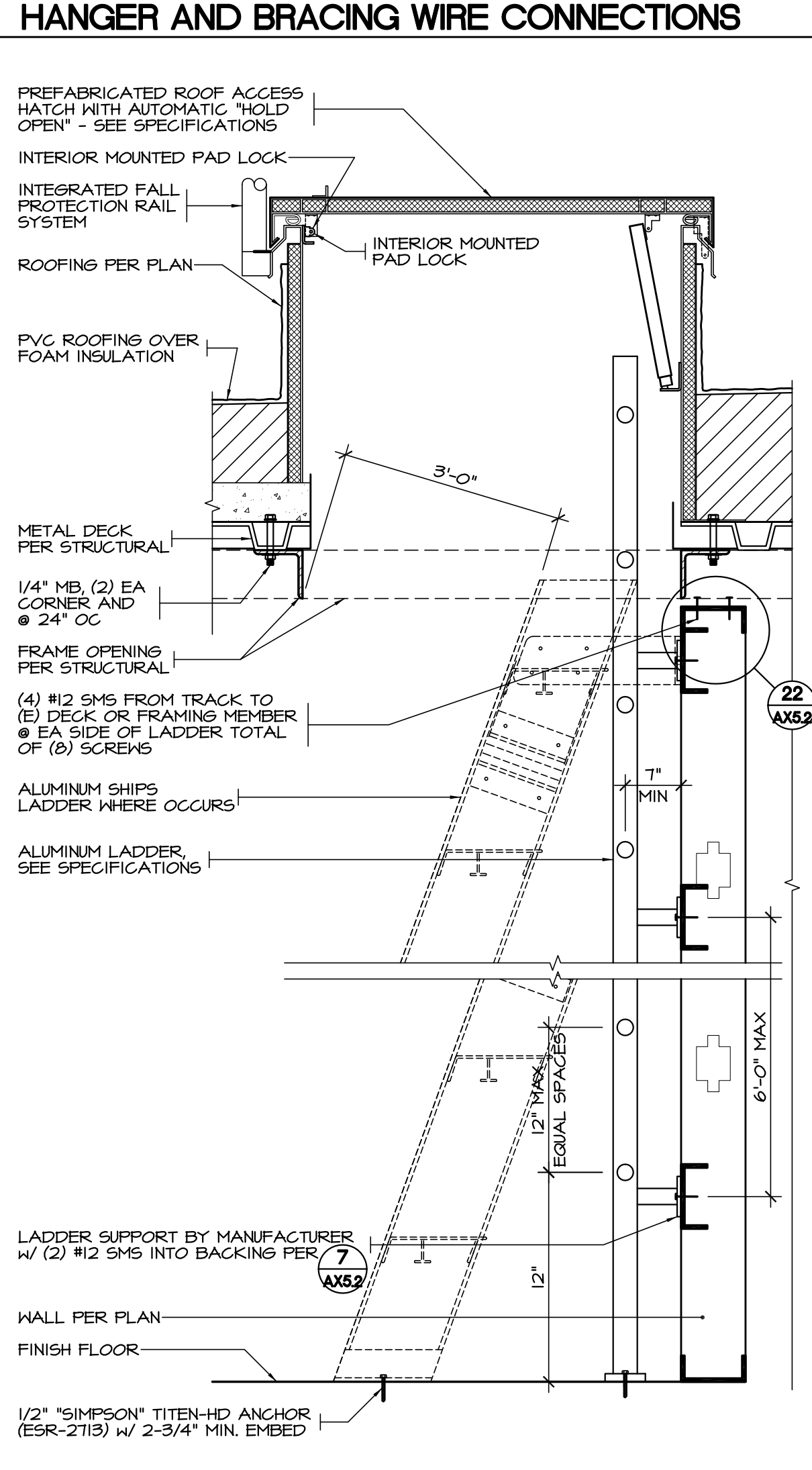
- All light fixtures shall be positively attached to the ceiling suspension systems by mechanical means to resist a horizontal force equal to the weight of the fixture. A minimum of two screws or approved fasteners are required at each light fixture, per ASTM E580, Section 5.3.1.
- Surface-mounted light fixtures shall be attached to the main runner with at least two positive clamping devices. The clamping devices shall completely surround the supporting runner and be made of steel with a minimum thickness of #14 gage. Rotational spring catches do not comply. A #12 gage slack safety wire shall be connected from each clamping device to the structure above. Provide additional supports when light fixtures are eight (8) feet or longer or exceed 56 lb. Maximum spacing between supports shall not exceed eight (8) feet.
- Light fixtures weighing less than or equal to 10 lb. shall have a minimum of one (1) #12 gage slack safety wire connected from the fixture housing to the structure above.
- Light fixtures weighing less than or equal to 10 lb. shall have a minimum of one (1) #12 gage slack safety wire connected from the fixture housing to the structure above.
- Light fixtures weighing greater than 10 lb. but less than or equal to 56 lbs. may be supported directly on the ceiling runners, but they shall have a minimum of two (2) #12 gage slack safety wires connected from the fixture housing at diagonal corners to the structure above. Exception: All light fixtures greater than two by four feet weighing less than 56 lbs. shall have a #12 gage slack safety wire at each corner.
- All light fixtures weighing greater than 56 lb. shall be independently supported by not less than four (4) #12 gage slack safety wires (one at each corner) attached from the fixture housing to the structure above or other approved hangers. The four (4) #12 gage slack safety wires or other approved hangers, including their attachment to the structure above, shall be capable of supporting four (4) times the weight of the fixture.

7. SERVICES WITHIN THE CEILING:

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

8. OTHER DEVICES WITHIN THE CEILING:

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



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Project Title
**IMPERIAL VALLEY COLLEGE
BUILDING 200, 300 AND 800 MODERNIZATION**

Sheet Title
INTERIOR ARCHITECTURAL DETAILS

Document Date
10-18-19

Date Last Revised

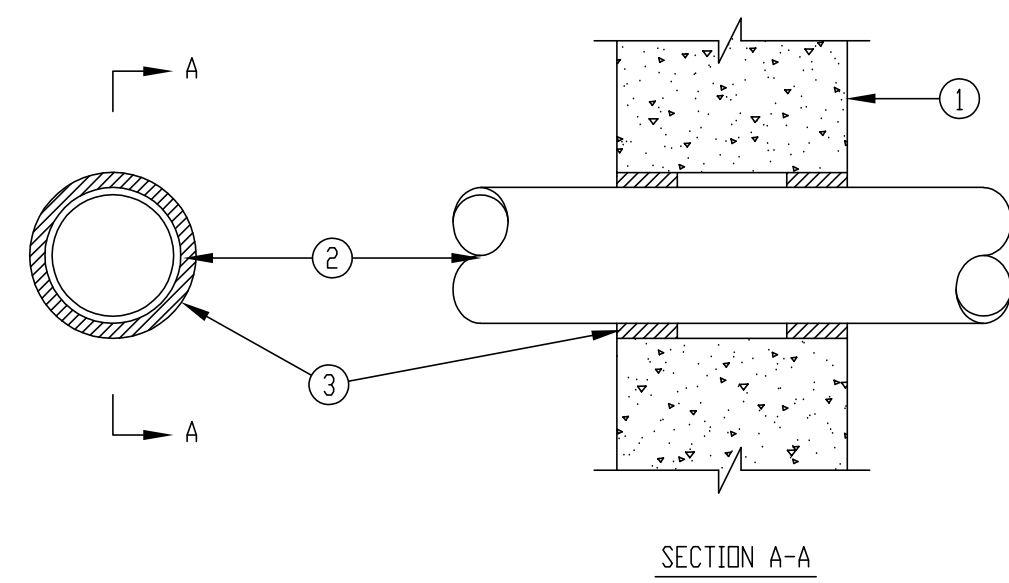
Project Number
19-121V

Sheet Number
AX5.1

LICENSED ARCHITECT
SANDERS, INC.
STATE OF CALIFORNIA

METAL PIPES OR CONDUIT

System No. W-J-1042
F Rating - 4 Hr
T Rating - 0 Hr



1. Wall Assembly - Min 7-5/8 in. thick wall assembly constructed of any UL Classified Concrete Blocks* Min 4 hr fire rated wall. Max diam of opening is 13-5/8 in. See Concrete Blocks (CAZT) category in the Fire Resistance Directory for names of manufacturers.

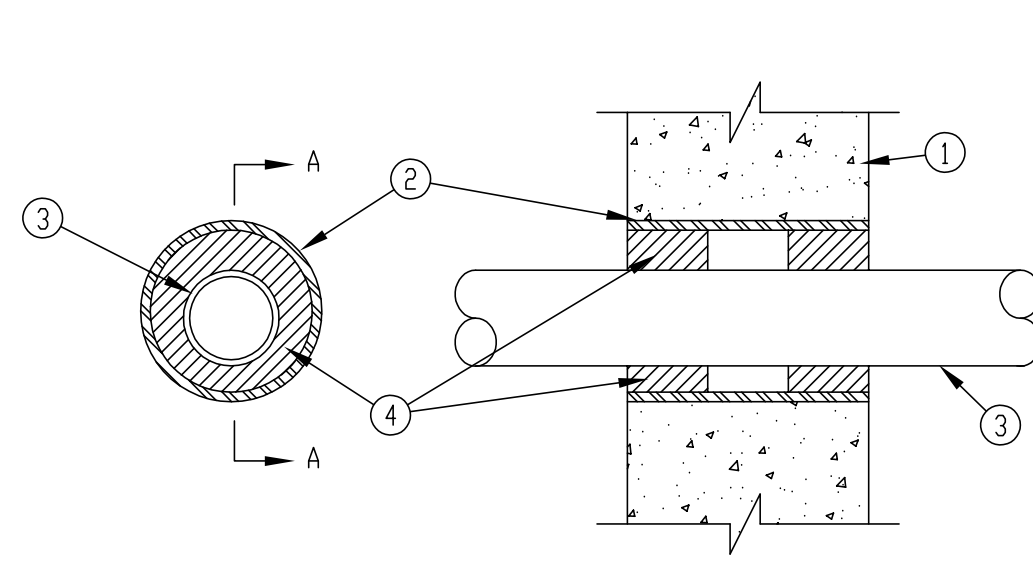
2. Through Penetrants - One metallic pipe, conduit or tubing to be installed concentrically within the firestop system. Pipe, conduit or tubing to be rigidly supported on both sides of wall assembly. The annular space between pipe, conduit or tubing and the periphery of the opening shall be min 3/8 in. to 1/2 in. maximum. The following types and sizes of metallic pipes, conduits or tubing may be used:
 - A. Steel Pipe - Nom 12 in. diam (or smaller) Schedule 10 (or heavier) steel pipe.
 - B. Conduit - Nom 4 in. diam (or smaller) steel electrical metallic tubing or 6 in. diam steel conduit.
 - C. Copper Tubing - Nom 6 in. diam (or smaller) Type L (or heavier) copper tubing.
 - D. Copper Pipe - Nom 6 in. diam (or smaller) Regular (or heavier) copper pipe.

3. Fill, Void or Cavity Material* - Sealant - Min 2 in. thickness applied within annulus, flush with both surfaces of wall.
 - A. Polyvinyl Chloride (PVC) Pipe - Nom 2 in. diam (or smaller) Schedule 40 (or heavier) pipe for use in closed (process or supply) piping systems.
 - B. Chlorinated Polyvinyl Chloride (CPVC) Pipe - Nom 2 in. diam (or smaller) SDR17 CPVC pipe for use in closed (process or supply) piping systems.

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HLI, INC. - FS-One Sealant
*Bearing the UL Classification Marking

SINGLE NON-METALLIC PIPE OR CONDUIT

System No. W-J-2057
F Rating - 4 Hr
T Rating - 2 Hr



1. Wall Assembly - Min 7-1/2 in. thick reinforced lightweight or normal weight (100-150 pcf) concrete. Wall may also be constructed of any UL Classified Concrete Blocks* Max diam of opening is 4 in. See Concrete Blocks (CAZT) category in the Fire Resistance Directory for names of manufacturers.

2. Steel Sleeve - Nom 4 in. diam (or smaller) Schedule 40 (or heavier) steel pipe sleeve inserted in nom 4 in. diam circular opening core drilled through wall. Length of steel sleeve to be equal to thickness of wall.

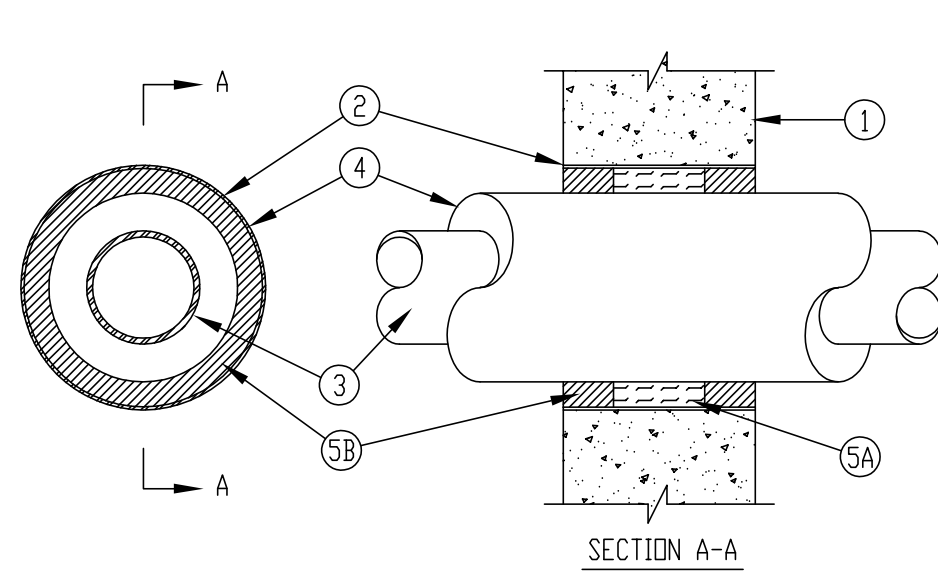
3. Through Penetrants - One nonmetallic pipe to be installed either concentrically or eccentrically within the firestop system. The annular space between pipe and the periphery of opening shall be min 1/2 in. to maximum 1 in. The following types and sizes of nonmetallic pipes may be used:
 - A. Polyvinyl Chloride (PVC) Pipe - Nom 2 in. diam (or smaller) Schedule 40 (or heavier) pipe for use in closed (process or supply) piping systems.
 - B. Chlorinated Polyvinyl Chloride (CPVC) Pipe - Nom 2 in. diam (or smaller) SDR17 CPVC pipe for use in closed (process or supply) piping systems.

4. Fill, Void or Cavity Material* - Sealant - Min 2 in. thickness of fill material applied within the annulus, flush with both surfaces of wall.

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*Bearing the UL Classification Marking

SINGLE INSULATED PIPES

System No. W-J-5028
F Rating - 4 Hr
T Rating - 1-1/2 Hr



1. Wall Assembly - Min 7-5/8 in. thick wall assembly constructed of any UL Classified Concrete Blocks* Min 4 hr fire rated wall. Max diam of opening is 18-1/2 in.

2. Steel Sleeve - Cylindrical sleeve fabricated from min 0.035 in. thick (No. 20 gauge) galv steel sheet steel and having a min 2 in. lap along the longitudinal seam. Length of sleeve to be equal to thickness of wall. Sleeve to be installed by coating the sheet metal to a diam smaller than the through opening, inserting the coil through the openings and releasing the coil to let it uncoil against the circular cutouts in the concrete blocks.

3. Through Penetrants - One metallic pipe, conduit or tubing to be installed concentrically within the firestop system. Pipe, conduit or tubing to be rigidly supported on both sides of the wall assembly. The following types and sizes of metallic pipes, conduits or tubing may be used:
 - A. Steel Pipe - Nom 12 in. diam (or smaller) Schedule 10 (or heavier) steel pipe.
 - B. Conduit - Nom 4 in. diam (or smaller) steel electric metallic tubing or 6 in. diam steel conduit.
 - C. Copper Tubing - Nom 6 in. diam (or smaller) Type L (or heavier) copper tubing.
 - D. Copper Pipe - Nom 6 in. diam (or smaller) Regular (or heavier) copper pipe.

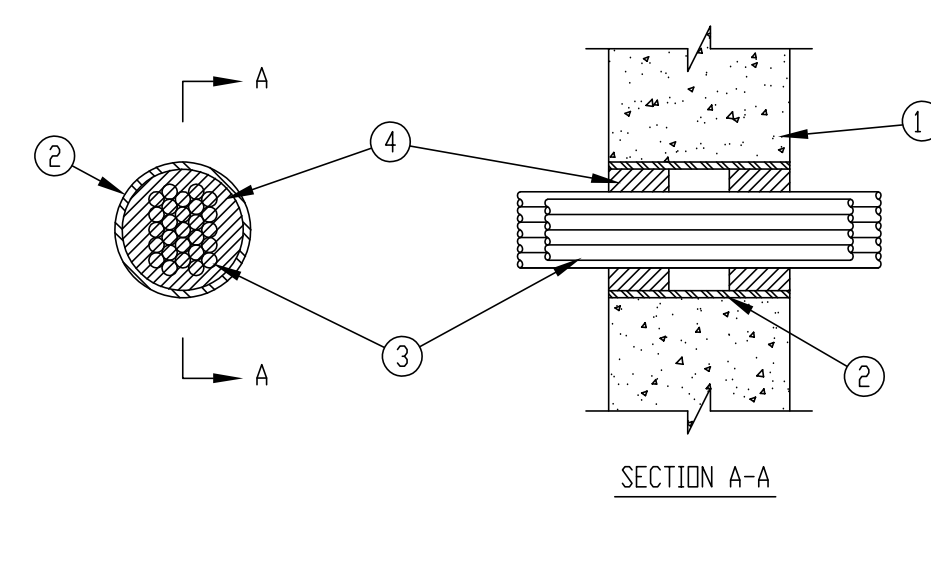
4. Fill, Void or Cavity Material* - Sealant - Min 2 in. thickness of fill material applied within the annulus, flush with both surfaces of wall.
 - A. Polyvinyl Chloride (PVC) Pipe - Nom 2 in. diam (or smaller) Schedule 40 (or heavier) pipe for use in closed (process or supply) piping systems.
 - B. Chlorinated Polyvinyl Chloride (CPVC) Pipe - Nom 2 in. diam (or smaller) SDR17 CPVC pipe for use in closed (process or supply) piping systems.

5. Firestop System - The fire stop system shall consist of the following:
 - A. Packing Material - Min 3-5/8 in. thickness of min 4 pcf mineral wool batt insulation firmly packed into the opening as a permanent form. Packing material to be recessed from both surfaces of wall as required to accommodate the required thickness of fill material.
 - B. Fill, Void or Cavity Material* - Sealant - Min 2 in. thickness applied within the steel sleeve, flush with both surface of wall.

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*Bearing the UL Classification Marking

SINGLE OR BUNDLED CABLES

System No. W-J-3050
F Rating - 4 Hr
T Rating - 1 Hr



1. Wall Assembly - Min 7-1/2 in. thick reinforced lightweight or normal weight (100-150 pcf) concrete. Wall may also be constructed of any UL Classified Concrete Blocks* Max diam of opening is 4 in. See Concrete Blocks (CAZT) category in the Fire Resistance Directory for names of manufacturers.

2. Steel Sleeve - Nom 4 in. diam (or smaller) Schedule 40 (or heavier) steel pipe sleeve friction fit in nom 4 in. diam circular opening core drilled through wall. Length of steel sleeve to be equal to thickness of wall.

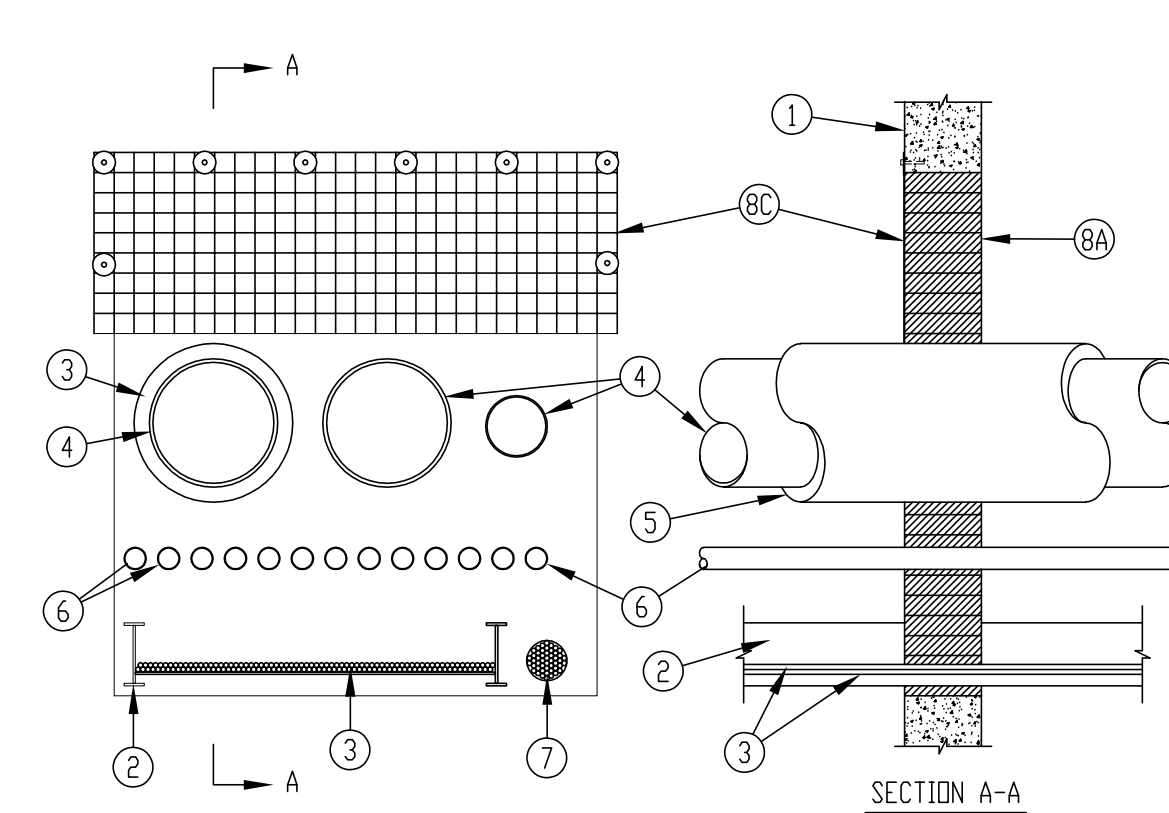
3. Cables - Aggregate cross-sectional area of cables in opening to be max 33 percent of the cross-sectional area of the opening. Cables installed either concentrically or eccentrically within the firestop system. The annular space between cables and periphery of opening shall be min 1/4 in. to max 1 in. Cables to be rigidly supported on both sides of wall assembly. The following types and sizes of cables may be used:
 - A. 7/8 (with ground) No. 12 AWG cable with PVC insulation and outer jacket.
 - B. Max 20 pair No. 24 AWG (and smaller) copper conductor telephone cable with PVC insulation, with PVC jacket.
 - C. Max #209/U (or smaller) coaxial cable with fluorinated ethylene insulation and jacketing.
 - D. 3/8 (with ground) No. 10 AWG bare copper ground metal clad cable with a PVC jacket.
 - E. Multiple 24 fiber-optical communication cables jacketed with polyvinyl chloride and having a max outside diam of 1/2 in.

4. Fill, Void or Cavity Material* - Sealant - Min 2 in. thickness of fill material applied within annulus, flush with both surfaces of wall.
 - A. 7/8 (with ground) No. 12 AWG cable with polyvinyl chloride (PVC) insulation and PVC jacket.
 - B. Max 20 pair No. 24 AWG (and smaller) copper conductor telephone cable with PVC insulation, with PVC jacket.
 - C. Max #209/U (or smaller) coaxial cable with fluorinated ethylene insulation and jacketing.
 - D. 3/8 (with ground) No. 10 AWG bare copper ground metal clad cable with a PVC jacket.
 - E. Multiple 24 fiber-optical communication cables jacketed with polyvinyl chloride and having a max outside diam of 1/2 in.

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MIXED PENETRANTS

System No. W-J-8007
F Rating - 4 Hr
T Rating - 0 Hr



1. Wall Assembly - Min 7-5/8 in. thick wall assembly constructed of any UL Classified Concrete Blocks* Min 4 hr fire rated wall. Max area of opening is 2498 sq. in. with max dimension of 52 in. See Concrete Blocks (CAZT) category in the Fire Resistance Directory for names of manufacturers.

2. Cable Tray* - Max 36 in. wide by 6 in. deep open-ladder cable tray with channel-shaped side rails formed of 0.067 in. thick aluminum and with 1-1/2 in. wide by 3/4 in. deep channel-shaped rungs spaced 10 in. OC. One cable tray to be installed in the opening. The annular space between adjacent penetrating items shall be min 2 in. and 4-1/2 in. max. The max annular space between the periphery of the opening shall be min 1 in. to 2 in. max. Cable tray to be rigidly supported on both sides of wall assembly.

3. Cables - Aggregate cross-sectional area of cables in cable tray to be max 40 percent of the cross-sectional area of the cable tray based on a max 6 in. cable loading depth within the cable tray. Any combination of the following types and sizes of cables may be used:
 - A. 300 pair - No. 24 AWG telephone cable with polyvinyl chloride (PVC) insulation and PVC jacket.
 - B. 1/8 - 500 Kernl with thermoplastic insulation and nylon jacket.
 - C. 24 fiber optic cable with polyvinyl chloride (PVC) outer and subunit jacket.
 - D. 7/8 No. 12 AWG cable with polyvinyl chloride (PVC) insulation and PVC jacket.

4. Through Penetrants - A max of three pipes, conduit or tubing to be installed within the opening. The space between pipes, conduits or tubing shall be 1-1/2 in. min to 4-3/4 in. max and between the periphery of the opening and the pipes or conduits shall be min 3 in. to max 4-1/4 in. Pipe, conduit or tubing to be rigidly supported on both sides of the wall assembly. The following types and sizes of metallic pipes, conduits or tubing may be used:
 - A. Steel Pipe - Nom 12 in. diam (or smaller) Schedule 10 (or heavier) steel pipe.
 - B. Iron Pipe - Nom 12 in. diam (or smaller) cast or ductile iron pipe.
 - C. Conduit - Nom 4 in. diam (or smaller) steel electrical metallic tubing or 6 in. diam steel conduit.
 - D. Copper Tubing - Nom 6 in. diam (or smaller) Type L (or heavier) copper tubing.
 - E. Copper Pipe - Nom 6 in. diam (or smaller) Regular (or heavier) copper pipe.

5. Fill, Void or Cavity Material* - Sealant - Min 2 in. thickness of fill material applied within the annulus, flush with both surfaces of wall.
 - A. Polyvinyl Chloride (PVC) Pipe - Nom 2 in. diam (or smaller) Schedule 40 (or heavier) pipe for use in closed (process or supply) piping systems.
 - B. Chlorinated Polyvinyl Chloride (CPVC) Pipe - Nom 2 in. diam (or smaller) SDR17 CPVC pipe for use in closed (process or supply) piping systems.

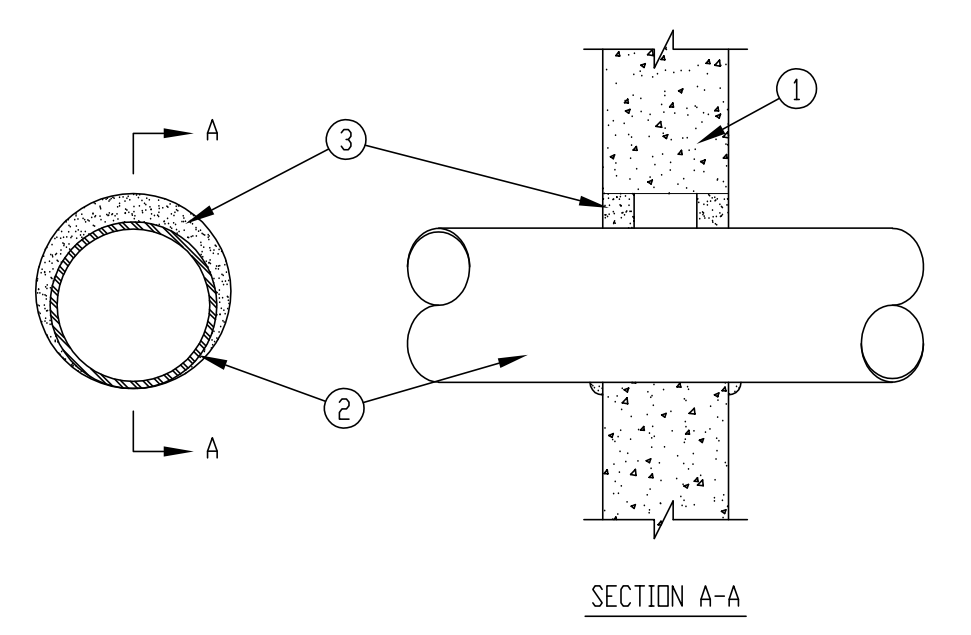
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SINGLE METAL PIPES OR CONDUIT

System No. W-J-1067
F Ratings - 1 and 2 Hr (See Items 1 and 3)
T Rating - 0 Hr
L Rating at Ambient - Less Than 1 CFM/Sq Ft
L Rating at 400 F - 4 CFM/Sq Ft



1. Wall Assembly - Min 3-3/4 in. and 5 in. thick reinforced lightweight or normal weight (100-150 pcf) concrete for 1 and 2 h rated assemblies, respectively. Wall may also be constructed of any UL Classified Concrete Blocks* Max diam of opening is 32-1/4 in. See Concrete Blocks (CAZT) category in the Fire Resistance Directory for names of manufacturers.

2. Through Penetrants - One metallic pipe, conduit or tubing to be centered within the firestop system. The annular space shall be min 0 in. to max 2-1/4 in. Pipe may be installed with continuous point contact. Pipe, conduit or tube may be installed at an angle not greater than 45 degrees from perpendicular. Pipe, conduit or tubing to be rigidly supported on both sides of wall assembly. The following types and sizes of metallic pipes, conduits or tubing may be used:
 - A. Steel Pipe - Nom 30 in. diam (or smaller) Schedule 10 (or heavier) steel pipe.
 - B. Iron Pipe - Nom 30 in. diam (or smaller) cast or ductile iron pipe.
 - C. Conduit - Nom 4 in. diam (or smaller) steel electrical metallic tubing or 6 in. diam (or smaller) steel conduit.
 - D. Copper Tubing - Nom 6 in. diam (or smaller) Type L (or heavier) copper tubing.
 - E. Copper Pipe - Nom 6 in. diam (or smaller) Regular (or heavier) copper pipe.

3. Fill, Void or Cavity Material* - Sealant - Min 5/8 in. thickness of fill material applied within the annulus, flush with both surfaces of wall. At the point or continuous contact locations between pipe and wall, a min 1/2 in. diam bead of fill material shall be applied at the pipe-wall interface on both surfaces of wall.

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CMU WALL TROUGH PENETRATIONS

SCALE: NTS A

CMU WALL THROUGH PENETRATIONS

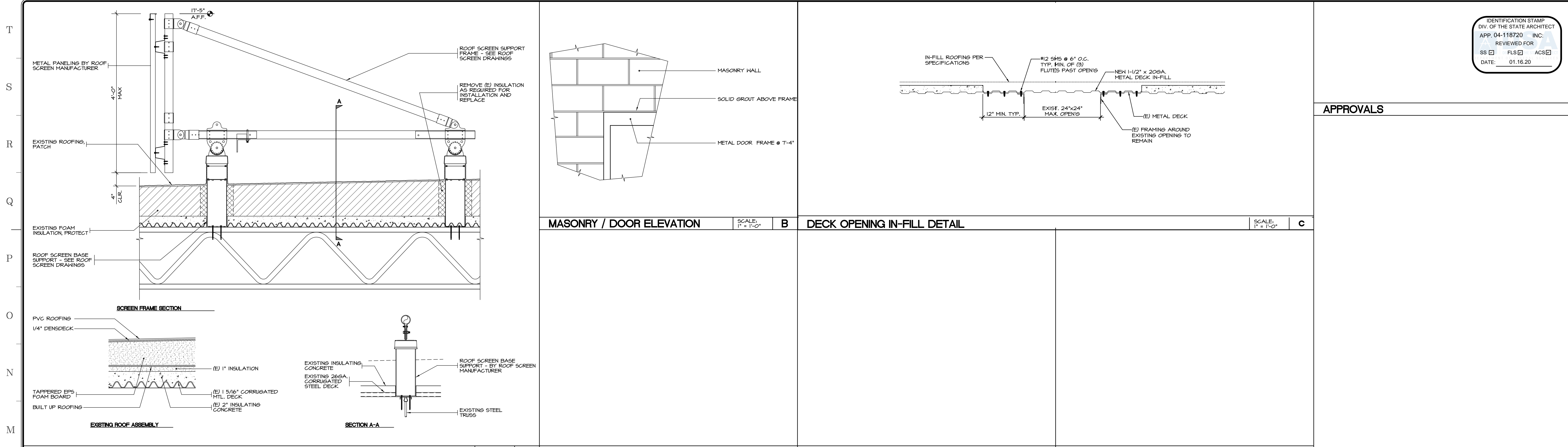
SCALE: NTS B

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Project Title
**IMPERIAL VALLEY COLLEGE
BUILDING 200, 300 AND 800 MODERNIZATION**

Sheet Title
THROUGH PENETRATION FIRE STOPS

	Document Date 10-18-19	Project Number 19-121V
	Date Last Revised	Sheet Number AX53



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ROOF SCREEN SCALE: N.T.S. **A**

MASONRY / DOOR ELEVATION SCALE: 1/4" = 1'-0" **B**

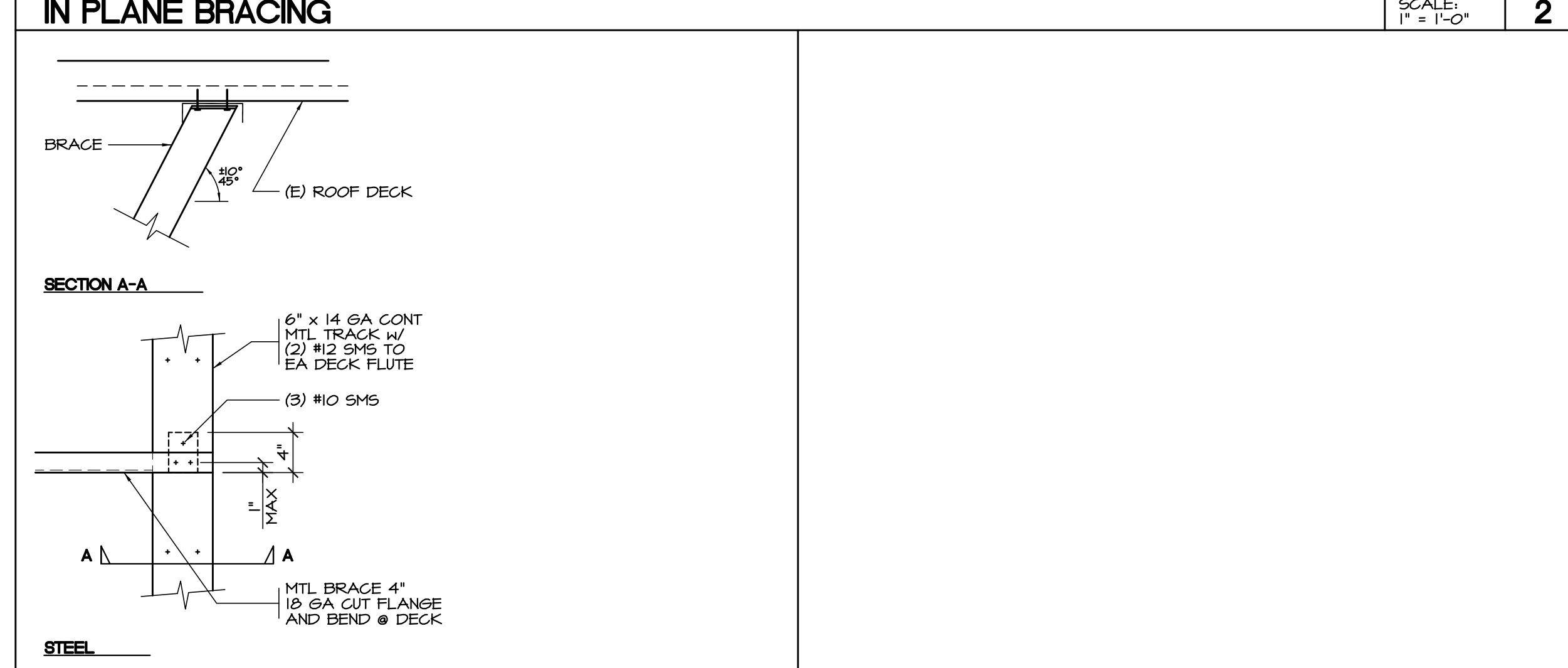
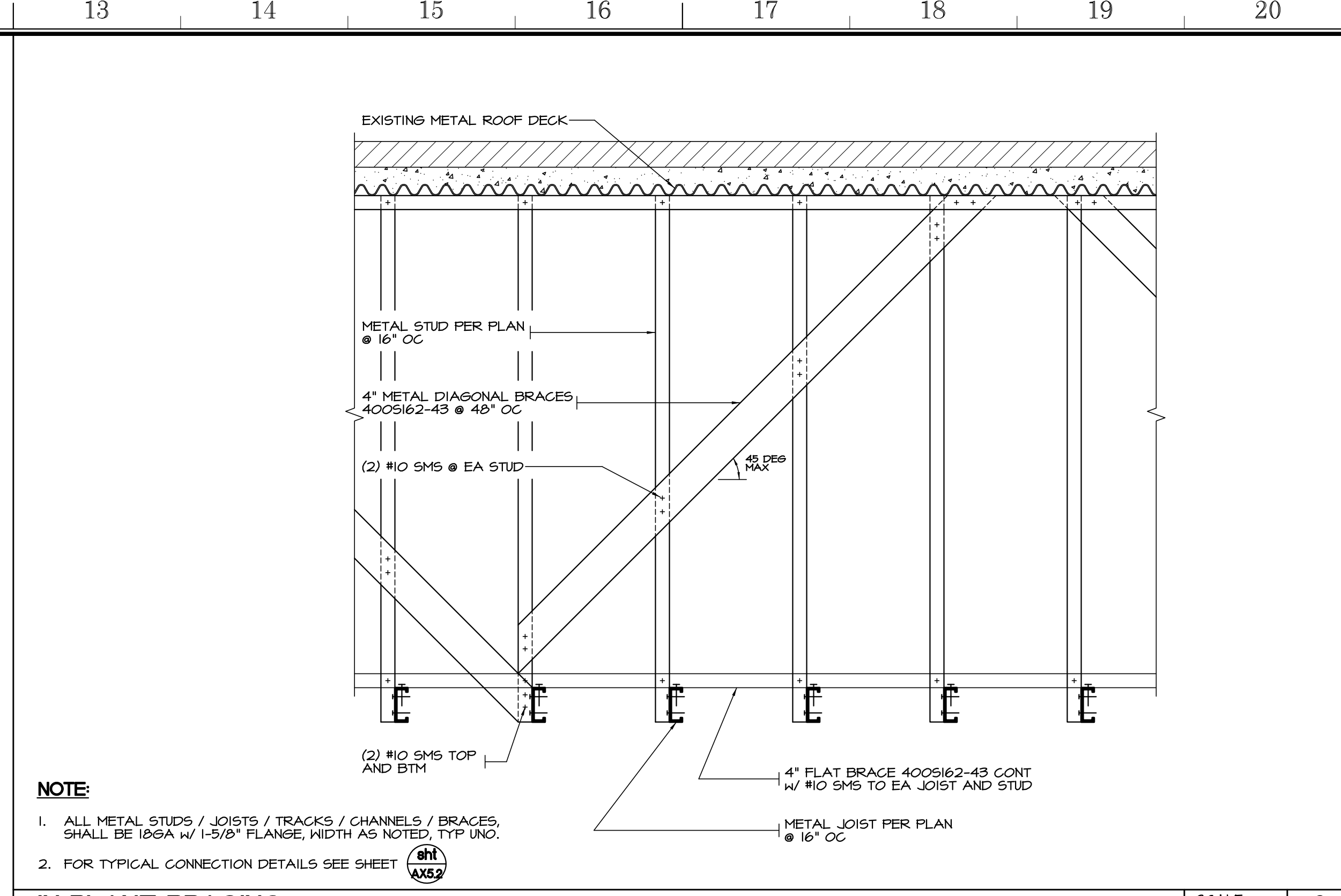
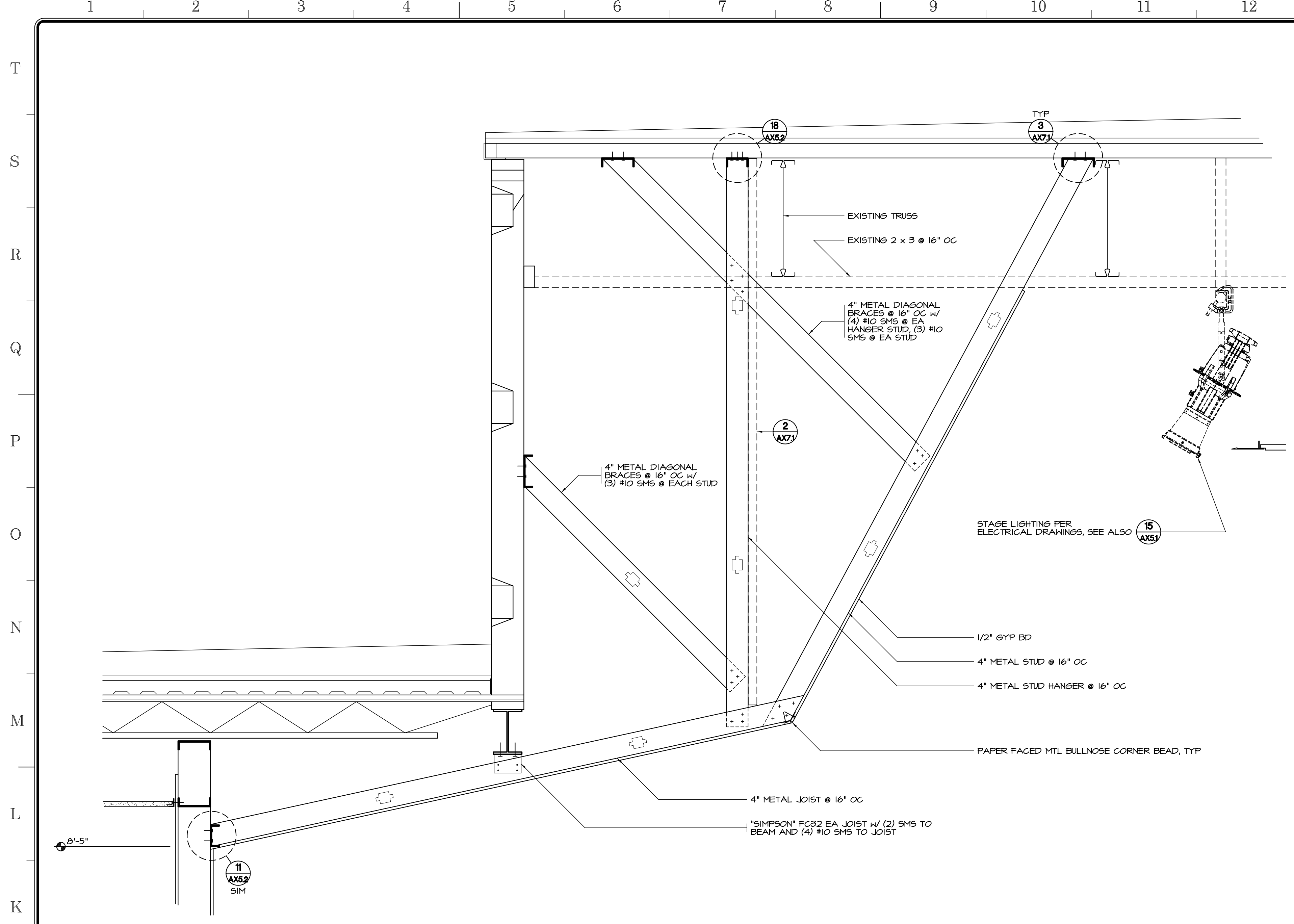
DECK OPENING IN-FILL DETAIL SCALE: 1/4" = 1'-0" **C**

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Project Title
**IMPERIAL VALLEY COLLEGE
 BUILDING 200, 300 AND 800 MODERNIZATION**

Sheet Title
EXTERIOR ARCHITECTURAL DETAILS

	Document Date 10-18-19	Project Number 19-121V
	Date Last Revised	Sheet Number AX6.1



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GENERAL NOTES:

- ALL METAL STUDS / JOISTS / TRACKS / CHANNELS / BRACES, SHALL BE 18GA W/ 1-5/8" FLANGE, (400S162-43, 400T162-43, 600S162-43, 600T162-43)
- FOR TYPICAL CONNECTION DETAILS SEE SHEET **(11 12 18 22)** **(AX59 AX62 AX69 AX72)**
- EDGE DISTANCE FOR #10 SMS AND SMALLER SHALL BE 0.5" MINIMUM, FOR #12 SMS SHALL BE 0.648" MINIMUM

NOTE:

- ALL METAL STUDS / JOISTS / TRACKS / CHANNELS / BRACES, SHALL BE 18GA W/ 1-5/8" FLANGE, WIDTH AS NOTED, TYP UNCL.
- FOR TYPICAL CONNECTION DETAILS SEE SHEET **(11 12 18 22)** **(AX59 AX62)**

IN PLANE BRACING SCALE: 1" = 1'-0" **2**

SOFFIT AT PLATFORM SCALE: 1" = 1'-0" **1** **TYPICAL DIAGONAL BRACE** SCALE: NTS **3**

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Project Title
**IMPERIAL VALLEY COLLEGE
 BUILDING 200, 300 AND 800 MODERNIZATION**

Sheet Title
ARCHITECTURAL SOFFIT DETAILS

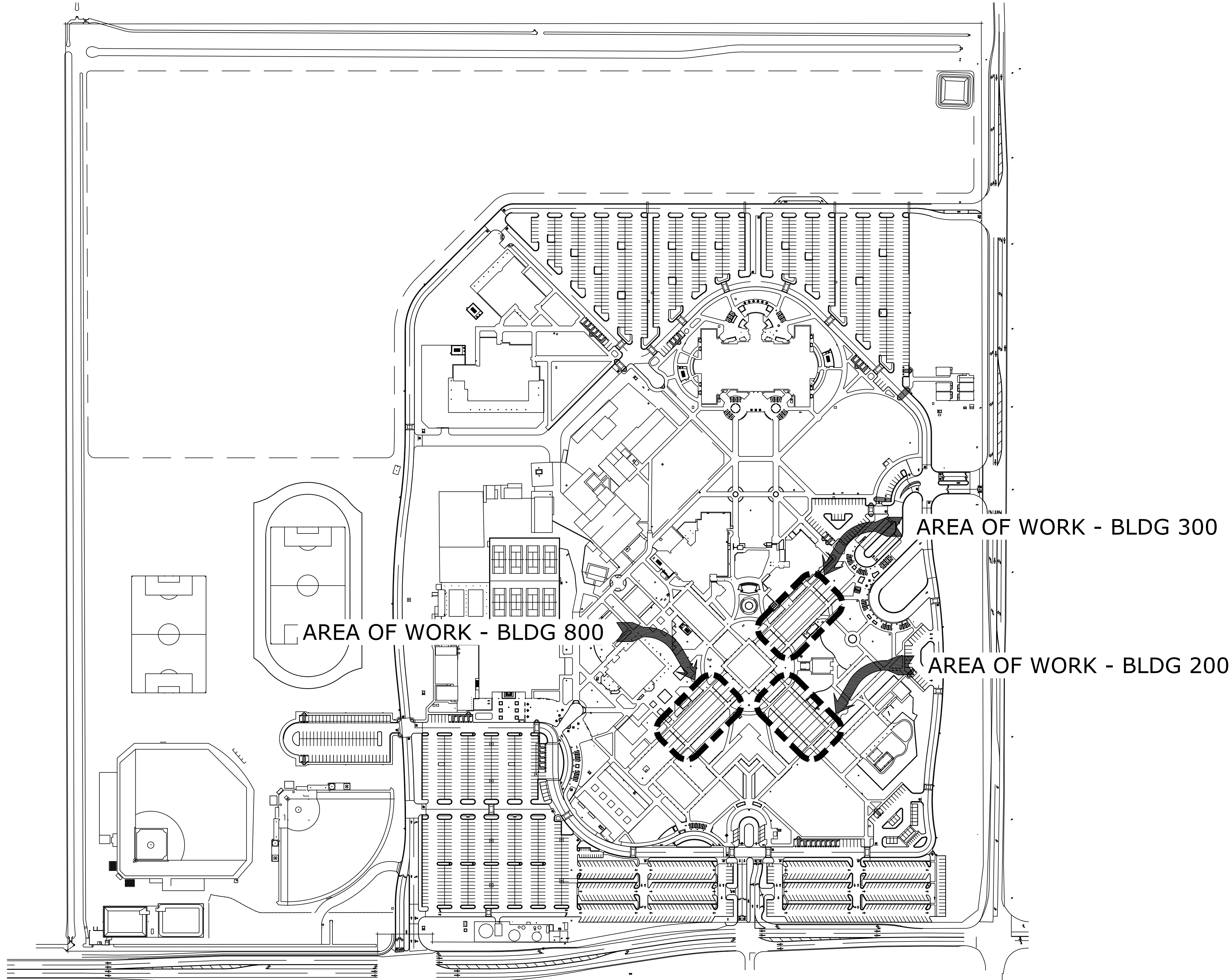
	Document Date 01-07-20	Project Number 19-121V
	Date Last Revised	Sheet Number AX7.1

ROOFSCREEN CONSTRUCTION DOCUMENTS:

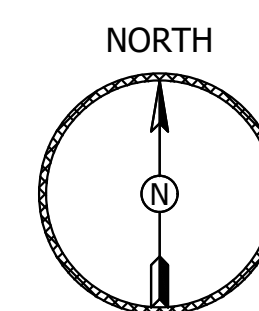
IMPERIAL VALLEY COLLEGE

BLDGS 200, 300 & 800

CONSTRUCTION DOCUMENT DATED: 01/13/20
 LOCATION: 380 EAST ATEN RD.
 IMPERIAL, CA 92251



SITE PLAN
 SCALE: NTS



CODE ANALYSIS

ALL WORK SHALL COMPLY WITH THE 2016 CALIFORNIA BUILDING CODE (CBC)
 RISK CATEGORY: (ASCE 7, TABLE 1-1) II
 WIND DESIGN CRITERIA: (IBC FIG 1609) 110 MPH
 WIND SPEED: (IBC FIG 1609) C
 WIND EXPOSURE: (IBC 1609.4.3)

MATERIAL SPECIFICATIONS

STRUCTURAL STEEL & MISCELLANEOUS IRON:
 ROUND TUBING: GALVANIZED 16 GA ASTM A500 GRADE B, MIN Fy = 40 KSI
 PROPRIETARY PARTS: GALVANIZED 11 GA ASTM A500 GRADE C, MIN Fy = 50 KSI
 POLYESTER POLYURETHANE POWDER COATED
 ASTM A1008-CS TYPE A, Fy = 34 KSI
 BASE SUPPORT BASE PLATE, ASTM A36, Fy = 36 KSI
 STAINLESS STEEL AISI TYPE 304, Fy = 31.2 KSI
 #6X3 TB, Fu = 30 KSI
 ASTM F593C/G (AISI 18-8)
 AISI 18-8
 WELDING ELECTRODES E70XX
 SELF DRILLING SELF TAPPING SCREWS ITW BUILDEX W/ CLIMASEAL (ESR 1976) OR APPROVED EQUAL

SHEET INDEX

SHEET	CONTENTS
RS-0	CODE ANALYSIS, SITE PLAN, SHEET INDEX, AREA MAP, VICINITY MAP, SCOPE OF WORK
RS-1	ROOFSCREEN PLAN - BLDG 200
RS-2	ROOFSCREEN PLAN - BLDG 300
RS-3	ROOFSCREEN PLAN - BLDG 800
RS-4	ROOFSCREEN FRAME DETAILS & SPECIFICATIONS
RS-5	ROOFSCREEN PART/ASSEMBLY DETAILS
RS-6	ROOFSCREEN PART/ASSEMBLY DETAILS



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Project Title
IMPERIAL VALLEY COLLEGE
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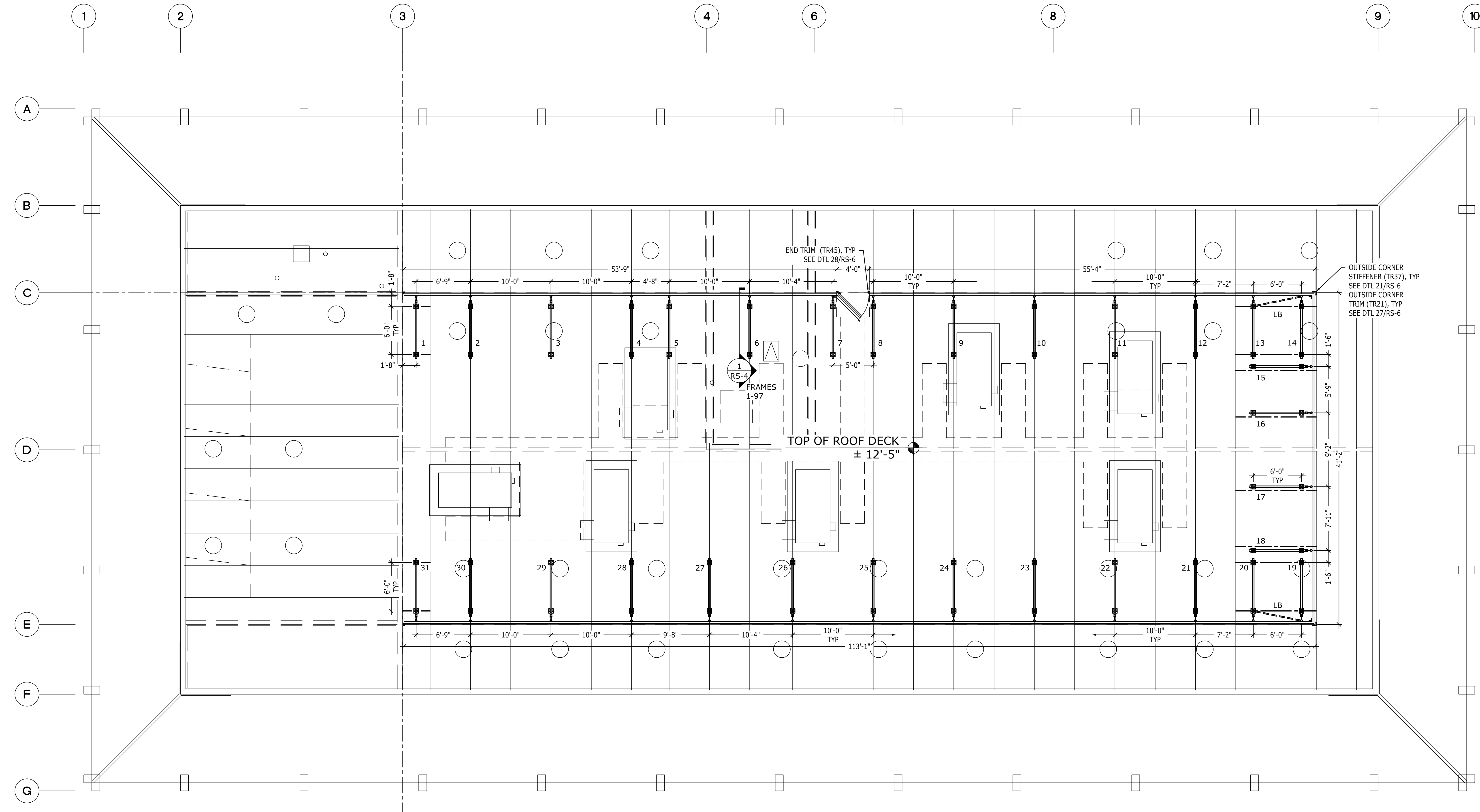
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ROOF SCREEN COVER SHEET

	Document Date	Project Number
	10-18-19	19-12IV
	Date Last Revised	Sheet Number
		RS-0



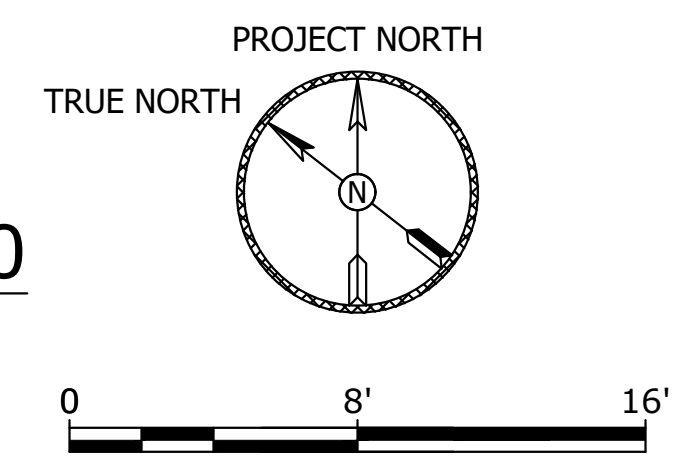
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NOTES:
 1. THE ACCURACY OF THE DATA USED TO CREATE THIS LAYOUT HAS NOT BEEN FIELD VERIFIED. THE AS-BUILT LOCATIONS OF ROOF FRAMING MEMBERS AND MECHANICAL EQUIPMENT SHALL BE FIELD VERIFIED. ALL DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO PROCEEDING WITH WORK.
 2. NOTIFY THE ENGINEER IF FIELD VERIFIED DIMENSIONS VARY MORE THAN ±3".

ROOFSCREEN PLAN - BLDG 200
 SCALE: 3/16" = 1'



- LEGEND
- # ROOFSCREEN FRAME W/ FRAME #
 - LB LATERAL BRACE (DTL 17/RS-6)
OFFSET ON PLAN FOR CLARITY ONLY
ARROW INDICATES DOWN SLOPE
 - PANELS AND HAT CHANNEL (H13) AND SPLICE (H14) AS REQUIRED (DTL 18/RS-6)
 - BLOCKING BY OTHERS UNDER CENTER LINE OF BASE SUPPORT.
OFFSET ON PLAN FOR CLARITY ONLY

Sanders, INC.
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**IMPERIAL VALLEY COLLEGE
 BUILDING 200, 300, AND 800 MODERNIZATION**

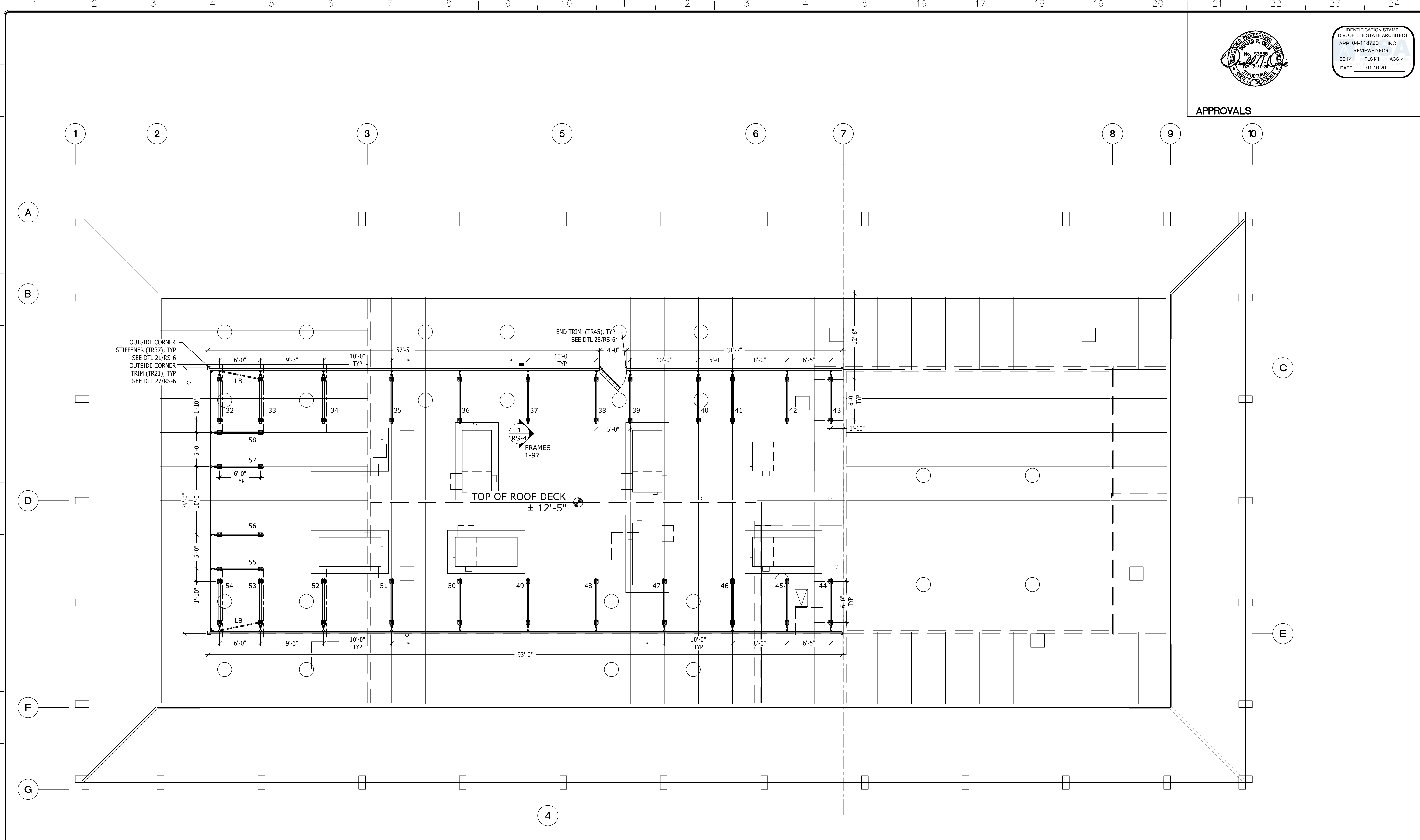
Sheet Title
ROOF SCREEN PLAN - BLDG 200

	Document Date	Project Number
	10-18-19	19-12IV
	Date Last Revised	Sheet Number
		RS-1



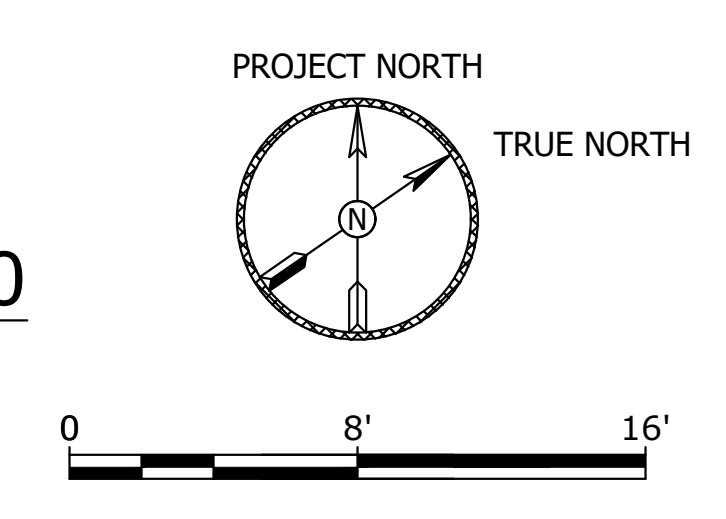
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 APP. 04-118720 INC.
 REVIEWED FOR
 SS FLS ACS
 DATE: 01.16.20

APPROVALS



NOTES:
 1. THE ACCURACY OF THE DATA USED TO CREATE THIS LAYOUT HAS NOT BEEN FIELD VERIFIED. THE AS-BUILT LOCATIONS OF ROOF FRAMING MEMBERS AND MECHANICAL EQUIPMENT SHALL BE FIELD VERIFIED. ALL DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO PROCEEDING WITH WORK.
 2. NOTIFY THE ENGINEER IF FIELD VERIFIED DIMENSIONS VARY MORE THAN ±3\"/>

ROOFSCREEN PLAN - BLDG 300
 SCALE: 3/16" = 1'



LEGEND

	#	ROOFSCREEN FRAME W/ FRAME #
	LB	LATERAL BRACE (DTL 17/RS-6) OFFSET ON PLAN FOR CLARITY ONLY ARROW INDICATES DOWN SLOPE
		PANELS AND HAT CHANNEL (H13) AND SPLICE (H14) AS REQUIRED (DTL 18/RS-6)
		BLOCKING BY OTHERS UNDER CENTER LINE OF BASE SUPPORT. OFFSET ON PLAN FOR CLARITY ONLY

Sanders, INC.
 Architecture/Engineering
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 EL CENTRO, CA 92243
 760 353 5440 FAX 760 353 5442

Project Title
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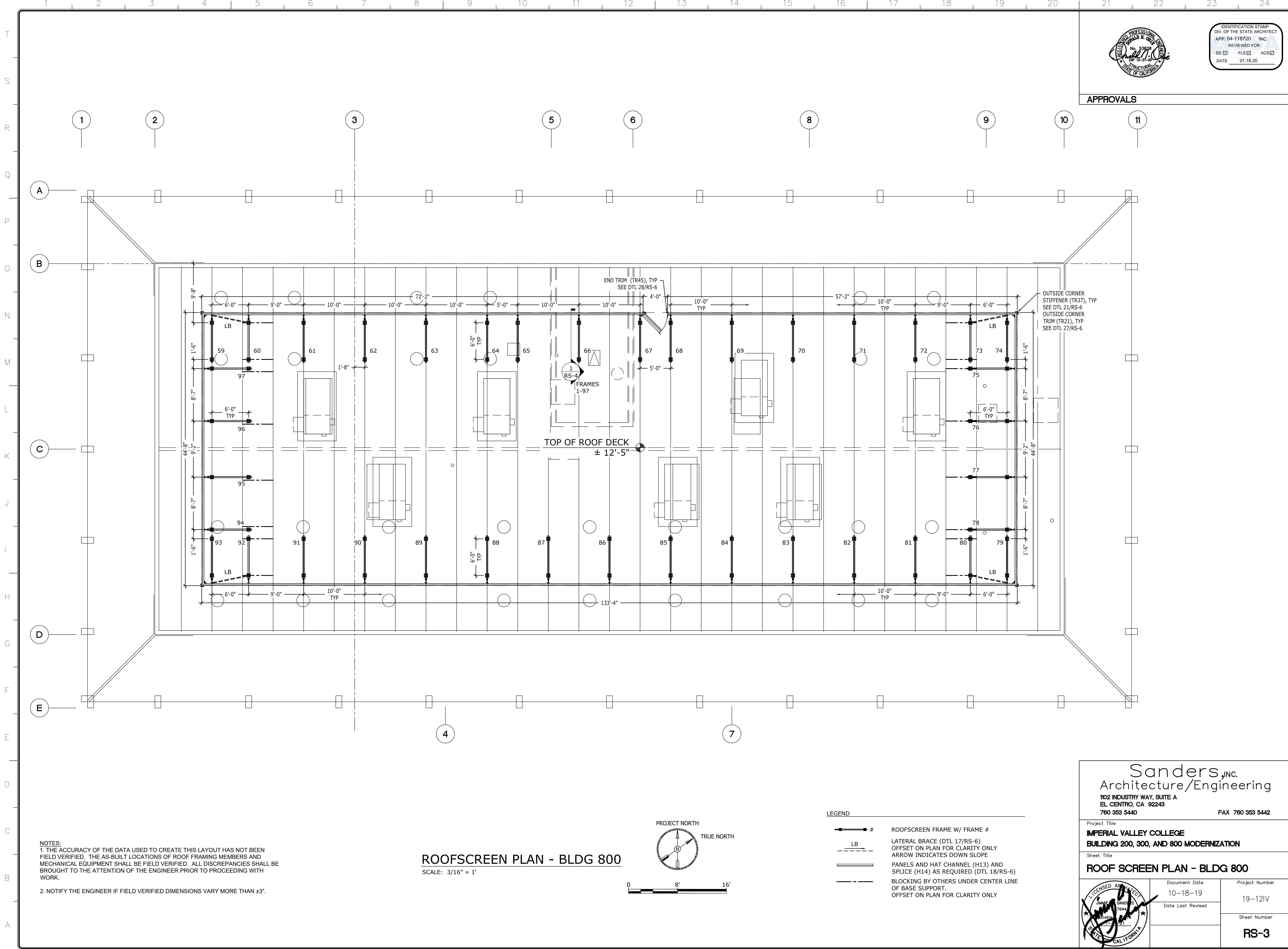
Sheet Title
ROOF SCREEN PLAN - BLDG 300

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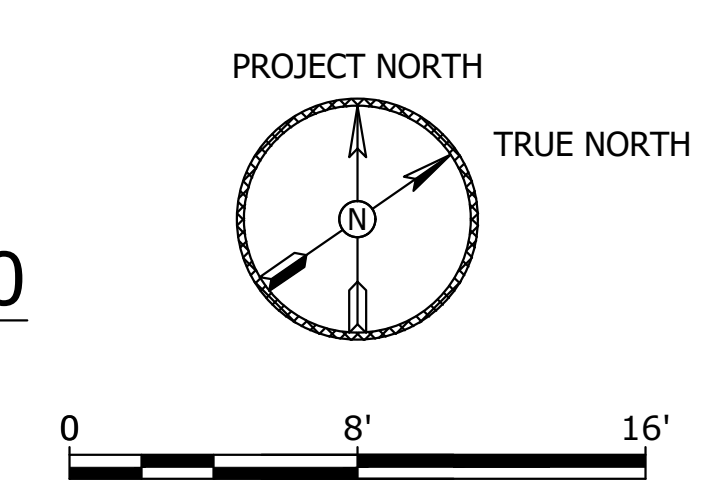
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 2. NOTIFY THE ENGINEER IF FIELD VERIFIED DIMENSIONS VARY MORE THAN ±3\"/>

ROOFSCREEN PLAN - BLDG 800
 SCALE: 3/16" = 1'



- LEGEND
- # ROOFSCREEN FRAME W/ FRAME #
 - LB LATERAL BRACE (DTL 17/RS-6) OFFSET ON PLAN FOR CLARITY ONLY ARROW INDICATES DOWN SLOPE
 - PANELS AND HAT CHANNEL (H13) AND SPLICE (H14) AS REQUIRED (DTL 18/RS-6)
 - BLOCKING BY OTHERS UNDER CENTER LINE OF BASE SUPPORT. OFFSET ON PLAN FOR CLARITY ONLY

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Sheet Title
ROOF SCREEN PLAN - BLDG 800

	Document Date	Project Number
	10-18-19	19-12IV
	Date Last Revised	Sheet Number
		RS-3



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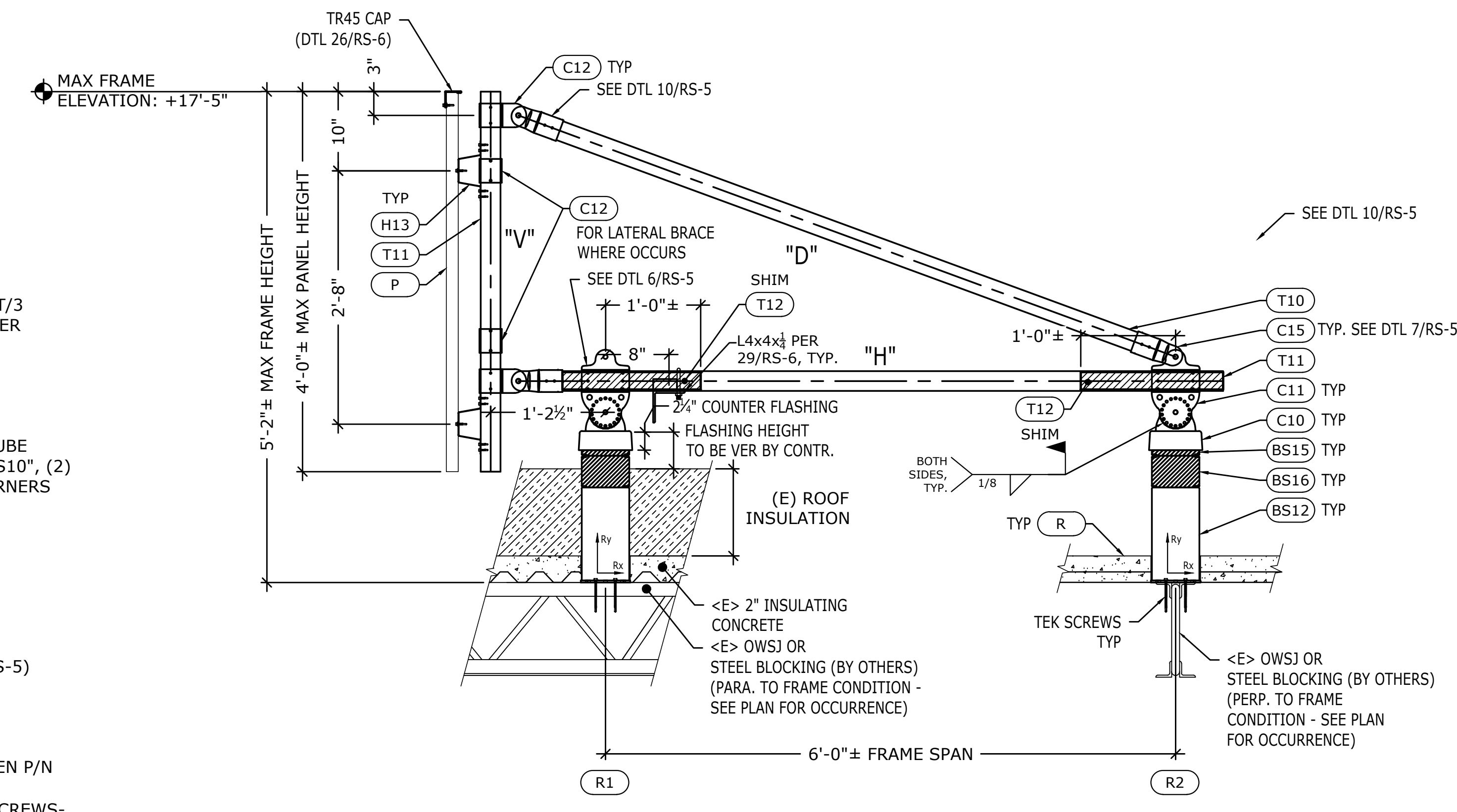
APPROVALS

ROOFSCREEN INSTALLATION NOTES:

- ALL WORK SHALL BE PERFORMED EXCLUSIVELY BY TRAINED COMPETENT PERSONNEL AND SHALL COMPLY WITH ALL APPLICABLE SAFETY LAWS, REGULATIONS, PROGRAMS AND PRACTICES TO ENSURE THE SAFETY OF ALL PEOPLE LOCATED ON THE WORK SITE.
- TOP OF SCREEN ELEVATION SHALL BE UNIFORM ALONG FULL LENGTH OF WALL AND SHALL NOT EXCEED MAX ELEVATION SHOWN.
- FRAME DIMENSIONS SHOWN ARE FOR THE TALLEST FRAME WHERE THE ROOF IS AT ITS LOWEST ELEVATION. FRAME TUBES WILL BE PRE-CUT AND DELIVERED TO THESE DIMENSIONS. FRAMES INSTALLED WHERE ROOF IS AT HIGHER ELEVATIONS MAY REQUIRE FIELD TRIMMING OF THE VERTICAL AND DIAGONAL TUBE LENGTHS TO KEEP TOP OF SCREEN ELEVATION LEVEL.
- LASER MEASURING IS RECOMMENDED PRIOR TO FIELD CUTTING.
- ENSURE BASE SUPPORTS ARE CENTERED ON EXISTING FRAMING OR BLOCKING.
- WHEN USING SELF-DRILLING TEK SCREWS TO FASTEN BASE SUPPORTS THROUGH METAL DECKING TO STEEL STRUCTURAL MEMBERS BELOW, IT IS NECESSARY TO DRILL A CLEARANCE HOLE, LARGER THAN THE DIAMETER OF THE TEK SCREW, IN THE HIGH FLUTE OF THE METAL DECKING TO ALLOW THE SCREW TO SPIN AT THE PROPER SPEED TO DRILL INTO THE STEEL BELOW. IT IS NOT NECESSARY OR RECOMMENDED TO DRILL A PILOT HOLE IN THE STEEL MEMBER.
- DO NOT OVER TORQUE THREAD CUTTING SCREWS IN THE ROTOLOCK CONNECTION. FASTENER IS CORRECTLY INSTALLED WHEN SCREW REACHES THE SURFACE OF THE C11. OVER TORQUING WILL CAUSE SCREW HEAD TO SHEAR OFF.**
- TO REDUCE THE POSSIBILITY OF CONDENSATION, FILL BASE SUPPORTS WITH UNFACED BATT INSULATION (SUPPLIED BY OTHERS) DURING INSTALLATION.
- STAINLESS STEEL BOLT WITH SEALING WASHER, P/N B11 CONNECTING THE C10 BASE CAP TO THE BASE SUPPORT SHALL NOT BE RE-USED IF REMOVED AFTER TIGHTENING.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE WATER-TIGHTNESS OF THE EXISTING ROOF DECK. FLASHING AND ROOFING OF BASE SUPPORTS SHALL BE PER ROOFING SYSTEM MANUFACTURER'S REQUIREMENTS. VERIFICATION OF COMPLIANCE WITH ROOF WARRANTY AND PRE-APPROVAL FROM ROOFING SYSTEM MANUFACTURER, IF REQUIRED, SHALL BE PERFORMED BY OTHERS.
- ROOF FLASHING BOOTS SHALL TERMINATE FLUSH WITH TOP OF BASE SUPPORTS WHEN POSSIBLE BUT NOT MORE THAN 1/2" BELOW.
- APPROPRIATE CARE SHALL BE TAKEN TO ELIMINATE THE POSSIBILITY OF DAMAGE TO EXISTING DECK AND ROOFING SYSTEM. CONSTRUCTION MATERIALS SHALL NOT BE STORED ON THE ROOF DECK UNLESS APPROPRIATE MEASURES ARE TAKEN TO PROTECT THE ROOF FROM DAMAGE.
- MANY OF THE FRAME CONNECTOR FITTINGS HAVE EXTRA SCREW HOLES. SEE ROOFSCREEN SPECIFICATIONS ON THIS SHEET FOR THE CORRECT NUMBER OF SCREWS PER FITTING.
- AFTER ROOFSCREEN PANELS ARE INSTALLED, ATTACH TRIM TO PANELS WITH COLOR-MATCHED SELF-DRILLING SCREWS AT 12" O.C. ALONG EACH LEG OF TRIM AT CORNERS AND ALONG SINGLE LEG AT ENDS, AND AT 3'-0" O.C. ALONG CAP TRIM PER DTL 26/RS-6.
- APPLY ANTI-SEIZING LUBRICANT TO ALL STAINLESS BOLTS DURING INSTALLATION TO PREVENT GALLING.
- AFTER INSTALLATION IS COMPLETE, DUST OFF AND REMOVE ALL METAL SHAVINGS FROM BASE CAPS AND FINISHED ROOF SURFACE TO PREVENT SURFACE RUST AND STAINING.
- TEK SCREWS ARE FULLY SEATED WHEN THE HEAD IS FLUSH WITH THE WORK SURFACE. OVERDRIVING MAY RESULT IN TORSIONAL FAILURE OF TEK SCREWS OR STRIP OUT OF THE SUBSTRATE. SCREW GUN SHOULD BE A MINIMUM OF 6 AMPS AND HAVE AN RPM RANGE OF 0-2500.

ROOFSCREEN SPECIFICATIONS:

- (P) PANEL: MORIN AA-12 ALUMINUM PANEL W/ 40% OPEN AREA, FASTEN TO HORIZONTAL HAT CHANNEL W/ COLOR-MATCHING #12-14 X 1" LONG T/3 "TEK" SCREW W/ - ROOFSCREEN P/N "S10", AT 17.75" O.C. PER LEG, PER MANUFACTURER'S SPECS. SEE DTL 22 / RS-6.
- HAT CHANNEL: ASTM A653, Fy = 55 ksi
- (H13) HAT CHANNEL:
 3" DEEP, 16ga, CUSTOM PROFILE, ORIENT HORIZONTAL, FASTEN TO TUBE FRAMES W/ #12-14 X 1" LONG T/3 "TEK" SCREW - ROOFSCREEN P/N "S10", (2) EA LEG. SPLICE IN FIELD WITH "H14" PER DTL 18/RS-6. SPLICE AT CORNERS WITH "TR37", PER DTL 21/RS-6 AT OUTSIDE CORNERS.
- TUBE STEEL: ASTM A500.
- (T10) HSS 2.500 OD X 0.065 (16ga), Fy= 40ksi
 (T11) HSS 2.500 OD X 0.120 (11ga), Fy= 50ksi
 (T12) HSS 2.197 OD X 0.109 (12ga), Fy= 50ksi - SHIM INSIDE T11 TUBE (DTL 13/RS-5)
- PROPRIETARY CONNECTORS:
- (C15) END CONNECTOR:
 CONN TO TUBE W/ #12-14 X 1" LONG T/3 "TEK" SCREWS - ROOFSCREEN P/N "S10", (2) EA SIDE TYP. (4) TOTAL
 CONN TO T11/T12 SHIMMED TUBE W/ #12-24 X 1 1/2" LONG T/5 "TEK" SCREWS - ROOFSCREEN P/N "S35", (2) EA SIDE TYP. (4) TOTAL
 CONN TO BASE CONN OR FIELD CONN W/ 0 1/2" X 1 1/4" LONG ANSI 18-8 STAINLESS STEEL BOLT - ROOFSCREEN P/N "B13", LOCKWASHER - P/N "W10" AND NUT - P/N "N10". (1) TOTAL.
- (C12) FIELD CONNECTOR:
 CONN TO TUBE W/ #12-14 X 1" LONG T/3 "TEK" SCREWS - ROOFSCREEN P/N "S10", (2) EA SIDE TYP. (4) TOTAL.
- (C11) BASE CONNECTOR:
 CONN TO T11/T12 SHIMMED TUBE W/ #12-24 X 1 1/2" LONG T/5 "TEK" SCREWS - ROOFSCREEN P/N "S35", (4) EA SIDE TYP. (8) TOTAL. SEE DTL 5/RS-5
- (C10) BASE CAP:
 CONN TO BASE CONNECTOR W/ 0 1/2" X 1 1/4" LONG ANSI 18-8 STAINLESS STEEL BOLT - ROOFSCREEN P/N "B13", LOCKWASHER - P/N "W10" AND NUT - P/N "N10" (1) TOTAL.
 SET ROTOLOCK ANGLE USING 0 1/4"-20 X 3/4" SS THREAD CUTTING SCREWS - ROOFSCREEN P/N "S44", (4) TOTAL PER ENGINEERING REQUIREMENT. SEE DTL 5/RS-5 FOR ROTOLOCK ATTACHMENT.
 CONN TO BASE EXTENSION W/ 0 1/2" X 1" LONG A36 GLAV BIN BOLT W/ POLY WASHER - ROOFSCREEN P/N "B11", (8) TOTAL
 WASHER - ROOFSCREEN P/N "B11", (8) TOTAL
- (BS15) BASE SUPPORT EXTENSION: 3" HIGH (1 PER BASE SUPPORT MAX)
 CONN TO BASE SUPPORT EXTENSION W/ 0 1/2" X 1" LONG ANSI 18-8 STAINLESS STEEL BOLT - ROOFSCREEN P/N "B12", (8) TOTAL
- (BS16) BASE SUPPORT EXTENSION: 4" HIGH (1 PER BASE SUPPORT MAX)
 CONN TO BASE SUPPORT W/ 0 1/2" X 1" LONG ANSI 18-8 STAINLESS STEEL BOLT - ROOFSCREEN P/N "B12", (8) TOTAL
- (BS12) BASE SUPPORT: 12" HIGH
 CONN TO <E> OWSJ TOP CHORD OR STEEL BLOCKING (DESIGNED AND SUPPLIED BY OTHERS, 1/2" MIN THICK, 4" MIN WIDTH) W/ #14-20 X 4" T/5 SELF-DRILLING "TEK" SCREW - ROOFSCREEN P/N "S13", (4) TOTAL PER BS12 DTL 2/RS-5. ALIGN BASE SUPPORT W/ CENTERLINE OF EXISTING FRAMING OR ALIGN BLOCKING WITH CENTERLINE OF BASE SUPPORTS.



TUBE FRAME AT SPACING PER PLAN
 SCALE: NTS
 FRAMES 1-97

ROOFSCREEN REACTIONS:

THE MAXIMUM UNFACTORED REACTIONS AT THE BASE ARE AS FOLLOWS (MULTIPLY BY APPROPRIATE LOAD COMBINATION FACTORS I.E. FOR ASD MULTIPLY WIND BY A FACTOR OF 0.6):

WIND (CASE A):

- (R1) Rx=699 LBS SHEAR AND Ry=964 LBS TENSION
- (R2) Rx=700 LBS SHEAR AND Ry=927 LBS COMPRESSION

WIND (CASE B):

- (R1) Rx=359 lbs SHEAR AND Ry=508 lbs COMPRESSION
- (R2) Rx=387 lbs SHEAR AND Ry=487 lbs TENSION

DEAD:

- (R1) Rx=38 lbs SHEAR AND Ry =283 lbs COMPRESSION
- (R2) Rx=35 lbs SHEAR AND Ry =4 lbs TENSION

(R) EXISTING ROOF FRAMING: 2" INSULATING CONCRETE OVER 26ga, 1 1/2" METAL DECK OVER OWSJ WITH MIN. 1/8" THICK TOP CHORD.

SEISMIC (Rx GOVERNED BY WIND):

- (R1) Rz=234 LBS SHEAR AND Ry =68 LBS TENSION/COMPRESSION
 - (R2) Rz=41 LBS SHEAR AND Ry =8 LBS TENSION/COMPRESSION
- Rz = OUT OF PLANE FORCE DIRECTION

MAXIMUM (ASD) LOAD COMBINATION REACTION AT A BASE:

- MAX COMPRESSION: Rx=177 LBS SHEAR AND Ry =589 LBS COMPRESSION (1.0D+0.6WINDB)
- MAX TENSION: Rx=437 LBS SHEAR AND Ry =407 LBS TENSION (0.6D+0.6WINDA)
- MAX SHEAR: Rx=451 LBS SHEAR AND RY =295 LBS TENSION (1.0D+0.6WINDA)
 Rz=165 LBS AND RY =283 LBS COMPRESSION (D+0.7EQ)

MAXIMUM HEIGHT REFERS TO MAXIMUM HEIGHT ABOVE AVERAGE LEVEL OF ADJOINING GROUND ADJACENT TO THE BUILDINGS.

ALL OTHER ARRANGEMENTS REQUIRE ENGINEER'S APPROVAL.

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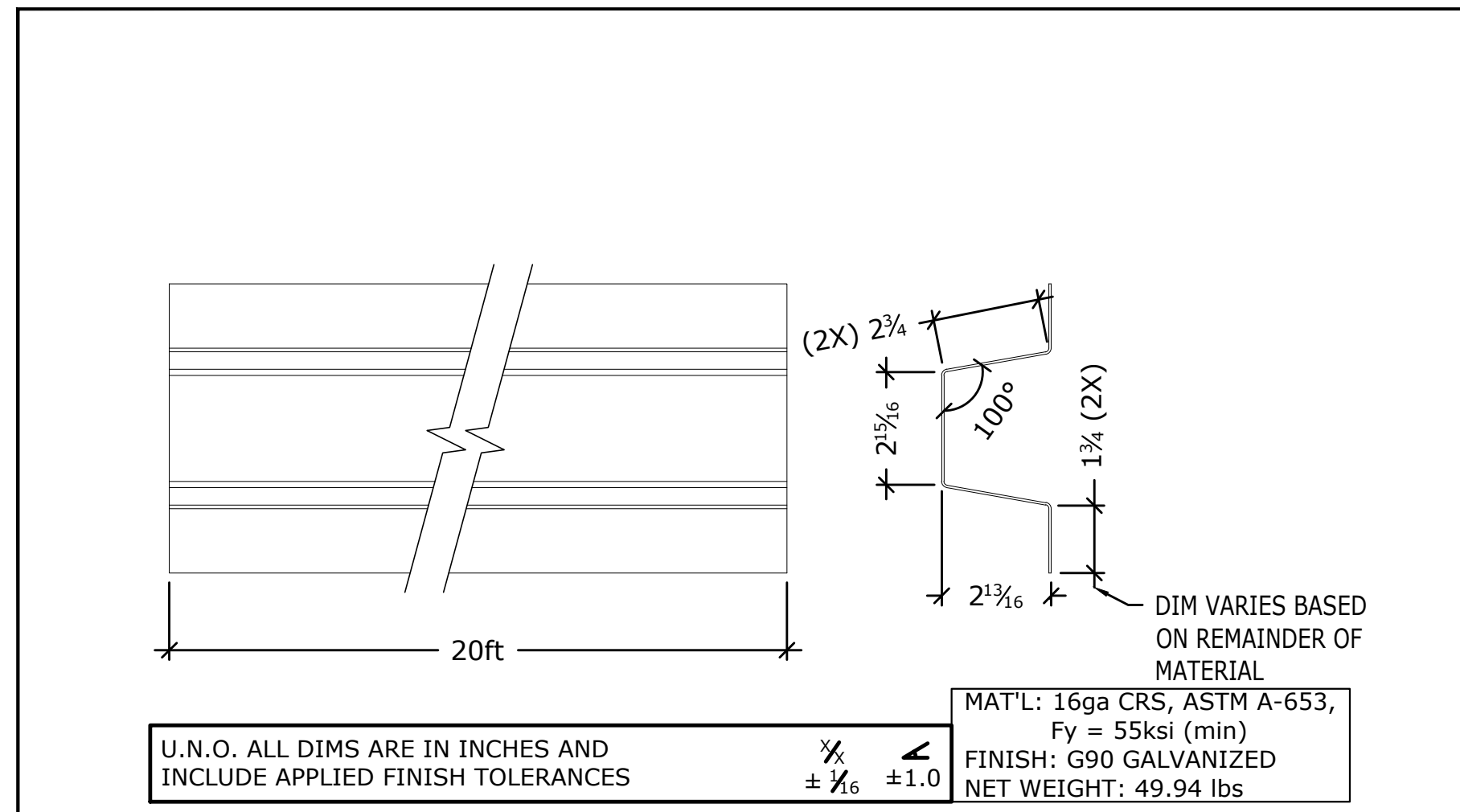
Sheet Title
ROOF SCREEN FRAME DETAILS

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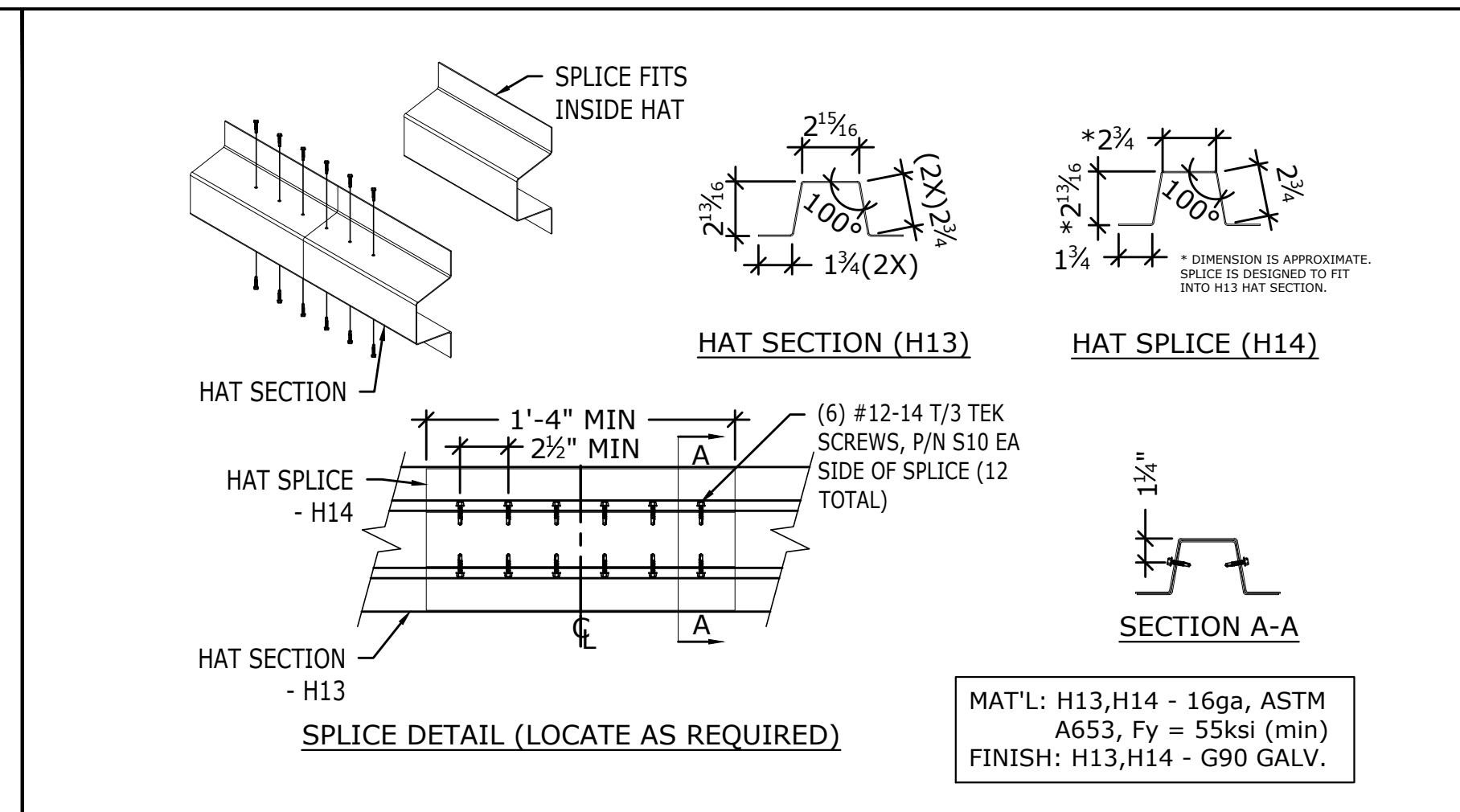


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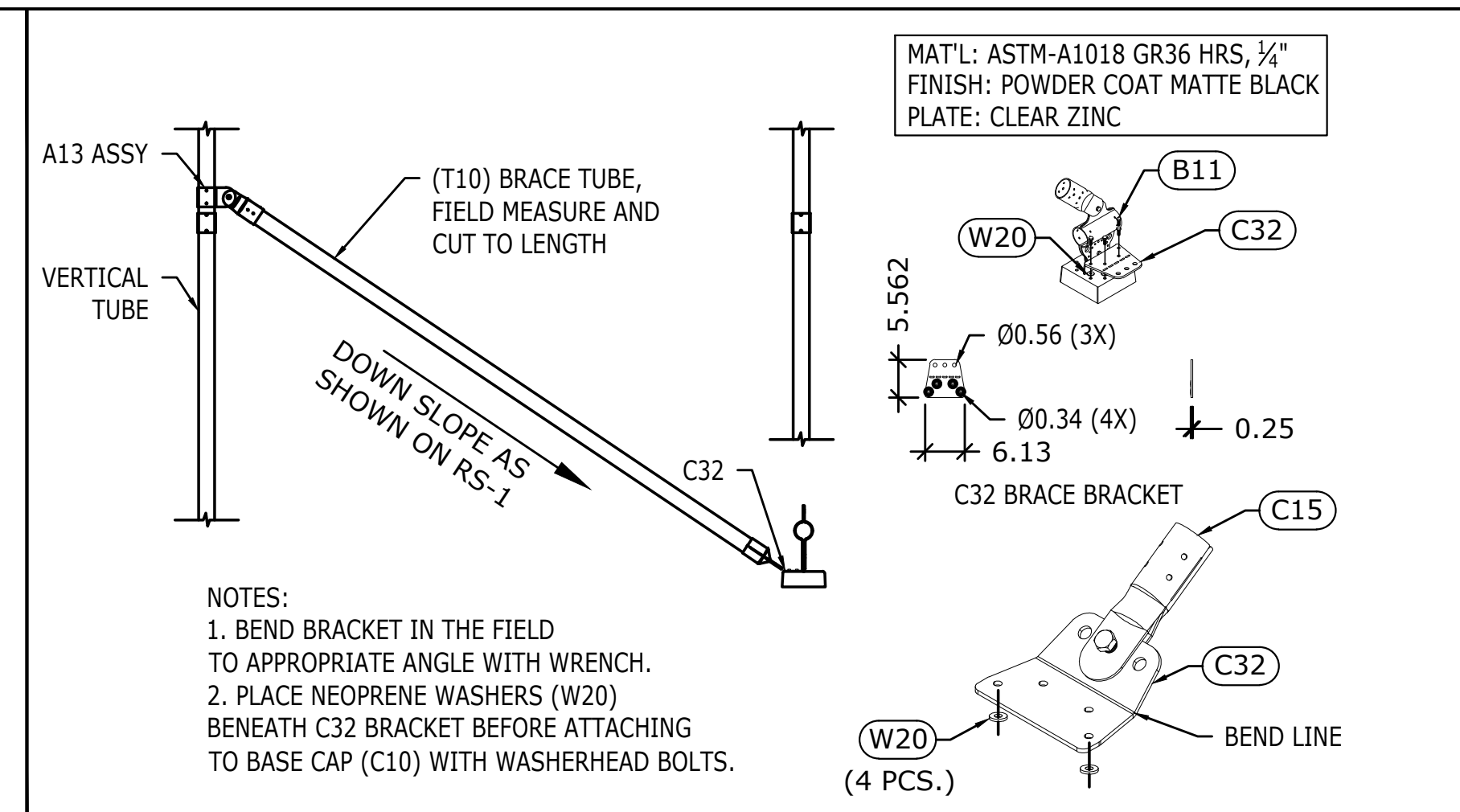
APPROVALS



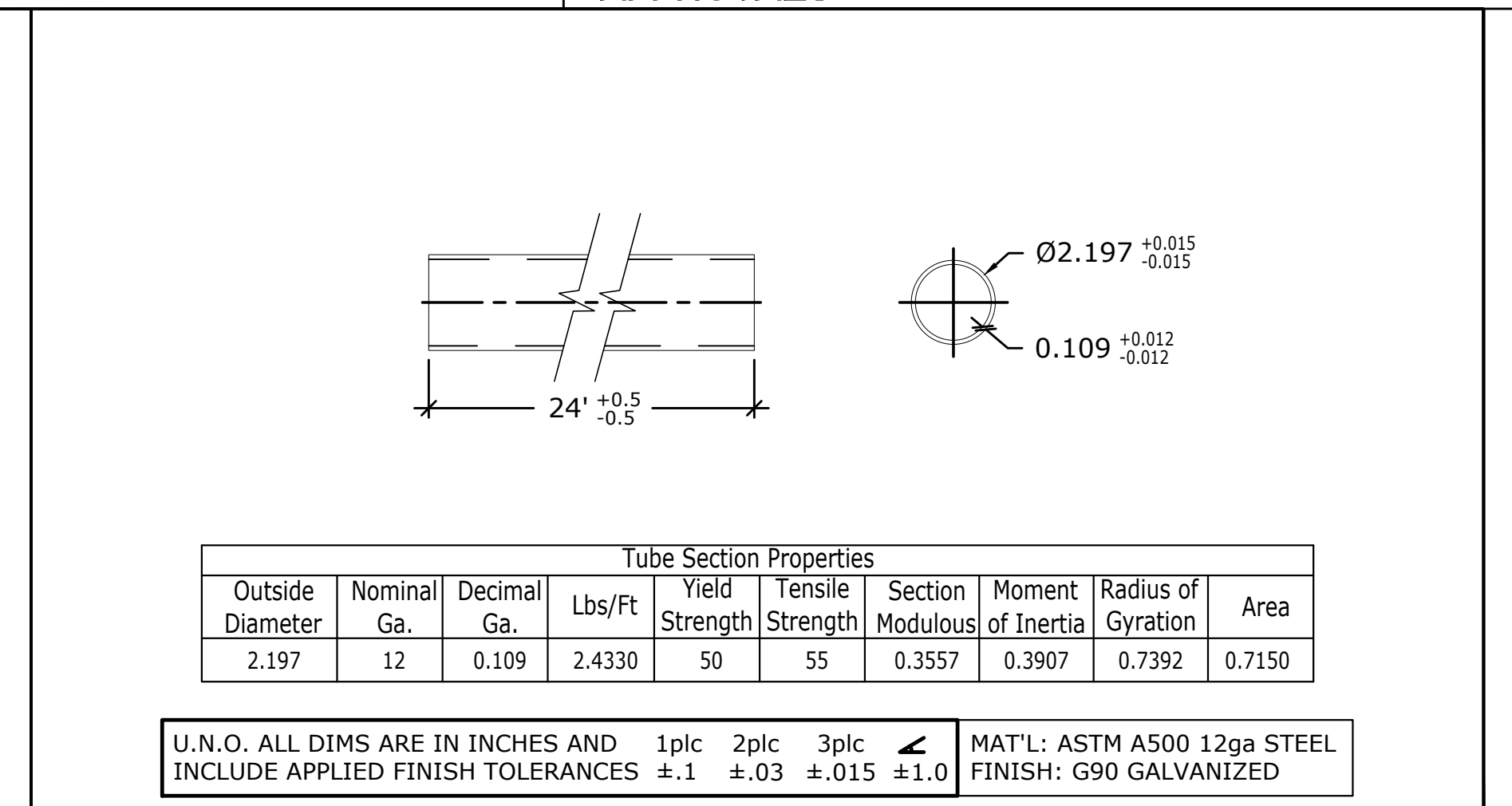
19 H13 HAT SECTION SCALE: NTS



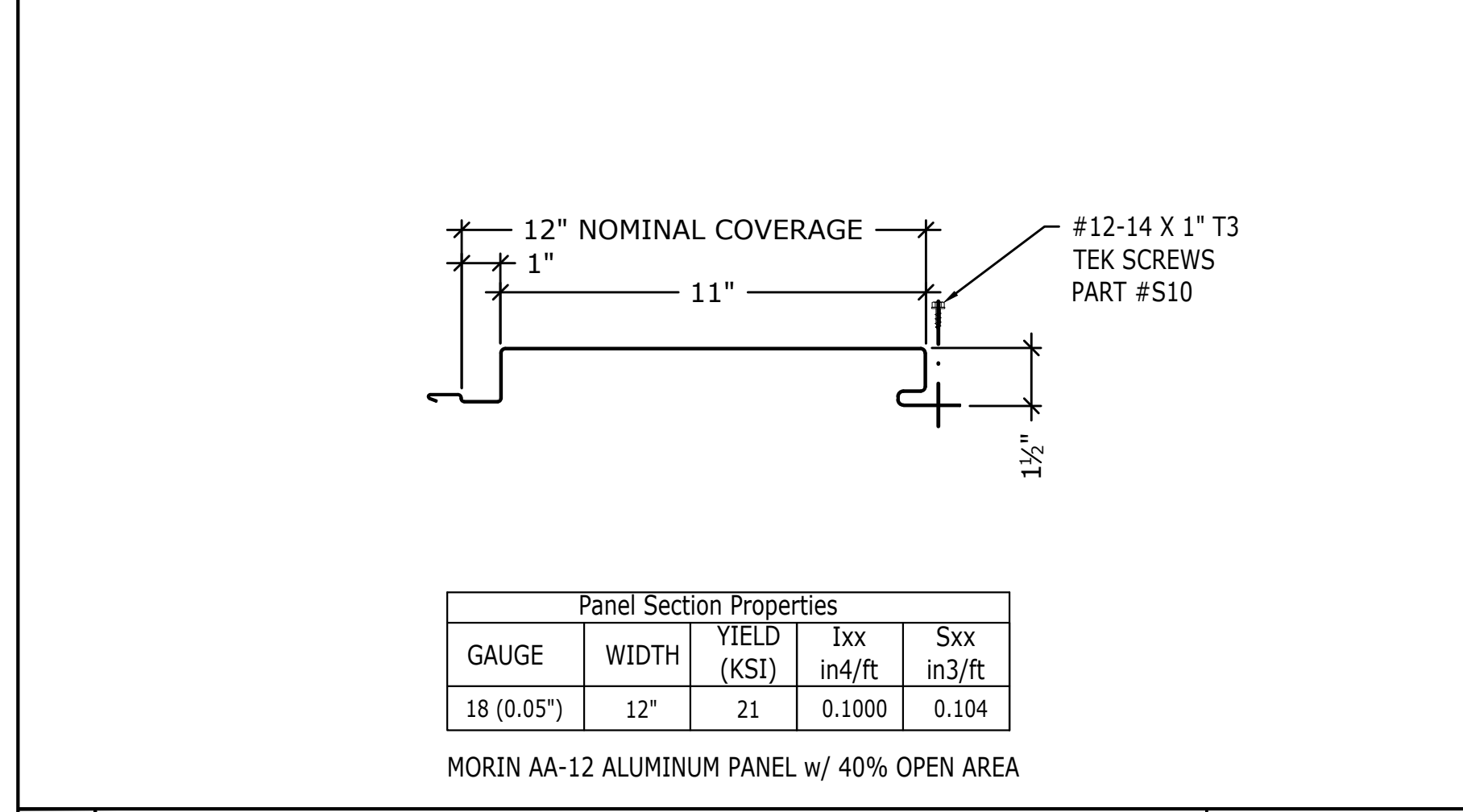
18 HAT AND SPLICE DETAIL 12 SCREW, H13/H14 SCALE: NTS



17 LATERAL BRACE ASSEMBLY SCALE: NTS



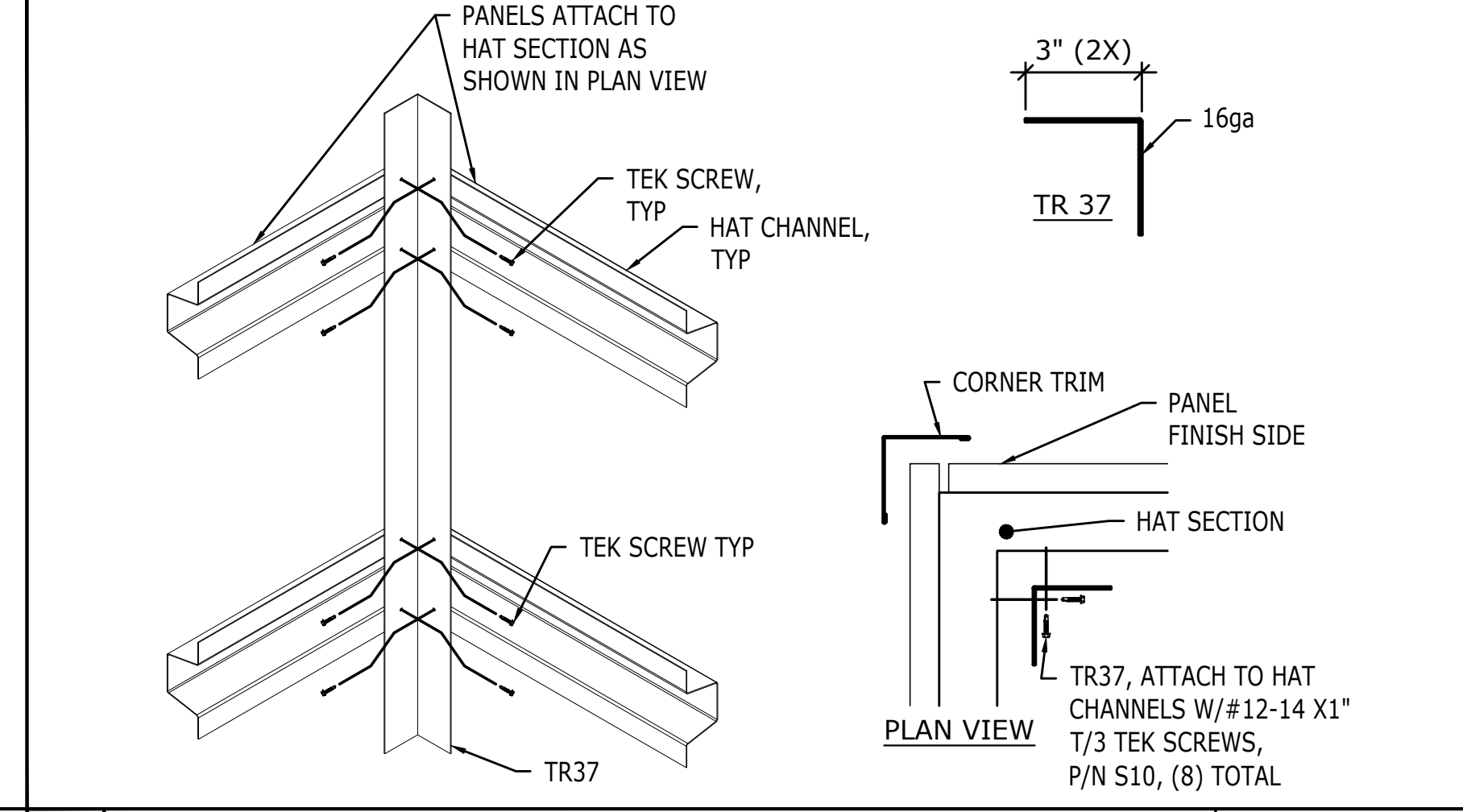
16 T12 0.197, 12ga TUBING SCALE: NTS



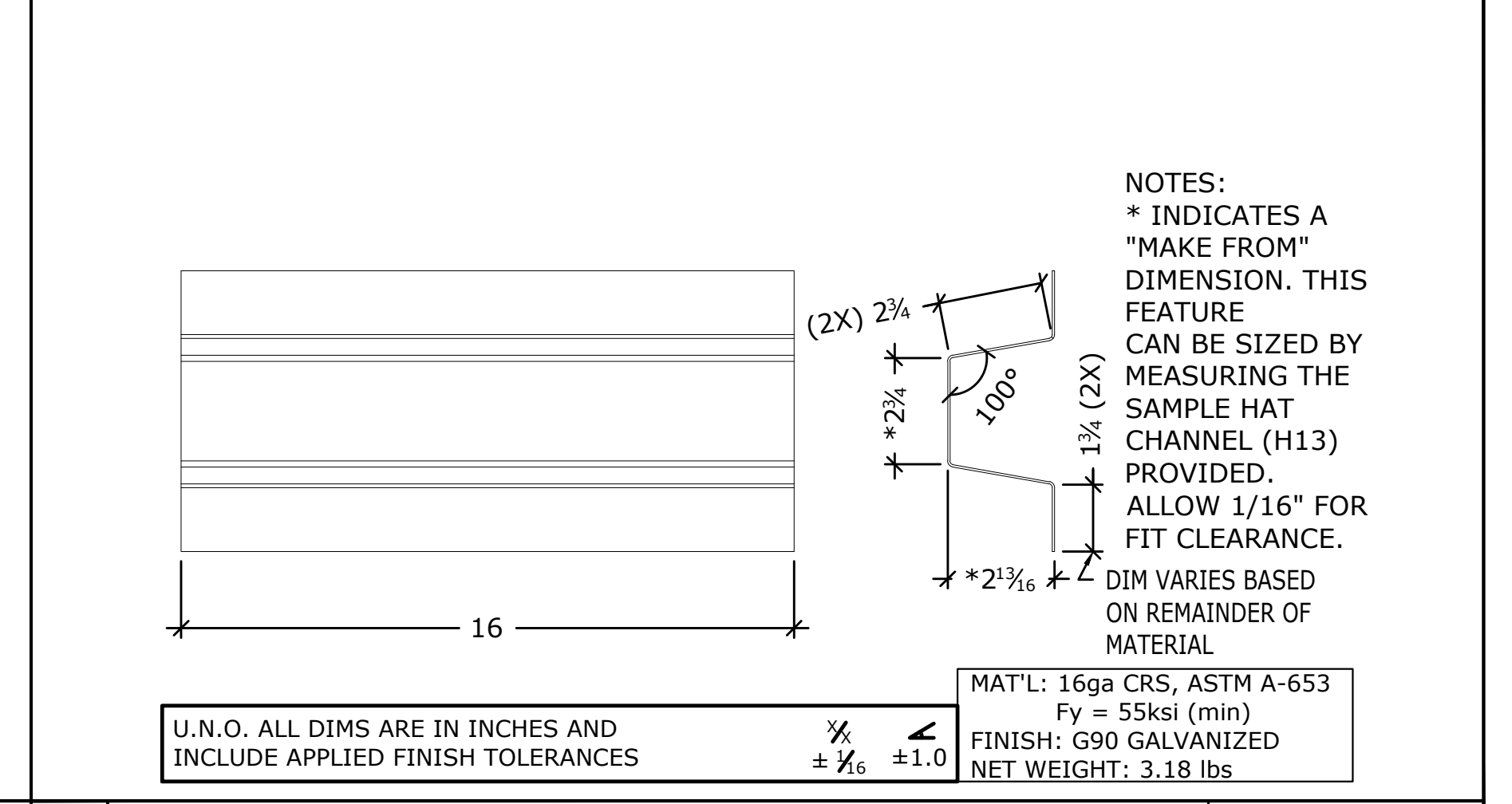
23 PANEL SCALE: NTS



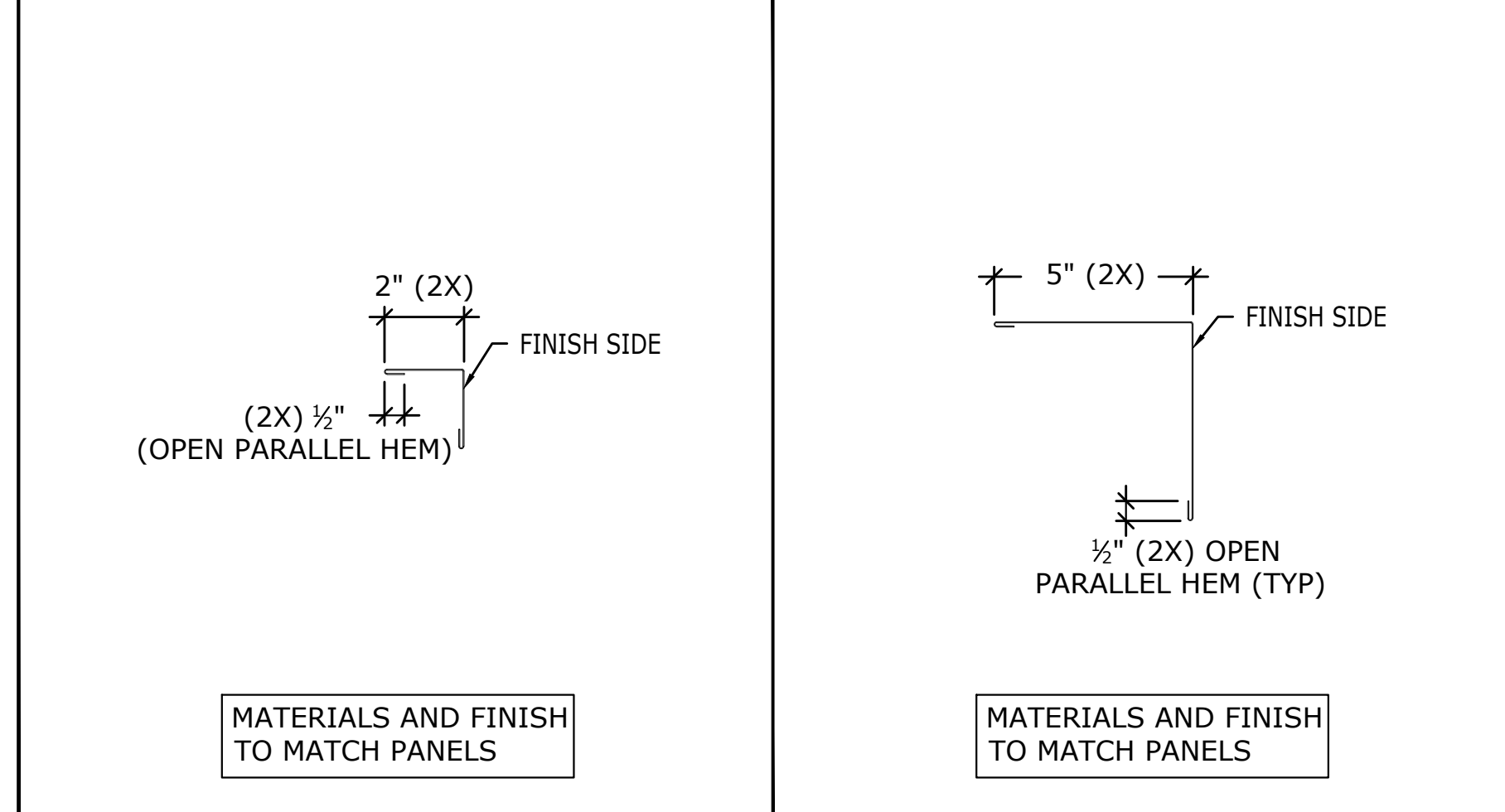
22 NOT USED SCALE: NTS



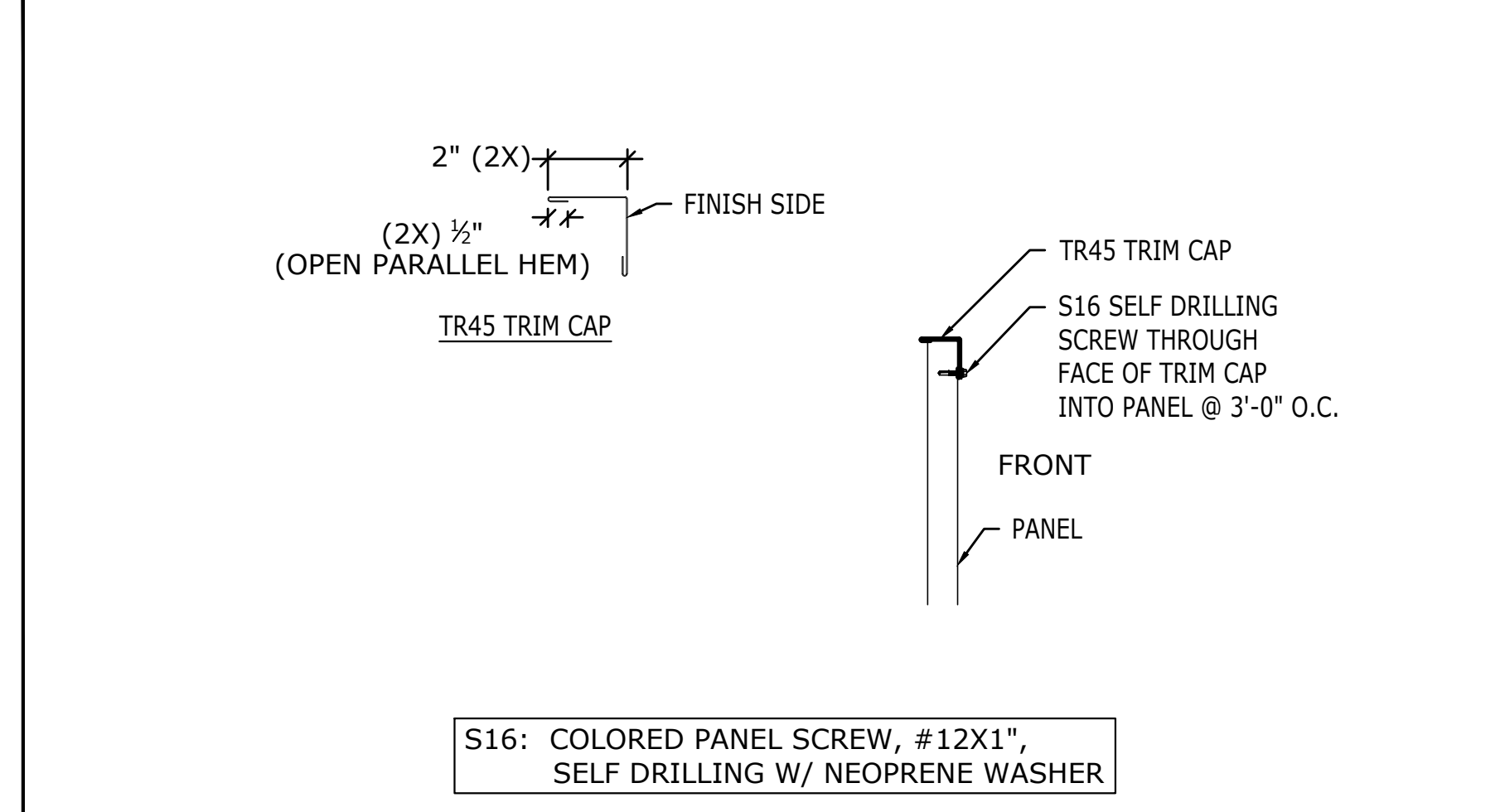
21 TR37 STIFFENER AT OUTSIDE CORNER SCALE: NTS



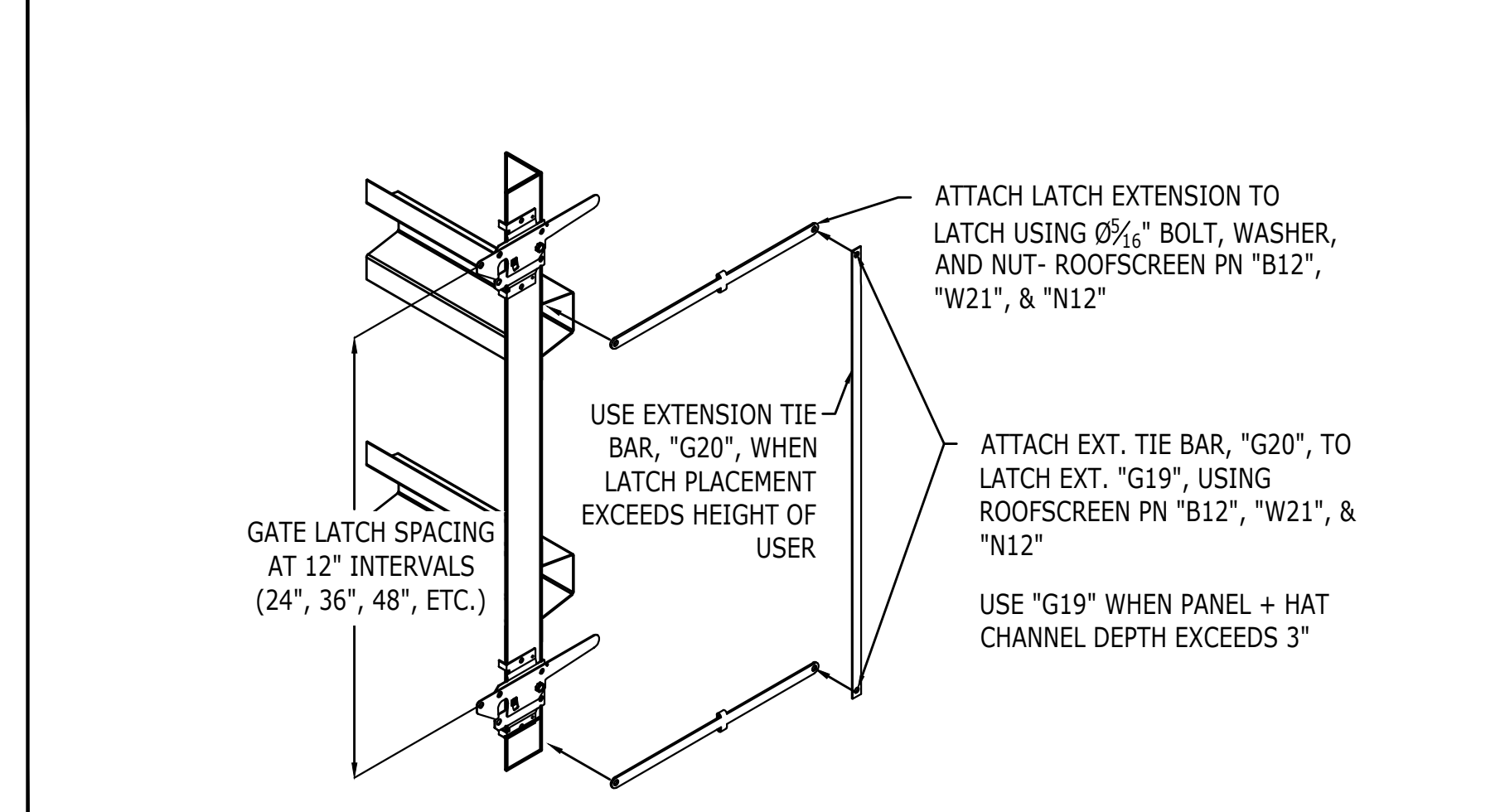
20 H14 HAT SPLICE SCALE: NTS



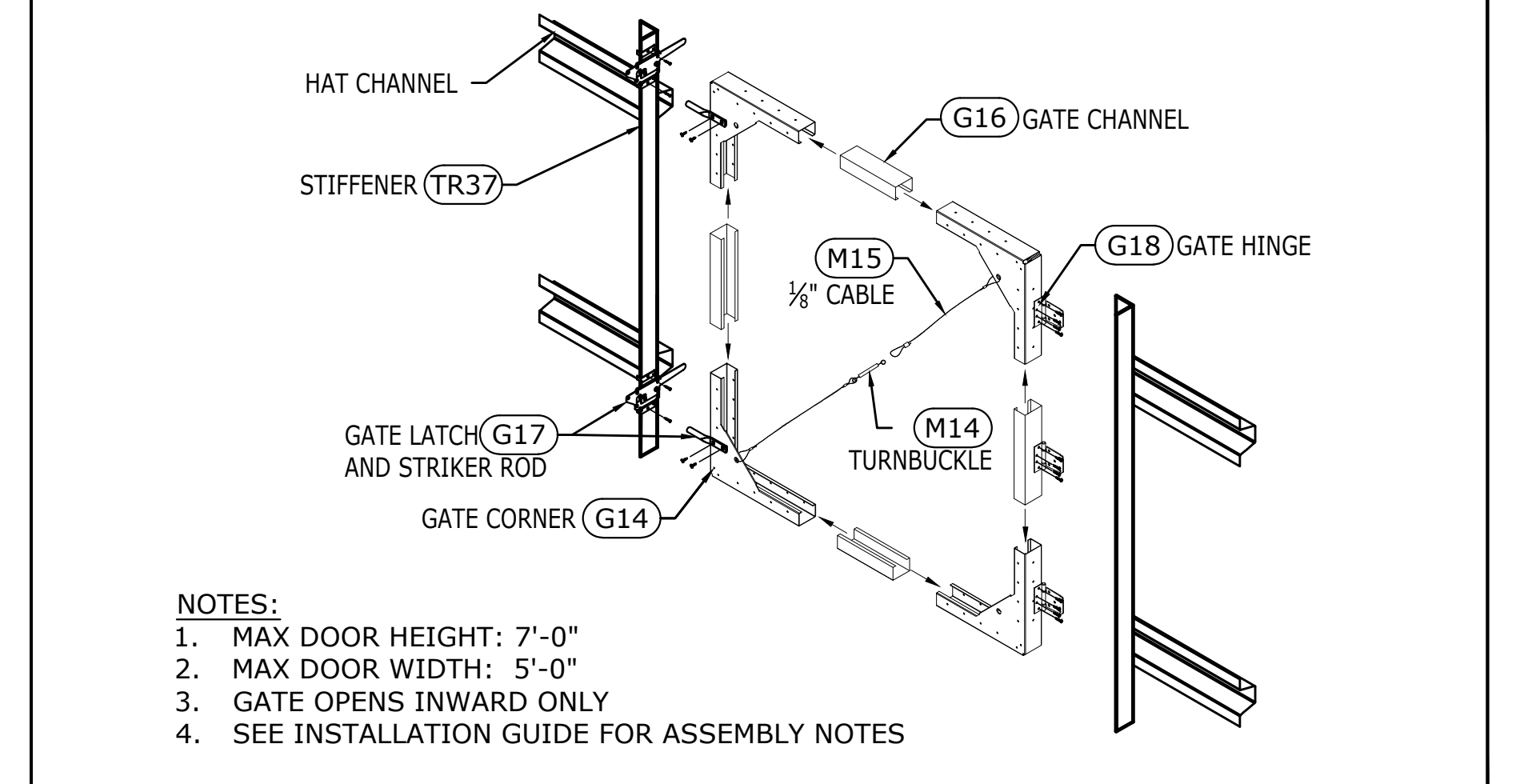
28 END TRIM 2' X 2' (TR45) SCALE: NTS



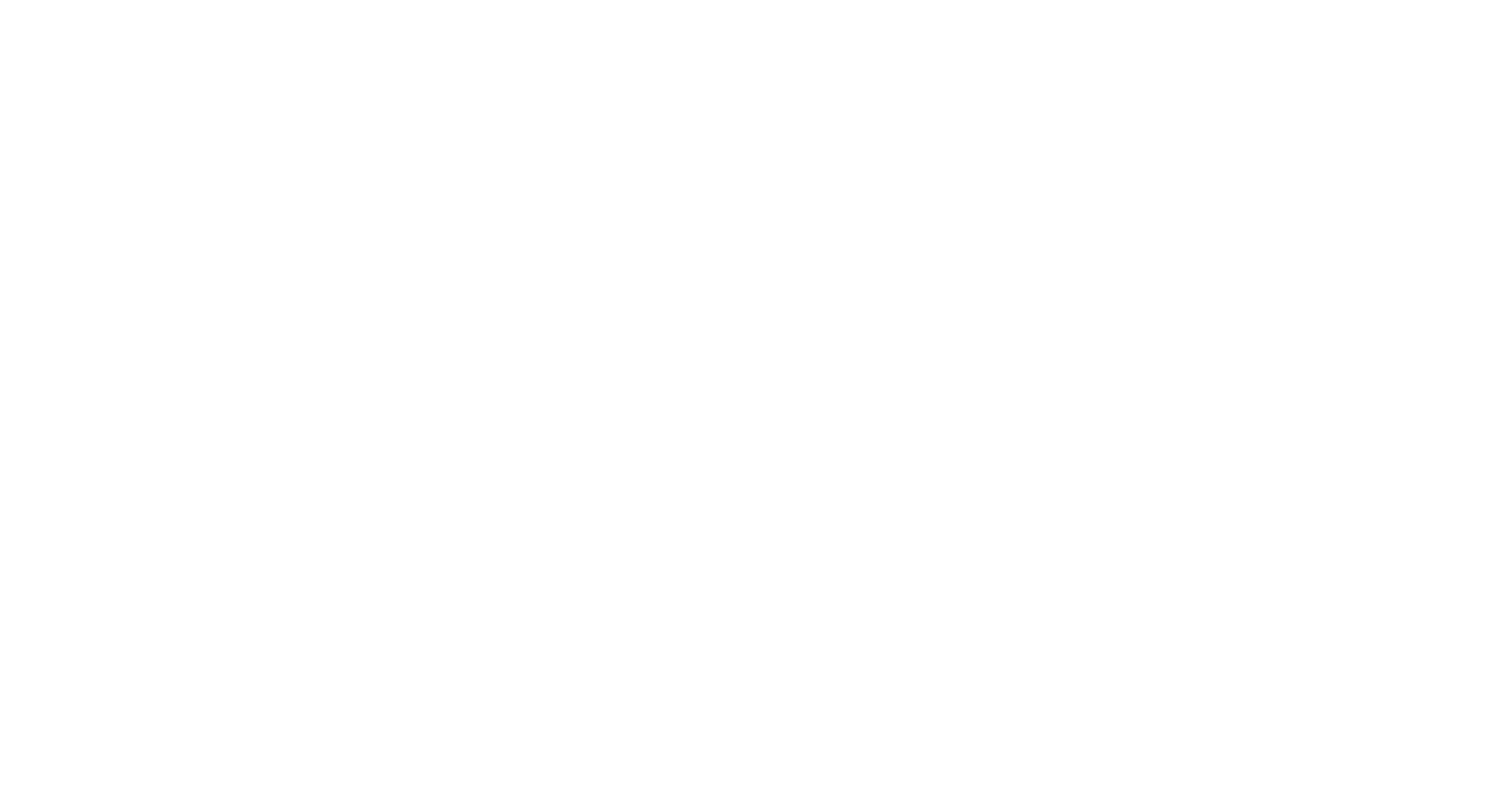
27 OUTSIDE CORNER 5' X 5' (TR21) SCALE: NTS



26 TRIM CAP (TR45), FLUSH PANEL (TL17W) ATTACHMENT SCALE: NTS



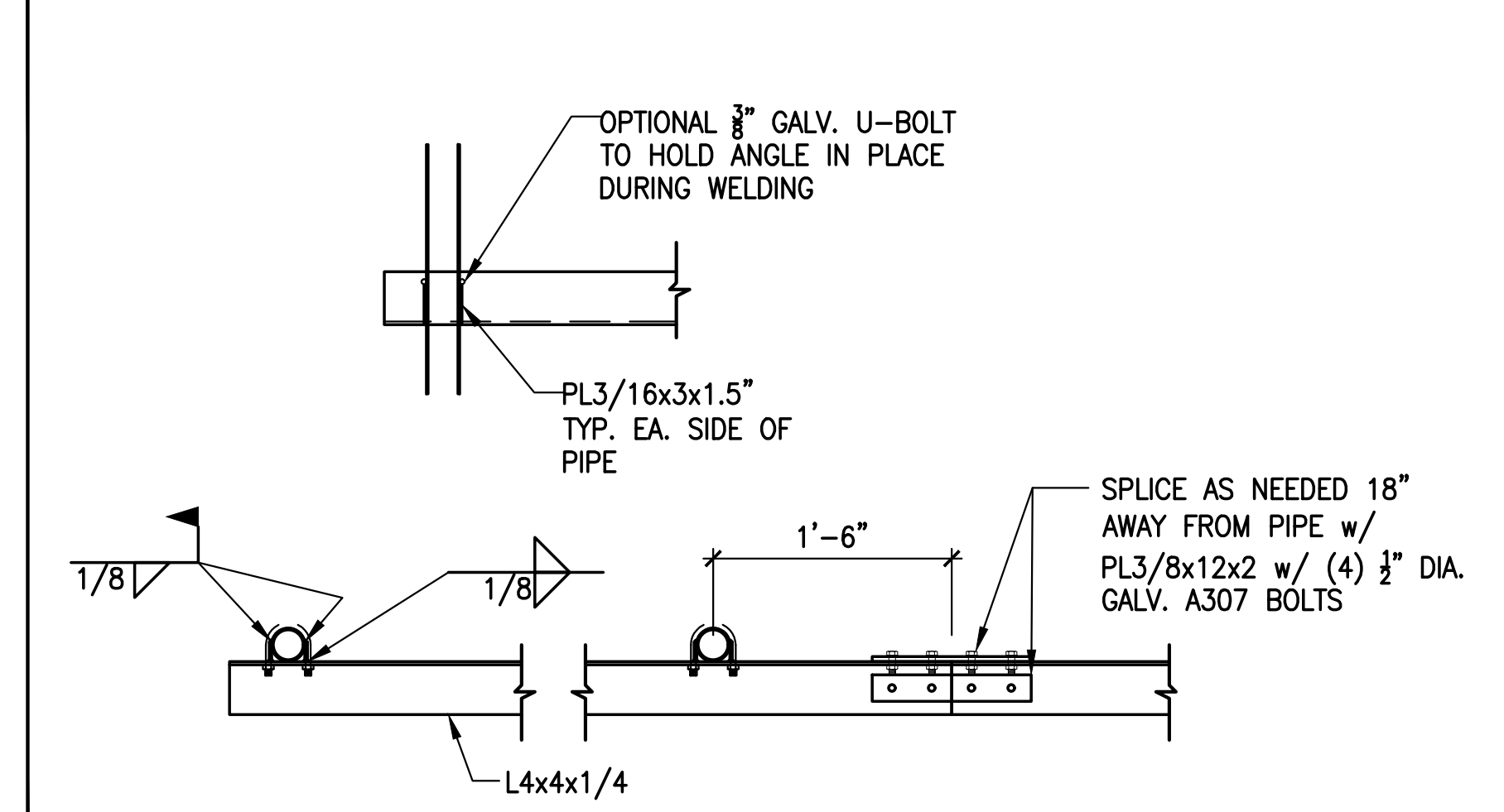
25 GATE LATCH ASSEMBLY SCALE: NTS



24 A63 VERTICAL GATE ASSEMBLY SCALE: NTS



29 L-ANGLE CONN. DETAIL SCALE: NTS



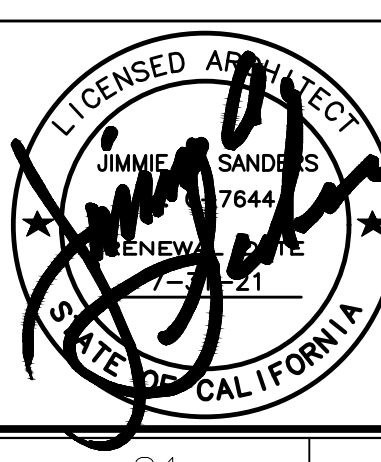
25 GATE LATCH ASSEMBLY SCALE: NTS

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Project Title
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Sheet Title
ROOF SCREEN PART AND ASSEMBLY DETAILS

Document Date	Project Number
10-18-19	19-12IV
Date Last Revised	Sheet Number
	RS-6



DESIGN BASIS FOR SEISMIC REHABILITATION & MODERNIZATION WORK:
 CODE: 2016 C.B.C. (CALIFORNIA BUILDING CODE TITLE #/ AMENDMENTS) BASED ON 2015 I.B.C. (INTERNATIONAL BUILDING CODE)

GRAVITY LOADS:
 1. ROOF LIVE LOAD 20 P.S.F. (REDUCIBLE)

LATERAL LOADS:
 1. WIND
 BASIC WIND SPEED (3-SECOND GUST) 115 MPH
 WIND RISK CATEGORY II
 WIND EXPOSURE C
 INTERNAL PRESSURE COEFFICIENT 0.18
 WIND PRESSURE (COMPONENTS & CLADDING) 21.01
 WIND SCREEN PRESSURE Cp 1.744 (24 PSF)

2. SEISMIC
 SEISMIC IMPORTANCE FACTOR, I 1
 SEISMIC RISK CATEGORY II
 MAPPED SPECTRAL RESPONSE ACCELERATION, S1 2.430g
 MAPPED SPECTRAL RESPONSE ACCELERATION, SS 0.959g
 SITE CLASS D
 MAPPED SPECTRAL RESPONSE ACCELERATION, SDS 1.620g
 MAPPED SPECTRAL RESPONSE ACCELERATION, SD1 0.959g
 SEISMIC DESIGN CATEGORY E
 RESPONSE MODIFICATION FACTOR, R 5
 OVERSTRENGTH FACTOR Ω 2.0
 DEFLECTION AMPLIFICATION FACTOR δ_d 3.5
 DESCRIPTION OF SEISMIC RETROFIT UPGRADES TO LATERAL FORCE RESISTING SYSTEM:
 V = 0.227 W

SEISMIC REHABILITATION OF BUILDINGS 200, 300 AND 800 PER CALIFORNIA CODE OF REGULATIONS, TITLE 24, PART 1, SECTION 4-309(c) AND TITLE 24, PART 10, SECTIONS 301.1, 317 THROUGH 323; INCLUDING BUT NOT LIMITED TO WALL ANCHORAGE OF EXISTING CMU WALLS TO THE DIAPHRAGM, CROSS-TIES AND SUB-DIAPHRAGMS; CHECK OF IN-PLANE SHEAR ON EXISTING CMU; DRAG CONNECTIONS; CHECK OF EXISTING SHEAR WALLS AT CLEARSTORY ROOFS.

KNOWLEDGE FACTOR OF EXISTING MATERIALS = 0.75

GENERAL NOTES:
 1. THE PROJECT SPECIFICATIONS ARE A PART OF THE CONTRACT DOCUMENTS.
 2. THE STRUCTURAL DRAWINGS ARE TO BE USED IN CONJUNCTION WITH ARCHITECTURAL DRAWINGS BY: SANDERS, INC. ARCHITECTURE / ENGINEERING
 3. THE CONTRACTOR SHALL REVIEW EXISTING CONDITIONS ON THE SITE DURING THE BIDDING. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS PRIOR TO STARTING WORK AND THE ARCHITECT AND ENGINEER SHALL BE NOTIFIED OF ANY DISCREPANCIES OR INCONSISTENCIES PRIOR TO PROCEEDING.
 4. UNLESS OTHERWISE SHOWN OR NOTED, ALL PHASES OF WORK ARE TO CONFORM TO THE MINIMUM STANDARDS OF THE 2016 CALIFORNIA BUILDING CODE (2016 EDITION C.B.C.), RELATED REFERENCE STANDARDS (2016 IBC, CHAPTER 35), AND ANY A.S.T.M. SPECIFICATIONS WHICH THESE STANDARDS ARE BASED. WHERE CONFLICT BETWEEN BUILDING CODES AND SPECIFICATIONS OCCURS, THE MOST STRINGENT REQUIREMENTS SHALL GOVERN.
 5. ALL A.S.T.M. DESIGNATIONS REFERRED TO ON THESE DRAWINGS SHALL BE THE LATEST ADOPTED OR REVISED SPECIFICATION, AS OF THE DATE OF THESE DRAWINGS.
 6. ALL DIMENSIONS SHALL TAKE PRECEDENCE OVER SCALE SHOWN ON PLANS, SECTIONS AND DETAILS. DRAWINGS SHALL NOT BE SCALED FOR CONSTRUCTION PURPOSES.
 7. NOTES AND DETAILS ON THE DRAWINGS SHALL TAKE PRECEDENCE OVER GENERAL NOTES AND TYPICAL DETAILS.
 8. THE STRUCTURAL DRAWINGS SHOW ONLY THE BASIC STRUCTURAL REQUIREMENTS. REFER TO ARCHITECTURAL, MECHANICAL, PLUMBING, AND ELECTRICAL DRAWINGS FOR NON-STRUCTURAL ITEMS
 A. SIZE AND LOCATION OF ALL OPENINGS.
 B. SIZE AND LOCATION OF ALL NONBEARING PARTITIONS.
 C. SIZE AND LOCATION OF ALL CONCRETE CURBS, WALKS, ROOF AND FLOOR DRAINS, SLOPES, DEPRESSED SLAB AREAS, ETC.
 D. FLOOR, ROOF AND WALL FINISHES.
 E. DIMENSION NOT SHOWN ON STRUCTURAL DRAWINGS.
 F. EQUIPMENT ANCHORAGE
 9. THE CONTRACT STRUCTURAL DRAWINGS AND SPECIFICATIONS REPRESENT THE FINISHED STRUCTURE. UNLESS OTHERWISE INDICATED, THEY DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE ALL MEASURES NECESSARY TO PROTECT LIFE AND THE STRUCTURE DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE, BUT NOT BE LIMITED TO BRACING AND SHORING OF LOADS DUE TO CONSTRUCTION, EQUIPMENT, WIND, EARTHQUAKE, ETC. CONTRACTOR AT HIS OWN EXPENSE, SHALL ENGAGE PROPERLY QUALIFIED PERSONS TO DETERMINE WHERE AND HOW TEMPORARY PRECAUTIONARY MEASURES SHALL BE USED AND INSPECT SAME IN FIELD. CONTRACTOR SHALL CONFORM TO ALL SAFETY ORDINANCES, RULES AND CODES. OBSERVATION VISITS TO THE SITE BY THE STRUCTURAL ENGINEER SHALL NOT INCLUDE INSPECTION OF THE ABOVE SAFETY ITEMS.
 10. SATISFACTORY EXECUTION OF CONSTRUCTION IS DEPENDENT UPON CONFORMANCE WITH THE INTENT OF THESE DRAWINGS. OWNER OR CONTRACTOR SHALL RETAIN A CALIFORNIA LICENSED CIVIL OR STRUCTURAL ENGINEER DURING CONSTRUCTION TO OBSERVE THE CONSTRUCTION AND STATE THAT THE STRUCTURE HAS BEEN BUILT IN GENERAL CONFORMANCE WITH THE INTENT OF THESE DRAWINGS.
 11. THIS FIRM DOES NOT PRACTICE OR CONSULT IN THE FIELD OF SAFETY ENGINEERING. WE DO NOT DIRECT THE CONTRACTOR'S OPERATIONS AND WE CANNOT BE RESPONSIBLE FOR THE SAFETY OF PERSONNEL OTHER THAN OUR OWN ON THE SITE. THE SAFETY OF OTHERS IS THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHOULD NOTIFY THE OWNER IF HE CONSIDERS ANY OF THE RECOMMENDED ACTIONS PRESENTED HEREIN TO BE UNSAFE.
 12. CONSTRUCTION MATERIALS SHALL BE SPREAD OUT IF PLACED ON FRAMED FLOORS OR ROOF. LOAD SHALL NOT EXCEED DESIGN LIVE LOAD FOR EACH PARTICULAR LEVEL. WHEN WEIGHT OF MATERIALS OR EQUIPMENT MAY EXCEED DESIGN LOAD, STRUCTURAL SYSTEMS SHALL BE SHORED.
 13. WHERE NO CONSTRUCTION DETAILS ARE SHOWN OR NOTED FOR ANY PART OF THE WORK, THE DETAILS SHALL BE THE SAME AS FOR OTHER SIMILAR WORK.
 14. NO PIPES OR DUCTS SHALL BE PLACED IN SLABS OR WALLS UNLESS SPECIFICALLY DETAILED OR APPROVED BY THE ENGINEER.

FOUNDATION:
 1. GEOTECHNICAL REPORT: A GEOLOGICAL INVESTIGATION IS NOT REQUIRED FOR THIS PROJECT. MAXIMUM SOIL BEARING PRESSURE TO BE PER CODE.
 2. SOILS REPORT PREPARED BY: NONE FOR THIS PROJECT

3. REFERENCE GEO-HAZARD REPORT: CALIFORNIA GEOLOGICAL SURVEY LETTER DATED FEBRUARY 9, 2012 SUBJECT: SECOND ENGINEERING GEOLOGY AND SEISMOLOGY REVIEW FOR IMPERIAL VALLEY COLLEGE - CAREER TECHNICAL FACILITY BUILDINGS 3100 & 3200, 380 E. ATEH ROAD IMPERIAL, CA: GSC APPLICATION NO. 04-CG050834

LIQUEFACTION / DIFFERENTIAL SETTLEMENT ANALYSIS REPORT BY: LANDMARK
 DATED: NOVEMBER 4, 2019
 REPORT NUMBER: L919189
 CALIFORNIA GEOLOGICAL SURVEY (CGS) REVIEW IS NOT REQUIRED FOR THIS PROJECT.

4. ALLOWABLE SOIL PRESSURE:
 SOIL TYPE CLASS D
 FOOTING TYPE STATIC BEARING PRESSURE
 SPREAD FOOTING 1,500 P.S.F.
 GRADE BEAMS 1,500 P.S.F.

5. FOR ALL DIMENSIONS, CURBS, SLAB DEPRESSIONS, STEPS, FLOOR DRAINS, FLOOR SINKS, TRENCHES, UNDERFLOOR DUCTS AND CONDUITS. SEE ARCHITECTURAL, MECHANICAL, REFRIGERATION, AIR CONDITIONING, PLUMBING, ELECTRICAL, AND FOOD SERVICE DRAWINGS, TRENCH BACKFILL AS PER SOILS REPORT REQUIREMENTS.
 6. ALL WALLS RETAINING EARTH SHALL DRAIN TO DAYLIGHT OR OTHER DRAINAGE.
 7. ALL ABANDONED FOOTINGS, UTILITIES, ETC., THAT INTERFERE WITH NEW CONSTRUCTION SHALL BE REMOVED.
 8. THE CONTRACTOR SHALL DETERMINE THE LOCATION OF UTILITY SERVICES IN AREAS TO BE EXCAVATED BEFORE BEGINNING EXCAVATION. EXERCISE EXTREME CAUTION IN EXCAVATING AND TRENCHING. DAMAGES CAUSED AS A RESULT OF FAILING TO EXACTLY LOCATE AND PRESERVE ALL EXISTING UNDERGROUND UTILITIES ARE THE RESPONSIBILITY OF THE CONTRACTOR.

9. THE CONTRACTOR SHALL PROVIDE FOR THE DESIGN, APPROVALS, PERMITS, INSTALLATION AND MONITORING OF ALL CRIBBING, SHEATHING AND SHORING REQUIRED TO SAFELY RETAIN TEMPORARY EXCAVATIONS.
 10. ALL PLANTERS IN CLOSE PROXIMITY TO THE STRUCTURE SHALL HAVE ADEQUATE DRAINAGE OF SURFACE WATER TO PREVENT SATURATION OF SOIL UNDER FOUNDATION.

REINFORCING STEEL:
 1. ALL REINFORCING STEEL SHALL BE PLACED IN CONFORMANCE WITH THE C.B.C., AND THE "MANUAL OF STANDARD PRACTICE" BY THE C.R.S.I. OR AS MODIFIED BY THE CONSTRUCTION DOCUMENTS.
 2. REINFORCING BARS SHALL CONFORM TO A.S.T.M. A-615, GRADE 60. REINFORCING BARS THAT ARE TO BE WELDED SHALL CONFORM TO A.S.T.M. A-706, GRADE 60.
 3. WELDING OF REINFORCEMENT SHALL BE DONE WITH LOW HYDROGEN ELECTRODES AND SHALL CONFORM TO STRUCTURAL WELDING CODE REINFORCING STEEL, - ANS/AWS D1.4 OF THE AMERICAN WELDING SOCIETY MINIMUM TENSILE STRENGTH OF WELD METAL SHALL BE 90 K.S.I. ALL WELDING SHALL BE PERFORMED BY CERTIFIED WELDERS. QUALIFICATION TESTS MUST BE PERFORMED PER AWS, WPS'S SUBMITTED PRIOR TO REBAR WELDING.
 4. ALL REINFORCING BAR BENDS SHALL BE MADE COLD.
 5. WELDED WIRE FABRIC SHALL CONFORM TO A.S.T.M. A-1064, AND SHALL BE LAPPED 1 SPACES AND 12" MINIMUM.
 6. DOWELS BETWEEN FOOTINGS AND WALLS OR COLUMNS SHALL BE LAPPED WITH THE SAME GRADE, SIZE, SPACING AND NUMBERS AS THE VERTICAL REINFORCEMENT, RESPECTIVELY.
 7. REINFORCING SPLICES SHALL BE MADE AS INDICATED ON THE DRAWINGS.
 8. ALL VERTICAL REINFORCING SHALL BE CONTINUOUS BETWEEN TWO LEVELS. U.N.O.
 10. SLAB ON GRADE REINFORCING SHALL BE POSITIONED AT MID-DEPTH
 11. PROVIDE #3 SPACER TIES AT 2'-6" ON CENTER IN ALL BEAMS AND FOOTINGS TO SECURE REINFORCING BARS IN PLACE, U.N.O.
 12. ALL REBAR SIZES ON THESE DRAWINGS ARE IN ENGLISH UNITS. SEE TABLE BELOW FOR METRIC EQUIVALENT.

ENGLISH BAR SIZE DESIGNATION	#3	#4	#5	#6	#7	#8	#9	#10	#11	#14	#18
METRIC BAR SIZE DESIGNATION	10MM	15MM	15MM	20MM	25MM	25MM	30MM	35MM	35MM	45MM	55MM

CONCRETE:
 1. ALL CONCRETE WORK SHALL CONFORM TO ALL REQUIREMENTS OF ACI 318-14 AND A.C.I. 301 LATEST EDITION "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS", EXCEPT AS MODIFIED BY THE SUPPLEMENTAL REQUIREMENTS CONTAINED HEREIN OR SHOWN ON THE DRAWINGS. IN CASE OF CONFLICT ACI 318-14 SHALL GOVERN.
 2. ALL CONCRETE SHALL BE 150 P.C.F. HARDROCK, MIXED PER A.S.T.M. C-94, AND SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4,500 P.S.I. AT 28 DAYS. FREQUENCY OF CONCRETE SAMPLING SHALL CONFORM TO C.B.C. 1903A AND ACI 318, 26.12.
 3. THE MAXIMUM SIZE AGGREGATE IN FOUNDATION AND MASS CONCRETE WORK SHALL BE 1 INCH. THE MAXIMUM SIZE AGGREGATE IN SLABS ON GRADE, WALLS, AND ALL OTHER CONCRETE SHALL BE 3/4" INCH.
 4. CEMENT SHALL CONFORM TO A.S.T.M. C-150, TYPE V, LOW ALKALI. MIN. OF 6.25 SACKS PER CUBIC YARD OF CONCRETE. MAX. WATER/CEMENT RATIO = 0.45. AGGREGATES FOR NORMAL WEIGHT SHALL CONFORM TO A.S.T.M. C-33.
 5. ADMIXTURES AND COLORS (EXCEPT AS NOTED HEREIN) SHALL NOT BE USED UNLESS SUBSTANTIATING DATA IS SUBMITTED TO AND ACCEPTED BY THE ENGINEER AND ARCHITECT OF RECORD. ADMIXTURES MUST BE APPROVED BY DSA.
 6. CONCRETE MIXES SHALL BE DESIGNED BY A QUALIFIED TESTING LABORATORY. THE MIX DESIGNS SHALL CONFORM TO C.B.C. SEC. 1903A, 1904A AND ACI 318, SECTIONS 4.8, 19.3, & 28.64. UNLESS NOTED OTHERWISE.
 7. PROVIDE 2- #5 x 4'-0" LONG DIAGONAL BARS AT CORNERS OF WALL, FLOOR, AND ROOF OPENINGS AND INSIDE CORNERS OF FLOORS.
 8. NOT USED
 9. READY MIXED CONCRETE SHALL CONFORM TO (A.S.T.M. C-94)
 10. PLACEMENT OF CONCRETE SHALL CONFORM TO A.C.I. 304. CLEAN AND ROUGHEN TO 1/4" AMPLITUDE ALL CONCRETE SURFACES AGAINST WHICH CONCRETE IS TO BE PLACED.
 11. DRYPACK UNDER BASEPLATES, WHERE OTHERWISE NOTED ON DRAWINGS SHALL CONSIST OF 1 PART PORTLAND CEMENT AND 2 1/2 PARTS OF FINE AGGREGATE CONFORMING TO A.S.T.M. C-33 WITH ENOUGH WATER TO FORM A BALL WHEN SQUEEZED IN THE HAND. THE SPACE BETWEEN TWO SURFACES REQUIRING DRYPACK SHALL BE PACKED WITH THE DRYPACK MATERIAL BY TAMPING OR RAMMING WITH A BAR OR ROD UNTIL VOIDS ARE COMPLETELY FILLED.
 12. ALL EXPOSED CONCRETE SHALL HAVE A SMOOTH FORM FINISH USING B-B PLYFORM, CLASS I, EXT-A.P.A. PLYWOOD.
 13. ALL SLABS SHALL HAVE A TROWELED FINISH EXCEPT AS NOTED ON THE DRAWINGS.
 14. ALL REINFORCING STEEL, ANCHOR BOLTS, DOWELS AND INSERTS SHALL BE WELL SECURED IN POSITION PRIOR TO PLACING CONCRETE.
 15. IF THE CONTRACTOR DESIRES TO MAKE ANY CONSTRUCTION JOINTS OTHER THAN THOSE SHOWN ON THESE DRAWINGS, HE SHALL SUBMIT DETAILS TO THE ENGINEER OF RECORD FOR REVIEW BEFORE STARTING WORK.
 16. NO BRICK OR POROUS MATERIAL SHALL BE USED TO SUPPORT FOUNDATION STEEL OFF THE GROUND
 17. PROVIDE 3/4 INCH CHAMFER ON ALL EXPOSED CONCRETE CORNERS, U.N.O.
 18. SLEEVE PLUMBING OPENINGS IN SLABS OR WALLS BEFORE PLACING CONCRETE, SLEEVES SHALL NOT INTERRUPT REINFORCING.
 19. ALL REINFORCING BARS SHALL BE PROVIDED WITH THE FOLLOWING CONCRETE MINIMUM COVER:
 FOOTINGS AND SLABS CAST AGAINST EARTH 3"
 FORMED CONCRETE EXPOSED TO EARTH OR WEATHER 2"
 BEAMS AND GIRDERS 1 1/2"
 WALLS 1 1/2"
 COLUMN TIES 1 1/2"
 SLABS (#11 AND SMALLER) 3/4"

20. CONCRETE CURING: TYPICALLY REQUIRED FOR 10 DAYS.
 21. FUSION WELDING IS NOT PERMITTED UNLESS APPROVED BY THE ENGINEER OF RECORD AND DSA.

MASONRY:
 1. MASONRY WALLS SHALL BE RUNNING BOND OF MEDIUM WEIGHT CONCRETE MASONRY UNITS (CMU) IN ACCORDANCE WITH A.S.T.M. SPECIFICATION C-90, F'm= 2,000 PSI, USE OPEN END UNITS AT VERTICAL REINFORCING. TEST MASONRY UNITS, MORTAR, AND GROUT PER UNIT STRENGTH METHOD (C.B.C. 1705A.4 AND 2105A.3)
 2. TOP COURSE OF NEW CMU WALL TO BOTTOM OF EXISTING ROOF DECK TO BE OPEN END BOND BEAM UNITS.
 3. THE ASSEMBLED MASONRY SHALL HAVE A COMPRESSIVE STRENGTH OF F'm=2,500 P.S.I.
 4. ALL VERTICAL CELLS SHALL BE GROUTED SOLID IN LIFTS NOT EXCEEDING 4'-0" IN HEIGHT.
 5. VERTICAL BARS IN MASONRY UNITS SHALL BE TIED OR OTHERWISE FIXED IN POSITION AT INTERVALS OF NOT LESS THAN 4'-0" AND AT TOP AND BOTTOM.
 6. PROVIDE INSPECTION AND CLEANOUT HOLES AT BASE OF VERTICAL CELL GROUT LIFTS WHICH ARE MORE THAN 2'-0" IN HEIGHT.
 7. WHEN GROUTING IS STOPPED FOR ONE HOUR OR LONGER HORIZONTAL CONSTRUCTION JOINTS SHALL BE FORMED BY STOPPING THE POUR OF GROUT 1 1/2" BELOW THE TOP OF THE UPPERMOST MASONRY UNITS.
 8. MORTAR SHALL BE ASTM C270 TYPE S PER CALIFORNIA BUILDING CODE SECTION 2103A.2.1 WITH A 28 DAYS COMPRESSIVE STRENGTH OF 2,000 P.S.I.

9. REINFORCEMENT WELDING SHALL COMPLY WITH A.W.S. D1.4. NO FIELD WELDING OF REINFORCING BARS, U.N.O.
 10. ALL HEAD JOINTS SHALL BE FULL BUTTERED OR OPEN END MASONRY UNITS SHALL BE USED.
 11. GROUT SHALL CONFORM TO SECTION 2103A.3. A MIXTURE OF CEMENT, SAND, PEA GRAVEL AND WATER WHICH WILL COMPLETELY FILL ALL VOIDS IN THE WALL AND DEVELOP A 28 DAY COMPRESSIVE STRENGTH OF 2,000 P.S.I. ADMIXTURE PER TMS 602 SECTION 2.2.C COARSE GROUT PER CBC 2103A.3.1 AND ASTM C476
 12. CEMENT SHALL CONFORM TO A.S.T.M. C-150, TYPE I OR II, LOW ALKALI.
 13. REINFORCING STEEL A.S.T.M. A-615, GRADE 60. SPLICE IN REINFORCEMENT SHALL BE LAPPED PER (10) (11) U.N.O.
 14. ALL VERTICAL WALL REINFORCEMENT SHALL BE DOWELED TO THE FOUNDATION WITH THE SAME SIZE AND NUMBER OF BARS AS SHOWN IN THE WALLS.
 15. PROVIDE ONE INCH MINIMUM GROUT COVER ON ALL BOLTS AND PLATES.
 16. HORIZONTAL REINFORCING SHALL BE PLACED IN BOND BEAM UNITS.
 17. NO PIPES OR DUCTS SHALL BE PLACED IN MASONRY WALLS UNLESS SPECIFICALLY NOTED OR DETAILED.

STEEL:
 1. FABRICATION AND ERECTION TO CONFORM TO A.I.S.C. LATEST ADOPTED EDITION "SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS" AND "CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES" EXCEPT AS OTHERWISE SHOWN OR SPECIFIED.
 2. QUALIFIED AND CERTIFIED WELDERS SHALL BE USED FOR ALL WELDING. WELDING TO BE PERFORMED IN THE SHOP OF BOTH I.A.S. AND A.I.S.C. CERTIFIED FABRICATOR. ALL WELDING TO CONFORM TO THE LATEST ADOPTED EDITION OF THE AMERICAN WELDING SOCIETY STRUCTURAL WELDING CODE A.W.S. D1.1. SPECIAL INSPECTION IN SHOP IS REQUIRED.
 3. MATERIALS:
 STRUCTURAL STEEL SHAPES A.S.T.M. A-992, GRADE 50
 STRUCTURAL STEEL PLATES A.S.T.M. A-36
 STRUCTURAL STEEL PIPES A.S.T.M. A53 TYPE E OR S, GRADE B
 WELDING ELECTRODES A.W.S. A-51 TYPE E OR A-5.5.
 ANCHOR BOLTS A.S.T.M. A-307
 TYPICAL STEEL CONNECTION BOLTS A.S.T.M. A-307
 MISCELLANEOUS BOLTS A.S.T.M. A-123
 GALVANIZING A.S.T.M. A-123
 RUST-INHIBITING PRIMER TT-P-645
 STEEL TUBING A.S.T.M. A-500, GRADE B (fy = 46 K.S.I.)
 DEFORMED STEEL WIRE A.S.T.M. A-496
 4. HOT-DIPPED GALVANIZE AFTER FABRICATION ALL STRUCTURAL STEEL (ASTM A-123 AND A-385) AND CONNECTORS (ASTM A-153) EXPOSED TO WEATHER. TOUCH UP DAMAGED GALVANIZING WITH GALVALLOY AFTER ERECTION IS COMPLETE. (ASTM A-780)
 5. CONNECTED MEMBERS SHALL BEAR ONLY UPON UNTHREADED PORTIONS OF BOLTS.
 6. BURNING OF HOLES IS NOT ALLOWED.
 7. INSPECTION OF WELDING SHALL CONFORM TO C.B.C. REQUIREMENTS (CHAPTER 17A)
 8. THE STRUCTURAL STEEL FABRICATOR SHALL SUBMIT SHOP DRAWINGS TO THE ENGINEER FOR APPROVAL PRIOR TO FABRICATION.
 9. BOLT HOLES SHALL BE 1/16" LARGER IN DIAMETER THAN NOMINAL SIZE OF BOLT USED. UNLESS NOTED OTHERWISE.
 10. STRUCTURAL STEEL SHALL BE DELIVERED TO THE JOB SITE FREE OF EXCESSIVE RUST, MILL SCALE, GREASE, ETC.
 11. OPENING SHALL NOT BE PLACED IN STEEL MEMBERS UNLESS SPECIFICALLY DETAILED.

WELDING
 1. ALL WELDING SHALL BE IN ACCORDANCE WITH THE PROVISIONS OF THE AMERICAN WELDING SOCIETY CODE D1.1. (LATEST ADOPTED EDITION.)
 2. ALL WELDING SHALL BE DONE BY AWS CERTIFIED WELDERS.
 3. ALL WELDING SHALL BE DONE BY THE SHIELDED ARC PROCESS USING APPROVED ELECTRODES PER A.W.S. SPECIFICATIONS E70 (LOW HYDROGEN ELECTRODES)
 4. NOT USED
 5. ALL ELECTRODES FILLER MATERIAL SHALL BE A MINIMUM OF E70.
 6. WELDING OF REINFORCING BARS TO BE IN ACCORDANCE WITH A.W.S. D1.4. REINFORCING STEEL TO BE WELDED SHALL HAVE A CARBON EQUIVALENT (CE) OF 0.75. SPECIAL INSPECTION IS REQUIRED.
 7. WELDING OF SHEET METAL SHALL BE IN ACCORDANCE WITH A.W.S. D1.3
 8. SPECIAL INSPECTION IS REQUIRED FOR ALL WELDING.
 9. ALL SHOP AND FIELD WELDING OF MOMENT CONNECTIONS OR MOMENT RESISTING FRAMES, AND ALL COLUMN SPJCE WELDS, SHALL BE TESTED AS PER C.B.C.
 10. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROTECT EXISTING COMBUSTIBLE COMPONENTS AND TO IMPLEMENT AND MAINTAIN APPROPRIATE SAFETY PROCEDURES DURING FIELD WELDING OPERATIONS.

COLD-FORMED METAL FRAMING:
 1. COLD-FORMED STEEL CONSTRUCTION SHALL CONFORM TO THE CODE AND THE "NORTH AMERICAN SPECIFICATION FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS", BY THE AMERICAN IRON AND STEEL INSTITUTE (AISI), AISI S100-12.
 2. COLD-FORMED METAL FRAMED SHALL BE GALVANIZED TO G60 MINIMUM AND CONFORM TO ASTM 1003 PER AISI S200-12A3. MINIMUM 50,000 PSI YIELD POINT FOR 16 GAUGE AND HEAVIER AND MINIMUM 33,000 PSI YIELD POINT FOR 18 GAUGE AND LIGHTER.
 3. DIMENSIONS, PROPERTIES, AND TYPES NOTED ARE BASED ON THE STEEL STUD MANUFACTURERS ASSOCIATION, ESR-3064P.
 4. SHEET METAL FASTENERS: SHEET METAL SCREWS "SMS" SHALL BE "GRABBER" BRAND SELF-DRILLING/SELF-TAPPING SCREWS AND SHALL BE INSTALLED IN ACCORDANCE WITH ESR-1271.
 5. MINIMUM SPACING AND EDGE DISTANCE OF SCREWS SHALL BE 3/4" FOR ALL SCREWS U.N.O.
 6. ALL SHEET METAL SCREWS SHALL PROTRUDE THROUGH JOINED MATERIAL NOT LESS THAN (3) EXPOSED THREADS NOR LESS THAN 1/4".
 7. SEE ARCHITECTURAL AND STRUCTURAL DRAWINGS FOR SIZE AND GAUGE OF COLD-FORMED METAL FRAMING.
 8. ATTACH EACH STUD TO TRACK W/ (1) #10 SMS EA FLANGE, U.N.O. ON THE DRAWINGS.
 9. ADD BRIDGING AT 48" O.C. TO ALL STUDS, U.N.O., SEE ARCHITECTURAL DRAWINGS.
 10. ALL WELDING SHALL BE IN CONFORMANCE WITH AWS D1.3, "STRUCTURAL WELDING CODE -- SHEET STEEL". QUALIFICATION OF WELDERS SHALL BE IN ACCORDANCE WITH AWS D1.1, CHAPTER 4, PART C, "PERFORMANCE QUALIFICATION". USE E70XX ELECTRODES.

STRUCTURAL OBSERVATION:
 1. PER 2016 CALIFORNIA ADMINISTRATIVE CODE, SECTION 4-333. A LICENSED ENGINEER OR ARCHITECT RESPONSIBLE FOR THE STRUCTURAL DESIGN, OR HIS DESIGNATED ENGINEER OR ARCHITECT MUST MAKE SITE VISITS TO OBSERVE GENERAL COMPLIANCE WITH THE APPROVED STRUCTURAL PLANS, SPECIFICATIONS AND CONSTRUCTION CHANGE DOCUMENTS (CCD). THE ENGINEER OR ARCHITECT SHALL SUBMIT A FINAL VERIFIED REPORT FORM DSA-6A/E TO DSA.

EXPANSION AND ADHESIVE ANCHORS:
 *CONCRETE ADHESIVE ANCHORS SHALL BE BY "HILTI" HIT HY-200 ADHESIVE ANCHOR SYSTEMS OR APPROVED EQUAL (ESR-3187). MASONRY ADHESIVE ANCHORS SHALL BE "HILTI" HIT HY70 (ESR-2682).
 1. CONCRETE EXPANSION ANCHORS SHALL BE BY "HILTI" KWIKBOLT-TZ OR AN APPROVED EQUAL.* ALL ANCHORS AND FASTENERS SHALL HAVE DESIGN LOADS IN NORMAL WEIGHT OR LIGHTWEIGHT CONCRETE SUBSTANTIATED BY ICC ES REPORT NO ESR-1917.
 MASONRY EXPANSION ANCHORS SHALL BE BY "HILTI" KWIKBOLT-3 (ESR-1385) OR AN APPROVED EQUAL. ANCHORS SHALL BE PROOF LOAD TESTED BY APPLYING A TEST LOAD AS FOLLOWS: (SEE ITEM 6 FOR TESTING FREQUENCY)
 FOR ANCHORS IN NORMAL WEIGHT CONCRETE (f'c=4,500 psi)

ANCHOR DIAMETER (IN.)	EXPANSION (KB-TZ)		ADHESIVE (HIT HY-200)	
	EMB.	TORQUE (FT-LB)	EMB.	TORQUE (FT-LB)
3/8"	2 1/2"	25	2 3/8"	1750
1/2"	3 1/2"	40	4 1/4"	4200
5/8"	4"	60	5"	6200
3/4"	4 3/4"	110	6 5/8"	10000

NOTE:
 EDGE DISTANCE SHALL BE EQUAL TO OR GREATER THAN CRITICAL EDGE DISTANCE IN ICC REPORT FOR ANCHORS IN FULLY GROUTED CMU (f'm=2,000 psi) SPECIAL INSPECTION REQUIRED

ANCHOR DIAMETER (IN.)	EXPANSION (KB-3)		ADHESIVE (HIT HY70)	
	EMB.	TORQUE (FT/LB)	EMB.	TORQUE (FT/LB)
1/4"	2"	4	-	-
3/8"	2 1/2"	15	3 1/2"	1692
1/2"	3 1/2"	25	4 1/4"	3004
5/8"	4"	65	5"	4544
3/4"	4 3/8"	120	6 5/8"	6096

NOTE:
 MINIMUM EDGE DISTANCE FROM EDGE OF WALL = 4in.

USE THE FOLLOWING SPECIAL INSPECTION TORQUE VALUES FOR SCREW ANCHORS:

ANCHOR TYPE / DIAMETER (IN.)	EMBED.	ICC REPORT	BASE MATERIAL	TORQUE (FT-LB)
1/4" DIA. HILTI "HUS EZ"	1-5/8"	ESR-3056	CMU	21
3/8" DIA. SIMPSON "TITEN HD"	2 3/4"	ESR-1056	CMU	50
3/8" DIA. SIMPSON "TITEN HD"	2 3/4"	ESR-2713	CONCRETE	50

2. "APPROVED EQUAL" SUBSTITUTIONS SHALL BE SUBMITTED TO THE STRUCTURAL ENGINEER FOR REVIEW PRIOR TO INSTALLATION. CCD APPROVED BY THE "DIVISION OF THE STATE ARCHITECT" WILL BE REQUIRED FOR ANY SUBSTITUTIONS.
 3. THE TESTING OF EXPANSION AND ADHESIVE ANCHORS IN HARDENED CONCRETE SHALL CONFORM TO TITLE 24, PART 2, SECTION 1910A.5
 4. EXPANSION AND ADHESIVE ANCHOR INSTALLATION SHALL BE INSPECTED BY A SPECIAL INSPECTOR SPECIFICALLY APPROVED BY DSA FOR THAT PURPOSE.
 5. EXPANSION AND ADHESIVE ANCHOR TESTING SHALL BE DONE IN THE PRESENCE OF THE PROJECT INSPECTOR AND SHOULD OCCUR 24 HOURS MINIMUM AFTER INSTALLATION OF THE SUBJECT ANCHORS.
 6. TEST QUANTITY OF EXPANSION AND ADHESIVE ANCHORS AS NOTED BELOW
 APPLICATION: QUANTITY:
 STRUCTURAL 100% OF BOLTS
 SILL PLATE 10% OF BOLTS
 NON-STRUCTURAL (EQUIPMENT ANCHORAGE, ETC.) 50% OF BOLTS
 7. THE TEST LOADS SHALL BE APPLIED BY DIRECT PULL WITH A HYDRAULIC JACK, OR A CALIBRATED TORQUE WRENCH. SEE TABLES ABOVE FOR TEST LOADS.
 8. THE FOLLOWING CRITERIA SHALL APPLY FOR THE ACCEPTANCE OF INSTALLED ANCHORS:
 HYDRAULIC RAM METHOD:
 THE ANCHOR SHALL HAVE NO OBSERVABLE MOVEMENT AT THE APPLICABLE TEST LOAD APPLIED FOR A MINIMUM OF (15) SECONDS. FOR WEDGE AND SLEEVE TYPE ANCHORS, A PRACTICAL WAY TO DETERMINE OBSERVABLE MOMENT IS THAT THE WASHER UNDER THE NUT BECOMES LOOSE.
 TORQUE WRENCH METHOD:
 THE APPLICABLE TEST LOAD MUST BE REACHED WITHIN ONE-HALF (1/2) TURN OF THE NUT.
 9. IF ANY ANCHOR FAILS TESTING, TEST ALL ANCHORS OF THE SAME CATEGORY NOT PREVIOUSLY TESTED UNTIL TWENTY (20) CONSECUTIVE PASS, THEN RESUME INITIAL TESTING FREQUENCY.

8. THE FOLLOWING CRITERIA SHALL APPLY FOR THE ACCEPTANCE OF INSTALLED ANCHORS:
 HYDRAULIC RAM METHOD:
 THE ANCHOR SHALL HAVE NO OBSERVABLE MOVEMENT AT THE APPLICABLE TEST LOAD APPLIED FOR A MINIMUM OF (15) SECONDS. FOR WEDGE AND SLEEVE TYPE ANCHORS, A PRACTICAL WAY TO DETERMINE OBSERVABLE MOMENT IS THAT THE WASHER UNDER THE NUT BECOMES LOOSE.
 TORQUE WRENCH METHOD:
 THE APPLICABLE TEST LOAD MUST BE REACHED WITHIN ONE-HALF (1/2) TURN OF THE NUT.
 9. IF ANY ANCHOR FAILS TESTING, TEST ALL ANCHORS OF THE SAME CATEGORY NOT PREVIOUSLY TESTED UNTIL TWENTY (20) CONSECUTIVE PASS, THEN RESUME INITIAL TESTING FREQUENCY.

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 THE ANCHOR SHALL HAVE NO OBSERVABLE MOVEMENT AT THE APPLICABLE TEST LOAD APPLIED FOR A MINIMUM OF (15) SECONDS. FOR WEDGE AND SLEEVE TYPE ANCHORS, A PRACTICAL WAY TO DETERMINE OBSERVABLE MOMENT IS THAT THE WASHER UNDER THE NUT BECOMES LOOSE.
 TORQUE WRENCH METHOD:
 THE APPLICABLE TEST LOAD MUST BE REACHED WITHIN ONE-HALF (1/2) TURN OF THE NUT.
 9. IF ANY ANCHOR FAILS TESTING, TEST ALL ANCHORS OF THE SAME CATEGORY NOT PREVIOUSLY TESTED UNTIL TWENTY (20) CONSECUTIVE PASS, THEN RESUME INITIAL TESTING FREQUENCY.

ABBREVIATIONS:
 AND KPS KILOPOUNDS (1,000 POUNDS)
 K.O. KNOCK OUT
 AT CENTER LINE PLATE, PROPERTY LINE
 LB. LB. POUNDS
 ANCHOR BOLT L.F. LINEAR FOOT
 A.B. ANCHOR BOLT L.F. LINEAR FOOT
 A.O.U. ARCHITECTURAL BOARD L.L. LIVE LOAD
 A.F.F. ABOVE FINISH FLOOR L.L.H. LONG LEG HORIZONTAL
 BO. BOARD L.L.V. LONG LEG VERTICAL
 B.S. BEARING L.S. LIVE LOAD
 BLK. BLOCK L.T. LIGHT
 BLK.G. BLOODING WATER
 B.M. BEAM M.W. MASONRY
 B.M. BOUNDARY MAIL M.C. MAXIMUM
 B.O.M. BOTTOM M.C.H. MECHANICAL
 BOT. BEARING M.E.Z.Z. MEZZANINE
 B.S. BOTH SIDE M.N. MINIMUM
 B.W. BETWEEN M.M. MANHOLE
 C.B. CARRIAGE BOLT M.F. MANUFACTURER
 C.F. CURB FOOT M.L. METAL
 CHAM. CHAMFER M.S. METAL SIDE
 C.I.P. CAST-IN-PLACE N.I.C. NOT IN CONTRACT
 C.J. CONTROL JOINT N.O.M. NOMINAL
 C.L.G. CEILING O.C. ON CENTER
 CLK. CALK O.D. NOT TO SCALE
 CLR. CLEAR O.S. OUTSIDE DIAMETER
 C.M.U. CONCRETE MASONRY UNIT O.P.N.G. OPENING
 COL. COLUMN O.P. OPEN
 CON. CONCRETE O.P.N.G. OPEN
 CONN. CONNECTION P.C. PRECAST
 CONTSNK. COUNTERSINK P.P. PERPENDICULAR
 F.M. FINE MESH PLYWOOD PANEL
 DBL. DOUBLE P.P.F.B. PREFABRICATED
 DEP. DEPRESSION P.F. POUNDS PER SQUARE FOOT
 DET. DETAIL P.S.I. POUNDS PER SQUARE INCHES
 D.F. DOUGLAS FIR P.T. POINT
 D.L. DOUGLAS FIR/LARCH R.D. RADIUS
 DIA. DIAMETER R.D. ROOF DRAIN
 DIM. DIMENSION R.F. REINFORCED
 DIM. DIMENSION R.F. REINFORCED / REINFORCING
 DIV. DIVISION R.F. REVISION
 DR. DOOR R.F. REVISION
 DR. DOOR R.F. WATER

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 DIV. OF THE STATE ARCHITECT
 APP. 04-118720 INC.
 REVIEWED FOR
 SS FLS ACS
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PROFESSIONAL SEAL
 SANDERS, INC.
 ARCHITECTURE/ENGINEERING
 No. 53538
 Exp. 12-31-20
 STATE OF CALIFORNIA

APPROVALS

1. SANDERS, INC. ARCHITECTURE / ENGINEERING
 2. [Signature]
 3. [Signature]
 4. [Signature]

Project Title
**IMPERIAL VALLEY COLLEGE
 BUILDING 200, 300, AND 800 MODERNIZATION**

Sheet Title
TYPICAL STRUCTURAL NOTES

Document Date
 10-18-19

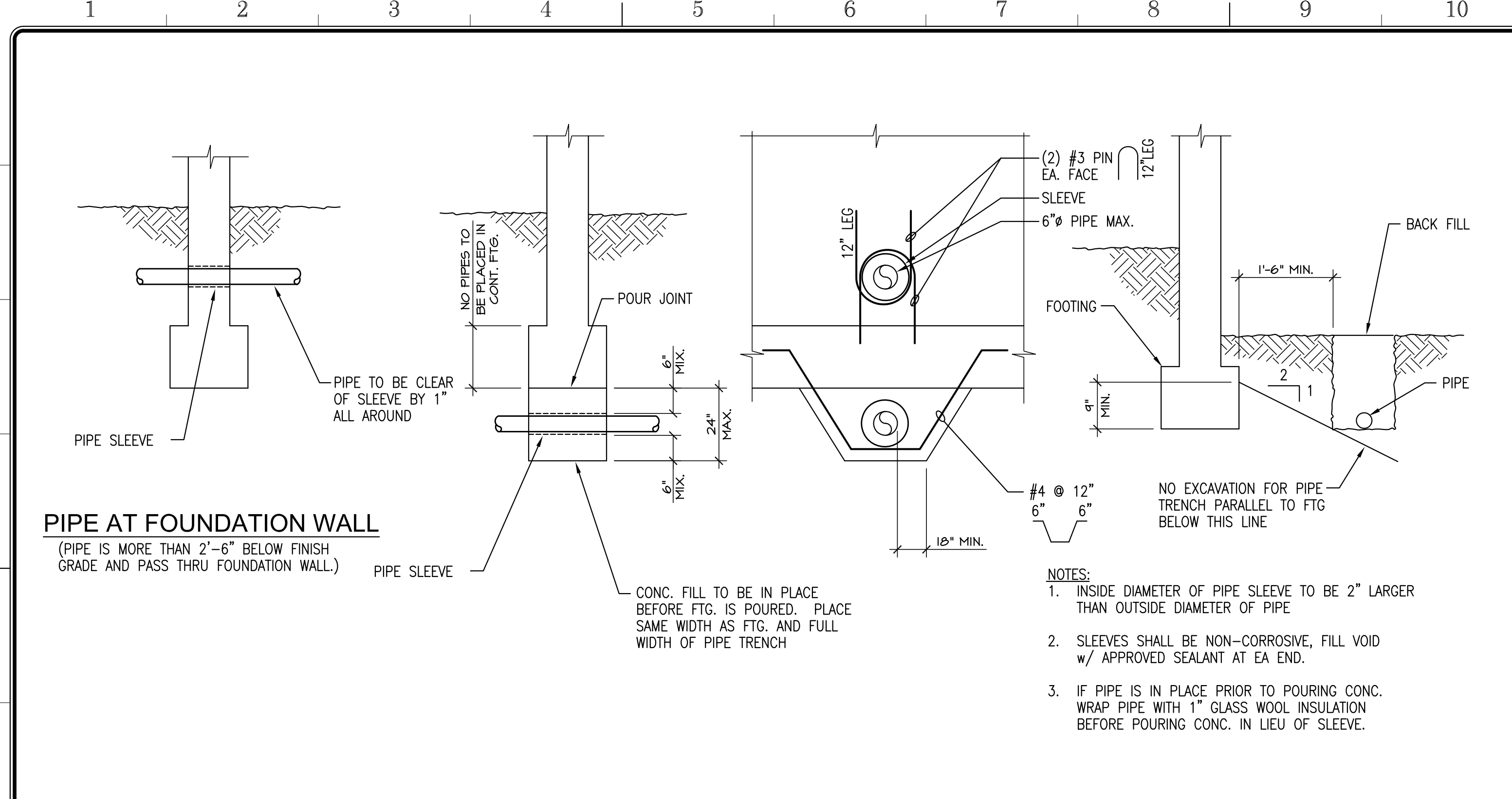
Date Last Revised

Project Number
 19-121V

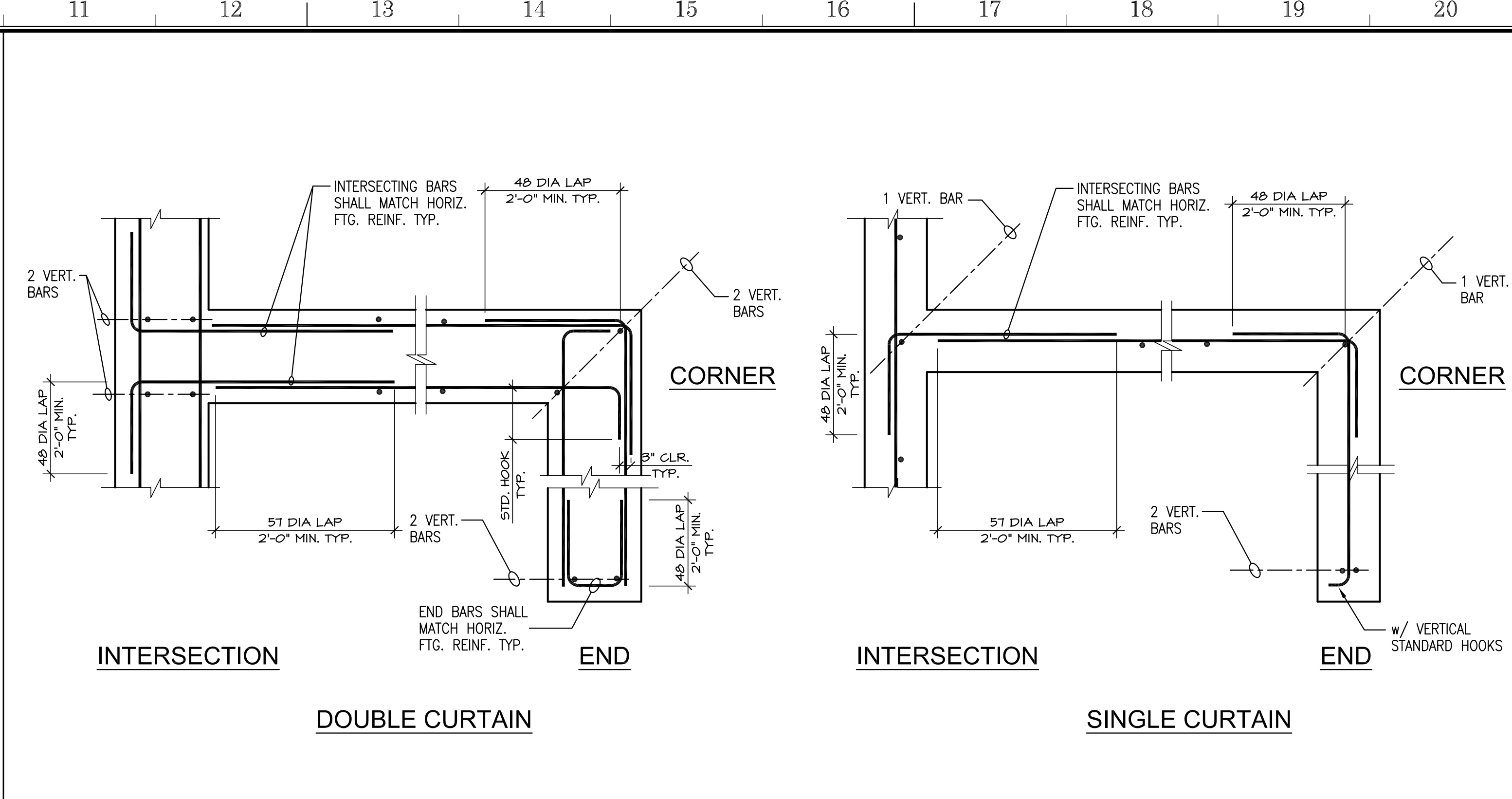
Sheet Number
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 Architecture/Engineering
 102 INDUSTRY WAY, SUITE A
 EL CENTRO, CA 92243
 760 353 5440 FAX 760 353 5442

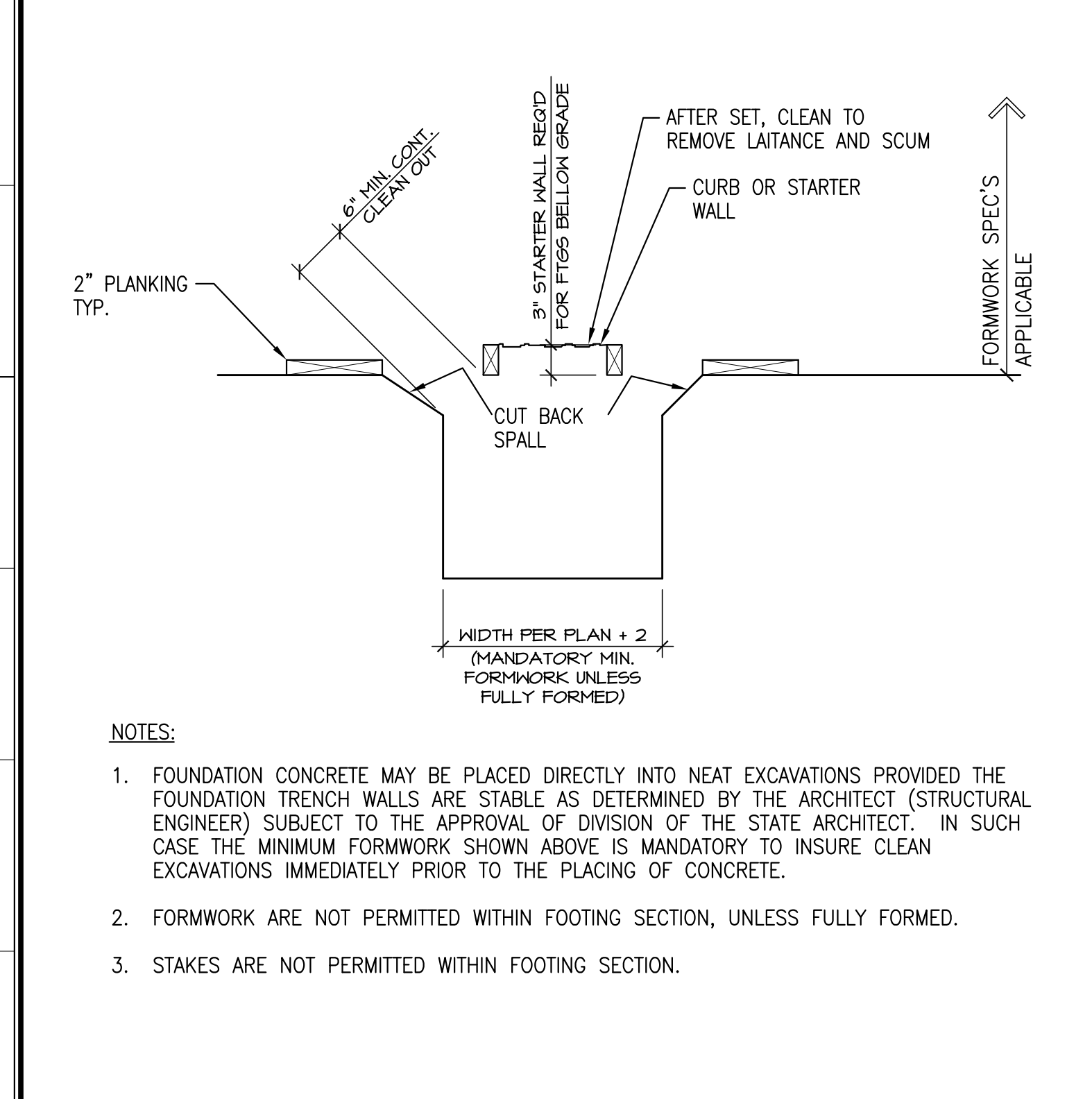
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 SANDERS, INC.
 ARCHITECTURE/ENGINEERING
 No. 53538
 Exp. 12-31-20
 STATE OF CALIFORNIA



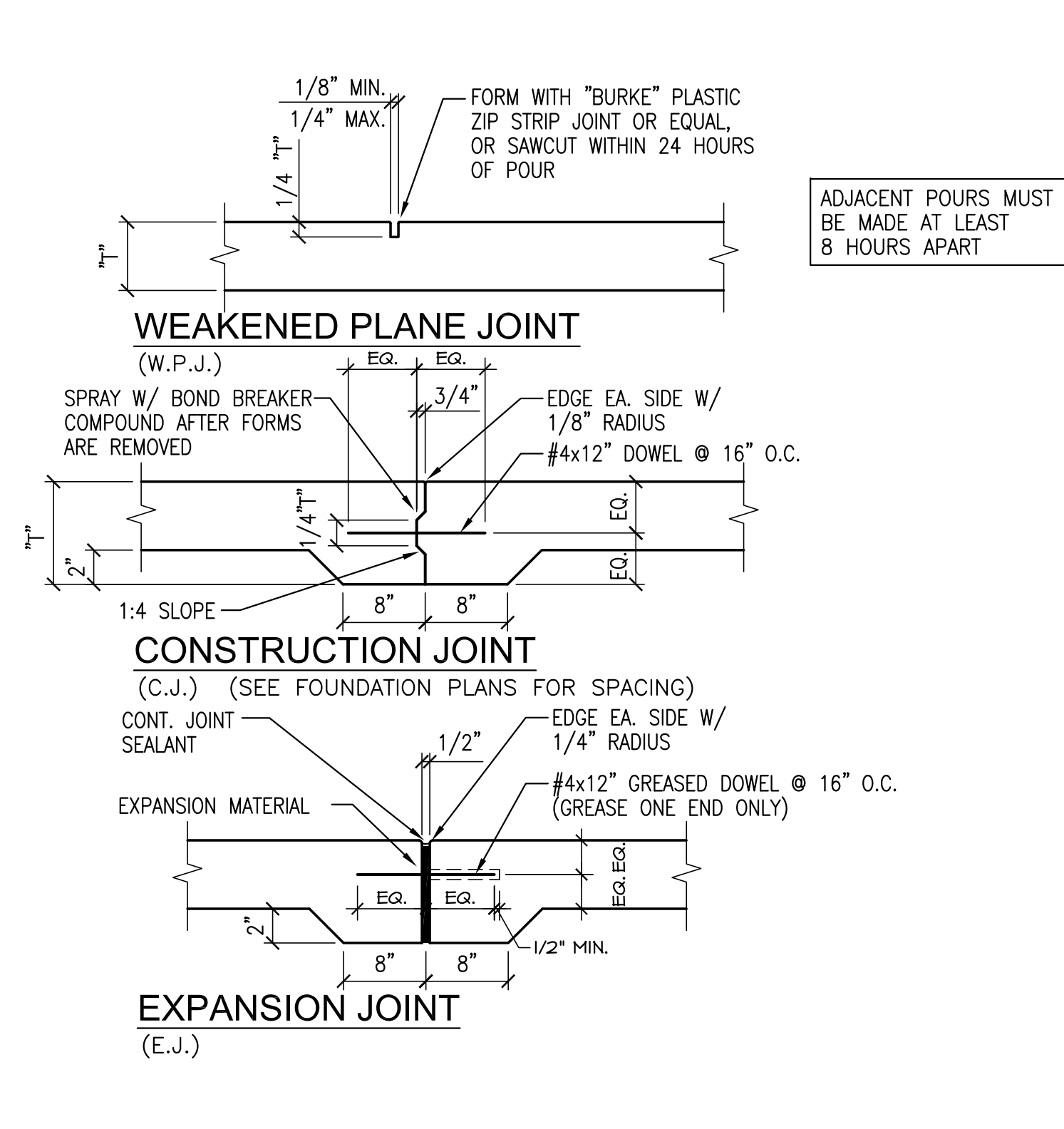
TYPICAL PIPE THRU FOOTING SCALE: N.T.S. 1



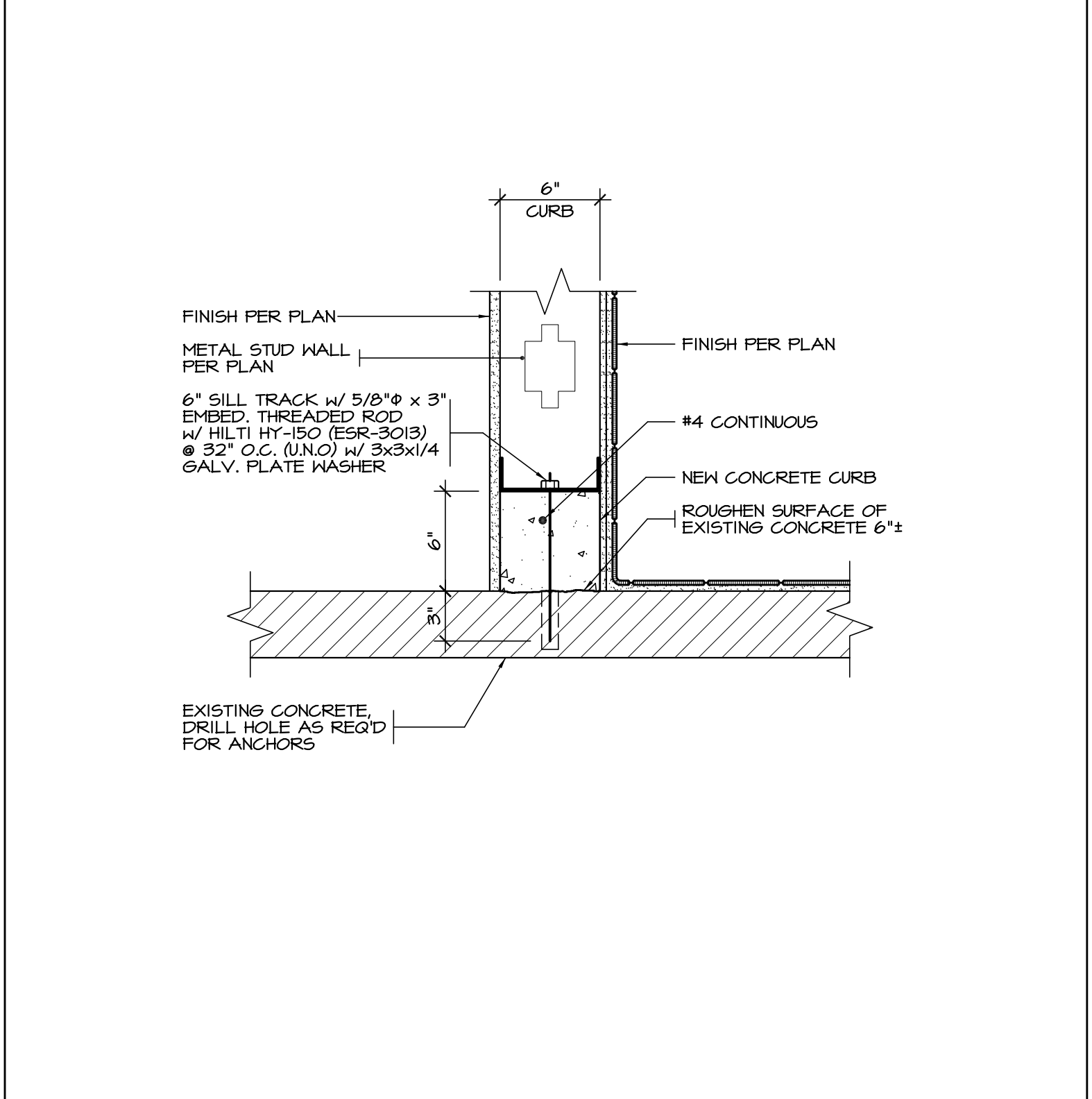
TYPICAL CONCRETE FOOTING REBAR - PLAN VIEW SCALE: N.T.S. 2



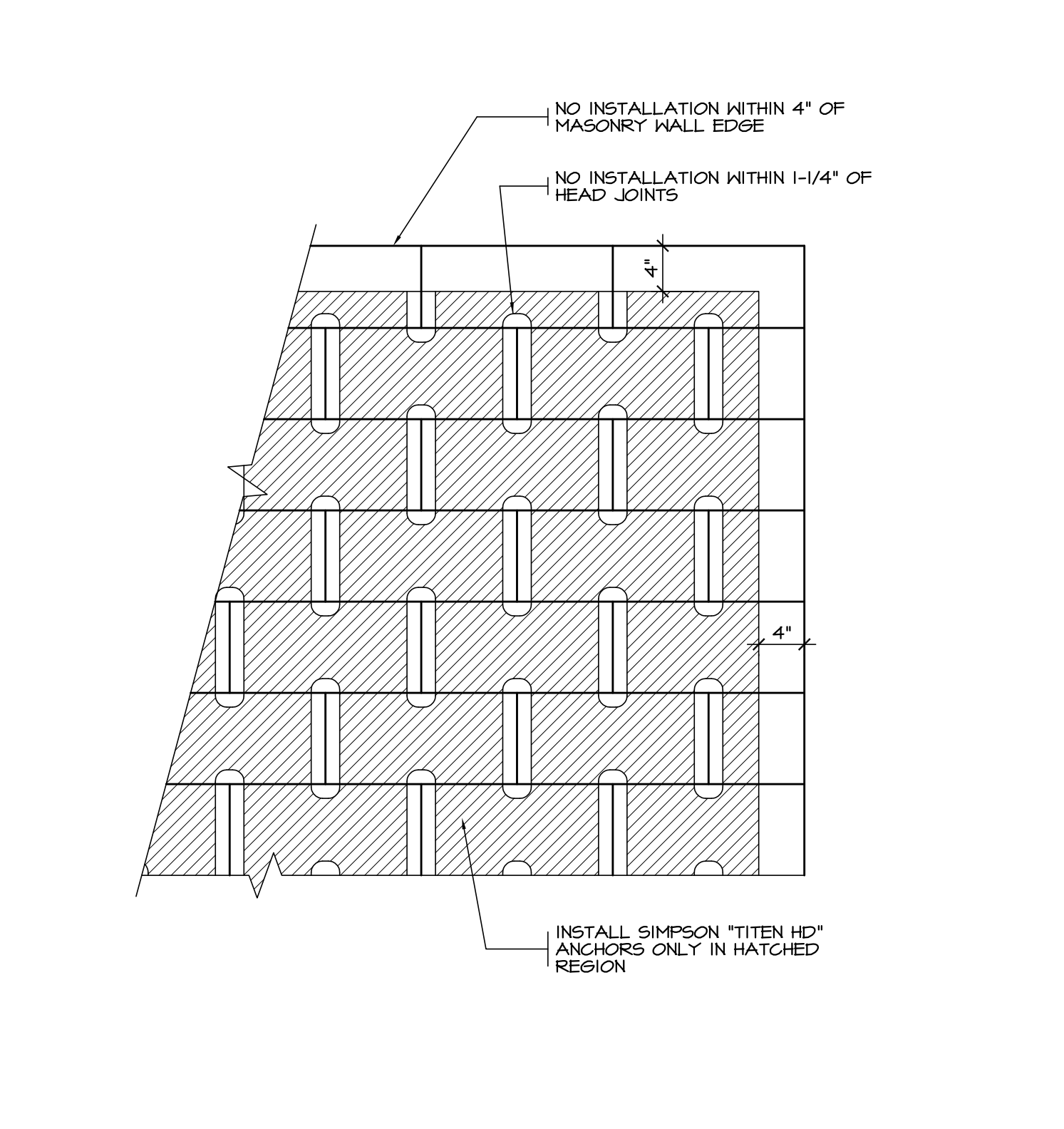
TYPICAL MIN. FORMWORK SCALE: N.T.S. 4



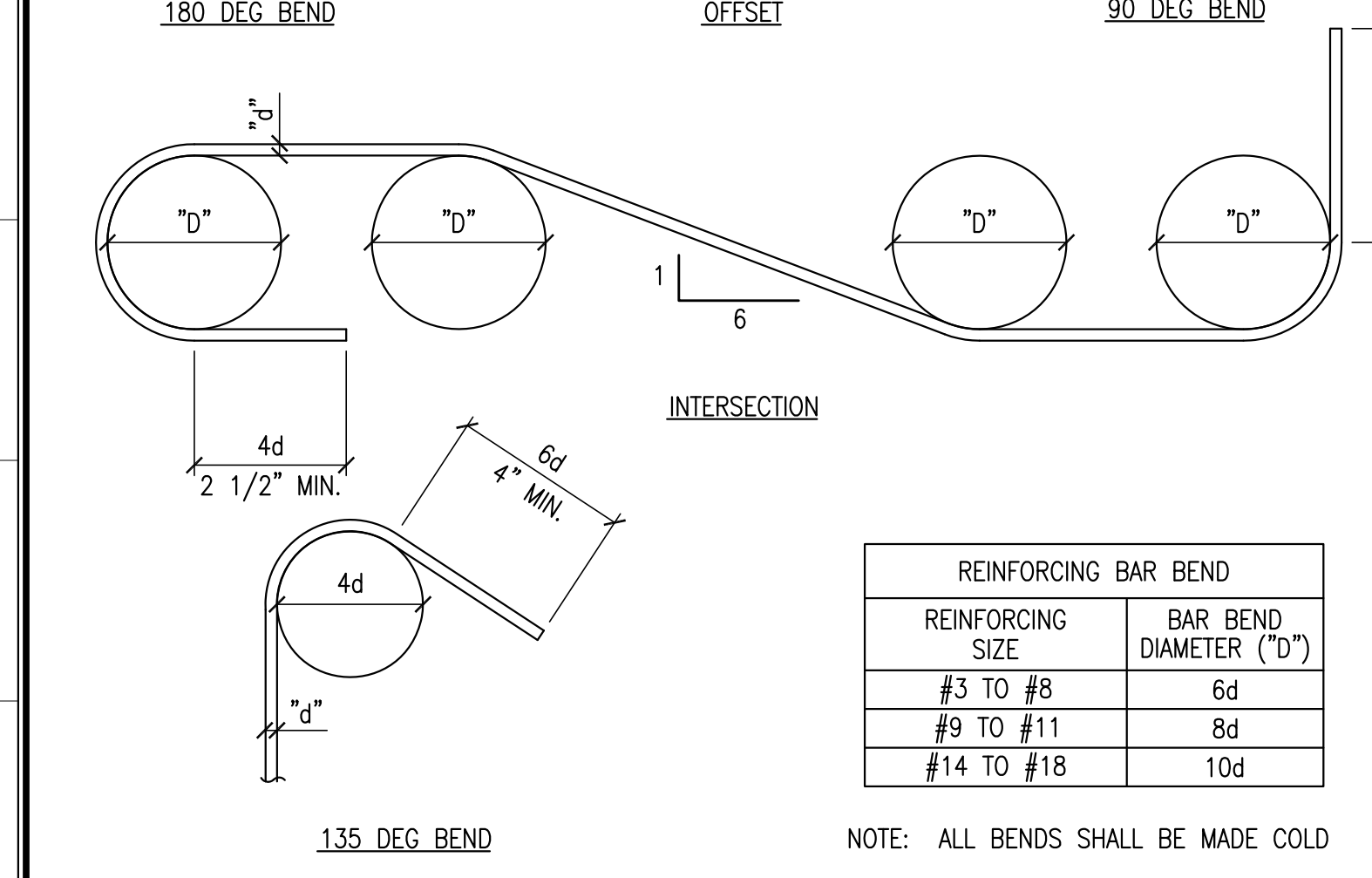
TYPICAL SLAB JOINTS SCALE: N.T.S. 5



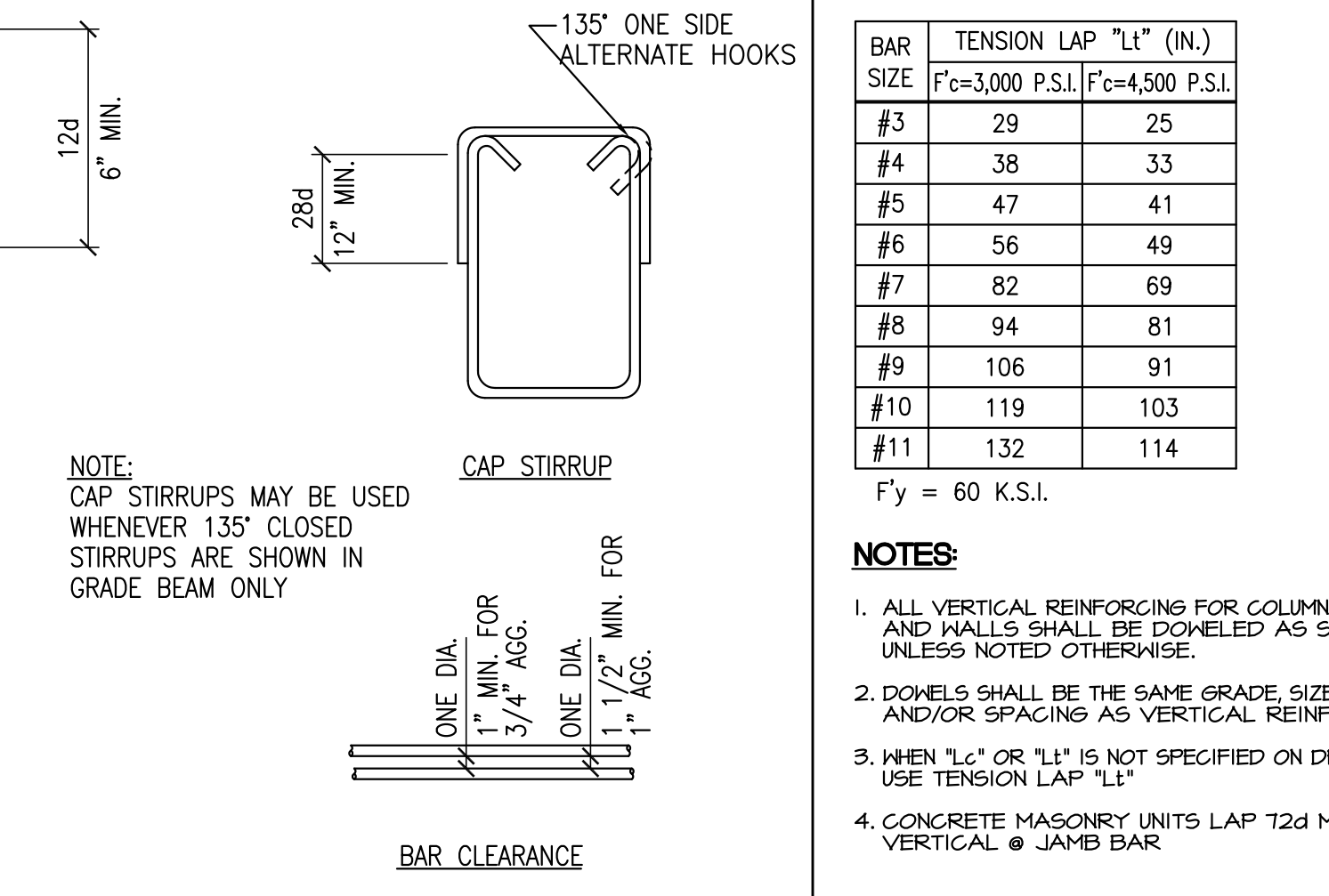
NEW CONCRETE CURB SCALE: 1/2" = 1'-0" 7



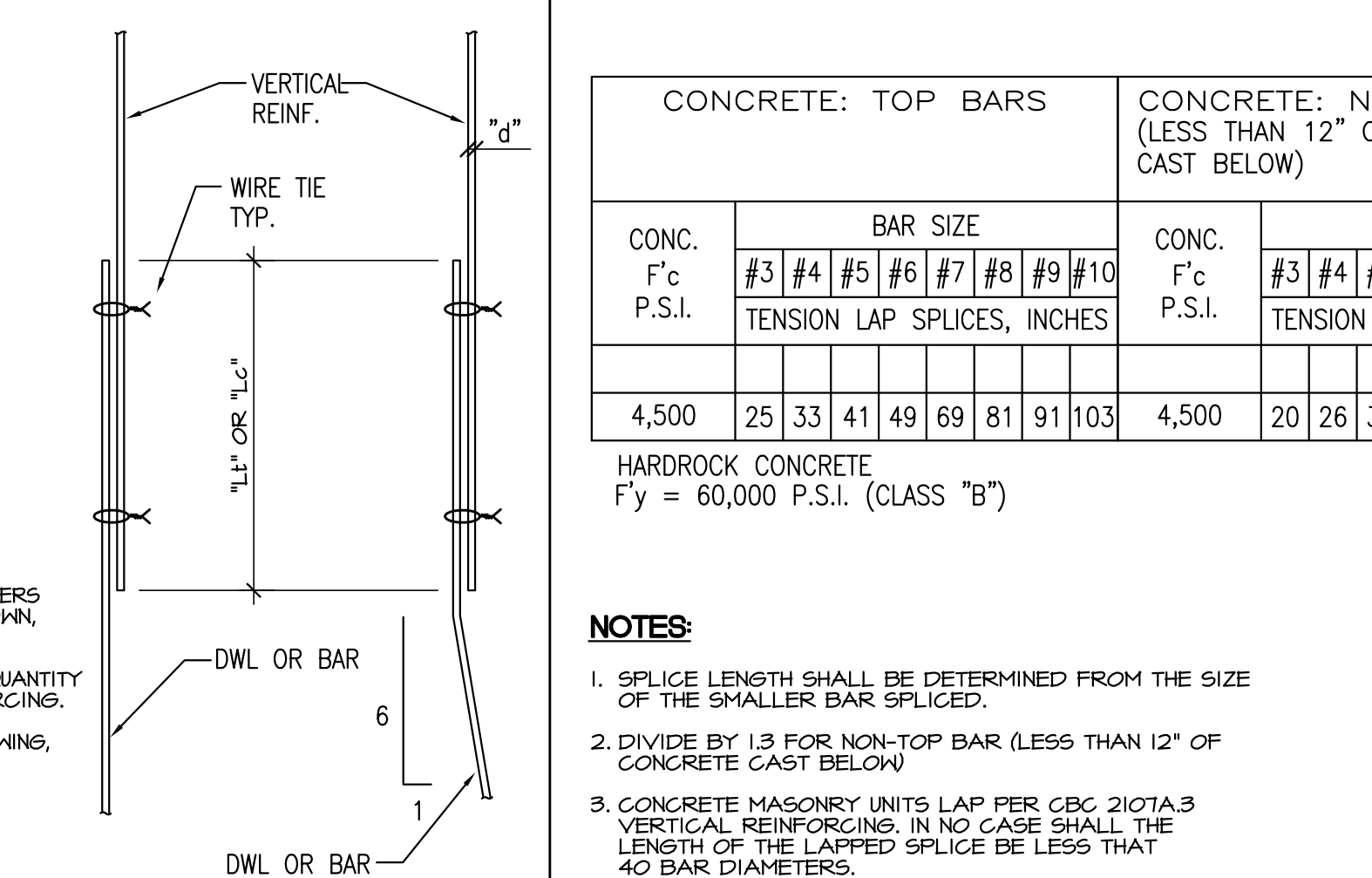
CMU SCREW ANCHOR SCALE: N.T.S. 8



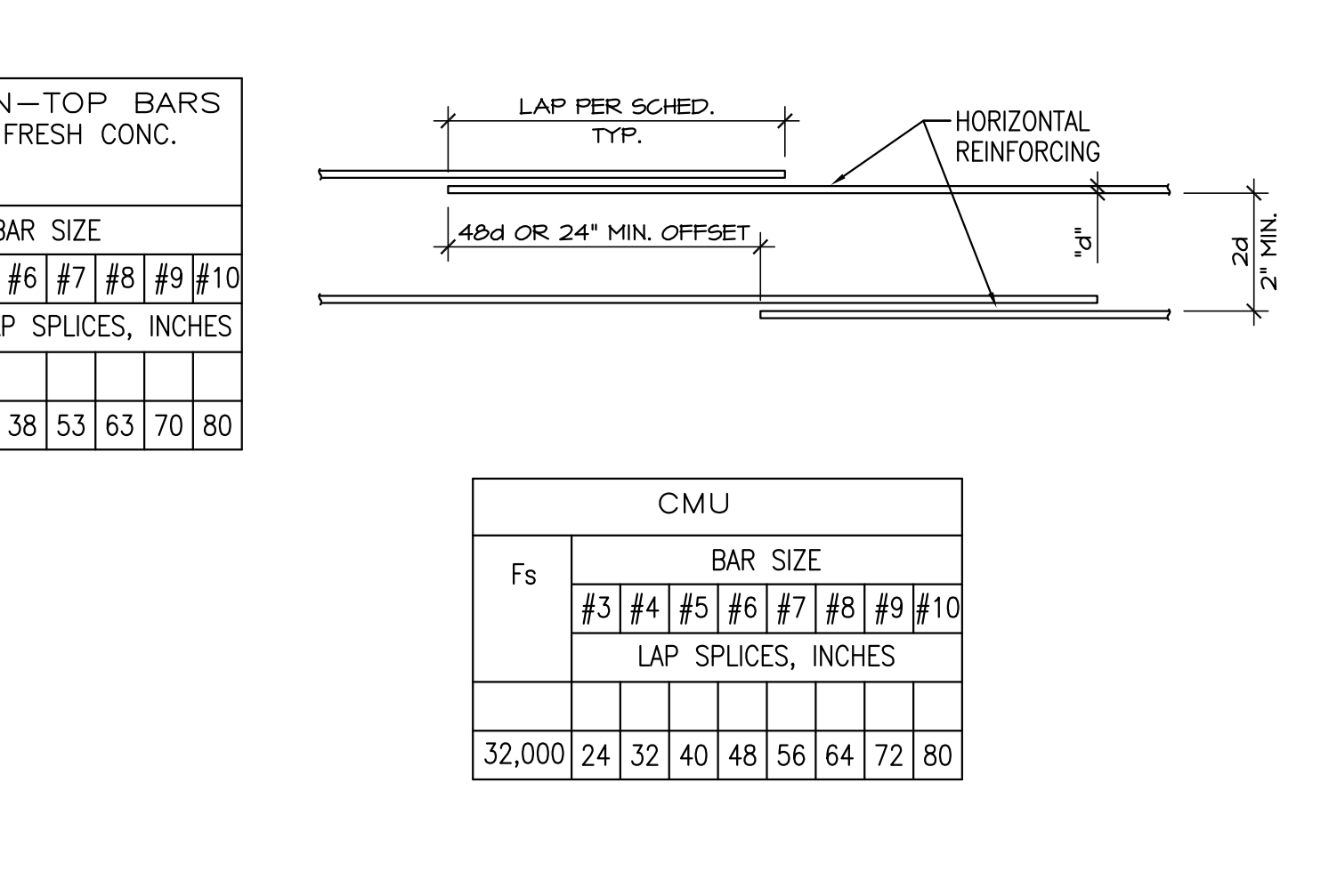
TYPICAL REINF BAR BENDS SCALE: N.T.S. 9



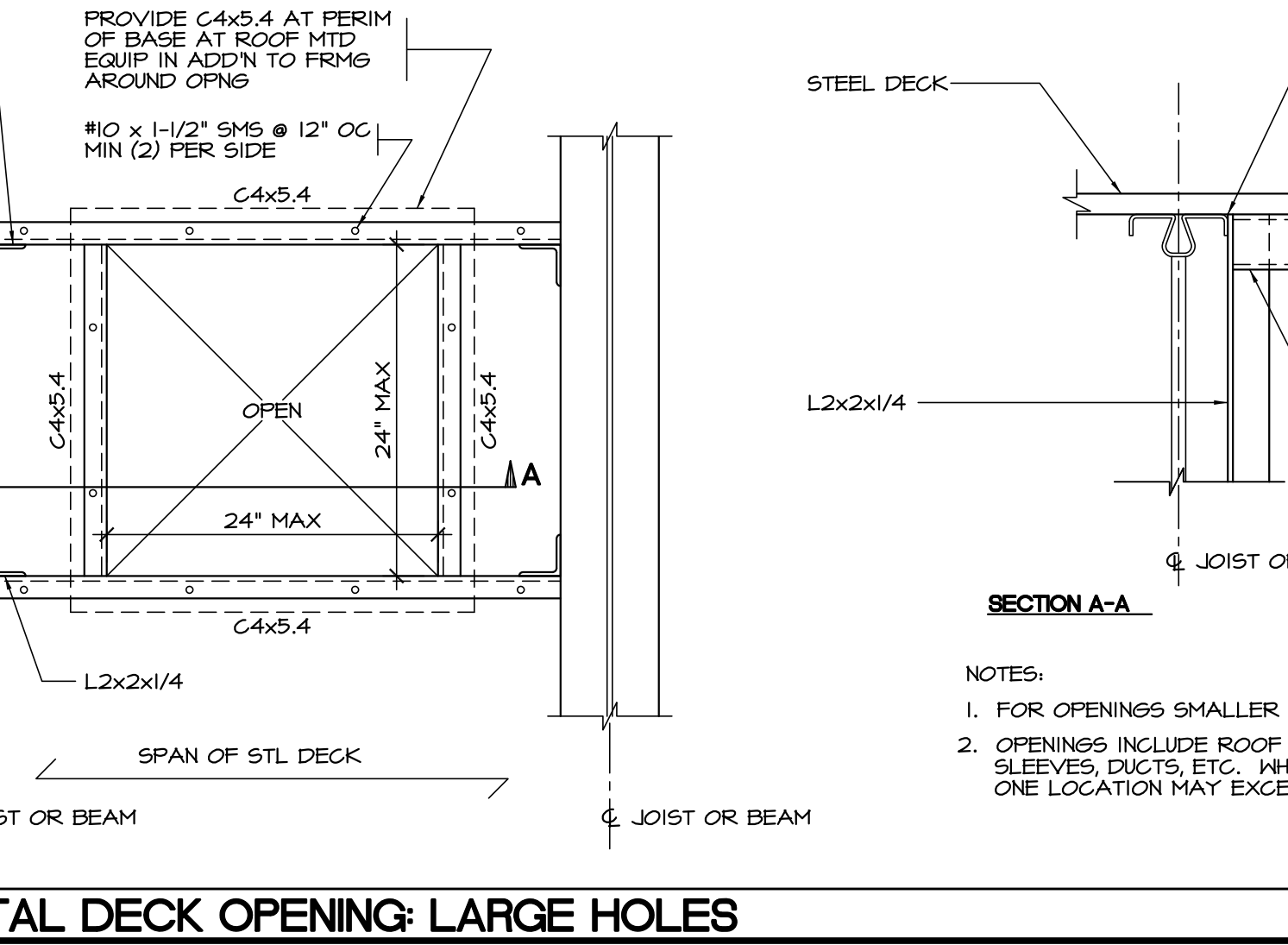
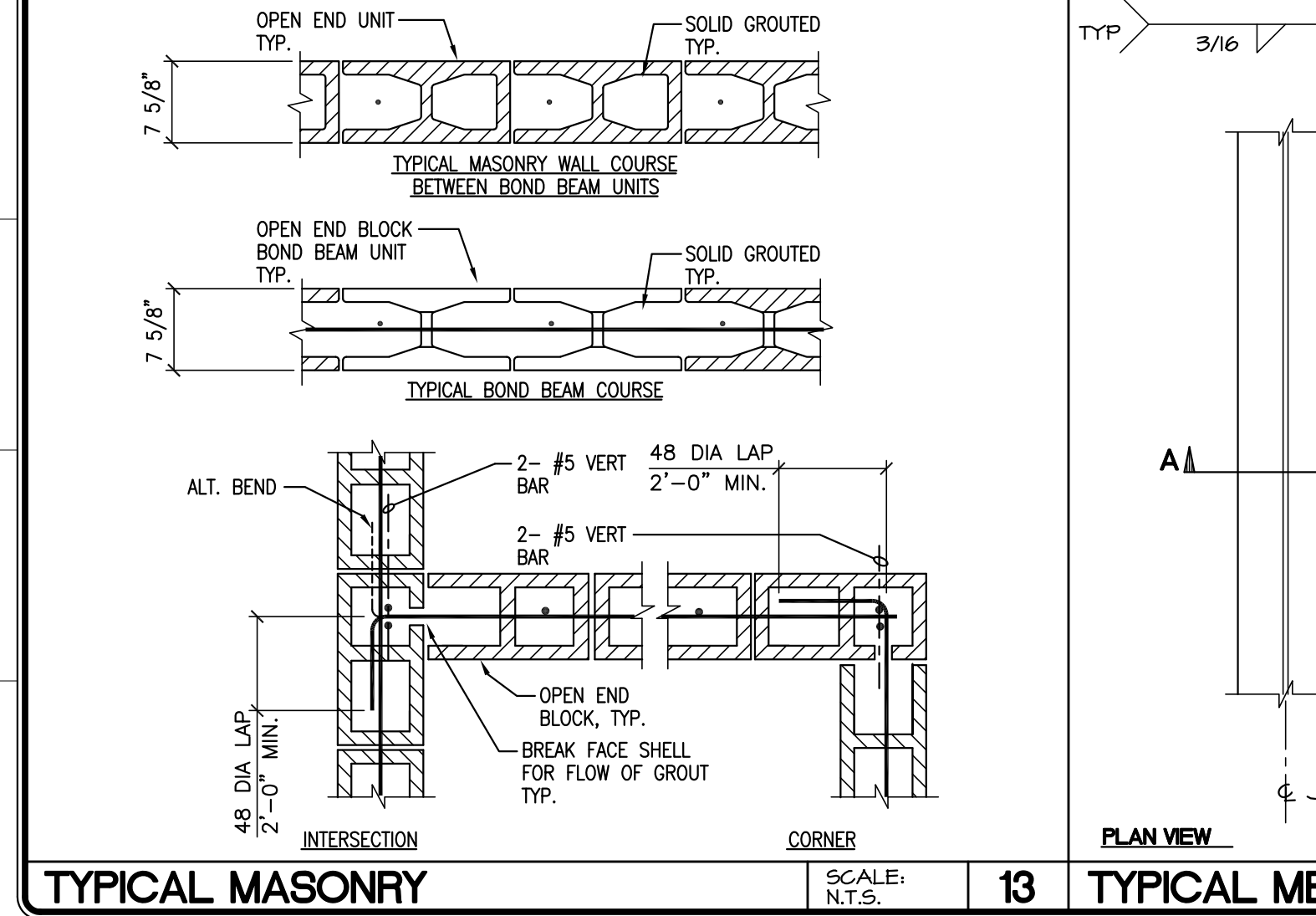
VERTICAL REINFORCING LAP SPlice SCALE: N.T.S. 10



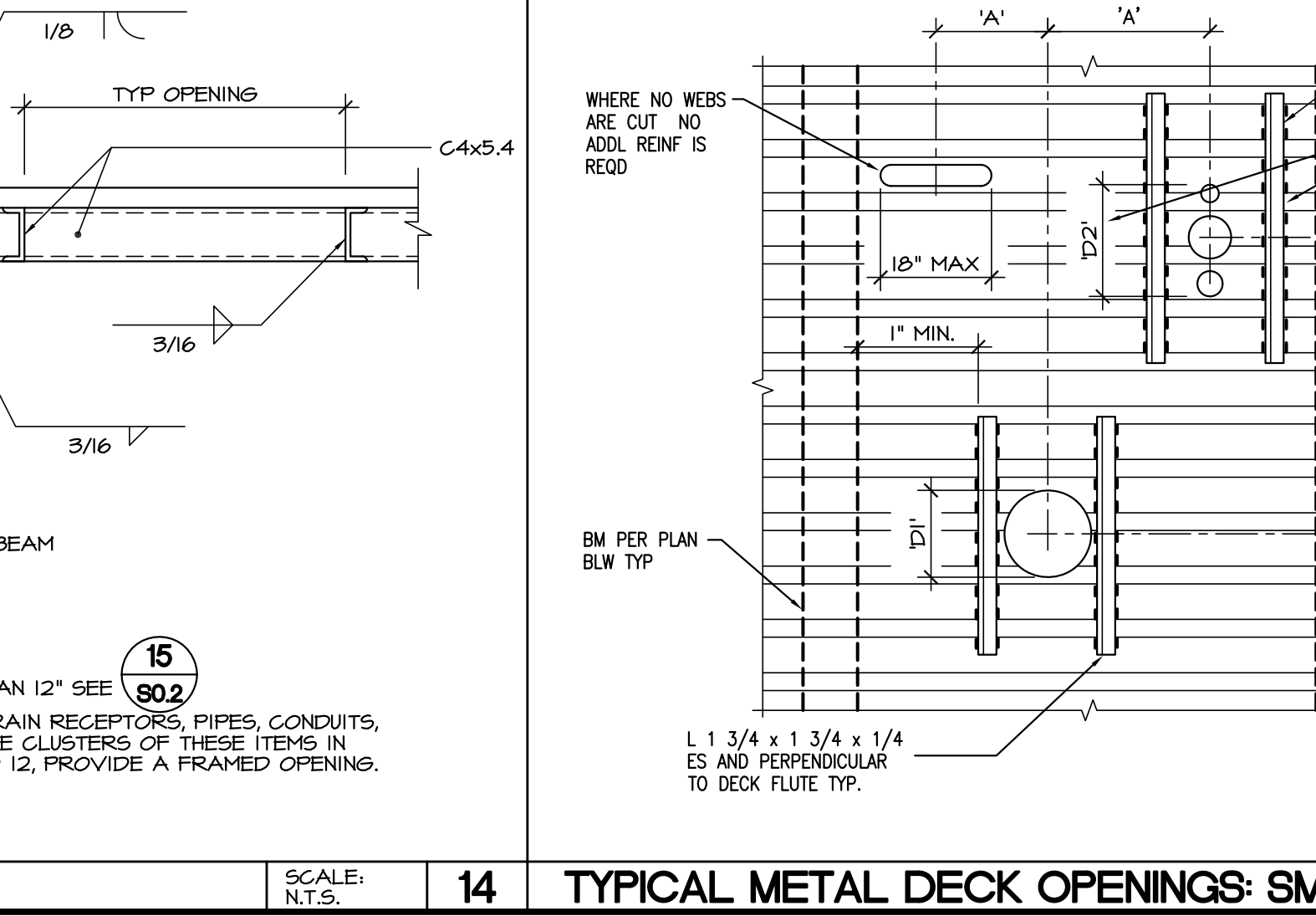
HORIZ. REINFORCING LAP SPlice SCALE: N.T.S. 11



CMU INFILL SCALE: 1/2" = 1'-0" 12



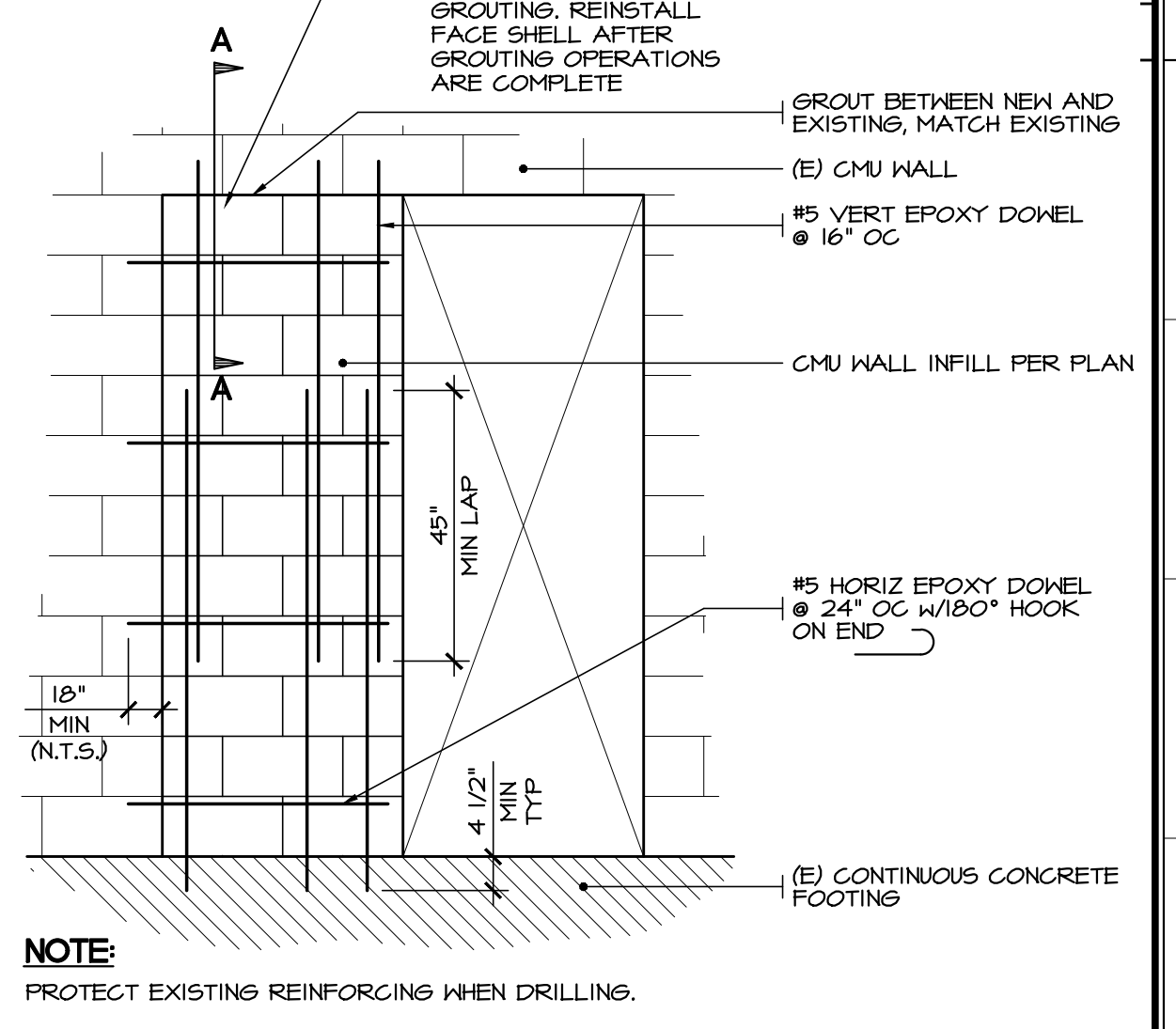
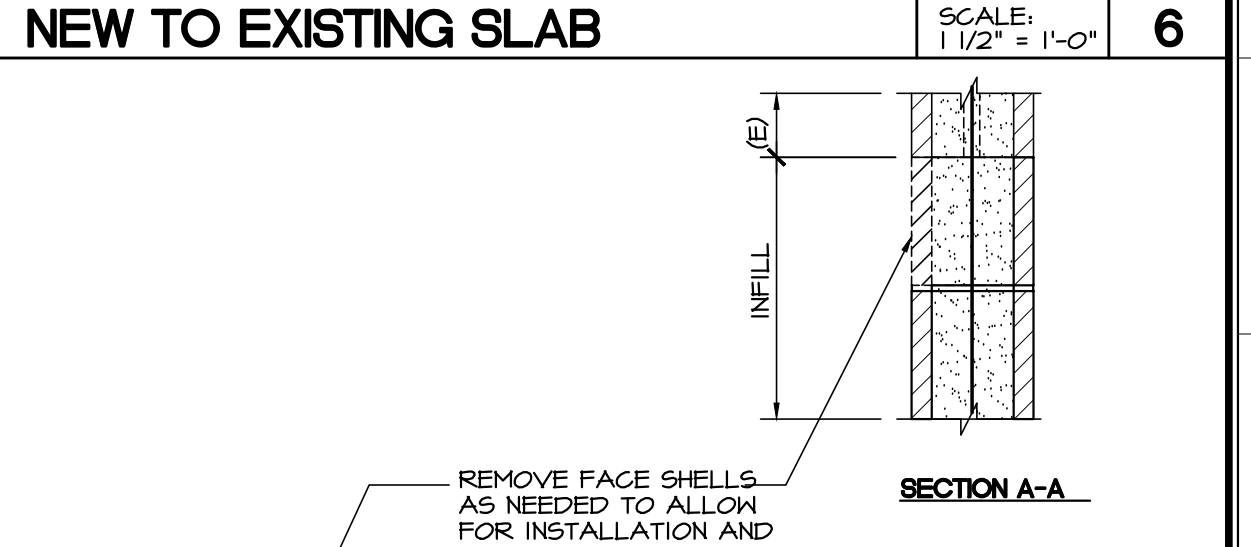
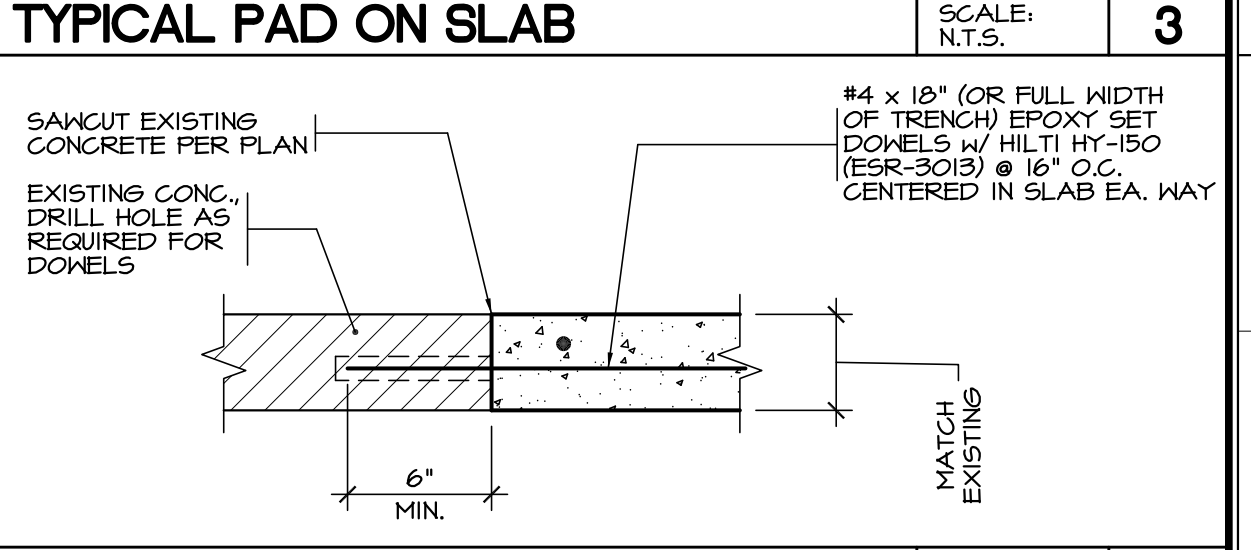
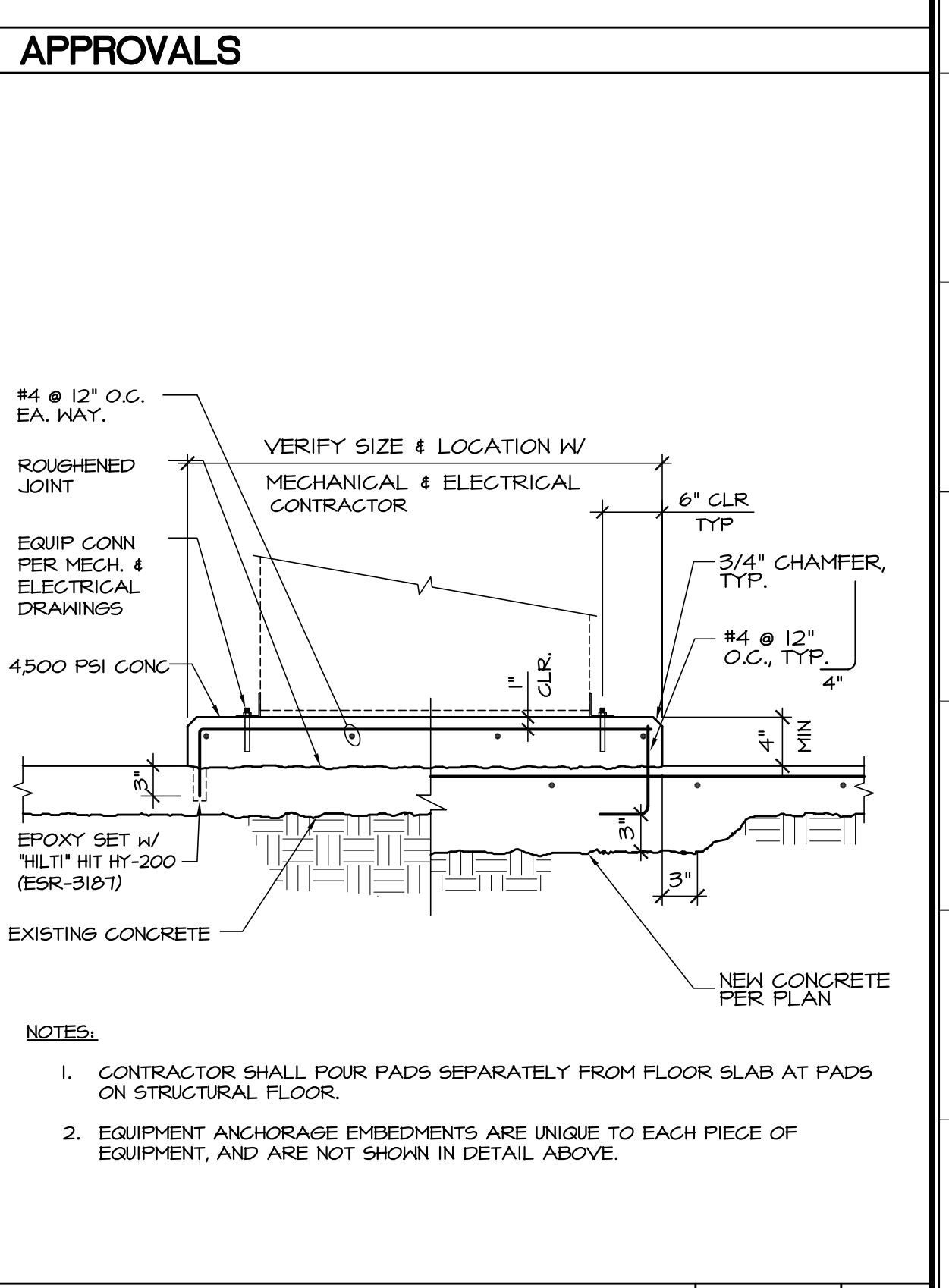
TYPICAL METAL DECK OPENING: LARGE HOLES SCALE: N.T.S. 14



TYPICAL METAL DECK OPENINGS: SMALL HOLES 6'-12' SCALE: N.T.S. 15

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TYPICAL MASONRY WALL COURSE BETWEEN BOND BEAM UNITS SCALE: N.T.S. 13

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Project Title
**IMPERIAL VALLEY COLLEGE
BUILDING 200, 300, AND 800 MODERNIZATION**

Sheet Title
TYPICAL STRUCTURAL DETAILS

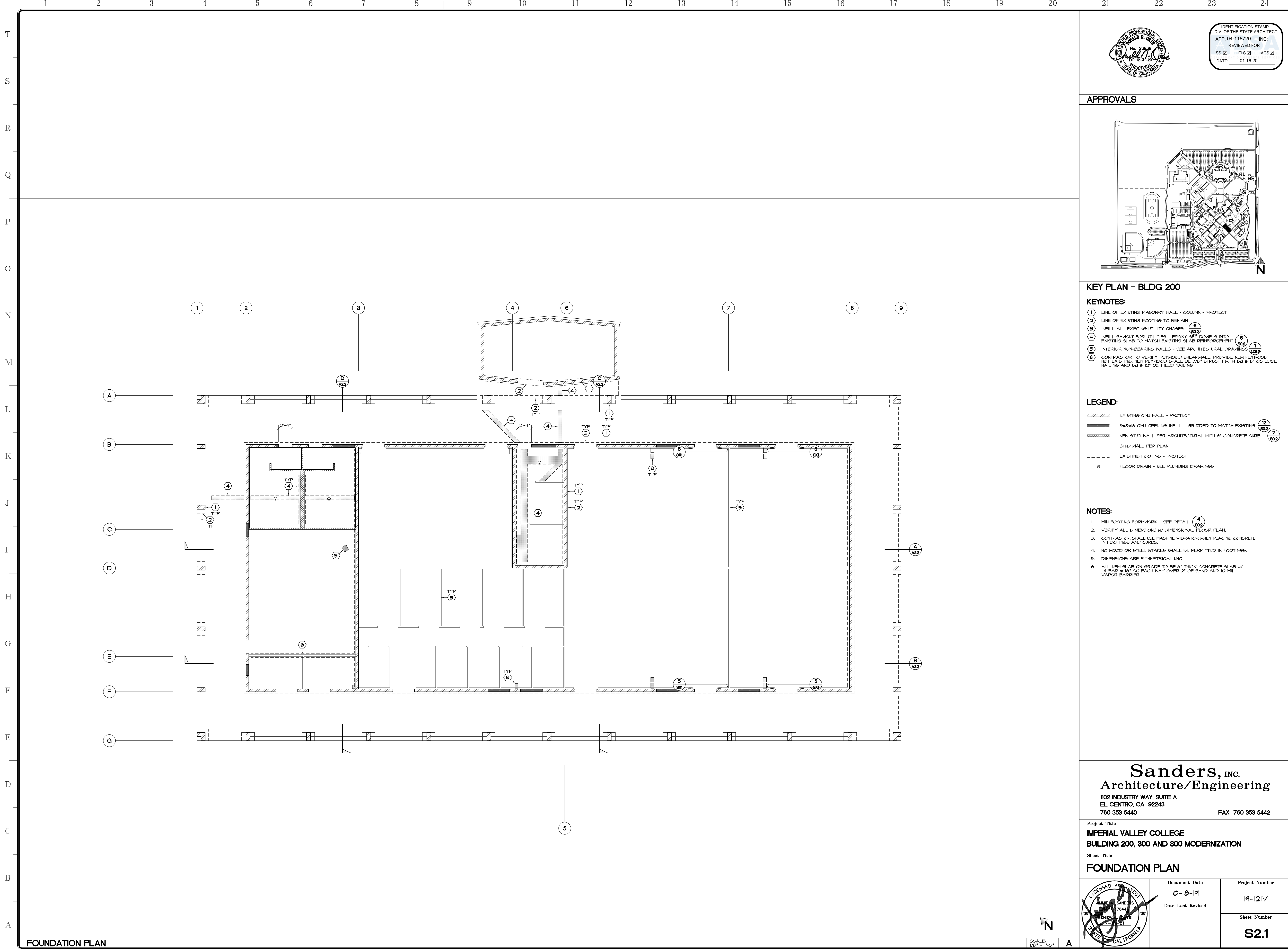
Document Date
10-18-19

Date Last Revised

Project Number
19-121V

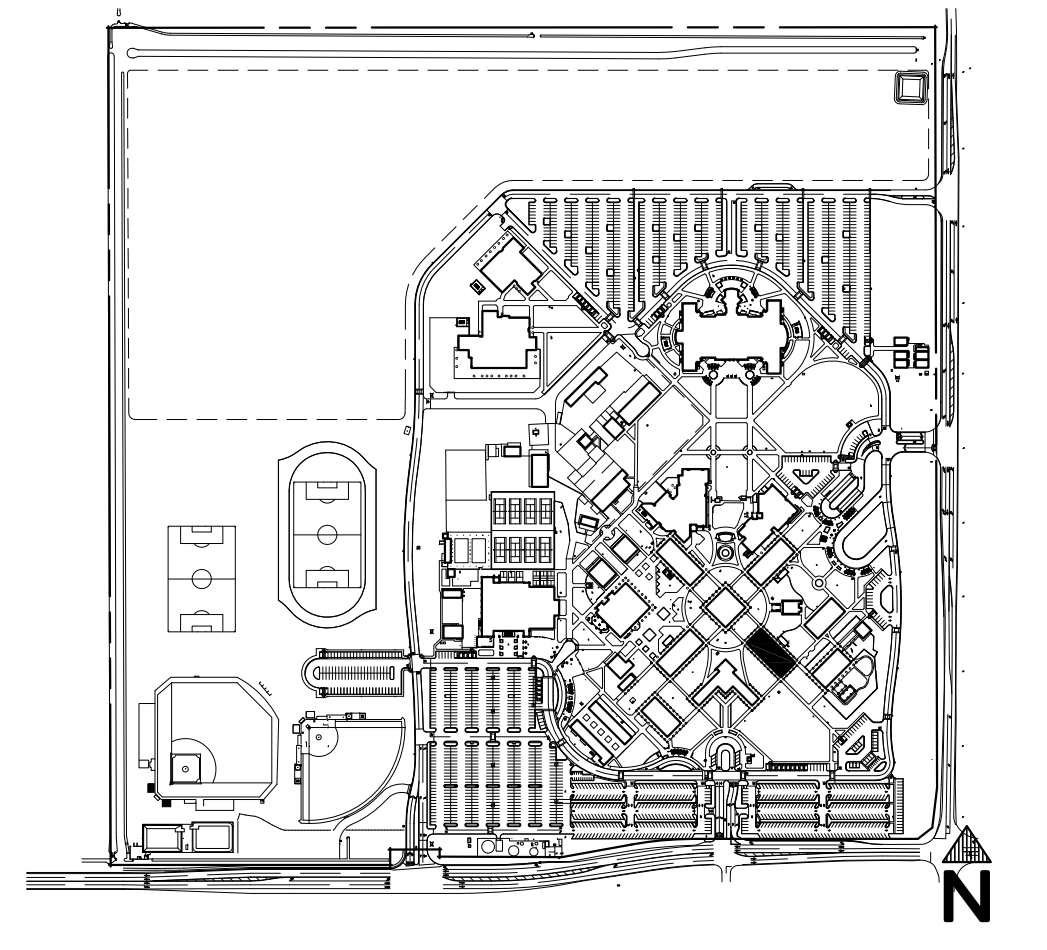
Sheet Number
S0.2

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JIMMY SANDERS
No. 76474
RENEWED 01-15-19
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APPROVALS



KEY PLAN - BLDG 200

- KEYNOTES:**
- ① LINE OF EXISTING MASONRY WALL / COLUMN - PROTECT
 - ② LINE OF EXISTING FOOTING TO REMAIN
 - ③ INFILL ALL EXISTING UTILITY CHASES ⑥ 802
 - ④ INFILL SANCUT FOR UTILITIES - EPOXY SET DOVELLS INTO EXISTING SLAB TO MATCH EXISTING SLAB REINFORCEMENT ⑥ 802 ① A22
 - ⑤ INTERIOR NON-BEARING WALLS - SEE ARCHITECTURAL DRAWINGS ① A22
 - ⑥ CONTRACTOR TO VERIFY PLYWOOD SHEARWALL, PROVIDE NEW PLYWOOD IF NOT EXISTING. NEW PLYWOOD SHALL BE 3/8" STRUCT 1 WITH 2d @ 6" OC EDGE NAILING AND 2d @ 12" OC FIELD NAILING

- LEGEND:**
- EXISTING CMU WALL - PROTECT
 - 2x6x16 CMU OPENING INFILL - GRIDDED TO MATCH EXISTING ⑫ 802
 - NEW STUD WALL PER ARCHITECTURAL WITH 6" CONCRETE CURB ⑦ 802
 - STUD WALL PER PLAN
 - EXISTING FOOTINGS - PROTECT
 - FLOOR DRAIN - SEE PLUMBING DRAWINGS

- NOTES:**
1. MIN FOOTING FORMWORK - SEE DETAIL ④ 802
 2. VERIFY ALL DIMENSIONS W/ DIMENSIONAL FLOOR PLAN.
 3. CONTRACTOR SHALL USE MACHINE VIBRATOR WHEN PLACING CONCRETE IN FOOTINGS AND CURBS.
 4. NO WOOD OR STEEL STAKES SHALL BE PERMITTED IN FOOTINGS.
 5. DIMENSIONS ARE SYMMETRICAL UNO.
 6. ALL NEW SLAB ON GRADE TO BE 6" THICK CONCRETE SLAB W/ #4 BAR @ 16" OC EACH WAY OVER 2" OF SAND AND 10 MIL VAPOR BARRIER.

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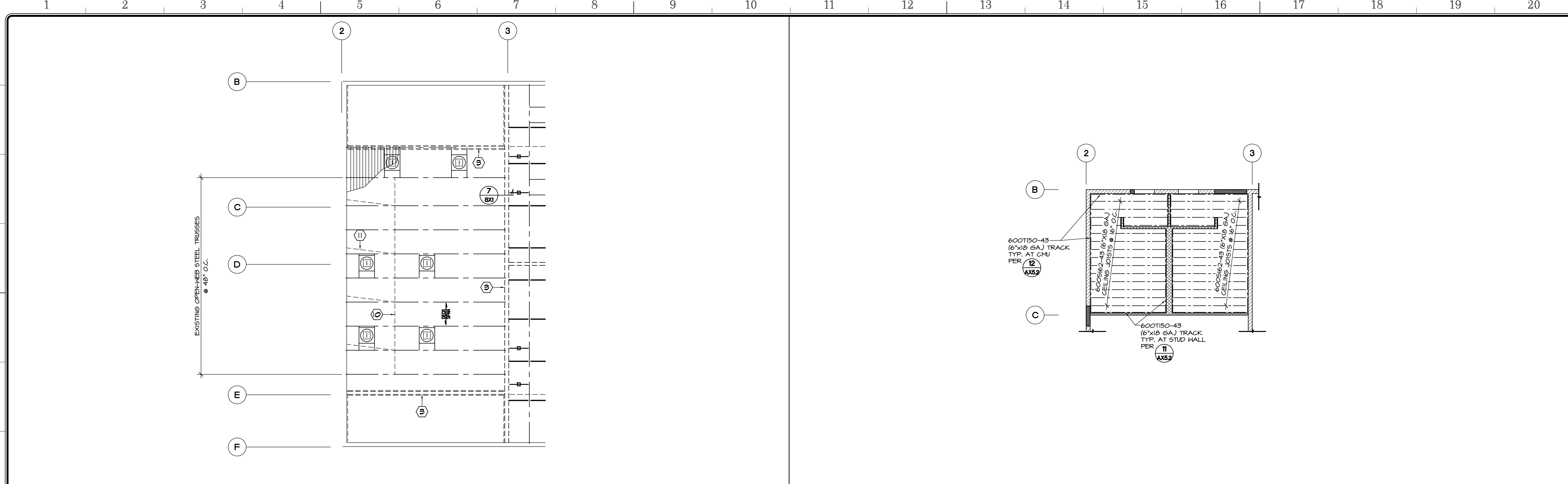
Project Title
**IMPERIAL VALLEY COLLEGE
 BUILDING 200, 300 AND 800 MODERNIZATION**

Sheet Title
FOUNDATION PLAN

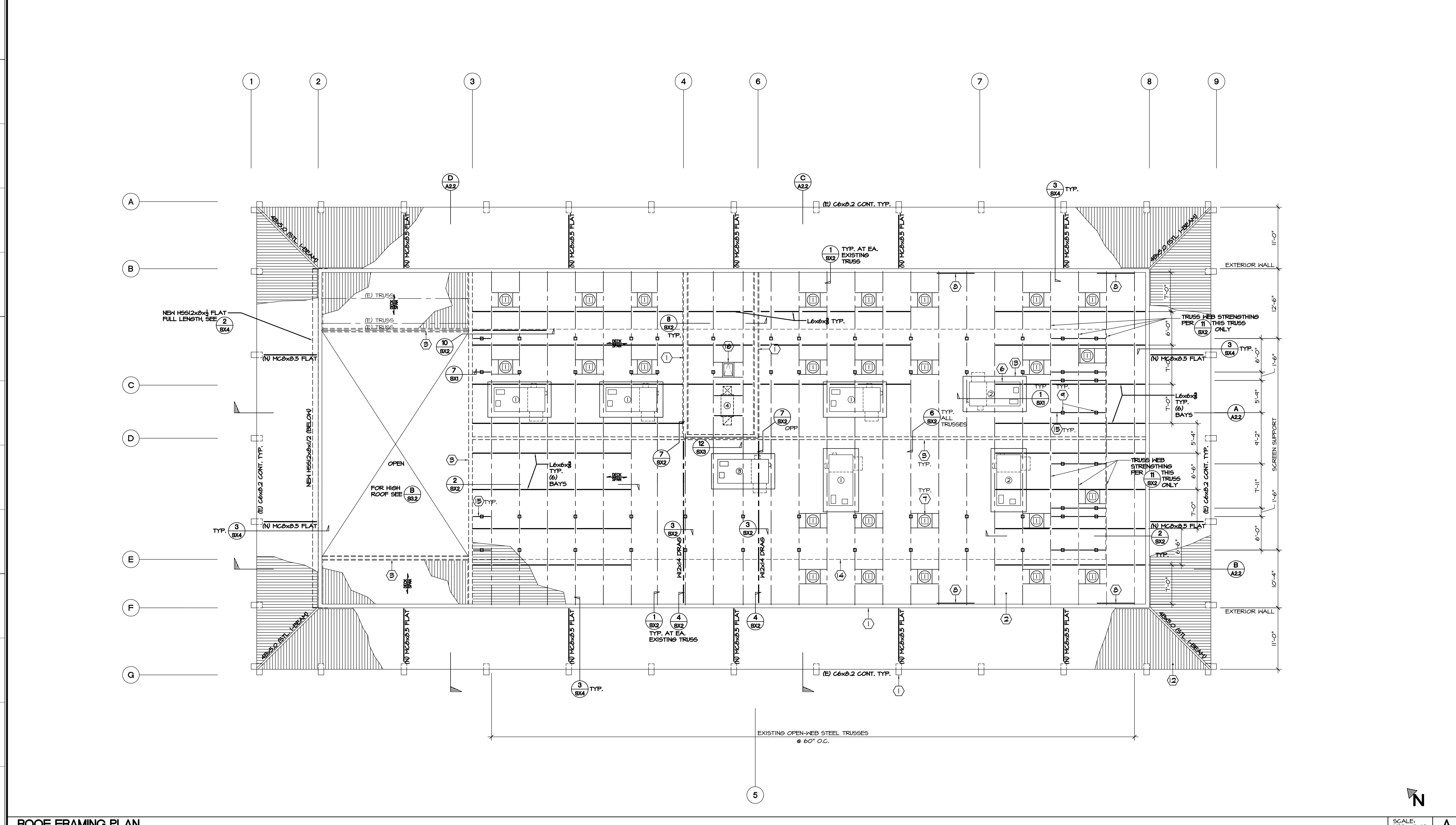
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	Date Last Revised	Sheet Number S2.1

FOUNDATION PLAN

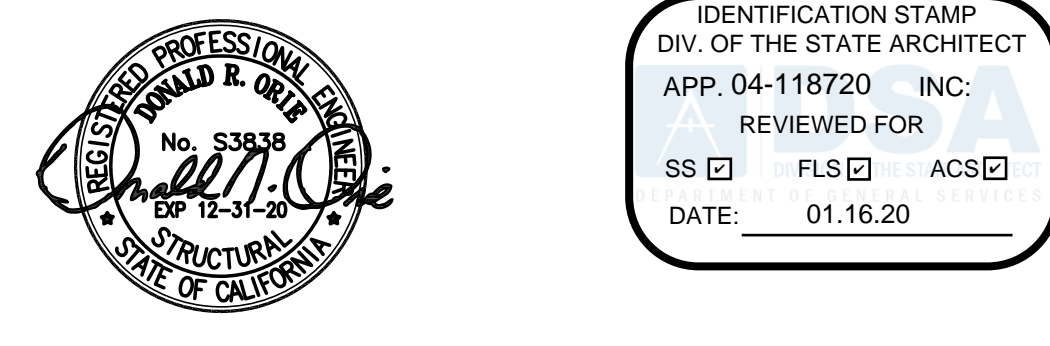
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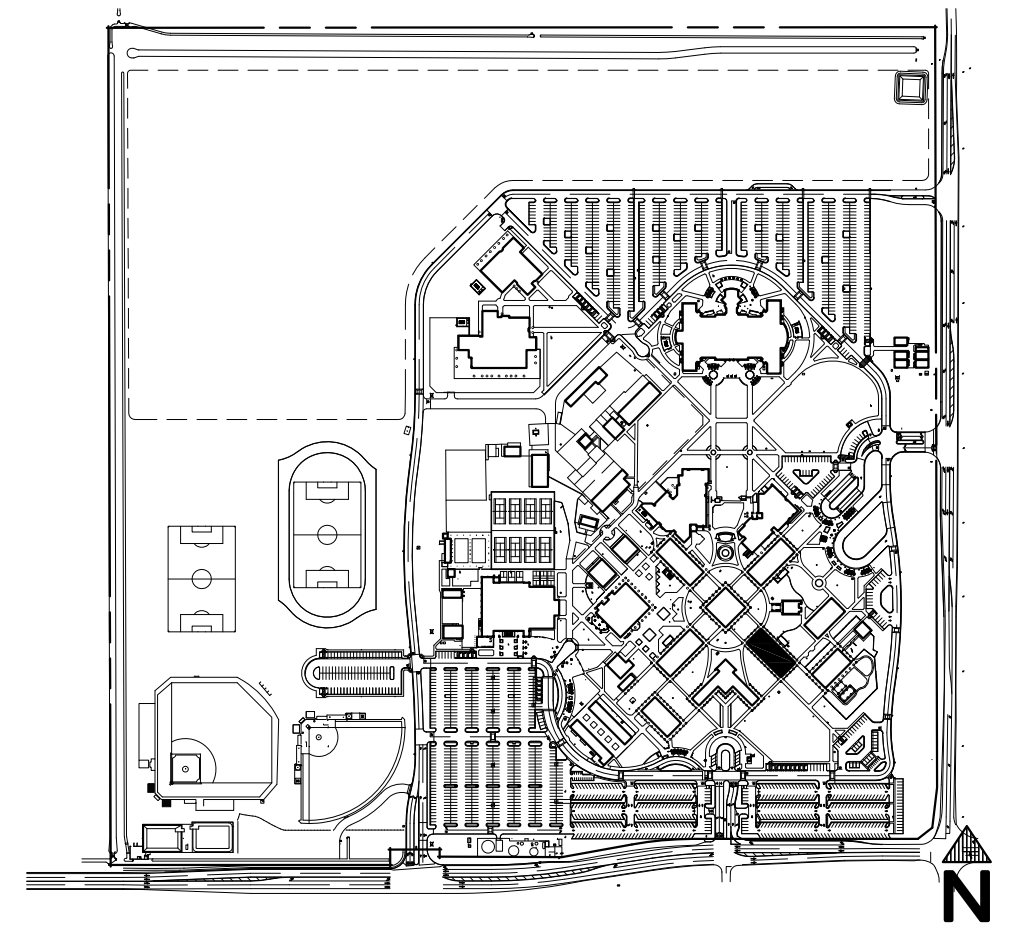
SCALE: 1/8" = 1'-0" B CEILING FRAMING PLAN SCALE: 1/8" = 1'-0" C



SCALE: 1/8" = 1'-0" A ROOF FRAMING PLAN



APPROVALS



KEY PLAN - BLDG 200

KEYNOTES:

- ① EXISTING MASONRY WALL / COLUMN - PROTECT
- ② EXISTING INSULATING CONCRETE OVER CORRUGATED STEEL DECK - FOR PENETRATIONS SEE ⑥
- ③ EXISTING INTERIOR BEARING STUD WALL - PROTECT
- ④ NOT USED
- ⑤ NOT USED
- ⑥ HVAC UNIT - SEE MECHANICAL DRAWINGS
- ⑦ TUBULAR SKYLIGHT - SEE SPECIFICATIONS ⑧
- ⑧ H55 8x4x1/4 LINTEL ⑨
- ⑨ ROOF SCREEN SUPPORT ⑩
- ⑩ EXISTING STEEL TRUSS BRACE
- ⑪ EXISTING STEEL ANGLE STRUT @ 8' O.C. - PROTECT
- ⑫ EXISTING STEEL DECK - PROTECT
- ⑬ EQUIPMENT CURB - (8'-4" x 11'-4" UNO) ⑭
- ⑭ ROOF SCREEN - SEE ARCHITECTURAL ROOF PLAN
- ⑮ L4x4x3/8 FOR ROOF SCREEN SUPPORTS ⑯
- ⑯ ROOF ACCESS HATCH PER PLAN ⑰

NOTES:

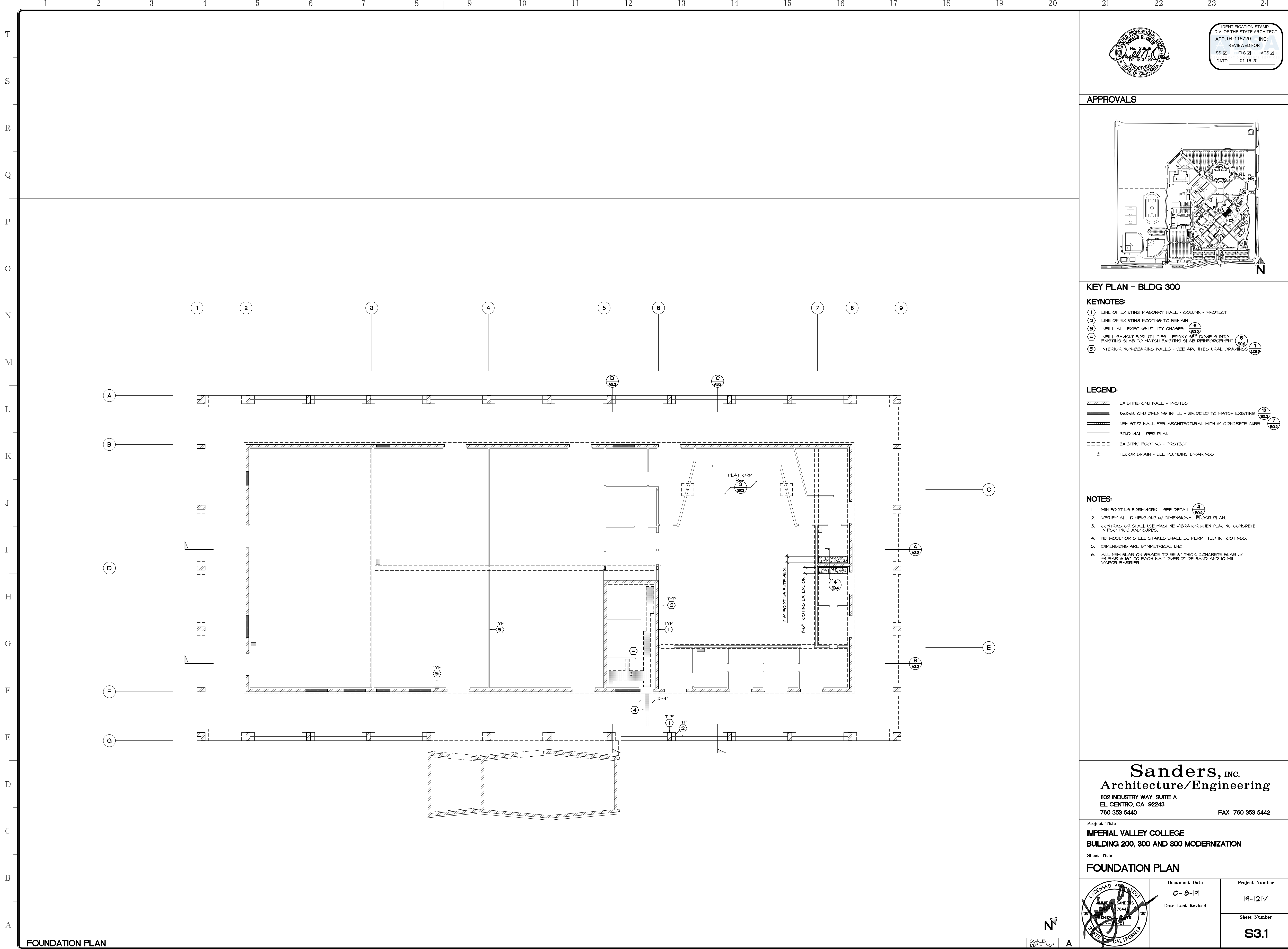
1. SEE SITE PLAN FOR BUILDING ORIENTATION.
2. SEE ARCHITECTURAL DRAWINGS FOR DIMENSIONS.
3. SEE SHEET 22 FOR TYPICAL NONBEARING WALL ANCHORAGE.
4. SEE SHEET 12 FOR TYPICAL CEILING JOIST FRAMING DETAILS.
5. SEE 1 FOR ROOF MOUNTED HVAC EQUIPMENT.
6. SEE 2 FOR CEILING HANG HVAC EQUIPMENT.
7. COORDINATE ALL FIELD WELDING WITH PROTECTION OF EXISTING FOAM ROOF INSULATION.
8. ROOF TRUSS EQUIPMENT DEAD LOADS:
 - MECHANICAL LOADS
 - ① FAN COIL / ERV - ROOF TOP 640 lb
 - ② FAN COIL / ERV - ROOF TOP 640 lb
 - ③ FAN COIL / ERV - ROOF TOP 1,085 lb
 - ④ FAN COIL - CEILING HANG 194 lb
- SKYLIGHTS
 - ① 21"ø TUBULAR SKYLIGHT 30 lb

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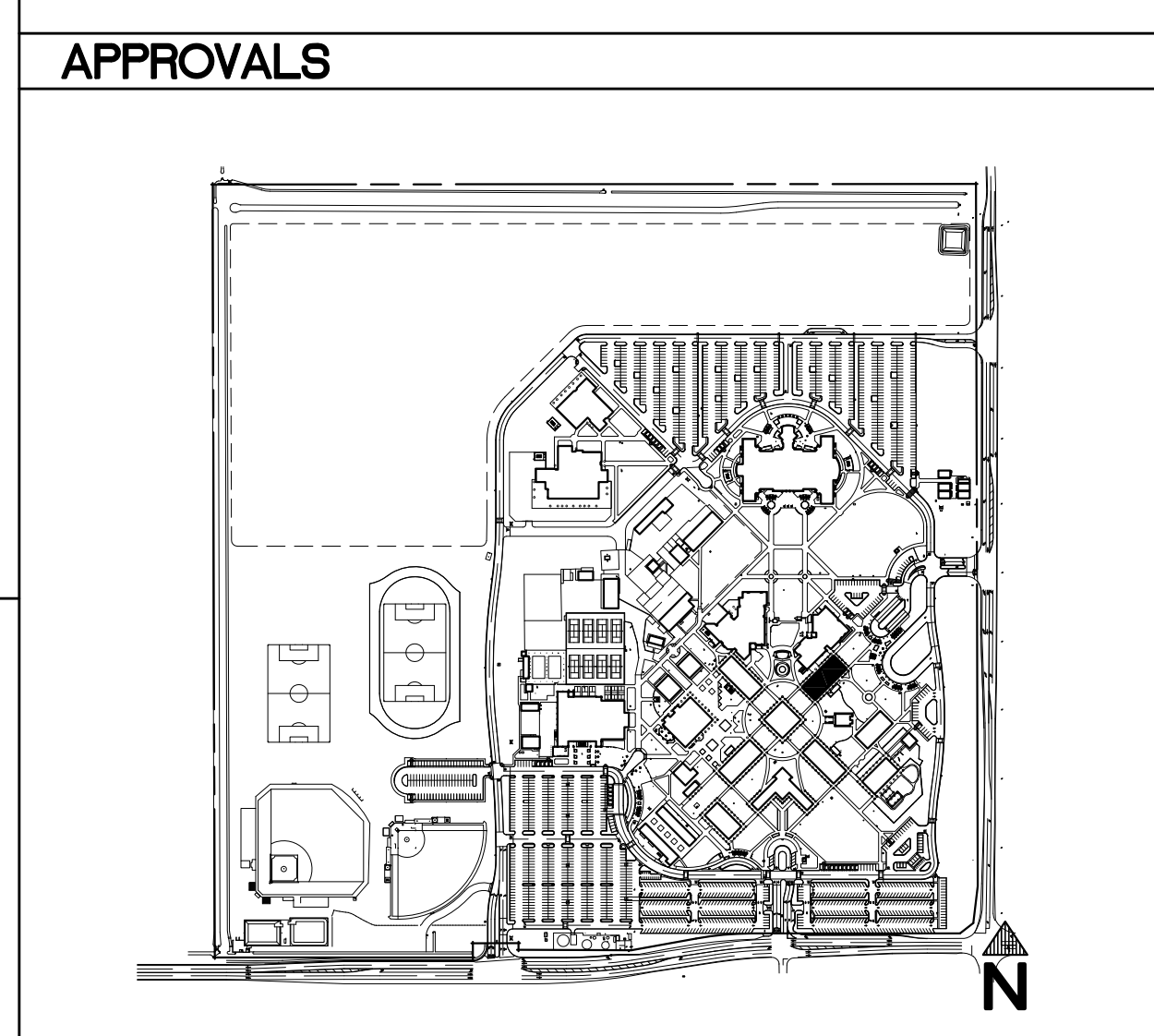
Project Title
**IMPERIAL VALLEY COLLEGE
 BUILDING 200, 300 AND 800 MODERNIZATION**

Sheet Title
FRAMING PLAN

	Document Date	Project Number
	Date Last Revised	Sheet Number
	10-18-19	19-121V
		S2.2



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KEY PLAN - BLDG 300

- KEYNOTES:**
- ① LINE OF EXISTING MASONRY WALL / COLUMN - PROTECT
 - ② LINE OF EXISTING FOOTING TO REMAIN
 - ③ INFILL ALL EXISTING UTILITY CHASES ⑥ 802
 - ④ INFILL SANKUT FOR UTILITIES - EPOXY SET DOVELS INTO EXISTING SLAB TO MATCH EXISTING SLAB REINFORCEMENT ⑤ 802 ① AX52
 - ⑤ INTERIOR NON-BEARING WALLS - SEE ARCHITECTURAL DRAWINGS

- LEGEND:**
- EXISTING CMU WALL - PROTECT
 - 8x8x16 CMU OPENINGS INFILL - GRIDDED TO MATCH EXISTING ⑫ 802 ⑦ 802
 - NEW STUD WALL PER ARCHITECTURAL WITH 6" CONCRETE CURB
 - STUD WALL PER PLAN
 - EXISTING FOOTINGS - PROTECT
 - FLOOR DRAIN - SEE PLUMBING DRAWINGS

- NOTES:**
1. MIN FOOTING FORMWORK - SEE DETAIL ④ 802
 2. VERIFY ALL DIMENSIONS W/ DIMENSIONAL FLOOR PLAN.
 3. CONTRACTOR SHALL USE MACHINE VIBRATOR WHEN PLACING CONCRETE IN FOOTINGS AND CURBS.
 4. NO HOOD OR STEEL STAKES SHALL BE PERMITTED IN FOOTINGS.
 5. DIMENSIONS ARE SYMMETRICAL UNO.
 6. ALL NEW SLAB ON GRADE TO BE 6" THICK CONCRETE SLAB W/ #4 BAR @ 16" OC EACH WAY COVER 2" OF SAND AND 10 MIL VAPOR BARRIER.

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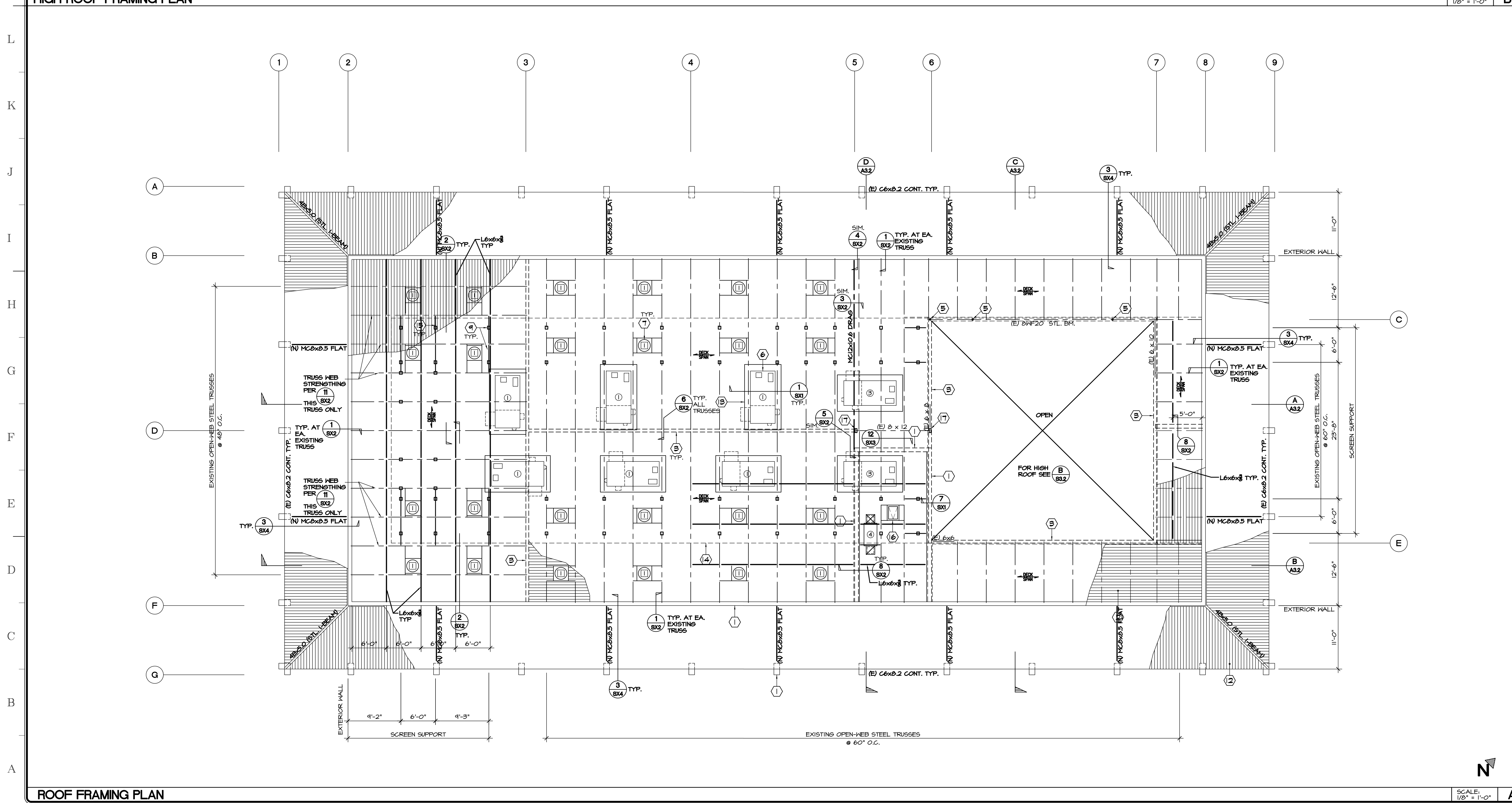
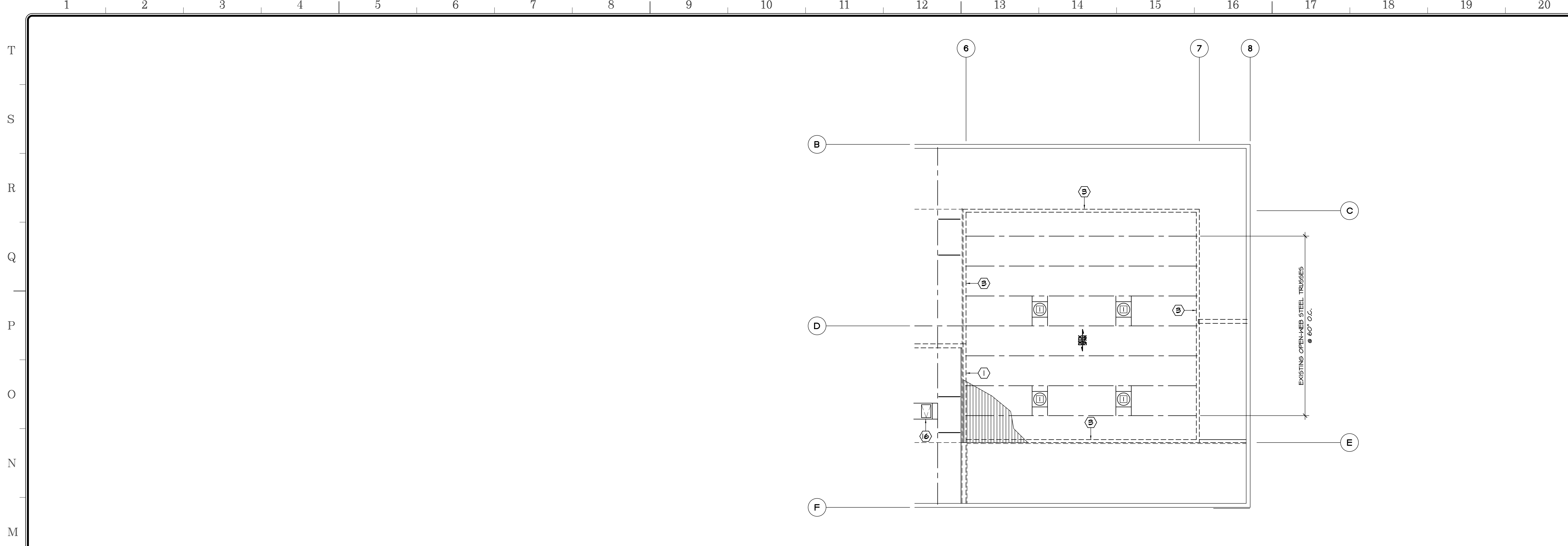
Project Title
**IMPERIAL VALLEY COLLEGE
 BUILDING 200, 300 AND 800 MODERNIZATION**

Sheet Title
FOUNDATION PLAN

	Document Date 10-18-19	Project Number 19-121V
	Date Last Revised	Sheet Number S3.1

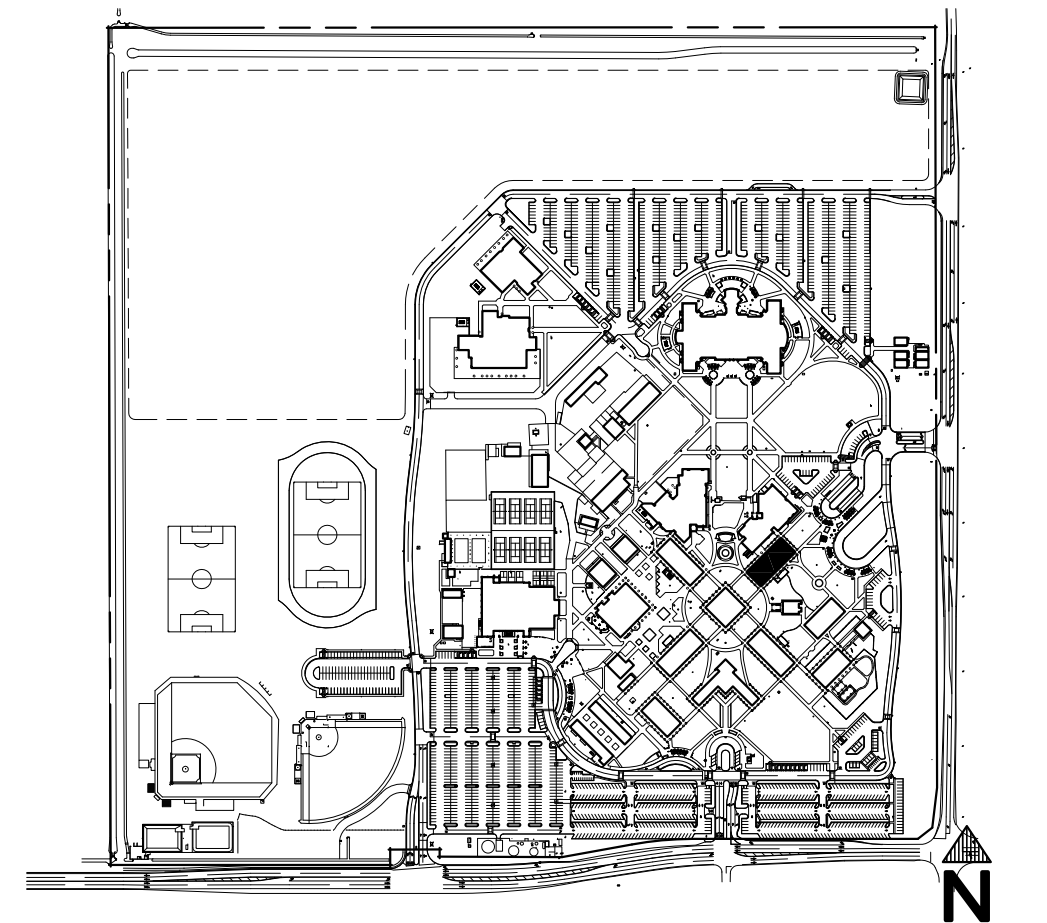
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1/8" = 1'-0"

FOUNDATION PLAN



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KEYNOTES:

- (1) EXISTING MASONRY WALL / COLUMN - PROTECT
- (2) EXISTING INSULATING CONCRETE OVER CORRUGATED STEEL DECK - FOR PENETRATIONS SEE (6) (8/2)
- (3) EXISTING INTERIOR BEARING STUD WALL - PROTECT
- (4) NOT USED
- (5) EXISTING 3"Ø STANDARD PIPE
- (6) HVAC UNIT - SEE MECHANICAL DRAWINGS
- (7) TUBULAR SKYLIGHT - SEE SPECIFICATIONS (8) (8/1)
- (8) NOT USED
- (9) ROOF SCREEN SUPPORT - (6) (8/1)
- (10) NOT USED
- (11) NOT USED
- (12) EXISTING STEEL DECK - PROTECT
- (13) EQUIPMENT CURB - (6'-4" x 11'-4" UNO) (1) (8/1)
- (14) ROOF SCREEN - SEE ARCHITECTURAL ROOF PLAN
- (15) L4x4x3/8 FOR ROOF SCREEN SUPPORTS (6) (8/1)
- (16) ROOF ACCESS HATCH PER PLAN (10) (8/1)
- (17) EXISTING 4x8 POST

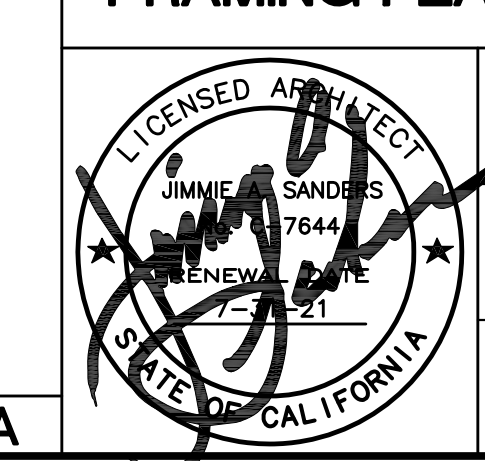
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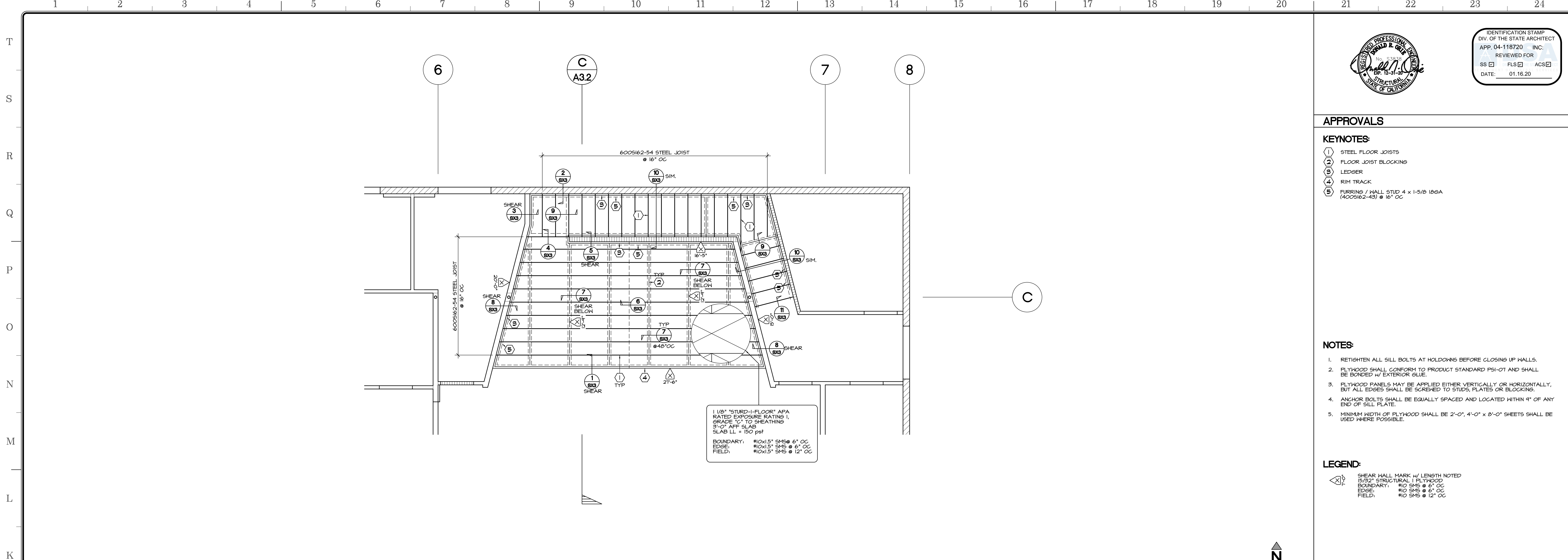
1. SEE SITE PLAN FOR BUILDING ORIENTATION.
 2. SEE ARCHITECTURAL DRAWINGS FOR DIMENSIONS.
 3. SEE SHEET (22) (8/2) FOR TYPICAL NONBEARING WALL ANCHORAGE.
 4. SEE SHEET (12) (8/2) FOR TYPICAL CEILING JOIST FRAMING DETAILS.
 5. SEE (1) (8/1) FOR ROOF MOUNTED HVAC EQUIPMENT.
 6. SEE (2) (8/1) FOR CEILING HUNG HVAC EQUIPMENT.
 7. COORDINATE ALL FIELD HOLDINGS WITH PROTECTION OF EXISTING FOAM ROOF INSULATION.
8. ROOF TRUSS EQUIPMENT DEAD LOADS:
 MECHANICAL LOADS
 (1) FAN COIL / ERV - ROOF TOP 640 lb
 (2) N/A N/A lb
 (3) FAN COIL / ERV - ROOF TOP 1,085 lb
 (4) FAN COIL - CEILING HUNG 144 lb
- SKYLIGHTS
 (1) 21"Ø TUBULAR SKYLIGHT 30 lb

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Project Title
**IMPERIAL VALLEY COLLEGE
 BUILDING 200, 300 AND 800 MODERNIZATION**

Sheet Title FRAMING PLAN	Document Date 10-18-19	Project Number 19-121V
	Date Last Revised	Sheet Number S3.2





1 1/8" STURD-I-FLOOR® APA
 RATED EXPOSURE RATINGS I,
 GRADE 10" TO SHEATHING,
 3'-0" AFF SLAB
 SLAB LL = 150 psf

BOUNDARY: #10x15" SMS @ 6" OC
 EDGE: #10x15" SMS @ 6" OC
 FIELD: #10x15" SMS @ 12" OC



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KEYNOTES:

- ① STEEL FLOOR JOISTS
- ② FLOOR JOIST BLOCKING
- ③ LEDGER
- ④ RIM TRACK
- ⑤ FURRINS / WALL STUD 4 x 1-5/8 18GA (4005162-43) @ 16" OC

NOTES:

1. RETIGHTEN ALL SILL BOLTS AT HOLD-DOWNS BEFORE CLOSING UP WALLS.
2. PLYWOOD SHALL CONFORM TO PRODUCT STANDARD PS1-01 AND SHALL BE BONDED w/ EXTERIOR GLUE.
3. PLYWOOD PANELS MAY BE APPLIED EITHER VERTICALLY OR HORIZONTALLY, BUT ALL EDGES SHALL BE SCREWED TO STUDS, PLATES OR BLOCKING.
4. ANCHOR BOLTS SHALL BE EQUALLY SPACED AND LOCATED WITHIN 9" OF ANY END OF SILL PLATE.
5. MINIMUM WIDTH OF PLYWOOD SHALL BE 2'-0", 4'-0" x 8'-0" SHEETS SHALL BE USED WHERE POSSIBLE.

LEGEND:

- SHEAR WALL MARK w/ LENGTH NOTED
- 15/32" STRUCTURAL I PLYWOOD
- BOUNDARY: #10 SMS @ 6" OC
- EDGE: #10 SMS @ 6" OC
- FIELD: #10 SMS @ 12" OC

PLATFORM FLOOR FRAMING PLAN

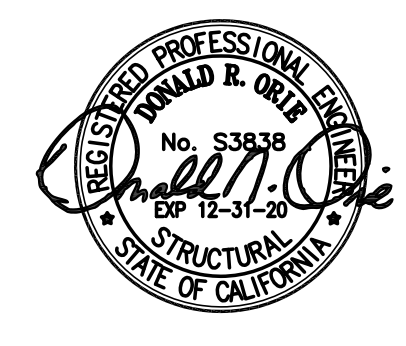
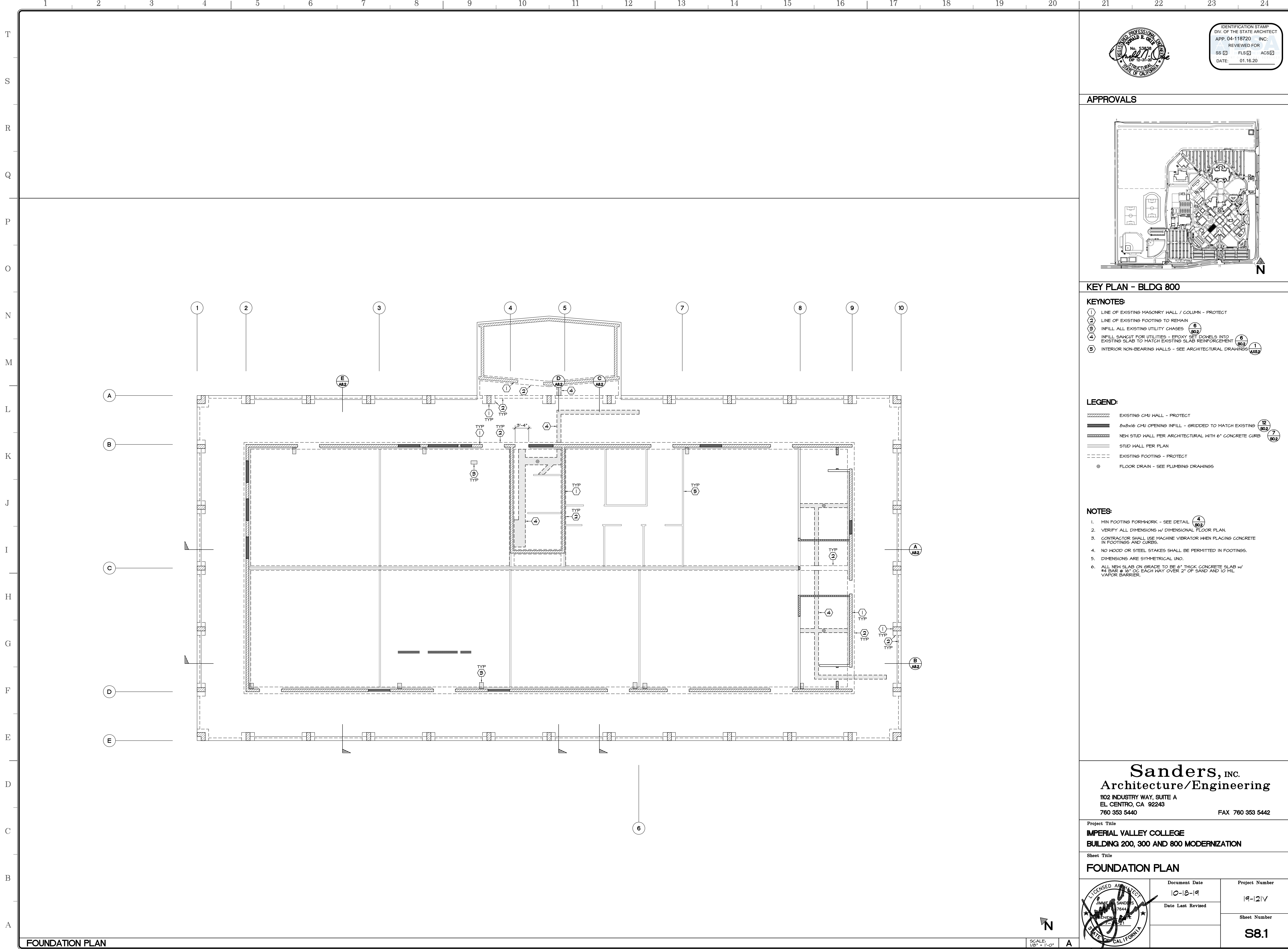
SCALE: 1/4" = 1'-0" **A**

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Project Title
**IMPERIAL VALLEY COLLEGE
 BUILDING 200, 300 AND 800 MODERNIZATION**

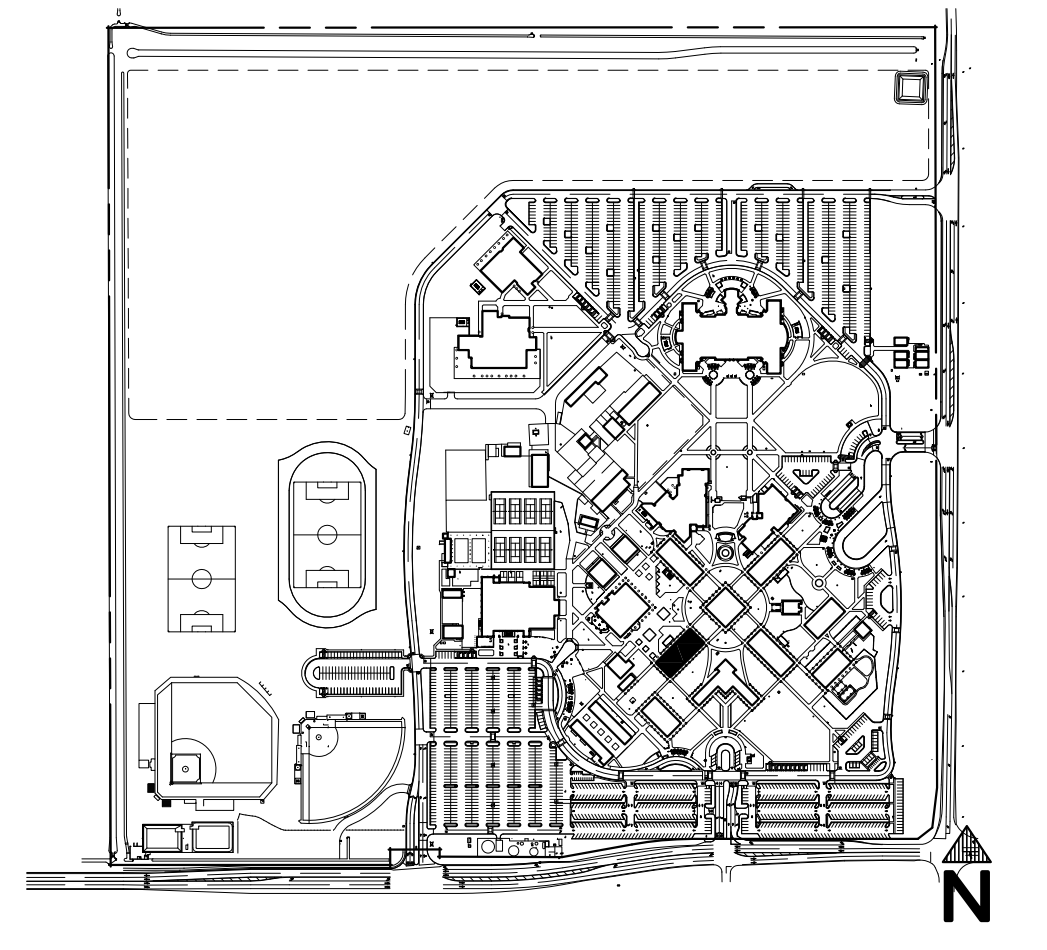
Sheet Title
PLATFORM FRAMING PLAN

	Document Date	Project Number
	Date Last Revised	Sheet Number
	10-18-19	19-121V
		S3.3



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APPROVALS



KEY PLAN - BLDG 800

KEYNOTES:

- ① LINE OF EXISTING MASONRY WALL / COLUMN - PROTECT
- ② LINE OF EXISTING FOOTING TO REMAIN
- ③ INFILL ALL EXISTING UTILITY CHASES **6 802**
- ④ INFILL SANKUT FOR UTILITIES - EPOXY SET DOVELLS INTO EXISTING SLAB TO MATCH EXISTING SLAB REINFORCEMENT **6 802 1 AX52**
- ⑤ INTERIOR NON-BEARING WALLS - SEE ARCHITECTURAL DRAWINGS **1 AX52**

LEGEND:

- EXISTING CMU WALL - PROTECT
- 8x8x16 CMU OPENING INFILL - GRIDDED TO MATCH EXISTING **12 802 7 802**
- NEW STUD WALL PER ARCHITECTURAL WITH 6" CONCRETE CURB
- STUD HALL PER PLAN
- EXISTING FOOTINGS - PROTECT
- FLOOR DRAIN - SEE PLUMBING DRAWINGS

NOTES:

1. MIN FOOTING FORMWORK - SEE DETAIL **4 802**
2. VERIFY ALL DIMENSIONS W/ DIMENSIONAL FLOOR PLAN.
3. CONTRACTOR SHALL USE MACHINE VIBRATOR WHEN PLACING CONCRETE IN FOOTINGS AND CURETS.
4. NO WOOD OR STEEL STAKES SHALL BE PERMITTED IN FOOTINGS.
5. DIMENSIONS ARE SYMMETRICAL UNO.
6. ALL NEW SLAB ON GRADE TO BE 6" THICK CONCRETE SLAB W/ #4 BAR @ 16" OC EACH WAY OVER 2" OF SAND AND 10 MIL VAPOR BARRIER.

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Project Title
**IMPERIAL VALLEY COLLEGE
 BUILDING 200, 300 AND 800 MODERNIZATION**

Sheet Title
FOUNDATION PLAN

	Document Date 10-18-19	Project Number 19-121V
	Date Last Revised	Sheet Number S8.1

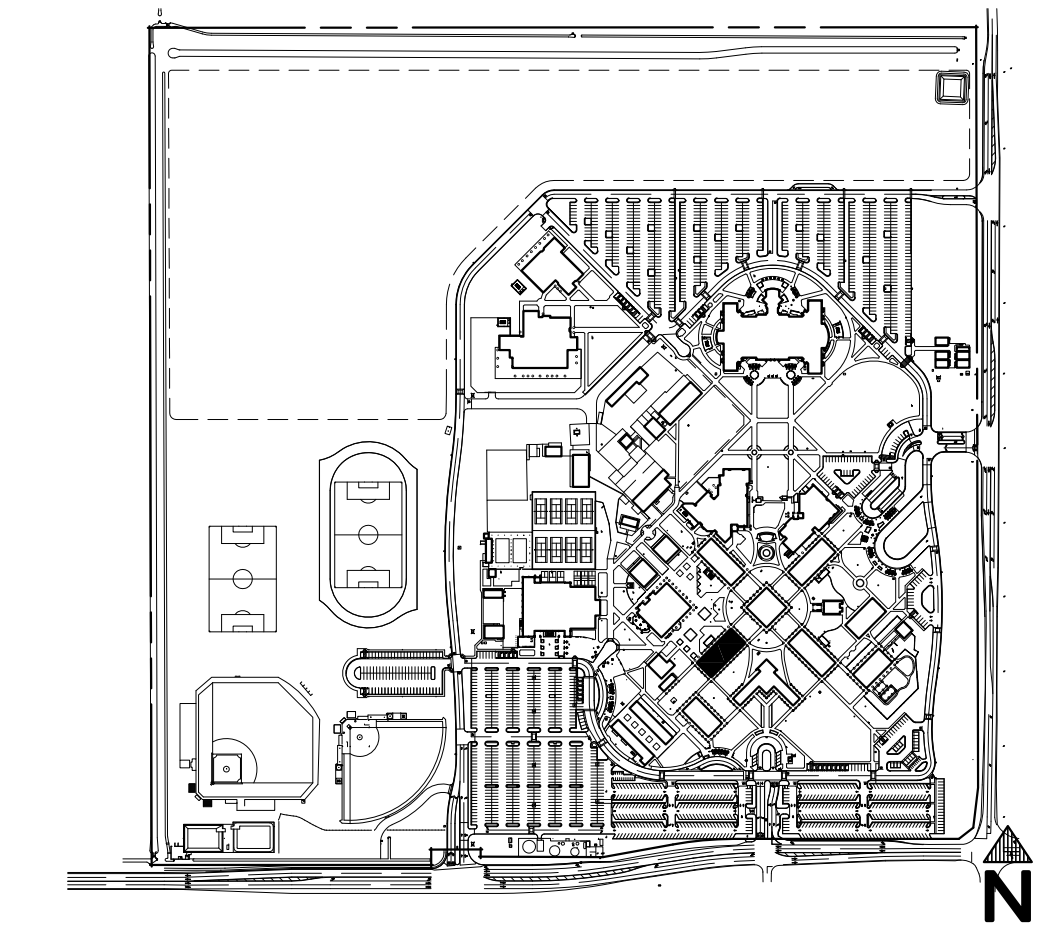
FOUNDATION PLAN

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



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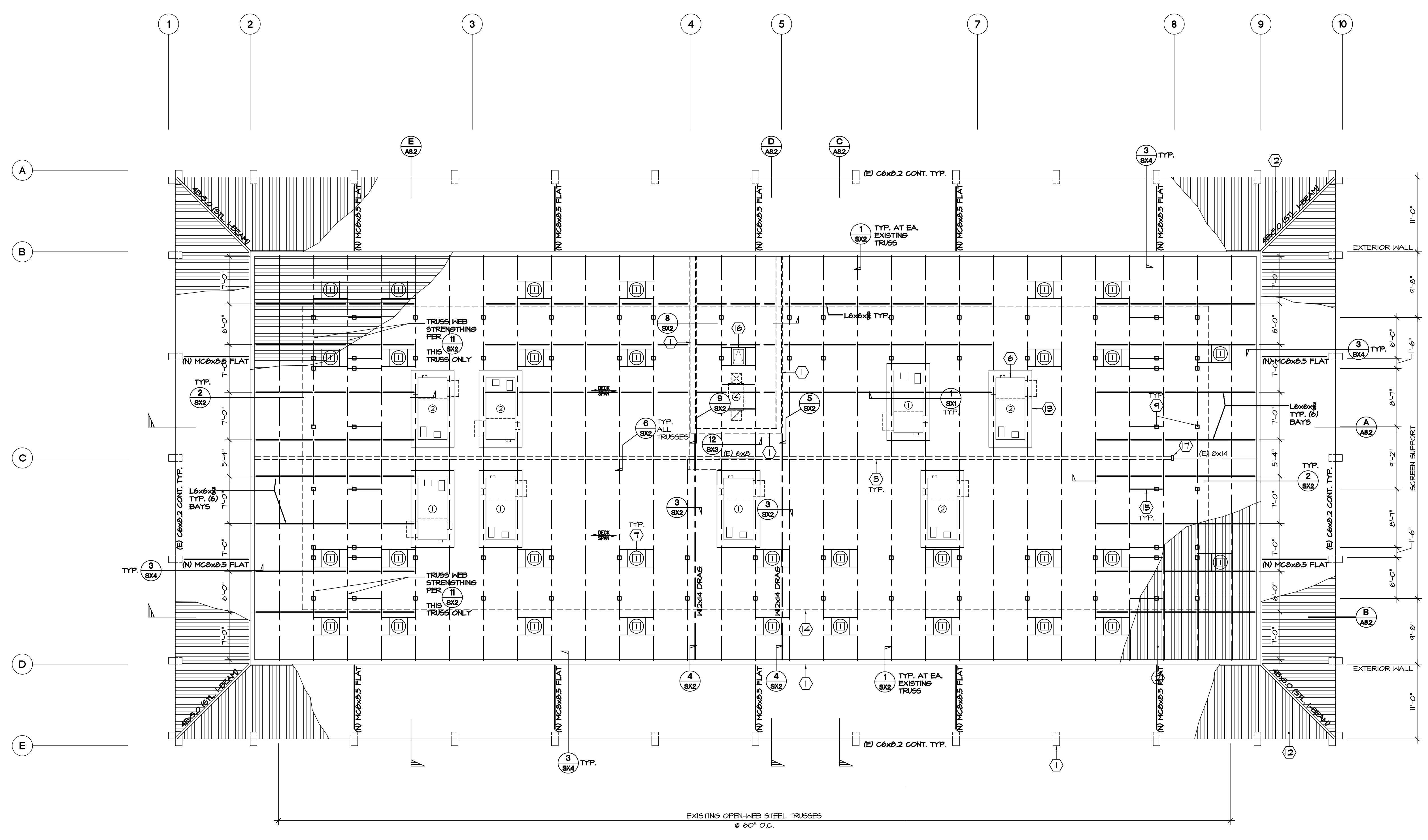
KEY PLAN - BLDG 800

KEYNOTES:

- (1) EXISTING MASONRY WALL / COLUMN - PROTECT
- (2) EXISTING INSULATING CONCRETE OVER CORRUGATED STEEL DECK - FOR PENETRATIONS SEE (6) S02
- (3) EXISTING INTERIOR BEARING STUD WALL - PROTECT
- (4) NOT USED
- (5) NOT USED
- (6) HVAC UNIT - SEE MECHANICAL DRAWINGS
- (7) TUBULAR SKYLIGHT - SEE SPECIFICATIONS (8) S01
- (8) H56 8x4x1/4 LINTEL (5) S01 (6) S01
- (9) ROOF SCREEN SUPPORT (6) S01
- (10) NOT USED
- (11) NOT USED
- (12) EXISTING STEEL DECK - PROTECT
- (13) EQUIPMENT CURB - (8'-4" x 11'-4" UNO) (1) S01
- (14) ROOF SCREEN - SEE ARCHITECTURAL ROOF PLAN
- (15) L4x4x3/8 FOR ROOF SCREEN SUPPORTS (6) S01
- (16) ROOF ACCESS HATCH PER PLAN (10) S01
- (17) EXISTING 4x8 POST

NOTES:

1. SEE SITE PLAN FOR BUILDING ORIENTATION.
2. SEE ARCHITECTURAL DRAWINGS FOR DIMENSIONS.
3. SEE SHEET (22) S02 FOR TYPICAL NONBEARING WALL ANCHORAGE.
4. SEE SHEET (12) S02 FOR TYPICAL CEILING JOIST FRAMING DETAILS.
5. SEE (1) S01 FOR ROOF MOUNTED HVAC EQUIPMENT.
6. SEE (2) S01 FOR CEILING HANG HVAC EQUIPMENT.
7. COORDINATE ALL FIELD WELDING WITH PROTECTION OF EXISTING FOAM ROOF INSULATION.
8. ROOF TRUSS EQUIPMENT DEAD LOADS:
 MECHANICAL LOADS
 (1) FAN COIL / ERV - ROOF TOP 640 lb
 (2) FAN COIL / ERV - ROOF TOP 640 lb
 (3) N/A N/A lb
 (4) FAN COIL - CEILING HANG 191 lb
- SKYLIGHTS
 (1) 21"ø TUBULAR SKYLIGHT 30 lb



EXISTING OPEN-HEB STEEL TRUSSES
 @ 60' O.C.

FRAMING PLAN

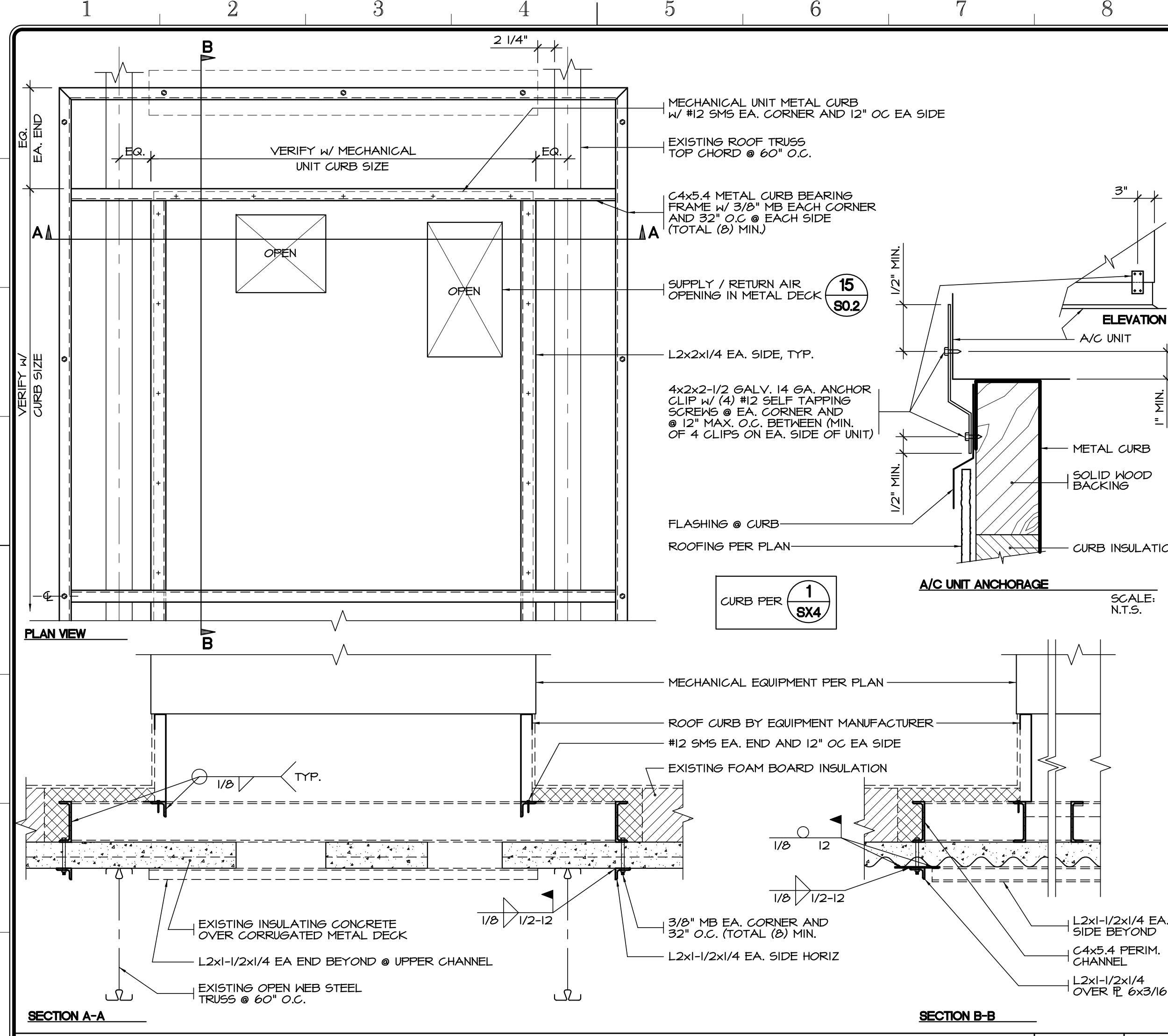
SCALE: 1/8" = 1'-0"

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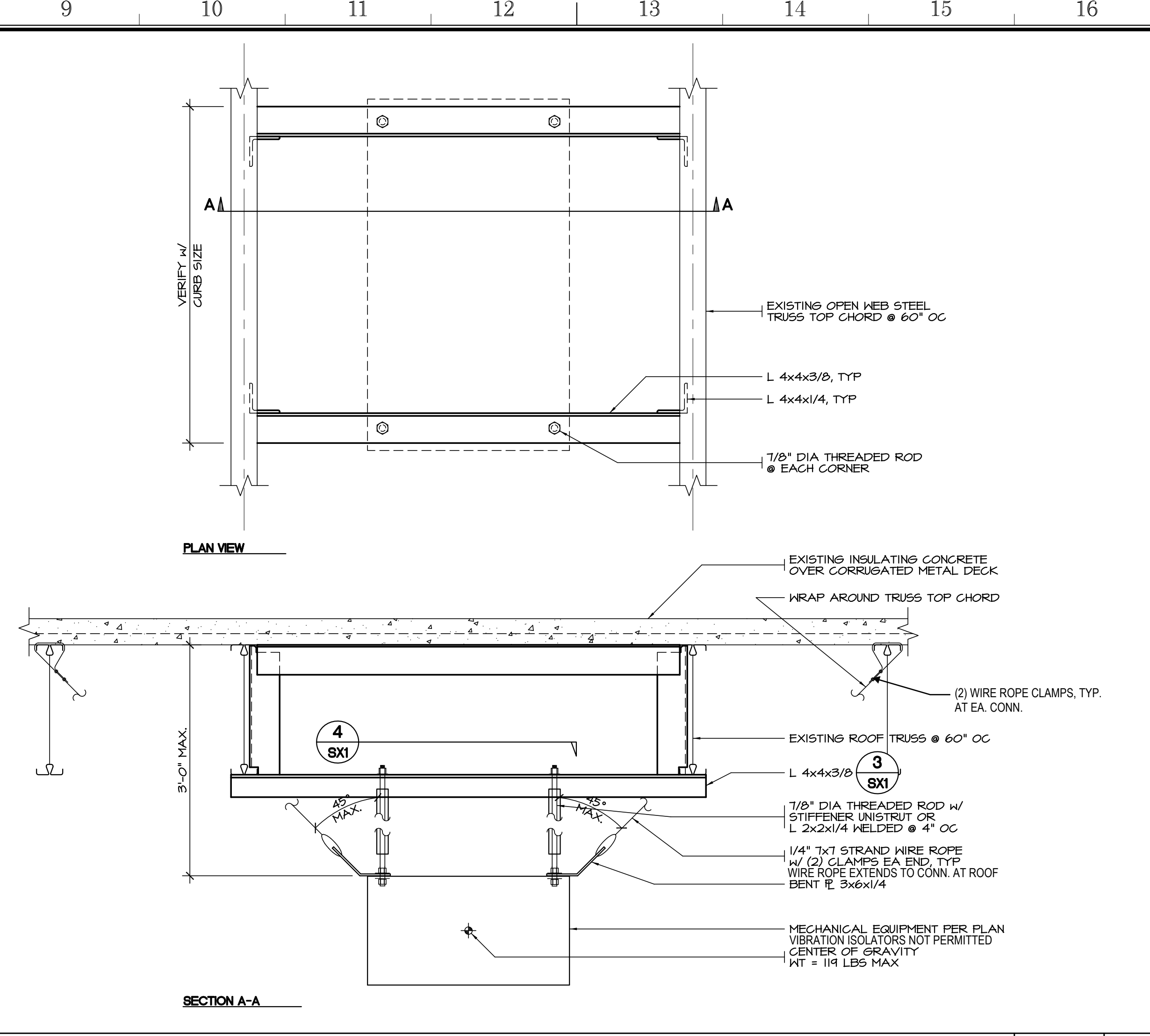
Project Title
**IMPERIAL VALLEY COLLEGE
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Sheet Title
FRAMING PLAN

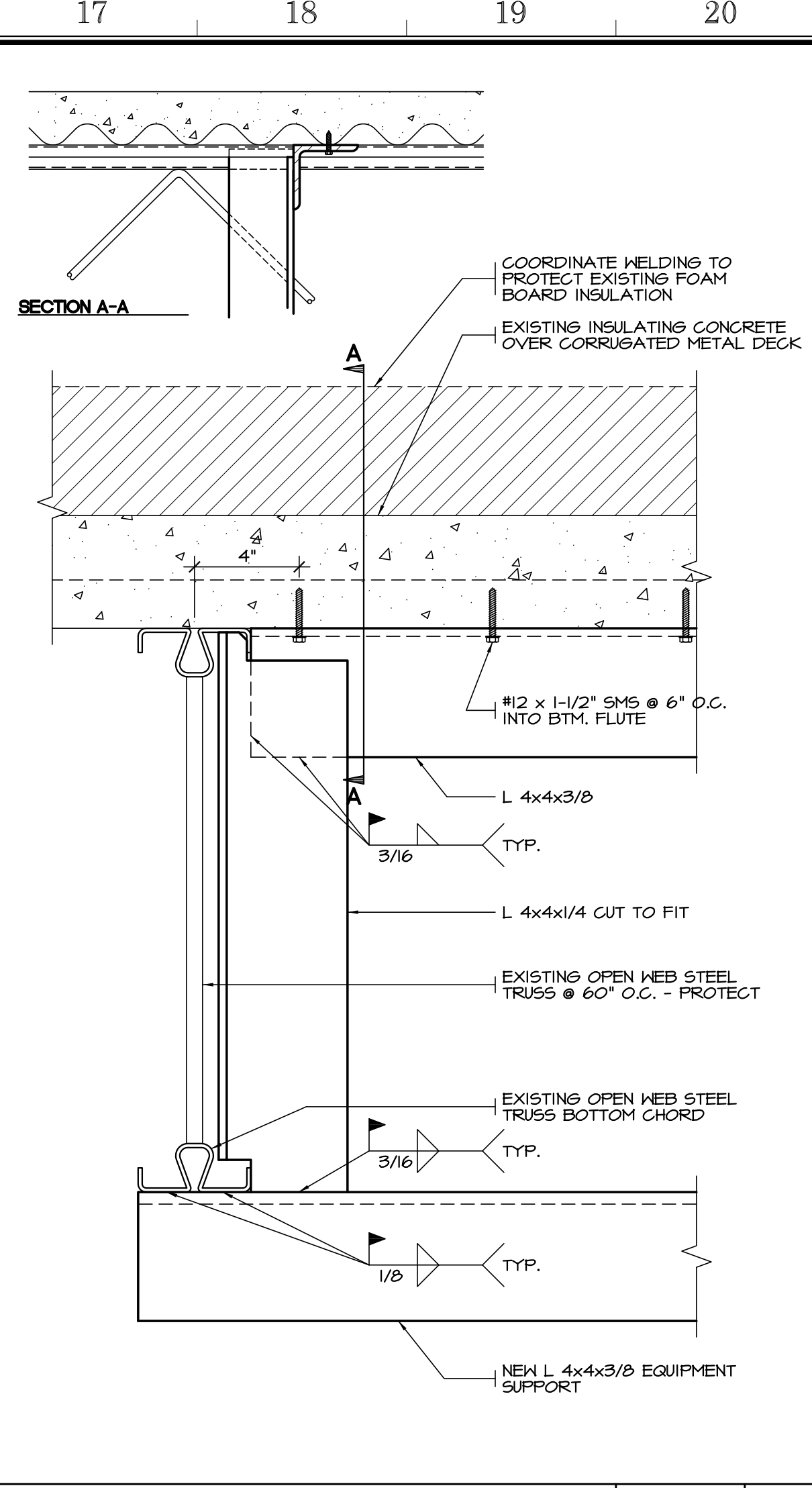
	Document Date	Project Number
	Date Last Revised	Sheet Number
	10-18-19	19-121V
		S8.2



ROOF MOUNTED EQUIPMENT SCALE: 1" = 1'-0" **1**



CEILING MOUNTED EQUIPMENT AT ROOF SCALE: 1" = 1'-0" **2**



SUPPORT TO EXISTING TRUSS SCALE: 3" = 1'-0" **3**

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EQUIPMENT PLAN DETAIL SCALE: N.T.S. **4**

NOTE:
FOR INFORMATION NOT SHOWN SEE 2 SX1

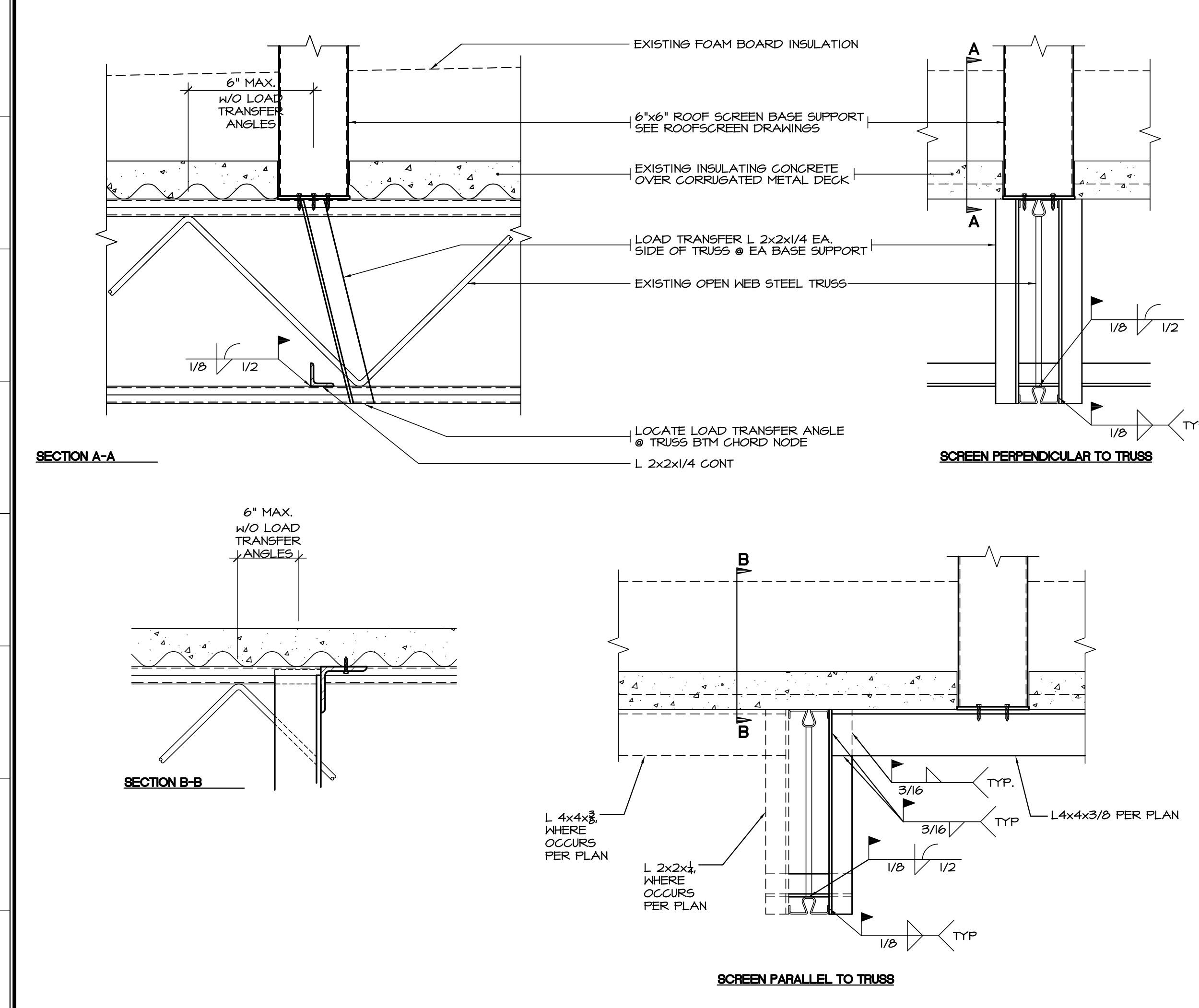
WIRE ROPE, TYP.

THREADED ROD w/ STIFFENERS, TYP.

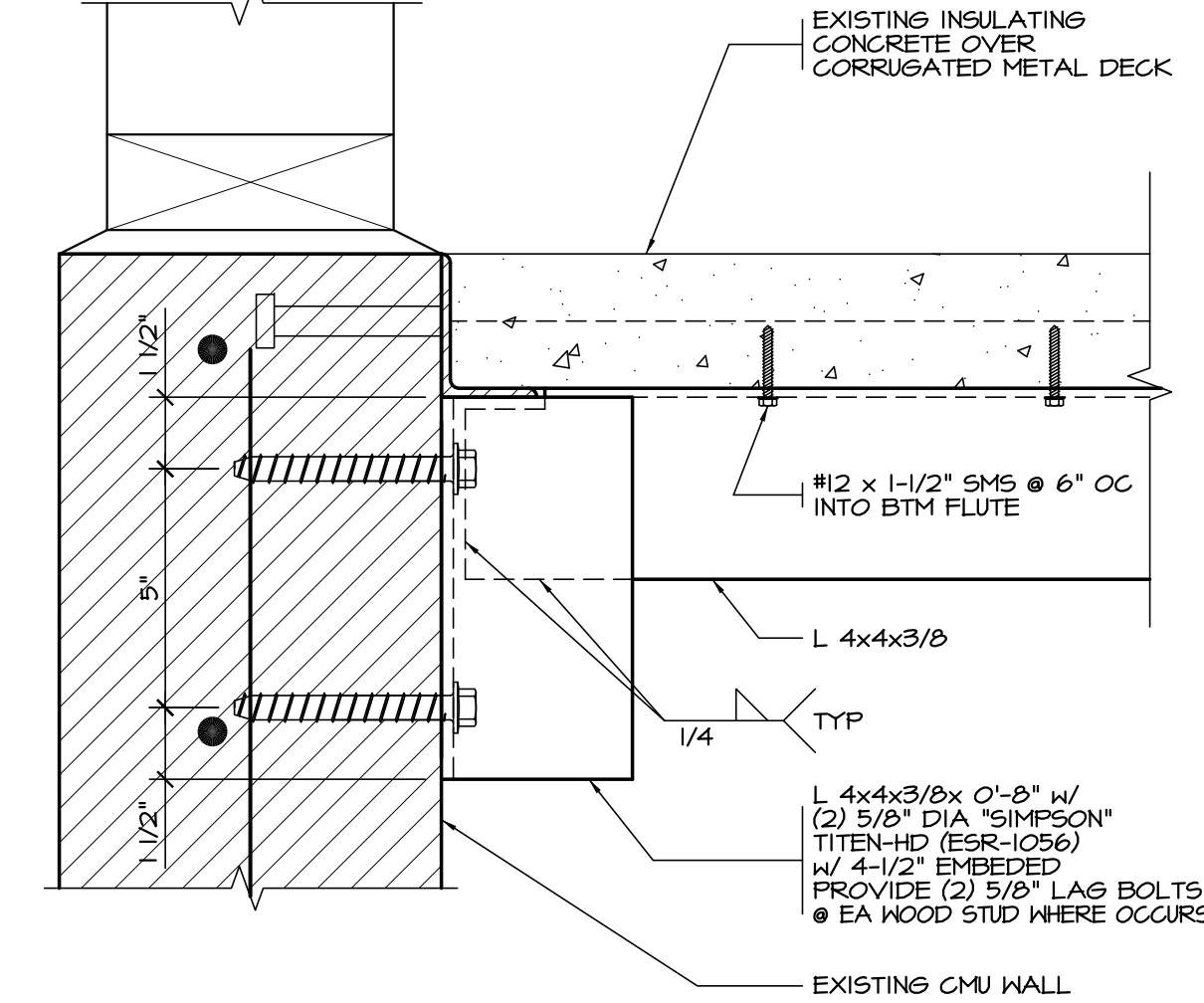
SUPPORT MEMBER ABOVE

MECHANICAL EQUIPMENT PER PLAN

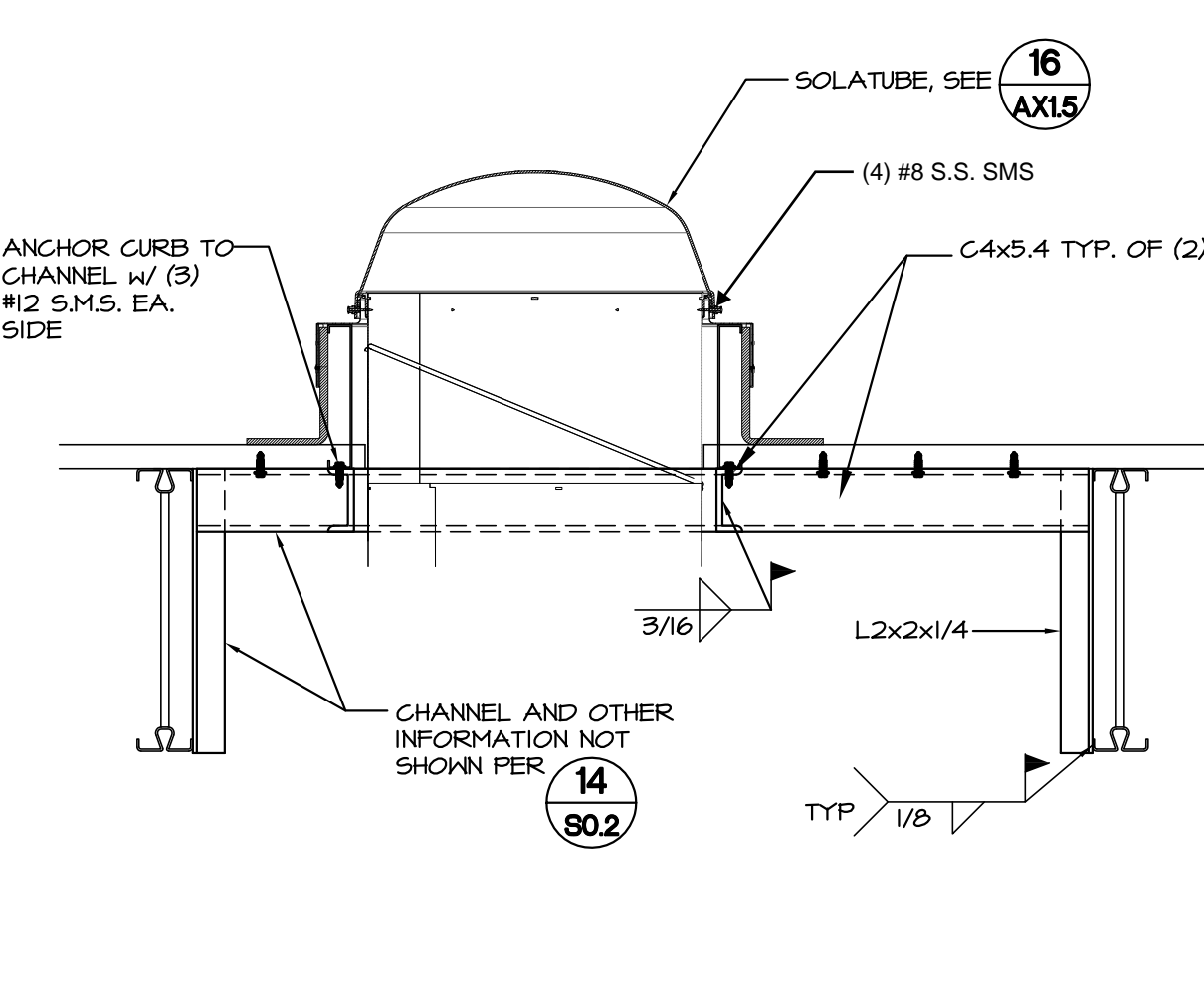
CENTER OF GRAVITY WT = 118 LBS MAX



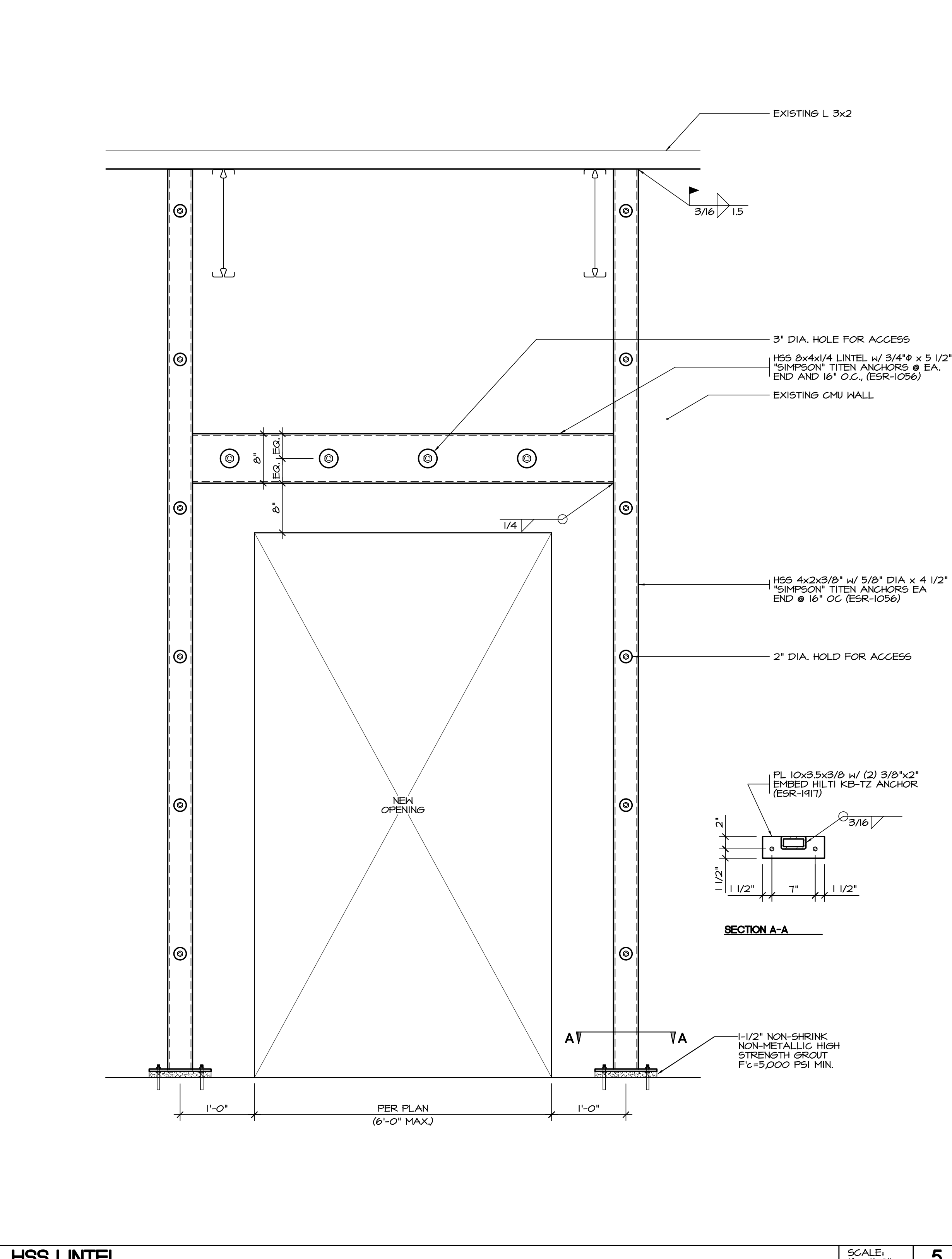
ROOF SCREEN SCALE: 1 1/2" = 1'-0" **6**



SUPPORT TO EXISTING WALL SCALE: 3" = 1'-0" **7**



SOLUTUBE ANCHORAGE DETAIL SCALE: 1 1/2" = 1'-0" **8**



HSS LINTEL SCALE: 1" = 1'-0" **5**

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Sheet Title
FRAMING DETAILS

Document Date 10-18-19	Project Number 19-121V
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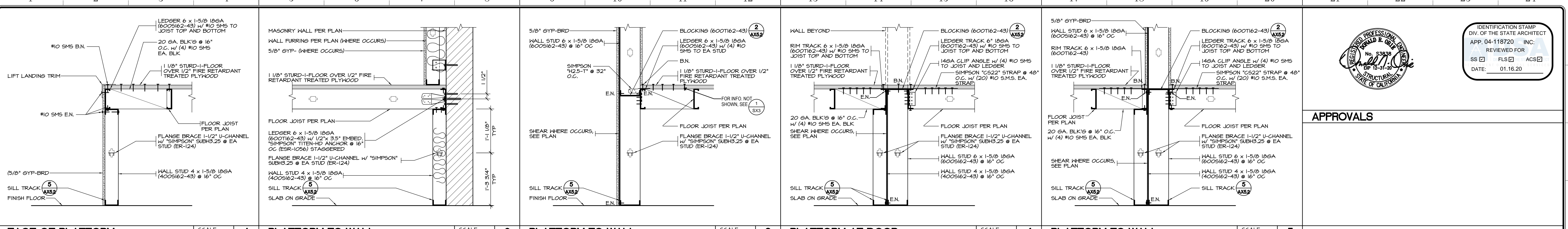
LICENSED ARCHITECT
JIMMY SANDERS
No. 53538
RENEWED 12-31-20
STATE OF CALIFORNIA

FRAMING DETAILS SCALE: 1" = 1'-0" **5**

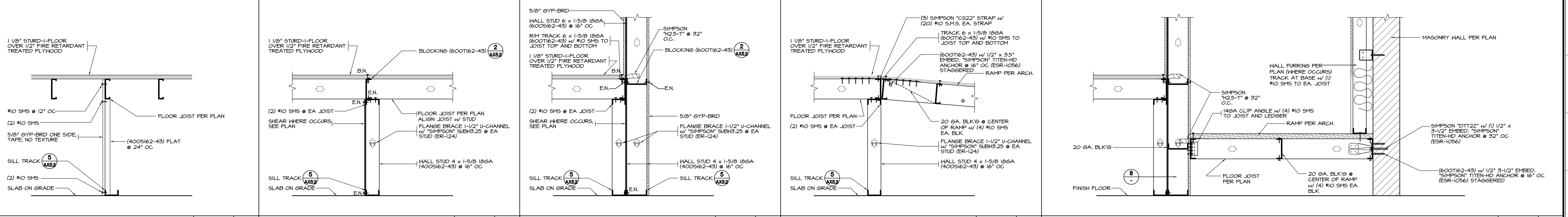


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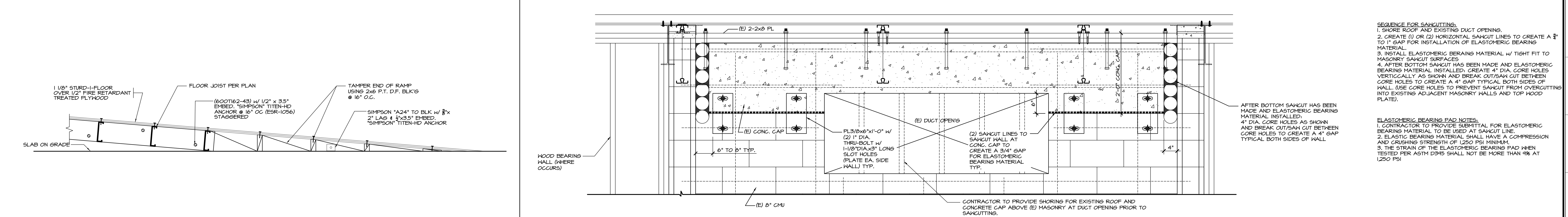
APPROVALS



1 FACE OF PLATFORM SCALE: 1" = 1'-0" 2 PLATFORM TO WALL SCALE: 1" = 1'-0" 3 PLATFORM TO WALL SCALE: 1" = 1'-0" 4 PLATFORM AT DOOR SCALE: 1" = 1'-0" 5 PLATFORM TO WALL SCALE: 1" = 1'-0"



6 DRAFT STOP SCALE: 1" = 1'-0" 7 PLATFORM SUPPORT SCALE: 1" = 1'-0" 8 PLATFORM TO WALL SCALE: 1" = 1'-0" 9 PLATFORM TO RAMP SCALE: 1" = 1'-0" 10 RAMP SECTION SCALE: 1" = 1'-0"



11 RAMP BASE SCALE: 1" = 1'-0" 12 MECH ROOM CMU WALL WALL SHEAR DISCONNECTION DETAIL SCALE: 1" = 1'-0"

SEQUENCE FOR SANKUTTING:
1. SHORE ROOF AND EXISTING DUCT OPENING.
2. CREATE (1) OR (2) HORIZONTAL SANKUT LINES TO CREATE A 3" TO 1" GAP FOR INSTALLATION OF ELASTOMERIC BEARING MATERIAL.
3. INSTALL ELASTOMERIC BEARING MATERIAL w/ TIGHT FIT TO MASONRY SANKUT SURFACES.
4. AFTER BOTTOM SANKUT HAS BEEN MADE AND ELASTOMERIC BEARING MATERIAL INSTALLED, CREATE 4" DIA. CORE HOLES VERTICALLY AS SHOWN AND BREAK OUT/SHIM CUT BETWEEN CORE HOLES TO CREATE A 4" GAP TYPICAL BOTH SIDES OF WALL. (USE CORE HOLES TO PREVENT SANKUT FROM OVERCUTTING INTO EXISTING ADJACENT MASONRY WALLS AND TOP WOOD PLATE).

AFTER BOTTOM SANKUT HAS BEEN MADE AND ELASTOMERIC BEARING MATERIAL INSTALLED:
4" DIA. CORE HOLES AS SHOWN AND BREAK OUT/SHIM CUT BETWEEN CORE HOLES TO CREATE A 4" GAP TYPICAL BOTH SIDES OF WALL.

ELASTOMERIC BEARING PAD NOTES:
1. CONTRACTOR TO PROVIDE SUBMITTAL FOR ELASTOMERIC BEARING MATERIAL TO BE USED AT SANKUT LINE.
2. ELASTIC BEARING MATERIAL SHALL HAVE A COMPRESSION AND CRUSHING STRENGTH OF 1250 PSI MINIMUM.
3. THE STRAIN OF THE ELASTOMERIC BEARING PAD WHEN TESTED PER ASTM D395 SHALL NOT BE MORE THAN 9% AT 1250 PSI.

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Sheet Title
PLATFORM FRAMING DETAILS

	Document Date 10-18-19	Project Number 19-121V
	Date Last Revised	Sheet Number SX 3

PIPE SCHEDULE

SERVICE	LOCATION	FITTINGS											NOTES				
		TYPE 'K' COPPER	TYPE 'L' COPPER	TYPE 'M' COPPER	ABS 1/2" CAST	ABS 1" CAST	ABS 1 1/2" CAST	ABS 2" CAST	ABS 3" CAST	ABS 4" CAST	ABS 6" CAST	ABS 8" CAST					
WATER	ABV. GRADE															HR0T COPPER SOLDER	1-4
	BEL. GRADE															SOLVENT CEMENT PVC	4
WASTE & VENT	ABV. GRADE															Z BAND NO - HUB COUPLINGS	
	BEL. GRADE															SOLVENT CEMENT - ABS	4-5
RAINWATER	ABV. GRADE															Z BAND NO - HUB COUPLINGS	
	BEL. GRADE															SOLVENT CEMENT - ABS	4-5
FUEL GAS	ABV. GR.-INT.															MALLEABLE THREADED	
	ABV. GR.-EXT.															MALLEABLE THREADED GALV.	
	BEL. GRADE															HEAT FUSION	
A.C. COND. DRAIN	INTERIOR															HR0T COPPER SOLDER	6-7
	EXTERIOR															HR0T COPPER SOLDER	7
INDIRECT DRAIN	INTERIOR															HR0T COPPER SOLDER	
	EXTERIOR															HR0T COPPER SOLDER	

- NOTES:
- INSULATE HOT WATER W/ 1" FIBERGLASS PIPE INSULATION W/ ASJ 4 FITTINGS COVERS.
 - LEAD FREE SOLDER.
 - PIPING BELOW FLOOR TO BE SOFT TEMPER W/ NO JOINTS BELOW FLOOR.
 - WRAP SLAB PENETRATIONS.
 - SLOPE PIPING @ 1/4" (2%) PER FOOT, OBTAIN BUILDINGS OFFICIAL PERMISSION FOR 1/8" (1%) SLOPE.
 - INSULATE W/ 3/8" WALL FOAMED PLASTIC PIPE INSULATION.
 - SLOPE PIPING @ 1/8" (1%) PER FOOT MIN.

WATER USE SCHEDULE

BUILDING	FIXTURE TYPE	MAX FLOW RATE
200, 300, 800	LAVATORY, PUBLIC (METERING)	0.20 GPC
	LAVATORY, PUBLIC (NON-METERING)	0.5 GPM @ 60 PSI
	WASH FOUNTAIN (METERING)	0.20 / 20 (RIM SPACE(IN) @ 60 PSI
	WASH FOUNTAIN (NON-METERING)	1.0 / 20 (RIM SPACE(IN) @ 60 PSI
	SHOWERHEAD (INCLUDING HANDHELD)	1.0 GPM @ 60 PSI
	KITCHEN FAUCET	1.0 GPM @ 60 PSI
	URINAL (WALL MOUNTED)	0.125 GALLON PER FLUSH
	URINAL (FLOOR MOUNTED)	0.50 GALLON PER FLUSH
	WATER CLOSET	1.20 GALLON PER FLUSH

- NOTES:
- PLUMBING FIXTURES AND FITTINGS SHALL COMPLY WITH ALL THE REQUIREMENTS IN SECTION 5.303 IN THE 2016 CALIFORNIA GREEN BUILDING CODE.
 - WHEN A SHOWER IS SERVED BY MORE THAN ONE SHOWERHEAD, THE COMBINED FLOW RATE OFF ALL THE SHOWERHEAD AND/OR OTHER SHOWER OUTLETS CONTROLLED BY A SINGLE VALVE SHALL NOT EXCEED 2.0 GALLONS PER MINUTE AT 80 PSI, OR THE SHOWER SHALL BE DESIGNED TO ALLOW ONLY ONE SHOWER OUTLET TO BE IN OPERATION AT A TIME. (CAL GREEN SECTION 5.303.3.3.2)

FIXTURE UNIT SUMMARY

BUILDING	QTY.	FIXTURE TYPE	FU/FXT	TOTAL
200	5	W.C. (FV-PUB)	5.0	25.0
	3	W.C. (FV-PUB)	4.0	12.0
	4	LAVATORY (PUB)	1.0	4.0
	1	MOP SINK	3.0	3.0
			44 FVPU = 40 GPM	

FIXTURE UNIT SUMMARY

BUILDING	QTY.	FIXTURE TYPE	FU/FXT	TOTAL
300	1	MOP SINK	3.0	3.0
			3 FVPU = 3 GPM	

FIXTURE UNIT SUMMARY

BUILDING	QTY.	FIXTURE TYPE	FU/FXT	TOTAL
800	7	W.C. (FV-PUB)	5.0	25.0
	3	W.C. (FV-PUB)	4.0	12.0
	6	LAVATORY (PUB)	1.0	6.0
	1	MOP SINK	3.0	3.0
			56 FVPU = 54 GPM	

PIPE SIZING CHART

SIZE	GPM		VELOCITY		FIX. UN. FLUSH TANK		FIX. UN. FLUSH VALVE	
	HW.	C.W.	HW.	C.W.	HW.	C.W.	HW.	C.W.
1/2"	2.5	2.5	3.3	3.3	2.5	2.5	--	0.0
3/4"	6.0	6.0	4.3	4.3	6.0	6.0	--	0.0
1"	12.0	15.0	5.0	5.2	15.0	20.0	--	4.0
1-1/4"	19.0	24.0	5.0	6.0	20.0	40.0	--	8.0
1-1/2"	28.0	34.0	5.0	6.0	30.0	67.0	--	19.0
2"	45.0	60.0	5.0	6.0	105.0	100.0	--	75.0
2-1/2"	65.0	90.0	5.0	6.0	205.0	450.0	--	147.0
3"	110.0	170.0	5.0	7.0	430.0	750.0	--	700.0

LEGEND:

ABBR.	SYMBOL	DESCRIPTION
CH	---	COLD WATER PIPING
HK	---	HOT WATER PIPING
HHR	---	HOT WATER RETURN PIPING
G	---	NATURAL GAS PIPING
V	---	SANITARY VENT PIPING
5 or H	---	WASTE/SEWER PIPING BELOW GRADE
5 or H	---	SOIL OR WASTE ABOVE GRADE
GD	---	CONDENSATE DRAIN PIPING
D	---	INDIRECT DRAIN PIPING
SD	---	STORM DRAIN PIPING
OD	---	OVERFLOW STORM DRAIN PIPING
FS	---	FLOOR SINK
FD	---	FLOOR DRAIN
RD / OD	---	ROOF DRAIN / OVER FLOW DRAIN
WCO	---	WALL CLEAN-OUT
FCO	---	FLOOR CLEAN-OUT
COTG	---	CLEAN-OUT TO GRADE
P & TRV	---	PRESS. & TEMP. RELIEF VALVE
SOV	---	SHUT OFF (BALL) VALVE (IN RISER)
SOV	---	SHUT OFF (BALL) VALVE (IN-LINE)
CV	---	CHECK VALVE
STR	---	STRAINER
BFP	---	RED PRESSURE BACKFLOW PREVENTER
	---	UNION
	---	CAP
HB	---	HOSE BIBB
POC	---	POINT OF CONNECTION
VTR	---	VENT THRU ROOF
UG	---	UNDER GROUND
B/F	---	BELOW FLOOR
A/C	---	ABOVE CEILING
UTR	---	UP THROUGH ROOF
YB	---	YARD BOX
WHA	---	WATER HAMMER ARRESTOR
AP	---	ACCESS PANEL
UNO	---	UNLESS NOTED OTHERWISE
GW	---	GREASE WASTE
AH	---	ACID WASTE
AV	---	ACID VENT

GENERAL NOTES:

- THESE DRAWINGS ARE A DIAGRAMMATIC REPRESENTATION OF THE PLUMBING WORK TO BE ACCOMPLISHED AND AS SUCH ARE NOT INTENDED TO SHOW ALL REQUIRED OFFSETS OF PIPING. THE PLUMBING CONTRACTOR SHALL INSTALL MATERIAL AND EQUIPMENT SO AS TO CONFORM TO THE STRUCTURE, AVOID OBSTRUCTIONS, AND MAINTAIN HEADROOM AND PASSAGEWAYS.
- ALL LOCATIONS, POINTS-OF-CONNECTION, INVERTS, SIZES, AND AVAILABILITY OF ALL EXISTING UTILITIES SHALL BE VERIFIED BY THE PLUMBING CONTRACTOR PRIOR TO THE COMMENCEMENT OF THE INSTALLATION.
- THE PLUMBING CONTRACTOR SHALL COORDINATE HIS WORK WITH THAT OF OTHER TRADES PRIOR TO COMMENCEMENT OF THE PLUMBING INSTALLATION.
- ALL WORK SHALL BE ACCOMPLISHED IN ACCORDANCE WITH ALL APPLICABLE CODES, INCLUDING TITLE 24 CCR.
- WHERE PLUMBING PENETRATES AREA SEPARATION WALL SURFACES, THE SECTION PASSING THROUGH THE WALL SURFACE AND CONNECTED TO THE ATTACHED FIXTURE SHALL BE ONLY OF METAL.
- FOR MINIMUM PLUMBING FIXTURE CLEARANCES AND ELEVATIONS SEE ARCHITECTURAL DRAWINGS.
- WATER HEATER/BOILER WILL COMPLY WITH SECTION 608.3, 2016 C.P.C. FOR THERMAL EXPANSION REQUIREMENTS AND WITH SECTION 510.5, 2016 C.P.C. FOR SEISMIC RESTRAINT REQUIREMENTS.
- STATE HEALTH AND SAFETY CODE SECTION 17021.9 BANS THE USE OF CHLORINATED POLYVINYL CHLORIDE (CPVC) FOR INTERIOR WATER-SUPPLY PIPING.
- FLAME SPREAD / SMOKE SPREAD FOR ALL PIPE INSULATION SHALL BE 25/50 MAX.
- FOR ALL THROUGH-PENETRATION FIRESTOP DETAILS SEE SHEET **SH1 AX8.2**

TITLE 24 NOTES:

- PIPING SHALL BE INSULATED CONSISTENT WITH THE REQUIREMENTS OF CALIFORNIA ADMINISTRATIVE CODE, T24, SECTIONS 110, 123, & 124 E.E.S.
- PLUMBING EQUIPMENT REQUIRING CERTIFICATION, AS IDENTIFIED IN THE CALIFORNIA ADMINISTRATIVE CODE, TITLE 24, SECTIONS 11-113, 115 & 120-121 E.E.S., SHALL BE CERTIFIED BY THE MANUFACTURER TO COMPLY WITH THE C.E.C.'S APPLIANCE EFFICIENCY STANDARDS. CERTIFICATES OF COMPLIANCE SHALL BE PROVIDED AS PART OF THE EQUIPMENT SUBMITTALS.
- SERVICE WATER HEATING SYSTEMS SHALL COMPLY WITH THE REQUIREMENTS OF T24 CALIFORNIA ADMINISTRATIVE CODE.

DESIGN CRITERIA:

- MEP COMPONENT ANCHORAGE NOTE**
- 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 REQUIREMENTS SHALL BE ANCHORED OR BRACED TO MEET THE FORCE OF DISPLACEMENT REQUIREMENTS PRESCRIBED IN THE 2016 CBC, SECTIONS 1616A.1.0 THROUGH 1616A.1.26 AND ASCE T-10 CHAPTER 13, 26 & 30.
 - ALL PERMANENT EQUIPMENT AND COMPONENTS.
 - TEMPORARY OR MOVABLE EQUIPMENT THAT IS PERMANENTLY ATTACHED (E.G. HARD WIRED) TO THE BUILDING UTILITY SERVICES SUCH AS ELECTRICITY, GAS OR WATER.
 - MOVABLE EQUIPMENT WHICH IS STATIONED IN ONE PLACE FOR MORE THAN 8 HOURS AND HEAVIER THAN 400 POUNDS OR HAS A CENTER OF MASS LOCATED 4 FEET OR MORE ABOVE THE ADJACENT FLOOR OR ROOF LEVEL THAT DIRECTLY SUPPORT THE COMPONENT ARE REQUIRED TO BE ANCHORED WITH TEMPORARY ATTACHMENTS.
 - THE FOLLOWING MECHANICAL AND ELECTRICAL COMPONENTS SHALL BE POSITIVELY ATTACHED TO THE STRUCTURE, BUT THE ATTACHMENT NEED NOT BE DETAILED ON THE PLANS. THESE COMPONENTS SHALL HAVE FLEXIBLE CONNECTIONS PROVIDED BETWEEN THE COMPONENT AND ASSOCIATED DUCTWORK, PIPING AND CONDUIT.
 - 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.
 - 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 DESIGN PROFESSIONAL IN GENERAL, RESPONSIBLE CHARGE OR STRUCTURAL ENGINEER DELEGATED RESPONSIBILITY AND THE DSA DISTRICT STRUCTURAL ENGINEER. THE PROJECT INSPECTOR WILL VERIFY THAT ALL COMPONENTS AND EQUIPMENT HAVE BEEN ANCHORED IN ACCORDANCE WITH THE ABOVE REQUIREMENTS.

PENET DUCTWORK AND ELECTRICAL DISTRIBUTION SYSTEM BRACING NOTE

- PIPING, DUCTWORK AND ELECTRICAL DISTRIBUTION SYSTEMS SHALL BRACED TO COMPLY WITH THE FORCES AND DISPLACEMENTS PRESCRIBED IN ASCE T-10 SECTION 13.3 AS DEFINED IN ASCE T-10 SECTION 13.6.5.6, 13.6.7, 13.6.8 AND 2016 CBC, SECTIONS 1616A.1.24, 1616A.1.25 AND 1616A.1.26.
- THE METHOD OF SHOWING BRACINGS AND ATTACHMENTS TO THE STRUCTURE FOR THE IDENTIFIED DISTRIBUTION SYSTEM ARE AS NOTED BELOW. WHEN BRACINGS AND ATTACHMENTS ARE BASED ON A PRE-APPROVED INSTALLATION GUIDE (E.G. SHACMA OR OSHPD OPM), COPIES OF THE BRACING SYSTEM INSTALLATION GUIDE OR MANUAL SHALL BE AVAILABLE ON THE JOBSITE PRIOR TO THE START OF AND DURING THE HANGING AND BRACING OF THE DISTRIBUTION SYSTEMS. THE STRUCTURAL ENGINEER OF RECORD SHALL VERIFY THE ADEQUACY OF THE STRUCTURE TO SUPPORT THE HANGER AND BRACE LOADS.

MECHANICAL PIPING (MP), MECHANICAL DUCTS (MD), PLUMBING PIPING (PP), ELECTRICAL DISTRIBUTION SYSTEM (ES)

MP □ MD □ PP □ ES □ - OPTION 1: DETAILED ON THE APPROVED DRAWINGS WITH PROJECT SPECIFIC NOTES AND DETAILS.

MP □ MD □ PP □ ES □ - OPTION 2: SHALL COMPLY WITH THE APPLICABLE OSHPD PRE-APPROVAL (OPM #) #0043-13.

MP □ MD □ PP □ ES □ - OPTION 3: SHALL COMPLY WITH THE SHACMA SEISMIC RESTRAINT MANUAL, OSHPD EDITION (2009), INCLUDING ANY ADDENDA, FASTENERS AND OTHER ATTACHMENTS NOT SPECIFICALLY IDENTIFIED IN THE SHACMA SEISMIC RESTRAINT MANUAL. OSHPD EDITION, ARE DETAILED ON THE APPROVED DRAWINGS WITH PROJECT SPECIFIC NOTES AND DETAILS. THE DETAILS SHALL ACCOUNT FOR THE APPLICABLE SEISMIC HAZARD LEVEL _____ AND CONNECTION LEVEL _____ FOR THE PROJECT AND CONDITIONS.

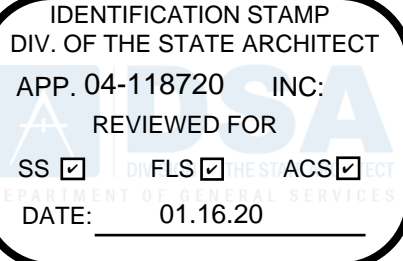
PLASTIC PIPE IN PLUMBING SYSTEMS:

- APPROPRIATE PLASTIC PIPE MAY BE USED FOR VENT PIPING IN BUILDINGS. IT MAY BE USED FOR WASTE LINES IN PORTABLE BUILDINGS ONLY. IT MAY BE USED FOR DRAINS CARRYING ACID WASTE LABORATORIES. IT SHALL NOT BE USED FOR WATER DISTRIBUTION LINES WITHIN A DISTANCE OF 5 FEET OUTSIDE OF BUILDINGS.
- PLASTIC PIPE OF THE APPROPRIATE CLASS MAY BE USED UNDERGROUND OUTSIDE OF BUILDINGS FOR CARRYING GAS AND DRAINAGE WASTE.
- PLASTIC CONDUIT AND INSULATION MAY BE USED WHERE PERMITTED IN TITLE 24.

PLUMBING FIXTURE SCHEDULE

- P-1 WATER CLOSET, FLOOR MOUNTED, ACCESSIBLE**
TOILET - ZURN #5665 ELONGATED "ECOAVANTAGE", 120" GPF VALVE - ZURN #26000AV AUTOMATIC FLUSH VALVE SEAT - OLSONITE #19 OF L.C.
- P-2 LAVATORY, WALL HUNG, ACCESSIBLE**
BASIN - AMSTD # 0366-021 LUCERNE, 20" X 18", SINGLE HOLE DRILLING FAUCET - SLOAN REAF-275, "OPTIMA SOLIS", SOLAR POWERED ELECTRONIC, 0.5 GPM STRAINER - CHROME PLATED GRID DRAIN SUPPORT - WALL PLATE PER SPECIFICATIONS W(4) 3/8" ANCHORS MIN.
- P-3 FLOOR DRAIN**
DRAIN - ZURN #2-415 W/ 1/4" MAX STRAINER OPENINGS IN ALL DIRECTIONS ACCESSORY - TRAP PRIMER INLET
- P-4 MOP BASIN**
BASIN - FIAT #2424M5B, 3" OUTLET FAUCET - FIAT #850-AA HAVACUUM BREAKER STRAINER - FIAT #VBASIN ACCESSORIES - #832-AA HOSE AND BRACKET, BUMPER GUARDS
- P-5 ELECTRIC WATER HEATER, STORAGE TYPE, SHELF MOUNTED** **4** **5** **PO2** **PO2**
HEATER - RHEEM HEGSP15 CAPACITY - 15 GALLONS RECOVERY - 25 GPM @ 90 DEGREE F RISE ELECTRICAL - 208-1-60, 216A, SINGLE 4 BRN ELEMENT ACCESSORIES - VICTAULIC DIELECTRIC MATERSWYS @ HOT & COLD CONNECTIONS TO HEATER, P & TRV W/ FULL SIZE DRAIN CONTROL, #15-B EXPANSION TANK, 1/4" CW BALL TYPE 50V'S OPERATING HEIGHT (FULL) - 190 LBS
- P-6 NOT USED**
- P-7 CIRCULATING PUMP, HOT WATER** **4** **PO2**
PUMP - GRUNDFOS 125-648U CAPACITY - 3 GPM @ 120 TDH ELEC - 115-160, 180W CONTROL - GRUNDFOS BUILT-IN THERM-STAT
- P-8 URINAL, WALL HUNG, ACCESSIBLE**
URINAL - ZURN #5135 VALVE - ZURN #256000AV AUTOMATIC FLUSH VALVE SUPPORT - ZURN #2-1222 CARRIER

APPROVALS

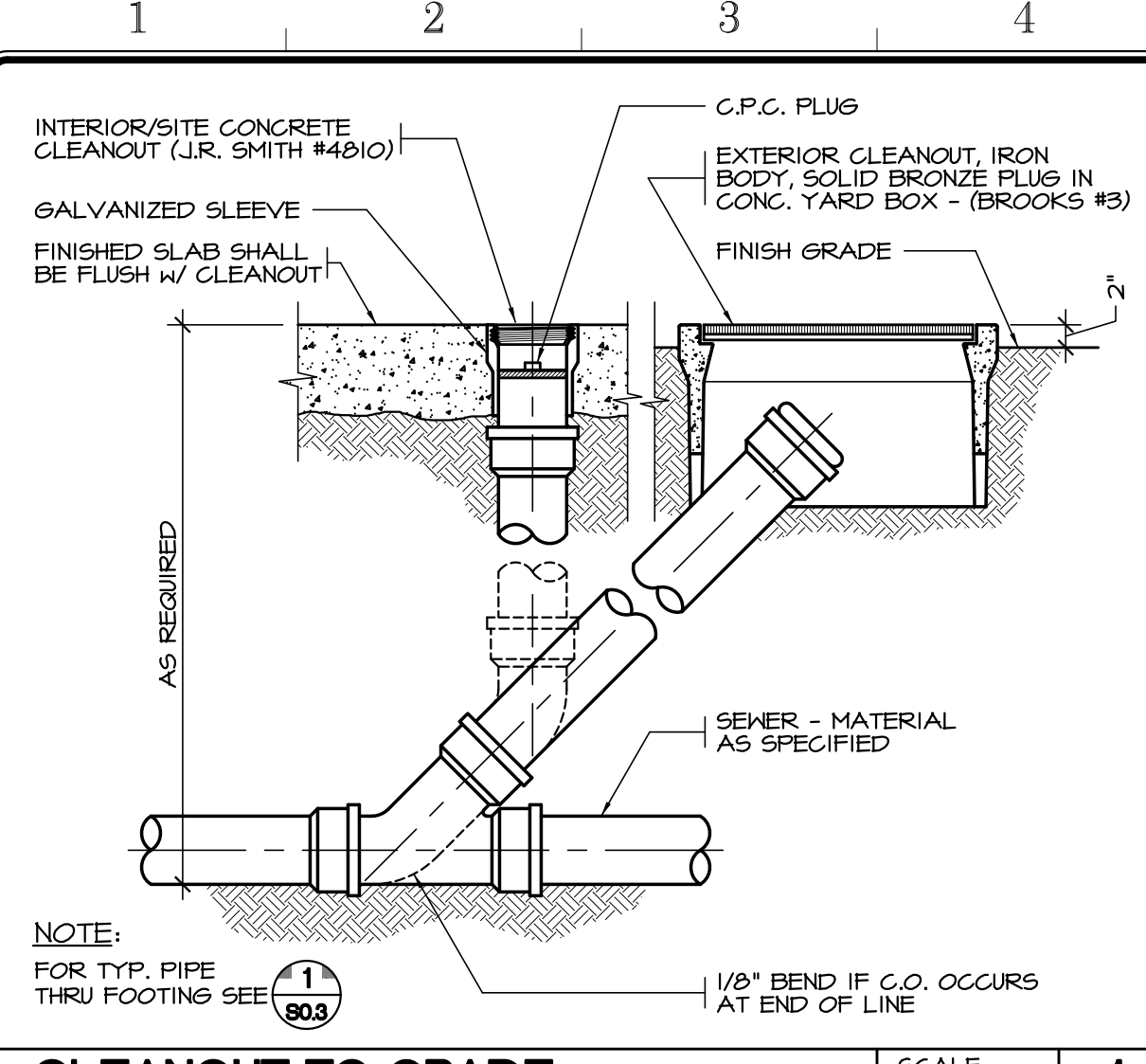


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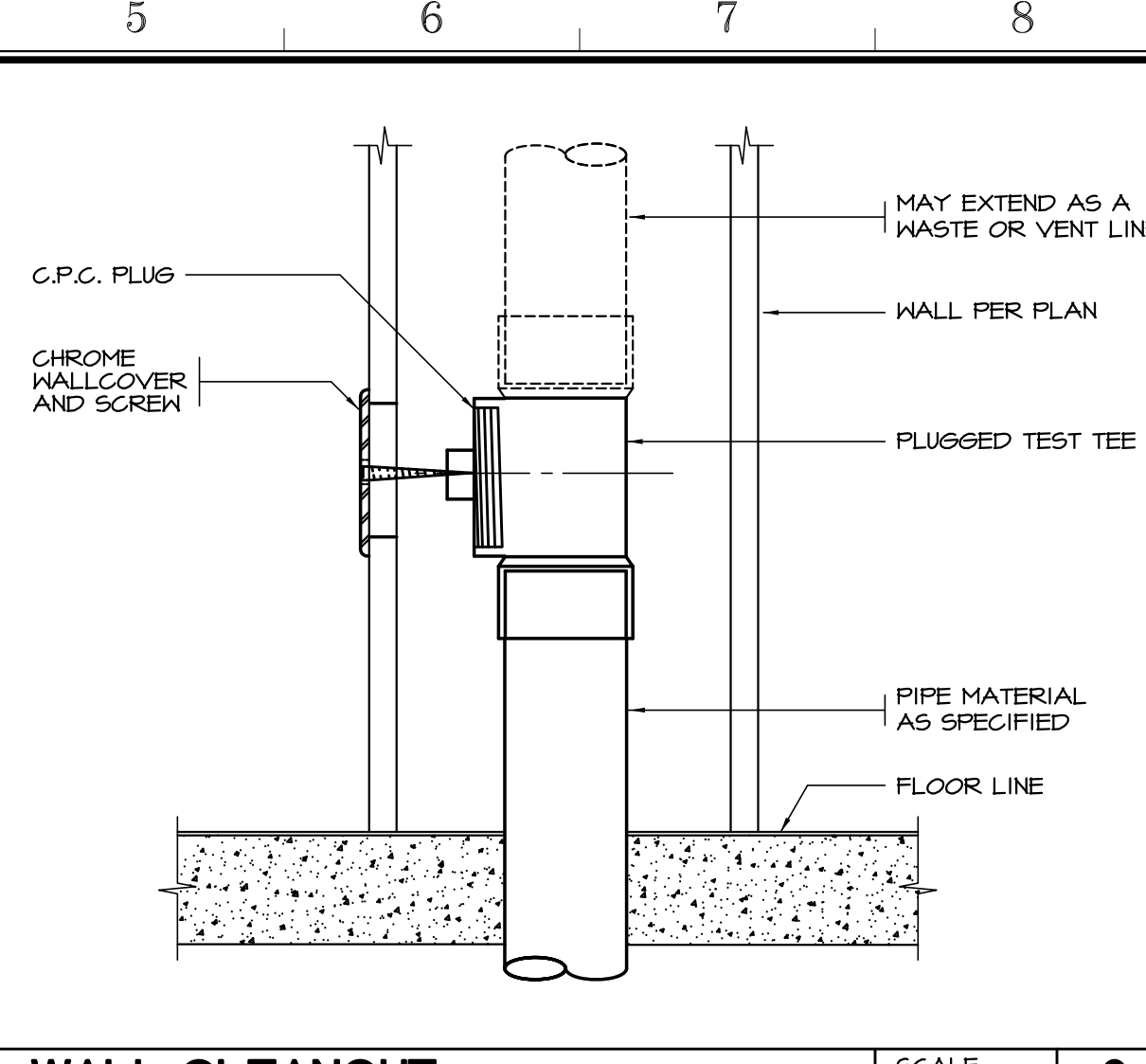
Project Title
**IMPERIAL VALLEY COLLEGE
BUILDING 200, 300 AND 800 MODERNIZATION**

LEGEND AND NOTES

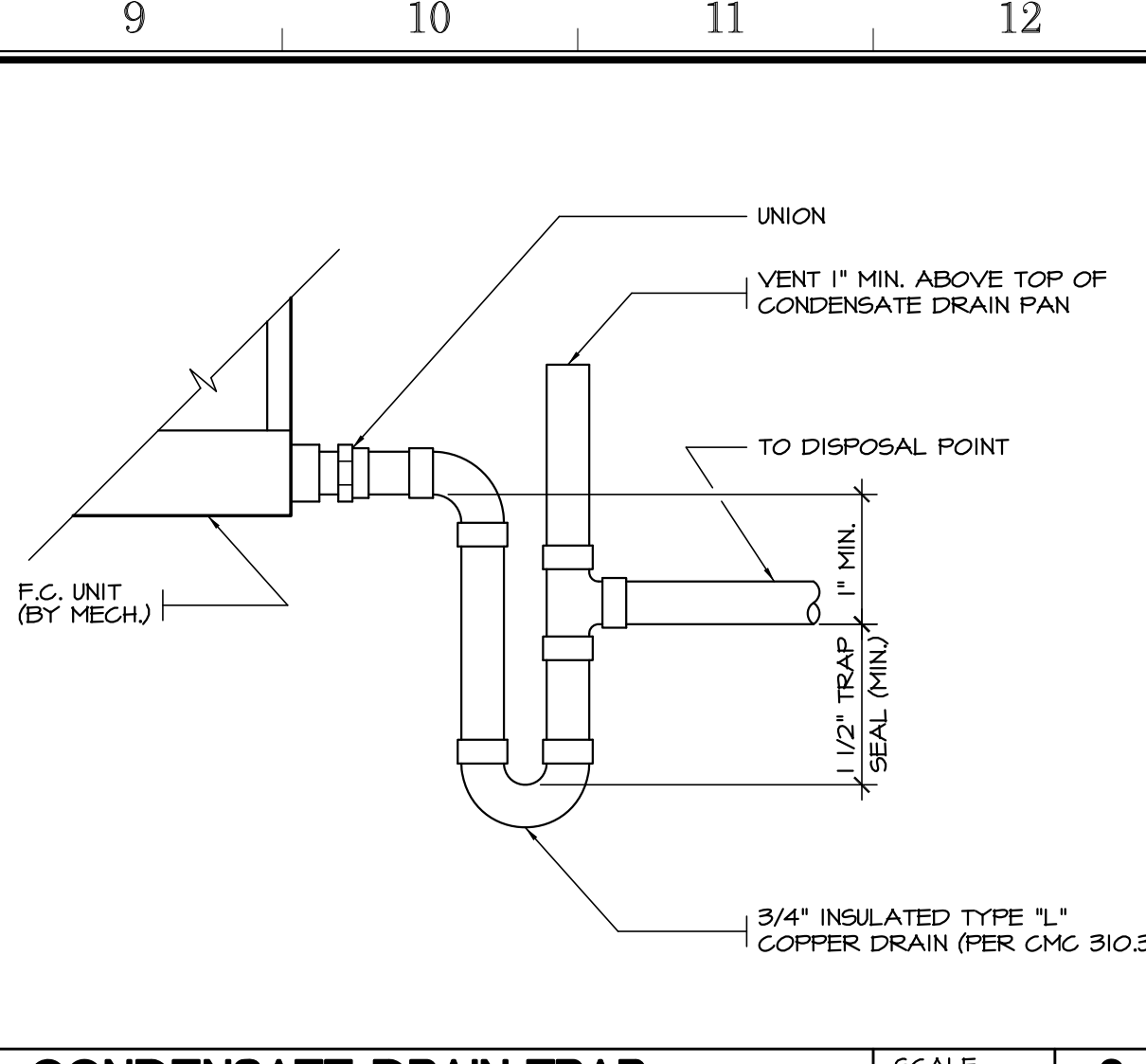
	Document Date	Project Number
	Date Last Revised	19-121V
		Sheet Number
		PO.1



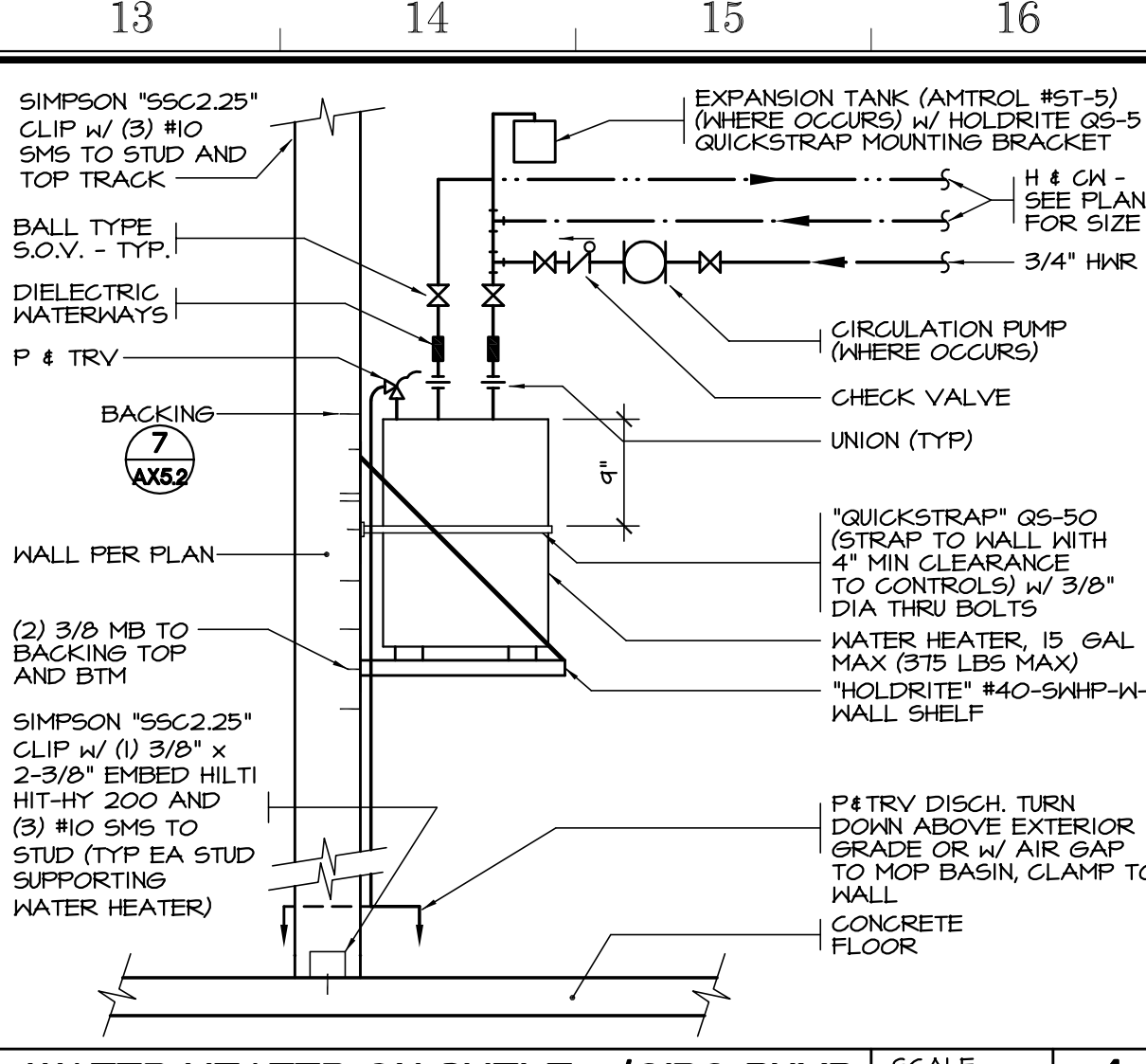
CLEANOUT TO GRADE SCALE: N.T.S. 1



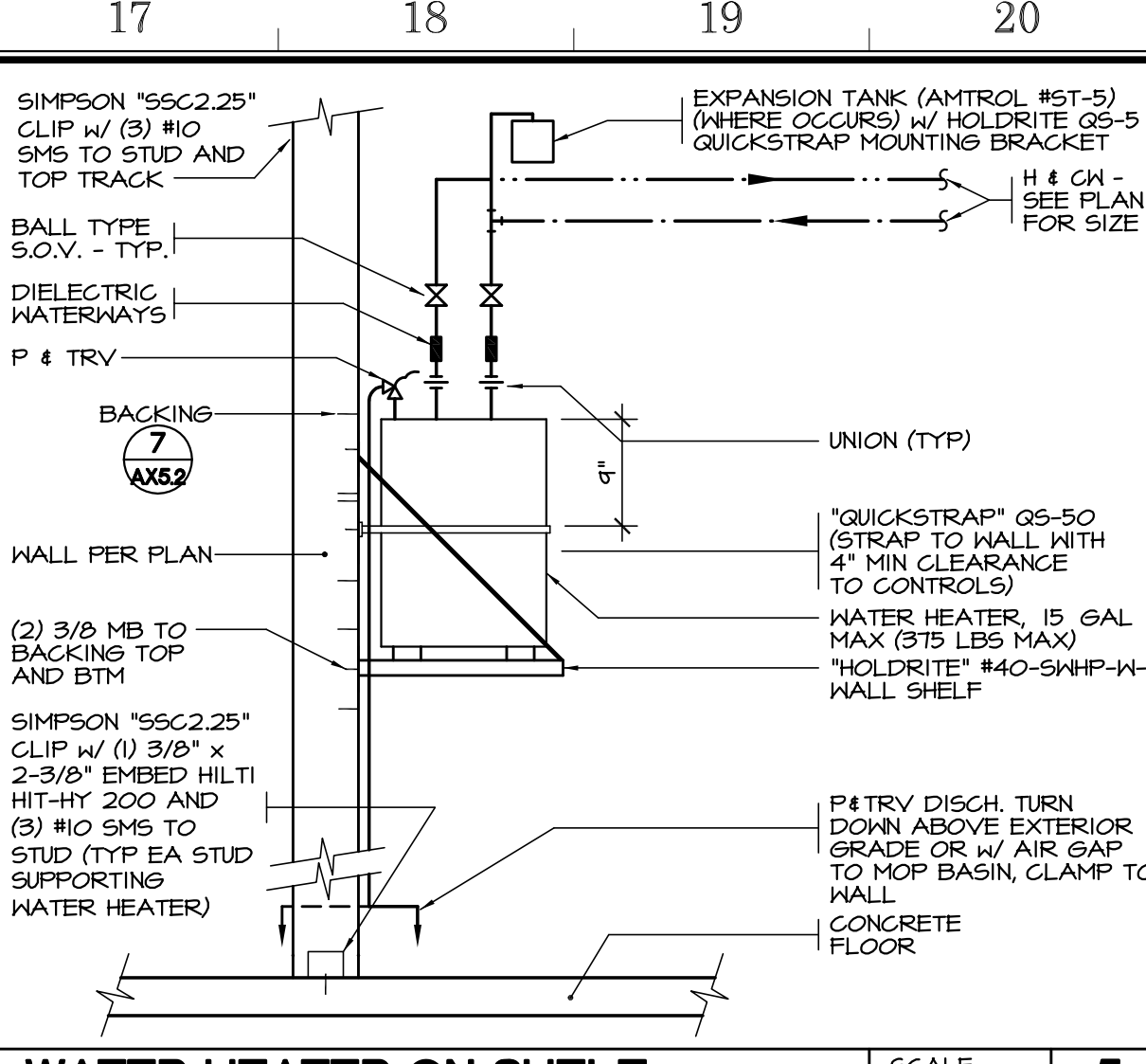
WALL CLEANOUT SCALE: N.T.S. 2



CONDENSATE DRAIN TRAP SCALE: N.T.S. 3



WATER HEATER ON SHELF w/CIRC PUMP SCALE: N.T.S. 4



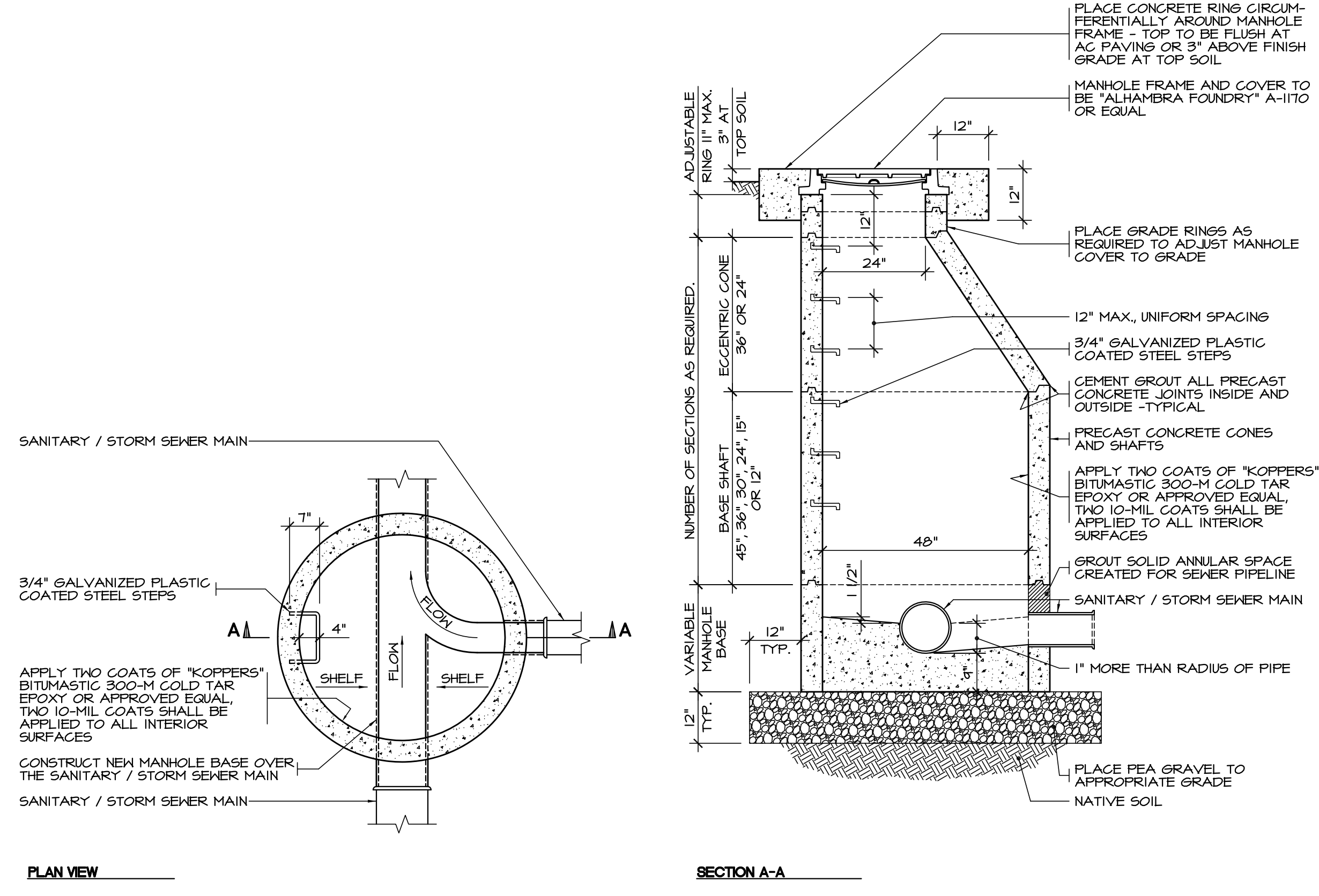
WATER HEATER ON SHELF SCALE: N.T.S. 5

APPROVALS

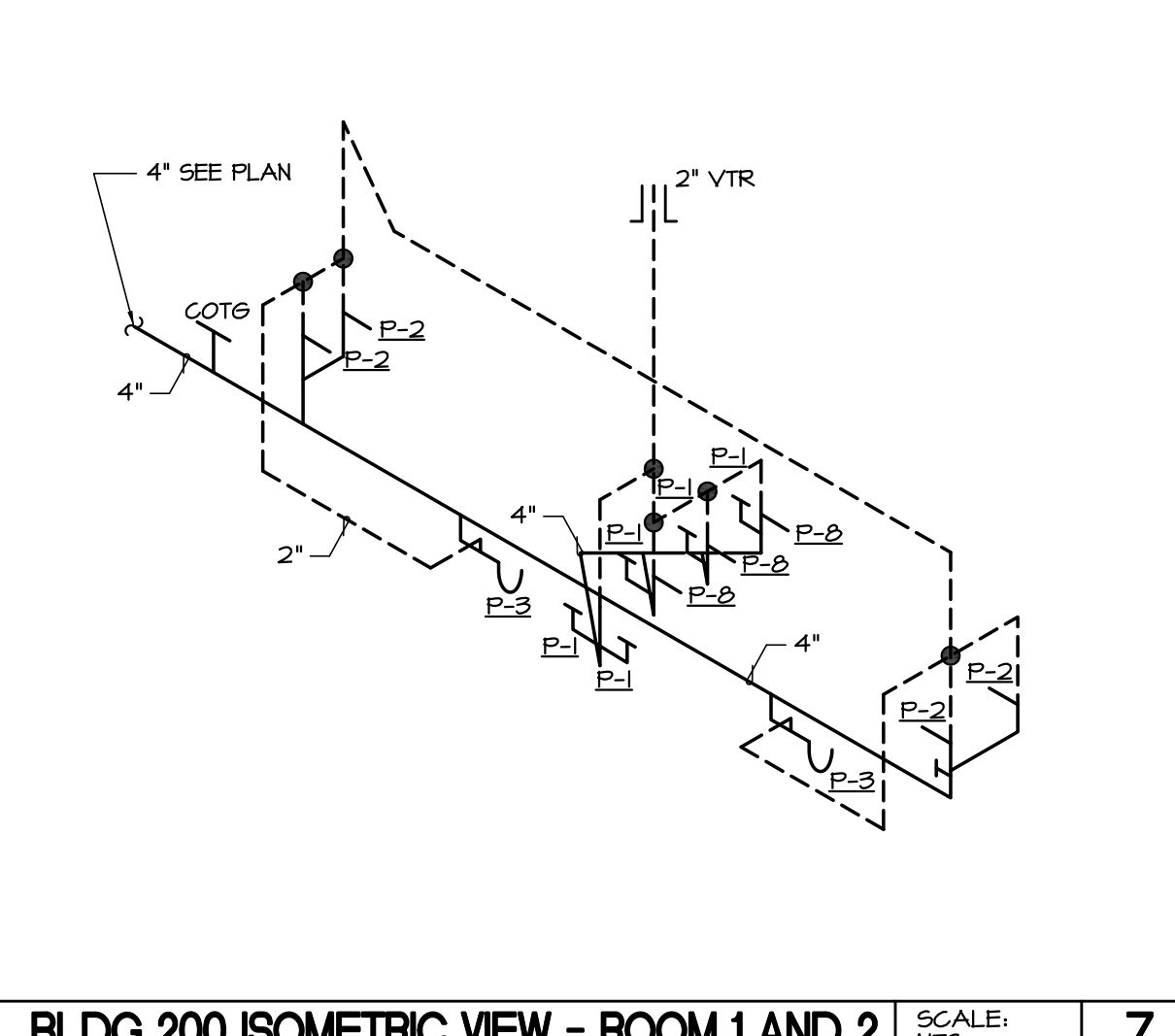
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APP. 04-118720 INC.
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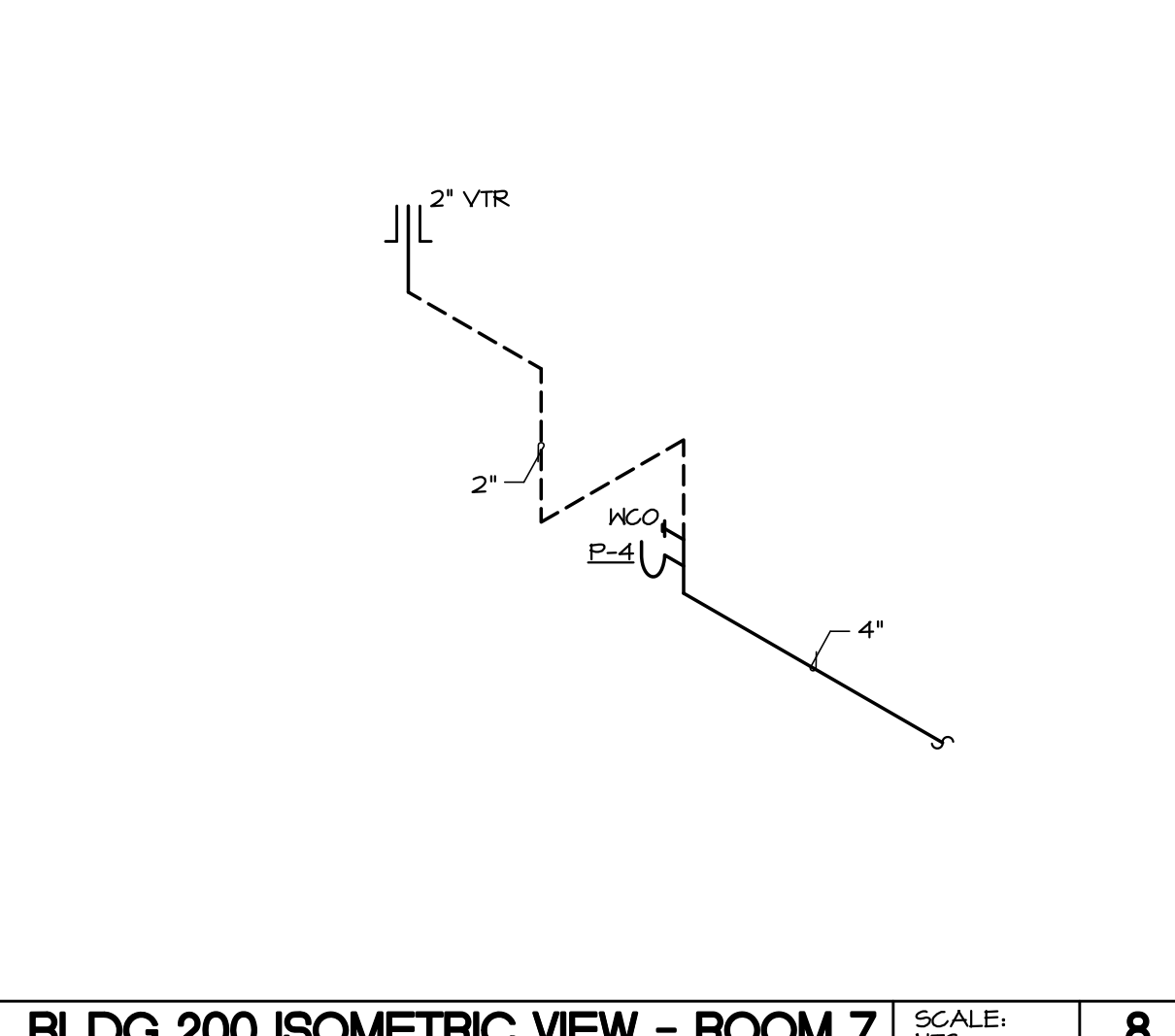
1. THE PRECAST CONCRETE UNITS SHALL BE MANUFACTURED AND TESTED IN ACCORDANCE WITH ASTM C-478. THE CURING OF THE PRECAST UNITS SHALL CONFORM TO SECTION 207-2.1 OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION.
2. DUE TO THE TOXICITY OF THE BITUMASTIC COATING, PROPER CARE MUST BE TAKEN TO INSURE THE SAFETY OF THE WORKERS.
3. THE CONCRETE SHELF OF THE MANHOLE SHALL BE SLOPED AT 1/4" PER FOOT. THE SHELF SHALL RECEIVE A DOUBLE TROWEL FINISH. THE CONCRETE USED FOR THE CONCRETE BASE SHALL CONTAIN 6 BAGS OF CEMENT PER CUBIC YARD OF CONCRETE AND ATTAIN A COMPRESSIVE STRENGTH OF 4000 P.S.I. AFTER 28 DAYS.
4. WHENEVER PRACTICAL THE FRAME AND COVER SHALL BE PLACED DIRECTLY OVER THE INLET OF THE STRUCTURE.
5. MANHOLE SHAFTS, CONES AND GRADE RINGS SHALL BE SET PLUMB.



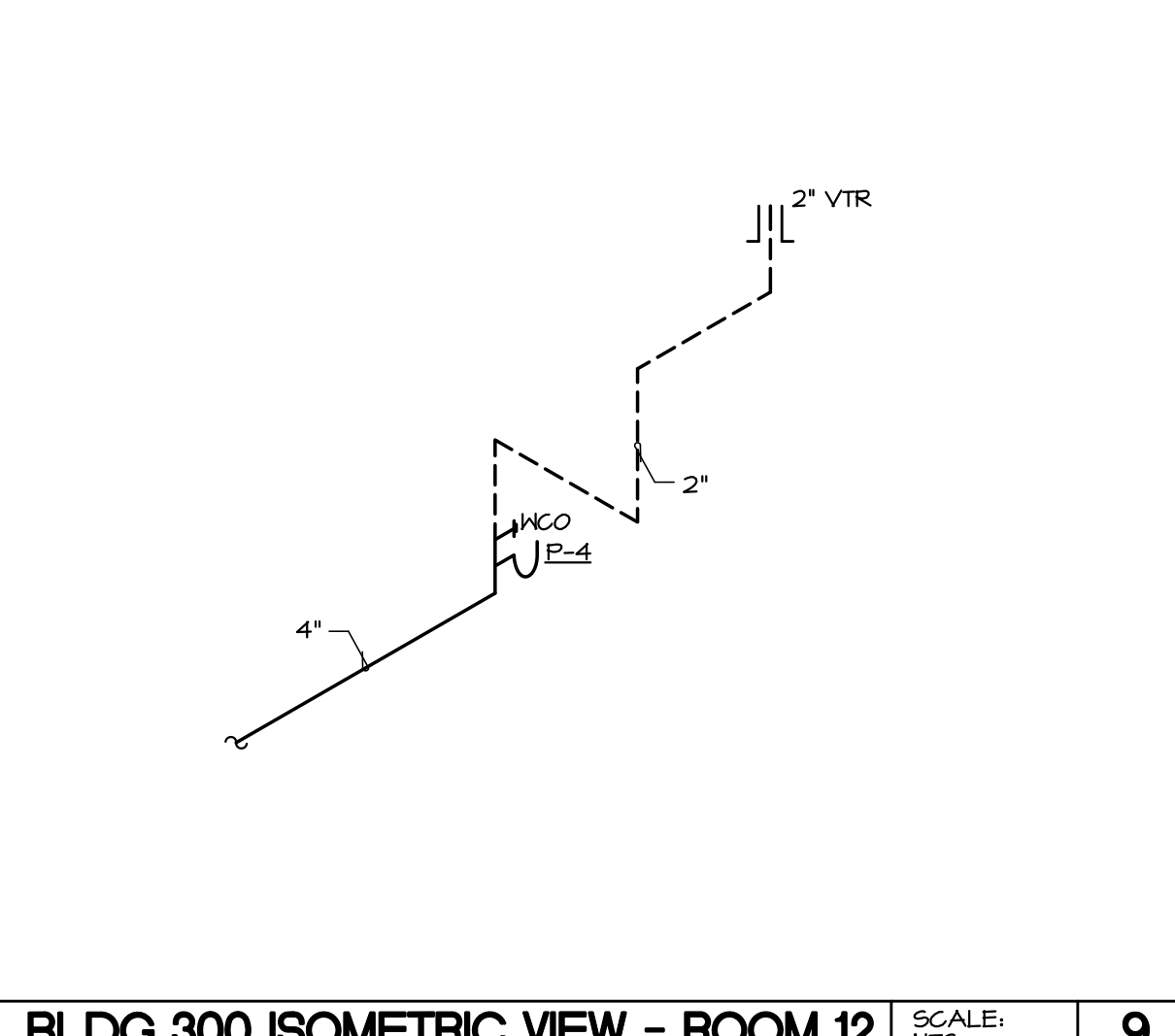
SANITARY SEWER MANHOLE SCALE: 1/2" = 1'-0" 6



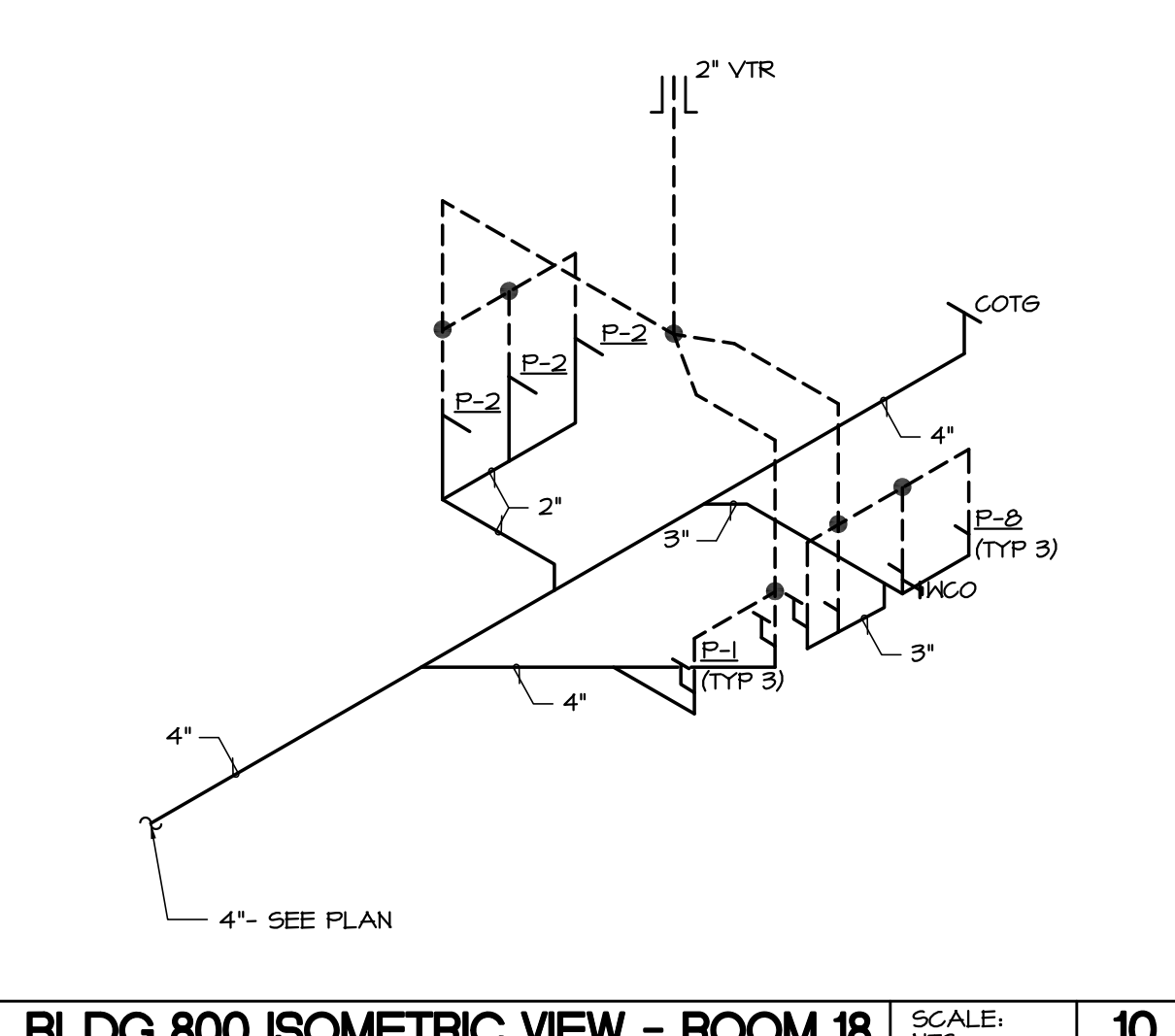
BLDG 200 ISOMETRIC VIEW - ROOM 1 AND 2 SCALE: N.T.S. 7



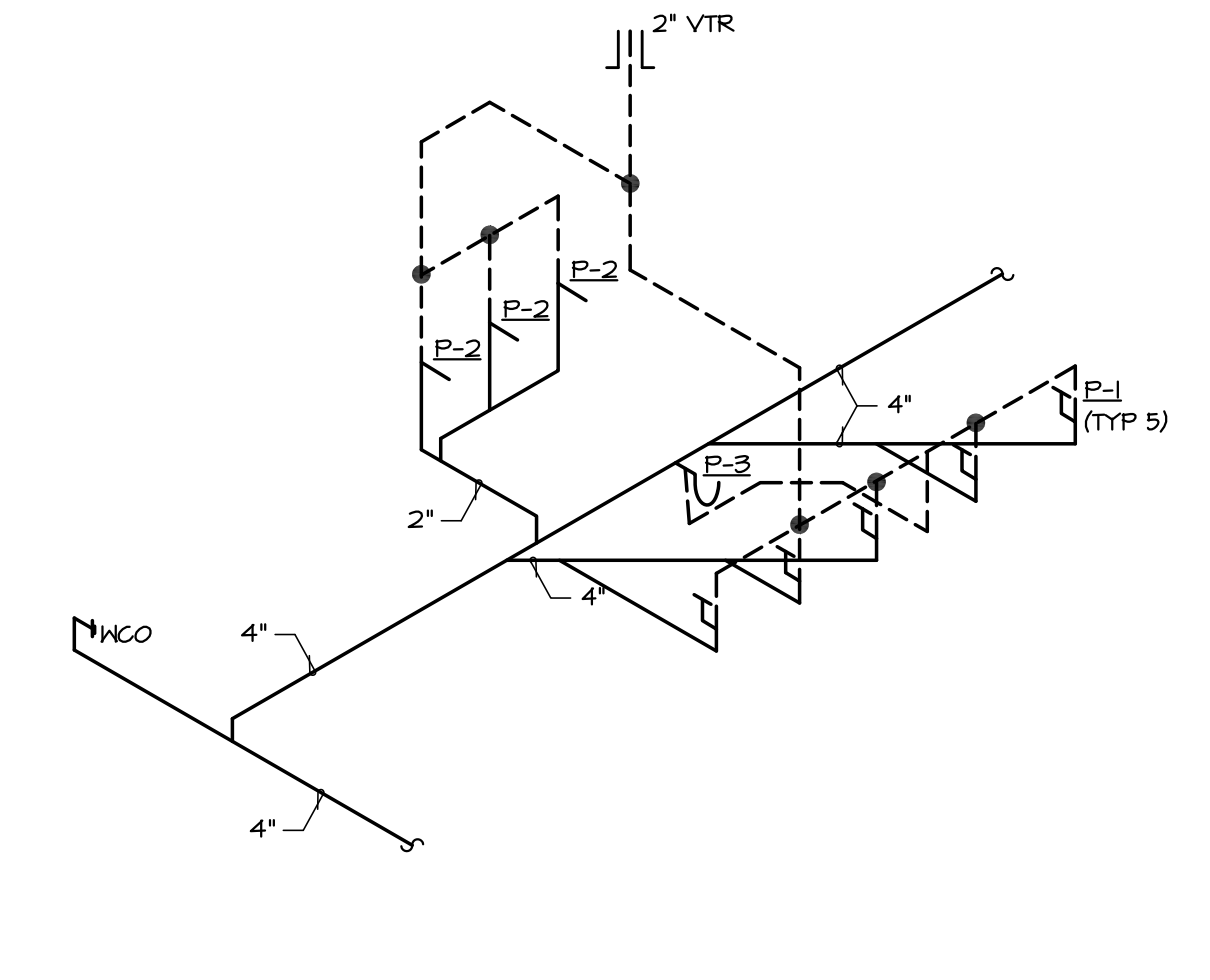
BLDG 200 ISOMETRIC VIEW - ROOM 7 SCALE: N.T.S. 8



BLDG 300 ISOMETRIC VIEW - ROOM 12 SCALE: N.T.S. 9



BLDG 800 ISOMETRIC VIEW - ROOM 18 SCALE: N.T.S. 10



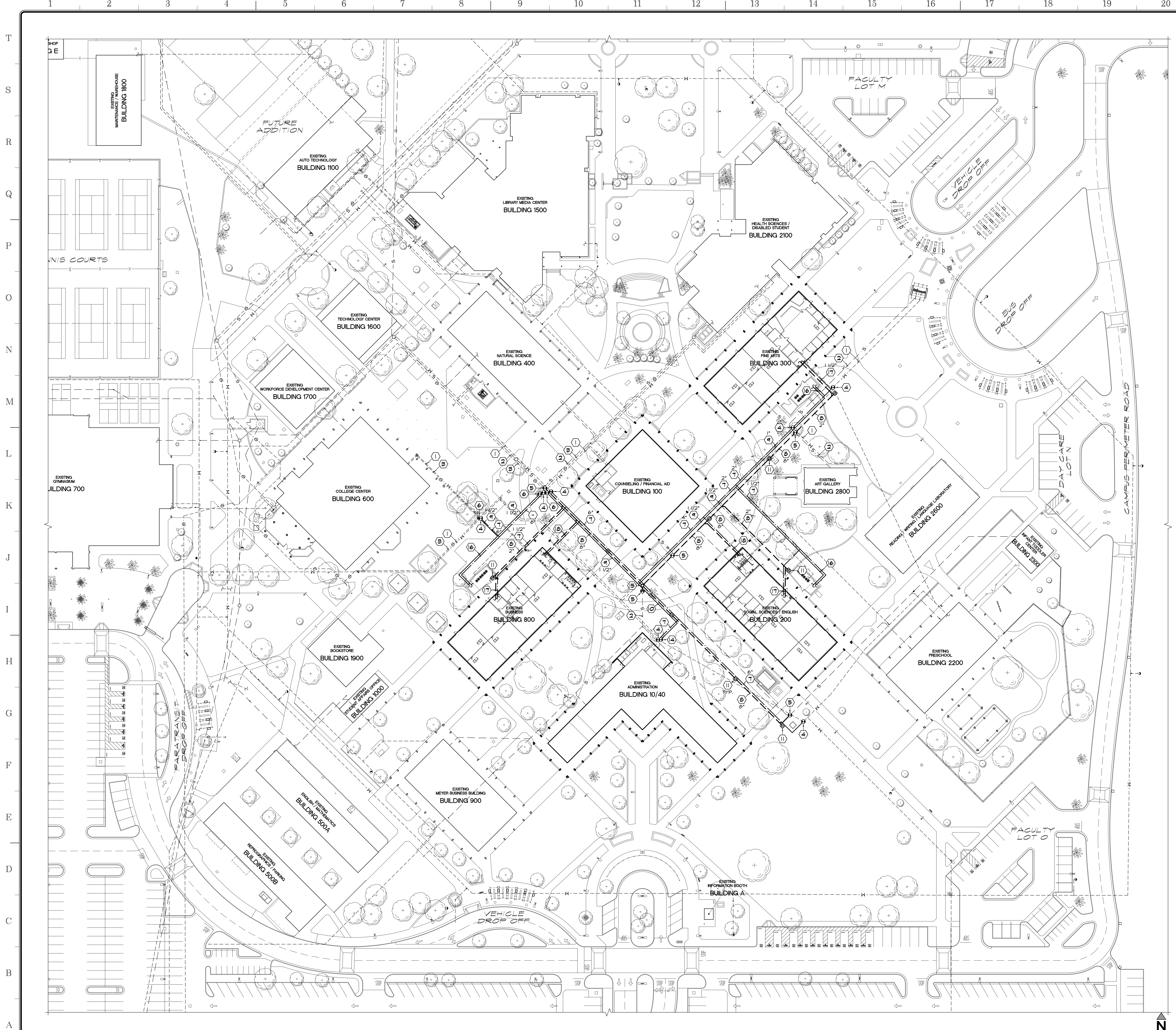
BLDG 800 ISOMETRIC VIEW - ROOM 20 SCALE: N.T.S. 11

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**IMPERIAL VALLEY COLLEGE
BUILDING 200, 300 AND 800 MODERNIZATION**

Sheet Title
PLUMBING DETAILS

	Document Date	Project Number
	Date Last Revised	Sheet Number
	10-18-19	19-121V
		P0.2



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 DIV. OF THE STATE ARCHITECT
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 DATE: 01.16.20

APPROVALS

KEYNOTES:

- ① EXISTING W/S WATER LINE TO REMAIN
- ② EXISTING W/S SEWER LINE TO REMAIN
- ③ EXISTING W/S GAS LINE TO REMAIN
- ④ NEW WATER LINE POINT OF CONNECTION
- ⑤ NEW SEWER LINE POINT OF CONNECTION
- ⑥ NEW GAS LINE POINT OF CONNECTION
- ⑦ NEW WATER LINE - SIZE NOTED
- ⑧ NEW SEWER / WASTE LINE - SIZE NOTED
- ⑨ NEW 5PSIG GAS LINE - SIZE NOTED
- ⑩ NEW GAS LINE TO MATCH EXISTING
- ⑪ CLEAN OUT TO GRADE ON SEWER LINE - 100'-0" O.G. MAX. SPACING
- ⑫ RECONNECT TO EXISTING WATER LINE
- ⑬ RECONNECT TO EXISTING SEWER LINE
- ⑭ RECONNECT TO EXISTING GAS LINE - PROVIDE PRESSURE REDUCER (WHERE REQ.)
- ⑮ PROVIDE NEW MANHOLE - SEE (P02)
- ⑯ 1" C.H. AND 1" 5PSIG GAS TO PRESS. REG. IN MECHANICAL EQUIPMENT ENCLOSURE - CONNECT TO HEATING BOILER - SEE MECH. DRAWINGS
- ⑰ 2" W AND 2" C.H. UNO - SEE PLUMBING FLOOR PLANS FOR CONTINUATION
- ⑱ 4" W AND 2" C.H. - SEE PLUMBING FLOOR PLANS FOR CONTINUATION
- ⑲ STUB-OUT FOR FUTURE CONNECTIONS
- ⑳ CAP EXISTING WATER LINE
- ㉑ CAP EXISTING GAS LINE

NOTES:

- 1. INSTALL WATER AND SEWER PIPING IN COMMON TRENCH PER 2007 C.P.C., SECTION 720
- 2. SITE SEWER TO BE SLOPED AT 1% MINIMUM.
- 3. PROVIDE CONCRETE YARD BOX WITH IDENTIFICATION LID AT ALL C.O.T.S. IN LANDSCAPED AREAS. PROVIDE 1/8" SMITH #4810 BRONZE ACCESS HOUSING AT ALL C.O.T.S. LOCATED IN SITE CONCRETE PER (P02)
- 4. PIPING / TRENCHING AT BUILDING FOUNDATIONS TYPICAL PER (P02)
- 5. ALL WATER LINES SHALL HAVE 24" MINIMUM COVER.
- 6. SAWCUT AND REPAIR EXISTING SITE CONCRETE AS REQUIRED FOR PLACEMENT OF NEW LINES PER ARCHITECTURAL SITE DRAWINGS.

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**IMPERIAL VALLEY COLLEGE
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Sheet Title
PLUMBING SITE PLAN

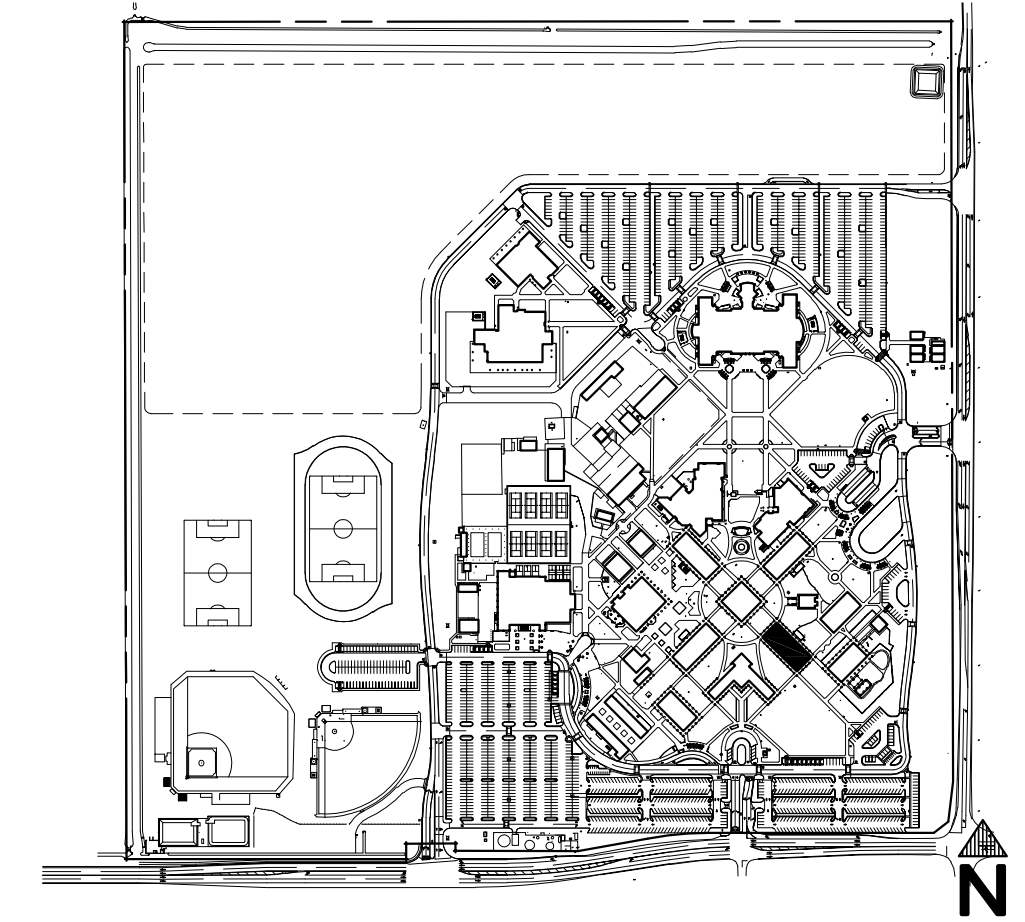
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	Date Last Revised	Sheet Number
	10-18-19	19-121V
		P0.3

PLUMBING SITE PLAN

SCALE: 1" = 40'-0"

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APPROVALS



KEY PLAN - BLDG 200

KEYNOTES:

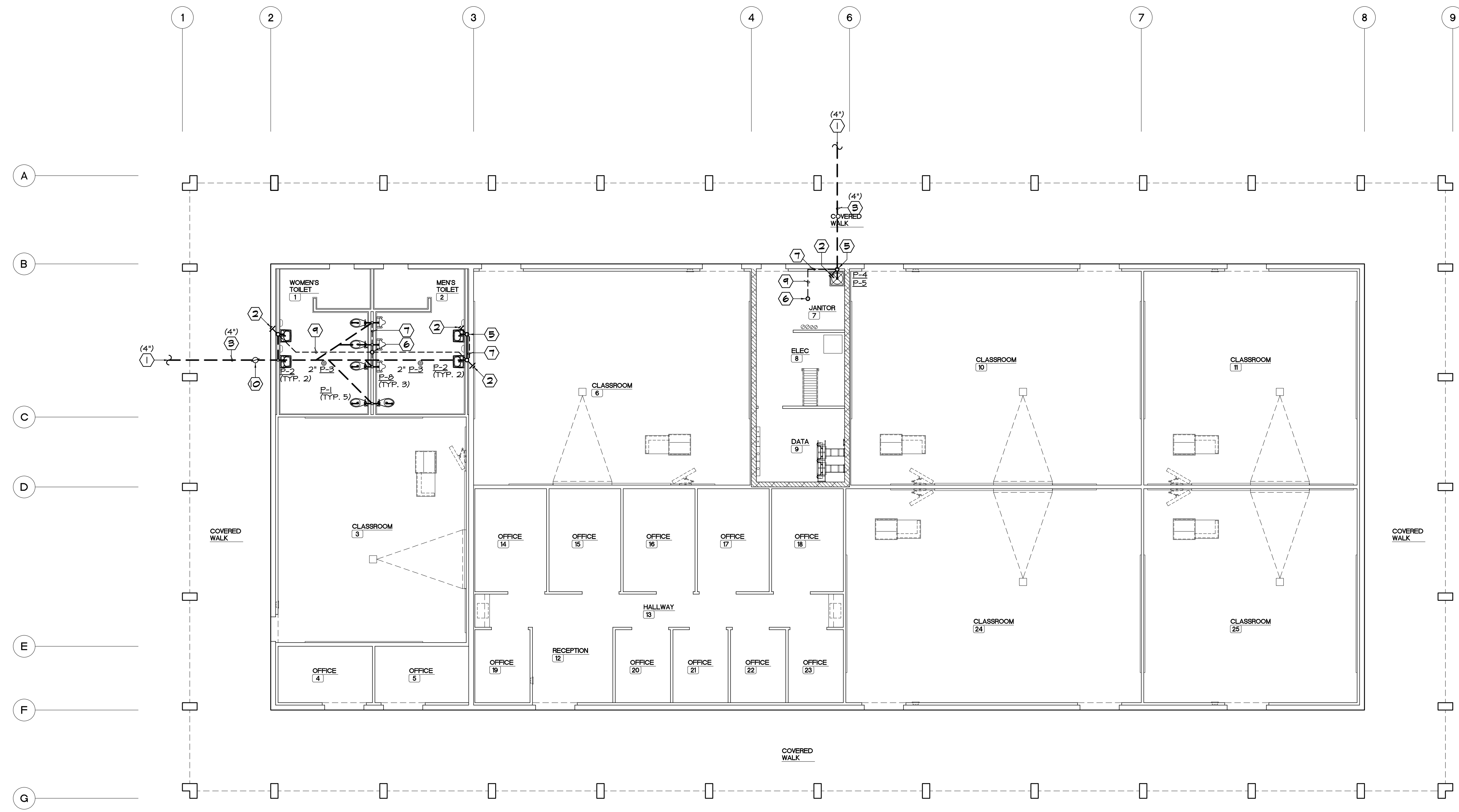
- ① S. OR N. W/S - SEE SITE PLAN FOR CONTINUATION
- ② WALL CLEANOUT - SEE DETAIL (P22)
- ③ WASTE PIPING B/F - SLOPE @ 1/4" PER FOOT MINIMUM
- ④ 4" x 2" V. (TYP. @ P-15)
- ⑤ 2" W. x V. (TYP. @ P-25, P-23 & P-23)
- ⑥ 2" VENT THROUGH ROOF - MAINTAIN MIN. 10'-0" CLEAR TO HVAC UNIT OSA INTAKE
- ⑦ 2" VENT IN WALL
- ⑧ 2" V. B/F
- ⑨ 2" V. A/C
- ⑩ CLEANOUT TO GRADE - SEE DETAIL (P22)

LEGEND:

1-HR STORAGE ROOM SEPARATION

NOTES:

- 1. PIPE PENETRATIONS AT ALL INT. AND EXT. FOOTINGS PER (303)
- 2. PROVIDE CLEANOUTS AS SHOWN AN PER CPG 107.0 & 714.0
- 3. VENTS MUST RISE A MIN. 6' ABOVE THE FLOOR LEVEL RIM BEFORE OFFSETTING ON CONNECTING TO ANY OTHER VENT (CPG 405.3)
- 4. FOR ALL THROUGH-PENETRATION FIRESTOP DETAILS SEE SHEET (A1) (A5.5)



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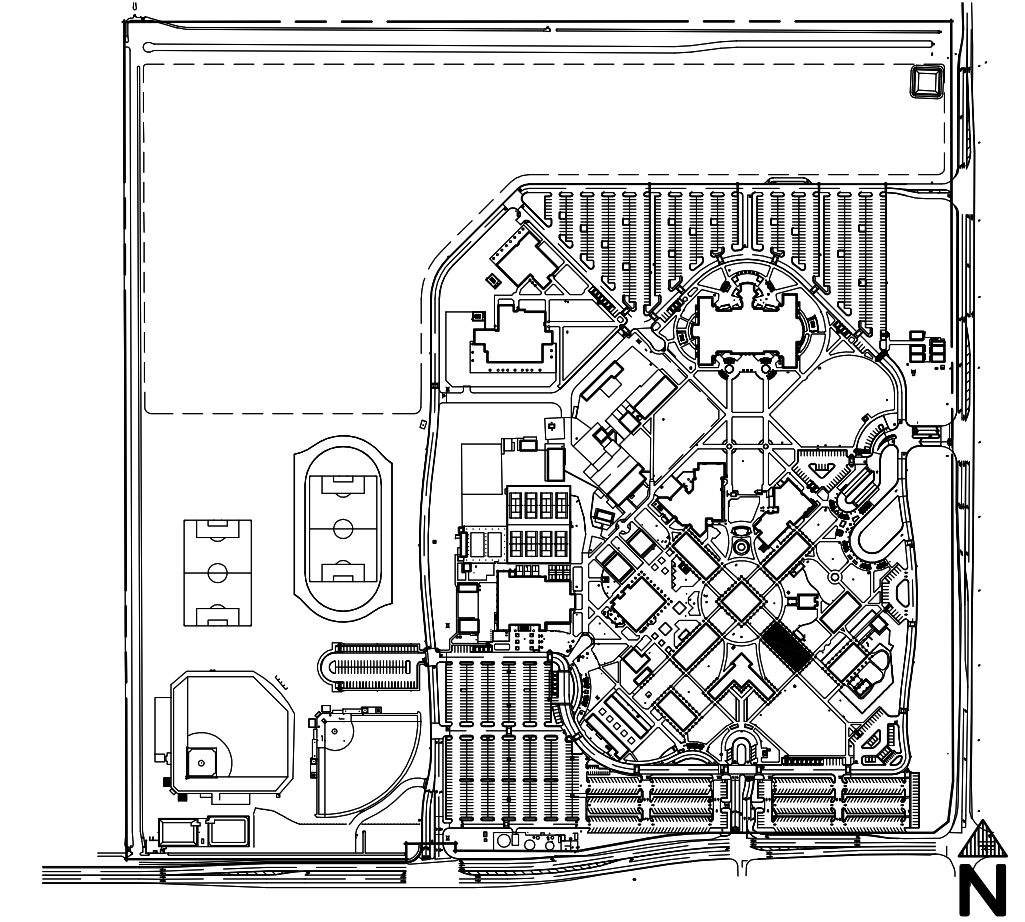
Project Title
**IMPERIAL VALLEY COLLEGE
 BUILDING 200, 300 AND 800 MODERNIZATION**

Sheet Title
WASTE AND VENT

	Document Date	Project Number
	Date Last Revised	Sheet Number
	10-18-19	19-121V
		P2.1

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 APP. 04-118720 INC.
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 DATE: 01.16.20

APPROVALS



KEY PLAN - BLDG 200

KEYNOTES:

- ① CH (SIZE NOTED) - SEE SHEET P0.3 FOR CONTINUATION
- ② CH UP TO ABOVE CEILING W/ SOV (BALL TYPE) @ 48" AFF - SIZE NOTED
- ③ SOV (BALL TYPE) IN YARD BOX WITH COVER MARKED "WATER"
- ④ RUN WATER PIPING ABOVE CEILING (NOT IN TRUSS SPACE) - COORDINATE (A M22)
- ⑤ CH & HH DOWN IN WALL TO (2)E-2's - SIZE NOTED
- ⑥ 1 1/4" CH (TYP @ E-2's)
- ⑦ TRAP PRIMER W/ AP ROUTE 1/2" SOFT COPPER B/F TO E-2 INLET. NO JOINTS B/F
- ⑧ 1/2" CH OR HH IN WALL TO FIXTURE (TYP @ E-2's)
- ⑨ WATER HEATER (E-5) ON SHELF ABOVE MOP BASIN (E-4) - SEE ④ P0.2
- ⑩ 1" CH (TYP. @ E-2's)
- ⑪ 2" CH DOWN TO (5) E-2's AND (3) E-2's
- ⑫ HH CIRC. PUMP - ROUTE DISCHARGE TO (E-4) PER ④ P0.2

LEGEND:

1-HR STORAGE ROOM SEPARATION

NOTES:

- 1. FOR ALL THROUGH-PENETRATION FIRESTOP DETAILS SEE SHEET (HH AX55)

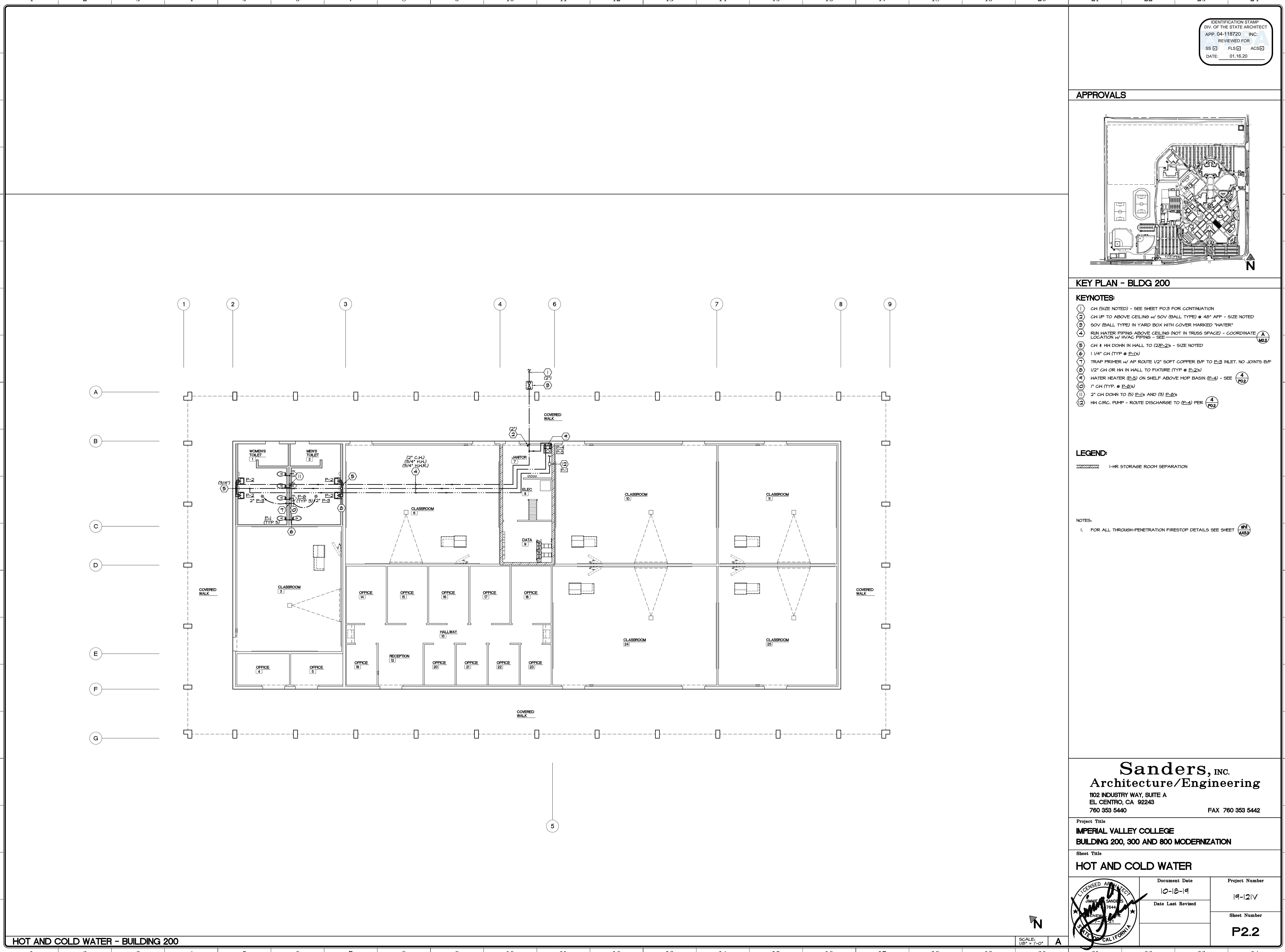
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Project Title
**IMPERIAL VALLEY COLLEGE
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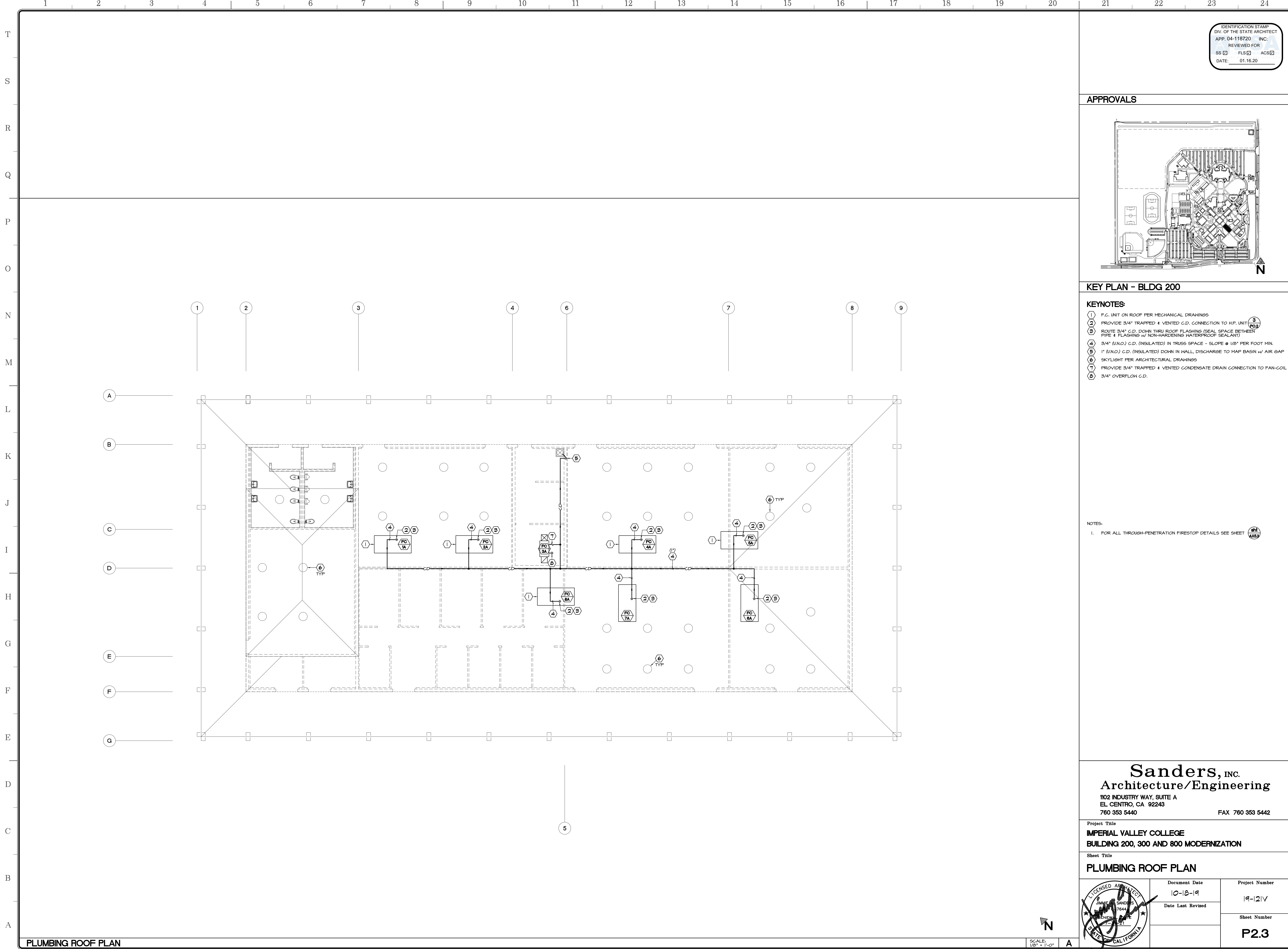
Sheet Title
HOT AND COLD WATER

	Document Date	Project Number
	Date Last Revised	Sheet Number
	10-18-19	19-121V
		P2.2

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

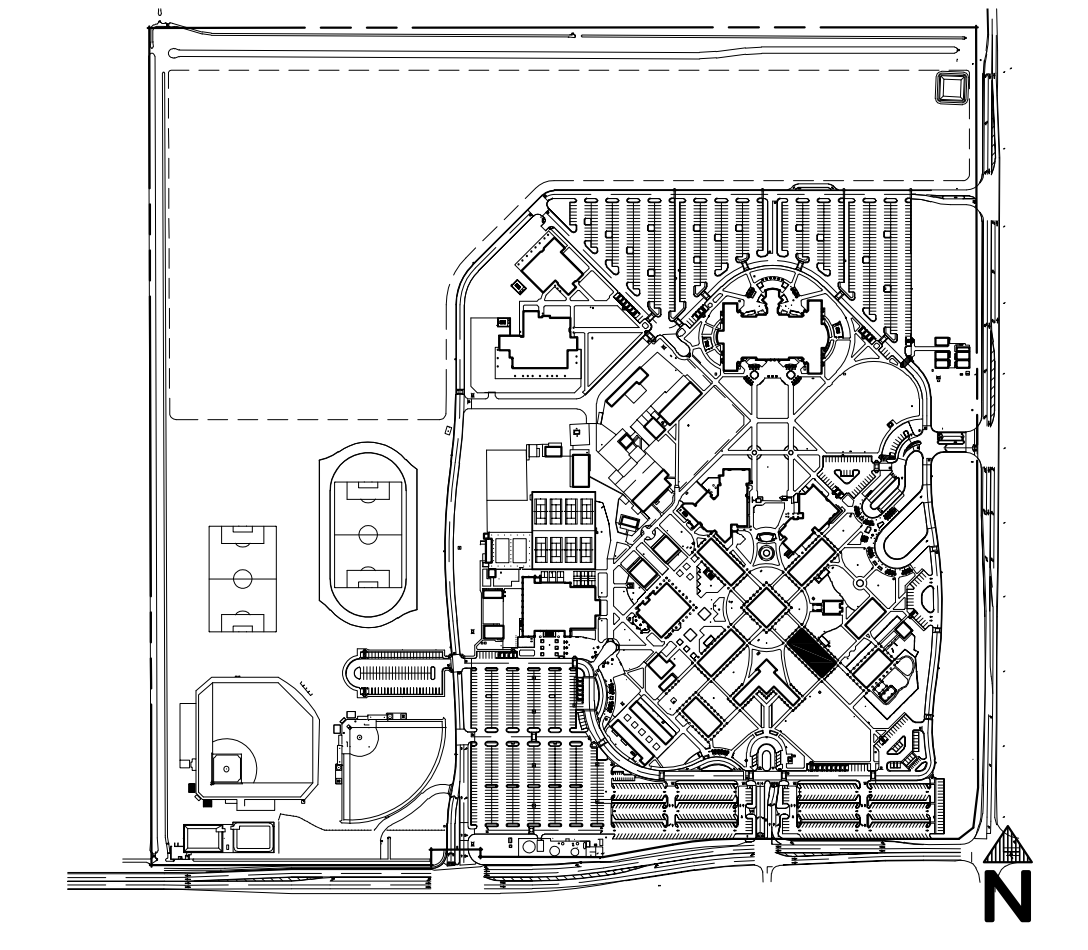


HOT AND COLD WATER - BUILDING 200



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 DATE: 01.16.20

APPROVALS



KEY PLAN - BLDG 200

KEYNOTES:

- ① F.C. UNIT ON ROOF PER MECHANICAL DRAWINGS
- ② PROVIDE 3/4" TRAPPED & VENTED C.D. CONNECTION TO H.P. UNIT
- ③ ROUTE 3/4" C.D. DOWN THRU ROOF FLASHING (SEAL SPACE BETWEEN PIPE & FLASHING w/ NON-HARDENING WATERPROOF SEALANT)
- ④ 3/4" (U.N.O.) C.D. (INSULATED) IN TRUSS SPACE - SLOPE @ 1/8" PER FOOT MIN.
- ⑤ 1" (U.N.O.) C.D. (INSULATED) DOWN IN WALL, DISCHARGE TO MAP BASIN w/ AIR GAP
- ⑥ SKYLIGHT PER ARCHITECTURAL DRAWINGS
- ⑦ PROVIDE 3/4" TRAPPED & VENTED CONDENSATE DRAIN CONNECTION TO FAN-COIL
- ⑧ 3/4" OVERFLOW C.D.

NOTES:

- 1. FOR ALL THROUGH-PENETRATION FIRESTOP DETAILS SEE SHEET **PH-AX59**

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Project Title
**IMPERIAL VALLEY COLLEGE
 BUILDING 200, 300 AND 800 MODERNIZATION**

Sheet Title
PLUMBING ROOF PLAN

	Document Date	Project Number
	Date Last Revised	Sheet Number
	10-18-19	19-121V
		P2.3

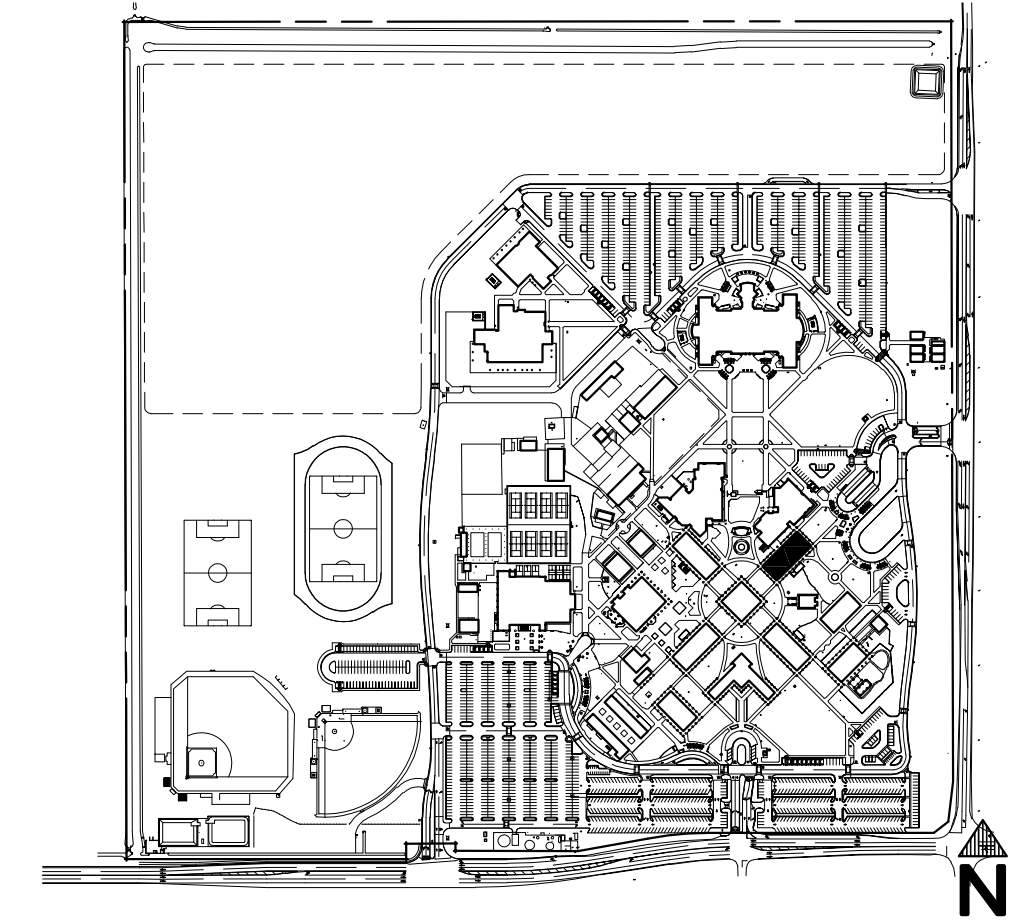
PLUMBING ROOF PLAN

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



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 DATE: 01.16.20

APPROVALS



KEY PLAN - BLDG 300

KEYNOTES:

- ① S. OR N. W/S - SEE SITE PLAN FOR CONTINUATION
- ② 4" WALL CLEANOUT - SEE DETAIL (2)
- ③ WASTE PIPING E/W - SLOPE @ 1/4" PER FOOT MINIMUM
- ④ NOT USED
- ⑤ 3" N x 2" V (TYP @ E/W)
- ⑥ 2" VENT THROUGH ROOF - MAINTAIN MIN. 10'-0" CLEAR TO HVAC UNIT OSA INTAKE
- ⑦ 2" VENT IN WALL
- ⑧ 2" V. B/F
- ⑨ 2" V. A/C

LEGEND:

1-HR STORAGE ROOM SEPARATION

NOTES:

- 1. PIPE PENETRATIONS AT ALL INT. AND EXT. FOOTINGS PER (300)
- 2. FOR ALL THROUGH-PENETRATION FIRESTOP DETAILS SEE SHEET (300)

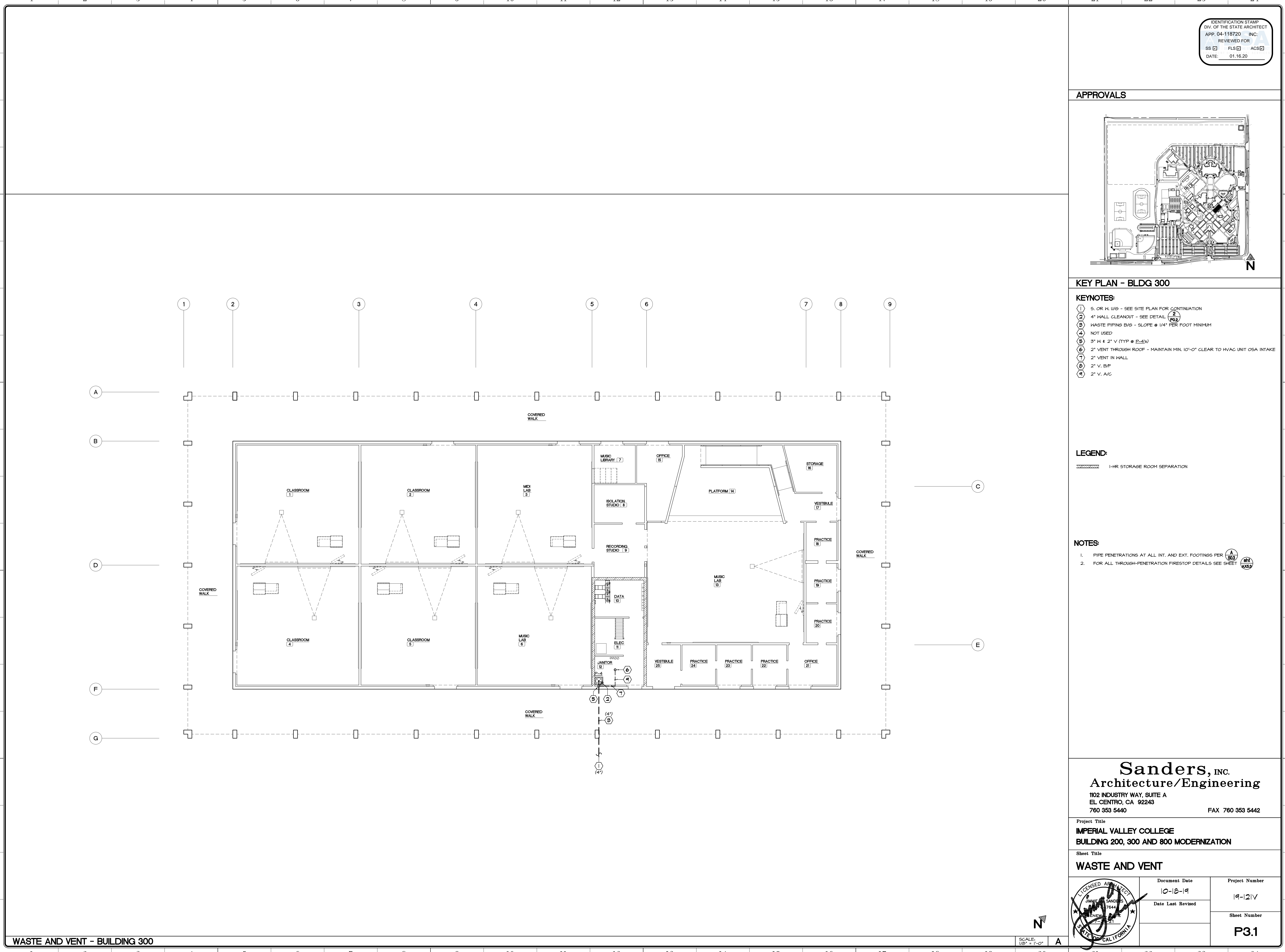
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Project Title
**IMPERIAL VALLEY COLLEGE
 BUILDING 200, 300 AND 800 MODERNIZATION**

WASTE AND VENT

	Document Date	Project Number
	Date Last Revised	Sheet Number
	10-18-19	19-121V
		P3.1

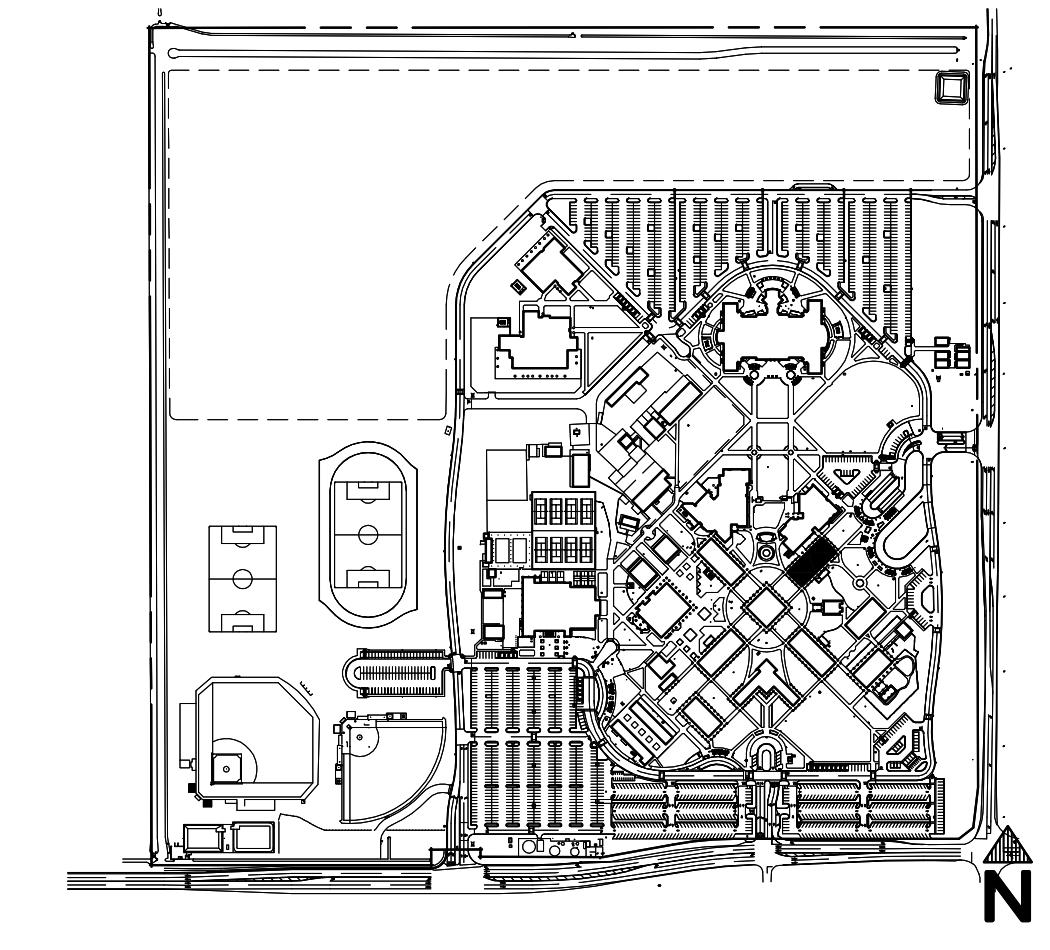
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WASTE AND VENT - BUILDING 300

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KEY PLAN - BLDG 300

KEYNOTES:

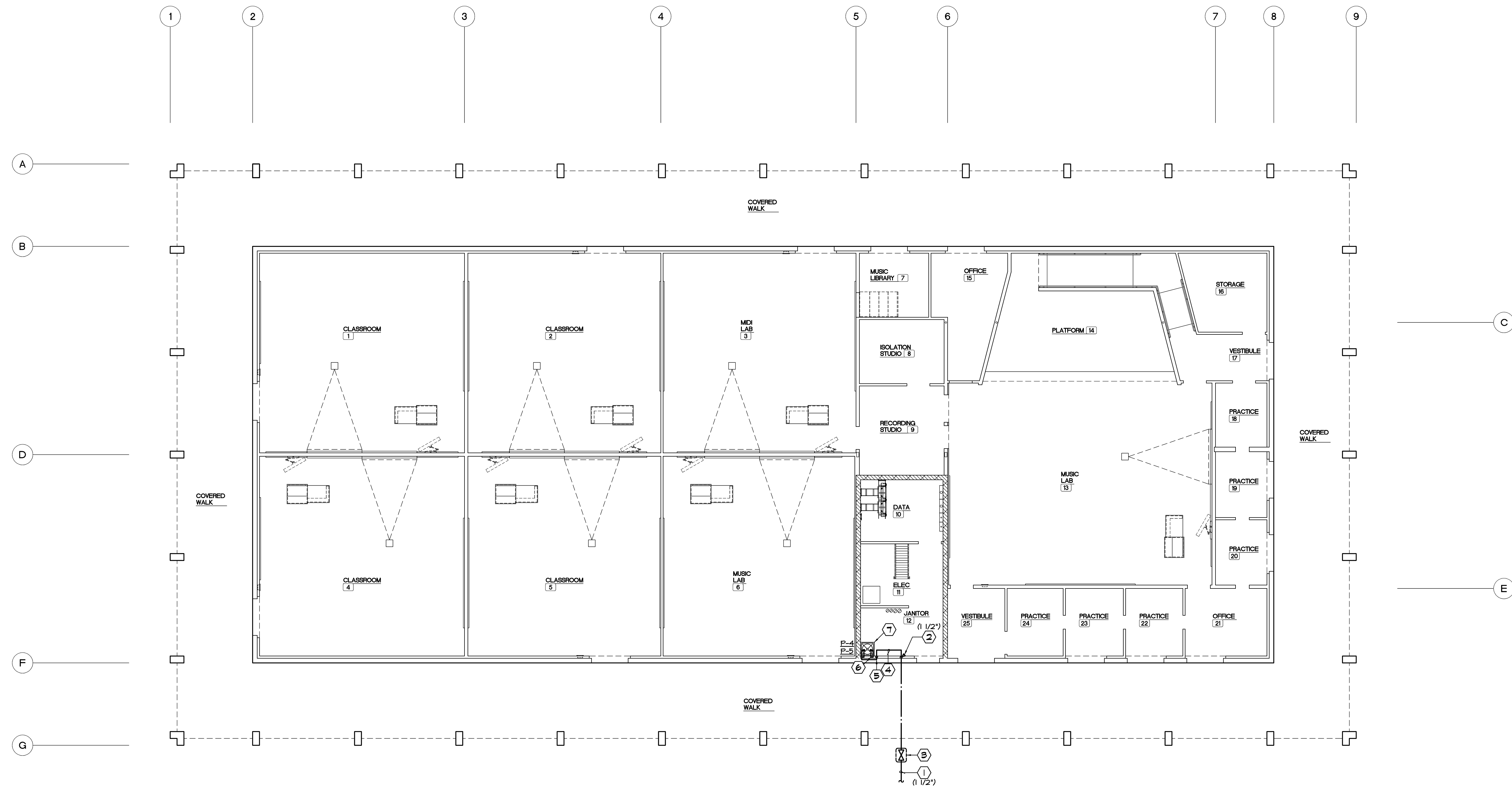
- ① CN (SIZE NOTED) - SEE SHEET P0.3 FOR CONTINUATION
- ② CN UP TO ABOVE CEILING W/ SOV (BALL TYPE) @ 48" AFF - SIZE NOTED
- ③ SOV (BALL TYPE) IN YARD BOX WITH COVER MARKED "WATER"
- ④ RUN WATER PIPING ABOVE CEILING (NOT IN TRUSS SPACE) - COORDINATE A M32 LOCATION W/ HVAC PIPING - SEE
- ⑤ 3/4" CN DOWN IN WALL TO E-4
- ⑥ 3/4" CN TO WATER HEATER (E-5) & 3/4" HW FROM (E-5) TO MOP BASIN (E-4)
- ⑦ WATER HEATER (E-5) ON SHELF ABOVE MOP BASIN (E-4) - SEE P0.2

LEGEND:

1-HR STORAGE ROOM SEPARATION

NOTES:

- 1. FOR ALL THROUGH-PENETRATION FIRESTOP DETAILS SEE SHEET IHI AX59



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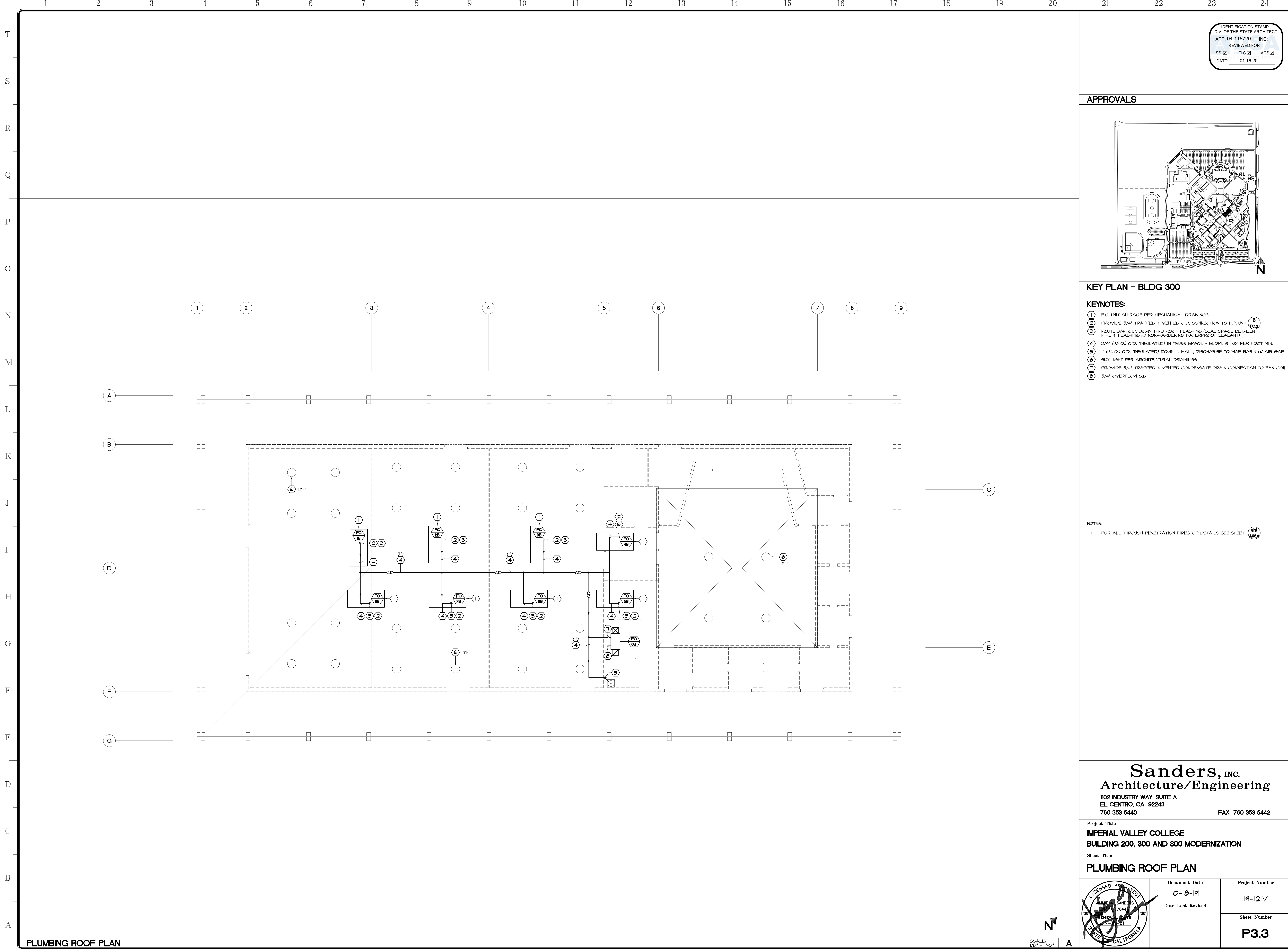
Project Title
**IMPERIAL VALLEY COLLEGE
 BUILDING 200, 300 AND 800 MODERNIZATION**

Sheet Title
HOT AND COLD WATER

	Document Date	Project Number
	Date Last Revised	Sheet Number
	10-18-19	19-121V
		P3.2

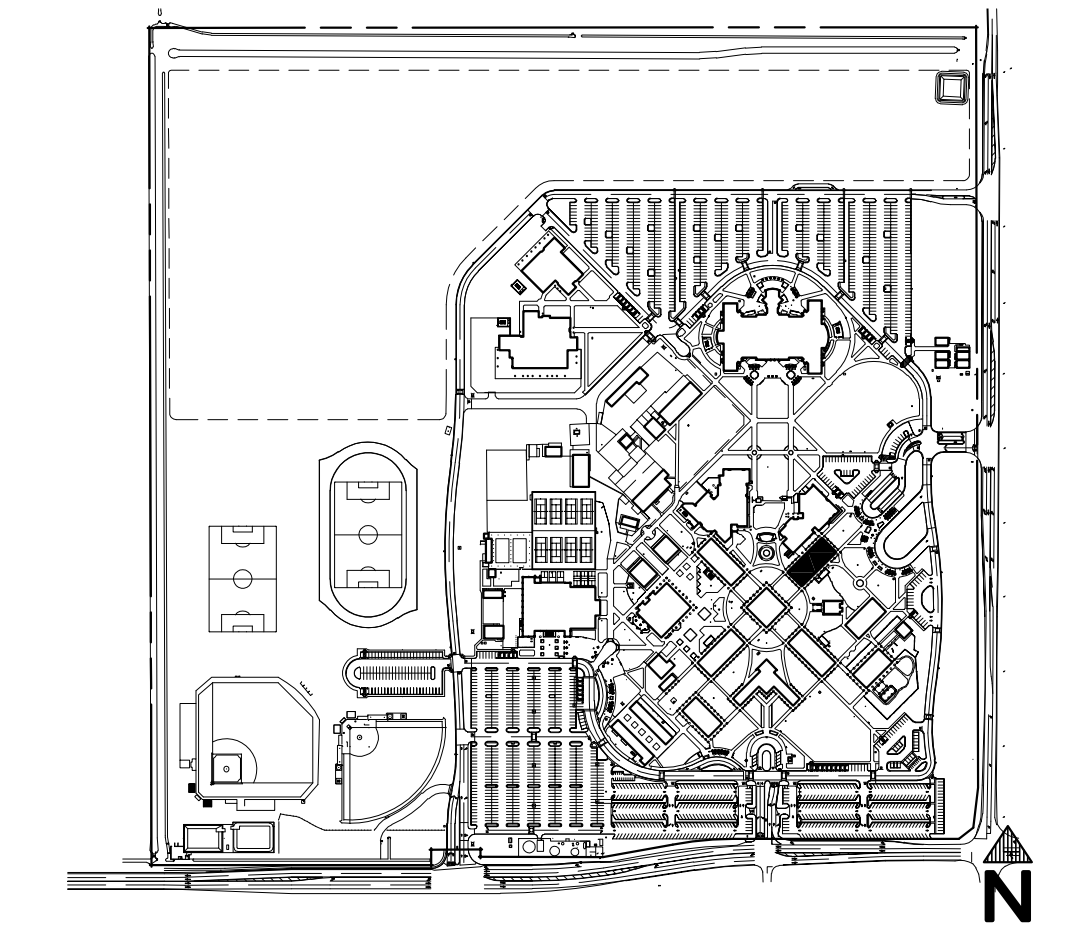
SCALE: 1/8" = 1'-0"

HOT / COLD WATER



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 DATE: 01.16.20

APPROVALS



KEY PLAN - BLDG 300

KEYNOTES:

- ① F.C. UNIT ON ROOF PER MECHANICAL DRAWINGS
- ② PROVIDE 3/4" TRAPPED & VENTED C.D. CONNECTION TO H.P. UNIT
- ③ ROUTE 3/4" C.D. DOWN THRU ROOF FLASHING (SEAL SPACE BETWEEN PIPE & FLASHING w/ NON-HARDENING WATERPROOF SEALANT)
- ④ 3/4" (U.N.O.) C.D. (INSULATED) IN TRUSS SPACE - SLOPE @ 1/8" PER FOOT MIN.
- ⑤ 1" (U.N.O.) C.D. (INSULATED) DOWN IN WALL, DISCHARGE TO MAP BASIN w/ AIR GAP
- ⑥ SKYLIGHT PER ARCHITECTURAL DRAWINGS
- ⑦ PROVIDE 3/4" TRAPPED & VENTED CONDENSATE DRAIN CONNECTION TO FAN-COIL
- ⑧ 3/4" OVERFLOW C.D.

NOTES:

- 1. FOR ALL THROUGH-PENETRATION FIRESTOP DETAILS SEE SHEET **IMH AX59**

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**IMPERIAL VALLEY COLLEGE
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Sheet Title
PLUMBING ROOF PLAN

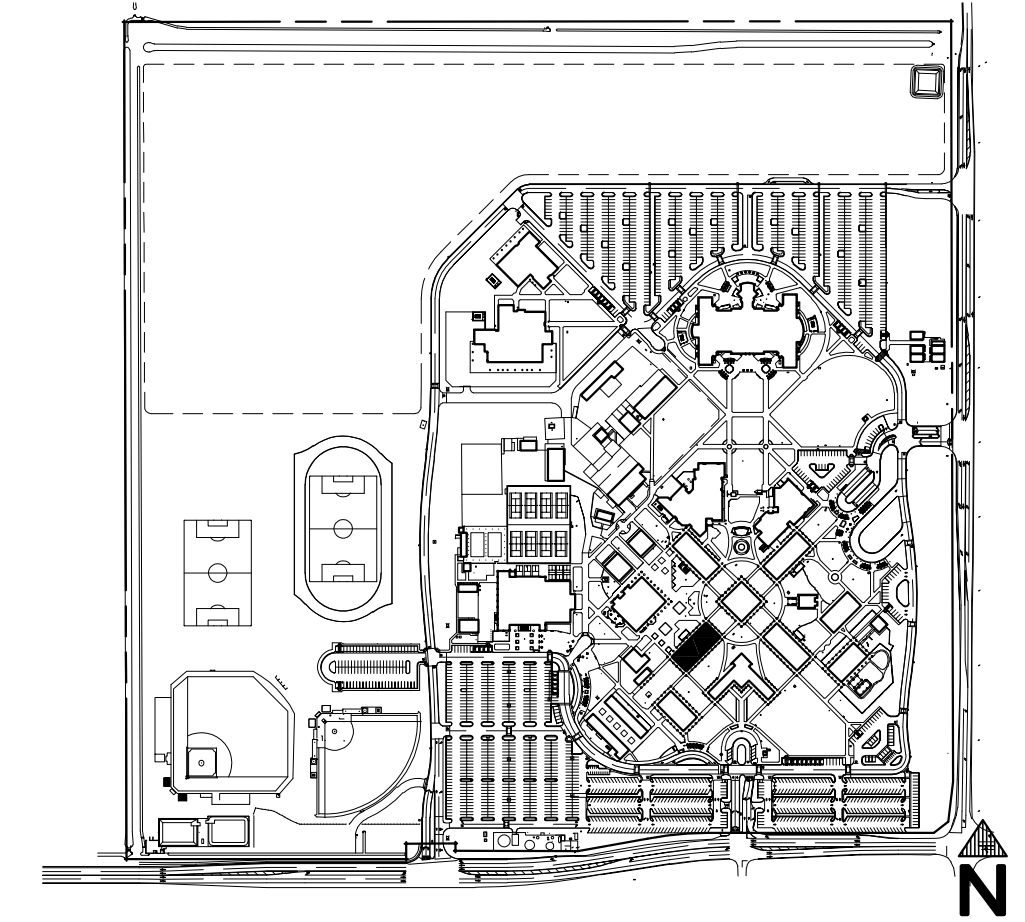
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	Date Last Revised	Sheet Number
	10-18-19	19-121V
		P3.3

PLUMBING ROOF PLAN

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

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 APP. 04-118720 INC.
 REVIEWED FOR
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 DATE: 01.16.20

APPROVALS



KEY PLAN - BLDG 800

KEYNOTES:

- ① 5 OR 1/4" S - SEE SITE PLAN FOR CONTINUATION
- ② WALL CLEANOUT - SEE DETAIL (2)
- ③ WASTE PIPING 6" - SLOPE @ 1/4" PER FOOT MINIMUM
- ④ 4" V 4 2" V (TYP @ P-1s)
- ⑤ 2" W 4" V (TYP @ P-2s, P-3s & P-2s)
- ⑥ 2" VENT THROUGH ROOF - MAINTAIN MIN 10'-0" CLEAR TO HVAC UNIT OSA INTAKE
- ⑦ 2" VENT IN WALL
- ⑧ 2" V B/P
- ⑨ 2" V A/C
- ⑩ FLOOR CLEANOUT - SEE DETAIL (1)
- ⑪ 3" W 4 2" V @ P-4s

LEGEND:

1-HR STORAGE ROOM SEPARATION

NOTES:

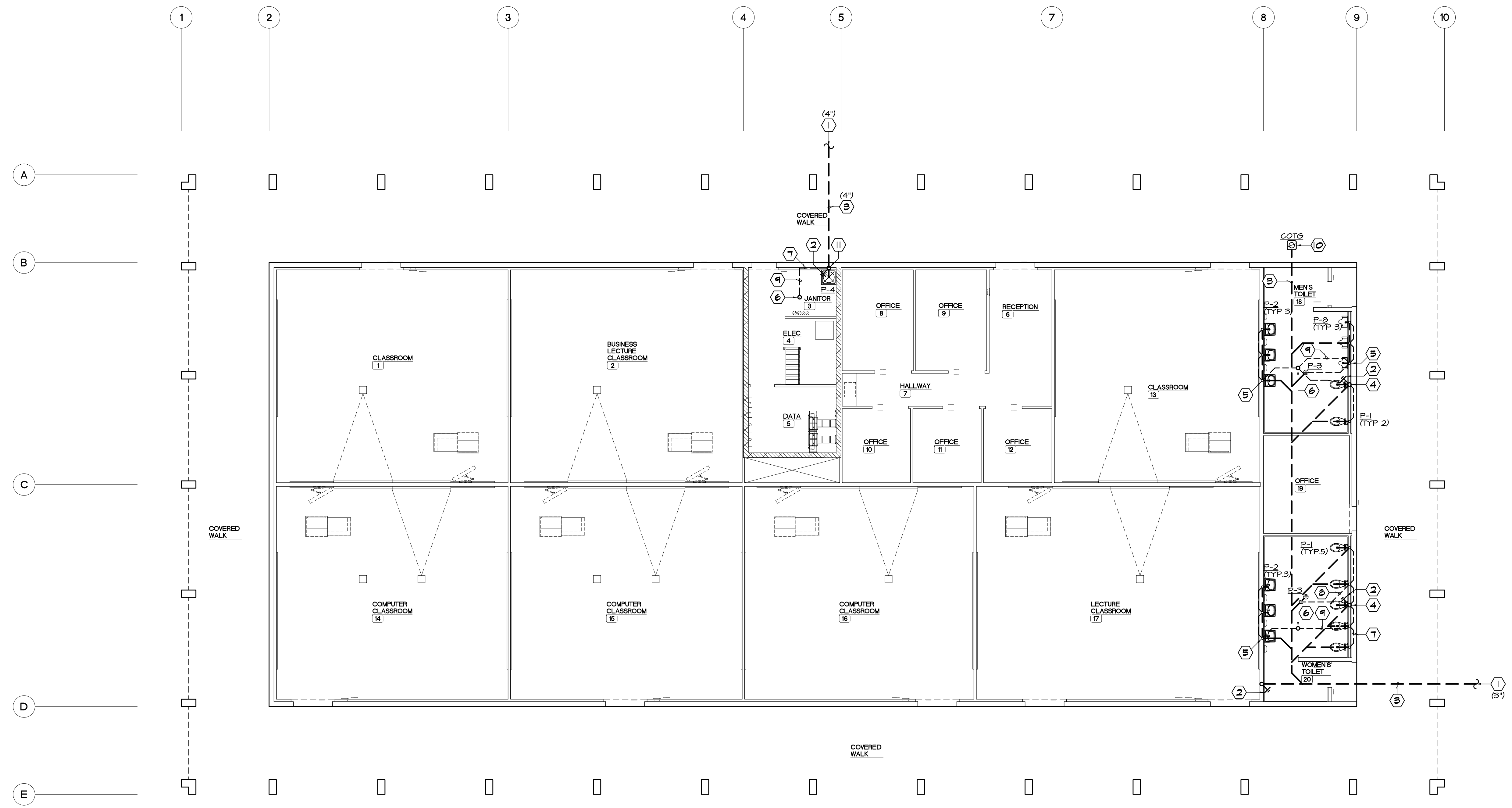
- 1. PIPE PENETRATIONS AT ALL INT. AND EXT. FOOTINGS PER (303)
- 2. FOR ALL THROUGH-PENETRATION FIRESTOP DETAILS SEE SHEET (303)

Sanders, INC.
 Architecture/Engineering
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Project Title
**IMPERIAL VALLEY COLLEGE
 BUILDING 200, 300 AND 800 MODERNIZATION**

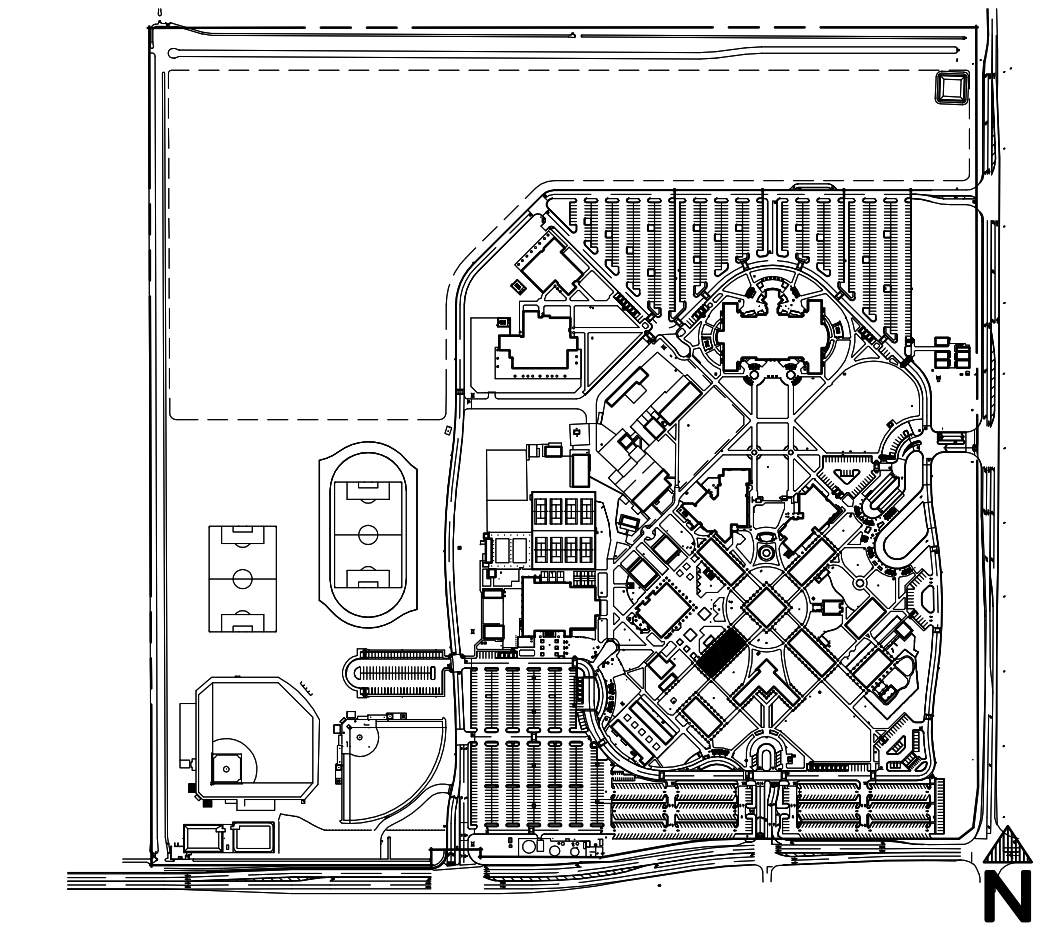
Sheet Title
WASTE AND VENT

	Document Date	Project Number
	Date Last Revised	Sheet Number
	10-18-19	19-121V
		P8.1



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 DIV. OF THE STATE ARCHITECT
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 SS FLS ACS
 DATE: 01.16.20

APPROVALS



KEY PLAN - BLDG 800

KEYNOTES:

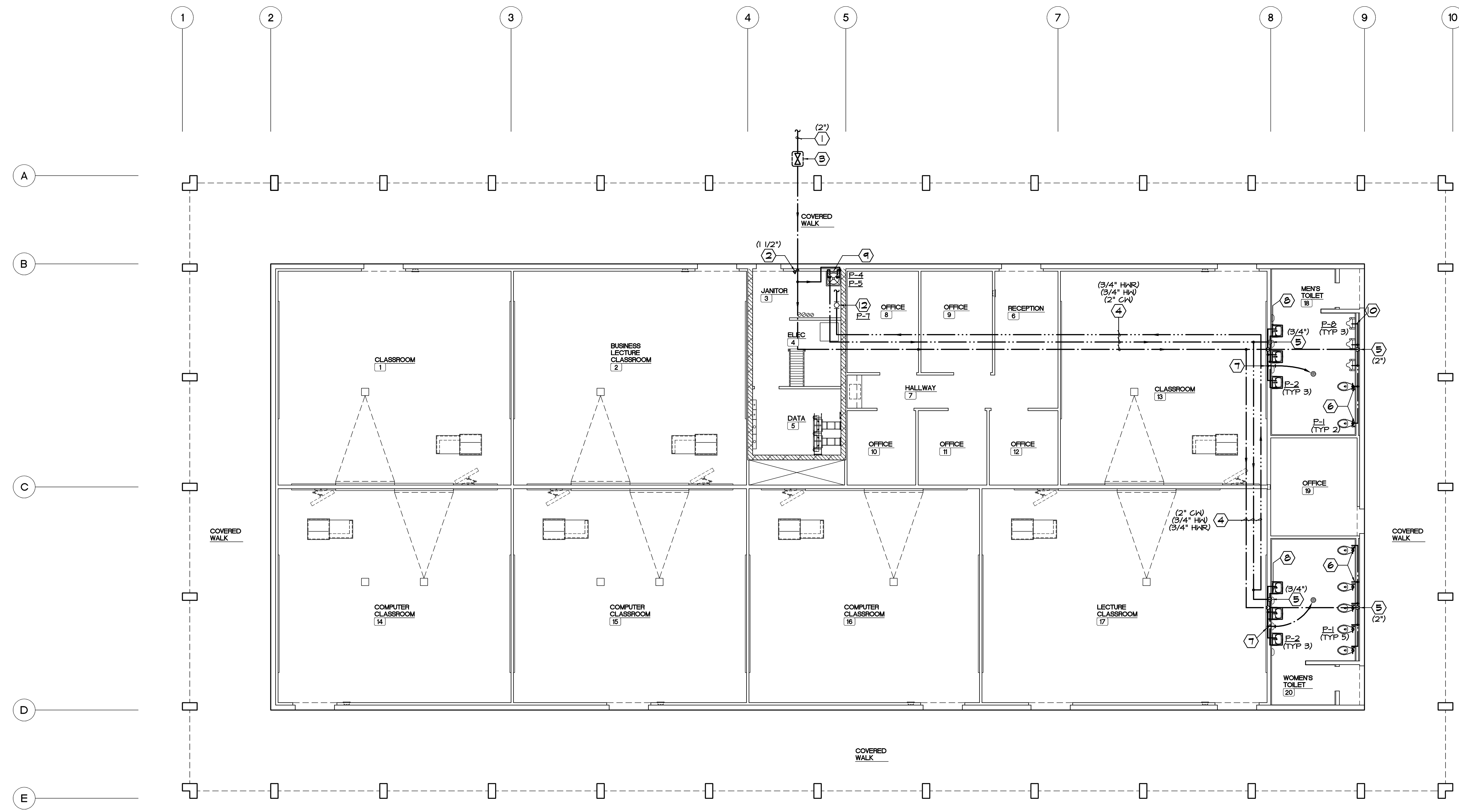
- ① CH (SIZE NOTED) - SEE SHEET P0.3 FOR CONTINUATION
- ② CH UP TO ABOVE CEILING W/ SOV (BALL TYPE) @ 48" AFF - SIZE NOTED
- ③ SOV (BALL TYPE) IN YARD BOX WITH COVER MARKED "WATER"
- ④ RUN WATER PIPING ABOVE CEILING (NOT IN TRUSS SPACE) - COORDINATE LOCATION W/ HVAC PIPING - SEE **A MB2**
- ⑤ CH @ HH DOWN IN WALL - SIZE NOTED
- ⑥ 1/4" CH (TYP @ E-1s)
- ⑦ TRAP PRIMER W/ AP ROUTE 1/2" SOFT COPPER B/VF TO E-2 3/8" INLET
- ⑧ 1/2" CH OR HH IN WALL TO FIXTURE
- ⑨ WATER HEATER (E-5) ON SHELF ABOVE MOP BASIN (E-4) - SEE **4 P0.2**
- ⑩ 1" CH (TYP @ E-2s)
- ⑪ NOT USED
- ⑫ HH CIRC. PUMP - ROUTE DISCHARGE TO (E-4) PER **4 P0.2**

LEGEND:

1-HR STORAGE ROOM SEPARATION

NOTES:

- 1. FOR ALL THROUGH-PENETRATION FIRESTOP DETAILS SEE SHEET **1H1 AX5.9**



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**IMPERIAL VALLEY COLLEGE
 BUILDING 200, 300 AND 800 MODERNIZATION**

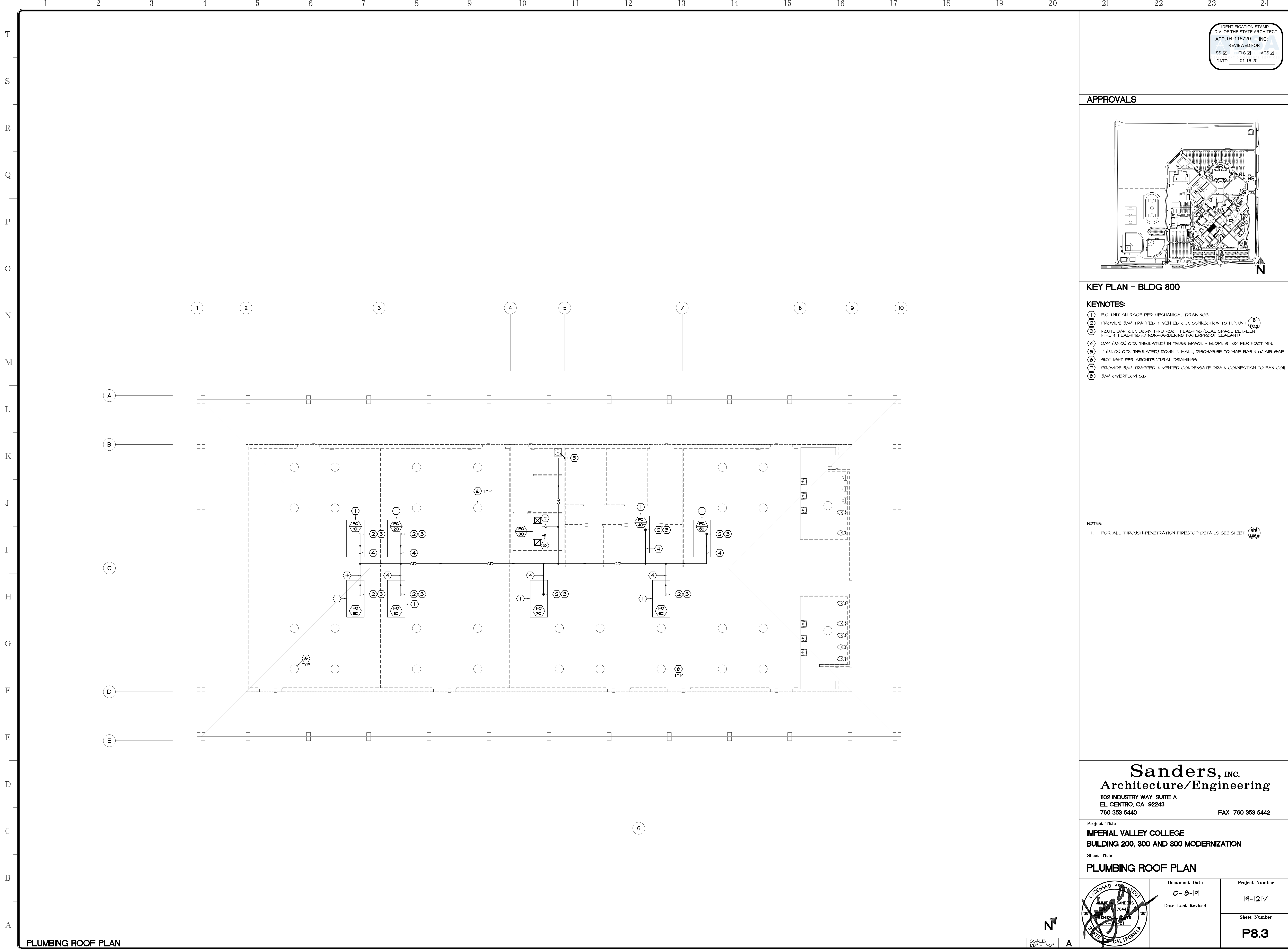
Sheet Title
HOT AND COLD WATER

	Document Date	Project Number
	Date Last Revised	Sheet Number
	10-18-19	19-121V
		P8.2

HOT / COLD WATER

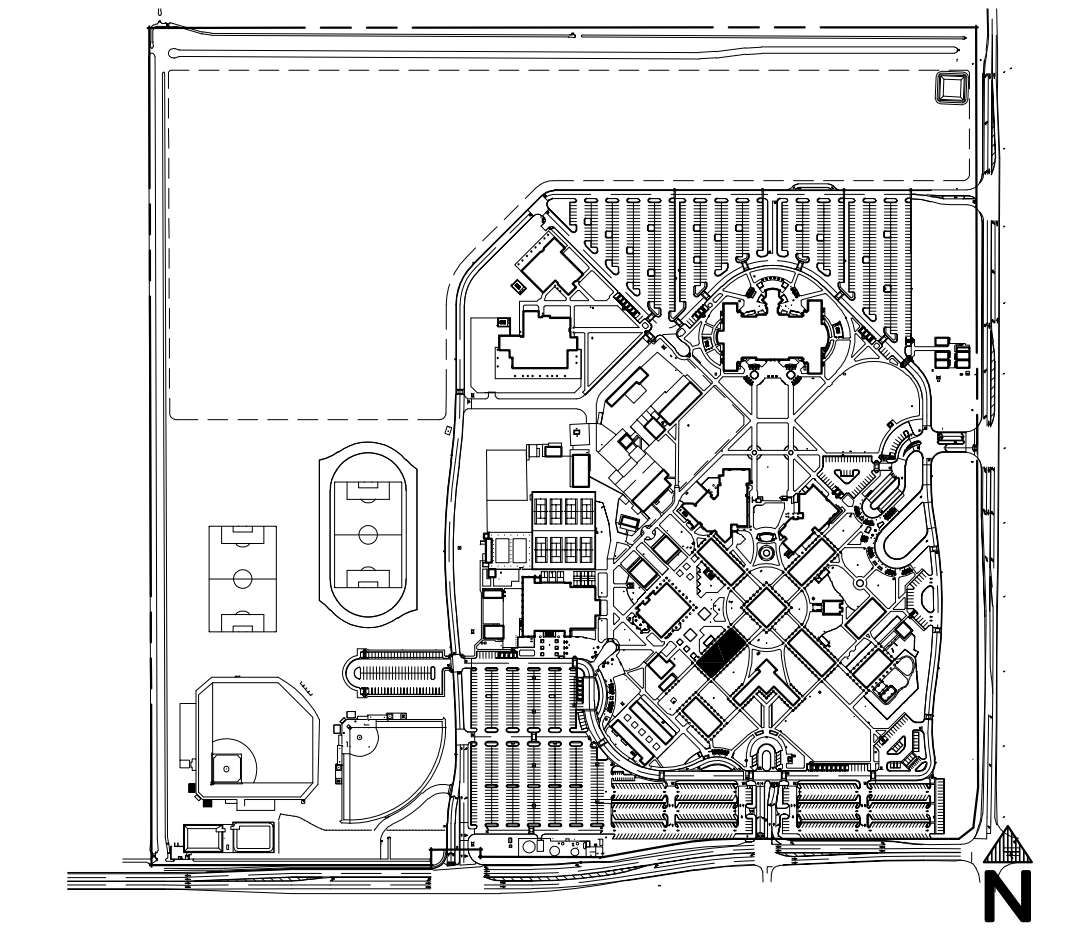
SCALE: 1/8" = 1'-0"





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KEY PLAN - BLDG 800

KEYNOTES:

- ① F.G. UNIT ON ROOF PER MECHANICAL DRAWINGS
- ② PROVIDE 3/4" TRAPPED & VENTED C.D. CONNECTION TO H.P. UNIT
- ③ ROUTE 3/4" C.D. DOWN THRU ROOF FLASHING (SEAL SPACE BETWEEN PIPE & FLASHING w/ NON-HARDENING WATERPROOF SEALANT)
- ④ 3/4" (I.N.O.) C.D. (INSULATED) IN TRUSS SPACE - SLOPE @ 1/8" PER FOOT MIN.
- ⑤ 1" (I.N.O.) C.D. (INSULATED) DOWN IN WALL, DISCHARGE TO MAP BASIN w/ AIR GAP
- ⑥ SKYLIGHT PER ARCHITECTURAL DRAWINGS
- ⑦ PROVIDE 3/4" TRAPPED & VENTED CONDENSATE DRAIN CONNECTION TO FAN-COIL
- ⑧ 3/4" OVERFLOW C.D.

NOTES:

- 1. FOR ALL THROUGH-PENETRATION FIRESTOP DETAILS SEE SHEET **PH-AX59**

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Project Title
**IMPERIAL VALLEY COLLEGE
 BUILDING 200, 300 AND 800 MODERNIZATION**

Sheet Title
PLUMBING ROOF PLAN

	Document Date	Project Number
	Date Last Revised	Sheet Number
	10-18-19	19-121V
		P8.3

PLUMBING ROOF PLAN

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

FAN COIL / ERV UNIT SCHEDULE (BUILDING 200)

UNIT NO.	SPACE(S) SERVED	MANUFACTURER + MODEL NO.	FAN DATA				TOTAL OPER. WEIGHT (LBS) (W/CURB+ERV)	OSA	NOTES
			C.F.M.	E.S.P. INCHES	V./PH./HZ.	MCA/MOCP			
VFC 1	CLASSROOM 3, OFFICES 4 & 5, TOILET ROOM 1 & 2	TOSHIBA / CARRIER 4-093-060AAAC-OAO	1,100	0.5	460-3-60	5.0/15.0	640	450	1-35-B
VFC 2	CLASSROOM 6	TOSHIBA / CARRIER 4-093-060AAAC-OAO	1,100	0.5	460-3-60	5.0/15.0	640	450	1-35-B
VFC 3	ELECTRIC ROOM 8, DATA ROOM 4	TOSHIBA / CARRIER MFD-AP024BH2UL-1	600	0.5	208-1-60	1.8/15.0	119	0	1-7
VFC 4	CLASSROOM 10	TOSHIBA / CARRIER 4-093-060AAAC-OAO	1,100	0.5	460-3-60	5.0/15.0	640	450	1-35-B
VFC 5	CLASSROOM 11	TOSHIBA / CARRIER 4-093-048-AAAC-OAO	1,300	0.5	460-3-60	5.0/15.0	640	450	1-35-B
VFC 6	CLASSROOM 25	TOSHIBA / CARRIER 4-093-048-AAAC-OAO	1,300	0.5	460-3-60	5.0/15.0	640	450	1-35-B
VFC 7	CLASSROOM 24	TOSHIBA / CARRIER 4-093-060AAAC-OAO	1,100	0.5	460-3-60	5.0/15.0	640	450	1-35-B
VFC 8	OFFICES 14-18, OFFICES 20-23, RECEPTION 12, HALL 13	TOSHIBA / CARRIER DCA-REH0961GUL	2,300	0.5	460-3-60	8.0/15.0	1085	450	1-35-B
ERV 1	VFC UNIT SIZES 40GG0400GG	MICROMETL EBAJJI40	450	N.A.	460-3-60	2.27/3.14	W/VFC	450	9
ERV 2	VFC UNIT DCA-REH0961GUL	MICROMETL EBBMI40	450	N.A.	460-3-60	2.27/3.14	W/VFC	450	9

- NOTES: 1) PROVIDE "STERIL-AIRE" UV-C LAMP (NO SUBSTITUTIONS).
 2) PROVIDE T-STAT WHERE INDICATED.
 3) TA FILTERS INCLUDED BY MANUFACTURER.
 4) VFC'S IN DATA/ELECTRICAL ROOMS TO HAVE DRAIN PAN OVERFLOW ALARM (BY CONTROL CONTRACTOR).
 5) PROVIDE CONDENSATE PUMP (IF REQUIRED).
 6) PROVIDE MANUFACTURER'S T-STAT AND FLOW SELECTOR BOX.
 7) PROVIDE SHUT OFF VALVES IN REFRIGERANT PIPING CONNECTIONS TO FAN-COIL UNIT.
 8) PROVIDE MICROMETL SEISMIC ROOF CURB.
 9) PROVIDE SEPARATE POWER CONNECTIONS/DISC. SWITCH FOR ERV'S (BY ELEC.) ERV ELEC. LOADS (MCA/MOCP) ARE NOT INCLUDED W/ VFC UNITS ELEC. LOADS.

FAN COIL / ERV UNIT SCHEDULE (BUILDING 300)

UNIT NO.	SPACE(S) SERVED	MANUFACTURER + MODEL NO.	FAN DATA				TOTAL OPER. WEIGHT (LBS) (W/CURB+ERV)	OSA	NOTES
			C.F.M.	E.S.P. INCHES	V./PH./HZ.	MCA/MOCP			
VFC 1	CLASSROOM 1	TOSHIBA / CARRIER 40GG-060AAAC-OAO	1,100	0.5	460-3-60	5.0/15.0	640	450	1-35-B
VFC 2	CLASSROOM 2	TOSHIBA / CARRIER 40GG-060AAAC-OAO	1,100	0.5	460-3-60	5.0/15.0	640	450	1-35-B
VFC 3	MIDI LAB 3	TOSHIBA / CARRIER 40GG-060AAAC-OAO	1,100	0.5	460-3-60	5.0/15.0	640	450	1-35-B
VFC 4	STUDIO 8 & 9, LIBRARY 7, OFFICE 15, VEST IT, PRACTICE	TOSHIBA / CARRIER DCA-REH0961GUL	2,500	0.5	460-3-60	8.0/15.0	1085	450	1-35-B
VFC 5	ROOMS 18-25, MUSIC LAB 13	TOSHIBA / CARRIER DCA-REH0961GUL	2,500	0.5	460-3-60	8.0/15.0	1085	450	1-35-B
VFC 6	DATA 10, ELECTRIC ROOM 11	TOSHIBA / CARRIER MFD-AP024BH2UL-1	600	0.5	208-1-60	1.8/15.0	119	0	1-7
VFC 7	MUSIC LAB 6	TOSHIBA / CARRIER 40GG-060AAAC-OAO	1,100	0.5	460-3-60	5.0/15.0	640	450	1-35-B
VFC 8	CLASSROOM 5	TOSHIBA / CARRIER 4-093-060AAAC-OAO	1,100	0.5	460-3-60	5.0/15.0	640	450	1-35-B
VFC 9	CLASSROOM 4	TOSHIBA / CARRIER 4-093-060AAAC-OAO	1,100	0.5	460-3-60	5.0/15.0	640	450	1-35-B
ERV 1	VFC UNIT SIZES 40GG0400GG	MICROMETL EBAJJI40	450	N.A.	460-3-60	2.27/3.14	W/VFC'S	450	9
ERV 2	VFC UNIT DCA-REH0961GUL	MICROMETL EBBMI40	450	N.A.	460-3-60	2.27/3.14	W/VFC'S	450	9

- NOTES: 1) PROVIDE "STERIL-AIRE" UV-C LAMP (NO SUBSTITUTIONS).
 2) PROVIDE T-STAT WHERE INDICATED.
 3) TA FILTERS INCLUDED BY MANUFACTURER.
 4) VFC'S IN DATA/ELECTRICAL ROOMS TO HAVE DRAIN PAN OVERFLOW ALARM (BY CONTROL CONTRACTOR).
 5) PROVIDE CONDENSATE PUMP (IF REQUIRED).
 6) PROVIDE MANUFACTURER'S T-STAT AND FLOW SELECTOR BOX.
 7) PROVIDE SHUT OFF VALVES IN REFRIGERANT PIPING CONNECTIONS TO FAN-COIL UNIT.
 8) PROVIDE MICROMETL SEISMIC ROOF CURB.
 9) PROVIDE SEPARATE POWER CONNECTIONS/DISC. SWITCH FOR ERV'S (BY ELEC.) ERV ELEC. LOADS (MCA/MOCP) ARE NOT INCLUDED W/ VFC UNITS ELEC. LOADS.

FAN COIL / ERV UNIT SCHEDULE (BUILDING 800)

UNIT NO.	SPACE(S) SERVED	MANUFACTURER + MODEL NO.	FAN DATA				TOTAL OPER. WEIGHT (LBS) (W/CURB+ERV)	OSA	NOTES
			C.F.M.	E.S.P. INCHES	V./PH./HZ.	MCA/MOCP			
VFC 1	CLASSROOM 1	TOSHIBA / CARRIER 40GG-060AAAC-OAO	1,300	0.5	460-3-60	5.0/15.0	640	450	1-35-B
VFC 2	BUSINESS LECTURE CLASSROOM 2	TOSHIBA / CARRIER 40GG-060AAAC-OAO	1,300	0.5	460-3-60	5.0/15.0	640	450	1-35-B
VFC 3	ELECTRIC ROOM 3, DATA ROOM 5	TOSHIBA / CARRIER 40GG-060AAAC-OAO	600	0.5	208-1-60	1.8/15.0	119	0	1-7
VFC 4	RECEPTION 6, HALL 7, DATA ROOM 3	TOSHIBA / CARRIER DCA-REH0961GUL	1,100	0.5	460-3-60	5.0/15.0	640	450	1-35-B
VFC 5	CLASSROOM 13	TOSHIBA / CARRIER DCA-REH0961GUL	1,300	0.5	460-3-60	5.0/15.0	640	450	1-35-B
VFC 6	LECTURE CLASSROOM 17	TOSHIBA / CARRIER MFD-AP024BH2UL-1	1,300	0.5	460-3-60	5.0/15.0	640	450	1-35-B
VFC 7	COMPUTER CLASSROOM 16	TOSHIBA / CARRIER 40GG-060AAAC-OAO	1,100	0.5	460-3-60	5.0/15.0	640	450	1-35-B
VFC 8	COMPUTER CLASSROOM 15	TOSHIBA / CARRIER 4-093-060AAAC-OAO	1,100	0.5	460-3-60	5.0/15.0	640	450	1-35-B
VFC 9	COMPUTER CLASSROOM 14	TOSHIBA / CARRIER 4-093-060AAAC-OAO	1,100	0.5	460-3-60	5.0/15.0	640	450	1-35-B
ERV 1	VFC UNIT SIZES 40GG0400GG	MICROMETL EBAJJI40	450	N.A.	460-3-60	2.27/3.14	W/VFC'S	450	9
ERV 2	VFC UNIT DCA-REH0961GUL	MICROMETL EBBMI40	450	N.A.	460-3-60	2.27/3.14	W/VFC'S	450	9

- NOTES: 1) PROVIDE "STERIL-AIRE" UV-C LAMP (NO SUBSTITUTIONS).
 2) PROVIDE T-STAT WHERE INDICATED.
 3) TA FILTERS INCLUDED BY MANUFACTURER.
 4) VFC'S IN DATA/ELECTRICAL ROOMS TO HAVE DRAIN PAN OVERFLOW ALARM (BY CONTROL CONTRACTOR).
 5) PROVIDE CONDENSATE PUMP (IF REQUIRED).
 6) PROVIDE MANUFACTURER'S T-STAT AND FLOW SELECTOR BOX.
 7) PROVIDE SHUT OFF VALVES IN REFRIGERANT PIPING CONNECTIONS TO FAN-COIL UNIT.
 8) PROVIDE MICROMETL SEISMIC ROOF CURB.
 9) PROVIDE SEPARATE POWER CONNECTIONS/DISC. SWITCH FOR ERV'S (BY ELEC.) ERV ELEC. LOADS (MCA/MOCP) ARE NOT INCLUDED W/ VFC UNITS ELEC. LOADS.

VFR SYSTEMS HEAT RECOVERY OUTDOOR UNIT SCHEDULE

UNIT NO.	BUILDING SERVED	COOLING DATA				HEATING DATA				ELECTRICAL DATA		TOTAL OPER. WEIGHT (LBS)	MANUFACTURER + MODEL NO.	NOTES
		CAP (MBH)	E.E.R./E.E.R.	OSA (F) DB	WB	CAP (MBH)	COP	OSA (F)	MCA/MOCP	V./PH./HZ.	MCA/MOCP			
ODU 1	200	451.5	9.5/20.0	112	74	513.0	3.2	47	24.7 / 35.23.4 / 30.23.4 / 30	460-3-60	2514	MMY-AP4566FT6P-UL	1-B	
ODU 2	300	451.5	9.5/20.0	112	74	513.0	3.2	47	24.7 / 35.23.4 / 30.23.4 / 30	460-3-60	838	MMY-MAPI66FT6P-UL	1-B	
ODU 3	300	168.0	11.0/22.0	112	74	184.0	3.3	47	24.7 / 35.23.4 / 30.23.4 / 30	208-1-60	2514	MMY-AP4566FT6P-UL	1-B	
ODU 4	800	451.5	9.5/20.0	112	74	513.0	3.2	47	24.7 / 35.23.4 / 30.23.4 / 30	460-3-60	2514	MMY-AP4566FT6P-UL	1-B	

- NOTES: 1) SIMULTANEOUS HEATING AND COOLING.
 2) R-410A REFRIGERANT.
 3) SEE M2.2, M2.3, & M2.9 FOR REFRIGERANT PIPING SCHEMATIC ARRANGEMENT.
 4) COOLING OPERATION 14°F TO 122°F.
 5) HEATING OPERATION -18°F TO 60°F.
 6) PROVIDE SMART MANAGER AND BAGNET INTERFACE SYSTEM.
 7) FLOW SELECTOR W/ FAN-COIL UNIT - SEE M0.1.
 8) SEPARATE POWER SUPPLY REQUIRED FOR EACH UNIT IN MODULE (SEE ELEC. DATA IN SCHEDULE ABOVE FOR INDIVIDUAL UNIT LOADS).

HVAC LEGEND

ABBR.	SYMBOL	DESCRIPTION
A/C		ABOVE CEILING
U.T.R.		UP THROUGH ROOF
S.A.		SUPPLY DUCT SECTION
R.A.		RETURN DUCT SECTION
E.A.		EXHAUST DUCT SECTION
		FLEXIBLE DUCT
S.A./R.A.		SINGLE LINE DUCT WORK
M.V.D.		MANUAL VOLUME DAMPER
C.D.		CEILING DIFFUSER - SUPPLY
R.A.G.		RETURN AIR GRILLE - CEILING
E.G. E.R.		EXHAUST REGISTER - CEILING
F.C.		FLEX CONNECTION
D.L.		DOOR LOUVER
U.C.		UNDER-CUT DOOR
STAT		THERMOSTAT - SEE I/O/MO.2
C.D.		CONDENSATE DRAIN (BY PLUMBING)
SENSOR		ROOM TEMPERATURE SENSOR
F.S.D.		FIRE/ SMOKE DAMPER
M.O.D.		MOTOR OPERATED DAMPER
HWS/R		HEATING HOT WATER SUPPLY/RETURN
CWS/R		CHILLED WATER SUPPLY/RETURN
U.O.N.		UNLESS OTHERWISE NOTED
		FIRE RATED WALL - SEE ARCH

DESIGN CRITERIA:

- MEP COMPONENT ANCHORAGE NOTES
 1. 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 FORCE & DISPLACEMENT REQUIREMENTS PRESCRIBED IN THE 2016 CBC, SECTIONS 1616A.1.18 THROUGH 1616A.1.26 AND ASCE 7-10 CHAPTER 15, 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 OR HAS A CENTER OF MASS LOCATED 4 FEET OR MORE ABOVE THE ADJACENT FLOOR OR ROOF LEVEL THAT DIRECTLY SUPPORT THE COMPONENT ARE REQUIRED TO BE ANCHORED WITH TEMPORARY ATTACHMENTS.
 2. THE FOLLOWING MECHANICAL AND ELECTRICAL COMPONENTS SHALL BE POSITIVELY ATTACHED TO THE STRUCTURE, BUT THE ATTACHMENT 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.
 3. FOR THOSE ELEMENTS THAT DO NOT REQUIRE DETAILS ON THE APPROVED DRAWINGS, THE INSTALLATION SHALL BE SUBJECT TO THE APPROVAL OF THE DESIGN PROFESSIONAL IN GENERAL RESPONSIBLE CHARGE OR STRUCTURAL ENGINEER DELEGATED RESPONSIBILITY AND THE DSA DISTRICT STRUCTURAL ENGINEER. THE PROJECT INSPECTOR WILL VERIFY THAT ALL COMPONENTS AND EQUIPMENT HAVE BEEN ANCHORED IN ACCORDANCE WITH THE ABOVE REQUIREMENTS.

PERM DUCTWORK AND ELECTRICAL DISTRIBUTION SYSTEM BRACING NOTE

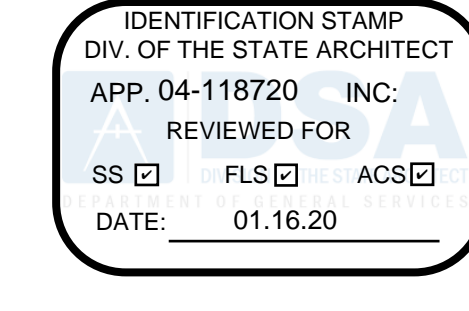
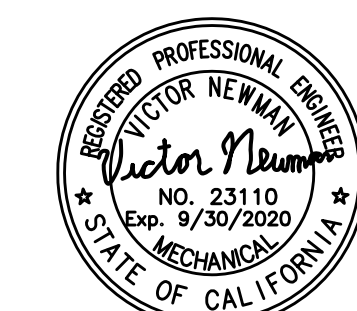
1. PIPING, DUCTWORK AND ELECTRICAL DISTRIBUTION SYSTEMS SHALL BRACED TO COMPLY WITH THE FORCES AND DISPLACEMENTS PRESCRIBED IN ASCE 7-10 SECTION 13.3 AS DEFINED IN ASCE 7-10 SECTION 13.6.2, 13.6.1, 13.6.3 AND 2016 CBC, SECTIONS 1604.2.4, 1604.2.5 AND 1604.2.6.
 2. THE METHOD OF SHOWING BRACING AND ATTACHMENTS TO THE STRUCTURE FOR THE IDENTIFIED DISTRIBUTION SYSTEM ARE AS NOTED BELOW WHEN BRACING AND ATTACHMENTS ARE BASED ON A PRE-APPROVED INSTALLATION GUIDE (E.G. SHACNA OR OSHPD OPM). COPIES OF THE BRACING SYSTEM INSTALLATION GUIDE OR MANUAL SHALL BE AVAILABLE ON THE JOBSITE PRIOR TO THE START OF AND DURING THE HANGING AND BRACING OF THE DISTRIBUTION SYSTEMS. THE STRUCTURAL ENGINEER OF RECORD SHALL VERIFY THE ADEQUACY OF THE STRUCTURE TO SUPPORT THE HANGER AND BRACE LOADS.
 MECHANICAL PIPING (MP), MECHANICAL DUCTS (MD), PLUMBING PIPING (PP), ELECTRICAL DISTRIBUTION SYSTEM (E).
 MP □ MD □ PP □ E □ - OPTION 1: DETAILED ON THE APPROVED DRAWINGS WITH PROJECT SPECIFIC NOTES AND DETAILS.
 MP □ MD □ PP □ E □ - OPTION 2: SHALL COMPLY WITH THE APPLICABLE OSHPD PRE-APPROVAL (OPM #) #2043-13.
 MP □ MD □ PP □ E □ - OPTION 3: SHALL COMPLY WITH THE SHACNA SEISMIC RESTRAINT MANUAL, OSHPD EDITION (2004), INCLUDING ANY ADDENDA, FASTENERS AND OTHER ATTACHMENTS NOT SPECIFICALLY IDENTIFIED IN THE SHACNA SEISMIC RESTRAINT MANUAL, OSHPD EDITION, ARE DETAILED ON THE APPROVED DRAWINGS WITH PROJECT SPECIFIC NOTES AND DETAILS. THE DETAILS SHALL ACCOUNT FOR THE APPLICABLE SEISMIC HAZARD LEVEL AND CONNECTION LEVEL FOR THE PROJECT AND CONDITIONS.

ENERGY CONSERVATION NOTES:

1. ALL PIPING AND DUCTWORK SHALL BE INSULATED CONSISTENT WITH THE REQUIREMENTS OF SECTIONS 110, 123, 124 E.E.S. AND TABLE 6-4 OF THE C.M.C.
 2. ALL HVAC SYSTEMS SHALL MEET THE CONTROL REQUIREMENTS PER SECTION 112 & 122 E.E.S.
 3. ALL HVAC EQUIPMENT AND APPLIANCES SHALL MEET THE REQUIREMENTS OF SECTION 111-15, 115, 120-124 E.E.S.

GENERAL HVAC NOTES:

1. THESE DRAWINGS ARE A DIAGNOSTIC REPRESENTATION OF WORK TO BE ACCOMPLISHED AND AS SUCH ARE NOT INTENDED TO SHOW ALL REQUIRED OFFSETS OF PIPING AND DUCTWORK. THE MECHANICAL CONTRACTOR SHALL INSTALL MATERIAL AND EQUIPMENT SO AS TO CONFORM TO THE STRUCTURE, AVOID OBSTRUCTIONS AND MAINTAIN HEADROOM AND PASSAGEWAYS.
 2. EQUIPMENT INDICATED ON THESE DRAWINGS IS SHOWN IN APPROXIMATE LOCATIONS. THE MECHANICAL CONTRACTOR SHALL FIELD VERIFY ALL CONDITIONS AND EQUIPMENT LOCATIONS.
 3. THE MECHANICAL CONTRACTOR SHALL COORDINATE HIS WORK WITH OTHER TRADES PRIOR TO INSTALLATION.
 4. ALL WORK SHALL BE ACCOMPLISHED IN ACCORDANCE WITH ALL APPLICABLE CODES INCLUDING TITLE 24 CCR.
 5. ELECTRICAL CONTRACTOR SHALL FURNISH AND INSTALL ALL LINE AND LOW VOLTAGE CONDUIT, LINE VOLTAGE WIRING, OVERLOAD PROTECTION, DISCONNECTS EXCEPT ROOF EXHAUST FANS AS NOTED, STARTERS, FINAL CONNECTIONS TO EQUIPMENT. LOW VOLTAGE WIRING BY MECHANICAL CONTRACTOR.
 6. GENERAL CONTRACTOR SHALL PROVIDE ALL CUTTING, PATCHING, FURRING, BRACING OF STRUCTURE, ROOF OPENINGS WITH GANTS, FLASHING, ROOFING.
 7. MECHANICAL CONTRACTOR TO FURNISH AND INSTALL FIRE AND SMOKE DAMPERS AT ALL DUCT PENETRATIONS OF FIRE RATED SURFACES. FIRE DAMPERS INCLUDING SLEEVES AND INSTALLATION PROCEDURES SHALL BE APPROVED BY DSA PRIOR TO INSTALLATION.
 8. SUSPENSION AND RESTRAINT OF DUCTING SHALL MEET THE PROVISIONS OF SEISMIC RESTRAINT MANUAL.
 9. SEISMIC RESTRAINT MANUAL GUIDELINES FOR MECHANICAL SYSTEMS LATEST EDITION PUBLISHED BY SHACNA: OSHPD #R0010
 4. AIR FILTERS SHALL BE A STATE FIRE MARSHAL APPROVED 4 LISTED TYPE. PRE FORMED FILTERS HAVING A COMBUSTIBLE FRAMING SHALL BE TESTED AS A COMPLETE ASSEMBLY. AIR FILTERS IN ALL OCCUPANCIES SHALL BE CLASS 2 OR BETTER (AS SHOWN IN THE STATE FIRE MARSHAL LISTINGS). AIR FILTERS SHALL BE ACCESSIBLE FOR CLEANING OR REPLACEMENT.
 10. FLAME SPREAD / SMOKE RATINGS FOR ALL DUCT MATERIALS SHALL BE 25/50 MAX.

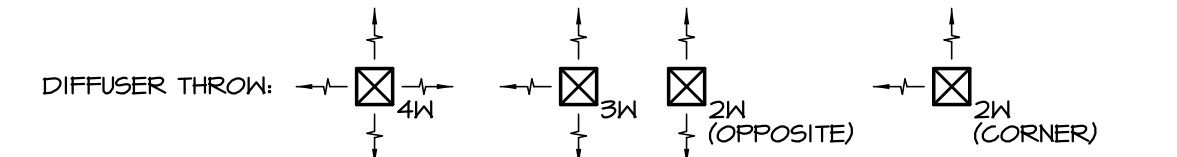


APPROVALS

AIR DISTRIBUTION SCHEDULE

ALL ITEMS SHALL BE TITUS MODEL #15 UNLESS OTHERWISE NOTED OR EQUIVALENT BY PRICE OR KREIBER, ALL METAL CONSTRUCTION WITH STANDARD FINISH.

MARK	DESCRIPTION
A	#FC5 24" x 24" LAY-IN PERFORATED FACE, STEEL CEILING DIFFUSER W/ LINED SHEET METAL TOP PLENUM (WHERE SHOWN)
B	#TBF-AA, PANEL MOUNTED NOZZLE DIFFUSERS, ALUMINUM
C	SAME AS 'A' EXCEPT SUPPLY MTD. & WITH O.B.D.
D	#FAP, STEEL LAY-IN PERFORATED FACE RETURN/RELIEF/TRANSFER/EXHAUST PANEL WITH LINED SHEET METAL TOP PLENUM
E	#FAR, STEEL LAY-IN PERFORATED FACE CEILING RETURN/EXHAUST GRILLE
F	#FAR, STEEL SURFACE MOUNTED PERFORATED FACE CEILING RETURN/RELIEF GRILLE (W/ LINED SHEET METAL TOP PLENUM WHERE SHOWN)
G	#B30RL, STEEL EXHAUST/TRANSFER/RETURN GRILLE WITH O.B.D. (W/ LINED SHEET METAL TOP PLENUM WHERE SHOWN)
H	#B30RL, STEEL, DOUBLE DEFLECTION, S.A. REG. W/ O.B.D.



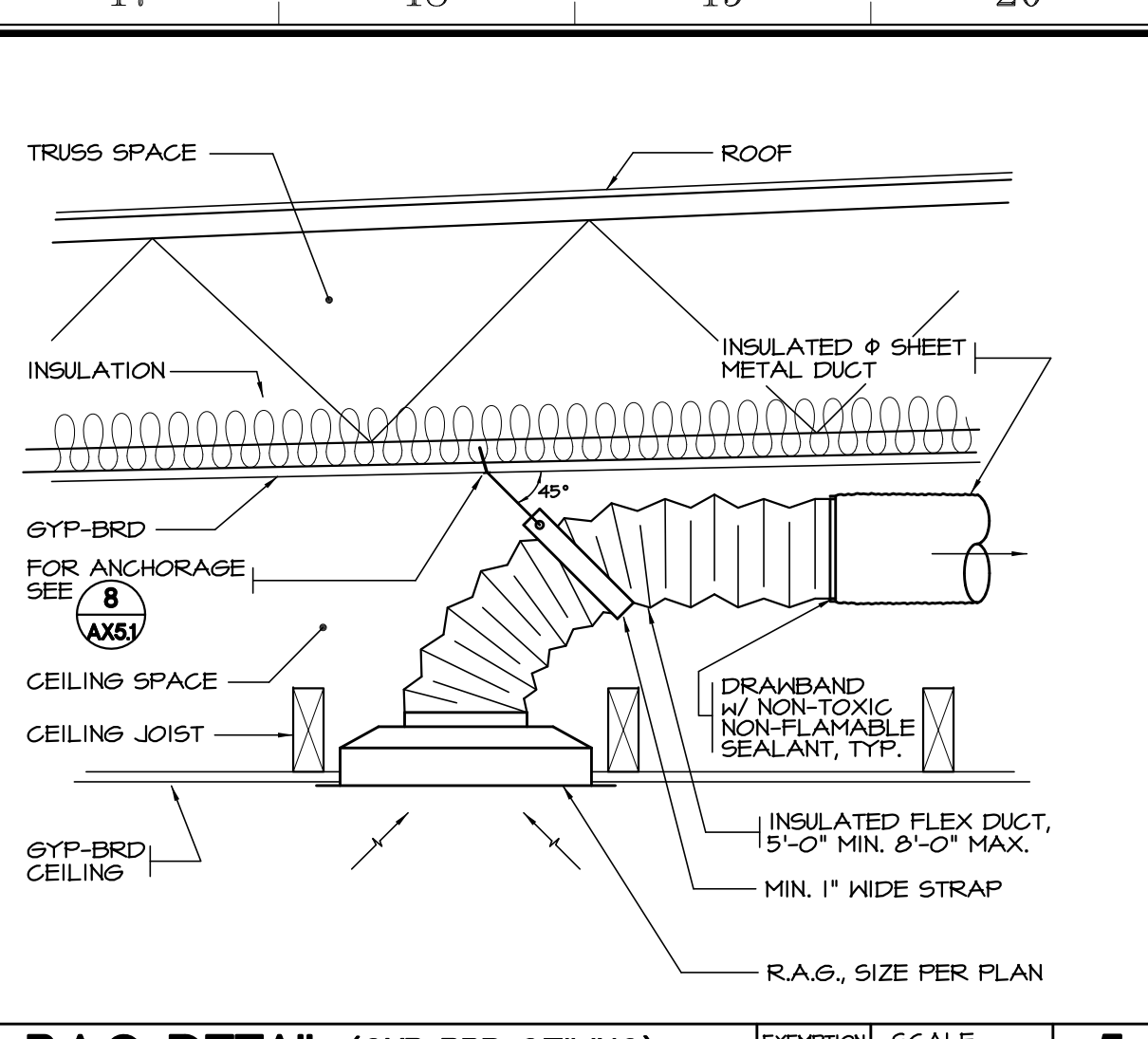
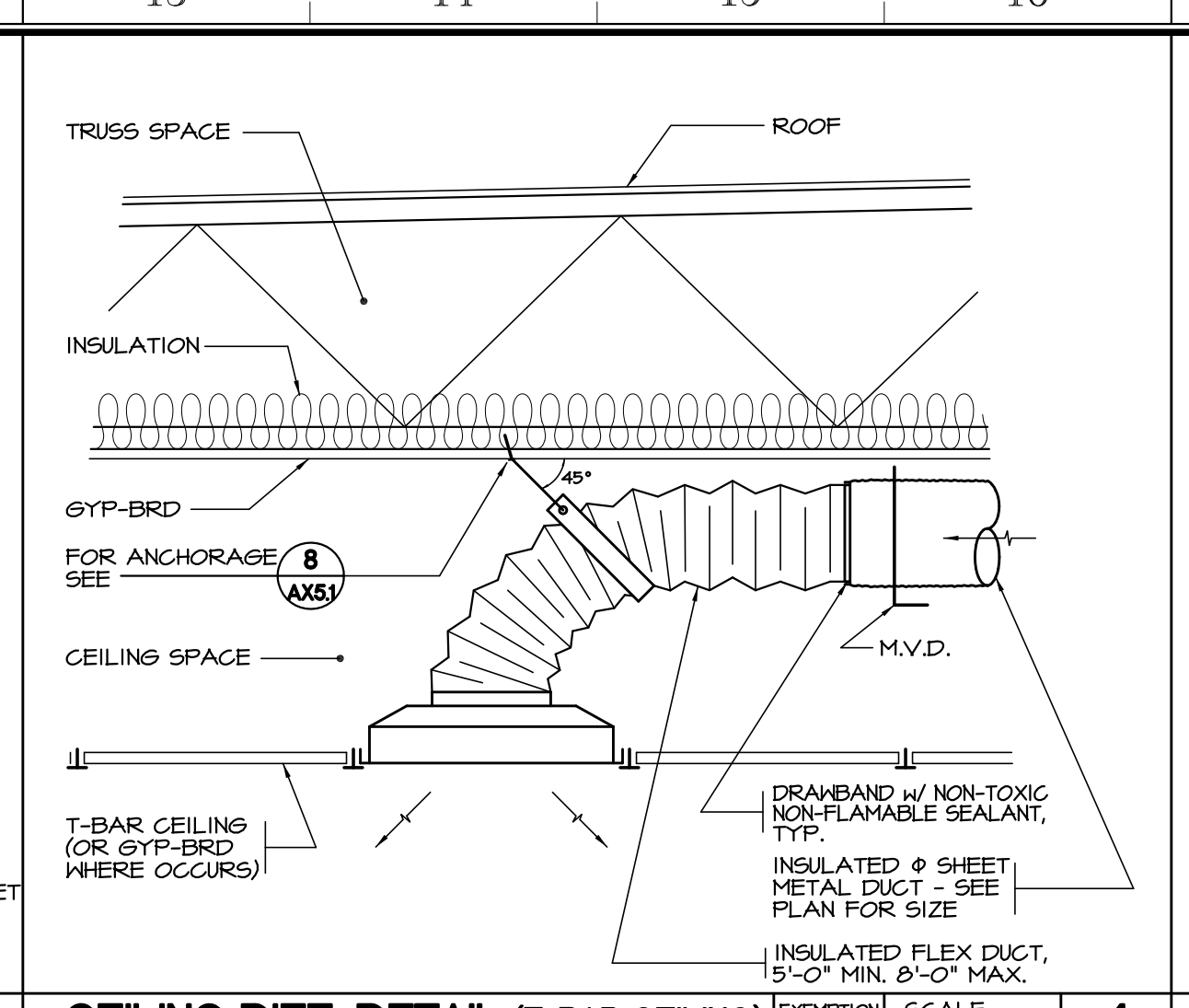
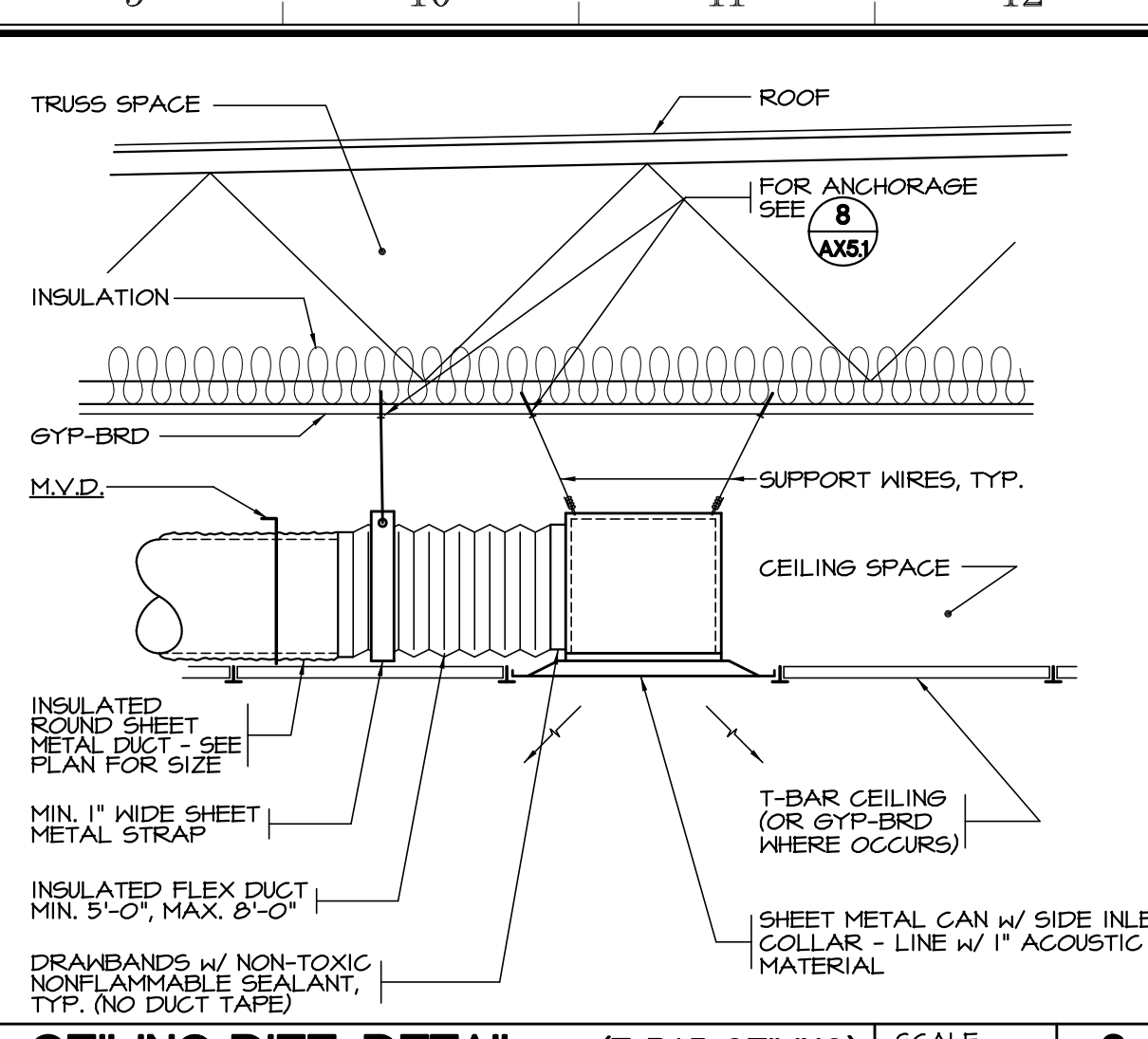
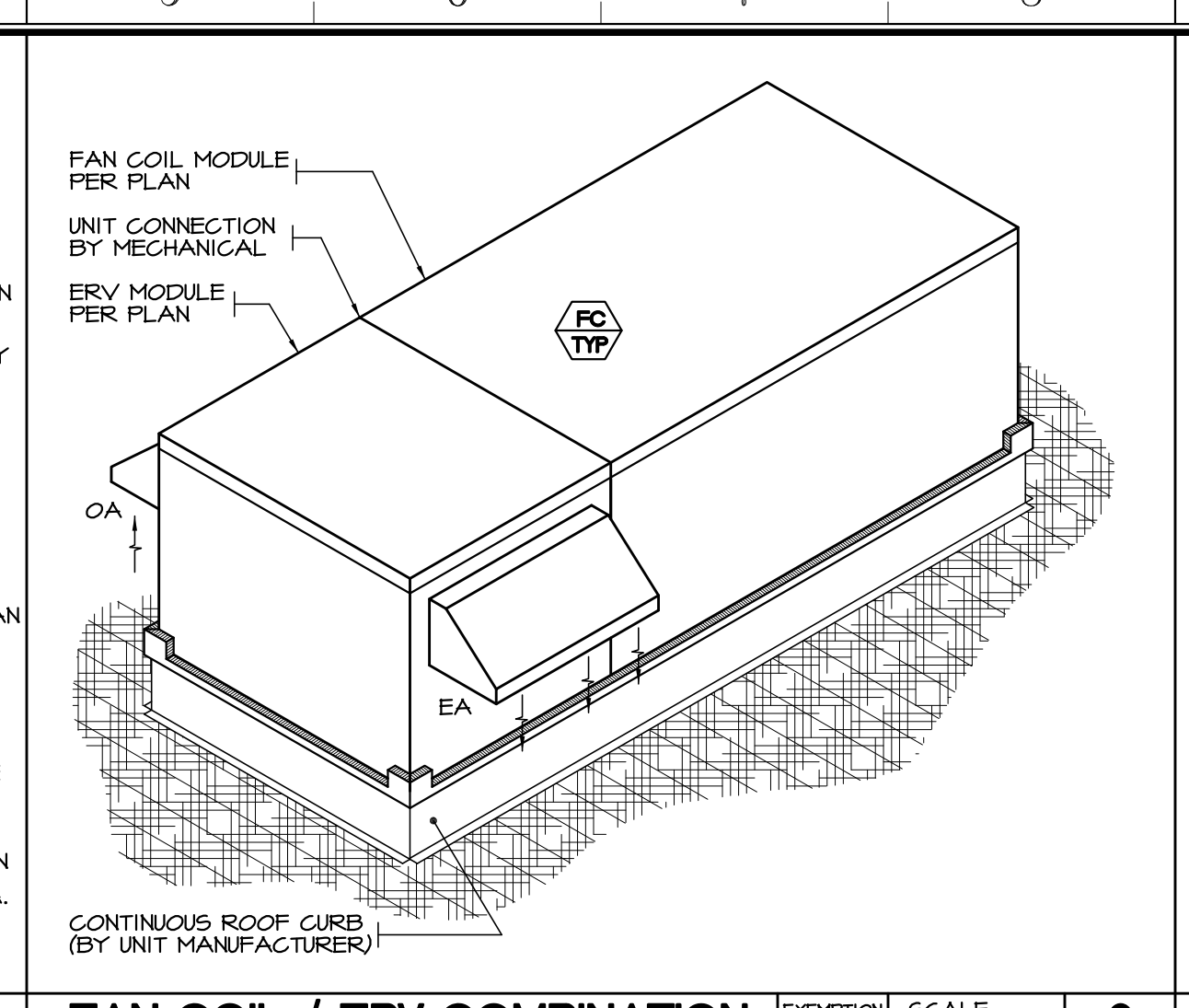
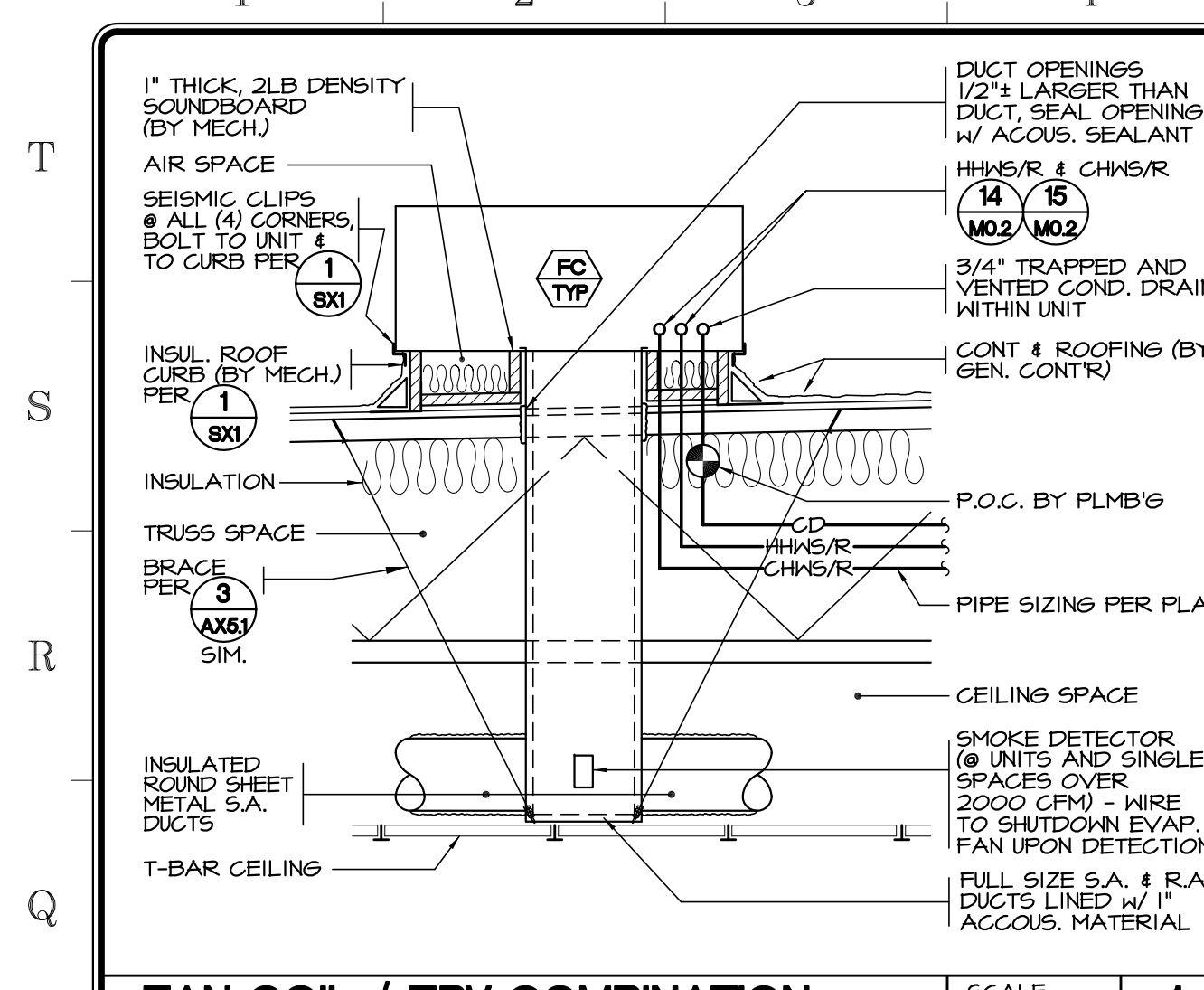
DIVISION 15 CONSULTING SERVICES, INC. 1180 Turquoise Circle Dewey, Arizona 86327 (928) 772-8448 FAX (928) 772-8942 Division15@csobleone.net

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Project Title
**IMPERIAL VALLEY COLLEGE
 BUILDING 200, 300 AND 800 MODERNIZATION**

Sheet Title
HVAC GENERAL NOTES, SCHEDULES

	Document Date 10-18-19	Project Number 19-121V
	Date Last Revised	Sheet Number MO.1

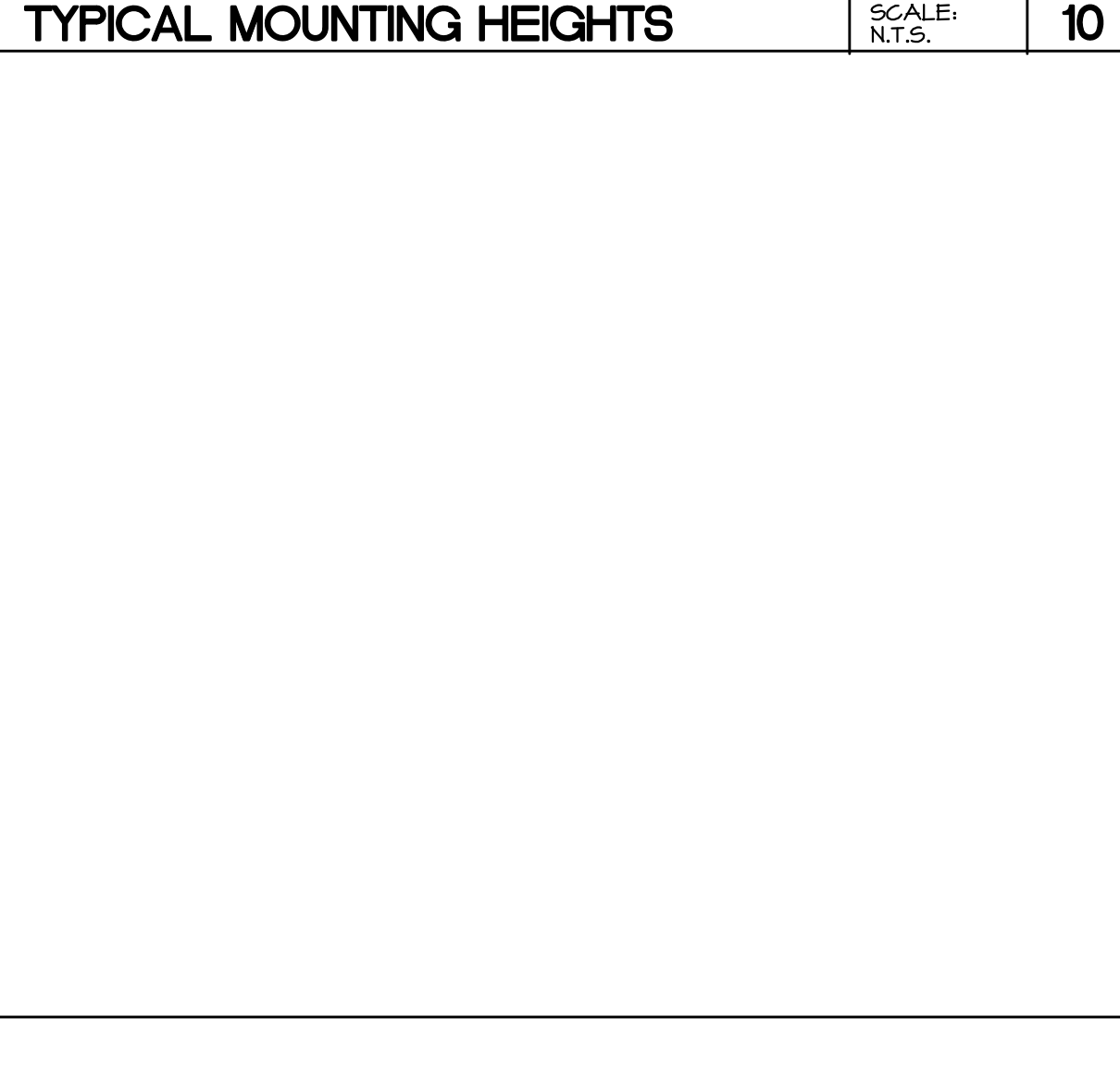
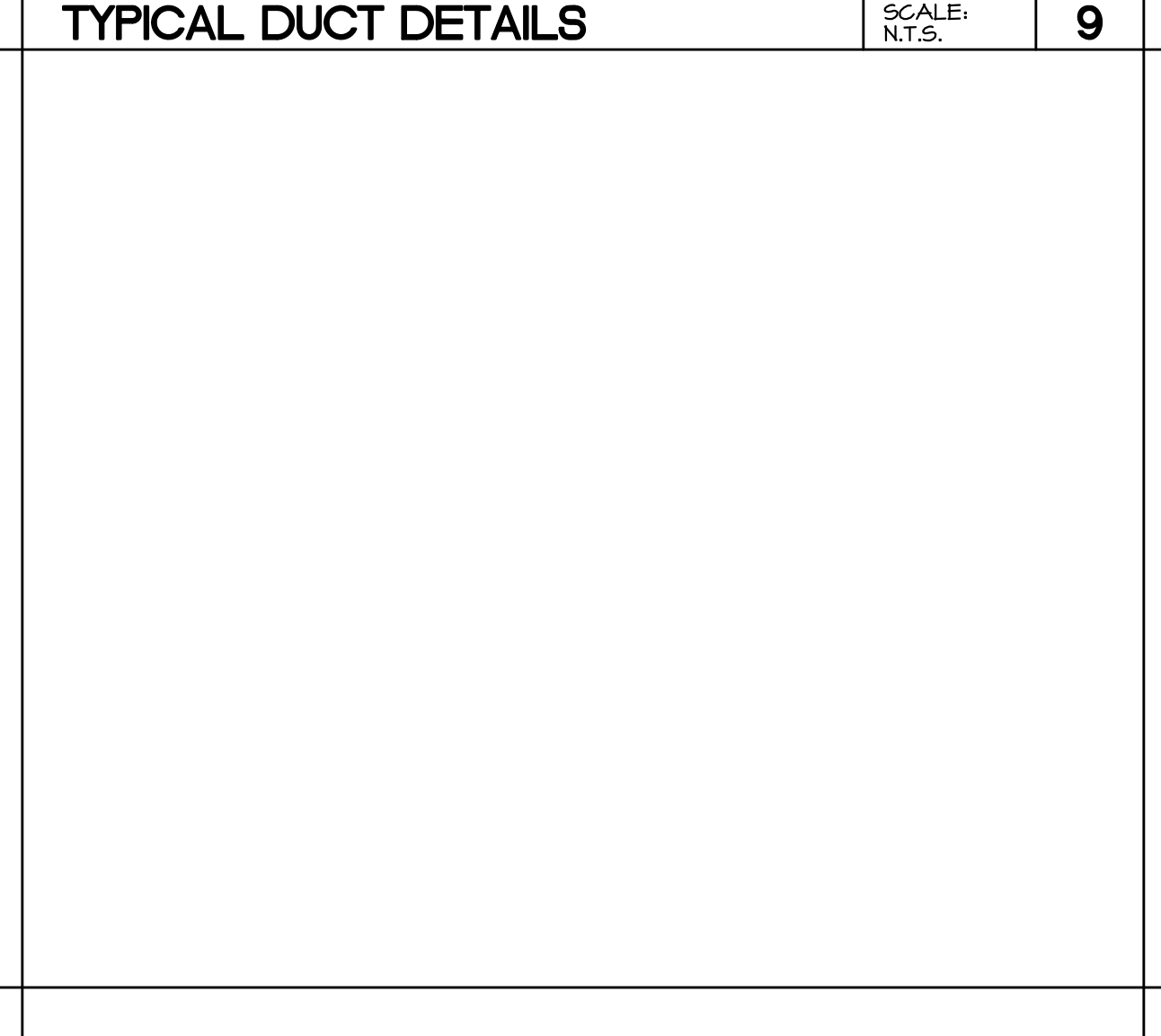
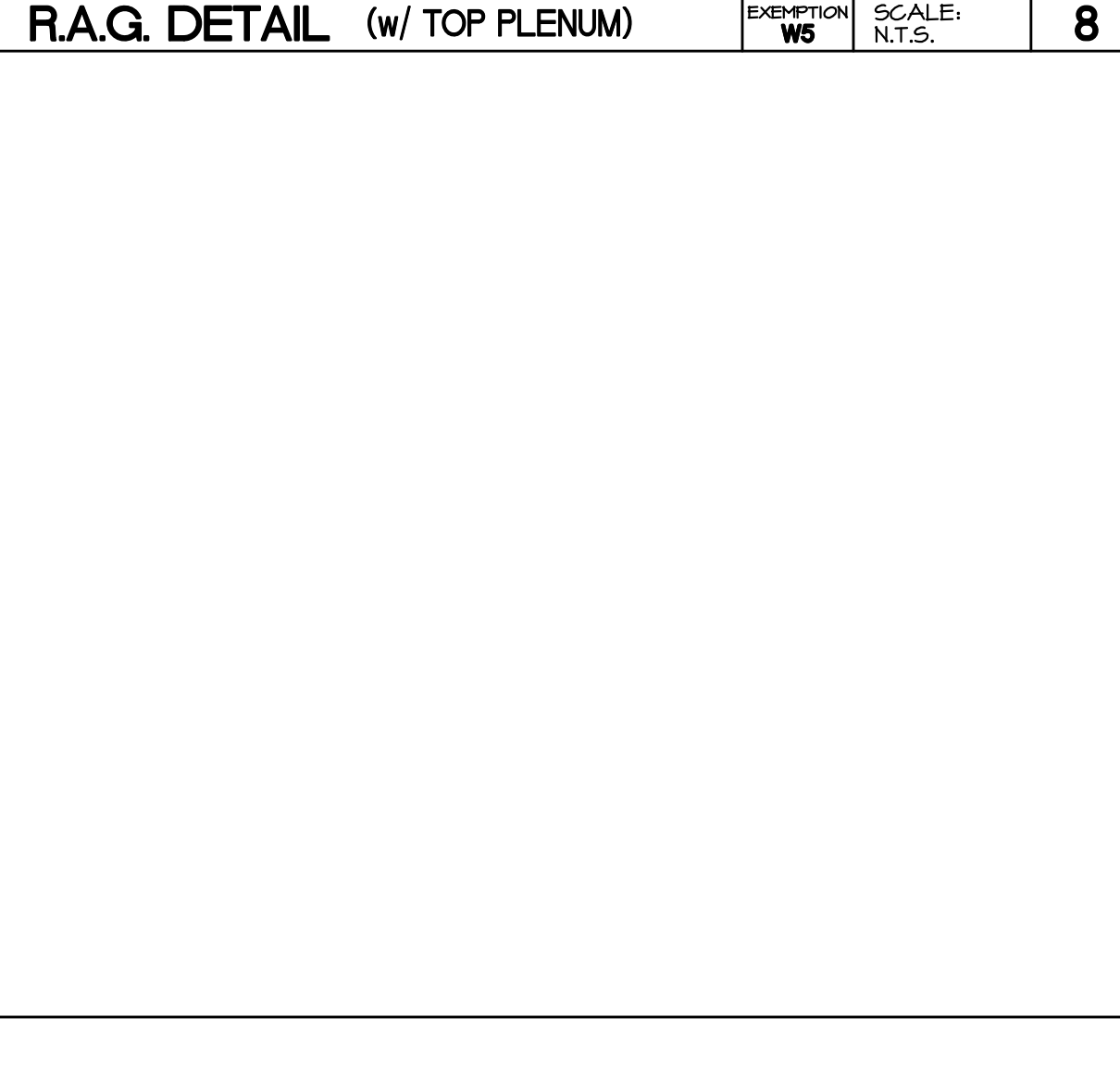
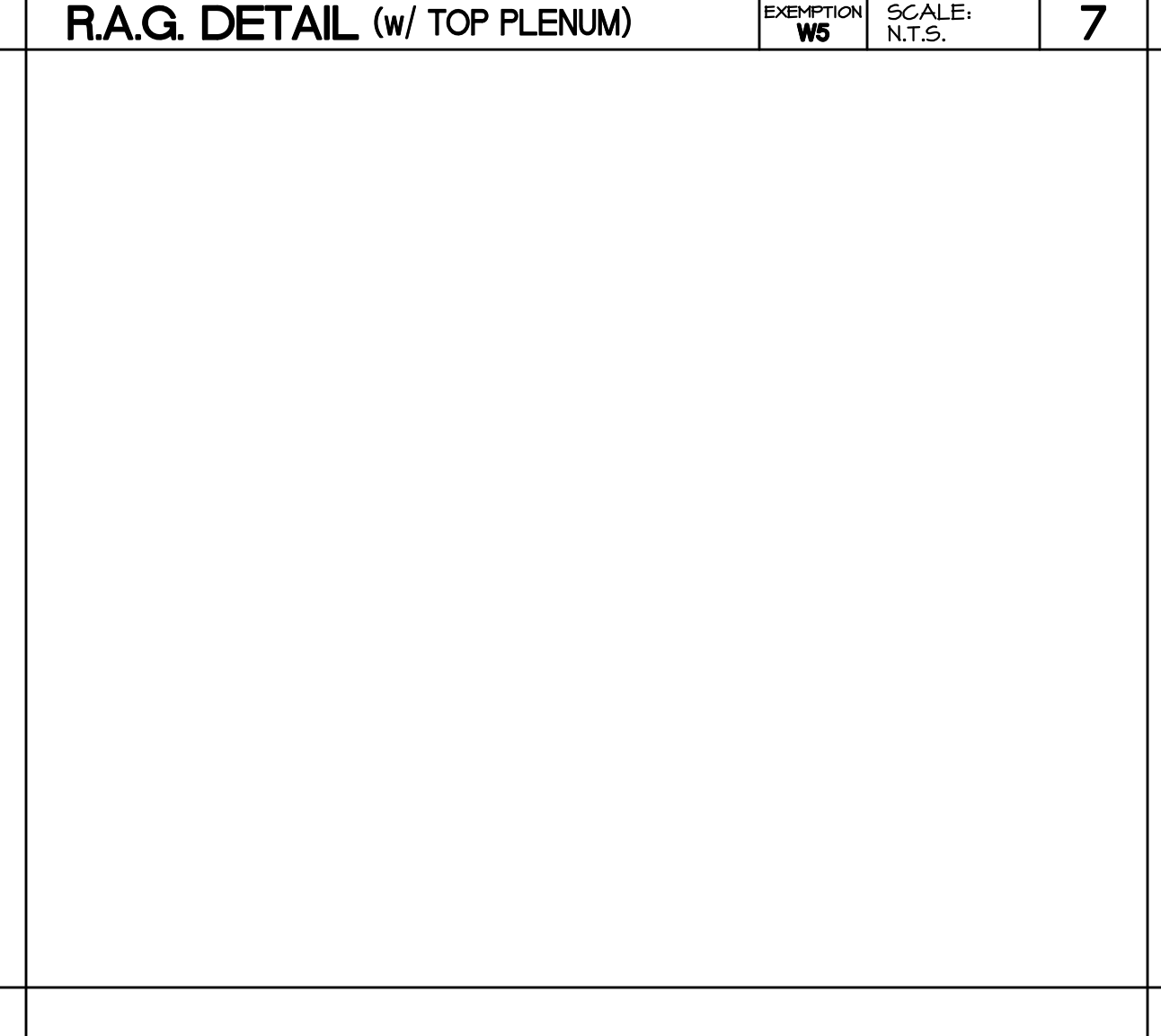
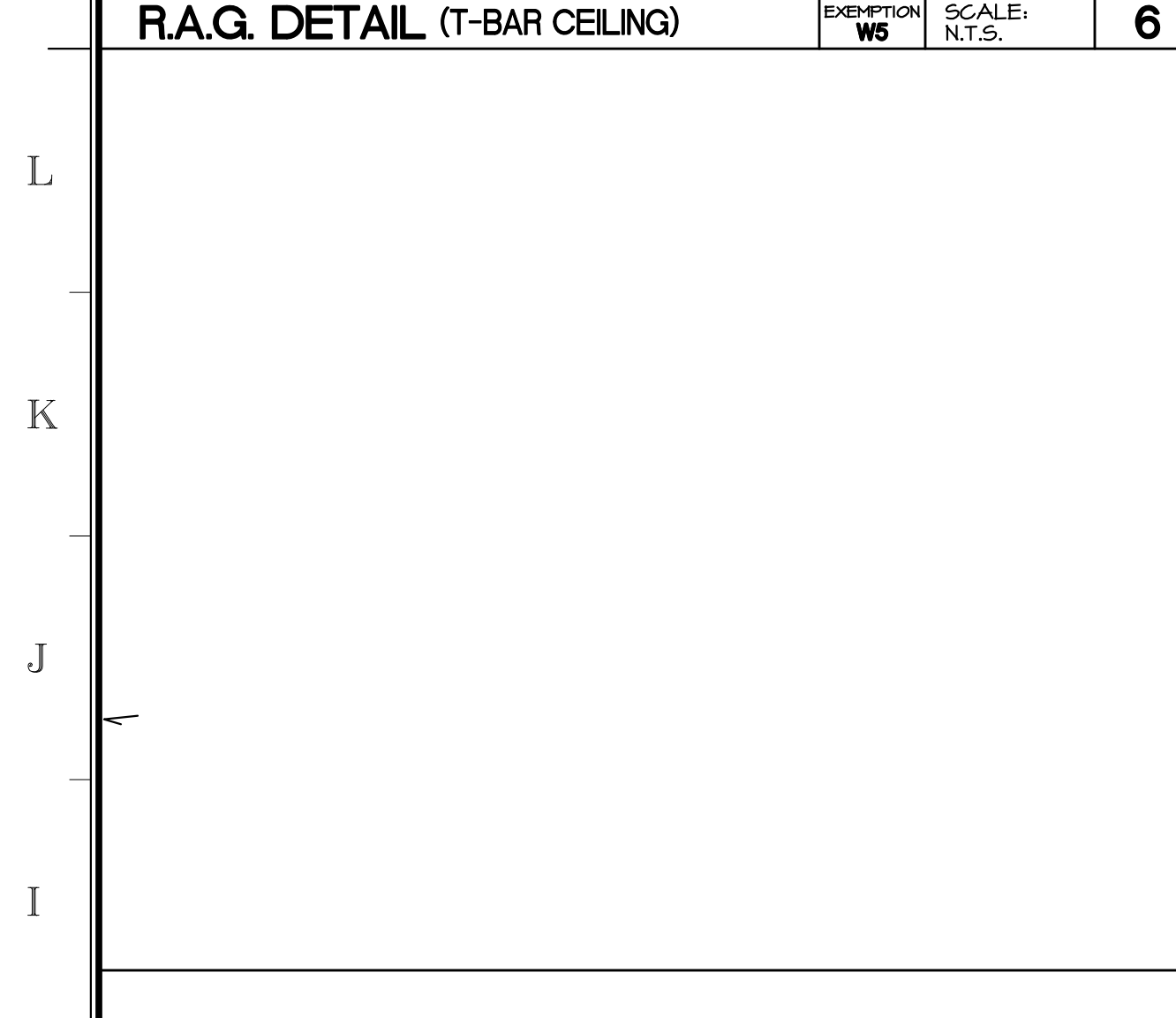
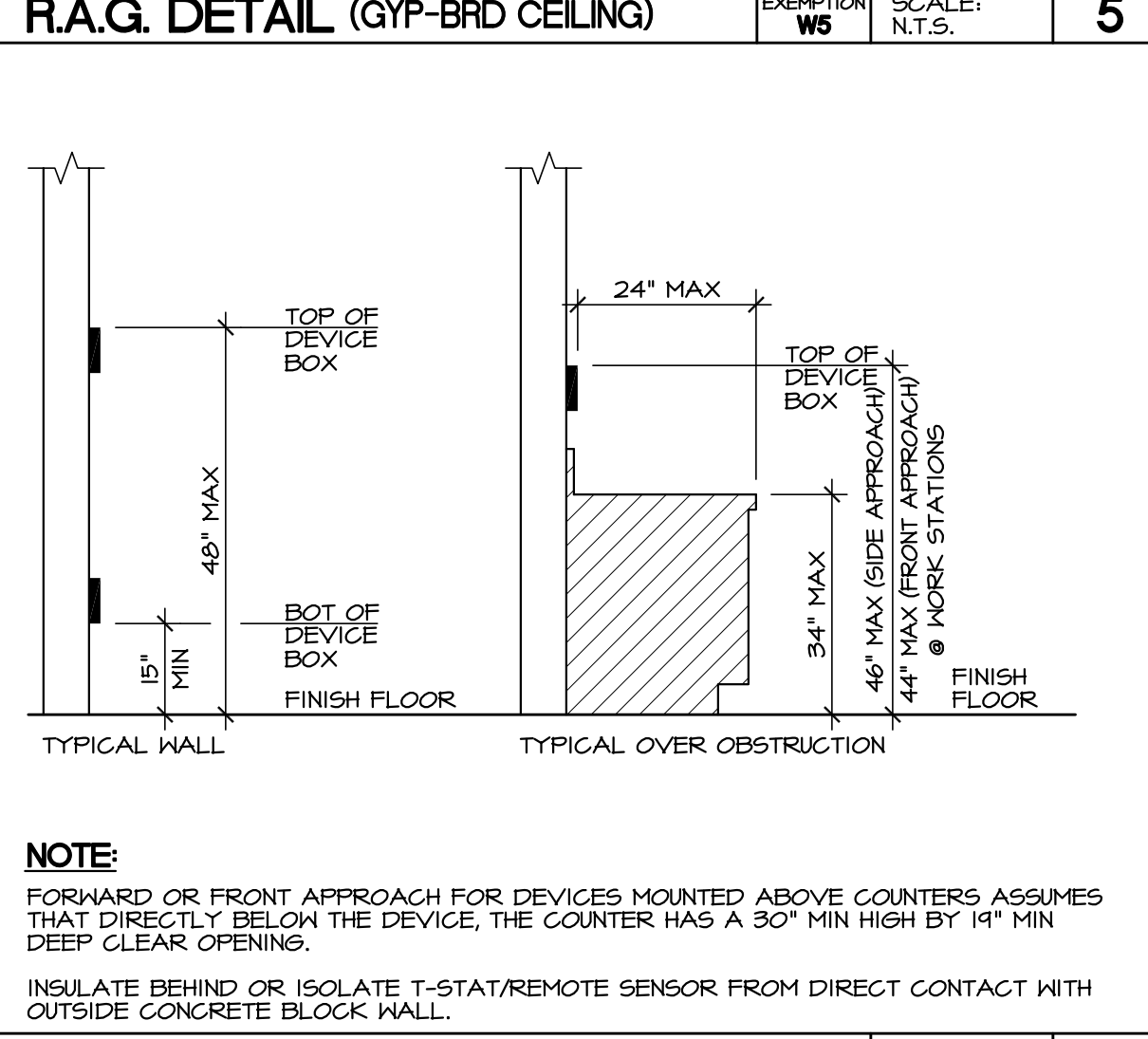
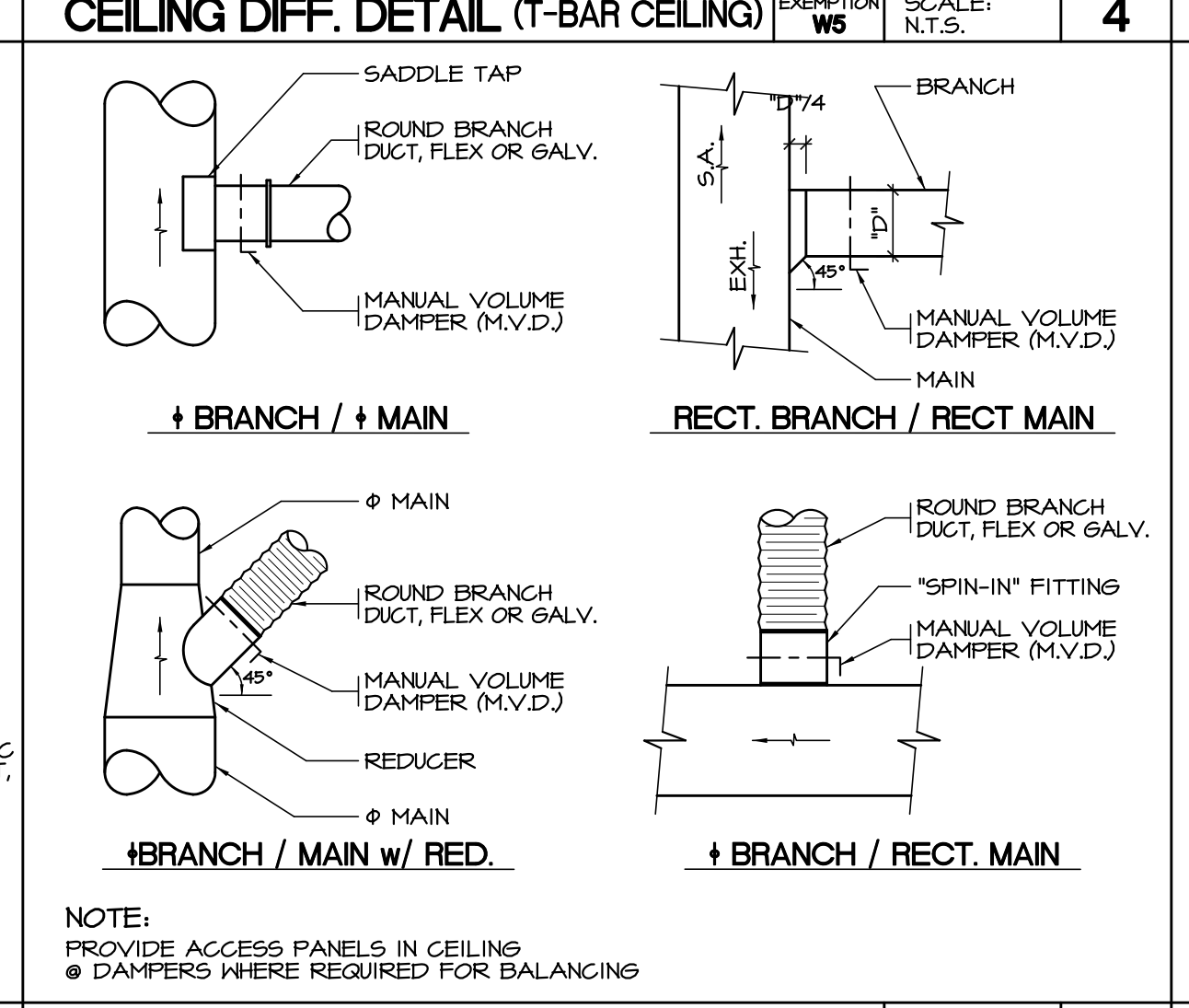
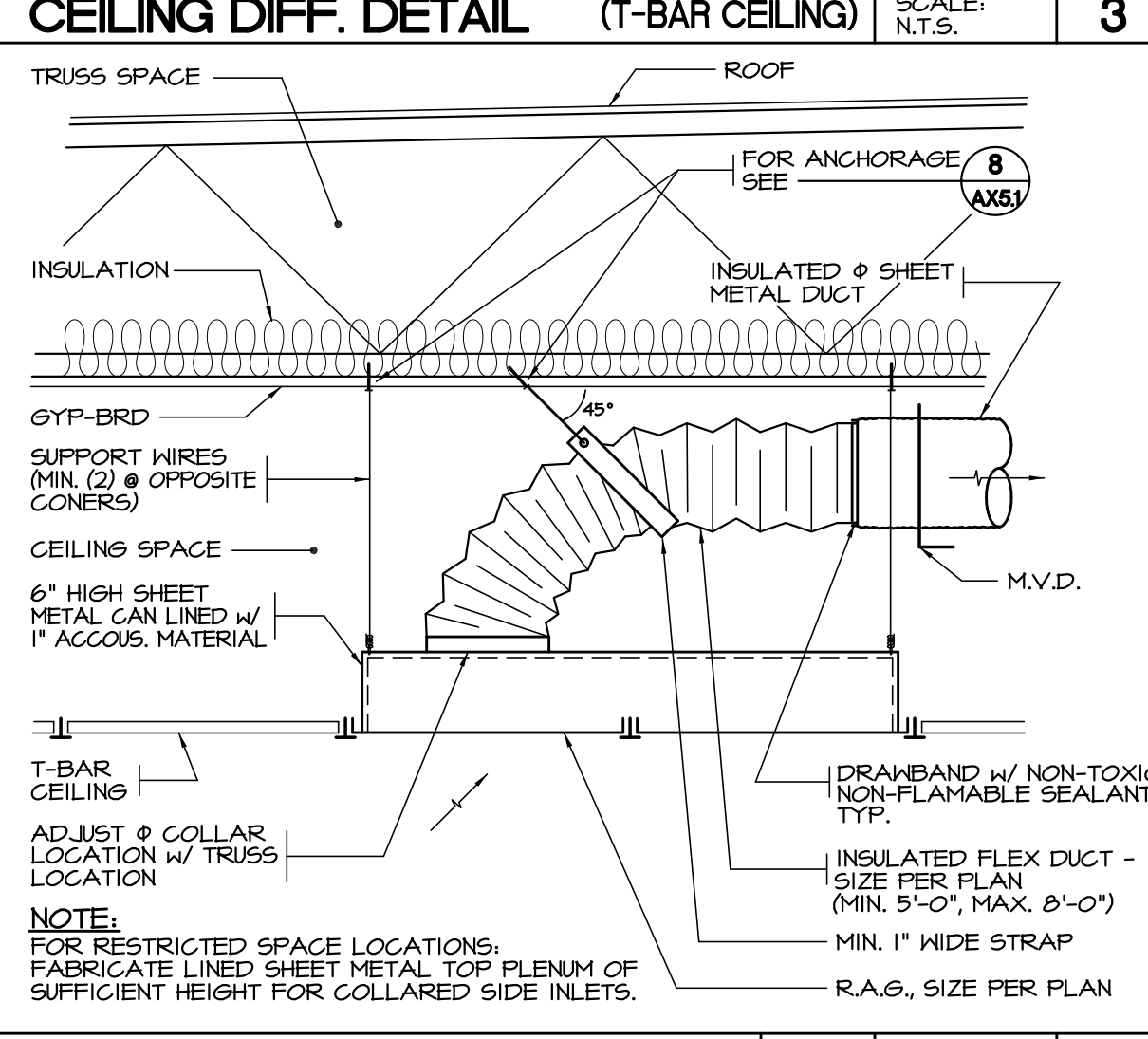
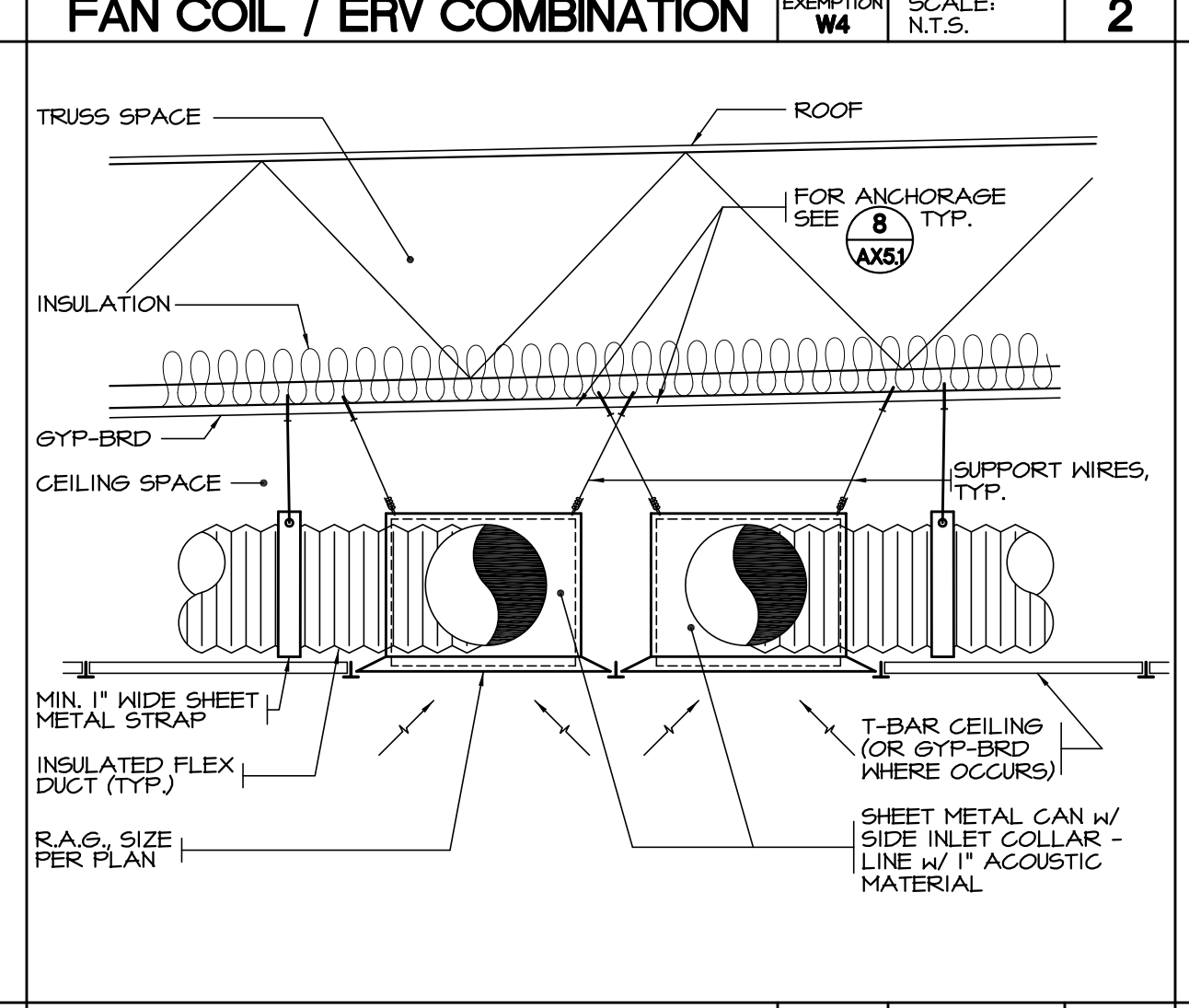
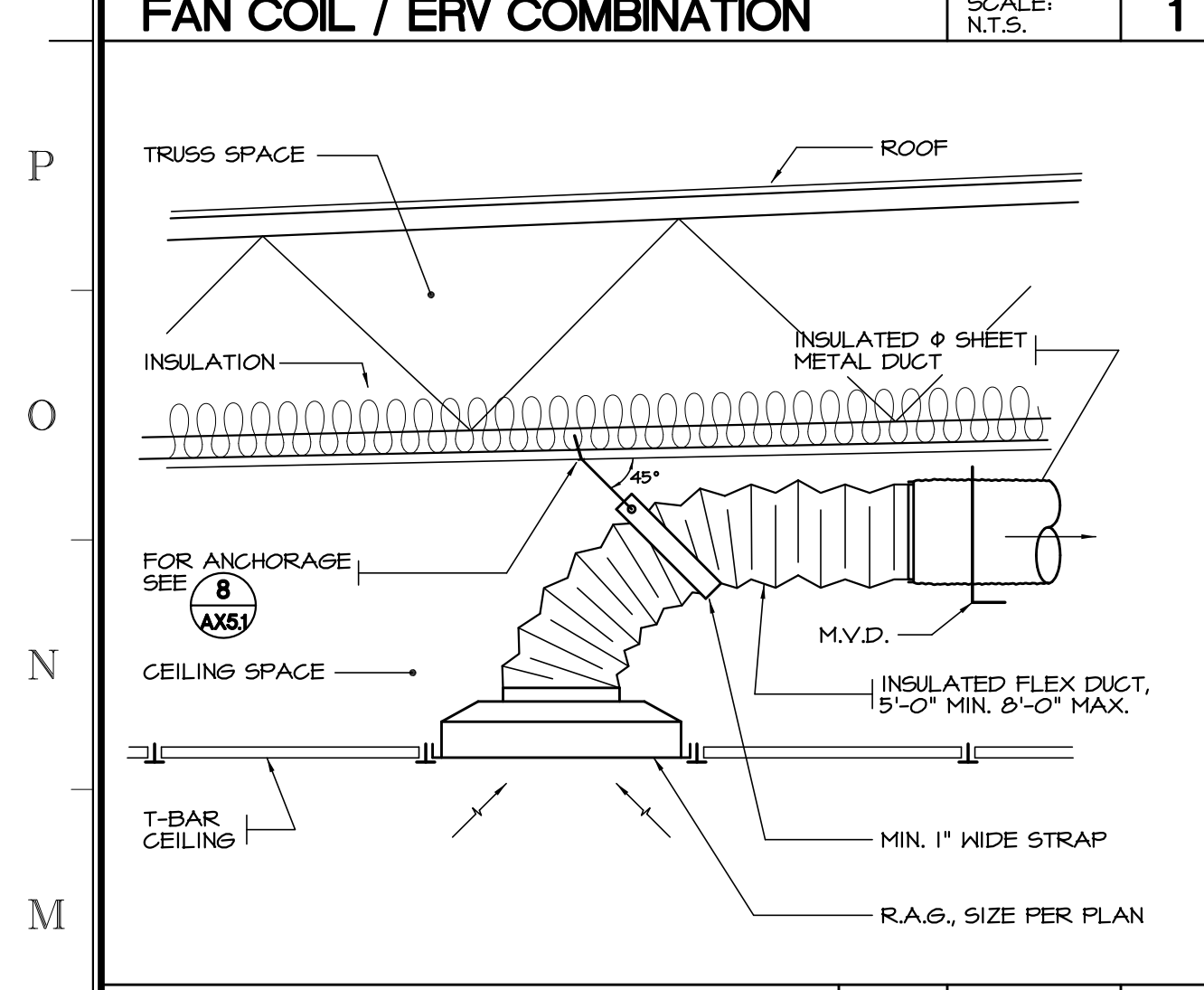


PROFESSIONAL ENGINEER
Victor M. Sanders
No. 23110
Exp. 8/30/2020
MECHANICAL
STATE OF CALIFORNIA

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Project Title
IMPERIAL VALLEY COLLEGE
BUILDING 200, 300 AND 800 MODERNIZATION

Sheet Title
HVAC DETAILS

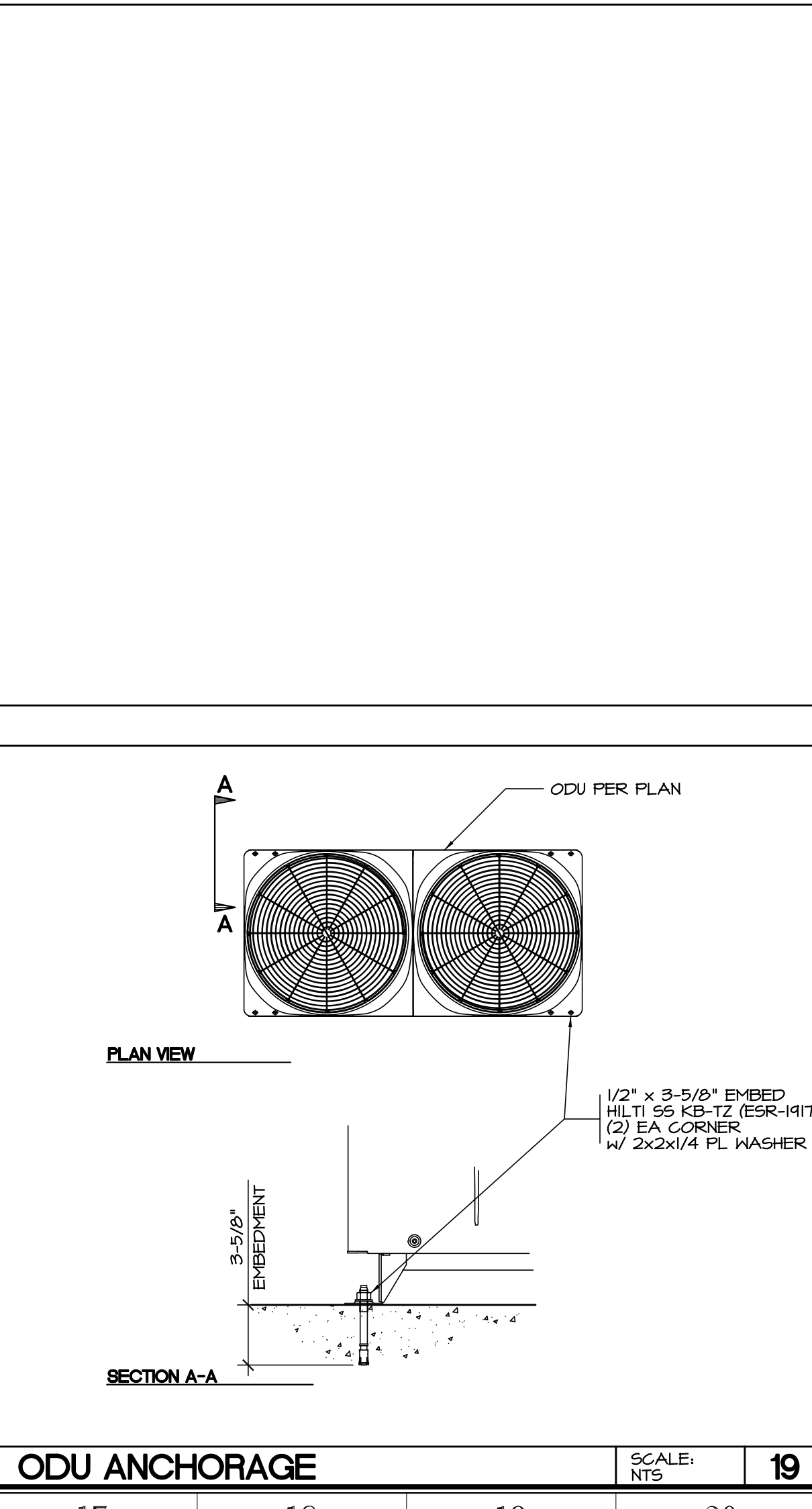
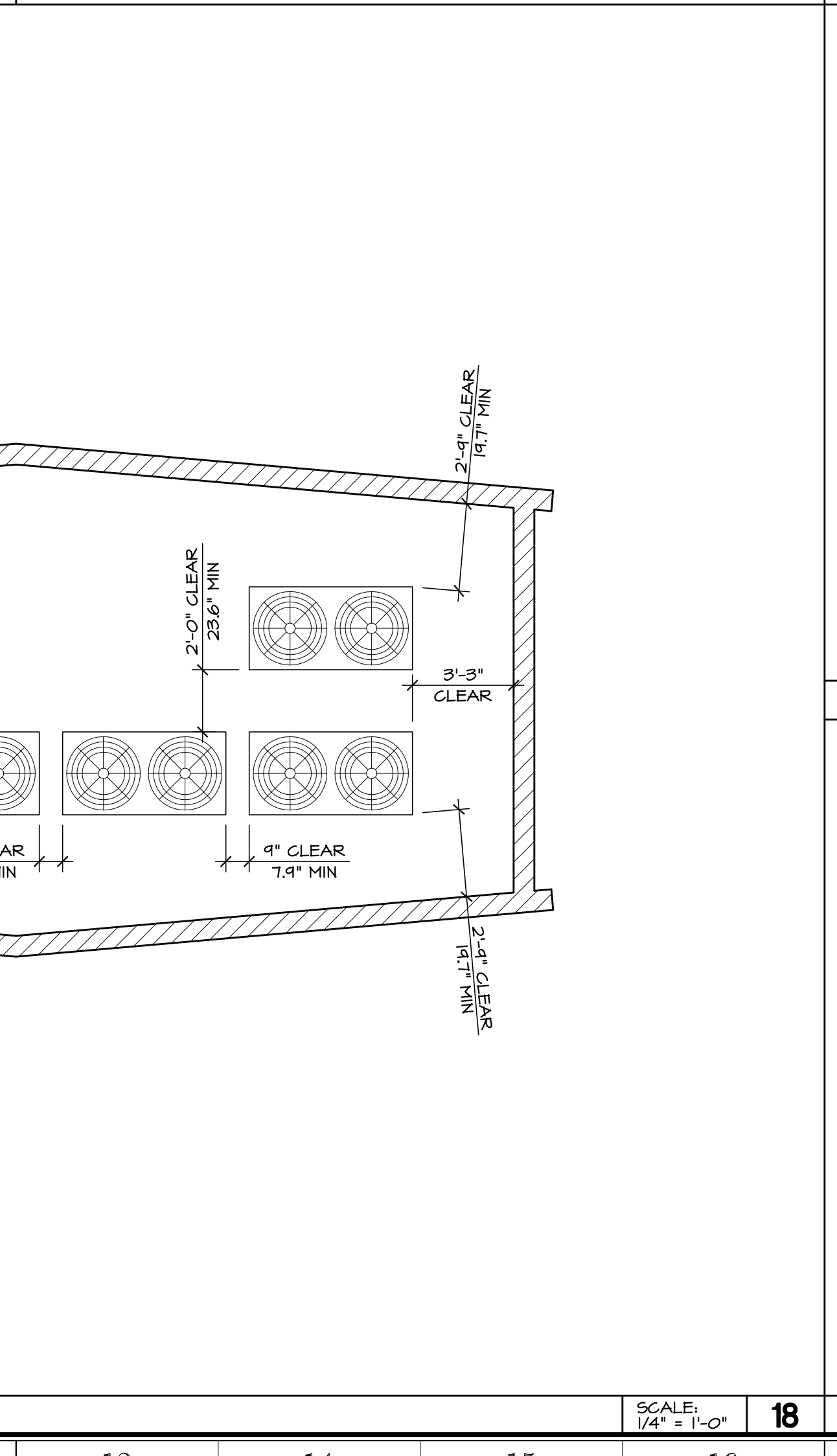
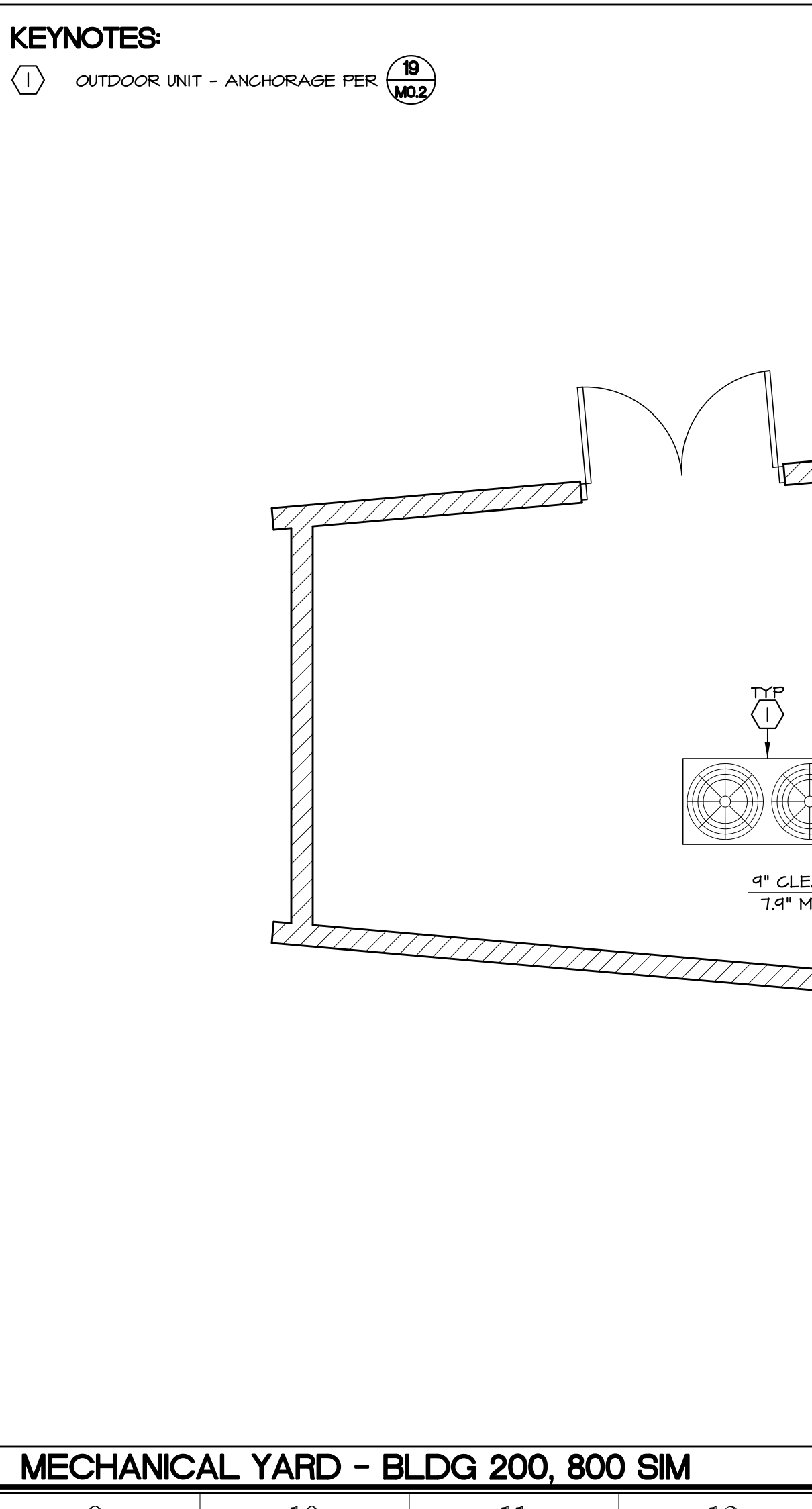
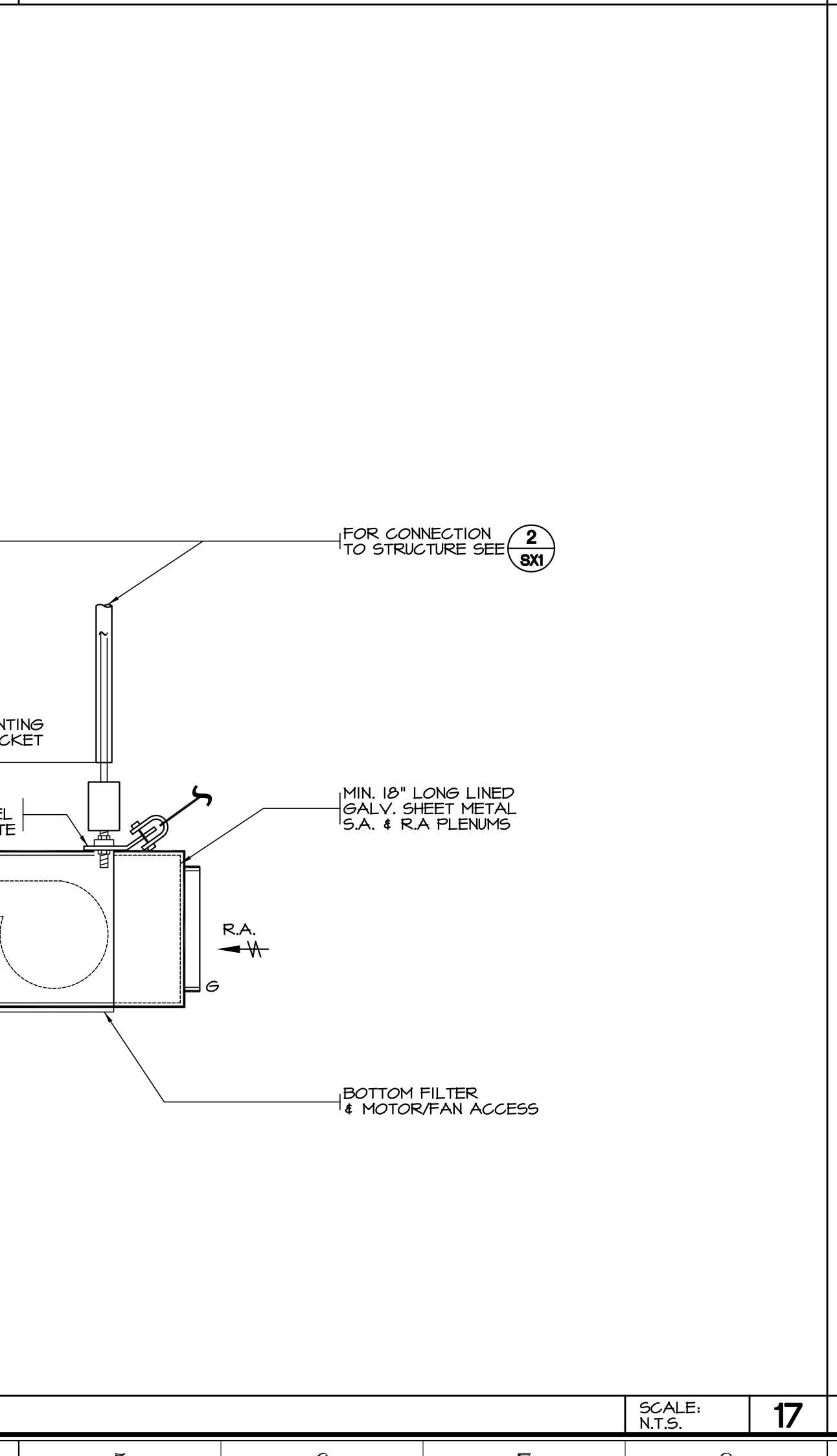
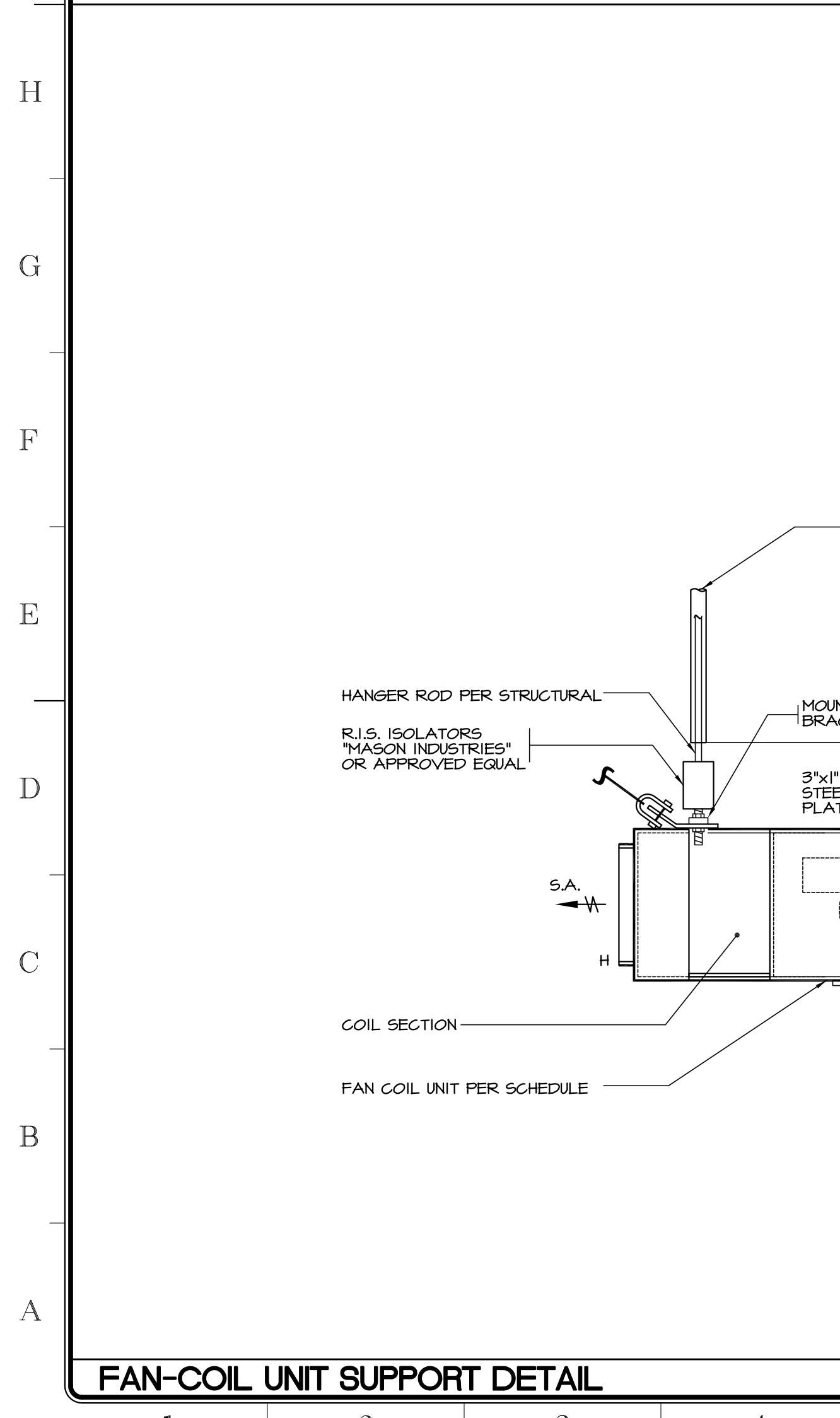
Document Date
10-18-19

Date Last Revised

Project Number
19-121V

Sheet Number
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LICENSED ARCHITECT
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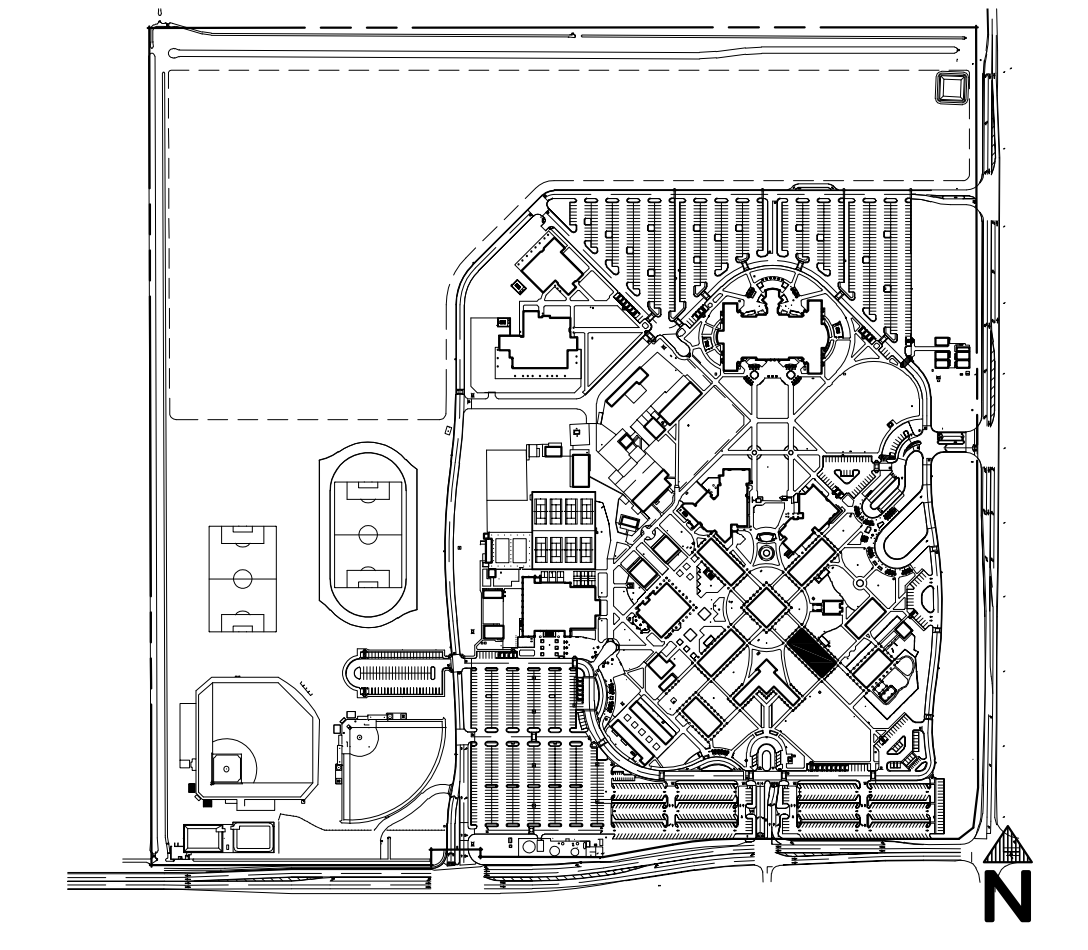
Sheet Number
MO.2

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KEY PLAN - BLDG 200

KEYNOTES:

- ① ROOFTOP ENERGY RECOVERY VENTILATOR (ERV) & FAN COIL UNIT ON ROOF w/ FULL SIZE S.A. AND R.A. DUCT DROPS LINED w/ 1" THICK ACOUSTIC MATERIAL INTO CEILING SPACE - SEE DETAIL 1 & 2
- ② FAN COIL UNIT IN CEILING SPACE - SEE DETAIL 17
- ③ EXHAUST DUCT U.T.R. w/ T-TOP (SIZE NOTED)
- ④ T-STAT OR REMOTE TEMP. SENSOR ON HALL @ +48" A.F.F. - SEE 10
- ⑤ INSTALL R.A.G. (MARK "9") ON BOTTOM OF R.A. FLENUM
- ⑥ 8" U.T.R. w/ T-TOP
- ⑦ CEILING DIFFUSER - SEE DETAIL 3
- ⑧ R.A.G. - SEE DETAIL 7
- ⑨ UNDERCUT (U.C.) DOOR
- ⑩ PROVIDE SMOKE DETECTION TO SHUT DOWN A.C. UNIT INDOOR AIR FANS UPON DETECTION - SEE FIRE ALARM DRAWINGS

LEGEND:

1-HR STORAGE ROOM SEPARATION

NOTES:

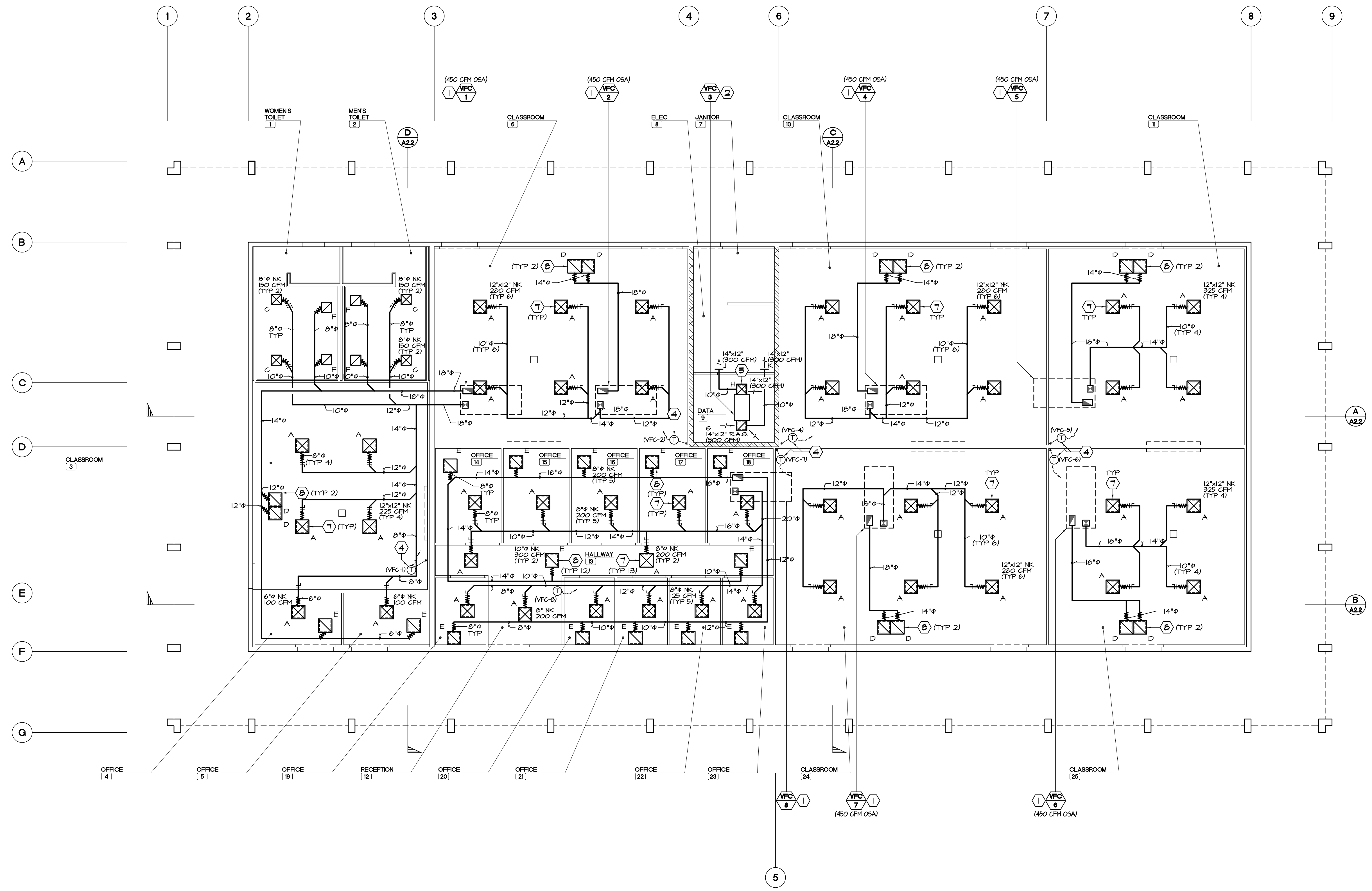
- 1. SEE 3 FOR TYPICAL DUCT DETAILS
- 2. UNIT LOCATIONS ARE APPROXIMATE SEE ARCHITECTURAL SHEET A6 FOR EXACT MECH. EQUIPMENT LOCATIONS

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Project Title
**IMPERIAL VALLEY COLLEGE
 BUILDING 200, 300 AND 800 MODERNIZATION**

Sheet Title
HVAC PLAN

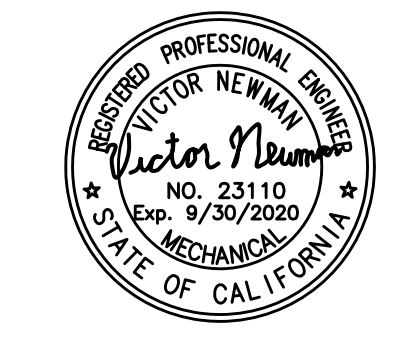
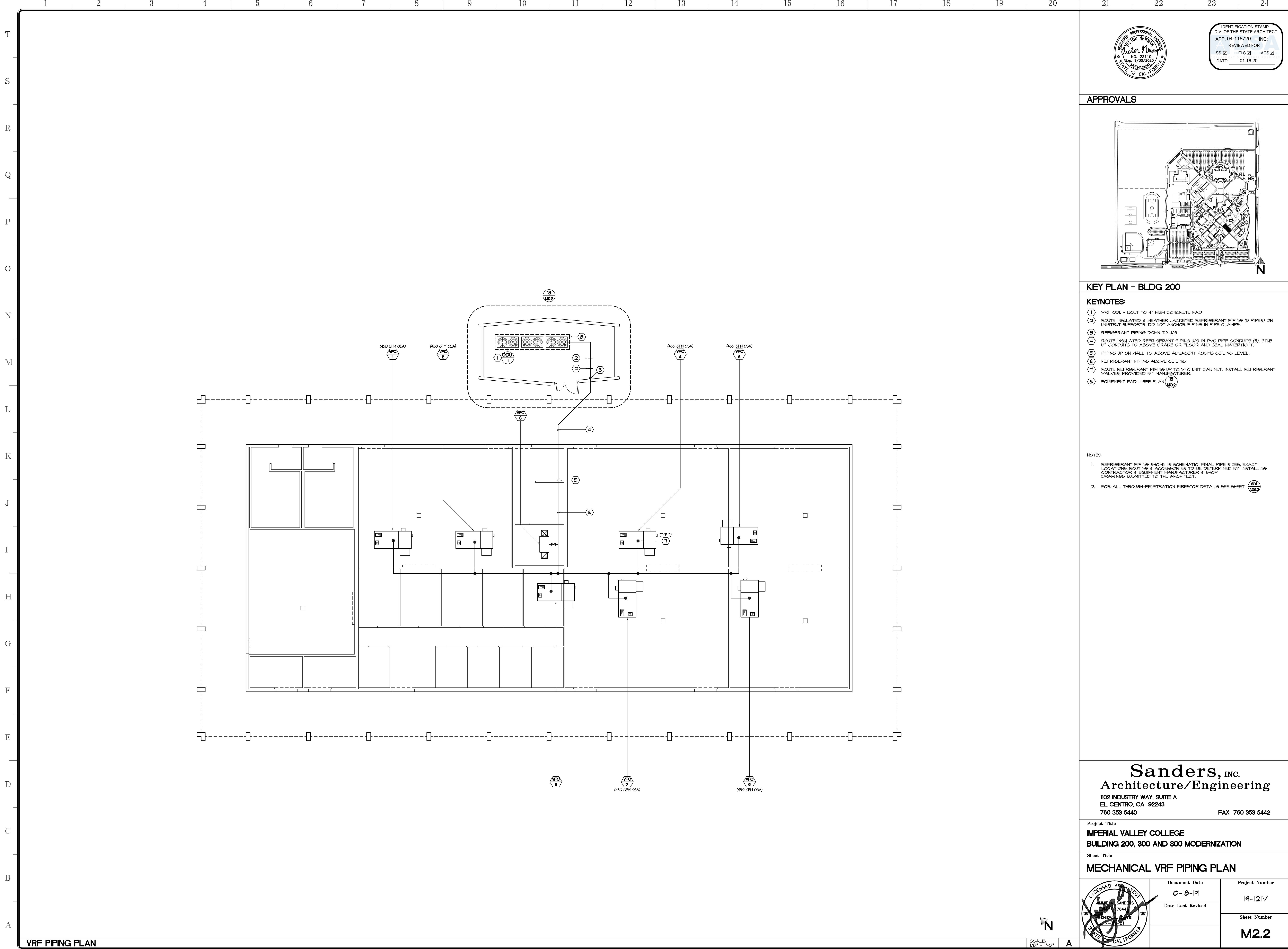
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	Date Last Revised		Sheet Number	M2.1



HVAC PLAN

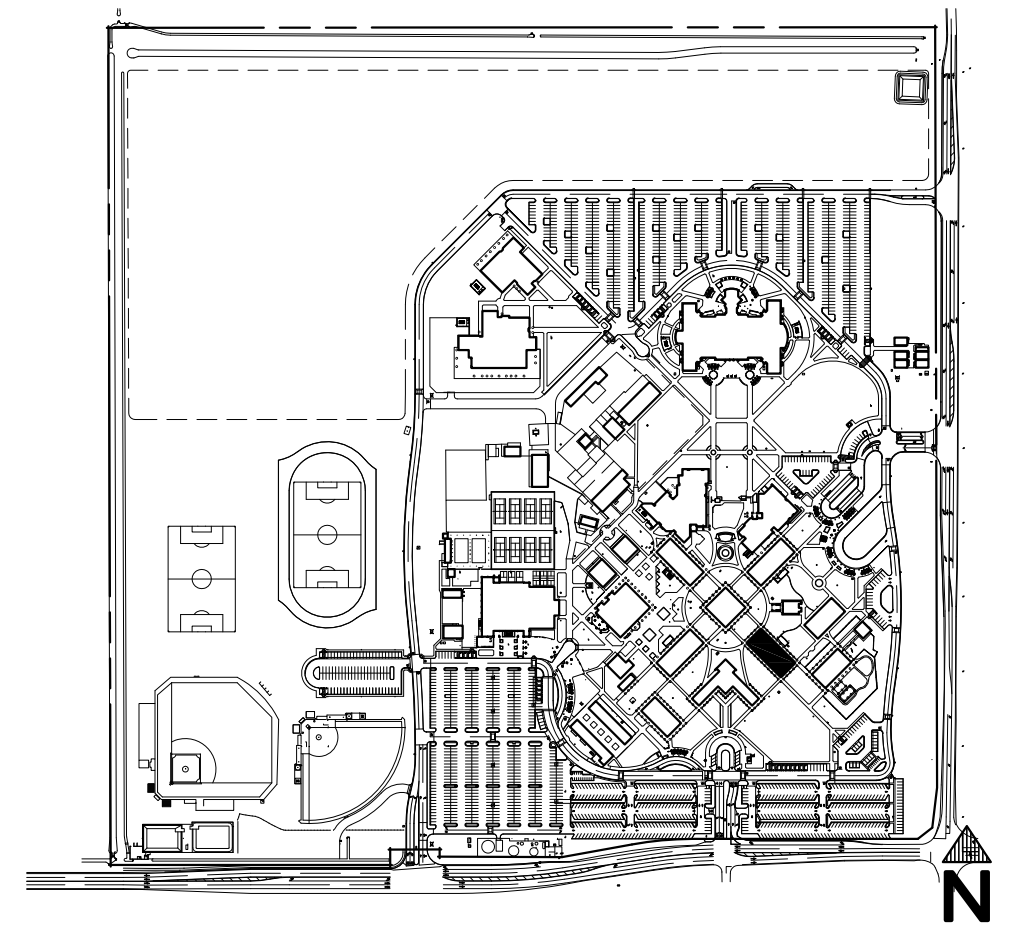
SCALE: 1/8" = 1'-0"





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KEY PLAN - BLDG 200

KEYNOTES:

- ① VRF COU - BOLT TO 4" HIGH CONCRETE PAD
- ② ROUTE INSULATED & WEATHER JACKETED REFRIGERANT PIPING (3 PIPES) ON UNISTRUT SUPPORTS. DO NOT ANCHOR PIPING IN PIPE CLAMPS.
- ③ REFRIGERANT PIPING DOWN TO U/G
- ④ ROUTE INSULATED REFRIGERANT PIPING U/G IN PVC PIPE CONDUITS (3). STUB UP CONDUITS TO ABOVE GRADE OR FLOOR AND SEAL WATER TIGHT.
- ⑤ PIPING UP ON HALL TO ABOVE ADJACENT ROOMS CEILING LEVEL.
- ⑥ REFRIGERANT PIPING ABOVE CEILING
- ⑦ ROUTE REFRIGERANT PIPING UP TO VFC UNIT CABINET. INSTALL REFRIGERANT VALVES, PROVIDED BY MANUFACTURER.
- ⑧ EQUIPMENT PAD - SEE PLAN **M2.2**

NOTES:

- 1. REFRIGERANT PIPING SHOWN IS SCHEMATIC. FINAL PIPE SIZES, EXACT LOCATIONS, ROUTING & ACCESSORIES TO BE DETERMINED BY INSTALLING CONTRACTOR & EQUIPMENT MANUFACTURER & SHOP DRAWINGS SUBMITTED TO THE ARCHITECT.
- 2. FOR ALL THROUGH-PENETRATION FIRESTOP DETAILS SEE SHEET **01-AX53**

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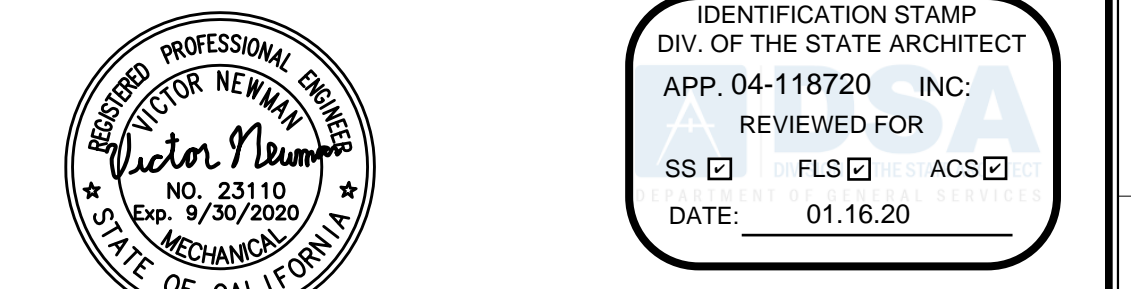
Project Title
**IMPERIAL VALLEY COLLEGE
 BUILDING 200, 300 AND 800 MODERNIZATION**

Sheet Title
MECHANICAL VRF PIPING PLAN

	Document Date	Project Number
	Date Last Revised	Sheet Number
	10-18-19	19-121V
		M2.2

VRF PIPING PLAN

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



Project Name: IVC Career Tech Building 200		NRCC-PRF-01-E Page 1 of 22	
Project Address: 380 East Aten Road Imperial 92251		Calculation Date/Time: 16:53, Fri, Oct 18, 2019	
Compliance Scope: Existing/Alteration		Input File Name: IVC_Building_200_Mod.cbd16x	

C. PROJECT GENERAL INFORMATION

1. Project Location (city)	Imperial	8. Standards Version	Compliance2016
2. CA Zip Code	92251	9. Compliance Software (version)	EnergyPro 7.2
3. Climate Zone	15	10. Weather File	IMPERIAL_747185_CZ2010.epw
4. Total Conditioned Floor Area in Scope	7,206 R ²	11. Building Orientation (deg)	(N) 45 deg
5. Total Unconditioned Floor Area	0 R ²	12. Permitted Scope of Work	Existing/Alteration
6. Total # of Stories (Habitable Above Grade)	1	13. Building Type(s)	Nonresidential
7. Total # of dwelling units	0	14. Gas Type	NaturalGas

D. COMPLIANCE RESULTS FOR PERFORMANCE COMPONENTS (Annual TDV Energy Use, kWh/ft²-yr)

§ 140.1				
BUILDING COMPLIES				
1. Energy Component	2. Standard Design (TDV)	3. Proposed Design (TDV)	4. Compliance Margin (TDV)	5. Percent Better than Standard
Space Heating	3.21	3.39	-0.18	-5.6%
Space Cooling	265.28	217.55	47.73	18.0%
Indoor Fans	161.38	91.22	70.16	43.5%
Heat Rejection	--	--	--	--
Pumps & Misc.	--	--	--	--
Domestic Hot Water	7.49	25.49	-18.00	-240.3%
Indoor Lighting	54.24	54.24	--	0.0%
COMPLIANCE TOTAL	491.60	391.89	99.71	20.3%
Receptacle	175.32	175.32	0.00	0.0%
Process	65.51	65.51	0.00	0.0%
Other Ltg.	--	--	--	--
Process Motors	--	--	--	--
TOTAL	732.43	632.72	99.7	13.6%

CA Building Energy Efficiency Standards- 2016 Nonresidential Compliance Report Version: NRCC-PRF-01-E-06262019-5583 Report Generated at: 2019-10-18 13:51:43

Project Name: IVC Career Tech Building 200		NRCC-PRF-01-E Page 2 of 22	
Project Address: 380 East Aten Road Imperial 92251		Calculation Date/Time: 16:53, Fri, Oct 18, 2019	
Compliance Scope: Existing/Alteration		Input File Name: IVC_Building_200_Mod.cbd16x	

C. PRIORITY PLAN CHECK/ INSPECTION ITEMS (in order of highest to lowest TDV energy savings)

1st	Indoor Fans: Check envelope and mechanical	<p>Compliance Margin by Energy Component (from Table B column 4)</p>
2nd	Space Cooling: Check envelope and mechanical	
3rd	Heat Rejection: Check envelope and mechanical	
4th	Pumps & Misc.: Check mechanical	
5th	Indoor Lighting: Check lighting	
6th	Space Heating: Check envelope and mechanical	
7th	Domestic Hot Water: Check mechanical	

D. EXCEPTIONAL CONDITIONS

This project uses the Simplified Geometry Performance Modeling Approach which is not capable of modeling daylighting controls and assumes the prescriptive Secondary Daylight Control requirements are met. PRESCRIPTIVE COMPLIANCE documentation form NRCC-LTI-02-E for the requirements of section 140.6(6) Automatic Daylighting Controls in Secondary Daylit Zones is required. This project includes Domestic Hot Water in the analysis. Please verify that Domestic Hot Water is included in the design for the permitted scope of work.

E. HERS VERIFICATION

This Section Does Not Apply

F. ADDITIONAL REMARKS

None Provided

CA Building Energy Efficiency Standards- 2016 Nonresidential Compliance Report Version: NRCC-PRF-01-E-06262019-5583 Report Generated at: 2019-10-18 13:51:43

Project Name: IVC Career Tech Building 200		NRCC-PRF-01-E Page 3 of 22	
Project Address: 380 East Aten Road Imperial 92251		Calculation Date/Time: 16:53, Fri, Oct 18, 2019	
Compliance Scope: Existing/Alteration		Input File Name: IVC_Building_200_Mod.cbd16x	

G. COMPLIANCE PATH & CERTIFICATE OF COMPLIANCE SUMMARY

Identify which building components use the performance or prescriptive path for compliance. "NA" = not in project. For components that utilize the performance path, indicate the sheet number that includes mandatory notes on plans.

Building Component	Compliance Path	Compliance Forms (required for submittal)	Location of Mandatory Notes on Plans
Envelope	<input checked="" type="checkbox"/> Performance	NRCC-ENV-01/02/03/04/05/06-E	
	<input checked="" type="checkbox"/> Prescriptive	NRCC-ENV-01/02/03/04/05/06-E	
	<input type="checkbox"/> NA		
Mechanical	<input checked="" type="checkbox"/> Performance	NRCC-PRF-MCH-DETAILS (section of the NRCC-PRF-01-E)	
	<input checked="" type="checkbox"/> Prescriptive	NRCC-MCH-01/02/03/04/05/06/07-E	
	<input type="checkbox"/> NA		
Domestic Hot Water	<input checked="" type="checkbox"/> Performance	NRCC-PRF-FLB-DETAILS (section of the NRCC-PRF-01-E)	
	<input checked="" type="checkbox"/> Prescriptive	NRCC-FLB-01-E	
	<input type="checkbox"/> NA		
Lighting (Indoor Conditioned)	<input checked="" type="checkbox"/> Performance	NRCC-PRF-LTI-DETAILS (section of the NRCC-PRF-01-E)	
	<input checked="" type="checkbox"/> Prescriptive	NRCC-LTI-01/02/03/04/05-E	
	<input type="checkbox"/> NA		
Covered Process: Commercial Kitchens	<input checked="" type="checkbox"/> Performance	S2 (section of the NRCC-PRF-01-E)	
	<input checked="" type="checkbox"/> Prescriptive	NRCC-PRC-01/03-E	
	<input type="checkbox"/> NA		
Covered Process: Computer Rooms	<input checked="" type="checkbox"/> Performance	S3 (section of the NRCC-PRF-01-E)	
	<input checked="" type="checkbox"/> Prescriptive	NRCC-PRC-01/04-E	
	<input type="checkbox"/> NA		
Covered Process: Laboratory Exhaust	<input checked="" type="checkbox"/> Performance	S4 (section of the NRCC-PRF-01-E)	
	<input checked="" type="checkbox"/> Prescriptive	NRCC-PRC-01/09-E	
	<input type="checkbox"/> NA		

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Project Name: IVC Career Tech Building 200		NRCC-PRF-01-E Page 4 of 22	
Project Address: 380 East Aten Road Imperial 92251		Calculation Date/Time: 16:53, Fri, Oct 18, 2019	
Compliance Scope: Existing/Alteration		Input File Name: IVC_Building_200_Mod.cbd16x	

H. CERTIFICATE OF INSTALLATION, CERTIFICATE OF ACCEPTANCE & CERTIFICATE OF VERIFICATION SUMMARY (NRCC/NRCA/NRVC) -

The following building components are only eligible for prescriptive compliance. Indicate which are relevant to the project.

Yes	NA	Prescriptive Requirement	Compliance Forms	Yes	NA	Mandatory Requirement	Compliance Forms
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Lighting (Indoor Unconditioned) §140.6	NRCC-LTI-01/02/03/04/05-E	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Commissioning §120.8	NRCC-CR-01/02/03/05-E
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Lighting (Outdoor) §140.7	NRCC-LTO-01/02/03-E	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Simple Systems	NRCC-CR-01/02/03/05-E
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Lighting (Sign) §140.8	NRCC-LTS-01-E	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Complex Systems	NRCC-CR-01/02/03/05-E
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Solar Thermal Water Heating §140.5	NRCC-STH-01-E	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Electrical §120.5	NRCC-ECC-01-E
<input type="checkbox"/>	<input checked="" type="checkbox"/>			<input type="checkbox"/>	<input checked="" type="checkbox"/>	Solar Ready §110.10	NRCC-SRA-01/02-E
<input type="checkbox"/>	<input checked="" type="checkbox"/>			<input type="checkbox"/>	<input checked="" type="checkbox"/>	Covered Process §120.6	NRCC-PRC-01-E
<input type="checkbox"/>	<input checked="" type="checkbox"/>			<input type="checkbox"/>	<input checked="" type="checkbox"/>	Parking Garage	NRCC-PRC-02-E
<input type="checkbox"/>	<input checked="" type="checkbox"/>			<input type="checkbox"/>	<input checked="" type="checkbox"/>	Commercial Refrigeration	NRCC-PRC-05-E
<input type="checkbox"/>	<input checked="" type="checkbox"/>			<input type="checkbox"/>	<input checked="" type="checkbox"/>	Warehouse Refrigeration	NRCC-PRC-06/07/08-E
<input type="checkbox"/>	<input checked="" type="checkbox"/>			<input type="checkbox"/>	<input checked="" type="checkbox"/>	Compressed Air	NRCC-PRC-10-E
<input type="checkbox"/>	<input checked="" type="checkbox"/>			<input type="checkbox"/>	<input checked="" type="checkbox"/>	Process Boilers	NRCC-PRC-11-E

CA Building Energy Efficiency Standards- 2016 Nonresidential Compliance Report Version: NRCC-PRF-01-E-06262019-5583 Report Generated at: 2019-10-18 13:51:43

Project Name: IVC Career Tech Building 200		NRCC-PRF-01-E Page 5 of 22	
Project Address: 380 East Aten Road Imperial 92251		Calculation Date/Time: 16:53, Fri, Oct 18, 2019	
Compliance Scope: Existing/Alteration		Input File Name: IVC_Building_200_Mod.cbd16x	

I. CERTIFICATE OF INSTALLATION, CERTIFICATE OF ACCEPTANCE & CERTIFICATE OF VERIFICATION SUMMARY (NRCC/NRCA/NRVC) -

Documentation Author to indicate which Certificates must be submitted for the features to be recognized for compliance (Retain copies and verify forms are completed and signed to post in field for Field Inspector to verify). See Tables G and H in MCH and LTI Details Sections for Acceptance Tests and forms by equipment.

Building Component	Compliance Forms (required for submittal)	Pass	Fail
Envelope	<input checked="" type="checkbox"/> NRCC-ENV-01-E - For all buildings	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/> NRCC-ENV-02-F: NRCC label verification for fenestration	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/> NRCC-MCH-01-E - For all buildings with Mechanical Systems	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/> NRCC-MCH-02-A- Outdoor Air	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/> NRCC-MCH-03-A - Constant Volume Single Zone HVAC	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/> NRCC-MCH-04-H- Air Distribution Duct Leakage	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/> NRCC-MCH-05-A- Air Economizer Controls	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/> NRCC-MCH-06-A- Demand Control Ventilation	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/> NRCC-MCH-07-A - Supply Fan Variable Flow Controls	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/> NRCC-MCH-08-A- Valve Leakage Test	<input type="checkbox"/>	<input type="checkbox"/>
Mechanical	<input checked="" type="checkbox"/> NRCC-MCH-09-A - Supply Water Temp Reset Controls	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/> NRCC-MCH-10-A- Hydronic System Variable Flow Controls	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/> NRCC-MCH-11-A - Auto Demand Shed Controls	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/> NRCC-MCH-12-A- Packaged Direct Expansion Units	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/> NRCC-MCH-13-A- Air Handling Units and Zone Terminal Units	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/> NRCC-MCH-14-A- Distributed Energy Storage	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/> NRCC-MCH-15-A - Thermal Energy Storage	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/> NRCC-MCH-16-A- Supply Air Temp Reset Controls	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/> NRCC-MCH-17-A- Condensate Water Temp Reset Controls	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/> NRCC-MCH-18-A- Energy Management Controls Systems	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> NRCC-MCH-04-H- Duct Leakage Test	<input type="checkbox"/>	<input type="checkbox"/>	

CA Building Energy Efficiency Standards- 2016 Nonresidential Compliance Report Version: NRCC-PRF-01-E-06262019-5583 Report Generated at: 2019-10-18 13:51:43

Project Name: IVC Career Tech Building 200		NRCC-PRF-01-E Page 6 of 22	
Project Address: 380 East Aten Road Imperial 92251		Calculation Date/Time: 16:53, Fri, Oct 18, 2019	
Compliance Scope: Existing/Alteration		Input File Name: IVC_Building_200_Mod.cbd16x	

J. CERTIFICATE OF INSTALLATION, CERTIFICATE OF ACCEPTANCE & CERTIFICATE OF VERIFICATION SUMMARY (NRCC/NRCA/NRVC) -

Documentation Author to indicate which Certificates must be submitted for the features to be recognized for compliance (Retain copies and verify forms are completed and signed to post in field for Field Inspector to verify). See Tables G and H in MCH and LTI Details Sections for Acceptance Tests and forms by equipment.

Building Component	Compliance Forms (required for submittal)	Pass	Fail
Plumbing	<input checked="" type="checkbox"/> NRCC-PLB-01-E - For all buildings with Plumbing Systems	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/> NRCC-PLB-02-E - required on central systems in high-rise residential, hotel/motel application.	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/> NRCC-PLB-03-E - Single dwelling unit systems in high-rise residential, hotel/motel application.	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/> NRCC-PLB-21-E - HERS verified central systems in high-rise residential, hotel/motel application.	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/> NRCC-PLB-22-E - HERS verified single dwelling unit systems in high-rise residential, hotel/motel application.	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/> NRCC-PLB-23-H- HERS verified central systems in high-rise residential, hotel/motel application.	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/> NRCC-PLB-23-H- HERS verified single dwelling unit systems in high-rise residential, hotel/motel application.	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/> NRCC-STH-01-E - Any solar water heating	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/> NRCC-LTI-01-E - For all buildings	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/> NRCC-LTI-02-E - Lighting control system, or for an Energy Management Control System (EMCS)	<input type="checkbox"/>	<input type="checkbox"/>
Indoor Lighting	<input checked="" type="checkbox"/> NRCC-LTI-03-E - Line-voltage track lighting integral current limiter, or for a supplementary overcurrent protection panel used to energize only line-voltage track lighting	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/> NRCC-LTI-04-E - Two interlocked systems serving an auditorium, a convention center, a conference room, or a theater	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/> NRCC-LTI-05-E - Lighting Control Credit Power Adjustment Factor (PACF)	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/> NRCC-LTI-06-F - Additional outage installed in a video conferencing studio	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/> NRCC-LTI-02-A - Occupancy sensors and automatic time switch controls	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/> NRCC-LTI-03-A - Automatic daylighting controls	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/> NRCC-LTI-04-A - Demand responsive lighting controls	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/> NRCC-LTI-01-E - Outdoor Lighting	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/> NRCC-LTI-02-E - EMCS Lighting Control System	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/> NRCC-LTI-02-A - Outdoor Lighting Control	<input type="checkbox"/>	<input type="checkbox"/>
Sign Lighting	<input checked="" type="checkbox"/> NRCC-LTS-01-E - Sign Lighting	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/> NRCC-ELC-01-E - Electrical Power Distribution	<input type="checkbox"/>	<input type="checkbox"/>
Electrical	<input checked="" type="checkbox"/> NRCC-SPV-01-E Photovoltaic Systems	<input type="checkbox"/>	<input type="checkbox"/>

CA Building Energy Efficiency Standards- 2016 Nonresidential Compliance Report Version: NRCC-PRF-01-E-06262019-5583 Report Generated at: 2019-10-18 13:51:43

Project Name: IVC Career Tech Building 200		NRCC-PRF-01-E Page 7 of 22	
Project Address: 380 East Aten Road Imperial 92251		Calculation Date/Time: 16:53, Fri, Oct 18, 2019	
Compliance Scope: Existing/Alteration		Input File Name: IVC_Building_200_Mod.cbd16x	

K. CERTIFICATE OF INSTALLATION, CERTIFICATE OF ACCEPTANCE & CERTIFICATE OF VERIFICATION SUMMARY (NRCC/NRCA/NRVC) -

Documentation Author to indicate which Certificates must be submitted for the features to be recognized for compliance (Retain copies and verify forms are completed and signed to post in field for Field Inspector to verify). See Tables G and H in MCH and LTI Details Sections for Acceptance Tests and forms by equipment.

Building Component	Compliance Forms (required for submittal)	Pass	Fail
Covered Process	<input checked="" type="checkbox"/> NRCC-PRC-01-E Covered Processes	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/> NRCC-PRC-01-F- Compressed Air Systems	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/> NRCC-PRC-02-F- Kitchen Exhaust	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/> NRCC-PRC-03-F- Garage Exhaust	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/> NRCC-PRC-04-F- Refrigerated Warehouse- Evaporator Fan Motor Controls	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/> NRCC-PRC-05-F- Refrigerated Warehouse- Evaporator Condenser Controls	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/> NRCC-PRC-06-F- Refrigerated Warehouse- Air Cooled Condenser Controls	<input type="checkbox"/>	<input type="checkbox"/>
	<input checked="" type="checkbox"/> NRCC-PRC-07-F- Refrigerated Warehouse- Variable Speed Compressor	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> NRCC-PRC-08-F- Electrical Resistance Underlaid Heating System	<input type="checkbox"/>	<input type="checkbox"/>	

L. ENVELOPE GENERAL INFORMATION (See NRCC-PRF-ENV-DETAILS for more information)

Confirmed				
1.	2.	3.	4.	5.
Total Conditioned Floor Area	7,206 R ²	6.	Number of Floors Above Grade	1
North Wall	1,612 R ²	7.	Number of Floors Below Grade	0
East Wall	1,008 R ²	8.	Window to Wall Ratio	0.11
South Wall	838 R ²	9.	Window to Wall Ratio	0.11
West Wall	1,136 R ²	10.	Window to Wall Ratio	0.11
Total	4,594 R ²	11.	Window to Wall Ratio	0.11
Roof	7,206 R ²	12.	Window to Wall Ratio	0.11

CA Building Energy Efficiency Standards- 2016 Nonresidential Compliance Report Version: NRCC-PRF-01-E-06262019-5583 Report Generated at: 2019-10-18 13:51:43

Project Name: IVC Career Tech Building 200		NRCC-PRF-01-E Page 8 of 22	
Project Address: 380 East Aten Road Imperial 92251		Calculation Date/Time: 16:53, Fri, Oct 18, 2019	
Compliance Scope: Existing/Alteration		Input File Name: IVC_Building_200_Mod.cbd16x	

M. FENESTRATION ASSEMBLY SUMMARY

§ 110.6										
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
Fenestration Assembly Name / Tag or I.D.	Fenestration Type / Product / Frame Type	Certification Method ¹	Assembly Method	Area ft ²	Overall U-Factor	Overall SHGC	Overall VT	Overall g-Value	Overall Solar Heat Gain Coefficient	Confirmed
Skiatobe	Skiatobe FixedWindow NonMetalFraming	Default Performance	Manufactured	78	0.84	0.67	1.00	N	<input type="checkbox"/>	<input type="checkbox"/>
PPG SOLARBAN 70X (2) + Clear	VerticalFenestration FixedWindow NA	NRFC Rated	SiteBuilt	390	0.26	0.24	0.90	N	<input type="checkbox"/>	<input type="checkbox"/>

¹ Newly installed fenestration shall have a certified NRFC Label Certificate or use the U-Factor values found in Table 210B.4 and Table 210B.6. Center of Glass (COG) values are for the glass only, determined by the manufacturer, and are shown for ease of verification. See fenestration values are calculated per Nonresidential Appendix NA and are used in the analysis.

² Status: N - New; A - Altered; E - Existing

N. OPAQUE SURFACE ASSEMBLY SUMMARY

§ 120.7 / § 140.3										
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
Surface Name	Surface Type	Area (R ²)	Framing Type	Cavity R-Value	Continuous R-Value	U-Factor / F-Factor / U-Factor	Overall SHGC	Overall VT	Overall g-Value	Confirmed
8 CMU Wall w/RTSurrng6g	ExteriorWall	4138	NA	0	NA	U-Factor: 0.279				<input type="checkbox"/>
Existing Roof w/A Spray8	Roof	7206	Metal	11	NA	U-Factor: 0.109				<input type="checkbox"/>
R-13 Wall82	ExteriorWall	456	Wood	13	NA	U-Factor: 0.102				<input type="checkbox"/>
Slab On Grade15	UndergroundFloor	7206	NA	0	NA	F-Factor: 0.730				<input type="checkbox"/>

¹ Status: N - New; A - Altered; E - Existing

O. ROOFING PRODUCT SUMMARY

§ 140.3										
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
Product Type	Product Density (lb/ft ²)	Aged Solar Reflectance	Thermal Emittance	SHI	Cool Roof Credit	Roofing Product Description	Area	Weight	Volume	Confirmed
Existing Roof w/A Spray8	4.106	0.08	0.75	NA	No	NA				<input type="checkbox"/>

CA Building Energy Efficiency Standards- 2016 Nonresidential Compliance Report Version: NRCC-PRF-01-E-06262019-5583 Report Generated at: 2019-10-18 13:51:43

Project Name: IVC Career Tech Building	
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Project Name:	IVC Career Tech Building 200	NRCC-PRF-01-E	Page 10 of 22
Project Address:	380 East Aten Road Imperial 92251	Calculation Date/Time:	16:51, Fri, Oct 18, 2019
Compliance Scope:	Existing/Alteration	Input File Name:	IVC Building 200 Mod.cbd16x

Wet System Equipment ¹													Pumps		Confirmed					
Equip Name	Equip Type	Qty	Vol (gal)	Rated Capacity (lbu/h)	17.	18.	19.	20.	21.	22.	23.	24.	18	19	20	21	22	23	24	
RHEEM EGS102	Storage	1	30.00	10	EF: 0.93	SBLF: NA	NA	NA	NA	NA	NA	NA								

¹ Wet System Equipment includes boilers, chillers, cooling towers, water heaters, etc.
² State of New York - Approved - Existing

Discrepancy between modeled and designed equipment sizing? (If "Yes", see Table F "Additional Remarks" for an explanation) No

N. ECONOMIZER & FAN SYSTEMS SUMMARY ¹													§ 140.4		Confirmed								
Equip Name	Outside Air				Supply Fan				Return Fan				Economizer Type (if present)	18	19	20	21	22	23	24			
	CFM	CFM	HP	BHP	TSP (Inch WC)	Control	CFM	HP	BHP	TSP (Inch WC)	Control												
Classroom 3 Office Toll	559	1700	1.000	1.000	1.87	ConstantVolume	NA	NA	NA	NA	NA	NA	NoEconomizer										
Classroom 6 VFC-2	408	1700	1.000	1.000	1.87	ConstantVolume	NA	NA	NA	NA	NA	NA	NoEconomizer										
Electrical/Data VFC-3	52	600	0.120	0.120	0.63	ConstantVolume	NA	NA	NA	NA	NA	NA	NoEconomizer										
Classroom 10 VFC-4	429	1700	1.000	1.000	1.87	ConstantVolume	NA	NA	NA	NA	NA	NA	NoEconomizer										
Classroom 11 VFC-5	315	1350	1.000	1.000	2.35	ConstantVolume	NA	NA	NA	NA	NA	NA	NoEconomizer										
Classroom 25 VFC-6	315	1350	1.000	1.000	2.35	ConstantVolume	NA	NA	NA	NA	NA	NA	NoEconomizer										
Offices/Reception VFC-8	218	2300	1.000	1.000	1.66	ConstantVolume	NA	NA	NA	NA	NA	NA	NoEconomizer										

² Mechanical ventilation calculations and exhaust fans are included in the NRCC-PRF-MCH-DETAILS section

CA Building Energy Efficiency Standards- 2016 Nonresidential Compliance Report Version: NRCC-PRF-01-E-06262019-5583 Report Generated at: 2019-10-18 13:51:43

Project Name:	IVC Career Tech Building 200	NRCC-PRF-01-E	Page 11 of 22
Project Address:	380 East Aten Road Imperial 92251	Calculation Date/Time:	16:51, Fri, Oct 18, 2019
Compliance Scope:	Existing/Alteration	Input File Name:	IVC Building 200 Mod.cbd16x

O. EQUIPMENT CONTROLS													§ 120.2		Confirmed								
Equip Name	Equip Type	1.	2.	3.	18	19	20	21	22	23	24	18	19	20	21	22	23	24					
Classroom 3 Office Toll	SZHP			No DCV Controls No Economizer No Supply Air Temp. Control No Optimum Start No Evaporative Cooler No Heat Recovery																			
Classroom 6 VFC-2	SZHP			No DCV Controls No Economizer No Supply Air Temp. Control No Optimum Start No Evaporative Cooler No Heat Recovery																			
Electrical/Data VFC-3	SZHP			No DCV Controls No Economizer No Supply Air Temp. Control No Optimum Start No Evaporative Cooler No Heat Recovery																			
Classroom 10 VFC-4	SZHP			No DCV Controls No Economizer No Supply Air Temp. Control No Optimum Start No Evaporative Cooler No Heat Recovery																			
Classroom 11 VFC-5	SZHP			No DCV Controls No Economizer No Supply Air Temp. Control No Optimum Start No Evaporative Cooler No Heat Recovery																			
Classroom 25 VFC-6	SZHP			No DCV Controls No Economizer No Supply Air Temp. Control No Optimum Start No Evaporative Cooler No Heat Recovery																			

CA Building Energy Efficiency Standards- 2016 Nonresidential Compliance Report Version: NRCC-PRF-01-E-06262019-5583 Report Generated at: 2019-10-18 13:51:43

Project Name:	IVC Career Tech Building 200	NRCC-PRF-01-E	Page 12 of 22
Project Address:	380 East Aten Road Imperial 92251	Calculation Date/Time:	16:51, Fri, Oct 18, 2019
Compliance Scope:	Existing/Alteration	Input File Name:	IVC Building 200 Mod.cbd16x

P. SYSTEM DISTRIBUTION SUMMARY													§ 120.4 / § 140.4(1)		Confirmed									
Equip Name	Equip Type	1.	2.	3.	4.	Dry System Distribution		6.	18	19	20	21	22	23	24									
						Duct Leakage and Sealing Required per 140.4(1)	Duct Leakage will be verified per NA1 and NA2									Insulation R-Value	Location	Status ²						
Classroom 3 Office Toll	SZHP			No	No	8.0	Conditioned	N																
Classroom 6 VFC-2	SZHP			No	No	8.0	Conditioned	N																
Electrical/Data VFC-3	SZHP			No	No	8.0	Conditioned	N																
Classroom 10 VFC-4	SZHP			No	No	8.0	Conditioned	N																
Classroom 11 VFC-5	SZHP			No	No	8.0	Conditioned	N																
Classroom 25 VFC-6	SZHP			No	No	8.0	Conditioned	N																
Offices/Reception VFC-8	SZHP			No	No	8.0	Conditioned	N																

Does the Project Include Zonal Systems? (If "Yes", see NRCC-PRF-MCH-DETAILS for system information) No
 Does the Project Include a Solar Hot Water System? (If "Yes", see NRCC-PRF-MCH-DETAILS for system information) No
 Multifamily or Hotel/Motel Occupancy? (If "Yes", see NRCC-PRF-MCH-DETAILS for DHW system information) No

CA Building Energy Efficiency Standards- 2016 Nonresidential Compliance Report Version: NRCC-PRF-01-E-06262019-5583 Report Generated at: 2019-10-18 13:51:43

Project Name:	IVC Career Tech Building 200	NRCC-PRF-01-E	Page 13 of 22
Project Address:	380 East Aten Road Imperial 92251	Calculation Date/Time:	16:51, Fri, Oct 18, 2019
Compliance Scope:	Existing/Alteration	Input File Name:	IVC Building 200 Mod.cbd16x

Q. INDOOR CONDITIONED LIGHTING GENERAL INFO (see NRCC-PRF-LTI-DETAILS for more info) ¹													§ 140.6		Confirmed								
1.	2.	3.	4.	5.	18	19	20	21	22	23	24	18	19	20	21	22	23	24					
Occupancy Type ¹	Conditioned Floor Area ² (ft ²)	Installed Lighting Power (Watts)	Lighting Control Credits (Watts)	Additional (Custom) Allowance																			
Classrooms, Lecture, Training, Vocational Areas	5,408	6,489	0	0																			
Computer Rooms	347	278	0	0																			
Office (Greater than 250 square feet in floor area)	1,451	1,088	0	0																			
Building Totals:	7,206	7,855	0	0																			

¹ See Table 5.1.1
² See NRCC-LTI-02 for unconditioned spaces
³ Lighting information for existing spaces modeled is not included in the table

R. INDOOR CONDITIONED LIGHTING SCHEDULE (Adapted from NRCC-LTI-01-E)¹

This Section Does Not Apply

S1. COVERED PROCESS SUMMARY - ENCLOSED PARKING GARAGES § 140.9

This Section Does Not Apply

S2. COVERED PROCESS SUMMARY - COMMERCIAL KITCHENS § 140.9

This Section Does Not Apply

S3. COVERED PROCESS SUMMARY - COMPUTER ROOMS § 140.9

This Section Does Not Apply

S4. COVERED PROCESS SUMMARY - LABORATORY EXHAUSTS § 140.9

This Section Does Not Apply

CA Building Energy Efficiency Standards- 2016 Nonresidential Compliance Report Version: NRCC-PRF-01-E-06262019-5583 Report Generated at: 2019-10-18 13:51:43

Project Name:	IVC Career Tech Building 200	NRCC-PRF-01-E	Page 14 of 22
Project Address:	380 East Aten Road Imperial 92251	Calculation Date/Time:	16:51, Fri, Oct 18, 2019
Compliance Scope:	Existing/Alteration	Input File Name:	IVC Building 200 Mod.cbd16x

T. UNMET LOAD HOURS				
Thermal Zone Name	Cooling Unmet Load Hour Limit for Thermal Zone	Proposed Cooling Unmet Load Hours	Heating Unmet Load Hour Limit for Thermal Zone	Proposed Heating Unmet Load Hours
1-Classroom 3 Office Toll	150	68.5	150	0
3-Electrical/Data VFC-3	150	140.25	150	0

U. ENERGY USE SUMMARY						
Energy Component	Standard Design Site (MWh)	Proposed Design Site (MWh)	Margin (MWh)	Standard Design Site (MWh)	Proposed Design Site (MWh)	Margin (MWh)
Space Heating	1.4	1.4	0.0	13.5	13.5	0.0
Space Cooling	57.7	49.3	8.4	--	--	--
Indoor Fans	51.8	28.8	23.0	--	--	--
Heat Rejection	--	--	--	--	--	--
Pumps & Misc.	--	--	--	--	--	--
Domestic Hot Water	--	7.8	--	37.3	--	--
Indoor Lighting	16.3	16.3	0.0	--	--	--
COMPLIANCE TOTAL	125.8	103.6	22.2	50.8	0.0	--
Receptacle	58.1	58.1	0.0	--	--	--
Process	20.5	20.5	0.0	--	--	--
Other Ltg	--	--	--	--	--	--
Process Motors	--	--	--	--	--	--
TOTAL	204.4	182.2	22.2	50.8	0.0	--

CA Building Energy Efficiency Standards- 2016 Nonresidential Compliance Report Version: NRCC-PRF-01-E-06262019-5583 Report Generated at: 2019-10-18 13:51:43

Project Name:	IVC Career Tech Building 200	NRCC-PRF-01-E	Page 15 of 22
Project Address:	380 East Aten Road Imperial 92251	Calculation Date/Time:	16:51, Fri, Oct 18, 2019
Compliance Scope:	Existing/Alteration	Input File Name:	IVC Building 200 Mod.cbd16x

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT § 10-103

I certify that this Certificate of Compliance documentation is accurate and complete.
 Documentation Author Name: Nicholas T. Harinton
 Signature: *Nicholas T. Harinton*
 Address: 14425 Lakeshore Dr #1
 City/State/Zip: Grand Haven, MI 49417
 Phone: 616-368-8522

RESPONSIBLE PERSON'S DECLARATION STATEMENT

I certify the following under penalty of perjury, under the laws of the State of California:

1. I hereby affirm that I am eligible under the provisions of Division 3 of the Business and Professions Code to sign this document as the person responsible for its preparation; and that I am licensed in the State of California as a civil engineer, mechanical engineer, electrical engineer, or I am a licensed architect.
 2. I affirm that I am eligible under the provisions of Division 3 of the Business and Professions Code by section 5537.2 or 6737.3 to sign this document as the person responsible for its preparation; and that I am a licensed contractor performing this work.
 3. I affirm that I am eligible under Division 3 of the Business and Professions Code to sign this document because it pertains to a structure or type of work described as exempt pursuant to Business and Professions Code Sections 5537, 5538 and 6737.1.

Responsible Envelope Designer Name: Jimmy Sanders
 Signature: _____
 Company: Sanders, Inc Architecture & Engineering
 Address: 1102 Industry Way
 City/State/Zip: El Centro CA 92243
 Phone: 760-353-5440
 Title: _____ License #: _____

Responsible Lighting Designer Name: _____
 Signature: NOT IN SCOPE
 Address: _____
 City/State/Zip: _____
 Title: _____ License #: _____

Responsible Mechanical Designer Name: Al Benner
 Signature: *Victor Newman*
 Company: Division 15 Consulting Services, Inc
 Address: 11180 E. Turquoise Circle
 City/State/Zip: Dewey AZ 86327
 Phone: 928-772-8448
 Title: _____ License #: _____

CA Building Energy Efficiency Standards- 2016 Nonresidential Compliance Report Version: NRCC-PRF-01-E-06262019-5583 Report Generated at: 2019-10-18 13:51:43

Project Name:	IVC Career Tech Building 200	NRCC-PRF-01-E	Page 16 of 22
Project Address:	380 East Aten Road Imperial 92251	Calculation Date/Time:	16:51, Fri, Oct 18, 2019
Compliance Scope:	Existing/Alteration	Input File Name:	IVC Building 200 Mod.cbd16x

NRCC-PRF-ENV-DETAILS - SECTION START

A. OPAQUE SURFACE ASSEMBLY DETAILS					Confirmed	
1.	2.	3.	4.	18	19	20
Surface Name	Surface Type	Description of Assembly Layers				
CMU Wall w/IRIPurrings	ExteriorWall	Concrete - Part Grouted and Empty - 125 lbs/ft ³ - 8 in.				
Existing Roof w/4 Spray	Roof	Asphalt shingles - 1/4 in. Vapor permeable felt - 1/8 in. Ryfofoam - 1/2 in. Metal framed roof, 24in. OC, 3.5in., R-11				
R-13 Wall2	ExteriorWall	Stucco - 7/8 in. Vapor permeable felt - 1/8 in. Wood framed wall, 16in. OC, 3.5in., R-13 Gypsum board - 1/2 in.				
Slab On Grade15	UndergroundFloor	Slab Type = UnheatedSlabOnGrade Insulation Orientation = None Insulation R-Value = R0				

B. OVERHANG DETAILS (Adapted from NRCC-ENV-02-4)

This Section Does Not Apply

C. OPAQUE DOOR SUMMARY

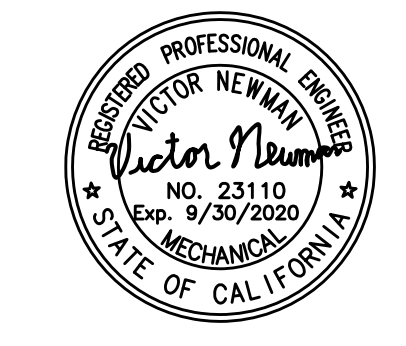
This Section Does Not Apply

CA Building Energy Efficiency Standards- 2016 Nonresidential Compliance Report Version: NRCC-PRF-01-E-06262019-5583 Report Generated at: 2019-10-18 13:51:43

Project Name:	IVC Career Tech Building 200	NRCC-PRF-01-E	Page 17 of 22
Project Address:	380 East Aten Road Imperial 92251	Calculation Date/Time:	16:51, Fri, Oct 18, 2019
Compliance Scope:	Existing/Alteration	Input File Name:	IVC Building 200 Mod.cbd16x

NRCC-PRF-MCH-DETAILS - SECTION START

A. MECHANICAL VENTILATION AND REHEAT (Adapted from 2016-NRCC-MCH-03-E)													Confirmed	



IDENTIFICATION STAMP
 DIV. OF THE STATE ARCHITECT
 APP. 04-118720 INC.
 REVIEWED FOR
 SS FLS ACS
 DATE: 01.16.20

APPROVALS

DIVISION 15
 CONSULTING SERVICES, INC.
 11180 Turquoise Circle
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Project Title
**IMPERIAL VALLEY COLLEGE
 BUILDING 200, 300 AND 800 MODERNIZATION**

Sheet Title
200 ENERGY CALCULATIONS

	Document Date 10-18-19	Project Number 19-21V
	Date Last Revised	Sheet Number M2.3.3

Project Name: IVC Career Tech Building 200
 Project Address: 380 East Aten Road Imperial 92251
 Compliance Scope: ExistingAlteration

NRCC-PRF-01-E Page 19 of 22
 Calculation Date/Time: 16:51, Fri, Oct 18, 2019
 Input File Name: IVC Building 200 Mod.cbd16x

F. SOLAR HOT WATER HEATING SUMMARY (Adapted from NRCC-STH-01)
 This Section Does Not Apply

G. MECHANICAL HVAC ACCEPTANCE TESTS & FORMS (Adapted from 2016-NRCC-MCH-01-E) § 140.4
 Declaration of Required Acceptance Certificates (NRCA) - Acceptance Certificates that may be submitted. (Retain copies and verify forms are completed and signed to post in field for Field Inspector to verify).

Test Description	MON-02A	MON-03A	MON-04A	MON-05A	MON-06A	MON-07A	MON-08A	MON-09A	MON-10A	MON-11A	MON-12A	MON-13A	MON-14A	MON-15A	MON-16A	MON-17A	MON-18A	MON-19A	MON-20A	Confirmed			
																				Pass	Fail		
Equipment Requiring Testing or Verification																							
NA/A SWM	1																						
Classroom 3 Office Tot	1	X	X																				
Classroom 6 VFC-2	1	X	X																				
Electrical/D at VFC-3	1	X	X																				
Classroom 10 VFC-4	1	X	X																				
Classroom 11 VFC-5	1	X	X																				
Classroom 25 VFC-6	1	X	X																				
Offices/Reception VFC-8	1	X	X																				

CA Building Energy Efficiency Standards- 2016 Nonresidential Compliance Report Version: NRCC-PRF-01-E-06262019-5583 Report Generated at: 2019-10-18 13:51:43

Project Name: IVC Career Tech Building 200
 Project Address: 380 East Aten Road Imperial 92251
 Compliance Scope: ExistingAlteration

NRCC-PRF-01-E Page 20 of 22
 Calculation Date/Time: 16:51, Fri, Oct 18, 2019
 Input File Name: IVC Building 200 Mod.cbd16x

H. EVAPORATIVE COOLER SUMMARY
 This Section Does Not Apply

NRCC-PRF-LTI-DETAILS -SECTION START-

A. INDOOR CONDITIONED LIGHTING CONTROL CREDITS (Adapted from NRCC-LTI-02-E) § 140.6
 This Section Does Not Apply

B. INDOOR CONDITIONED LIGHTING MANDATORY LIGHTING CONTROLS (Adapted from NRCC-LTI-02-E) § 130.1
 This Section Does Not Apply

C. TAILORED METHOD CONDITIONED LIGHTING POWER ALLOWANCE SUMMARY AND CHECKLIST (Adapted from NRCC-LTI-04-E) § 140.6
 General lighting power (See Table G)
 General lighting power from special function areas (see Table G)
 Additional "use it or lose it" (See Table G)
 Total watts: 0

D. GENERAL LIGHTING POWER (Adapted from NRCC-LTI-04-E) § 140.6-D
 This Section Does Not Apply

E. GENERAL LIGHTING FROM SPECIAL FUNCTION AREAS (Adapted from NRCC-LTI-04-E) § 140.6(c) 3H
 This Section Does Not Apply

F. ROOM CAVITY RATIO (Adapted from NRCC-LTI-04-E)

Room Number	Primary Function Area	Illuminance Value (LUX)	Room Cavity Ratio (Table G)	Allowed LPD	Floor Area (ft²)	Allowed Watts	Confirmed
NA	NA	NA	NA	NA	NA	NA	Pass Fail

Note: National Method for Special Function Areas is not currently implemented

Rectangular Spaces						Confirmed
Room Number	Task/Activity Description	Room Length (ft)	Room Width (ft)	Room Cavity Height (ft)	RCR	Pass Fail
NA	NA	NA	NA	NA	NA	Pass Fail

CA Building Energy Efficiency Standards- 2016 Nonresidential Compliance Report Version: NRCC-PRF-01-E-06262019-5583 Report Generated at: 2019-10-18 13:51:43

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 Compliance Scope: ExistingAlteration

NRCC-PRF-01-E Page 21 of 22
 Calculation Date/Time: 16:51, Fri, Oct 18, 2019
 Input File Name: IVC Building 200 Mod.cbd16x

Non-Rectangular Spaces
 This Section Does Not Apply

G. ADDITIONAL "USE IT OR LOSE IT" (Adapted from NRCC-LTI-04-E)

1.	2.	3.	4.	Confirmed
Wall Display	Combined Floor Display and Task Lighting	Combined Ornamental and Special Effects Lighting	Very Valuable Merchandise	Allowed Watts
0	0	0	0	0

5. Wall Display
 This Section Does Not Apply

6. Floor Display and Task Lighting
 This Section Does Not Apply

7. Combined Ornamental and Special Effects Lighting
 This Section Does Not Apply

8. Very Valuable Merchandise
 This Section Does Not Apply

H. INDOOR & OUTDOOR LIGHTING ACCEPTANCE TESTS & FORMS (Adapted from NRCC-LTI-01-E and NRCC-LTO-01-E) § 130.4
 Declaration of Required Acceptance Certificates (NRCA) - Acceptance Certificates that must be verified in the field. (Retain copies and verify forms are completed and signed to post in field for Field Inspector to verify).

Test Description	# of units	Indoor				Outdoor		Confirmed	
		NRCA-LTI-02-A	NRCA-LTI-03-A	NRCA-LTI-04-A	NRCA-LTI-05-A	NRCA-LTO-02-A	NRCA-LTO-03-A	Pass	Fail
Equipment Requiring Testing or Verification									
Occupant Sensors	0	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Automatic Time Switch	0	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Automatic Daylighting	0	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

CA Building Energy Efficiency Standards- 2016 Nonresidential Compliance Report Version: NRCC-PRF-01-E-06262019-5583 Report Generated at: 2019-10-18 13:51:43

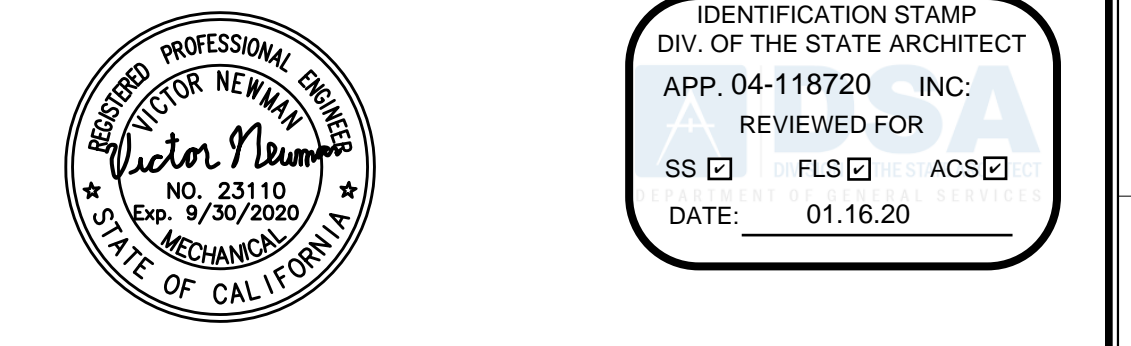
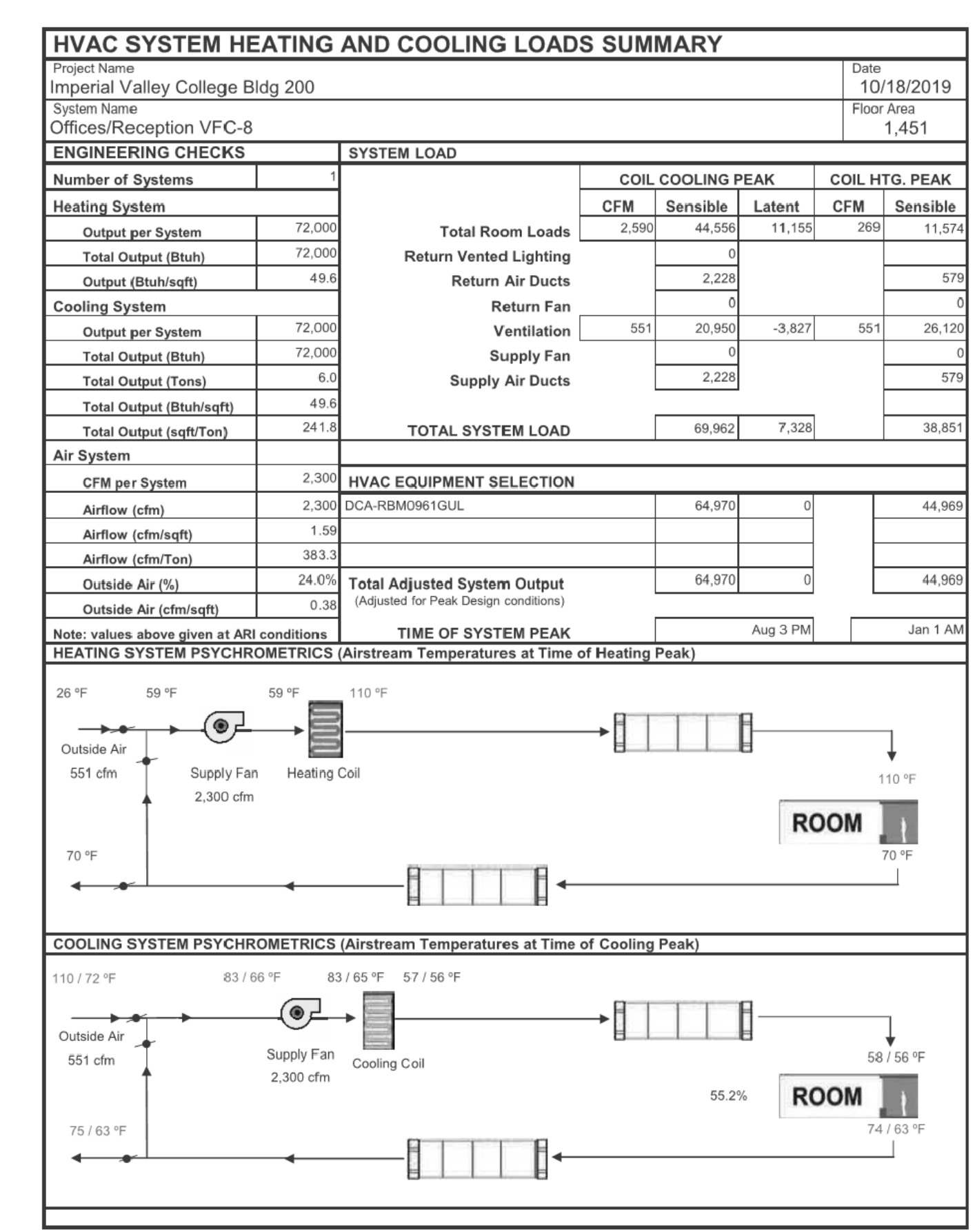
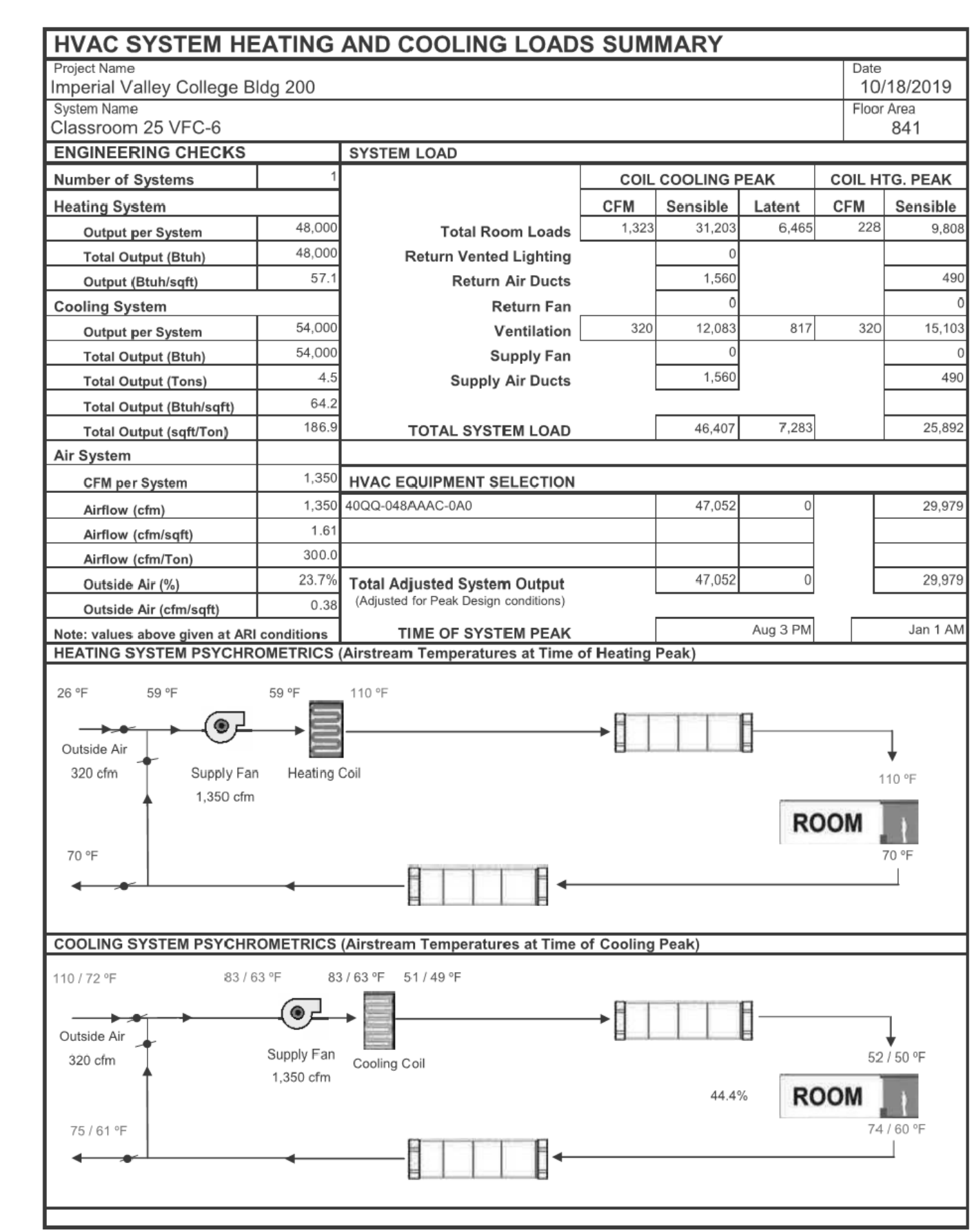
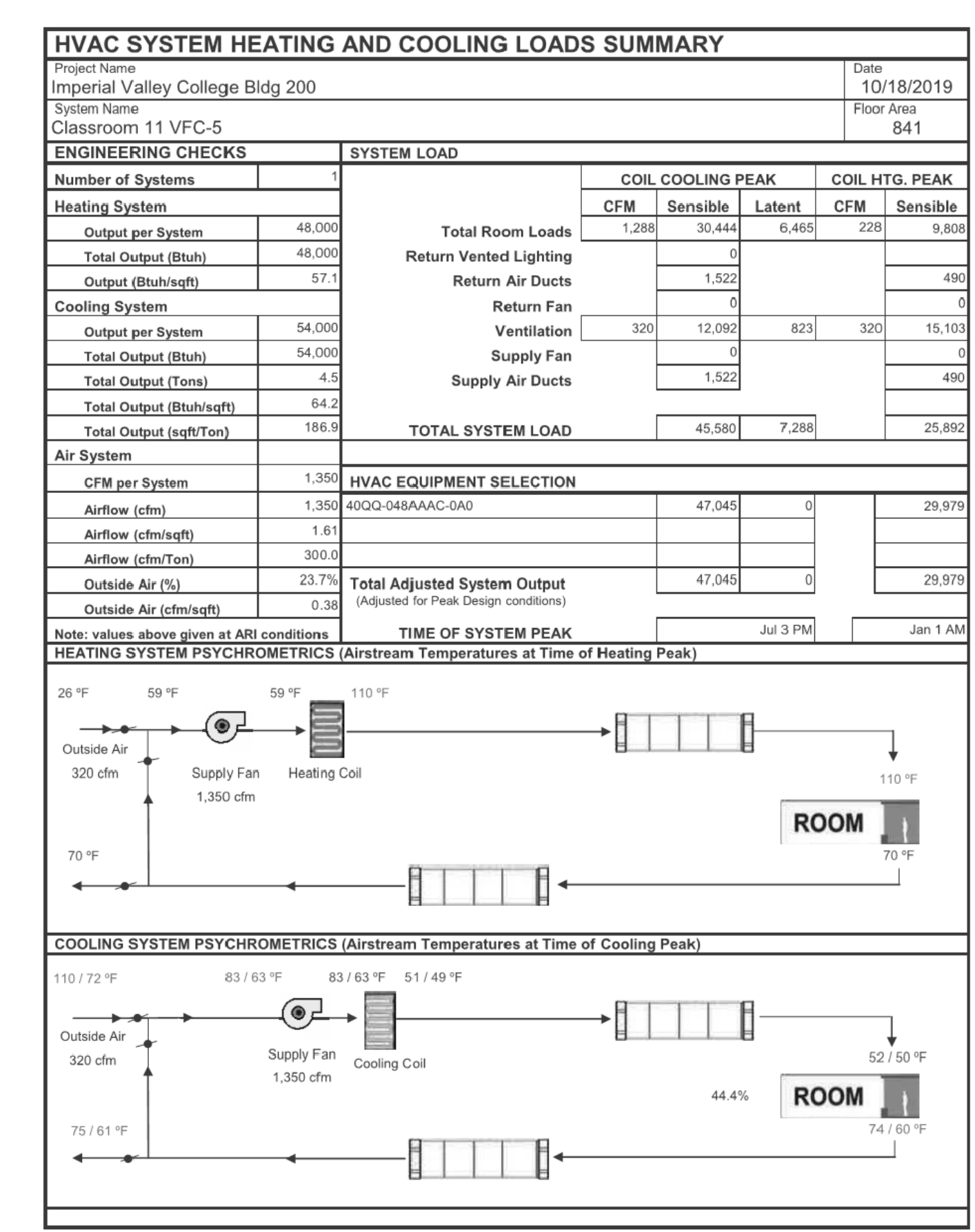
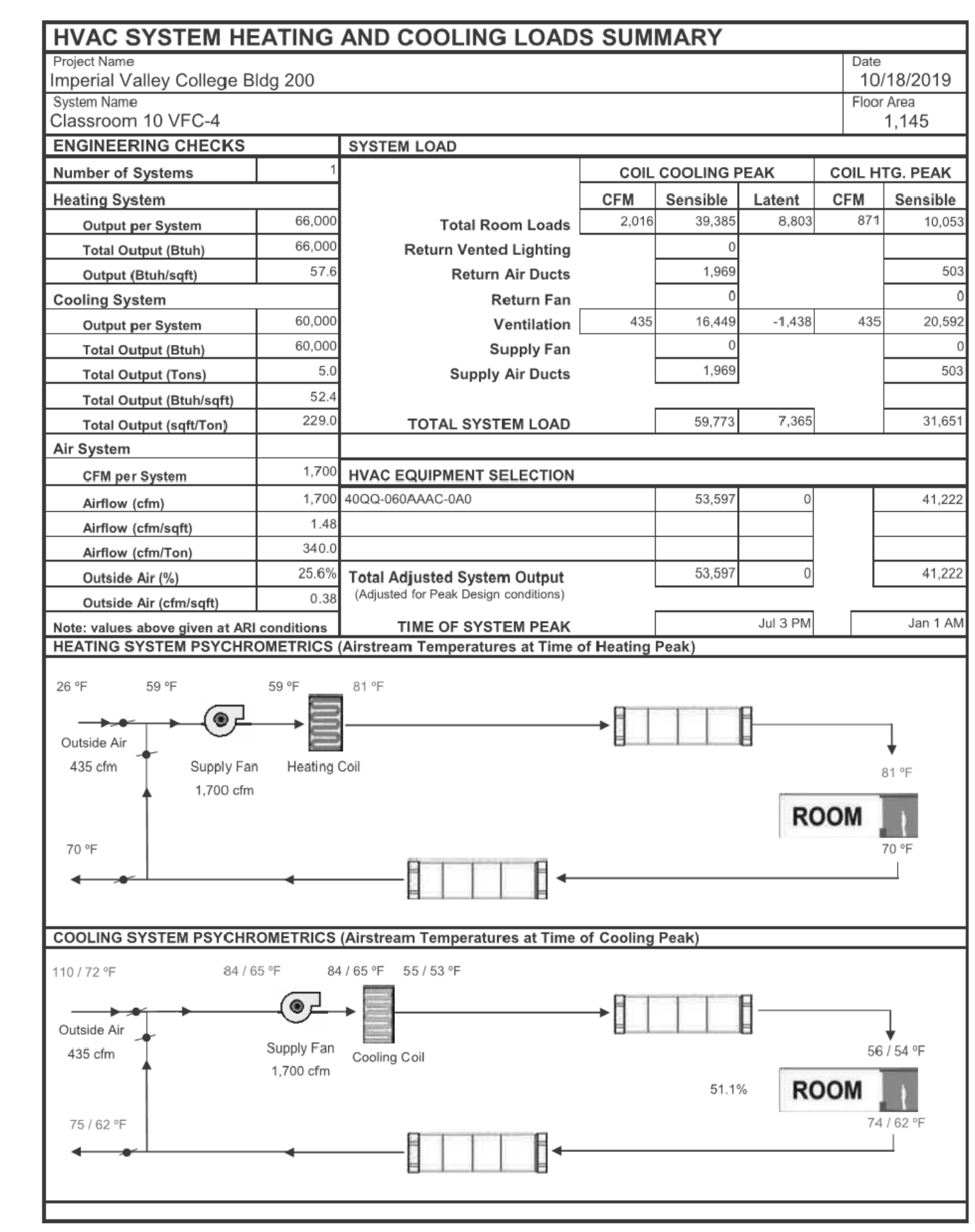
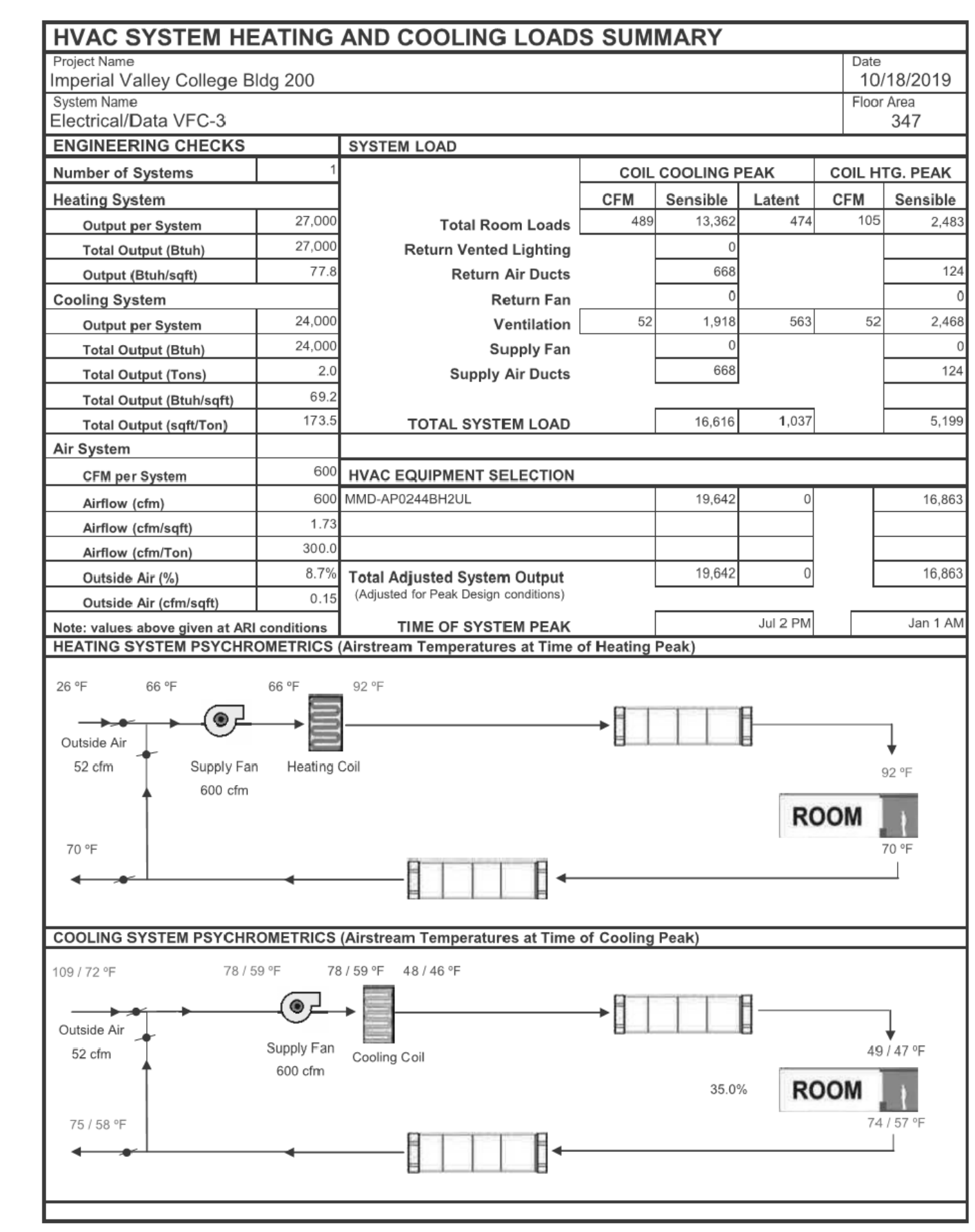
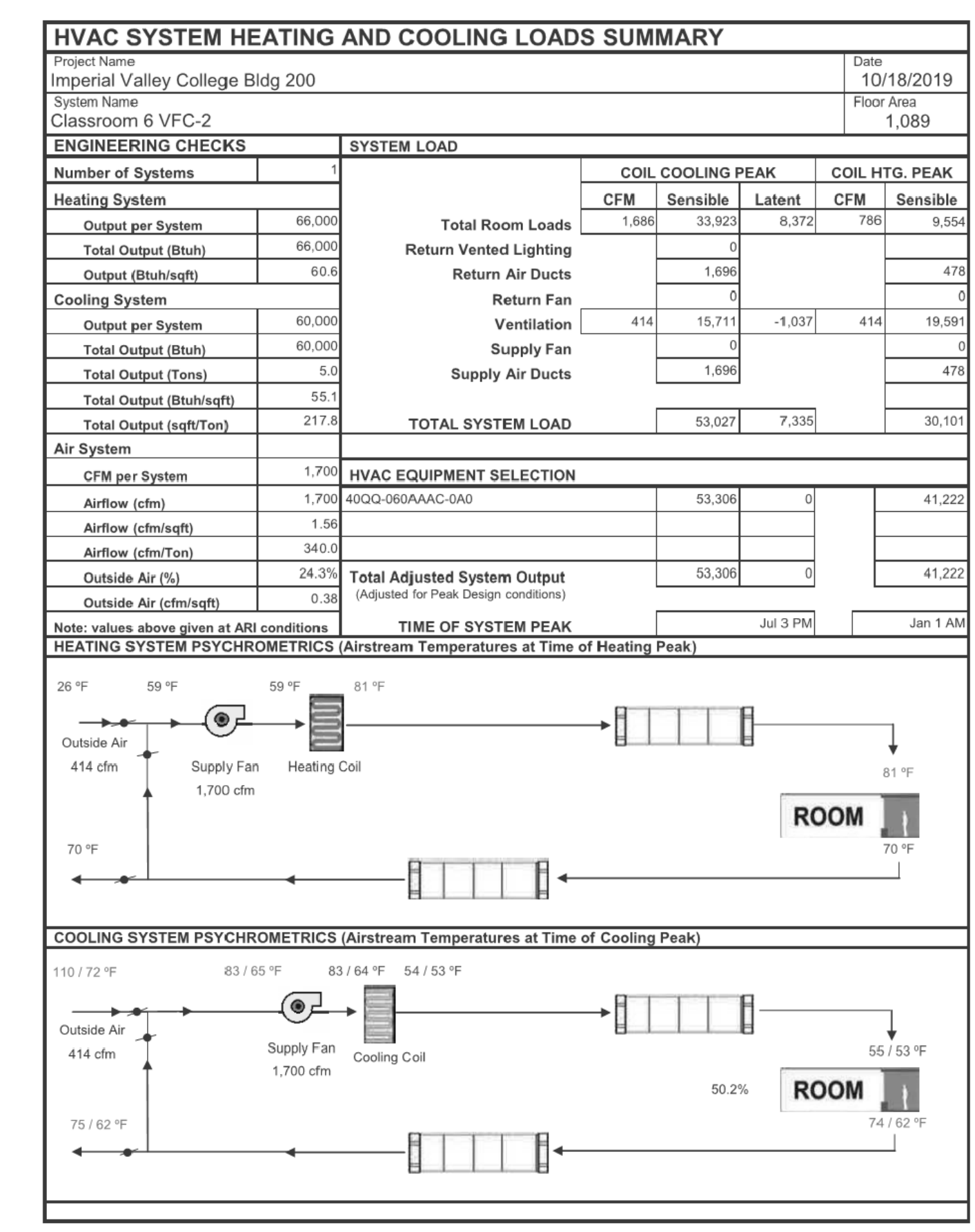
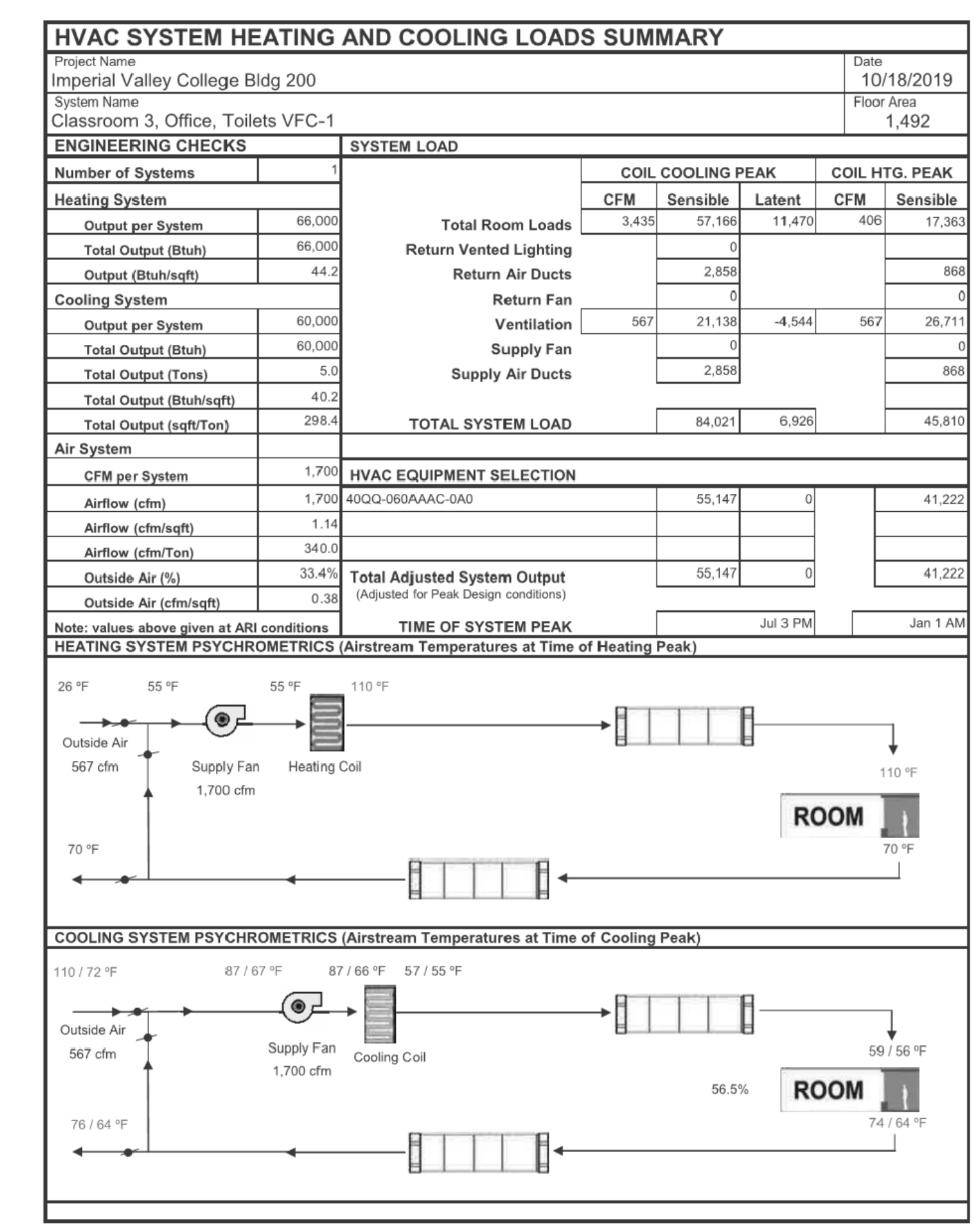
Project Name: IVC Career Tech Building 200
 Project Address: 380 East Aten Road Imperial 92251
 Compliance Scope: ExistingAlteration

NRCC-PRF-01-E Page 22 of 22
 Calculation Date/Time: 16:51, Fri, Oct 18, 2019
 Input File Name: IVC Building 200 Mod.cbd16x

H. INDOOR & OUTDOOR LIGHTING ACCEPTANCE TESTS & FORMS (Adapted from NRCC-LTI-01-E and NRCC-LTO-01-E) § 130.4
 Declaration of Required Acceptance Certificates (NRCA) - Acceptance Certificates that must be verified in the field. (Retain copies and verify forms are completed and signed to post in field for Field Inspector to verify).

Test Description	# of units	Indoor			Outdoor		Confirmed		
		NRCA-LTI-02-A	NRCA-LTI-03-A	NRCA-LTI-04-A	NRCA-LTI-05-A	NRCA-LTO-02-A	NRCA-LTO-03-A	Pass	Fail
Demand Responsive	0	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Outdoor Controls	0	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

CA Building Energy Efficiency Standards- 2016 Nonresidential Compliance Report Version: NRCC-PRF-01-E-06262019-5583 Report Generated at: 2019-10-18 13:51:43



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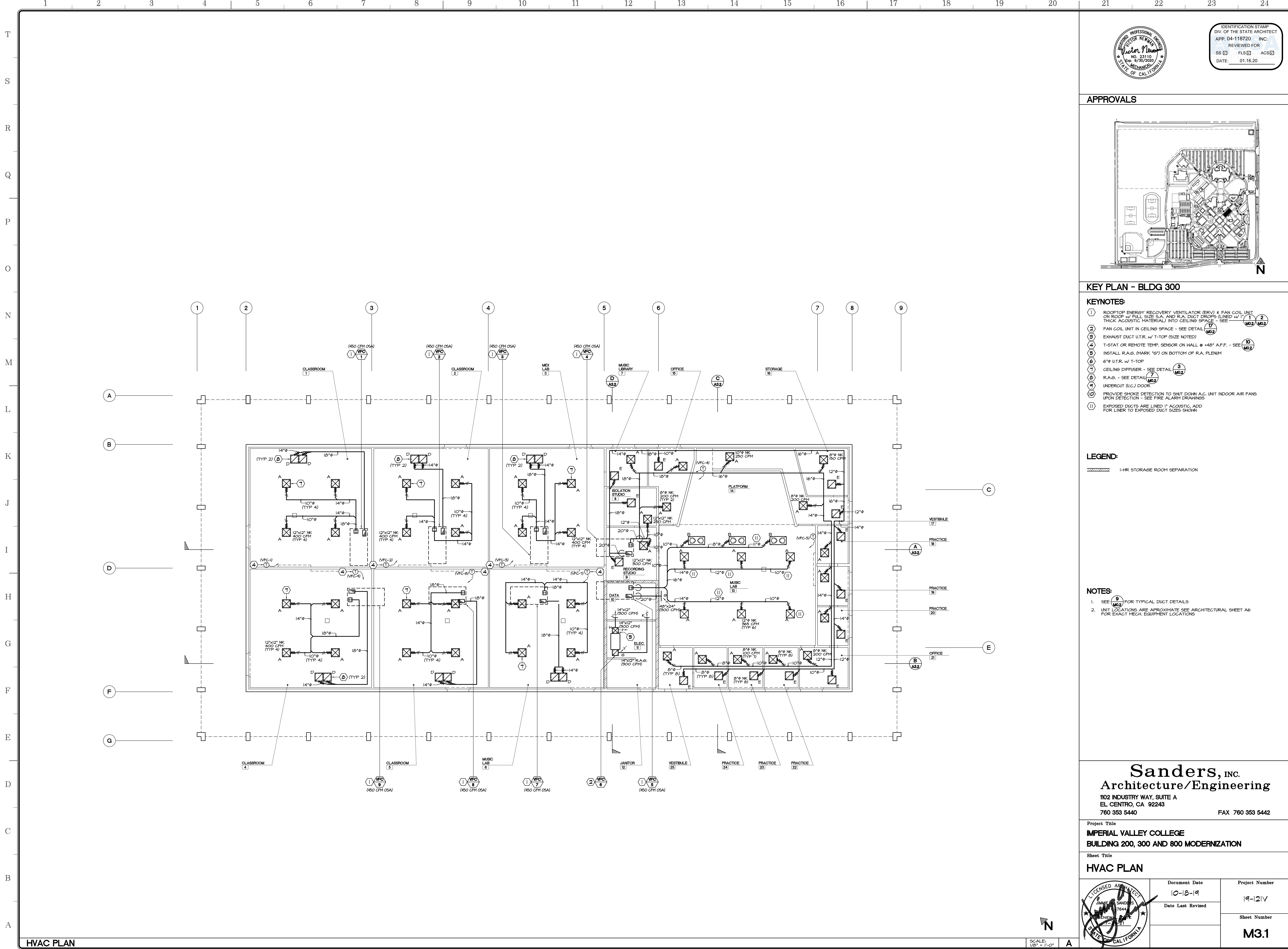
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Project Title
**IMPERIAL VALLEY COLLEGE
 BUILDING 200, 300 AND 800 MODERNIZATION**

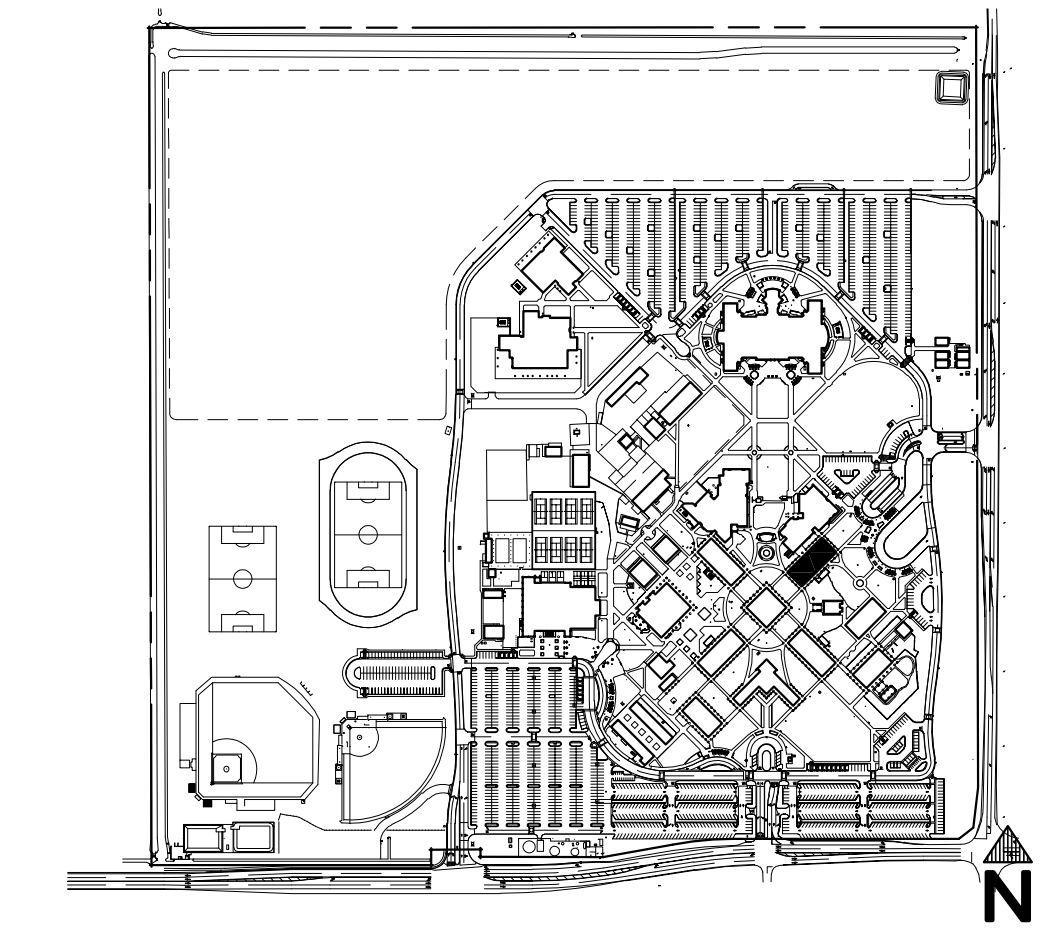
Sheet Title
200 ENERGY CALCULATIONS

	Document Date	Project Number
	Date Last Revised	Sheet Number
	10-18-19	19-121V
		M2.3.4



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KEY PLAN - BLDG 300

KEYNOTES:

- ① ROOFTOP ENERGY RECOVERY VENTILATOR (ERV) & FAN COIL UNIT ON ROOF w/ FULL SIZE S.A. AND R.A. DUCT DROPS LINED w/ 1" THICK ACOUSTIC MATERIAL INTO CEILING SPACE - SEE DETAIL ① ②
- ② FAN COIL UNIT IN CEILING SPACE - SEE DETAIL ① ②
- ③ EXHAUST AIR UNIT (EAU) - SEE DETAIL ③
- ④ T-STAT OR REMOTE TEMP. SENSOR ON HALL @ 48" A.F.F. - SEE ⑩
- ⑤ INSTALL R.A.G. (MARK "9") ON BOTTOM OF R.A. FLENN
- ⑥ 6" U.T.R. w/ T-TOP
- ⑦ CEILING DIFFUSER - SEE DETAIL ③
- ⑧ R.A.G. - SEE DETAIL ⑦
- ⑨ UNDERCUT (U.C.) DOOR
- ⑩ PROVIDE SMOKE DETECTION TO SHUT DOWN A.C. UNIT INDOOR AIR FANS UPON DETECTION - SEE FIRE ALARM DRAWINGS
- ⑪ EXPOSED DUCTS ARE LINED 1" ACOUSTIC ADD FOR LINER TO EXPOSED DUCT SIZES SHOWN

LEGEND:

1-HR STORAGE ROOM SEPARATION

NOTES:

- 1. SEE ③ FOR TYPICAL DUCT DETAILS
- 2. UNIT LOCATIONS ARE APPROXIMATE SEE ARCHITECTURAL SHEET A6 FOR EXACT MECH. EQUIPMENT LOCATIONS

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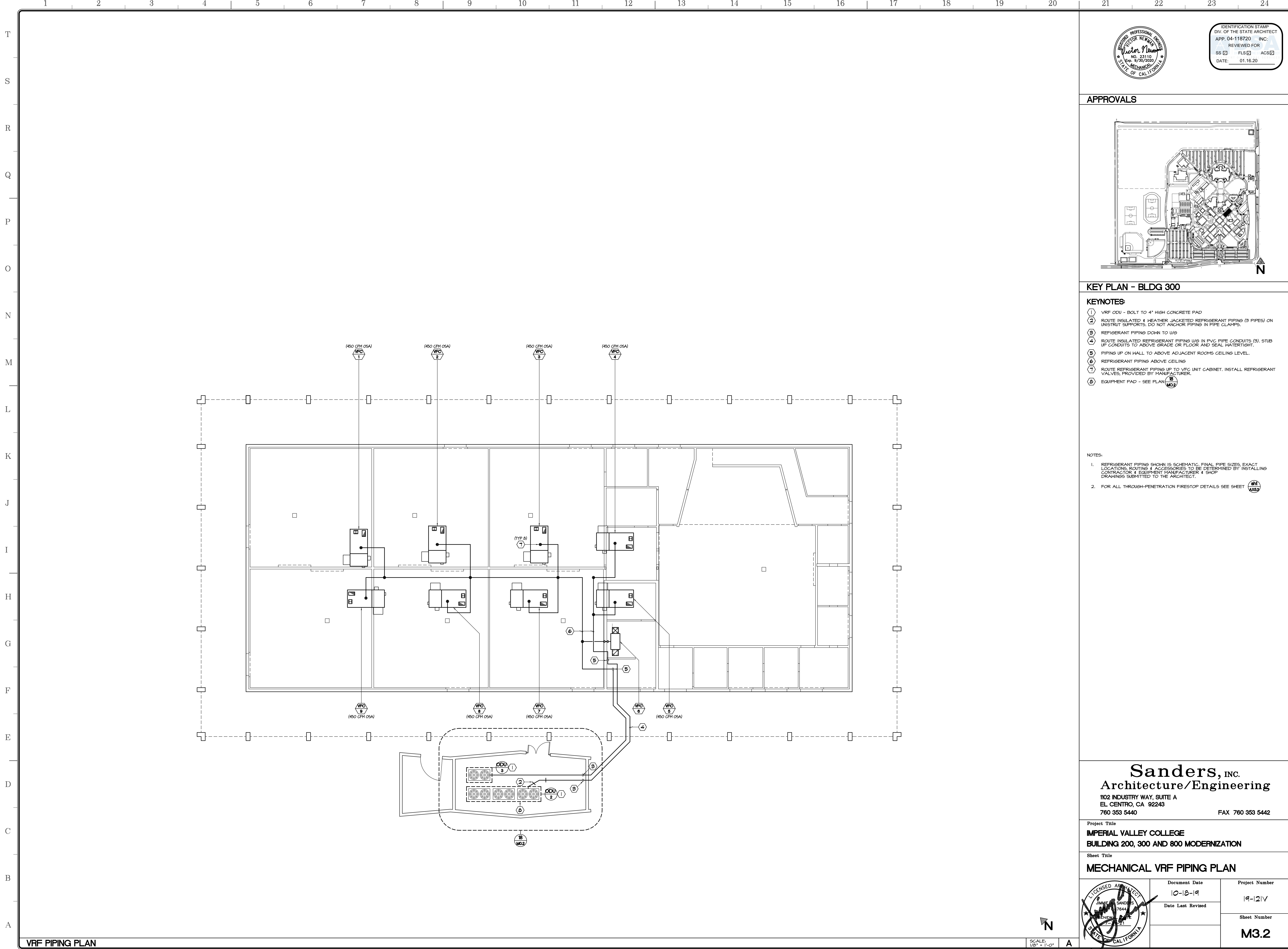
Project Title
**IMPERIAL VALLEY COLLEGE
 BUILDING 200, 300 AND 800 MODERNIZATION**

HVAC PLAN

	Document Date	Project Number
	Date Last Revised	19-12-19
		Sheet Number
		M3.1

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

HVAC PLAN



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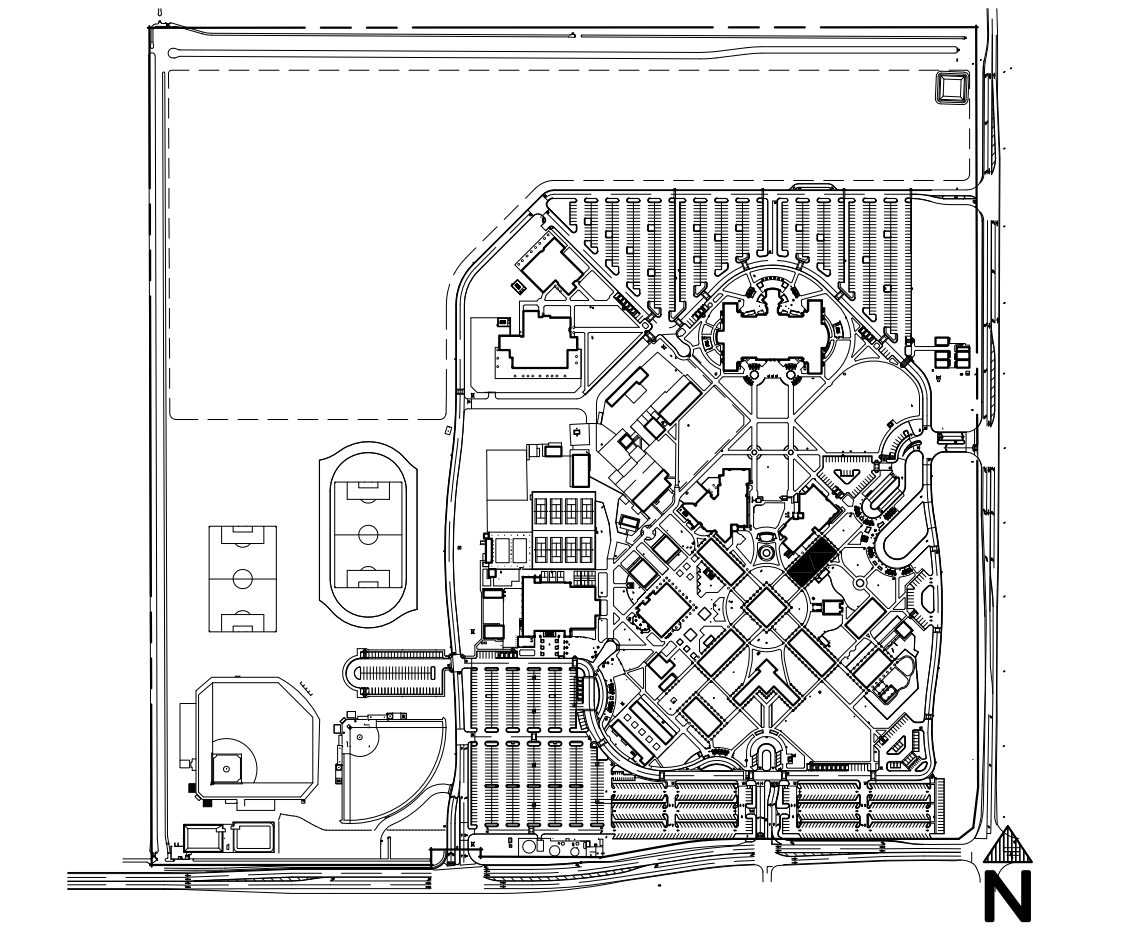
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DATE: 01.16.20

APPROVALS



KEY PLAN - BLDG 300

KEYNOTES:

- ① VRF ODU - BOLT TO 4" HIGH CONCRETE PAD
- ② ROUTE INSULATED & WEATHER JACKETED REFRIGERANT PIPING (3 PIPES) ON UNISTRUT SUPPORTS. DO NOT ANCHOR PIPING IN PIPE CLAMPS.
- ③ REFRIGERANT PIPING DOWN TO U/G
- ④ ROUTE INSULATED REFRIGERANT PIPING U/G IN PVC PIPE CONDUITS (3). STUB UP CONDUITS TO ABOVE GRADE OR FLOOR AND SEAL WATER-TIGHT.
- ⑤ PIPING UP ON HALL TO ABOVE ADJACENT ROOMS CEILING LEVEL.
- ⑥ REFRIGERANT PIPING ABOVE CEILING
- ⑦ ROUTE REFRIGERANT PIPING UP TO VFC UNIT CABINET. INSTALL REFRIGERANT VALVES, PROVIDED BY MANUFACTURER.
- ⑧ EQUIPMENT PAD - SEE PLAN **M3.2**

NOTES:

- 1. REFRIGERANT PIPING SHOWN IS SCHEMATIC. FINAL PIPE SIZES, EXACT LOCATIONS, ROUTING & ACCESSORIES TO BE DETERMINED BY INSTALLING CONTRACTOR & EQUIPMENT MANUFACTURER & SHOP DRAWINGS SUBMITTED TO THE ARCHITECT.
- 2. FOR ALL THROUGH-PENETRATION FIRESTOP DETAILS SEE SHEET **M3.1**

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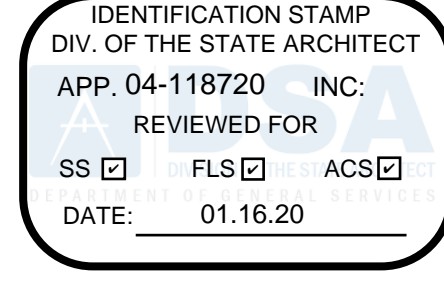
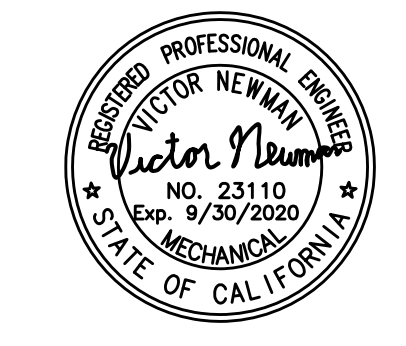
Project Title
**IMPERIAL VALLEY COLLEGE
 BUILDING 200, 300 AND 800 MODERNIZATION**

Sheet Title
MECHANICAL VRF PIPING PLAN

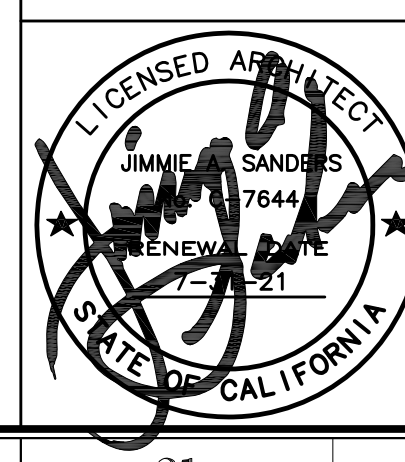
	Document Date	Project Number
	Date Last Revised	19-121V
		Sheet Number
		M3.2

VRF PIPING PLAN

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



APPROVALS



Document Date	10-18-19	Project Number	19-21V
Date Last Revised		Sheet Number	M3.3.1

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Project Title
**IMPERIAL VALLEY COLLEGE
 BUILDING 200, 300 AND 800 MODERNIZATION**
 Sheet Title
300 ENERGY CALCULATIONS

Project Name: IVC Career Tech Building 300		NRCC-PRF-01-E Page 3 of 24	
Project Address: 380 East Aten Road Imperial 92251		Calculation Date/Time: 17:18, Fri, Oct 18, 2019	
Compliance Scope: ExistingAdditionAndAlteration		Input File Name: IVC_Building_300_Mod.cbd16x	

A. COMPLIANCE PATH & CERTIFICATE OF COMPLIANCE SUMMARY
 Identify which building components use the performance or prescriptive path for compliance. "NA" = not in project
 For components that utilize the performance path, indicate the sheet number that includes mandatory notes on plans.

Building Component	Compliance Path	Compliance Forms (required for submittal)	Location of Mandatory Notes on Plans
Envelope	<input type="checkbox"/> Performance	NRCC-ENV-01/02/03/04/05/06-E	
	<input type="checkbox"/> Prescriptive	NRCC-ENV-01/02/03/04/05/06-E	
	<input type="checkbox"/> NA		
Mechanical	<input type="checkbox"/> Performance	NRCC-PRF-MCH-DETAILS (section of the NRCC-PRF-01-E)	
	<input type="checkbox"/> Prescriptive	NRCC-MCH-01/02/03/04/05/06/07-E	
	<input type="checkbox"/> NA		
Domestic Hot Water	<input type="checkbox"/> Performance	NRCC-PRF-PLB-DETAILS (section of the NRCC-PRF-01-E)	
	<input type="checkbox"/> Prescriptive	NRCC-PLB-01-E	
	<input type="checkbox"/> NA		
Lighting (Indoor Conditioned)	<input type="checkbox"/> Performance	NRCC-PRF-LTI-DETAILS (section of the NRCC-PRF-01-E)	
	<input type="checkbox"/> Prescriptive	NRCC-LTI-01/02/03/04/05-E	
	<input type="checkbox"/> NA		
Covered Process: Commercial Kitchens	<input type="checkbox"/> Performance	S2 (section of the NRCC-PRF-01-E)	
	<input type="checkbox"/> Prescriptive	NRCC-PRC-01/03-E	
	<input type="checkbox"/> NA		
Covered Process: Computer Rooms	<input type="checkbox"/> Performance	S3 (section of the NRCC-PRF-01-E)	
	<input type="checkbox"/> Prescriptive	NRCC-PRC-01/04-E	
	<input type="checkbox"/> NA		
Covered Process: Laboratory Exhaust	<input type="checkbox"/> Performance	S4 (section of the NRCC-PRF-01-E)	
	<input type="checkbox"/> Prescriptive	NRCC-PRC-01/09-E	
	<input type="checkbox"/> NA		

Project Name: IVC Career Tech Building 300		NRCC-PRF-01-E Page 6 of 24	
Project Address: 380 East Aten Road Imperial 92251		Calculation Date/Time: 17:18, Fri, Oct 18, 2019	
Compliance Scope: ExistingAdditionAndAlteration		Input File Name: IVC_Building_300_Mod.cbd16x	

H. CERTIFICATE OF INSTALLATION, CERTIFICATE OF ACCEPTANCE & CERTIFICATE OF VERIFICATION SUMMARY (NRCC/NRCA/NRVC) -
 Documentation Author to indicate which Certificates must be submitted for the features to be recognized for compliance (Retain copies and verify forms are completed and signed to post in field for Field Inspector to verify).
 See Tables G and H in MCH and LTI Details Sections for Acceptance Tests and forms by equipment.

Building Component	Compliance Forms (required for submittal)	Pass	Fail
Plumbing	<input type="checkbox"/> NRCC-PLB-01-E - For all buildings with Plumbing Systems	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/> NRCC-PLB-02-E - required on central systems in high-rise residential, hotel/motel application.	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/> NRCC-PLB-03-E - Single dwelling unit systems in high-rise residential, hotel/motel application.	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/> NRCC-PLB-21-E - HERS verified central systems in high-rise residential, hotel/motel application.	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/> NRCC-PLB-21-H - HERS verified central systems in high-rise residential, hotel/motel application.	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/> NRCC-PLB-21-H - HERS verified single dwelling unit systems in high-rise residential, hotel/motel application.	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/> NRCC-STH-01-E - Any solar water heating	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/> NRCC-LTI-01-E - For all buildings	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/> NRCC-LTI-02-E - Lighting control system, or for an Energy Management Control System (EMCS)	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/> NRCC-LTI-03-E - Line-voltage track lighting integral current limiter, or for a supplementary overcurrent protection panel used to energize only line-voltage track lighting	<input type="checkbox"/>	<input type="checkbox"/>
Indoor Lighting	<input type="checkbox"/> NRCC-LTI-04-E - Two interlocked systems serving an auditorium, a convention center, a conference room, or a theater	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/> NRCC-LTI-05-E - Lighting Control Power Adjustment Factor (PAF)	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/> NRCC-LTI-06-E - Additional outage installed in a video conferencing studio	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/> NRCC-LTI-02-A - Occupancy sensors and automatic time switch controls	<input type="checkbox"/>	<input type="checkbox"/>
Outdoor Lighting	<input type="checkbox"/> NRCC-LTI-03-A - Automatic daylighting controls	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/> NRCC-LTI-04-A - Demand responsive lighting controls	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/> NRCC-LTI-01-E - Outdoor Lighting	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/> NRCC-LTI-02-E - EMCS Lighting Control System	<input type="checkbox"/>	<input type="checkbox"/>
Sign Lighting	<input type="checkbox"/> NRCC-LTI-01-E - Sign Lighting	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/> NRCC-ELC-01-E - Electrical Power Distribution	<input type="checkbox"/>	<input type="checkbox"/>
Photovoltaic:	<input type="checkbox"/> NRCC-SPV-01-E Photovoltaic Systems	<input type="checkbox"/>	<input type="checkbox"/>

Project Name: IVC Career Tech Building 300		NRCC-PRF-01-E Page 9 of 24	
Project Address: 380 East Aten Road Imperial 92251		Calculation Date/Time: 17:18, Fri, Oct 18, 2019	
Compliance Scope: ExistingAdditionAndAlteration		Input File Name: IVC_Building_300_Mod.cbd16x	

M. HVAC SYSTEM SUMMARY (see NRCC-PRF-MCH-DETAILS for more information) § 110.1 / § 110.2

Dry System Equipment¹ (Fan & Economizer info included below in Table N)

1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	Confirmed	
Equip Name	Equip Type	System Type (Simple ² or Complex ³)	Qty	Total Heating Output (kBtu/h)	Supp Heat Source (Y/N)	Supp Heat Output (kBtu/h)	Total Cooling Output (kBtu/h)	Efficiency	Acceptance Testing Required ⁴ (Y/N)	Notes	Pass	
Classroom 1 VFC-1	SDHP (SplitPhase)	Simple	1	66	No	0	60	SEER-14.00 / EER-12.20	HSPF-8.20	Yes	N	<input type="checkbox"/>
Classroom 2 VFC-2	SDHP (SplitPhase)	Simple	1	66	No	0	60	SEER-14.00 / EER-12.20	HSPF-8.20	Yes	N	<input type="checkbox"/>
Mid Lab 3 VFC-3	SDHP (SplitPhase)	Simple	1	66	No	0	60	SEER-14.00 / EER-12.20	HSPF-8.20	Yes	N	<input type="checkbox"/>
Office/Music/2nd Lab VFC-4	SDHP (SplitPhase)	Simple	1	84	No	0	84	EER-12.2	COP-6.00	Yes	N	<input type="checkbox"/>
Music Lab 13 VFC-5	SDHP (SplitPhase)	Simple	1	84	No	0	84	EER-12.2	COP-6.00	Yes	N	<input type="checkbox"/>
Data Elec Jan VFC-6	SDHP (SplitPhase)	Simple	1	27	No	0	24	SEER-14.00 / EER-12.20	HSPF-8.20	Yes	N	<input type="checkbox"/>
Music Lab 6 VFC-7	SDHP (SplitPhase)	Simple	1	66	No	0	60	SEER-14.00 / EER-12.20	HSPF-8.20	Yes	N	<input type="checkbox"/>
Classroom 5 VFC-8	SDHP (SplitPhase)	Simple	1	66	No	0	60	SEER-14.00 / EER-12.20	HSPF-8.20	Yes	N	<input type="checkbox"/>
Classroom 4 VFC-9	SDHP (SplitPhase)	Simple	1	66	No	0	60	SEER-14.00 / EER-12.20	HSPF-8.20	Yes	N	<input type="checkbox"/>

Project Name: IVC Career Tech Building 300		NRCC-PRF-01-E Page 2 of 24	
Project Address: 380 East Aten Road Imperial 92251		Calculation Date/Time: 17:18, Fri, Oct 18, 2019	
Compliance Scope: ExistingAdditionAndAlteration		Input File Name: IVC_Building_300_Mod.cbd16x	

C. PRIORITY PLAN CHECK/ INSPECTION ITEMS (in order of highest to lowest TDV energy savings)

Item	Description	Compliance Margin By Energy Component (from Table B column 4)
1st	Indoor Fans: Check envelope and mechanical	Indoor Fans
2nd	Space Cooling: Check envelope and mechanical	Space Cooling
3rd	Space Heating: Check envelope and mechanical	Space Heating
4th	Heat Rejection: Check envelope and mechanical	Heat Rejection
5th	Pumps & Misc.: Check mechanical	Pumps & Misc.
6th	Indoor Lighting: Check lighting	Indoor Lighting
7th	Domestic Hot Water: Check mechanical	Domestic Hot Water

D. EXCEPTIONAL CONDITIONS
 This project uses the Simplified Geometry Performance Modeling Approach which is not capable of modeling daylighting controls and assumes the prescriptive Secondary Daylight Control requirements are met. PRESCRIPTIVE COMPLIANCE documentation form NRCC-LTI-02-E for the requirements of section 140.6(6) Automatic Daylighting Controls in Secondary Daylit Zones is required.
 This project includes Domestic Hot Water in the analysis. Please verify that Domestic Hot Water is included in the design for the permitted scope of work.

E. HERS VERIFICATION
 This Section Does Not Apply

F. ADDITIONAL REMARKS
 None Provided

Project Name: IVC Career Tech Building 300		NRCC-PRF-01-E Page 5 of 24	
Project Address: 380 East Aten Road Imperial 92251		Calculation Date/Time: 17:18, Fri, Oct 18, 2019	
Compliance Scope: ExistingAdditionAndAlteration		Input File Name: IVC_Building_300_Mod.cbd16x	

I. FENESTRATION ASSEMBLY SUMMARY § 110.6

1.	2.	3.	4.	5.	6.	7.	8.	9.	Confirmed
Fenestration Assembly Name / Tag or I.D.	Fenestration Type / Product / Frame Type	Certification Method ¹	Assembly Method	Area ft ²	Overall U-Factor	Overall SHGC	Overall VT	Notes	Pass
Slatube	Skylight FixedWindow NonMetalFraming	Default Performance	Manufactured	90	0.84	0.67	1.00	N	<input type="checkbox"/>
PPG SOLARBAN 70X (2) + Clear	VerticalFenestration FixedWindow NA	NFRC Rated	SiteBuilt	585	0.26	0.24	0.90	N	<input type="checkbox"/>

¹ Newly installed fenestration shall have a certified NFRC Label Certificate or use the U-Factor values found in Table 210.8.A and Table 210.8.B. Center of Glass (COG) values are for the glass only, determined by the manufacturer, and are shown for ease of verification. See fenestration values are calculated per Nonresidential Appendix NA and are used in the analysis.
² Status: N = None, A = Allowed, E = Existing

Taking compliance credit for fenestration shading devices? (If "Yes," see NRCC-PRF-ENV-DETAILS for more information) No

K. OPAQUE SURFACE ASSEMBLY SUMMARY § 120.7 / § 140.3

1.	2.	3.	4.	5.	6.	7.	8.	Confirmed
Surface Name	Surface Type	Area (ft ²)	Framing Type	Cavity R-Value	Continuous R-Value	U-Factor / F-Factor / C-Factor	Notes	Pass
Existing Roof w/4 Spray6	Roof	8326	Metal	11	NA	U-Factor: 0.109	E	<input type="checkbox"/>
8 CMU Wall w/RSJFurring@	ExteriorWall	4884	NA	0	NA	U-Factor: 0.179	E	<input type="checkbox"/>
Slab On Ground13	UndergroundFloor	8326	NA	0	NA	F-Factor: 0.730	E	<input type="checkbox"/>
R-19 Wall39	ExteriorWall	542	Wood	19	NA	U-Factor: 0.072	E	<input type="checkbox"/>

¹ Status: N = None, A = Allowed, E = Existing

L. ROOFING PRODUCT SUMMARY § 140.3

1.	2.	3.	4.	5.	6.	7.	Confirmed
Product Type	Product Density (lb/ft ²)	Aged Solar Reflectance	Thermal Emittance	SHI	Cool Roof Credit	Roofing Product Description	Pass
Existing Roof w/4 Spray6	4.106	0.08	0.75	NA	No	NA	<input type="checkbox"/>

Project Name: IVC Career Tech Building 300		NRCC-PRF-01-E Page 7 of 24	
Project Address: 380 East Aten Road Imperial 92251		Calculation Date/Time: 17:18, Fri, Oct 18, 2019	
Compliance Scope: ExistingAdditionAndAlteration		Input File Name: IVC_Building_300_Mod.cbd16x	

H. CERTIFICATE OF INSTALLATION, CERTIFICATE OF ACCEPTANCE & CERTIFICATE OF VERIFICATION SUMMARY (NRCC/NRCA/NRVC) -
 Documentation Author to indicate which Certificates must be submitted for the features to be recognized for compliance (Retain copies and verify forms are completed and signed to post in field for Field Inspector to verify).
 See Tables G and H in MCH and LTI Details Sections for Acceptance Tests and forms by equipment.

Building Component	Compliance Forms (required for submittal)	Pass	Fail
Covered Process	<input type="checkbox"/> NRCC-PRC-01-E Covered Processes	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/> NRCC-PRC-01-F Compressed Air Systems	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/> NRCC-PRC-02-F Kitchen Exhaust	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/> NRCC-PRC-03-F Garage Exhaust	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/> NRCC-PRC-04-F Refrigerated Warehouse- Evaporator Fan Motor Controls	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/> NRCC-PRC-05-F Refrigerated Warehouse- Evaporator Condenser Controls	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/> NRCC-PRC-06-F Refrigerated Warehouse- Air Cooled Condenser Controls	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/> NRCC-PRC-07-F Refrigerated Warehouse- Variable Speed Compressor	<input type="checkbox"/>	<input type="checkbox"/>
Electrical	<input type="checkbox"/> NRCC-PRC-08-F Electrical Resistance Underlath Heating System	<input type="checkbox"/>	<input type="checkbox"/>

I. ENVELOPE GENERAL INFORMATION (see NRCC-PRF-ENV-DETAILS for more information)

1.	2.	3.	4.	5.	6.	7.	8.	Confirmed
Total Conditioned Floor Area	Total Unconditioned Floor Area	Total Unconditioned Floor Area	Addition Conditioned Floor Area	Addition Unconditioned Floor Area	Total Gross Surface Area	Total Fenestration Area	Window to Wall Ratio	Pass
8,326 ft ²	0 ft ²	0 ft ²	0 ft ²	0 ft ²	942 ft ²	117 ft ²	12.4%	<input type="checkbox"/>
0 ft ²	1,919 ft ²	0 ft ²	234 ft ²	0 ft ²	5,426 ft ²	585 ft ²	10.8%	<input type="checkbox"/>
0 ft ²	0 ft ²	0 ft ²	234 ft ²	0 ft ²	2,573 ft ²	234 ft ²	09.1%	<input type="checkbox"/>
0 ft ²	0 ft ²	0 ft ²	0 ft ²	0 ft ²	0 ft ²	0 ft ²	0.0%	<input type="checkbox"/>
0 ft ²	0 ft ²	0 ft ²	0 ft ²	0 ft ²	0 ft ²	0 ft ²	0.0%	<input type="checkbox"/>
0 ft ²	0 ft ²	0 ft ²	0 ft ²	0 ft ²	0 ft ²	0 ft ²	0.0%	<input type="checkbox"/>
0 ft ²	0 ft ²	0 ft ²	0 ft ²	0 ft ²	0 ft ²	0 ft ²	0.0%	<input type="checkbox"/>
0 ft ²	0 ft ²	0 ft ²	0 ft ²	0 ft ²	0 ft ²	0 ft ²	0.0%	<input type="checkbox"/>
0 ft ²	0 ft ²	0 ft ²	0 ft ²	0 ft ²	0 ft ²	0 ft ²	0.0%	<input type="checkbox"/>

J. OPAQUE SURFACES & ORIENTATION

1.	2.	3.	4.	5.	6.	7.	8.	Confirmed
Surface Name	Surface Type	Area (ft ²)	Framing Type	Cavity R-Value	Continuous R-Value	U-Factor / F-Factor / C-Factor	Notes	Pass
Existing Roof w/4 Spray6	Roof	8326	Metal	11	NA	U-Factor: 0.109	E	<input type="checkbox"/>
8 CMU Wall w/RSJFurring@	ExteriorWall	4884	NA	0	NA	U-Factor: 0.179	E	<input type="checkbox"/>
Slab On Ground13	UndergroundFloor	8326	NA	0	NA	F-Factor: 0.730	E	<input type="checkbox"/>
R-19 Wall39	ExteriorWall	542	Wood	19	NA	U-Factor: 0.072	E	<input type="checkbox"/>

¹ Status: N = None, A = Allowed, E = Existing

Project Name: IVC Career Tech Building 300		NRCC-PRF-01-E Page 1 of 24	
Project Address: 380 East Aten Road Imperial 92251		Calculation Date/Time: 17:18, Fri, Oct 18, 2019	
Compliance Scope: ExistingAdditionAndAlteration		Input File Name: IVC_Building_300_Mod.cbd16x	

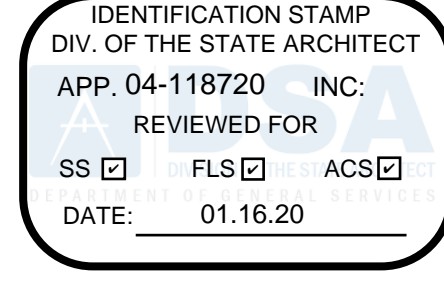
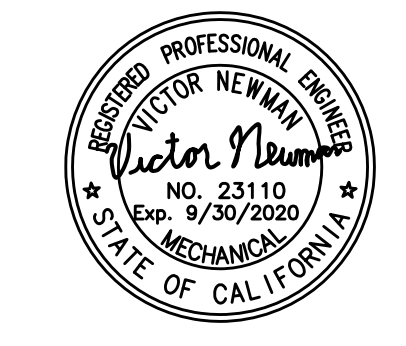
A. PROJECT GENERAL INFORMATION

1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.
Project Location (city)	CA Zip Code	Climate Zone	Total Conditioned Floor Area in Scope	Total Unconditioned Floor Area	Total # of Stories (Habitable Above Grade)	Total # of dwelling units	Standards Version	Compliance Software (version)	Weather File	Building Orientation (deg)	Permitted Scope of Work	Building Type(s)	Gas Type
Imperial	92251	15	8,326 ft ²	0 ft ²	1	0	Compliance2016	EmpyPro 7.2	IMPERIAL_747185_CZ2010.epw	(N) 45 deg	ExistingAdditionAndAlteration	Nonresidential	NaturalGas

B. COMPLIANCE RESULTS FOR PERFORMANCE COMPONENTS (Annual TDV Energy Use, kBtu/ft²-yr) § 140.1

1. Energy Component	2. Standard Design (TDV)	3. Proposed Design (TDV)	4. Compliance Margin (TDV)	5. Percent Better than Standard
Space Heating	3.16	-2.45	0.71	22.5%
Space Cooling	279.49	232.02	47.47	17.0%
Indoor Fans	164.87	105.19	59.68	36.2%
Heat Rejection	--	--	--	--
Pumps & Misc.	--	--	--	--
Domestic Hot Water	8.69	27.13	-18.44	-212.2%
Indoor Lighting	58.64	58.64	0.00	0.0%
COMPLIANCE TOTAL	514.85	425.43	89.42	17.4%
Receptacle	145.39	145.39	0.00	0.0%
Process	82.18	82.18	0.00	0.0%
Other Ltg	--	--	--	--
Process Motors	--	--	--	--
TOTAL	742.42	651.00	89.4	12.0%

Project Name: IVC Career Tech Building 300		NRCC-PRF-0	
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APPROVALS

Document Date: 10-18-19
Date Last Revised: 10-18-19
Project Number: 19-21V
Sheet Number: M3.2

Project Title: IMPERIAL VALLEY COLLEGE BUILDING 200, 300 AND 800 MODERNIZATION

Sheet Title: 300 ENERGY CALCULATIONS

Licensed Architect: JIMMY SANDERS, License No. 76476, State of California

Project Name: IVC Career Tech Building 300
Project Address: 380 East Aten Road Imperial 92251
Compliance Scope: ExistingAdditionAndAlteration

Table with 24 columns: 12. Equip Name, 13. Equip Type, 14. Qty, 15. Vol (gal), 16. Rated Capacity (lb/hr), 17. Efficiency, 18. Standby Loss, 19. Tank Est. R Value, 20. Qty, 21. GPM, 22. HP, 23. VSD (V/Hz), 24. Confirmed.

1 Wet System Equipment includes boilers, chillers, cooling towers, water heaters, etc.
2 Standby Loss = Annual Energy Loss

Discrepancy between modeled and designed equipment sizing? (If "Yes", see Table F "Additional Remarks" for an explanation) No

N. ECONOMIZER & FAN SYSTEMS SUMMARY Table with 5 columns: 1. Equip Name, 2. Outside Air, 3. Supply Fan, 4. Return Fan, 5. Economizer Type (if present).

CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance Report Version: NRCC-PRF-01-E-06262019-5583 Report Generated at: 2019-10-18 14:18:55

Project Name: IVC Career Tech Building 300
Project Address: 380 East Aten Road Imperial 92251
Compliance Scope: ExistingAdditionAndAlteration

N. ECONOMIZER & FAN SYSTEMS SUMMARY Table with 5 columns: 1. Equip Name, 2. Outside Air, 3. Supply Fan, 4. Return Fan, 5. Economizer Type (if present).

1 Wet System Equipment includes boilers, chillers, cooling towers, water heaters, etc.
2 Standby Loss = Annual Energy Loss

Discrepancy between modeled and designed equipment sizing? (If "Yes", see Table F "Additional Remarks" for an explanation) No

O. EQUIPMENT CONTROLS Table with 3 columns: 1. Equip Name, 2. Equipment, 3. Controls.

CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance Report Version: NRCC-PRF-01-E-06262019-5583 Report Generated at: 2019-10-18 14:18:55

Project Name: IVC Career Tech Building 300
Project Address: 380 East Aten Road Imperial 92251
Compliance Scope: ExistingAdditionAndAlteration

O. EQUIPMENT CONTROLS Table with 3 columns: 1. Equip Name, 2. Equipment, 3. Controls.

CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance Report Version: NRCC-PRF-01-E-06262019-5583 Report Generated at: 2019-10-18 14:18:55

Project Name: IVC Career Tech Building 300
Project Address: 380 East Aten Road Imperial 92251
Compliance Scope: ExistingAdditionAndAlteration

S. SYSTEM DISTRIBUTION SUMMARY Table with 6 columns: 1. Equip Name, 2. Equip Type, 3. Duct Leakage, 4. Duct Leakage, 5. Insulation, 6. Status.

1 See Table A40-C
2 See MEC-01-03 for unconditioned spaces
3 Lighting information for existing spaces modeled is not included in the table

Does the Project Include Zonal Systems? (If "Yes", see NRCC-PRF-MCH-DETAILS for system information) No
Does the Project Include a Solar Hot Water System? (If "Yes", see NRCC-PRF-MCH-DETAILS for system information) No
Multifamily or Hotel/Motel Occupancy? (If "Yes", see NRCC-PRF-MCH-DETAILS for DW system information) No

CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance Report Version: NRCC-PRF-01-E-06262019-5583 Report Generated at: 2019-10-18 14:18:55

Project Name: IVC Career Tech Building 300
Project Address: 380 East Aten Road Imperial 92251
Compliance Scope: ExistingAdditionAndAlteration

Q. INDOOR CONDITIONED LIGHTING GENERAL INFO Table with 5 columns: 1. Occupancy Type, 2. Conditioned Floor Area, 3. Installed Lighting Power, 4. Lighting Control Credits, 5. Additional (Custom) Allowance.

1 See Table A40-C
2 See MEC-01-03 for unconditioned spaces
3 Lighting information for existing spaces modeled is not included in the table

Does the Project Include Zonal Systems? (If "Yes", see NRCC-PRF-MCH-DETAILS for system information) No
Does the Project Include a Solar Hot Water System? (If "Yes", see NRCC-PRF-MCH-DETAILS for system information) No
Multifamily or Hotel/Motel Occupancy? (If "Yes", see NRCC-PRF-MCH-DETAILS for DW system information) No

CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance Report Version: NRCC-PRF-01-E-06262019-5583 Report Generated at: 2019-10-18 14:18:55

Project Name: IVC Career Tech Building 300
Project Address: 380 East Aten Road Imperial 92251
Compliance Scope: ExistingAdditionAndAlteration

T. UMET LOAD HOURS Table with 4 columns: Thermal Zone Name, Cooling Unmet Load Hour Limit, Proposed Cooling Unmet Load Hours, Heating Unmet Load Hour Limit.

U. ENERGY USE SUMMARY Table with 7 columns: Energy Component, Standard Design Site (MWh), Proposed Design Site (MWh), Margin (MWh), Standard Design Site (MWh), Proposed Design Site (MWh), Margin (MWh).

CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance Report Version: NRCC-PRF-01-E-06262019-5583 Report Generated at: 2019-10-18 14:18:55

Project Name: IVC Career Tech Building 300
Project Address: 380 East Aten Road Imperial 92251
Compliance Scope: ExistingAdditionAndAlteration

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT § 10-103
I certify that this Certificate of Compliance documentation is accurate and complete.

Documentation Author Name: Nicholas Harinton
Signature: Nicholas T. Harinton
Address: 14425 Lakeshore Dr #1
City/State/Zip: Grand Haven, MI 49417
Phone: 616-368-8522

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

1 I hereby affirm that I am eligible under the provisions of Division 3 of the Business and Professions Code to sign this document as the person responsible for its preparation; and that I am licensed in the State of California as a civil engineer, mechanical engineer, electrical engineer, or I am a licensed architect.

2 I affirm that I am eligible under the provisions of Division 3 of the Business and Professions Code by section 5537.2 or 4737.3 to sign this document as the person responsible for its preparation; and that I am a licensed contractor performing this work.

3 I affirm that I am eligible under Division 3 of the Business and Professions Code to sign this document because it pertains to a structure or type of work described as exempt pursuant to Business and Professions Code Sections 5537, 5538 and 6787.1.

Responsible Envelope Designer Name: Jimmy Sanders
Signature: Jimmy Sanders
Address: 1120 Industry Way
City/State/Zip: El Centro CA 92524
Phone: 760-353-5440

Responsible Lighting Designer Name: Victor Newman
Signature: Victor Newman
Address: 11861 E Turquoise Circle
City/State/Zip: Dewey AZ 86327
Phone: 928-772-8448

CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance Report Version: NRCC-PRF-01-E-06262019-5583 Report Generated at: 2019-10-18 14:18:55

Project Name: IVC Career Tech Building 300
Project Address: 380 East Aten Road Imperial 92251
Compliance Scope: ExistingAdditionAndAlteration

NRCC-PRF-ENV-DETAILS - SECTION START

A. OPAQUE SURFACE ASSEMBLY DETAILS Table with 4 columns: 1. Surface Name, 2. Surface Type, 3. Description of Assembly Layers, 4. Notes.

B. OVERHANG DETAILS (Adapted from NRCC-ENV-02-4)
This Section Does Not Apply

C. OPAQUE DOOR SUMMARY
This Section Does Not Apply

CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance Report Version: NRCC-PRF-01-E-06262019-5583 Report Generated at: 2019-10-18 14:18:55

Project Name: IVC Career Tech Building 300
Project Address: 380 East Aten Road Imperial 92251
Compliance Scope: ExistingAdditionAndAlteration

NRCC-PRF-MCH-DETAILS - SECTION START

A. MECHANICAL VENTILATION AND REHEAT (Adapted from 2016-NRCC-MCH-03-E) Table with 17 columns: 1. DESIGN AIR FLOWS, 2. VENTILATION (§ 120.1).

CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance Report Version: NRCC-PRF-01-E-06262019-5583 Report Generated at: 2019-10-18 14:18:55

DIVISION 15 CONSULTING SERVICES, INC. 1180 Turquoise Circle Dewey, Arizona 86327 (928) 772-8448 FAX (928) 772-8942 Division15@coableone.net

Sanders, INC. Architecture/Engineering 102 INDUSTRY WAY, SUITE A EL CENTRO, CA 92243 760 353 5440 FAX 760 353 5442

Project Title: IMPERIAL VALLEY COLLEGE BUILDING 200, 300 AND 800 MODERNIZATION

Sheet Title: 300 ENERGY CALCULATIONS

Professional Engineer Seal for Jimmy Sanders, License No. 76476, State of California. Includes date and sheet information.



IDENTIFICATION STAMP
 DIV. OF THE STATE ARCHITECT
 APP. 04-118720 INC.
 REVIEWED FOR
 NO. 23110
 Exp. 8/30/2020
 DATE: 01.16.20

APPROVALS

DIVISION 15
 CONSULTING SERVICES, INC.
 11180 Turquoise Circle
 Dewey, Arizona 86327
 (928) 772-8448
 FAX (928) 772-8942
 Division15@csobleone.net

Sanders, INC.
 Architecture/Engineering
 102 INDUSTRY WAY, SUITE A
 EL CENTRO, CA 92243
 760 353 5440 FAX 760 353 5442

Project Title
**IMPERIAL VALLEY COLLEGE
 BUILDING 200, 300 AND 800 MODERNIZATION**

Sheet Title
300 ENERGY CALCULATIONS

	Document Date	Project Number
	10-18-19	19-21V
Date Last Revised		Sheet Number
		M3.3.3

Project Name: IVC Career Tech Building 300		NRCC-PRF-01-E Page 19 of 24	
Project Address: 380 East Aten Road Imperial 92251		Calculation Date/Time: 17:18, Fri, Oct 18, 2019	
Compliance Scope: ExistingAdditionAndAlteration		Input File Name: IVC Building 300 Mod.cbdl6x	

B. ZONAL SYSTEM AND TERMINAL UNIT SUMMARY											§ 140.4		
System ID	System Type	Qty	Rated Capacity (kBtu/h)		Economizer	Zone Name	Airflow (cfm)			Fan Motor	Confirmed		
			Heating	Cooling			Design	Min.	Max. Ratio		Pass	Fail	
1-Classroom1 VFC-1-Trm	Uncontrolled	1	NA	NA	NA	1-Classroom1 VFC-1	1700	NA	0.00	NA	NA	<input type="checkbox"/>	<input type="checkbox"/>
2-Classroom2 VFC-2-Trm	Uncontrolled	1	NA	NA	NA	2-Classroom2 VFC-2	1700	NA	0.00	NA	NA	<input type="checkbox"/>	<input type="checkbox"/>
3-Midi3 VFC-3-Trm	Uncontrolled	1	NA	NA	NA	3-Midi3 VFC-3	1700	NA	0.00	NA	NA	<input type="checkbox"/>	<input type="checkbox"/>
4-Office/Music/Studios VFC-Trm	Uncontrolled	1	NA	NA	NA	4-Office/Music/Studios VFC	2500	NA	0.00	NA	NA	<input type="checkbox"/>	<input type="checkbox"/>
5-Music Lab 13 VFC-5-Trm	Uncontrolled	1	NA	NA	NA	5-Music Lab 13 VFC-5	2500	NA	0.00	NA	NA	<input type="checkbox"/>	<input type="checkbox"/>
6-Data Elec Jan VFC-6-Trm	Uncontrolled	1	NA	NA	NA	6-Data Elec Jan VFC-6	600	NA	0.00	NA	NA	<input type="checkbox"/>	<input type="checkbox"/>
7-Music Lab 6 VFC-7-Trm	Uncontrolled	1	NA	NA	NA	7-Music Lab 6 VFC-7	1700	NA	0.00	NA	NA	<input type="checkbox"/>	<input type="checkbox"/>
8-Classroom5 VFC-8-Trm	Uncontrolled	1	NA	NA	NA	8-Classroom5 VFC-8	1700	NA	0.00	NA	NA	<input type="checkbox"/>	<input type="checkbox"/>
9-Classroom4 VFC-9-Trm	Uncontrolled	1	NA	NA	NA	9-Classroom4 VFC-9	1700	NA	0.00	NA	NA	<input type="checkbox"/>	<input type="checkbox"/>

C. EXHAUST FAN SUMMARY
 This Section Does Not Apply

CA Building Energy Efficiency Standards- 2016 Nonresidential Compliance Report Version: NRCC-PRF-01-E-06262019-5583 Report Generated at: 2019-10-18 14:18:55

Project Name: IVC Career Tech Building 300		NRCC-PRF-01-E Page 20 of 24	
Project Address: 380 East Aten Road Imperial 92251		Calculation Date/Time: 17:18, Fri, Oct 18, 2019	
Compliance Scope: ExistingAdditionAndAlteration		Input File Name: IVC Building 300 Mod.cbdl6x	

D. DHW EQUIPMENT SUMMARY - (Adapted from NRCC-PLB-01)											§ 110.3		Confirmed	
DHW Name	Heater Element Type	Tank Type	Qty	Tank Vol (gal)	Rated Input (Btu/h)	Efficiency	Tank Insulation R-value (Int/Ext)	Standby Loss Fraction	Heat Pump Type	Tank Location or Ambient Condition	Pass	Fail		
RHEEM EGSP102	Electricity	Storage	1	30.00	10	EF: 0.93	NA	SBFL: NA	NA	NA	<input type="checkbox"/>	<input type="checkbox"/>		

E. MULTI-FAMILY CENTRAL DHW SYSTEM DETAILS
 This Section Does Not Apply

F. SOLAR HOT WATER HEATING SUMMARY (Adapted from NRCC-STH-01)
 This Section Does Not Apply

G. MECHANICAL HVAC ACCEPTANCE TESTS & FORMS (Adapted from 2016-NRCC-MCH-01-E)											§ 140.4										
Test Description	# of units	Outdoor Air	Single Zone Unitary	Air Duct Leaks	Economizer Controls	DCV	Supply Fan VAV	VAV Releasage	Supply Water Temp. Reset	Hard Startable Flow Control	Auto Damper/Start Control	RTO for OA Units	Auto On/Off for Air & Zone	From Energy Storage DRAC	TES Systems	Supply Air Temp. Reset	Cooling/Heating Energy Controls	ECMS	Confirmed		
																			Pass	Fail	
Equipment Requiring Testing or Verification																				<input type="checkbox"/>	<input type="checkbox"/>
N/A1 - SHW	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<input type="checkbox"/>	<input type="checkbox"/>
Classroom 1 VFC-1	1	X	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<input type="checkbox"/>	<input type="checkbox"/>
Classroom 2 VFC-2	1	X	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<input type="checkbox"/>	<input type="checkbox"/>

CA Building Energy Efficiency Standards- 2016 Nonresidential Compliance Report Version: NRCC-PRF-01-E-06262019-5583 Report Generated at: 2019-10-18 14:18:55

Project Name: IVC Career Tech Building 300		NRCC-PRF-01-E Page 21 of 24	
Project Address: 380 East Aten Road Imperial 92251		Calculation Date/Time: 17:18, Fri, Oct 18, 2019	
Compliance Scope: ExistingAdditionAndAlteration		Input File Name: IVC Building 300 Mod.cbdl6x	

G. MECHANICAL HVAC ACCEPTANCE TESTS & FORMS (Adapted from 2016-NRCC-MCH-01-E)											§ 140.4										
Test Description	# of units	Outdoor Air	Single Zone Unitary	Air Duct Leaks	Economizer Controls	DCV	Supply Fan VAV	VAV Releasage	Supply Water Temp. Reset	Hard Startable Flow Control	Auto Damper/Start Control	RTO for OA Units	Auto On/Off for Air & Zone	From Energy Storage DRAC	TES Systems	Supply Air Temp. Reset	Cooling/Heating Energy Controls	ECMS	Confirmed		
																			Pass	Fail	
Equipment Requiring Testing or Verification																				<input type="checkbox"/>	<input type="checkbox"/>
Midi Lab 3 VFC-3	1	X	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<input type="checkbox"/>	<input type="checkbox"/>
Office/Music/Studios VFC	1	X	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<input type="checkbox"/>	<input type="checkbox"/>
Music Lab 13 VFC-5	1	X	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<input type="checkbox"/>	<input type="checkbox"/>
Data Elec Jan VFC-6	1	X	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<input type="checkbox"/>	<input type="checkbox"/>
Music Lab 6 VFC-7	1	X	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<input type="checkbox"/>	<input type="checkbox"/>
Classroom 5 VFC-8	1	X	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<input type="checkbox"/>	<input type="checkbox"/>
Classroom 4 VFC-9	1	X	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<input type="checkbox"/>	<input type="checkbox"/>

H. EVAPORATIVE COOLER SUMMARY
 This Section Does Not Apply

CA Building Energy Efficiency Standards- 2016 Nonresidential Compliance Report Version: NRCC-PRF-01-E-06262019-5583 Report Generated at: 2019-10-18 14:18:55

Project Name: IVC Career Tech Building 300		NRCC-PRF-01-E Page 22 of 24	
Project Address: 380 East Aten Road Imperial 92251		Calculation Date/Time: 17:18, Fri, Oct 18, 2019	
Compliance Scope: ExistingAdditionAndAlteration		Input File Name: IVC Building 300 Mod.cbdl6x	

NRCC-PRF-LTI-DETAILS - SECTION START-

A. INDOOR CONDITIONED LIGHTING CONTROL CREDITS (Adapted from NRCC-LTI-02-E) § 140.6
 This Section Does Not Apply

B. INDOOR CONDITIONED LIGHTING MANDATORY LIGHTING CONTROLS (Adapted from NRCC-LTI-02-E) § 130.1
 This Section Does Not Apply

C. TAILORED METHOD CONDITIONED LIGHTING POWER ALLOWANCE SUMMARY AND CHECKLIST (Adapted from NRCC-LTI-04-E) § 140.6

General lighting power (See Table D)	0
General lighting power from special function areas (See Table E)	NA
Additional "use it or lose it" (See Table G)	0
Total watts	0

D. GENERAL LIGHTING POWER (Adapted from NRCC-LTI-04-E) § 140.6-D
 This Section Does Not Apply

E. GENERAL LIGHTING FROM SPECIAL FUNCTION AREAS (Adapted from NRCC-LTI-04-E) § 140.6(c) 3H

Room Number	Primary Function Area	Illuminance Value (Lux)	Room Cavity Ratio (Table G)	Allowed LPD	Floor Area (ft ²)	Allowed Watts	Confirmed
							Pass Fail
NA	NA	NA	NA	NA	NA	NA	<input type="checkbox"/> <input type="checkbox"/>

F. ROOM CAVITY RATIO (Adapted from NRCC-LTI-04-E)

Rectangular Spaces						Confirmed	
Room Number	Task/Activity Description	Room Length (ft)	Room Width (ft)	Room Cavity Height (ft)	RCR	Pass	Fail
NA	NA	NA	NA	NA	NA	<input type="checkbox"/>	<input type="checkbox"/>

Non-Rectangular Spaces
 This Section Does Not Apply

CA Building Energy Efficiency Standards- 2016 Nonresidential Compliance Report Version: NRCC-PRF-01-E-06262019-5583 Report Generated at: 2019-10-18 14:18:55

Project Name: IVC Career Tech Building 300		NRCC-PRF-01-E Page 23 of 24	
Project Address: 380 East Aten Road Imperial 92251		Calculation Date/Time: 17:18, Fri, Oct 18, 2019	
Compliance Scope: ExistingAdditionAndAlteration		Input File Name: IVC Building 300 Mod.cbdl6x	

Note: All applicable spaces are listed under the Non-Rectangular Spaces table.

G. ADDITIONAL "USE IT OR LOSE IT" (Adapted from NRCC-LTI-04-E)

1.	2.	3.	4.	Allowed Watts	Confirmed
Wall Display	Combined Floor Display and Task Lighting	Combined Ornamental and Special Effects Lighting	Very Valuable Merchandise		Pass Fail
0	0	0	0	0	<input type="checkbox"/> <input type="checkbox"/>

5. Wall Display
 This Section Does Not Apply

6. Floor Display and Task Lighting
 This Section Does Not Apply

7. Combined Ornamental and Special Effects Lighting
 This Section Does Not Apply

8. Very Valuable Merchandise
 This Section Does Not Apply

H. INDOOR & OUTDOOR LIGHTING ACCEPTANCE TESTS & FORMS (Adapted from NRCC-LTI-01-E and NRCC-LTO-01-E) § 130.4
 Declaration of Required Acceptance Certificates (NRCA) - Acceptance Certificates that must be verified in the field. (Retain copies and verify forms are completed and signed to post in field for Field Inspector to verify).

Test Description	# of units	Indoor			Outdoor	Confirmed	
		NRCA-LTI-02-A	NRCA-LTI-03-A	NRCA-LTI-04-A	NRCA-LTO-02-A	Pass	Fail
Equipment Requiring Testing or Verification						<input type="checkbox"/>	<input type="checkbox"/>
Occupant Sensors	0	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Automatic Time Switch	0	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Automatic Daylighting	0	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Demand Responsive	0	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Outdoor Controls	0	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

CA Building Energy Efficiency Standards- 2016 Nonresidential Compliance Report Version: NRCC-PRF-01-E-06262019-5583 Report Generated at: 2019-10-18 14:18:55

Project Name: IVC Career Tech Building 300		NRCC-PRF-01-E Page 24 of 24	
Project Address: 380 East Aten Road Imperial 92251		Calculation Date/Time: 17:18, Fri, Oct 18, 2019	
Compliance Scope: ExistingAdditionAndAlteration		Input File Name: IVC Building 300 Mod.cbdl6x	

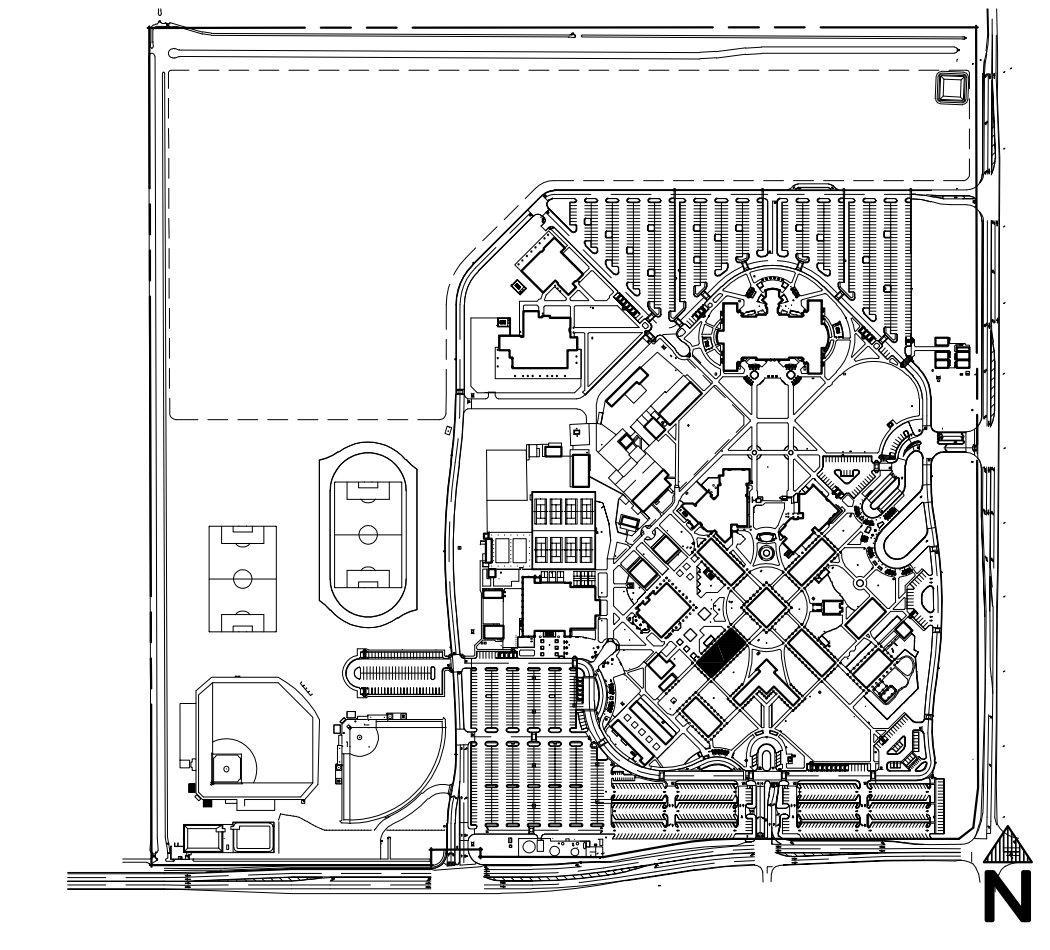
CA Building Energy Efficiency Standards- 2016 Nonresidential Compliance Report Version: NRCC-PRF-01-E-06262019-5583 Report Generated at: 2019-10-18 14:18:55

HVAC SYSTEM HEATING AND COOLING LOADS SUMMARY									
Project Name		Imperial Valley College Bldg 300							
System Name		Classroom 1 VFC-1							
Date		10/18/2019							
Floor Area		854							
ENGINEERING CHECKS									
Number of Systems		1							
HEATING SYSTEM		SYSTEM LOAD							
Output per System		Total Room Loads		COIL COOLING PEAK		COIL HTG PEAK			
Total Output (Btu/h)		Return Ventilated Lighting		CFM	Sensible	Latent	CFM	Sensible	
Output (Btu/h)		Return Air Ducts							
Output (Btu/h)		Return Fan							
Output (Btu/h)		Ventilation							
Output (Tons)		Supply Fan							
Output (Btu/h)		Supply Air Ducts							
Output (Tons)		TOTAL SYSTEM LOAD							
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IDENTIFICATION STAMP
 DIV. OF THE STATE ARCHITECT
 APP. 04-118720 INC.
 REVIEWED FOR
 SS FLS ACS
 DATE: 01.16.20

APPROVALS



KEY PLAN - BLDG 800

KEYNOTES:

- ① ROOFTOP ENERGY RECOVERY VENTILATOR (ERV) & FAN COIL UNIT ON ROOF w/ FULL SIZE S.A. AND R.A. DUCT DROPS LINED w/ 1" THICK ACOUSTIC MATERIAL INTO CEILING SPACE - SEE ① ②
- ② FAN COIL UNIT IN CEILING SPACE - SEE DETAIL ⑩
- ③ EXHAUST DUCT U.T.R. w/ T-TOP (SIZE NOTED)
- ④ T-STAT OR REMOTE TEMP. SENSOR ON HALL @ +48" A.F.F. - SEE ⑩
- ⑤ INSTALL R.A.G. (MARK "S") ON BOTTOM OF R.A. FLENNY
- ⑥ 8" U.T.R. w/ T-TOP
- ⑦ CEILING DIFFUSER - SEE DETAIL ③
- ⑧ R.A.G. - SEE DETAIL ⑦
- ⑨ UNDERCUT (U.C.) DOOR
- ⑩ PROVIDE SMOKE DETECTION TO SHUT DOWN A.C. UNIT INDOOR AIR FANS UPON DETECTION - SEE FIRE ALARM DRAWINGS

LEGEND:

▨ 1-HR STORAGE ROOM SEPARATION

NOTES:

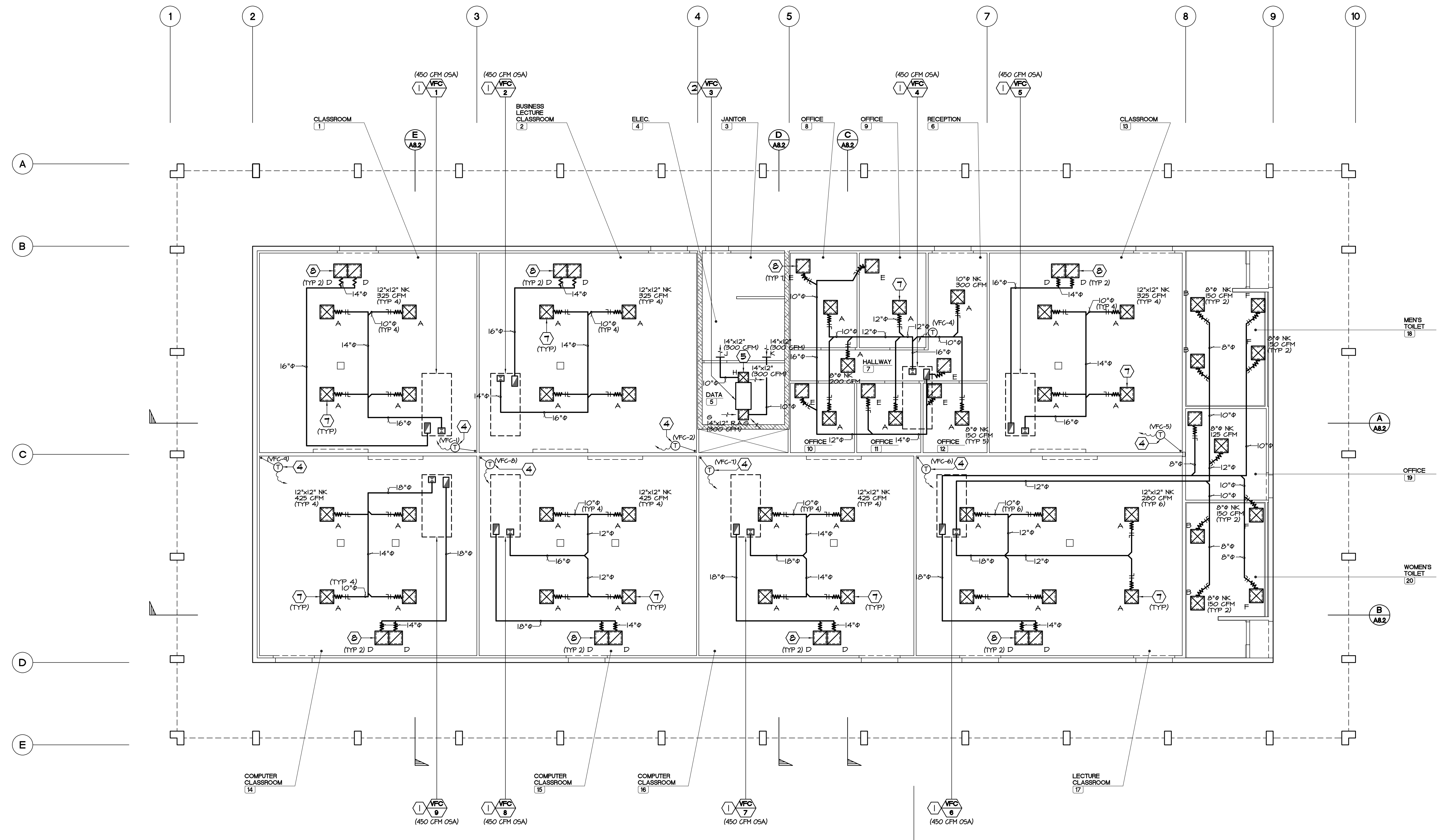
- 1. SEE ③ FOR TYPICAL DUCT DETAILS
- 2. UNIT LOCATIONS ARE APPROXIMATE SEE ARCHITECTURAL SHEET A6 FOR EXACT MECH. EQUIPMENT LOCATIONS

Sanders, INC.
 Architecture/Engineering
 1102 INDUSTRY WAY, SUITE A
 EL CENTRO, CA 92243
 760 353 5440 FAX 760 353 5442

Project Title
**IMPERIAL VALLEY COLLEGE
 BUILDING 200, 300 AND 800 MODERNIZATION**

Sheet Title
HVAC PLAN

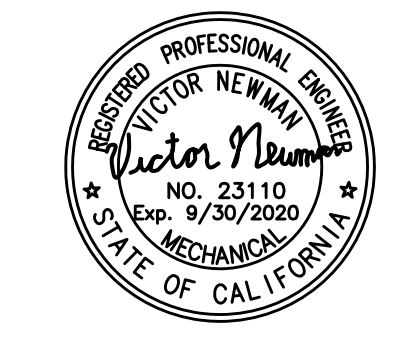
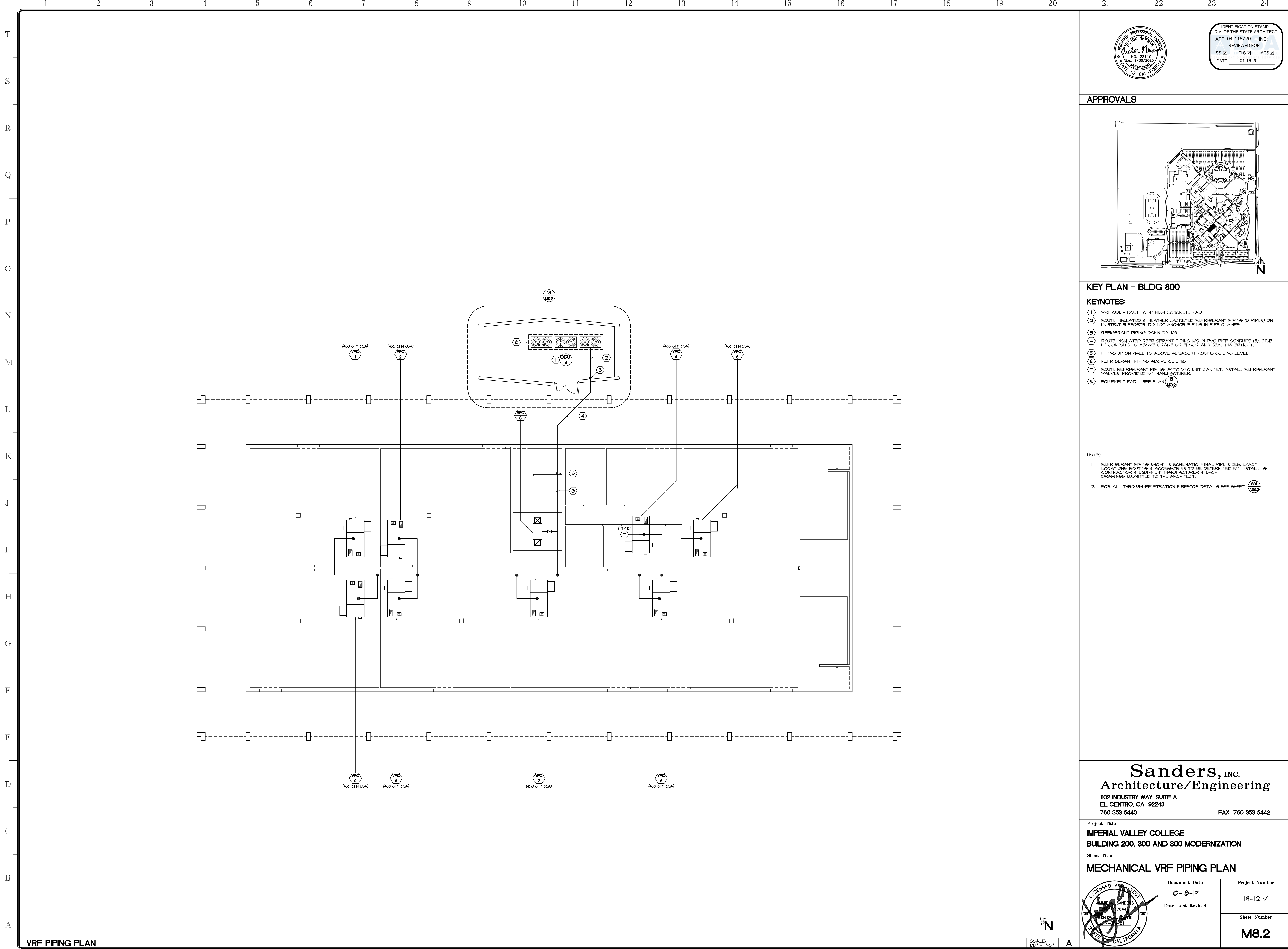
	Document Date	Project Number
	Date Last Revised	Sheet Number
	10-18-19	19-121V
		M8.1



HVAC PLAN

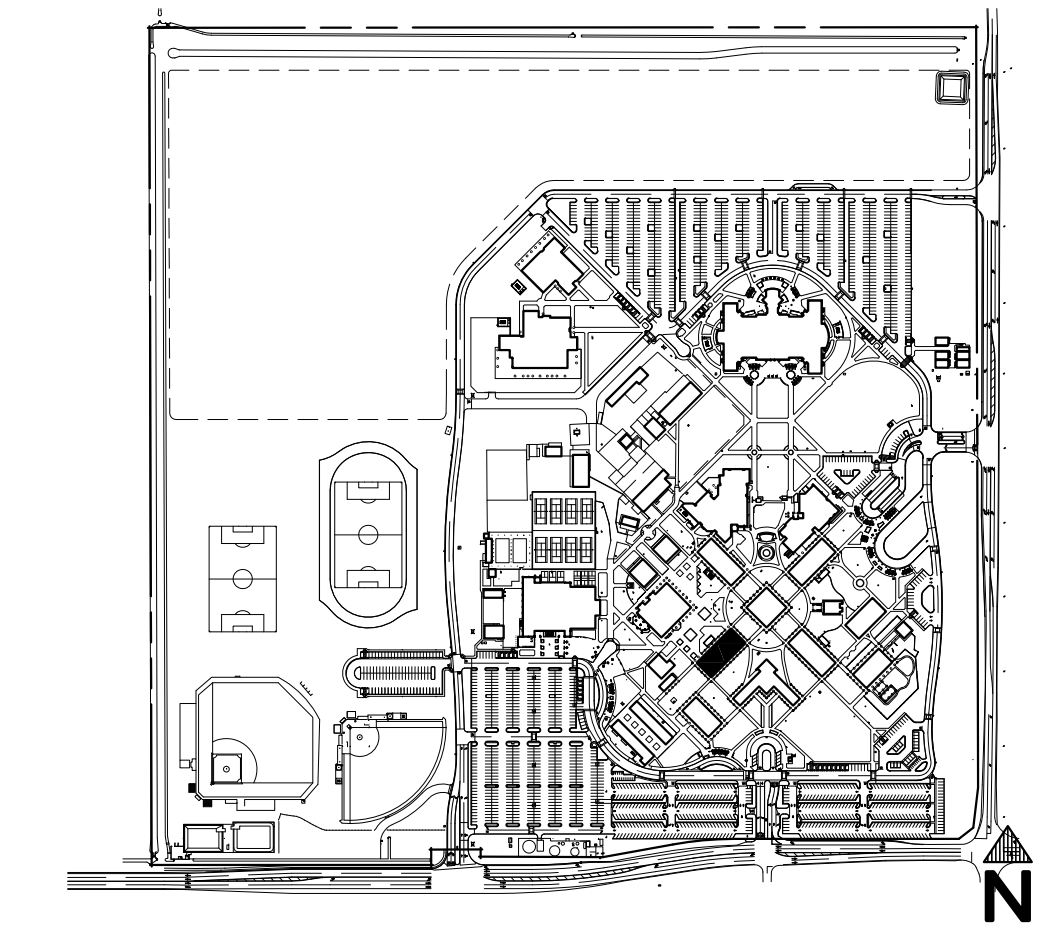
SCALE: 1/8" = 1'-0" A





IDENTIFICATION STAMP
 DIV. OF THE STATE ARCHITECT
 APP. 04-118720 INC.
 REVIEWED FOR
 SS FLS ACS
 DATE: 01.16.20

APPROVALS



KEY PLAN - BLDG 800

KEYNOTES:

- ① VRF ODU - BOLT TO 4" HIGH CONCRETE PAD
- ② ROUTE INSULATED & WEATHER JACKETED REFRIGERANT PIPING (3 PIPES) ON UNISTRUT SUPPORTS. DO NOT ANCHOR PIPING IN PIPE CLAMPS.
- ③ REFRIGERANT PIPING DOWN TO U/G
- ④ ROUTE INSULATED REFRIGERANT PIPING U/G IN PVC PIPE CONDUITS (3). STUB UP CONDUITS TO ABOVE GRADE OR FLOOR AND SEAL WATER TIGHT.
- ⑤ PIPING UP ON HALL TO ABOVE ADJACENT ROOMS CEILING LEVEL.
- ⑥ REFRIGERANT PIPING ABOVE CEILING
- ⑦ ROUTE REFRIGERANT PIPING UP TO VFC UNIT CABINET. INSTALL REFRIGERANT VALVES, PROVIDED BY MANUFACTURER.
- ⑧ EQUIPMENT PAD - SEE PLAN MO2

NOTES:

- 1. REFRIGERANT PIPING SHOWN IS SCHEMATIC. FINAL PIPE SIZES, EXACT LOCATIONS, ROUTING & ACCESSORIES TO BE DETERMINED BY INSTALLING CONTRACTOR & EQUIPMENT MANUFACTURER & SHOP DRAWINGS SUBMITTED TO THE ARCHITECT.
- 2. FOR ALL THROUGH-PENETRATION FIRESTOP DETAILS SEE SHEET **SH AX53**

Sanders, INC.
 Architecture/Engineering
 102 INDUSTRY WAY, SUITE A
 EL CENTRO, CA 92243
 760 353 5440 FAX 760 353 5442

Project Title
**IMPERIAL VALLEY COLLEGE
 BUILDING 200, 300 AND 800 MODERNIZATION**

Sheet Title
MECHANICAL VRF PIPING PLAN

	Document Date	Project Number
	Date Last Revised	Sheet Number
	10-18-19	19-121V
		M8.2

VRF PIPING PLAN

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

Project Name: IVC Career Tech Building 800		NRCC-PRF-01-E Page 1 of 24	
Project Address: 380 East Aten Road Imperial 92251		Calculation Date/Time: 17:24, Fri, Oct 18, 2019	
Compliance Scope: ExistingAdditionAndAlteration		Input File Name: IVC Building 800 Mod.cbd16x	

PROJECT GENERAL INFORMATION				
1. Project Location (city)	Imperial	8. Standards Version	Compliance2016	
2. CA Zip Code	92251	9. Compliance Software (version)	EnergyPro 7.2	
3. Climate Zone	15	10. Weather File	IMPERIAL_747185_CZ2010.epw	
4. Total Unconditioned Floor Area in Scope	7,653 R ²	11. Building Orientation (deg)	[N] 45 deg	
5. Total Unconditioned Floor Area	0 R ²	12. Permitted Scope of Work	ExistingAdditionAndAlteration	
6. Total # of Stories (Habitable Above Grade)	1	13. Building Type(s)	Nonresidential	
7. Total # of dwelling units	0	14. Gas Type	NaturalGas	

COMPLIANCE RESULTS FOR PERFORMANCE COMPONENTS (Annual TDV Energy Use, kWh/ft ² -yr) § 140.1				
BUILDING COMPLIES				
1. Energy Component	2. Standard Design (TDV)	3. Proposed Design (TDV)	4. Compliance Margin (TDV)	5. Percent Better than Standard
Space Heating	2.28	2.14	0.14	6.1%
Space Cooling	266.17	242.82	23.35	8.8%
Indoor Fans	160.11	114.77	45.34	28.3%
Heat Rejection	--	--	--	--
Pumps & Misc.	--	--	--	--
Domestic Hot Water	8.07	27.16	-19.09	-236.6%
Indoor Lighting	56.25	56.25	--	0.0%
COMPLIANCE TOTAL	492.88	443.14	49.74	10.1%
Receptacle	152.91	152.91	0.0	0.0%
Process	84.78	84.78	0.0	0.0%
Other Ltg.	--	--	--	--
Process Motors	--	--	--	--
TOTAL	730.57	680.83	49.7	6.8%

CA Building Energy Efficiency Standards- 2016 Nonresidential Compliance Report Version: NRCC-PRF-01-E-06262019-5583 Report Generated at: 2019-10-18 14:25:25

Project Name: IVC Career Tech Building 800		NRCC-PRF-01-E Page 2 of 24	
Project Address: 380 East Aten Road Imperial 92251		Calculation Date/Time: 17:24, Fri, Oct 18, 2019	
Compliance Scope: ExistingAdditionAndAlteration		Input File Name: IVC Building 800 Mod.cbd16x	

PRIORITY PLAN CHECK/ INSPECTION ITEMS (in order of highest to lowest TDV energy savings)	
1st	Indoor Fans: Check envelope and mechanical
2nd	Space Cooling: Check envelope and mechanical
3rd	Space Heating: Check envelope and mechanical
4th	Heat Rejection: Check envelope and mechanical
5th	Pumps & Misc.: Check mechanical
6th	Indoor Lighting: Check lighting
7th	Domestic Hot Water: Check mechanical

Compliance Margin By Energy Component (from Table B column 4)	
Indoor Fans	23.35
Space Cooling	23.35
Space Heating	0.14
Heat Rejection	0.00
Pumps & Misc.	0.00
Indoor Lighting	0.00
Domestic Hot Water	-19.09

D. EXCEPTIONAL CONDITIONS	
This project uses the Simplified Geometry Performance Modeling Approach which is not capable of modeling daylighting controls and assumes the prescriptive Secondary Daylight Control requirements are met. PRESCRIPTIVE COMPLIANCE documentation form NRCC-LTI-02-E for the requirements of section 140.6(6) Automatic Daylighting Controls in Secondary Daylit Zones is required.	
This project includes Domestic Hot Water in the analysis. Please verify that Domestic Hot Water is included in the design for the permitted scope of work.	

E. HERS VERIFICATION	
This Section Does Not Apply	

F. ADDITIONAL REMARKS	
None Provided	

CA Building Energy Efficiency Standards- 2016 Nonresidential Compliance Report Version: NRCC-PRF-01-E-06262019-5583 Report Generated at: 2019-10-18 14:25:25

Project Name: IVC Career Tech Building 800		NRCC-PRF-01-E Page 3 of 24	
Project Address: 380 East Aten Road Imperial 92251		Calculation Date/Time: 17:24, Fri, Oct 18, 2019	
Compliance Scope: ExistingAdditionAndAlteration		Input File Name: IVC Building 800 Mod.cbd16x	

G. COMPLIANCE PATH & CERTIFICATE OF COMPLIANCE SUMMARY			
Identify which building components use the performance or prescriptive path for compliance. "NA" = not in project			
For components that utilize the performance path, indicate the sheet number that includes mandatory notes on plans.			
Building Component	Compliance Path	Compliance Forms (required for submittal)	Location of Mandatory Notes on Plans
Envelope	<input checked="" type="checkbox"/> Performance	NRCC-PRF-ENV-DETAILS (section of the NRCC-PRF-01-E)	
	<input checked="" type="checkbox"/> Prescriptive	NRCC-ENV-01 / 02 / 03 / 04 / 05 / 06-E	
Mechanical	<input checked="" type="checkbox"/> Performance	NRCC-PRF-MCH-DETAILS (section of the NRCC-PRF-01-E)	
	<input checked="" type="checkbox"/> Prescriptive	NRCC-MCH-01 / 02 / 03 / 04 / 05 / 06 / 07-E	
Domestic Hot Water	<input checked="" type="checkbox"/> Performance	NRCC-PRF-PLB-DETAILS (section of the NRCC-PRF-01-E)	
	<input checked="" type="checkbox"/> Prescriptive	NRCC-PLB-01-E	
Lighting (Indoor Conditioned)	<input checked="" type="checkbox"/> Performance	NRCC-PRF-LTI-DETAILS (section of the NRCC-PRF-01-E)	
	<input checked="" type="checkbox"/> Prescriptive	NRCC-LTI-01 / 02 / 03 / 04 / 05-E	
Covered Process: Commercial Kitchens	<input checked="" type="checkbox"/> Performance	S2 (section of the NRCC-PRF-01-E)	
	<input checked="" type="checkbox"/> Prescriptive	NRCC-PRC-01 / 03-E	
Covered Process: Computer Rooms	<input checked="" type="checkbox"/> Performance	S3 (section of the NRCC-PRF-01-E)	
	<input checked="" type="checkbox"/> Prescriptive	NRCC-PRC-01 / 04-E	
Covered Process: Laboratory Exhaust	<input checked="" type="checkbox"/> Performance	S4 (section of the NRCC-PRF-01-E)	
	<input checked="" type="checkbox"/> Prescriptive	NRCC-PRC-01 / 09-E	

CA Building Energy Efficiency Standards- 2016 Nonresidential Compliance Report Version: NRCC-PRF-01-E-06262019-5583 Report Generated at: 2019-10-18 14:25:25

Project Name: IVC Career Tech Building 800		NRCC-PRF-01-E Page 4 of 24	
Project Address: 380 East Aten Road Imperial 92251		Calculation Date/Time: 17:24, Fri, Oct 18, 2019	
Compliance Scope: ExistingAdditionAndAlteration		Input File Name: IVC Building 800 Mod.cbd16x	

COMPLIANCE PATH & CERTIFICATE OF COMPLIANCE SUMMARY			
The following building components are only eligible for prescriptive compliance. Indicate which are relevant to the project.		The following building components may have mandatory requirements per Part 6. Indicate which are relevant to the project.	
Yes	NA	Prescriptive Requirement	Compliance Forms
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Lighting (Indoor Unconditioned) §140.6.2	NRCC-LTI-01 / 02 / 03 / 04 / 05-E
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Lighting (Outdoor) §140.7	NRCC-LTO-01 / 02 / 03-E
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Lighting (Sign) §140.8	NRCC-LTS-01-E
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Solar Thermal Water Heating §140.5	NRCC-STH-01-E

Yes	NA	Mandatory Requirement	Compliance Forms
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Commissioning §120.8	NRCC-CR-01 / 02 / 03 / 05-E
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Simple Systems	NRCC-CR-01 / 02 / 03 / 05-E
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Complex Systems	NRCC-CR-01 / 02 / 03 / 05-E
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Electrical §120.5	NRCC-ECC-01-E
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Solar Ready §110.10	NRCC-SRA-01 / 02-E
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Covered Process §120.6	NRCC-PRC-01-E
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Parking Garage	NRCC-PRC-02-E
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Commercial Refrigeration	NRCC-PRC-05-E
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Warehouse Refrigeration	NRCC-PRC-06/07/08-E
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Compressed Air	NRCC-PRC-10-E
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Process Boilers	NRCC-PRC-11-E

CA Building Energy Efficiency Standards- 2016 Nonresidential Compliance Report Version: NRCC-PRF-01-E-06262019-5583 Report Generated at: 2019-10-18 14:25:25

Project Name: IVC Career Tech Building 800		NRCC-PRF-01-E Page 5 of 24	
Project Address: 380 East Aten Road Imperial 92251		Calculation Date/Time: 17:24, Fri, Oct 18, 2019	
Compliance Scope: ExistingAdditionAndAlteration		Input File Name: IVC Building 800 Mod.cbd16x	

I. CERTIFICATE OF INSTALLATION, CERTIFICATE OF ACCEPTANCE & CERTIFICATE OF VERIFICATION SUMMARY (NRCC/NRCA/NRCV) - Documentation Author to indicate which Certificates must be submitted for the features to be recognized for compliance (Retain copies and verify forms are completed and signed to post in field for Field Inspector to verify). See Tables G, H, and I in MCH and LTI Details Sections for Acceptance Tests and forms by equipment.				Confirmed	
Building Component	Compliance Forms (required for submittal)	Pass	Fail	Pass	Fail
Envelope	<input checked="" type="checkbox"/> NRCC-ENV-01-E - For all buildings	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	<input checked="" type="checkbox"/> NRCA-ENV-02-F - NRFC label verification for fenestration	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	<input checked="" type="checkbox"/> NRCC-MCH-01-E - For all buildings with Mechanical Systems	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	<input checked="" type="checkbox"/> NRCA-MCH-02-A - Outdoor Air	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	<input checked="" type="checkbox"/> NRCA-MCH-03-A - Constant Volume Single Zone HVAC	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	<input checked="" type="checkbox"/> NRCA-MCH-04-H - Air Distribution Duct Leakage	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	<input checked="" type="checkbox"/> NRCA-MCH-05-A - Air Economizer Controls	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	<input checked="" type="checkbox"/> NRCA-MCH-06-A - Demand Control Ventilation	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	<input checked="" type="checkbox"/> NRCA-MCH-07-A - Supply Fan Variable Flow Controls	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	<input checked="" type="checkbox"/> NRCA-MCH-08-A - Valve Leakage Test	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Mechanical	<input checked="" type="checkbox"/> NRCA-MCH-09-A - Supply Water Temp Reset Controls	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	<input checked="" type="checkbox"/> NRCA-MCH-10-A - Hydronic System Variable Flow Controls	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	<input checked="" type="checkbox"/> NRCA-MCH-11-A - Auto Demand Shed Controls	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	<input checked="" type="checkbox"/> NRCA-MCH-12-A - Packaged Direct Expansion Units	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	<input checked="" type="checkbox"/> NRCA-MCH-13-A - Air Handling Units and Zone Terminal Units	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	<input checked="" type="checkbox"/> NRCA-MCH-14-A - Distributed Energy Storage	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	<input checked="" type="checkbox"/> NRCA-MCH-15-A - Thermal Energy Storage	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	<input checked="" type="checkbox"/> NRCA-MCH-16-A - Supply Air Temp Reset Controls	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	<input checked="" type="checkbox"/> NRCA-MCH-17-A - Condensate Water Temp Reset Controls	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	<input checked="" type="checkbox"/> NRCA-MCH-18-A - Energy Management Controls Systems	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> NRCC-MCH-04-H - Duct Leakage Test	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	

CA Building Energy Efficiency Standards- 2016 Nonresidential Compliance Report Version: NRCC-PRF-01-E-06262019-5583 Report Generated at: 2019-10-18 14:25:25

Project Name: IVC Career Tech Building 800		NRCC-PRF-01-E Page 6 of 24	
Project Address: 380 East Aten Road Imperial 92251		Calculation Date/Time: 17:24, Fri, Oct 18, 2019	
Compliance Scope: ExistingAdditionAndAlteration		Input File Name: IVC Building 800 Mod.cbd16x	

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Building Component	Compliance Forms (required for submittal)	Pass	Fail	Pass	Fail
Plumbing	<input checked="" type="checkbox"/> NRCC-PLB-01-E - For all buildings with Plumbing Systems	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	<input checked="" type="checkbox"/> NRCC-PLB-02-E - required on central systems in high-rise residential, hotel/motel application.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	<input checked="" type="checkbox"/> NRCC-PLB-03-E - Single dwelling unit systems in high-rise residential, hotel/motel application.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	<input checked="" type="checkbox"/> NRCC-PLB-21-E - HERS verified central systems in high-rise residential, hotel/motel application.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	<input checked="" type="checkbox"/> NRCC-PLB-22-E - HERS verified single dwelling unit systems in high-rise residential, hotel/motel application.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	<input checked="" type="checkbox"/> NRCC-PLB-23-H - HERS verified central systems in high-rise residential, hotel/motel application.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	<input checked="" type="checkbox"/> NRCC-PLB-24-H - HERS verified single dwelling unit systems in high-rise residential, hotel/motel application.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	<input checked="" type="checkbox"/> NRCC-STH-01-E - Any solar water heating	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	<input checked="" type="checkbox"/> NRCC-LTI-01-E - For all buildings	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	<input checked="" type="checkbox"/> NRCC-LTI-02-E - Lighting control system, or for an Energy Management Control System (EMCS)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Indoor Lighting	<input checked="" type="checkbox"/> NRCC-LTI-03-E - Line-voltage track lighting integral current limiter, or for a supplementary overcurrent protection panel used to energize only line-voltage track lighting	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	<input checked="" type="checkbox"/> NRCC-LTI-04-E - Two interlocked systems serving an auditorium, a convention center, a conference room, or a theater	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	<input checked="" type="checkbox"/> NRCC-LTI-05-E - Lighting Control Power Adjustment Factor (PAF)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	<input checked="" type="checkbox"/> NRCC-LTI-06-E - Additional outage installed in a video conferencing studio	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	<input checked="" type="checkbox"/> NRCA-LTI-02-A - Occupancy sensors and automatic time switch controls	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	<input checked="" type="checkbox"/> NRCA-LTI-03-A - Automatic daylighting controls	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	<input checked="" type="checkbox"/> NRCA-LTI-04-A - Demand responsive lighting controls	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	<input checked="" type="checkbox"/> NRCC-LTI-01-E - Outdoor Lighting	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	<input checked="" type="checkbox"/> NRCC-LTI-02-E - EMCS Lighting Control System	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	<input checked="" type="checkbox"/> NRCA-LTI-02-A - Outdoor Lighting Control	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Sign Lighting	<input checked="" type="checkbox"/> NRCC-LTS-01-E - Sign Lighting	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	<input checked="" type="checkbox"/> NRCC-ELC-01-E - Electrical Power Distribution	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Electrical	<input checked="" type="checkbox"/> NRCC-SPV-01-E Photovoltaic Systems	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

CA Building Energy Efficiency Standards- 2016 Nonresidential Compliance Report Version: NRCC-PRF-01-E-06262019-5583 Report Generated at: 2019-10-18 14:25:25

Project Name: IVC Career Tech Building 800		NRCC-PRF-01-E Page 7 of 24	
Project Address: 380 East Aten Road Imperial 92251		Calculation Date/Time: 17:24, Fri, Oct 18, 2019	
Compliance Scope: ExistingAdditionAndAlteration		Input File Name: IVC Building 800 Mod.cbd16x	

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Building Component	Compliance Forms (required for submittal)	Pass	Fail	Pass	Fail
Covered Process	<input checked="" type="checkbox"/> NRCC-PRC-01-E - Covered Processes	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	<input checked="" type="checkbox"/> NRCA-PRC-01-F - Compressed Air Systems	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	<input checked="" type="checkbox"/> NRCA-PRC-02-F - Washroom Exhaust	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	<input checked="" type="checkbox"/> NRCA-PRC-03-F - Garage Exhaust	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	<input checked="" type="checkbox"/> NRCA-PRC-04-F - Refrigerated Warehouse - Evaporator Fan Motor Controls	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	<input checked="" type="checkbox"/> NRCA-PRC-05-F - Refrigerated Warehouse - Evaporator Condenser Controls	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	<input checked="" type="checkbox"/> NRCA-PRC-06-F - Refrigerated Warehouse - Air Cooled Condenser Controls	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	<input checked="" type="checkbox"/> NRCA-PRC-07-F - Refrigerated Warehouse - Variable Speed Compressor	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> NRCA-PRC-08-F - Electrical Resistance Underlaid Heating System	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

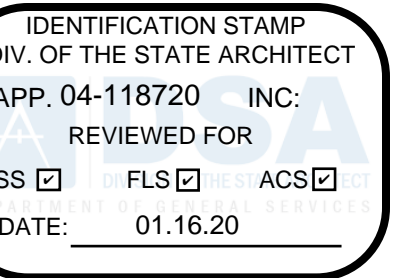
I. ENVELOPE GENERAL INFORMATION (See NRCC-PRF-ENV-DETAILS for more information)				
1. Total Unconditioned Floor Area	2. Total Conditioned Floor Area	3. Addition Conditioned Floor Area	4. Addition Unconditioned Floor Area	5. Number of Floors Above Grade
0 R ²	7,653 R ²	0 R ²	0 R ²	1
0 R ²	0 R ²	0 R ²	0 R ²	0
0 R ²	0 R ²	0 R ²	0 R ²	0

J. OPAQUE SURFACE ASSEMBLY SUMMARY § 120.7 / § 140.3			
1. Surface Name	2. Surface Type	3. Area (R ²)	4. Framing Type
Existing Roof w/ Spray6	Roof	7653	Metal
8 CMU Wall w/ R55 Insulation	Exterior Wall	3832	NA
Slab On Grade13	Underground Floor	7653	NA

K. ROOFING PRODUCT SUMMARY § 140.3			
1. Product Type	2. Product Density (lb/R ²)	3. Aged Solar Reflectance	4. Thermal Emittance
Existing Roof w/ Spray6	4.106	0.08	0.75

CA Building Energy Efficiency Standards- 2016 Nonresidential Compliance Report Version: NRCC-PRF-01-E-06262019-5583 Report Generated at: 2019-10-18 14:25:25

Project Name: IVC Career Tech Building 800		NRCC-PRF-01-E Page 8 of 24	
Project Address: 380 East Aten Road Imperial 92251			



APPROVALS

DIVISION 15 CONSULTING SERVICES, INC. 11180 Turquoise Circle Dewey, Arizona 86327 (928) 772-8448 FAX (928) 772-8942 Division15@coable.net

Sanders, INC. Architecture/Engineering 102 INDUSTRY WAY, SUITE A EL CENTRO, CA 92243 760 353 5440 FAX 760 353 5442

Project Title IMPERIAL VALLEY COLLEGE BUILDING 200, 300 AND 800 MODERNIZATION

Sheet Title 800 ENERGY CALCULATIONS

Table with 3 columns: Document Date (10-18-19), Date Last Revised, Project Number (19-21V), Sheet Number (M8.3.2)

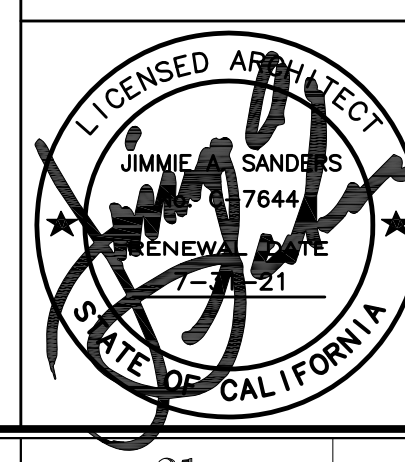


Table 12 of 24: Equipment Controls. Columns: Equip Name, Equip Type, Controls. Rows include Offices/Reception VFC-4, Classroom 13 VFC-5, Lecture Classroom 17 VFC, Computer Classroom 16 VFC, Computer Classroom 15 VFC, Computer Classroom 14 VFC.

Table 11 of 24: N. ECONOMIZER & FAN SYSTEMS SUMMARY. Columns: Equip Name, Outside Air, Supply Fan, Return Fan, Economizer Type. Rows include Classroom 1 VFC-1, Business Lecture Classroom, Data Elec Jan VFC-3, Offices/Reception VFC-4, Classroom 13 VFC-5, Lecture Classroom 17 VFC, Computer Classroom 16 VFC.

Table 10 of 24: W. SYSTEM EQUIPMENT. Columns: Equip Name, Equip Type, Qty, Vol (gal), Rated Capacity (lb/hr/h), Efficiency, Standby Loss, Tank Est. R Value, Qty, GPM, HP, VSD (V/N), Start (min), Stop (min), Confirmed. Rows include RHEEM EGSP102 Storage.

Table 15 of 24: U. ENERGY USE SUMMARY. Columns: Energy Component, Standard Design Site (MWh), Proposed Design Site (MWh), Margin (MWh), Standard Design Site (Mbtu), Proposed Design Site (Mbtu), Margin (Mbtu). Rows include Space Heating, Space Cooling, Indoor Fans, Heat Rejection, etc.

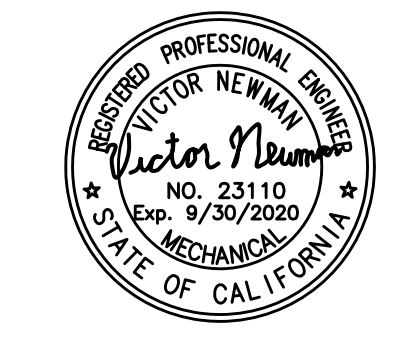
Table 14 of 24: Q. INDOOR CONDITIONED LIGHTING GENERAL INFO. Columns: Occupancy Type, Conditioned Floor Area, Installed Lighting Power, Lighting Control Credits, Additional (Custom) Allowance. Rows include Classroom, Computer Room, Office.

Table 13 of 24: P. SYSTEM DISTRIBUTION SUMMARY. Columns: Equip Name, Equip Type, Duct Leakage and Sealing, Ducts, Insulation, Location, Status. Rows include Classroom 1 VFC-1, Business Lecture Classroom, Data Elec Jan VFC-3, etc.

Table 18 of 24: A. MECHANICAL VENTILATION AND REHEAT. Columns: Conditioned Zone Name, Design Air Flows, Ventilation. Rows include Classroom 1 VFC-1, Business Lecture Classroom, Data Elec Jan VFC-3, etc.

Table 17 of 24: NRC-PRF-ENV-DETAILS - SECTION START. A. OPAQUE SURFACE ASSEMBLY DETAILS. Columns: Surface Name, Surface Type, Description of Assembly Layers, Notes. Rows include Existing Roof w/4 Spray6, B CMU Wall, Slab On Grade13.

Table 16 of 24: DOCUMENTATION AUTHOR'S DECLARATION STATEMENT. Includes project info, author signature (Nicholas T. Harinton), responsible person signature (Victor Newman), and company info (Division 15 Consulting Services, Inc.).



IDENTIFICATION STAMP
 DIV. OF THE STATE ARCHITECT
 APP. 04-118720 INC.
 REVIEWED FOR
 SS FLS ACS
 NO. 23110
 Exp. 8/30/2020
 DATE: 01.16.20

APPROVALS

ZONE LOAD SUMMARY

Project Name		Date											
Imperial Valley College Bldg 800		10/18/2019											
System Name		Floor Area											
Classroom 1 VFC-1		922											
ZONE LOAD SUMMARY													
ZONE NAME	SYSTEM NAME	ZONAL SYSTEM					COOLING PEAK				HEATING PEAK		
		Multi	CFM	Sensible	Latent	Heating	DA CFM	Peak Hr	CFM	Sensible	Latent	CFM	Sensible
Classroom VFC-1		1.0					346	Jul 3 PM	1,490	47,777	6,282	255	27,383
TOTALS													
0 0 0 0 0 346 Jul 3 PM 1,490 47,777 6,282 255 27,383													
(BLOCK LOAD)													

ZONE LOAD SUMMARY

Project Name		Date											
Imperial Valley College Bldg 800		10/18/2019											
System Name		Floor Area											
Business Lecture Classroom 2 VFC-2		922											
ZONE LOAD SUMMARY													
ZONE NAME	SYSTEM NAME	ZONAL SYSTEM					COOLING PEAK				HEATING PEAK		
		Multi	CFM	Sensible	Latent	Heating	DA CFM	Peak Hr	CFM	Sensible	Latent	CFM	Sensible
Business Lecture Classroom 2 VFC-2		1.0					346	Jul 3 PM	1,367	45,048	6,282	204	25,235
TOTALS													
0 0 0 0 0 346 Jul 3 PM 1,367 45,048 6,282 204 25,235													
(BLOCK LOAD)													

ZONE LOAD SUMMARY

Project Name		Date											
Imperial Valley College Bldg 800		10/18/2019											
System Name		Floor Area											
Data, Elec, Jan VFC-3		300											
ZONE LOAD SUMMARY													
ZONE NAME	SYSTEM NAME	ZONAL SYSTEM					COOLING PEAK				HEATING PEAK		
		Multi	CFM	Sensible	Latent	Heating	DA CFM	Peak Hr	CFM	Sensible	Latent	CFM	Sensible
Data, Elec, Jan VFC-3		1.0					45	Jul 3 PM	7,231	16,375	314	60	4,428
TOTALS													
0 0 0 0 0 45 Jul 3 PM 7,231 16,375 314 60 4,428													
(BLOCK LOAD)													

ZONE LOAD SUMMARY

Project Name		Date											
Imperial Valley College Bldg 800		10/18/2019											
System Name		Floor Area											
Offices/Reception VFC-4		835											
ZONE LOAD SUMMARY													
ZONE NAME	SYSTEM NAME	ZONAL SYSTEM					COOLING PEAK				HEATING PEAK		
		Multi	CFM	Sensible	Latent	Heating	DA CFM	Peak Hr	CFM	Sensible	Latent	CFM	Sensible
Offices/Reception VFC-4		1.0					125	Jul 3 PM	778	24,429	1,326	352	13,131
TOTALS													
0 0 0 0 0 125 Jul 3 PM 778 24,429 1,326 352 13,131													
(BLOCK LOAD)													

ZONE LOAD SUMMARY

Project Name		Date											
Imperial Valley College Bldg 800		10/18/2019											
System Name		Floor Area											
Classroom 13 VFC-5		815											
ZONE LOAD SUMMARY													
ZONE NAME	SYSTEM NAME	ZONAL SYSTEM					COOLING PEAK				HEATING PEAK		
		Multi	CFM	Sensible	Latent	Heating	DA CFM	Peak Hr	CFM	Sensible	Latent	CFM	Sensible
Classroom 13 VFC-5		1.0					306	Jul 3 PM	1,189	40,456	5,553	669	21,881
TOTALS													
0 0 0 0 0 306 Jul 3 PM 1,189 40,456 5,553 669 21,881													
(BLOCK LOAD)													

ZONE LOAD SUMMARY

Project Name		Date											
Imperial Valley College Bldg 800		10/18/2019											
System Name		Floor Area											
Lecture Classroom 17 VFC-6		1,122											
ZONE LOAD SUMMARY													
ZONE NAME	SYSTEM NAME	ZONAL SYSTEM					COOLING PEAK				HEATING PEAK		
		Multi	CFM	Sensible	Latent	Heating	DA CFM	Peak Hr	CFM	Sensible	Latent	CFM	Sensible
Classroom 17 VFC-6		1.0					421	Jul 3 PM	1,734	53,470	7,644	220	29,472
TOTALS													
0 0 0 0 0 421 Jul 3 PM 1,734 53,470 7,644 220 29,472													
(BLOCK LOAD)													

ZONE LOAD SUMMARY

Project Name		Date											
Imperial Valley College Bldg 800		10/18/2019											
System Name		Floor Area											
Computer Classroom 16 VFC-7		904											
ZONE LOAD SUMMARY													
ZONE NAME	SYSTEM NAME	ZONAL SYSTEM					COOLING PEAK				HEATING PEAK		
		Multi	CFM	Sensible	Latent	Heating	DA CFM	Peak Hr	CFM	Sensible	Latent	CFM	Sensible
Classroom 16 VFC-7		1.0					339	Jul 3 PM	1,307	43,641	6,159	180	23,897
TOTALS													
0 0 0 0 0 339 Jul 3 PM 1,307 43,641 6,159 180 23,897													
(BLOCK LOAD)													

ZONE LOAD SUMMARY

Project Name		Date											
Imperial Valley College Bldg 800		10/18/2019											
System Name		Floor Area											
Computer Classroom 15 VFC-8		911											
ZONE LOAD SUMMARY													
ZONE NAME	SYSTEM NAME	ZONAL SYSTEM					COOLING PEAK				HEATING PEAK		
		Multi	CFM	Sensible	Latent	Heating	DA CFM	Peak Hr	CFM	Sensible	Latent	CFM	Sensible
Classroom 15 VFC-8		1.0					342	Jul 3 PM	1,320	43,963	6,207	182	24,085
TOTALS													
0 0 0 0 0 342 Jul 3 PM 1,320 43,963 6,207 182 24,085													
(BLOCK LOAD)													

ZONE LOAD SUMMARY

Project Name		Date											
Imperial Valley College Bldg 800		10/18/2019											
System Name		Floor Area											
Computer Classroom 14 VFC-9		922											
ZONE LOAD SUMMARY													
ZONE NAME	SYSTEM NAME	ZONAL SYSTEM					COOLING PEAK				HEATING PEAK		
		Multi	CFM	Sensible	Latent	Heating	DA CFM	Peak Hr	CFM	Sensible	Latent	CFM	Sensible
Computer Classroom 14 VFC-9		1.0					346	Jul 3 PM	1,465	47,142	6,282	255	27,383
TOTALS													
0 0 0 0 0 346 Jul 3 PM 1,465 47,142 6,282 255 27,383													
(BLOCK LOAD)													

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Project Title
**IMPERIAL VALLEY COLLEGE
 BUILDING 200, 300 AND 800 MODERNIZATION**

Sheet Title
800 ENERGY CALCULATIONS

	Document Date	Project Number
	10-18-19	19-121V
Date Last Revised		Sheet Number
		M8.3.5



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 DIV. OF THE STATE ARCHITECT
 APP. 04-118720 INC.
 REVIEWED FOR
 SS FLS ACS
 DATE: 01.16.20

APPROVALS

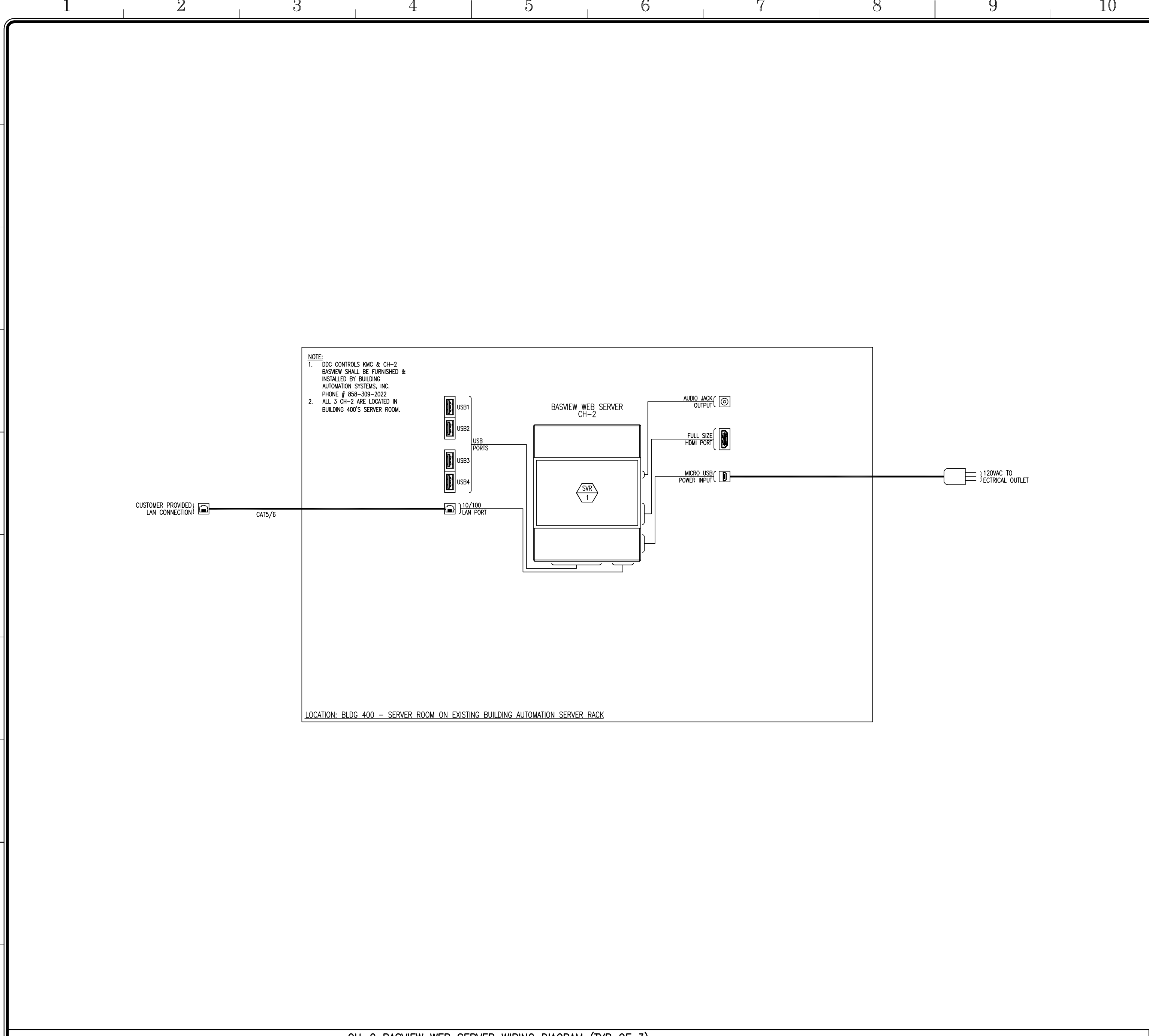
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Project Title
**IMPERIAL VALLEY COLLEGE
 BUILDING 200, 300 AND 800 MODERNIZATION**

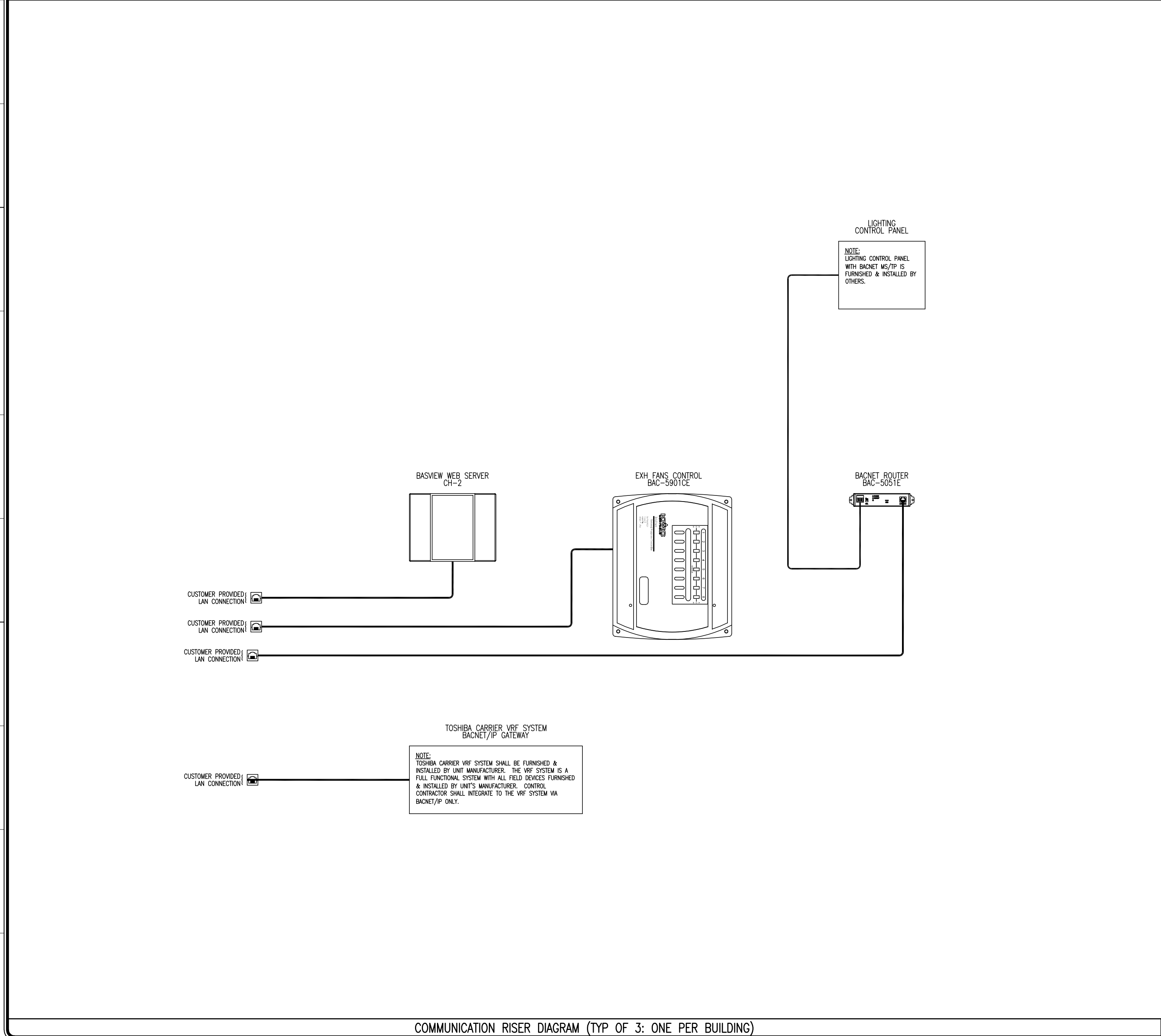
Sheet Title
HVAC CONTROLS

	Document Date 10-18-19	Project Number 19-121V
	Date Last Revised	Sheet Number M9.1



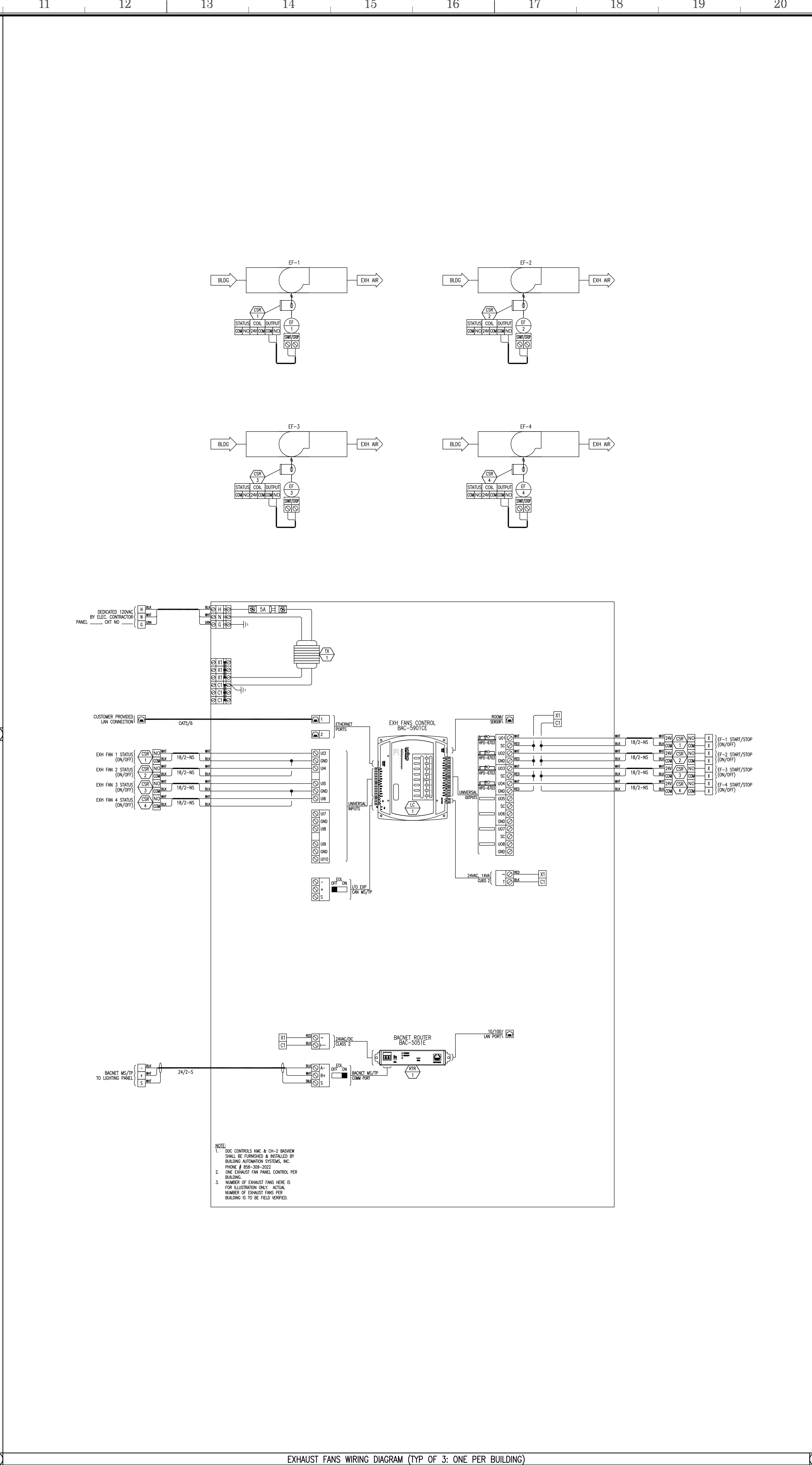
CH-2 BASVIEW WEB SERVER WIRING DIAGRAM (TYP OF 3)

2



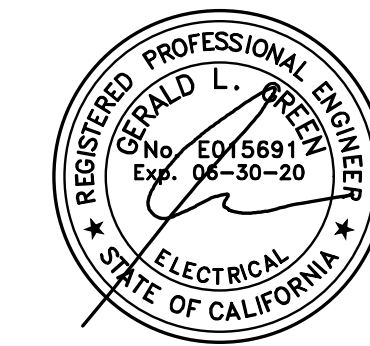
COMMUNICATION RISER DIAGRAM (TYP OF 3: ONE PER BUILDING)

1



EXHAUST FANS WIRING DIAGRAM (TYP OF 3: ONE PER BUILDING)

3



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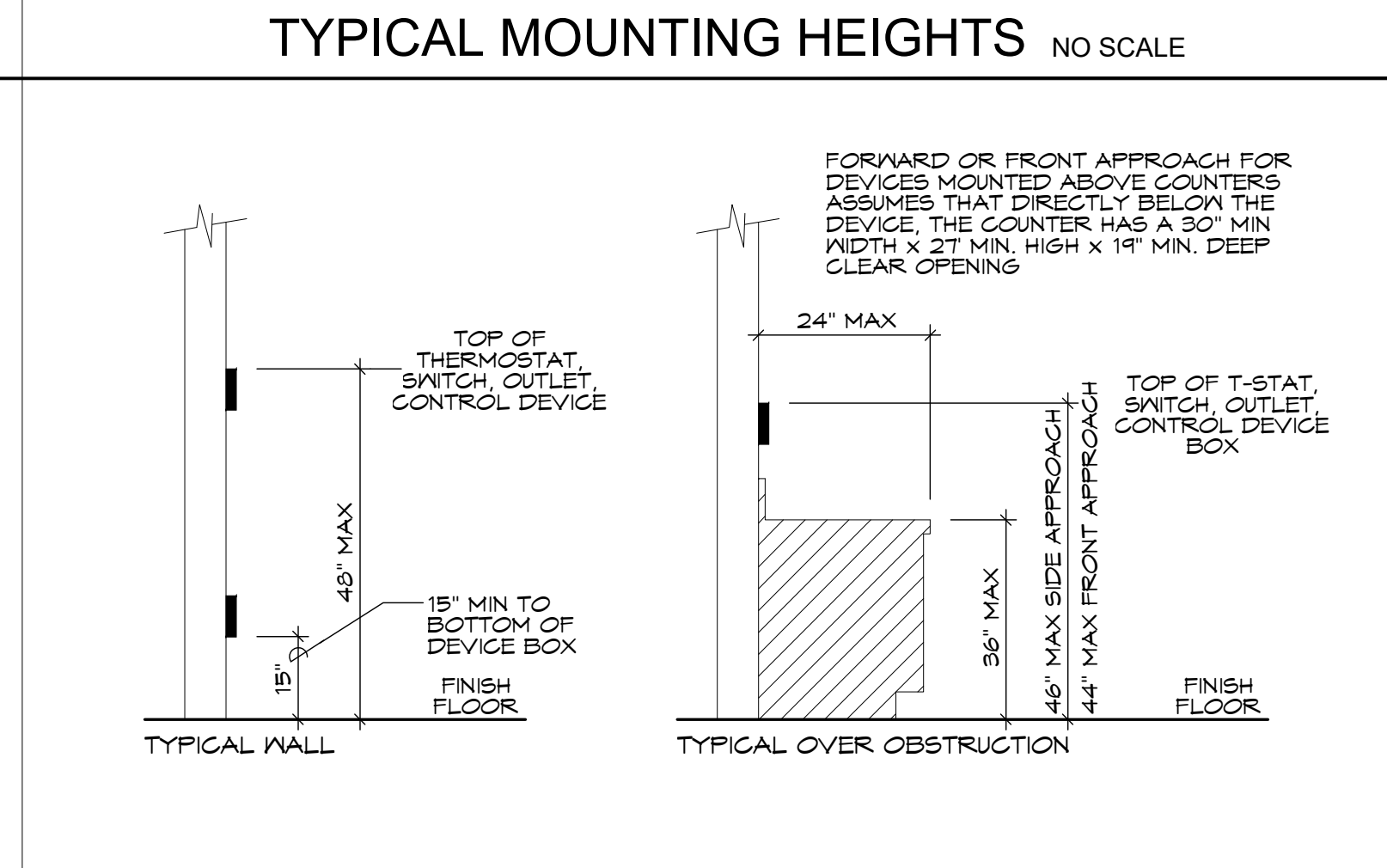
LIGHTING/SWITCHING SYMBOLS	
	LIGHTING CONTROL PANEL, SEE CONTROL DETAIL AND SCHEDULES FOR MORE INFORMATION.
	PUSH BUTTON LOW VOLTAGE OVERRIDE CONTROL SWITCH
	ZONE CONTROLLED (UPPER CASE LETTER DENOTES ZONE CONTROLLED)
	SWITCH LEGS CONTROLLED (LOWER CASE LETTER DENOTES SWITCH LEGS CONTROLLED)
	SWITCH, SINGLE POLE 20A, MTD, 48" AFF TO TOP. DESIGNATION TO CONTROL LIGHTING IN CIRCUIT LEGS. DEVICE, WHITE. COVERPLATE: WHITE. 2- DOUBLE POLE KE-KEYED SWITCH 3- THREE WAY T-MANUAL MOTOR STARTER WITH THERMAL OVERLOADS 4- FOUR WAY D-LOAD RATED DIMMER FL-PILOT LIGHT PB-PUSHBUTTON
	WALL MOUNTED MOTION CONTROLLED LIGHTING SWITCH WITH INTEGRAL BI-LEVEL SWITCHING. DEVICE - WHITE. MTD. 48" AFF TO TOP.
	CEILING MOUNTED ULTRASONIC MOTION SENSOR. DEVICE: WHITE
	WALL MOUNTED DUAL-TECHNOLOGY MOTION SENSOR. DEVICE: WHITE
	FIXTURE CALLOUT: TYPE (SEE LIGHT FIXTURE SCHEDULE) WATTAGE QUANTITY
	RELAY
	TIME CLOCK
	MOTION SENSOR POWER PACK
	EMERGENCY POWER OFF PUSHBUTTON, MOUNTED AT +48" UON.
	PHOTOCELL

TEL/DATA SYMBOLS	
	DATA OUTLET WITH TRIM RING, FULLSTRING TO ACCESSIBLE CEILING SPACE. +18" A.F.F. TO CENTER.
	TELEPHONE OUTLET WITH TRIM RING, FULLSTRING TO ACCESSIBLE CEILING SPACE. +18" A.F.F. TO CENTER.
	TELECOMMUNICATIONS OUTLET WITH TRIM RING, FULLSTRING TO ACCESSIBLE CEILING SPACE. +18" A.F.F. TO CENTER.
	TELECOMMUNICATION OUTLET FLUSH FLOOR MOUNTED ON FIRE RATED POKE-THRU.
	SPEAKER BACK BOX LOCATION
	INTERCOM J-BOX LOCATION
	ELECTROMAGNETIC DOOR HOLDER
	INTERCOM LOCATION
	CARD READER
	ELECTRIC DOOR STRIKE
	3/4" FIRE RATED PLYWOOD BACKBOARD WITH #6 GANG GROUND TO BUILDING SYSTEM GROUND.
	CABLE TRAY PER PLANS. COORDINATE ROUTING WITH OTHER DISPLINES.

GENERAL NOTES	
1.	EXTERIOR LIGHTING SYSTEM SHALL BE EQUIPPED WITH AUTOMATIC TIMING DEVICE AND CONTROL SHUT-OFF BETWEEN 11PM & 6AM UNLESS USING LPS LAMP TYPE LUMINAIRES
2.	LIGHTING LUMINAIRES WITH LUMENS 4050 AND ABOVE ARE LIMITED TO LPS AND HPS AND EQUIPPED WITH CUT-OFF OPTICS AND LESS THAN 2.5% UP-LIGHT
3.	ALL ELECTRICAL DEVICES AND UTILIZATION EQUIPMENT SHALL BE LISTED BY AN APPROVED TESTING AGENCY
4.	ALL WORK TO COMPLY WITH THE LATEST EDITION OF THE CALIFORNIA ELECTRICAL CODE.
5.	USE COPPER CONDUCTORS ONLY.
6.	THERMOSTATS, SWITCHES AND/OR RECEPTACLES INSTALLED IN RESTROOMS OR OTHER AREAS EQUIPPED FOR THE DISABLED, SHALL BE LOCATED AT NOT TO EXCEED 48" TO CENTER OF DEVICE FROM THE FLOOR.
7.	ALL 15 AND 20 AMP, 120V RECEPTACLES IN KITCHEN AREAS SHALL BE GFCI PROTECTED
8.	CONTRACTOR IS TO VERIFY MOUNTING HEIGHTS OF ALL DEVICES PRIOR TO MOUNTING
9.	VERIFY ROUTING OF ANY SURFACE MOUNTED CONDUITS PRIOR TO INSTALLATION
10.	REVIEW ALL PLANS BY OTHER TRADES AND PROVIDE ADDITIONAL WORK AS REQUIRED NOT OUTLINED IN THESE DOCUMENTS
11.	COORDINATE ALL DIMMING FLUORESCENT BALLASTS WITH DIMMING SYSTEM, PROVIDE WIRE COUNT AS REQUIRED. USE ADVANCE MARK X BALLASTS.

ADDITIONAL NOTES	
1.	THE SEISMIC ANCHORAGE OF ELECTRICAL EQUIPMENT SHALL CONFORM TO C.C.R. TITLE 24, 2016 CBC, 1632A, AND TABLE 16A-0. ANCHORAGE DETAILS NOT SHOWN ON THE APPROVED PLANS OR OTHERWISE APPROVED BY DSA ARE SUBJECT TO FIELD APPROVAL BY THE ARCHITECT OR STRUCTURAL ENGINEER OF RECORD AND FIELD APPROVED BY DSA.
2.	ALL CONDUITS AND CABLE TRAYS SHALL BE SUPPORTED AND BRACED IN ACCORDANCE WITH SMACNA GUIDELINES AND AS APPROVED BY DSA.
3.	VERIFY MOUNTING HEIGHT OF ALL RECEPTACLE WITH ARCHITECT PRIOR TO INSTALLATION
4.	VERIFY CONTROLS AND MISC. WIRING REQUIREMENTS FOR ALL HVAC EQUIPMENT. PROVIDE ALL CONDUITS AS REQUIRED FOR CONTROLS WHETHER SHOWN OR NOT

POWER SYMBOLS	
	JUNCTION BOX
	WALL MOUNTED JUNCTION BOX.
	DUPLEX RECEPTACLE MTD 18" AFF TO CENTER COVERPLATE COLOR: WHITE DEVICE TYPE DEVIATION COLOR STANDARD WHITE IS ISOLATED GROUND ORANGE D DEDICATED 20A RATED GRAY LPS 15A OR 20A LPS GRAY EM EMERGENCY RED
	DUPLEX RECEPTACLE MTD HORIZONTALLY 18" AFF TO CENTER COVERPLATE COLOR: WHITE
	GFI DUPLEX RECEPTACLE MTD 18" AFF TO CENTER COVERPLATE COLOR: WHITE
	DOUBLE DUPLEX RECEPTACLE MTD 18" AFF TO CENTER. SCHEDULE AS NOTED ABOVE.
	SPLIT W/RED 15A 1/2 HOT, 1/2 SWITCHED OUTLET COLOR: WHITE
	208V/1Ø RECEPTACLE, NEMA CONFIGURATION AS NOTED.
	208V/3Ø RECEPTACLE, NEMA CONFIGURATION AS NOTED.
	FLUSH FLOOR MOUNTED DUPLEX RECEPTACLE
	FLOOR BOX WITH DOUBLE DUPLEX RECEPTACLE AND SINGLE GANG TEL/DATA RECEPTACLE
	FLOOR BOX WITH DUPLEX RECEPTACLE AND SINGLE GANG TEL/DATA RECEPTACLE
	SPECIALTY FLOOR BOX PER PLANS MULTIPLE GANG BOX, SEE SPECS.
	PEDESTAL MOUNTED DOUBLE DUPLEX RECEPTACLE MANUF: HUBBELL#SA6600 1/4"STAINLESS STEEL COVERPLATES
	PEDESTAL MOUNTED DUPLEX RECEPTACLE MANUF: HUBBELL#SA6600 1/4"STAINLESS STEEL COVERPLATES
	ROOF MOUNTED WEATHERPROOF GFI WORK OUTLET. PROVIDE CAST BOX 1/4"STAINLESS STEEL W/ COVER.
	EXTERNALLY OPERATED FUSED DISCONNECT SWITCH. PROVIDE PER NEMA RATING REQUIRED.
	COMBINATION FVNR MAGNETIC MOTOR STARTER AND DISCONNECT RATINGS AND POLES AS INDICATED. PROVIDE WITH OVERLOAD PER HORSEPOWER REQUIREMENTS, CPT, H.O.A. WITH PILOT LIGHTS, PROVIDE WITH (1) EACH N.O. AND N.C. AUX CONTACTS.
	FVNR MAGNETIC STARTER WITH OVERLOAD PER HORSEPOWER REQUIREMENTS, CPT, H.O.A. WITH PILOT LIGHTS, PROVIDE WITH (1) EACH N.O. AND N.C. AUX CONTACTS.
	MOTOR PROVIDED BY OTHERS.
	FLUSH MOUNTED PANELBOARD
	SURFACE MOUNTED PANELBOARD
	SURFACE MOUNTED LIGHTING CONTROL PANEL, U.O.N.
	FLUSH MOUNTED LIGHTING DIMMING PANEL, U.O.N.
	FIRE RATED DOUBLE DUPLEX POKE THROUGH, SEE DETAILS FOR MORE INFORMATION.
	FIRE RATED SYSTEMS FURNITURE FEED POKE THROUGH, SEE DETAILS FOR MORE INFORMATION.
	CLOCK HANGER OUTLET ONLY, MOUNTED AT +12" U.O.N.
	TELEVISION SYSTEM OUTLET WITH JACK, WALL MOUNTED AT +12" U.O.N.
	MULTI-OUTLET ASSEMBLY, LENGTH AS INDICATED ON PLANS.
	FLEXIBLE CONDUIT
	WIRING OR CONDUIT CONCEALED IN WALL OR CEILING
	WIRING OR CONDUIT EXPOSED
	WIRING OR CONDUIT CONCEALED UNDERGROUND OR IN FLOOR
	RACEWAY OR WIREWAY ASSEMBLY DOWN
	RACEWAY OR WIREWAY ASSEMBLY UP
	HOMERUN TO PANEL, CIRCUITS AS INDICATED.
	UNDERGROUND HOMERUN TO PANEL, CIRCUITS AS INDICATED.
	CONCEALED EMT CONDUIT WITH THIN WIRE 2#12 ANS 3/4" C. MINIMUM
	CONCEALED EMT CONDUIT WITH THIN WIRE 2#12 ANS 3/4" MINIMUM. CHEVRONS INDICATE #10 CONDUCTORS
	FUSED SWITCH, SEE SINGLE LINE DIAGRAM FOR MORE INFORMATION.
	CIRCUIT BREAKER, SEE SINGLE LINE DIAGRAM FOR MORE INFORMATION.
	TRANSFORMER, SEE SINGLE LINE DIAGRAM FOR MORE INFORMATION.
	CURRENT TRANSFORMER
	AUTOMATIC TRANSFER SWITCH
	GROUNDING ELECTRODE
	SMOKE DETECTOR



ABBREVIATIONS	
A	AMPERES
AC	ALTERNATING CURRENT
AIC	AMPERES INTERRUPTING CAPACITY
AFF	ABOVE FINISHED FLOOR
AFS	ABOVE FINISHED GRADE
AF	AMP FRAME/AMP FUSE
AL	ALUMINUM
ARCH	ARCHITECT OR ARCHITECTURAL
AS	AMP SWITCH
AT	AMP TRIP
ATS	AUTOMATIC TRANSFER SWITCH
AUX	AUXILIARY
AWG	AMERICAN WIRE GAUGE
BACKD	BACKBOARD
C	CONDUIT WITH WIRE
CATV	CABLE TELEVISION
CCTV	CLOSED CIRCUIT TELEVISION
CB	CIRCUIT BREAKER
CLF	CURRENT LIMITING FUSE
C.O.	CONDUIT ONLY WITH NYLON FULL CORD
CONTR	CONTRACTOR
CU	COPPER
CT	CURRENT TRANSFORMER
CA	COLD WATER
D	DEDICATED OUTLET
DC	DIRECT CURRENT
DF	DRINKING FOUNTAIN
DIA	DIAMETER
DISC	DISCONNECT
DIST	DISTRIBUTION
DWG	DRAWINGS
EA	EACH
EB	10-MINUTE BATTERY CONNECTED TO UNIT
EG	ELECTRICAL CONTRACTOR
EG	EMERGENCY GENERATOR CONNECTION
EF	EXHAUST FAN
ELECT	ELECTRICAL
ELEV	ELEVATION/ELEVATOR
EMT	ELECTRO-METALLIC TUBING
EXIST	EXISTING
FA	FIRE ALARM
FC	FOOT CANDLE
FIXT	FIXTURE
FLUOR	FLUORESCENT
FT	FEET OR FOOT
GC	GENERAL CONTRACTOR
GD	GARBAGE DISPOSAL
GEN	GENERATOR
GFI	GROUND FAULT INTERRUPTER
GFR	GROUND FAULT RELAY
GRD	GROUND
H	HORIZONTAL
HD	HIGH INTENSITY DISCHARGE
HP	HORSEPOWER
HPS	HIGH PRESSURE SODIUM
HR	HOURLY
HT	HEIGHT
HZ	HERTZ
IG	ISOLATED GROUND BUS OR WIRE
IMC	INTERMEDIATE METAL CONDUIT
INCAND	INCANDESCENT
J-BOX	JUNCTION BOX
KVA	KILO-VOLT-AMPERE
KM	KILO-MATT
KWH	KILOWATT-HOUR
LF	LINEAL FEET
LTG	LIGHTING
LV	LOW VOLTAGE
MANUF	MANUFACTURER
MAX	MAXIMUM
MC	MECHANICAL CONTRACTOR
MCC	MOTOR CONTROL CENTER
MECH	MECHANICAL
MIN	MINIMUM
MH	METAL HALIDE
MLO	MAIN LUGS ONLY
MTG	MOUNTING
MV	MERCURY VAPOR
N	NEUTRAL
NEC	NATIONAL ELECTRIC CODE
NIC	NOT IN CONTRACT
NL	NIGHT LIGHT
NTS	NOT TO SCALE
OC	ON CENTER
OFICI	OWNER FURNISHED CONTRACTOR INSTALLED
OFOI	OWNER FURNISHED OWNER INSTALLED
P	PEDESTAL MOUNT
PB	PULL BOX
PC	PHOTOCELL CONTROL
PCTG	PHOTOCELL/TIMELOCK CONTROL
PH	PHASE
PIV	PISTON INDICATING VALVE
PL	PILOT LIGHT
PVC	POLYVINYL CHLORIDE
POWER	POWER
PP	POWER POLE
QR	FIXTURE WITH QUARTZ RESTRIKE
QTY	QUANTITY
RECEPT	RECEPTACLE
REF	REFRIGERATOR
RSS	RIGID GALVANIZED STEEL
SD	SMOKE DETECTOR
SPEC	SPECIFICATION
SQ FT	SQUARE FEET OR SQUARE FOOT
SW	SWITCH
SWBD	SWITCHBOARD
TEMP	TEMPERATURE OR TEMPORARY
TV	TELEVISION
TEL, TELE	TELEPHONE
TC	TIME CLOCK
TRANSF	TRANSFORMER
TYP	TYPICAL
UGPS	UNDERGROUND FULL SECTION
UL	UNDERWRITERS LABORATORIES
UNO	UNLESS NOTED OTHERWISE
UPS	UNINTERRUPTIBLE POWER SUPPLY
V	VOLTS
VA	VOLT-AMPERE
WH	WATER HEATER
W/P XFMR	WEATHER PROOF TRANSFORMER

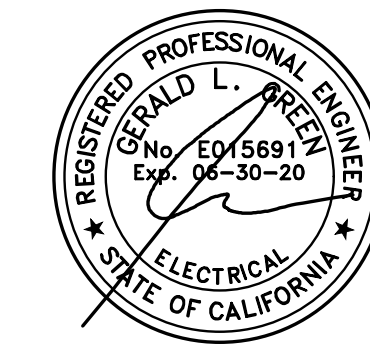


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Project Title
**IMPERIAL VALLEY COLLEGE
 BUILDING 200, 300 AND 800 MODERNIZATION**

Sheet Title
SYMBOLS LIST

	Document Date	Project Number
	Date Last Revised	Sheet Number
	12-18-19	19-121V
		EO.1



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APPROVALS



FIXTURE TYPE "A"



FIXTURE TYPE "B"



FIXTURE TYPE "C"



FIXTURE TYPE "D"



FIXTURE TYPE "E"



FIXTURE TYPE "F"



FIXTURE TYPE "G"



FIXTURE TYPE "H"



FIXTURE TYPE "J"



FIXTURE TYPE "K"



FIXTURE TYPE "L"



FIXTURE TYPE "M"



FIXTURE TYPE "N"

LIGHT FIXTURE SCHEDULE									
FIXTURE TYPE	SYMBOL	MANUFACTURER	CATALOG NUMBER	WATTS	VOLTS	MTG	LAMP TYPE	REMARKS	
A		COLUMBIA	LVT24-35-LN-6-FS-A12125F-ED-U	34	277	CR	34W 35K LED		
B		FINELITE	S12-LED-ID-XCB-20-3E-H/H-835-OPEN-2TT-SC-FA-CE-C1	210	277	CB	210W 35K LED		③
C		FINELITE	S12-LED-ID-XCB-16-2E-H/H-835-OPEN-2TT-SC-FA-CE-C1	174	277	CB	174W 35K LED		③
D		FINELITE	HF-4-1W-D-FO-16-V-D-35-2TT-FA-SC-C1	80	277	CB	80W 35K LED		③
E		DUALITE	LE-C-S-S-X-N-E	3	277	U	PROVIDED WITH FIXTURE		①
F		COLUMBIA	LGAT22-35-ML-6-ED-U	29	277	CR	29W 35K LED		
G		KENALL	MLHAB-46-R-CC-PP-45L35K-DCC-1-DV	40	277	CS	40W 35K LED		
H		KENALL	MLHAB-46-R-CC-PP-45L35K-DCC-1-DV-PM	45	277	PN	45W 35K LED		
J		PRESGOLITE	LTR-6RD-H-ML20L-DM1-LTR-6RD-T-ML35KXN55	23	277	CR	23W 35K LED		
K		KENALL	FS618R-2TB-PIA-DB-25L35K-1-DV	30	277	WS	30W 35K LED		
L		PRESGOLITE	LTR-6RA-H-20L-35K-8-XN-DM01-LTR-6RA-T-MFC-BL-VT-HL6	23	277	CR	23W 35K LED		
M		FINELITE	S12-LED-ID-XCB-20-3E-H/H-835-OPEN-2TT-SC-FA-CE-C1	305	277	CB	305W 35K LED		③
N		ETC	CS5POTSDB	166	120	S	166W LED		

MOUNTING TYPES:
 WS-WALL SURFACE, WR-WALL RECESSED, CS-CEILING SURFACE, CR-CEILING RECESSED, CH-CHAIN, PN-PENDANT, U-UNIVERSAL, G-GROUND, P-POLE, UC-UNDER CABINET, T-TRACK, CB-CABLE, TR-TRELLIS, C-COVE

NOTES:
 ① EXIT SIGN PROVIDED WITH EMERGENCY BATTERY PACK.
 ② EMERGENCY TEST SWITCH AND INDICATOR LIGHT TO BE INTEGRAL WITH THE FIXTURE TRIM RING.
 ③ SEE DETAIL (E) FOR SPAY NOTES

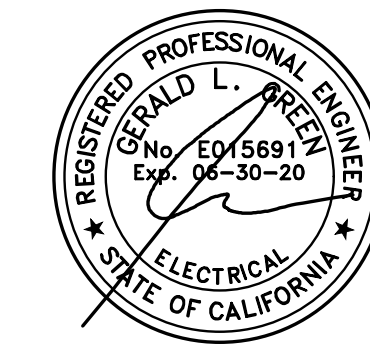


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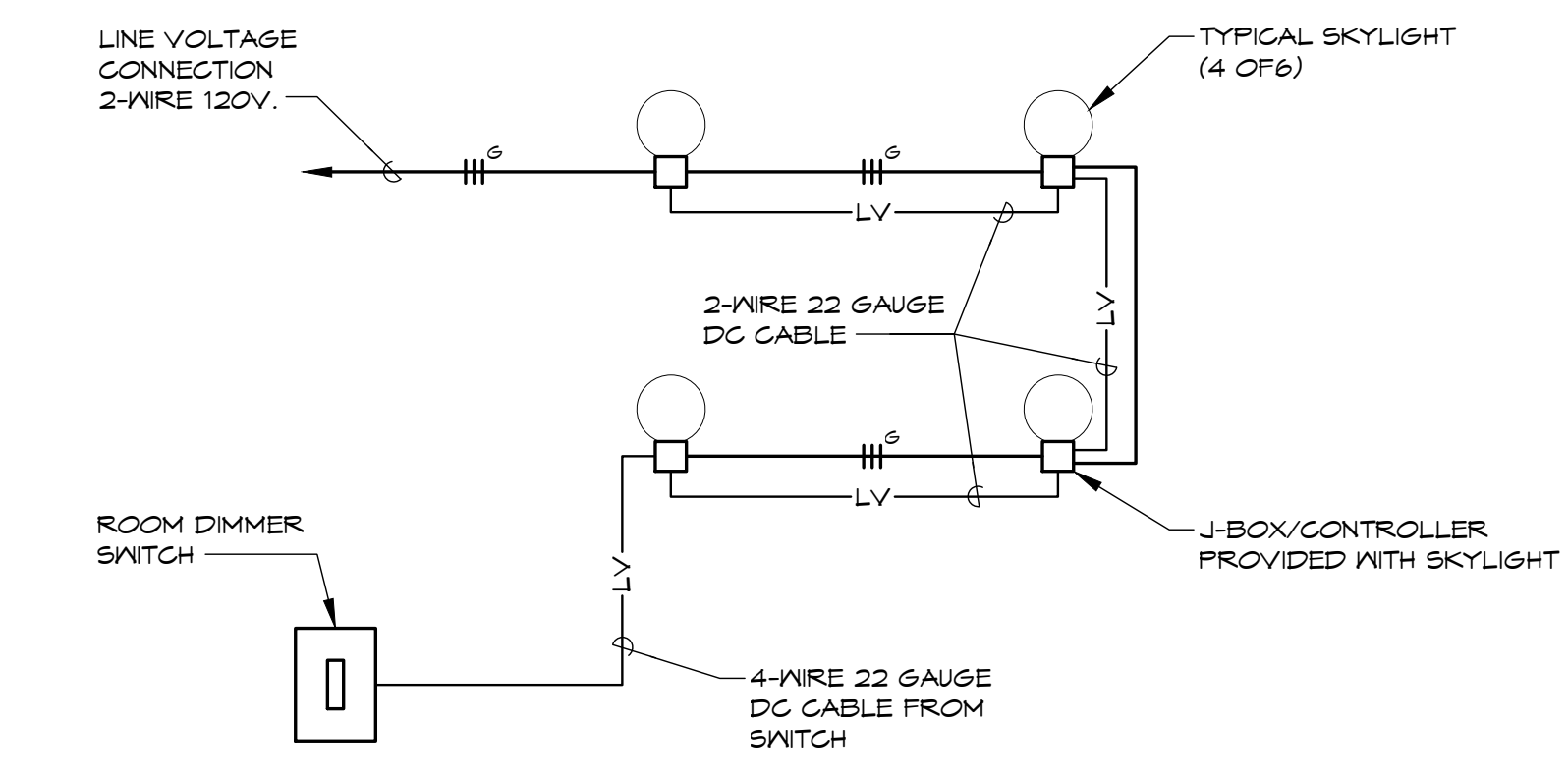
Sheet Title
FIXTURE SCHEDULE AND PHOTOS

	Document Date 12-18-19	Project Number 19-121V
	Date Last Revised	Sheet Number E0.2

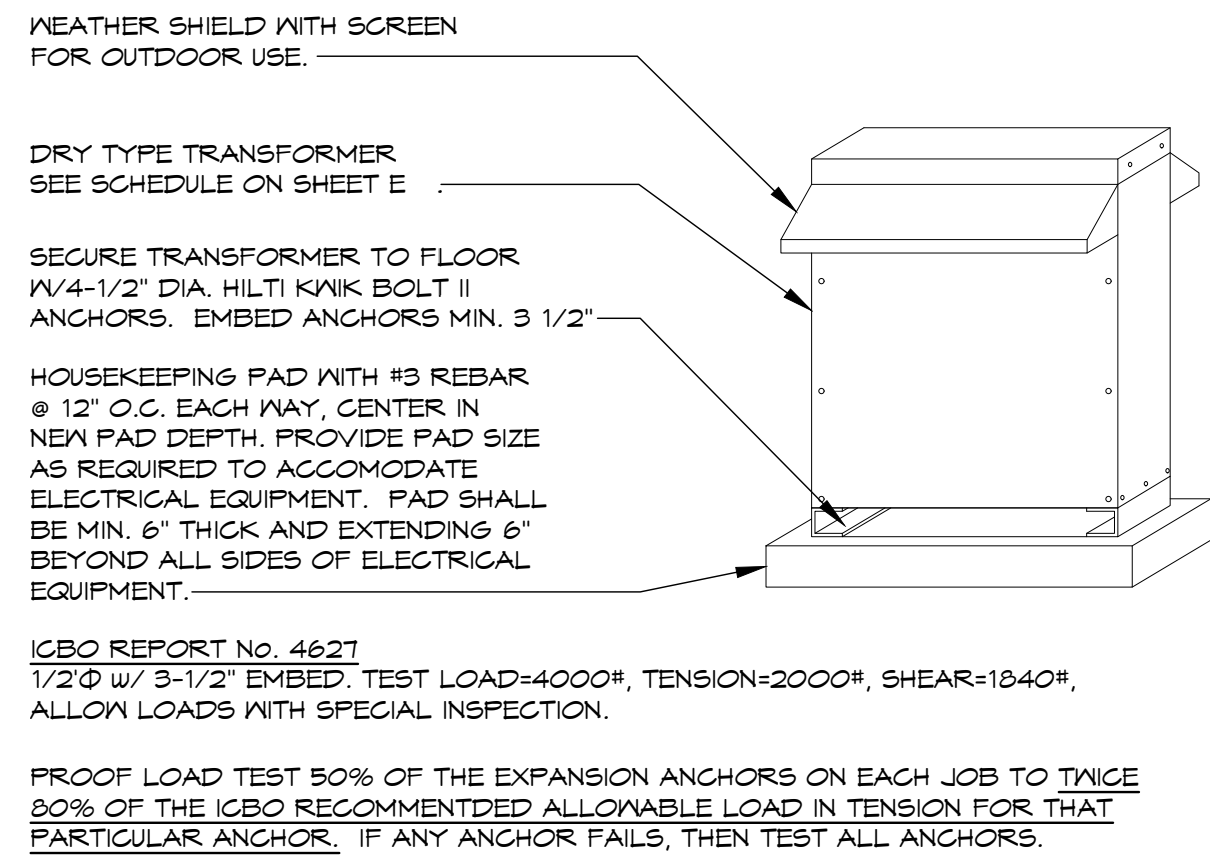


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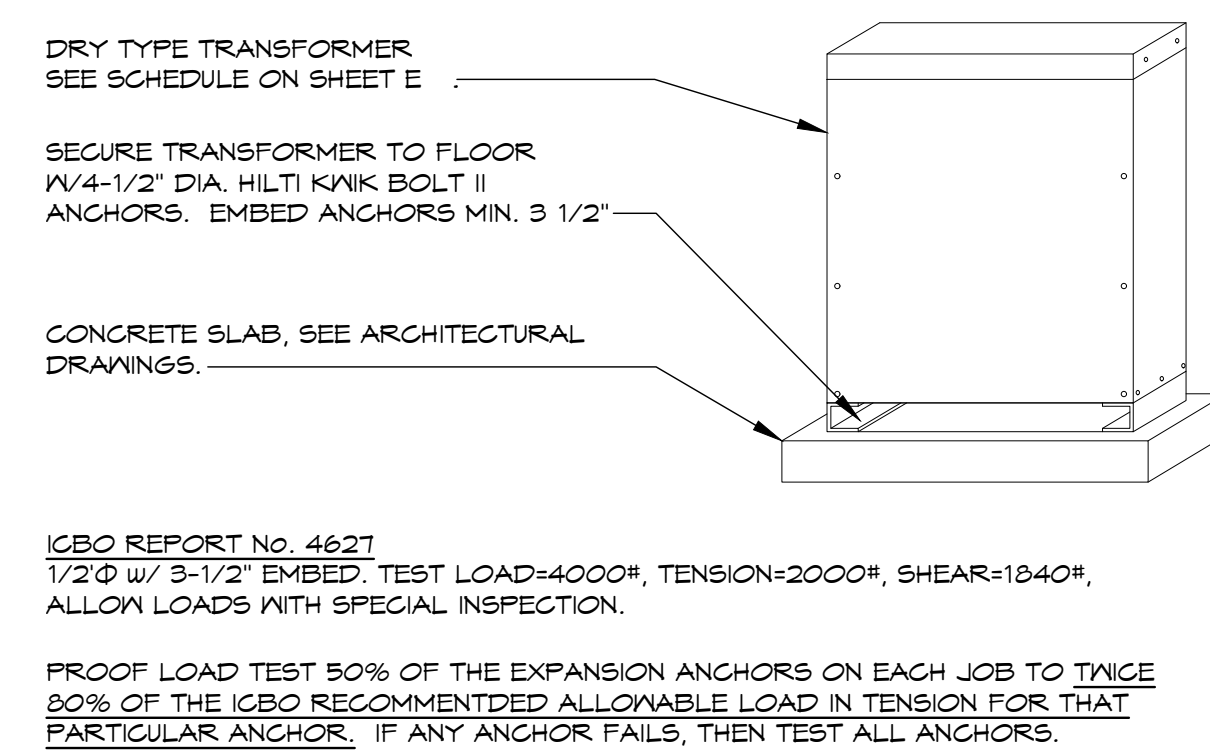
APPROVALS



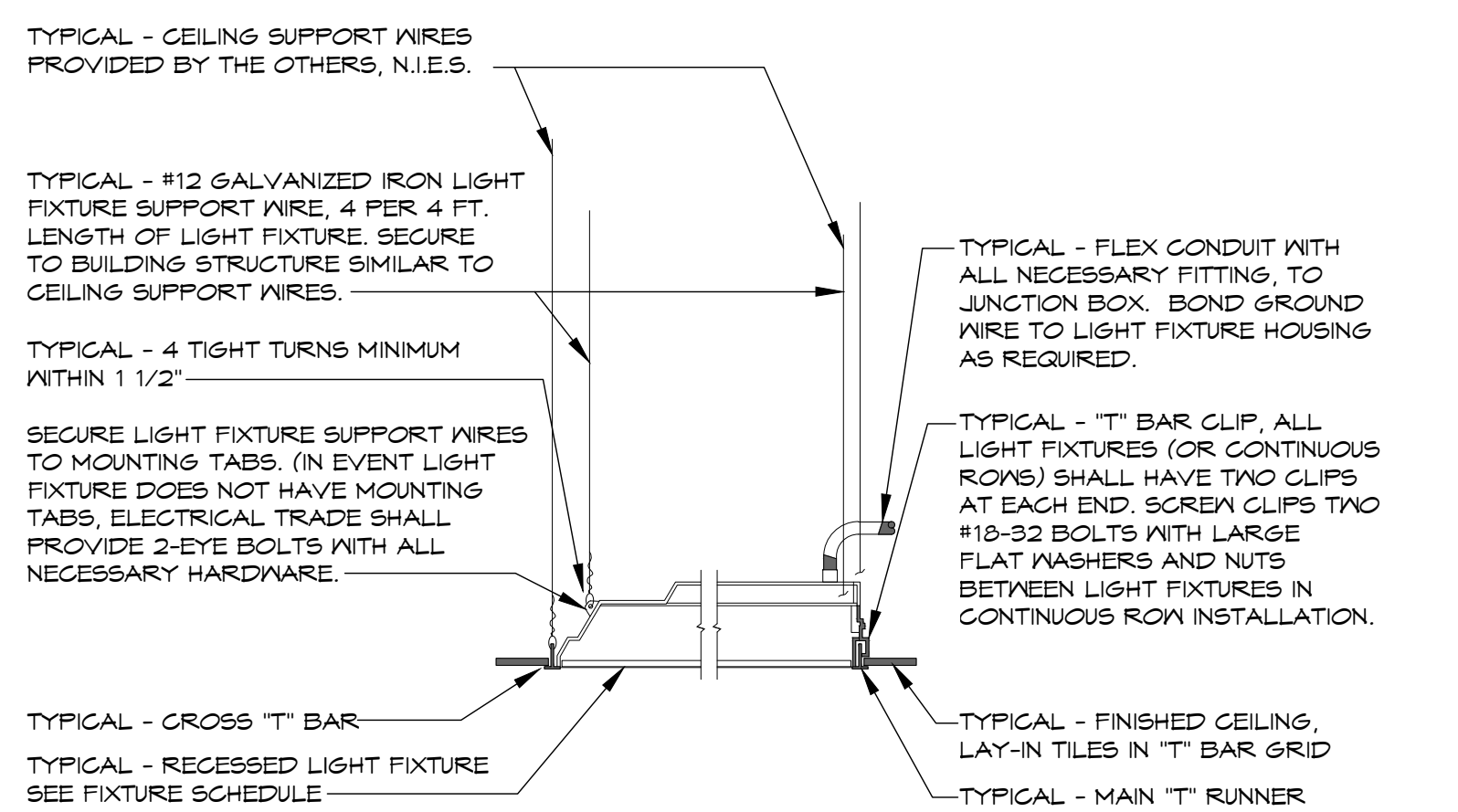
TYPICAL SKYLIGHT WIRING DETAIL (A) E0.3
 NO SCALE



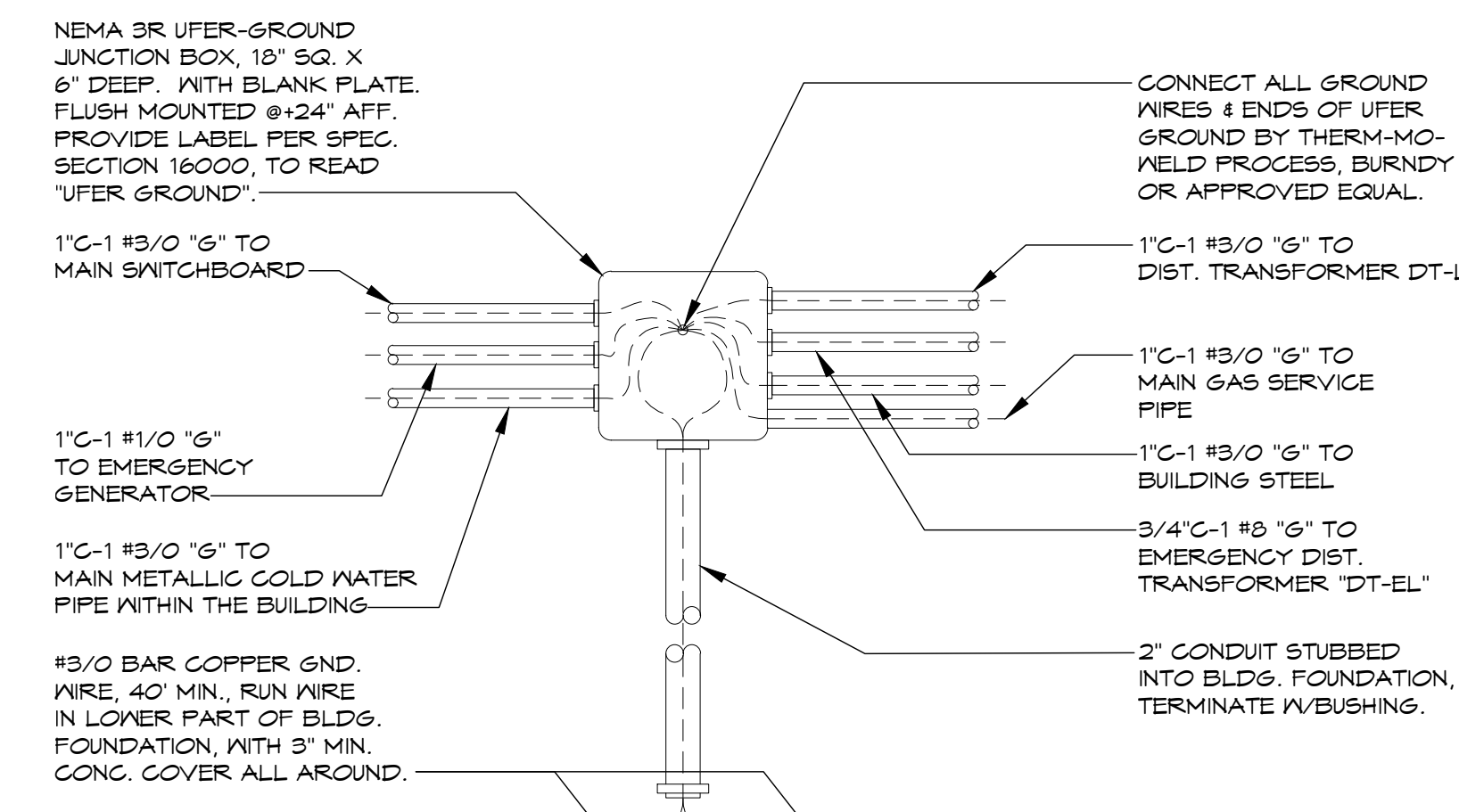
DISTRIBUTING TRANSFORMER MTG. DTL. (B) E0.3
 NO SCALE



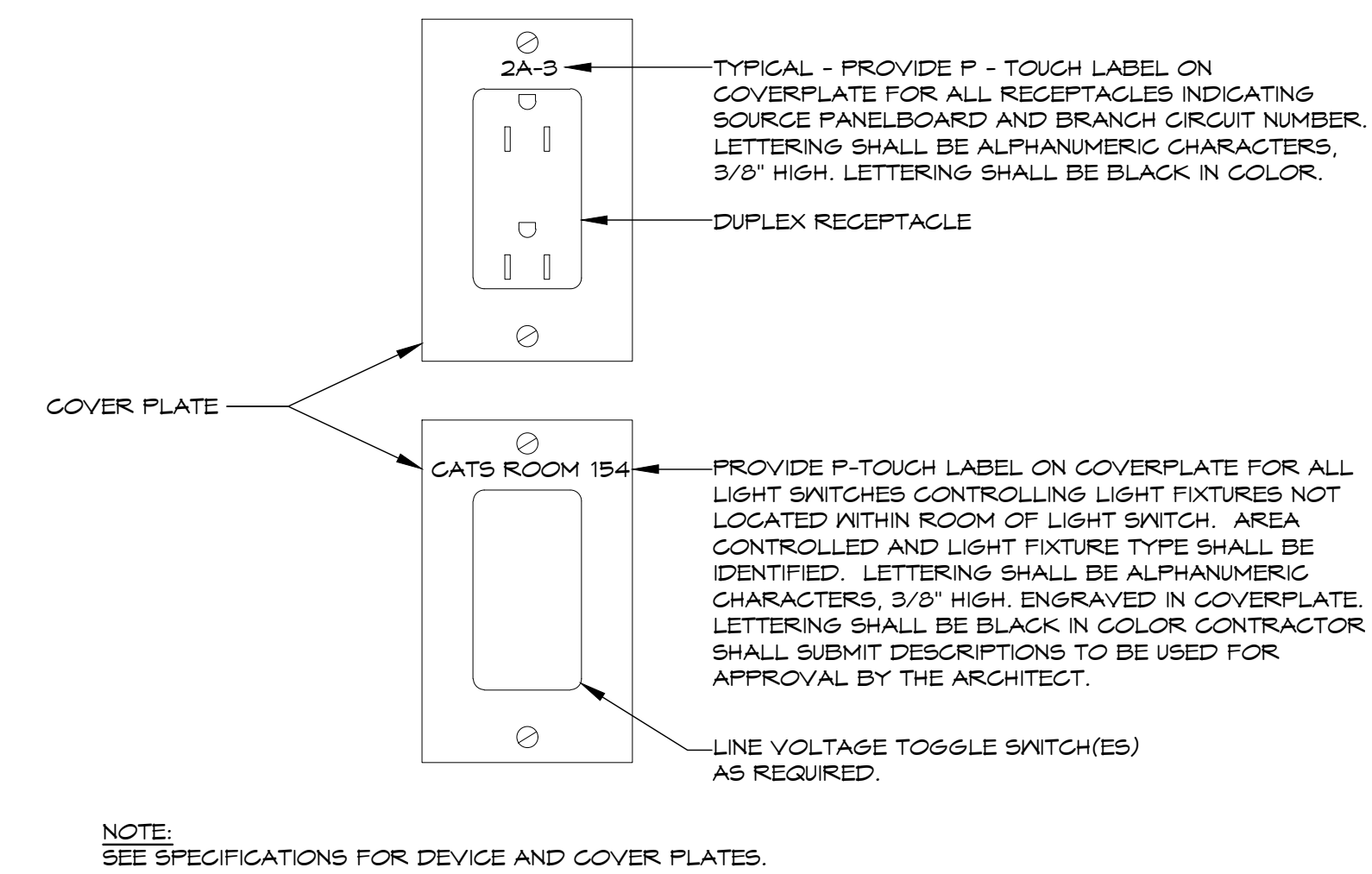
DISTRIBUTING TRANSFORMER MTG. DTL. (C) E0.3
 NO SCALE



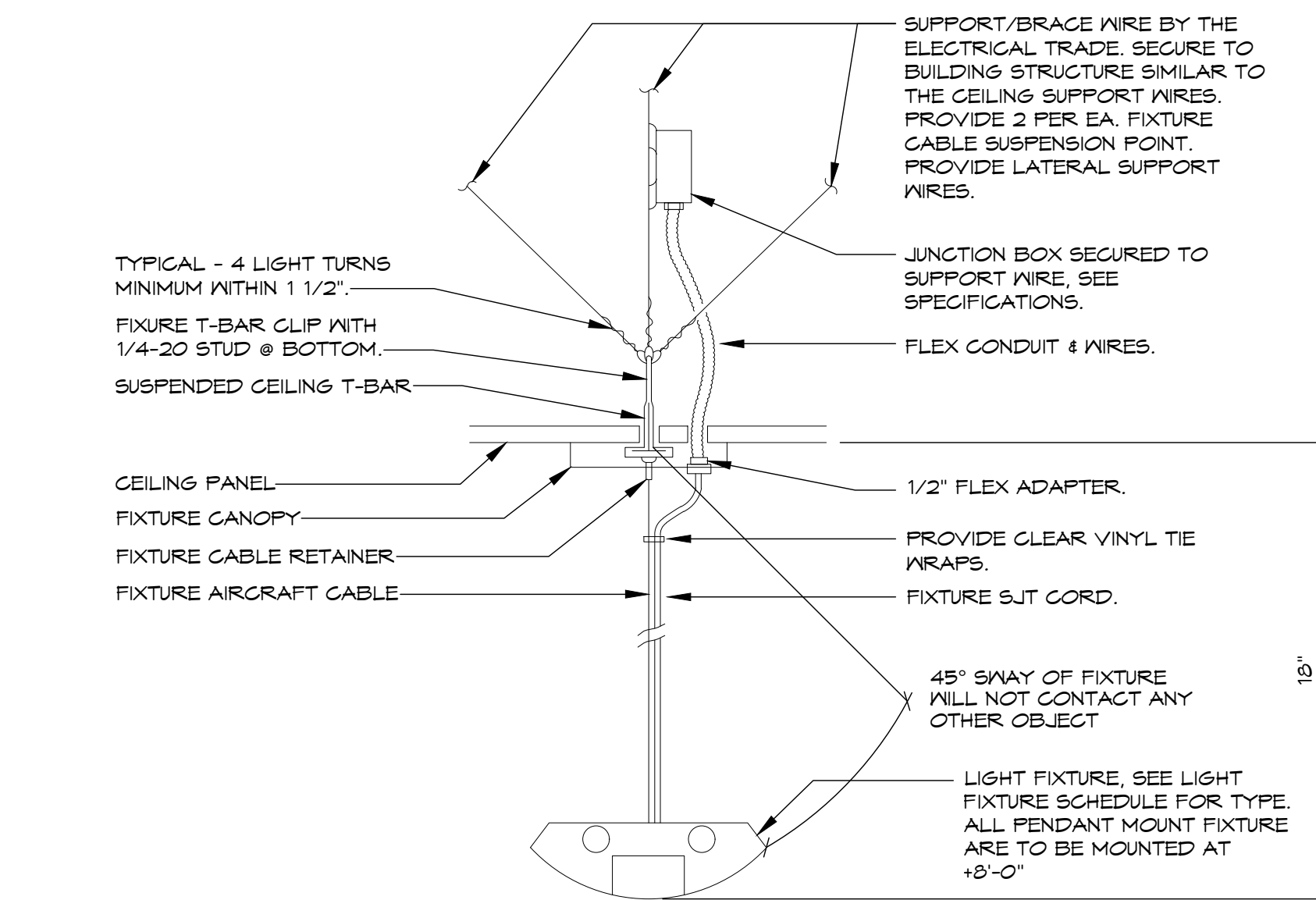
RECESSED T-BAR LIGHT FIXTURE MTG. (D) E0.3
 NO SCALE



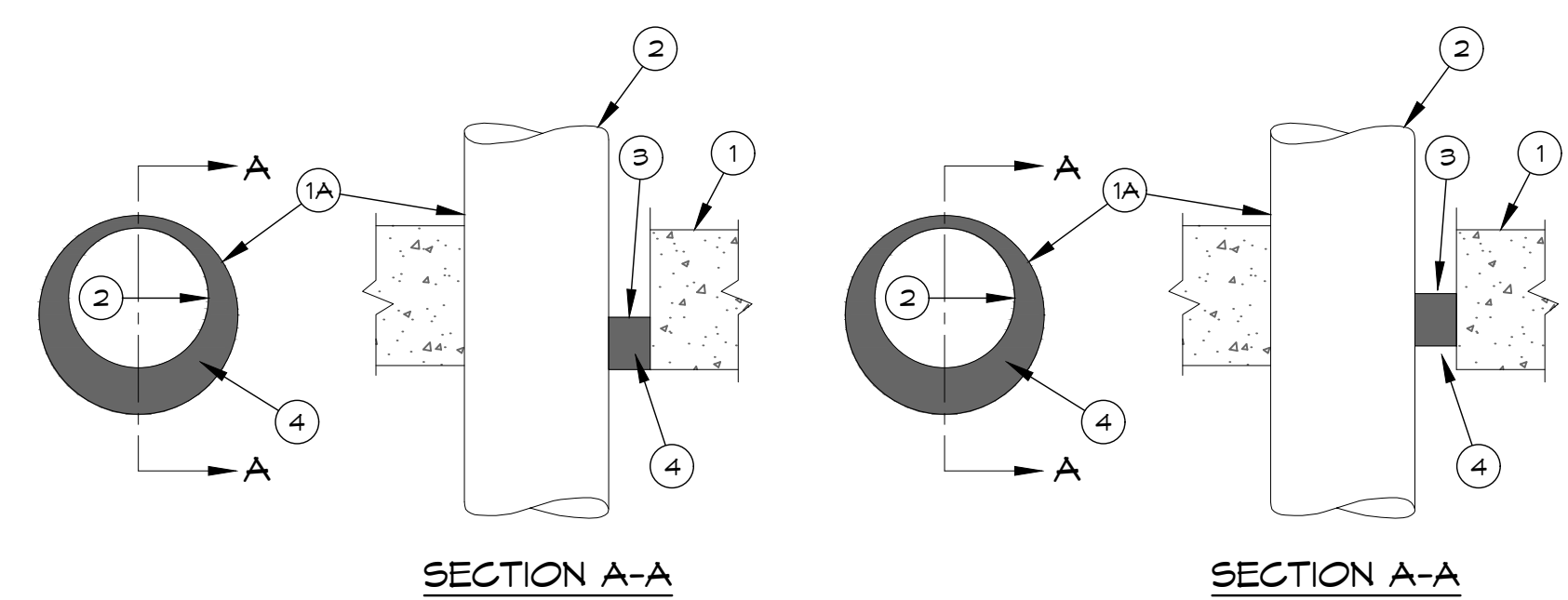
"UFER GROUND" JUNCTION BOX DETAIL (F) E0.3
 NO SCALE



DEVICE COVERPLATE LABELING REQUIREMENTS (G) E0.3
 NO SCALE

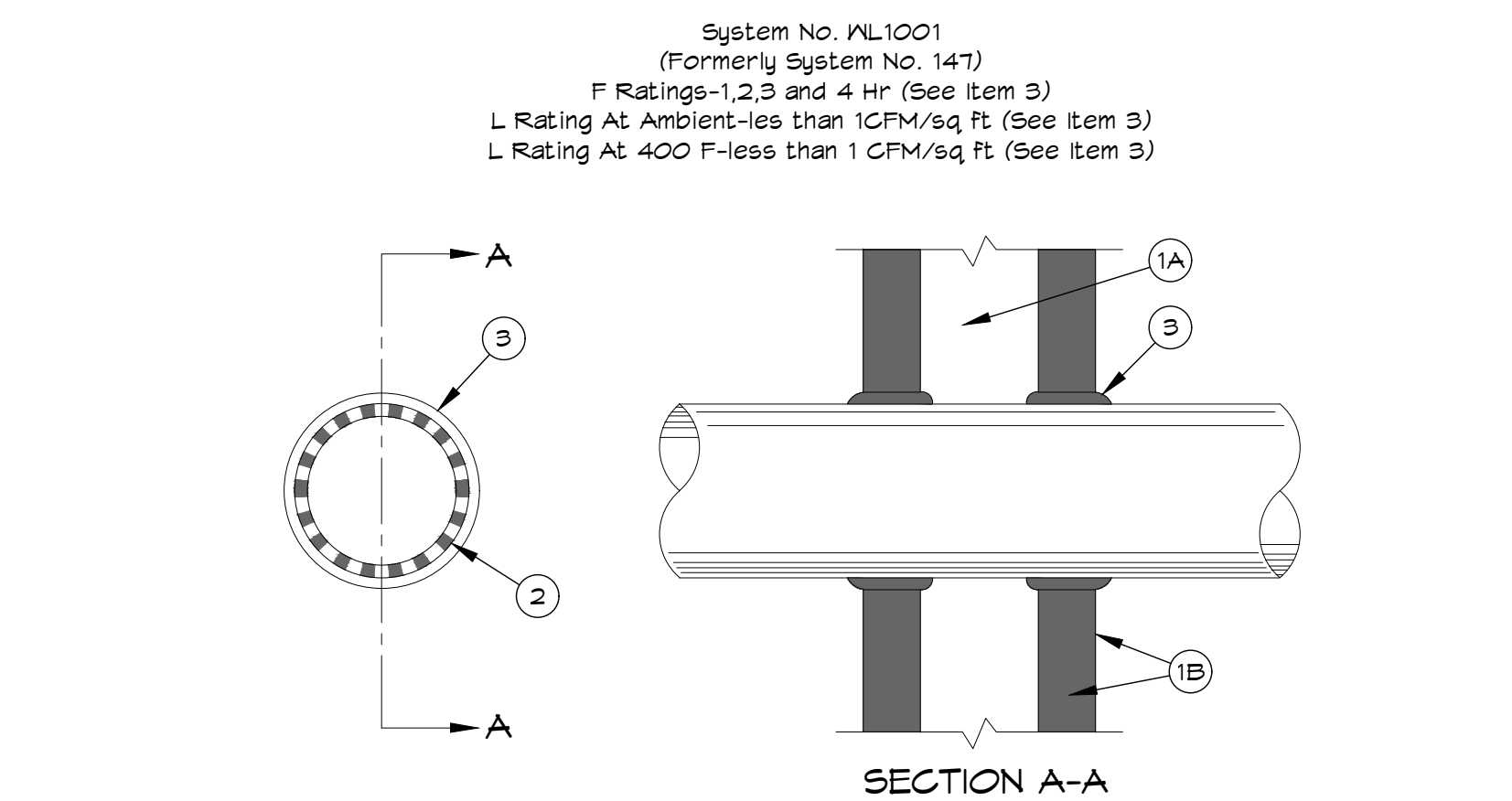


SUSPENDED LIGHT FIXTURE MTG. DTL. (E) E0.3
 NO SCALE



- Floor or Wall Assembly - Min. 2-1/2 in. thick lightweight or normal weight (100-150 pcf) concrete. When configuration A is used, or configuration B is used in conjunction with the steel sleeve (item 1A), floor may be constructed of any min 6 in. thick ul classified hollow core Precast concrete units. Wall may also be constructed of any ul Classified Concrete Blocks. Max dia. of circular through opening is 10 in. See Concrete Blocks (CAZT) and Precast Concrete Units (CPTV) categories in the Fire Resistance Directory for names of Manufacturers.
- Through Penetrants - One metallic pipe, conduit or tubing to be installed either concentrically or eccentrically within the Firestop system. Max annular space between pipe, conduit or tubing to be installed either concentrically or eccentrically within the Firestop system. Max annular space between pipe, conduit or tubing and edge of through opening not to exceed 1-3/8 in. Min annular space between pipe or conduit and edge of through opening is zero in. (point contact). Pipe, conduit or tubing to be rigidly supported on both sides of floor or wall assembly. The following types and sizes of metallic pipes, conduits or tubing may be used.
 - Steep Pipe - Nom 8 in. diam. (or smaller) Schedule 10 (or heavier) steel pipe.
 - Conduit - Nom 6 in. diam. (or smaller) rigid steel conduit.
 - Conduit - Nom 4 in. diam. (or smaller) steel electrical metallic tubing.
 - Iron Pipe - Nom 4 in. diam. (or smaller) Type L (or heavier) copper tube.
 - Copper Tubing - Nom 6 in. diam. (or smaller) Type L (or heavier) copper tube.
 - Copper Pipe - Nom 6 in. diam (or smaller) Regular (or heavier) copper pipe. Firestop Configuration A
- Packing Material - Min 1 in. thickness of tightly-packed mineral wool batt material used as a permanent form. Packing material to be recessed from top or bottom surface of floor or from either surface of solid concrete wall as required to accommodate the required thickness of caulk fill material (item 4). When wall is constructed of concrete block, packing material is to be installed on both sides of wall assembly. When precast hollow core floor is used, packing material must be installed on bottom surface of floor.
- Fill, Void or Cavity Materials Caulk - Applied to fill the annular space to a min depth of 1/2 in. Flush with the top or bottom surface of the floor or either surface of the solid concrete wall. A min 1/4 in. diam bead of caulk shall be applied to the floor or wall surface where the pipe, conduit or EMT is installed in point contact with the edge of the through opening. When wall is constructed of concrete block, caulk to be installed symmetrically on both sides of wall assembly. When precast hollow core floor is used, caulk fill material must be installed on bottom surface of floor. Minnesota Mining & Mfg Co. - CP 25 MB.
- Fill, Void or Cavity Materials - Polyethylene backer rod or nom 1 in. thickness of tightly-packed mineral wool batt insulation firmly packed into opening as a permanent form. Packing material to be recessed min 1/2 in. from top surface of floor or from both surfaces of wall as required to accommodate the required thickness of caulk fill material (item 4).
- Fill, Void or Cavity Materials - Caulk - Applied to fill the annular space to a min depth of 1/2 in. Flush with the top surface of the floor or both surfaces of the wall. A min 1/4 in. diam bead of caulk shall be applied to the floor or wall surface where the pipe, conduit or EMT is installed in point contact with the edge of the through opening. Minnesota Mining & Mfg Co. - CP 25 MB. Bearing the UL Classification Mark.

FIRE PENETRATION DETAIL
 NO SCALE



- Wall Assembly - The 1, 2, 3 or 4 hr fire-rated gypsum wallboard/stud assembly shall be constructed of the materials and in the manner described in the individual USBC or UACO Series Mass or Partition Designs in the UL Fire Resistance Directory and shall include the following construction features.
 - Studs-Wall framing may consist of either wood studs (max 2 hr fire rated assemblies) or steel channel studs. Wood studs to consist of nom 2 by 4 in. lumber spaced 16 in. OC with nom 2 by 4 in. lumber and plates and cross braces. Steel studs to be min 3-5/8 in. wide by 1-3/8 in. deep channels spaced max 24 in. OC.
 - Wallboard, Gypsum-Nom 1/2 in. or 5/8 in. thick, 4 ft wide with square or tapered edges. The gypsum wall board type, thickness, number of layers, fastener type and sheet Fire Resistant Directory. Max diam of opening is 15-1/2 in. Pipe or Conduit-Nom 12 in. diam. (or smaller) Schedule 10 (or heavier) steel pipe nom 12 in. diam. (or smaller) service weight (or heavier) cast iron soil pipe, nom 12 in. (or smaller).
- Class 90 (or heavier) ductile iron pressure pipe, nom 6 in. diam. (or smaller) steel conduit, nom. 4 in. may only be used in walls constructed with steel channel studs. A max of one pipe or conduit is permitted in the Firestop system. Pipe or conduit to be installed near center of stud cavity width and to be rigidly supported on both sides of wall assembly.
- Fill, Void or Cavity Material-Caulk-Caulk fill material installed to completely fill annular space between pipe or conduit and gypsum wallboard and with a min 1/4 in. diam. bead of caulk applied to perimeter of pipe or conduit at its egress from the wall. Caulk installed symmetrically on both sides of wall assembly. The hourly F Rating of the Firestop system is dependent upon the hourly fire rating of the wall assembly in which it is installed, as shown in the following table. The hourly T rating of the Firestop system is dependent upon the type or size of the pipe or conduit and the hourly rating of the wall assembly in which it is installed, as tabulated below.

Max Pipe or Conduit Diam. in.	Annular Space, in.	F Rating, HR	T Rating, HR
1	0 to 3/16	1 or 2	0, 1 or 2
4	1/4 to 1/2	3 or 4	3 or 4
6	0 to 1/2	1 or 2	0
12	1/4 to 1/2	3 or 4	0
	3/16 to 3/8	1 or 2	0

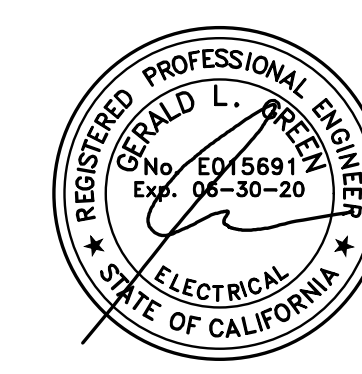
*When copper pipe is used, T rating is 0 hr.
 *0 to 1-1/2 in. annular space applies only when Type CP-25 MB caulk is used.
 Minnesota Mining & Mfg Co.-Types CP-25 B/L, CP-25 N/S, CP-25 MB, CP-25 MB*, (note: L Ratings apply only when Type of CP-25 MB caulk is used.)

FIRE PENETRATION DETAIL (H) E0.3
 NO SCALE

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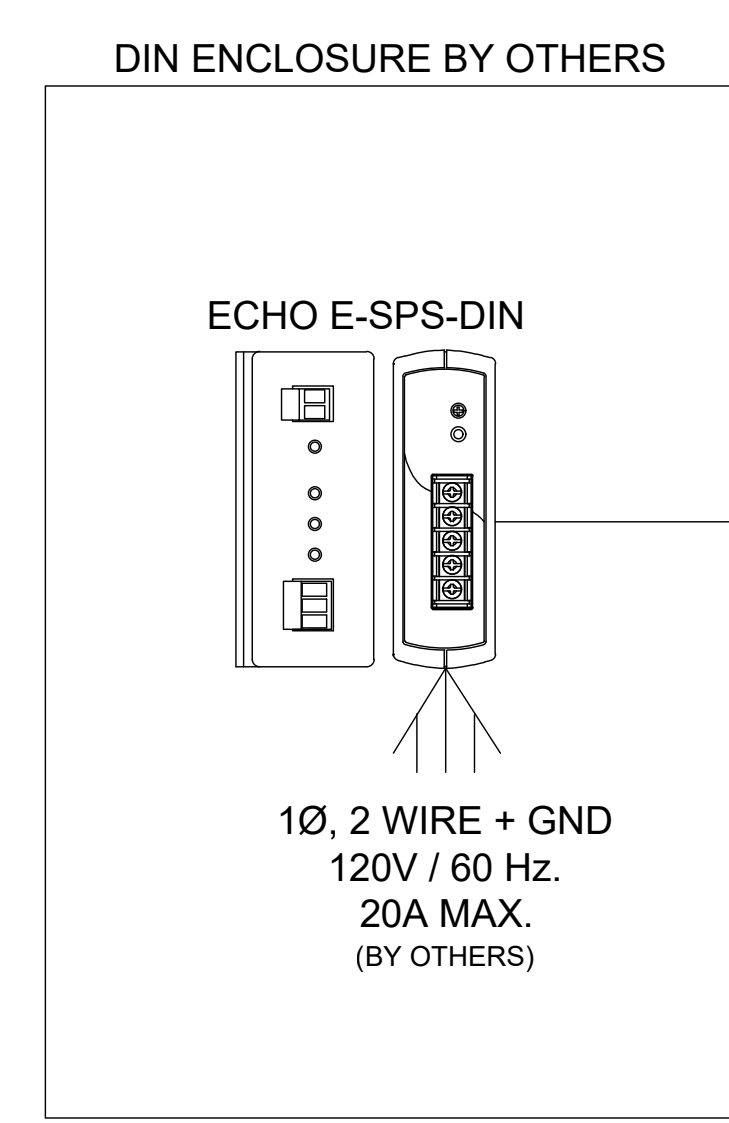
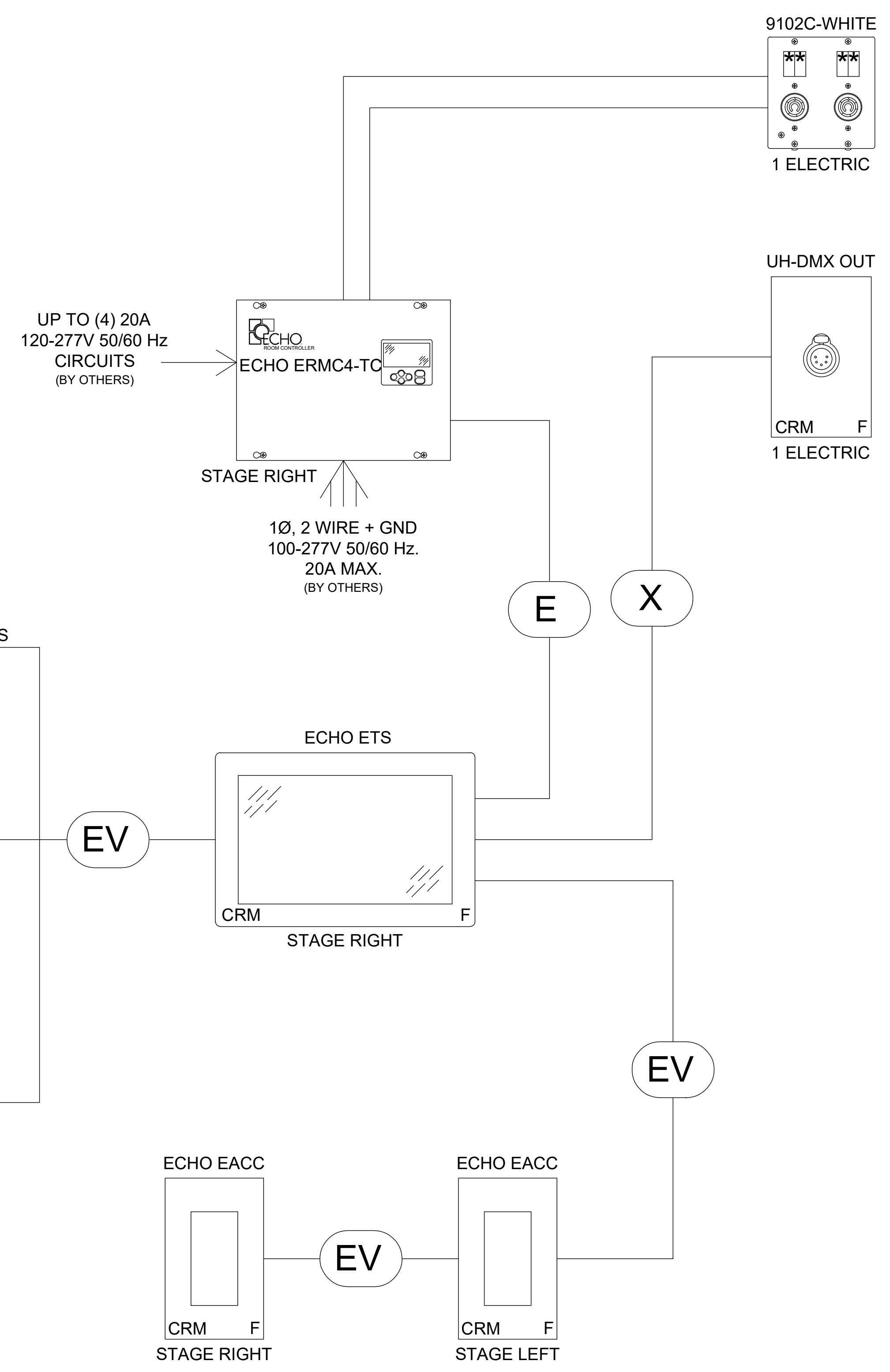
Project Title	Document Date	Project Number
IMPERIAL VALLEY COLLEGE BUILDING 200, 300 AND 800 MODERNIZATION	12-18-19	19-121V
Sheet Title	Date Last Revised	Sheet Number
DETAILS		E0.3





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 DATE: 01.16.20

APPROVALS



CONTROL WIRING LEGEND		
SYMBOL	WIRE TYPE(S)	SIGNAL
(E)	(1) BELDEN #8471	ECHOCONNECT
(EV)	(1) BELDEN #8471 (2) #14 AWG. STRANDED WIRE (2) #16 AWG. STRANDED WIRES	ECHOCONNECT W/ 24V DC
(X)	(1) BELDEN #1583A	DMX INPUT CAT5e

STATION COLOR AND MOUNTING KEY		
COLOR DETAIL	STATION ID / STATION TYPE	MOUNTING DETAIL
KEY DESCRIPTION		KEY DESCRIPTION
CRM (CREAM (RAL 9001))		S SURFACE
IVR (IVORY (RAL 1015))		SL SURFACE WITH LOCKING COVER
GRY (GRAY (RAL 7001))		SSL SURFACE WITH SLIDING LOCKING COVER
BLK (BLACK (RAL 9004))		F FLUSH
WHT (SIGNAL WHITE (RAL 9003))		FL FLUSH WITH LOCKING COVER
CC (CUSTOM COLOR)		FSL FLUSH WITH SLIDING LOCKING COVER
	CL (R) LOCATION	U U-BOLT
	MTG MOUNTING	OU OFFSET U-BOLT

SYSTEM RISER DIAGRAM
 NO SCALE

E0.4

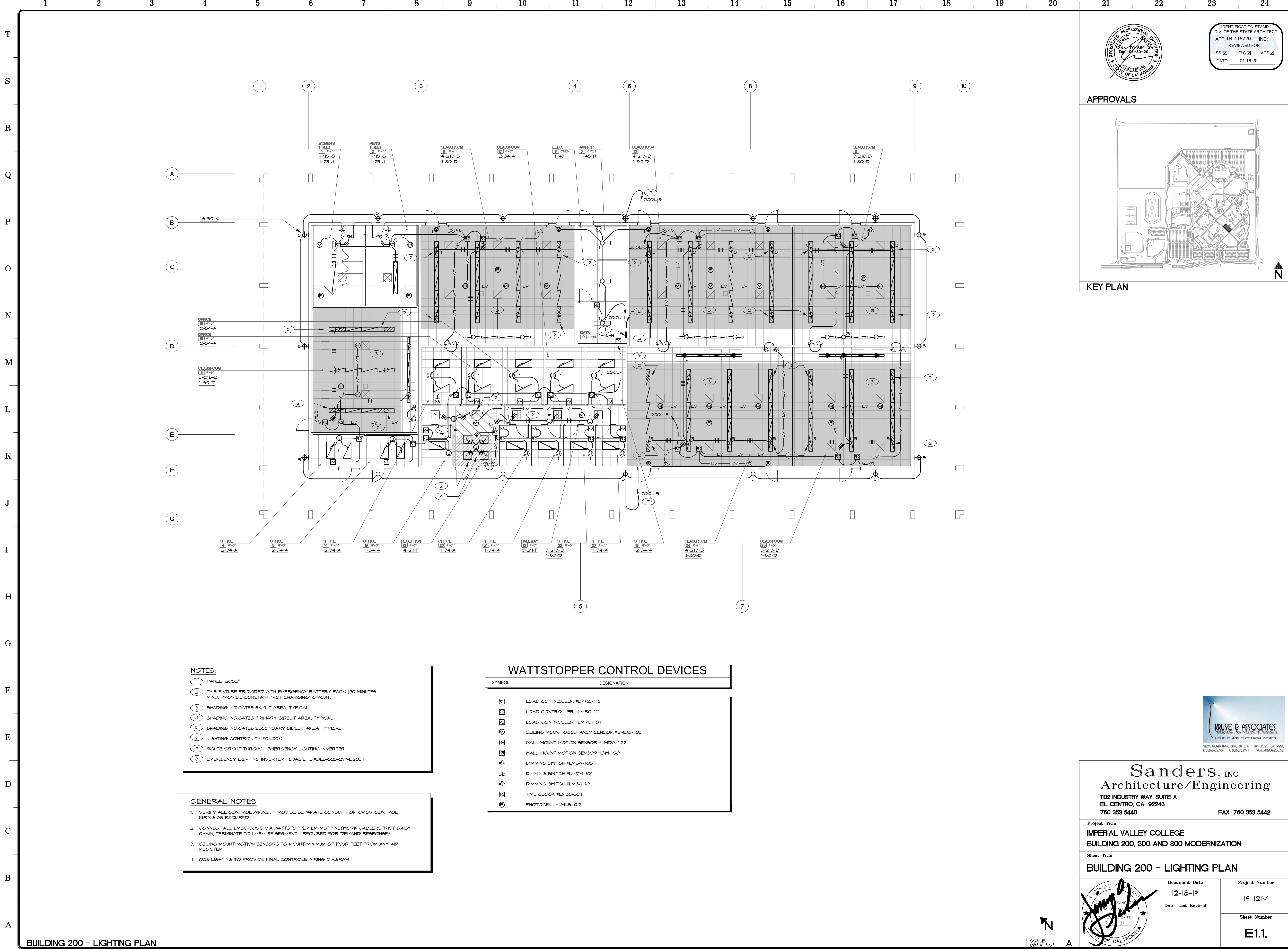


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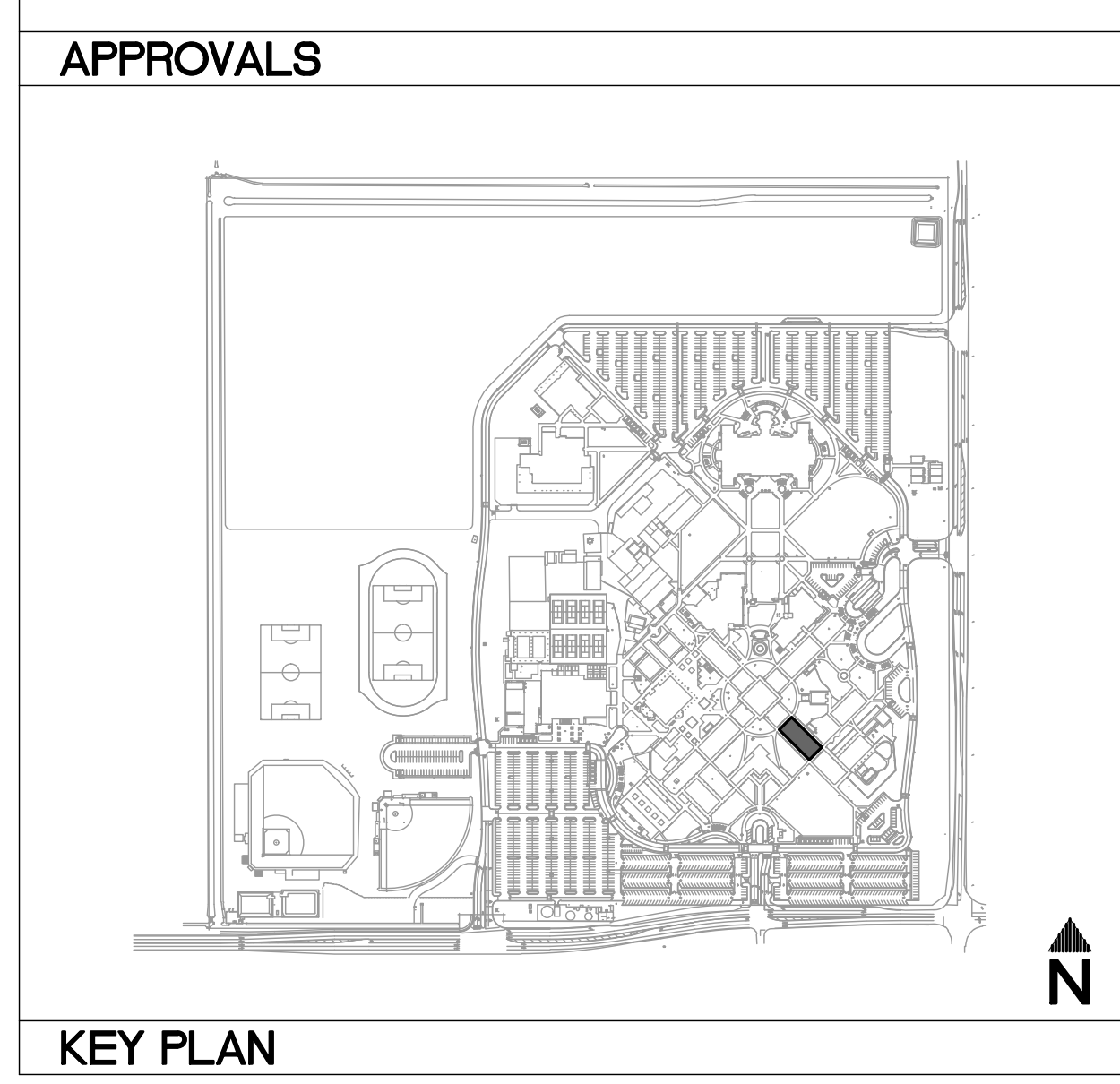
Project Title
**IMPERIAL VALLEY COLLEGE
 BUILDING 200, 300 AND 800 MODERNIZATION**

Sheet Title
SYSTEM RISER DIAGRAM

	Document Date	Project Number
	Date Last Revised	Sheet Number
	12-18-19	19-121V
		E0.4



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- NOTES:**
- ① PANEL "200L"
 - ② THIS FIXTURE PROVIDED WITH EMERGENCY BATTERY PACK (90 MINUTES MIN.). PROVIDE CONSTANT "HOT CHARGING" CIRCUIT.
 - ③ SHADING INDICATES SKYLIT AREA, TYPICAL.
 - ④ SHADING INDICATES PRIMARY SIDELIT AREA, TYPICAL.
 - ⑤ SHADING INDICATES SECONDARY SIDELIT AREA, TYPICAL.
 - ⑥ LIGHTING CONTROL TIMECLOCK.
 - ⑦ ROUTE CIRCUIT THROUGH EMERGENCY LIGHTING INVERTER
 - ⑧ EMERGENCY LIGHTING INVERTER, DUAL LITE #DLS-525-21T-B2001

- GENERAL NOTES**
1. VERIFY ALL CONTROL WIRING. PROVIDE SEPARATE CONDUIT FOR 0-10V CONTROL WIRING AS REQUIRED
 2. CONNECT ALL LMBG-300'S VIA WATTSTOPPER LM-MSTP NETWORK CABLE (STRICT DAILY CHAIN, TERMINATE TO LMSM-BE SEGMENT 1 REQUIRED FOR DEMAND RESPONSE)
 3. CEILING MOUNT MOTION SENSORS TO MOUNT MINIMUM OF FOUR FEET FROM ANY AIR REGISTER.
 4. OCS LIGHTING TO PROVIDE FINAL CONTROLS WIRING DIAGRAM.

WATTSTOPPER CONTROL DEVICES

SYMBOL	DESIGNATION
Ⓛ	LOAD CONTROLLER #LMRG-112
Ⓜ	LOAD CONTROLLER #LMRG-111
Ⓝ	LOAD CONTROLLER #LMRG-101
Ⓞ	CEILING MOUNT OCCUPANCY SENSOR #LMDC-100
Ⓟ	WALL MOUNT MOTION SENSOR #LMDM-102
Ⓠ	WALL MOUNT MOTION SENSOR #DW-100
Ⓡ	DIMMING SWITCH #LMSW-105
Ⓢ	DIMMING SWITCH #LMDM-101
Ⓣ	DIMMING SWITCH #LMSW-101
Ⓤ	TIME CLOCK #LMZG-301
Ⓥ	PHOTOCELL #LMLS400

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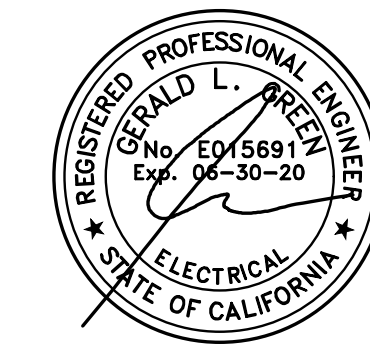
Sheet Title
BUILDING 200 - LIGHTING PLAN

Document Date
12-18-19

Date Last Revised

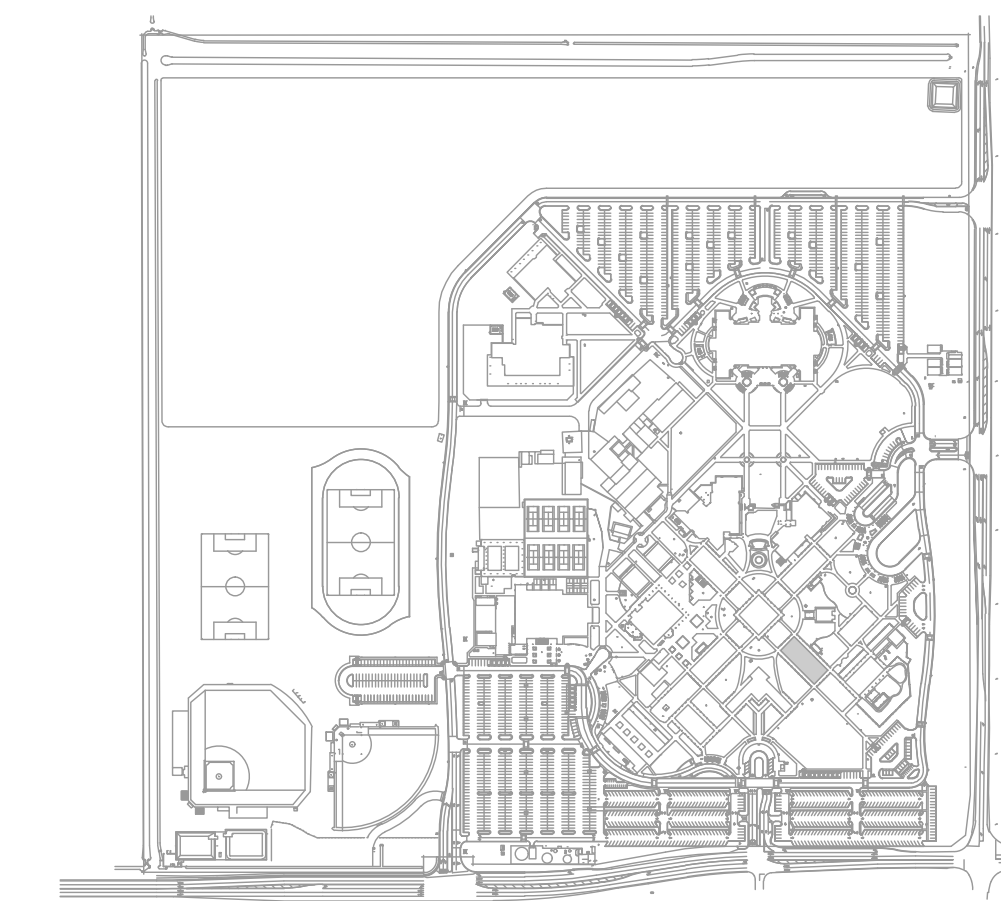
Project Number
19-121V

Sheet Number
E1.1

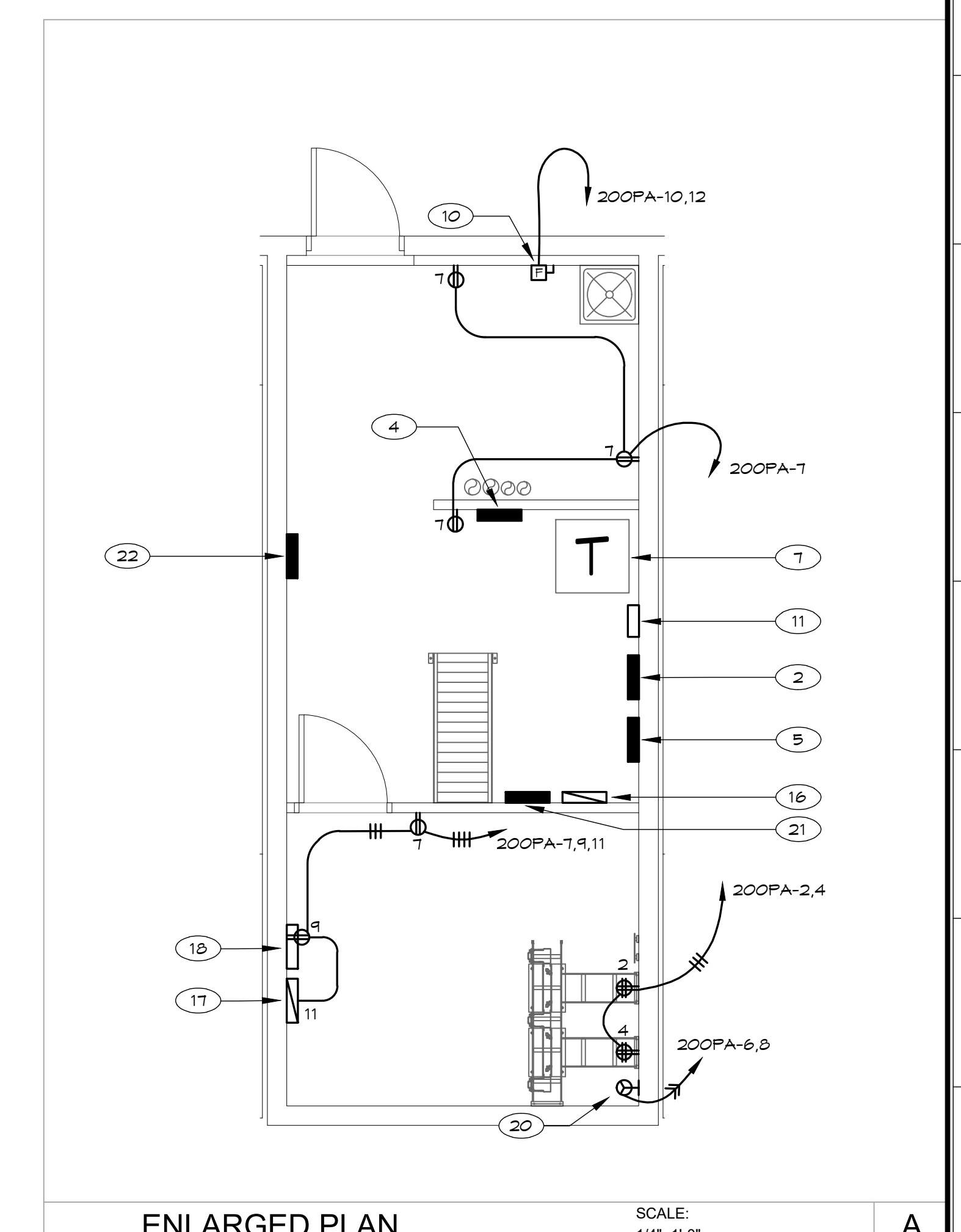
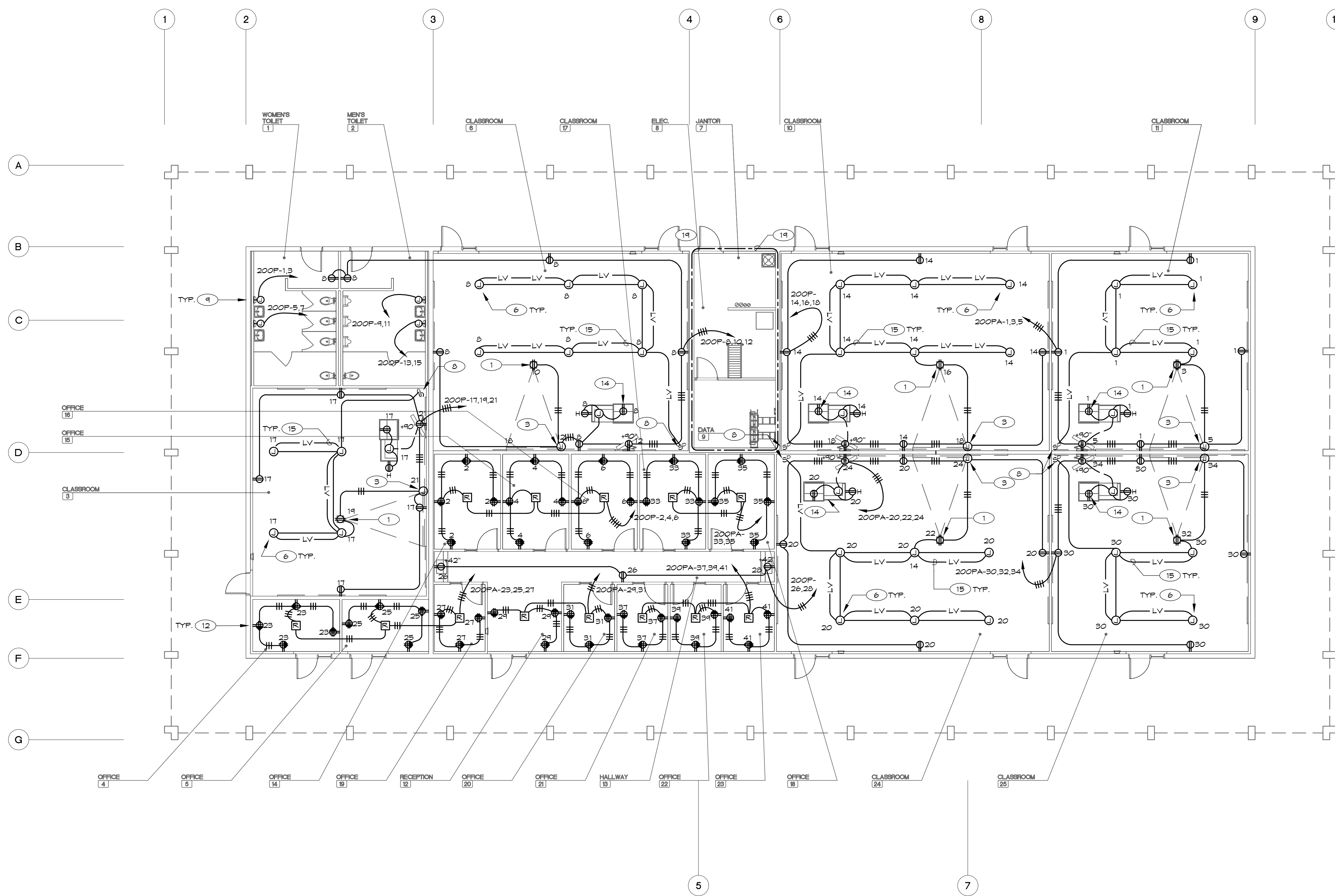


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APPROVALS



KEY PLAN



ENLARGED PLAN

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

- NOTES:**
- (1) RECEPTACLE AT CEILING FOR PROJECTOR.
 - (2) PANEL "200P"
 - (3) J-BOX FOR POWER TO MOTORIZED SCREEN. VERIFY WIRING REQUIREMENTS.
 - (4) PANEL "200M"
 - (5) PANEL "200L"
 - (6) J-BOX PROVIDED WITH MOTORIZED SKYLIGHT, TYPICAL.
 - (7) TSKVA 480V//120/208V, 3Ø, DRY TYPE TRANSFORMER.
 - (8) LOW VOLTAGE SKYLIGHT DIMMER SWITCH. VERIFY REQUIREMENTS WITH MANUFACTURER.
 - (9) J-BOX FOR CONNECTION OF HAND DRYER, TYP. OF 4.
 - (10) 3ØA2P DISC. FOR WATER HEATER.
 - (11) PROVIDE SIEMENS TVSS TFS12 SURGE PROTECTION AT THIS PANEL. CAT# TFS0122402FD.
 - (12) ONE RECEPTACLE IS NORMAL, THE OTHER IS CONTROLLED BY MOTION SENSOR. CONTROLLED RECEPTACLE IS TO HAVE "CONTROLLED" LABEL, TYPICAL.
 - (13) FC-3A 1.8MCA 208V1Ø 15MOCP.
 - (14) SEE ARCHITECTURAL DRAWINGS FOR OUTLET MOUNTING IN CABINETS.
 - (15) ELECTRICAL CONTRACTOR TO VERIFY SIZE OF LOW VOLTAGE WIRING FOR SKYLIGHT CONTROLS.
 - (16) TIME CLOCK BY MATT STOPPER #LMZC-201.
 - (17) FIRE ALARM CONTROL PANEL "FACP".
 - (18) POWER FOR SECURITY PANEL.
 - (19) SEE DETAIL A, THIS SHEET.
 - (20) 3ØA, 2P RECEPTACLE, VERIFY, NEMA TYPE.
 - (21) PANEL "200PA".
 - (22) PANEL "200MA".



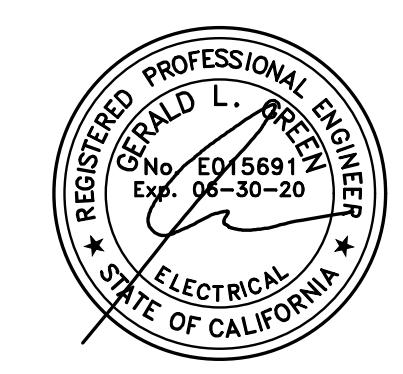
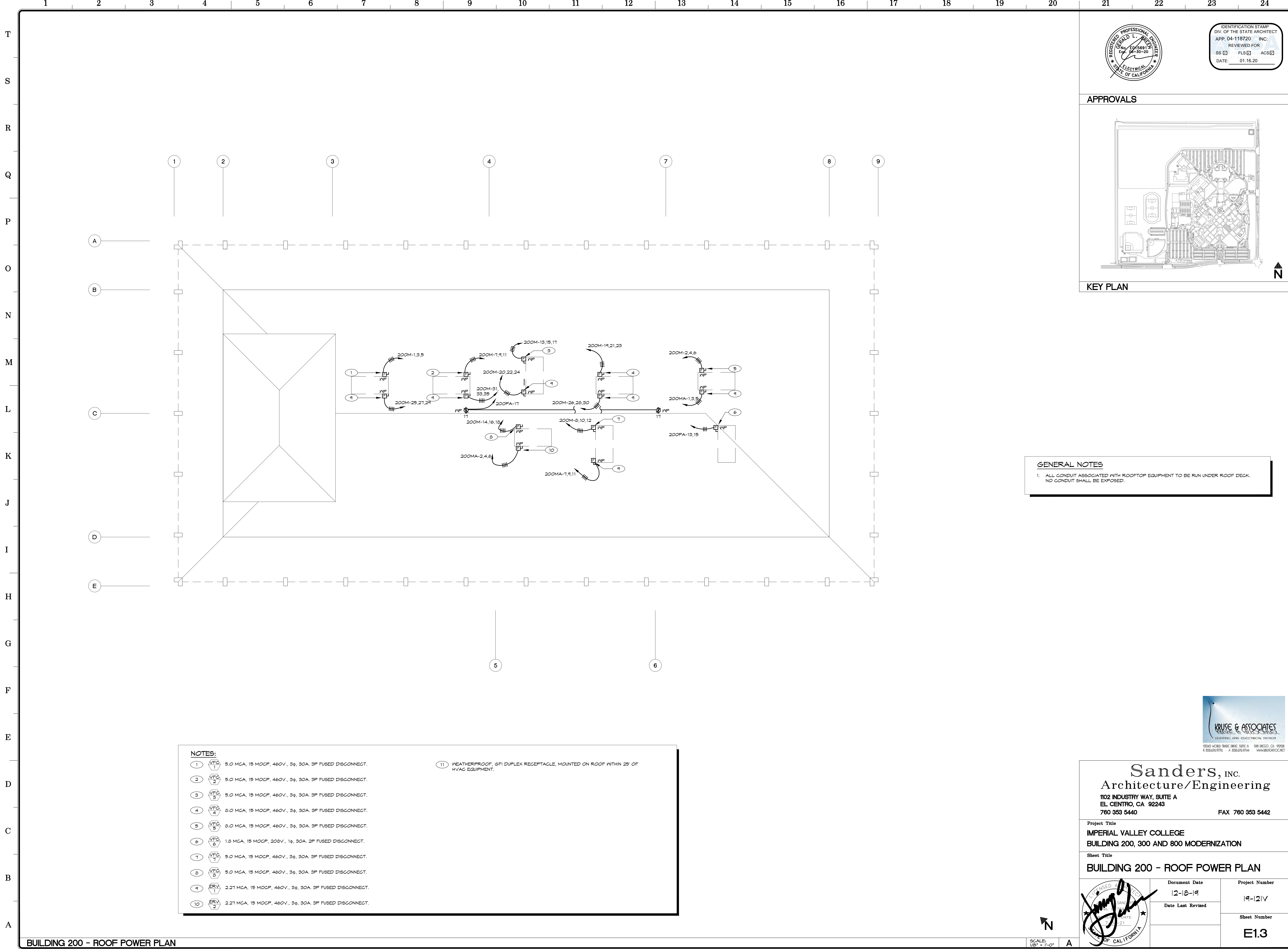
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**IMPERIAL VALLEY COLLEGE
 BUILDING 200, 300 AND 800 MODERNIZATION**

Sheet Title
BUILDING 200 - POWER PLAN

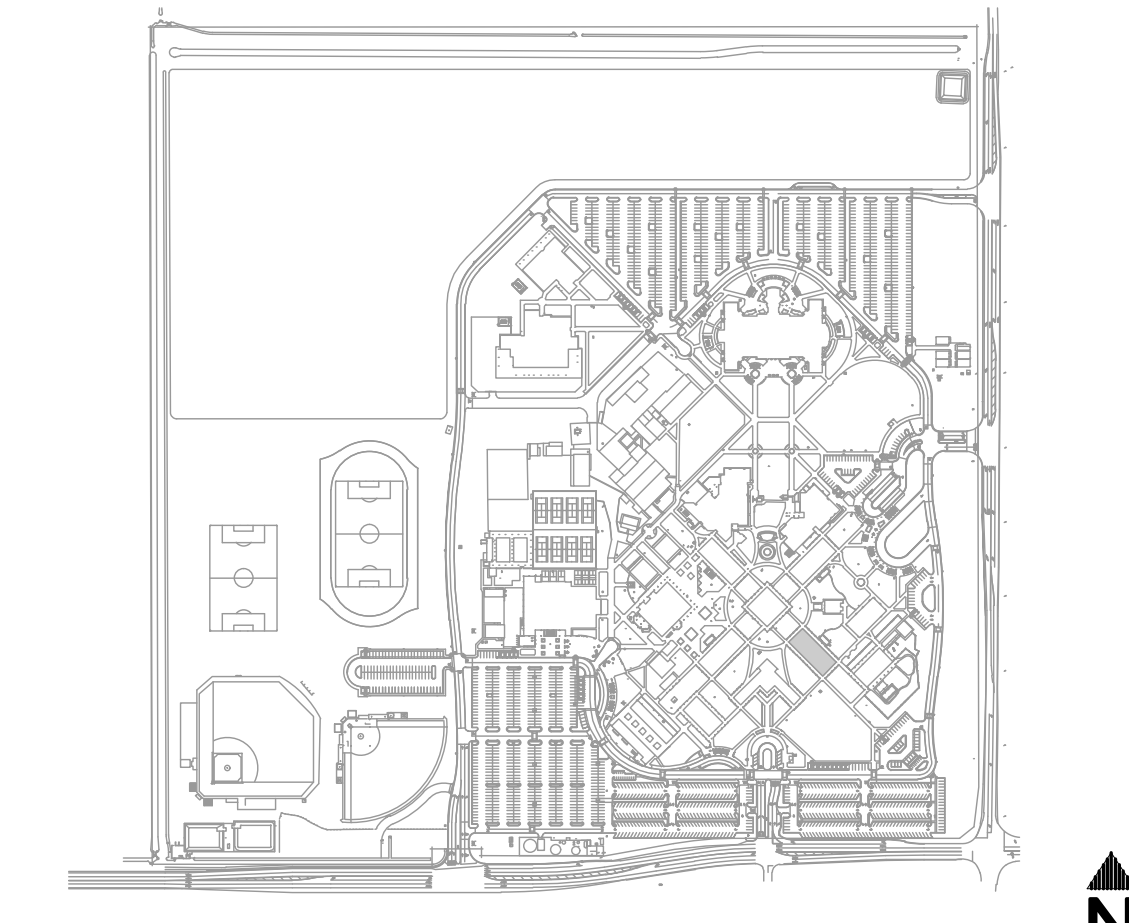
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	Date Last Revised	Sheet Number
	12-18-19	19-121V
		E1.2





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APPROVALS



KEY PLAN

GENERAL NOTES
 1. ALL CONDUIT ASSOCIATED WITH ROOFTOP EQUIPMENT TO BE RUN UNDER ROOF DECK.
 NO CONDUIT SHALL BE EXPOSED.

- NOTES:**
- ① VFC 1 5.0 MCA, 15 MOCP, 460V., 3φ, 30A, 3P FUSED DISCONNECT.
 - ② VFC 2 5.0 MCA, 15 MOCP, 460V., 3φ, 30A, 3P FUSED DISCONNECT.
 - ③ VFC 3 5.0 MCA, 15 MOCP, 460V., 3φ, 30A, 3P FUSED DISCONNECT.
 - ④ VFC 4 5.0 MCA, 15 MOCP, 460V., 3φ, 30A, 3P FUSED DISCONNECT.
 - ⑤ VFC 5 5.0 MCA, 15 MOCP, 460V., 3φ, 30A, 3P FUSED DISCONNECT.
 - ⑥ VFC 6 1.0 MCA, 15 MOCP, 208V., 1φ, 30A, 2P FUSED DISCONNECT.
 - ⑦ VFC 7 5.0 MCA, 15 MOCP, 460V., 3φ, 30A, 3P FUSED DISCONNECT.
 - ⑧ VFC 8 5.0 MCA, 15 MOCP, 460V., 3φ, 30A, 3P FUSED DISCONNECT.
 - ⑨ ERY 1 2.2T MCA, 15 MOCP, 460V., 3φ, 30A, 3P FUSED DISCONNECT.
 - ⑩ ERY 2 2.2T MCA, 15 MOCP, 460V., 3φ, 30A, 3P FUSED DISCONNECT.
 - ⑪ WEATHERPROOF, GFI DUPLEX RECEPTACLE, MOUNTED ON ROOF WITHIN 25' OF HVAC EQUIPMENT.

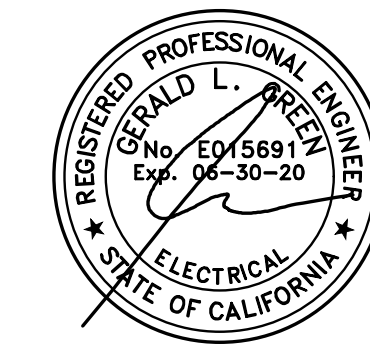


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**IMPERIAL VALLEY COLLEGE
 BUILDING 200, 300 AND 800 MODERNIZATION**

Sheet Title
BUILDING 200 - ROOF POWER PLAN

	Document Date	Project Number
	Date Last Revised	Sheet Number
	12-18-19	19-121V
		E13



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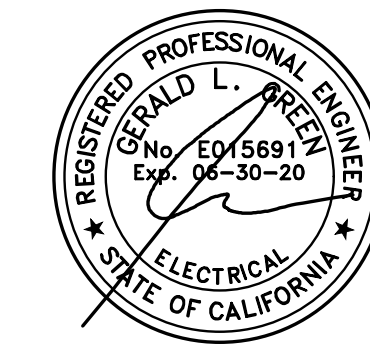
VOLTAGE 277/480		AIC 14,000		PANEL "200M"		MOUNTING SURFACE		MAINS 200A 3P							
PHASE 3		WIRE 4		LOCATION ELECTRICAL ROOM		FEEDER SEE SINGLE LINE		BUSSING 225A							
FEED BOTTOM															
LOCATION	WATTAGE	LTG	REC	MS	BKR	CR	OR	OR	BKR	MS	REC	LTG	WATTAGE	LOCATION	
VFC-1	1108					1	15	1	A	2	15	1	1173	VFC-5	
---	1108												1173	---	
---	1108					3	B	4					1173	---	
VFC-2	1108					1	15	7	A	8	15	1	1108	VFC-7	
---	1108												1108	---	
---	1108					9	B	10					1108	---	
VFC-3	1108					1	15	13	A	14	15	1	1108	VFC-8	
---	1108												1108	---	
---	1108					15	B	16					1108	---	
VFC-4	1173					1	15	19	A	20	15	1	503	ERV-1	
---	1173												503	---	
---	1173					21	B	22					503	---	
ERV-1	503					1	15	25	A	26	15	1	503	ERV-1	
---	503												503	---	
---	503					27	B	28					503	---	
ERV-1	503					1	15	31	A	32	40	1	2012	PANEL "200MA"	
---	503												2012	---	
---	503					33	B	34					2012	---	
PANEL "200L"	2445					1	40	37	A	38	40	1	21470	TRKVA XPMR	
---	3372												14640	---	
---	480					3	41	C	42				14560	---	
---														---	
SUBTOTAL	9048	9475	6583										28477	26697	26587
TOTAL	9A	38025				9B	36172						9C	33170	
TOTAL LOAD	107367					WATTS AT	277/480	V.3Ø.4W	129.2	A.					
HIGH PHASE	38025					WATTS AT	277	V.1Ø.4W	137.3	A.					DATE 10/16/2019

VOLTAGE 120/208		AIC 10,000		PANEL "200P"		MOUNTING SURFACE		MAINS 200A 3P							
PHASE 3		WIRE 4		LOCATION ELECTRICAL ROOM		FEEDER SEE SINGLE LINE		BUSSING 225A							
FEED BOTTOM															
LOCATION	WATTAGE	LTG	REC	MS	BKR	CR	OR	OR	BKR	MS	REC	LTG	WATTAGE	LOCATION	
HAND DRYER	1000					1	20	1	A	2	20	1	1440	OFFICE	
---	1000												1440	OFFICE	
---	1000					3	B	4					1440	OFFICE	
HAND DRYER	1000					1	20	5	C	6	20	1	1740	CLASSRM. 6	
---	1000												1200	PROJECTOR	
---	1000					7	A	8					1000	SCREEN MONITOR	
HAND DRYER	1000					1	20	9	B	10	20	1	1900	CLASSRM. 10	
---	1000												1200	PROJECTOR	
---	1000					11	C	12					1000	SCREEN MONITOR	
HAND DRYER	1000					1	20	13	A	14	20	1	1300	CLASSRM. 24	
---	1000												1200	PROJECTOR	
---	1000					15	B	16					1000	SCREEN MONITOR	
CLASSRM. 3						6	4	20	17	C	18	20	1	1	1
PROJECTOR	1200					1	20	19	A	20	20	1	1300	CLASSRM. 24	
SCREEN MONITOR	1000					1	1	20	21	B	22	20	1	1	1
OFFICE	1440					8	20	23	C	24	20	1	1	1	1
OFFICE	1080					6	20	25	A	26	20	2	1	1	1
OFFICE	1080					6	20	27	B	28	20	1	1	1	1
OFFICE	1080					6	20	29	C	30	20	1	1	1	1
OFFICE	1440					8	20	31	A	32	20	4	1	1	1
OFFICE	1080					8	20	33	B	34	20	1	1	1	1
OFFICE	1440					8	20	35	C	36	20	1	1	1	1
OFFICE	1080					6	20	37	A	38	20	1	1	1	1
OFFICE	1080					6	20	39	B	40					
OFFICE	1080					6	20	41	C	42					

SUBTOTAL	7800	7600	8320										14170	12090	10900
TOTAL	9A	21970				9B	19690						9C	19220	
TOTAL LOAD	60880					WATTS AT	120/208	V.3Ø.4W	169.1	A.					
HIGH PHASE	21970					WATTS AT	120	V.1Ø.4W	183.1	A.					DATE 10/16/2019

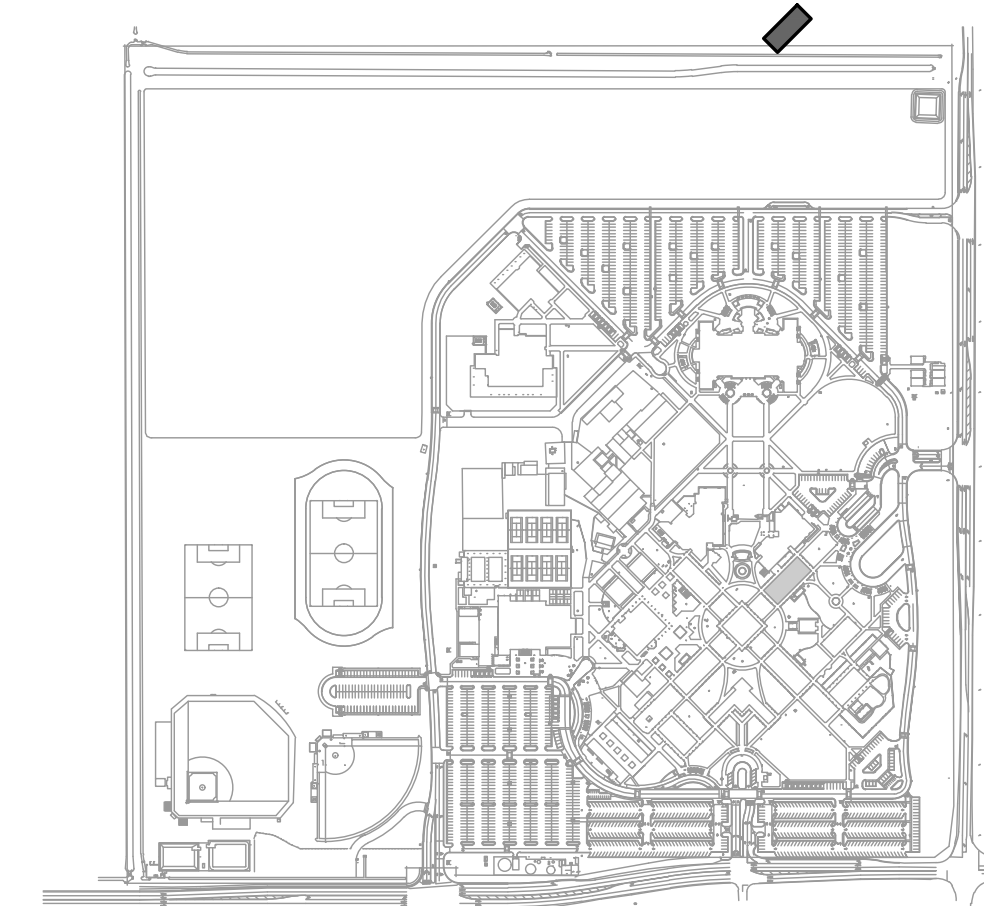
VOLTAGE 277/480		AIC 14,000		PANEL "200MA"		MOUNTING SURFACE		MAINS LUGS ONLY							
PHASE 3		WIRE 4		LOCATION ELECTRICAL ROOM		FEEDER SEE SINGLE LINE		BUSSING 100A							
FEED BOTTOM															
LOCATION	WATTAGE	LTG	REC	MS	BKR	CR	OR	OR	BKR	MS	REC	LTG	WATTAGE	LOCATION	
ERV-1	503					1	15	1	A	2	15	1	503	ERV-2	
---	503												503	---	
---	503					3	B	4					503	---	
ERV-1	503					1	15	7	A	8				SPACE ONLY	
---	503													SPACE ONLY	
---	503					9	B	10						SPACE ONLY	
SPACE ONLY						1	15	11	C	12				SPACE ONLY	
SPACE ONLY														SPACE ONLY	
SPACE ONLY						13	A	14						SPACE ONLY	
SPACE ONLY						15	B	16						SPACE ONLY	
SPACE ONLY						17	C	18						SPACE ONLY	
SPACE ONLY						19	A	20						SPACE ONLY	
SPACE ONLY						21	B	22						SPACE ONLY	
SPACE ONLY						23	C	24						SPACE ONLY	
---														---	
SUBTOTAL	1006	1006	1006										503	503	503
TOTAL	9A	1509				9B	1509						9C	1509	
TOTAL LOAD	4527					WATTS AT	277/480	V.3Ø.4W	5.4	A.					
HIGH PHASE	1509					WATTS AT	277	V.1Ø.4W	5.4	A.					DATE 10/16/2019

VOLTAGE 120/208		AIC 10,000		PANEL "200PA"		MOUNTING SURFACE		MAINS LUGS ONLY							
PHASE 3		WIRE 4		LOCATION ELECTRICAL ROOM		FEEDER SEE SINGLE LINE		BUSSING 100A							
FEED BOTTOM															
LOCATION	WATTAGE	LTG	REC	MS	BKR	CR	OR	OR	BKR	MS	REC	LTG	WATTAGE	LOCATION	
CLASSRM. 11	1200					6	4	20	1	A	2	20	2	1500	DATA
PROJECTOR	1200					1	20	3	B	4	20	2	1500	DATA	
SCREEN MONITOR	1000					1	1	20	5	C	6	30	1	2000	DATA
JAN., ELEC. DATA	720					4	20	7	A	8	2		2000	---	
SECURITY FNL	500					1	20	9	B	10	30	1	1500	INTR. HTR.	
FACP	500					1	20	11	C	12	2		1500	---	
VFC-6	150					1	15	13	A	14				SPACE ONLY	
---	150													SPACE ONLY	
MECH. YARD ROOF	540					3	20	17	C	18				SPACE ONLY	
SPACE ONLY						19	A	20						SPACE ONLY	
SPACE ONLY						21	B	22						SPACE ONLY	
SPACE ONLY						23	C	24						SPACE ONLY	
SPACE ONLY						25	A	26						SPACE ONLY	
SPACE ONLY						27	B	28						SPACE ONLY	
SPACE ONLY						29	C	30						SPACE ONLY	
SPACE ONLY						31	A	32						SPACE ONLY	
SPACE ONLY						33	B	34						SPACE ONLY	
SPACE ONLY						35	C	36						SPACE ONLY	
SPACE ONLY						37	A	38						SPACE ONLY	
SPACE ONLY						39	B	40						SPACE ONLY	
SPACE ONLY						41	C	42						SPACE ONLY	
---														---	
SUBTOTAL	2150	1050	2040										3500	3000	3500
TOTAL	9A	5650				9B	4050						9C	5540	
TOTAL LOAD	16040					WATTS AT	120/208	V.3Ø.4W	44.6	A.					

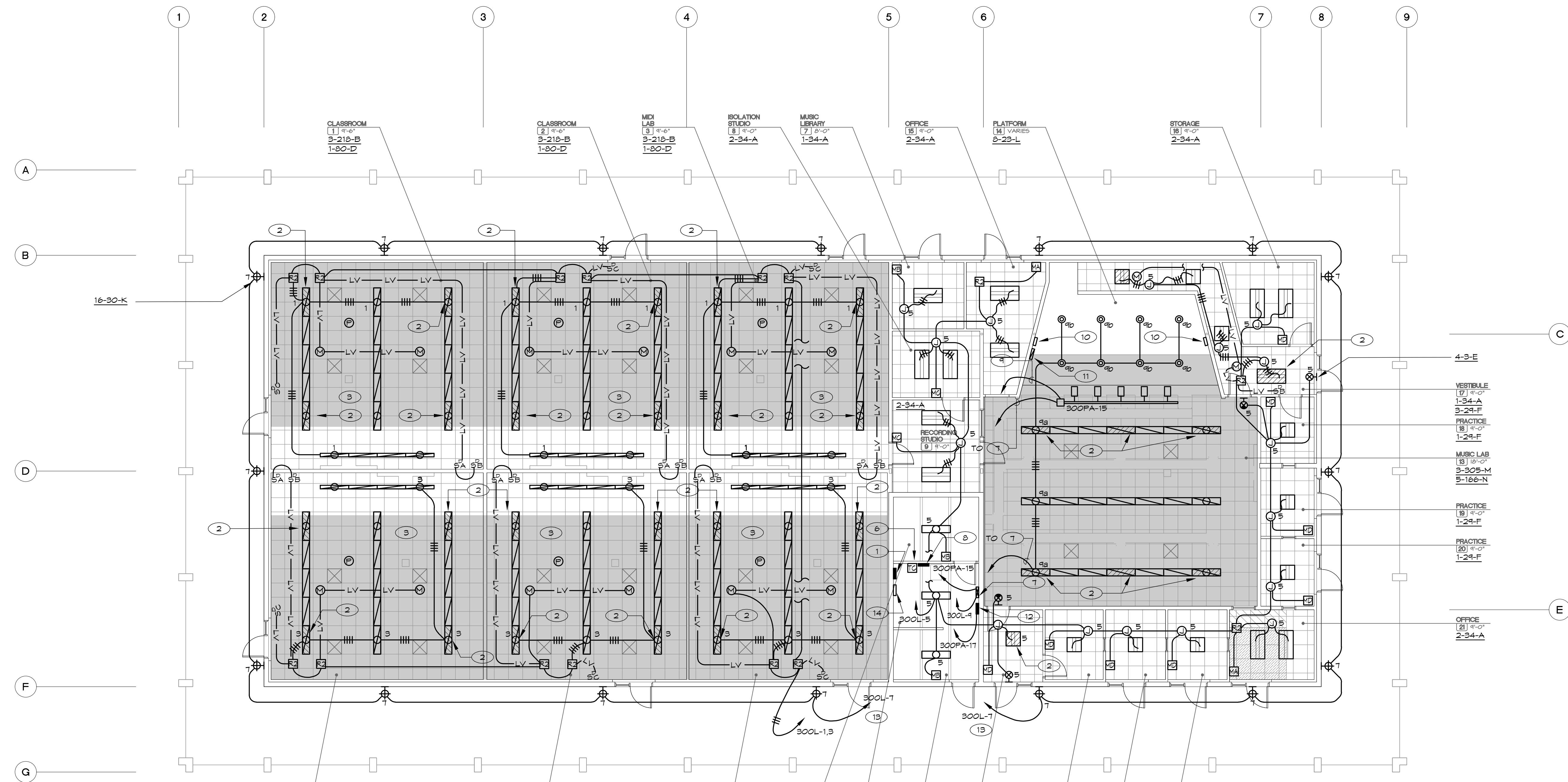


IDENTIFICATION STAMP
 DIV. OF THE STATE ARCHITECT
 APP. 04-118720 INC.
 REVIEWED FOR
 SS FLS ACS
 DATE: 01.16.20

APPROVALS



KEY PLAN



- NOTES:**
- 1 PANEL "SOOL".
 - 2 THIS FIXTURE PROVIDED WITH EMERGENCY BATTERY PACK (90 MINUTES MIN.). PROVIDE CONSTANT "HOT CHARGING" CIRCUIT.
 - 3 SHADING INDICATES SKYLIT AREA, TYPICAL.
 - 4 SHADING INDICATES PRIMARY SIDELIT AREA, TYPICAL.
 - 5 SHADING INDICATES SECONDARY SIDELIT AREA, TYPICAL.
 - 6 LIGHTING CONTROL TIMELOCK.
 - 7 ROOM CONTROLLER "ECHO ERM4-TC".
 - 8 PANEL "SOOPA".
 - 9 DMX FEED TO "ECHO ETS".
 - 10 ECHO "EACC".
 - 11 ECHO "ETS" STAGE CONTROLLER.
 - 12 ECHO "E-SFS-DIN".
 - 13 ROUTE CIRCUIT THROUGH EMERGENCY LIGHTING INVERTER.
 - 14 EMERGENCY LIGHTING INVERTER. DUAL LITE #DLS-525-271-B2001

WATTSTOPPER CONTROL DEVICES

SYMBOL	DESIGNATION
Ⓛ	LOAD CONTROLLER #LMRG-112
Ⓛ	LOAD CONTROLLER #LMRG-111
Ⓛ	CEILING MOUNT OCCUPANCY SENSOR #LMDC-100
Ⓛ	WALL MOUNT MOTION SENSOR #LMDX-102
Ⓛ	WALL MOUNT MOTION SENSOR #DX-100
Ⓛ	WALL MOUNT MOTION SENSOR #DX-311
Ⓛ	WALL MOUNT MOTION SENSOR #PX-100
Ⓛ	DIMMING SWITCH #LMSN-105
Ⓛ	DIMMING SWITCH #LMDM-101
Ⓛ	DIMMING SWITCH #LMSN-101
Ⓛ	TIME CLOCK #LMZC-301
Ⓛ	PHOTOCELL #LMLS400

- GENERAL NOTES**
- VERIFY ALL CONTROL WIRING. PROVIDE SEPARATE CONDUIT FOR 0-10V CONTROL WIRING AS REQUIRED.
 - CONNECT ALL LMBC-300'S VIA WATTSTOPPER LM-MSTP NETWORK CABLE (STRICT DAISY CHAIN, TERMINATE TO LMSM-3E SEGMENT 1 REQUIRED FOR DEMAND RESPONSE).
 - CEILING MOUNT MOTION SENSORS TO MOUNT MINIMUM OF FOUR FEET FROM ANY AIR REGISTER.
 - OCS LIGHTING TO PROVIDE FINAL CONTROLS WIRING DIAGRAM.

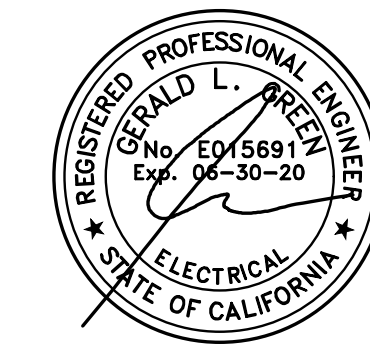


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Project Title
**IMPERIAL VALLEY COLLEGE
 BUILDING 200, 300 AND 800 MODERNIZATION**

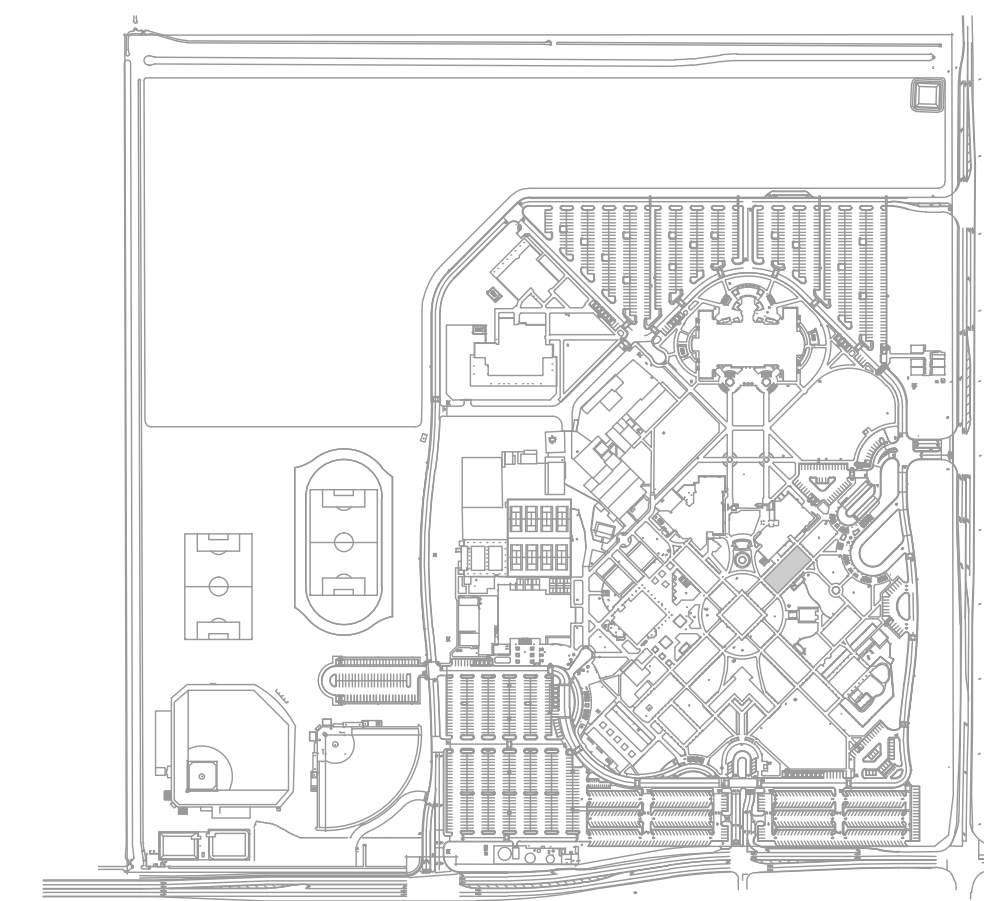
Sheet Title
BUILDING 300 - LIGHTING PLAN

	Document Date	Project Number
	Date Last Revised	Sheet Number
	12-18-19	19-12IV
		E2.1

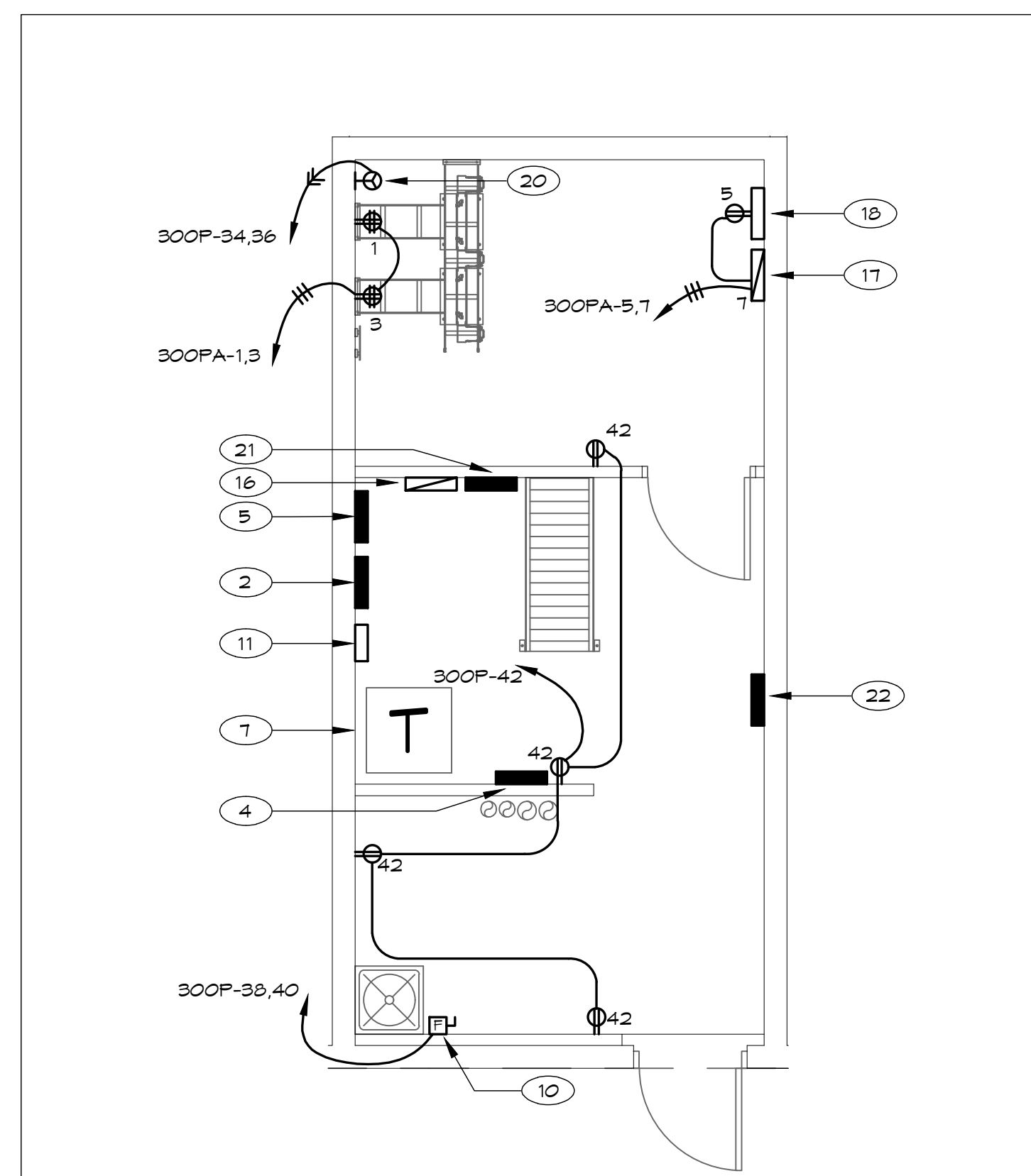
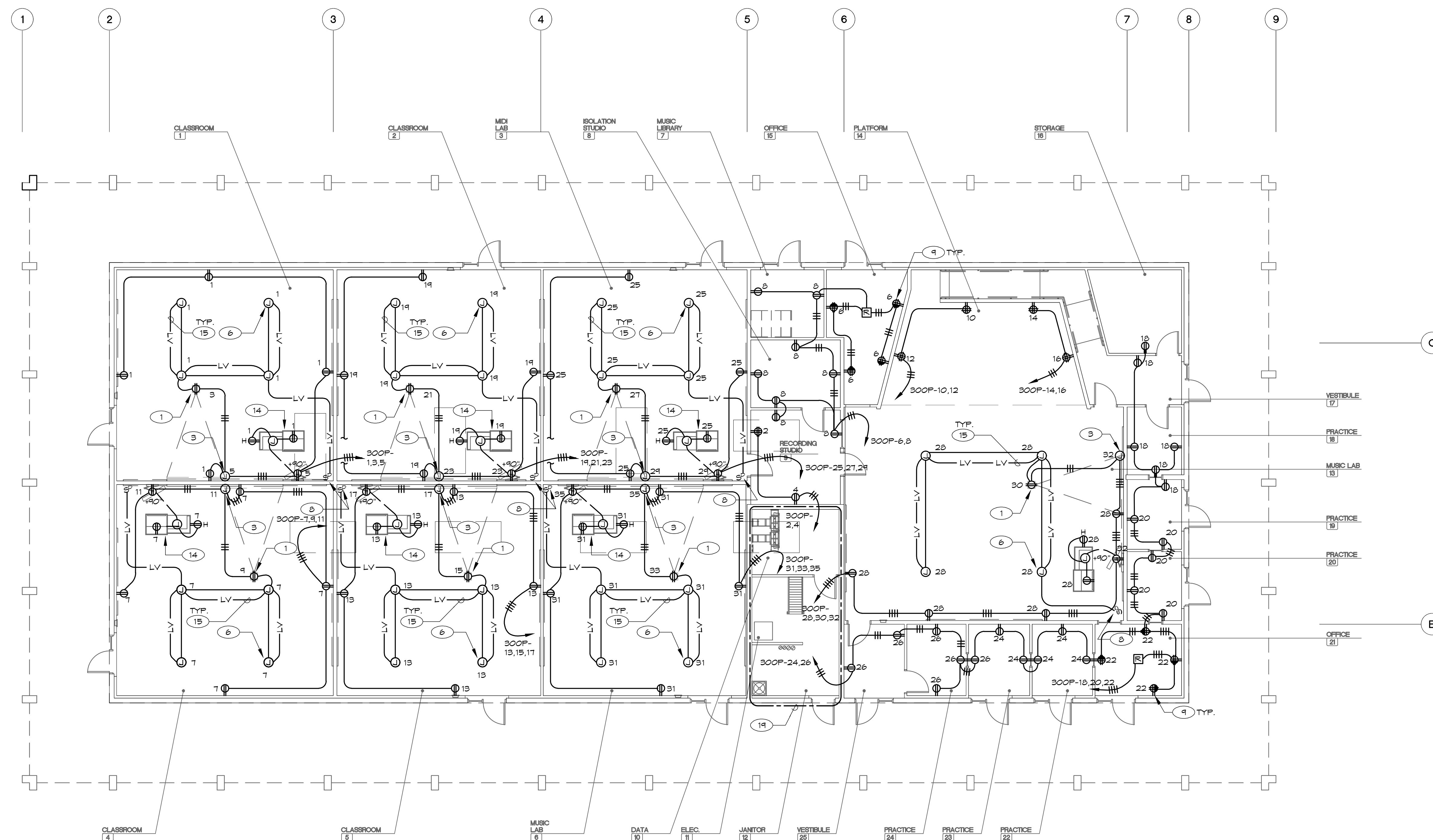


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 SS FLS ACS
 DATE: 01.16.20

APPROVALS



KEY PLAN



ENLARGED PLAN

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

- NOTES:**
- 1 RECEPTACLE AT CEILING FOR PROJECTOR.
 - 2 PANEL "300P"
 - 3 J-BOX FOR POWER TO MOTORIZED SCREEN. VERIFY WIRING REQUIREMENTS.
 - 4 PANEL "300M"
 - 5 PANEL "300L"
 - 6 J-BOX PROVIDED WITH MOTORIZED SKYLIGHT, TYPICAL.
 - 7 TSKVA 480V/120/208V, 3Ø, DRY TYPE TRANSFORMER.
 - 8 LOW VOLTAGE SKYLIGHT DIMMER SWITCH. VERIFY REQUIREMENTS WITH MANUFACTURER.
 - 9 NOT USED.
 - 10 3ØA2P DISC. FOR WATER HEATER.
 - 11 PROVIDE SIEMENS TVSS TFS12 SURGE PROTECTION AT THIS PANEL. CAT# TFS0122402FD.
 - 12 ONE RECEPTACLE IS NORMAL, THE OTHER IS CONTROLLED BY MOTION SENSOR. CONTROLLED RECEPTACLE IS TO HAVE "CONTROLLED" LABEL, TYPICAL.
 - 13 FC-3A 1.8MGA 2ØØV1Ø 15MOOPP.
 - 14 SEE ARCHITECTURAL DRAWINGS FOR OUTLET MOUNTING IN CABINETS.
 - 15 ELECTRICAL CONTRACTOR TO VERIFY SIZE OF LOW VOLTAGE WIRING FOR SKYLIGHT CONTROLS.
 - 16 TIME CLOCK BY MATT STOPPER #LMZC-2Ø1.
 - 17 FIRE ALARM CONTROL PANEL "FACP".
 - 18 POWER FOR SECURITY PANEL.
 - 19 SEE DETAIL A, THIS SHEET.
 - 20 3ØA, 2P RECEPTACLE, VERIFY, NEMA TYPE.
 - 21 PANEL "300PA".
 - 22 PANEL "300MA".

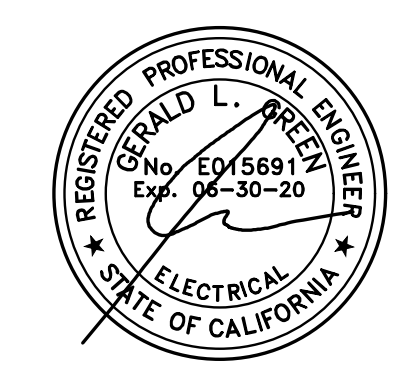


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Project Title
**IMPERIAL VALLEY COLLEGE
 BUILDING 200, 300 AND 800 MODERNIZATION**

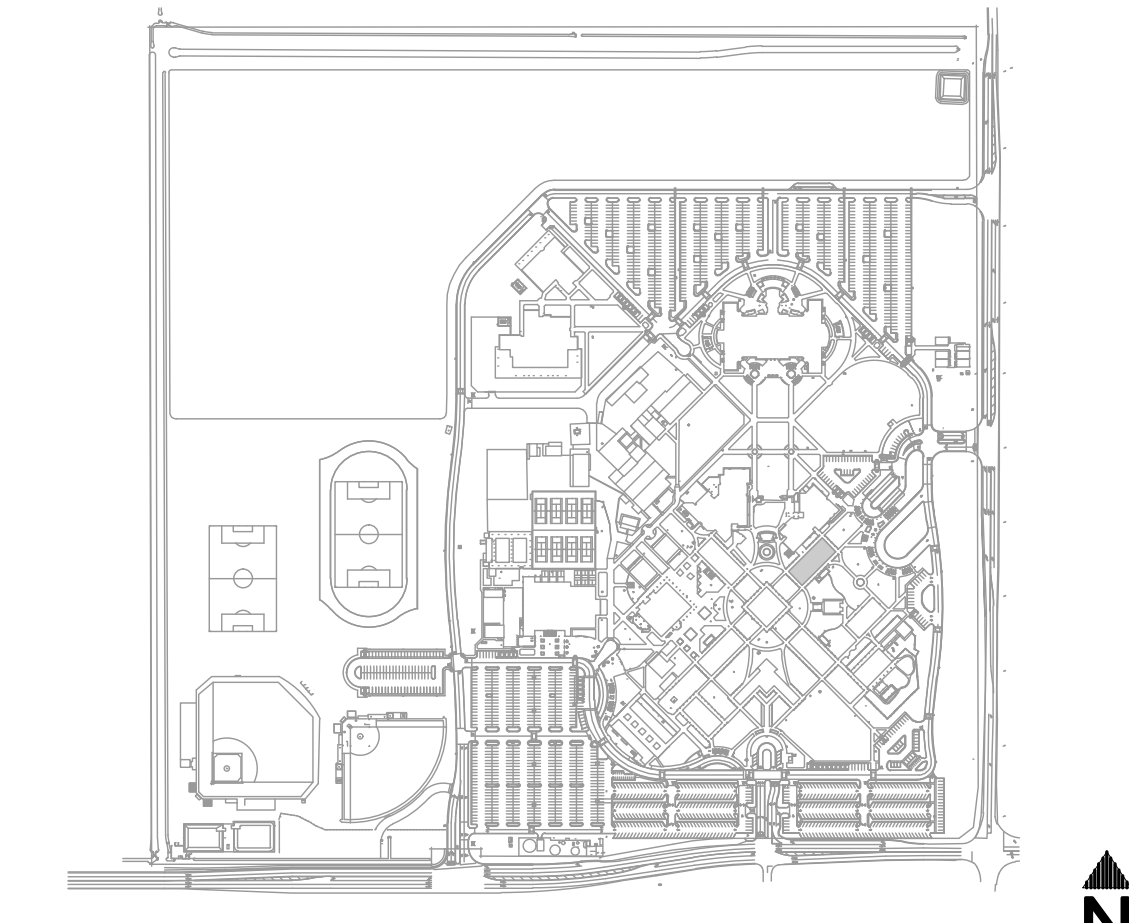
Sheet Title
BUILDING 300 - POWER PLAN

	Document Date	Project Number
	Date Last Revised	Sheet Number
	12-18-19	19-121V
		E2.2

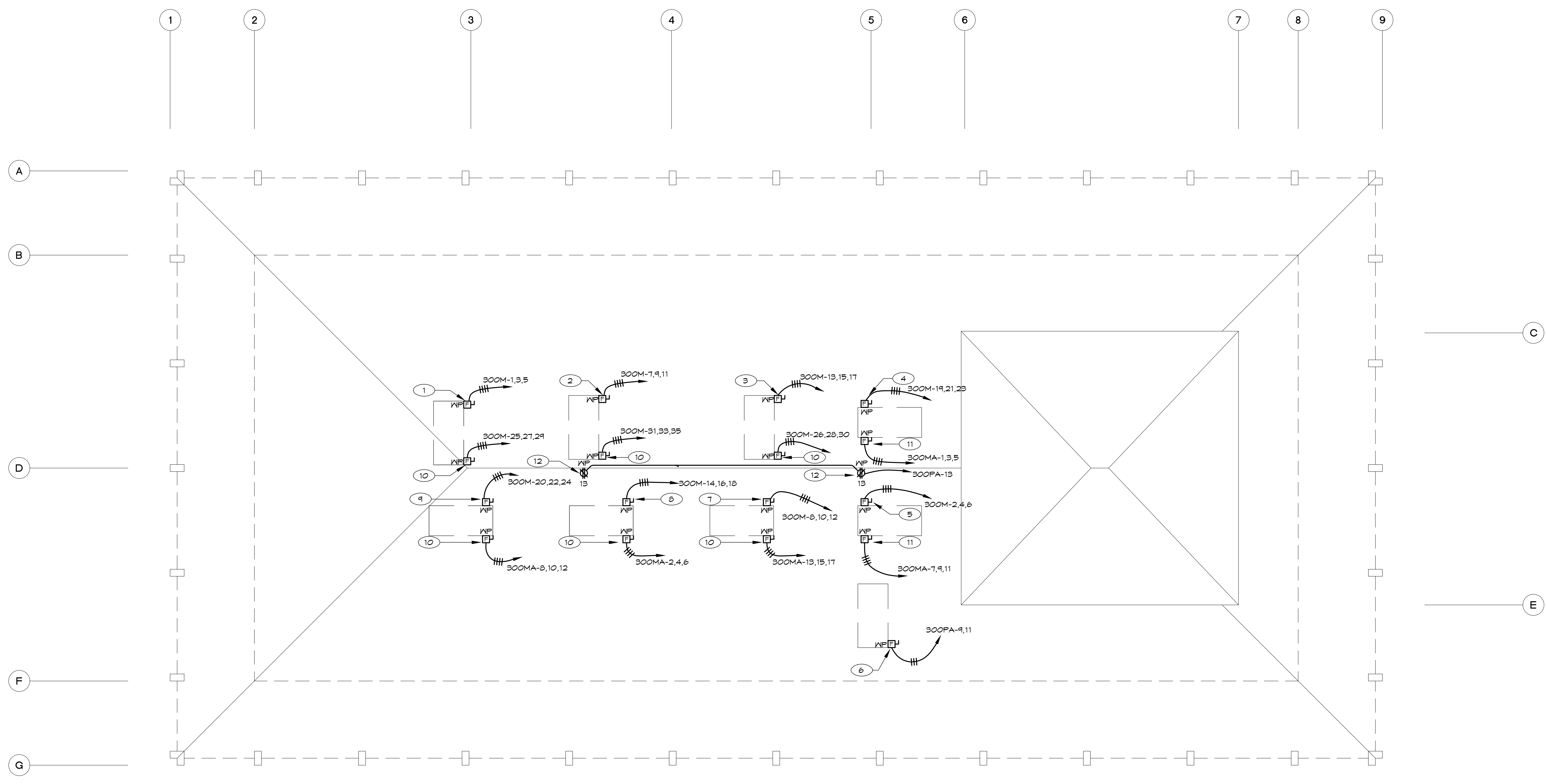


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REVIEWED FOR
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DATE: 01.16.20

APPROVALS



KEY PLAN



- NOTES:**
- ① VFC 1 5.0 MCA, 15 MOCP, 460V., 3ø, 30A, 3P FUSED DISCONNECT.
 - ② VFC 2 5.0 MCA, 15 MOCP, 460V., 3ø, 30A, 3P FUSED DISCONNECT.
 - ③ VFC 3 5.0 MCA, 15 MOCP, 460V., 3ø, 30A, 3P FUSED DISCONNECT.
 - ④ VFC 4 5.0 MCA, 15 MOCP, 460V., 3ø, 30A, 3P FUSED DISCONNECT.
 - ⑤ VFC 5 5.0 MCA, 15 MOCP, 460V., 3ø, 30A, 3P FUSED DISCONNECT.
 - ⑥ VFC 6 1.8 MCA, 15 MOCP, 208V., 1ø, 30A, 2P FUSED DISCONNECT.
 - ⑦ VFC 7 5.0 MCA, 15 MOCP, 460V., 3ø, 30A, 3P FUSED DISCONNECT.
 - ⑧ VFC 8 5.0 MCA, 15 MOCP, 460V., 3ø, 30A, 3P FUSED DISCONNECT.
 - ⑨ VFC 9 5.0 MCA, 15 MOCP, 460V., 3ø, 30A, 3P FUSED DISCONNECT.
 - ⑩ ERV 1 2.27 MCA, 15 MOCP, 460V., 3ø, 30A, 3P FUSED DISCONNECT.
 - ⑪ ERV 2 2.27 MCA, 15 MOCP, 460V., 3ø, 30A, 3P FUSED DISCONNECT.
 - ⑫ WEATHERPROOF, GFI DUPLEX RECEPTACLE, MOUNTED ON ROOF WITHIN 25' OF HVAC EQUIPMENT.

GENERAL NOTES

1. ALL CONDUIT ASSOCIATED WITH ROOFTOP EQUIPMENT TO BE RUN UNDER ROOF DECK. NO CONDUIT SHALL BE EXPOSED.

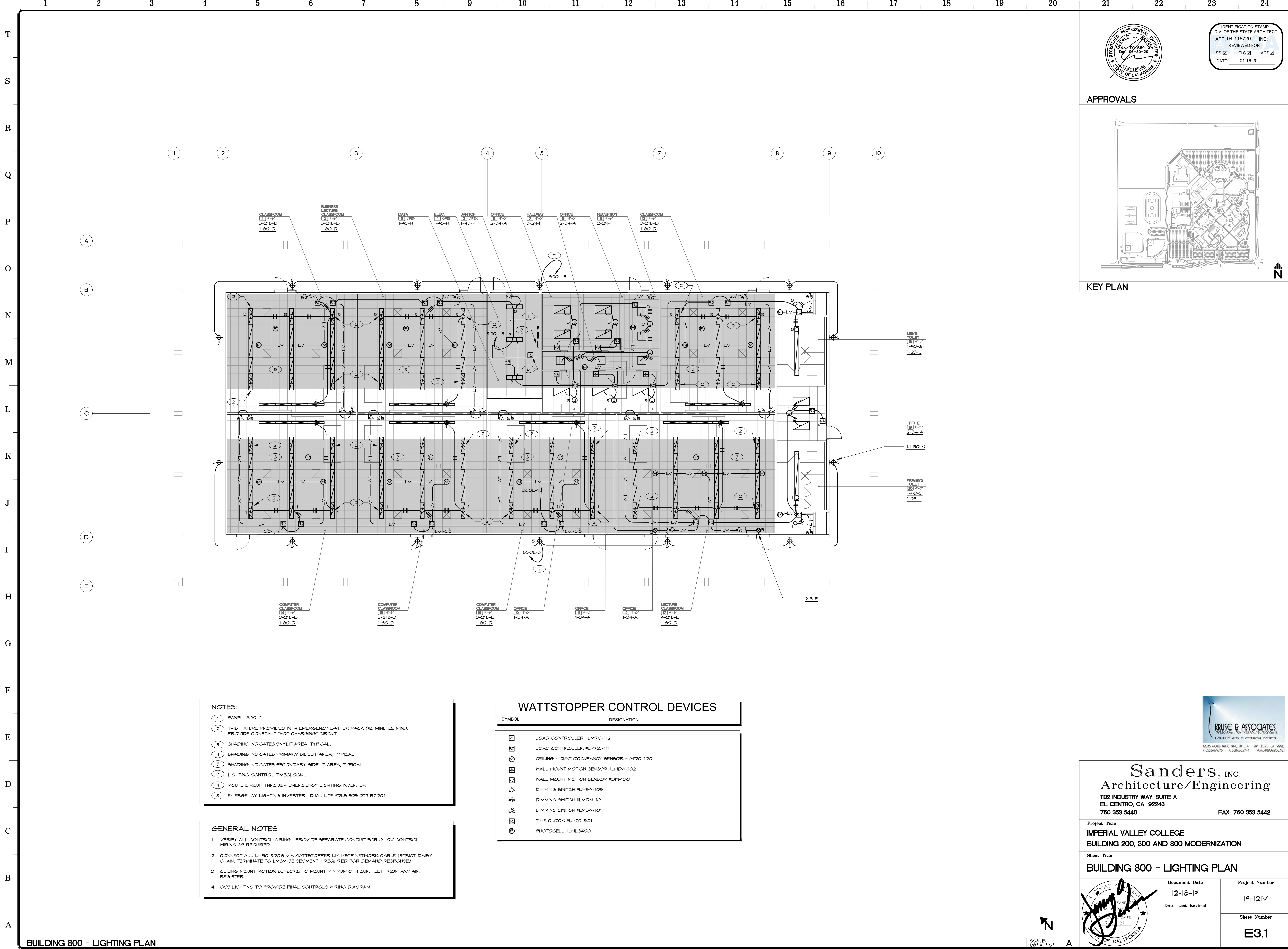


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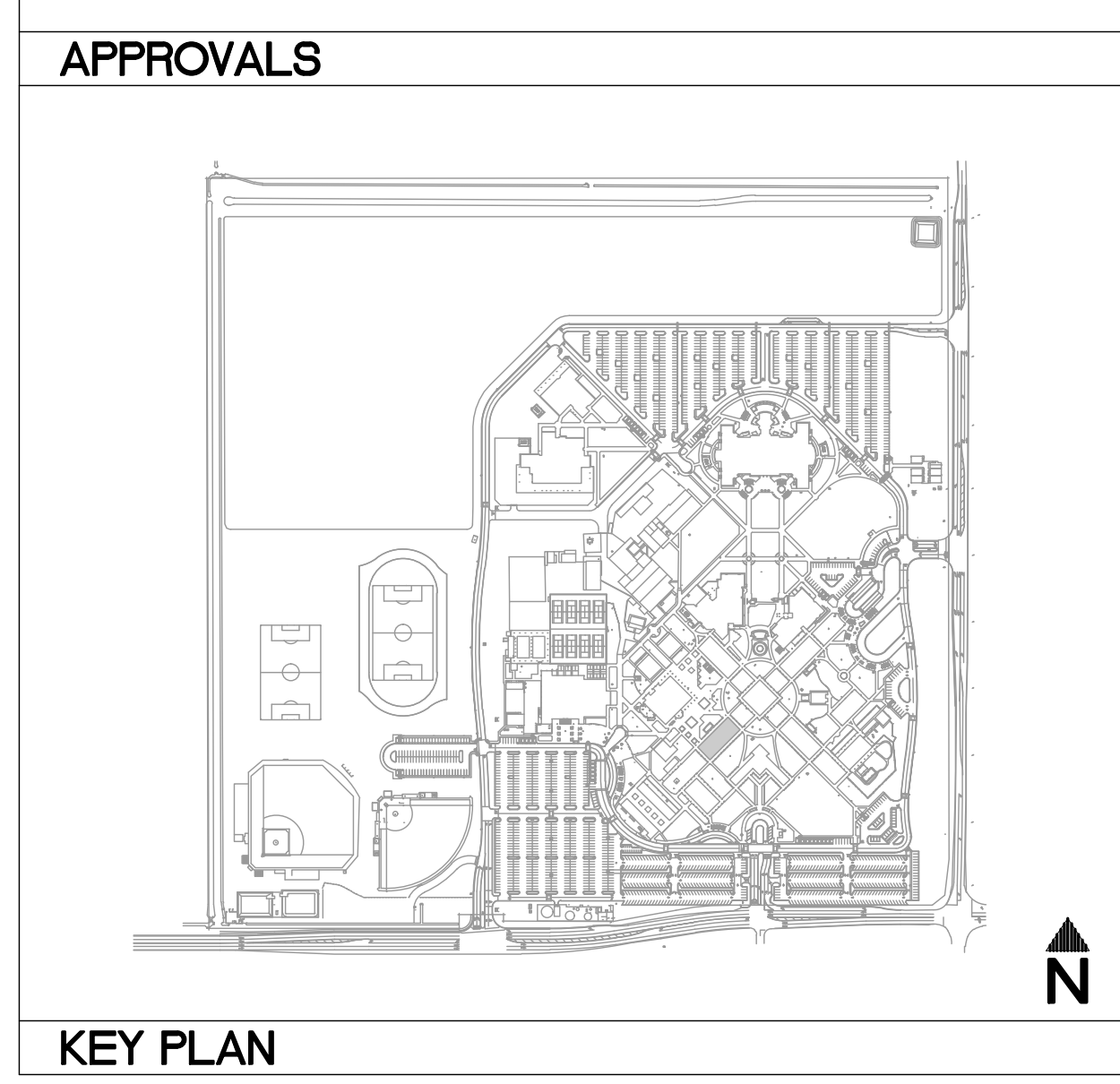
Project Title
**IMPERIAL VALLEY COLLEGE
BUILDING 200, 300 AND 800 MODERNIZATION**

Sheet Title
BUILDING 300 - ROOF POWER PLAN

	Document Date 12-18-19	Project Number 19-121V
	Date Last Revised	Sheet Number E2.3



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- NOTES:**
- 1 PANEL "BOOL"
 - 2 THIS FIXTURE PROVIDED WITH EMERGENCY BATTER PACK (90 MINUTES MIN). PROVIDE CONSTANT "HOT CHARGING" CIRCUIT.
 - 3 SHADING INDICATES SKYLIT AREA, TYPICAL.
 - 4 SHADING INDICATES PRIMARY SIDELIT AREA, TYPICAL.
 - 5 SHADING INDICATES SECONDARY SIDELIT AREA, TYPICAL.
 - 6 LIGHTING CONTROL TIMECLOCK.
 - 7 ROUTE CIRCUIT THROUGH EMERGENCY LIGHTING INVERTER
 - 8 EMERGENCY LIGHTING INVERTER. DUAL LITE #DLS-925-2T1-B2001

- GENERAL NOTES**
1. VERIFY ALL CONTROL WIRING. PROVIDE SEPARATE CONDUIT FOR 0-10V CONTROL WIRING AS REQUIRED
 2. CONNECT ALL LMBC-300'S VIA WATTSTOPPER LM-MSTP NETWORK CABLE (STRICT DAISY CHAIN, TERMINATE TO LMSM-3E SEGMENT 1 REQUIRED FOR DEMAND RESPONSE)
 3. CEILING MOUNT MOTION SENSORS TO MOUNT MINIMUM OF FOUR FEET FROM ANY AIR REGISTER.
 4. OCS LIGHTING TO PROVIDE FINAL CONTROLS WIRING DIAGRAM.

WATTSTOPPER CONTROL DEVICES	
SYMBOL	DESIGNATION
[Symbol]	LOAD CONTROLLER #LMRC-112
[Symbol]	LOAD CONTROLLER #LMRC-111
[Symbol]	CEILING MOUNT OCCUPANCY SENSOR #LMDC-100
[Symbol]	WALL MOUNT MOTION SENSOR #LMDA-102
[Symbol]	WALL MOUNT MOTION SENSOR #DA-100
[Symbol]	DIMMING SWITCH #LMSX-105
[Symbol]	DIMMING SWITCH #LMDM-101
[Symbol]	DIMMING SWITCH #LMSX-101
[Symbol]	TIME CLOCK #LMZC-301
[Symbol]	PHOTOCELL #LMLS400

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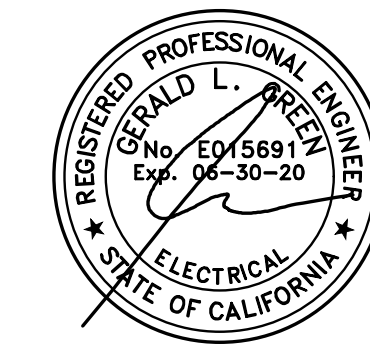
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Project Title
**IMPERIAL VALLEY COLLEGE
BUILDING 200, 300 AND 800 MODERNIZATION**

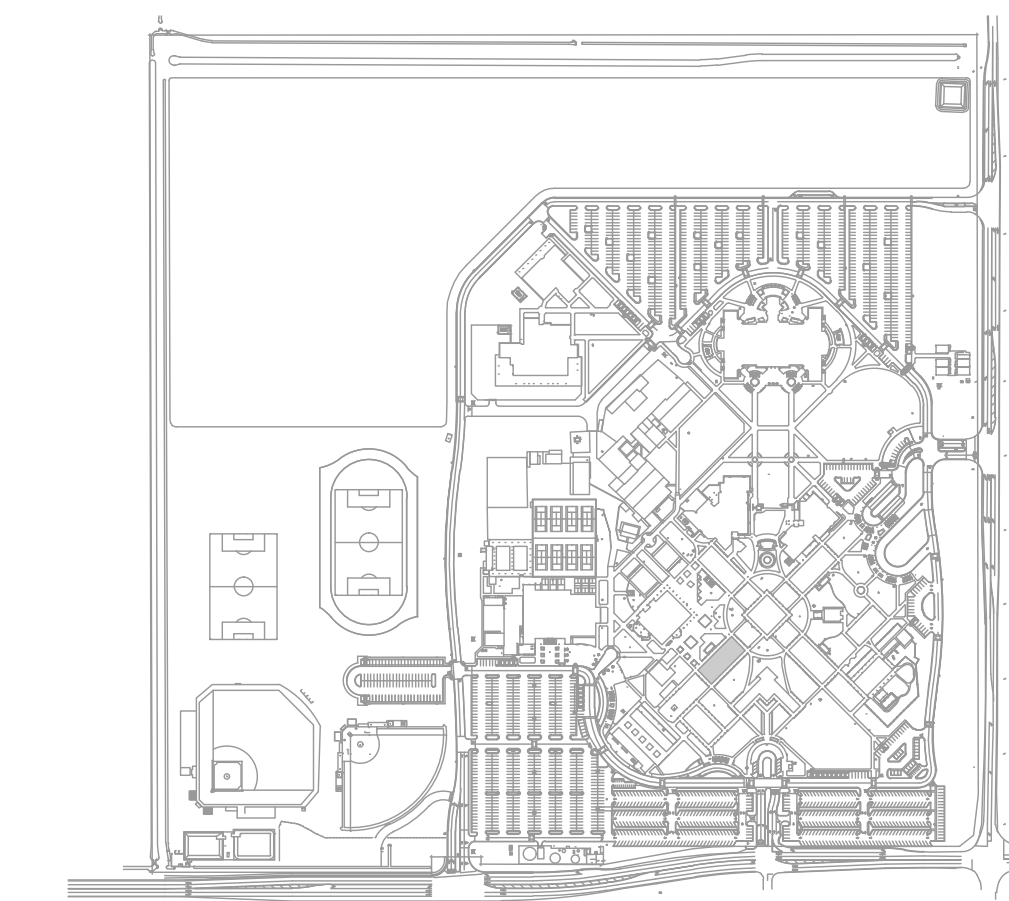
Sheet Title
BUILDING 800 - LIGHTING PLAN

	Document Date 12-18-19	Project Number 19-12IV
	Date Last Revised	Sheet Number E3.1

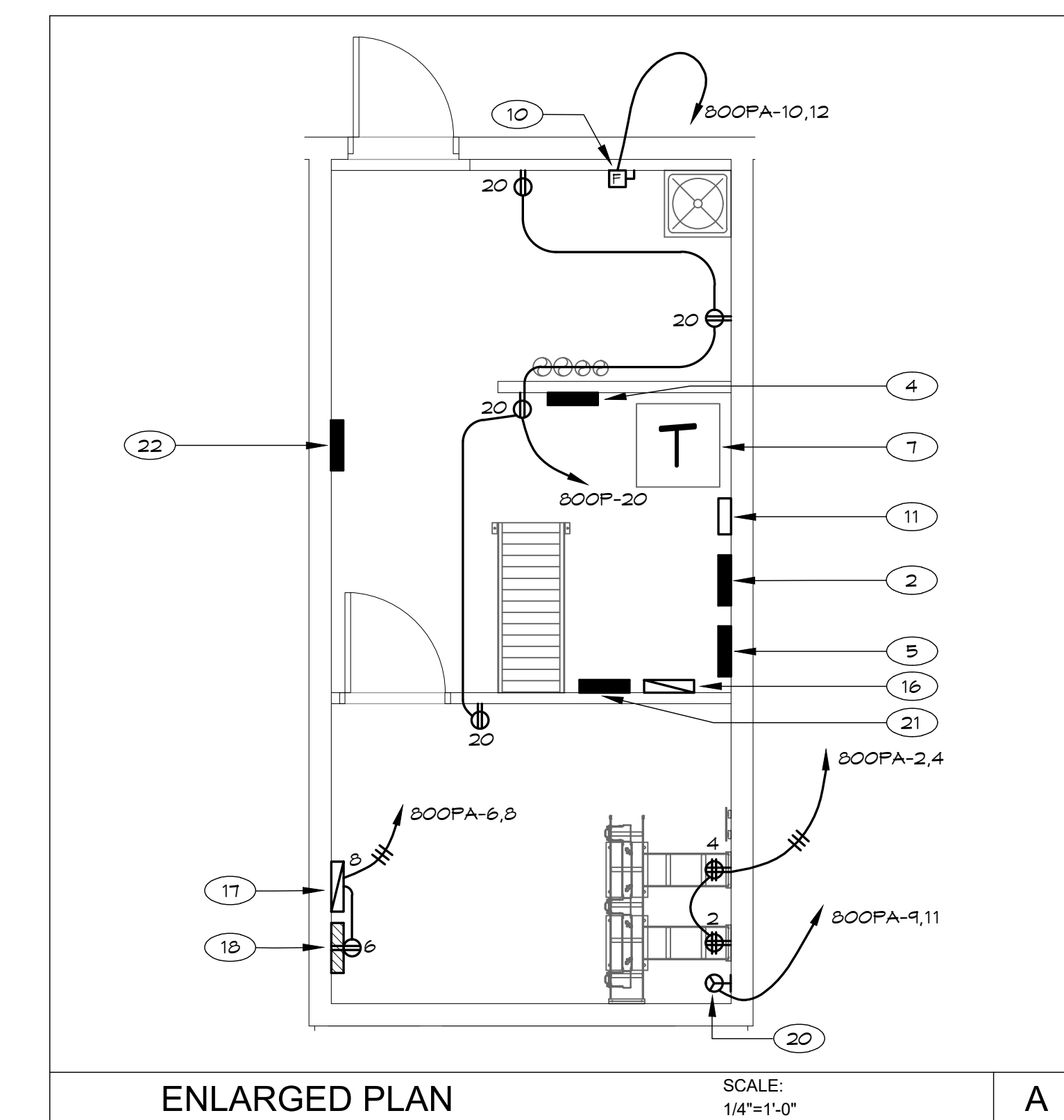
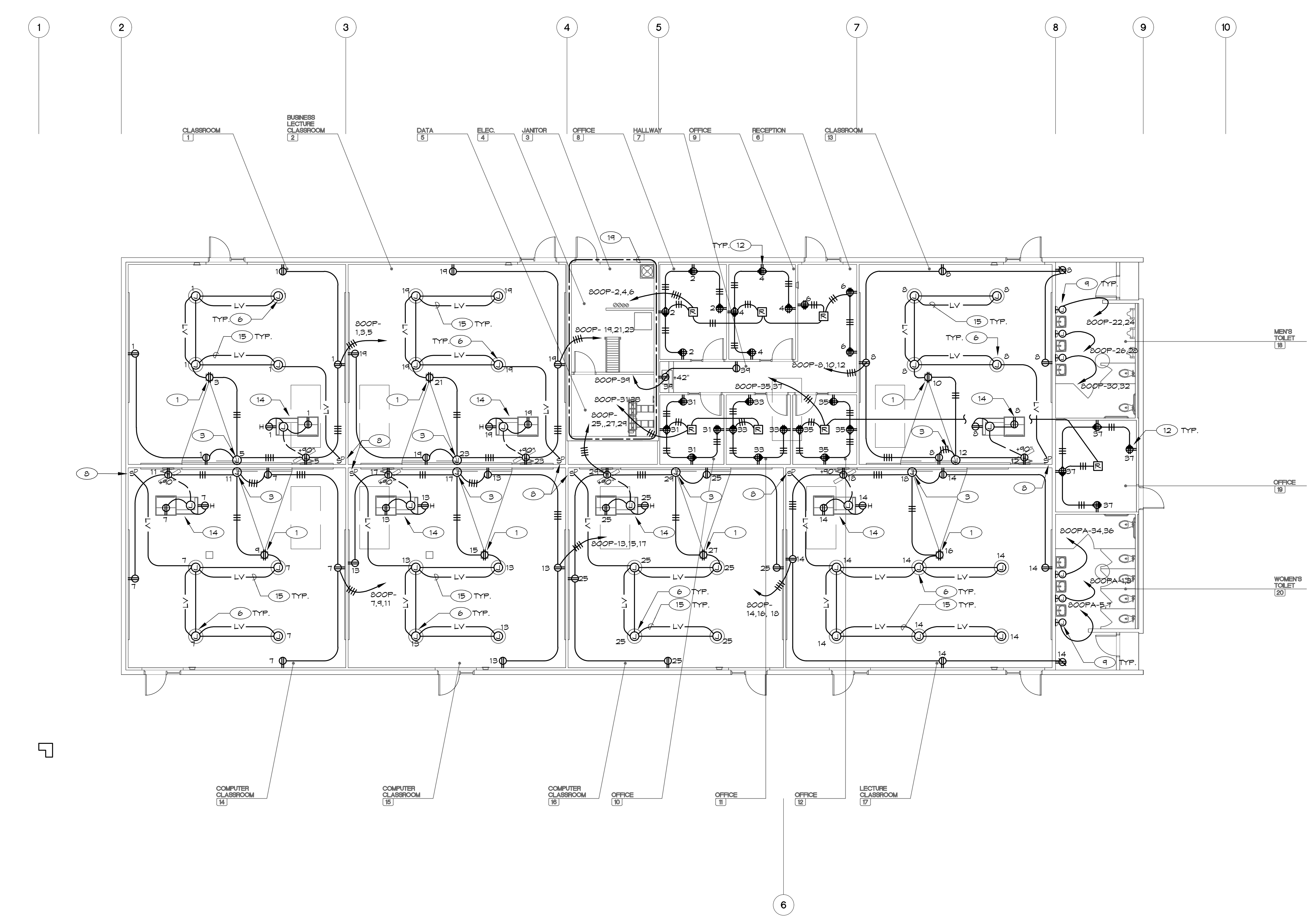


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 DATE: 01.16.20

APPROVALS



KEY PLAN



ENLARGED PLAN

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

- NOTES:**
- 1 RECEPTACLE AT CEILING FOR PROJECTOR.
 - 2 PANEL "BOOP"
 - 3 J-BOX FOR POWER TO MOTORIZED SCREEN. VERIFY WIRING REQUIREMENTS.
 - 4 PANEL "BOOM"
 - 5 PANEL "BOOL"
 - 6 J-BOX PROVIDED WITH MOTORIZED SKYLIGHT, TYPICAL.
 - 7 TSKVA 480V/120/208V, 3Ø, DRY TYPE TRANSFORMER.
 - 8 LOW VOLTAGE SKYLIGHT DIMMER SWITCH. VERIFY REQUIREMENTS WITH MANUFACTURER.
 - 9 J-BOX FOR CONNECTION OF HAND DRYER, TYP. OF 6.
 - 10 3ØA2P DISC. FOR WATER HEATER.
 - 11 PROVIDE SIEMENS TVSS TFS12 SURGE PROTECTION AT THIS PANEL. CAT# TFS0122402FD.
 - 12 ONE RECEPTACLE IS NORMAL, THE OTHER IS CONTROLLED BY MOTION SENSOR. CONTROLLED RECEPTACLE IS TO HAVE "CONTROLLED" LABEL, TYPICAL.
 - 13 FC-3A 1.8MCA 2ØØV1Ø 15MOCP.
 - 14 SEE ARCHITECTURAL DRAWINGS FOR OUTLET MOUNTING IN CABINETS.
 - 15 ELECTRICAL CONTRACTOR TO VERIFY SIZE OF LOW VOLTAGE WIRING FOR SKYLIGHT CONTROLS.
 - 16 TIME CLOCK BY MATT STOPPER #LMZC-201.
 - 17 FIRE ALARM CONTROL PANEL "FACP".
 - 18 POWER FOR SECURITY PANEL.
 - 19 SEE DETAIL A, THIS SHEET.
 - 20 3ØA, 2P RECEPTACLE, VERIFY, NEMA TYPE.
 - 21 PANEL "BOOPA".
 - 22 PANEL "BOOMA".

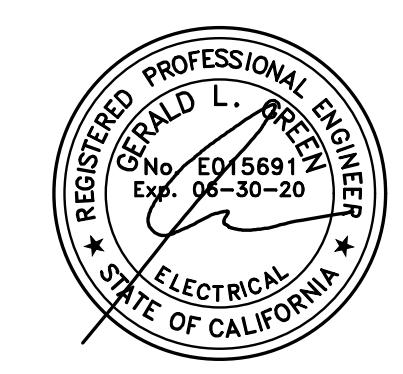


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Project Title
**IMPERIAL VALLEY COLLEGE
 BUILDING 200, 300 AND 800 MODERNIZATION**

Sheet Title
BUILDING 800 - POWER PLAN

	Document Date	Project Number
	Date Last Revised	Sheet Number
	12-18-19	19-121V
		E3.2



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APPROVALS

VOLTAGE	277/480	AIC	14,000	PANEL	"800M"	MOUNTING	SURFACE	MAINS	LUGS ONLY
PHASE	3			LOCATION	ELECTRICAL ROOM			BUSING	225A
WIRE	4			FEEDER	SEE SINGLE LINE			FEED	BOTTOM

LOCATION	WATTAGE			LTG	REC	MS	BKR	OR	OR	OR	BKR	MS	REC	LTG	WATTAGE			LOCATION
	ΦA	ΦB	ΦC												ΦA	ΦB	ΦC	
PANEL "800M"	3749B						1	2007	1	A	2	30	1		510B			ODU-4
---		30016					3	B	4						510B			---
---			3203B				3	C	6	3					510B			---
ODU-4	6582						1	40	7	A	8	30	1		510B			ODU-4
---		6582					9	B	10						510B			---
---			6582				3	11	C	12	3				510B			---
SFACE ONLY							13	A	14									SFACE ONLY
SFACE ONLY							16	B	16									SFACE ONLY
SFACE ONLY							17	C	18									SFACE ONLY
SFACE ONLY							19	A	20									SFACE ONLY
SFACE ONLY							21	B	22									SFACE ONLY
SFACE ONLY							23	C	24									SFACE ONLY
SFACE ONLY							26	A	26									SFACE ONLY
SFACE ONLY							27	B	28									SFACE ONLY
SFACE ONLY							29	C	30									SFACE ONLY
SFACE ONLY							31	A	32									SFACE ONLY
SFACE ONLY							33	B	34									SFACE ONLY
SFACE ONLY							36	C	36									SFACE ONLY
SFACE ONLY							37	A	38									SFACE ONLY
SFACE ONLY							39	B	40									SFACE ONLY
SFACE ONLY							41	C	42									SFACE ONLY
SUBTOTAL	44080	44548	58615												10970	10970	10970	
TOTAL	ΦA	54450					ΦB	54468				ΦC	48485					
TOTAL LOAD	15840B						WATTS AT	277/480	V.3Φ, 4W	140.6		A.						
HIGH PHASE	54468						WATTS AT	277	V.1Φ, 4W	188.4		A.						DATE 10/17/2019

VOLTAGE	277/480	AIC	14,000	PANEL	"800M"	MOUNTING	SURFACE	MAINS	200A 3P
PHASE	3			LOCATION	ELECTRICAL ROOM			BUSING	225A
WIRE	4			FEEDER	SEE SINGLE LINE			FEED	BOTTOM

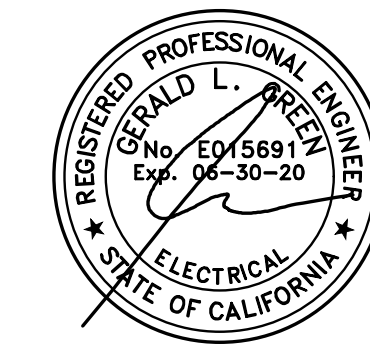
LOCATION	WATTAGE			LTG	REC	MS	BKR	OR	OR	OR	BKR	MS	REC	LTG	WATTAGE			LOCATION
	ΦA	ΦB	ΦC												ΦA	ΦB	ΦC	
VFC-1	110B						1	19	1	A	2	15	1		177B			VFC-6
---		110B					3	B	4						177B			---
---			110B				3	C	6	3					177B			---
VFC-2	110B						1	19	7	A	8	15	1		110B			VFC-7
---		110B					9	B	10						110B			---
---			110B				3	11	C	12	3				110B			---
VFC-4	110B						1	19	13	A	14	15	1		110B			VFC-8
---		110B					15	B	16						110B			---
---			110B				3	17	C	18	3				110B			---
VFC-5	110B						1	19	19	A	20	15	1		110B			VFC-9
---		110B					21	B	22						110B			---
---			110B				3	23	C	24	3				110B			---
ERV-1	50B						1	19	25	A	26	15	1		50B			ERV-1
---		50B					27	B	28						50B			---
---			50B				3	29	C	30	3				50B			---
ERV-1	50B						1	19	31	A	32	40	1		2515			PANEL "800M"
---		50B					33	B	34						2515			---
---			50B				3	35	C	36	3				2515			---
PANEL "800M"	3335						1	40	37	A	38	40	1		20610			75 KVA XFMR
---		283B					39	B	40						21630			---
---			420				3	41	C	42	3				18060			---
SUBTOTAL	877B	8271	585B												28725	24745	26175	
TOTAL	ΦA	3749B					ΦB	38016				ΦC	3203B					
TOTAL LOAD	10754T						WATTS AT	277/480	V.3Φ, 4W	129.4		A.						
HIGH PHASE	38016						WATTS AT	277	V.1Φ, 4W	137.2		A.						DATE 10/17/2019

VOLTAGE	120/208	AIC	10,000	PANEL	"800M"	MOUNTING	SURFACE	MAINS	200A 3P
PHASE	3			LOCATION	ELECTRICAL ROOM			BUSING	225A
WIRE	4			FEEDER	SEE SINGLE LINE			FEED	BOTTOM

LOCATION	WATTAGE			LTG	REC	MS	BKR	OR	OR	OR	BKR	MS	REC	LTG	WATTAGE			LOCATION
	ΦA	ΦB	ΦC												ΦA	ΦB	ΦC	
CLASSRM. 1	1280						6	4	20	1	A	2	20	8	1440			OFFICE
PROJECTOR		1200					1	20	3	B	4	20	8		1440			OFFICE
SCREEN MONITOR			1000				1	20	5	C	6	20	8					RECEPT.
CLASSRM. 14	1280						6	4	20	7	A	8	20	4	1460			CLASSRM. 13
PROJECTOR		1200					1	20	9	B	10	20	1		1200			PROJECTOR
SCREEN MONITOR			1000				1	20	11	C	12	20	1		1000			SCREEN MONITOR
CLASSRM. 15	1280						6	4	20	13	A	14	20	6	1560			CLASSRM. 17
PROJECTOR		1200					1	20	15	B	16	20	1		1200			PROJECTOR
SCREEN MONITOR			1000				1	20	17	C	18	20	1		1000			SCREEN MONITOR
CLASSRM. 2	1280						6	4	20	19	A	20	20	4	720			JAN, ELEC., DATA
PROJECTOR		1200					1	20	21	B	22	20	1		1000			HAND DRYER
SCREEN MONITOR			1000				1	20	23	C	24	2			1000			SCREEN MONITOR
CLASSRM. 16	1280						6	4	20	25	A	26	20	1	1000			HAND DRYER
PROJECTOR		1200					1	20	27	B	28	2			1000			PROJECTOR
SCREEN MONITOR			1000				1	20	29	C	30	20	1		1000			HAND DRYER
OFFICE	1440						8	20	31	A	32	2			1000			OFFICE
OFFICE		1440					8	20	33	B	34	20	1		1000			HAND DRYER
OFFICE			1440				8	20	35	C	36	2			1000			OFFICE
OFFICE	1440						8	20	37	A	38	100	1		4150			PANEL "800M"
COPIER, HALL		1200					2	20	39	B	40				6150			---
SPARE							20	41	C	42	3				5540			---
SUBTOTAL	9280	8640	6440												11330	12440	11620	
TOTAL	ΦA	20610					ΦB	21630				ΦC	18060					
TOTAL LOAD	60300						WATTS AT	120/208	V.3Φ, 4W	167.5		A.						
HIGH PHASE	21630						WATTS AT	120	V.1Φ, 4W	180.3		A.						DATE 10/17/2019

VOLTAGE	277/480	AIC	14,000	PANEL	"800M"	MOUNTING	SURFACE	MAINS	LUGS ONLY
PHASE	3			LOCATION	ELECTRICAL ROOM			BUSING	100A
WIRE	4			FEEDER	SEE SINGLE LINE			FEED	BOTTOM

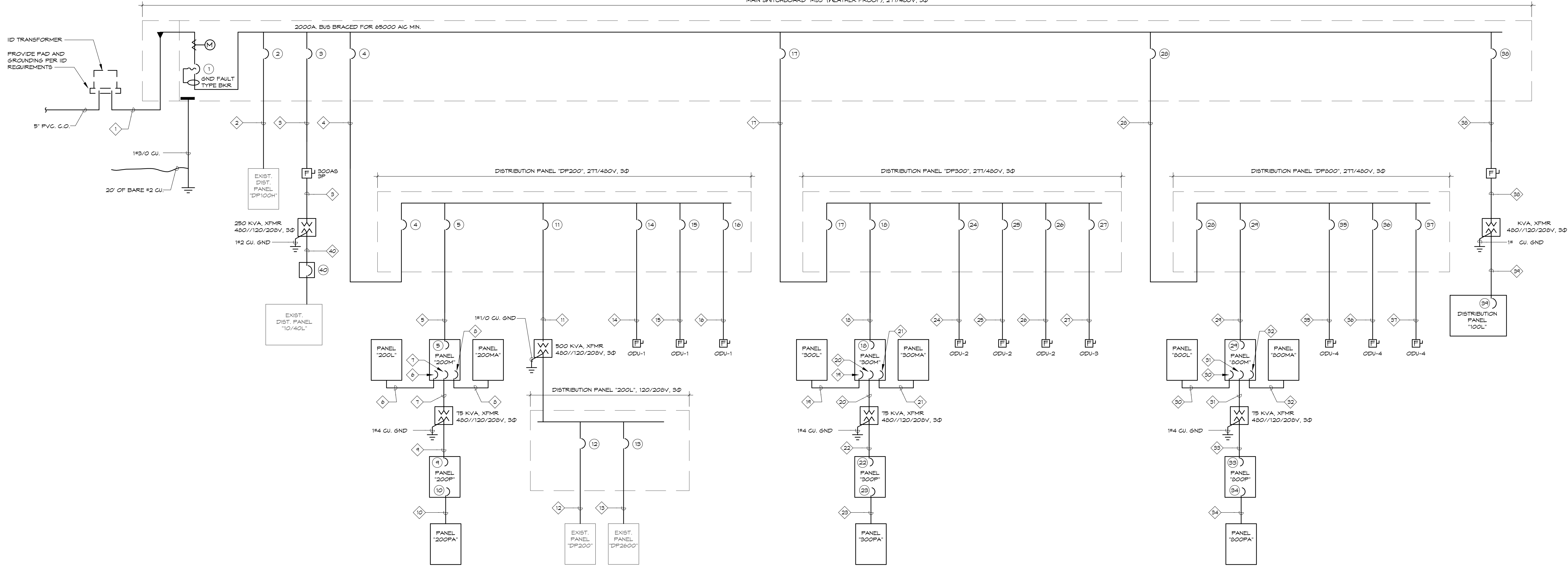
LOCATION	WATTAGE			LTG	REC	MS	BKR	OR	OR	OR	BKR	MS	REC	LTG	WATTAGE			LOCATION
	ΦA	ΦB	ΦC												ΦA	ΦB	ΦC	
ERV-1	50B						1	19	1	A	2	15	1		50B			ERV-1
---		50B					3	B	4						50B			



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APPROVALS

MAIN SWITCHBOARD "MSB" (WEATHER PROOF), 217/480V, 3Ø



SINGLE LINE DIAGRAM - NO SCALE

FEEDER SCHEDULE

DEVICE NUMBER	C.B. OR S.W. SIZE	FUSE SIZE	FUSE TYPE	FEEDER NUMBER	CONDUITS & CONDUCTORS								
					CONDUIT TYPE	CONDUIT SIZE	CNDCTR. QUANTITY	CNDCTR. SIZE	CNDCTR. TYPE	GND. CU.	LENGTH	ØØ V.D.	
1	2000A 3Ø	-	-	1	PVC	(3)4"	-	-	-	-	-	-	-
2	400A 3Ø	-	-	2	PVC	4"	4	500 MCM	CU	1/0	-	-	-
3	300A 3Ø	-	-	3	PVC	3"	3	350 MCM	CU	2	-	-	-
4	1200A 3Ø	-	-	4	PVC	(3)4"	4	500 MCM IN EACH	CU	1/0	-	-	-
5	200A 3Ø	-	-	5	PVC	2"	4	3/0	CU	4	-	-	-
6	40A 3Ø	-	-	6	EMT	3/4"	4	Ø	CU	10	-	-	-
7	90A 3Ø	-	-	7	EMT	1 1/2"	3	2	CU	Ø	-	-	-
8	40A 3Ø	-	-	8	EMT	3/4"	4	Ø	CU	10	-	-	-
9	200A 3Ø	-	-	9	EMT	2"	4	3/0	CU	4	-	-	-
10	100A 3Ø	-	-	10	EMT	1 1/2"	4	2	CU	Ø	-	-	-
11	600A 3Ø	-	-	11	PVC	2(3)"	3	350 MCM IN EACH	CU	2	-	-	-
12	600A 3Ø	-	-	12	PVC	2(3)"	4	350 MCM IN EACH	CU	2	-	-	-
13	800A 3Ø	-	-	13	PVC	2(4)"	4	500 MCM IN EACH	CU	1/0	-	-	-
14	40A 3Ø	-	-	14	PVC	3/4"	3	Ø	CU	10	-	-	-
15	30A 3Ø	-	-	15	PVC	3/4"	3	Ø	CU	10	-	-	-
16	30A 3Ø	-	-	16	PVC	3/4"	3	Ø	CU	10	-	-	-
17	400A 3Ø	-	-	17	PVC	4"	4	500 MCM	CU	1/0	-	-	-
18	200A 3Ø	-	-	18	PVC	2"	4	3/0	CU	4	-	-	-
19	40A 3Ø	-	-	19	PVC	3/4"	4	Ø	CU	10	-	-	-
20	90A 3Ø	-	-	20	EMT	1 1/2"	3	2	CU	Ø	-	-	-
21	40A 3Ø	-	-	21	EMT	3/4"	4	Ø	CU	10	-	-	-
22	200A 3Ø	-	-	22	EMT	2"	4	3/0	CU	4	-	-	-
23	100A 3Ø	-	-	23	EMT	1 1/2"	4	2	CU	Ø	-	-	-
24	40A 3Ø	-	-	24	PVC	3/4"	3	Ø	CU	10	-	-	-

DEVICE NUMBER	C.B. OR S.W. SIZE	FUSE SIZE	FUSE TYPE	FEEDER NUMBER	CONDUITS & CONDUCTORS								
					CONDUIT TYPE	CONDUIT SIZE	CNDCTR. QUANTITY	CNDCTR. SIZE	CNDCTR. TYPE	GND. CU.	LENGTH	ØØ V.D.	
25	30A 3Ø	-	-	25	PVC	3/4"	3	Ø	CU	10	-	-	-
26	30A 3Ø	-	-	26	PVC	3/4"	3	Ø	CU	10	-	-	-
27	40A 3Ø	-	-	27	PVC	3/4"	3	Ø	CU	10	-	-	-
28	400A 3Ø	-	-	28	PVC	(2)2"	4	3/0 EA.	CU	4	-	-	-
29	200A 3Ø	-	-	29	EMT	2"	4	3/0	CU	4	-	-	-
30	40A 3Ø	-	-	30	EMT	3/4"	4	Ø	CU	10	-	-	-
31	90A 3Ø	-	-	31	EMT	1 1/2"	3	2	CU	Ø	-	-	-
32	40A 3Ø	-	-	32	EMT	3/4"	4	Ø	CU	10	-	-	-
33	200A 3Ø	-	-	33	EMT	(2)2"	4	3/0 EA.	CU	4	-	-	-
34	100A 3Ø	-	-	34	EMT	1 1/2"	4	2	CU	Ø	-	-	-
35	40A 3Ø	-	-	35	PVC	3/4"	3	Ø	CU	10	-	-	-
36	30A 3Ø	-	-	36	PVC	3/4"	3	Ø	CU	10	-	-	-
37	30A 3Ø	-	-	37	PVC	3/4"	3	Ø	CU	10	-	-	-
38	-A 3Ø	-	-	38	PVC	-	3	-	CU	-	-	-	-
39	-A 3Ø	-	-	39	EMT	-	4	-	CU	-	-	-	-
40	600A 3Ø	-	-	40	EMT	(2)3"	4	350 MCM IN EACH	CU	2	-	-	-

SINGLE LINE DIAGRAM NOTES

- VERTICAL BUS MAY BE TAPERED TO NOT LESS THAN 1/3 THE AMPACITY RATING OF THE MAIN HORIZONTAL BUS.
- HORIZONTAL AND VERTICAL BUS SHALL BE FULL LENGTH, AND BE RATED NO LESS THAN THE NOTED AIC RATED VALUE.
- CONTRACTOR SHALL SUBMIT SWITCHBOARD SHOP DRAWINGS TO THE SERVING UTILITY FOR APPROVAL PRIOR TO FABRICATION. SWITCHBOARD SHALL COMPLY WITH IID REQUIREMENTS.
- ALL CONDUCTORS FEEDING PANELBOARDS SHALL BE COPPER TYPE THIN WITH EMT CONDUIT. BRANCH CIRCUIT AND FEEDER CABLES IN ALL SIZES SHALL HAVE THIN, THIN OR THIN INSULATION WITH EMT CONDUIT. CABLE IS NOT ALLOWED TO BE INSTALLED. A EQUIPMENT GROUND CONDUCTOR SHALL BE IN ALL FLEXIBLE CONDUITS. XHHW TO BE USED AT ALL EXTERIOR LOCATION PANEL FEEDERS. PROVIDE NEG REQUIRED SEALS AT ALL HAZARDOUS LOCATIONS.
- ALL EQUIPMENT SHOWN IS NEW UNLESS NOTED OTHERWISE.
- EACH TRANSFORMER SHALL USE THE NEAREST ELECTRODE AS THE SECONDARY GROUNDING SYSTEM. (I.E. BUILDING STEEL, COLD WATER PIPE.)
- ALL TERMINATION LUGS OF PANELS AND SWITCHBOARDS TO BE RATED TO ACCEPT 75 DEGREE CONDUCTORS.
- THE CONTRACTOR SHALL PROVIDE A SERIES RATED SYSTEM TO ENSURE THAT ALL ELECTRICAL COMPONENTS OF THIS SYSTEM EXCEED THE MAXIMUM SHORT CIRCUIT WITHSTAND RATING AVAILABLE. PROVIDE ENGRAVED PHENOLIC NAMEPLATES ON ALL SWITCHBOARDS AND PANELBOARDS TO DENOTE THE USE OF SERIES RATED DEVICES. OVERCURRENT DEVICE ENCLOSURES WILL BE IDENTIFIED AS SERIES-RATED AND LABELED IN ACCORDANCE WITH NEG 110-22. THE OVERCURRENT DEVICES SHALL BE AIC RATED PER MANUFACTURERS' LABELING OF THE ELECTRICAL EQUIPMENT.
- ALL MAIN SERVICE CIRCUIT BREAKERS SHALL BE 100% RATED.
- SERVICE GROUND FAULT SHALL BE TESTED PER INSTALLATION STANDARDS. MAIN SERVICE SHALL NOT BE ENERGIZED PRIOR TO BUILDING INSPECTORS' RECEIPT OF A THIRD PARTY NRTL TESTING LABORATORY PERFORMANCE TEST CERTIFICATION FOR THE SERVICE GROUND FAULT.
- FOR ALL PANELBOARDS SUPPLYING FIRE ALARM EQUIPMENT, PROVIDE LOCKABLE COVER, IDENTIFIED CIRCUIT BREAKER (RED), AND A BREAKER LOCK-OFF DEVICE.
- PULL SECTION TAPS ARE TO BE FACTORY INSTALLED, FIELD INSTALLED PER FACTORY SPECIFICATIONS OR TO BE CERTIFIED BY A NRTL CERTIFIED THIRD PARTY TESTING LABORATORY.

LOAD SUMMARY

EXISTING PANEL "DP100H"	250000	FL
EXISTING PANEL "DP104/L"	125000	FL
NEW PANEL "DF200"	109014	FL
NEW PANEL "DF300"	173156	FL
NEW PANEL "DF800"	158403	FL
TOTAL LOAD	1415975	FL = 1703A @ 217/480V, 3Ø

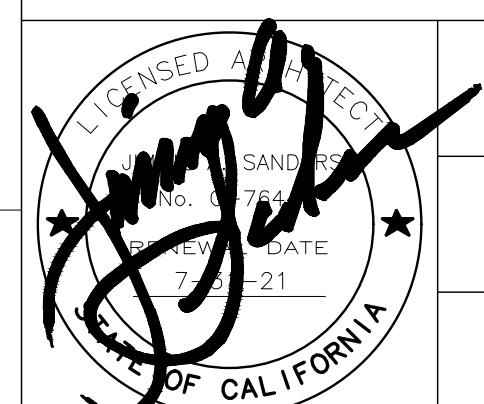


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Project Title
**IMPERIAL VALLEY COLLEGE
 BUILDING 200, 300 AND 800 MODERNIZATION**

Sheet Title
SINGLE LINE DIAGRAM

Document Date	12-18-19	Project Number	19-121V
Date Last Revised		Sheet Number	E4.1



STATE OF CALIFORNIA
CALIFORNIA ENERGY COMMISSION
INDOOR LIGHTING POWER ALLOWANCE
CERTIFICATE OF COMPLIANCE (NRCC-LTO-03-E)
Imperial Valley College - Building 200

Documentation Author's Declaration Statement
I certify that this Certificate of Compliance documentation is accurate and complete.

Responsible Person's Declaration Statement
I certify the following under penalty of perjury, under the laws of the State of California:

CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance April 2016

STATE OF CALIFORNIA
CALIFORNIA ENERGY COMMISSION
OUTDOOR LIGHTING
CERTIFICATE OF COMPLIANCE (NRCC-LTO-04-E)
Imperial Valley College - Building 200

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OUTDOOR LIGHTING
CERTIFICATE OF COMPLIANCE (NRCC-LTO-04-E)
Imperial Valley College - Building 200

Outdoor Lighting Schedule and Field Inspection Energy Checklist

01	02	03	04	05	06	07	08	09
Luminaire Schedule	Installed Watts	Location	Cutoff	Field Inspector	Field Inspector	Field Inspector	Field Inspector	Field Inspector
K	30w Led	30.0	16	480	Pedestrian Hardscape	UH: 0/0 UL: 0/0 VH: 0/0 VW: 0/0 BH: 0/0 LH: 0/0 LW: 0/0 VW: 0/0 VH: 0/0 BH: 0/0 LH: 0/0 LW: 0/0 VW: 0/0 VH: 0/0 BH: 0/0	0	0
INSTALLED WATTS PAGE TOTAL: 480					Enter sum total of all pages (Sum Total INSTALLED Outdoor lighting wattage) into NRCC-LTO-04-E, page 1.			

CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance April 2016

STATE OF CALIFORNIA
CALIFORNIA ENERGY COMMISSION
OUTDOOR LIGHTING
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STATE OF CALIFORNIA
CALIFORNIA ENERGY COMMISSION
OUTDOOR LIGHTING CONTROLS
CERTIFICATE OF COMPLIANCE (NRCC-LTO-02-E)
Imperial Valley College - Building 200

Mandatory Outdoor Lighting Control Declaration Statements

Check all that apply:

CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance August 2016

STATE OF CALIFORNIA
CALIFORNIA ENERGY COMMISSION
OUTDOOR LIGHTING CONTROLS
CERTIFICATE OF COMPLIANCE (NRCC-LTO-02-E)
Imperial Valley College - Building 200

Mandatory Outdoor Lighting Control Schedule and Field Inspection Checklist

01	02	03	04	05	06	07	08	09	10	11
Location and Application of Luminaires Being Controlled	Type of Lighting Control (e.g. outdoor motion sensor, outdoor photocell, outdoor astronomical time-switch control, automatic scheduling control, per night outdoor lighting control)	# of Units	Standards Complying With (✓ if all that apply, or enter "E" if Exempted)	Standards Complying With (✓ if all that apply, or enter "E" if Exempted)	Standards Complying With (✓ if all that apply, or enter "E" if Exempted)	Standards Complying With (✓ if all that apply, or enter "E" if Exempted)	Standards Complying With (✓ if all that apply, or enter "E" if Exempted)	Standards Complying With (✓ if all that apply, or enter "E" if Exempted)	Standards Complying With (✓ if all that apply, or enter "E" if Exempted)	Standards Complying With (✓ if all that apply, or enter "E" if Exempted)
		1	✓	✓	✓	✓	✓	✓	✓	✓

CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance August 2016

STATE OF CALIFORNIA
CALIFORNIA ENERGY COMMISSION
OUTDOOR LIGHTING CONTROLS
CERTIFICATE OF COMPLIANCE (NRCC-LTO-02-E)
Imperial Valley College - Building 200

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STATE OF CALIFORNIA
CALIFORNIA ENERGY COMMISSION
OUTDOOR LIGHTING POWER ALLOWANCES
CERTIFICATE OF COMPLIANCE (NRCC-LTO-03-E)
Imperial Valley College - Building 200

General Hardscape Lighting Power Allowance from Table 140.7-A

01	02	03	04	05	06	07	08	09
Name of Area	Illuminated Area (sq. ft.)	AWA Per Square Foot	AWA (AWA x sq. ft.)	Perimeter Length of General Hardscape (ft.)	LPA per Linear Foot	LPA (LPA x ft.)	AWA (Watts)	804 + 807 + 808
Hardscape	5,443	0.040	218	947	0.350	331	520	1,069
TOTAL							1,069	

CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance January 2016

STATE OF CALIFORNIA
CALIFORNIA ENERGY COMMISSION
OUTDOOR LIGHTING POWER ALLOWANCES
CERTIFICATE OF COMPLIANCE (NRCC-LTO-03-E)
Imperial Valley College - Building 200

Wattage Allowance per Application - Table 140.7-B

01	02	03	04	05	06	07	08	09	10
Name of Location for Which Allowance is Claimed	Number of Locations	Wattage Allowance per Location (Watts)	Wattage Allowance per Location (Watts)	Wattage Allowance per Location (Watts)	Wattage Allowance per Location (Watts)	Wattage Allowance per Location (Watts)	Wattage Allowance per Location (Watts)	Wattage Allowance per Location (Watts)	Wattage Allowance per Location (Watts)

CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance January 2016

STATE OF CALIFORNIA
CALIFORNIA ENERGY COMMISSION
OUTDOOR LIGHTING POWER ALLOWANCES
CERTIFICATE OF COMPLIANCE (NRCC-LTO-03-E)
Imperial Valley College - Building 200

Wattage Allowance per Square Foot of Hardscape Area (Ornamental Lighting) - Table 140.7-B

01	02	03	04	05	06	07	08	09	10
Name of Area for which Allowance is Claimed	Area of Application (sq. ft.)	Wattage Allowance per sq. ft.	Wattage Allowance per sq. ft.	Wattage Allowance per sq. ft.	Wattage Allowance per sq. ft.	Wattage Allowance per sq. ft.	Wattage Allowance per sq. ft.	Wattage Allowance per sq. ft.	Wattage Allowance per sq. ft.

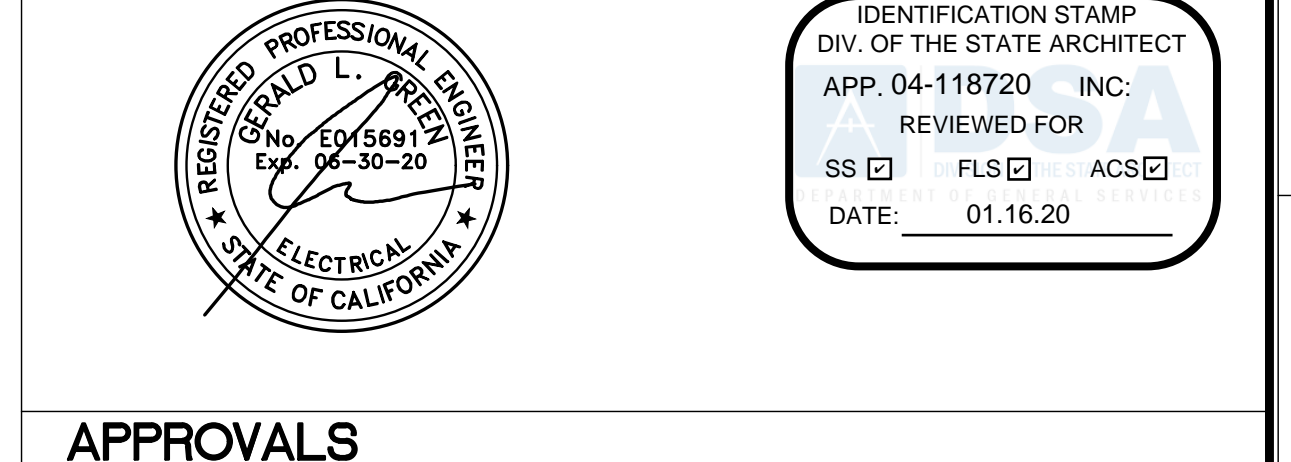
CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance January 2016

STATE OF CALIFORNIA
CALIFORNIA ENERGY COMMISSION
OUTDOOR LIGHTING POWER ALLOWANCES
CERTIFICATE OF COMPLIANCE (NRCC-LTO-03-E)
Imperial Valley College - Building 200

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Responsible Person's Declaration Statement
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CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance January 2016



APPROVALS

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Project Title
BUILDING 200, 300 AND 800 MODERNIZATION

Sheet Title
BUILDING 200 - TITLE 24

Document Date: 12-18-19
Date Last Revised: [blank]
Project Number: 19-21V
Sheet Number: E5.2

STATE OF CALIFORNIA
INDOOR LIGHTING
CERTIFICATE OF COMPLIANCE
Imperial Valley College - Building 300
Date Prepared: 10/14/2019

A. General Information
Climate Zone: 15
Conditioned Floor Area: 9,019
Unconditioned Floor Area: 0

B. Lighting Compliance Documents
 NRCC-LT-01-E
 NRCC-LT-02-E
 NRCC-LT-03-E
 NRCC-LT-04-E
 NRCC-LT-05-E
 NRCC-LT-06-E

STATE OF CALIFORNIA
INDOOR LIGHTING
CERTIFICATE OF COMPLIANCE
Imperial Valley College - Building 300
Date Prepared: 10/14/2019

C. Summary of Allowed Lighting Power

Item	Installed Lighting Power (Watts)	Allowed Lighting Power (Watts)
01	8,336	9,921
02	0	0
03	0	0
04	8,336	9,921
05	0	0

STATE OF CALIFORNIA
INDOOR LIGHTING
CERTIFICATE OF COMPLIANCE
Imperial Valley College - Building 300
Date Prepared: 10/14/2019

D. Declaration of Required Certificates of Acceptance

E. Declaration of Required Certificates of Acceptance

F. Indoor Lighting Schedule and Field Inspection Energy Checklist



APPROVALS

STATE OF CALIFORNIA
INDOOR LIGHTING
CERTIFICATE OF COMPLIANCE
Imperial Valley College - Building 300
Date Prepared: 10/14/2019

G. Installed Portable Luminaires in Offices - Exception to Section 140.4(c)

Office Location	Field Inspector	Pass	Fail
1		<input type="checkbox"/>	<input type="checkbox"/>
2		<input type="checkbox"/>	<input type="checkbox"/>
3		<input type="checkbox"/>	<input type="checkbox"/>
4		<input type="checkbox"/>	<input type="checkbox"/>
5		<input type="checkbox"/>	<input type="checkbox"/>
6		<input type="checkbox"/>	<input type="checkbox"/>
7		<input type="checkbox"/>	<input type="checkbox"/>
8		<input type="checkbox"/>	<input type="checkbox"/>
9		<input type="checkbox"/>	<input type="checkbox"/>
10		<input type="checkbox"/>	<input type="checkbox"/>

STATE OF CALIFORNIA
INDOOR LIGHTING
CERTIFICATE OF COMPLIANCE
Imperial Valley College - Building 300
Date Prepared: 10/14/2019

H. Indoor Lighting Schedule and Field Inspection Energy Checklist

Name or Item Tag	Complete Luminaire Description	Watts per Luminaire	Number of Luminaires	Total Installed Watts (Watts x No.)	Primary Function Area	Pass	Fail
A	34w Led	34.0	12	408	Classroom, Lecture, Training	<input type="checkbox"/>	<input type="checkbox"/>
B	21w Led	21.0	18	378	Classroom, Lecture, Training	<input type="checkbox"/>	<input type="checkbox"/>
C	80w Led	80.0	6	480	Classroom, Lecture, Training	<input type="checkbox"/>	<input type="checkbox"/>
D	25w Led	25.0	10	250	Classroom, Lecture, Training	<input type="checkbox"/>	<input type="checkbox"/>
E	45w Led	45.0	3	135	Classroom, Lecture, Training	<input type="checkbox"/>	<input type="checkbox"/>
F	25w Led	25.0	8	200	Classroom, Lecture, Training	<input type="checkbox"/>	<input type="checkbox"/>
G	305w Led	305.0	3	915	Classroom, Lecture, Training	<input type="checkbox"/>	<input type="checkbox"/>

STATE OF CALIFORNIA
INDOOR LIGHTING
CERTIFICATE OF COMPLIANCE
Imperial Valley College - Building 300
Date Prepared: 10/14/2019

Documentation Authority's Declaration Statement

Responsible Person's Declaration Statement

Keith Kruse, Kruse & Associates, 12245 World Trade Dr., Suite A, San Diego, CA 92128. Phone: (858) 676-9776.

STATE OF CALIFORNIA
INDOOR LIGHTING - LIGHTING CONTROLS
CERTIFICATE OF COMPLIANCE
Imperial Valley College - Building 300
Date Prepared: 10/14/2019

A. Mandatory Lighting Control Declaration Statements

B. Mandatory and Prescriptive Indoor Lighting Control Schedule, PAF Calculation, and Field Inspection Checklist

Location in Building	Type/Description of Lighting Control	Watts of Lighting Power Allowed (Watts)	PAF Credit Calculation	Field Inspector	Pass	Fail
Classroom	1	0	0		<input type="checkbox"/>	<input type="checkbox"/>

STATE OF CALIFORNIA
INDOOR LIGHTING - LIGHTING CONTROLS
CERTIFICATE OF COMPLIANCE
Imperial Valley College - Building 300
Date Prepared: 10/14/2019

A. Mandatory Lighting Control Declaration Statements

B. Mandatory and Prescriptive Indoor Lighting Control Schedule, PAF Calculation, and Field Inspection Checklist

Location in Building	Type/Description of Lighting Control	Watts of Lighting Power Allowed (Watts)	PAF Credit Calculation	Field Inspector	Pass	Fail
Classroom	1	0	0		<input type="checkbox"/>	<input type="checkbox"/>

STATE OF CALIFORNIA
INDOOR LIGHTING - LIGHTING CONTROLS
CERTIFICATE OF COMPLIANCE
Imperial Valley College - Building 300
Date Prepared: 10/14/2019

Documentation Authority's Declaration Statement

Responsible Person's Declaration Statement

Keith Kruse, Kruse & Associates, 12245 World Trade Dr., Suite A, San Diego, CA 92128. Phone: (858) 676-9776.

STATE OF CALIFORNIA
INDOOR LIGHTING POWER ALLOWANCE
CERTIFICATE OF COMPLIANCE
Imperial Valley College - Building 300
Date Prepared: 10/14/2019

A. Summary Totals of Lighting Power Allowance

B. Complete Building Method Lighting Power Allowance

Type of Building	Watts per ft²	Complete Bldg. Area	Allowed Watts
Classroom Building	1.16	9,019	9,921

STATE OF CALIFORNIA
INDOOR LIGHTING POWER ALLOWANCE
CERTIFICATE OF COMPLIANCE
Imperial Valley College - Building 300
Date Prepared: 10/14/2019

C-2 Area Category Method General Lighting Power Allowance

Location in Building	Primary Function Area per Table 140.6-C	Watts per ft²	Area (ft²)	Allowed Watts
Classroom	1	1.16	9,019	9,921

STATE OF CALIFORNIA
INDOOR LIGHTING POWER ALLOWANCE
CERTIFICATE OF COMPLIANCE
Imperial Valley College - Building 300
Date Prepared: 10/14/2019

C-3 Area Category Method Additional Lighting Wattage Allowance

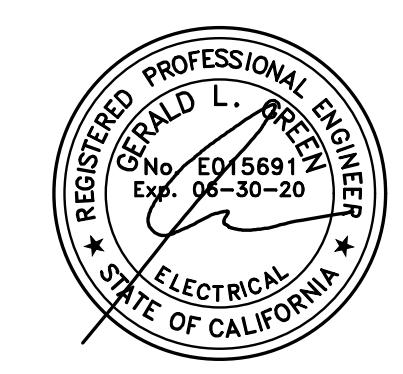
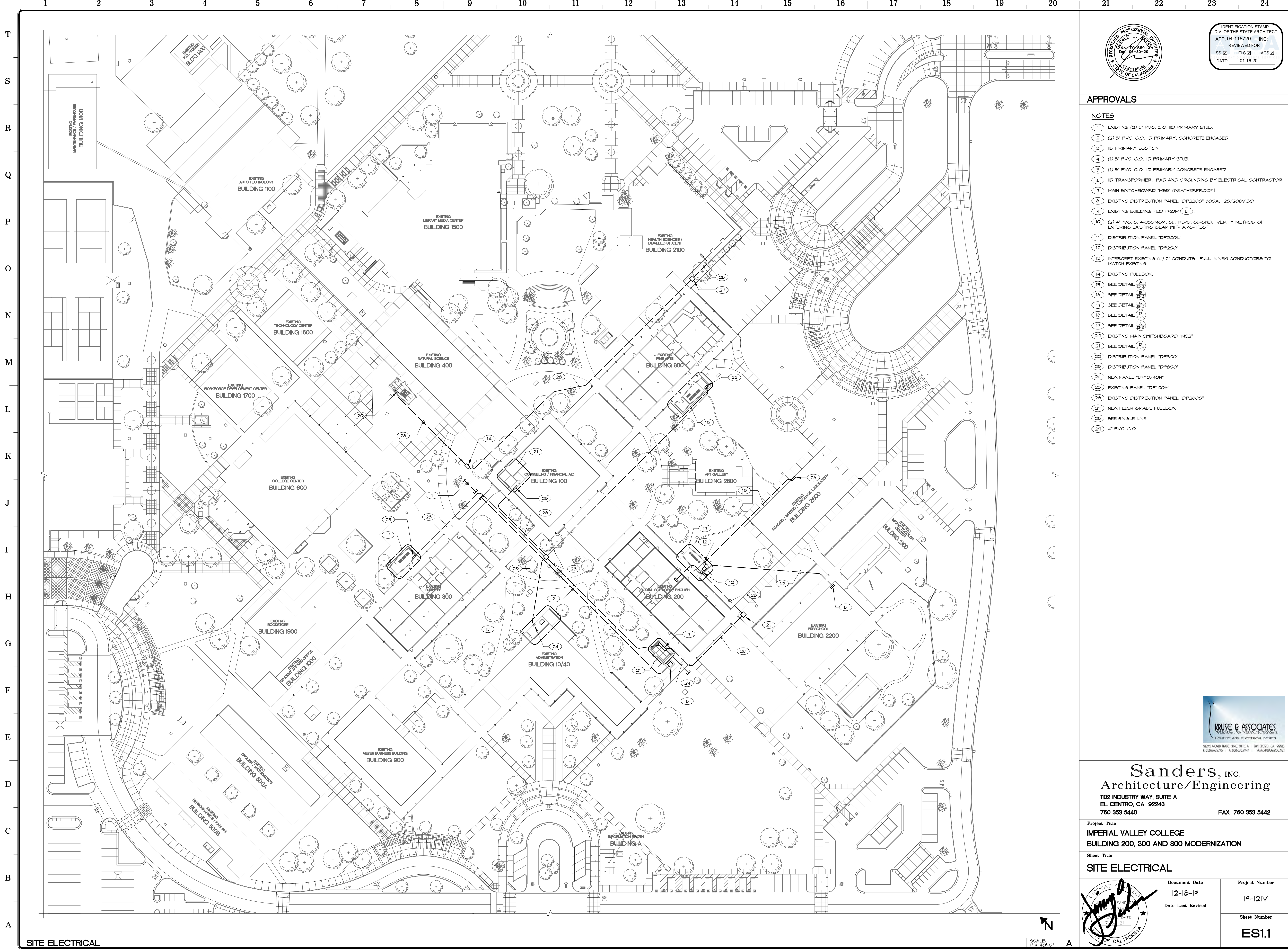
Primary Function	Watts per ft²	Area (ft²)	Allowed Watts
Classroom	1.16	9,019	9,921



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Project Title: IMPERIAL VALLEY COLLEGE BUILDING 200, 300 AND 800 MODERNIZATION
Sheet Title: BUILDING 300 - TITLE 24

Document Date: 12-18-19
Date Last Revised: 12-21-19
Project Number: 19-21V
Sheet Number: E5.3



IDENTIFICATION STAMP
 DIV. OF THE STATE ARCHITECT
 APP. 04-118720 INC.
 REVIEWED FOR
 FLS ACS
 DATE: 01.16.20

APPROVALS

NOTES

- 1 EXISTING (2) 5" F.V.G. C.O. I/D PRIMARY STUB.
- 2 (2) 5" F.V.G. C.O. I/D PRIMARY, CONCRETE ENCASED.
- 3 I/D PRIMARY SECTION
- 4 (1) 5" F.V.G. C.O. I/D PRIMARY STUB.
- 5 (1) 5" F.V.G. C.O. I/D PRIMARY CONCRETE ENCASED.
- 6 I/D TRANSFORMER, PAD AND GROUNDING BY ELECTRICAL CONTRACTOR.
- 7 MAIN SWITCHBOARD "MS3" (WEATHERPROOF)
- 8 EXISTING DISTRIBUTION PANEL "DP2200" 600A, 120/208V, 3Ø
- 9 EXISTING BUILDING FED FROM (8)
- 10 (2) 4" F.V.G. C, 4-350MCM, CU, 115/0, CU-GND. VERIFY METHOD OF ENTERING EXISTING GEAR WITH ARCHITECT.
- 11 DISTRIBUTION PANEL "DP200L"
- 12 DISTRIBUTION PANEL "DP200"
- 13 INTERCEPT EXISTING (4) 2" CONDUITS. PULL IN NEW CONDUCTORS TO MATCH EXISTING.
- 14 EXISTING PULLBOX.
- 15 SEE DETAIL (A) 15
- 16 SEE DETAIL (B) 16
- 17 SEE DETAIL (C) 17
- 18 SEE DETAIL (D) 18
- 19 SEE DETAIL (E) 19
- 20 EXISTING MAIN SWITCHBOARD "MS2"
- 21 SEE DETAIL (B) 21
- 22 DISTRIBUTION PANEL "DP300"
- 23 DISTRIBUTION PANEL "DP800"
- 24 NEW PANEL "DP10/40"
- 25 EXISTING PANEL "DP100H"
- 26 EXISTING DISTRIBUTION PANEL "DP2600"
- 27 NEW FLUSH GRADE PULLBOX
- 28 SEE SINGLE LINE
- 29 4" F.V.G. C.O.



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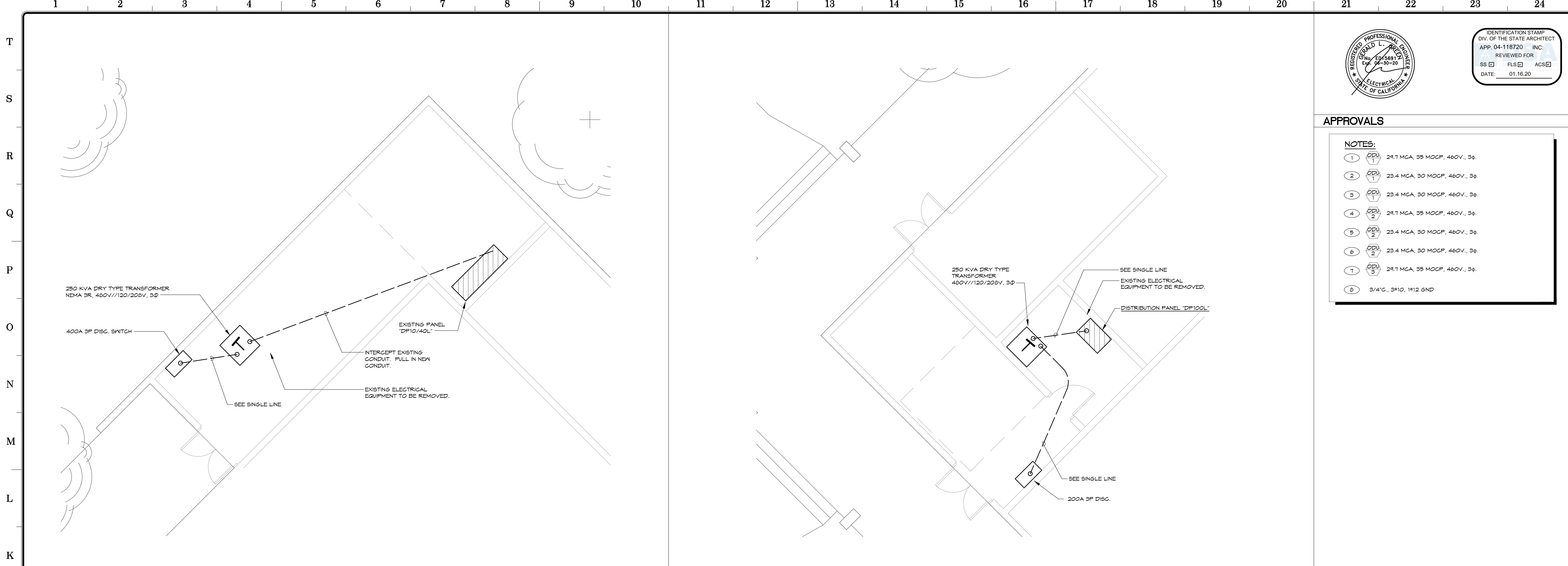
Project Title
**IMPERIAL VALLEY COLLEGE
 BUILDING 200, 300 AND 800 MODERNIZATION**

Sheet Title
SITE ELECTRICAL

	Document Date 12-18-19	Project Number 19-121V
	Date Last Revised	Sheet Number ES1.1

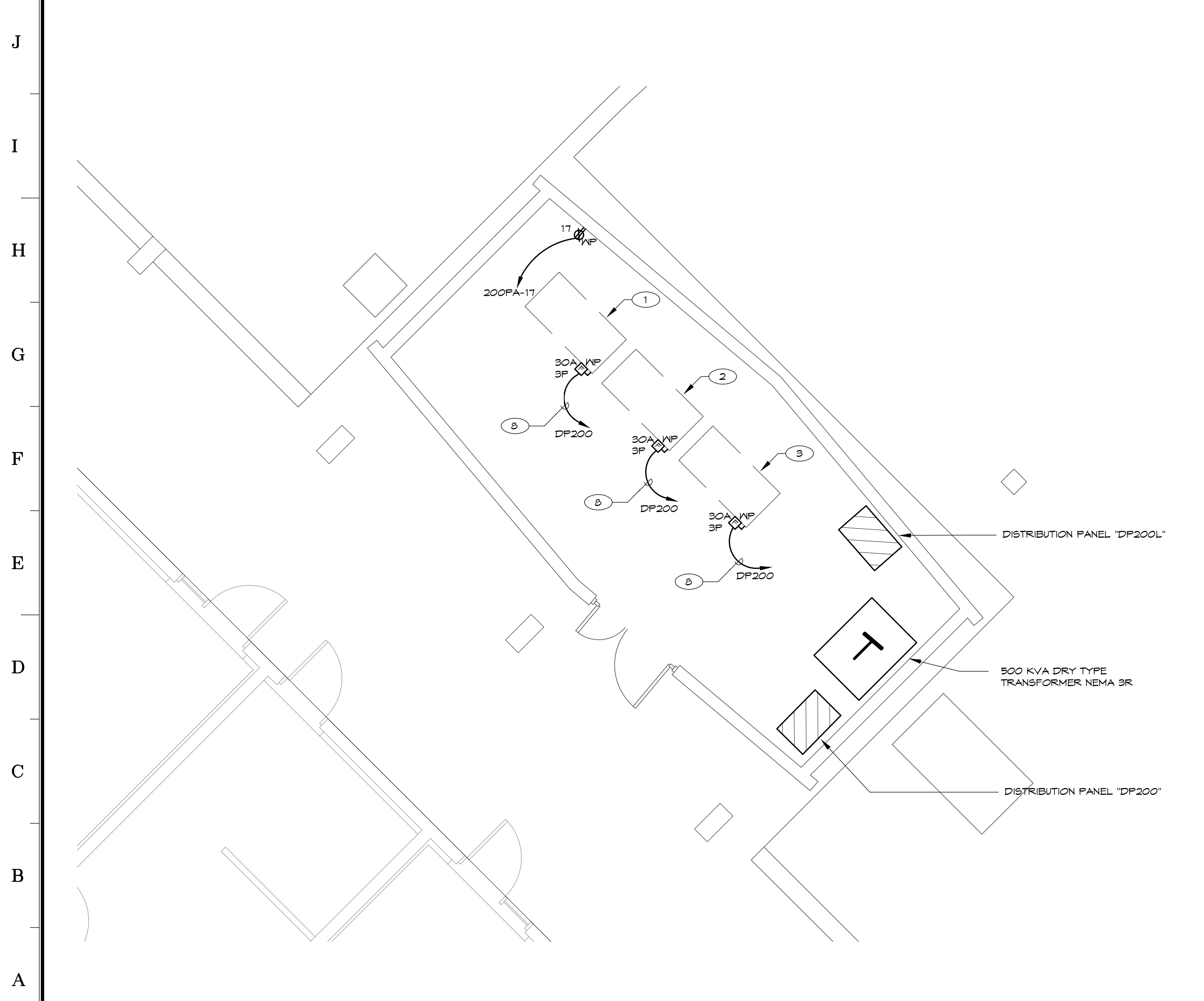
SITE ELECTRICAL

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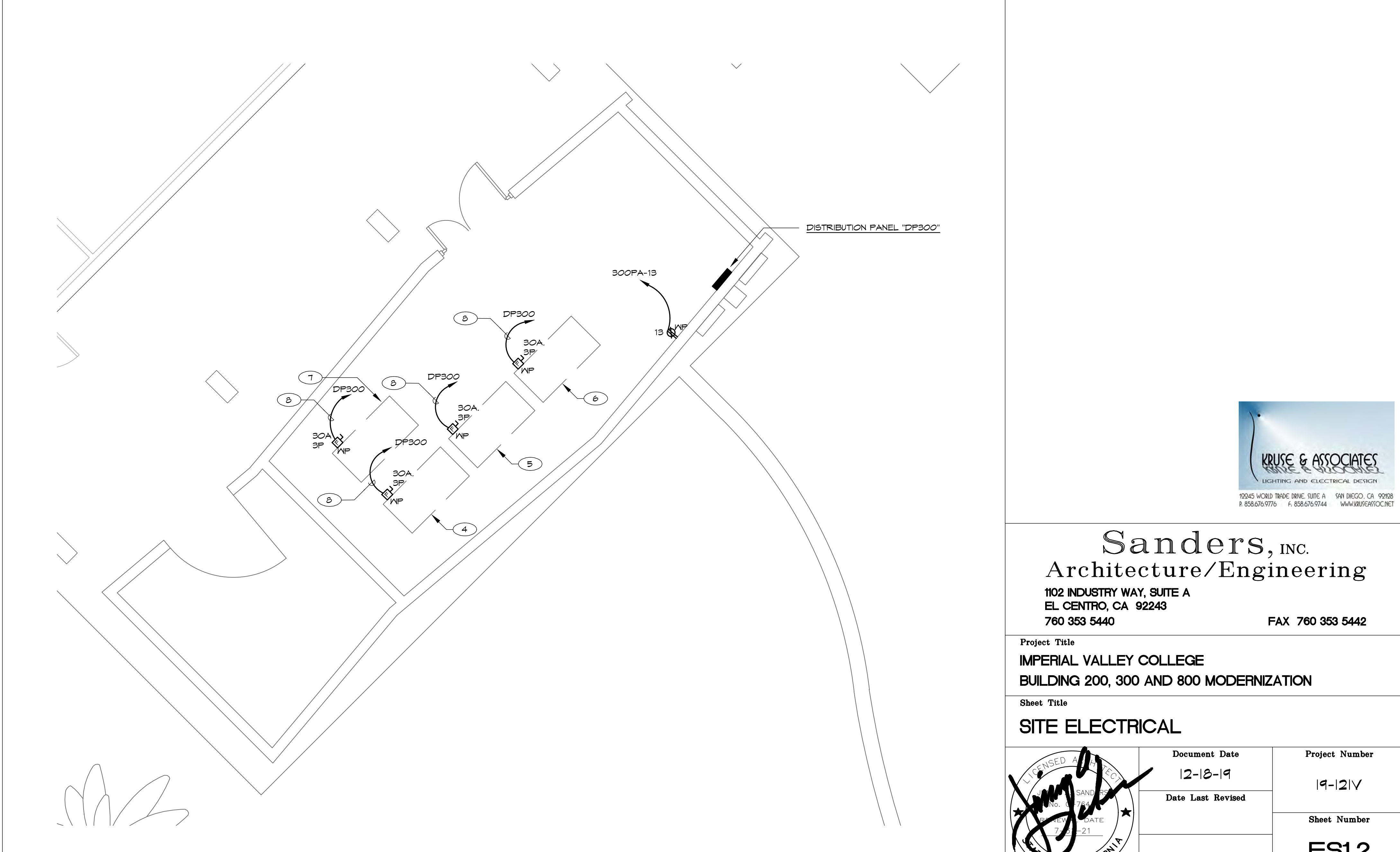


MECHANICAL ROOM - BLDG 10/40

MECHANICAL YARD - BLDG 100



MECHANICAL YARD - BLDG 200



MECHANICAL YARD - BLDG 300

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 APP. 04-118720 INC.
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 SS FLS ACS
 DATE: 01.16.20

- APPROVALS**
- NOTES:**
- ① 24.7 MCA, 35 MOCP, 460V., 3φ
 - ② 23.4 MCA, 30 MOCP, 460V., 3φ
 - ③ 23.4 MCA, 30 MOCP, 460V., 3φ
 - ④ 24.7 MCA, 35 MOCP, 460V., 3φ
 - ⑤ 23.4 MCA, 30 MOCP, 460V., 3φ
 - ⑥ 23.4 MCA, 30 MOCP, 460V., 3φ
 - ⑦ 24.7 MCA, 35 MOCP, 460V., 3φ
 - ⑧ 3/4" x 3/10, 1#12 GND

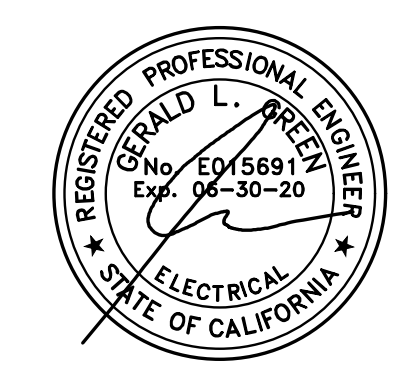
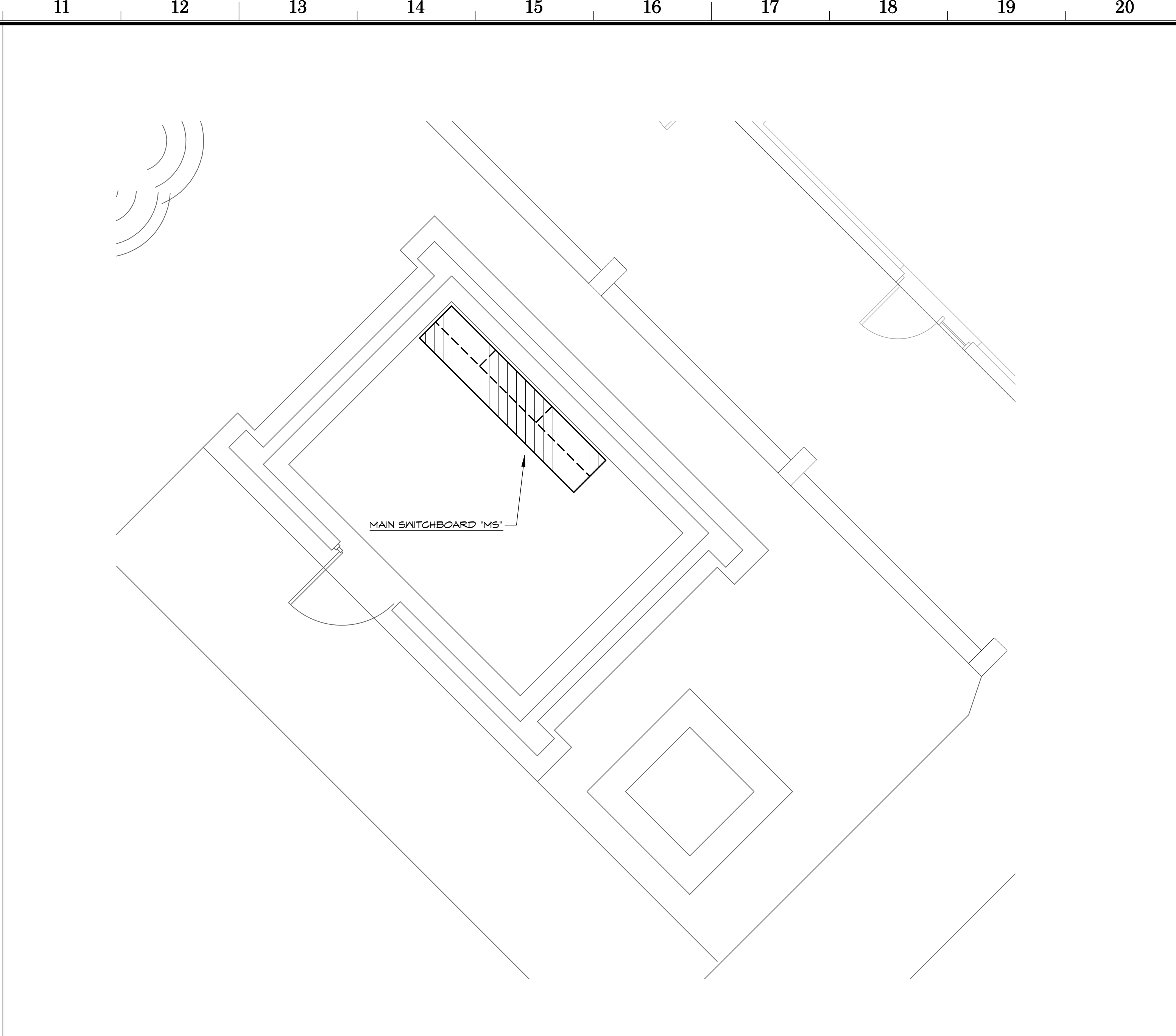
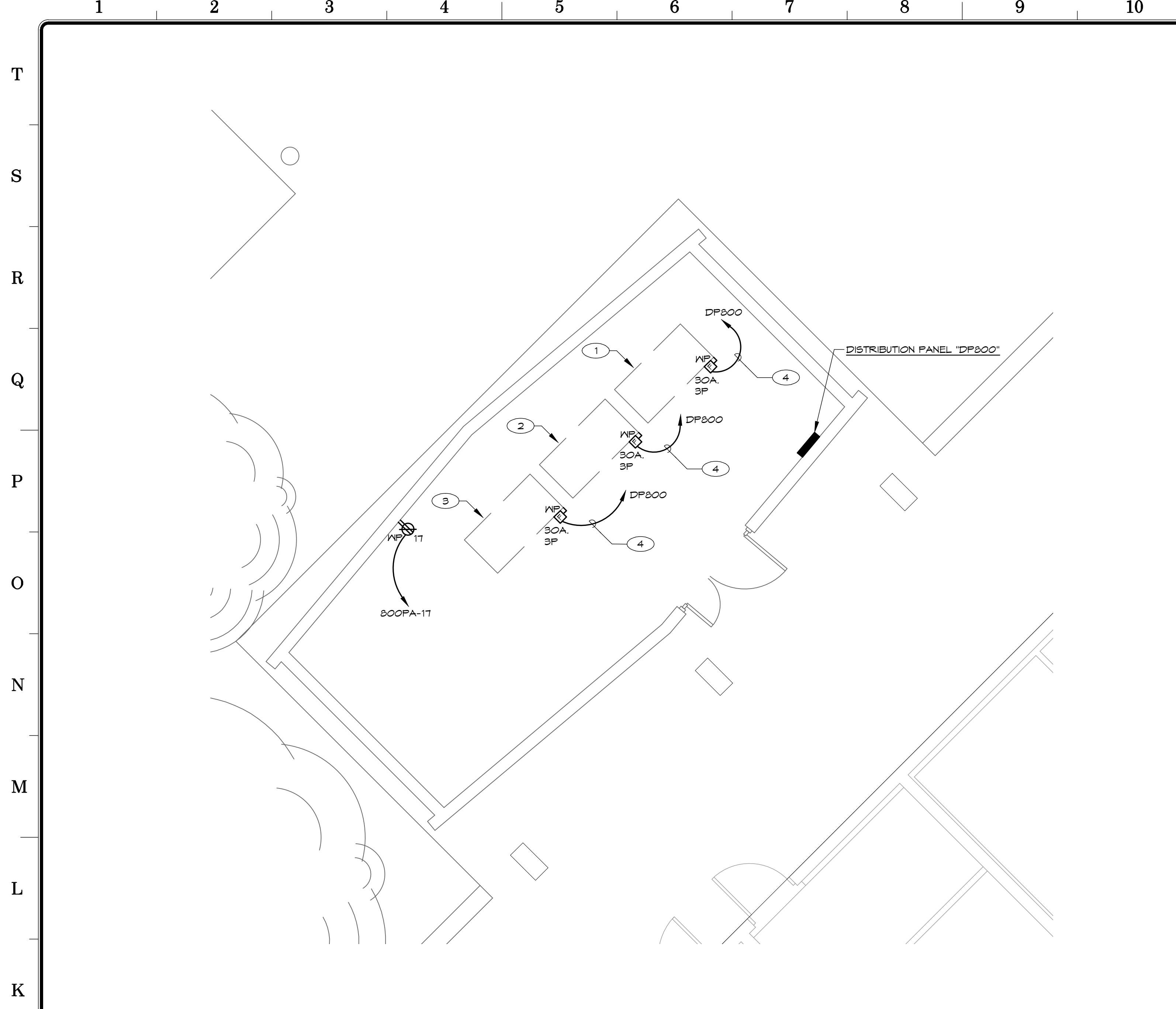
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Project Title
**IMPERIAL VALLEY COLLEGE
 BUILDING 200, 300 AND 800 MODERNIZATION**

Sheet Title
SITE ELECTRICAL

	Document Date	Project Number
	Date Last Revised	Sheet Number
	12-18-19	19-121V
		ES1.2





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APPROVALS

- NOTES:
- 1 29.7 MCA, 35 MOCP, 460V, 3φ
 - 2 29.4 MCA, 30 MOCP, 460V, 3φ
 - 3 29.4 MCA, 30 MOCP, 460V, 3φ
 - 4 3/4", 3φ.

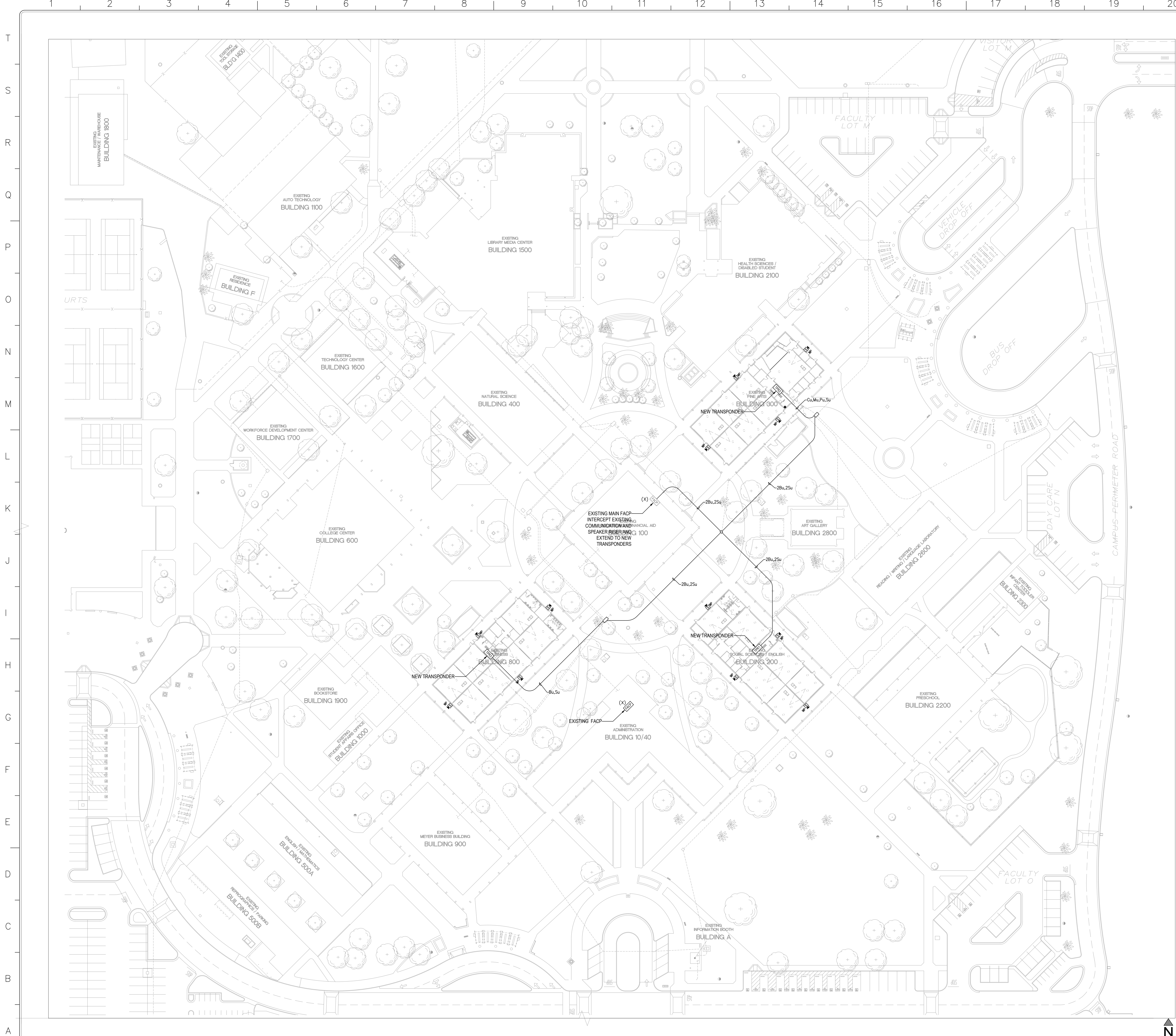


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Project Title
**IMPERIAL VALLEY COLLEGE
 BUILDING 200, 300 AND 800 MODERNIZATION**

Sheet Title
SITE ELECTRICAL

	Document Date	Project Number
	12-18-19	19-121V
	Date Last Revised	Sheet Number
		ES1.3



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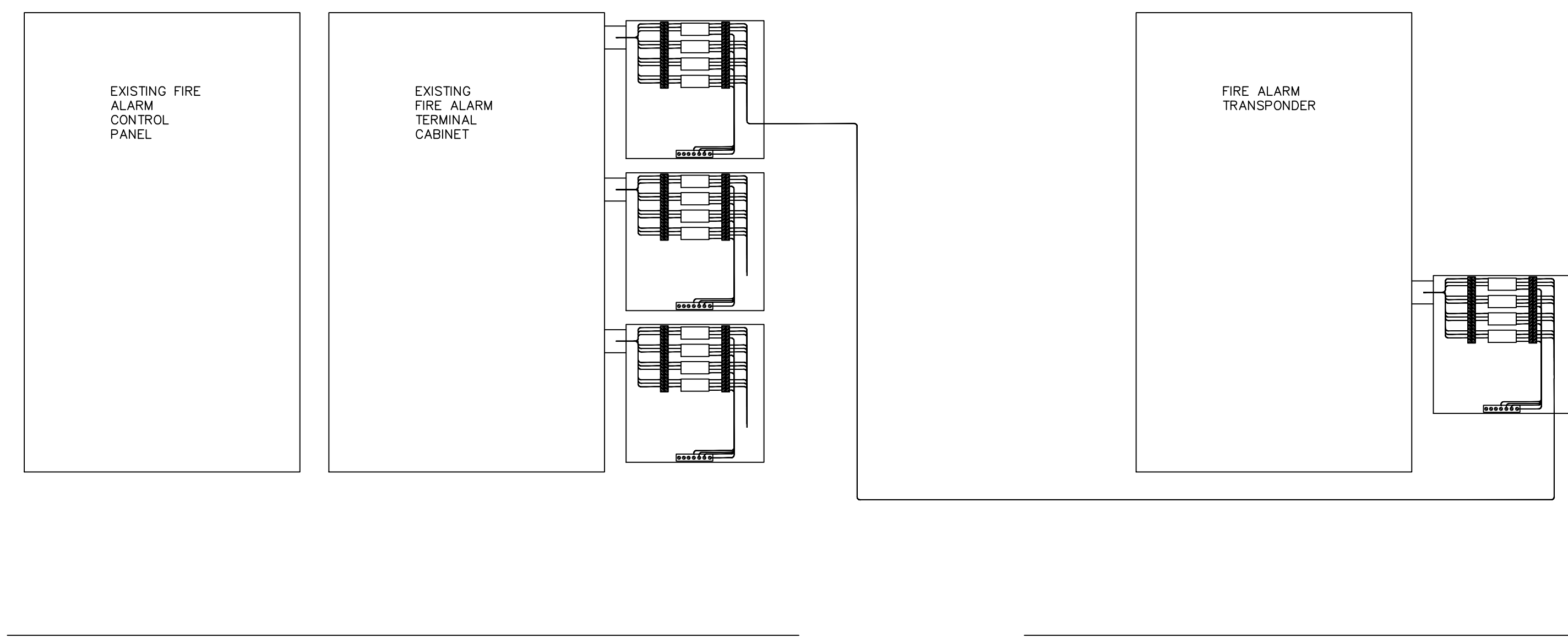
Project Title
**IMPERIAL VALLEY COLLEGE
 BUILDING 200 300 AND 800 MODERNIZATION**

Sheet Title
FIRE ALARM SITE PLAN

	Document Date	Project Number
	Date Last Revised	Sheet Number
	12-18-19	19-12IV
		FA-002

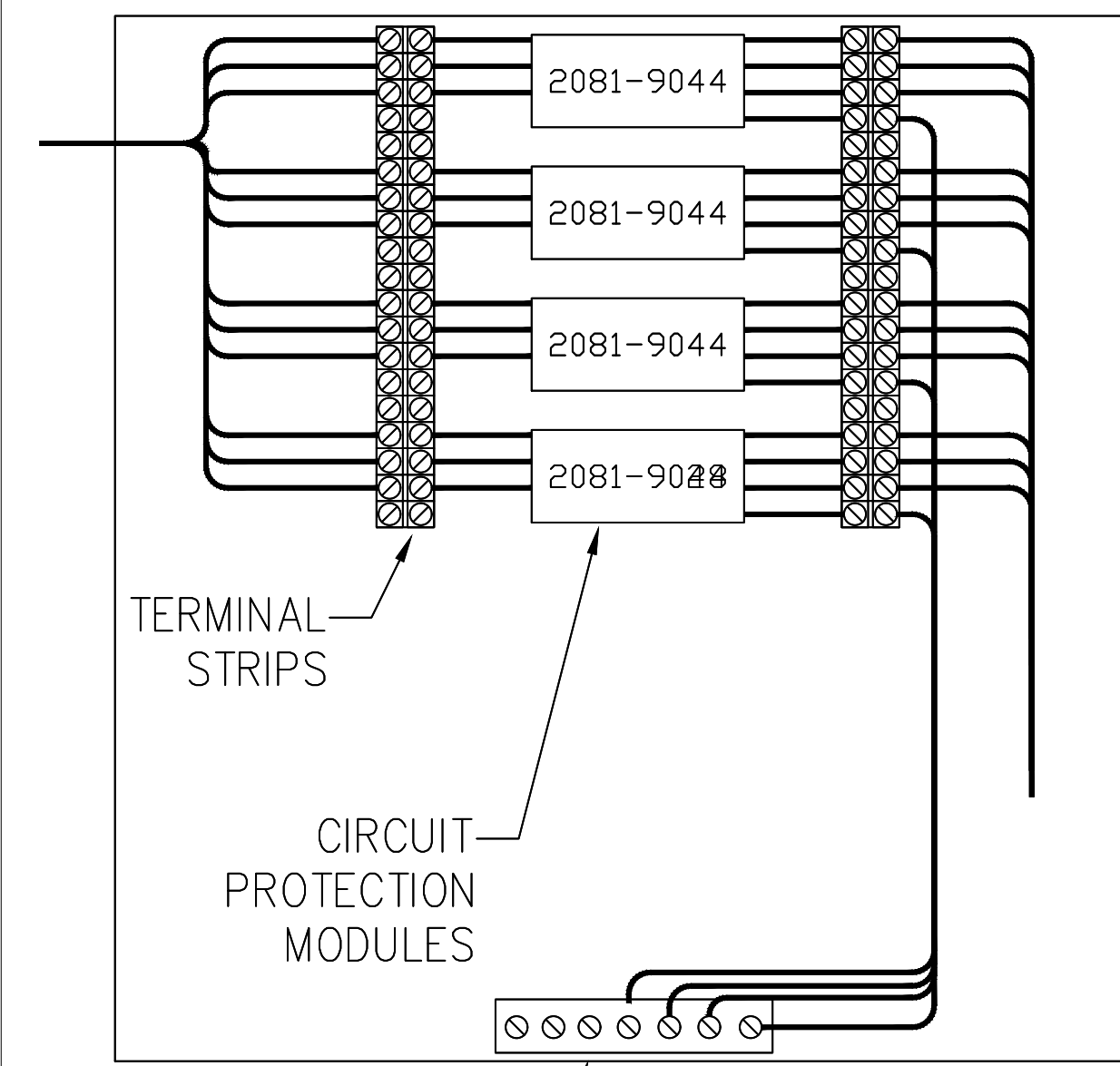
FIRE ALARM SITE PLAN

SCALE: 1" = 40'-0" A



BUILDING 100 BOX LAYOUT DETAIL WITH CIRCUIT PROTECTION BOX

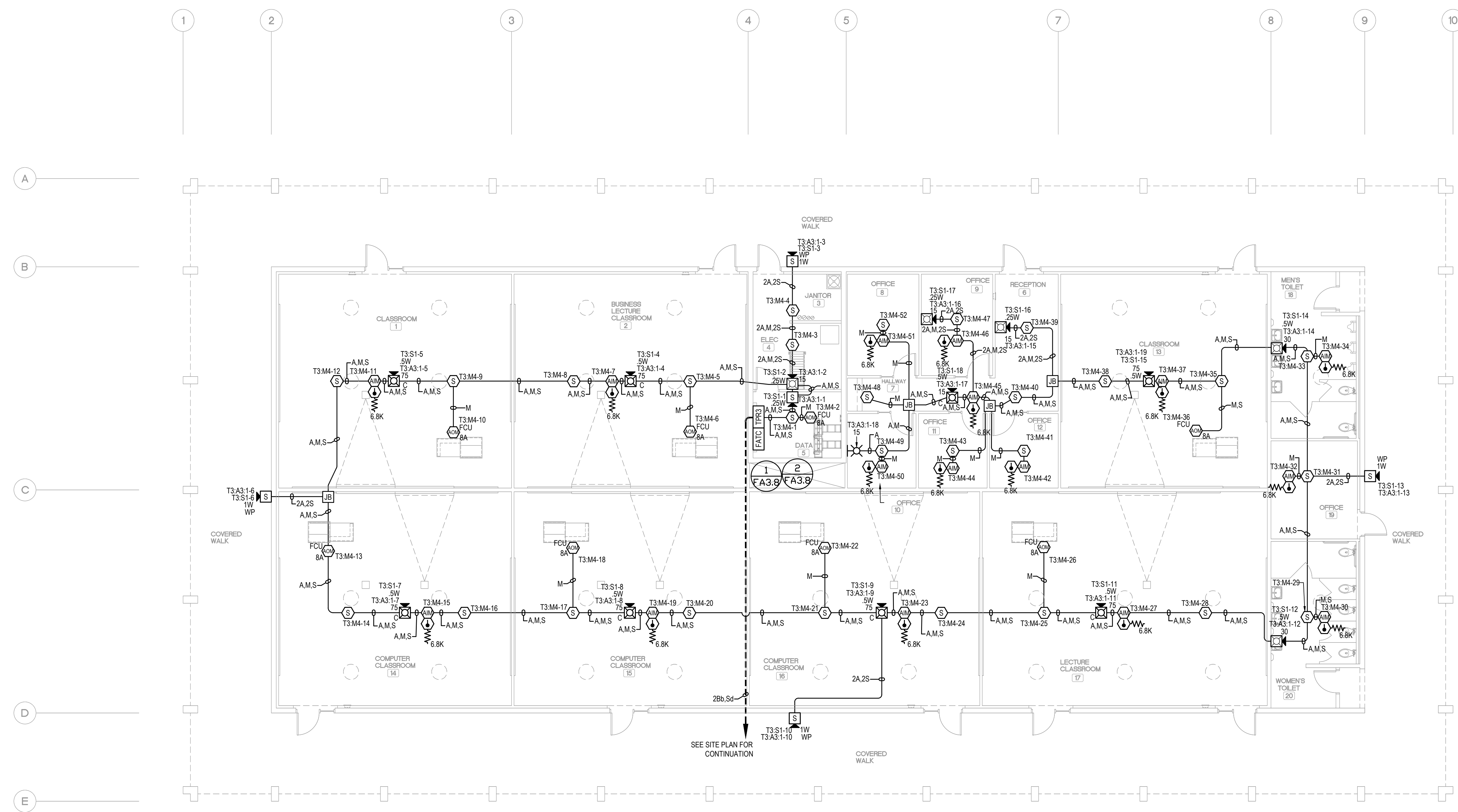
BUILDING 800 BOX LAYOUT DETAIL WITH CIRCUIT PROTECTION BOX



12x12 BOX FOR CIRCUIT PROTECTION MODULES BY ELECTRICAL CONTRATOR

1 FACP TO TRANSPONDER 3 DETAIL
SCALE: NONE

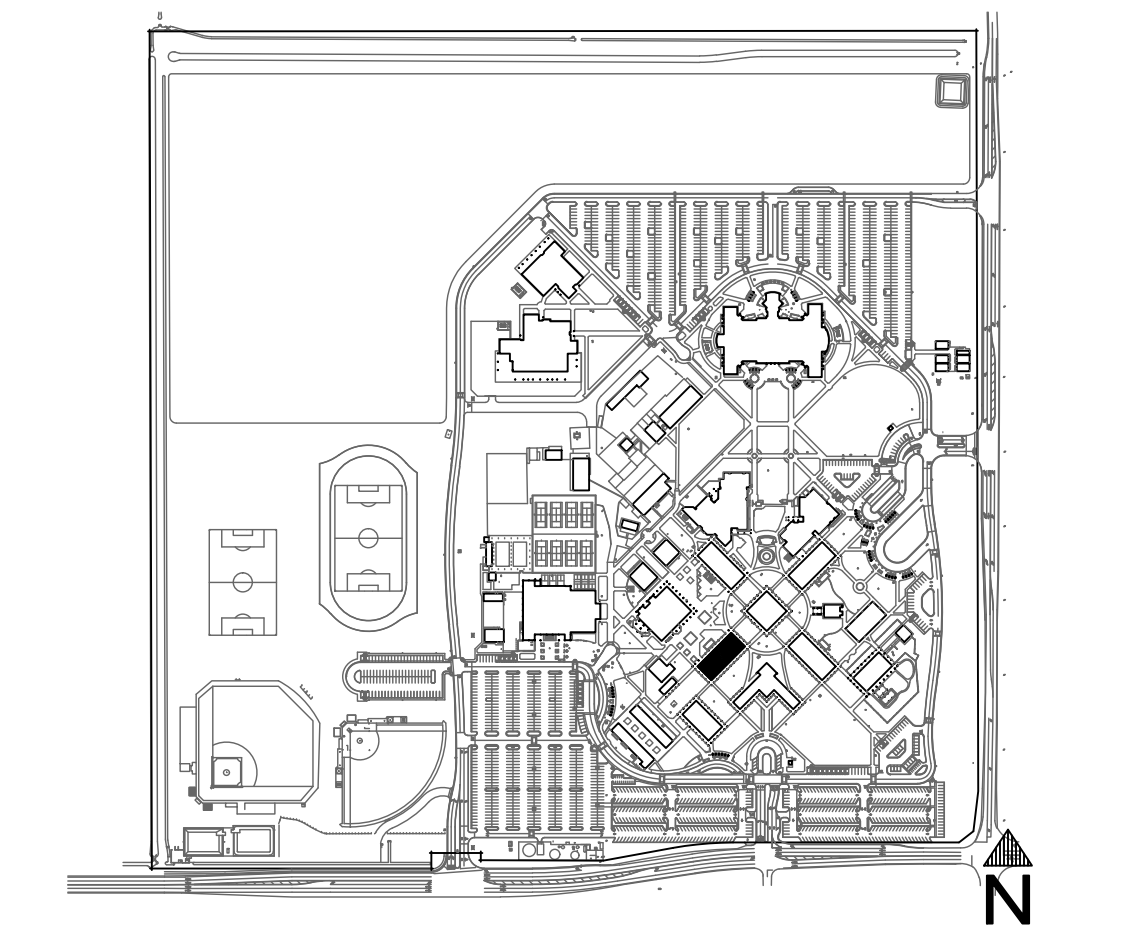
2 CIRCUIT PROTECTION CABINET
SCALE: NONE



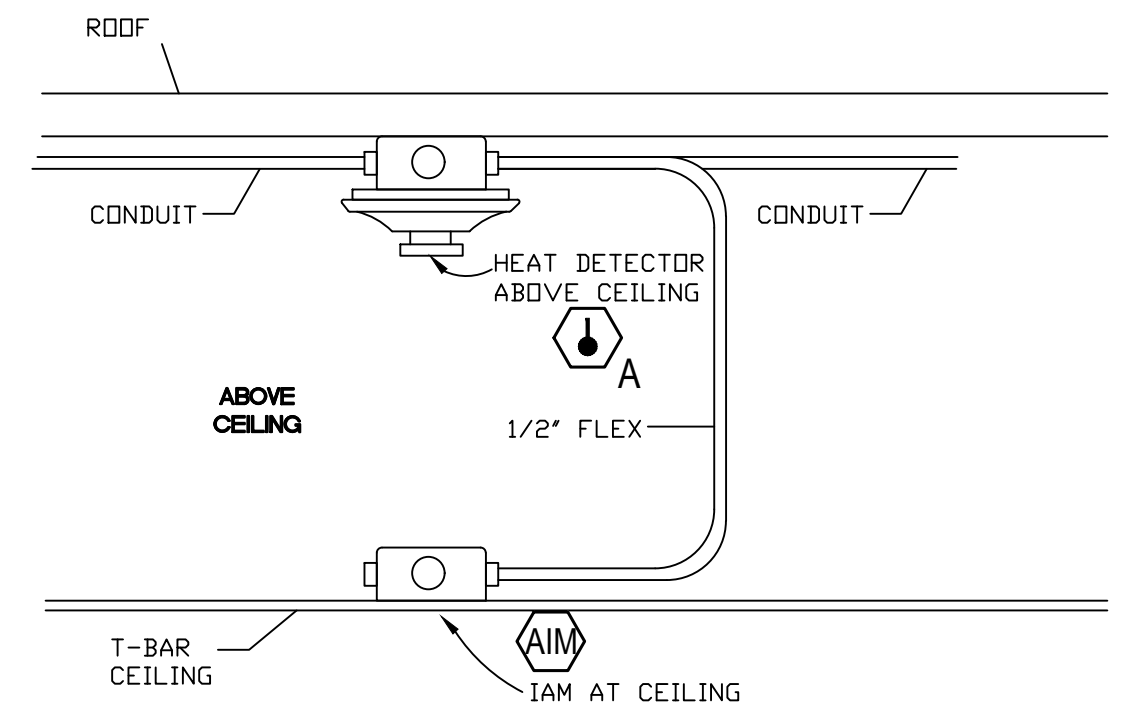
FIRE ALARM PLAN

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APPROVALS



KEY PLAN



HEAT DETECTOR/IAM MOUNTING

GENERAL NOTES:

- ALL CEILINGS ARE ASSUMED TO BE, SMOOTH CONSTRUCTION UNLESS NOTED OTHERWISE.
- TAP ALL SPEAKERS AT 0.5W UNLESS NOTED OTHERWISE.
- SET ALL SPEAKER VOLTAGE JUMPERS TO THE 70.7V SETTING.
- ALL NOTIFICATION APPLIANCE CANDELA INTENSITY PLUGS SHALL RETAIN THEIR FACTORY SETTING OF "FACP" UNLESS OTHERWISE DIRECTED BY THE AUTHORITY HAVING JURISDICTION.
- DO NOT CHANGE DEFAULT APPLIANCE CONFIGURATION SWITCH SETTINGS ON ADDRESSABLE A/V DEVICES (CFIG1). REFER TO DEVICE DETAILS AND INSTALLATION INSTRUCTIONS FOR MORE INFORMATION.
- THE DEVICE ADDRESSES INDICATED ON THESE DRAWINGS ARE AN ALPHANUMERIC DESCRIPTION OF WHICH CIRCUIT THE DEVICE IS LOCATED ON. DEVICES MAY BE ASSIGNED A DIFFERENT NUMBER WITHIN THE PANEL PROGRAM. CONSULT WITH A JOHNSON CONTROLS TECHNICIAN BEFORE APPLYING A PHYSICAL LABEL TO ANY DEVICES.
- ALL HEAT DETECTOR TO BE PROVIDED WITH 6.8K E.O.L RESISTOR.

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Project Title
**IMPERIAL VALLEY COLLEGE
BUILDING 200 300 AND 800 MODERNIZATION**

Sheet Title
FIRE ALARM BUILDING 800

	Document Date 12-18-19	Project Number 19-12IV
	Date Last Revised	Sheet Number FA-103

FIRE ALARM SYMBOL LEGEND

QTY	SYMBOL	DESCRIPTION	BRAND	MODEL	BACKBOX	WIRE TYPE	CSFM #
PANELS							
1	[FACP]	4100ES FIRE ALARM CONTROL PANEL, 120 VAC	SIMPLEX	4100-9111	SIMPLEX CABINET	N/A	7165-0026.0261
3	[TPRR]	4100ES TRANSPONDER FIRE ALARM LOCAL MODE TRANSPONDER PANEL, 120 VAC	SIMPLEX	4100-9601	SIMPLEX CABINET	N/A	7165-0026.0261
INITIATING DEVICES							
93	[S]	ADDRESSABLE PHOTOELECTRIC SMOKE SENSOR W/ STANDARD BASE	SIMPLEX	4098-8714 HEAD 4098-8792 BASE	4" OCT. 1-1/2" D	M	7272-0026.0218 7300-0026.0217
48	[L]	CONVENTIONAL HEAT SENSOR	THERMOTEC	302-EPM-194	THREADED HUB	Z	7270-0021.0001
MODULES AND RELAYS							
24	[8A]	8 AMP RELAY IAM	SIMPLEX	4090-9010	4" SQ. 2-1/8" D W/ DBL. GANG COVER	M R	7300-0026.0311 7300-0026.0223
48	[IAM]	INDIVIDUAL ADDRESSABLE MODULE IAM MOUNTING BRACKET TRIM PLATE FOR SURFACE MOUNTING 6.8KΩ 1/2W END OF LINE RESISTOR	SIMPLEX	4090-9001 4090-9610 4090-9807 4081-9004	SINGLE GANG 2-1/2" D W/COVER	Z	
NOTIFICATION APPLIANCES ** TAP ALL SPEAKERS AT 70.7 VOLTS **							
12	[S]WP	ADDRESSABLE WEATHERPROOF SPEAKER, WALL MOUNT, APPLIANCE ONLY APPLIANCE COVER, RED, FIRE LETTERING	SIMPLEX	4950-APPLW-0 4950C-WRFIRE-0	49WPBB-SOWR	A	7300-0026.0561
4	[S]	ADDRESSABLE STROBE, WALL MOUNT, APPLIANCE ONLY, CLEAR LENS APPLIANCE COVER, RED, FIRE LETTERING MOUNTING PLATE, RED	SIMPLEX	49V0-APPLW 49V0C-WRFIRE 49MP-AVVOVR	SINGLE GANG 1-1/2" D	A	7300-0026.0374
19	[S]#	ADDRESSABLE MULTI-CANDELA SPEAKER/STROBE, WALL MOUNT, APPLIANCE ONLY, CLEAR LENS APPLIANCE COVER, RED, FIRE LETTERING MOUNTING PLATE, RED	SIMPLEX	49SV-APPLW 49SV-CRFIRE 49MP-SOWR	4" SQ. 2-1/8" D	A S	7125-0026.0384
24	[S]#C	ADDRESSABLE MULTI-CANDELA SPEAKER/STROBE, CEILING MOUNT, APPLIANCE ONLY, CLEAR LENS APPLIANCE COVER, RED, FIRE LETTERING	SIMPLEX	49SV-APPLC 49SV-CRFIRE	4" SQ. 2-1/8" D	A S	7125-0026.0384
3	[S]	ADDRESSABLE SPEAKER, WALL MOUNT, APPLIANCE ONLY APPLIANCE COVER, RED, FIRE LETTERING MOUNTING PLATE, RED	SIMPLEX	49S0-APPLW 49V0C-WRFIRE 49MP-SOWR	4" SQ. 2-1/8" D	A S	7300-0026.0561
MISCELLANEOUS DEVICES							
3	[SS]	PARALLEL CONNECTED SURGE PROTECTIVE DEVICE	DITEK	DTK-120HV-SS	DEVICE BOX		7300-215.0192

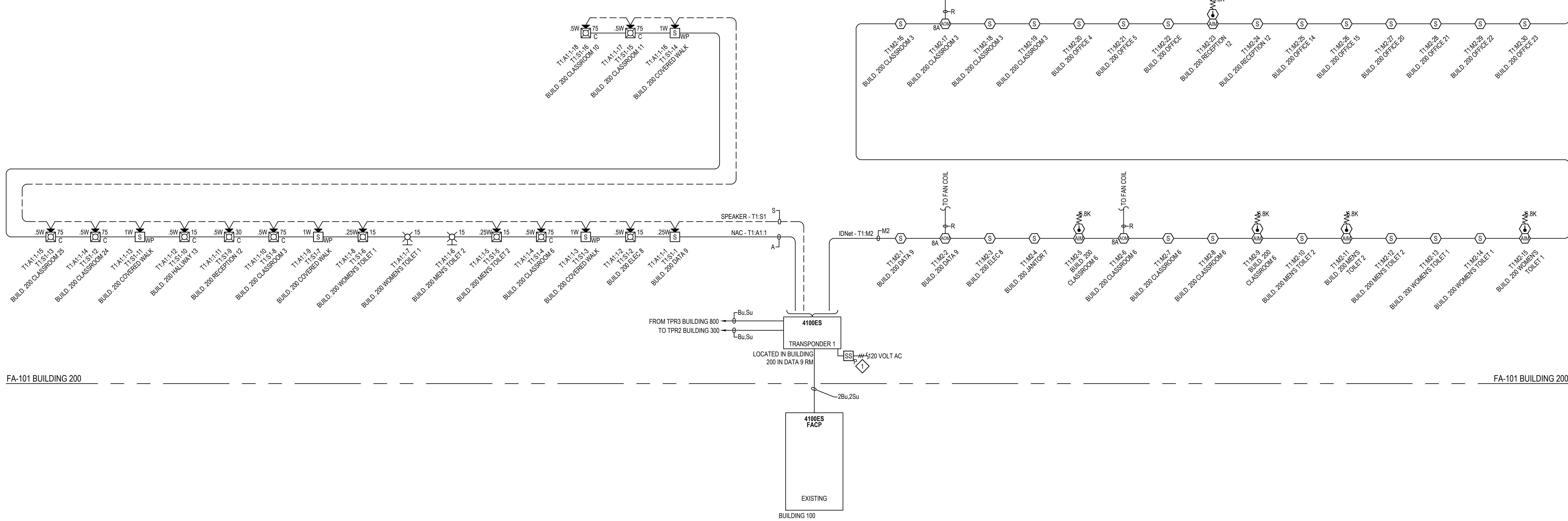
FIRE ALARM WIRE LEGEND

CIRCUIT DESCRIPTION	CONSTRUCTION	GAUGE	CIRCUIT PROPERTIES	ACCEPTABLE CABLE TYPES			
				PLR	FLP	THIN	OUTDOOR**
A ADDRESSABLE NOTIFICATION	UTP SOLID	14 AWG	60pF/ft. MAX CAPACITANCE; 3 twists/ft. MINIMUM	X	X		
B RUI + COMMUNICATION	UTP SOLID	18 AWG	60pF/ft. MAX CAPACITANCE; 3 twists/ft. MINIMUM	X	X		
Bb RUI + COMMUNICATION - OUTDOOR	STP SOLID	18 AWG	DIRECT BURIAL/UNDERGROUND IN CONDUIT/AERIAL**	X	X		
M MAPNET/IDNET	STP SOLID	18 AWG	60pF MAX TOTAL LINE CAPACITANCE	X	X		
R RELAY	2 COND. SOLID	14 AWG		X	X	X	X
S AUDIO - SPEAKER	UTP SOLID	18 AWG	60pF/ft. MAX CAPACITANCE; 3 twists/ft. RECOMMENDED	X	X		
Sd AUDIO - SPEAKER OUTDOOR	STP SOLID	18 AWG	DIRECT BURIAL/UNDERGROUND IN CONDUIT/AERIAL**	X	X		X
Z ZONE CIRCUIT	2 COND. SOLID	18 AWG		X	X	X	X

CONDUIT SIZE	MAX CONDUCTOR AREA	CONDUIT SIZE	MAX CONDUCTOR AREA
1/2"	0.122 SQ. INCH*	1-1/4"	0.388 SQ. INCH*
3/4"	0.213 SQ. INCH*	1-1/2"	0.614 SQ. INCH*
1"	0.346 SQ. INCH*	2"	1.342 SQ. INCH*

* 40% CONDUIT FILL PER N.E.C. STP = SHIELDED TWISTED PAIR

ITEMS SUCH AS CAPACITANCE BETWEEN CONDUCTORS AND WIRE GAUGE CAN BE CRUCIAL TO THE CIRCUIT DESIGN OF THIS SYSTEM. INSTALLATION, THE INSTALLING CONTRACTOR IS RESPONSIBLE FOR SELECTING AND INSTALLING CABLE MANUFACTURERS AND MODEL THAT MEETS OR EXCEEDS THE ABOVE REQUIREMENTS. RECOMMENDED CABLE MANUFACTURERS AND MODEL NUMBERS ARE AVAILABLE UPON REQUEST.



FIRE ALARM RISER - BUILDING 200

SCALE: N.T.S.

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APP. 04-118720 INC.
REVIEWED FOR
SS FLS ACS
DATE: 01.16.20

APPROVALS

RISER NOTES:

- RISER IS A DIAGRAMMATICAL REPRESENTATION OF THE SYSTEM ARCHITECTURE IN BUILDING CROSS SECTION. IT IS NOT INTENDED TO REPRESENT ACTUAL WIRE RUNS, PANEL CONFIGURATIONS OR PENETRATIONS. REFER TO FLOOR PLANS AND PANEL DETAILS FOR CIRCUIT ROUTING AND CONFIGURATION INFORMATION.
- ALL WIRING SHALL COMPLY WITH APPLICABLE ELECTRICAL CODES. REFER TO APPLICABLE CODES & STANDARDS ON SHEET FA-001 FOR SPECIFIC CODE REFERENCES.
- ALL HEAT DETECTOR TO BE PROVIDED WITH 6.8K E.O.L. RESISTOR.

KEYED NOTES:

- 120VAC PRIMARY POWER SOURCE SHALL BE A MECHANICALLY PROTECTED BRANCH CIRCUIT. THE CIRCUIT DISCONNECTING MEANS SHALL HAVE A RED MARKING, AND BE IDENTIFIED AS "FIRE ALARM CIRCUIT"

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Project Title
**IMPERIAL VALLEY COLLEGE
BUILDING 200 300 AND 800 MODERNIZATION**

Sheet Title
FIRE ALARM RISER - BUILDING 200

	Document Date 12-18-19	Project Number 19-121V
	Date Last Revised	Sheet Number FA-201

FIRE ALARM SYMBOL LEGEND

QTY	SYMBOL	DESCRIPTION	BRAND	MODEL	BACKBOX	WIRE TYPE	CSFM #
PANELS							
1	[FACP]	4100ES FIRE ALARM CONTROL PANEL, 120 VAC	SIMPLEX	4100-9111	SIMPLEX CABINET	N/A	7165-0026/0251
3	[TPRF]	4100ES TRANSPONDER FIRE ALARM LOCAL MODE TRANSPONDER PANEL, 120 VAC	SIMPLEX	4100-9601	SIMPLEX CABINET	N/A	7165-0026/0251
INITIATING DEVICES							
93	[S]	ADDRESSABLE PHOTOELECTRIC SMOKE SENSOR W/ STANDARD BASE	SIMPLEX	4088-9714 HEAD 4088-9712 BASE	4" OCT, 1-1/2" D	M	7772-0026/0118 7300-0026/0217
48	[D]	CONVENTIONAL HEAT SENSOR	THERMOTEC	302-EPM-194	THREADED HUB	Z	7270-0021/0001
MODULES AND RELAYS							
24	[8A]	8 AMP RELAY IAM	SIMPLEX	4090-9010	4" SQ. 2-1/8" D W/ DBL. GANG COVER	M	7300-0026/0311
48	[IM]	INDIVIDUAL ADDRESSABLE MODULE	SIMPLEX	4090-9001		M	7300-0026/0223
		IAM MOUNTING BRACKET	SIMPLEX	4090-9810	SINGLE GANG 2-1/2" D W/COVER	Z	
		TRIM PLATE FOR SURFACE MOUNTING	SIMPLEX	4090-9807			
		6.8KΩ 1/2W END OF LINE RESISTOR	SIMPLEX	4081-9004			
NOTIFICATION APPLIANCES ** TAP ALL SPEAKERS AT 70.7 VOLTS **							
12	[S] #	ADDRESSABLE WEATHERPROOF SPEAKER, WALL MOUNT, APPLIANCE ONLY	SIMPLEX	4950-APPLW-Q	49WPBB-SOWR	A	7300-0026/0501
		APPLIANCE COVER, RED, FIRE LETTERING	SIMPLEX	4950C-WRFIRE-G			
4	[S] #	ADDRESSABLE STROBE, WALL MOUNT, APPLIANCE ONLY, CLEAR LENS	SIMPLEX	49VC-APPLW		A	7300-0026/0374
		APPLIANCE COVER, RED, FIRE LETTERING	SIMPLEX	49VOC-WRFIRE	SINGLE GANG 1-1/2" D		
		MOUNTING PLATE, RED	SIMPLEX	49MP-AVVOWR			
19	[S] #	ADDRESSABLE MULTI-CANDELA SPEAKER/STROBE, WALL MOUNT, APPLIANCE ONLY, CLEAR LENS	SIMPLEX	49SV-APPLW		A	7125-0026/0384
		APPLIANCE COVER, RED, FIRE LETTERING	SIMPLEX	49SVC-CRFIRE	4" SQ. 2-1/8" D		
		MOUNTING PLATE, RED	SIMPLEX	49MP-SVWR			
24	[S] #	ADDRESSABLE MULTI-CANDELA SPEAKER/STROBE, CEILING MOUNT, APPLIANCE ONLY, CLEAR LENS	SIMPLEX	49SV-APPLC		A	7125-0026/0384
		APPLIANCE COVER, RED, FIRE LETTERING	SIMPLEX	49SVC-CRFIRE	4" SQ. 2-1/8" D		
3	[S] #	ADDRESSABLE SPEAKER, WALL MOUNT, APPLIANCE ONLY	SIMPLEX	4950-APPLW		A	7300-0026/0501
		APPLIANCE COVER, RED, FIRE LETTERING	SIMPLEX	49VOC-WRFIRE	4" SQ. 2-1/8" D		
		MOUNTING PLATE, RED	SIMPLEX	49MP-SOWR			
MISCELLANEOUS DEVICES							
	[W] 6.8K	END-OF-LINE RESISTOR 6.8K (EOL)	SIMPLEX	4081-9004			7300-0026/0381
	[SS]	PARALLEL CONNECTED SURGE PROTECTIVE DEVICE	DITEK	DTK-120HW-SS	DEVICE BOX		7300-215/0102

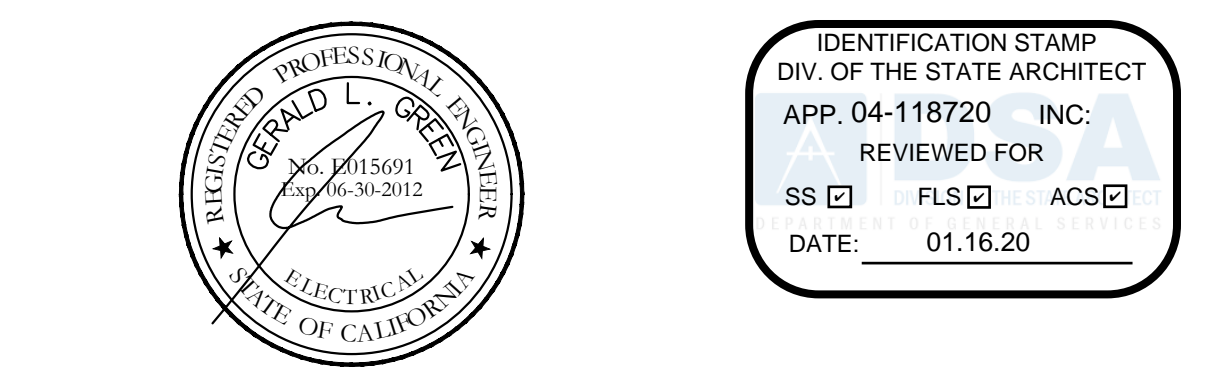
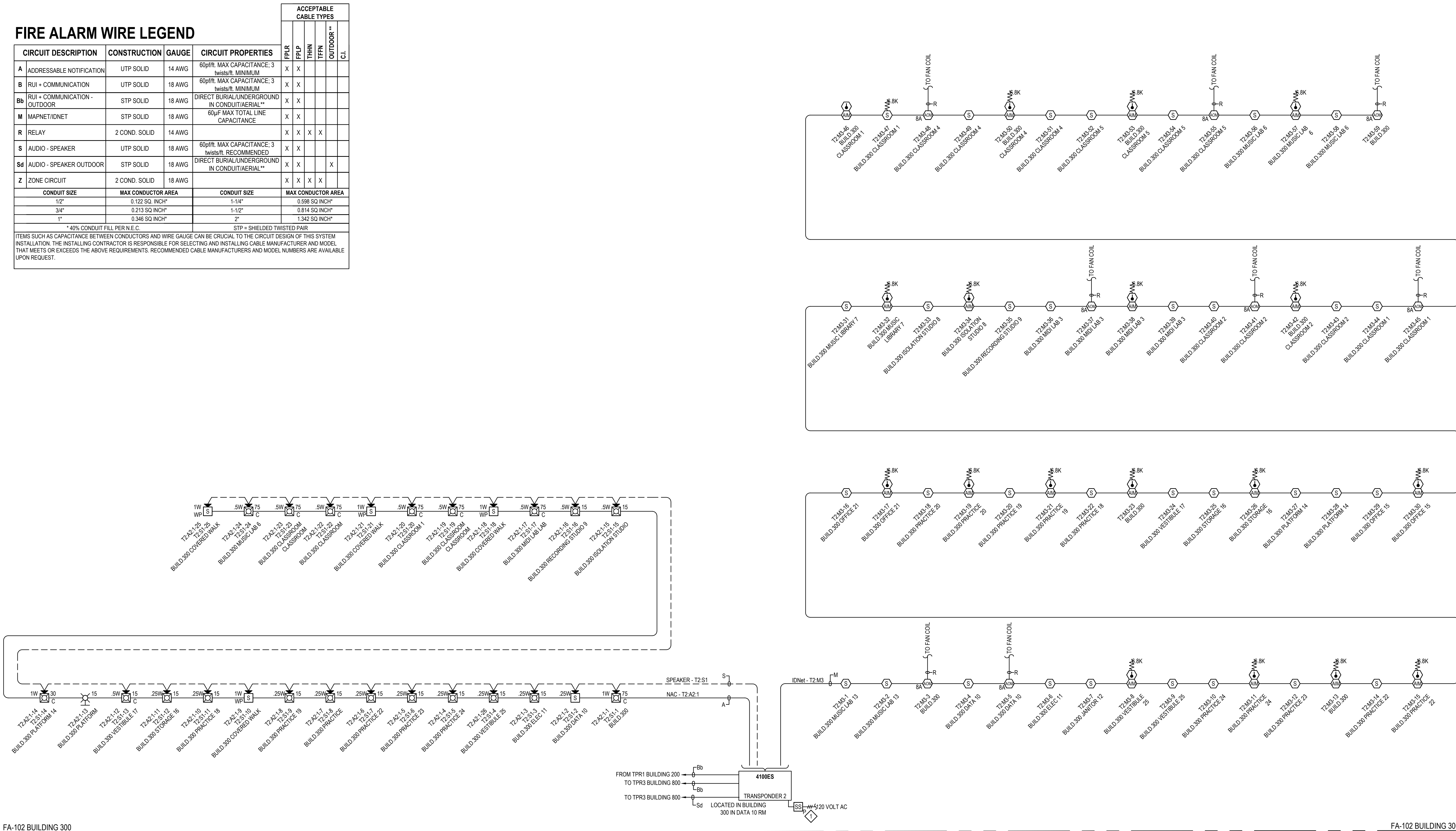
FIRE ALARM WIRE LEGEND

CIRCUIT DESCRIPTION	CONSTRUCTION	GAUGE	CIRCUIT PROPERTIES	ACCEPTABLE CABLE TYPES			
				FRB	FRP	THIN	THICK
A ADDRESSABLE NOTIFICATION	UTP SOLID	14 AWG	60pfr, MAX CAPACITANCE: 3 nadsfr, MINIMUM	X	X		
B RUI + COMMUNICATION	UTP SOLID	18 AWG	60pfr, MAX CAPACITANCE: 3 nadsfr, MINIMUM	X	X		
B# RUI + COMMUNICATION - OUTDOOR	STP SOLID	18 AWG	DIRECT BURIAL/UNDERGROUND IN CONDUIT/AERIAL**	X	X		
M MAPNET/IDNET	STP SOLID	18 AWG	60pfr MAX TOTAL LINE CAPACITANCE	X	X		
R RELAY	2 COND. SOLID	14 AWG		X	X	X	X
S AUDIO - SPEAKER	UTP SOLID	18 AWG	60pfr, MAX CAPACITANCE: 3 nadsfr, RECOMMENDED	X	X		
S# AUDIO - SPEAKER OUTDOOR	STP SOLID	18 AWG	DIRECT BURIAL/UNDERGROUND IN CONDUIT/AERIAL**	X	X		X
Z ZONE CIRCUIT	2 COND. SOLID	18 AWG		X	X	X	X

CONDUIT SIZE	MAX CONDUCTOR AREA	CONDUIT SIZE	MAX CONDUCTOR AREA
1/2"	0.122 SQ INCH*	1-1/4"	0.936 SQ INCH*
3/4"	0.213 SQ INCH*	1-1/2"	0.814 SQ INCH*
1"	0.346 SQ INCH*	2"	1.342 SQ INCH*

*40% CONDUIT FILL PER N.E.C.
STP = SHIELDED TWISTED PAIR

ITEMS SUCH AS CAPACITANCE BETWEEN CONDUCTORS AND WIRE GAUGE CAN BE CRUCIAL TO THE CIRCUIT DESIGN OF THIS SYSTEM INSTALLATION. THE INSTALLING CONTRACTOR IS RESPONSIBLE FOR SELECTING AND INSTALLING CABLE MANUFACTURER AND MODEL THAT MEETS OR EXCEEDS THE ABOVE REQUIREMENTS. RECOMMENDED CABLE MANUFACTURERS AND MODEL NUMBERS ARE AVAILABLE UPON REQUEST.



APPROVALS

- RISER NOTES:**
- RISER IS A DIAGRAMMATICAL REPRESENTATION OF THE SYSTEM ARCHITECTURE IN BUILDING CROSS SECTION. IT IS NOT INTENDED TO REPRESENT ACTUAL WIRE RUNS, PANEL CONFIGURATIONS OR PENETRATIONS. REFER TO FLOOR PLANS AND PANEL DETAILS FOR CIRCUIT ROUTING AND CONFIGURATION INFORMATION.
 - ALL WIRING SHALL COMPLY WITH APPLICABLE ELECTRICAL CODES. REFER TO APPLICABLE CODES & STANDARDS' ON SHEET FA-001 FOR SPECIFIC CODE REFERENCES.
 - ALL HEAT DETECTOR TO BE PROVIDED WITH 6.8K E.O.L. RESISTOR.
- KEYED NOTES:**
- 120VAC PRIMARY POWER SOURCE SHALL BE A MECHANICALLY PROTECTED BRANCH CIRCUIT. THE CIRCUIT DISCONNECTING MEANS SHALL HAVE A RED MARKING, AND BE IDENTIFIED AS "FIRE ALARM CIRCUIT"

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Project Title
**IMPERIAL VALLEY COLLEGE
BUILDING 200 300 AND 800 MODERNIZATION**

Sheet Title
FIRE ALARM RISER - BUILDING 300

	Document Date 12-18-19	Project Number 19-121V
	Date Last Revised	Sheet Number FA-202

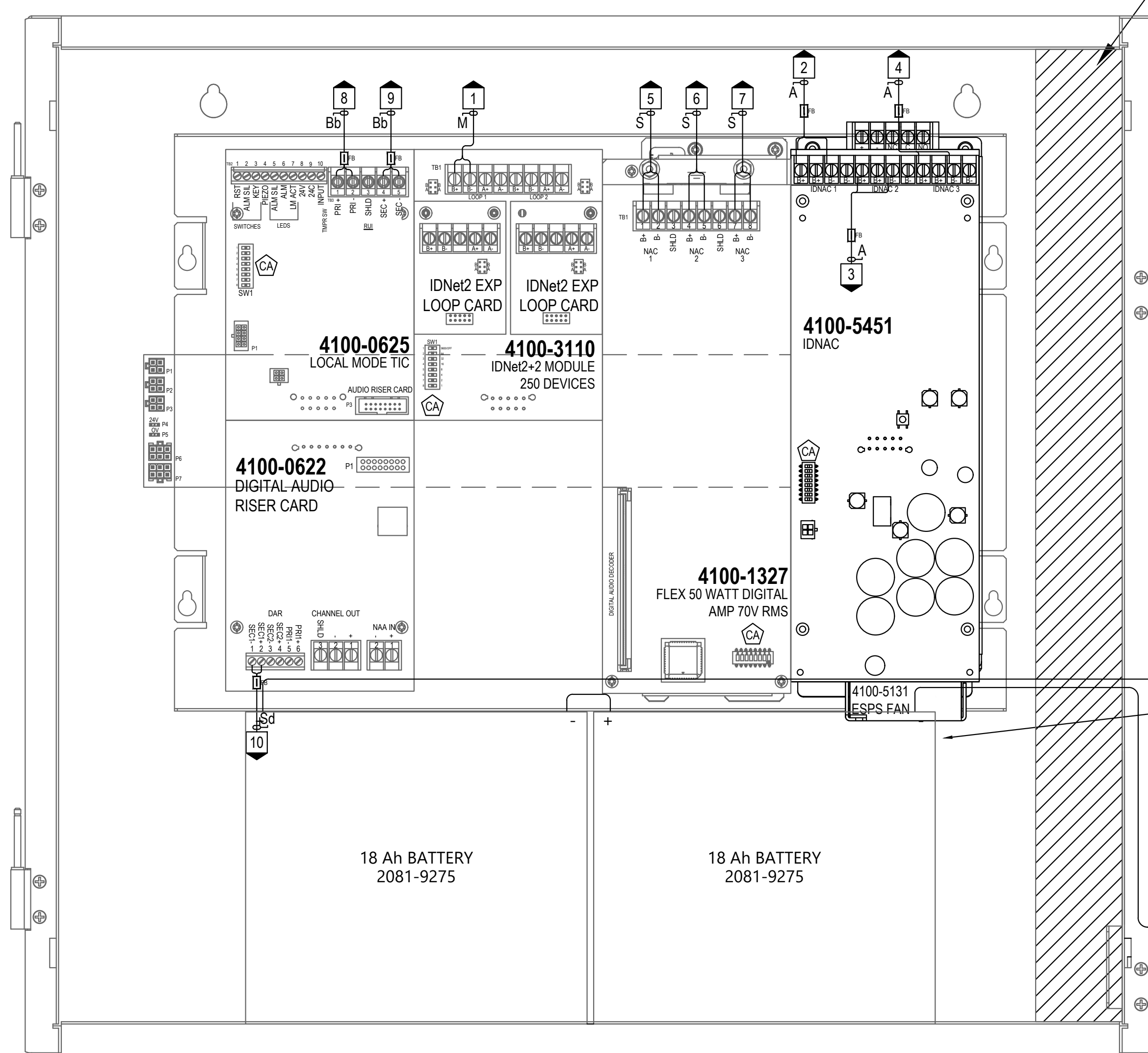
FIRE ALARM RISER - BUILDING 300
SCALE: N.T.S.



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 APP. 04-118720 INC.
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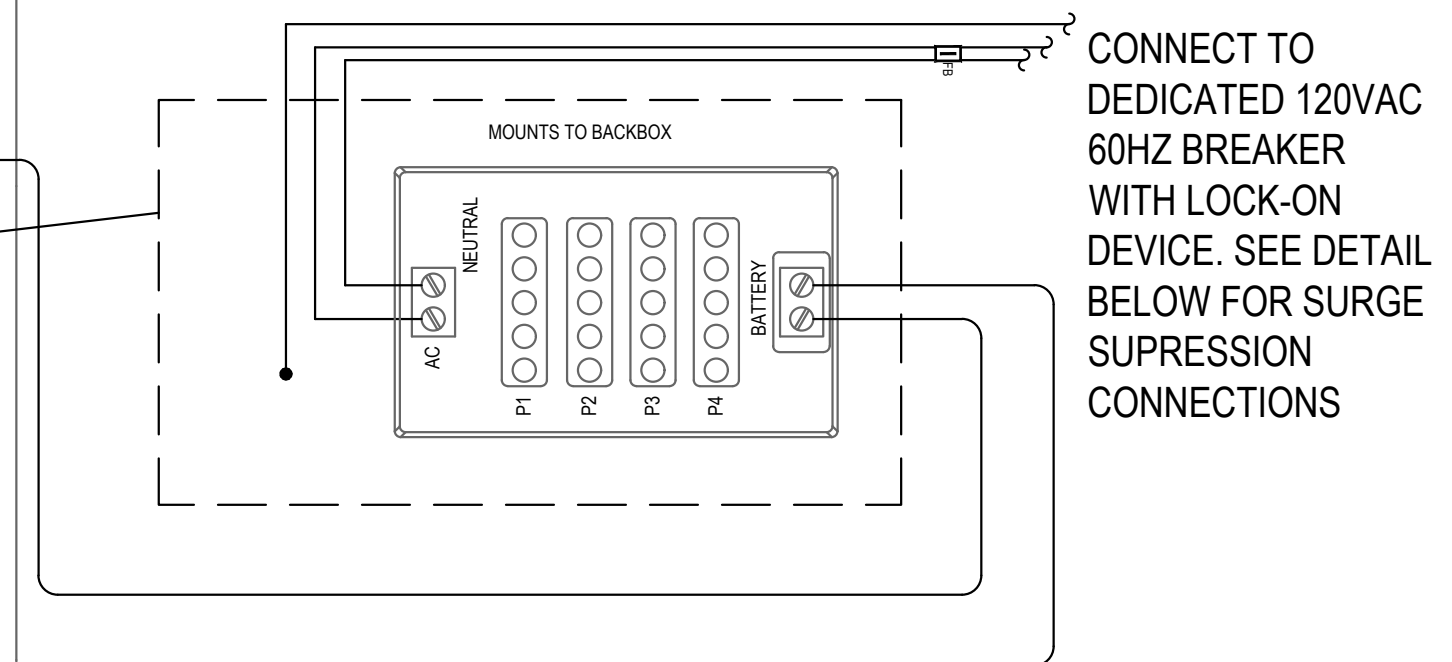
APPROVALS

DO NOT LOCATE POWER-LIMITED WIRING IN THE SHADED AREAS OF THE BACKBOX. THIS AREA IS RESERVED FOR NON-POWER LIMITED CIRCUITRY SUCH AS AC POWER, BATTERIES AND CITY CONNECTION.



BAY 1 TERMINATIONS

TERMINATION NUMBER	CIRCUIT LABEL	CKT DESCRIPTION	WIRE
1	T1:M2	TO BUILDING 200	M
2	T1:A1.1	TO BUILDING 200	A
3	T1:A1.2	SPARE	A
4	T1:A1.3	SPARE	A
5	T1:S1	TO BUILDING 200	S
6	T1:S2	SPARE	S
7	T1:S3	SPARE	S
8	Bb	FROM TPR3 BUILDING 800	Bb
9	Bb	TO TPR2 BUILDING 300	Bb
10	Sd	TO TPR2 BUILDING 300	Sd



CONNECT TO DEDICATED 120VAC 60HZ BREAKER WITH LOCK-ON DEVICE. SEE DETAIL BELOW FOR SURGE SUPPRESSION CONNECTIONS

TRANPONDER1

CABINET #1
 LOCATED IN BUILDING 200 IN DATA 9 RM

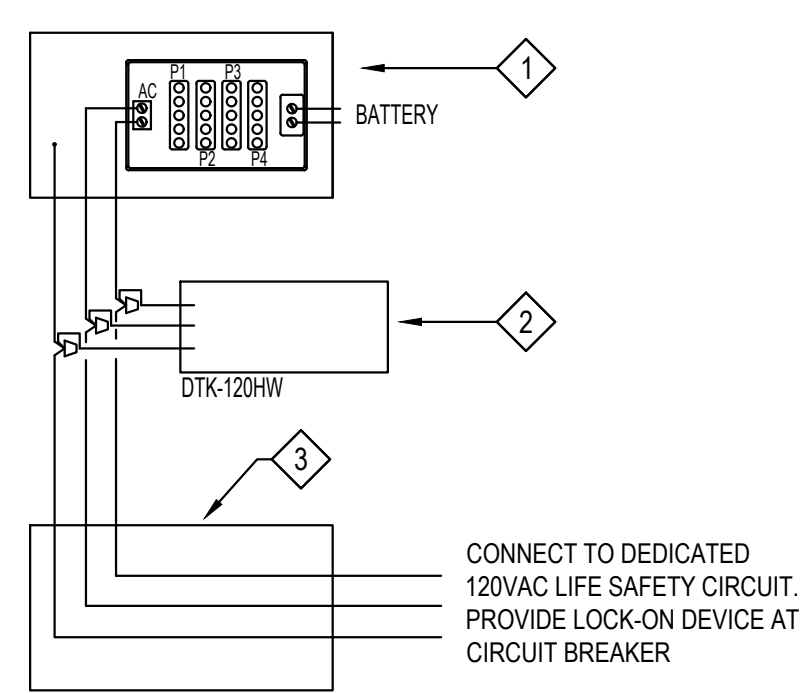
SCALE: NTS

NON-POWER LIMITED WIRING AND REQUIREMENTS

DO NOT LOCATE POWER-LIMITED WIRING IN SHADED AREAS OF THE BACKBOX. THIS AREA IS RESERVED FOR NON-POWER LIMITED WIRING SUCH AS AC POWER, BATTERIES

FIRE ALARM PANEL POWER SHALL BE TERMINATED TO A DEDICATED 120VAC PROTECTED POWER SOURCE. THE DEDICATED POWER SOURCE SHALL BE CLEARLY LABELED AT THE DISCONNECT, IN RED, "FIRE ALARM". SUCH DISCONNECTS SHALL BE ACCESSIBLE ONLY TO AUTHORIZED PERSONNEL. PROVIDE LOCK ON DEVICE FOR CB FEEDING FIRE ALARM DEVICES. ANY FIRE ALARM UNIT BEING PROVIDED POWER SHALL BE LABELED AT THE UNIT, IDENTIFYING THE LOCATION OF ITS CORRESPONDING POWER DISCONNECT.

- 1 POWER DISTRIBUTION BLOCK
- 2 DTK-120HW SURGE SUPPRESSOR MODULE
- 3 JUNCTION BOX



CONNECT TO DEDICATED 120VAC LIFE SAFETY CIRCUIT. PROVIDE LOCK-ON DEVICE AT CIRCUIT BREAKER

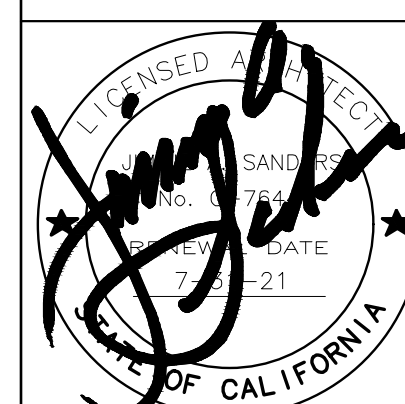
FIRE ALARM PANEL DETAIL - TPR1

SCALE: N.T.S.

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Project Title
**IMPERIAL VALLEY COLLEGE
 BUILDING 200 300 AND 800 MODERNIZATION**

Sheet Title
FIRE ALARM PANEL DETAIL - TPR1



Document Date
 12-18-19
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 Project Number
 19-12IV
 Sheet Number
FA-501



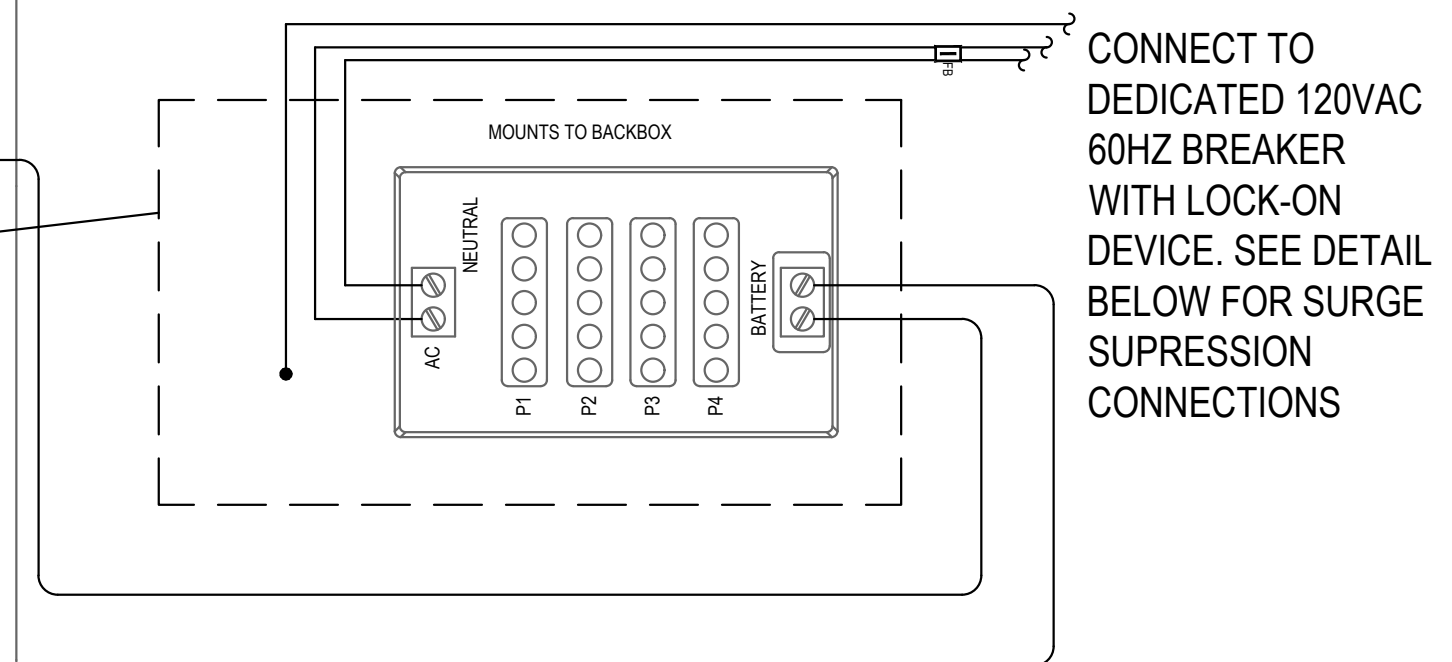
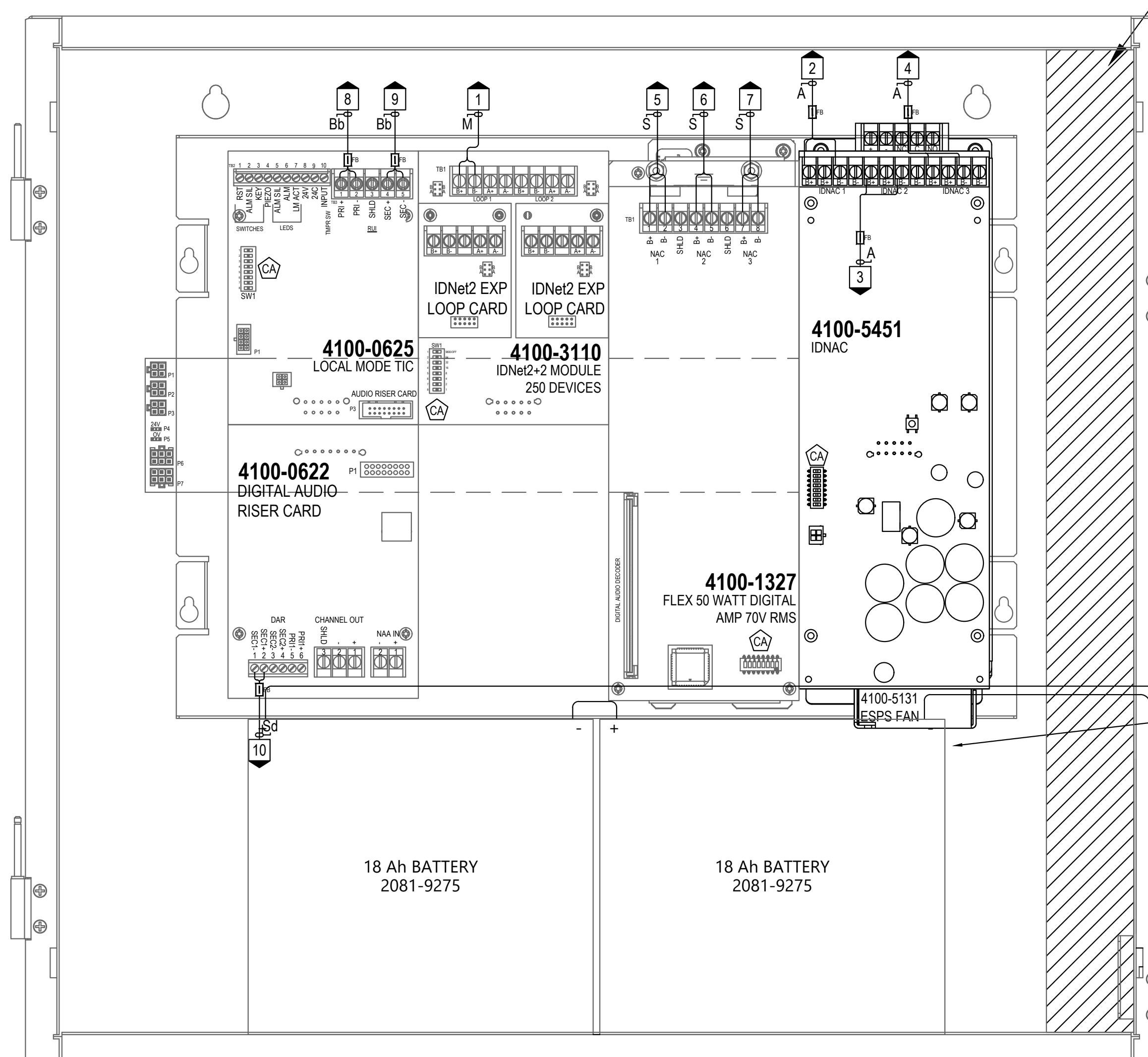
IDENTIFICATION STAMP
 DIV. OF THE STATE ARCHITECT
 APP. 04-118720 INC.
 REVIEWED FOR
 SS FLS ACS
 DATE: 01.16.20

APPROVALS

DO NOT LOCATE POWER-LIMITED WIRING IN THE SHADED AREAS OF THE BACKBOX, THIS AREA IS RESERVED FOR NON-POWER LIMITED CIRCUITRY SUCH AS AC POWER, BATTERIES AND CITY CONNECTION.

BAY 1 TERMINATIONS

TERMINATION NUMBER	CIRCUIT LABEL	CKT DESCRIPTION	WIRE
1	T2-M3	TO BUILDING 300	M
2	T2-A2.1	TO BUILDING 300	A
3	T2-A2.2	SPARE	A
4	T2-A2.3	SPARE	A
5	T2-S1	TO BUILDING 300	S
6	T2-S2	SPARE	S
7	T2-S3	SPARE	S
8	Bb	FROM TPR1 BUILDING 200	Bb
9	Bb	TO TPR3 BUILDING 800	Bb
10	Sd	TO TPR3 BUILDING 800	Sd



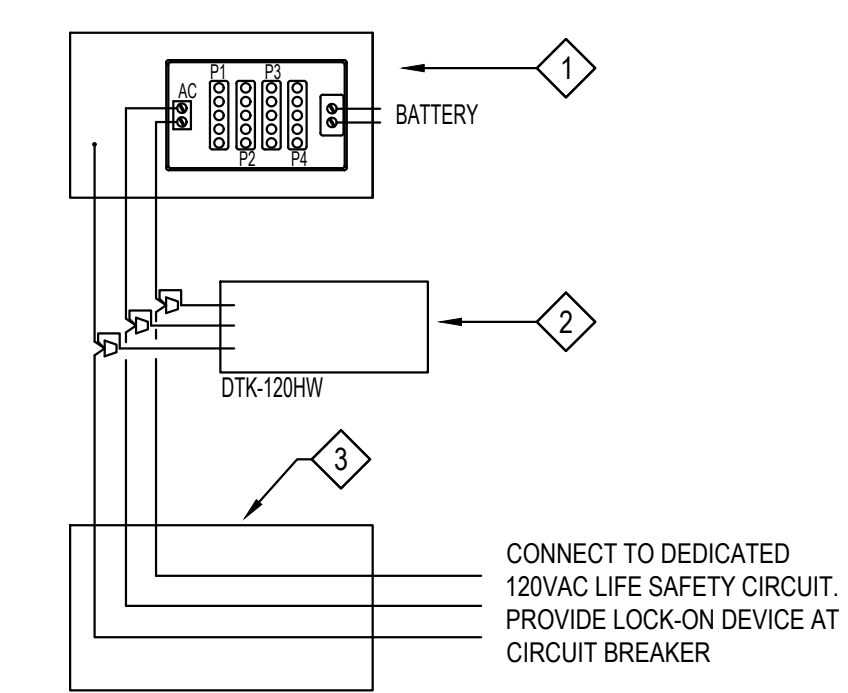
CONNECT TO DEDICATED 120VAC 60HZ BREAKER WITH LOCK-ON DEVICE. SEE DETAIL BELOW FOR SURGE SUPPRESSION CONNECTIONS

NON-POWER LIMITED WIRING AND REQUIREMENTS

DO NOT LOCATE POWER-LIMITED WIRING IN SHADED AREAS OF THE BACKBOX. THIS AREA IS RESERVED FOR NON-POWER LIMITED WIRING SUCH AS AC POWER, BATTERIES

FIRE ALARM PANEL POWER SHALL BE TERMINATED TO A DEDICATED 120VAC PROTECTED POWER SOURCE. THE DEDICATED POWER SOURCE SHALL BE CLEARLY LABELED AT THE DISCONNECT, IN RED, "FIRE ALARM". SUCH DISCONNECTS SHALL BE ACCESSIBLE ONLY TO AUTHORIZED PERSONNEL. PROVIDE LOCK ON DEVICE FOR CB FEEDING FIRE ALARM DEVICES. ANY FIRE ALARM UNIT BEING PROVIDED POWER SHALL BE LABELED AT THE UNIT, IDENTIFYING THE LOCATION OF ITS CORRESPONDING POWER DISCONNECT.

- 1 POWER DISTRIBUTION BLOCK
- 2 DTK-120HW SURGE SUPPRESSOR MODULE
- 3 JUNCTION BOX



TRANPONDER2

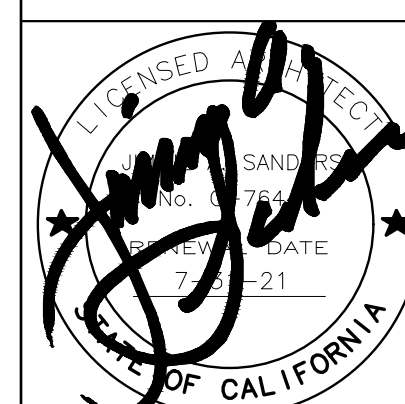
CABINET #1
 LOCATED IN BUILDING 300 IN DATA 10 RM
 SCALE: NTS

FIRE ALARM PANEL DETAIL - TPR2
 SCALE: N.T.S.

Sanders, Inc.
 Architecture/Engineering
 102 INDUSTRY WAY, SUITE A
 EL CENTRO, CA 92243
 760 353 5440 FAX 760 353 5442

Project Title
**IMPERIAL VALLEY COLLEGE
 BUILDING 200 300 AND 800 MODERNIZATION**

Sheet Title
FIRE ALARM PANEL DETAIL - TPR2



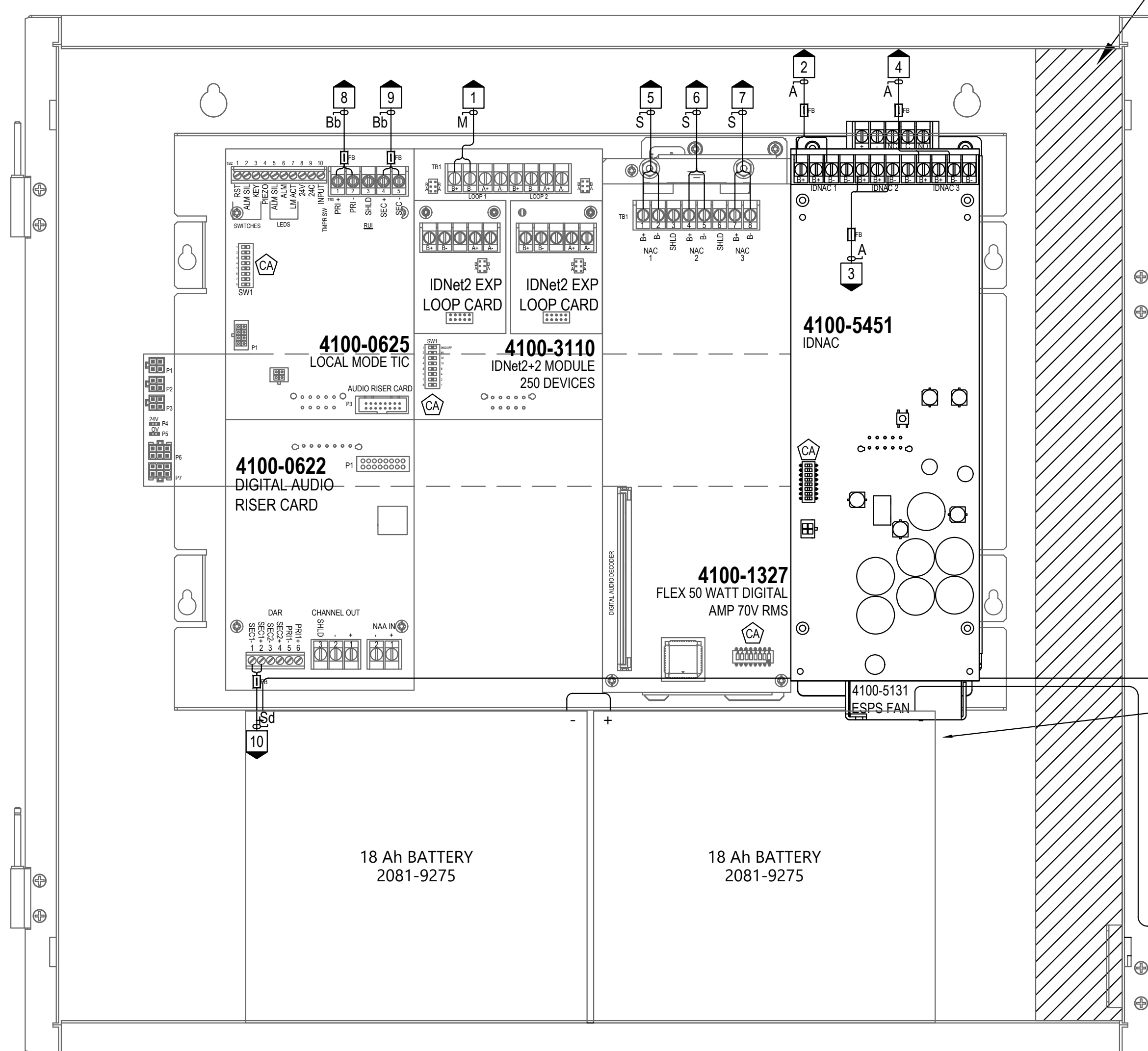
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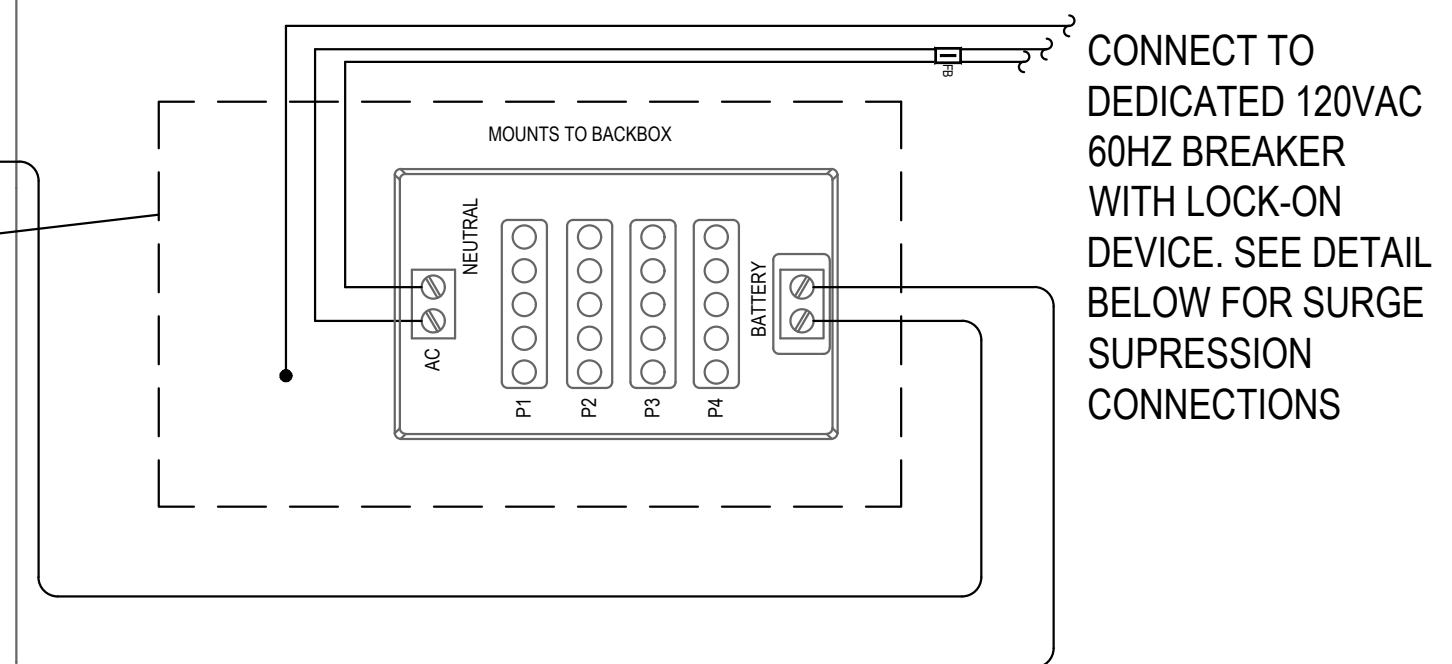
APPROVALS

DO NOT LOCATE POWER-LIMITED WIRING IN THE SHADED AREAS OF THE BACKBOX. THIS AREA IS RESERVED FOR NON-POWER LIMITED CIRCUITRY SUCH AS AC POWER, BATTERIES AND CITY CONNECTION.



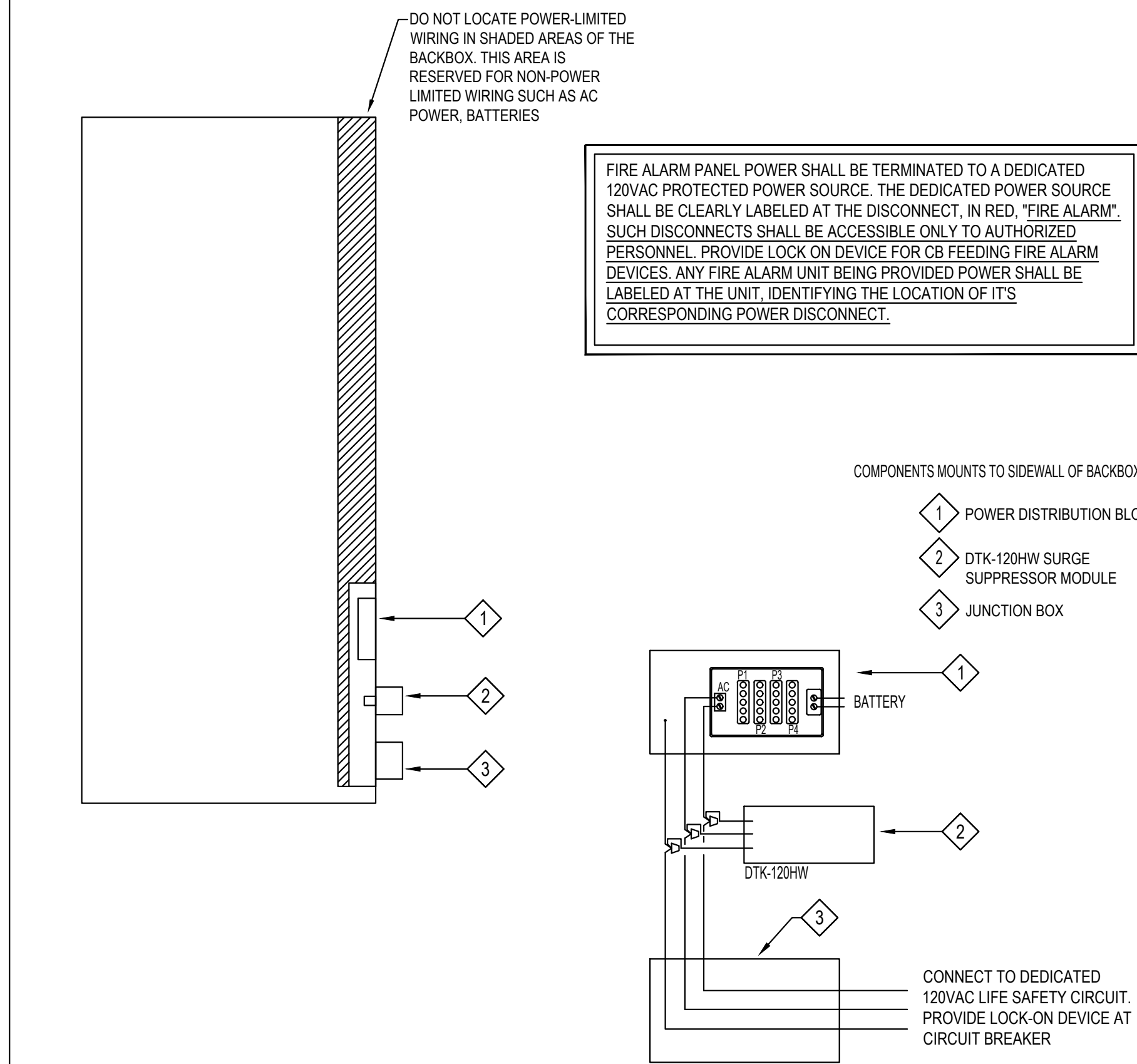
BAY 1 TERMINATIONS

TERMINATION NUMBER	CIRCUIT LABEL	CKT DESCRIPTION	WIRE
1	T3.M4	TO BUILDING 800	M
2	T3.A3.1	TO BUILDING 800	A
3	T3.A3.2	SPARE	A
4	T3.A3.3	SPARE	A
5	T3.S1	TO BUILDING 800	S
6	T3.S2	SPARE	S
7	T3.S3	SPARE	S
8	Bb	FROM TPR2 BUILDING 300	Bb
9	Bb	TO TPR1 BUILDING 200	Bb
10	Sd	TO TPR1 BUILDING 200	Sd



CONNECT TO DEDICATED 120VAC 60HZ BREAKER WITH LOCK-ON DEVICE. SEE DETAIL BELOW FOR SURGE SUPPRESSION CONNECTIONS

NON-POWER LIMITED WIRING AND REQUIREMENTS



DO NOT LOCATE POWER-LIMITED WIRING IN SHADED AREAS OF THE BACKBOX. THIS AREA IS RESERVED FOR NON-POWER LIMITED WIRING SUCH AS AC POWER, BATTERIES

FIRE ALARM PANEL POWER SHALL BE TERMINATED TO A DEDICATED 120VAC PROTECTED POWER SOURCE. THE DEDICATED POWER SOURCE SHALL BE CLEARLY LABELED AT THE DISCONNECT, IN RED, "FIRE ALARM". SUCH DISCONNECTS SHALL BE ACCESSIBLE ONLY TO AUTHORIZED PERSONNEL. PROVIDE LOCK ON DEVICE FOR CB FEEDING FIRE ALARM DEVICES. ANY FIRE ALARM UNIT BEING PROVIDED POWER SHALL BE LABELED AT THE UNIT, IDENTIFYING THE LOCATION OF ITS CORRESPONDING POWER DISCONNECT.

TRANPONDER3

CABINET #1
 LOCATED IN BUILDING 800 IN DATA 5 RM
 SCALE: NTS

FIRE ALARM PANEL DETAIL - TPR3
 SCALE: N.T.S.

Sanders, INC.
 Architecture/Engineering
 102 INDUSTRY WAY, SUITE A
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 760 353 5440 FAX 760 353 5442

Project Title
 IMPERIAL VALLEY COLLEGE
 BUILDING 200 300 AND 800 MODERNIZATION

Sheet Title
 FIRE ALARM PANEL DETAIL - TPR3

	Document Date	Project Number
	12-18-19	19-12IV
	Date Last Revised	Sheet Number
		FA-503

BUILDING 200 TRAPNSPONDER 1						
Module	Qty	Description	Standby Current	Total Standby	Alarm Current	Total Alarm
Panel Equipment						
4100-9601	1	LOCAL MODE TRANSPONDER	0.0870	0.0870	0.0870	0.0870
4100-0622	1	DIGITAL AUDIO RISER MODULE	0.0700	0.0700	0.0700	0.0700
4100-3110	1	IDNac-2-MODULE - UP TO 250 DEVICES 4 ISOLATED LOOPS	0.0500	0.0500	0.1000	0.1000
4100-1327	1	DIGITAL FLEX 50W AMP W/3 NACS - 70V	0.0850	0.0850	2.2700	2.2700
4100-5451	1	IDNAC Card	0.1240	0.1240	0.2300	0.2300
4100-5401	1	ES Power Supply Only	0.0680	0.0680	0.0770	0.0770
4100-5131	1	ES-PS Fan Module	0.0000	0.0000	0.2000	0.2000
Panel Totals				0.4840		3.0340
IDNac Addressable Devices (SLC)						
4090-9001	14	IDNET SUPERVISED IAM				
4098-9714	32	TRUEALARM PHOTO SMOKE SENSOR				
4098-9792	32	TRUEALARM SENSOR BASE				
4090-9010	8	8 AMP RELAY IAM				
IDNac Notification Appliances						
4950-APPLW-O	4	S/O WEATHERPROOF APPLIANCE ONLY WALL MOUNT	0.0008	0.0032	0.0090	0.0360
4950-APPLW	1	SPEAKER ONLY APPLIANCE WALL MOUNT	0.0008	0.0008	0.0090	0.0090
495V-APPLC	1	SV APPLIANCE ONLY CEILING MT	15	0.0008	0.0008	0.0090
495V-APPLC	1	SV APPLIANCE ONLY CEILING MT	30	0.0008	0.0008	0.0090
495V-APPLC	6	SV APPLIANCE ONLY CEILING MT	75	0.0008	0.0048	0.1450
495V-APPLW	3	SV APPLIANCE ONLY WALL MT	15	0.0008	0.0024	0.0470
495V-APPLW	2	VO APPLIANCE ONLY WALL MT	15	0.0008	0.0016	0.0470
Total IDNac Device Current:				0.0144		1.2910
IDNac Current Boost for 29vdc Regulated Output **						0.7360
Peripheral Totals				0.0000		2.0270
RUI Totals			0	0.0000		0.0000
Address Totals			54	0.0432		0.6540
System Totals:				Standby 0.5272	Alarm	5.1150

* Device Address current draw included below (See Additional Current Draws):

2. Backup Amplifier assumes Main Amplifier alarm current on failure.

Battery Set #1 (Cabinet/Charger #1)					
Select ALL Power Supplies on this battery set:					
ESPS-1	Standby Current	Standby Total	Alarm Current	Alarm Total	
ESPS-1		0.4984		4.3250	
Sub Total		0.4984		4.3250	
Additional Current Draws:					
IDNac Current Boost for 29vdc Regulated Output **					
MAPNET/IDNet Device Address Communication Current 54 x 0.000800 = 0.0432 x 0.001000 = 0.0540					
Sub Total		0.5416		5.1150	
Spare addressable point capacity 0% 0 x 0.0008 = 0.0000 x 0.001 = 0.0000					
Total		0.5416		5.1150	
Standby Time = 24 Hrs x 0.5416 = 12.9984 Standby Ah					
Alarm Time = 15 Min x 5.115 = 1.2788 Alarm Ah					
Additional Spare Battery Capacity = 0%					
Battery Discharge Factor = 20%					
Minimum Battery Required 2081-9275 18AH (2x)					
Battery Supplied 2081-9275 18AH (2x)					
*System Totals represent total system current requirements. Those currents may be distributed between multiple battery sets or power supplies as shown above.					

POWER SUPPLY SUMMARY - TRANSPONDER 1 BUILDING 200					
Module	Qty	Description	Powered By Ext. Source	Standby Current	Alarm Current
PANEL COMPONENTS POWERED BY POWER SUPPLY					
4100-9601	1	LOCAL MODE TRANSPONDER		0.0870	0.0870
4100-0622	1	DIGITAL AUDIO RISER MODULE		0.0700	0.0700
4100-3110	1	IDNac-2-MODULE - UP TO 250 DEVICES 4 ISOLATED LOOPS		0.0500	0.1000
4100-1327	1	DIGITAL FLEX 50W AMP W/3 NACS - 70V		0.0850	2.2700
4100-5451	1	IDNAC Card		0.1240	0.2300
4100-5401	1	ES Power Supply Only		0.0680	0.0770
4100-5131	1	ES-PS Fan Module		0.0000	0.2000
Components					
NAC Currents from Voltage Drops					
IDNac Current Boost for 29vdc Regulated Output **					
MAPNET/IDNet Device Addresses used					
Total				0.4984	4.3250

ESPS-1 SUMMARY			
Qty	Standby	Total	Alarm
1	0.0900	0.0900	0.0900
Total			
1	0.0870	0.0870	0.0870
1	0.0700	0.0700	0.0700
1	0.0500	0.1000	0.1000
1	0.0850	2.2700	2.2700
1	0.1240	0.2300	0.2300
1	0.0680	0.0770	0.0770
1	0.0000	0.2000	0.2000
Total		0.4840	3.0340
Total		0.1444	1.2910
Total		0.9000	0.7360
Total		0.8416	0.6520
Total		0.4984	4.3250

ESPS-1 Configuration	
Capacity:	9.500A
Chk. Capacity:	3.000A
Aux. Capacity:	2.000A

IDNET CHANNEL T2-M2	Address	Device Type	Point Type	Location Description	SWITCH SETTINGS
T2-M2-1	PHOTO	SMOKE	BUILD_200 DATA 9	2-1 X	ON
T2-M2-2	RIAM	RELAY	BUILD_200 DATA 9 FOR FAN COIL	2-2 X	ON
T2-M2-3	PHOTO	SMOKE	BUILD_200 ELEC 8	2-3 X	ON
T2-M2-4	PHOTO	SMOKE	BUILD_200 JANITOR 7	2-4 X	ON
T2-M2-5	IAM	HEAT	BUILD_200 CLASSROOM 6	2-5 X	ON
T2-M2-6	RIAM	RELAY	BUILD_200 CLASSROOM 6 FOR FAN COIL	2-6 X	ON
T2-M2-7	PHOTO	SMOKE	BUILD_200 CLASSROOM 6	2-7 X	ON
T2-M2-8	PHOTO	SMOKE	BUILD_200 CLASSROOM 6	2-8 X	ON
T2-M2-9	IAM	HEAT	BUILD_200 CLASSROOM 6	2-9 X	ON
T2-M2-10	PHOTO	SMOKE	BUILD_200 MEN'S TOILET 2	2-10 X	ON
T2-M2-11	IAM	HEAT	BUILD_200 MEN'S TOILET 2	2-11 X	ON
T2-M2-12	PHOTO	SMOKE	BUILD_200 MEN'S TOILET 2	2-12 X	ON
T2-M2-13	PHOTO	SMOKE	BUILD_200 WOMEN'S TOILET 1	2-13 X	ON
T2-M2-14	PHOTO	SMOKE	BUILD_200 WOMEN'S TOILET 1	2-14 X	ON
T2-M2-15	IAM	HEAT	BUILD_200 WOMEN'S TOILET 1	2-15 X	ON
T2-M2-16	PHOTO	SMOKE	BUILD_200 CLASSROOM 3	2-16 X	ON
T2-M2-17	RIAM	RELAY	BUILD_200 CLASSROOM 3 FOR FAN COIL	2-17 X	ON
T2-M2-18	PHOTO	SMOKE	BUILD_200 CLASSROOM 3	2-18 X	ON
T2-M2-19	PHOTO	SMOKE	BUILD_200 CLASSROOM 3	2-19 X	ON
T2-M2-20	PHOTO	SMOKE	BUILD_200 OFFICE 4	2-20 X	ON
T2-M2-21	PHOTO	SMOKE	BUILD_200 OFFICE 5	2-21 X	ON
T2-M2-22	PHOTO	SMOKE	BUILD_200 OFFICE	2-22 X	ON
T2-M2-23	IAM	HEAT	BUILD_200 RECEPTION 12	2-23 X	ON
T2-M2-24	PHOTO	SMOKE	BUILD_200 RECEPTION 12	2-24 X	ON
T2-M2-25	PHOTO	SMOKE	BUILD_200 OFFICE 14	2-25 X	ON
T2-M2-26	PHOTO	SMOKE	BUILD_200 OFFICE 15	2-26 X	ON
T2-M2-27	PHOTO	SMOKE	BUILD_200 OFFICE 20	2-27 X	ON
T2-M2-28	PHOTO	SMOKE	BUILD_200 OFFICE 21	2-28 X	ON
T2-M2-29	PHOTO	SMOKE	BUILD_200 OFFICE 22	2-29 X	ON
T2-M2-30	PHOTO	SMOKE	BUILD_200 OFFICE 23	2-30 X	ON
T2-M2-31	RIAM	RELAY	BUILD_200 HALLWAY 13 FOR FAN COIL	2-31 X	ON
T2-M2-32	PHOTO	SMOKE	BUILD_200 OFFICE 16	2-32 X	ON
T2-M2-33	PHOTO	SMOKE	BUILD_200 OFFICE 17	2-33 X	ON
T2-M2-34	PHOTO	SMOKE	BUILD_200 HALLWAY 13	2-34 X	ON
T2-M2-35	PHOTO	SMOKE	BUILD_200 OFFICE 18	2-35 X	ON
T2-M2-36	IAM	HEAT	BUILD_200 HALLWAY 13	2-36 X	ON
T2-M2-37	IAM	HEAT	BUILD_200 CLASSROOM 24	2-37 X	ON
T2-M2-38	RIAM	RELAY	BUILD_200 CLASS RM 24 FOR FAN COIL	2-38 X	ON
T2-M2-39	PHOTO	SMOKE	BUILD_200 CLASSROOM 24	2-39 X	ON
T2-M2-40	PHOTO	SMOKE	BUILD_200 CLASSROOM 24	2-40 X	ON
T2-M2-41	IAM	HEAT	BUILD_200 CLASSROOM 24	2-41 X	ON
T2-M2-42	IAM	HEAT	BUILD_200 CLASSROOM 25	2-42 X	ON
T2-M2-43	RIAM	RELAY	BUILD_200 CLASS RM 25 FOR FAN COIL	2-43 X	ON
T2-M2-44	PHOTO	SMOKE	BUILD_200 CLASSROOM 25	2-44 X	ON
T2-M2-45	PHOTO	SMOKE	BUILD_200 CLASSROOM 11	2-45 X	ON
T2-M2-46	IAM	HEAT	BUILD_200 CLASSROOM 11	2-46 X	ON
T2-M2-47	RIAM	RELAY	BUILD_200 CLASS RM 11 FOR FAN COIL	2-47 X	ON
T2-M2-48	IAM	HEAT	BUILD_200 CLASSROOM 10	2-48 X	ON
T2-M2-49	PHOTO	SMOKE	BUILD_200 CLASSROOM 10	2-49 X	ON
T2-M2-50	PHOTO	SMOKE	BUILD_200 CLASSROOM 10	2-50 X	ON
T2-M2-51	IAM	HEAT	BUILD_200 CLASSROOM 10	2-51 X	ON
T2-M2-52	RIAM	RELAY	BUILD_200 CLASS RM 10 FOR FAN COIL	2-52 X	ON
T2-M2-53	IAM	HEAT	BUILD_200 CLASS RM 3	2-53 X	ON
T2-M2-54	IAM	HEAT	BUILD_200 OFFICE 4	2-54 X	ON
T2-M2-250		SPARE		2-250 X	ON

NOTE: THE LABELS SHOWN ABOVE WILL BE USED FOR PROGRAMMING PURPOSES. THE LABELS ARE BASED UPON INFORMATION SHOWN ON THE ARCHITECTURAL DRAWINGS. ANY CHANGES TO THESE LABELS MUST BE NOTED ON THE SUBMITTAL REVIEW, PRIOR TO PROGRAMMING. POINTS SHOWN IN ITALIC TEXT REFER TO EXISTING DEVICES.

BUILDING 200 - IDNAC-1 CIRCUIT SUMMARY & VOLTAGE DROP						
Channel	Description	Alarm Current	% Drop	Unit Load*	Wire Length	Spare Current
T1:A1-1	TO BUILDING 200	1.291A	10.66%	18	650	57%
T1:A1-2	SPARE	0.000A	0.00%	0	0	100%
T1:A1-3	SPARE	0.000A	0.00%	0	0	100%

T1:A1-1 Notification SLC Distributed Load Voltage Drop											
Starting Voltage: 29vdc		Min. Device Voltage: 23 vdc		Allowable % Drop: 20.7%		Primary Wire Gauge: 14ga		Wire Res. Per Ft.: 0.003070		@ 75° Celsius	
Home Run Wire Gauge: 14ga		Wire Res. Per Ft.: 0.003070		@ 75° Celsius		Wire Res. Per Ft.: 0.003070		@ 75° Celsius			
Class B Calculations											
Assoc. SPK Circuit	Branch	Device #	From	Distance (feet)	PID	Setting	Device Current	Voltage at Device	Voltage Drop	Voltage at Device	% Vdrop
n/a	1	T1:A1-1-1	PANEL	50	4950-APPLW	15cd	0.0090	1.291	0.396	28.004	Branch 1: 10.56%
n/a	1	T1:A1-1-2	T1:A1-1-1	12	495V-APPLW	15cd	0.0470	1.282	0.094	28.509	Length: 650
n/a	1	T1:A1-1-3	T1:A1-1-2	29	4950-APPLW-O	75cd	0.0090	1.235	0.220	27.889	
n/a	1	T1:A1-1-4	T1:A1-1-3	52	495V-APPLC	75cd	0.1450	1.226	0.391	27.288	
n/a	1	T1:A1-1-5	T1:A1-1-4	35	495V-APPLW	15cd	0.0470	1.081	0.222	27.666	
n/a	1	T1:A1-1-6	T1:A1-1-5	26	495V-APPLW	15cd	0.0470	1.034	0.165	27.500	
n/a	1	T1:A1-1-7	T1:A1-1-6	23	495V-APPLW	15cd	0.0470	0.987	0.139	27.361	
n/a	1	T1:A1-1-8	T1:A1-1-7	24	495V-APPLW	15cd	0.0470	0.940	0.139	27.223	
n/a	1	T1:A1-1-9	T1:A1-1-8	32	4950-APPLW-O	75cd	0.0090	0.893	0.175	27.047	
n/a	1	T1:A1-1-10	T1:A1-1-9	34	495V-APPLC	75cd	0.1450	0.884	0.185	26.863	
n/a	1	T1:A1-1-11	T1:A1-1-10	45	495V-APPLC	30cd	0.0820	0.739	0.204	26.658	
n/a	1	T1:A1-1-12	T1:A1-1-11	39	495V-APPLC	15cd	0.0590	0.657	0.157	26.501	
n/a	1	T1:A1-1-13	T1:A1-1-12	32	4950-APPLW-O	75cd	0.0090	0.598	0.117	26.384	
n/a	1	T1:A1-1-14	T1:A1-1-13	45	495V-APPLC	75cd	0.1450	0.589	0.163	26.221	
n/a	1	T1:A1-1-15	T1:A1-1-14	44	495V-APPLC	75cd	0.1450	0.444	0.120	26.101	
n/a	1	T1:A1-1-16	T1:A1-1-15	42	4950-APPLW-O	75cd	0.0090	0.299	0.077	26.024	
n/a	1	T1:A1-1-17	T1:A1-1-16	42	495V-APPLC	75cd	0.1450	0.290	0.075	25.949	
n/a	1	T1:A1-1-18	T1:A1-1-17	44	495V-APPLC	75cd	0.1450	0.145	0.039	25.910	

T1:A1-1 TRUEALERT POWER SUPPLY - CHANNEL 1											
IDNac Address	Device Type	PID	Setting	Custom Label (Max 40 Characters)	SWITCH SETTINGS	Existing?					
T1:A1-1-1	SO	4950-APPLW	15cd	BUILD_200 DATA 9	1-1 X	ON No					
T1:A1-1-2	SV	495V-APPLW	15cd	BUILD_200 ELEC 8	1-1-1 X	ON No					
T1:A1-1-3	SO	4950-APPLW-O	75cd	BUILD_200 COVERED WALK	1-1-1 X	ON No					
T1:A1-1-4	SV	495V-APPLC	75cd								

Module	Qty	Description	Standby Current	Total Standby	Alarm Current	Total Alarm
BUILDING 300 4100es XPDR						
Panel Equipment						
4100-8601	1	LOCAL MODE TRANSDUCER	0.0870	0.0870	0.0870	0.0870
4100-0622	1	DIGITAL AUDIO RISER MODULE	0.0700	0.0700	0.0700	0.0700
4100-3110	1	IDNet2-2 MODULE - UP TO 250 DEVICES 4 ISOLATED LOOPS	0.0500	0.0500	0.1000	0.1000
4100-1327	1	DIGITAL FLEX 50W AMP W/3 NACS - 70V	0.0850	0.0850	2.2700	2.2700
4100-5451	1	IDNAC Card	0.1240	0.1240	0.2300	0.2300
4100-5401	1	ES Power Supply Only	0.0680	0.0680	0.0770	0.0770
4100-5131	1	ES-PS Fan Module	0.0000	0.0000	0.2000	0.2000
Panel Totals				0.4840		3.0340
IDNet Addressable Devices (SLC)						
4090-9001	18	IDNET SUPERVISED IAM				
4098-9714	33	TRUEALARM PHOTO SMOKE SENSOR				
4098-9792	33	TRUEALARM SENSOR BASE				
4090-9010	8	8 AMP RELAY IAM				
IDNac Notification Appliances						
Setting						
4950-APPLW-O	4	S/O WEATHERPROOF APPLANCE ONLY, WALL MOUNT	0.0008	0.0032	0.0090	0.0360
4950-APPLW	1	SPEAKER ONLY APPLANCE WALL MOUNT	0.0008	0.0008	0.0090	0.0090
495V-APPLC	1	SV APPLANCE ONLY, CEILING MT	15	0.0008	0.0008	0.0590
495V-APPLC	1	SV APPLANCE ONLY, CEILING MT	30	0.0008	0.0008	0.0820
495V-APPLC	1	SV APPLANCE ONLY, CEILING MT	75	0.0008	0.0056	1.1050
495V-APPLW	10	SV APPLANCE ONLY, WALL MT	15	0.0008	0.0080	0.4700
49V0-WRF	1	VO, WALL MT, RED, FIRE LABEL	15	0.0008	0.0008	0.0470
Total IDNac Device Current:				0.0200		1.7180
IDNac Current Boost for 29vdc Regulated Output**						0.9795
Peripheral Totals				0.0000		2.6975
RUI Totals				0.0000		0.0000
Address Totals				0.0472		0.0590
System Totals:				0.5312		5.7905

* Device Address current draw included below (See Additional Current Draws):

2. Backup Amplifier assumes Main Amplifier alarm current on failure.

Battery Set #1 (Cabinet/Charger #1)	Current	Standby Total	Alarm Current	Alarm Total
Select ALL Power Supplies on this battery set:				
ESPS-1		0.5040		4.7520
Sub Total				
		0.5040		4.7520
Additional Current Draws:				
IDNac Current Boost for 29vdc Regulated Output**				
MAPNET/IDNet Device Address Communication Current	59	x 0.000800	= 0.0472	x 0.001000 = 0.0590
Sub Total				
		0.5512		5.7905
Total				
		0.5512		5.7905
Spare addressable point capacity				
0%	0	x 0.0008	= 0.0000	x 0.001 = 0.0000
Total				
		0.5512		5.7905
Standby Time				
24 Hrs	x 0.5512	= 13.2288	Standby Ah	
Alarm Time				
15 Min	0.25 x 5.7905	= 1.4476	Alarm Ah	
Additional Spare Battery Capacity				
0%				
Battery Discharge Factor = 20%				
Minimum Battery Required 2081-9275 18AH (2x)				
Battery Supplied 2081-9275 18AH (2x)				
System Totals represent total system current requirements. Those currents may be distributed between multiple battery sets or power supplies as shown above.				

POWER SUPPLY SUMMARY - TRANSDUCER 2 BUILDING 300

Module	Qty	Description	Powered By	Standby Current	Alarm Current
PANEL COMPONENTS POWERED BY POWER SUPPLY					
4100-8601	1	LOCAL MODE TRANSDUCER	24Vdc Aux Totals	0.0870	0.0870
4100-0622	1	DIGITAL AUDIO RISER MODULE		0.0700	0.0700
4100-3110	1	IDNet2-2 MODULE - UP TO 250 DEVICES 4 ISOLATED LOOPS		0.0500	0.1000
4100-1327	1	DIGITAL FLEX 50W AMP W/3 NACS - 70V		0.0850	2.2700
4100-5451	1	IDNAC Card		0.1240	0.2300
4100-5401	1	ES Power Supply Only		0.0680	0.0770
4100-5131	1	ES-PS Fan Module		0.0000	0.2000
Components					
NAC Currents from Voltage Drops					
IDNac Current Boost for 29vdc Regulated Output**					
MAPNET/IDNet Device Addresses used					
Total					
				0.5040	4.7520

ESPS-1 SUMMARY			
Qty	Standby	Alarm	Total
	0.0000	0.0000	0.0000
1	0.0870	0.0870	0.0870
1	0.0700	0.0700	0.0700
1	0.0500	0.1000	0.1500
1	0.0850	2.2700	2.3550
1	0.1240	0.2300	0.3540
1	0.0680	0.0770	0.1450
1	0.0000	0.2000	0.2000
0.4840 3.0340			
0.0200 1.7180			
0.0000 0.9795			
59 0.0472 0.0590			
Total 0.5040 4.7520			
ESPS-1 Configuration			
Capacity: 9.500A			
Ckt. Capacity: 3.000A			
Aux. Capacity: 2.000A			

IDNET CHANNEL T2-M3		ADDRESSES IN USE: 59 (23.6%) SPARE ADDRESSES: 191 (76.4%)		SWITCH SETTINGS								
Address	Device Type	Point Type	Location Description	1	2	3	4	5	6	7	8	9
T2-M3-1	PHOTO	SMOKE	BUILD.300 MUSIC LAB 13	3-1	X							ON
T2-M3-2	PHOTO	SMOKE	BUILD.300 MUSIC LAB 13	3-2	X							ON
T2-M3-3	RIAM	RELAY	BUILD.300 FOR FAN COIL	3-3	X							ON
T2-M3-4	PHOTO	SMOKE	BUILD.300 DATA 10	3-4	X							ON
T2-M3-5	RIAM	RELAY	BUILD.300 DATA 10 FOR FAN COIL	3-5	X							ON
T2-M3-6	PHOTO	SMOKE	BUILD.300 ELEC 11	3-6	X							ON
T2-M3-7	PHOTO	SMOKE	BUILD.300 JANITOR 12	3-7	X	X						ON
T2-M3-8	IAM	HEAT	BUILD.300 VESTIBULE 25	3-8			X					ON
T2-M3-9	PHOTO	SMOKE	BUILD.300 VESTIBULE 25	3-9	X		X					ON
T2-M3-10	PHOTO	SMOKE	BUILD.300 PRACTICE 24	3-10	X	X						ON
T2-M3-11	IAM	HEAT	BUILD.300 PRACTICE 24	3-11	X	X	X					ON
T2-M3-12	PHOTO	SMOKE	BUILD.300 PRACTICE 23	3-12	X	X						ON
T2-M3-13	IAM	HEAT	BUILD.300 PRACTICE 23	3-13	X	X	X					ON
T2-M3-14	PHOTO	SMOKE	BUILD.300 PRACTICE 22	3-14	X	X	X					ON
T2-M3-15	IAM	HEAT	BUILD.300 PRACTICE 22	3-15	X	X	X					ON
T2-M3-16	PHOTO	SMOKE	BUILD.300 OFFICE 21	3-16			X					ON
T2-M3-17	IAM	HEAT	BUILD.300 OFFICE 21	3-17	X		X					ON
T2-M3-18	PHOTO	SMOKE	BUILD.300 PRACTICE 20	3-18	X	X						ON
T2-M3-19	IAM	HEAT	BUILD.300 PRACTICE 20	3-19	X	X	X					ON
T2-M3-20	PHOTO	SMOKE	BUILD.300 PRACTICE 19	3-20		X	X					ON
T2-M3-21	IAM	HEAT	BUILD.300 PRACTICE 19	3-21	X	X	X					ON
T2-M3-22	PHOTO	SMOKE	BUILD.300 PRACTICE 18	3-22	X	X	X					ON
T2-M3-23	IAM	HEAT	BUILD.300 PRACTICE 18	3-23	X	X	X	X				ON
T2-M3-24	PHOTO	SMOKE	BUILD.300 VESTIBULE 17	3-24			X	X				ON
T2-M3-25	PHOTO	SMOKE	BUILD.300 STORAGE 16	3-25	X	X	X					ON
T2-M3-26	IAM	HEAT	BUILD.300 STORAGE 16	3-26	X	X	X	X				ON
T2-M3-27	PHOTO	SMOKE	BUILD.300 PLATFORM 14	3-27	X	X	X	X				ON
T2-M3-28	PHOTO	SMOKE	BUILD.300 PLATFORM 14	3-28		X	X	X				ON
T2-M3-29	PHOTO	SMOKE	BUILD.300 OFFICE 15	3-29	X	X	X	X				ON
T2-M3-30	IAM	HEAT	BUILD.300 OFFICE 15	3-30	X	X	X	X				ON
T2-M3-31	PHOTO	SMOKE	BUILD.300 MUSIC LIBRARY 7	3-31	X	X	X	X				ON
T2-M3-32	IAM	HEAT	BUILD.300 MUSIC LIBRARY 7	3-32			X					ON
T2-M3-33	PHOTO	SMOKE	BUILD.300 ISOLATION STUDIO 9	3-33	X		X					ON
T2-M3-34	IAM	HEAT	BUILD.300 ISOLATION STUDIO 9	3-34	X	X	X					ON
T2-M3-35	PHOTO	SMOKE	BUILD.300 RECORDING STUDIO 9	3-35	X	X	X	X				ON
T2-M3-36	PHOTO	SMOKE	BUILD.300 MIDI LAB 3	3-36	X	X	X	X				ON
T2-M3-37	RIAM	RELAY	BUILD.300 MIDI LAB 3 FOR FAN COIL	3-37	X	X	X	X				ON
T2-M3-38	IAM	HEAT	BUILD.300 MIDI LAB 3	3-38	X	X	X	X				ON
T2-M3-39	PHOTO	SMOKE	BUILD.300 MIDI LAB 3	3-39	X	X	X	X				ON
T2-M3-40	PHOTO	SMOKE	BUILD.300 CLASSROOM 2	3-40			X	X				ON
T2-M3-41	RIAM	RELAY	BUILD.300 CLASSROOM 2 FOR FAN COIL	3-41	X	X	X	X				ON
T2-M3-42	IAM	HEAT	BUILD.300 CLASSROOM 2	3-42	X	X	X	X				ON
T2-M3-43	PHOTO	SMOKE	BUILD.300 CLASSROOM 2	3-43	X	X	X	X				ON
T2-M3-44	PHOTO	SMOKE	BUILD.300 CLASSROOM 1	3-44	X	X	X	X				ON
T2-M3-45	RIAM	RELAY	BUILD.300 CLASSROOM 1 FOR FAN COIL	3-45	X	X	X	X				ON
T2-M3-46	IAM	HEAT	BUILD.300 CLASSROOM 1	3-46	X	X	X	X				ON
T2-M3-47	PHOTO	SMOKE	BUILD.300 CLASSROOM 1	3-47	X	X	X	X				ON
T2-M3-48	RIAM	RELAY	BUILD.300 CLASSROOM 4 FOR FAN COIL	3-48			X	X				ON
T2-M3-49	PHOTO	SMOKE	BUILD.300 CLASSROOM 4	3-49	X		X	X				ON
T2-M3-50	IAM	HEAT	BUILD.300 CLASSROOM 4	3-50	X	X	X	X				ON
T2-M3-51	PHOTO	SMOKE	BUILD.300 CLASSROOM 4	3-51	X	X	X	X				ON
T2-M3-52	PHOTO	SMOKE	BUILD.300 CLASSROOM 5	3-52	X	X	X	X				ON
T2-M3-53	IAM	HEAT	BUILD.300 CLASSROOM 5	3-53	X	X	X	X				ON
T2-M3-54	PHOTO	SMOKE	BUILD.300 CLASSROOM 5	3-54	X	X	X	X				ON
T2-M3-55	RIAM	RELAY	BUILD.300 CLASSROOM 5 FOR FAN COIL	3-55	X	X	X	X				ON
T2-M3-56	PHOTO	SMOKE	BUILD.300 MUSIC LAB 6	3-56		X	X	X				ON
T2-M3-57	IAM	HEAT	BUILD.300 MUSIC LAB 6	3-57	X	X	X	X				ON
T2-M3-58	PHOTO	SMOKE	BUILD.300 MUSIC LAB 6	3-58	X	X	X	X				ON
T2-M3-59	RIAM	RELAY	BUILD.300 FOR FAN COIL	3-59	X	X	X	X				ON
T2-M3-249			SPARE	3-249	X	X	X	X	X			ON
THRU												
T2-M3-250			SPARE	3-250	X	X	X	X	X			ON

NOTE: THE LABELS SHOWN ABOVE WILL BE USED FOR PROGRAMMING PURPOSES. THE LABELS ARE BASED UPON INFORMATION SHOWN ON THE ARCHITECTURAL DRAWINGS. ANY CHANGES TO THESE LABELS MUST BE NOTED ON THE SUBMITTAL REVIEW, PRIOR TO PROGRAMMING. POINTS SHOWN IN ITALIC TEXT REFER TO EXISTING DEVICES.

Channel	Description	Alarm Current	% Drop	Unit Load*	Wire Length	Spare Current	Spare VoltageDrop
T2-A2-1	TO BUILDING 300	1.718A	15.39%	25	763	43%	26%
T2-A2-2	SPARE	0.000A	0.00%	0	0	100%	100%
T2-A2-3	SPARE	0.000A	0.00%	0	0	100%	100%

T2-A2-1		Notification SLC Distributed Load Voltage Drop	
Starting Voltage:	29vdc	Primary Wire Gauge:	14ga
Min. Device Voltage:	23.vdc	Home Run Wire Gauge:	14ga
Allowable % Drop:	20.7%	Wire Res. Per Ft.:	0.003070 @ 75° Celsius
		Wire Res. Per Ft.:	0.003070 @ 75° Celsius

T2-A2: TRUEALERT POWER SUPPLY - CHANNEL 1		SWITCH SETTINGS	
IDNac Address	Device Type	Setting	Existing?
T2-A2-1-1	SV	495V-APPLC 75cd	BUILD.300 2-A2-1-1 X
T2-A2-1-2	SO	4950-APPLW	BUILD.300 DATA 10 2-A2-1-2 X
T2-A2-1-3	SV	495V-APPLW 15cd	BUILD.300 ELEC 11 2-A2-1-3 X
T2-A2-1-4	SV	495V-APPLW 15cd	BUILD.300 PRACTICE 24 2-A2-1-4 X
T2-A2-1-5	SV	495V-APPLW 15cd	BUILD.300 PRACTICE 23 2-A2-1-5 X
T2-A2-1-6	SV	495V-APPLW 15cd	BUILD.300 PRACTICE 22 2-A2-1-6 X
T2-A2-1-7	SV	495V-APPLW 15cd	BUILD.300 PRACTICE 21 2-A2-1-7 X
T2-A2-1-8	SV	495V-APPLW 15cd	BUILD.300 PRACTICE 19 2-A2-1-8 X
T2-A2-1-9	SO		

Module	Qty	Description	Standby Current	Total Standby	Alarm Current	Total Alarm
Panel Equipment						
4100-8601	1	LOCAL MODE TRANSPONDER	0.0870	0.0870	0.0870	0.0870
4100-8622	1	DIGITAL AUDIO RISER MODULE	0.0700	0.0700	0.0700	0.0700
4100-3110	1	IDNet2+ MODULE - UP TO 250 DEVICES 4 ISOLATED LOOPS	0.0500	0.1000	0.1000	0.1000
4100-1327	1	DIGITAL FLEX 50W AMP W/3 NACS - 70V	0.0850	0.0850	2.2700	2.2700
4100-5451	1	IDNAC Card	0.1240	0.1240	0.2300	0.2300
4100-5401	1	ES Power Supply Only	0.0680	0.0680	0.0770	0.0770
4100-5131	1	ES-PS Fan Module	0.0000	0.0000	0.2000	0.2000
Panel Totals			0.4840	0.4840	2.0000	3.0340
IDNet Addressable Devices (SLC)						
4090-9001	16	IDNET SUPERVISED IAM				
4098-9714	28	TRUEALARM PHOTO SMOKE SENSOR				
4098-9792	28	TRUEALARM SENSOR BASE				
4090-9010	8	8 AMP RELAY IAM				
IDNac Notification Appliances						
49S0-APPLW0	4	S/O WEATHERPROOF APPLIANCE ONLY, WALL MOUNT	0.0008	0.0032	0.0090	0.0360
49S0-APPLW	1	SPEAKER ONLY APPLIANCE WALL MOUNT	0.0008	0.0008	0.0090	0.0090
49SV-APPLC	1	S/V APPLIANCE ONLY, CEILING MT	15	0.0008	0.0590	0.0590
49SV-APPLC	6	S/V APPLIANCE ONLY, CEILING MT	75	0.0008	0.1450	0.8700
49SV-APPLW	3	S/V APPLIANCE ONLY, WALL MT	15	0.0008	0.0470	0.1410
49SV-APPLW	2	S/V APPLIANCE ONLY, WALL MT	30	0.0008	0.0570	0.1140
49V0-WRF	1	VO, WALL MT, RED, FIRE LABEL	15	0.0008	0.0470	0.0470
Total IDNac Device Current:			0.0144	0.0144	1.2760	1.2760
IDNac Current Boost for 29vdc Regulated Output **					0.7275	0.7275
Peripheral Totals			0.0000	0.0000	2.0000	2.0000
RUI Totals			0	0.0000	0.0000	0.0000
Address Totals			52	0.0416	0.0520	0.0520
System Totals:			Standby	0.5256	Alarm	5.0895

2. Backup Amplifier assumes Main Amplifier alarm current on failure.

Battery Set #1 (Cabinet/Charger #1)	Standby Current	Standby Total	Alarm Current	Alarm Total
Select ALL Power Supplies on this battery set:				
ESPS-1		0.4984		4.3100
Sub Total		0.4984		4.3100
Additional Current Draws:				
IDNac Current Boost for 29vdc Regulated Output **				
MAPNET/IDNet Device Address Communication Current	52 x 0.000800	= 0.0416	x 0.001000	= 0.0520
Sub Total		0.5400		5.0895
Spare addressable point capacity				
0%	0	x 0.0008	= 0.0000	x 0.001
Total		0.5400		5.0895
Standby Time = 24 Hrs x 0.5400 = 12.9600 Standby Ah				
Alarm Time = 15 Min 0.25 x 5.0895 = 1.2724 Alarm Ah				
Additional Spare Battery Capacity = 0%				
Battery Discharge Factor = 20%				
Minimum Battery Required 2081-9275 18AH (2x)				
Battery Supplied 2081-9275 18AH (2x)				
System Totals represent total system current requirements. Those currents may be distributed between multiple battery sets or power supplies as shown above.				

Module	Qty	Description	Powered By Ext. Source	Standby Current	Alarm Current
PANEL COMPONENTS POWERED BY POWER SUPPLY					
4100-8601	1	LOCAL MODE TRANSPONDER		0.0870	0.0870
4100-8622	1	DIGITAL AUDIO RISER MODULE		0.0700	0.0700
4100-3110	1	IDNet2+ MODULE - UP TO 250 DEVICES 4 ISOLATED LOOPS		0.0500	0.1000
4100-1327	1	DIGITAL FLEX 50W AMP W/3 NACS - 70V		0.0850	2.2700
4100-5451	1	IDNAC Card		0.1240	0.2300
4100-5401	1	ES Power Supply Only		0.0680	0.0770
4100-5131	1	ES-PS Fan Module		0.0000	0.2000
Components				0.4840	3.0340
NAC Currents from Voltage Drops				0.0144	1.2760
IDNac Current Boost for 29vdc Regulated Output **				0.0000	0.7275
MAPNET/IDNet Device Addresses used				52	0.0416
Total				0.4984	4.3100

Qty	Total Standby	Total Alarm
1	0.0870	0.0870
1	0.0700	0.0700
1	0.0500	0.1000
1	0.0850	2.2700
1	0.1240	0.2300
1	0.0680	0.0770
1	0.0000	0.2000
Components		0.4840
NAC Currents from Voltage Drops		0.0144
IDNac Current Boost for 29vdc Regulated Output **		0.0000
MAPNET/IDNet Device Addresses used		52
Total		0.4984

Configuration	Capacity
ESPS-1	9.500A
Ckt. Capacity:	3.000A
Aux. Capacity:	2.000A

Address	Device Type	Point Type	Location Description	1	2	3	4	5	6	7	8	9
T3-M4-1	PHOTO	SMOKE	BUILD. 800 DATA 5	4-1	X							OK
T3-M4-2	RIAM	RELAY	BUILD. 800 DATA 5 TO FAN COIL	4-2	X							OK
T3-M4-3	PHOTO	SMOKE	BUILD. 800 ELEC 4	4-3	X							OK
T3-M4-4	PHOTO	SMOKE	BUILD. 800 JANITOR 3	4-4	X							OK
T3-M4-5	PHOTO	SMOKE	BUILD. 800 BUSINESS LECTURE CLASS 2	4-5	X	X						OK
T3-M4-6	RIAM	RELAY	BUILD. 800 BUSI. LEC. 2 TO FAN COIL	4-6	X	X						OK
T3-M4-7	IAM	HEAT	BUILD. 800 BUSINESS LECTURE CLASS 2	4-7	X	X						OK
T3-M4-8	PHOTO	SMOKE	BUILD. 800 BUSINESS LECTURE CLASS 2	4-8	X	X						OK
T3-M4-9	PHOTO	SMOKE	BUILD. 800 CLASSROOM 1	4-9	X	X						OK
T3-M4-10	RIAM	RELAY	BUILD. 800 CLASSROOM 1 TO FAN COIL	4-10	X	X						OK
T3-M4-11	IAM	HEAT	BUILD. 800 CLASSROOM 1	4-11	X	X						OK
T3-M4-12	PHOTO	SMOKE	BUILD. 800 CLASSROOM 1	4-12	X	X						OK
T3-M4-13	RIAM	RELAY	BUILD. 800 COMPUTER 14 TO FAN COIL	4-13	X	X						OK
T3-M4-14	PHOTO	SMOKE	BUILD. 800 COMPUTER CLASSROOM 14	4-14	X	X						OK
T3-M4-15	IAM	HEAT	BUILD. 800 COMPUTER CLASSROOM 14	4-15	X	X	X					OK
T3-M4-16	PHOTO	SMOKE	BUILD. 800 COMPUTER CLASSROOM 14	4-16	X	X	X					OK
T3-M4-17	PHOTO	SMOKE	BUILD. 800 COMPUTER CLASSROOM	4-17	X	X						OK
T3-M4-18	RIAM	RELAY	BUILD. 800 COMPUTER TO FAN COIL	4-18	X	X						OK
T3-M4-19	IAM	HEAT	BUILD. 800 COMPUTER CLASSROOM 15	4-19	X	X	X					OK
T3-M4-20	PHOTO	SMOKE	BUILD. 800 COMPUTER CLASSROOM 15	4-20	X	X	X					OK
T3-M4-21	PHOTO	SMOKE	BUILD. 800 COMPUTER CLASSROOM 16	4-21	X	X	X					OK
T3-M4-22	RIAM	RELAY	BUILD. 800 COMPUTER 16 TO FAN COIL	4-22	X	X	X					OK
T3-M4-23	IAM	HEAT	BUILD. 800 COMPUTER CLASSROOM 16	4-23	X	X	X					OK
T3-M4-24	PHOTO	SMOKE	BUILD. 800 COMPUTER CLASSROOM 16	4-24	X	X	X					OK
T3-M4-25	PHOTO	SMOKE	BUILD. 800 LECTURE CLASSROOM 17	4-25	X	X	X					OK
T3-M4-26	RIAM	RELAY	BUILD. 800 LECTURE 17 TO FAN COIL	4-26	X	X	X					OK
T3-M4-27	IAM	HEAT	BUILD. 800 LECTURE CLASSROOM 17	4-27	X	X	X					OK
T3-M4-28	PHOTO	SMOKE	BUILD. 800 LECTURE CLASSROOM 17	4-28	X	X	X					OK
T3-M4-29	PHOTO	SMOKE	BUILD. 800 WOMEN'S TOILET 20	4-29	X	X	X					OK
T3-M4-30	IAM	HEAT	BUILD. 800 WOMEN'S TOILET 20	4-30	X	X	X					OK
T3-M4-31	PHOTO	SMOKE	BUILD. 800 OFFICE 19	4-31	X	X	X					OK
T3-M4-32	IAM	HEAT	BUILD. 800 OFFICE 19	4-32	X	X	X					OK
T3-M4-33	PHOTO	SMOKE	BUILD. 800 MEN'S TOILET 18	4-33	X	X	X					OK
T3-M4-34	IAM	HEAT	BUILD. 800 MEN'S TOILET 18	4-34	X	X	X					OK
T3-M4-35	PHOTO	SMOKE	BUILD. 800 CLASSROOM 13	4-35	X	X	X					OK
T3-M4-36	RIAM	RELAY	BUILD. 800 CLASSROOM 13 TO FAN COIL	4-36	X	X	X					OK
T3-M4-37	IAM	HEAT	BUILD. 800 CLASSROOM 13	4-37	X	X	X					OK
T3-M4-38	PHOTO	SMOKE	BUILD. 800 CLASSROOM 13	4-38	X	X	X					OK
T3-M4-39	PHOTO	SMOKE	BUILD. 800 RECEPTION 6	4-39	X	X	X					OK
T3-M4-40	PHOTO	SMOKE	BUILD. 800 RECEPTION 6	4-40	X	X	X					OK
T3-M4-41	PHOTO	SMOKE	BUILD. 800 OFFICE 12	4-41	X	X	X					OK
T3-M4-42	IAM	HEAT	BUILD. 800 OFFICE 12	4-42	X	X	X					OK
T3-M4-43	PHOTO	SMOKE	BUILD. 800 OFFICE 11	4-43	X	X	X					OK
T3-M4-44	IAM	HEAT	BUILD. 800 OFFICE 11	4-44	X	X	X					OK
T3-M4-45	IAM	HEAT	BUILD. 800 HALLWAY 7	4-45	X	X	X					OK
T3-M4-46	IAM	HEAT	BUILD. 800 OFFICE 9	4-46	X	X	X					OK
T3-M4-47	PHOTO	SMOKE	BUILD. 800 OFFICE 9	4-47	X	X	X					OK
T3-M4-48	PHOTO	SMOKE	BUILD. 800 HALLWAY 7	4-48	X	X	X					OK
T3-M4-49	PHOTO	SMOKE	BUILD. 800 OFFICE 10	4-49	X	X	X					OK
T3-M4-50	IAM	HEAT	BUILD. 800 OFFICE 10	4-50	X	X	X					OK
T3-M4-51	IAM	HEAT	BUILD. 800 OFFICE	4-51	X	X	X					OK
T3-M4-52	PHOTO	SMOKE	BUILD. 800 OFFICE 8	4-52	X	X	X					OK
T3-M4-249		SPARE		4-249	X	X	X	X				OK
T3-M4-250		SPARE		4-250	X	X	X	X	X			OK

NOTE: THE LABELS SHOWN ABOVE WILL BE USED FOR PROGRAMMING PURPOSES. THE LABELS ARE BASED UPON INFORMATION SHOWN ON THE ARCHITECTURAL DRAWINGS. ANY CHANGES TO THESE LABELS MUST BE NOTED ON THE SUBMITTAL REVIEW, PRIOR TO PROGRAMMING. POINTS SHOWN IN ITALIC TEXT REFER TO EXISTING DEVICES.

Channel	Description	Alarm Current	% Drop	Unit Load*	Wire Length	Spare Current	Spare Voltage/Drop
T3-A3-1	TO BUILDING 800	1.276A	8.17%	18	668	0.141	28.559
T3-A3-2	SPARE	0.000A	0.00%	0	0	100%	100%
T3-A3-3	SPARE	0.000A	0.00%	0	0	100%	100%

Assoc. SPK Circuit	Branch	Device #	From	Distance (Feet)	PID	Setting	Device Current	Voltage Drop at Device	Voltage at Device	% Vdrop	Wire Length
n/a	1	T3-A3-1-1	PANEL	18	49S0-APPLW	15cd	0.0090	1.276	0.141	58%	Branch 1: 8.74% Length: 668
n/a	1	T3-A3-1-2	T3-A3-1-1	12	49SV-APPLW	15cd	0.0470	1.267	0.093	28.766	
n/a	1	T3-A3-1-3	T3-A3-1-2	27	49S0-APPLW-O	75cd	0.0090	1.220	0.202	28.563	
n/a	1	T3-A3-1-4	T3-A3-1-3	48	49SV-APPLC	75cd	0.1450	1.211	0.357	28.206	
n/a	1	T3-A3-1-5	T3-A3-1-4	42	49SV-APPLC	75cd	0.1450	1.066	0.275	27.932	
n/a	1	T3-A3-1-6	T3-A3-1-5	43	49S0-APPLW-O	75cd	0.0090	0.921	0.243	27.688	
n/a	1	T3-A3-1-7	T3-A3-1-6	45	49SV-APPLC	75cd	0.1450	0.912	0.252	27.436	
n/a	1	T3-A3-1-8	T3-A3-1-7	41	49SV-APPLC	75cd	0.1450	0.767	0.193	27.243	
n/a	1	T3-A3-1-9	T3-A3-1-8	44	49SV-APPLC	75cd	0.1450	0.622	0.168	27.075	
n/a	1	T3-A3-1-10	T3-A3-1-9	36	49S0-APPLW-O	75cd	0.0090	0.477	0.105	26.970	
n/a	1	T3-A3-1-11	T3-A3-1-10	66	49SV-APPLC	75cd	0.1450	0.468	0.190	26.780	
n/a	1	T3-A3-1-12	T3-A3-1-11	38	49SV-APPLW	30cd	0.0570	0.323	0.075	26.705	
n/a	1	T3-A3-1-13	T3-A3-1-12	45	49S0-APPLW-O	75cd	0.0090	0.266	0.073	26.631	
n/a	1	T3-A3-1-14	T3-A3-1-13	40	49SV-APPLW	30cd	0.0570	0.257	0.063	26.568	
n/a	1	T3-A3-1-15	T3-A3-1-14	50	49SV-APPLW	15cd	0.0470	0.200	0.061	26.507	
n/a	1	T3-A3-1-16	T3-A3-								

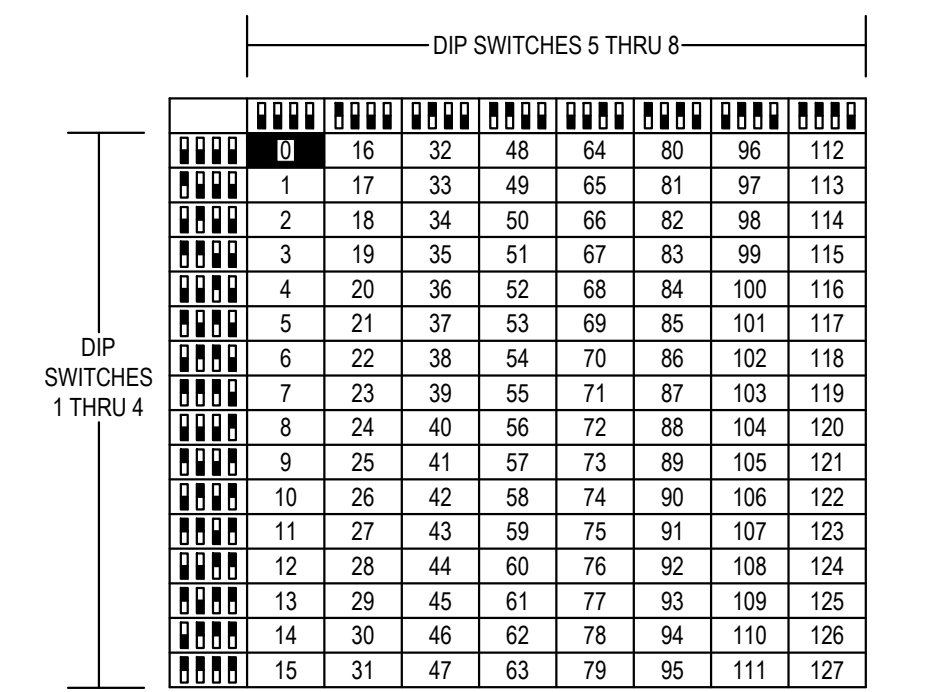


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APPROVALS

DIP SWITCH SETTINGS - NOTIFICATION

SIMPLEX TRUEALERT ES / IDNAC



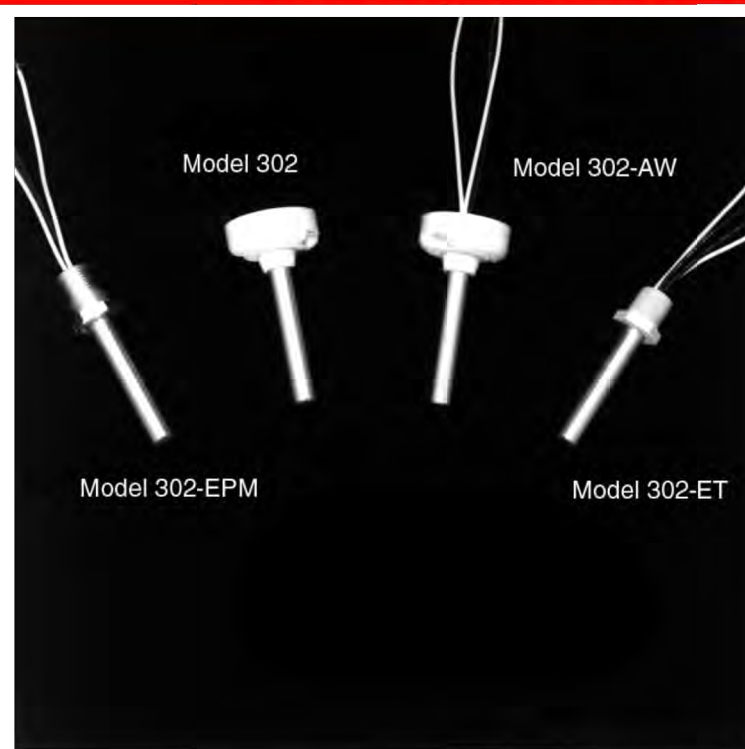
END OF LINE RESISTOR CODES

NOTE: REFER TO PANEL/MODULE AND DEVICE INSTALLATION INSTRUCTIONS FOR PROPER TERMINATIONS.

MODEL	REF. NUMBER	Ω	BAND NUMBER	WATTS	CIRCUIT TYPE	FIRE ALARM PANEL/MODULE
			1 2 3 4 5			
4081-9001	733-892	2.2K	RED RED	GLD N/A	1/2	ANNUNCIATOR (4300) 4004, 4010 (TROUBLE)
4081-9002	733-893	3.3K	ORG RED	GLD N/A	1	N.O. INITIATING PULL, SMOKE, HEAT, WATERFLOW, TAMPER, ETC. 4004*, 4006*, 4005*, 4100, 4101, 4100U, 24MS, 4605-7401, 4100 SERIES
4081-9003	733-896	4.7K	YEL VT	RED GLD N/A	1/2	CURRENT LIMITED N.O. INIT., NOTIFICATION (EOLR) 4090 IDNET IAM (EOLR) 2000-9004
4081-9004	733-886	6.8K	BLU GRY	RED GLD N/A	1/2	N/O INITIATING PULL, SMOKE, HEAT, W.FLOW, TAMPER, ETC. 4004, 4005, 4090-9001 IDNET IAM, 2190-9173 MAGNETIC 7 PT I/O 4090-9001 (TROUBLE)
4081-9005	733-984	1.8K	BRN GRY	RED GLD N/A	1/2	CURRENT LIMITED N.O. INITIATING (IN LINE) 4090-9001 IDNET IAM
4081-9006	733-890	560	GRN BLU	BRN GLD N/A	1	N.C. INITIATING (EOLR) 4005
4081-9007	733-891	1.2K	BRN RED	RED GLD N/A	1	N.C. INITIATING (EOLR) 4004, 4005, 4006, 4008, 4009, 4510, 4100, 4100U
4081-9008	733-894	10K	BRN BLK	ORG GLD N/A	1/2	NOTIFICATION 4005 8 POINT I/O
4081-9009	733-912	20	RED BLK	BLK GLD N/A	1	TO MR-101 RELAY COIL. N.C. INIT. (ACROSS CONTACTS) 4090-9001 IDNET IAM
4081-9010	733-973	1K	BRN BLK	RED GLD N/A	1	24 PT. I/O (ACROSS CONTACTS) 4605-7401, 4100 SERIES
4081-9011	733-974	100	BRN BLK	BRN GLD N/A	1/2	CURRENT LIMITED N.O. INIT. (IN SERIES WITH CONTACT) 4090-9001 IDNET IAM
4081-9012	733-885	22K	RED RED	ORG GLD N/A	1/2	ANNUNCIATOR (N2) 4006, 4008, 4010
4081-9013	734-096	1.59K	YEL WHI	WHI BRN	1/2	SPEAKER CIRCUIT 4003
4081-9014	734-092	2.4K	RED YEL	RED GLD N/A	1/2	N.C. INITIATING (SECURITY MONITORING EOLR) 4090-9001 IDNET IAM
4081-9015	734-093	1.5K	BRN GRN	RED GLD N/A	1/2	CURRENT LIMITED N.O. INIT. (SECURITY MONITORING EOLR) 4090-9001 IDNET IAM
4081-9016	734-149	150K	BRN GRN	YEL GLD N/A	1/2	
4081-9017	734-171	3.9K	ORG WHI	RED GLD N/A	1	70VRMS CONSTANT SUPV. NAC 4100-1280
4081-9018	734-188	10K	BRN BLK	ORG GLD N/A	1	SECURITY MONITORING (EOLR) 4100, 4100U
	378-090	8.2K	GRY RED	RED GLD N/A	1/2	SECURITY MONITORING (EOLR) 4100, 4100U
	378-046	3.6K	GRN BLU	RED GLD N/A	1/2	N.O. SECURITY MON. (SHUNT) 4100, 4100U
	378-069	1.2K	BRN RED	ORG GLD N/A	1/2	N.C. SECURITY MON. (SHUNT) 4100, 4100U

* USE WITH RETROFIT OR HIGH CURRENT MODULE

302 Series Rate-Anticipation Heat Detectors



General
 The Thermotech 302 Series rate-anticipation heat detectors operate within a controlled range of two to three degrees of their set points, regardless of the speed or rate of temperature rise. These detectors are available in either 135°F (57.2°C) or 194°F (90°C) ratings.
 The 302 Series are normally-open devices designed especially for fire detection and alarm systems.

- Features**
- **Immediate response.** The 302 Series activate whenever ambient air temperature reaches a detector's setting, eliminating the thermal time lag inherent in conventional heat detectors.
 - **Eliminates false alarms.** The 302 Series do not respond to momentary temperature fluctuations below the selected temperature.
 - **Universal application.** The 302 Series can be used in all areas for any type of occupancy.
 - **Self-restoring.**
 - **Hermetically sealed.** Shock resistant, corrosion resistant, and tamper-proof.

Principles Of Operation
 The 302 Series rate-anticipation heat detectors respond and activate the fire alarm immediately whenever the ambient temperature reaches the preset temperature setting. Under rapid heat rise conditions, the rate-anticipation feature enables the detector to respond one to three degrees ahead of the setting. At the same time, however, it does not respond to momentary temperature fluctuations below the selected protection level, thus eliminating false alarms. When temperature drops back down below the protection level, the detector automatically resets itself.

Dimensions (Model 302)
 Total overall length: 4-1/8" (10.48 cm).
 Base diameter: 2" (5.08 cm).

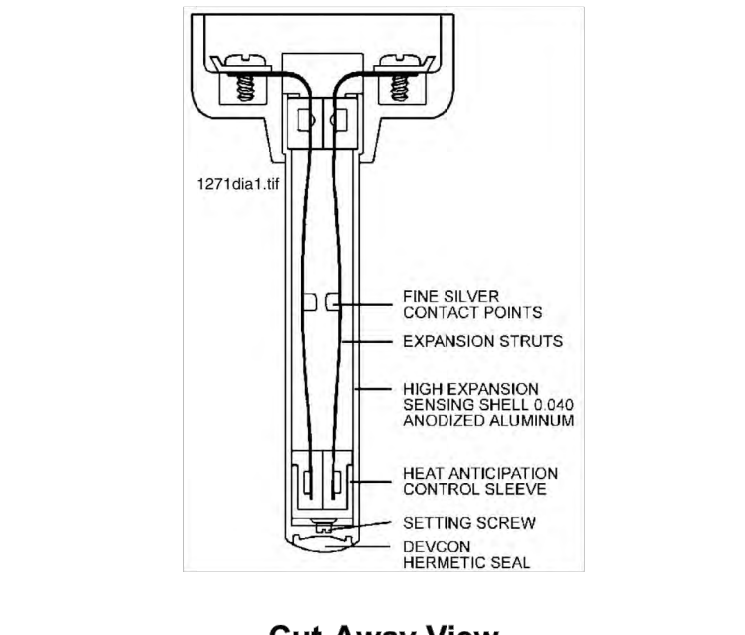
Electrical Ratings

Voltage	Current
6 - 125 VDC	5 amps
6 - 25 VDC	1 amp
125 VDC	0.5 amp

Application Information
 302 Series detector have a smooth ceiling UL rating of 50' x 50' (15.24 x 15.24 meters) and are the only type of heat detectors having such a rating on both fixed temperature and rate anticipation.

Agency Listings and Approvals
 These listings and approvals apply to the modules specified in this document. In some cases, certain modules or applications may not be listed by certain approval agencies, or listing may be in process. Consult factory for latest listing status.

- **UL Listed:** S539 (302-AW-135/-194; 302-ET-135/-194; 302-135/-194)
- **FM Approved:** (302-AW-135/-194; 302-ET-135/-194; 302-135/-194)
- **CSFM:** 7270-0021.001



Thermotech Model 302 Series Rate-Anticipation Heat Detectors

Model Number	Description	Refer To
302-135	135°F Interior Vertical Mounting	Note 1 below
302-194	194°F Interior Vertical Mounting	Note 1 below
302-AW-135	135°F All-Weather Vertical Mounting	Note 2 below
302-AW-194	194°F All-Weather Vertical Mounting	Note 2 below
302-ET-135	135°F All-Weather Vertical Mounting	Note 3 below
302-ET-194	194°F All-Weather Vertical Mounting	Note 3 below
302-EPM-135	135°F Explosion Proof Mounting	Note 4 below
302-EPM-194	194°F Explosion Proof Mounting	Note 4 below
AP-P	Decorative white plastic adaptor plate for mounting 302 and 302-AW to 4" outlet box.	

- NOTE 1:** For interior mounting in any atmosphere that is compatible with terminal-screw-type connections. UL rating 50' x 50' (15.24 x 15.24 meters).
- NOTE 2:** Hermetically sealed for moisture-proof or dust-proof installations. Requires no special backbox when the all-weather leads are properly applied to "THW" or equivalent type wire.
- NOTE 3:** Hermetically sealed for moisture-proof or dust-proof installations. Requires no special backbox. Has plastic hexagonal wrench grip bushing with 1/2" (1.27 cm) conduit threads for attachment to threaded hub cover, or any outlet box.
- NOTE 4:** Explosion-proof for installation in hazardous locations. Has hexagonal wrench-grip bushing with 1/2" (1.27 cm) conduit threads for attachment to threaded hub cover of Series JL, fixture fitting as manufactured by Killark Electric Co., or equal.

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ISO 9001
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 QUALITY SYSTEMS

This document is not intended to be used for installation purposes. We try to keep our product information up-to-date and accurate. We cannot cover all specific applications or anticipate all requirements. All specifications are subject to change without notice.

For more information, contact Fire-Lite Alarms. Phone: (800) 627-3473, FAX: (877) 699-4105. www.fire-lite.com

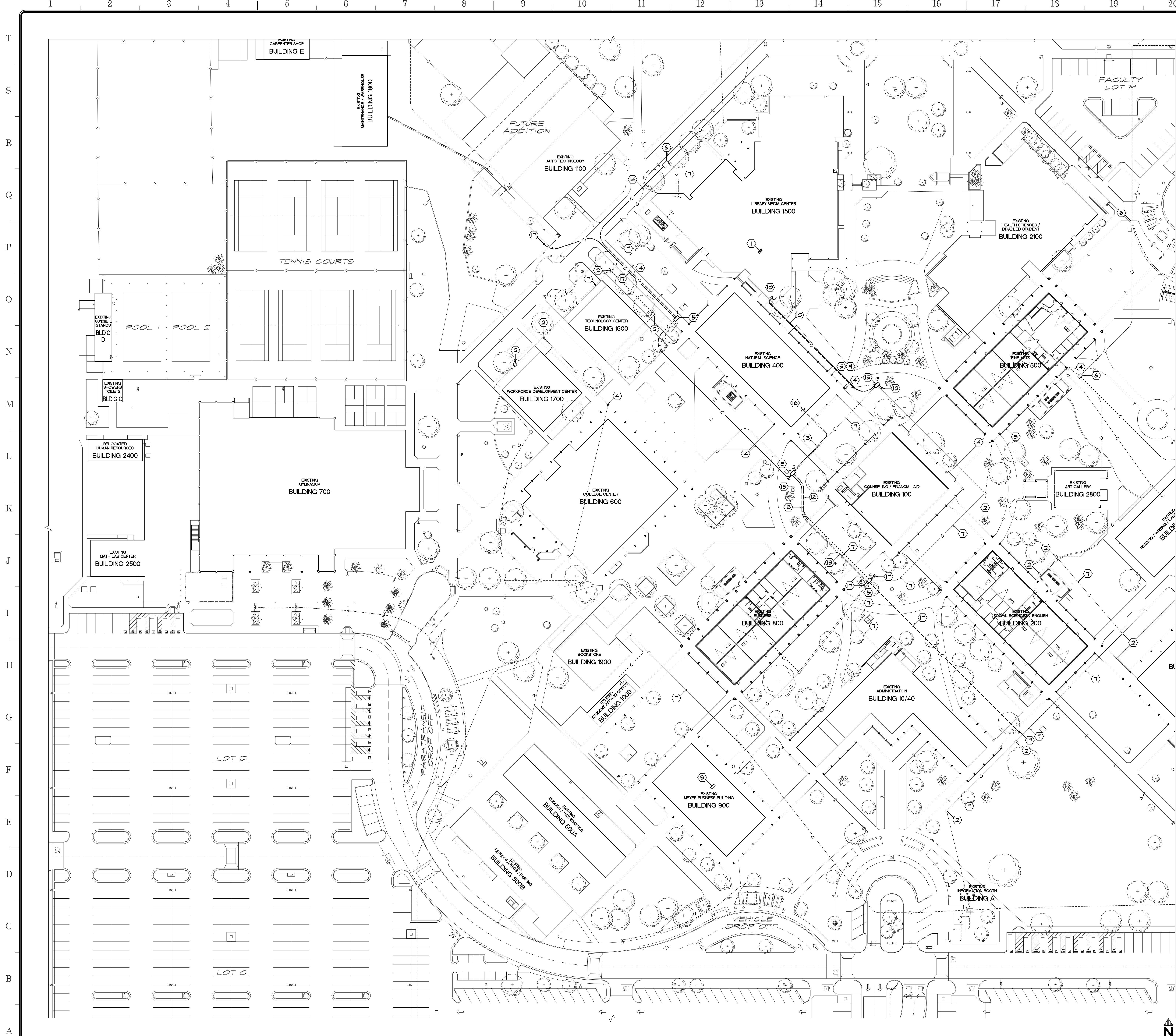
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Project Title
**IMPERIAL VALLEY COLLEGE
 BUILDING 200 300 AND 800 MODERNIZATION**

Sheet Title
FIRE ALARM WIRING TYPICALS

	Document Date 12-18-19	Project Number 19-121V
	Date Last Revised	Sheet Number FA-702



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KEYNOTES:

- (1) FIRE ALARM CONTROL PANEL - SEE FIRE ALARM DRAWINGS
- (2) EXISTING COMMUNICATION JUNCTION BOX
- (3) EXISTING MAIN CAMPUS MDF
- (4) EXISTING EXPOSED DATA CONDUIT UP CMU COLUMN / HALL
- (5) EXISTING EXPOSED DATA CONDUIT HORIZONTAL AT TOP OF CMU COLUMNS
- (6) EXISTING 36" x 12" COMMUNICATION VAULT
- (7) EXISTING COMMUNICATION CONDUIT - PROTECT
- (8) EXISTING COMMUNICATION CONDUIT - (2) 4"
- (9) REMOVE EXISTING (2) 4" DATA CONDUIT HORIZONTAL INSTALLED AT TOP OF CMU COLUMN
- (10) PROVIDE (2) 2" AND (3) 4" PVC CONDUIT UNDERGROUND FROM NEW COMMUNICATION VAULT 3 TO BUILDING 1500. SAK CUT, REMOVE AND REPLACE EXISTING CONCRETE HARDSCAPE AS REQUIRED. INSTALL CONDUIT EXPOSED ON EXTERIOR HALL OF 1500 UP TO JUNCTION BOX. PROVIDE WATERPROOF JUNCTION BOX. REUSE EXISTING (2) 4" PENETRATIONS. PROVIDE (2) NEW 2" PENETRATIONS AND (1) NEW 4" PENETRATION
- (11) PROVIDE NEW 36" x 12" COMMUNICATION VAULT. REMOVE EXISTING JUNCTION BOX. INSTALL NEW VAULT AT SAME LOCATION AS EXISTING JUNCTION BOX. PULL BACK ALL EXISTING FIBER / COPPER IN EXISTING BOX AS REQUIRED TO INSTALL NEW VAULT. RECONNECT EXISTING CONDUIT TO NEW VAULT. RECONNECT ALL FIBER / COPPER
- (12) PROVIDE (2) 2" AND (3) 4" PVC CONDUIT STUB OUTS - TO LOCATION SHOWN ON DRAWING
- (13) PROVIDE (2) 2" AND (3) 4" PVC CONDUIT - INSTALL ADJACENT TO EXISTING (2) 4"
- (14) PROVIDE (2) 2" AND (3) 4" PVC CONDUIT. SAK CUT, REMOVE AND REPLACE EXISTING CONCRETE HARDSCAPE AS REQUIRED
- (15) PROVIDE NEW 36" x 12" COMMUNICATION VAULT
- (16) PROVIDE (2) 2" AND (3) 4" PVC CONDUIT UNDERGROUND FROM NEW COMMUNICATION VAULT 2 TO DATA ROOM OF BUILDING 400. SAK CUT, REMOVE AND REPLACE EXISTING CONCRETE HARDSCAPE AS REQUIRED. INSTALL CONDUIT UNDER EXISTING FOOTINGS. SAK CUT EXISTING SLAB ON GRADE AS REQUIRED TO INSTALL CONDUIT UNDERGROUND AND PENETRATE SLAB ON GRADE IN DATA ROOM
- (17) PROVIDE (2) 2" AND (3) 4" PVC CONDUIT STUB OUTS - TO LOCATION SHOWN ON DRAWING
- (18) REMOVE AND REPLACE EXISTING (2) 4" COMMUNICATION CONDUIT AS REQUIRED TO CLEAR NEW SEWER HANKLE - SEE PLUMBING DRAWINGS

LEGEND:

---C--- COMMUNICATIONS CONDUIT BY ELECTRICAL

NOTES:

- 1. NO SPLICES SHALL BE ALLOWED IN COMMUNICATION VAULTS.
- 2. CAP ALL STUBBED OUT CONDUIT FOR FUTURE.
- 3. CONDUIT AND PULL BOXES FOR FIRE ALARM SYSTEM SHALL BE SEPARATE FROM CLOCK & BELL / INTERCOM.
- 4. PROVIDE PULL STRING FOR ALL CONDUIT.

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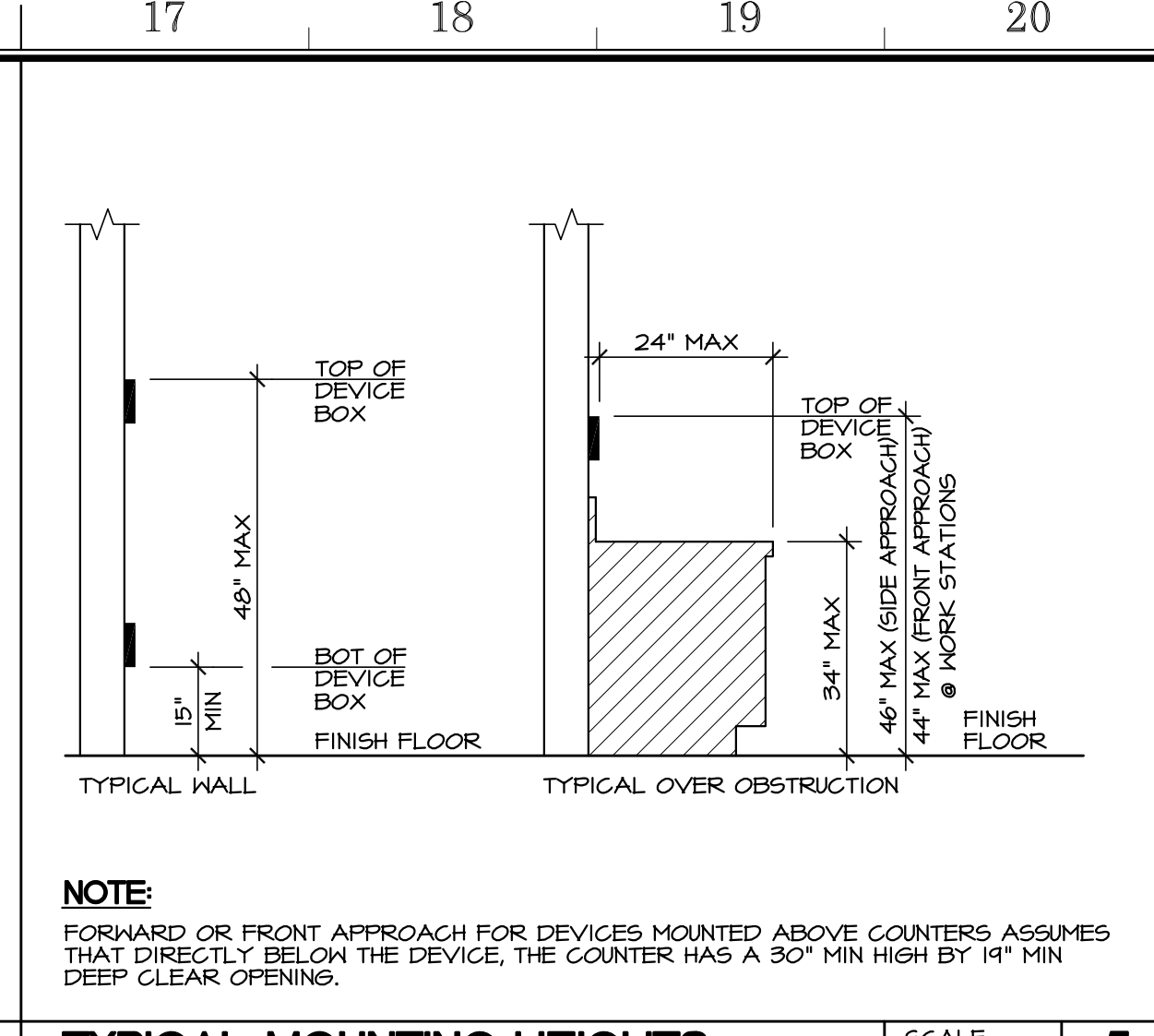
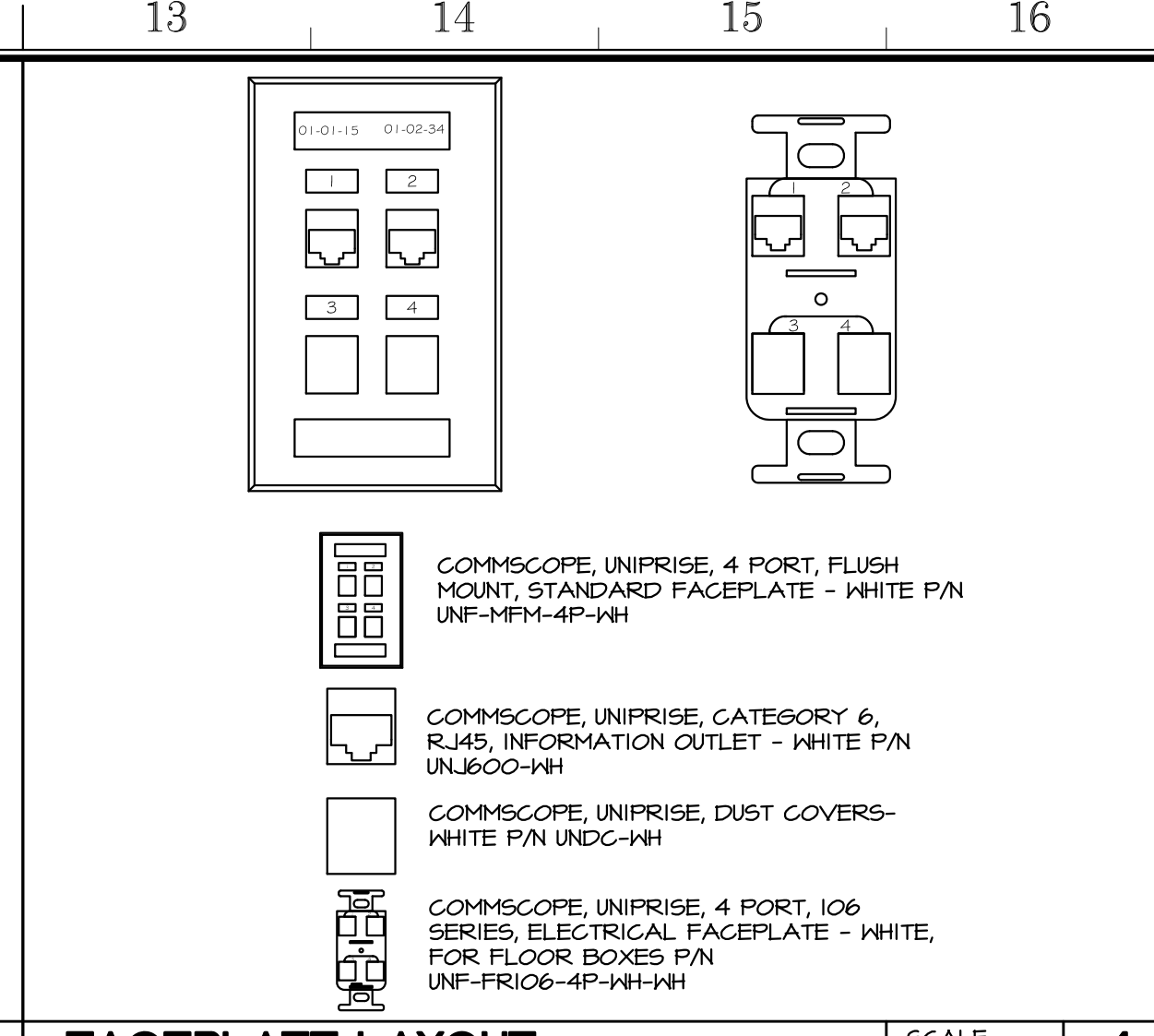
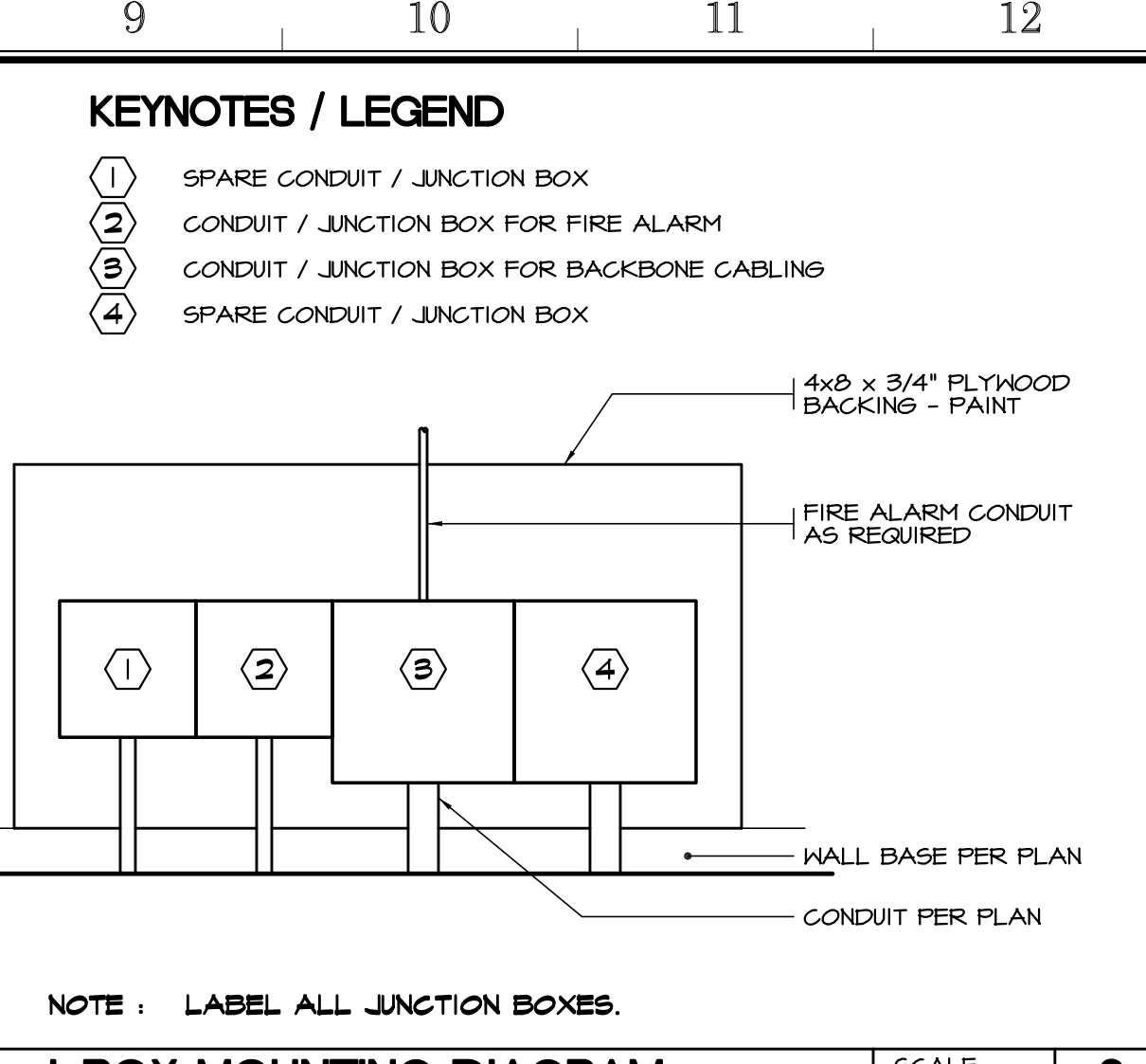
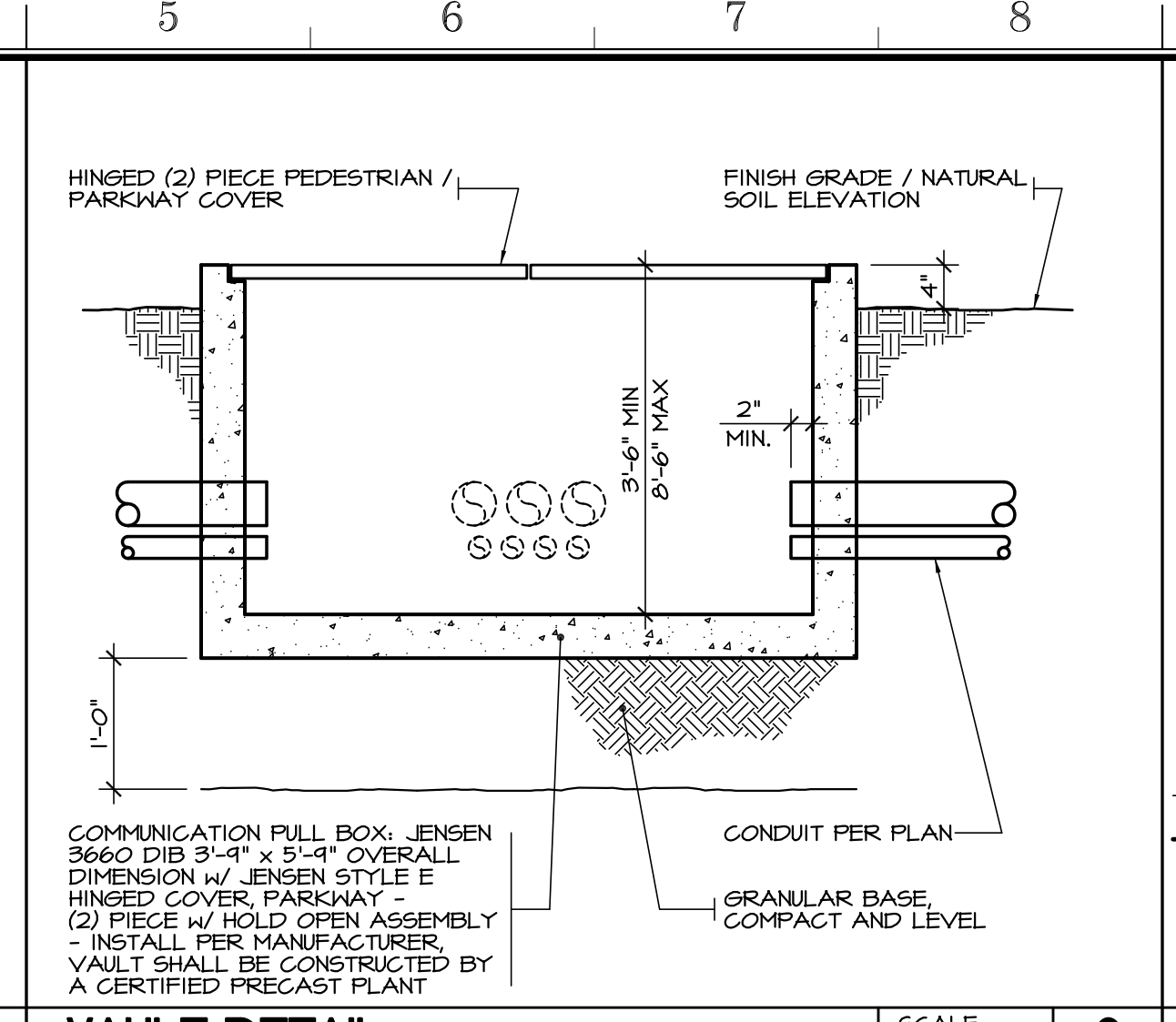
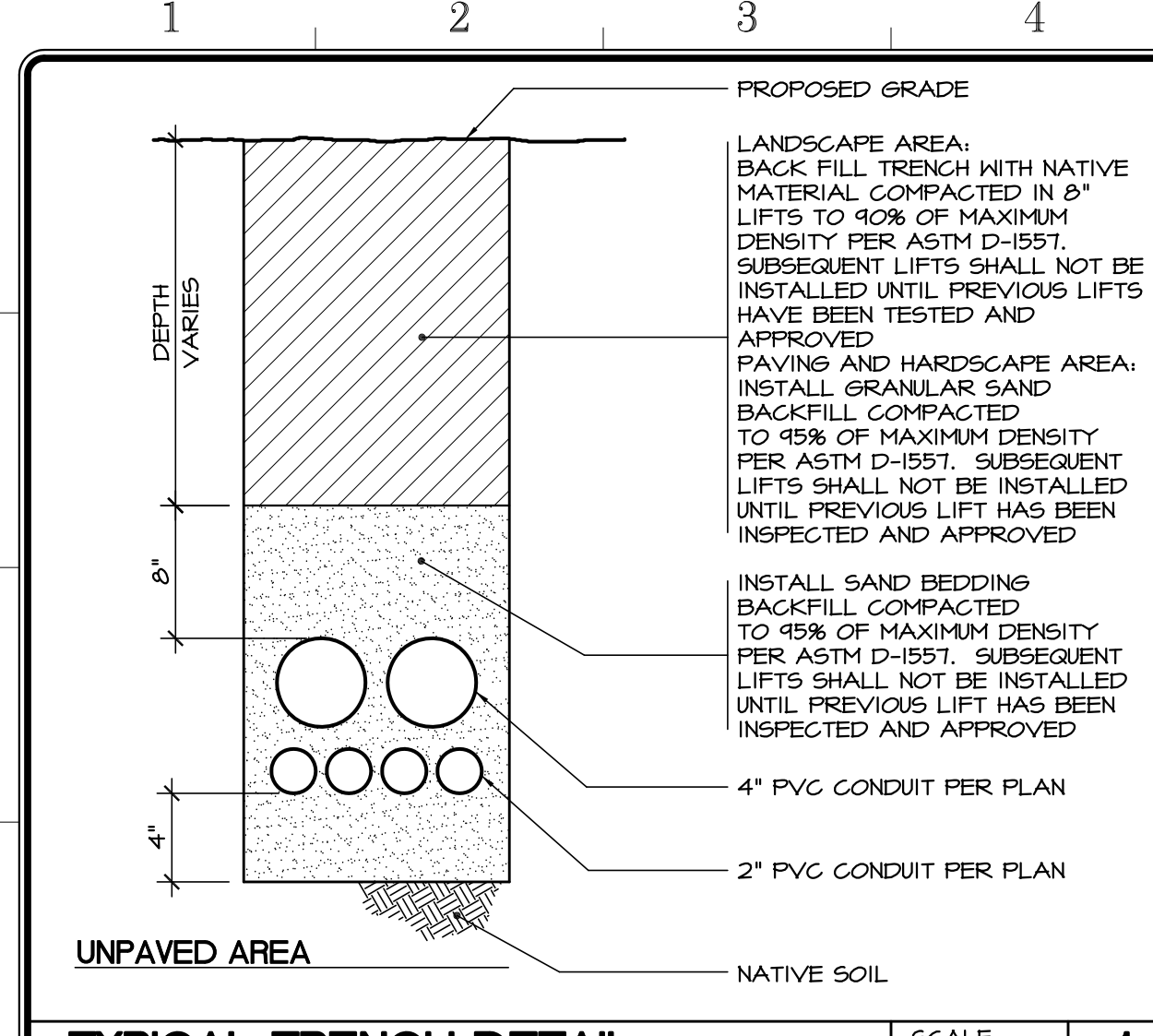
Project Title
**IMPERIAL VALLEY COLLEGE
 BUILDING 200, 300 AND 800 MODERNIZATION**

Sheet Title
COMMUNICATIONS SITE PLAN

	Document Date	Project Number
	Date Last Revised	Sheet Number
		CMO.1

COMMUNICATIONS SITE PLAN

SCALE: 1" = 40'-0"



KEYNOTES / LEGEND

- ① SPARE CONDUIT / JUNCTION BOX
- ② CONDUIT / JUNCTION BOX FOR FIRE ALARM
- ③ CONDUIT / JUNCTION BOX FOR BACKBONE CABLING
- ④ SPARE CONDUIT / JUNCTION BOX

NOTE: LABEL ALL JUNCTION BOXES.

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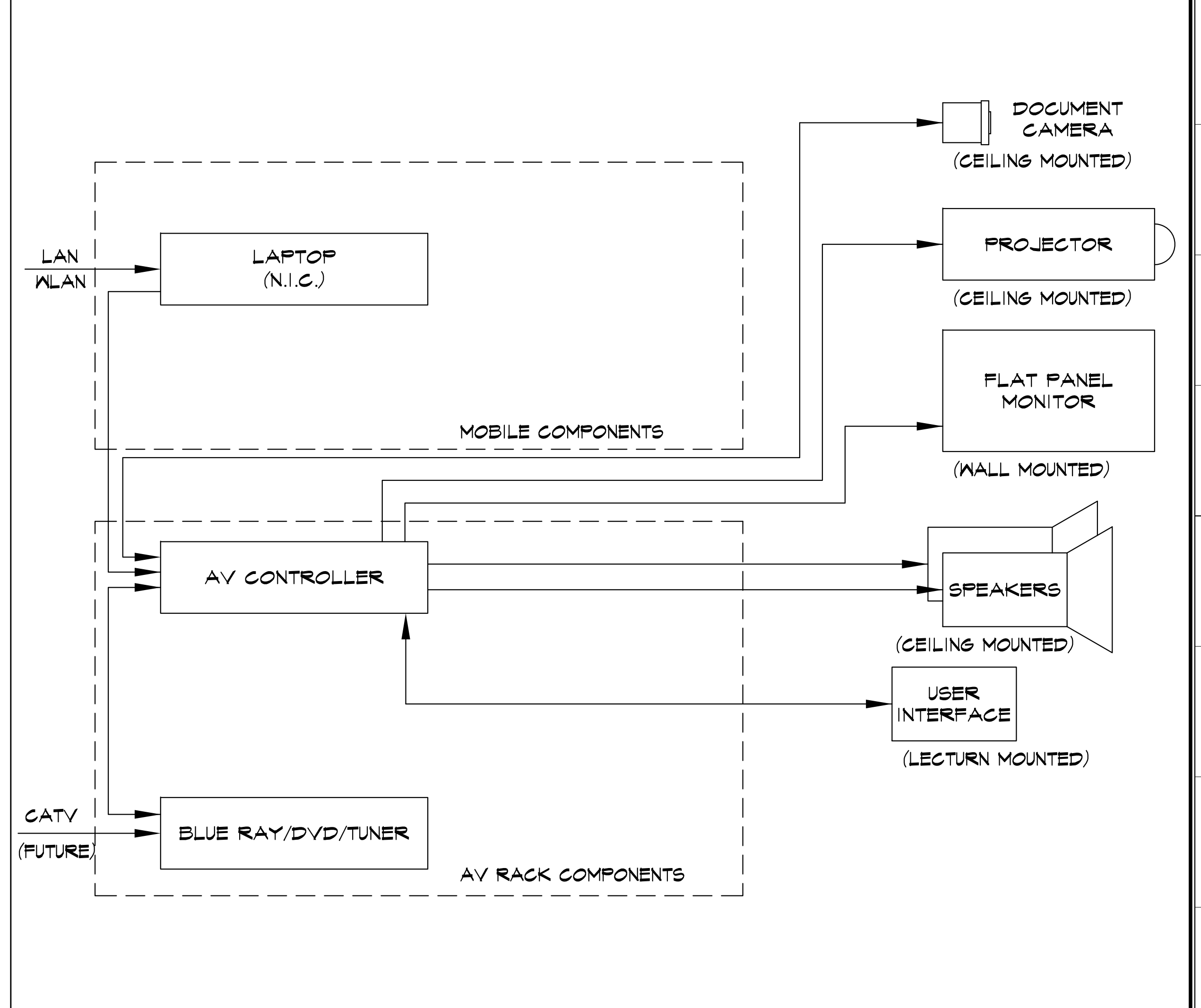
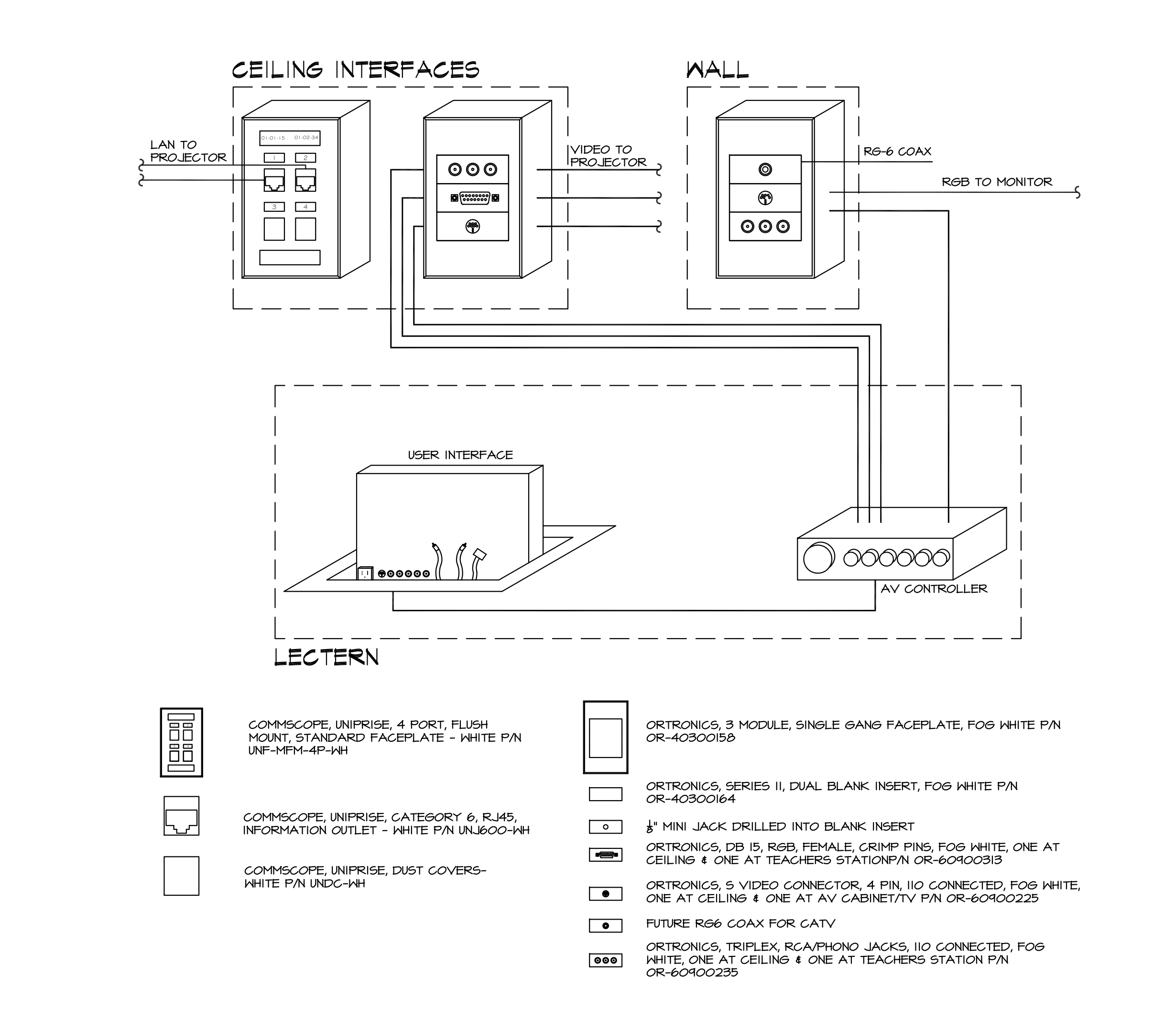
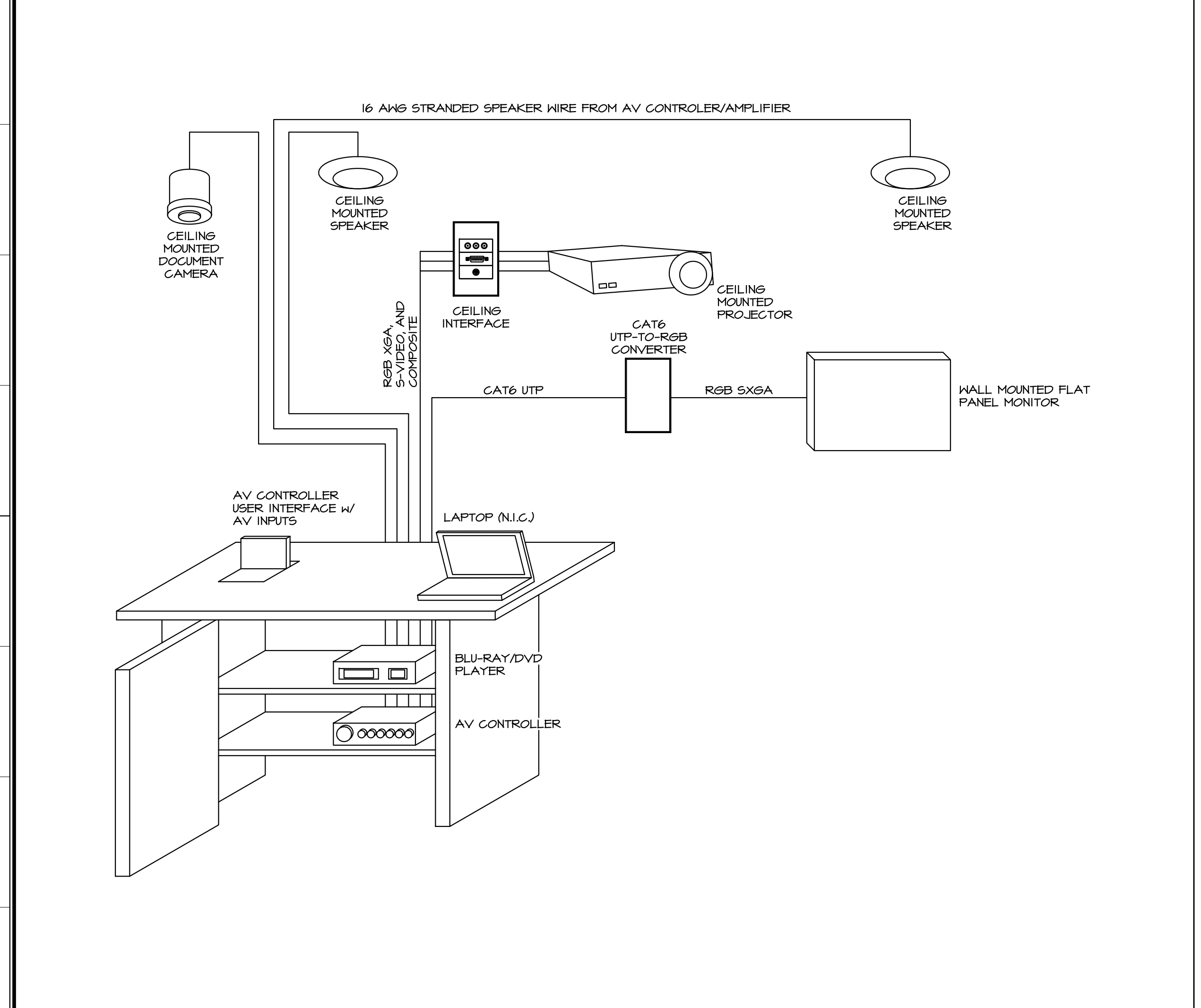
TYPICAL TRENCH DETAIL SCALE: 1/2" = 1'-0" 1

VAULT DETAIL SCALE: NTS 2

J-BOX MOUNTING DIAGRAM SCALE: NTS 3

FACEPLATE LAYOUT SCALE: NTS 4

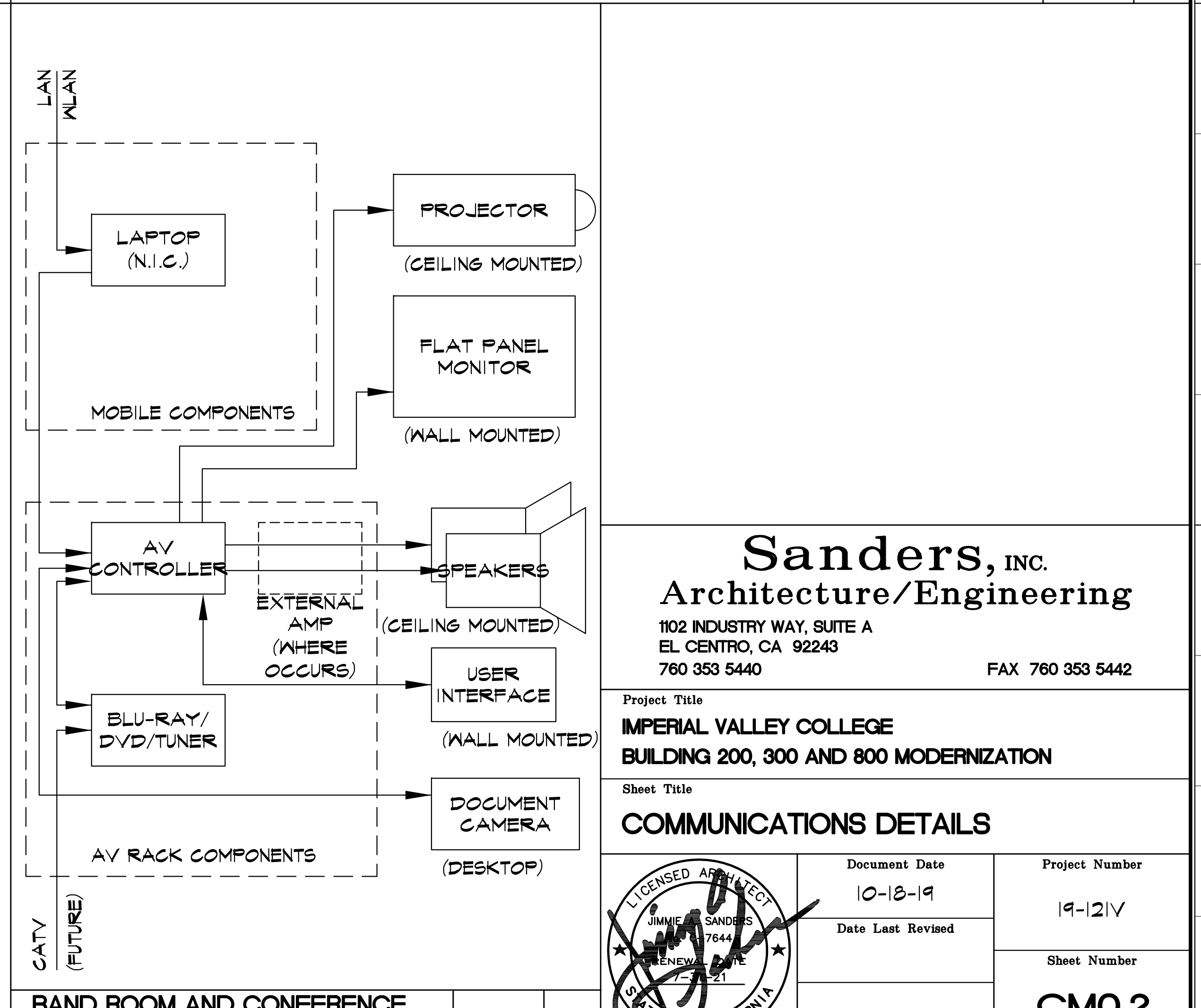
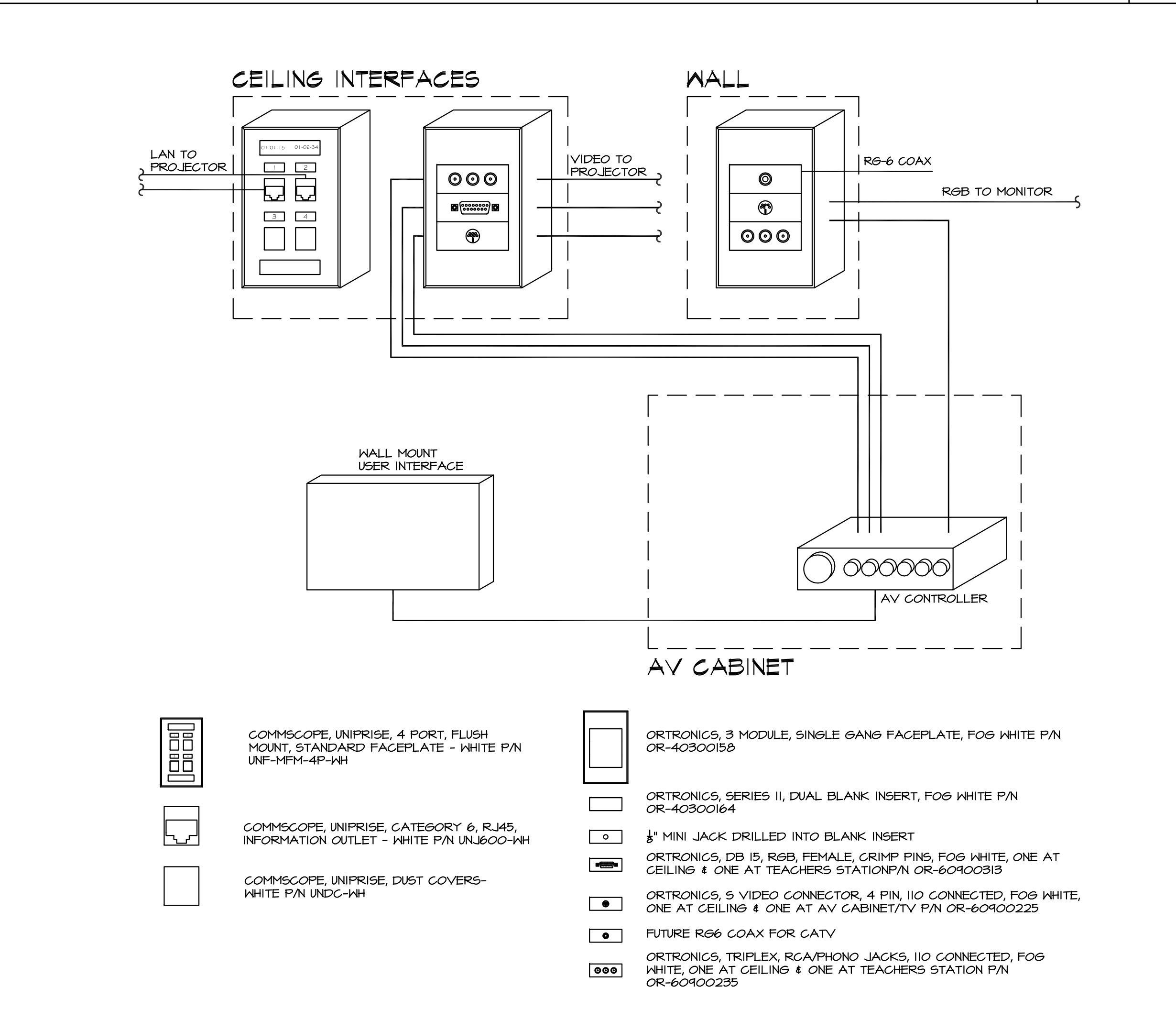
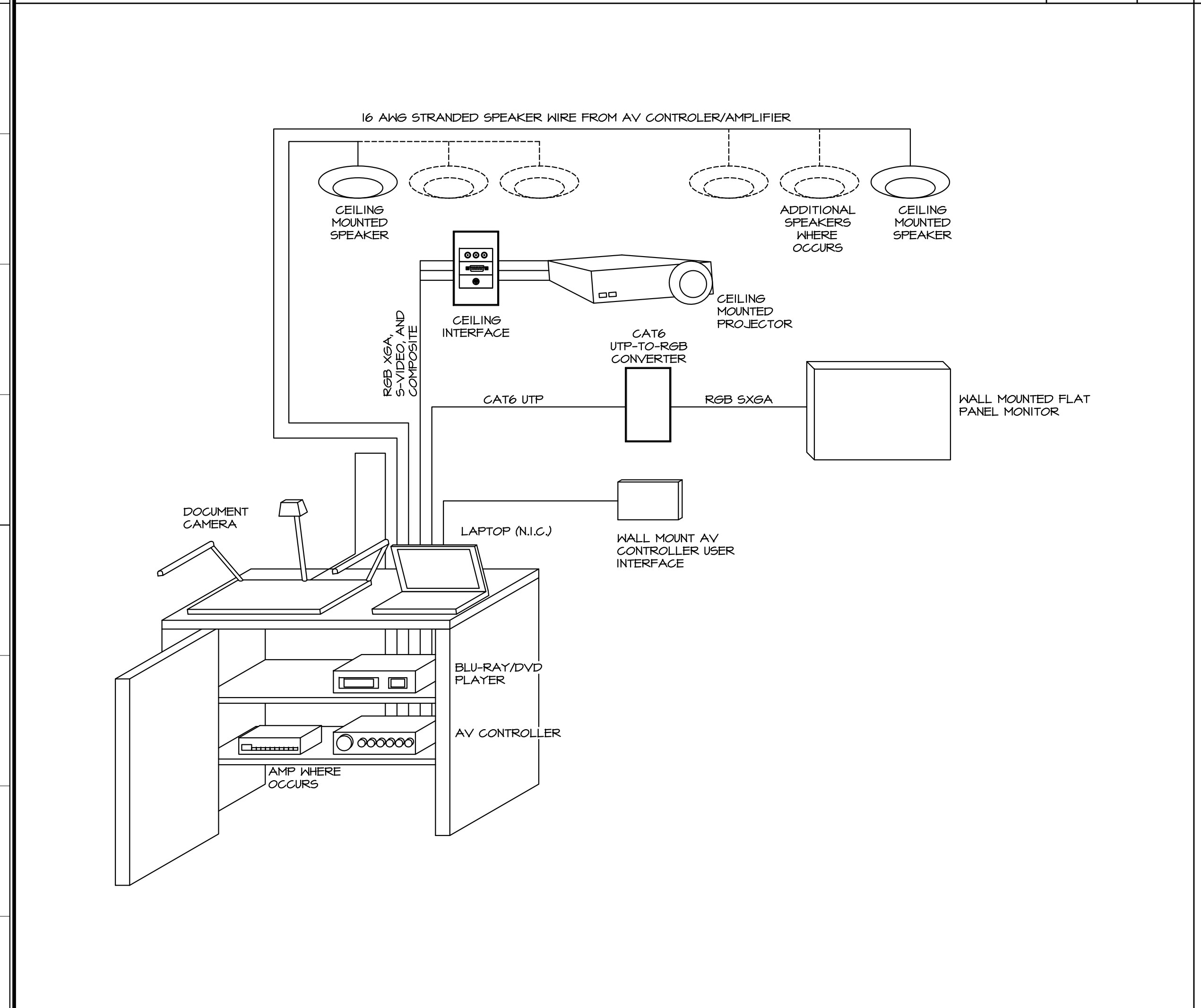
TYPICAL MOUNTING HEIGHTS SCALE: NTS 5



CLASSROOM LOGICAL DESIGN SCALE: NTS 6

CLASSROOM WIRING DETAILS SCALE: NTS 7

CLASSROOM AV SCHEMATIC SCALE: NTS 8



BAND ROOM AND CONFERENCE ROOM LOGICAL DESIGN SCALE: NTS 9

BAND ROOM AND CONFERENCE ROOM WIRING DETAILS SCALE: NTS 10

BAND ROOM AND CONFERENCE ROOM AV SCHEMATIC SCALE: NTS 11

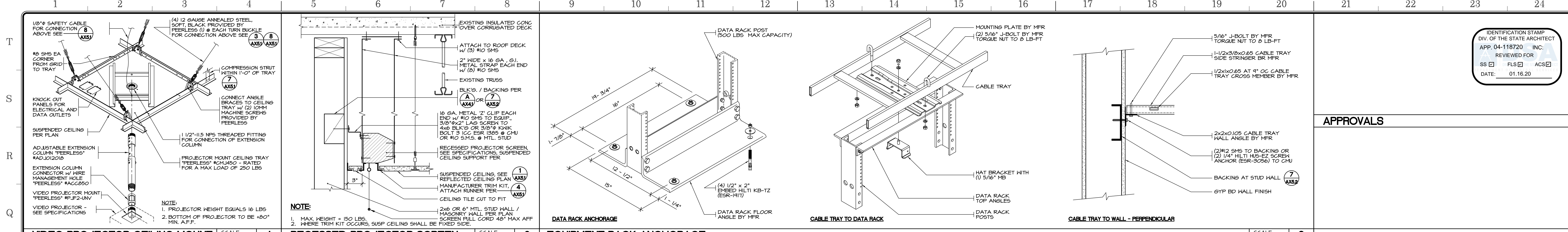
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**IMPERIAL VALLEY COLLEGE
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Sheet Title
COMMUNICATIONS DETAILS

Document Date: 10-18-19
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 Project Number: 19-121V
 Sheet Number: **CM0.2**

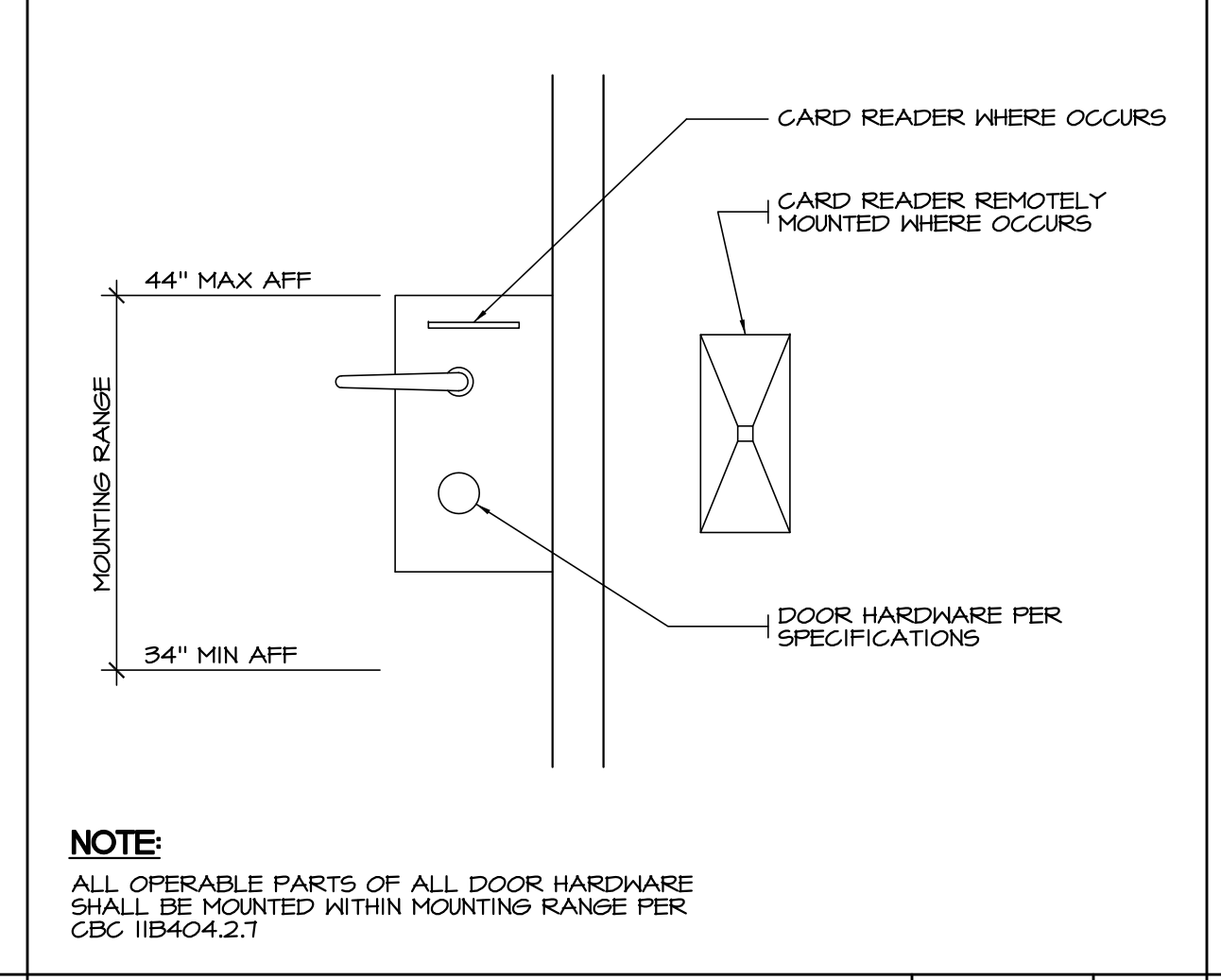
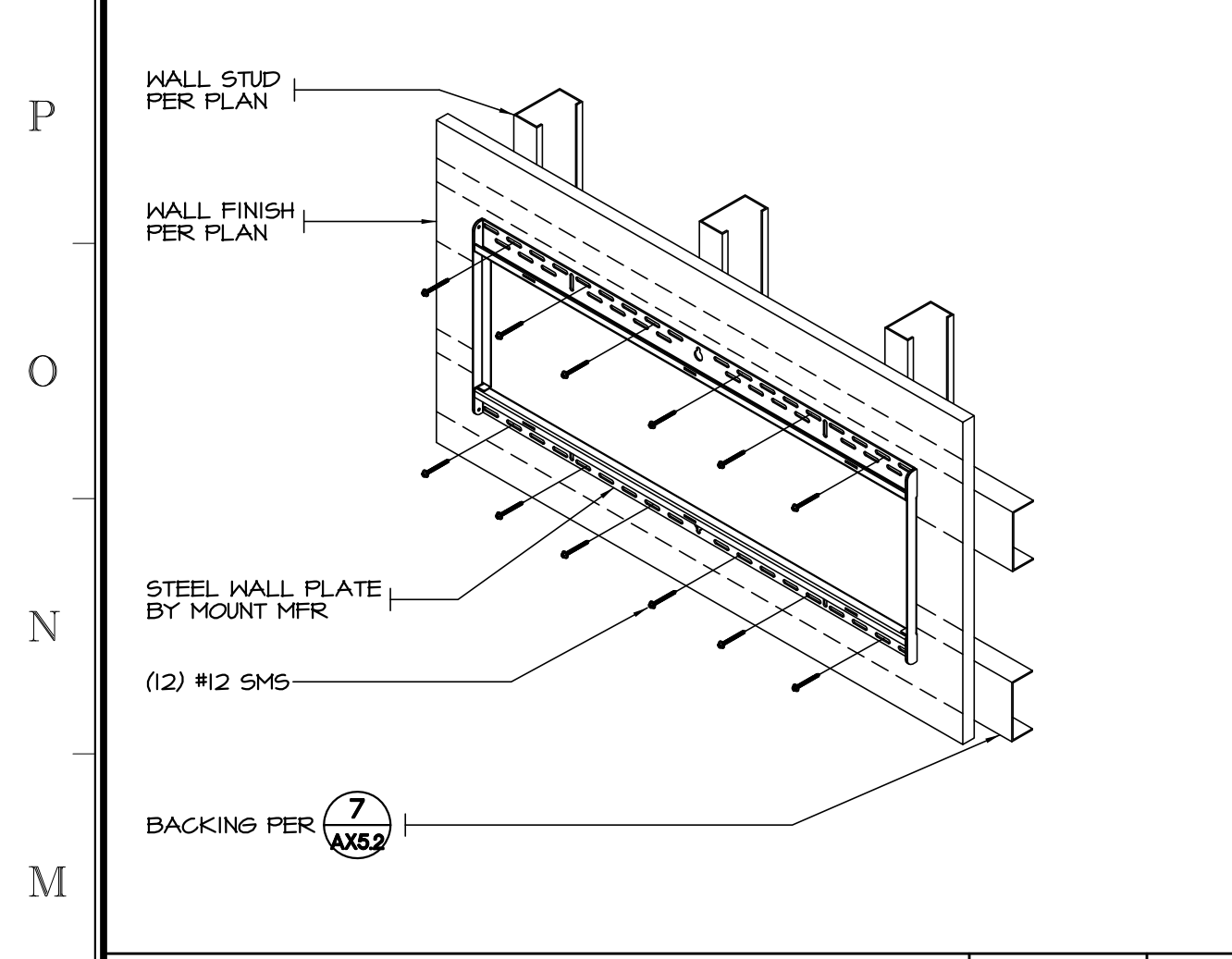
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VIDEO PROJECTOR CEILING MOUNT SCALE: 1/2" = 1'-0" **1** **RECESSED PROJECTOR SCREEN** SCALE: 1/2" = 1'-0" **2** **EQUIPMENT RACK ANCHORAGE** SCALE: NTS **3**



LARGE MONITOR WALL MOUNT SCALE: 1/2" = 1'-0" **4**

CARD READER MOUNTING HEIGHTS SCALE: 1/2" = 1'-0" **5**

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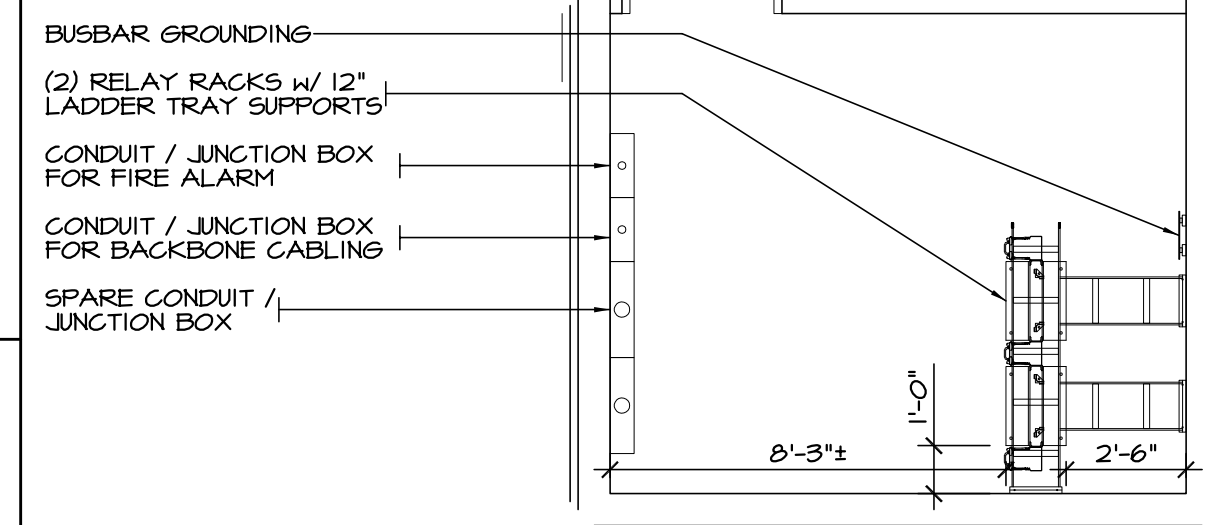
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Sheet Title
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DATA 9 SCALE: 1/4" = 1'-0" B

KEYNOTES:

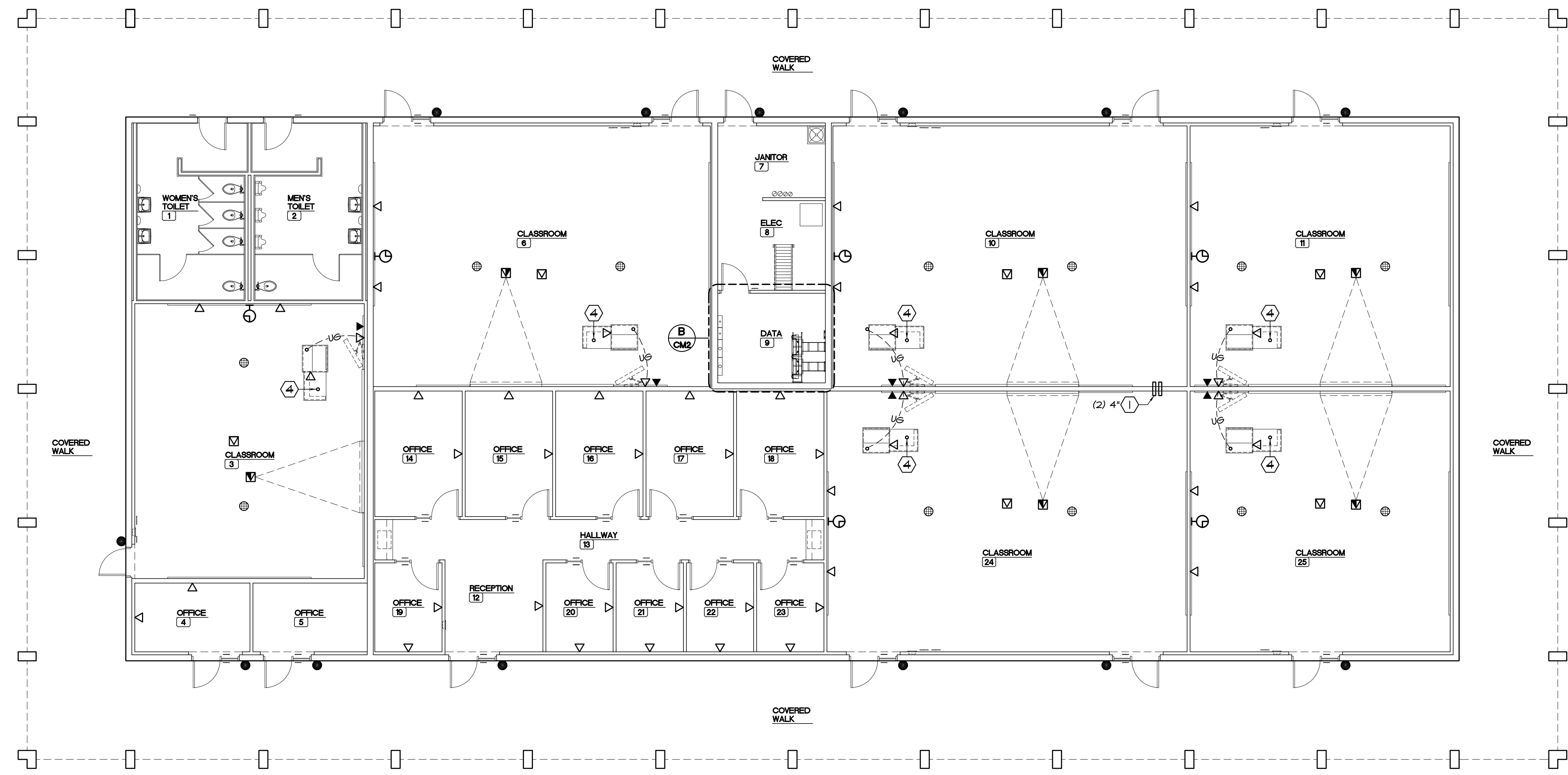
- ① PVC WALL SLEEVE ABOVE CEILING - SIZE NOTED
- ② CONDUIT ABOVE HARD LID CEILING - PROVIDED BY ELECTRICAL - SIZE NOTED
- ③ CONDUIT FOR BACKBONE CABLING - FOR CONTINUATION SEE SITE PLAN
- ④ CEILING MOUNTED DOCUMENT CAMERA - SEE SPECIFICATIONS
- ⑤ CONDUIT ROUTED THRU CASEWORK - PROVIDED BY ELECTRICAL - SIZE NOTED
- ⑥ PROVIDE EMI BARRIER FROM TRANSFORMER
- ⑦ PROVIDE (2) 1" CONDUIT
- ⑧ PROVIDE EXTERIOR WALL MOUNTED WIRELESS ACCESS POINT

LEGEND:

- ▼ SINGLE WALL PORT @ 48" - CAT 6 TELEPHONE / INTERCOM
- ▽ DUAL WALL PORT - CAT 6 DATA
- ▽ DUAL ISLAND PORT - CAT 6 DATA
- ▽ DUAL FLOOR PORT - CAT 6 DATA
- ⊙ BAND ROOM
 BOX: "HUBBELL" MODEL PFBRS2 w/ BRASS ADAPTER FRAME 55015
 LIBRARY / CONFERENCE
 BOX: "HUBBELL" MODEL HELCFB50IBASE w/ HELTCENTRSK
 COVERS: "HUBBELL" HELTCENTRSK
 ACCESSORIES: BLACK COVER AND FACE PLATES AS REQUIRED (PROVIDE BLANKS FOR SPACES NOT USED)
- ⊙ DUAL CEILING PORT - CAT 6 DATA
- ⊠ SINGLE PORT WIRELESS ACCESS ABOVE CEILING - CAT 6 DATA (VERIFY LOCATIONS)
- DOOR LOCK CARD READER
 1. SHALL OPERATE BOTH SWING DOORS
 2. SHALL OPERATE SWING DOOR AND ADJACENT SLIDING DOOR(S)
- CONDUIT FOR FUTURE DOOR LOCK CARD READER
- sleeve thru wall for structured cabling - SIZE NOTED
- - - - STRUCTURED CABLING CONDUIT UNDERGROUND
- ⊙ RECESSED CEILING MOUNTED SPEAKER - SEE COMMUNICATION DRAWINGS
- ⊕ 12" WALL CLOCK (110 VOLT SYSTEM) - SEE SPECIFICATIONS

NOTES:

1. LABEL ALL PORTS ON FACE PLATES.
2. ALL CONDUIT BY ELECTRICAL CONTRACTOR.
3. FILL ALL VOID SPACE OF WALL SLEEVES AND EACH END OF CONDUIT ABOVE HARD LIDS WITH SOUND ATTENUATION BATT INSULATION.
4. ALL FBX SYSTEMS / PATCH PANELS TO BE INSTALLED IN RACK SYSTEM.
5. FOR ALL THROUGH-PENETRATION FIRESTOP DETAILS SEE SHEET **CM1**



Sanders, INC.
 Architecture/Engineering
 102 INDUSTRY WAY, SUITE A
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 760 353 5440 FAX 760 353 5442

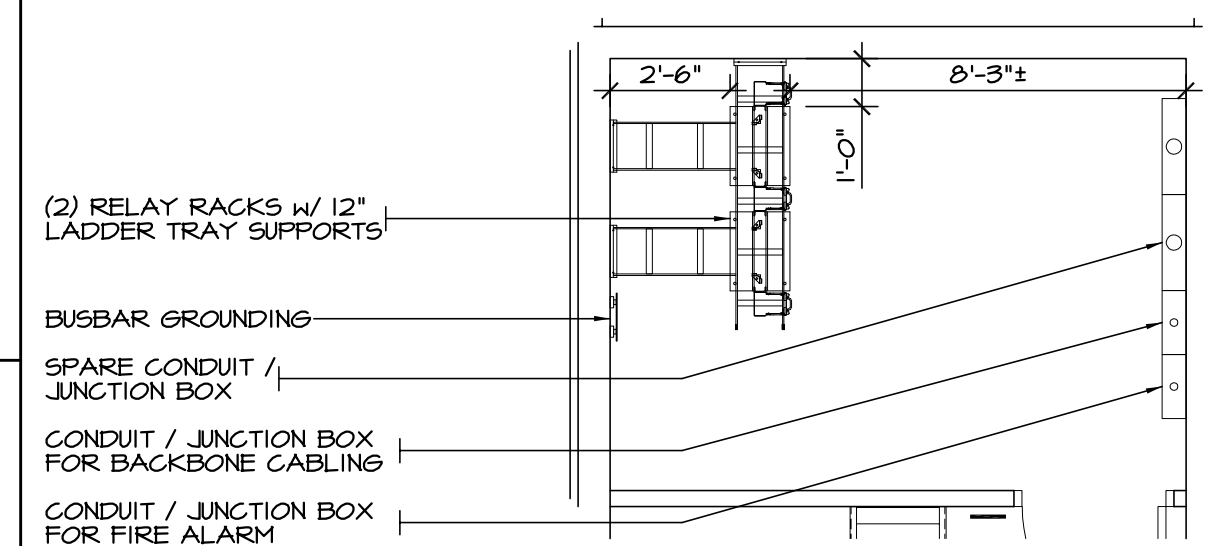
Project Title
**IMPERIAL VALLEY COLLEGE
 BUILDING 200, 300 AND 800 MODERNIZATION**

Sheet Title
COMMUNICATIONS PLAN

	Document Date	Project Number
	Date Last Revised	Sheet Number
	10-18-19	19-121V
		CM2

IDENTIFICATION STAMP
 DIV. OF THE STATE ARCHITECT
 APP. 04-118720 INC.
 REVIEWED FOR
 SS FLS ACS
 DATE: 01.16.20

APPROVALS



DATA 14 SCALE: 1/4" = 1'-0" **B**

KEYNOTES:

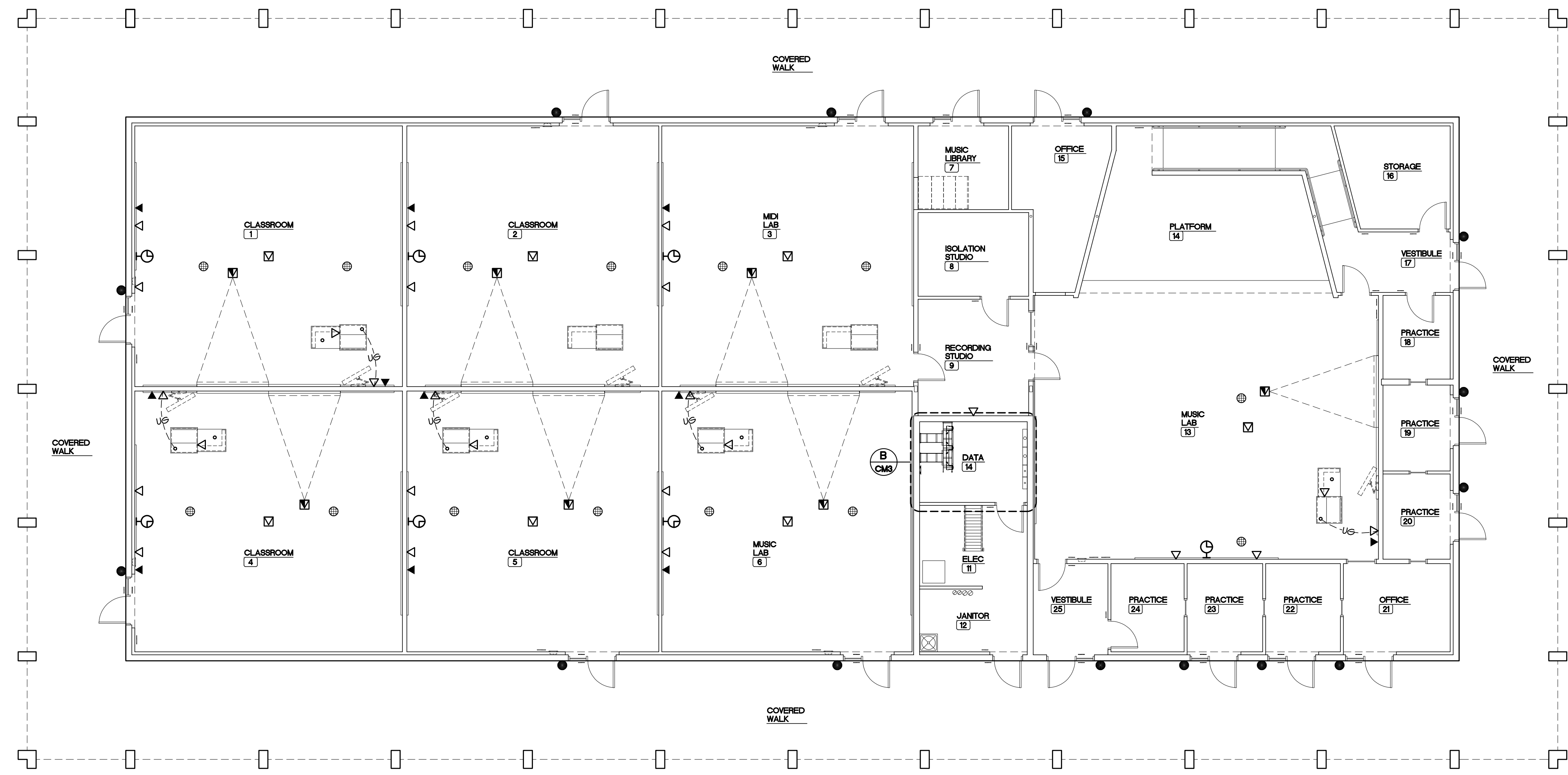
- ① PVC WALL SLEEVE ABOVE CEILING - SIZE NOTED
- ② CONDUIT ABOVE HARD LID CEILING - PROVIDED BY ELECTRICAL - SIZE NOTED
- ③ CONDUIT FOR BACKBONE CABLING - FOR CONTINUATION SEE SITE PLAN
- ④ CEILING MOUNTED DOCUMENT CAMERA - SEE SPECIFICATIONS
- ⑤ CONDUIT ROUTED THRU CASEWORK - PROVIDED BY ELECTRICAL - SIZE NOTED
- ⑥ PROVIDE EMI BARRIER FROM TRANSFORMER
- ⑦ PROVIDE (2) 1" CONDUIT
- ⑧ PROVIDE EXTERIOR WALL MOUNTED WIRELESS ACCESS POINT

LEGEND:

- ▼ SINGLE WALL PORT @ 48" - CAT 6 TELEPHONE / INTERCOM
- ▽ DUAL WALL PORT - CAT 6 DATA
- ▽ DUAL ISLAND PORT - CAT 6 DATA
- ▽ DUAL FLOOR PORT - CAT 6 DATA
- ⊙ BAND ROOM
BOX: "HUBBELL" MODEL HFBRS2 W/ BRASS ADAPTER FRAME 55015
COVERS: "HUBBELL" BRASS 53026
LIBRARY / CONFERENCE
BOX: "HUBBELL" MODEL HELCFB50IBASE W/ HELTCGNTKSH
COVERS: "HUBBELL" HELTCGNTKSH
ACCESSORIES: BLACK COVER AND FACE PLATES AS REQUIRED
(PROVIDE BLANKS FOR SPACES NOT USED)
- ⊙ DUAL CEILING PORT - CAT 6 DATA
- ⊙ SINGLE PORT WIRELESS ACCESS ABOVE CEILING - CAT 6 DATA
(VERIFY LOCATIONS)
- DOOR LOCK CARD READER
1. SHALL OPERATE BOTH SWING DOORS
2. SHALL OPERATE SWING DOOR AND ADJACENT SLIDING DOOR(S)
- CONDUIT FOR FUTURE DOOR LOCK CARD READER
- US— SLEEVE THRU WALL FOR STRUCTURED CABLING - SIZE NOTED
- US- STRUCTURED CABLING CONDUIT UNDERGROUND
- ⊙ RECESSED CEILING MOUNTED SPEAKER - SEE COMMUNICATION DRAWINGS
- ⊕ 12" WALL CLOCK (110 VOLT SYSTEM) - SEE SPECIFICATIONS

NOTES:

1. LABEL ALL PORTS ON FACE PLATES.
2. ALL CONDUIT BY ELECTRICAL CONTRACTOR.
3. FILL ALL VOID SPACE OF WALL SLEEVES AND EACH END OF CONDUIT ABOVE HARD LIDS WITH SOUND ATTENUATION BATT INSULATION.
4. ALL FBX SYSTEMS / PATCH PANELS TO BE INSTALLED IN RACK SYSTEM.
5. FOR ALL THROUGH-PENETRATION FIRESTOP DETAILS SEE SHEET **SH-1** (AXIS)



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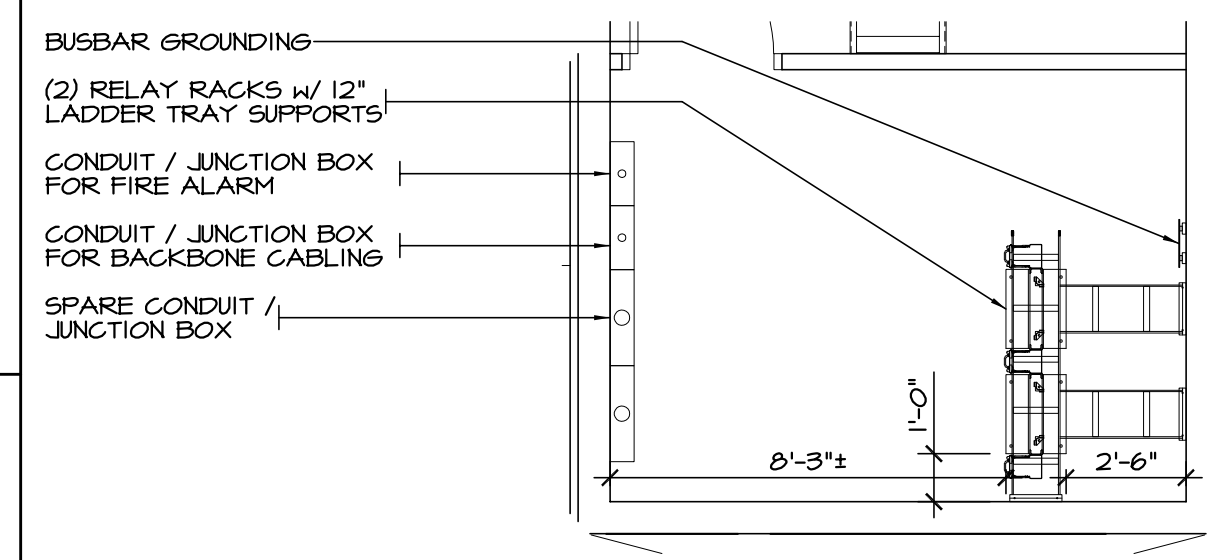
Project Title
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Sheet Title
COMMUNICATIONS PLAN

	Document Date	Project Number
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		CM3

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APPROVALS



DATA [5]

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

KEYNOTES:

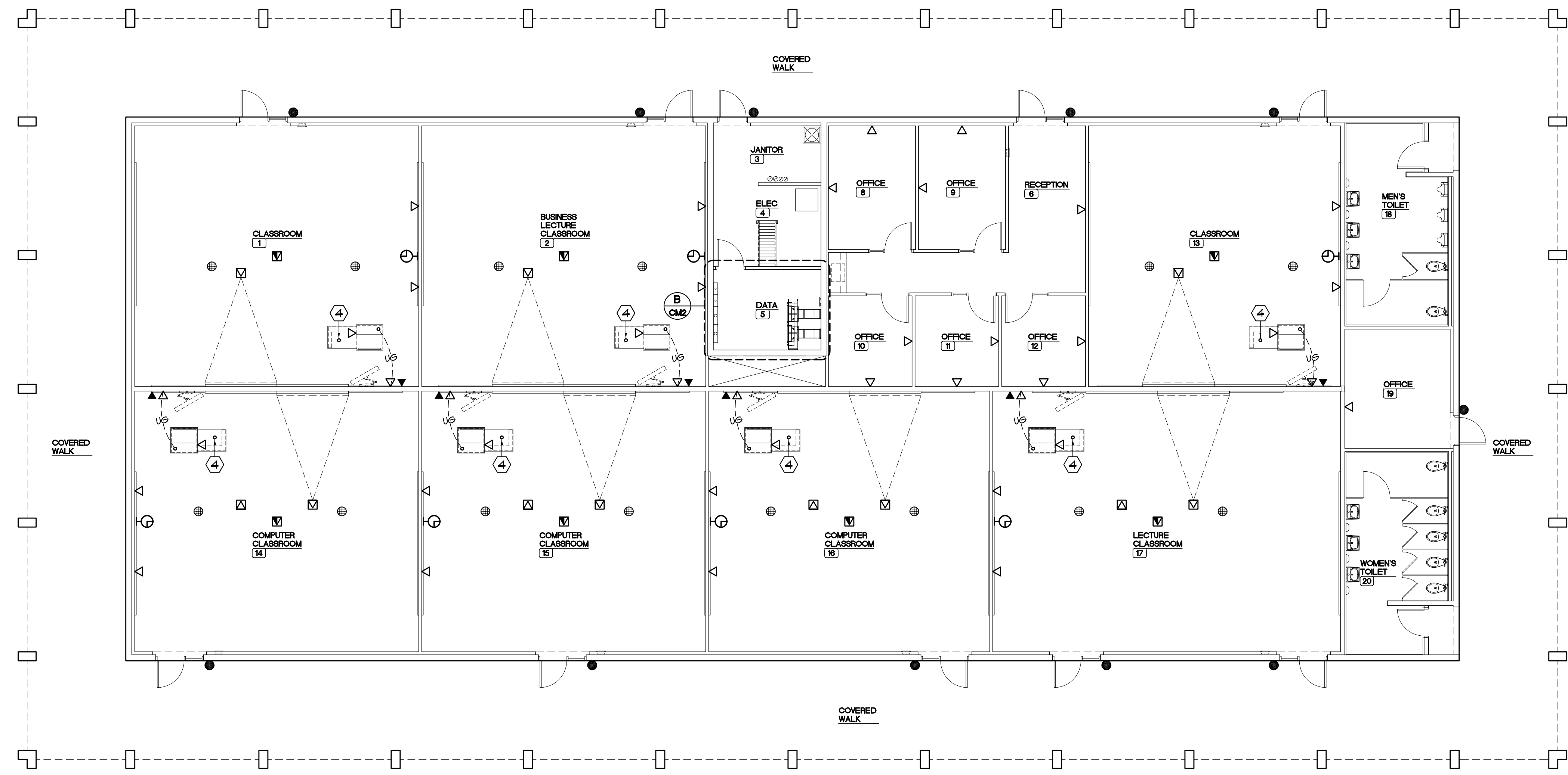
- (1) PVC WALL SLEEVE ABOVE CEILING - SIZE NOTED
- (2) CONDUIT ABOVE HARD LID CEILING - PROVIDED BY ELECTRICAL - SIZE NOTED
- (3) CONDUIT FOR BACKBONE CABLING - FOR CONTINUATION SEE SITE PLAN
- (4) CEILING MOUNTED DOCUMENT CAMERA - SEE SPECIFICATIONS
- (5) CONDUIT ROUTED THRU CASEWORK - PROVIDED BY ELECTRICAL - SIZE NOTED
- (6) PROVIDE EMI BARRIER FROM TRANSFORMER
- (7) PROVIDE (2) 1" CONDUIT
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LEGEND:

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- ▽ DUAL FLOOR PORT - CAT 6 DATA
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- ⊙ DUAL CEILING PORT - CAT 6 DATA
- ⊠ SINGLE PORT WIRELESS ACCESS ABOVE CEILING - CAT 6 DATA (VERIFY LOCATIONS)
- DOOR LOCK CARD READER
 1. SHALL OPERATE BOTH SWING DOORS
 2. SHALL OPERATE SWING DOOR AND ADJACENT SLIDING DOOR(S)
- CONDUIT FOR FUTURE DOOR LOCK CARD READER
- SLEEVE THRU WALL FOR STRUCTURED CABLING - SIZE NOTED
- UG-- STRUCTURED CABLING CONDUIT UNDERGROUND
- ⊙ RECESSED CEILING MOUNTED SPEAKER - SEE COMMUNICATION DRAWINGS
- ⊕ 12" WALL CLOCK (110 VOLT SYSTEM) - SEE SPECIFICATIONS

NOTES:

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5. FOR ALL THROUGH-PENETRATION FIRESTOP DETAILS SEE SHEET **CM8**



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	10-18-19	19-121V
		CM8