

## SEISMIC ANCHORAGE REQUIREMENTS

### MECHANICAL, ELECTRICAL AND PLUMBING 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 COMPONENTS SHALL BE ANCHORED OR BRACED TO MEET THE FORCE AND DISPLACEMENT REQUIREMENTS PRESCRIBED IN THE 2010 CBC, SECTION 1615A.1.12 THROUGH 1615A.1.22 AND ASCE 7-05 CHAPTER 6 AND 13.

- ALL PERMANENT EQUIPMENT AND COMPONENTS.
- TEMPORARY OR MOVEABLE EQUIPMENT THAT IS PERMANENTLY ATTACHED (e.g. HARD WIRED) TO THE BUILDING UTILITY SERVICES SUCH AS ELECTRICITY, GAS OR WATER.
- MOVEABLE EQUIPMENT WHICH IS STATIONED IN ONE PLACE FOR MORE THAN 8 HOURS AND HEAVIER THAN 400 POUNDS ARE REQUIRED TO BE ANCHORED WITH TEMPORARY ATTACHMENTS.

THE ATTACHMENT OF THE FOLLOWING MECHANICAL AND ELECTRICAL COMPONENTS SHALL BE POSITIVELY ATTACHED TO THE STRUCTURE, BUT NEED TO 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 STRUCTURAL ENGINEER OF RECORD AND THE DSA DISTRICT STRUCTURAL ENGINEER. THE PROJECT INSPECTOR WILL VERIFY THAT ALL COMPONENTS AND EQUIPMENT HAVE BEEN ANCHORED IN ACCORDANCE WITH ABOVE REQUIREMENTS.

### PIPING, DUCTWORK AND ELECTRICAL DISTRIBUTION SYSTEM BRACING NOTE

PIPING, DUCTWORK AND ELECTRICAL DISTRIBUTION SYSTEMS SHALL BE BRACED TO COMPLY WITH THE FORCES AND DISPLACEMENTS PRESCRIBED IN ASCE 7-05 SECTION 13.3 AS DEFINED IN ASCE 7-05 SECTION 13.6.5.6, 13.6.7, 13.6.8 AND THE 2010 CBC SECTION 1615A.1.20, 1615A.1.21 AND 1615A.1.22.

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

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

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

## GENERAL NOTES

- DRAWINGS ARE DIAGRAMMATIC AND INDICATE THE GENERAL ARRANGEMENT OF SYSTEMS AND WORK. CONTRACTOR SHALL PROVIDE AND INSTALL ALL NECESSARY LOW VOLTAGE AND TELECOM EQUIPMENT NECESSARY TO FULFILL APPLICABLE CODES, REGULATIONS, BUILDING STANDARDS AND THE BEST PRACTICES OF THE TRADE FOR INSTALLATION OF LOW VOLTAGE AND TELECOM WORK.
- ALL LOW VOLTAGE AND TELECOM WORK, MATERIALS AND EQUIPMENT SHALL CONFORM WITH THE REQUIREMENTS OF THE NATIONAL ELECTRIC CODE, UNDERWRITERS LABORATORIES, BOARD OF UNDERWRITERS, OSHA, NEMA, NFPA AND ALL AUTHORITIES HAVING JURISDICTION. THE CONTRACTOR SHALL PAY FOR AND OBTAIN ALL REQUIRED PERMITS AND CERTIFICATES OF REQUIRED ORDINANCES, AND DELIVER THEM TO THE OWNER'S REPRESENTATIVE.
- UPON REVIEW OF THE DRAWINGS PRIOR TO SUBMITTING HIS PROPOSAL, THE LOW VOLTAGE AND TELECOM CONTRACTOR SHALL INFORM THE ARCHITECT AND/OR ENGINEER OF ANY DISCREPANCIES WITHIN THE DRAWINGS AND REQUEST CLARIFICATION CONCERNING THE DISCREPANCIES. LATER CLAIMS WILL NOT BE RECOGNIZED FOR EXTRA LABOR, EQUIPMENT OR MATERIALS SHOULD SUCH PROCEDURE NOT BE FOLLOWED.
- THE CONTRACTOR SHALL COORDINATE THIS WORK WITH OTHER CONTRACTORS WHOSE WORK MIGHT AFFECT THIS INSTALLATION. THE CONTRACTOR SHALL ARRANGE ALL PARTS OF THIS WORK AND EQUIPMENT IN PROPER RELATION TO THE WORK AND EQUIPMENT OF OTHERS.

## RACEWAYS

- WHERE CONDUIT IS USED, 1" MINIMUM CONDUIT SHALL BE PROVIDED U.O.N.
- EMPTY CONDUIT FOR OUTLETS SHALL BE 1" THIN WALL INSTALLED CONCEALED IN WALLS, TERMINATED AND BUSHED 6" IN ACCESSIBLE HUNG CEILING AND DIRECTED TOWARDS CLOSET. ALL EMPTY CONDUIT SHALL BE FURNISHED WITH A PULL STRING.
- ALL CONDUITS INSTALLED OUTDOORS SHALL BE RIGID GALVANIZED WITH THREADED CONNECTIONS. ALL CONDUITS INSTALLED UNDERGROUND OR IN CONCRETE SLABS SHALL BE RIGID PVC WITH A SEPARATE GROUNDING CONDUCTOR AND CONCRETE ENCASMENT WHERE REQUIRED.
- FLEXIBLE CONDUIT SHALL BE USED TO MAKE FINAL CONNECTIONS, AND WHERE THE INSTALLATION OF RIGID CONDUIT IS IMPRACTICAL.
- WIRING SHALL BE INSTALLED CONCEALED IN WALLS, ABOVE CEILING OR BELOW FLOOR WHERE POSSIBLE. INSTALL CONDUIT PARALLEL TO BUILDING LINES. CLEAR ALL OPENINGS, PIPES, DUCTS, STRUCTURAL COMPONENTS, ETC.
- INSTALL CONDUIT CONTINUOUS BETWEEN BOXES AND CABINETS WITH NO MORE THAN THREE 90 DEGREE BENDS. SECURELY FASTEN IN PLACE WITH STRAPS, HANGERS, AND STEEL SUPPORTS AS REQUIRED.
- DO NOT SUPPORT CONDUIT FROM SUSPENDED CEILING GRID OR SUSPENSION WIRES. REAM AND THOROUGHLY CLEAN CONDUIT ENDS BEFORE INSTALLATION. OPENINGS SHALL BE PLUGGED OR COVERED TO KEEP CONDUIT CLEAN.

## PULL BOXES, JUNCTION BOXES, & OUTLET BOXES

- PULL BOXES, JUNCTION BOXES AND OUTLET BOXES SHALL BE MANUFACTURED FROM GALVANIZED INDUSTRY STANDARD GAUGE SHEET STEEL.
- PROVIDE PULL BOXES AND JUNCTION BOXES IN RACEWAYS TO ASSURE THAT CABLES ARE NOT DAMAGED WHEN THEY ARE PULLED AND TO FULFILL MINIMUM CODE REQUIREMENTS.
- PULL BOXES AND JUNCTION BOXES SHALL BE SIZED SO THAT THE MINIMUM BENDING RADIUS CRITERIA SPECIFIED FOR THE WIRES AND CABLE ARE MAINTAINED.
- PROVIDE AND INSTALL ALL REQUIRED JUNCTION AND PULL BOXES REGARDLESS WHETHER INDICATED ON DRAWINGS OR NOT.

## GROUNDING

- ALL ELECTRICAL SYSTEMS SHALL BE GROUNDED AS REQUIRED BY THE NATIONAL ELECTRICAL CODE, THE LOCAL UTILITY COMPANY AND ALL OTHER LOCAL AUTHORITIES HAVING JURISDICTION. PERMANENTLY AND EFFECTIVELY GROUND ALL METALLIC CONDUITS, SUPPORTS, CABINETS, PLANE BOARDS AND SYSTEM GROUNDING NEUTRAL.
- GROUND CLAMPS SHALL BE LISTED SPECIFICALLY FOR GROUNDING. WHERE GROUNDING CONDUCTOR IS ENCLOSED IN CONDUIT, GROUND CLAMP SHALL GROUND BOTH CONDUCTOR AND CONDUIT.

## ACRONYMS & DEFINITIONS

(#) – AFTER SYMBOL IS EQUAL TO NUMBER CABLES  
 (#") – MOUNTING HEIGHT ABOVE FINISHED FLOOR  
 AFF – ABOVE FINISHED FLOOR  
 (B) – BLANK  
 C – CONDUIT  
 CAT# – DENOTES CATEGORY COPPER CABLE  
 EF – ENTRANCE FACILITY (ALSO KNOWN AS MPOE)  
 (F) – FUTURE, PROVIDE BLANK FACEPLATE FOR ALL FUTURE OUTLETS  
 FB# – FLOOR BOX #  
 HC – HORIZONTAL CROSS CONNECT (PREVIOUSLY KNOWN AS IDF)  
 IC – INTERMEDIATE CROSS CONNECT  
 MC – MAIN CROSS CONNECT (PREVIOUSLY KNOWN AS MDF)  
 MMF – MULTI-MODE FIBER OPTIC CABLE  
 MPOE – MAIN POINT OF ENTRY  
 (N) – NEW OR DARK SYMBOLS  
 PB – PULL BOX  
 PC – PULL CAN  
 (R) – REMOVE  
 RMU – RACK MOUNTING UNITS  
 (R/R) – REMOVE AND REPLACE  
 SER – SOUND EQUIPMENT RACK  
 SMF – SINGLE MODE FIBER OPTIC CABLE  
 SMR – SURFACE MOUNTED RACEWAY  
 TC – TERMINAL CABINET  
 TE – TELECOMMUNICATIONS ENCLOSURE  
 TMGB – TELECOMMUNICATION MAIN GROUNDING BUS BAR  
 TR – TELECOMMUNICATIONS ROOM  
 UON – UNLESS OTHERWISE NOTED  
 UPS – UNINTERRUPTED POWER SUPPLY  
 (W) – WALL OUTLET MOUNTED AT +48" ABOVE FINISHED FLOOR  
 WAP – WIRELESS ACCESS POINT +96" U.O.N.  
 (WG) – WIRE GUARD  
 (WP) – WEATHER PROOF

## PATHWAY SYMBOL LIST

- CONDUIT ROUTE UNDER GROUND, UNDER SLAB, OR UNDER FLOOR.
- CONDUIT ROUTE ABOVE GROUND, OR ABOVE COVERED WALKWAYS.
- J CONDUIT STUB – UNDER GROUND, UNDER FLOOR CONDUIT STUBBED UP WALL TO ACCESSIBLE ATTIC SPACE. STUB TOWARDS J-HOOK PATHWAY WHEN POSSIBLE.
- HOME RUN CONDUIT TO NEAREST MAIN CROSS CONNECT, HORIZONTAL CROSS CONNECT, OR SOUND EQUIPMENT RACK.
- > CONDUIT SLEEVE – TYPICALLY 2" CONDUIT SLEEVE UNLESS OTHERWISE NOTED. ALWAYS EXTEND SLEEVES PAST SOFFITS AND HARD LID CEILINGS.
- ☐ CEILING BOX – SEE SPECIFICATIONS FOR MANUFACTURER PRODUCT DATA. COORDINATE WITH ELECT. WHEN APPLICABLE.
- ☉ FLOOR BOX – SEE SPECIFICATIONS FOR MANUFACTURER PRODUCT DATA
- COMMUNICATIONS BACKBOARD – 48"x96"x¾" FIRE RETARDANT PLYWOOD. MOUNTED 6" AFF.
- WIREMOLD – PROVIDE (N) WIREMOLD 5400 OR EQUAL. SEE SPECIFICATIONS FOR MANUFACTURER PRODUCT DATA. MOUNT AT 42" UON.
- ☒ WIREMOLD RISER – PROVIDE (N) WIREMOLD 5400 RISER OR EQUAL. SEE SPECIFICATIONS FOR MANUFACTURER PRODUCT DATA.

## INTERCOM SYMBOL LIST

- ☎ SPEAKER/CLOCK COMBINATION MOUNTED AT 96", PROVIDE SPECIAL BACK BOX (1) 3/4" C STUBBED ABOVE TOP PLATE IN ACCESSIBLE ATTIC SPACE. BOX MOUNTED AT 6" 96" TOB.
- ☎ CLOCK MOUNTED AT 84", PROVIDE 1G/4S BOX AND (1) 3/4" C STUBBED ABOVE TOP PLATE IN ACCESSIBLE ATTIC SPACE. BOX MOUNTED AT 6" 96" TOB.
- ☎ SPEAKER MOUNTED IN T-BAR CEILING.
- ☎ SPEAKER FLUSH MOUNTED TO WALL. PROVIDE SPECIAL BACK BOX, 3/4" C STUBBED ABOVE TOP PLATE IN ACCESSIBLE ATTIC SPACE. BOX MOUNTED AT 6" 96" TOB.
- H INTERCOM HORN MOUNTED TO WALL OR UNDER BREEZEWAY, PROVIDE SPECIAL BACK BOX, (1) 3/4" C STUBBED ABOVE TOP PLATE IN ACCESSIBLE ATTIC SPACE. BOX MOUNTED AT 6" 96" TOB.
- ANN LED ANNUNCIATING PANEL, SPECIAL BACK BOX, 3/4" C STUBBED ABOVE TOP PLATE IN ACCESSIBLE ATTIC SPACE. BOX MOUNTED AT 6" 96" TOB.
- E NURSE CALL SWITCH, PROVIDE 1G/4S BOX AND (1) 3/4" C STUBBED ABOVE TOP PLATE IN ACCESSIBLE ATTIC SPACE. BOX MOUNTED AT 6" 42" TOB.
- S SPEAKER IN HARD LID CEILING.

## CABINET/RACK SYMBOL LIST

- OUTLINED AREA SHOWS TELECOMMUNICATIONS ROOM ON SITE PLAN.
- F FLOOR MOUNTED SWING OUT CABINET – SEE SPECIFICATIONS FOR MANUFACTURER PRODUCT DATA.
- || 2-POST RACK – SEE SPECIFICATIONS FOR MANUFACTURER PRODUCT DATA.
- C CABINET – SEE SPECIFICATIONS FOR MANUFACTURER PRODUCT DATA.
- W WALL MOUNTED SWING OUT CABINET – SEE SPECIFICATIONS FOR MANUFACTURER PRODUCT DATA.
- F FLUSH MOUNT TERMINAL CABINET – SEE SPECIFICATION FOR MANUFACTURE PRODUCT DATA.
- S SURFACE MOUNT TERMINAL CABINET – SEE SPECIFICATION FOR MANUFACTURE PRODUCT DATA.
- || THIN LINE || WALL MOUNTED CABINET – SEE SPECIFICATIONS FOR MANUFACTURE PRODUCT DATA.

## DATA SYMBOL LIST

- (#) DATA OUTLET – (#) INDICATES THE QUANTITY OF DATA CABLES TO BE TERMINATED AT 6" 15" BOB UNLESS OTHERWISE NOTED. PROVIDE UP TO 4 JACKS, 4-PORT FACEPLATE. USE BLANK JACKS ON ALL UNUSED PORTS IN FACE PLATE. ERATE
- ▼ VOICE OUTLET – (1) DATA CABLE TO BE TERMINATED AND BOX MOUNTED AT 18" BOB, UON, PROVIDE 1 JACK, AND 1-PORT FACE PLATE. BOX MOUNTED AT 6" 15" BOB. ERATE
- (W) WALL PHONE OUTLET – (1) DATA CABLE TO BE TERMINATED AND BOX MOUNTED AT 6" 42" TOB. UNLESS OTHERWISE NOTED. PROVIDE 4S BOX 1 GANG RING, AND 1-PORT WALL PHONE PLATE. ERATE
- ▼ DATA/PHONE OUTLET – (2) DATA CABLES TO BE TERMINATED AND BOX MOUNTED AT 6" 15" BOB UNLESS OTHERWISE NOTED. PROVIDE (2) JACKS, AND 2-PORT FACE PLATE. ERATE
- (IC) INTERCOM. (1) INTERCOM CABLE TO BE TERMINATED AND BOX MOUNTED AT 42" TOB UNLESS OTHERWISE NOTED. PROVIDE WALL PHONE PLANE 4S BOX 1 GANG RING.
- W WIRELESS DATA OUTLET – (N) DATA CABLE TERMINATED AT 96" TOB ABOVE FINISHED FLOOR UNLESS OTHER NOTED. PROVIDE (1) JACK, AND 1-PORT FACE PLATE. ERATE
- W WIRELESS DATA ENCLOSURE IN CEILING – PROVIDE (N) DATA, JACK AND 1-PORT SURFACE MOUNTED OUTLET BOX, PROVIDE OBERON 1059-00 OR APPROVED EQUAL FOR WIRELESS ACCESS POINT ENCLOSURE. SEE SPECIFICATION FOR MANUFACTURE PRODUCT DATA. ERATE
- W WIRELESS DATA OUTLET IN CEILING – PROVIDE (N) DATA, (2) JACKS, 2-PORT FACE PLATE, AND 5S BOX ABOVE CEILING. ERATE
- W DATA OUTLET IN FLOOR BOX – PROVIDE (N) DATA TO BE TERMINATED IN FLOOR BOX. PROVIDE UP TO 4 JACKS, 4-PORT FACE PLATE. USE BLANK JACKS ON ALL UNUSED PORTS IN FACE PLATE. ERATE
- J JUNCTION BOX – PROVIDE 5S OUTLET BOX WITH BLANK FACE PLATE. STUB 1" CONDUIT ABOVE TOP PLATE IN CEILING.

## AUDIO/VISUAL SYMBOL LIST

- MULTI-MEDIA OUTLET, PROVIDE (1) DATA CABLE, (1) 2 GANG RING AND (2) 1½" C STUBBED ABOVE TOP PLATE INTO ACCESSIBLE ATTIC SPACE. BOX MOUNTED AT 6" 15" BOB. A/V CABLE PER SYSTEM DETAIL.
- MULTI-MEDIA OUTLET IN CEILING, (1) DATA, A/V CABLE PER SYSTEM DETAIL.
- P PROJECTOR MOUNT IN CEILING – SEE SPECIFICATION FOR MANUFACTURE PRODUCT DATA. (1) DATA, (1) TV.
- P PROJECTOR MOUNT ON WALL – SEE SPECIFICATION FOR MANUFACTURE PRODUCT DATA. 6" 96" AFF. (1) DATA, (1) TV.
- SP WALL MOUNTED SPEAKER – SEE SPECIFICATION FOR MANUFACTURE PRODUCT DATA. BOX MOUNTED AT 6" 96" TOB.
- SP CEILING MOUNTED SPEAKER – SEE SPECIFICATION FOR MANUFACTURE PRODUCT DATA.
- CP CONTROL PANEL – PROVIDE 2 GANG RING AND (1) 1" C STUBBED ABOVE TOP PLATE INTO ACCESSIBLE ATTIC SPACE. BOX MOUNTED AT 6" 42" TOB. – SEE SPECIFICATION FOR MANUFACTURE PRODUCT DATA. (1) DATA A/V CABLE PER SYSTEM DETAIL.
- R REMOTE CONTROL INPUT BOX MOUNTED AT 6" 15" BOB. – SEE SPECIFICATION FOR MANUFACTURE PRODUCT DATA. (1) DATA, A/V CABLE PER SYSTEM DETAIL.
- SM STAGE MONITORS – SEE SPECIFICATION FOR MANUFACTURE PRODUCT DATA.
- A ANTENNA – SEE SPECIFICATION FOR MANUFACTURE PRODUCT DATA.
- M MICROPHONE
- REMOTE CART – SEE SPECIFICATION FOR MANUFACTURE PRODUCT DATA.
- TV (1) DATA, (1) RG6, A/V CABLE PER SYSTEM DETAIL.

## SECURITY SYMBOL LIST

- ☒ DOOR CONTACT IN DOOR JAM. PROVIDE ¾" C STUBBED FROM DOOR JAM TO ACCESSIBLE ATTIC SPACE.
- M AUDIO SENSOR IN CEILING.
- M AUDIO SENSOR ON WALL MOUNTED AT 96" AFF UON.
- K KEYPAD ON WALL MOUNTED AT 48" AFF UON. PROVIDE 4S BACK BOX, (1) GANG RING AND (1) 1" C STUBBED INTO ACCESSIBLE ATTIC SPACE.
- ☐ CLOSED CAPTION CAMERA LOCATION (FIXED)
- H HORN/SIREN
- C CAMERA OUTLET

NEW ELEMENTARY SCHOOL  
 MCFARLAND UNIFIED  
 SCHOOL DISTRICT  
 MCFARLAND UNIFIED SCHOOL DISTRICT  
 MCFARLAND, KERN COUNTY, CA

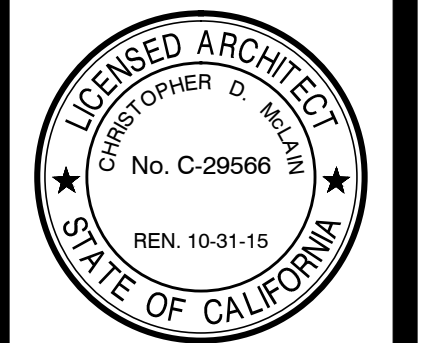


### APPROVALS

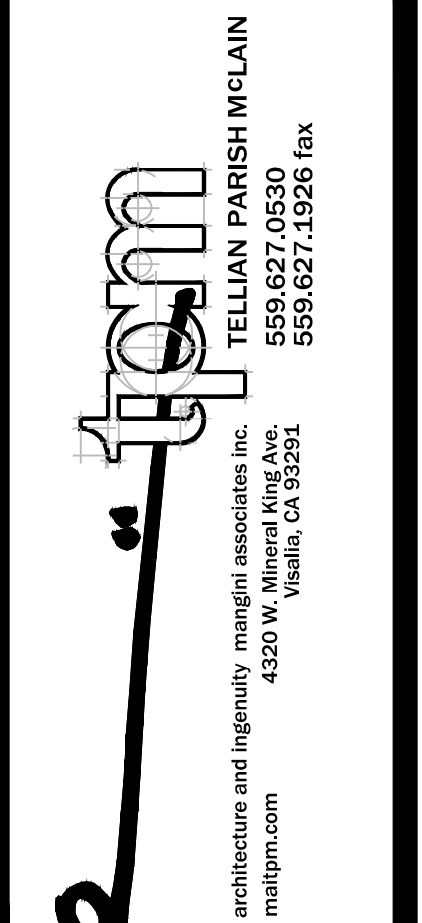
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 DATE \_\_\_\_\_



DATE: DECEMBER 18, 2013



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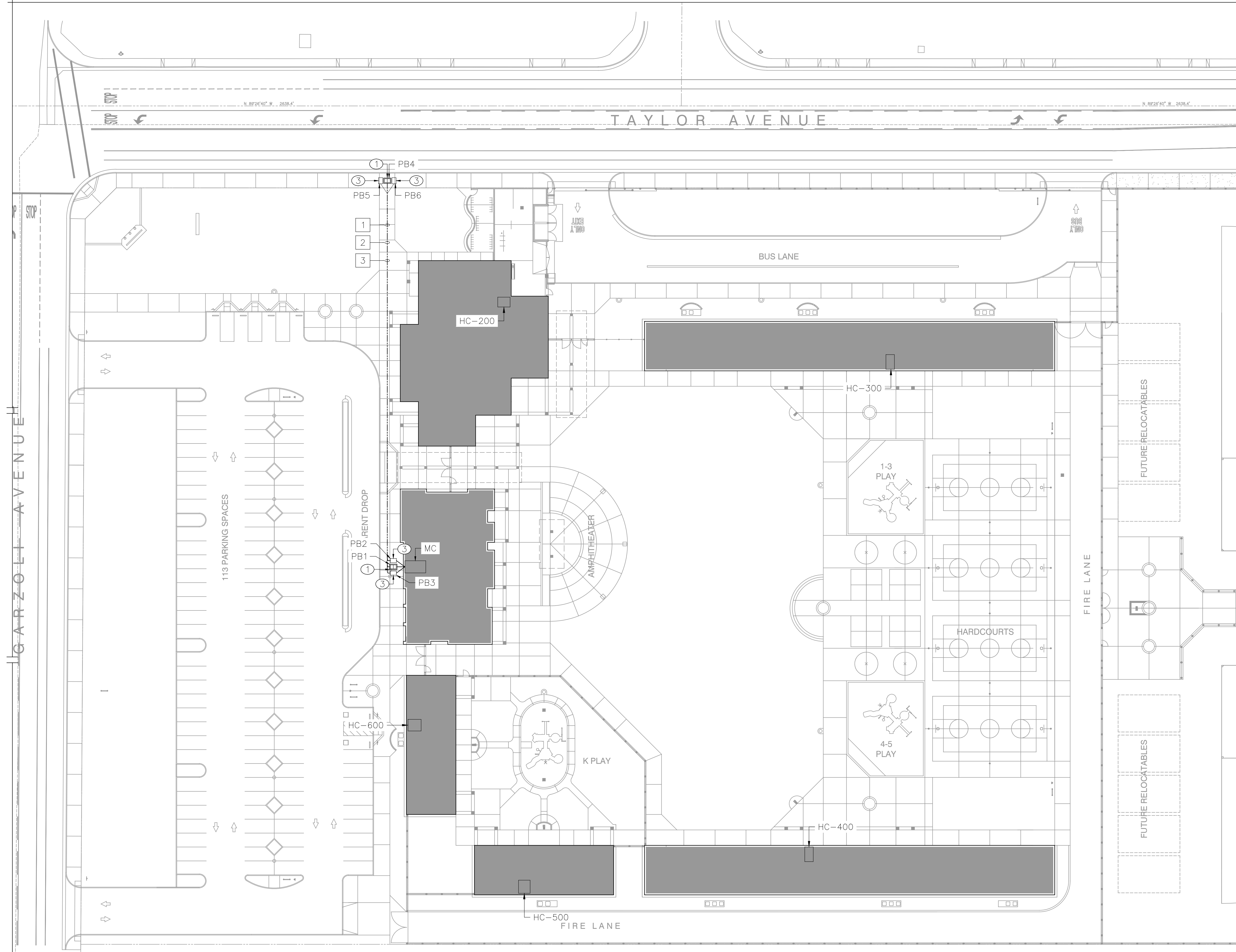
PROJECT 1332



EXPIRES: 12/31/16  
 REGIS. NO. 109549  
 SEAN HARRINGTON  
 EXPIRES: 12/31/16  
 REGIS. NO. 07765  
 FRED BRAKEMAN

PO BOX 999, BAKERSFIELD CA 93302  
 PH: (661)716-1840 FX: (661)716-1841  
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**NOTES**

- ① 3X5 UTILITY VAULT PER DETAIL 3/T4.3
- ② UNDERGROUND CONDUIT PER DETAIL 1/T4.3
- ③ N40 UTILITY PULL BOX PER DETAIL 2/T4.3

CONDUIT SCHEDULE		
CALLOUT	2" CONDUIT	4" CONDUIT
1		2 VERIZON
2	BRIGHT HOUSE	
3	OWNER WAN	

**NOTES:**  
1. CONDUIT SHOULD NOT HAVE MORE THAN 40% FILL RATIO.

PULL BOX SCHEDULE	
PULL BOX	TYPE
PB1, PB4	3X5 VERIZON
PB2, PB5	N40 BRIGHT HOUSE
PB3, PB6	N40 OWNER

① TELECOM UTILITY PLAN  
SCALE: 1" = 30'-0"

**NEW ELEMENTARY SCHOOL**  
**McFARLAND UNIFIED SCHOOL DISTRICT**  
 McFARLAND UNIFIED SCHOOL DISTRICT  
 McFARLAND, KERN COUNTY, CA

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TELLIAN PARISH McCLAIN  
 559.627.0530  
 4320 W. Mineral King Ave.  
 Visalia, CA 93291  
 559.627.1926 fax  
 tom.com

TITLE

TELECOM SITE  
UTILITY PLAN

T0.1

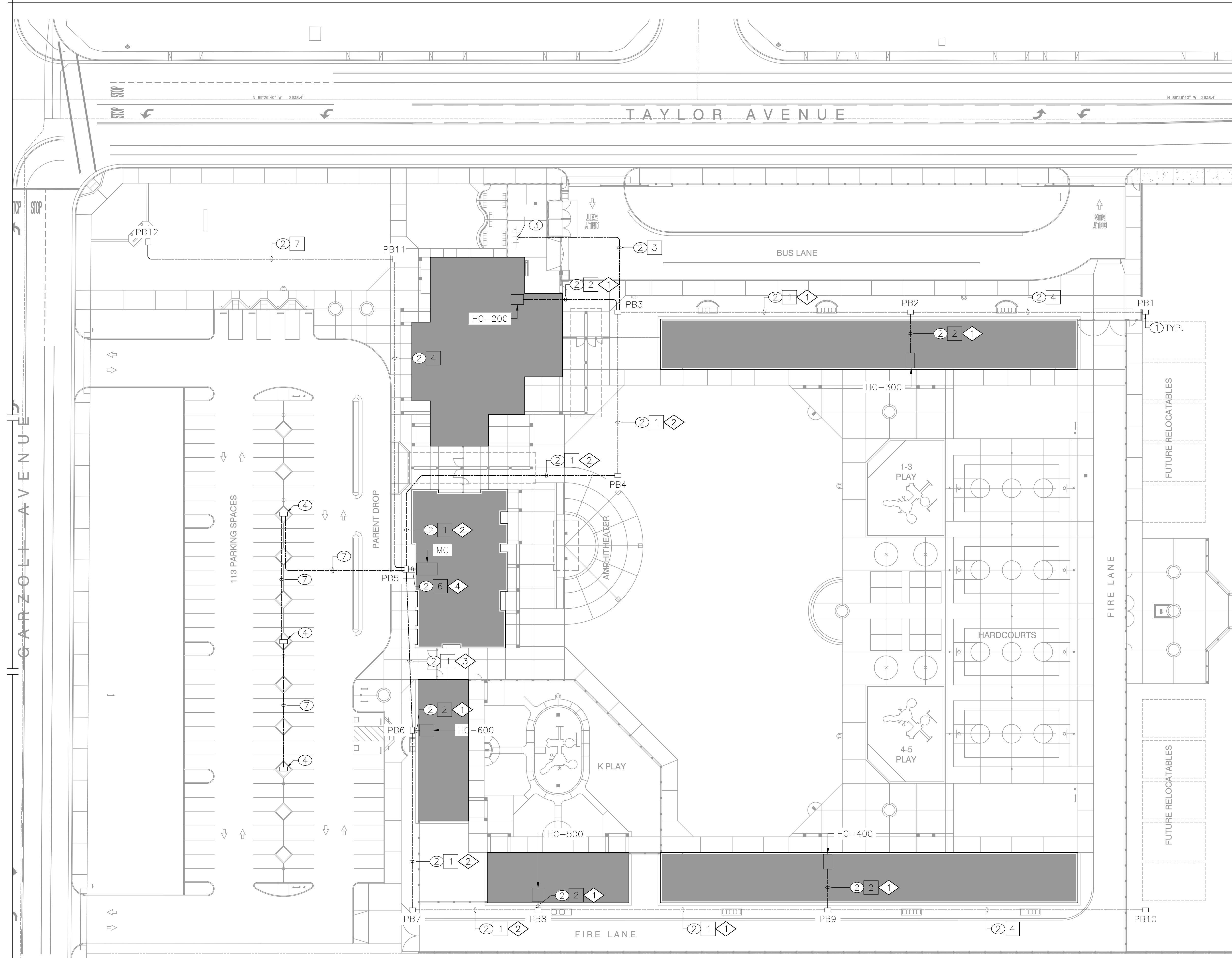
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### CONDUIT SCHEDULE

CALLOUT	1" CONDUIT	1 1/2" CONDUIT	2" CONDUIT	3" CONDUIT
1	4		4	2
2	2		2	1
3	1			
4	2		3	
5			2	
6	4	2	6	3
7	2			

NOTES:  
1. CONDUIT SHOULD NOT HAVE MORE THAN 40% FILL RATIO.

### CABLE SCHEDULE

CALLOUT	ERATE			
	12STR SMF	12STR MMF	25PR OSP	1A CABLE
1	1	1	1	1
2	2	2	2	2
3	3	3	3	3
4	5	5	5	5

NOTES:  
1. CONTRACTOR TO PROVIDE NEW OPTICAL FIBER BACKBONE OSP CABLES.  
2. CONTRACTOR TO PROVIDE NEW COPPERBACKBONE OSP CABLES.

### PULL BOX SCHEDULE

PULL BOX	TYPE
PB1, PB2, PB3, PB4, PB6, PB7, PB8, PB9, PB10	N40
PB5	3X5

- ### NOTES
- CONTRACTOR SHALL LABEL ALL NEW SITE CABLE PER DETAIL 3/T4.0
  - NEW PULL BOX PER DETAIL 2/T4.3
  - NEW UNDERGROUND CONDUIT PER DETAIL 1/T4.3
  - COORDINATE UTILITY SERVICE CONDUIT WITH ELECTRICAL CONTRACTOR.
  - STUB ONE 1" C INTO LIGHT POLE BASE FOR FUTURE CAMERA.

1 TELECOM SITE PLAN  
SCALE: 1" = 30'-0"



**NEW ELEMENTARY SCHOOL**  
**MC FARLAND UNIFIED SCHOOL DISTRICT**  
MCFARLAND UNIFIED SCHOOL DISTRICT  
MCFARLAND, KERN COUNTY, CA

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4320 W. Mineral King Ave.  
Visalia, CA 93291  
559.627.1926 fax

TITLE  
TELECOM SITE PLAN

T0.2

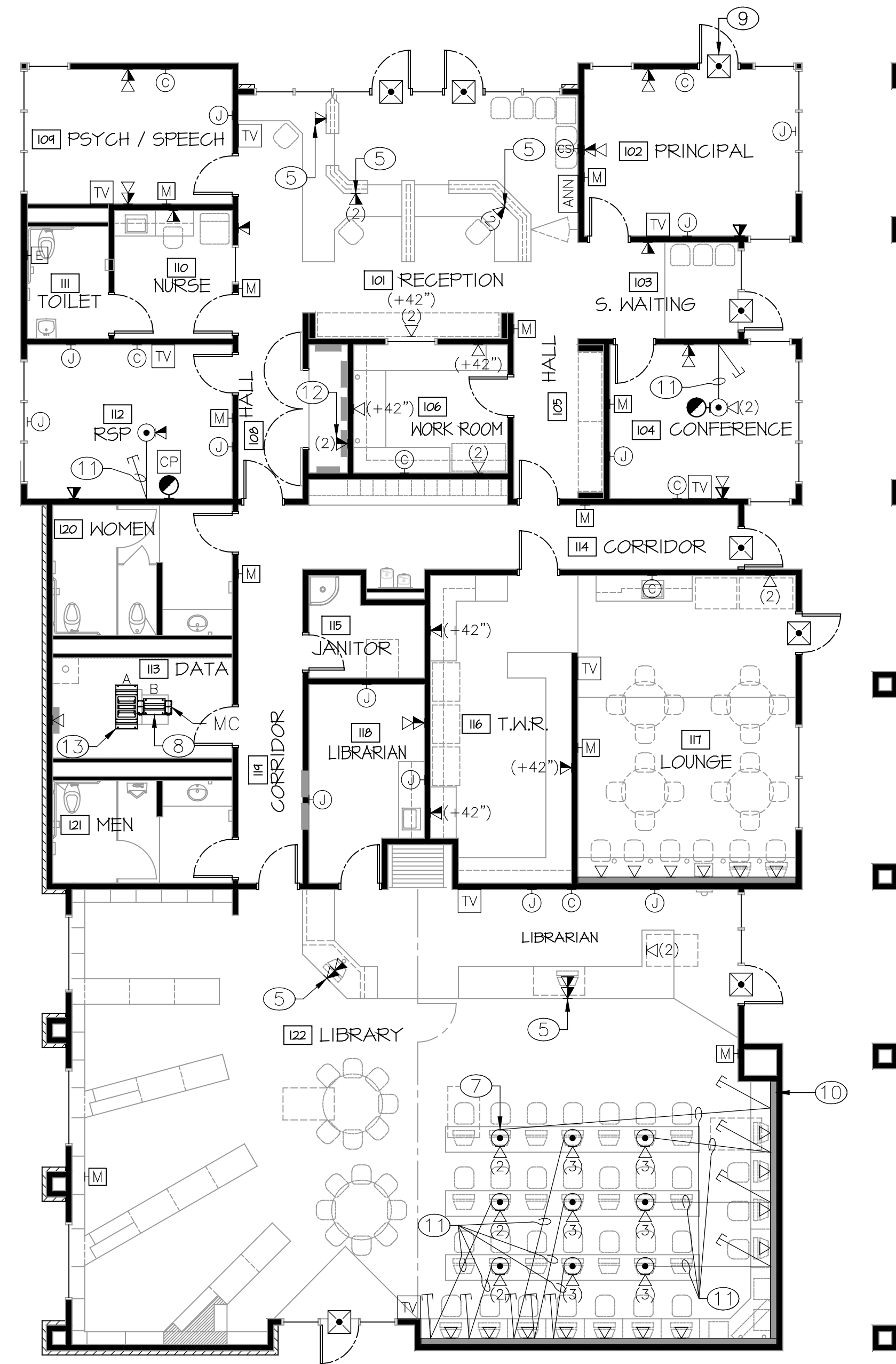
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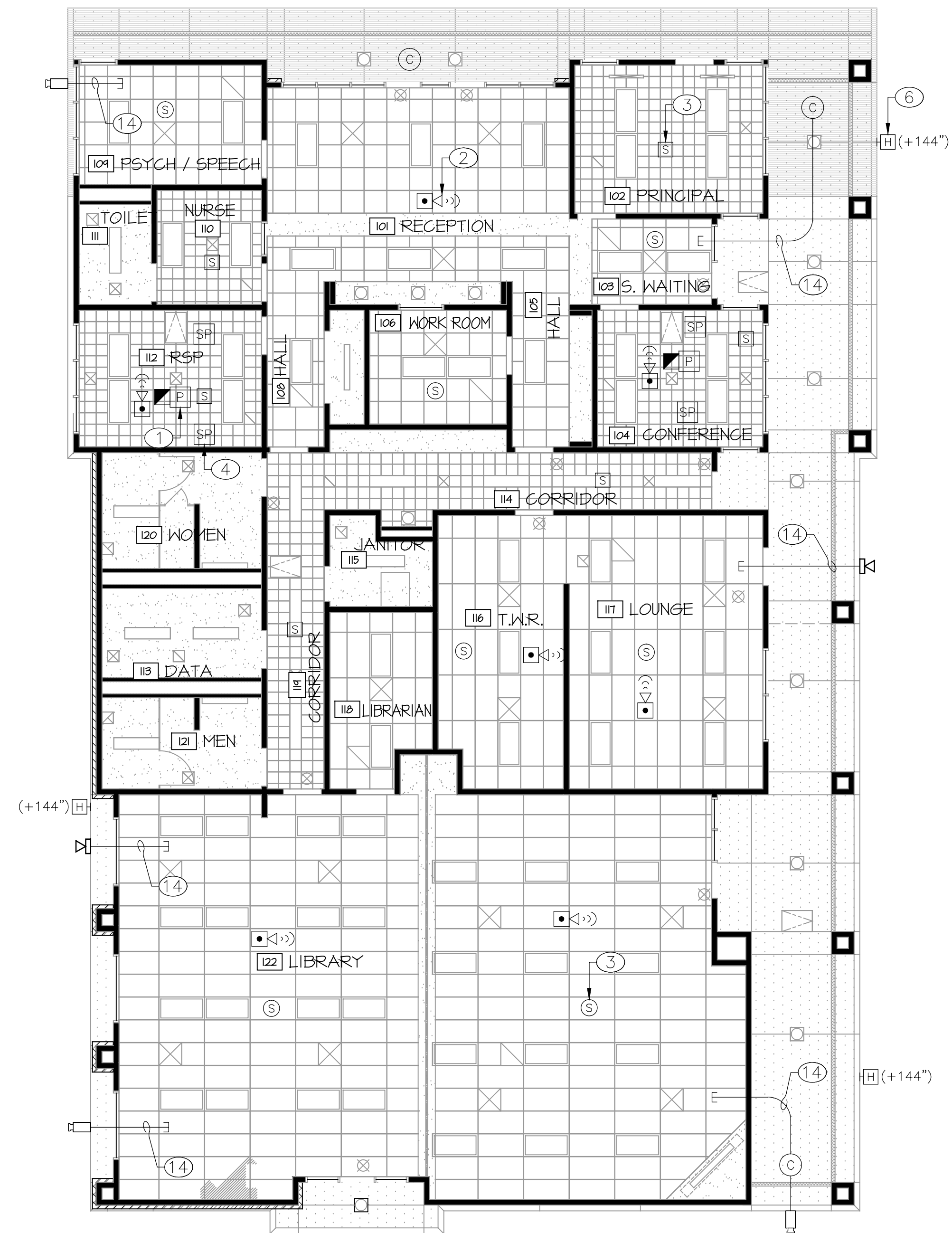
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1 BUILDING 100 FLOOR PLAN  
SCALE: 1/8" = 1'-0"



2 BUILDING 100 CEILING PLAN  
SCALE: 1/8" = 1'-0"

NOTES

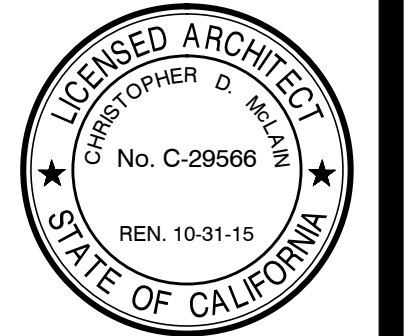
- 1 PROJECTOR MOUNT IN CEILING, DETAIL 3/T4.2.
- 2 WIRELESS ACCESS POINT IN CEILING, DETAIL 5/T4.2.ERATE
- 3 INTERCOM SPEAKER IN CEILING, DETAIL 2/T4.2.
- 4 A/V SPEAKER IN CEILING, DETAIL 4/T4.2.
- 5 CONTRACTOR TO COORDINATE NEW OUTLETS IN MILLWORK WITH ARCHITECT AND ELECTRICAL. PROVIDE A MINIMUM (1)1/4"C FROM OUTLET TO ACCESSIBLE ATTIC SPACE.
- 6 INTERCOM HORN AS SHOWN, DETAIL 5/T4.3.
- 7 FLOOR BOX DETAIL 8/T4.2, COORDINATE WITH ELECTRICAL FOR POWER AND DEVICE RING.
- 8 2-POST RACK, DETAIL 4/T4.1. SEE 1-6/T2.0 FOR WALL AND RACK ELEVATIONS. ERATE
- 9 DOOR CONTACT, DETAIL 6/T4.2.
- 10 RACEWAY, DETAIL 7/T4.2.
- 11 1-1/4" CONDUIT FROM EACH FLOOR BOX TO NEAREST ACCESSIBLE ATTIC SPACE.
- 12 PROVIDE VOICE/DATA CABLES FOR ELECTRICAL, HVAC, AND FIRE ALARM SYSTEMS. COORDINATE TERMINATION WITH SYSTEM CONTRACTORS. ERATE
- 13 4-POST RACK, DETAIL 2/T4.4. ERATE
- 14 (1)1"C TO NEAREST ACCESSIBLE ATTIC SPACE.

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**McFARLAND UNIFIED**  
**SCHOOL DISTRICT**  
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 architecture and ingenuity merged associates, inc.  
 multiplan.com

TITLE  
 BUILDING 100  
 FLOOR/CEILING PLAN

T1.0  
 PROJECT 1332



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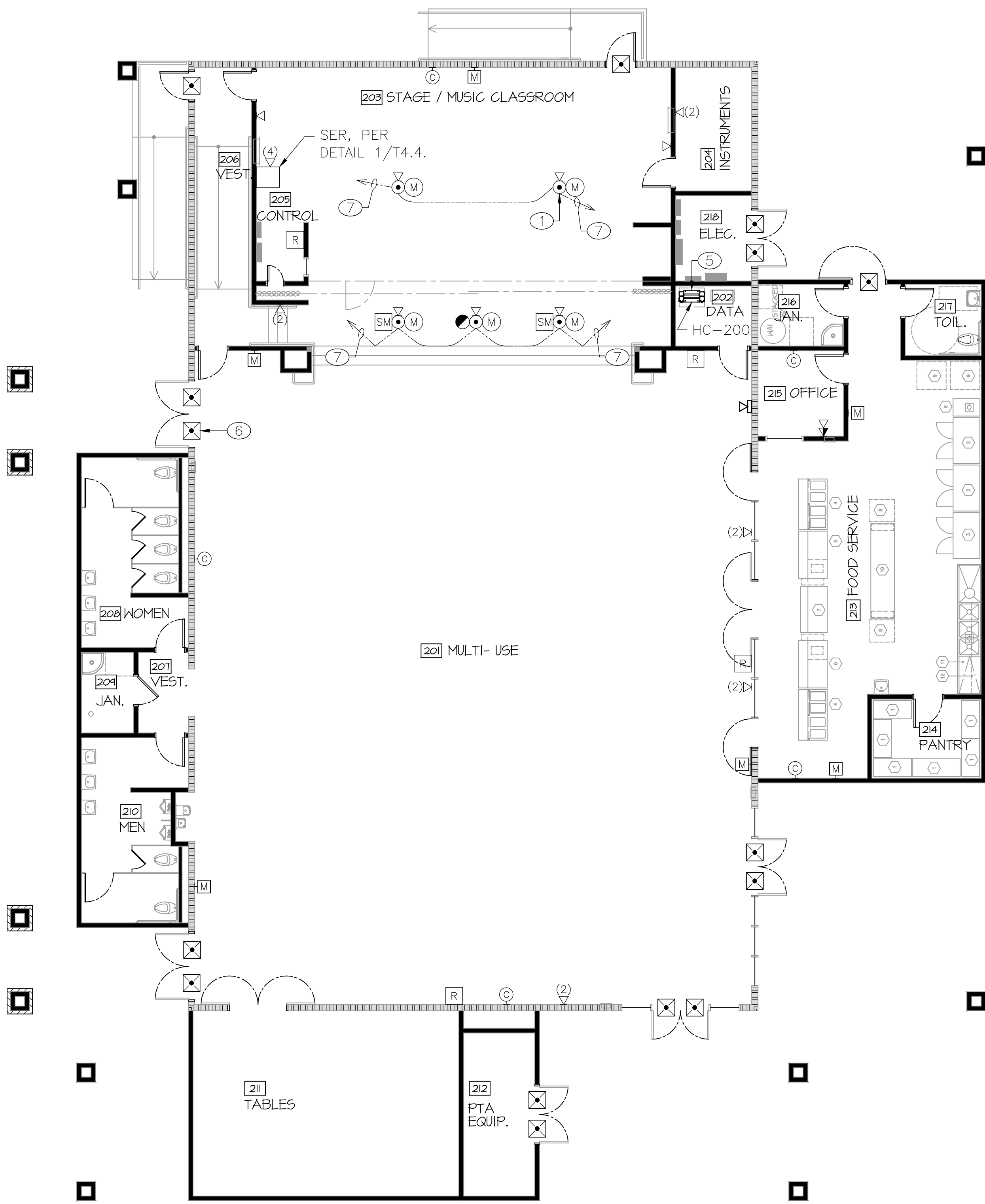


CAPACITY OF SEATING IN ASSEMBLY AREA	501 TO 1000
MINIMUM NUMBER OF REQUIRED RECEIVERS	20, PLUS 1 PER 33 SEATS OVER 500 SEATS
MINIMUM NUMBER OF REQUIRED RECEIVERS REQUIRED TO BE HEARING-AID COMPATIBLE	1 PER 4 RECEIVERS

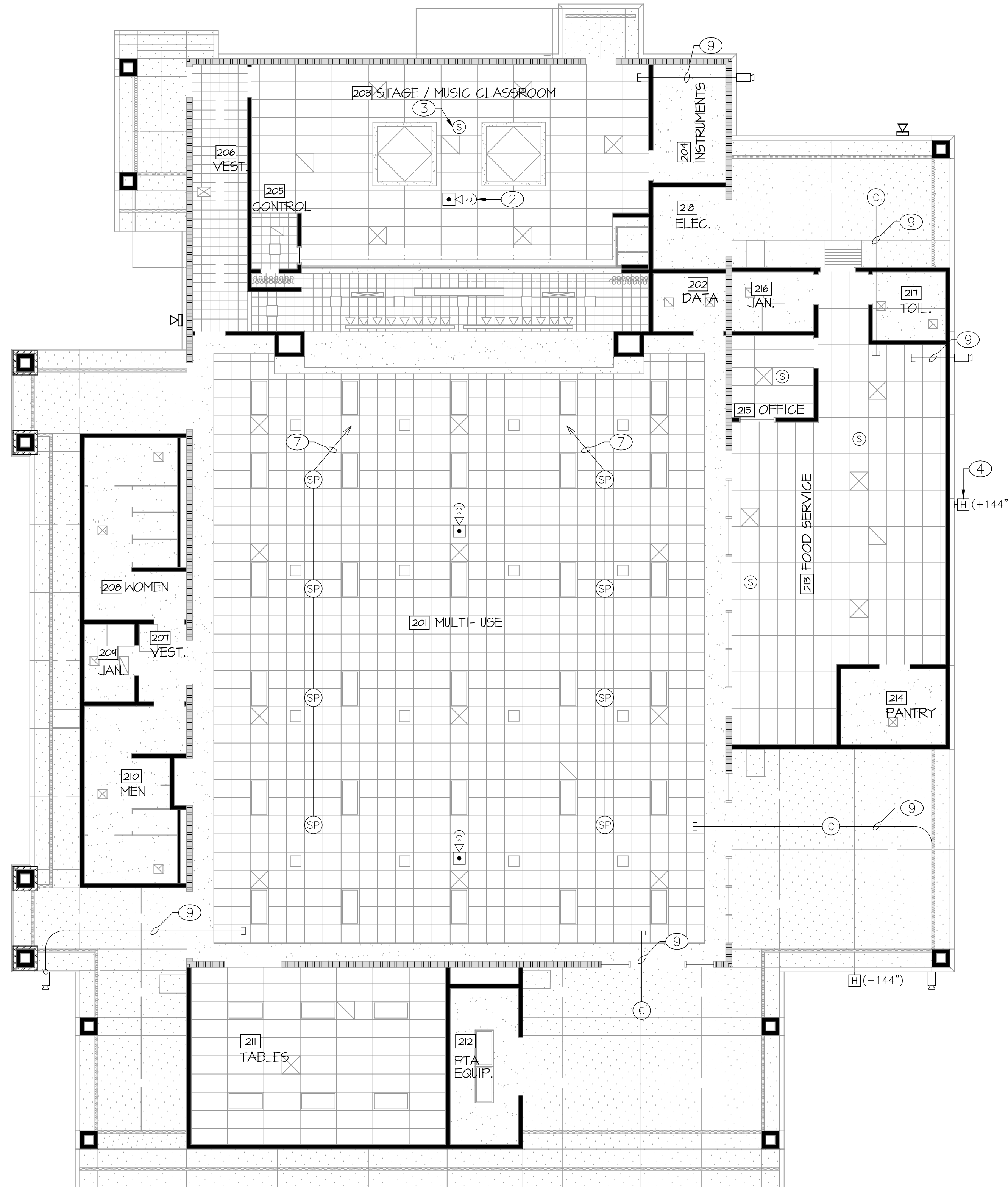
LISTEN ADA ALD COMPLIANCE CALCULATOR	
577	ENTER THE CAPACITY IN THE ASSEMBLY AREA
23	MINIMUM ASSISTIVE LISTENING DEVICES REQUIRED
6	MINIMUM NUMBER OF LA-166 UNITS REQUIRED
<a href="http://www.ada.gov/REGS2010/2010ADASTANDARDS/2010ADASTANDARDS.HTM">HTTP://WWW.ADA.GOV/REGS2010/2010ADASTANDARDS/2010ADASTANDARDS.HTM</a>	

**NOTES**

- ① FLOOR BOX DETAIL 8/T4.2, COORDINATE WITH ELECTRICAL FOR POWER AND DEVICE RING.
- ② WIRELESS ACCESS POINT IN CEILING, DETAIL 5/T4.2.ERATE
- ③ SPEAKER IN CEILING, DETAIL 2/T4.2.
- ④ INTERCOM HORN AS SHOWN, DETAIL 5/T4.3.
- ⑤ 2-POST RACK, DETAIL 4/T4.1. SEE 1-6/T2.1 FOR WALL AND RACK ELEVATIONS. ERATE
- ⑥ DOOR CONTACT, DETAIL 6/T4.2.
- ⑦ PROVIDE (1)1" TO SER.
- ⑧ PROVIDE ALS IN SER. PROVIDE A MINIMUM OF 23 ASSISTIVE LISTENING DEVICES, AND A MINIMUM OF 6 LA-166 UNITS.
- ⑨ (1)1" TO NEAREST ACCESSIBLE ATTIC SPACE.



① BUILDING 200 FLOOR PLAN  
SCALE: 1/8" = 1'-0"



② BUILDING 200 CEILING PLAN  
SCALE: 1/8" = 1'-0"

**NEW ELEMENTARY SCHOOL**  
**McFARLAND UNIFIED SCHOOL DISTRICT**  
McFARLAND UNIFIED SCHOOL DISTRICT  
McFARLAND, KERN COUNTY, CA

**APPROVALS**

IDENTIFICATION STAMP  
DIV. OF THE STATE ARCHITECT

FILE # ..... XX-XX  
APPL. # ..... XX-XXXXXX  
AC F/LS SS  
DATE

DATE: DECEMBER 18, 2013

TELLIAN PARISH MCLAIN  
559.627.0530  
559.627.1926 fax  
4320 W. Mineral King Ave.  
Vialito, CA 93291  
tom.com

TITLE  
BUILDING 200  
FLOOR/CEILING PLAN

T1.1

PROJECT 1332



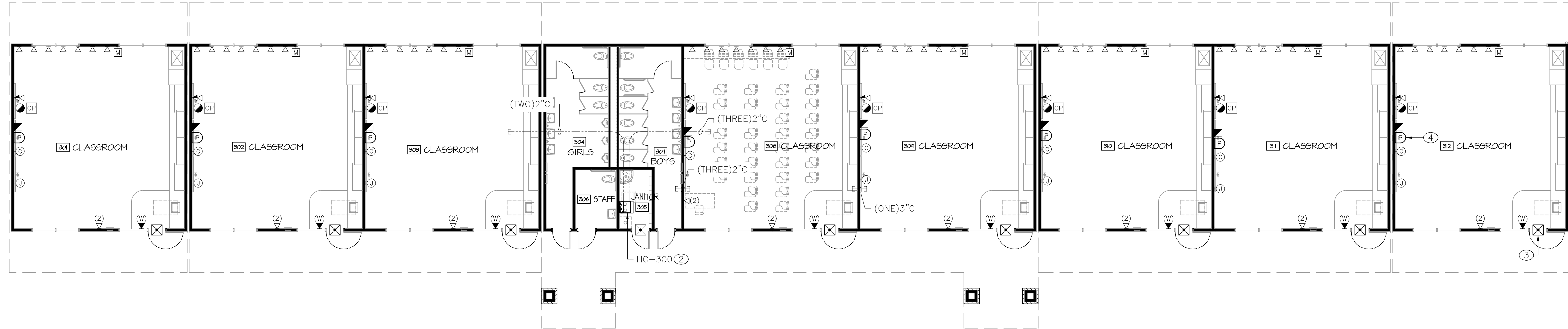
EXPIRES: 12/31/16  
REGIS. NO. 109549  
SEAN HARRINGTON  
EXPIRES: 12/31/16  
REGIS. NO. 07765  
FRED BRAKEMAN

PO BOX 999, BAKERSFIELD CA 93302  
PH: (661)716-1840 FX: (661)716-1841  
www.infinitycomm.com

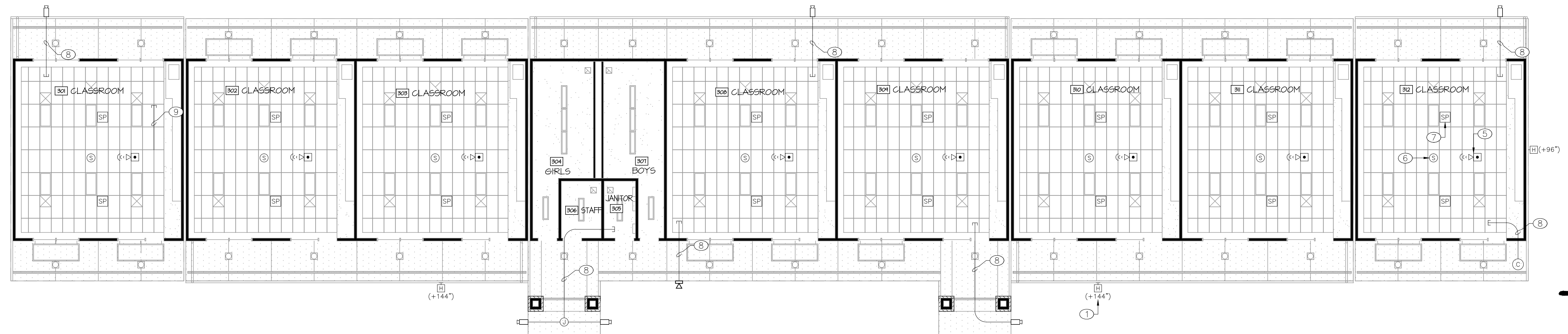


**NOTES**

- ① INTERCOM HORN AS SHOWN, DETAIL 5/T4.3.
- ② HC WALL MOUNTED SWING GATE WALL RACK, DETAIL 4/T4.1. SEE 1-2/T2.2 FOR WALL AND RACK ELEVATIONS. ERATE
- ③ DOOR CONTACT, DETAIL 6/T4.2.
- ④ PROJECTOR MOUNT ON WALL, DETAIL 7/T4.1.
- ⑤ WIRELESS ACCESS POINT IN CEILING, DETAIL 5/T4.2.ERATE
- ⑥ INTERCOM SPEAKER IN CEILING, DETAIL 2/T4.2.
- ⑦ A/V SPEAKER IN CEILING, DETAIL 4/T4.2.
- ⑧ (1)1" TO NEAREST ACCESSIBLE ATTIC SPACE.



① BUILDING 300 FLOOR PLAN  
SCALE: 1/8" = 1'-0"



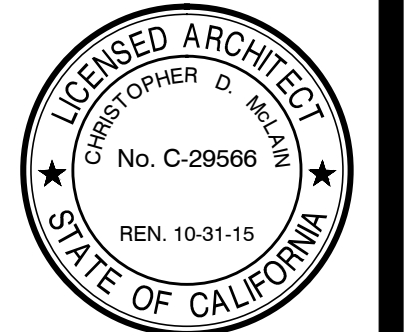
② BUILDING 300 CEILING PLAN  
SCALE: 1/8" = 1'-0"

**NEW ELEMENTARY SCHOOL**  
**McFARLAND UNIFIED**  
**SCHOOL DISTRICT**  
McFARLAND UNIFIED SCHOOL DISTRICT  
McFARLAND, KERN COUNTY, CA



**APPROVALS**

IDENTIFICATION STAMP  
DIV. OF THE STATE ARCHITECT  
FILE # ..... XX-XX  
APPL. # ..... XX-XXXXXX  
AC. F/LS. SS  
DATE



DATE: DECEMBER 18, 2013

**Tom**  
TELLIAN PARRISH McLEAN  
559.627.0530  
4320 W. Mineral Hills Ave.  
Vallejo, CA 94591  
559.627.1926 fax  
mclparrish.com

TITLE  
BUILDING 300  
FLOOR/CEILING PLANS

T1.2

PROJECT 1332



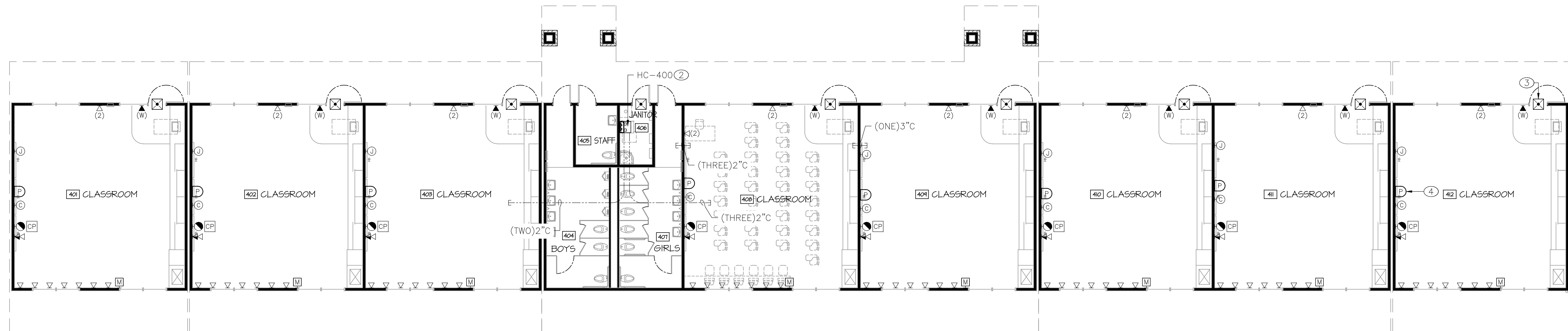
EXPIRES: 12/31/16  
REGIS. NO. 109549  
SEAN HARRINGTON  
EXPIRES: 12/31/16  
REGIS. NO. 07765  
FRED BRAKEMAN

PO BOX 999, BAKERSFIELD CA 93302  
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www.infinitycomm.com

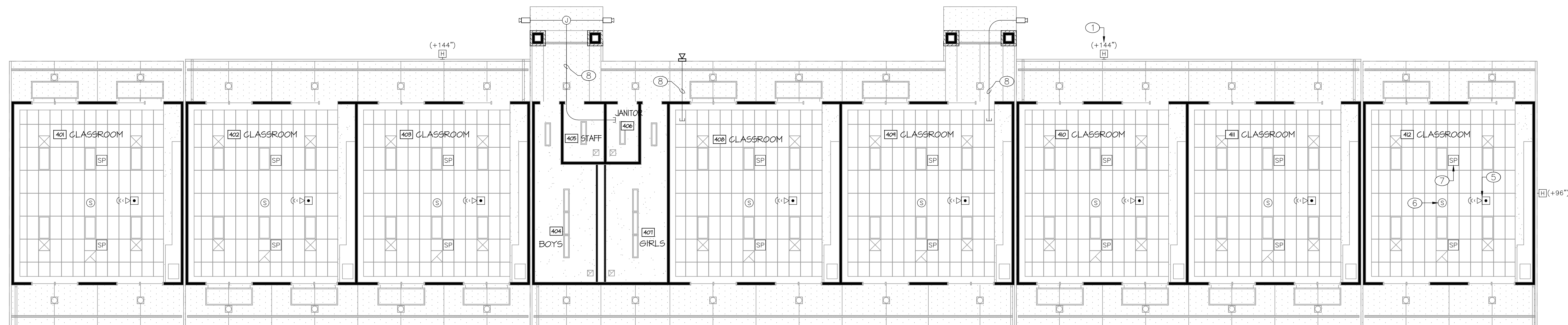


**NOTES**

- ① INTERCOM HORN AS SHOWN, DETAIL 5/T4.3.
- ② HC WALL MOUNTED SWING GATE WALL RACK, DETAIL 4/T4.1. SEE 3-4/T2.2 FOR WALL AND RACK ELEVATIONS. ERATE
- ③ DOOR CONTACT, DETAIL 6/T4.2.
- ④ PROJECTOR MOUNT ON WALL, DETAIL 7/T4.1.
- ⑤ WIRELESS ACCESS POINT IN CEILING, DETAIL 5/T4.2.ERATE
- ⑥ INTERCOM SPEAKER IN CEILING, DETAIL 2/T4.2.
- ⑦ A/V SPEAKER IN CEILING, DETAIL 4/T4.2.
- ⑧ (1)1"C TO NEAREST ACCESSIBLE ATTIC SPACE.



① BUILDING 400 FLOOR PLAN  
SCALE: 1/8" = 1'-0"



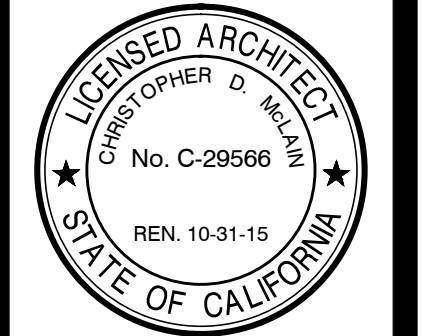
② BUILDING 400 CEILING PLAN  
SCALE: 1/8" = 1'-0"

**NEW ELEMENTARY SCHOOL**  
**MCFARLAND UNIFIED**  
**SCHOOL DISTRICT**  
MCFARLAND UNIFIED SCHOOL DISTRICT  
MCFARLAND, KERN COUNTY, CA



**APPROVALS**

IDENTIFICATION STAMP  
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FILE # ..... XX-XX  
APPL. # ..... XX-XXXXXX  
AC F/LS SS  
DATE



DATE: DECEMBER 18, 2013

**Tom**  
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559.627.1926 fax  
mclain.com  
architecture and ingenuity. mclain@mclain.com

TITLE  
BUILDING 400  
FLOOR/CEILING PLANS

T1.3  
PROJECT 1332



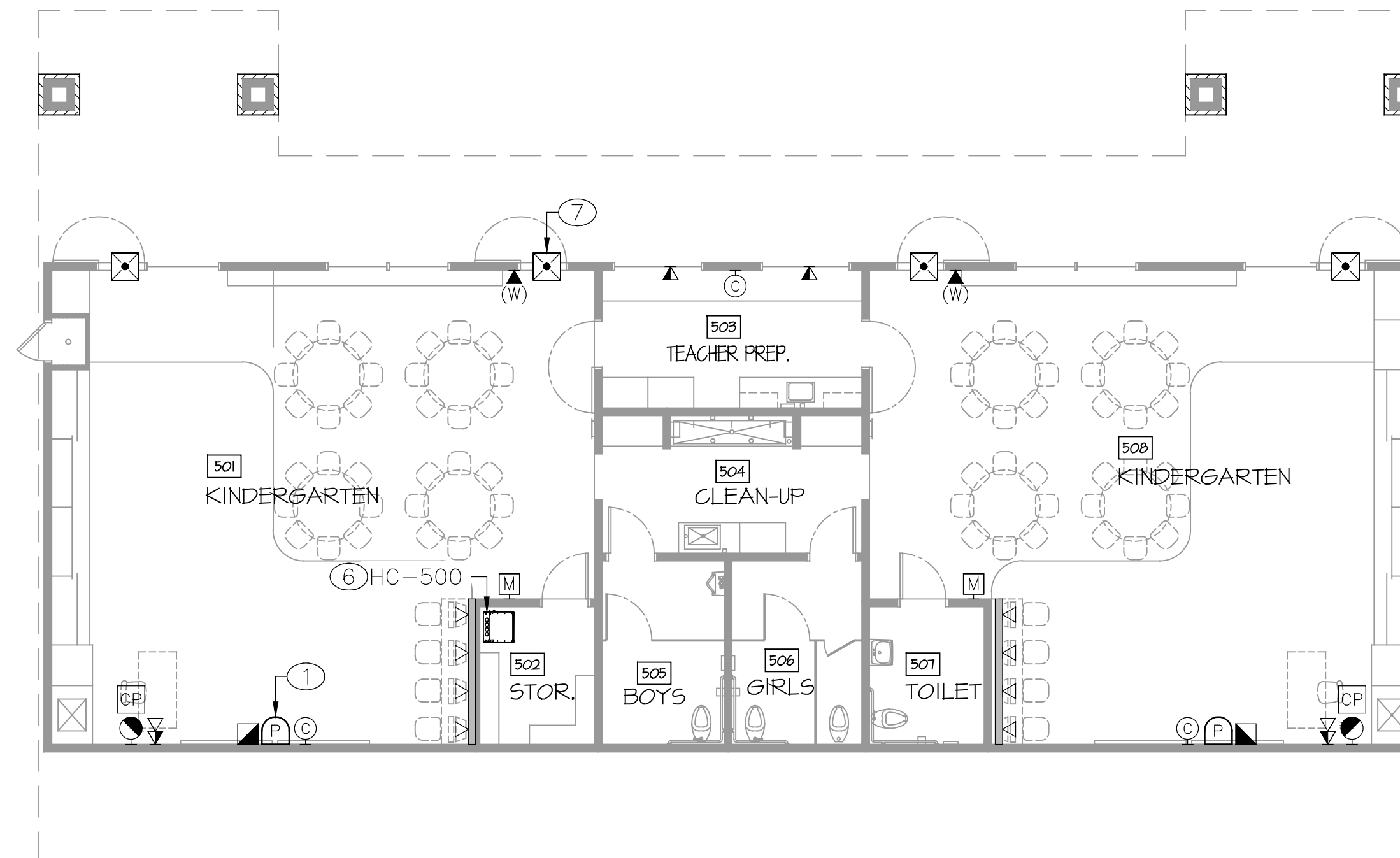
EXPIRES: 12/31/16  
REGS. NO. 109549  
SEAN HARRINGTON  
EXPIRES: 12/31/16  
REGS. NO. 077659  
FRED BRAKEMAN

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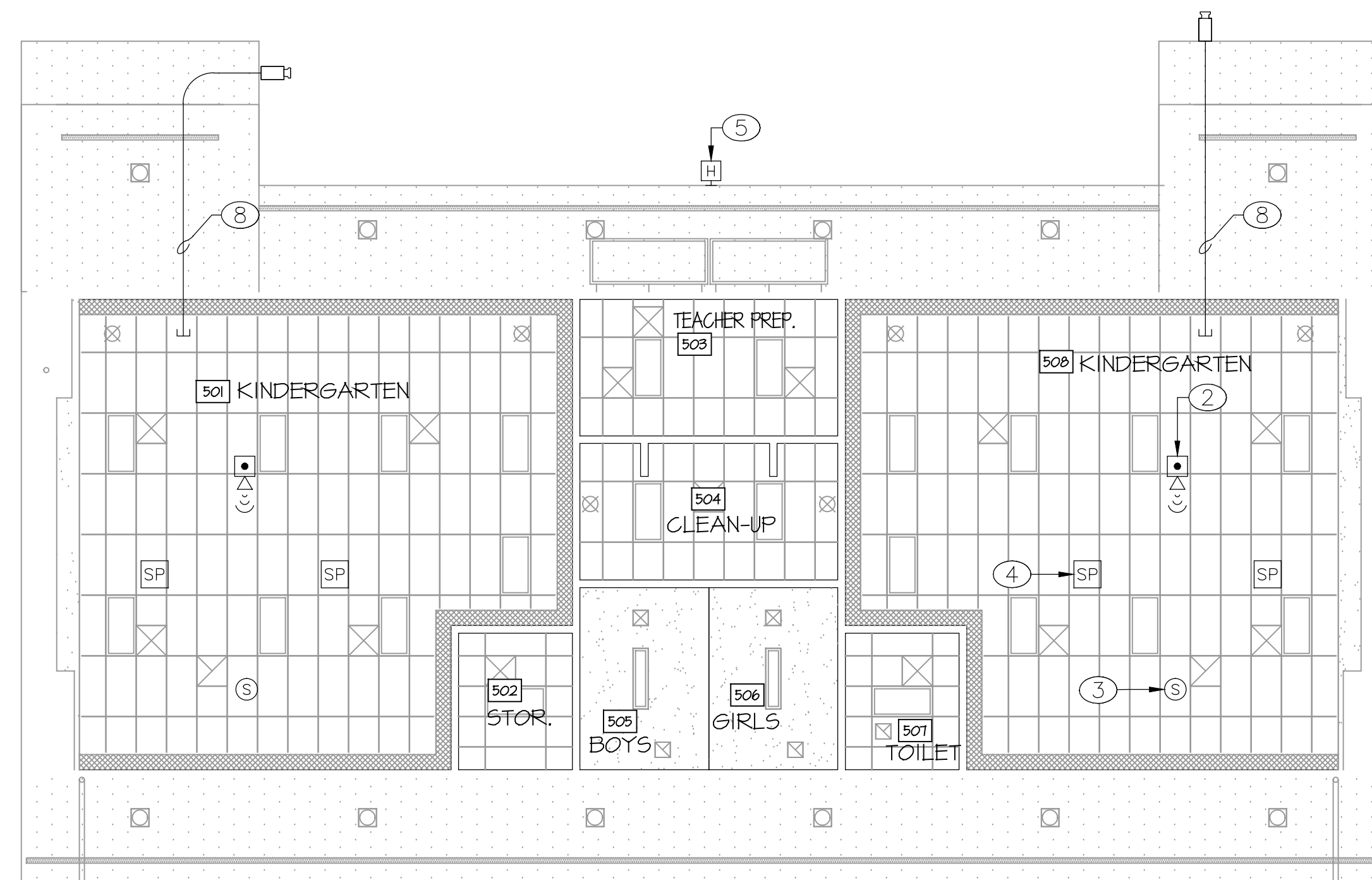


**NOTES**

- ① PROJECTOR MOUNT ON WALL, DETAIL 5/T4.4.
- ② WIRELESS ACCESS POINT IN CEILING, DETAIL 5/T4.2.ERATE
- ③ INTERCOM SPEAKER IN CEILING, DETAIL 2/T4.2.
- ④ A/V SPEAKER IN CEILING, DETAIL 4/T4.2.
- ⑤ INTERCOM HORN AS SHOWN, DETAIL 5/T4.3.
- ⑥ HC WALL MOUNTED SWING GATE WALL RACK, DETAIL 4/T4.1. SEE 5-6/T2.2 FOR WALL AND RACK ELEVATIONS. ERATE
- ⑦ DOOR CONTACT, DETAIL 6/T4.2.
- ⑧ (1)1" C TO NEAREST ACCESSIBLE ATTIC SPACE.



① BUILDING 500 FLOOR PLAN  
SCALE: 1/8" = 1'-0"



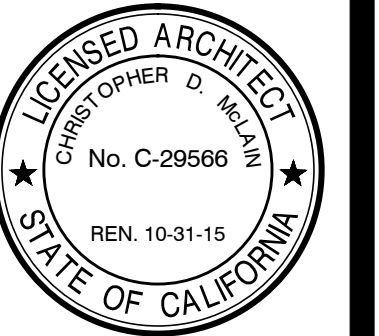
② BUILDING 500 CEILING PLAN  
SCALE: 1/8" = 1'-0"

**NEW ELEMENTARY SCHOOL**  
**MCFARLAND UNIFIED**  
**SCHOOL DISTRICT**  
 MCFARLAND UNIFIED SCHOOL DISTRICT  
 MCFARLAND, KERN COUNTY, CA



**APPROVALS**

IDENTIFICATION STAMP  
 DIV. OF THE STATE ARCHITECT  
 FILE # ..... XX-XX  
 APPL. # ..... XX-XXXXXX  
 AC. F/LS SS  
 DATE



DATE: DECEMBER 18, 2013

**Tom**  
 TELLIAN PARISH MCLAIN  
 559.627.0530  
 559.627.1926 fax  
 architecture and ingenuity | mclainparishmclain.com  
 4320 W. Mineral King Ave.  
 Visalia, CA 93291

TITLE  
 BUILDING 500  
 FLOOR/CEILING PLANS

T1.4

PROJECT 1332



EXPIRES: 12/31/16  
 REGIS. NO. 109549  
 SEAN HARRINGTON  
 EXPIRES: 12/31/16  
 REGIS. NO. 07765  
 FRED BRAKEMAN

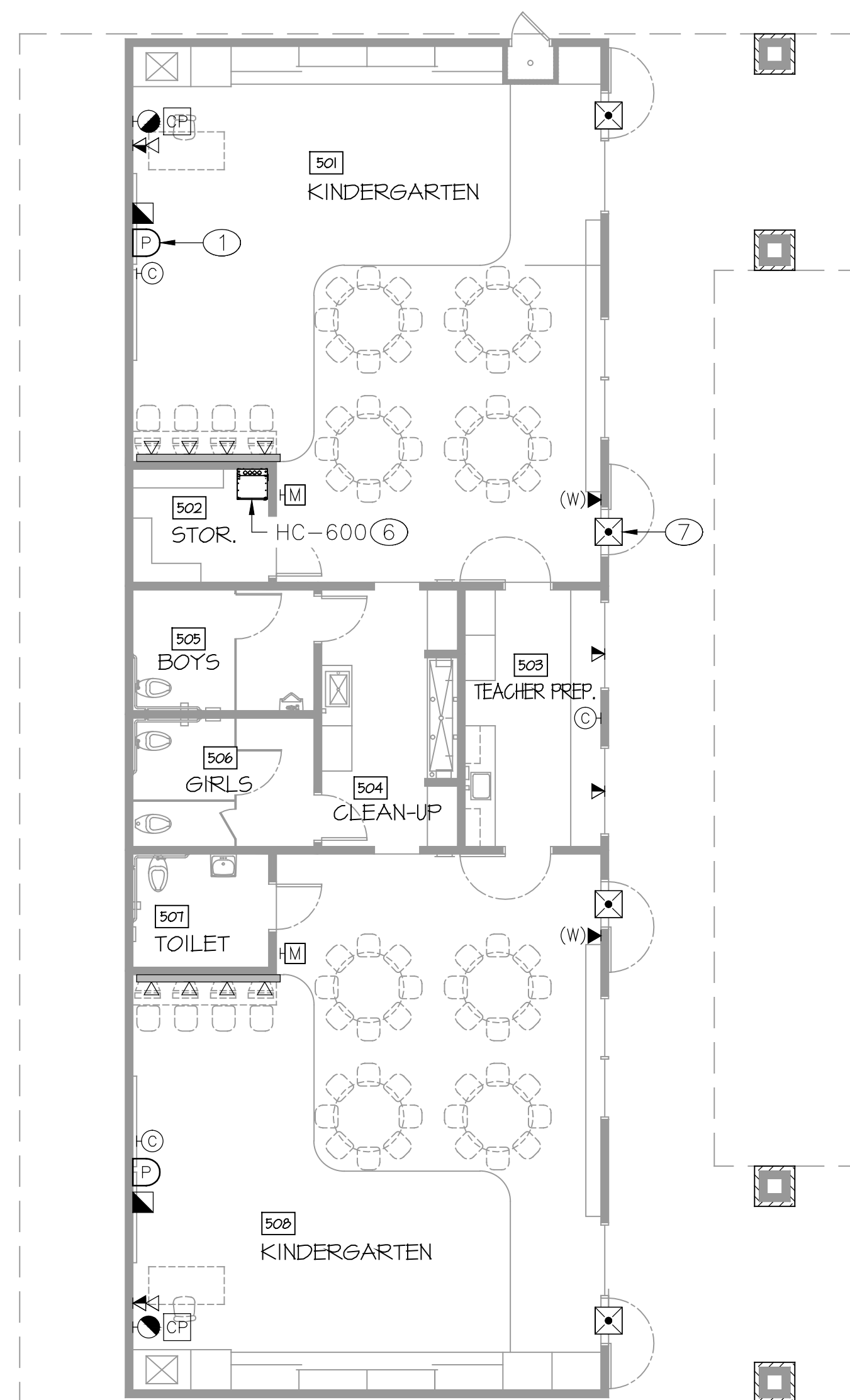
PO BOX 999, BAKERSFIELD CA 93302  
 PH: (661)716-1840 FX: (661)716-1841  
 www.infinitycomm.com



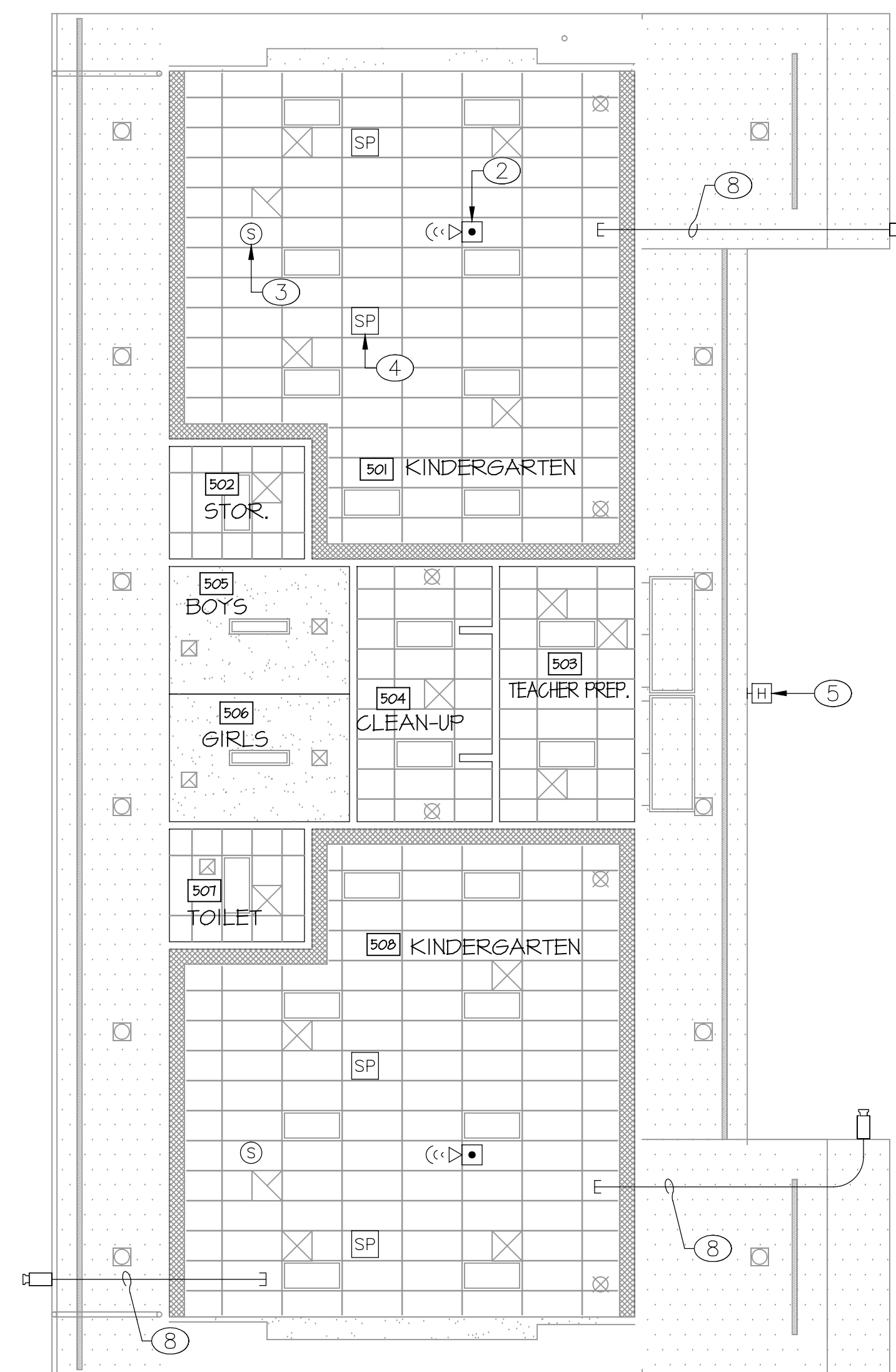


NOTES

- ① PROJECTOR MOUNT ON WALL, DETAIL 5/T4.4.
- ② WIRELESS ACCESS POINT IN CEILING, DETAIL 5/T4.2.ERATE
- ③ INTERCOM SPEAKER IN CEILING, DETAIL 2/T4.2.
- ④ A/V SPEAKER IN CEILING, DETAIL 4/T4.2.
- ⑤ INTERCOM HORN AS SHOWN, DETAIL 5/T4.3.
- ⑥ HC WALL MOUNTED SWING GATE WALL RACK, DETAIL 4/T4.1. SEE 7-8/T2.2 FOR WALL AND RACK ELEVATIONS. ERATE
- ⑦ DOOR CONTACT, DETAIL 6/T4.2.
- ⑧ (1)1" TO NEAREST ACCESSIBLE ATTIC SPACE.



① BUILDING 600 FLOOR PLAN  
SCALE: 1/8" = 1'-0"



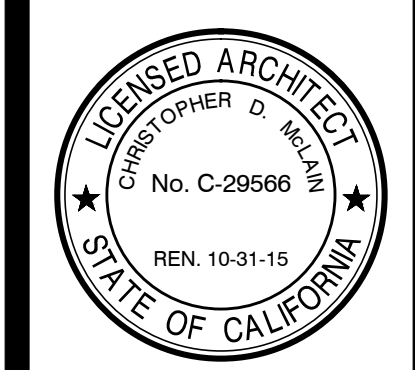
② BUILDING 600 CEILING PLAN  
SCALE: 1/8" = 1'-0"

**NEW ELEMENTARY SCHOOL**  
**MCFARLAND UNIFIED**  
**SCHOOL DISTRICT**  
 MCFARLAND UNIFIED SCHOOL DISTRICT  
 MCFARLAND, KERN COUNTY, CA



APPROVALS

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 DIV. OF THE STATE ARCHITECT  
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**Tom**  
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 Visalia, CA 93291  
 559.627.1926 fax  
 architecture and ingenuity merged associates, inc.  
 multiplan.com

TITLE  
 BUILDING 600  
 FLOOR/CEILING PLANS

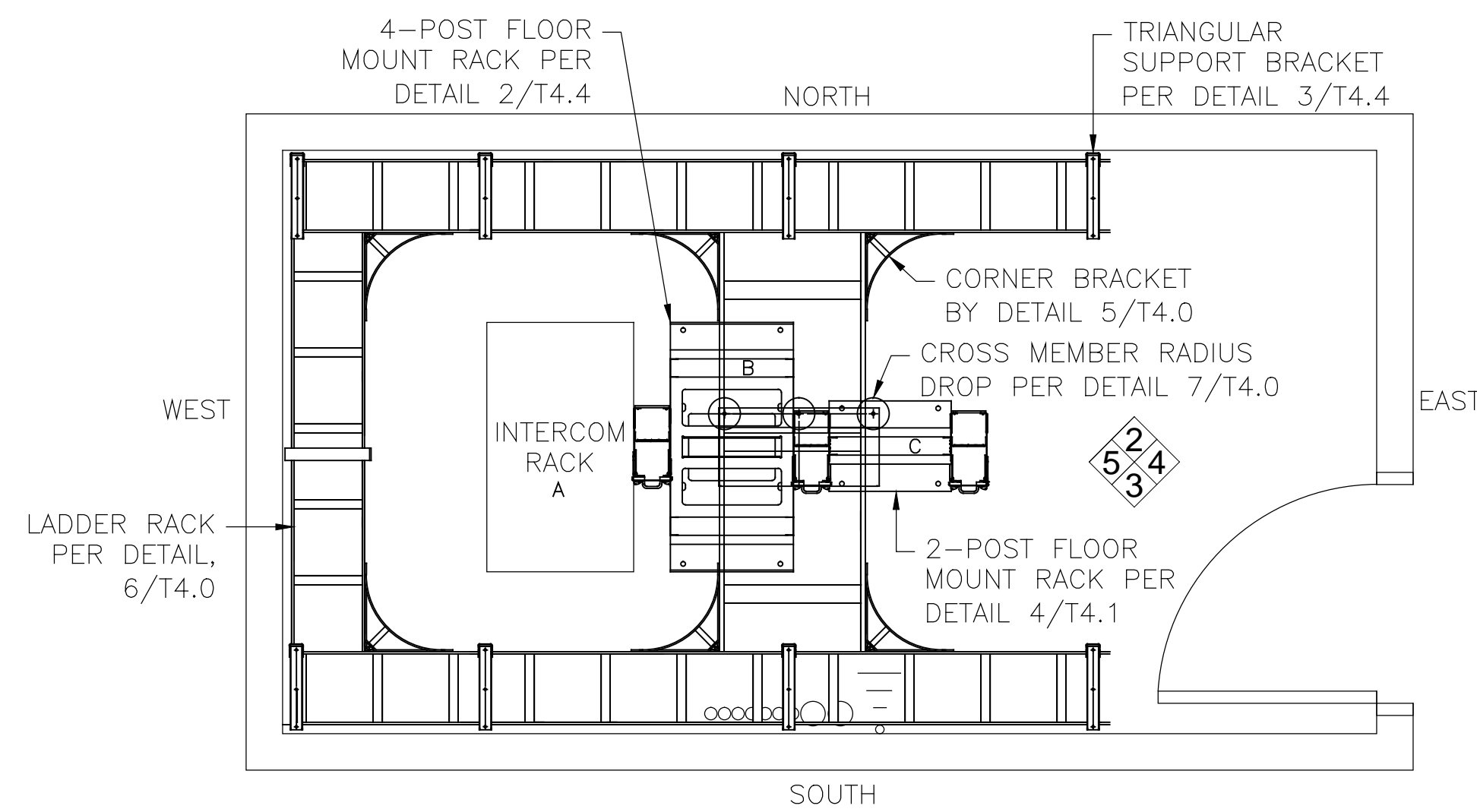
T1.5  
 PROJECT 1332



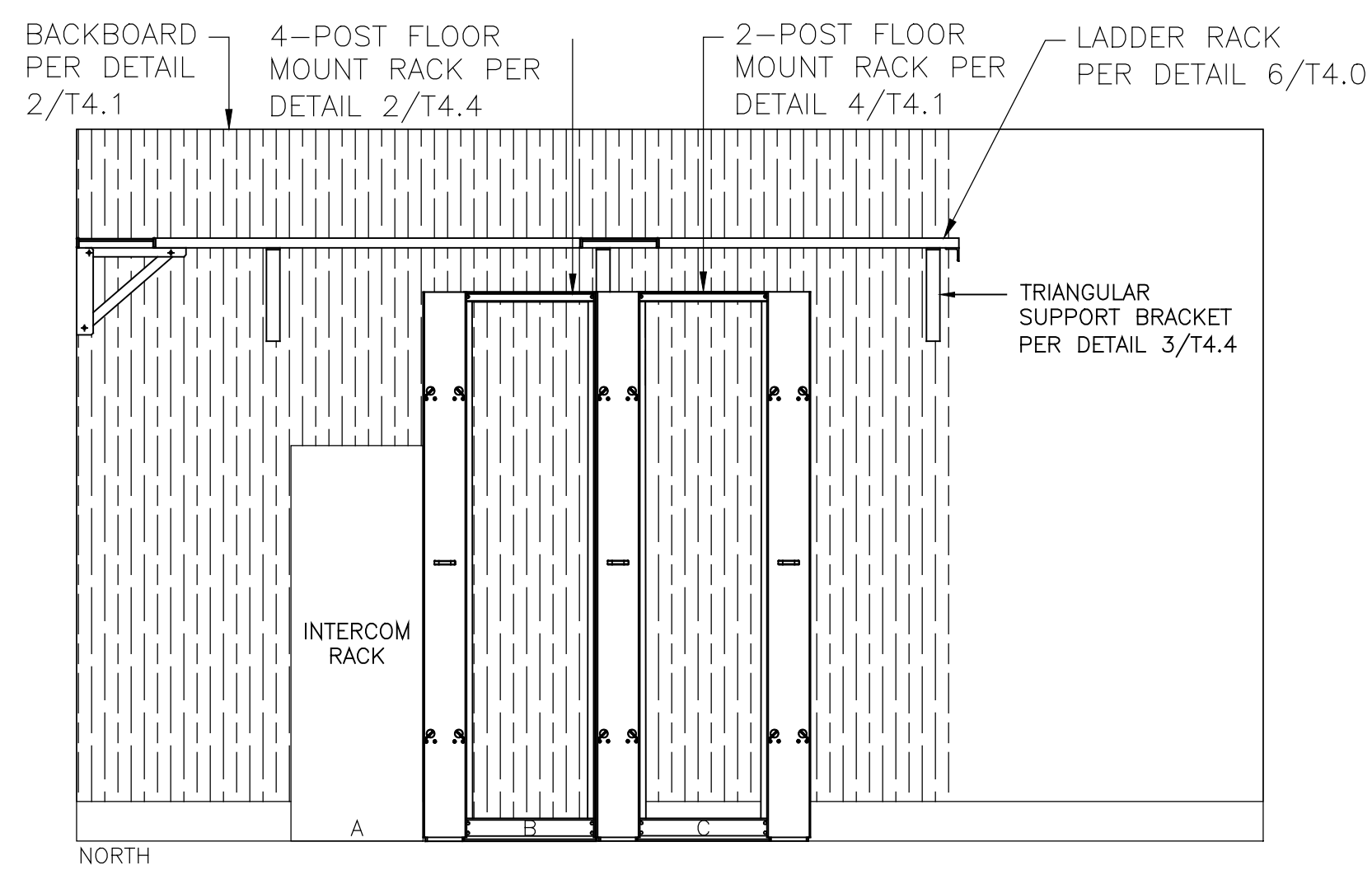
EXPIRES: 12/31/16  
 REGIS. NO. 109549  
 SEAN HARRINGTON  
 EXPIRES: 12/31/16  
 REGIS. NO. 07765  
 FRED BRAKEMAN

PO BOX 999, BAKERSFIELD CA 93302  
 PH: (661)716-1840 FX: (661)716-1841  
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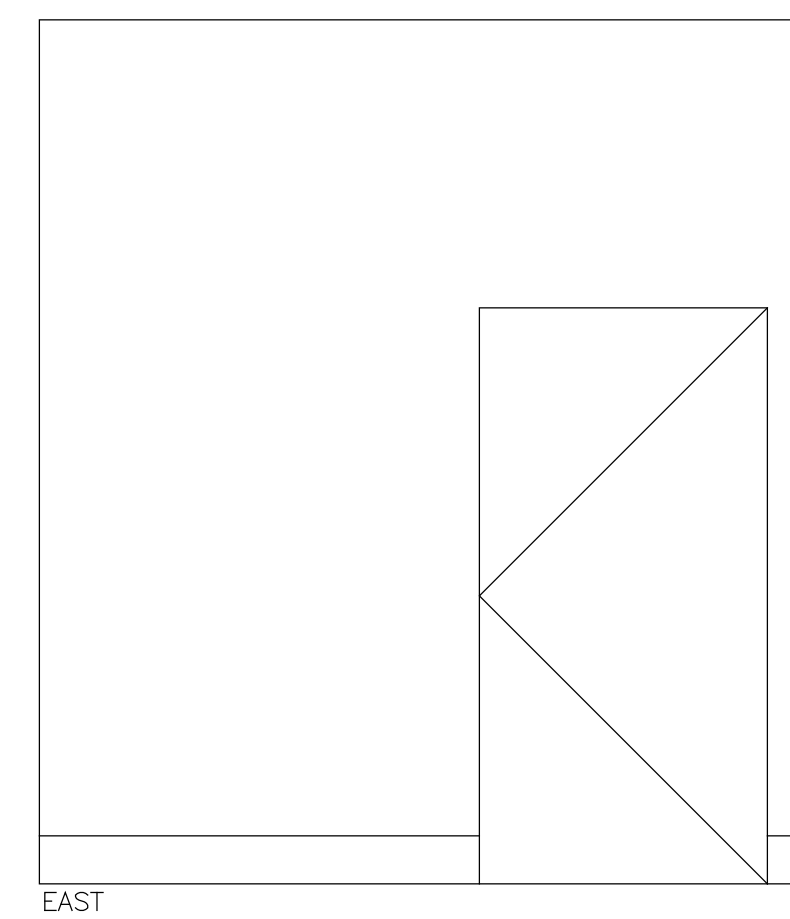




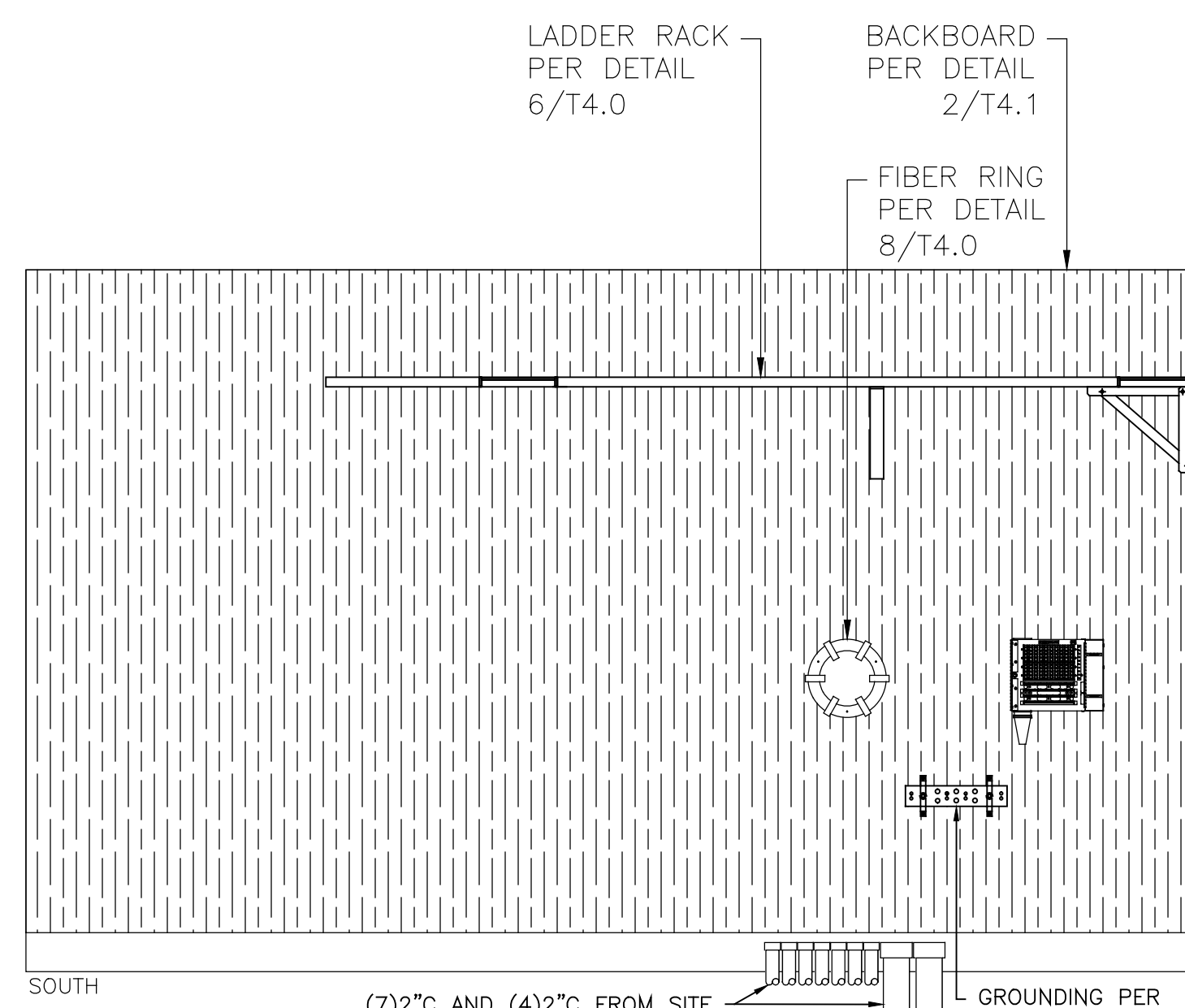
1 MC DATA ROOM 113 LAYOUT  
SCALE: 1/2" = 1'-0" ERATE



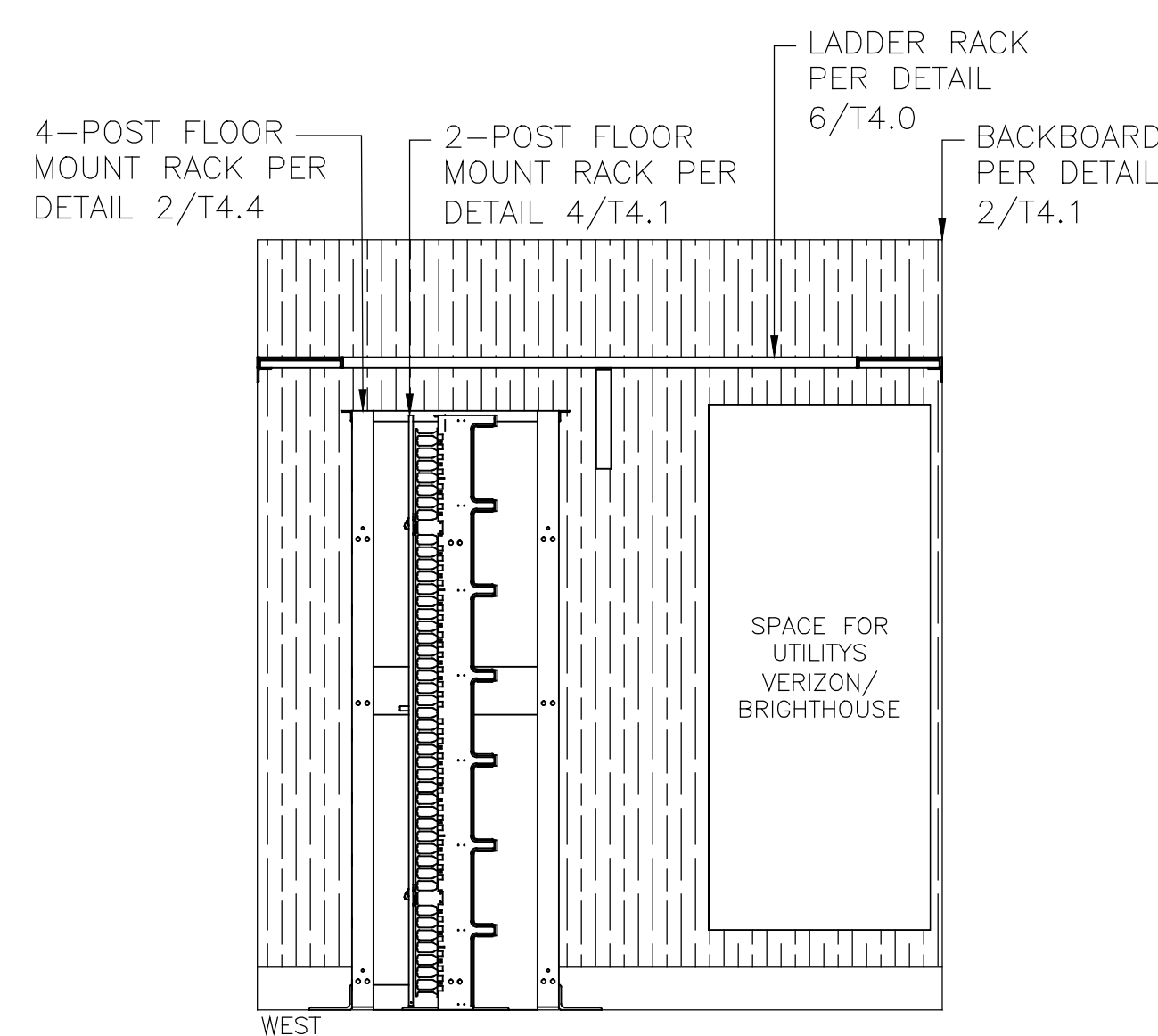
2 MC-100 WALL ELEVATIONS  
SCALE: 1/2" = 1'-0" ERATE



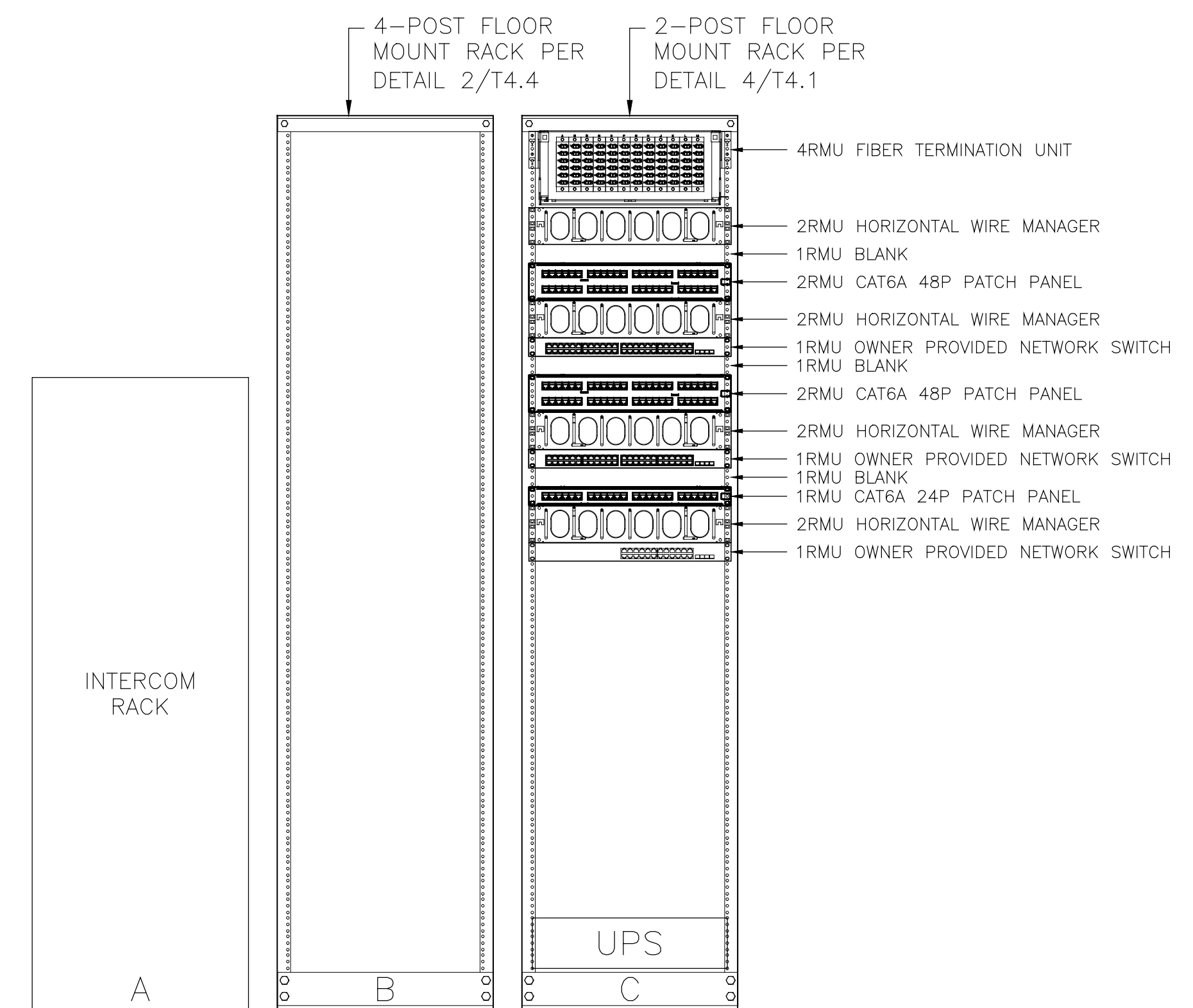
4 MC-100 WALL ELEVATIONS  
SCALE: 1/2" = 1'-0" ERATE



3 MC-100 WALL ELEVATIONS  
SCALE: 1/2" = 1'-0" ERATE



5 MC-100 WALL ELEVATIONS  
SCALE: 1/2" = 1'-0" ERATE



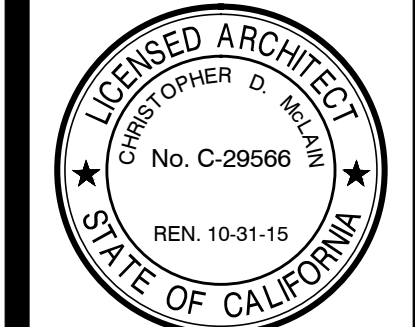
6 MC-100 RACK ELEVATIONS  
NOT TO SCALE ERATE

NEW ELEMENTARY SCHOOL  
MCFARLAND UNIFIED  
SCHOOL DISTRICT  
MCFARLAND UNIFIED SCHOOL DISTRICT  
MCFARLAND, KERN COUNTY, CA

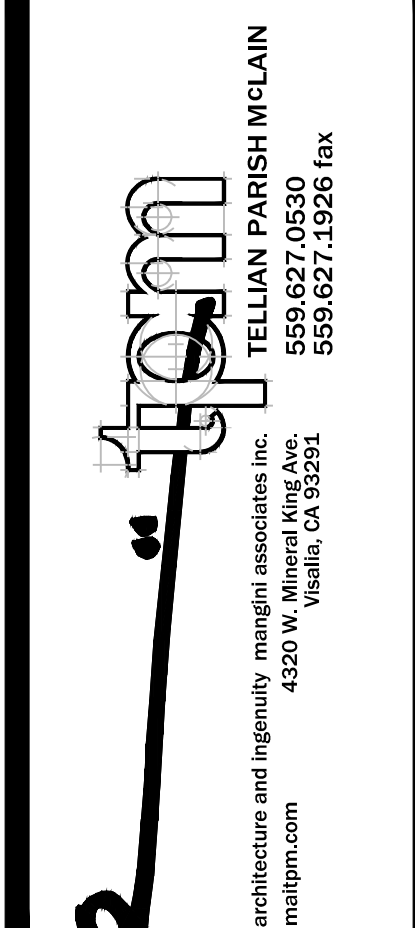


APPROVALS

IDENTIFICATION STAMP  
DIV. OF THE STATE ARCHITECT  
FILE # ..... XX-XX  
APPL. # ..... XX-XXXXXX  
AC. F/LS SS  
DATE



DATE: DECEMBER 18, 2013



TITLE  
BUILDING 100  
WALL/RACK  
ELEVATIONS

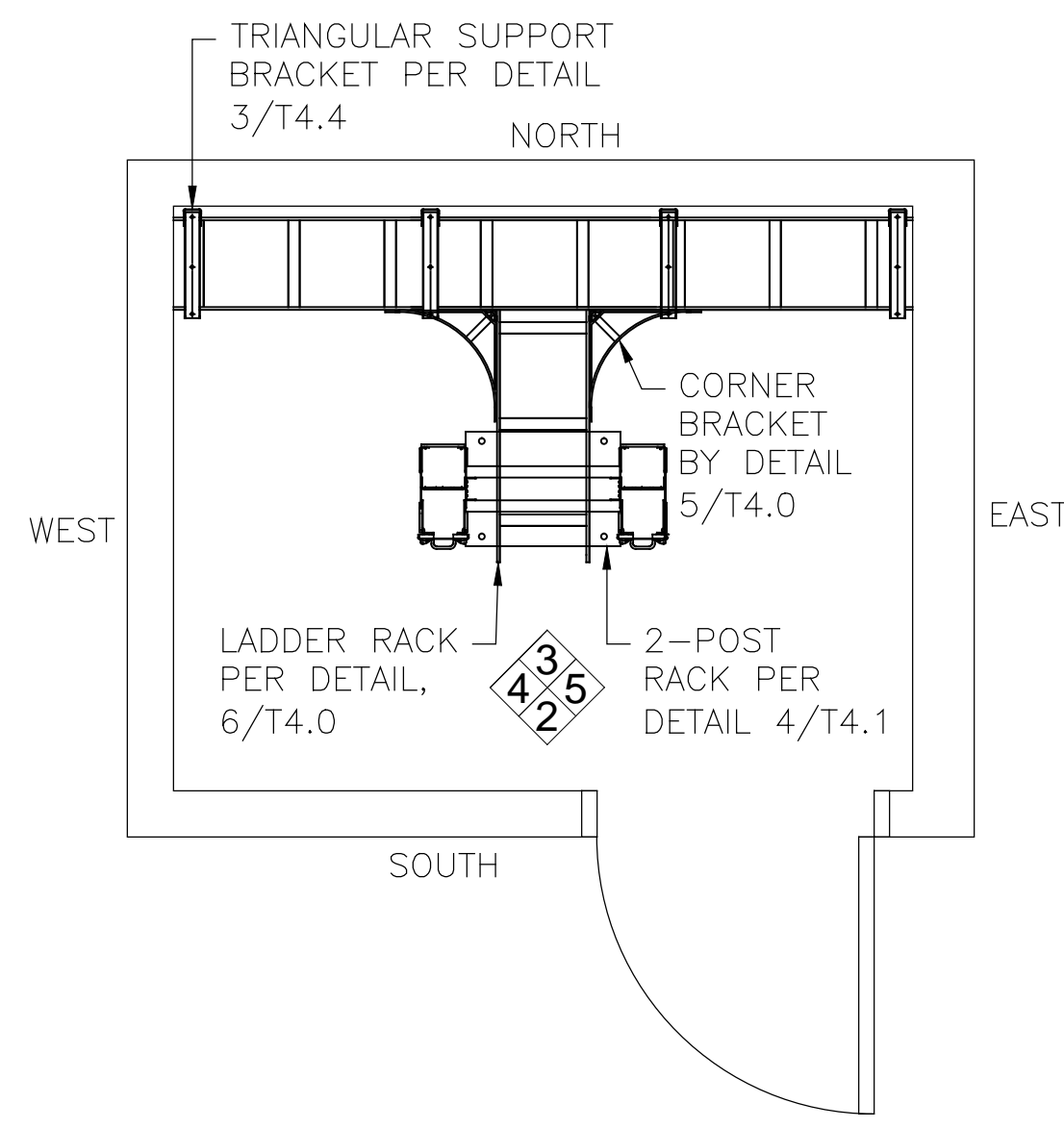
T2.0  
PROJECT 1332



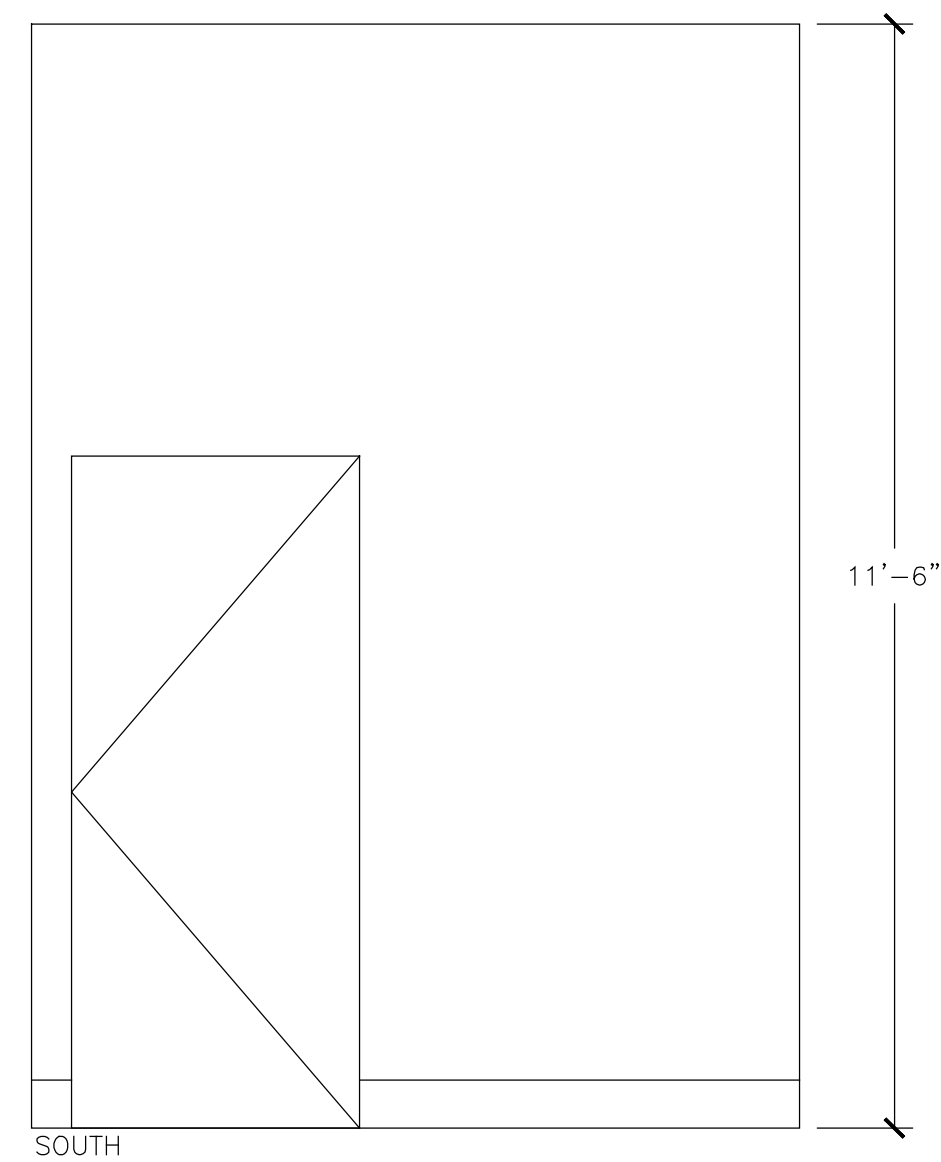
EXPIRES: 12/31/16  
REGIS. NO. 109549  
SEAN HARRINGTON  
EXPIRES: 12/31/16  
REGIS. NO. 077665  
FRED BRAKEMAN

PO BOX 999, BAKERSFIELD CA 93302  
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www.infinitycomm.com

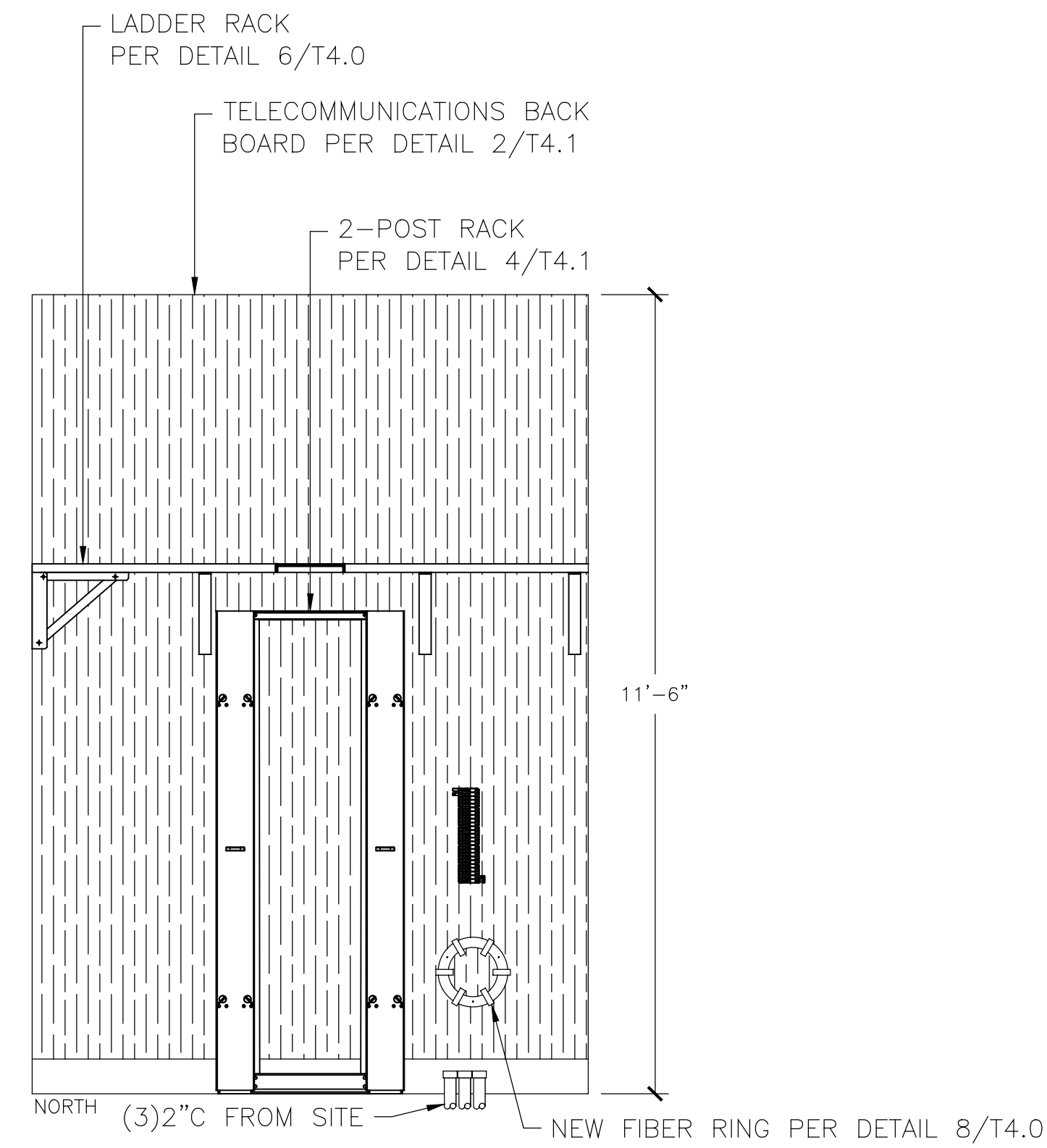




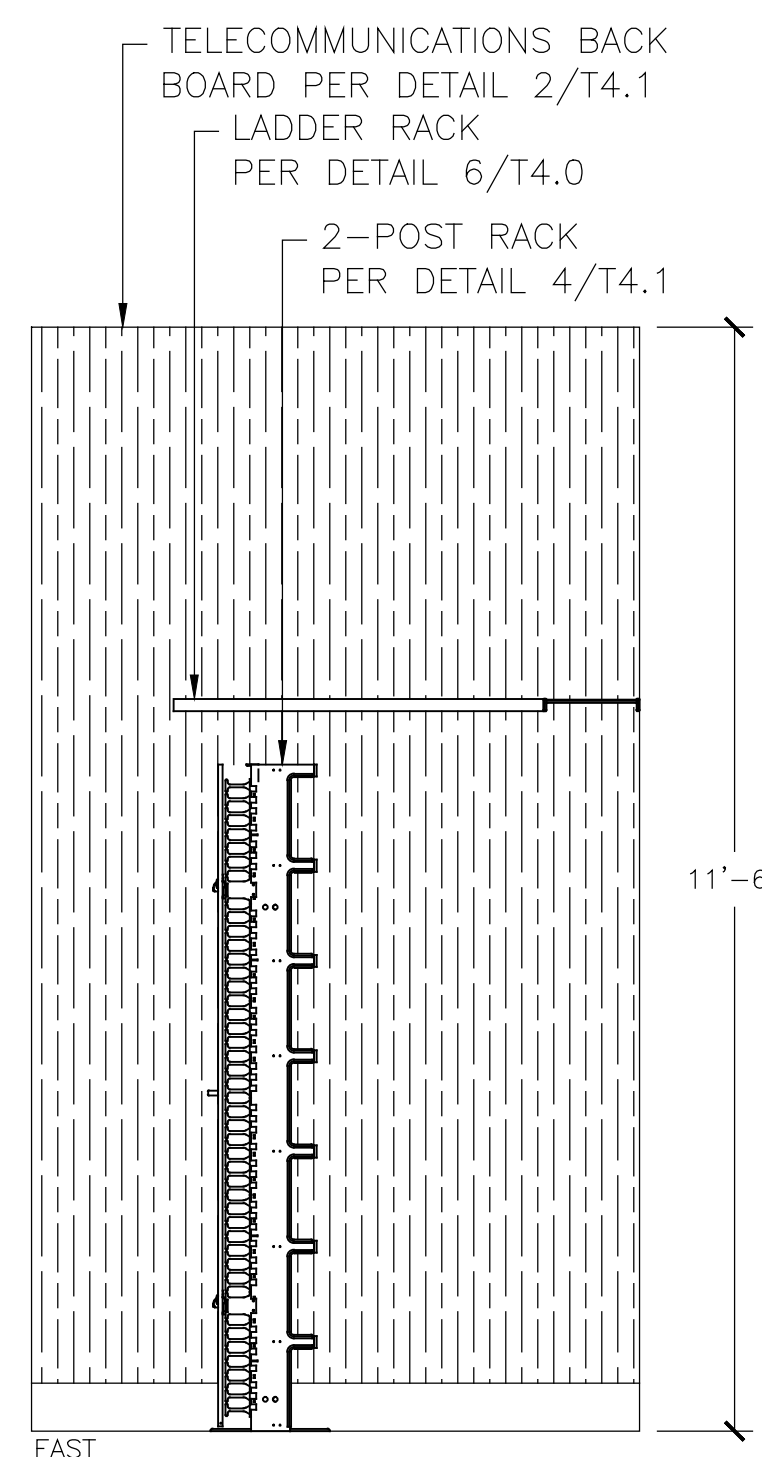
1 HC-200 DATA ROOM 202 LAYOUT  
SCALE: 1/2" = 1'-0" ERATE



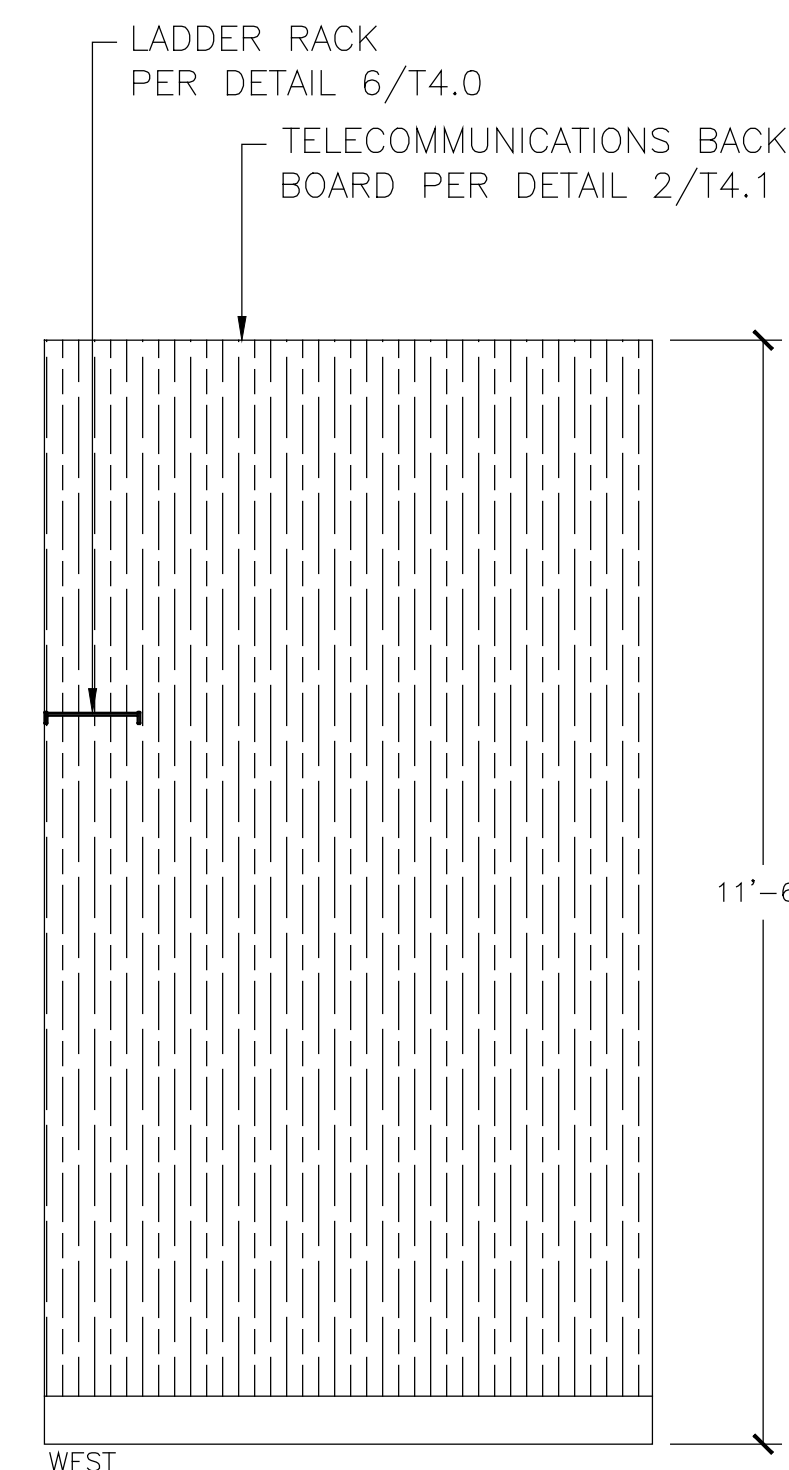
2 HC-200 WALL ELEVATIONS  
SCALE: 1/2" = 1'-0" ERATE



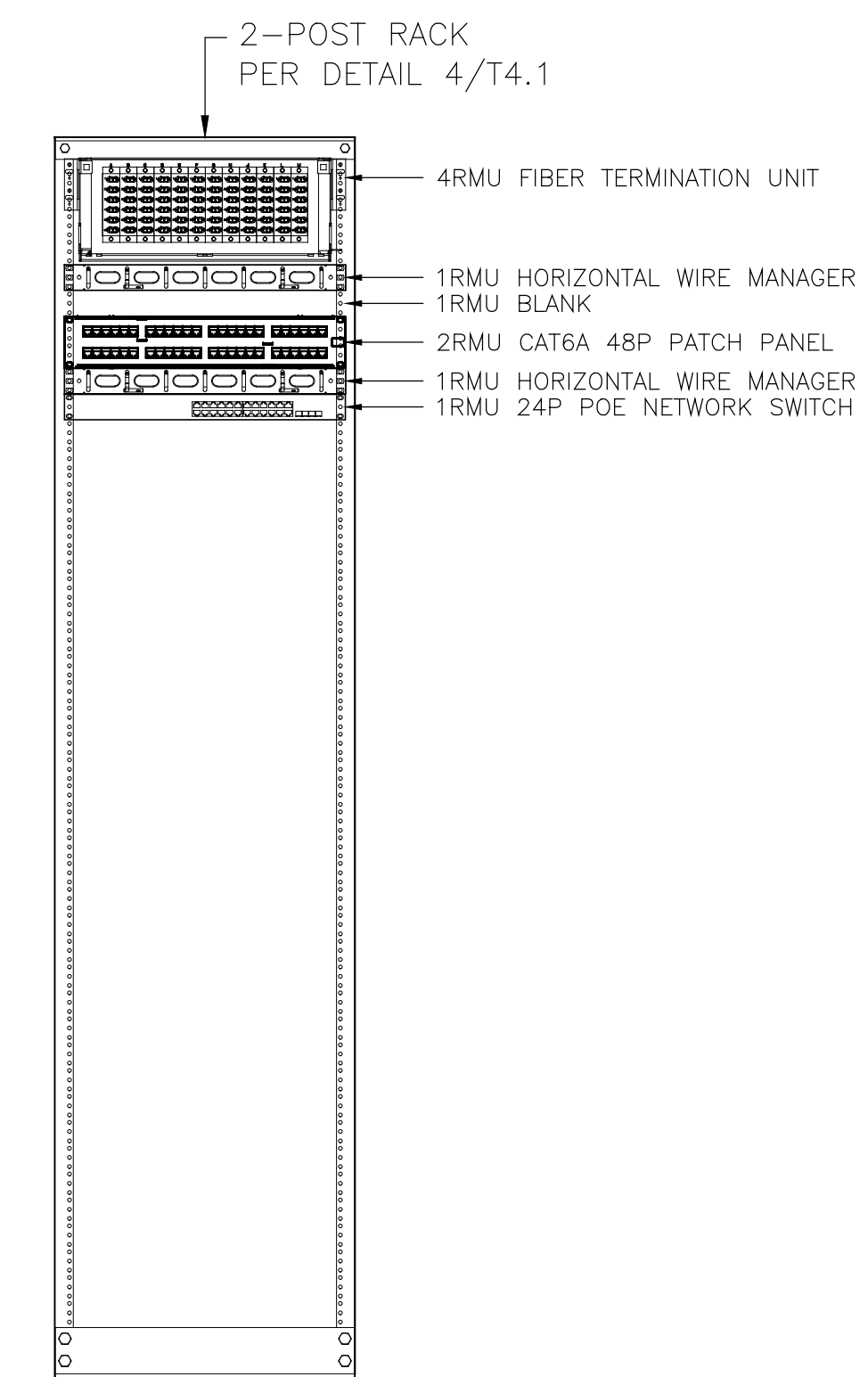
3 HC-200 WALL ELEVATIONS  
SCALE: 1/2" = 1'-0" ERATE



4 HC-200 WALL ELEVATIONS  
SCALE: 1/2" = 1'-0" ERATE



5 HC-200 WALL ELEVATIONS  
SCALE: 1/2" = 1'-0" ERATE



6 HC-200 RACK ELEVATIONS  
NOT TO SCALE ERATE

NEW ELEMENTARY SCHOOL  
MCFARLAND UNIFIED  
SCHOOL DISTRICT  
MCFARLAND UNIFIED SCHOOL DISTRICT  
MCFARLAND, KERN COUNTY, CA



APPROVALS

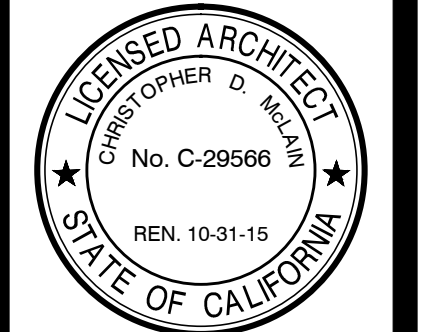
IDENTIFICATION STAMP  
DIV. OF THE STATE ARCHITECT

FILE # XX-XX

APPL. # XX-XXXXXX

AC F/LS SS

DATE



DATE: DECEMBER 18, 2013

tom  
TELLIAN PARISH MCLAIN  
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Vialito, CA 93291  
mclain.com

TITLE  
BUILDING 200  
WALL/RACK  
ELEVATIONS

T2.1  
PROJECT 1332



EXPIRES: 12/31/16  
REGIS. NO. 109549  
SEAN HARRINGTON  
EXPIRES: 12/31/16  
REGIS. NO. 077565  
FRED BRAKEMAN

PO BOX 999, BAKERSFIELD CA 93302  
PH: (661)716-1840 FX: (661)716-1841  
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**APPROVALS**

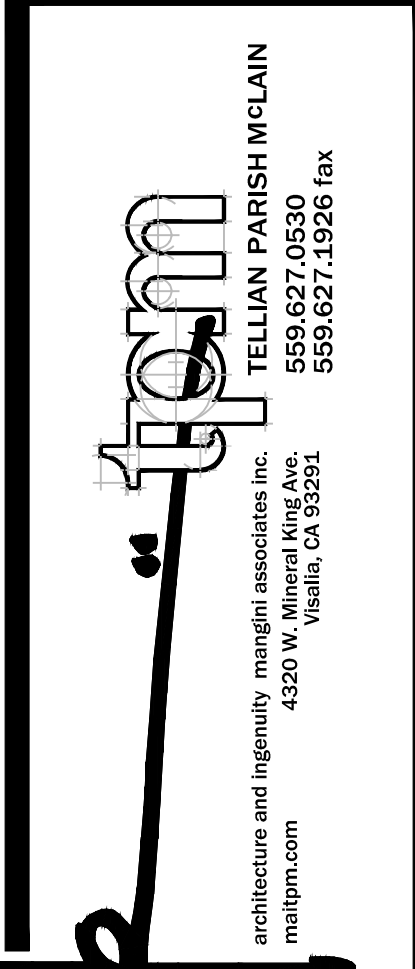
IDENTIFICATION STAMP  
 DIV. OF THE STATE ARCHITECT

FILE # ..... XX-XX  
 APPL. # ..... XX-XXXXXX

AC ..... F/LS ..... SS  
 DATE .....

LICENSED ARCHITECT  
 CHRISTOPHER D. MCCLAIN  
 No. C-29566  
 REN. 10-31-15  
 STATE OF CALIFORNIA

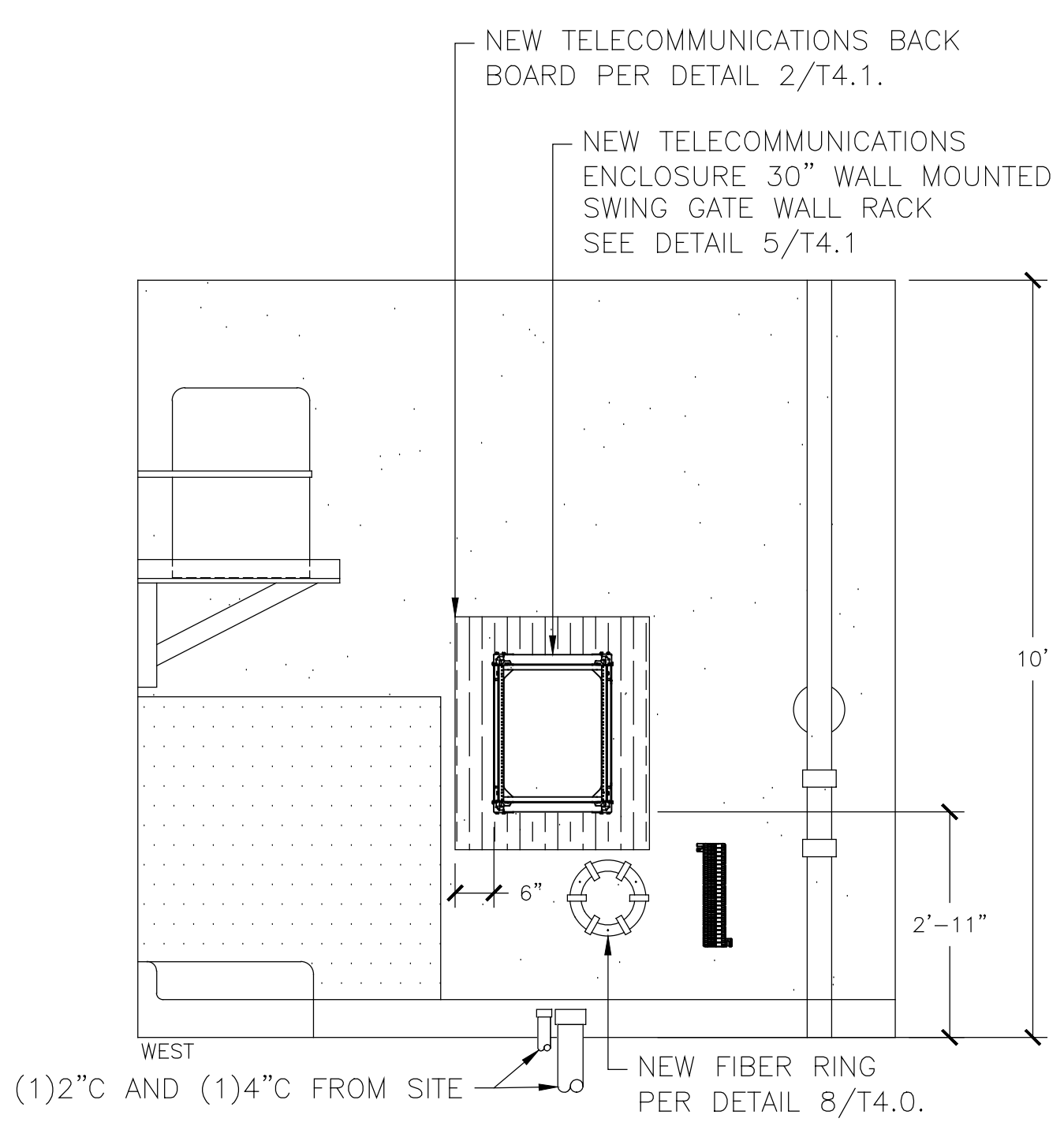
DATE: DECEMBER 18, 2013



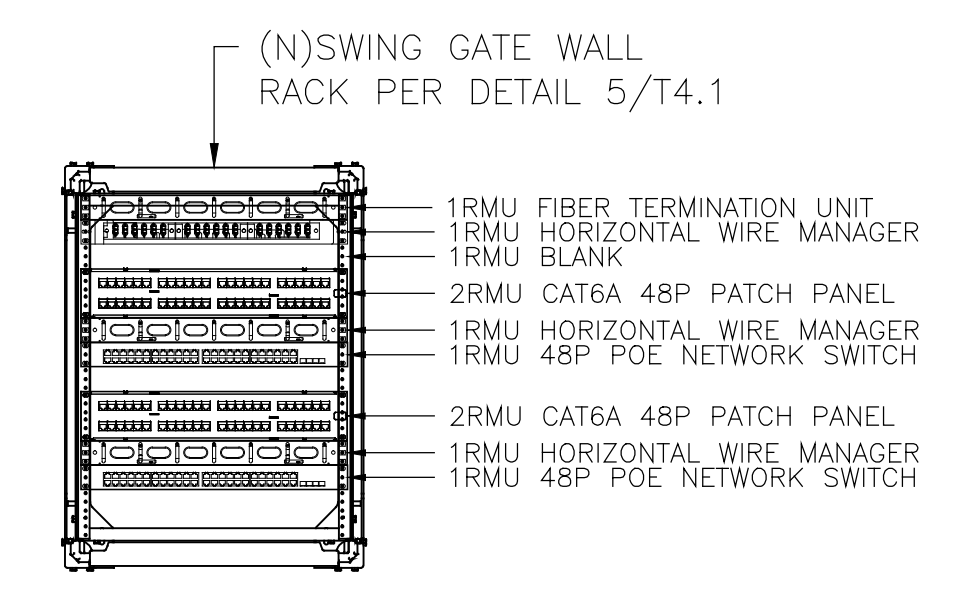
TITLE  
 BUILDING 300-600  
 WALL/RACK  
 ELEVATIONS

T2.2

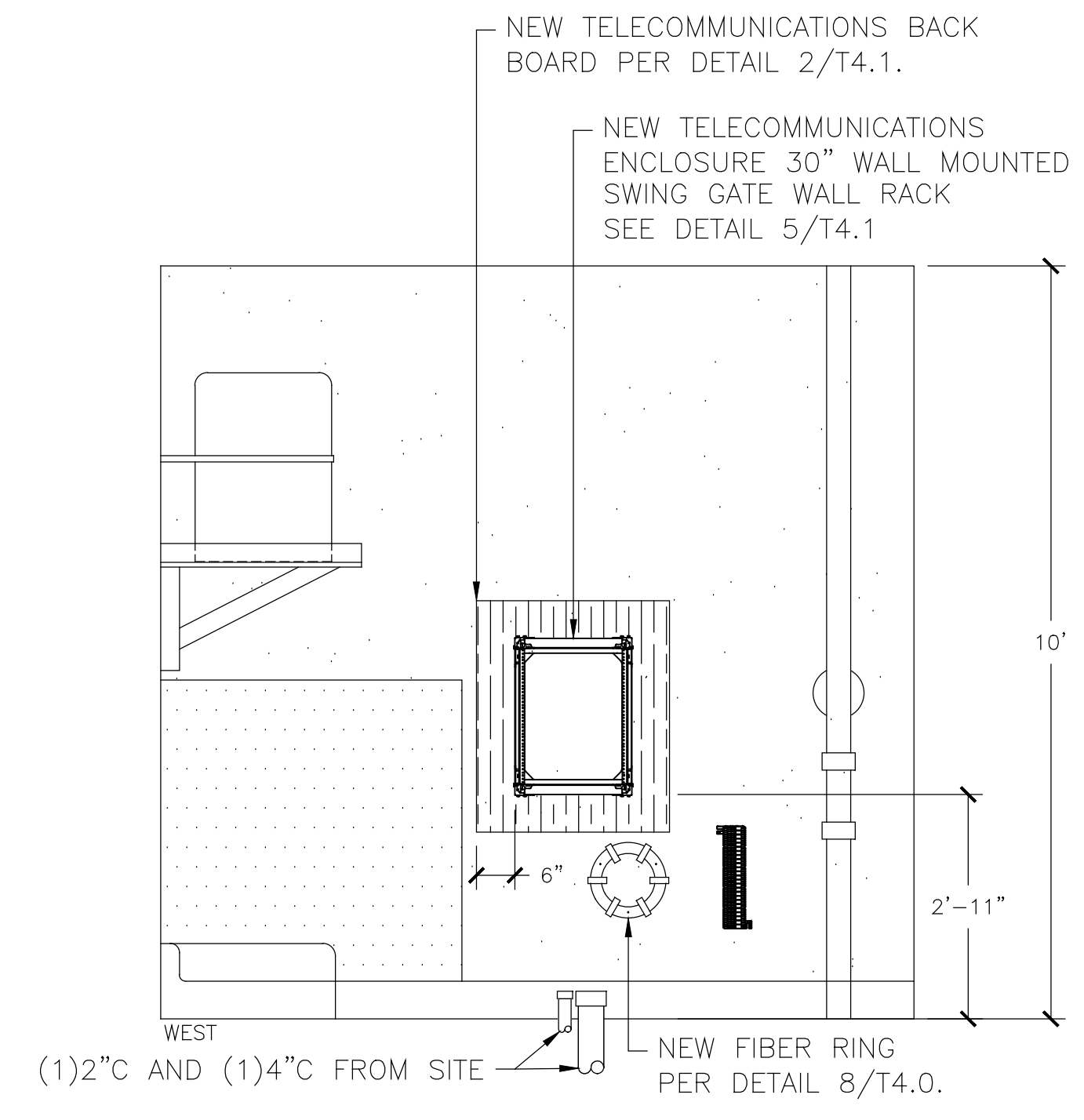
PROJECT 1332



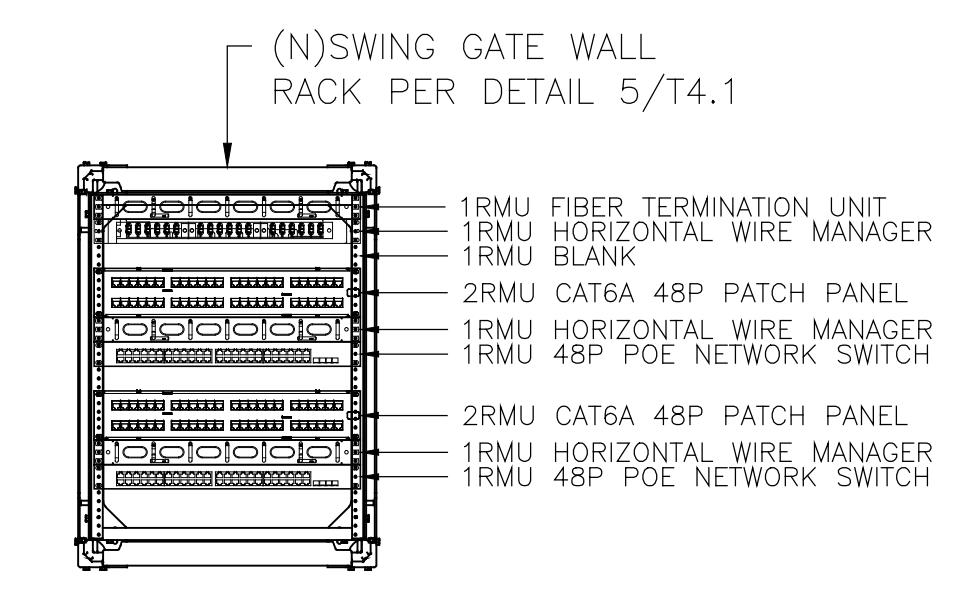
① HC-300 WALL ELEVATIONS  
 SCALE: 1/2" = 1'-0" ERATE



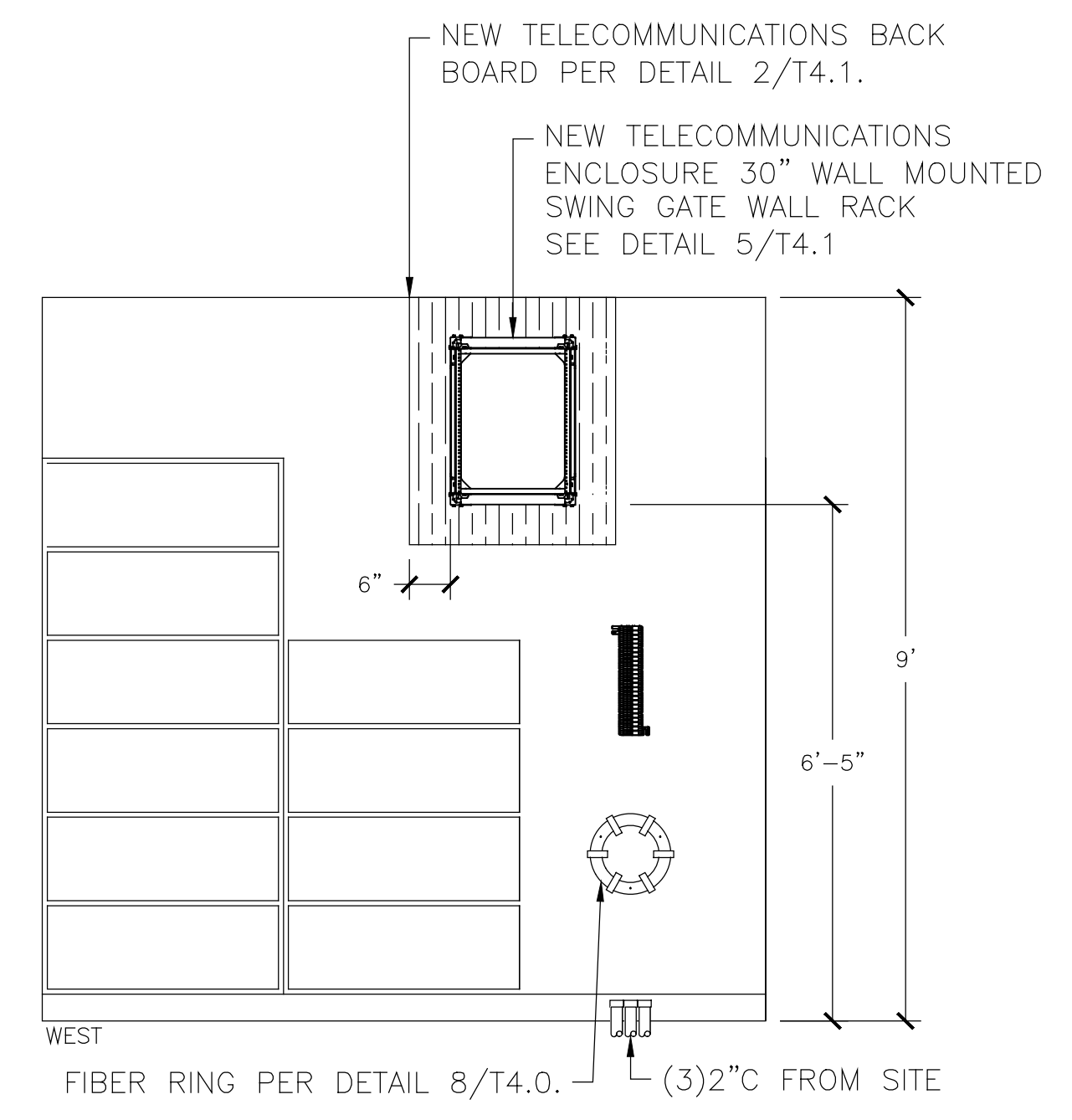
② HC-300 CABINET ELEVATIONS  
 NOT TO SCALE ERATE



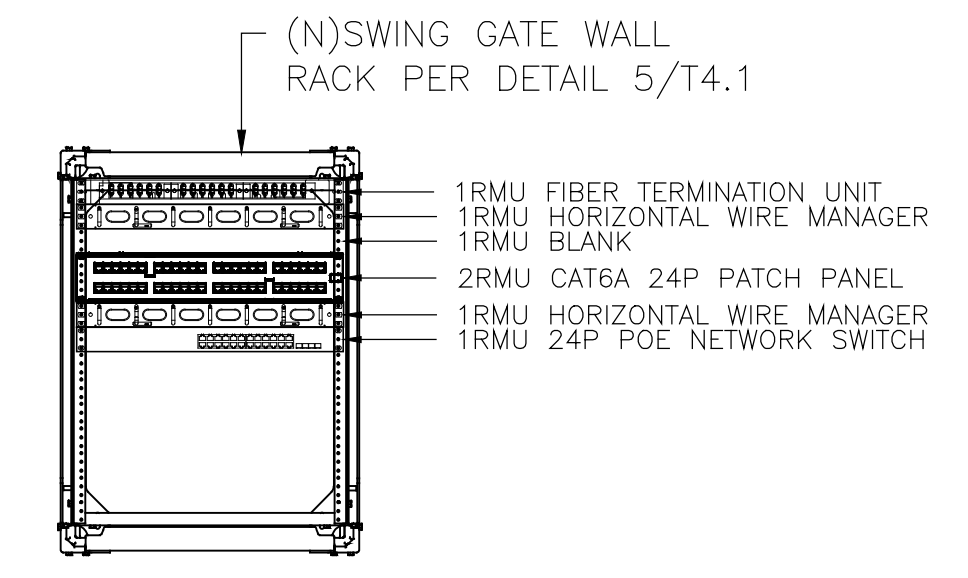
③ HC-400 WALL ELEVATIONS  
 SCALE: 1/2" = 1'-0" ERATE



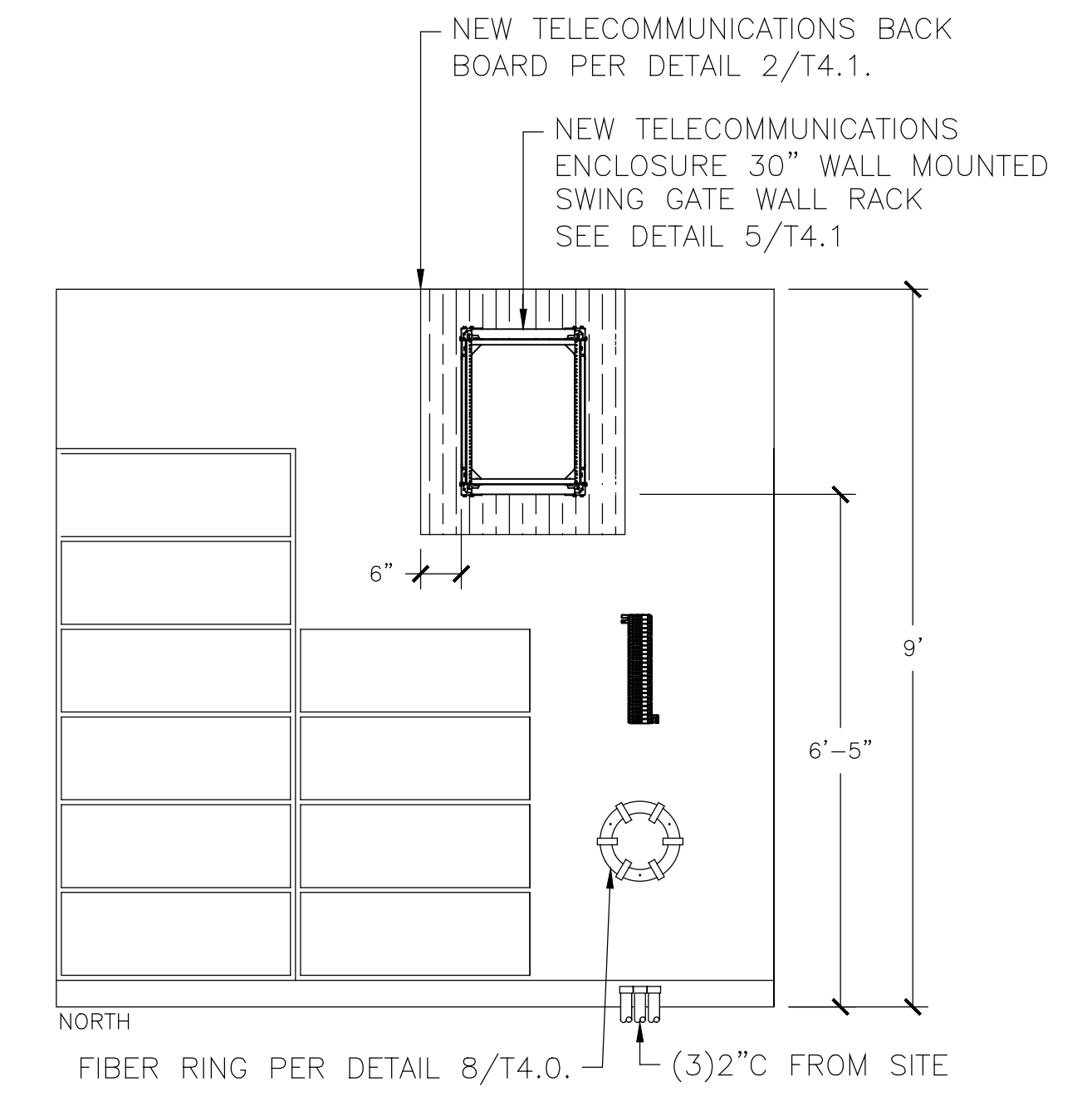
④ HC-400 CABINET ELEVATIONS  
 NOT TO SCALE ERATE



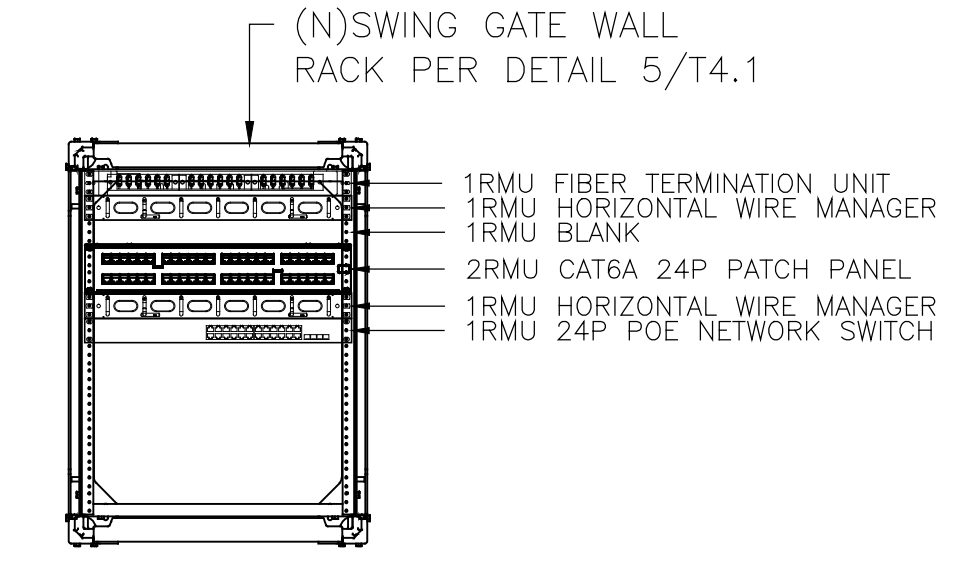
⑤ HC-500 WALL ELEVATIONS  
 SCALE: 1/2" = 1'-0" ERATE



⑥ HC-500 CABINET ELEVATIONS  
 NOT TO SCALE ERATE



⑦ HC-600 WALL ELEVATIONS  
 SCALE: 1/2" = 1'-0" ERATE



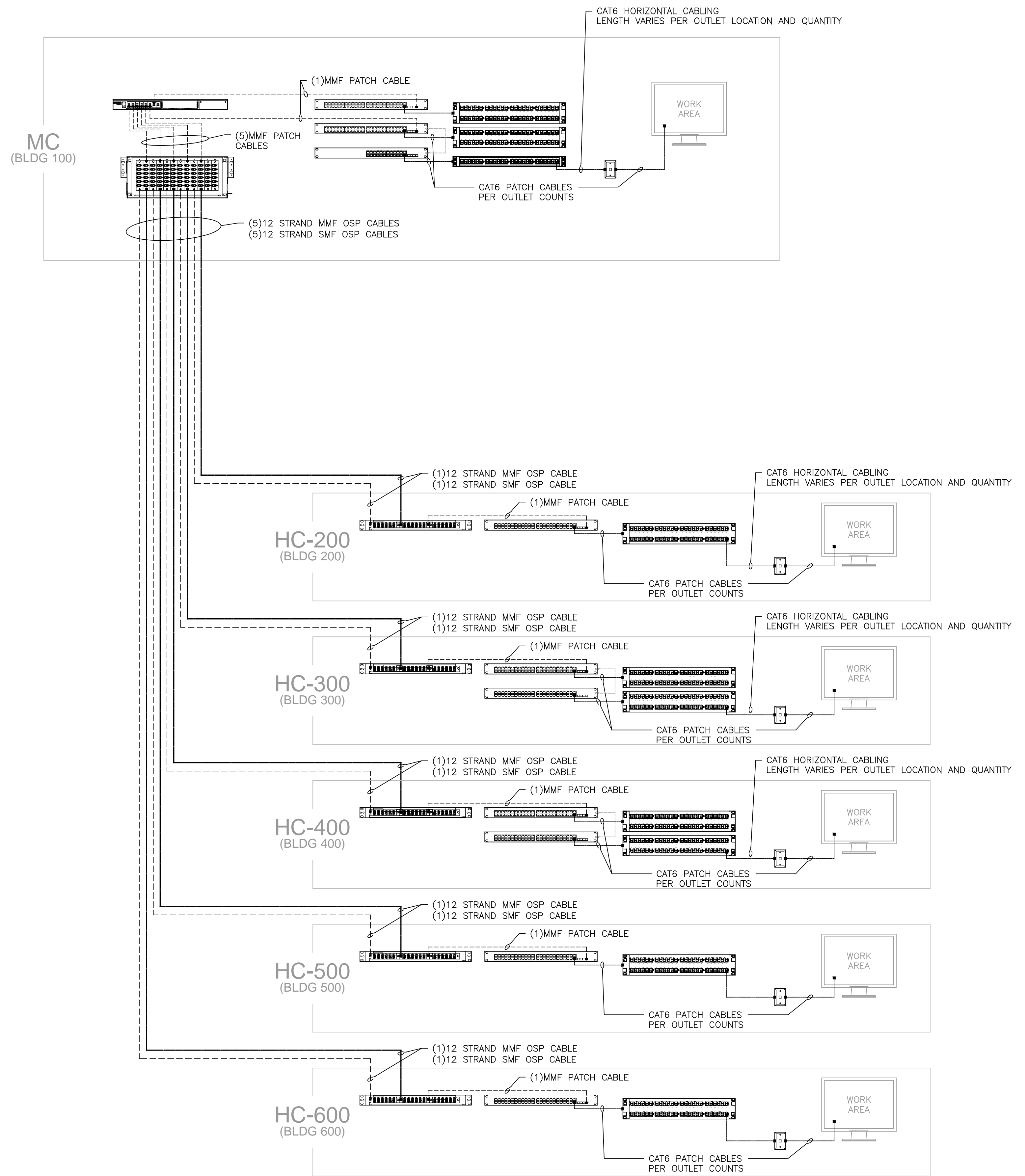
⑧ HC-600 CABINET ELEVATIONS  
 NOT TO SCALE ERATE



EXPIRES: 12/31/16  
 REGIS. NO. 109549  
 SEAN HARRINGTON  
 EXPIRES: 12/31/16  
 REGIS. NO. 07765  
 FRED BRAKEMAN

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 PH: (661)716-1840 FX: (661)716-1841  
 www.infinitycomm.com





1 STRUCTURED CABLING SINGLE LINE  
NTS ERATE

NEW EQUIPMENT LEGEND

- 4RMU OPTICAL FIBER TERMINATION UNIT
- 1RMU OPTICAL FIBER TERMINATION UNIT
- 2RMU 48P CAT6 PATCH PANEL
- 1RMU 24P CAT6 PATCH PANEL
- 12 STRAND MMF OSP CABLE
- 12 STRAND SMF OSP CABLE
- MMF PATCH CABLE
- 6 STRAND MMF OSP CABLE
- CAT6 PATCH CABLE
- 1RMU OPTICAL FIBER NETWORK SWITCH
- 1RMU 48P NETWORK SWITCH
- 1RMU 24P NETWORK SWITCH
- 1RMU 8P NETWORK SWITCH

OWNER PROVIDED EQUIPMENT LEGEND

- WORK AREA COMPUTER
- OWNER PROVIDED NETWORK STACKING CABLE

**NEW ELEMENTARY SCHOOL**  
**McFARLAND UNIFIED SCHOOL DISTRICT**  
 McFARLAND UNIFIED SCHOOL DISTRICT  
 McFARLAND, KERN COUNTY, CA



APPROVALS

IDENTIFICATION STAMP  
DIV. OF THE STATE ARCHITECT

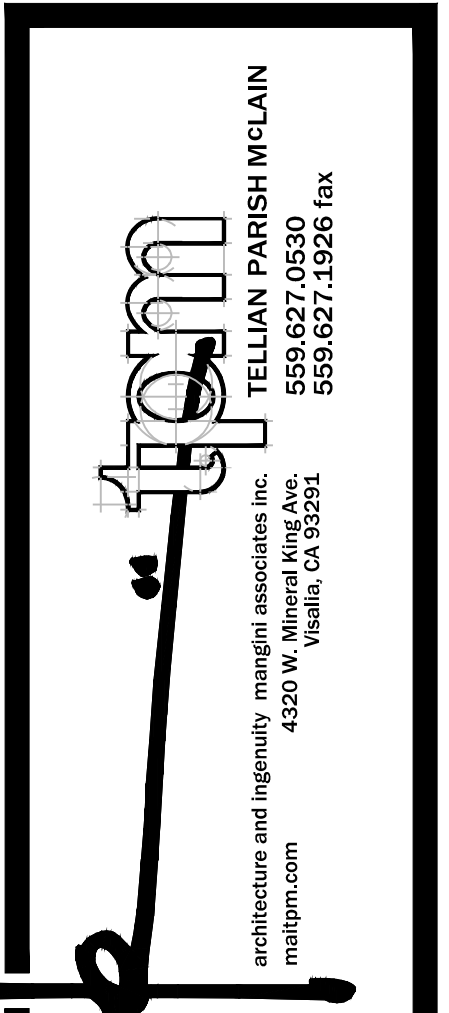
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APPL. # ..... XX-XXXXXX

AC F/LS SS

DATE

LICENSED ARCHITECT  
CHRISTOPHER D. MCLAIN  
No. C-29566  
REN. 10-31-15  
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2013



TITLE

STRUCTURED  
CABLING SINGLE LINE

T3.0

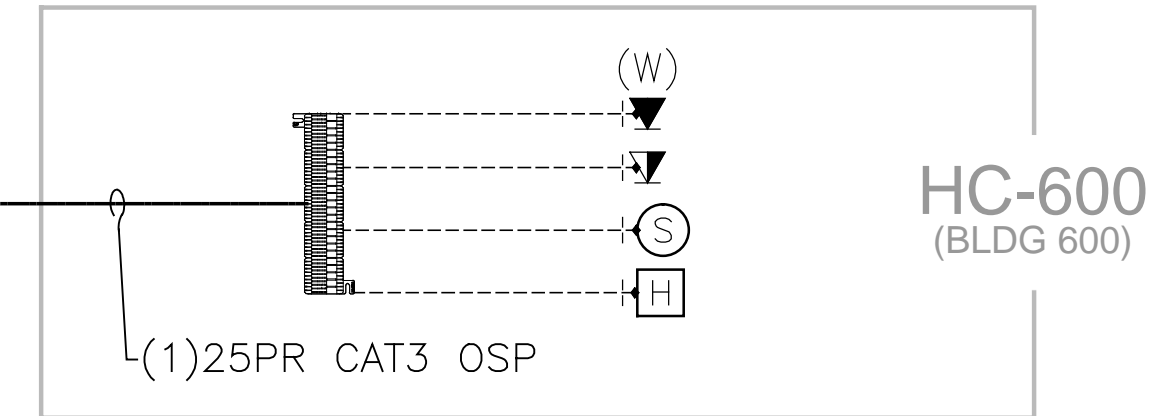
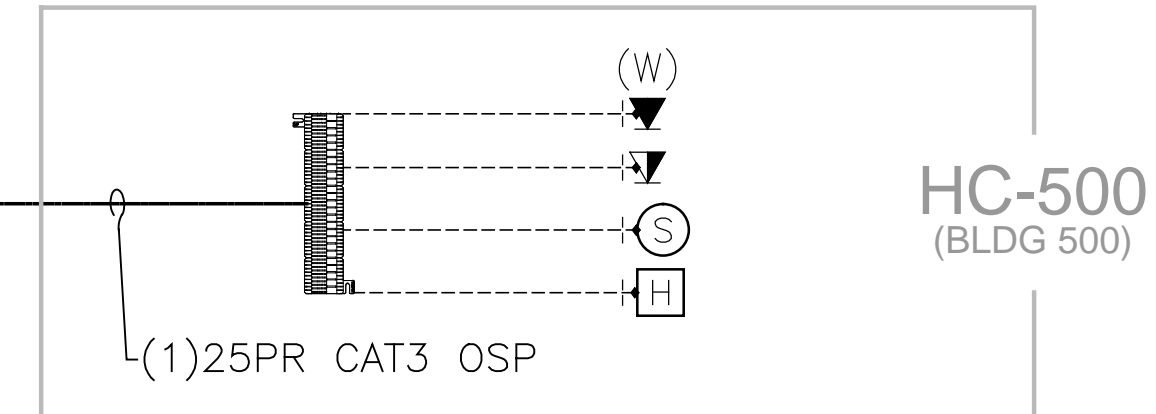
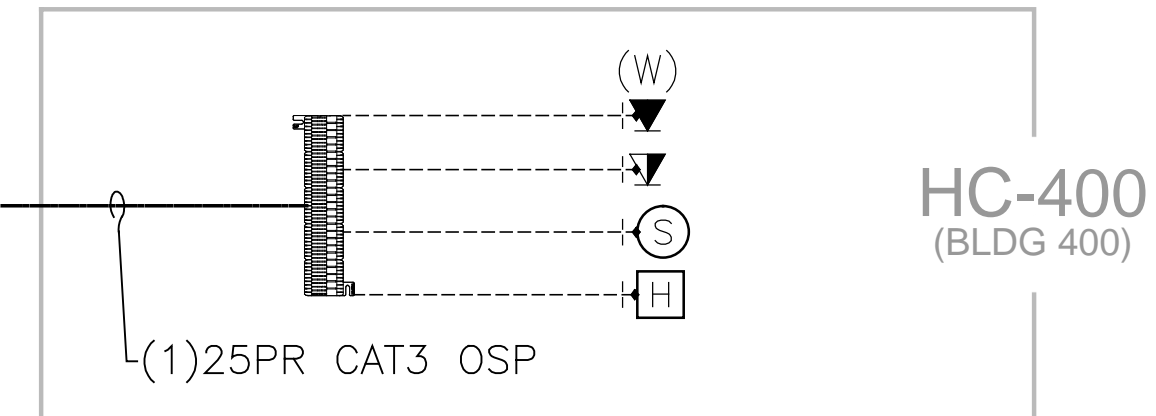
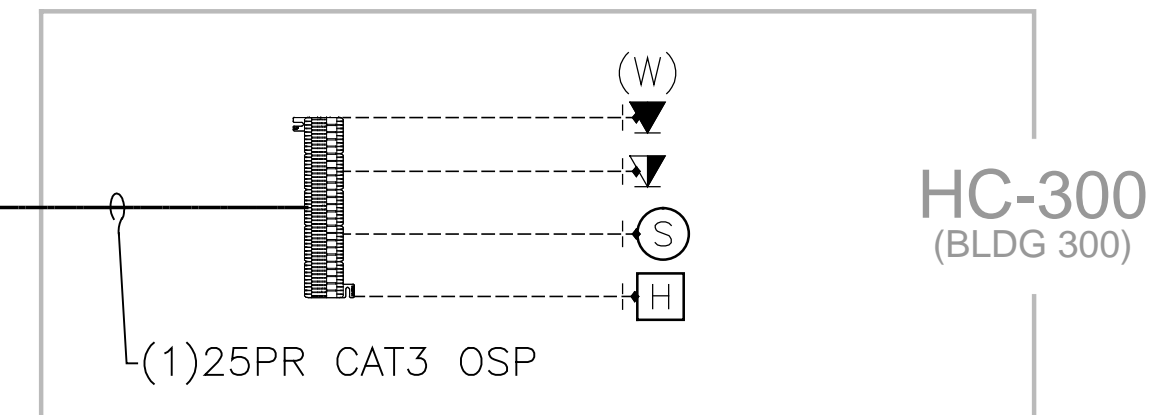
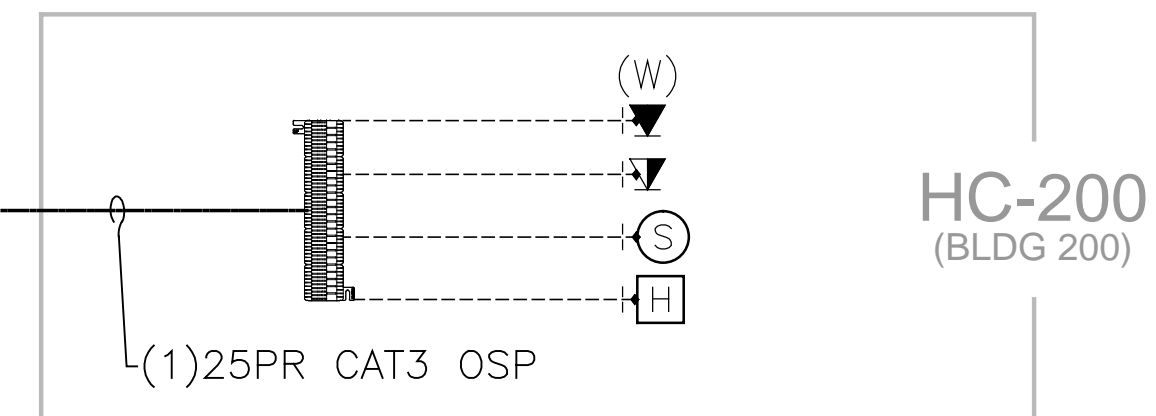
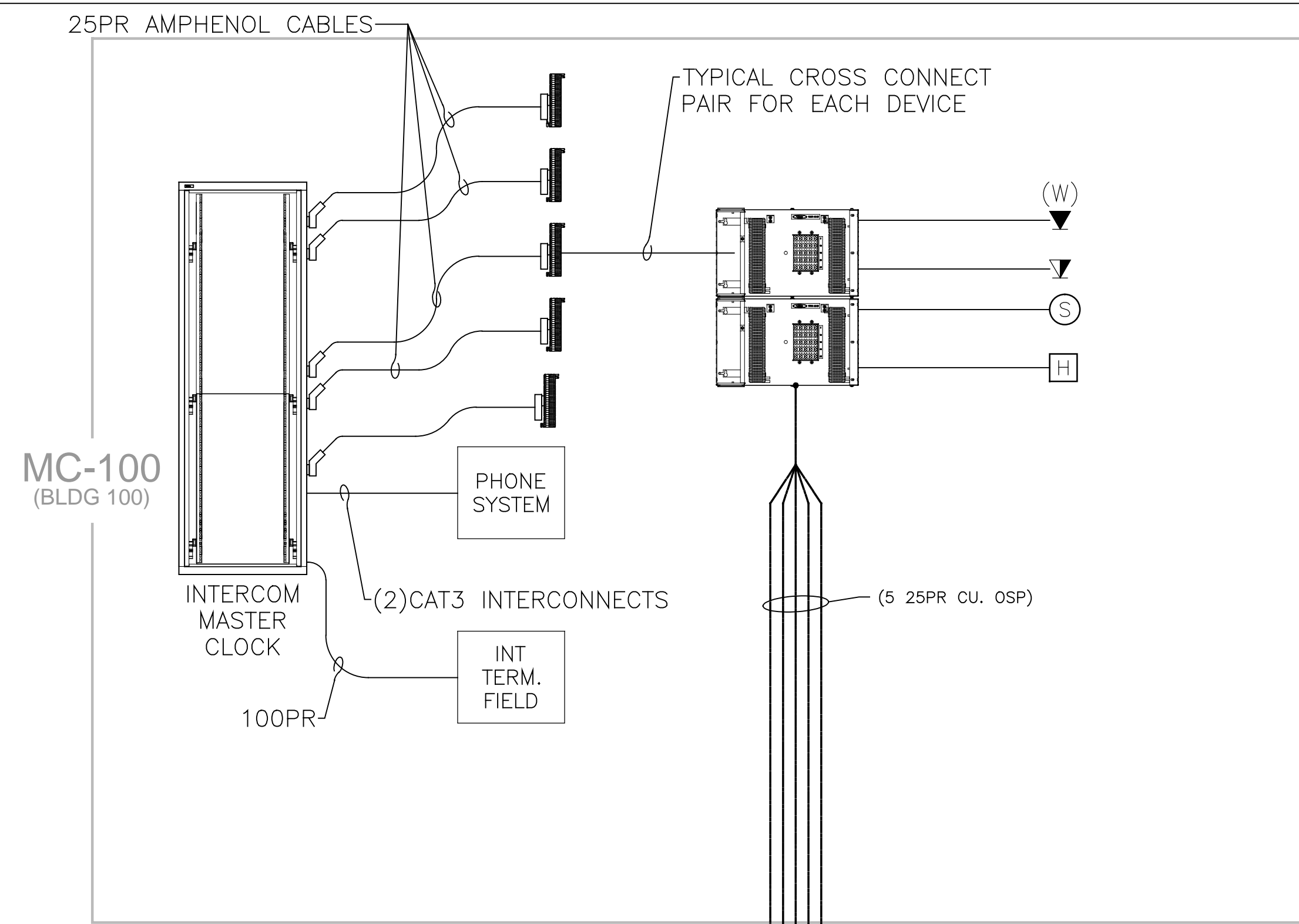
PROJECT 1332



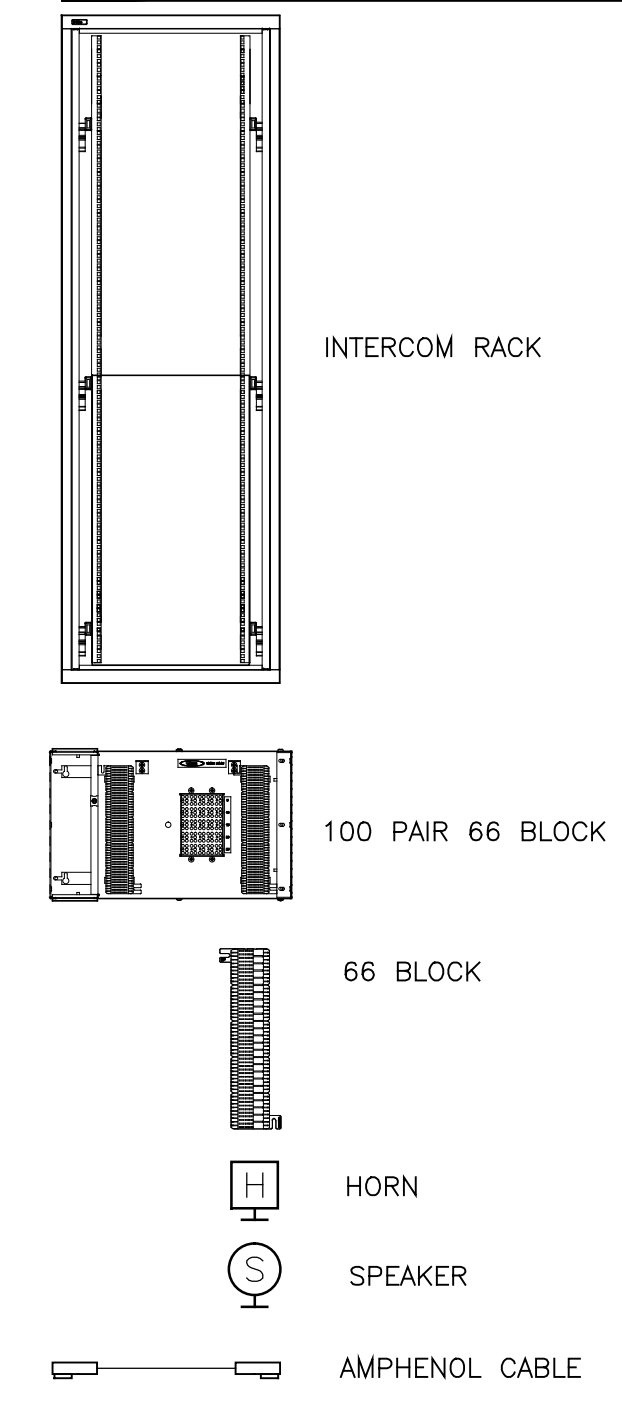
EXPIRES: 12/31/16  
REGIS. NO. 109549  
SEAN HARRINGTON  
EXPIRES: 12/31/16  
REGIS. NO. 07765  
FRED BRAKEMAN

PO BOX 999, BAKERSFIELD CA 93302  
PH: (661)716-1840 FX: (661)716-1841  
www.infinitycomm.com





NETWORK EQUIPMENT LIST



- 25 PAIR OSP CABLE FROM MC TO EACH HC/TC
- - - WEST PENN WIRE 355
- 6 PAIR OSP CABLE FROM TC TO EACH IC

- NOTES:
1. SINGLE LINE IS DIAGRAMMATIC, PROVIDE ALL TERMINATION HARDWARE REQUIRED TO PERFORM THE WORK DESCRIBED WITHIN THIS BID DOCUMENT.
  2. PROVIDE NEW MASTER INTERCOM SYSTEM WITH WIRELESS CLOCK.
  3. PROVIDE NEW COPPER OSP BACKBONE
  4. PROVIDE INTERCONNECT CABLE(S) FROM HC TO CABLING AND TC'S.
  5. PROVIDE NEW DEVICES, SPEAKERS, HORNS AND WIRELESS CLOCKS.
  6. ALL TERMINATIONS SHALL BE 66-STYCLE BLOCKS.
  7. PROVIDE INTERCONNECTION WITH PHONE SYSTEM AND NETWORK, HARDWARE PORTS, CABLE AND ALL REQUIRED COORDINATION.

**NEW ELEMENTARY SCHOOL**  
**McFARLAND UNIFIED SCHOOL DISTRICT**  
 McFARLAND UNIFIED SCHOOL DISTRICT  
 McFARLAND, KERN COUNTY, CA

APPROVALS

IDENTIFICATION STAMP  
 DIV. OF THE STATE ARCHITECT

FILE # ..... XX-XX  
 APPL. # ..... XX-XXXXXX

AC \_\_\_\_\_ F/LS \_\_\_\_\_ SS \_\_\_\_\_

DATE \_\_\_\_\_

DATE: DECEMBER 18, 2013

architecture and ingenuity  
 tom tullian parish mclain  
 4320 W. Mineral King Ave.  
 Van Nuys, CA 91321  
 559.627.1926 fax  
 559.627.0530  
 mtm@tom.com

TITLE  
 TELEPHONE AND  
 INTERCOM  
 SINGLE LINE

T3.1

PROJECT 1332

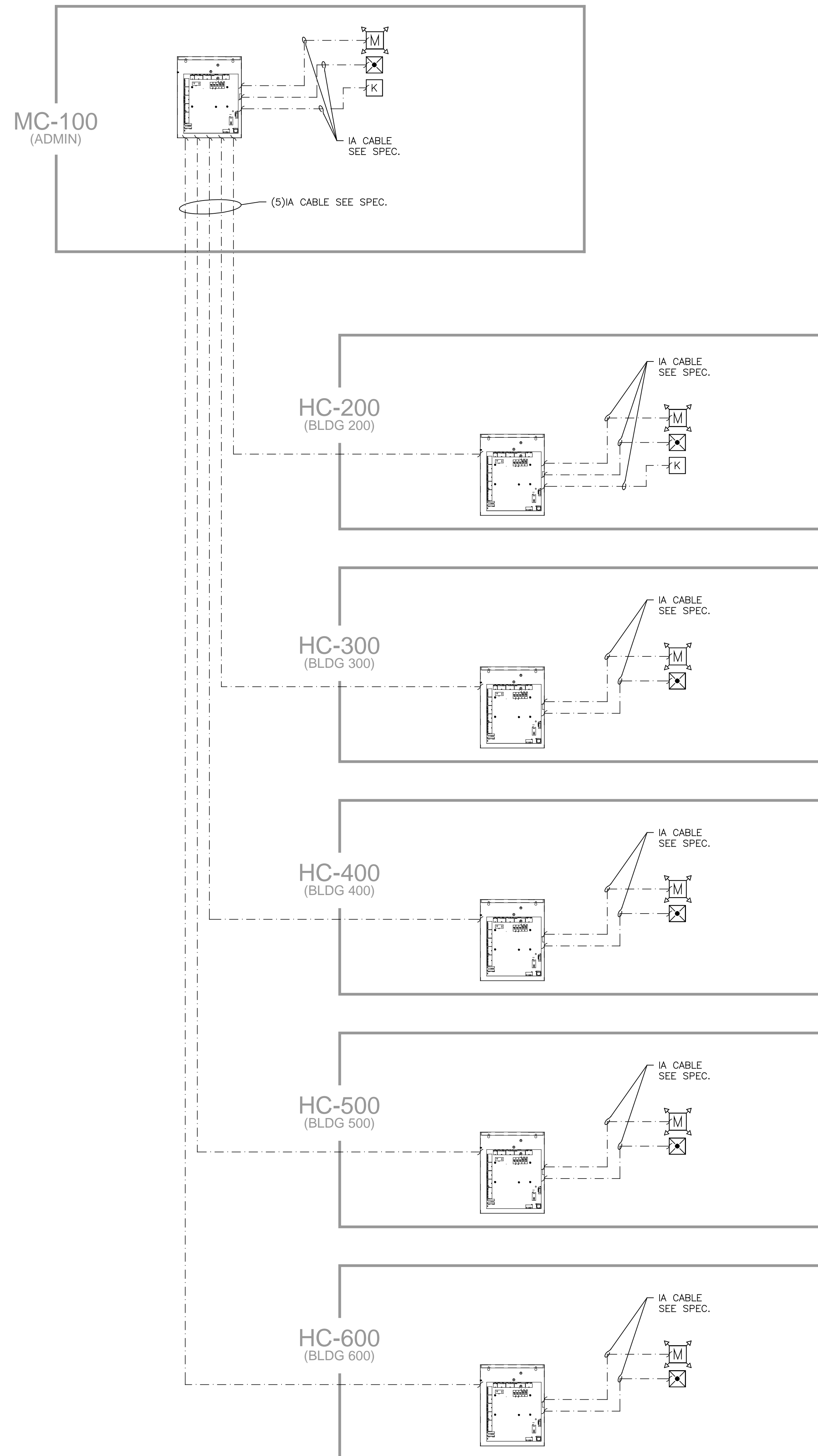
1 TELEPHONE AND INTERCOM SINGLE LINE  
 NTS ERATE



EXPIRES: 12/31/16  
 REGIS. NO. 109549  
 SEAN HARRINGTON  
 EXPIRES: 12/31/16  
 REGIS. NO. 077569  
 FRED BRAKEMAN

PO BOX 999, BAKERSFIELD CA 93302  
 PH: (661)716-1840 FX: (661)716-1841  
 www.infinitycomm.com





**NETWORK EQUIPMENT LIST**

- IA CABLE SEE SPEC.
- SECURITY PANEL
- MOTION DETECTOR
- DOOR CONTACT
- KEYPAD

**NEW ELEMENTARY SCHOOL  
MCFARLAND UNIFIED  
SCHOOL DISTRICT**  
MCFARLAND UNIFIED SCHOOL DISTRICT  
MCFARLAND, KERN COUNTY, CA

**APPROVALS**

IDENTIFICATION STAMP  
DIV. OF THE STATE ARCHITECT

FILE # ..... XX-XX  
APPL. # ..... XX-XXXXXX  
AC. F/LS. SS  
DATE

DATE: DECEMBER 18, 2013

TELLIAN PARISH MCCLAIN  
559.627.0530  
559.627.1926 fax  
4320 W. Mineral King Ave.  
Vialla, CA 93291  
multipm.com

TITLE  
SECURITY SYSTEM  
SINGLE LINE

T3.2

PROJECT 1332

1 SECURITY SINGLE LINE  
NTS



EXPIRES: 12/31/16  
REGIS. NO. 109549  
SEAN HARRINGTON  
EXPIRES: 12/31/16  
REGIS. NO. 077565  
FRED BRAKEMAN

PO BOX 999, BAKERSFIELD CA 93302  
PH: (661)716-1840 FX: (661)716-1841  
www.infinitycomm.com

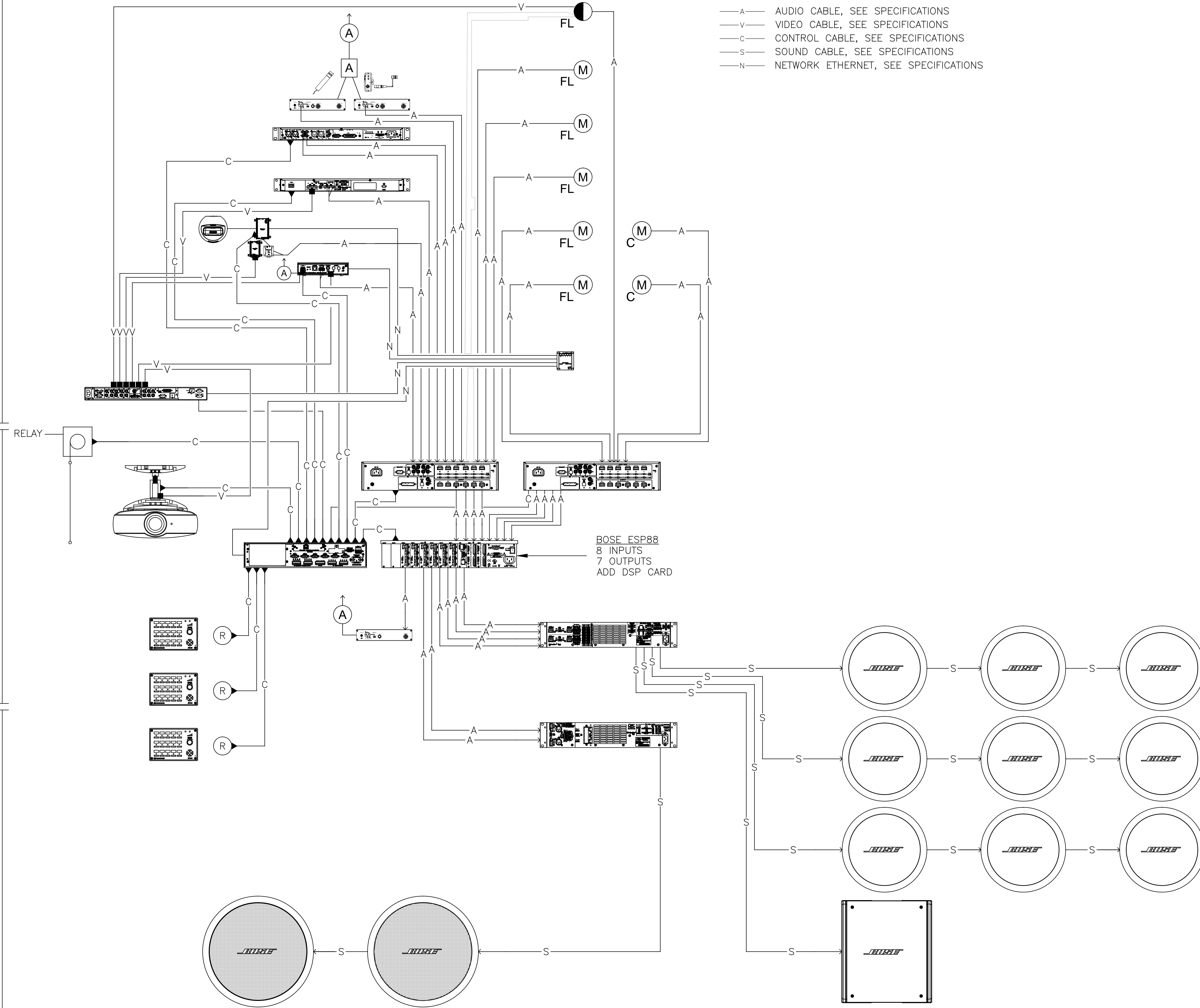


**CABLE TYPE**

- A— AUDIO CABLE, SEE SPECIFICATIONS
- V— VIDEO CABLE, SEE SPECIFICATIONS
- C— CONTROL CABLE, SEE SPECIFICATIONS
- S— SOUND CABLE, SEE SPECIFICATIONS
- N— NETWORK ETHERNET, SEE SPECIFICATIONS

**A/V EQUIPMENT LIST**

BACK	FRONT	
		IN FLOOR MICROPHONE OUTLET
		WIRELESS MICROPHONE CONTROLLER
		MEDIA/CD/RECORDER
		CD PLAYER
		CATV/FM TUNER
		MIXER
		DSP
		AMPLIFIER
		AMPLIFIER
		REMOTE
		ASSISTIVE LISTENING DEVICE
		CONTROL SYSTEM
		VIDEO SWITCHER
		POE ETHERNET SWITCH
		ANTENNA
		ANTENNA COMBINER
		IPOD INTERFACE
		SURGEX 1115RL
		SURGEX SEQ
		IN CEILING MICROPHONE OUTLET



1 BUILDING 200 SOUND SYSTEM SINGLE LINE  
NTS

**NEW ELEMENTARY SCHOOL**  
**McFARLAND UNIFIED SCHOOL DISTRICT**  
 McFARLAND UNIFIED SCHOOL DISTRICT  
 McFARLAND, KERN COUNTY, CA

APPROVALS

IDENTIFICATION STAMP  
DIV. OF THE STATE ARCHITECT

FILE # ..... XX-XX  
APPL. # ..... XX-XXXXXX

AC \_\_\_\_\_ F/LS \_\_\_\_\_ SS \_\_\_\_\_  
DATE \_\_\_\_\_

DATE: DECEMBER 18, 2013

TULLIAN PARISH MCLAIN  
 559.627.0520  
 4320 W. Mineral Hills Ave.  
 Vialito, CA 93291  
 559.627.1926 fax  
 tom@tullianparishmclain.com

TITLE  
BLDG 200 SOUND  
SYSTEM SINGLE LINE

T3.3

PROJECT 1332

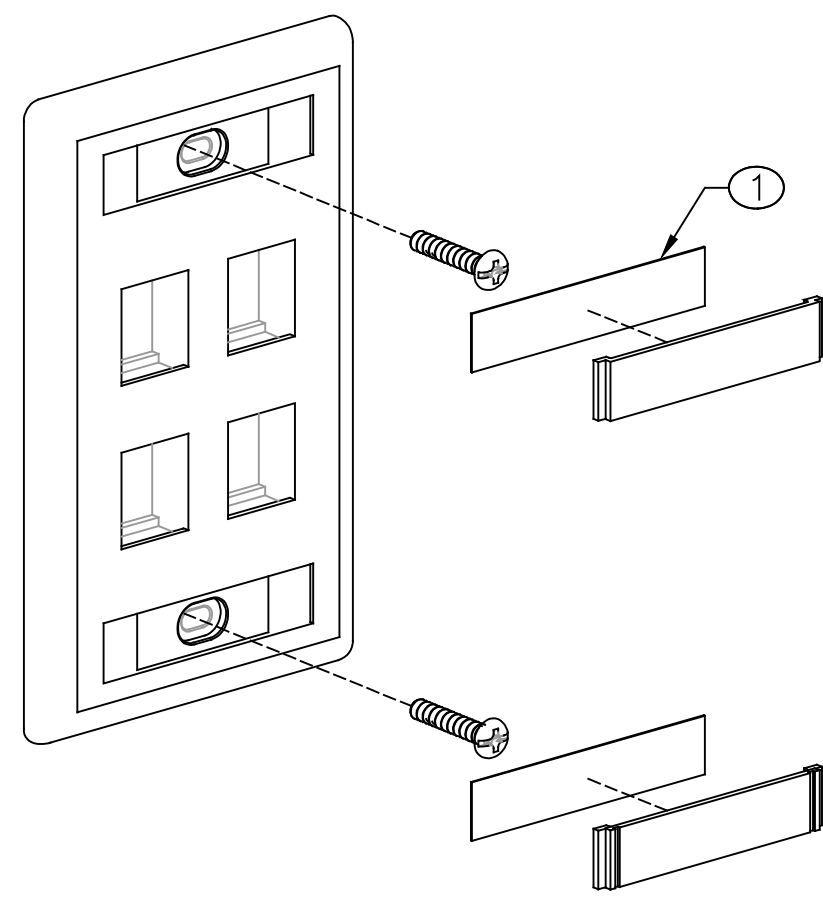


EXPIRES: 12/31/16  
REGIS. NO. 109549  
SEAN HARRINGTON  
EXPIRES: 12/31/16  
REGIS. NO. 07765  
FRED BRAKEMAN

PO BOX 999, BAKERSFIELD CA 93302  
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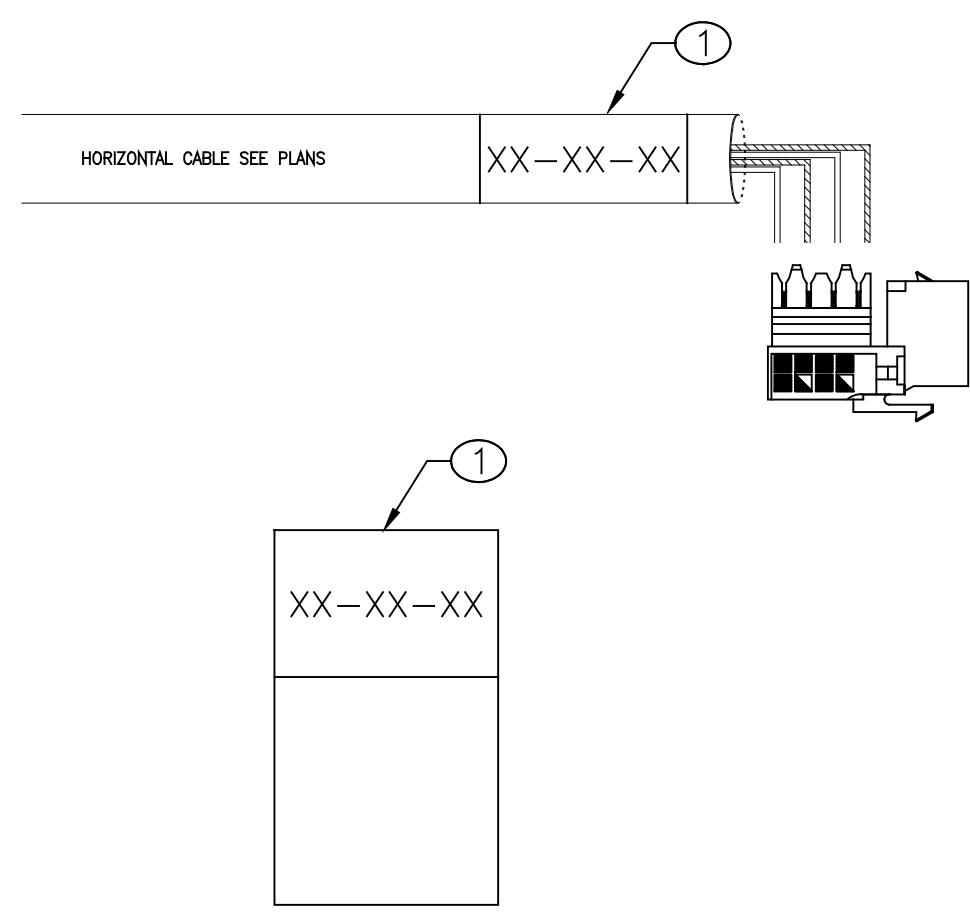


NOTES:

- LABELLED TAG WILL GO BEHIND WINDOW PROVIDED.
- LABEL TAG PER LABEL STANDARD ISSUED.

BUILDING DESIGNATOR/RACK DESIGNATOR IF MULTIPLE    PANEL NUMBER    PORT NUMBER

1 HORIZONTAL LINK IDENTIFIER LABELING FORMAT  
NOT TO SCALE ERATE

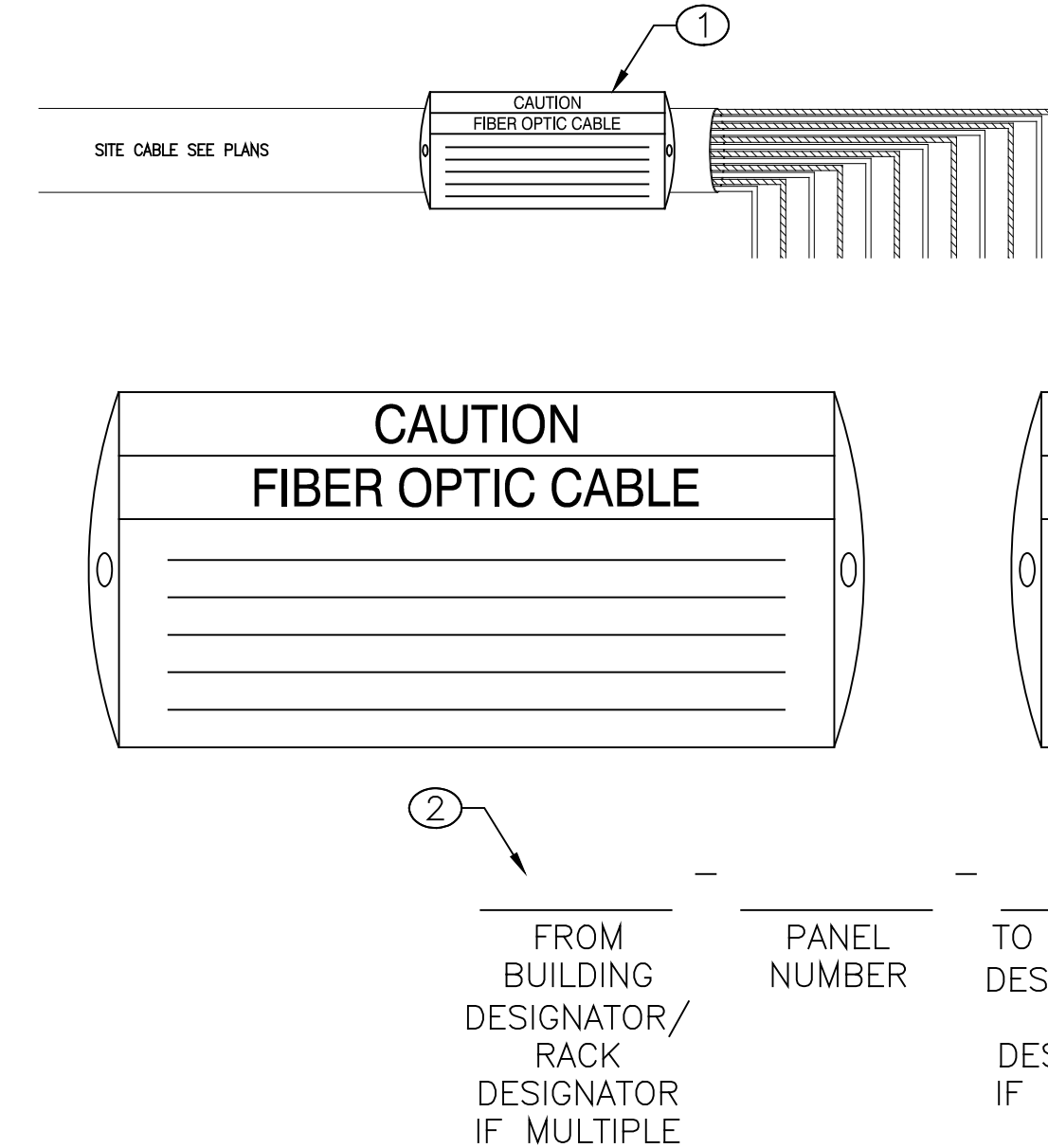


NOTES:

- LABELLED TAG WILL BE WRAPPED AROUND CABLE.
- LABEL TAG PER LABEL STANDARD ISSUED.

BUILDING DESIGNATOR/RACK DESIGNATOR IF MULTIPLE    PANEL NUMBER    PORT NUMBER

2 CABLE LINK IDENTIFIER LABELING FORMAT  
NOT TO SCALE ERATE

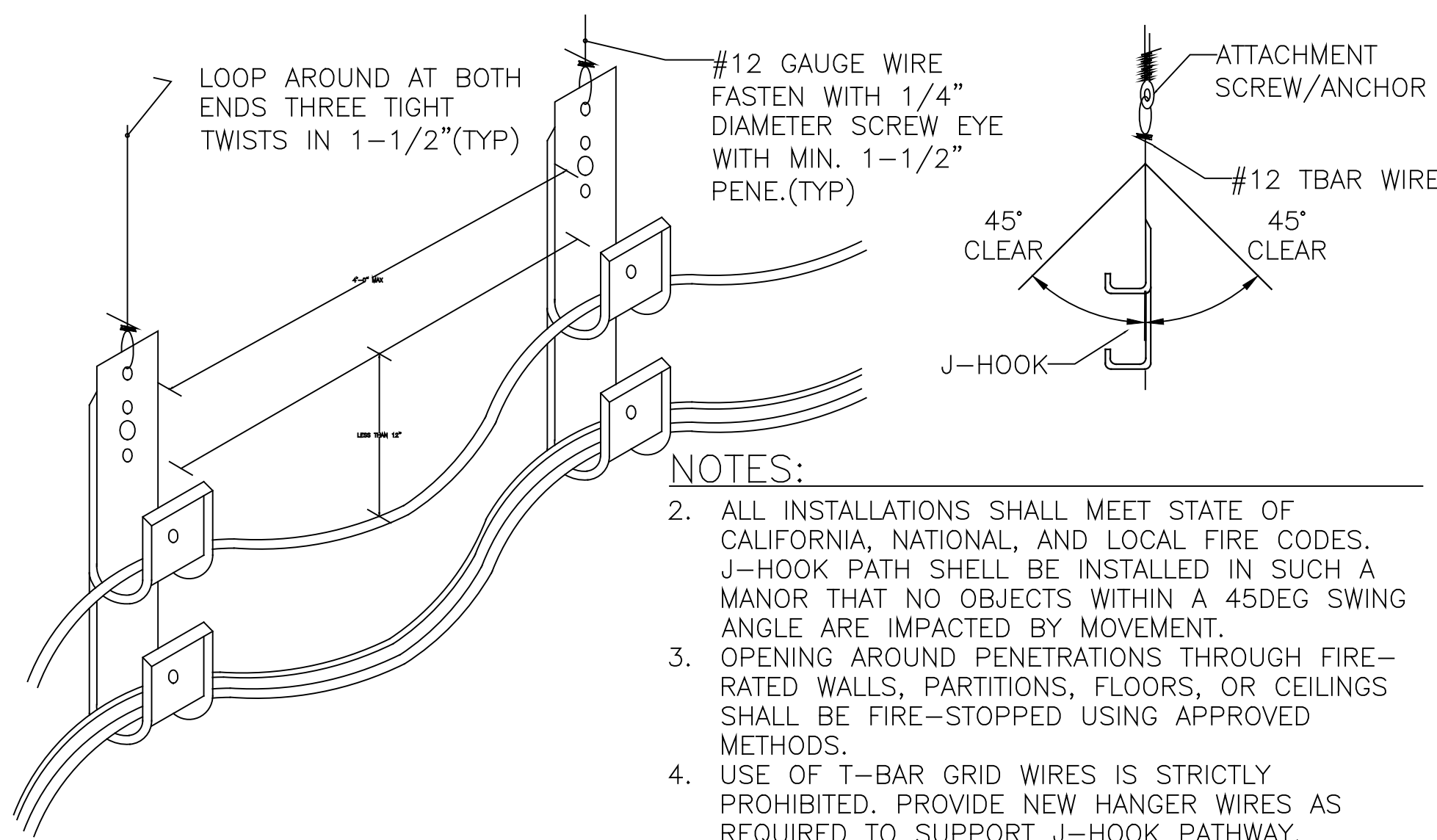


NOTES:

- LABELLED TAG WILL BE SECURED TO CABLE VIA ZIP TIE.
- LABEL TAG PER LABEL STANDARD ISSUED.

FROM BUILDING DESIGNATOR/RACK DESIGNATOR IF MULTIPLE    PANEL NUMBER    TO BUILDING DESIGNATOR/RACK DESIGNATOR IF MULTIPLE    PANEL NUMBER

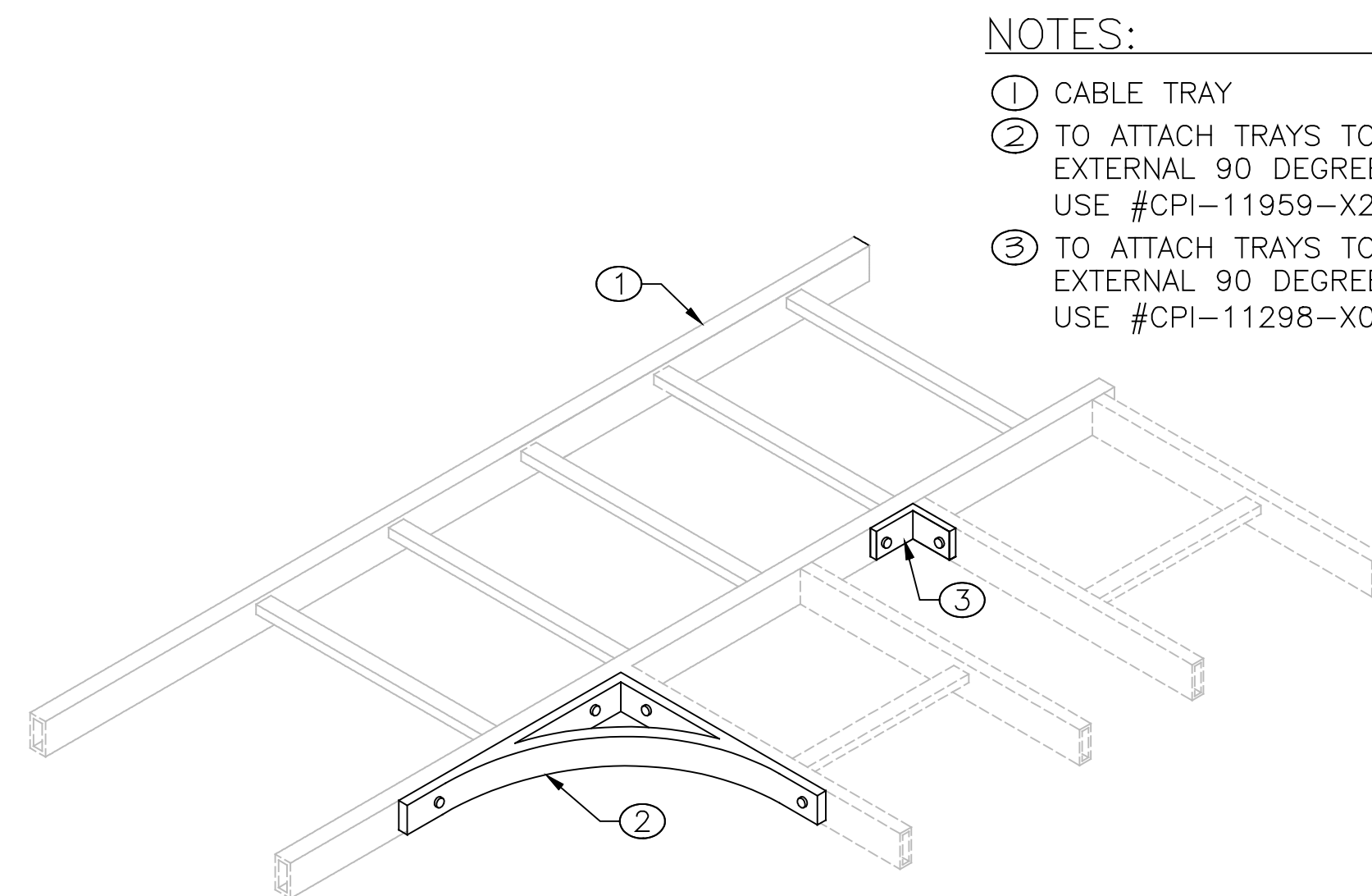
3 OUTSIDE PLANT IDENTIFIER LABELING FORMAT  
NOT TO SCALE ERATE



NOTES:

- ALL INSTALLATIONS SHALL MEET STATE OF CALIFORNIA, NATIONAL, AND LOCAL FIRE CODES. J-HOOK PATH SHALL BE INSTALLED IN SUCH A MANNER THAT NO OBJECTS WITHIN A 45DEG SWING ANGLE ARE IMPACTED BY MOVEMENT.
- OPENING AROUND PENETRATIONS THROUGH FIRE-RATED WALLS, PARTITIONS, FLOORS, OR CEILINGS SHALL BE FIRE-STOPPED USING APPROVED METHODS.
- USE OF T-BAR GRID WIRES IS STRICTLY PROHIBITED. PROVIDE NEW HANGER WIRES AS REQUIRED TO SUPPORT J-HOOK PATHWAY.

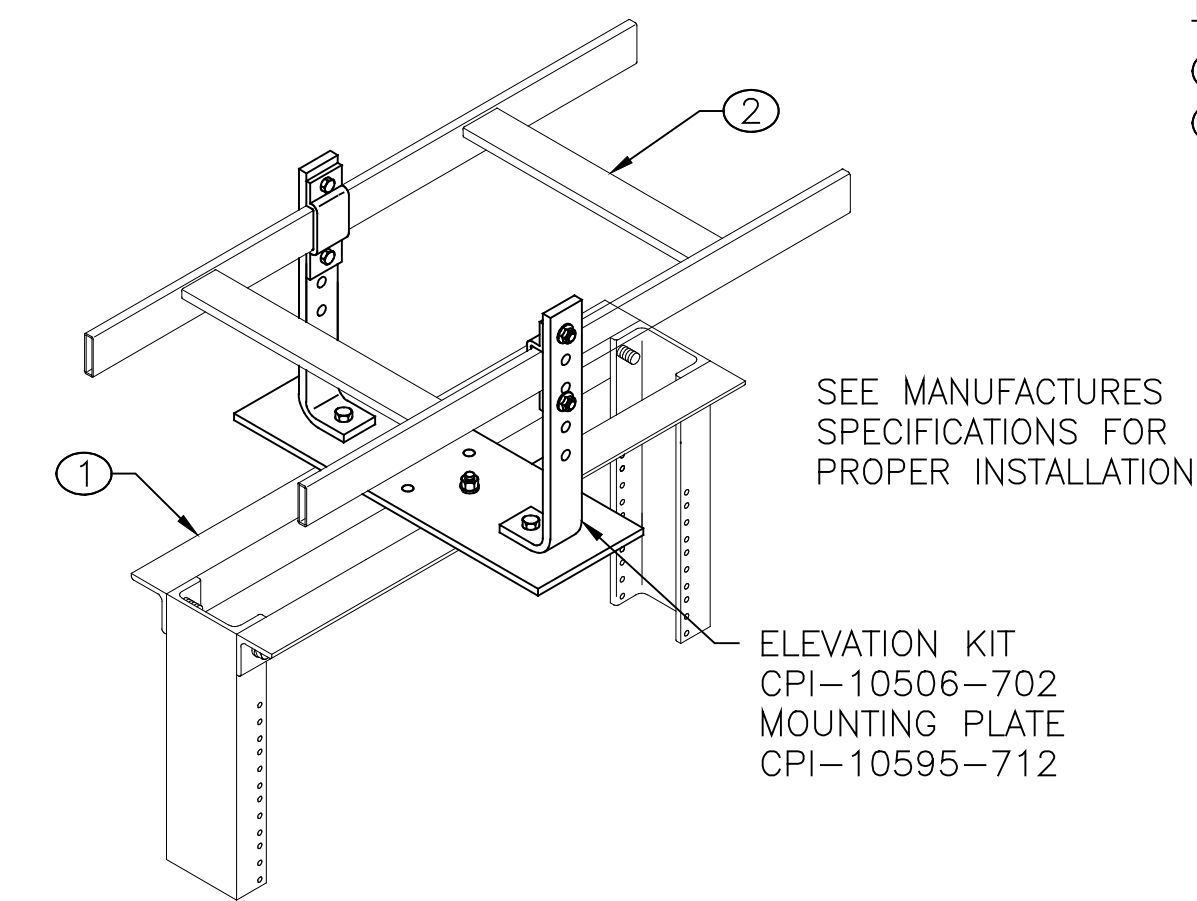
4 J-HOOK PATHWAY DETAIL  
NOT TO SCALE ERATE



NOTES:

- CABLE TRAY
- TO ATTACH TRAYS TOGETHER, ON EXTERNAL 90 DEGREE JUNCTIONS USE #CPI-11959-X24 OR EQUAL.
- TO ATTACH TRAYS TOGETHER, ON EXTERNAL 90 DEGREE JUNCTIONS USE #CPI-11298-X01 OR EQUAL.

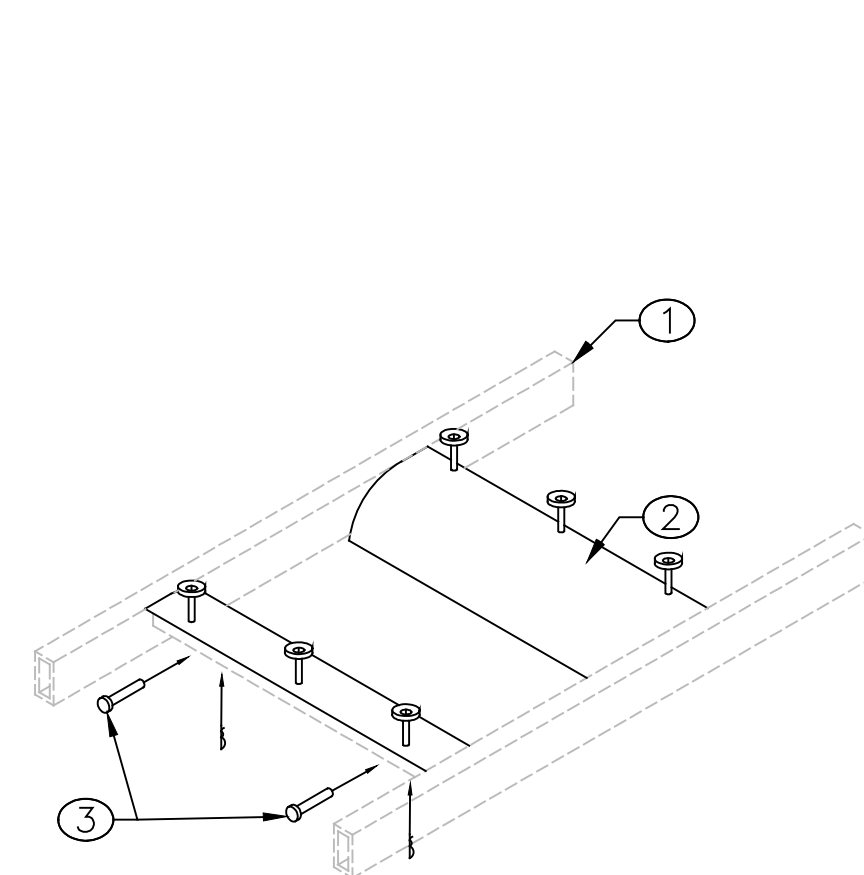
5 CABLE RUNWAY 90 DEGREE ASSEMBLY DETAIL  
NOT TO SCALE ERATE    EQUAL TO COOPER BLUNE



NOTES:

- TYPICAL DATA RACK
- LADDER RACK

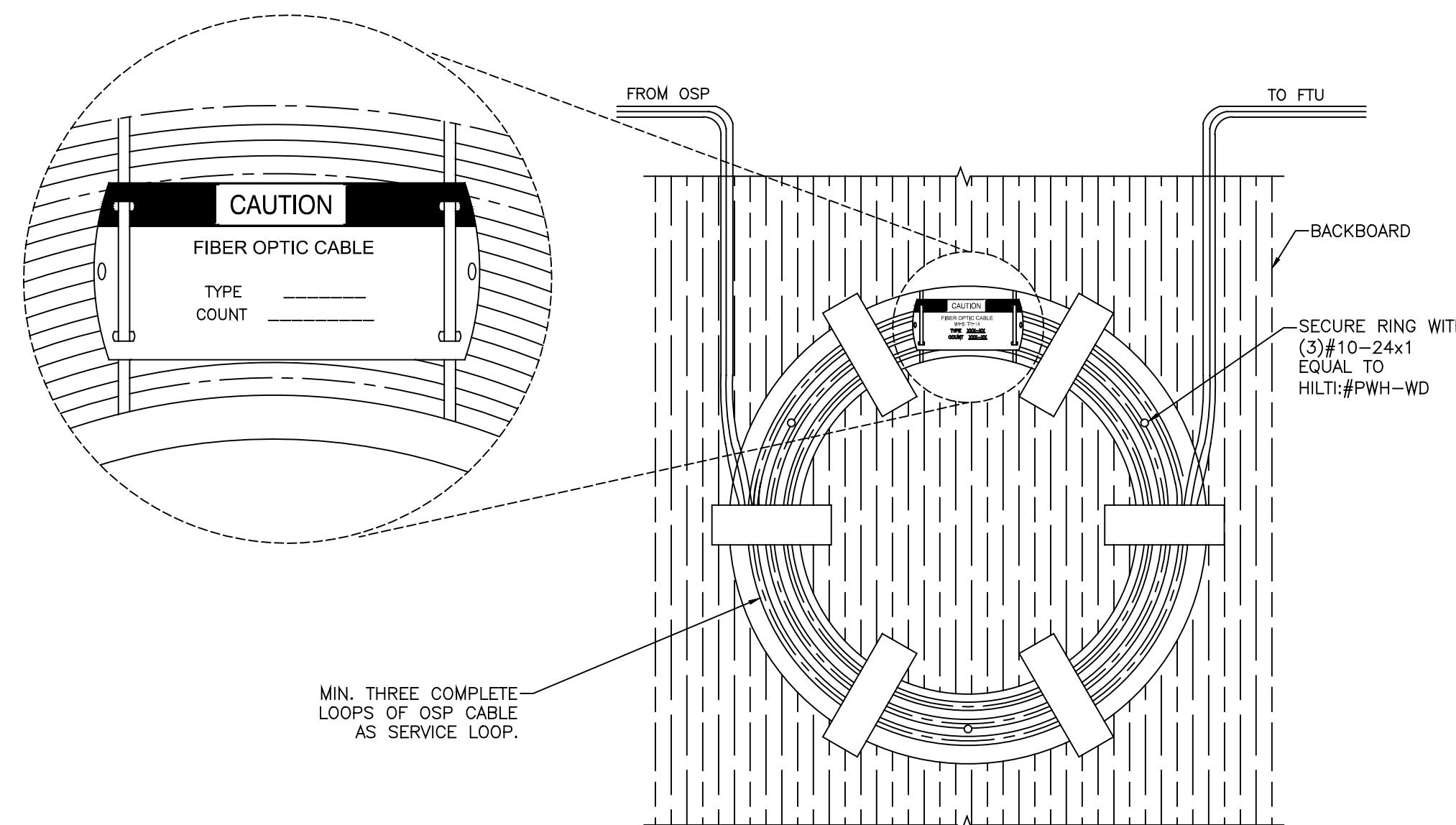
6 CABLE RUNWAY ELEVATION MOUNTING DETAIL  
NOT TO SCALE ERATE    EQUAL TO COOPER BLUNE



NOTES:

- UNIVERSAL RUNWAY SEE SPEC FOR PART NUMBER AND SIZE.
- CABLE RUNWAY RADIUS DROP SEE SPEC FOR KIT NUMBER AND SIZES TO BE USED.
- RETAINING CLIP AND PIN INCLUDED IN KIT.

7 RUNWAY RADIUS DROP MOUNTING DETAIL  
NOT TO SCALE ERATE    EQUAL TO COOPER BLUNE



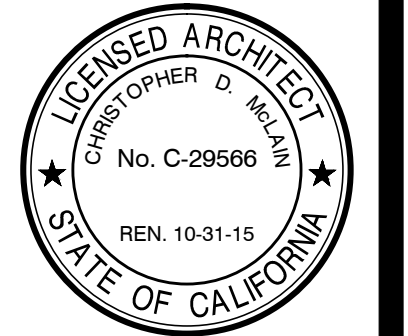
8 OPTICAL FIBER STORAGE RING  
NOT TO SCALE ERATE

NEW ELEMENTARY SCHOOL  
MCFARLAND UNIFIED  
SCHOOL DISTRICT  
MCFARLAND UNIFIED SCHOOL DISTRICT  
MCFARLAND, KERN COUNTY, CA



APPROVALS

IDENTIFICATION STAMP  
DIV. OF THE STATE ARCHITECT  
FILE # XX-XX  
APPL # XX-XXXXXX  
AC F/LS SS  
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DATE: DECEMBER 18, 2013

tm  
TELLIAN PARISH MCLAIN  
559.627.0530  
559.627.1926 fax  
architecture and ingenuity mangini associates inc.  
4320 W. Mineral Hills Ave.  
Vista, CA 92081  
mangini.com

TITLE  
DETAILS

T4.0

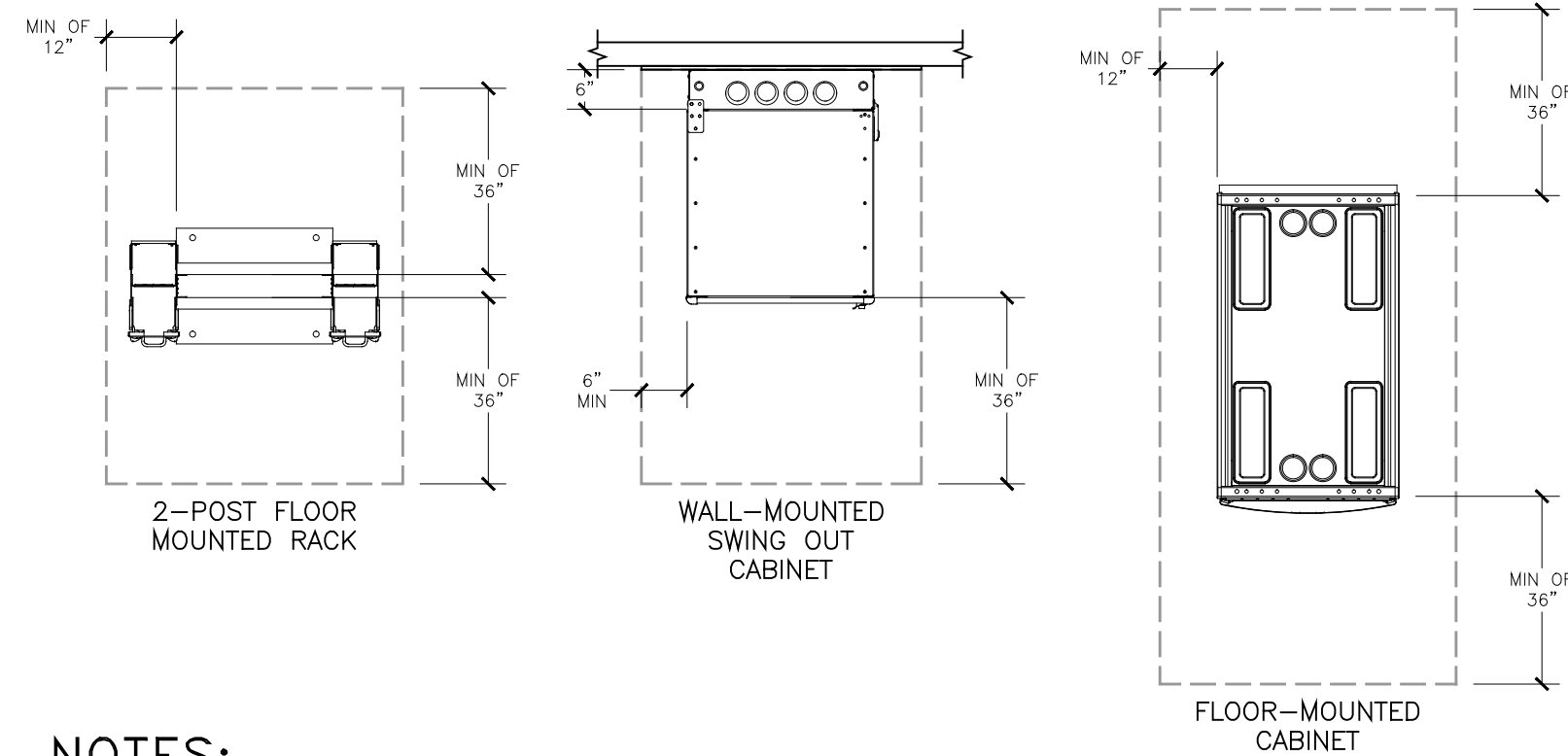
PROJECT 1332



EXPIRES: 12/31/16  
REGIS. NO. 109549  
SEAN HARRINGTON  
EXPIRES: 12/31/16  
REGIS. NO. 077669  
FRED BRAKEMAN

PO BOX 999, BAKERSFIELD CA 93302  
PH: (661)716-1840 FX: (661)716-1841  
www.infinitycomm.com





**NOTES:**

NEC CODE OR A.H.J. SHALL TAKE PRECEDENCE OVER LISTED CLEARANCE REQUIREMENTS IN DETAIL.

**REQUIRED CLEARANCES**

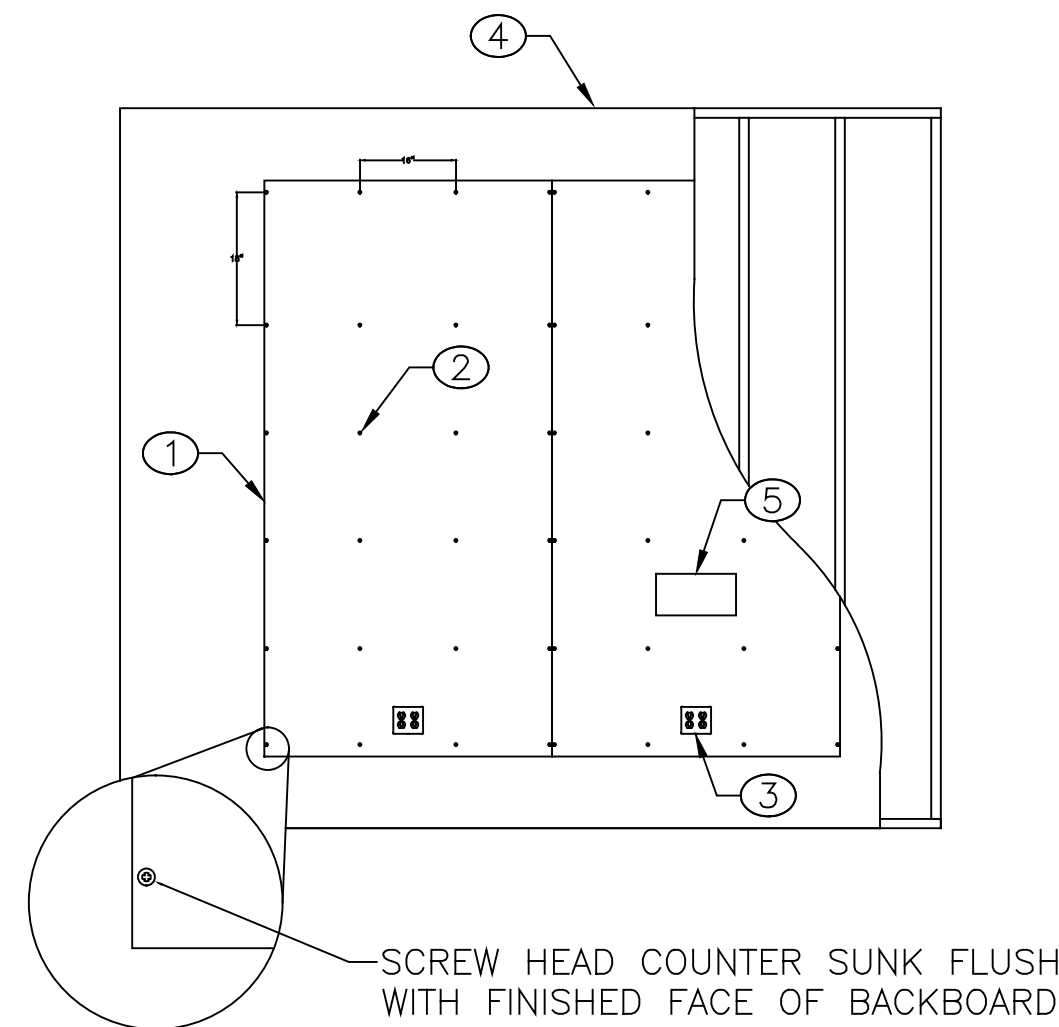
- 36" OF CLEAR, UNOBSTRUCTED SPACE FOR THE INSTALLATION AND MAINTENANCE OF ALL CABLING EQUIPMENT MOUNTED ON WALLS/RACKS/CABINETS/ENCLOSURES.
- 6" DEPTH OFF THE WALL SHOULD BE PROVIDED FOR WALL-MOUNTED EQUIPMENT.
- AISLE SPACE OF AT LEAST 3.28' WIDE IN FRONT AND IN THE REAR OF THE SPACE FOR EACH EQUIPMENT RACK/CABINET/ENCLOSURE.

**RECOMMENDED CLEARANCES**

- IN CORNERS, A MINIMUM SIDE CLEARANCE OF 12"
- AT LEAST 3.28' WIDE, 3.28' DEEP, 7.5' HIGH FOR EACH EQUIPMENT RACK/CABINET/ENCLOSURE.

**1 CLEARANCE REQUIREMENTS**

NOT TO SCALE ERATE

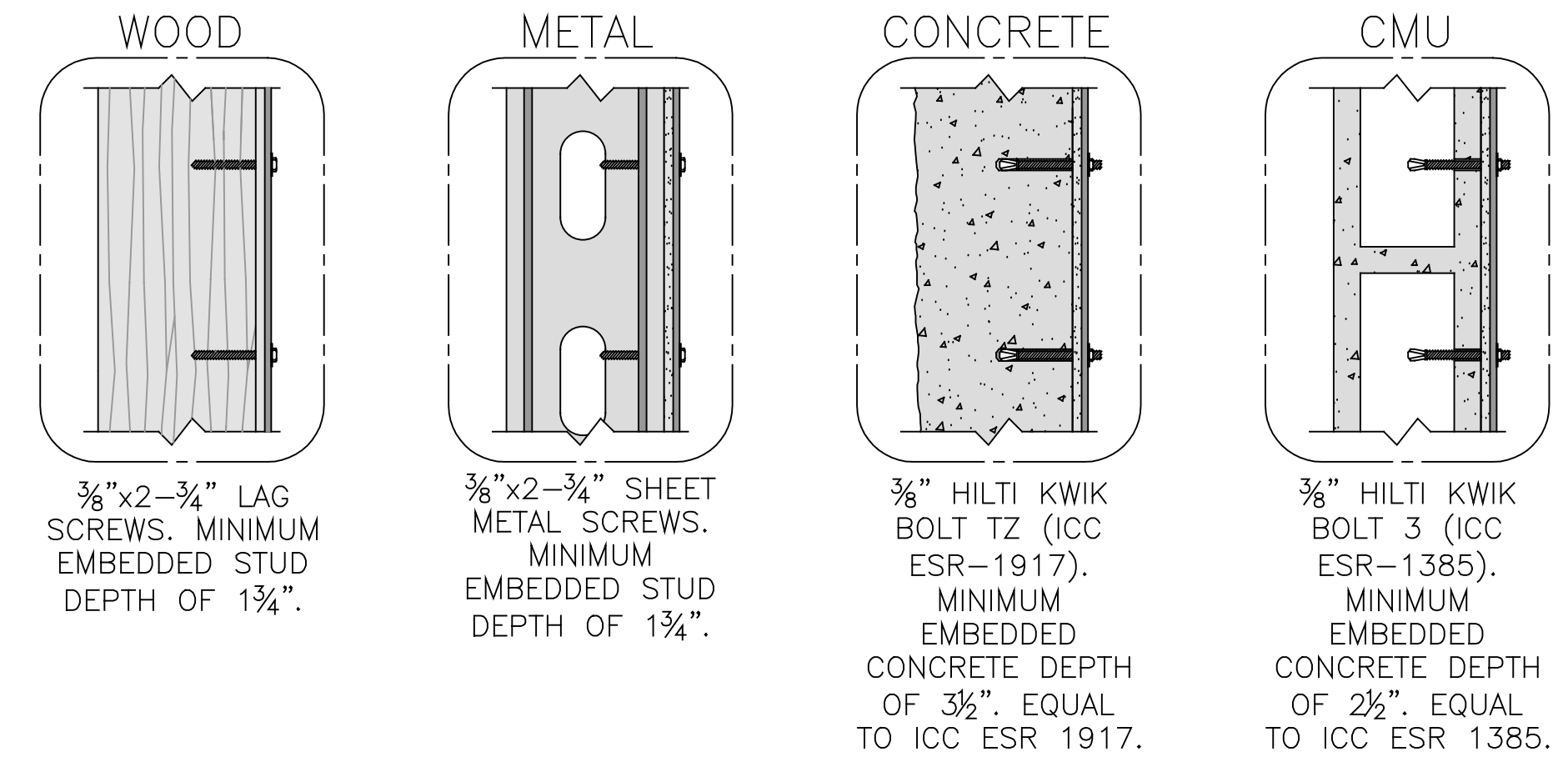


**2 BACKBOARD DETAIL**

NOT TO SCALE GENERAL CONSTRUCTION

**NOTES:**

- BACKBOARDS WILL BE 3/4" ACX PLYWOOD. BACKBOARDS WILL BE MOUNTED NO LESS THAN 12" ABOVE FINISHED FLOOR AND WILL BE SECURED TO THE WALL WITH APPROPRIATE ANCHORAGE AS REQUIRED BY WALL TYPE. ALL BACKBOARD MOUNTING HARDWARE WILL BE COUNTER SUNK. BACKBOARDS WILL BE SECURED TO WALL VERTICALLY AT 16" OC, AND HORIZONTALLY AT 18" OC (U.O.N).
- ALL BACKBOARD MOUNTING HARDWARE WILL BE COUNTER SUNK, WHEN APPLICABLE. BACKBOARDS WILL BE SECURED TO WALL VERTICALLY AT 18" OC, AND HORIZONTALLY AT 16" OC (U.O.N).
- PROVIDE ALL CUTOUTS FOR POWER OUTLETS.
- DRYWALL
- FIRE RATED LABELED BACK BOARD SHALL BE CONSTRUCTED OF FIRE RATED MATERIAL OR PAINTED WITH FLAME STOP III PAINT ADDITIVE. ONE PINT OF FLAME STOP III PER ONE GALLON OF LATEX-BASED PAINT.



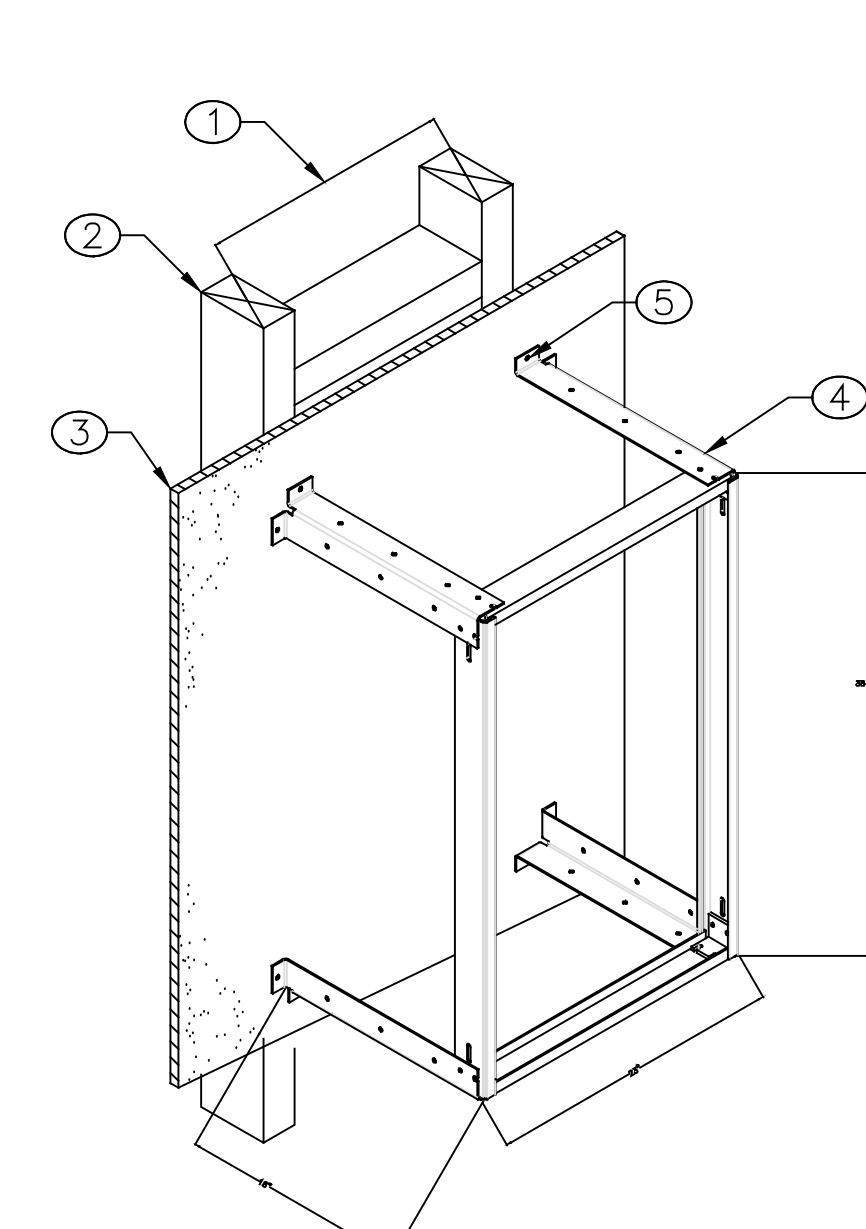
**3 WALL FASTENER DETAILS**

NOT TO SCALE GENERAL CONSTRUCTION/ERATE

**NOTES:**

- RACK AS SHOWN PER PLANS AND AS SPECIFIED IN PROJECT MANUAL.
- CABLE RUNWAY WALL TO RACK KIT CHATSWORTH PART NUMBER 11911-X12.

- FLOOR MOUNT RACK WILL BE SECURED TO CONCRETE FLOOR WITH A MINIMUM OF FOUR 3/8" DIAMETER WEDGE ANCHOR BOLTS. MINIMUM EMBEDDED CONCRETE DEPTH OF 1 3/4". EQUAL TO ICC ESR #1385.
- WALL MOUNT KITS WILL BE SECURED TO WALL WITH A MINIMUM OF TWO 3/8" x 4" LAG BOLTS AT CENTERLINE STUD.

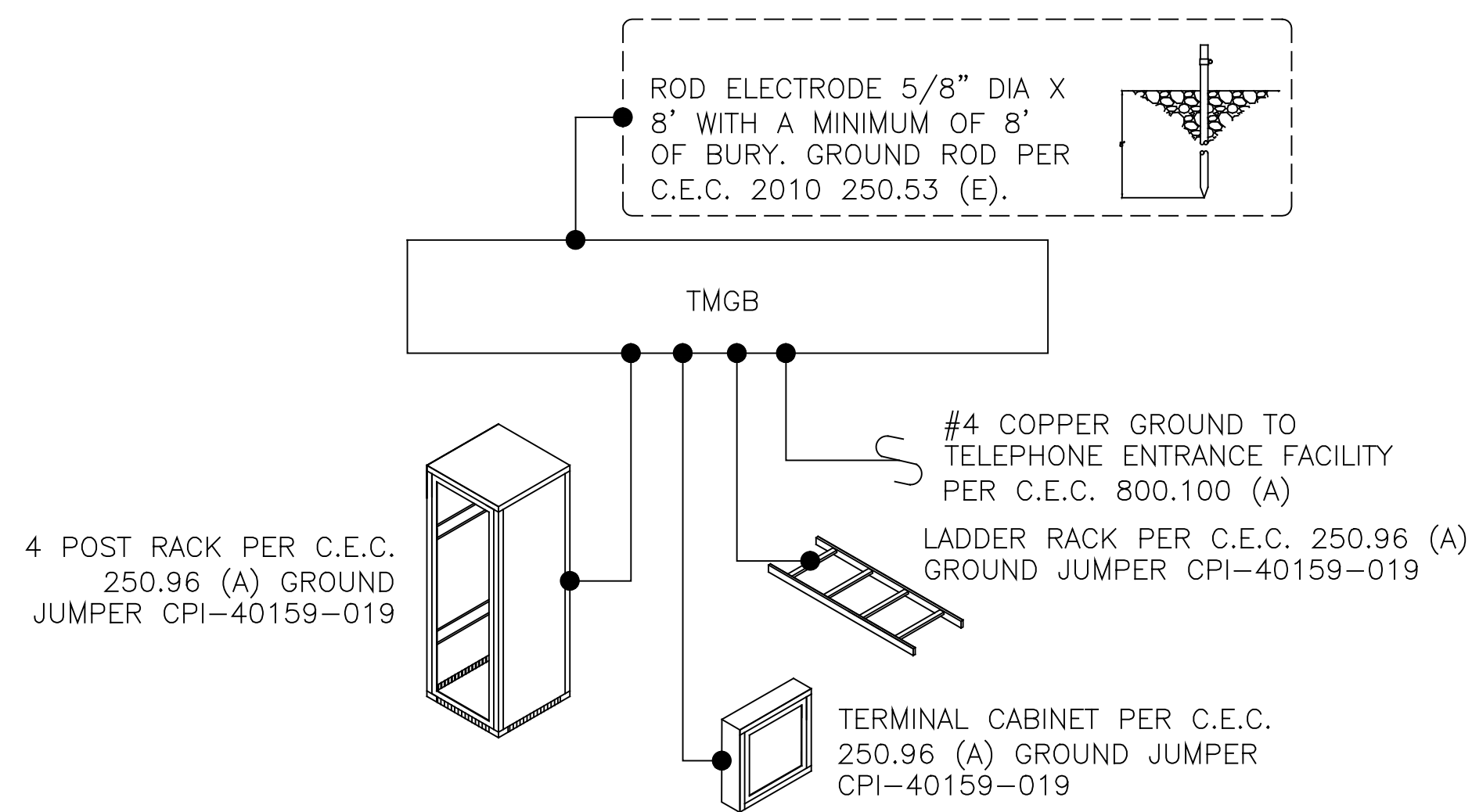


**5 SURFACE MOUNT OPEN RACK DETAIL**

NOT TO SCALE ERATE

**NOTES:**

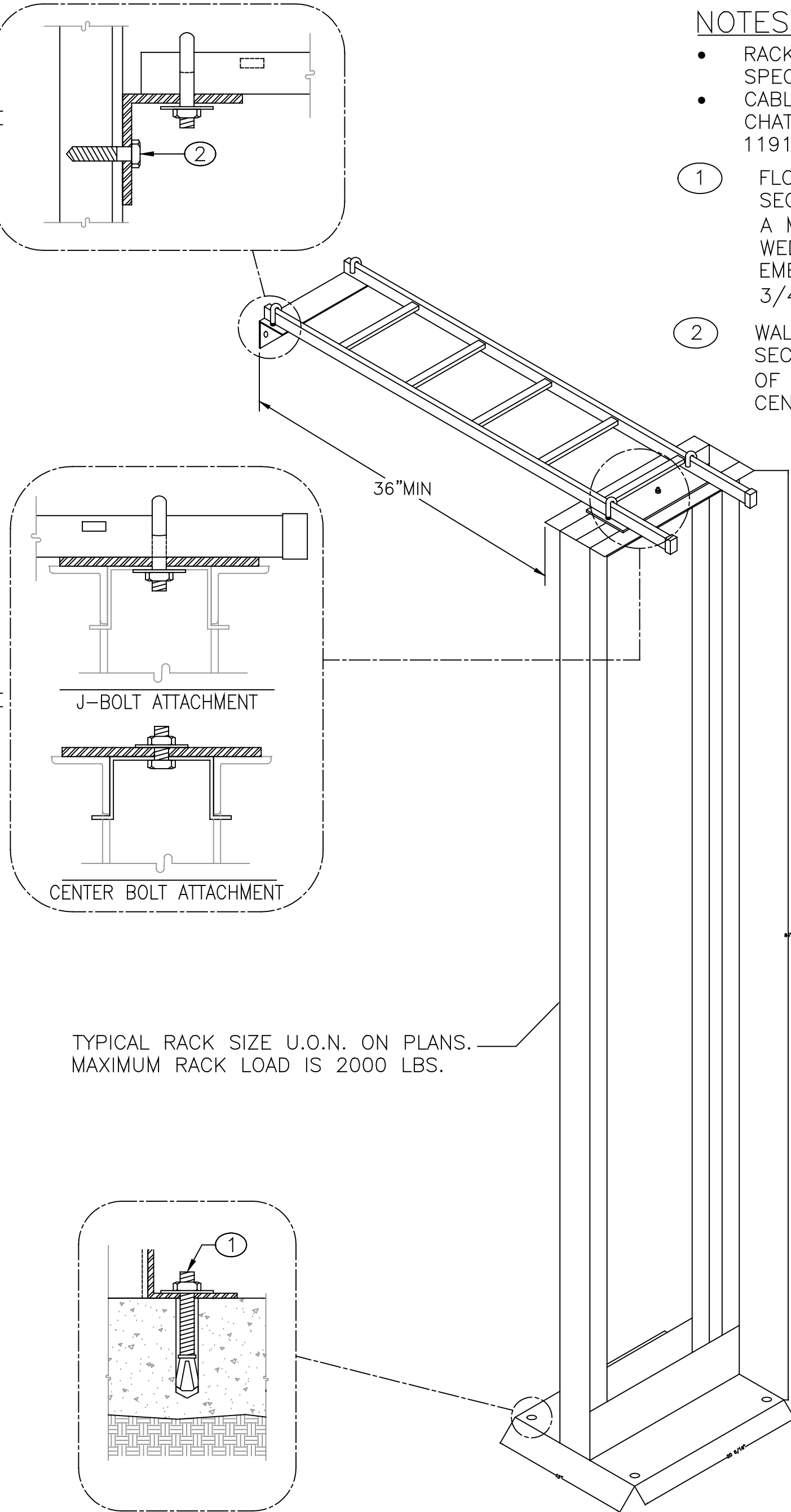
- FRAMED STUDS
- EXISTING FRAME PER PLANS
- DRYWALL
- OPEN WALL MOUNTED RACK
- SECURE WALL RACK WITH APPROPRIATE ANCHORAGE.



**6 TMGB INSTALLATION DETAIL**

NOT TO SCALE GENERAL CONSTRUCTION

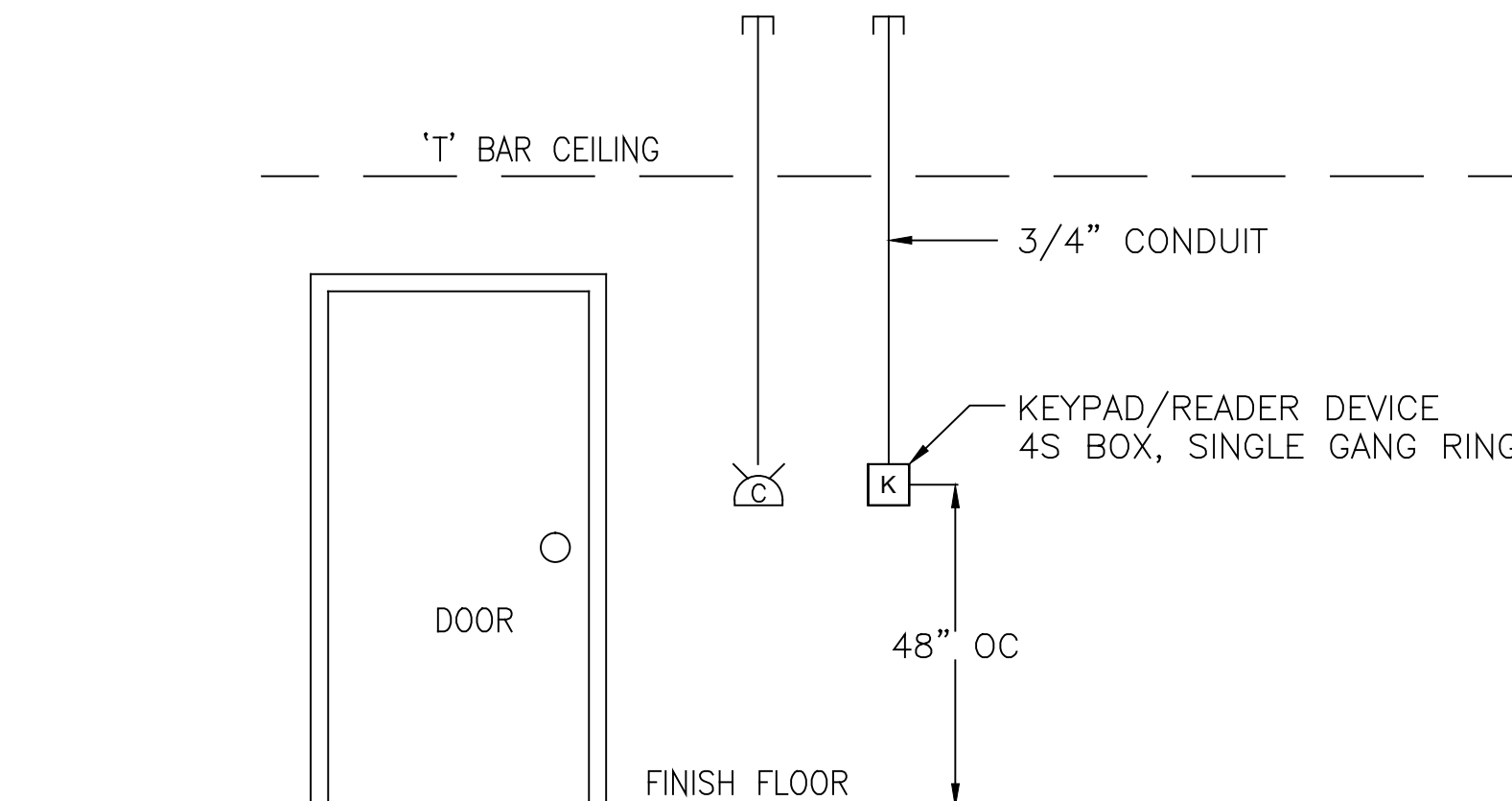
EQUAL TO COOPER BLINE



**4 FLOOR MOUNTED 2 POST RACK DETAIL**

NOT TO SCALE ERATE

EQUAL TO COOPER BLINE



**7 KEYPAD AND CARD READER DETAIL**

NOT TO SCALE GENERAL CONSTRUCTION

**NEW ELEMENTARY SCHOOL  
MCFARLAND UNIFIED  
SCHOOL DISTRICT**  
MCFARLAND, KERN COUNTY, CA



**APPROVALS**

IDENTIFICATION STAMP  
DIV. OF THE STATE ARCHITECT

FILE # XX-XX  
APPL # XX-XXXXXX

AC F/LS SS  
DATE

**LICENSED ARCHITECT**  
CHARLOTTE D. MCCLAIN  
No. C-29566  
REN. 10-31-15  
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2013

**tom**  
TELLIAN PARISH MCCLAIN  
559.627.0530  
4320 W. Mineral King Ave.  
Vernalis, CA 93291  
559.627.1926 fax

architect and interior design  
multipm.com

TITLE  
DETAILS

T4.1

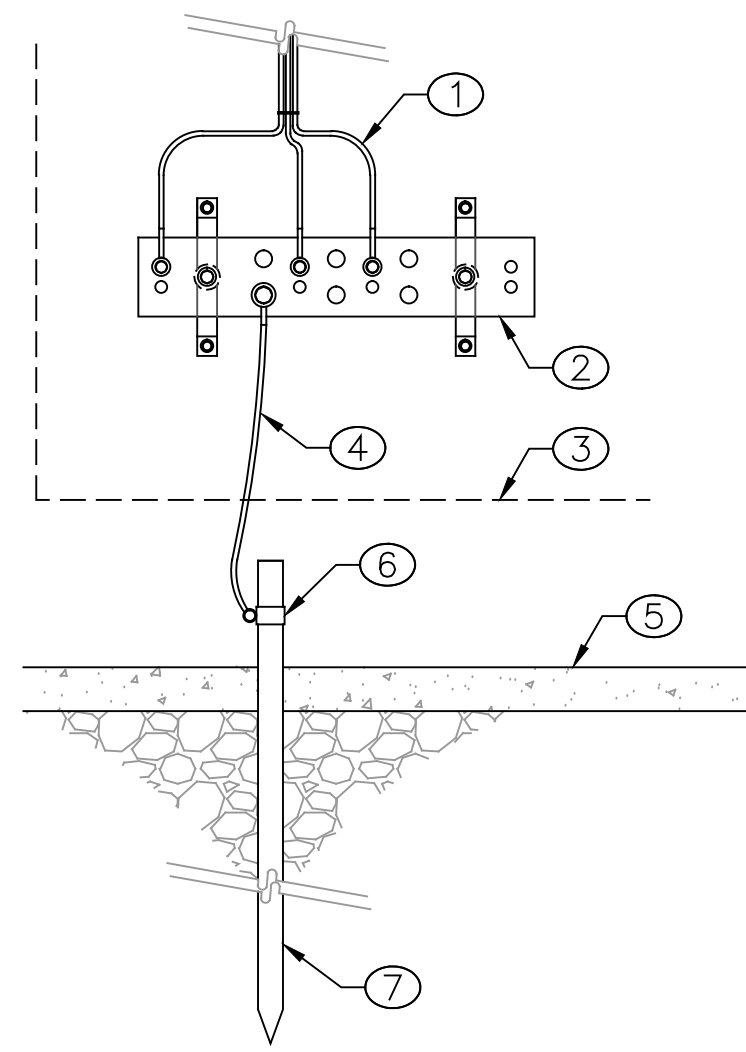
PROJECT 1332



EXPIRES: 12/31/16  
REGS. NO. 109549  
SEAN HARRINGTON  
EXPIRES: 12/31/16  
REGS. NO. 07765  
FRED BRAKEMAN

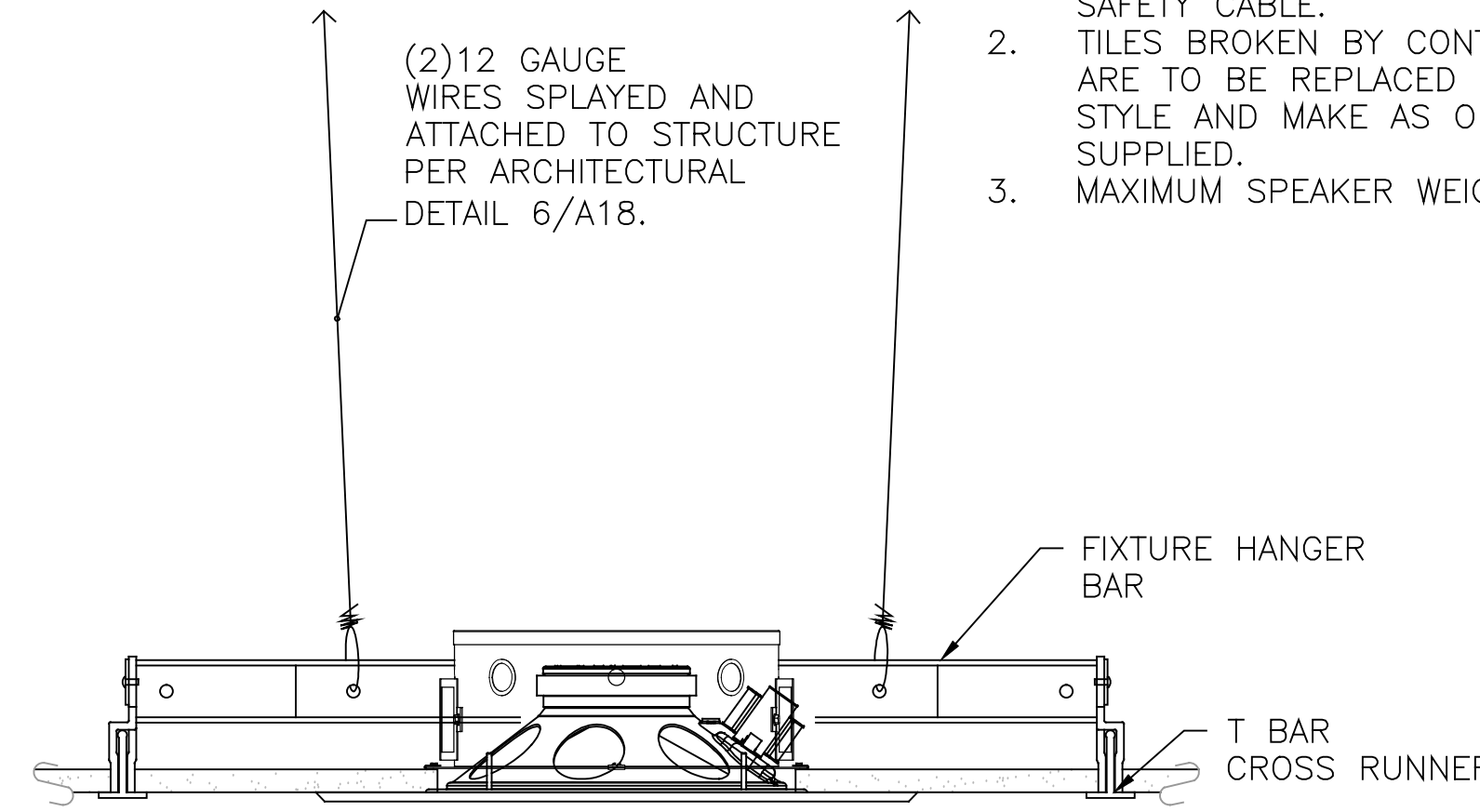
PO BOX 999, BAKERSFIELD CA 93302  
PH: (661)716-1840 FX: (661)716-1841  
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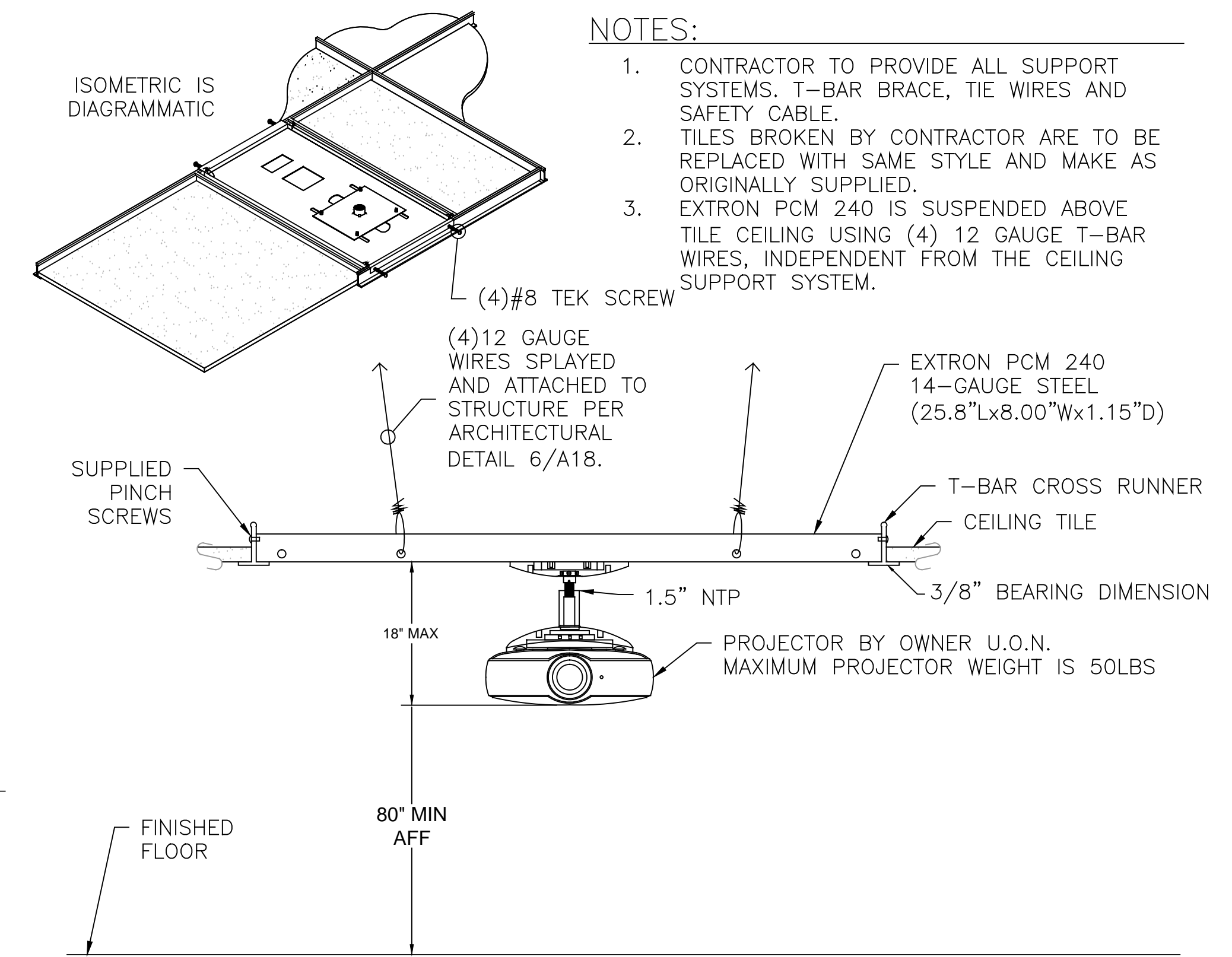
- NOTES:
1. GROUNDING WIRE TO THESE DEVICES; PER C.E.C. 250.52 (A),(5).
  2. TMGB CPI PART NUMBER 13622-010 2"Wx 1/4"Hx 10"L.
  3. DATA BACKBOARD.
  4. #2 BARE BONDING WIRE.
  5. CONCRETE SLAB.
  6. GROUND CLAMP.
  7. 5/8"Dx 8"L GROUNDING ROD PER C.E.C. 2010 250.53 (E)

1 TMGB DETAIL  
NOT TO SCALE GENERAL CONSTRUCTION/ERATE



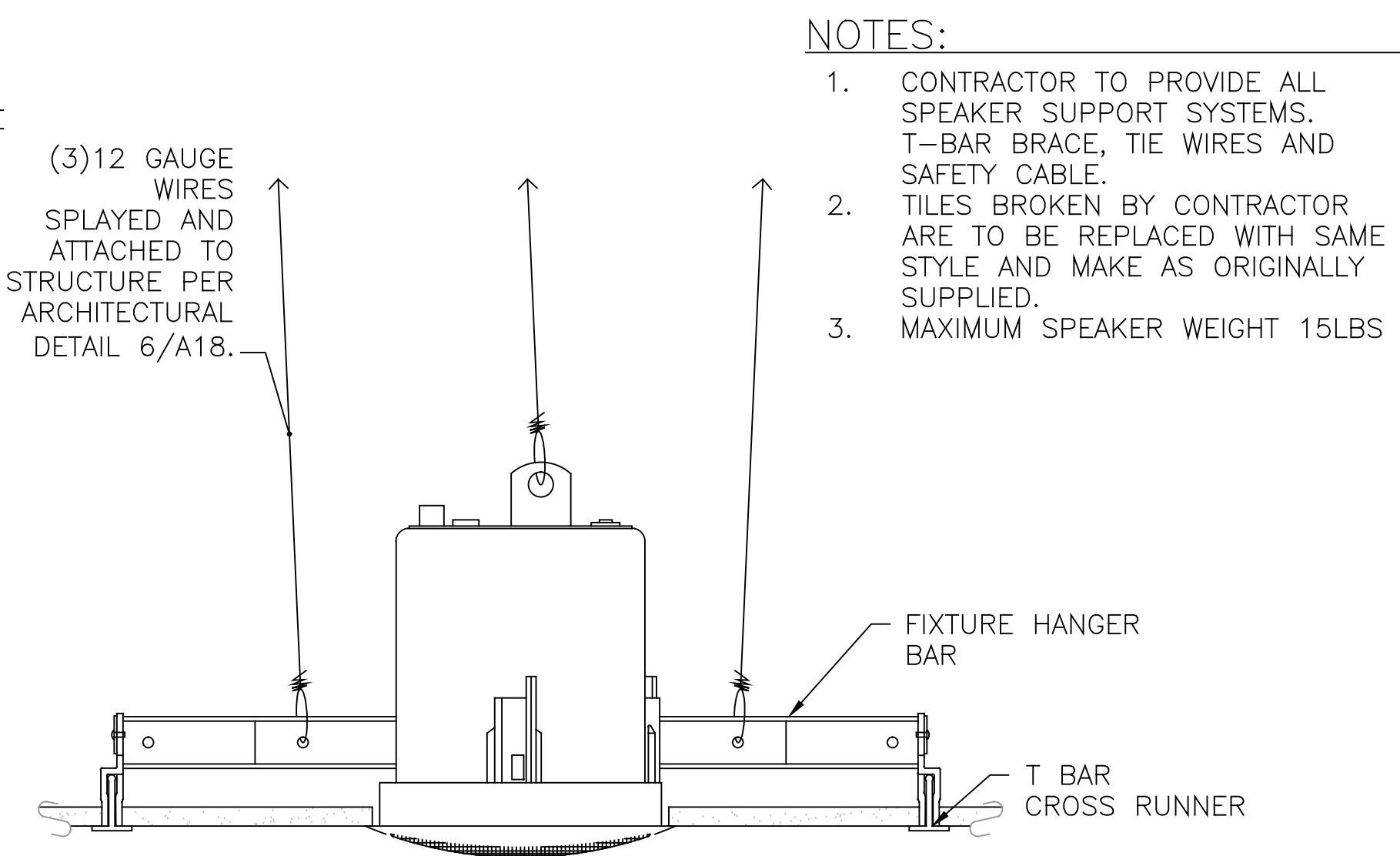
- NOTES:
1. CONTRACTOR TO PROVIDE ALL SPEAKER SUPPORT SYSTEMS. T-BAR BRACE, TIE WIRES AND SAFETY CABLE.
  2. TILES BROKEN BY CONTRACTOR ARE TO BE REPLACED WITH SAME STYLE AND MAKE AS ORIGINALLY SUPPLIED.
  3. MAXIMUM SPEAKER WEIGHT 8LBS

2 CEILING SPEAKER MOUNTING DETAIL  
NOT TO SCALE GENERAL CONSTRUCTION



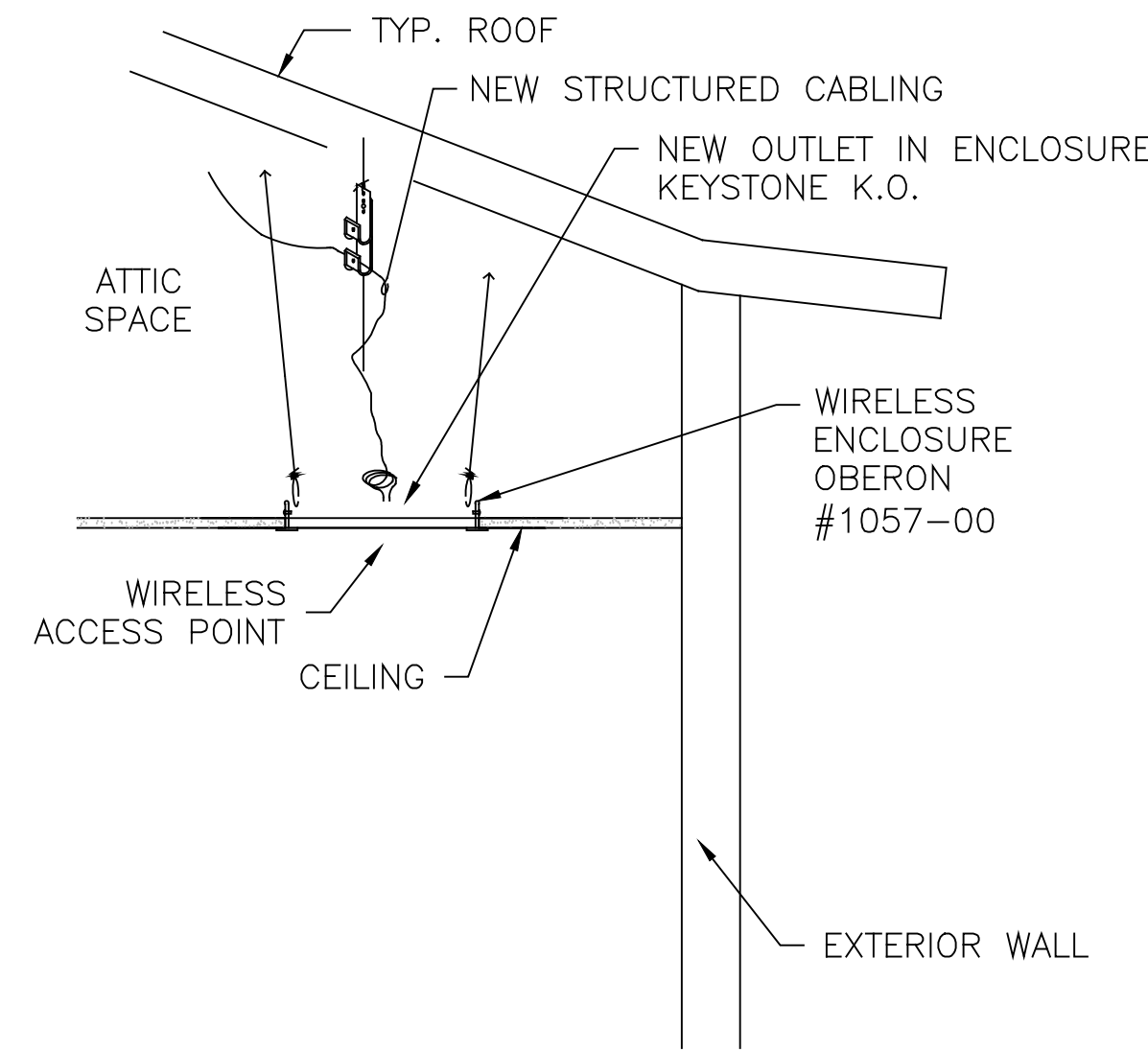
- NOTES:
1. CONTRACTOR TO PROVIDE ALL SUPPORT SYSTEMS. T-BAR BRACE, TIE WIRES AND SAFETY CABLE.
  2. TILES BROKEN BY CONTRACTOR ARE TO BE REPLACED WITH SAME STYLE AND MAKE AS ORIGINALLY SUPPLIED.
  3. EXTRON PCM 240 IS SUSPENDED ABOVE TILE CEILING USING (4) 12 GAUGE T-BAR WIRES, INDEPENDENT FROM THE CEILING SUPPORT SYSTEM.

3 UNIVERSAL PROJECTOR MOUNTING SYSTEM DETAIL  
NOT TO SCALE GENERAL CONSTRUCTION

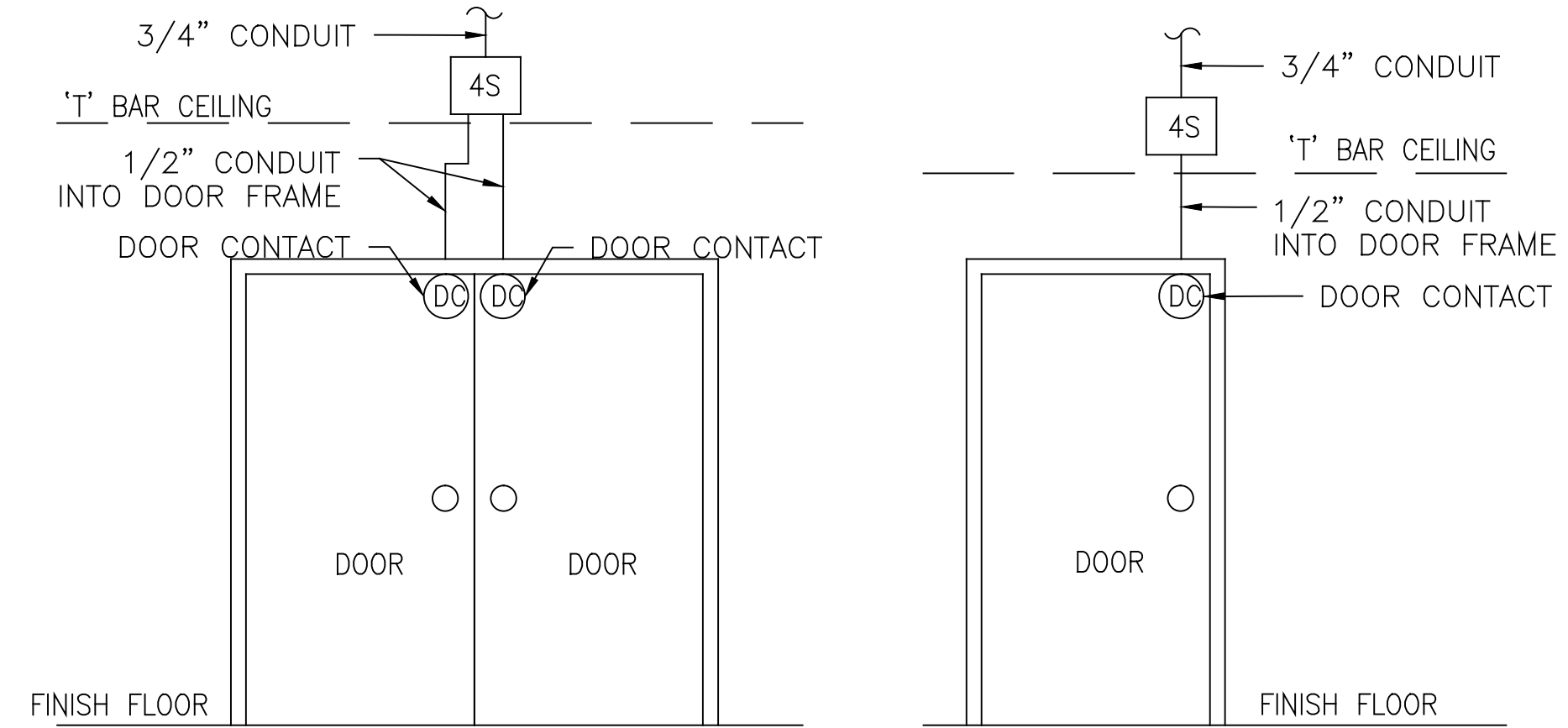


- NOTES:
1. CONTRACTOR TO PROVIDE ALL SPEAKER SUPPORT SYSTEMS. T-BAR BRACE, TIE WIRES AND SAFETY CABLE.
  2. TILES BROKEN BY CONTRACTOR ARE TO BE REPLACED WITH SAME STYLE AND MAKE AS ORIGINALLY SUPPLIED.
  3. MAXIMUM SPEAKER WEIGHT 15LBS

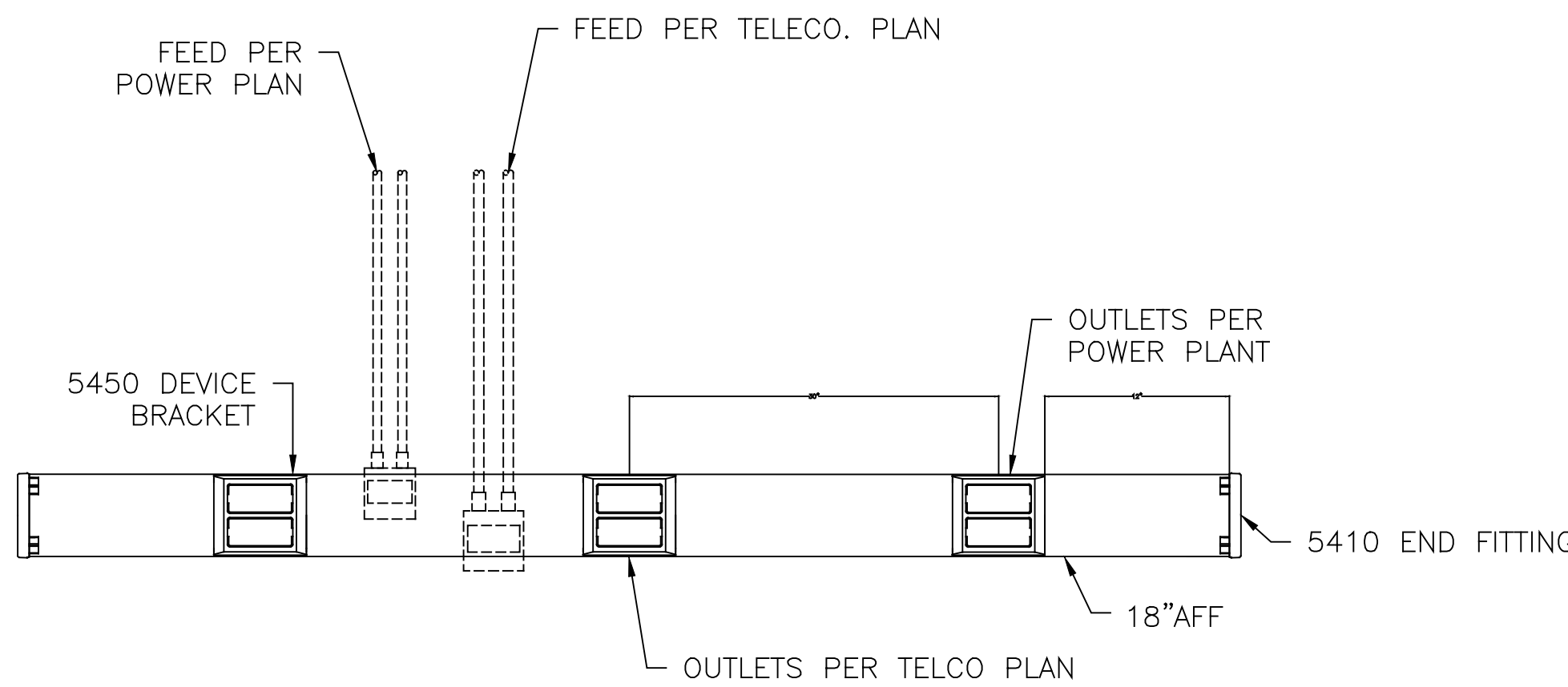
4 CEILING SPEAKER MOUNTING DETAIL  
NOT TO SCALE GENERAL CONSTRUCTION



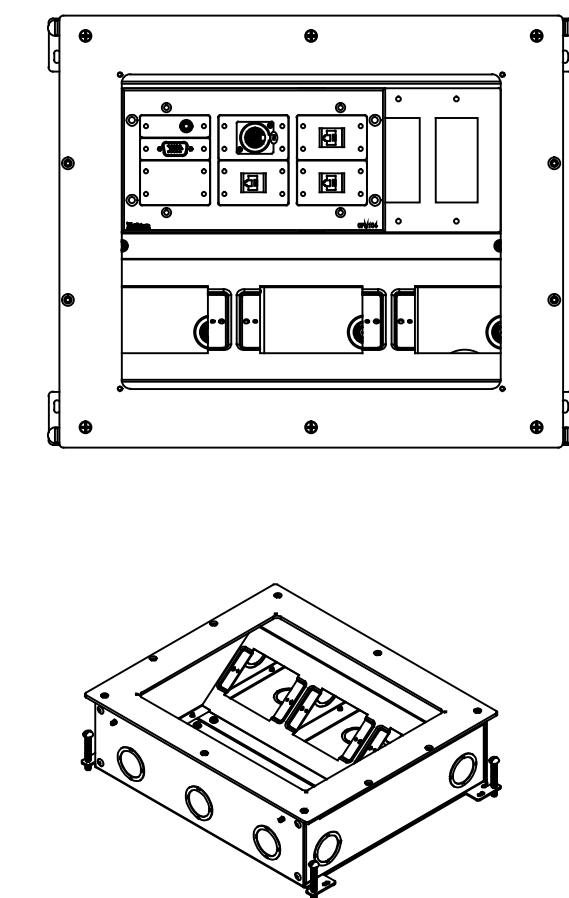
5 T-BAR CEILING WIRELESS ACCESS POINT ENCLOSURE  
NOT TO SCALE ERATE



6 DOOR CONTACT DETAIL  
NOT TO SCALE GENERAL CONSTRUCTION



7 SURFACE MOUNTED WIREMOLD 5400 DETAIL  
NOT TO SCALE GENERAL CONSTRUCTION



- NOTES:
1. PROVIDE FLOOR BOX EQUAL TO WIREMOLD PN# RFB9.
  2. PROVIDE FLANGED FLOOR BOX COVER EQUAL TO WIREMOLD PN# RFB119TCCAL.
  3. POWER RECEPTACLES AND ASSOCIATED WORK TO BE PROVIDED BY ELECTRICAL CONTRACTOR. SEE ELECTRICAL DRAWINGS FOR DETAILS.

8 RFB9 FLOOR BOX DETAIL  
NOT TO SCALE GENERAL CONSTRUCTION

**NEW ELEMENTARY SCHOOL**  
**McFARLAND UNIFIED SCHOOL DISTRICT**  
McFARLAND UNIFIED SCHOOL DISTRICT  
McFARLAND, KERN COUNTY, CA

APPROVALS

IDENTIFICATION STAMP  
DIV. OF THE STATE ARCHITECT

FILE # ..... XX-XX  
APPL. # ..... XX-XXXXXX  
AC. F/LS. SS  
DATE

DATE: DECEMBER 18, 2013

TELLIAN PARISH McCLAIN  
559.627.0530  
559.627.1926 fax

architecture and ingenuity. mangini associates, inc.  
4320 W. Mineral Hills Ave.  
Vista, CA 92081  
mangini.com

TITLE  
DETAILS

T4.2

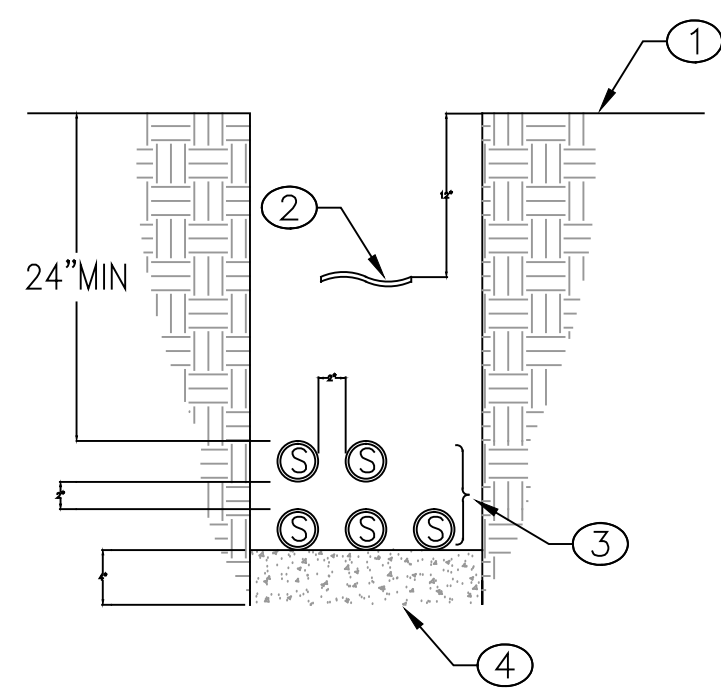
PROJECT 1332



EXPIRES: 12/31/16  
REGS. NO. 109549  
SEAN HARRINGTON  
EXPIRES: 12/31/16  
REGS. NO. 07765  
FRED BRAKEMAN

PO BOX 999, BAKERSFIELD CA 93302  
PH: (661)716-1840 FX: (661)716-1841  
www.infinitycomm.com





NOTES:

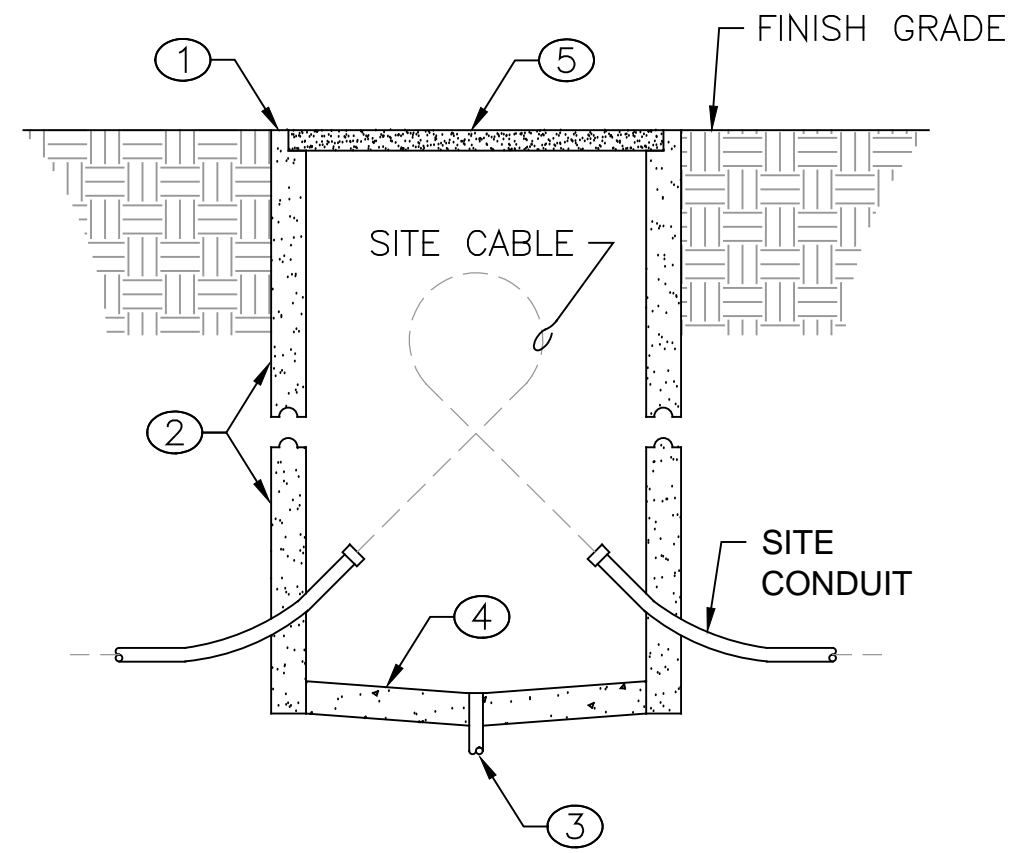
- ① FINISHED GRADE
- ② WARNING TAPE
- ③ SIGNAL CONDUITS
- ④ SAND

GENERAL NOTES:

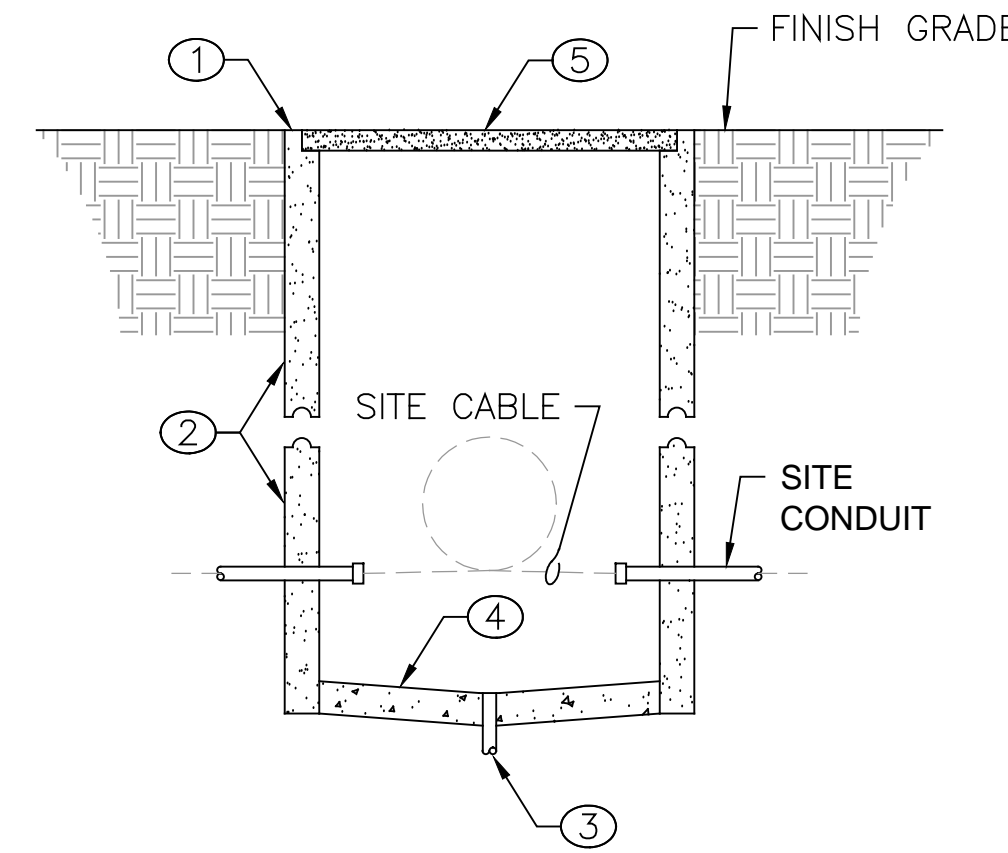
1. MAINTAIN THE MINIMUM SEPARATION (2") BETWEEN ALL SIGNAL CONDUITS AND TRENCH WALL.
2. WHERE SIGNAL CONDUITS SHARE A COMMON TRENCH WITH POWER CONDUITS, CONTRACTOR WILL MAINTAIN A MINIMUM OF 6" OF CLEARANCE BETWEEN CONDUIT SYSTEMS.
3. PROVIDE A MINIMUM OF 2" OF SAND BETWEEN EACH ROW OF SIGNAL CONDUITS.
4. CONTRACTOR WILL FOLLOW ALL LOCAL, STATE AND DSA REQUIREMENTS FOR COMPACTION. TYPICAL 90%, PROVIDE SLURRY IN LIEU OF COMPACTION.

1 UNDERGROUND CONDUIT DETAIL

NOT TO SCALE GENERAL CONSTRUCTION



CONDUIT STUBBED UP DETAIL



CONDUIT STUBBED THRU DETAIL

NOTES:

- ① TOP OF BOX TO BE FLUSH WITH FINISH GRADE.
- ② CONCRETE BOX SIZE PER PLANS, PRECAST CONCRETE EXTENSIONS AS REQUIRED.
- ③ THREE 1" PVC 40 SLEEVES FOR DRAINAGE AT EACH IN AND ONE IN THE CENTER OF THE PULL BOX.
- ④ 2" THICK SLURRY "FLOOR", SLOPE DOWN.
- ⑤ BOLT DOWN CONCRETE LID WITH ENGRAVED WORDING "COMMUNICATIONS".

CHRISTY #	N16	N30	N36	N40
W	12"	13 1/4"	17 3/4"	24 1/2"
L	22 1/4"	24"	30"	36 3/8"

PROVIDE (H/20) TRAFFIC RATED BOXES WHERE APPLICABLE (EX: DRIVEWAYS, ASPHALT, PARKING LOTS, ETC.)

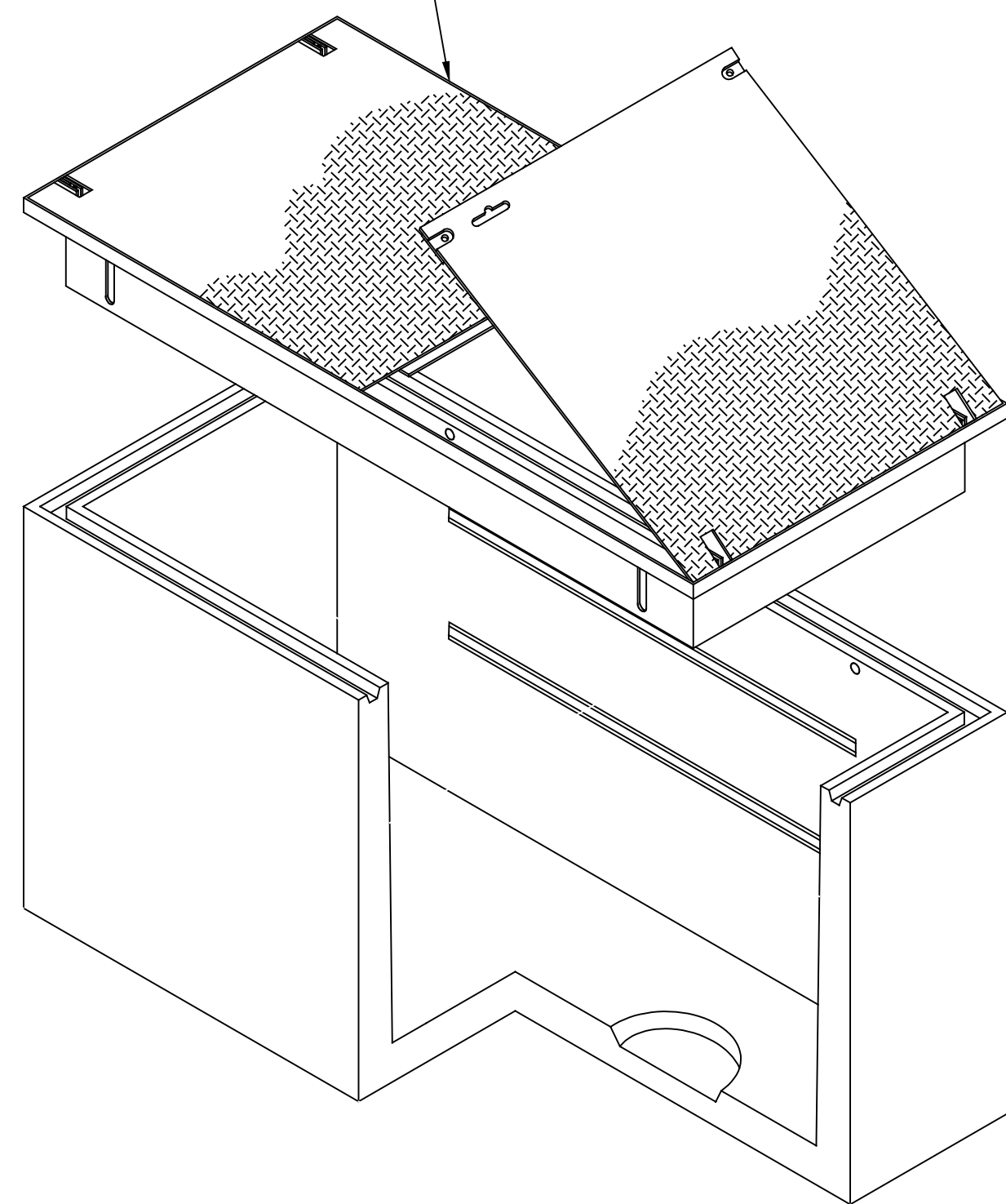
2 UNDERGROUND PULL BOX DETAIL

NOT TO SCALE GENERAL CONSTRUCTION

NOTES:

1. WHEN VAULT IS LOCATED IN CONCRETE SIDEWALKS, MOUNT SO THAT COVER IS FLUSH WITH TOP ON CONCRETE SIDEWALK

36"x60" ADJUSTABLE FRAME AND COVER ASSEMBLY AVAILABLE IN PEDESTRIAN OR TRAFFIC RATING SLIP RESISTANT COVER

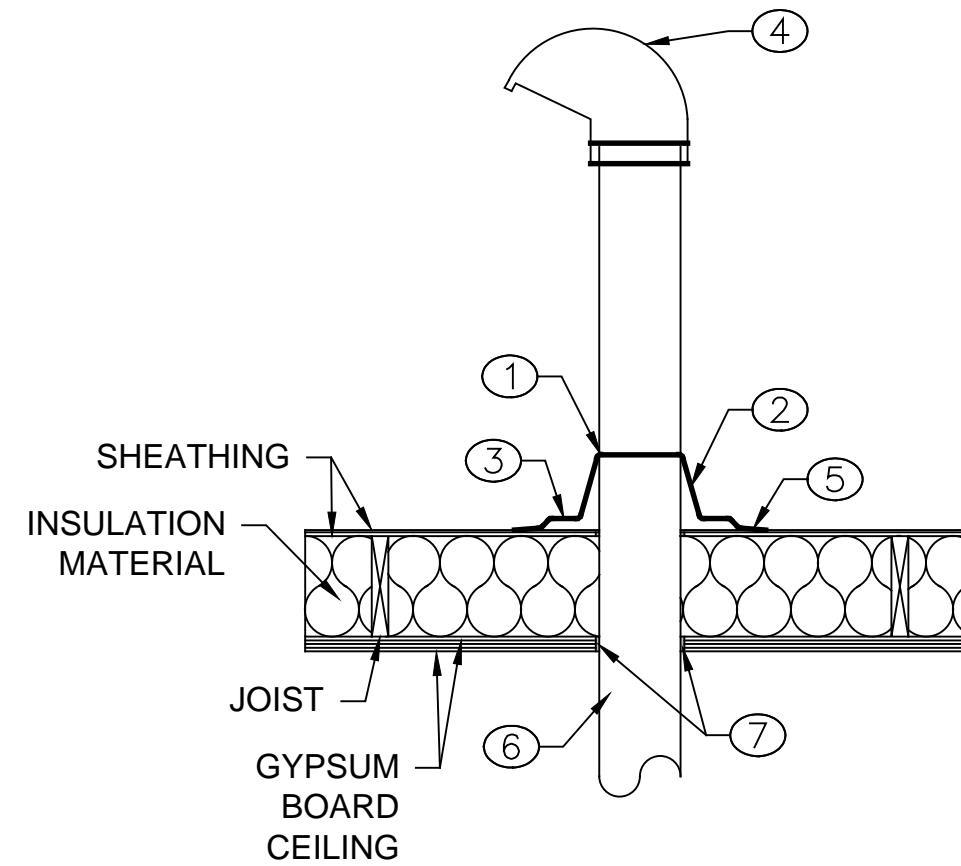


3 SIGNAL VAULT DETAILS

NOT TO SCALE GENERAL CONSTRUCTION

NOTES:

- ① SEAL MASITC
- ② ROOF JACK, FOR TYPE SEE ARCHITECT DRAWING AND SPECIFICATIONS
- ③ REMOVE CAP SHEET, SET ROOF JACK IN HOT ASPHALT
- ④ SERVICE ENTRANCE BODY "WEATHER HEAD"
- ⑤ APPLY 6" FIBER TAPE CENTERED ON PERIMETER OF ROOF JACK BASE IN HOT ASPHALT
- ⑥ CONDUIT
- ⑦ CAULK FORCED INTO SPACE TO MAXIMUM EXTENT POSSIBLE. CAULK SHALL BE INSTALLED FLUSH WITH ROOF MEMBRANE AND CEILING

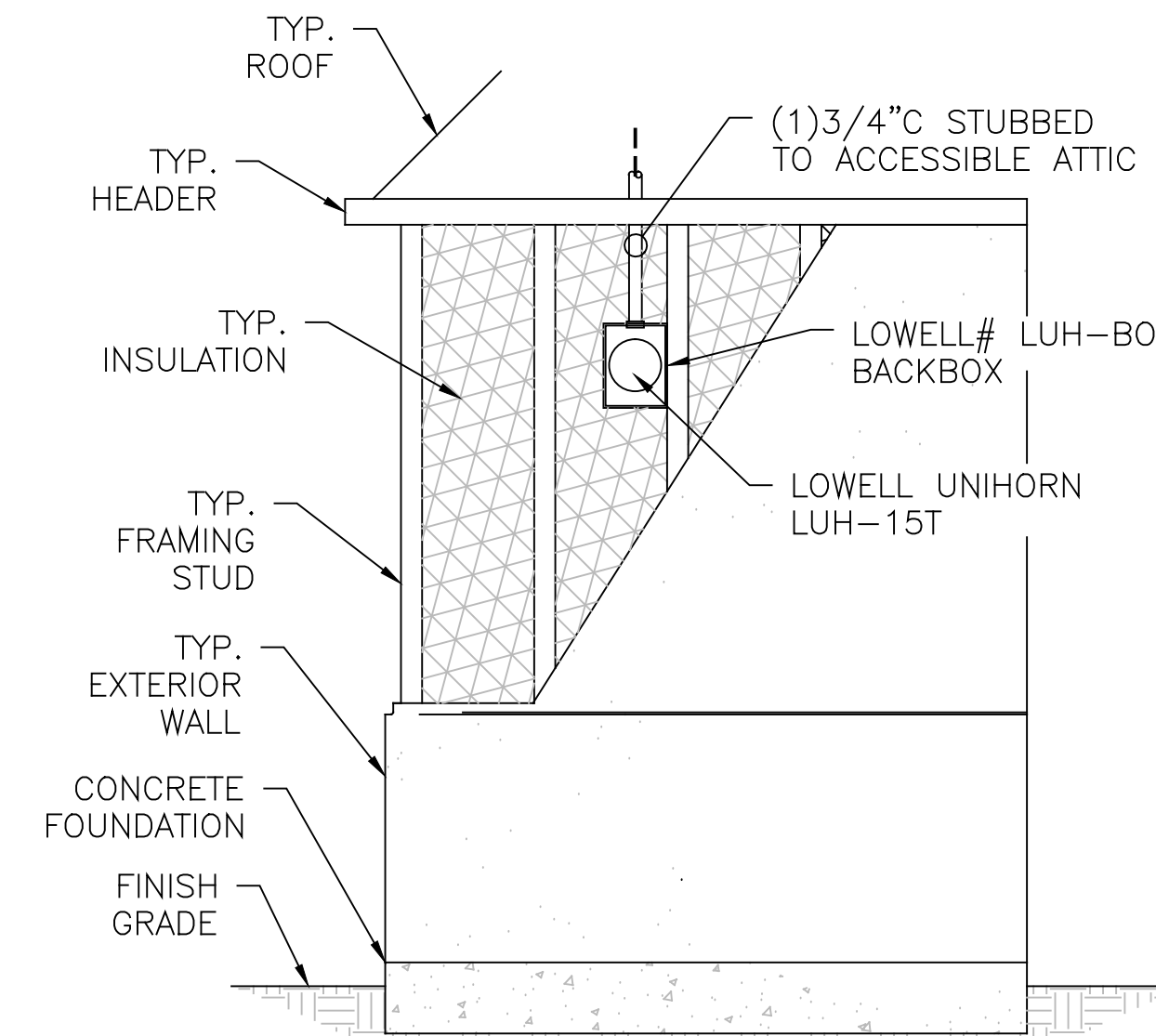


4 CONDUIT ROOF PENETRATION

NOT TO SCALE GENERAL CONSTRUCTION

NOTES:

1. SEE ARCHITECTURAL AND STRUCTURAL DRAWINGS FOR ALL FRAMING & WALL SURFACES.
2. PROVIDE STRUCTURAL FRAMING TO SUPPORT WALL LOADS; SEE STRUCTURAL DETAILS.



5 EXTERIOR WEATHER-PROOF HORN DETAIL

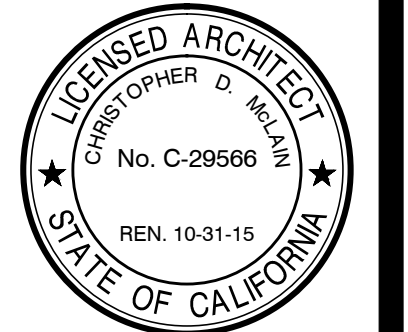
NOT TO SCALE GENERAL CONSTRUCTION

**NEW ELEMENTARY SCHOOL**  
**McFARLAND UNIFIED SCHOOL DISTRICT**  
 McFARLAND UNIFIED SCHOOL DISTRICT  
 McFARLAND, KERN COUNTY, CA



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 DATE \_\_\_\_\_



DATE: DECEMBER 18, 2013

**Tom**  
 TELLIAN PARISH McCLAIN  
 559.627.0530  
 4320 W. Mineral King Ave.  
 Visalia, CA 93291  
 559.627.1926 fax  
 tom@infinitycomm.com  
 infinitycomm.com

TITLE  
 DETAILS

T4.3

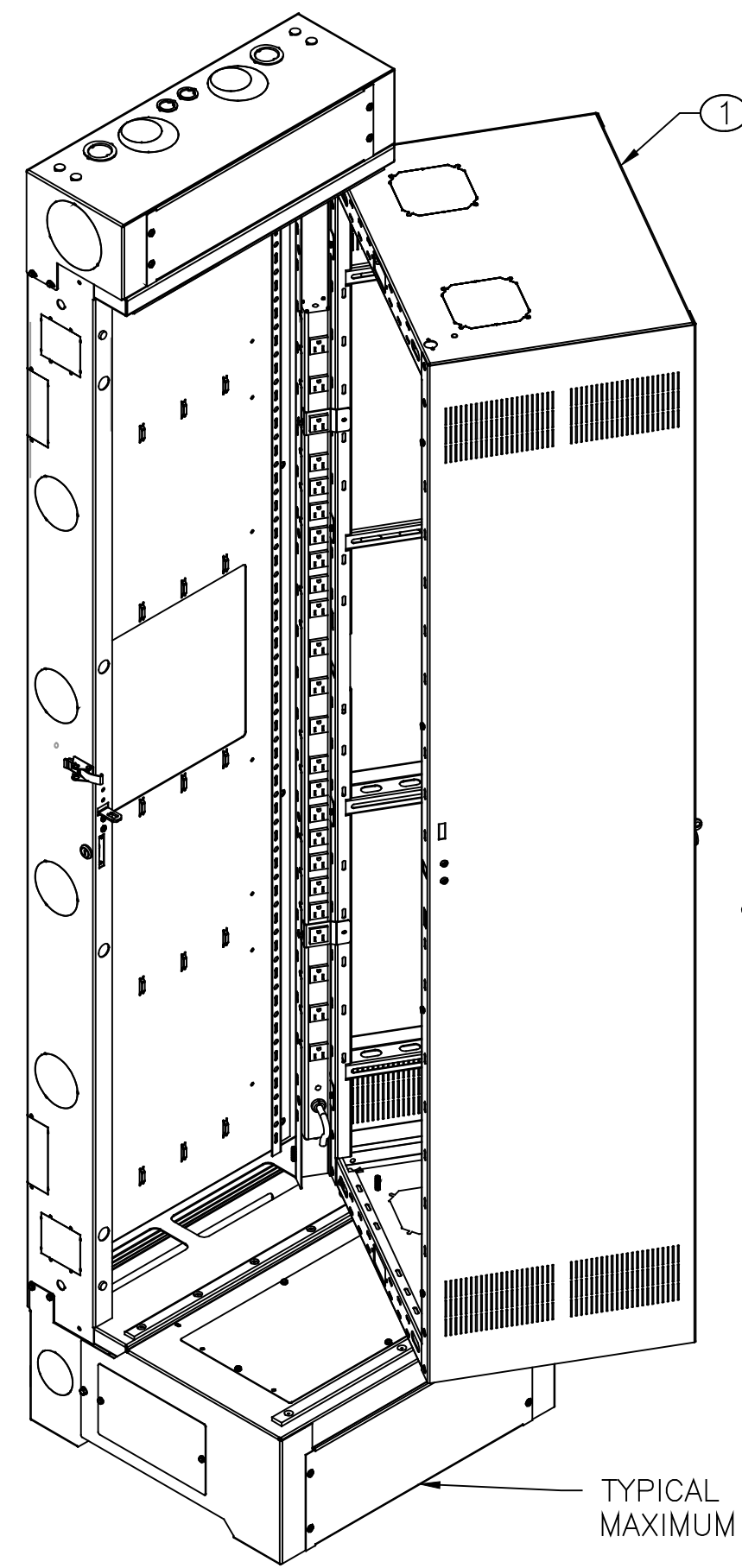
PROJECT 1332



EXPIRES: 12/31/16  
 REGS. NO. 109549  
 SEAN HARRINGTON  
 EXPIRES: 12/31/16  
 REGS. NO. 07165  
 FRED BRAKEMAN

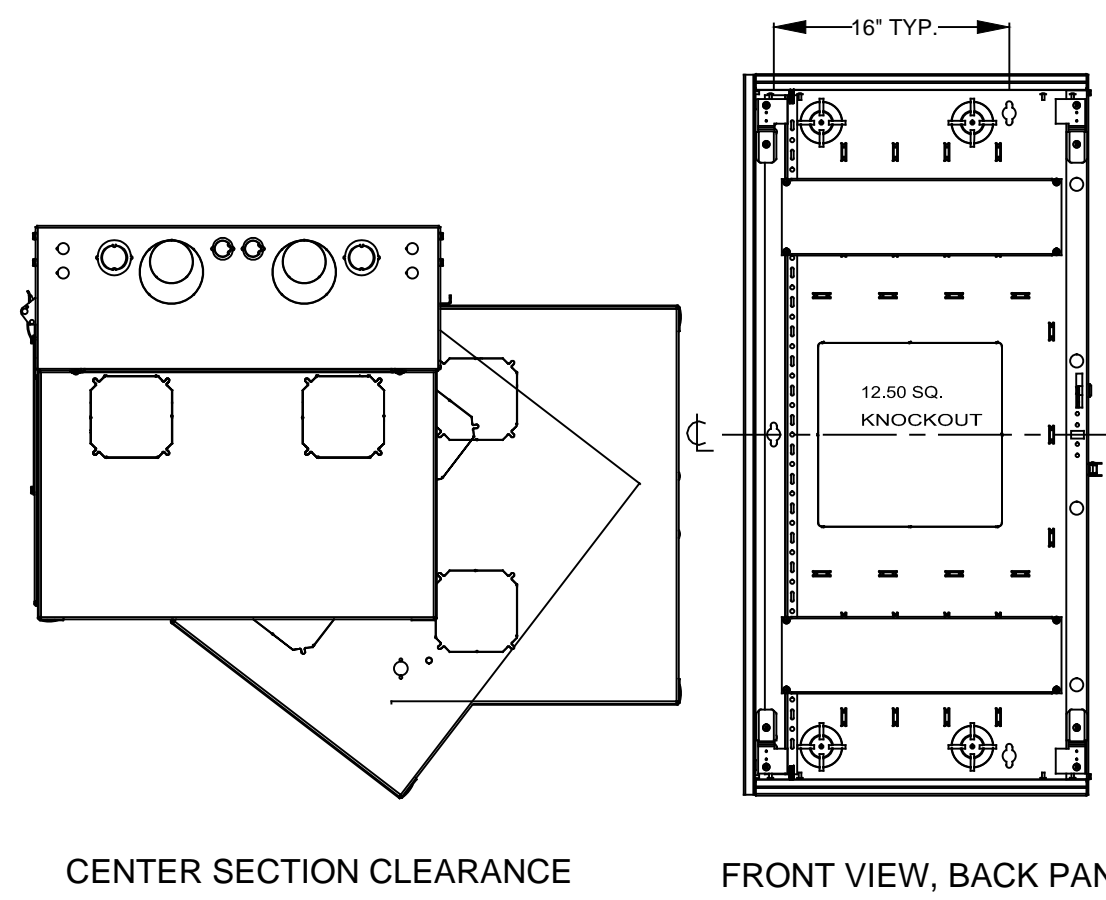
PO BOX 999, BAKERSFIELD CA 93302  
 PH: (661)716-1840 FX: (661)716-1841  
 www.infinitycomm.com





NOTES:

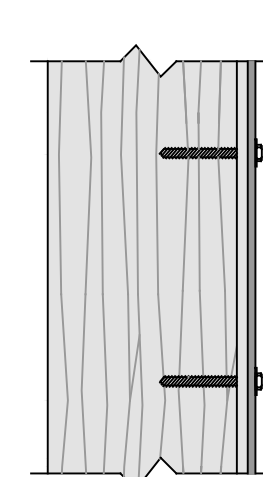
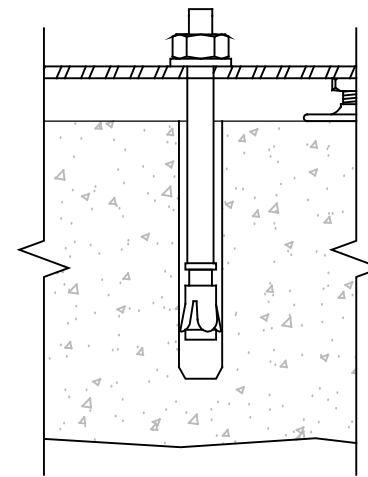
- ① SOUND EQUIPMENT RACK. MIDDLE ATLANTIC SR-40-32.
- ② SECURE TO WALL 3/8"x2-3/4" LAG SCREWS. MINIMUM EMBEDDED STUD DEPTH OF 1 3/4".
- ③ SECURED TO CONCRETE FLOOR PER ESR/ICC 1917 WITH 1/2" DIAMETER HILTI KWIK TZ BOLTS, MINIMUM EMBED DEPTH OF 2".



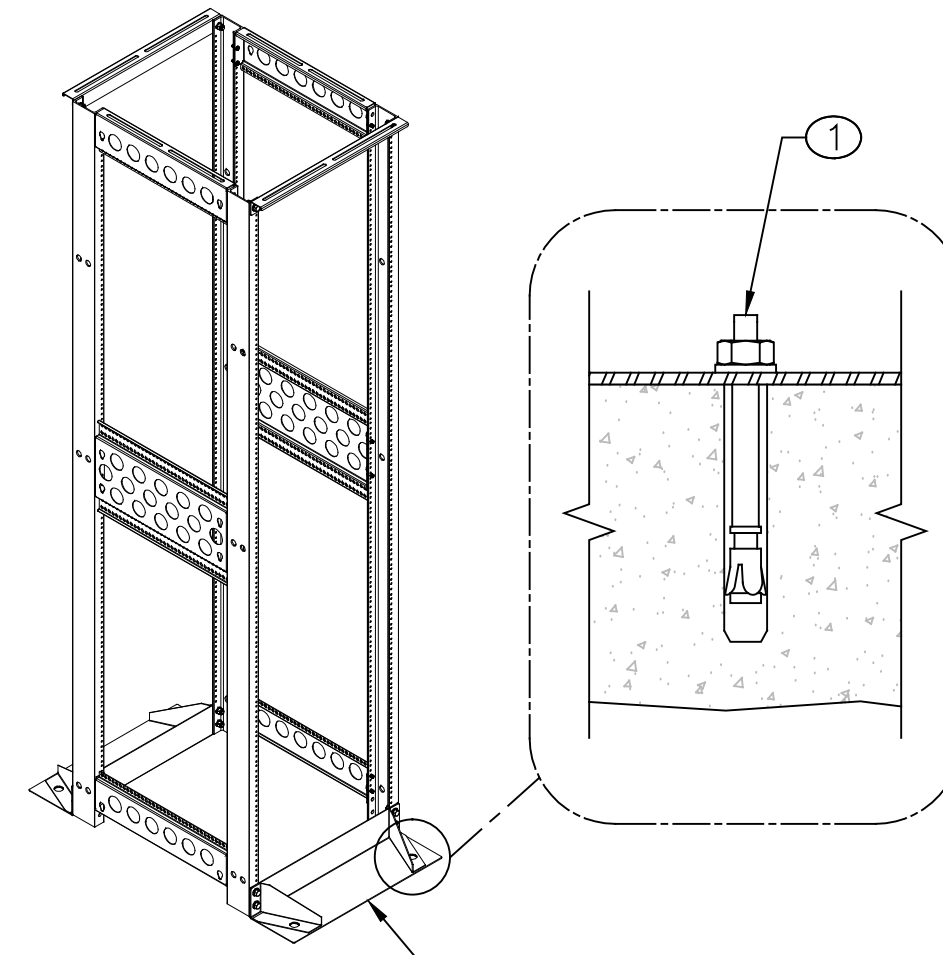
TYPICAL RACK SIZE U.O.N. ON PLANS. MAXIMUM RACK LOAD IS 2000 LBS.

CONCRETE FLOOR

WOOD STUD



1 FLOOR-WALL MOUNTED HINDGE-SWING CABINET  
NOT TO SCALE GENERAL CONSTRUCTION

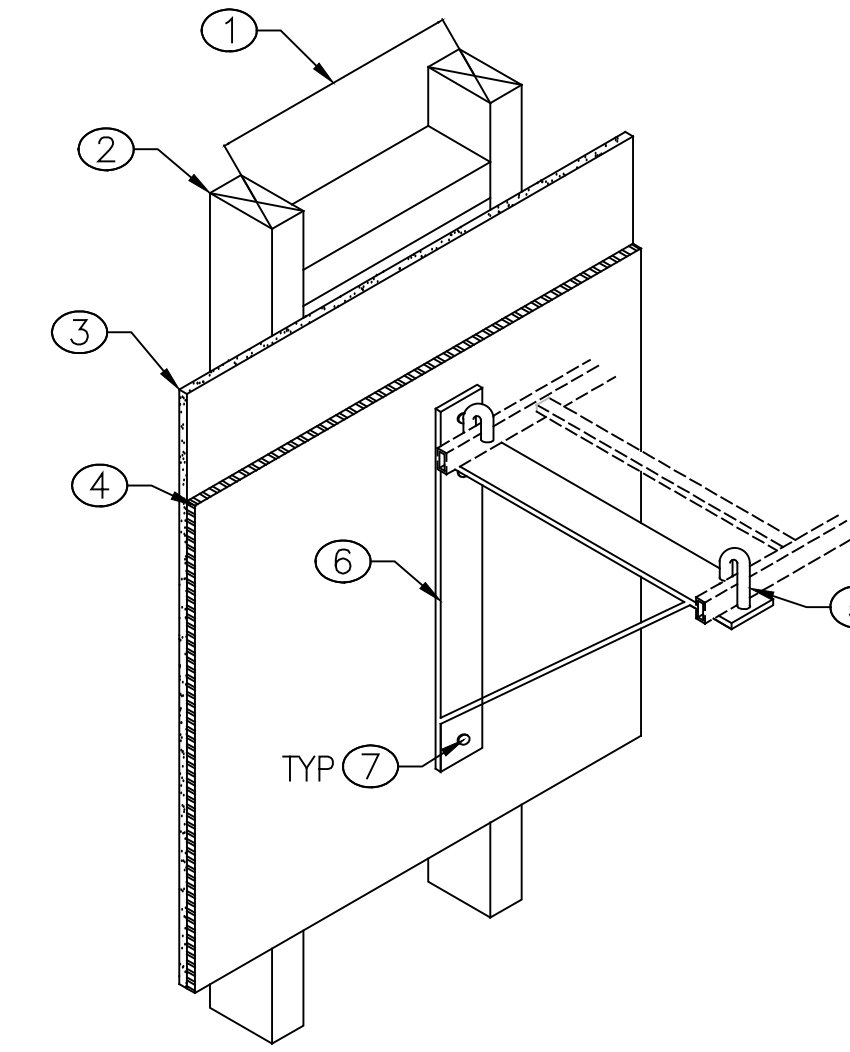


TYPICAL RACK SIZE U.O.N. ON PLANS. MAXIMUM RACK LOAD IS 2000 LBS.

2 4 POST RACK FLOOR MOUNTING DETAIL  
NOT TO SCALE ERATE

NOTES:

- ① FLOOR MOUNT CABINETS SHALL BE SECURED TO CONCRETE FLOOR PER ESR/ICC 1917 WITH 1/2" DIAMETER HILTI KWIK TZ BOLTS, MINIMUM EMBED DEPTH OF 2" ON EACH CORNER.



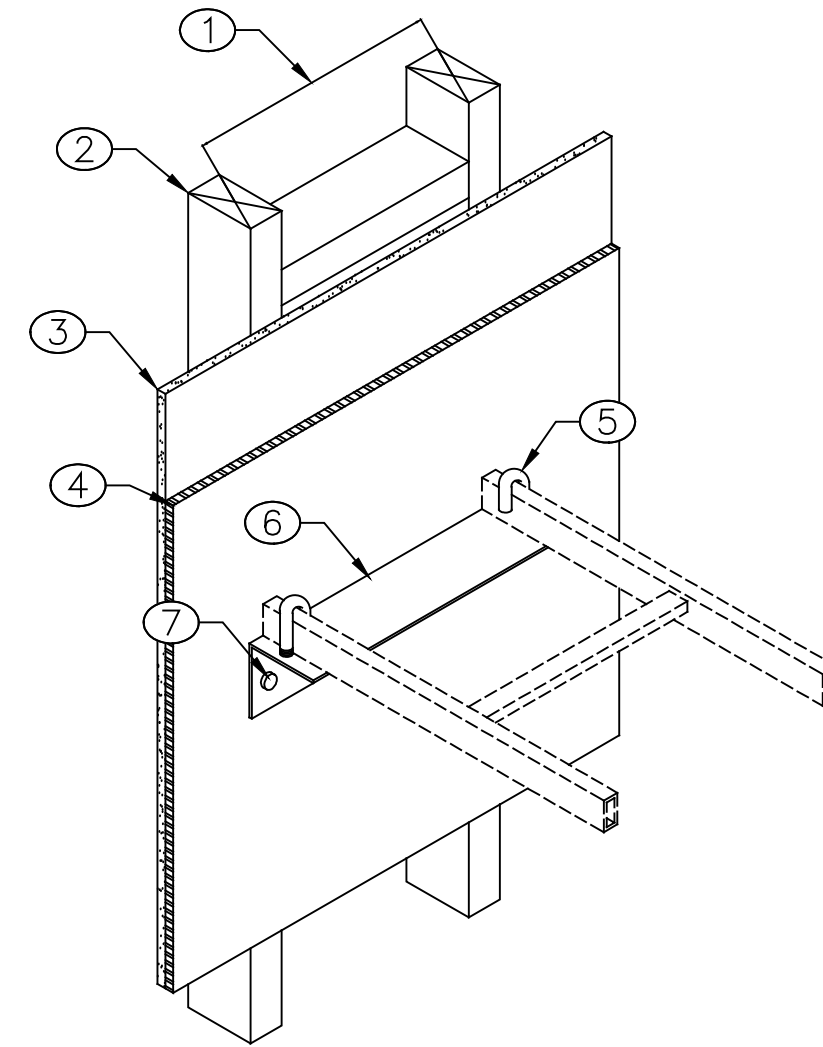
3 TRIANGULAR SUPPORT BRACKET MOUNTING DETAIL  
NOT TO SCALE ERATE

NOTES:

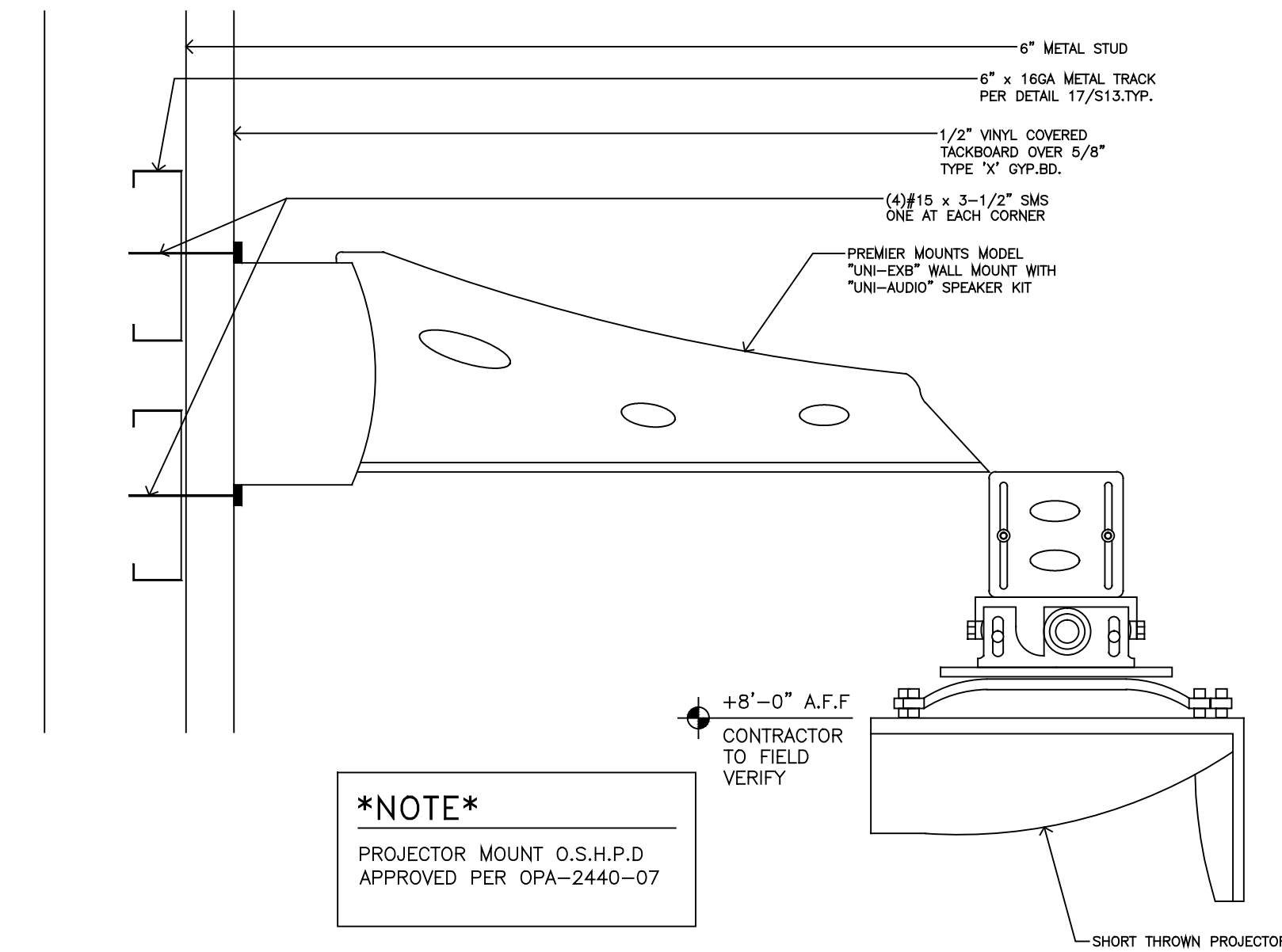
- ① FRAME STUDS ACCORDING TO PLANS
- ② EXISTING FRAME PER PLANS
- ③ DRYWALL
- ④ FIRE RATED BACKBOARD
- ⑤ (2) 5/16"-18 X 2 1/4" J-BOLTS.
- ⑥ TRIANGULAR SUPPORT BRACKET TO BE SPACED EVERY 5'.
- ⑦ SECURE BRACKET TO WALL WITH APPROPRIATE ANCHORAGE.

NOTES:

- ① FRAME STUDS ACCORDING TO PLANS
- ② EXISTING FRAME PER PLANS
- ③ DRYWALL
- ④ FIRE RATED BACKBOARD
- ⑤ (2) 5/16"-18 X 2 1/4" J BOLTS
- ⑥ WALL ANGLE SUPPORT MOUNTING TO BE SPACED EVERY 5'.
- ⑦ SECURE BRACKET TO WALL WITH APPROPRIATE ANCHORAGE.



4 WALL ANGLE SUPPORT MOUNTING DETAIL  
NOT TO SCALE ERATE



**\*NOTE\***  
PROJECTOR MOUNT O.S.H.P.D.  
APPROVED PER OPA-2440-07

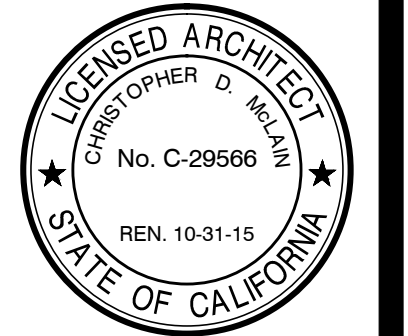
5 PROJECTOR MOUNT  
NOT TO SCALE

NEW ELEMENTARY SCHOOL  
MCFARLAND UNIFIED  
SCHOOL DISTRICT  
MCFARLAND UNIFIED SCHOOL DISTRICT  
MCFARLAND, KERN COUNTY, CA



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TITLE  
DETAILS

T4.4

PROJECT 1332

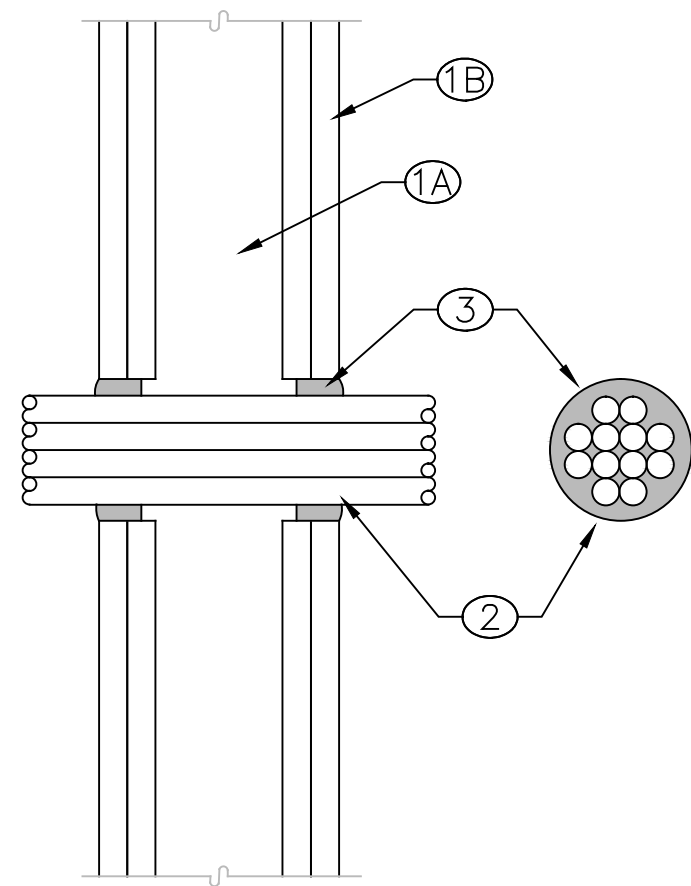


EXPIRES: 12/31/16  
REGIS. NO. 109549  
SEAN HARRINGTON  
EXPIRES: 12/31/16  
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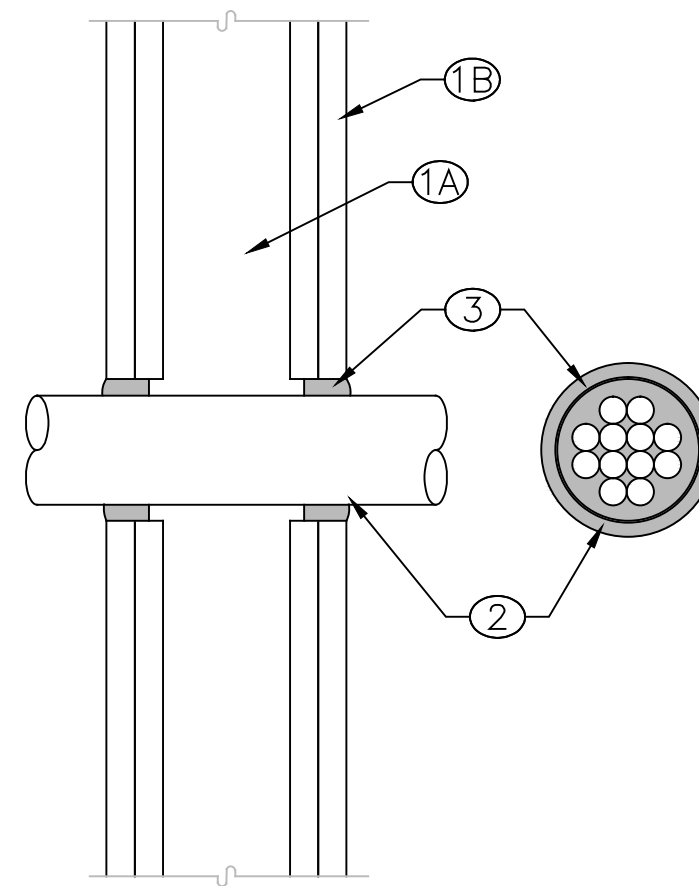
NOTES:



- 1 WALL ASSEMBLY--THE 1 OR 2 HR FIRE-TREATED GYPSUM WALLBOARD/STUD WALL ASSEMBLY SHALL BE CONSTRUCTED OF MATERIALS AND IN THE MANNER DESCRIBED IN THE INDIVIDUAL U300 OR U400 SERIES WALL OF PARTITION DESIGN IN THE UL FIRE RESISTANCE DIRECTORY AND SHALL INCLUDES THE FOLLOWING CONSTRUCTION FEATURES:
- A. STUDS-- WALL FRAMING MAY CONSIST OF EITHER WOOD STUDS OR STEEL CHANNEL STUDS. WOOD STUDS TO CONSIST OF NOM 2 BY 4 IN. LUMBER SPACED 16 IN. OC. STEEL STUDS TO BE MIN 3-5/8 IN. WIDE AND SPACED MAX 24 IN. OC.
  - B. GYPSUM BOARD\*--THE GYPSUM BOARD TYPE, THICKNESS, NUMBER OF LAYERS, FASTENER TYPE AND SHEET ORIENTATION SHALL BE AS SPECIFIED IN THE INDIVIDUAL U300 OR U400 SERIES DESIGN IN THE UL FIRE RESISTANCE DIRECTORY. DIAM OF CIRCULAR CUTOUT IN GYPSUM BOARD LAYERS IN EACH SIDE OF WALL TO BE 1/2 IN. LARGER THAN DIAM OF TIGHT CABLE BUNDLE (ITEM 2 OR 2A). MAX DIAM OF OPENING IS 4 1/2 IN.

- 2 THE HOURLY F RATING OF THE FIRESTOP SYSTEM IS EQUAL TO THE HOURLY RATING OF THE WALL ASSEMBLY IN WHICH IT IS INSTALLED.
- CABLES--MAX 4 IN. DIAM TIGHT BUNDLE OF CABLES TO BE INSTALLED EITHER CONCENTRICALLY OF ECCENTRICITY IN CIRCULAR CUTOUTS IN GYPSUM WALLBOARD OPENING. CONDUIT TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF WALL ASSEMBLY. THE ANNULAR SPACE WITHIN THE FIRESTOP SYSTEM SHALL BE A MIN 0 IN. (POINT CONTACT) TO A MAX 1/2 IN. ANY COMBINATION OF THE FOLLOWING TYPES AND SIZES OF CABLES MAY BE USED.
- A. MAX 150 PAIR NO. 24 AWG (OR SMALLER) COPPER CONDUCTOR CABLE WITH POLYVINYL CHLORIDE (PVC) INSULATION A JACKET.
  - B. MAX 1/C-350KCMIL (OR SMALLER) COPPER CONDUCTOR CABLE WITH CROSS-LINKED POLYETHYLENE (XLPE) JACKET.
  - C. MAX 2/0AWG (OR SMALLER) COPPER CONDUCTOR CABLE WITH A XPLE INSULATION AND PVC JACKET.
  - D. MAX 3/0 (WITH GROUND) NO.8 AWG NONMETALLIC SHEATHED (ROMEX) CABLE (OR SMALLER) WITH COPPER CONDUCTOR, POLYVINYL CHLORIDE (PVC) INSULATION AND JACKET MATERIALS.
  - E. MAX 3/C (WITH GROUND) NO. 2/0 AWG (OR SMALLER) ALUMINUM OF COPPER CONDUCTOR SERVICE ENTRANCE CABLE WITH PVC INSULATION AND JACKET MATERIALS.
  - F. MAX 4 PAIR NO. 18 AWG (OR SMALLER) COPPER CONDUCTOR THERMOSTAT CABLE WITH PVC INSULATION AND JACKET MATERIALS.
  - G. MAX RG/U TYPE 11 (OR SMALLER) COPPER CABLE WITH FLUORINATED ETHYLENE INSULATION AND JACKET MATERIALS.
  - H. MAX 62.5/125 MICRON FIBER OPTIC CABLE WITH PVC INSULATION AND JACKET MATERIALS.
- 2A THROUGH PENETRATION PRODUCT\*--AS AN ALTERNATE TO THE ITEM 2, A MAX 4IN. DIAM TIGHT BUNDLE OF MAX 4/C (WITH GROUND)--NO.2/0 AWG (OR SMALLER) ALUMINUM OR STEEL JACKETED ARMOR CABLE+ OR METAL-CLAD CABLE+ WITH ALUMINUM OR COPPER CONDUCTORS MAY BE USED. THE ANNULAR SPACE BETWEEN THE CABLE BUNDLE AND THE PERIPHERY OF THE OPENING SHALL BE A MIN OF 0 IN. (POINT CONTACT) TO A MAX OF 1 IN. THROUGH PENETRATING PRODUCTS MAY ALSO BE USED IN CONJUNCTION WITH THE CABLES SPECIFIED IN ITEM 2. THE THROUGH PENETRATING PRODUCTS ARE TO BE SPACED MIN 1/2 IN. FROM THE CABLE BUNDLE IN ITEM 2. CABLES TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF WALL ASSEMBLY.
- AFC CABLE SYSTEMS INC
- 3 FILL, VOID OR CAVITY MATERIAL\*--SEALANT--MIN 5/8 IN. THICKNESS OF FILL MATERIAL APPLIED WITH ANNULUS, FLUSH WITH BOTH SURFACES OF WALL. FILL MATERIAL TO BE FORCED INTO INTERSTICES OF CABLE GROUP TO MAX EXTENT POSSIBLE. AT POINT OF CONTACT LOCATION, APPLY MIN 1/4 IN. DIAM BEAD OF FILL MATERIAL AT CABLE/GYPSUM BOARD INTERFACE ON BOTH SIDES OF WALL. SPECIFIED TECHNOLOGIES INC--SPECSEAL 100, 102 OR 105 SEALANT. UL LISTING #1479.
- \*BEARING THE UL CLASSIFICATION W-L-3076  
+BEARING THE UL LISTING MARKING

NOTES:



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- CONDUIT--MAX 4 IN. DIAM TO BE INSTALLED EITHER CONCENTRICALLY OF ECCENTRICITY IN CIRCULAR CUTOUTS IN GYPSUM WALLBOARD OPENING. CONDUIT TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF WALL ASSEMBLY. THE ANNULAR SPACE WITHIN THE FIRESTOP SYSTEM SHALL BE A MIN 0 IN. (POINT CONTACT) TO A MAX 1/2 IN. ANY COMBINATION OF THE FOLLOWING TYPES AND SIZES OF CONDUITS MAY BE USED.
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  - B. MAX 1/C-350KCMIL (OR SMALLER) COPPER CONDUCTOR CABLE WITH CROSS-LINKED POLYETHYLENE (XLPE) JACKET.
  - C. MAX 2/0AWG (OR SMALLER) COPPER CONDUCTOR CABLE WITH A XPLE INSULATION AND PVC JACKET.
  - D. MAX 3/0 (WITH GROUND) NO.8 AWG NONMETALLIC SHEATHED (ROMEX) CABLE (OR SMALLER) WITH COPPER CONDUCTOR, POLYVINYL CHLORIDE (PVC) INSULATION AND JACKET MATERIALS.
  - E. MAX 3/C (WITH GROUND) NO. 2/0 AWG (OR SMALLER) ALUMINUM OF COPPER CONDUCTOR SERVICE ENTRANCE CABLE WITH PVC INSULATION AND JACKET MATERIALS.
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- AFC CABLE SYSTEMS INC
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- \*BEARING THE UL CLASSIFICATION W-L-2093  
+BEARING THE UL LISTING MARKING

1 NOT TO SCALE GENERAL CONSTRUCTION/ERATE

2 NOT TO SCALE GENERAL CONSTRUCTION

NEW ELEMENTARY SCHOOL  
MCFARLAND UNIFIED SCHOOL DISTRICT  
MCFARLAND UNIFIED SCHOOL DISTRICT  
MCFARLAND, KERN COUNTY, CA



APPROVALS

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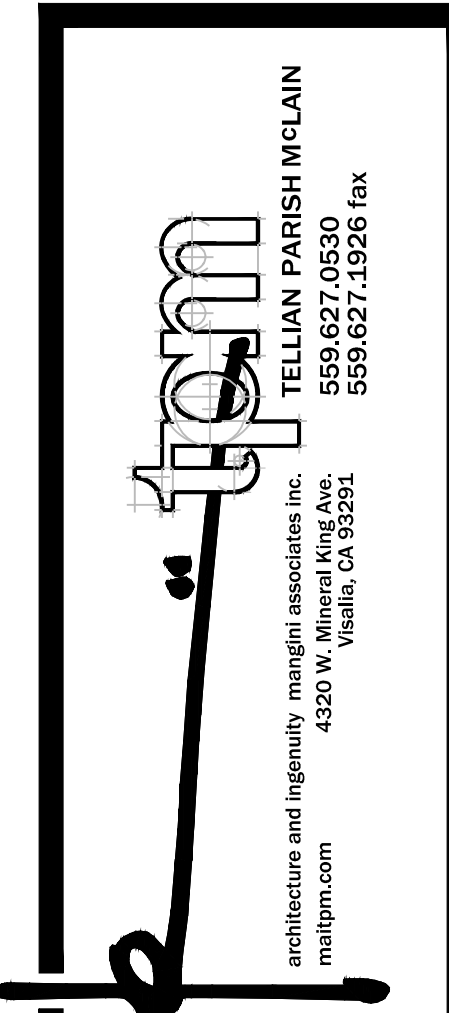
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APPL # ..... XX-XXXXXX

AC \_\_\_\_\_ F/LS \_\_\_\_\_ SS \_\_\_\_\_

DATE \_\_\_\_\_

LICENSED ARCHITECT  
CHRISTOPHER D. MCCLAIN  
No. C-29566  
REN. 10-31-15  
STATE OF CALIFORNIA

DATE: DECEMBER 18, 2013



TITLE

DETAILS

T4.5

PROJECT 1332



EXPIRES: 12/31/16  
REGIS. NO. 109549  
SEAN HARRINGTON  
EXPIRES: 12/31/16  
REGIS. NO. 07165  
FRED BRAKEMAN

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