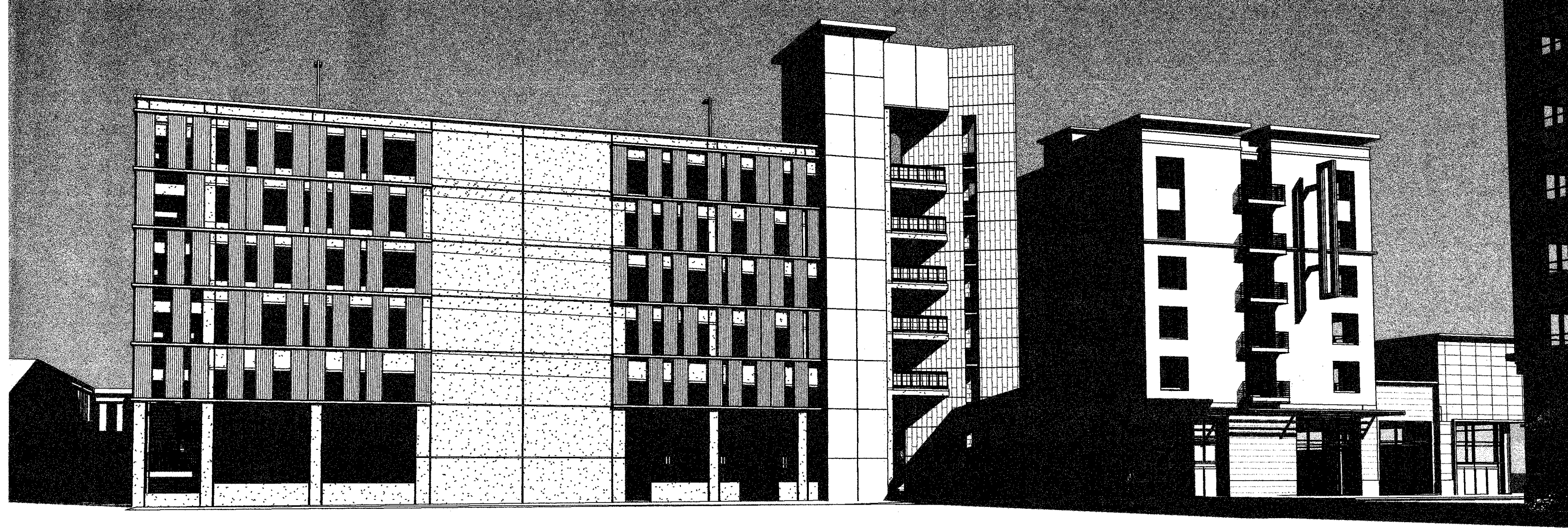


# SUN STONE PARKING STRUCTURE



**STATEMENT OF GENERAL CONFORMANCE**

1) ARE IN GENERAL CONFORMANCE WITH PROJECT DESIGN AND HAVE BEEN COORDINATED WITH PROJECT PLANS AND SPECIFICATIONS.

2) *[Signature]* March 3, 2016

SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_

ARCHITECT DESIGNED TO BE IN GENERAL RESPONSIBLE CHARGE

KEITH A. PITTSFORD

PRINT NAME \_\_\_\_\_

C-20569 JULY 31, 2017

LICENSE NUMBER \_\_\_\_\_ EXPIRATION DATE \_\_\_\_\_

OSFM FILE NUMBER 18-37-03-0002-175

**STATEMENT OF GENERAL CONFORMANCE**  
FOR ARCHITECTS/ENGINEERS WHOSE DRAWINGS, INCLUDING BUT NOT LIMITED TO SHOP DRAWINGS, PREPARED BY OTHER LICENSED DESIGN PROFESSIONALS AND/OR CONSULTANTS

(Application No. 04-114204 File No. \_\_\_\_\_)

The following sheet sets listed in the sheet index:

STRUCTURAL, MECHANICAL, PLUMBING, ELECTRICAL, FIRE PROTECTION, CIVIL, LANDSCAPE AND FIRE ALARM

Have been prepared by other design professionals or consultants who are licensed and/or authorized to prepare such drawings in this state. It has been examined by me for:

- Design intent and appears to meet the appropriate requirements of Title 24, California Code of Regulations and the project specifications prepared by me, and
- Coordination with my plans and specifications and is acceptable for incorporation into the construction of this project.

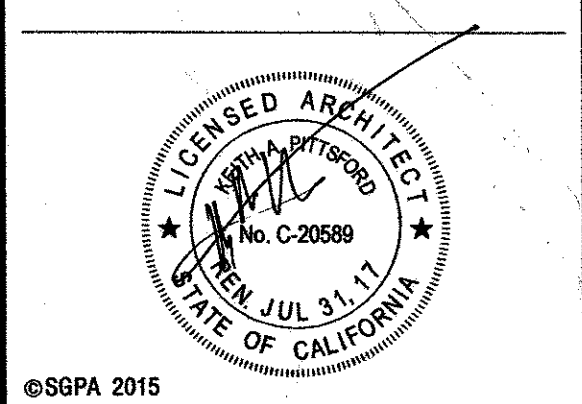
The Statement of General Conformance shall not be construed as relieving me of my legal, duties, and responsibilities under Sections 17302 and 17313 of the Education Code and Sections 4-330, 4-341 and 4-344 of Title 24, Part 1, (Title 24, Part 1, Section 4-317 (b)).

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**SUNDT CONSTRUCTION**

SAN DIEGO, CALIFORNIA

**SAN DIEGO STATE UNIVERSITY**

SAN DIEGO, CA

**SOUTH CAMPUS PLAZA DESIGN-BUILD PARKING STRUCTURE**

6840 LINDO PASEO  
SAN DIEGO STATE UNIVERSITY

**GENERAL NOTES**

- ALL WORK AND MATERIALS SHALL BE IN FULL ACCORDANCE WITH THE REQUIREMENTS OF THE CODES AND ALL APPLICABLE LOCAL ORDINANCES. WHERE CONTRACT DOCUMENTS EXCEED SUCH REQUIREMENTS, WITHOUT VIOLATING SUCH CODES, REGULATIONS AND ORDINANCES, CONTRACT DOCUMENTS TAKE PRECEDENCE. WHERE CODES CONFLICT, THE MORE STRINGENT SHALL APPLY. DURING THE CONSTRUCTION PERIOD, IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO MAINTAIN CONDITIONS AT THE PROJECT SITE TO MEET THE REQUIREMENTS OF THE FEDERAL OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) AND CALIFORNIA OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (CAL/OSHA). THIS PROVISION SHALL COVER THE CONTRACTORS EMPLOYEES AND ALL OTHER PERSONS WORKING UPON OR VISITING THE SITE. THE CONTRACTOR SHALL BECOME FULLY INFORMED OF ALL APPLICABLE STANDARDS AND REGULATIONS AND INFORM ALL PERSONS AND REPRESENTATIVES RESPONSIBLE FOR WORK UNDER THIS CONTRACT. CONFIRM ALL NEARBY EXISTING CONDITIONS WITH THE CONTRACT DOCUMENTS. NOTIFY ARCHITECT IMMEDIATELY IN WRITING OF ALL DISCREPANCIES OR CONFLICTS. DO NOT PROCEED WITH WORK IN THE AREA OF DISCREPANCY OR CONFLICT UNTIL DIRECTION IS GIVEN BY ARCHITECT. IF THE CONTRACTOR PROCEEDS WITHOUT DIRECTION FROM ARCHITECT, IT SHALL BE AT CONTRACTORS RISK AND CONTRACTOR SHALL BE RESPONSIBLE FOR ALL REQUIRED CORRECTIVE ACTION.
- REVIEW THE DRAWINGS BEFORE THE INSTALLATION OF SYSTEMS SHOWN ON CONSULTING ENGINEERS DOCUMENTS. DISCREPANCIES BETWEEN THE ARCHITECTURAL AND CONSULTING ENGINEERS DOCUMENTS SHALL BE BROUGHT TO ARCHITECT'S ATTENTION FOR DIRECTION. CONSTRUCTION INSTALLED IN CONFLICT WITH THE DRAWINGS SHALL BE CORRECTED BY CONTRACTOR AT OWNERS EXPENSE TO THE OWNER.
- DO NOT SCALE THE CONSTRUCTION DOCUMENTS. WRITTEN DIMENSIONS TAKE PRECEDENCE OVER SCALED GRAPHICS. NOTIFY ARCHITECT IMMEDIATELY IN WRITING OF ALL ADDITIONAL REQUIRED DIMENSIONS. DO NOT PROCEED WITH WORK IN THE AREA OF DISCREPANCY OR CONFLICT UNTIL DIRECTION IS GIVEN BY ARCHITECT. IF THE CONTRACTOR PROCEEDS WITHOUT DIRECTION FROM ARCHITECT, IT SHALL BE AT CONTRACTORS RISK, AND CONTRACTOR SHALL BE RESPONSIBLE FOR ALL REQUIRED CORRECTIVE ACTION.
- CORRECT ALL WORK INSTALLED IN CONFLICT WITH THE CONSTRUCTION DOCUMENTS BY CONTRACTOR AS DIRECTED BY ARCHITECT AND AT NO ADDITIONAL EXPENSE TO THE OWNER.
- VISIT JOB SITE PRIOR TO BEGINNING WORK AND VERIFY ALL DIMENSIONS.
- SECURE AND PAY FOR ALL PERMITS, GOVERNMENTAL FEES AND LICENSES REQUIRED FOR PROPER COMPLETION OF THE WORK. REQUEST ALL INSPECTIONS REQUIRED BY LOCAL GOVERNMENT AGENCIES AND COORDINATE THE WORK ACCORDINGLY.
- WHERE WORK OR EQUIPMENT IS INDICATED "N.C." (NOT IN CONTRACT) ON THE DRAWINGS, SUCH WORK AND/OR EQUIPMENT SHALL BE PROVIDED BY OTHERS. CONTRACTOR SHALL COORDINATE AND COOPERATE TO EFFECT SUCH INSTALLATION.
- ALL PLAN DIMENSIONS SHOWN AT CENTER OF WALL REPRESENT CENTER LINE OF STUB OR STRUCTURAL ELEMENT UNLESS NOTED OTHERWISE.
- ALL PLAN DIMENSIONS FOR MASONRY AND CONCRETE REPRESENT FACE OF MATERIAL AND OPENING UNLESS NOTED OTHERWISE.
- ALL PLAN DIMENSIONS FOR STUD WALLS REPRESENT FACE OF STUD UNLESS NOTED OTHERWISE.
- ALL HEIGHTS ARE DIMENSIONS FROM TOP OF SLAB UNLESS NOTED "AFF" (ABOVE FINISH FLOOR).
- DIMENSIONS ARE NOT ADJUSTABLE WITHOUT THE REVIEW OF ARCHITECT UNLESS NOTED "(+)" OR "VERIFY". DIMENSIONS NOTED "HOLD" SHALL BE CONSIDERED AS ABSOLUTE AND USED FOR LAY-OUT CONTROL UNLESS OTHERWISE DIRECTED BY ARCHITECT.
- "TYPICAL" MEANS COMPARABLE CHARACTERISTICS FOR ELEVATION OR DETAIL NOTED, WHERE A DETAIL OR NOTE IS IDENTIFIED AS "TYPICAL". CONTRACTOR SHALL APPLY THIS DETAIL OR NOTE TO EVERY LIKE CONDITION, WHETHER OR NOT THE REFERENCE IS REPEATED IN EVERY INSTANCE. VERIFY DIMENSIONS AND ORIENTATION ON PLAN.
- PROVIDE WORK NOT SPECIFICALLY DETAILED OR SPECIFIED IN ACCORDANCE WITH DETAILS OR SIZES COVERING SIMILAR WORK.
- "SIMILAR" MEANS COMPARABLE CHARACTERISTICS FOR THE ELEVATION OR DETAIL NOTED VERIFY DIMENSIONS AND ORIENTATION ON PLAN.
- ABBREVIATIONS THROUGHOUT THE DOCUMENTS COMPLY WITH DOCUMENT ABBREVIATION LIST IN SPECIFICATIONS OR ARE THOSE IN COMMON USE. ARCHITECT WILL DEFINE THE INTENT OF ANY IN QUESTION.
- REFER TO THE PROJECT MANUAL FOR GENERAL CONDITIONS, SUPPLEMENTARY AND SPECIAL CONDITIONS, AND OTHER REQUIREMENTS.
- PROVIDE BARRICADES AND PROTECTIVE DEVICES SEPARATING CONSTRUCTION AREAS. PROVIDE TEMPORARY PASSAGES AS REQUIRED. PRIOR TO DELIVERY OF MATERIALS TO CONSTRUCTION ZONE AND REMOVAL OF WASTE FROM SITE, CHECK WITH OWNER FOR ACCEPTABLE ACCESS ROUTE AND TIME. UNDER NO CIRCUMSTANCES CAN THE GENERAL CONTRACTOR USE AREA OUTSIDE THE CONSTRUCTION ZONE WITHOUT PRIOR CLEARANCE FROM THE OWNER. COMPLY WITH REQUIREMENTS AS SPECIFIED IN PROJECT MANUAL.
- PROVIDE FOR THE PROPER SEQUENCE OF CONSTRUCTION, LOCATION AND SIZE OF OPENINGS. COORDINATE ALL CONSTRUCTION AS INDICATED BY THE CONTRACT DOCUMENTS, INCLUDING SHOP DRAWINGS REVIEWED BY ARCHITECT.
- REMOVE ALL TRASH AND DEBRIS DAILY. DO NOT STORE BUILDING MATERIALS IN CORRIDORS AT ANY TIME. COMPLY WITH REQUIREMENTS AS SPECIFIED IN PROJECT MANUAL.
- VERIFY POINTS OF CONNECTION, INCLUDING SIZES AND LOCATIONS, AND ALL OTHER REQUIRED OPERATING CRITERIA WITH EQUIPMENT MANUFACTURER.
- CONTRACTOR SHALL STIPULATE THAT ALL PROPOSED SUBSTITUTIONS ARE EQUAL IN PERFORMANCE AND COMPLY WITH APPLICABLE CODES AND REGULATIONS. CONTRACTORS SUBSTITUTION OF ALTERNATE MATERIALS OR SYSTEMS SHALL BE AT NO ADDITIONAL COST TO OWNER.
- CONTRACTOR SHALL INSURE ALL CONSTRUCTION SHALL REMAIN ACCESSIBLE AND EXPOSED FOR INSPECTION PURPOSES UNTIL APPROVED BY THE INSPECTOR OF RECORD. FOR CONTINUOUS INSPECTION, TESTING, AND OBSERVATION REQUIREMENTS, REFER TO THE TESTING AND OBSERVATION PROGRAM.
- PROVIDE DESIGNATED PARKING FOR ANY COMBINATION OF LOW-EMITTING, FUEL-EFFICIENT AND CARPOOL/VANPOOL VEHICLES AS SHOWN IN TABLE 5.06.05.1 (SECTION 5.06.5.2).
- IN THE POINT USED FOR STALL STRIPING, "CLEAR AIR/VAPOURPOLY" SUCH THAT THE LOWER EDGE OF THE LAST WORD ALIGNS WITH THE END OF THE STALL STRIPING AND IS VISIBLE BENEATH A PARKED VEHICLE. (CGSBC 5.106.5.2.1)
- OUTDOOR LIGHTING SYSTEMS SHALL BE DESIGNED AND INSTALLED TO PROVIDE BRIGHT, UPLIGHT AND GLARE RATINGS NOT EXCEEDING THOSE SHOWN IN TABLE 5.06.8 (CGSBC 5.106.8).
- FOR ALL CURB AND CURB RAMP DETAILS SEE LANDSCAPE CONSTRUCTION DRAWINGS.
- COORDINATE THE LOCATION AND TYPE OF ALL ACCESS PANELS REQUIRED FOR ACCESSING MECHANICAL, PLUMBING, ELECTRICAL AND OTHER BUILDING SYSTEMS WITH ARCHITECT.

**DEFERRED APPROVALS**

- ELEVATOR
- GAIRD RAILS AND RAILINGS AT STAIRS AND LANDINGS
- VEHICLE BARRIER CABLE RAILS
- METAL STUD WALL AND JOIST FRAMING AT MACHINE ROOM
- FIRE ALARM

**SITE GENERAL NOTES**

- ALL WORK SHALL BE COMPLETED IN ACCORDANCE WITH STATE, FEDERAL AND LOCAL CODES, ORDINANCES, LAWS AND THE CALIFORNIA BUILDING CODE, 2013 EDITION, CALIFORNIA FIRE CODE, 2013 EDITION.
- THE RECOMMENDATIONS OF THE SOILS REPORT FOR THE SITE EXISTING. ARE AVAILABLE UPON REQUEST FROM THE GEOTECH ENGINEER.
- THE PROJECT MANUAL, INCLUDING SPECIFICATIONS, (UNDER SEPARATE COVER), IS AN INTEGRAL PART OF THE CONTRACT DOCUMENTS.
- CONTRACTOR SHALL VISIT THE SITE, VERIFY ALL DIMENSIONS BEFORE SUBMITTING A BID. NOTIFY THE ARCHITECT OF ANY DISCREPANCIES, AND OBTAIN ALL REQUIRED PERMITS.
- CONTRACTOR SHALL BE RESPONSIBLE FOR ACCURATE LOCATION OF NEW BUILDING PADS, CURBS, DRIVES AND WALKWAYS, AND FOR MAINTAINING PROPER RELATIONSHIPS TO PROPERTY LINES, PARCEL LINES AND EASEMENTS.
- CONTRACTOR TO PROVIDE LABOR AND MATERIALS NECESSARY TO COMPLETE ALL FINISH GRADING, AS SHOWN IN THE CONTRACT DOCUMENTS INCLUDING CIVIL AND LANDSCAPE DRAWINGS. THIS SHALL INCLUDE FINAL CONTOUR GRADING AND BERMING PER LANDSCAPE ARCHITECT'S PLANS.
- CONTRACTOR TO VERIFY ALL ELEVATIONS, FLOW LINES, EXISTING CONDITIONS, AND POINTS OF CONNECTIONS WITH ADJOINING PROPERTY. DISCREPANCIES ARE TO BE CALLED TO THE ATTENTION OF THE ARCHITECT AND CIVIL ENGINEER BEFORE PROCEEDING WITH ANY WORK.
- PROVIDE POSITIVE DRAINAGE OF SURFACE WATER AWAY FROM ALL BUILDINGS, SLABS AND GRAZED PADS, WITHOUT PONDING OF WATER ADJACENT TO BUILDINGS OR ON PAVEMENTS. DRAINAGE OF PAVED AND LANDSCAPED AREAS TO BE A MINIMUM OF 1%, UNLESS OTHERWISE NOTED. MAXIMUM SLOPE AT PARKING LOT TO BE 5% EXCEPT AT DRIVES.
- ALL EARTH WORK TO BE PERFORMED UNDER THE OBSERVATION OF THE GEOTECH ENGINEER IN ACCORDANCE WITH RECOMMENDATIONS OF THE SOILS REPORT TO ASSURE PROPER SITE PREPARATION, SELECTION OF SATISFACTORY FILL MATERIALS IF ANY, AND PLACEMENT AND COMPACTION OF THE FILLS.
- COORDINATE SITE GRADING, UTILITY WORK, DRIVEWAY AND FINISH WORK WITH EXISTING AND NEW OFF-SITE CONDITIONS.
- FIRE HYDRANTS TO BE INSTALLED UNDER THIS CONTRACT ARE TO BE LOCATED PER CIVIL ENGINEERS DRAWINGS.
- ON-SITE WATER, FIRE, SANITARY SEWER AND STORM DRAINAGE TO BE PER CIVIL ENGINEERS DRAWINGS. INSTALL WATER METER VAULTS WHERE SHOWN. CONTRACTOR TO ADJUST VAULTS TO FINISH GRADE.
- ALL BUILDINGS INDICATED ARE UNDER SEPARATE CONTRACT REFERENCE DEMOLITION SITE REV #1 CIVIL DRAWINGS, FOR BUILDING PADS.
- SIGN CONTRACTOR SHALL ACQUIRE SEPARATE PERMITS FOR INSTALLATION OF SIGNS AS REQUIRED BY LOCAL PUBLIC AGENCIES.
- THE PARKING LOT SHALL HAVE PROPERLY POSTED SIGNS THAT STATE THE USE OF THE PARKING AREA IS FOR THE EXCLUSIVE USE OF EMPLOYEES AND CUSTOMERS OF THIS PROJECT. (SEE CALIFORNIA VEHICLE CODE SECTIONS 22507 A, 22511.5, 22511.8).
- CONTRACTOR SHALL NOTIFY OWNER/ARCHITECT UPON DISCOVERY OF ANY CULTURAL RESOURCES.
- SOPA CONFIRMS TO TARGET THAT SGPA HAS PREPARED THESE PLANS IN ACCORDANCE WITH THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES), AND WITH STATE, & COUNTY OF SAN DIEGO POLLUTION PREVENTION & EROSION CONTROL REQUIREMENTS.

**VICINITY MAP**

**FIRE DEPARTMENT NOTES**

- FIRE EQUIPMENT ACCESS ROADS SHALL BE A MINIMUM OF 20'-0" WIDE AND 13'-6" VERTICAL CLEARANCE, TO WITHIN 150 FEET OF COMBUSTIBLE STORAGE PILES AND STRUCTURES. SAID ACCESS IS TO BE PROVIDED PRIOR TO ANY CONSTRUCTION OR STORAGE OF COMBUSTIBLE MATERIALS ON SITE. ACCESS ROADS SHALL BE CAPABLE OF SUPPORTING (ON ALL WEATHER) THE IMPOSED LOADS OF FIRE EQUIPMENT (40 TONS).
- FIRE HYDRANTS SHALL BE INSTALLED ON THIS SITE AND SHALL BE OPERATIONAL PRIOR TO COMBUSTIBLE MATERIALS BEING BROUGHT TO THE SITE. MAXIMUM DISTANCE BETWEEN FIRE HYDRANTS SHALL NOT EXCEED 300 FEET ON CENTER. ON-SITE FIRE SERVICE MAIN SHALL BE DESIGNED AND INSTALLED PER THE GUIDELINES OF THE NATIONAL FIRE PROTECTION ASSOCIATION PAMPHLET 24. FIRE HYDRANT LOCATIONS SHALL BE APPROVED BY THE FIRE PREVENTION DIVISION. FIRE HYDRANTS ARE TO BE ACCESSIBLE VIA AN ALL WEATHER DRIVING SURFACE, TEMPORARY OR OTHERWISE, DURING ALL PHASES OF CONSTRUCTION. BLUE DOTS SHALL BE INSTALLED 4" FROM CENTERLINE OF STREET IN THE DIRECTION OF THE HYDRANT PLACEMENT IN LINE WITH HYDRANT.
- PAINT ALL DESIGNATED CURBS RED ACCORDING TO FIRE MARSHAL AND THE APPROVED FIRE ACCESS PLAN (F-1). PAINT "FIRE LANE NO STOPPING" WITH THREE INCH HIGH WHITE LETTERS ON RED CURBS, PER CALIFORNIA VEHICLE CODE.
- TEMPORARY STORAGE OF FLAMMABLE OR COMBUSTIBLE LIQUIDS DURING CONSTRUCTION SHALL BE BY FIRE DEPARTMENT PERMIT AND SHALL COMPLY WITH ALL ESTABLISHED GUIDELINES AS OUTLINED IN THE 2010 CALIFORNIA BUILDING CODE.
- BARRICADES SHALL BE PROVIDED TO PROTECT ANY NATURAL GAS METER, FIRE HYDRANT, OR OTHER FIRE DEPARTMENT CONTROL DEVICE, WHICH MAY BE SUBJECT TO VEHICULAR DAMAGE. APPROPRIATE SIGNAGE MAY BE REQUIRED TO IDENTIFY THE LOCATION OF FIRE PROTECTION DEVICES. BOLLARDS (SEE DETAIL 3532) SHALL BE LOCATED ON SITE, AS DIRECTED BY BUILDING AND FIRE INSPECTORS. IF SITE SURVEY OR EARTH MOVING WORK RESULTS IN THE DISCOVERY OF HAZARDOUS MATERIALS IN CONTAINERS OR WHAT APPEARS TO BE HAZARDOUS WASTES RELEASED INTO THE GROUND, THE CONTRACTOR OR THE PERSON RESPONSIBLE FOR THE BUILDING PERMIT MUST NOTIFY THE FIRE DEPARTMENT IMMEDIATELY. A REPRESENTATIVE FROM THE FIRE DEPARTMENT WILL MAKE A DETERMINATION AS TO WHETHER THE INCIDENT IS REPORTABLE OR NOT AND IF SITE REMEDIATION IS REQUIRED. NON-EMERGENCY RELEASES OR NOTIFICATIONS ABOUT THE PRESENCE OF CONTAINERS FOUND SHALL BE REPORTED TO THE FIRE DEPARTMENT.
- A TEMPORARY SITE ACCESS ROAD WILL BE PROVIDED PRIOR TO START OF FOUNDATION CONSTRUCTION.
- FIRE HYDRANTS SHALL BE ORIENTED SO THAT OUTLETS FACE MAIN DRIVES.
- SEPARATE APPLICATION AND SUBMITTALS ARE REQUIRED FOR ALL UNDERGROUND FIRE SERVICE LINES, FIRE APPLIANCES AND HYDRANTS.

**FIRE ALARM**

FA-100 FIRE ALARM NOTE SHEET

FA-101 FIRE ALARM SITE PLAN

FA-201 GROUND LEVEL FIRE ALARM PLAN

FA-202 SECOND LEVEL FIRE ALARM PLAN

FA-203 THIRD LEVEL FIRE ALARM PLAN

FA-204 FOURTH LEVEL FIRE ALARM PLAN

FA-205 FIFTH LEVEL FIRE ALARM PLAN

FA-206 SIXTH LEVEL FIRE ALARM PLAN

FA-207 FIRE ALARM SEVENTH LEVEL FLOOR PLAN

FA-300 FIRE ALARM RISER

FA-400 FIRE ALARM CALCULATIONS

FA-401 FIRE ALARM DETAILS

**SITE ACCESSIBILITY NOTES**

- ALL CONSTRUCTION SHALL COMPLY WITH ACCESSIBILITY REQUIREMENTS AS SET FORTH IN TITLE 24 OF THE CALIFORNIA CODE OF REGULATIONS AND THE A.D.A.
- WALKS AND RAMPS SHALL BE 48" MINIMUM IN WIDTH.
- PROVIDE 90" MINIMUM HEADROOM FROM ALL WALKWAY SURFACES TO ANY OBSTRUCTION.
- ALL BUILDING ENTRANCES SHALL BE MADE ACCESSIBLE TO PERSONS WITH DISABILITIES.
- ALL WALKS SHALL HAVE A SLIP RESISTANT CONCRETE OR ASPHALTIC CONCRETE SURFACE NOT INTERRUPTED BY STEPS OR BY ABRUPT CHANGES IN LEVEL EXCEEDING 1/2". WHERE LEVEL CHANGES DO OCCUR THEY SHALL BE BEVELED WITH A SLOPE NO GREATER THAN 1:2. EXCEPT THAT LEVEL CHANGES NOT EXCEEDING 1/4" MAY BE VERTICAL. SLOPE IN DIRECTION OF TRAVEL SHALL NOT EXCEED 1:20 WITHOUT HANDRAILS, 1:12 WITH HANDRAILS.
- WALKS, SIDEWALKS AND PEDESTRIAN WAYS SHALL BE FREE OF GRATINGS WHEREVER POSSIBLE. FOR GRATINGS LOCATED IN THE SURFACE OF ANY OF THESE AREAS, GRID OPENINGS IN GRATINGS SHALL BE LIMITED TO 1/2" IN ONE DIRECTION. ELONGATED OPENINGS SHALL BE PERPENDICULAR TO DOMINANT DIRECTION OF TRAVEL.
- AT EVERY ENTRANCE AND AT EVERY MAJOR JUNCTION ALONG A PEDESTRIAN ROUTE OF TRAVEL, THERE SHALL BE A SIGN DISPLAYING THE INTERNATIONAL SYMBOL OF ACCESSIBILITY. SIGNS SHALL INDICATE THE DIRECTION TO ACCESSIBLE BUILDING ENTRANCES AND FACILITIES AND SHALL COMPLY WITH REQUIREMENTS FOUND IN SECTION 11B, DIVISION 2, PART 2, TITLE 24, CCR.
- EVERY DRIVEWAY ENTRANCE SHALL HAVE A SIGN THAT STATES DESIGNATED ACCESSIBLE PARKING STALLS ARE FOR THE USE OF PERSONS WITH DISABILITIES AND DISPLAYING THE INTERNATIONAL SYMBOL OF ACCESSIBILITY. SIGNS SHALL COMPLY WITH REQUIREMENTS FOUND IN SECTION 11B, DIVISION 2, PART 2, TITLE 24, CCR.

**SCOPE OF WORK**

PROJECT DESCRIPTION

6 TIER NATURALLY VENTILATED PARKING STRUCTURE INCLUDING TWO ELEVATORS, TWO OPEN EXIT STAIRWAYS, A COOLING TOWER DECK, AND MECHANICAL/VENTILATION USE SPACES AND EMERGENCY GENERATOR (TYPE 15 CLASS LEVEL 1)

**APPLICABLE CODES**

CODE	TITLE	EDITION
BUILDING CODE	CALIFORNIA BUILDING CODE TITLE 24 PART 2	2013 EDITION
ELECTRICAL CODE	CALIFORNIA ELECTRICAL CODE TITLE 24 PART 3	2013 EDITION
MECHANICAL CODE	CALIFORNIA MECHANICAL CODE TITLE 24 PART 4	2013 EDITION
PLUMBING CODE	CALIFORNIA PLUMBING CODE TITLE 24 PART 5	2013 EDITION
ENERGY CODE	CALIFORNIA ENERGY CODE TITLE 24 PART 6	2013 EDITION
FIRE CODE	CALIFORNIA FIRE CODE TITLE 24 PART 9	2013 EDITION
GREEN CODE	CALIFORNIA GREEN BUILDING CODE TITLE 24 PART 11	2013 EDITION
FIRE ALARM	NFPA 72 - NATIONAL FIRE ALARM CODE (CA. AMEND.)	2013 EDITION
FIRE DOORS	NFPA 80 - FIRE DOOR AND OPENING PROTECTIVES	2013 EDITION
FIRE CODE	CALIFORNIA REFERENCE STANDARDS CODE OCR TITLE 19. PUBLIC SAFETY: DIV. 1, STATE FIRE MARSHAL NFA 25 CALIFORNIA EDITION, INSPECTION, TESTING AND MAINTENANCE OF WATER BASED FIRE PROTECTION SYSTEMS	2006 EDITION
	CFC CHAPTER 33 FIRE SAFETY DURING CONSTRUCTION	2013 EDITION

**PROJECT DATA**

OCCUPANCY CLASSIFICATION	S-2 - OPEN PARKING GARAGE
TYPE OF CONSTRUCTION	TYPE I-B
ALLOWABLE AREA	78,000 SF PER STORY
ACTUAL AREA	122,716 SF TOTAL BUILDING AREA 21,825 SF PER STORY, 10,925 SF AT ROOF
NUMBER OF STORIES/HEIGHT	6 STORIES MAX HEIGHT 86'-4" ABOVE FIN. GRADE 11 STORIES PER TABLE 503
ALLOWABLE HEIGHT	SEPARATION-SEPARATED USE
SEPARATED USE	SEPARATED USE AS INDICATED ON PLANS
SPRINKLERED	WET SUPPLY SYSTEM
FIRST FLOOR AREA	21,825 SF
SECOND FLOOR AREA	21,825 SF
THIRD FLOOR AREA	21,825 SF
FOURTH FLOOR AREA	21,825 SF
FIFTH FLOOR AREA	21,825 SF
SIXTH FLOOR AREA	10,925 SF
GROSS FLOOR AREA	120,521 SF
FIRE ALARM	YES
HIGH FIRE HAZARD SEVERITY ZONE	NO
SEISMIC JOINTS	YES, located at the elevator enclosure
EMERGENCY RESPONDER RADIO COVERAGE	YES

**SUBMITTAL SCHEDULE**

ITEM	DATE
SCHEMATIC DESIGN	04/17/2014
50% PRELIM. DESIGN	05/14/2014
100% PRELIM. DESIGN	05/28/2014
90% CONST. DOCS.	07/02/2014
50% CONST. DOCS.	08/07/2014
100% BACKCHECK	11/10/2014
100% BACKCHECK	01/22/2015
100% BACKCHECK SET 3	03/20/2015
ASH1005	07/27/2015
ASH1007 - SFM RESUB.	07/29/2015
ASH1011 - SFM RESUB.	2/10/2016
ASH1015 - SFM RESUB.	03/03/2016

**OFFICE OF THE STATE FIRE MARSHAL**  
APPROVED FIRE ALARM PLAN  
Reviewed by: *[Signature]* Brian G. O'Brien, SFM

APR 27 2016

Approval of this plan does not constitute an approval of any design or construction not to be inspected. One set of approved plans shall be available on the project site at all times.

**TITLE SHEET / SHEET INDEX**

TS-1



FIRE & LIFE SAFETY NOTES

- 1. ALL INTERIOR FINISHES SHALL CONFORM TO THE REQUIREMENTS OF CHAPTER 8, PART 2, TITLE 24, C.R. ALL FINISHES SHALL HAVE A FLAME SPREAD RATING OF 0-1 AND A SMOKE DENSITY NOT TO EXCEED 400...

ACCESSIBILITY NOTES

- 1. PATH OF TRAVEL (P.O.T.) AS INDICATED BY A BARRIER FREE ACCESS WITHOUT ANY ASRPT VERTICAL CHANGES EXCEEDING 1/2" PER 48" MINIMUM SLOPE...

GENERAL NOTES

- 1. ALL WORK AND MATERIALS SHALL BE IN FULL ACCORDANCE WITH THE REQUIREMENTS OF THE CODES AND ALL APPLICABLE LOCAL ORDINANCES...

ELEVATOR NOTES

- GENERAL: SIZE OF CAB AND CONTROL LOCATIONS ARE REQUIRED TO ACCOMMODATE PERSONS WITH DISABILITIES...

STAR NOTES

- Treads, risers and nosings: Nosing shall have the upper approach and the tread marked by a stripe providing clear visual contrast...

STRUCTURAL NOTES

- 1. PROVIDE ALL TEMPORARY SHORING AND BRACING AS REQUIRED FOR ALL DEMOLITION AND NEW WORK AS REQUIRED...

ELEVATOR NOTES CONT.

ELEVATOR NOTES CONT.

- 1. ALL CONSTRUCTION SHALL COMPLY WITH ACCESSIBILITY REQUIREMENTS AS SET FORTH IN TITLE 24 OF THE CALIFORNIA CODE OF REGULATIONS...

ENVIRONMENTAL SERVICES - REFUSE & RECYCLING/PAVEMENT MARKING NOTES

- CONSTRUCTION AND DEMOLITION: DURING CONSTRUCTION, ALL DEBRIS MUST BE REMOVED FROM THE SITE BY THE CITY'S ONLY APPROVED HAULER...

GENERAL SITE NOTES

- 1. ALL WORK SHALL BE COMPLETED IN ACCORDANCE WITH STATE, FEDERAL AND LOCAL CODES, ORDINANCES, REGULATIONS AND THE CALIFORNIA BUILDING CODE...

MASTER KEYNOTE LIST

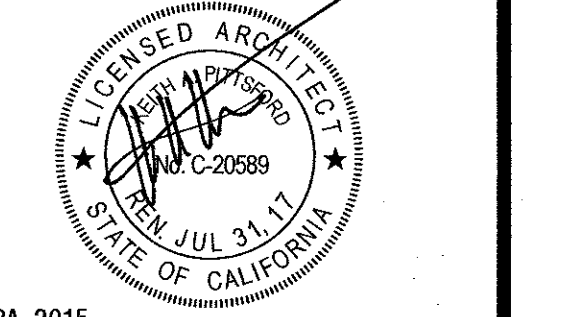
Table with 3 columns: Item Number, Description, and Reference. Includes items like CONCRETE SLAB PER STRUCTURAL, CONCRETE WHEEL STOP REFERENCE, etc.

ABBREVIATIONS

Table with 3 columns: Abbreviation, Full Name, and Notes. Includes AB ANCHOR BOLT, AC ACCESS, ACCT ACCESTRAL, etc.



1545 HOTEL CIR. S. STUDIO 200 SAN DIEGO, CA 92108 (P) 619.297.0131 WWW.SGPA.COM



SGPA 2015 SUNDT CONSTRUCTION SAN DIEGO, CALIFORNIA

SAN DIEGO STATE UNIVERSITY SAN DIEGO, CA

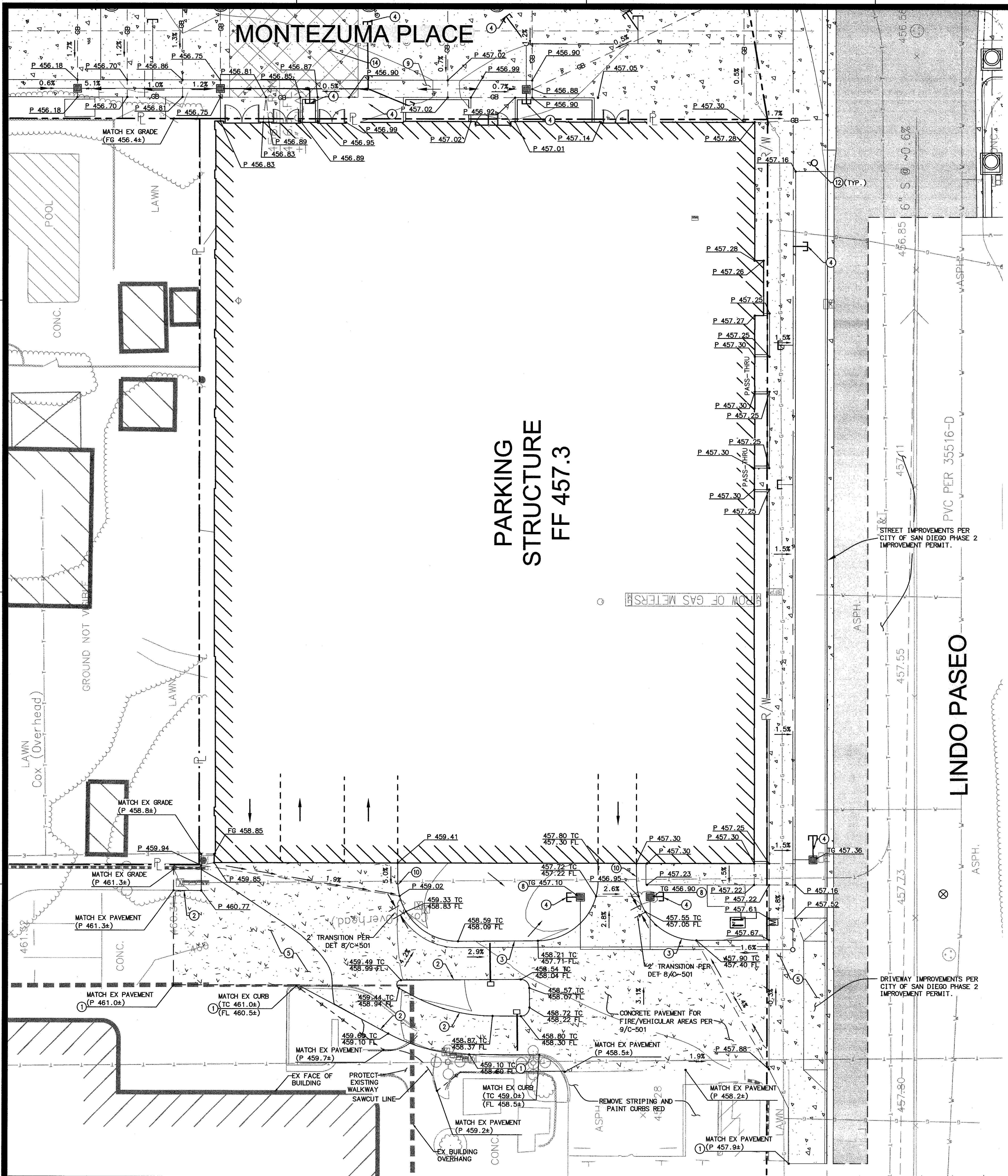
SOUTH CAMPUS PLAZA DESIGN-BUILD STRUCTURE 6500 LINDO PASSED SAN DIEGO STATE UNIVERSITY

SUBMITTAL SCHEDULE: Table with columns for Design Stage, Date, and Description. Includes 50% PRELIM. DESIGN, 100% PRELIM. DESIGN, etc.

GENERAL NOTES / KEYNOTES TS-2



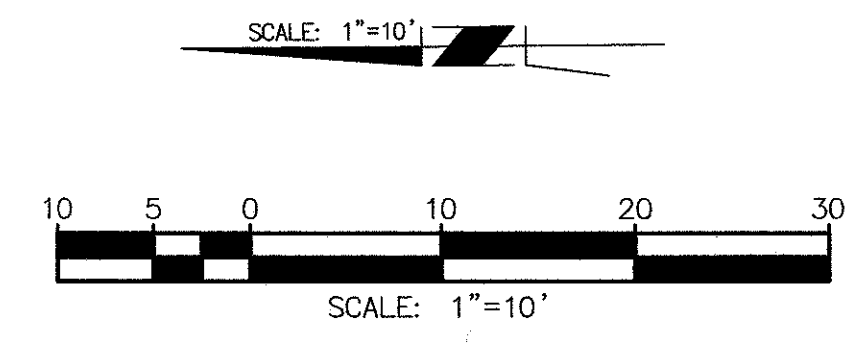
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**GRADING CONSTRUCTION NOTES**

- ① MATCH EX CURB OR CONCRETE PER DET 3/C-501
- ② CONSTRUCT 6" CURB PER DET 4/C-501
- ③ CONSTRUCT 6" CURB AND GUTTER PER 5/C-501
- ④ PROVIDE STUB FOR CONNECTION TO LANDSCAPE SUBRAIN
- ⑤ CONCRETE PAVING TYPE PER LANDSCAPE SHEETS L101 THROUGH L108 AND DETAILS PER L301
- ⑥ WET UTILITY SYSTEM PER SHEETS C-300 THROUGH C-304
- ⑦ RIBBON GUTTER PER DET 2/C-501
- ⑧ CONSTRUCT 0" CURB PER DET 6/C-501
- ⑨ LIGHTING PER LANDSCAPE ARCHITECTURAL SHEETS L209 THROUGH L214
- ⑩ LOADING ZONE. CONCRETE PAVING PER LANDSCAPE SHEETS L101 THROUGH L108 AND DETAILS PER L301

SEE SHEET C-200 FOR LEGEND



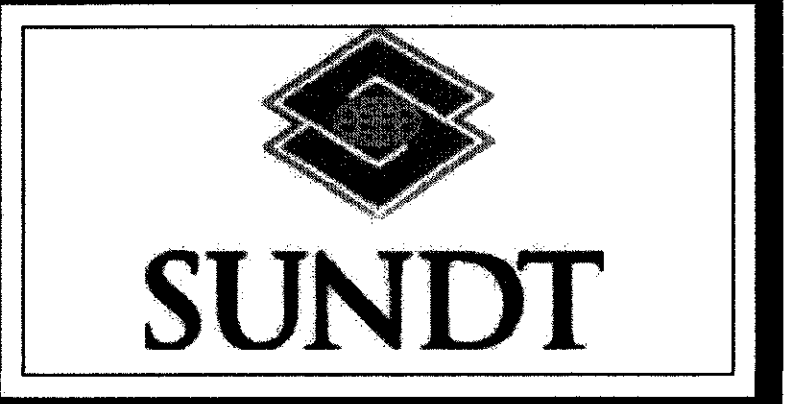
OFFICE OF THE STATE FIRE MARSHAL  
 APPROVED FIRE DEPARTMENT ONLY  
 Reviewed by: [Signature]  
 APR 27 2016  
 Approval of this plan does not authorize or assume any contractor or consultant from application regulations. Final approval is subject to field inspection. One set of approved plans shall be available on the project site at all times.



ENGINEER OF WORK  
 Timothy R. Thiele, R.C.E. 03/03/16  
 DATE EXP. 6-30-16

**SOUTH CAMPUS PLAZA**  
 SAN DIEGO STATE UNIVERSITY  
 5104 COLLEGE AVENUE  
 CIVIL / LANDSCAPE PACKAGE

**SAN DIEGO STATE UNIVERSITY**



REVISIONS		
DESCRIPTION	DATE	
▲ 100% PD	5/21/14	
▲ 50% CD	7/2/14	
▲ 95% CD	7/31/14	
▲ 100% CD BACKCHECK	11/10/14	
▲ 100% CD BACKCHECK SET #2	1/29/15	
▲ 100% CD BACKCHECK SET #3	3/20/15	
▲ DSA BACK CHECK SET	6/15/15	
▲ SFM RESUBMITTAL #3	3/03/16	

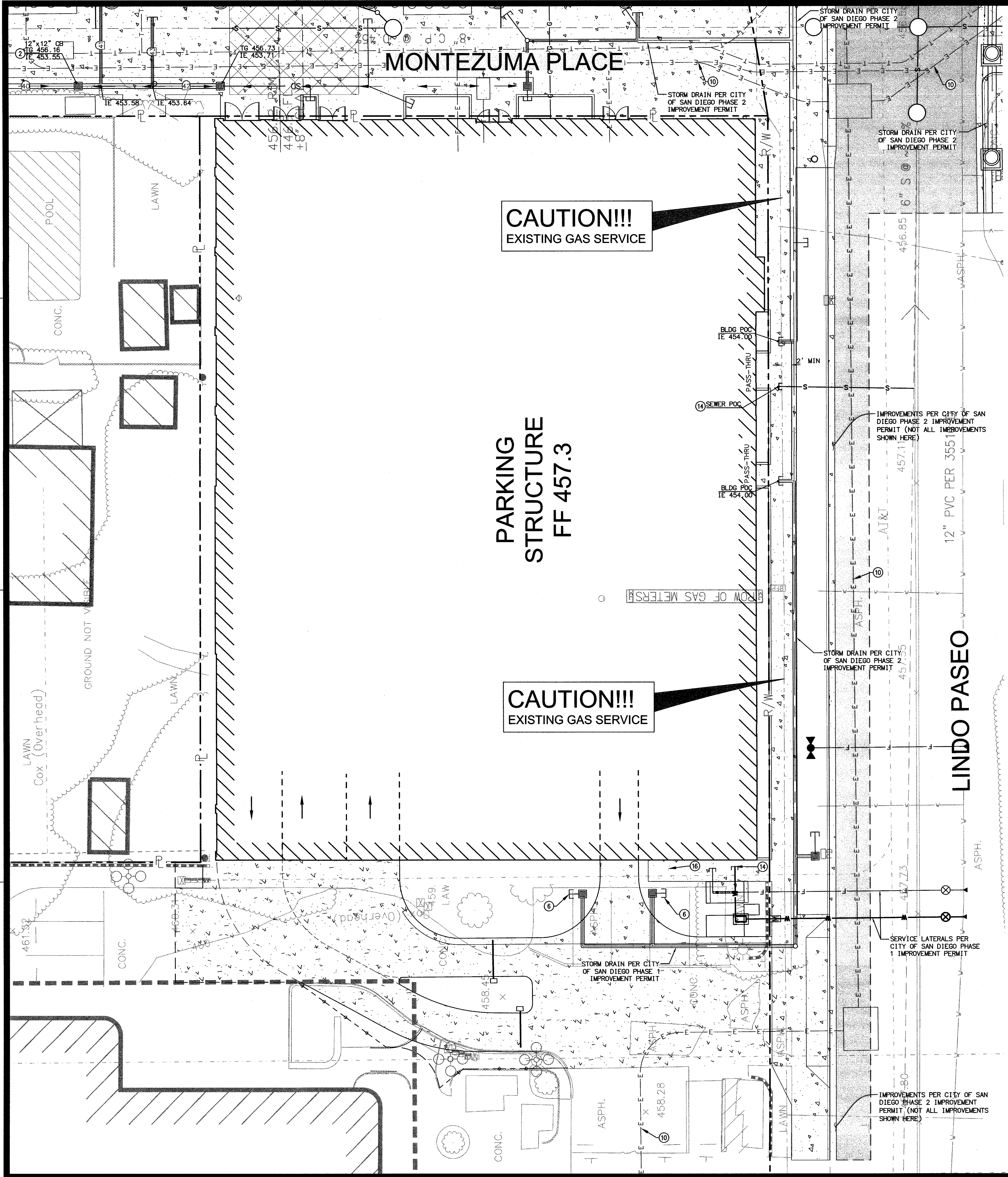
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**GRADING AND DRAINAGE PLAN**  
**BUILDING 3**

**SHEET NUMBER**  
**C-204**



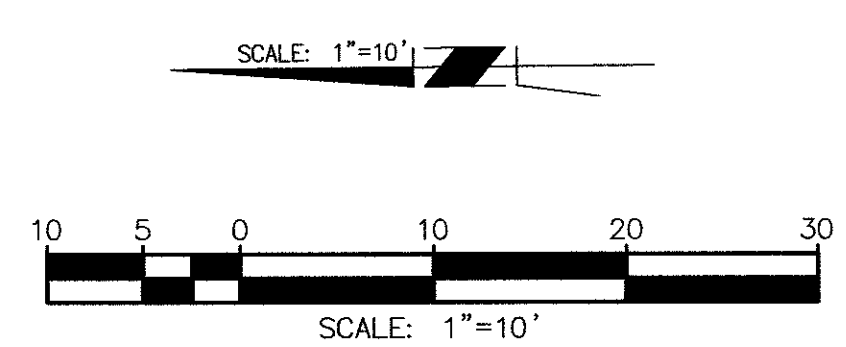


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- WET UTILITY CONSTRUCTION NOTES**
- (2) INSTALL PRECAST CONCRETE CATCH BASIN PER DET 2/C-503
  - (6) STORM DRAIN STUB FOR PLANTER SUBDRAINS PER LANDSCAPE PLANS AND WALL FOOTING SUBDRAINS PER STRUCTURAL PLANS.
  - (10) PROPOSED DRY UTILITY SHOWN FOR REFERENCE ONLY
  - (H) REFERENCE PLUMBING PLANS AND CITY PHASE 1 PLANS FOR POINT OF CONNECTION.
  - (16) REFERENCE FIRE SITE PLAN FOR CONTINUATION OF BUILDING POINT OF CONNECTION.

SEE SHEET C-300 FOR LEGEND, CONSTRUCTION NOTES, AND UTILITY DATA TABLES



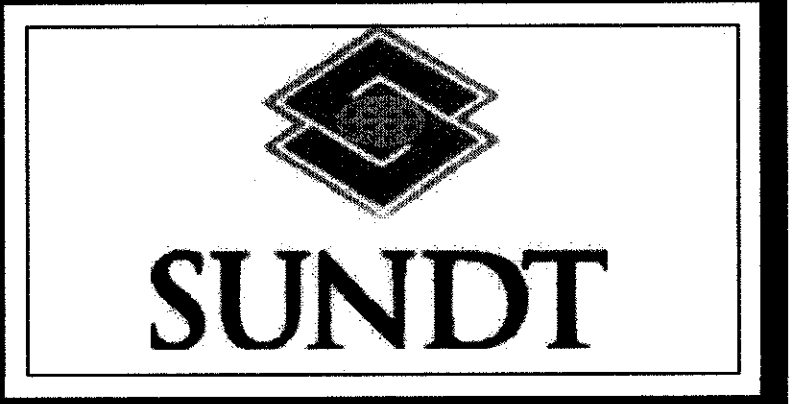
OFFICE OF THE STATE FIRE MARSHAL  
 APPROVED FIRE AND PLUMBING DRAWING  
 Reviewed by: *Bradley Goodrich, USFM*  
 APR 27 2016  
 Approval of this plan does not authorize or approve any omission or deviation from applicable regulations. Final approval is subject to field inspection. One set of approved plans shall be available on the project site at all times.



ENGINEER OF WORK  
*Timothy R. Threlle*  
 03/03/16  
 SCALE: 1\"/>

**SOUTH CAMPUS PLAZA**  
 SAN DIEGO STATE UNIVERSITY  
 916 COLLEGE AVENUE  
 CIVIL / LANDSCAPE PACKAGE

**SAN DIEGO STATE UNIVERSITY**



**REVISIONS**

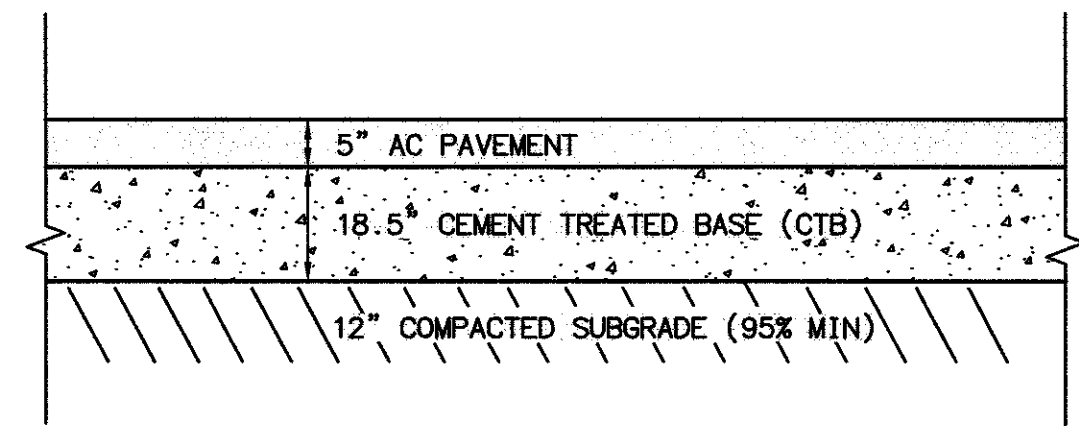
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▲ 100% CD BACKCHECK SET #3	3/20/15
▲ DSA BACK CHECK SET	6/15/15
▲ SFM RESUBMITTAL #3	3/03/16

**SHEET TITLE**  
**WET UTILITY PLAN**  
**BUILDING 3**

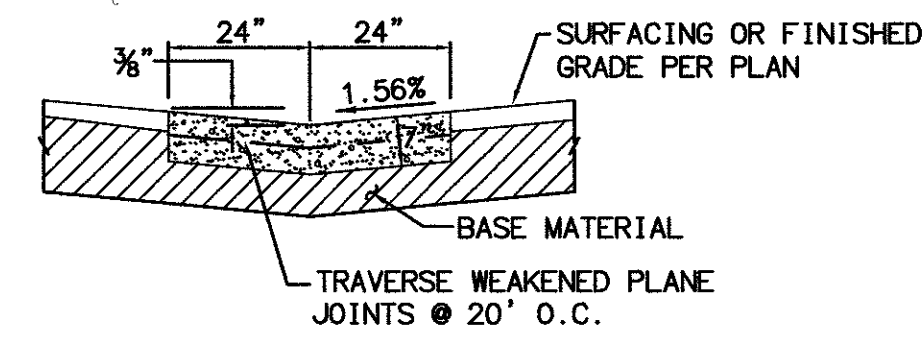
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**C-304**

**RBF CONSULTING**  
 A Baker Company

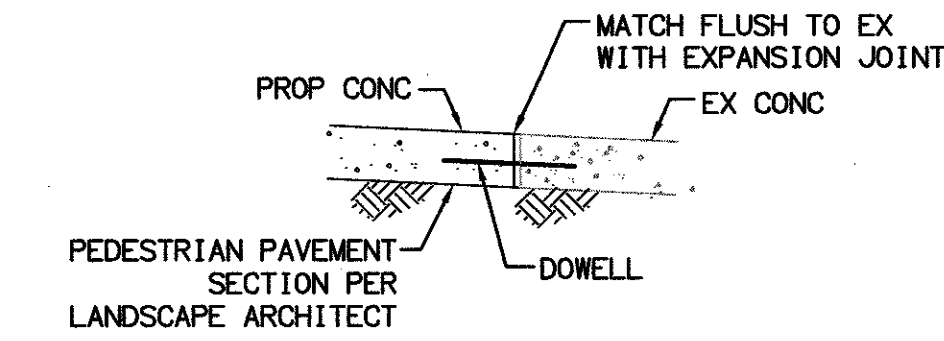




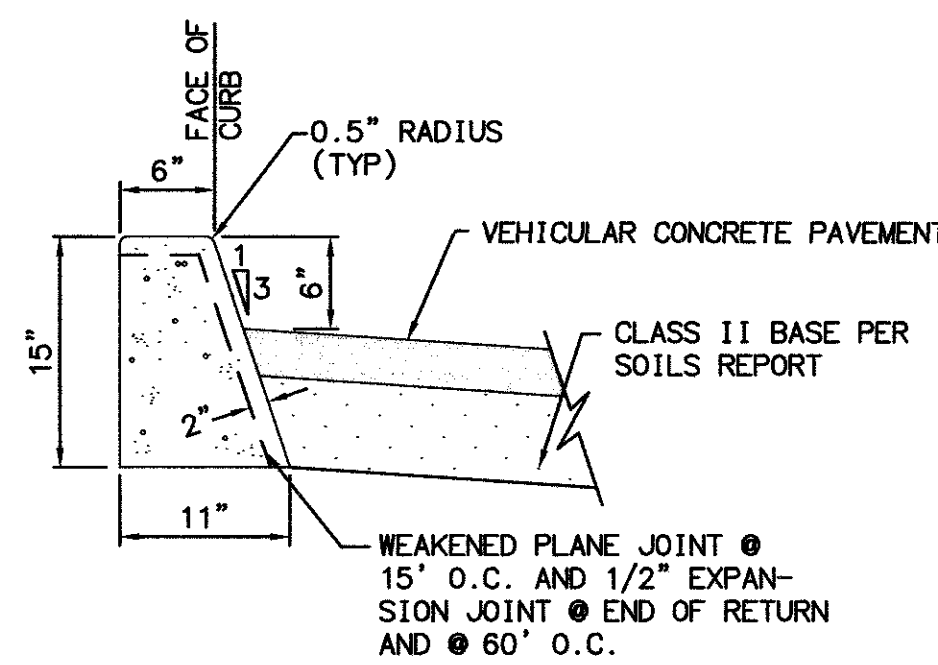
1  
C-501  
DETAIL  
AC PAVEMENT SECTION  
N.T.S.



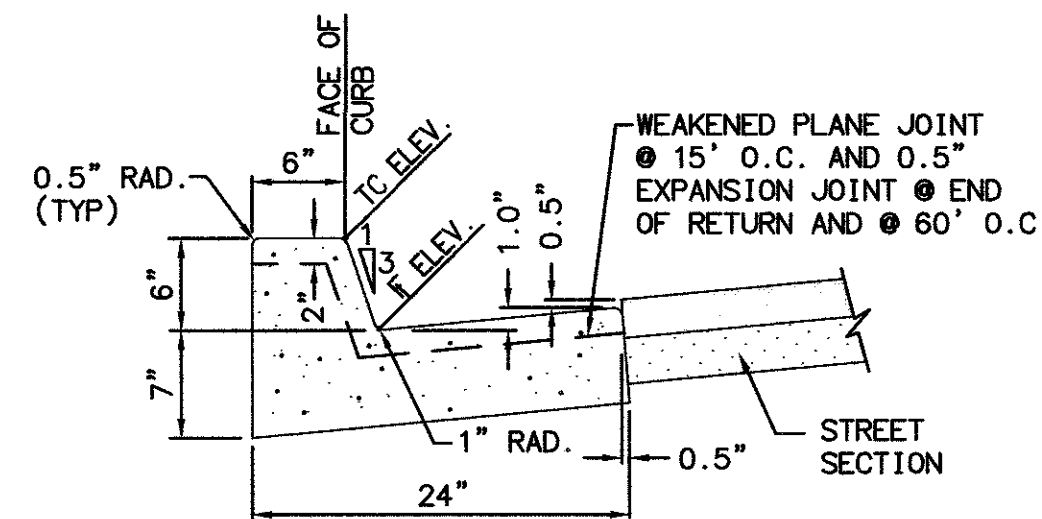
2  
C-501  
DETAIL  
RIBBON GUTTER  
N.T.S.



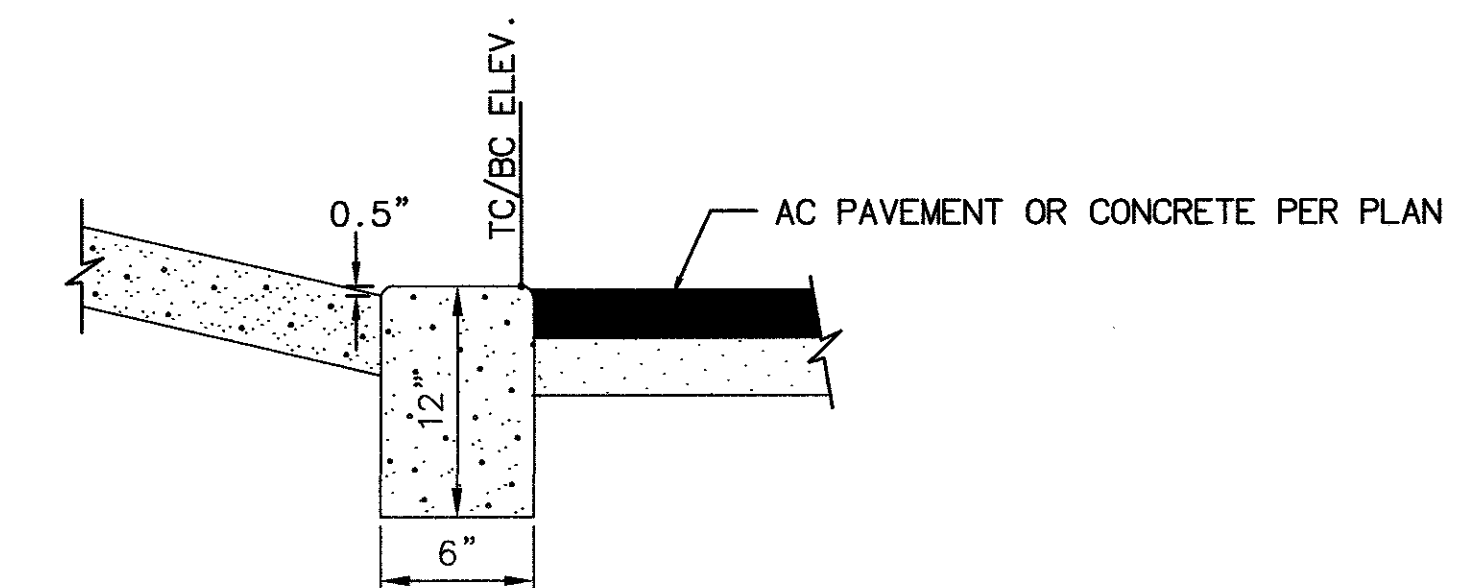
3  
C-501  
DETAIL  
EXISTING TO PROPOSED SIDEWALK  
N.T.S.



4  
C-501  
DETAIL  
6" CURB  
N.T.S.

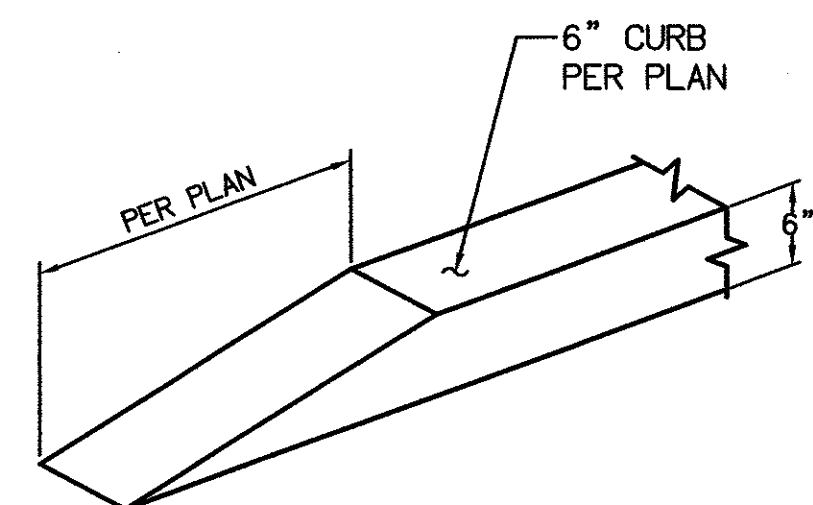


5  
C-501  
DETAIL  
6" CURB AND GUTTER  
N.T.S.

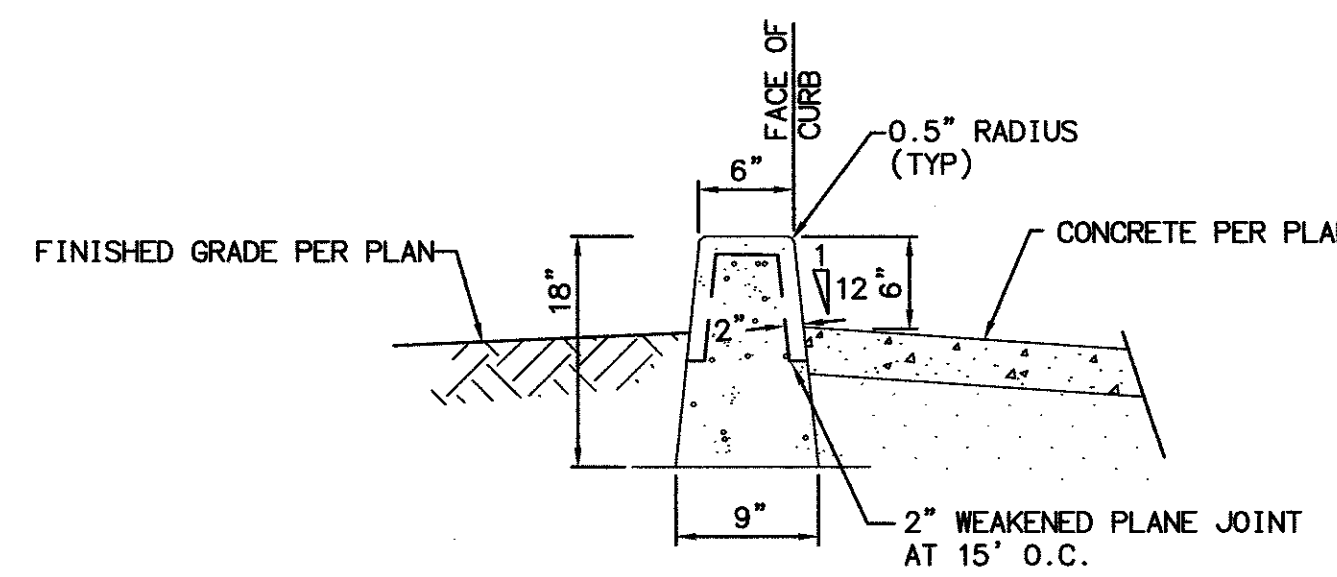


6  
C-501  
DETAIL  
0" CONCRETE CURB  
N.T.S.

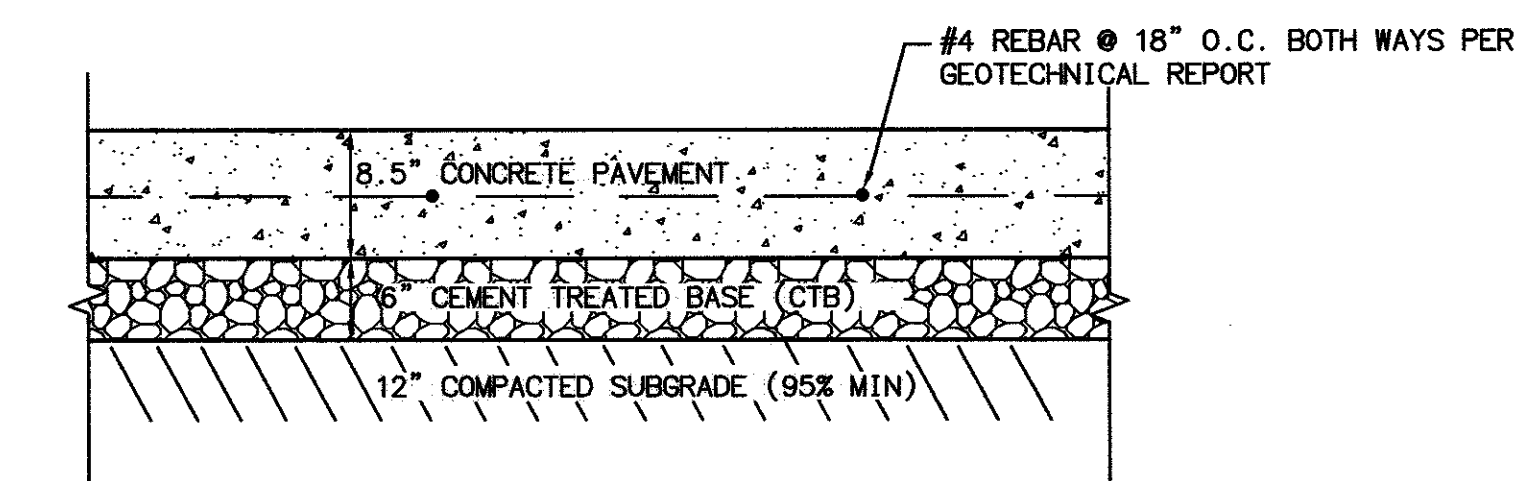
NOTES:  
1. CONCRETE SHALL BE 520-C-2500.  
2. SLOPE TOP OF CURB 1/4" PER FOOT IN DIRECTION OF FLOW.



7  
C-501  
DETAIL  
6" TO 0" CURB TRANSITION  
N.T.S.



8  
C-501  
DETAIL  
6" FREESTANDING CURB  
N.T.S.



9  
C-501  
DETAIL  
CONCRETE PAVEMENT IN FIRE/VEHICULAR AREAS  
N.T.S.

OFFICE OF THE STATE FERRY MARSHAL  
APPROVED FERRY AND PANIC CHS  
Reviewed by: *Brady Goodrich, USFM*

APR 27 2016

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ENGINEER OF WORK  
*Timothy M. Threlle* 03/03/16  
TIMOTHY M. THRELLE, R.C.E. 00283 DATE  
EXP. 6-30-16

REVISIONS		
DESCRIPTION	DATE	
100% PD	5/21/14	
50% CD	7/2/14	
95% CD	7/31/14	
100% CD BACKCHECK	11/10/14	
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100% CD BACKCHECK SET #3	3/20/15	
DSA BACK CHECK SET	6/15/15	
SFM RESUBMITTAL #3	3/03/16	

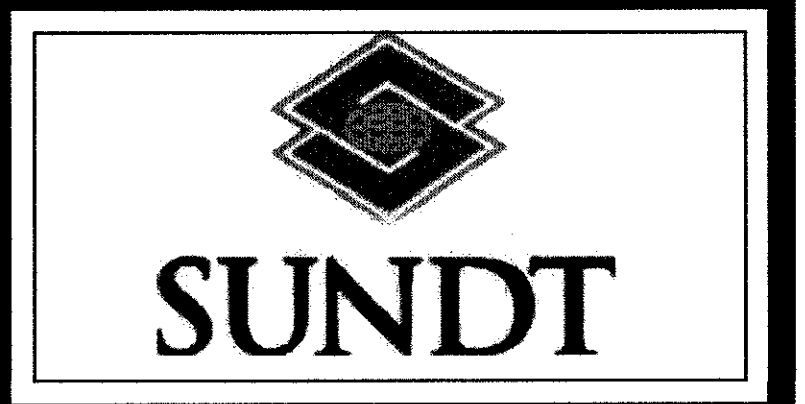
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**DETAILS**

SHEET NUMBER  
**C-501**



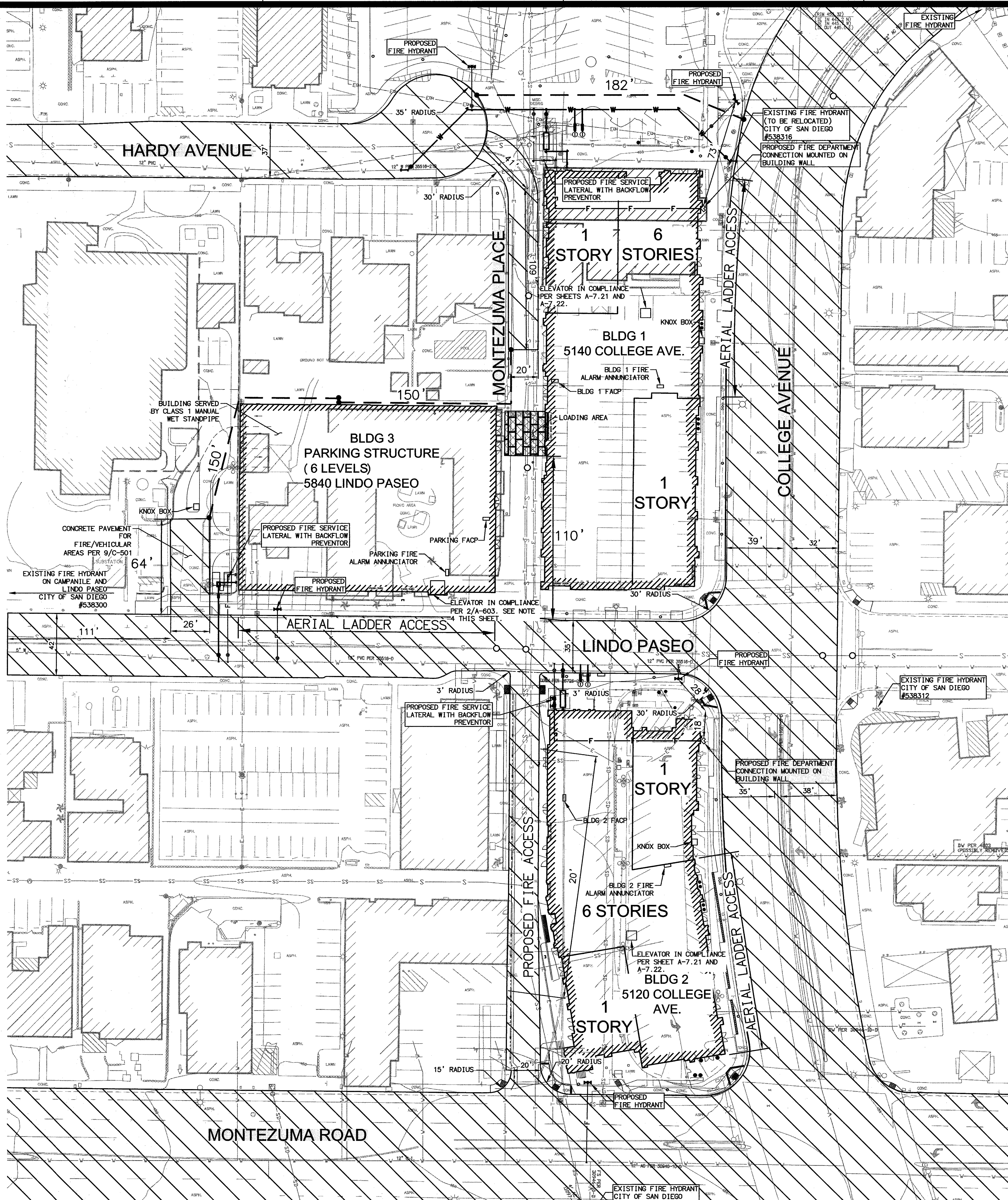
**SOUTH CAMPUS PLAZA**  
SAN DIEGO STATE UNIVERSITY  
5166 COLLEGE AVENUE  
CIVIL / LANDSCAPE PACKAGE

**SAN DIEGO STATE UNIVERSITY**





FILE NAME: H:\PDATA\139419\CADD\Lana\139419-FS-01-Building\_3.dwg LAYOUT NAME: Layout1 PLOTTED: Thursday, April 07, 2016 11:46am USER: Amado.Carpent

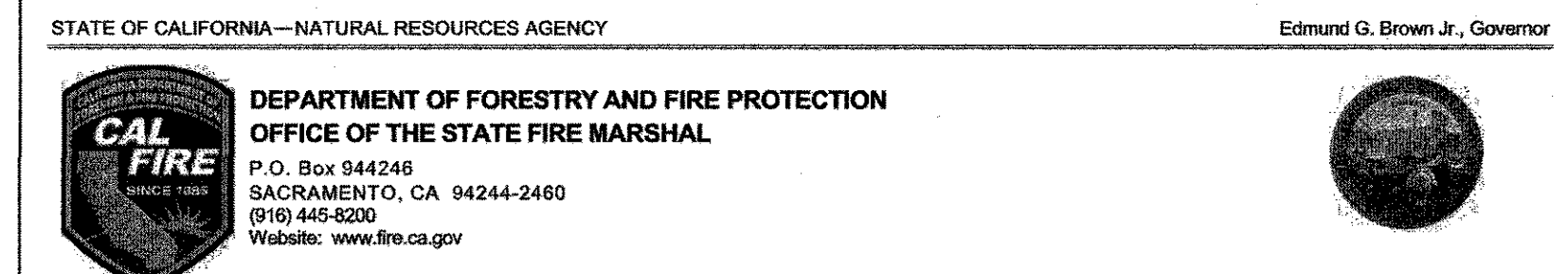


**LEGEND**

ITEM	SYMBOL
PROPOSED FIRE ACCESS	[Symbol]
HOSE PULL LENGTH	[Symbol]
FIRE HYDRANT COVERAGE AREA	[Symbol]
PROPOSED BUILDING	[Symbol]
PROP WATER MAIN	[Symbol]
PROP FIRE SERVICE	[Symbol]
PROPOSED BACKFLOW PREVENTOR	[Symbol]
PROPOSED FIRE HYDRANT	[Symbol]
EX WATER	[Symbol]
EX FIRE HYDRANT	[Symbol]
EXISTING BUILDING	[Symbol]

- NOTE:**
- NO 2-1/2" FIRE DEPARTMENT HOSE VALVES REQUIRED AT GROUND FLOOR PER SAN DIEGO FIRE DEPARTMENT
  - PIPE TRENCH PER SDG-107/108 AND DETAIL 7/C-5013.
  - FIRE UNDERGROUND PIPE INSTALLATION BY SHELDON SITE UTILITIES, LICENSE A-835147.
  - ELEVATOR IS DESIGNED IN ACCORDANCE WITH LFA 3002.4.3A. THE CLEAR DISTANCE BETWEEN WALLS OF ELEVATOR CAB IS NOT LESS THAN 80" X 54" WITH SLIDE DOOR OF 42". SEE DETAIL 2/A-603 FOR ACTUAL DIMENSIONS. ELEVATOR IS DESIGNATED WITH A STAR OF LIFE PERMANENTLY ATTACHED TO THE SIDE OF THE HOISTWAY DOOR FRAME PER LFA 3002.4A.
  - SEE SHEETS C-611 AND C-612 FOR HYDRANT FLOW REQUEST FORMS

**FIRE FLOW INFORMATION-PARKING STRUCTURE**  
 SEE HYDRANT FIRE FLOW GRAPH ON C-610.  
 CONSTRUCTION TYPE: TYPE IB  
 SQUARE FOOTAGE: 21,823 SF  
 REQUIRED HYDRANT FIRE FLOW (TABLE B105.1): 1,500 GPM (TYPE IB, 0-22,700 SF-B104.3 EXCEPTION)  
 REQUIRED FIRE FLOW FOR CLASS 1 MANUAL WET STANDPIPE: 750 GPM  
 TOTAL REQUIRED FIRE FLOW: 2,250 GPM  
 PROVIDED FIRE FLOW: 4,594 GPM - COMPLIANT WATER SUPPLY CONFIRMED BY CITY. SEE DOCUMENTATION ON C-610, C-611, AND C-612.  
 SEE MANUAL WET STANDPIPE FIRE FLOW GRAPH BELOW  
 NO. OF HYDRANTS REQUIRED (TABLE OC105.1): 2 REQUIRED, 2 PROVIDED  
 AVERAGE HYDRANT SPACING (TABLE OC105.1): 450-FT REQUIRED, 275-FT PROVIDED



**LOCAL FIRE AUTHORITY - ACCESS APPROVAL**

Project: SDSU SOUTH CAMPUS PLAZA  
 Address: 5840 LINDO PASEO, SAN DIEGO (PARKING STRUCTURE)  
 CSFM File Number: \_\_\_\_\_ DGS Project #: \_\_\_\_\_  
 (Only if applicable) (Only if applicable)

Pursuant to Title 19, California Code of Regulations, Article 3, Section 3.05, Fire Department Access and Egress, it is necessary to provide the California State Fire Marshal with written certification from the local fire authority that the above section is being met to their satisfaction.

Please return this form with all sections filled in completely. Without this form, California State Fire Marshal approval may be delayed. If you have any questions, please contact the California State Fire Marshal Plan Review Unit at (916) 445-8550.

The local fire authority shall consider the following items,

Approved	Yes	No
Fire Department Access	[initials]	[initials]
Fire Department Connection	[initials]	[initials]
Fire Hydrant	[initials]	[initials]
Fire Alarm Annunciator	[initials]	[initials]
Fire Alarm Control Panel	[initials]	[initials]
Knox Box	[initials]	[initials]
Emergency Responder Radio Coverage	[initials]	[initials]

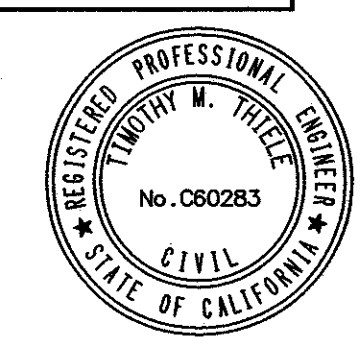
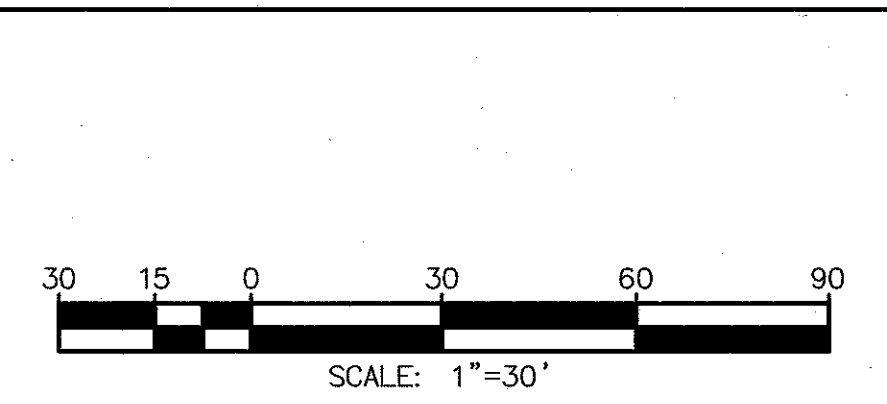
Local Fire Authority: San Diego Fire Rescue  
 Address: 106 2nd Ave Ste 200  
 City/State/ZIP: San Diego, CA 92101  
 Approval issued by: B. Sullivan  
 Rank/Title: Deputy Fire Marshal  
 Phone Number: 619 437 4111  
 Signature: [Signature] Date: 4/7/16

\* Only sign this form when it is imaged onto the site plan. A loose form is not acceptable.

"The Department of Forestry and Fire Protection serves and safeguards the people and protects the property and resources of California."

**CONTRACTOR NOTES**

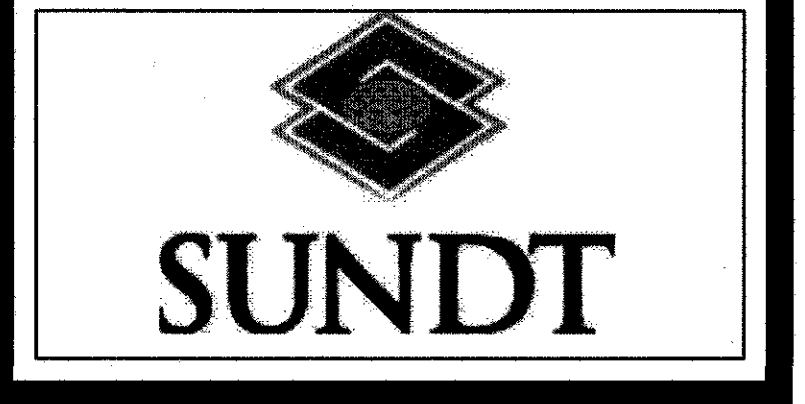
- REFERENCE CITY IMPROVEMENT PLANS FOR DEPTHS OF PROPOSED FIRE SERVICE LINES (EXISTING PIPE ASSUMED 3" DEEP). MINIMUM COVER SHALL BE 3'-0" IN TRAFFIC ZONES, 2'-6" IN PEDESTRIAN ZONES.
- REFERENCE PLUMBING PLANS FOR SPRINKLERS AND STANDPIPE RISERS AT AND INSIDE BUILDINGS.
- PLACE FIRE DEPARTMENT CONNECTIONS NO FURTHER THAN 40' FROM A FIRE ACCESS ROADWAY.
- PROPOSED FIRE SERVICE LINES AND STRUCTURES SHOWN FOR REFERENCE ONLY. REFERENCE UTILITY PLANS FOR PROPOSED UTILITY DESIGN.
- PROPOSED FIRE HYDRANTS SHALL HAVE INDIVIDUALLY VALVED PORTS, ONE 2-1/2" AND TWO 4" FOR ALL OCCUPANCIES EXCEPT R-3.
- PROPOSED FIRE HYDRANTS SHALL HAVE A SHUT-OFF VALVE LOCATED NO CLOSER THAN 5' FROM THE HYDRANT, AND NO FURTHER THAN 20'.



ENGINEER OF WORK  
 TIMOTHY H. THRELLE, P.E., No. 050283 DATE  
 EXP. 6-30-16

**SOUTH CAMPUS PLAZA**  
 SAN DIEGO STATE UNIVERSITY  
 5164 COLLEGE AVENUE  
**CIVIL / LANDSCAPE PACKAGE**

**SAN DIEGO STATE UNIVERSITY**



**REVISIONS**

DESCRIPTION	DATE
100% PD	5/21/14
50% CD	7/2/14
95% CD	7/31/14
100% CD BACKCHECK	11/10/14
100% CD BACKCHECK SET #2	1/29/15
100% CD BACKCHECK SET #3	3/20/15
DSA BACK CHECK SET	6/15/15
SFM RESUBMITTAL #3	3/03/16

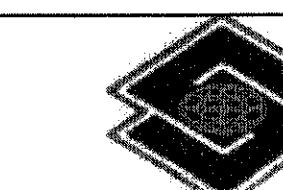
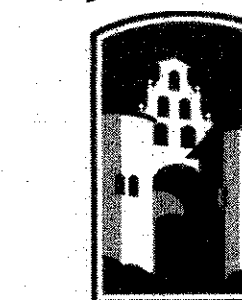
**SHEET TITLE**  
**FIRE SITE PLAN**

**SHEET NUMBER**  
**C-600**

JOB NO. 139419  
 DATE 3/03/16  
 SCALE As indicated

**RBF CONSULTING**  
 A Baker Company





**SUNDT**

SHEET FOR REFERENCE ONLY.  
 SEE APPROVED CITY PLAN.

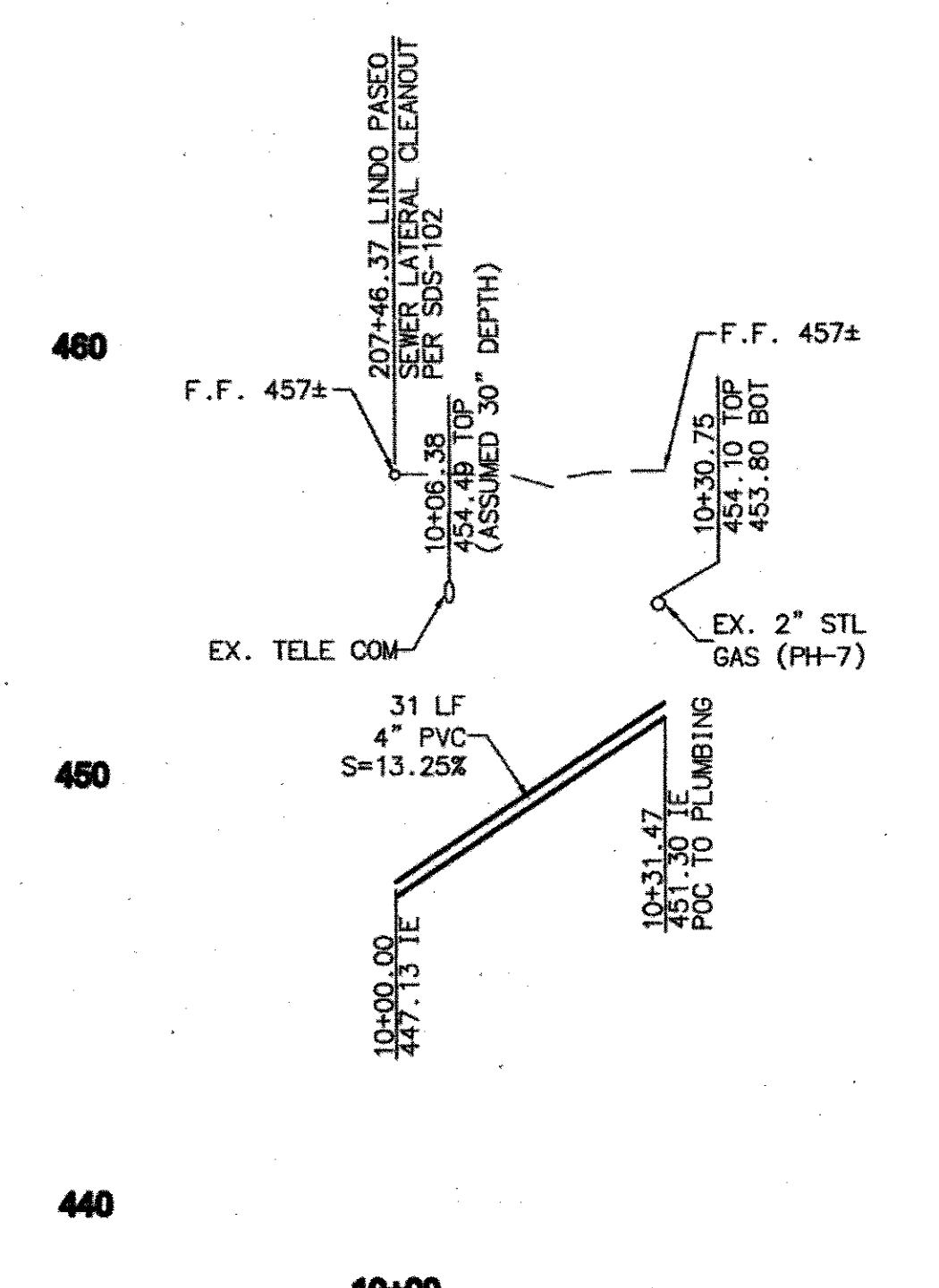
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▲	50% CD	7/2/14
▲	95% CD	7/31/14
▲	100% CD BACKCHECK	11/10/14
▲	100% CD BACKCHECK SET #2	1/29/15
▲	100% CD BACKCHECK SET #3	3/20/15
▲	DSA BACK CHECK SET	6/15/15
▲	SFM RESUBMITTAL #3	3/03/16

**SHEET TITLE**  
**CITY IMPROVEMENT PLAN**

**SHEET NUMBER**  
**C-605**



**RBF CONSULTING**  
 A Baker Company



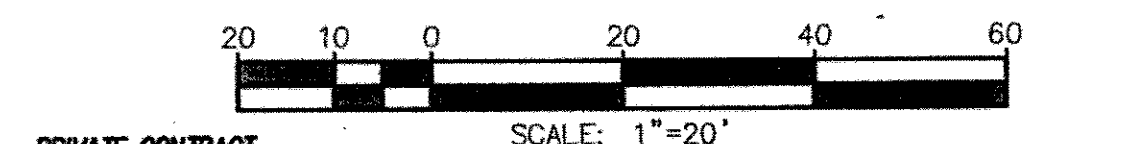
**PROFILE**  
**207+46.37 - 8" SEWER LAT.**  
 SCALE: HORIZ. 1"=20'  
 VERT. 1"=4'

ID	BEARINGS/Delta	RADIUS	LENGTH	NOTE
1	N 01°23'08" E	---	31.47'	8" SDR-35 PVC

ID	BEARINGS/Delta	RADIUS	LENGTH	NOTE
1	N 00°00'00" W	---	50.50'	2" PVC C305
2	N 00°00'00" E	---	1.74'	2" PVC C305
3	N 90°00'00" E	---	10.77'	2" PVC C305
4	N 00°00'00" E	---	1.66'	2" PVC C305
5	N 90°00'00" E	---	1.50'	2" PVC C305
6	N 00°00'52" E	---	51.69'	6" PVC C305
7	N 00°00'00" E	---	11.21'	6" PVC C305
8	N 90°00'00" W	---	5.64'	6" PVC C305
9	N 00°00'00" E	---	22.35'	6" PVC C305
10	N 00°00'00" E	---	1.73'	6" PVC C305
11	N 00°01'05" E	---	17.62'	4" PVC C305
12	N 00°00'00" E	---	1.71'	4" PVC C305
13	N 00°59'48" E	---	5.80'	6" C-900 PVC
14	N 00°00'56" E	---	35.50'	6" C-900 PVC

**CONSTRUCTION NOTES**

- SAWCUT LINE
- TRENCH RESURFACING PER SDG-107/108 AND AC GRIND AND OVERLAY 50' AROUND PERIMETER OF TRENCH.
- 8" SEWER LATERAL
- CONNECT TO BUILDING SEWER.
- CONNECT TO EXISTING SEWER MAIN.
- SEWER LATERAL PER SDS 105 AND SEWER LATERAL CLEANOUT (IN PAVED ALLEY, SIDEWALK OR OTHER AREAS SUBJECT TO TRAFFIC) PER SDS-102.
- EXISTING SEWER LATERAL
- EXISTING GAS LINE TO BE REMOVED (BY OTHERS)
- FIRE SERVICE WITH PVT, 6" BACKFLOW PREVENTION ASSEMBLY (RPDA) TYPE WITH TAMPER SWITCHES, TYP. PER DW-105 AND SDW-118.
- WATER SERVICE WITH 2-3" METERS.
- 3" BACKFLOW PREVENTION ASSEMBLY (PR TYPE), LINKS MODEL 475 OR APPROVED EQUAL PER SDW-119. (VT). \*\*EMRA ITEM No. 16\*\*
- IRRIGATION SERVICE WITH A 1" METER AND BACKFLOW PREVENTION ASSEMBLY (PVT), RP TYPE PER SDW-149.
- FIRE HYDRANT ASSEMBLY PER SDW-104.
- CONCRETE THRUST BLOCK AND ANCHOR BLOCK PER SDW-151.
- WATER SERVICE
- 1.5" METER WITH DUAL BACKFLOW PREVENTION ASSEMBLY IN UNDERGROUND VAULT PER SDW-140.
- FIRE DEPARTMENT CONNECTION WITH TAMPER SWITCHES ON BACKFLOW PREVENTION DEVICE.
- TRENCH RESURFACING PER SDG-107/108 AND AC GRIND AND OVERLAY 144' AROUND PERIMETER OF TRENCH.



PRIVATE CONTRACT  
**UTILITY PLAN FOR:**  
**SDSU SOUTH CAMPUS PLAZA, PHASE 1**  
**LINDO PASEO**  
**STA 205+50 TO 209+50**

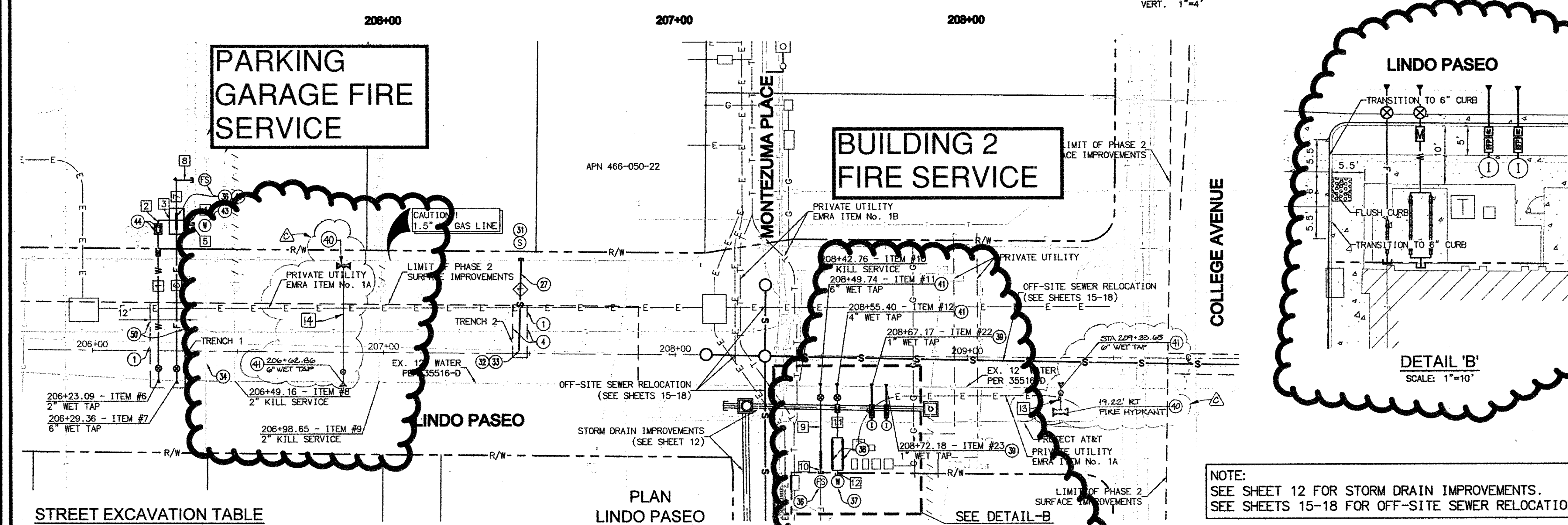
CITY OF SAN DIEGO, CALIFORNIA SHEET 14 OF 13 SHEETS		I.O. NO. 24004759
PROJECT NO. 373872		V.T.M.
FOR CITY ENGINEER	DATE	4/30/15
DESCRIPTION	BY	APPROVED
DATE	FILED	
AS-BUILTS	DATE STARTED	DATE COMPLETED
CONTRACTOR	38167-14-D	
INSPECTOR		

OFFICE OF THE STATE FIRE MARSHAL  
 APPROVED FIRE AND PUBLIC SAFETY  
 REVIEWED BY: [Signature]

APR 27 2016



**ENGINEER OF WORK**  
 TIMOTHY W. THIELE, R.C.E. 60283 DATE  
 EXP. 6-30-16



**STREET EXCAVATION TABLE**

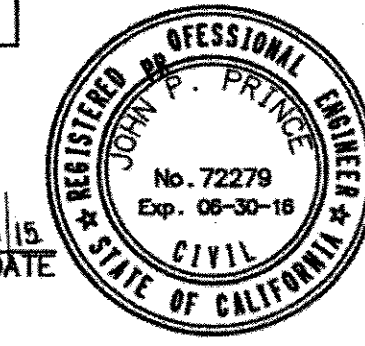
STREET NAME (TRENCH #)	STREET CLASSIFICATION (ARTERIAL, MAJOR, COLLECTOR, RESIDENTIAL)	UTILITY TYPE (WET OR DRY)	LATERAL OR MAIN	STREET SERVICE AGE (YRS)	INFLUENCE AREA WIDTH (FT) PER MC 62.1208	TRENCH WIDTH (FT)	TRENCH LENGTH (FT)
LINDO PASEO (TRENCH 1)	2-LANE COLLECTOR	WET	MAIN	4	6.8	12	30
LINDO PASEO (TRENCH 2)	2-LANE COLLECTOR	WET	MAIN	4	6.8	5	18

ID	CENTERLINE STATION	I.E. MAIN	DROP TO MAIN(RISE)	I.E. P	SLOPE (2% MIN)	TOP OF CURB ELEVATION	DEPTH BELOW TC @ P	I.E. BELOW TOP OF TC	DISTANCE TO T.C.	T.C. TO P	STREET	I.E. BLDG POC
1	207+46.66	447.13	2.92'	451.30	12.48%	(456.88)	N/A	449.52	19.26'	33.39'	LINDO PASEO	451.30



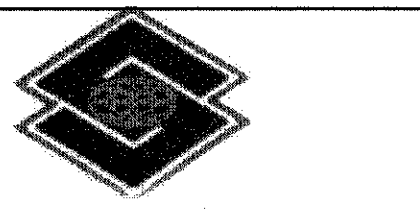
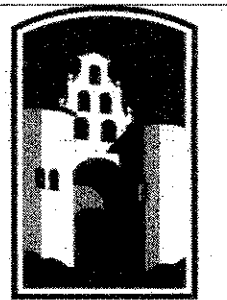
9785 CLAIREMONT MESA BOULEVARD, SUITE 100  
 SAN DIEGO, CALIFORNIA 92124-1324  
 658.614.8200 • FAX 658.614.5001 • www.RBF.com

**ENGINEER OF WORK:**  
 JOHN P. PRINCE, R.C.E. 72279 DATE  
 EXP. 06/30/16



▲ ADDED FIRE HYDRANT, SHIFTED FIRE HYDRANT.





IDENTIFICATION STAMP  
DIV. OF THE STATE ARCHITECT  
OFFICE OF REGULATION SERVICES  
04-113889  
AC FLS SS  
DATE

REVISIONS	DESCRIPTION	DATE
▲	100% PD	5/21/14
▲	50% CD	7/2/14
▲	85% CD	7/31/14
▲	100% CD BACKCHECK	11/10/14
▲	100% CD BACKCHECK SET #2	1/29/15
▲	100% CD BACKCHECK SET #3	3/20/15
▲	DSA BACK CHECK SET	6/15/15
▲	SFM RESUBMITTAL #3	3/03/16

SHEET TITLE  
**CITY STANDARD DETAILS**

SHEET NUMBER  
**C-606**

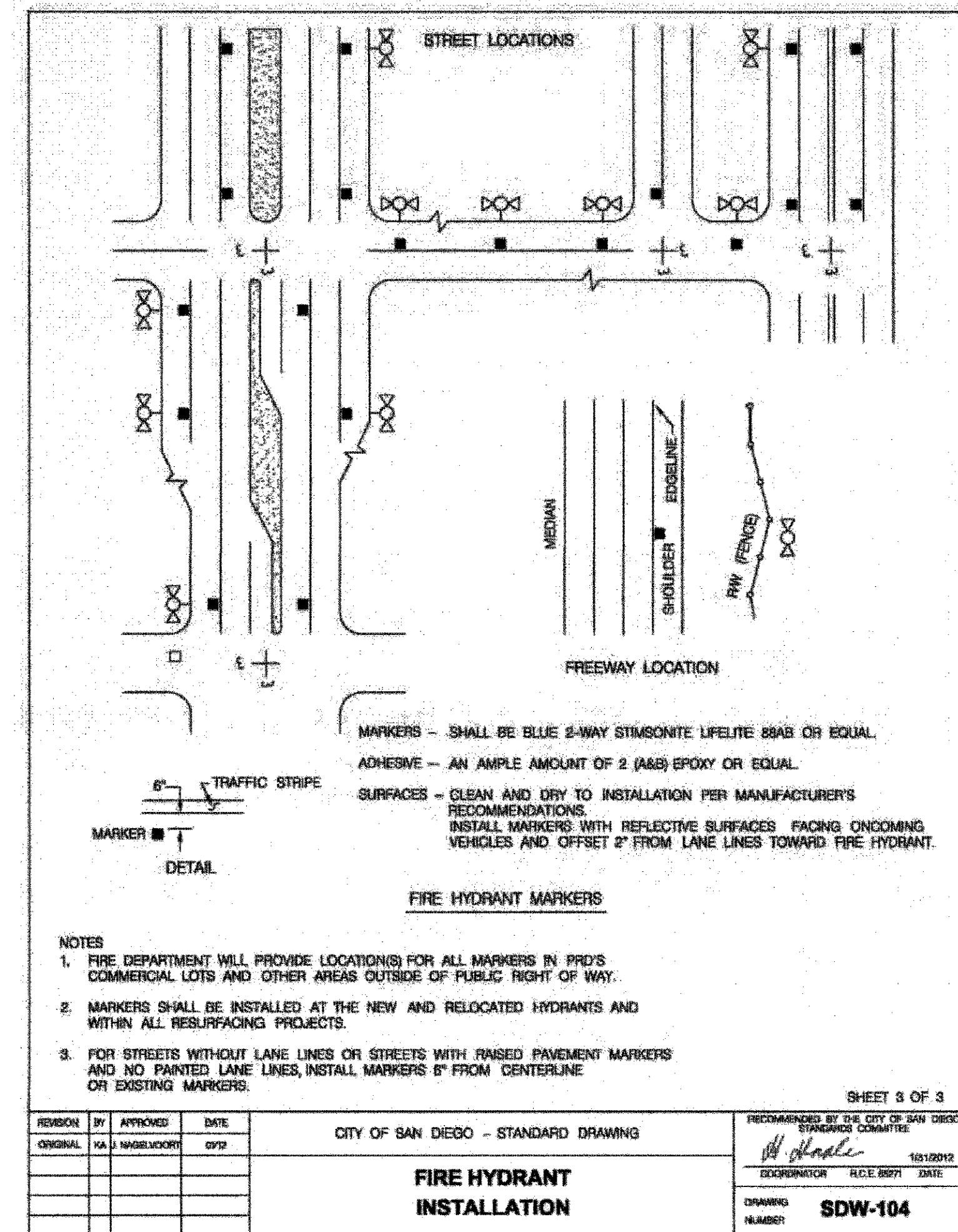
OFFICE OF THE STATE FIRE MARSHAL  
APPROVED FIRE ALARM PLAN ONLY  
Reviewed by: *[Signature]*  
Stanley G. Baker, DCFM

APR 27 2016

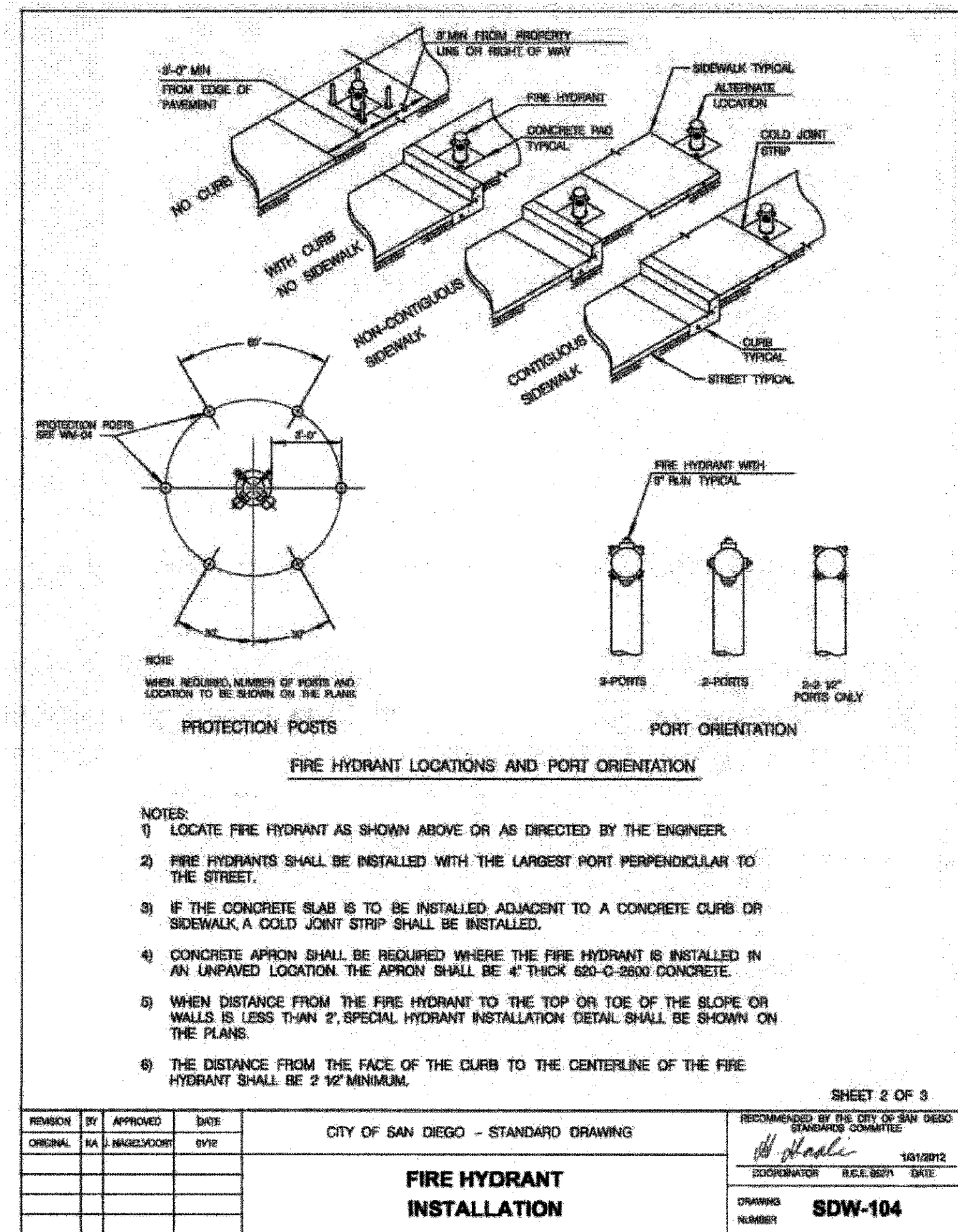
Approval of this plan does not authorize or approve any construction or deviation from applicable regulations. Final approval is subject to field inspection. One set of approved plans shall be available on the project site at all times.



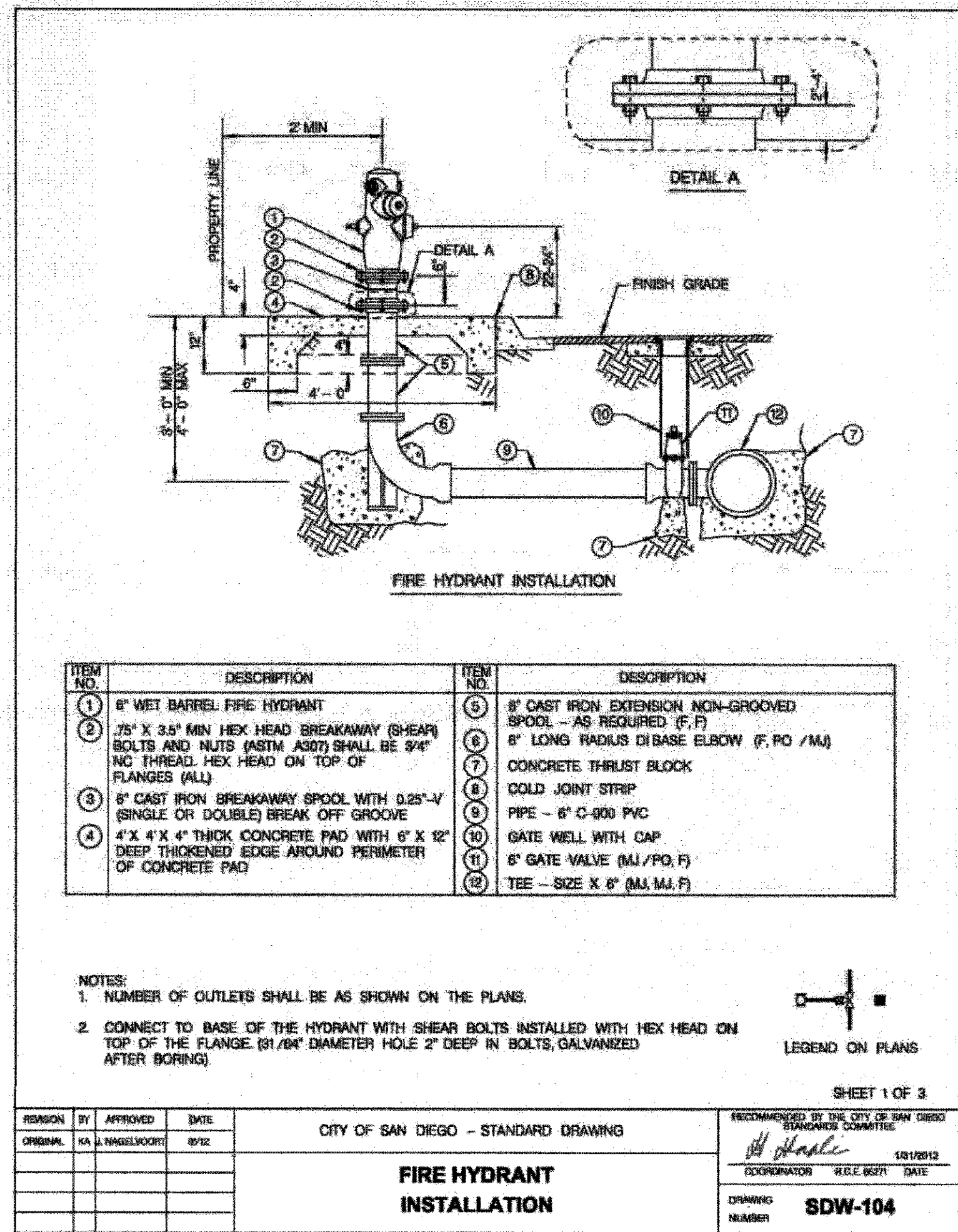
ENGINEER OF WORK  
*[Signature]*  
TIMOTHY R. THRELLE, R.C.E. 60285 DATE  
EXP. 6-30-16



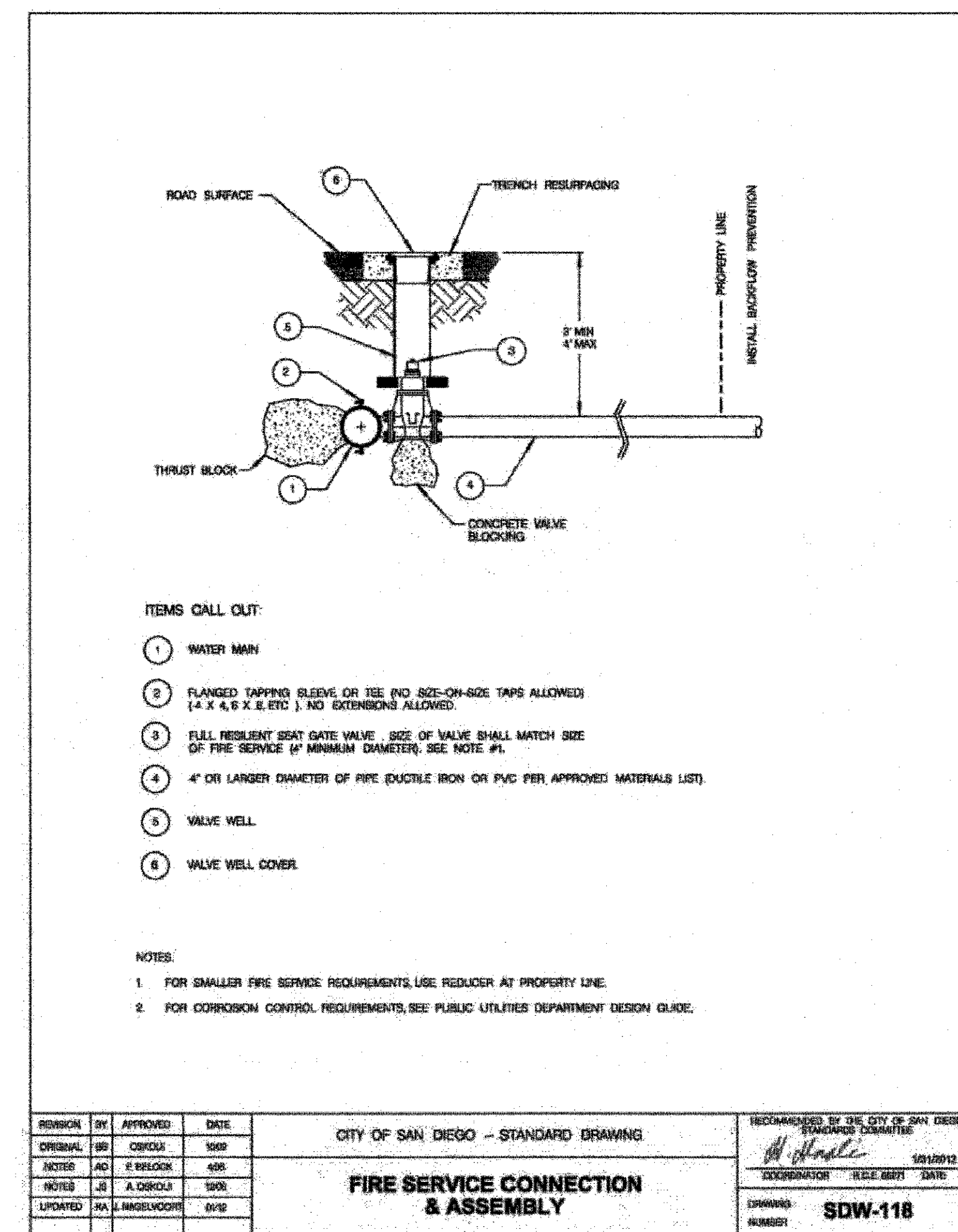
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ORIGINAL	KA	WAGLE/DOVOT	07/12		10/10/12
				<b>FIRE HYDRANT INSTALLATION</b>	10/10/12
				DRAWING NUMBER	SDW-104



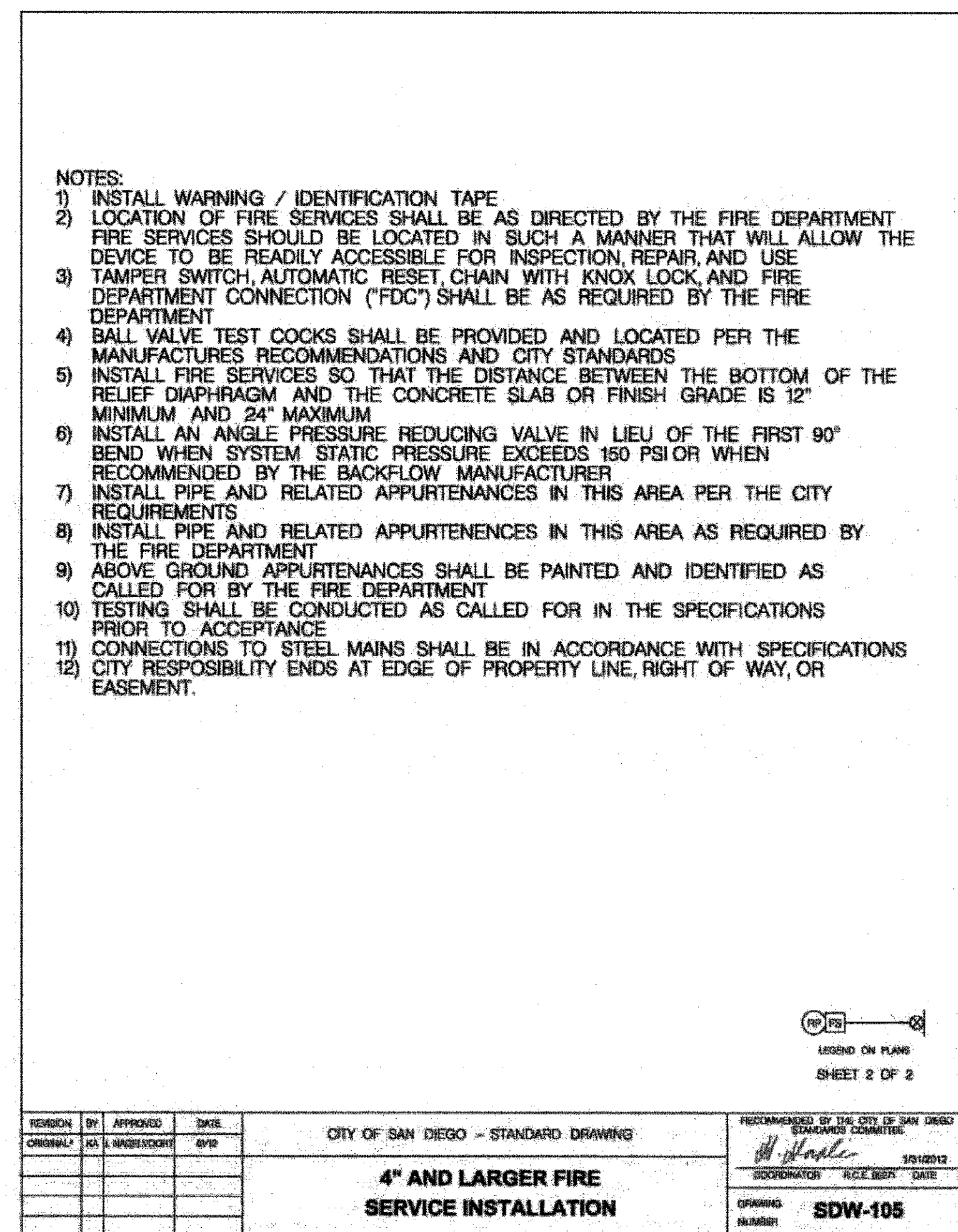
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ORIGINAL	KA	WAGLE/DOVOT	07/12		10/10/12
				<b>FIRE HYDRANT INSTALLATION</b>	10/10/12
				DRAWING NUMBER	SDW-104



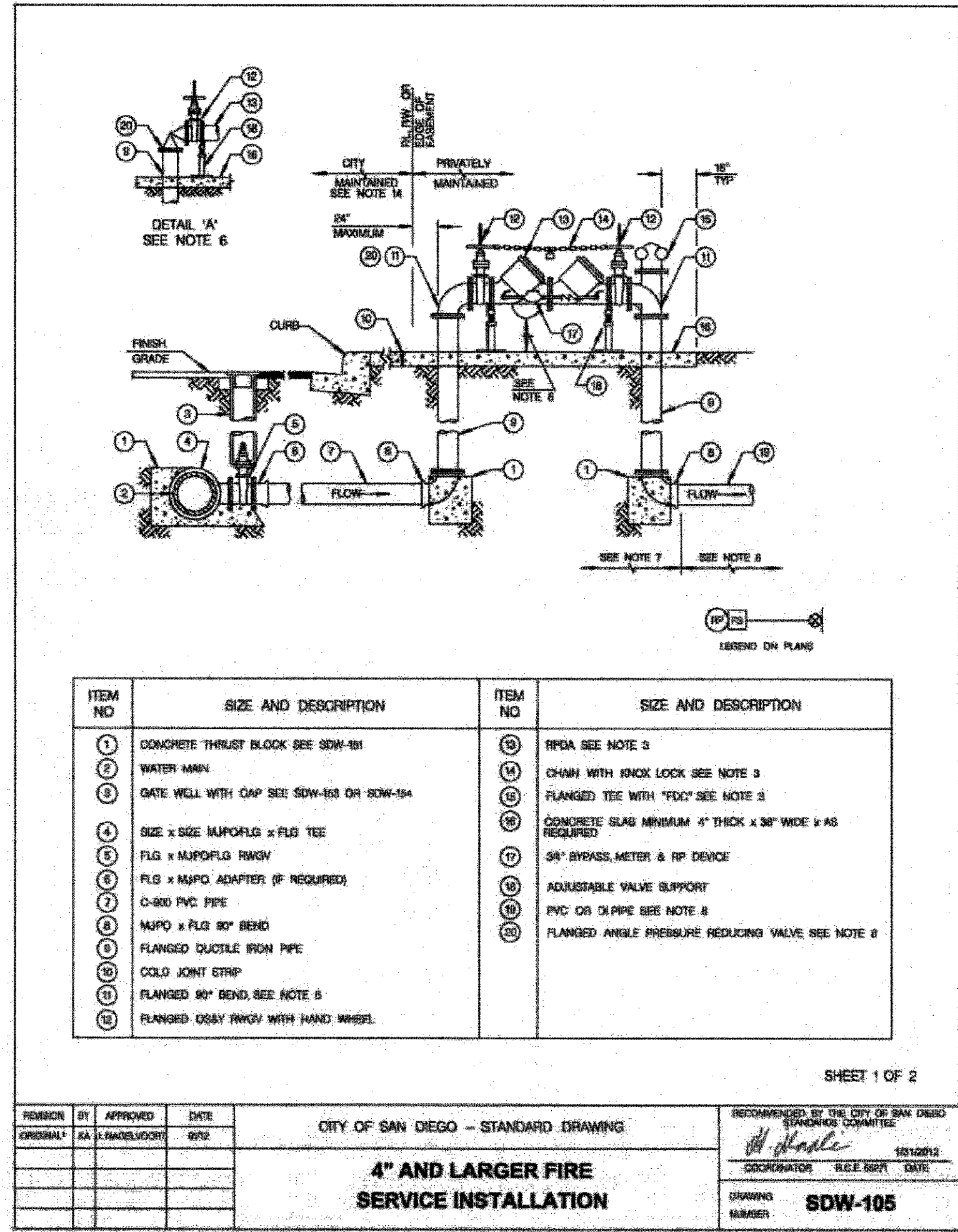
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ORIGINAL	KA	WAGLE/DOVOT	07/12		10/10/12
				<b>FIRE HYDRANT INSTALLATION</b>	10/10/12
				DRAWING NUMBER	SDW-104



REVISION	BY	APPROVED	DATE	CITY OF SAN DIEGO - STANDARD DRAWING	RECOMMENDED BY THE CITY OF SAN DIEGO
ORIGINAL	KA	WAGLE/DOVOT	07/12		10/10/12
				<b>FIRE SERVICE CONNECTION &amp; ASSEMBLY</b>	10/10/12
				DRAWING NUMBER	SDW-118



REVISION	BY	APPROVED	DATE	CITY OF SAN DIEGO - STANDARD DRAWING	RECOMMENDED BY THE CITY OF SAN DIEGO
ORIGINAL	KA	WAGLE/DOVOT	07/12		10/10/12
				<b>4" AND LARGER FIRE SERVICE INSTALLATION</b>	10/10/12
				DRAWING NUMBER	SDW-105



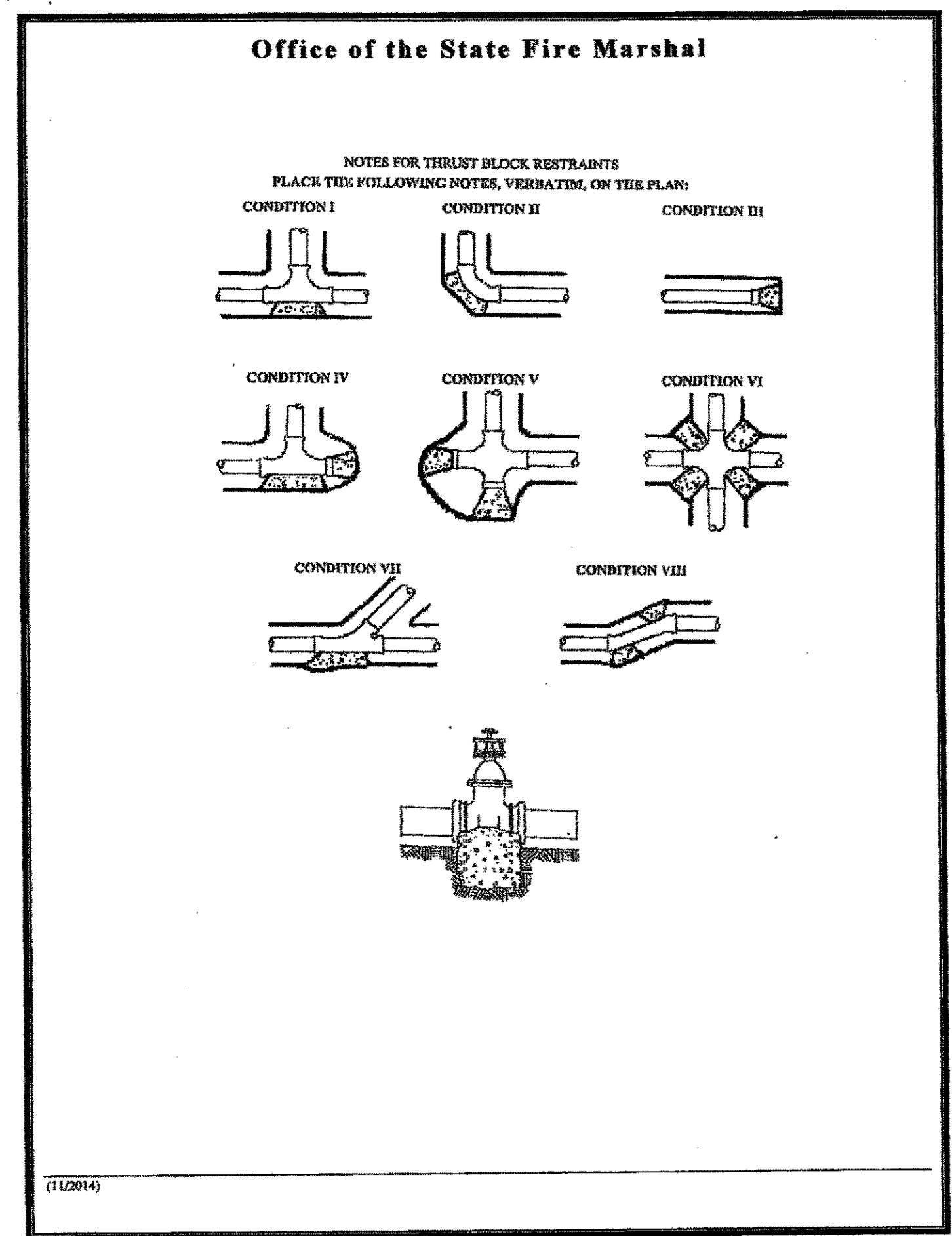
REVISION	BY	APPROVED	DATE	CITY OF SAN DIEGO - STANDARD DRAWING	RECOMMENDED BY THE CITY OF SAN DIEGO
ORIGINAL	KA	WAGLE/DOVOT	07/12		10/10/12
				<b>4" AND LARGER FIRE SERVICE INSTALLATION</b>	10/10/12
				DRAWING NUMBER	SDW-105



Office of the State Fire Marshal  
Underground Piping Page 1 of 2

**UNDERGROUND PIPING FOR PRIVATE FIRE SERVICE MAINS, HYDRANTS, FIRE SPRINKLERS AND FIRE STANDPIPES**

- Prior to installation, all plans and specifications shall be approved by the Office of the State Fire Marshal.
- Inspections are required: 1) prior to pouring thrust blocks, 2) of thrust blocks and joints 3) hydrostatic testing, and 4) for flush. Schedule all inspections 72 hours in advance. Call the local Deputy State Fire Marshal for inspection scheduling.
- Installation, inspection, and testing shall conform to 2013 NFPA 13 and 2013 NFPA 24.
- Geotechnical engineering report to complement thrust block design must be listed on plans.
- Private fire hydrants shall be approved type and have not less than a 6 inch diameter connection with the mains. All outlets shall be provided with National Standard Threads (NST).
- A valve shall be installed in the hydrant connections; all valves shall be installed within 20 feet of the hydrant.
- Fire hydrants shall be located not less than 40 feet from the buildings to be protected. A keyed gate valve shall be provided for each hydrant in an accessible location. Valves shall not be located in parking stalls.
- Hydrants shall be protected if subject to mechanical damage. The means of protection shall be arranged in a manner that does not interfere with connection to or operation of hydrants.
- Piping shall be listed for fire protection service or shall comply with the standards in 2013 NFPA 24 table 10.1.1.
- All buried fittings shall be of an approved type with joints and pressure class ratings compatible with the pipe used.
- All bolts used for underground connections shall be stainless steel. All corrosion protection shall be in place.
- All bolted joint accessories shall be cleaned and thoroughly coated with asphalt or other corrosion-retarding material after installation.
- The depth of cover over water pipes shall be determined by the maximum depth of frost penetration in the locality where the pipe is laid; top of the pipe shall be buried not less than 1ft. below the frost line for the facility.
- In those locations where frost is not a factor, the depth of cover shall not be less than 2 1/4 ft. to prevent mechanical damage. When surface loads are expected, a minimum of 3 ft. cover shall be provided.
- All tees, plugs, caps bends, reducers, valves and hydrant branches shall be restrained against movement in accordance with 2013 NFPA 24 §10.8.2 or §10.8.3.
- Thrust blocks, or other approved method of thrust restraint, shall be provided wherever pipe changes direction.
- The trench shall be excavated for thrust blocks and inspected *prior* to pour. Thrust blocks shall be placed between undisturbed earth and the fitting to be restrained and shall be capable of resisting the calculated thrust force.
- Thrust blocks shall be placed so that the joints are accessible for repair.
- A hydrostatic test (200 psi for two hours or 50 psi over maximum static pressure, whichever is greater) shall be witnessed by a Deputy State Fire Marshal. The trench shall be back-filled between the joints to prevent movement of the pipe.
- The system shall be thoroughly flushed before connection is made to overhead piping. Flow shall be through a minimum of a 4" hose or pipe unless otherwise approved by the Deputy State Fire Marshal. A Deputy State Fire Marshal shall witness the flush.
- Control valves shall be supervised by one of the 4 acceptable methods listed in 2014 NFPA 24 §6.7.2.

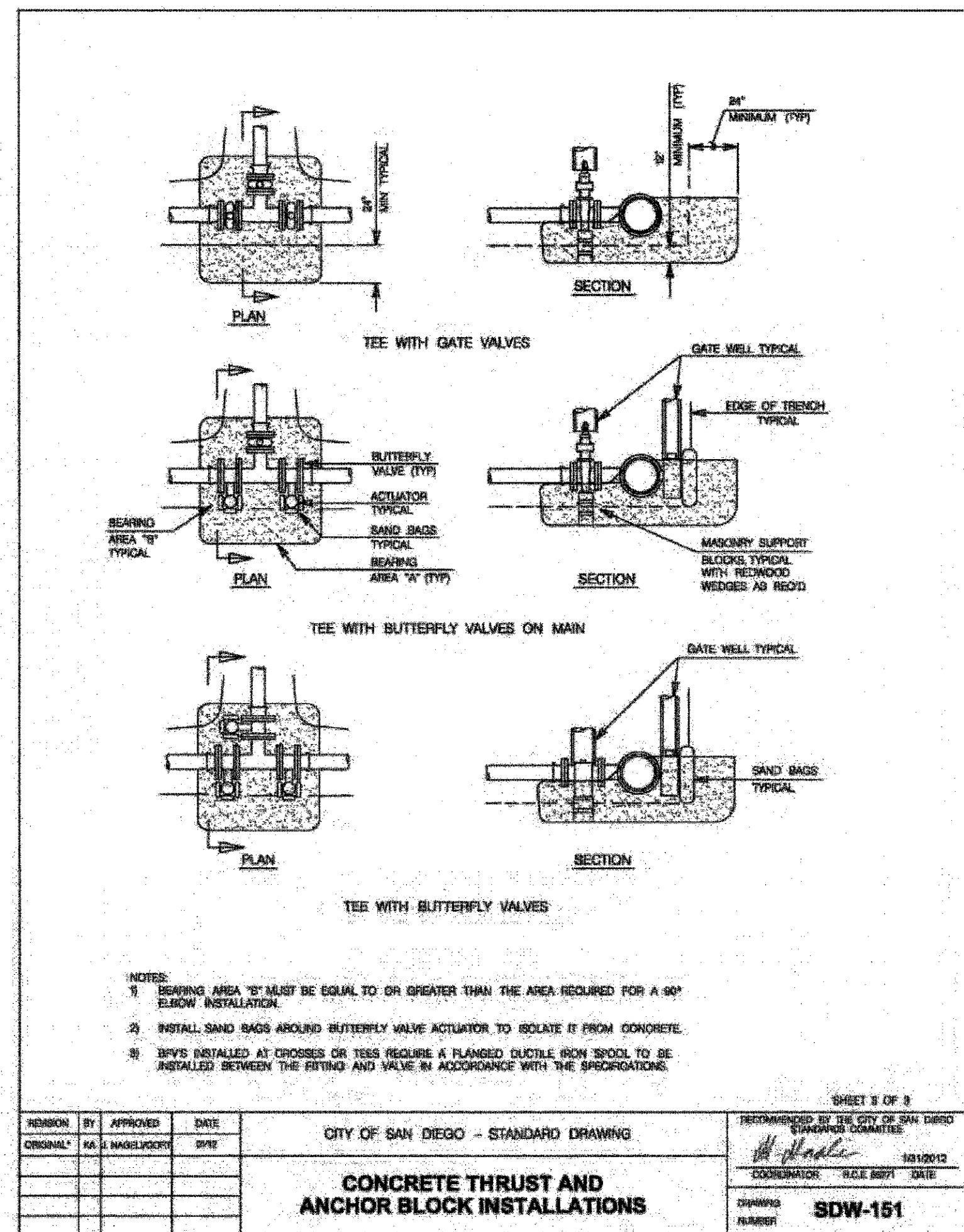
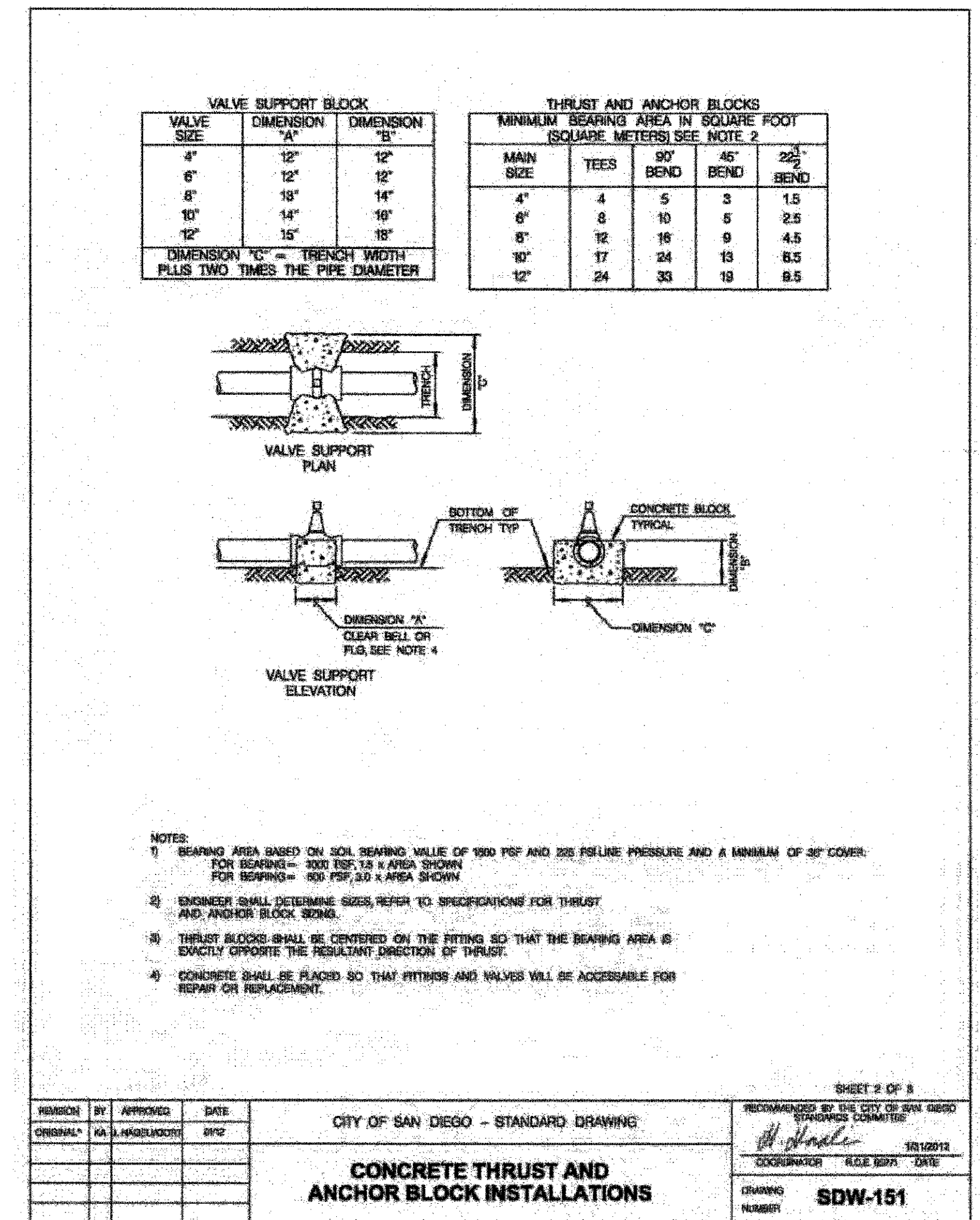
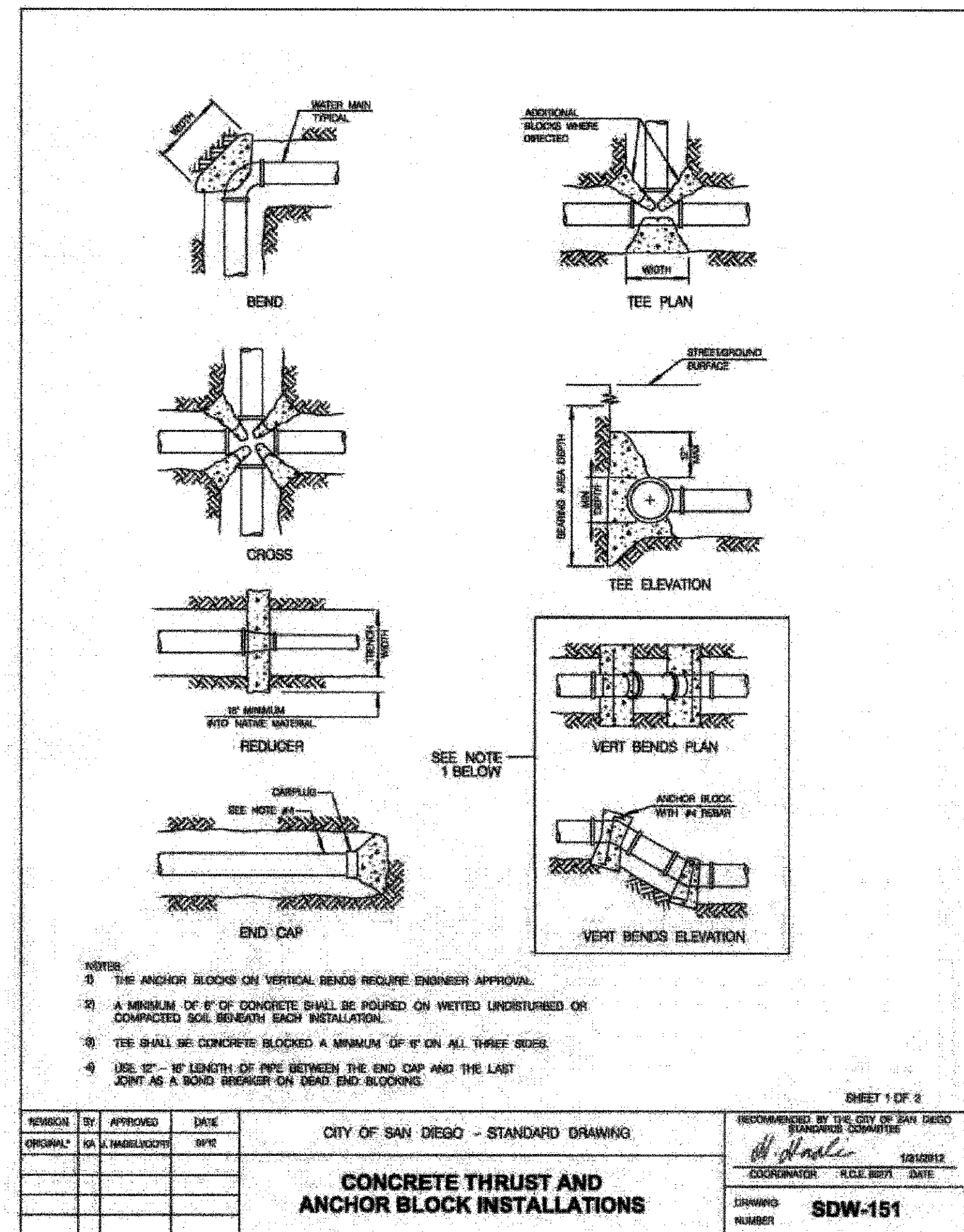


PER GEOTECHNICAL REPORT THE ALLOWABLE SOIL BEARING CAPACITY IS 300 PSF PER FOOT OF EMBEDMENT.

DOMESTIC WATER IS 3 FT DEEP= BEARING CAPACITY OF 900 PSF. USE 500 PSF CALCULATIONS BELOW.

FIRE SERVICE IS 4 FT DEEP= BEARING CAPACITY OF 1200 PSF. USE 1000 PSF CALCULATIONS BELOW.

FINAL REQUIRED BEARING AREA TO BE DETERMINED IN FIELD WITH UNDERGROUND SUBCONTRACTOR AND ON SITE GEOTECHNICAL FIELD ENGINEER.



OFFICE OF THE STATE FIRE MARSHAL  
APPROVED FIRE AND PLUMBING ONLY  
Reviewed by: *[Signature]*  
RILEY BERRY, DSFM

APR 27 2016

Approval of this plan does not authorize or approve any revision or deviation from applicable regulations. Final approval is subject to field inspection. On the site of approved plans, shall be available on the project site at all times.

REGISTERED PROFESSIONAL ENGINEER  
TRUDY M. THIELLE  
No. 060283  
CIVIL  
STATE OF CALIFORNIA

ENGINEER OF WORK  
*[Signature]* 03/3/16  
TRUDY M. THIELLE, R.C.E. 060283 DATE  
EXP. 6-30-16

**SOUTH CAMPUS PLAZA**  
SAN DIEGO STATE UNIVERSITY  
5144 COLLEGE AVENUE  
CIVIL / LANDSCAPE PACKAGE

**SAN DIEGO STATE UNIVERSITY**

**SUNDT**

IDENTIFICATION STAMP  
DIV. OF THE STATE ARCHITECT  
OFFICE OF REGULATION SERVICES  
**04-113889**  
AC \_\_\_ FLS \_\_\_ SS \_\_\_  
DATE

**REVISIONS**

NO.	DESCRIPTION	DATE
1	100% PD	5/21/14
2	50% CD	7/2/14
3	95% CD	7/31/14
4	100% CD BACKCHECK	11/10/14
5	100% CD BACKCHECK SET #2	1/29/15
6	100% CD BACKCHECK SET #3	3/20/15
7	DSA BACK CHECK SET	6/15/15
8	SFM RESUBMITTAL #3	3/03/16

**SHEET TITLE**  
**CITY STANDARD DETAILS**

**SHEET NUMBER**  
**C-607**

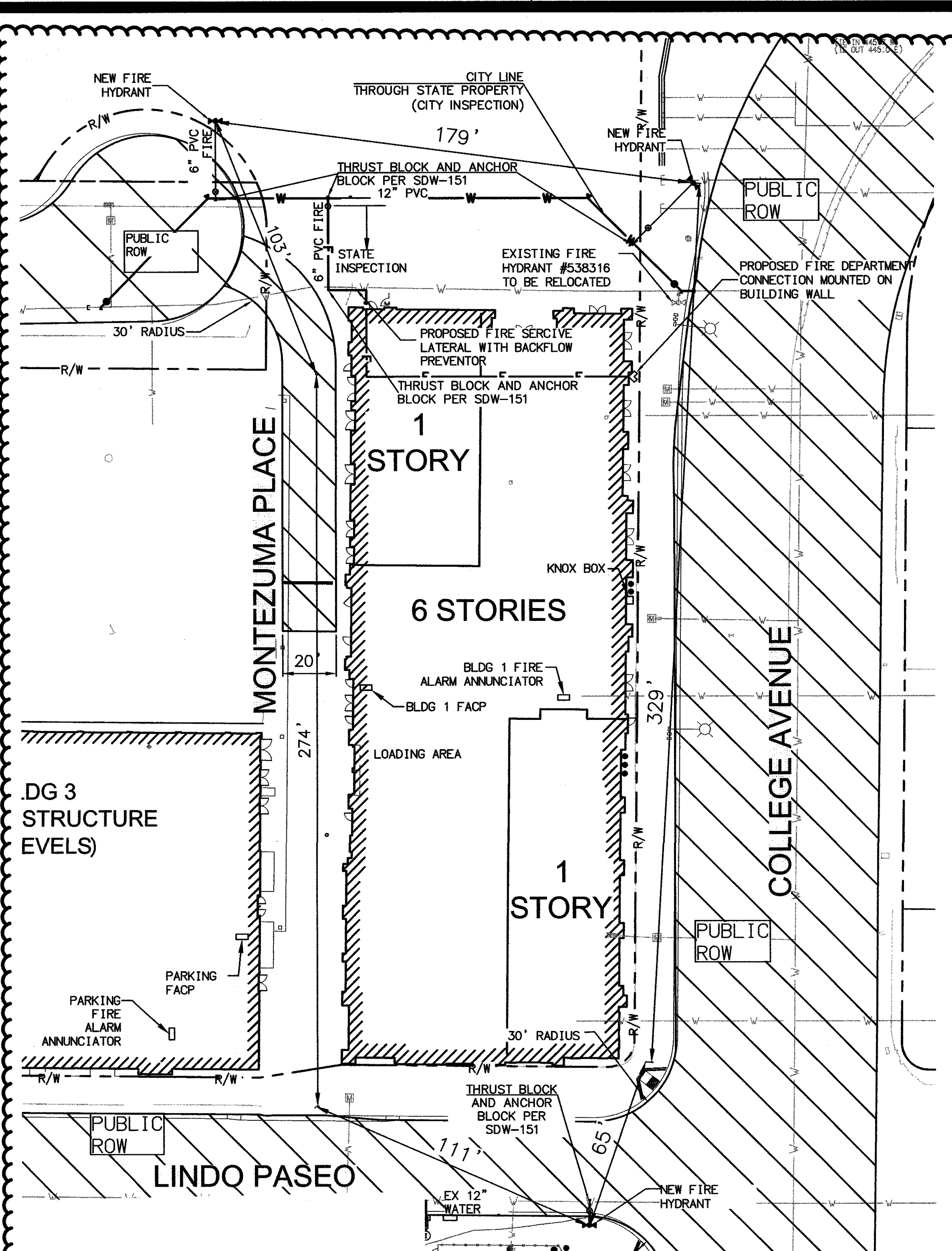
JOB NO. 130419  
DATE 3/03/16  
SCALE As Indicated

**RBF CONSULTING**  
A Baker Company

3/03/16 100% SFM RESUBMITTAL



FILE NAME: H:\PDATA\139419\CADD\DWG\IMPROVE\SF\Sheets\139419-SFM-BLDG-1.dwg LAYOUT NAME: Layout11 PLOTTED: Friday, April 22, 2016 - 7:27am USER: Amanda Corbett



**LEGEND**

ITEM	SYMBOL
PROPOSED FIRE ACCESS	[Symbol]
HOSE PULL LENGTH	[Symbol]
FIRE HYDRANT COVERAGE AREA	[Symbol]
PROPOSED BUILDING	[Symbol]
PROP WATER MAIN	[Symbol]
PROP FIRE SERVICE	[Symbol]
PROPOSED BACKFLOW PREVENTOR	[Symbol]
PROPOSED FIRE HYDRANT	[Symbol]
EX WATER	[Symbol]
EX FIRE HYDRANT	[Symbol]
EXISTING BUILDING	[Symbol]

- NOTE:**
- NO 2-1/2" FIRE DEPARTMENT HOSE VALVES REQUIRED AT GROUND FLOOR PER SAN DIEGO FIRE DEPARTMENT
  - PIPE TRENCH PER SDG-107/108 AND DETAIL 7/C-5013.
  - FIRE UNDERGROUND PIPE INSTALLATION BY SHELDON SITE UTILITIES, LICENSE A-835147.
  - ELEVATOR IS DESIGNED IN ACCORDANCE WITH LFA 3002.4.3A, THE CLEAR DISTANCE BETWEEN WALLS OF ELEVATOR CAB IS NOT LESS THAN 80" X 54" WITH SIDE SLIDE DOOR OF 42". SEE DETAIL 1/A-7.22 FOR ACTUAL DIMENSIONS. ELEVATOR IS DESIGNATED WITH A STAR OF LIFE PERMANENTLY ATTACHED TO THE SIDE OF THE HOISTWAY DOOR FRAME PER LFA 3002.4A. HOISTWAY ENCLOSURE IS A 2-HOUR RATED SHAFT COMPLYING WITH SECTION 713 WITH 90 MINUTE RATED DOORS AS REQUIRED IN LFA CHAPTER 7.
  - SEE SHEETS C-611 AND C-612 FOR HYDRANT FLOW DOCUMENTATION.

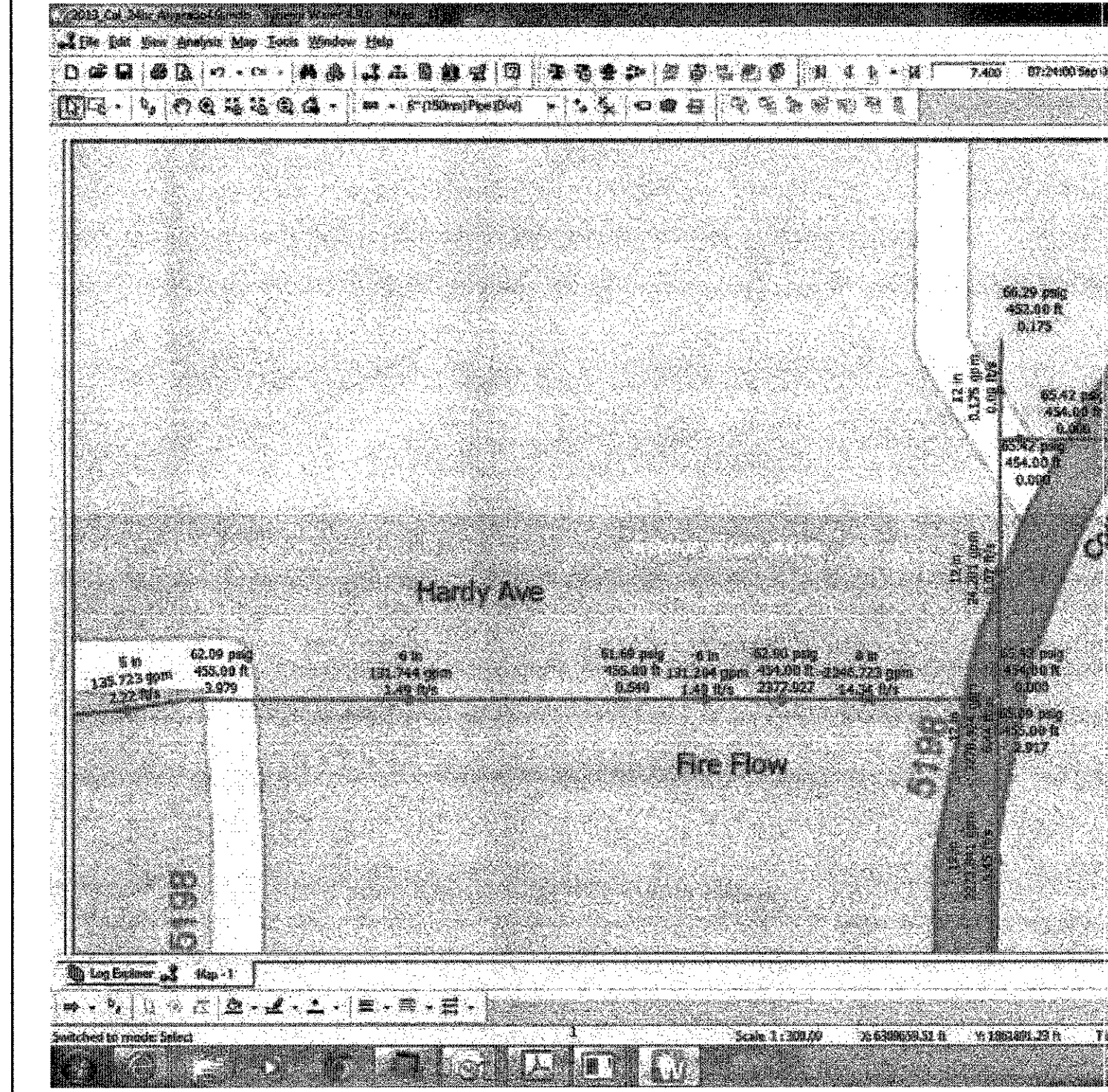
**FIRE FLOW INFORMATION-BUILDING 1**  
 SEE HYDRANT FIRE FLOW GRAPH ON C-608  
 CONSTRUCTION TYPE: TYPE IA AND TYPE IIA  
 SQUARE FOOTAGE: TYPE IA= 22,956 SF AND TYPE IIA= 92,620 SF  
 REQUIRED HYDRANT FIRE FLOW (TABLE B105.1): 1,750 GPM (TYPE IA, 22,701-30,200 SF) AND 4,500 GPM (TYPE IIA, 92,401-103,100 SF)  
 TOTAL REQUIRED FIRE FLOW: 6,250 GPM  
 FIRE FLOW REDUCTION: 52% REDUCTION AS BUILDINGS HAVE AUTOMATED SPRINKLER SYSTEMS = 3,000 GPM  
 REQUIRED SPRINKLER FIRE FLOW: 930 GPM  
 TOTAL REQUIRED FIRE FLOW: 3,930 GPM  
 PROVIDED FIRE FLOW: 4,594 GPM @ 20 PSI- COMPLIANT WATER SUPPLY CONFIRMED BY CITY. SEE DOCUMENTATION ON C-608, C-611, AND C-612.  
 NO. OF HYDRANTS REQUIRED (TABLE CC105.1): 3 REQUIRED, 3 PROVIDED  
 AVERAGE HYDRANT SPACING (TABLE CC105.1): 400-FT REQUIRED, 354-FT PROVIDED

**CONTRACTOR NOTES**

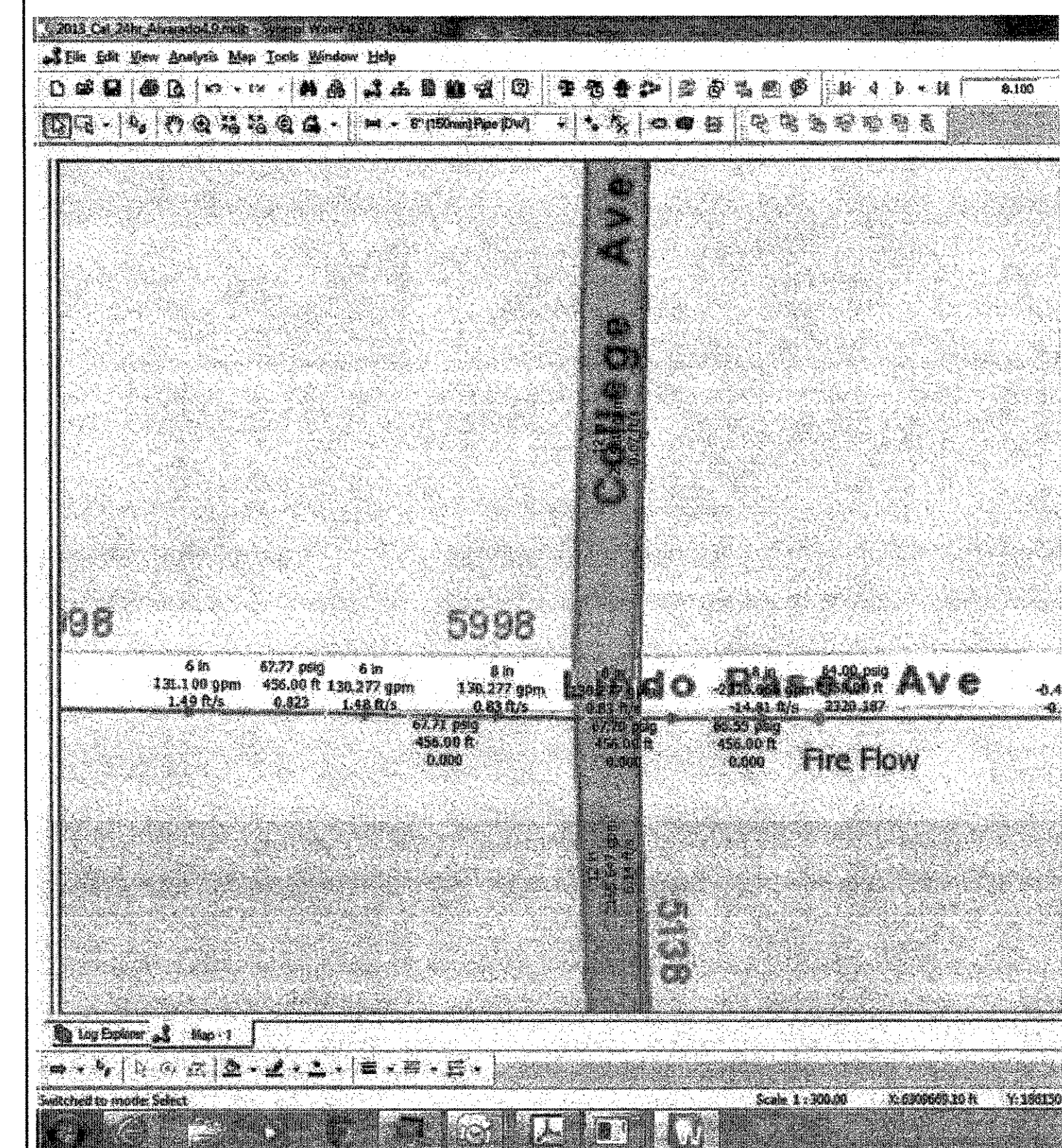
- REFERENCE CITY IMPROVEMENT PLANS FOR DEPTHS OF PROPOSED FIRE SERVICE LINES (EXISTING PIPE ASSUMED 3" DEEP). MINIMUM COVER SHALL BE 3'-0" IN TRAFFIC ZONES, 2'-6" IN PEDESTRIAN ZONES.
- REFERENCE PLUMBING PLANS FOR SPRINKLERS AND STANDPIPE RISERS AT AND INSIDE BUILDINGS.
- PLACE FIRE DEPARTMENT CONNECTIONS NO FURTHER THAN 40' FROM A FIRE ACCESS ROADWAY.
- PROPOSED FIRE SERVICE LINES AND STRUCTURES SHOWN FOR REFERENCE ONLY. REFERENCE UTILITY PLANS FOR PROPOSED UTILITY DESIGN.
- PROPOSED FIRE HYDRANTS SHALL HAVE INDIVIDUALLY VALVED PORTS, ONE 2-1/2" AND TWO 4" FOR ALL OCCUPANCIES EXCEPT R-3.
- PROPOSED FIRE HYDRANTS SHALL HAVE A SHUT-OFF VALVE LOCATED NO CLOSER THAN 5' FROM THE HYDRANT, AND NO FURTHER THAN 20'.

**Corbett, Amanda D**  
 From: Moshavegh, Feryal <Fmoshavegh@sandiego.gov>  
 Sent: Monday, July 27, 2015 2:34 PM  
 To: Prince, John  
 Cc: Corbett, Amanda D; Rubalcava, Eric; Huynh, My-Lee  
 Subject: RE: Hydrant Flow Model for SDSU South Campus Plaza (PTS 373672)

John hi  
 At fire hydrant#538316 corner of Hardy Ave & College Ave, we can lower the pressure to 62 psi and fire flow will be 2,246 gallons per minute at flow velocity of 14.34 ft/sec. See below hydraulic map.

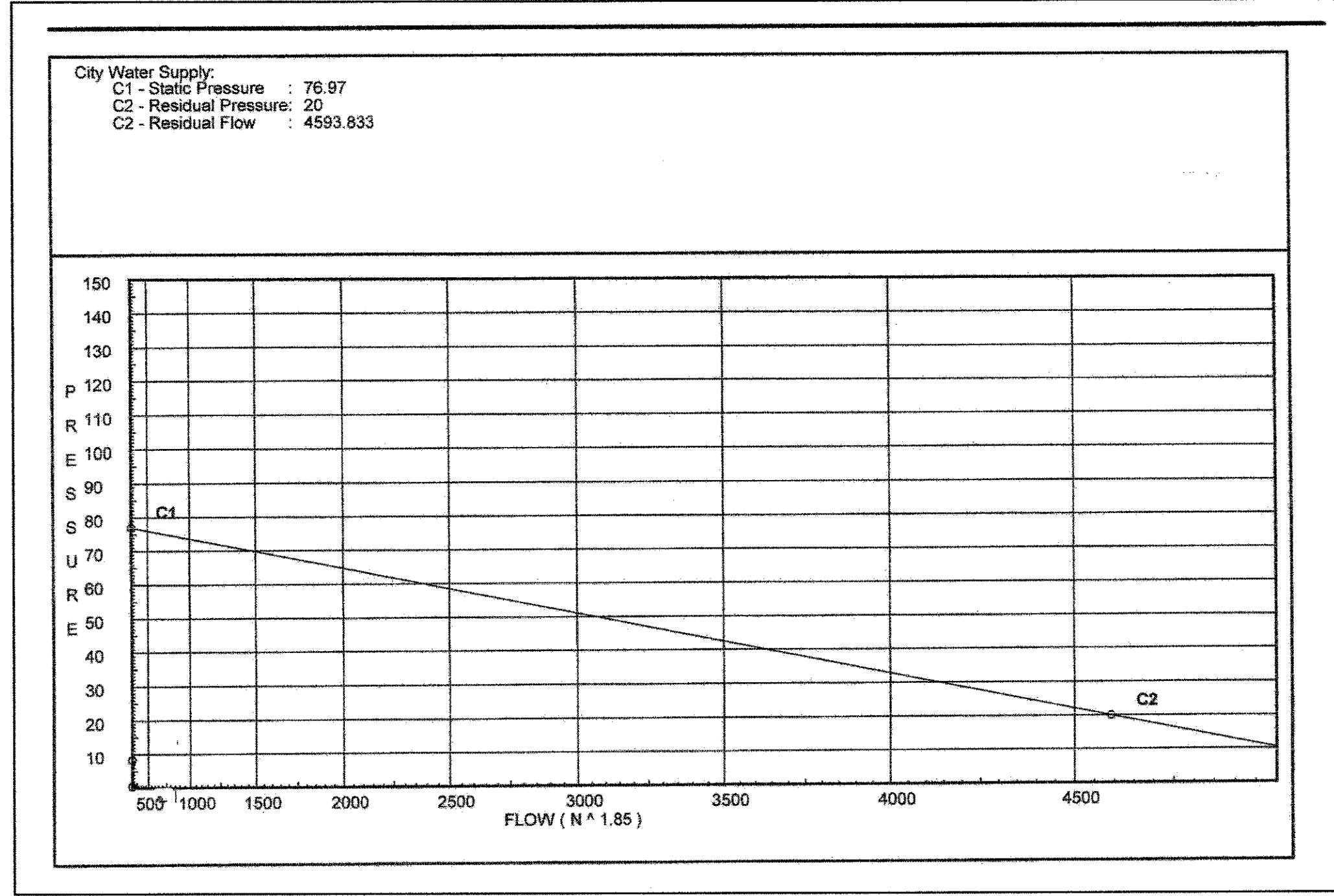


At fire hydrant#538312, corner of Lindo Paseo & College Ave, we can reduce the pressure to 64 psi and get fire flow of 2,320 gpm at 14.8 ft/sec velocity.

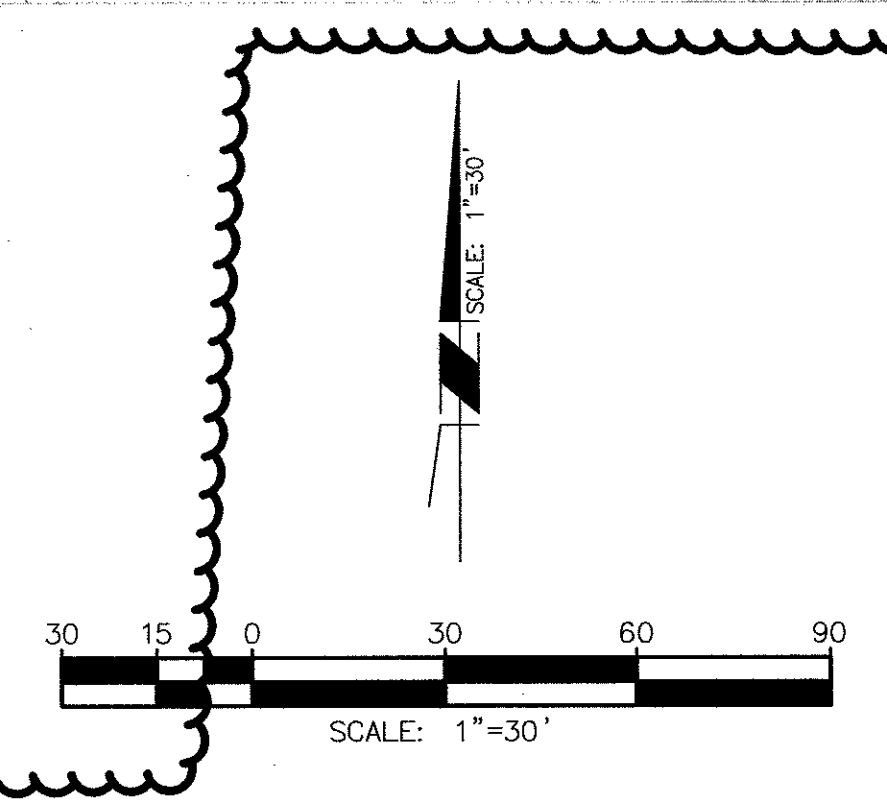


Please let me know if you have any question.

Thank you  
 Feryal  
 From: Prince, John [mailto:JPRINCE@mbakerint.com]  
 Sent: Monday, July 27, 2015 11:51 AM



**HYDRANT FIRE FLOW GRAPH**



OFFICE OF THE STATE FIRE MARSHAL  
 APPROVED FIRE SERVICE PLAN  
 Reviewed by: [Signature]  
 APR 27 2016  
 Approval of this plan does not authorize or approve any omission or deviation from applicable regulations. Final approval is subject to field inspection. One set of approved plans shall be maintained on the project site at all times.  
 ENGINEER OF WORK  
 [Signature]  
 03/03/16  
 DATE  
 EXP. 6-30-16

**SOUTH CAMPUS PLAZA**  
 SAN DIEGO STATE UNIVERSITY  
 516 COLLEGE AVENUE  
 CIVIL / LANDSCAPE PACKAGE

**SAN DIEGO STATE UNIVERSITY**

**REVISIONS**

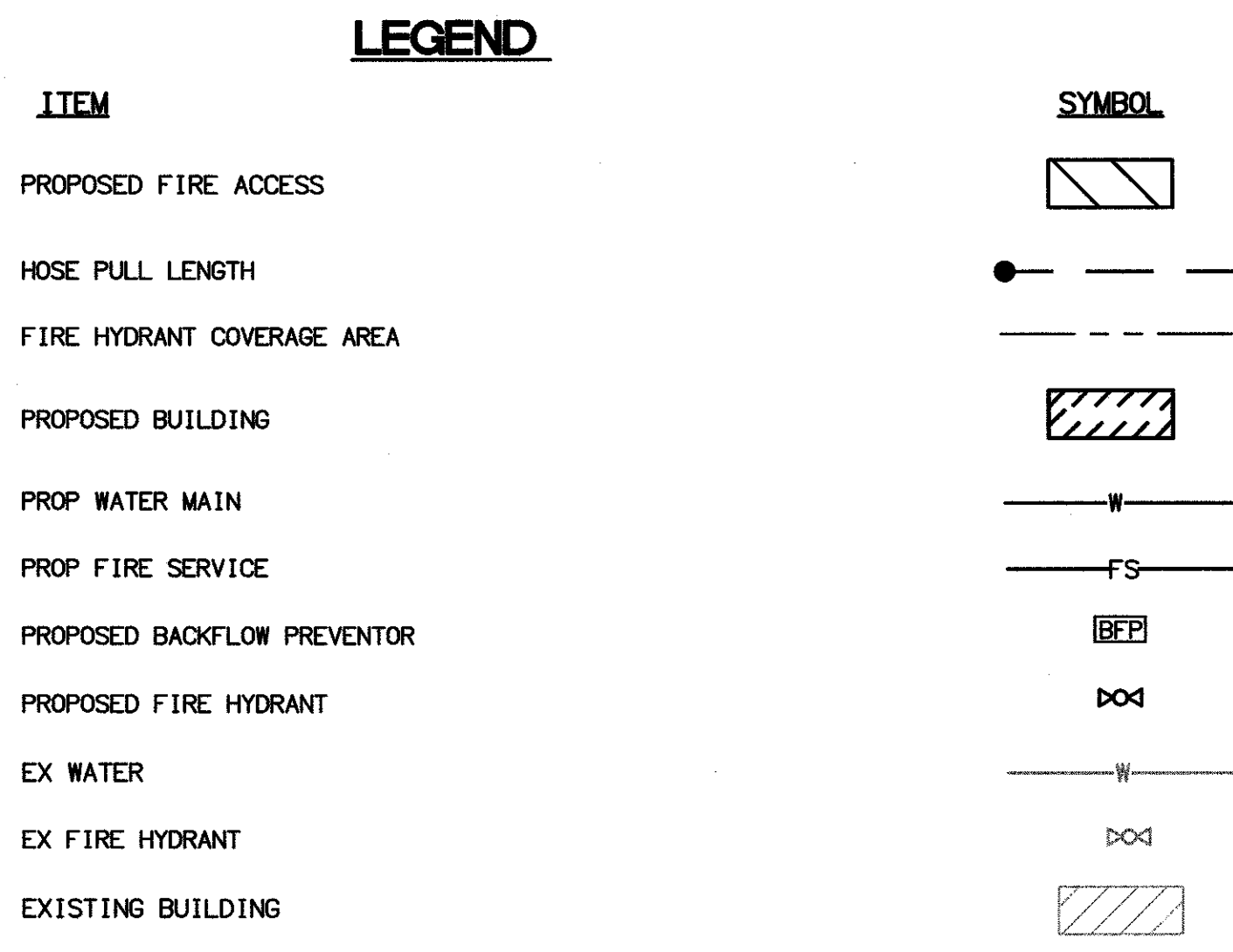
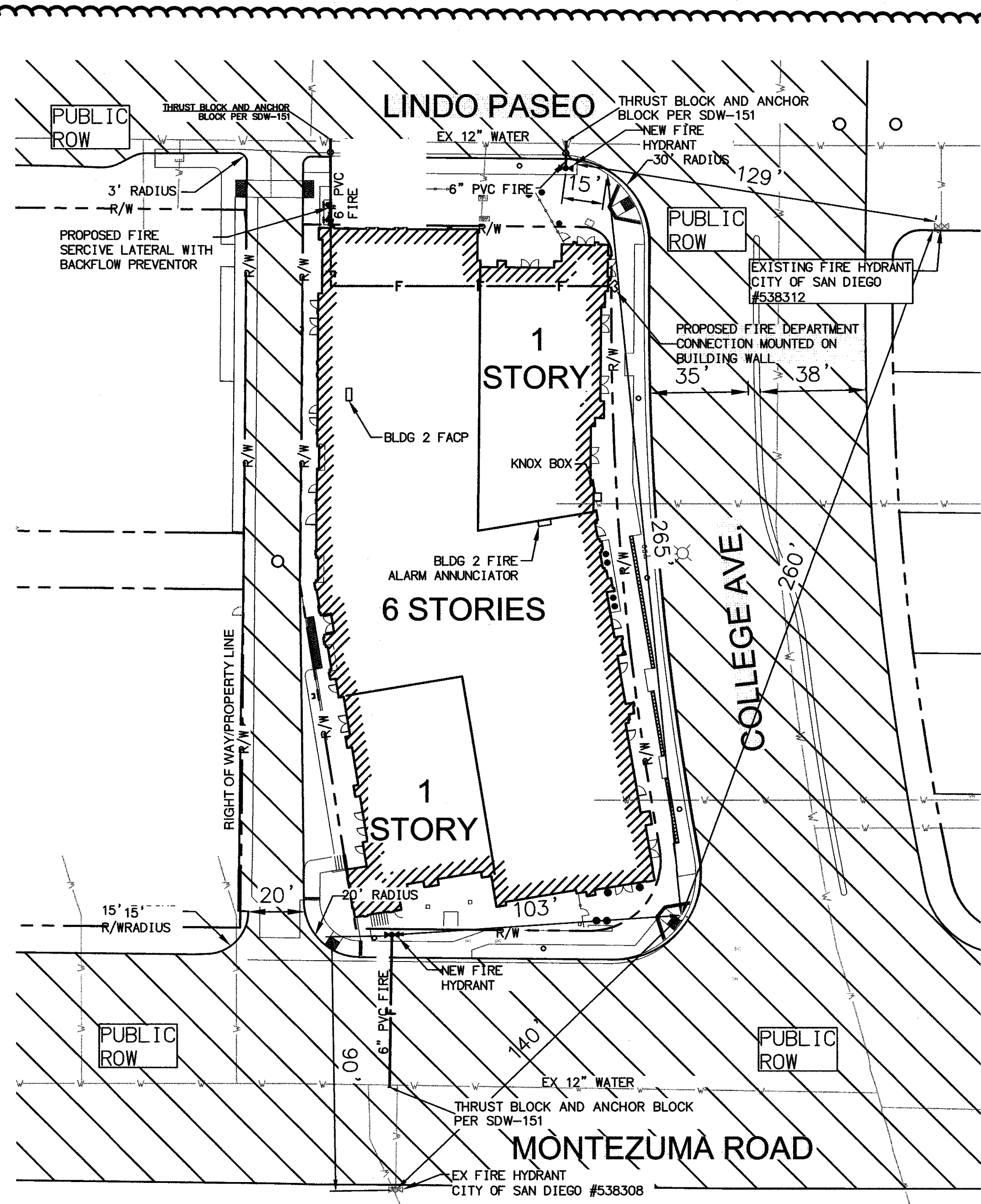
NO.	DESCRIPTION	DATE
1	100% PD	5/21/14
2	50% CD	7/2/14
3	95% CD	7/31/14
4	100% CD BACKCHECK	11/10/14
5	100% CD BACKCHECK SET #2	1/29/15
6	100% CD BACKCHECK SET #3	3/20/15
7	DSA BACK CHECK SET	6/15/15
8	SFM RESUBMITTAL #3	3/03/16

**SHEET TITLE**  
**BUILDING 1  
 FIRE SERVICE**

**SHEET NUMBER**  
**C-608**



FILE NAME: H:\PDATA\139419\CADD\Drawings\SFV\_Sheets\139419-SFV-BLDG 2.dwg LAYOUT NAME: Layout1 PLOTTED: Monday, April 11, 2016 -- 9:56am USER: Amanda Corbett



**NOTE:**

- NO 2-1/2" FIRE DEPARTMENT HOSE VALVES REQUIRED AT GROUND FLOOR PER SAN DIEGO FIRE DEPARTMENT
- PIPE TRENCH PER SDG-107/108 AND DETAIL 7/C-5013.
- FIRE UNDERGROUND PIPE INSTALLATION BY SHELDON SITE UTILITIES, LICENSE A-835147.
- ELEVATOR IS DESIGNED IN ACCORDANCE WITH LFA 3002.4.3A, THE CLEAR DISTANCE BETWEEN WALLS OF ELEVATOR CAB IS NOT LESS THAN 80" X 54" WITH SIDE SLIDE DOOR OF 42". SEE DETAIL 1/A-7-22 FOR ACTUAL DIMENSIONS. ELEVATOR IS DESIGNATED WITH A STAR OF LIFE PERMANENTLY ATTACHED TO THE SIDE OF THE HOISTWAY DOOR FRAME PER LFA 3002.4A HOISTWAY ENCLOSURE IS A 2-HOUR RATED SHAFT COMPLYING WITH SECTION 713 WITH 90 MINUTE RATED DOORS AS REQUIRED IN LFA CHAPTER 7.
- SEE SHEETS C-611 AND C-612 FOR HYDRANT FLOW DOCUMENTATION.

**FIRE FLOW INFORMATION-BUILDING 2**  
 SEE HYDRANT FIRE FLOW GRAPH ON C-609  
 CONSTRUCTION TYPE: TYPE IA AND TYPE IIA  
 SQUARE FOOTAGE TYPE IA= 16,111 SF AND TYPE IIA= 78,916 SF  
 REQUIRED HYDRANT FIRE FLOW (TABLE B105.1): 1,500 GPM (TYPE IA, 0-22,700 SF) AND 4,000 GPM (TYPE IIA, 22,401-82,100)  
 TOTAL REQUIRED FIRE FLOW: 5,500 GPM  
 FIRE FLOW REDUCTION: 45% REDUCTION AS BUILDINGS HAVE AUTOMATED SPRINKLER SYSTEMS = 3,000 GPM  
 REQUIRED SPRINKLER FIRE FLOW: 783 GPM  
 TOTAL REQUIRED FIRE FLOW: 3,783 GPM  
 PROVIDED FIRE FLOW: 4,725 GPM - COMPLIANT WATER SUPPLY CONFIRMED BY CITY. SEE DOCUMENTATION THIS SHEET, C-611, AND C-612  
 NO. OF HYDRANTS REQUIRED (TABLE CC105.1): 3 REQUIRED, 4 PROVIDED  
 AVERAGE HYDRANT SPACING (TABLE CC105.1): 400-FT REQUIRED, 298-FT PROVIDED

**CONTRACTOR NOTES**

- REFERENCE CITY IMPROVEMENT PLANS FOR DEPTHS OF PROPOSED FIRE SERVICE LINES (EXISTING PIPE ASSUMED 3' DEEP). MINIMUM COVER SHALL BE 3'-0" IN TRAFFIC ZONES, 2'-6" IN PEDESTRIAN ZONES.
- REFERENCE PLUMBING PLANS FOR SPRINKLERS AND STANDPIPE RISERS AT AND INSIDE BUILDINGS.
- PLACE FIRE DEPARTMENT CONNECTIONS NO FURTHER THAN 40' FROM A FIRE ACCESS ROADWAY.
- PROPOSED FIRE SERVICE LINES AND STRUCTURES SHOWN FOR REFERENCE ONLY. REFERENCE UTILITY PLANS FOR PROPOSED UTILITY DESIGN.
- PROPOSED FIRE HYDRANTS SHALL HAVE INDIVIDUALLY VALVED PORTS, ONE 2-1/2" AND TWO 4" FOR ALL OCCUPANCIES EXCEPT R-3.
- PROPOSED FIRE HYDRANTS SHALL HAVE A SHUT-OFF VALVE LOCATED NO CLOSER THAN 5' FROM THE HYDRANT, AND NO FURTHER THAN 20'.

**SOUTH CAMPUS PLAZA**  
 SAN DIEGO STATE UNIVERSITY  
 916 COLLEGE AVENUE  
**CIVIL / LANDSCAPE PACKAGE**

**SAN DIEGO STATE UNIVERSITY**

**SUNDT**

IDENTIFICATION STAMP  
 DIV. OF THE STATE ARCHITECT  
 OFFICE OF REGULATION SERVICES  
**04-113889**  
 AC \_\_\_ FLS \_\_\_ SS \_\_\_  
 DATE

**REVISIONS**

DESCRIPTION	DATE
100% PD	5/21/14
50% CD	7/2/14
95% CD	7/31/14
100% CD BACK-CHECK	11/10/14
100% CD BACK-CHECK SET #2	1/29/15
100% CD BACK-CHECK SET #3	3/20/15
DSA BACK CHECK SET	6/15/15
SFM RESUBMITTAL #3	3/03/16

**SHEET TITLE**  
**BUILDING 2  
 FIRE SERVICE**

**SHEET NUMBER**  
**C-609**

JOB NO: 139419  
 DATE: 3/03/16  
 SCALE: As Indicated

**Corbett, Amanda D**

From: Moshavegh, Feryal <Fmoshavegh@sandiego.gov>  
 Sent: Monday, July 27, 2015 2:34 PM  
 To: Prince, John  
 Cc: Corbett, Amanda D; Rubalcava, Eric; Huynh, My-Lee  
 Subject: RE: Hydrant Flow Model for SDSU South Campus Plaza (PTS 373672)

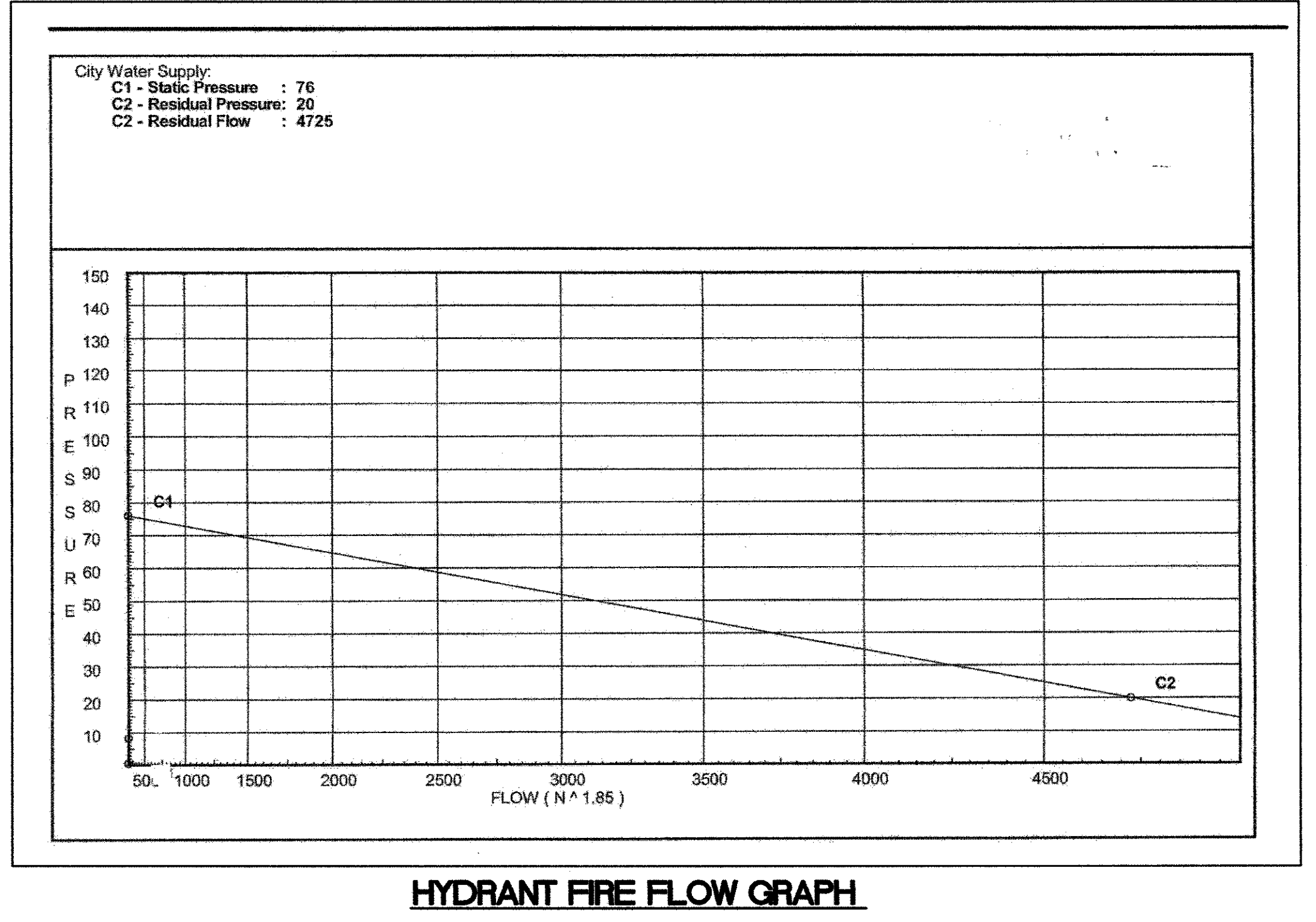
John hi  
 At fire hydrant#538316 corner of Hardy Ave & College Ave, we can lower the pressure to 62 psi and fire flow will be 2,246 gallons per minute at flow velocity of 14.34 ft/sec. See below hydraulic map;

At fire hydrant#538312, corner of Lindo Paseo & College Ave, we can reduce the pressure to 64 psi and get fire flow of 2,320 gpm at 14.8 ft/sec velocity.

Please let me know if you have any question.

Thank you  
 Feryal

From: Prince, John [mailto:JPRINCE@mbakerint.com]  
 Sent: Monday, July 27, 2015 11:51 AM



APR 27 2016

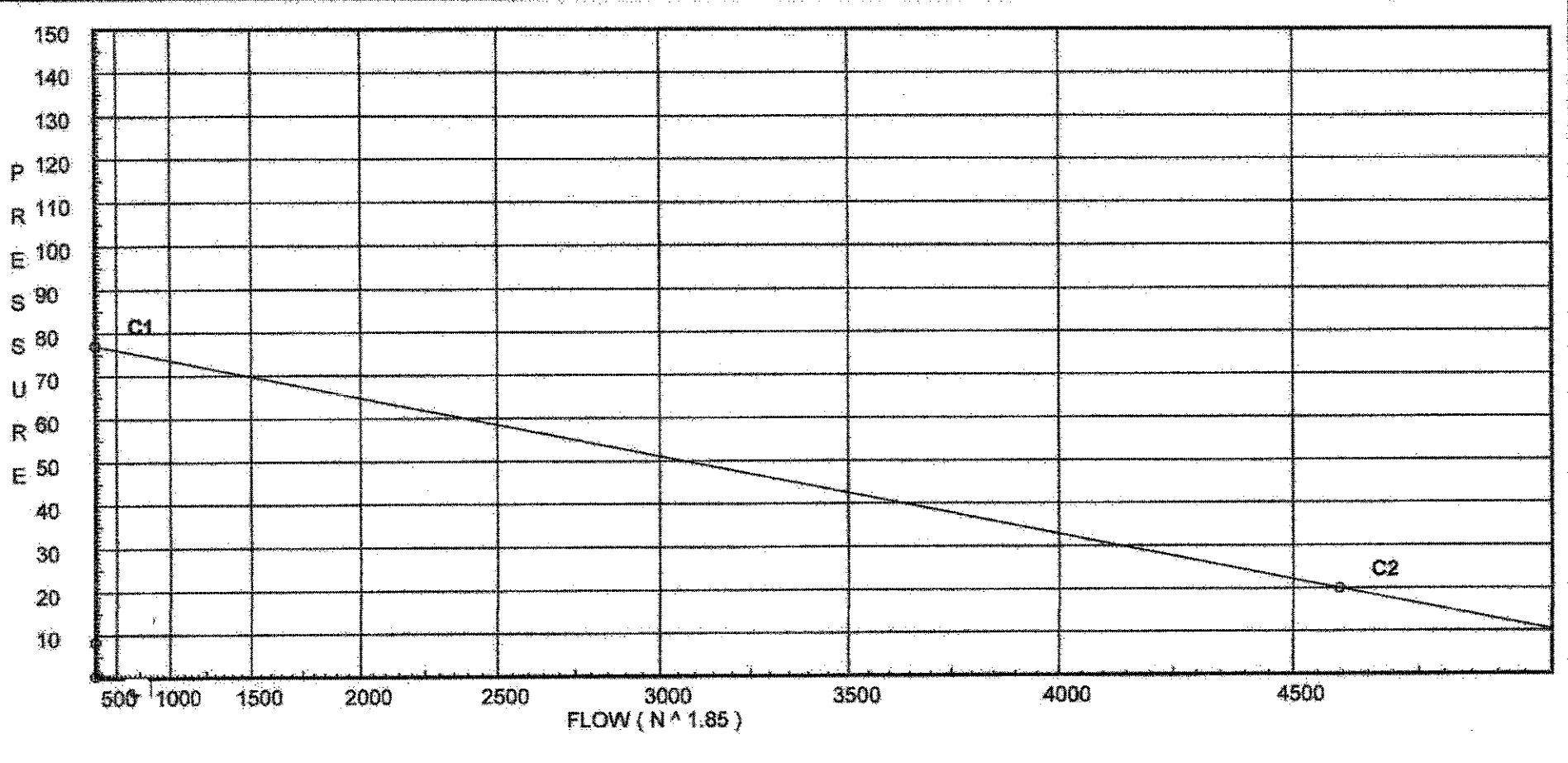
Approval of this plan does not authorize or approve any extension or deviation from applicable regulations. Final approval is subject to field inspection. One set of approved plans shall be available on the project site at all times.

**ENGINEER OF WORK**  
 Timothy M. Threlle, R.C.T. 060283 DATE 03/03/16  
 EXP. 6-30-16

SCALE: 1"=30'



City Water Supply:  
 C1 - Static Pressure : 76.97  
 C2 - Residual Pressure : 20  
 C2 - Residual Flow : 4593.833

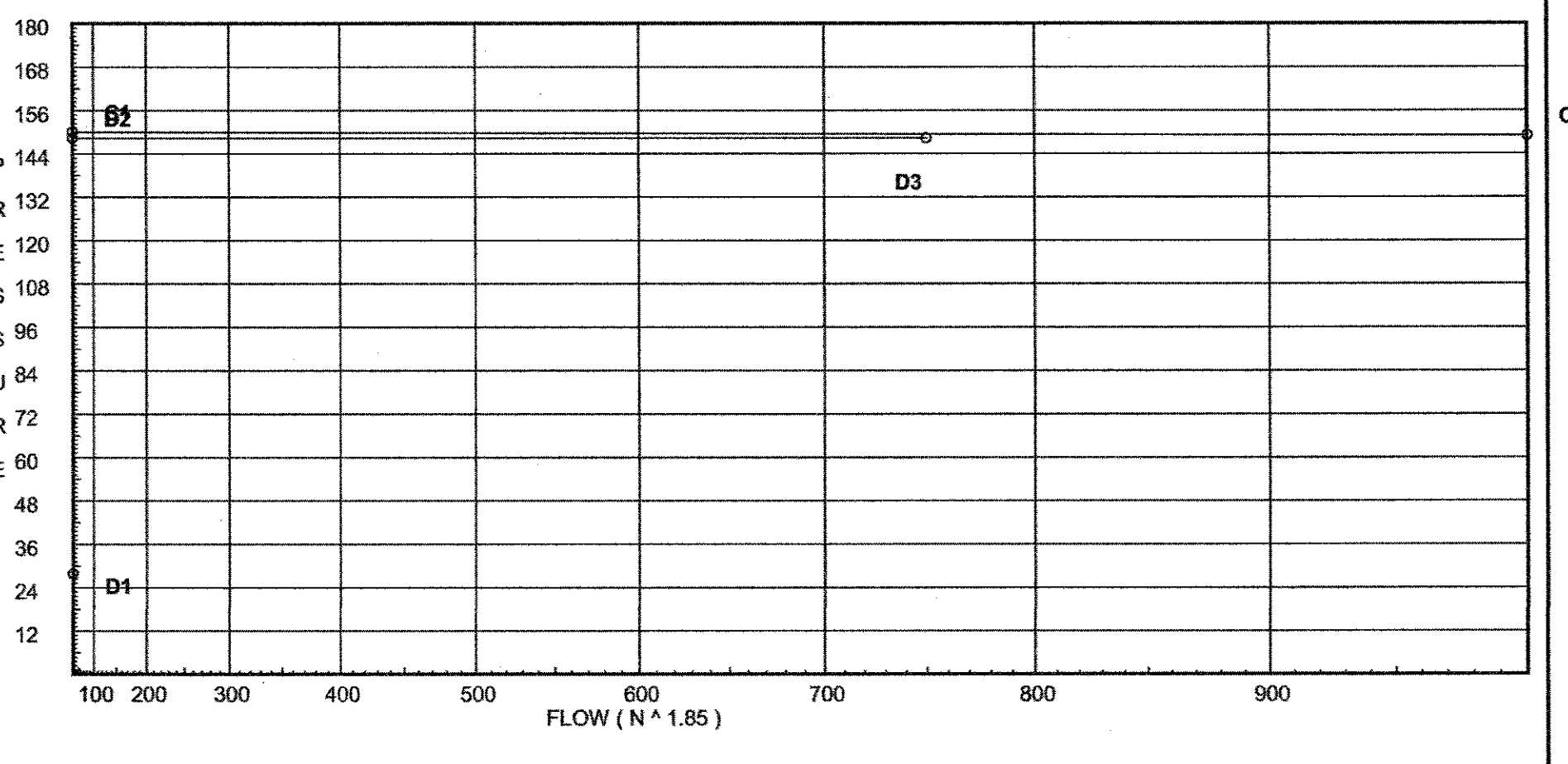


HYDRANT FIRE FLOW GRAPH

City Water Supply:  
 C1 - Static Pressure : 150  
 C2 - Residual Pressure : 149  
 C2 - Residual Flow : 1000

MANUAL WET STANDPIPE SYSTEMS  
 SUPPLIED BY FIRE APPARATUS  
 NFPA 14 2013 3.3.15.5, 7.8.1.2, AND  
 7.10.1.2

Demand:  
 D1 - Elevation : 27.900  
 D2 - System Flow : 148.363  
 D3 - System Pressure : 720  
 D3 - System Demand : 750  
 Safety Margin : 1.050



CLASS 1 MANUAL WET STANDPIPE FIRE FLOW GRAPH

**LEGEND**

ITEM	SYMBOL
PROPOSED FIRE ACCESS	[Symbol]
HOSE PULL LENGTH	[Symbol]
FIRE HYDRANT COVERAGE AREA	[Symbol]
PROPOSED BUILDING	[Symbol]
PROP WATER MAIN	[Symbol]
PROP FIRE SERVICE	[Symbol]
PROPOSED BACKFLOW PREVENTOR	[Symbol]
PROPOSED FIRE HYDRANT	[Symbol]
EX WATER	[Symbol]
EX FIRE HYDRANT	[Symbol]
EXISTING BUILDING	[Symbol]

**NOTE:**

- NO 2-1/2" FIRE DEPARTMENT HOSE VALVES REQUIRED AT GROUND FLOOR PER SAN DIEGO FIRE DEPARTMENT
- PIPE TRENCH PER SDG-107/108 AND DETAIL 7/C-5013.
- FIRE UNDERGROUND PIPE INSTALLATION BY SHELDON SITE UTILITIES, LICENSE A-835147.
- ELEVATOR IS DESIGNED IN ACCORDANCE WITH LFA 3002.4.3A, THE CLEAR DISTANCE BETWEEN WALLS OF ELEVATOR CAB IS NOT LESS THAN 80" X 54" WITH SIDE SLIDE DOOR OF 42". SEE DETAIL 2/A-603 FOR ACTUAL DIMENSIONS. ELEVATOR IS DESIGNATED WITH A STAR OF LIFE PERMANENTLY ATTACHED TO THE SIDE OF THE HOISTWAY DOOR FRAME PER LFA 3002.4A.
- SEE SHEETS C-611 AND C-612 FOR HYDRANT FLOW REQUEST FORMS

**FIRE FLOW INFORMATION-PARKING STRUCTURE**  
 SEE HYDRANT FIRE FLOW GRAPH ON C-610.  
 CONSTRUCTION TYPE: TYPE IB  
 SQUARE FOOTAGE: 21,823 SF  
 REQUIRED HYDRANT FIRE FLOW (TABLE B105.1): 1,500 GPM (TYPE IB, 0-22,700 SF-8104.3 EXCEPTION)  
 REQUIRED FIRE FLOW FOR CLASS 1 MANUAL WET STANDPIPE: 750 GPM  
 TOTAL REQUIRED FIRE FLOW: 2,250 GPM  
 PROVIDED FIRE FLOW: 4,594 GPM - COMPLIANT WATER SUPPLY CONFIRMED BY CITY. SEE DOCUMENTATION ON C-610, C-611, AND C-612.  
 SEE MANUAL WET STANDPIPE FIRE FLOW GRAPH BELOW  
 NO. OF HYDRANTS REQUIRED (TABLE CC105.1): 2 REQUIRED, 2 PROVIDED  
 AVERAGE HYDRANT SPACING (TABLE CC105.1): 450-FT REQUIRED, 275-FT PROVIDED

**Corbett, Amanda D**

**From:** Moshavegh, Feryal <F.Moshavegh@sandiego.gov>  
**Sent:** Monday, July 27, 2015 2:34 PM  
**To:** Prince, John  
**Cc:** Corbett, Amanda D; Rubalcava, Eric; Huynh, My-Lee  
**Subject:** RE: Hydrant Flow Model for SDSU South Campus Plaza (PTS 373672)

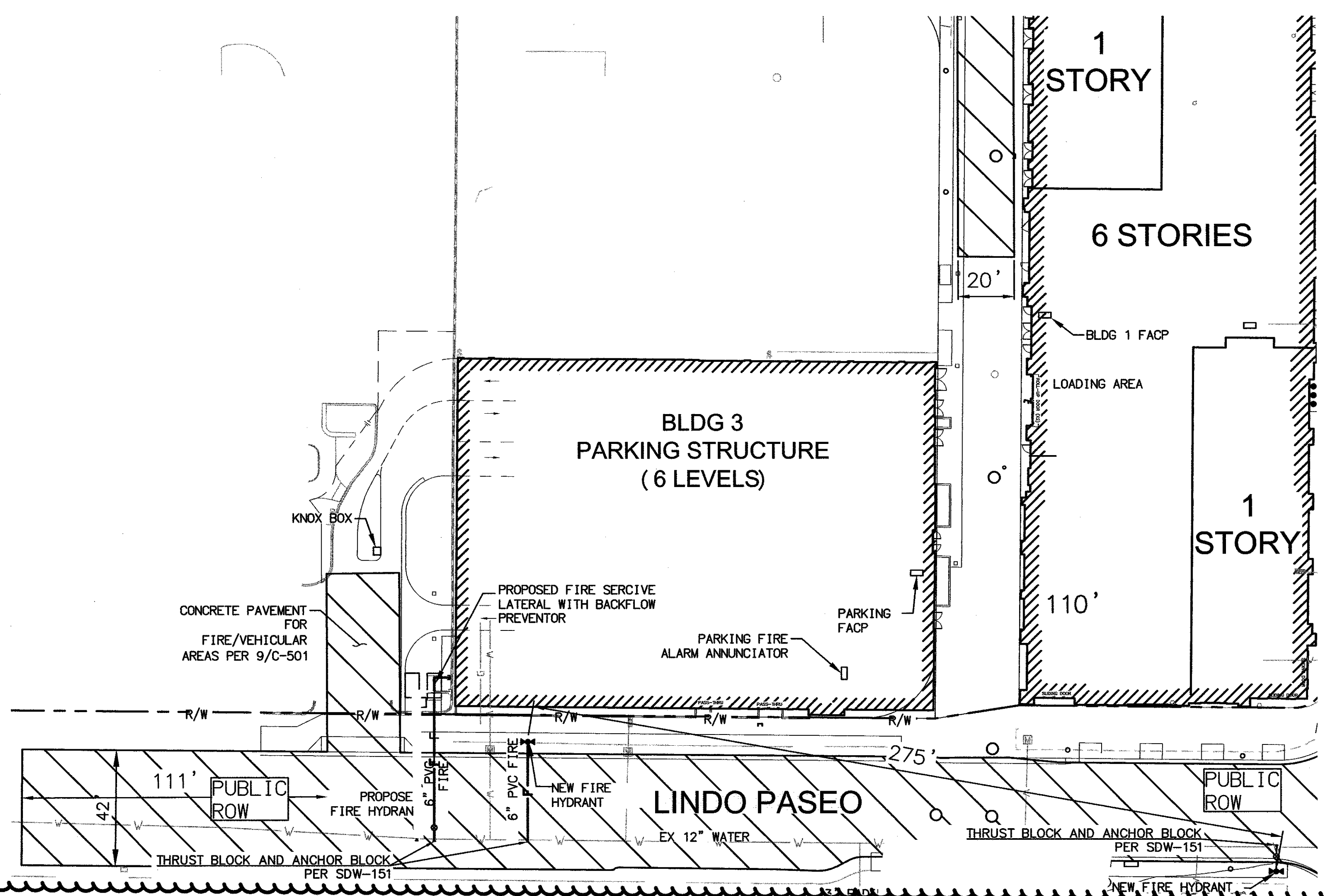
John hi  
 At fire hydrant#538316 corner of Hardy Ave & College Ave, we can lower the pressure to 62 psi and fire flow will be 2,246 gallons per minute at flow velocity of 14.34 ft/sec. See below hydraulic map;

Please let me know if you have any question.  
 Thank you  
 Feryal

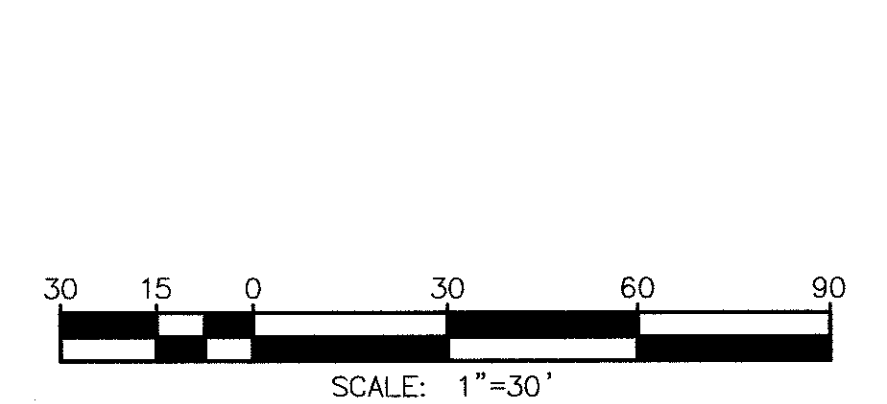
**From:** Prince, John [mailto:JPRINCE@mbakerintl.com]  
**Sent:** Monday, July 27, 2015 11:51 AM

Please let me know if you have any question.  
 Thank you  
 Feryal

**From:** Prince, John [mailto:JPRINCE@mbakerintl.com]  
**Sent:** Monday, July 27, 2015 11:51 AM



- CONTRACTOR NOTES**
- REFERENCE CITY IMPROVEMENT PLANS FOR DEPTHS OF PROPOSED FIRE SERVICE LINES (EXISTING PIPE ASSUMED 3" DEEP). MINIMUM COVER SHALL BE 3'-0" IN TRAFFIC ZONES, 2'-6" IN PEDESTRIAN ZONES.
  - REFERENCE PLUMBING PLANS FOR SPRINKLERS AND STANDPIPE RISERS AT AND INSIDE BUILDINGS.
  - PLACE FIRE DEPARTMENT CONNECTIONS NO FURTHER THAN 40' FROM A FIRE ACCESS ROADWAY.
  - PROPOSED FIRE SERVICE LINES AND STRUCTURES SHOWN FOR REFERENCE ONLY. REFERENCE UTILITY PLANS FOR PROPOSED UTILITY DESIGN.
  - PROPOSED FIRE HYDRANTS SHALL HAVE INDIVIDUALLY VALVED PORTS, ONE 2-1/2" AND TWO 4" FOR ALL OCCUPANCIES EXCEPT R-3.
  - PROPOSED FIRE HYDRANTS SHALL HAVE A SHUT-OFF VALVE LOCATED NO CLOSER THAN 5' FROM THE HYDRANT, AND NO FURTHER THAN 20'.



OFFICE OF THE STATE FIRE MARSHAL  
 APPROVED FIRE PLAN  
 Reviewed by: [Signature]  
 APR 27 2016

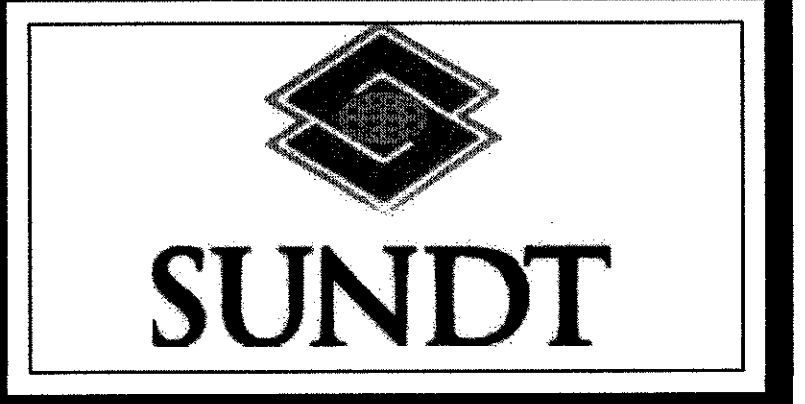
Approval of this plan does not authorize or approve any contractor or deviation from applicable laws, rules, codes, and standards. Final approval is subject to field inspection. One set of approved plans shall be available on the project site at all times.

REGISTERED PROFESSIONAL ENGINEER  
 CIVIL  
 No. C60283  
 STATE OF CALIFORNIA

ENGINEER OF WORK  
 [Signature]  
 03/03/16  
 TRISTAN M. THIELLE, R.C.E. 60283 DATE  
 EXP. 6-30-16

**SOUTH CAMPUS PLAZA**  
 SAN DIEGO STATE UNIVERSITY  
 516 COLLEGE AVENUE  
**CIVIL / LANDSCAPE PACKAGE**

**SAN DIEGO STATE UNIVERSITY**



**REVISIONS**

NO.	DESCRIPTION	DATE
1	100% PD	5/21/14
2	50% CD	7/2/14
3	95% CD	7/31/14
4	100% CD BACKCHECK	11/10/14
5	100% CD BACKCHECK SET #2	1/29/15
6	100% CD BACKCHECK SET #3	3/20/15
7	DSA BACK CHECK SET	6/15/15
8	SFM RESUBMITTAL #3	3/03/16

**SHEET TITLE**  
**PARKING STRUCTURE FIRE SERVICE**

**SHEET NUMBER**  
**C-610**

JOB NO. 139419  
 DATE 3/03/16  
 SCALE As indicated

**RBF CONSULTING**  
 A Baker Company



City of San Diego  
Development Services  
Attention: Hydrant Flow Request  
1222 First Ave., MS-401  
San Diego, CA 92101  
(619) 445-5000

**Hydrant Flow Request** FORM DS-160  
March 2014

Fill out the information below completely for all sprinkler system flow requests, including NFPA 13, 13D and 13R systems. E-mail form to: [DS@HydrantFlow@sanidiego.gov](mailto:DS@HydrantFlow@sanidiego.gov) or mail request to the above address.

Please print or type legibly.

Company Requesting Hydrant Flow:  
**Western Fire Protection**

Telephone No: 858-513-4949 Fax No: 858-513-1322 E-mail Address: [lorrie@westernfireprotection.com](mailto:lorrie@westernfireprotection.com)

Project Number for the Building Permits: *n/a* DT @ westernfireprotection.com

Location of Hydrant:  
College Avenue  
Cross Street: **MONTEZUMA AVE** City: San Diego State: CA ZIP Code: 92182

FOR CITY USE ONLY

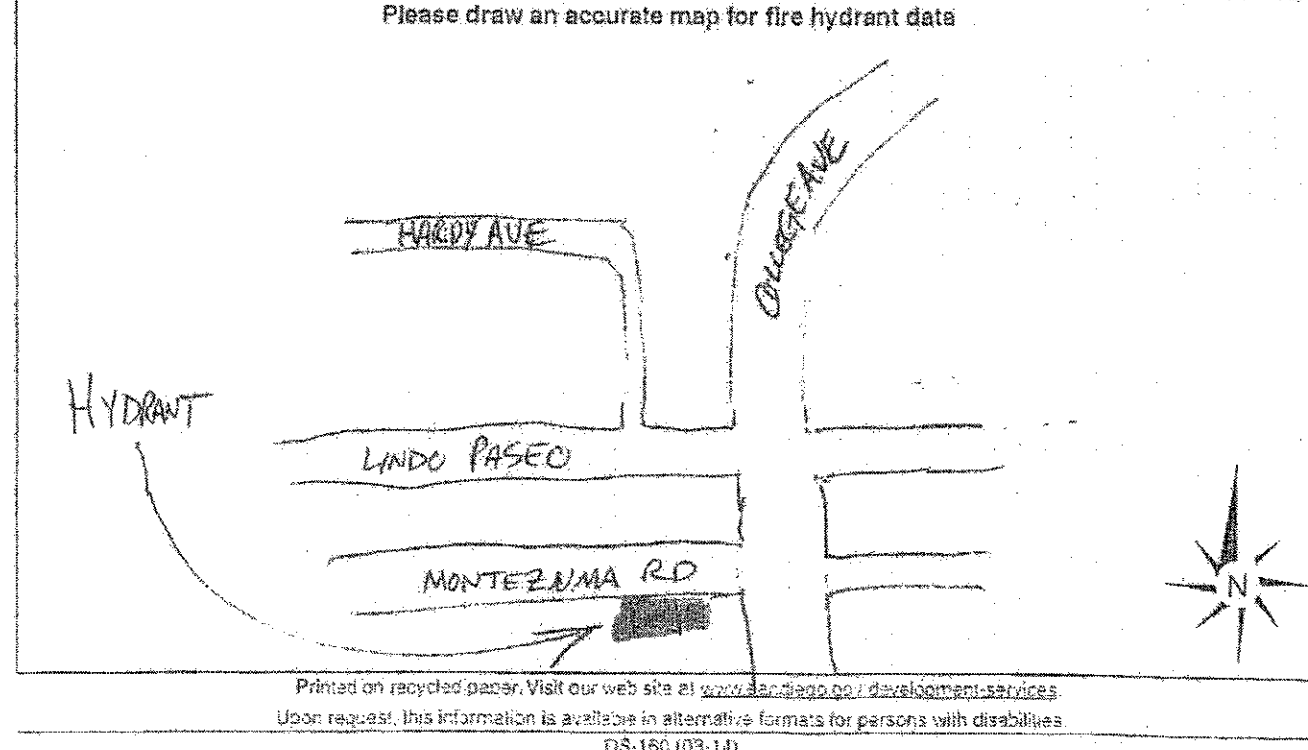
Facility Sequence Number (FSN): **538308**

Static: **76** PSI Residual: **65** PSI

Pilot: **MODEL** PSI Flow: **1264** GPM

Date: **4/4/16** Time: *n/a*

Researched in database by: **Ron Dehou**



HYDNAME	H538308
X	6309518
Y	1861152.75
HYDFSN	538308
HYDSIZE	6
HYDINST	NULL
HYDMAKE	CLOW
HYDSTYLE	90
HYDLOC	100 W COLLEGE AV S
HYDADDRESS	5801 MONTEZUMA RD
ELEVATION	457
AVG_PRESSURE	76.06
AVG_HGL	632.56
AVG_AVAL_FIREFLOW	3012.21
AVG_RESI_PRESSURE	65.6818
AVG_PRED_FIREFLOW	1264.7458
PEAK_PRESSURE	74.92
PEAK_HGL	629.87
PEAK_AVAL_FIREFLOW	2843.624

CITY HYDRANT #538308

City of San Diego  
Development Services  
Attention: Hydrant Flow Request  
1222 First Ave., MS-401  
San Diego, CA 92101  
(619) 445-5000

**Hydrant Flow Request** FORM DS-160  
March 2014

Fill out the information below completely for all sprinkler system flow requests, including NFPA 13, 13D and 13R systems. E-mail form to: [DS@HydrantFlow@sanidiego.gov](mailto:DS@HydrantFlow@sanidiego.gov) or mail request to the above address.

Please print or type legibly.

Company Requesting Hydrant Flow:  
**Western Fire Protection**

Telephone No: 858-513-4949 Fax No: 858-513-1322 E-mail Address: [lorrie@westernfireprotection.com](mailto:lorrie@westernfireprotection.com)

Project Number for the Building Permits: *n/a* DT @ westernfireprotection.com

Location of Hydrant:  
College Avenue  
Cross Street: **LINDO PASEO** City: San Diego State: CA ZIP Code: 92182

FOR CITY USE ONLY

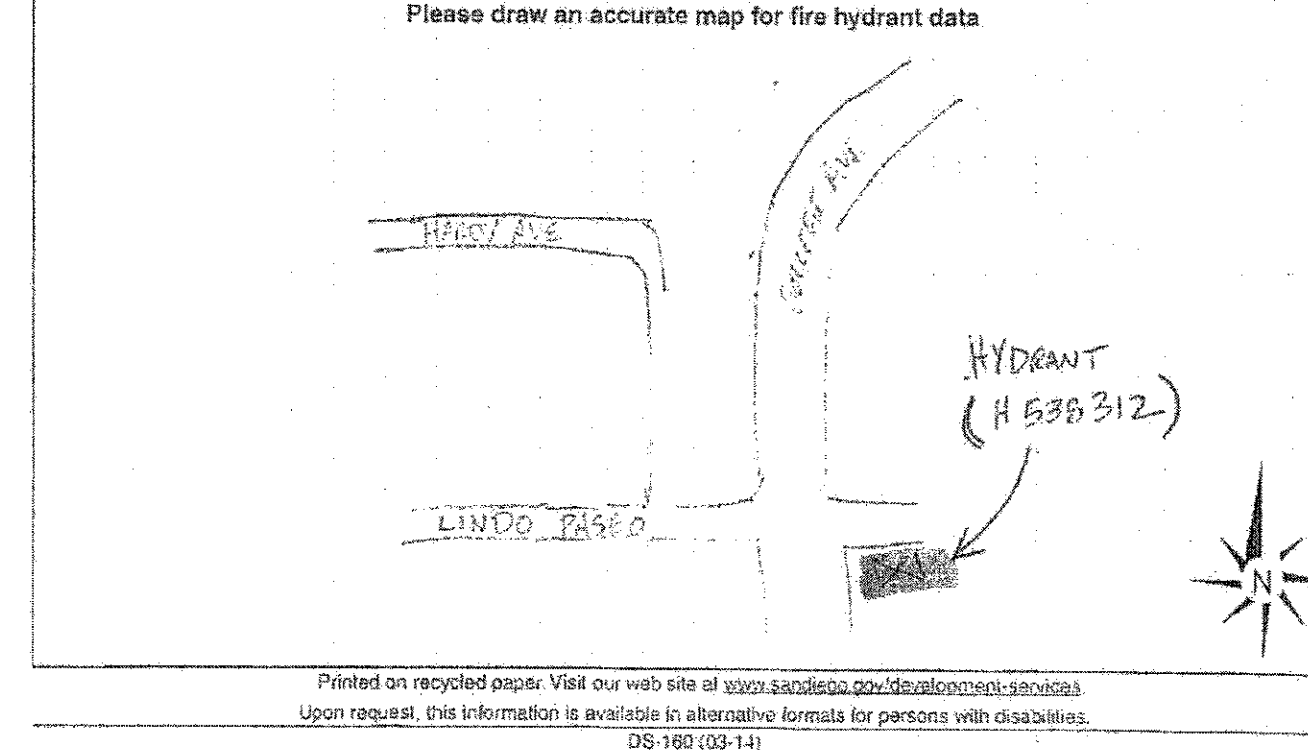
Facility Sequence Number (FSN): **538312**

Static: **76** PSI Residual: **65** PSI

Pilot: **MODEL** PSI Flow: **1265** GPM

Date: **4/4/16** Time: *n/a*

Researched in database by: **Ron Dehou**



HYDNAME	H538312
X	6309593
Y	1861493
HYDFSN	538312
HYDSIZE	6
HYDINST	NULL
HYDMAKE	GREENBERG
HYDSTYLE	53
HYDLOC	SE COLLEGE
HYDADDRESS	6001 LINDO PASEO
ELEVATION	457
AVG_PRESSURE	76.12
AVG_HGL	632.65
AVG_AVAL_FIREFLOW	4725.11
AVG_RESI_PRESSURE	65.7189
AVG_PRED_FIREFLOW	1265.0783
PEAK_PRESSURE	75
PEAK_HGL	630.07
PEAK_AVAL_FIREFLOW	4602.136

CITY HYDRANT #538312

City of San Diego  
Development Services  
Attention: Hydrant Flow Request  
1222 First Ave., MS-401  
San Diego, CA 92101  
(619) 445-5000

**Hydrant Flow Request** FORM DS-160  
March 2014

Fill out the information below completely for all sprinkler system flow requests, including NFPA 13, 13D and 13R systems. E-mail form to: [DS@HydrantFlow@sanidiego.gov](mailto:DS@HydrantFlow@sanidiego.gov) or mail request to the above address.

Please print or type legibly.

Company Requesting Hydrant Flow:  
**Western Fire Protection**

Telephone No: 858-513-4949 Fax No: 858-513-1322 E-mail Address: [lorrie@westernfireprotection.com](mailto:lorrie@westernfireprotection.com)

Project Number for the Building Permits: *n/a*

Location of Hydrant:  
College Avenue  
Cross Street: **Hardy Avenue** City: San Diego State: CA ZIP Code: 92182

FOR CITY USE ONLY

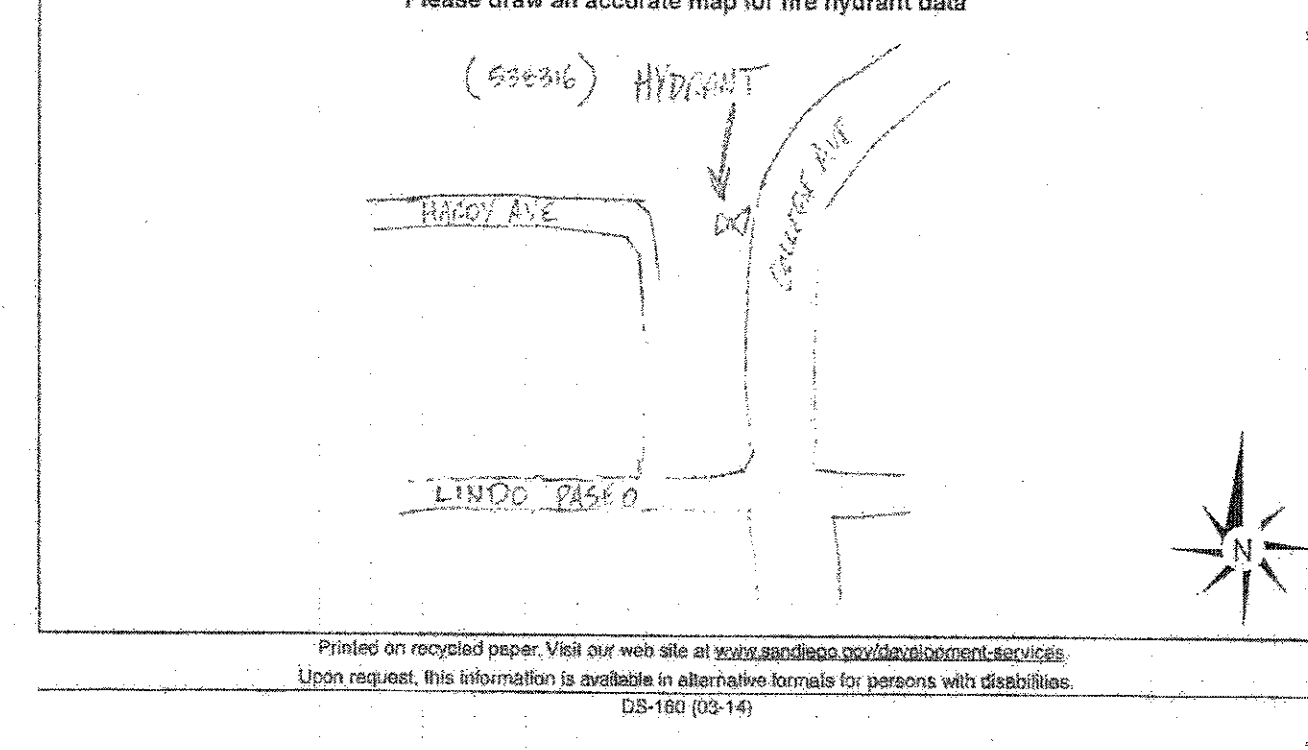
Facility Sequence Number (FSN): **538316**

Static: **76** PSI Residual: **66** PSI

Pilot: **MODEL** PSI Flow: **1272** GPM

Date: **3-18-16** Time: *n/a*

Researched in database by: **Ron Dehou**



HYDNAME	H538316
X	6309566
Y	1861951
HYDFSN	538316
HYDSIZE	6
HYDINST	NULL
HYDMAKE	JONES
HYDSTYLE	81
HYDLOC	SW COLLEGE
HYDADDRESS	5937 HARDY AV
ELEVATION	455
AVG_PRESSURE	76.97
AVG_HGL	632.62
AVG_AVAL_FIREFLOW	4593.833
AVG_RESI_PRESSURE	66.5074
AVG_PRED_FIREFLOW	1272.1219
PEAK_PRESSURE	75.86
PEAK_HGL	630.04
PEAK_AVAL_FIREFLOW	4484.387

CITY HYDRANT #538316

**SOUTH CAMPUS PLAZA**  
SAN DIEGO STATE UNIVERSITY  
5164 COLLEGE AVENUE  
CIVIL / LANDSCAPE PACKAGE

**SAN DIEGO STATE UNIVERSITY**

**SUNDT**

IDENTIFICATION STAMP  
DIV. OF THE STATE ARCHITECT  
OFFICE OF REGULATION SERVICES

**04-113889**

AC \_\_\_ FLS \_\_\_ SS \_\_\_

DATE

REVISIONS

DESCRIPTION	DATE
100% PD	5/21/14
50% CD	7/2/14
95% CD	7/31/14
100% CD BACKCHECK	11/10/14
100% CD BACKCHECK SET #2	1/29/15
100% CD BACKCHECK SET #3	3/20/15
DSA BACK CHECK SET	6/15/15
SFM RESUBMITTAL #3	3/03/16

SHEET TITLE

**PROJECT SITE  
HYDRANT FLOW**

SHEET NUMBER

**C-611**

JOB NO. 139419  
DATE 3/03/16  
SCALE As Indicated

**RBF CONSULTING**  
A Baker Company

OFFICE OF THE STATE ARCHITECT  
APPROVED FIRE AND PLUMBING PLAN  
Reviewed by: *[Signature]*  
Grade Engineer, DSWM

APR 27 2016

Approval of this plan does not authorize or approve any extension or deviation from the approved fire and plumbing plan. Final approval is subject to field inspection. One set of approved plans shall be available on the project site at all times.

ENGINEER OF WORK  
*[Signature]*  
TIMOTHY M. THIELE, R.C.E. 050283 DATE 03/03/16  
EXP. 6-30-16

FILE NAME: H:\PDATA\139419\CADD\Land\Draw\Improve\SF\Sheets\139419-SFM-Hydrant-Flow-Forms-Ldw-LAYOUT NAME: Layout1 PLOTTED: Monday, April 11, 2016 - 7:48am USER: Amanda Corbett



City of San Diego  
Development Services  
Attention: Hydrant Flow Request  
1222 First Ave., MS-401  
San Diego, CA 92101  
Tel: 619-448-9300

**Hydrant Flow Request DS-160**

FORM DS-160  
March 2014

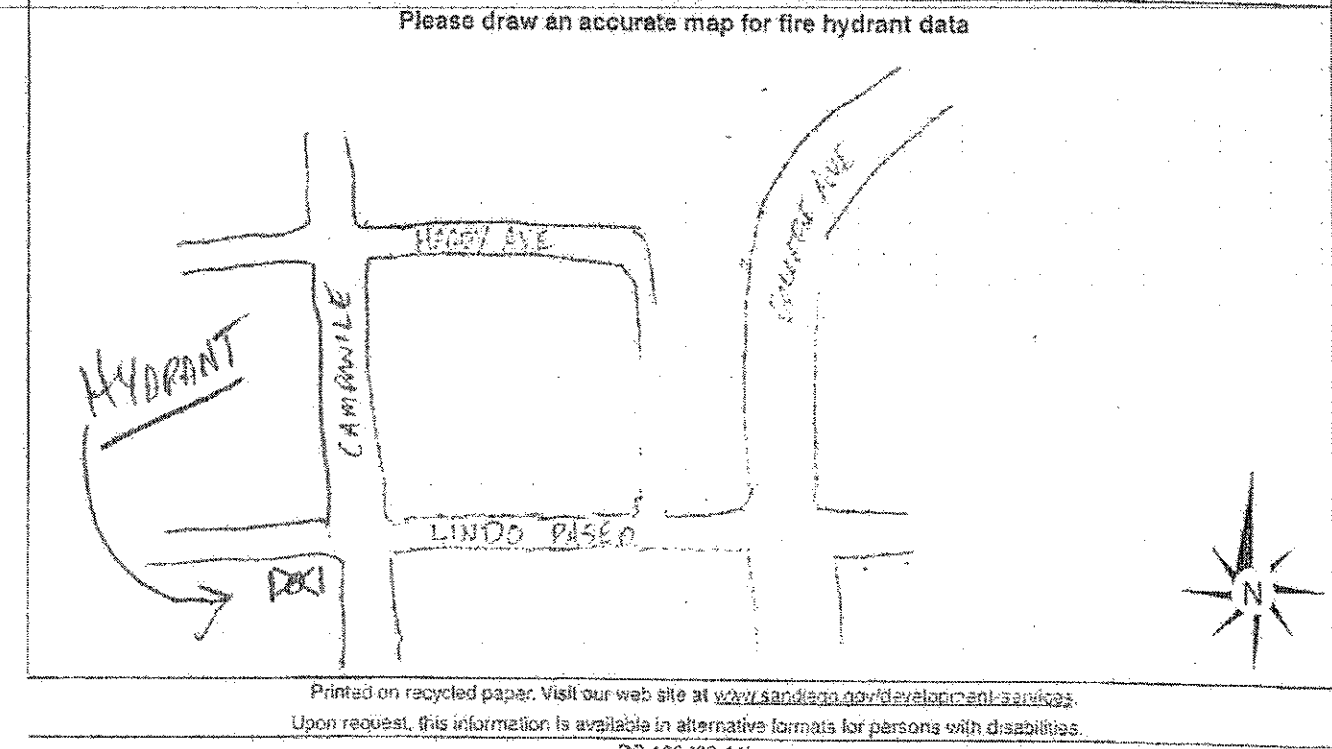
Fill out the information below completely for all sprinkler system flow requests, including NFPA 13, 13D and 13R systems. E-mail form to: [DSDFlowRequest@sanidiego.gov](mailto:DSDFlowRequest@sanidiego.gov), or mail request to the above address.

Please print or type legibly.

Company Requesting Hydrant Flow:  
Western Fire Protection  
Telephone No: 858-513-4949 Fax No: 858-513-1322 E-mail Address: [lorrie@westernfireprotection.com](mailto:lorrie@westernfireprotection.com)  
Project Number for the Building Permit: DJ @ westernfireprotection.com

Location of Hydrant:  
CAMPANILE DR  
LINDO PASEO  
City: San Diego State: CA ZIP Code: 92182

FOR CITY USE ONLY  
Facility Sequence Number (FSN): 538300  
Static: 75 PSI Residual: 65 PSI  
Pilot: MODEL PSI Flow: 1258 GPM  
Date: 4/4/16 Time: N/A  
Researched in database by: RON DELEON



HYDRANT NO.	H538300
X	6308943.5
Y	1861514
HYDRANT NO.	538300
HYDRANT SIZE	8
HYDRANT INST.	NULL
HYDRANT MAKE	CLOW
HYDRANT STYLE	90
HYDRANT LOC.	SW CAMPANILA
HYDRANT ADDRESS	5751 LINDO PASEO
ELEVATION	468
AVG. PRESSURE	76.37
AVG. HGL	631.82
AVG. AVAIL. FLOW	5215.972
AVG. RESI. PRESSURE	66.0232
AVG. PRED. FLOW	1258.8305
PEAK PRESSURE	74.04
PEAK HGL	628.84
PEAK AVAIL. FLOW	4989.827

City of San Diego  
Development Services  
Attention: Hydrant Flow Request  
1222 First Ave., MS-401  
San Diego, CA 92101  
Tel: 619-448-9300

**Hydrant Flow Request DS-160**

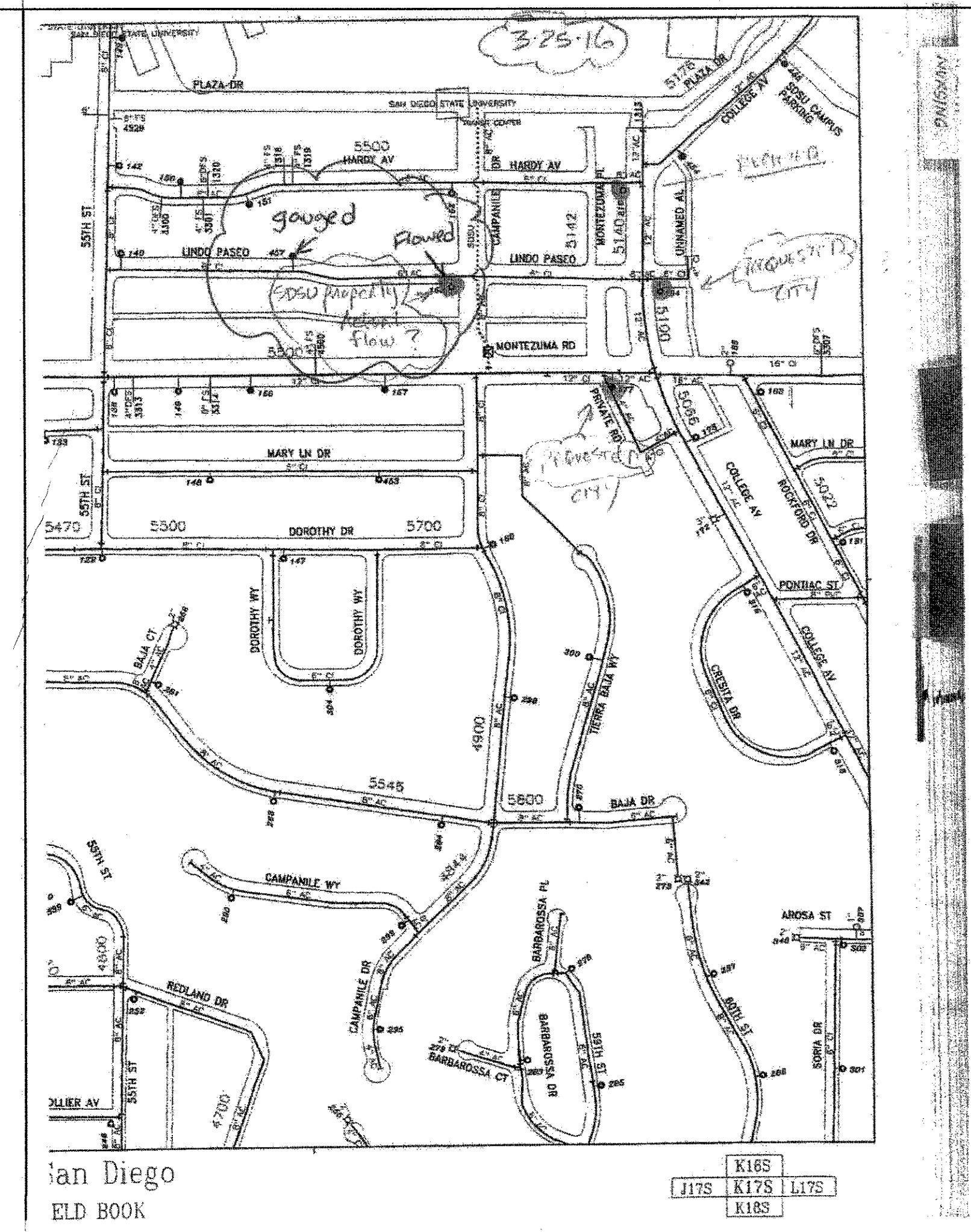
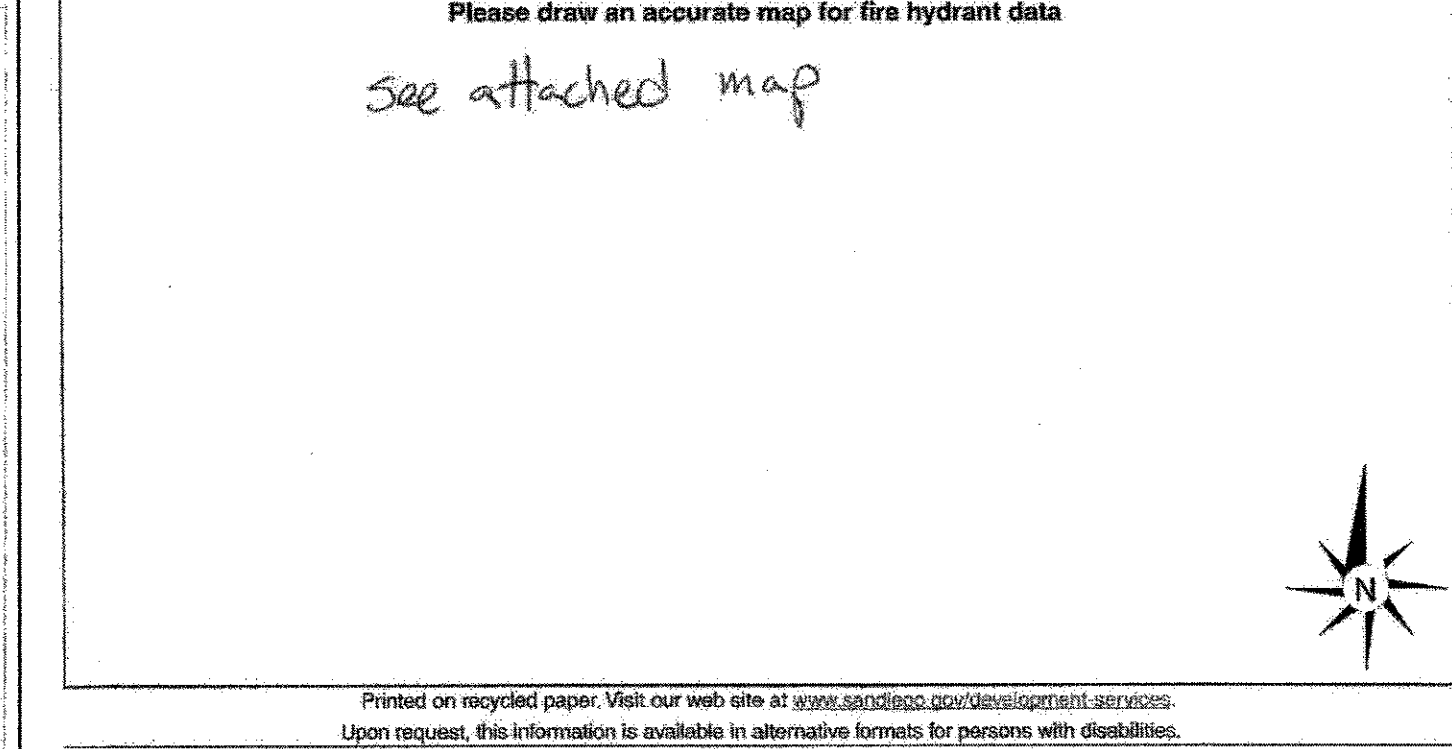
FORM DS-160  
March 2014

Fill out the information below completely for all sprinkler system flow requests, including NFPA 13, 13D and 13R systems. E-mail form to: [DSDFlowRequest@sanidiego.gov](mailto:DSDFlowRequest@sanidiego.gov), or mail request to the above address.

Please print or type legibly.

Company Requesting Hydrant Flow:  
Telephone No: Fax No: E-mail Address:  
Project Number for the Building Permit: ODSU SCP  
Location of Hydrant:  
Corner of Campanile & Lindo Paseo  
City: San Diego State: CA ZIP Code:

FOR CITY USE ONLY  
Facility Sequence Number (FSN):  
Static: 85 PSI Residual: 75 PSI  
Pilot: 45 PSI Flow: 1026 GPM  
Date: 4/1/16 Time: 9:15 AM  
Researched in database by:



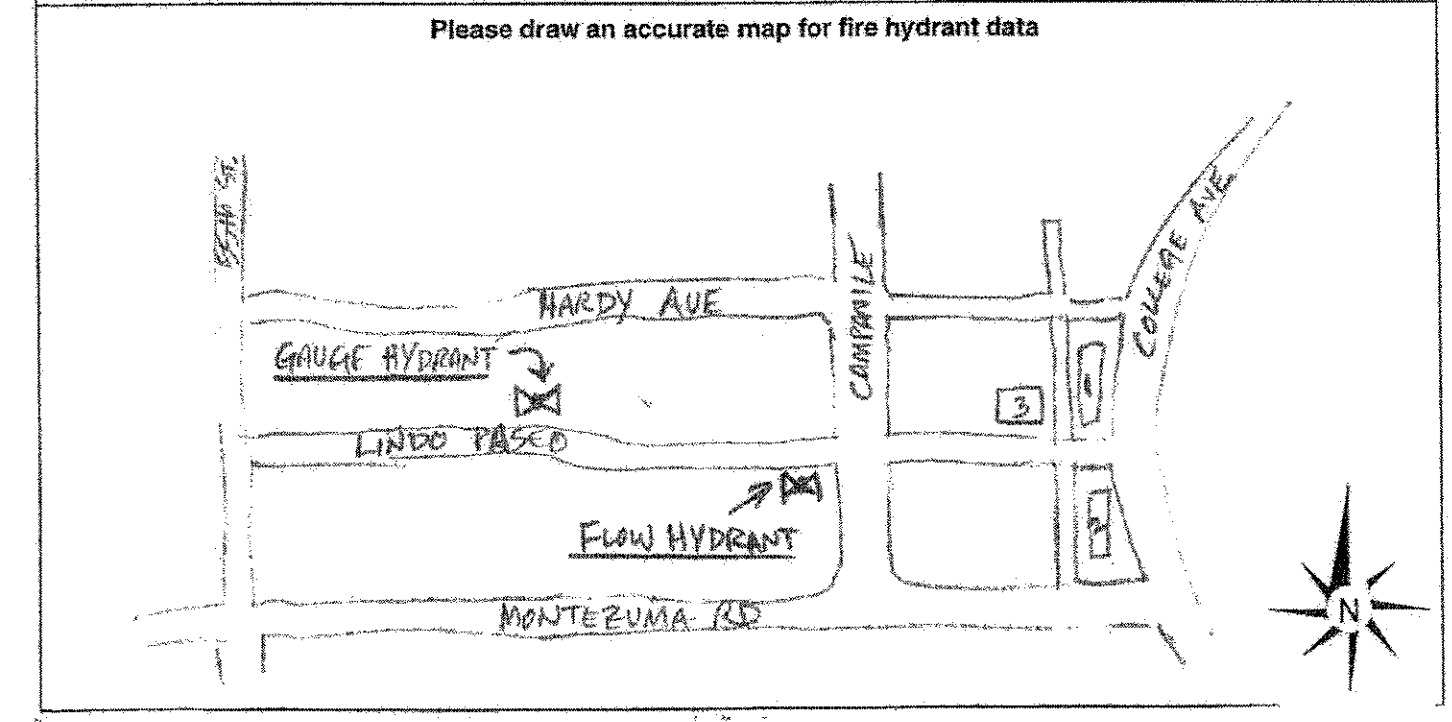
Western Fire Protection, Inc.

**FLOW TEST INFORMATION SHEET**

Company Requesting Hydrant Flow:  
Western Fire Protection  
Telephone No: 858-513-4949 Fax No: 858-513-1322 E-mail Address: [lorrie@westernfireprotection.com](mailto:lorrie@westernfireprotection.com)  
Project Number for the Building Permit: 18-37-03-002-176 18-37-03-002-177

Location of Hydrant:  
SW corner of Lindo Paseo and Campanile  
City: San Diego State: CA ZIP Code:

CITY HYDRANT NO.: 538300  
Static: 81 PSI Residual: 75 PSI  
Pilot: 41 PSI Flow: 961 GPM  
Date: 4-07-16 Time: 9:45 AM  
TEST PERFORMED BY: JOE MIRANDA (WFP) WITNESSED BY: TIM PIES (PSM)



13630 Danielson St. • Poway, CA 92064 • Phone: (858) 513-4949 • Fax: (858) 513-1322  
CA Lic. # C16 588039 AZ Lic. # L16-107150

CITY HYDRANT #538300

**SOUTH CAMPUS PLAZA**  
SAN DIEGO STATE UNIVERSITY  
516 COLLEGE AVENUE  
CIVIL / LANDSCAPE PACKAGE

**SAN DIEGO STATE UNIVERSITY**

**SUNDT**

IDENTIFICATION STAMP  
DIV. OF THE STATE ARCHITECT  
OFFICE OF REGULATION SERVICES  
**04-113889**  
AC FLS SS  
DATE

**REVISIONS**

DESCRIPTION	DATE
100% PD	5/21/14
50% CD	7/2/14
85% CD	7/31/14
100% CD BACKCHECK	11/10/14
100% CD BACKCHECK SET #2	1/29/15
100% CD BACKCHECK SET #3	3/20/15
DSA BACK CHECK SET	6/15/15
SFM RESUBMITTAL #3	3/03/16

**SHEET TITLE**  
**PROJECT SITE  
HYDRANT FLOW**

**SHEET NUMBER**  
**C-612**

JOB NO: 139419  
DATE: 3/03/16  
SCALE: As Indicated

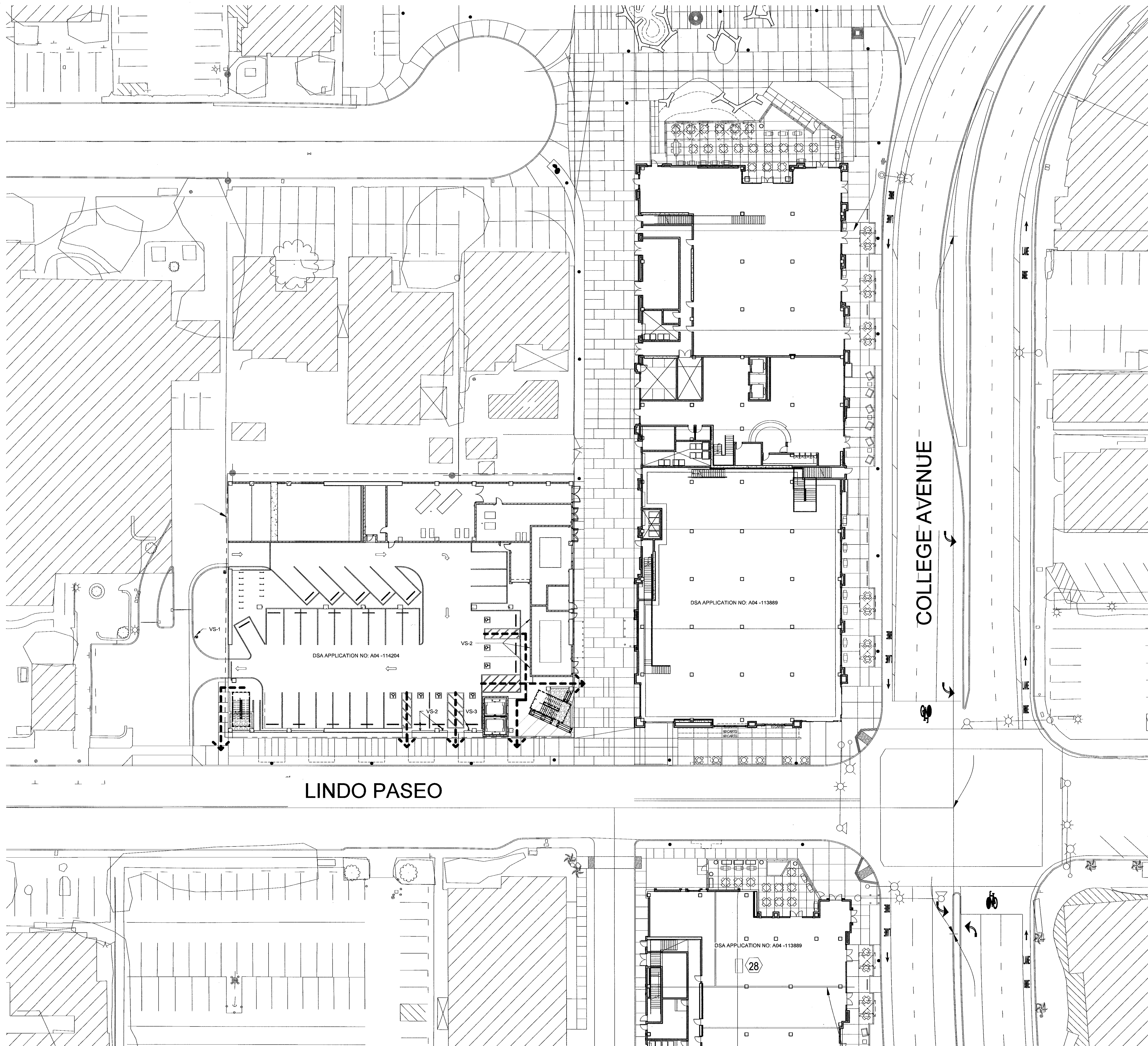
**RBF CONSULTING**  
A Baker Company

OFFICE OF THE STATE ARCHITECT  
APPROVED FIRE AND PLUMBING WORK  
Reviewed by: [Signature]  
APR 27 2016  
Approval of this plan does not authorize or approve any revision or deviation from applicable regulations. Final approval is subject to field inspection. One set of approved plans shall be available on the project site at all times.

ENGINEER OF WORK  
TIMOTHY R. THELE, R.C.E. # 60283 DATE: 03/03/16  
EXP. 6-30-16

FILE NAME: H:\PDATA\139419\CADD\Land\DW\improve\SF\Sheets\139419-SFM-Hydrant-Flow Forms-2.dwg LAYOUT NAME: Layout1 PLOTTED: Monday, April 11, 2016 - 7:52am USER: Amanda Corbett





TYPE	DESCRIPTION	SPEC	DETAIL
VS-1	ACCESSIBLE PARKING SITE ENTRANCE	10440	10 / A-801
VS-2	ACCESSIBLE PARKING SPACE	10440	4 / A-801
VS-3	VAN ACCESSIBLE PARKING SPACE	10440	9 / A-801

**SGPA**  
**ARCHITECTURE**  
**AND PLANNING**  
 1545 HOTEL CIR. S. STUDIO 200  
 SAN DIEGO, CA 92108  
 (P) 619.297.0131  
 WWW.SGPA.COM



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 SAN DIEGO, CALIFORNIA  
**SAN DIEGO STATE UNIVERSITY**  
 SAN DIEGO, CA

**SIGNAGE SCHEDULE**

1. PATH OF TRAVEL (P.O.T.) AS INDICATED IS A BARRIER FREE ACCESS WITHOUT ANY ABRUPT VERTICAL CHANGES EXCEEDING 1/2" BEVELLED AT 1:2 MAXIMUM SLOPE, EXCEPT THAT LEVEL CHANGES DO NOT EXCEED 1/4" VERTICAL AND IS AT LEAST 48" WIDE. SURFACE IS SLIP RESISTANT, STABLE, FIRM AND SMOOTH. CROSS-SLOPE DOES NOT EXCEED 2% AND SLOPE IN THE DIRECTION OF TRAVEL IS LESS THAN 5% UNLESS OTHERWISE INDICATED. (P.O.T.) SHALL MAINTAIN FREE OF OVERHANGING OBSTRUCTIONS TO 8" MINIMUM (11388.2) AND PROTRUDING OBJECTS GREATER THAN 4" PROJECTION FROM THE WALL AND ABOVE 27" AND LESS THAN 80" (11388.6). CONTRACTOR TO VERIFY THAT ALL BARRIERS IN THE PATH OF TRAVEL HAVE BEEN REMOVED OR WILL BE REMOVED UNDER THIS PROJECT, AND PATH OF TRAVEL COMPLIES WITH CBC 11338.
2. PROVIDE SITE DIRECTIONAL ACCESSIBLE ROUTE SIGNAGE (SDS-1) AT ALL MAJOR JUNCTIONS PER CBC SEC. 11276.3.

**ACCESSIBILITY NOTES**

- ACCESSIBLE PATH OF TRAVEL 4'-0" WIDE MIN. CONCRETE OR A.C. PAVED. SEE CIVIL DRAWINGS FOR ADDITIONAL INFORMATION ON MATERIAL, SLOPES AND ELEVATIONS.

**LEGEND**

**SOUTH CAMPUS PLAZA DESIGN-BUILD PARKING STRUCTURE**  
 5840 LINDO PASEO  
 SAN DIEGO STATE UNIVERSITY

SUBMITTAL SCHEDULE:

SCHEMATIC DESIGN	04/17/2014
50% PRELIM. DESIGN	05/14/2014
100% PRELIM. DESIGN	05/28/2014
50% CONST. DOCS.	07/02/2014
95% CONST. DOCS.	08/07/2014
100% BACKCHECK	11/10/2014
100% BACKCHECK SET 2	01/22/2015
100% BACKCHECK SET 3	03/20/2015
ASIM02	06/12/2015
ASIM05	07/07/2015
ASIM07 - SFM RESUB.	07/29/2015
ASIM011 - SFM RESUB. 2	11/09/2015
ASIM015 - SFM RESUB. 3	03/03/2016

OFFICE OF THE STATE FIRE MARSHAL  
 APPROVED FIRE AND PANIC CODE  
 Reviewed by: [Signature]  
 Brady Goodrich, DSFM  
**APR 27 2016**

Approval of this plan does not authorize or approve any omission or deviation from applicable regulations. Final approval is subject to field inspection. One set of approved plans shall be available on the project site at all times.

PROJECT NO: 21305-G-50

**ACCESSIBILITY / SIGNAGE SITE PLAN**

**A-002**

**ACCESSIBILITY / SIGNAGE SITE PLAN** 1" = 20'-0"

2/26/2016 9:30:07 AM C:\Work\Local Files\31388-5outh Campus\_Renov\2014\_04\_29\_Plan\_Lindo Paseo\_Parking\_Structure.dwg User: jacob@sgpa.com



--- 2 HR FIRE WALL  
 - - - ASSUMED PROPERTY LINE

**LEGEND**

OCCUPANCY CLASSIFICATION	S-2 - OPEN PARKING GARAGE
TYPE OF CONSTRUCTION	S-1 - STORAGE, INCIDENTAL USE
ALLOWABLE AREA	TYPE I-B
ACTUAL AREA	75,000 SF PER STORY
NUMBER OF STORES/HEIGHT	122,213 SF TOTAL BUILDING AREA
ALLOWABLE HEIGHT	21,825 SF PER STORY, 10,925 SF AT ROOF
SEPARATED/NOT-SEPARATED USE	6 STORIES
SPRINKLERED	MAX HEIGHT PER 4' ABOVE FIN. GRADE
FIRST FLOOR AREA	11 STORIES PER TABLE 503
SECOND FLOOR AREA	SEPARATED USE AS INDICATED ON PLANS
THIRD FLOOR AREA	WET STANDPIPE SYSTEM
FOURTH FLOOR AREA	21,825 SF
FIFTH FLOOR AREA	21,825 SF
SIXTH FLOOR AREA	21,825 SF
GROSS FLOOR AREA	10,925 SF
FIRE ALARM	120,521 SF
HIGH FIRE HAZARD SEVERITY ZONE	YES
SEISMIC JOINTS	NO
EMERGENCY RESPONDER RADIO COVERAGE	YES, located at the elevator enclosure

**PROJECT DATA**

FIRE RESISTANCE RATING REQUIREMENTS FOR EXTERIOR WALLS BASED ON FIRE SEPARATION DISTANCE PER TABLE 705.8

	FIRE SEPARATION DISTANCE PROVIDED	FIRE RATING PROVIDED
NORTH	3'-11 1/2" FT. (X < 5 FT)	2 HOUR
EAST	15'-6"	NOT RATED *
SOUTH	36'-0"	NOT RATED *
WEST	10'-0"	NOT RATED *

\* NOTE D IN TABLE 705.8 - OPEN PARKING GARAGES COMPLYING WITH SECTION 406 SHALL NOT BE REQUIRED TO HAVE A FIRE-RESISTIVE RATING.

MAXIMUM AREA OF EXTERIOR WALL OPENINGS BASED ON FIRE SEPARATION DISTANCE AND DEGREE OF OPENING PROTECTION PER TABLE 705.8

	FIRE SEPARATION DISTANCE PROVIDED	ALLOWABLE OPENING AREA
NORTH	3'-11 1/2" FT. (3 TO LESS THAN 5 FT)	NOT PERMITTED
EAST	15'-6"	UNLIMITED PERMITTED *
SOUTH	36'-0"	UNLIMITED PERMITTED *
WEST	10'-0"	UNLIMITED PERMITTED *

\* NOTE G IN TABLE 705.8 - THE AREA OF OPENINGS IN AN OPEN PARKING GARAGE WITH A FIRE SEPARATION DISTANCE OF 10 FEET OR GREATER SHALL NOT BE LIMITED

OPENINGS PROVIDED AT NORTH EXTERIOR WALL SHALL BE PROTECTED PER CBC 2013 SECTION 705.9 AND SECTION 715.

FIRE RESISTANT JOINT SYSTEMS ARE NOT REQUIRED TO BE PROTECTED OPENINGS AS REQUIRED PER SECTION 715 EXCEPT FOR SLOPPES AND RAMPS WITHIN OPEN AND ENCLOSED PARKING GARAGE OR STRUCTURES CONSTRUCTED IN ACCORDANCE WITH SECTION 406.5 AND 406.6M RESPECTIVELY.

PARKING GARAGE SHALL BE AN OPEN PARKING GARAGE CONSTRUCTED IN ACCORDANCE WITH SECTION 406.5.



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 SAN DIEGO, CALIFORNIA

**SAN DIEGO STATE UNIVERSITY**  
 SAN DIEGO, CA

**SOUTH CAMPUS PLAZA DESIGN-BUILD PARKING STRUCTURE**

5840 LINDO PASEO  
 SAN DIEGO STATE UNIVERSITY

**SUBMITTAL SCHEDULE:**

SCHEMATIC DESIGN	04/17/2014
50% PRELIM. DESIGN	05/14/2014
100% PRELIM. DESIGN	05/28/2014
95% CONST. DOCS.	07/02/2014
95% CONST. DOCS.	08/07/2014
100% BACKCHECK	11/10/2014
100% BACKCHECK SET 2	01/22/2015
100% BACKCHECK SET 3	03/20/2015
AS1#005	07/07/2015
AS1#007 - SFM RESUB.	07/29/2015
AS1#011 - SFM RESUB. 2	11/09/2015
AS1#015 - SFM RESUB. 3	03/03/2016

OFFICE OF THE STATE FIRE MARSHAL  
 APPROVED FIRE AND LIFE SAFETY ONLY  
 Reviewed by: *Brady Goodrich, USFM*

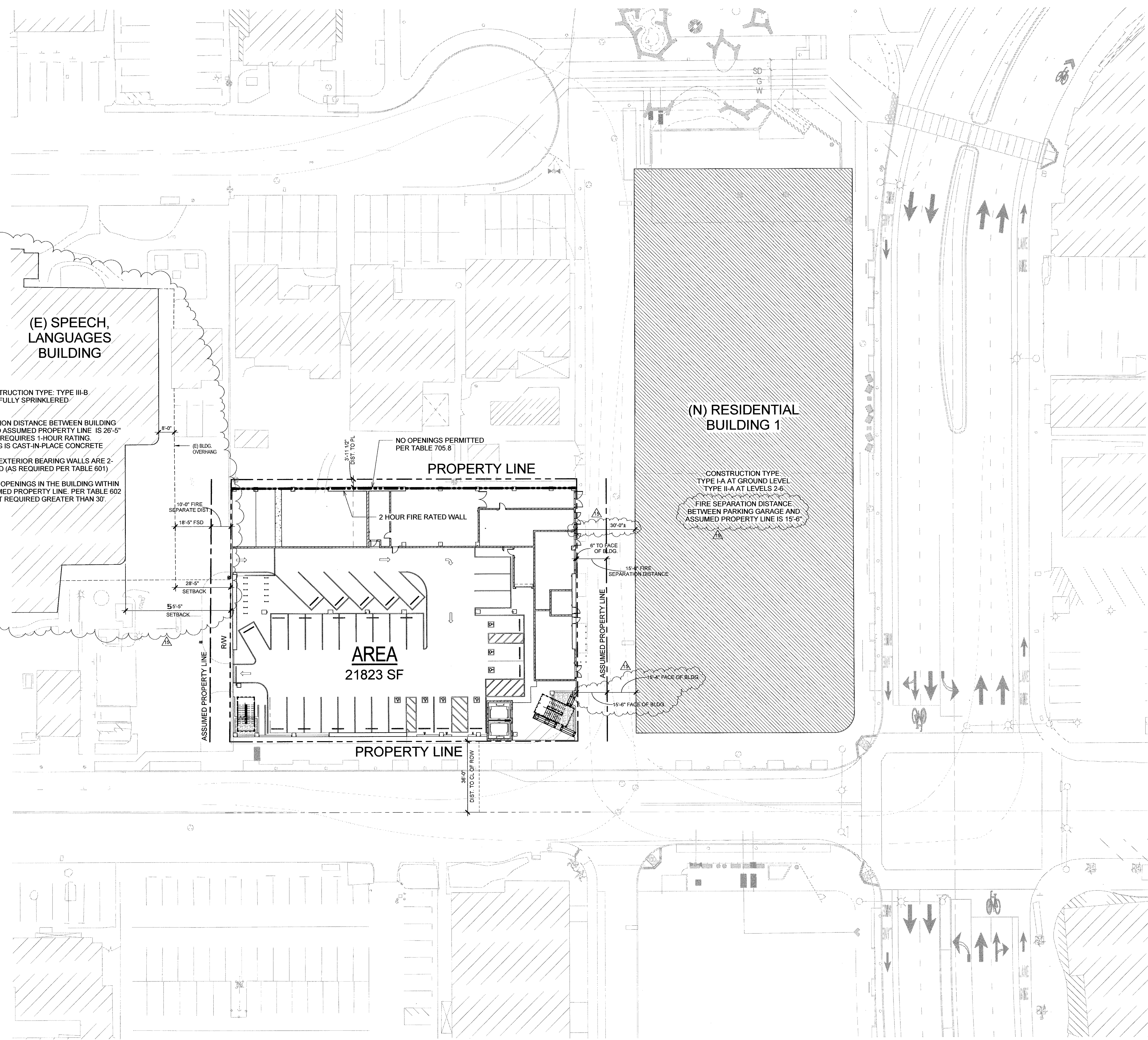
APR 27 2016

Approval of this plan does not authorize or approve any construction or installation of fire protection equipment or systems. Final approval is subject to field inspection. One set of approved plans shall be available on the project site at all times.

PROJECT NO: 21306-G-50

**BUILDING AREA ANALYSIS**

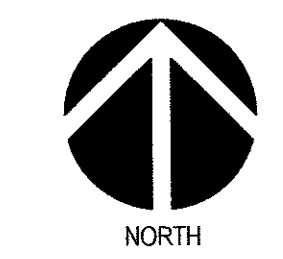
**A-004**



**BUILDING AREA ANALYSIS**

1" = 20'-0"

**NOTE:**  
 EAST, WEST AND SOUTH ELEVATIONS ALLOWED UNLIMITED OPENINGS PER CBC 705.8.  
 NORTH ELEVATION NO OPENINGS ALLOWED PER CBC 705.8.







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SAN DIEGO, CALIFORNIA

**SAN DIEGO STATE UNIVERSITY**  
SAN DIEGO, CA

**SOUTH CAMPUS PLAZA DESIGN-BUILD PARKING STRUCTURE**

5640 LINDO PASEO  
SAN DIEGO STATE UNIVERSITY

SUBMITTAL SCHEDULE:

SCHEMATIC DESIGN	04/17/2014
50% PRELIM. DESIGN	05/14/2014
100% PRELIM. DESIGN	05/28/2014
50% CONST. DOCS.	07/02/2014
95% CONST. DOCS.	08/07/2014
100% BACKCHECK	11/10/2014
100% BACKCHECK SET 2	01/22/2015
100% BACKCHECK SET 3	03/20/2015
ASH#005	07/07/2015
ASH#007 - SFM RESUB.	07/29/2015
ASH#011 - SFM RESUB. 2	11/06/2015
ASH#015 - SFM RESUB. 3	03/03/2016

PROJECT NO.: 21305-G-50

**BUILDING EXIT ANALYSIS**

**A-005.1**

- ROOM NAME**  
X ROOM NAME / ROOM NUMBER
- F11A DOOR NUMBER
- X ROOM OCCUPANCY
- ⊕ CUMULATIVE OCCUPANCY
- ◇ EXITING OCCUPANTS
- EXIT PATH OF TRAVEL
- INDICATES REQUIRED 2 HR. RATED ASSEMBLY
- INDICATES REQUIRED 3 HR. RATED ASSEMBLY

NOTE: WHERE REQUIRED ASSEMBLIES ARE INDICATED ON PLANS AND SECTIONS, REFERENCE SHEET A-007 FOR ASSOCIATED WALL TYPES AND RATED TOE, HEAD, AND WALL JOINT ASSEMBLIES.

**LEGEND**

**OCCUPANT LOAD FOR EGRESS WIDTHS**

**OCCUPANT LOAD**

GROUND LEVEL OCCUPANT LOAD:	96
LEVEL 2 OCCUPANT LOAD:	110
LEVEL 3 OCCUPANT LOAD:	110
LEVEL 4 OCCUPANT LOAD:	110
LEVEL 5 OCCUPANT LOAD:	110
LEVEL 6 (ROOF) OCCUPANT LOAD:	55
MACHINE ROOM LEVEL:	2
<b>TOTAL OCCUPANT LOAD:</b>	<b>593</b>

**STAIR 1 EXIT ANALYSIS**

LEVELS 2-5: 55 OCCUPANTS x 0.3 = 16.5" REQUIRED, 54" PROVIDED\*

LEVEL 6 (ROOF): 70 OCCUPANTS x 0.3 = 21" REQUIRED, 54" PROVIDED\*

**STAIR 2 EXIT ANALYSIS**

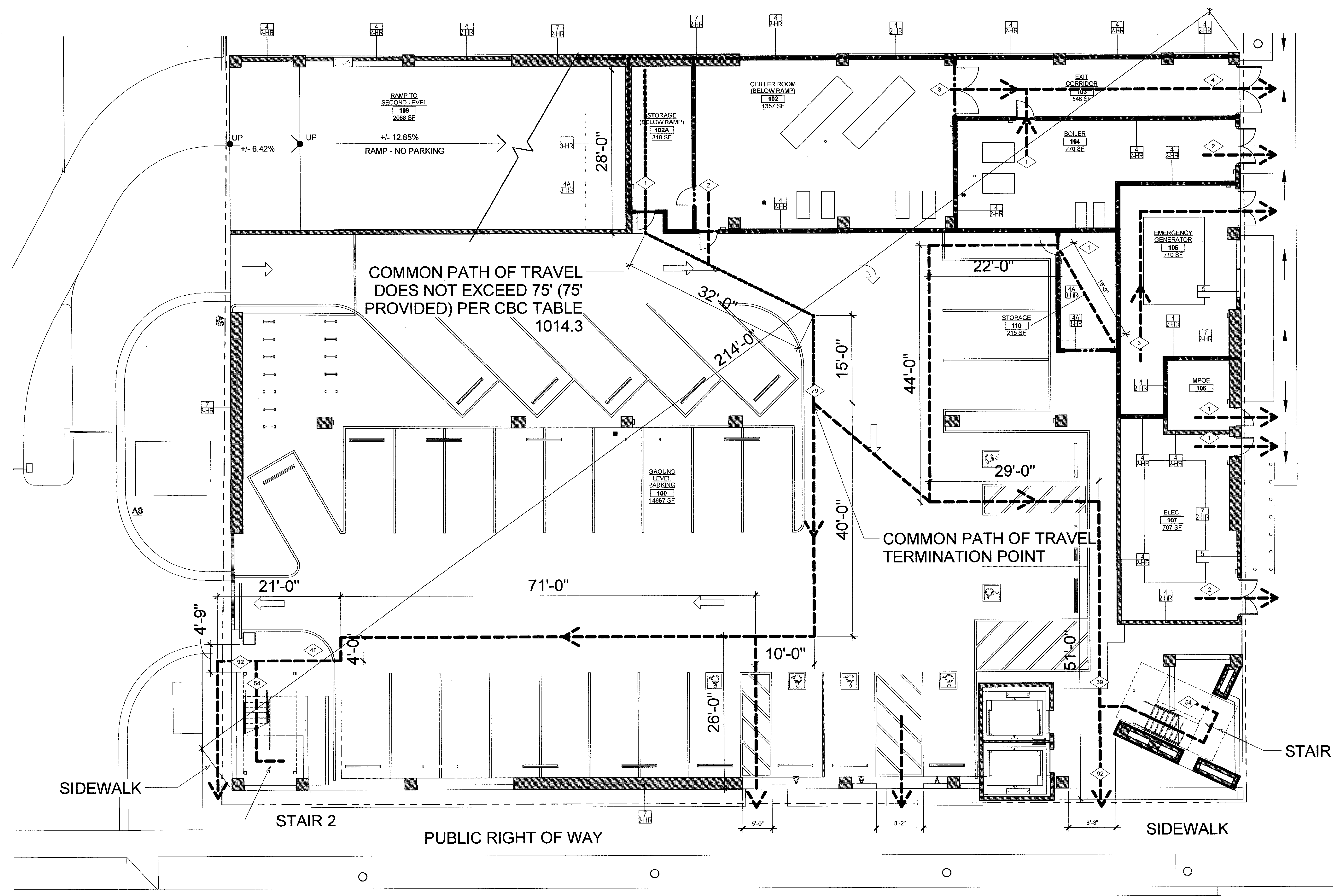
LEVELS 2-5: 55 OCCUPANTS x 0.3 = 16.5" REQUIRED, 48" PROVIDED\*

LEVEL 6 (ROOF): 42 OCCUPANTS x 0.3 = 12.6" REQUIRED, 48" PROVIDED\*

\*MINIMUM WIDTH OF 44" REQUIRED AND PROVIDED PER CBC SECTION 1009.1

NOTE: ELECTRICALLY POWERED, SELF-LUMINOUS AND PHOTO LUMINESCENT EXIT SIGNS SHALL BE LISTED AND LABELED IN ACCORDANCE WITH U.L. 924 AND SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURERS INSTRUCTIONS AND CHAPTER 27

EXIT SIGNS SHALL BE ILLUMINATED AT ALL TIMES



**GROUND LEVEL - EXIT ANALYSIS**

1/8" = 1'-0"

**Stair #1 and Stair #2**  
Exiting Analysis

CBC 1006.6 Egress Convergence sum of lower & upper floor egress capacity not greater than 48"	CBC 1006.5 Distribution of egress capacity loss of stair 1	50% Capacity	Provided Capacity	Occupant Load	Required Capacity based on Occupancy Load at each Stair (load factor 0.3)		Stair #1 Load	Stair #2 Load	50% Capacity	CBC 1006.5 Distribution of Egress Capacity loss of stair 2	CBC 1006.6 Egress Convergence sum of lower & upper floor egress capacity not greater than 54"		
					Stair #1	Stair #2							
48" > 33"	24" > 16.5"	24"	48"	55	Level 2	16.5"	16.5"	Level 2	55	54"	27"	27" > 16.5"	33" < 54"
48" > 33"	24" > 16.5"	24"	48"	55	Level 3	16.5"	16.5"	Level 3	55	54"	27"	27" > 16.5"	33" < 54"
48" > 33"	24" > 16.5"	24"	48"	55	Level 4	16.5"	16.5"	Level 4	55	54"	27"	27" > 16.5"	33" < 54"
48" > 29.1"	24" > 16.5"	24"	48"	55	Level 5	16.5"	16.5"	Level 5	55	54"	27"	27" > 16.5"	37.5" < 54"
24" > 21"	24"	48"	42	Level 6	12.6"	21"	Level 6	70	54"	27"	27" > 12.6"		

**OVERALL PARKING STRUCTURE EXITING ANALYSIS**

NO.	ROOM NAME	OCCUPANCY	AREA	LOAD FACTOR	OCCUPANT LOAD	ADDITIONAL OCCUPANT COUNT	TOTAL OCCUPANT LOAD	NUMBER OF EXITS REQUIRED	EXIT WIDTH FACTOR	TOTAL EXIT WIDTH REQUIRED	TOTAL EXIT WIDTH PROVIDED
101	GROUND LEVEL PARKING	S-2 (PARKING GARAGE)	14907 SF	300	75	4	79	2	0.2	16.0	72
102	CHILLER ROOM (BELOW RAMP)	S-2 (INCIDENTAL)	1357 SF	300	5	0	5	2	0.2	1.0	72
102A	STORAGE (BELOW RAMP)	S-1 (STORAGE)	318 SF	300	2	0	2	1	0.2	1.0	36
103	EXIT CORRIDOR	S-2 (ACCESSORY)	546 SF	0	0	4	0	N/A	0.2	0.0	72
104	BOILER	S-2 (INCIDENTAL)	770 SF	300	3	0	3	1	0.2	1.0	72
105	EMERGENCY GENERATOR	S-2 (ACCESSORY)	710 SF	300	3	1	4	1	0.2	1.0	36
106	MPOE	S-2 (ACCESSORY)	165 SF	300	1	0	1	1	0.2	1.0	36
107	ELEC.	S-2 (ACCESSORY)	707 SF	300	3	0	3	1	0.2	1.0	72
109	RAMP TO SECOND LEVEL	S-2 (PARKING GARAGE)	2069 SF	0	0	0	0	1	0.2	1.0	96
110	STORAGE	S-1 (STORAGE)	215 SF	300	1	0	1	1	0.2	1.0	36
200	LEVEL 2	S-2 (PARKING GARAGE)	21825 SF	200	110	0	110	2 STAIRS	0.3	33.0	102
300	LEVEL 3	S-2 (PARKING GARAGE)	21825 SF	200	110	0	110	2 STAIRS	0.3	33.0	102
400	LEVEL 4	S-2 (PARKING GARAGE)	21825 SF	200	110	0	110	2 STAIRS	0.3	33.0	102
500	LEVEL 5	S-2 (PARKING GARAGE)	21825 SF	200	110	0	110	2 STAIRS	0.3	33.0	102
600	LEVEL 6	S-2 (PARKING GARAGE)	10025 SF	200	55	0	55	2 STAIRS	0.3	17.0	102
601	MACHINE ROOM	S-2 (ACCESSORY)	480 SF	300	2	0	2	1	0.2	1.0	36
Grand Total:			126526 SF		593		593				

OFFICE OF THE STATE ARCHITECT  
APPROVED FOR THE PUBLIC  
Reviewed by: *Bradley Goodrich, USFA*

APR 27 2016

Approval of this plan does not authorize or approve any omission or deviation from applicable regulations. Final approval is subject to field inspection. One set of approved plans shall be available on the project site at all times.

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DIVISION OF THE STATE ARCHITECT  
OFFICE OF REGULATION SERVICES

FILE #  
APR # 04-114204

AC DATE:















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 SAN DIEGO, CALIFORNIA  
**SAN DIEGO STATE UNIVERSITY**  
 SAN DIEGO, CA

**SOUTH CAMPUS PLAZA DESIGN-BUILD PARKING STRUCTURE**  
 5840 LINDO PASEO  
 SAN DIEGO STATE UNIVERSITY

SUBMITTAL SCHEDULE:

SCHEMATIC DESIGN	04/17/2014
50% PRELIM. DESIGN	05/14/2014
100% PRELIM. DESIGN	05/28/2014
50% CONST. DDOS.	07/02/2014
95% CONST. DDOS.	08/07/2014
100% BACKCHECK	11/10/2014
100% BACKCHECK SET 2	01/22/2015
100% BACKCHECK SET 3	03/20/2015
ASH#005	07/07/2015
ASH#007 - SFM RESUB.	07/29/2015
ASH#011 - SFM RESUB. 2	11/06/2015
ASH#015 - SFM RESUB. 3	03/03/2016

PROJECT NO: 21305-6-50

**BUILDING EXIT ANALYSIS**

**A-005.2**

- ROOM NAME**  
 X ROOM NAME / ROOM NUMBER  
 F11A DOOR NUMBER  
 X ROOM OCCUPANCY  
 # CUMULATIVE OCCUPANCY  
 ◊ EXITING OCCUPANTS  
 - - - - - EXIT PATH OF TRAVEL  
 - - - - - INDICATES REQUIRED 2 HR. RATED ASSEMBLY  
 - - - - - INDICATES REQUIRED 3 HR. RATED ASSEMBLY
- NOTE: WHERE REQUIRED ASSEMBLIES ARE INDICATED ON PLANS AND SECTIONS, REFERENCE SHEET A-007 FOR ASSOCIATED WALL TYPES AND RATED TOE, HEAD, AND WALL JOINT ASSEMBLIES.

**LEGEND**

**OCCUPANT LOAD FOR EGRESS WIDTHS**

OCCUPANT LOAD

GROUND LEVEL OCCUPANT LOAD:	79
LEVEL 2 OCCUPANT LOAD:	110
LEVEL 3 OCCUPANT LOAD:	110
LEVEL 4 OCCUPANT LOAD:	110
LEVEL 5 OCCUPANT LOAD:	110
LEVEL 6 (ROOF) OCCUPANT LOAD:	55
MACHINE ROOM LEVEL:	2
<b>TOTAL OCCUPANT LOAD:</b>	<b>576</b>

**STAIR 1 EXIT ANALYSIS**

LEVELS 2-5: 55 OCCUPANTS x 0.3 = 16.5" REQUIRED, 54" PROVIDED  
 LEVEL 6 (ROOF): 70 OCCUPANTS x 0.3 = 21" REQUIRED, 54" PROVIDED

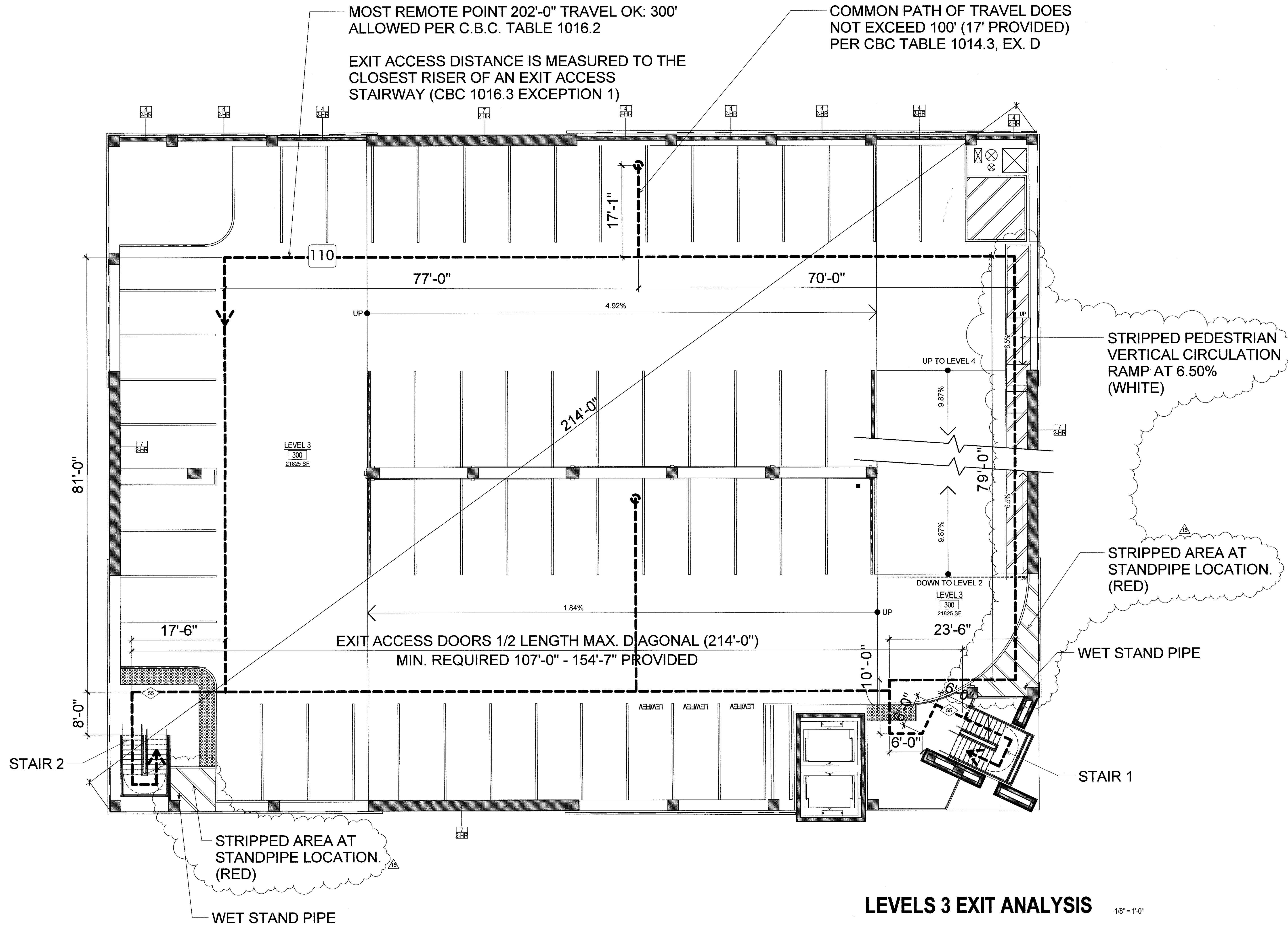
**STAIR 2 EXIT ANALYSIS**

LEVELS 2-5: 55 OCCUPANTS x 0.3 = 16.5" REQUIRED, 48" PROVIDED  
 LEVEL 6 (ROOF): 42 OCCUPANTS x 0.3 = 12.6" REQUIRED, 48" PROVIDED

\*MINIMUM WIDTH OF 44" REQUIRED AND PROVIDED PER CBC SECTION 1009.1

NOTE: ELECTRICALLY POWERED, SELF-LUMINOUS AND PHOTO LUMINESCENT EXIT SIGNS SHALL BE LISTED AND LABELED IN ACCORDANCE WITH U.L. 924 AND SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURERS INSTRUCTIONS AND CHAPTER 27

EXIT SIGNS SHALL BE ILLUMINATED AT ALL TIMES



**LEVELS 3 EXIT ANALYSIS**

1/8" = 1'-0"

**Stair #1 and Stair #2 Exiting Analysis**

CBC 1006.6 Egress Convergence sum of lower & upper floor egress capacity not greater than 48"	CBC 1006.5 Distribution of Egress Capacity at Stair 1	50% Capacity	Provided Capacity	Occupant Load	Stair #2	Required Capacity based on Occupancy Load at each Stair (Load factor 0.3)		Stair #1	Occupant Load	Provided Capacity	50% Capacity	CBC 1006.5 Distribution of Egress Capacity at Stair 2	CBC 1006.6 Egress Convergence sum of lower & upper floor egress capacity not greater than 54"
						Level 2	Level 3						
48" > 33"	24" > 16.5"	24"	48"	55	Level 2	16.5"	16.5"	Level 2	55	54"	27"	27" > 16.5"	33" < 54"
48" > 33"	24" > 16.5"	24"	48"	55	Level 3	16.5"	16.5"	Level 3	55	54"	27"	27" > 16.5"	33" < 54"
48" > 33"	24" > 16.5"	24"	48"	55	Level 4	16.5"	16.5"	Level 4	55	54"	27"	27" > 16.5"	33" < 54"
48" > 29.1"	24" > 16.5"	24"	48"	55	Level 5	16.5"	16.5"	Level 5	55	54"	27"	27" > 16.5"	37.5" < 54"
	24" > 21"	24"	48"	42	Level 6	12.6"	21"	Level 6	70	54"	27"	27" > 12.6"	

**OVERALL PARKING STRUCTURE EXITING ANALYSIS**

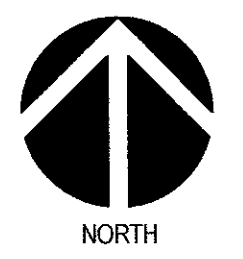
NO.	ROOM NAME	OCCUPANCY	AREA	LOAD FACTOR	OCCUPANT LOAD	ADDITIONAL OCCUPANT COUNT	TOTAL OCCUPANT LOAD	NUMBER OF EXITS REQUIRED	EXIT WIDTH FACTOR	TOTAL EXIT WIDTH REQUIRED	TOTAL EXIT WIDTH PROVIDED
100	GROUND LEVEL PARKING	S-2 (PARKING GARAGE)	14967 SF	200	75	4	79	2	0.2	16.0	72
102	CHILLER ROOM (BELOW RAMP)	S-2 (INCIDENTAL)	1357 SF	300	5	0	5	2	0.2	1.0	72
102A	STORAGE (BELOW RAMP)	S-1 (STORAGE)	318 SF	300	2	0	2	1	0.2	1.0	36
103	EXIT CORRIDOR	S-2 (ACCESSORY)	546 SF	0	0	4	0	N/A			72
104	BOILER	S-2 (INCIDENTAL)	710 SF	300	3	0	3	1	0.2	1.0	72
105	EMERGENCY GENERATOR	S-2 (ACCESSORY)	710 SF	300	3	1	4	1	0.2	1.0	36
106	MPOE	S-2 (ACCESSORY)	165 SF	300	1	0	1	1	0.2	1.0	36
107	ELEC.	S-2 (ACCESSORY)	707 SF	300	3	0	3	1	0.2	1.0	72
108	RAMP TO SECOND LEVEL	S-2 (PARKING GARAGE)	2036 SF	0	0	0	0				
110	STORAGE	S-1 (STORAGE)	2115 SF	300	1	0	1	1	0.2	1.0	96
							21823 SF			96	
200	LEVEL 2	S-2 (PARKING GARAGE)	21825 SF	200	110	0	110	2 STAIRS	0.3	33.0	102
							21825 SF			110	
300	LEVEL 3	S-2 (PARKING GARAGE)	21825 SF	200	110	0	110	2 STAIRS	0.3	33.0	102
							21825 SF			110	
400	LEVEL 4	S-2 (PARKING GARAGE)	21825 SF	200	110	0	110	2 STAIRS	0.3	33.0	102
							21825 SF			110	
500	LEVEL 5	S-2 (PARKING GARAGE)	21825 SF	200	110	0	110	2 STAIRS	0.3	33.0	102
							21825 SF			110	
600	LEVEL 6	S-2 (PARKING GARAGE)	10625 SF	200	55	0	55	2 STAIRS	0.3	17.0	102
							10625 SF			55	
601	MACHINE ROOM	S-2 (ACCESSORY)	480 SF	300	2	0	2	1	0.2	1.0	36
							480 SF			2	
<b>Grand total:</b> 16							120626 SF			593	

OFFICE OF THE STATE FIRE MARSHAL  
 APPROVED FOR FIRE AND SAFETY  
 Reviewed by: *Bradley Goodrich, DSRM*

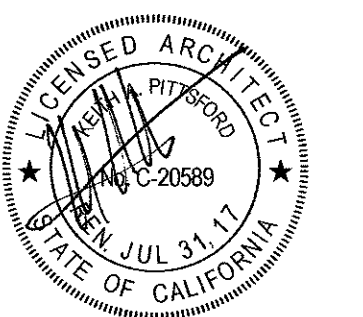
APR 27 2016

Approval of this plan does not authorize or approve any omission or deviation from applicable regulations. Final approval is subject to field inspection. One set of approved plans shall be available on the project site at all times.

IDENTIFICATION STAMP  
 DIVISION OF THE STATE ARCHITECT  
 OFFICE OF REGULATION SERVICES  
 FILE # 04-114204  
 AC DATE







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**SUNDT CONSTRUCTION**  
SAN DIEGO, CALIFORNIA

**SAN DIEGO STATE UNIVERSITY**  
SAN DIEGO, CA

**SOUTH CAMPUS PLAZA DESIGN-BUILD PARKING STRUCTURE**

6840 LINDO PASEO  
SAN DIEGO STATE UNIVERSITY

SUBMITTAL SCHEDULE:

SCHEMATIC DESIGN	04/17/2014
50% PRELIM. DESIGN	05/14/2014
100% PRELIM. DESIGN	05/28/2014
50% CONST. DOCS.	07/02/2014
95% CONST. DOCS.	08/07/2014
100% BACKCHECK	11/10/2014
100% BACKCHECK SET 2	01/22/2015
100% BACKCHECK SET 3	03/20/2015
AS#005	07/07/2015
AS#007 - SFM RESUB. SET 2	07/29/2015
AS#011 - SFM RESUB. SET 2	11/06/2015
AS#015 - SFM RESUB. SET 3	03/03/2016

PROJECT NO: 21305-G-50

**BUILDING EXIT ANALYSIS**

**A-005.3**

- LEGEND**
- ROOM NAME / ROOM NUMBER
  - DOOR NUMBER
  - ROOM OCCUPANCY
  - CUMULATIVE OCCUPANCY
  - EXITING OCCUPANTS
  - EXIT PATH OF TRAVEL
  - INDICATES REQUIRED 2 HR. RATED ASSEMBLY
  - INDICATES REQUIRED 3 HR. RATED ASSEMBLY
- NOTE: WHERE REQUIRED ASSEMBLIES ARE INDICATED ON PLANS AND SECTIONS, REFERENCE SHEET A-007 FOR ASSOCIATED WALL TYPES AND RATED TOE, HEAD, AND WALL JOINT ASSEMBLIES.

**OCCUPANT LOAD FOR EGRESS WIDTHS**

OCCUPANT LOAD

GROUND LEVEL OCCUPANT LOAD:	79
LEVEL 2 OCCUPANT LOAD:	110
LEVEL 3 OCCUPANT LOAD:	110
LEVEL 4 OCCUPANT LOAD:	110
LEVEL 5 OCCUPANT LOAD:	110
LEVEL 6 (ROOF) OCCUPANT LOAD:	55
MACHINE ROOM LEVEL:	2
TOTAL OCCUPANT LOAD:	576

**STAIR 1 EXIT ANALYSIS**

LEVELS 2-5: 55 OCCUPANTS x 0.3 = 16.5" REQUIRED, 54" PROVIDED\*

LEVEL 6 (ROOF): 70 OCCUPANTS x 0.3 = 21" REQUIRED, 54" PROVIDED\*

**STAIR 2 EXIT ANALYSIS**

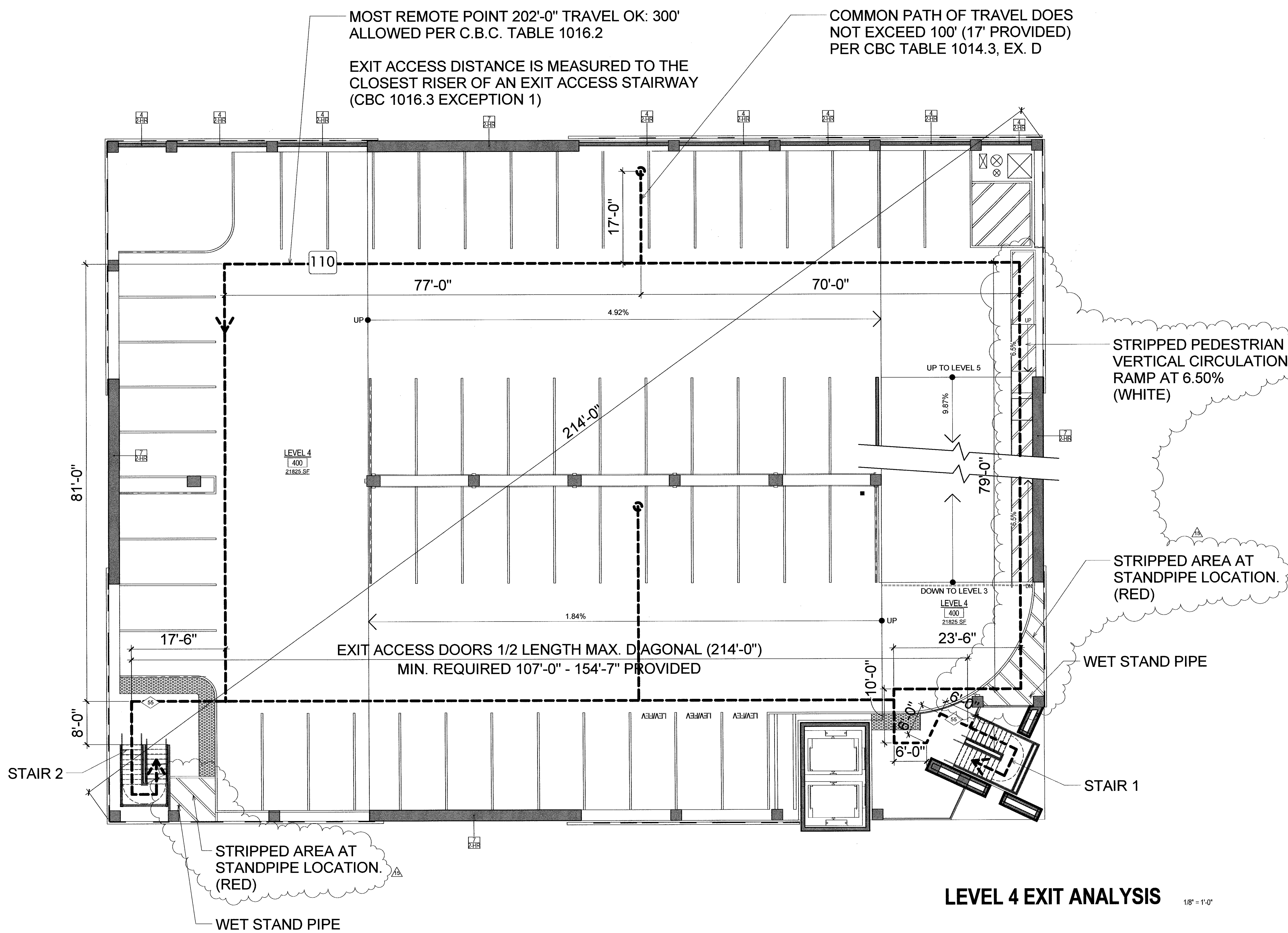
LEVELS 2-5: 55 OCCUPANTS x 0.3 = 16.5" REQUIRED, 48" PROVIDED\*

LEVEL 6 (ROOF): 42 OCCUPANTS x 0.3 = 12.6" REQUIRED, 48" PROVIDED\*

\*MINIMUM WIDTH OF 44" REQUIRED AND PROVIDED PER CBC SECTION 1009.1

NOTE: ELECTRICALLY POWERED, SELF-LUMINOUS AND PHOTO LUMINESCENT EXIT SIGNS SHALL BE LISTED AND LABELED IN ACCORDANCE WITH U.L. 924 AND SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURERS INSTRUCTIONS AND CHAPTER 27

EXIT SIGNS SHALL BE ILLUMINATED AT ALL TIMES



**LEVEL 4 EXIT ANALYSIS**

**Stair #1 and Stair #2 Exiting Analysis**

CBC 1006.5 Egress Convergence sum of lower & upper floor egress capacity not greater than 48"	CBC 1006.5 Distribution of Egress Capacity	50% Capacity	Provided Capacity	Occupant Load	Required Capacity based on Occupancy Load at each Stair (Load factor 0.3)		Occupant Load	Provided Capacity	50% Capacity	CBC 1006.5 Egress Convergence sum of lower & upper floor egress capacity not greater than 48"			
					Stair #1	Stair #2							
48" > 33"	24" > 16.5"	24"	48"	55	Level 2	16.5"	16.5"	Level 2	55	54"	27"	27" > 16.5"	33" < 54"
48" > 33"	24" > 16.5"	24"	48"	55	Level 3	16.5"	16.5"	Level 3	55	54"	27"	27" > 16.5"	33" < 54"
48" > 33"	24" > 16.5"	24"	48"	55	Level 4	16.5"	16.5"	Level 4	55	54"	27"	27" > 16.5"	33" < 54"
48" > 29.1"	24" > 16.5"	24"	48"	55	Level 5	16.5"	16.5"	Level 5	55	54"	27"	27" > 16.5"	37.5" < 54"
48" > 29.1"	24" > 21"	24"	48"	42	Level 6	12.6"	21"	Level 6	70	54"	27"	27" > 12.6"	

**OVERALL PARKING STRUCTURE EXITING ANALYSIS**

NO.	ROOM NAME	OCCUPANCY	AREA	LOAD FACTOR	OCCUPANT LOAD	ADDITIONAL OCCUPANT COUNT	TOTAL OCCUPANT LOAD	NUMBER OF EXITS REQUIRED	EXIT WIDTH FACTOR	TOTAL EXIT WIDTH REQUIRED	TOTAL EXIT WIDTH PROVIDED
100	GROUND LEVEL PARKING	S-2 (PARKING GARAGE)	1497 SF	200	75	4	79	2	0.2	16.0	72
102	CHILLER ROOM (BELOW RAMP)	S-2 (INCIDENTAL)	137 SF	300	5	0	5	2	0.2	1.0	72
102A	STORAGE (BELOW RAMP)	S-1 (STORAGE)	318 SF	300	2	0	2	1	0.2	1.0	36
103	EXIT CORRIDOR	S-2 (ACCESSORY)	546 SF	0	4	0	4	N/A	0.2	1.0	72
104	BOILER	S-2 (INCIDENTAL)	770 SF	300	3	0	3	1	0.2	1.0	72
105	EMERGENCY GENERATOR	S-2 (ACCESSORY)	710 SF	300	3	1	4	1	0.2	1.0	36
106	MKPC	S-2 (ACCESSORY)	165 SF	300	1	0	1	1	0.2	1.0	36
107	ELEC.	S-2 (ACCESSORY)	707 SF	300	3	0	3	1	0.2	1.0	72
109	RAMP TO SECOND LEVEL	S-2 (PARKING GARAGE)	2068 SF	0	0	0	0	1	0.2	1.0	96
110	STORAGE	S-1 (STORAGE)	215 SF	300	1	0	1	1	0.2	1.0	36
200	LEVEL 2	S-2 (PARKING GARAGE)	21825 SF	200	110	0	110	2 STAIRS	0.3	33.0	102
300	LEVEL 3	S-2 (PARKING GARAGE)	21825 SF	200	110	0	110	2 STAIRS	0.3	33.0	102
400	LEVEL 4	S-2 (PARKING GARAGE)	21825 SF	200	110	0	110	2 STAIRS	0.3	33.0	102
500	LEVEL 5	S-2 (PARKING GARAGE)	21825 SF	200	110	0	110	2 STAIRS	0.3	33.0	102
600	LEVEL 6	S-2 (PARKING GARAGE)	10925 SF	200	55	0	55	2 STAIRS	0.3	17.0	102
901	MACHINE ROOM	S-2 (ACCESSORY)	480 SF	300	2	0	2	1	0.2	1.0	36
Grand Total:			12026 SF		583		583				

OFFICE OF THE STATE FIRE MARSHAL  
APPROVED FIRE AND FLOOD ONLY  
Reviewed by: [Signature]

APR 27 2016

Approval of this plan does not authorize or approve any omission or deviation from applicable regulations. Final approval is subject to field inspection. One set of approved plans shall be available on the project site at all times.

IDENTIFICATION STAMP  
DIVISION OF THE STATE ARCHITECT  
OFFICE OF REGULATION SERVICES

FILE #  
APR. # 04-114204

AC \_\_\_\_\_ DATE \_\_\_\_\_





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**SUNDT  
CONSTRUCTION**

SAN DIEGO, CALIFORNIA

**SAN DIEGO  
STATE  
UNIVERSITY**

SAN DIEGO, CA

**SOUTH CAMPUS PLAZA DESIGN-BUILD PARKING  
STRUCTURE**

5840 LINDO PASO  
SAN DIEGO STATE UNIVERSITY

SUBMITTAL SCHEDULE:

SCHEMATIC DESIGN	04/17/2014
50% PRELIM. DESIGN	05/14/2014
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ASIF007 - SFM RESUB.	07/29/2015
ASIF011 - SFM RESUB 2	11/06/2015
ASIF015 - SFM RESUB 3	03/03/2016

PROJECT NO: 21305-G-50

**BUILDING EXIT  
ANALYSIS**

**A-005.4**

- ROOM NAME**  
X ROOM NAME / ROOM NUMBER
- F11A DOOR NUMBER
- X ROOM OCCUPANCY
- # CUMULATIVE OCCUPANCY
- ◇ EXITING OCCUPANTS
- EXIT PATH OF TRAVEL
- INDICATES REQUIRED 2 HR. RATED ASSEMBLY
- INDICATES REQUIRED 3 HR. RATED ASSEMBLY

NOTE: WHERE REQUIRED ASSEMBLIES ARE INDICATED ON PLANS AND SECTIONS, REFERENCE SHEET A-007 FOR ASSOCIATED WALLS TYPES AND RATED TOE, HEAD, AND WALL JOINT ASSEMBLIES.

**LEGEND**

**OCCUPANT LOAD FOR  
EGRESS WIDTHS**

**OCCUPANT LOAD**

GROUND LEVEL OCCUPANT LOAD:	79
LEVEL 2 OCCUPANT LOAD:	110
LEVEL 3 OCCUPANT LOAD:	110
LEVEL 4 OCCUPANT LOAD:	110
LEVEL 5 OCCUPANT LOAD:	110
LEVEL 6 (ROOF) OCCUPANT LOAD:	55
MACHINE ROOM LEVEL:	2
<b>TOTAL OCCUPANT LOAD:</b>	<b>576</b>

**STAIR 1 EXIT ANALYSIS**

LEVELS 2-5: 55 OCCUPANTS x 0.3 = 16.5" REQUIRED, 54" PROVIDED\*

LEVEL 6 (ROOF): 70 OCCUPANTS x 0.3 = 21" REQUIRED, 54" PROVIDED\*

**STAIR 2 EXIT ANALYSIS**

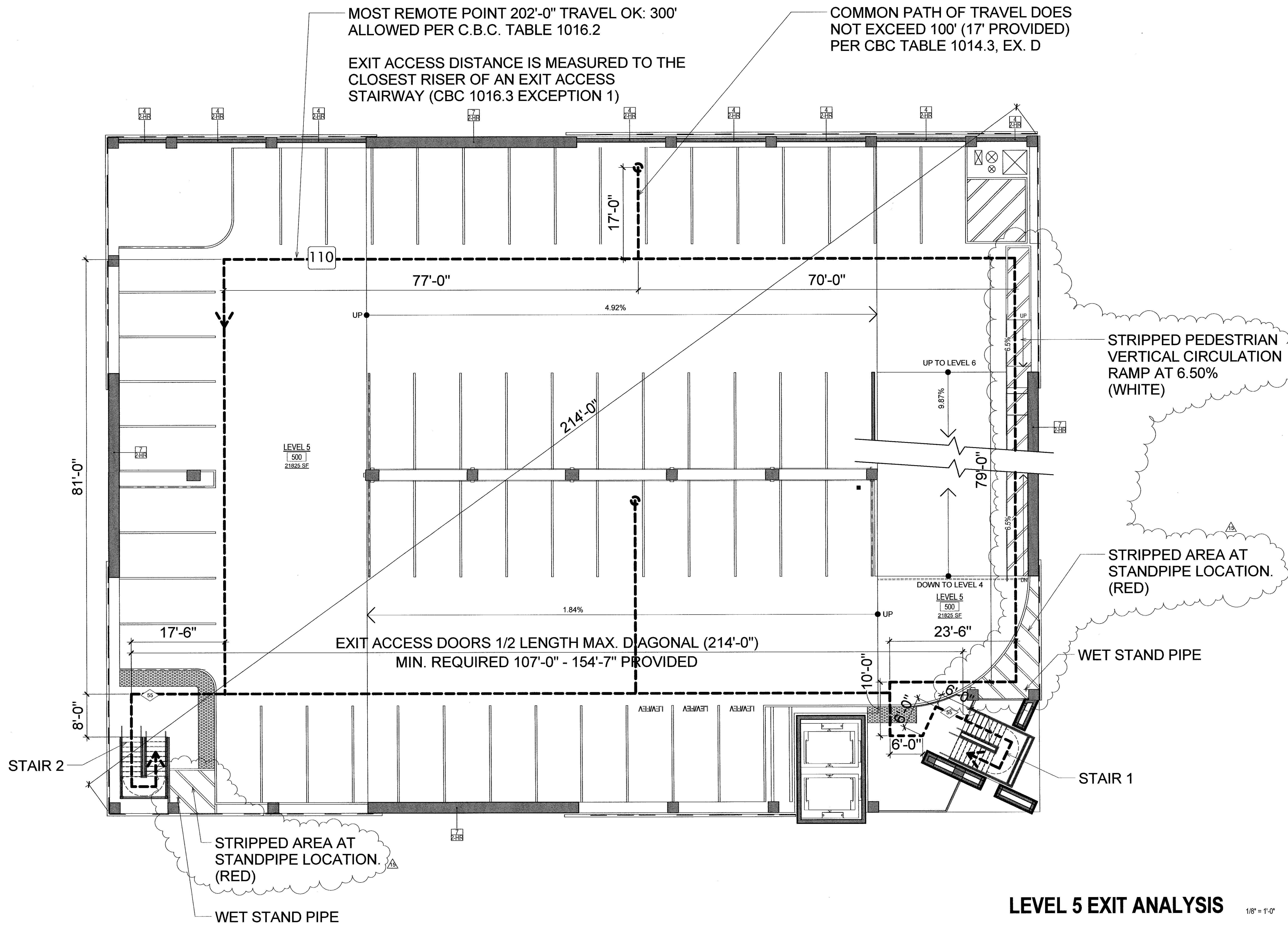
LEVELS 2-5: 55 OCCUPANTS x 0.3 = 16.5" REQUIRED, 48" PROVIDED\*

LEVEL 6 (ROOF): 42 OCCUPANTS x 0.3 = 12.6" REQUIRED, 48" PROVIDED\*

\*MINIMUM WIDTH OF 44" REQUIRED AND PROVIDED PER CBC SECTION 1009.1

NOTE: ELECTRICALLY POWERED, SELF-LUMINOUS AND PHOTO LUMINESCENT EXIT SIGNS SHALL BE LISTED AND LABELED IN ACCORDANCE WITH U.L. 924 AND SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURERS INSTRUCTIONS AND CHAPTER 27

EXIT SIGNS SHALL BE ILLUMINATED AT ALL TIMES



**Stair #1 and Stair #2  
Exiting Analysis**

50% Capacity	Provided Capacity	Occupant Load	Stair #2	Required Capacity based on Occupancy (Load factor: 0.3)	Stair #1	Occupant Load	Provided Capacity	50% Capacity
48" > 33"	24" > 16.5"	24"	48"	55	Level 2	16.5"	16.5"	54"
48" > 33"	24" > 16.5"	24"	48"	55	Level 3	16.5"	16.5"	54"
48" > 33"	24" > 16.5"	24"	48"	55	Level 4	16.5"	16.5"	54"
48" > 29.1"	24" > 16.5"	24"	48"	55	Level 5	16.5"	16.5"	54"
48" > 29.1"	24" > 21"	24"	48"	42	Level 6	12.6"	21"	54"

**OVERALL PARKING STRUCTURE EXITING ANALYSIS**

NO.	ROOM NAME	OCCUPANCY	AREA	LOAD FACTOR	OCCUPANT LOAD	ADDITIONAL OCCUPANT COUNT	TOTAL OCCUPANT LOAD	NUMBER OF EXITS REQUIRED	EXIT WIDTH FACTOR	TOTAL EXIT WIDTH REQUIRED	TOTAL EXIT WIDTH PROVIDED
100	GROUND LEVEL PARKING	S-2 (PARKING GARAGE)	1497 SF	200	75	4	79	2	0.2	16.0	72
102	CHILLER ROOM (BELOW RAMP)	S-2 (INCIDENTAL)	1397 SF	300	5	0	5	2	0.2	1.0	72
102A	STORAGE (BELOW RAMP)	S-1 (STORAGE)	318 SF	300	2	0	2	1	0.2	1.0	36
103	EXIT CORRIDOR	S-2 (ACCESSORY)	546 SF	0	4	0	4	N/A	0.2	0.2	72
104	BOILER	S-2 (INCIDENTAL)	770 SF	300	3	0	3	1	0.2	1.0	72
105	EMERGENCY GENERATOR	S-2 (ACCESSORY)	710 SF	300	3	0	3	1	0.2	1.0	36
106	MPOE	S-2 (ACCESSORY)	165 SF	300	1	0	1	1	0.2	1.0	36
107	ELEC.	S-2 (ACCESSORY)	707 SF	300	3	0	3	1	0.2	1.0	72
109	RAMP TO SECOND LEVEL	S-2 (PARKING GARAGE)	2068 SF	0	0	0	0	1	0.2	1.0	96
110	STORAGE	S-1 (STORAGE)	215 SF	300	1	0	1	1	0.2	1.0	96
300	LEVEL 2	S-2 (PARKING GARAGE)	21825 SF	200	110	0	110	2 STAIRS	0.3	33.0	102
300	LEVEL 3	S-2 (PARKING GARAGE)	21825 SF	200	110	0	110	2 STAIRS	0.3	33.0	102
400	LEVEL 4	S-2 (PARKING GARAGE)	21825 SF	200	110	0	110	2 STAIRS	0.3	33.0	102
500	LEVEL 5	S-2 (PARKING GARAGE)	21825 SF	200	110	0	110	2 STAIRS	0.3	33.0	102
600	LEVEL 6	S-2 (PARKING GARAGE)	10925 SF	200	55	0	55	2 STAIRS	0.3	17.0	102
801	MACHINE ROOM	S-2 (ACCESSORY)	480 SF	300	2	0	2	1	0.2	1.0	36
Grand Total:	16		120258 SF		593		593				

OFFICE OF THE STATE ARCHITECT  
APPROVED BY: [Signature]

APR 27 2016

Approval of this plan does not authorize or approve any violation or omission from applicable regulations. Final approval is subject to field inspection. One set of approved plans shall be available on the project site at all times.

IDENTIFICATION STAMP  
DIVISION OF THE STATE ARCHITECT  
OFFICE OF REGULATION SERVICES

FILE #  
APR # 04-114204

AC DATE:





SUNDT  
**CONSTRUCTION**  
 SAN DIEGO  
 STATE  
 UNIVERSITY  
 SAN DIEGO, CA

**SOUTH CAMPUS PLAZA DESIGN-BUILD PARKING STRUCTURE**  
 5840 LINDO PASEO  
 SAN DIEGO STATE UNIVERSITY

SUBMITTAL SCHEDULE:

SCHEMATIC DESIGN	04/17/2014
50% PRELIM. DESIGN	05/14/2014
100% PRELIM. DESIGN	05/28/2014
50% CONST. DOCS.	07/02/2014
95% CONST. DOCS.	08/07/2014
100% BACKCHECK	11/10/2014
100% BACKCHECK SET 2	01/22/2015
100% BACKCHECK SET 3	03/20/2015
ASH005	07/07/2015
ASH007 - SFM RESUB.	07/29/2015
ASH011 - SFM RESUB. 2	11/06/2015
ASH015 - SFM RESUB. 3	03/03/2016

PROJECT NO: 21905-G-50

**BUILDING EXIT ANALYSIS**

**A-005.5**

- ROOM NAME**  
 X ROOM NAME / ROOM NUMBER  
 F11A DOOR NUMBER  
 X ROOM OCCUPANCY  
 # CUMULATIVE OCCUPANCY  
 ◆ EXITING OCCUPANTS  
 - - - - - EXIT PATH OF TRAVEL  
 - - - - - INDICATES REQUIRED 2 HR. RATED ASSEMBLY  
 - - - - - INDICATES REQUIRED 3 HR. RATED ASSEMBLY
- NOTE: WHERE REQUIRED ASSEMBLIES ARE INDICATED ON PLANS AND SECTIONS, REFERENCE SHEET A-007 FOR ASSOCIATED WALL TYPES AND RATED TOE, HEAD, AND WALL JOINT ASSEMBLIES.

**LEGEND**

**OCCUPANT LOAD FOR EGRESS WIDTHS**

**OCCUPANT LOAD**

GROUND LEVEL OCCUPANT LOAD:	79
LEVEL 2 OCCUPANT LOAD:	110
LEVEL 3 OCCUPANT LOAD:	110
LEVEL 4 OCCUPANT LOAD:	110
LEVEL 5 OCCUPANT LOAD:	110
LEVEL 6 (ROOF) OCCUPANT LOAD:	55
MACHINE ROOM LEVEL:	2
<b>TOTAL OCCUPANT LOAD:</b>	<b>576</b>

**STAIR 1 EXIT ANALYSIS**

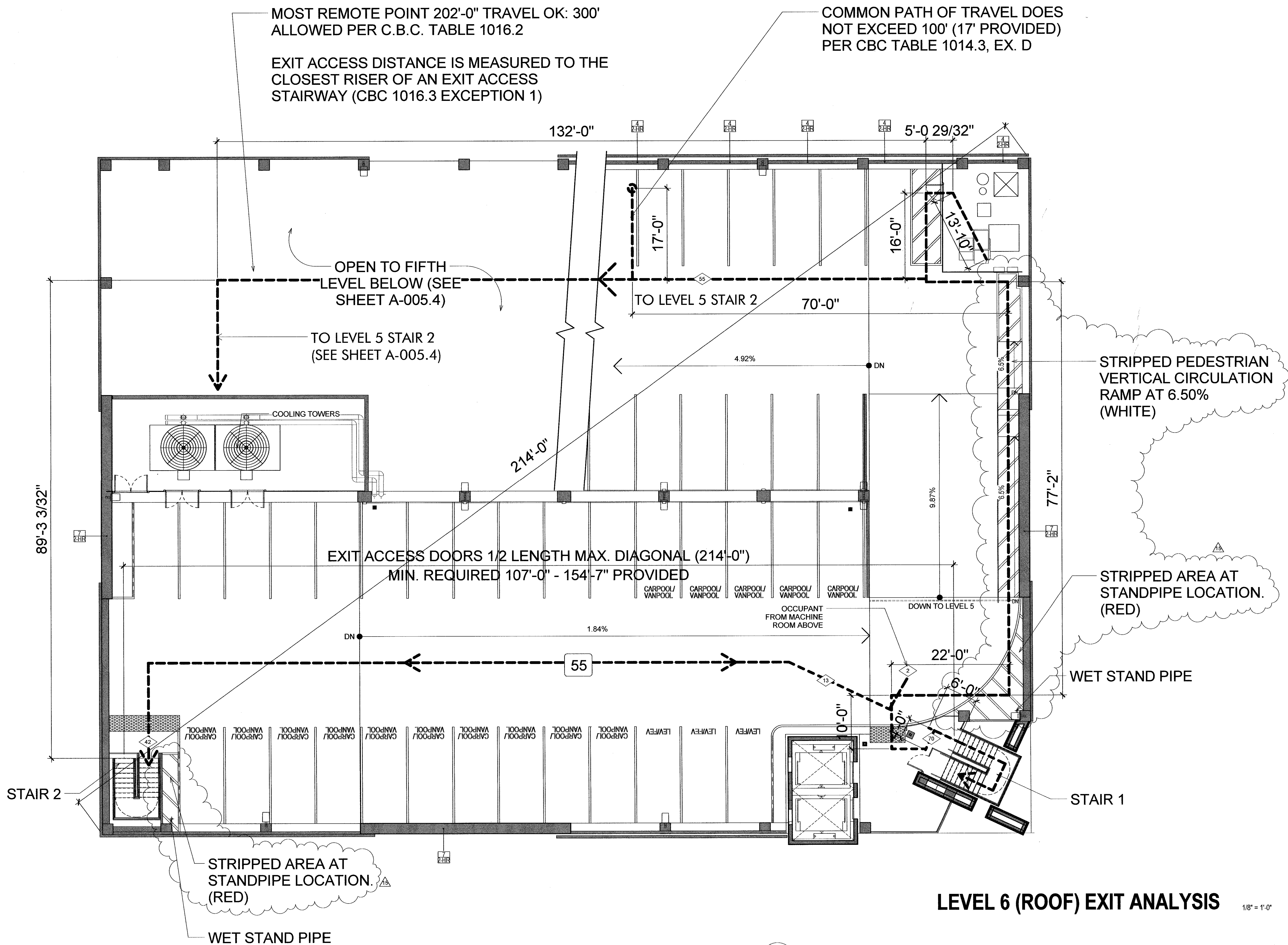
LEVELS 2-5: 55 OCCUPANTS x 0.3 = 16.5" REQUIRED, 54" PROVIDED  
 LEVEL 6 (ROOF): 70 OCCUPANTS x 0.3 = 21" REQUIRED, 54" PROVIDED

**STAIR 2 EXIT ANALYSIS**

LEVELS 2-5: 55 OCCUPANTS x 0.3 = 16.5" REQUIRED, 48" PROVIDED  
 LEVEL 6 (ROOF): 42 OCCUPANTS x 0.3 = 12.6" REQUIRED, 48" PROVIDED

\*MINIMUM WIDTH OF 44" REQUIRED AND PROVIDED PER CBC SECTION 1009.1

NOTE:  
 ELECTRICALLY POWERED, SELF-LUMINOUS AND PHOTO LUMINESCENT EXIT SIGNS SHALL BE LISTED AND LABELED IN ACCORDANCE WITH U.L. 924 AND SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURERS INSTRUCTIONS AND CHAPTER 27  
 EXIT SIGNS SHALL BE ILLUMINATED AT ALL TIMES



**LEVEL 6 (ROOF) EXIT ANALYSIS**

1/8" = 1'-0"

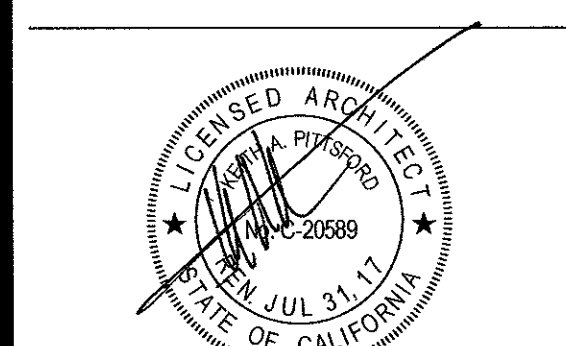
**OVERALL PARKING STRUCTURE EXITING ANALYSIS**

NO.	ROOM NAME	OCCUPANCY	AREA	LOAD FACTOR	OCCUPANT LOAD	ADDITIONAL OCCUPANT COUNT	TOTAL OCCUPANT LOAD	NUMBER OF EXITS REQUIRED	EXIT WIDTH FACTOR	TOTAL EXIT WIDTH REQUIRED	TOTAL EXIT WIDTH PROVIDED
100	GROUND LEVEL PARKING	S-2 (PARKING GARAGE)	14967 SF	200	75	4	79	2	0.2	16.0	72
102	CHILLER ROOM (BELOW RAMP)	S-2 (INCIDENTAL)	1357 SF	300	5	0	5	2	0.2	1.0	72
102A	STORAGE (BELOW RAMP)	S-1 (STORAGE)	318 SF	300	2	0	2	1	0.2	1.0	36
103	EXIT CORRIDOR	S-2 (ACCESSORY)	546 SF	0	4	0	4	1	0.2	1.0	72
104	BOILER	S-2 (INCIDENTAL)	770 SF	300	3	0	3	1	0.2	1.0	72
105	EMERGENCY GENERATOR	S-2 (ACCESSORY)	770 SF	300	3	1	4	1	0.2	1.0	36
106	MPOE	S-2 (ACCESSORY)	165 SF	300	1	0	1	1	0.2	1.0	36
107	ELEC.	S-2 (ACCESSORY)	707 SF	300	3	0	3	1	0.2	1.0	72
109	RAMP TO SECOND LEVEL	S-2 (PARKING GARAGE)	2308 SF	0	0	0	0	0	0.2	1.0	72
110	STORAGE	S-1 (STORAGE)	215 SF	300	1	0	1	1	0.2	1.0	96
21823 SF											
200	LEVEL 2	S-2 (PARKING GARAGE)	21825 SF	200	110	0	110	2 STAIRS	0.3	33.0	102
21825 SF											
300	LEVEL 3	S-2 (PARKING GARAGE)	21825 SF	200	110	0	110	2 STAIRS	0.3	33.0	102
21825 SF											
400	LEVEL 4	S-2 (PARKING GARAGE)	21825 SF	200	110	0	110	2 STAIRS	0.3	33.0	102
21825 SF											
500	LEVEL 5	S-2 (PARKING GARAGE)	21825 SF	200	110	0	110	2 STAIRS	0.3	33.0	102
21825 SF											
600	LEVEL 6	S-2 (PARKING GARAGE)	10925 SF	200	55	0	55	2 STAIRS	0.3	17.0	102
10925 SF											
801	MACHINE ROOM	S-2 (ACCESSORY)	480 SF	300	2	0	2	1	0.2	1.0	36
480 SF											
Grand total: 16							120526 SF	2	583		

**Stair #1 and Stair #2 Exiting Analysis**

CBC 1006.6 Egress Capacity lower & upper floor egress capacity not greater than 48"	CBC 1006.5 Distribution of Egress Capacity loss of Stair 1	50% Capacity	Provided Capacity	Occupant Load	Required Capacity based on Occupancy Load at each Stair (Load factor 0.3)		50% Capacity	CBC 1006.5 Distribution of Egress Capacity loss of Stair 2	CBC 1006.6 Egress Capacity lower & upper floor egress capacity not greater than 48"	
					Stair #1	Stair #2				
48" > 33"	24" > 16.5"	24"	48"	55	Level 2	16.5"	16.5"	27"	27" > 16.5"	33" < 54"
48" > 33"	24" > 16.5"	24"	48"	55	Level 3	16.5"	16.5"	27"	27" > 16.5"	33" < 54"
48" > 33"	24" > 16.5"	24"	48"	55	Level 4	16.5"	16.5"	27"	27" > 16.5"	33" < 54"
48" > 29.1"	24" > 16.5"	24"	48"	55	Level 5	16.5"	16.5"	27"	27" > 16.5"	37.5" < 54"
	24" > 21"	24"	48"	42	Level 6	12.6"	21"	27"	27" > 12.6"	





SUBMITTAL SCHEDULE:

SCHEMATIC DESIGN	04/17/2014
50% PRELIM. DESIGN	05/14/2014
100% PRELIM. DESIGN	05/28/2014
50% CONST. DOCS.	07/02/2014
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ASH011 - SFM RESUB. 2	11/06/2015
ASH015 - SFM RESUB. 3	03/03/2016

APR 27 2016  
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PROJECT NO: 21305-G-50

● FIRE EXTINGUISHER LOCATION REFER TO DETAIL 17 7 A-801  
- - - - - INDICATES REQUIRED 2 HR. RATED UL ASSEMBLY  
- - - - - INDICATES REQUIRED 3 HR. RATED UL ASSEMBLY  
NOTE: WHERE REQUIRED UL ASSEMBLIES ARE INDICATED ON PLANS AND SECTIONS, REFERENCE SHEET A-007 FOR ASSOCIATED WALL TYPES AND RATED TOE, HEAD, AND WALL JOINT ASSEMBLIES.

**LEGEND**

SEPARATE OCCUPANCY (S-1 AND S-2) PER CBC TABLE 707.3.10: 3-HOUR SEPARATION PROVIDED PROVIDED AND REQUIRED BETWEEN S-1 AND S-2 OCCUPANCIES.

SUCH THAT FIRE AREA FOR S-1 OCCUPANCY DOES NOT EXCEED 12,000 SF AND DOES NOT REQUIRE FIRE SPRINKLERS PER CBC SECTION 903.2.9.

**ALLOWABLE BUILDING AREA CALCULATION**

**GROUND LEVEL**

S-1 OCCUPANCIES = 215 SF + 318 SF = 533 SF  
ALLOWABLE BUILDING AREA FOR TYPE 1B = 48,000 SF

S-2 OCCUPANCY AREA = 21,290  
ALLOWABLE BUILDING AREA FOR TYPE 1B = 79,000 SF

$2160 / 48,000 + [16,544 / 79,000] = 0.28$

**LEVELS 2-6**

S-2 OCCUPANCY AREA = 95,705 SF  
ALLOWABLE BUILDING AREA FOR TYPE 1B = 79,000 SF

$98,705 / 79,000 = 1.25$

TOTAL BUILDING = 28 + 1.25 = 1.63

\*REFER TO 506.5.2 ALLOWABLE AREA

**NOTE:**

**OCCUPANCY SEPARATION REQUIRED/PROVIDED PER TABLE 508.4**

**CHILLER AND BOILER ROOMS (ROOMS 102 AND 104):**  
CHILLER AND BOILER ROOMS ARE CLASSIFIED AS INCIDENTAL USES AS ALLOWED PER TABLE 509. 1-HOUR SEPARATION IS REQUIRED BETWEEN INCIDENTAL USE AND ADJACENT USES (2-HOUR SEPARATION PROVIDED.)

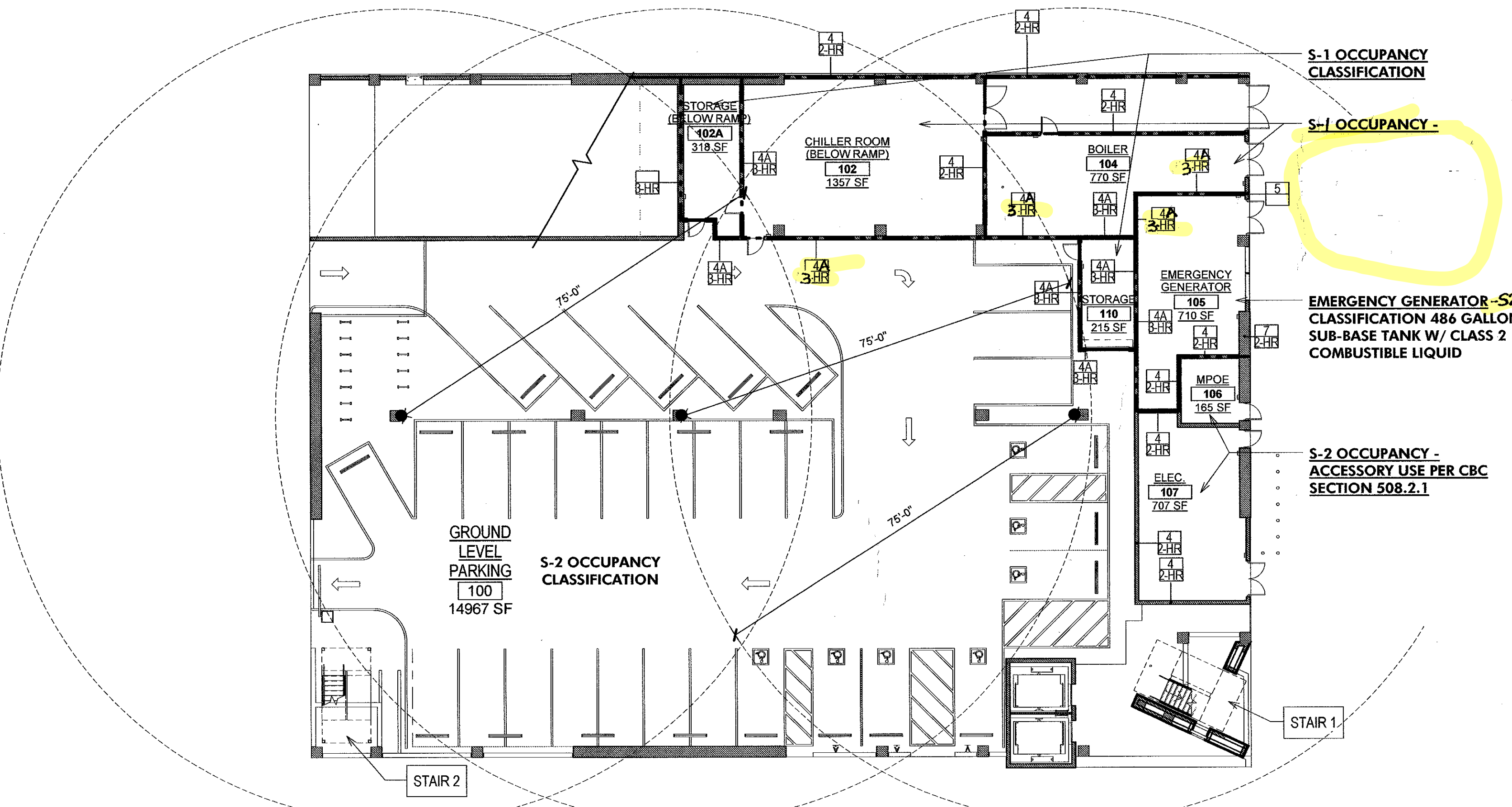
**ELECTRICAL AND MPOE ROOM (ROOMS 107 AND 106):**  
ELECTRICAL AND MPOE ROOMS ARE CLASSIFIED AS ACCESSORY USE PER CBC SECTION 508.2.1. AGGREGATE AREA DOES NOT EXCEED 10% OF THE FIRST LEVEL (1,090 SF). NO SEPARATION REQUIRED.

**STORAGE ROOMS (ROOM 110& 102A):**  
S-2 OCC. AND S-1 OCC. REQUIRE 3-HOUR SEPARATION FOR NON-SPRINKLERED BUILDINGS. 3-HOUR SEPARATION PROVIDED.

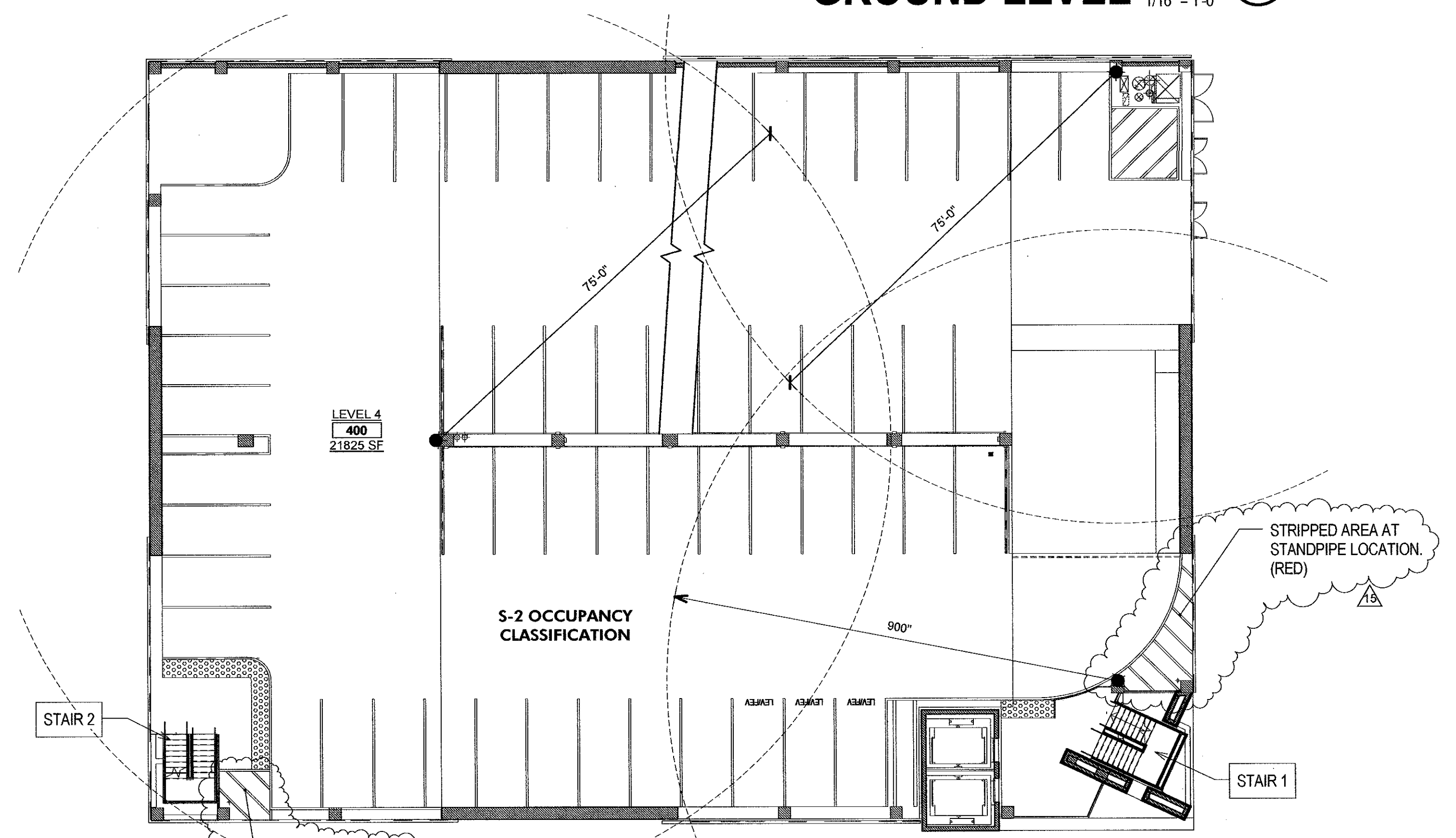
CFC TABLE 3206.2 DOES NOT REQUIRE AN AUTOMATIC FIRE EXTINGUISHING SYSTEM WHEN THE SIZE OF THE HIGH PILE STORAGE AREA IS 500 SQUARE FEET OR LESS.

**EMERGENCY GENERATOR (ROOM 105):**  
2-HOUR FIRE BARRIERS CONSTRUCTED IN ACCORDANCE WITH SECTION 707 SHALL BE PROVIDED AT THE EMERGENCY GENERATOR PER 403.4.8.1 SPECIAL REQUIREMENTS FOR STANDBY POWER SYSTEMS.

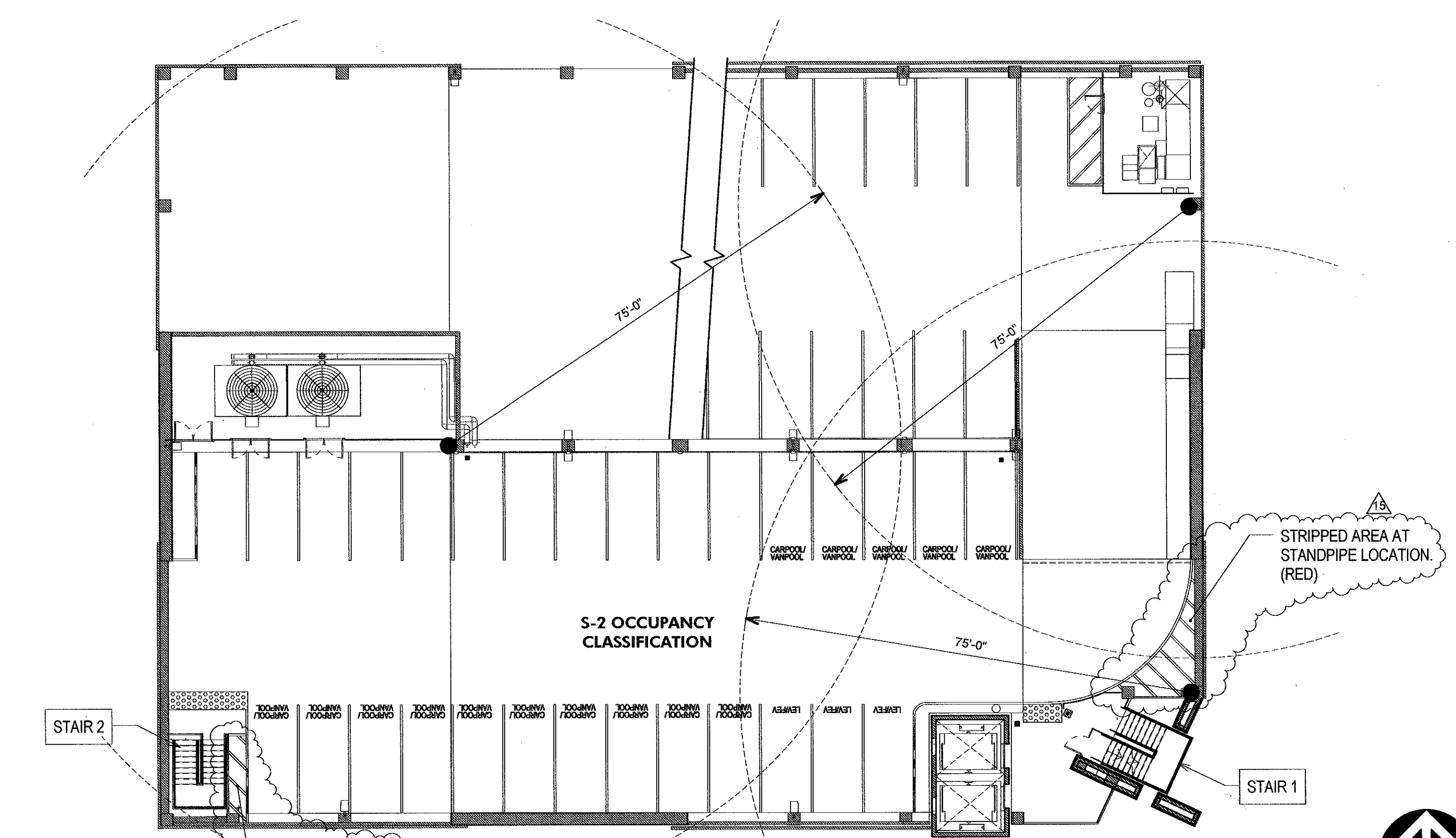
PER TABLE 307.1(1) FOOTNOTE (i) WHICH STATES THAT "THE MAXIMUM ALLOWABLE QUANTITY SHALL NOT APPLY TO FUEL OIL STORAGE COMPLYING WITH CFC SECTION 603.3.2." AGGREGATE CAPACITY LIMIT OF ALL TANKS DOES NOT EXCEED 680 GALLONS. 486 GALLONS OF CLASS II COMBUSTIBLE LIQUID PROVIDED. EMERGENCY GENERATOR IS NOT DESIGNATED AS A HAZARDOUS OCCUPANCY.



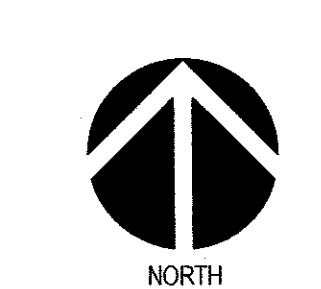
**GROUND LEVEL** 1/16" = 1'-0" ①



**LEVELS 2-5** 1/16" = 1'-0" ②



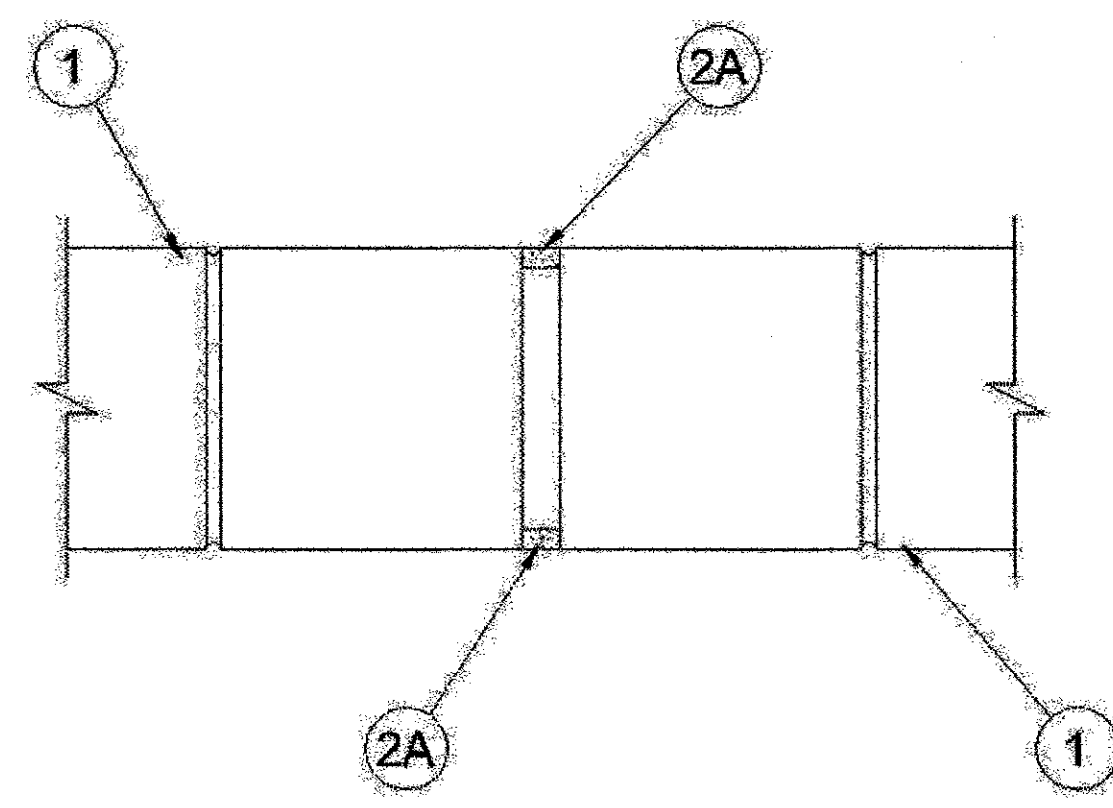
**SIXTH LEVEL (ROOF)** 1/16" = 1'-0" ③





**System No. WW-D-0032**

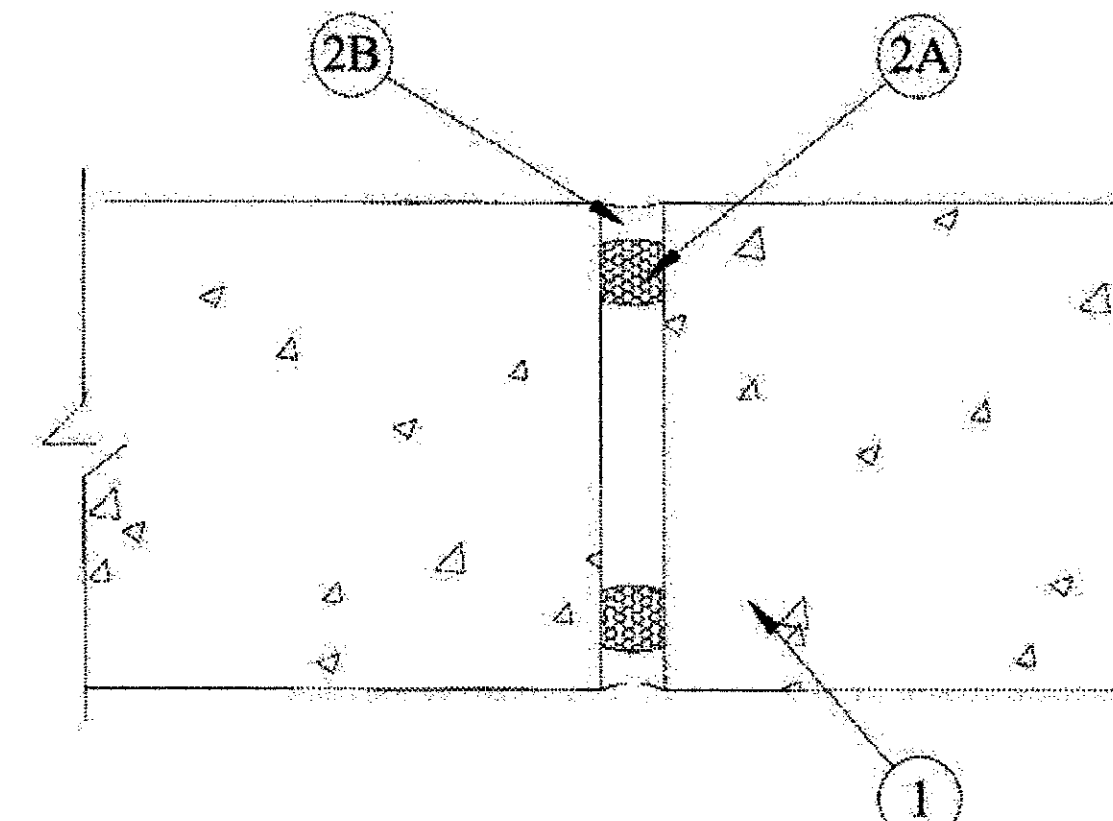
June 26, 2009  
 Assembly Rating - 3 HR  
 Nominal Joint Width - 1 in.  
 I Rating At Ambient - Less Than 3 CFM/Lin Ft  
 I Rating At 400°F - Less Than 4 CFM/Lin Ft  
 Class II Movement Capabilities - 12.8% Compression and Extension



1. Wall Assembly - Min 4 in. (102 mm) thick steel reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m<sup>3</sup>) structural concrete. Wall may also be constructed of any UL Classified Concrete Blocks.  
 See Concrete Blocks (CAZT) category in the Fire Resistance Directory for names of manufacturers.  
 2. Joint System - Max width of joint (at time of installation) is 1 in. (25 mm). The joint system is designed to accommodate a max 12.8 percent compression or extension from its installed width. The joint system shall consist of the following:  
 A. Fill Void or Cavity Material - Sealant - A 1/2 in. (13 mm) thickness of fill material installed within the joint, flush with both surfaces of the wall.  
 B. Forming Material - (Optional, Not Shown) - Mineral wool insulation or polyurethane foam installed, forming material to be removed from both surfaces of the wall as required to accommodate the required thickness of fill material.  
 \* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

**System No. WW-D-0021**

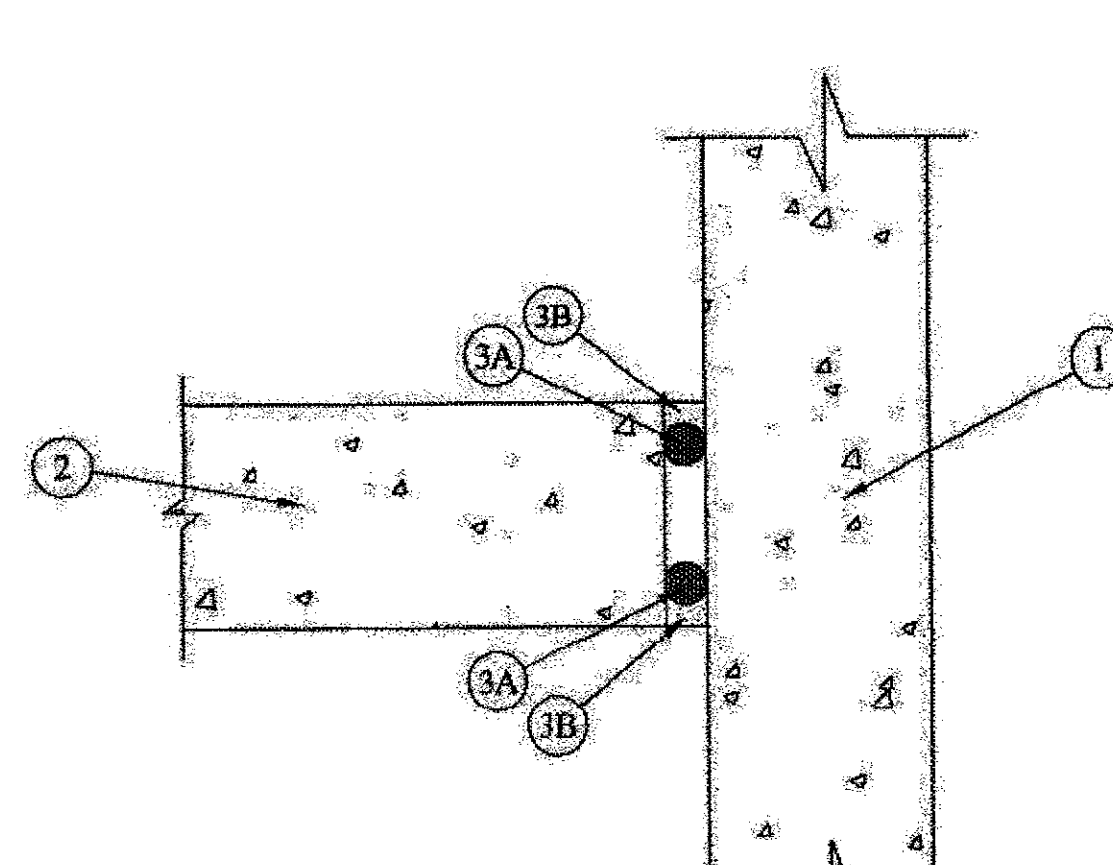
August 03, 2001  
 Assembly Rating - 2 HR  
 I Rating At Ambient - 4 CFM/Lin Ft  
 I Rating At 400°F - 6 CFM/Lin Ft  
 Nominal Joint Width - 1 in. Max  
 Class II Movement Capabilities - 18.75% Compression or Extension



1. Wall Assembly - Min 7-1/2 in. thick reinforced lightweight or normal weight (100-150 pcf) structural concrete. Wall may also be constructed of any UL Classified Concrete Blocks.  
 See Concrete Blocks (CAZT) category in the Fire Resistance Directory for names of manufacturers.  
 2. Joint System - Max width of joint (at time of installation of joint system) is 1 in. The joint system is designed to accommodate a max 18.75 percent compression or extension from its installed width. The joint system shall consist of the following:  
 A. Packing Material - Min 1-1/4 in. diameter polyethylene beaker rod compressed and installed into joint. Packing material to be recessed from each surface of wall as required to accommodate the required thickness of fill material.  
 B. Fill Void or Cavity Material - Min 1/2 in. thickness of fill material applied within the joint, flush with both surfaces of wall.  
 3M COMPANY - FD 1504  
 \* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

**System No. FW-D-0019**

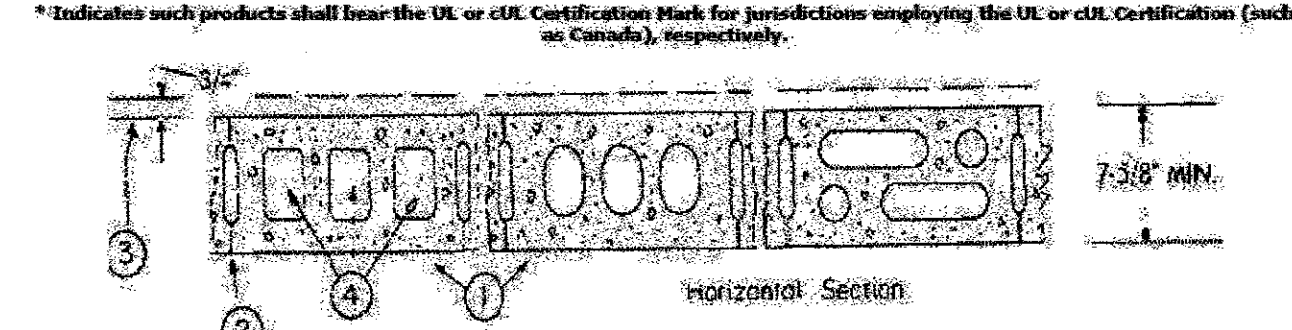
July 15, 2014	
ANSI/UL2079	CAN/ULC 9315
Assembly Rating - 2 HR	F Rating - 2 HR
Nominal Joint Width - 1 in.	FT Rating - 2 HR
Class II Movement Capabilities - 25% Compression or Extension	PH Rating - 2 HR
	FFH Rating - 2 HR
	Nominal Joint Width - 1 in.
	Class II Movement Capabilities - 25% Compression or Extension



1. Wall Assembly - Min 4-1/2 in. thick reinforced lightweight or normal weight (100-150 pcf) structural concrete. Wall may also be constructed of any UL Classified Concrete Blocks.  
 See Concrete Blocks (CAZT) category in the Fire Resistance Directory for names of manufacturers.  
 2. Floor Assembly - Min 4-1/2 in. thick reinforced lightweight or normal weight (100-150 pcf) structural concrete.  
 3. Joint System - Max separation between edge of floor and face of wall (at time of installation of joint system) is 1 in. The joint system is designed to accommodate a max 25 percent compression or extension from its installed width. The joint system shall consist of the following:  
 A. Backing Material - (Optional) Open or closed cell polyethylene beaker rod installed in a form to prevent the leakage of fill material. Packing material to be recessed from both surfaces of the floor as required to accommodate the required thickness of fill material.  
 B. Fill Void or Cavity Material - Sealant - Min 1/2 in. thickness of fill material applied within the joint, flush with both surfaces of floor.  
 RECTORSAL - FS 900+ Sealant, Metabond MC 150+; Boshop BF 130+  
 \* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

**Design No. U905**

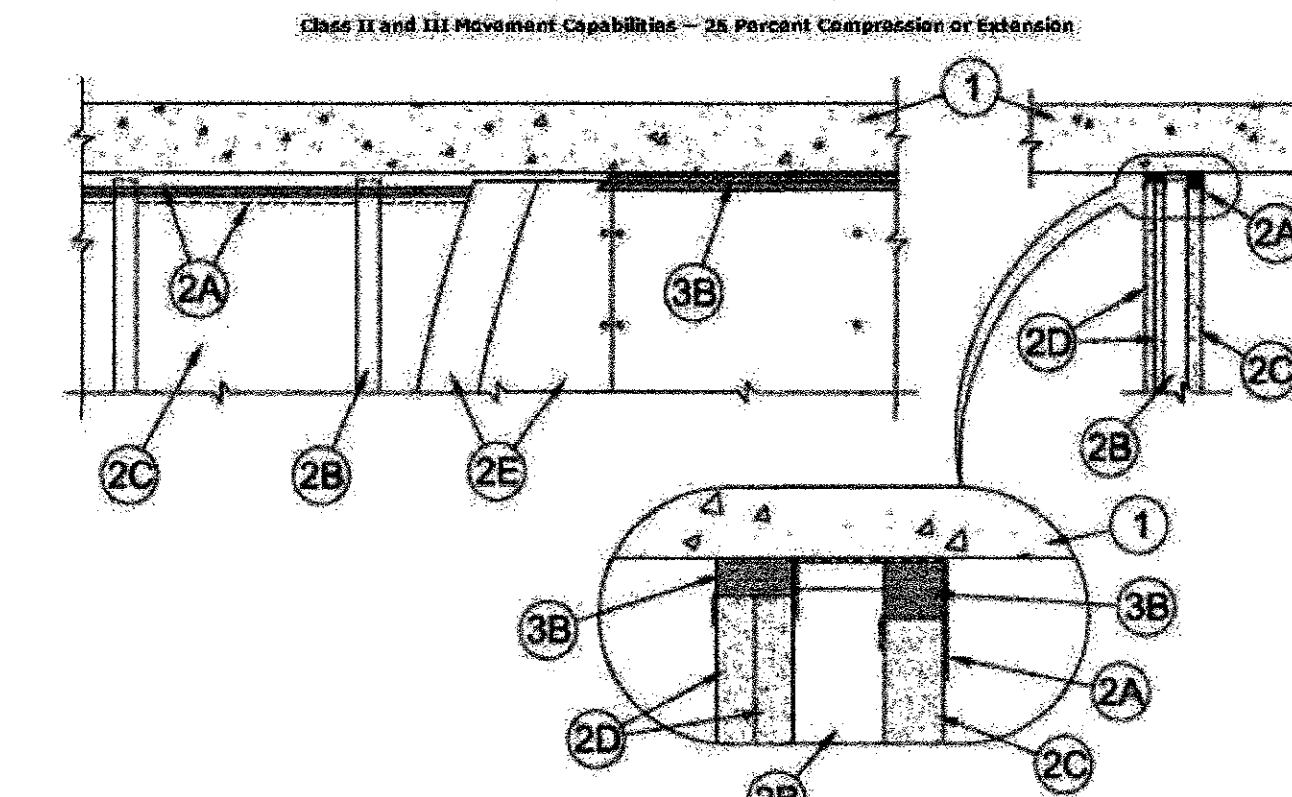
October 02, 2014  
 Bearing Wall Rating - 2 HR  
 Nonbearing Wall Rating - 2 HR  
 This design was evaluated using a load design method other than the Unit States Design Method (e.g., Working Stress Design Method). For jurisdictions employing the Unit States Design Method, such as Canada, a load restriction factor shall be used - See Code: UBC-1909 or 2003.  
 \* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.



1. Concrete Blocks - Various designs, Classification D-2 (2 hr). See Concrete Blocks category for list of eligible manufacturers.  
 2. Mortar - Blocks laid in full bed of mortar, min. 3/8 in. thick, of not less than 2-1/4 and not more than 3-1/2 parts of clean sharp sand to 1 part Portland cement (proportioned by volume) and not more than 30 percent hydrated lime (by cement volume). Vertical joints staggered.  
 3. Portland Cement Slurry or Gypsum Mortar - Add 1/2 in. to classification if used. Where combustible members are found in wall, plaster or slurry must be applied on the face opposite bearing to achieve a max. Classification of A-1/2 in. Attached to concrete blocks (Item 1).  
 4. Loose Mortar Fill - If all core spaces are filled with loose dry expanded slag, expanded clay or shale (Heavy Duty Masonry), water repellent vermiculite masonry fill insulation, or silicone treated perlite loose fill insulation, add 1/2 in. to classification.  
 5. Foamed Plastic - (Optional-Not Shown) - 1-1/2 in. thick max. 4 ft wide sheathing attached to concrete blocks (Item 1).  
 ATLAS ROOFING CORP - "EnergyShield Pro Wall Insulation" and "EnergyShield Pro 2 Wall Insulation."  
 CARLISLE COATINGS & WATERPROOFING INC - Type R2+ Sheath  
 HUNTER PANELS - Type X2-Class A, X2 200  
 THE DOW CHEMICAL CO - Type Thermax Sheathing, Thermax Light Duty Insulation, Thermax Heavy Duty Insulation, Thermax Metal Building Board, Thermax White Frost Insulation, Thermax G Exterior Insulation, Thermax HI Insulation, Thermax Plus Linear Panel and Thermax Heavy Duty Plus (HD)  
 \* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

**System No. HW-D-0603**

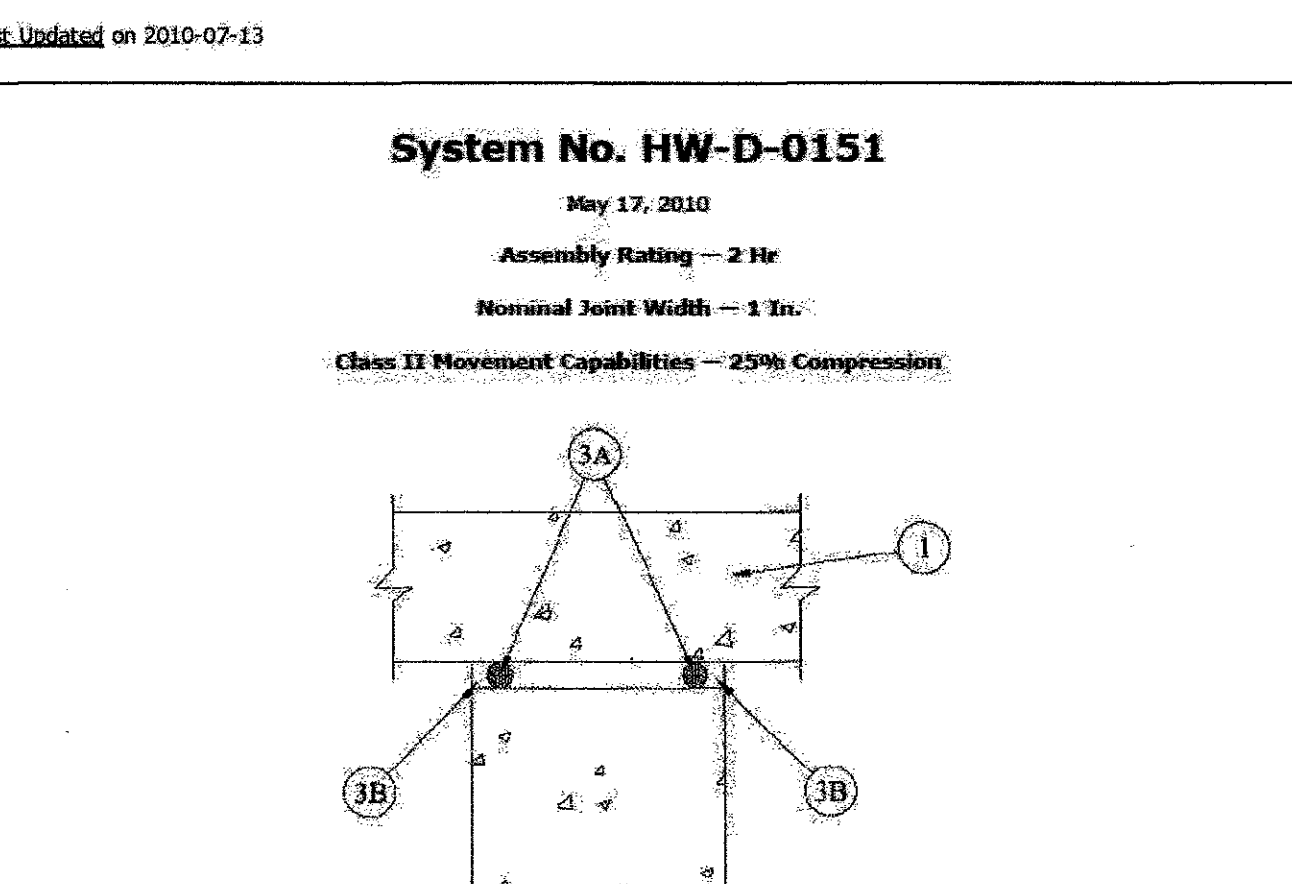
July 15, 2010  
 Assembly Rating - 3 and 3 hr (See Item 3)  
 Joint Width - 6/8 in. Max  
 I Rating At Ambient - 2.3 CFM/Lin Ft  
 I Rating At 400°F - Less Than 3 CFM/Lin Ft  
 Class II and III Movement Capabilities - 26 Percent Compression or Extension



1. Floor Assembly - Min 4-1/2 in. (114 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m<sup>3</sup>) structural concrete.  
 2. Shaft Wall Assembly - The 1 or 2 hr fire rated shaft wall assembly shall be constructed of the materials and in the manner described in the individual U900 or V400 Series Wall and Partition Design in the UL Fire Resistance Directory. The wall shall include the following construction features:  
 A. Floor, Ceiling and Wall Runners - 3/4" shaped runner, min 2-1/2 in. (64 mm) wide with unequal legs of 3 in. (76 mm) and 2 in. (51 mm), fabricated from min 2# A36 galv. steel. Runners positioned with short leg on finished side of wall. Runners attached to floor, ceiling and wall with steel fasteners spaced max 24 in. (610 mm) OC.  
 B. Steel Studs - C-shaped steel studs in the min 2-1/2 in. (64 mm) wide and formed of min 2# A36 galv. steel. Studs set 1/2 in. (13 mm) from floor and ceiling. Studs installed in 1/2" shaped section of 1/2" studs. Free edge of end panels at walls attached to long leg of 3/4" runner (Item 2A) with 1/2" x 3/8" in. (41 mm) long Type 8 steel screws spaced max 12 in. (305 mm) OC.  
 C. Gypsum Board - 1 in. (25 mm) thick by 24 in. (610 mm) wide gypsum board line panels as specified in the individual U900 or V400 Series Wall and Partition Design. Panels cut 1 in. (25 mm) less in length than floor to ceiling height. Vertical edges installed in 1/2" shaped section of 1/2" studs. Free edge of end panels at walls attached to long leg of 3/4" runner (Item 2A) with 1/2" x 3/8" in. (41 mm) long Type 8 steel screws spaced max 12 in. (305 mm) OC.  
 D. Gypsum Board - Gypsum board sheets installed to a min total thickness of 3/8 in. (16 mm) and 1 in. (25 mm) on finished side of wall for 1 hr and 2 hr rated assemblies, respectively. A max 1/8 in. (3.2 mm) gap shall be maintained between the top of the gypsum board and the bottom surface of the concrete floor. The screw attaching the gypsum board layers to the 3/4" studs shall be located 1 in. (25 mm) below the bottom of the ceiling runner (Item 2B). No gypsum board attachment screws are to penetrate the ceiling studs.  
 The hourly fire rating of the joint system is equal to the hourly fire rating of the shaft wall.  
 3. Joint System - Max separation between bottom of floor and top of line panel (Item 2C) is 3 in. (76 mm). Max separation between bottom of floor and top of gypsum board sheets (Item 2D) at time of installation of joint system is 3/8 in. (9.5 mm). The joint system is designed to accommodate a maximum 26 percent compression or extension from its installed width on the finished side of the ceiling.  
 A. Bond Breaker Tape - (Optional, Not Shown) - Polyethylene tape supplied in rolls. Tape applied to flanges of ceiling runner (Item 2A) to prevent bonding of the sealant at points other than the top and bottom of the linear gap.  
 B. Fill Void or Cavity Material - Sealant - Min 1 in. (25 mm) thickness of sealant to be installed to fill linear gap between top of gypsum board line panel (Item 2C) and top inside surface of ceiling runner (Item 2A) prior to installation of gypsum board sheets on finished side of wall. Additional material to be "burned" such that, prior to curing, it protrudes 3/8 to 1/2 in. (10 to 13 mm) beyond inside surface of line panel and such that it is not minimum 1/2 in. (13 mm) onto surface of line panel. Min 3/8 in. (9.5 mm) or 1 in. (25 mm) thickness of sealant to be installed to fill linear gap between top of gypsum board sheets (Item 2D) and bottom of concrete floor on finished side of wall for 1 hr and 2 hr fire ratings, respectively. Material to lap min 1/2 in. (13 mm) onto surface of gypsum board on finished side of wall.  
 UNITED STATES GYPSUM CO - Type AS  
 \* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

**System No. HW-D-0151**

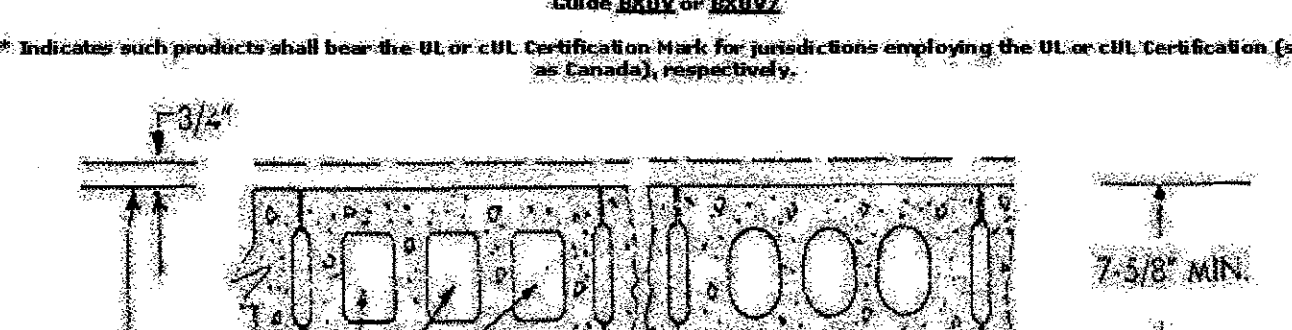
June 26, 2009  
 Assembly Rating - 3 HR  
 Nominal Joint Width - 1 in.  
 I Rating At Ambient - Less Than 3 CFM/Lin Ft  
 I Rating At 400°F - Less Than 3 CFM/Lin Ft  
 Class II Movement Capabilities - 12.8% Compression and Extension



1. Floor Assembly - Min 4-1/2 in. (114 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m<sup>3</sup>) structural concrete.  
 2. Wall Assembly - Min 8 in. (203 mm) thick steel reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m<sup>3</sup>) structural concrete. Wall may also be constructed of any UL Classified Concrete Blocks.  
 See Concrete Blocks (CAZT) category in the Fire Resistance Directory for names of manufacturers.  
 3. Joint System - Max separation between bottom of floor assembly and top of concrete wall at time of installation is 1 in. (25 mm). The joint system is designed to accommodate a max 12.8 percent compression or extension from its installed width. The joint system shall consist of the following:  
 A. Packing Material - (Optional, Not Shown) - Mineral wool insulation or polyurethane foam installed, forming material to be removed from both surfaces of the wall as required to accommodate the required thickness of fill material.  
 B. Forming Material - (Optional, Not Shown) - Mineral wool insulation or polyurethane foam installed, forming material to be removed from both surfaces of the wall as required to accommodate the required thickness of fill material.  
 \* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

**Design No. U904**

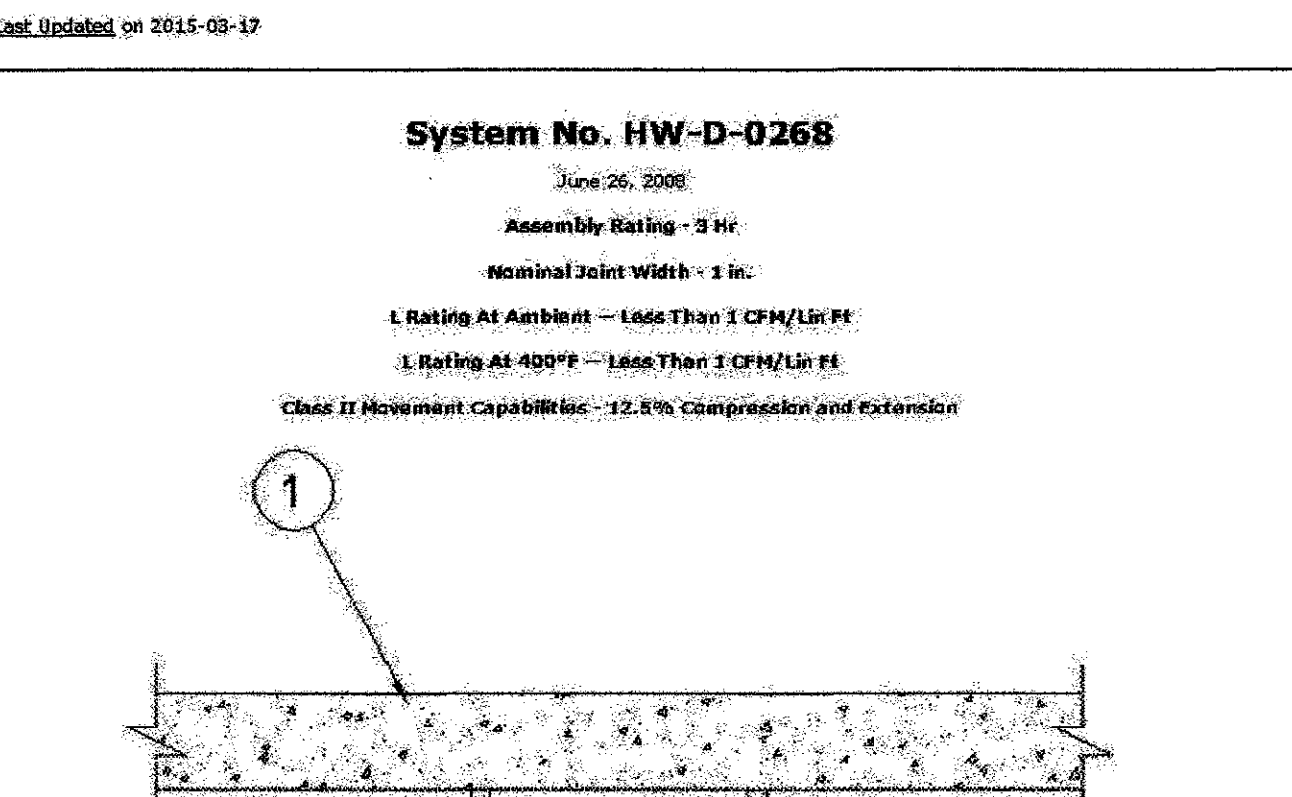
March 17, 2015  
 Bearing Wall Rating - 3 HR  
 Nonbearing Wall Rating - 3 HR  
 This design was evaluated using a load design method other than the Unit States Design Method (e.g., Working Stress Design Method). For jurisdictions employing the Unit States Design Method, such as Canada, a load restriction factor shall be used - See Code: UBC-1909 or 2003.  
 \* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.



1. Concrete Blocks - Various designs, Classification D-3 (3 hr). See Concrete Blocks category for list of eligible manufacturers.  
 2. Mortar - Blocks laid in full bed of mortar, min. 3/8 in. thick, of not less than 2-1/4 and not more than 3-1/2 parts of clean sharp sand to 1 part Portland cement (proportioned by volume) and not more than 30 percent hydrated lime (by cement volume). Vertical joints staggered.  
 3. Portland Cement Slurry or Gypsum Mortar - Add 1/2 in. to classification if used. Attached to concrete blocks (Item 1).  
 4. Loose Mortar Fill - If all core spaces are filled with loose dry expanded slag, expanded clay or shale (Heavy Duty Masonry), water repellent vermiculite masonry fill insulation, or silicone treated perlite loose fill insulation, add 1/2 in. to classification.  
 5. Foamed Plastic - (Optional-Not Shown) - 1-1/2 in. thick max. 4 ft wide sheathing attached to concrete blocks (Item 1).  
 ATLAS ROOFING CORP - "EnergyShield Pro Wall Insulation" and "EnergyShield Pro 2 Wall Insulation."  
 CARLISLE COATINGS & WATERPROOFING INC - Type R2+ Sheath  
 HUNTER PANELS - Type X2-Class A, X2 200  
 THE DOW CHEMICAL CO - Type Thermax Sheathing, Thermax Light Duty Insulation, Thermax Heavy Duty Insulation, Thermax Metal Building Board, Thermax White Frost Insulation, Thermax G Exterior Insulation, Thermax HI Insulation, Thermax Plus Linear Panel and Thermax Heavy Duty Plus (HD)  
 BMAX OPERATING L L C - "T3X-6500", "T3X-6510", "Thermashield-XF", "ECONARC", "Thermashield-3", "Durashield-3"  
 \* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

**System No. HW-D-0268**

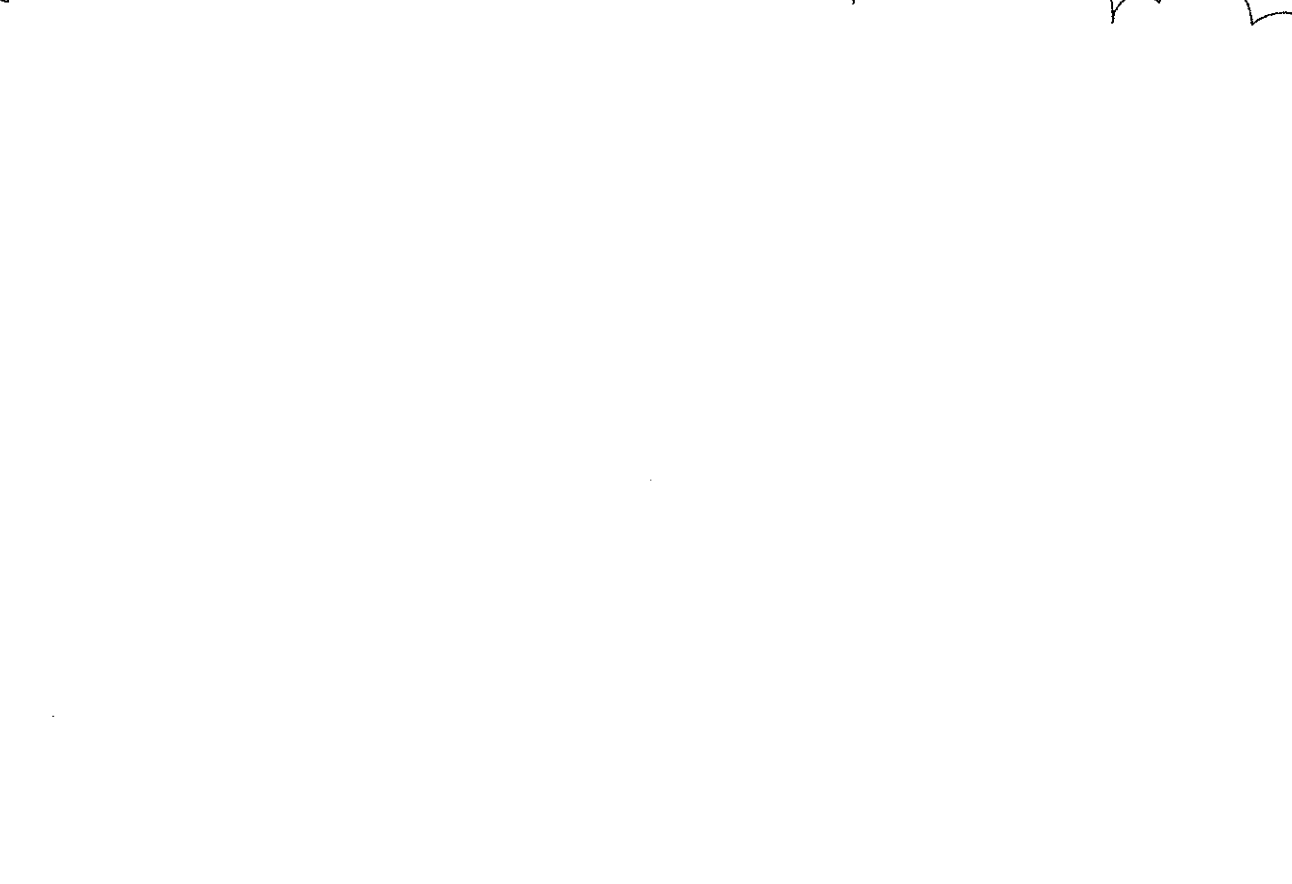
June 26, 2009  
 Assembly Rating - 3 HR  
 Nominal Joint Width - 1 in.  
 I Rating At Ambient - Less Than 3 CFM/Lin Ft  
 I Rating At 400°F - Less Than 3 CFM/Lin Ft  
 Class II Movement Capabilities - 12.8% Compression and Extension



1. Floor Assembly - Min 4-1/2 in. (114 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m<sup>3</sup>) structural concrete. Floor may also be constructed of any precast concrete wall. Precast Concrete Wall.  
 See Precast Concrete Walls (CWT) category in the Fire Resistance Directory for names of manufacturers.  
 2. Wall Assembly - Min 8 in. (203 mm) thick steel reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m<sup>3</sup>) structural concrete. Wall may also be constructed of any UL Classified Concrete Blocks.  
 See Concrete Blocks (CAZT) category in the Fire Resistance Directory for names of manufacturers.  
 3. Joint System - Max separation between bottom of floor assembly and top of concrete wall at time of installation is 1 in. (25 mm). The joint system is designed to accommodate a max 12.8 percent compression or extension from its installed width. The joint system shall consist of the following:  
 A. Fill Void or Cavity Material - Sealant - A 1/2 in. (13 mm) thickness of fill material installed within the joint, flush with both surfaces of the wall.  
 B. Forming Material - (Optional, Not Shown) - Mineral wool insulation or polyurethane foam installed, forming material to be removed from both surfaces of the wall as required to accommodate the required thickness of fill material.  
 \* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

**System No. HW-D-0268**

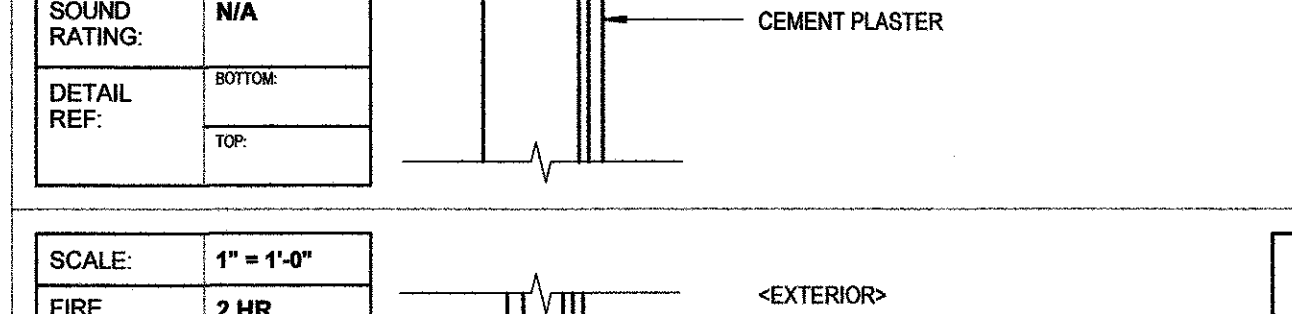
June 26, 2009  
 Assembly Rating - 3 HR  
 Nominal Joint Width - 1 in.  
 I Rating At Ambient - Less Than 3 CFM/Lin Ft  
 I Rating At 400°F - Less Than 3 CFM/Lin Ft  
 Class II Movement Capabilities - 12.8% Compression and Extension



1. Floor Assembly - Min 4-1/2 in. (114 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m<sup>3</sup>) structural concrete. Floor may also be constructed of any precast concrete wall. Precast Concrete Wall.  
 See Precast Concrete Walls (CWT) category in the Fire Resistance Directory for names of manufacturers.  
 2. Wall Assembly - Min 8 in. (203 mm) thick steel reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m<sup>3</sup>) structural concrete. Wall may also be constructed of any UL Classified Concrete Blocks.  
 See Concrete Blocks (CAZT) category in the Fire Resistance Directory for names of manufacturers.  
 3. Joint System - Max separation between bottom of floor assembly and top of concrete wall at time of installation is 1 in. (25 mm). The joint system is designed to accommodate a max 12.8 percent compression or extension from its installed width. The joint system shall consist of the following:  
 A. Fill Void or Cavity Material - Sealant - A 1/2 in. (13 mm) thickness of fill material installed within the joint, flush with both surfaces of the wall.  
 B. Forming Material - (Optional, Not Shown) - Mineral wool insulation or polyurethane foam installed, forming material to be removed from both surfaces of the wall as required to accommodate the required thickness of fill material.  
 \* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

**System No. HW-D-0603**

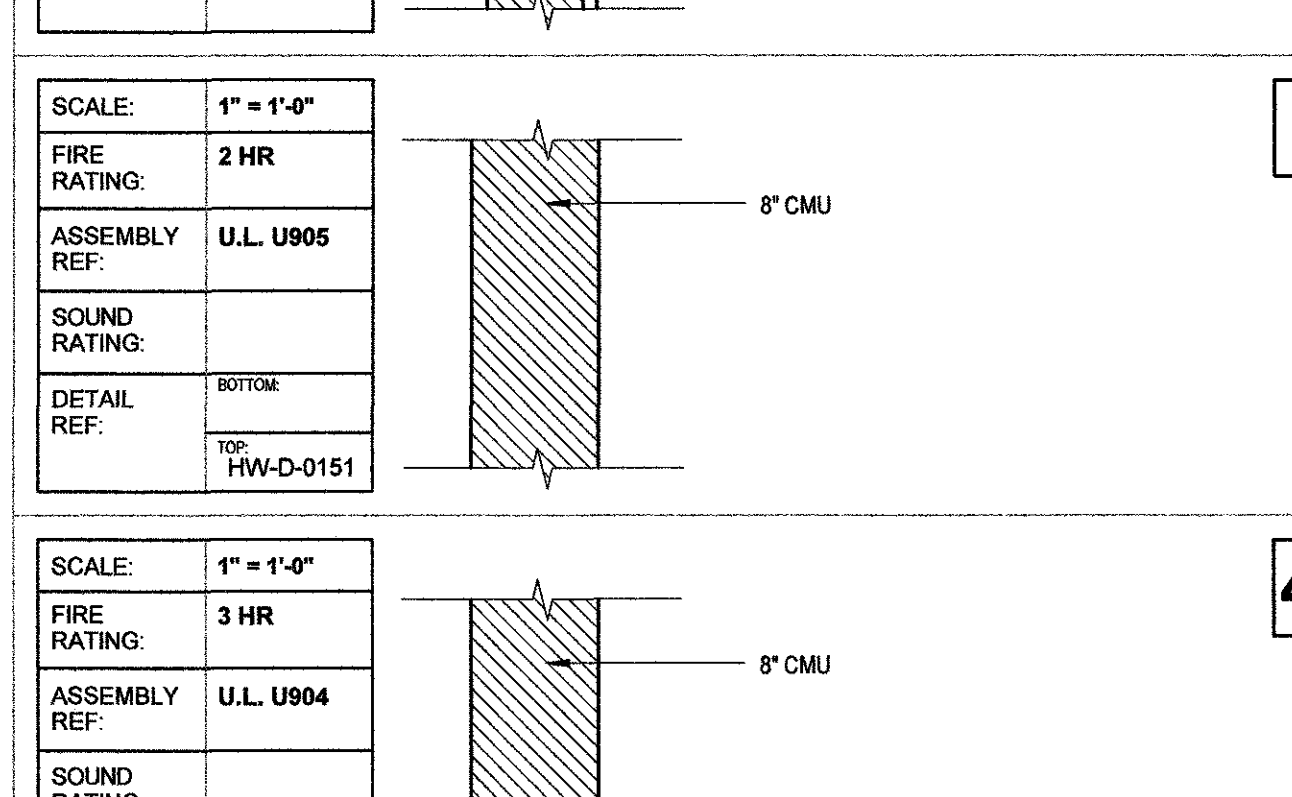
July 15, 2010  
 Assembly Rating - 3 and 3 hr (See Item 3)  
 Joint Width - 6/8 in. Max  
 I Rating At Ambient - 2.3 CFM/Lin Ft  
 I Rating At 400°F - Less Than 3 CFM/Lin Ft  
 Class II and III Movement Capabilities - 26 Percent Compression or Extension



1. Floor Assembly - Min 4-1/2 in. (114 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m<sup>3</sup>) structural concrete.  
 2. Shaft Wall Assembly - The 1 or 2 hr fire rated shaft wall assembly shall be constructed of the materials and in the manner described in the individual U900 or V400 Series Wall and Partition Design in the UL Fire Resistance Directory. The wall shall include the following construction features:  
 A. Floor, Ceiling and Wall Runners - 3/4" shaped runner, min 2-1/2 in. (64 mm) wide with unequal legs of 3 in. (76 mm) and 2 in. (51 mm), fabricated from min 2# A36 galv. steel. Runners positioned with short leg on finished side of wall. Runners attached to floor, ceiling and wall with steel fasteners spaced max 24 in. (610 mm) OC.  
 B. Steel Studs - C-shaped steel studs in the min 2-1/2 in. (64 mm) wide and formed of min 2# A36 galv. steel. Studs set 1/2 in. (13 mm) from floor and ceiling. Studs installed in 1/2" shaped section of 1/2" studs. Free edge of end panels at walls attached to long leg of 3/4" runner (Item 2A) with 1/2" x 3/8" in. (41 mm) long Type 8 steel screws spaced max 12 in. (305 mm) OC.  
 C. Gypsum Board - 1 in. (25 mm) thick by 24 in. (610 mm) wide gypsum board line panels as specified in the individual U900 or V400 Series Wall and Partition Design. Panels cut 1 in. (25 mm) less in length than floor to ceiling height. Vertical edges installed in 1/2" shaped section of 1/2" studs. Free edge of end panels at walls attached to long leg of 3/4" runner (Item 2A) with 1/2" x 3/8" in. (41 mm) long Type 8 steel screws spaced max 12 in. (305 mm) OC.  
 D. Gypsum Board - Gypsum board sheets installed to a min total thickness of 3/8 in. (16 mm) and 1 in. (25 mm) on finished side of wall for 1 hr and 2 hr rated assemblies, respectively. A max 1/8 in. (3.2 mm) gap shall be maintained between the top of the gypsum board and the bottom surface of the concrete floor. The screw attaching the gypsum board layers to the 3/4" studs shall be located 1 in. (25 mm) below the bottom of the ceiling runner (Item 2B). No gypsum board attachment screws are to penetrate the ceiling studs.  
 The hourly fire rating of the joint system is equal to the hourly fire rating of the shaft wall.  
 3. Joint System - Max separation between bottom of floor and top of line panel (Item 2C) is 3 in. (76 mm). Max separation between bottom of floor and top of gypsum board sheets (Item 2D) at time of installation of joint system is 3/8 in. (9.5 mm). The joint system is designed to accommodate a maximum 26 percent compression or extension from its installed width on the finished side of the ceiling.  
 A. Bond Breaker Tape - (Optional, Not Shown) - Polyethylene tape supplied in rolls. Tape applied to flanges of ceiling runner (Item 2A) to prevent bonding of the sealant at points other than the top and bottom of the linear gap.  
 B. Fill Void or Cavity Material - Sealant - Min 1 in. (25 mm) thickness of sealant to be installed to fill linear gap between top of gypsum board line panel (Item 2C) and top inside surface of ceiling runner (Item 2A) prior to installation of gypsum board sheets on finished side of wall. Additional material to be "burned" such that, prior to curing, it protrudes 3/8 to 1/2 in. (10 to 13 mm) beyond inside surface of line panel and such that it is not minimum 1/2 in. (13 mm) onto surface of line panel. Min 3/8 in. (9.5 mm) or 1 in. (25 mm) thickness of sealant to be installed to fill linear gap between top of gypsum board sheets (Item 2D) and bottom of concrete floor on finished side of wall for 1 hr and 2 hr fire ratings, respectively. Material to lap min 1/2 in. (13 mm) onto surface of gypsum board on finished side of wall.  
 UNITED STATES GYPSUM CO - Type AS  
 \* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

**System No. HW-D-0151**

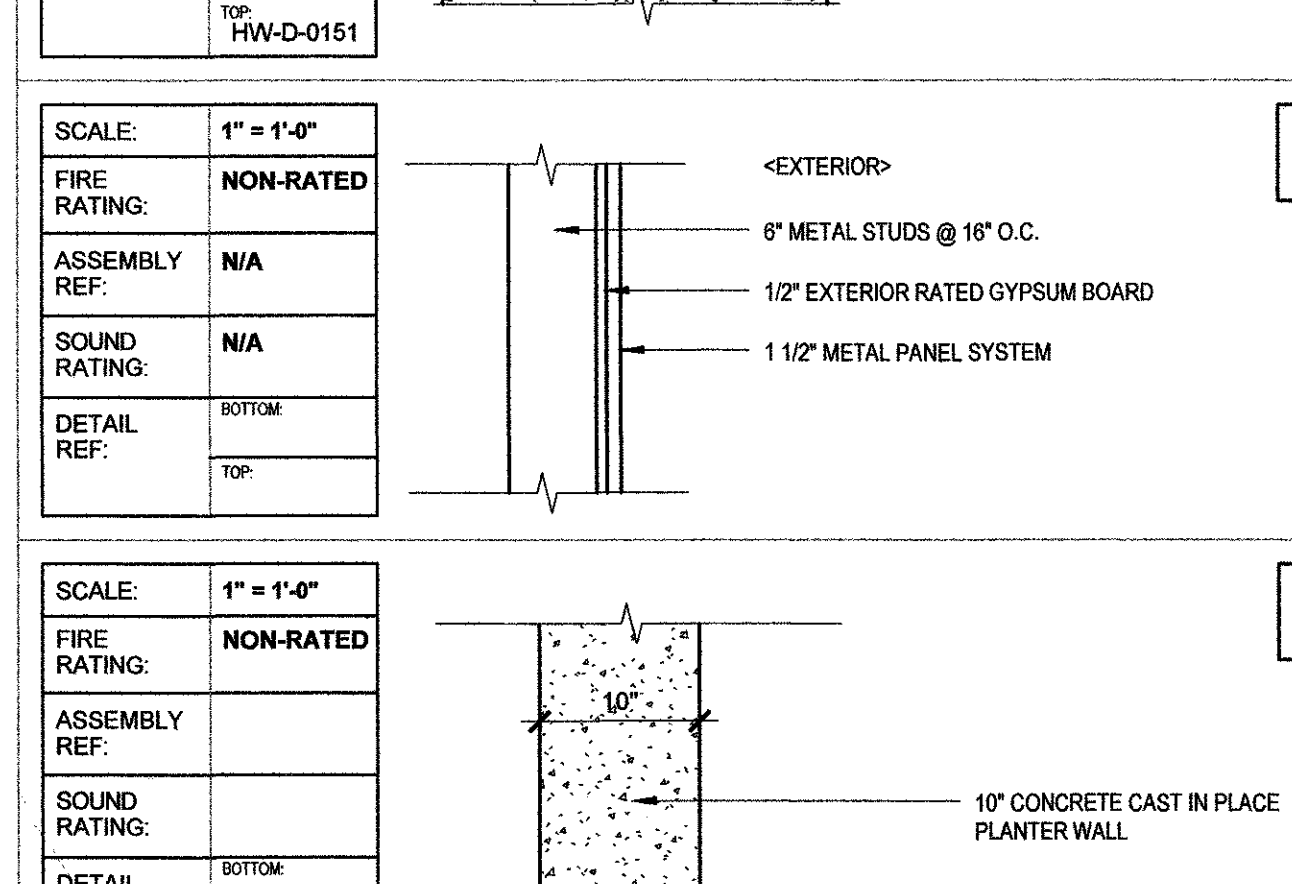
June 26, 2009  
 Assembly Rating - 3 HR  
 Nominal Joint Width - 1 in.  
 I Rating At Ambient - Less Than 3 CFM/Lin Ft  
 I Rating At 400°F - Less Than 3 CFM/Lin Ft  
 Class II Movement Capabilities - 12.8% Compression and Extension



1. Floor Assembly - Min 4-1/2 in. (114 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m<sup>3</sup>) structural concrete. Floor may also be constructed of any precast concrete wall. Precast Concrete Wall.  
 See Precast Concrete Walls (CWT) category in the Fire Resistance Directory for names of manufacturers.  
 2. Wall Assembly - Min 8 in. (203 mm) thick steel reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m<sup>3</sup>) structural concrete. Wall may also be constructed of any UL Classified Concrete Blocks.  
 See Concrete Blocks (CAZT) category in the Fire Resistance Directory for names of manufacturers.  
 3. Joint System - Max separation between bottom of floor assembly and top of concrete wall at time of installation is 1 in. (25 mm). The joint system is designed to accommodate a max 12.8 percent compression or extension from its installed width. The joint system shall consist of the following:  
 A. Fill Void or Cavity Material - Sealant - A 1/2 in. (13 mm) thickness of fill material installed within the joint, flush with both surfaces of the wall.  
 B. Forming Material - (Optional, Not Shown) - Mineral wool insulation or polyurethane foam installed, forming material to be removed from both surfaces of the wall as required to accommodate the required thickness of fill material.  
 \* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

**System No. HW-D-0151**

June 26, 2009  
 Assembly Rating - 3 HR  
 Nominal Joint Width - 1 in.  
 I Rating At Ambient - Less Than 3 CFM/Lin Ft  
 I Rating At 400°F - Less Than 3 CFM/Lin Ft  
 Class II Movement Capabilities - 12.8% Compression and Extension



1. Floor Assembly - Min 4-1/2 in. (114 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m<sup>3</sup>) structural concrete. Floor may also be constructed of any precast concrete wall. Precast Concrete Wall.  
 See Precast Concrete Walls (CWT) category in the Fire Resistance Directory for names of manufacturers.  
 2. Wall Assembly - Min 8 in. (203 mm) thick steel reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m<sup>3</sup>) structural concrete. Wall may also be constructed of any UL Classified Concrete Blocks.  
 See Concrete Blocks (CAZT) category in the Fire Resistance Directory for names of manufacturers.  
 3. Joint System - Max separation between bottom of floor assembly and top of concrete wall at time of installation is 1 in. (25 mm). The joint system is designed to accommodate a max 12.8 percent compression or extension from its installed width. The joint system shall consist of the following:  
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 \* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

SUBMITTAL SCHEDULE:

DESIGN PHASE	DATE
SCHEMATIC DESIGN	04/17/2014
50% PRELIM. DESIGN	05/14/2014
100% PRELIM. DESIGN	08/28/2014
50% CONST. DOCS.	07/02/2014
95% CONST. DOCS.	08/07/2014
100% BACKCHECK SET 2	11/10/2014
100% BACKCHECK SET 3	01/22/2015
100% BACKCHECK SET 3	03/20/2015
AS1005	07/07/2015
AS1007 - SFM RESUB.	07/29/2015
AS1011 - SFM RESUB. 2	11/06/2015
AS1015 - SFM RESUB. 3	03/03/2016

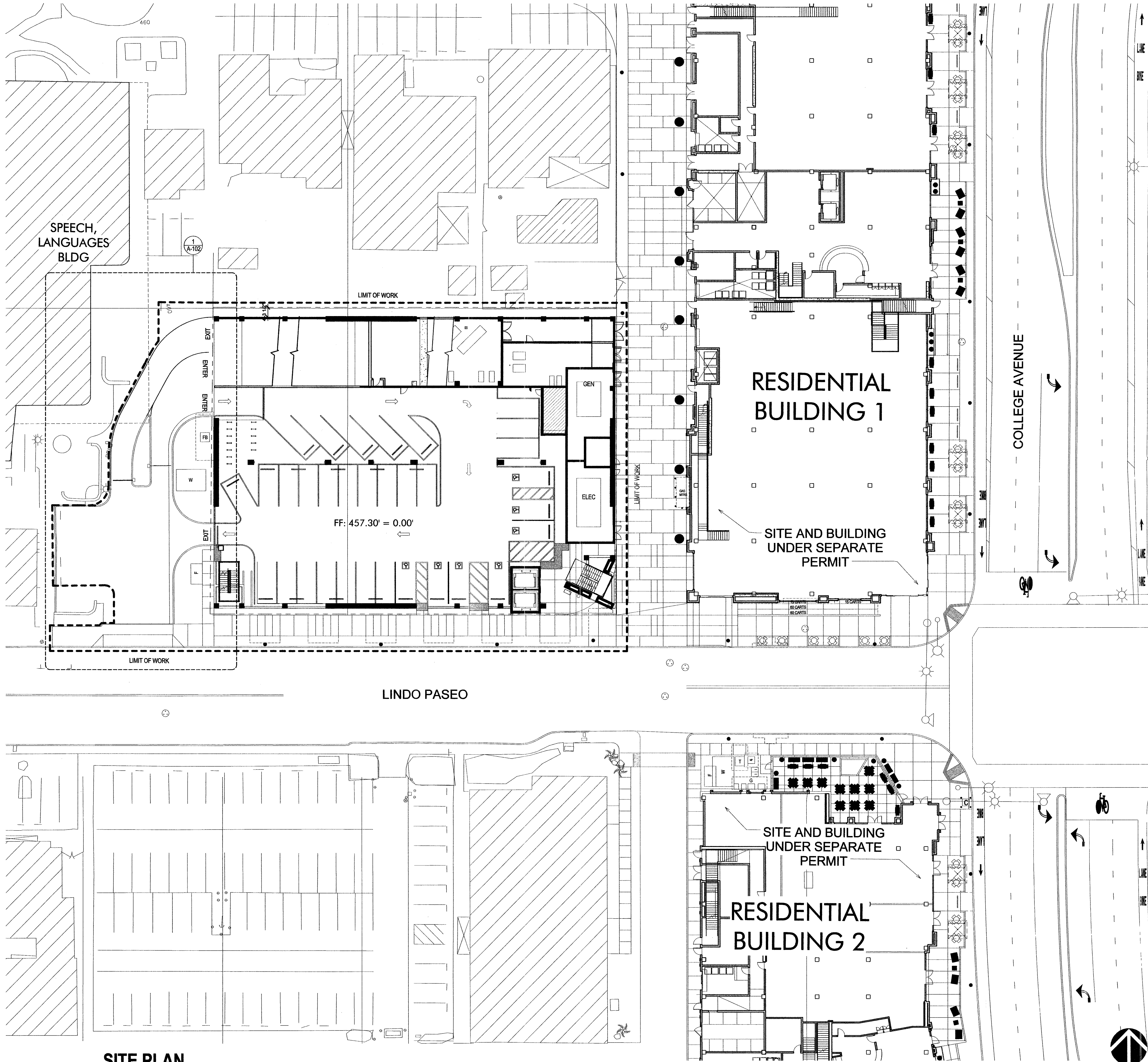












TRAFFIC SIGNAL	CART STORAGE
SQUARE TREE WELL WITH CURB	TRANSFORMER PAD
ACCESSIBLE PARKING SIGN	ACCESSIBLE ACCESS SYMBOL
ACCESSIBLE VAN PARKING SIGN	PIPE GUARD / BOLLARD
ACCESSIBLE ACCESS SIGN	UTILITY POLE
STOP SIGN	FIRE HYDRANT
POLE LIGHT, BASE DETAIL	
TRASH ENCLOSURE/ CONCRETE PAD	
ACCESSIBLE PARKING SPACE, VAN ACCESSIBLE SPACE INDICATED WITH "A"	
ACCESSIBLE RAMP, DASHED RAMP ARE N.I.C.	
PEDESTRIAN CROSSWALK	
PRE-CAST CONC WHEEL STOP	
PARKING SHOWN DASHED IS FUTURE (N.I.C.)	
MOTORCYCLE PARKING	
WHITE PAINTED TRAFFIC DIRECTION ARROWS TYPICAL	
WHITE PAINTED STOP SIGN LIMIT LINE AND TRAFFIC LANE STRIP	
PARKING COUNT - STANDARD	
PARKING COUNT - COMPACT 4' HIGH WHITE TEXT "COMPACT"	
PARKING COUNT - ACCESSIBLE SPACE	
BUILDING IDENTIFICATION DESIGNATION	
NO PARKING ZONE	
TEMPORARY ASPHALT SIDEWALK - SEE CITY APPROVED PLAN FOR FINAL SIDEWALK CONFIGURATION	
CONCRETE PAVING CP-1	
CONCRETE PAVING CP-2	
ASPHALT PAVING AC-1	
ASPHALT PAVING AC-2	
LANDSCAPE	
TURF	

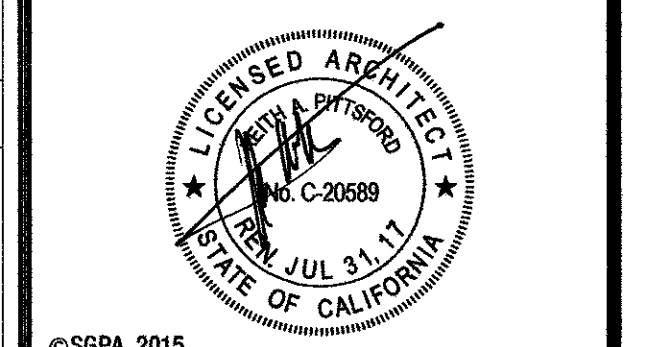
**LEGEND**

- ALL PROPERTY LINES, EASEMENTS & BUILDINGS BOTH EXISTING AND PROPOSED ARE SHOWN ON THIS SITE PLAN, ON CIVIL DRAWINGS, AND ON PARCEL MAP
- FOR PROJECTS WHICH DISTURB LESS THAN ONE ACRE OF LAND SHALL PREVENT THE POLLUTION OF STORM WATER RUNOFF FROM THE CONSTRUCTION ACTIVITIES THROUGH ONE OR MORE OF THE FOLLOWING MEASURES: SECTION 5.108.11
  - A) BEST MANAGEMENT PRACTICES (BMP) - PREVENT THE LOSS OF SOIL THROUGH WIND OR WATER EROSION BY IMPLEMENTING AN EFFECTIVE COMBINATION OF EROSION AND SEDIMENT CONTROL AND GOOD HOUSEKEEPING BMP. SEE SECTION 5.108.12 FOR SPECIFICS.
  - B) LOCAL ORDINANCE.
- EXTERIOR LIGHT POLLUTION MUST COMPLY WITH CGC SECTION 5.108.6.
- SITE GRADING OR A DRAINAGE SYSTEM WILL MANAGE ALL SURFACE WATER FLOWS TO KEEP WATER FROM ENTERING BUILDINGS. CGC SECTION 5.108.10.
- CONTRACTOR MUST SUBMIT TO THE ENGINEERING DEPARTMENT OR OTHER AGENCY THAT REGULATES CONSTRUCTION WASTE MANAGEMENT A WASTE MANAGEMENT PLAN THAT OUTLINES THE ITEMS LISTED IN CGC SECTION 5.408.1.1.
- MINIMUM OF 50% OF CONSTRUCTION WASTE IS TO BE RECYCLED. CGC 5.408.1.1. DOCUMENTATION SHALL BE PROVIDED TO THE ENFORCING AGENCY WHICH DEMONSTRATES COMPLIANCE. CGC SECTION 5.408.1.4.
- 100% OF TREES, STUMPS, ROCKS, AND ASSOCIATED VEGETATION AND SOILS PRIMARILY FROM THE CONSTRUCTION WILL BE REUSED OR RECYCLED. CGC 5.408.3.
- FOR NEW BUILDINGS THAT ARE 10,000 SQ. FT. AND OVER, THE ARCHITECT OR RESPONSIBLE DESIGN PROFESSIONAL SHALL SUBMIT PRIOR TO PLAN APPROVAL A "COMMISSIONING PLAN". CGC SECTION 5.410.2. THE COMMISSIONING PLAN MUST BE SUBMITTED WITH THE PLAN DOCUMENTS DURING PLAN CHECK. THE PLAN MUST BE REVIEWED AND APPROVED BY THE PLAN CHECKER FOR COMPLIANCE WITH THE REQUIRED FEATURES LISTED IN CGC 5.410.2.3 AS FOLLOWS: (A) GENERAL PROJECT INFORMATION (B) COMMISSIONING GOALS (C) LIST THE SYSTEMS TO BE COMMISSIONED WITH INFORMATION ON DESIGN INTENT, EQUIPMENT AND SYSTEMS TO BE TESTED. FUNCTIONS TO BE TESTED AND ACCEPTABLE PERFORMANCE BASED ON TESTS (D) COMMISSIONING TEAM INFORMATION (E) COMMISSIONING PROCESS ACTIVITIES, SCHEDULES AND RESPONSIBILITIES.
- PRIOR TO FINAL INSPECTION THE LICENSED CONTRACTOR, ARCHITECT OR ENGINEER IN RESPONSIBLE CHARGE OF THE OVERALL CONSTRUCTION MUST PROVIDE TO THE BUILDING DEPARTMENT OF FISCAL WRITTEN VERIFICATION THAT ALL APPLICABLE PROVISIONS FROM THE GREEN BUILDING STANDARDS CODE HAVE BEEN IMPLEMENTED AS PART OF THE CONSTRUCTION. CGC 102.3.

**GENERAL NOTES**

SUBMITTAL SCHEDULE:	
SCHEMATIC DESIGN	04/17/2014
50% PRELIM. DESIGN	05/14/2014
100% PRELIM. DESIGN	05/28/2014
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ASMP005	07/07/2015
ASMP007 - SFM RESUB.	07/29/2015
ASMP011 - SFM RESUB. 2	11/06/2015
ASMP015 - SFM RESUB. 3	03/03/2016

OFFICE OF THE STATE FIRE MARSHAL  
APPROVED FIRE AND SAFETY CODE  
Reviewed by:  
Tracy G. O'Connell USFM  
APR 27 2016  
Approval of this plan does not constitute or approve any design or deviation from applicable regulations. Final approval is subject to field inspection. One set of approved plans shall be available on the project site at all times.



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**SAN DIEGO STATE UNIVERSITY**  
SAN DIEGO, CA

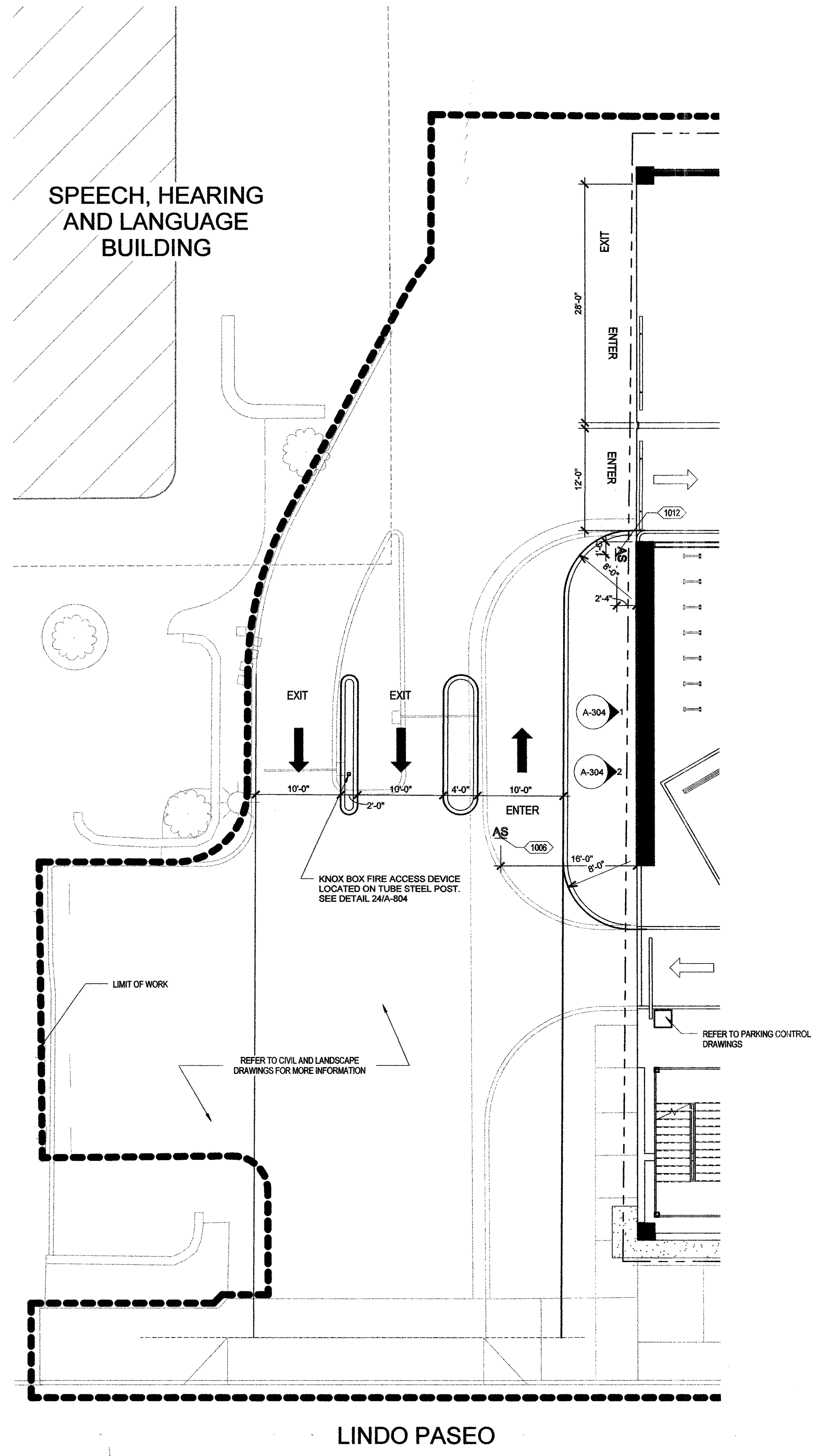
**SOUTH CAMPUS PLAZA DESIGN-BUILD PARKING STRUCTURE**  
5840 LINDO PASEO  
SAN DIEGO STATE UNIVERSITY

PROJECT NO: 21305-G-50

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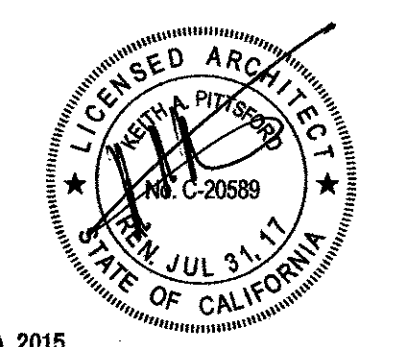
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1003 ACCESSIBLE ENTRANCE SIGN PER DETAIL 9/A-801  
 1012 ACCESSIBLE ENTRANCE SIGN FOR GROUND FLOOR - SEE DETAIL 10/A-801

KEYNOTES

**SGPA**  
 ARCHITECTURE AND PLANNING  
 1545 HOTEL CIR. S. STUDIO 200  
 SAN DIEGO, CA 92108  
 (P) 619.297.0131  
 WWW.SGPA.COM



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 SAN DIEGO, CA

SOUTH CAMPUS PLAZA DESIGN-BUILD PARKING STRUCTURE

5840 LINDO PASEO  
 SAN DIEGO STATE UNIVERSITY

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AS#011 - SFM RESUB. 2	11/09/2015
AS#015 - SFM RESUB. 3	03/03/2016

OFFICE OF THE STATE FIRE MARSHAL  
 APPROVED FIRE AND FLOODING ONLY  
 Reviewed by: *Bradley Ueberich, USFM*

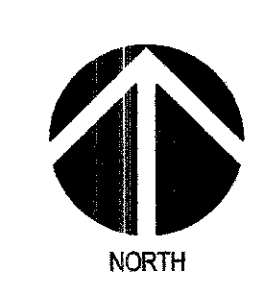
APR 27 2016

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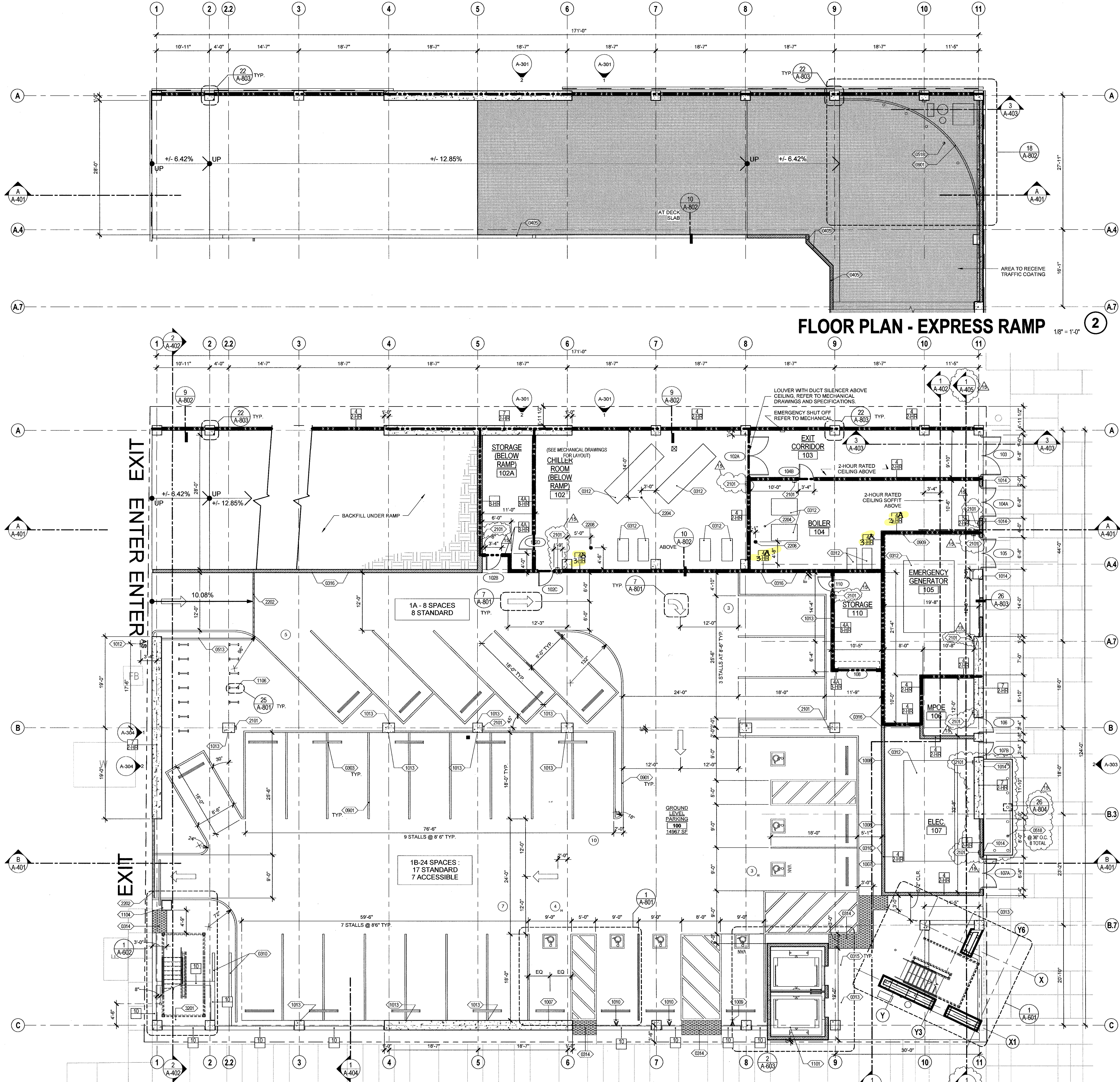
PROJECT NO: 21305-G-50

**ENLARGED PARKING CONTROL PLANS**

A-102







**FLOOR PLAN - EXPRESS RAMP** 1/8" = 1'-0"

**FLOOR PLAN - GROUND LEVEL** 1/8" = 1'-0"

- 0303 CONCRETE WHEEL STOP REFER TO DETAIL 6/A-801
- 0310 6" HIGH CURB CONCRETE CURB
- 0312 6" HIGH CONCRETE EQUIPMENT CURB
- 0313 DECORATIVE CONCRETE PER LANDSCAPE DRAWINGS
- 0314 DETECTABLE WARNING SYSTEM REFER TO DETAIL 11 & 12/A-801
- 0315 CONCRETE CONTROL JOINT REFER TO DETAIL 19/A-802
- 0316 CONTRACTOR TO PROVIDE CMU EXPANSION JOINTS PER DETAIL 8/A-804 AT 25'-0" O.C. MAX
- 0405 44" HIGH CMU GUARDRAIL WALL ABOVE SLAB DECK ELEVATION
- 0513 STAIR 2 LANDING GUARDRAIL PER DETAIL 28/A-802
- 0519 6" DIA. BOLLARD /A
- 0801 4" WIDE PAINTED STRINGING
- 0909 2" THICK DUCT LINER - OWENS CORNING DUCT LINER BOARD
- 1007 VAN ACCESSIBLE PARKING SIGN - WALL MOUNTED - SEE DETAIL 4/A-801
- 1008 ACCESSIBLE PARKING SIGN - WALL MOUNTED - SEE DETAIL 4/A-801
- 1009 VAN ACCESSIBLE PARKING SIGN - POST MOUNTED - SEE DETAIL 3/A-801
- 1010 ACCESSIBLE PARKING SIGN - POST MOUNTED - SEE DETAIL 3/A-801
- 1012 ACCESSIBLE ENTRANCE SIGN FOR GROUND FLOOR - SEE DETAIL 10/A-801
- 1013 TENANT PARKING SIGN - SEE DETAIL 27/A-801
- 1014 ROOM SIGNAGE REFER TO DETAIL 10/A-801
- 1101 ELEVATOR
- 1104 PARKING CONTROLS - N.I.C
- 1106 BICYCLE RACK REFER TO DETAIL 26/A-801 FOR ATTACHMENT
- 2101 SURFACE MOUNTED FIRE EXTINGUISHER CABINET PER DETAIL 17/A-801
- 2202 TRENCH DRAIN PER DETAIL 1/A-802
- 2204 FLOOR DRAIN
- 2208 FLOOR SINK
- 3201 LANDSCAPE AREA, REFER TO LANDSCAPE DRAWINGS

**KEYNOTES**

FIRE RATED ASSEMBLY DATA /UL LISTING NUMBERS INCLUDING F & T RATINGS FOR 2HR RATED REQUIREMENTS ARE SHOWN ON SHEET A-007 /A-008 /A-009. FOR MEP RATED PENETRATION ASSEMBLY DATA /UL LISTING NUMBERS INCLUDING F & T RATINGS FOR 2HR RATED REQUIREMENTS SEE MECHANICAL ELECTRICAL AND PLUMBING SHEETS.

INDICATES REQUIRED 2 HR. RATED UL ASSEMBLY  
 INDICATES REQUIRED 3 HR. RATED UL ASSEMBLY

NOTE: WHERE REQUIRED UL ASSEMBLIES ARE INDICATED ON PLANS AND SECTIONS, REFERENCE SHEET A-007 AND A-008 FOR ASSOCIATED WALL TYPES AND RATED TOE, HEAD, AND WALL JOINT ASSEMBLIES.

**WALL LEGEND**

1. GROUND LEVEL FINISH FLOOR IS 0'-7" = 457.30'
2. REFER TO WALL TYPE LEGEND ON SHEET A-007 FOR UL LISTING FOR RATED WALLS, TYPICAL.
3. DOOR FRAMES LOCATED NEAR ADJACENT WALLS TO BE 4" FROM INSIDE CORNER, OR TO NEAREST BLOCK MODULE AT CMU WALLS, U.N.O.
4. COORDINATE AND CONFIRM EXACT LOCATIONS OF ALL FLOOR MOUNTED OUTLETS PRIOR TO CONCRETE PLACEMENT, SEE ELEC.
5. PROVIDE FIRE EXTINGUISHERS AS SHOWN PER SHEET A-006
6. REFER TO SLAB PLANS FOR FINISH FLOOR ELEVATIONS, SLAB SLOPES, DRAINAGE, AND SLAB OPENINGS.
7. PROVIDE TWO-WAY COMMUNICATION SYSTEM AT ELEVATOR LANDINGS AT EACH FLOOR PER CBC CODE SECTION 1007.6.
8. PROVIDE VEHICULAR DECK COATING AT SECOND LEVEL OVER MECHANICAL SPACES AS SHOWN ON PLAN. PROVIDE SEALER THROUGHOUT SIXTH LEVEL SLAB.
9. FOR DUCTS PENETRATING FIRE RATED ASSEMBLIES, SEE SHEET A-007 & A-008 FOR UL APPROVED THROUGH-PENETRATION ASSEMBLIES.

**GENERAL NOTES**

**PARKING COUNT**

PARKING STALL RESUME	
PHASE 1	
GROUND LEVEL	32
SECOND LEVEL	59
THIRD LEVEL	59
FOURTH LEVEL	59
FIFTH LEVEL	59
SIXTH LEVEL	29
<b>TOTAL</b>	<b>297</b>

**PARKING LEGEND**

OFFICE OF THE STATE FIRE MARSHAL  
 APPROVED FIRE ALARM PLAN  
 Reviewed by: [Signature]  
 Bradley Cochrane, USFS

APR 27 2016

Approval of this plan does not authorize or approve any construction or installation from field inspection. One set of approved plans shall be available on the project site at all times.

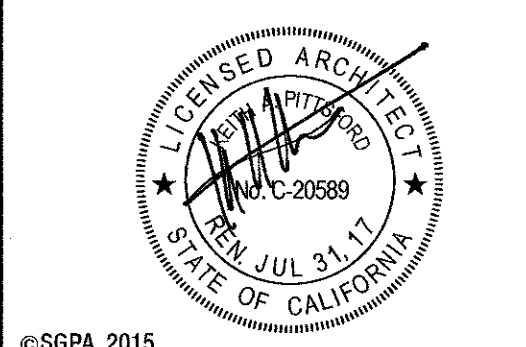


**SUBMITTAL SCHEDULE:**

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ASH#002 - SFM RESUB.	06/12/2015
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ASH#007 - SFM RESUB.	07/29/2015
ASH#011 - SFM RESUB. 2	11/06/2015
ASH#015 - SFM RESUB. 3	03/03/2016

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**SUNDT CONSTRUCTION**  
SAN DIEGO, CALIFORNIA

**SAN DIEGO STATE UNIVERSITY**  
SAN DIEGO, CA

**SOUTH CAMPUS PLAZA DESIGN-BUILD PARKING STRUCTURE**  
5840 LINDO PASEO  
SAN DIEGO STATE UNIVERSITY

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PROJECT NO: 21305-G-50

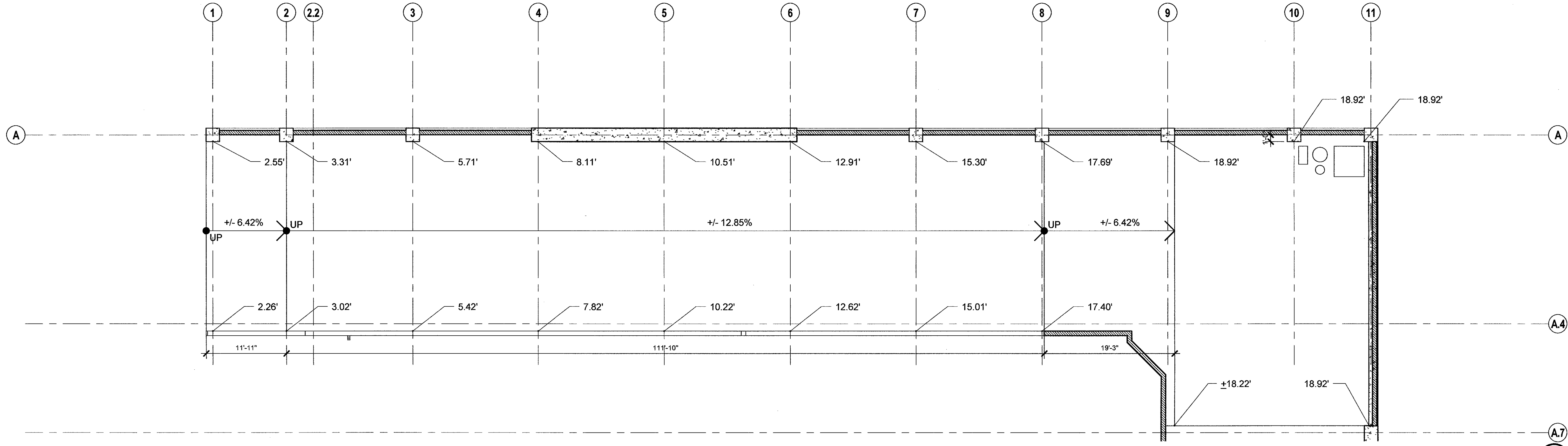
**SLAB PLAN GROUND LEVEL**

**A-201.1**

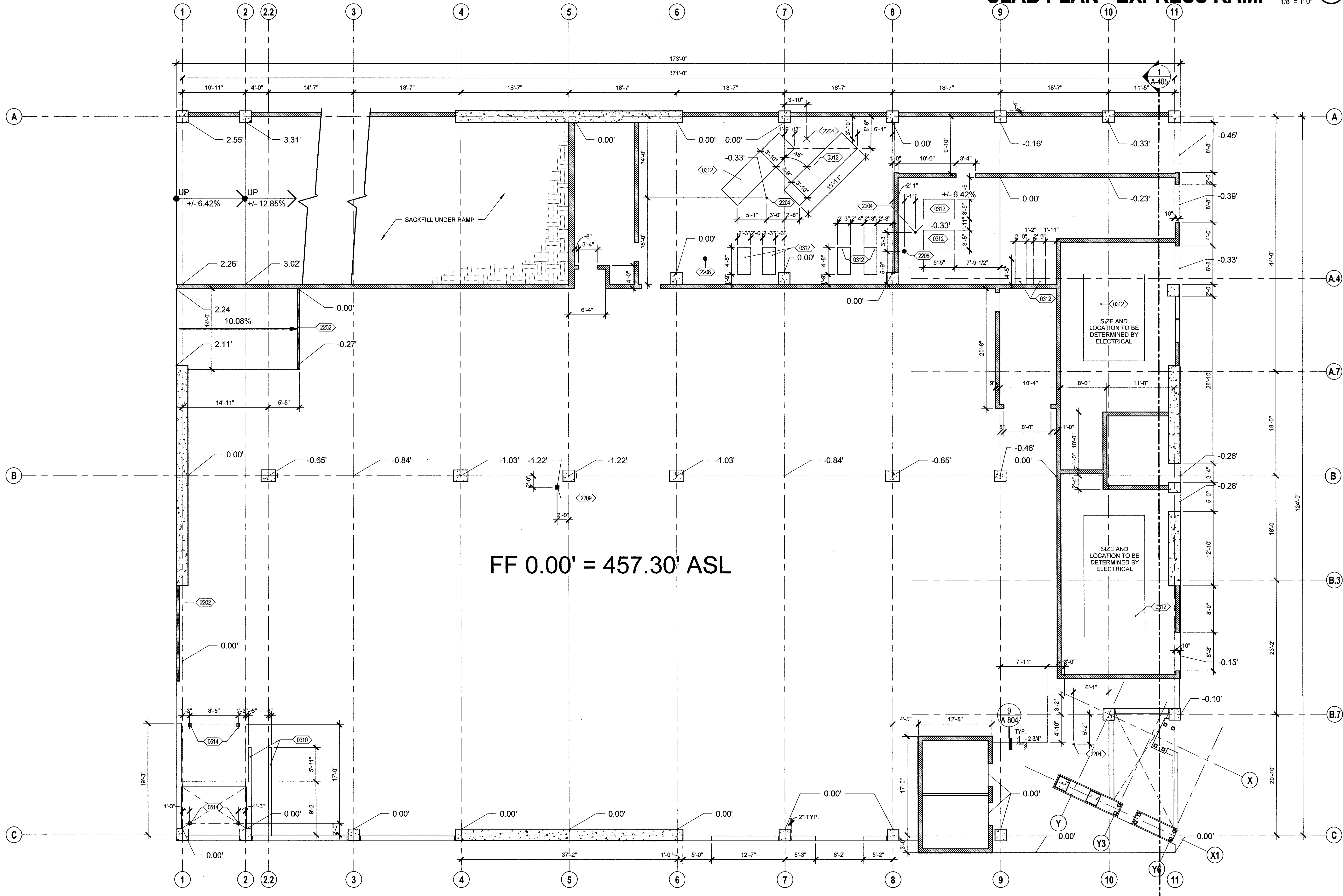
- WALL LEGEND**
- METAL STUD WALL WITH METAL PANEL SYSTEM
  - CMU WALL WITH PLASTER FINISH @ EXTERIOR SIDE ONLY WHERE OCCURS PER WALL TYPE
  - CONC. SHEAR WALL (SEE STRUCTURAL)

- GENERAL NOTES**
1. FIRST FLOOR FINISH FLOOR IS 0'-0" = 457.30'
  2. ELEVATION MARKERS INDICATED ARE TO BOTTOM OF 2" S/WALE AT STAIR LANDINGS. REFER TO STRUCTURAL DRAWINGS FOR FURTHER INFORMATION.
  3. COORDINATE AND CONFIRM EXACT LOCATIONS OF ALL FLOOR MOUNTED OUTLETS PRIOR TO CONCRETE PLACEMENT. SEE ELEC.
  6. PAINT UNDERSIDE OF CONCRETE SLAB (PAINT COLOR TO BE DETERMINED)
  7. CONTRACTOR TO COORDINATE WITH ELECTRICAL, MECHANICAL AND PLUMBING DRAWINGS FOR SIZE AND LOCATION OF EQUIPMENT PADS. SEE STRUCTURAL DETAIL 13S4.1 FOR STRUCTURAL PAD REQUIREMENTS
  8. CONTRACTOR TO COORDINATE ENTRANCE ELEVATIONS WITH CIVIL DRAWINGS

- KEYNOTES**
- 0310 6" HIGH GART CORRAL CONCRETE CURB
  - 0312 6" HIGH CONCRETE EQUIPMENT CURB
  - 0514 HSS MEMBER PER STRUCTURAL. REFERENCE UL 7710 ON SHEET A-008 FOR SPRAY APPLIED FIRE PROOFING ASSEMBLY
  - 2202 TRENCH DRAIN PER DETAIL 1/A-802
  - 2204 FLOOR DRAIN
  - 2206 FLOOR SINK
  - 2209 AREA DRAIN



**SLAB PLAN - EXPRESS RAMP** 1/8" = 1'-0"



**SLAB PLAN - GROUND LEVEL** 1/8" = 1'-0"

OFFICE OF THE STATE ENGINEER  
APPROVED FOR CONSTRUCTION  
Reviewed by: [Signature]  
APR 27 2016





- 0305 CAST IN PLACE CONCRETE COLUMN PER STRUCTURAL - PAINT
- 0307 42" CONCRETE STEM WALL
- 0310 6" HIGH CURT CONCRETE CURB
- 0314 DETECTABLE WARNING SYSTEM REFER TO DETAIL 11 & 12/A-801
- 0405 44" HIGH CMU GUARDRAIL WALL ABOVE SLAB DECK ELEVATION
- 0501 METAL PAN STAIR
- 0505 CABLE BARRIER RAILING, DEFERRED APPROVAL
- 0514 HSS MEMBER PER STRUCTURAL, REFERENCE UL 7710 ON SHEET A-406 FOR SPRAY APPLIED FIRE PROOFING ASSEMBLY
- 0901 4" WIDE PAINTED STRIPING
- 1001 8'-0" HIGH CHAIN LINK FENCE
- 1002 CART CONTAINMENT ANTENNA
- 1013 TENANT PARKING SIGN - SEE DETAIL 27/A-801
- 1101 ELEVATOR
- 1103 EMERGENCY PHONE REFER TO DETAIL 26/A-801
- 2101 SURFACE MOUNTED FIRE EXTINGUISHER CABINET PER DETAIL 17/A-801
- 2201 FIRE STANDPIPE, REFER TO FIRE PROTECTION DRAWINGS
- 2203 DOMESTIC WATER PRESSURE BOOSTER SYSTEM
- 2204 FLOOR DRAIN

**KEYNOTES**

- INDICATES REQUIRED 2 HR. RATED UL ASSEMBLY
  - INDICATES REQUIRED 3 HR. RATED UL ASSEMBLY
- NOTE: WHERE REQUIRED UL ASSEMBLIES ARE INDICATED ON PLANS AND SECTIONS, REFERENCE SHEET A-407 AND A-408 FOR ASSOCIATED WALL TYPES AND RATED TOE, HEAD, AND WALL JOINT ASSEMBLIES.

**WALL LEGEND**

1. GROUND LEVEL FINISH FLOOR IS 0'-0" = 457.37
2. REFER TO WALL TYPE LEGEND ON SHEET A-407 FOR UL LISTING FOR RATED WALLS, TYPICAL
3. DOOR FRAMES LOCATED NEAR ADJACENT WALLS TO BE 4" FROM INSIDE CORNER, OR TO NEAREST BLOCK MODULE AT CMU WALLS, U.N.O.
4. COORDINATE AND CONFIRM EXACT LOCATIONS OF ALL FLOOR MOUNTED OUTLETS PRIOR TO CONCRETE PLACEMENT. SEE ELEC.
5. PROVIDE FIRE EXTINGUISHERS AS SHOWN PER SHEET A-406
6. REFER TO SLAB PLANS FOR FINISH FLOOR ELEVATIONS, SLAB SLOPES, DRAINAGE, AND IS & OS OPENINGS
7. PROVIDE TWO-WAY COMMUNICATION SYSTEM AT ELEVATOR LANDINGS AT EACH FLOOR PER CBC CODE SECTION 1007.3.
8. PROVIDE VEHICULAR DECK COATING AT SECOND LEVEL OVER MECHANICAL SPACES AS SHOWN ON PLAN. PROVIDE SEALER THROUGHOUT SIXTH LEVEL SLAB.
9. FOR DUCTS PENETRATING FIRE RATED ASSEMBLIES, SEE SHEET A-407 & A-408 FOR UL APPROVED THROUGH-PENETRATION ASSEMBLIES.

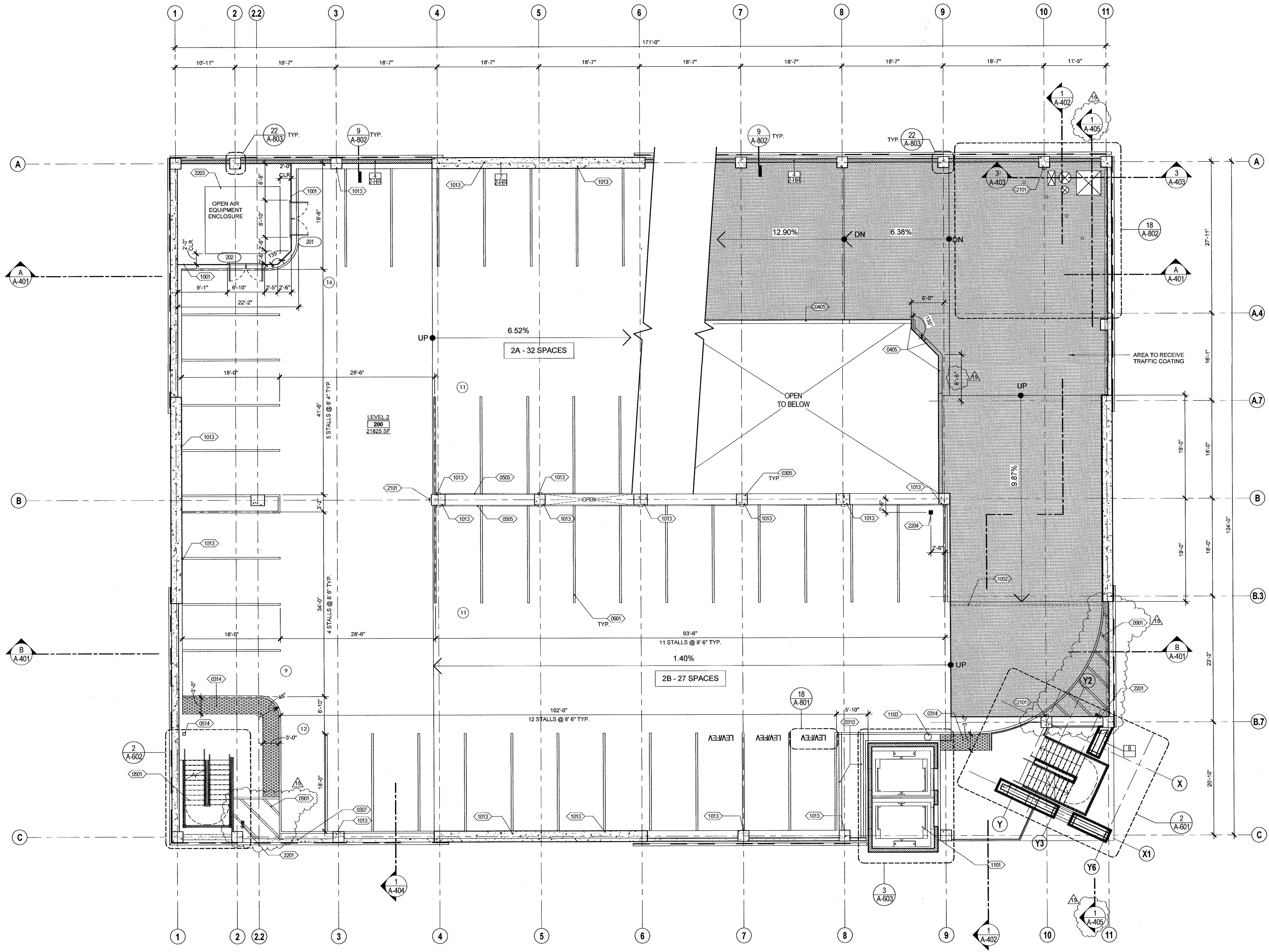
**GENERAL NOTES**

**PARKING COUNT**

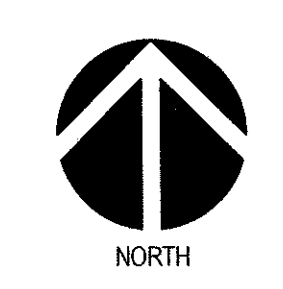
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SECOND LEVEL	59
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FOURTH LEVEL	59
FIFTH LEVEL	59
SIXTH LEVEL	29
<b>TOTAL</b>	<b>297</b>

**PARKING LEGEND**

APPROVED BY: [Signature]  
Reviewed by: [Signature]  
APR 27 2016  
Approval of this plan does not authorize or approve any extension or deviation from applicable regulations. Final approval is subject to field inspection. One set of approved plans shall be available on the project site at all times.



**FLOOR PLAN - SECOND LEVEL** 1/8" = 1'-0" ①

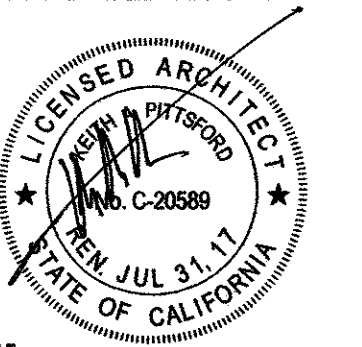


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100% BACKCHECK SET 3	03/20/2015
ASH005	07/07/2015
ASH007 - SFM RESUB.	07/29/2015
ASH008	08/20/2015
ASH011 - SFM RESUB. 2	11/06/2015
ASH015 - SFM RESUB. 3	03/03/2016

PROJECT NO: 21305-G-50





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**SUNDT CONSTRUCTION**  
SAN DIEGO, CALIFORNIA

**SAN DIEGO STATE UNIVERSITY**  
SAN DIEGO, CA

**SOUTH CAMPUS PLAZA DESIGN-BUILD PARKING STRUCTURE**

5840 LINDO PASEO  
SAN DIEGO STATE UNIVERSITY

**SUBMITTAL SCHEDULE:**

SCHEMATIC DESIGN	04/17/2014
50% PRELIM. DESIGN	05/14/2014
100% PRELIM. DESIGN	05/28/2014
50% CONST. DOCS.	07/02/2014
95% CONST. DOCS.	08/07/2014
100% BACKCHECK	11/10/2014
100% BACKCHECK SET 2	01/22/2015
100% BACKCHECK SET 3	03/20/2015
ASH#005	07/07/2015
ASH#007 - SFM RESUB.	07/29/2015
ASH#011 - SFM RESUB. 2	11/08/2015
ASH#015 - SFM RESUB. 3	03/03/2016

PROJECT NO: 21305-G-50

**SLAB PLAN SECOND LEVEL**

**A-202.1**

- WALL LEGEND**
- METAL STUD WALL WITH METAL PANEL SYSTEM
  - CMU WALL WITH PLASTER FINISH @ EXTERIOR SIDE ONLY WHERE OCCURS PER WALL TYPE
  - CONC. SHEAR WALL (SEE STRUCTURAL)

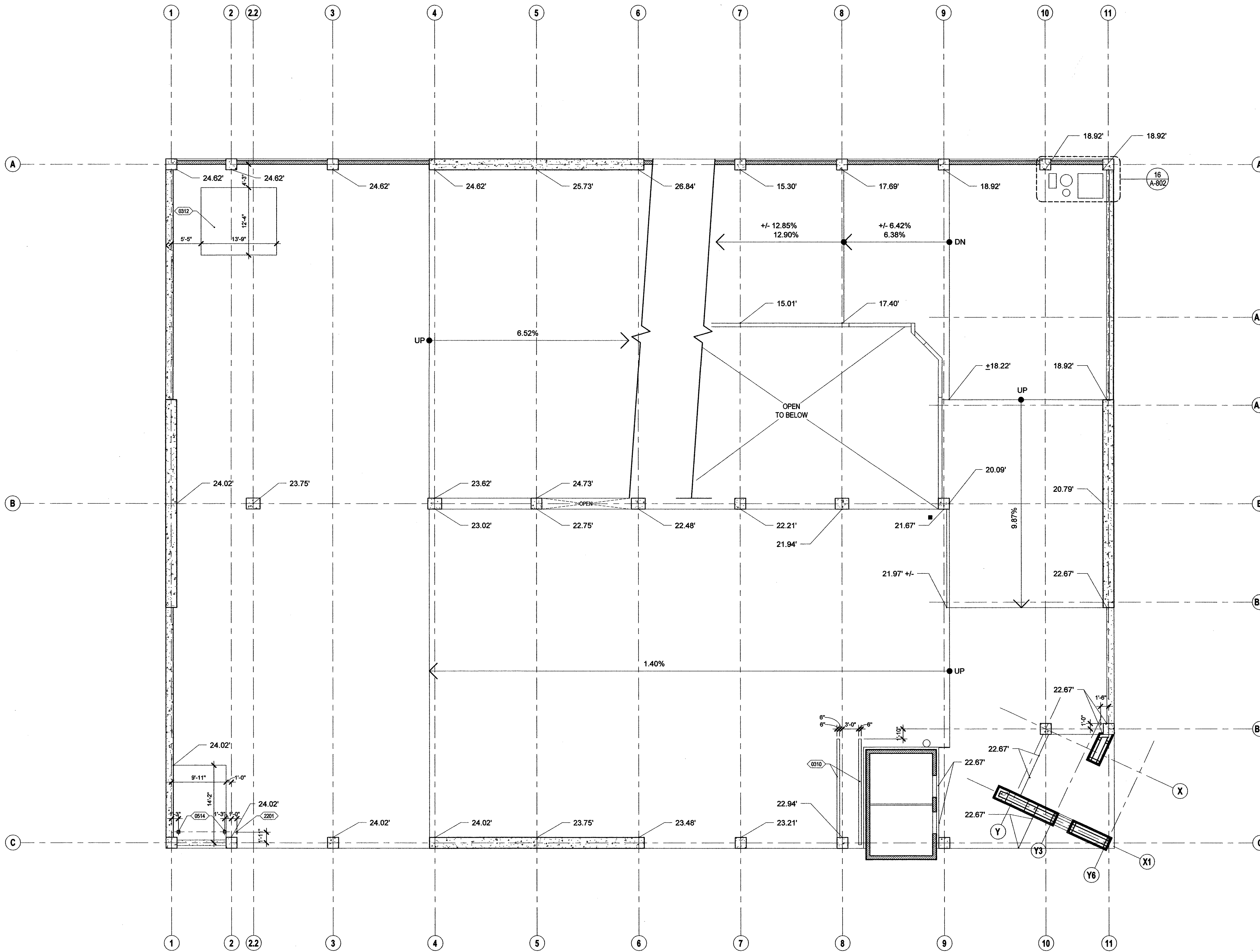
**WALL LEGEND**

- FIRST FLOOR FINISH FLOOR IS 0'-0" = 457.30'
- ELEVATION MARKERS INDICATED ARE TO BOTTOM OF 2" SWALE AT STAIR LANDINGS, REFER TO STRUCTURAL DRAWINGS FOR FURTHER INFORMATION
- COORDINATE AND CONFIRM EXACT LOCATIONS OF ALL FLOOR MOUNTED OUTLETS PRIOR TO CONCRETE PLACEMENT, SEE ELECT.
- PAINT UNDERSIDE OF CONCRETE SLAB (PAINT COLOR TO BE DETERMINED)
- CONTRACTOR TO COORDINATE WITH ELECTRICAL, MECHANICAL AND PLUMBING DRAWINGS FOR SIZE AND LOCATION OF EQUIPMENT PADS. SEE STRUCTURAL DETAIL 1334.1 FOR STRUCTURAL PAD REQUIREMENTS
- CONTRACTOR TO COORDINATE ENTRANCE ELEVATIONS WITH CIVIL DRAWINGS

**GENERAL NOTES**

- 0310 6" HIGH CART CORRAL CONCRETE CURB
- 0312 6" HIGH CONCRETE EQUIPMENT CURB
- 0514 HSS MEMBER PER STRUCTURAL REFERENCE ULY710 ON SHEET A-006 FOR SPRAY APPLIED FIRE PROOFING ASSEMBLY
- 2201 FIRE STANDPIPE, REFER TO FIRE PROTECTION DRAWINGS

**KEYNOTES**



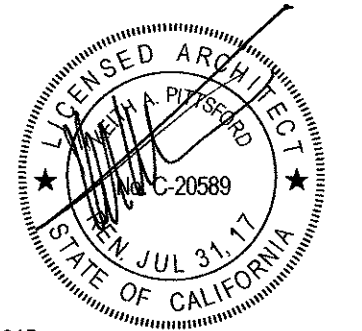
**SLAB PLAN - SECOND LEVEL** 1/8" = 1'-0"

OFFICE OF THE STATE FIRE MARSHAL  
APPROVED FIRE SAFETY OFFICIAL  
Reviewed by: [Signature]

APR 27 2016

Approval of this plan does not authorize or approve any product or deviation from applicable codes. Final approval is subject to field inspection. One set of approved plans shall be available on the project site at all times.





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**SUNDT CONSTRUCTION**

SAN DIEGO, CALIFORNIA

**SAN DIEGO STATE UNIVERSITY**

SAN DIEGO, CA

SOUTH CAMPUS PLAZA DESIGN-BUILD PARKING STRUCTURE

5840 LINDO PASEO  
SAN DIEGO STATE UNIVERSITY

SUBMITTAL SCHEDULE:

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100% BACKCHECK SET 3	03/20/2015
ASH005	07/07/2015
ASH007 - SFM RESUB.	07/29/2015
ASH008	09/23/2015
ASH011 - SFM RESUB. 2	11/06/2015
ASH015 - SFM RESUB. 3	03/03/2016

PROJECT NO: 21395-G-50

**FLOOR PLAN  
THIRD LEVEL**

**A-203**

- KEYNOTES**
- 0305 CAST IN PLACE CONCRETE COLUMN PER STRUCTURAL-PAINT
  - 0307 4" CONCRETE STEM WALL
  - 0310 6" HIGH CORRUGATED CONCRETE CURB
  - 0314 DETECTABLE WARNING SYSTEM REFER TO DETAIL 11 & 12/A-801
  - 0401 CMU INFILL WALL
  - 0501 METAL PAN STAIR
  - 0505 CABLE BARRIER RAILING, DEFERRED APPROVAL
  - 0501 4" WIDE PAINTED STRIPING
  - 1002 CART CONTAINMENT ANTENNA
  - 1101 ELEVATOR
  - 1103 EMERGENCY PHONE REFER TO DETAIL 29/A-801
  - 2101 SURFACE MOUNTED FIRE EXTINGUISHER CABINET PER DETAIL 17/A-801
  - 2201 FIRE STANDPIPE, REFER TO FIRE PROTECTION DRAWINGS
  - 2204 FLOOR DRAIN

**KEYNOTES**

- INDICATES REQUIRED 2 HR. RATED UL ASSEMBLY
  - INDICATES REQUIRED 3 HR. RATED UL ASSEMBLY
- NOTE: WHERE REQUIRED UL ASSEMBLIES ARE INDICATED ON PLANS AND SECTIONS, REFERENCE SHEET A-007 AND A-008 FOR ASSOCIATED WALL TYPES AND RATED TOE, HEAD, AND WALL JOINT ASSEMBLIES.

**WALL LEGEND**

1. GROUND LEVEL FINISH FLOOR IS 0'-0" = 457.30'
2. REFER TO WALL TYPE LEGEND ON SHEET A-007 FOR UL LISTING FOR RATED WALLS, TYPICAL
3. DOOR FRAMES LOCATED NEAR ADJACENT WALLS TO BE 4" FROM INSIDE CORNER OR TO NEAREST BLOCK MODULE AT CMU WALLS, U.N.O.
4. COORDINATE AND CONFIRM EXACT LOCATIONS OF ALL FLOOR MOUNTED OUTLETS PRIOR TO CONCRETE PLACEMENT, SEE ELEC.
5. PROVIDE FIRE EXTINGUISHERS AS SHOWN PER SHEET A-005
6. REFER TO SLAB PLANS FOR FINISH FLOOR ELEVATIONS, SLAB SLOPES, DRAINAGE, AND SLAB OPENINGS.
7. PROVIDE TWO-WAY COMMUNICATION SYSTEM AT ELEVATOR LANDINGS AT EACH FLOOR PER CBC CODE SECTION 9107.8
8. PROVIDE VEHICULAR DECK COATING AT SECOND LEVEL OVER MECHANICAL SPACES AS SHOWN ON PLAN. PROVIDE SEALER THROUGHOUT SIXTH LEVEL SLAB
9. FOR DUCTS PENETRATING FIRE RATED ASSEMBLIES, SEE SHEET A-007 & A-008 FOR UL APPROVED THROUGH-PENETRATION ASSEMBLIES.

**GENERAL NOTES**

**PARKING COUNT**

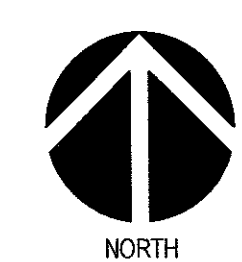
PARKING STALL RESUME	
PHASE 1	
GROUND LEVEL	32
SECOND LEVEL	59
THIRD LEVEL	59
FOURTH LEVEL	59
FIFTH LEVEL	59
SIXTH LEVEL	29
TOTAL	297

**PARKING LEGEND**

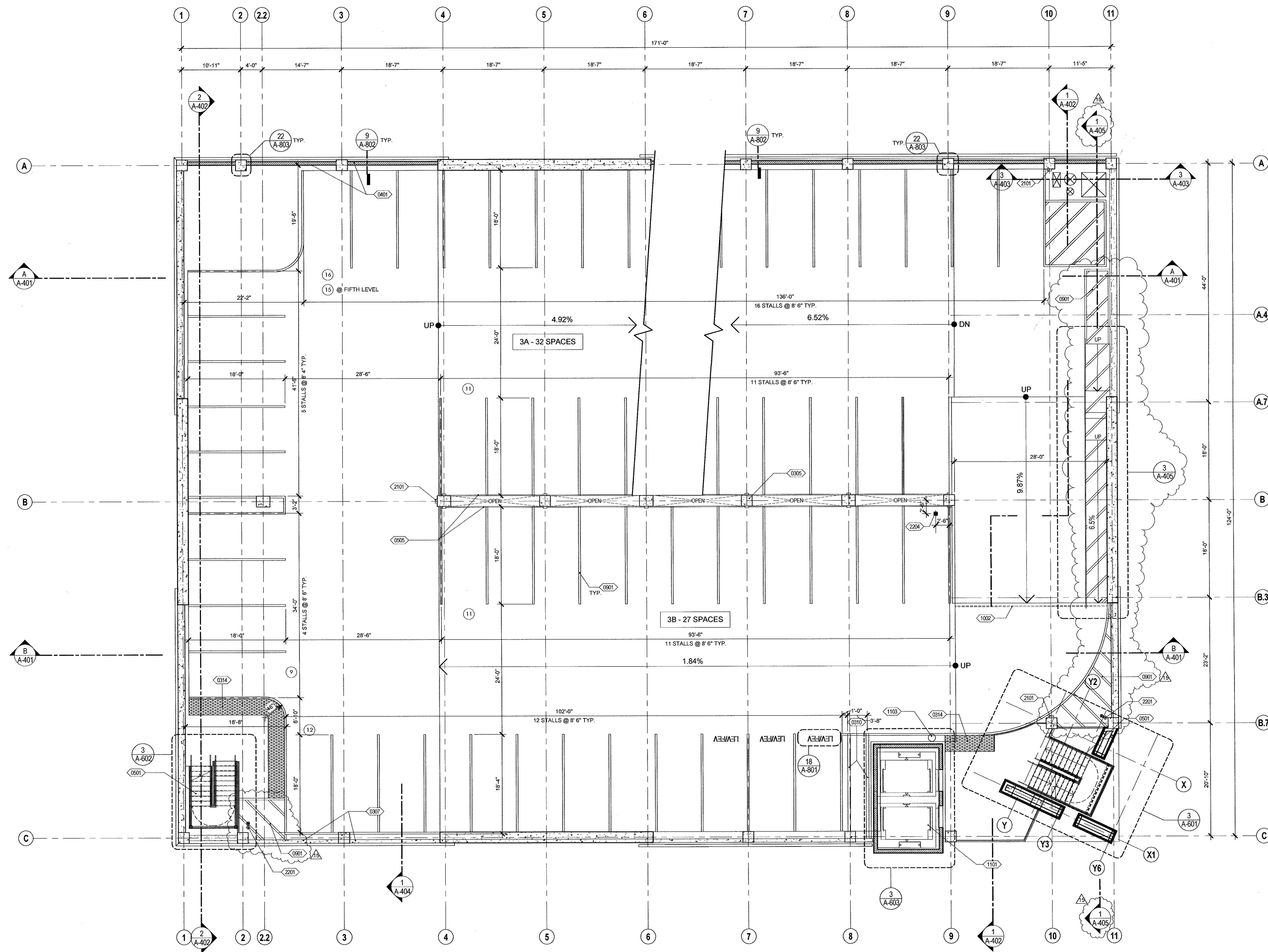
OFFICE OF THE STATE FIRE MARSHAL  
APPROVED FOR FIRE AND SAFETY ONLY  
Reviewed by: [Signature]

APR 27 2016

Approval of this plan does not authorize or approve any omission or deviation from applicable regulations. Final approval is subject to final inspection. One set of approved plans shall be available on the project site at all times.



**FLOOR PLAN - THIRD LEVEL** 1/8" = 1'-0" 1



C:\Users\Local1\Fira\21395-South\_Campus\_Plan\2014\_04\_27\_Plan\_Third\_Level\_Parking\_Structure\_Con-Local.rvt 3/27/2016 9:03:43 AM





SUNDT CONSTRUCTION  
SAN DIEGO, CALIFORNIA

SAN DIEGO STATE UNIVERSITY  
SAN DIEGO, CA

SOUTH CAMPUS PLAZA DESIGN-BUILD PARKING STRUCTURE  
5840 LINDO PASEO  
SAN DIEGO STATE UNIVERSITY

SUBMITTAL SCHEDULE:

SCHEMATIC DESIGN	04/17/2014
50% PRELIM. DESIGN	05/14/2014
100% PRELIM. DESIGN	05/28/2014
50% CONST. DOCS.	07/02/2014
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ASH#007 - SFM RESUB.	07/29/2015
ASH#011 - SFM RESUB. 2	11/06/2015
ASH#015 - SFM RESUB. 3	03/03/2016

PROJECT NO: 21305-G-50

SLAB PLAN THIRD LEVEL

A-203.1

- METAL STUD WALL WITH METAL PANEL SYSTEM
- CMU WALL WITH PLASTER FINISH @ EXTERIOR SIDE ONLY WHERE OCCURS PER WALL TYPE
- CONC. SHEAR WALL (SEE STRUCTURAL)

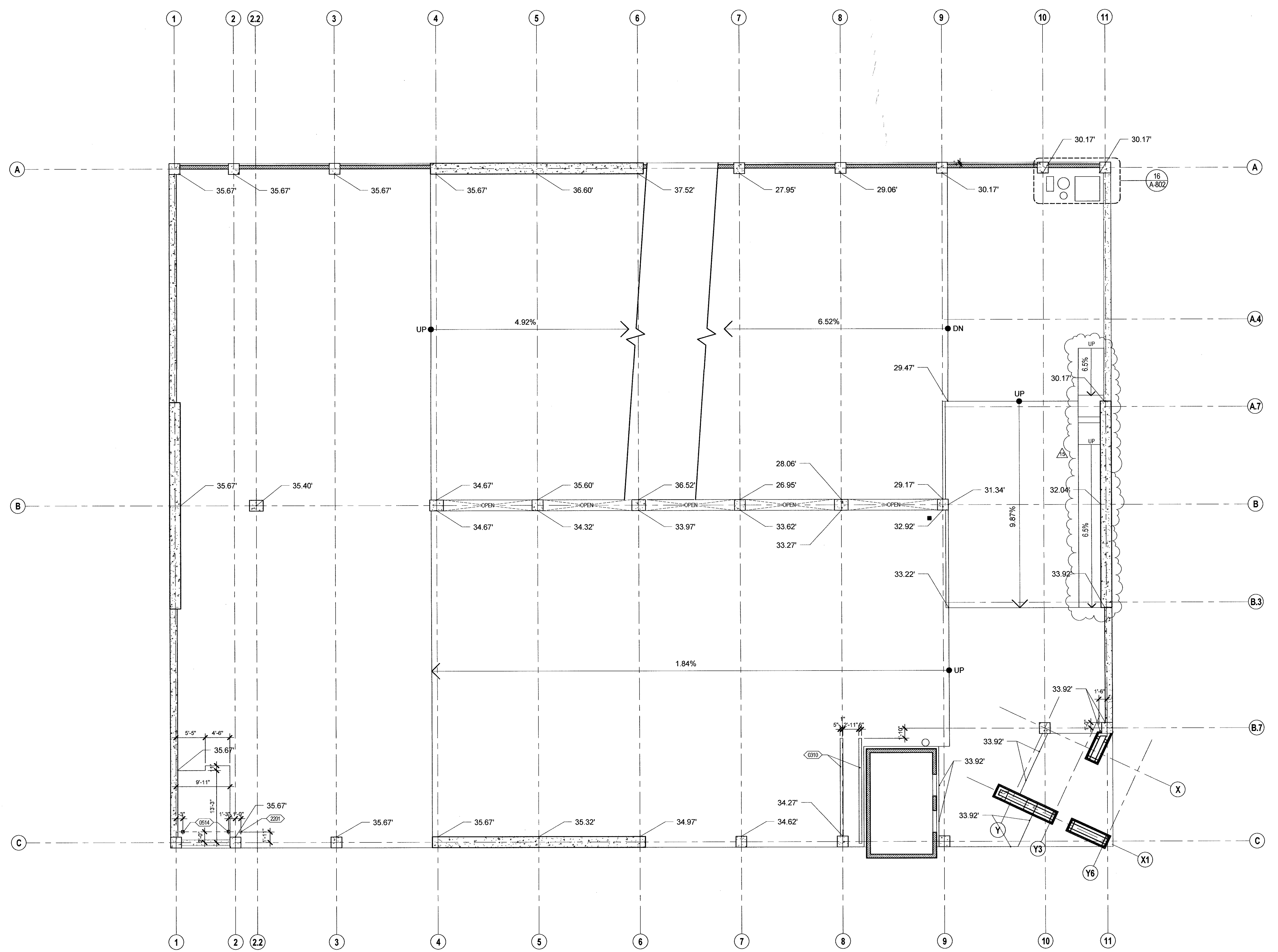
### WALL LEGEND

1. FIRST FLOOR FINISH FLOOR IS 0'-0" = 457.30'
2. ELEVATION MARKERS INDICATED ARE TO BOTTOM OF 2" SWALE AT STAIR LANDINGS. REFER TO STRUCTURAL DRAWINGS FOR FURTHER INFORMATION.
3. COORDINATE AND CONFIRM EXACT LOCATIONS OF ALL FLOOR MOUNTED OUTLETS PRIOR TO CONCRETE PLACEMENT. SEE ELEC.
6. PAINT UNDERSIDE OF CONCRETE SLAB (PAINT COLOR TO BE DETERMINED)
7. CONTRACTOR TO COORDINATE WITH ELECTRICAL, MECHANICAL AND PLUMBING DRAWINGS FOR SIZE AND LOCATION OF EQUIPMENT PADS. SEE STRUCTURAL DETAIL 1354.1 FOR STRUCTURAL PAD REQUIREMENTS.
8. CONTRACTOR TO COORDINATE ENTRANCE ELEVATIONS WITH CIVIL DRAWINGS

### GENERAL NOTES

- 0310 6" HIGH CORRAL CONCRETE CURB
- 0514 HSS MEMBER PER STRUCTURAL. REFERENCE UL Y710 ON SHEET A-008 FOR SPRAY APPLIED FIRE PROOFING ASSEMBLY
- 2201 FIRE STANDPIPE. REFER TO FIRE PROTECTION DRAWINGS

### KEYNOTES



SLAB PLAN - THIRD LEVEL 1/8" = 1'-0" 1

OFFICE OF THE STATE FIRE MARSHAL  
APPROVED FOR FIRE AND LIFE SAFETY  
Reviewed by: [Signature]  
Bradley Goodrich, DCFM

APR 27 2016  
Approval of this plan does not constitute or approve any omission or deviation from applicable regulations. Final approval is subject to field inspection. One set of approved plans shall be available on the project site at all times.





SUBMITTAL SCHEDULE:

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ASH#007 - SFM RESUB.	07/29/2015
ASH#008	08/20/2015
ASH#011 - SFM RESUB. 2	11/06/2015
ASH#015 - SFM RESUB. 3	03/03/2016

PROJECT NO.: 21305-G-50

**FLOOR PLAN  
FOURTH & FIFTH LEVELS**

**A-204**

- 0305 CAST IN PLACE CONCRETE COLUMN PER STRUCTURAL - PAINT
- 0307 42" CONCRETE STEM WALL
- 0310 6" HIGH CURT CONRAL CONCRETE CURB
- 0314 DETECTABLE WARNING SYSTEM REFER TO DETAIL 11 & 12/A-801
- 0501 METAL PAN STAIR
- 0505 CABLE BARRIER RAILING, DEFERRED APPROVAL
- 0901 4" WIDE PAINTED STRIPING
- 1002 CART CONTAINMENT ANTENNA
- 1101 ELEVATOR
- 1103 EMERGENCY PHONE REFER TO DETAIL 26/A-801
- 2101 SURFACE MOUNTED FIRE EXTINGUISHER CABINET PER DETAIL 17/A-801
- 2201 FIRE STANDPIPE, REFER TO FIRE PROTECTION DRAWINGS
- 2204 FLOOR DRAIN

**KEYNOTES**

- INDICATES REQUIRED 2 HR. RATED UL ASSEMBLY
  - INDICATES REQUIRED 3 HR. RATED UL ASSEMBLY
- NOTE: WHERE REQUIRED UL ASSEMBLIES ARE INDICATED ON PLANS AND SECTIONS, REFERENCE SHEET A-407 AND A-408 FOR ASSOCIATED WALLS TYPES AND RATED TOE, HEAD, AND WALL JOINT ASSEMBLIES.

**WALL LEGEND**

1. GROUND LEVEL FINISH FLOOR IS 0'-0" = 457.30'
2. REFER TO WALL TYPE LEGEND ON SHEET A-407 FOR UL LISTING FOR RATED WALLS, TYPICAL
3. DOOR FRAMES LOCATED NEAR ADJACENT WALLS TO BE 4" FROM INSIDE CORNER OR TO NEAREST BLOCK MODULE AT CMU WALLS, I.N.D.
4. COORDINATE AND CONFIRM EXACT LOCATIONS OF ALL FLOOR MOUNTED OUTLETS PRIOR TO CONCRETE PLACEMENT. SEE ELECT.
5. PROVIDE FIRE EXTINGUISHERS AS SHOWN PER SHEET A-406
6. REFER TO SLAB PLANS FOR FINISH FLOOR ELEVATIONS, SLAB SLOPES, DRAINAGE, AND SLAB OPENINGS.
7. PROVIDE TWO-WAY COMMUNICATION SYSTEM AT ELEVATOR LANDINGS AT EACH FLOOR PER CBC CODE SECTION 1007.8
8. PROVIDE VEHICULAR DECK COATINGS AT SECOND LEVEL OVER MECHANICAL SPACES AS SHOWN ON PLAN. PROVIDE SEALER THROUGHOUT SIXTH LEVEL SLAB.
9. FOR DUCTS PENETRATING FIRE RATED ASSEMBLIES, SEE SHEET A-407 & A-408 FOR UL APPROVED THROUGH-PENETRATION ASSEMBLIES.

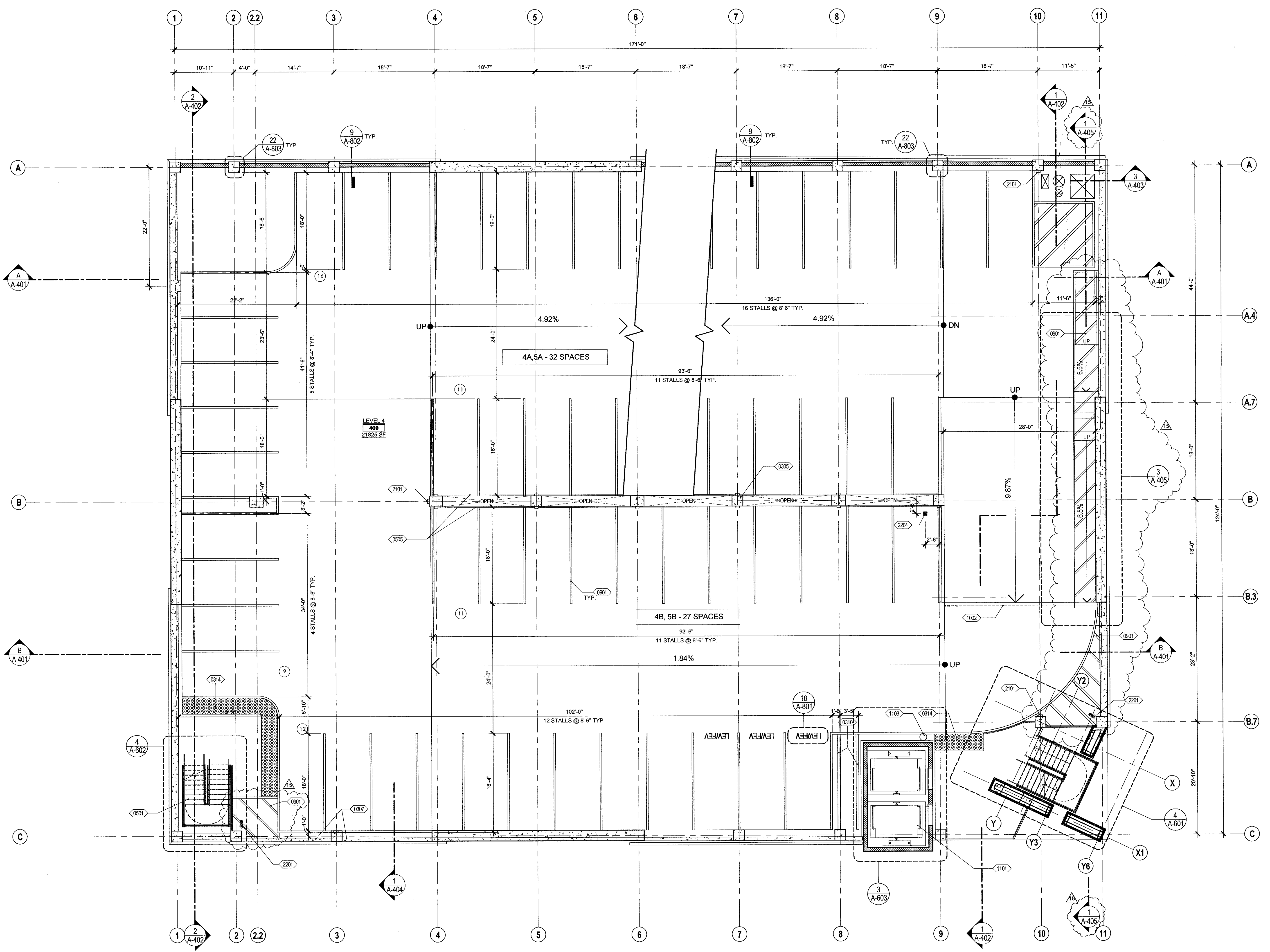
**GENERAL NOTES**

**PARKING COUNT**

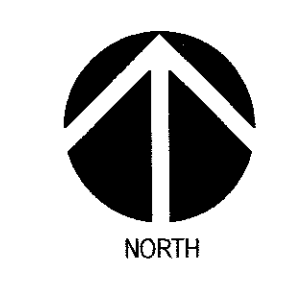
PARKING STALL RESUME	
PHASE 1	
GROUND LEVEL	32
SECOND LEVEL	59
THIRD LEVEL	59
FOURTH LEVEL	59
FIFTH LEVEL	59
SIXTH LEVEL	29
TOTAL	297

**PARKING LEGEND**

APPROVED BY: [Signature]  
REVIEWED BY: [Signature]  
DATE: APR 27 2016  
Approval of this plan does not authorize or approve any omission or deviation from applicable regulations. Final approval is subject to final inspection. Copy use of approved plans shall be available on the project site at all times.

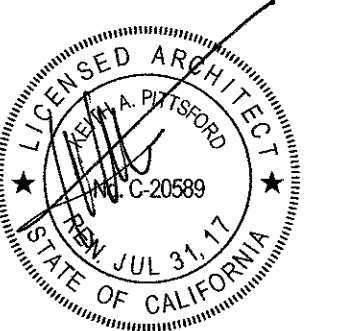


**FLOOR PLAN - FOURTH & FIFTH LEVELS** 1/8" = 1'-0" 1



C:\Users\Local Files\21305-South Campus\_Plan\2014\_04\_22\_Plan\Level\Fourth\_Fifth\_Structure.dwg Local:04





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**SUNDT CONSTRUCTION**  
SAN DIEGO, CALIFORNIA

**SAN DIEGO STATE UNIVERSITY**  
SAN DIEGO, CA

**SOUTH CAMPUS PLAZA DESIGN-BUILD PARKING STRUCTURE**

5840 LINDO PASEO  
SAN DIEGO STATE UNIVERSITY

**SUBMITTAL SCHEDULE:**

SCHEMATIC DESIGN	04/17/2014
50% PRELIM. DESIGN	05/14/2014
100% PRELIM. DESIGN	09/28/2014
50% CONST. DOCS.	07/02/2014
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ASI#005	07/07/2015
ASI#007 - SFM RESUB.	07/29/2015
ASI#011 - SFM RESUB. 2	11/06/2015
ASI#015 - SFM RESUB. 3	03/03/2016

PROJECT NO.: 21305-6-50

**SLAB PLAN FOURTH LEVEL**

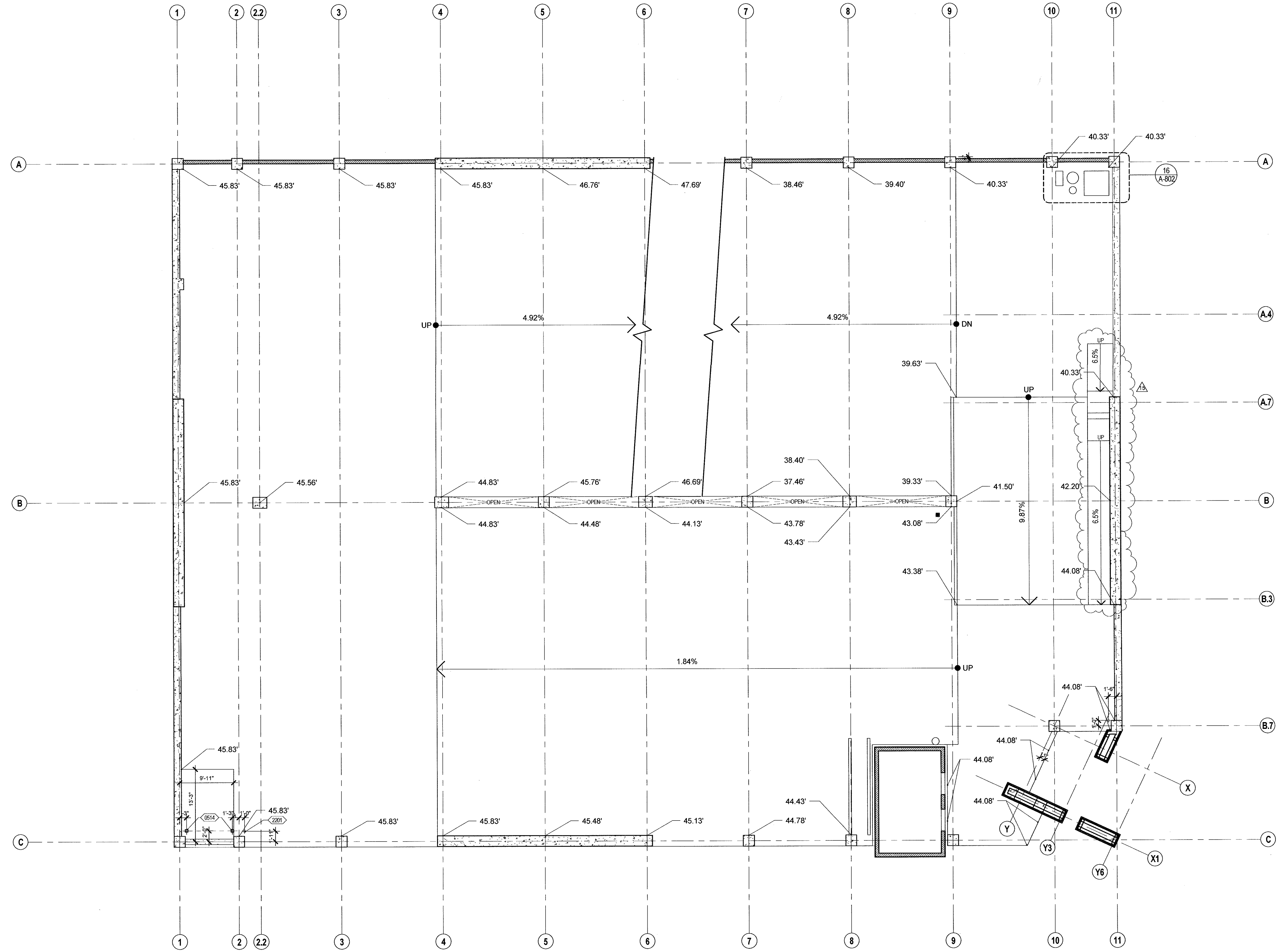
**A-204.1**

- METAL STUD WALL WITH METAL PANEL SYSTEM
- CMU WALL WITH PLASTER FINISH @ EXTERIOR SIDE ONLY WHERE OCCURS PER WALL TYPE
- CONC. SHEAR WALL (SEE STRUCTURAL)

**WALL LEGEND**

1. FIRST FLOOR FINISH FLOOR IS 0'-0" = 457.30'
2. ELEVATION MARKERS INDICATED ARE TO BOTTOM OF 'Z' SWALE AT STAIR LANDINGS, REFER TO STRUCTURAL DRAWINGS FOR FURTHER INFORMATION
3. COORDINATE AND CONFIRM EXACT LOCATIONS OF ALL FLOOR MOUNTED OUTLETS PRIOR TO CONCRETE PLACEMENT, SEE ELECT.
6. PAINT UNDERSIDE OF CONCRETE SLAB (PAINT COLOR TO BE DETERMINED)
7. CONTRACTOR TO COORDINATE WITH ELECTRICAL, MECHANICAL AND PLUMBING DRAWINGS FOR SIZE AND LOCATION OF EQUIPMENT PADS. SEE STRUCTURAL DETAIL 1354.1 FOR STRUCTURAL PAD REQUIREMENTS
8. CONTRACTOR TO COORDINATE ENTRANCE ELEVATIONS WITH CIVIL DRAWINGS

**GENERAL NOTES**



**SLAB PLAN - FOURTH LEVEL** 1/8" = 1'-0" ①

OFFICE OF THE STATE FIRE MARSHAL  
APPROVED FOR FIRE PLANNING ONLY  
Reviewed by: [Signature]  
Bradley G. Gorch, USFMA

APR 27 2016

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**SAN DIEGO STATE UNIVERSITY**  
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ASIF005	07/07/2015
ASIF007 - SFM RESUB.	07/29/2015
ASIF011 - SFM RESUB. 2	11/06/2015
ASIF015 - SFM RESUB. 3	03/03/2016

PROJECT NO: 21305-G-50

**SLAB PLAN FIFTH LEVEL**

**A-204.2**

- METAL STUD WALL WITH METAL PANEL SYSTEM
- CMU WALL WITH PLASTER FINISH @ EXTERIOR SIDE ONLY WHERE OCCURS PER WALL TYPE
- CONC. SHEAR WALL (SEE STRUCTURAL)

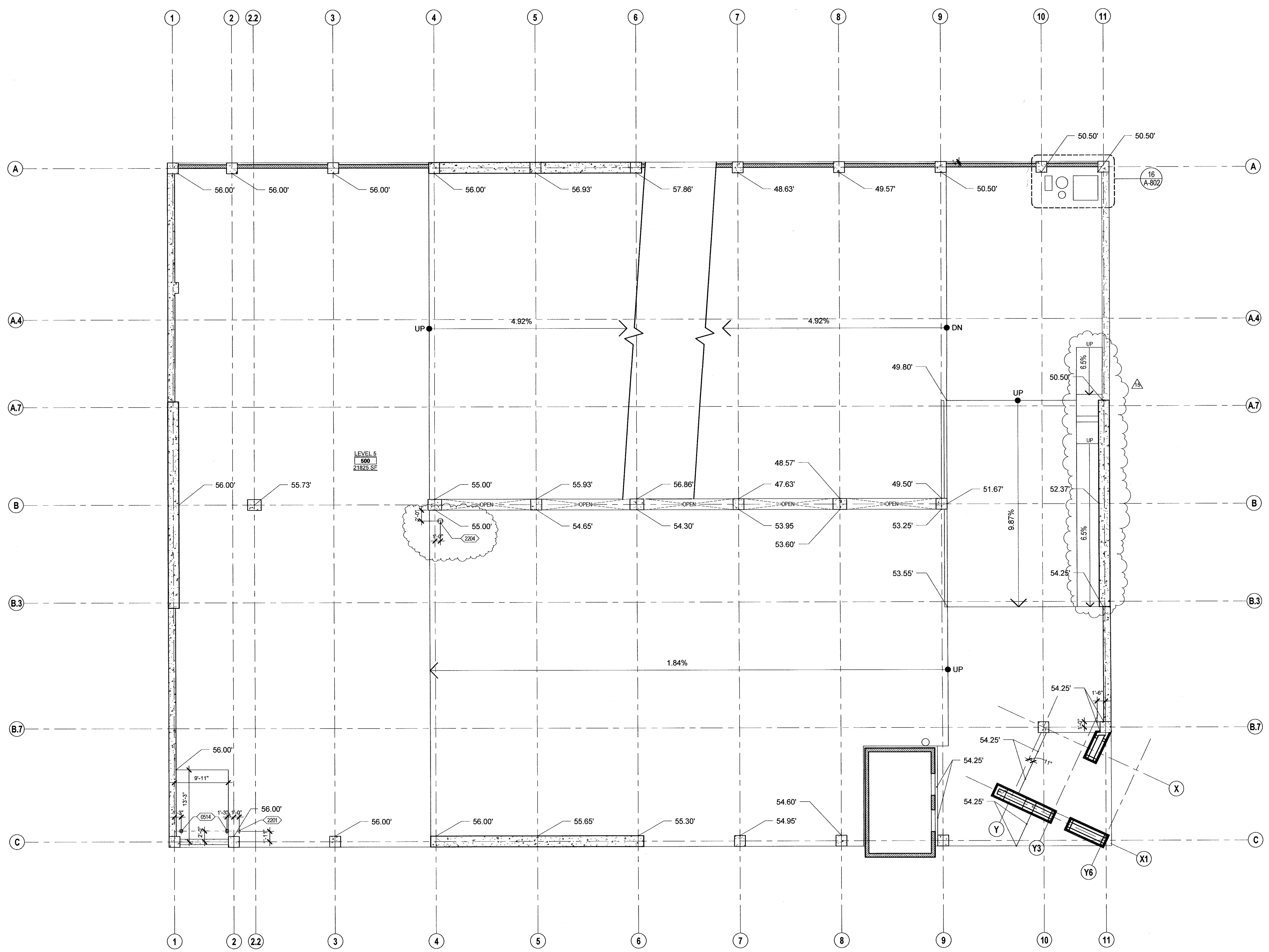
**WALL LEGEND**

1. FIRST FLOOR FINISH FLOOR IS 0'-0" = 457.30'
2. ELEVATION MARKERS INDICATED ARE TO BOTTOM OF 2" SWALE AT STAIR LANDINGS. REFER TO STRUCTURAL DRAWINGS FOR FURTHER INFORMATION.
3. COORDINATE AND CONFIRM EXACT LOCATIONS OF ALL FLOOR MOUNTED OUTLETS PRIOR TO CONCRETE PLACEMENT. SEE ELEC.T.
6. PAINT UNDERSIDE OF CONCRETE SLAB (PAINT COLOR TO BE DETERMINED)
7. CONTRACTOR TO COORDINATE WITH ELECTRICAL, MECHANICAL AND PLUMBING DRAWINGS FOR SIZE AND LOCATION OF EQUIPMENT PADS. SEE STRUCTURAL DETAIL 1354-1 FOR STRUCTURAL PAD REQUIREMENTS
8. CONTRACTOR TO COORDINATE ENTRANCE ELEVATIONS WITH CIVIL DRAWINGS

**GENERAL NOTES**

- 0514 HSS MEMBER PER STRUCTURAL. REFERENCE UL Y710 ON SHEET A-008 FOR SPRAY APPLIED FIRE PROOFING ASSEMBLY
- 2201 FIRE STANDPIPE. REFER TO FIRE PROTECTION DRAWINGS
- 2204 FLOOR DRAIN

**KEYNOTES**



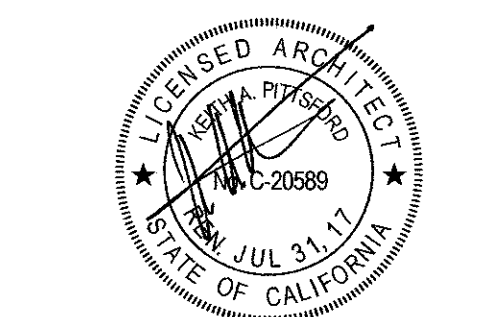
**SLAB PLAN - FIFTH LEVEL** 1/8" = 1'-0" ①

OFFICE OF THE STATE FIRE MARSHAL  
APPROVED FIRE AND SAFETY OFFICER  
Reviewed by:

APR 27 2016

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100% BACKCHECK SET 3	03/20/2015
ASH005	07/07/2015
ASH007 - SFM RESUB.	07/29/2015
ASH008 - SET 2	09/23/2015
ASH011 - SFM RESUB. 2	11/06/2015
ASH015 - SFM RESUB. 3	03/03/2016

PROJECT NO: 21305-G-50

- 0312 6" HIGH CONCRETE EQUIPMENT CURB
- 0314 DETECTABLE WARNING SYSTEM REFER TO DETAIL 11 & 12/A-801
- 0501 METAL PAN STAIR
- 0505 CABLE BARRIER RAILING, DEFERRED APPROVAL
- 0507 LIGHT POLE BASE
- 0514 HSS MEMBER PER STRUCTURAL REFERENCE UL Y710 ON SHEET A-008 FOR SPRAY APPLIED FIRE PROOFING ASSEMBLY
- 0901 4" WIDE PAINTED STRIPING
- 1001 8'-0" HIGH CHAIN LINK FENCE
- 1002 CART CONTAINMENT ANTENNA
- 1101 ELEVATOR
- 1103 EMERGENCY PHONE REFER TO DETAIL 26/A-801
- 2101 SURFACE MOUNTED FIRE EXTINGUISHER CABINET PER DETAIL 17/A-801
- 2201 FIRE STANDPIPE, REFER TO FIRE PROTECTION DRAWINGS
- 2204 FLOOR DRAIN
- 2301 COOLING TOWERS
- 2601 LIGHT POLE AND POLE BASE REFER TO DETAIL 3/A-802

**KEYNOTES**

- INDICATES REQUIRED 2 HR. RATED UL ASSEMBLY
  - INDICATES REQUIRED 3 HR. RATED UL ASSEMBLY
- NOTE: WHERE REQUIRED UL ASSEMBLIES ARE INDICATED ON PLANS AND SECTIONS, REFERENCE SHEET A-007 AND A-008 FOR ASSOCIATED WALLS TYPES AND RATED JOE, HEAD, AND WALL JOINT ASSEMBLIES.

**WALL LEGEND**

1. GROUND LEVEL FINISH FLOOR IS 0'-0" = 457.30'
2. REFER TO WALL TYPE LEGEND ON SHEET A-007 FOR UL LISTING FOR RATED WALLS, TYPICAL.
3. DOOR FRAMES LOCATED NEAR ADJACENT WALLS TO BE 4" FROM INSIDE CORNER, OR TO NEAREST BLOCK MODULE AT CMU WALLS, UNO
4. COORDINATE AND CONFIRM EXACT LOCATIONS OF ALL FLOOR MOUNTED OUTLETS PRIOR TO CONCRETE PLACEMENT. SEE ELECT.
5. PROVIDE FIRE EXTINGUISHERS AS SHOWN PER SHEET A-006
6. REFER TO SLAB PLANS FOR FINISH FLOOR ELEVATIONS, SLAB SLOPES, DRAINAGE, AND SLAB OPENINGS.
7. PROVIDE TWO-WAY COMMUNICATION SYSTEM AT ELEVATOR LANDINGS AT EACH FLOOR PER CBC CODE SECTION 1007.8
8. PROVIDE VEHICULAR DECK COATINGS AT SECOND LEVEL OVER MECHANICAL SPACES AS SHOWN ON PLAN. PROVIDE SEALERS THROUGH SIXTH LEVEL SLAB.
9. FOR DUCTS PENETRATING FIRE RATED ASSEMBLIES, SEE SHEET A-007 & A-008 FOR UL APPROVED THROUGH-PENETRATION ASSEMBLIES.

**GENERAL NOTES**

① PARKING COUNT

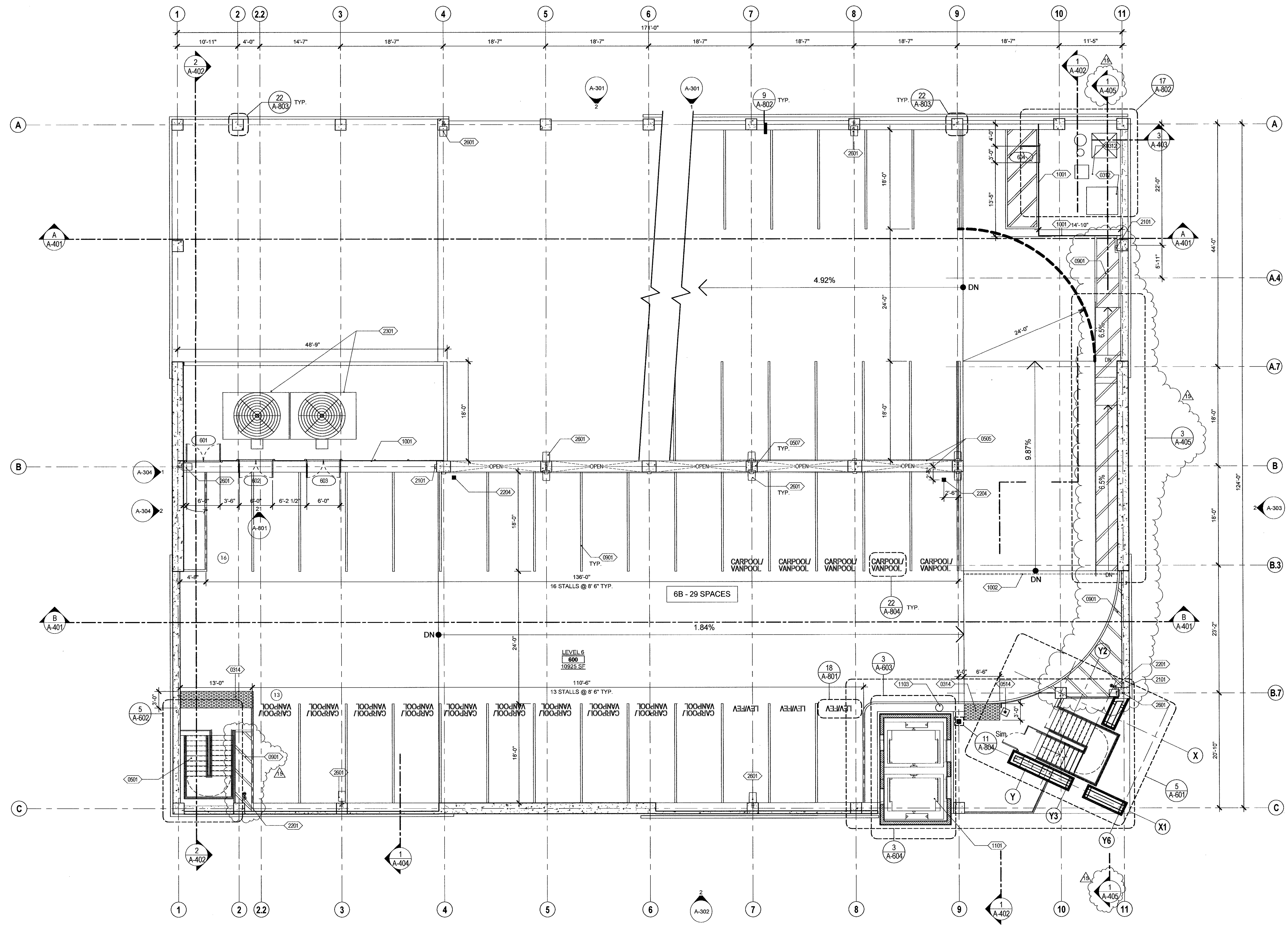
PARKING STALL RESUME	
PHASE 1	
GROUND LEVEL	32
SECOND LEVEL	59
THIRD LEVEL	59
FOURTH LEVEL	59
FIFTH LEVEL	59
SIXTH LEVEL	29
TOTAL	297

**PARKING LEGEND**

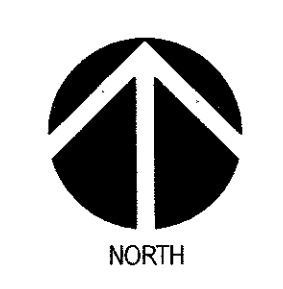
OFFICE OF THE STATE FIRE MARSHAL  
 APPROVED FIRE AND ZONING DEPARTMENT  
 Reviewed by: [Signature]  
 Display Location: USFM

APR 27 2016

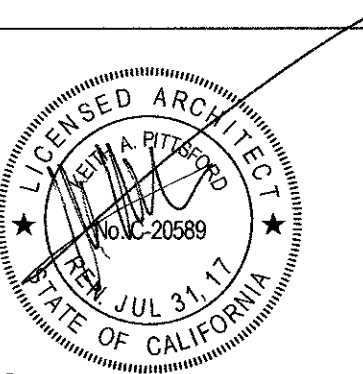
Approval of this plan does not authorize or approve any design or deviation from applicable regulations. Final approval is subject to field inspection. One set of approved plans shall be available on the project site at all times.



**FLOOR PLAN - SIXTH LEVEL** 1/8" = 1'-0" ①







SUBMITTAL SCHEDULE:

SCHEMATIC DESIGN	04/17/2014
50% PRELIM. DESIGN	05/14/2014
100% PRELIM. DESIGN	05/28/2014
50% CONST. DOCS.	07/02/2014
95% CONST. DOCS.	08/07/2014
100% BACKCHECK	11/10/2014
100% BACKCHECK SET 2	01/22/2015
100% BACKCHECK SET 3	03/20/2015
ASH#005	07/07/2015
ASH#007 - SFM RESUB.	07/29/2015
ASH#011 - SFM RESUB. 2	11/06/2015
ASH#015 - SFM RESUB. 3	03/03/2016

PROJECT NO: 21305-G-50

**SLAB PLAN SIXTH LEVEL**

**A-205.1**

- METAL STUD WALL WITH METAL PANEL SYSTEM
- CMU WALL WITH PLASTER FINISH @ EXTERIOR SIDE ONLY WHERE OCCURS PER WALL TYPE
- CONC. SHEAR WALL (SEE STRUCTURAL)

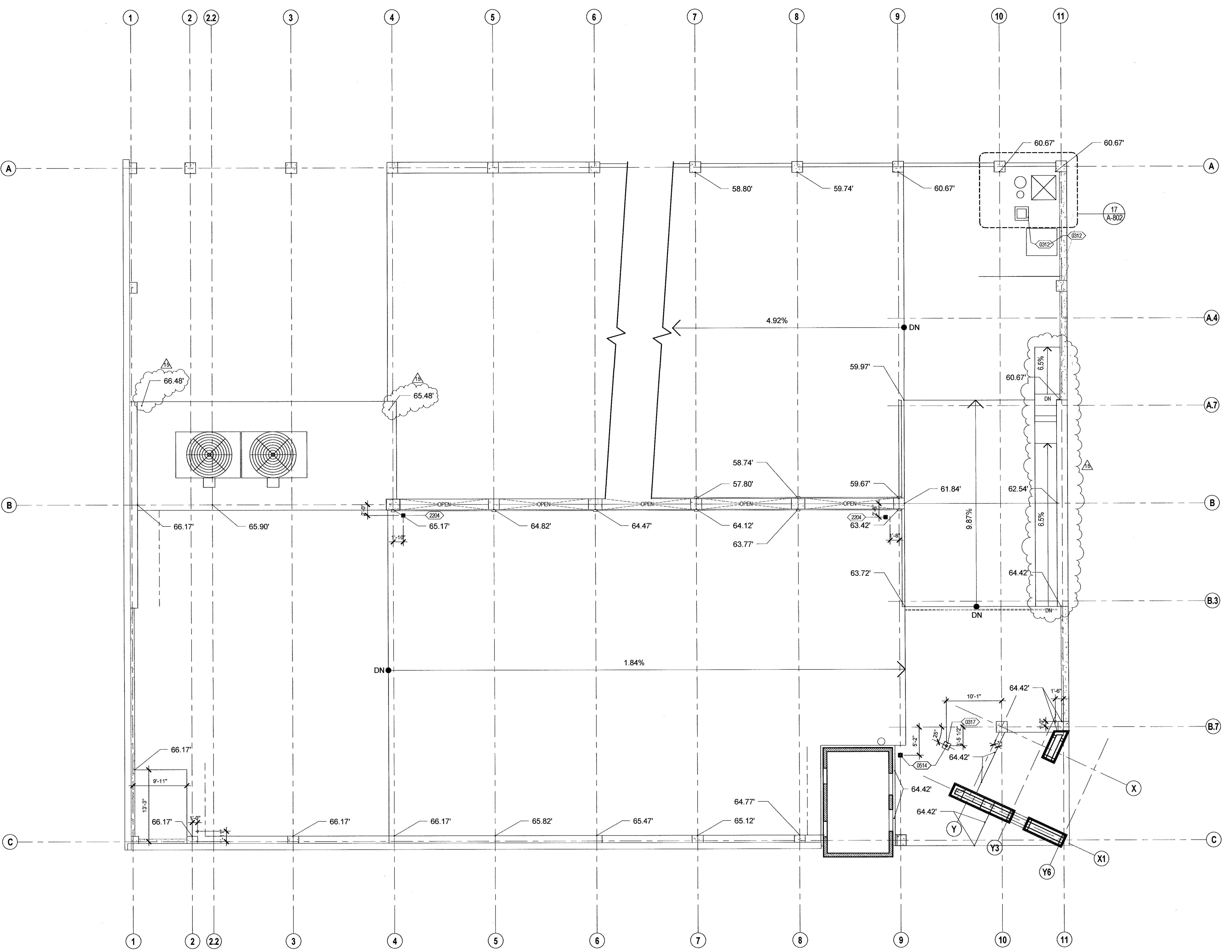
**WALL LEGEND**

1. FIRST FLOOR FINISH FLOOR IS 0'-0" = 457.30'
2. ELEVATION MARKERS INDICATED ARE TO BOTTOM OF 2" SWALE AT STAIR LANDINGS. REFER TO STRUCTURAL DRAWINGS FOR FURTHER INFORMATION
3. COORDINATE AND CONFIRM EXACT LOCATIONS OF ALL FLOOR MOUNTED OUTLETS PRIOR TO CONCRETE PLACEMENT. SEE ELECT.
6. PAINT UNDERSIDE OF CONCRETE SLAB (PAINT COLOR TO BE DETERMINED)
7. CONTRACTOR TO COORDINATE WITH ELECTRICAL, MECHANICAL AND PLUMBING DRAWINGS FOR SIZE AND LOCATION OF EQUIPMENT PADS. SEE STRUCTURAL DETAIL 135A.1 FOR STRUCTURAL PAD REQUIREMENTS
8. CONTRACTOR TO COORDINATE ENTRANCE ELEVATIONS WITH CIVIL DRAWINGS

**GENERAL NOTES**

- 0312 6" HIGH CONCRETE EQUIPMENT CURB
- 0317 15" SQ. CONCRETE COLUMN PEDESTAL REFER TO STRUCTURAL FOR DETAILS
- 0514 HSS MEMBER PER STRUCTURAL REFERENCE UL Y710 ON SHEET A-008 FOR SPRAY APPLIED FIRE PROOFING ASSEMBLY
- 2204 FLOOR DRAIN

**KEYNOTES**



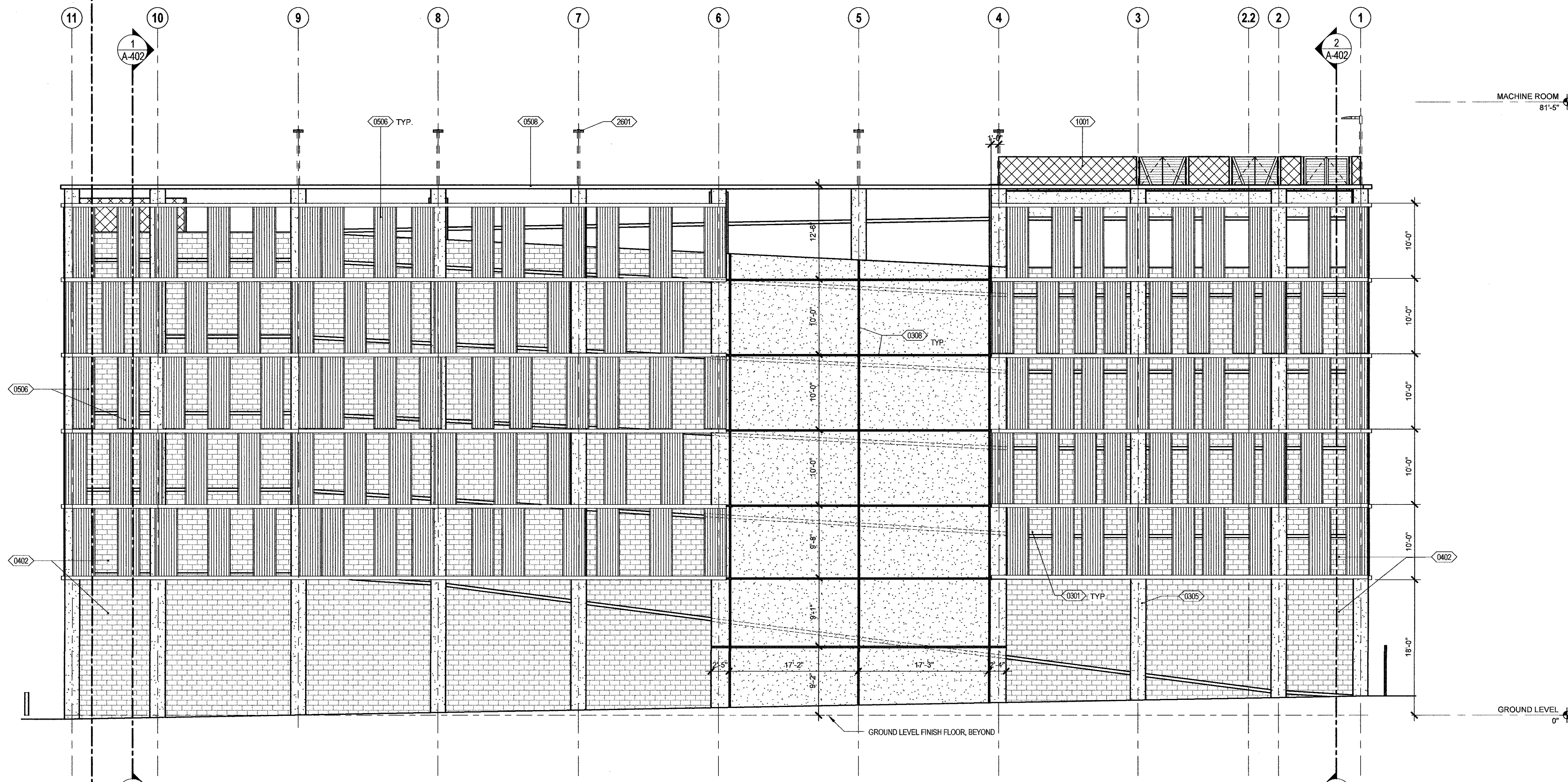
**SLAB PLAN - SIXTH LEVEL (ROOF)** 1/8" = 1'-0" ①

OFFICE OF THE STATE FIRE MARSHAL  
APPROVED FIRE AND PUBLIC SAFETY  
Reviewed by: *Brady Goodrich, DSPM*

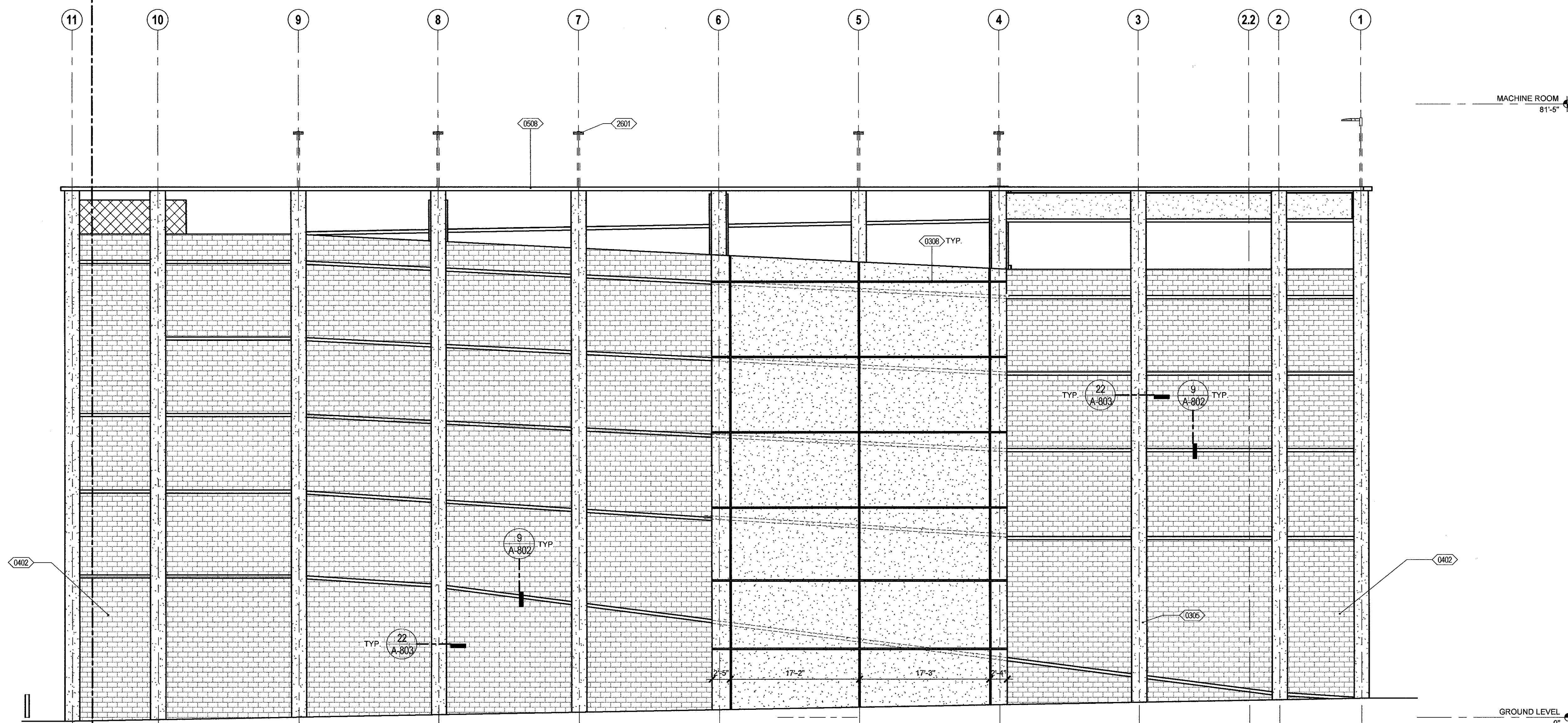
APR 27 2016

Approval of this plan does not authorize or approve any omission or deviation from applicable regulations. Final approval is subject to final inspection. One set of approved plans shall be available on the project site at all times.





**EXTERIOR ELEVATION - NORTH** 1/8" = 1'-0" (1)



**EXTERIOR ELEVATION - NO METAL PANELS - NORTH** 1/8" = 1'-0" (2)

- 0301 CONCRETE SLAB PER STRUCTURAL
- 0305 CAST IN PLACE CONCRETE COLUMN PER STRUCTURAL - PAINT
- 0308 2" REVEAL CAST IN CONCRETE PER DETAIL 4/A-804
- 0402 CMU WALL
- 0506 METAL PERFORATED SCREEN PANELS
- 0508 METAL COPING
- 1001 8'-0" HIGH CHAIN LINK FENCE
- 2601 LIGHT POLE AND POLE BASE REFER TO DETAIL 3/A-802

**KEYNOTES**

1. FIRST FLOOR FINISH FLOOR FOR BUILDING IS 0'-0" = 457.30'
2. FOR WALL MOUNTED LIGHT FIXTURES, SEE ELECTRICAL FOR MOUNTING HEIGHT.
3. FOR METAL SCREEN ATTACHMENT DETAILS, SEE STRUCTURAL SHEET S5.3

**GENERAL NOTES**

**REQUIRED OPENINGS AT GARAGE FOR COMPLIANCE WITH OPEN PARKING GARAGE DESIGNATION**

PARKING GARAGE IS OPEN PARKING GARAGE AND COMPLIES WITH CBC SECTION 406.5.1 THROUGH 406.5.11

CONSTRUCTION TYPE: IB

OPENINGS PROVIDED ON EAST, SOUTH AND WEST SIDES OF PARKING GARAGE FOR AN AREA NOT LESS THAN 20% OF THE TOTAL PERIMETER OF WALL AREA PER TIER.

**NOTE: METAL SCREEN PANELS ARE 60% OPEN PERFORATIONS AND MINIMUM FREE AREA**

**LEVEL ONE (GRADE)**

NORTH FACE PERIMETER TIER TOTAL AREA:	3,460 SF
EAST FACE PERIMETER TIER TOTAL AREA:	2,520 SF
SOUTH FACE PERIMETER TIER TOTAL AREA:	3,460 SF
WEST FACE PERIMETER TIER TOTAL AREA:	2,520 SF
TOTAL AREA:	11,960 SF

**PERIMETER OPEN AREA REQUIRED:**  
11,960 SF x 20% = 2,392 SF

**PERIMETER OPEN AREA PROVIDED:**

NORTH FACE PERIMETER TOTAL AREA:	0 SF
EAST FACE PERIMETER TOTAL AREA:	450 SF
SOUTH FACE PERIMETER TOTAL AREA:	1,728 SF
WEST FACE PERIMETER TOTAL AREA:	1,760 SF
TOTAL AREA:	3,938 SF

**TOTAL PERIMETER LENGTH:**  
590'-0" LN. FT.

**PERIMETER OPEN LENGTH REQUIRED:**  
590'-0" LN. FT. x 40% = 236 LN. FT.

**PERIMETER OPEN LENGTH PROVIDED:**  
254'-9" LN. FT.

**LEVEL TWO**

NORTH FACE PERIMETER TIER TOTAL AREA:	1,858 SF
EAST FACE PERIMETER TIER TOTAL AREA:	1,949 SF
SOUTH FACE PERIMETER TIER TOTAL AREA:	1,427 SF
WEST FACE PERIMETER TIER TOTAL AREA:	1,412 SF
TOTAL AREA:	6,646 SF

**PERIMETER OPEN AREA REQUIRED:**  
6,646 SF x 20% = 1,329.2 SF

**PERIMETER OPEN AREA PROVIDED:**

NORTH FACE PERIMETER TOTAL AREA:	0 SF
EAST FACE PERIMETER TOTAL AREA:	750 SF
SOUTH FACE PERIMETER TOTAL AREA:	523 SF
WEST FACE PERIMETER TOTAL AREA:	765 SF
TOTAL AREA:	2,028 SF

**TOTAL PERIMETER LENGTH:**  
590'-0" LN. FT.

**PERIMETER OPEN LENGTH REQUIRED:**  
OPENINGS ARE NOT REQUIRED TO BE DISTRIBUTED OVER 40 PERCENT OF THE BUILDING PERIMETER WHERE THE REQUIRED OPENINGS ARE UNIFORMLY DISTRIBUTED OVER TWO OPPOSING SIDES OF THE BUILDING PER CBC. CH. 406.5.2

**PERIMETER OPEN LENGTH PROVIDED:**  
NOT REQUIRED

**LEVELS THREE, FOUR, AND FIVE**

NORTH FACE PERIMETER TIER TOTAL AREA:	1,759 SF
EAST FACE PERIMETER TIER TOTAL AREA:	1,281 SF
SOUTH FACE PERIMETER TIER TOTAL AREA:	1,759 SF
WEST FACE PERIMETER TIER TOTAL AREA:	1,281 SF
TOTAL AREA:	6,080 SF

**PERIMETER OPEN AREA REQUIRED:**  
6,080 SF x 20% = 1,216 SF

**PERIMETER OPEN AREA PROVIDED:**

NORTH FACE PERIMETER TOTAL AREA:	0 SF
EAST FACE PERIMETER TOTAL AREA:	429 SF
SOUTH FACE PERIMETER TOTAL AREA:	478 SF
WEST FACE PERIMETER TOTAL AREA:	373 SF
TOTAL AREA:	1,281 SF

**TOTAL PERIMETER LENGTH:**  
590'-0" LN. FT.

**PERIMETER OPEN LENGTH REQUIRED:**  
OPENINGS ARE NOT REQUIRED TO BE DISTRIBUTED OVER 40 PERCENT OF THE BUILDING PERIMETER WHERE THE REQUIRED OPENINGS ARE UNIFORMLY DISTRIBUTED OVER TWO OPPOSING SIDES OF THE BUILDING PER CBC. CH. 406.5.2

**PERIMETER OPEN LENGTH PROVIDED:**  
NOT REQUIRED

**LEVEL SIX**

NOTE: ENTIRE SIXTH FLOOR IS OPEN

OFFICE OF THE STATE FIRE MARSHAL  
APPROVED FIRE SAFETY PLAN  
Reviewed by: [Signature]  
DATE: APR 27 2016



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**SUNDT CONSTRUCTION**  
SAN DIEGO, CALIFORNIA

**SAN DIEGO STATE UNIVERSITY**  
SAN DIEGO, CA

**SOUTH CAMPUS PLAZA DESIGN-BUILD PARKING STRUCTURE**

5640 LINDO PASEO  
SAN DIEGO STATE UNIVERSITY

**SUBMITTAL SCHEDULE:**

SCHEMATIC DESIGN	04/17/2014
50% PRELIM. DESIGN	05/14/2014
100% PRELIM. DESIGN	05/28/2014
90% CONST. DOCS.	07/02/2014
95% CONST. DOCS.	08/07/2014
100% BACKCHECK	11/10/2014
100% BACKCHECK SET 2	01/22/2015
100% BACKCHECK SET 3	03/20/2015
ASH#05	07/07/2015
ASH#07 - SFM RESUB.	07/28/2015
ASH#11 - SFM RESUB. 2	11/06/2015
ASH#15 - SFM RESUB. 3	03/03/2016

PROJECT NO: 21305-G-50

**EXTERIOR ELEVATIONS - NORTH**

**A-301**

2/26/2016 9:31:35 AM C:\Bent Local Files\21305-South Campus Plaza\2014\_04\_27\_Plaza Lindo Paseo\_Parking Structure\_on-Local.rvt





- 0301 CONCRETE SLAB PER STRUCTURAL
- 0304 CAST IN PLACE CONCRETE SHEAR WALL REFER TO STRUCTURAL - PAINT
- 0306 CAST IN PLACE CONCRETE BEAM PER STRUCTURAL
- 0308 2" REVEAL CAST IN CONCRETE PER DETAIL 4/A-804
- 0502 STAIR 1 LANDING GUARDRAIL PER DETAIL 21/A802
- 0506 METAL PERFORATED SCREEN PANELS
- 0508 METAL COPING
- 0509 METAL FASCIA
- 0514 HSS MEMBER PER STRUCTURAL. REFERENCE UL V710 ON SHEET A-408 FOR SPRAY APPLIED FIRE PROOFING ASSEMBLY
- 0902 PLASTER REVEAL PER DETAIL 7/A-802
- 0903 INTEGRAL COLOR CEMENT PLASTER FINISH
- 2601 LIGHT POLE AND POLE BASE REFER TO DETAIL 3/A-802

- KEYNOTES**
1. FIRST FLOOR FINISH FLOOR FOR BUILDING IS 0'-0" = 457'-0"
  2. FOR WALL MOUNTED LIGHT FIXTURES, SEE ELECTRICAL FOR MOUNTING HEIGHT.
  3. FOR METAL SCREEN ATTACHEMENT DETAILS, SEE STRUCTURAL SHEET 35.3

**GENERAL NOTES**

**REQUIRED OPENINGS AT GARAGE FOR COMPLIANCE WITH OPEN PARKING GARAGE DESIGNATION**

PARKING GARAGE IS OPEN PARKING GARAGE AND COMPLIES WITH CBC SECTION 406.5.1 THROUGH 406.5.11

CONSTRUCTION TYPE: IB  
OPENINGS PROVIDED ON EAST, SOUTH AND WEST SIDES OF PARKING GARAGE FOR AN AREA NOT LESS THAN 20% OF THE TOTAL PERIMETER OF WALL AREA PER TIER.

NOTE: METAL SCREEN PANELS ARE 60% OPEN PERFORATIONS AND MINIMUM FREE AREA

**LEVEL ONE (GRADE)**

NORTH FACE PERIMETER TIER TOTAL AREA:	3,460 SF
EAST FACE PERIMETER TIER TOTAL AREA:	2,520 SF
SOUTH FACE PERIMETER TIER TOTAL AREA:	3,460 SF
WEST FACE PERIMETER TIER TOTAL AREA:	2,520 SF
TOTAL AREA:	11,960 SF

PERIMETER OPEN AREA REQUIRED:  
11,960 SF x 20% = 2,392 SF

PERIMETER OPEN AREA PROVIDED:

NORTH FACE PERIMETER TOTAL AREA:	0 SF
EAST FACE PERIMETER TOTAL AREA:	450 SF
SOUTH FACE PERIMETER TOTAL AREA:	1,728 SF
WEST FACE PERIMETER TOTAL AREA:	1,780 SF
TOTAL AREA:	3,958 SF

TOTAL PERIMETER LENGTH:  
590'-0" LN. FT.

PERIMETER OPEN LENGTH REQUIRED:  
590'-0" LN. FT. x 40% = 236 LN. FT.

PERIMETER OPEN LENGTH PROVIDED:  
254'-9" LN. FT.

**LEVEL TWO**

NORTH FACE PERIMETER TIER TOTAL AREA:	1,858 SF
EAST FACE PERIMETER TIER TOTAL AREA:	1,949 SF
SOUTH FACE PERIMETER TIER TOTAL AREA:	1,427 SF
WEST FACE PERIMETER TIER TOTAL AREA:	1,412 SF
TOTAL AREA:	6,646 SF

PERIMETER OPEN AREA REQUIRED:  
6,646 SF x 20% = 1,329 SF

PERIMETER OPEN AREA PROVIDED:

NORTH FACE PERIMETER TOTAL AREA:	0 SF
EAST FACE PERIMETER TOTAL AREA:	750 SF
SOUTH FACE PERIMETER TOTAL AREA:	523 SF
WEST FACE PERIMETER TOTAL AREA:	755 SF
TOTAL AREA:	2,028 SF

TOTAL PERIMETER LENGTH:  
590'-0" LN. FT.

PERIMETER OPEN LENGTH REQUIRED:  
OPENINGS ARE NOT REQUIRED TO BE DISTRIBUTED OVER 40 PERCENT OF THE BUILDING PERIMETER WHERE THE REQUIRED OPENINGS ARE UNIFORMLY DISTRIBUTED OVER TWO OPPOSING SIDES OF THE BUILDING PER CBC, CH. 406.5.2

PERIMETER OPEN LENGTH PROVIDED:  
NOT REQUIRED

**LEVELS THREE, FOUR, AND FIVE**

NORTH FACE PERIMETER TIER TOTAL AREA:	1,759 SF
EAST FACE PERIMETER TIER TOTAL AREA:	1,281 SF
SOUTH FACE PERIMETER TIER TOTAL AREA:	1,759 SF
WEST FACE PERIMETER TIER TOTAL AREA:	1,281 SF
TOTAL AREA:	6,080 SF

PERIMETER OPEN AREA REQUIRED:  
6,080 SF x 20% = 1,216 SF

PERIMETER OPEN AREA PROVIDED:

NORTH FACE PERIMETER TOTAL AREA:	0 SF
EAST FACE PERIMETER TOTAL AREA:	429 SF
SOUTH FACE PERIMETER TOTAL AREA:	479 SF
WEST FACE PERIMETER TOTAL AREA:	373 SF
TOTAL AREA:	1,281 SF

TOTAL PERIMETER LENGTH:  
590'-0" LN. FT.

PERIMETER OPEN LENGTH REQUIRED:  
OPENINGS ARE NOT REQUIRED TO BE DISTRIBUTED OVER 40 PERCENT OF THE BUILDING PERIMETER WHERE THE REQUIRED OPENINGS ARE UNIFORMLY DISTRIBUTED OVER TWO OPPOSING SIDES OF THE BUILDING PER CBC, CH. 406.5.2

PERIMETER OPEN LENGTH PROVIDED:  
NOT REQUIRED

**LEVEL SIX**

NOTE: ENTIRE SIXTH FLOOR IS OPEN

**SUBMITTAL SCHEDULE:**

SCHEMATIC DESIGN	04/17/2014
50% PRELIM. DESIGN	05/14/2014
100% PRELIM. DESIGN	05/28/2014
50% CONST. DOCS.	07/02/2014
95% CONST. DOCS.	08/07/2014
100% BACKCHECK	11/07/2014
100% BACKCHECK SET 2	01/22/2015
100% BACKCHECK SET 3	03/20/2015
ASHP005 - SFM RESUB.	07/07/2015
ASHP007 - SFM RESUB.	07/29/2015
ASHP011 - SFM RESUB. 2	11/06/2015
ASHP015 - SFM RESUB. 3	03/03/2016

OFFICE OF THE STATE ARCHITECT  
APPROVED PERMIT AND PLAN ONLY  
Reviewed by: [Signature]  
Blairly Council, DSRM

APR 27 2016

Approval of this plan does not authorize or approve any construction or operation thereon. Approval is subject to field inspection. The set of approved plans shall be available on the project site at all times.

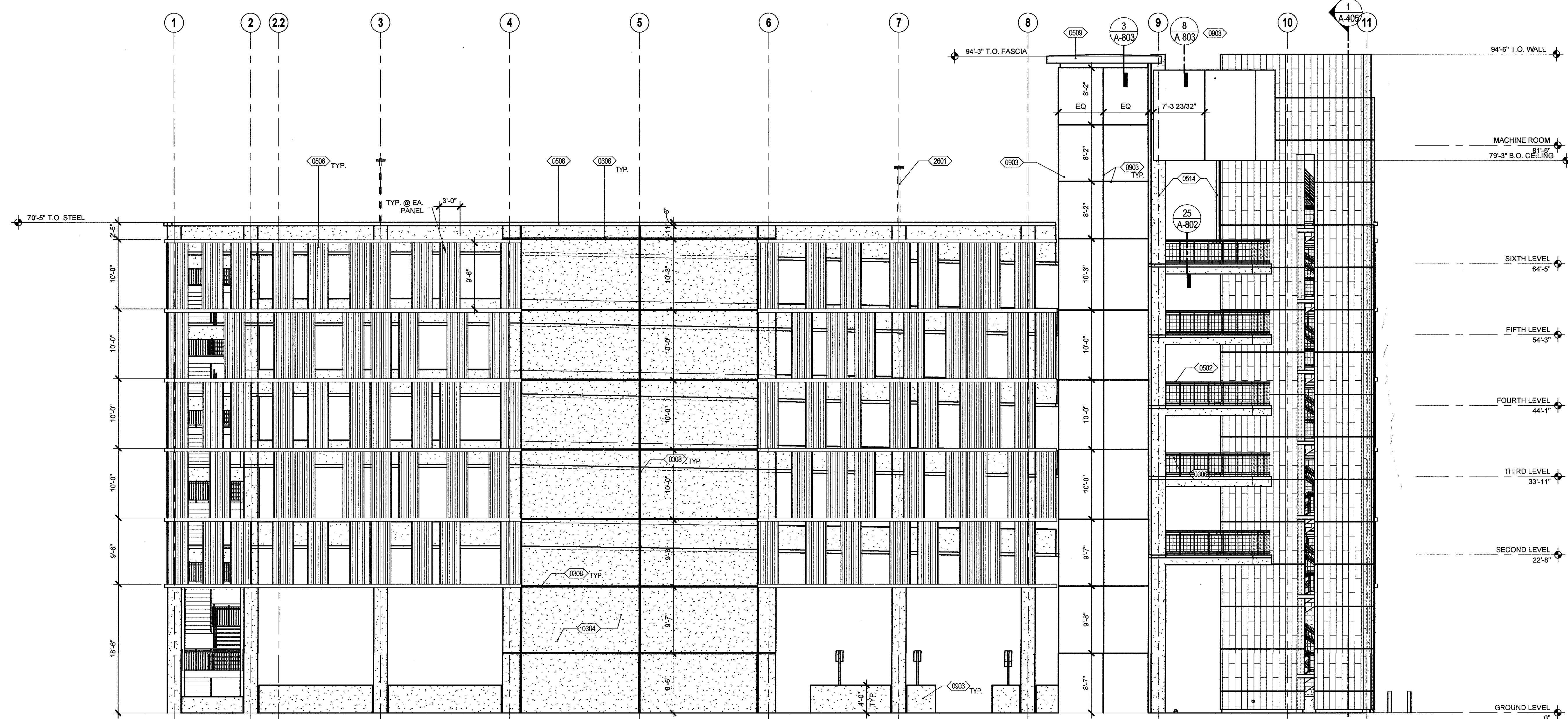
SOUTH CAMPUS PLAZA DESIGN-BUILD PARKING STRUCTURE

5840 LINDO PASEO  
SAN DIEGO STATE UNIVERSITY

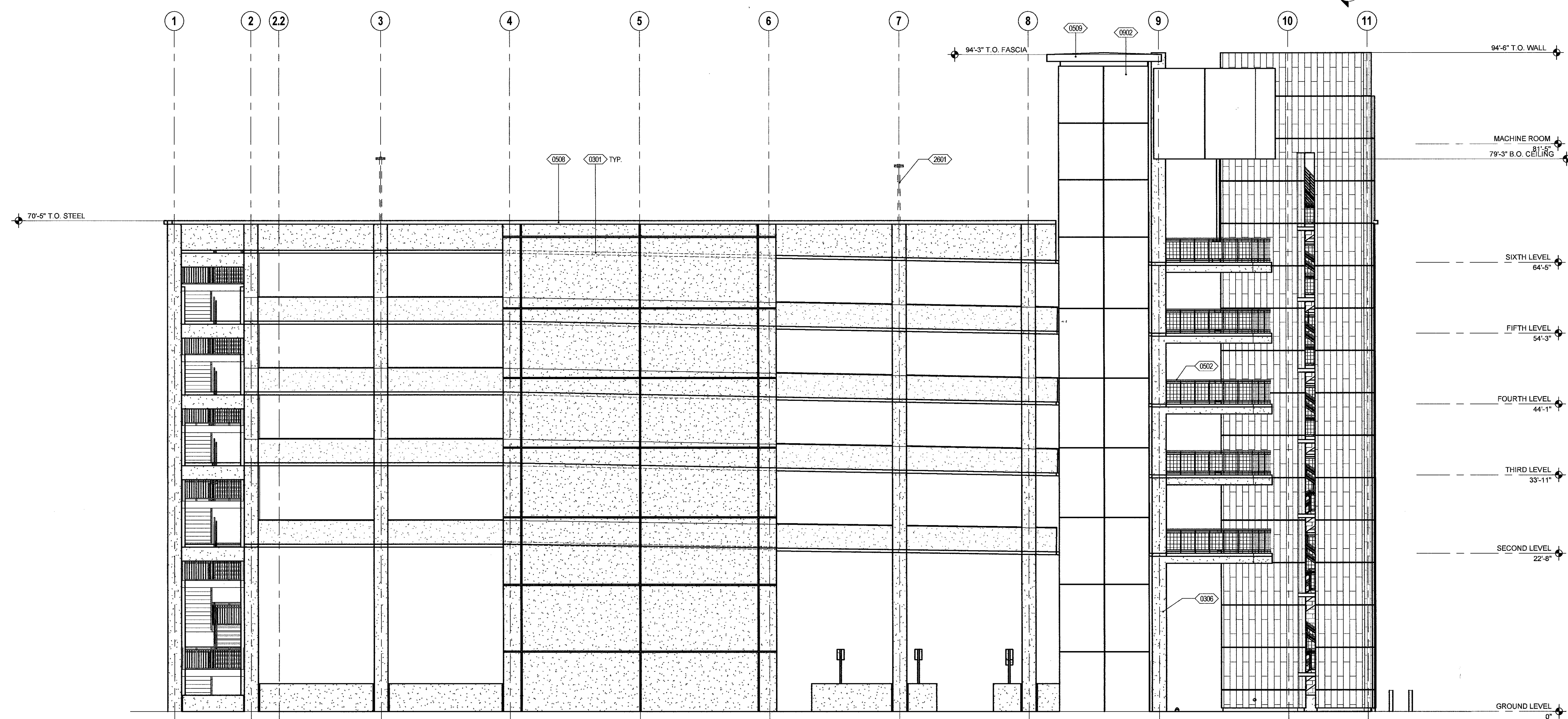
PROJECT NO: 21305-6-50

EXTERIOR ELEVATIONS - SOUTH

A-302

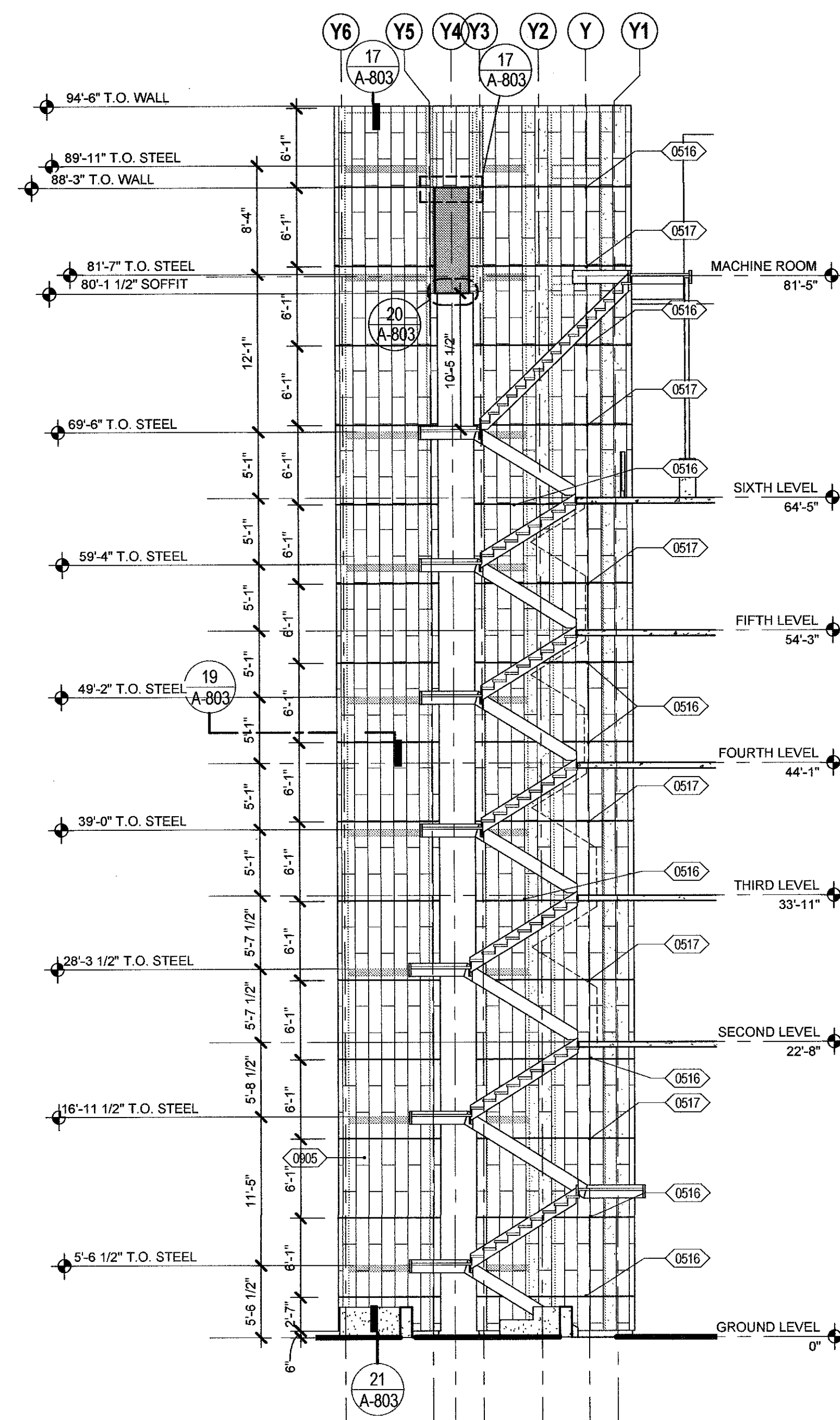


EXTERIOR ELEVATION - SOUTH 1/8" = 1'-0" (1)

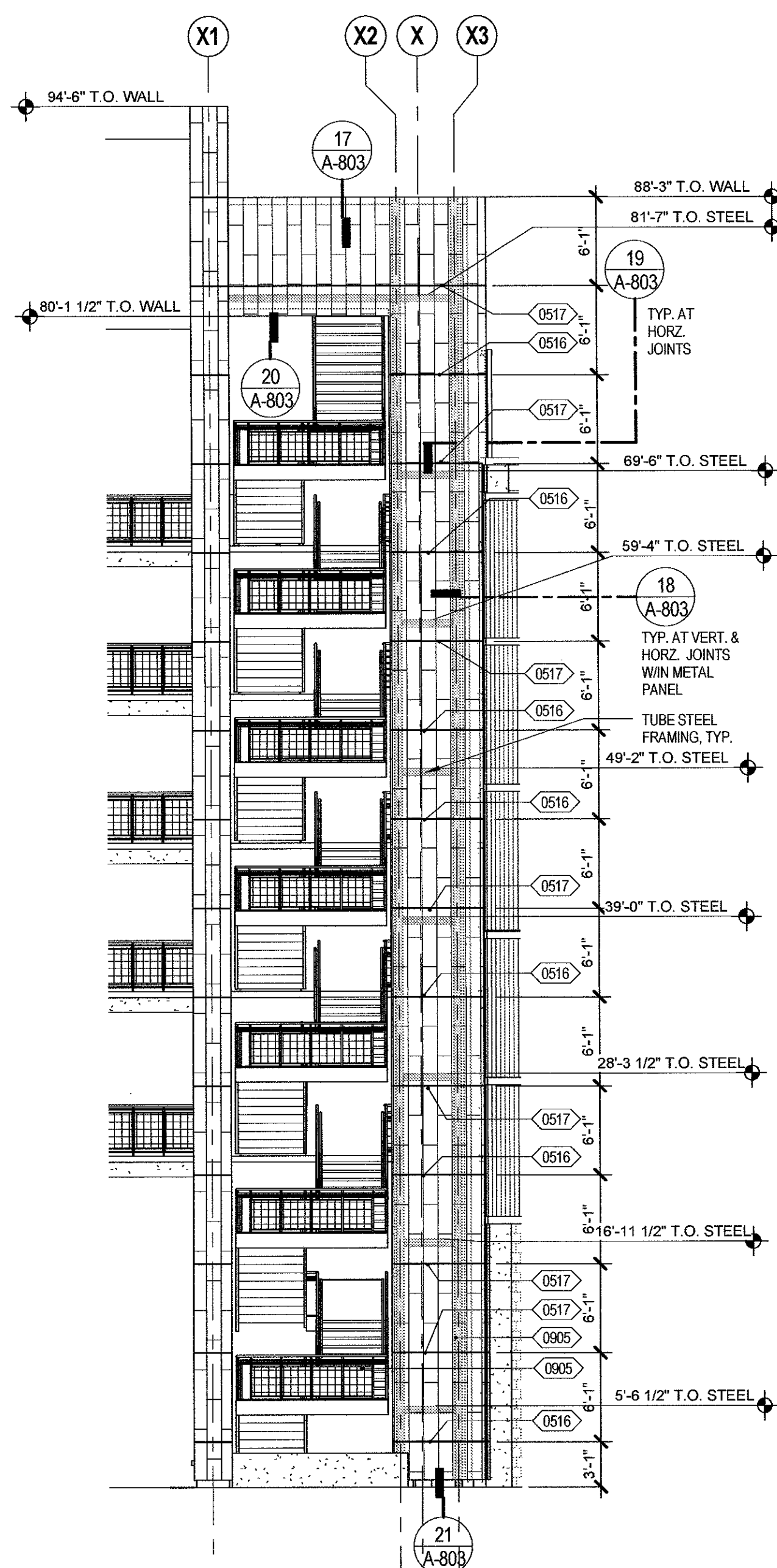


EXTERIOR ELEVATION - NO METAL PANELS - SOUTH 1/8" = 1'-0" (2)

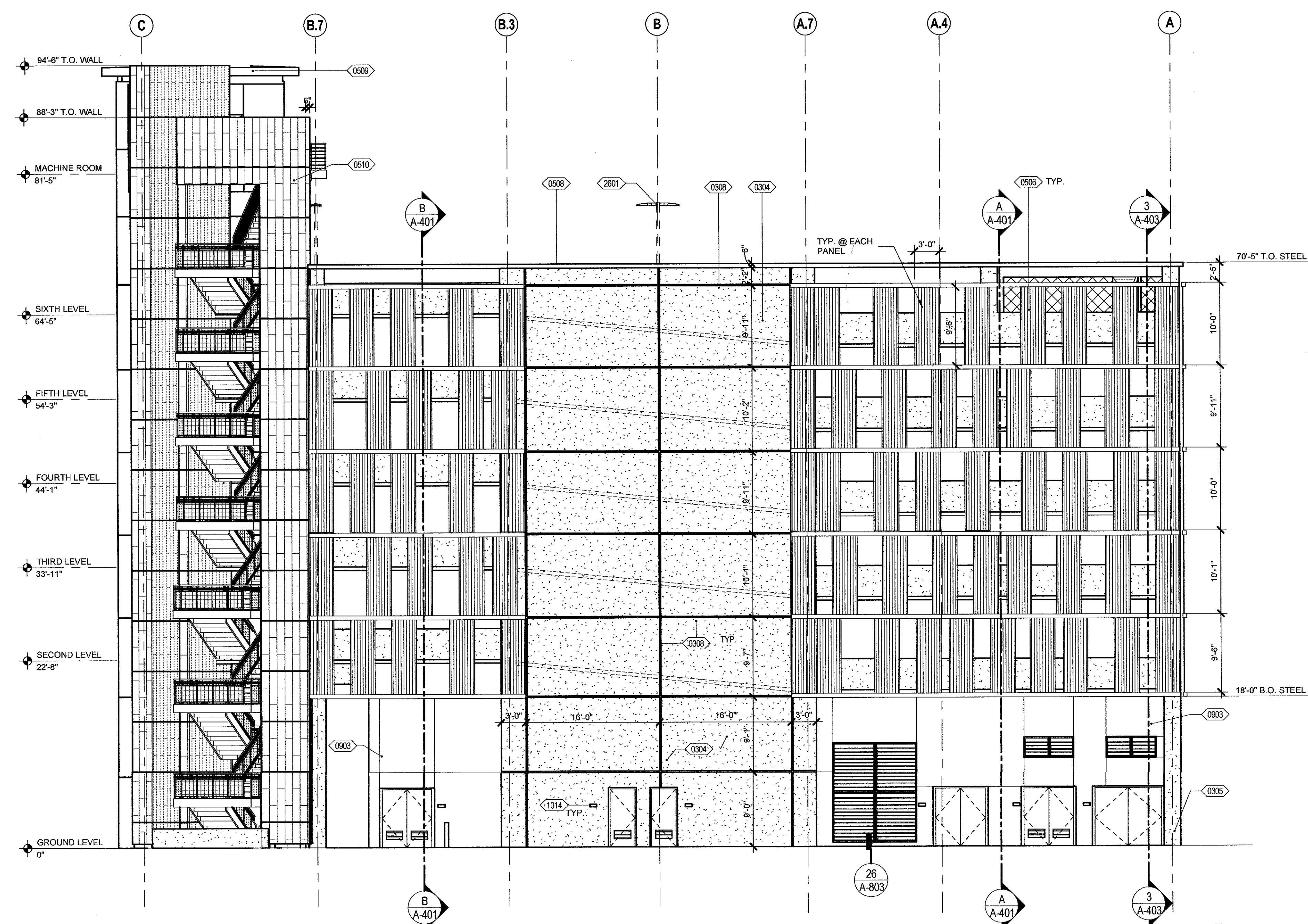




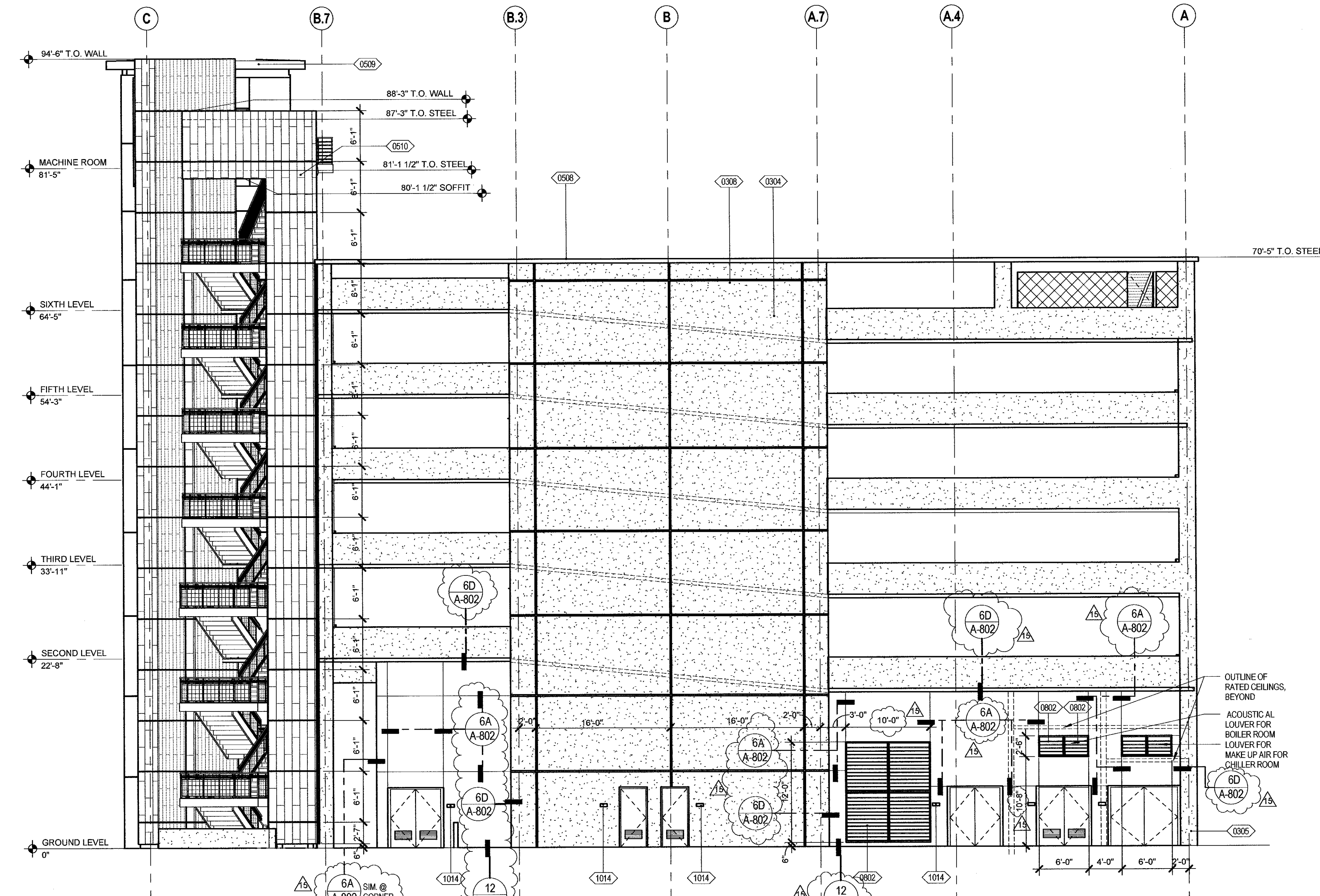
**ACCENT WALL** 1/8" = 1'-0" ④



**ACCENT WALL** 1/8" = 1'-0" ③



**EXTERIOR ELEVATION - EAST** 1/8" = 1'-0" ①



**EXTERIOR ELEVATION - NO METAL PANELS - EAST** 1/8" = 1'-0" ②

- 0304 CAST IN PLACE CONCRETE SHEAR WALL REFER TO STRUCTURAL - PAINT
- 0305 CAST IN PLACE CONCRETE COLUMN PER DETAIL 4/A-804 - PAINT
- 0308 2" REVEAL CAST IN CONCRETE PER DETAIL 4/A-804
- 0506 METAL PERFORATED SCREEN PANELS
- 0508 METAL COPING
- 0509 METAL FASCIA
- 0510 METAL WALL PANELS - SEE SPECIFICATION 07/22/13 TYPICAL
- 0516 COMPOSITE METAL WALL PANEL EXPANSION JOINT/REVEAL
- 0517 COMPOSITE METAL WALL PANEL REVEAL ONLY
- 0602 ACOUSTICAL LOUVER PER MECHANICAL
- 0903 INTEGRAL COLOR CEMENT PLASTER FINISH
- 0905 METAL PANEL WALL SYSTEM
- 1014 ROOM SIGNAGE REFER TO DETAIL 10/A-801
- 2601 LIGHT POLE AND POLE BASE REFER TO DETAIL 3/A-802

**KEYNOTES**

1. FIRST FLOOR FINISH FLOOR FOR BUILDING IS 0'-0" = 457.30'
2. FOR WALL MOUNTED LIGHT FIXTURES, SEE ELECTRICAL FOR MOUNTING HEIGHT.
3. FOR METAL SCREEN ATTACHMENT DETAILS, SEE STRUCTURAL SHEET 55.3

**GENERAL NOTES**

**REQUIRED OPENINGS AT GARAGE FOR COMPLIANCE WITH OPEN PARKING GARAGE DESIGNATION**

PARKING GARAGE IS OPEN PARKING GARAGE AND COMPLIES WITH CBC SECTION 406.5.1 THROUGH 406.5.11

CONSTRUCTION TYPE, IB OPENINGS PROVIDED ON EAST, SOUTH AND WEST SIDES OF PARKING GARAGE FOR AN AREA NOT LESS THAN 20% OF THE TOTAL PERIMETER OF WALL AREA PER TIER.

NOTE: METAL SCREEN PANELS ARE 80% OPEN PERFORATIONS AND MINIMUM FREE AREA

LEVEL ONE (GRADE)	
NORTH FACE PERIMETER TIER TOTAL AREA:	3,460 SF
EAST FACE PERIMETER TIER TOTAL AREA:	2,520 SF
SOUTH FACE PERIMETER TIER TOTAL AREA:	3,460 SF
WEST FACE PERIMETER TIER TOTAL AREA:	2,520 SF
TOTAL AREA:	11,960 SF

PERIMETER OPEN AREA REQUIRED:  
11,960 SF x 20% = 2,392 SF

PERIMETER OPEN AREA PROVIDED:	
NORTH FACE PERIMETER TOTAL AREA:	0 SF
EAST FACE PERIMETER TOTAL AREA:	450 SF
SOUTH FACE PERIMETER TOTAL AREA:	1,728 SF
WEST FACE PERIMETER TOTAL AREA:	1,260 SF
TOTAL AREA:	3,438 SF

TOTAL PERIMETER LENGTH:  
590'-0" LN. FT.

PERIMETER OPEN LENGTH REQUIRED:  
590'-0" LN. FT. x 40% = 236 LN. FT.

PERIMETER OPEN LENGTH PROVIDED:  
254'-0" LN. FT.

**LEVEL TWO**

NORTH FACE PERIMETER TIER TOTAL AREA:	1,858 SF
EAST FACE PERIMETER TIER TOTAL AREA:	1,949 SF
SOUTH FACE PERIMETER TIER TOTAL AREA:	1,427 SF
WEST FACE PERIMETER TIER TOTAL AREA:	1,412 SF
TOTAL AREA:	6,646 SF

PERIMETER OPEN AREA REQUIRED:  
6,646 SF x 20% = 1,329.2 SF

PERIMETER OPEN AREA PROVIDED:	
NORTH FACE PERIMETER TOTAL AREA:	0 SF
EAST FACE PERIMETER TOTAL AREA:	750 SF
SOUTH FACE PERIMETER TOTAL AREA:	923 SF
WEST FACE PERIMETER TOTAL AREA:	728 SF
TOTAL AREA:	2,028 SF

TOTAL PERIMETER LENGTH:  
590'-0" LN. FT.

PERIMETER OPEN LENGTH REQUIRED:  
OPENINGS ARE NOT REQUIRED TO BE DISTRIBUTED OVER 40 PERCENT OF THE BUILDING PERIMETER WHERE THE REQUIRED OPENINGS ARE UNIFORMLY DISTRIBUTED OVER TWO OPPOSING SIDES OF THE BUILDING PER CBC. CH. 406.5.2

PERIMETER OPEN LENGTH PROVIDED:  
NOT REQUIRED

**LEVELS THREE, FOUR, AND FIVE**

NORTH FACE PERIMETER TIER TOTAL AREA:	1,759 SF
EAST FACE PERIMETER TIER TOTAL AREA:	1,281 SF
SOUTH FACE PERIMETER TIER TOTAL AREA:	1,759 SF
WEST FACE PERIMETER TIER TOTAL AREA:	1,281 SF
TOTAL AREA:	6,080 SF

PERIMETER OPEN AREA REQUIRED:  
6,080 SF x 20% = 1,216 SF

PERIMETER OPEN AREA PROVIDED:	
NORTH FACE PERIMETER TOTAL AREA:	0 SF
EAST FACE PERIMETER TOTAL AREA:	429 SF
SOUTH FACE PERIMETER TOTAL AREA:	478 SF
WEST FACE PERIMETER TOTAL AREA:	373 SF
TOTAL AREA:	1,281 SF

TOTAL PERIMETER LENGTH:  
590'-0" LN. FT.

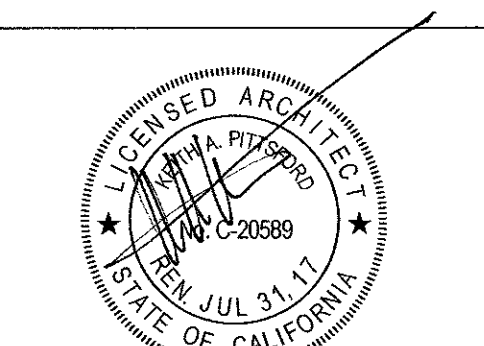
PERIMETER OPEN LENGTH REQUIRED:  
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PERIMETER OPEN LENGTH PROVIDED:  
NOT REQUIRED

**LEVEL SIX**

NOTE: ENTIRE SIXTH FLOOR IS OPEN

APR 27 2016  
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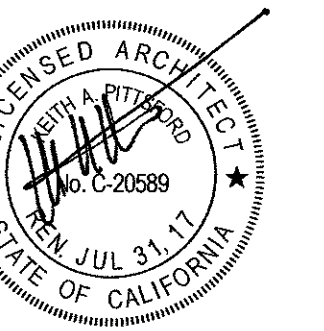
SUBMITTAL SCHEDULE:

DESCRIPTION	DATE
SCHEMATIC DESIGN	04/17/2014
50% PRELIM. DESIGN	05/14/2014
100% PRELIM. DESIGN	05/28/2014
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95% CONST. DOCS.	08/07/2014
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AS#011 - SFM RESUB. 2	11/06/2015
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AS#015 - SFM RESUB. 3	03/03/2016









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**SUNDT CONSTRUCTION**  
SAN DIEGO, CALIFORNIA

**SAN DIEGO STATE UNIVERSITY**  
SAN DIEGO, CA

**SOUTH CAMPUS PLAZA DESIGN-BUILD PARKING STRUCTURE**

5840 LINDO PASEO  
SAN DIEGO STATE UNIVERSITY

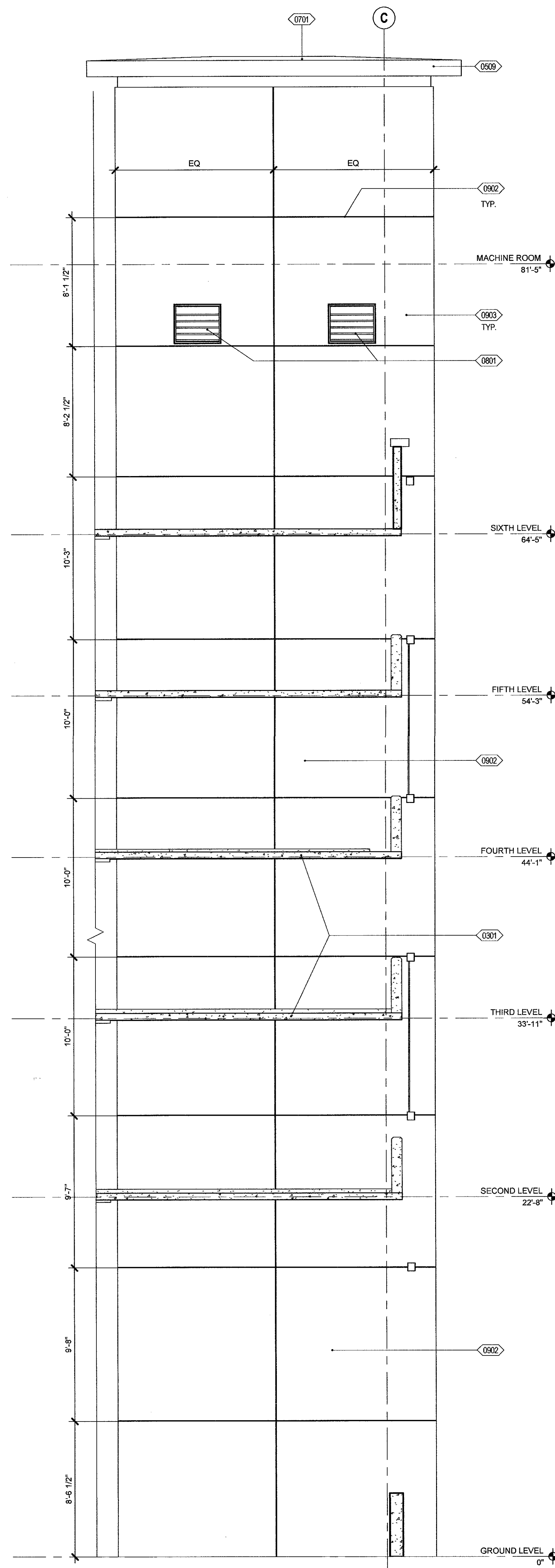
**SUBMITTAL SCHEDULE:**

SCHEMATIC DESIGN	04/17/2014
50% PRELIM. DESIGN	05/14/2014
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ASH#011 - SFM RESUB. 2	11/06/2015
ASH#015 - SFM RESUB. 3	03/03/2016

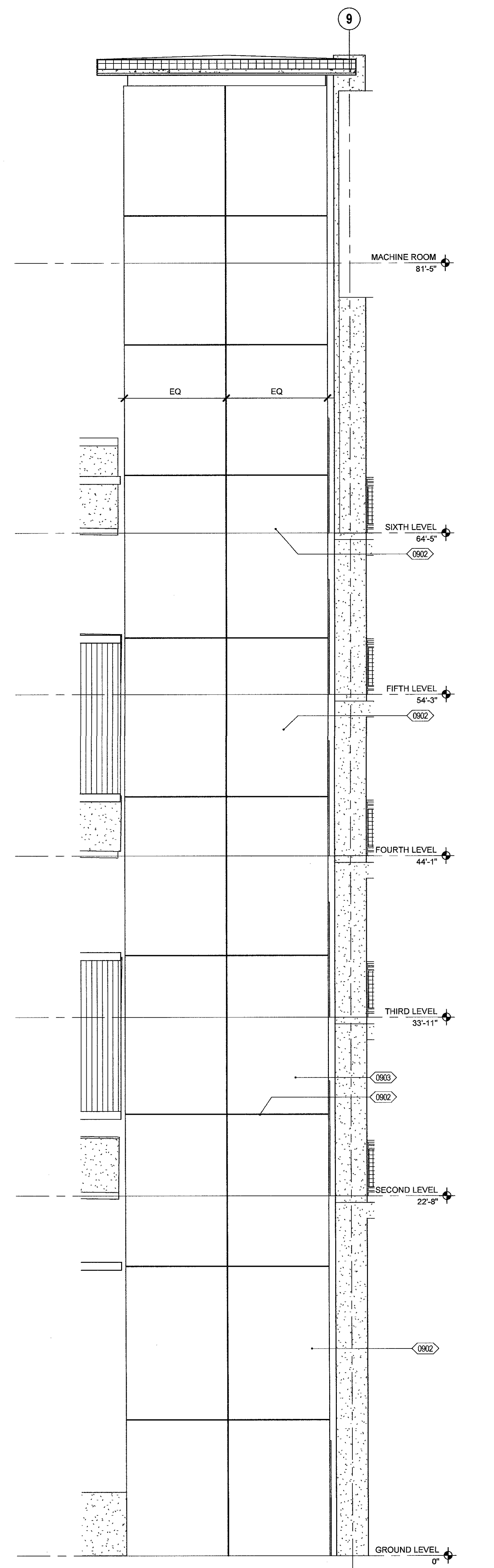
PROJECT NO: 21305-G-50

**EXTERIOR ELEVATIONS - ELEVATOR**

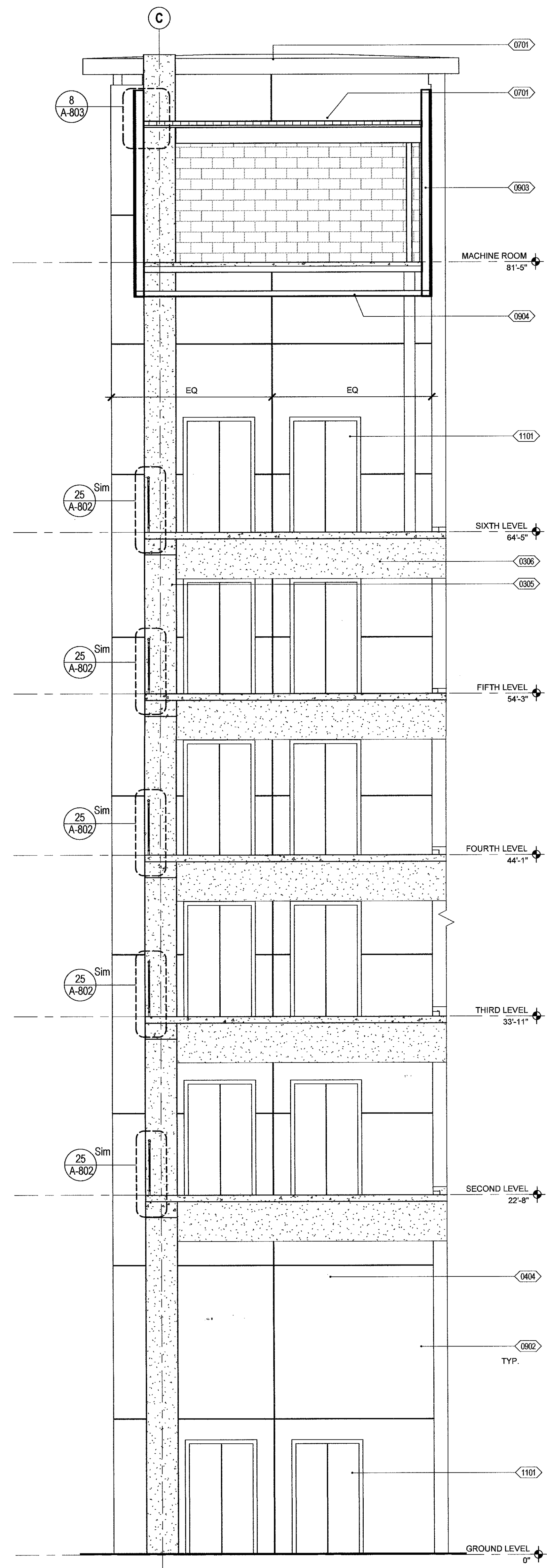
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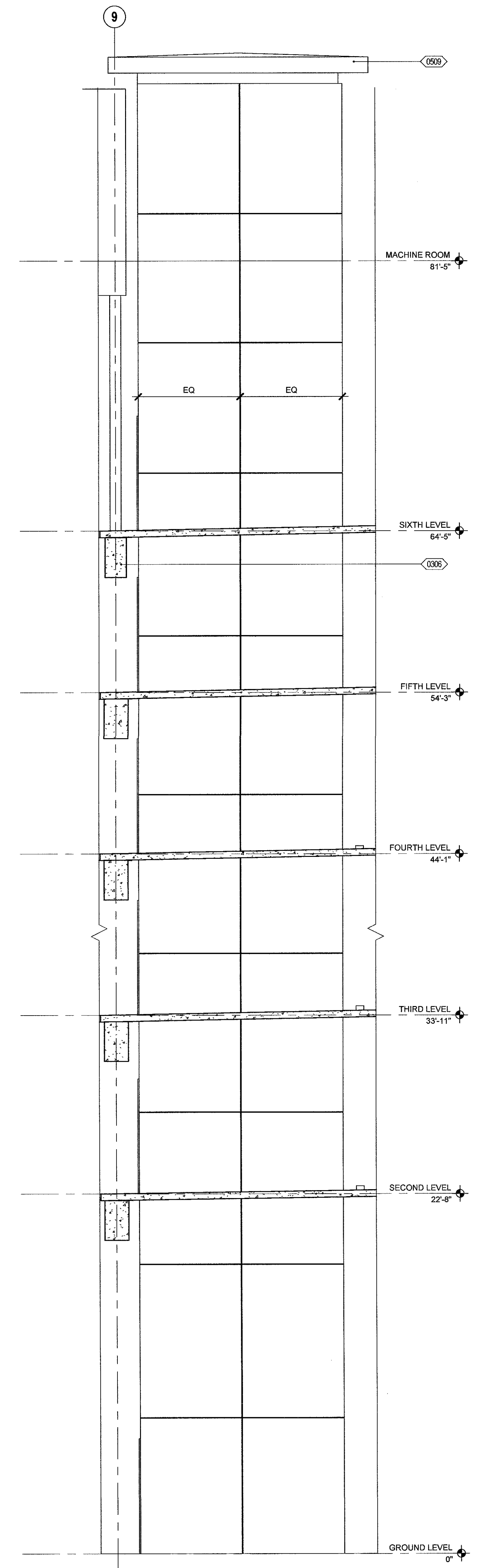
**EXT. ELEV. - WEST ELEVATOR** 1/4" = 1'-0" (4)



**EXT. ELEV. - SOUTH ELEVATOR** 1/4" = 1'-0" (3)



**EXT. ELEV. - EAST ELEVATOR** 1/4" = 1'-0" (2)



**EXT. ELEV. - NORTH ELEVATOR** 1/4" = 1'-0" (1)

- 0301 CONCRETE SLAB PER STRUCTURAL
- 0305 CAST IN PLACE CONCRETE COLUMN PER STRUCTURAL - PAINT
- 0306 CAST IN PLACE CONCRETE BEAM PER STRUCTURAL
- 0307 4" CONCRETE STEM WALL
- 0404 CMU WALL WITH PLASTER FINISH
- 0509 METAL FASCIA
- 0701 PVC FULLY ADHERED MEMBRANE ROOFING
- 0801 LOUVER PER MECHANICAL
- 0902 PLASTER REVEAL PER DETAIL 7/A-802
- 0903 INTEGRAL COLOR CEMENT PLASTER FINISH
- 0904 PLASTER SOFFIT
- 1101 ELEVATOR

**KEYNOTES**

OFFICE OF THE STATE ARCHITECT  
APPROVED FOR THE PUBLIC  
Reviewed by: [Signature]  
Project: 21305-G-50

APR 27 2016

Approval of this plan does not authorize or approve any alteration or deviation from applicable regulations. Final approval is subject to field inspection. One set of approved plans shall be available on the project site at all times.





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SAN DIEGO, CALIFORNIA

**SAN DIEGO STATE UNIVERSITY**  
SAN DIEGO, CA

**SOUTH CAMPUS PLAZA DESIGN-BUILD PARKING STRUCTURE**  
5840 LINDO PASEO  
SAN DIEGO STATE UNIVERSITY

SUBMITTAL SCHEDULE:

SCHEMATIC DESIGN	04/17/2014
50% PRELIM. DESIGN	05/14/2014
100% PRELIM. DESIGN	05/28/2014
50% CONST. DOCS.	07/02/2014
95% CONST. DOCS.	08/07/2014
100% BACKCHECK	11/10/2014
100% BACKCHECK SET 2	01/22/2015
100% BACKCHECK SET 3	03/20/2015
ASH#005	07/07/2015
ASH#007 - SFM RESUB.	07/28/2015
ASH#011 - SFM RESUB. 2	11/06/2015
ASH#015 - SFM RESUB. 3	03/03/2016

OFFICE OF THE STATE ARCHITECT  
APPROVED FOR THE PUBLIC  
Reviewed by: *Bradley Gooden, USFA*  
APR 27 2016  
Approval of this stamp does not authorize or approve any portion or deviation from applicable regulations. Final approval is subject to final inspection. One set of approved plans shall be available on the project site at all times.

PROJECT NO: 21305-G-50

**BUILDING SECTIONS**

**A-401**

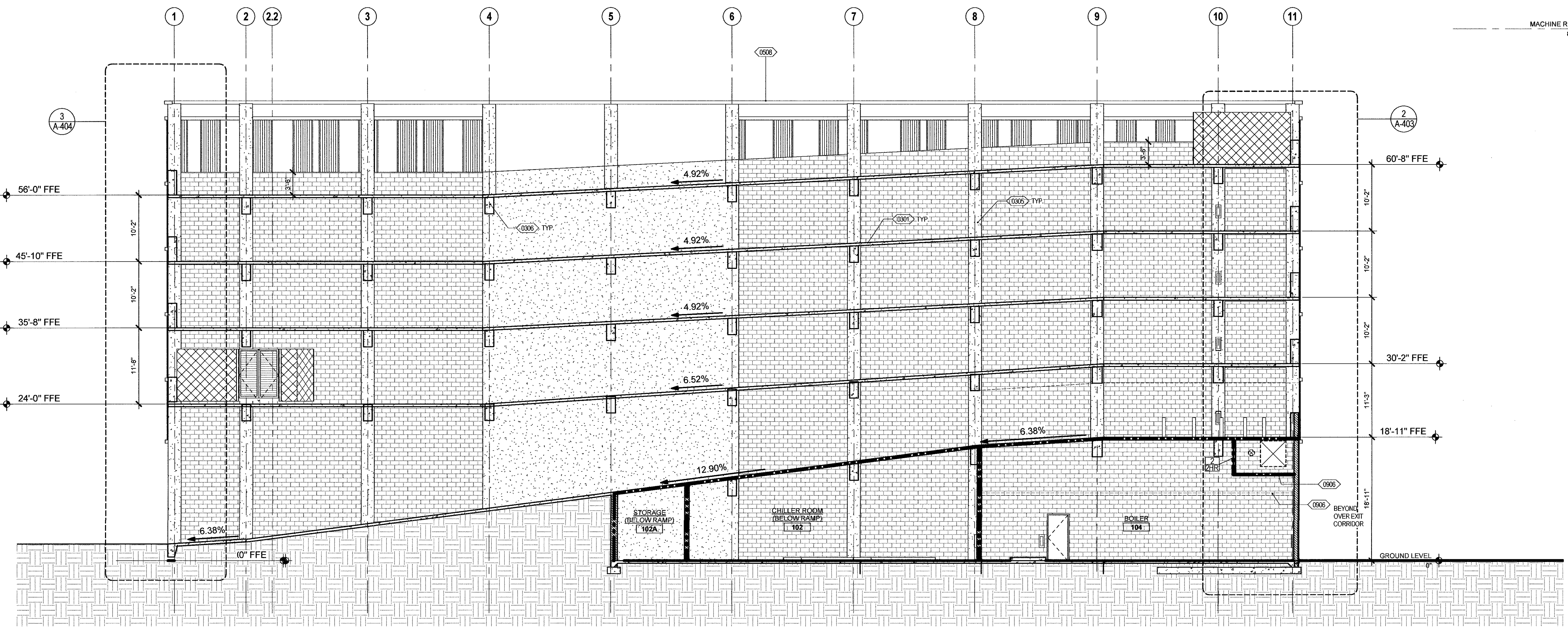
- 0301 CONCRETE SLAB PER STRUCTURAL
- 0305 CAST IN PLACE CONCRETE COLUMN PER STRUCTURAL - PAINT
- 0306 CAST IN PLACE CONCRETE BEAM PER STRUCTURAL
- 0307 42" CONCRETE STEM WALL
- 0505 CABLE BARRIER RAILING, DEFERRED APPROVAL
- 0506 METAL PERFORATED SCREEN PANELS
- 0508 METAL COPING
- 0906 2-HOUR RATED CEILING, REFER TO DETAIL 13/A-803
- 2101 SURFACE MOUNTED FIRE EXTINGUISHER CABINET PER DETAIL 17/A-801

**KEYNOTES**

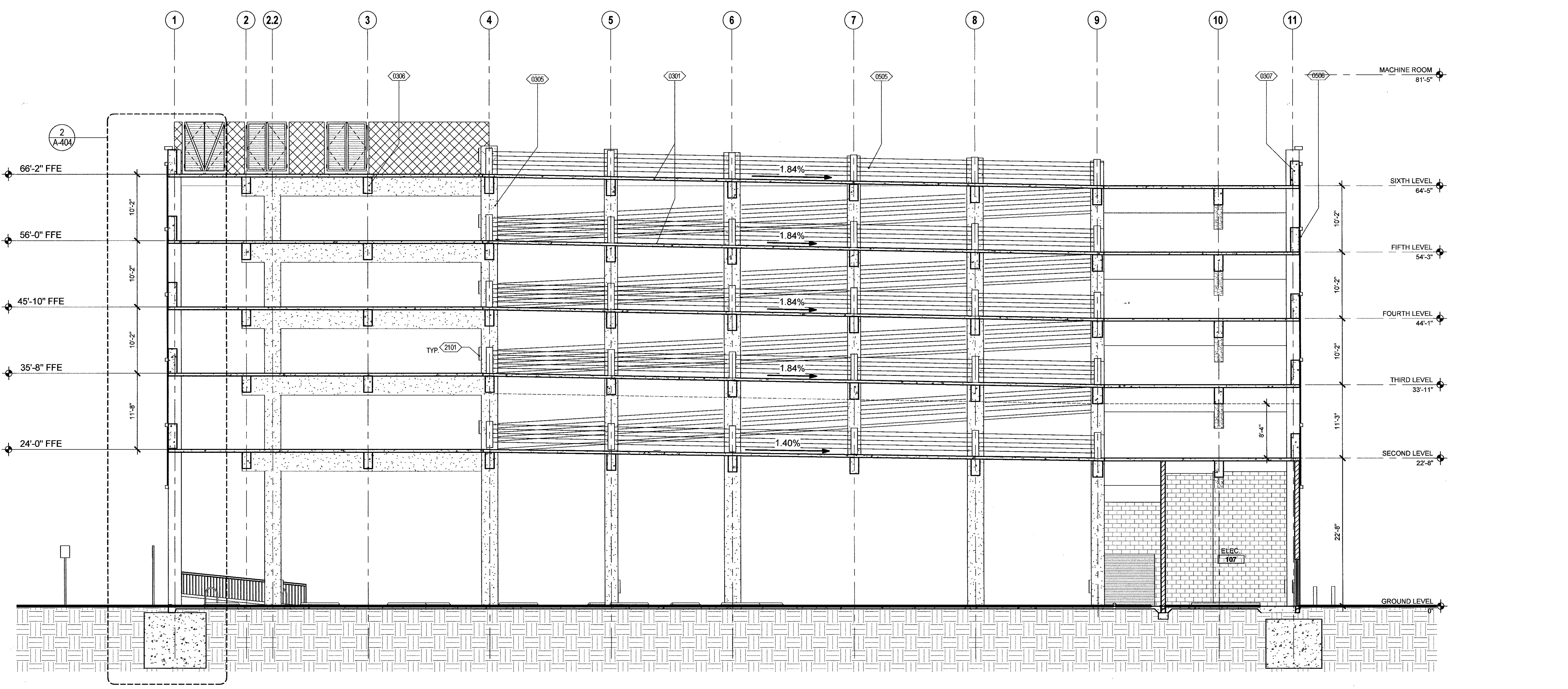
- INDICATES REQUIRED 2 HR. RATED UL ASSEMBLY
- INDICATES REQUIRED 3 HR. RATED UL ASSEMBLY

NOTE: WHERE REQUIRED UL ASSEMBLIES ARE INDICATED ON PLANS AND SECTIONS, REFERENCE SHEET A-007 AND A-008 FOR ASSOCIATED WALLS TYPES AND RATED TOE, HEAD, AND WALL JOINT ASSEMBLIES.

**WALL LEGEND**

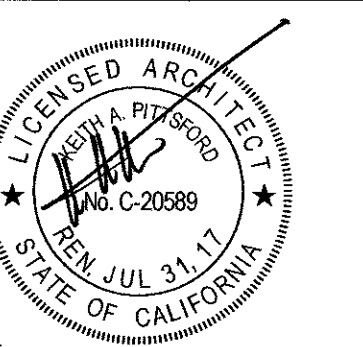


**SECTION A** 1/8" = 1'-0" (A)



**SECTION B** 1/8" = 1'-0" (B)





SUBMITTAL SCHEDULE:

SCHEMATIC DESIGN	04/17/2014
50% PRELIM. DESIGN	05/14/2014
100% PRELIM. DESIGN	05/28/2014
50% CONST. DOCS.	07/02/2014
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ASH#007 - SFM RESUB.	07/28/2015
ASH#011 - SFM RESUB. 2	11/06/2015
ASH#015 - SFM RESUB. 3	03/03/2016

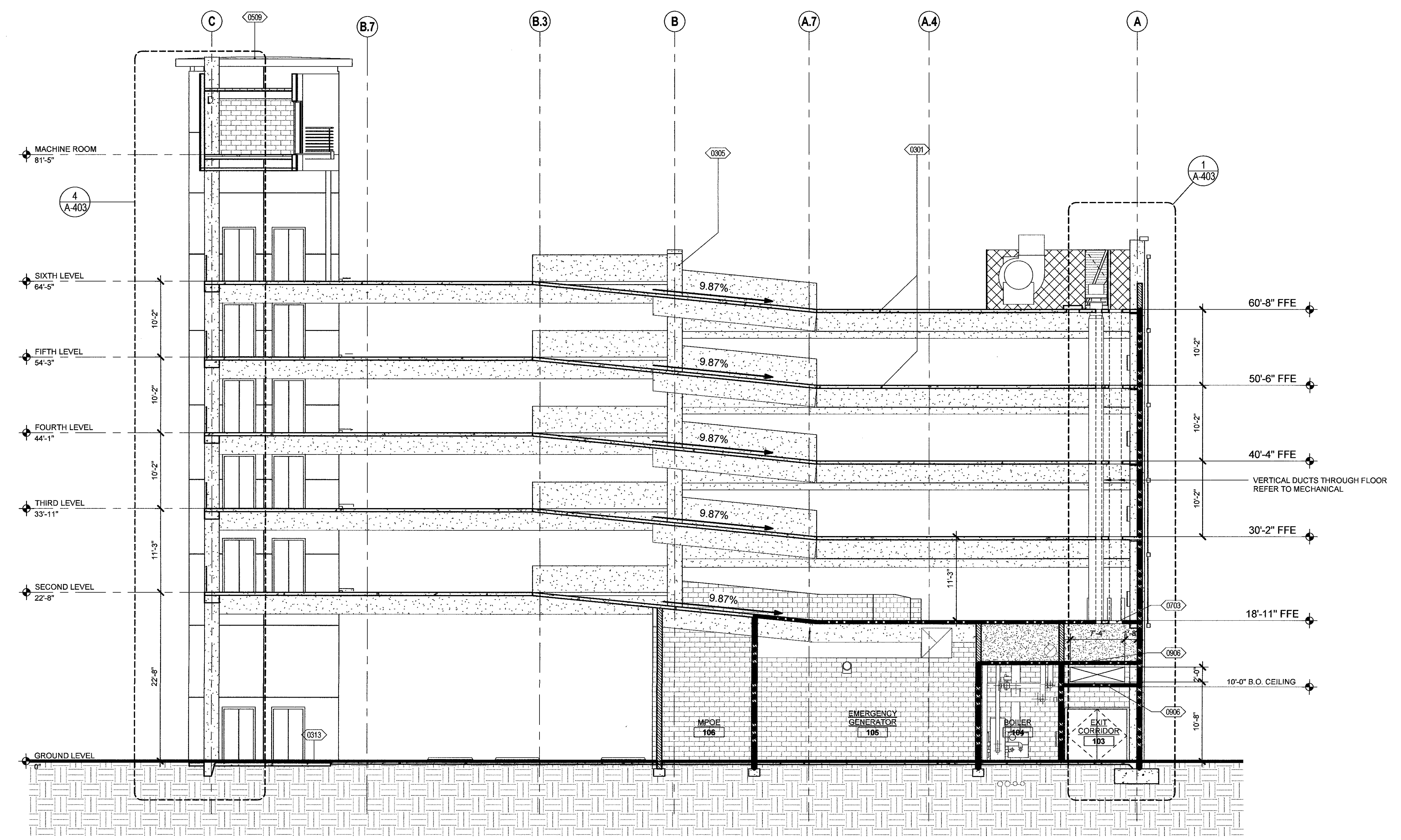
- 0301 CONCRETE SLAB PER STRUCTURAL
- 0305 CAST IN PLACE CONCRETE COLUMN PER STRUCTURAL - PAINT
- 0306 CAST IN PLACE CONCRETE BEAM PER STRUCTURAL
- 0307 4" CONCRETE STEM WALL
- 0309 CONCRETE FOUNDATION PER STRUCTURAL
- 0313 DECORATIVE CONCRETE PER LANDSCAPE DRAWINGS
- 0501 METAL PAN STAIR
- 0502 STAIR 1 LANDING GUARDRAIL PER DETAIL 21A802
- 0503 STAIR 1 GAIRD AND HANDRAIL PER DETAILS 22 & 23A802
- 0506 METAL PERFORATED SCREEN PANELS
- 0509 METAL FASCIA
- 0705 COORDINATE THROUGH-PENETRATION FIREPROOFING WITH UL ASSEMBLIES ON SHEETS A-007 AND A-008
- 0906 2-HOUR RATED CEILING, REFER TO DETAIL 13A-803
- 1106 BICYCLE RACK REFER TO DETAIL 25A-801 FOR ATTACHMENT
- 2601 LIGHT POLE AND POLE BASE REFER TO DETAIL 31A-802

**KEYNOTES**

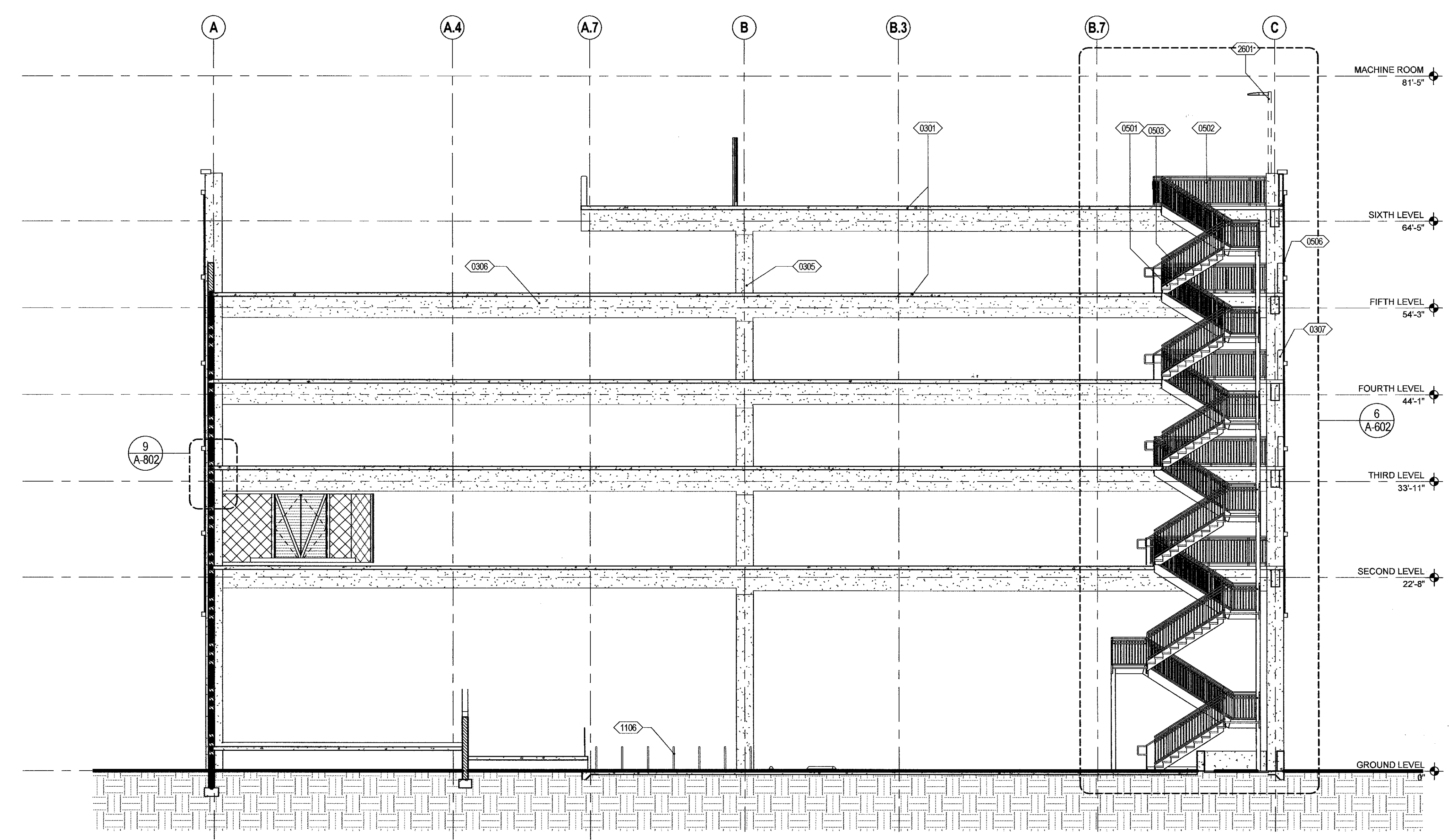
- INDICATES REQUIRED 2 HR. RATED UL ASSEMBLY
  - INDICATES REQUIRED 3 HR. RATED UL ASSEMBLY
- NOTE: WHERE REQUIRED UL ASSEMBLIES ARE INDICATED ON PLANS AND SECTIONS, REFERENCE SHEET A-007 AND A-008 FOR ASSOCIATED WALL TYPES AND RATED TOE, HEAD, AND WALL JOINT ASSEMBLIES.

**WALL LEGEND**

VERTICAL DUCTS THROUGH FLOOR REFER TO MECHANICAL.



**SECTION 11.5** 1/8" = 1'-0" (1)



**SECTION 1.5** 1/8" = 1'-0" (2)

OFFICE OF THE STATE FIRE MARSHAL  
APPROVED FIRE AND LIFE SAFETY  
Reviewed by: *[Signature]*  
Stanley Cochran, SFPM

APR 27 2016

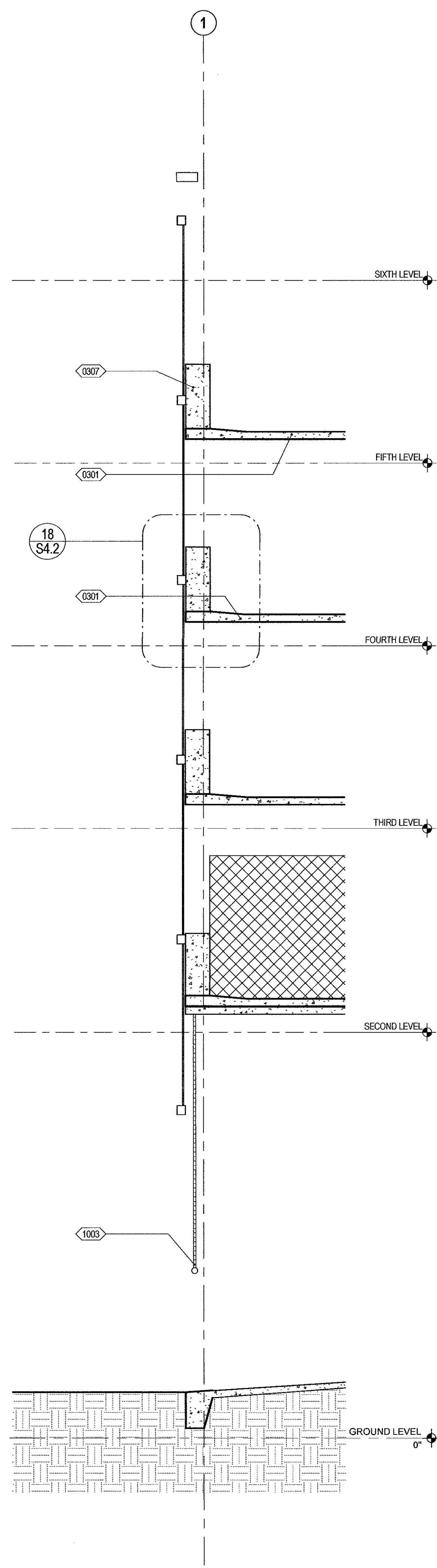
Approval of this plan does not authorize or approve any revision or deviation from applicable regulations. Final approval is subject to field inspection. One set of approved plans shall be available on the project site at all times.



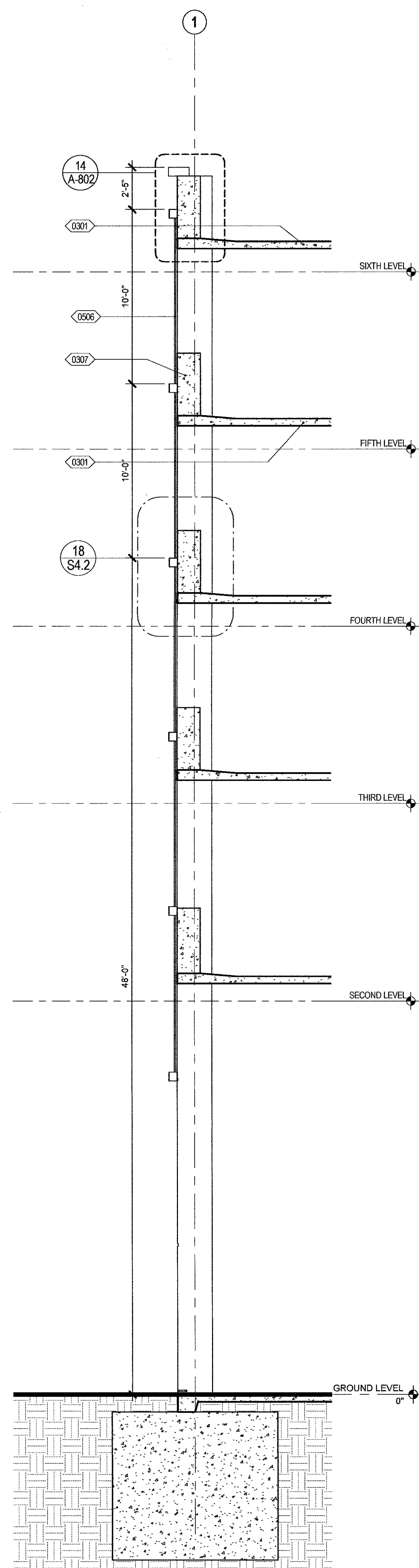




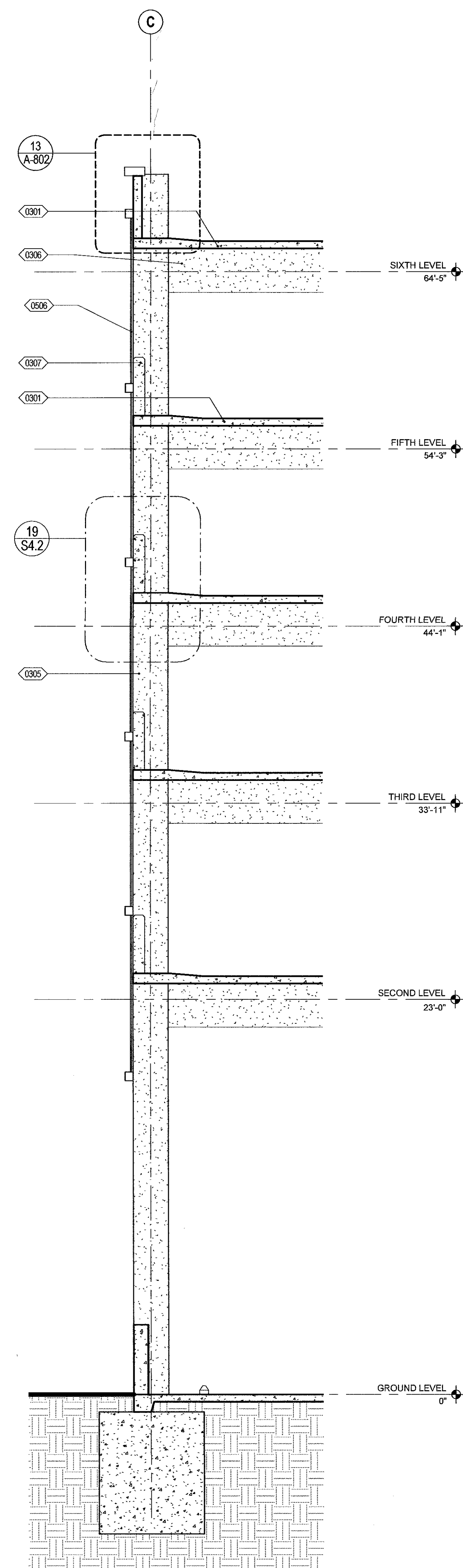
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**WALL SECTION** 1/4" = 1'-0" ③



**WALL SECTION** 1/4" = 1'-0" ②



**WALL SECTION** 1/4" = 1'-0" ①

- 0301 CONCRETE SLAB PER STRUCTURAL
- 0305 CAST IN PLACE CONCRETE COLUMN PER STRUCTURAL - PAINT
- 0306 CAST IN PLACE CONCRETE BEAM PER STRUCTURAL
- 0307 42" CONCRETE STEM WALL
- 0506 METAL PERFORATED SCREEN PANELS
- 1003 CLEARANCE BAR SEE DETAIL S/A801

**KEYNOTES**



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**SAN DIEGO STATE UNIVERSITY**  
SAN DIEGO, CA

**SOUTH CAMPUS PLAZA DESIGN-BUILD PARKING STRUCTURE**

5840 LINDO PASSEO  
SAN DIEGO STATE UNIVERSITY

**SUBMITTAL SCHEDULE:**

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ASH#015 - SFM RESUB. 3	03/03/2016

OFFICE OF THE STATE FIRE MARSHAL  
APPROVED FIRE AND PLUMBING ONLY  
Reviewed by: [Signature]

APR 27 2016

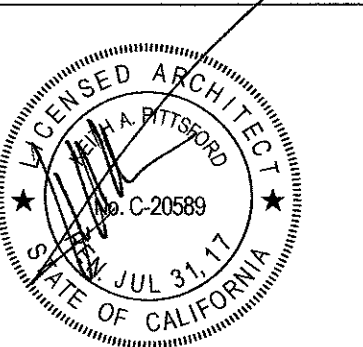
Approval of this plan does not authorize or approve any addition or deviation from applicable regulations. Final approval is subject to field inspection. One set of approved plans shall be available on the project site at all times.

PROJECT NO: 21305-G-50

**WALL SECTIONS**

**A-404**





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 SAN DIEGO STATE UNIVERSITY

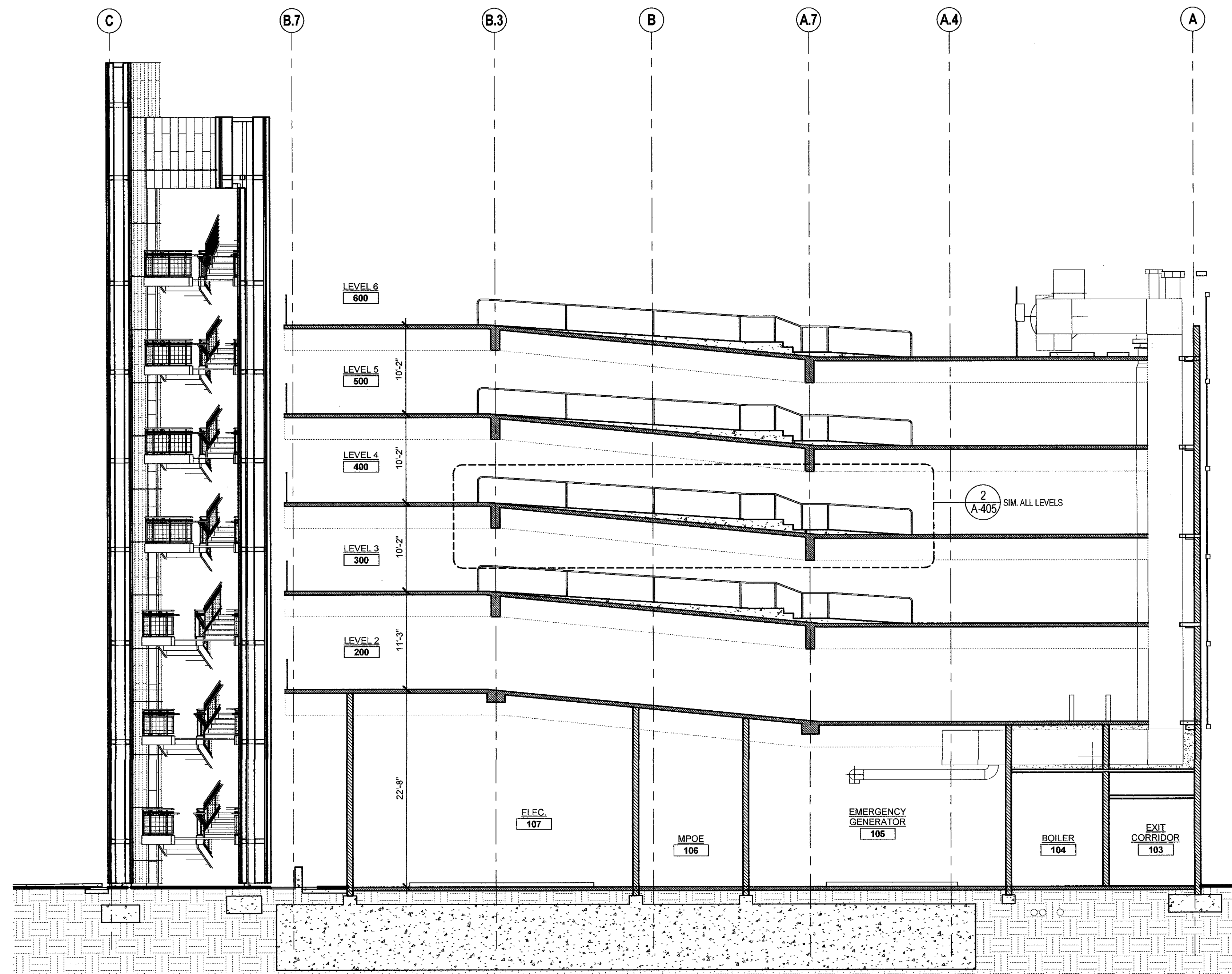
SUBMITTAL SCHEDULE:

SCHEMATIC DESIGN	04/17/2014
50% PRELIM. DESIGN	05/14/2014
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100% BACKCHECK SET 3	03/20/2015
ASH#005	07/07/2015
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ASH#011 - SFM RESUB. 2	11/06/2015
ASH#015 - SFM RESUB. 3	03/03/2016

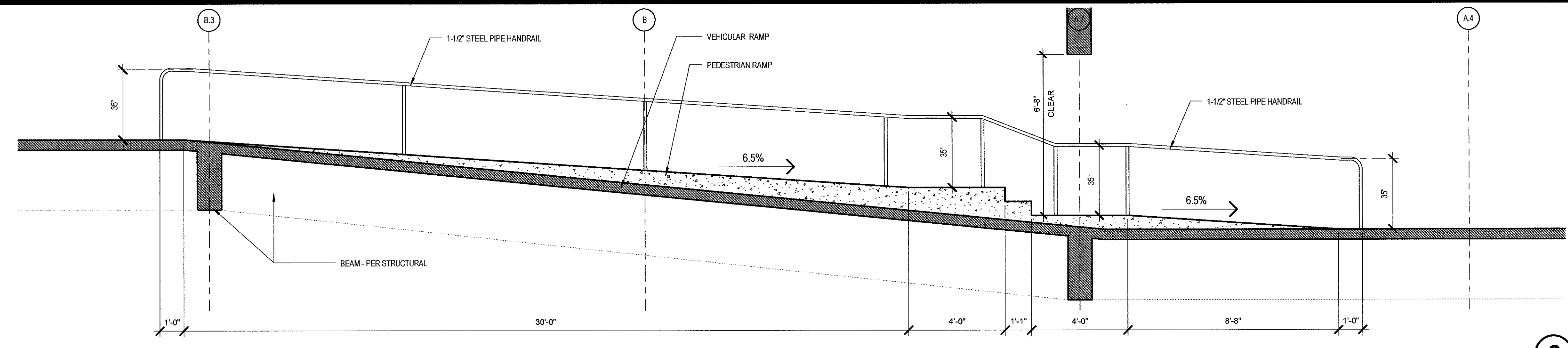
PROJECT NO: 21305-G-50

**PEDESTRIAN RAMP**

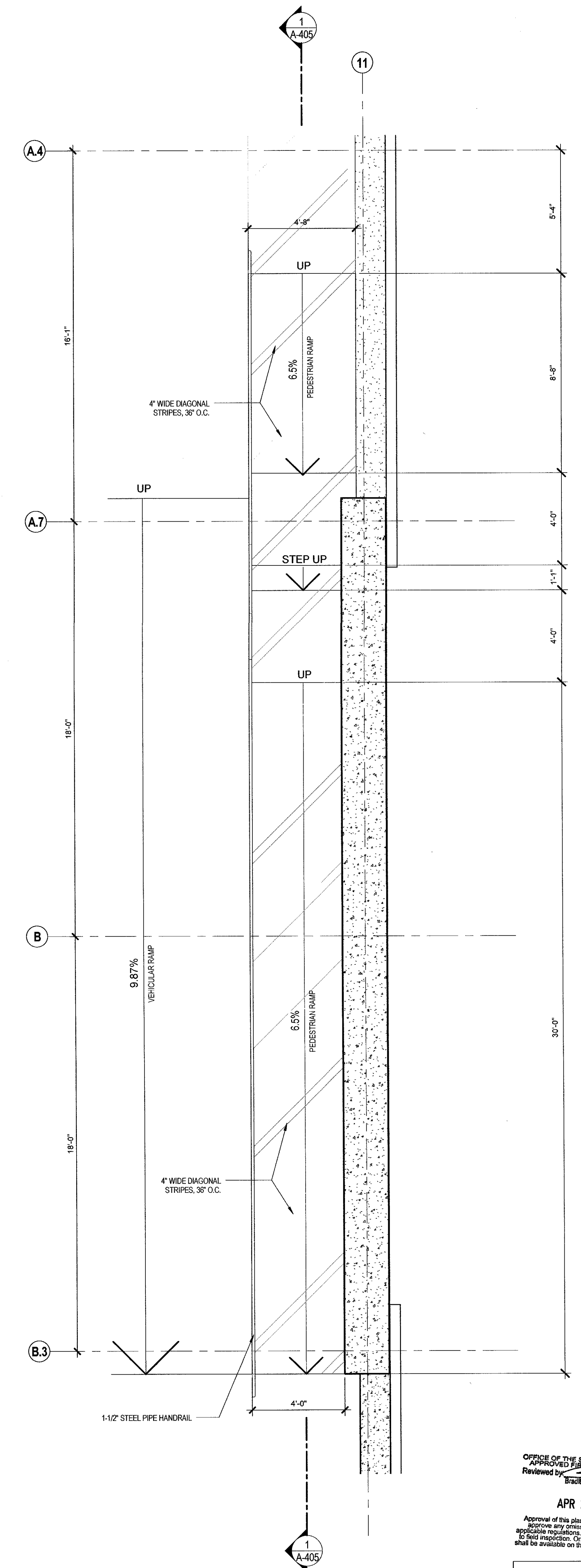
**A-405**



**SECTION AT PEDESTRIAN RAMP 1** 1/8" = 1'-0"



**PEDESTRIAN RAMP SECTION 2** SCALE: 3/8" = 1'-0"



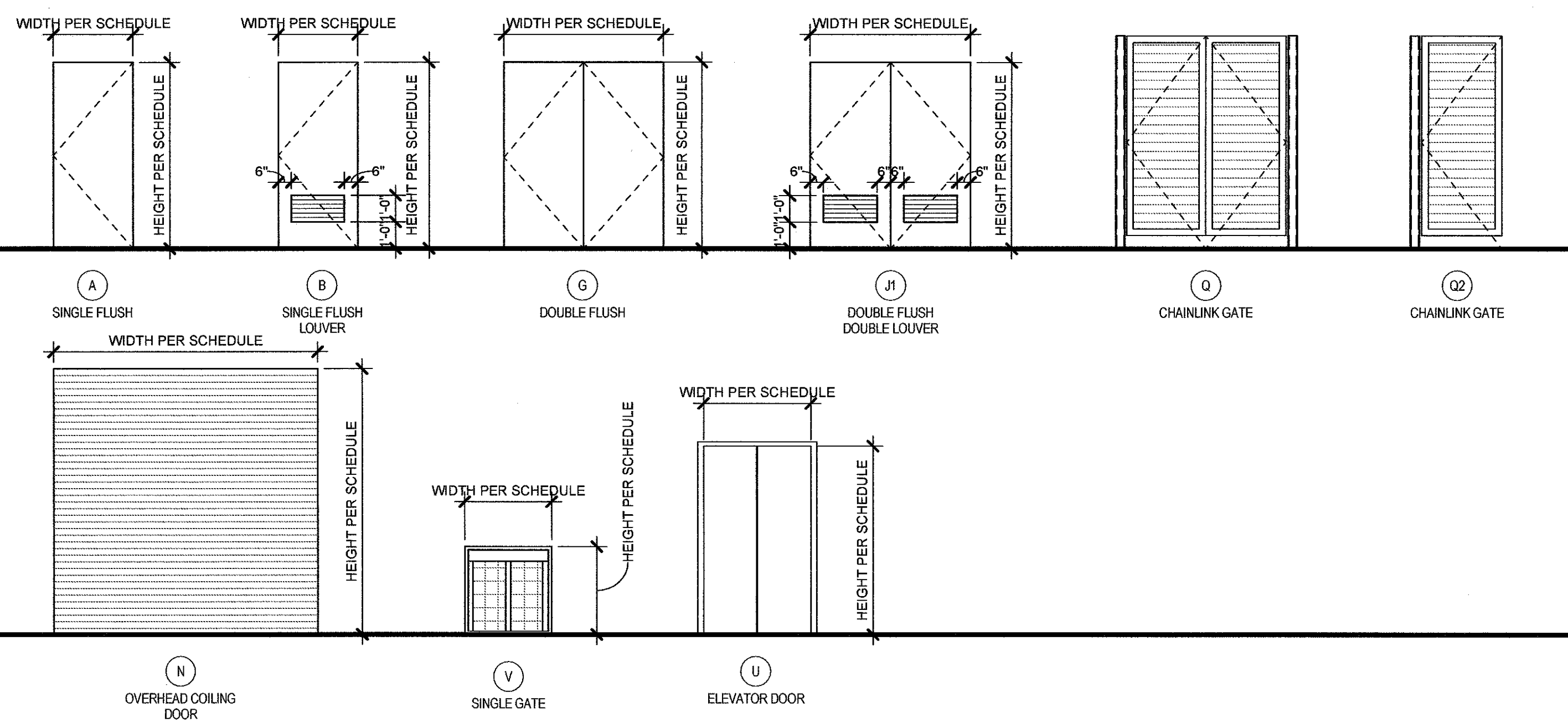
**PEDESTRIAN RAMP - PLAN 3** SCALE: 3/8" = 1'-0"

OFFICE OF THE STATE ARCHITECT  
 APPROVED BY AND BOUND BY  
 Reviewed by: [Signature]  
 APR 27 2016  
 Approval of this plan does not authorize or disapprove any extension or deviation from applicable regulations. Final approval is subject to final inspection. One set of approved plans shall be available on the project site at all times.

IDENTIFICATION STAMP  
 DIVISION OF THE STATE ARCHITECT  
 OFFICE OF REGULATION SERVICES  
 FILE #  
 APR # 04-114204  
 AC \_\_\_\_\_ DATE \_\_\_\_\_

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DOOR TYPES

NO.	SIZE		DOOR TYPE	HARDWARE SET	DOOR		FRAME		DETAILS			REMARKS		
	WIDTH	HEIGHT			MATERIAL	FINISH	MATERIAL	FINISH	RATING	HEAD	JAMB		SILL	
100A	4'-0"	7'-0"	U		HM	PFX-1	HC	HM	PFX-1	10A-501	10A-501	11A-501	6	
100B	4'-0"	7'-0"	U		HM	PFX-1	HC	HM	PFX-1	10A-501	10A-501	11A-501	6	
102A	8'-0"	7'-0"	G	33	HM	PFX-1	HC	HM	PFX-1	90 MIN	10A-501	2A-501	3A-501	
102B	3'-0"	7'-0"	A	42	HM	PFX-1	HC	HM	PFX-1	3-HR	1A-501	2A-501	3A-501	
102C	3'-0"	7'-0"	A	42	HM	PFX-1	HC	HM	PFX-1	90 MIN	1A-501	2A-501	3A-501	
102D	3'-0"	7'-0"	A	42	HM	PFX-1	HC	HM	PFX-1	90 MIN	1A-501	2A-501	3A-501	
103	8'-0"	7'-0"	G	33	HM	PFX-1	HC	HM	PFX-1	-	1A-501	2A-501	3A-501	
104A	6'-0"	7'-0"	J1	21P	HM	PFX-1	HC	HM	PFX-1	-	1A-501	2A-501	3A-501	3
104B	3'-0"	7'-0"	A	42	HM	PFX-1	HC	HM	PFX-1	90 MIN	1A-501	2A-501	3A-501	
105	6'-0"	7'-0"	G	21P	HM	PFX-1	HC	HM	PFX-1	-	1A-501	2A-501	3A-501	3
105B	3'-0"	7'-0"	B	24	HM	PFX-1	HC	HM	PFX-1	-	4A-501	5A-501	6A-501	3
107A	6'-0"	7'-0"	J1	21P	HM	PFX-1	HC	HM	PFX-1	-	1A-501	2A-501	3A-501	3
107B	3'-0"	7'-0"	B	24	HM	PFX-1	HC	HM	PFX-1	-	4A-501	5A-501	6A-501	3
108	8'-0"	8'-0"	N	24	HM	PFX-1	HC	HM	PFX-1	3HR	9A-501	12A-501	13A-501	7
110	3'-0"	7'-0"	A	42	HM	PFX-1	HC	HM	PFX-1	3HR	1A-501	2A-501	3A-501	
200A	4'-0"	7'-0"	U		HM	PFX-1	HC	HM	PFX-1	-	10A-501	10A-501	11A-501	6
200B	4'-0"	7'-0"	U		HM	PFX-1	HC	HM	PFX-1	-	10A-501	10A-501	11A-501	6
201	3'-0"	8'-0"	Z		CL	PFX-1	-	-	PFX-1	-	-	-	-	
202	3'-0"	8'-0"	Z		CL	PFX-1	-	-	PFX-1	-	-	-	-	
300A	4'-0"	7'-0"	U		HM	PFX-1	HC	HM	PFX-1	-	10A-501	10A-501	11A-501	6
300B	4'-0"	7'-0"	U		HM	PFX-1	HC	HM	PFX-1	-	10A-501	10A-501	11A-501	6
400A	4'-0"	7'-0"	U		HM	PFX-1	HC	HM	PFX-1	-	10A-501	10A-501	11A-501	6
400B	4'-0"	7'-0"	U		HM	PFX-1	HC	HM	PFX-1	-	10A-501	10A-501	11A-501	6
500A	4'-0"	7'-0"	U		HM	PFX-1	HC	HM	PFX-1	-	10A-501	10A-501	11A-501	6
500B	4'-0"	7'-0"	U		HM	PFX-1	HC	HM	PFX-1	-	10A-501	10A-501	11A-501	6
800A	4'-0"	7'-0"	U		HM	PFX-1	HC	HM	PFX-1	-	10A-501	10A-501	11A-501	6
800B	4'-0"	7'-0"	U		HM	PFX-1	HC	HM	PFX-1	-	10A-501	10A-501	11A-501	6
901	3'-0"	8'-0"	Z		Q				PFX-1	-	-	-	24A-801	
902	3'-0"	8'-0"	Z		Q				PFX-1	-	-	-	24A-801	
903	3'-0"	8'-0"	Z		Q				PFX-1	-	-	-	24A-801	
904	3'-0"	8'-0"	Z		Q2				PFX-1	-	-	-	24A-801	
905	3'-0"	8'-0"	Z		V				PFX-1	-	-	-	24A-801	
701	3'-8"	7'-0"	A	H3	HM	PFX-1	HC	HM	PFX-1	-	7A-501	8A-501	9A-501	8

- MATERIALS**
- ALUM ALUMINUM
  - HM HOLLOW METAL
  - WD WOOD
  - STL STEEL
  - CL CHAIN LINK
- FINISHES**
- PF-1 PAINT - SEMI-GLOSS - 0990
  - PF-2 PAINT - EGGSHELL - 0990
  - PF-3 PAINT - SEMI-GLOSS ENAMEL - 0990
  - PF-4 PAINT - FERROUS METAL FINISH, MISC METALS - 0990
  - PF-5 PAINT - GALVANIZED DUCTWORK, ELECT CONDUIT - 0990
  - PF-6 PAINT - EPOXY - 0990
  - PFX-1 PAINT - STEEL DOORS & FRAMES - 0990
  - PFX-2 PAINT - HIGH PERFORMANCE COATING - 0990
  - PFX-3 PAINT - FERROUS METAL FINISH, MISC METALS - 0990
  - PFX-4 PAINT - FLAT FINISH ACRYLIC - 0990
- FF** FACTORY FINISH
- CORE TYPES**
- HC HOLLOW CORE

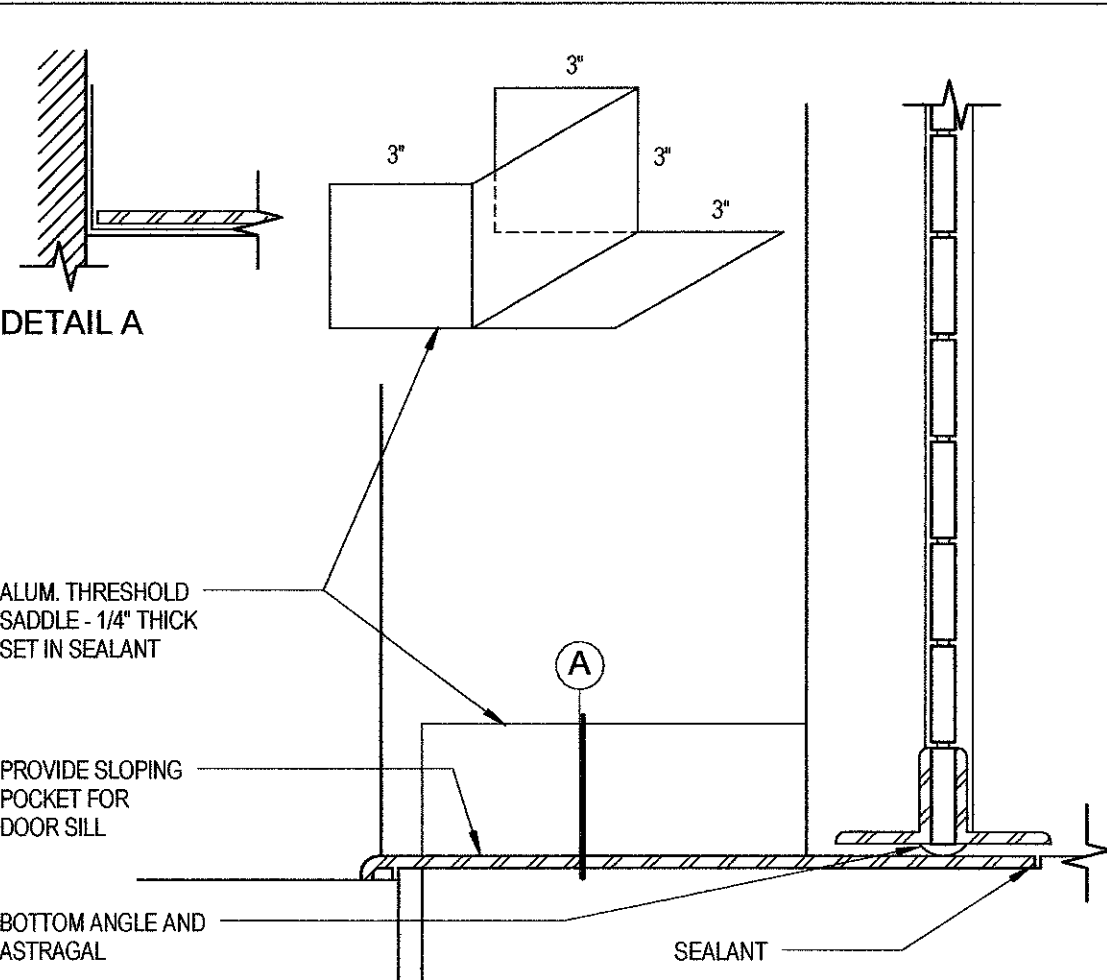
LEGEND

- ROOM IDENTIFICATION SIGNAGE RS-1 - SPEC SECTION 1040 FOR MOUNTING HEIGHT SEE DETAIL 20 / A-801
- STAIR IDENTIFICATION SIGNAGE TO BE LOCATED AT EACH STAIR AT EACH LEVEL SEE DETAIL 15 / A-801
- PANIC HARDWARE
- ELEVATOR DOOR
- AUTOMATIC SELF CLOSING DOOR
- MACHINE ROOM SIGNAGE PER DETAIL 23A-804

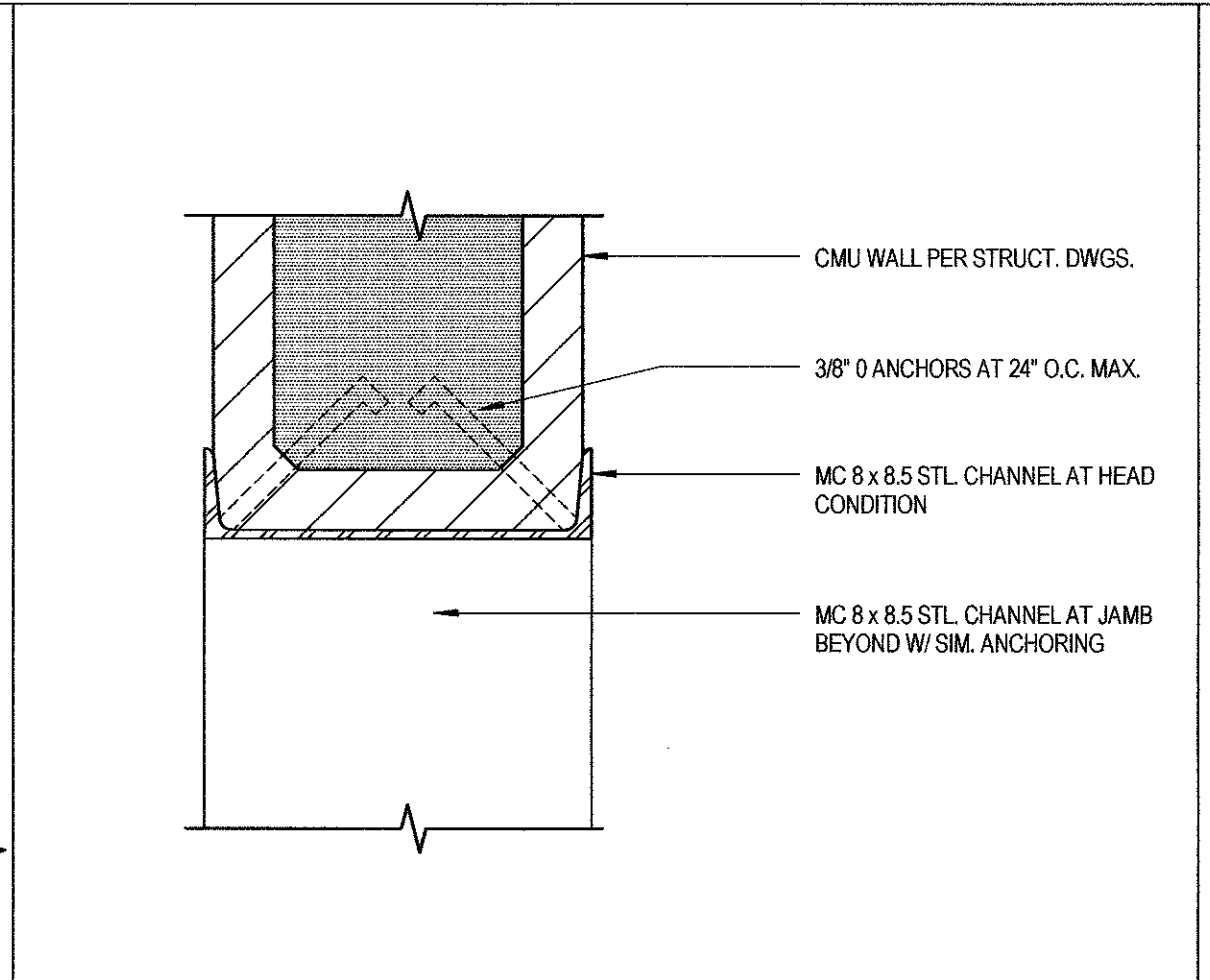
REMARKS

GENERAL NOTES

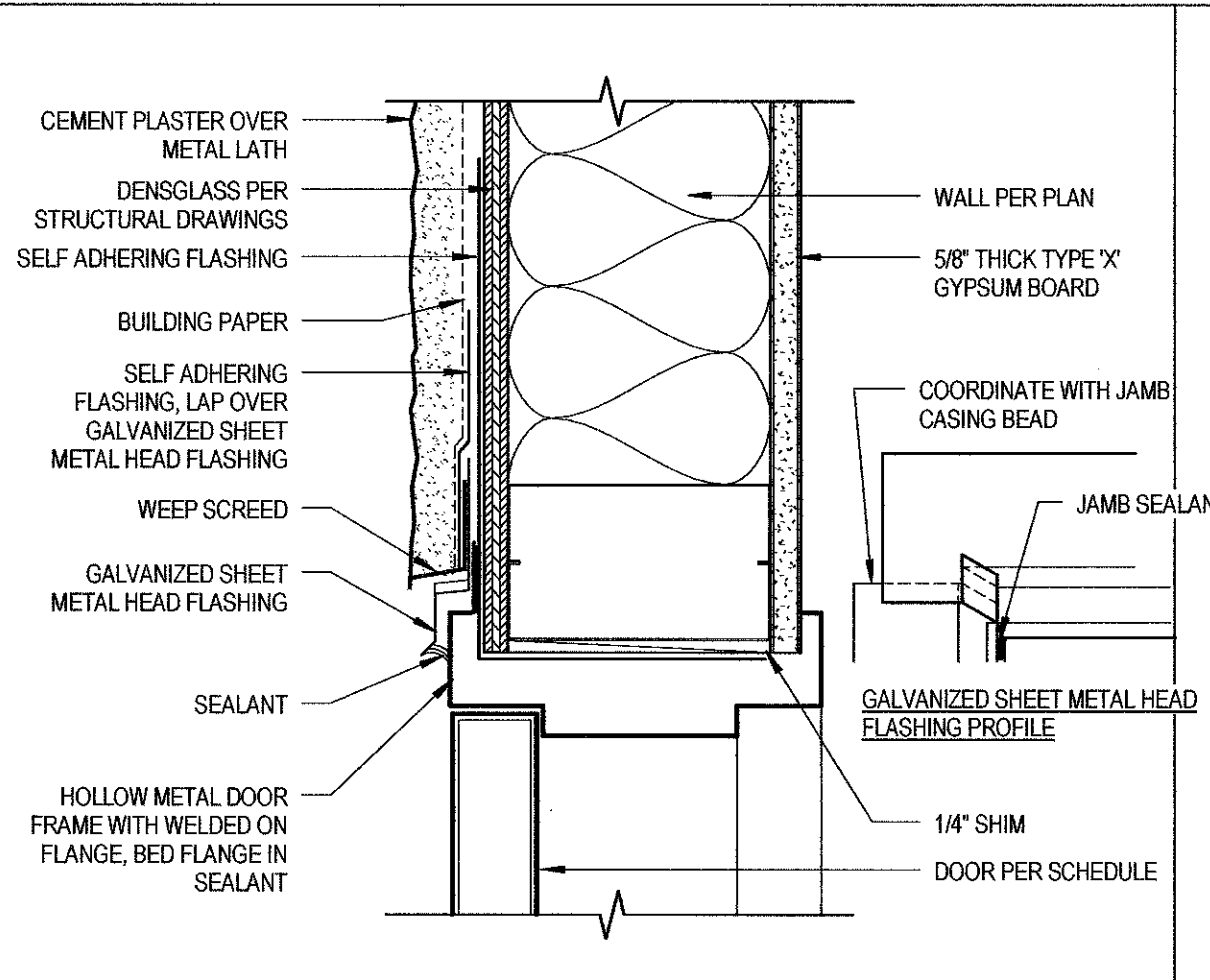
\* PER 2013 CA REFERENCE STANDARDS SECTION 12-7.4 - 3/8" MAX UNDERCUT OF SINGLE DOOR



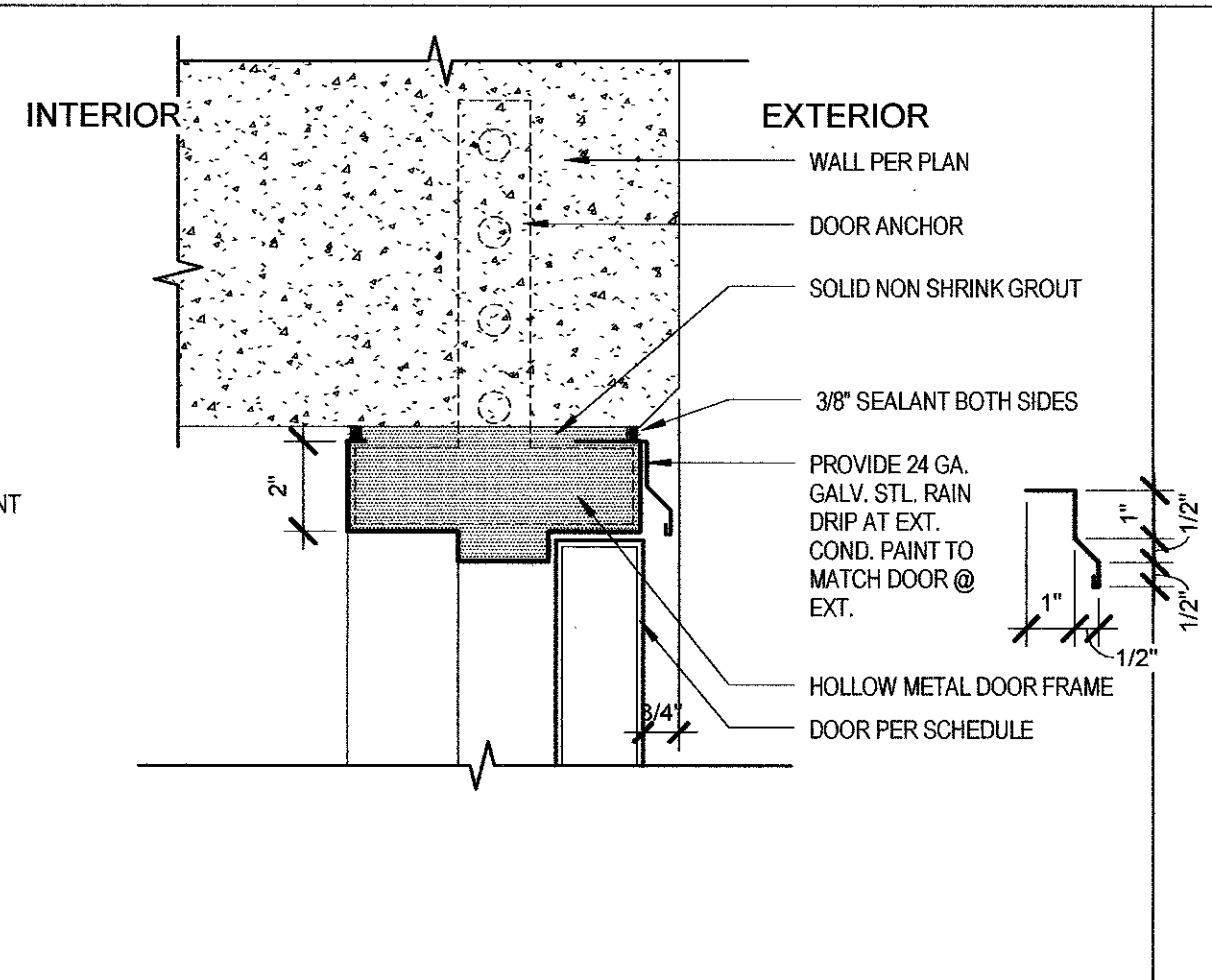
ROLL UP DOOR SILL SCALE: 3" = 1'-0" 13



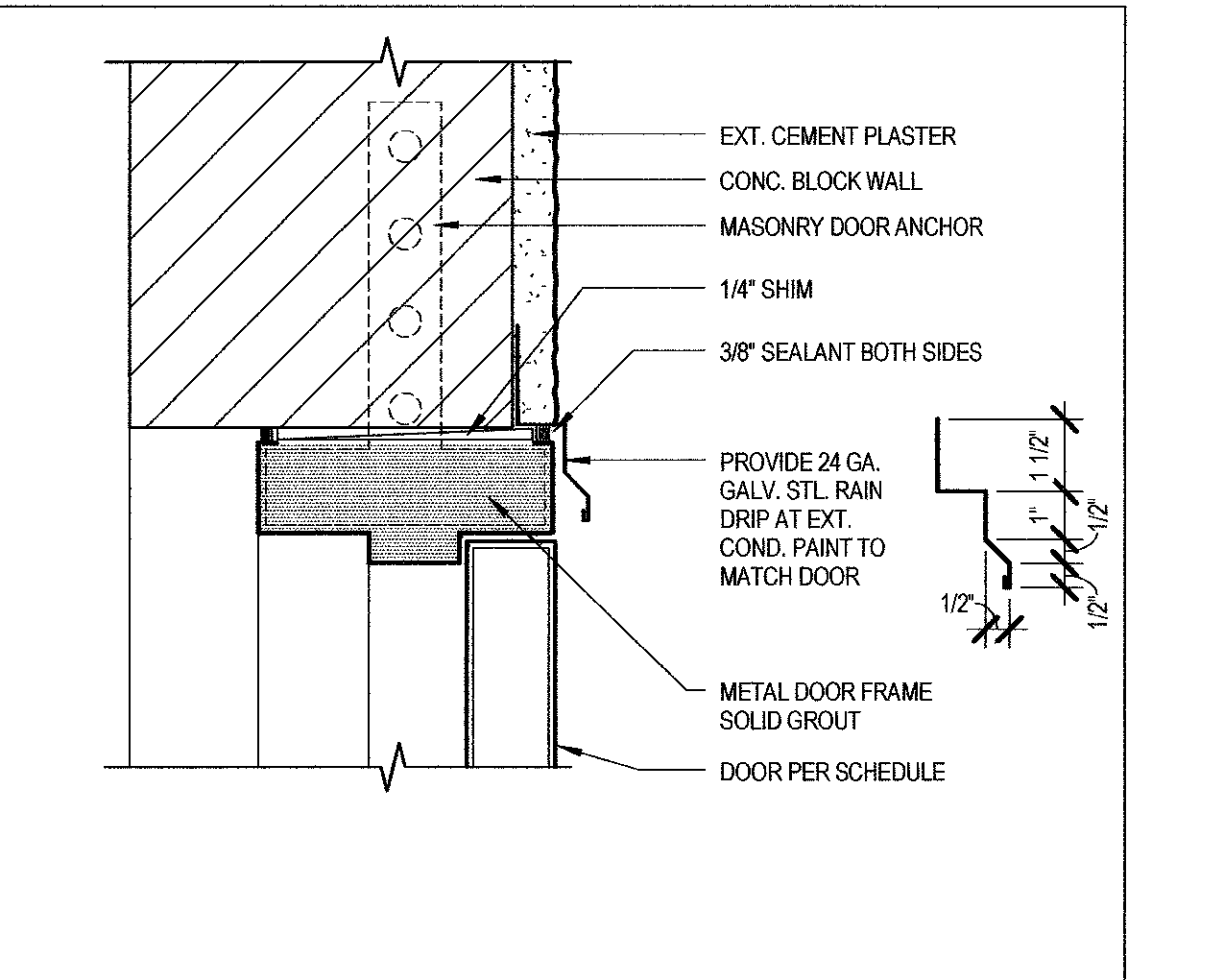
ELEVATOR HEAD/JAMB SCALE: 3" = 1'-0" 10



DOOR HEAD @ METAL STUD SCALE: 3" = 1'-0" 7



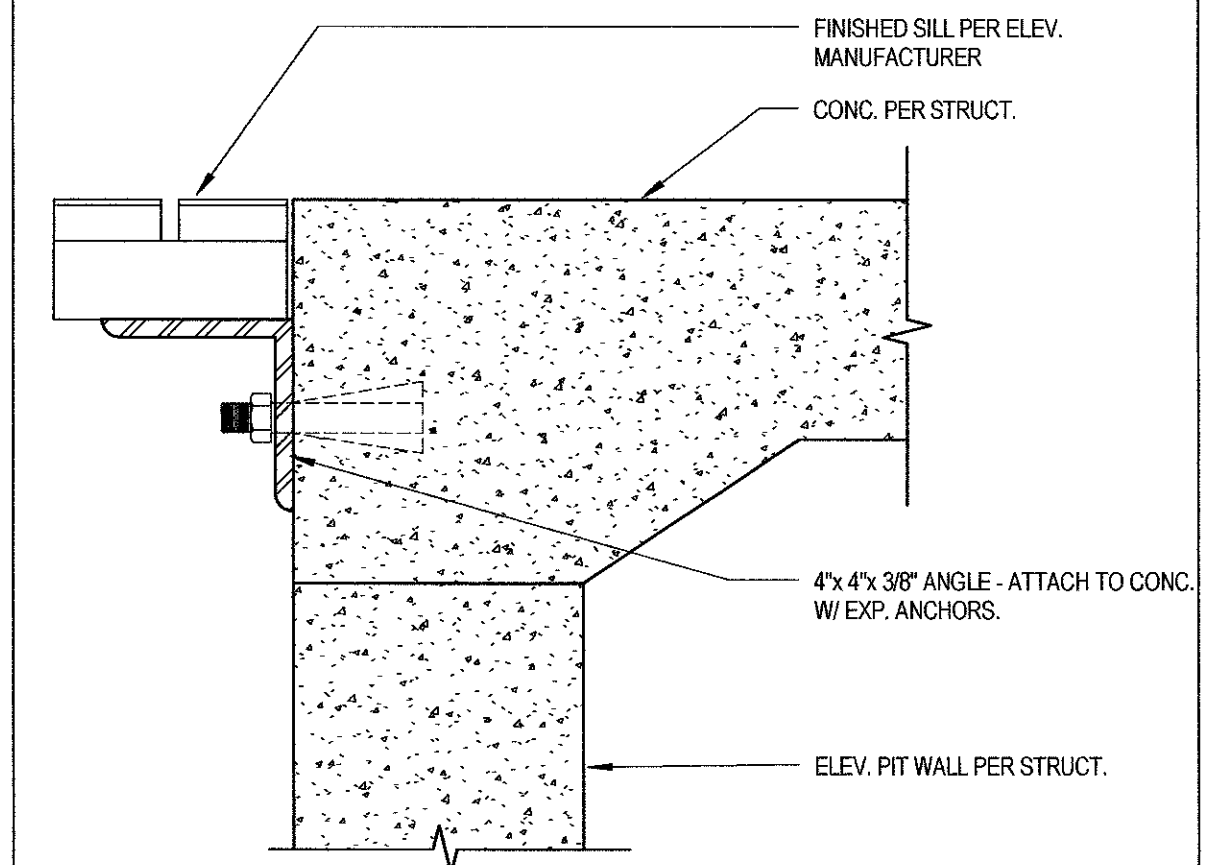
DOOR HEAD @ CONCRETE SCALE: 3" = 1'-0" 4



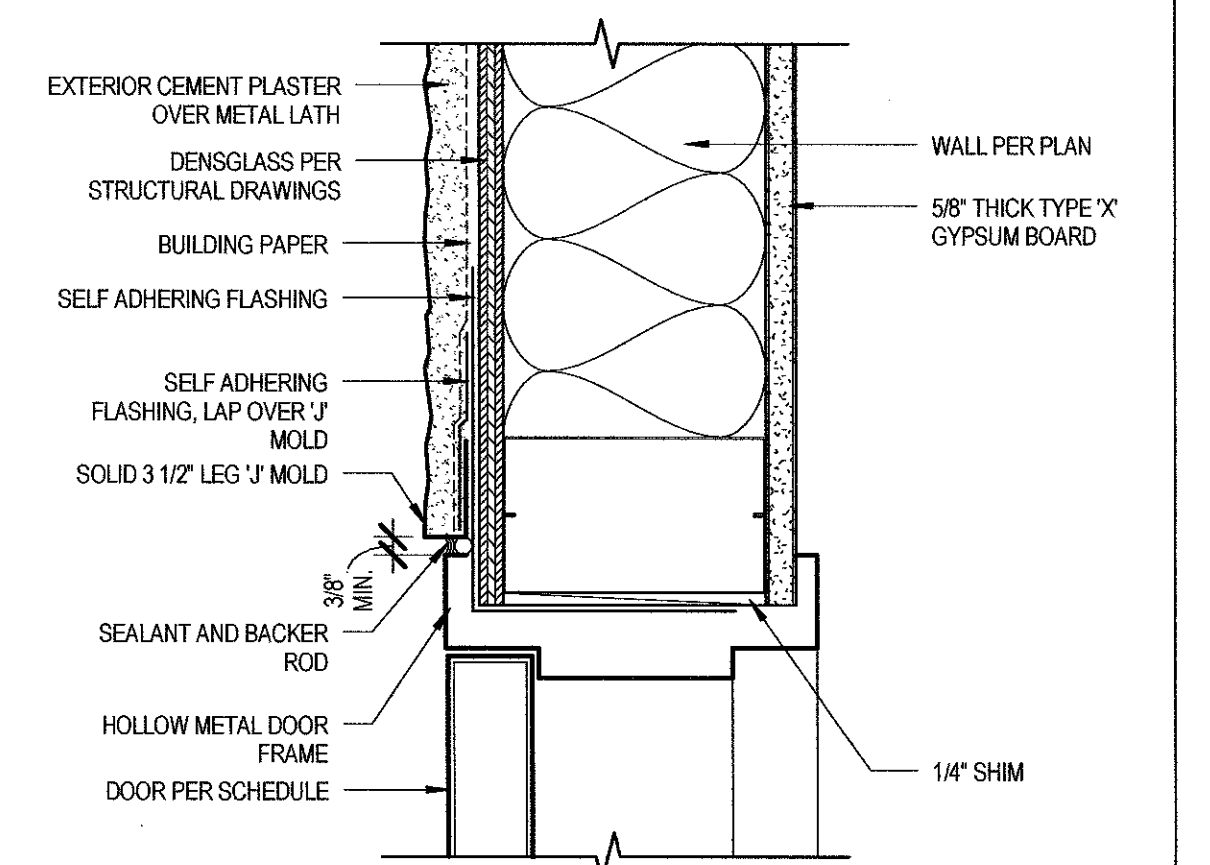
DOOR HEAD @ CMU SCALE: 3" = 1'-0" 1



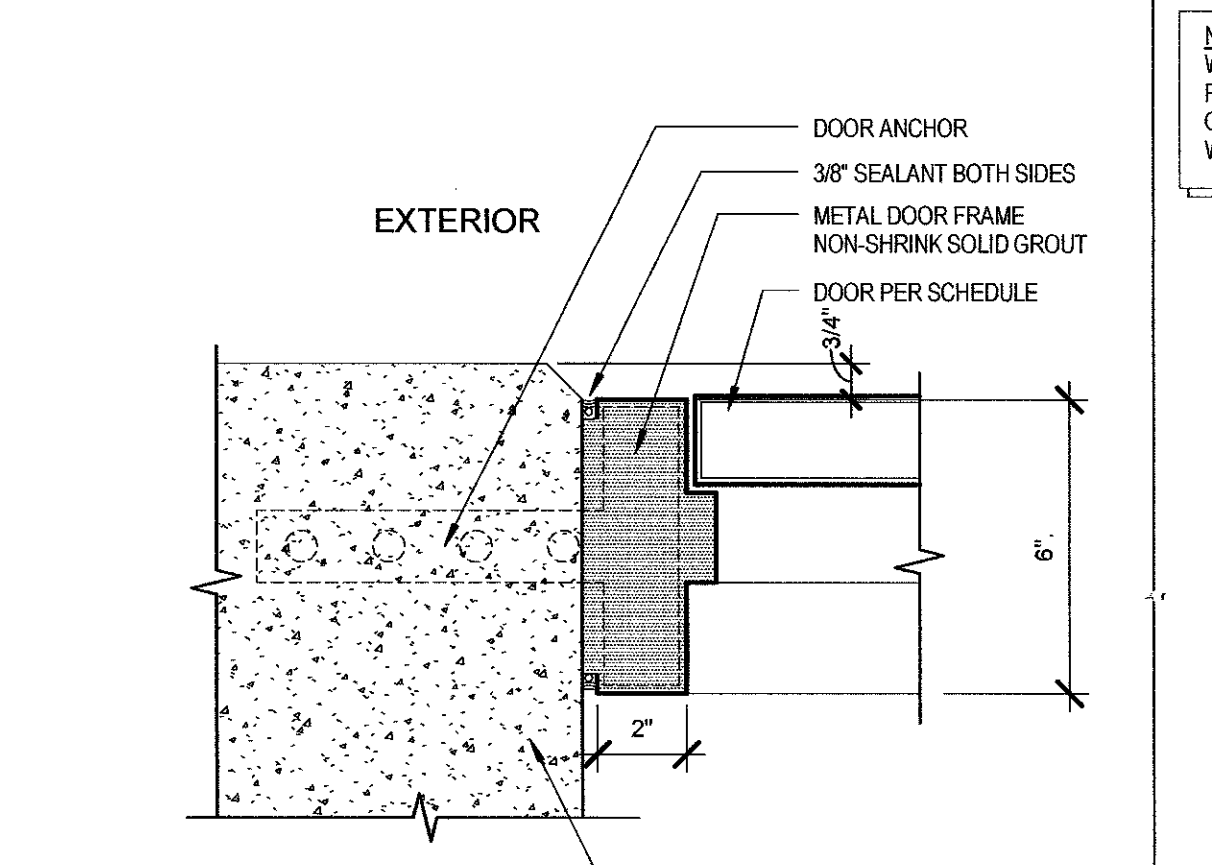
ELEVATOR SILL SCALE: 3" = 1'-0" 11



DOOR JAMB @ METAL STUD SCALE: 3" = 1'-0" 8



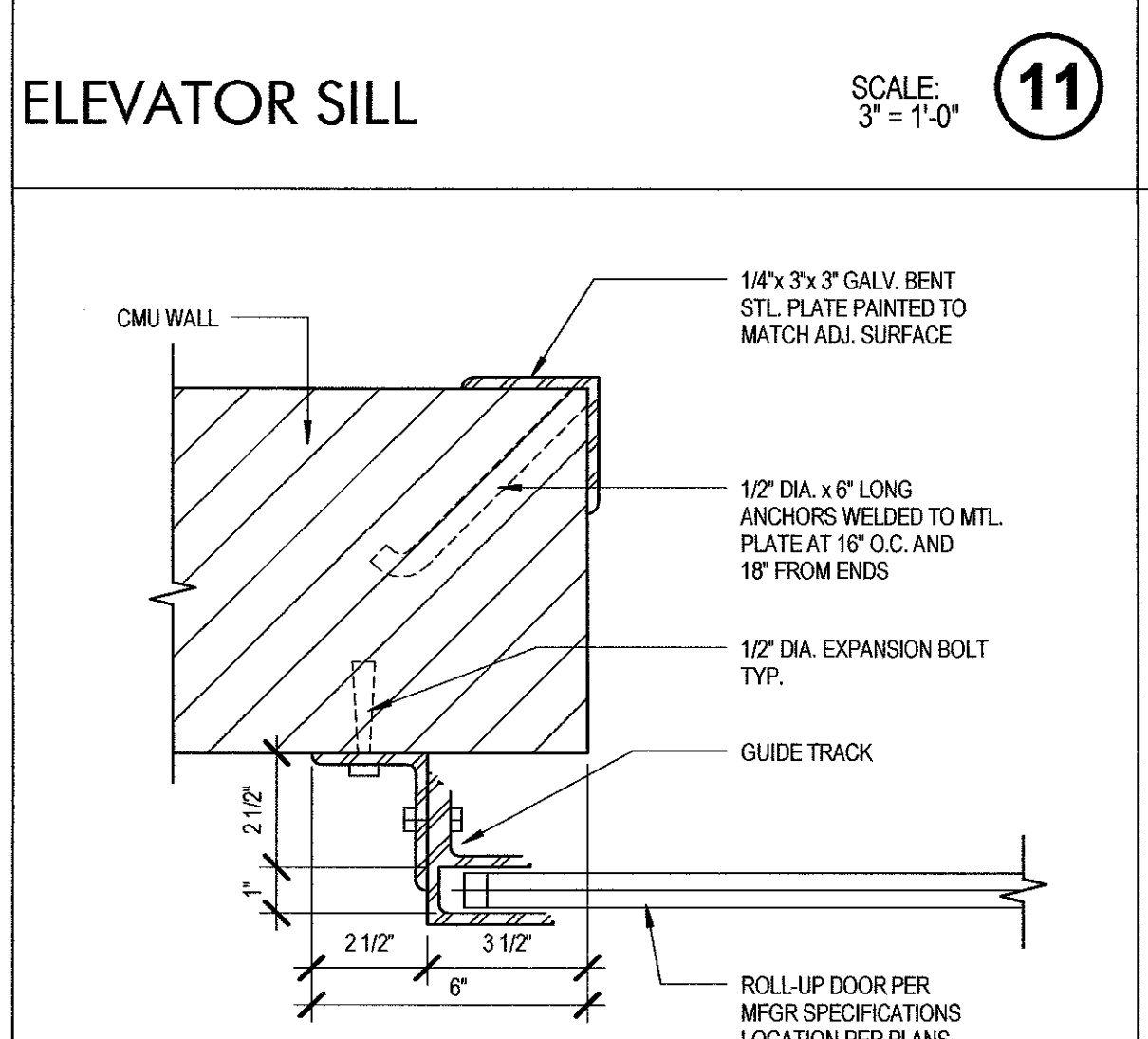
DOOR JAMB @ CONCRETE SCALE: 3" = 1'-0" 5



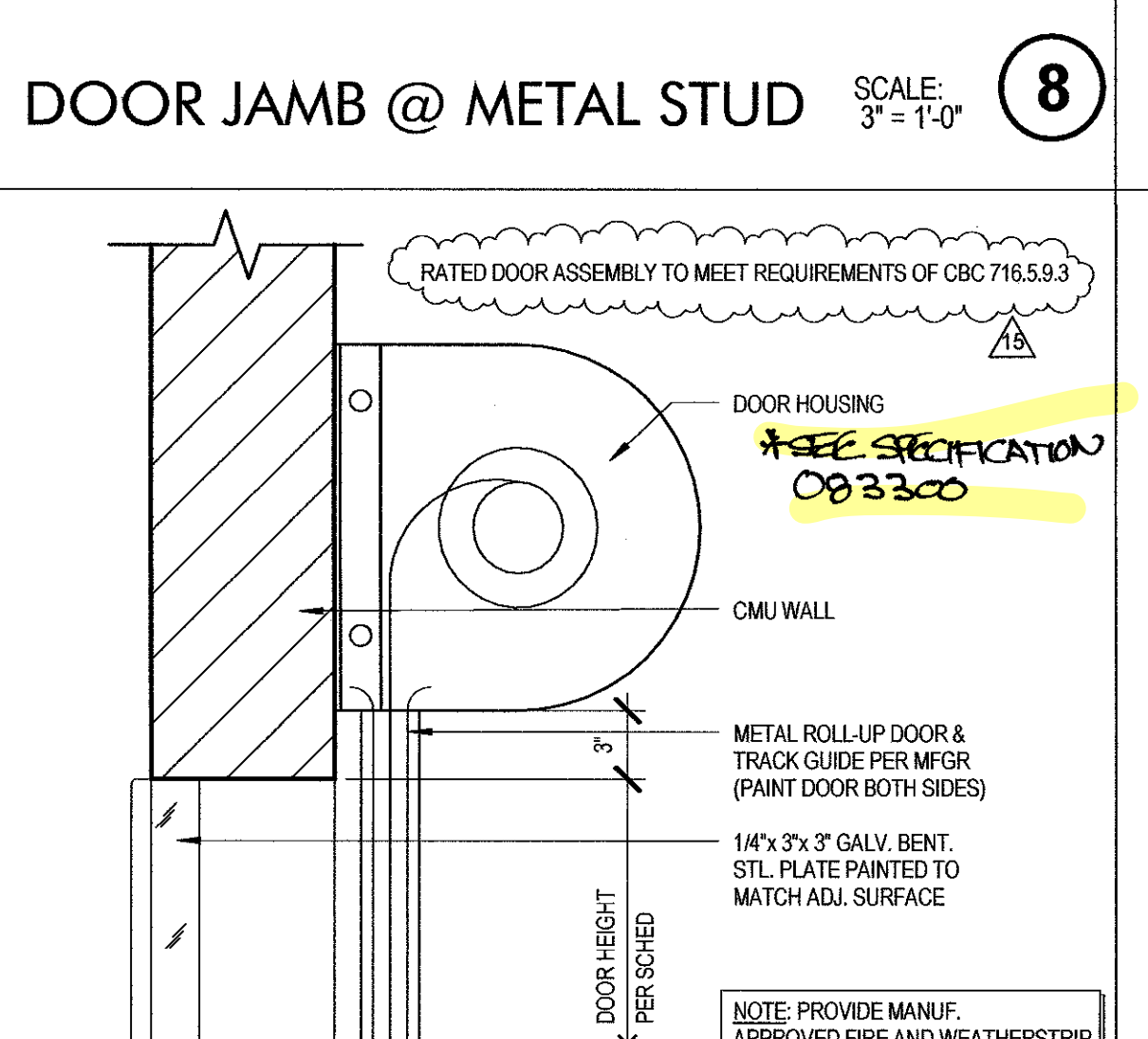
DOOR JAMB @ CMU SCALE: 3" = 1'-0" 2



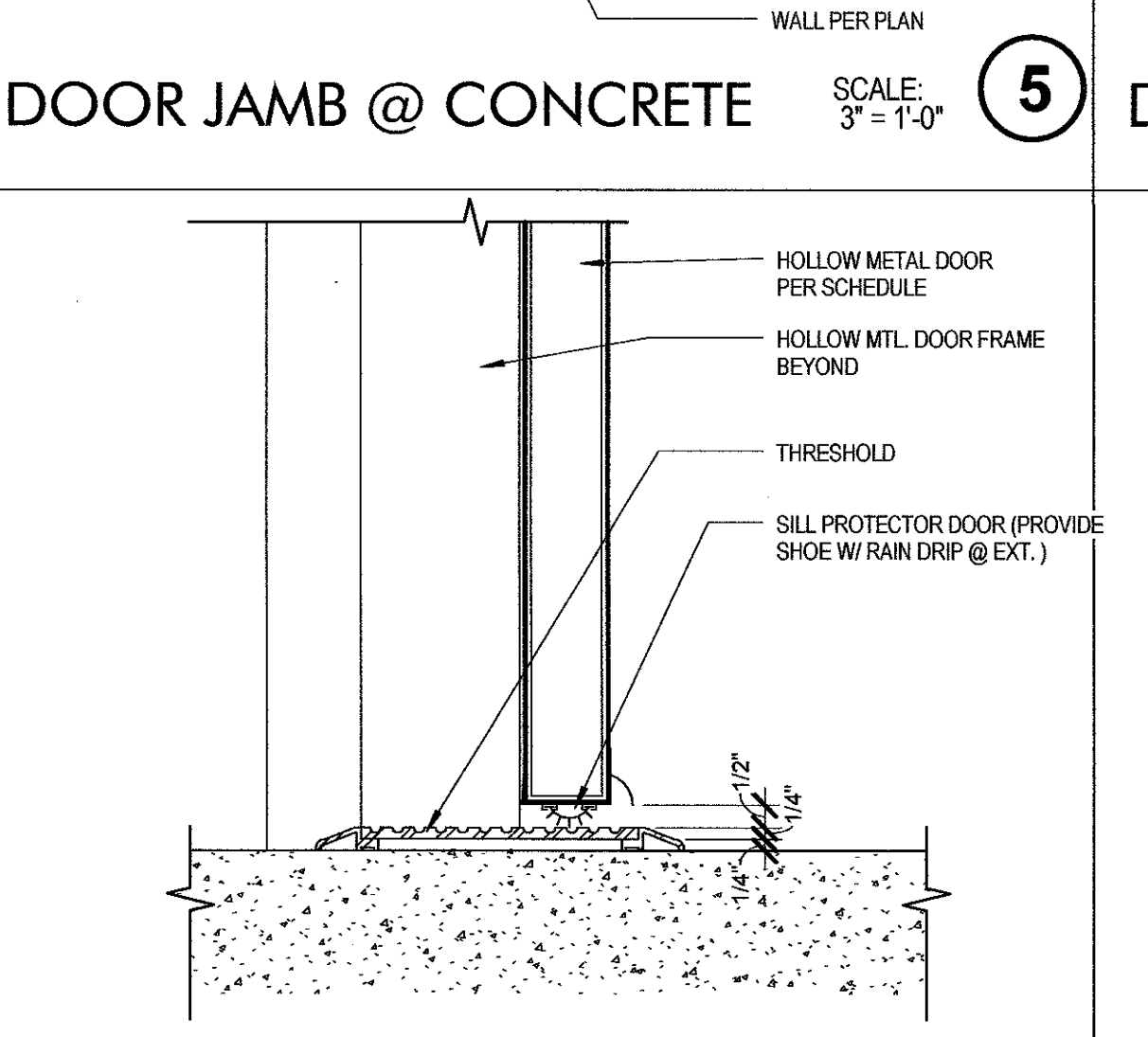
ROLL UP DOOR JAMB SCALE: 3" = 1'-0" 12



ROLL UP DOOR HEAD SCALE: 1 1/2" = 1'-0" 9



DOOR SILL @ INT. DOOR SCALE: 3" = 1'-0" 6



DOOR SILL @ EXT. DOOR SCALE: 3" = 1'-0" 3



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ASH011 - SFM RESUB. 2	11/06/2015
ASH015 - SFM RESUB. 3	03/03/2016

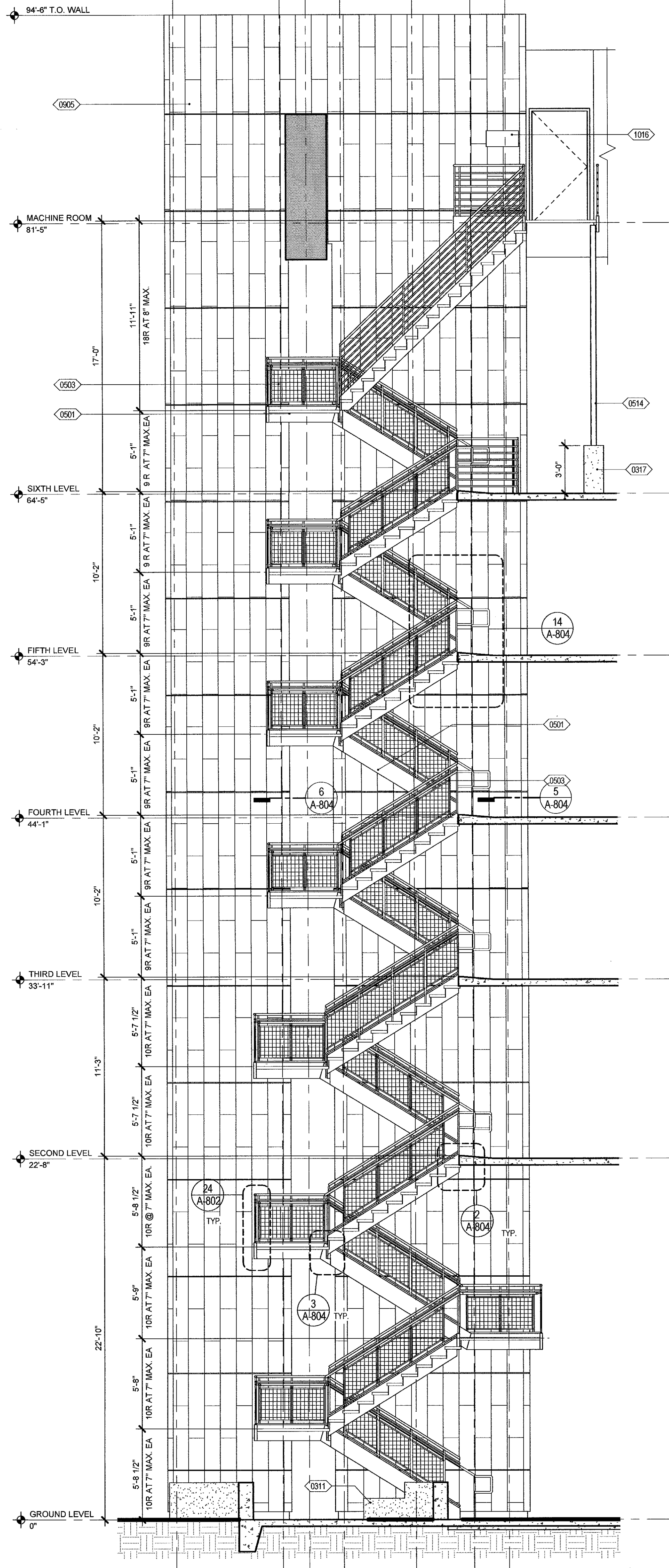
OFFICE OF THE STATE FIRE MARSHAL  
Reviewed by: *Bradley Robinson, DCFM*

APR 27 2016

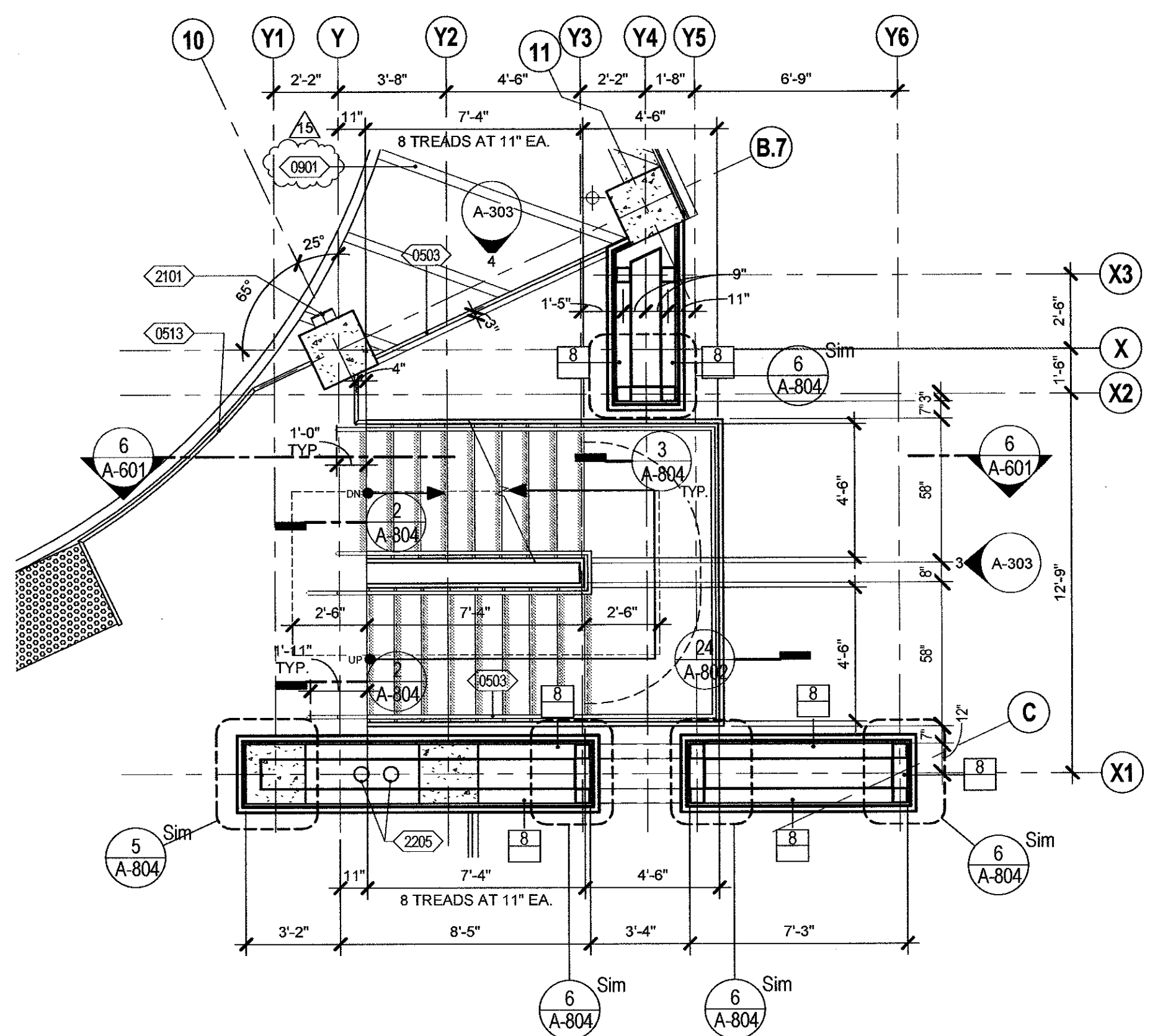
Approval of this plan does not authorize or approve any omission or deviation from applicable regulations. Final approval is subject to field inspection. One set of approved plans shall be available on the project site at all times.

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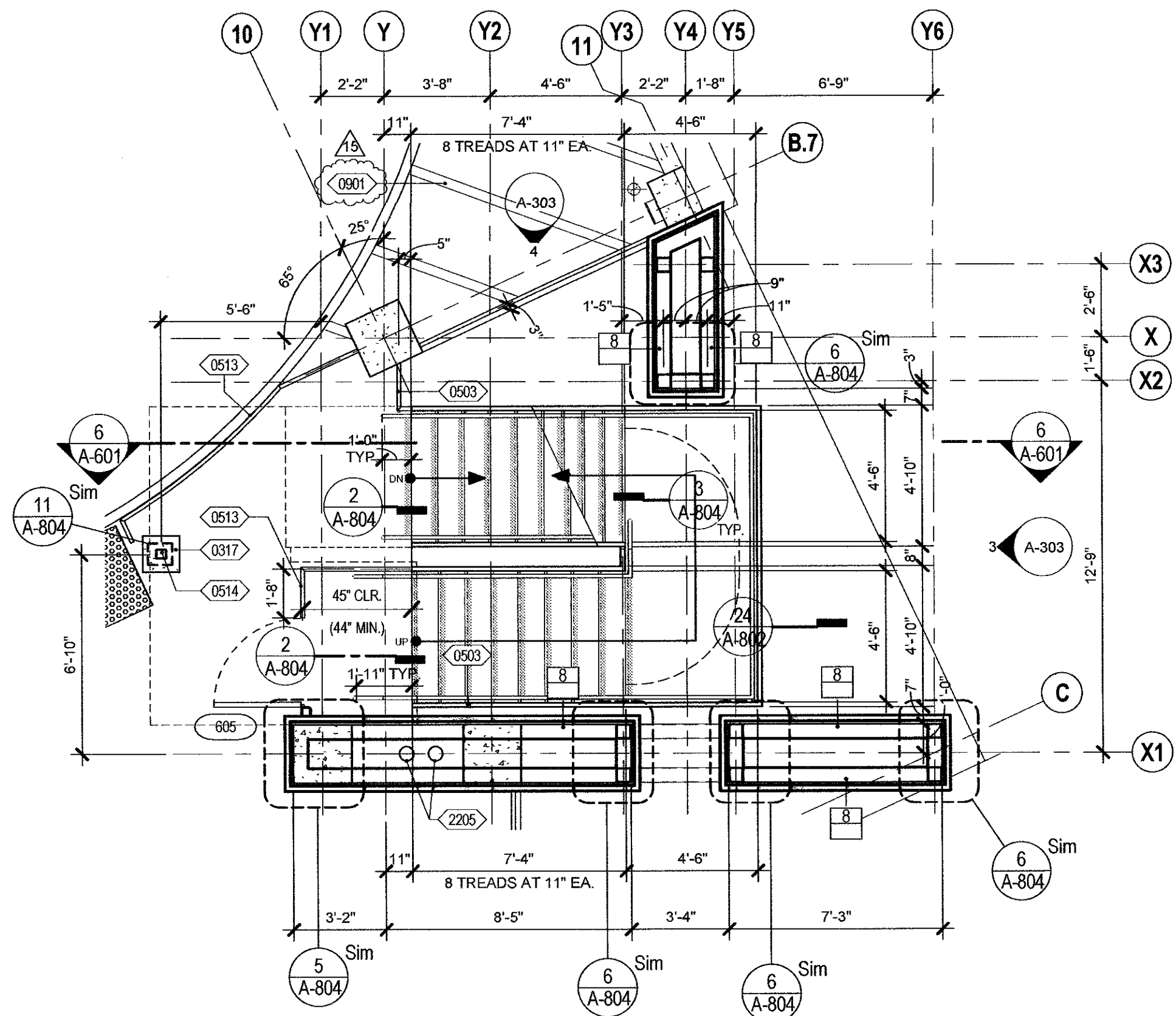




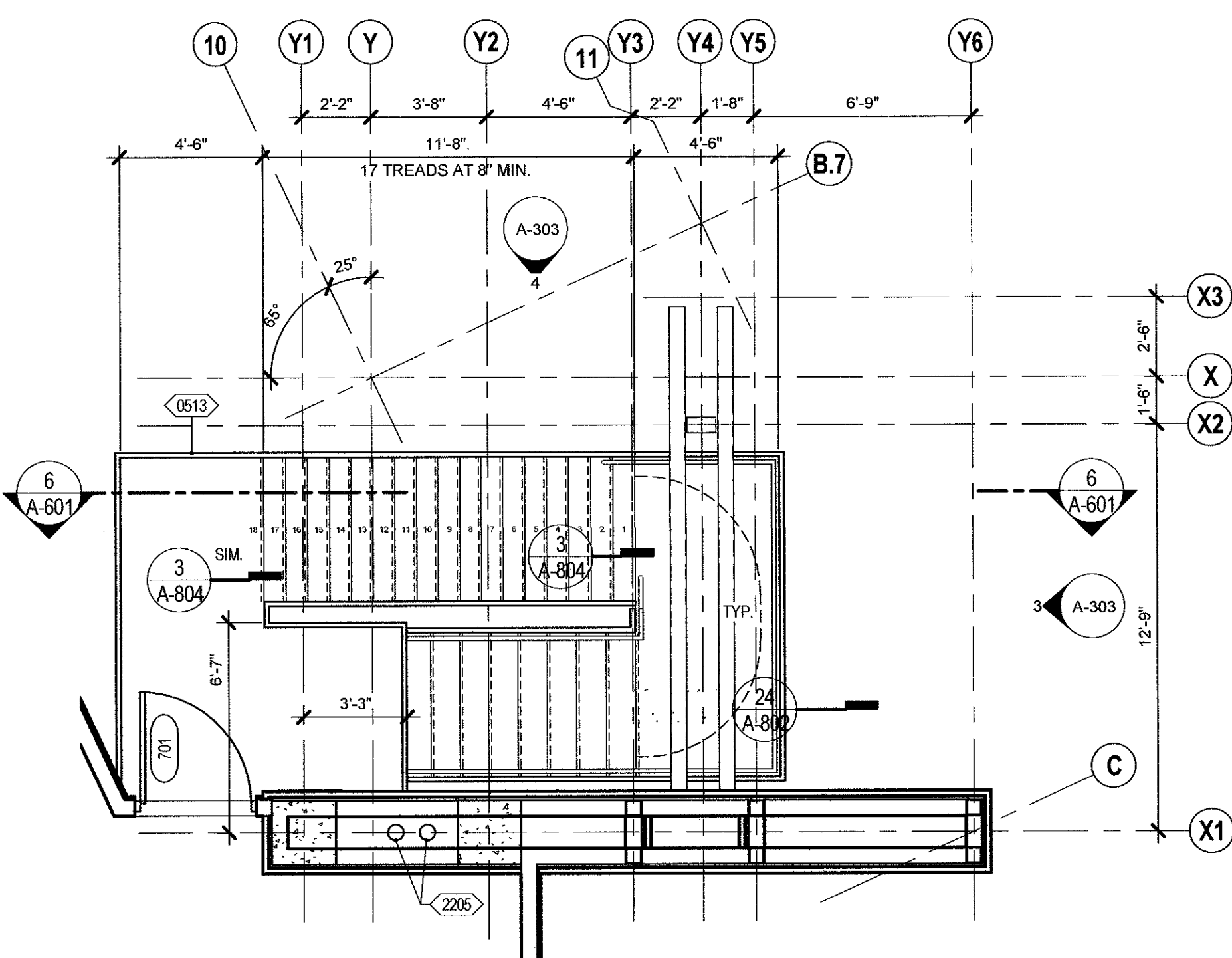
**SECTION 6** 1/4" = 1'-0"



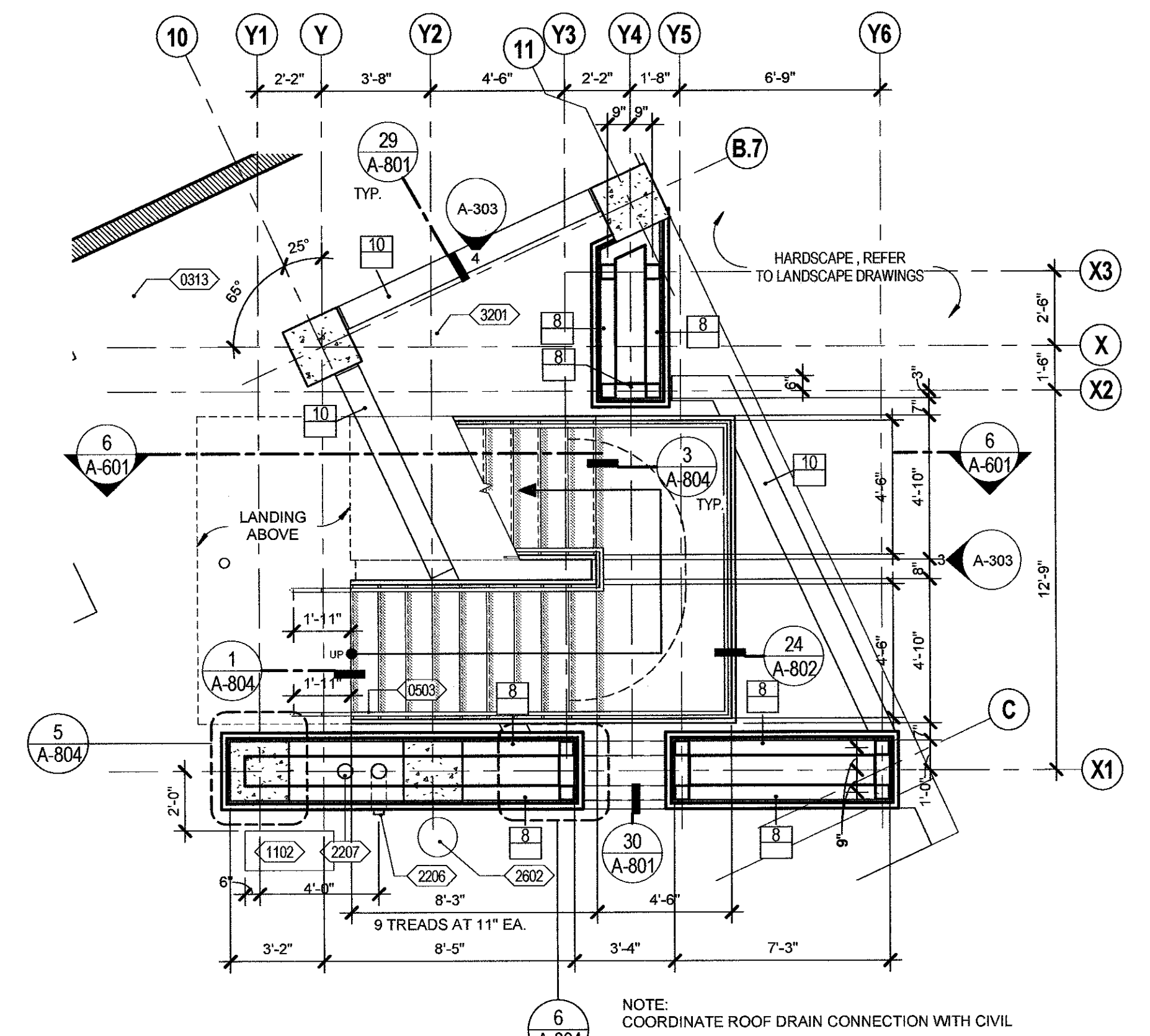
**FOURTH & FIFTH LEVELS** 1/4" = 1'-0"



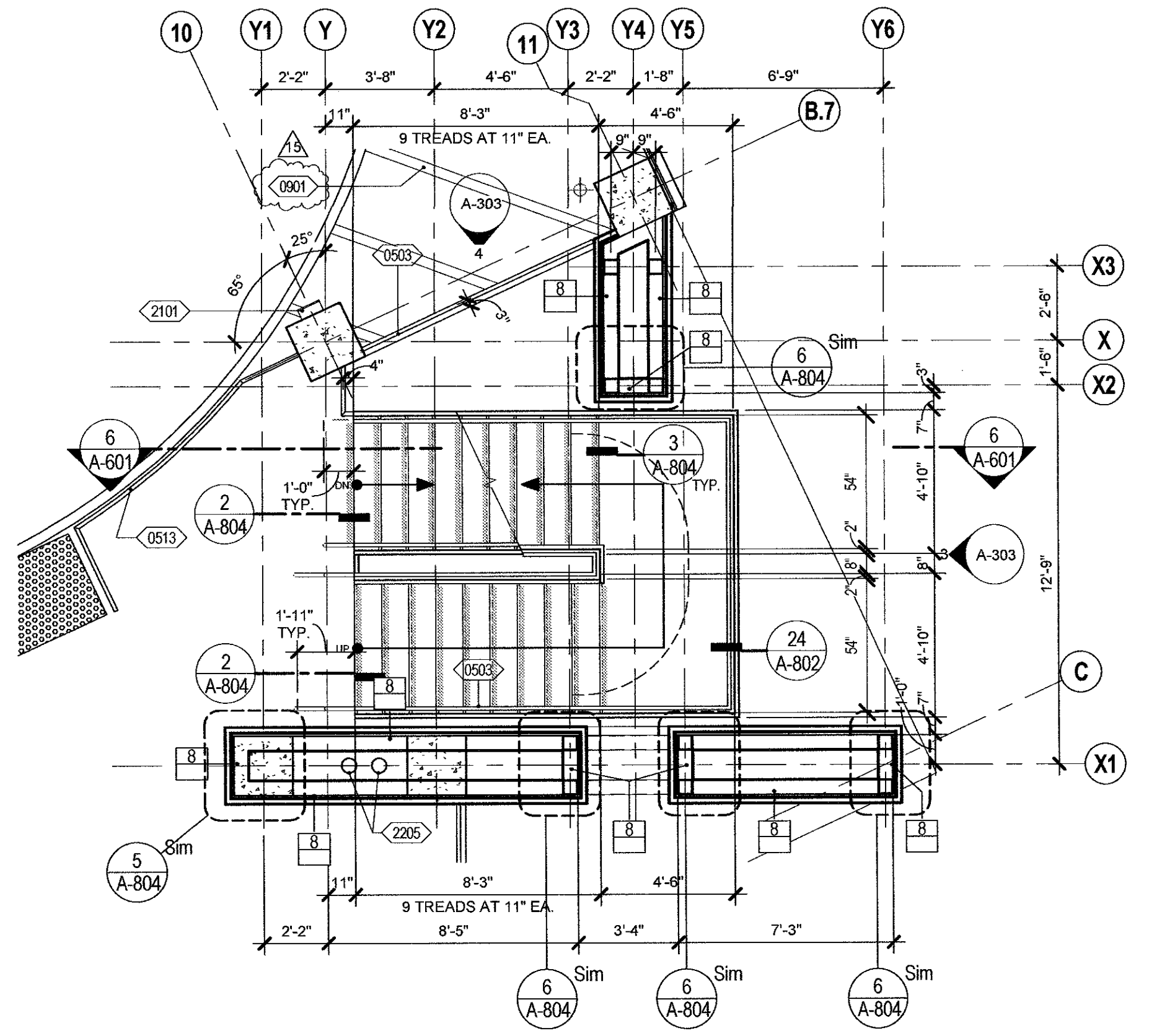
**SIXTH LEVEL** 1/4" = 1'-0"



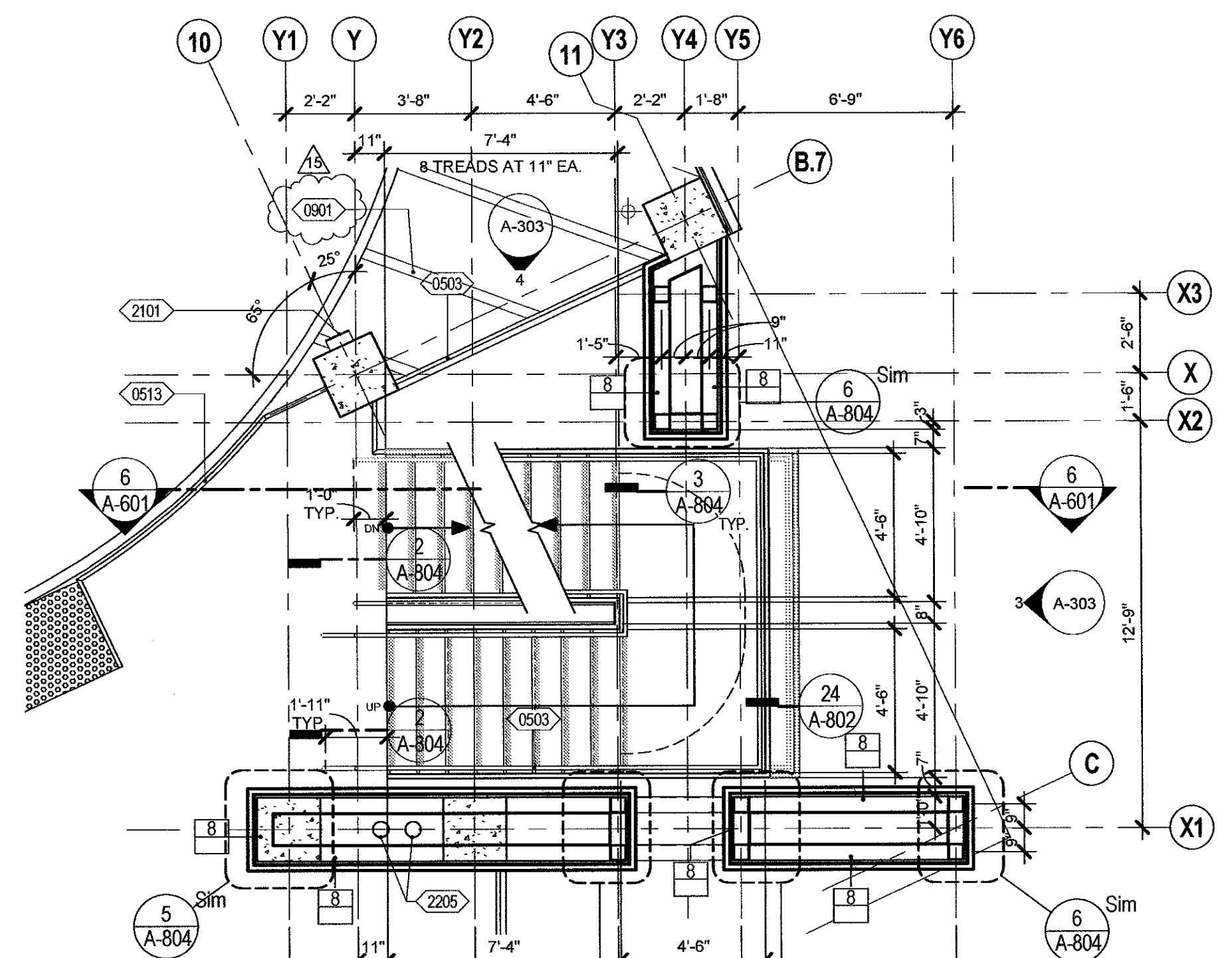
**MACHINE ROOM STAIR** 1/4" = 1'-0"



**GROUND LEVEL** 1/4" = 1'-0"



**SECOND LEVEL** 1/4" = 1'-0"



**THIRD LEVEL** 1/4" = 1'-0"

- KEYNOTES**
- 0311 LANDSCAPE WALL REFER TO DETAIL 29/A-801
  - 0313 DECORATIVE CONCRETE PER LANDSCAPE DRAWINGS
  - 0317 18" SQ. CONCRETE COLUMN PEDESTAL REFER TO STRUCTURAL FOR DETAILS
  - 0501 METAL PAN STAIR
  - 0503 STAIR 1 GAIRD AND HANDRAIL PER DETAILS 22 & 23/A802
  - 0513 STAIR 2 LANDING GUARDRAIL PER DETAIL 26/A802
  - 0514 HSS MEMBER PER STRUCTURAL. REFERENCE UL Y710 ON SHEET A-008 FOR SPRAY APPLIED FIRE PROOFING ASSEMBLY
  - 0901 4" WIDE PAINTED STRINGING
  - 0905 METAL PANEL WALL SYSTEM
  - 1016 MACHINE ROOM SIGNAGE PER DETAIL 23/A-804
  - 1102 PARKING PAY STATION - N.I.C
  - 2101 SURFACE MOUNTED FIRE EXTINGUISHER CABINET PER DETAIL 17/A-801
  - 2205 ROOF AND OVERFLOW DRAIN
  - 2206 OVERFLOW DRAIN OUTLET
  - 2207 ROOF DRAIN TO CONNECT TO STORM DRAIN REFER TO CIVIL DRAWINGS
  - 2602 BLUE LIGHT PHONE - REFER TO ELECTRICAL DRAWINGS AND DETAIL 26/A-801
  - 3201 LANDSCAPE AREA, REFER TO LANDSCAPE DRAWINGS

**KEYNOTES**

NOTE: COORDINATE ROOF DRAIN CONNECTION WITH CIVIL

SUNDT CONSTRUCTION  
SAN DIEGO, CALIFORNIA

SAN DIEGO STATE UNIVERSITY  
SAN DIEGO, CA

**SOUTH CAMPUS PLAZA DESIGN-BUILD PARKING STRUCTURE**

5640 LINDO PASEO  
SAN DIEGO STATE UNIVERSITY

SUBMITTAL SCHEDULE:

SCHEMATIC DESIGN	04/17/2014
50% PRELIM. DESIGN	05/14/2014
100% PRELIM. DESIGN	05/28/2014
50% CONST. DOCS.	07/02/2014
95% CONST. DOCS.	08/07/2014
100% BACKCHECK	11/10/2014
100% BACKCHECK SET 2	01/22/2015
100% BACKCHECK SET 3	03/20/2015
ASH002 - ASH005	08/12/2015
ASH007 - SFM RESUB.	07/29/2015
ASH011 - SFM RESUB. 2	11/06/2015
ASH015 - SFM RESUB. 3	03/03/2016

APR 27 2016

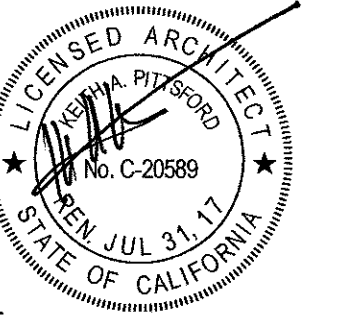
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PROJECT NO: 21305-G-50

**ENLARGED PLANS AND SECTION**  
**STAIR 1**

3/21/2016 9:04:28 AM C:\Users\lucy\OneDrive\Documents\21305-South Campus\2014\_04\_22\_Plan\_Lindo Paseo\_Parking\_Structure\_encl.dwg





SUBMITTAL SCHEDULE:

SCHEMATIC DESIGN	04/17/2014
50% PRELIM. DESIGN	05/14/2014
100% PRELIM. DESIGN	05/28/2014
50% CONST. DOCS.	07/02/2014
95% CONST. DOCS.	08/07/2014
100% BACKCHECK	11/10/2014
100% BACKCHECK SET 2	01/22/2015
100% BACKCHECK SET 3	03/20/2015
ASH#02	06/12/2015
ASH#05	07/07/2015
ASH#07 - SFM RESUB.	07/28/2015
ASH#11 - SFM RESUB. 2	11/06/2015
ASH#15 - SFM RESUB. 3	03/03/2016

OFFICE OF THE STATE FIRE MARSHAL  
APPROVED FIRE AND PANIC CODE  
Reviewed by: [Signature]  
DATE: APR 27 2016

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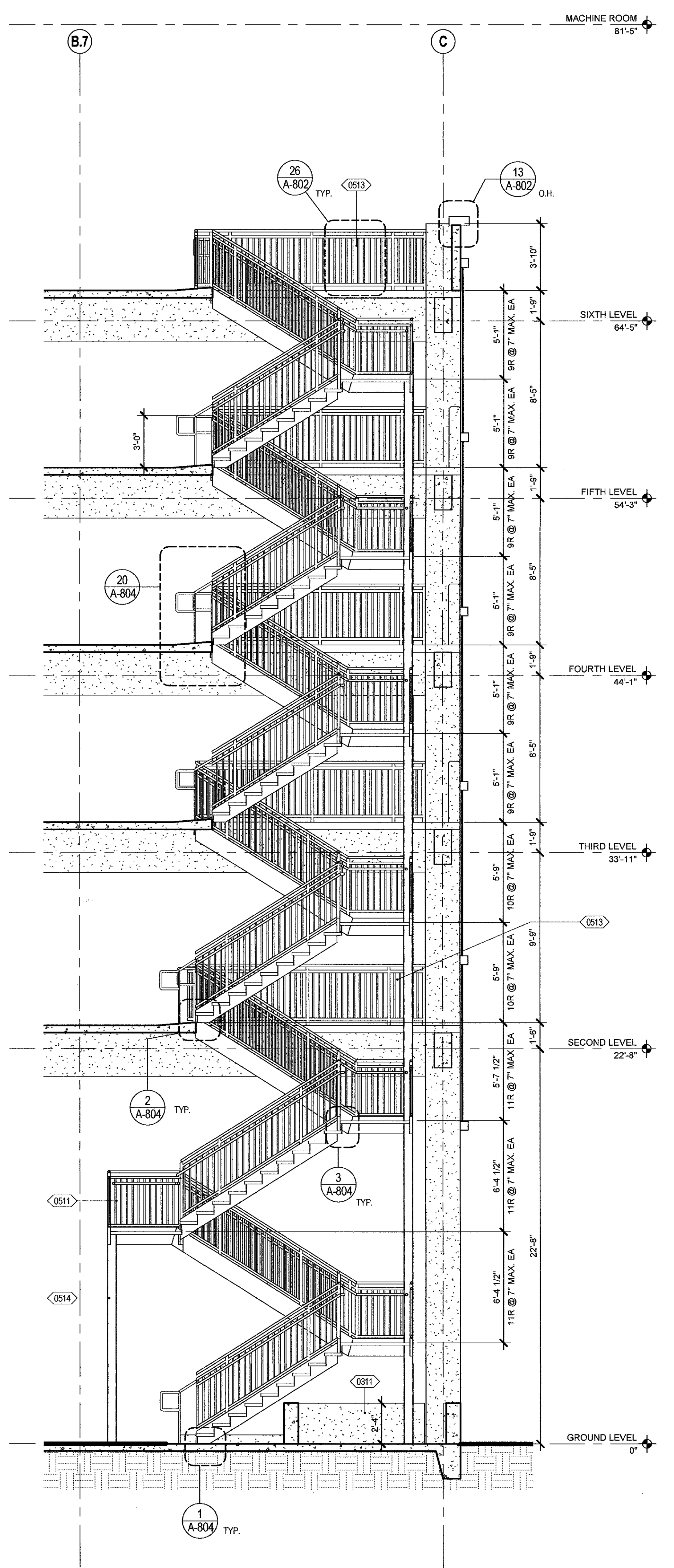
PROJECT NO: 21305-G-50

ENLARGED PLANS  
AND SECTION  
STAIR 2

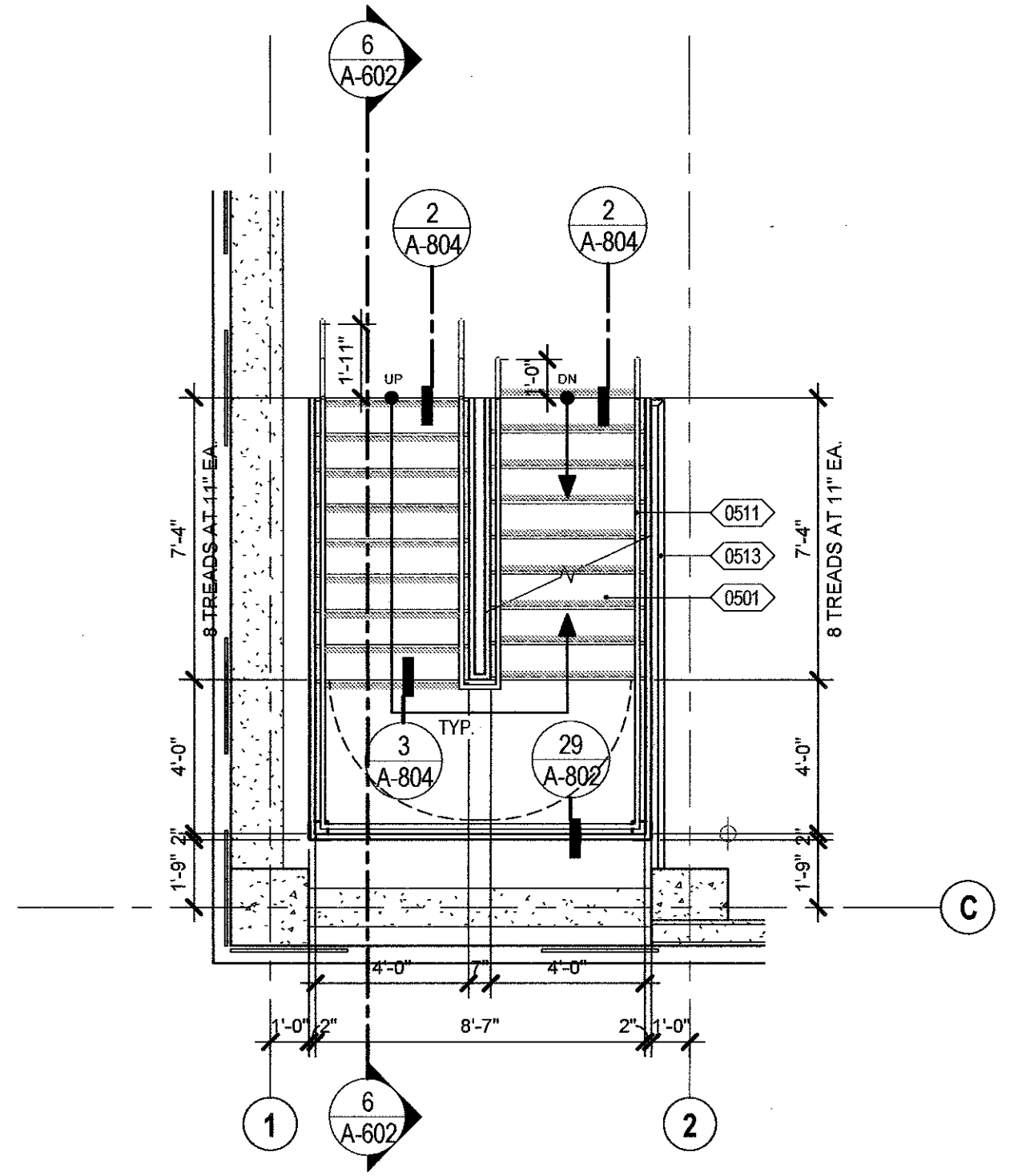
A-602

- 0310 6" HIGH CART CORRAL CONCRETE CURB
- 0311 LANDSCAPE WALL REFER TO DETAIL 29/A-801
- 0501 METAL PAN STAIR
- 0511 STAIR 2 GUARDRAIL AND HANDRAIL PER DETAILS 27 & 28/A802
- 0513 STAIR 2 LANDING GUARDRAIL PER DETAIL 28/A802
- 0514 HSS MEMBER PER STRUCTURAL REFERENCE UL 770 ON SHEET A-608 FOR SPRAY APPLIED FIRE PROOFING ASSEMBLY
- 3201 LANDSCAPE AREA, REFER TO LANDSCAPE DRAWINGS

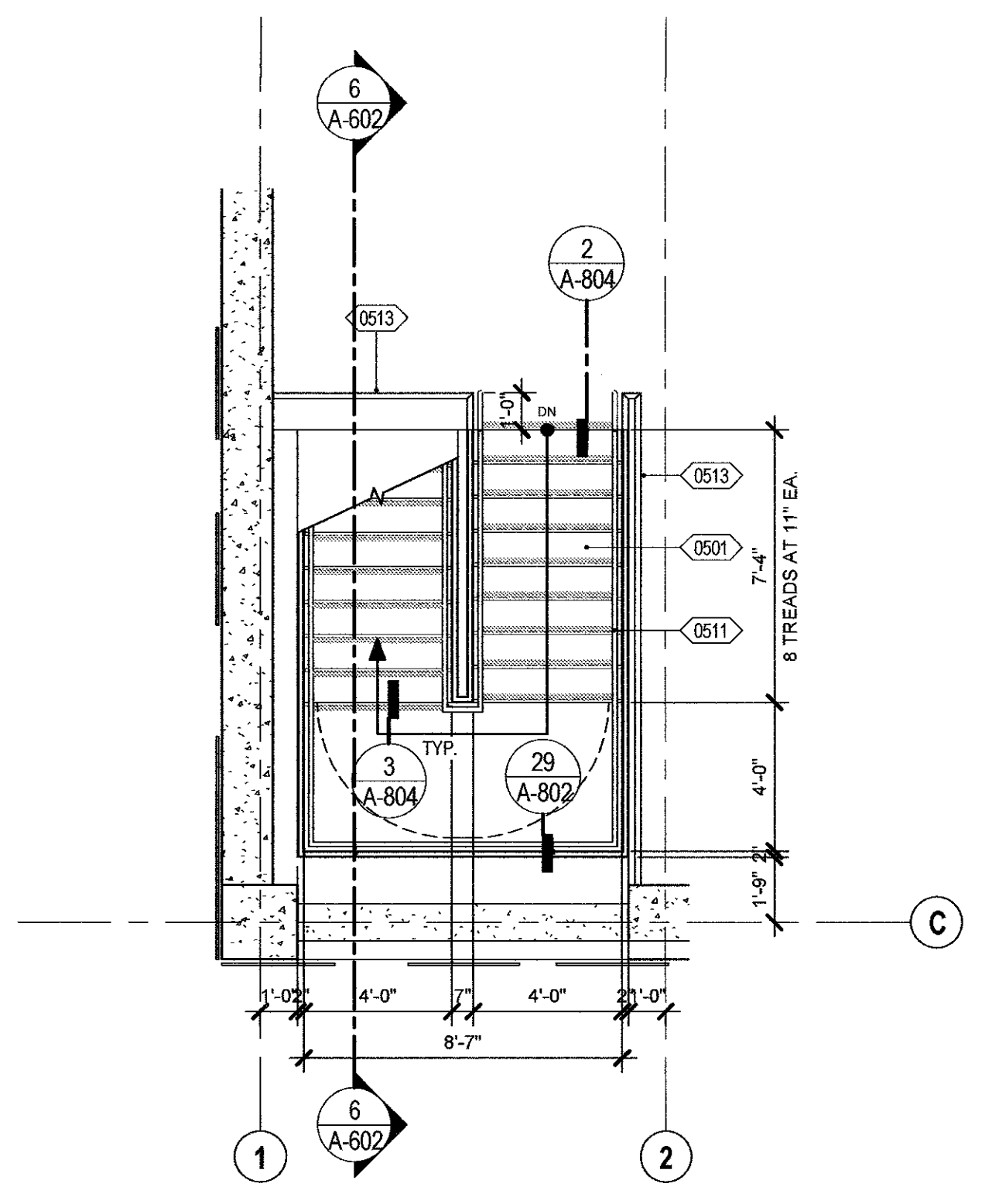
KEYNOTES



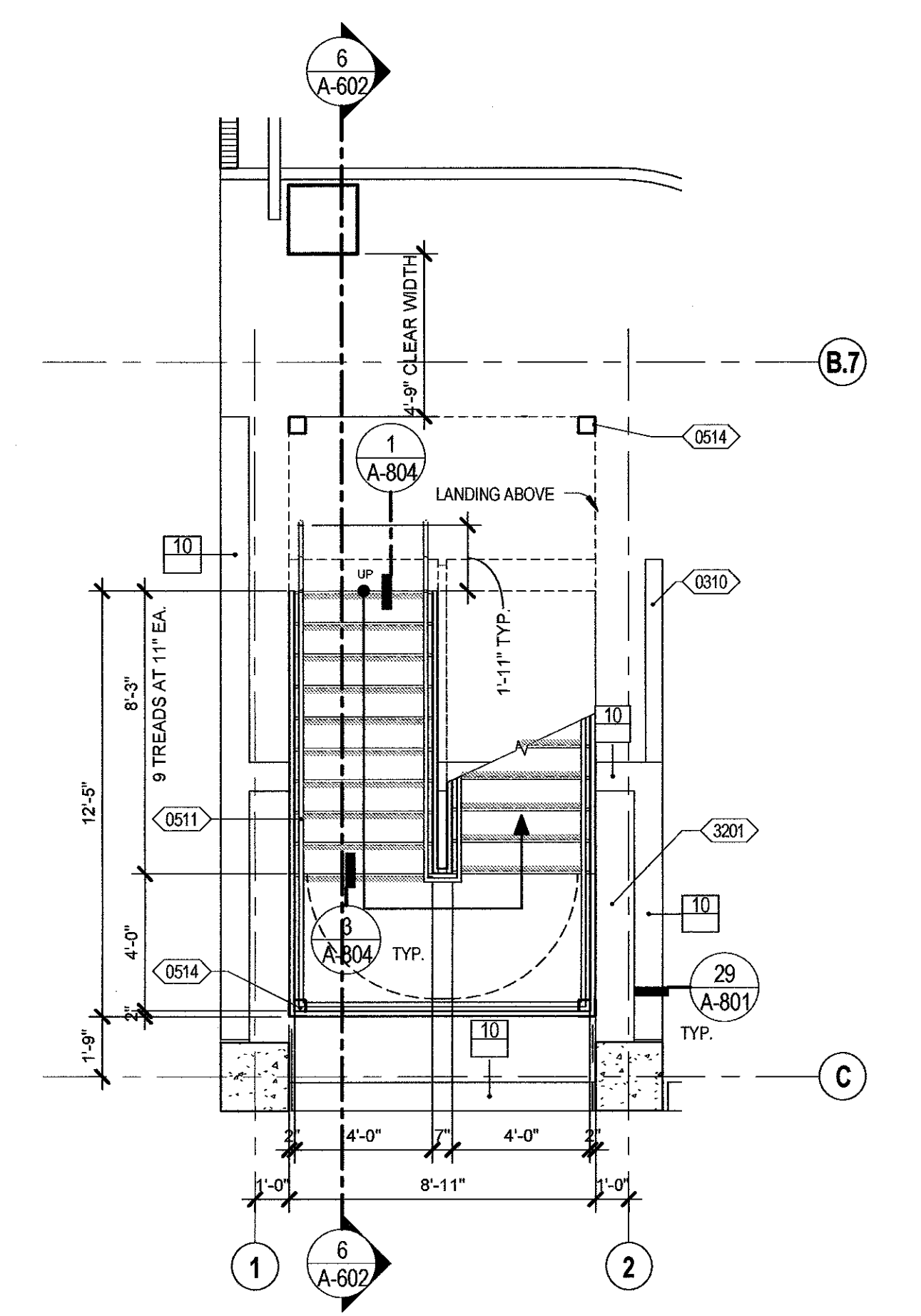
SECTION 6 1/4" = 1'-0"



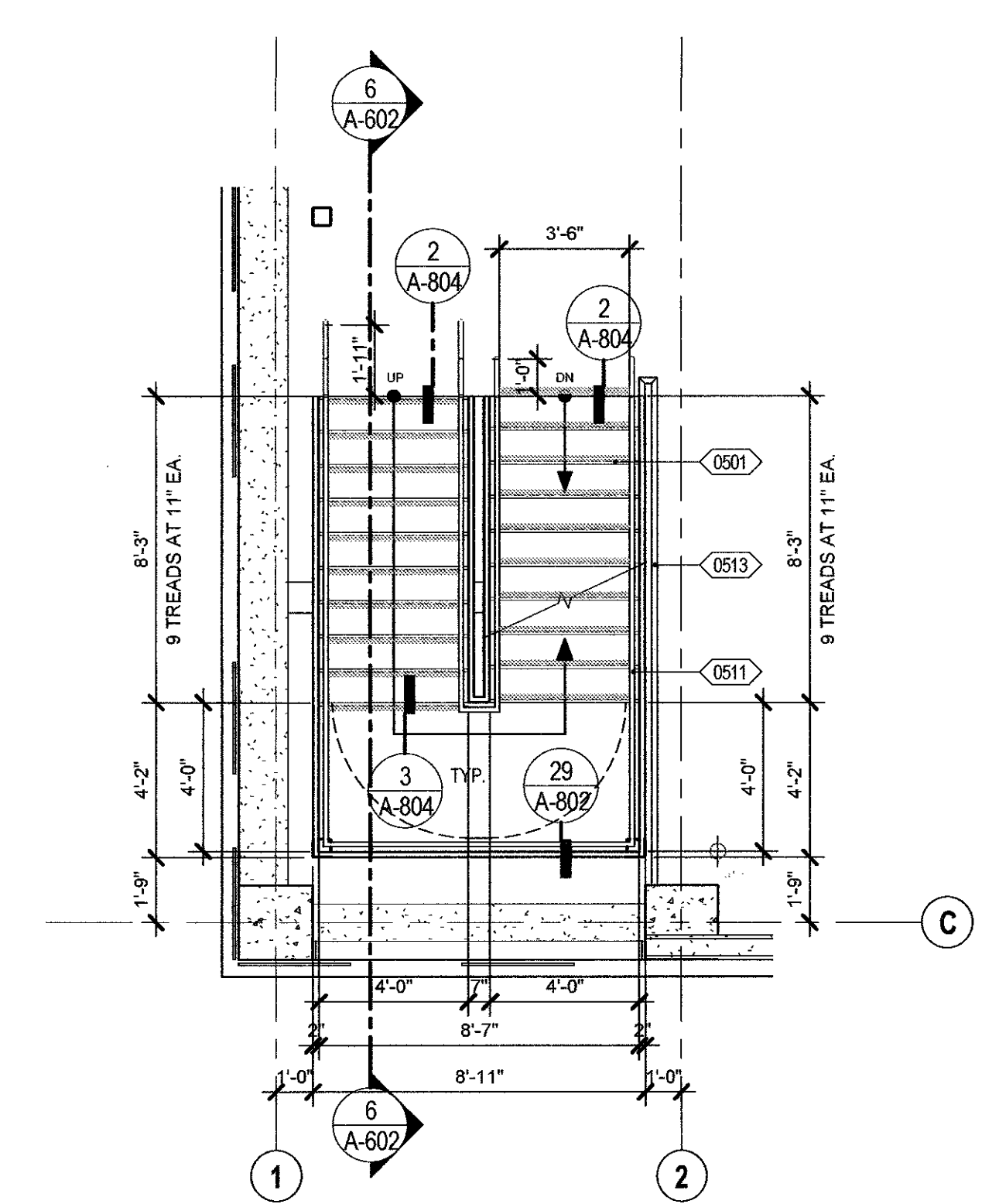
FOURTH & FIFTH LEVELS 1/4" = 1'-0"



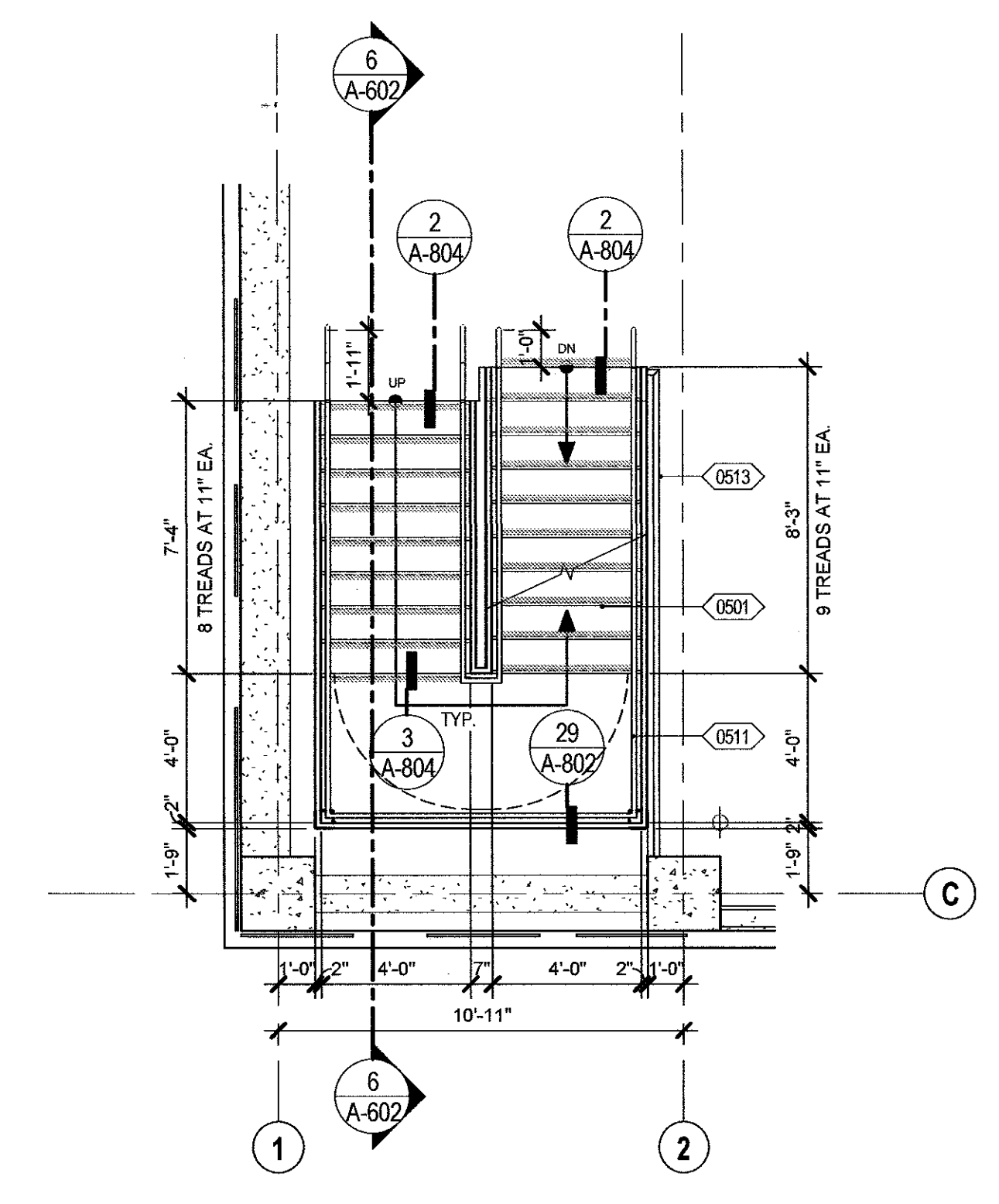
SIXTH LEVEL 1/4" = 1'-0"



GROUND LEVEL 1/4" = 1'-0"

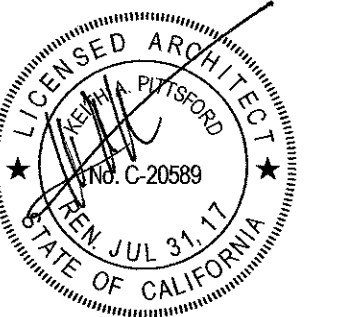


SECOND LEVEL 1/4" = 1'-0"



THIRD LEVEL 1/4" = 1'-0"





SUBMITTAL SCHEDULE:

SCHEMATIC DESIGN	04/17/2014
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ASI #001	05/06/1515
ASI#007 - SFM RESUB.	07/29/2015
ASI#011 - SFM RESUB. 2	11/06/2015
ASI#015 - SFM RESUB. 3	03/03/2016

OFFICE OF THE STATE FIRE MARSHAL  
APPROVED FIRE AND BRANCH OFF  
Reviewed by: [Signature]  
State Fire Marshal, USFSA

APR 27 2016

Approval of this plan does not authorize or approve any contractor or operation from its field inspectors. Final approval is subject to field inspection. The use of approved plans shall be available on the project site at all times.

PROJECT NO: 21305-6-50

ENLARGED PLANS AND ELEVATOR SECTIONS

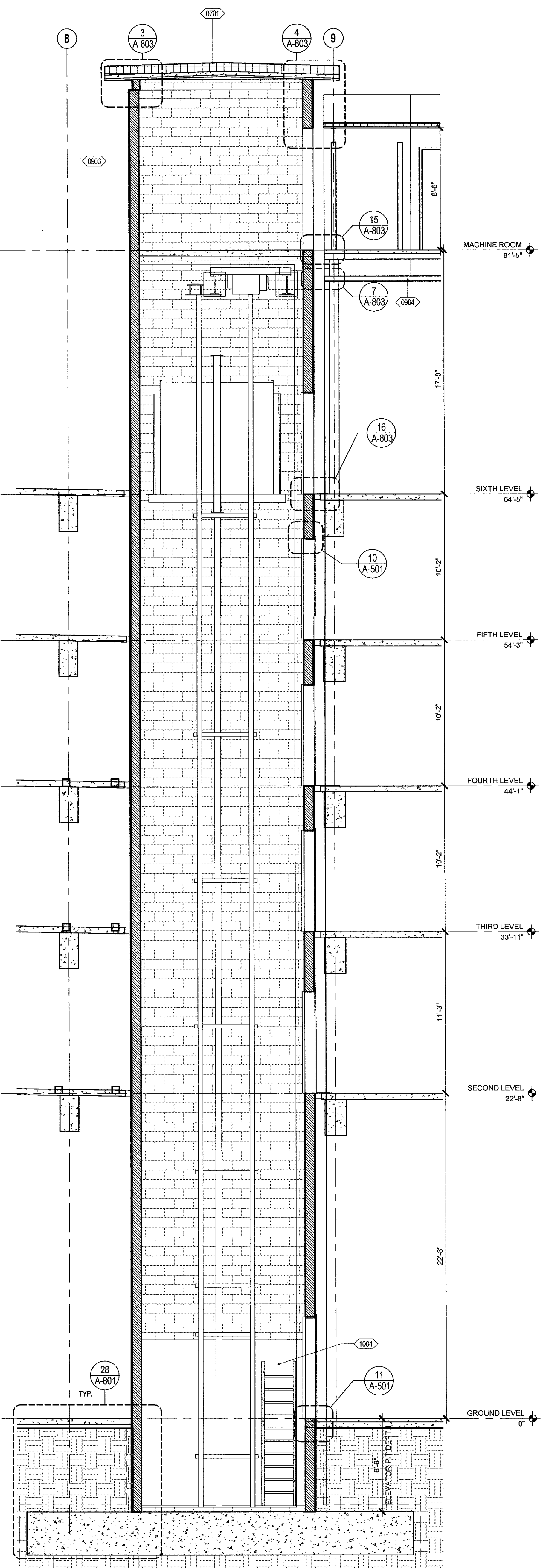
A-603

- 0701 PVC FULLY ADHERED MEMBRANE ROOFING  
0903 INTEGRAL COLOR CEMENT PLASTER FINISH  
0904 PLASTER SOFFIT  
1004 ELEVATOR PIT SCREEN WALL  
1005 ELEVATOR PIT LADDER PER DETAIL 16/A-801  
1107 ELEVATOR CALL CONTROLS, SEE DETAIL 13/A-801  
1108 ELEVATOR CAB CONTROLS, SEE DETAIL 14/A-801  
2602 BLUE LIGHT PHONE - REFER TO ELECTRICAL DRAWINGS AND DETAIL 28/A-801

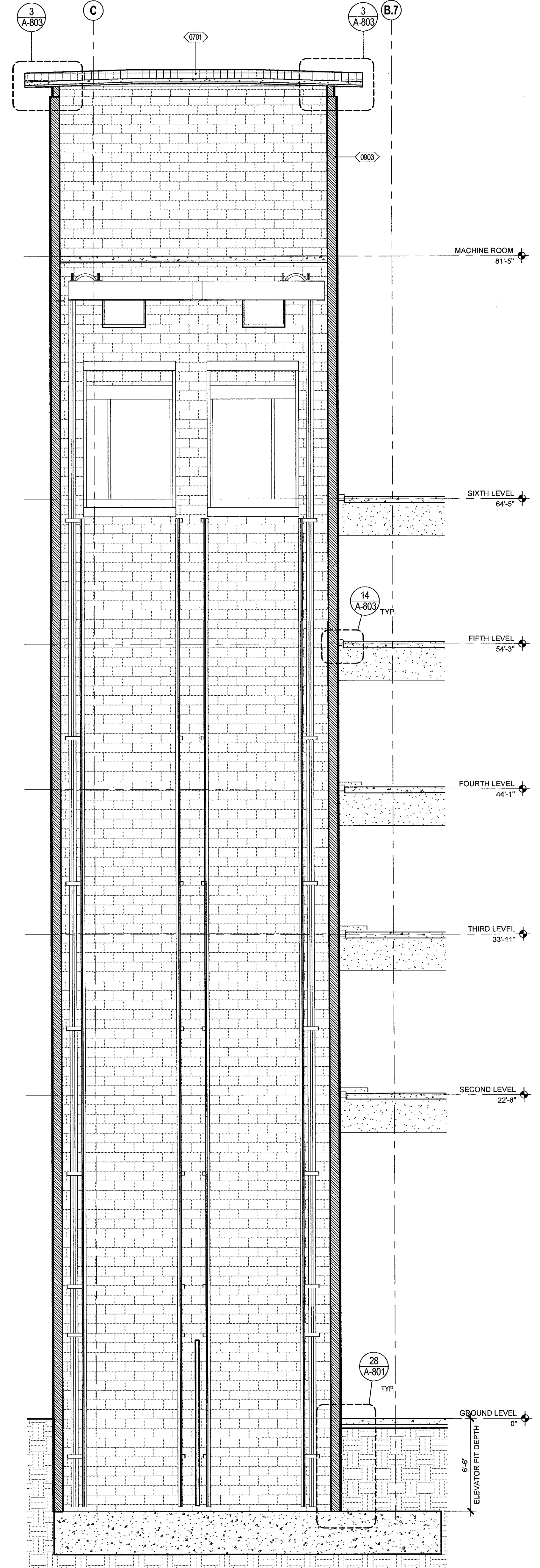
KEYNOTES

- PROVIDE TWO-WAY COMMUNICATION SYSTEM AT EACH ELEVATOR LANDING AT EACH LEVEL REFER TO SPECIFICATION FOR MORE INFORMATION.
- FOR ELEVATOR CAB FINISHES REFER TO DETAIL 12 / A-804
- FOR ELEVATOR STRETCHER REQUIREMENTS REFER TO DETAIL 15 / A-804
- FOR ELEVATOR CAB INTERIOR ELEVATIONS REFER TO DETAIL 14 / A-801
- FOR ELEVATOR ENTRANCE INFORMATION REFER TO DETAIL 13 / A-801
- FOR ELEVATOR ENTRANCE INFORMATION REFER TO DETAIL 13 / A-801
- REFER TO WALL TYPES ON SHEET A-607 FOR UL LISTINGS AT RATED WALLS, TYPICAL.

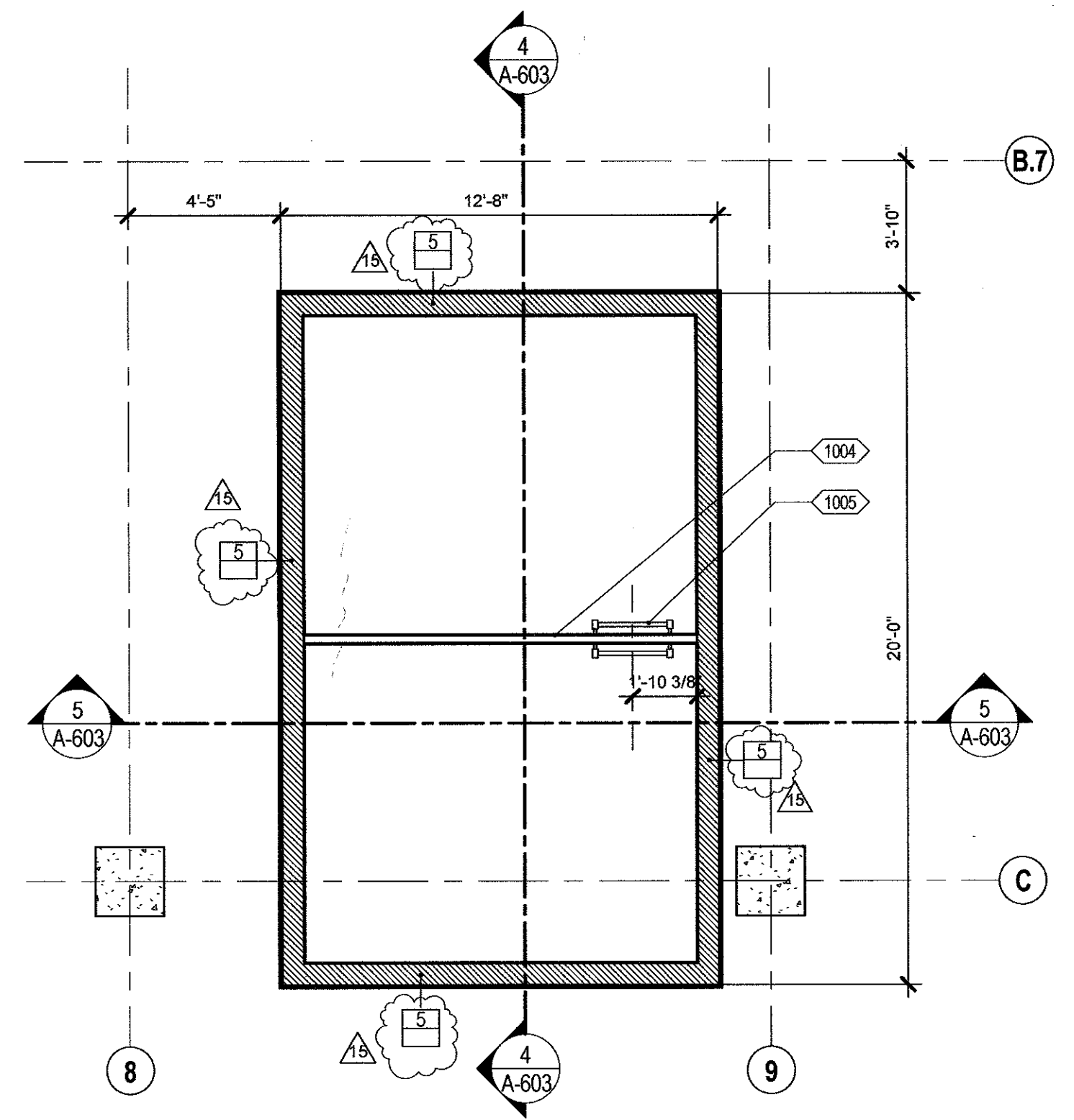
GENERAL NOTES



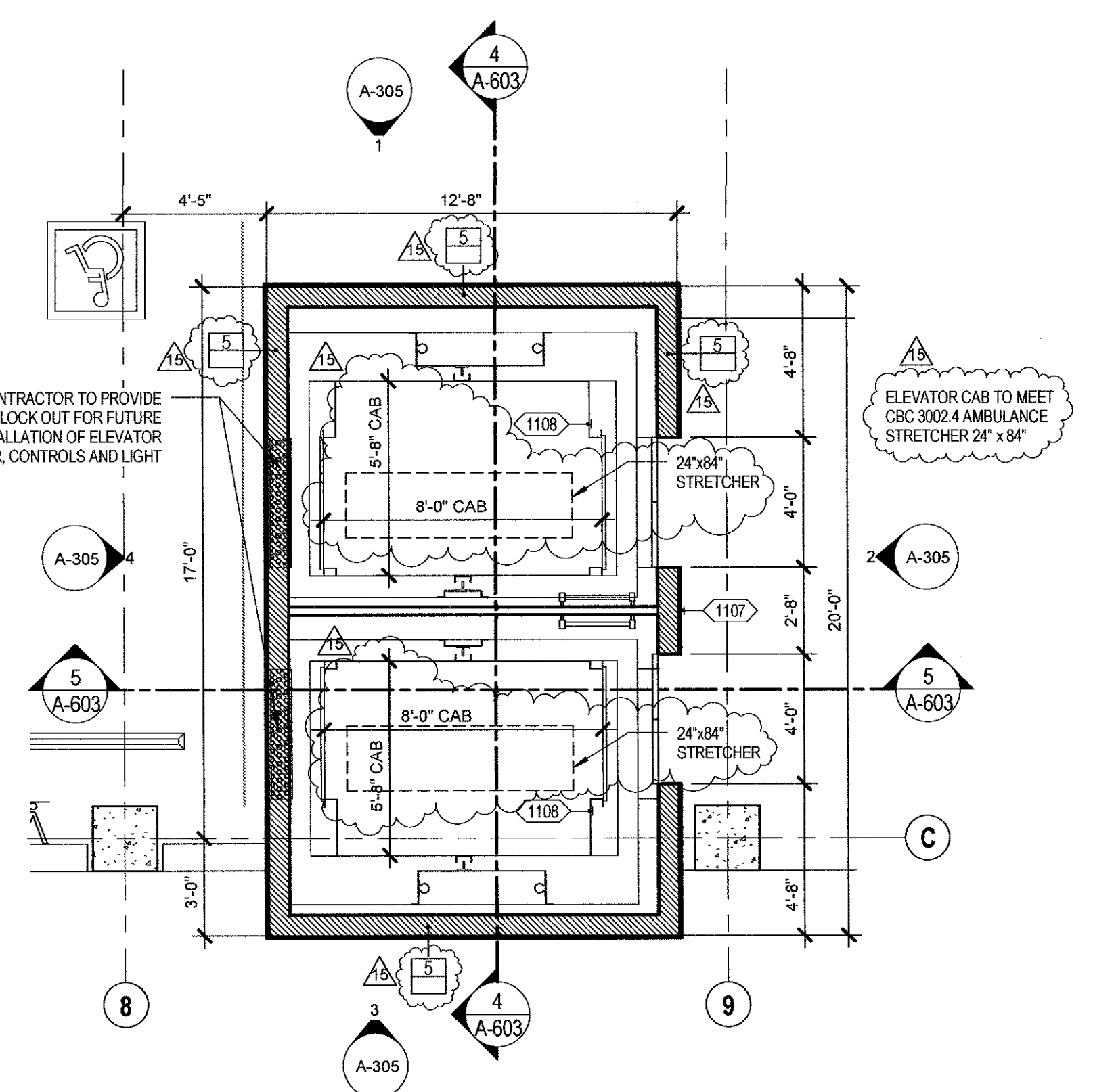
ELEVATOR SHAFT SECTION 2 1/4" = 1'-0" 5



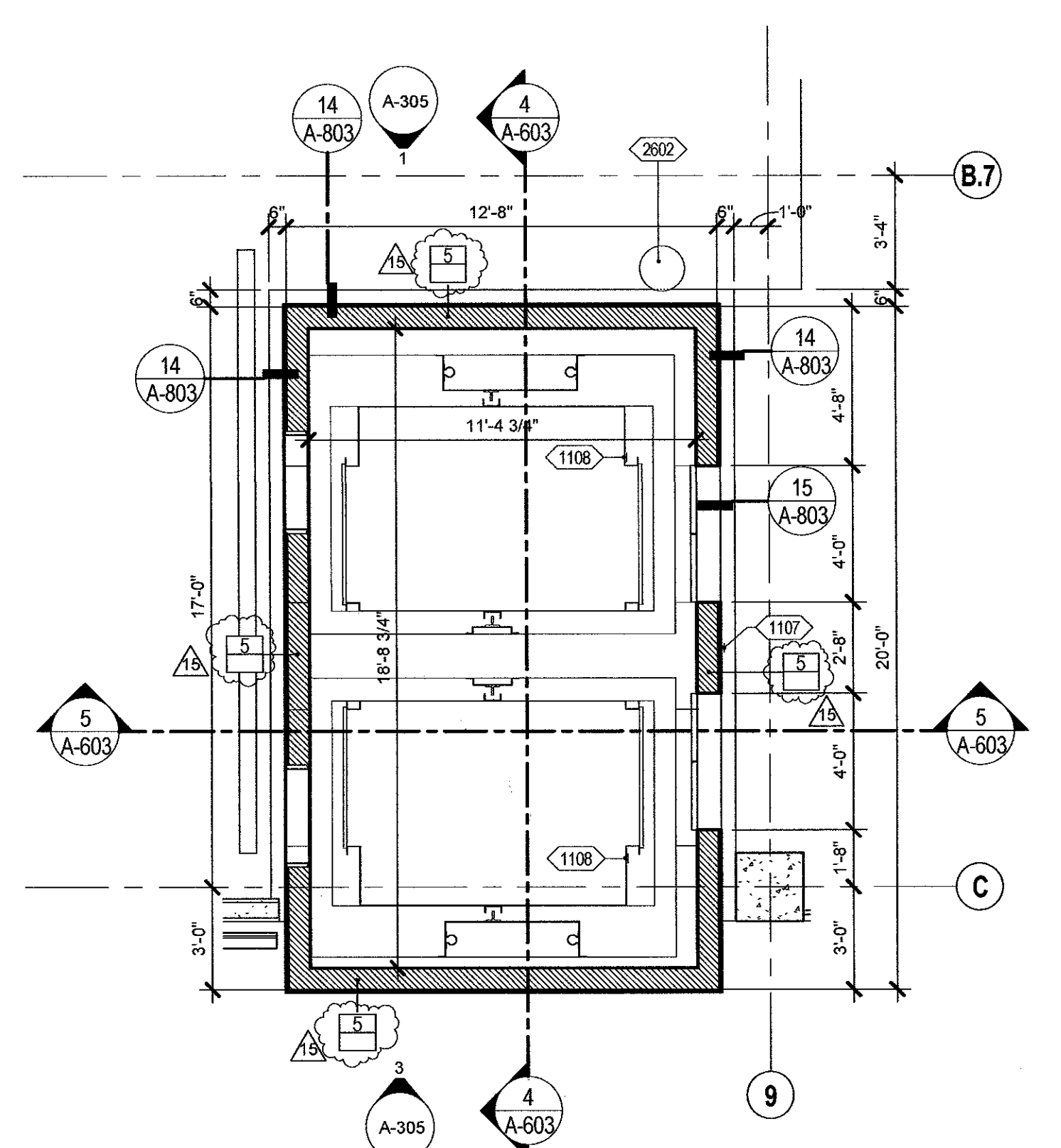
ELEVATOR SHAFT SECTION 1 1/4" = 1'-0" 4



PIT LEVEL ELEVATOR PLAN 1/4" = 1'-0" 1

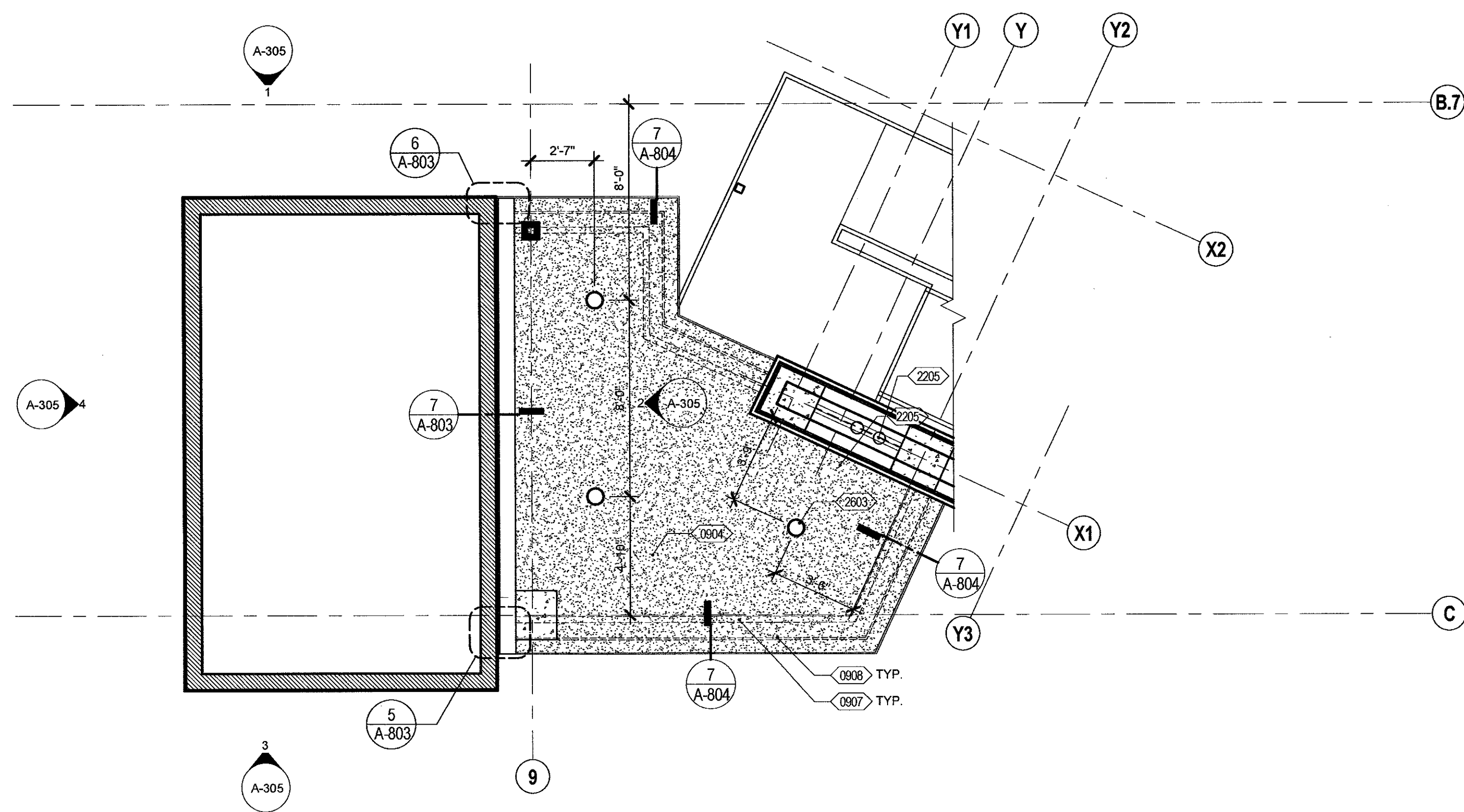


GROUND LEVEL ELEVATOR PLAN 1/4" = 1'-0" 2

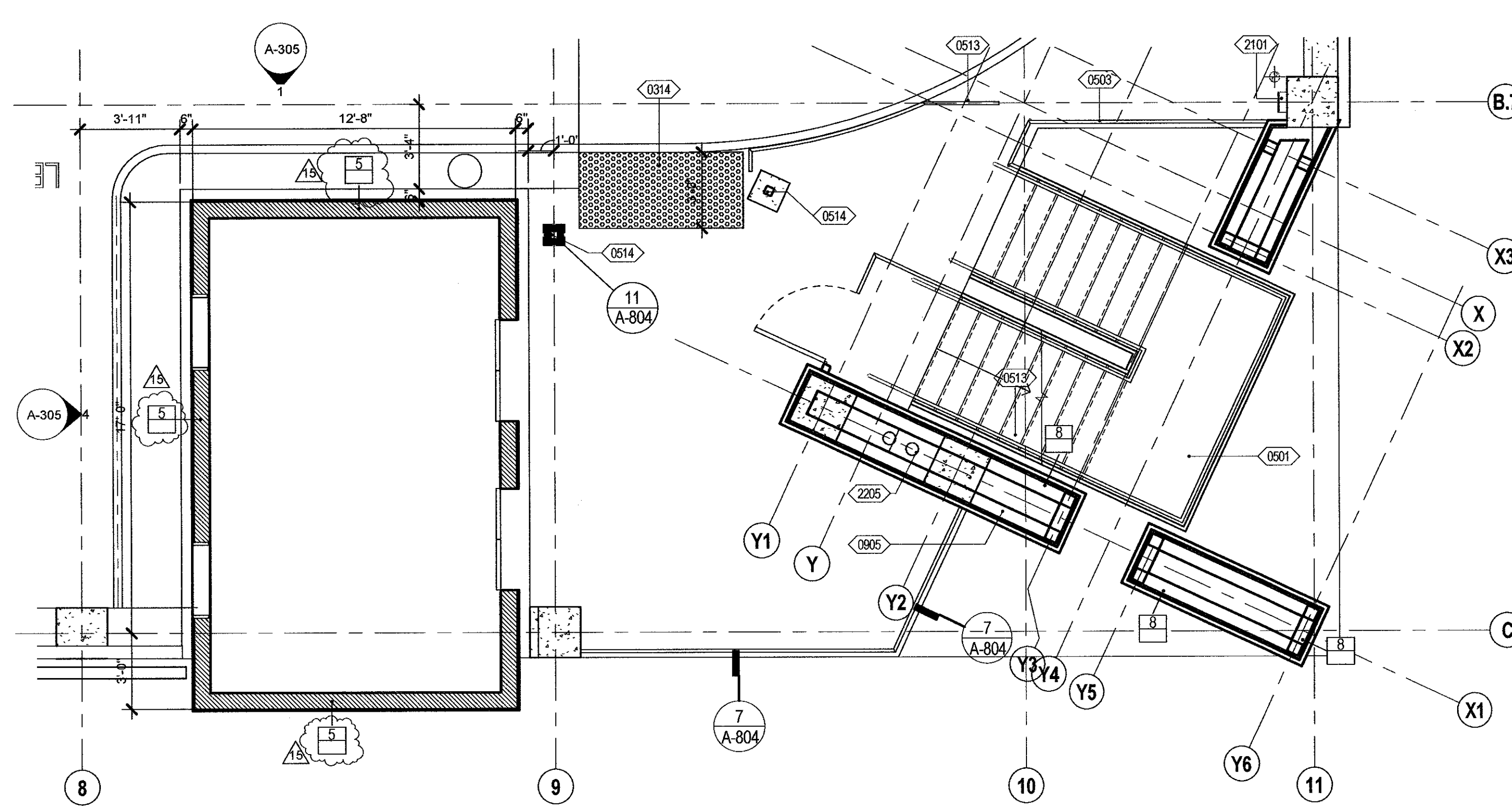


TYP. LEVEL ELEVATOR PLAN 1/4" = 1'-0" 3

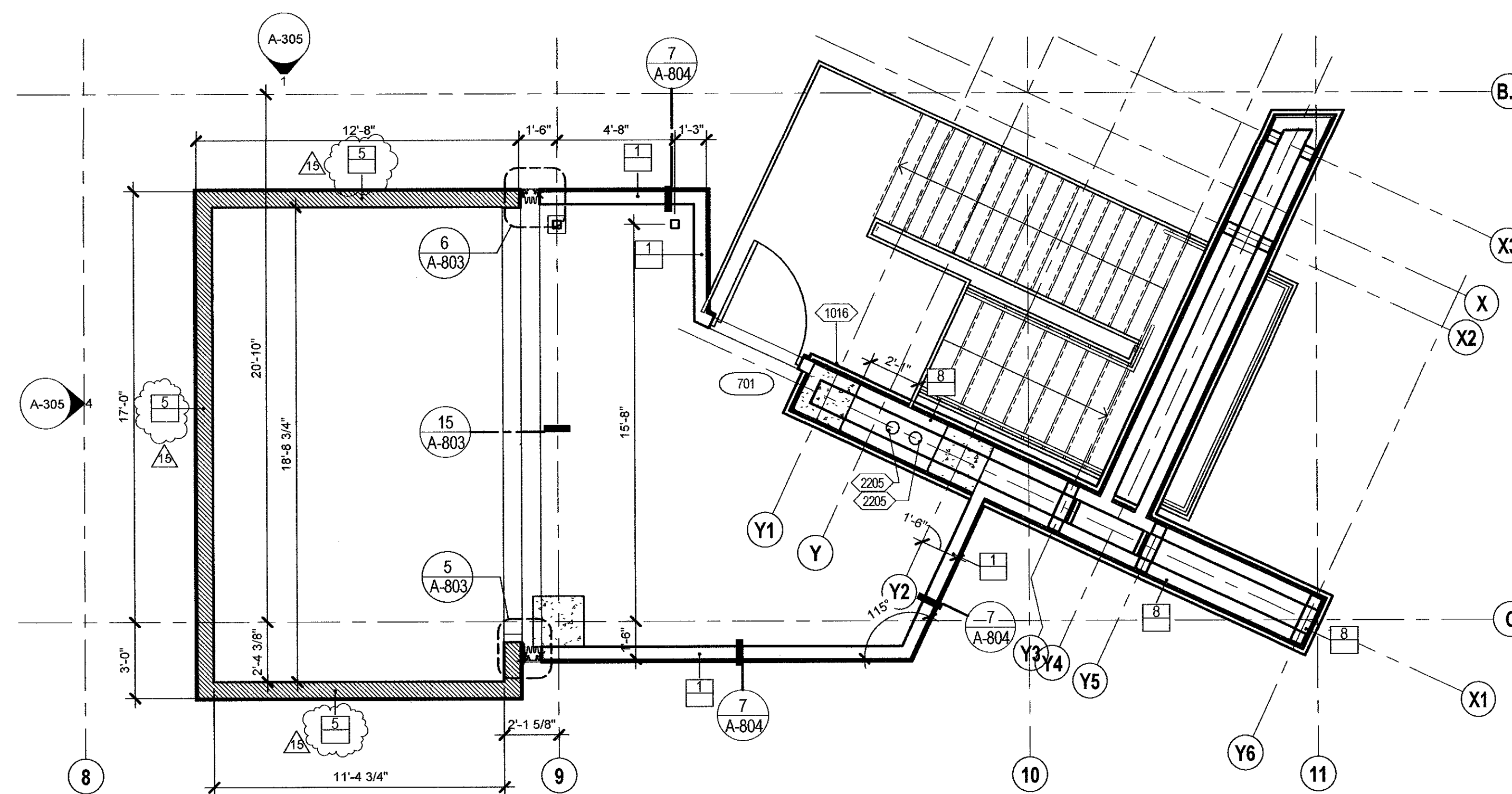




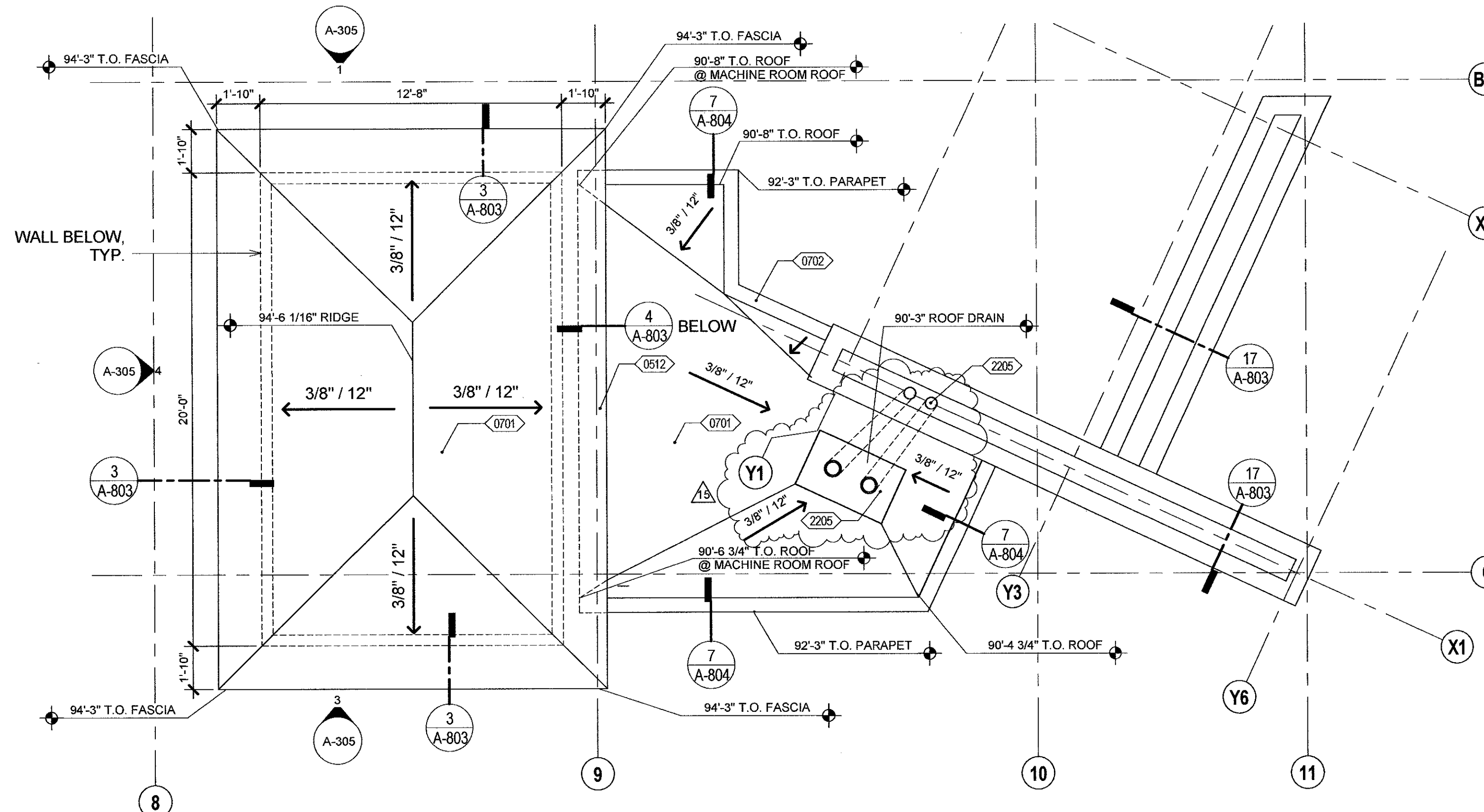
**REFLECTED CEILING PLAN - SIXTH LEVEL** 1/4" = 1'-0" **6**



**FLOOR PLAN - SIXTH LEVEL** 1/4" = 1'-0" **3**



**FLOOR PLAN - MACHINE ROOM** 1/4" = 1'-0" **1**



**ROOF PLAN - SIXTH LEVEL** 1/4" = 1'-0" **2**

- 0314 DETECTABLE WARNING SYSTEM REFER TO DETAIL 11 & 12/A-801
- 0501 METAL PAN STAIR
- 0503 STAIR 1 GAIRD AND HANDRAIL PER DETAILS 22 & 23/A802
- 0512 SHEET METAL SCUPPER TO ROOF BELOW
- 0513 STAIR 2 LANDING GUARDRAIL PER DETAIL 26/A802
- 0514 HSS MEMBER PER STRUCTURAL REFERENCE U/L 7710 ON SHEET A-008 FOR SPRAY APPLIED FIRE PROOFING ASSEMBLY
- 0701 PVC FULLY ADHERED MEMBRANE ROOFING
- 0702 CONTINUOUS SHEET METAL COPING - PAINT TO MATCH ADJACENT WALL
- 0904 PLASTER SOFFIT
- 0905 METAL PANEL WALL SYSTEM
- 0907 3" HIGH VENT SCREED
- 0908 1" HIGH REVEAL IN CONC. SHEAR WALL
- 1016 MACHINE ROOM SIGNAGE PER DETAIL 23/A-804
- 2101 SURFACE MOUNTED FIRE EXTINGUISHER CABINET PER DETAIL 17/A-801
- 2205 ROOF AND OVERFLOW DRAIN
- 2603 LIGHT FIXTURE PER ELECTRICAL DRAWINGS

**KEYNOTES**

STRUCTURAL STEEL FRAMING TO BE 2-HOUR RATED  
REFER TO UL LISTING ON SHEET A-008



SUBMITTAL SCHEDULE:

SCHEMATIC DESIGN	04/17/2014
50% PRELIM. DESIGN	05/14/2014
100% PRELIM. DESIGN	05/28/2014
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ASI #001	05/06/1515
ASH#007 - SFM RESUB.	07/29/2015
ASH#011 - SFM RESUB. 2	11/06/2015
ASH#014 - SFM RESUB. 3	12/10/1516

OFFICE OF THE STATE FIRE MARSHAL  
APPROVED FOR PERMITS ONLY  
Reviewed By: *Bradley Goodrich, DDFM*

APR 27 2016

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PROJECT NO.: 21305-G-50





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**SUNDT CONSTRUCTION**  
SAN DIEGO, CALIFORNIA

**SAN DIEGO STATE UNIVERSITY**  
SAN DIEGO, CA

**SOUTH CAMPUS PLAZA DESIGN-BUILD PARKING STRUCTURE**  
5840 LINDO PASEO  
SAN DIEGO STATE UNIVERSITY

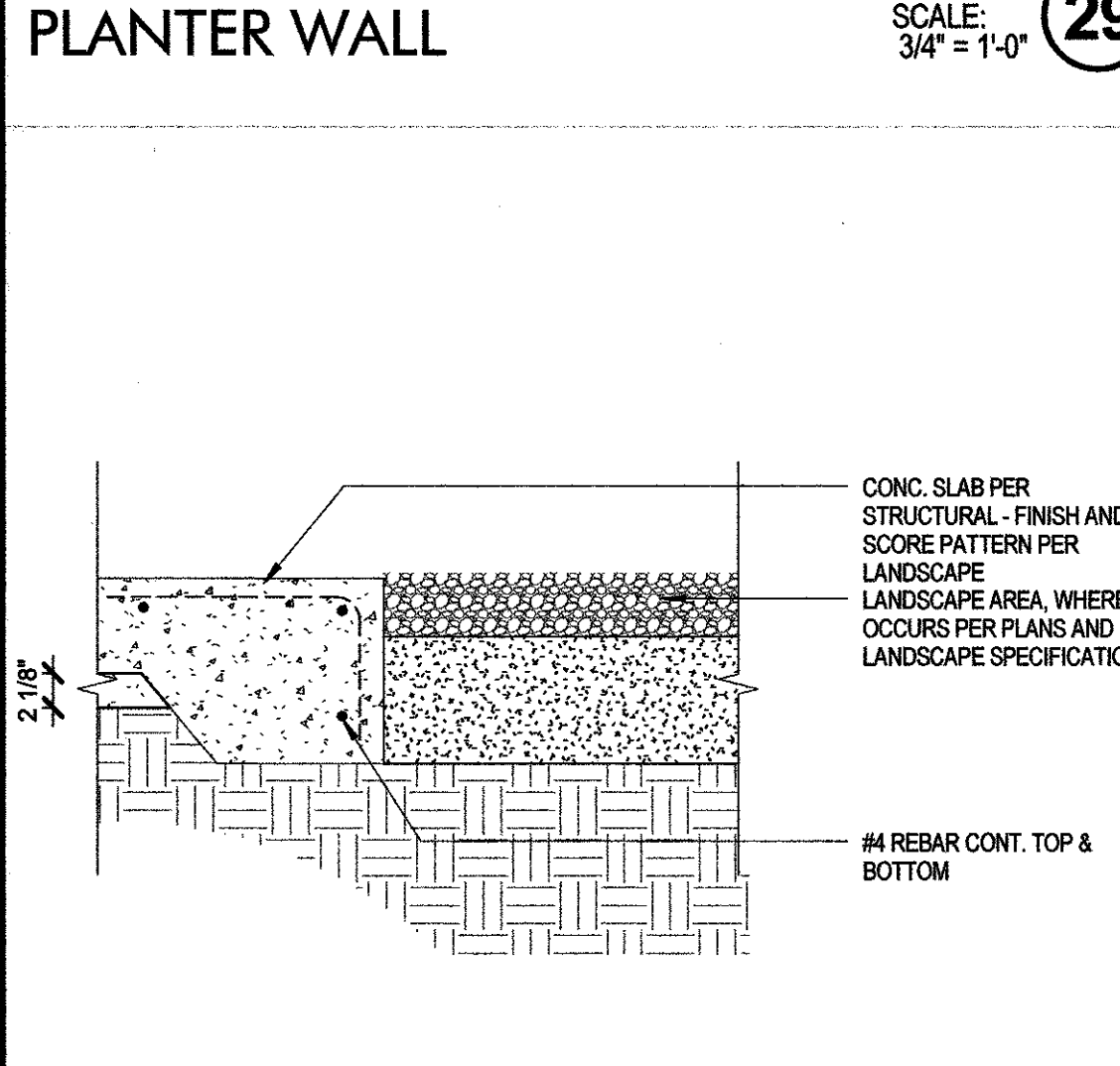
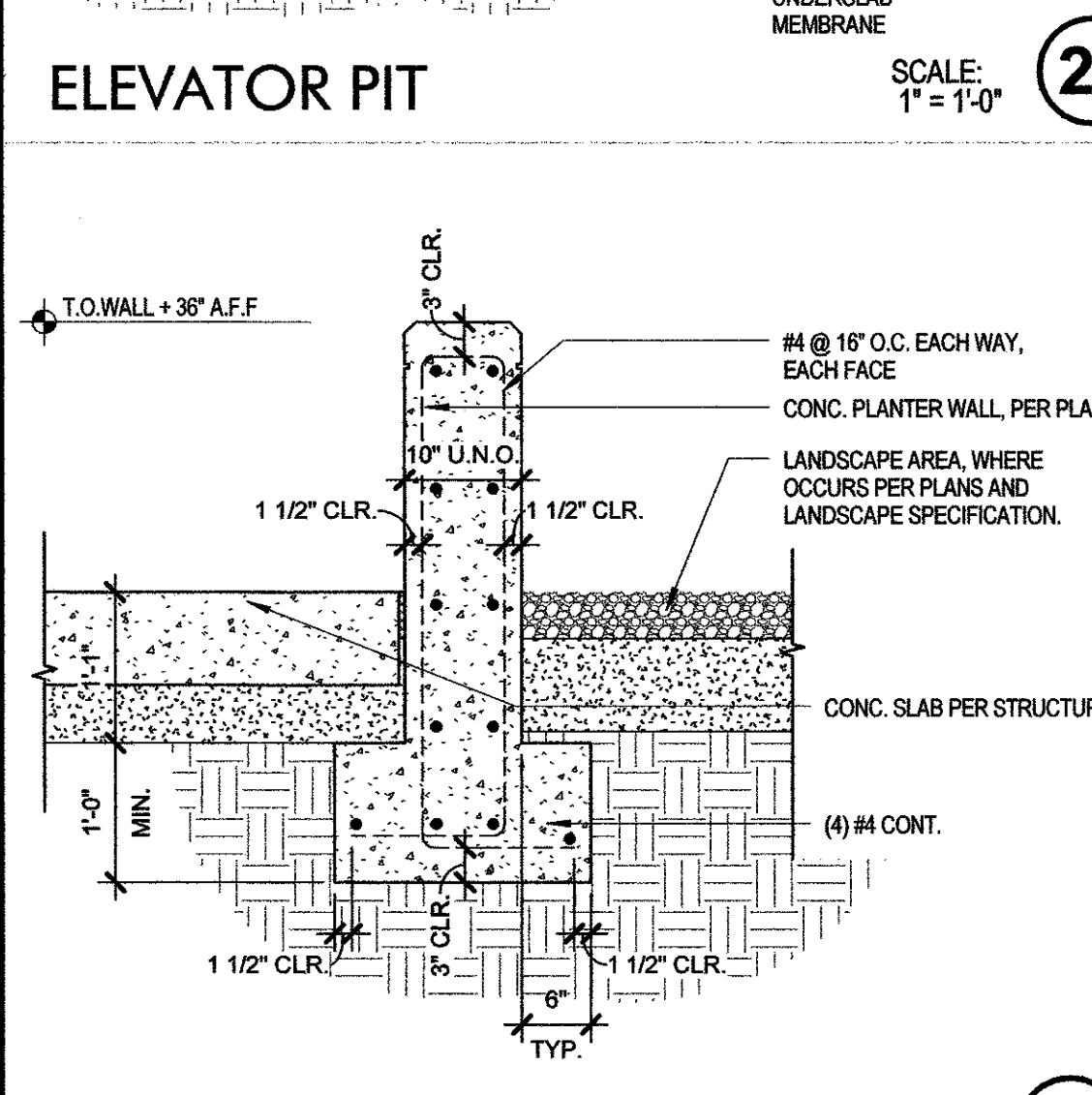
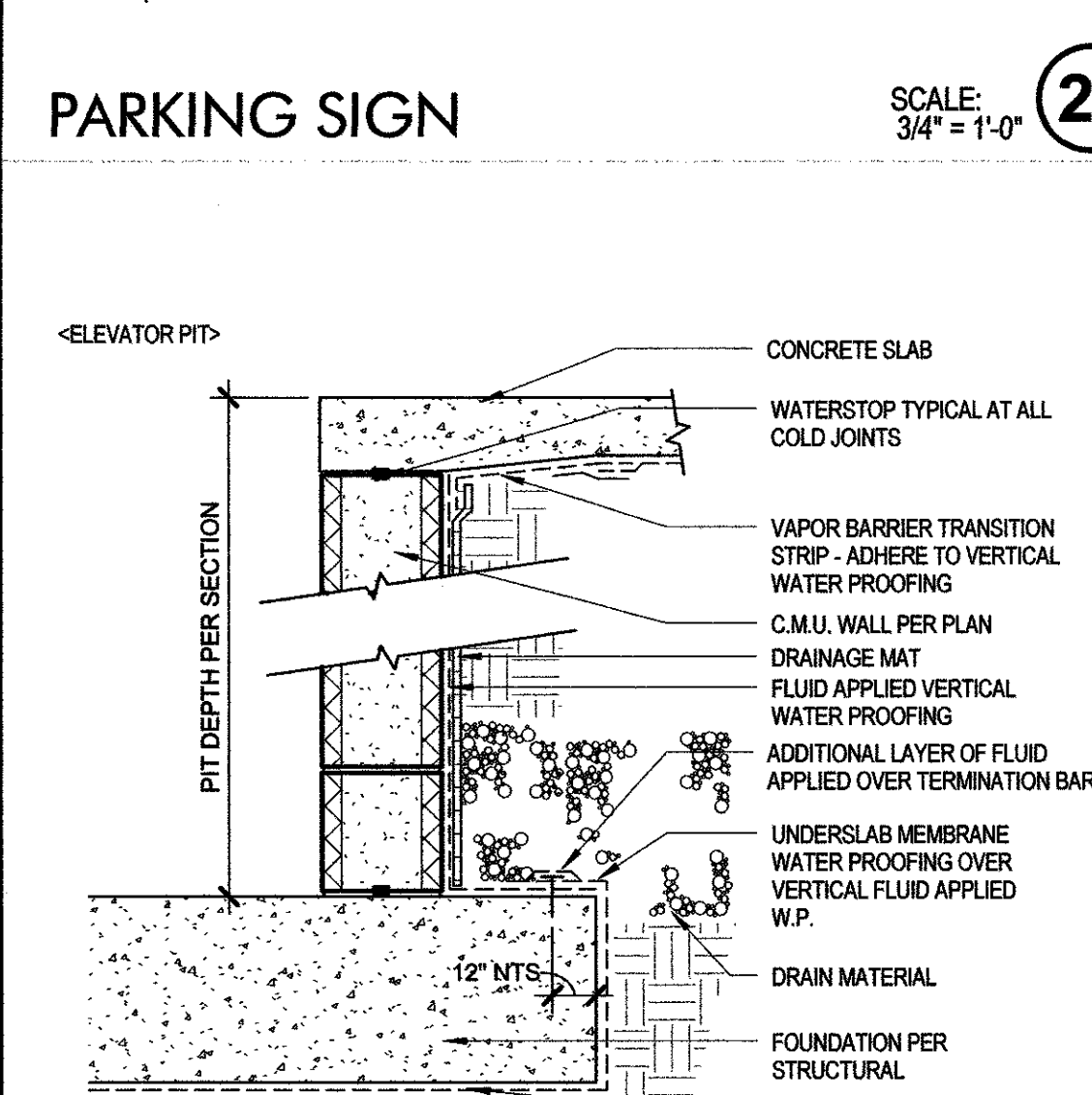
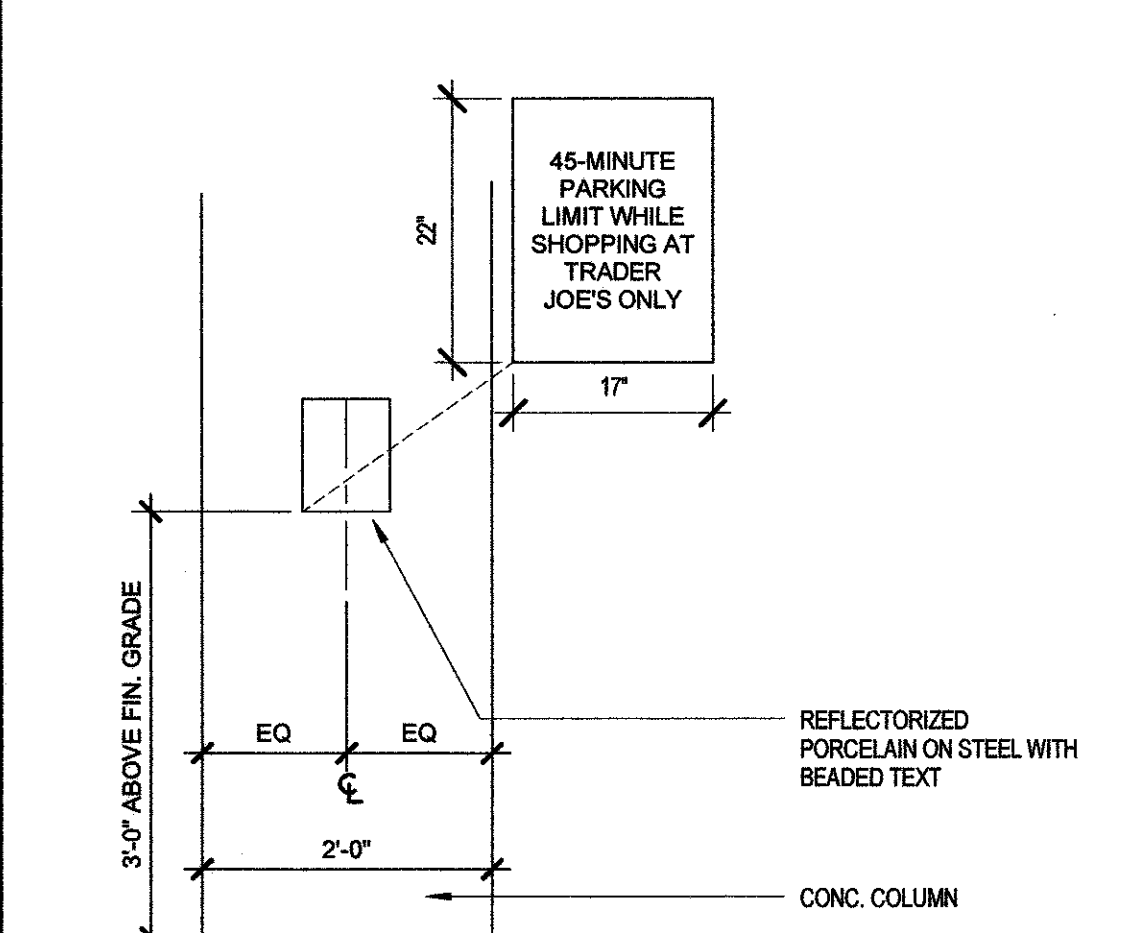
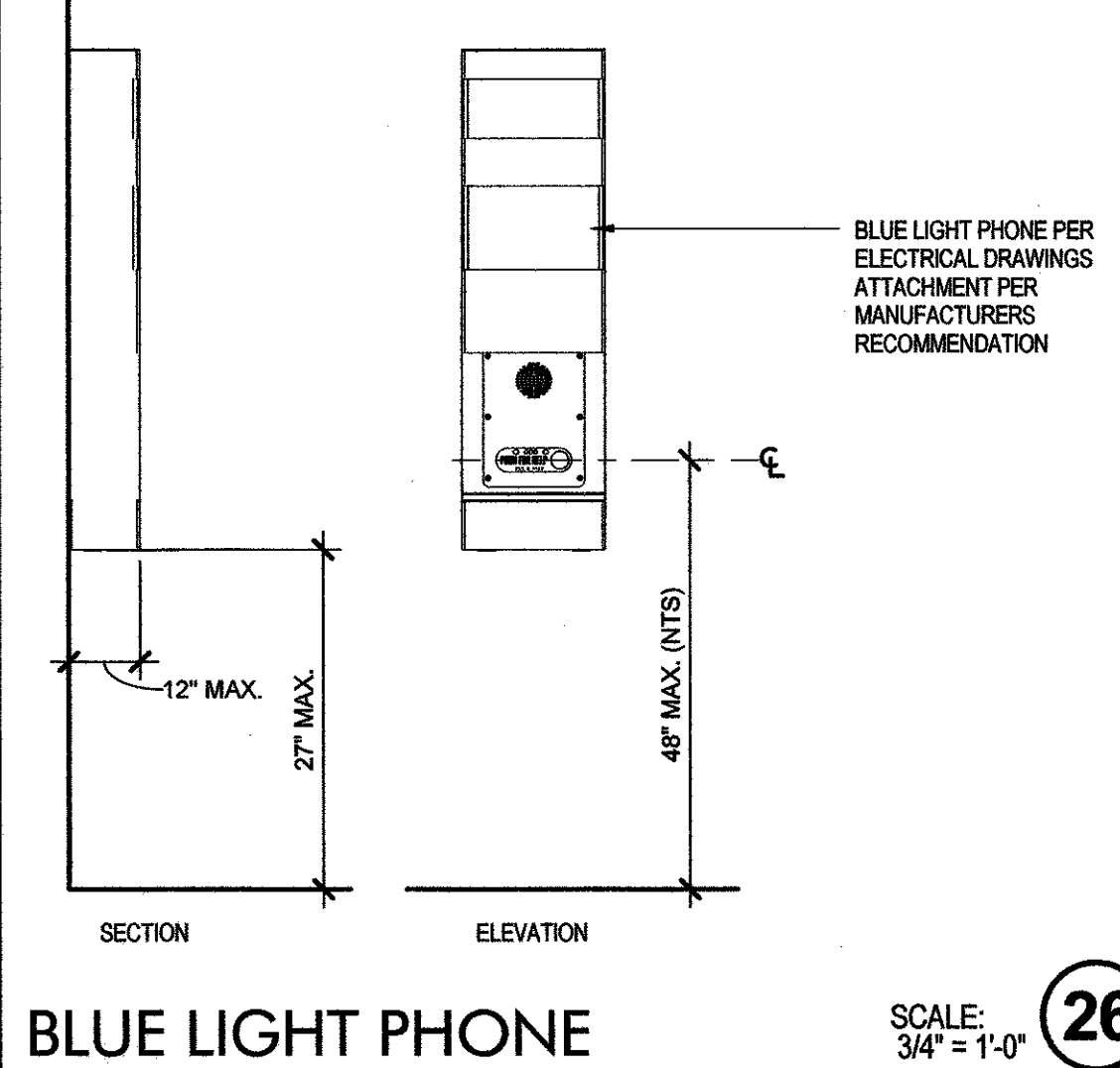
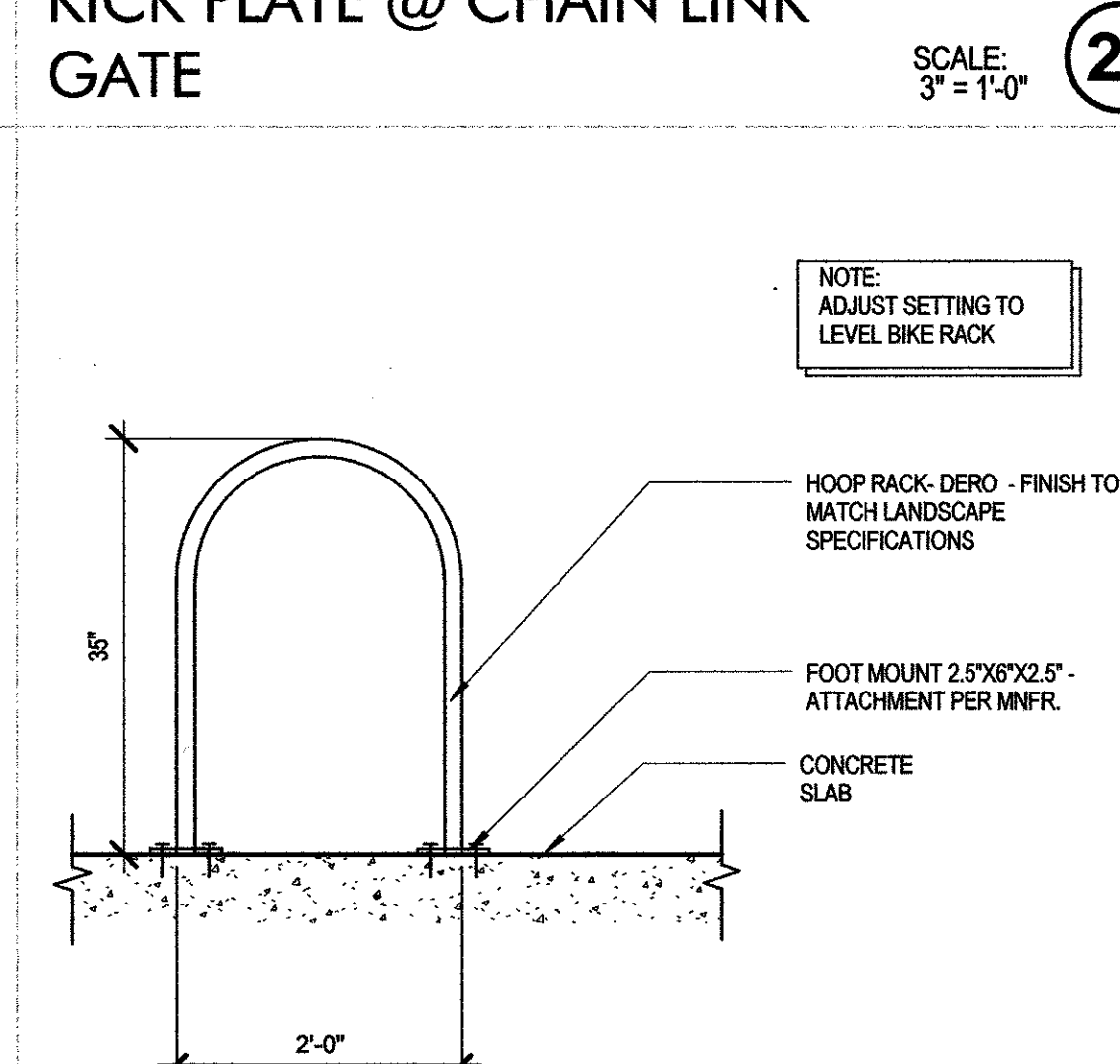
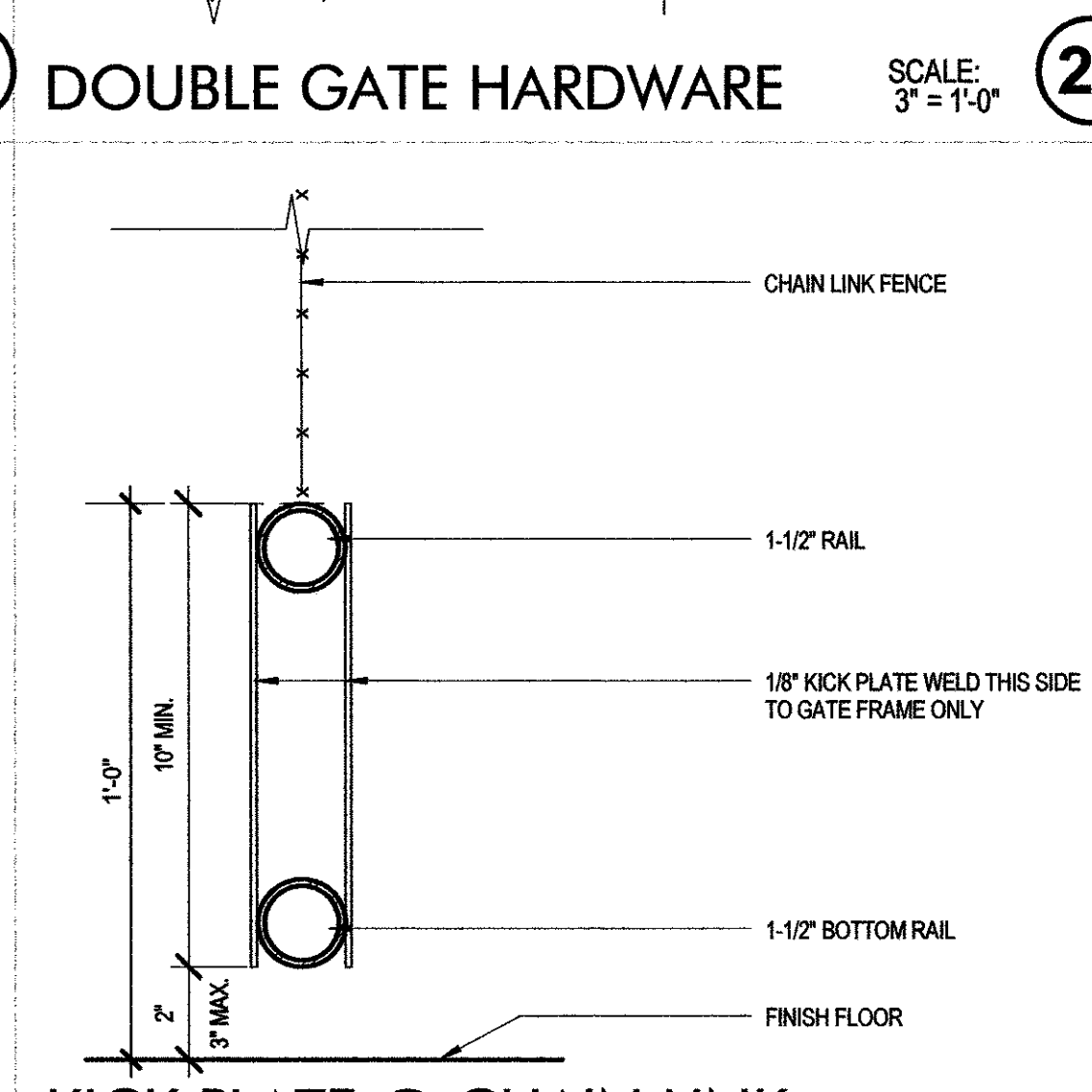
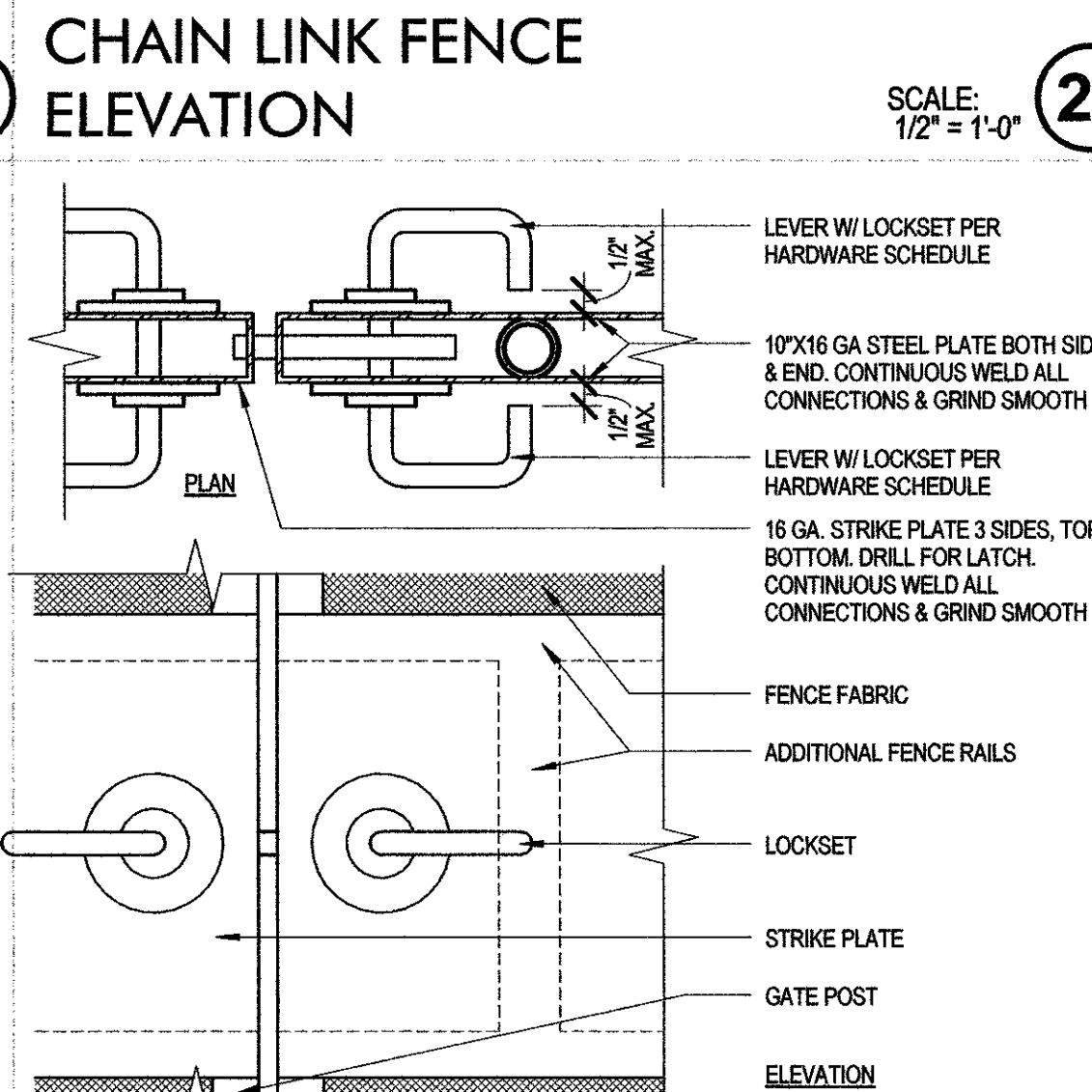
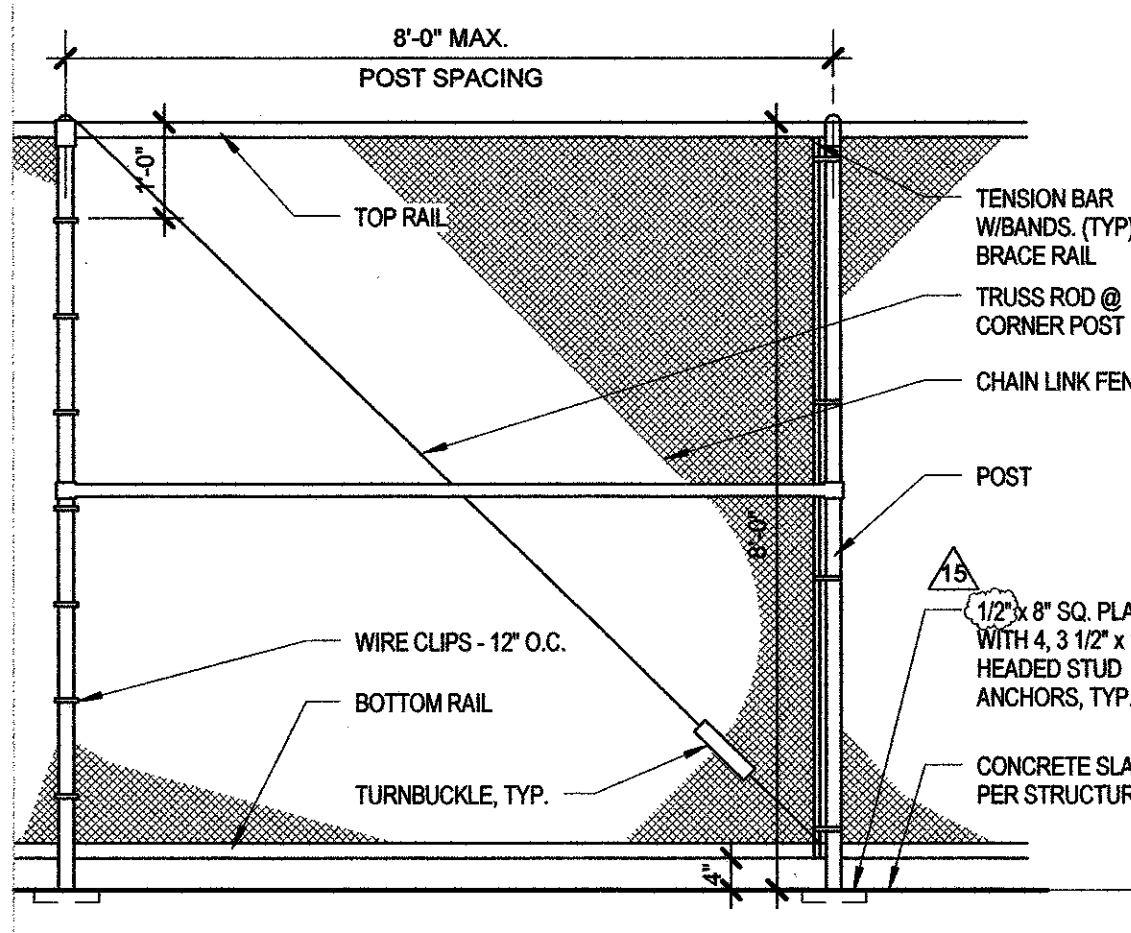
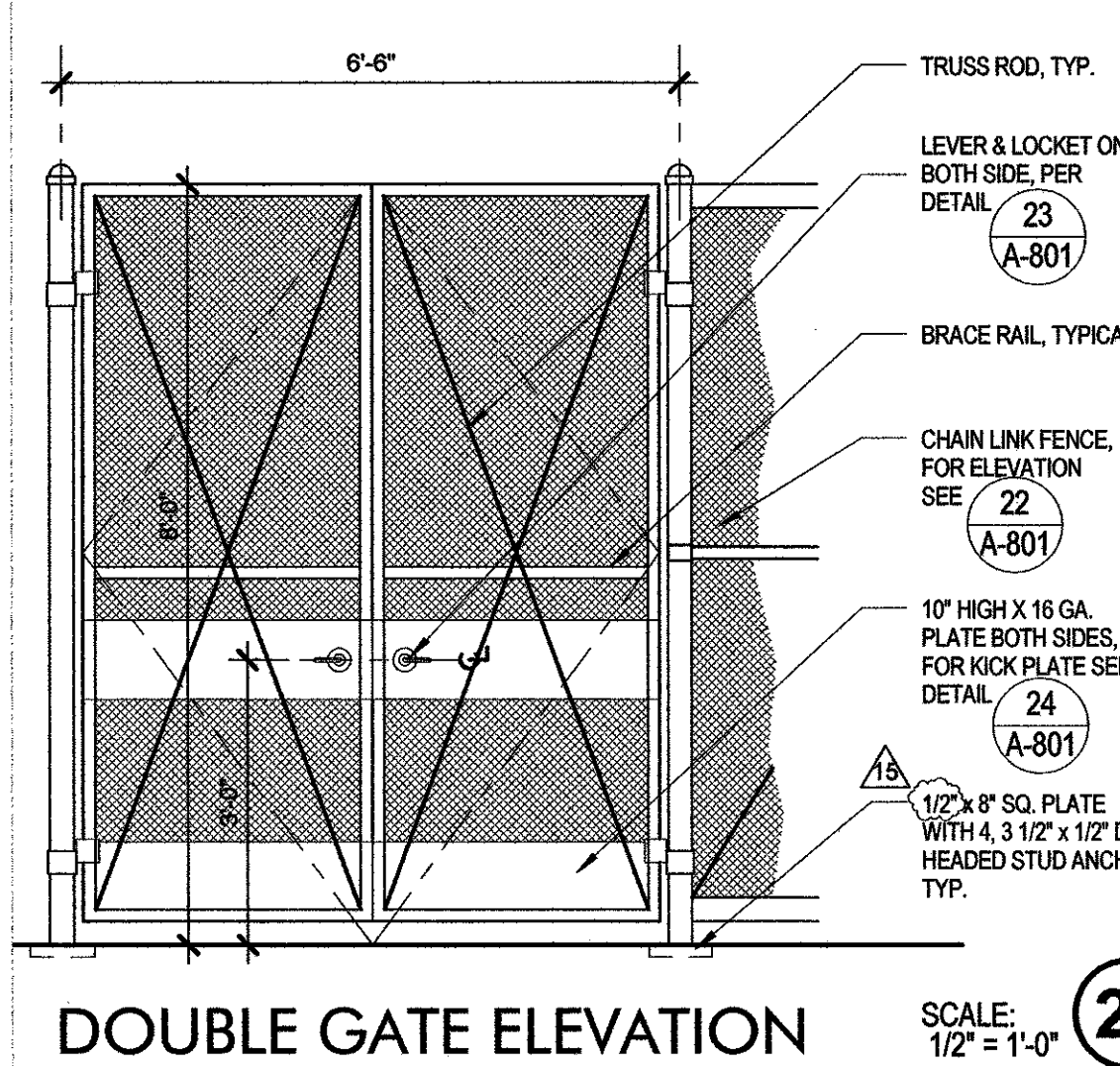
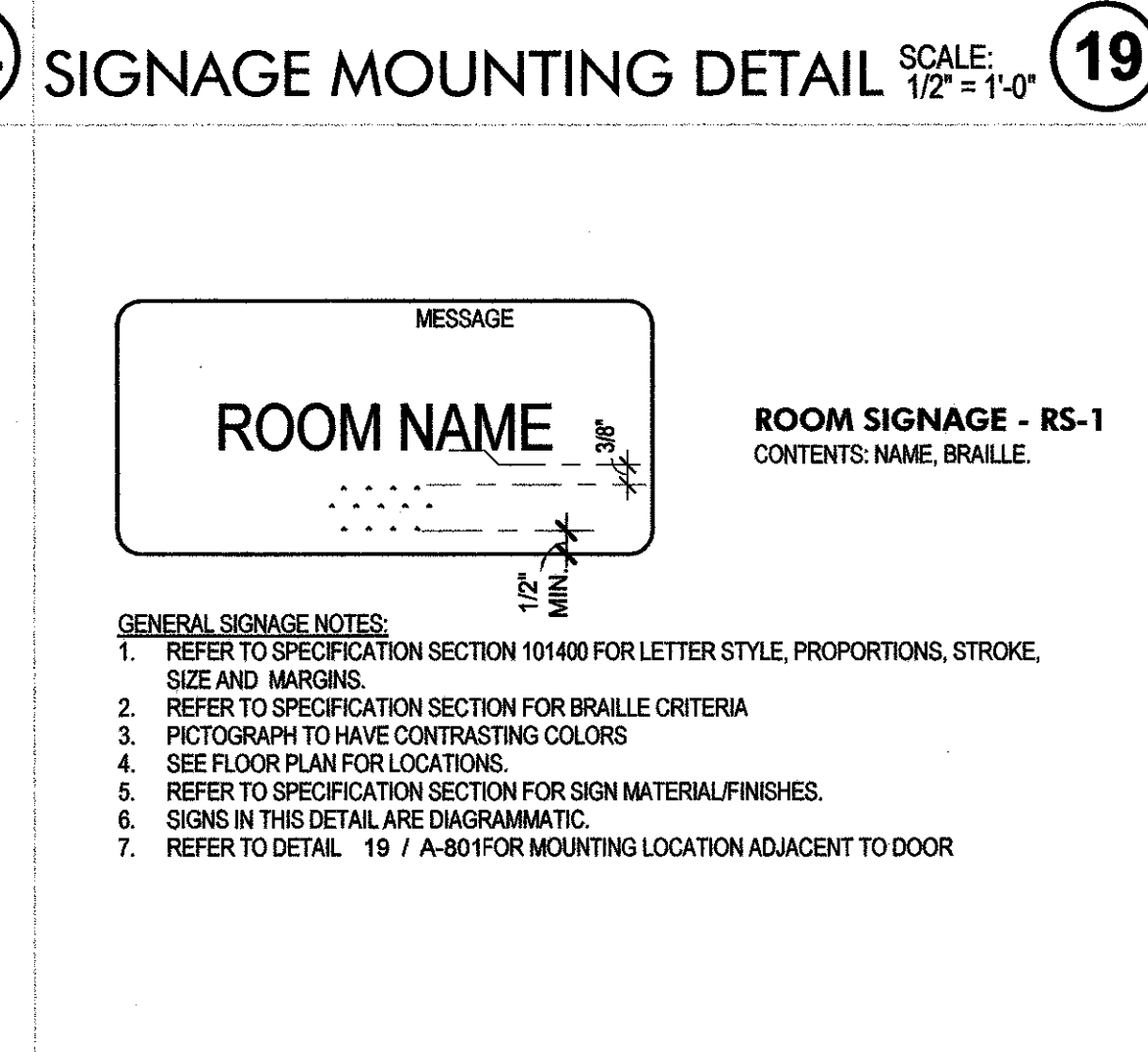
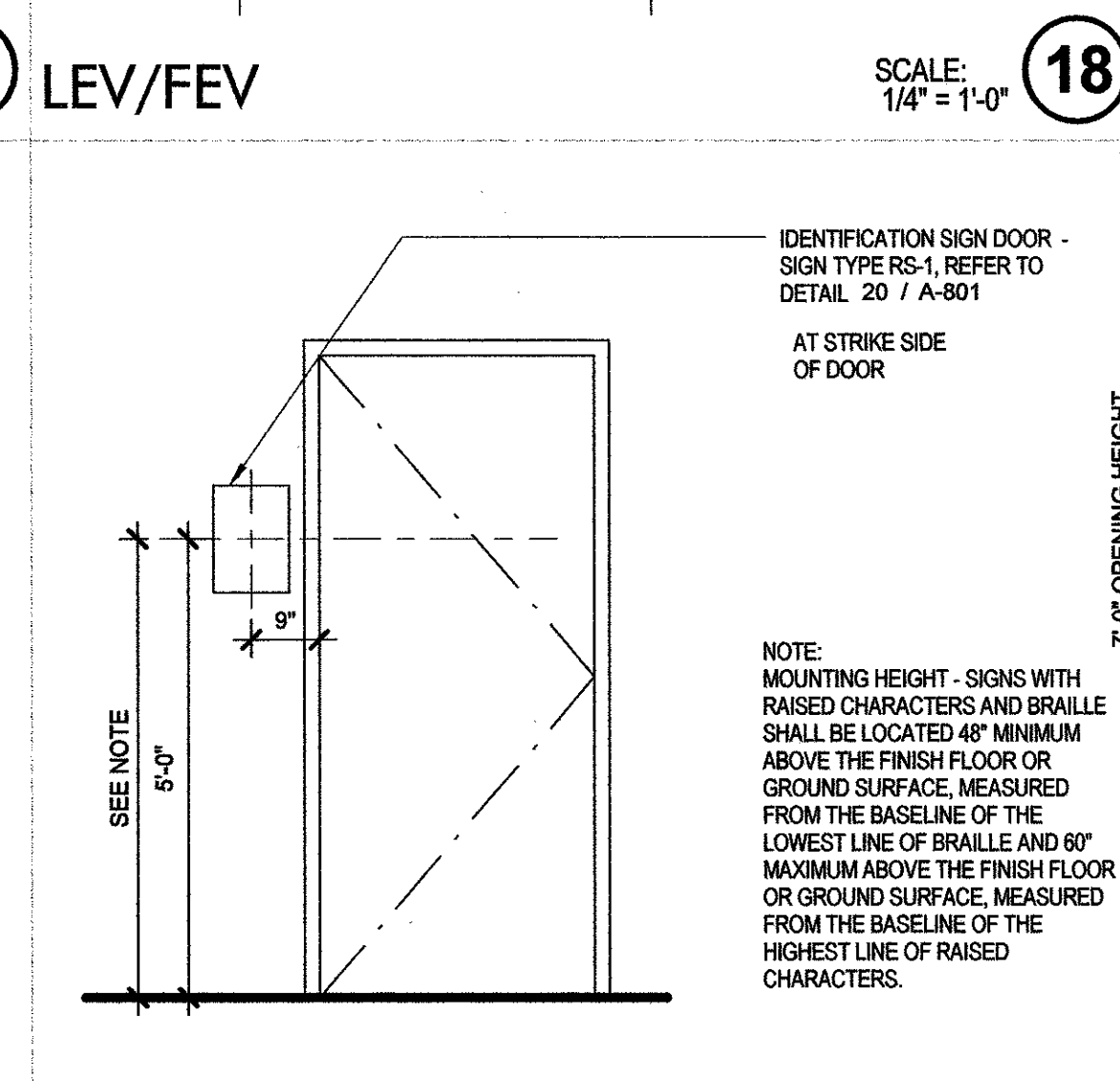
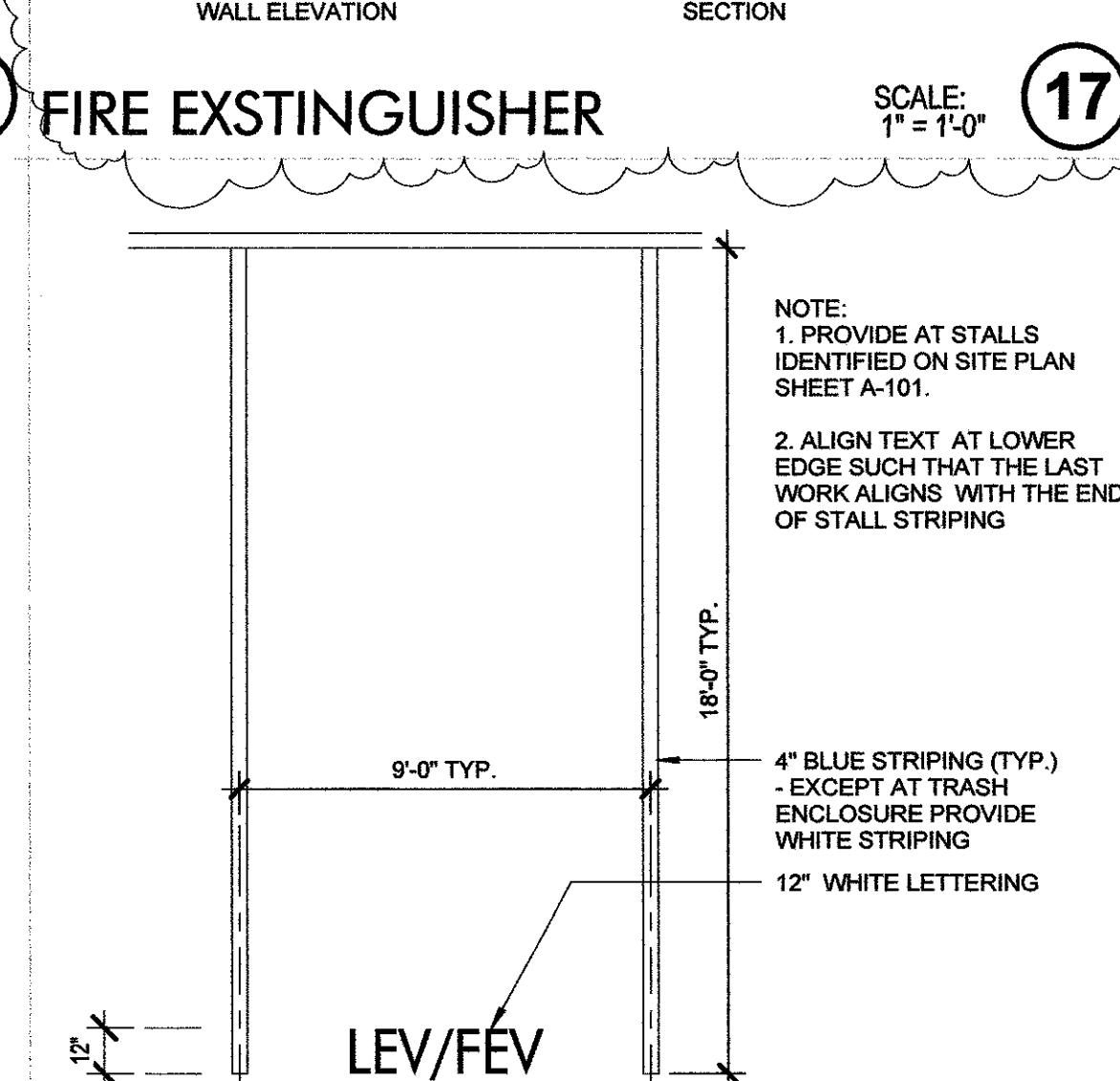
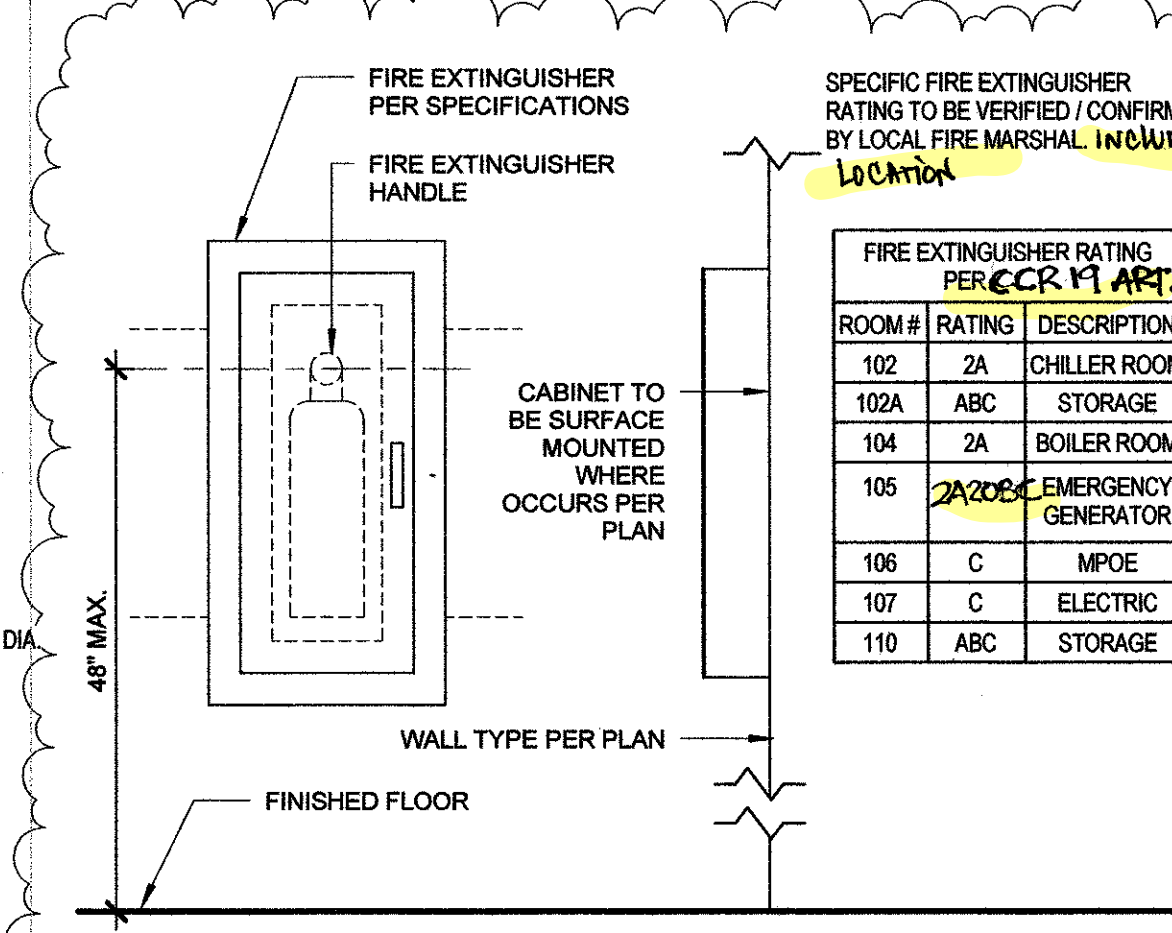
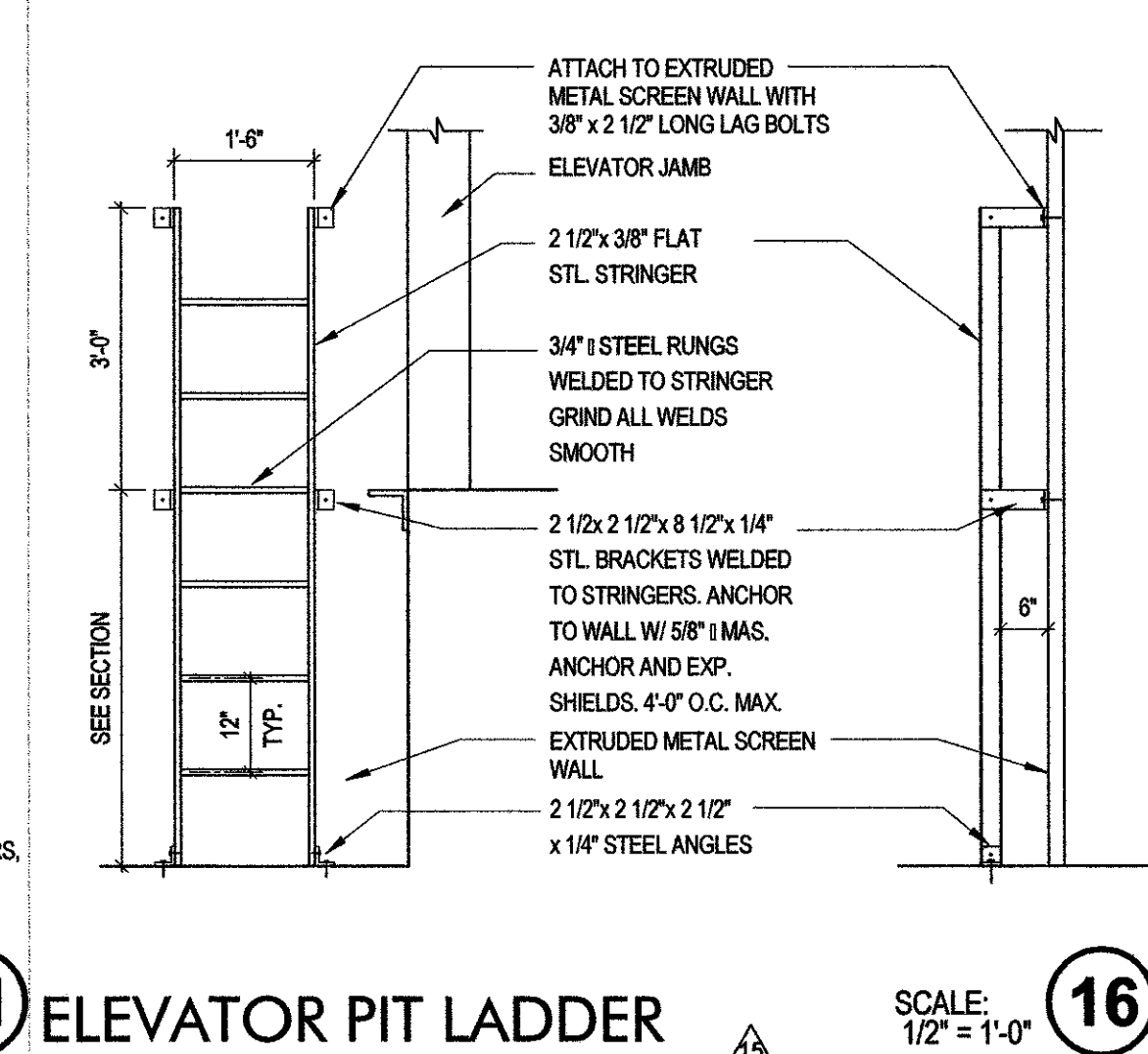
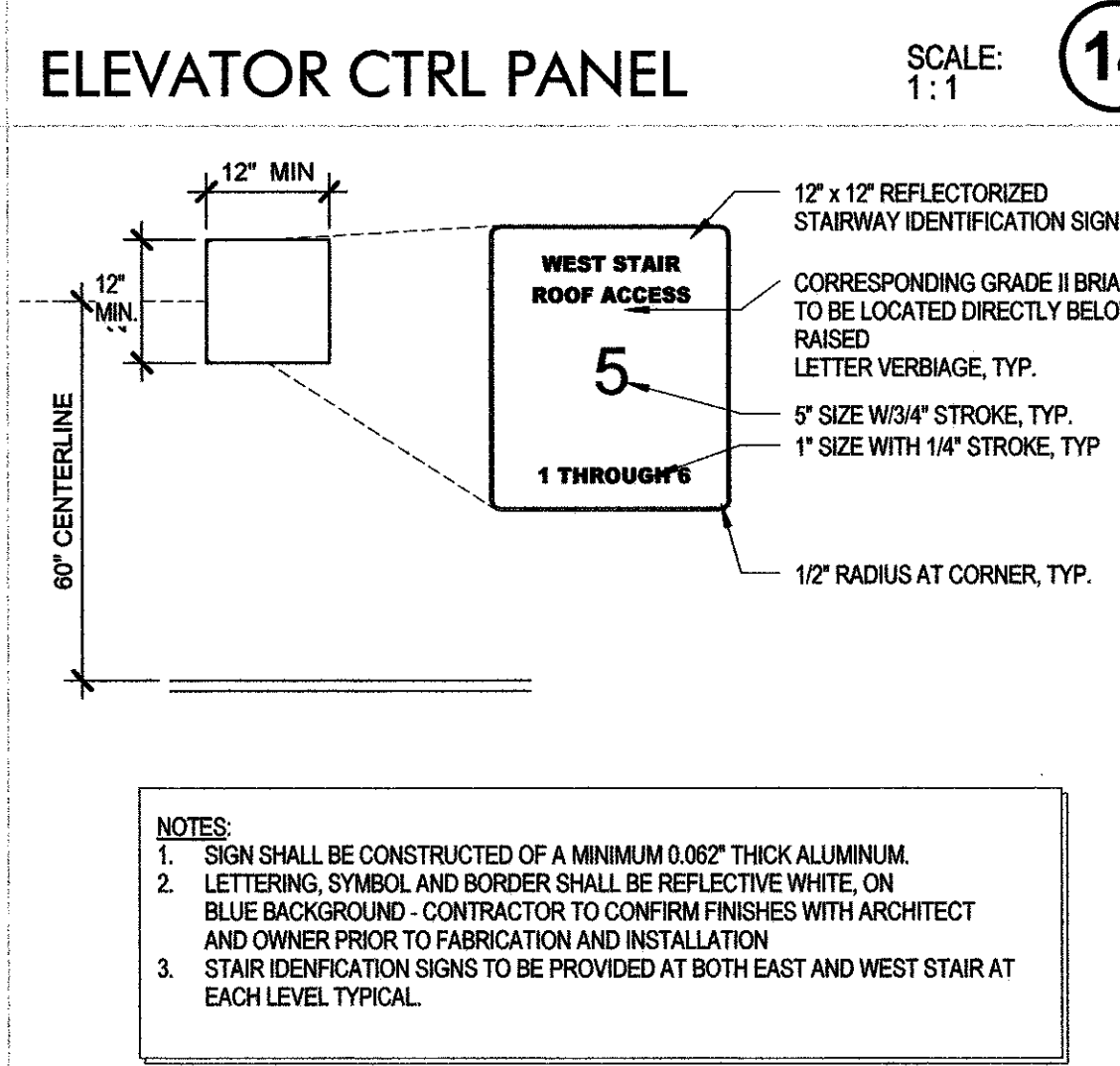
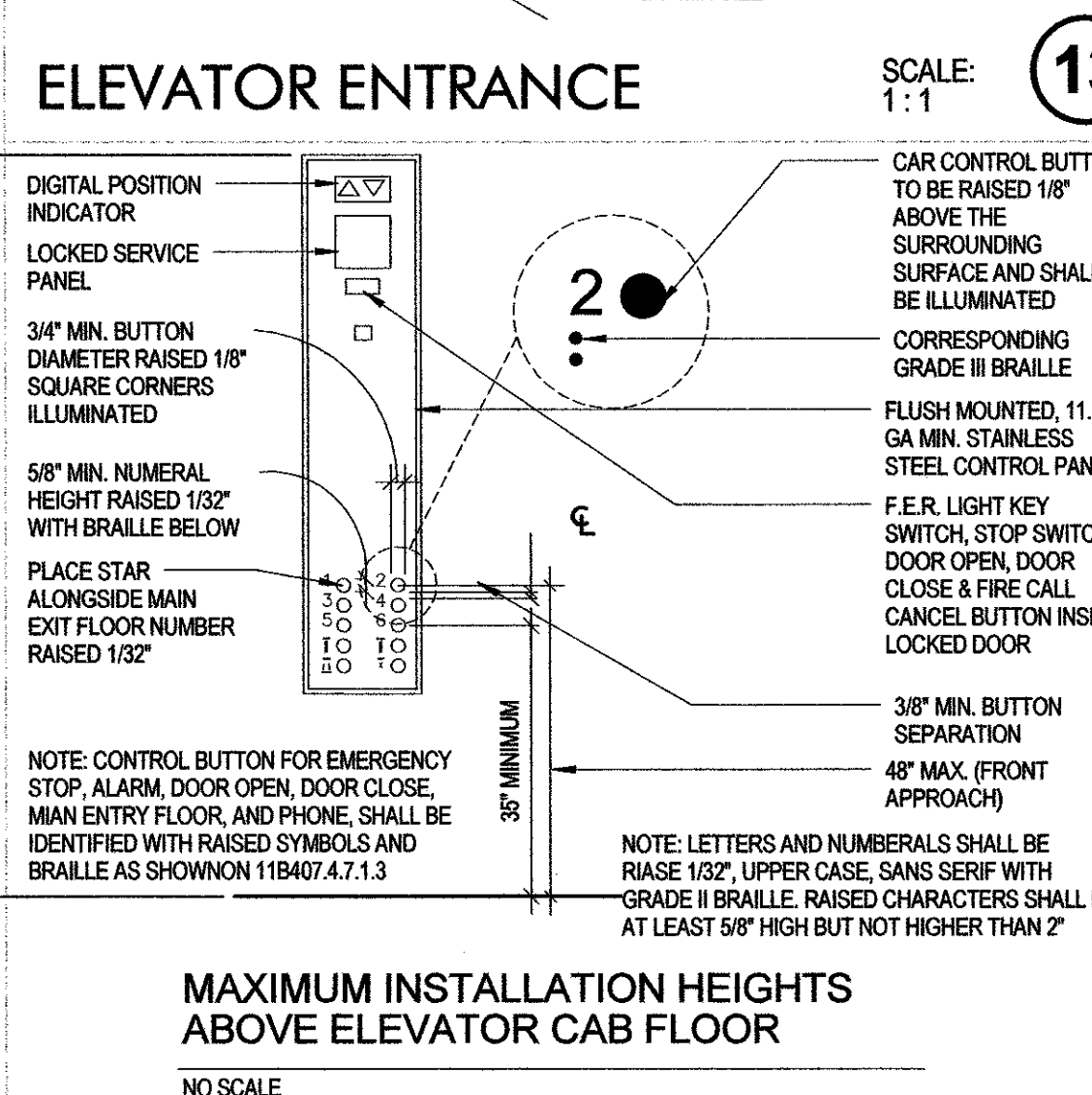
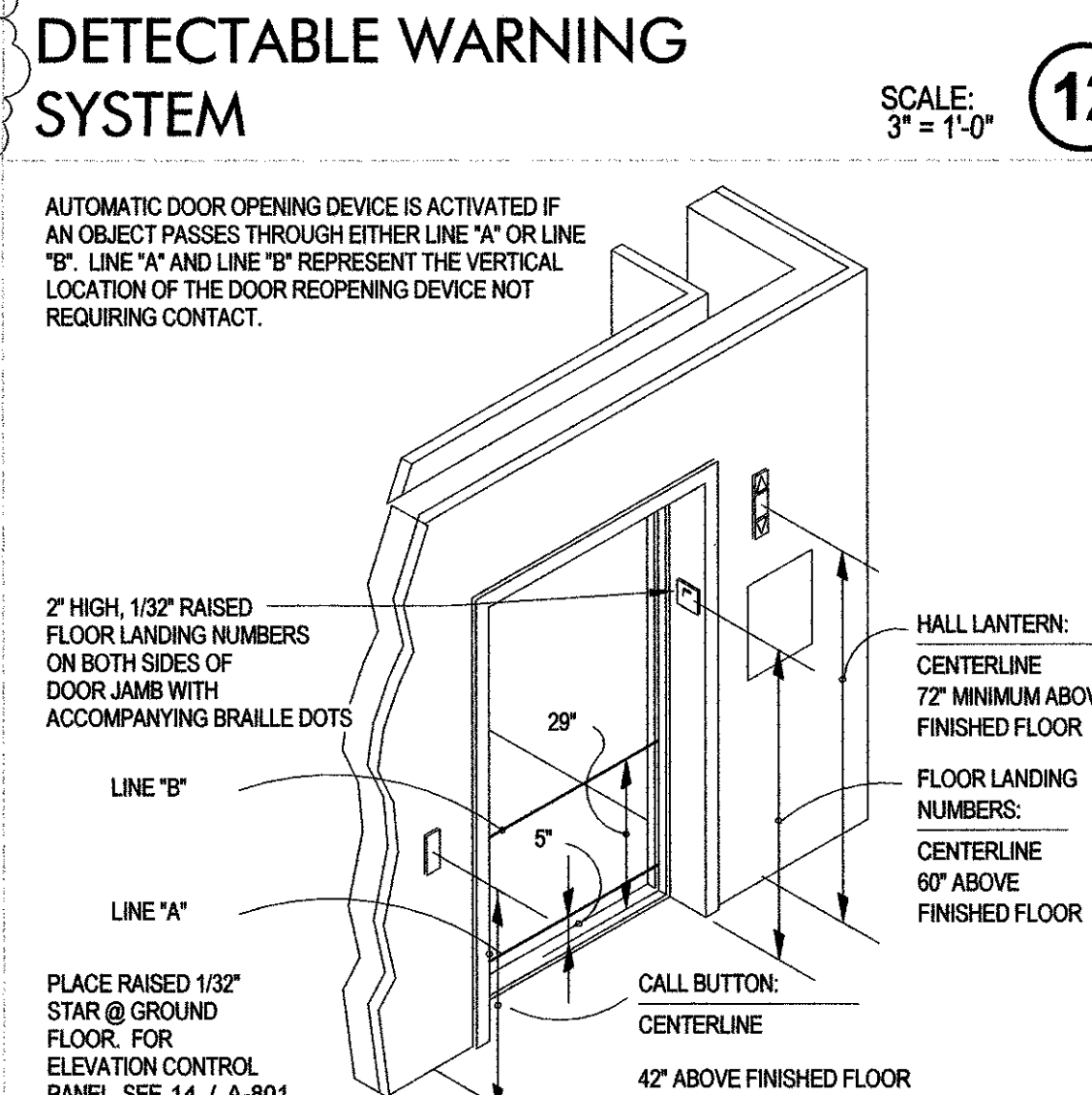
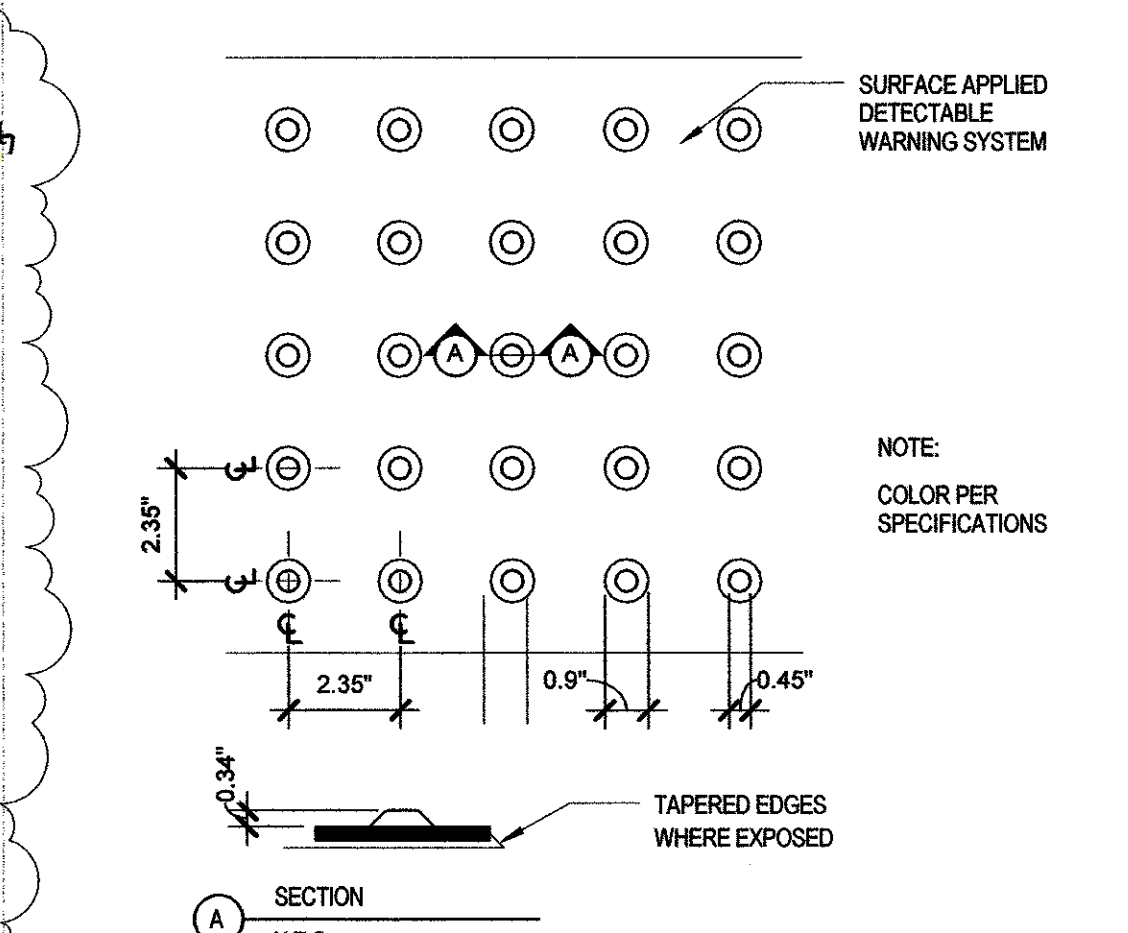
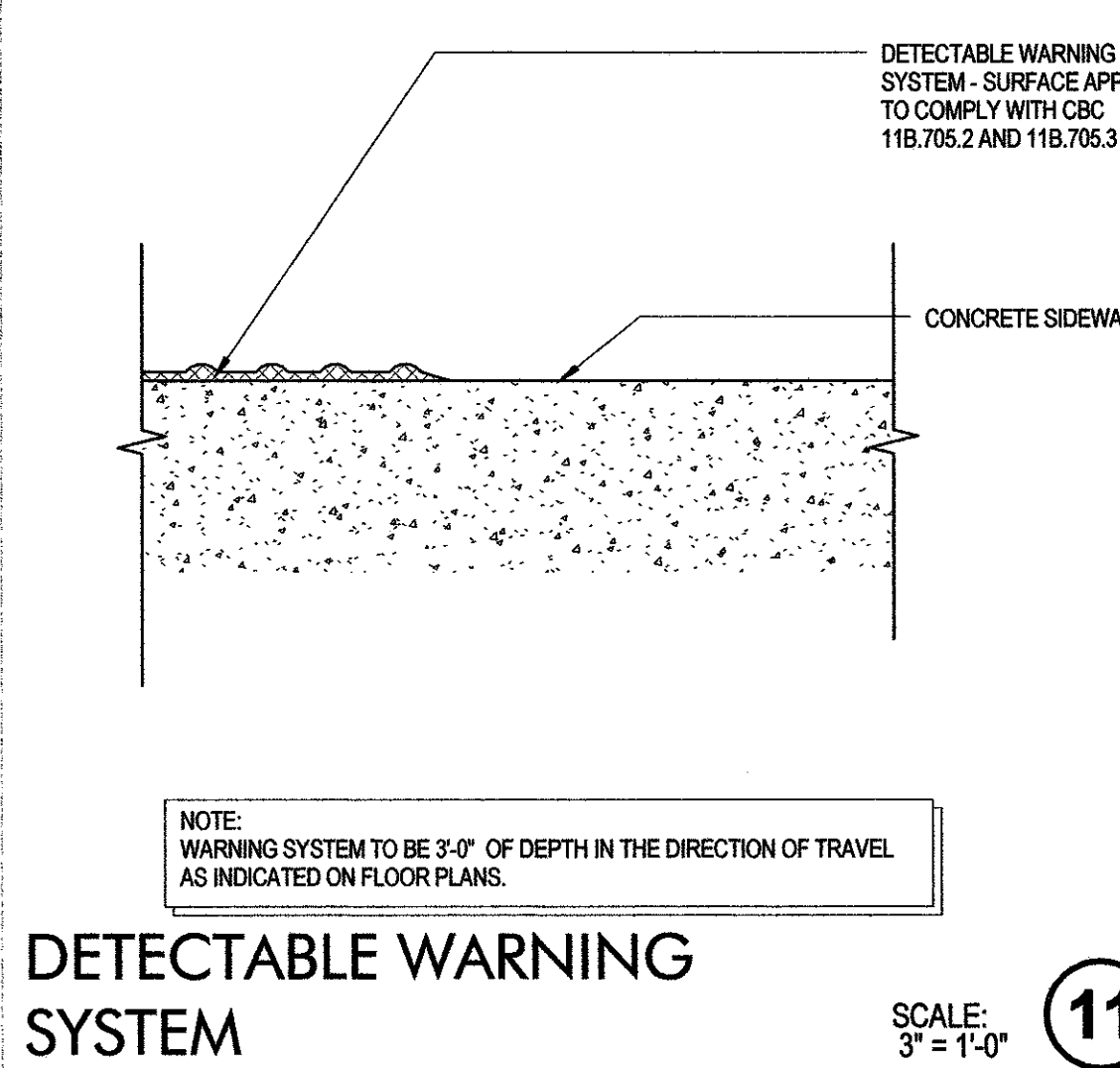
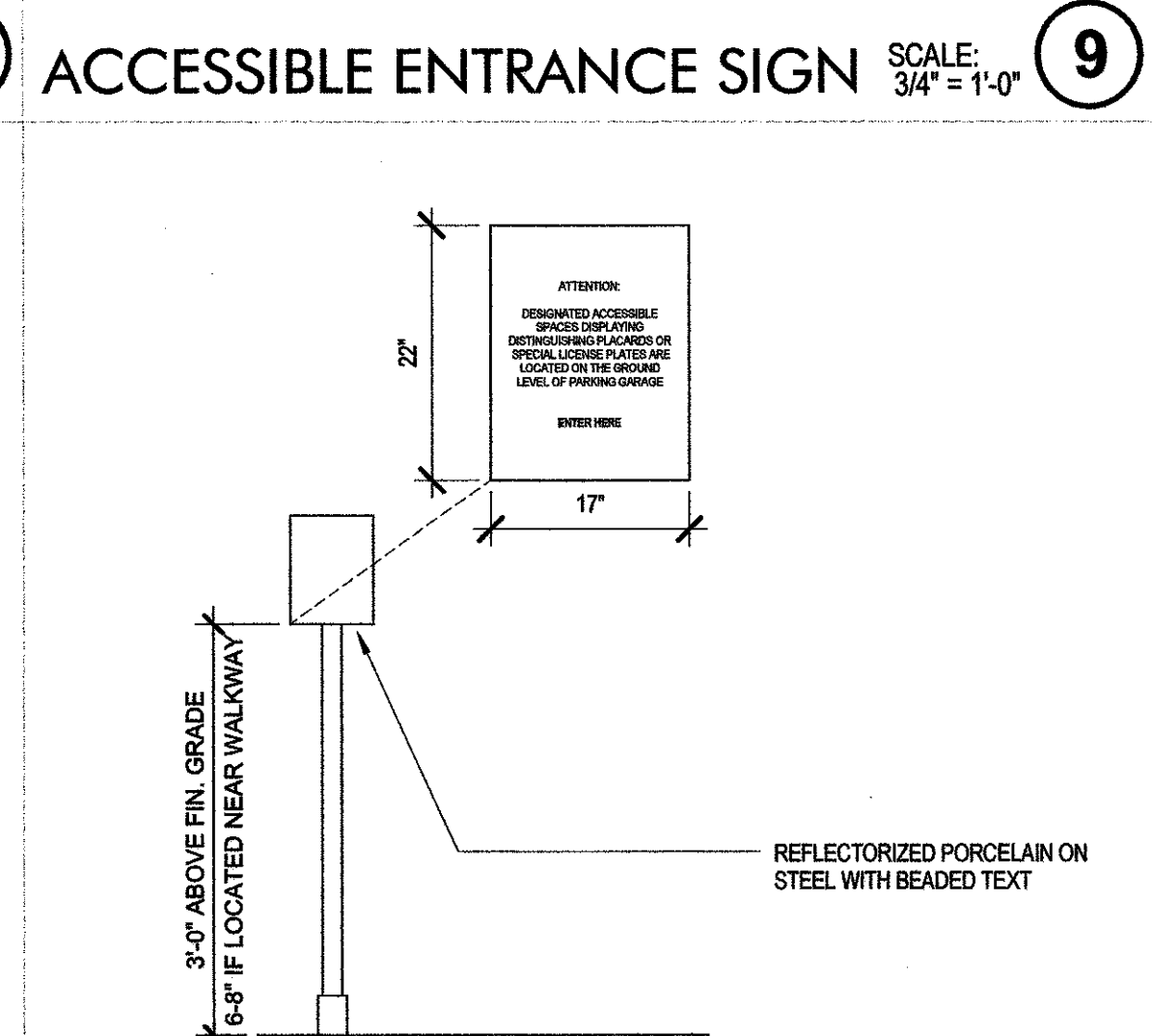
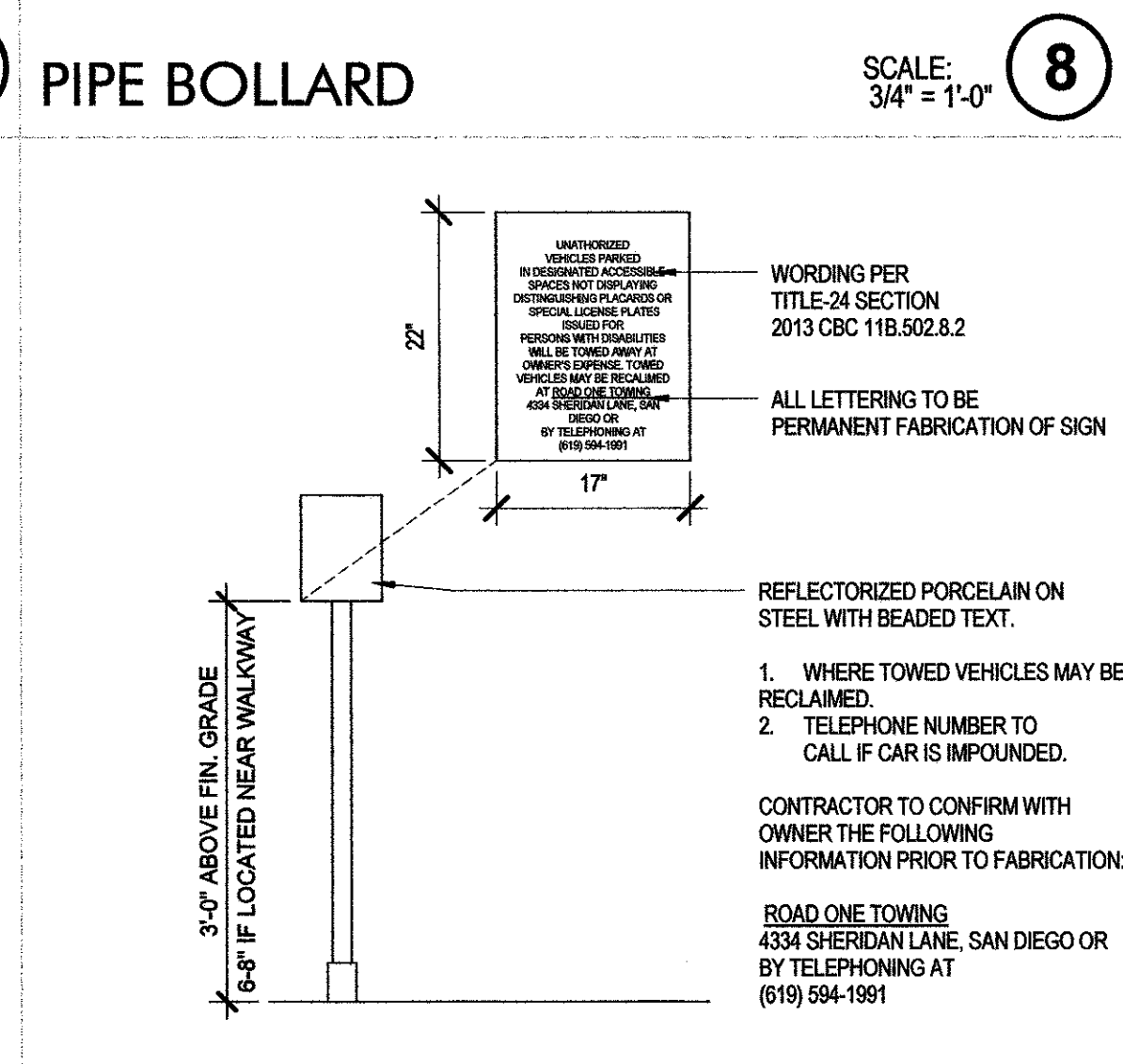
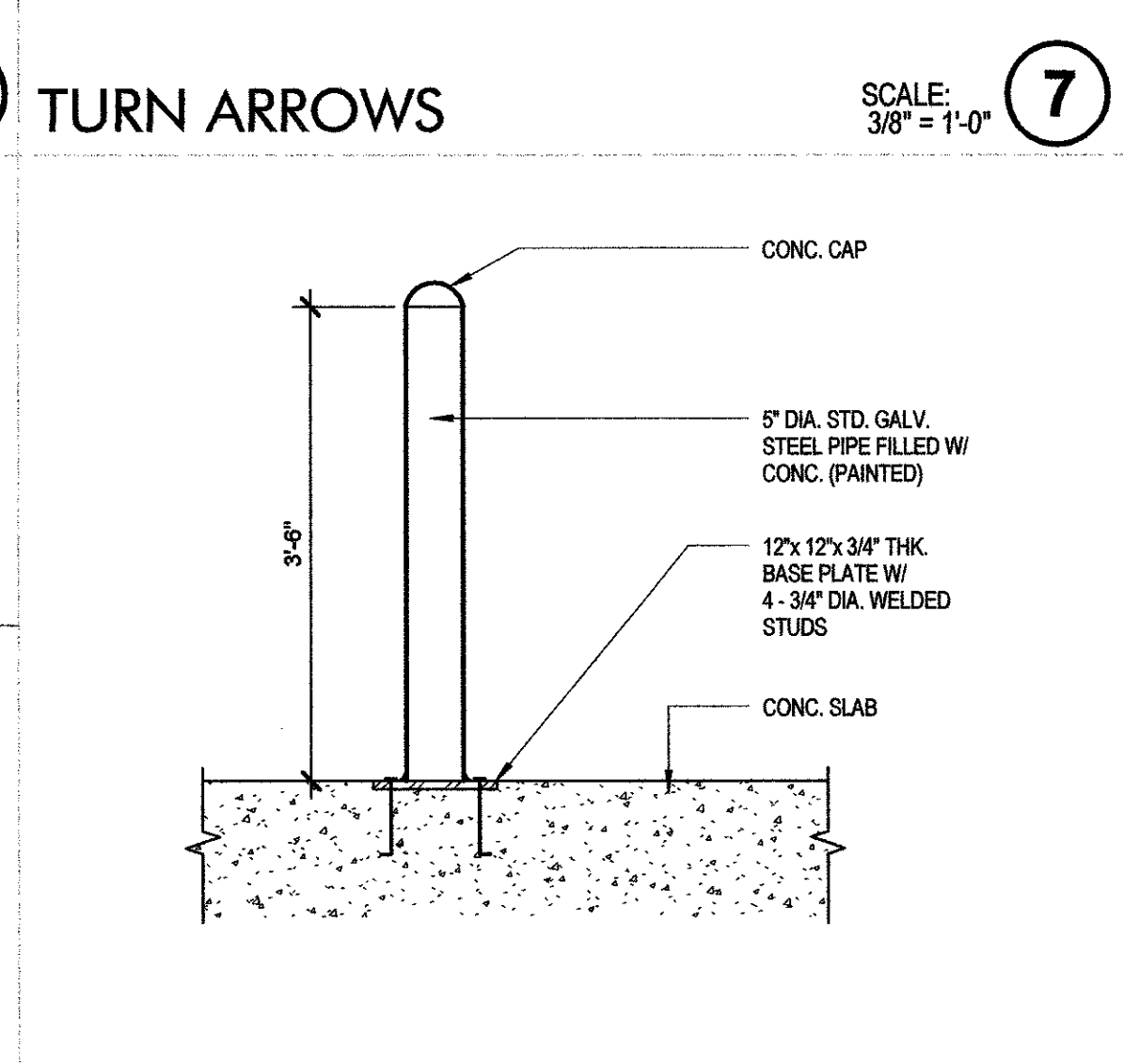
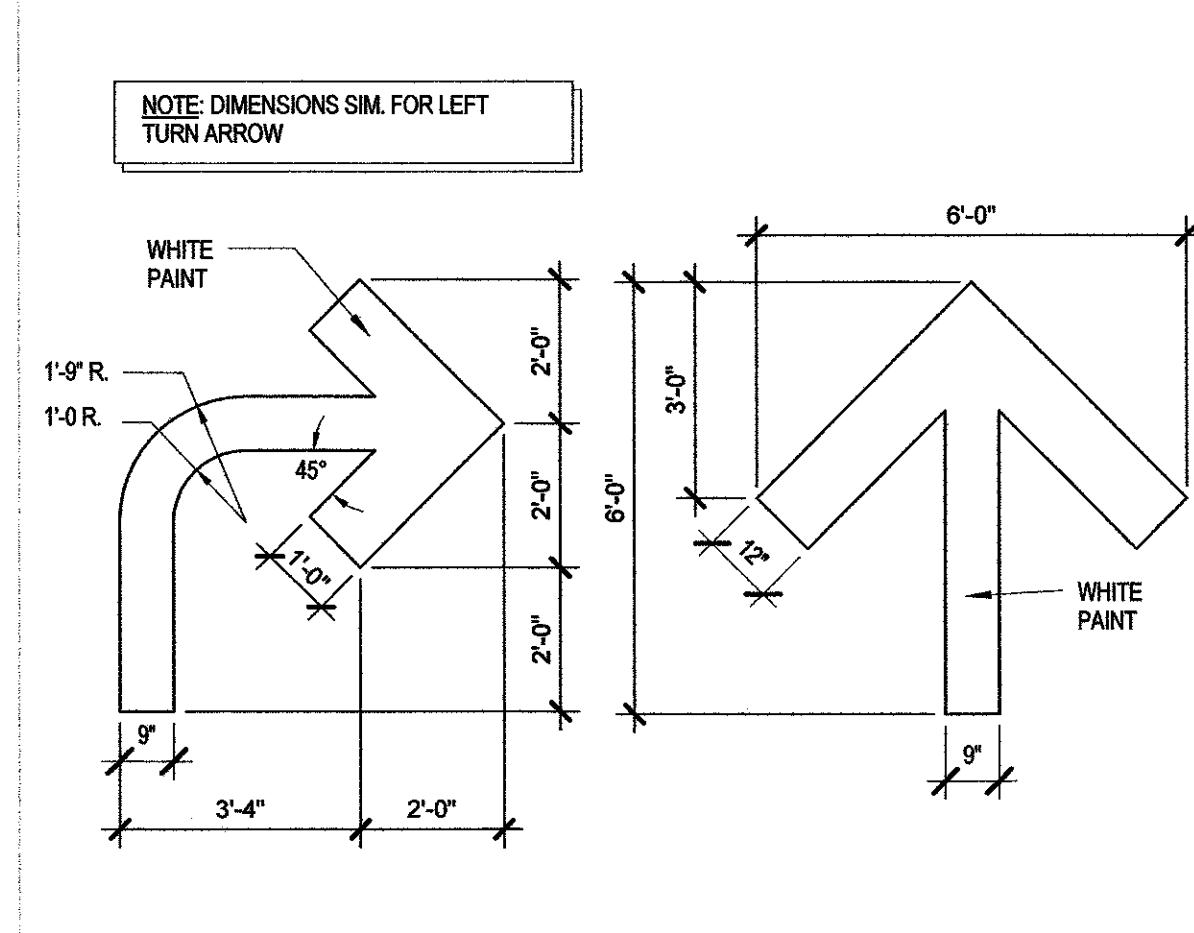
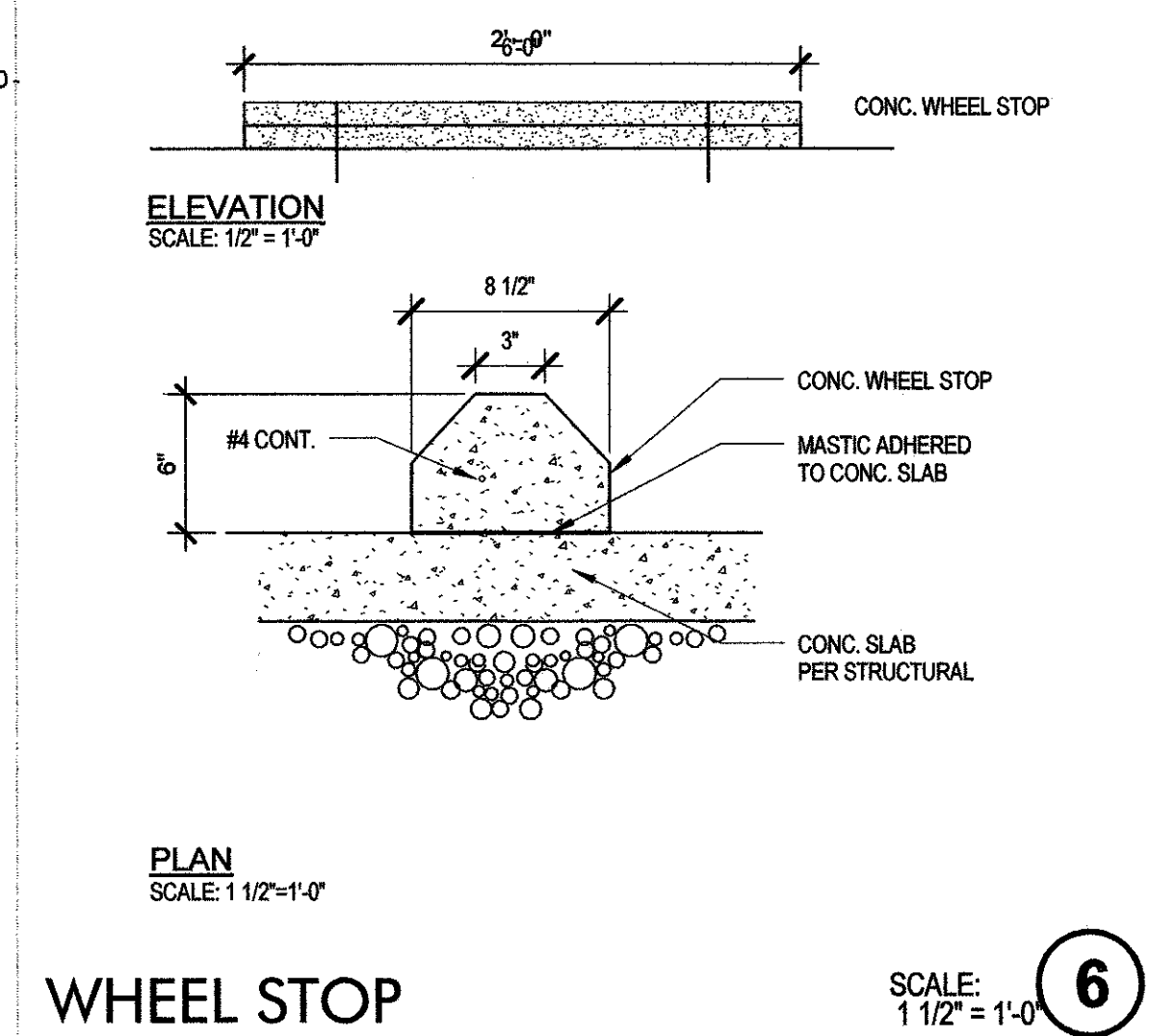
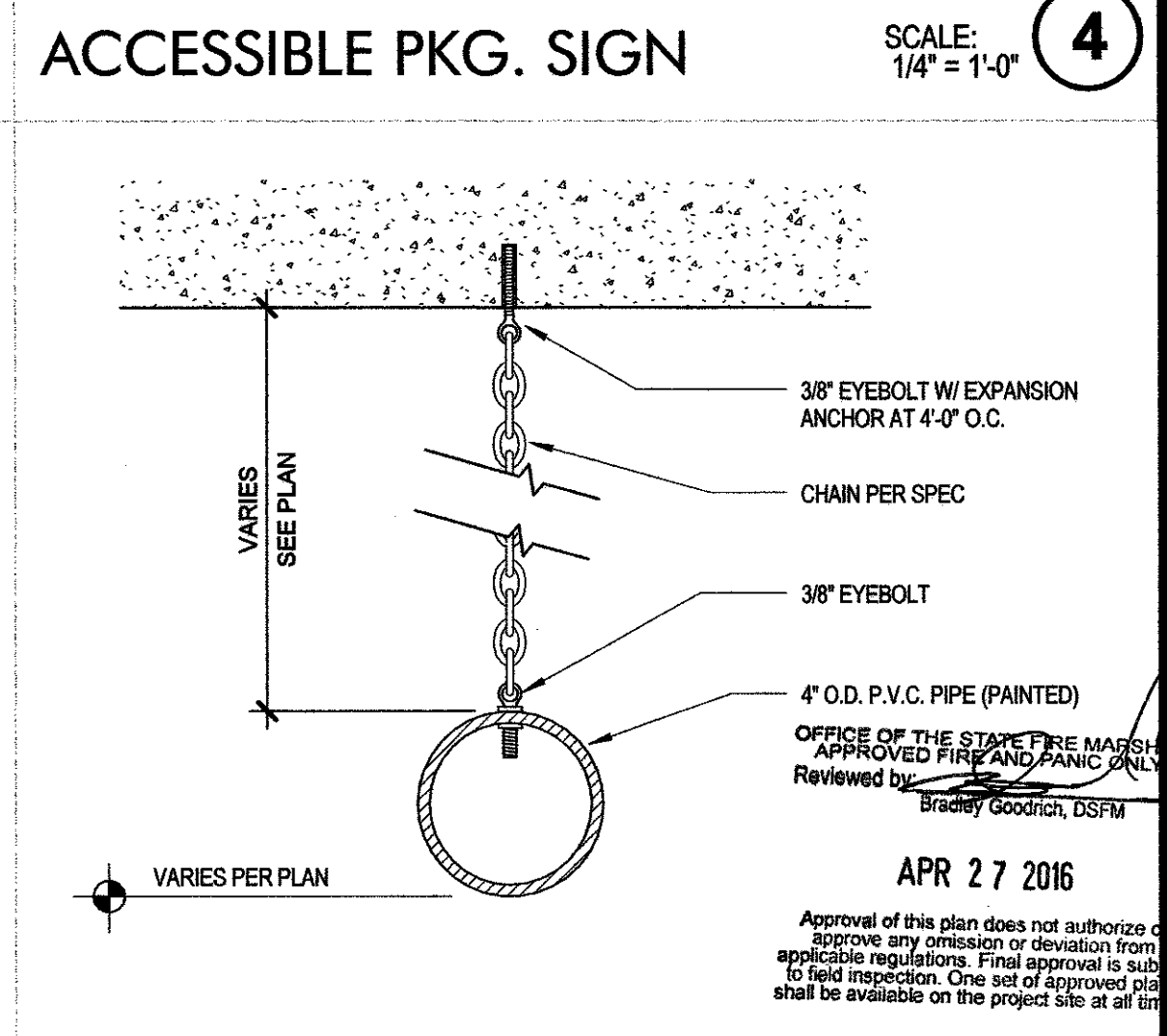
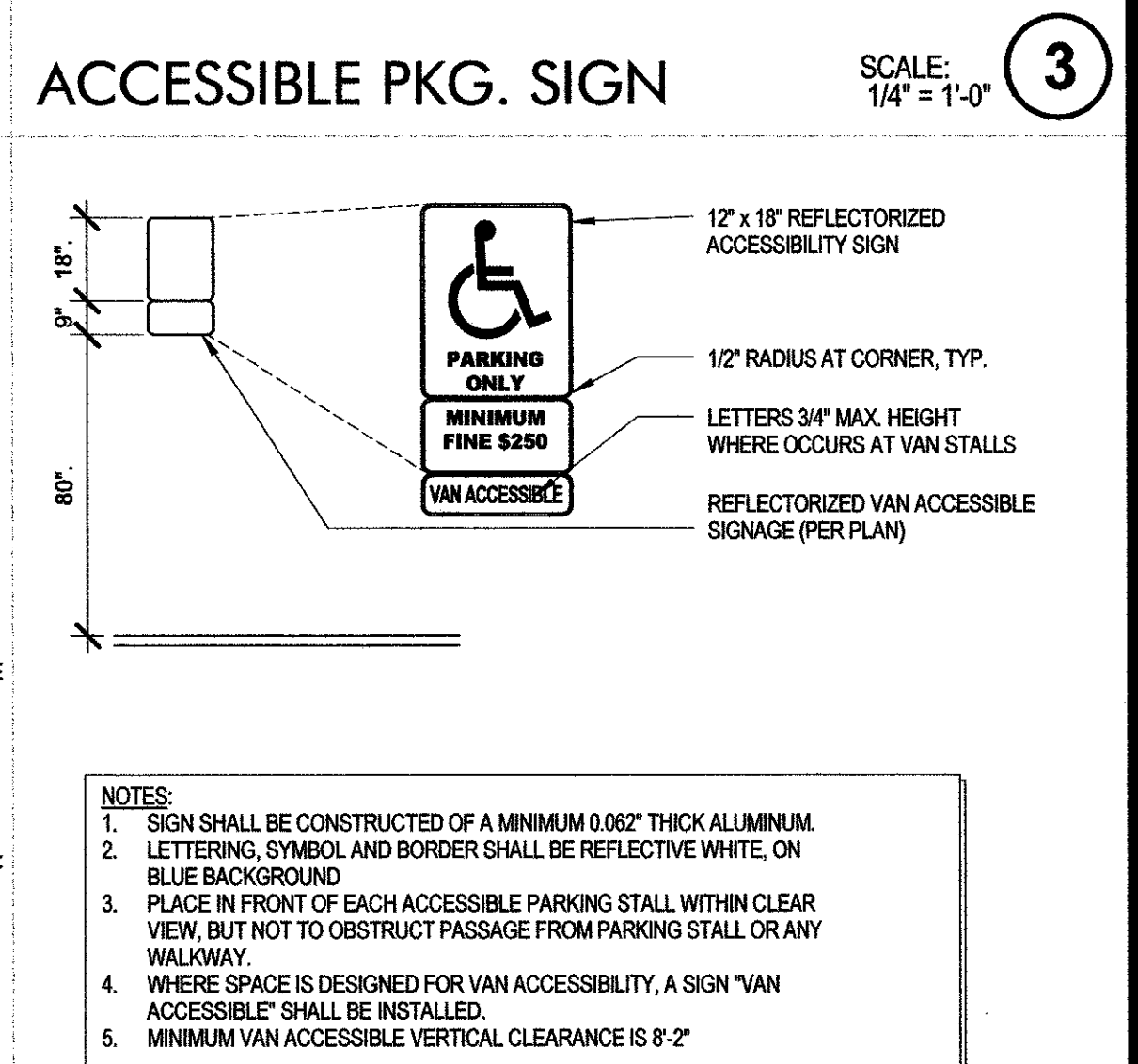
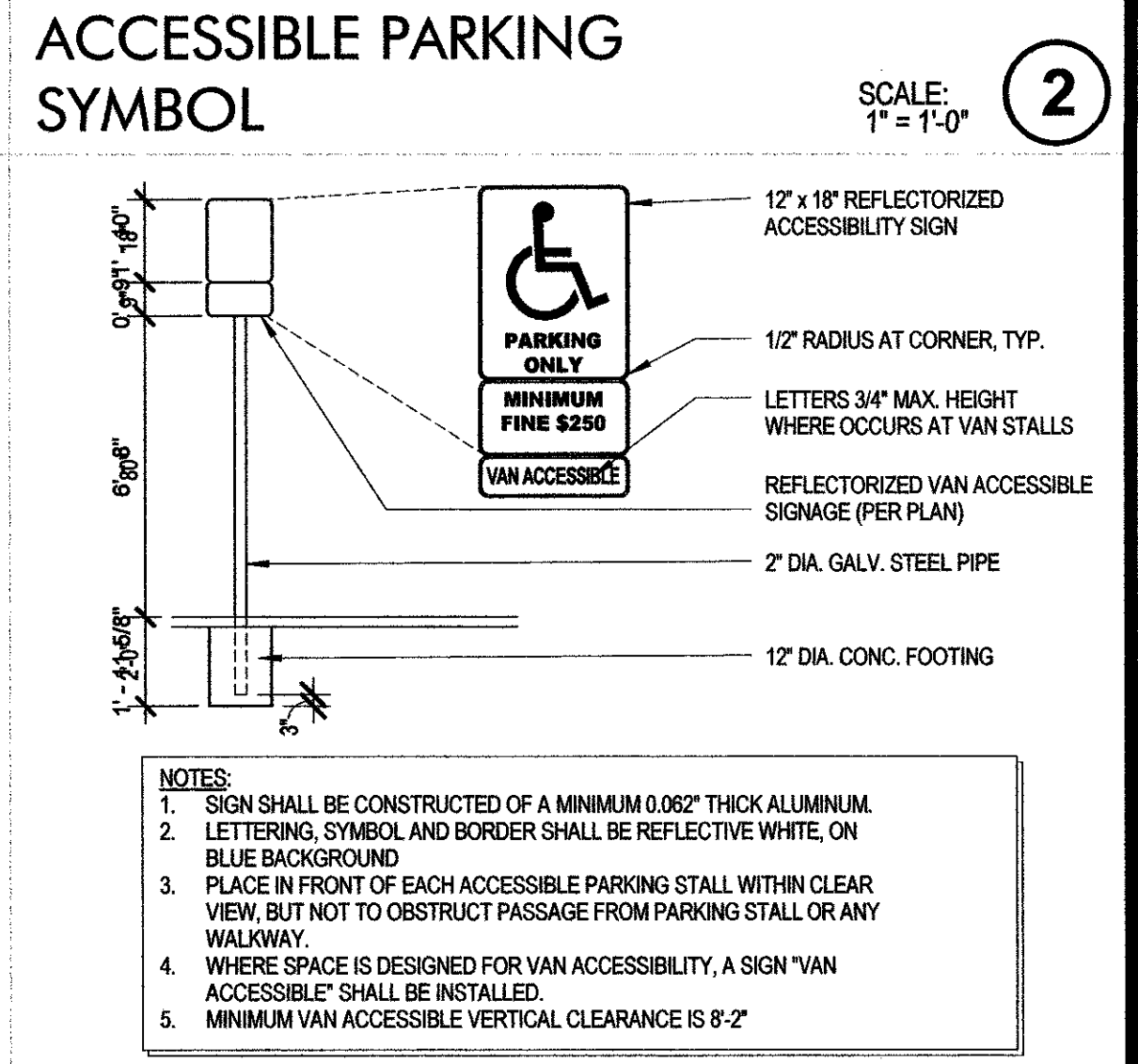
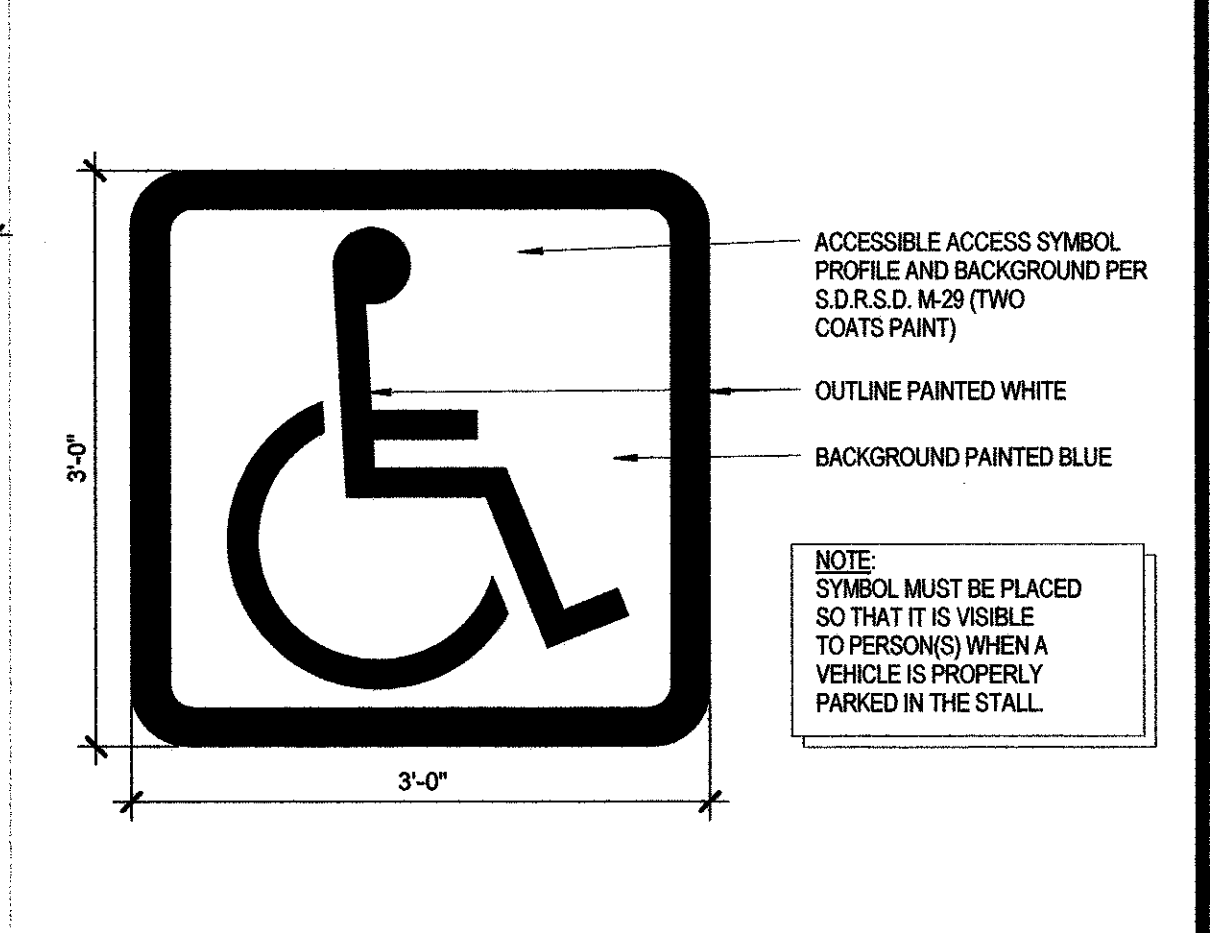
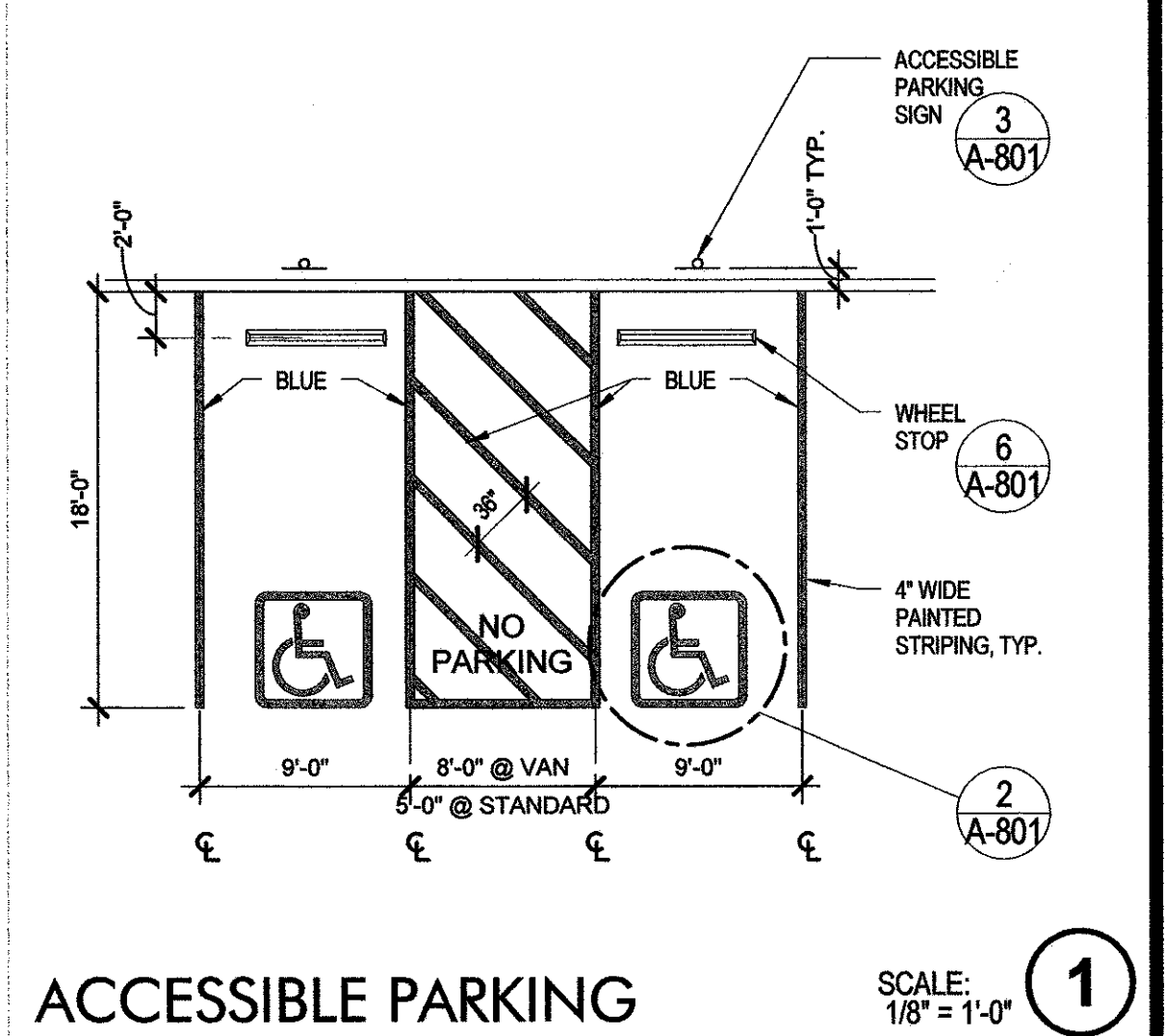
SUBMITTAL SCHEDULE:

SCHEMATIC DESIGN	04/17/2014
50% PRELIM. DESIGN	05/14/2014
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ASH011 - SFM RESUB. 2	11/08/2015
ASH015 - SFM RESUB. 3	03/03/2016

PROJECT NO: 21305-B-50

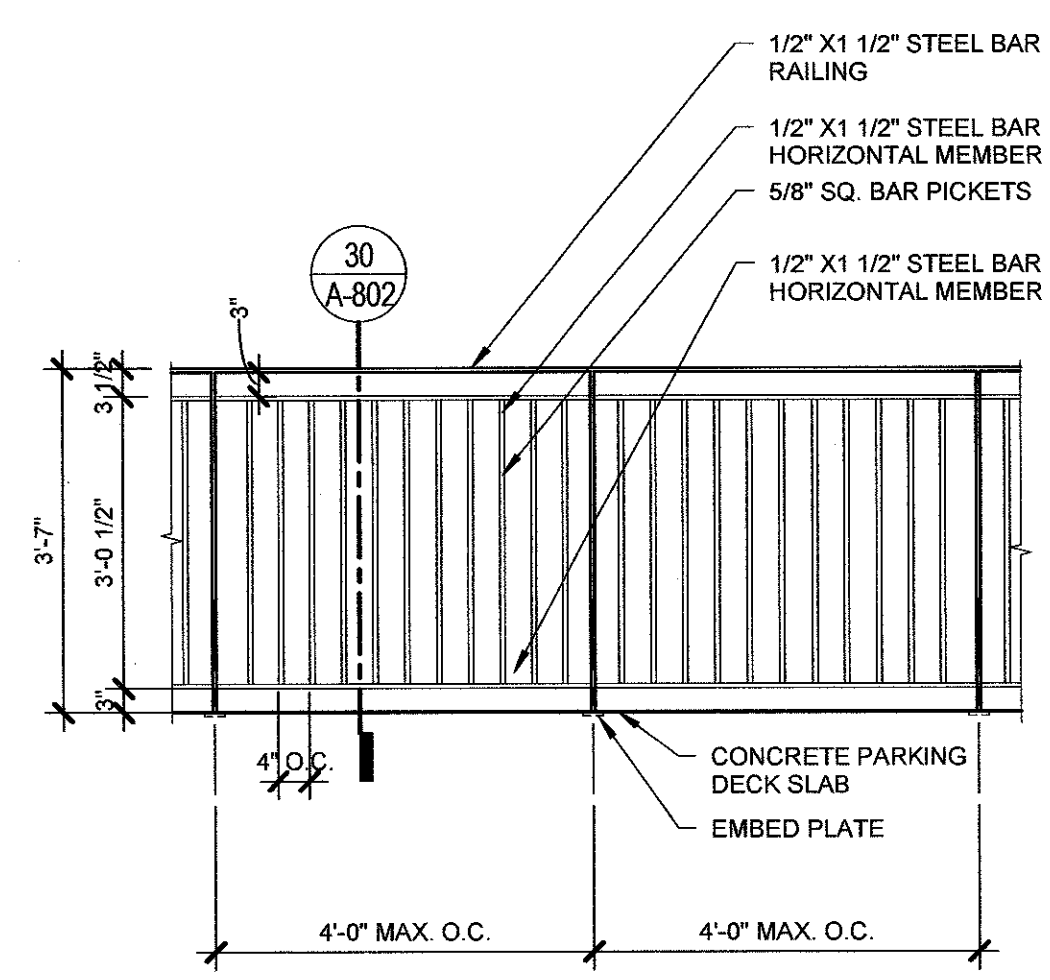
**BUILDING DETAILS**

**A-801**

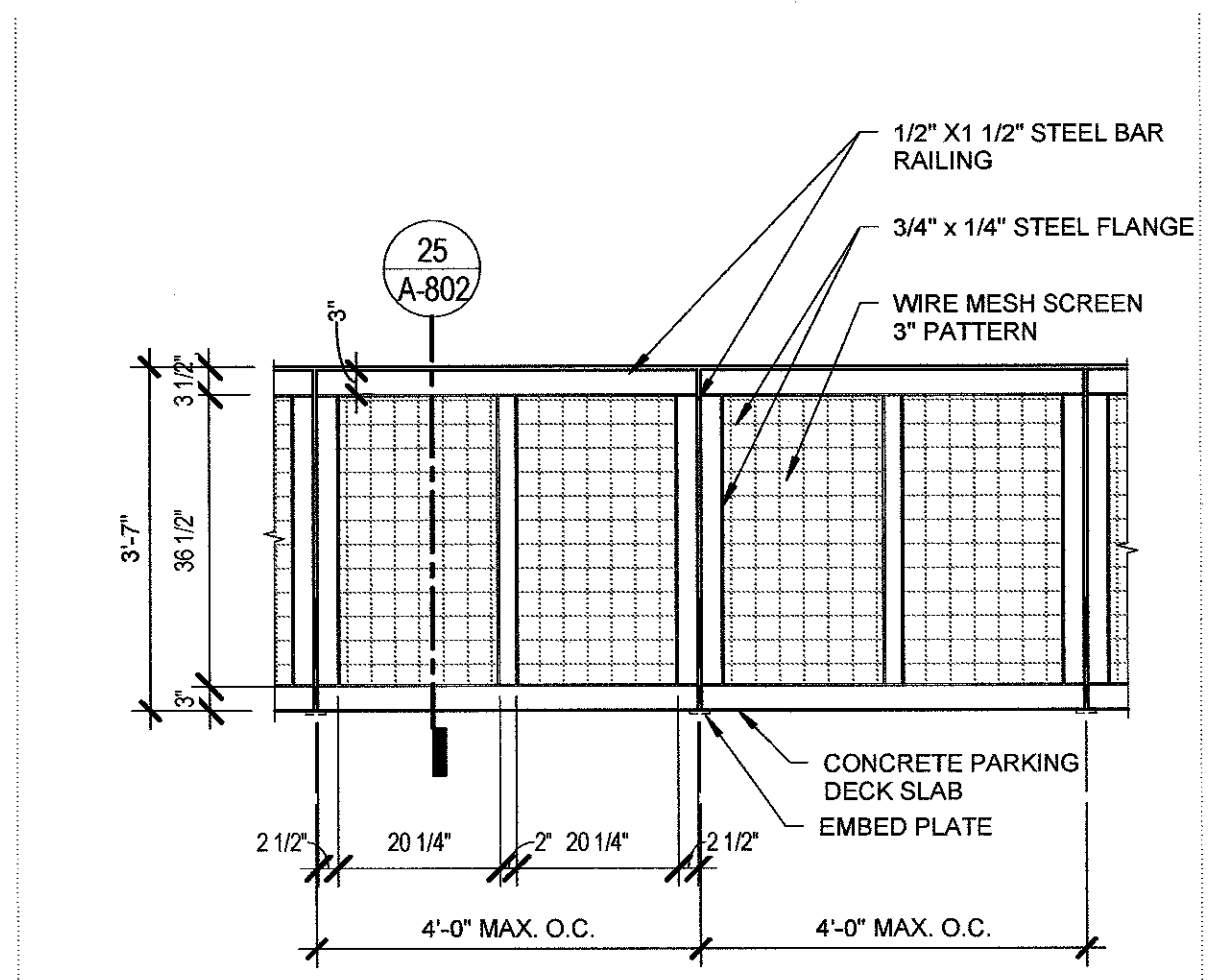


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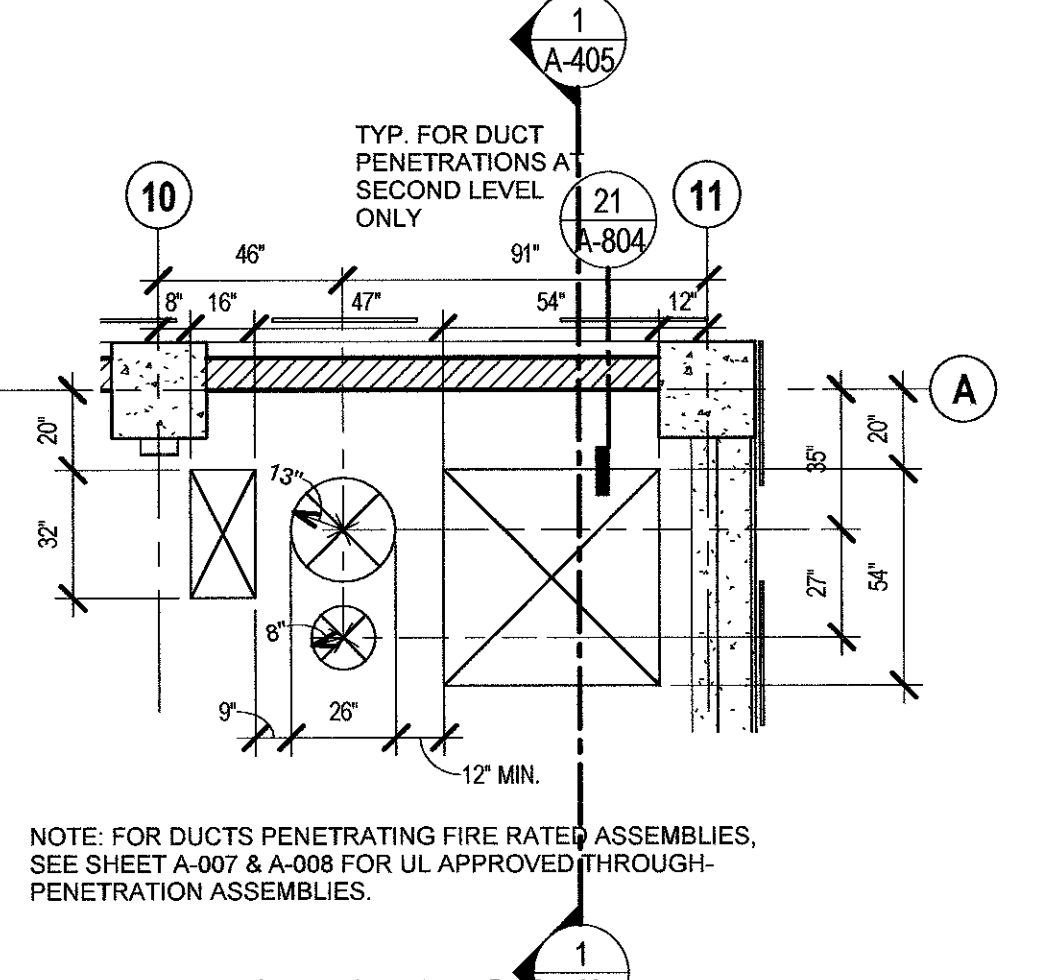




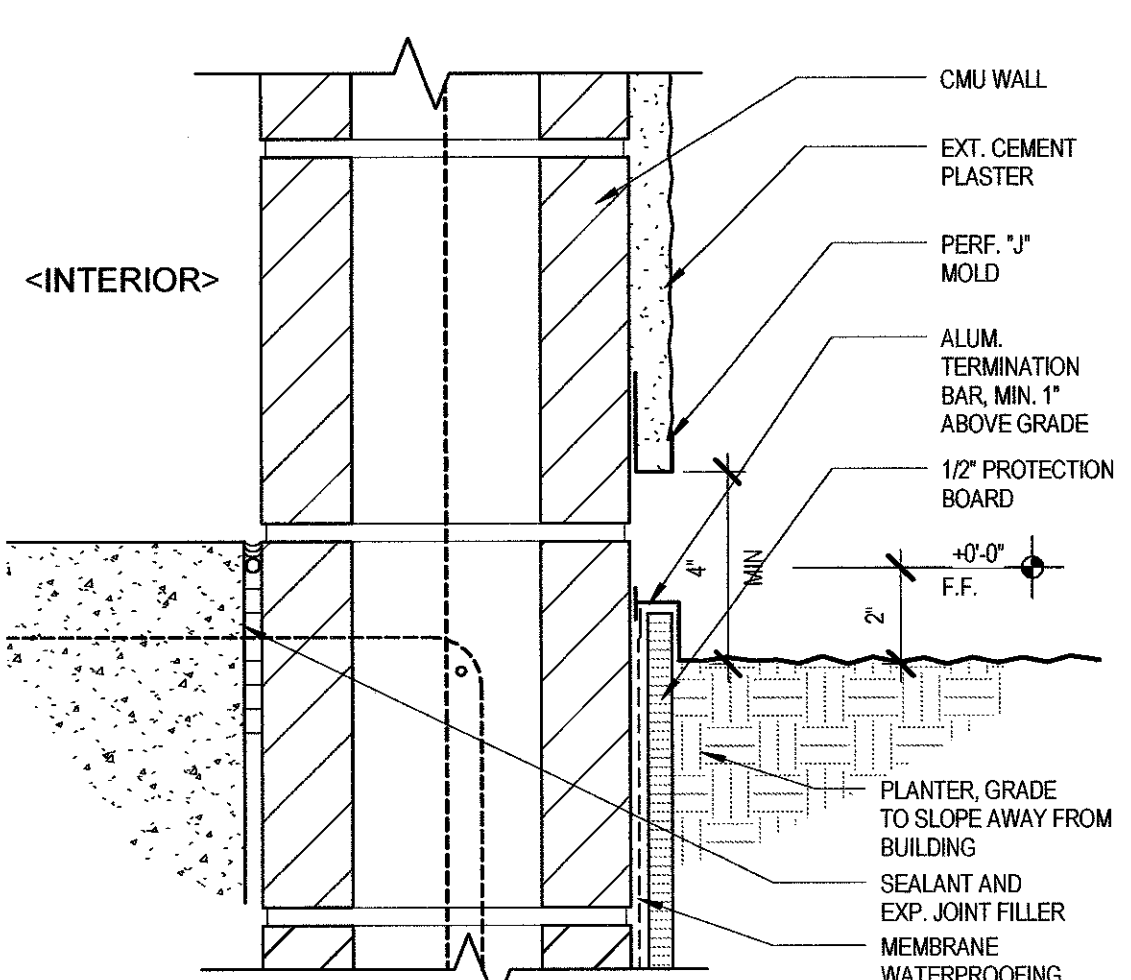
GUARDRAIL AT STAIR #2 SCALE: 1/2" = 1'-0" 26



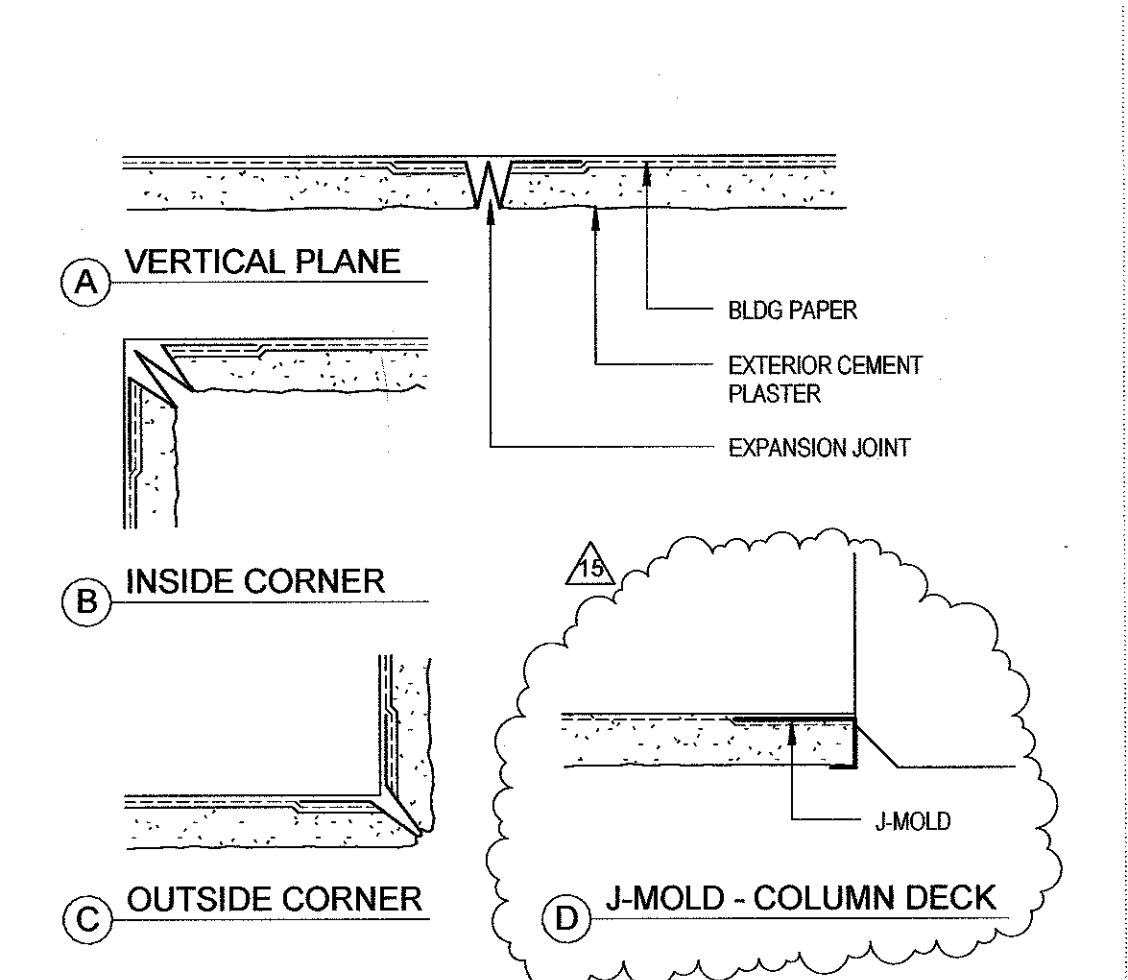
GUARDRAIL SCALE: 1/2" = 1'-0" 21



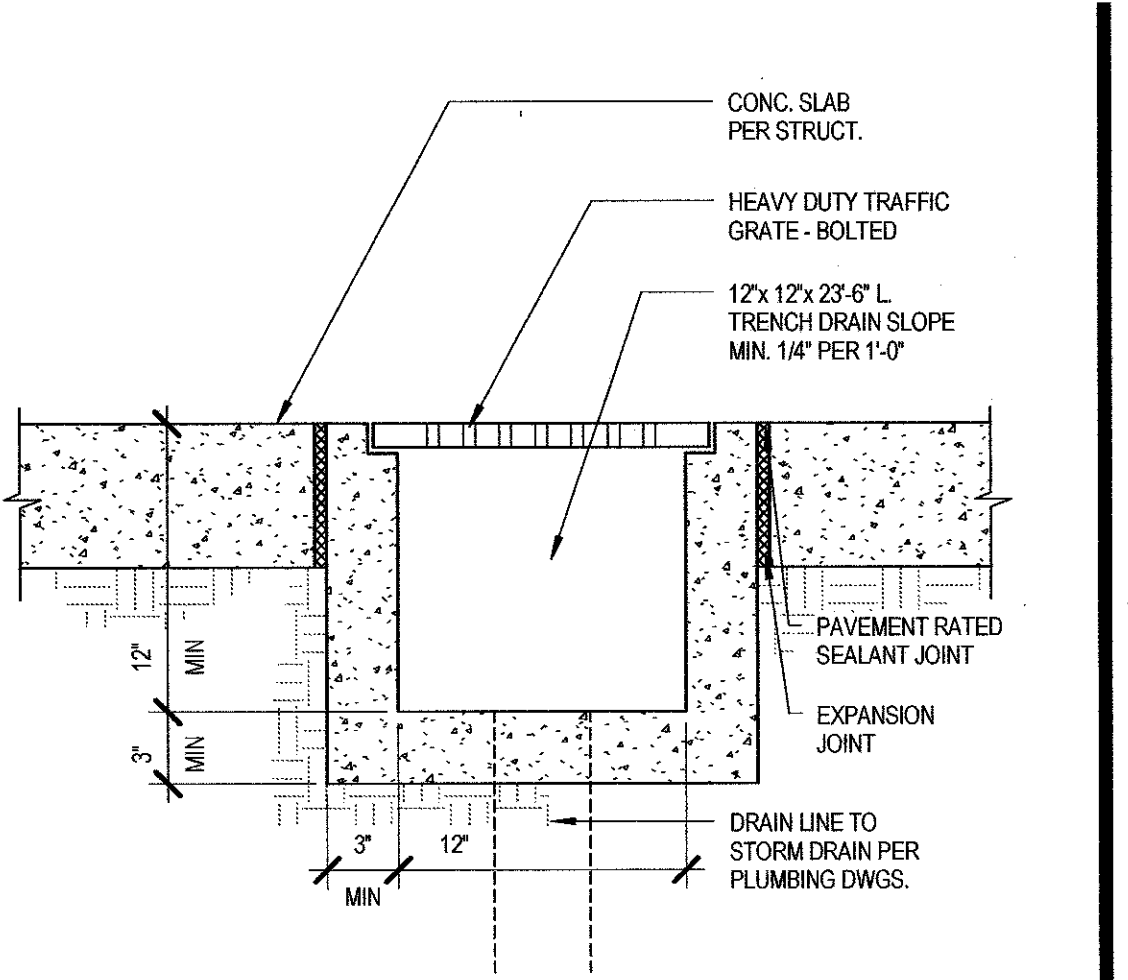
TYP. SLAB OPENINGS LEVELS 2 - 5 SCALE: 3/8" = 1'-0" 16



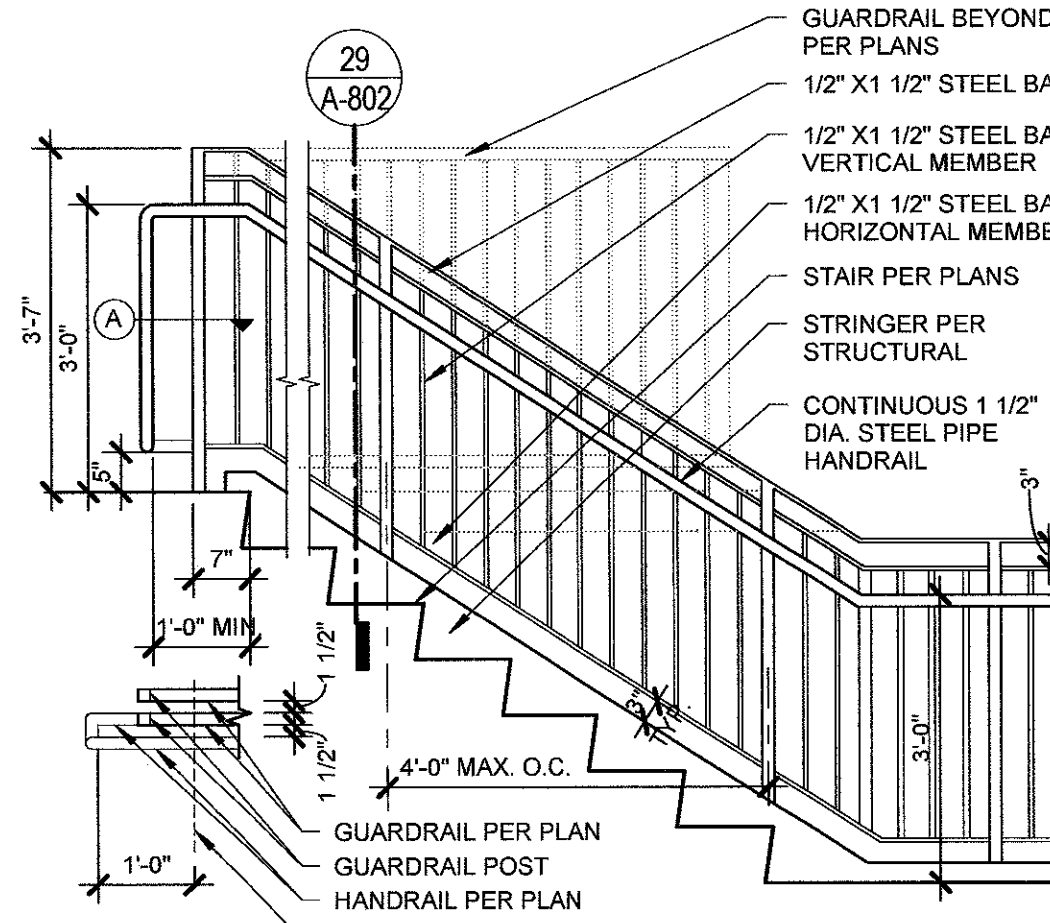
WALL @ PLANTER SCALE: 3/8" = 1'-0" 11



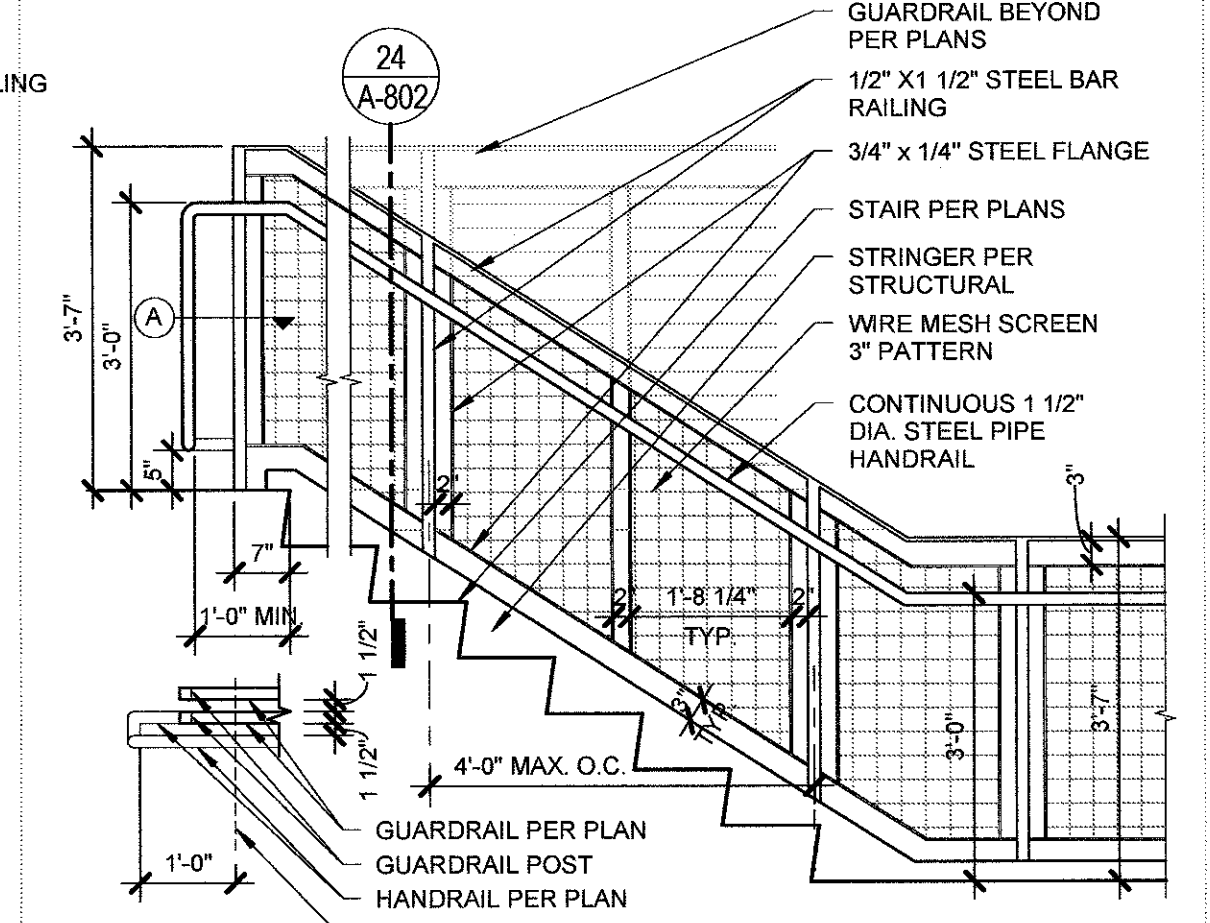
PLASTER JOINTS SCALE: 1 1/2" = 1'-0" 6



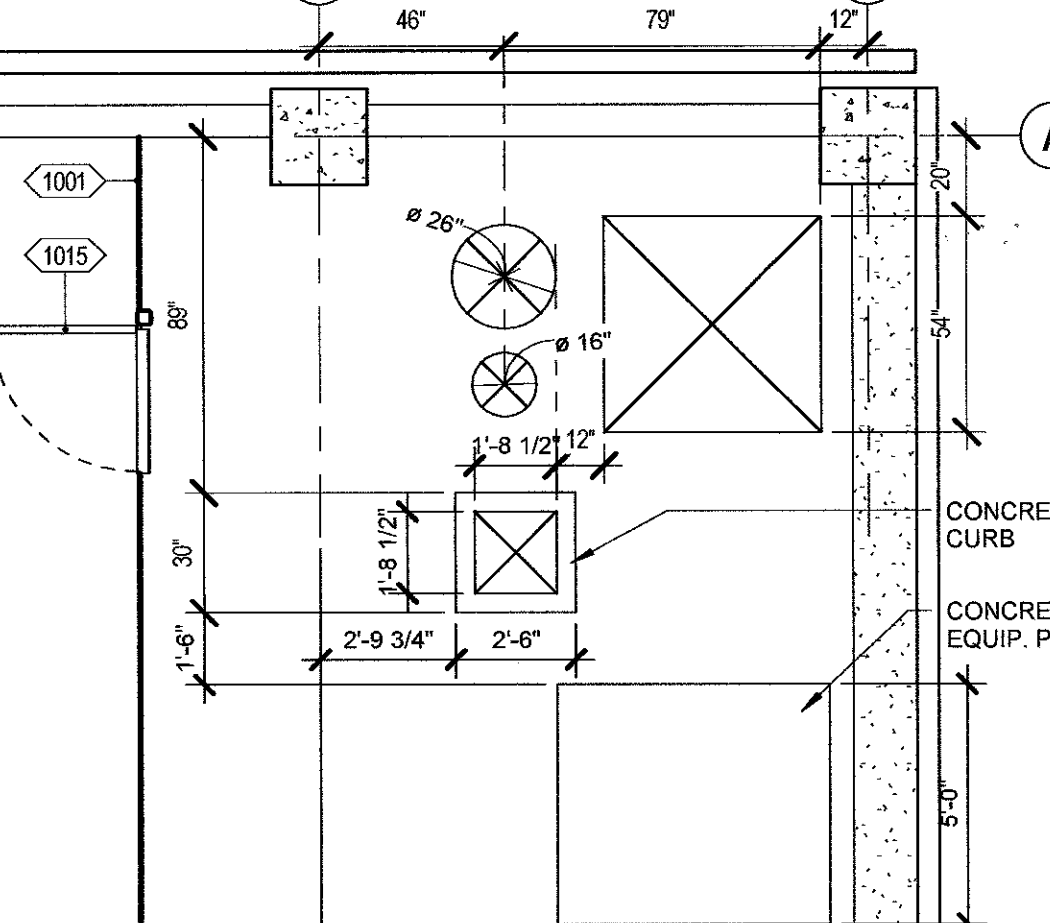
TRENCH DRAIN SCALE: 1 1/2" = 1'-0" 1



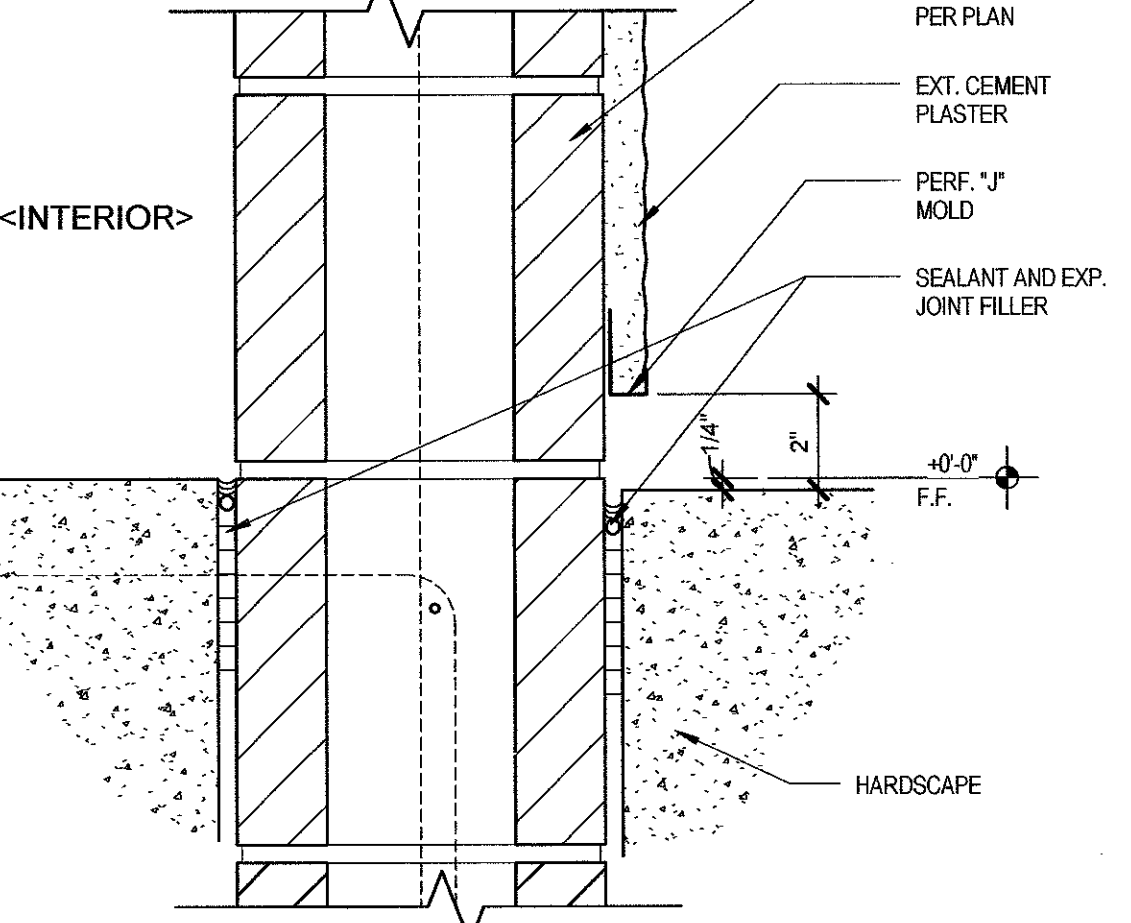
HANDRAIL ELEV. STAIR #2 SCALE: 1/2" = 1'-0" 27



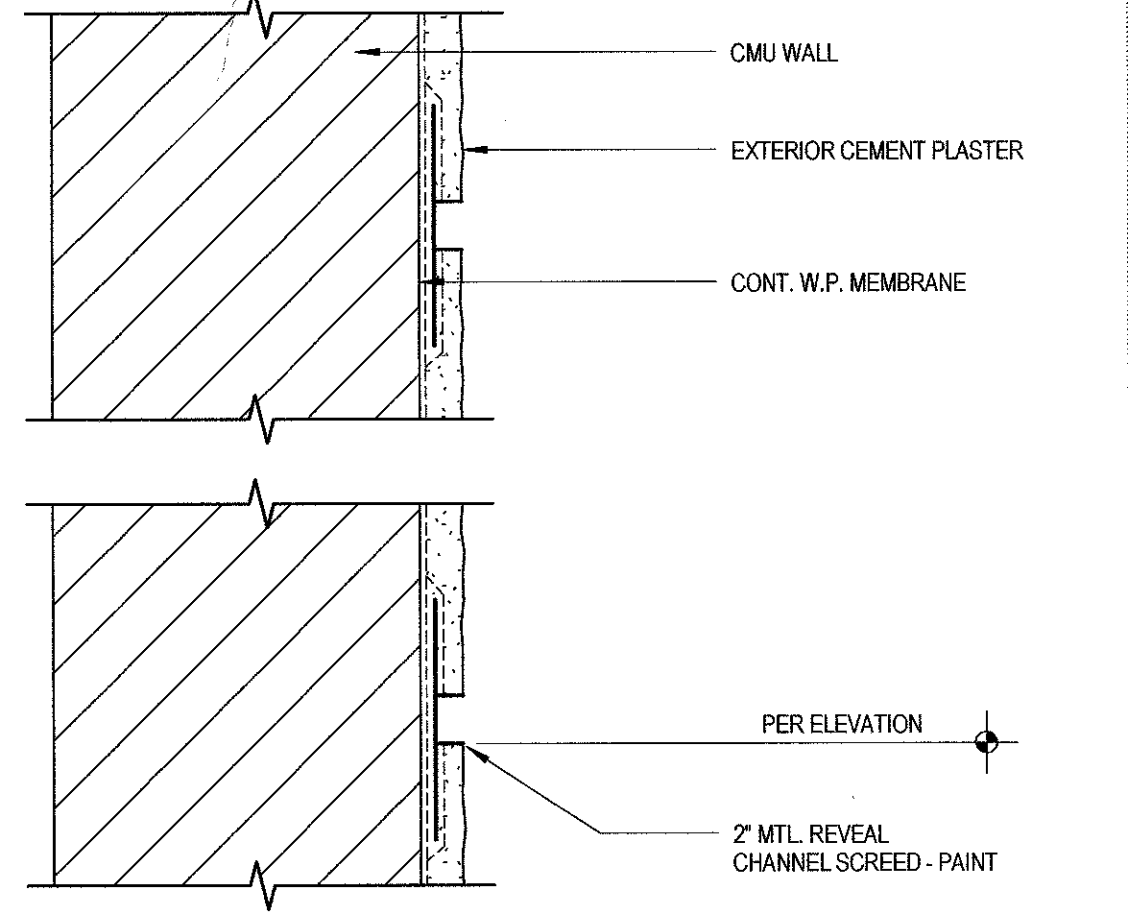
HANDRAIL ELEV. STAIR #1 SCALE: 1/2" = 1'-0" 22



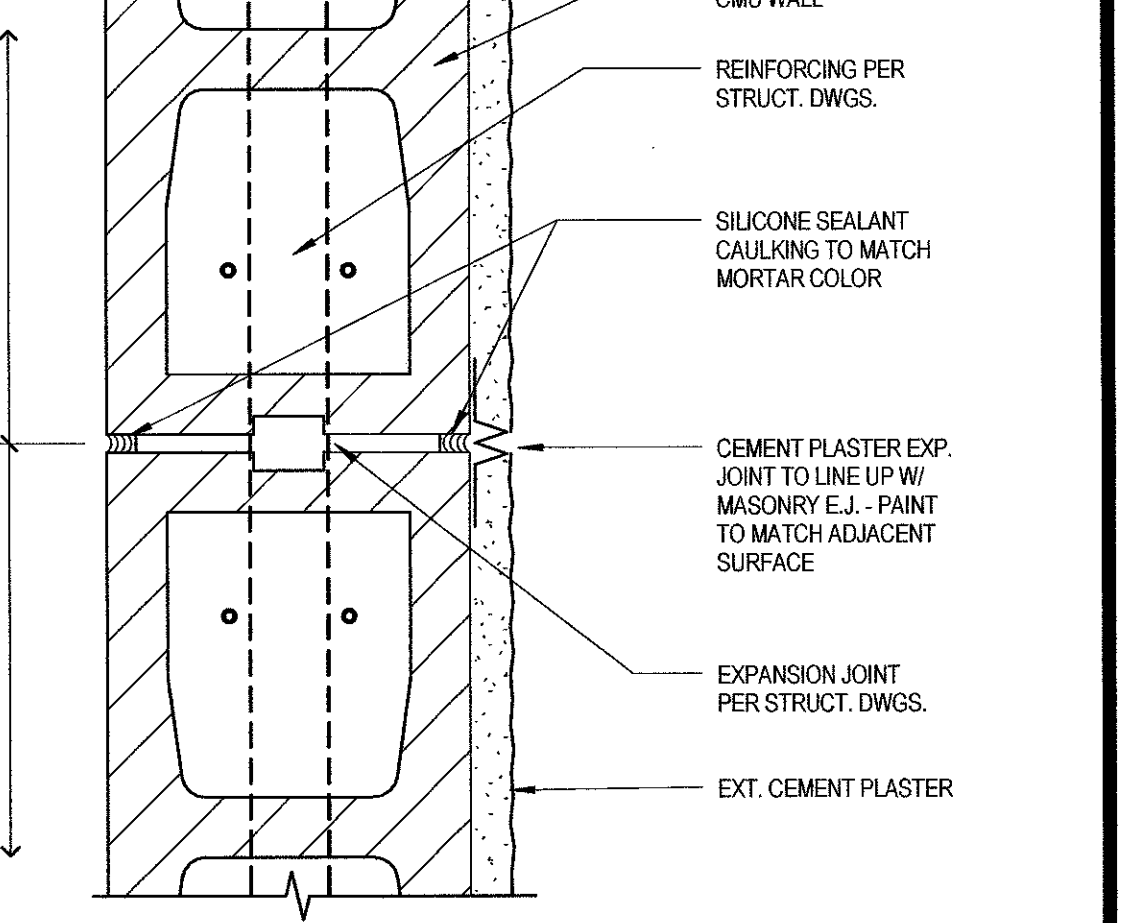
SIXTH LEVEL SLAB OPENINGS SCALE: 1/4" = 1'-0" 17



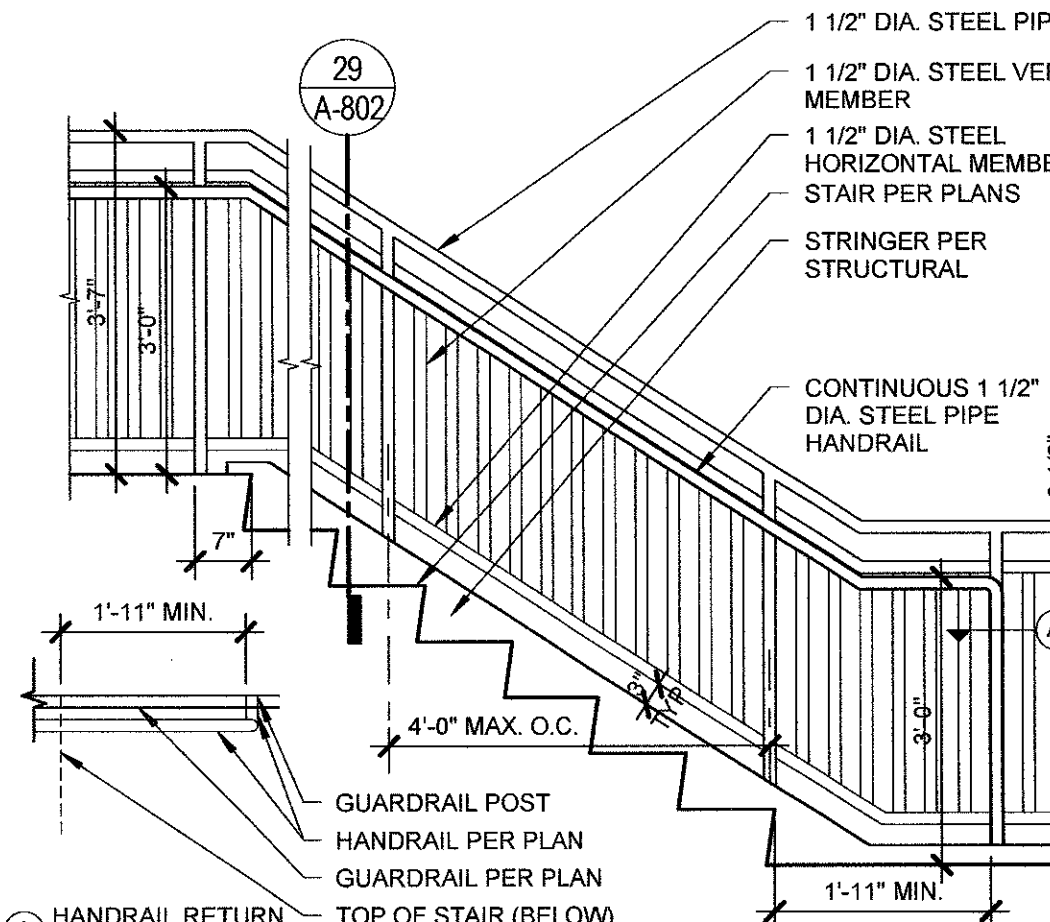
WALL @ HARDSCAPE SCALE: 3/8" = 1'-0" 12



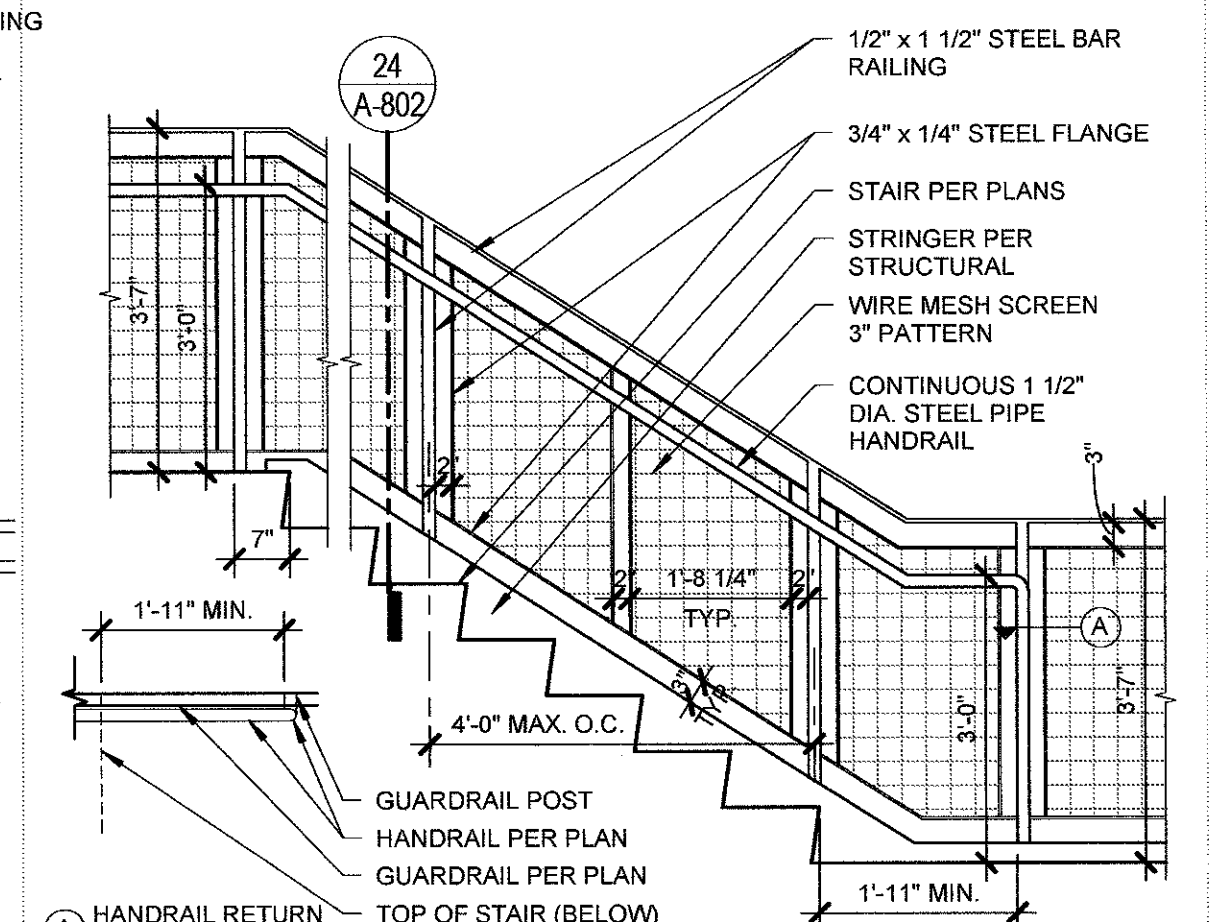
PLASTER REVEAL SCALE: 3/8" = 1'-0" 7



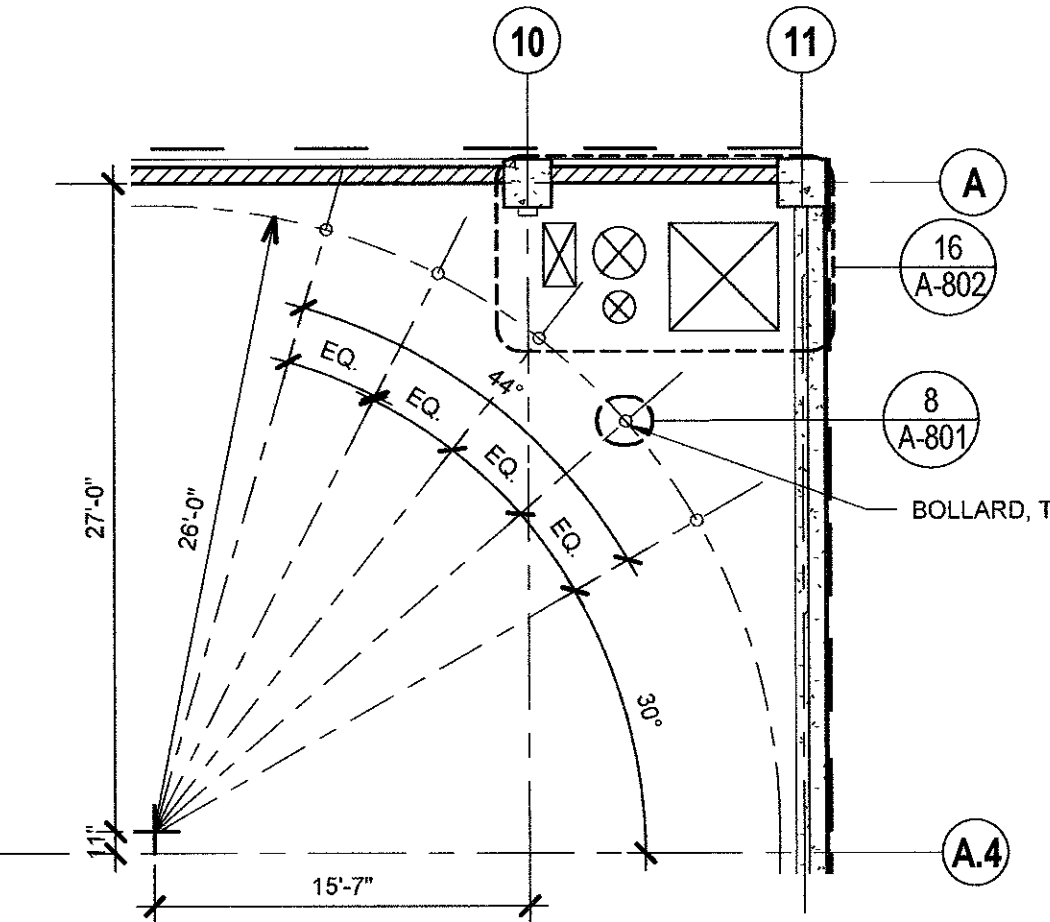
CMU EXPANSION JOINT SCALE: 3/8" = 1'-0" 2



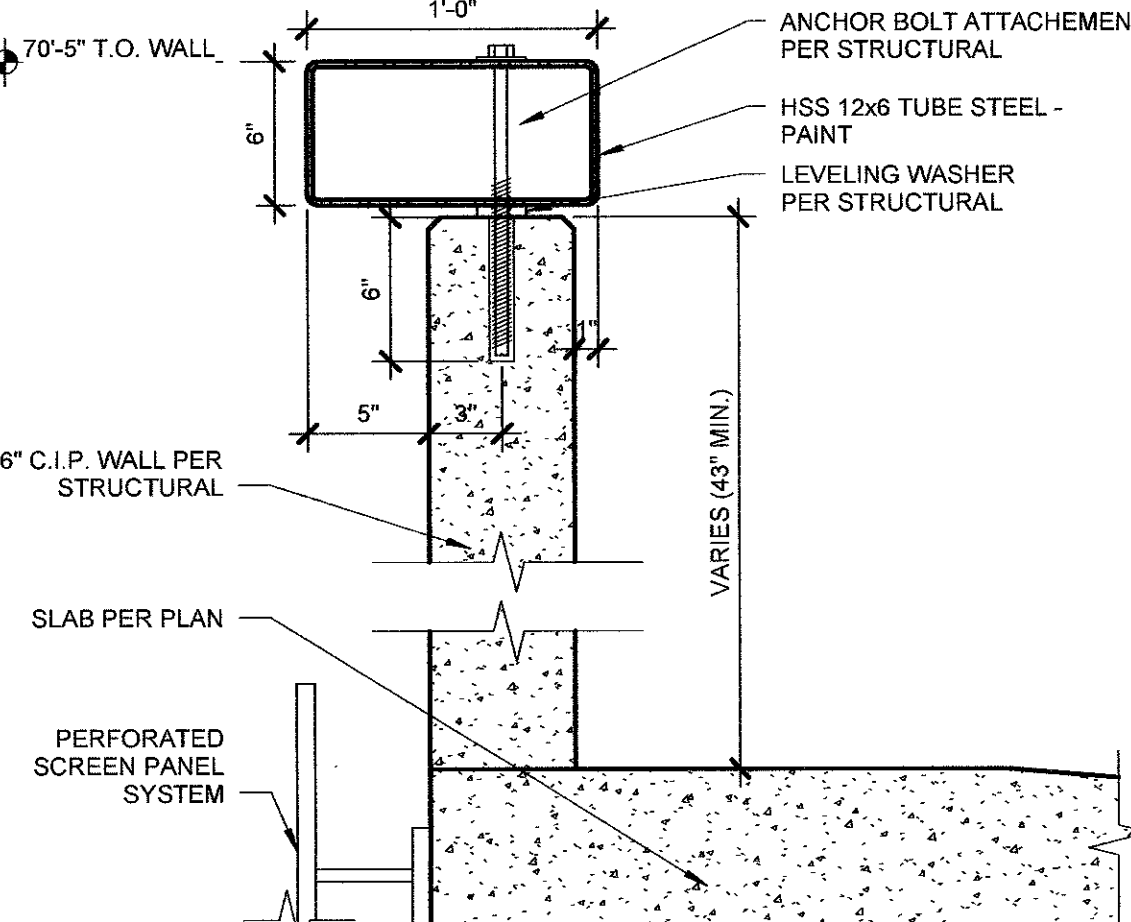
GAURDRAIL STAIR #2 SCALE: 1/2" = 1'-0" 28



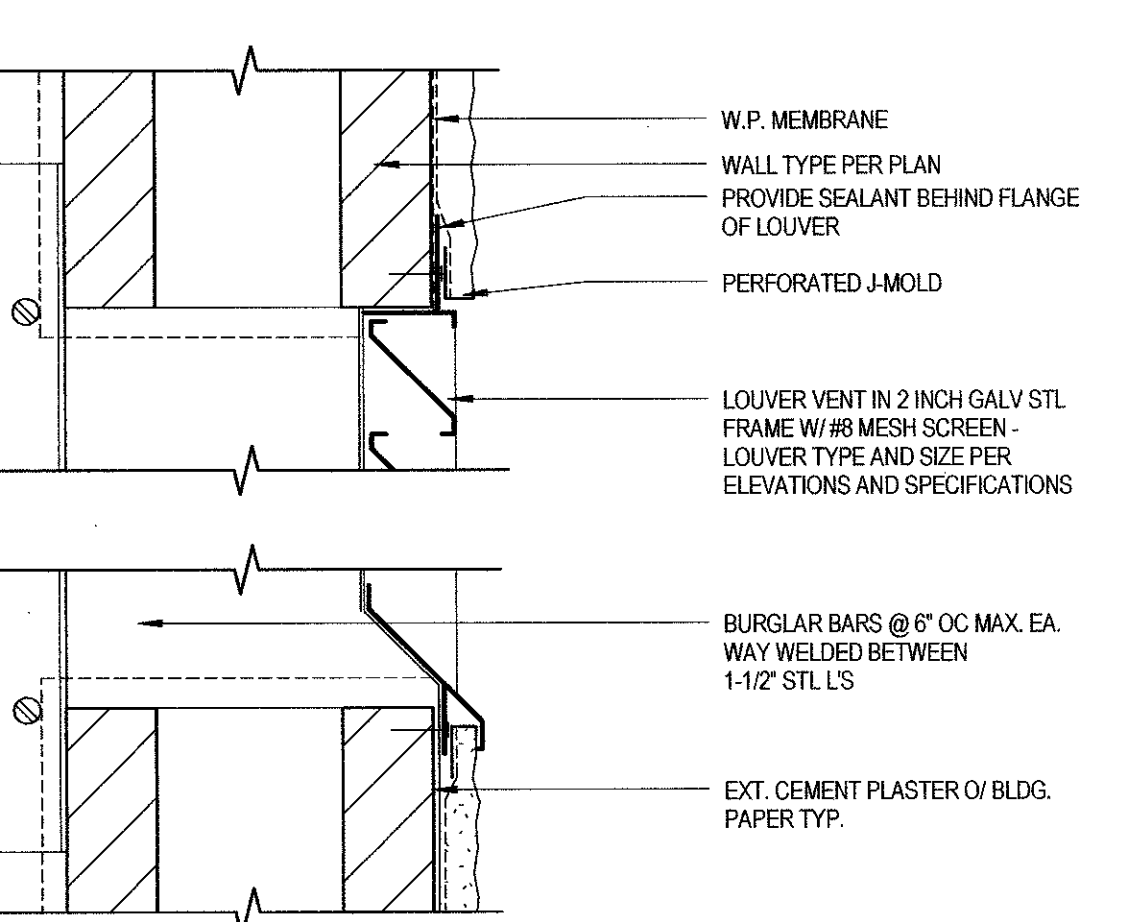
GUARDRAIL STAIR #1 SCALE: 1/2" = 1'-0" 23



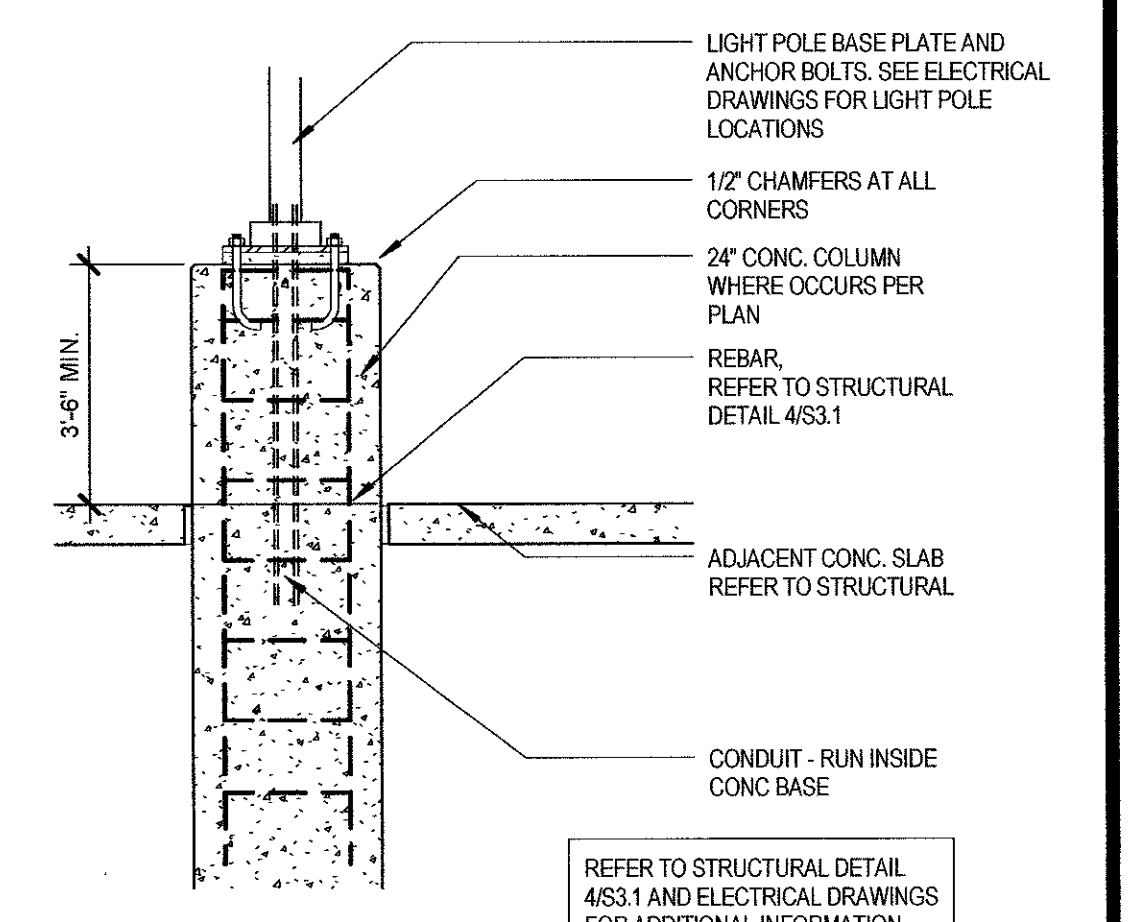
BOLLARD LAYOUT SCALE: 1/8" = 1'-0" 18



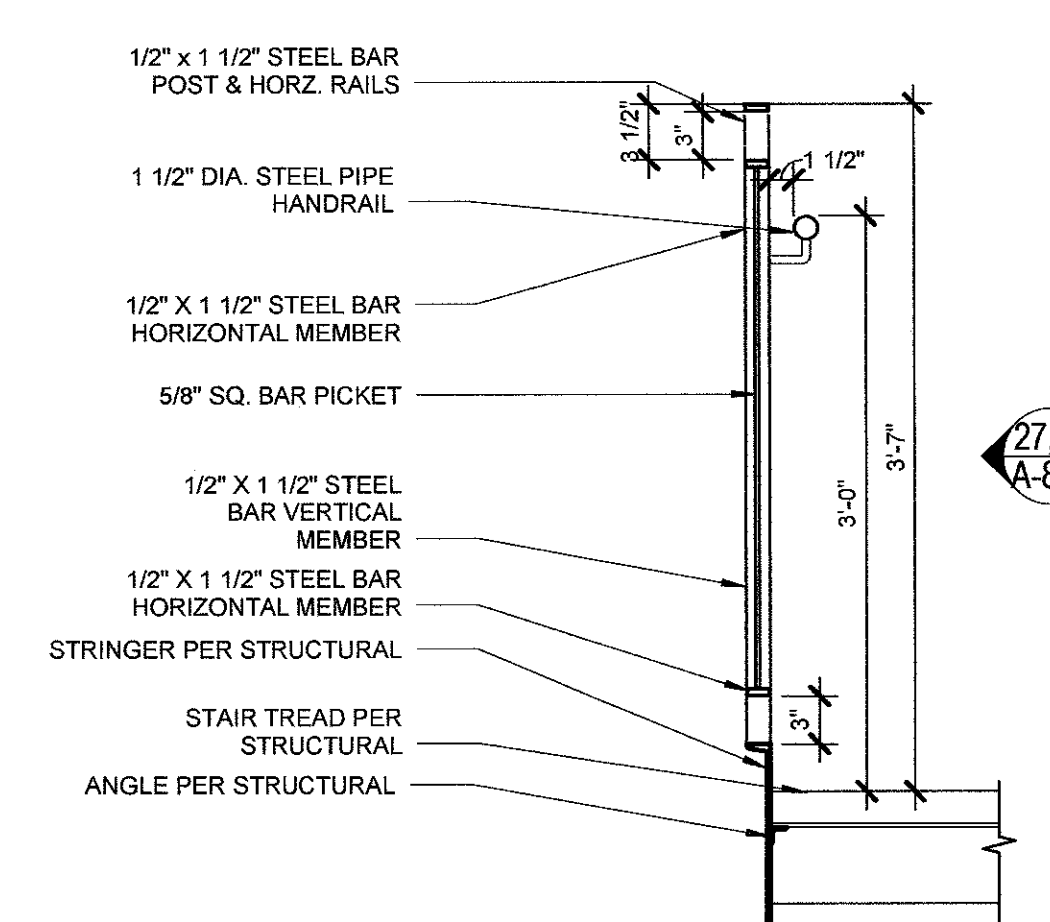
WALL CAP SCALE: 1/2" = 1'-0" 13



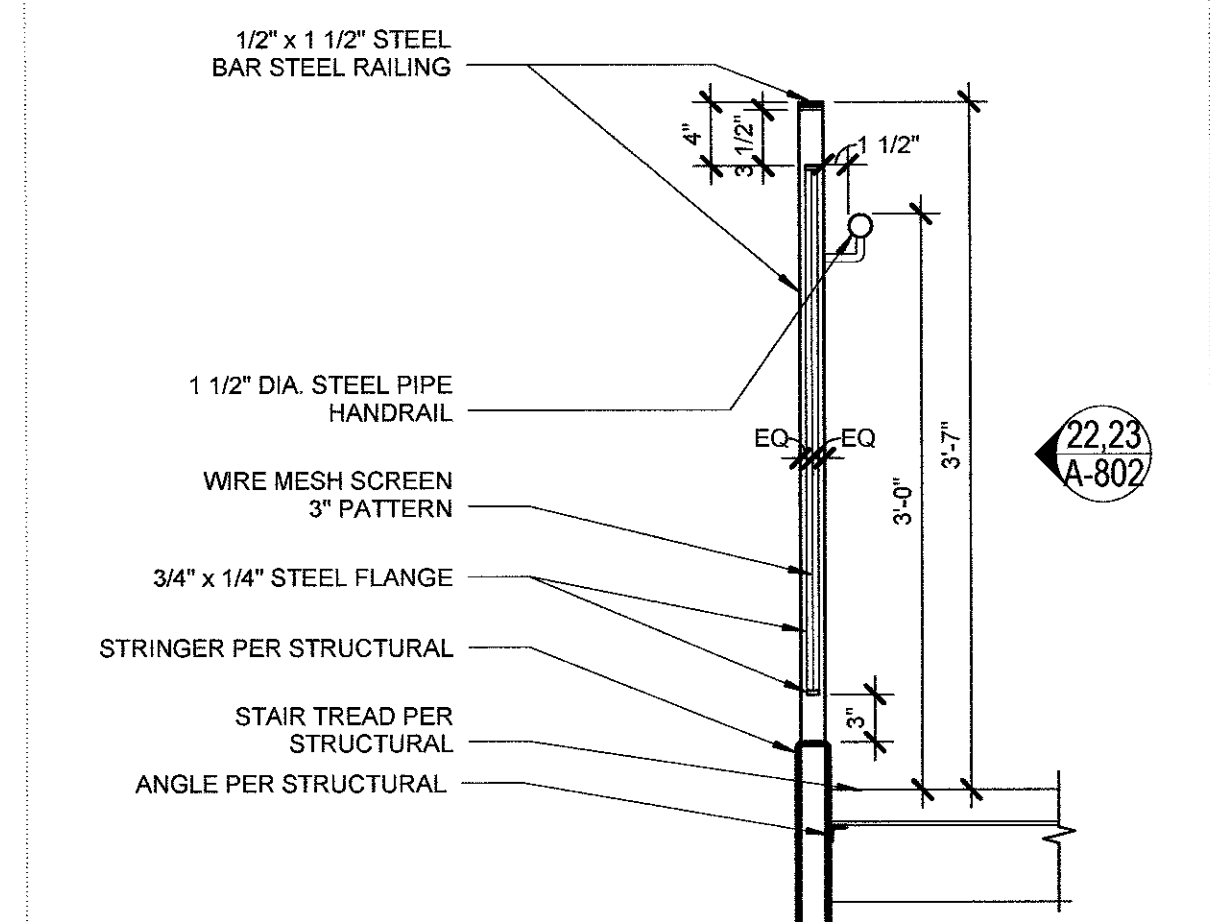
LOUVER DETAIL SCALE: 1 1/2" = 1'-0" 8



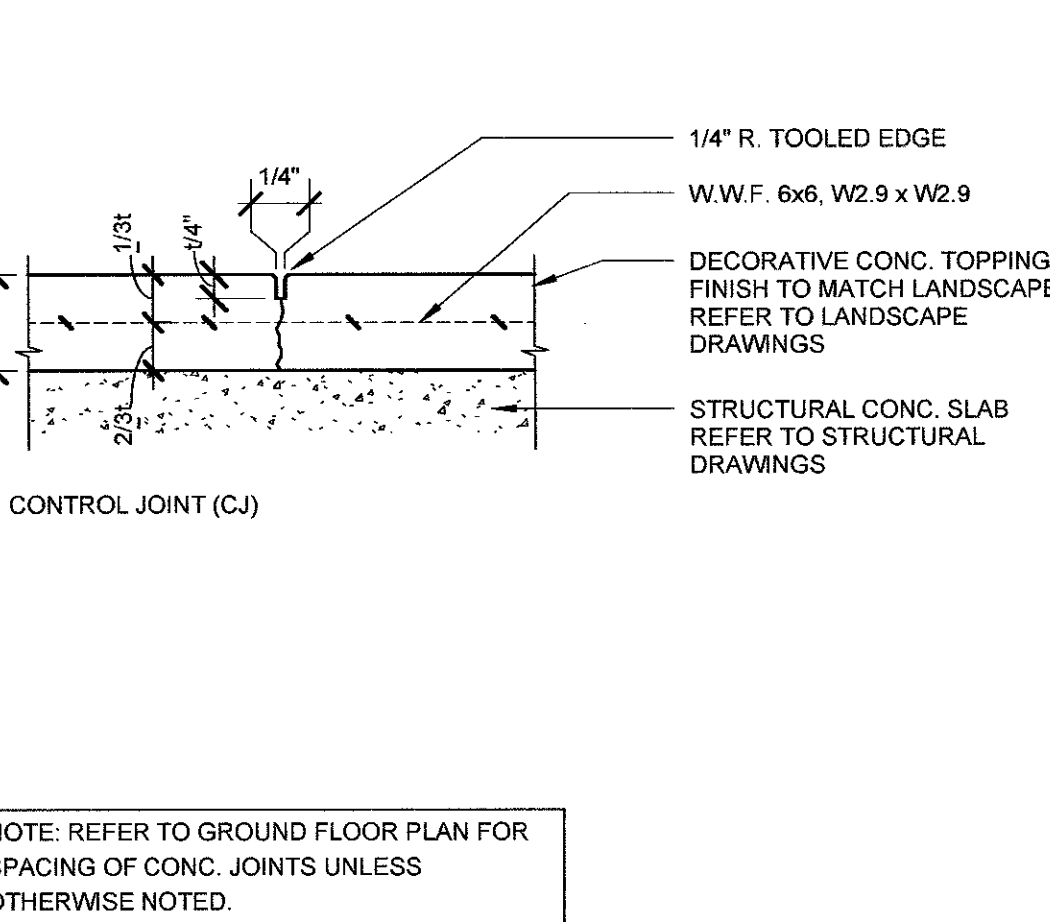
LIGHT POLE BASE SCALE: 1/2" = 1'-0" 3



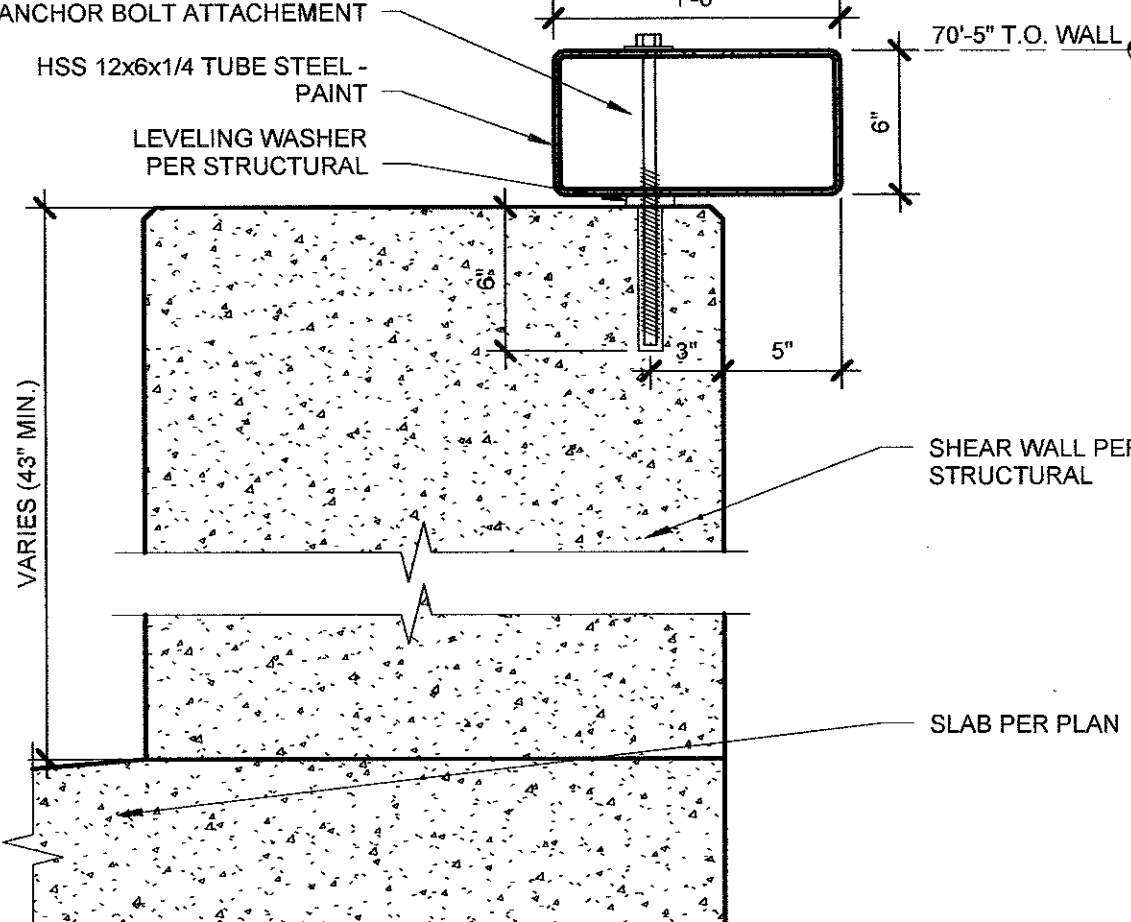
GUARD INT. LANDING STAIR 2 SCALE: 1" = 1'-0" 29



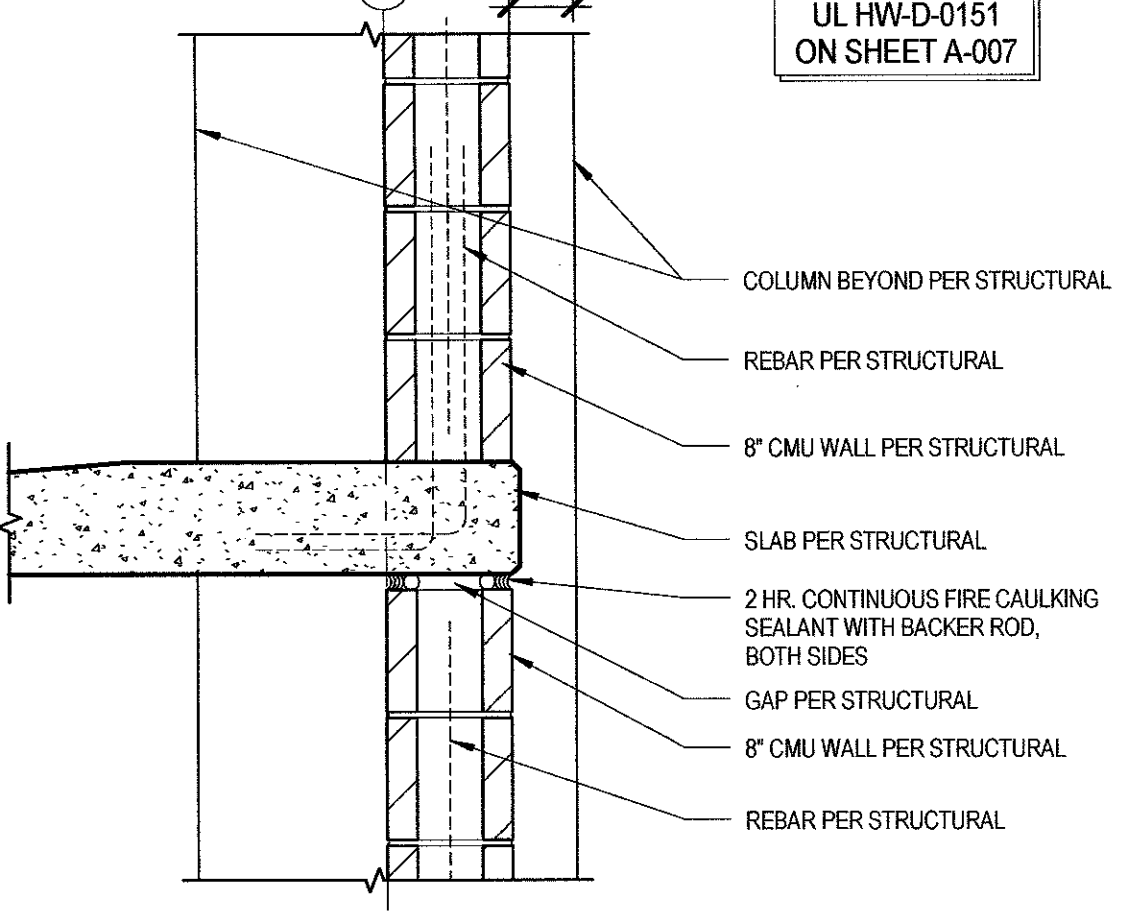
GUARD INT. LANDING STAIR 1 SCALE: 1" = 1'-0" 24



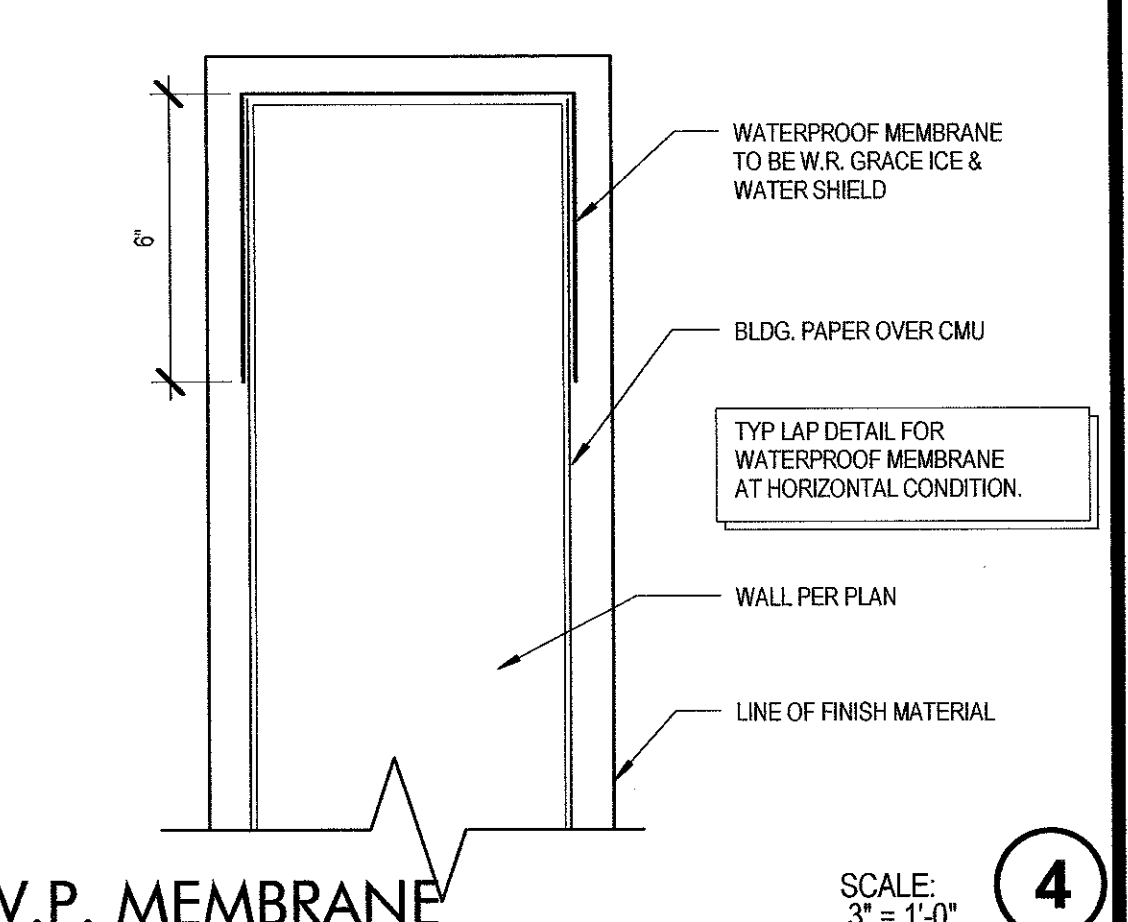
CONC. CONTROL JOINT SCALE: 1 1/2" = 1'-0" 19



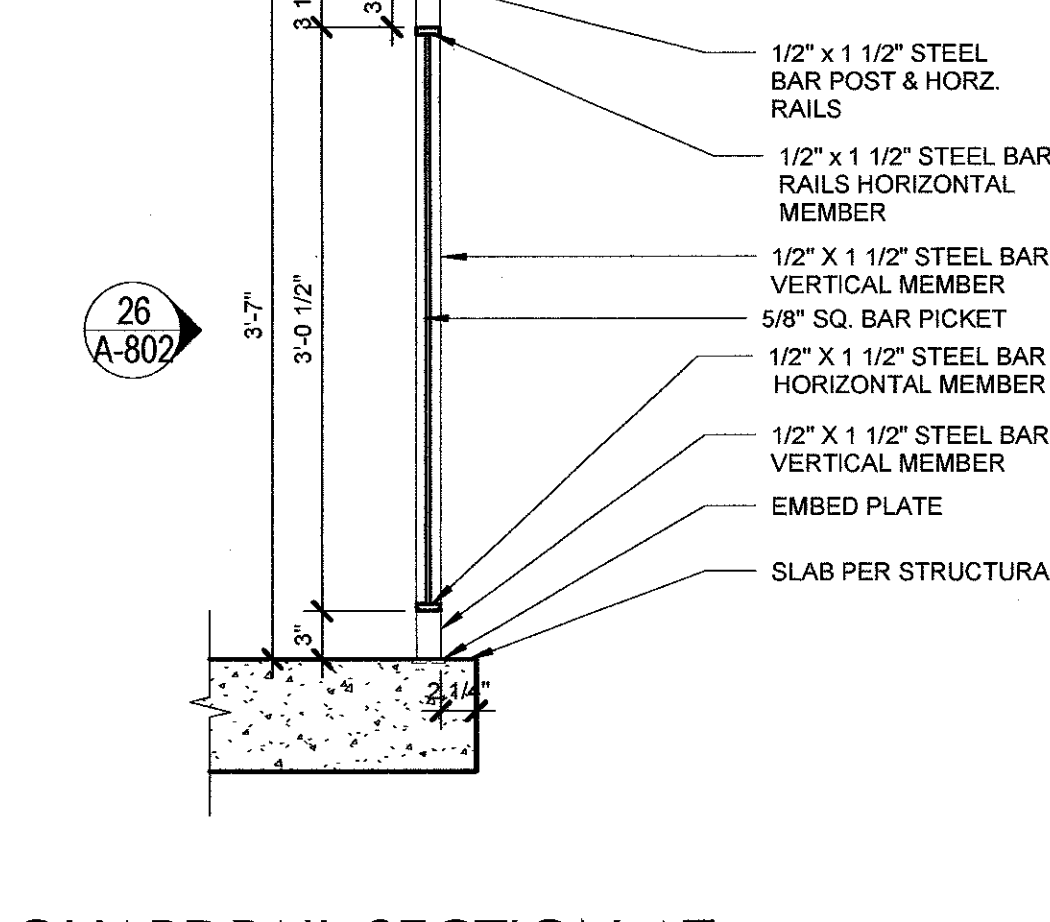
WALL CAP AT SHEAR WALL SCALE: 1 1/2" = 1'-0" 14



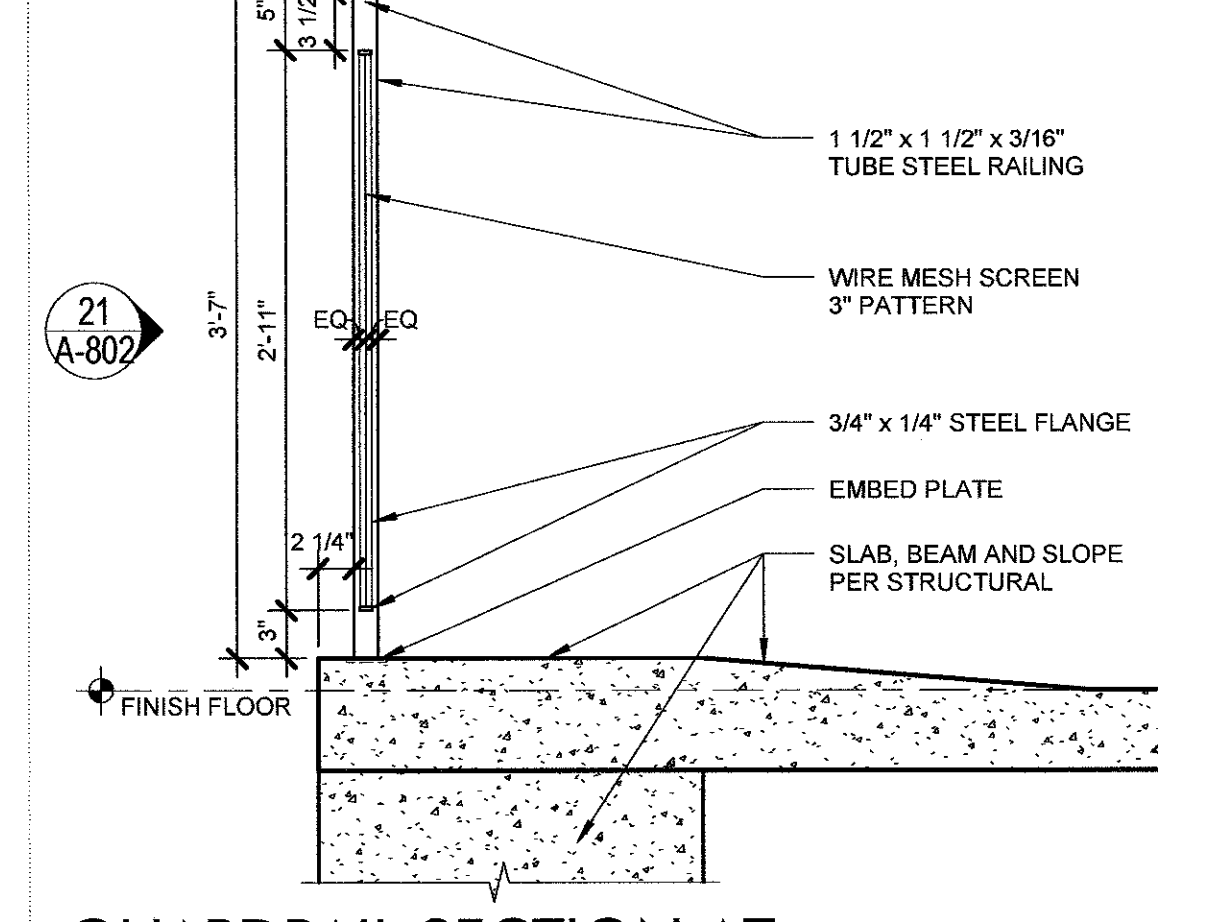
NORTH WALL CMU FIRE CAULKING SCALE: 1" = 1'-0" 9



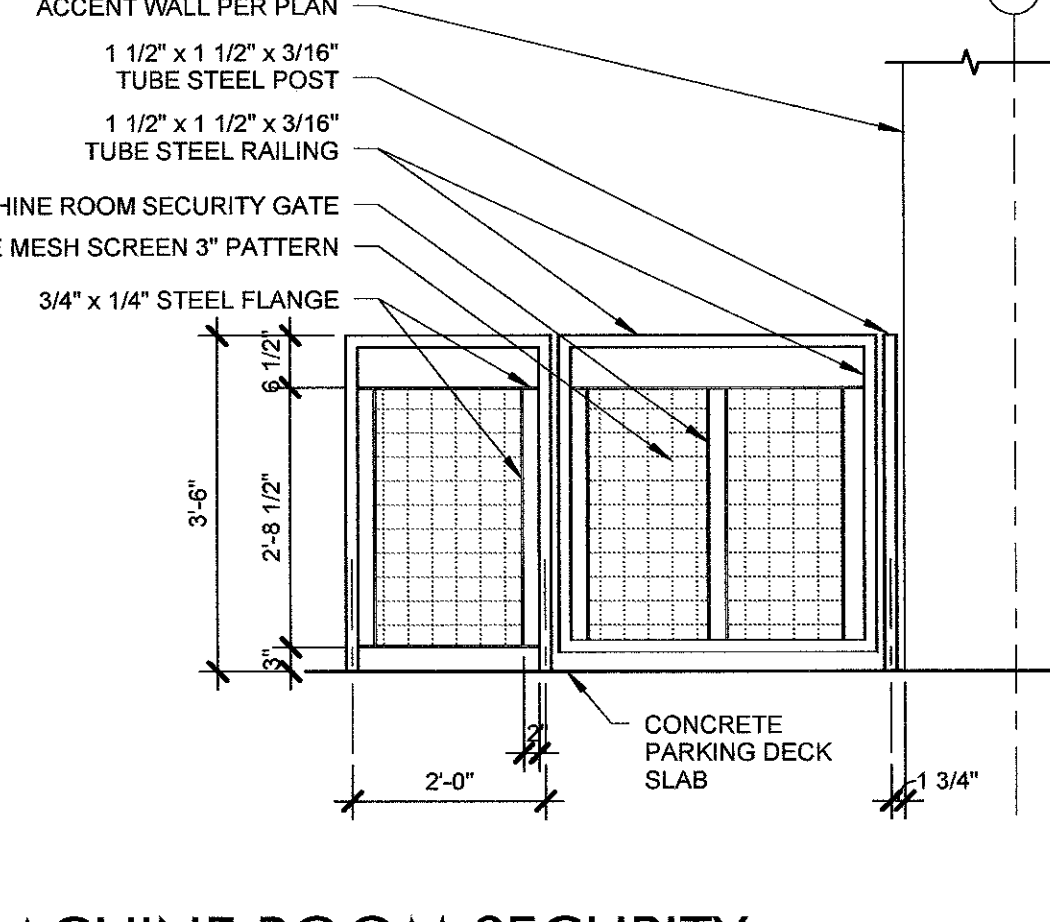
W.P. MEMBRANE SCALE: 3/8" = 1'-0" 4



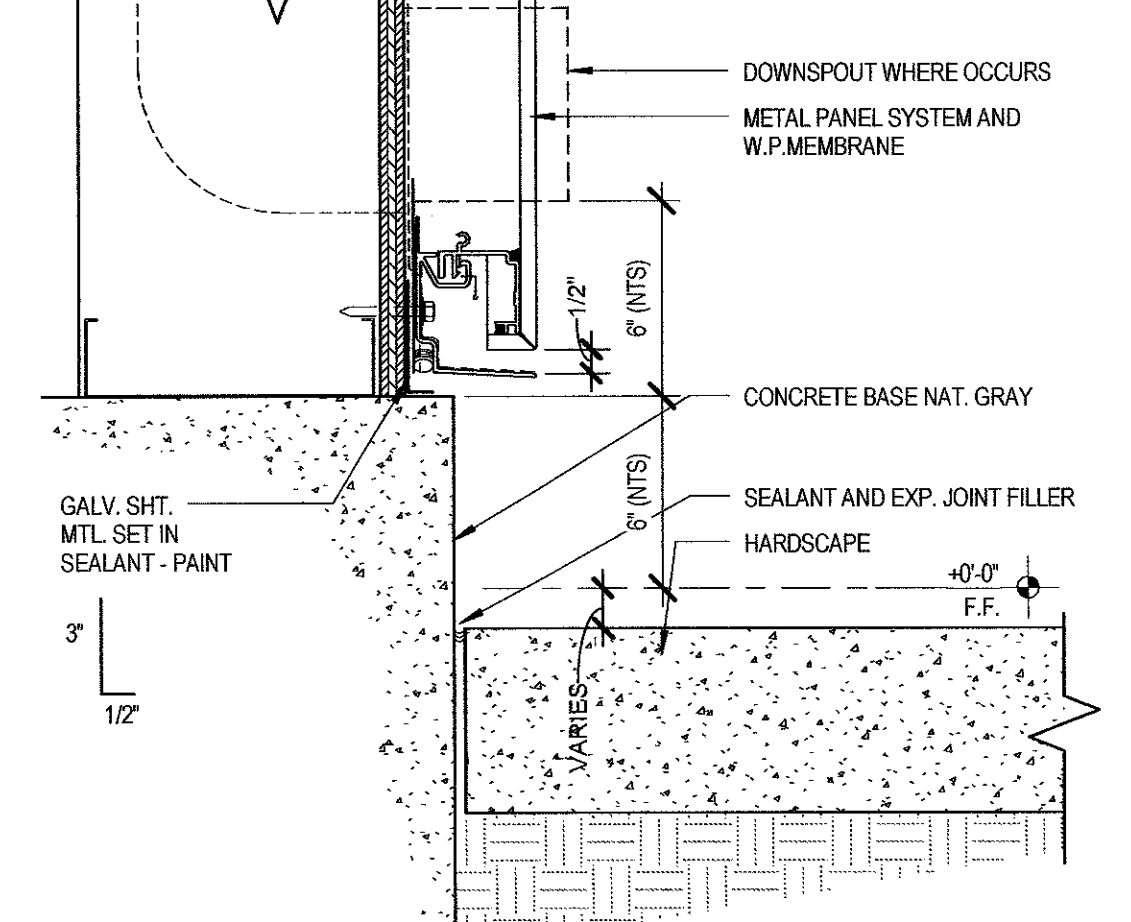
GUARDRAIL SECTION AT STAIR #2 SCALE: 1" = 1'-0" 30



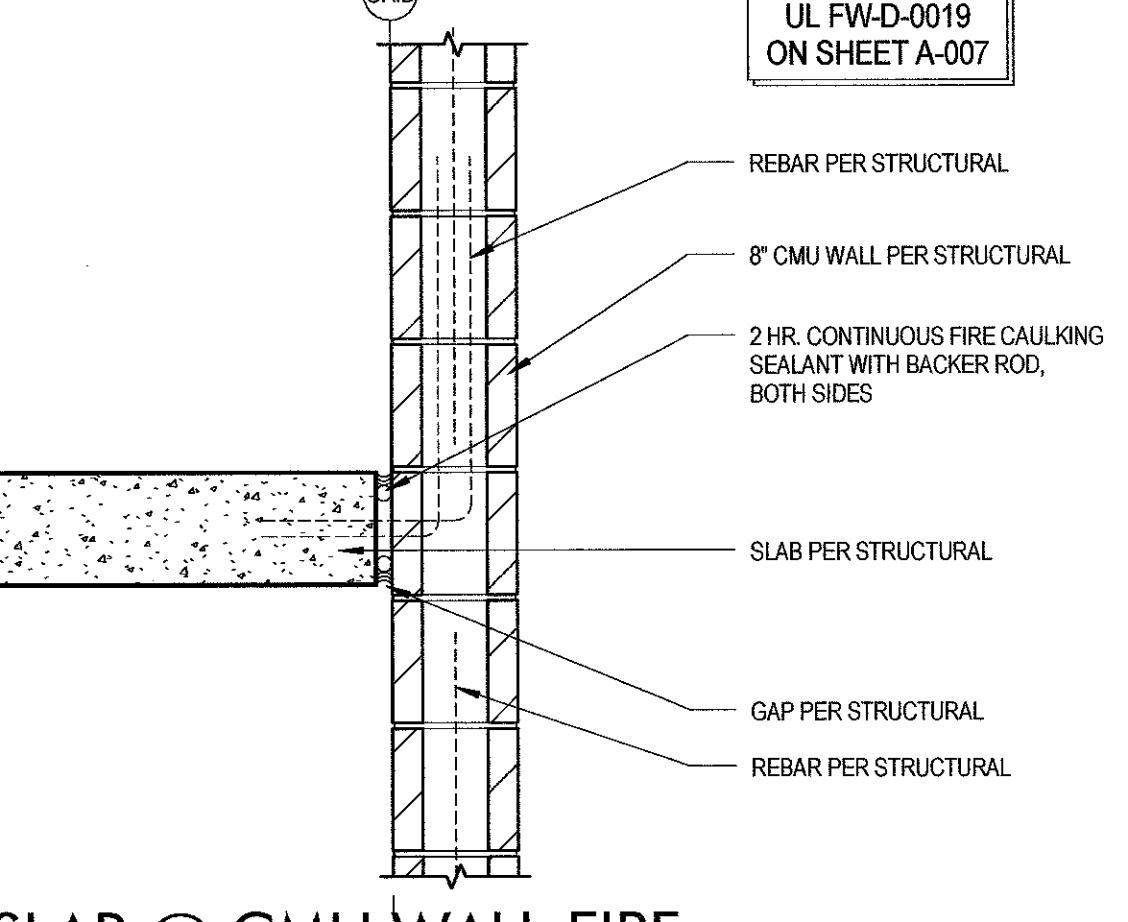
GUARDRAIL SECTION AT STAIR #1 SCALE: 1" = 1'-0" 25



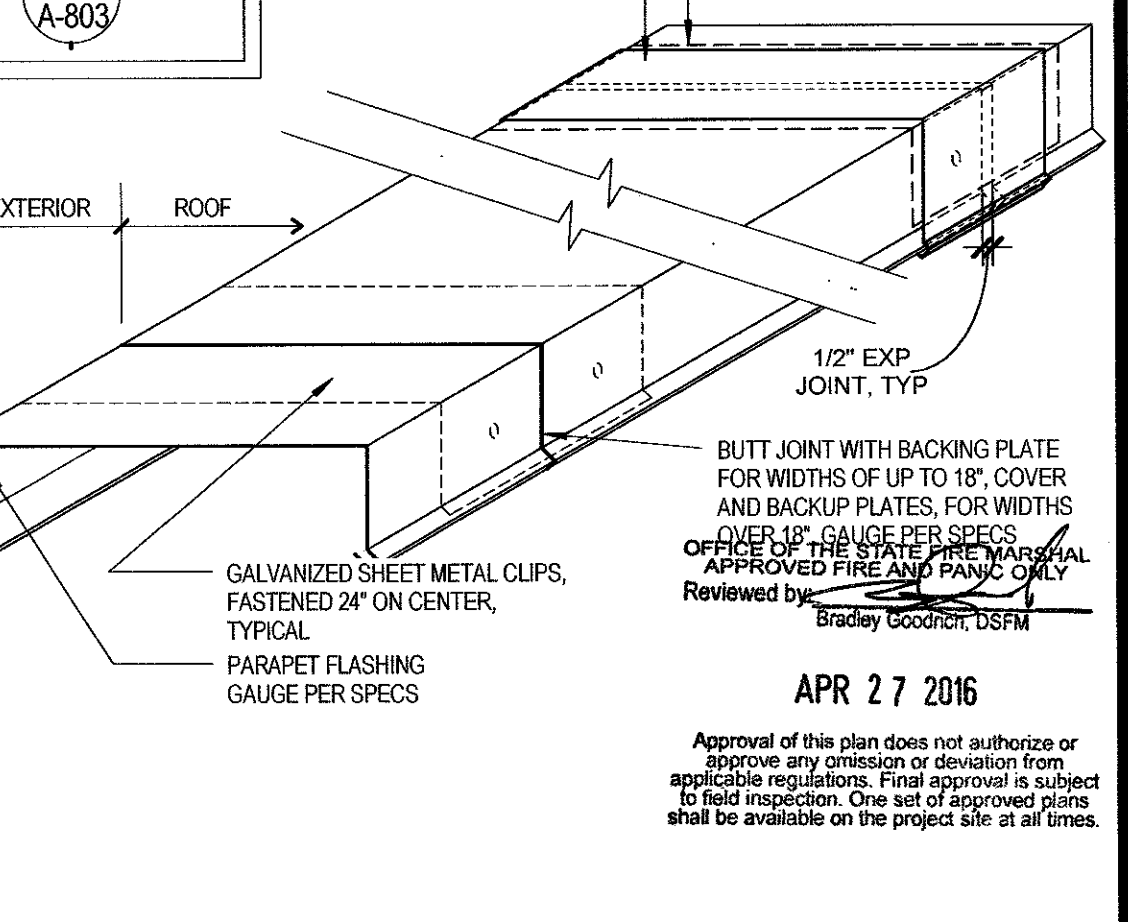
MACHINE ROOM SECURITY GATE SCALE: 1/2" = 1'-0" 20



OVERFLOW DRAIN OUTLET SCALE: 3/8" = 1'-0" 15



SLAB @ CMU WALL FIRE CAULKING SCALE: 1" = 1'-0" 10



TYPICAL COPING SCALE: 3/8" = 1'-0" 5



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**SUNDT CONSTRUCTION**  
SAN DIEGO, CALIFORNIA  
**SAN DIEGO STATE UNIVERSITY**  
SAN DIEGO, CA

**SOUTH CAMPUS PLAZA DESIGN-BUILD PARKING STRUCTURE**  
5840 LINDO PASEO  
SAN DIEGO STATE UNIVERSITY

SUBMITTAL SCHEDULE:

DESCRIPTION	DATE
SCHEMATIC DESIGN	04/17/2014
50% PRELIM. DESIGN	05/14/2014
100% PRELIM. DESIGN	05/28/2014
50% CONST. DOCS.	07/02/2014
95% CONST. DOCS.	08/07/2014
100% BACKCHECK	11/10/2014
100% BACKCHECK SET 2	01/22/2015
100% BACKCHECK SET 3	03/20/2015
AS1005	07/07/2015
AS1007 - SFM RESUB.	07/29/2015
AS1011 - SFM RESUB. 2	11/06/2015
AS1015 - SFM RESUB. 3	03/03/2016

PROJECT NO: 21305-G-50

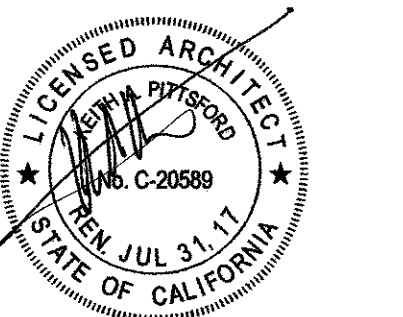
**BUILDING DETAILS**

**A-802**

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APR 27 2016  
Approval of this plan does not authorize or approve any changes or deviation from applicable regulations. Final approval is subject to field inspection. One set of approved plans shall be available on the project site at all times.





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**SUNDT CONSTRUCTION**  
 SAN DIEGO, CALIFORNIA  
**SAN DIEGO STATE UNIVERSITY**  
 SAN DIEGO, CA

**SOUTH CAMPUS PLAZA DESIGN-BUILD PARKING STRUCTURE**  
 5840 LINDO PASEO  
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100% BACKCHECK SET 1	11/10/2014
100% BACKCHECK SET 2	01/22/2015
100% BACKCHECK SET 3	03/03/2015
ASI #001	05/06/15/5
ASU#007 - SFM RESUB.	07/29/2015
ASU#011 - SFM RESUB. 2	11/08/2015
ASU#015 - SFM RESUB. 3	03/03/2016
ASU#012	11/17/15
ASU#014	12/10/15

PROJECT NO: 21905-G-50

**BUILDING DETAILS**

**UL WW-D-0021 ON SHEET A-007**  
 2 HR. CONTINUOUS FIRE CAULKING SEALANT WITH BACKER ROD, BOTH SIDES  
 REBAR PER STRUCTURAL  
 8" CMU WALL PER STRUCTURAL AND WALL TYPES ON SHEET A-007  
 GAP PER STRUCTURAL  
 COLUMN PER STRUCTURAL

**SCALE: 1" = 1'-0" (22)**

**WALL PANEL COPING**  
 SCALE: 6" = 1'-0" (17)  
 PER ELEV.  
 SHEET METAL COPING - PAINT  
 WEATHER BARRIER  
 1 3/4" FASTENER @ 16" O.C.  
 FRAMING PER STRUC.  
 FIELD DRILL 3/8" DIA. VENT HOLES @ 48" O.C.  
 DRAPE MEMBRANE OVER EXTRUSION  
 THERMAL VENT  
 10-16X50" @ 16" O.C.  
 7/8" G.I. FURRING CHANNEL  
 METAL PANEL SYSTEM  
 5/8" DENGLASS SHEATHING

**CONDITION PARALLEL TO DECK FLUTES**  
 NOTE: SEE DETAIL 10/A-803 FOR STUD BRACING

**CONDITION PERPENDICULAR TO DECK FLUTES**  
 SCALE: 3" = 1'-0" (9)  
 CONCRETE FILLED METAL DECK PER STRUCTURAL  
 (4) #8 S.M.S.  
 1 1/4" DIA. KB-TZ BOLTS TO DECK, CENTER PINS IN FLUTE, TYP.  
 6" METAL STUD

**SUSP. CEILING BRACING**  
 SCALE: 3" = 1'-0" (9)  
 CONCRETE FILLED METAL DECK PER STRUCTURAL  
 18 GA. CONT. TRACK WITH 3/8" DIA. KB-TZ BOLTS @ 24" O.C.  
 6" METAL STUD

**ROOF DRAIN & OVERFLOW**  
 SCALE: 1 1/2" = 1'-0" (1)  
 MTL. ROOF DECK PER STRUCTURAL DWGS.  
 3" RIGID INSULATION  
 2 1/2" PRE-TAPERED EDGE STRIP PROVIDE CANT AS REQ. TO PROVIDE PROPER DRAINAGE  
 PVC MEMBRANE (NON-FLEECE) TARGET PATCH IN ROOF DRAIN ASSEMBLY  
 PVC FLEECE BACKED MEMBRANE, PER SPECS. (A-803)  
 APPROV'D FASTENERS AND PLATES LOWER TARGET PATCH PENETRATION, REFER TO SPECS.  
 1-1/2" MIN. CONT. HEAT WELD, TYP.

**NOTE:**  
 OVERFLOW DRAINS MUST BE CONNECTED TO DRAIN LINES INDEPENDENT FROM ROOF DRAINS  
 STEEL CLAMPING RINGS MUST BE USED ON ALL ROOF AND OVERFLOW DRAINS  
 MEMBRANE PILES, METAL FLASHING AND FLASHING PILES EXTEND UNDER CLAMPING RING.  
 REFER TO SINGLE PLY FLASHING SPECS FOR A FULL DESCRIPTION OF INSTALLATION INSTRUCTIONS AND REQ'TS FOR THIS DETAIL.

**2 HOUR CEILING @ CMU WALL**  
 SCALE: 1 1/2" = 1'-0" (23)  
 SHAFT WALL TRACK  
 1" GYPSUM BOARD REFER TO UL DESCRIPTION FOR FRAMING, TAPING, AND OTHER INSTALLATION REQUIREMENTS.  
 2 LAYERS OF 5/8" GYPSUM BOARD REFER TO UL DESCRIPTION FOR FRAMING, TAPING, AND OTHER INSTALLATION REQUIREMENTS.  
 400CH-34 @ 24" O.C. W/ MAX SPAN OF 14'-0"  
 SECTION PROPERTIES: AREA= 0.3433, I= 0.730, S= 0.318  
 ANCHOR BOLT PER STRUCTURAL DRAWINGS  
 8" CMU PER STRUCTURAL  
 NOTE: REFER TO HORIZONTAL SHAFTWALL ASSEMBLY AND HW-D-0603 FOR CEILING ASSEMBLY ON SHEET A-009

**WALL PANEL REVEAL - 1/4"**  
 SCALE: 6" = 1'-0" (18)  
 7/8" G.I. FURRING CHANNEL  
 METAL PANEL SYSTEM, TYP.  
 FASTENER @ 16", TYP.  
 CONCRETE COLUMN OR STEEL FRAMING PER STRUCTURAL, TYP.  
 5/8" DENGLASS SHEATHING, TYP.

**1/4" VERTICAL AND HORIZONTAL REVEAL**  
 SCALE: 6" = 1'-0" (18)  
 CONCRETE FILLED METAL DECK PER STRUCTURAL  
 (3) #8 S.M.S.  
 1 1/4" DIA. KB-TZ BOLTS TO DECK, CENTER PINS IN FLUTE, TYP.  
 MIN. 3625162-33 BRACE @ 48" O.C. MAX.

**CONDITION PARALLEL TO DECK FLUTES**  
 SCALE: 3" = 1'-0" (10)  
 CONCRETE FILLED METAL DECK PER STRUCTURAL  
 (3) #8 S.M.S.  
 1 1/4" DIA. KB-TZ BOLTS TO DECK, CENTER PINS IN FLUTE, TYP.  
 MIN. 3625162-33 BRACE @ 48" O.C. MAX.

**CEILING STUD BRACING**  
 SCALE: 3" = 1'-0" (10)  
 CONCRETE FILLED METAL DECK PER STRUCTURAL  
 (3) #8 S.M.S.  
 1 1/4" DIA. KB-TZ BOLTS TO DECK, CENTER PINS IN FLUTE, TYP.  
 MIN. 3625162-33 BRACE @ 48" O.C. MAX.

**EXPANSION JOINT- PLAN**  
 SCALE: 3" = 1'-0" (5)  
 9"  
 0.25" (6mm) x 1.75" (44mm) HI TAPCON @ 18" (457mm) O.C.  
 SILICONE RUBBER VERTICAL WEATHER SEAL  
 SNAP-LOCK ALUMINUM MOUNTING FRAME  
 EXT. CEMENT PLASTER, TYP.  
 WALL PER PLAN

**ROOF AT WALL**  
 SCALE: 3" = 1'-0" (2)  
 CEMENT PLASTER OVER METAL LATH OVER BUILDING PAPER  
 2-PIECE CEMENT PLASTER REGLET  
 91'-11" CONT. HEIGHT OF REGLET  
 ROOF MANUF. FASTENER AND PLATE  
 SELF-ADHERING FLASHING  
 5/8" DENGLASS SHEATHING  
 PVC MEMBRANE FULLY ADHERED TO WALL, PER SPECS.  
 PVC MEMBRANE ADHESIVE  
 ROOF MANUF. FASTENER AND PLATE  
 12" MAX. PENETRATION - SEE SPECS.  
 MIN. CONT. WELD, TYP.  
 INSULATION, SLOPED PER PLAN  
 ROOF BOARD

**2 HOUR CEILING SOFFIT**  
 SCALE: 1 1/2" = 1'-0" (24)  
 SOFFIT PER PLAN  
 4" STUD AND TRACK FRAMING  
 1" GYPSUM BOARD REFER TO UL DESCRIPTION FOR FRAMING, TAPING, AND OTHER INSTALLATION REQUIREMENTS.  
 2 LAYERS OF 5/8" GYPSUM BOARD REFER TO UL DESCRIPTION FOR FRAMING, TAPING, AND OTHER INSTALLATION REQUIREMENTS.  
 400CH-34 @ 24" O.C. W/ MAX SPAN OF 14'-0"  
 SECTION PROPERTIES: AREA= 0.3433, I= 0.730, S= 0.318  
 NOTE: REFER TO UL L415 AND HORIZONTAL SHAFTWALL ASSEMBLY ON SHEETS A-009

**WALL PANEL EXP. JOINT**  
 SCALE: 3" = 1'-0" (19)  
 5/8" DENGLASS SHEATHING, TYP.  
 COMPOSITE METAL PANEL SYSTEM, TYP.  
 METAL FRAMING CLIP PER STRUCTURAL  
 HSS MEMBER W/ SPRAY APPLIED FIRE PROOFING PER UL 710 ON SHEET A-008, REF. STRUCTURAL FOR HSS SIZES  
 METAL FRAMING CLIP PER STRUCTURAL  
 18 GA. 6" X 2-1/2" TRACK  
 DEFLECTION TRACK, TYP.

**ELEV. SLAB SEISMIC JOINT**  
 SCALE: 3" = 1'-0" (14)  
 SEALANT  
 0.25" (6mm) x 1.75" (44mm) CONCRETE ANCHOR @ 18" (457mm) O.C.  
 HEAVY DUTY WALL MOUNT FRAME  
 RUBBER ANTI-VIBRATION GASKET  
 HEAVY DUTY 0.375" (10mm) ALUMINUM HINGED SAFETY COVER  
 IMPACT / SOUND DAMPER  
 SLAB PER PLAN  
 WALL PER PLAN  
 EXT. CEMENT PLASTER

**ROOF DECK DETAIL**  
 SCALE: 3" = 1'-0" (11)  
 METAL PANEL SYSTEM  
 CONT. 20 GA. SHEET METAL  
 7/8" G.I. FURRING CHANNEL @ 16" O.C. MAX.  
 91'-11" CONT. HEIGHT OF REGLET  
 ROOF MANUF. FASTENER AND PLATE  
 5/8" DENGLASS SHEATHING  
 COLUMN PER PLAN  
 PVC MEMBRANE FULLY ADHERED TO WALL, PER SPECS.  
 PVC MEMBRANE ADHESIVE  
 ROOF MANUF. FASTENER AND PLATE 12" MAX. PENETRATION - SEE SPECS.  
 MIN. CONT. WELD, TYP.  
 ROOF PROTECTION BOARD  
 INSULATION SLOPED PER PLAN  
 METAL DECK PER STRUC.

**EXPANSION JOINT- PLAN**  
 SCALE: 3" = 1'-0" (6)  
 EXT. CEMENT PLASTER  
 WALL PER PLAN  
 0.25" (6mm) x 1.75" (44mm) HI TAPCON @ 18" (457mm) O.C.  
 SILICONE RUBBER VERTICAL WEATHER SEAL  
 J MOLD, TYP.  
 WALL PER PLAN  
 5/8" DENGLASS SHEATHING  
 EXT. CEMENT PLASTER

**ELEVATOR ROOF EAVE**  
 SCALE: 1 1/2" = 1'-0" (3)  
 24 GA. GALV. S.M. EAVE FLASHING, PAINT CONT. WELD, TYP.  
 PVC MEMBRANE FULLY ADHERED TO ROOFING OF MEMBRANE ADHESIVE  
 1/2" ROOF BOARD  
 3/8" BEAT PLATE PER STRUCT., PAINT  
 INSULATION SLOPED PER PLAN  
 SEALANT  
 6" CMU WALL - PAINT  
 REGLET AND COUNTER FLASHING  
 DRIP EDGE  
 J MOLD  
 EXT. CEMENT PLASTER  
 CMU WALL PER PLAN

**2 HOUR CEILING SOFFIT @ BEAM**  
 SCALE: 1 1/2" = 1'-0" (25)  
 NOTE: REFER TO UL L415 AND HW-D-0603 FOR CEILING ASSEMBLY ON SHEETS A-007 AND A-008  
 BEAM OR CONCRETE SLAB PER STRUCTURAL  
 CONTINUOUS METAL STUD TRACK  
 ANCHOR BOLT PER STRUCTURAL DRAWINGS  
 1" GYPSUM BOARD REFER TO UL LISTING FOR FRAMING, TAPING, AND OTHER INSTALLATION REQUIREMENTS.  
 2 LAYERS OF TYPE X GYPSUM BOARD REFER TO UL LISTING FOR FRAMING, TAPING, AND OTHER INSTALLATION REQUIREMENTS.

**WALL PANEL SOFFIT**  
 SCALE: 6" = 1'-0" (20)  
 METAL PANEL SYSTEM  
 HSS MEMBER PER PLAN  
 WEATHER BARRIER  
 7/8" G.I. FURRING CHANNEL, TYP.  
 5/8" DENGLASS SHEATHING, TYP.  
 1 3/4" FASTENER @ 16" O.C.  
 SILICONE LAPSTRIP  
 FRAMING PER STRUC.  
 WEAP AT JOINTS

**MACHINE ROOM/ELEV. SHAFT THRESHOLD**  
 SCALE: 3" = 1'-0" (15)  
 MACHINE ROOM  
 0.375" (10mm) STAINLESS STEEL EPOXY INSERT ANCHOR @ 18" (457mm) O.C.  
 HEAVY DUTY ALUMINUM ANCHOR PLATE  
 RUBBER ANTI-VIBRATION GASKET  
 HEAVY DUTY 0.375" (10mm) ALUMINUM HINGED SAFETY COVER  
 IMPACT / SOUND DAMPER  
 SLAB PER PLAN  
 WALL PER PLAN

**SOFFIT CEILING**  
 SCALE: 3" = 1'-0" (12)  
 ANCHOR BOLT PER STRUCTURAL DRAWINGS  
 CEILING JOISTS  
 EXT. CEMENT PLASTER  
 5/8" DENGLASS SHEATHING  
 COLUMN PER PLAN  
 METAL PANEL SYSTEM  
 7/8" G.I. FURRING CHANNEL

**ELEVATOR SOFFIT DETAIL**  
 SCALE: 3" = 1'-0" (7)  
 9"  
 2x FRAMING  
 EXT. CEMENT PLASTER  
 0.25" (6mm) x 1.75" (44mm) HI TAPCON @ 18" (457mm) O.C.  
 SILICONE RUBBER VERTICAL WEATHER SEAL  
 J MOLD, TYP.  
 EXT. CEMENT PLASTER  
 WALL PER PLAN

**LOUVER SILL @ 6" CURB**  
 SCALE: 3" = 1'-0" (26)  
 LOUVER VENT IN 2 INCH GALV. STL. FRAME W/ #8 MESH SCREEN  
 LOUVER TYPE AND SIZE PER ELEVATIONS AND SPECIFICATIONS  
 BURGLAR BARS @ 6" O.C. MAX. EA. WAY WELDED BETWEEN 1-1/2" STLS  
 W.P. MEMBRANE  
 CONCRETE CURB PER STRUCTURAL  
 SHEAR WALL BEYOND PER STRUCTURAL  
 CONCRETE SLAB PER STRUCTURAL  
 SEALANT AND EXP. JOINT FILLER  
 CONCRETE HARDSCAPE PER CIVIL

**WALL PANEL DETAIL**  
 SCALE: 6" = 1'-0" (21)  
 COLUMN BEYOND  
 WEATHER BARRIER  
 7/8" G.I. FURRING CHANNEL  
 5/8" DENGLASS SHEATHING  
 CURING BUTYL  
 METAL PANEL SYSTEM  
 1 3/4" FASTENER @ 16" O.C.  
 SILICONE LAPSTRIP  
 7/8" DIA. BACKER ROD  
 SHOP WEEPS  
 20 GA. FLASHING WITH GRIPPED EDGE  
 CONCRETE CURB BASE PER STRUCTURAL

**ELEVATOR DOOR THRESHOLD**  
 SCALE: 3" = 1'-0" (16)  
 ELEVATOR CAB  
 ELEVATOR SHAFT  
 HEAVY DUTY ALUMINUM ANCHOR PLATE  
 RUBBER ANTI-VIBRATION GASKET  
 HEAVY DUTY 0.375" (10mm) ALUMINUM HINGED SAFETY COVER  
 IMPACT / SOUND DAMPER  
 SLAB PER PLAN  
 WALL PER PLAN

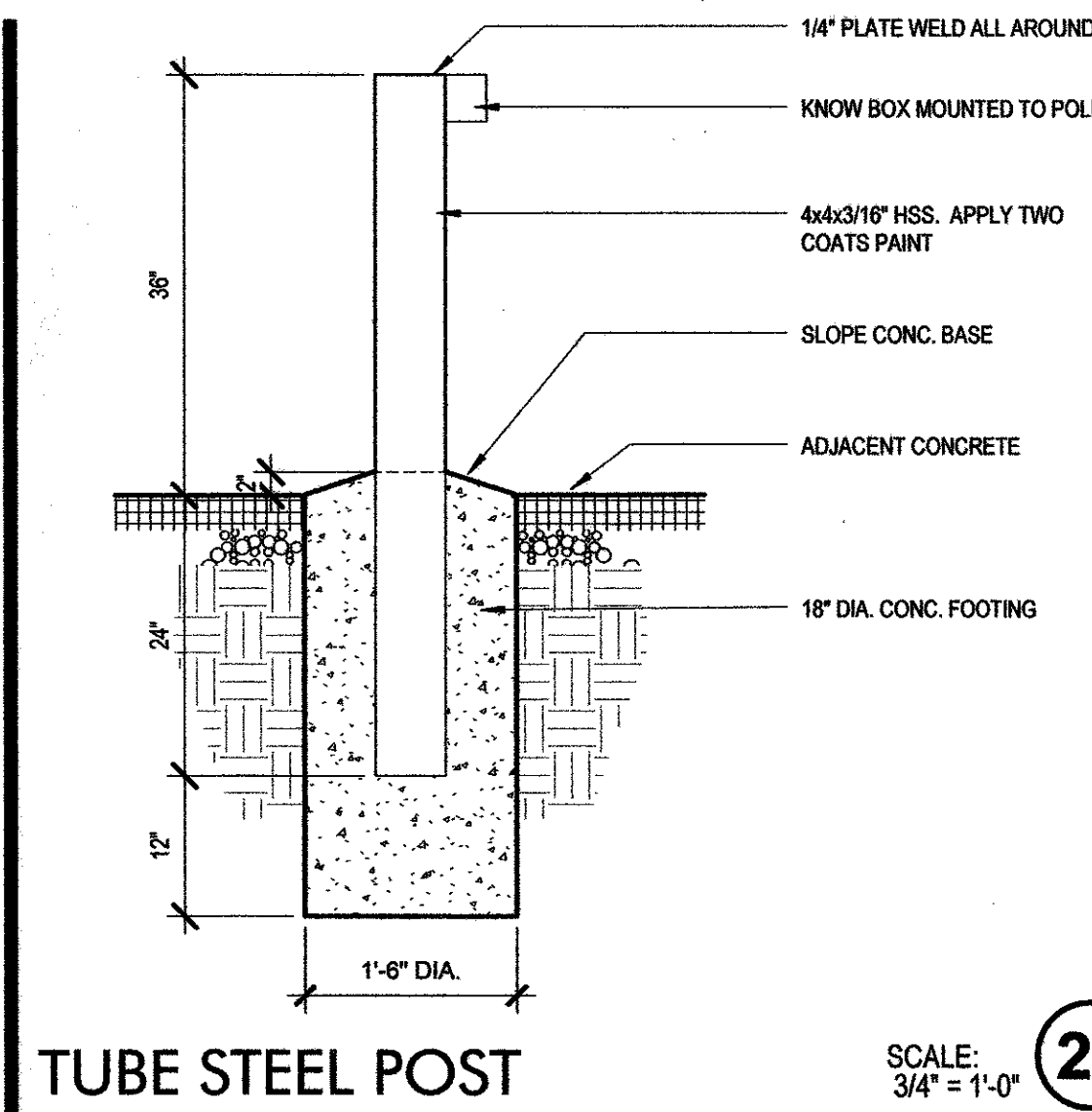
**C-H STUD CEILING - 2 HOUR**  
 SCALE: 1 1/2" = 1'-0" (13)  
 1" GYPSUM BOARD REFER TO UL DESCRIPTION FOR FRAMING, TAPING, AND OTHER INSTALLATION REQUIREMENTS.  
 (2) LAYERS 5/8" GYPSUM BOARD REFER TO UL DESCRIPTION FOR FRAMING, TAPING, AND OTHER INSTALLATION REQUIREMENTS.  
 400CH-34 @ 24" O.C. W/ MAX SPAN OF 14'-0"  
 SECTION PROPERTIES: AREA= 0.3433, I= 0.730, S= 0.318  
 HORIZONTAL SHAFTWALL ASSEMBLY  
 NOTE: REFER TO CEILING PLANS FOR RATED LOCATIONS AND UL DESCRIPTION ON SHEET A-009.

**PARAPET CAP**  
 SCALE: 3" = 1'-0" (8)  
 SLOPE TO DRAIN  
 SHEET METAL COPING, PAINT, COLOR PER ELEVATIONS, FOR LAPPING SEE: 92'-3"  
 TOP OF PARAPET FRAMING  
 ROOF MANUF. FASTENER AND PLATE  
 METAL STUD FRAMING  
 91'-11" CONT. HEIGHT OF REGLET  
 2-PIECE REGLET  
 W.P. MEMBRANE UNDERLAYMENT 6" MINIMUM LAP OVER EDGE  
 CEMENT PLASTER OVER METAL LATH - PAINT PER ELEVATIONS  
 PVC MEMBRANE FULLY ADHERED TO WALL, PER SPECS.  
 PVC MEMBRANE ADHESIVE  
 ROOF MANUF. FASTENER AND PLATE 12" MAX. PENETRATION - SEE SPECS.  
 MIN. CONT. WELD, TYP.  
 METAL DECK PER STRUCT.

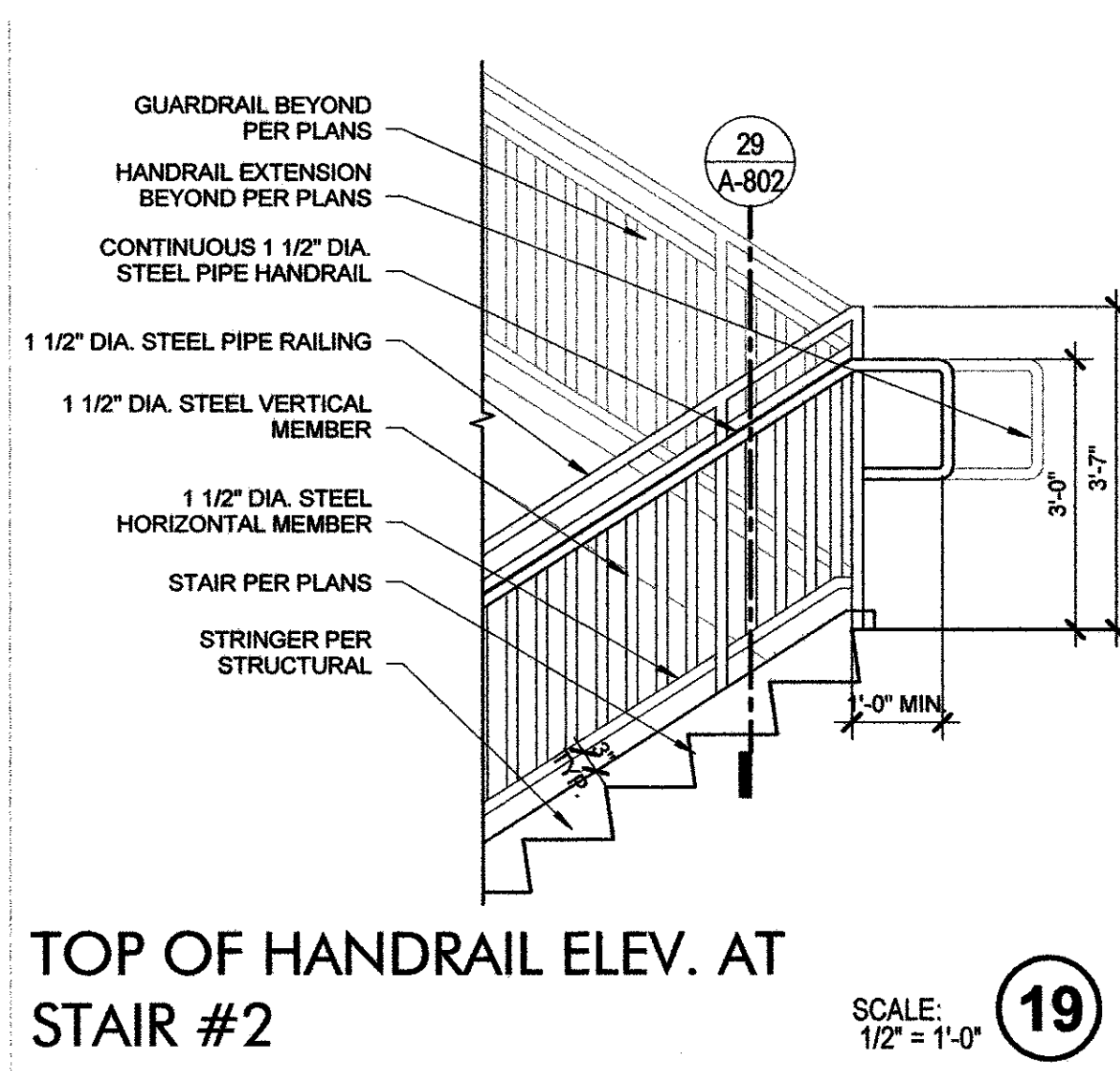
**ELEVATOR/MACHINE ROOM ROOF**  
 SCALE: 1 1/2" = 1'-0" (4)  
 1/2" ROOF BOARD  
 INSULATION SLOPED PER PLAN  
 24 GA. GALV. S.M. EAVE FLASHING, PAINT  
 PVC MEMBRANE FULLY ADHERED TO ROOFING OF MEMBRANE ADHESIVE  
 NESTED MTL. STUD CONT.  
 3/8" BEAT PLATE PER STRUCT., PAINT  
 CMU WALL PER PLAN  
 ROOF PARAPET BEYOND  
 91'-11" CONT. HEIGHT OF REGLET  
 REGLET/COUNTERFLASHING  
 EXPANDABLE WEATHER PROOF EXPANSION JOINT  
 SHEET METAL FLASHING  
 2x FRAMING  
 PVC MEMBRANE FULLY ADHERED TO ROOFING OF MEMBRANE ADHESIVE  
 INSULATION SLOPED PER PLAN  
 METAL DECK PER STRUCTURAL  
 BEAM PER STRUCTURAL

**OFFICE OF THE STATE FIRE MARSHAL**  
 APPROVED ELEVATOR DETAIL  
 Reviewed by: [Signature]  
 APR 27 2016  
 Approval of this plan does not authorize any omission or deviation from applicable regulations. Final approval is subject to the fire department. The set of approved drawings shall be available on the project site at all times.

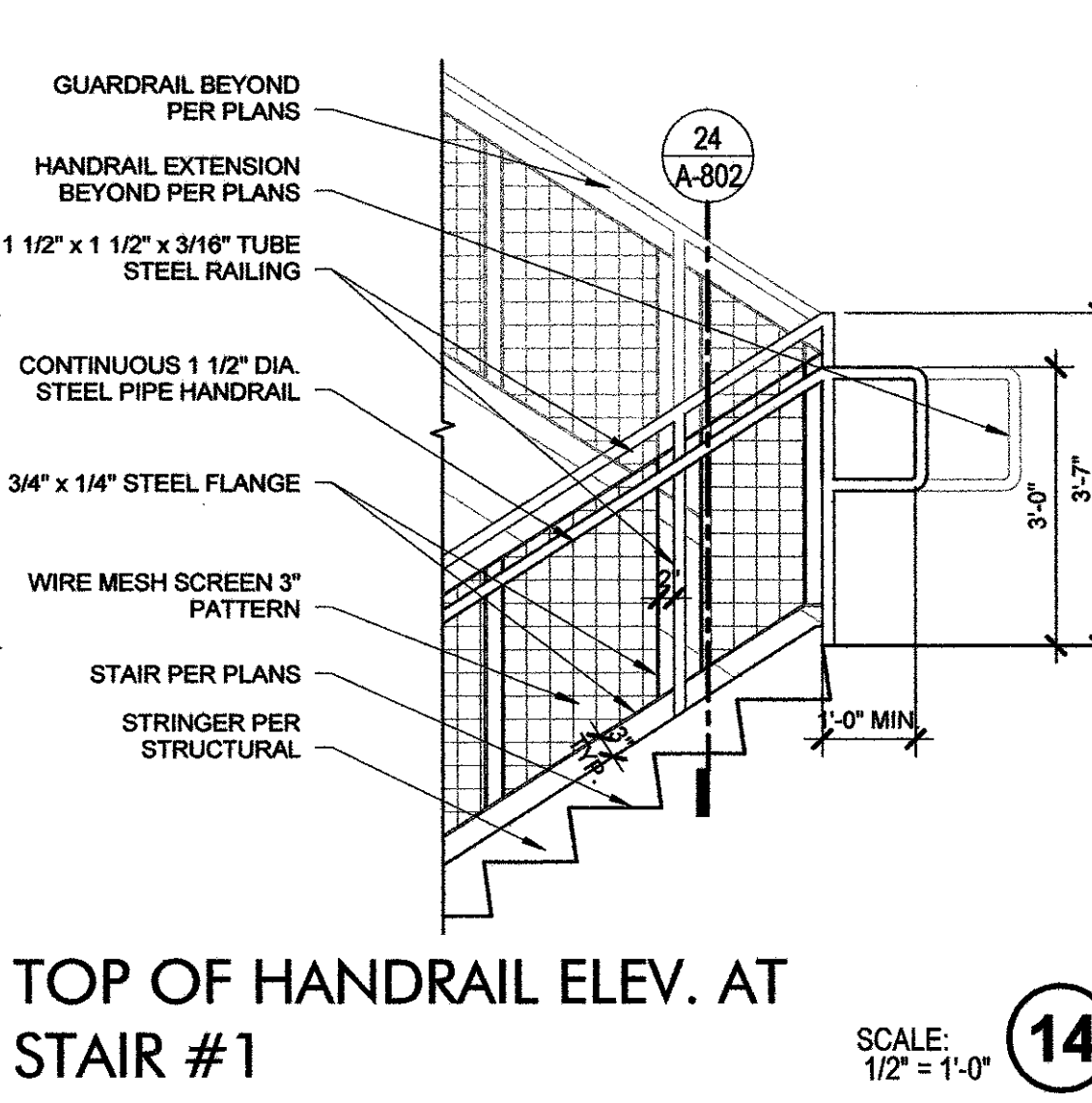




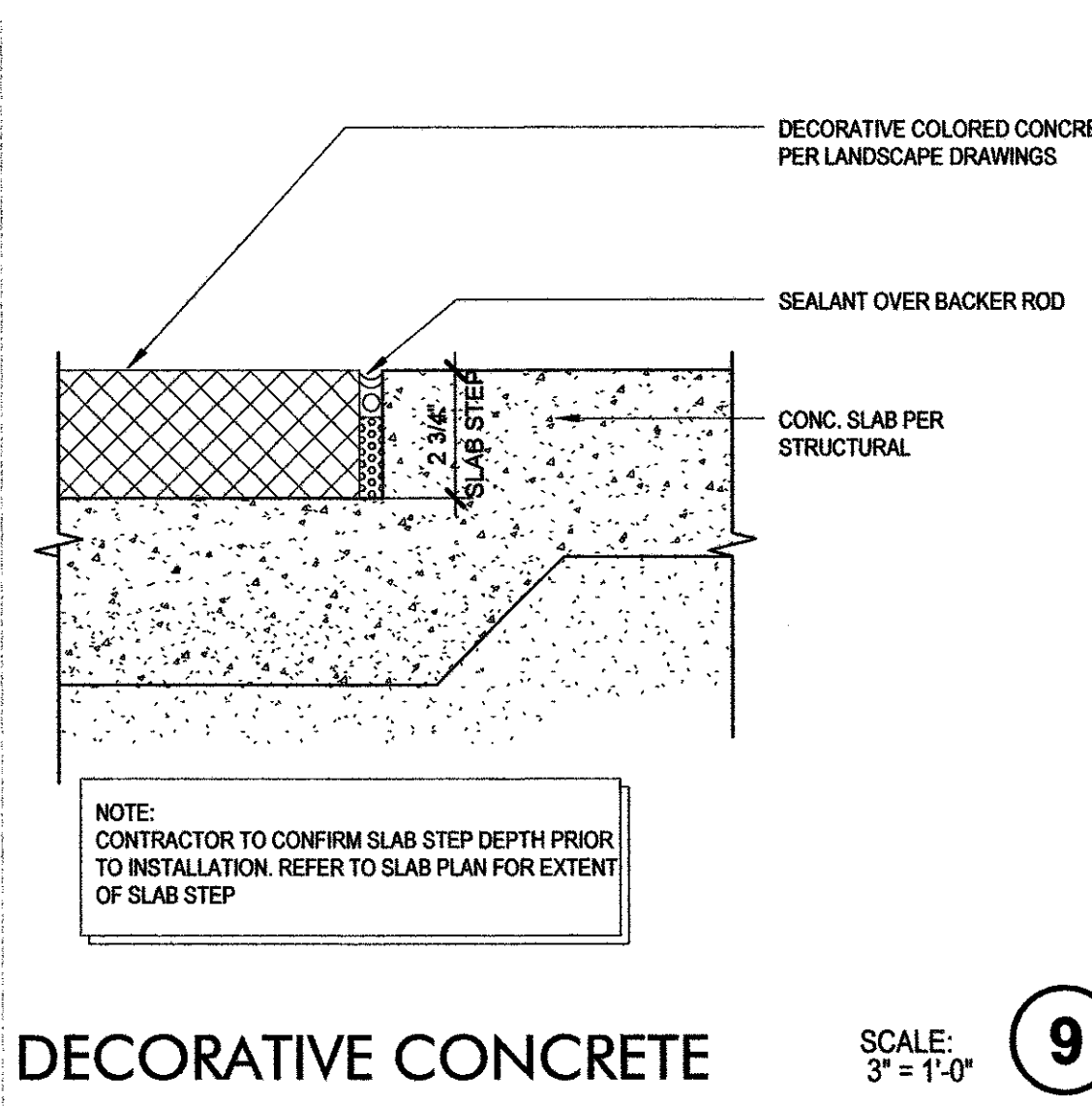
TUBE STEEL POST SCALE: 3/4" = 1'-0" 24



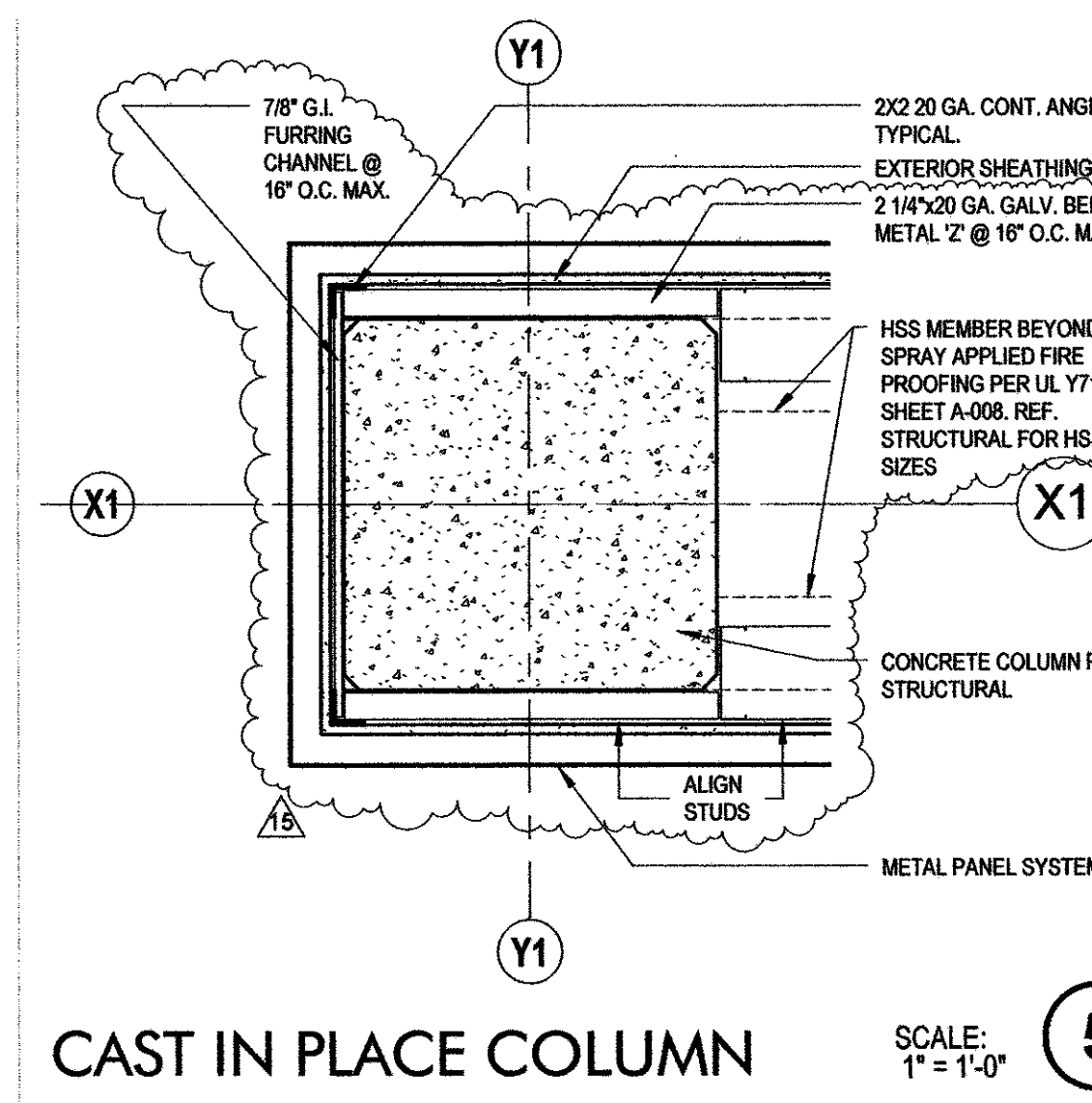
TOP OF HANDRAIL ELEV. AT STAIR #2 SCALE: 1/2" = 1'-0" 19



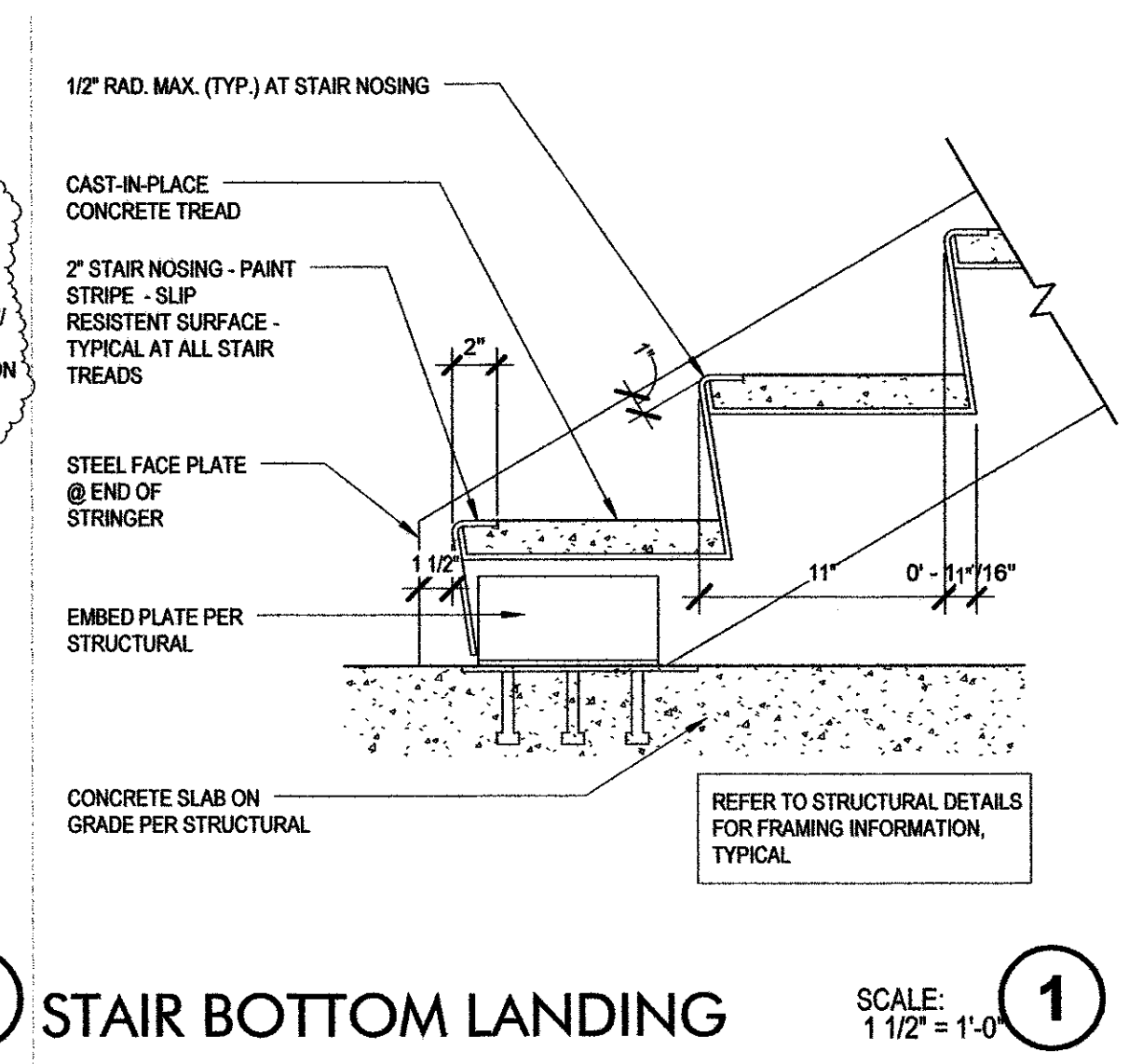
TOP OF HANDRAIL ELEV. AT STAIR #1 SCALE: 1/2" = 1'-0" 14



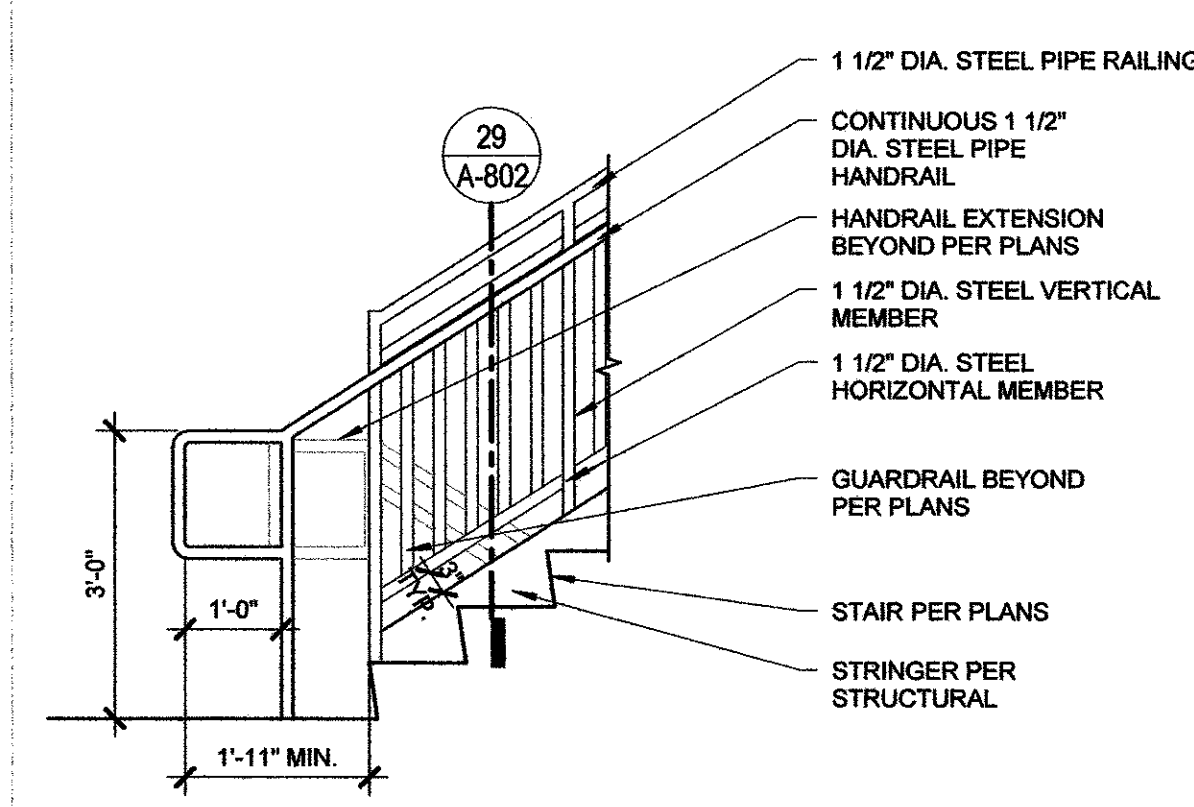
DECORATIVE CONCRETE SCALE: 3" = 1'-0" 9



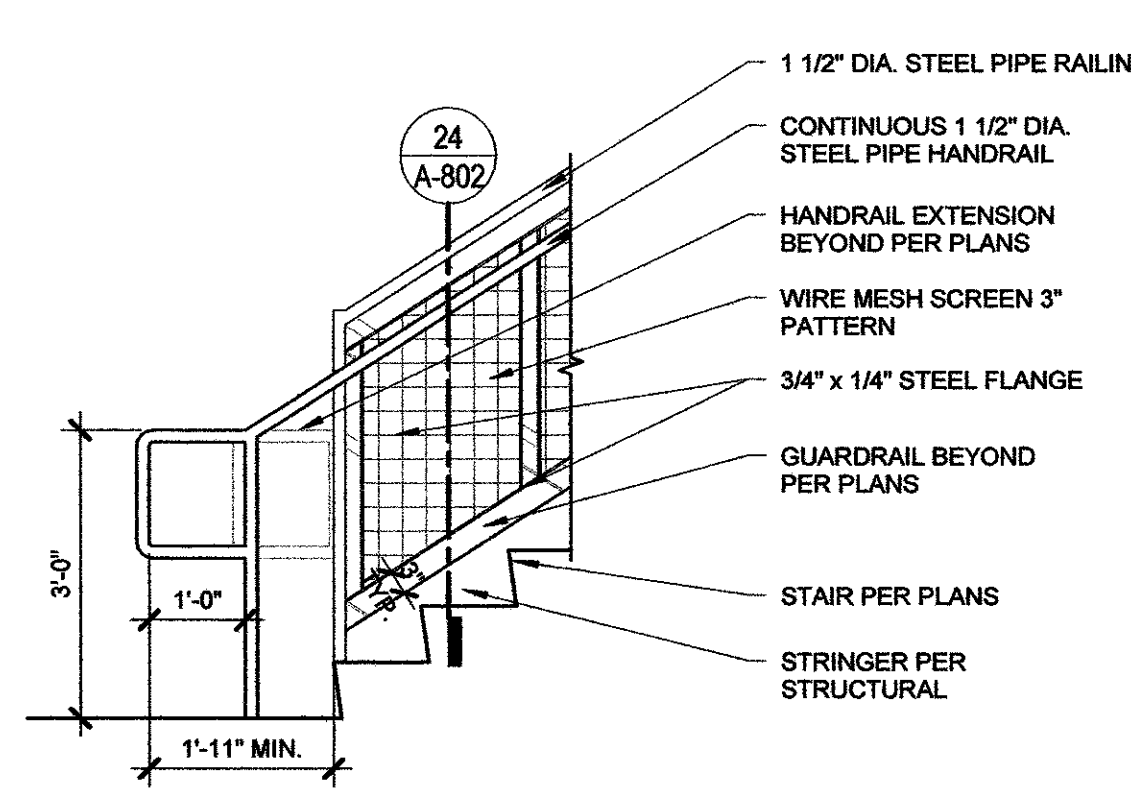
CAST IN PLACE COLUMN SCALE: 1" = 1'-0" 5



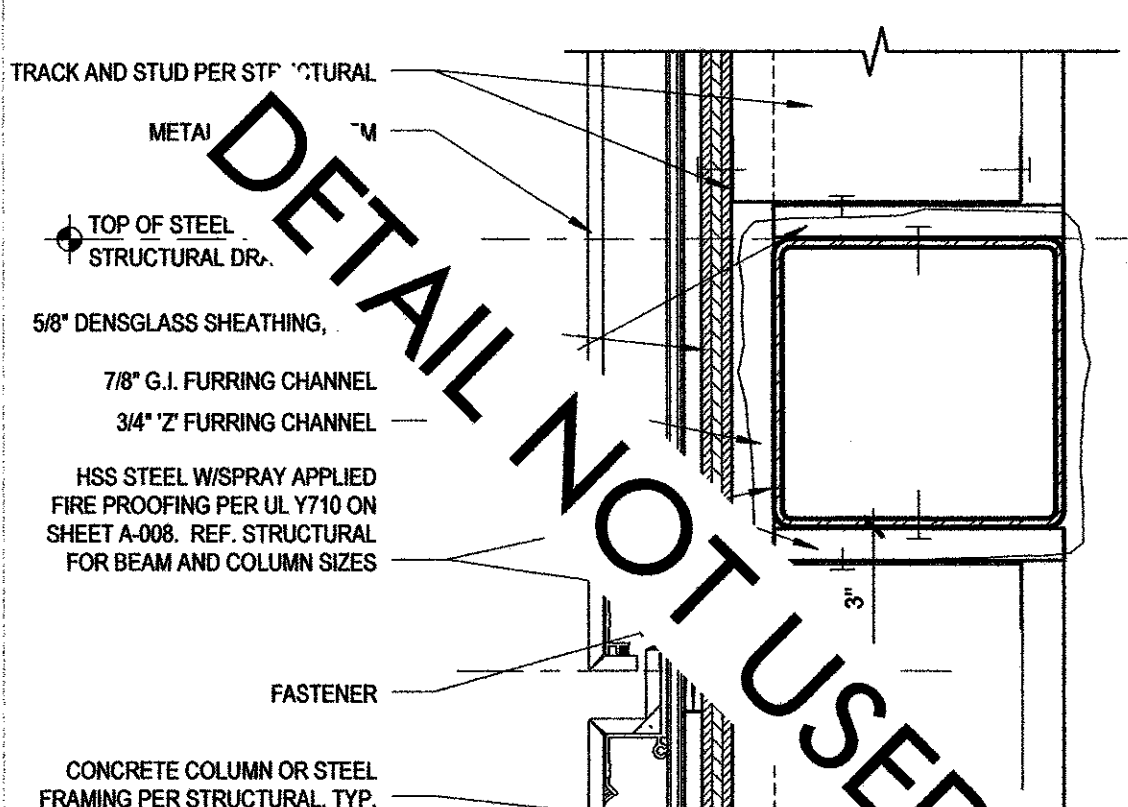
STAIR BOTTOM LANDING SCALE: 1 1/2" = 1'-0" 1



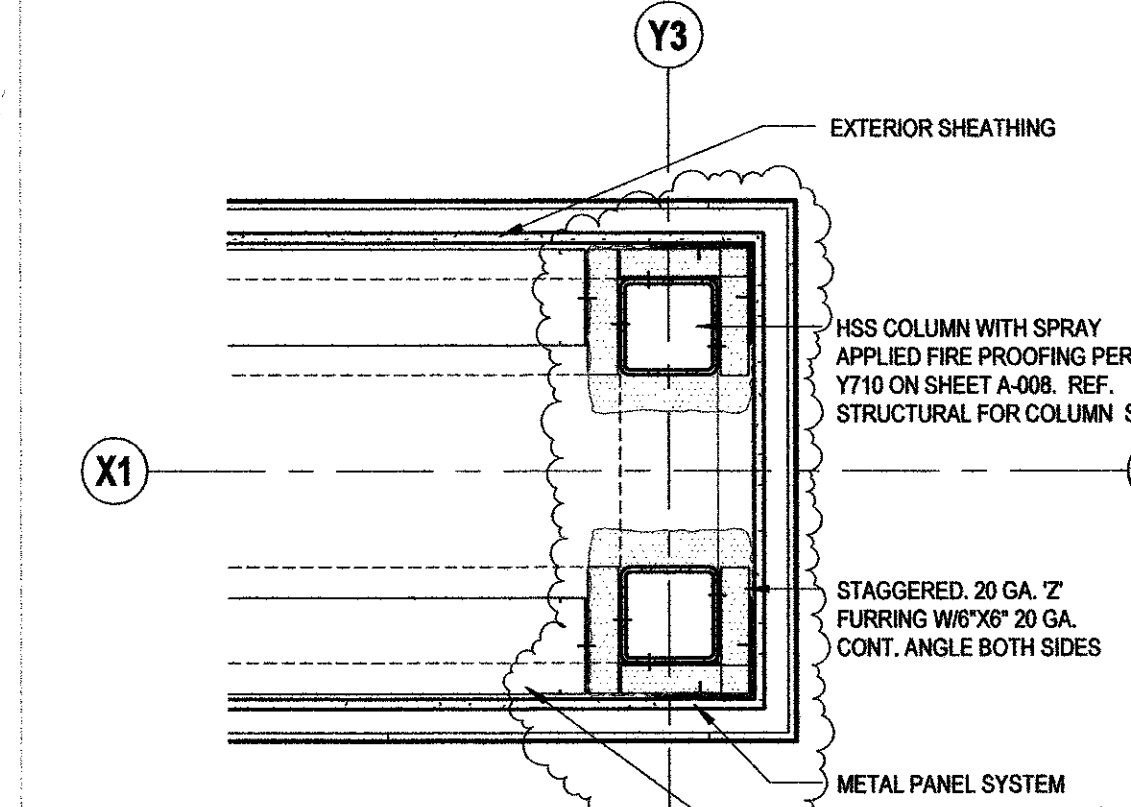
BOT. OF HANDRAIL ELEV. AT STAIR #2 SCALE: 1/2" = 1'-0" 20



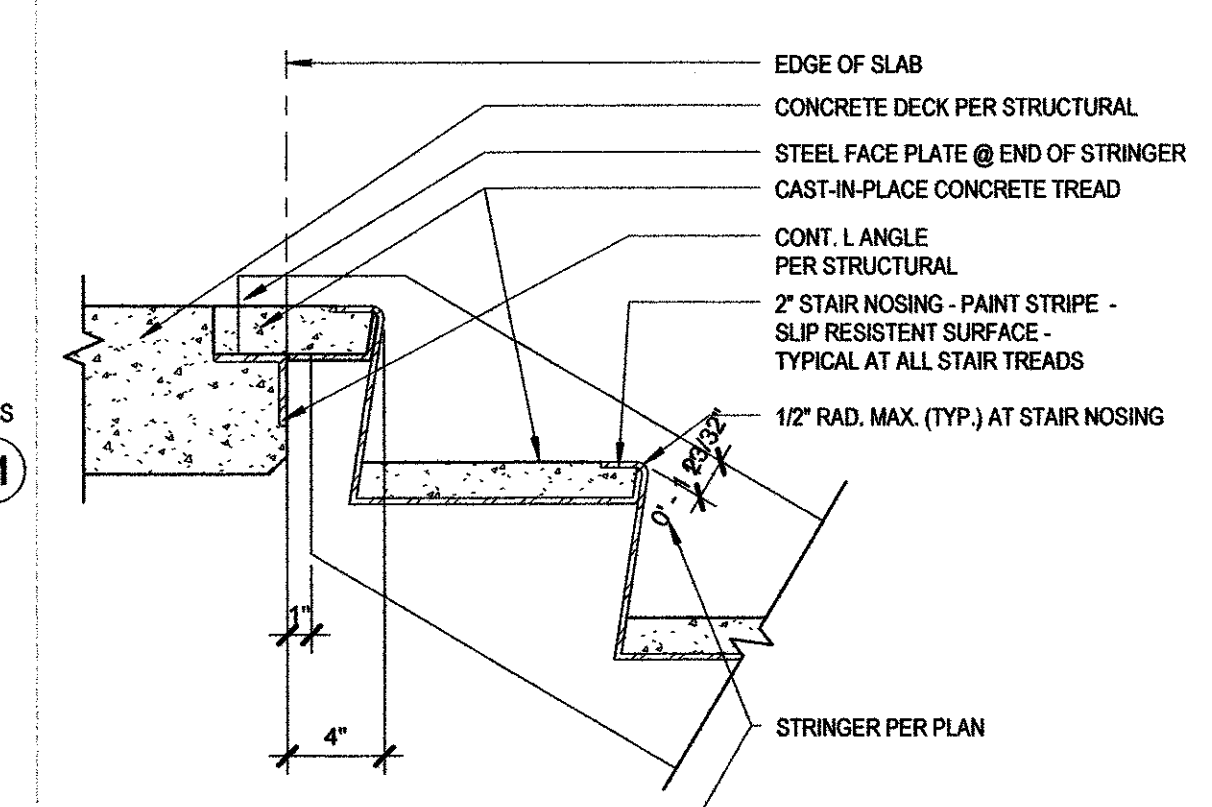
BOT. OF HANDRAIL ELEV. AT STAIR #1 SCALE: 1/2" = 1'-0" 15



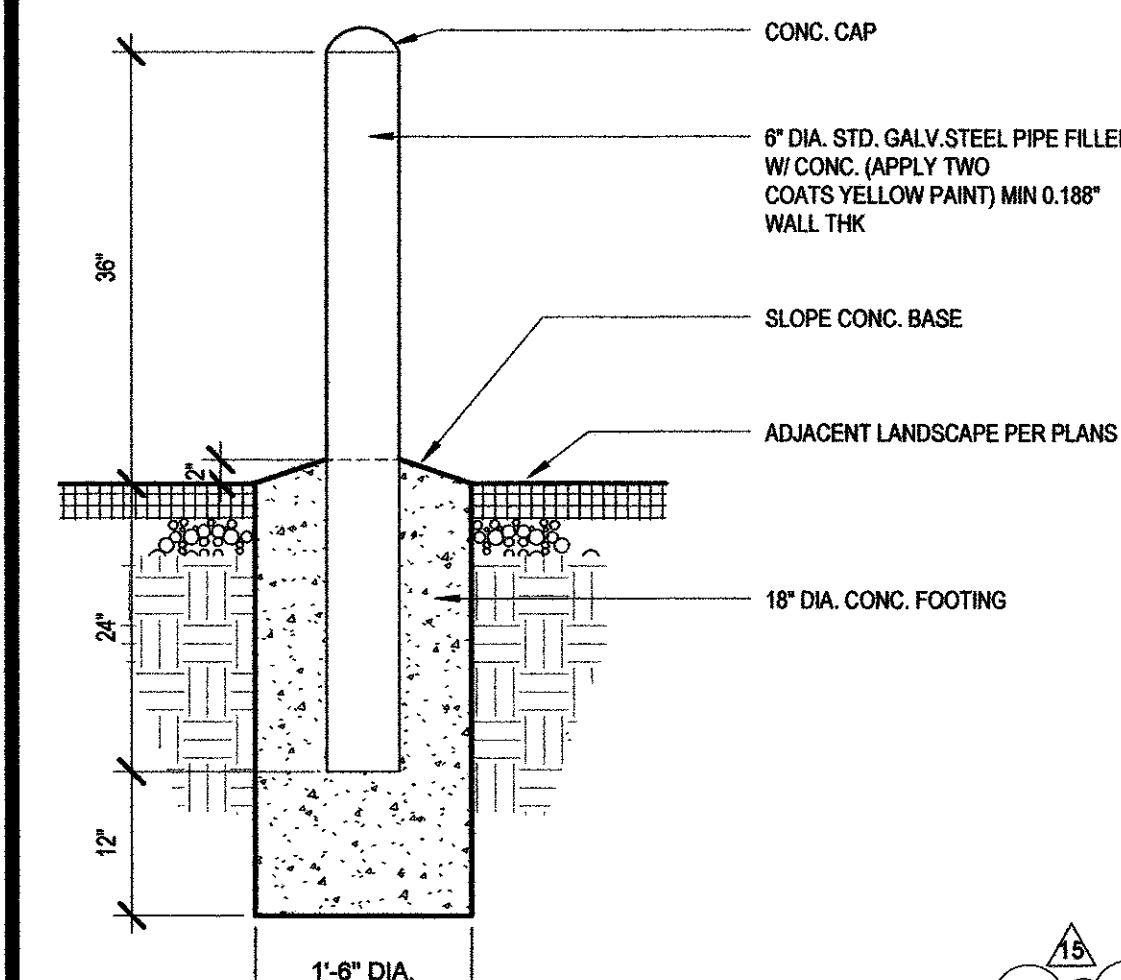
REVEAL @ HSS FRAMING SCALE: 3" = 1'-0" 10



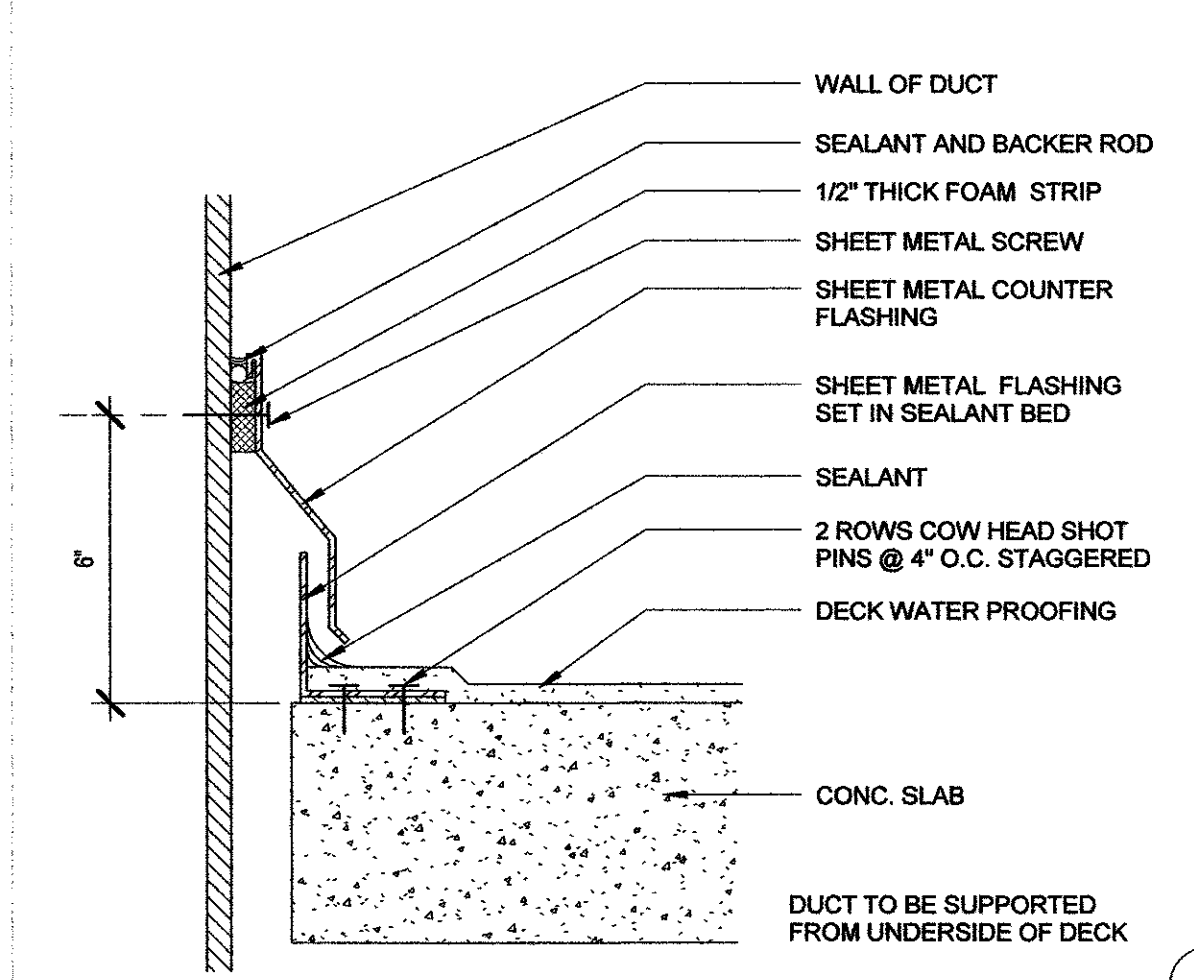
HSS COLUMN FRAMING SCALE: 1" = 1'-0" 6



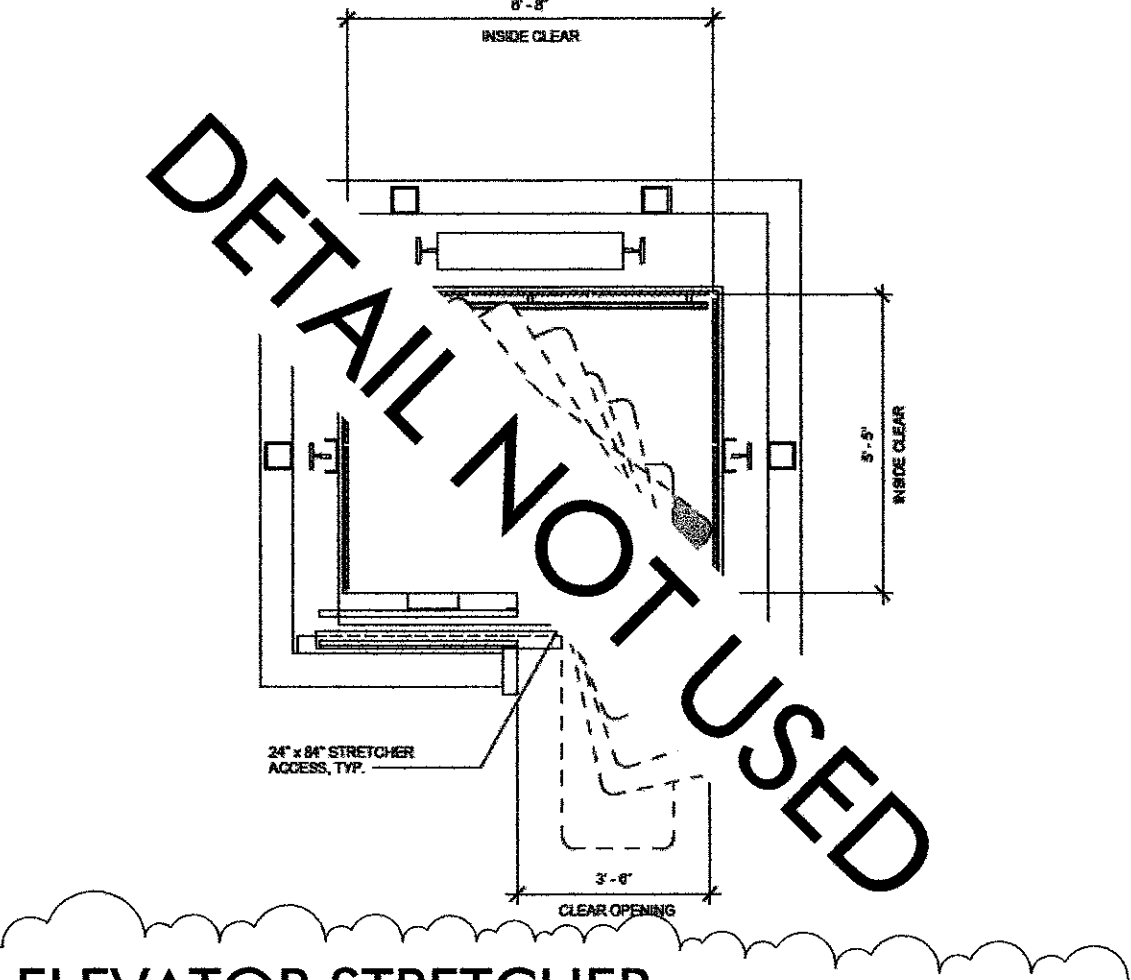
STAIR UPPER & BOT. LANDING SCALE: 1 1/2" = 1'-0" 2



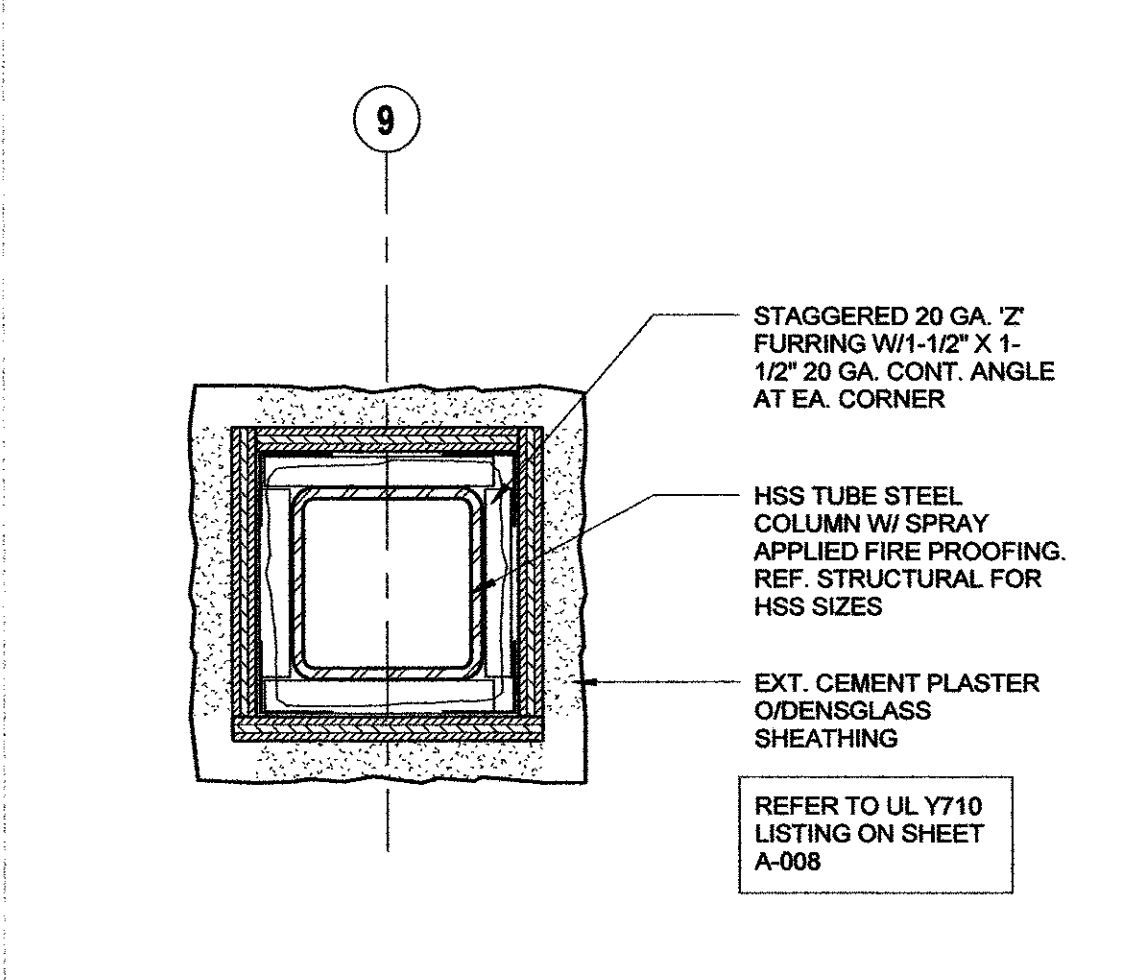
PIPE BOLLARD SCALE: 3/4" = 1'-0" 26



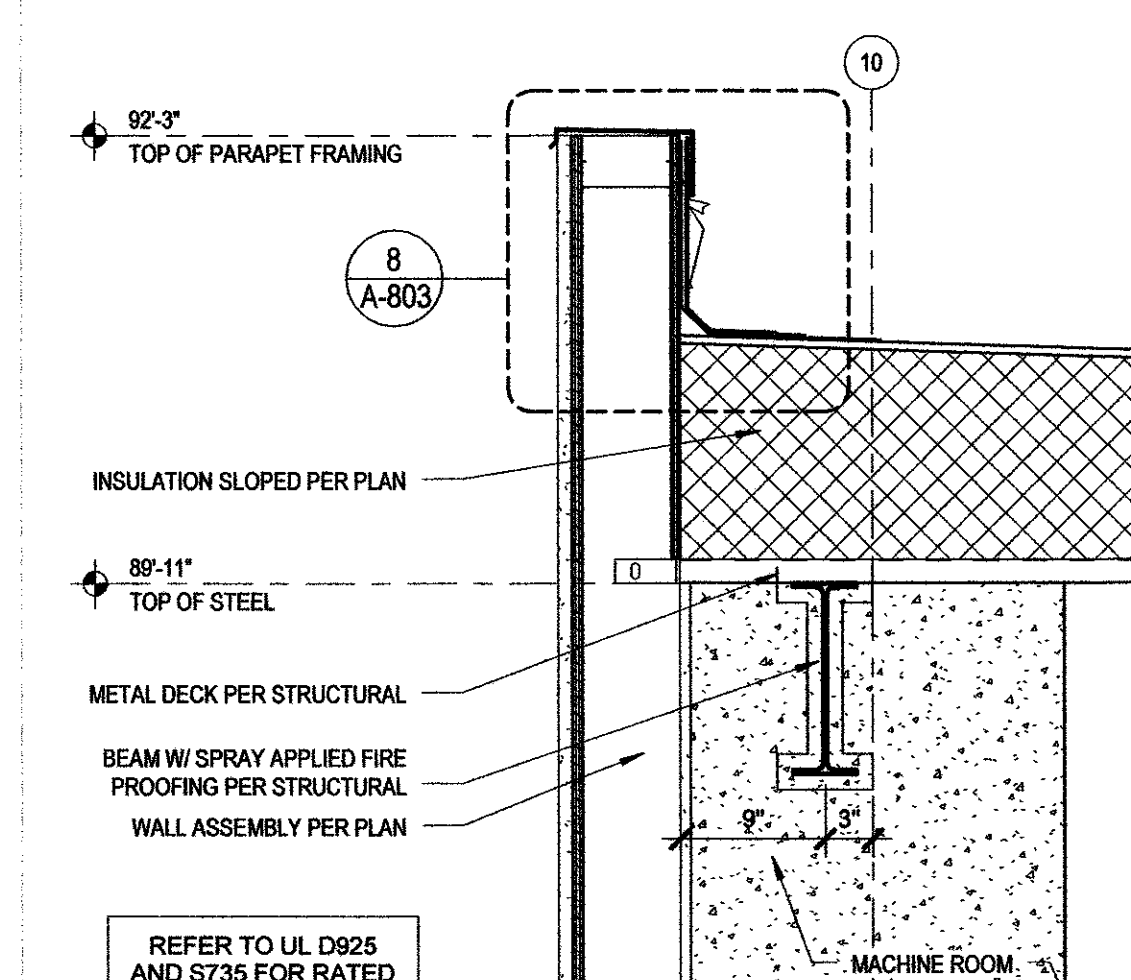
DUCT THROUGH SLAB SCALE: 3" = 1'-0" 21



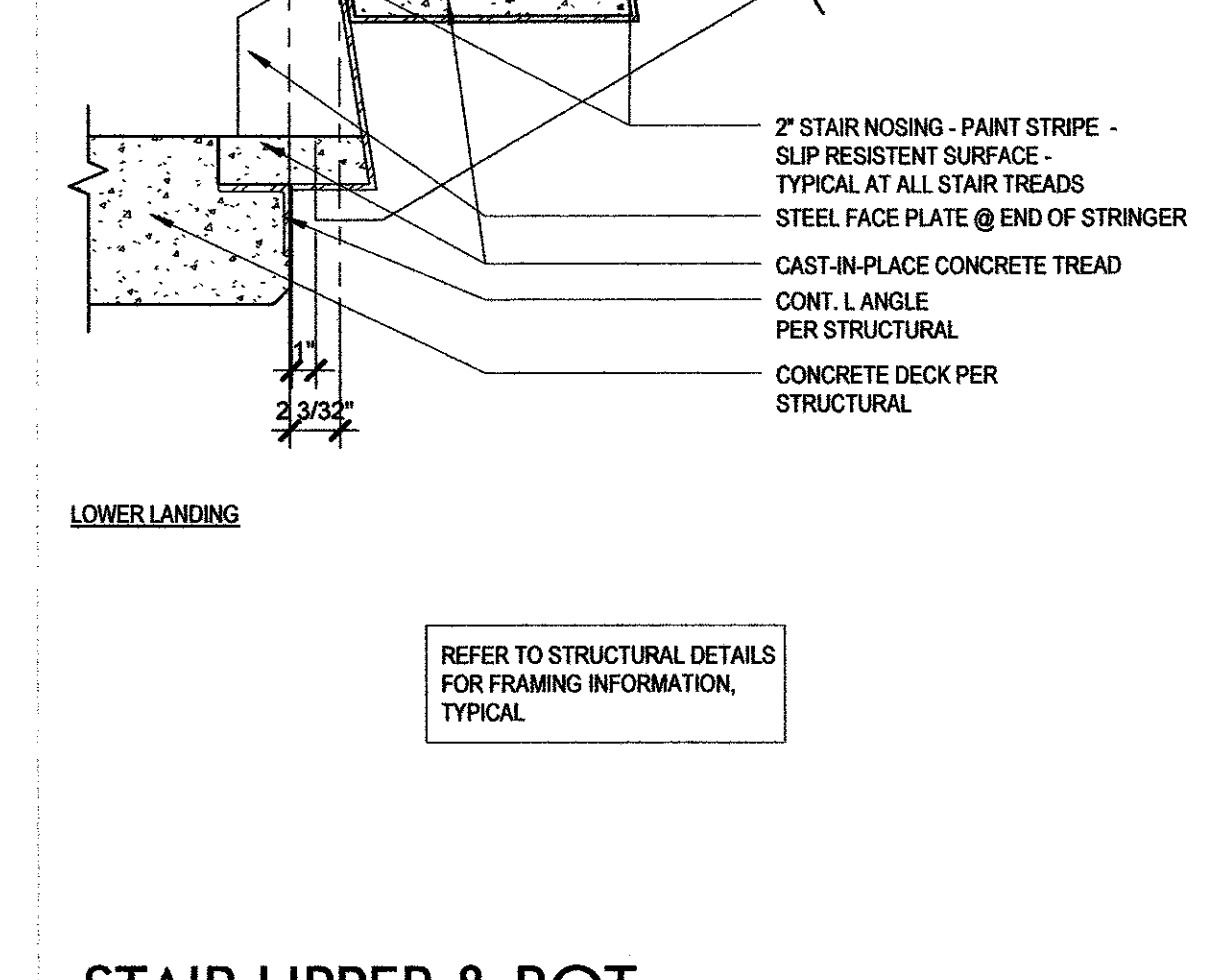
ELEVATOR STRETCHER REQUIREMENTS SEE A-603 FOR INFORMATION SCALE: 1/2" = 1'-0" 16



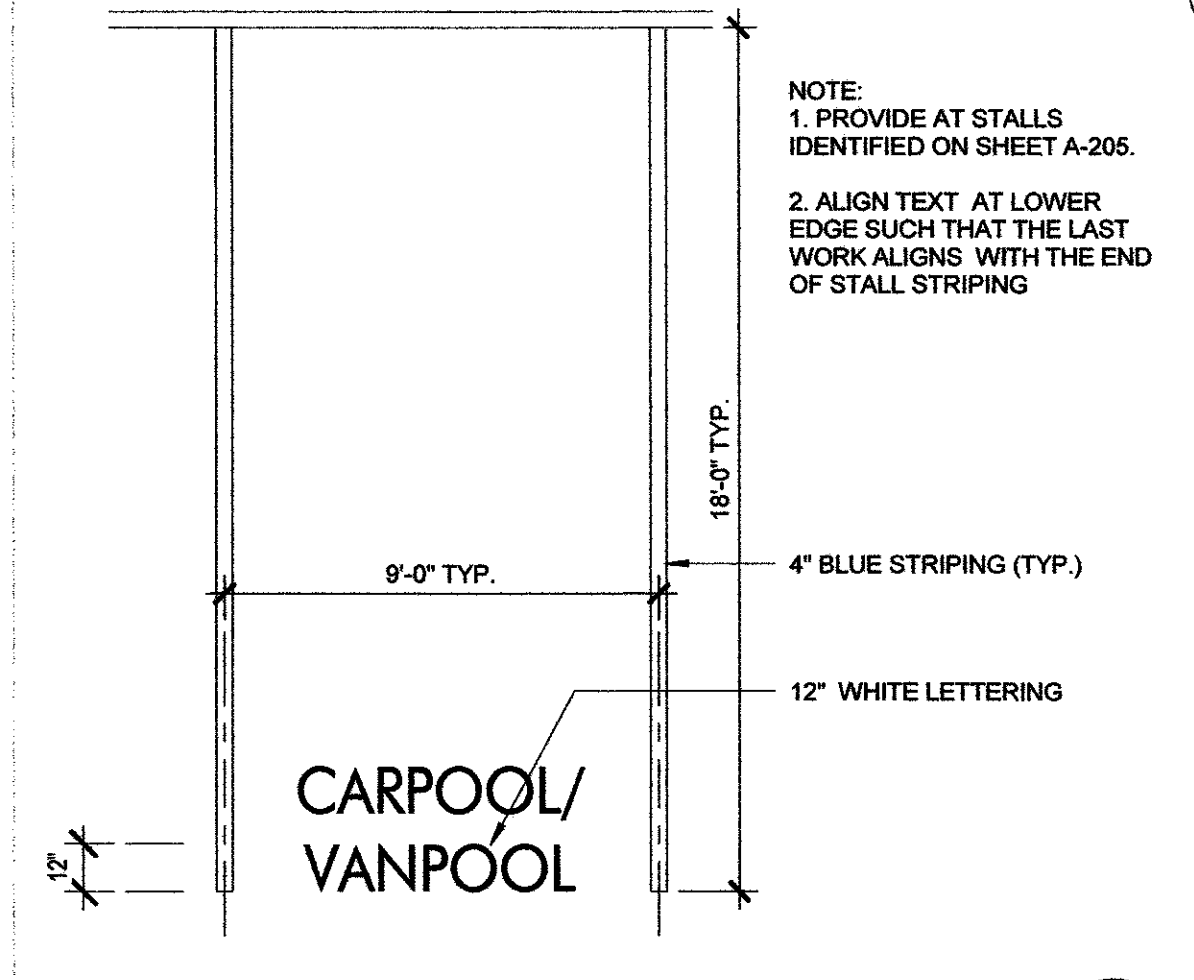
COLUMN FURRING SCALE: 3" = 1'-0" 11



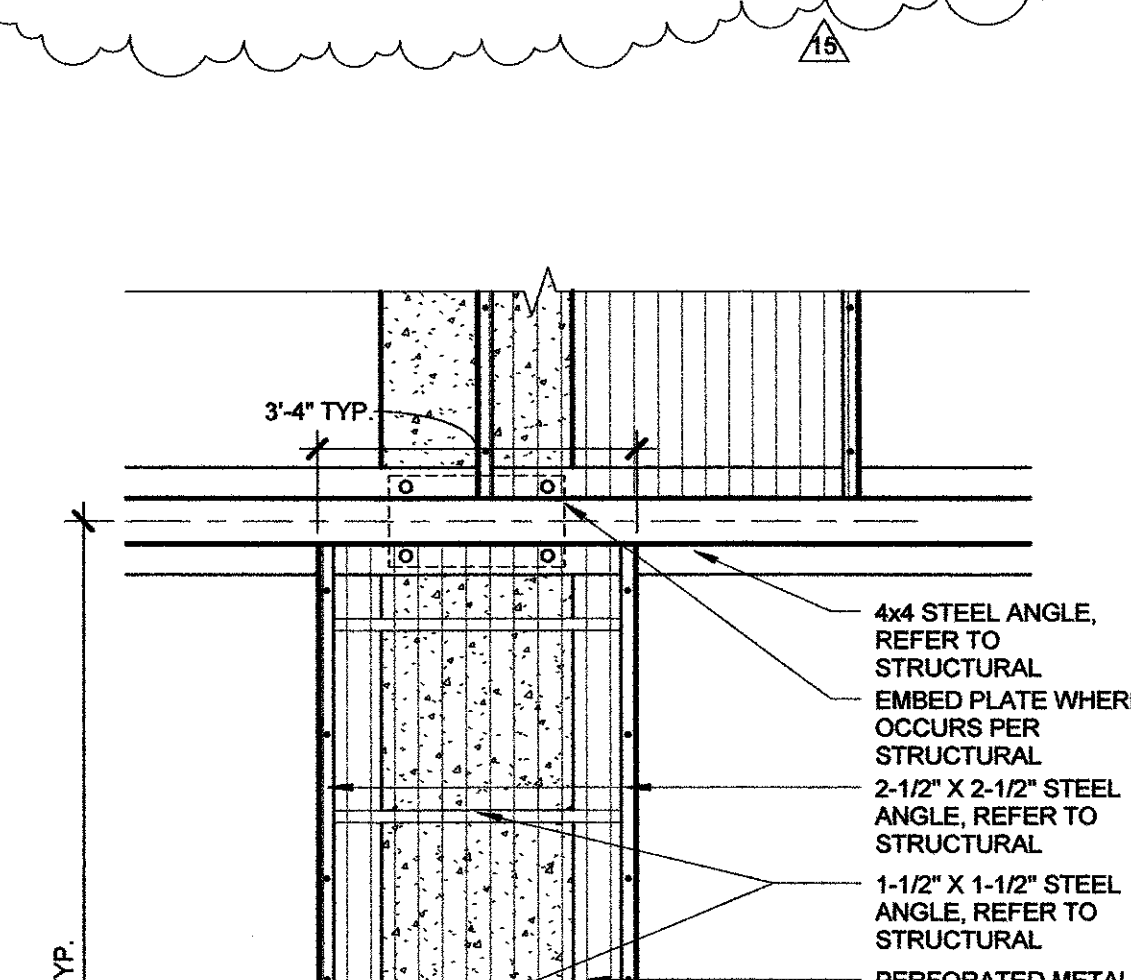
WALL SECTION @ MACHINE ROOM SCALE: 1" = 1'-0" 7



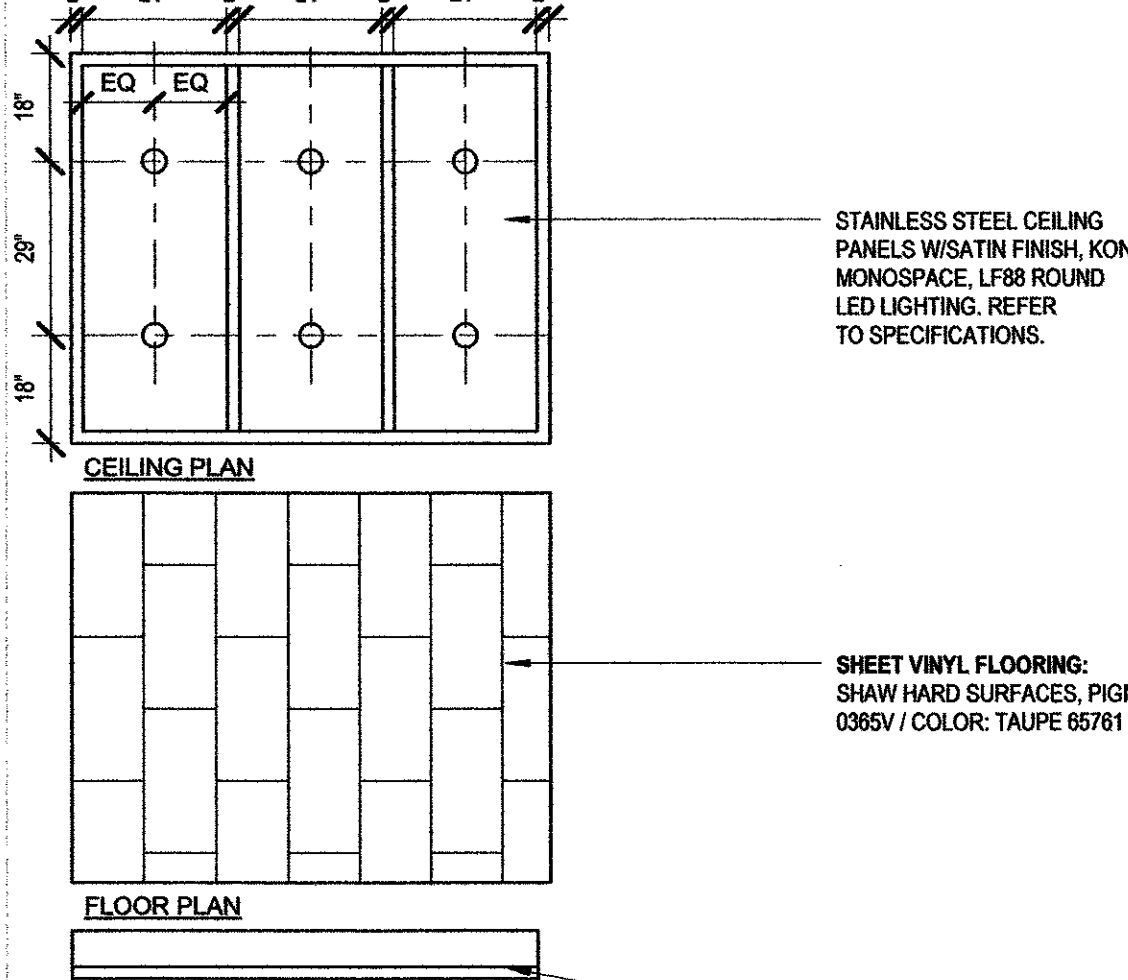
STAIR INTERMEDIATE LANDING SCALE: 1 1/2" = 1'-0" 3



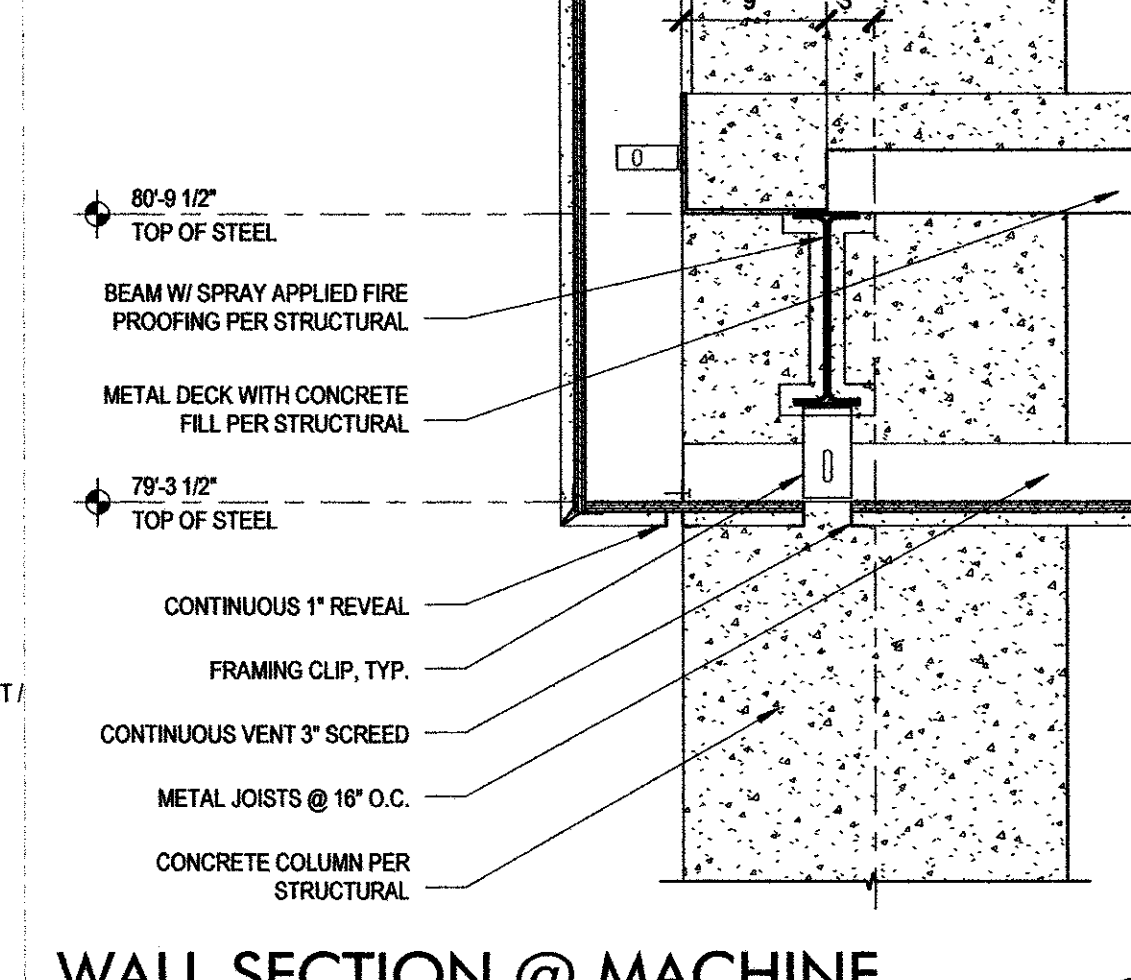
CARPPOOL/VANPOOL SCALE: 1/4" = 1'-0" 22



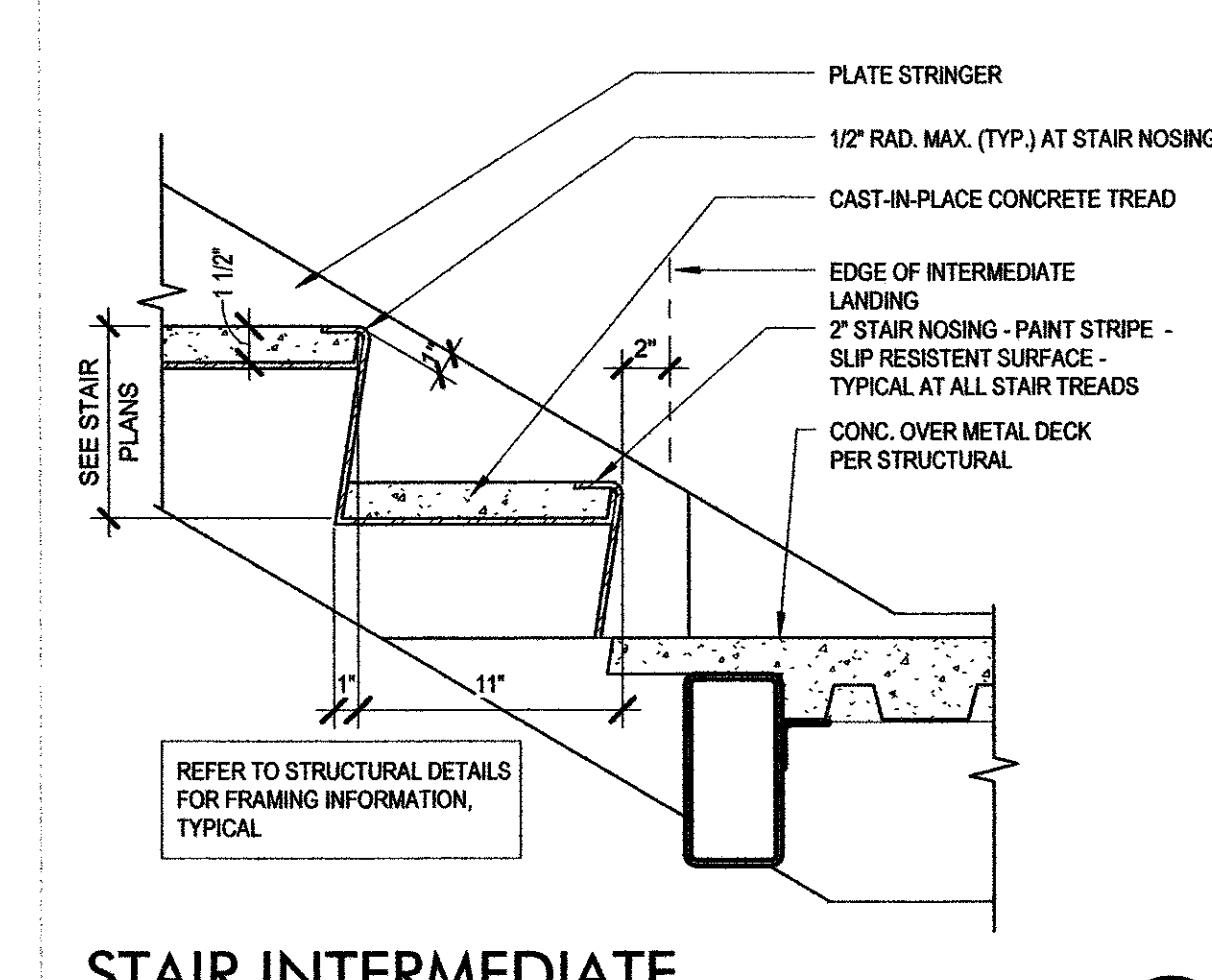
METAL SCREEN PANEL SCALE: 1/2" = 1'-0" 17



ELEVATOR CAB FINISH SCALE: 3/8" = 1'-0" 12



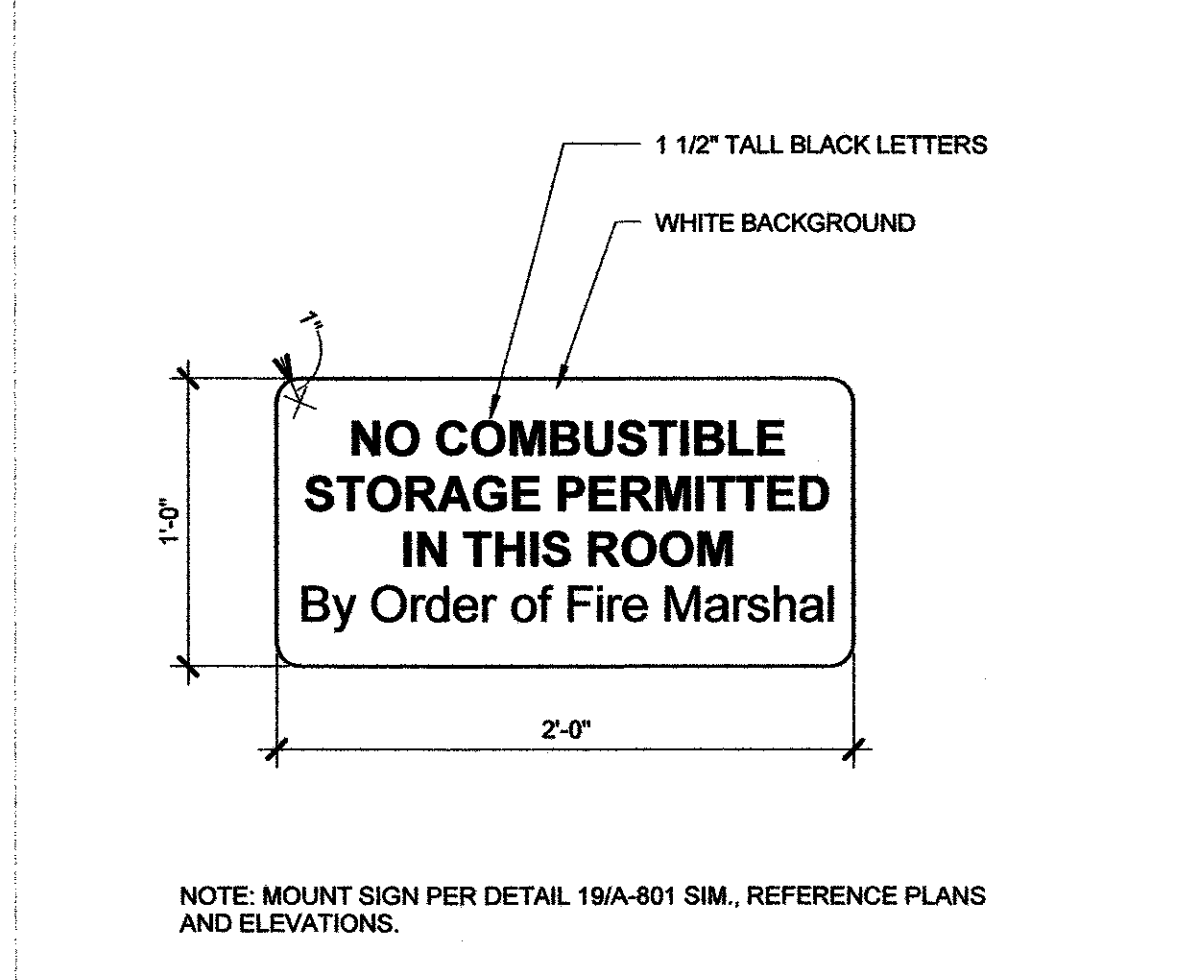
CMU EXPANSION JOINT SCALE: 3" = 1'-0" 8



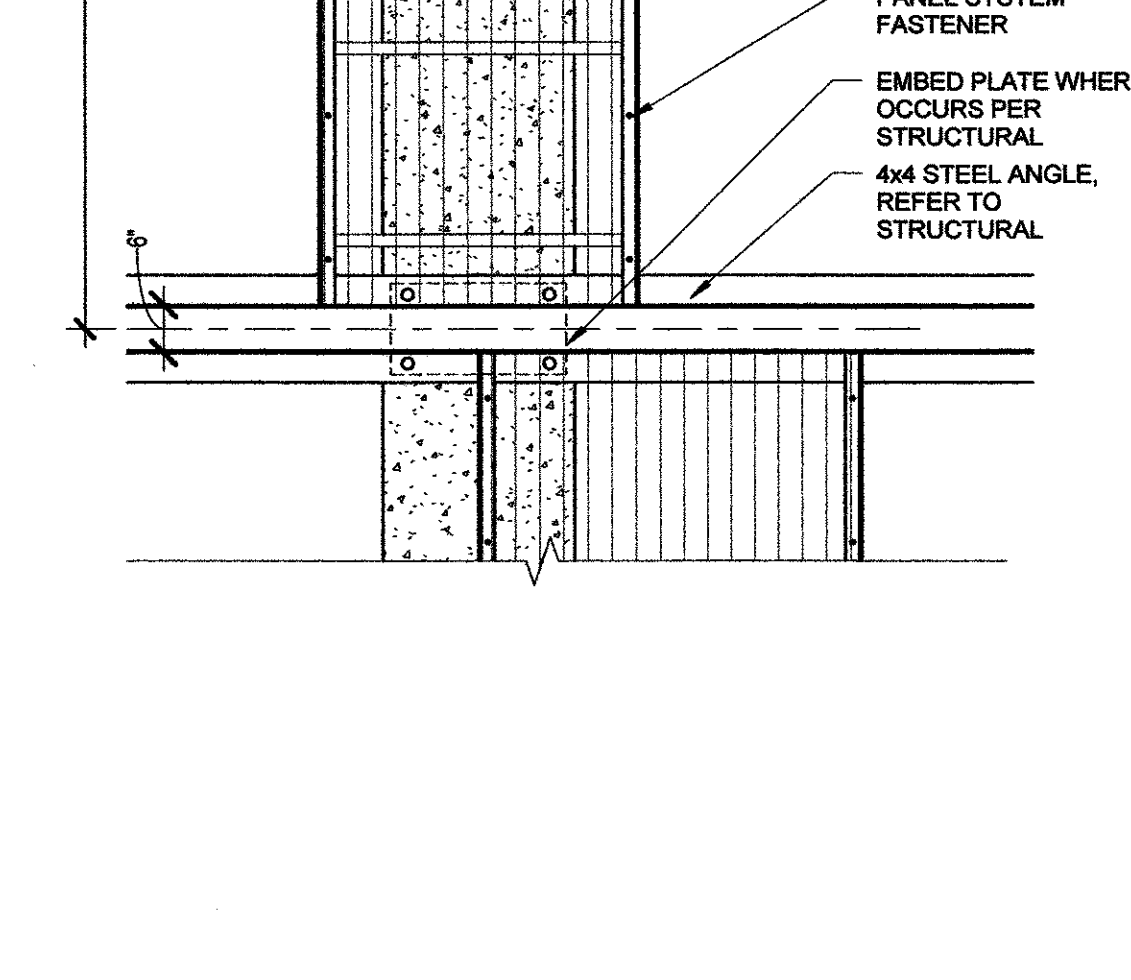
CONC. CIP WALL REVEAL SCALE: 3" = 1'-0" 4



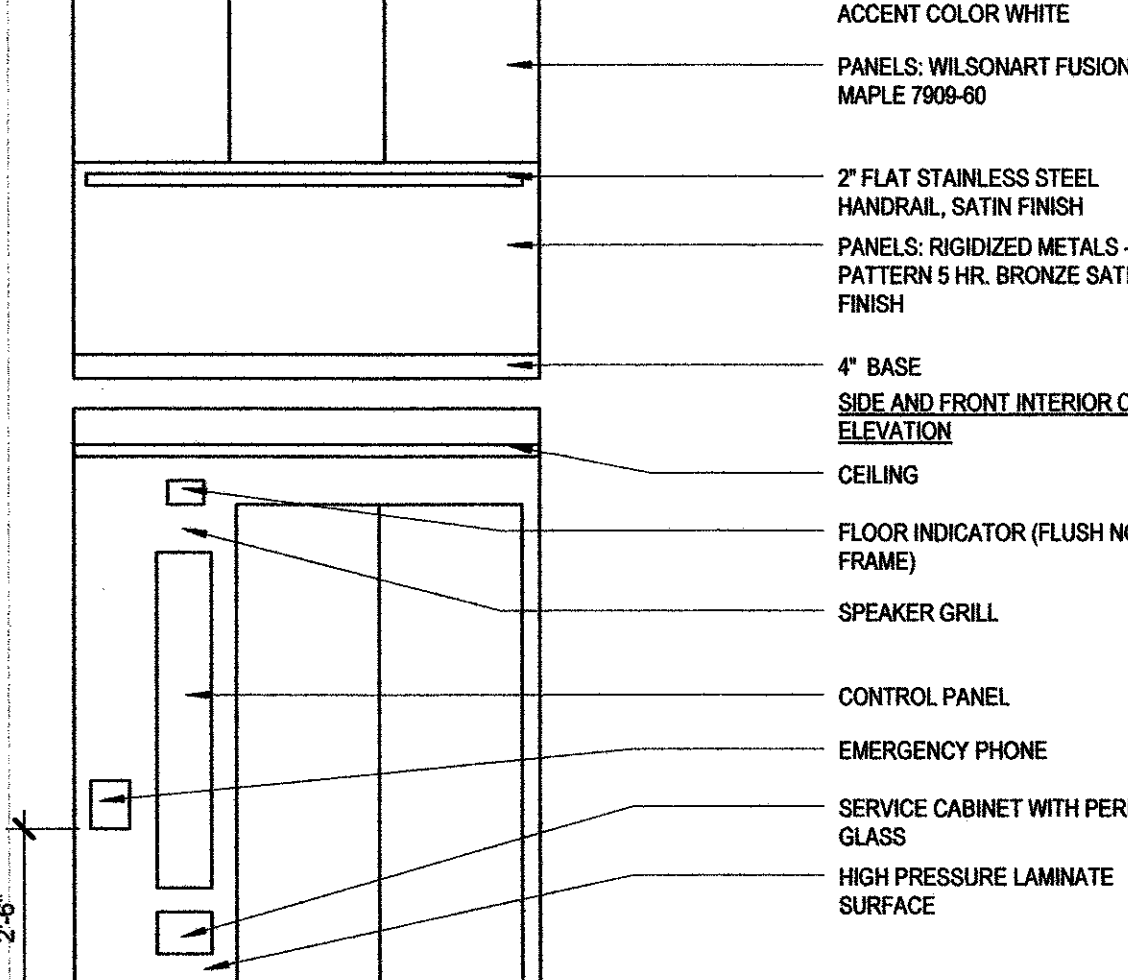
MACHINE ROOM SIGNAGE SCALE: 1 1/2" = 1'-0" 23



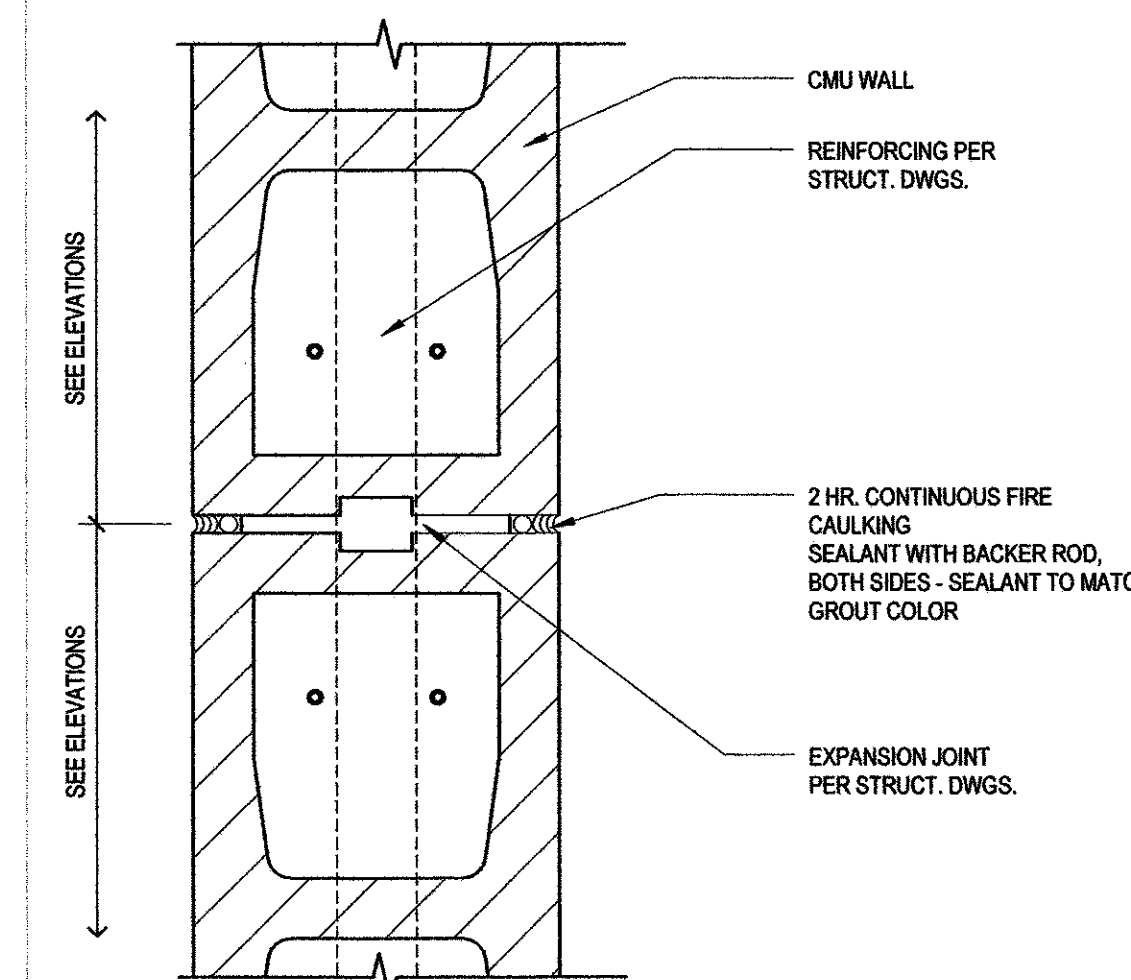
MACHINE ROOM SIGNAGE SCALE: 1 1/2" = 1'-0" 23



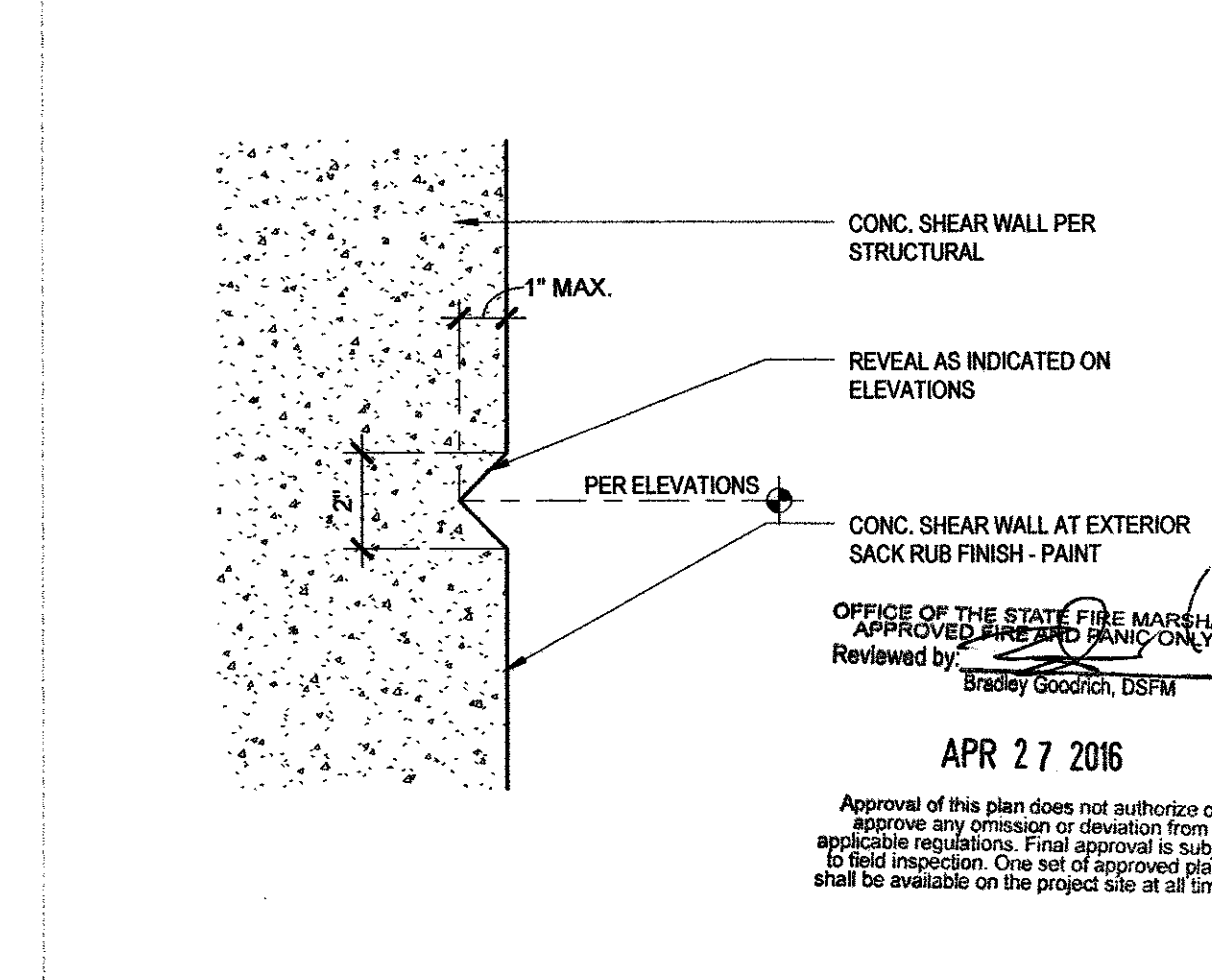
ELEVATOR CAB FINISH SCALE: 3/8" = 1'-0" 12



ELEVATOR CAB FINISH SCALE: 3/8" = 1'-0" 12



CMU EXPANSION JOINT SCALE: 3" = 1'-0" 8



CONC. CIP WALL REVEAL SCALE: 3" = 1'-0" 4



SUNDT  
CONSTRUCTION  
SAN DIEGO, CALIFORNIA  
SAN DIEGO STATE  
UNIVERSITY  
SAN DIEGO, CA

SOUTH CAMPUS PLAZA DESIGN-BUILD PARKING  
STRUCTURE  
5840 LINDO PASEO  
SAN DIEGO STATE UNIVERSITY

SUBMITTAL SCHEDULE:

SCHEMATIC DESIGN	04/17/2014
50% PRELIM. DESIGN	05/14/2014
100% PRELIM. DESIGN	05/28/2014
50% CONST. DOCS.	07/02/2014
95% CONST. DOCS.	08/07/2014
100% BACKCHECK SET 2	11/10/2014
100% BACKCHECK SET 3	01/22/2015
100% BACKCHECK SET 3	03/20/2015
ASH005	07/07/2015
ASH007 - SFM RESUB.	07/29/2015
ASH011 - SFM RESUB. 2	11/06/2015
ASH015 - SFM RESUB. 3	03/03/2016

PROJECT NO: 21305-G-50

BUILDING DETAILS

A-804

4/26/2016 10:40:51 AM K:\2013\3045-Plan-Lindo-Paseo-Linda-Vehle-G-5001-Reference-Set\2014\_04\_22\_Plan-Lindo-Vehle-Parking-Structure-Details-Set.dwg



# GENERAL NOTES

**SECTION 1: GENERAL**

1-1 CODE OF REFERENCE: ALL WORK SHALL CONFORM TO THE STANDARDS OF 2013 CALIFORNIA BUILDING CODE (CBC), ASTM STANDARDS REFERENCED ON THESE DRAWINGS SHALL BE OF THE LATEST EDITION.

1-2 STRUCTURAL OBSERVATION AND SPECIAL INSPECTION REQUIREMENTS ARE LISTED IN SECTIONS 13 AND 14.

1-3 CONTRACTOR COORDINATION/VERIFICATION: THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND JOB SITE CONDITIONS. ANY DISCREPANCIES WITH THE SITE OR ON THE DRAWINGS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT PRIOR TO CONSTRUCTION.

IF A PARTICULAR FEATURE OF CONSTRUCTION IS NOT FULLY SHOWN ON THE DRAWINGS OR IN THE SPECIFICATIONS, THEN IT SHALL BE CONSTRUCTED IN THE SAME CHARACTER AS SIMILAR CONDITIONS THAT ARE SHOWN IN THE DESIGN DOCUMENTS, AND SHALL BE REVIEWED BY THE ARCHITECT.

CONDITIONS NOTED IN THE DRAWINGS AS "EXISTING" SHALL BE FIELD VERIFIED BY THE CONTRACTOR. IF THERE ARE DISCREPANCIES, THE CONTRACTOR SHALL HAVE CONDITIONS NOTED AND IMMEDIATELY NOTIFY THE ENGINEER AND NOT PROCEED WITH CONSTRUCTION UNTIL FURTHER DIRECTION IS PROVIDED.

1-4 CONSTRUCTION METHODS: THE DRAWINGS AND SPECIFICATIONS REPRESENT THE FINISHED STRUCTURE, AND, UNLESS SPECIFICALLY NOTED OTHERWISE, DO NOT SHOW THE METHOD OF CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR THE METHOD OF CONSTRUCTION, AND SHALL PROVIDE ALL MEASURES NECESSARY TO PROTECT THE PUBLIC.

1-5 OPENINGS IN STRUCTURAL ELEMENTS: OPENINGS, POCKETS, ETC. SHALL NOT BE PLACED IN SLABS, BEAMS, COLUMNS, WALLS, FOOTINGS, ETC., UNLESS SPECIFICALLY SHOWN ON THE STRUCTURAL DRAWINGS.

THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER THE SIZES AND LOCATIONS OF ALL OPENINGS, POCKETS, ETC. TO BE DRILLED OR CUT IN SLABS, BEAMS, COLUMNS, WALLS, FOOTINGS, ETC. PRIOR TO INSTALLATION. THE CONTRACTOR SHALL TAKE ALL MEASURES NECESSARY TO AVOID DAMAGING CONCRETE OR MASONRY REINFORCEMENT.

1-6 DESIGN CRITERIA: THE STRUCTURE HAS BEEN DESIGNED FOR THE FOLLOWING CRITERIA:

LIVE LOADS: 40 PSF REDUCIBLE TO COLUMNS AND FOOTINGS  
STAIRS: 100 PSF REDUCIBLE  
ROOFS: 20 PSF REDUCIBLE

SEISMIC CRITERIA:  
RISK CATEGORY II  
SEISMIC DESIGN CATEGORY D  
SITE CLASS C  
S<sub>w</sub> = 0.74 S<sub>s</sub> = 0.817  
S<sub>1</sub> = 0.2 S<sub>2</sub> = 0.34  
IMPORTANCE FACTOR = 1.0  
BASIC SEISMIC FORCE RESISTING SYSTEM:  
SPECIAL REINFORCED CONCRETE SHEAR WALLS R=6.0  
ANALYSIS PROCEDURE: STATIC  
TOTAL BUILDING WEIGHT = 15,280 KIPS

	EAST-WEST	NORTH-SOUTH
C <sub>s</sub>	0.109	0.109
DESIGN BASE SHEAR	1,660 KIPS	1,620 KIPS

WIND CRITERIA:  
WIND SPEED 115 MPH  
EXPOSURE B  
DIRECTIONALITY FACTOR = 0.85

1-7 TYPICAL DETAILS: SEE SHEETS S3.1, S4.1, S4.2, AND S4.5.

1-8 THESE STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH THE STRUCTURAL SPECIFICATIONS FOR THIS PROJECT. IF THERE ARE ANY DISCREPANCIES, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE STRUCTURAL ENGINEER AND NOT PROCEED WITH CONSTRUCTION UNTIL FURTHER DIRECTION OR CLARIFICATION IS PROVIDED BY THE STRUCTURAL ENGINEER.

**SECTION 2: FOUNDATIONS**

2-1 GEOTECHNICAL REPORT: FOUNDATIONS BASED ON RECOMMENDATIONS IN THE FOLLOWING REPORT:

COMPANY: GROUP DELTA CONSULTANTS  
PROJECT NUMBER: SD376  
REPORT DATE: MARCH 18, 2014  
SUPPLEMENTAL DESIGN RECOMMENDATIONS DATE: MAY 19, 2014

2-2 BEARING PRESSURE: FOOTINGS DESIGNED FOR VARIABLE BEARING PRESSURE UP TO 10.0 KSF MAXIMUM AT 6" MINIMUM EMBEDMENT INTO SOIL BEARING LAYER PER 1/S4.1. GEOTECHNICAL ENGINEER TO VERIFY LOCATION OF BEARING LAYER IN FIELD.

2-3 GRADING AND SLOPEWORK:

A. SLABS ON GRADE AT THE BUILDING SHALL BEAR ON APPROVED SUBGRADE PER THE RECOMMENDATIONS OF THE SOILS REPORT (AT LEAST FOUR FEET OF IMPORTED SOIL WITH A VERY LOW EXPANSION POTENTIAL, E2-C20).

B. FOOTING BACKFILL AND UTILITY TRENCH BACKFILL WITHIN BUILDING AREA SHALL BE MECHANICALLY COMPACTED IN LAYERS IN ACCORDANCE WITH THE SOILS REPORT AND APPROVED BY THE CIVIL INSPECTOR.

C. ALL ABANDONED FOOTINGS, UTILITIES, ETC. SHALL BE REMOVED.

D. SOIL REMOVAL AND RECOMPACTION SHALL BE PER THE SOILS REPORT AND APPROVED CONTRACT DOCUMENTS.

E. ALL ROOF AND AREA DRAINAGE SHALL BE DIRECTED AWAY FROM FOUNDATIONS.

2-4 GEOTECHNICAL ENGINEER'S REVIEW: THE GEOTECHNICAL ENGINEER SHALL REVIEW THE FOLLOWING WORK, AND SUBMIT TO THE ARCHITECT AND BUILDING DEPARTMENT A LETTER OF COMPLIANCE:

A. THE BUILDING PAD WAS PREPARED IN ACCORDANCE W/ THE SOILS REPORT  
B. THE UTILITY TRENCHES HAVE BEEN PROPERLY BACKFILLED AND COMPACTED  
C. THE FOUNDATION EXCAVATIONS COMPLY W/ THE INTENT OF THE SOILS REPORT

**SECTION 3: CONCRETE**

3-1 MATERIALS:

A. AGGREGATES: AGGREGATE FOR NORMAL-WEIGHT CONCRETE SHALL CONFORM TO ASTM C-33. COARSE AGGREGATE SIZE SHALL BE NO. 47 (1-1/2" TO NO. 4) OR NO. 57 (1" TO NO. 4) FOR FOOTINGS AND MASS CONCRETE, AND NO. 57 OR NO. 67 (3/4" TO NO. 4) FOR ALL OTHER CONCRETE. 3/8" AGGREGATE MAY BE USED WITH THE ENGINEER'S REVIEW.

AGGREGATE FOR LIGHT-WEIGHT CONCRETE SHALL CONFORM TO ASTM C-330. COARSE AGGREGATE SIZE SHALL BE NO. 57 OR NO. 67.

AGGREGATES SHALL NOT CONTAIN MATERIAL WHICH ARE ALKALI REACTIVE AS DETERMINED BY ASTM C-227, 289 AND 295. IF TEST DATA IS UNAVAILABLE IN REGARDS TO ALKALI REACTIVE MATERIALS, PROVIDE CEMENT WITH A MAXIMUM ALKALI CONTENT LESS THAN 0.45% BY WEIGHT, OR PROVIDE FLY ASH PER NOTE 3-1.C.

B. CEMENT: CEMENT SHALL CONFORM TO ASTM C-150, TYPE II OR TYPE II-L LOW ALKALI. CEMENT IN CONTACT WITH SOIL OR IRRIGATION WATER SHALL CONFORM TO THE RECOMMENDATIONS OF THE GEOTECHNICAL REPORT.

C. FLY ASH: FLY ASH MAY BE USED TO OFFSET CEMENT ON A 1 TO 1 BASIS (BY WEIGHT). FLY ASH SHALL CONFORM TO ASTM C-618, CLASS F, MAXIMUM LOSS ON IGNITION NOT EXCEED 3.0%. IF USED, CLASS F FLY ASH SHALL BE AT LEAST 20% BUT NOT EXCEED 25% OF THE CEMENT BY WEIGHT AND SHALL CONTAIN A MAXIMUM OF 7% CALCIUM OXIDE.

D. ADMIXTURES: NO ADMIXTURE MAY CONTAIN CALCIUM CHLORIDE, OR MORE THAN 0.05% CHLORIDE IONS.

3-2 MIX DESIGNS:

A. SUBMITTALS: ALL CONCRETE MIX DESIGNS SHALL BE PREPARED BY AN ENGINEER LICENSED IN THE STATE OF CALIFORNIA AND STAMPED & SIGNED COPIES SHALL BE SENT TO THE STRUCTURAL ENGINEER OF RECORD FOR REVIEW.

COMPRESSIVE STRENGTH TESTS SHALL ALSO INCLUDE TEST RESULTS FOR SLUMP AND ENTRAINED AIR (IF SPECIFIED), AND SHALL BE SENT TO THE ENGINEER FOR REVIEW.

**SECTION 4: REINFORCING STEEL**

4-1 MATERIALS:

A. ACTUAL YIELD STRENGTH SHALL NOT EXCEED SPECIFIED YIELD STRENGTH BY MORE THAN 18 KSI (RETESTS SHALL NOT EXCEED THIS VALUE BY AN ADDITIONAL 3 KSI).

B. THE RATIO OF THE ACTUAL TENSILE ULTIMATE STRENGTH TO THE ACTUAL TENSILE YIELD STRENGTH SHALL NOT BE LESS THAN 1.25.

REINFORCING STEEL THAT IS TO BE WELDED SHALL CONFORM TO ASTM A-706, UNLESS SPECIFICALLY NOTED OTHERWISE. OTHER GRADES, IF ALLOWED, SHALL HAVE A MAXIMUM CARBON EQUIVALENT OF 0.65%. WELDING ELECTRODES SHALL BE LOW - HYDROGEN, AND SHALL BE E90X FOR 60 GRADE REINFORCING STEEL, AND E70X FOR 40 GRADE.

WIRE MESH SHALL CONFORM TO ASTM A-185.

4-2 SHOP DRAWINGS: NO REINFORCING STEEL SHALL BE PLACED UNTIL SHOP DRAWINGS THAT HAVE BEEN REVIEWED BY THE ENGINEER HAVE BEEN RECEIVED ON THE JOB SITE.

SHOP DRAWINGS SHALL CONTAIN ALL INFORMATION NECESSARY FOR CORRECTLY PLACING ALL REINFORCING STEEL WITHOUT REFERRAL TO THE STRUCTURAL DRAWINGS.

4-3 CLEAR COVERAGE: CONCRETE CLEAR COVERAGE TO REINFORCING STEEL SHALL CONFORM TO THE FOLLOWING MINIMUMS, UNLESS SPECIFICALLY NOTED OTHERWISE:

A. CAST-IN-PLACE CONCRETE:

- CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO SOIL - 3"
- CONCRETE WITH SOIL OR WEATHER EXPOSURE:
  - #5 BARS AND SMALLER - 1 1/2"
  - #6 BARS AND LARGER - 2"
- CONCRETE WITHOUT SOIL OR WEATHER EXPOSURE:
  - SLABS, WALLS, AND JOISTS:
    - #11 BARS AND SMALLER - 3/4"
    - #14 BARS AND LARGER - 1 1/2"
  - COLUMNS AND BEAMS - TO PRIMARY REINFORCEMENT, TIES, STIRRUPS, AND SPIRALS - 1 1/2"

**SECTION 5: MASONRY**

5-1 CONCRETE MASONRY UNITS: UNITS SHALL CONFORM TO ASTM C90, GRADE N, TYPE I, AND SHALL BE SINGLE OR DOUBLE OPEN END BOND BEAM UNITS.

5-2 COMPRESSIVE STRENGTH: COMPRESSIVE STRENGTH OF INDIVIDUAL ELEMENTS OF CMU CONSTRUCTION SHALL EQUAL OR EXCEED THE SPECIFIED OVERALL F<sub>m</sub>.

A. OVERALL F<sub>m</sub>: 1500 PSI UNO.  
B. GROUT: 2000 PSI MINIMUM AT 28 DAYS. ALL GROUT SHALL CONTAIN "GROUT AID" OR EQUAL.  
C. MORTAR (TYPE S): 1800 PSI MINIMUM AT 28 DAYS.

5-3 COMPRESSION TESTING: F<sub>m</sub> SHALL BE DETERMINED BY PRISM TESTING PER CBC SECTION 210.3.

5-4 GROUTING REQUIREMENTS:

A. GROUT EXTENT: FILL ALL CELLS.  
B. HIGH-LIFT PROCEDURE: FOR BLOCK LIFTS OVER FIVE FEET, PROVIDE CLEANOUTS AT EVERY BOTTOM CELL. TOTAL GROUT LIFT SHALL NOT EXCEED 6'-0", AND TOTAL POUR DEPTH SHALL NOT EXCEED 40 530-05 TABLE 1.16.1.  
C. ALL GROUT SHALL CONTAIN "GROUT AID" OR EQUAL.

5-5 REINFORCING STEEL: SEE SECTION 6, "REINFORCING STEEL", EXCLUDING CLEAR COVERAGE REQUIREMENTS. REBAR POSITIONERS ARE REQUIRED PER 2/S4.5.

5-6 REBAR LAPS: LAP PER SCHEDULE 16/S4.5.

5-7 ANCHORS: LOCATE ANCHOR BOLTS AND SLEEVE ANCHORS WITHIN 2" OF THE CENTER OF A CELL.

5-8 SHOP DRAWINGS: MASONRY CONTRACTOR SHALL PROVIDE REBAR SHOP DRAWINGS.

5-9 ELECTRICAL CONDUIT SHALL NOT OCCUPY MASONRY CELLS WITH REBAR.

5-10 ELECTRICAL CONDUIT SHALL BE LIMITED TO ONE PER MASONRY CELL AND SHALL NOT EXCEED 1.5 INCHES OUTSIDE DIAMETER.

**SECTION 6: METAL DECK**

6-1 MATERIALS:

A. DECK: SHALL BE FORMED FROM STEEL SHEETS AND SHALL CONFORM TO ASTM A-446, GRADE A.  
B. GALVANIZING: ALL DECK SHALL BE ZINC COATED PER ASTM A-525.  
C. VENTING: ALL DECK WHICH WILL BE IN CONTACT WITH CONCRETE FILL, INSULATING CONCRETE FILL OR ANY OTHER CONCRETE PRODUCTS SHALL BE VENTED PER THE MANUFACTURER'S SPECIFICATIONS.  
D. LIGHT GAGE CLOSURES: THE DECKING CONTRACTOR SHALL PROVIDE LIGHT GAGE CLOSURES FOR ALL METAL DECK WITH CONCRETE FILL.  
E. SAFETY: TAKE ALL NECESSARY SAFETY PRECAUTIONS. DO NOT ALLOW ANYBODY TO STAND BEHIND JACKS DURING STRESSING.

6-2 INSTALLATION:

A. FASTENING: ALL METAL DECK SHALL BE FASTENED TO THE STRUCTURE AS INDICATED ON THE STRUCTURAL DRAWINGS.  
B. INTERCONNECTION: ALL SIDE LAPS SHALL BE CONNECTED TOGETHER AS INDICATED ON THE STRUCTURAL DRAWINGS.  
C. CONDUIT IN SLABS:  
A. DIMENSIONS: THE MAXIMUM DIAMETER OF CONDUIT THAT CAN BE PLACED IN CONCRETE SLABS ON METAL DECK SHALL NOT EXCEED ONE-THIRD OF THE SLAB THICKNESS ABOVE THE TOP FLUTE OF THE METAL DECK.  
B. LOCATION: CONDUIT RUNNING PERPENDICULAR TO THE FLUTES OF THE METAL DECK SHALL BE PLACED IN THE LOWER TWO-THIRDS OF THE SLAB THICKNESS ABOVE THE TOP FLUTE OF THE METAL DECK. CONDUIT RUNNING PARALLEL TO THE FLUTES OF THE METAL DECK MAY BE PLACED NEAR THE BOTTOM OF THE FLUTES BY MAINTAINING ONE INCH CLEAR OF ALL METAL DECK.  
C. SPACING: THE MINIMUM SPACING BETWEEN INDIVIDUAL CONDUIT SHALL BE 6 INCHES.

6-4 SUBMITTALS: SHOP AND ERECTION DRAWINGS SHALL BE SUBMITTED FOR THE ENGINEER'S REVIEW PRIOR TO FABRICATION. METAL DECK SHALL NOT BE PLACED UNTIL THE REVIEWED SHOP DRAWINGS ARE RECEIVED IN THE FIELD.

THE ELECTRICAL CONTRACTOR SHALL SUBMIT SHOP DRAWINGS WHICH CONTAIN PROPOSED CONDUIT LAYOUTS FOR THE STRUCTURAL ENGINEER'S REVIEW A MINIMUM OF TWO WEEKS PRIOR TO INSTALLATION.

**SECTION 7: STRUCTURAL STEEL**

7-1 STANDARDS: ALL STRUCTURAL STEEL FRAMING SHALL BE DETAILED, FABRICATED, AND ERECTED PER THE THIRTEENTH EDITION AISC SPECIFICATIONS AND CODE OF STANDARD PRACTICE, EXCEPT AS MODIFIED BY THE CBC.

7-2 MATERIALS:

A. STRUCTURAL STEEL: ROLLED STEEL SHAPES, PLATES AND BARS SHALL CONFORM TO ASTM A-36 AND CSD STANDARDS. WIDE FLANGE SHAPES SHALL CONFORM TO ASTM A-992 GRADE 50.  
B. STRUCTURAL TUBES: STRUCTURAL TUBES SHALL CONFORM TO ASTM A-500 GRADE B.  
C. STRUCTURAL PIPE: STRUCTURAL PIPE SHALL CONFORM TO ASTM A-53 TYPE E OR S, GRADE B.  
D. BOLTS: COMMON BOLTS, NUTS, AND WASHERS SHALL CONFORM TO ASTM A-307. HIGH STRENGTH BOLTS, NUTS, AND WASHERS SHALL CONFORM TO ASTM A-490.  
E. STUD ANCHORS: HEADED STUD SHEAR CONNECTORS SHALL CONFORM TO ASTM A-108, GRADE 1015 OR 1020.  
F. ANCHOR BOLTS: ANCHOR BOLTS SHALL CONFORM TO ASTM F1554 GR56.  
G. BASE PLATES: BASE PLATES SHALL CONFORM TO ASTM A-572 GRADE 50.  
H. STEEL EMBEDS: STEEL EMBEDS SHALL CONTAIN HOLES FOR NAILS OR BOLTS FOR PLACEMENT.  
I. DEFORMED BAR ANCHORS: DEFORMED BAR ANCHORS SHALL BE NELSON TYPE D2L OR EQUIVALENT.

7-3 SUBMITTALS: SHOP AND ERECTION DRAWINGS SHALL BE SUBMITTED FOR THE ENGINEERS REVIEW PRIOR TO FABRICATION. STEEL SHALL NOT BE ERECTED UNTIL THE REVIEWED SHOP DRAWINGS ARE RECEIVED IN THE FIELD.

SHOP DRAWINGS SHALL CONTAIN ALL INFORMATION NECESSARY FOR CORRECTLY PLACING ALL REINFORCING STEEL WITHOUT REFERRAL TO THE STRUCTURAL DRAWINGS.

7-4 FABRICATION SHOP: ALL FABRICATION SHALL BE DONE IN A SHOP THAT IS ACCEPTABLE TO THE BUILDING DEPARTMENT. CONTINUOUS, FULL-TIME INSPECTION OF SHOP FABRICATION MAY BE WAIVED ONLY TO THE EXTENT APPROVED BY THE BUILDING DEPARTMENT.

**SECTION 8: REINFORCING STEEL (CON'T)**

8-1 MATERIALS:

A. PRECAST CONCRETE (PLANT CONTROL CONDITIONS):  
1. CONCRETE WITH SOIL OR WEATHER EXPOSURE:  
A. WALL PANELS, SLABS, JOISTS - 1"  
B. OTHER MEMBERS - 1 1/2"  
2. CONCRETE WITHOUT SOIL OR WEATHER EXPOSURE:  
A. SLABS, WALLS, AND JOISTS - 3/4"  
B. COLUMNS AND BEAMS - 1"  
3. TIES, STIRRUPS, AND SPIRALS - 1 1/2"  
C. PRESTRESSED CONCRETE:  
1. CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO SOIL - 3"  
2. CONCRETE WITH SOIL OR WEATHER EXPOSURE:  
A. WALL PANELS, SLABS, JOISTS - 1"  
B. OTHER MEMBERS - 1 1/2"  
3. CONCRETE WITHOUT SOIL OR WEATHER EXPOSURE:  
A. SLABS, WALLS, AND JOISTS - 3/4"  
B. COLUMNS AND BEAMS - 1"  
2. PRIMARY REINFORCEMENT - 1 1/2"

8-4 LAP SPICES: REINFORCING BARS SHALL BE LAPPED AT LENGTHS AND LOCATIONS SHOWN ON THE DRAWINGS. ADDITIONAL LAPS SHALL BE REVIEWED BY THE ENGINEER.

WIRE MESH SHALL BE LAPPED ONE WIRE SPACE PLUS 2" (8" MINIMUM) BETWEEN OUTERMOST CROSS WIRES OF ADJACENT SHEETS.

8-5 FIELD BENDING: FIELD BENDING OF REINFORCING BARS SHALL BE REVIEWED BY THE ENGINEER. BENDING OF #8 BARS AND SMALLER SHALL BE MADE COLD. BENDING OF #9, #9, AND #10 BARS MAY BE UNIFORMLY PREHEATED TO 1400 TO 1600 DEGREES F. AND BENT PER CRSI RECOMMENDATIONS.

**SECTION 9: POST-TENSIONED CONCRETE**

9-1 MATERIALS:

A. TENDONS: PRESTRESSING TENDONS SHALL BE UNCOATED, SEVEN-WIRE LOW RELAXATION STEEL STRAND, AND SHALL CONFORM TO ASTM A-416, GRADE 270. TENDONS SHALL BE 1/2" NOMINAL DIAMETER, WITH AN AREA OF 0.153 SQUARE INCHES.  
B. HARDWARE: ANCHORAGE AND COUPLING HARDWARE SHALL CONFORM TO THE REQUIREMENTS OF ACI 318 AND THE POST-TENSIONING INSTITUTE'S GUIDELINE SPECIFICATIONS.  
C. MISCELLANEOUS: SPLICING, GREASE, TAPE, ETC. SHALL CONFORM TO THE REQUIREMENTS OF PTI SPECIFICATIONS.

9-2 SUBMITTALS:  
A. SHOP DRAWINGS: LAYOUT AND SUPPORT BAR SHOP DRAWINGS SHALL BE SUBMITTED FOR THE ENGINEER'S REVIEW PRIOR TO FABRICATION. LAYOUT DRAWINGS SHALL INDICATE ALL TENDONS WHICH ARE TO BE STRESSED FROM ONLY ONE END. FIELD PLACEMENT SHALL NOT BEGIN UNTIL THE REVIEWED SHOP DRAWINGS ARE RECEIVED IN THE FIELD.  
SHOP DRAWINGS SHALL CONTAIN ALL INFORMATION NECESSARY FOR CORRECTLY PLACING ALL REINFORCING STEEL WITHOUT REFERRAL TO THE STRUCTURAL DRAWINGS. (3) COMPLETE COPIES AND (1) REPRODUCIBLE OF ALL SHOP DRAWINGS SHALL BE SUBMITTED FOR REVIEW BY THE STRUCTURAL ENGINEER. ELECTRONIC FILES WILL NOT BE ACCEPTED.  
B. CALCULATIONS: FORCES ASSOCIATED WITH FINAL POST-TENSIONED DESIGNS ARE EFFECTIVE FORCES, AFTER ALL STRESS LOSSES. CALCULATIONS FOR THE EFFECTIVE FORCE FOR EACH TENDON SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW.  
CALCULATIONS SHALL INCLUDE THE EFFECTS OF LONG TERM STRESS LOSSES DUE TO ELASTIC SHORTENING, CREEP, SHRINKAGE, AND TENDON RELAXATION, ASSUMING AN AVERAGE ANNUAL AMBIENT RELATIVE HUMIDITY OF 70%. SHORT TERM STRESS LOSSES DUE TO ANCHOR SLIPPAGE AND FRICTION SHALL ALSO BE CONSIDERED. FRICTION LOSSES MAY NOT BE CONSIDERED TO REDISTRIBUTE ALONG THE LENGTH OF THE TENDON, AND THE EFFECTIVE FORCE SHOWN IS THE MINIMUM REQUIREMENT ALONG THE LENGTH OF THE TENDON.  
WOBBLE AND CURVATURE VALUES ASSUMED IN THE CALCULATIONS SHALL BE FIELD VERIFIED.  
C. POST-TENSIONED CABLE QUANTITIES AND LAYOUT INDICATED ON STRUCTURAL DRAWINGS ARE BASED ON 26.4 KIPS PER CABLE.

9-3 INSTALLATION:  
A. TYPICAL DETAILS: FOR POST-TENSIONING DETAILS, SEE SHEET S4.2.  
B. SUPPORT BARS: SUPPORT BARS SHALL BE #4 OR LARGER AND SPACED AT A MAXIMUM OF 3'-0" ON CENTER, WITH 2'-0" MINIMUM LAP SPICES. ALSO REFER TO 5/S4.3.  
C. TENDON SECURING: TENDONS AND SUPPORT BARS SHALL BE FIRMLY ANCHORED TO PREVENT DISPLACEMENT FROM SPECIFIED VERTICAL AND HORIZONTAL POSITIONS. ALL SUPPORT BARS SHALL BE CHAIRED AT EACH TENDON.  
CONCRETE WILL BE PLACED SO AS TO NOT DISTURB TENDON PLACEMENT, ANY TENDON DISPLACED DURING CONCRETE PLACEMENT SHALL BE MOVED BACK TO THE SPECIFIED PROFILE IMMEDIATELY.  
D. TENDONS AT COLUMNS: IN FLAT PLATE CONSTRUCTION, A MINIMUM OF TWO TENDONS SHALL BE PLACED OVER EACH COLUMN IN EACH DIRECTION. IN CASE OF CONFLICT, TENDON VERTICAL ORIGINATES FOR BANDED TENDONS SHALL GOVERN OVER DISTRIBUTED TENDONS.  
E. TENDON INTERFERENCE: WHEN PERPENDICULAR TENDONS REQUIRE THE SAME VERTICAL ORIGINATE AT THE SAME LOCATION, ONE TENDON MAY BE MOVED HORIZONTALLY TO AVOID THE INTERFERENCE. MAXIMUM SPACING OF TENDONS RUNNING E-W SHALL NOT EXCEED 40".  
THE SPECIFIED TENDON PROFILE GOVERNS WHEN REBAR OR CONDUITS INTERFERE WITH ANY TENDONS.  
F. SHEATHING REPAIR: ANY SHEATHING DAMAGE LONGER THAN ONE INCH, AND ALL SHEATHING TO STRESSING ANCHOR CONNECTIONS SHALL BE WRAPPED WITH TAPE TO PREVENT CEMENT SEEPAGE INTO THE TENDON OR ANCHOR.  
G. TENDON BAND ANCHORAGE: TENDON BANDS (GROUPS OF 3 OR MORE) REQUIRE SPECIAL SLAB REINFORCEMENT. SEE DETAIL 5/S4.2.  
H. CLEAR COVER: TENDONS SHALL CLEAR OPENINGS PER DETAIL 6/S4.2.

9-4 STRESSING:  
A. OPERATOR EXPERIENCE: ALL STRESSING OPERATIONS SHALL BE UNDER THE IMMEDIATE CONTROL OF A PERSON EXPERIENCED IN THIS TYPE OF WORK.  
B. CONCRETE STRENGTH: STRESSING SHALL NOT COMMENCE UNTIL THE CONCRETE HAS REACHED AT LEAST 3000 PSI, AS INDICATED BY FIELD CURED COMPRESSION CYLINDERS.  
C. CALIBRATION: EACH HYDRAULIC JACK SHALL BE CALIBRATED WITH AN ACCURATE READING PRESSURE GAUGE. EACH UNIT SHALL HAVE A CERTIFIED CALIBRATION SHEET. IF THE MEASURED ELONGATIONS BECOME INCONSISTENT, THE UNIT SHALL BE RECALIBRATED.  
D. JACKING FORCE: THE MAXIMUM JACKING FORCE SHALL NOT EXCEED 80% OF THE TENDON'S SPECIFIED TENSILE FORCE, NOR 94% OF THE TENDON'S SPECIFIED YIELD FORCE. THE MAXIMUM FORCE IN THE TENDON AFTER ANCHORAGE SHALL BE 70% OF THE SPECIFIED TENSILE FORCE.  
E. ELONGATIONS: THE MEASURED TENDON ELONGATIONS SHALL BE WITHIN 7% OF THE CALCULATED ELONGATIONS, OR WITHIN 1/8" FOR SHORT TENDONS. IF THE ELONGATIONS CONSISTENTLY EXCEED THIS LIMIT, RECALIBRATE THE JACK UNIT.

**SECTION 10: QUALITY ASSURANCE PLAN / STATEMENT OF SPECIAL INSPECTIONS**

10-1 QUALITY ASSURANCE PLAN

A. THE STRUCTURE FALL UNDER SEISMIC DESIGN CATEGORY D AS DEFINED BY THE 2013 CBC. THE SEISMIC FORCE RESISTING SYSTEM CONSISTS OF SPECIAL REINFORCED CONCRETE SHEAR WALLS. AS DEFINED BY ASCE 7-10.

B. SPECIAL INSPECTIONS SHALL BE PERFORMED IN ACCORDANCE WITH NOTES 14-1 AND 14-3.

C. STRUCTURAL OBSERVATION IS REQUIRED PER SECTION 13.

D. THE CONTRACTOR RESPONSIBLE FOR THE CONSTRUCTION OF THE SEISMIC-FORCE-RESISTING SYSTEM SHALL SUBMIT A WRITTEN STATEMENT OF RESPONSIBILITY TO THE BUILDING OFFICIAL PRIOR TO THE COMMENCEMENT WORK ON THE SYSTEM.

10-2 STATEMENT OF SPECIAL INSPECTIONS

A. SPECIAL INSPECTION FOR SEISMIC RESISTANCE SHALL BE IN ACCORDANCE WITH CBC SECTION 1705.11  
B. STRUCTURAL TESTING AND QUALIFICATION FOR SEISMIC RESISTANCE SHALL BE IN ACCORDANCE WITH CBC SECTION 1705.12  
C. STRUCTURAL OBSERVATION IS REQUIRED PER SECTION 13.  
D. THE CONTRACTOR RESPONSIBLE FOR THE CONSTRUCTION OF THE SEISMIC-FORCE-RESISTING SYSTEM SHALL SUBMIT A WRITTEN STATEMENT OF RESPONSIBILITY TO THE BUILDING OFFICIAL PRIOR TO THE COMMENCEMENT WORK ON THE SYSTEM.

10-3 SPECIAL INSPECTIONS REQUIREMENTS

A. THE SPECIAL INSPECTION SHALL BE ACCEPTABLE TO THE STRUCTURAL ENGINEER AND BUILDING DEPARTMENT, SHALL BE ICC QUALIFIED, AND THEIR EXPERIENCE SHALL BE COMENSURATE WITH THIS TYPE OF PROJECT.  
B. TYPES AND EXTENTS OF SPECIAL INSPECTIONS AND TESTS SHALL BE IN ACCORDANCE WITH THE FOLLOWING TABLE.

TYPE OF CONSTRUCTION	CONTINUOUS	PERIODIC	CBC SECTION	CBC TABLE
CONCRETE	PER TABLE 1705.3	PER TABLE 1705.3	--	1705.3
REINFORCING STEEL	REQUIRED	--	--	1705.3
PRESTRESSING TENDONS	REQUIRED	--	--	1705.3
CONCRETE BOLTS, EMBEDS, AND DRILLED ANCHORS	REQUIRED	--	--	1705.3
WELDS OF STRUCTURAL OR REINFORCING STEEL	PER TABLE 1705.2.2	PER TABLE 1705.2.2	1705.2.2	1705.2.2
STRUCTURAL STEEL	PER SECTION 1705.2	PER SECTION 1705.2	1705.2	--
STRUCTURAL MASONRY	PER SECTION 1705.4	PER SECTION 1705.4	1705.4	--
SPECIAL GRADING, EXCAVATION, OR FILLING	PER TABLE 1705.6	PER TABLE 1705.6	1705.6	1705.6
SPRAYED-ON FIREPROOFING	PER SECTION 1705.13	PER SECTION 1705.13	1705.13	--

**SECTION 20: MISCELLANEOUS**

20-1 NON-SHRINK GROUT: NON-SHRINK GROUT SHALL BE A NON-METALLIC, PREMIUM, GEMMENTIOUS MIXTURE WITH NO SHRINKAGE AFTER PLACEMENT AND NO EXPANSION AFTER SET. PER ASTM C-927, COMPRESSIVE STRENGTH, PER ASTM C-109, SHALL BE AT LEAST 3000 PSI AT ONE DAY AND 5000 PSI AT 28 DAYS.

20-2 EXPANSION ANCHORS: EXPANSION ANCHORS IN CONCRETE SHALL BE HILTI KWIK BOLT T2 EXPANSION ANCHORS PER ICC ESR-1917 OR EQUAL. EXPANSION ANCHORS IN MASONRY SHALL BE HILTI KWIK BOLT 3" EXPANSION ANCHORS PER ICC ESR-1385 OR EQUAL.

20-3 EPOXY/ADHESIVE ANCHORS: EPOXY ADHESIVE ANCHORS IN CONCRETE OR CMU SHALL BE HILTI HIT-RE 500 SD SYSTEM ANCHORS PER ICC ESR-2322 OR EQUAL.

20-4 REINFORCING BAR TERMINATORS & COUPLERS SHALL BE LENTON PER ICC ECR-3967 OR EQUAL.

20-5 FORMSAVERS: FORMSAVERS SHALL BE LENTON PER ICC ECR-3967 OR EQUAL.

20-6 GENERAL CONTRACTOR SHALL KEEP A DIGITAL CAMERA ON-SITE AND PROVIDE PHOTOGRAPHS REQUESTED BY THE STRUCTURAL ENGINEER WITHIN TWO WORKING DAYS VIA ELECTRONIC MAIL.

20-7 BARRIER CABLES:

A. BARRIER CABLES SHALL BE GALVANIZED, SEVEN-WIRE LOW RELAXATION STEEL STRAND, AND SHALL CONFORM TO ASTM A-416, GRADE 270. TENDONS SHALL BE 3/8" NOMINAL DIAMETER, WITH AN AREA OF 0.085 SQUARE INCHES.  
B. BARRIER CABLES SHALL BE STRESSED TO AN EFFECTIVE FORCE OF 2000 LBS +/- 200 LBS AFTER SEATING LOSS.  
C. CALCULATIONS AND SHOP DRAWINGS, STAMPED AND SIGNED BY AN ENGINEER LICENSED IN THE STATE OF CALIFORNIA SHALL BE REVIEWED BY THE STRUCTURAL ENGINEER OF RECORD PRIOR TO BARRIER CABLE FABRICATION.

20-8 EXTERIOR WALLS AND SOFFITS: EXTERIOR WALLS AND SOFFITS AND CONNECTIONS SHALL BE DESIGNED BY THE WALL FABRICATOR PER THE REQUIREMENTS OF THE ARCHITECTURAL DRAWINGS AND THE UBC. CALCULATIONS AND SHOP DRAWINGS, STAMPED AND SIGNED BY AN ENGINEER LICENSED IN THE STATE OF CALIFORNIA, SHALL BE REVIEWED BY THE STRUCTURAL ENGINEER OF RECORD PRIOR TO WALL FABRICATION.

**SECTION 13: STRUCTURAL OBSERVATION**

13-1 STRUCTURAL OBSERVATION IS REQUIRED FOR THE STRUCTURAL SYSTEM IN ACCORDANCE WITH CBC SECTION 1704.5. STRUCTURAL OBSERVATION IS THE VISUAL OBSERVATION OF THE ELEMENTS AND CONNECTIONS OF THE STRUCTURAL SYSTEM AT SIGNIFICANT CONSTRUCTION STAGES AND THE COMPLETED STRUCTURE FOR GENERAL CONFORMANCE TO THE APPROVED PLANS AND SPECIFICATIONS. STRUCTURAL OBSERVATION DOES NOT INCLUDE OR WAIVE THE RESPONSIBILITY FOR THE INSPECTIONS REQUIRED BY THE BUILDING INSPECTOR OR THE DEPUTY INSPECTOR.

13-2 THE STRUCTURAL OBSERVER SHALL PERFORM SITE VISITS AT THOSE STEPS IN THE PROGRESS OF CONSTRUCTION WHERE SUBSTANTIAL CORRECTION OR REVISION OF SUBSTANTIAL CORRECTION OR UNCOVERING OF THE WORK INVOLVED. AT A MINIMUM, THE FOLLOWING SIGNIFICANT CONSTRUCTION STAGES REQUIRE A SITE VISIT AND AN OBSERVATION REPORT FROM THE STRUCTURAL OBSERVER:

**CONSTRUCTION STAGES ELEMENTS/CONNECTIONS TO BE OBSERVED**

A. FOUNDATIONS REINFORCING STEEL PRIOR TO PLACEMENT OF CONCRETE  
B. SLABS & BEAMS REINFORCING STEEL AND P/T LAYOUT  
C. SHEAR WALLS REINFORCING STEEL

13-3 THE OWNER SHALL EMPLOY A REGISTERED DESIGN PROFESSIONAL TO PERFORM STRUCTURAL OBSERVATIONS. DEFICIENCIES SHALL BE REPORTED IN WRITING TO OWNER AND THE CAMPUS BUILDING OFFICIAL. AT THE CONCLUSION OF THE WORK INCLUDED IN THE PERMIT, THE STRUCTURAL OBSERVER SHALL SUBMIT TO THE CAMPUS BUILDING OFFICIAL A WRITTEN STATEMENT THAT THE SITE VISITS HAVE BEEN MADE AND IDENTIFY ANY REPORTED DEFICIENCIES WHICH, TO THE BEST OF THE STRUCTURAL OBSERVER'S KNOWLEDGE, HAVE NOT BEEN RESOLVED.

**SECTION 13: STRUCTURAL OBSERVATION**

13-1 STRUCTURAL OBSERVATION IS REQUIRED FOR THE STRUCTURAL SYSTEM IN ACCORDANCE WITH CBC SECTION 1704.5. STRUCTURAL OBSERVATION IS THE VISUAL OBSERVATION OF THE ELEMENTS AND CONNECTIONS OF THE STRUCTURAL SYSTEM AT SIGNIFICANT CONSTRUCTION STAGES AND THE COMPLETED STRUCTURE FOR GENERAL CONFORMANCE TO THE APPROVED PLANS AND SPECIFICATIONS. STRUCTURAL OBSERVATION DOES NOT INCLUDE OR WAIVE THE RESPONSIBILITY FOR THE INSPECTIONS REQUIRED BY THE BUILDING INSPECTOR OR THE DEPUTY INSPECTOR.

13-2 THE STRUCTURAL OBSERVER SHALL PERFORM SITE VISITS AT THOSE STEPS IN THE PROGRESS OF CONSTRUCTION WHERE SUBSTANTIAL CORRECTION OR REVISION OF SUBSTANTIAL CORRECTION OR UNCOVERING OF THE WORK INVOLVED. AT A MINIMUM, THE FOLLOWING SIGNIFICANT CONSTRUCTION STAGES REQUIRE A SITE VISIT AND AN OBSERVATION REPORT FROM THE STRUCTURAL OBSERVER:

**CONSTRUCTION STAGES ELEMENTS/CONNECTIONS TO BE OBSERVED**

A. FOUNDATIONS REINFORCING STEEL PRIOR TO PLACEMENT OF CONCRETE  
B. SLABS & BEAMS REINFORCING STEEL AND P/T LAYOUT  
C. SHEAR WALLS REINFORCING STEEL

13-3 THE OWNER SHALL EMPLOY A REGISTERED DESIGN PROFESSIONAL TO PERFORM STRUCTURAL OBSERVATIONS. DEFICIENCIES SHALL BE REPORTED IN WRITING TO OWNER AND THE CAMPUS BUILDING OFFICIAL. AT THE CONCLUSION OF THE WORK INCLUDED IN THE PERMIT, THE STRUCTURAL OBSERVER SHALL SUBMIT TO THE CAMPUS BUILDING OFFICIAL A WRITTEN STATEMENT THAT THE SITE VISITS HAVE BEEN MADE AND IDENTIFY ANY REPORTED DEFICIENCIES WHICH, TO THE BEST OF THE STRUCTURAL OBSERVER'S KNOWLEDGE, HAVE NOT BEEN RESOLVED.

**SECTION 14: QUALITY ASSURANCE PLAN / STATEMENT OF SPECIAL INSPECTIONS**

14-1 QUALITY ASSURANCE PLAN

A. THE STRUCTURE FALL UNDER SEISMIC DESIGN CATEGORY D AS DEFINED BY THE 2013 CBC. THE SEISMIC FORCE RESISTING SYSTEM CONSISTS OF SPECIAL REINFORCED CONCRETE SHEAR WALLS. AS DEFINED BY ASCE 7-10.

B. SPECIAL INSPECTIONS SHALL BE PERFORMED IN ACCORDANCE WITH NOTES 14-1 AND 14-3.

C. STRUCTURAL OBSERVATION IS REQUIRED PER SECTION 13.

D. THE CONTRACTOR RESPONSIBLE FOR THE CONSTRUCTION OF THE SEISMIC-FORCE-RESISTING SYSTEM SHALL SUBMIT A WRITTEN STATEMENT OF RESPONSIBILITY TO THE BUILDING OFFICIAL PRIOR TO THE COMMENCEMENT WORK ON THE SYSTEM.

14-2 STATEMENT OF SPECIAL INSPECTIONS

A. SPECIAL INSPECTION FOR SEISMIC RESISTANCE SHALL BE IN ACCORDANCE WITH CBC SECTION 1705.11  
B. STRUCTURAL TESTING AND QUALIFICATION FOR SEISMIC RESISTANCE SHALL BE IN ACCORDANCE WITH CBC SECTION 1705.12  
C. STRUCTURAL OBSERVATION IS REQUIRED PER SECTION 13.  
D. THE CONTRACTOR RESPONSIBLE FOR THE CONSTRUCTION OF THE SEISMIC-FORCE-RESISTING SYSTEM SHALL SUBMIT A WRITTEN STATEMENT OF RESPONSIBILITY TO THE BUILDING OFFICIAL PRIOR TO THE COMMENCEMENT WORK ON THE SYSTEM.

14-3 SPECIAL INSPECTIONS REQUIREMENTS

A. THE SPECIAL INSPECTION SHALL BE ACCEPTABLE TO THE STRUCTURAL ENGINEER AND BUILDING DEPARTMENT, SHALL BE ICC QUALIFIED, AND THEIR EXPERIENCE SHALL BE COMENSURATE WITH THIS TYPE OF PROJECT.  
B. TYPES AND EXTENTS OF SPECIAL INSPECTIONS AND TESTS SHALL BE IN ACCORDANCE WITH THE FOLLOWING TABLE.

TYPE OF CONSTRUCTION	CONTINUOUS	PERIODIC	CBC SECTION	CBC TABLE
CONCRETE	PER TABLE 1705.3	PER TABLE 1705.3	--	1705.3
REINFORCING STEEL	REQUIRED	--	--	1705.3
PRESTRESSING TENDONS	REQUIRED	--	--	1705.3
CONCRETE BOLTS, EMBEDS, AND DRILLED ANCHORS	REQUIRED	--	--	1705.3
WELDS OF STRUCTURAL OR REINFORCING STEEL	PER TABLE 1705.2.2	PER TABLE 1705.2.2	1705.2.2	1705.2.2
STRUCTURAL STEEL	PER SECTION 1705.2	PER SECTION 1705.2	1705.2	--
STRUCTURAL MASONRY	PER SECTION 1705.4	PER SECTION 1705.4	1705.4	--
SPECIAL GRADING, EXCAVATION, OR FILLING	PER TABLE 1705.6	PER TABLE 1705.6	1705.6	1705.6
SPRAYED-ON FIREPROOFING	PER SECTION 1705.13	PER SECTION 1705.13	1705.13	--

**SECTION 20: MISCELLANEOUS**

20-1 NON-SHRINK GROUT: NON-SHRINK GROUT SHALL BE A NON-METALLIC, PREMIUM, GEMMENTIOUS MIXTURE WITH NO SHRINKAGE AFTER PLACEMENT AND NO EXPANSION AFTER SET. PER ASTM C-927, COMPRESSIVE STRENGTH, PER ASTM C-109, SHALL BE AT LEAST 3000 PSI AT ONE DAY AND 5000 PSI AT 28 DAYS.

20-2 EXPANSION ANCHORS: EXPANSION ANCHORS IN CONCRETE SHALL BE HILTI KWIK BOLT T2 EXPANSION ANCHORS PER ICC ESR-1917 OR EQUAL. EXPANSION ANCHORS IN MASONRY SHALL BE HILTI KWIK BOLT 3" EXPANSION ANCHORS PER ICC ESR-1385 OR EQUAL.

20-3 EPOXY/ADHESIVE ANCHORS: EPOXY ADHESIVE ANCHORS IN CONCRETE OR CMU SHALL BE HILTI HIT-RE 500 SD SYSTEM ANCHORS PER ICC ESR-2322 OR EQUAL.

20-4 REINFORCING BAR TERMINATORS & COUPLERS SHALL BE LENTON PER ICC ECR-3967 OR EQUAL.

20-5 FORMSAVERS: FORMSAVERS SHALL BE LENTON PER ICC ECR-3967 OR EQUAL.

20-6 GENERAL CONTRACTOR SHALL KEEP A DIGITAL CAMERA ON-SITE AND PROVIDE PHOTOGRAPHS REQUESTED BY THE STRUCTURAL ENGINEER WITHIN TWO WORKING DAYS VIA ELECTRONIC MAIL.

20-7 BARRIER CABLES:

A. BARRIER CABLES SHALL BE GALVANIZED, SEVEN-WIRE LOW RELAXATION STEEL STRAND, AND SHALL CONFORM TO ASTM A-416, GRADE 270. TENDONS SHALL BE 3/8" NOMINAL DIAMETER, WITH AN AREA OF 0.085 SQUARE INCHES.  
B. BARRIER CABLES SHALL BE STRESSED TO AN EFFECTIVE FORCE OF 2000 LBS +/- 200 LBS AFTER SEATING LOSS.  
C. CALCULATIONS AND SHOP DRAWINGS, STAMPED AND SIGNED BY AN ENGINEER LICENSED IN THE STATE OF CALIFORNIA SHALL BE REVIEWED BY THE STRUCTURAL ENGINEER OF RECORD PRIOR TO BARRIER CABLE FABRICATION.

20-8 EXTERIOR WALLS AND SOFFITS: EXTERIOR WALLS AND SOFFITS AND CONNECTIONS SHALL BE DESIGNED BY THE WALL FABRICATOR PER THE REQUIREMENTS OF THE ARCHITECTURAL DRAWINGS AND THE UBC. CALCULATIONS AND SHOP DRAWINGS, STAMPED AND SIGNED BY AN ENGINEER LICENSED IN THE STATE OF CALIFORNIA, SHALL BE REVIEWED BY THE STRUCTURAL ENGINEER OF RECORD PRIOR TO WALL FABRICATION.

**SECTION 20: MISCELLANEOUS**

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20-2 EXPANSION ANCHORS: EXPANSION ANCHORS IN CONCRETE SHALL BE HILTI KWIK BOLT T2 EXPANSION ANCHORS PER ICC ESR-1917 OR EQUAL. EXPANSION ANCHORS IN MASONRY SHALL BE HILTI KWIK BOLT 3" EXPANSION ANCHORS PER ICC ESR-1385 OR EQUAL.

20-3 EPOXY/ADHESIVE ANCHORS: EPOXY ADHESIVE ANCHORS IN CONCRETE OR CMU SHALL BE HILTI HIT-RE 500 SD SYSTEM ANCHORS PER ICC ESR-2322 OR EQUAL.

20-4 REINFORCING BAR TERMINATORS & COUPLERS SHALL BE LENTON PER ICC ECR-3967 OR EQUAL.

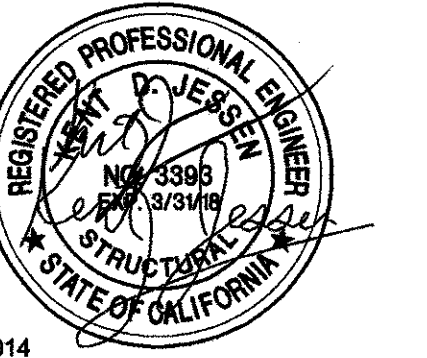
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20-6 GENERAL CONTRACTOR SHALL KEEP A DIGITAL CAMERA ON-SITE AND PROVIDE PHOTOGRAPHS REQUESTED BY THE STRUCTURAL ENGINEER WITHIN TWO WORKING DAYS VIA ELECTRONIC MAIL.

20-7 BARRIER CABLES:

A. BARRIER CABLES SHALL BE GALVANIZED, SEVEN-WIRE LOW RELAXATION STEEL STRAND, AND SHALL CONFORM TO ASTM A-416, GRADE 270. TENDONS SHALL BE 3/8" NOMINAL DIAMETER, WITH AN AREA OF 0.085 SQUARE INCHES.  
B. BARRIER CABLES SHALL BE STRESSED TO AN EFFECTIVE FORCE OF 2000 LBS +/- 200 LBS AFTER SEATING LOSS.  
C. CALCULATIONS AND SHOP DRAWINGS, STAMPED AND SIGNED BY AN ENGINEER LICENSED IN THE STATE OF CALIFORNIA SHALL BE REVIEWED BY THE STRUCTURAL ENGINEER OF RECORD PRIOR TO B





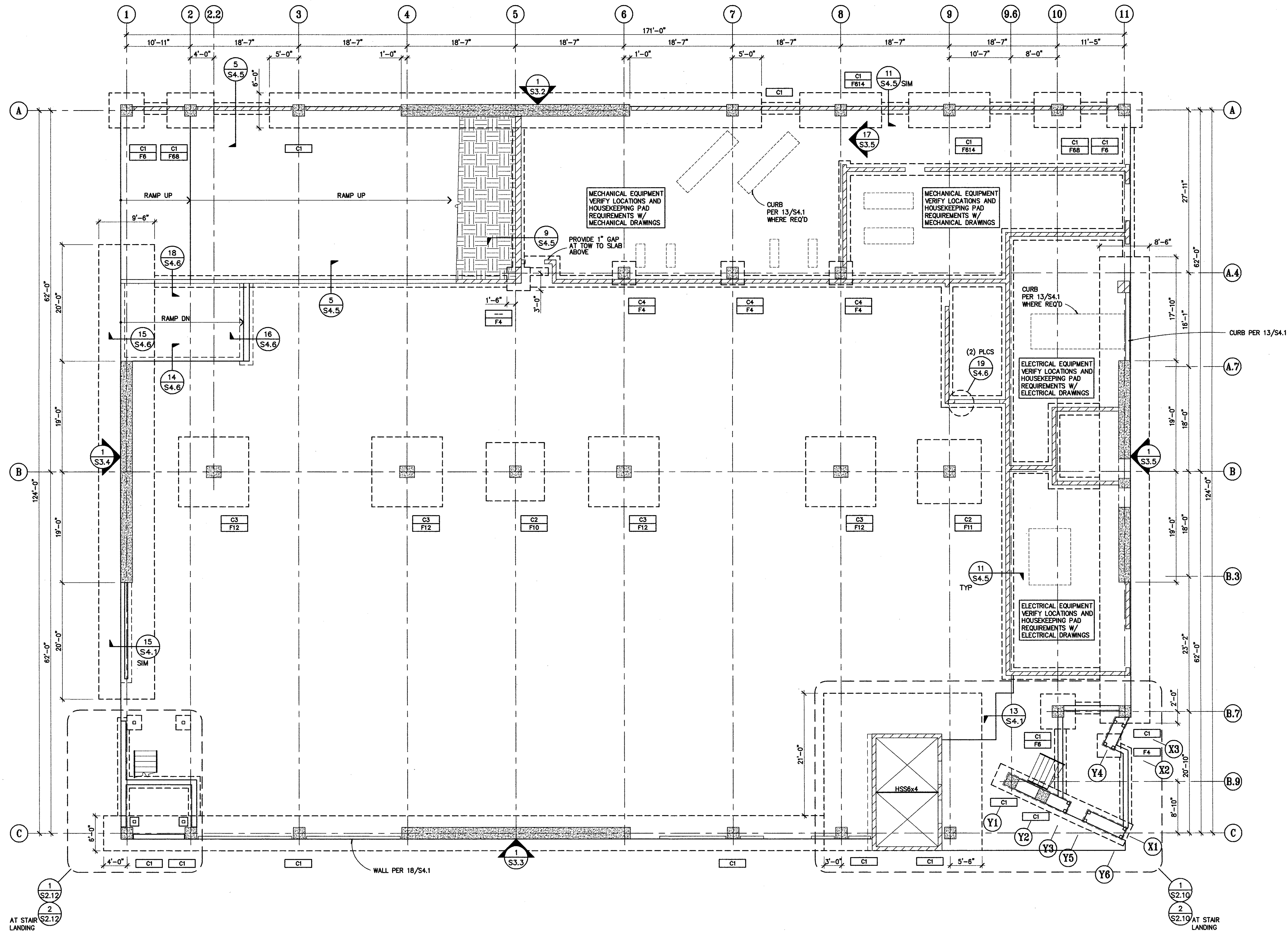
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**SUNDT CONSTRUCTION**  
SAN DIEGO, CALIFORNIA

**SAN DIEGO STATE UNIVERSITY**  
SAN DIEGO, CALIFORNIA

### SOUTH CAMPUS PLAZA DESIGN-BUILD PARKING STRUCTURE

SAN DIEGO STATE UNIVERSITY



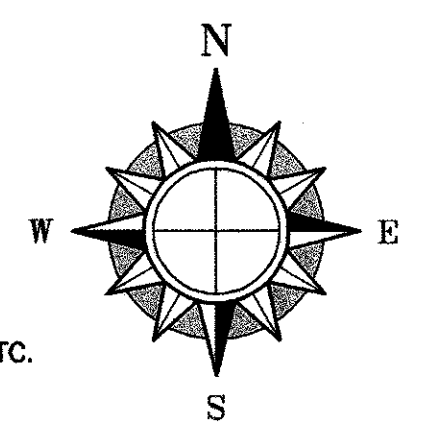
#### NOTES:

- SLABS ON GRADE SHALL BE 5" THICK UNO, WITH #4 AT 18" EACH WAY AT CENTERLINE OVER SUBGRADE PER SOILS REPORT. SEE DETAIL 13/S4.1 FOR EOS, C/S, CURBS, ETC.
- SEE SOILS REPORT FOR SUBGRADE PREPARATION.
  - C1 - SEE DETAIL 1/S3.1 FOR COLUMN SCHEDULE.
  - F4 - SEE DETAIL 1/S4.1 FOR FOOTING SCHEDULE.
- VERIFY ALL DIMENSIONS, TOP OF SLAB, WALL AND CURB ELEVATIONS AND LOCATIONS WITH ARCHITECT. SEE DETAIL 13/S4.1.
- SEE SHEET S3.1, S4.1, S4.2, AND S4.5 FOR TYPICAL DETAILS, UNO.
- GENERAL CONTRACTOR SHALL PROVIDE CONTROL & CONSTRUCTION JOINT LAYOUT PLAN FOR ENGINEER'S REVIEW PRIOR TO CONCRETE PLACEMENT.
- GENERAL CONTRACTOR SHALL PROVIDE A COORDINATED TOP-OF-FOOTING ELEVATION PLAN THAT CONSIDERS UTILITIES, ROOF DRAINS, ADJACENT FOOTINGS, ETC. (REF 1/S4.1, 5/S4.1, & 7/S4.1 FOR TYPICAL DETAILS)

OFFICE OF THE STATE FIRE MARSHAL  
APPROVED FIRE AND PANIC ALARM  
Reviewed by: \_\_\_\_\_  
Bridget Corbett, OSFM

APR 27 2016

Approval of this plan does not authorize or approve any omission or deviation from applicable regulations. Final approval is subject to field inspection. One set of approved plans shall be available on the project site at all times.



SUBMITTAL SCHEDULE:

SCHEMATIC DESIGN	04/17/2014
50% PRELIM. DESIGN	05/14/2014
100% PRELIM. DESIGN	05/28/2014
50% CONST. DOCS.	07/02/2014
95% CONST. DOCS.	08/07/2014
100% BACKCHECK	11/10/2014
100% BACKCHECK 2	01/22/2015
100% BACKCHECK 3	03/20/2015

ASH#011 SFM RESUB 2 11/08/2015  
ASH#015 SFM RESUB 3 03/03/2016

IDENTIFICATION STAMP  
DIVISION OF THE STATE ARCHITECT  
OFFICE OF REGULATION SERVICES

FILE # \_\_\_\_\_  
APP. # 04-114204  
AC \_\_\_\_\_ DATE: \_\_\_\_\_

PROJECT NO: 21305-G-50

LEVEL 1

S2.1





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**SUNDT CONSTRUCTION**  
SAN DIEGO, CALIFORNIA

**SAN DIEGO STATE UNIVERSITY**  
SAN DIEGO, CALIFORNIA

**SOUTH CAMPUS PLAZA DESIGN-BUILD PARKING STRUCTURE**  
SAN DIEGO STATE UNIVERSITY

**SUBMITTAL SCHEDULE:**

Schematic Design	04/17/2014
50% Prelim. Design	05/14/2014
100% Prelim. Design	05/28/2014
50% Const. Docs.	07/02/2014
95% Const. Docs.	08/07/2014
100% Backcheck	11/10/2014
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ASI #001	05/17/2015
ASI #006	07/24/2015
ASH#011 SFM RESUB 2	11/06/2015
ASH#015 SFM RESUB 3	03/03/2016

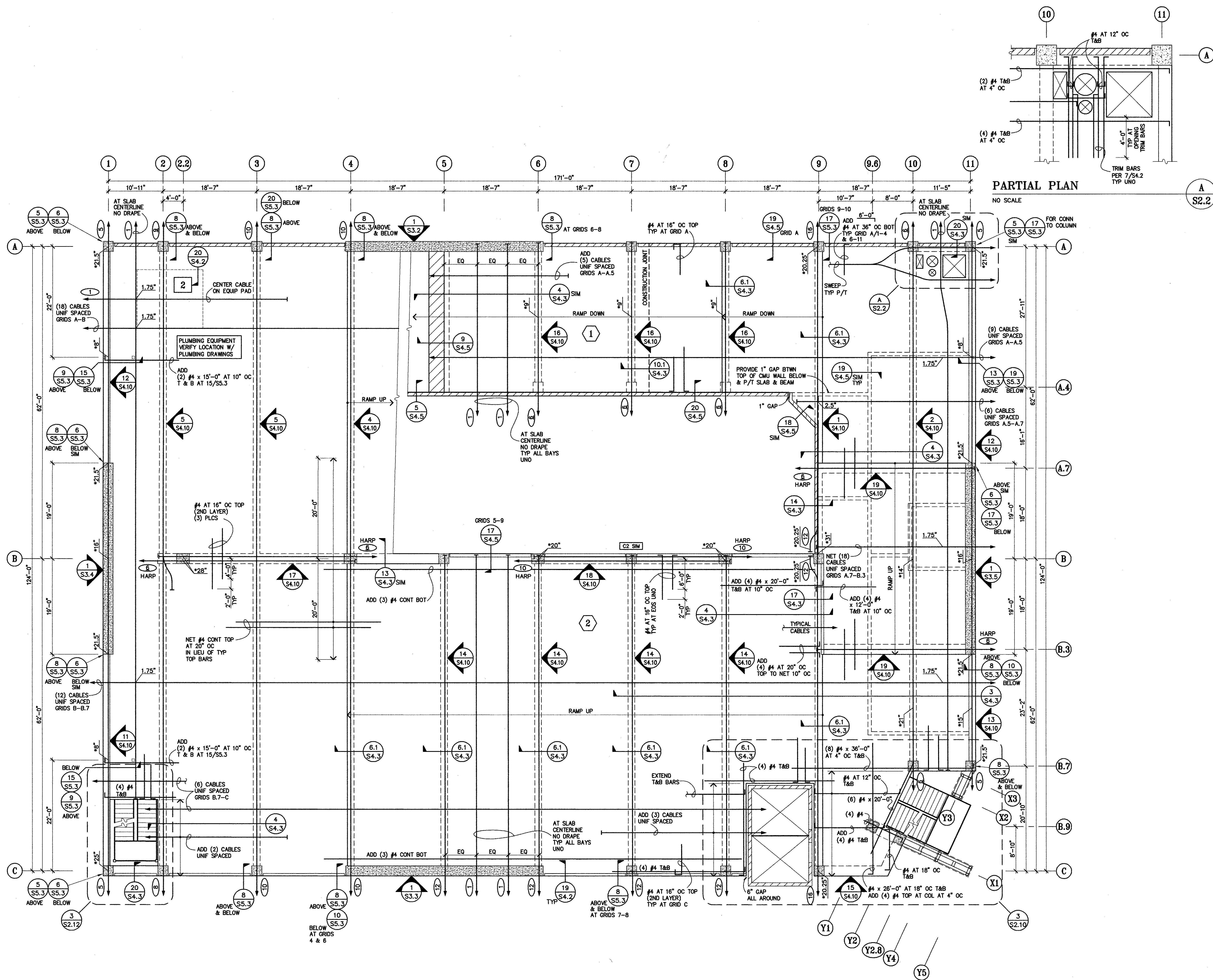
IDENTIFICATION STAMP  
DIVISION OF THE STATE ARCHITECT  
OFFICE OF REGULATION SERVICES

FILE #  
APR # 04-114204  
AC \_\_\_\_\_ DATE \_\_\_\_\_

PROJECT NO: 21305-G-50

**LEVEL 2**

**S2.2**



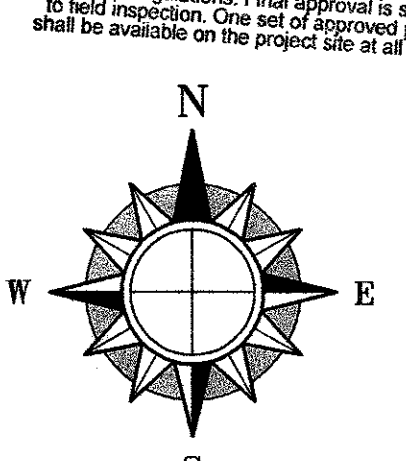
**PARTIAL PLAN**  
NO SCALE  
A  
S2.2

**NOTES:**

- SEE SHEET S1.0 FOR TYP P/T NOTES AND SHEETS S4.1 THRU S4.4 FOR TYPICAL CONCRETE AND P/T DETAILS.
- SLABS SHALL BE 5" THICK, UNO.
- VERIFY ALL TOP OF SLAB, WALL, STEP & CURB ELEVATIONS & LOCATIONS AND OPENING SIZES & LOCATIONS W/ ARCHITECT.
- PROVIDE EMBEDDED ITEMS AT STAIRS AND ELEVATORS AS REQUIRED BY MANUFACTURERS.
- (B) - INDICATES NO. OF 1/2" DIA P/T CABLES.
- HOOK ALL REINFORCING AT SLAB EDGES.
- TYPICAL TENDON ORDINATES TO CENTER OF TENDON ARE AS FOLLOWS, UNO:
  - AT SLABS**
    - A. AT STRESSING & ANCHORAGE ENDS . . . AT 2.5" ABOVE SLAB SOFFIT
    - B. OVER SUPPORTS . . . AT 3.75" ABOVE SLAB SOFFIT
    - C. AT MID SPAN . . . AT 1.25" ABOVE SLAB SOFFIT
  - AT BEAMS**
    - A. AT STRESSING & ANCHORAGE ENDS . . . AT 24" ABOVE BEAM SOFFIT
    - B. OVER SUPPORTS . . . AT 31" ABOVE BEAM SOFFIT
    - C. AT MID SPAN . . . AT 4" ABOVE BEAM SOFFIT
  - AT GRIDERS**
    - A. AT STRESSING & ANCHORAGE ENDS . . . AT 22" ABOVE GRIDER SOFFIT
    - B. OVER SUPPORTS . . . AT 31" ABOVE BEAM SOFFIT
    - C. AT MID SPAN . . . AT 4" ABOVE GRIDER SOFFIT
  - D. SINGLE SPAN GRIDERS SHALL HAVE HARPED PROFILES
- A. 1.75" INDICATES TENDON ORDINATE AS MEASURED FROM THE SLAB SOFFIT. TENDON ORDINATES SHOWN APPLY TO THE TENDONS PARALLEL TO ORDINATE INDICATOR TAIL. B. \*\* INDICATES TENDON ORDINATE MEASURED FROM BOTTOM OF BEAM. C. \*\*\* INDICATES TENDON ORDINATE VARIES LINEARLY.
- PROVIDE (1) #4 MIN TOP & BOTTOM ALONG ALL SLAB EDGES, UNO & EXTEND MIN 3'-0" BEYOND INSIDE SLAB EDGE CORNERS, UNO. SPACE ALL TRIM BARS AT 4" OC WHERE MULTIPLE BARS OCCUR. EXTEND TRIM BARS 4'-0" BEYOND CORNERS, TYP.
- (1) = POUR SEQUENCE NUMBER.
- (2) INDICATES MAX OPERATING WEIGHT OF EQUIPMENT IN THOUSANDS OF POUNDS.

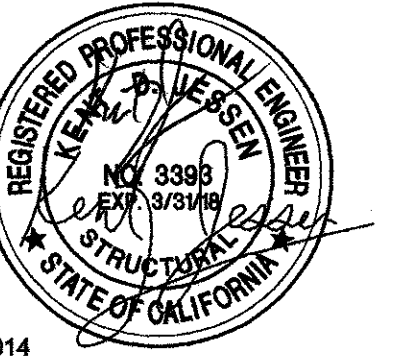
OFFICE OF THE STATE ARCHITECT  
APPROVED FOR THE PUBLIC  
Reviewed by: \_\_\_\_\_  
DATE: APR 27 2016

APR 27 2016



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**SUBMITTAL SCHEDULE:**

SCHEMATIC DESIGN	04/17/2014
50% PRELIM. DESIGN	05/14/2014
100% PRELIM. DESIGN	05/28/2014
50% CONST. DOCS.	07/02/2014
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ASU#15 SFM RESUB 3	03/03/2016

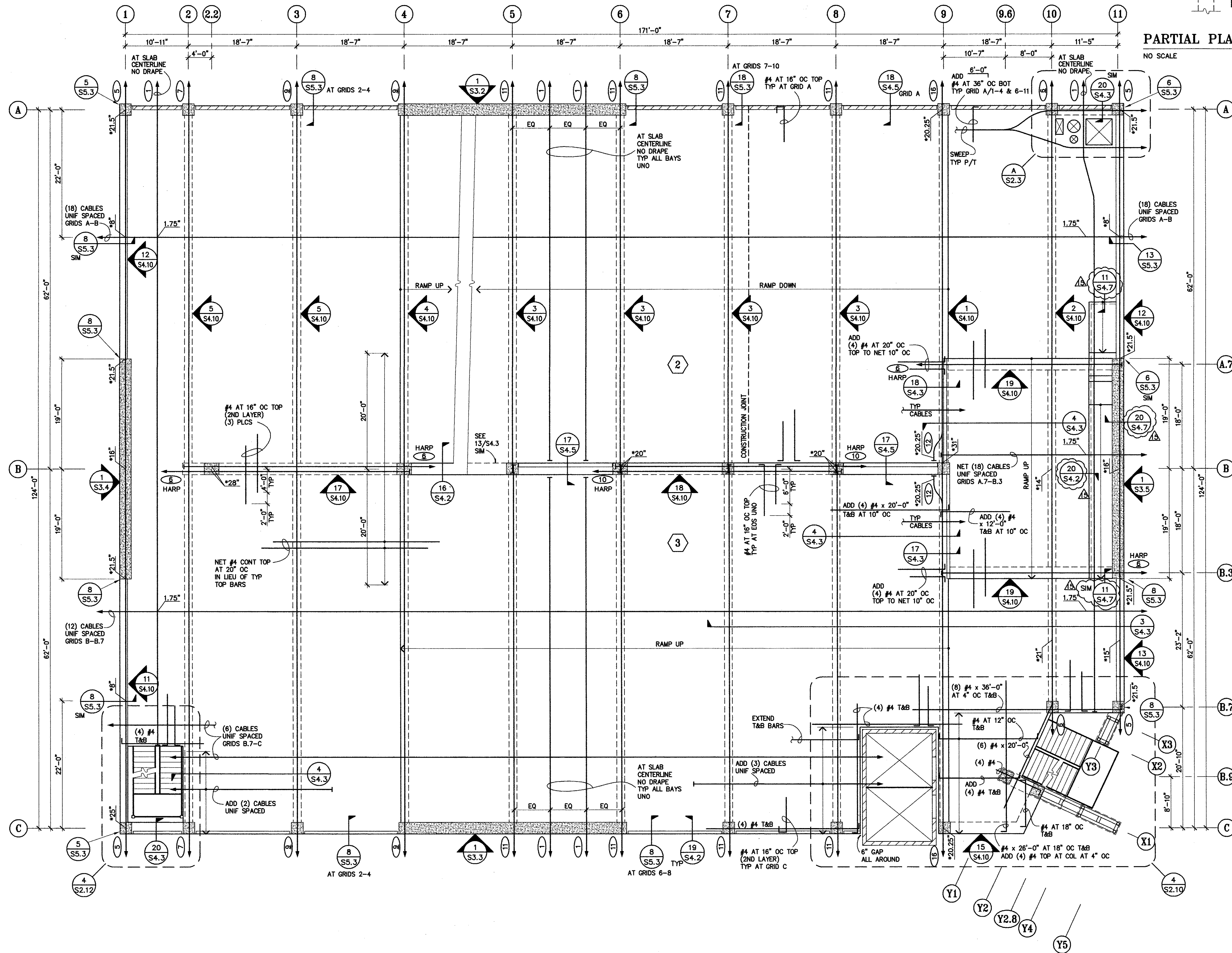
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DIVISION OF THE STATE ARCHITECT  
OFFICE OF REGULATION SERVICES

FILE #  
APR. # 04-114204  
AC DATE:

PROJECT NO: 21305-G-50

**LEVEL 3**

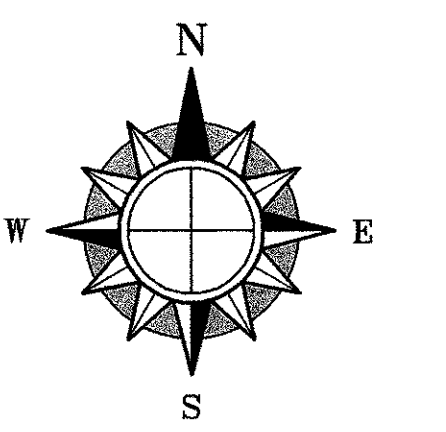
**S2.3**



**PARTIAL PLAN**  
NO SCALE

- SEE SHEET S1.0 FOR TYP P/T NOTES AND SHEETS S4.1 THRU S4.4 FOR TYPICAL CONCRETE AND P/T DETAILS.
- SLABS SHALL BE 5" THICK, UNO.
- VERIFY ALL TOP OF SLAB, WALL, STEP & CURB ELEVATIONS & LOCATIONS AND OPENING SIZES & LOCATIONS W/ ARCHITECT.
- PROVIDE EMBEDDED ITEMS AT STAIRS AND ELEVATORS AS REQUIRED BY MANUFACTURERS.
- Ⓢ - INDICATES NO. OF 1/2" DIA P/T CABLES.
- HOK ALL REINFORCING AT SLAB EDGES.
- TYPICAL TENDON ORDINATES TO CENTER OF TENDON ARE AS FOLLOWS, UNO:
  - AT SLABS
    - A. AT STRESSING & ANCHORAGE ENDS . . . AT 2.5" ABOVE SLAB SOFFIT
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    - C. AT MID SPAN . . . AT 1.25" ABOVE SLAB SOFFIT
  - AT BEAMS
    - A. AT STRESSING & ANCHORAGE ENDS . . . AT 24" ABOVE BEAM SOFFIT
    - B. OVER SUPPORTS . . . AT 31" ABOVE BEAM SOFFIT
    - C. AT MID SPAN . . . AT 4" ABOVE BEAM SOFFIT
  - AT GIRDERS
    - A. AT STRESSING & ANCHORAGE ENDS . . . AT 22" ABOVE GIRDER SOFFIT
    - B. OVER SUPPORTS . . . AT 31" ABOVE BEAM SOFFIT
    - C. AT MID SPAN . . . AT 4" ABOVE GIRDER SOFFIT
    - D. SINGLE SPAN GIRDERS SHALL HAVE HARPED PROFILES
- 1.75" INDICATES TENDON ORDINATE AS MEASURED FROM THE SLAB SOFFIT. TENDON ORDINATES SHOWN APPLY TO THE TENDONS PARALLEL TO ORDINATE INDICATOR TAIL.
  - Ⓢ INDICATES TENDON ORDINATE MEASURED FROM BOTTOM OF BEAM.
  - Ⓢ\*\* INDICATES TENDON ORDINATE VARIES LINEARLY.
- PROVIDE (1) #4 MIN TOP & BOTTOM ALONG ALL SLAB EDGES, UNO & EXTEND MIN 3'-0" BEYOND INSIDE SLAB EDGE CORNERS, UNO. SPACE ALL TRIM BARS AT 4" OC WHERE MULTIPLE BARS OCCUR. EXTEND TRIM BARS 4'-0" BEYOND CORNERS, TYP.
- ① = POUR SEQUENCE NUMBER.

APR 27 2016  
OFFICE OF THE STATE ARCHITECT  
APPROVED FOR SUBMITTAL  
Reviewed by: [Signature]



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SUBMITTAL SCHEDULE:

SCHEMATIC DESIGN	04/17/2014
50% PRELIM. DESIGN	05/14/2014
100% PRELIM. DESIGN	05/28/2014
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ASI #006	07/24/2015
AS1#011 SFM RESUB 2	11/06/2015
AS1#015 SFM RESUB 3	03/03/2016

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OFFICE OF REGULATION SERVICES

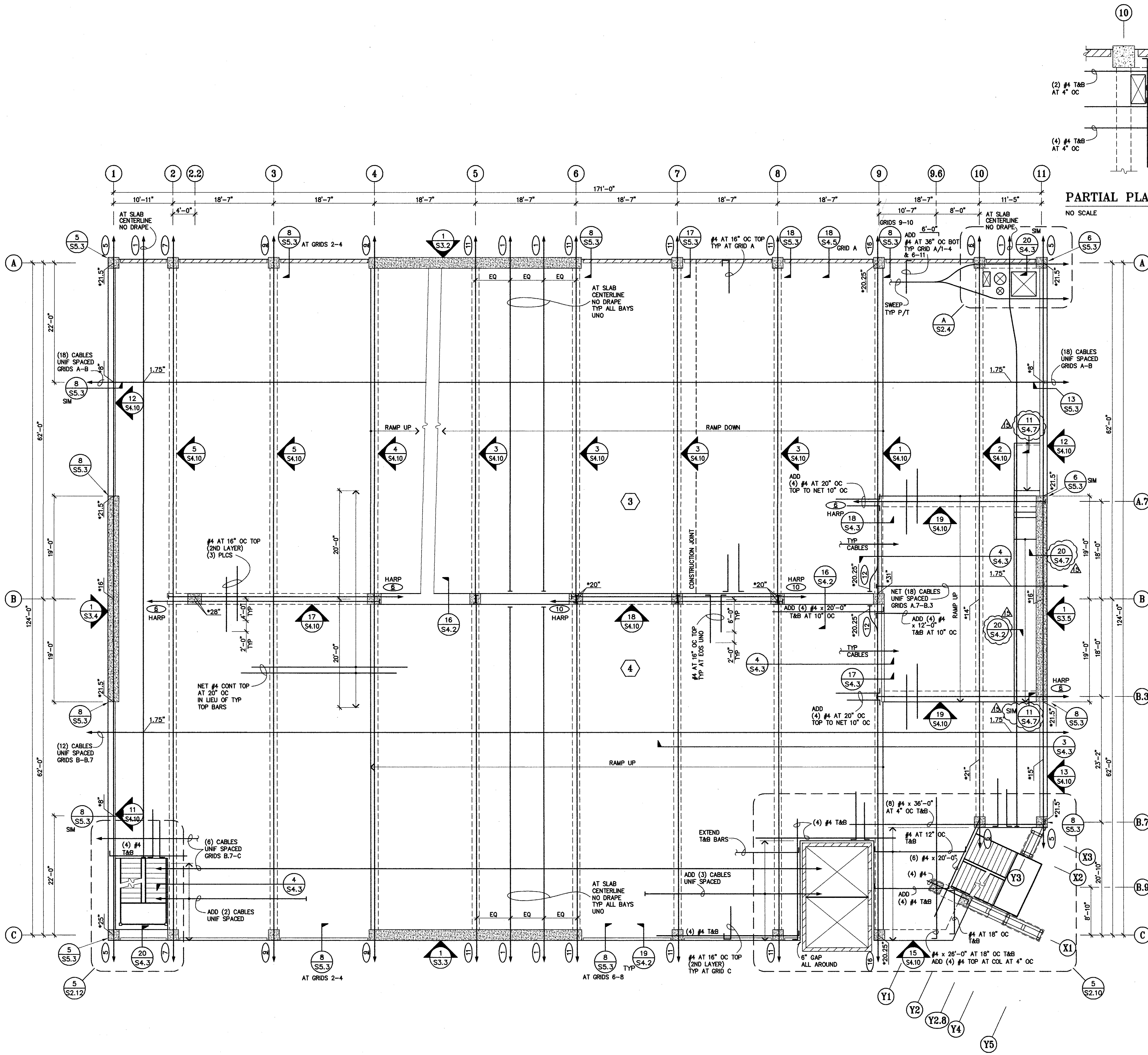
FILE #  
APL # 04-114204

AC \_\_\_\_\_ DATE \_\_\_\_\_

PROJECT NO: 21305-G-50

LEVEL 4

S2.4



**PARTIAL PLAN**  
NO SCALE

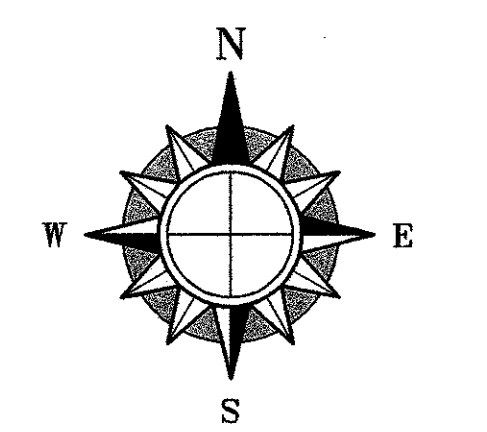
**NOTES:**

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    - C. AT MID SPAN . . . AT 4" ABOVE BEAM SOFFIT
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    - D. SINGLE SPAN GRIDDERS SHALL HAVE HARPED PROFILES
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  - B. "\*" INDICATES TENDON ORDINATE MEASURED FROM BOTTOM OF BEAM.
  - C. "\*" INDICATES TENDON ORDINATE VARIES LINEARLY.
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- Ⓛ = POUR SEQUENCE NUMBER.

OFFICE OF THE STATE FIRE MARSHAL  
APPROVED FIRE AND LIFE SAFETY  
Reviewed by: [Signature]

APR 27 2016

Approval of this plan does not authorize or approve any design or deviation from applicable regulations. Final approval is subject to field inspection. One set of approved plans shall be available on the project site at all times.







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**SUBMITTAL SCHEDULE:**

SCHEMATIC DESIGN	04/17/2014
50% PRELIM. DESIGN	05/14/2014
100% PRELIM. DESIGN	05/28/2014
50% CONST. DOCS.	07/02/2014
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ASH015 SFM RESUB 3	03/03/2016

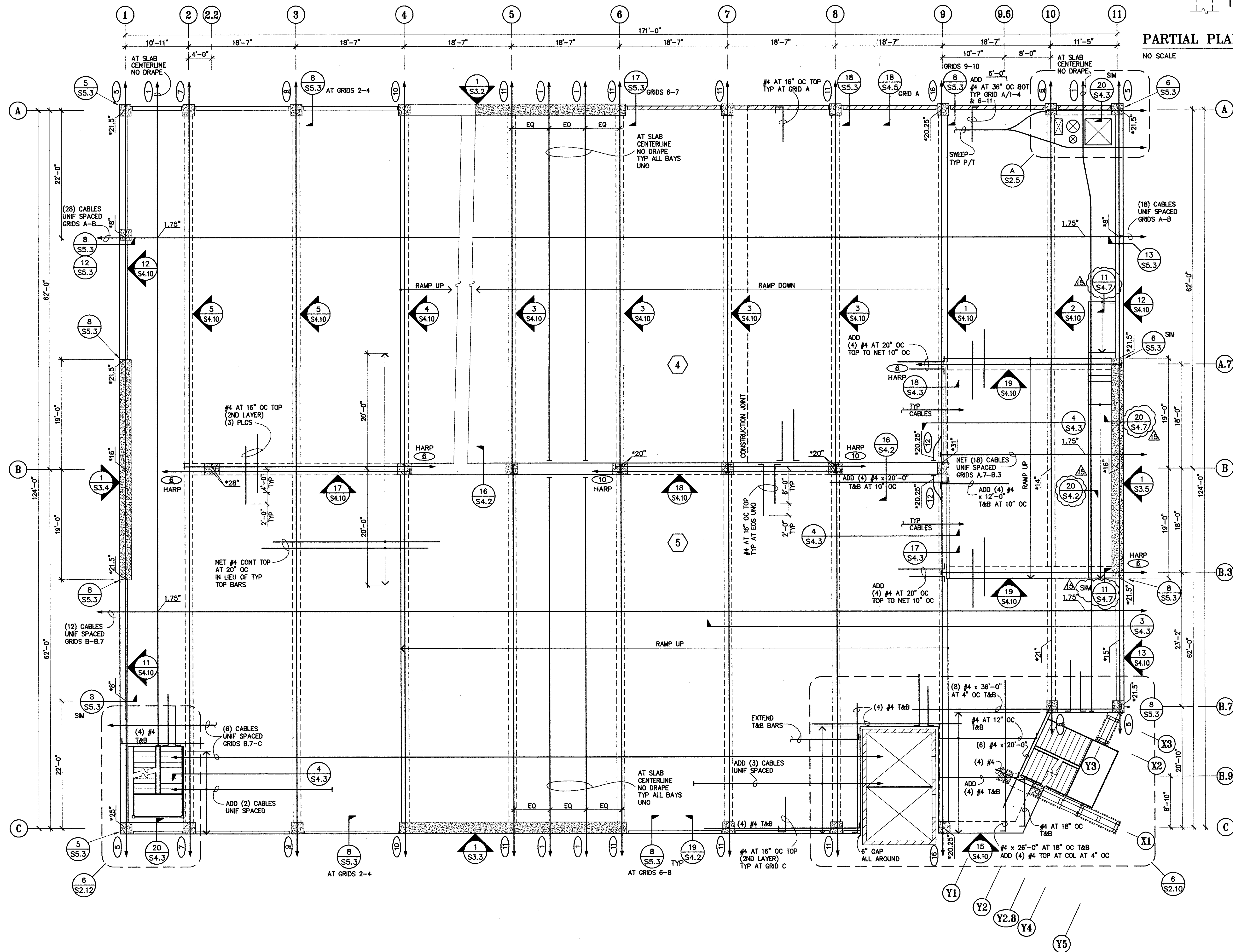
IDENTIFICATION STAMP  
DIVISION OF THE STATE ARCHITECT  
OFFICE OF REGULATION SERVICES

FILE #  
APL # 04-114204  
AC \_\_\_\_\_ DATE \_\_\_\_\_

PROJECT NO: 21305-G-50

**LEVEL 5**

**S2.5**



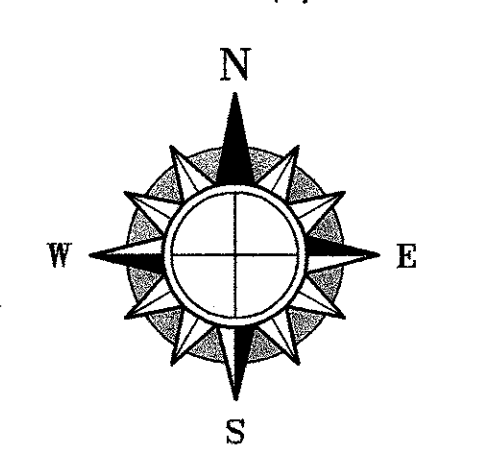
**PARTIAL PLAN**  
NO SCALE

**NOTES:**

- SEE SHEET S1.0 FOR TYP P/T NOTES AND SHEETS S4.1 THRU S4.4 FOR TYPICAL CONCRETE AND P/T DETAILS.
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- HOK ALL REINFORCING AT SLAB EDGES.
- TYPICAL TENDON ORDINATES TO CENTER OF TENDON ARE AS FOLLOWS, UNO:  
**AT SLABS**  
 A. AT STRESSING & ANCHORAGE ENDS . . . AT 2.5" ABOVE SLAB SOFFIT  
 B. OVER SUPPORTS . . . AT 3.75" ABOVE SLAB SOFFIT  
 C. AT MID SPAN . . . AT 1.25" ABOVE SLAB SOFFIT  
**AT BEAMS**  
 A. AT STRESSING & ANCHORAGE ENDS . . . AT 24" ABOVE BEAM SOFFIT  
 B. OVER SUPPORTS . . . AT 31" ABOVE BEAM SOFFIT  
 C. AT MID SPAN . . . AT 4" ABOVE BEAM SOFFIT  
**AT GRIDERS**  
 A. AT STRESSING & ANCHORAGE ENDS . . . AT 22" ABOVE GRIDER SOFFIT  
 B. OVER SUPPORTS . . . AT 31" ABOVE BEAM SOFFIT  
 C. AT MID SPAN . . . AT 4" ABOVE GRIDER SOFFIT  
 D. SINGLE SPAN GRIDERS SHALL HAVE HARPED PROFILES
- INDICATES TENDON ORDNATE AS MEASURED FROM THE SLAB SOFFIT. TENDON ORDNATES SHOWN APPLY TO THE TENDONS PARALLEL TO ORDNATE INDICATOR TAIL.  
 B. \*\* INDICATES TENDON ORDNATE MEASURED FROM BOTTOM OF BEAM.  
 C. \*\*\* INDICATES TENDON ORDNATE VARIES LINEARLY.
- PROVIDE (1) #4 MIN TOP & BOTTOM ALONG ALL SLAB EDGES, UNO & EXTEND MIN 3'-0" BEYOND INSIDE SLAB EDGE CORNERS, UNO. SPACE ALL TRIM BARS AT 4'-0" OC WHERE MULTIPLE BARS OCCUR. EXTEND TRIM BARS 4'-0" BEYOND CORNERS, TYP.
- Ⓢ = POUR SEQUENCE NUMBER.

OFFICE OF THE STATE ARCHITECT  
APPROVED FIRE AND PROTECTIVE  
Reviewed by: \_\_\_\_\_  
Date: APR 27 2016

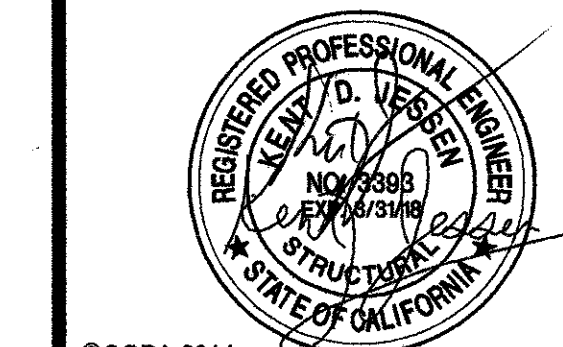
Approval of this plan does not authorize or approve any construction or deviation from applicable regulations. Final approval is subject to field inspection. One set of approved plans shall be available on the project site at all times.











**SOUTH CAMPUS PLAZA DESIGN-BUILD PARKING STRUCTURE**  
SAN DIEGO STATE UNIVERSITY

SUBMITTAL SCHEDULE:

SCHEMATIC DESIGN	04/17/2014
50% PRELIM. DESIGN	05/14/2014
100% PRELIM. DESIGN	05/28/2014
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ASH#011 SFM RESUB 2	11/06/2015
ASH#015 SFM RESUB 3	03/03/2016

IDENTIFICATION STAMP  
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OFFICE OF REGULATION SERVICES

FILE #  
APL # 04-114204

AC \_\_\_\_\_ DATE \_\_\_\_\_

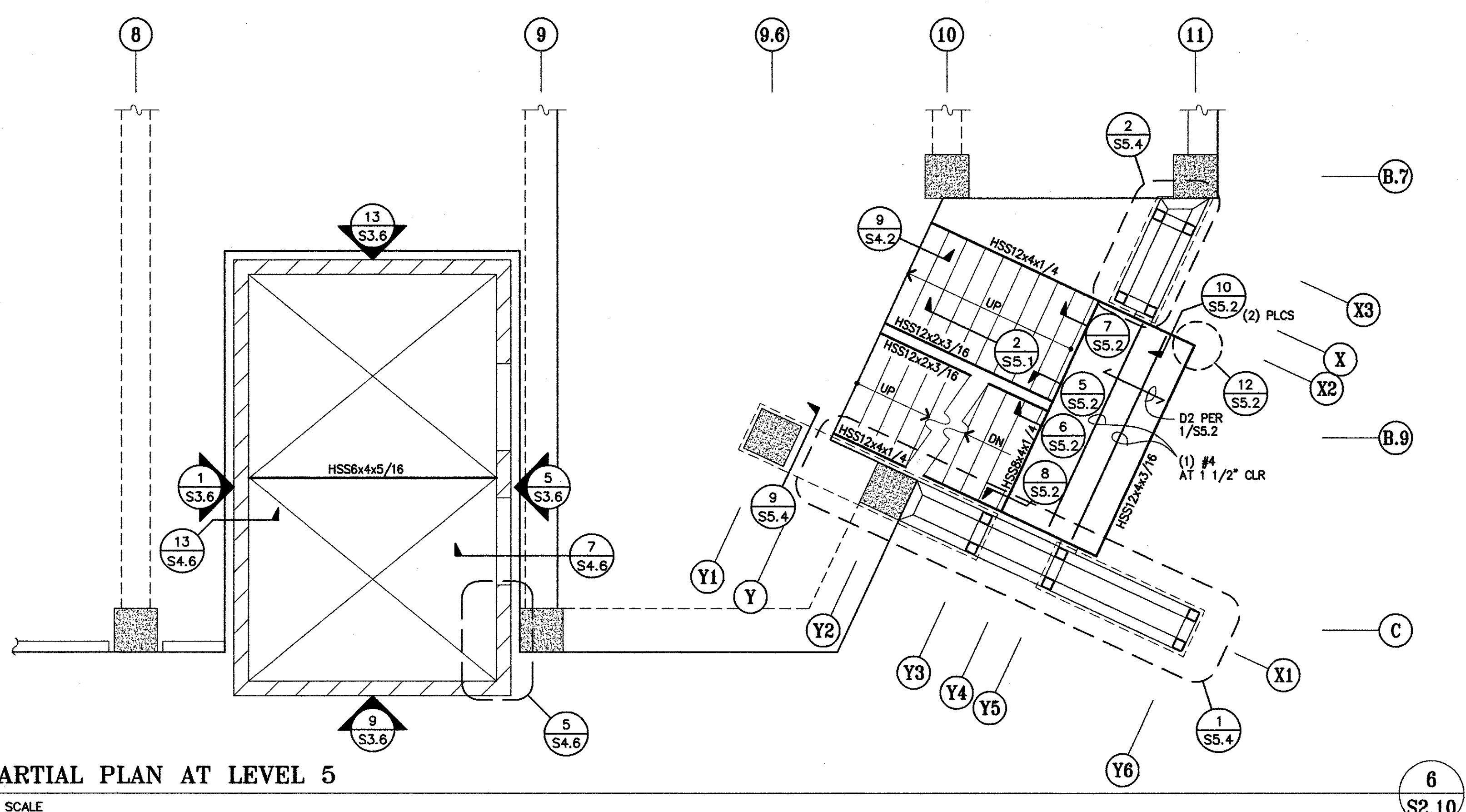
APR 27 2016

OFFICE OF THE STATE ARCHITECT  
APPROVED FOR THE MANAGER  
Reviewed by: \_\_\_\_\_  
Brady Goodrich, DSPM

Approval of this plan does not authorize anyone to construct or alter any structure without the approval of the State Architect. Final approval is required for construction. The set of approved plans shall be available on the project site at all times.

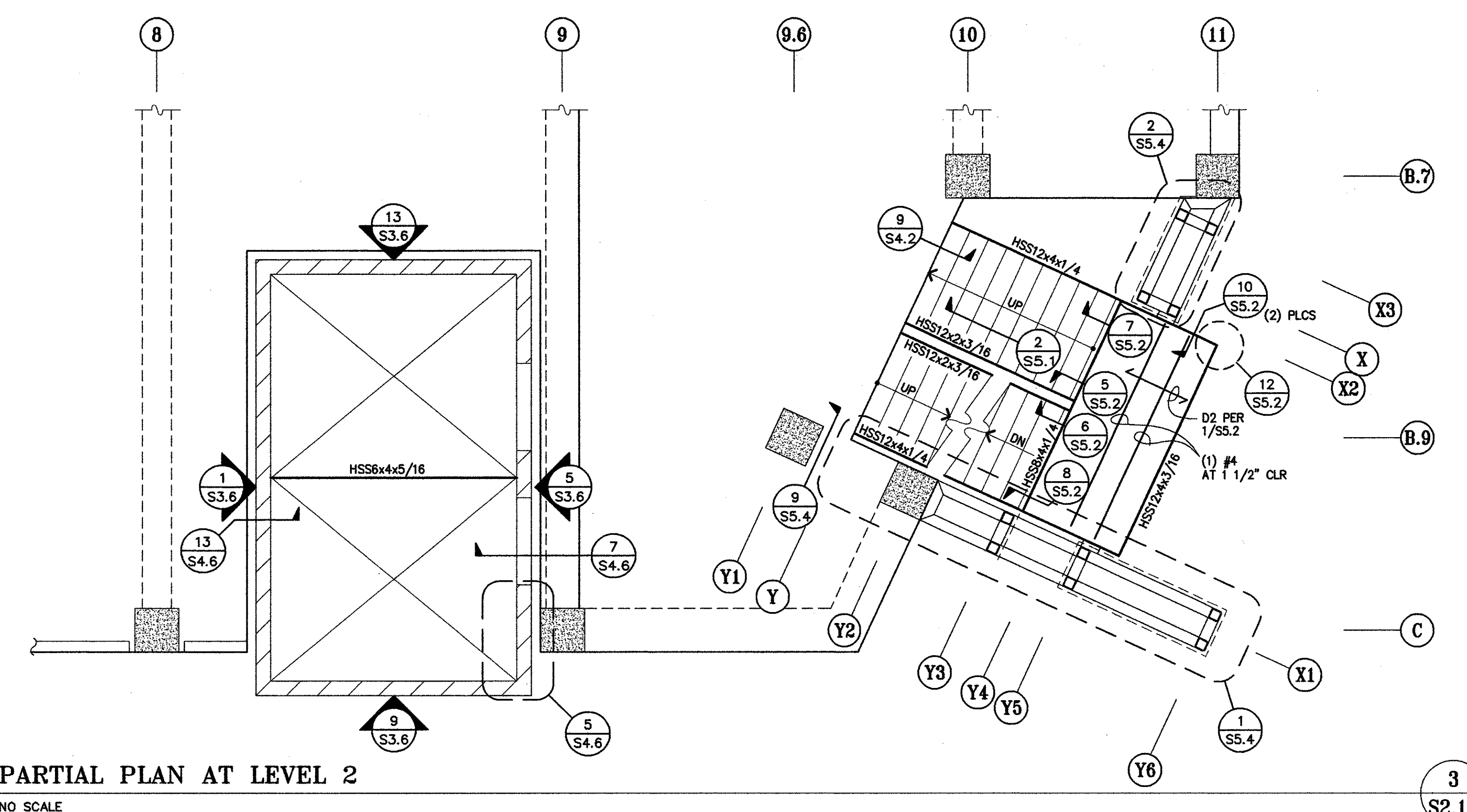
PROJECT NO: 21305-G-50

**PARTIAL PLANS AT ELEVATOR & STAIR**  
**S2.10**



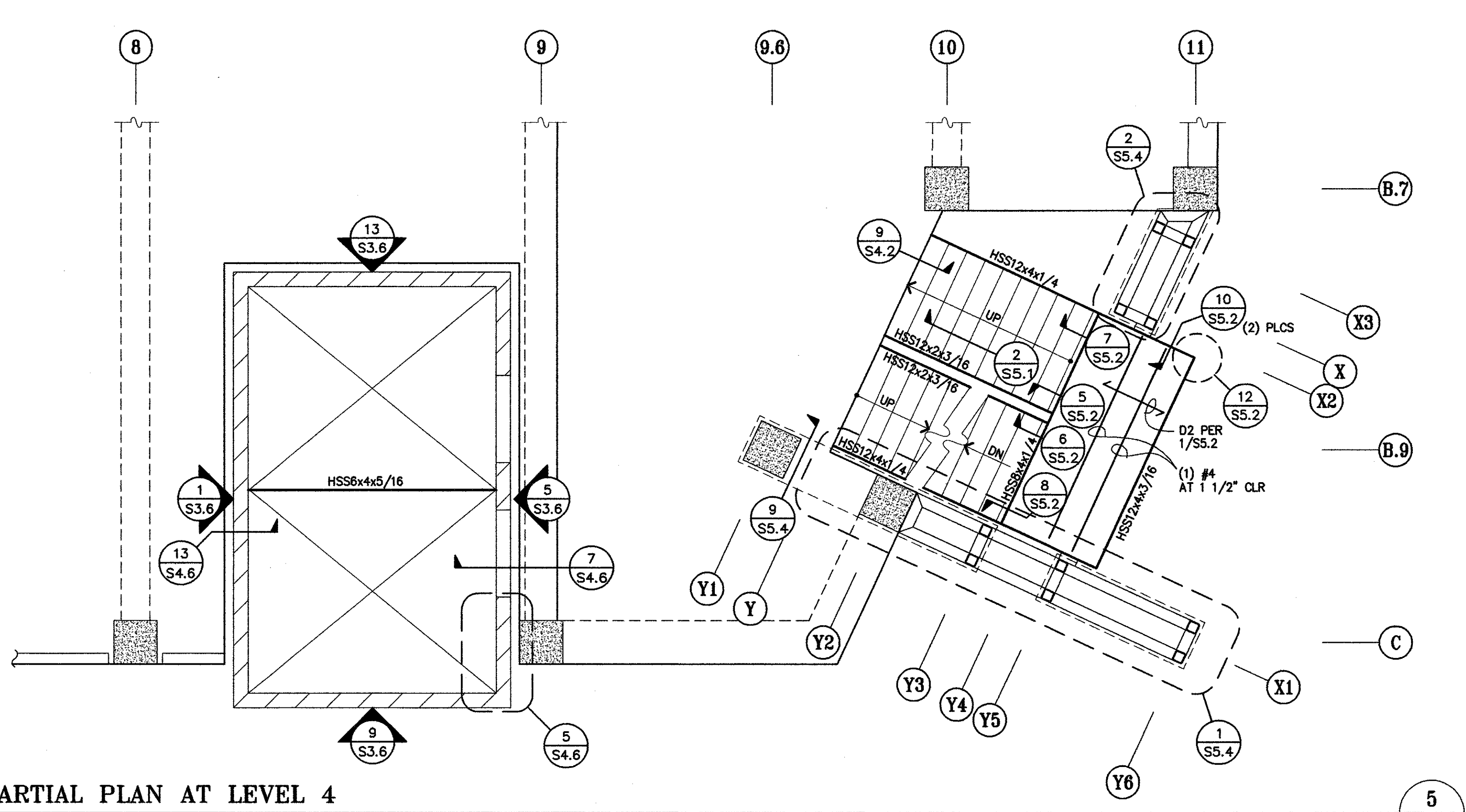
**PARTIAL PLAN AT LEVEL 5**  
NO SCALE

6  
S2.10



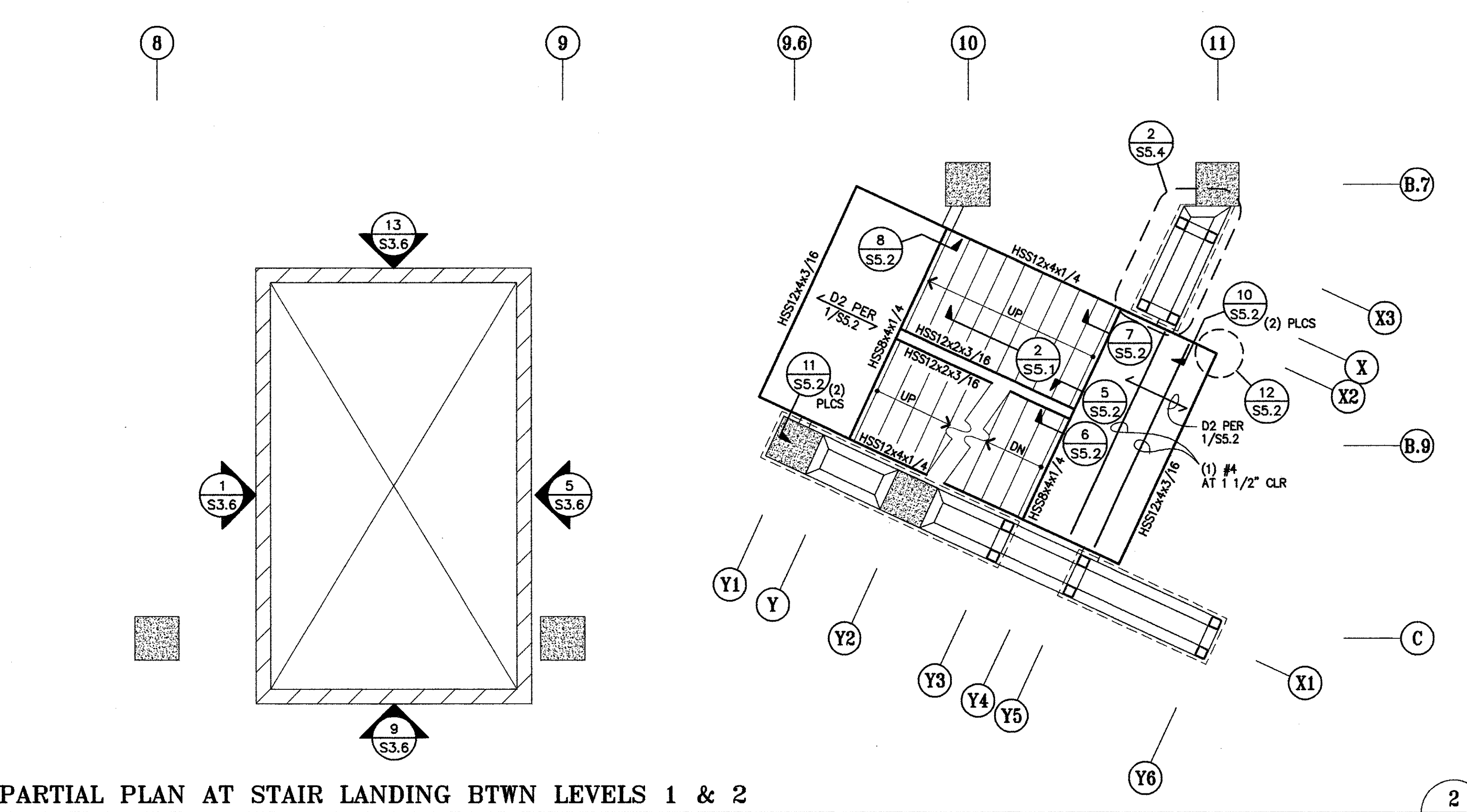
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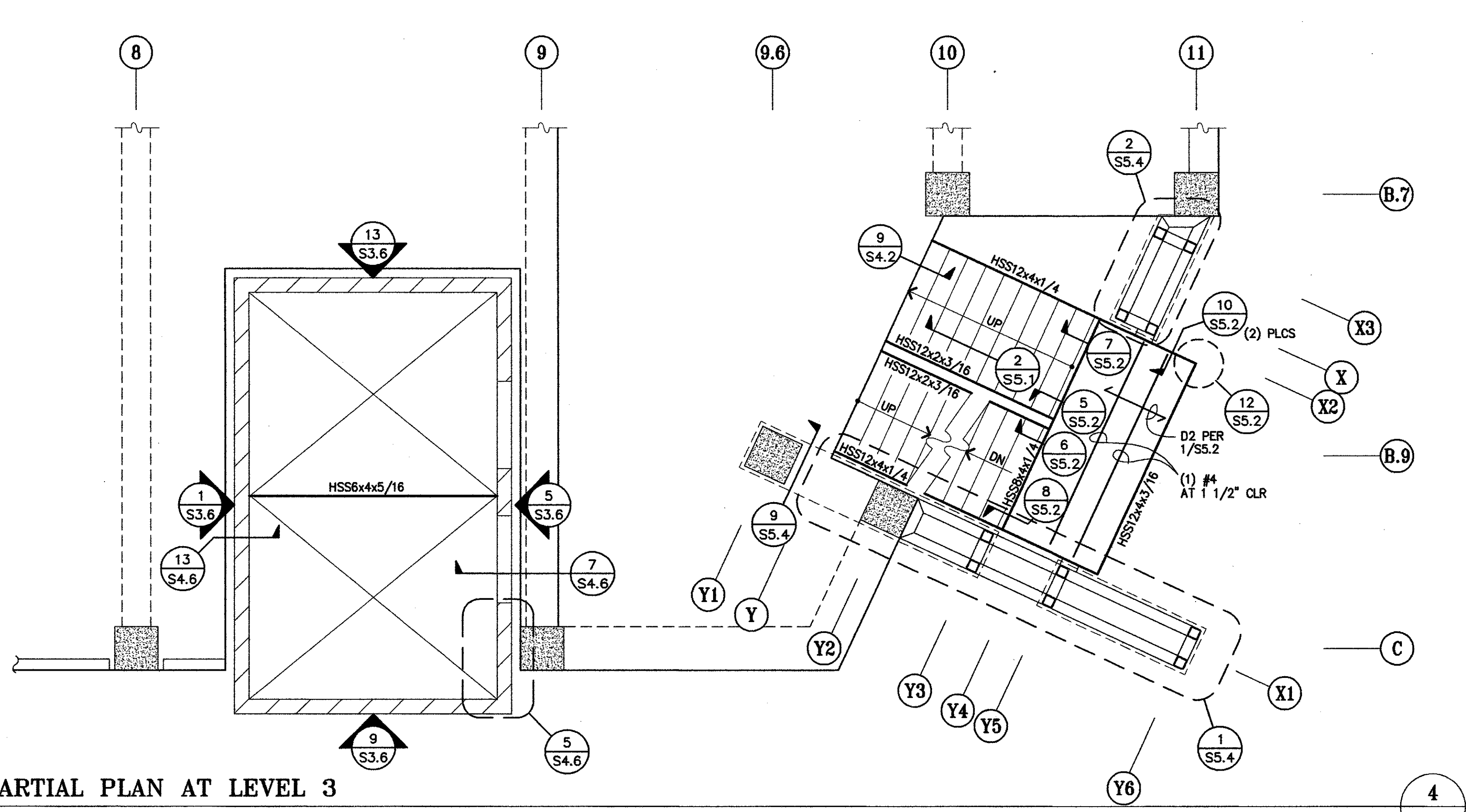
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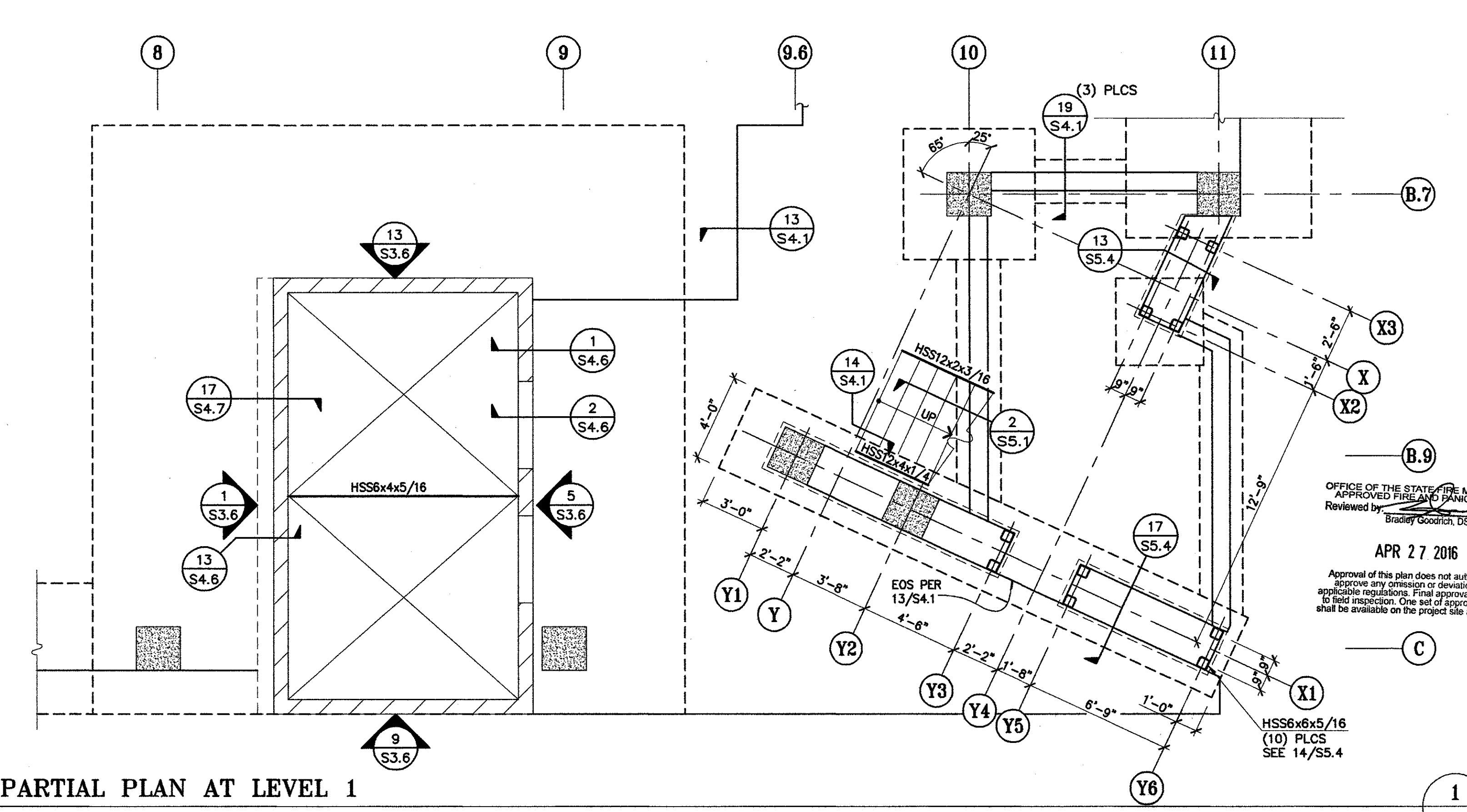
**PARTIAL PLAN AT STAIR LANDING BTWN LEVELS 1 & 2**  
NO SCALE

2  
S2.10



**PARTIAL PLAN AT LEVEL 3**  
NO SCALE

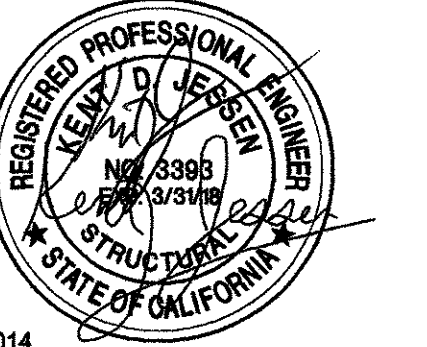
4  
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**PARTIAL PLAN AT LEVEL 1**  
NO SCALE

1  
S2.10





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SUBMITTAL SCHEDULE:

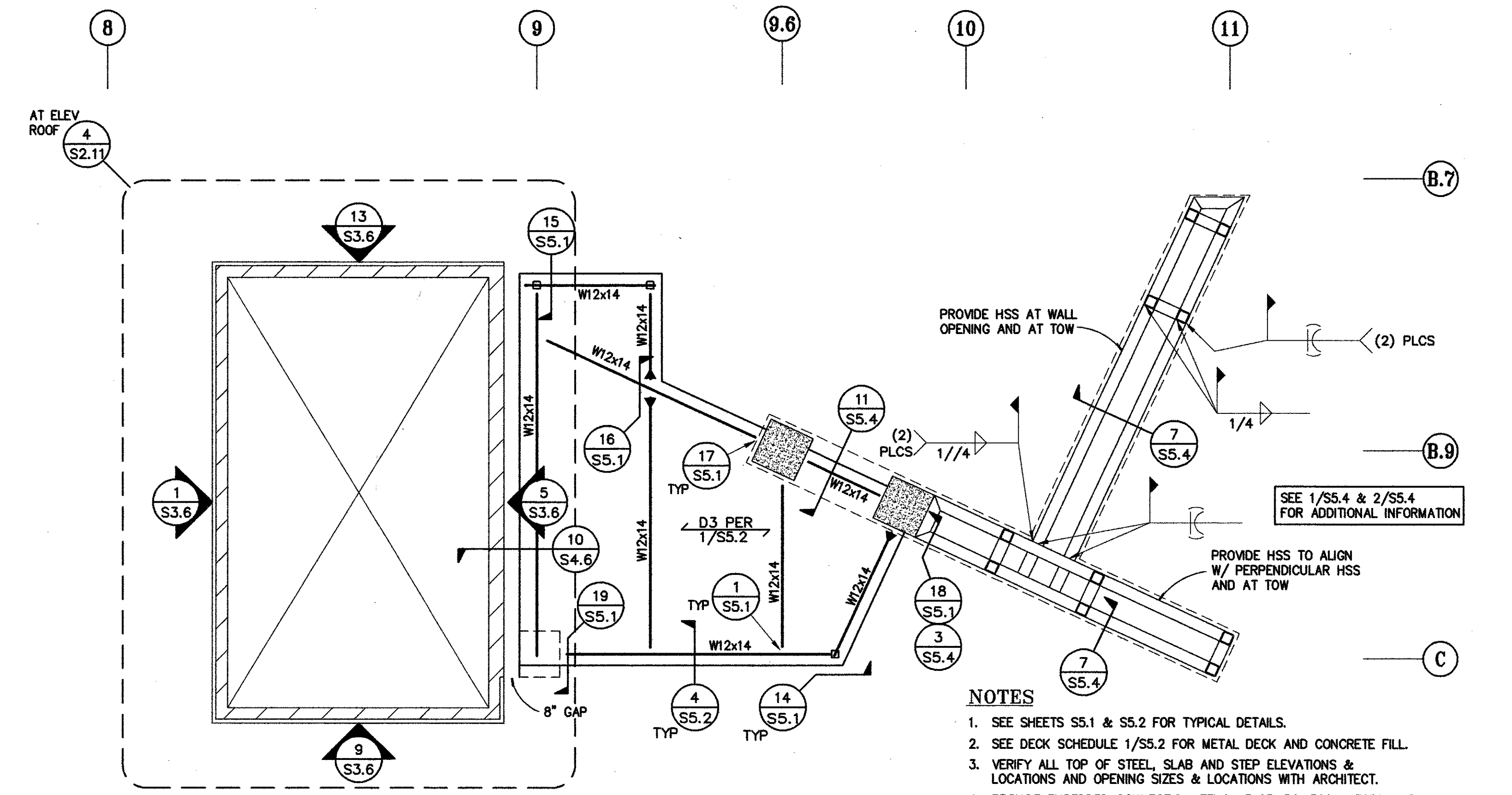
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ASH1011 SFM RESUB 2 11/06/2015  
ASH1015 SFM RESUB 3 03/03/2016

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OFFICE OF REGULATION SERVICES

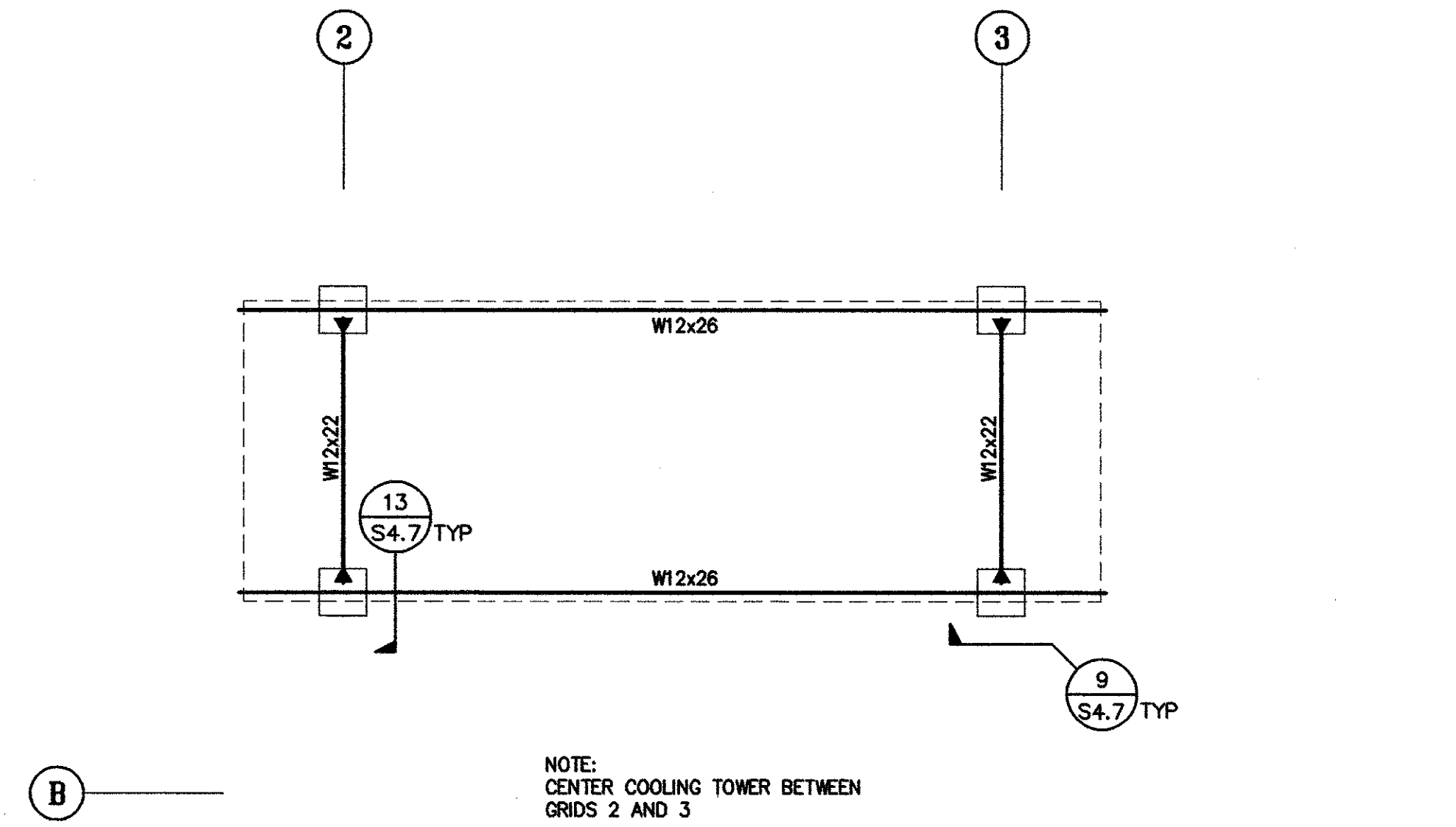
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AC \_\_\_\_\_ DATE \_\_\_\_\_



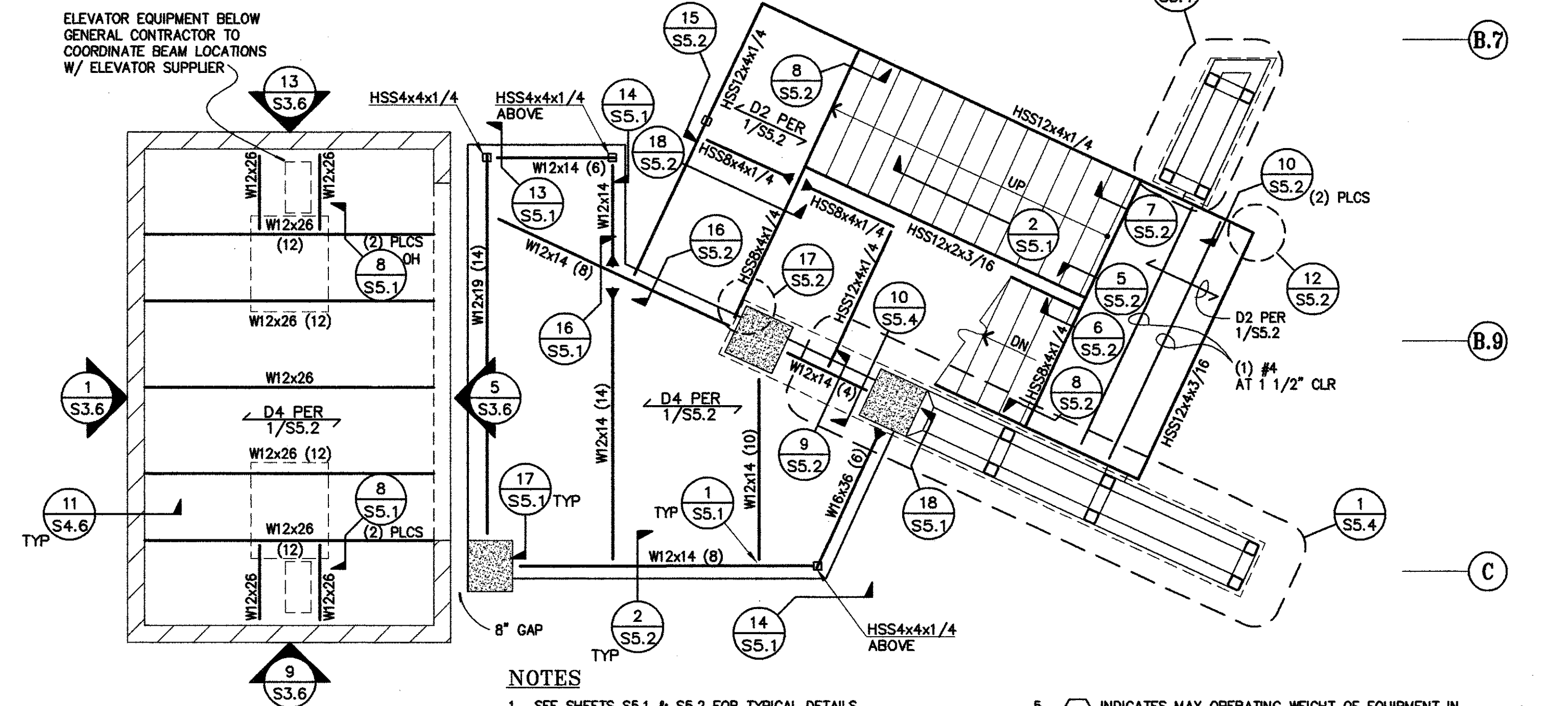
**PARTIAL PLAN AT MACHINE ROOM ROOF**

NO SCALE



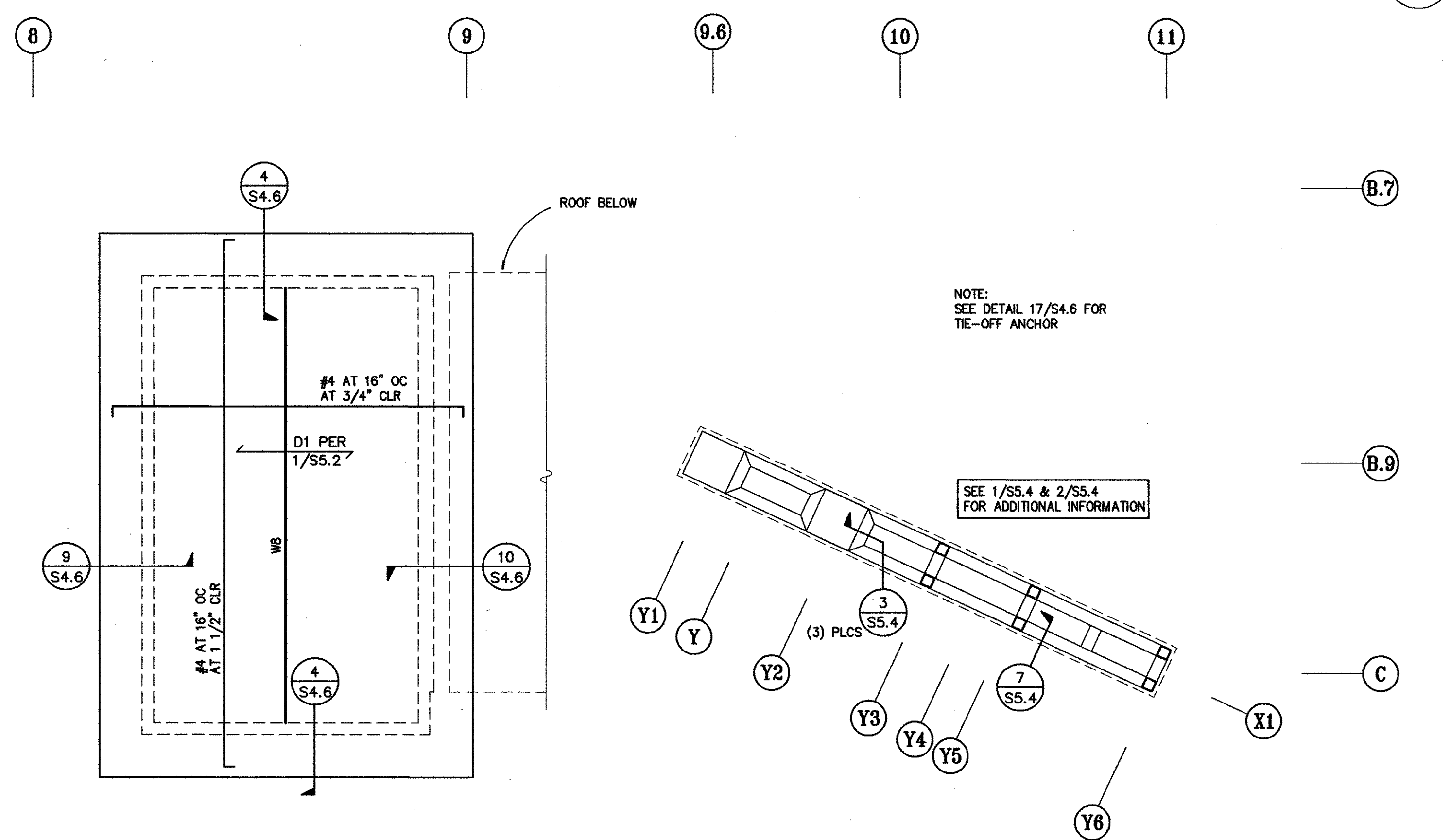
**PARTIAL PLAN AT COOLING TOWER**

NO SCALE



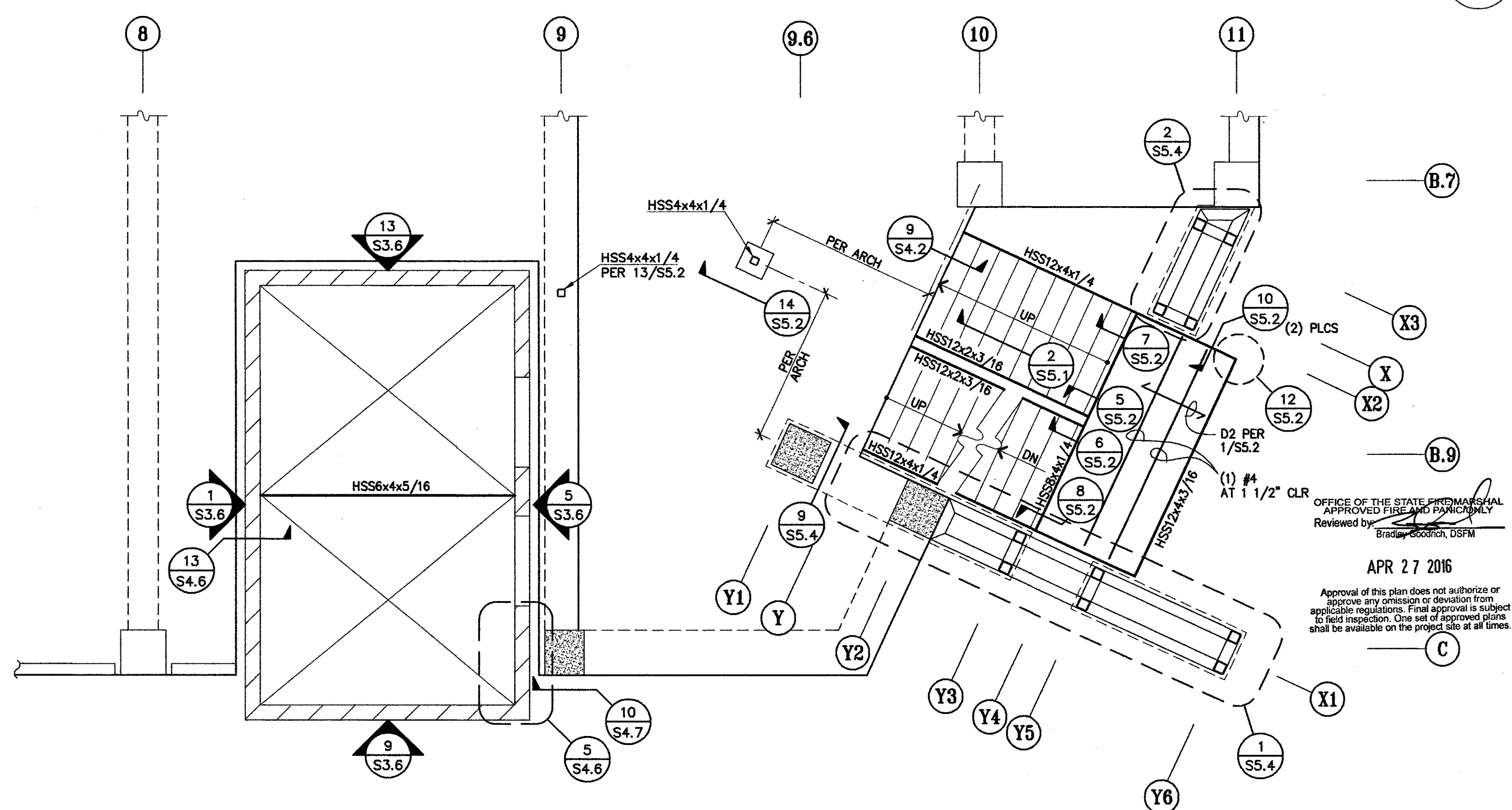
**PARTIAL PLAN AT MACHINE ROOM LEVEL**

NO SCALE



**PARTIAL PLAN AT ELEVATOR ROOF**

NO SCALE

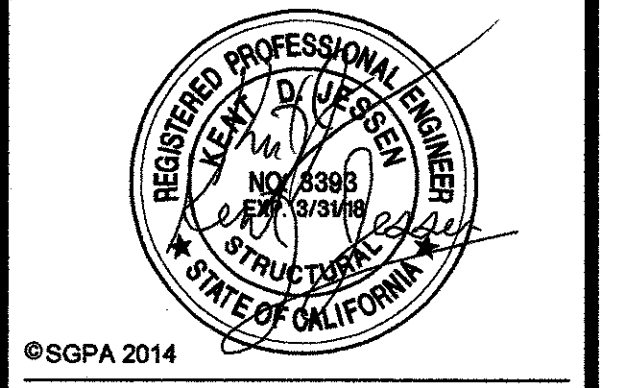


**PARTIAL PLAN AT LEVEL 6**

NO SCALE

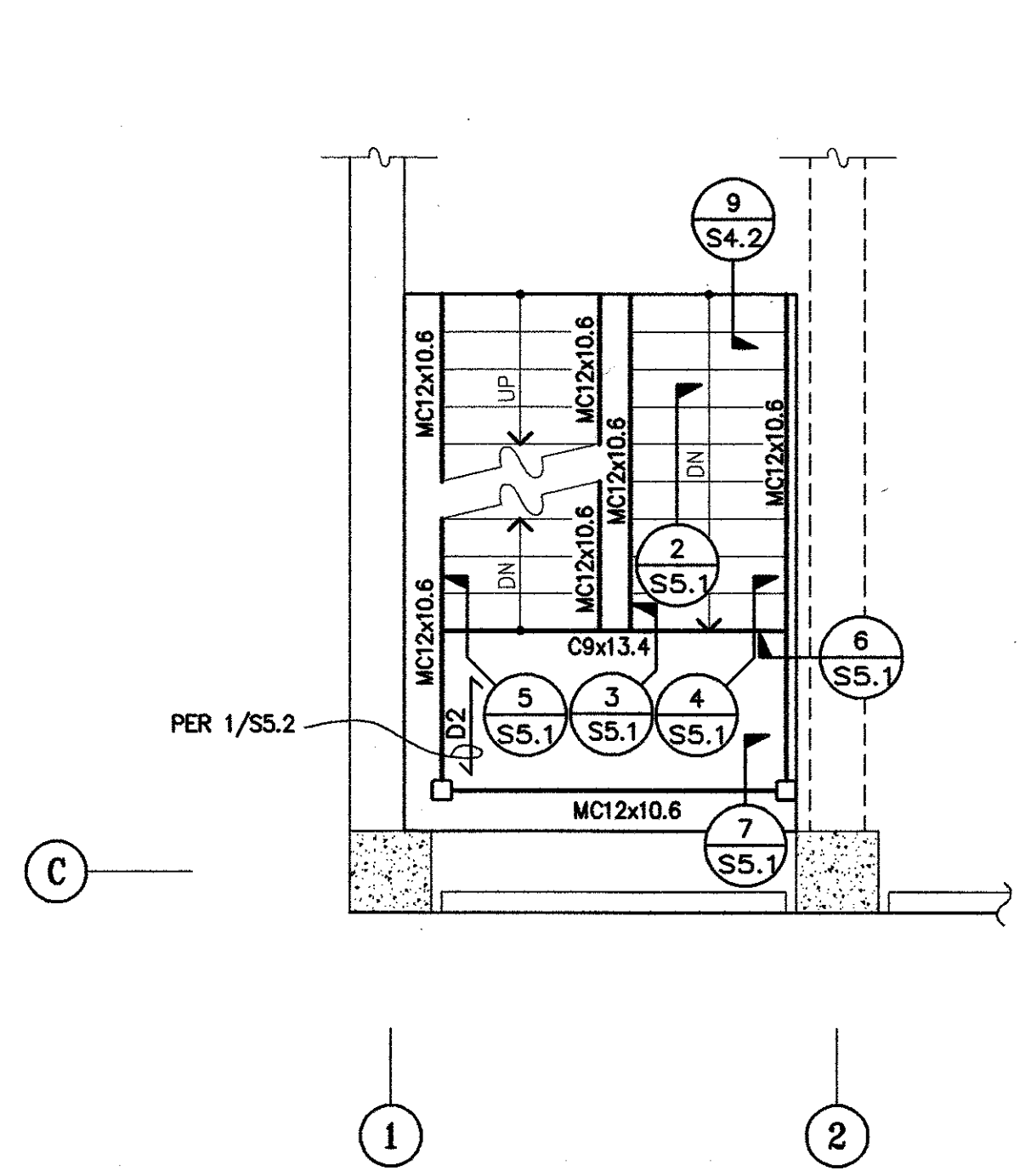
APR 27 2016  
Approval of this plan does not authorize or approve any construction or construction from applicable regulations. Final approval is subject to field inspection. One set of approved plans shall be available on the project site at all times.



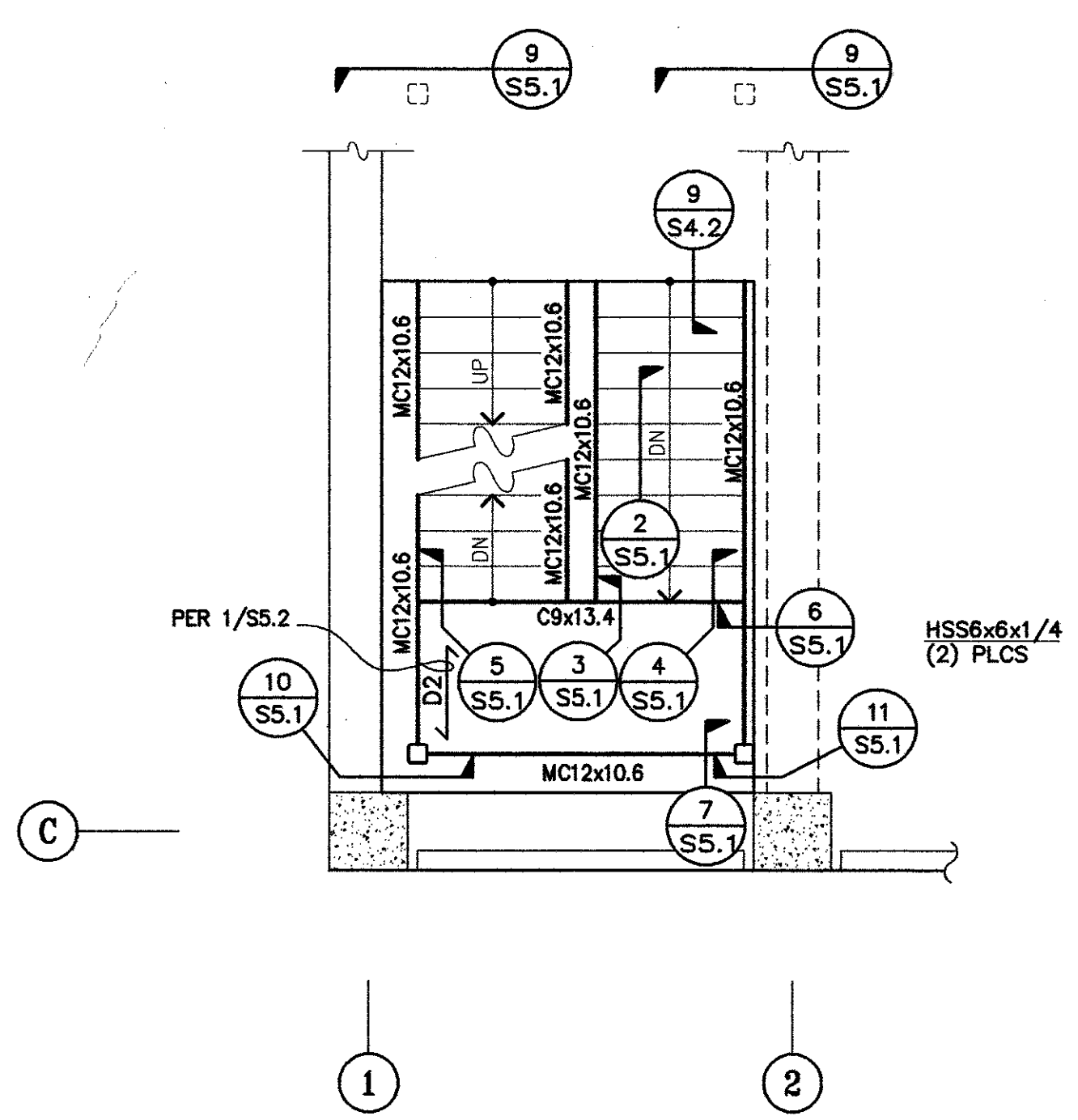


### SOUTH CAMPUS PLAZA DESIGN-BUILD PARKING STRUCTURE

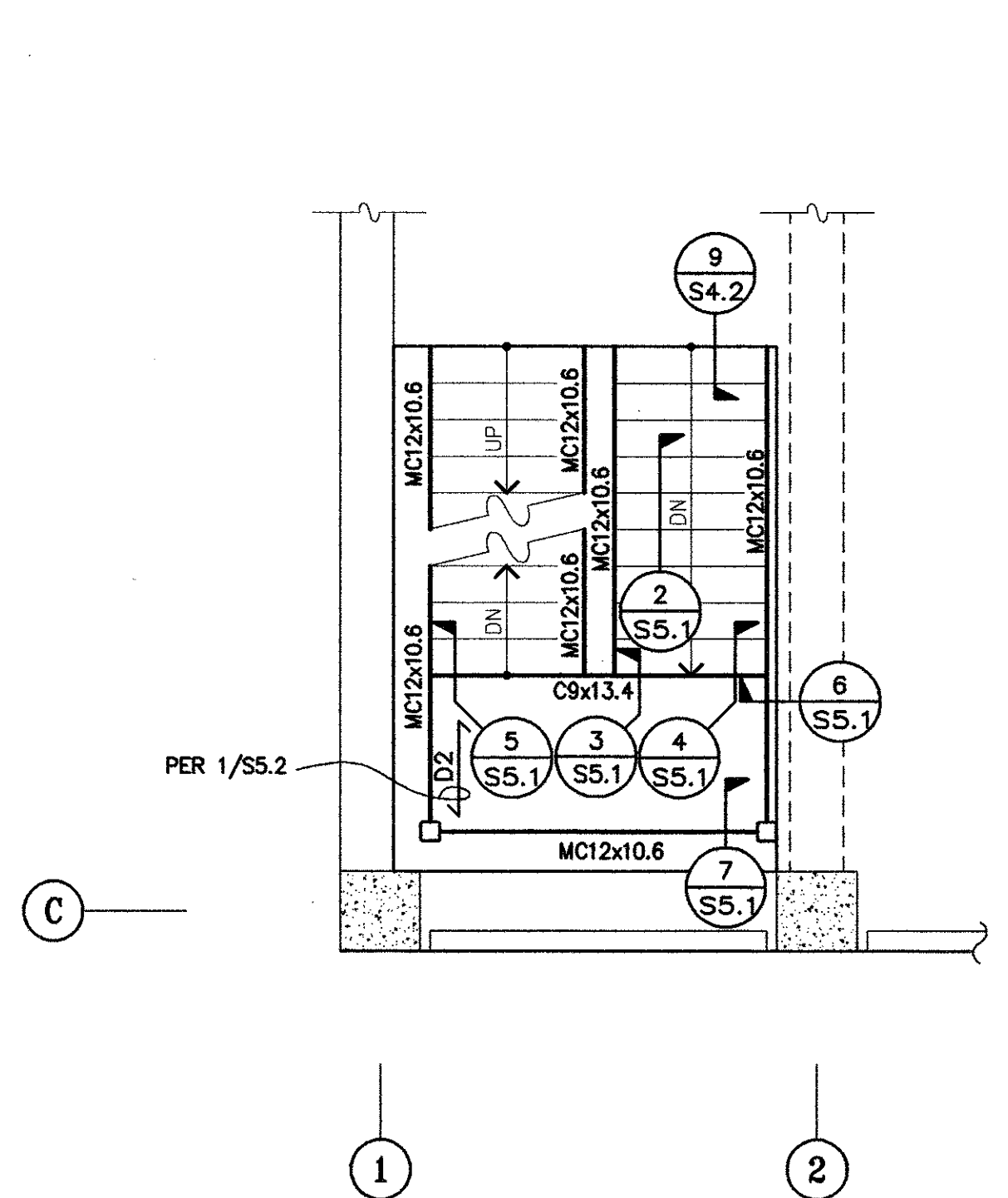
SAN DIEGO STATE UNIVERSITY



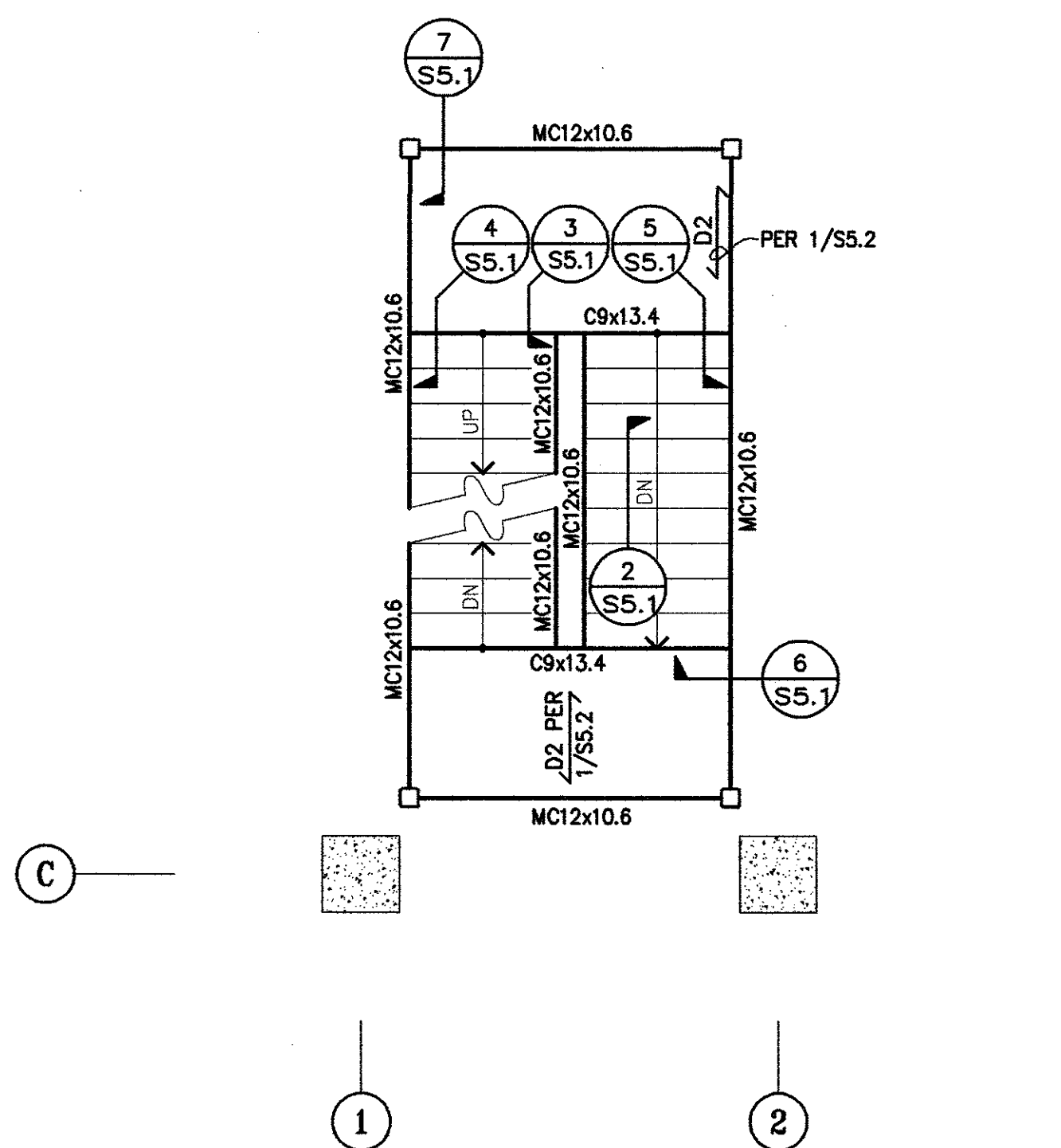
PARTIAL PLAN AT LEVEL 5  
NO SCALE



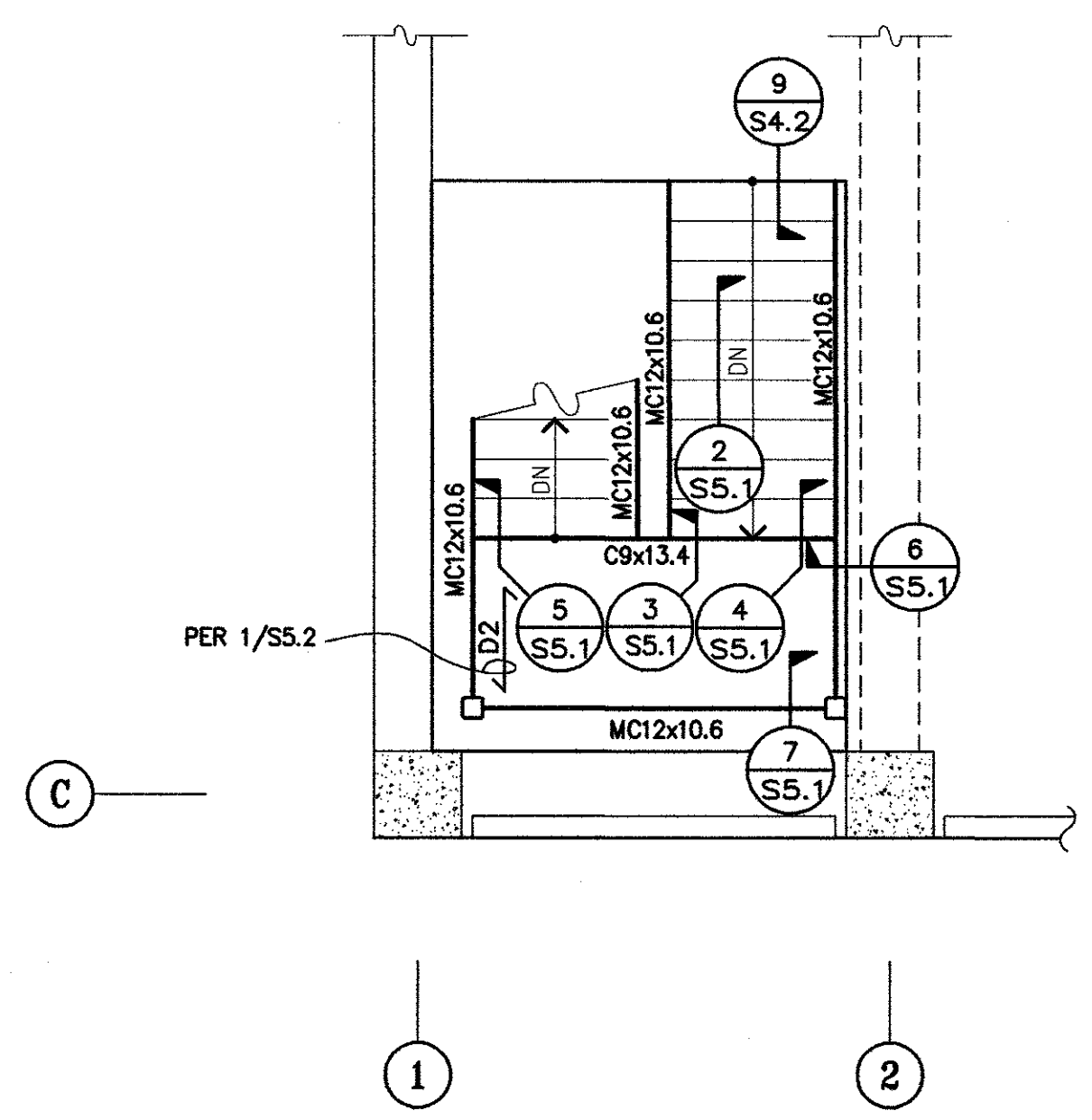
PARTIAL PLAN AT LEVEL 2  
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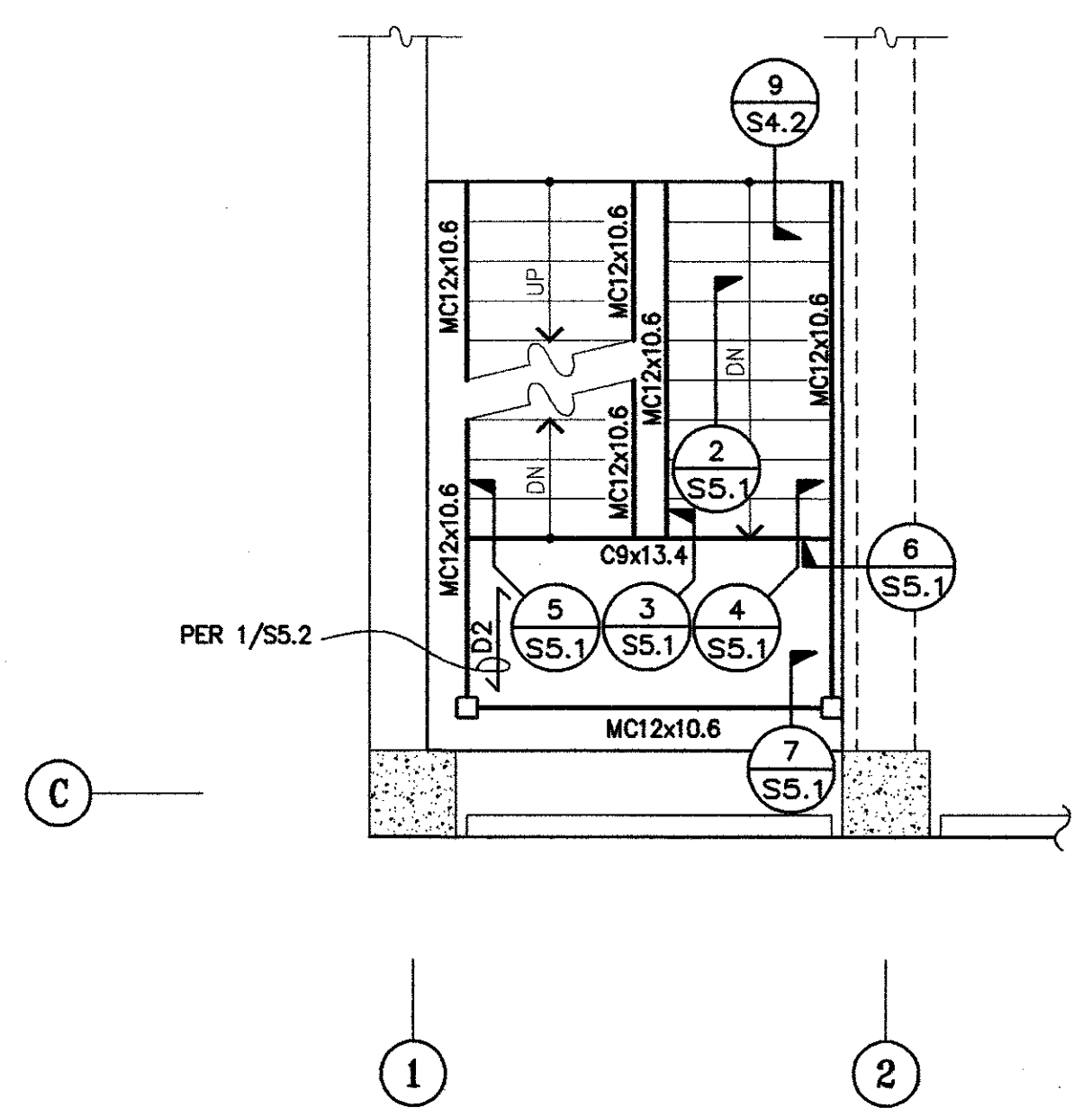
PARTIAL PLAN AT LEVEL 4  
NO SCALE



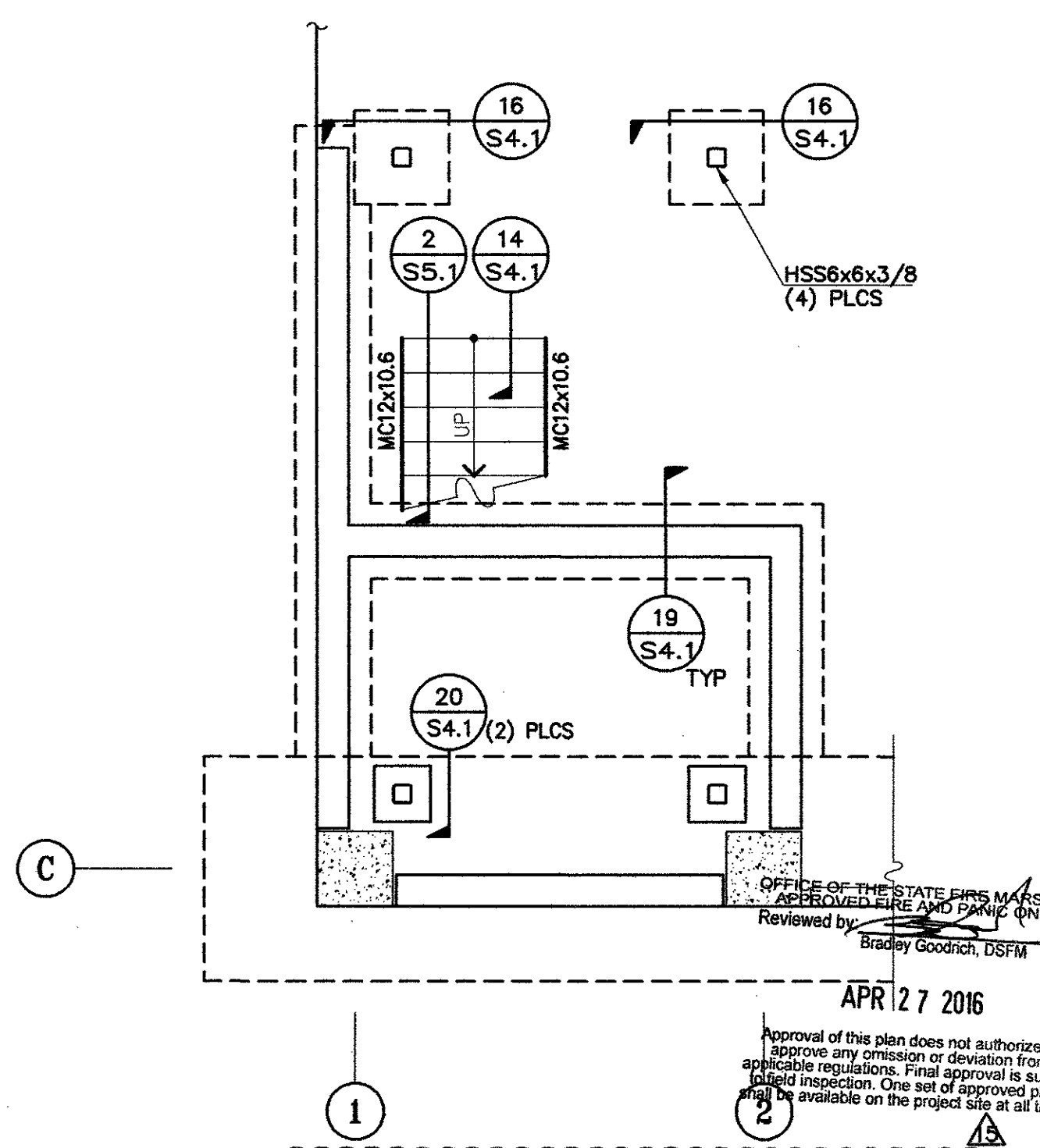
PARTIAL PLAN AT STAIR LANDING BTWN LEVELS 1 & 2  
NO SCALE



PARTIAL PLAN AT LEVEL 6  
NO SCALE



PARTIAL PLAN AT LEVEL 3  
NO SCALE



PARTIAL PLAN AT LEVEL 1  
NO SCALE

SUBMITTAL SCHEDULE:

SCHEMATIC DESIGN	04/17/2014
50% PRELIM. DESIGN	05/14/2014
100% PRELIM. DESIGN	05/28/2014
50% CONST. DOCS.	07/02/2014
95% CONST. DOCS.	08/07/2014
100% BACKCHECK	11/10/2014
100% BACKCHECK 2	01/22/2015
100% BACKCHECK 3	03/20/2015
ASH#011 SFM RESUB 2	11/06/2015
ASH#015 SFM RESUB 3	03/03/2016

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DIVISION OF THE STATE ARCHITECT  
OFFICE OF REGULATION SERVICES

FILE # 04-114204  
AC \_\_\_\_\_ DATE: \_\_\_\_\_  
PROJECT NO: 21305-G-50

APR 27 2016  
Approval of this plan does not authorize any change or deviation from the conditions shown hereon. Final approval is subject to the applicable regulations. Final approval is not to be construed as a warranty of fitness for use. One set of approved plans shall be retained on the project site at all times.

NOTE:  
1. PROVIDE SPRAY APPLIED FIRE PROOFING TO HSS COLUMNS AND CONNECTIONS TO CONCRETE STRUCTURE PER UL 710 ON SHEET A-008.

### PARTIAL PLANS AT STAIR

# S2.12





**SUBMITTAL SCHEDULE:**

SCHMATIC DESIGN	04/17/2014
50% PRELIM. DESIGN	05/14/2014
100% PRELIM. DESIGN	05/28/2014
50% CONST. DOCS.	07/02/2014
95% CONST. DOCS.	08/07/2014
100% BACKCHECK	11/10/2014
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AS10015 SFM RESUB 3	03/03/2016

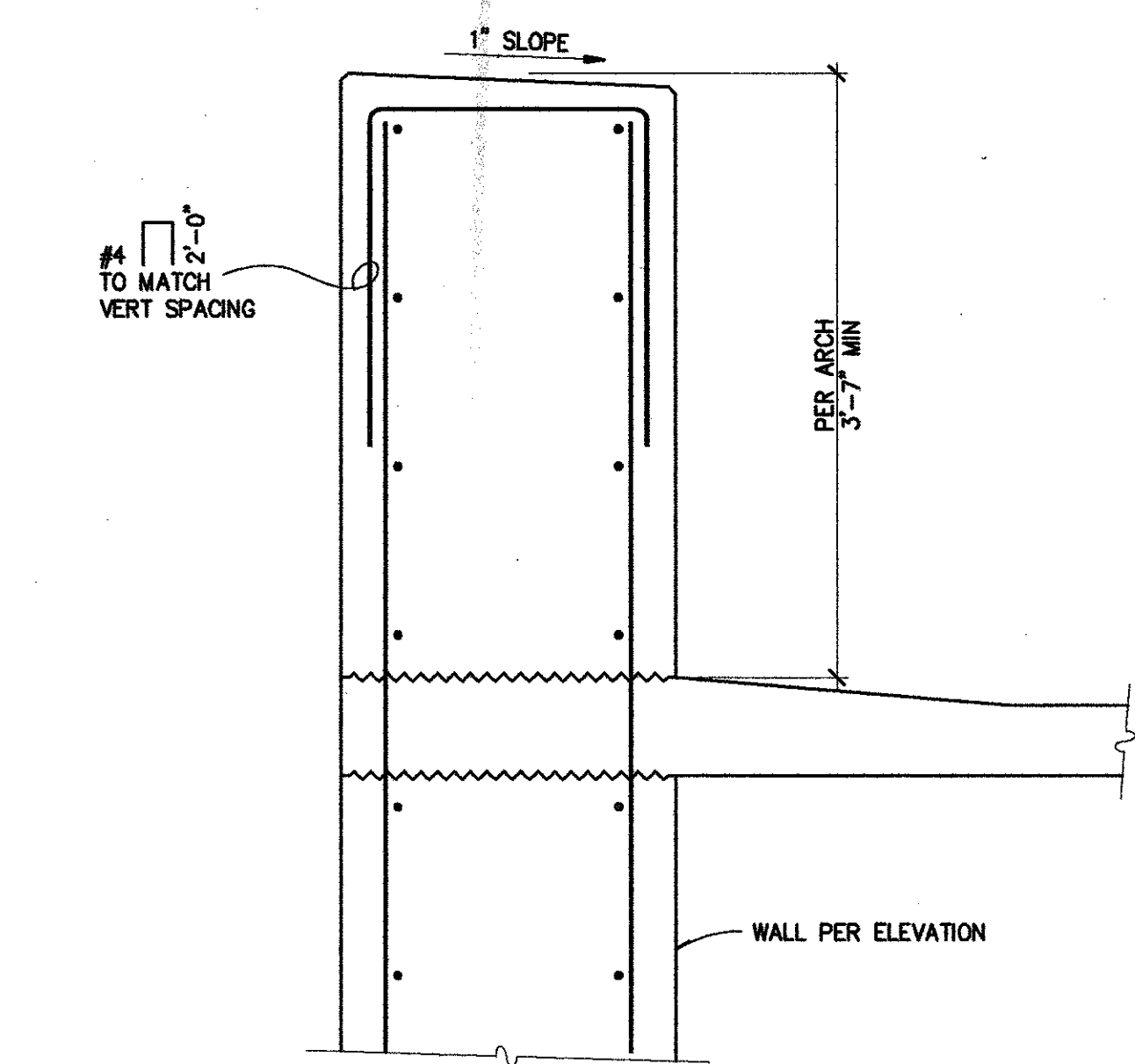
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OFFICE OF REGULATION SERVICES

FILE #  
APR # 04-114204  
AC \_\_\_\_\_ DATE \_\_\_\_\_

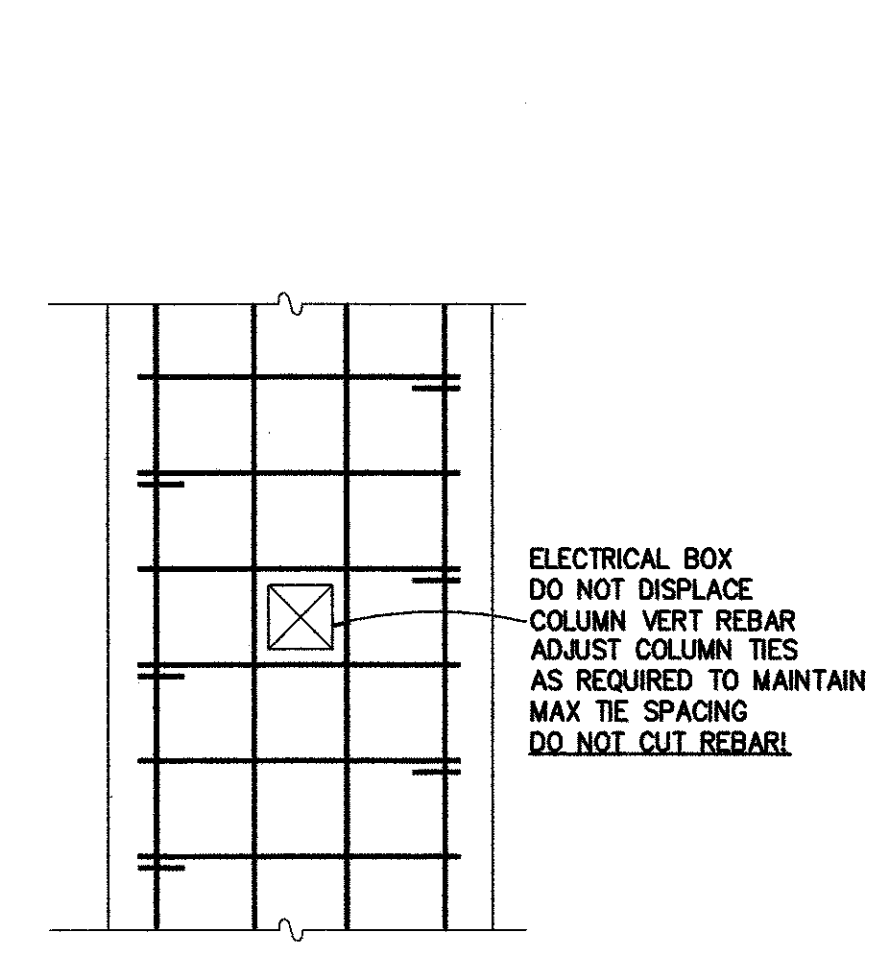
PROJECT NO: 21305-G-50

**COLUMN SCHEDULE & DETAILS**

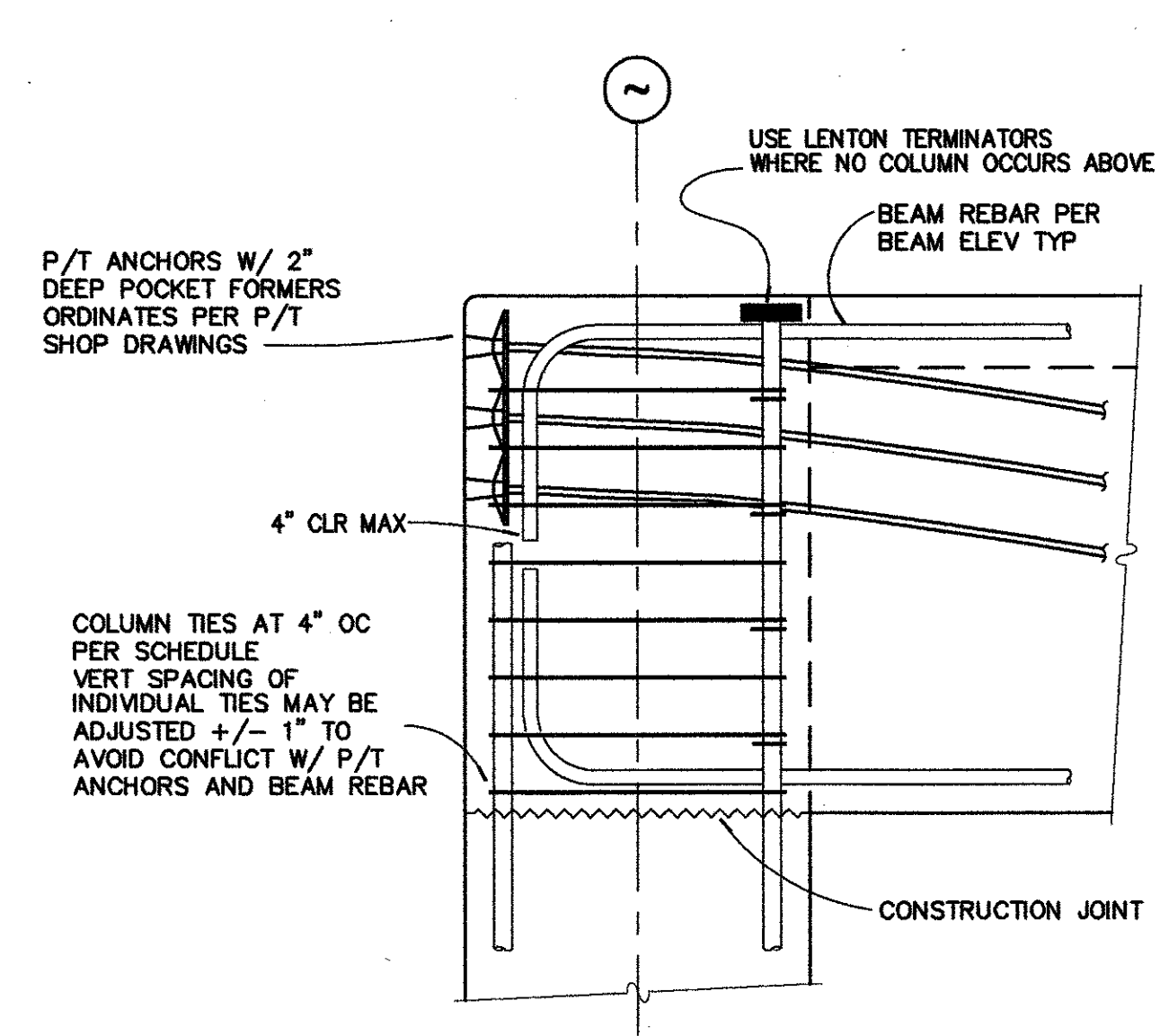
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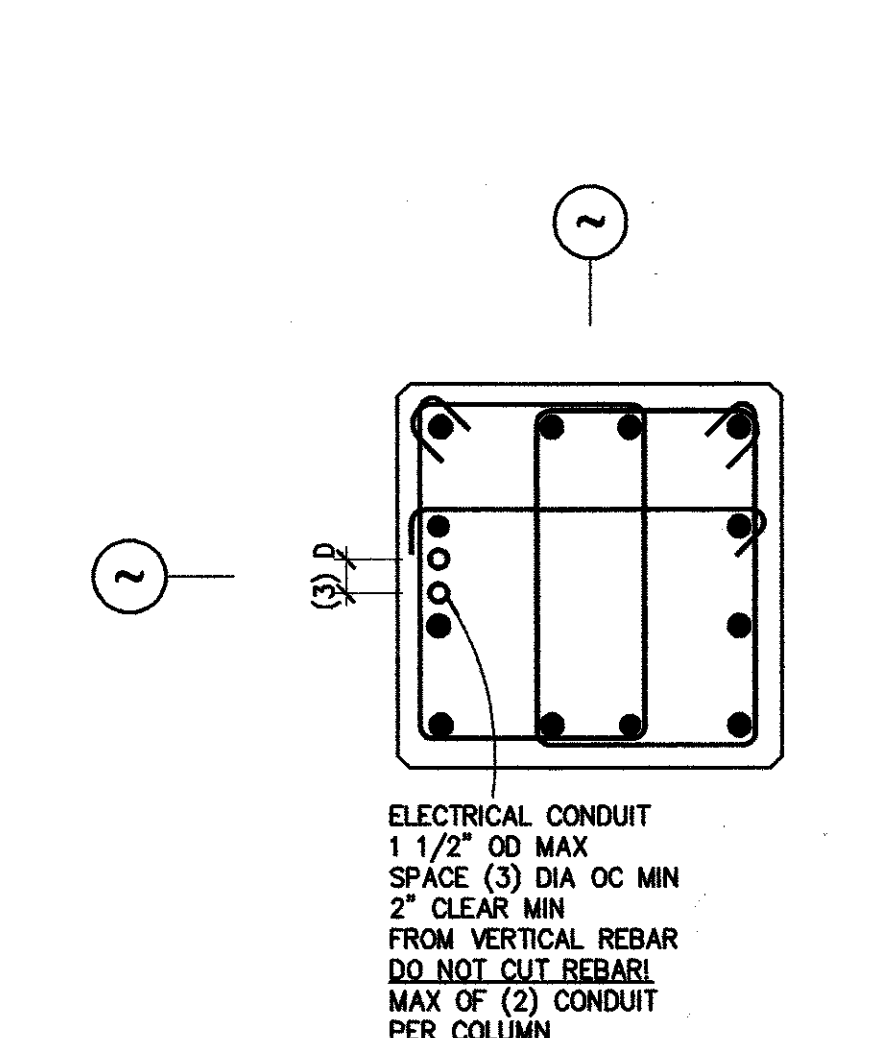
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S3.1



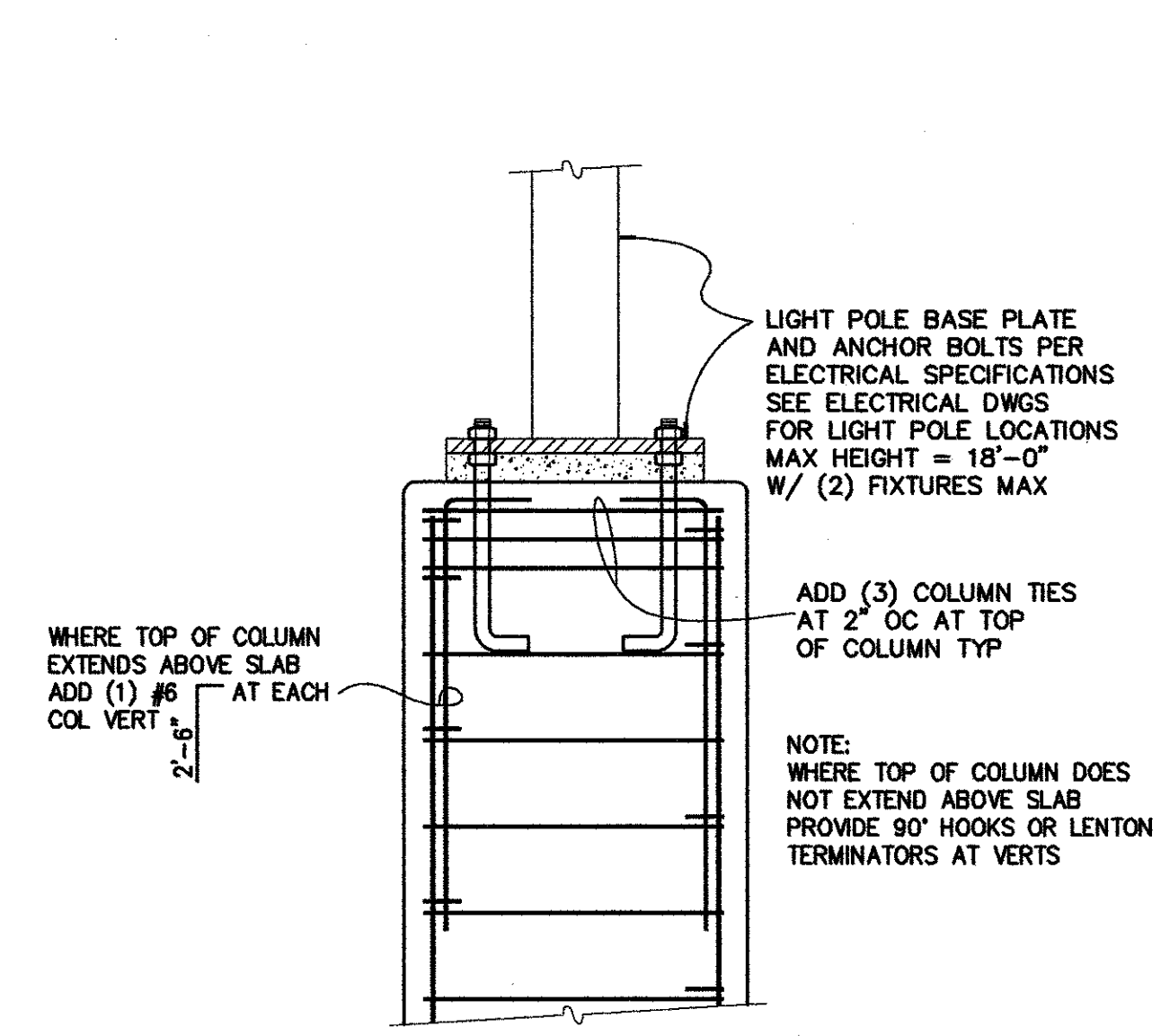
**DETAIL 16**  
NO SCALE  
S3.1



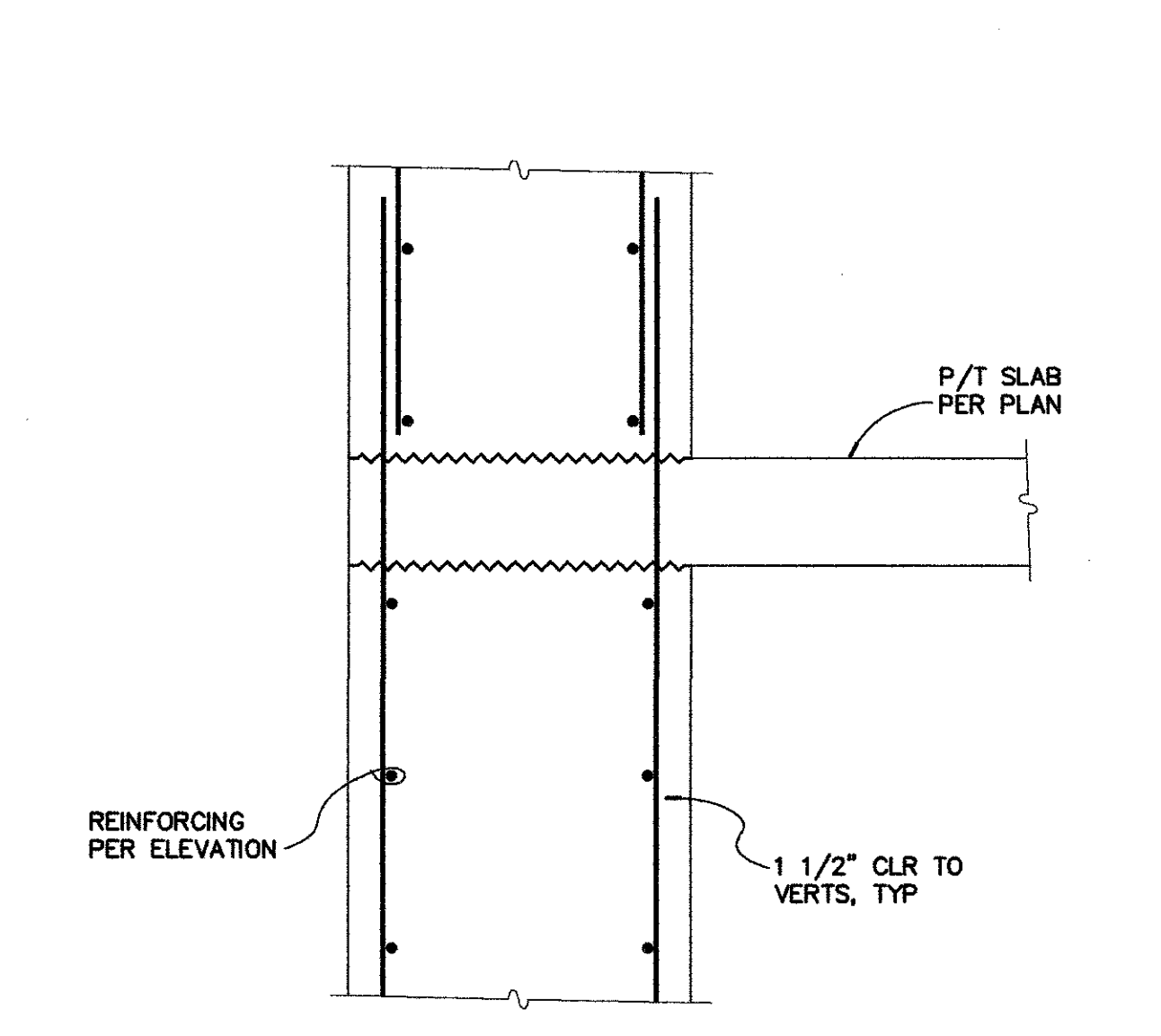
**SECTION AT COLUMN-BEAM JOINT 12**  
NO SCALE  
S3.1



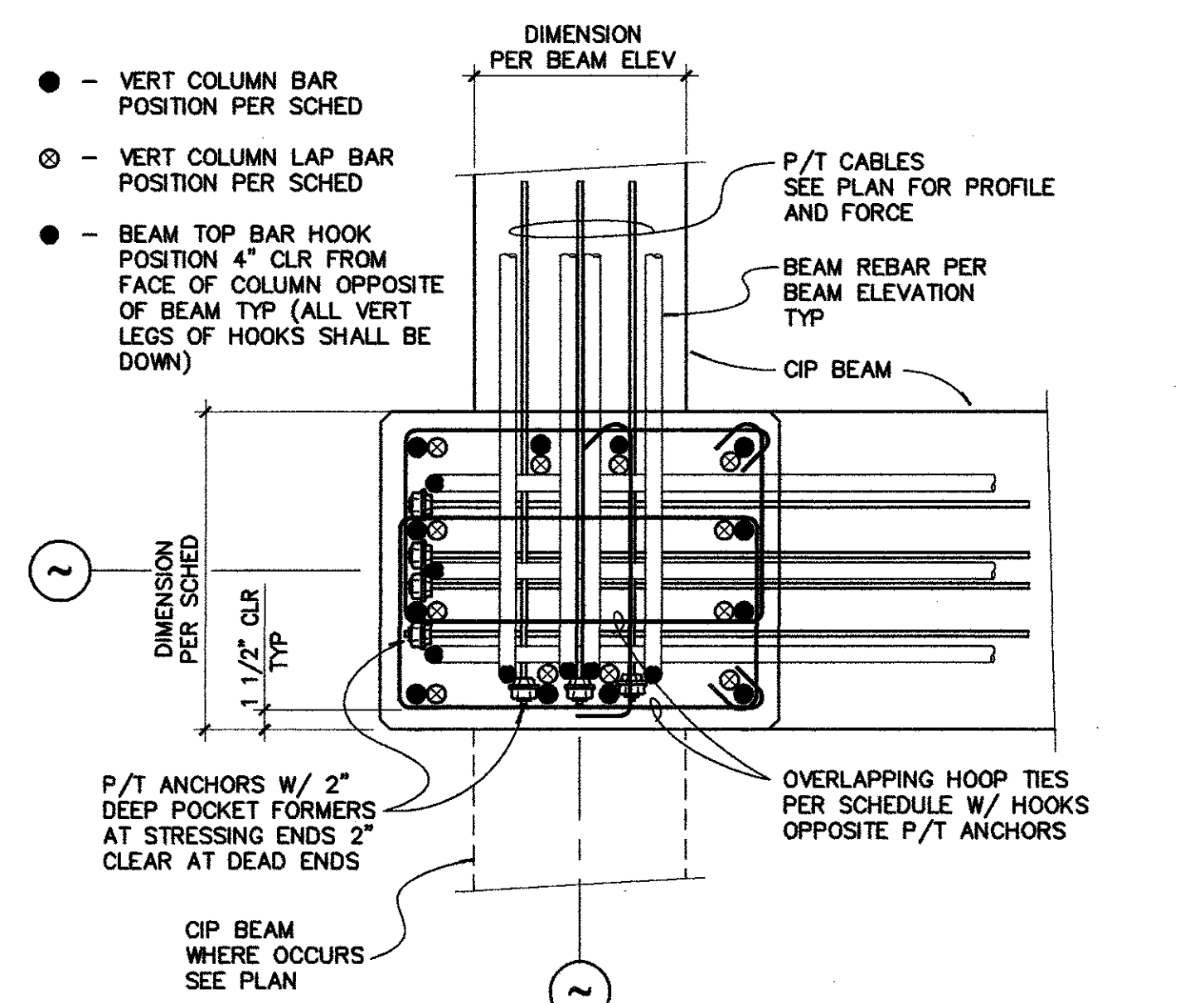
**PLAN-SECTION 8**  
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S3.1



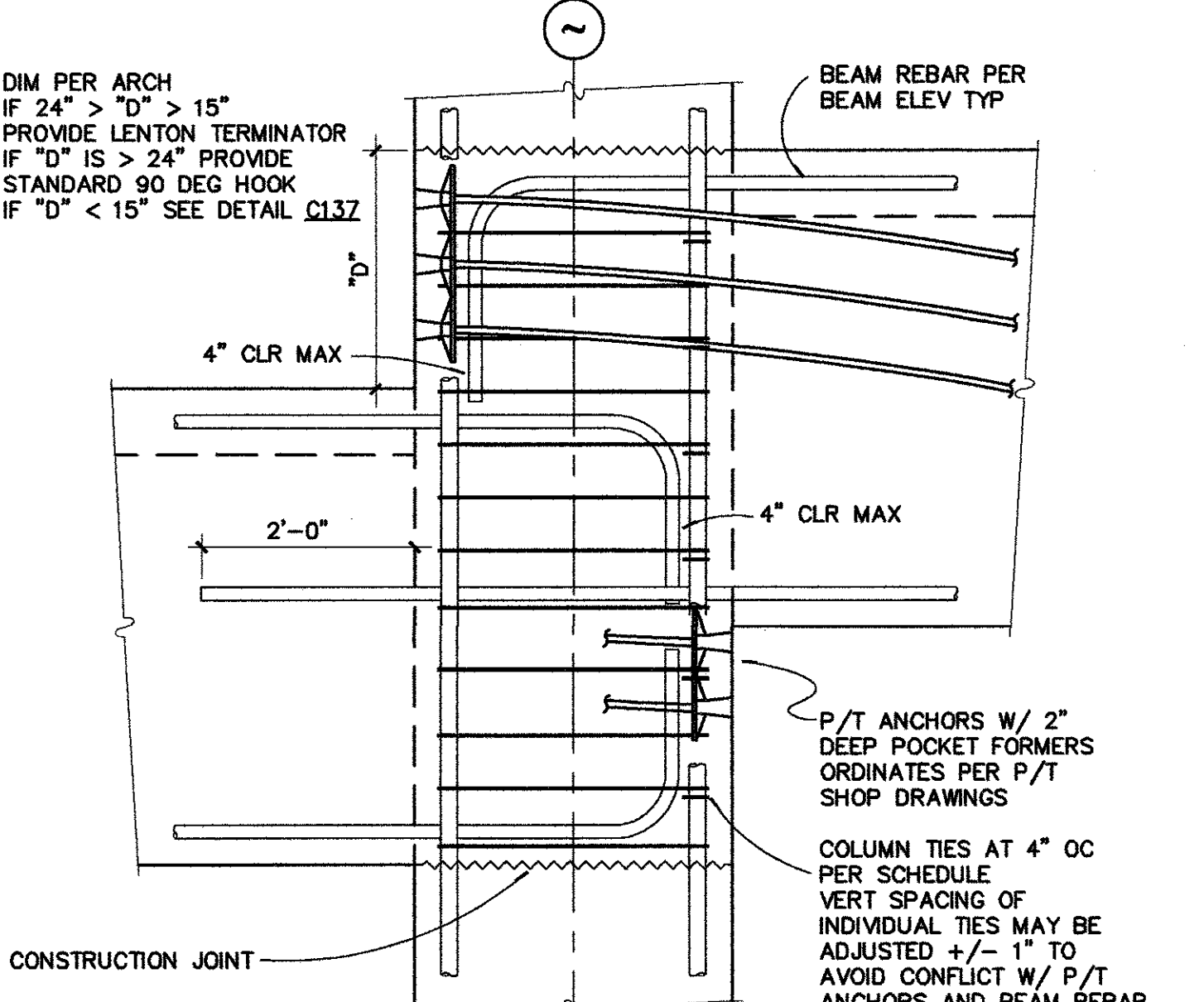
**SECTION 4**  
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S3.1



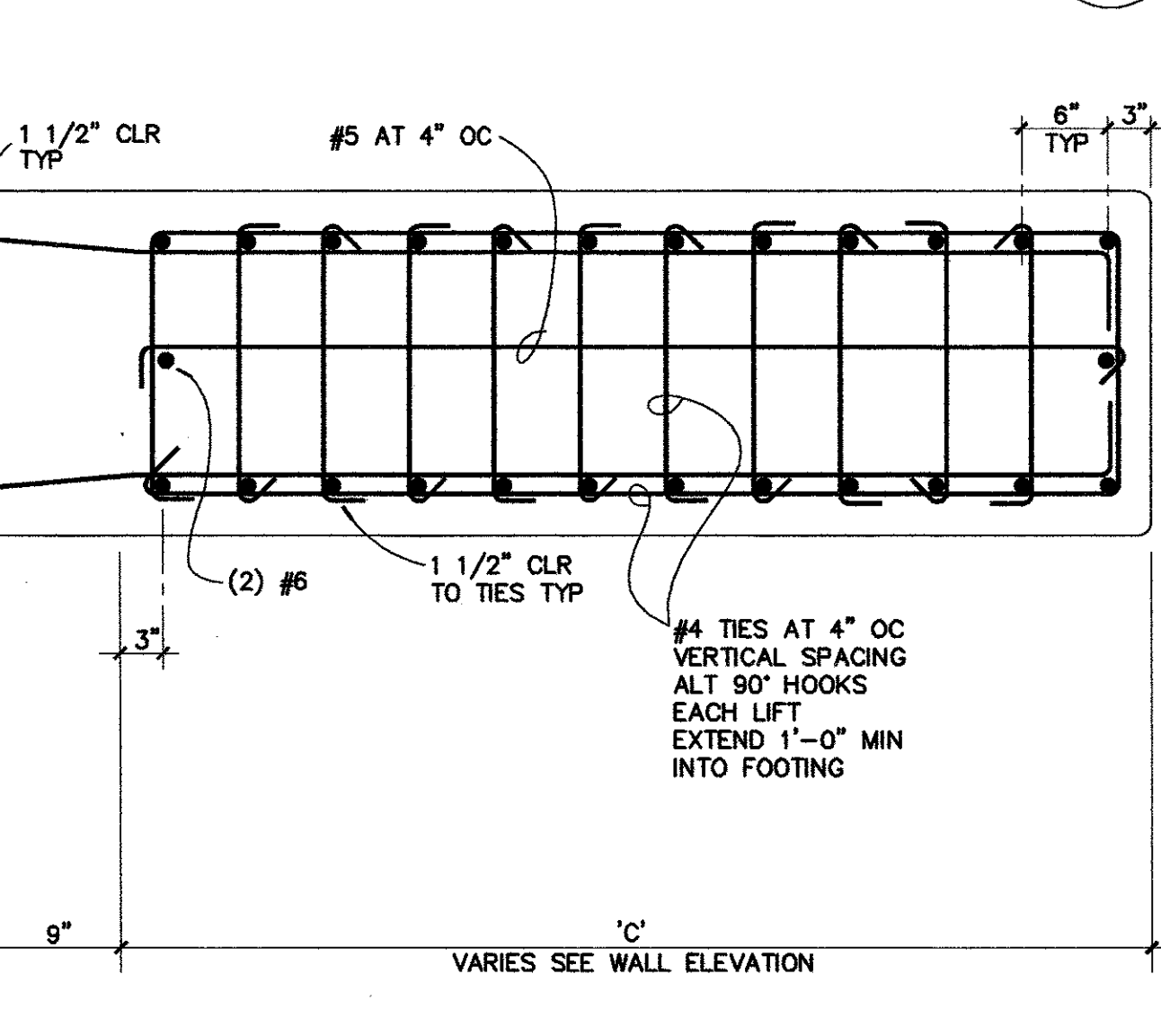
**SECTION 19**  
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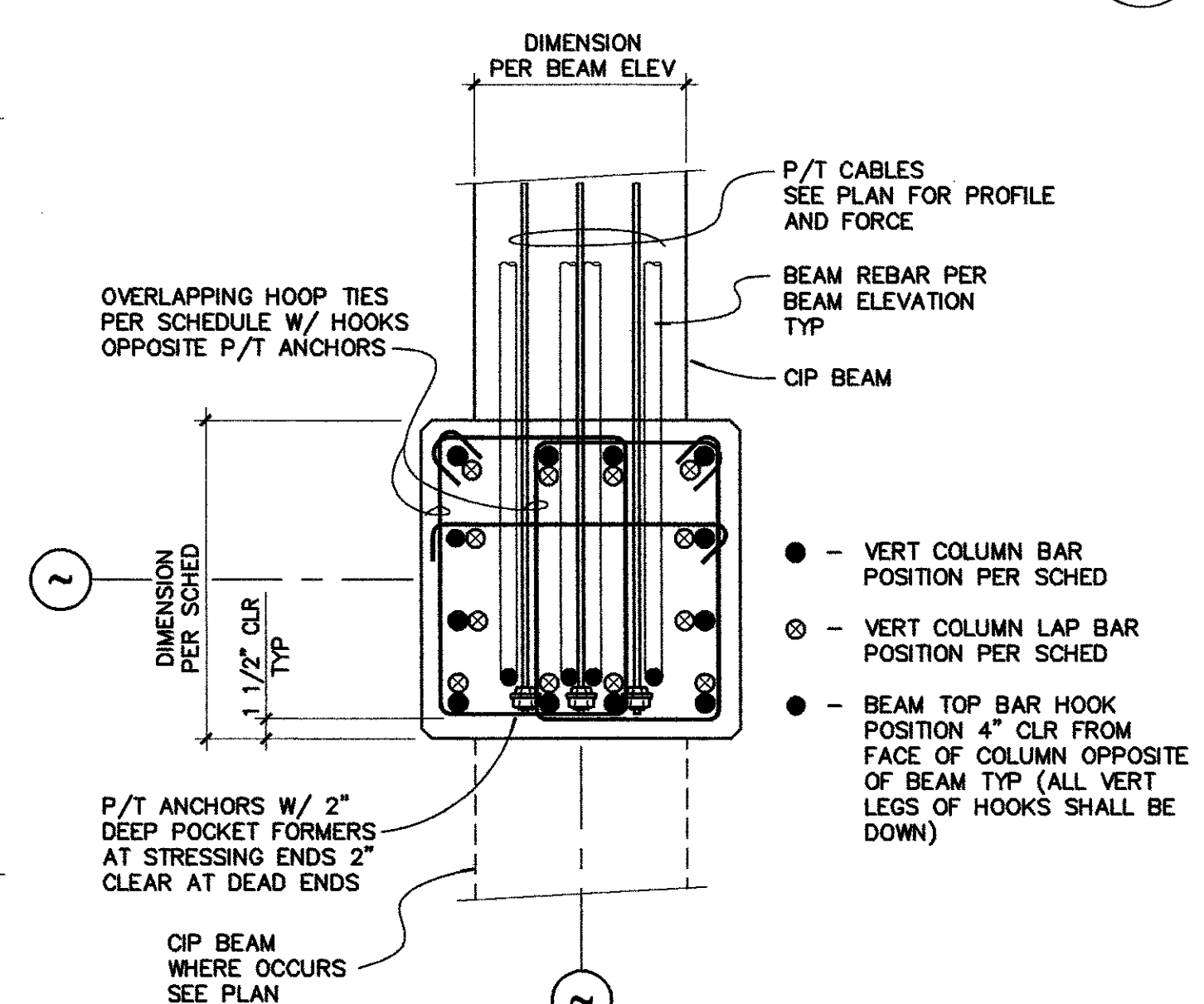
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S3.1



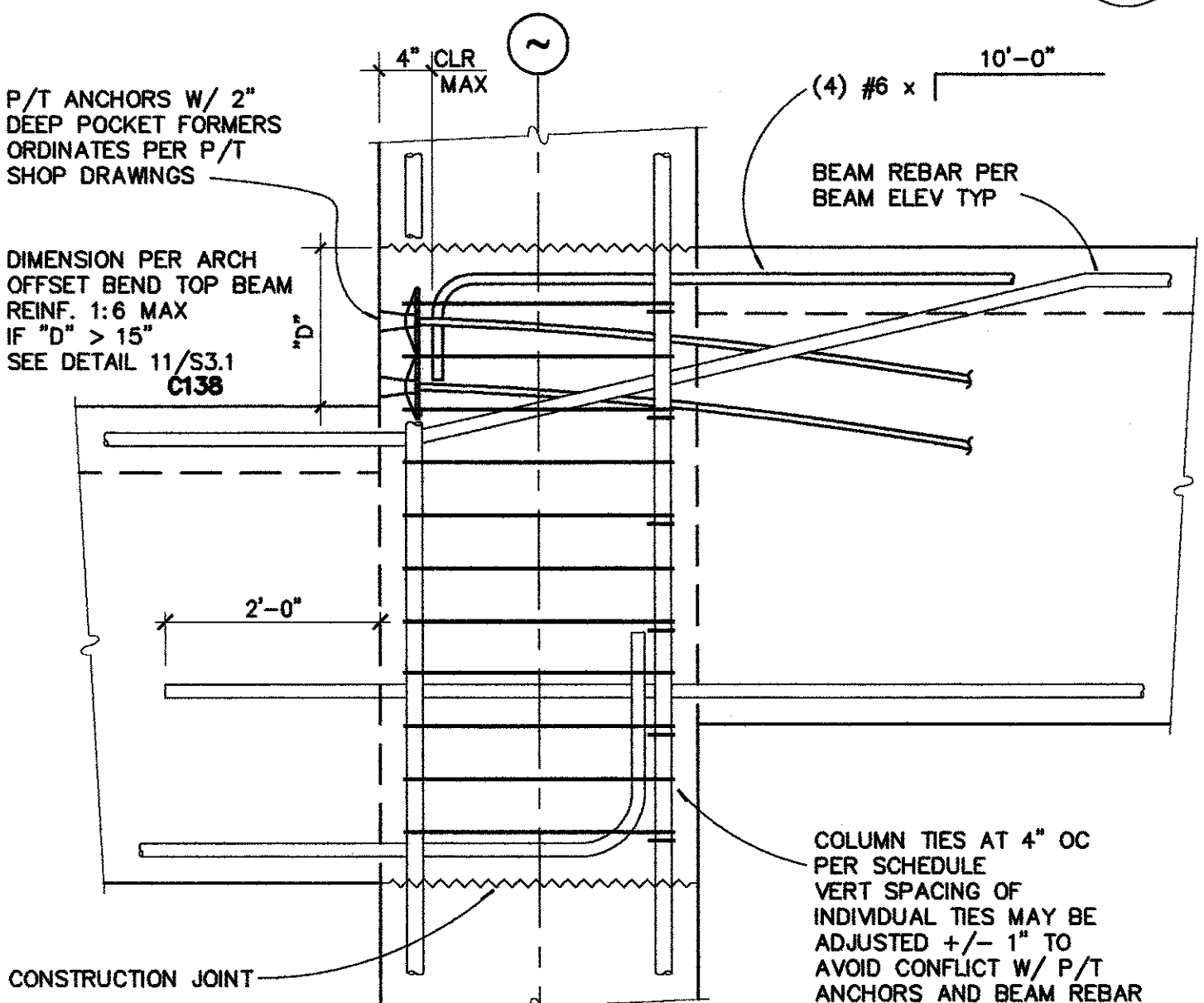
**SECTION AT COLUMN-BEAM JOINT 11**  
NO SCALE  
S3.1



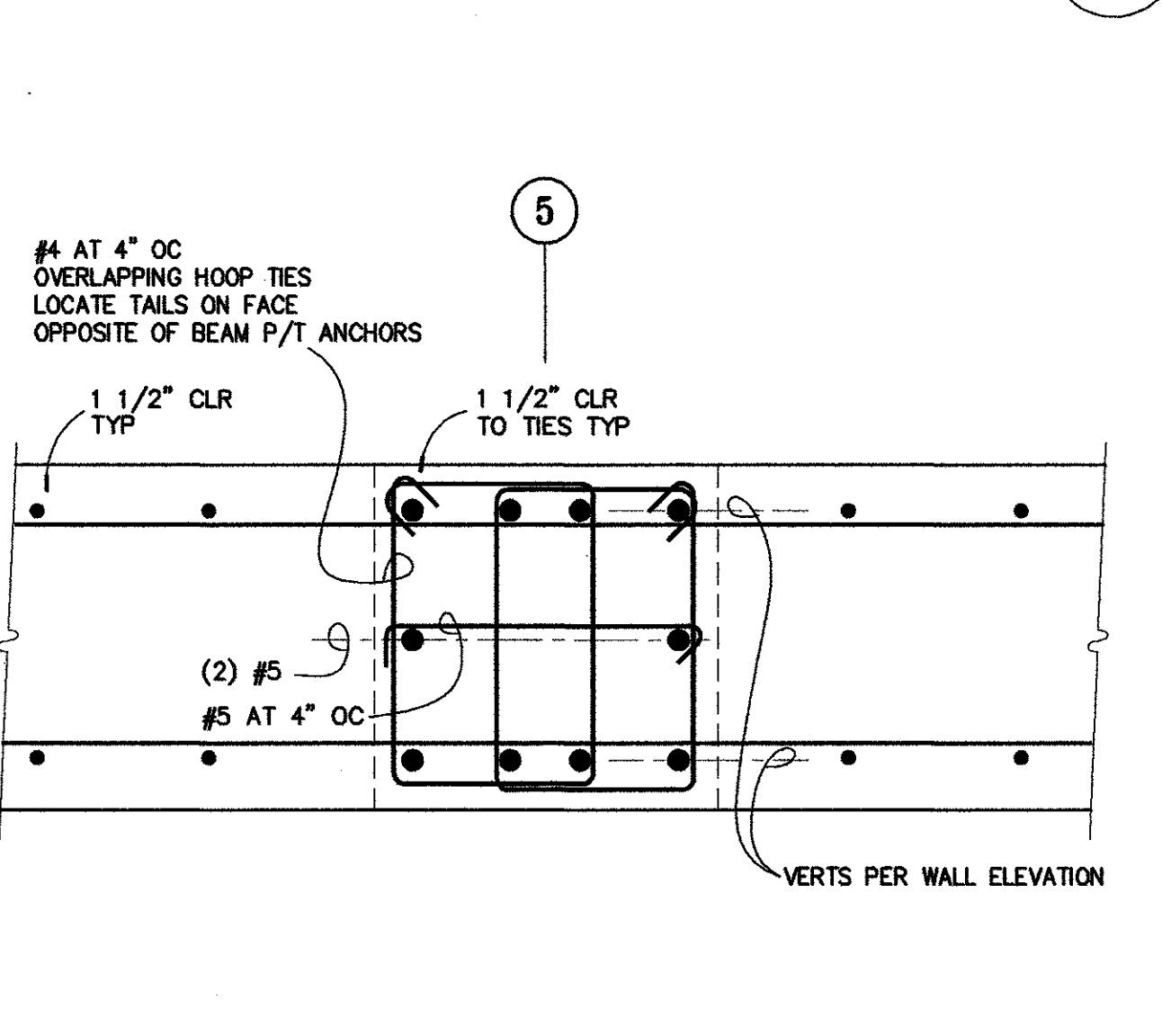
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S3.1



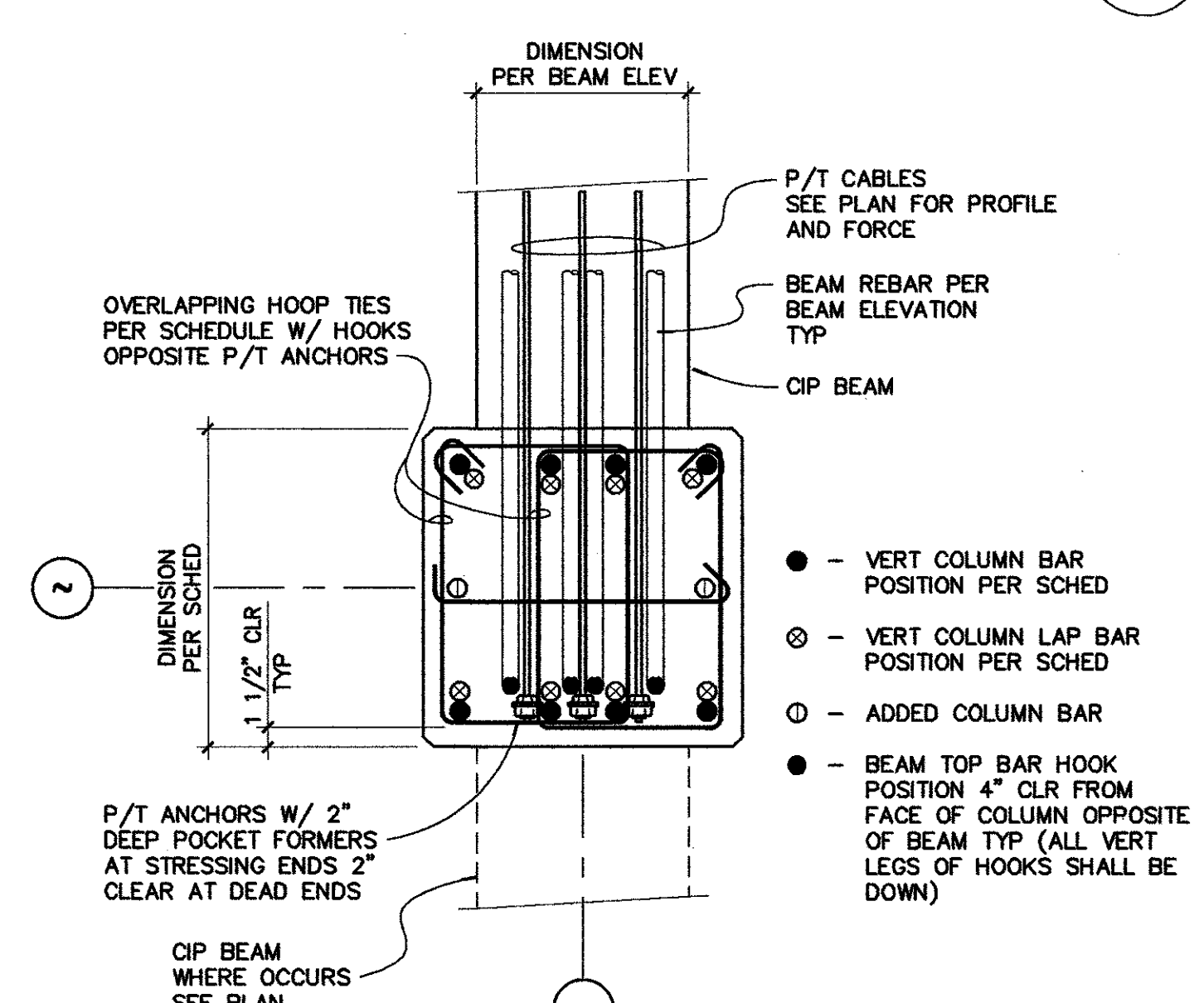
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NO SCALE  
S3.1



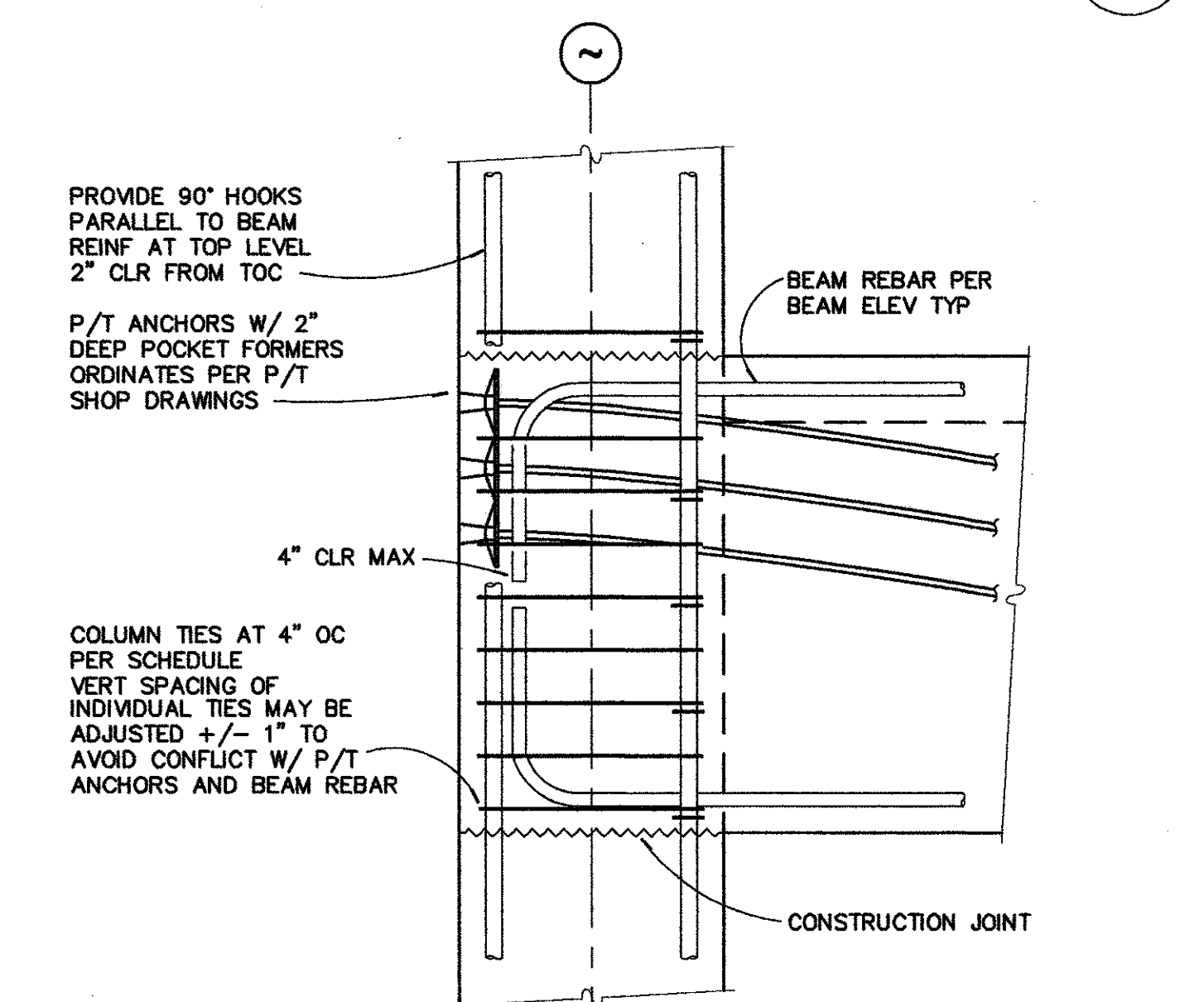
**SECTION AT COLUMN-BEAM JOINT 10**  
NO SCALE  
S3.1



**PLAN-SECTION 17**  
NO SCALE  
S3.1



**PLAN-SECTION 13**  
NO SCALE  
S3.1



**SECTION AT COLUMN-BEAM JOINT 9**  
NO SCALE  
S3.1

NOTE: AT GRID C/3 SEE 10/S4.7

MARK	SIZE	SECTION	CONCRETE STRENGTH (F'c)
C4	24" x 24"	13/S3.1	4 KSI
C3	24" x 30"	15/S3.1	5 KSI
C2	24" x 24"	14/S3.1	5 KSI
C1	24" x 24"	13/S3.1	4 KSI

TO COLUMN WHERE OCCURS PER ARCH

LEVEL 6

LEVEL 5

LEVEL 4

LEVEL 3

LEVEL 2

LEVEL 1

TOP

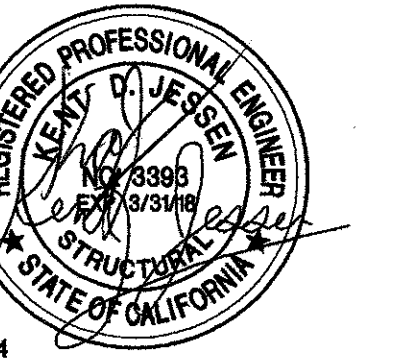
**NOTES**

- SEE 4/S3.1 FOR TOP OF COL CONDITIONS
- ADD (3) TIES AT 2" OC AT TOP OF COLUMN, TYP.
- LENTON REBAR TERMINATOR MAY BE SUBSTITUTED FOR 90 HOOKS AT TOP OF COLUMNS AT CONTRS OPTION.
- SEE DETAILS 8 & 16/S3.1 FOR PERMISSIBLE CONDUIT IN COLUMNS

OFFICE OF THE STATE ARCHITECT  
APPROVED FOR PERMISSIBLE CONDUIT  
REVIEWED BY: [Signature]  
DATE: APR 27 2016

Approval of this plan does not authorize or approve any addition or deviation from applicable regulations. Final approval is subject to field inspection. One set of approved plans shall be available on the project site at all times.





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**SOUTH CAMPUS PLAZA DESIGN-BUILD PARKING STRUCTURE**  
SAN DIEGO STATE UNIVERSITY

SUBMITTAL SCHEDULE:

SCHEMATIC DESIGN	04/17/2014
50% PRELIM. DESIGN	05/14/2014
100% PRELIM. DESIGN	05/28/2014
50% CONST. DOCS.	07/02/2014
85% CONST. DOCS.	08/07/2014
100% BACKCHECK	11/10/2014
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100% BACKCHECK 3	03/20/2015
ASH#011 SFM RESUB 2	11/08/2015
ASH#015 SFM RESUB 3	03/03/2016

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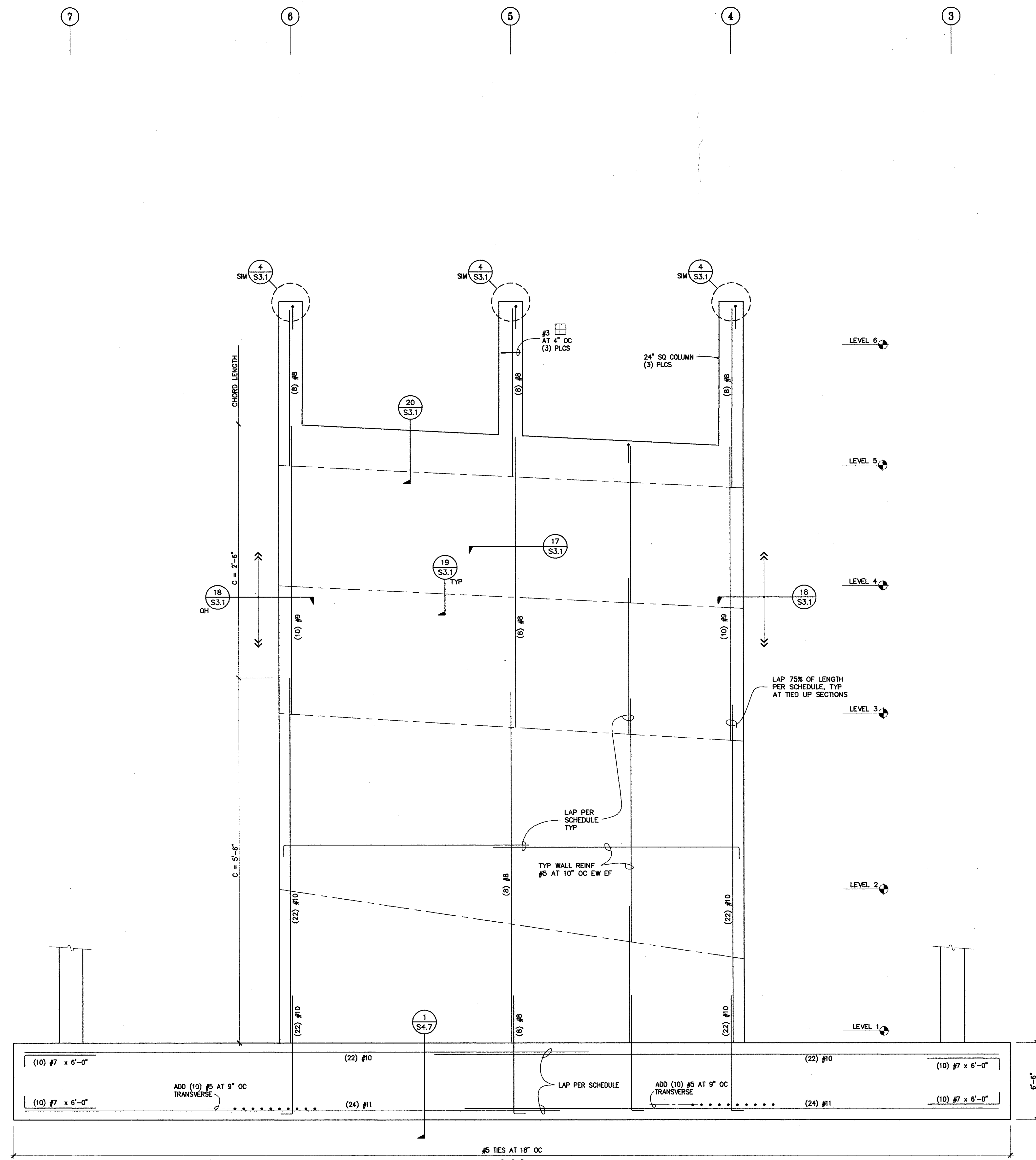
FILE # 04-114204  
AC DATE: \_\_\_\_\_

PROJECT NO: 21305-G-50

OFFICE OF THE STATE ARCHITECT  
APPROVED FOR CONSTRUCTION  
Reviewed by: *[Signature]*  
BRADLEY COCHRAN, DSRM

APR 27 2016

Approval of this plan does not authorize or approve any omission or deviation from applicable regulations. Final approval is subject to field inspection. One set of approved plans shall be available on the project site at all times.



- NOTES:**
- SEE ARCH FOR REVEALS WHERE OCCURS 3/4" MAX
  - ALLOWABLE BEARING PRESSURE 10.0 KSF MAX PLUS 33% INCREASE WHEN CONSIDERING SEISMIC OR WIND LOADS

SHEARWALL ELEVATION AT GRID A

NO SCALE

4/16/2014 11:07:25 AM C:\Users\maddison\Documents\2014\_03\_27\_Plan\South Campus Parking Structure\_Central\_General\Drawings\1





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**SAN DIEGO STATE UNIVERSITY**  
SAN DIEGO, CALIFORNIA

**SOUTH CAMPUS PLAZA DESIGN-BUILD PARKING STRUCTURE**  
SAN DIEGO STATE UNIVERSITY

**SUBMITTAL SCHEDULE:**

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50% PRELIM. DESIGN	05/14/2014
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100% BACKCHECK 3	03/20/2015

ASH#011 SFM RESUB 2	11/08/2015
ASH#015 SFM RESUB 3	03/03/2016

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FILE #  
APL # 04-114204  
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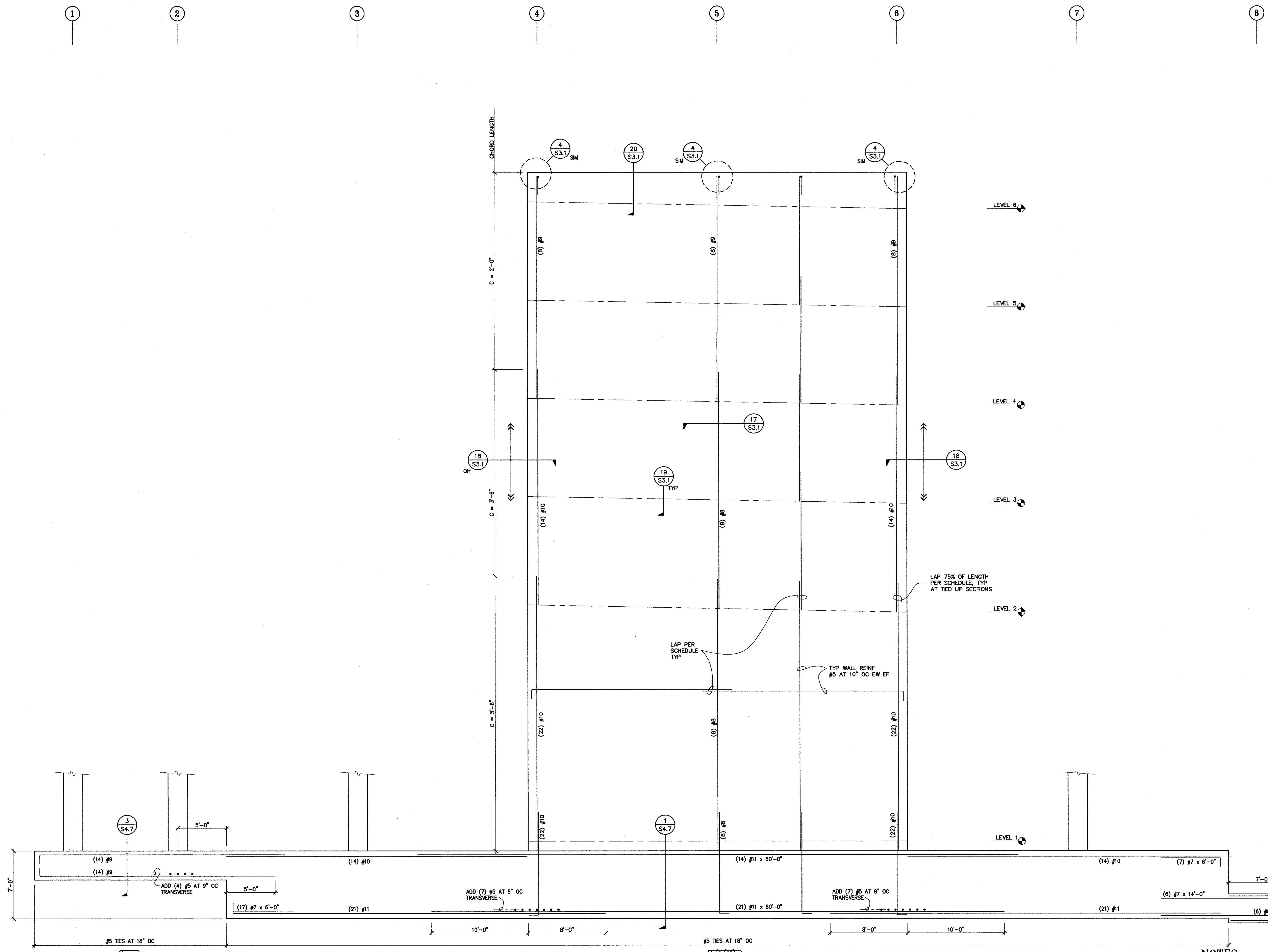
PROJECT NO: 21305-G-50

APR 27 2016  
OFFICE OF THE STATE ARCHITECT  
APPROVED FOR THE PUBLIC  
Reviewed by: \_\_\_\_\_  
BRAD BROWN, DEFM

Approval of this plan does not authorize or restrict any contractor or developer from applying for, or receiving, final approval to build. This approval is not a field inspection. One set of approved plans shall be available on the project site at all times.

**SHEARWALL ELEVATION**

**S3.3**



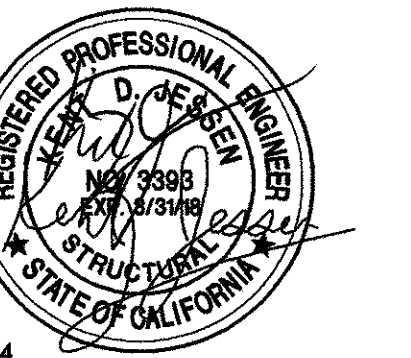
**SHEARWALL ELEVATION AT GRID C**  
NO SCALE

- NOTES:**
- SEE ARCH FOR REVEALS WHERE OCCURS 3/4" MAX
  - ALLOWABLE BEARING PRESSURE 10.0 KSF MAX PLUS 33% INCREASE WHEN CONSIDERING SEISMIC OR WIND LOADS

1  
S3.3

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SAN DIEGO STATE UNIVERSITY

SUBMITTAL SCHEDULE:

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100% PRELIM. DESIGN	05/28/2014
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95% CONST. DOCS.	08/07/2014
100% BACKCHECK	11/10/2014
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100% BACKCHECK 3	03/20/2015
AS1011 SFM RESUB 2	11/08/2015
AS1015 SFM RESUB 3	03/03/2016

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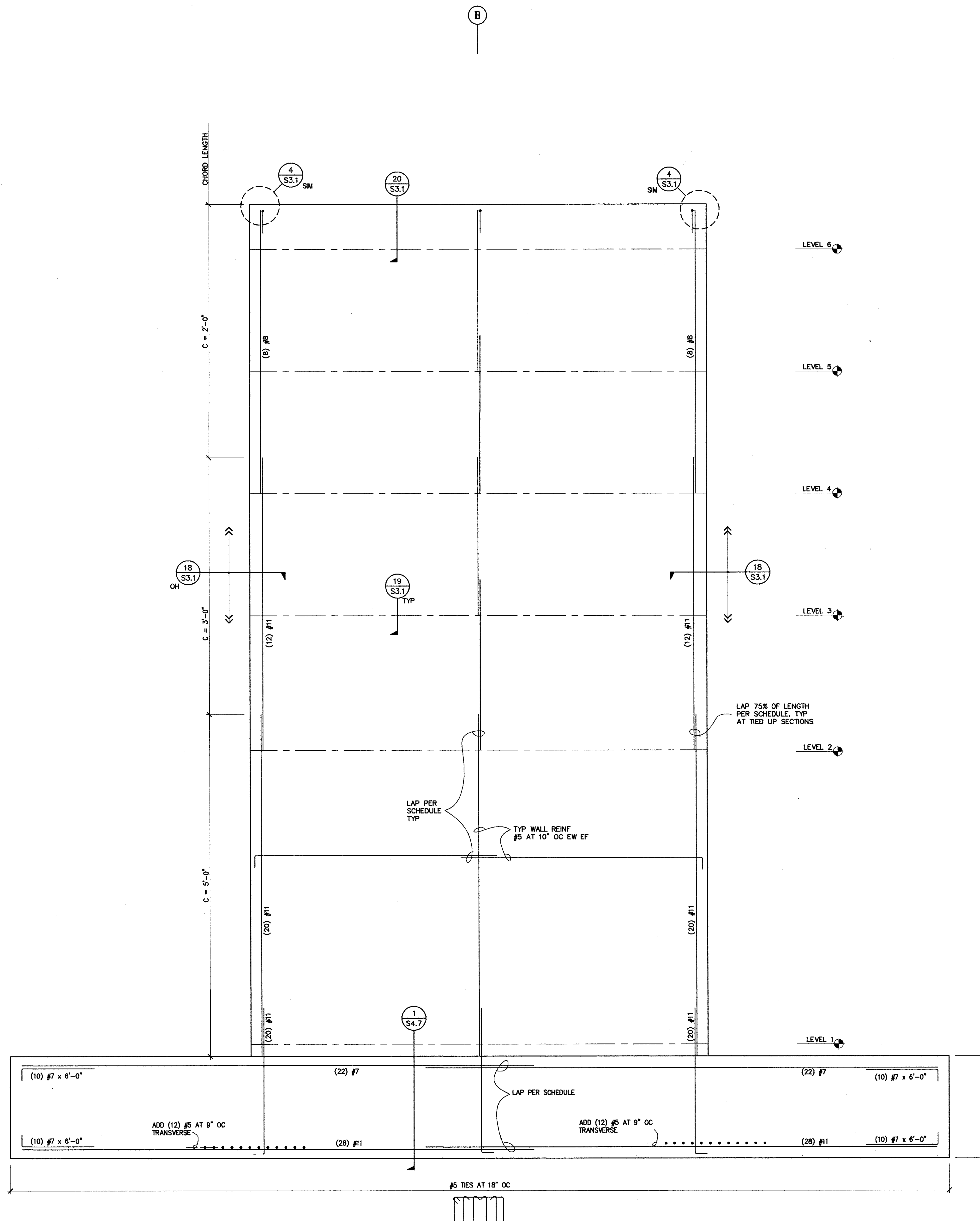
FILE #  
APL # 04-114204

AC \_\_\_\_\_ DATE \_\_\_\_\_

PROJECT NO: 21305-G-50

APR 27 2016

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**NOTES:**

- SEE ARCH FOR REVEALS WHERE OCCURS 3/4" MAX
- ALLOWABLE BEARING PRESSURE 10.0 KSF MAX PLUS 33% INCREASE WHEN CONSIDERING SEISMIC OR WIND LOADS

SHEARWALL ELEVATION AT GRID 1

NO SCALE

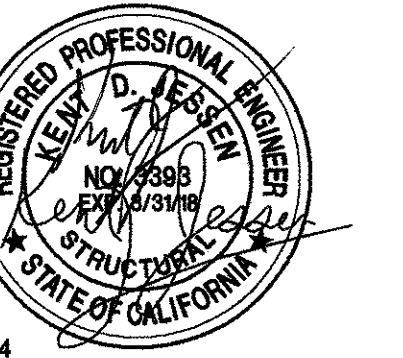
1  
S3.4

**SHEARWALL ELEVATION**

**S3.4**

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**SOUTH CAMPUS PLAZA DESIGN-BUILD PARKING STRUCTURE**  
SAN DIEGO STATE UNIVERSITY

**SUBMITTAL SCHEDULE:**

SCHEMATIC DESIGN	04/17/2014
50% PRELIM. DESIGN	05/14/2014
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95% CONST. DOCS.	08/07/2014
100% BACKCHECK	11/10/2014
100% BACKCHECK 2	01/22/2015
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ASH#11 SFM RESUB 2	11/08/2015
ASH#015 SFM RESUB 3	03/03/2016

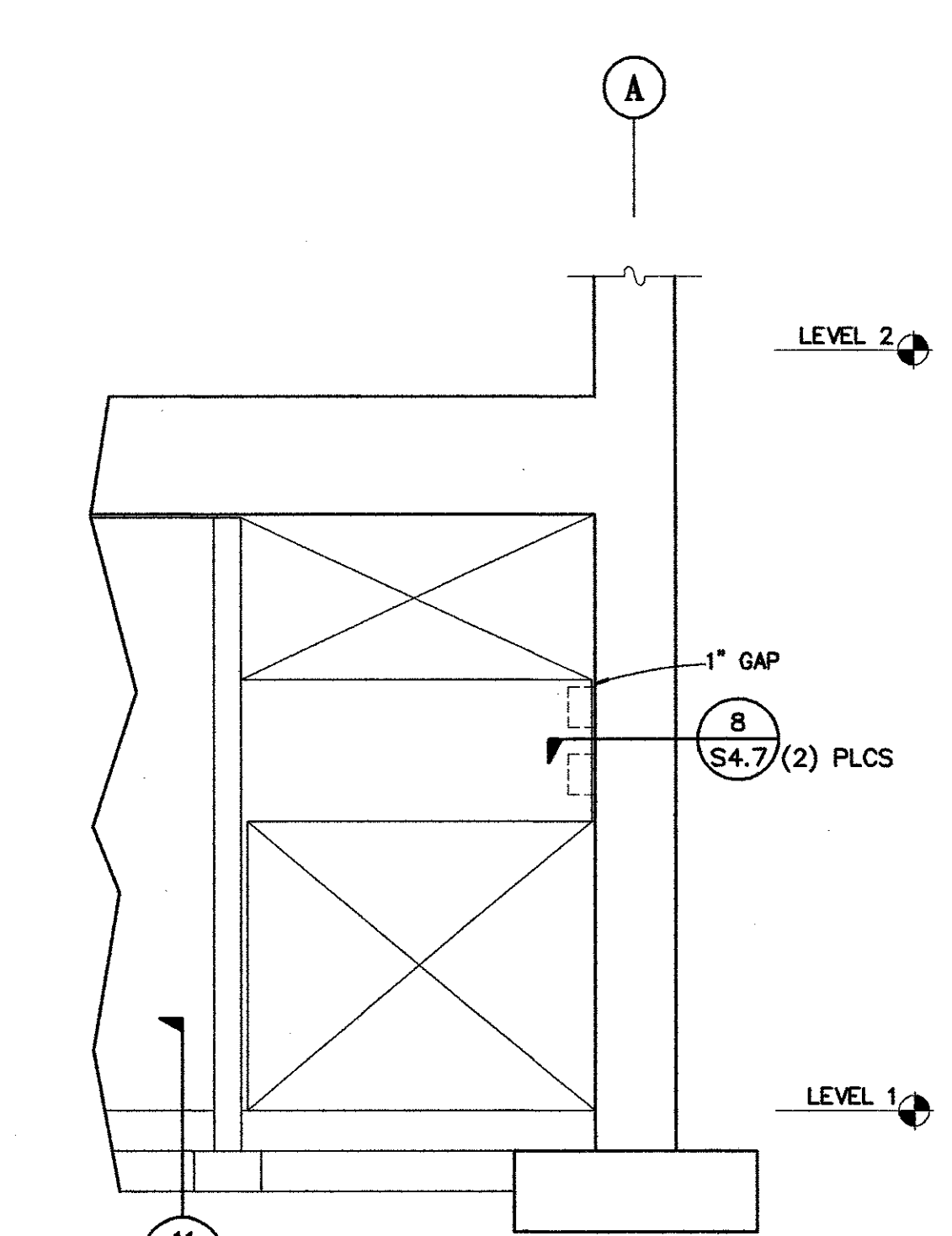
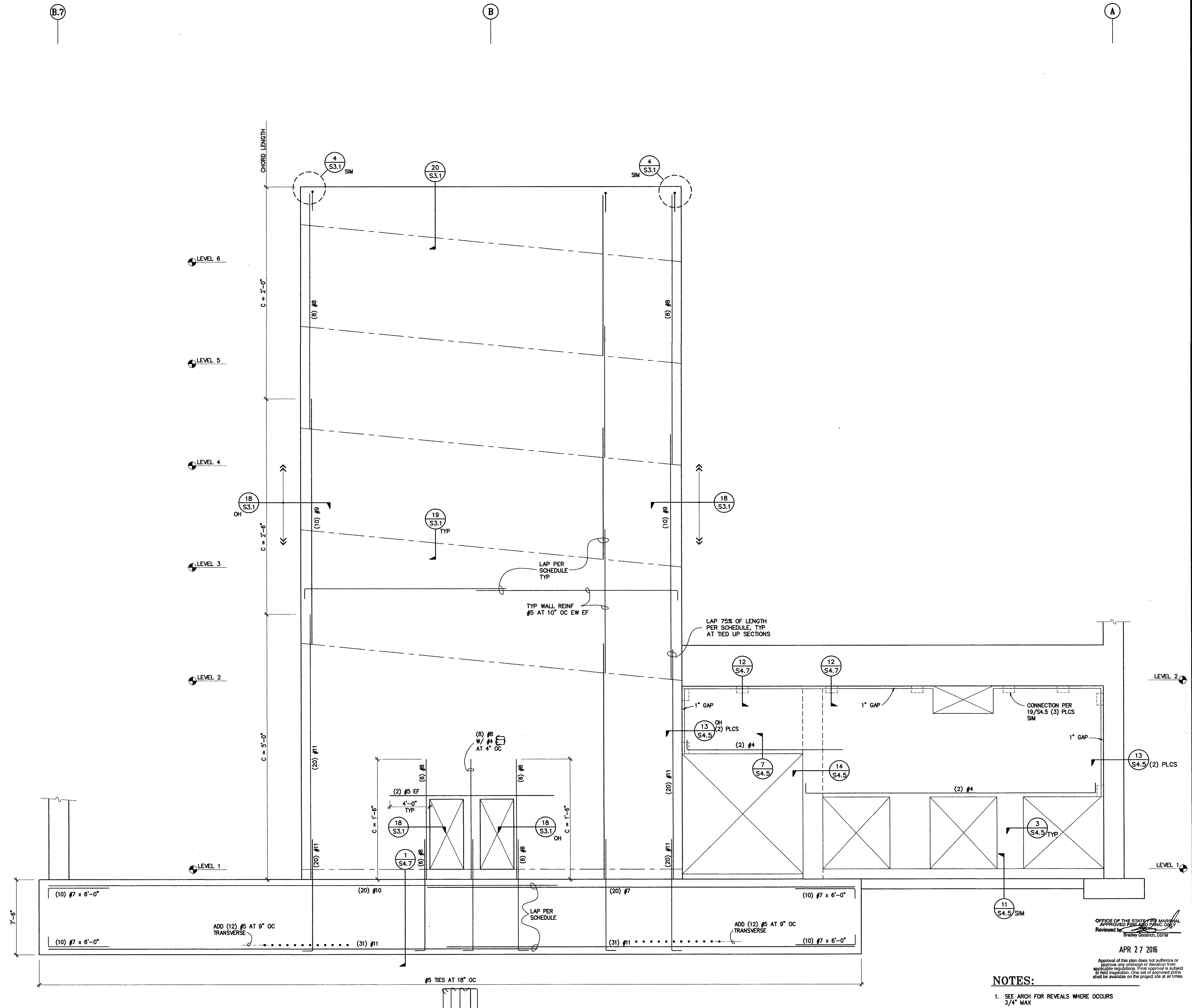
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FILE # \_\_\_\_\_  
APR # 04-114204  
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PROJECT NO: 21305-G-50

**SHEARWALL ELEVATION**

**S3.5**



**ELEVATION AT GRID 8**  
NO SCALE

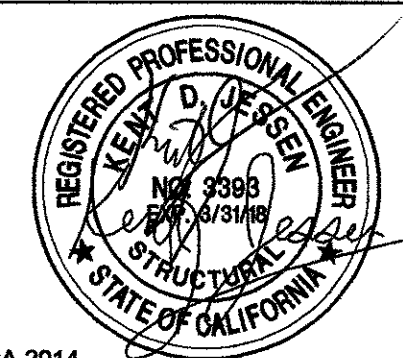
**SHEARWALL ELEVATION AT GRID 11**  
NO SCALE

**NOTES:**  
1. SEE ARCH FOR REVEALS WHERE OCCURS 3/4" MAX  
2. ALLOWABLE BEARING PRESSURE 10.0 KSF MAX PLUS 33% INCREASE WHEN CONSIDERING SEISMIC OR WIND LOADS

APR 27 2016  
OFFICE OF THE STATE ARCHITECT  
APPROVED: [Signature]  
Reviewed by: [Signature]  
BRADLEY GOODWIN, USFM

4/12/2014 11:07:26 AM C:\Users\maddalena\Documents\2014\_03\_27\_Plan Linda Verde Parking Structure\_Central\_01.mxd





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### SOUTH CAMPUS PLAZA DESIGN-BUILD PARKING STRUCTURE

SAN DIEGO STATE UNIVERSITY

**SUBMITTAL SCHEDULE:**

SCHEMATIC DESIGN	04/17/2014
50% PRELIM. DESIGN	05/14/2014
100% PRELIM. DESIGN	05/28/2014
50% CONST. DOCS.	07/02/2014
95% CONST. DOCS.	08/07/2014
100% BACKCHECK	11/10/2014
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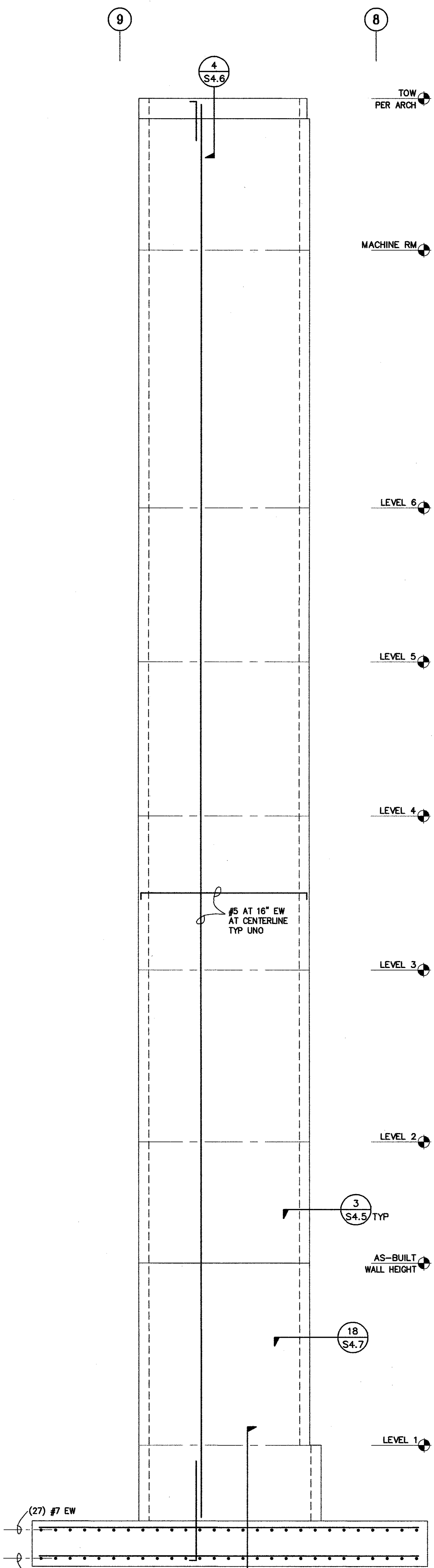
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OFFICE OF REGULATION SERVICES

FILE #  
APR 4 04-114204  
AC DATE

PROJECT NO: 21305-G-50

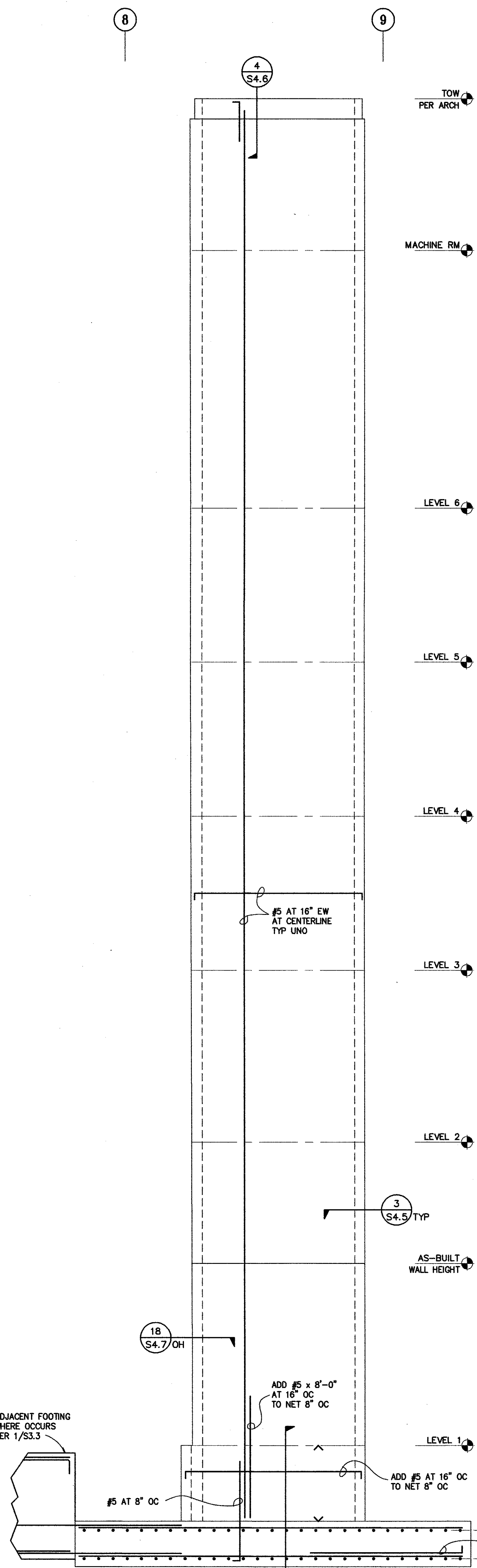
**ELEVATOR ELEVATIONS**

**S3.6**



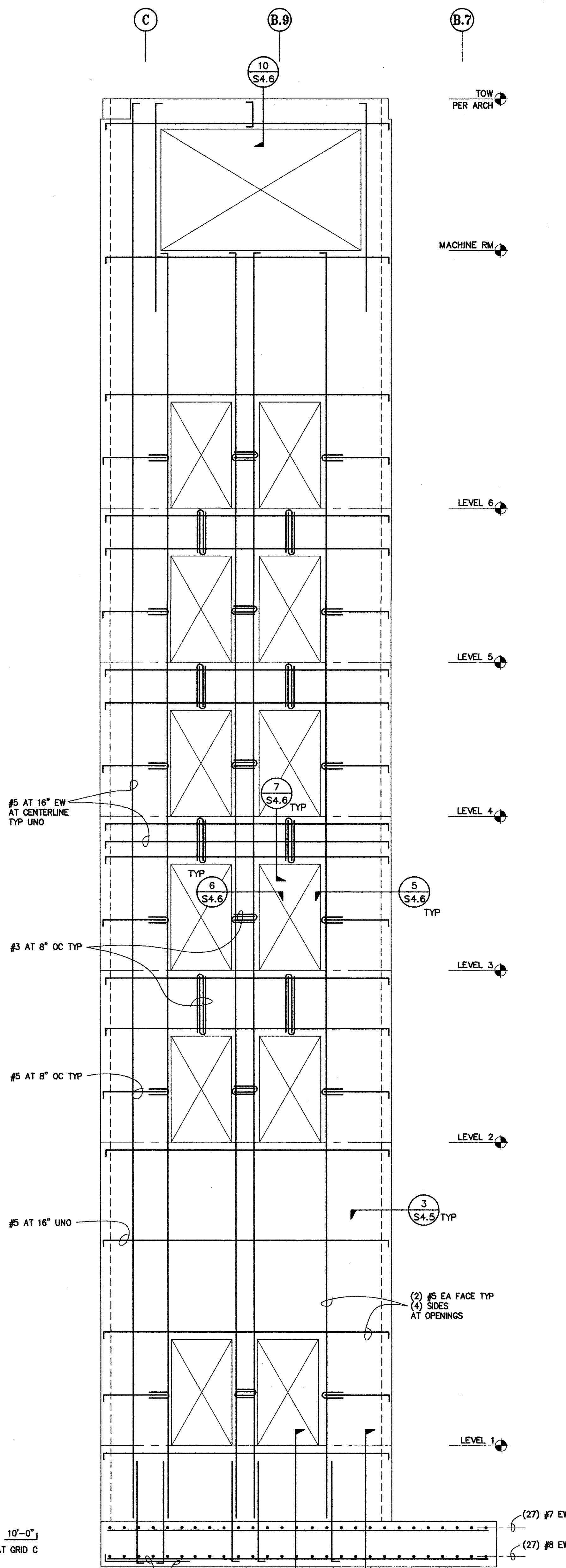
ELEVATOR WALL ELEVATION

13  
S3.6



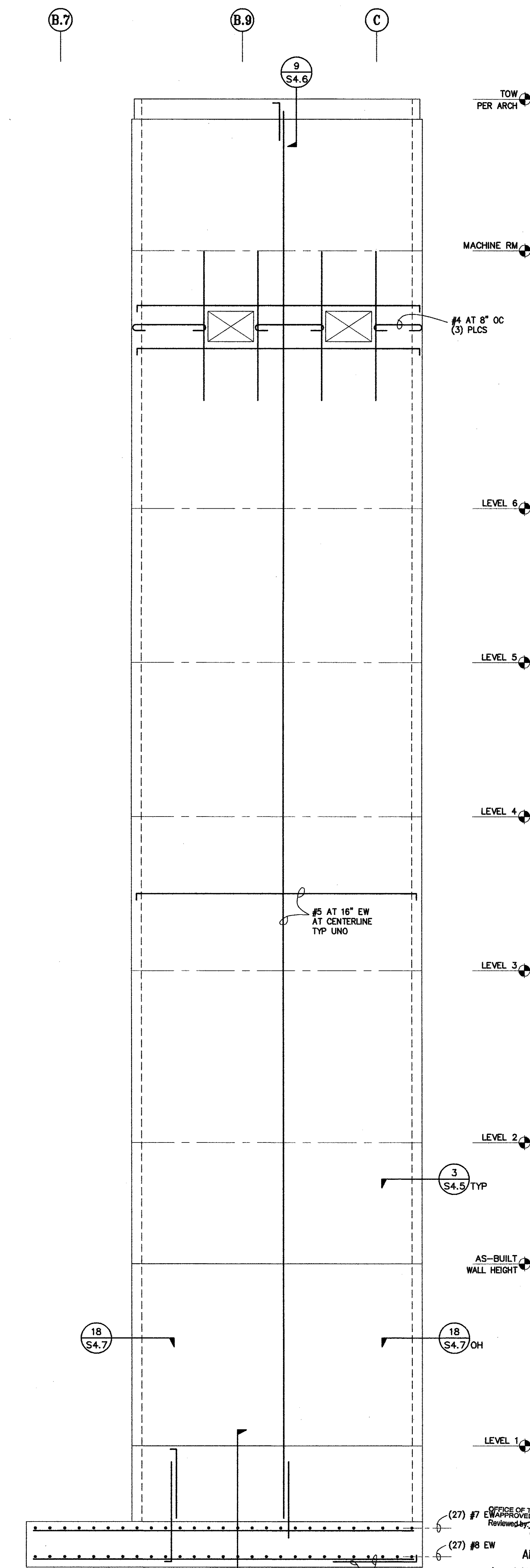
ELEVATOR WALL ELEVATION

9  
S3.6



ELEVATOR WALL ELEVATION

5  
S3.6



ELEVATOR WALL ELEVATION

1  
S3.6







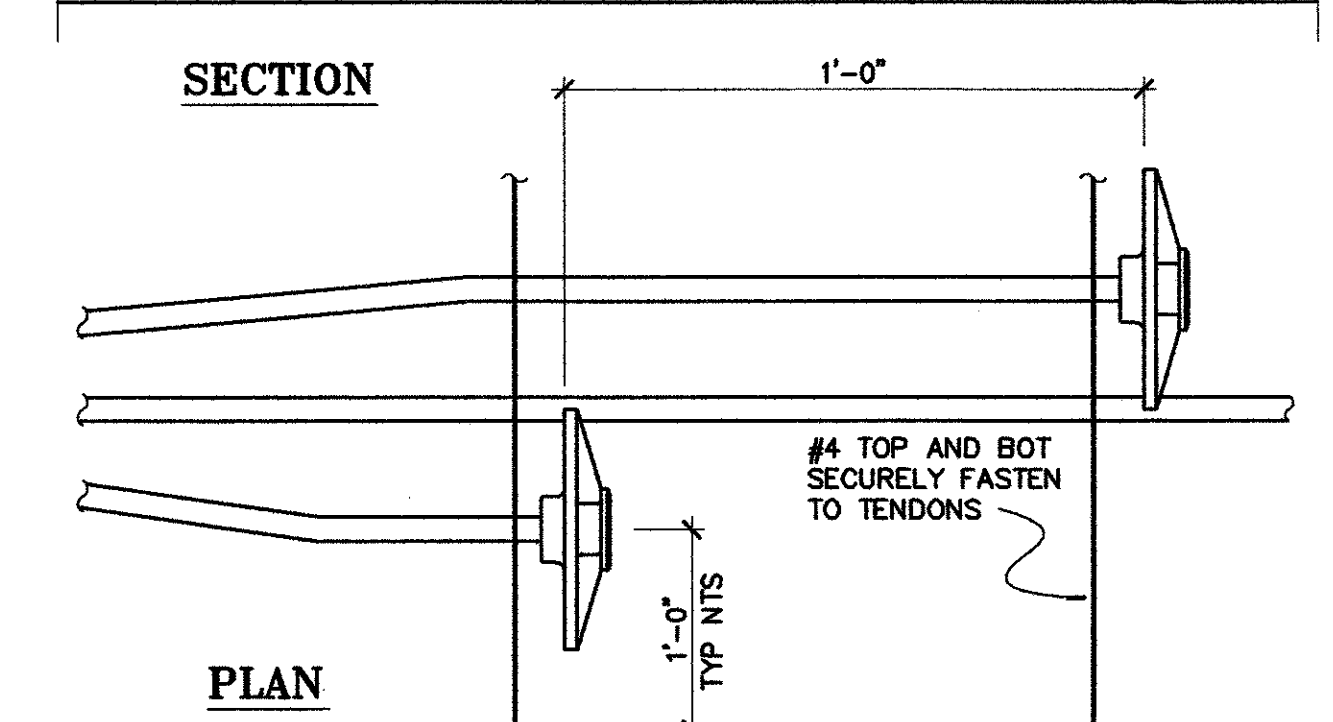
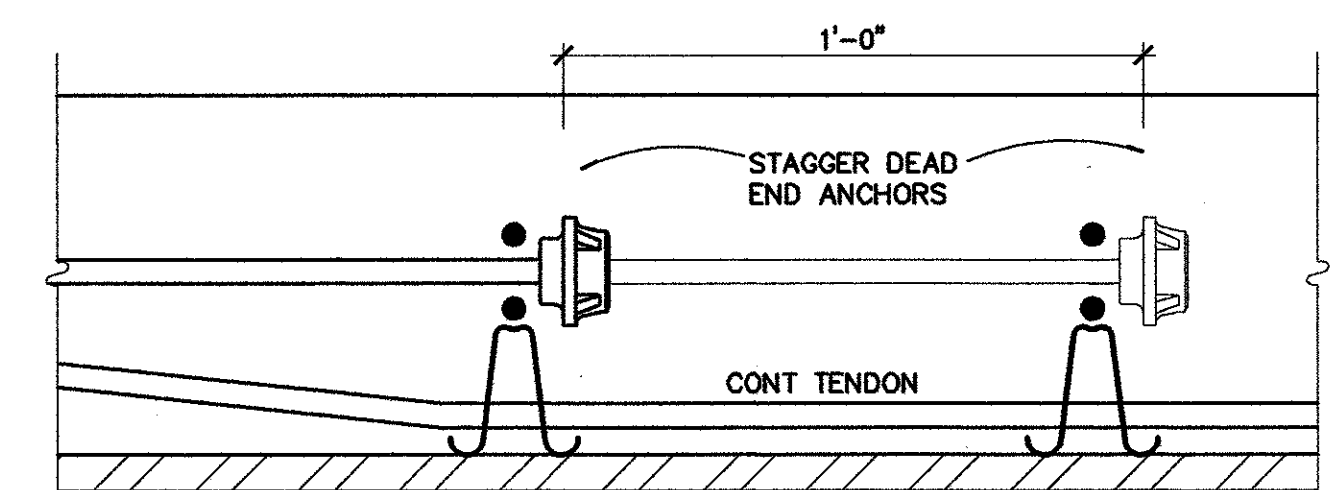
**SUBMITTAL SCHEDULE:**

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50% Prelim. Design	05/14/2014
100% Prelim. Design	05/28/2014
50% Const. Docs.	07/02/2014
85% Const. Docs.	08/07/2014
100% Backcheck	11/10/2014
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ASHI#15 SFM RESUB 3	03/03/2016

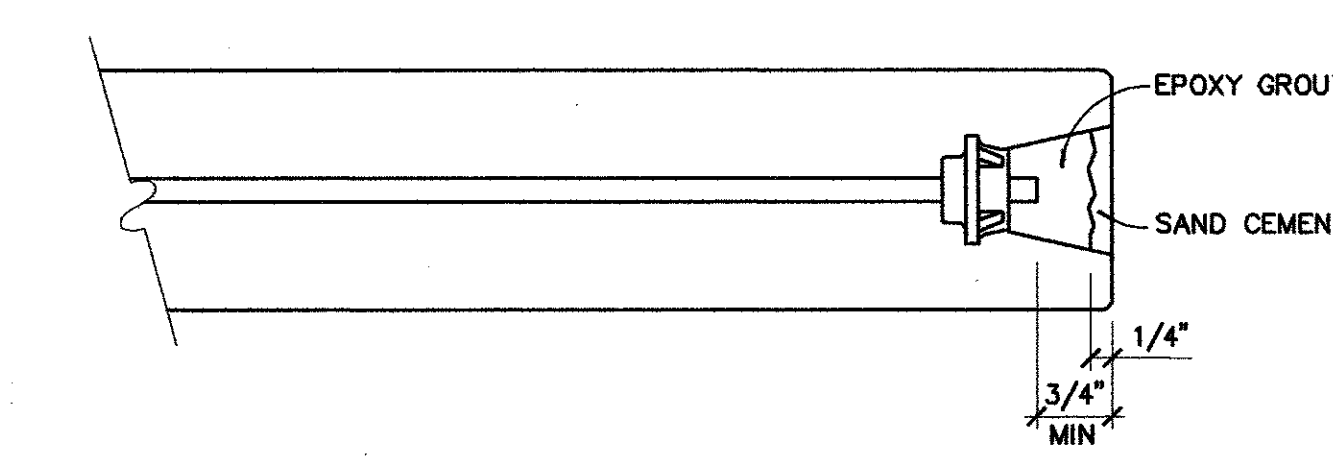
IDENTIFICATION STAMP  
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FILE # 04-114204  
 AC DATE

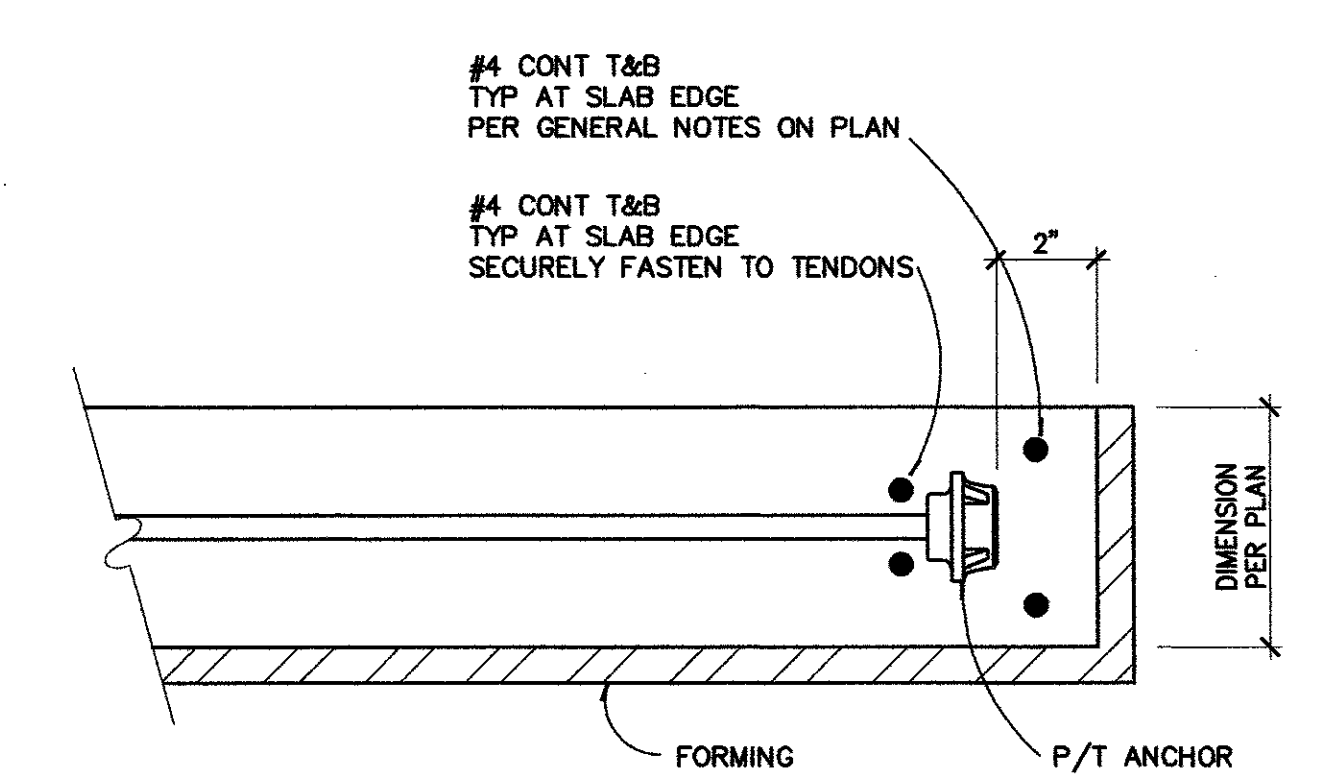
PROJECT NO: 21305-G-50



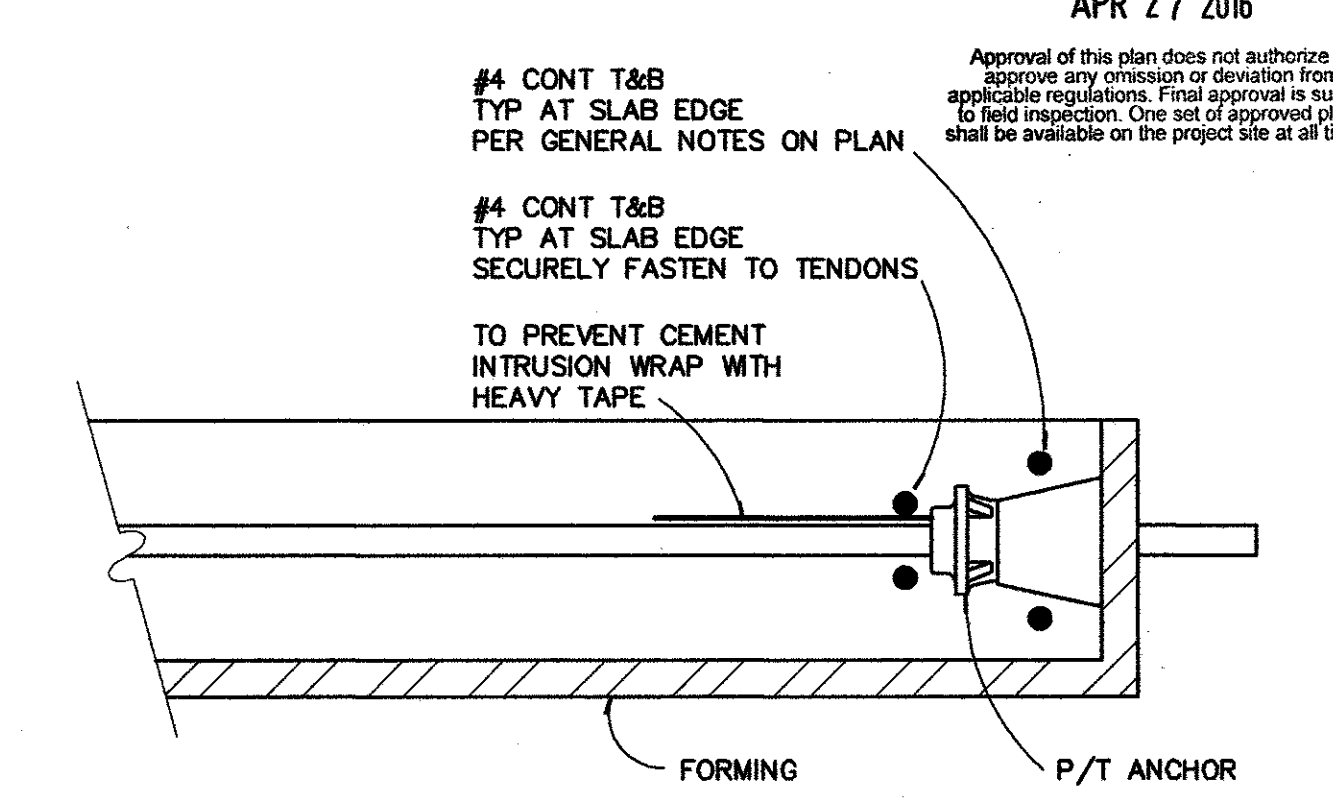
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 NO SCALE S4.2



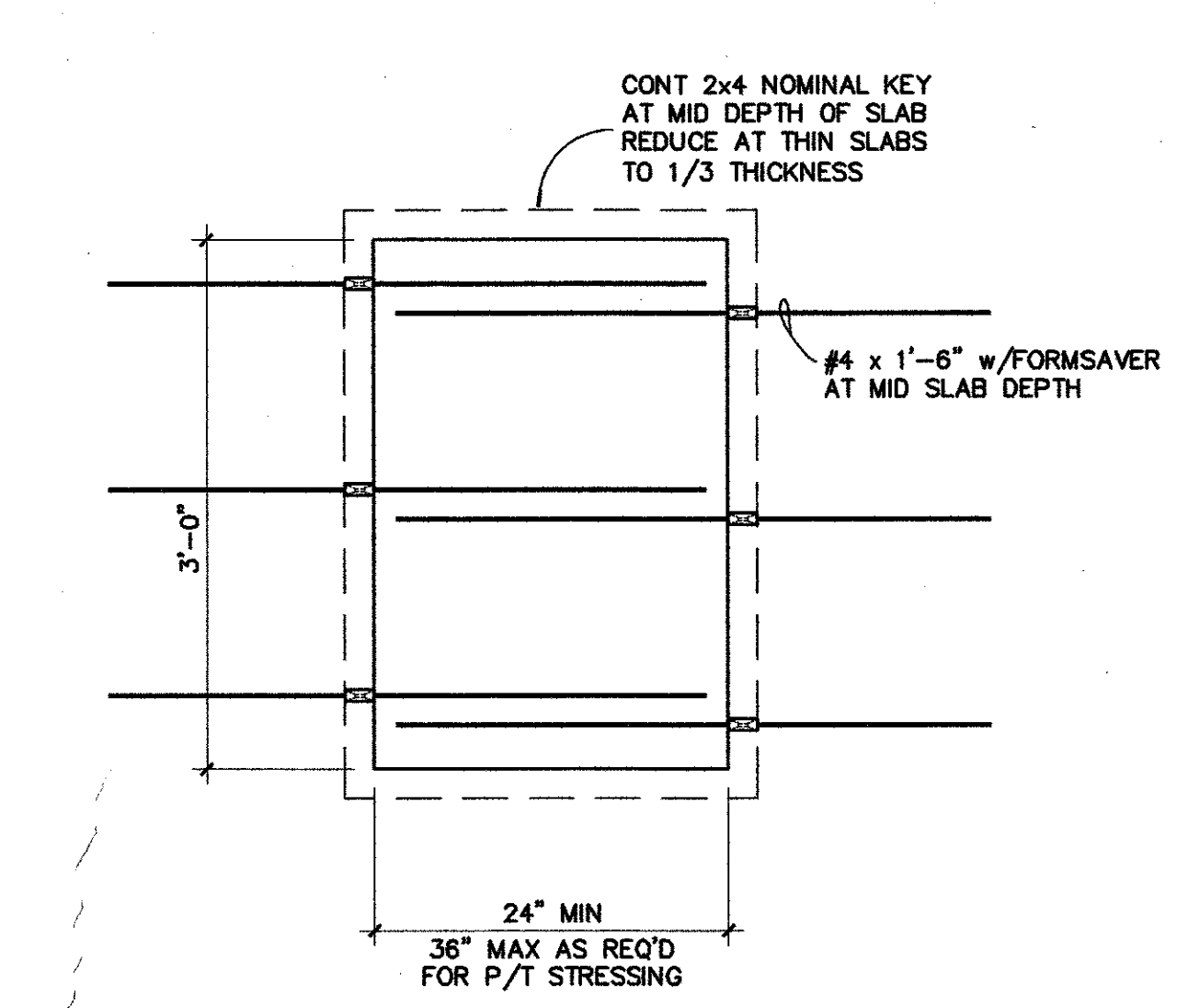
**STRESSING END ANCHOR PROTECTION** 3  
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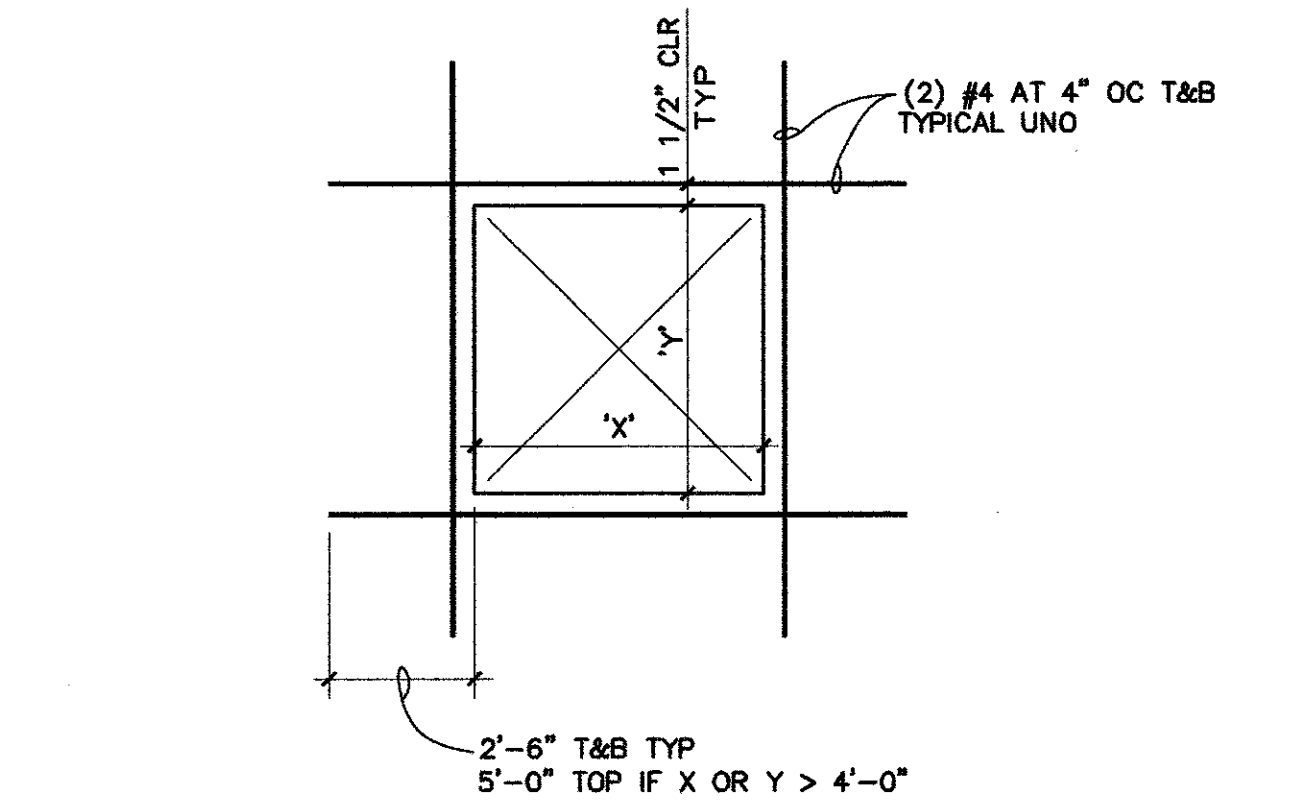
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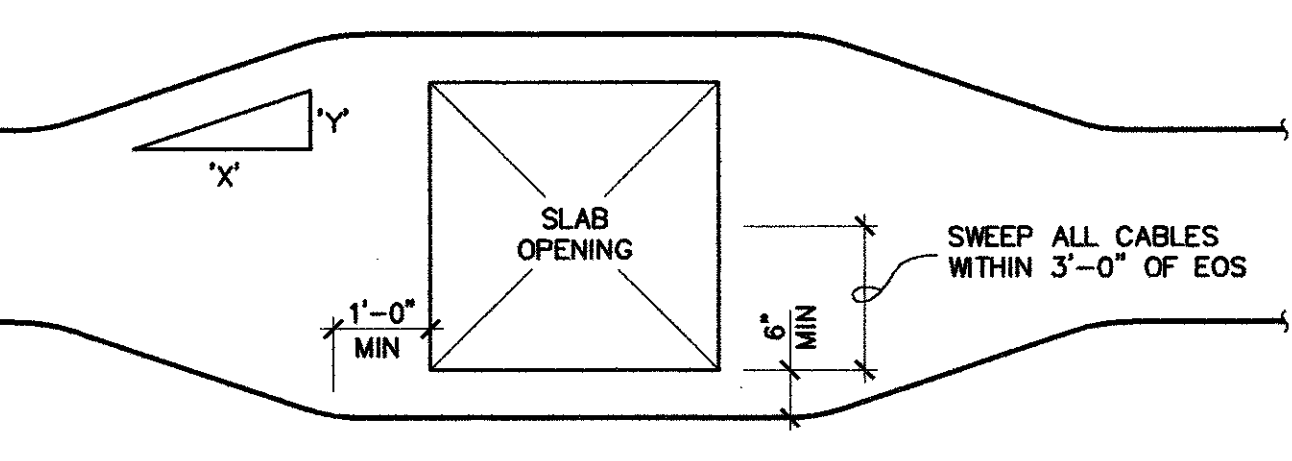
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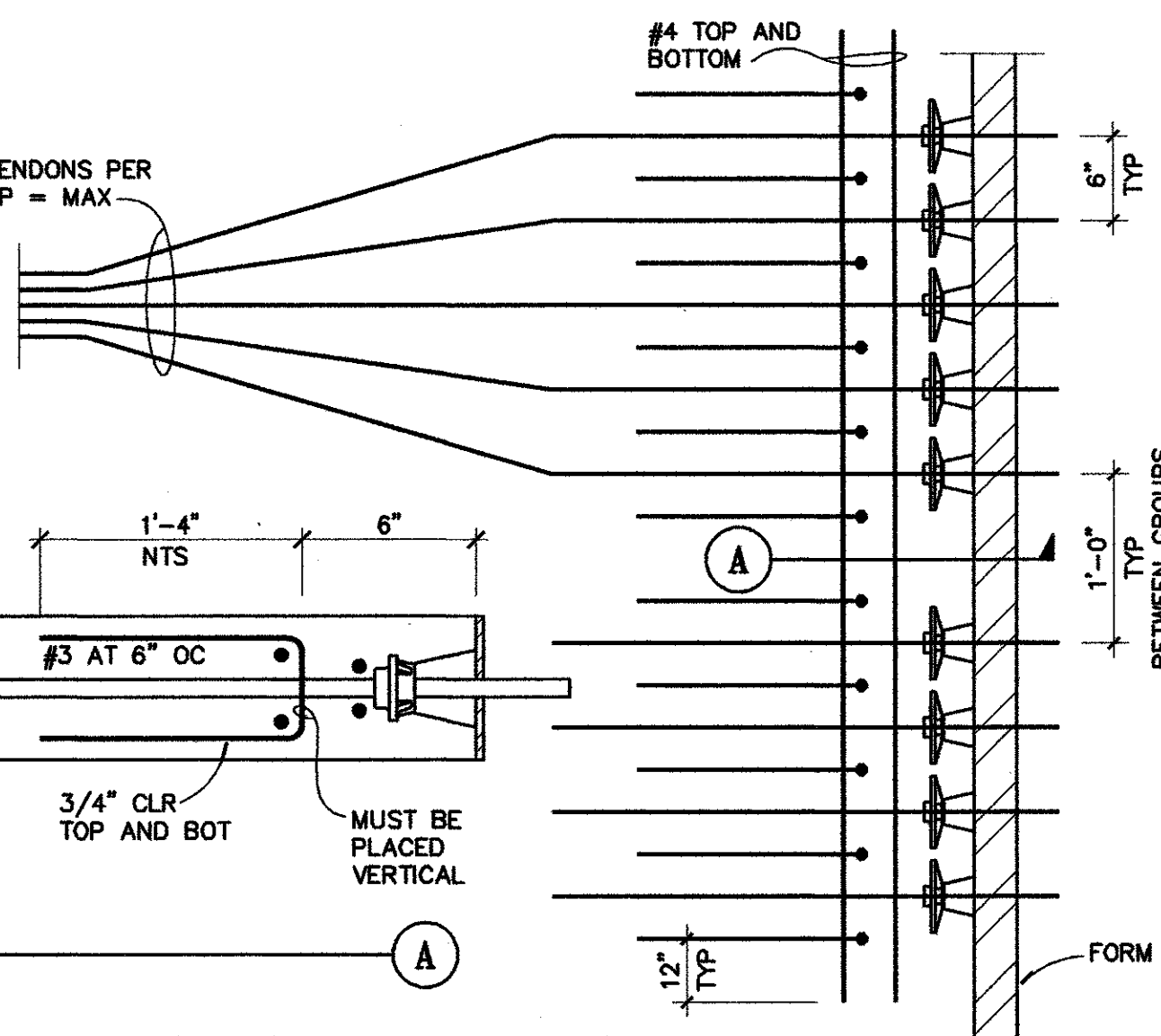
**TEMPORARY SLAB BLOCKOUT** 8  
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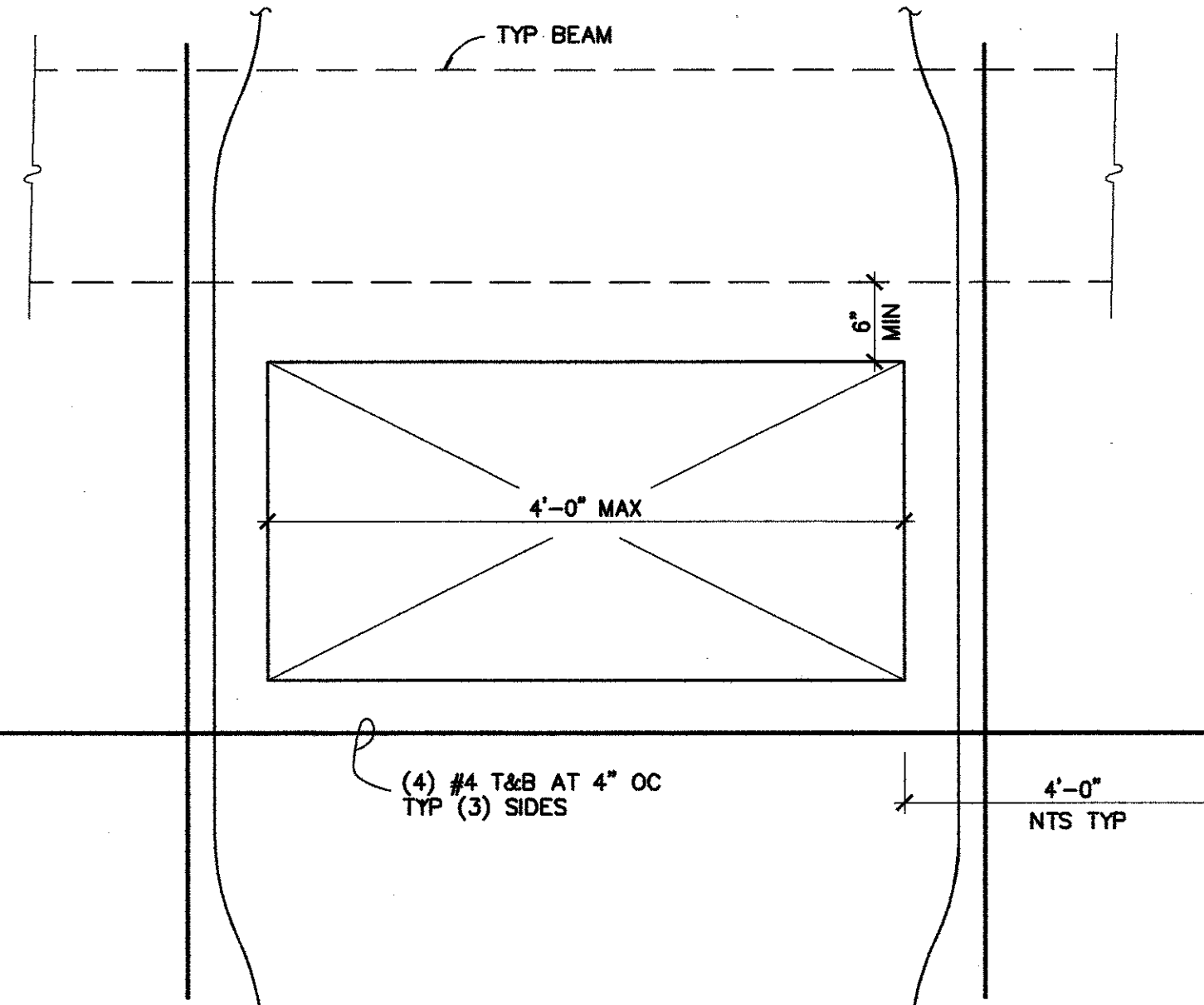
**REINFORCED SLAB OPENING** 7  
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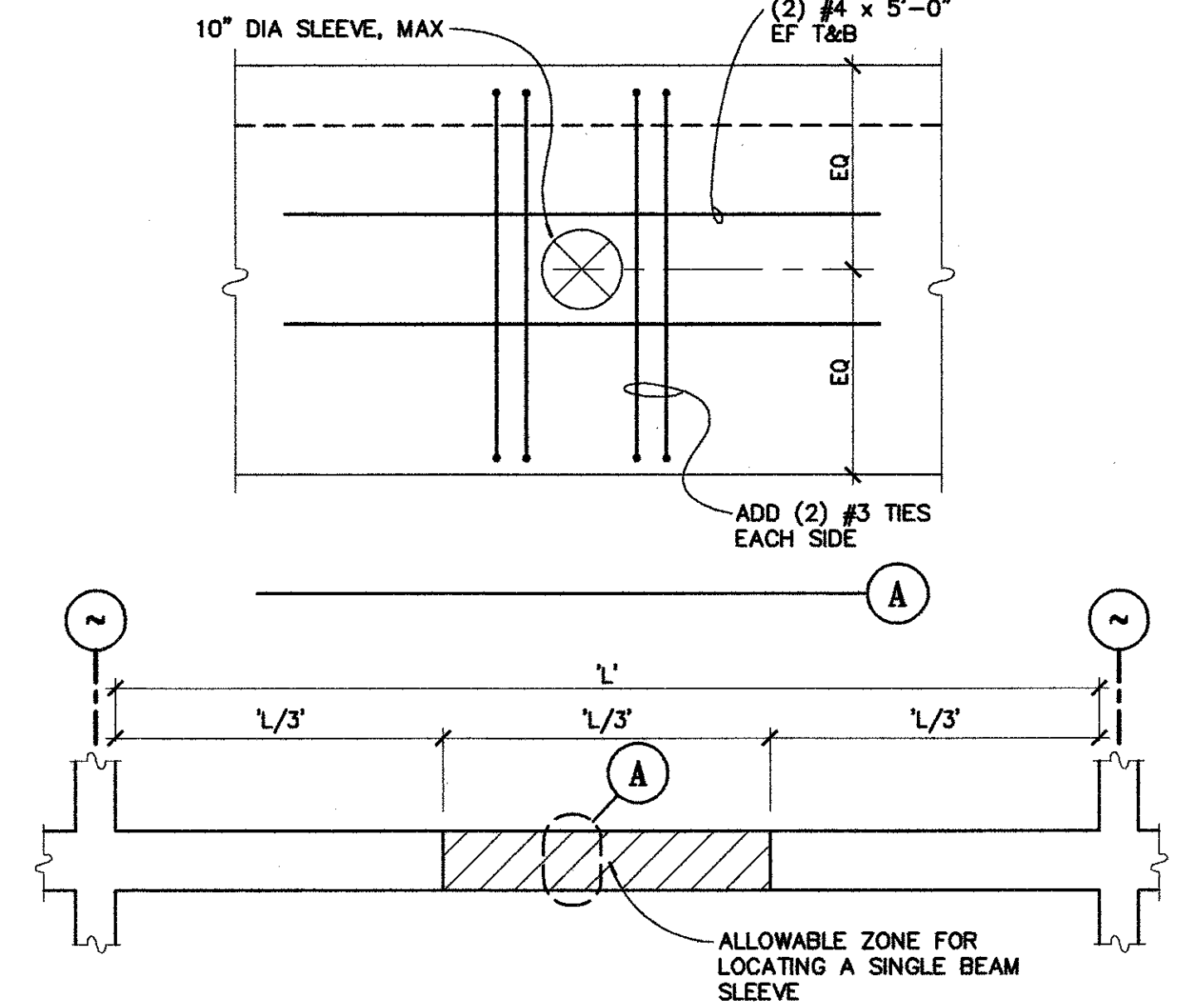
**TENDON OFFSET LIMITS** 6  
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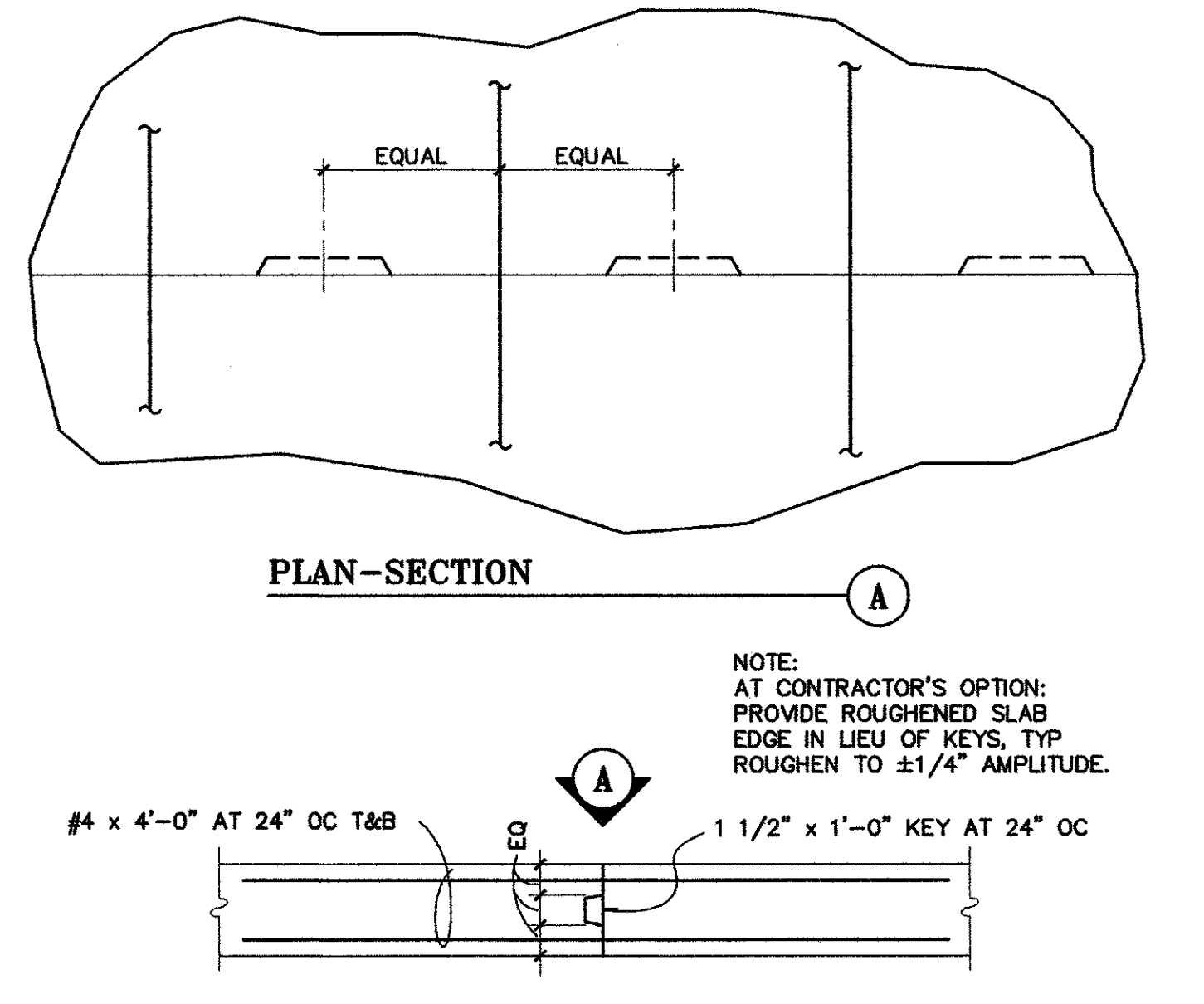
**SLAB REINFORCEMENT AT BOTH DEAD AND LIVE END ANCHORS AT SLABS 6" THICK OR LESS** 5  
 NO SCALE S4.2



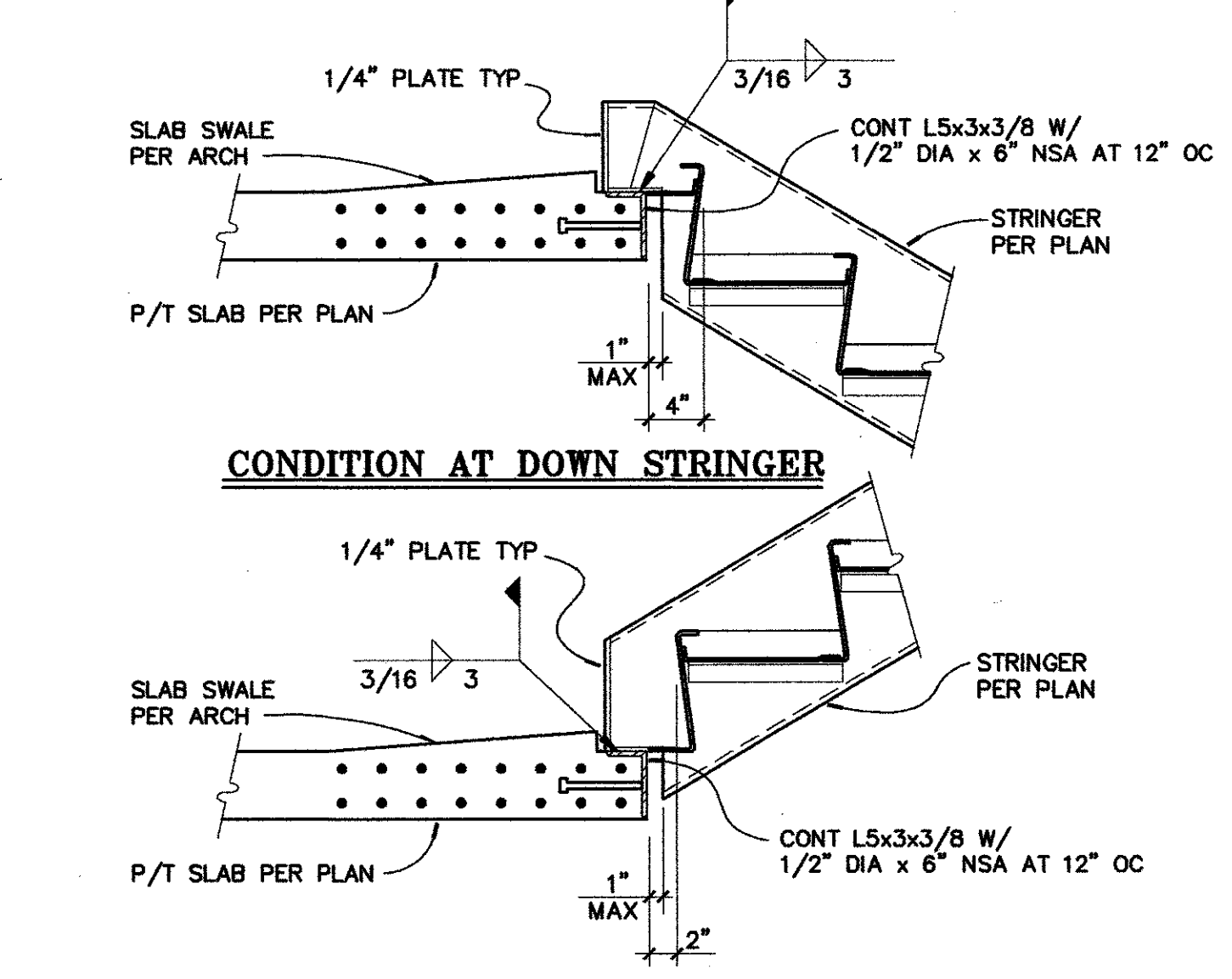
**TYP TRENCH DRAIN REINFORCEMENT** 12  
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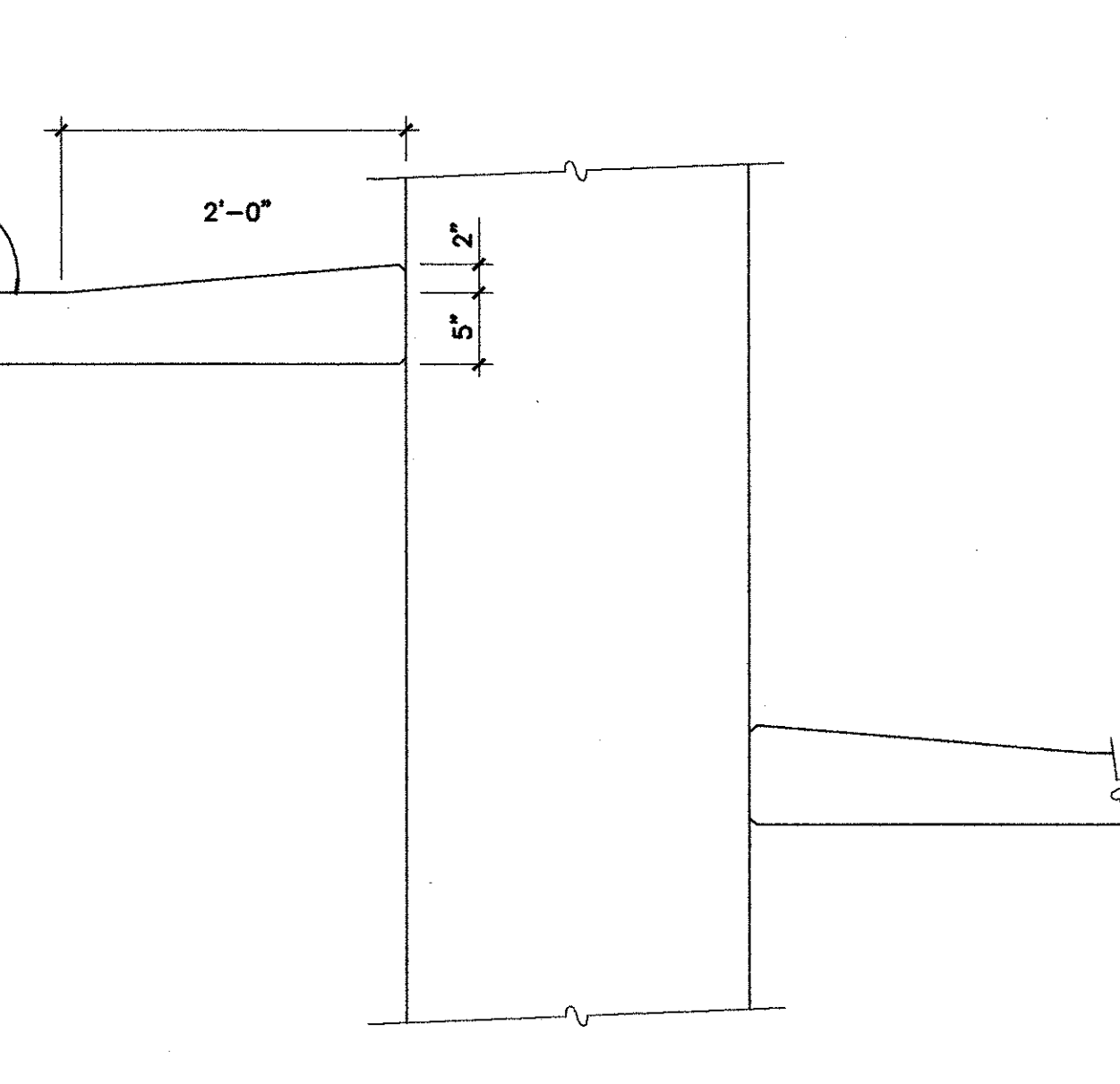
**TYPICAL BEAM PENETRATION** 11  
 NO SCALE S4.2



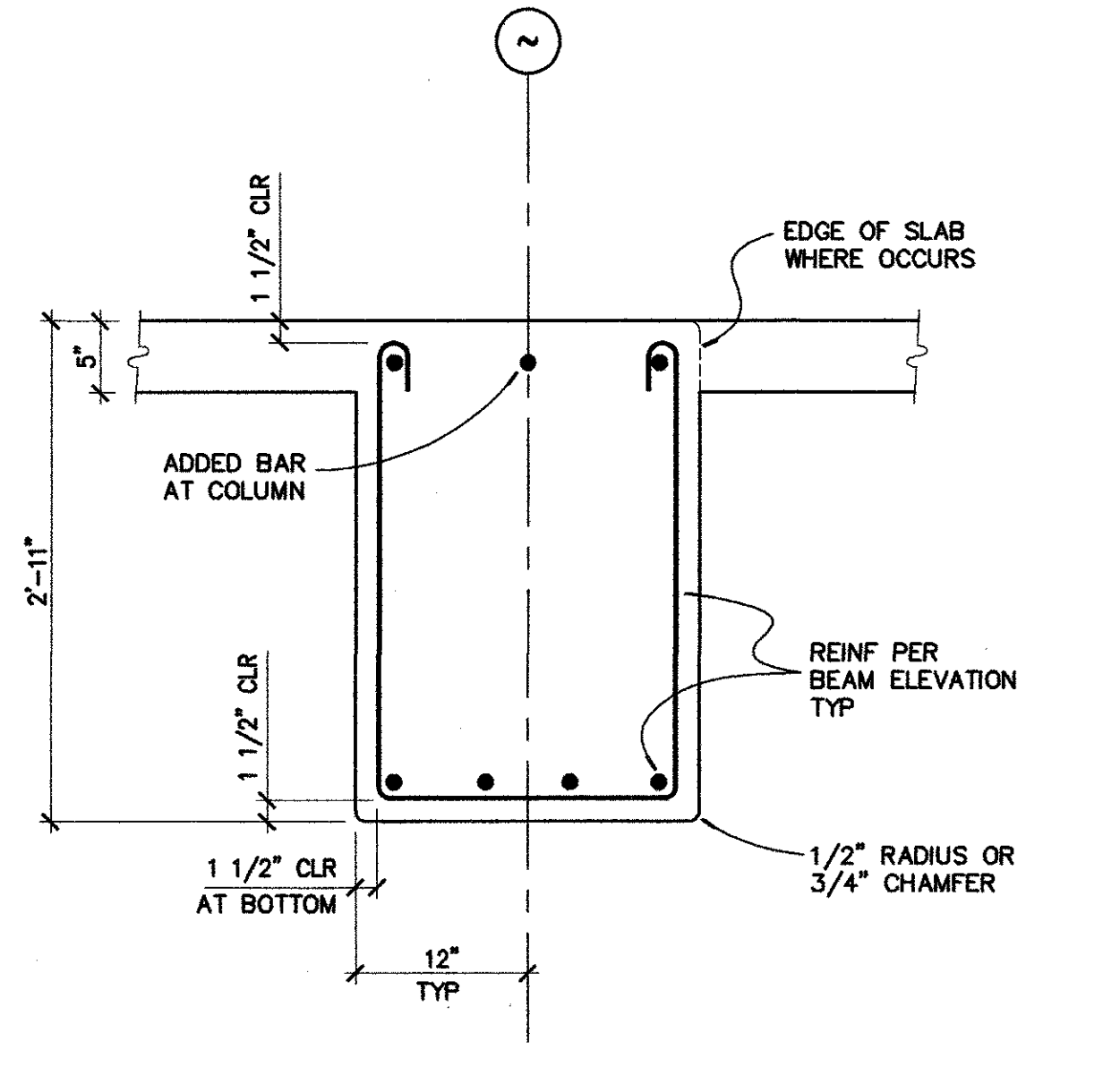
**ADDED REINF AT CONST JOINT** 10  
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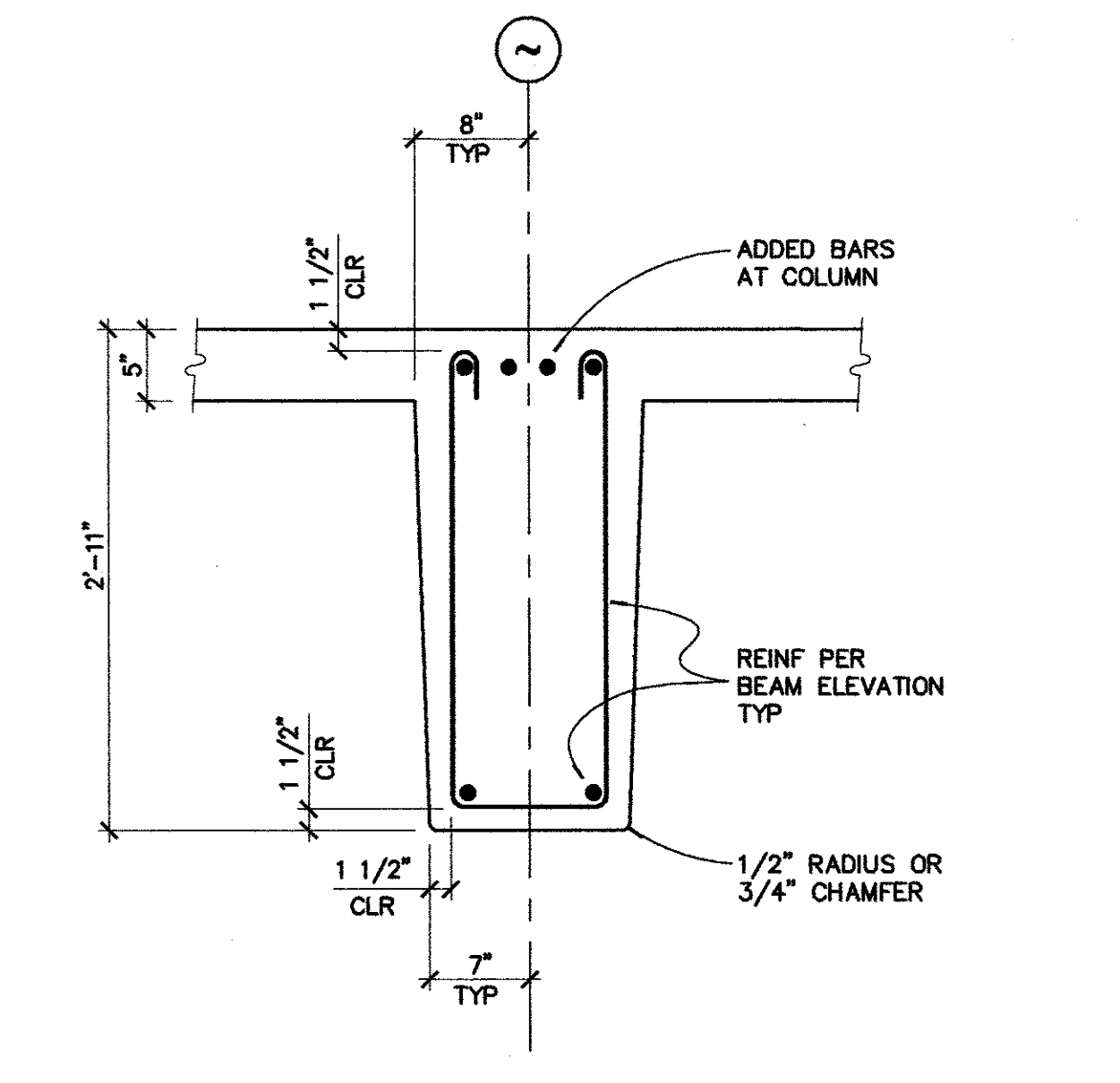
**TYPICAL STAIR CONNECTION** 9  
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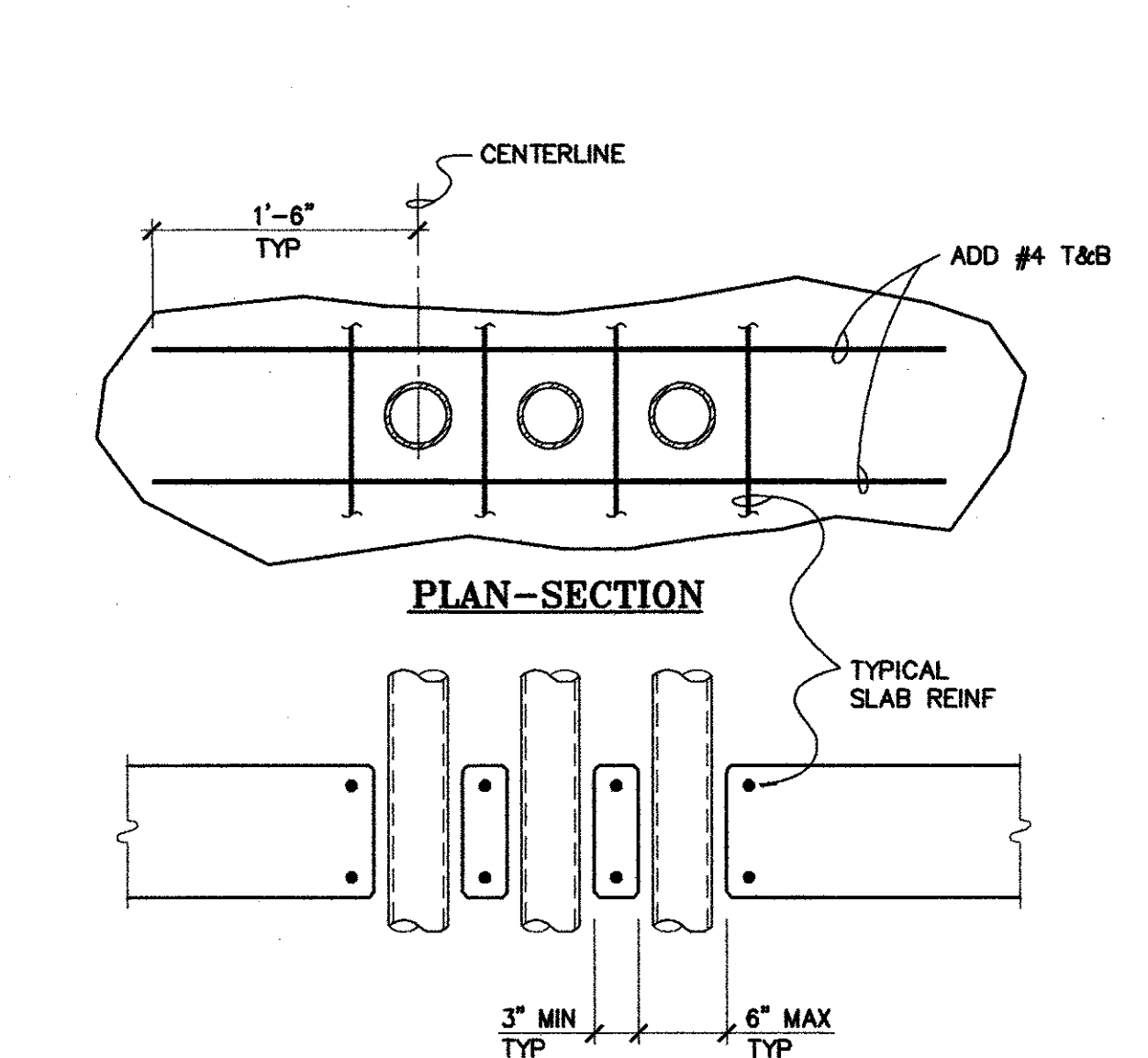
**RAISED SLAB OVER ELEVATED SLAB** 20  
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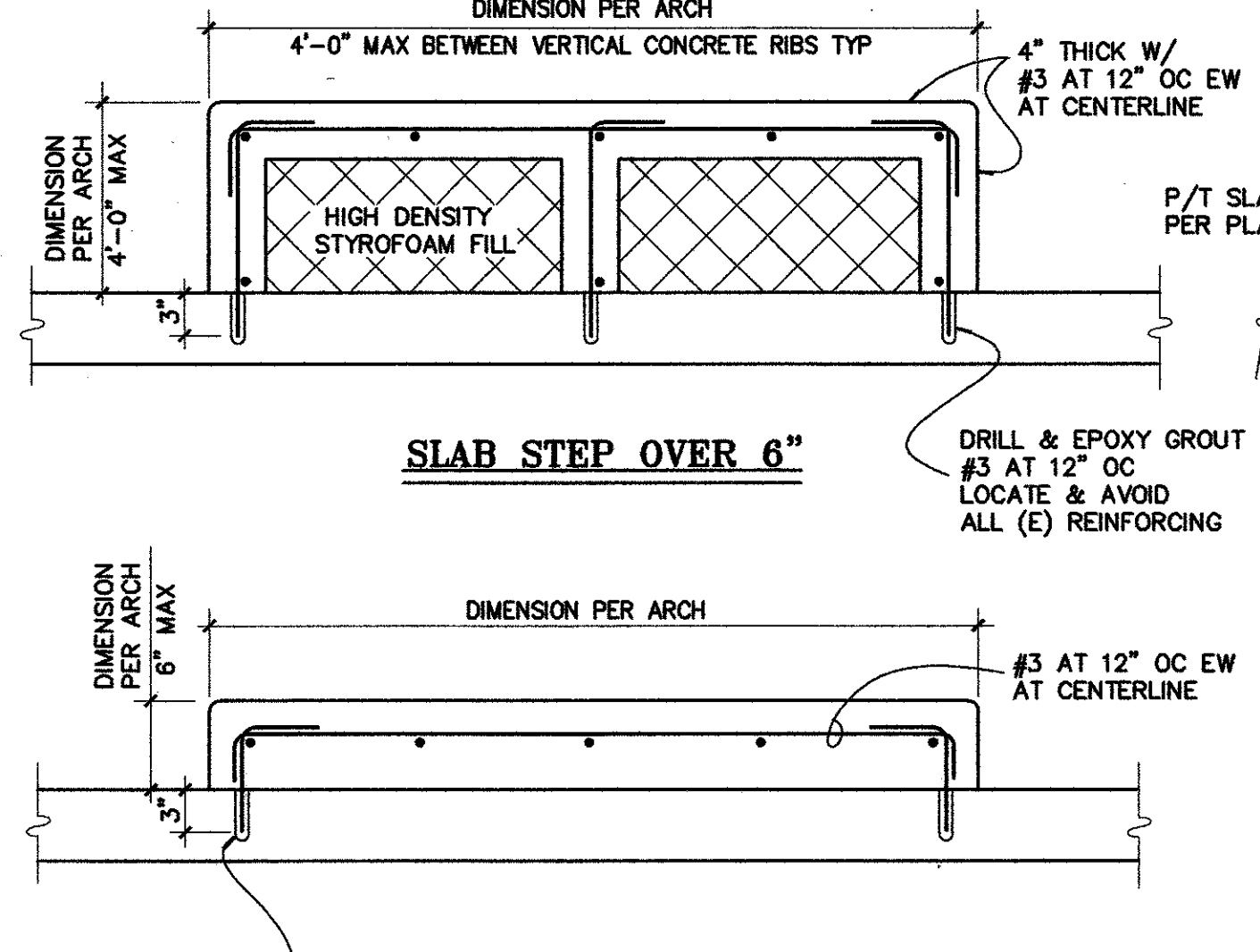
**TYPICAL PIPE/CONDUIT/SLEEVE GROUP THRU SLAB** 13  
 NO SCALE S4.2



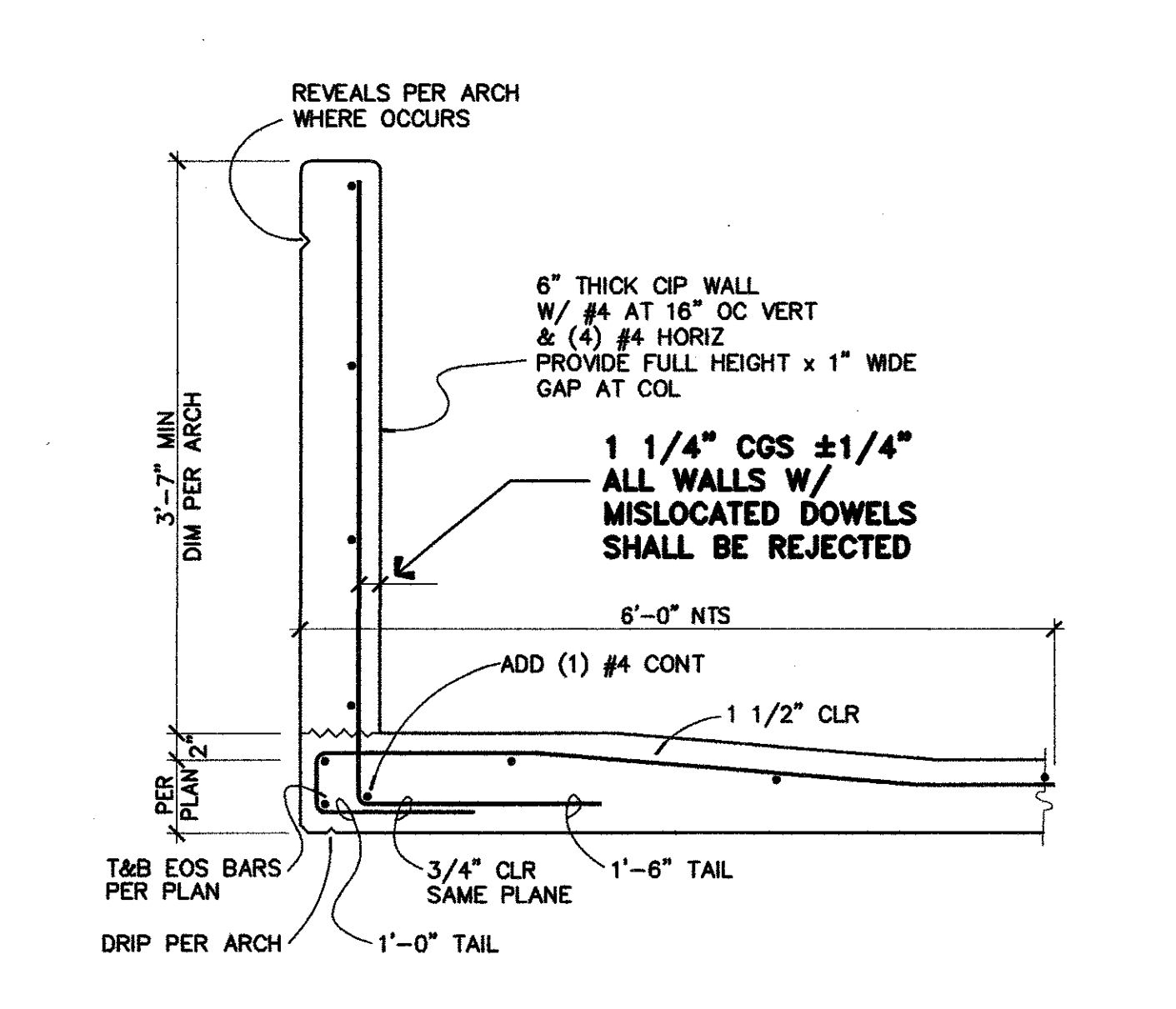
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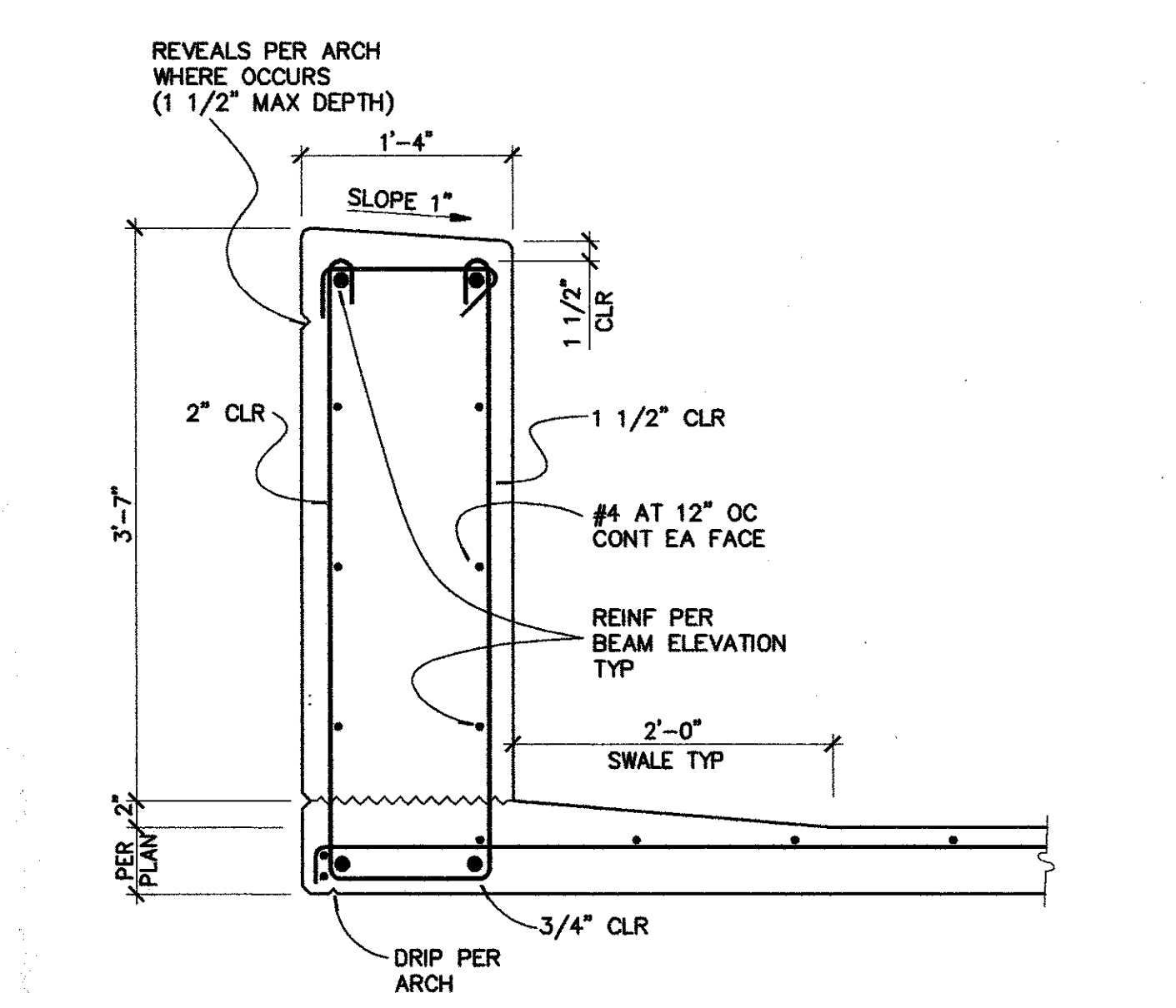
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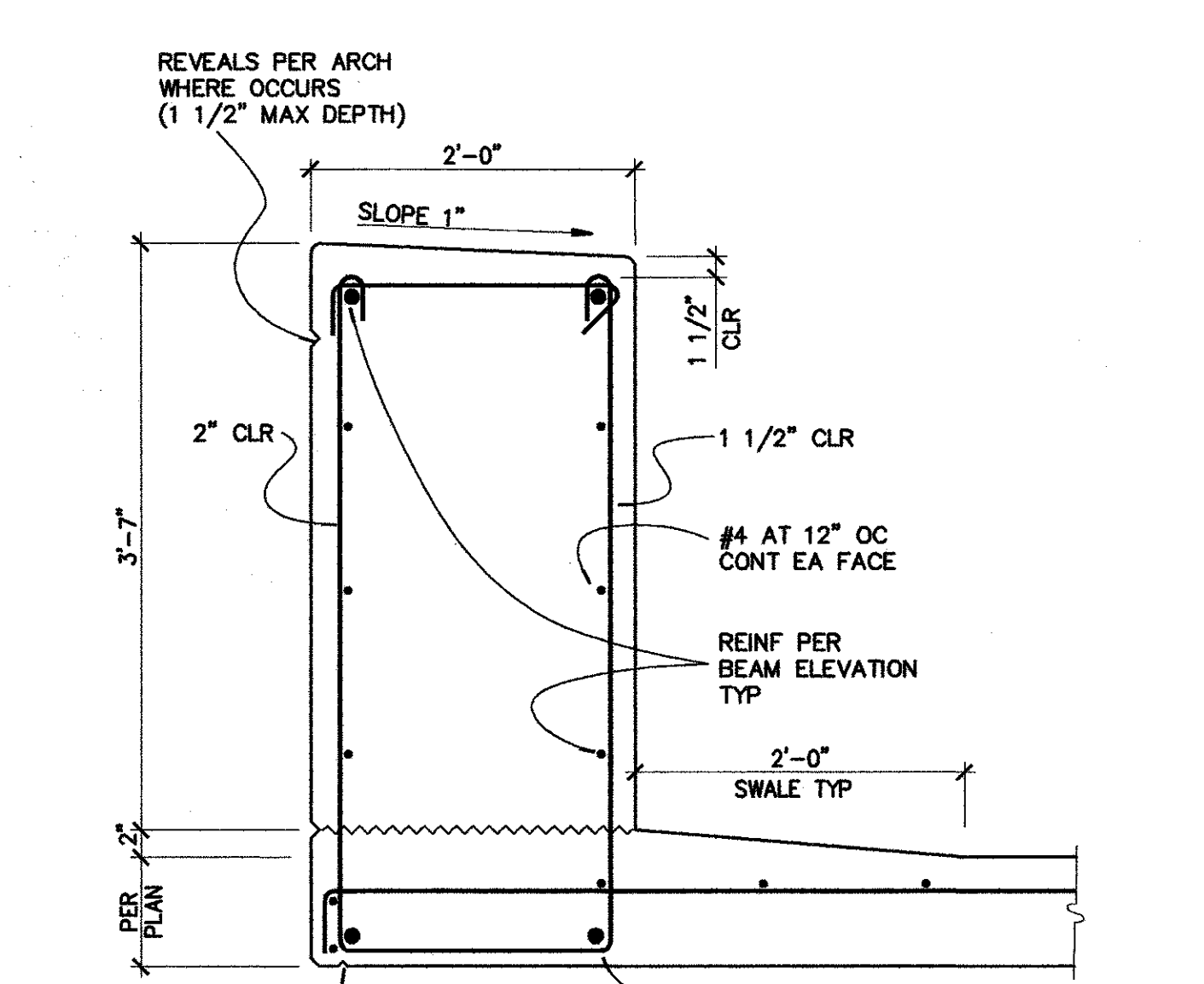
**SLAB STEP OVER 6"**  
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**SLAB STEP UP TO 6"**  
 NO SCALE S4.2



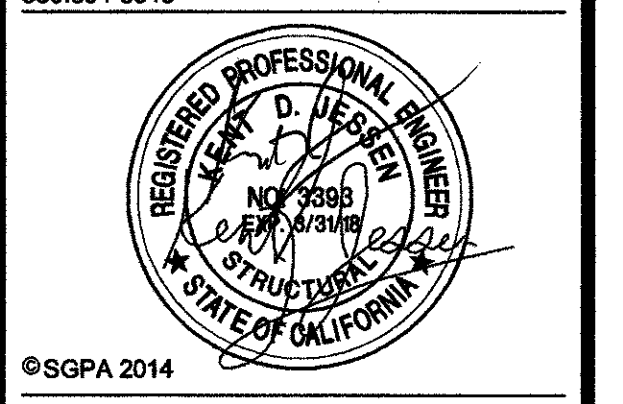
**RAISED SLAB OVER ELEVATED SLAB** 19  
 NO SCALE S4.2



**RAISED SLAB OVER ELEVATED SLAB** 18  
 NO SCALE S4.2

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OFFICE OF THE STATE ARCHITECT  
APPROVED FOR PERMITS ONLY  
Reviewed by: [Signature]  
APR 27 2016

Approval of this plan does not authorize or endorse any construction or deviation from the approved specifications. Final approval is subject to field inspection. One set of approved plans will be available on the project site at all times.

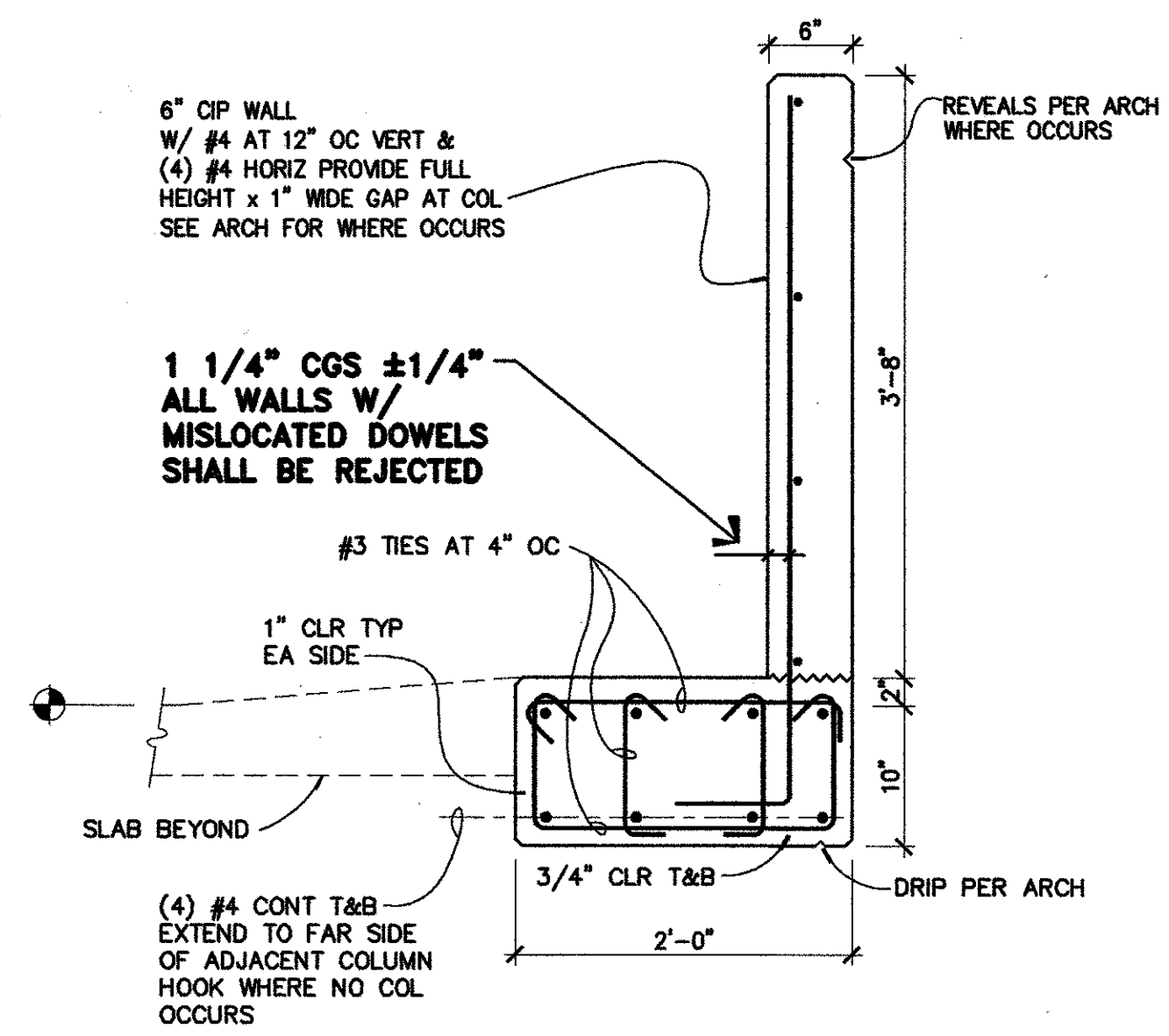
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50% PRELIM. DESIGN	05/14/2014
100% PRELIM. DESIGN	05/28/2014
50% CONST. DOCS.	07/02/2014
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100% BACKCHECK 3	03/20/2015
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ASI#011 SFM RESUB 2	11/06/2015
ASI#015 SFM RESUB 3	03/03/2016

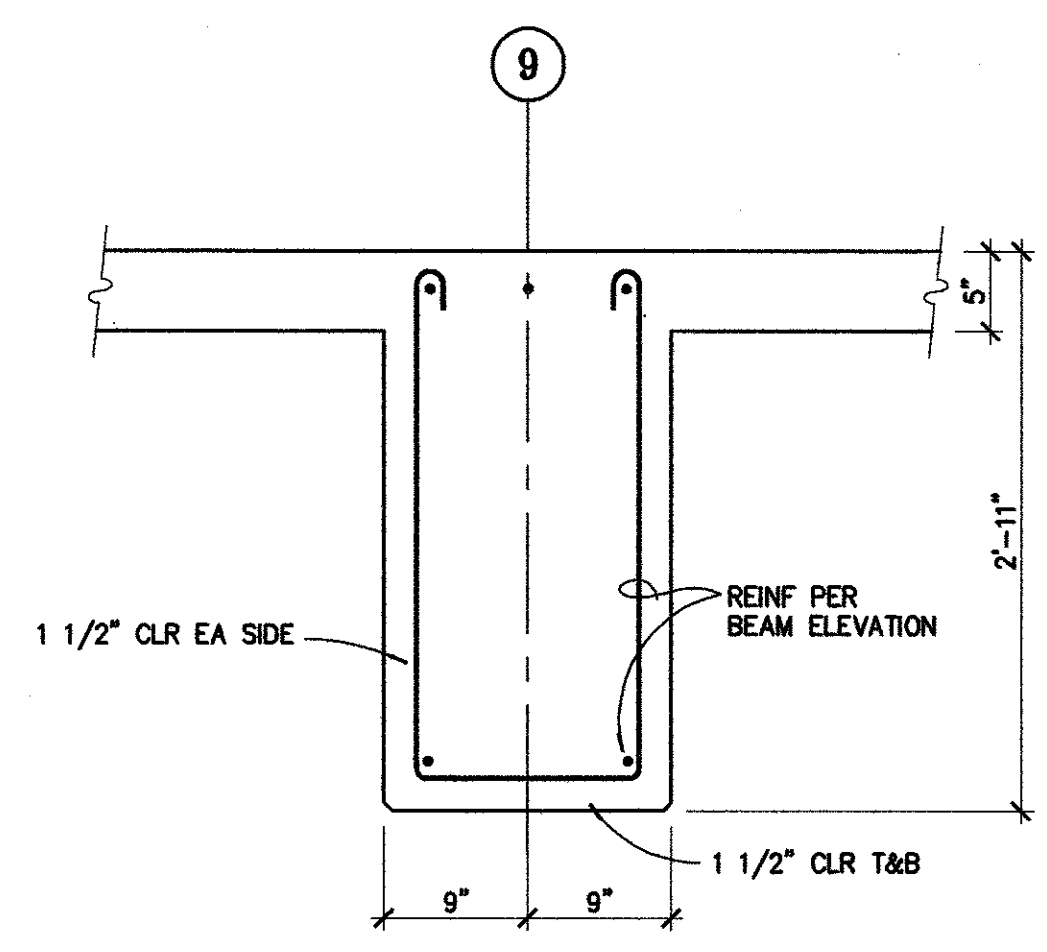
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DIVISION OF THE STATE ARCHITECT  
OFFICE OF REGULATION SERVICES

FILE # 04-114204  
AC \_\_\_\_\_ DATE: \_\_\_\_\_

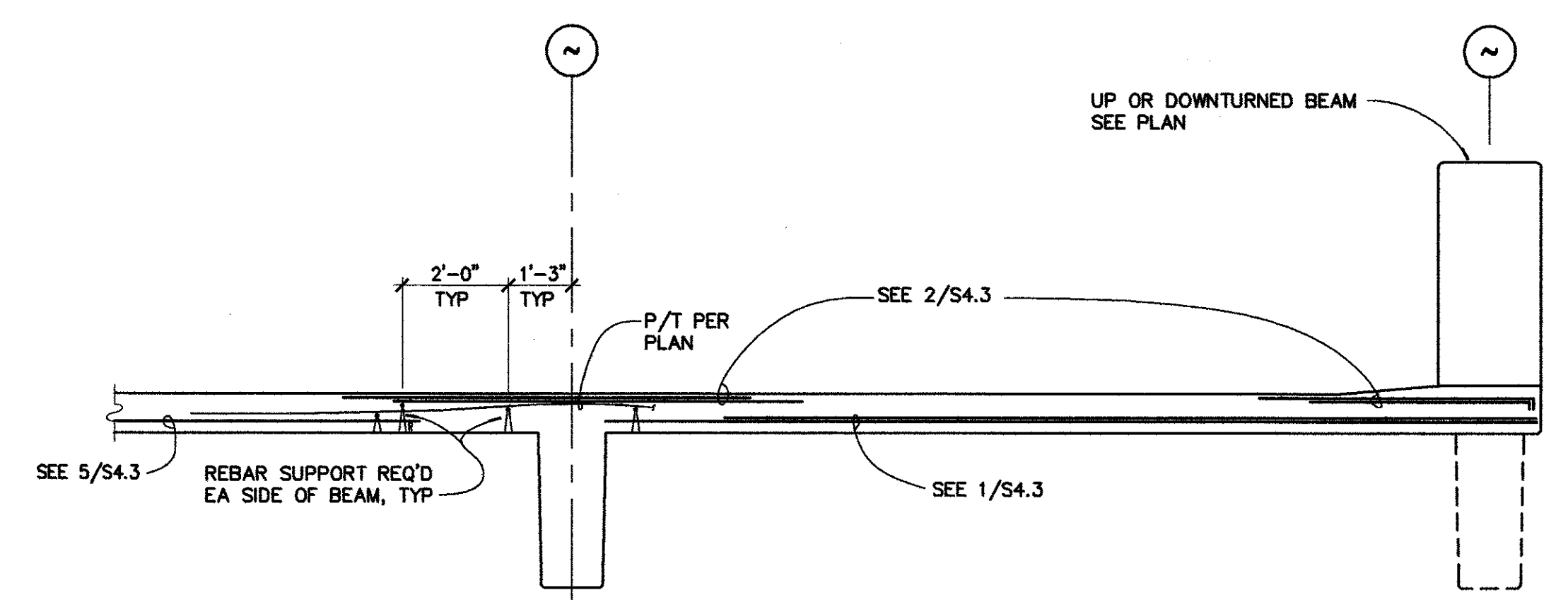
PROJECT NO: 21305-G-50



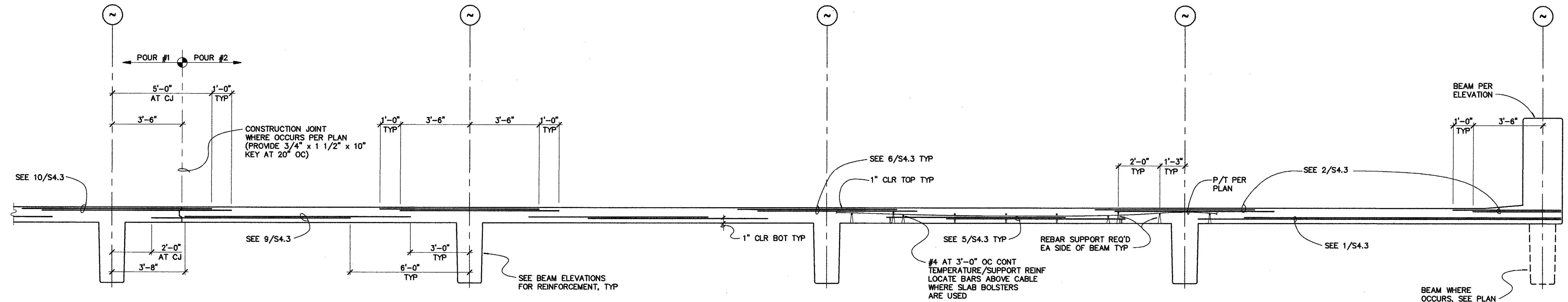
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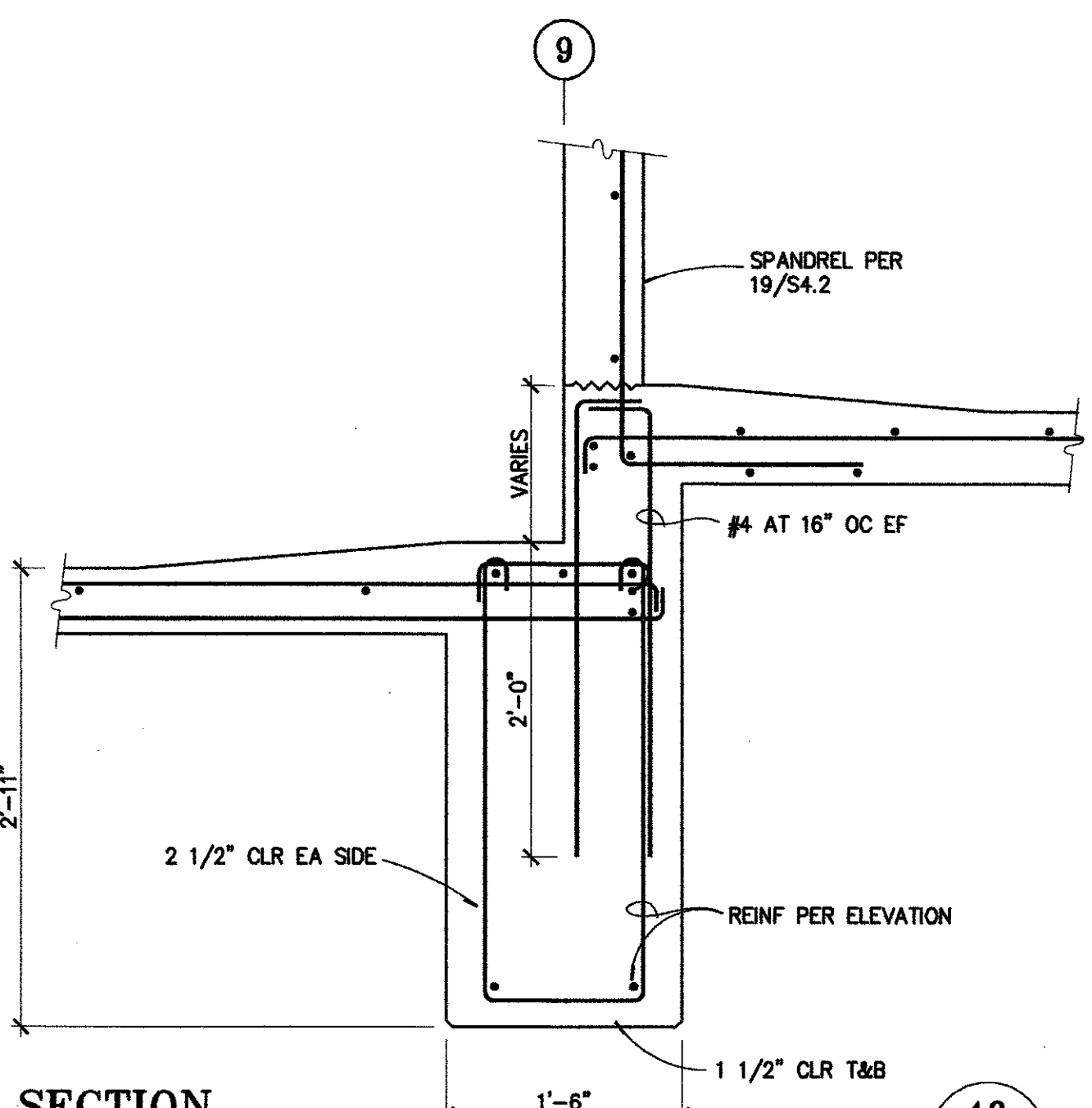
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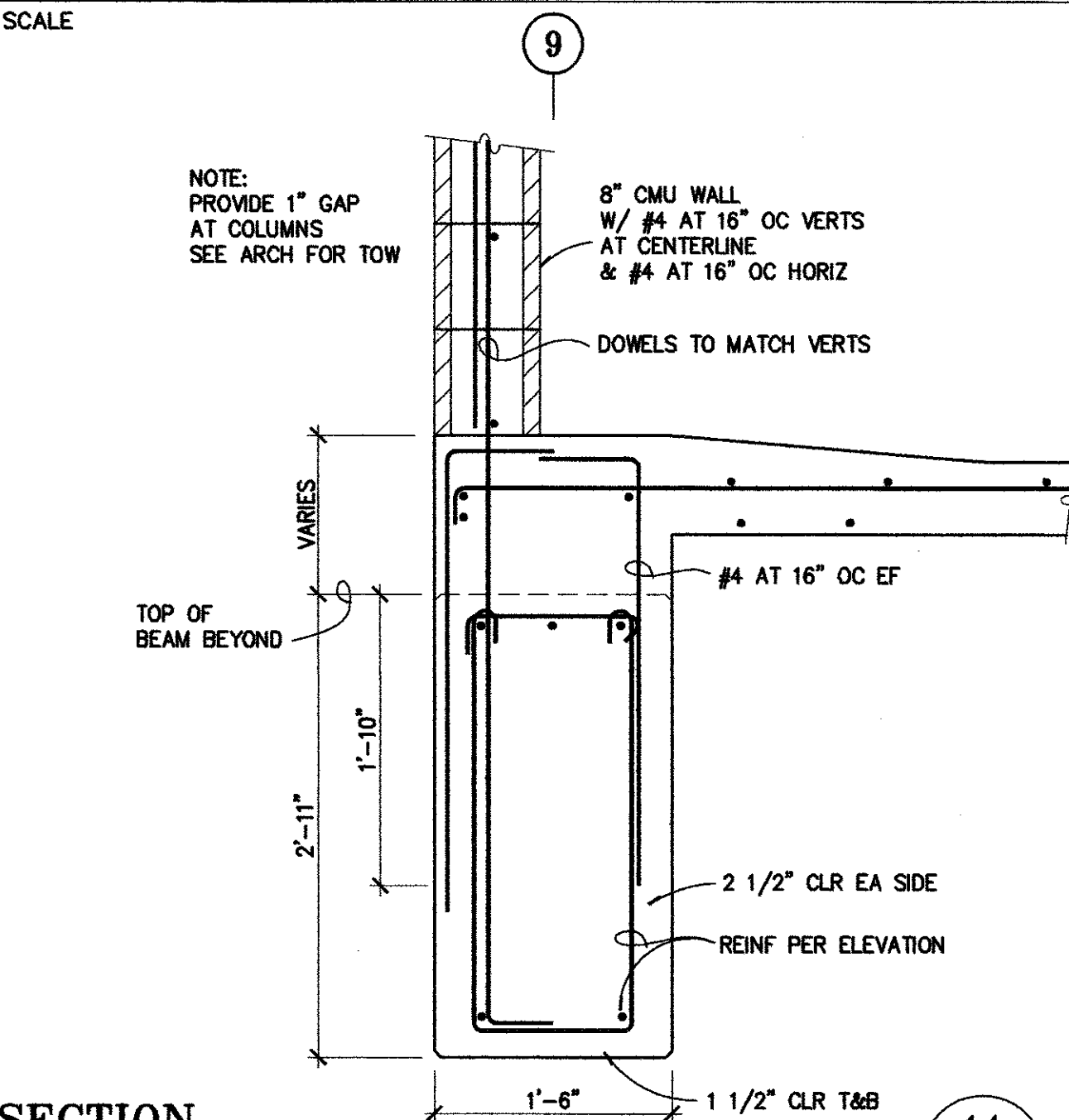
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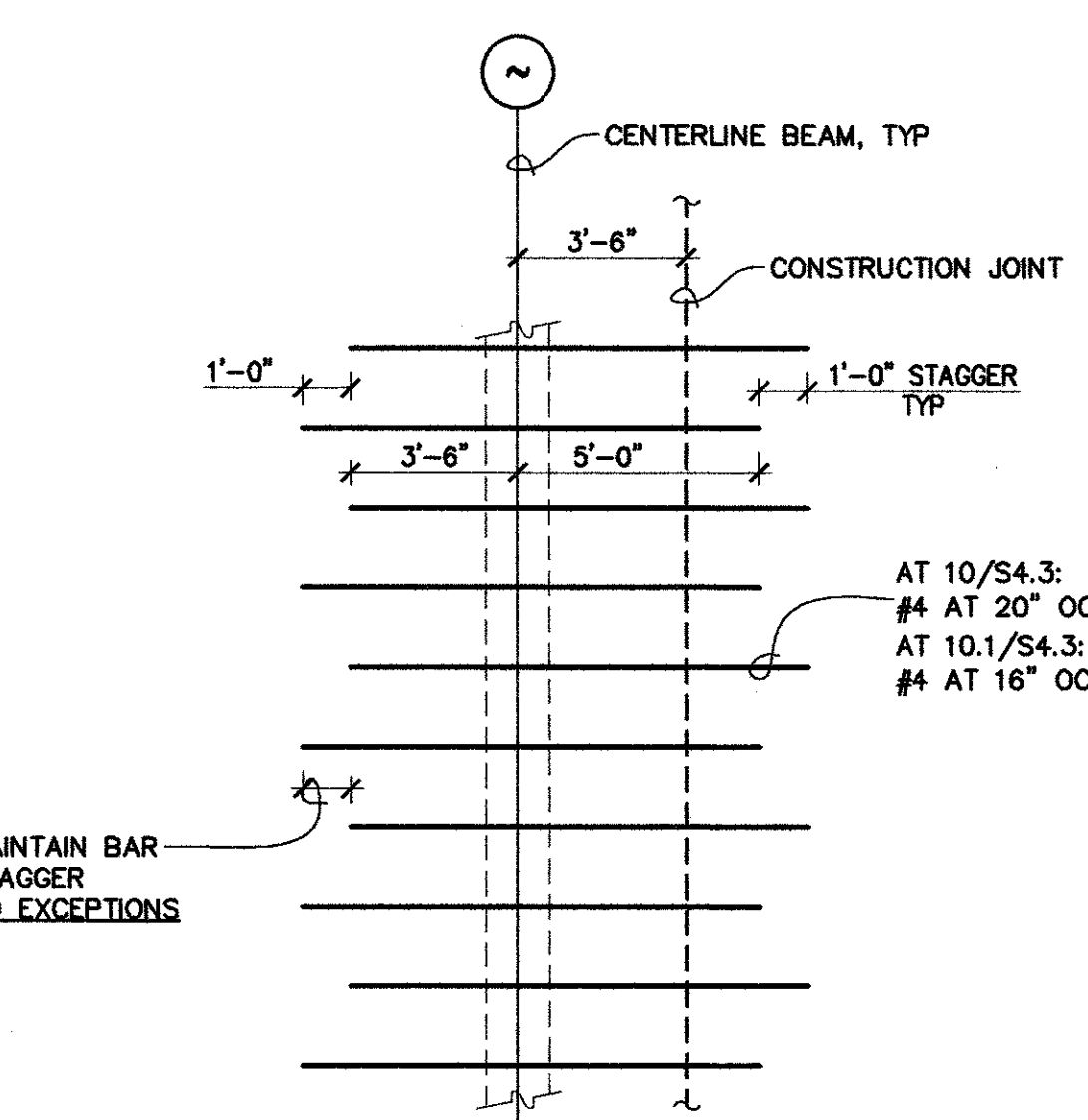
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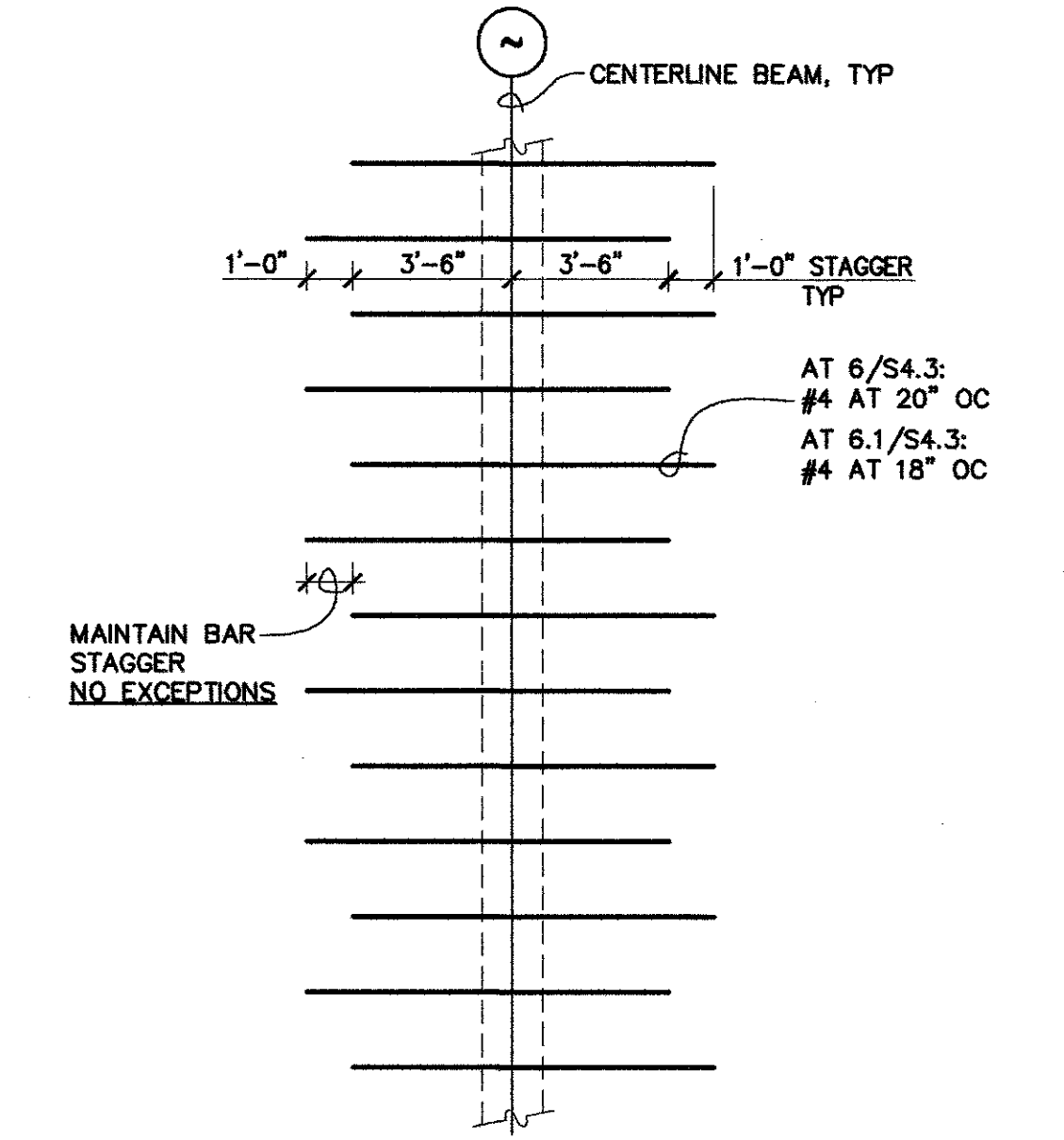
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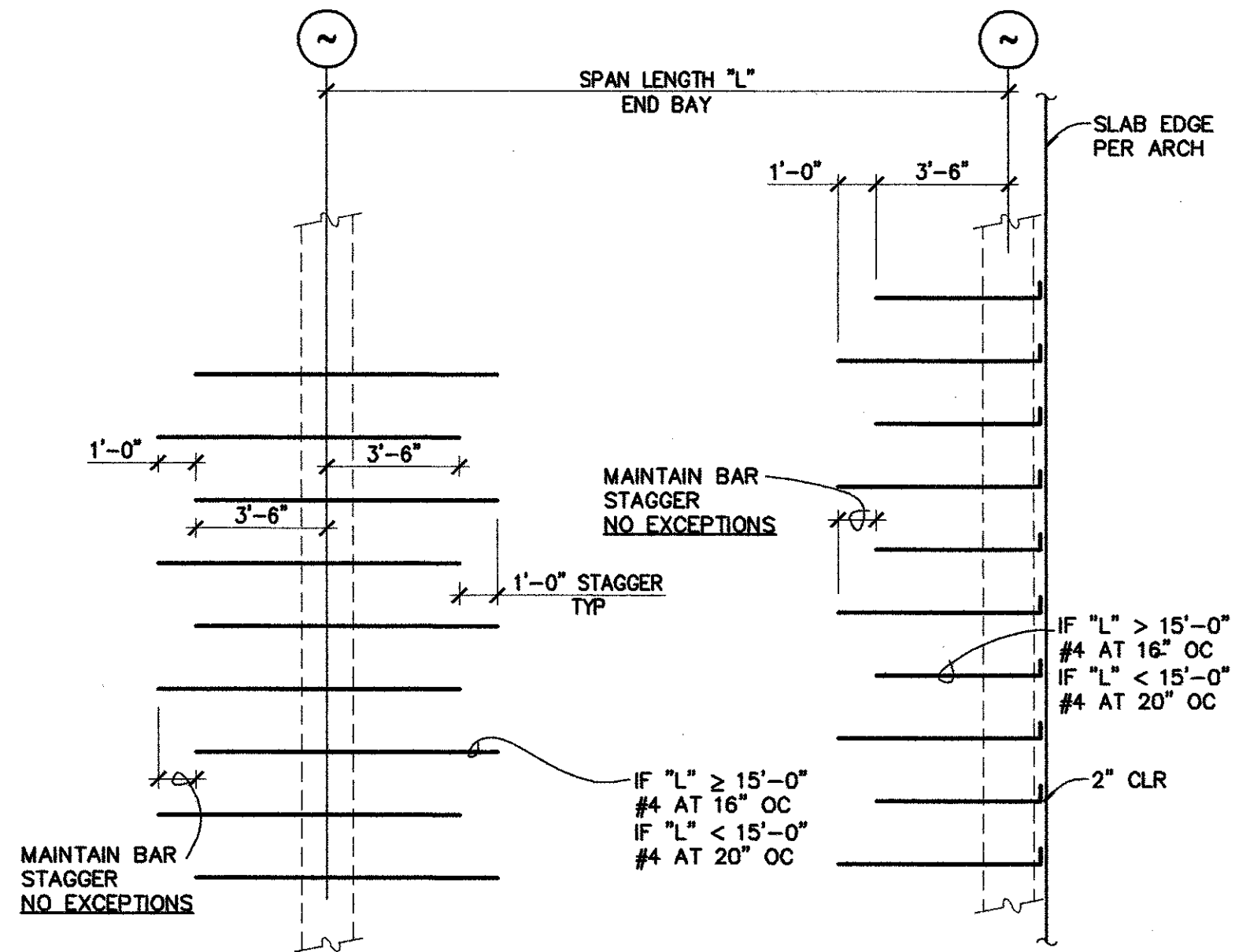
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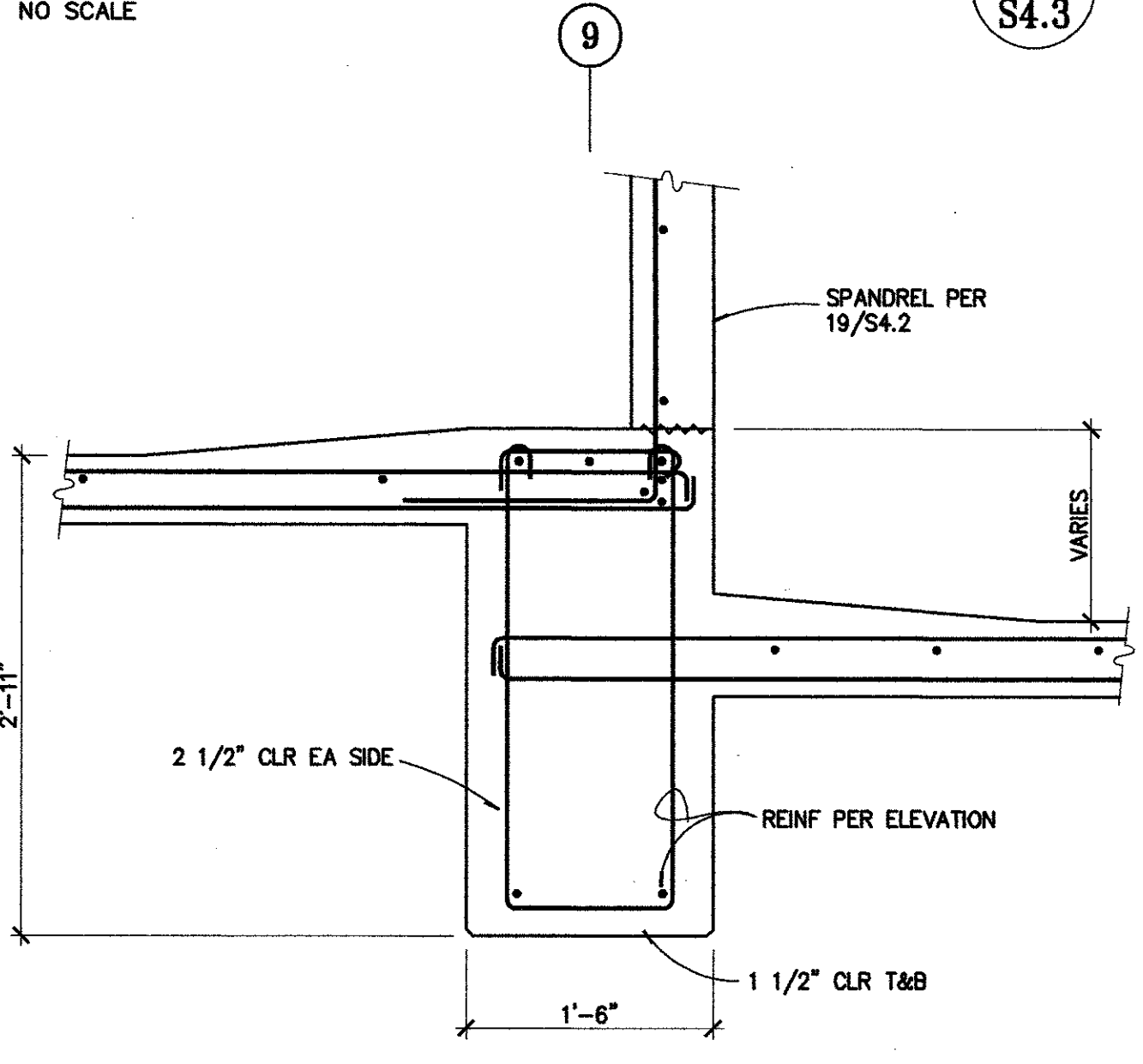
TYP TOP SLAB REINF AT CONSTR JTS  
NO SCALE  
S4.3 S4.3



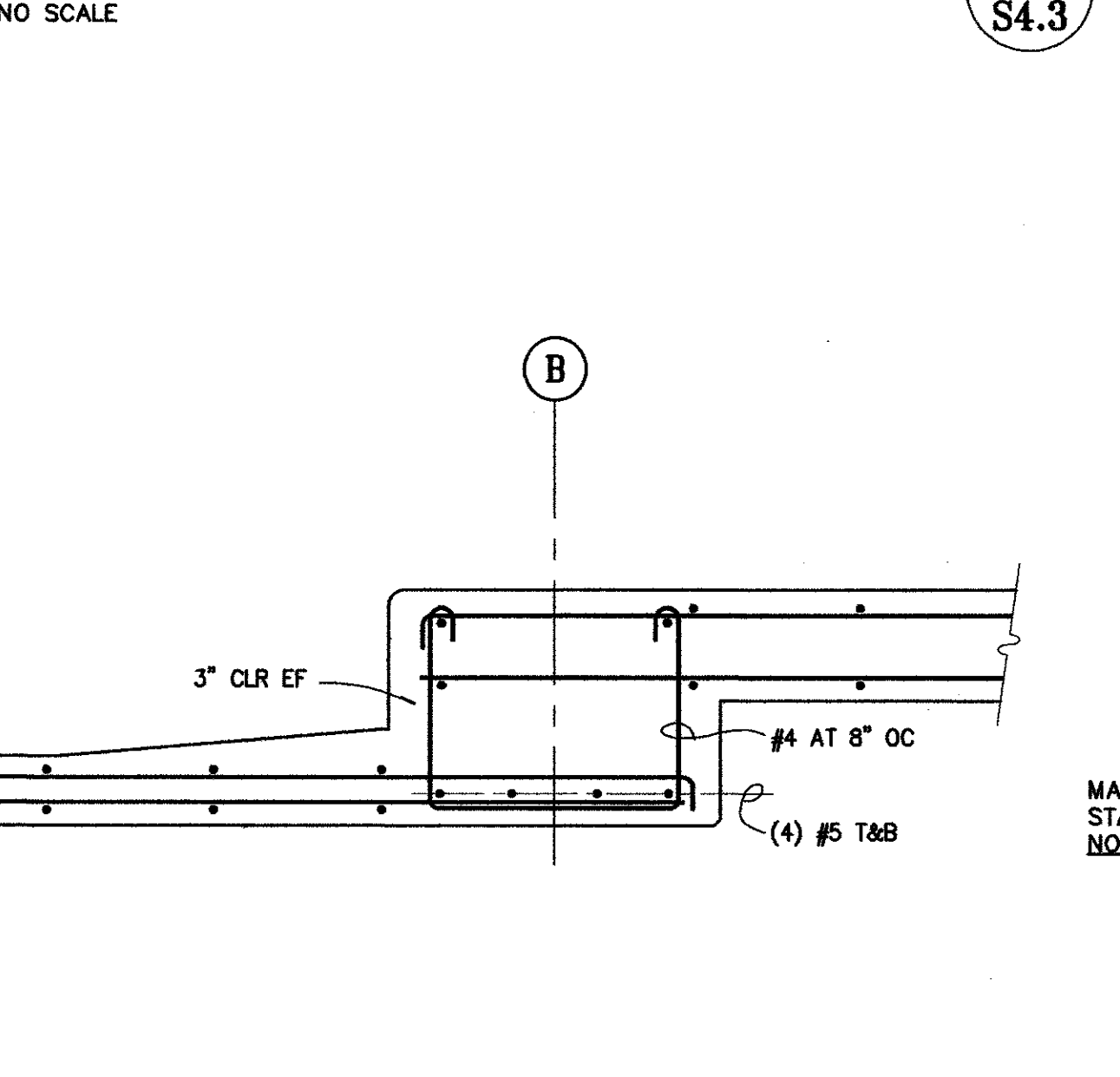
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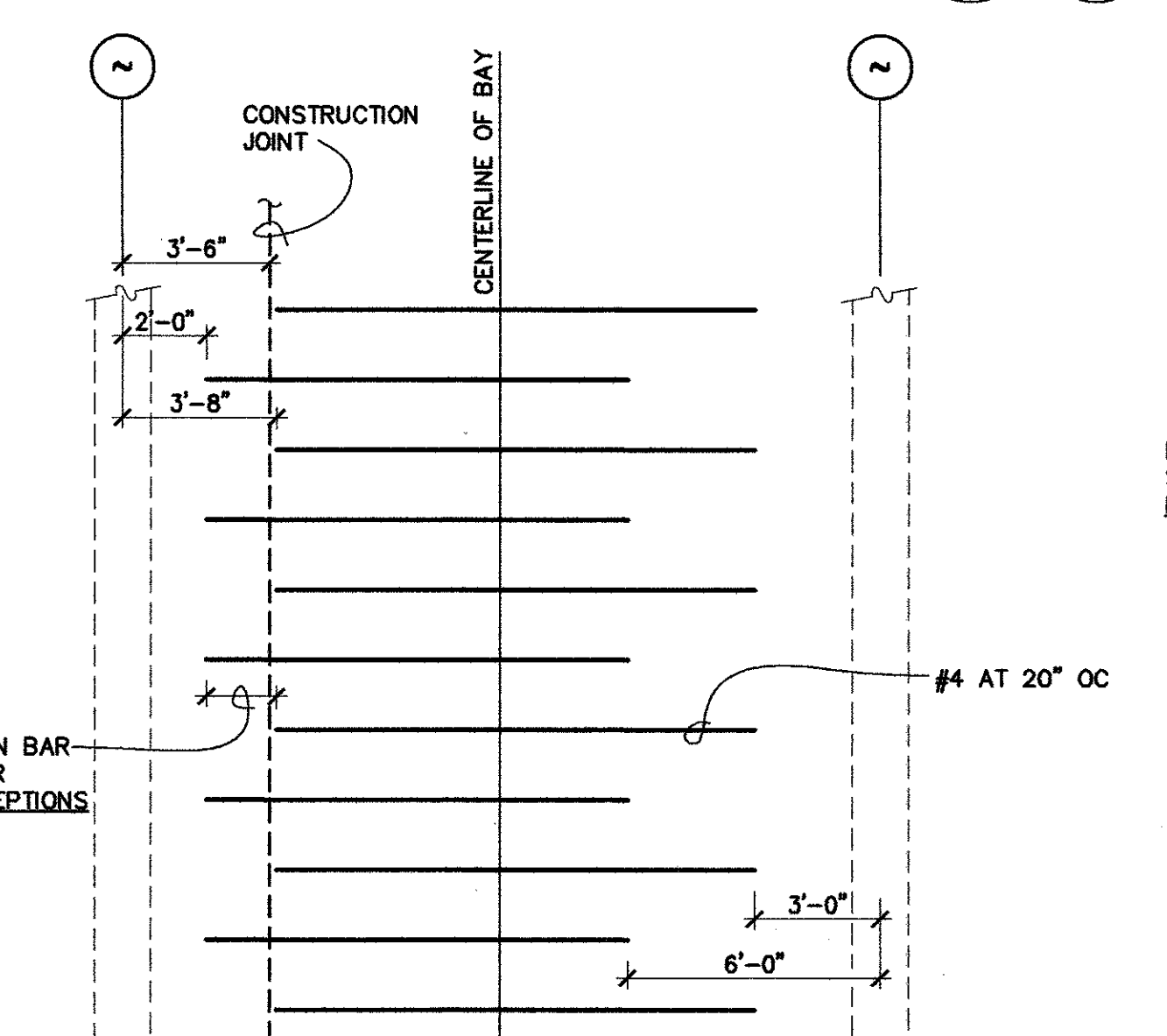
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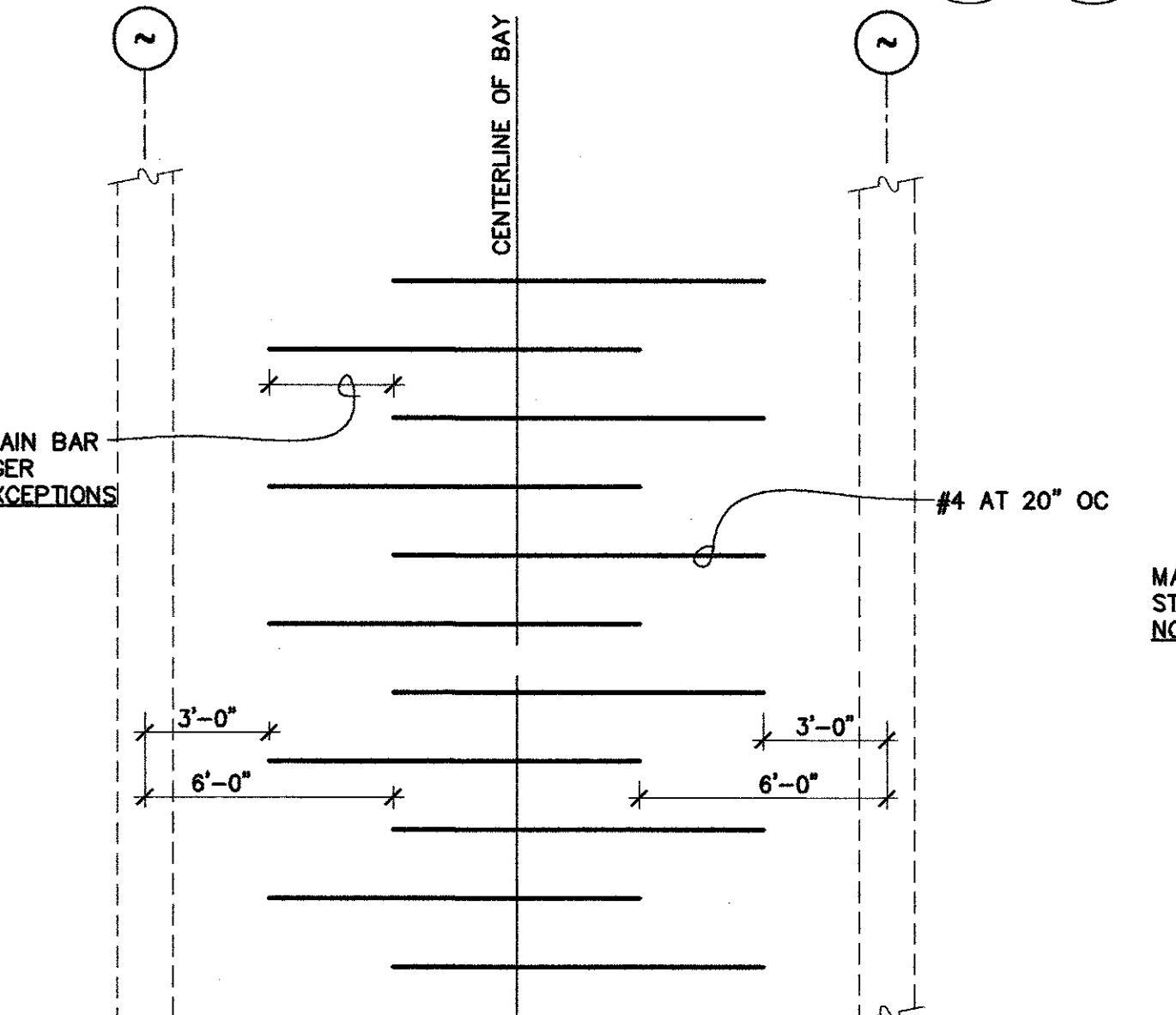
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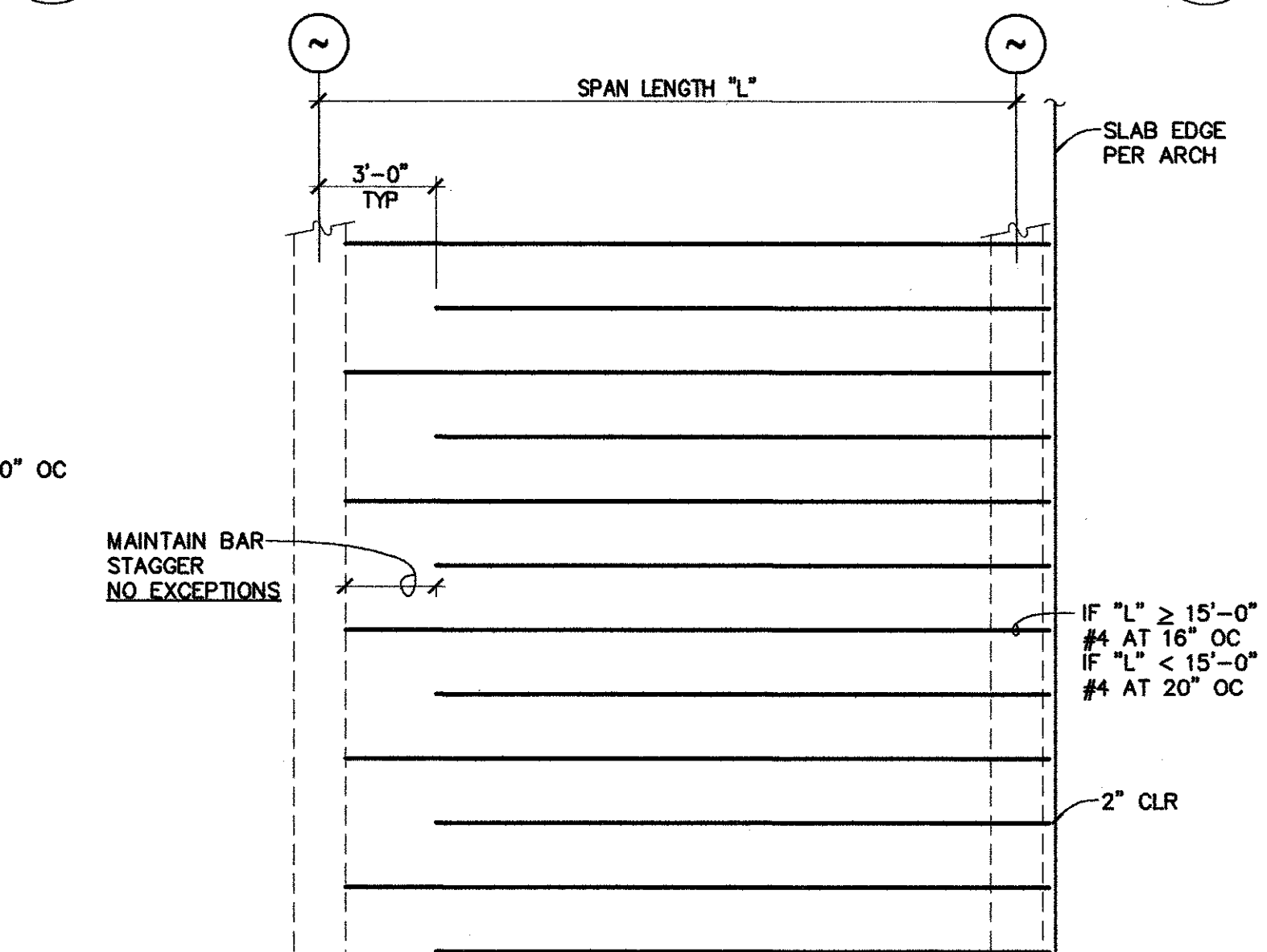
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TYP BOT SLAB REINF AT CONSTR JTS  
NO SCALE  
S4.3



TYP BOT MAT SLAB REINF  
NO SCALE  
S4.3



TYP BOT SLAB REINF AT END BAY  
NO SCALE  
S4.3





**SUBMITTAL SCHEDULE:**

SCHEMATIC DESIGN	04/17/2014
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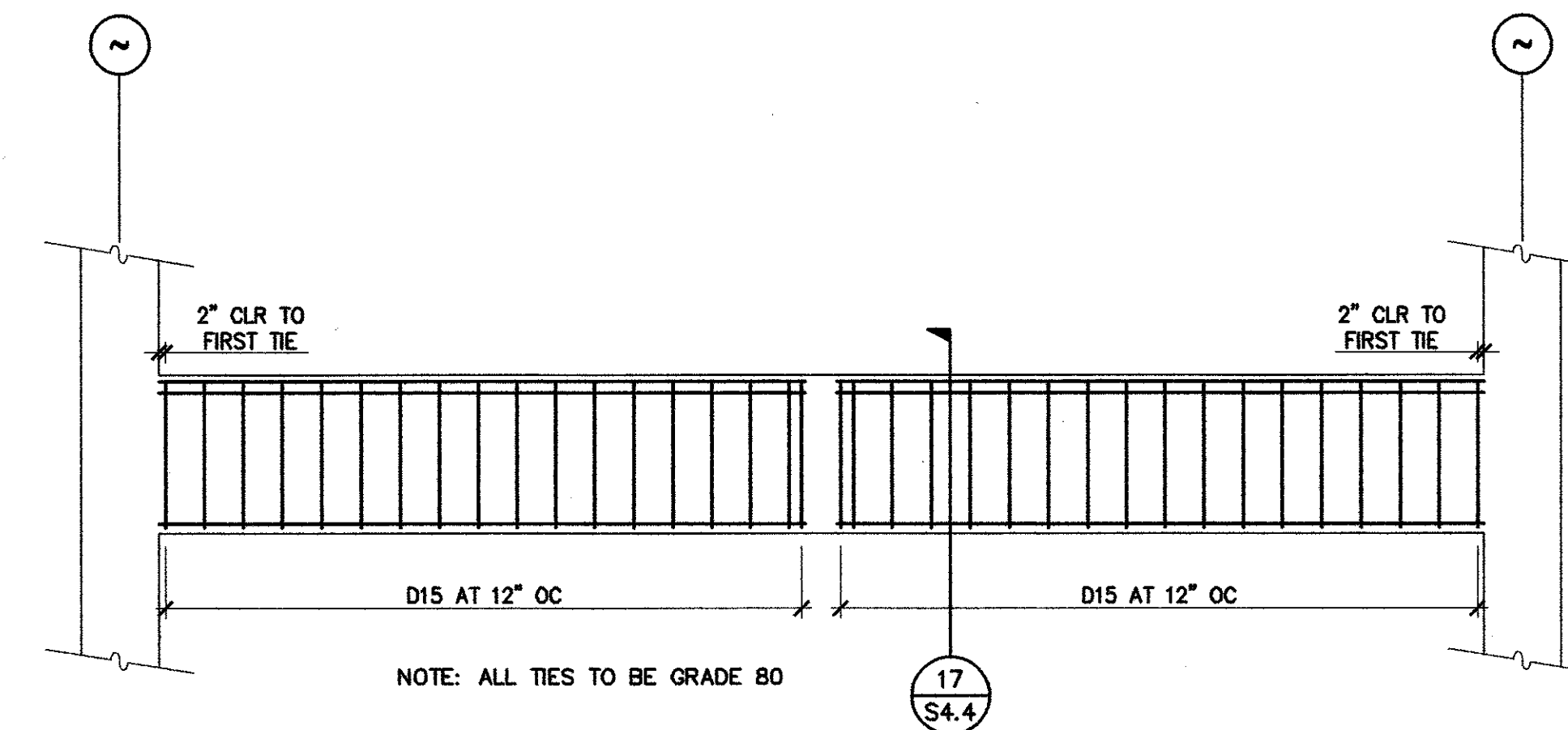
IDENTIFICATION STAMP  
DIVISION OF THE STATE ARCHITECT  
OFFICE OF REGULATION SERVICES

FILE #  
APR # 04-114204  
AC \_\_\_\_\_ DATE \_\_\_\_\_

PROJECT NO: 21305-G-50

**ALTERNATE SLAB REINF, BEAM TIES, & DETAILS**

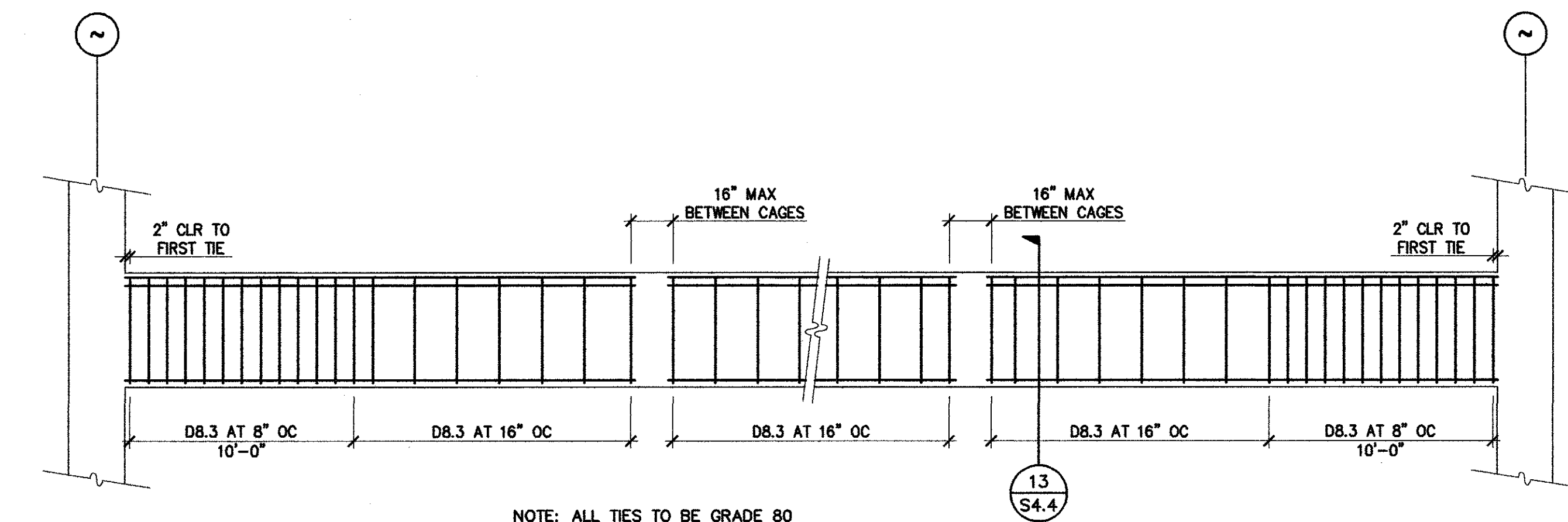
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**SWWR ALTERNATE TYP GIRDER TIE REINF**

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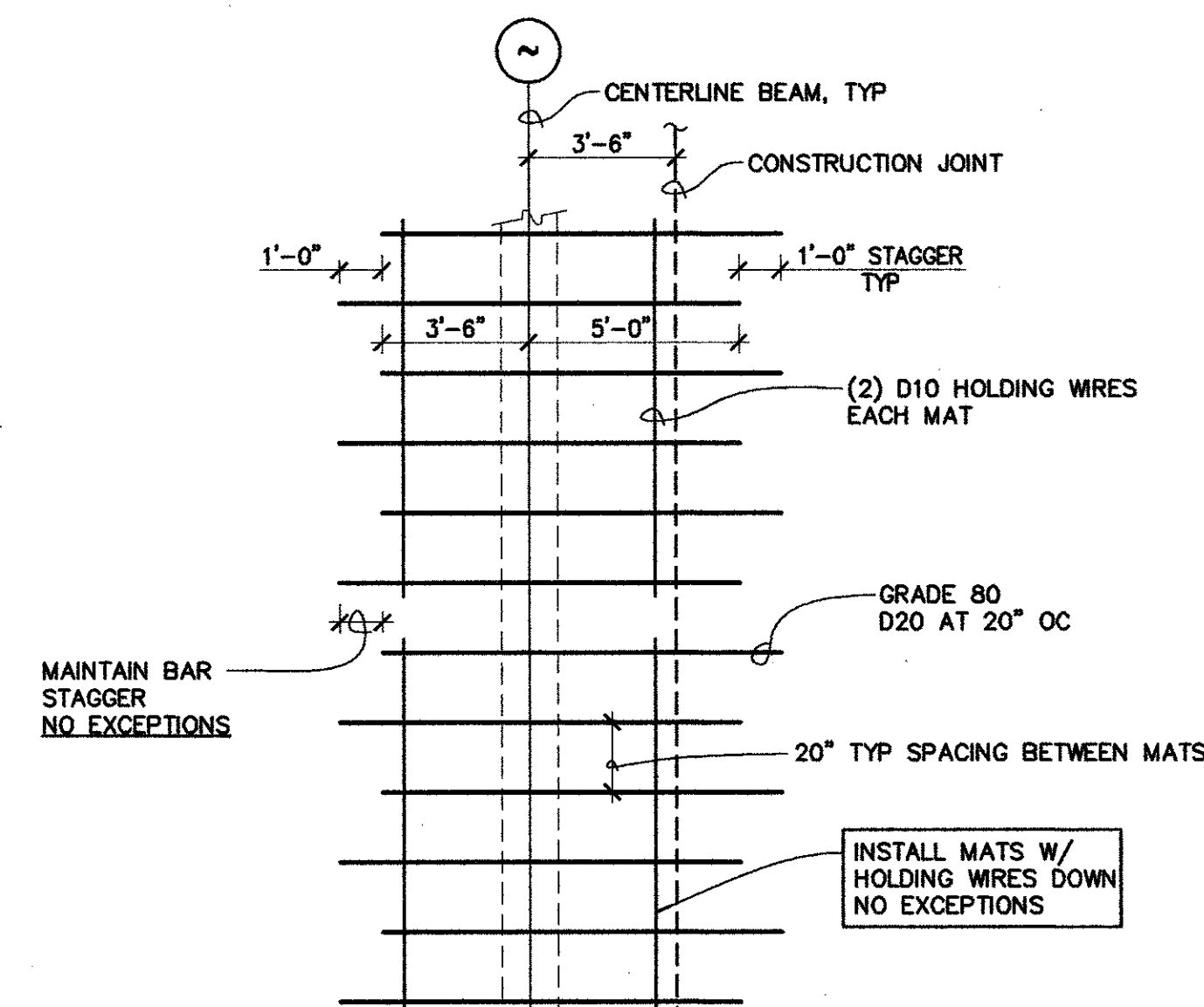
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S4.4



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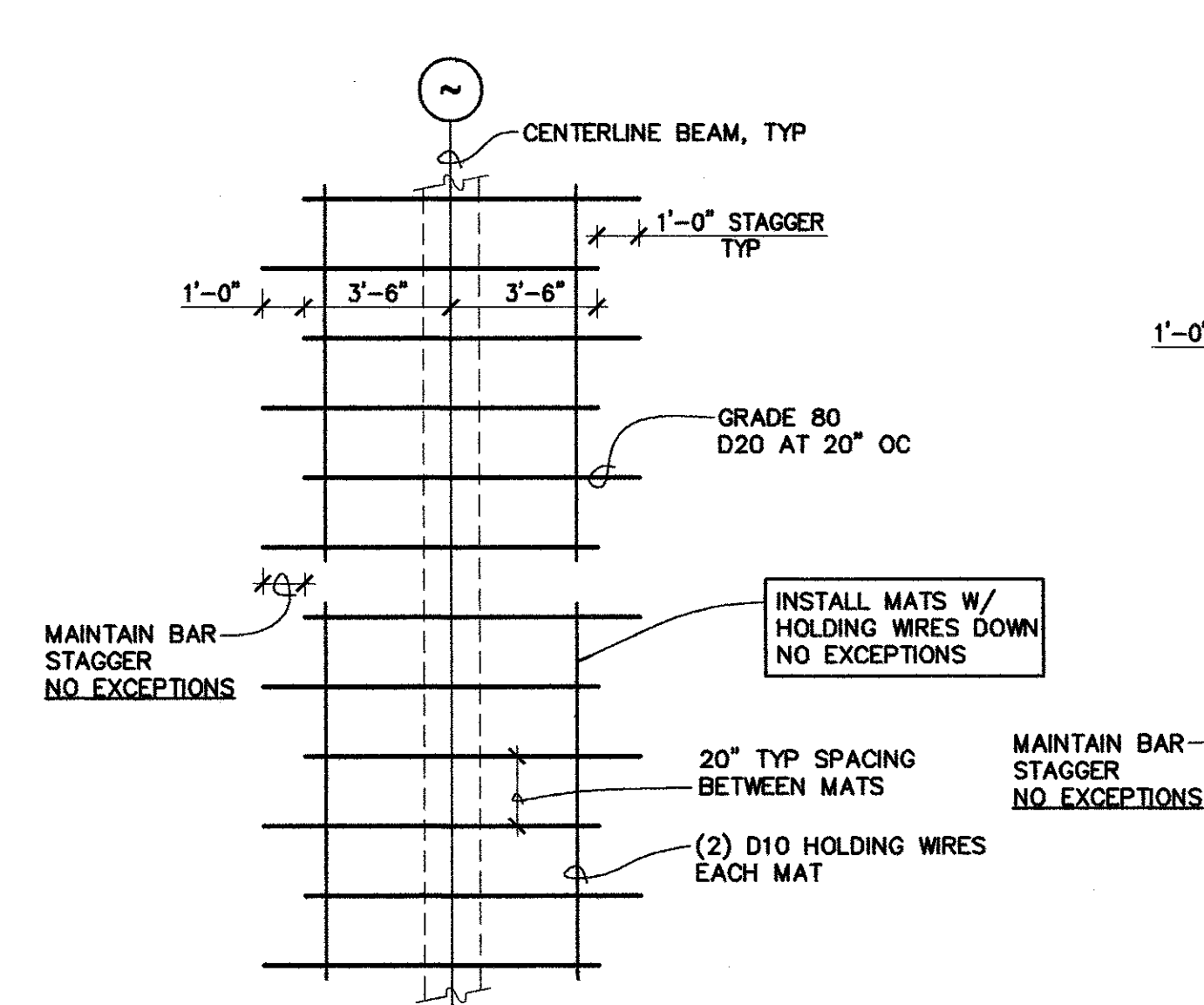
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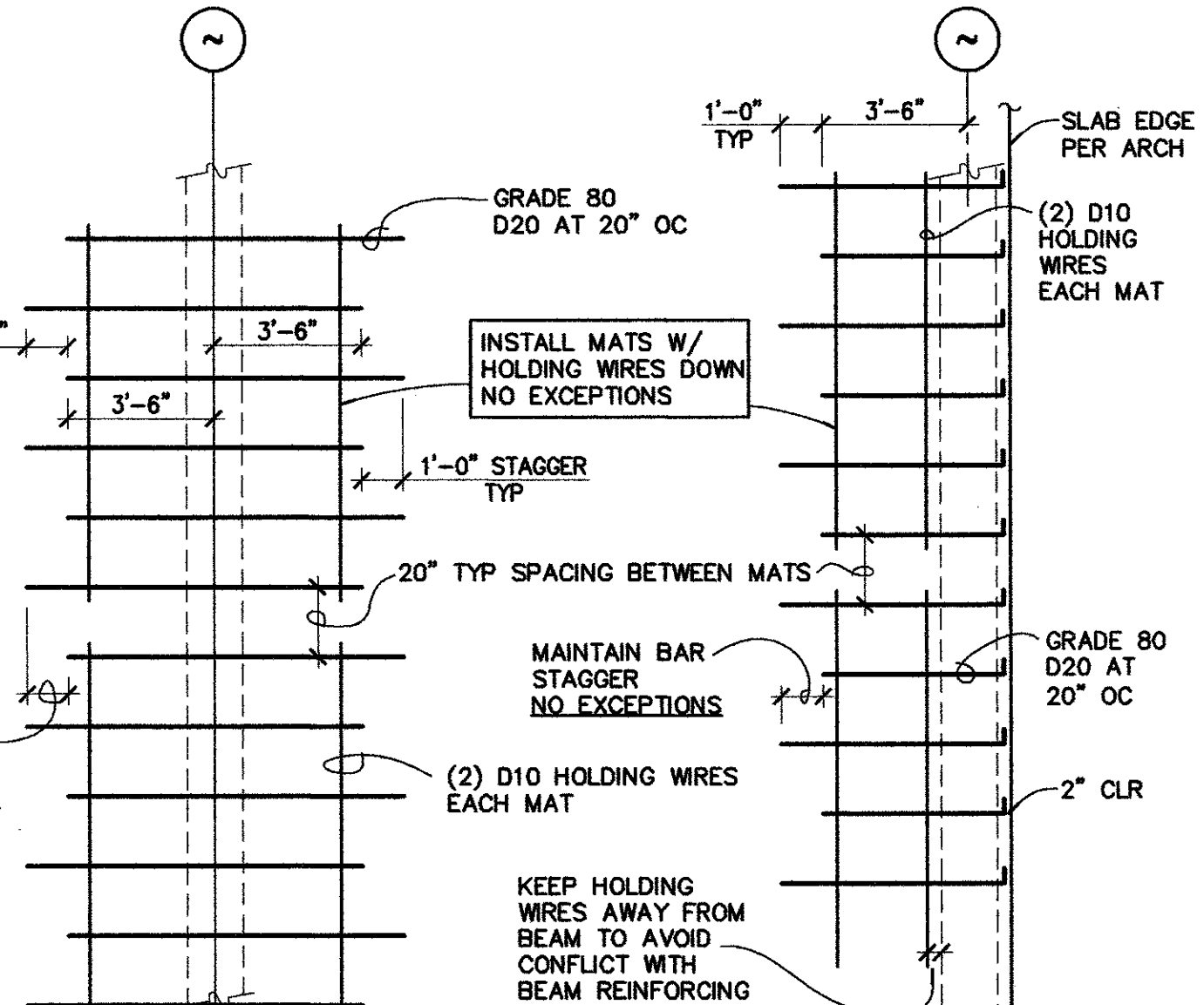
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**SWWR ALTERNATE TYP TOP SLAB REINF**

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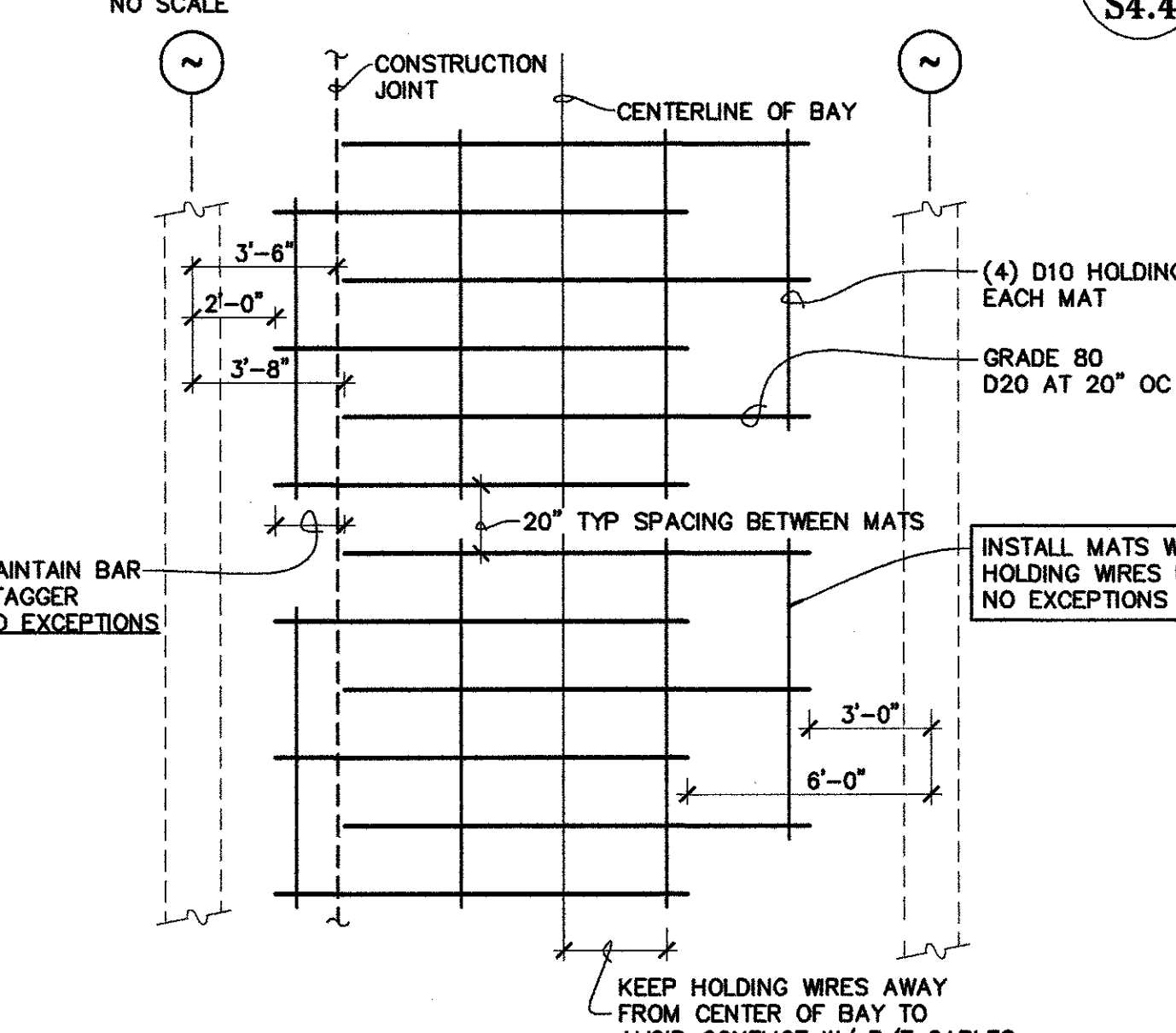
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**SWWR ALTERNATE TYP TOP SLAB REINF AT EOS**

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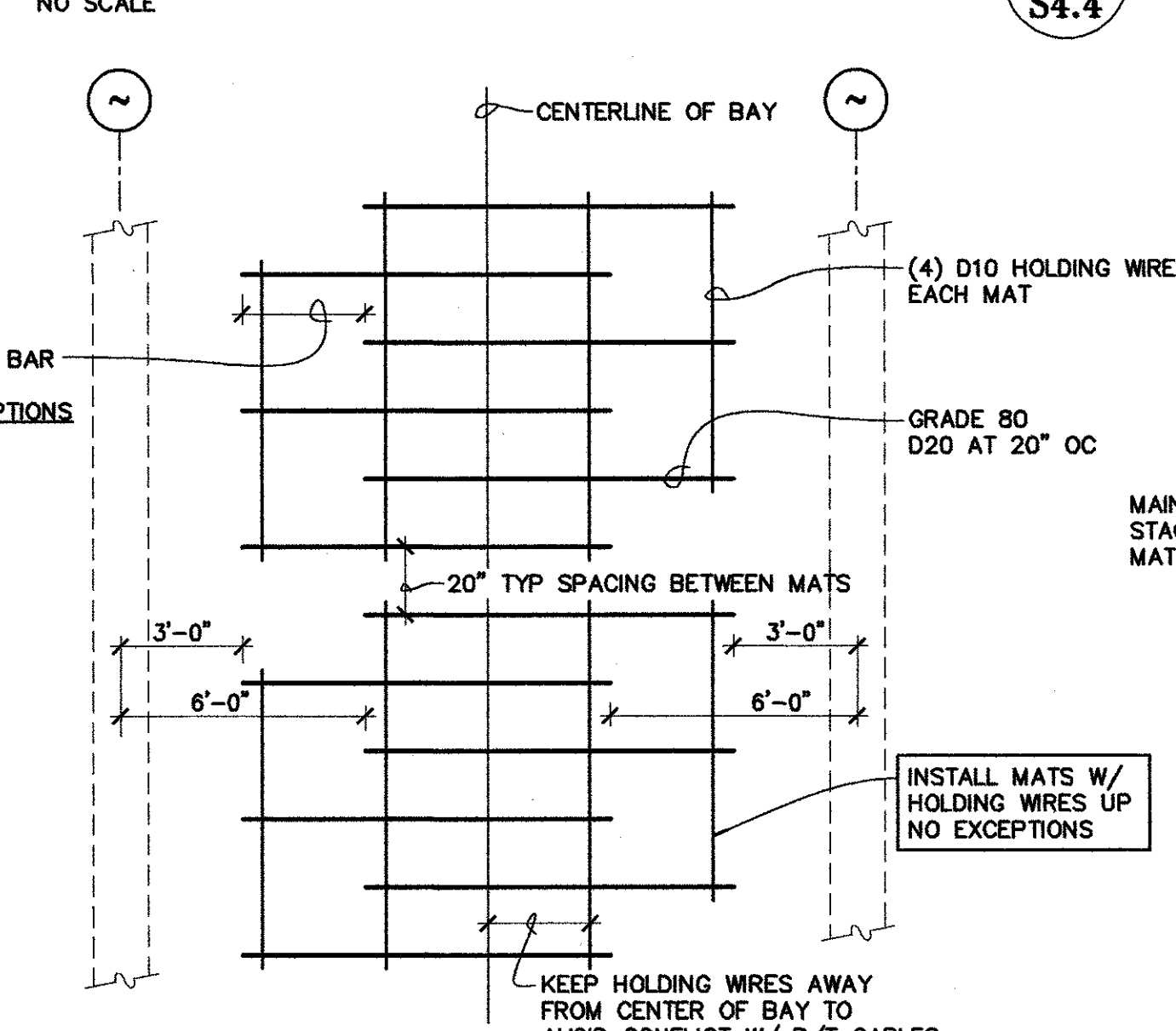
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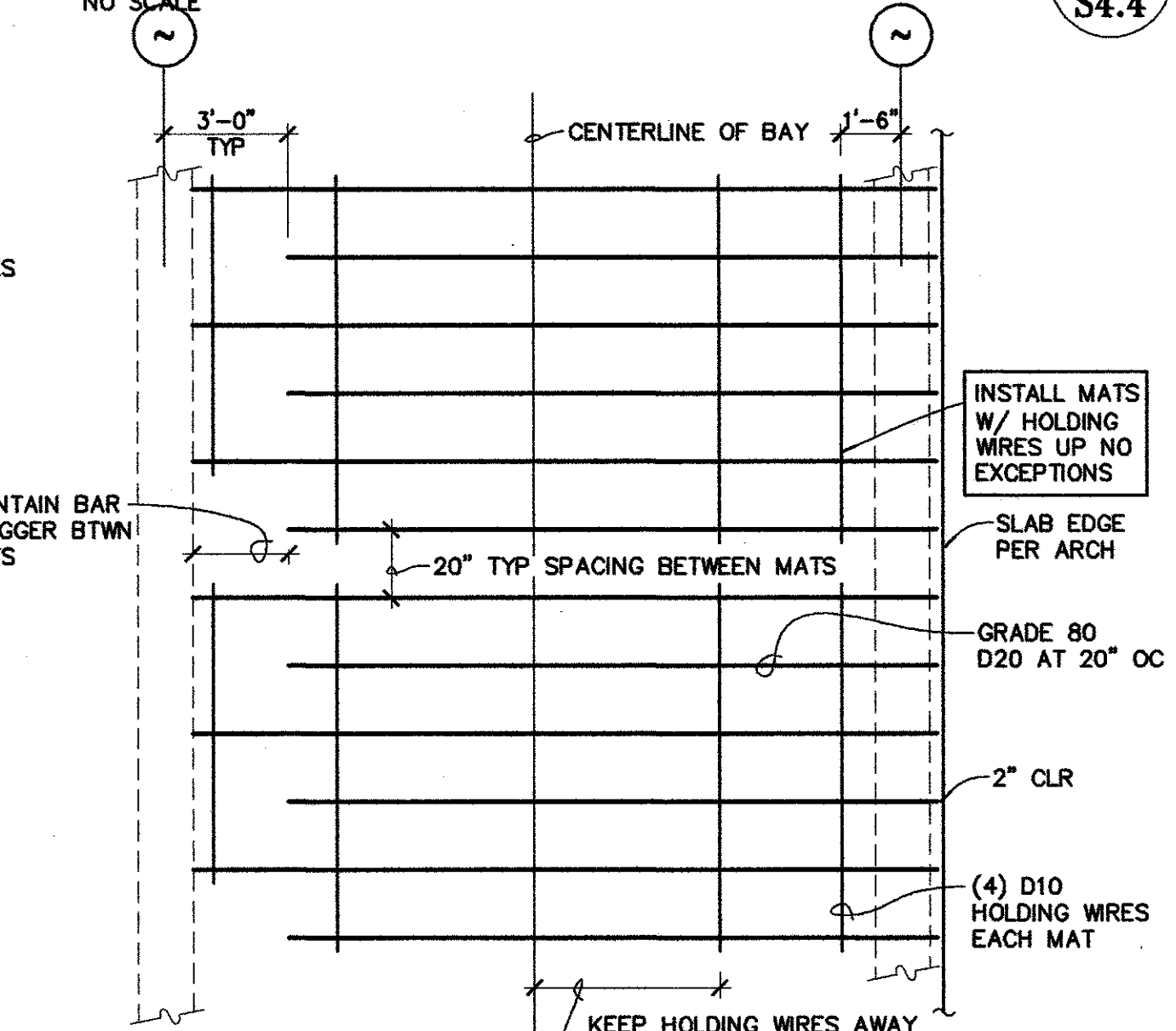
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**SWWR ALTERNATE TYP BOT MAT SLAB REINF**

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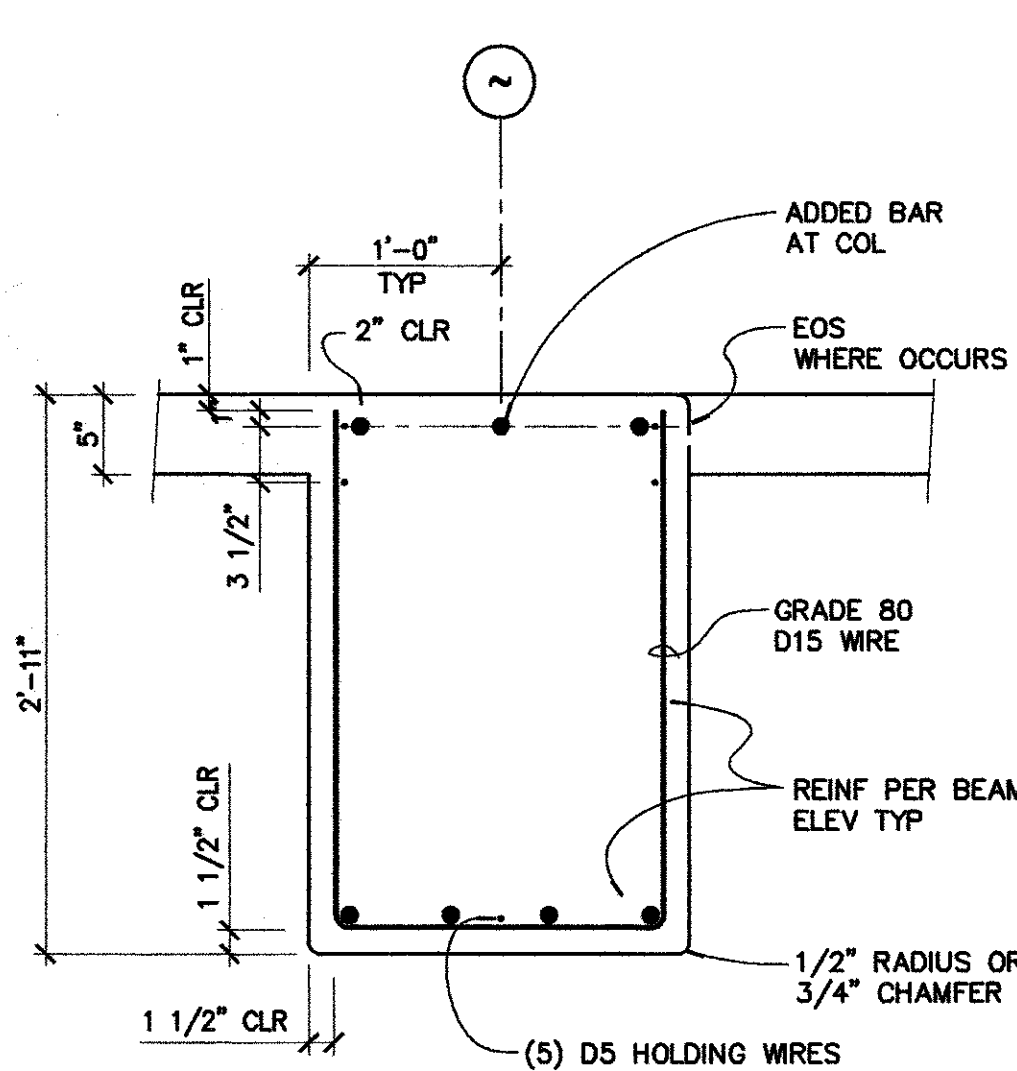
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**SWWR ALTERNATE TYP BOT SLAB REINF AT END BAY**

NO SCALE

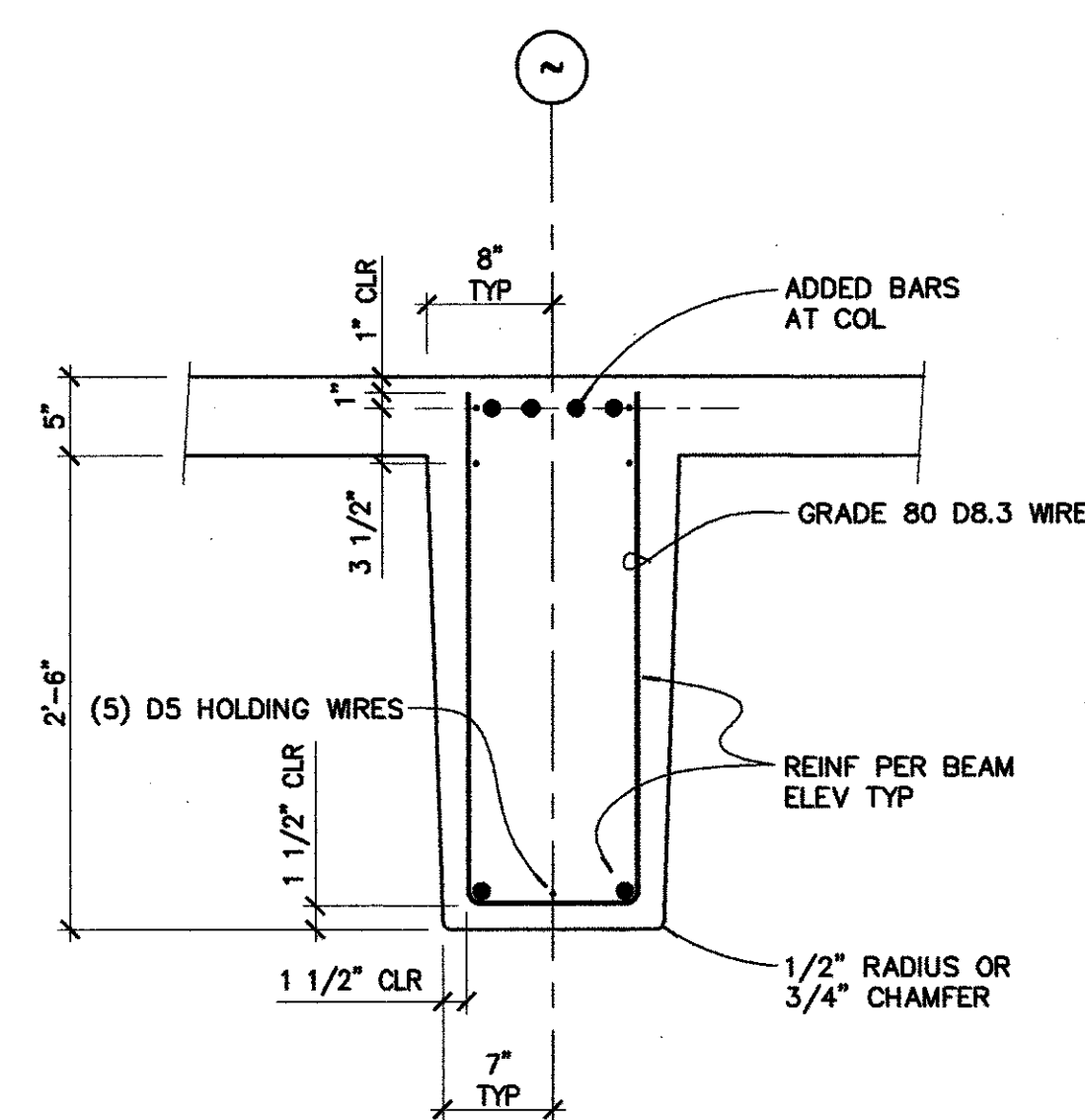
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**SWWR ALTERNATE TYP GIRDER SECTION**

NO SCALE

17  
S4.4



**SWWR ALTERNATE TYP P/T BEAM SECTION**

NO SCALE

13  
S4.4





OFFICE OF THE STATE FIRE MARSHAL  
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Reviewed by: \_\_\_\_\_  
DATE: APR 27 2016

Approval of this plan does not authorize or approve any alteration or deviation from applicable regulations. Final approval is subject to field inspection. One set of approved plans shall be available on the project site at all times.

**SUBMITTAL SCHEDULE:**

Schematic Design	04/17/2014
50% Prelim. Design	05/14/2014
100% Prelim. Design	05/28/2014
50% Const. Docs.	07/02/2014
95% Const. Docs.	08/07/2014
100% Backcheck	11/10/2014
100% Backcheck 2	01/22/2015
100% Backcheck 3	03/20/2015
ASHR11 SFM RESUB 2	11/08/2015
ASHR15 SFM RESUB 3	03/03/2016

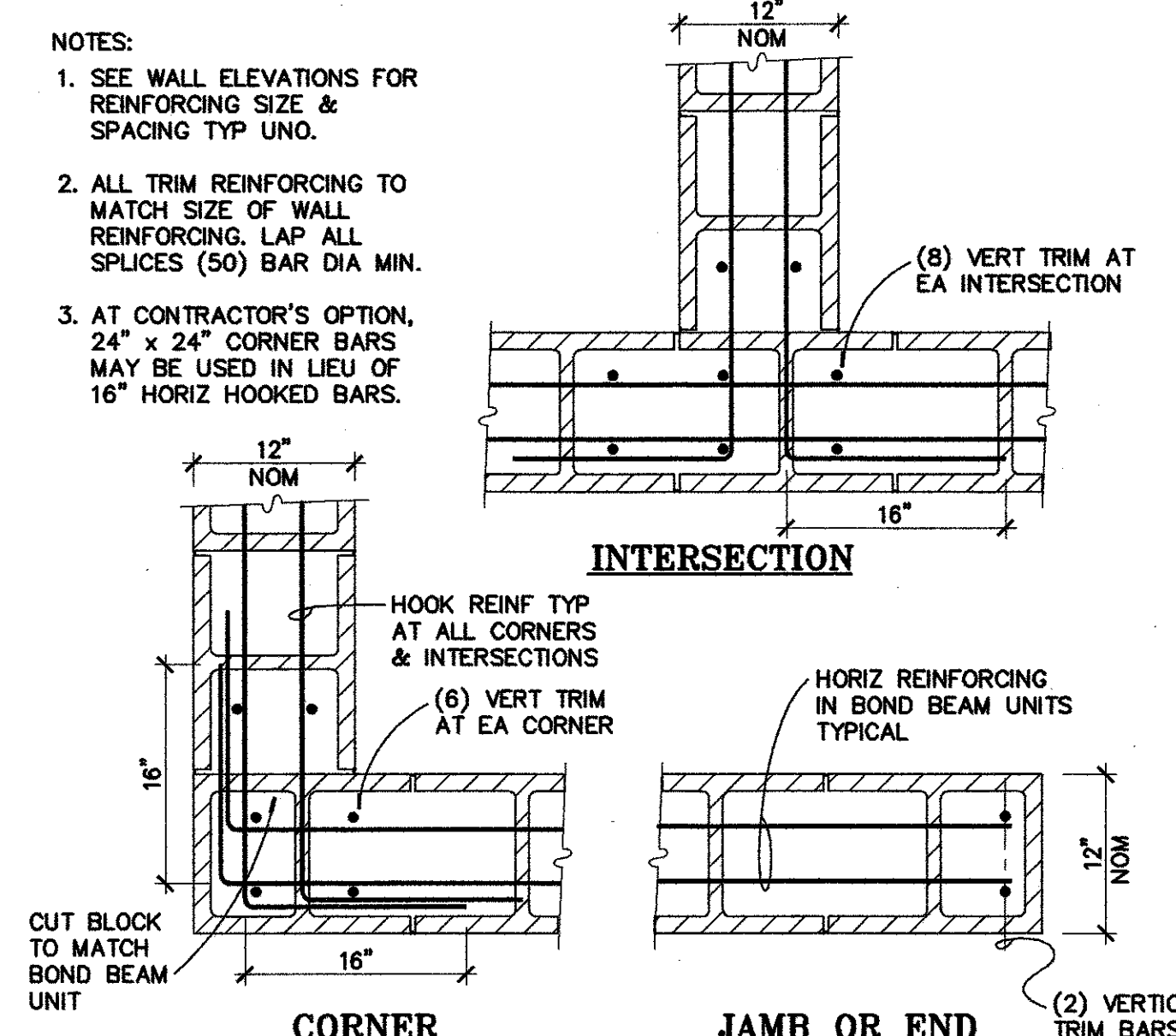
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OFFICE OF REGULATION SERVICES

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APR # 04-112004  
AC \_\_\_\_\_ DATE \_\_\_\_\_

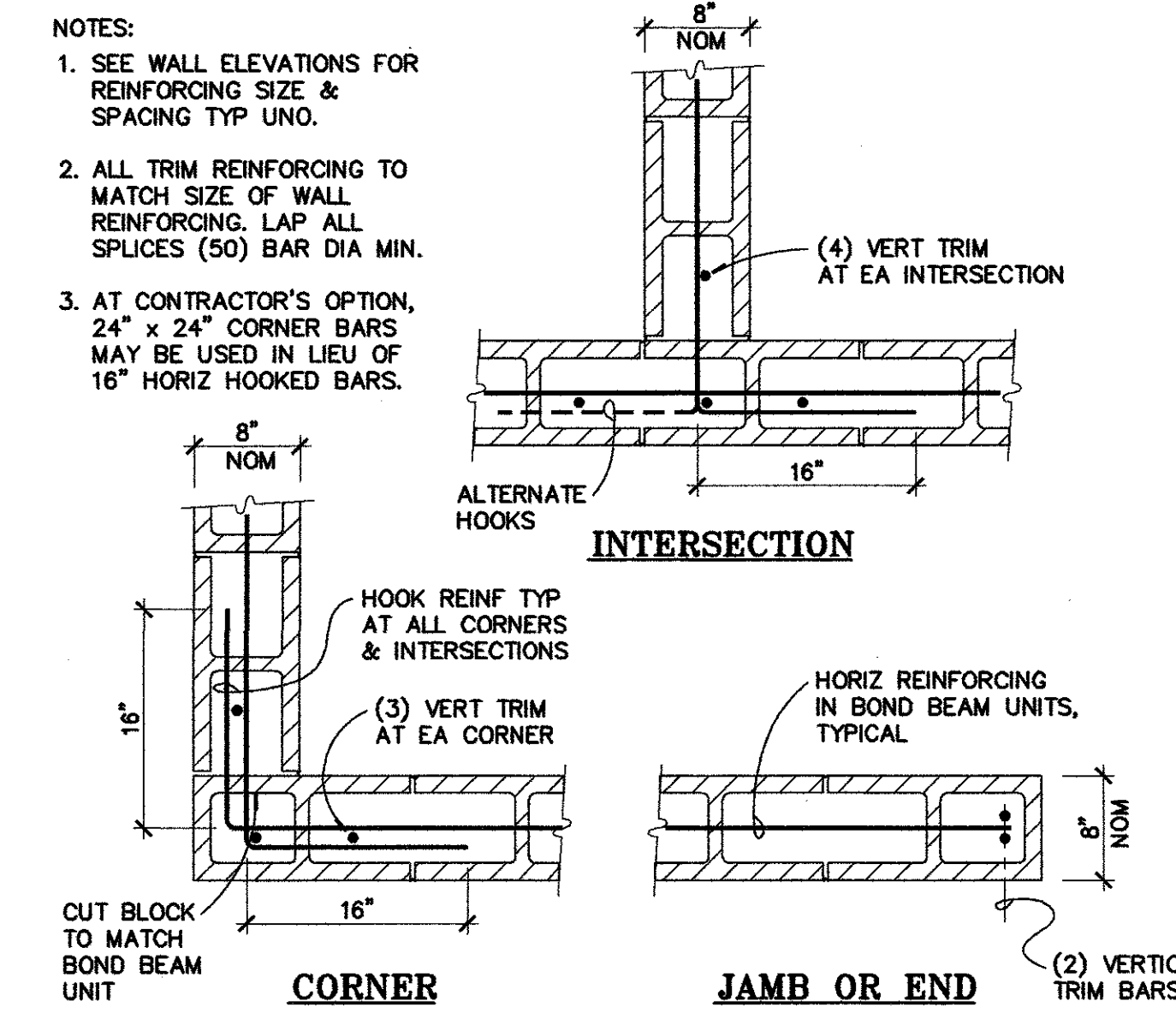
PROJECT NO: 21305-G-50

**TYPICAL MASONRY DETAILS**

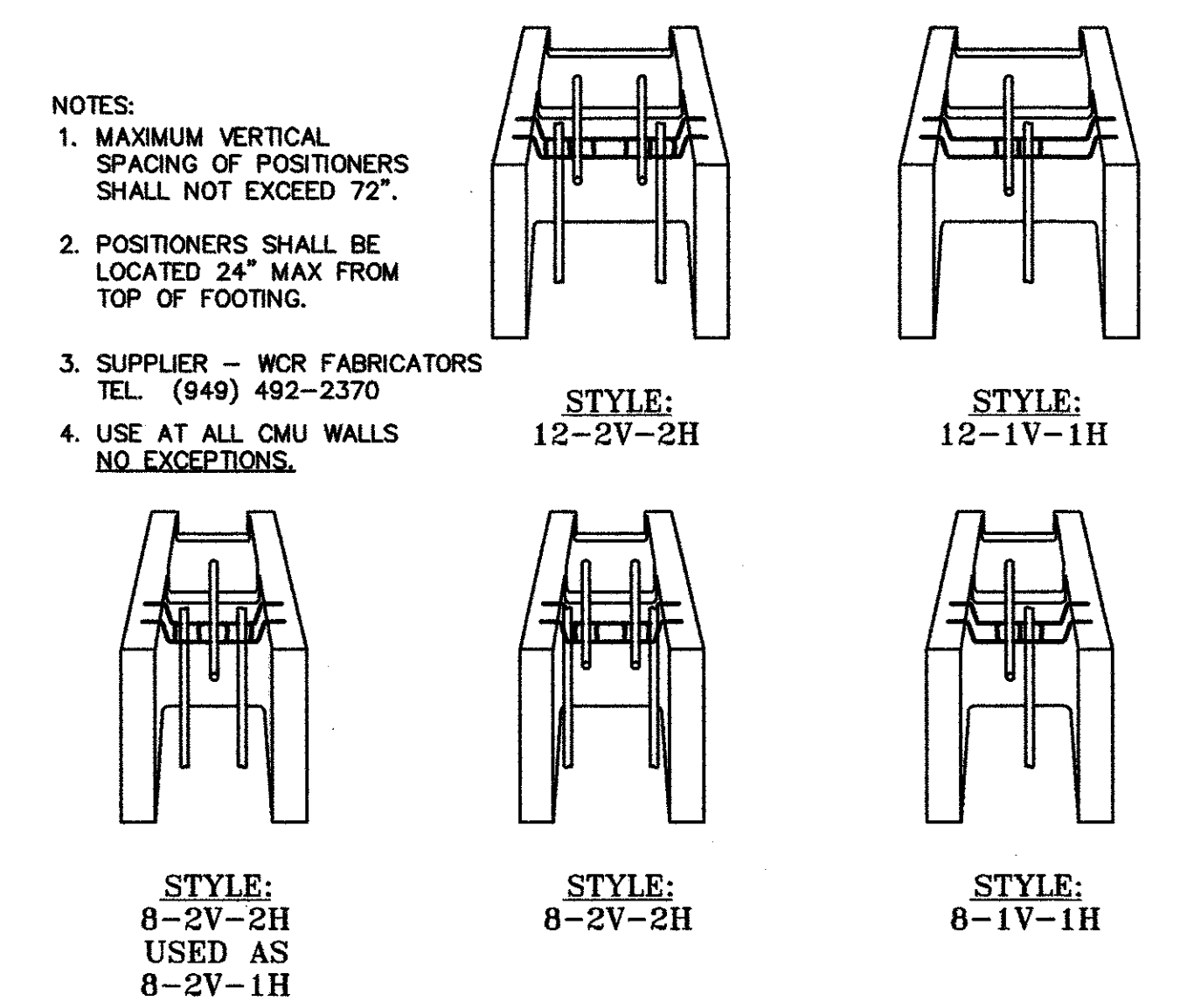
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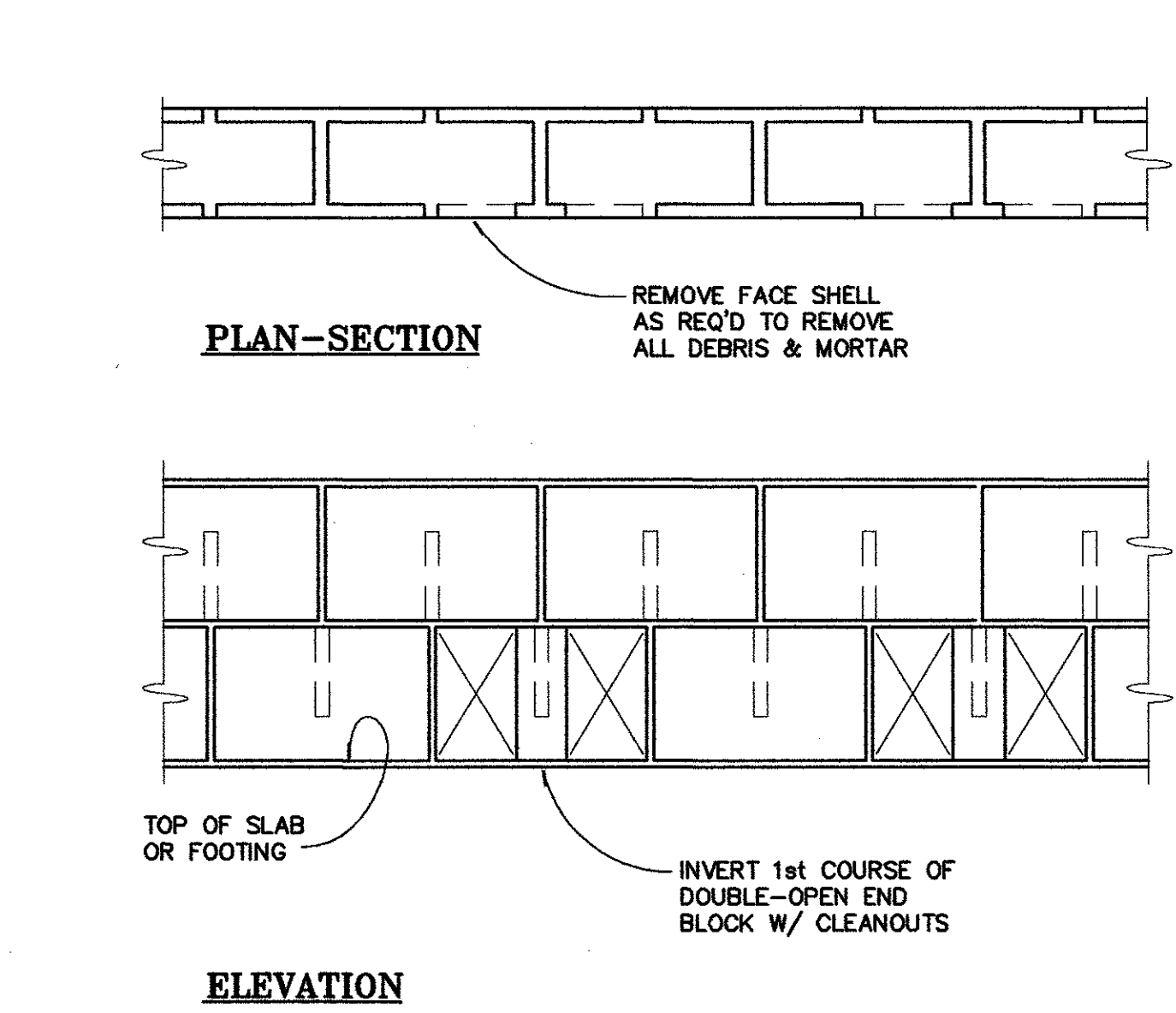
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S4.5



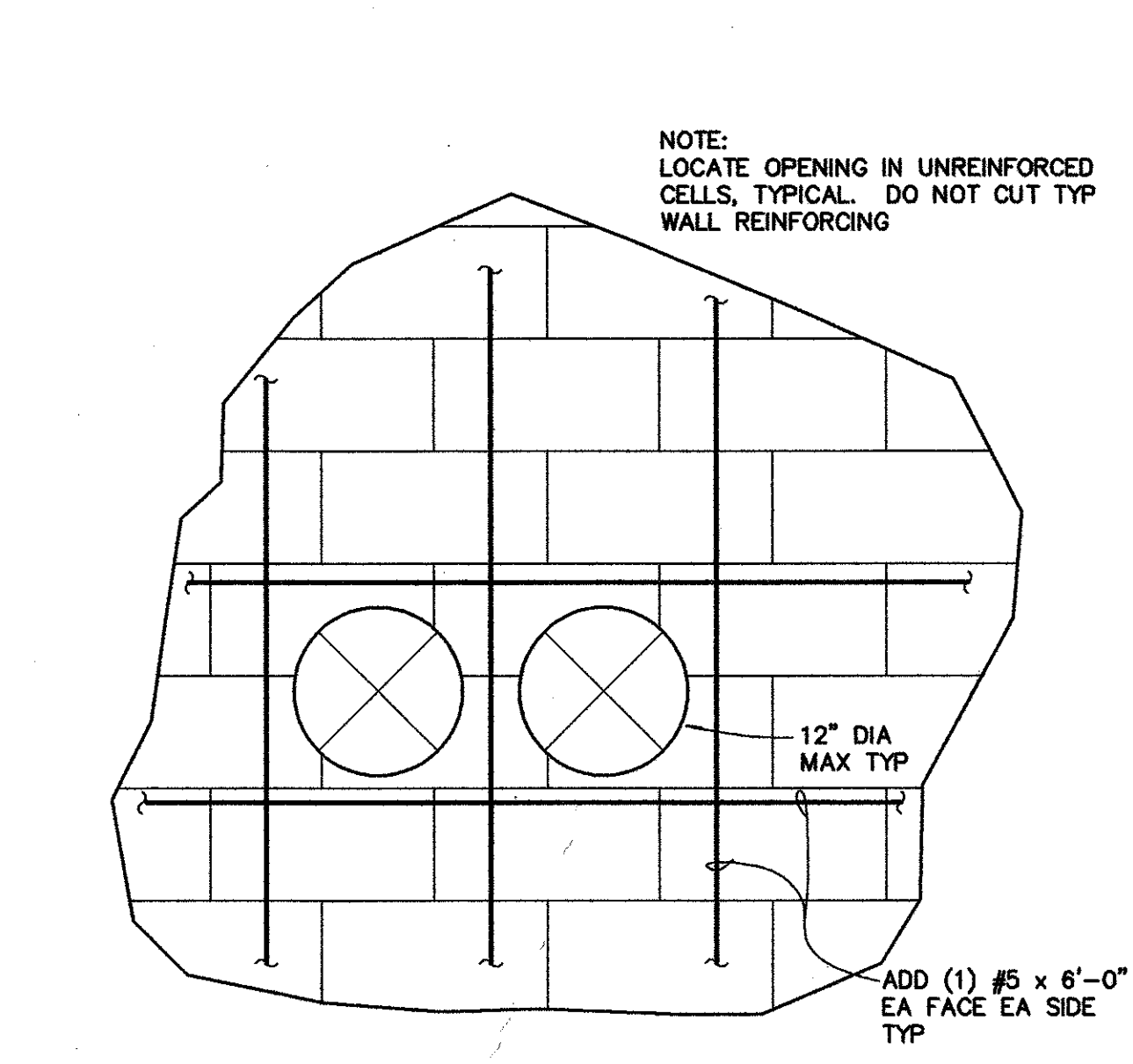
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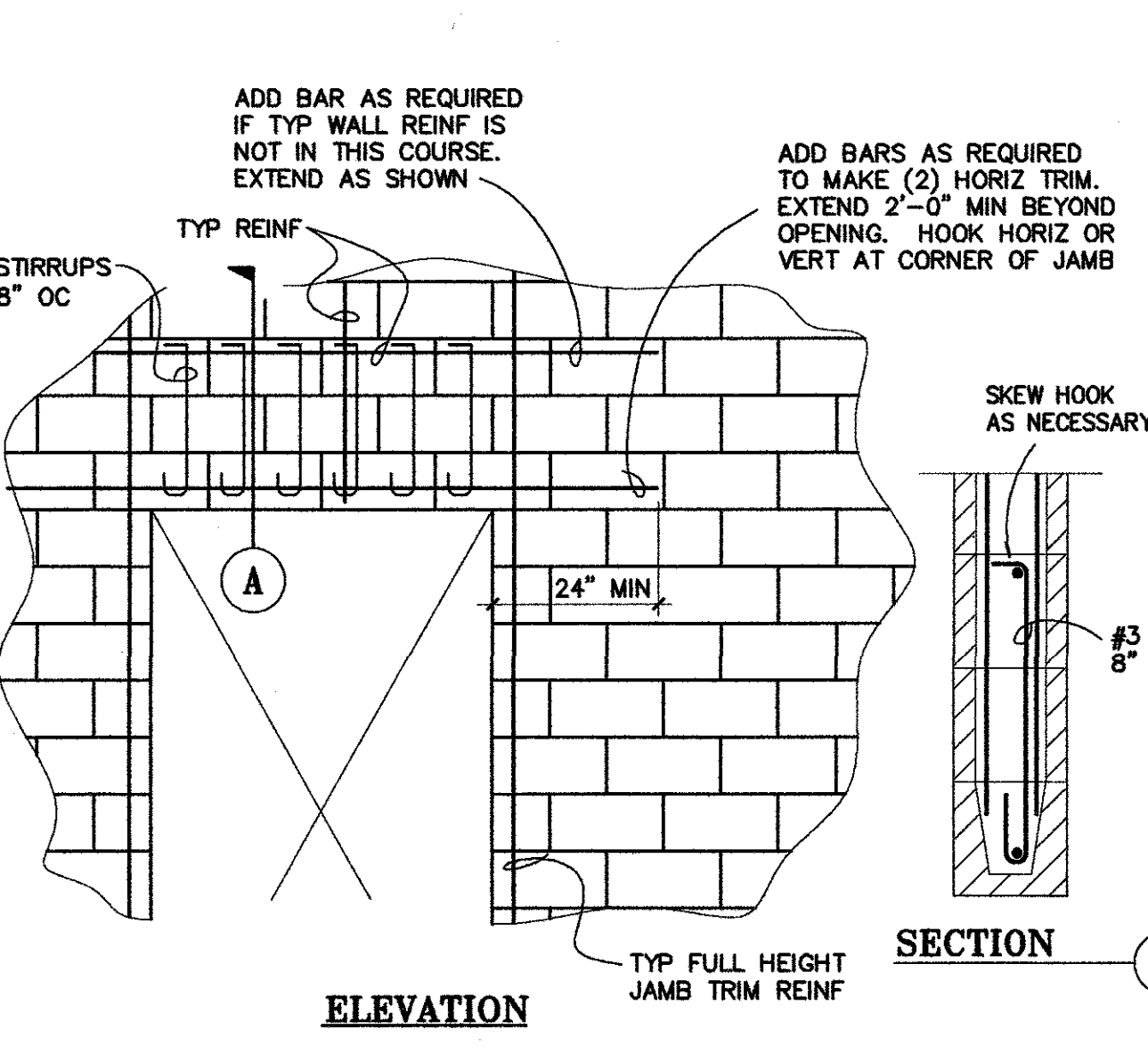
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CRADLE POSITIONERS FOR REBAR IN CMU WALLS  
NO SCALE  
S4.5



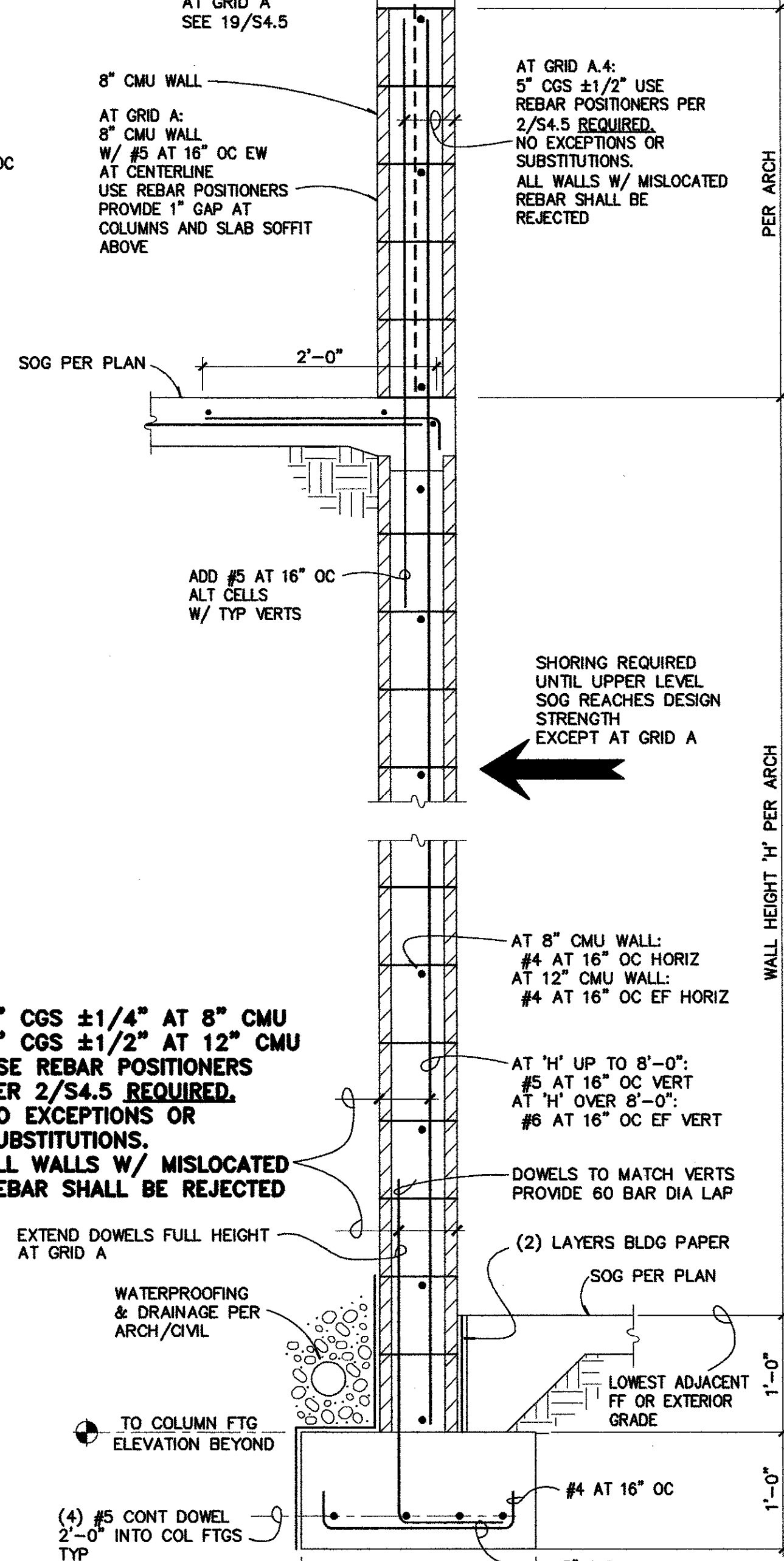
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CMU CLEANOUT DETAIL  
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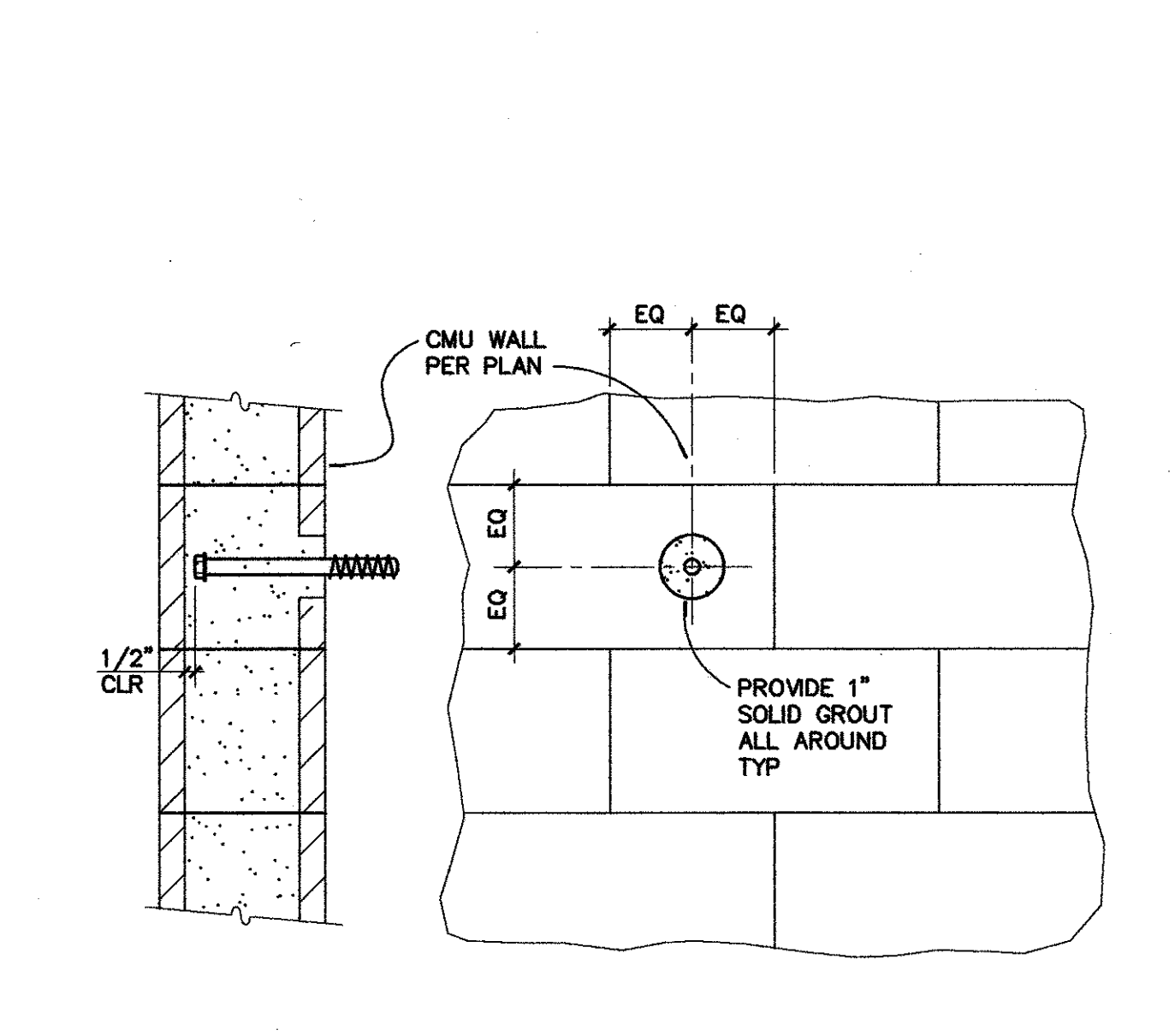
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NO SCALE  
S4.5



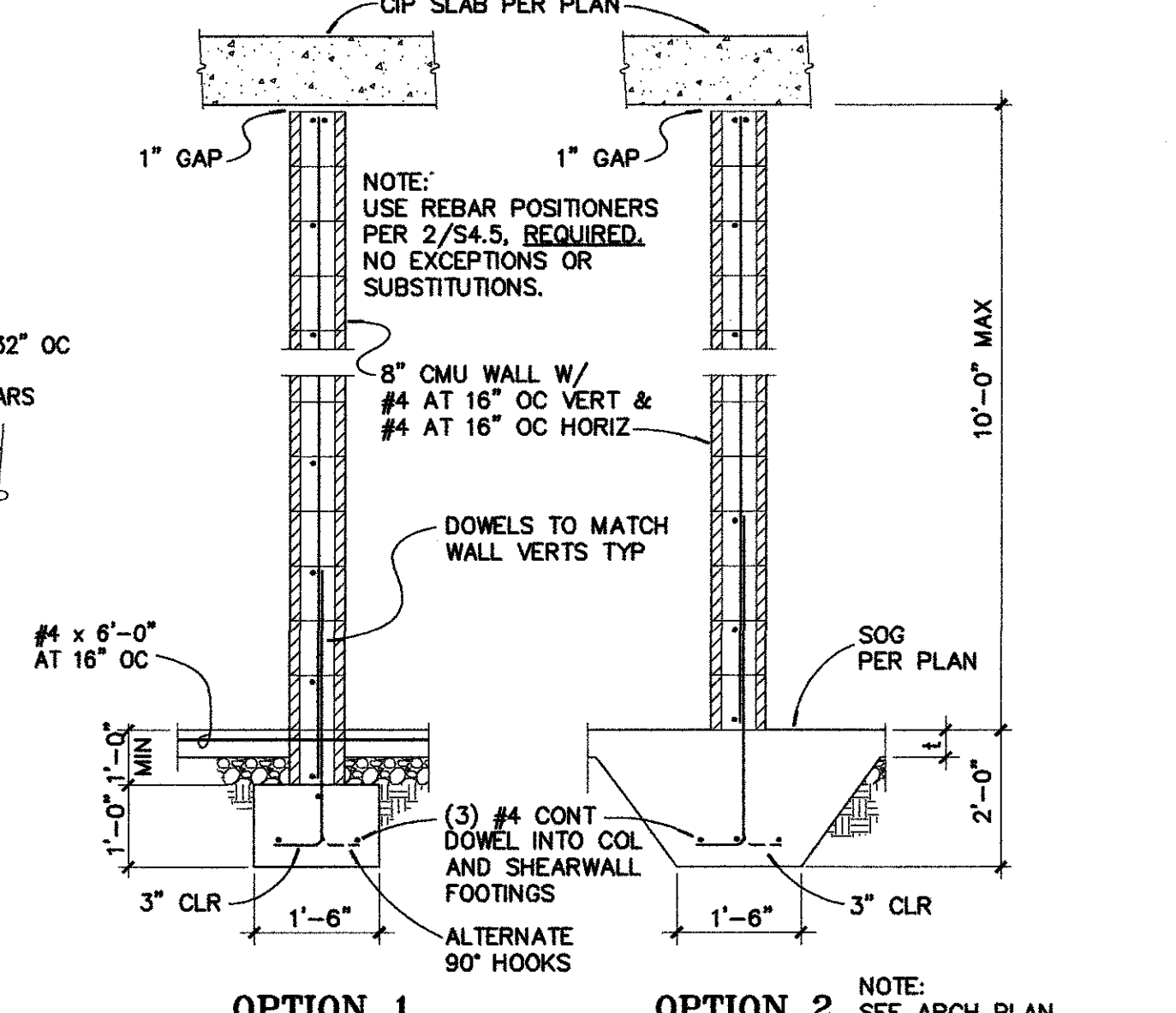
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NO SCALE  
S4.5



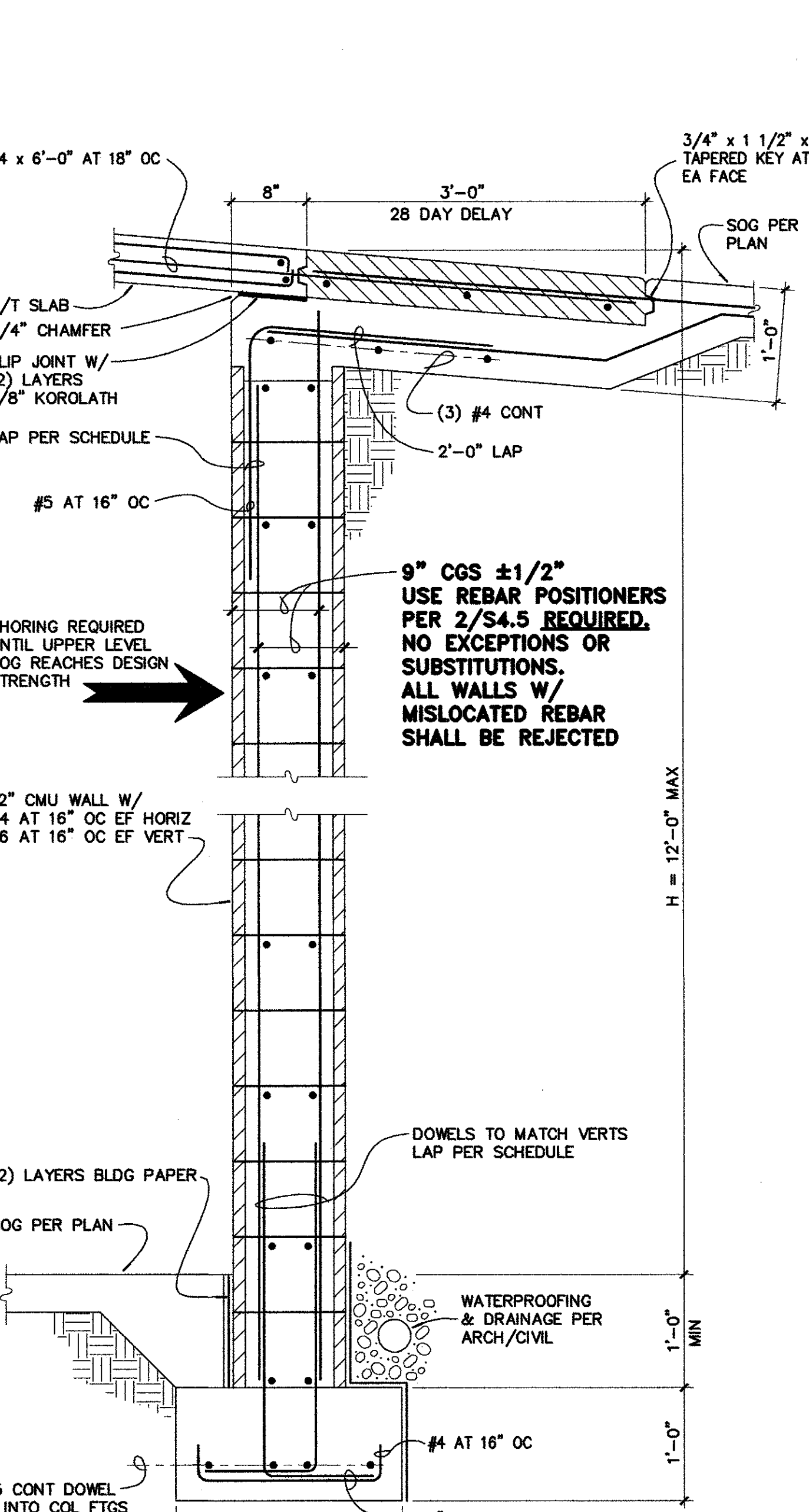
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SECTION  
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S4.5



**12**  
TYPICAL ANCHOR BOLT IN CMU  
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S4.5



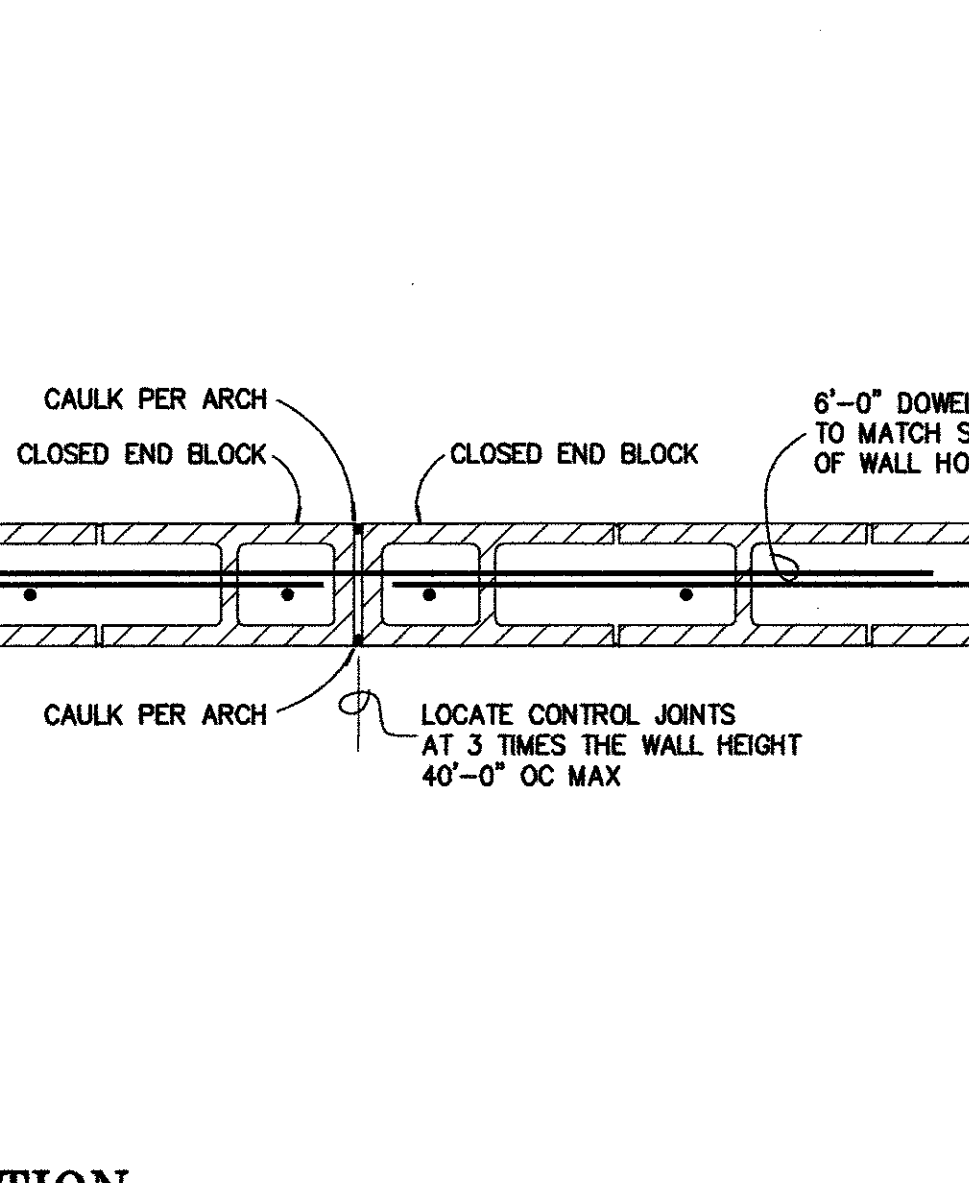
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TYPICAL NON BEARING CMU WALL  
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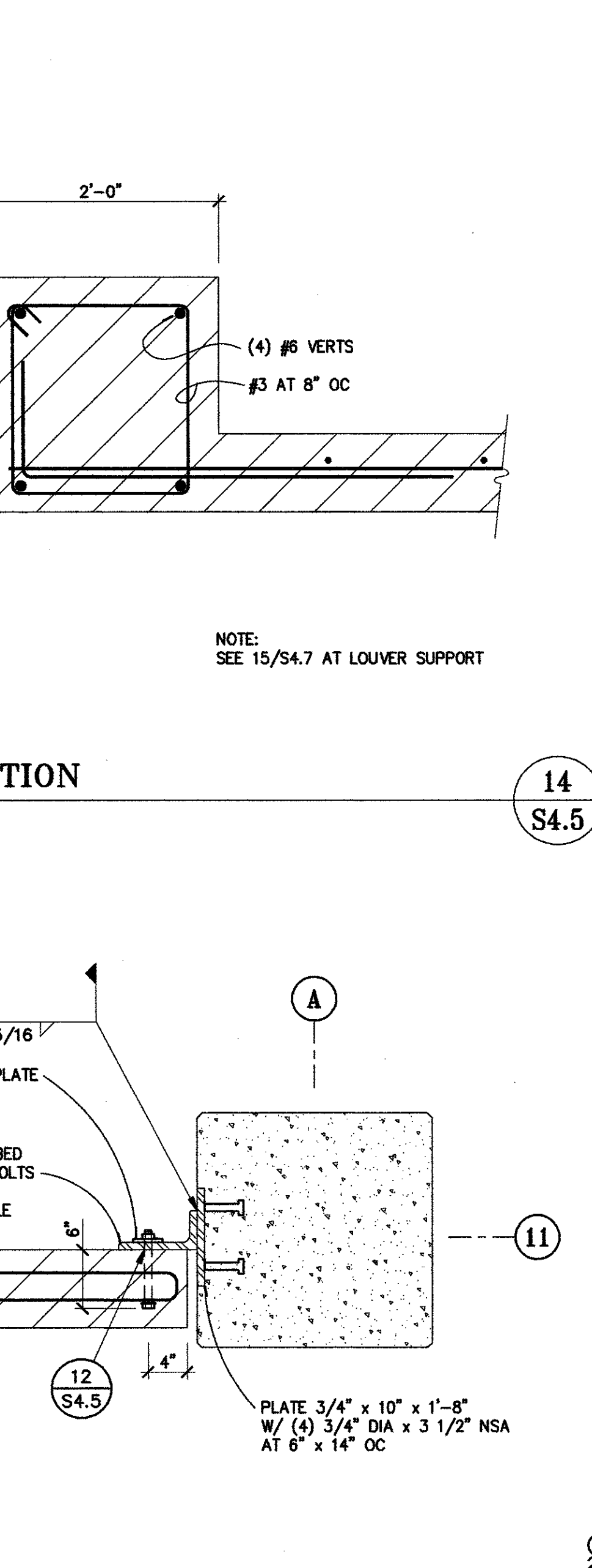
**9**  
SECTION  
NO SCALE  
S4.5

BAR SIZE	CMU STRENGTH Fm	1500 PSI	2000 PSI
#3	18"	18"	
#4	25"	24"	
#5	39"	34"	
#6	54"	54"	
#7	63"	63"	
#8	72"	72"	
#9	81"	81"	

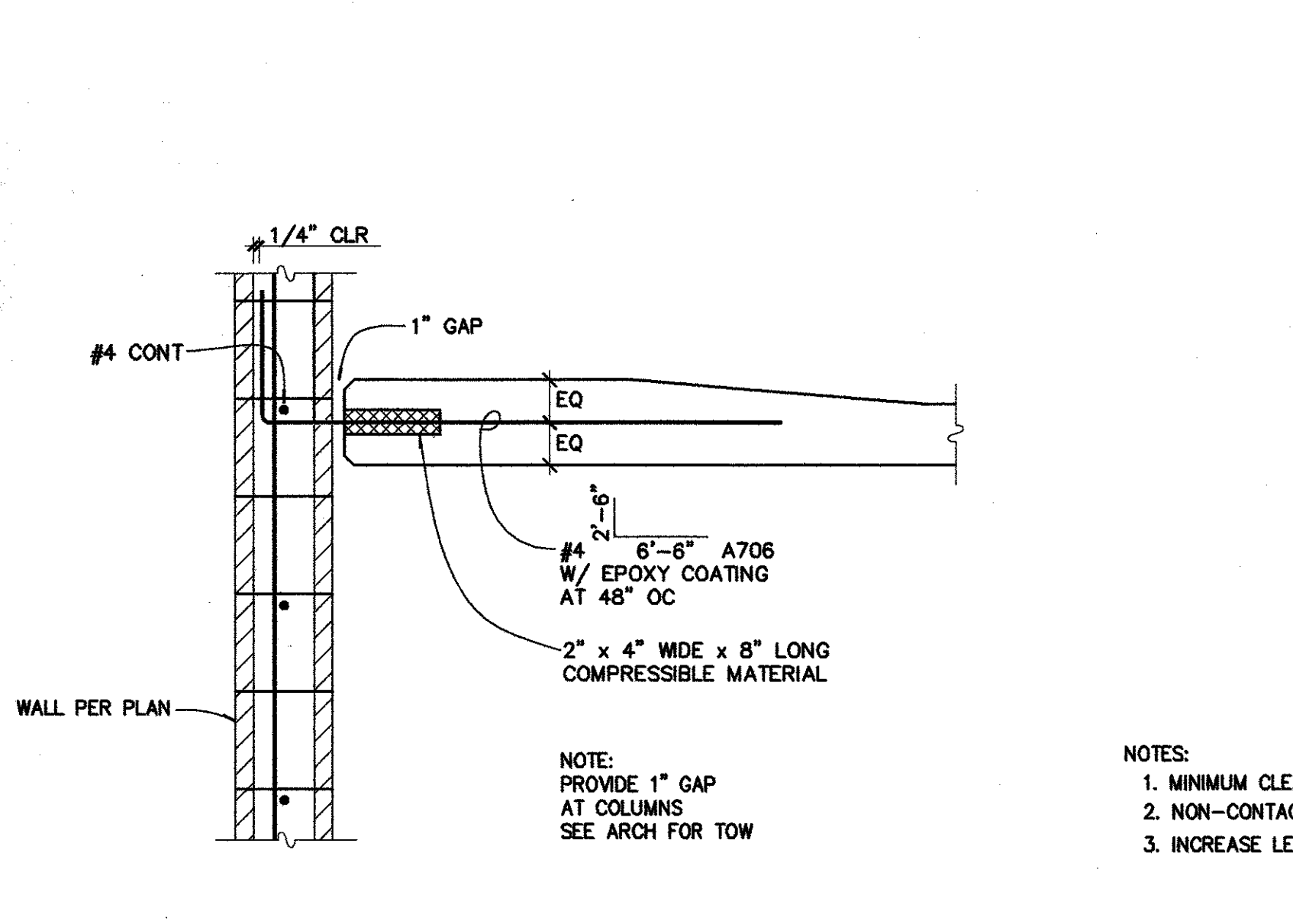
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REBAR LAP SCHEDULE (CMU)  
NO SCALE  
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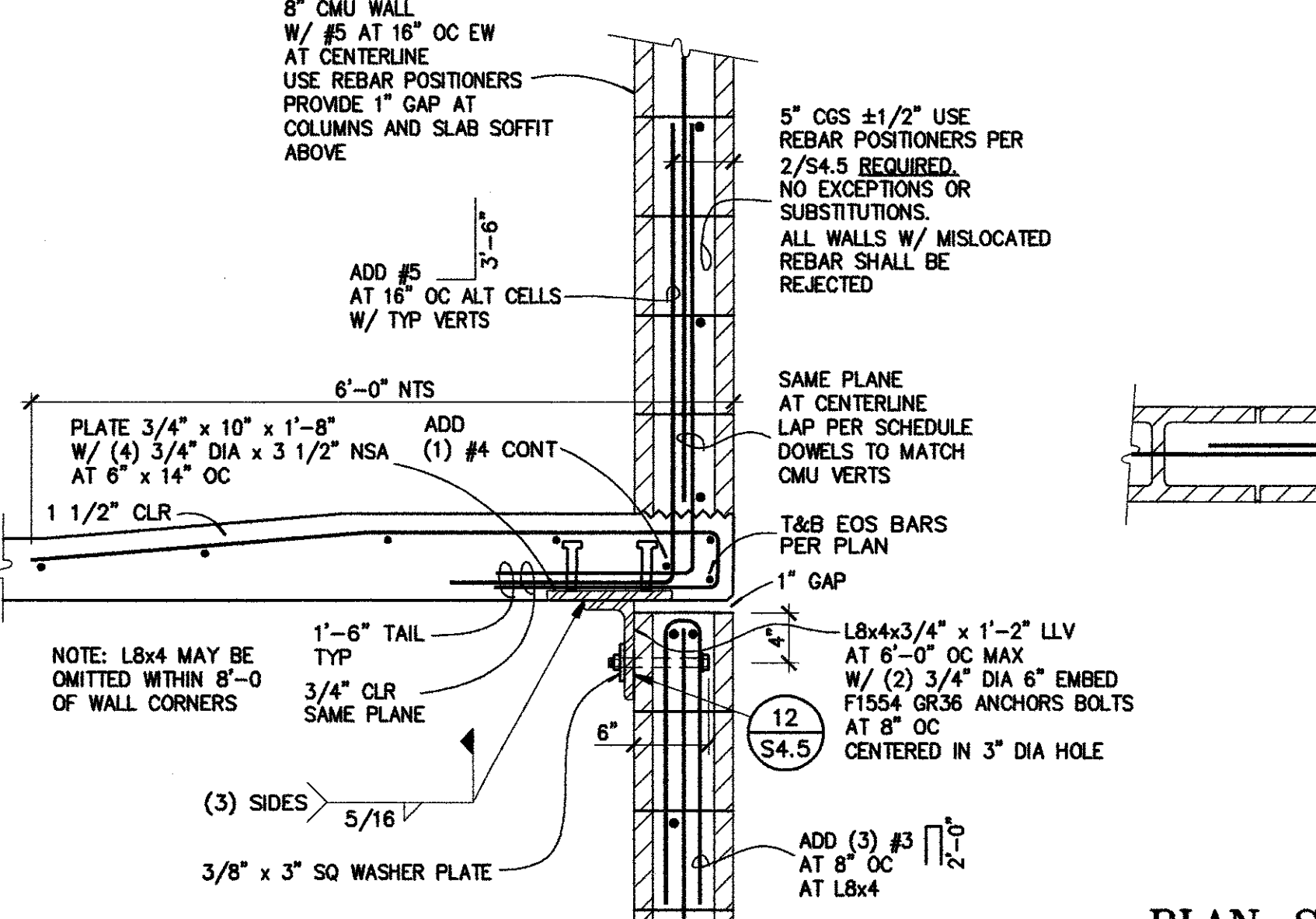
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PLAN-SECTION AT TYPICAL WALL CONTROL JOINT  
NO SCALE  
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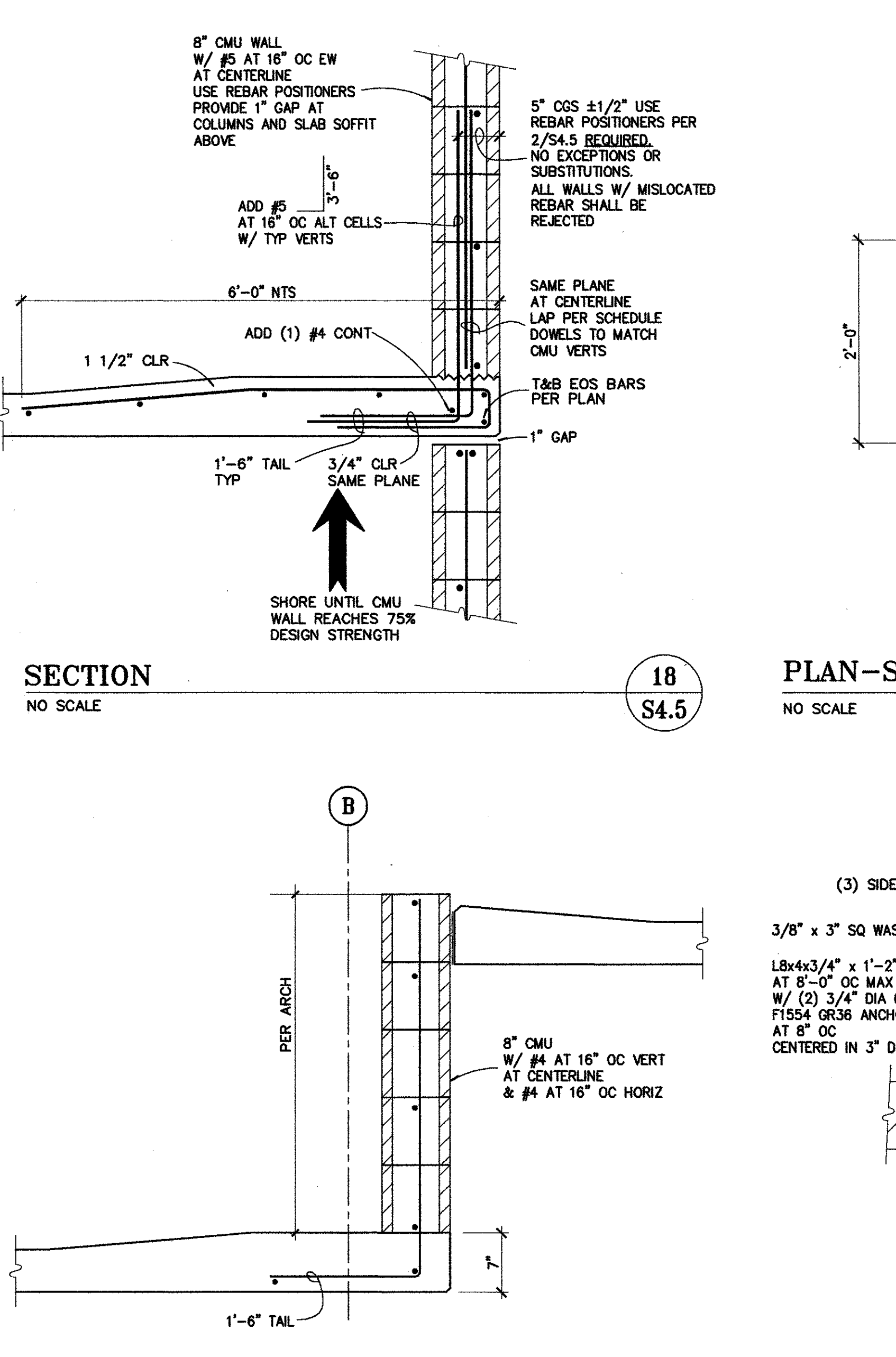
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**20**  
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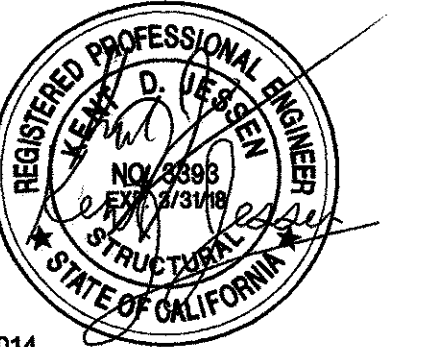
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S4.5



**18**  
SECTION  
NO SCALE  
S4.5

**17**  
SECTION  
NO SCALE  
S4.5



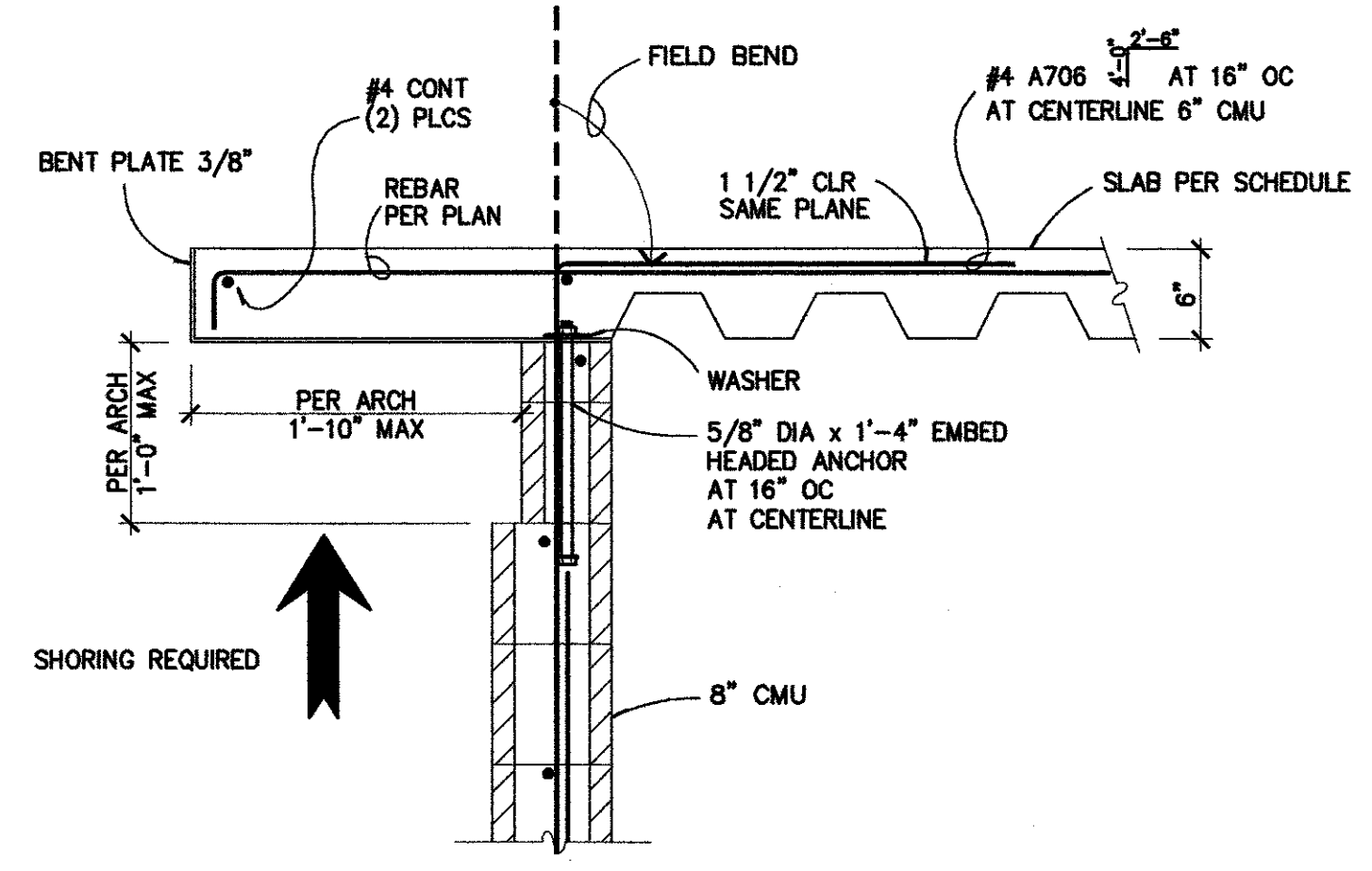


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ASHI #001	05/17/2015
ASHI#11 SFM RESUB 2	11/06/2015
ASHI#15 SFM RESUB 3	03/03/2016

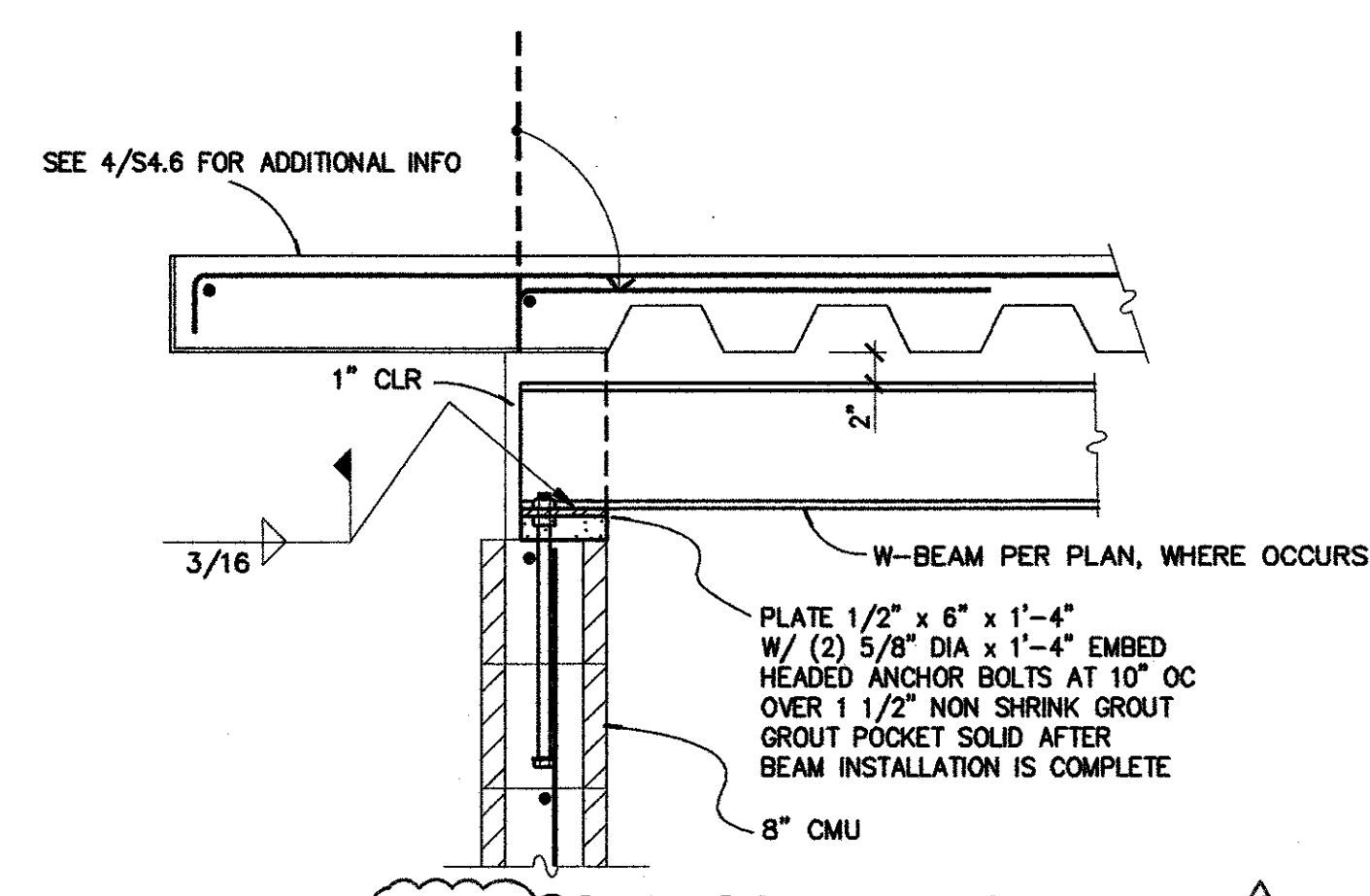
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OFFICE OF REGULATION SERVICES

FILE #  
APL # 04-114204

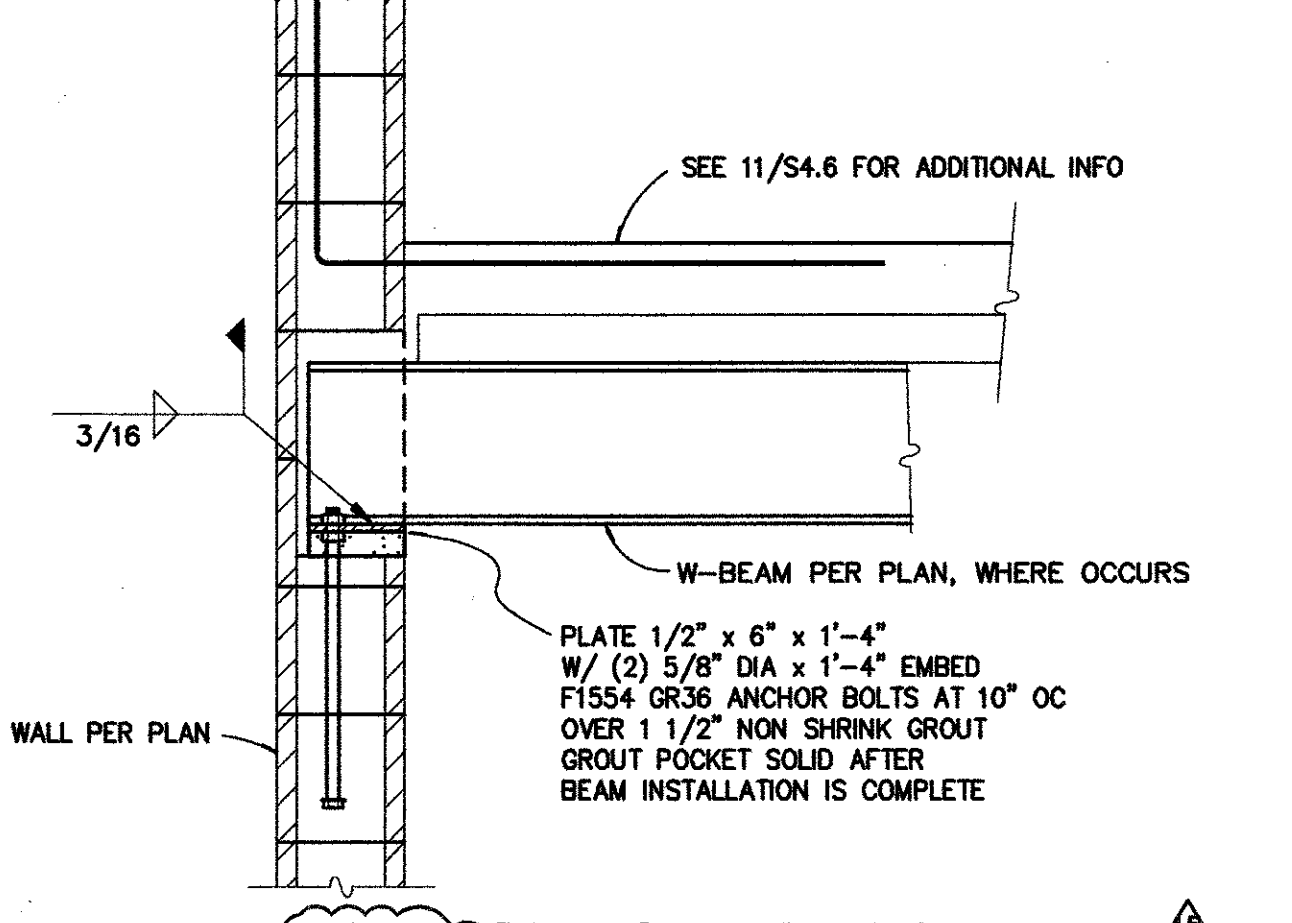
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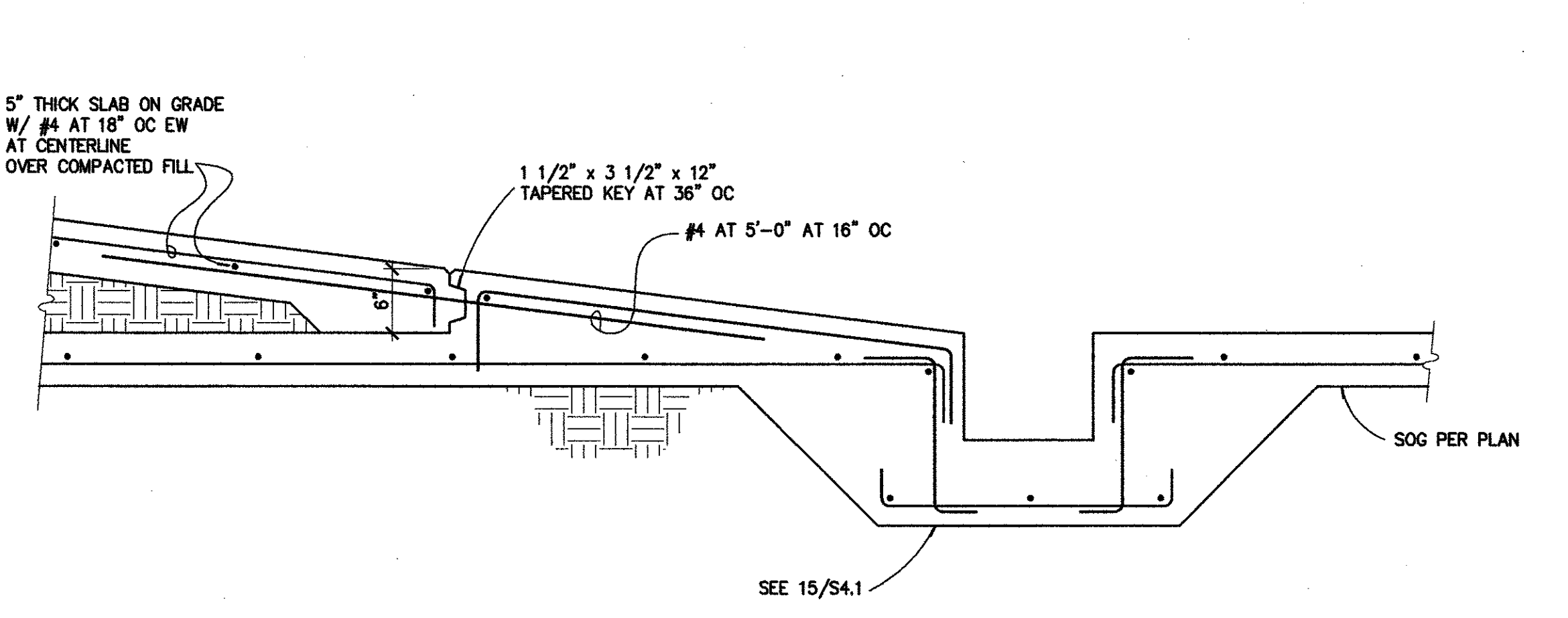
SECTION 4  
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NOTE: SEE 8/S4.6 AT BEAM CONNECTION



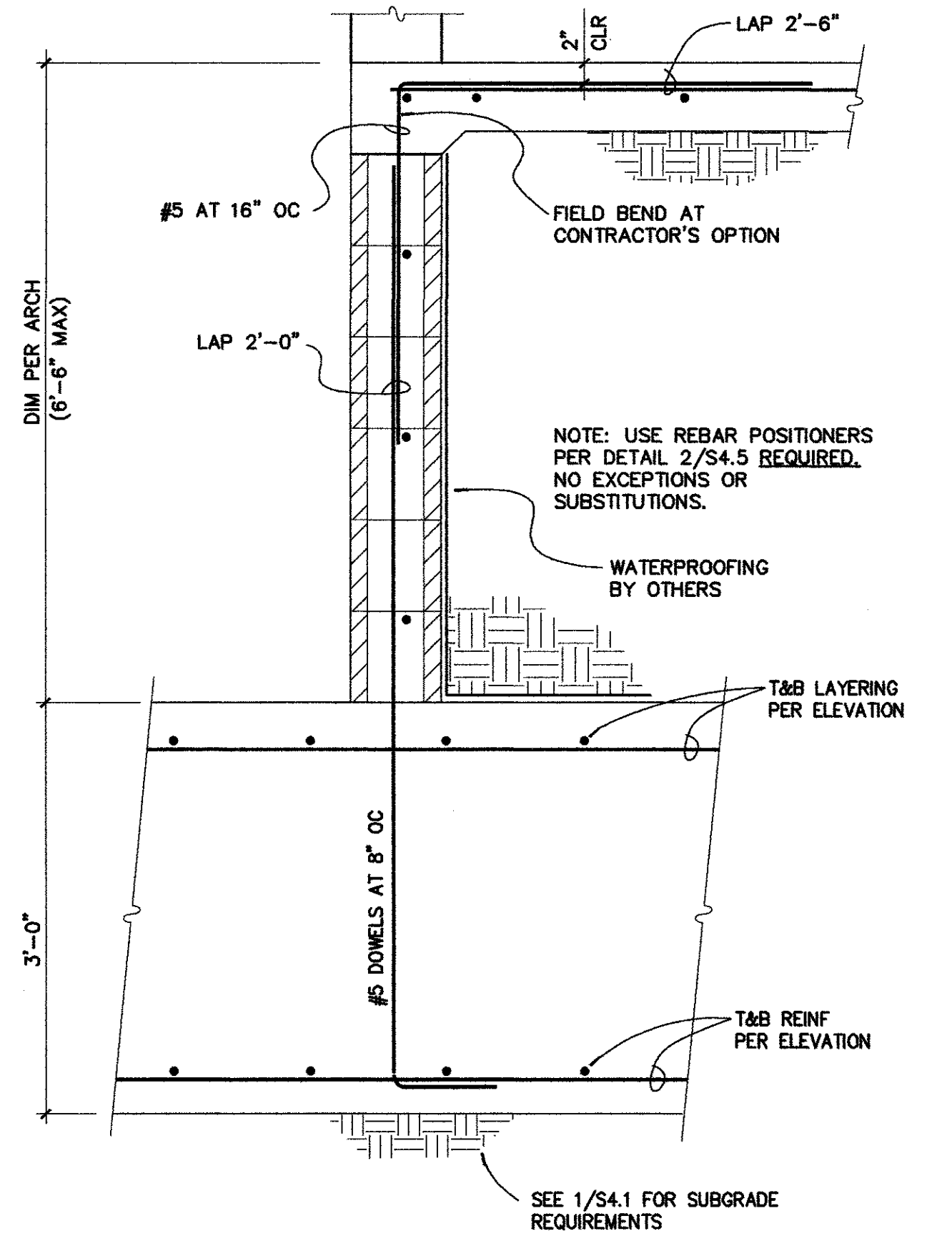
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NOTE: PROVIDE SPRAY APPLIED FIRE PROOFING TO ALL WIDE FLANGE BEAMS AND HSS COLUMNS AND BRACES, EXCLUDING STAIR FRAMING MEMBERS PER UL 7710, S735, AND D925 ON SHEET A-008.



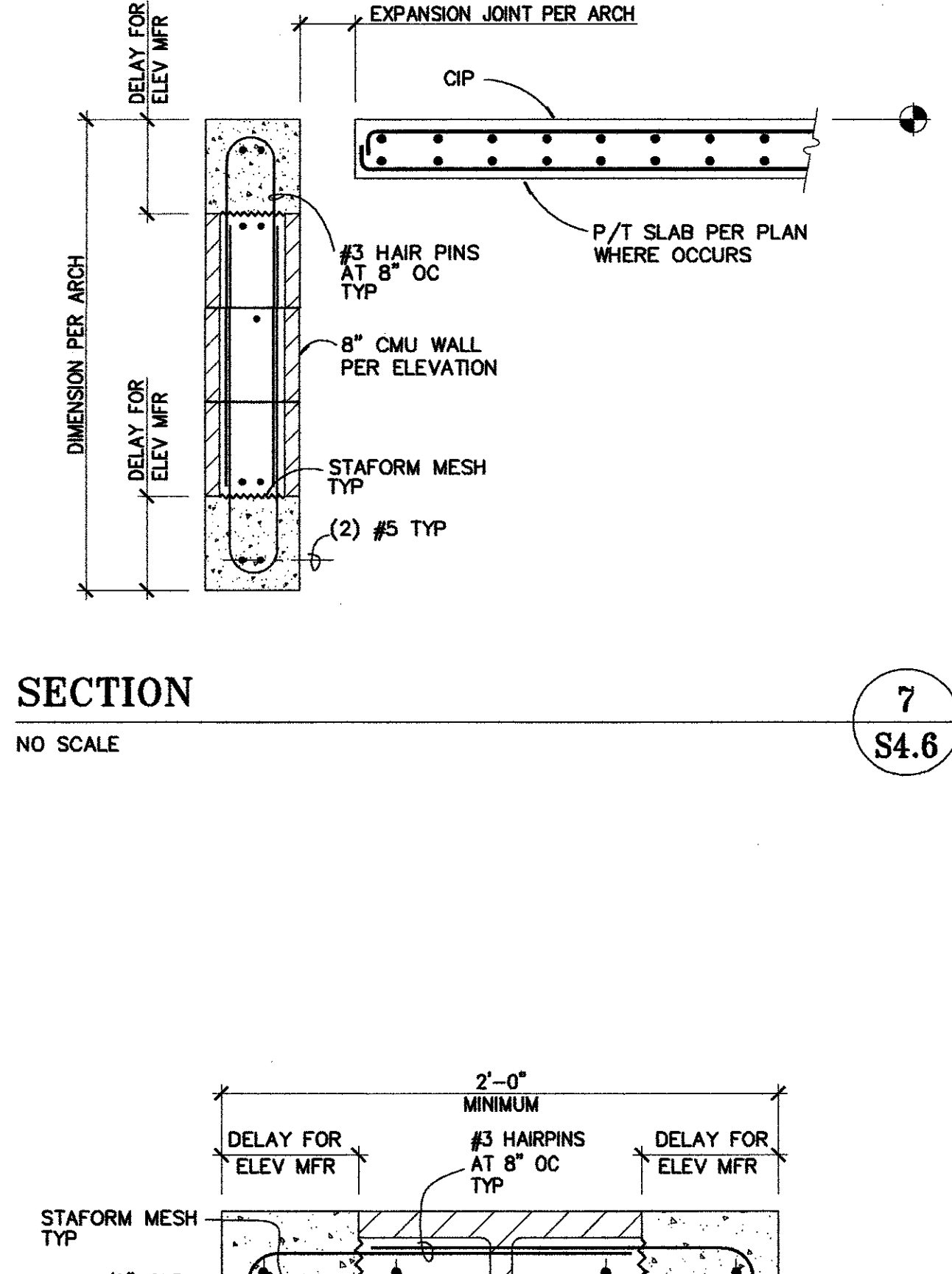
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NOTE: PROVIDE SPRAY APPLIED FIRE PROOFING TO ALL WIDE FLANGE BEAMS AND HSS COLUMNS AND BRACES, EXCLUDING STAIR FRAMING MEMBERS PER UL 7710, S735, AND D925 ON SHEET A-008.



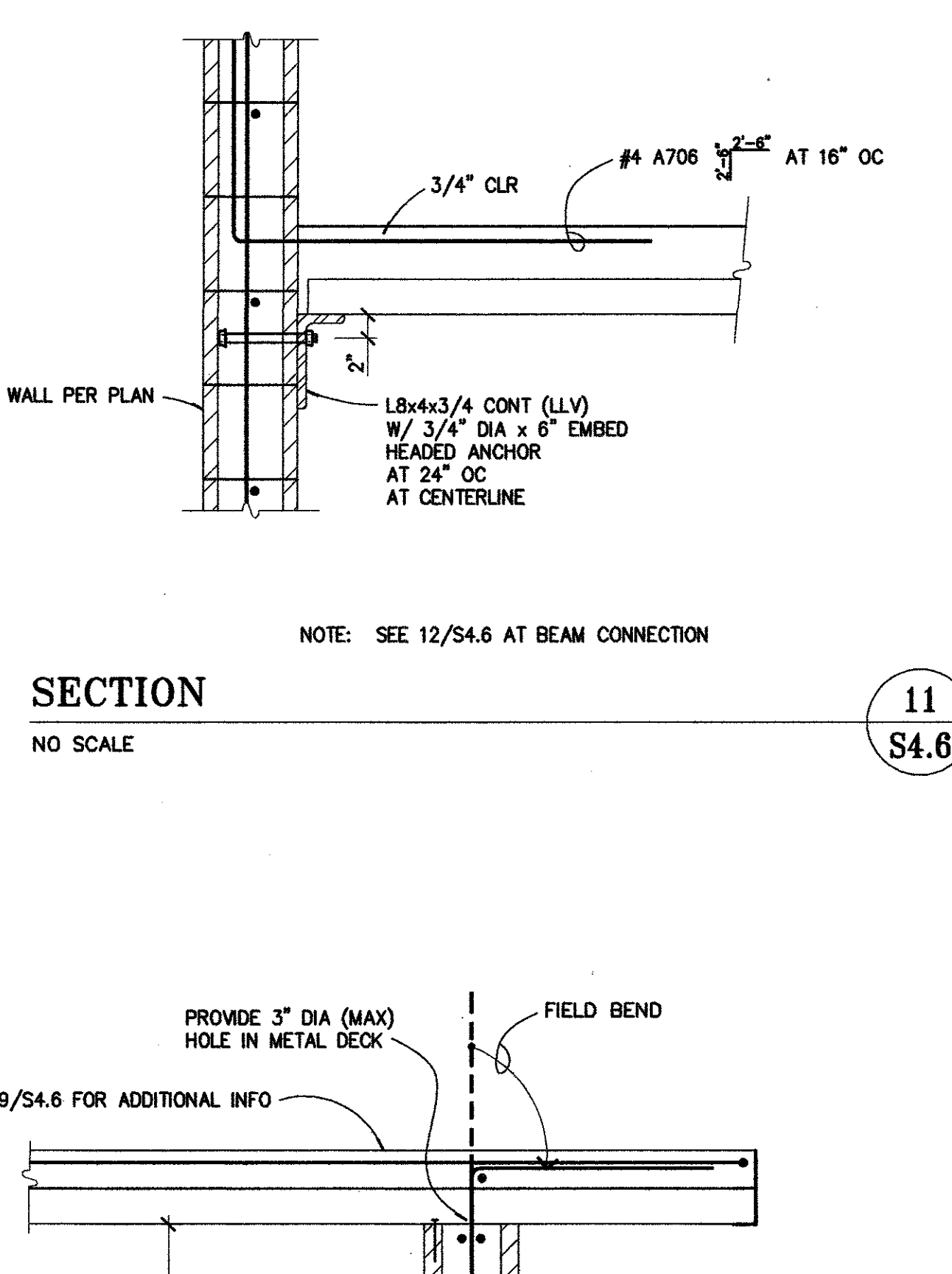
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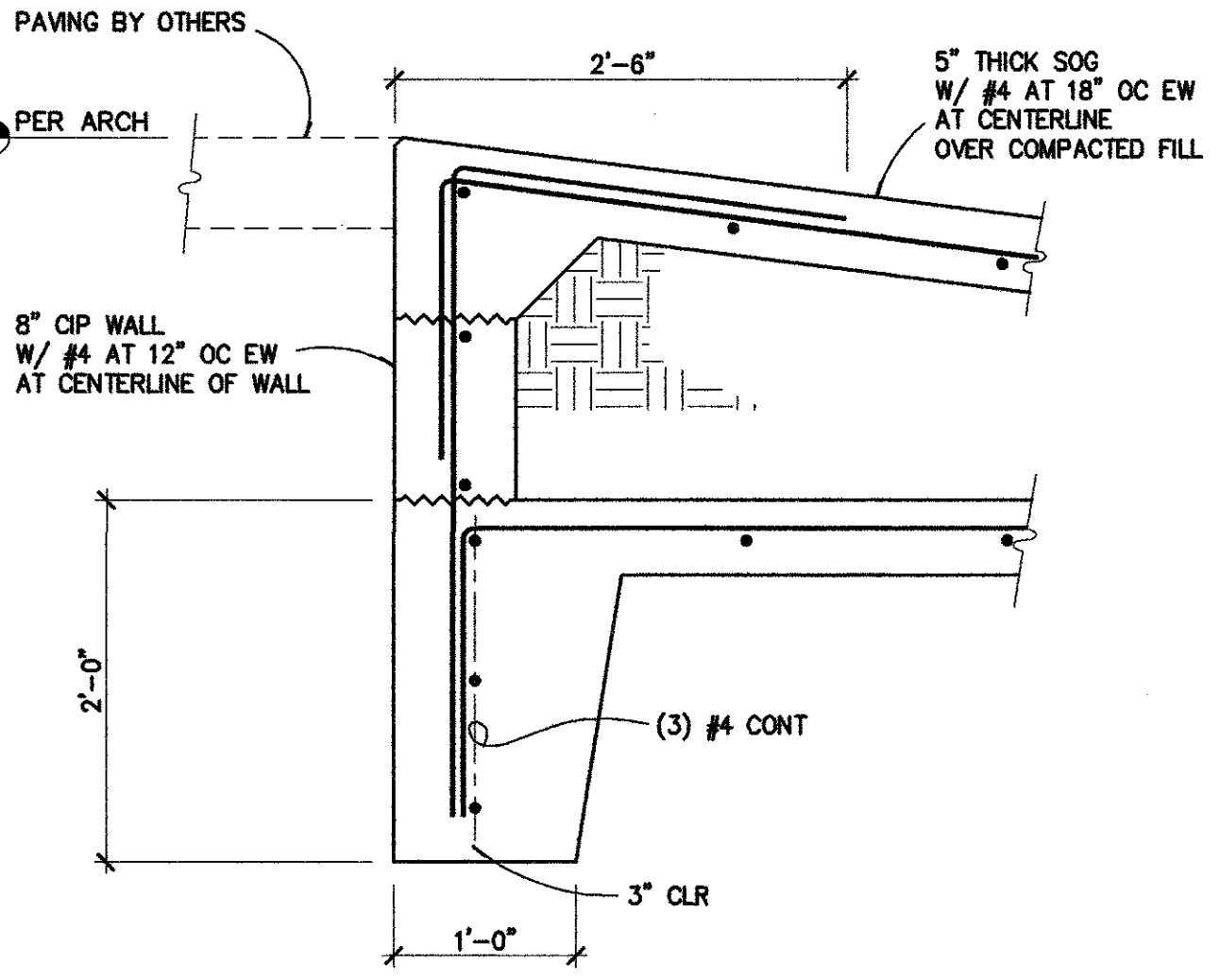
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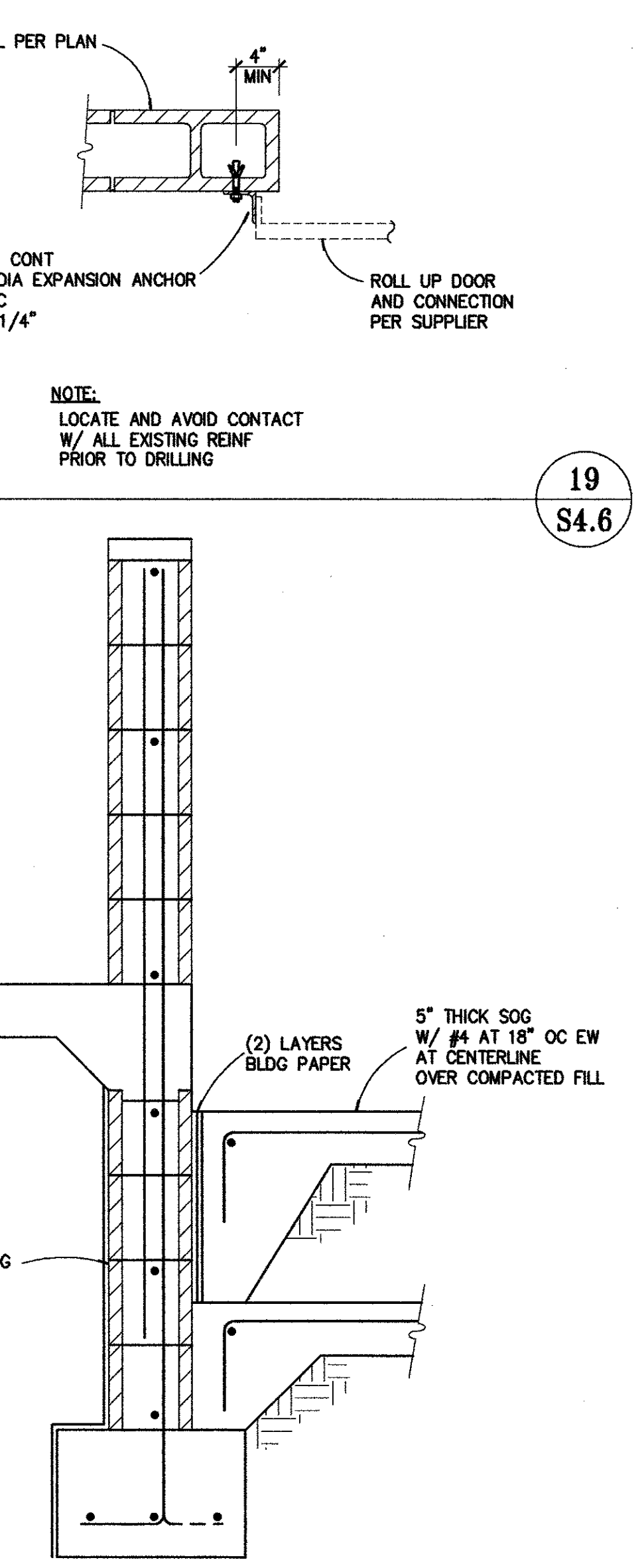
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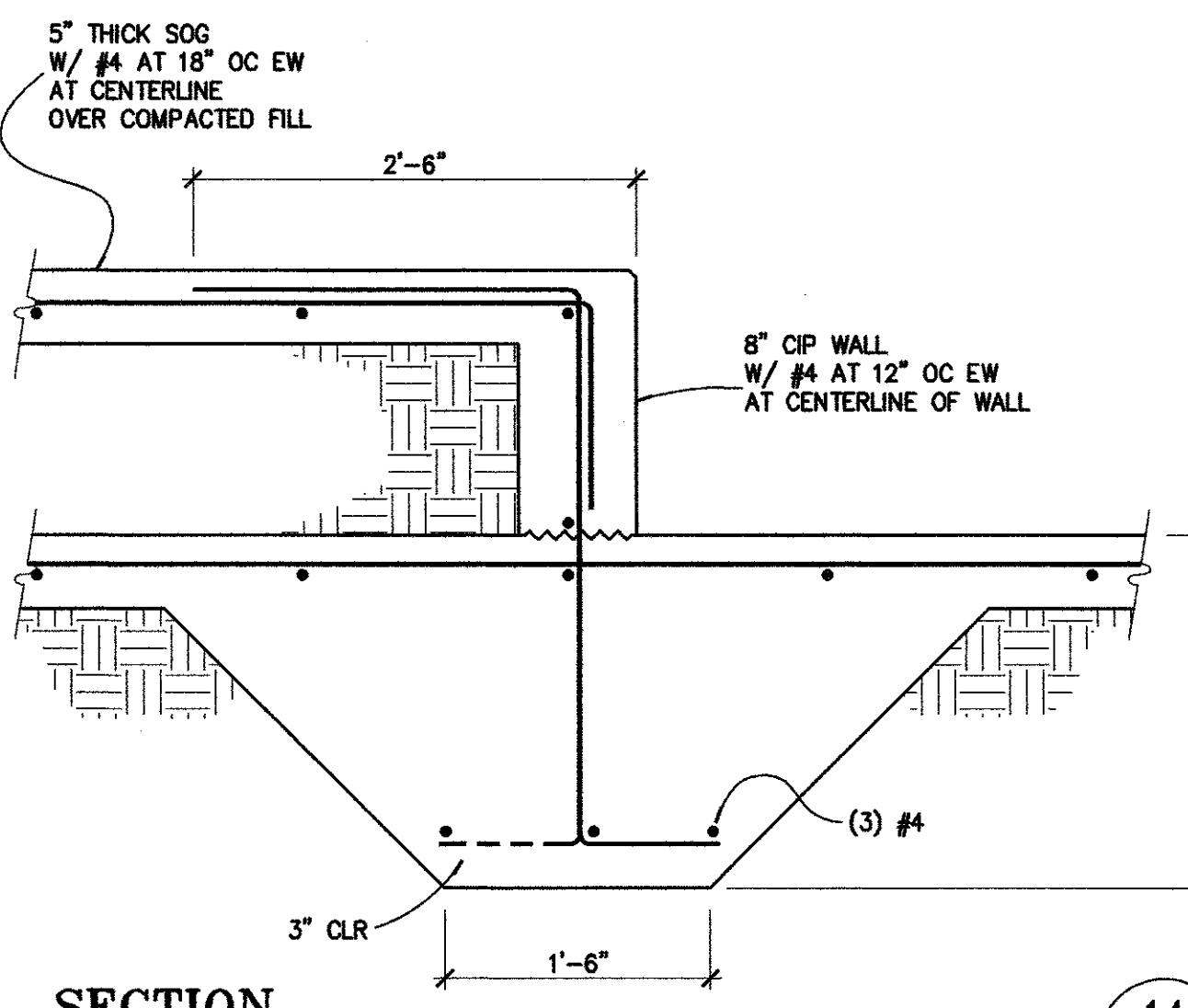
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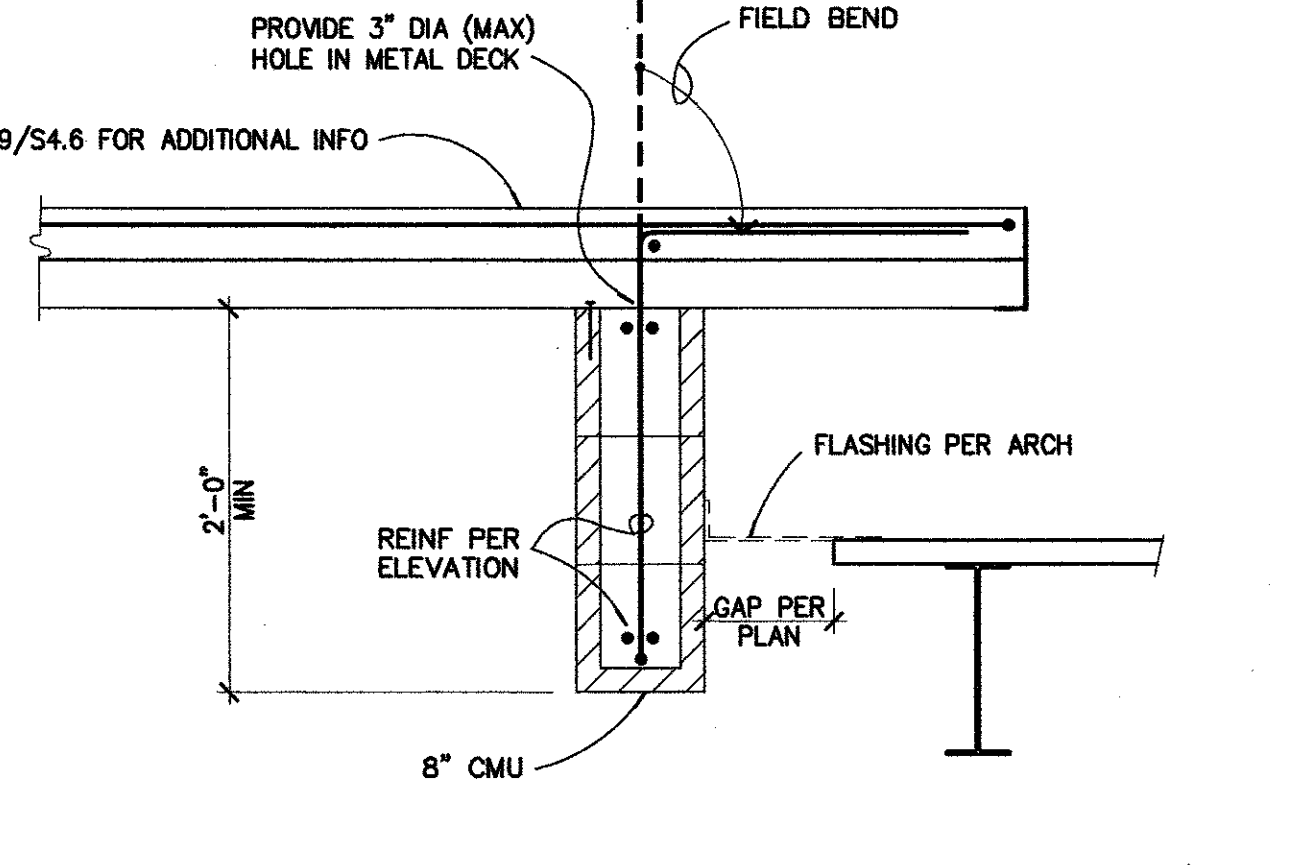
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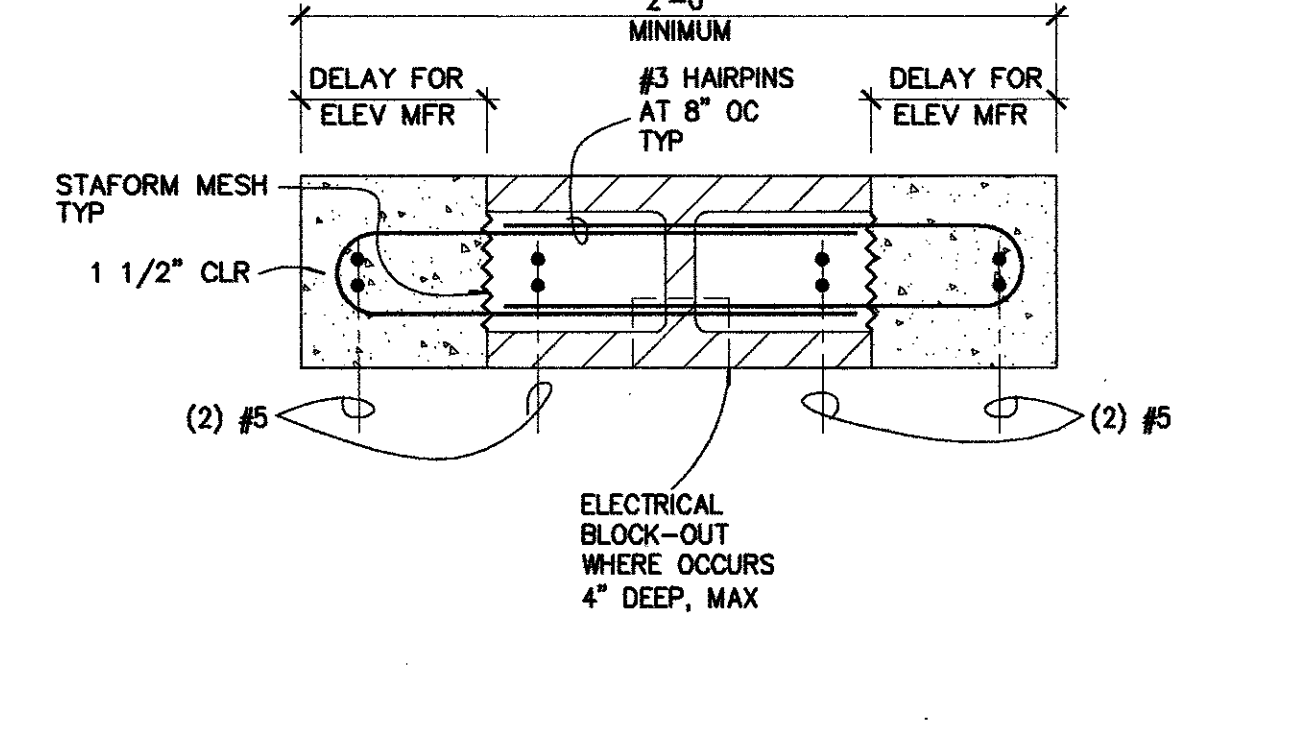
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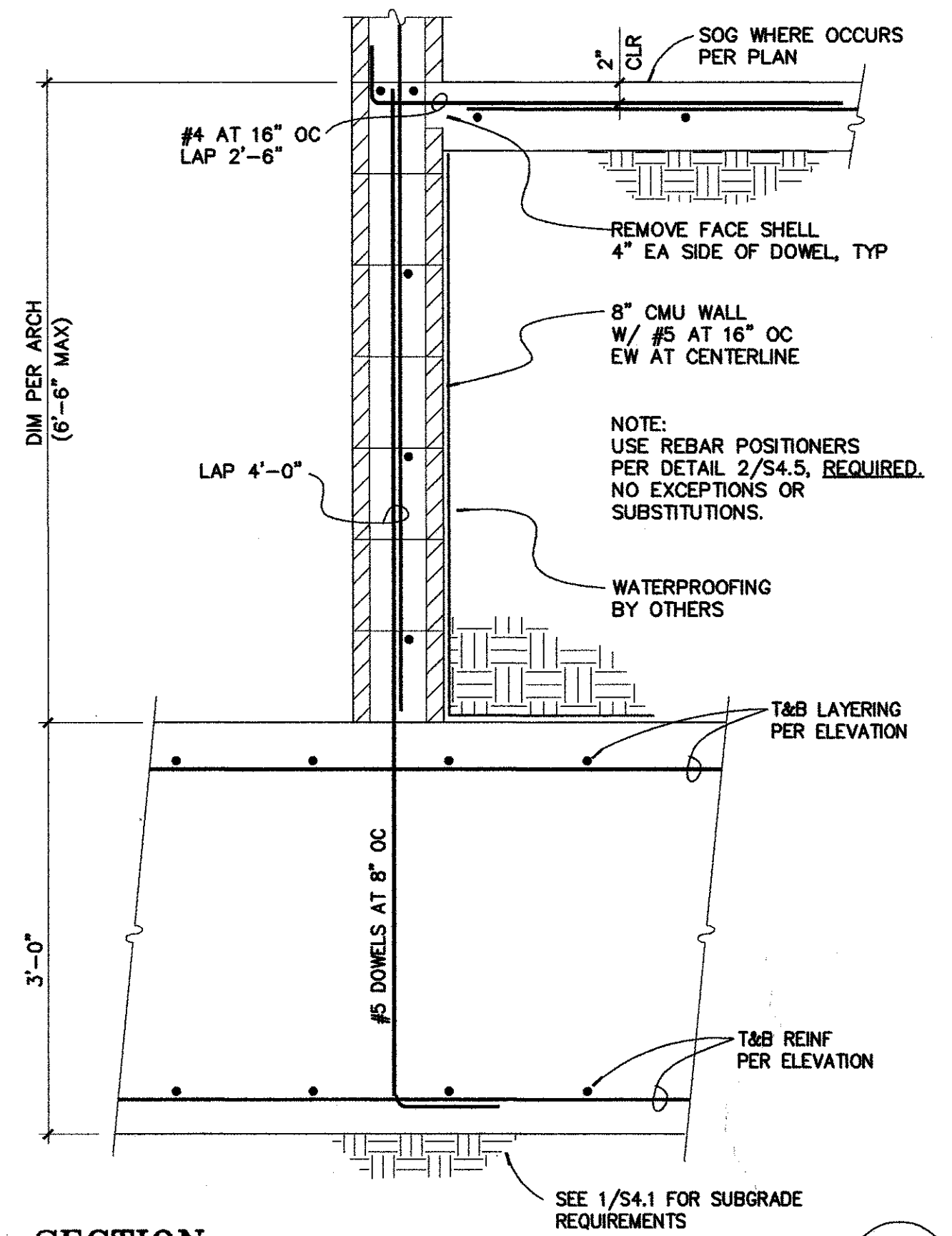
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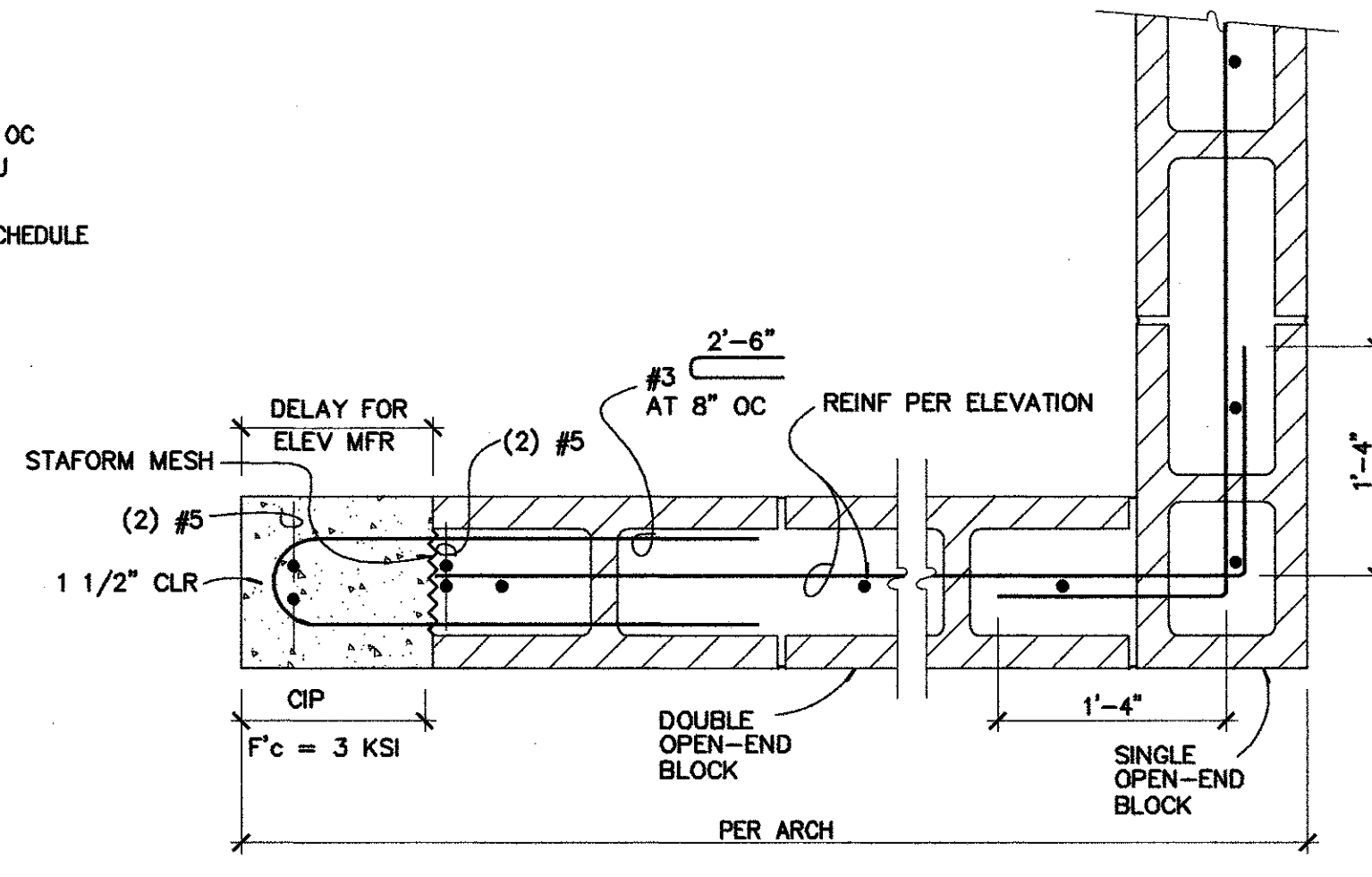
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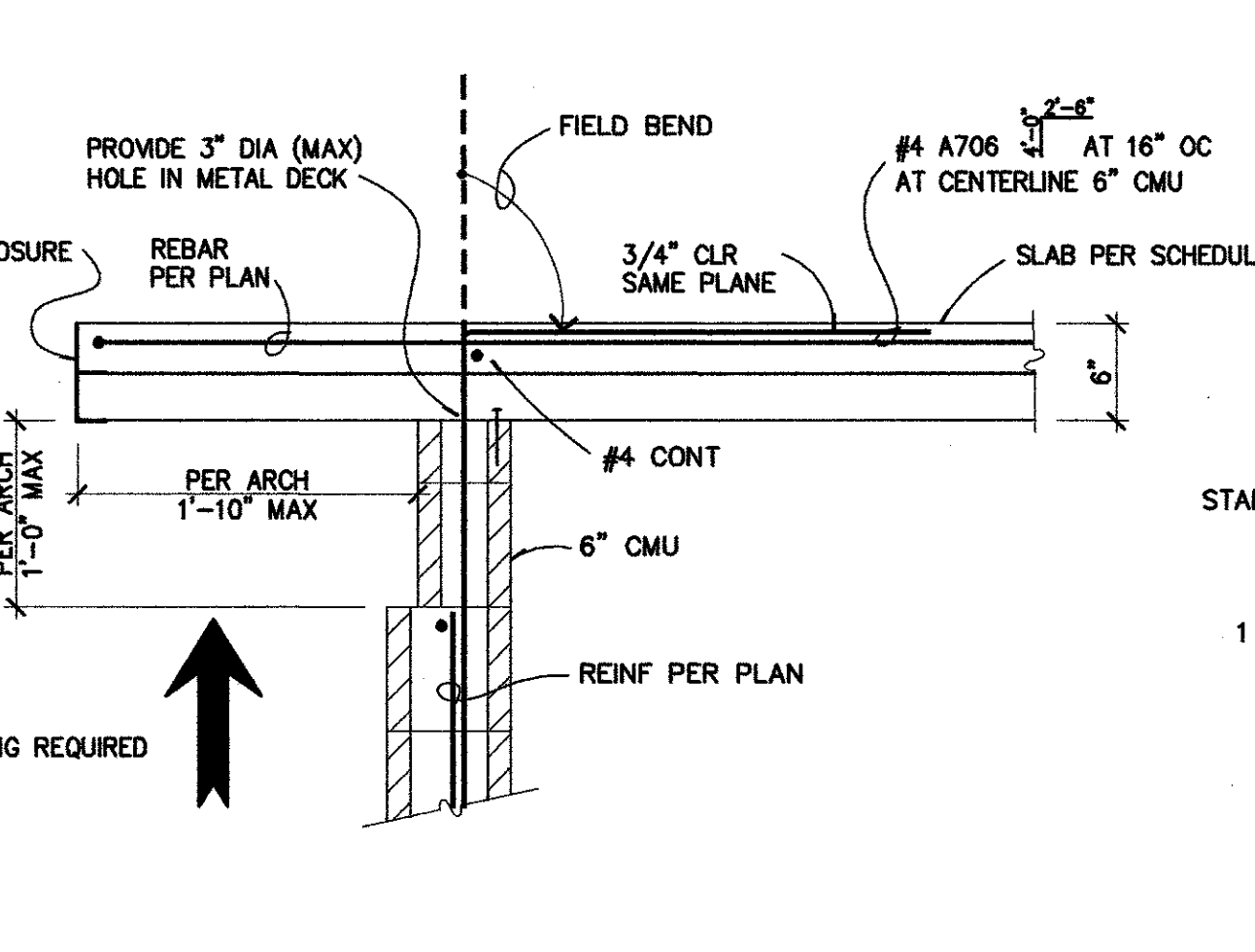
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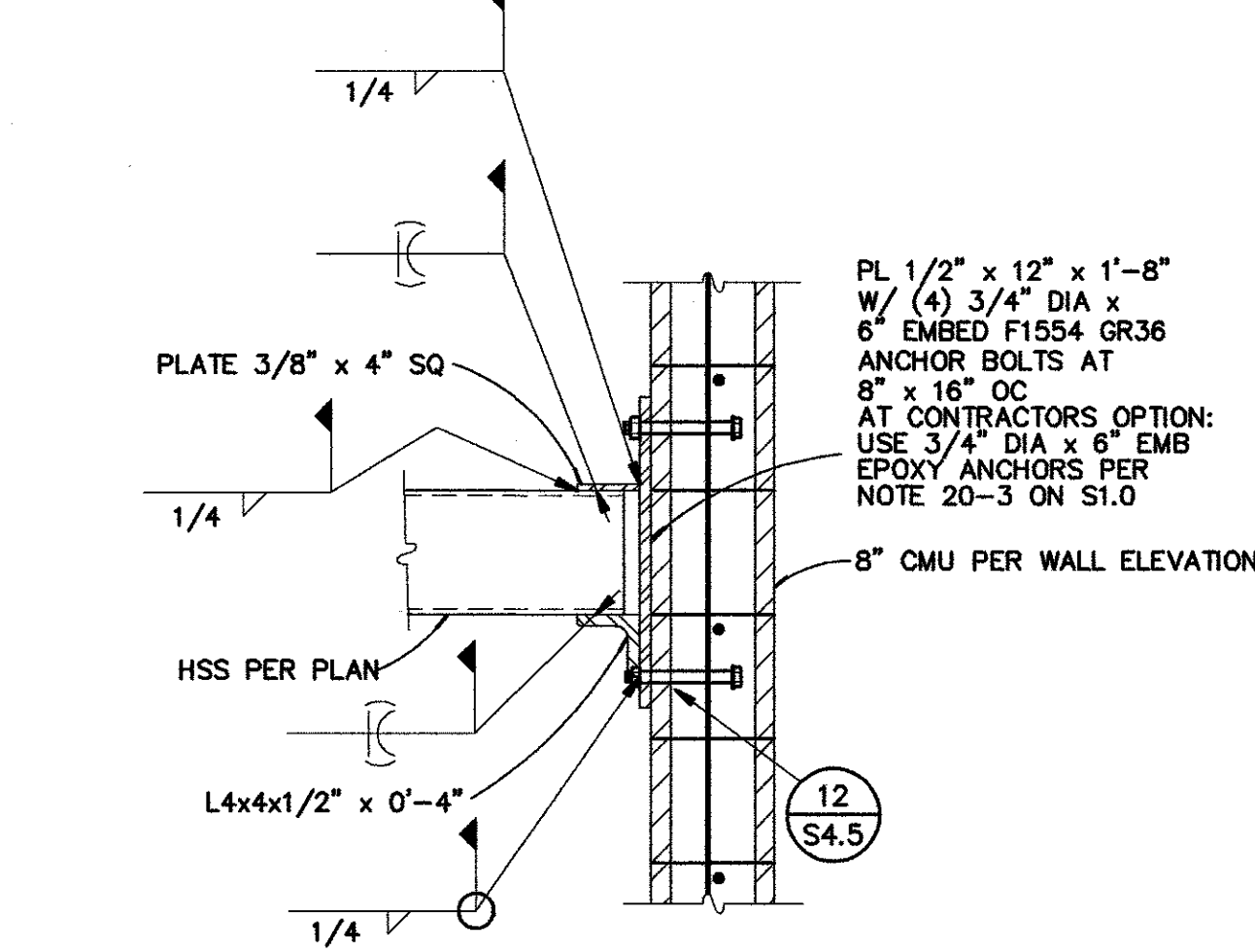
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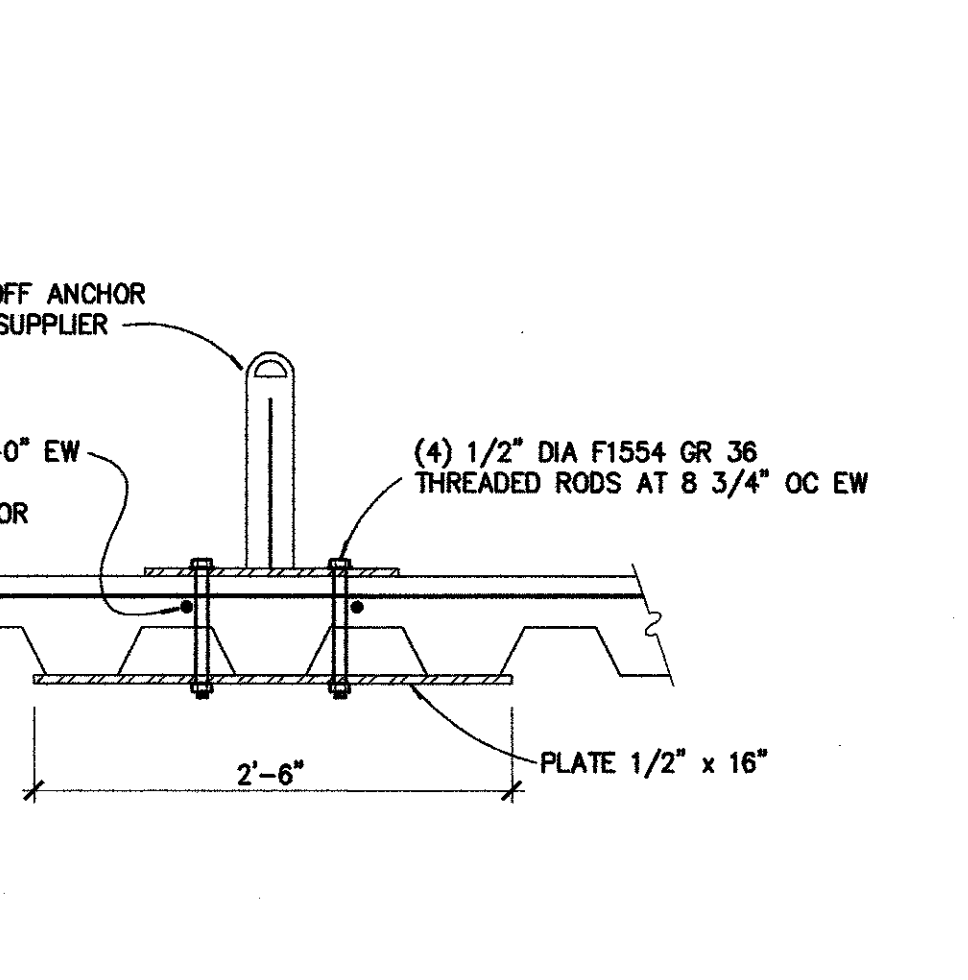
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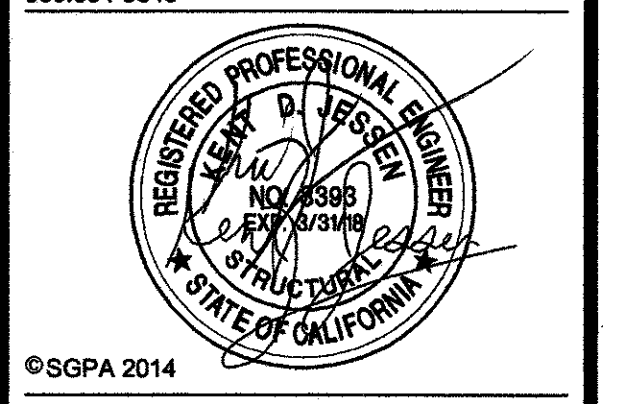


SECTION 13  
NO SCALE



SECTION 17  
NO SCALE





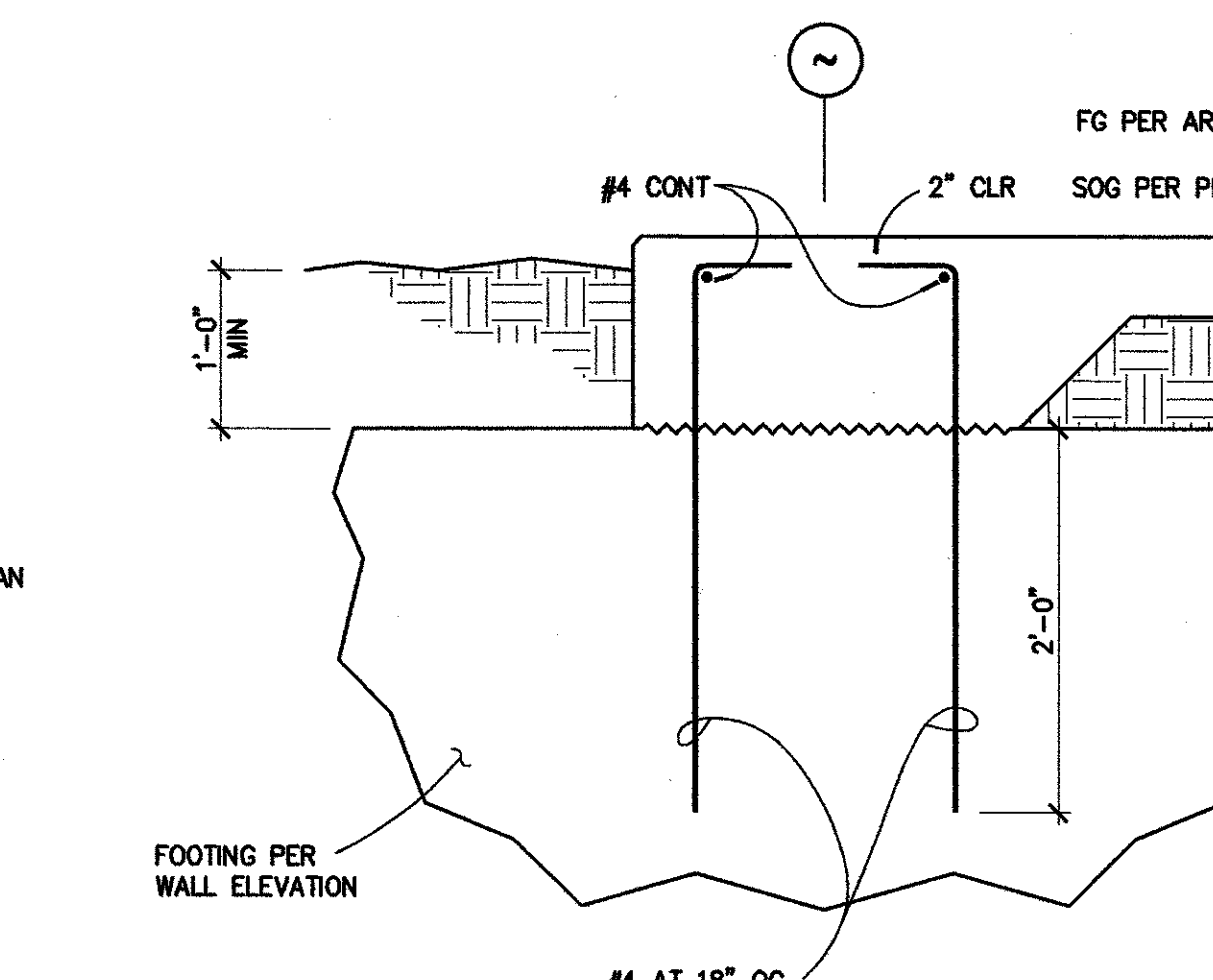
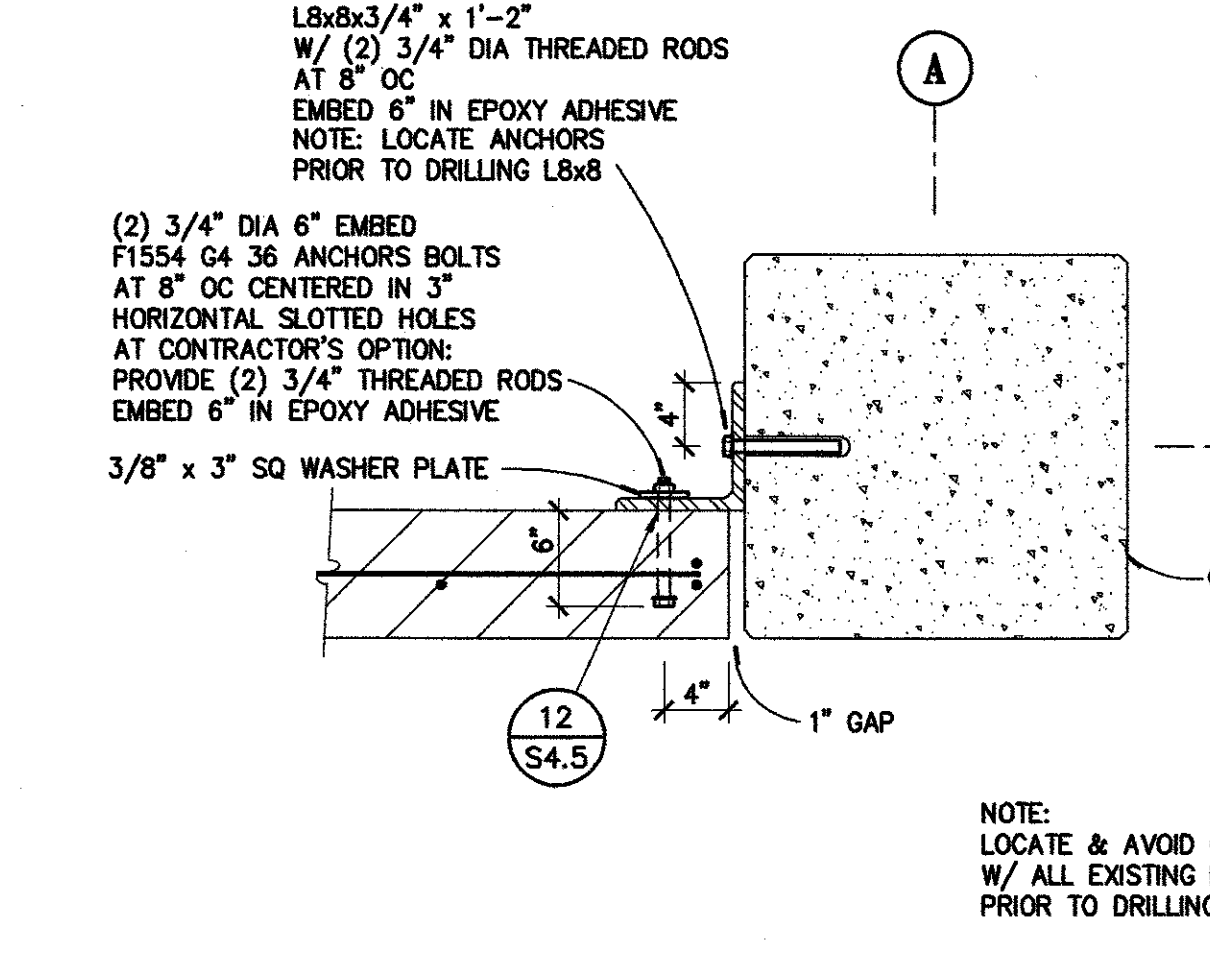
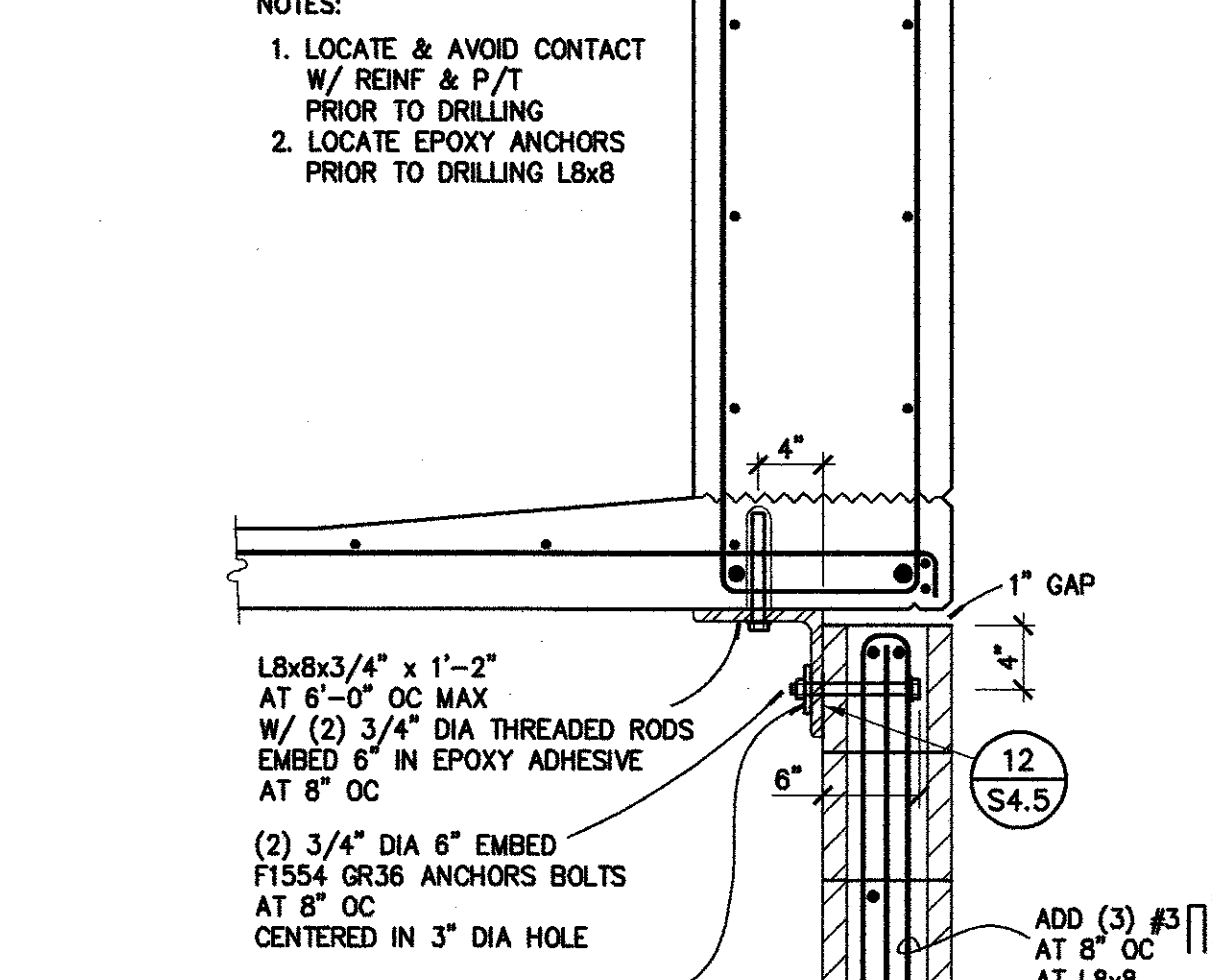
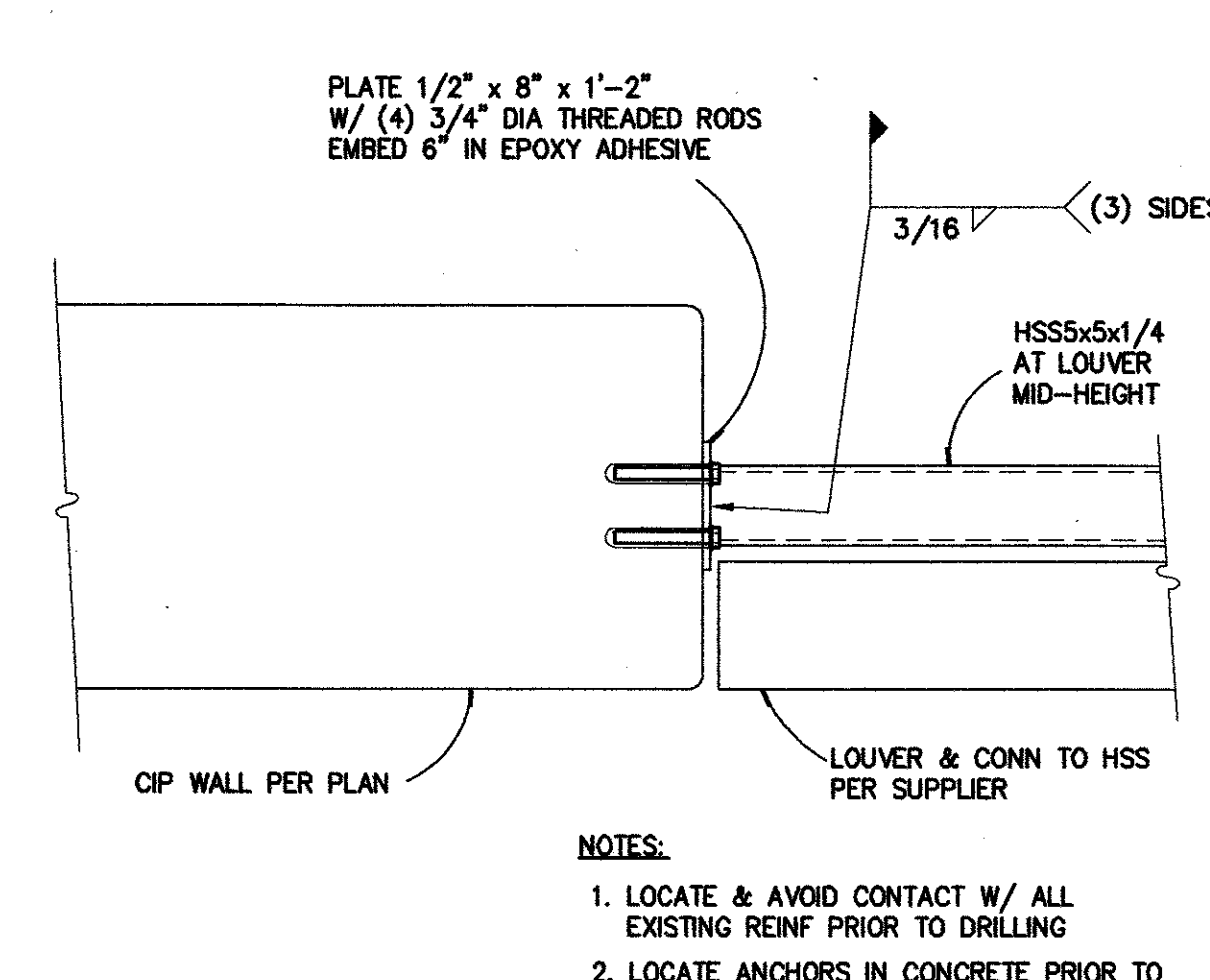
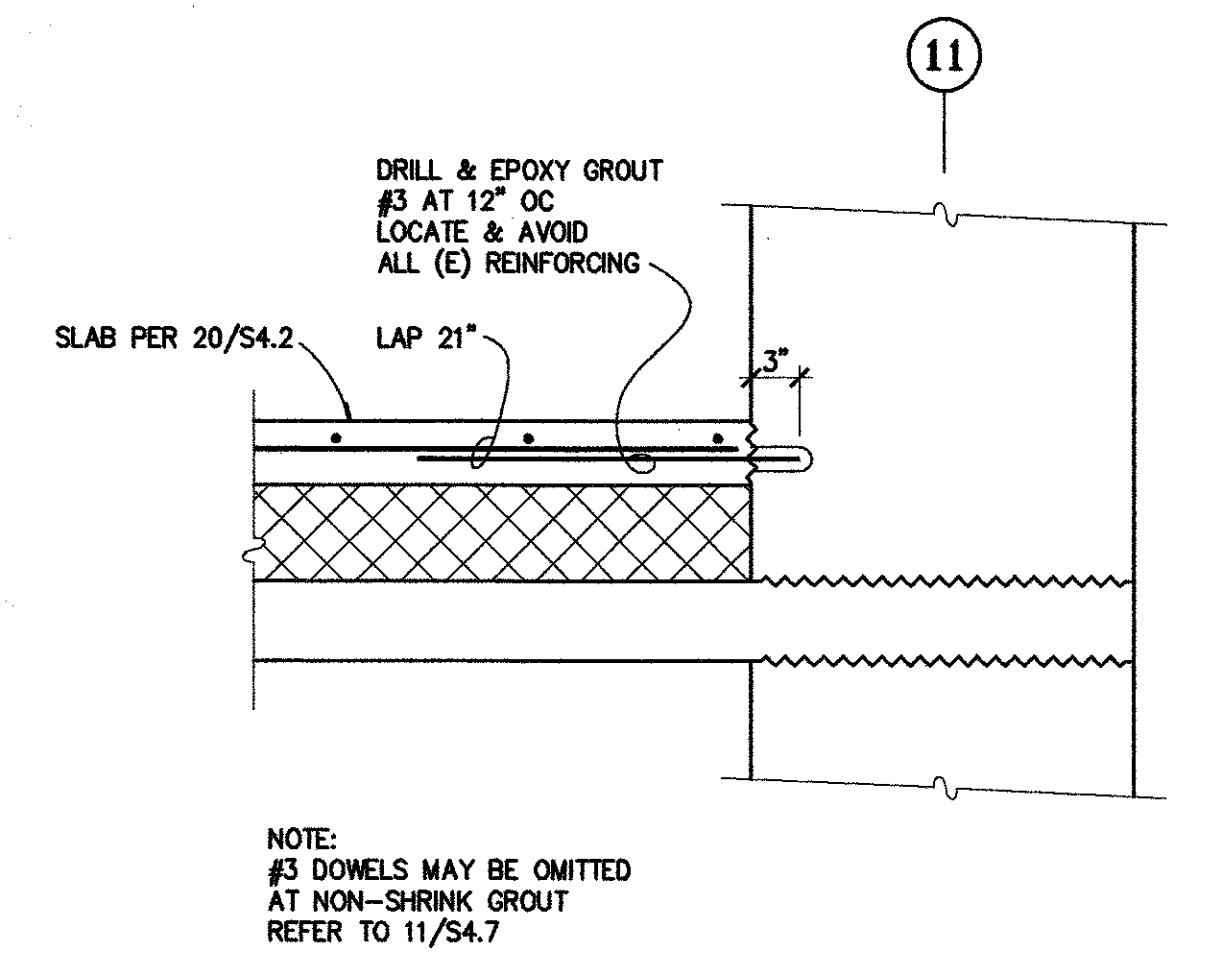
OFFICE OF THE STATE FIRE MARSHAL  
APPROVED FIRE DETAIL  
Reviewed by: \_\_\_\_\_  
Bradley Robinson, USFS  
APR 27 2015

SUBMITTAL SCHEDULE:

SCHEMATIC DESIGN	04/17/2014
50% PRELIM. DESIGN	05/14/2014
100% PRELIM. DESIGN	05/28/2014
50% CONST. DOCS.	07/02/2014
95% CONST. DOCS.	08/07/2014
100% BACKCHECK	11/10/2014
100% BACKCHECK 2	01/22/2015
100% BACKCHECK 3	03/20/2015
ASHI011 SFM RESUB 2	11/06/2015
ASHI015 SFM RESUB 3	03/03/2016

IDENTIFICATION STAMP  
DIVISION OF THE STATE ARCHITECT  
OFFICE OF REGULATION SERVICES

FILE # 04-114204  
AC \_\_\_\_\_ DATE \_\_\_\_\_



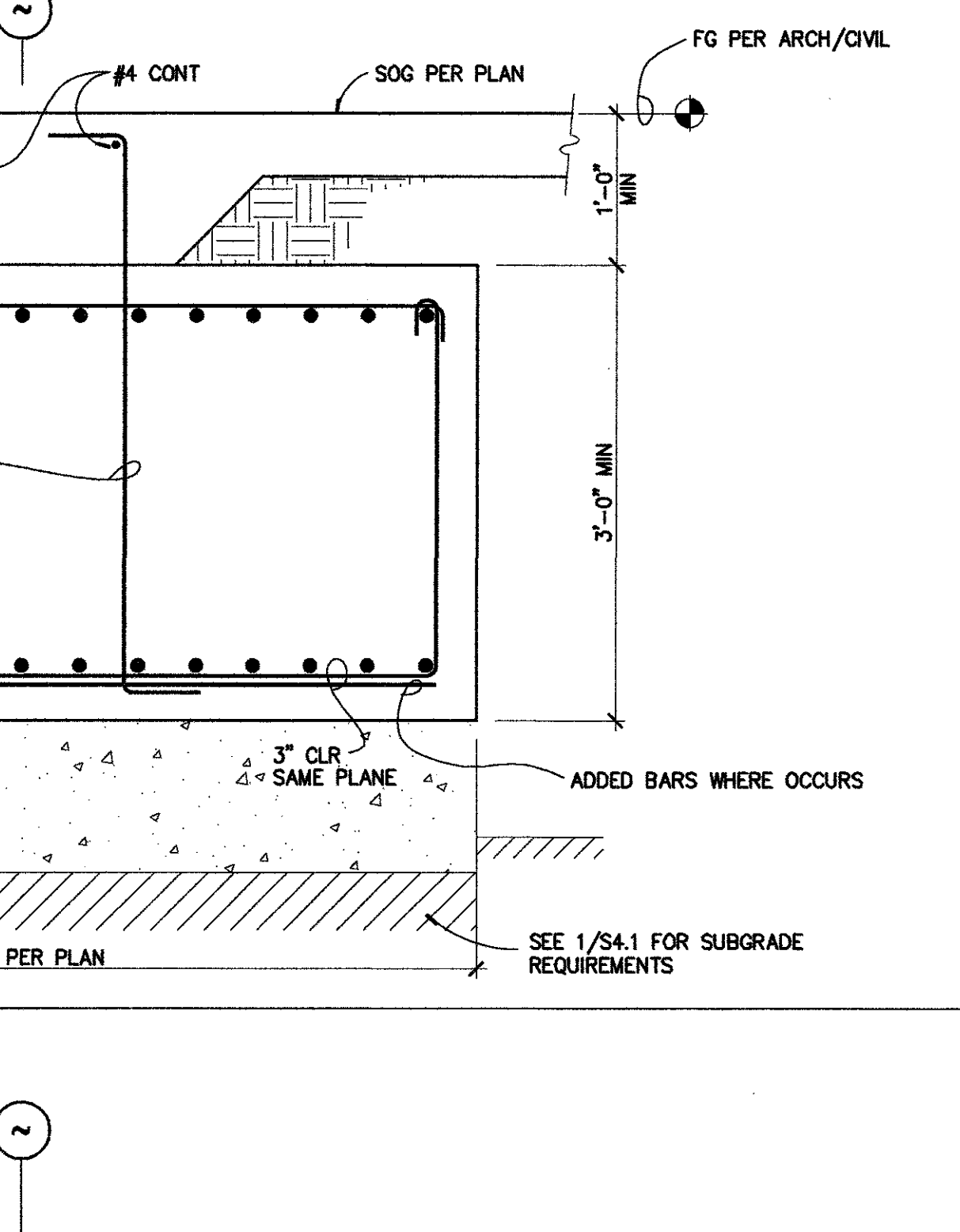
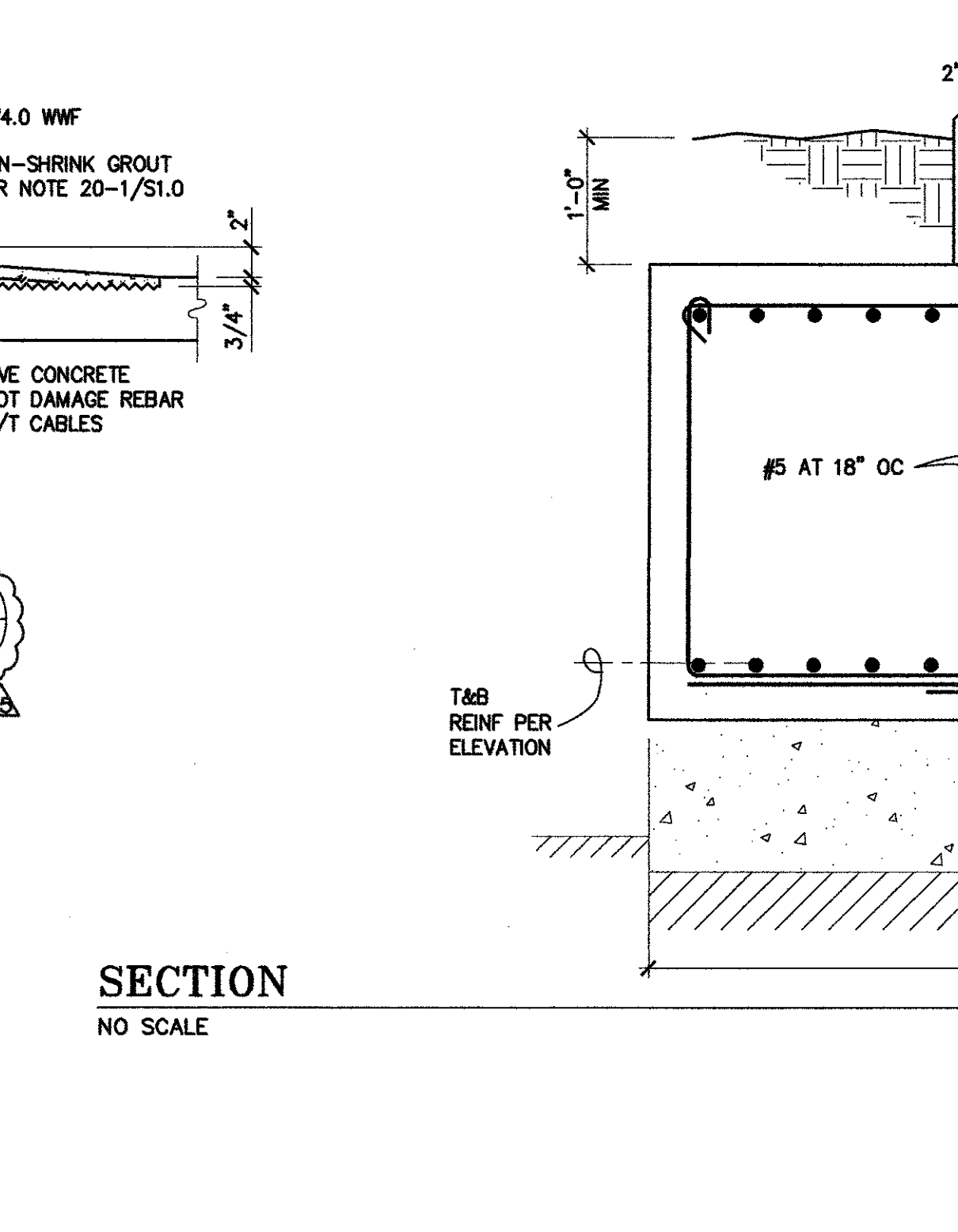
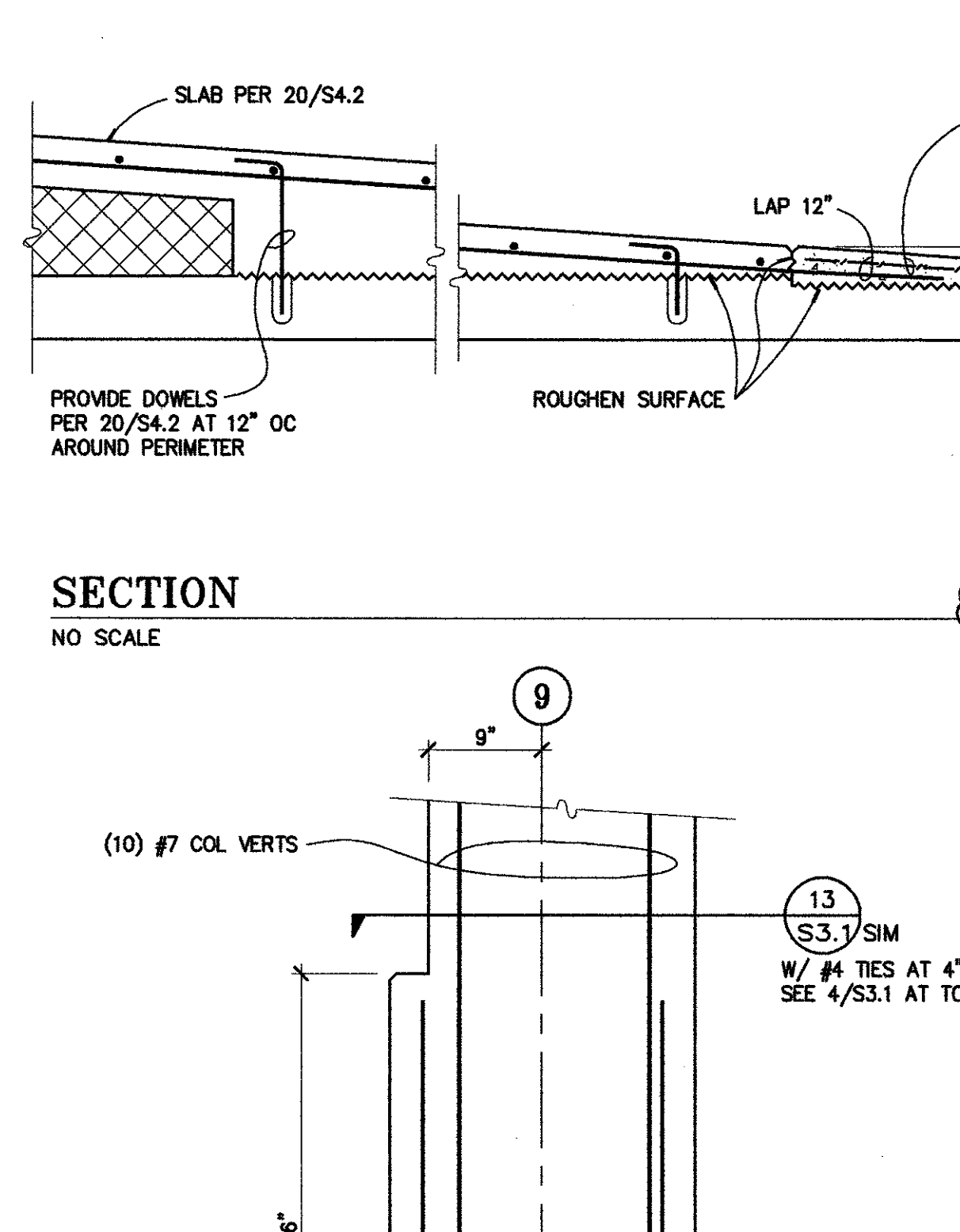
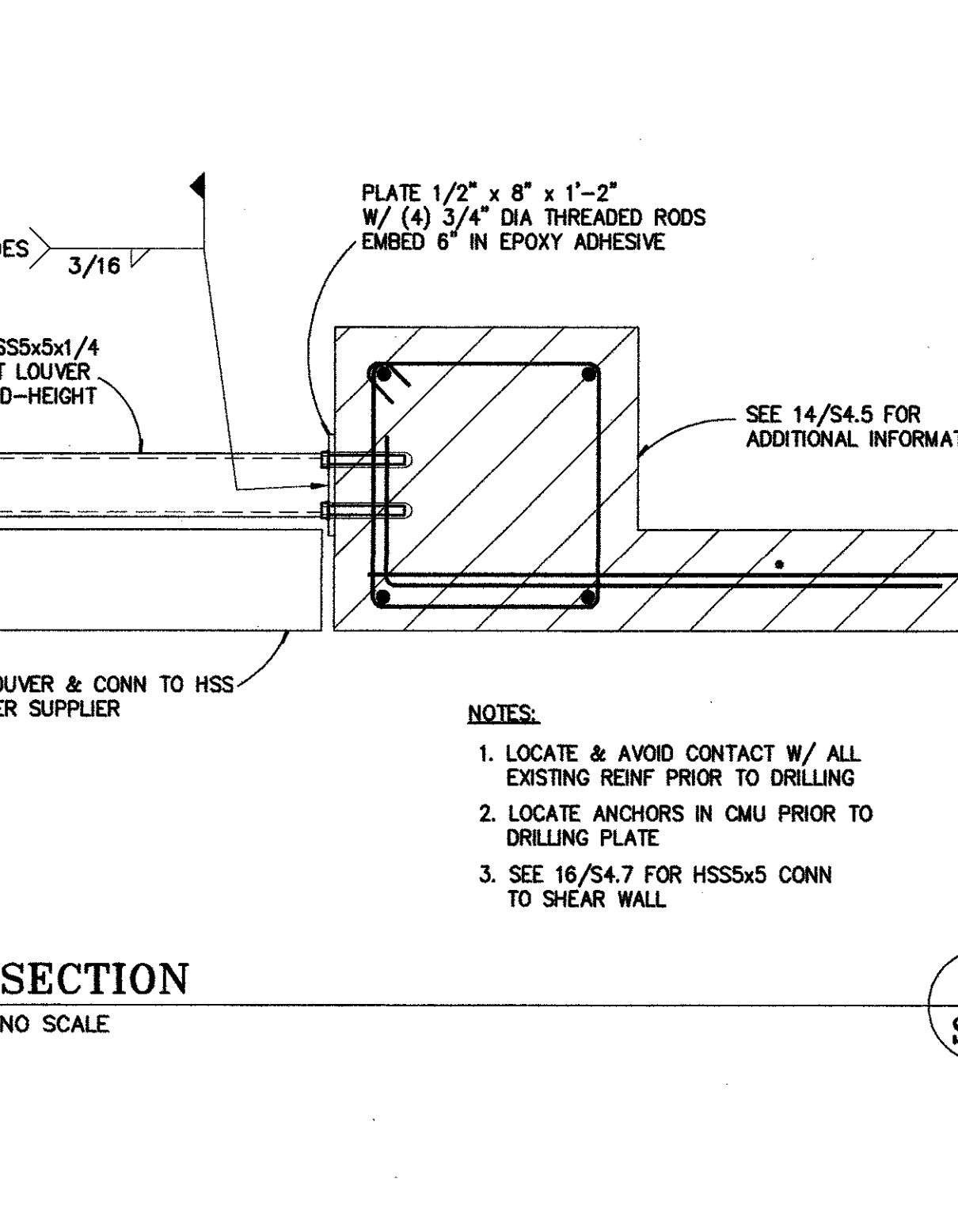
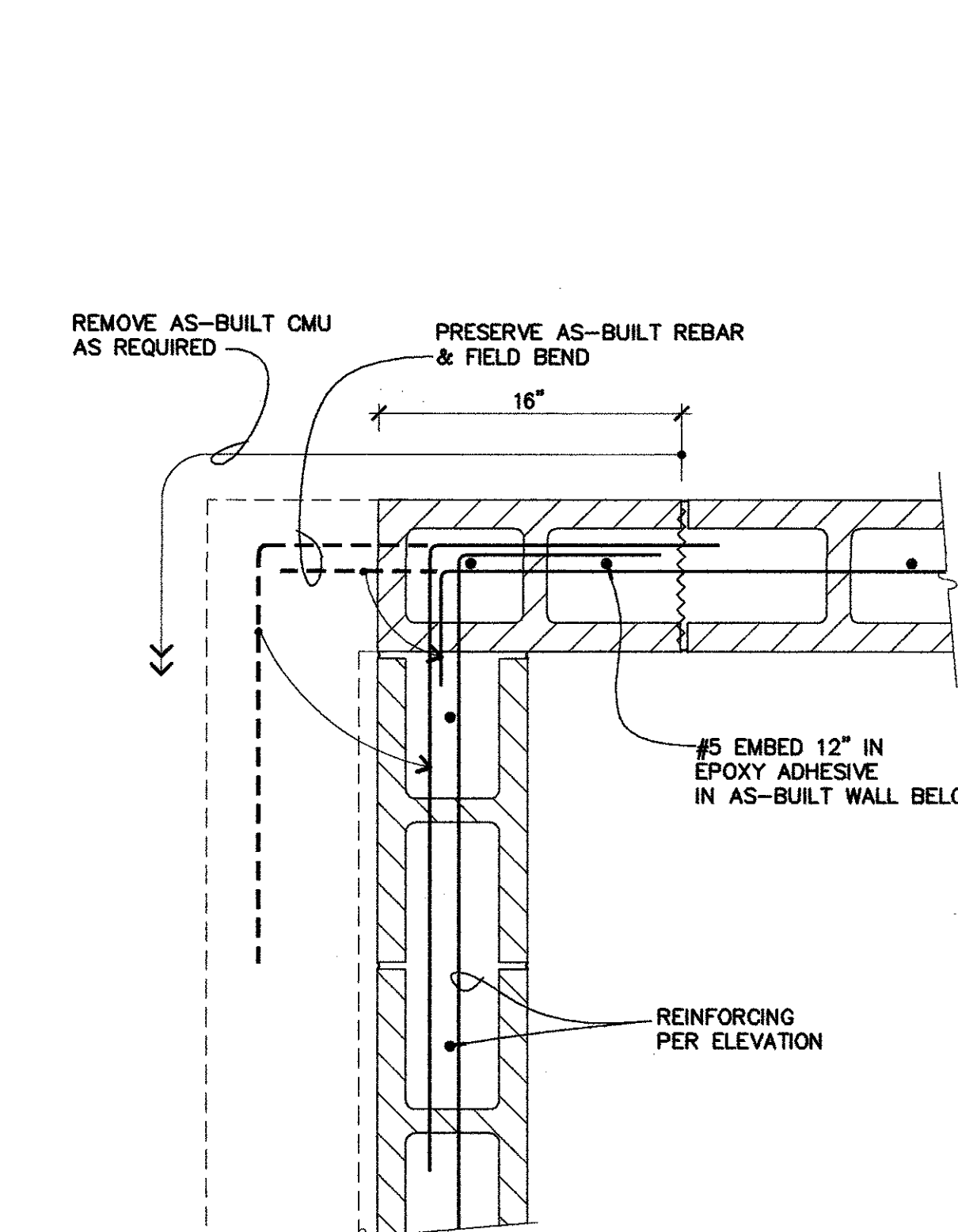
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SECTION 16  
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SECTION 12  
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SECTION 8  
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SECTION 4  
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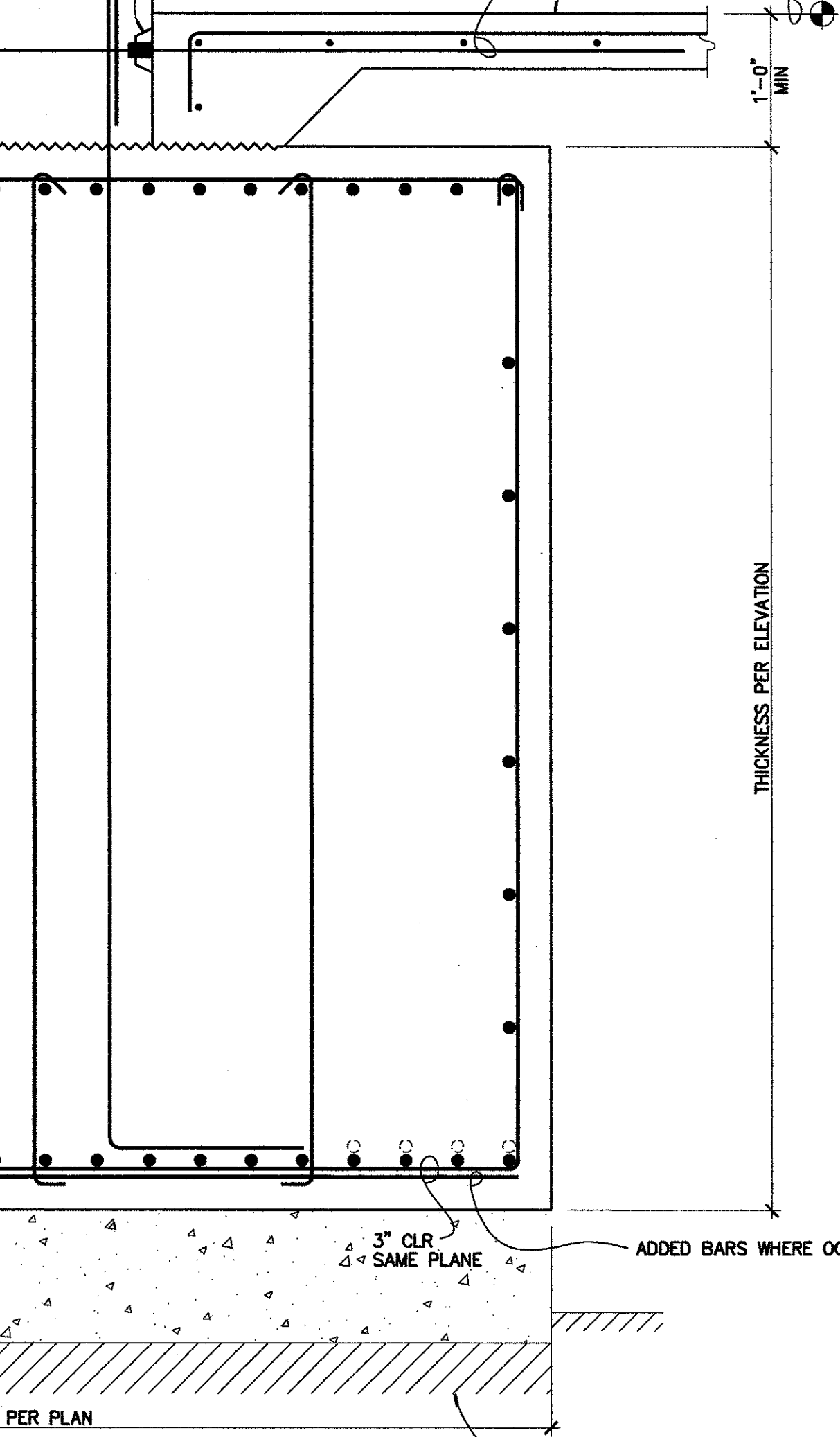
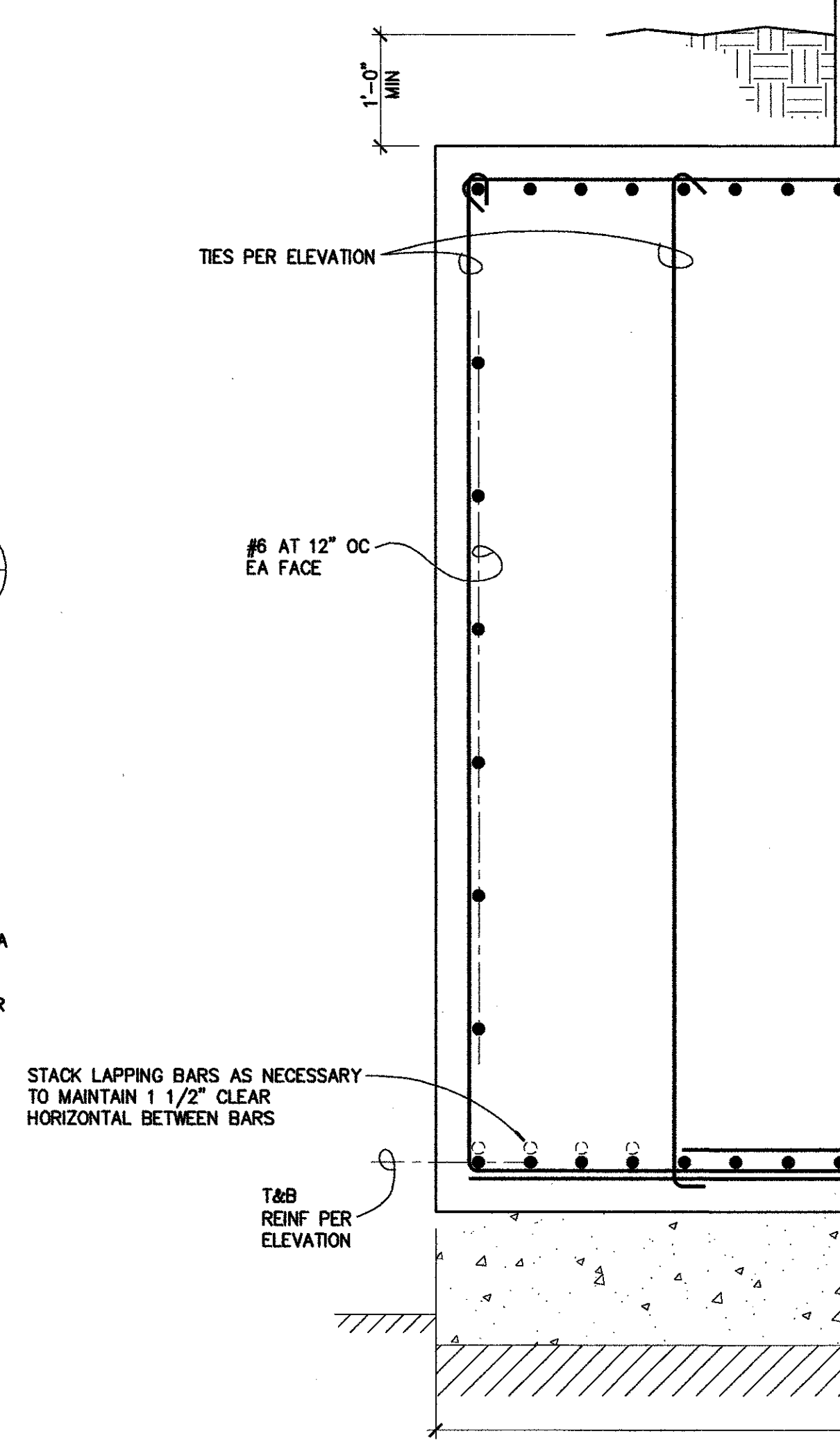
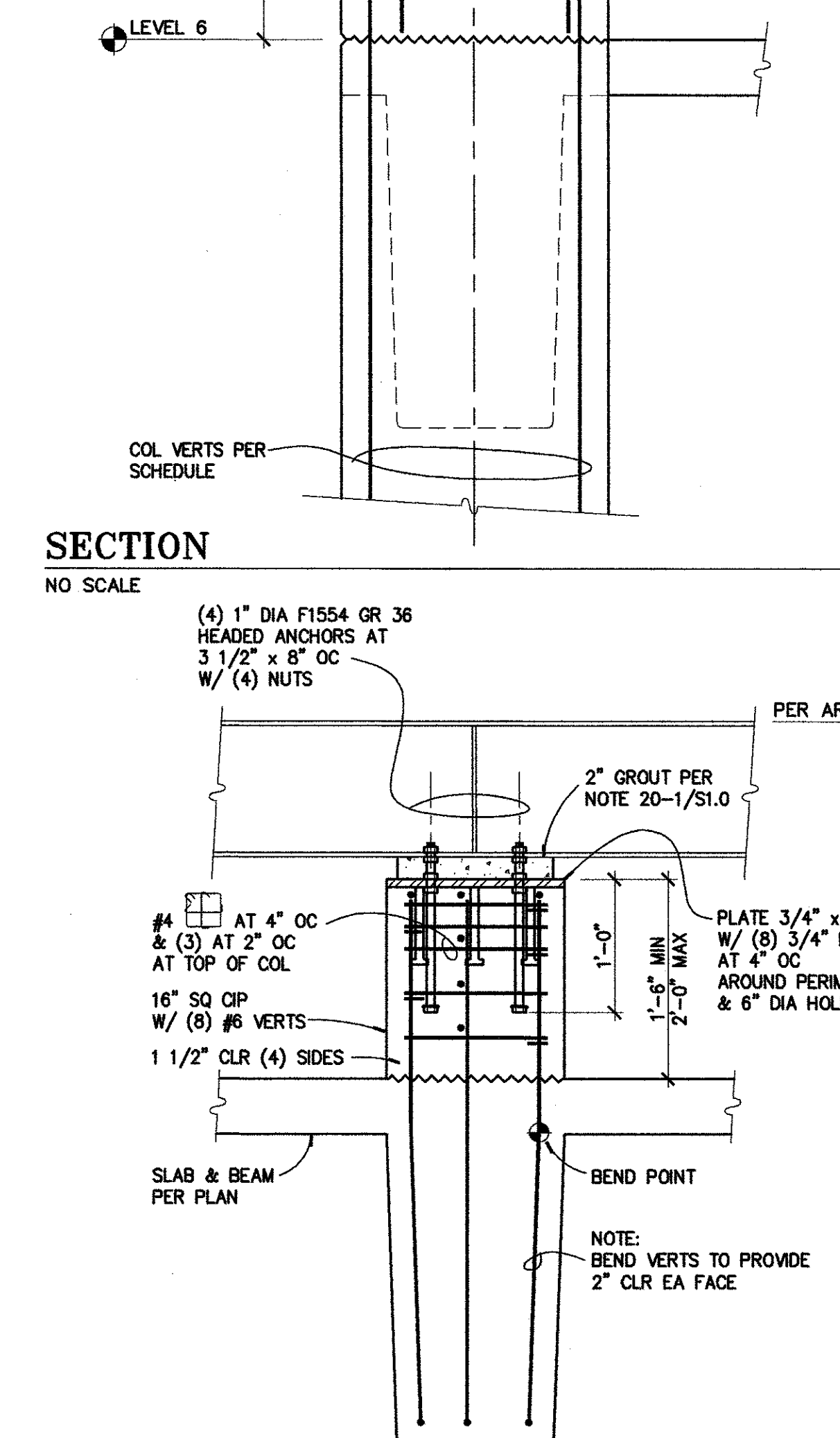
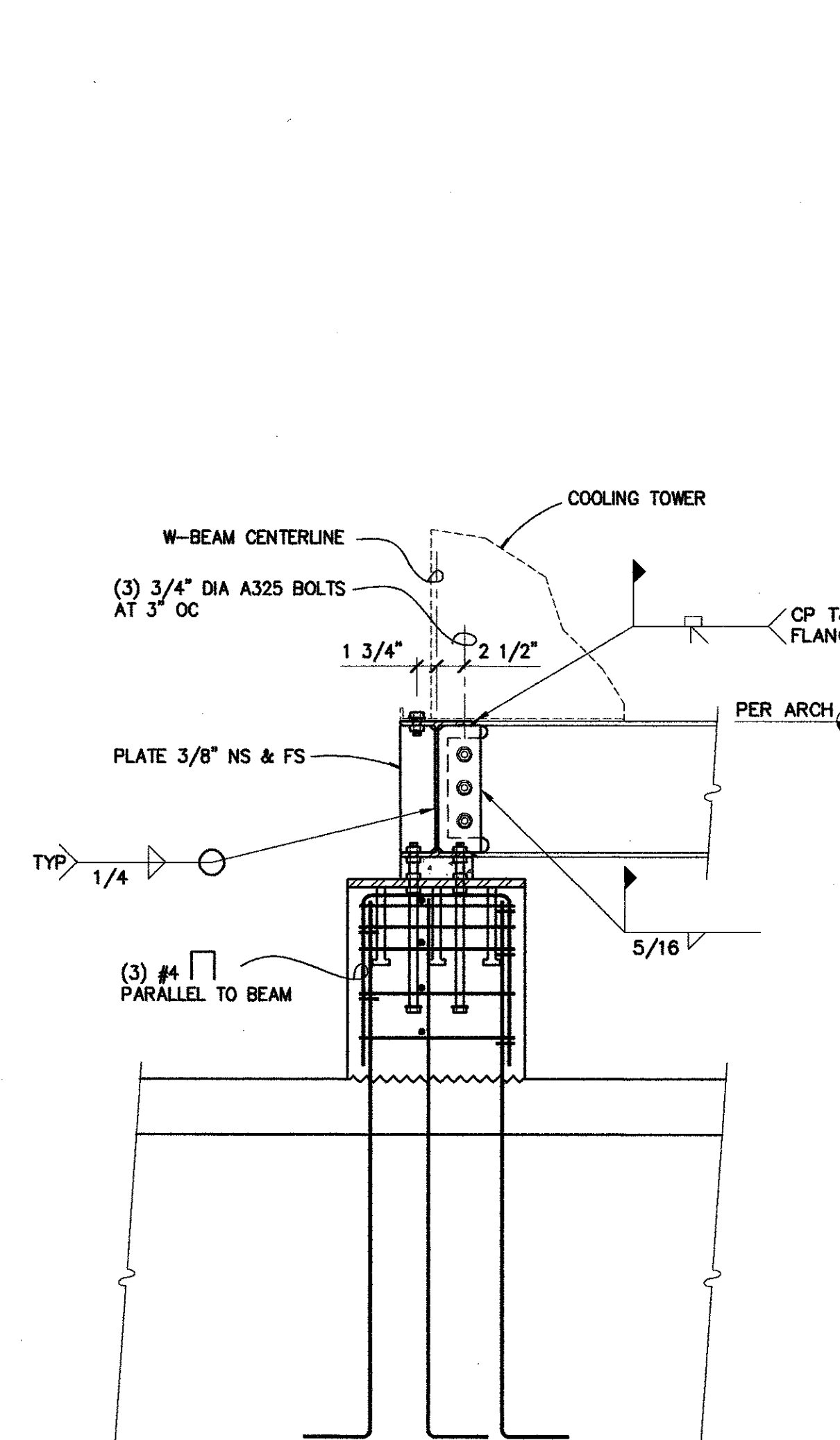
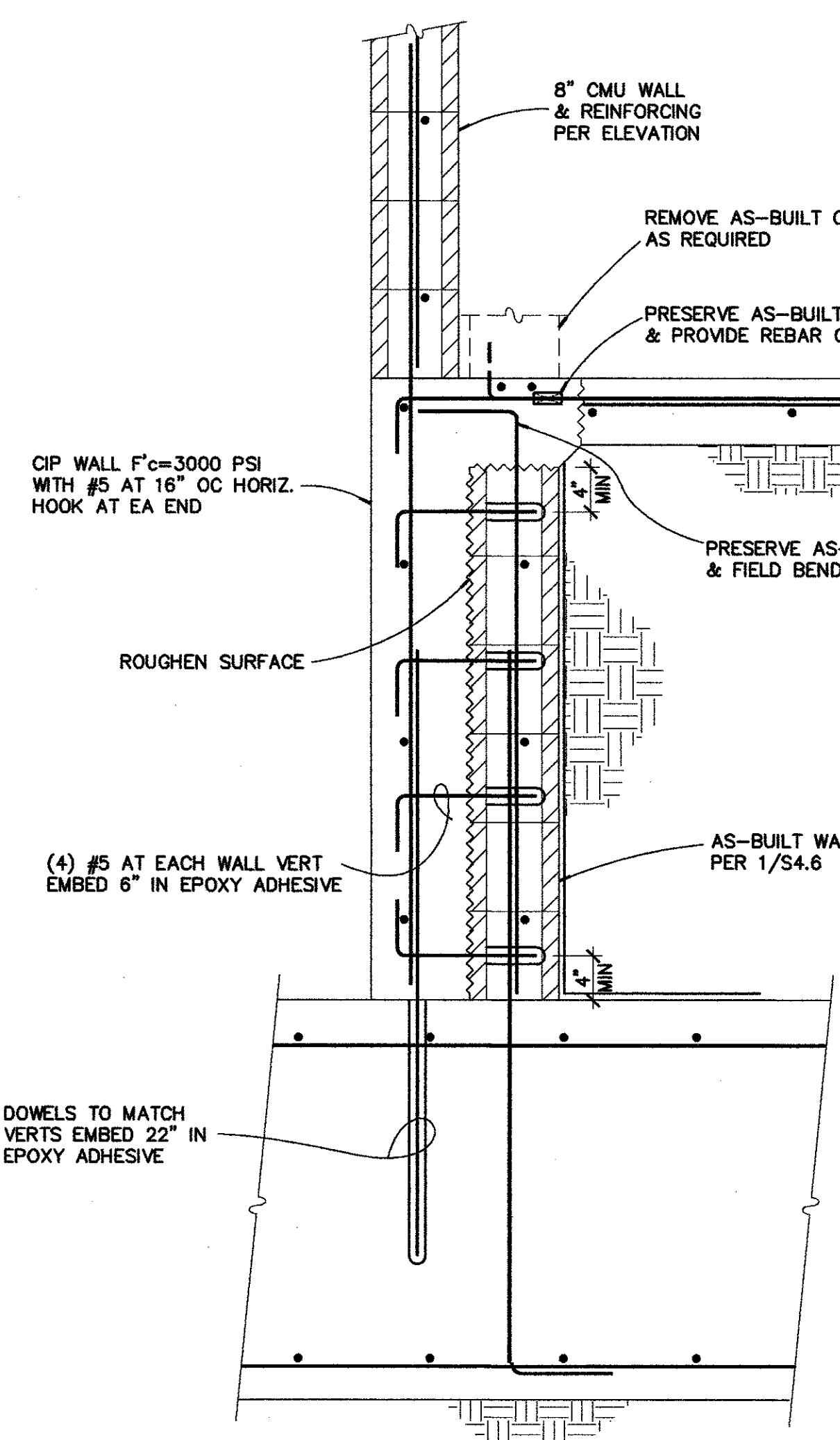
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SECTION 3  
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SECTION 17  
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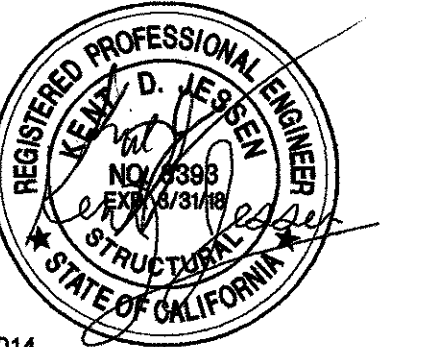
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SECTION 10  
NO SCALE

SECTION 9  
NO SCALE

SECTION 1  
NO SCALE





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OFFICE OF THE STATE FIRE MARSHAL  
APPROVED FIRE AND SMOKE CITY  
Reviewed by: [Signature]

APR 27 2016  
Approval of this plan does not constitute or approve any extension or deviation from applicable regulations. Final approval is subject to field inspection. One set of approved plans shall be available on the project site at all times.

SUBMITTAL SCHEDULE:

SCHEMATIC DESIGN	04/17/2014
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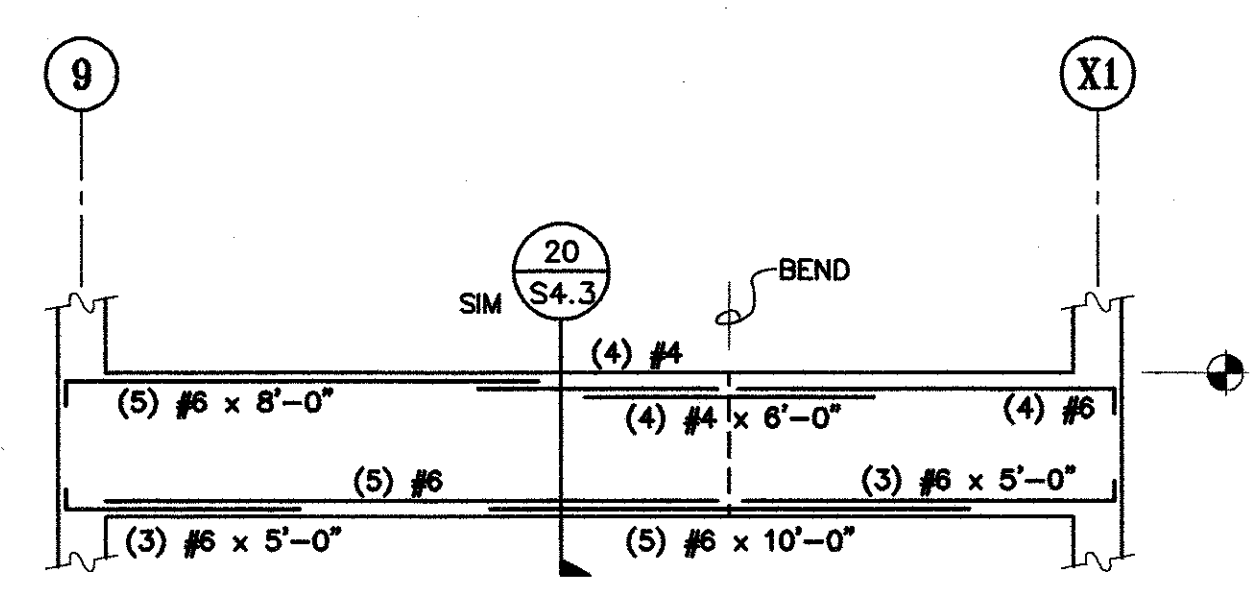
ASHI011 SFM RESUB 2 11/06/2015  
ASHI015 SFM RESUB 3 03/03/2016

IDENTIFICATION STAMP  
DIVISION OF THE STATE ARCHITECT  
OFFICE OF REGULATION SERVICES

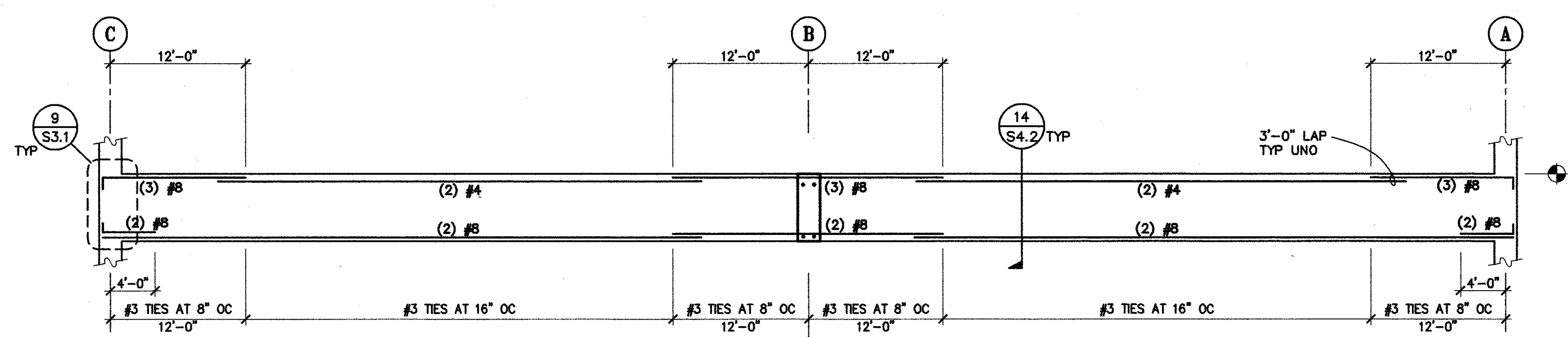
FILE #  
APL # 04-11204

AC \_\_\_\_\_ DATE: \_\_\_\_\_

PROJECT NO: 21305-G-50

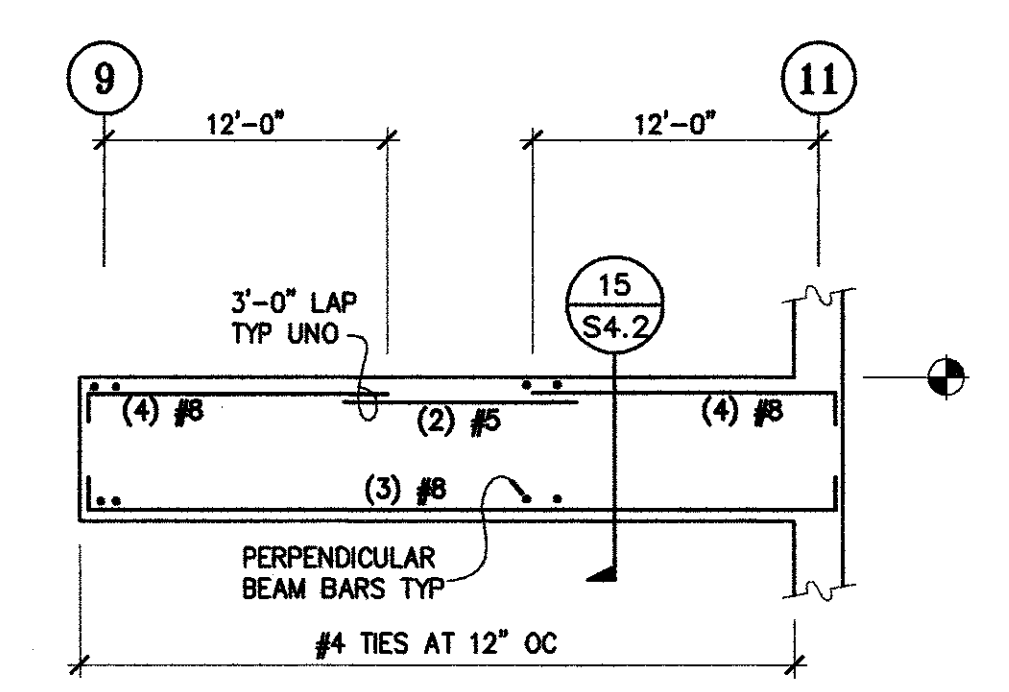


**BEAM ELEVATION AT GRID C/Y2** 15  
NO SCALE S4.10



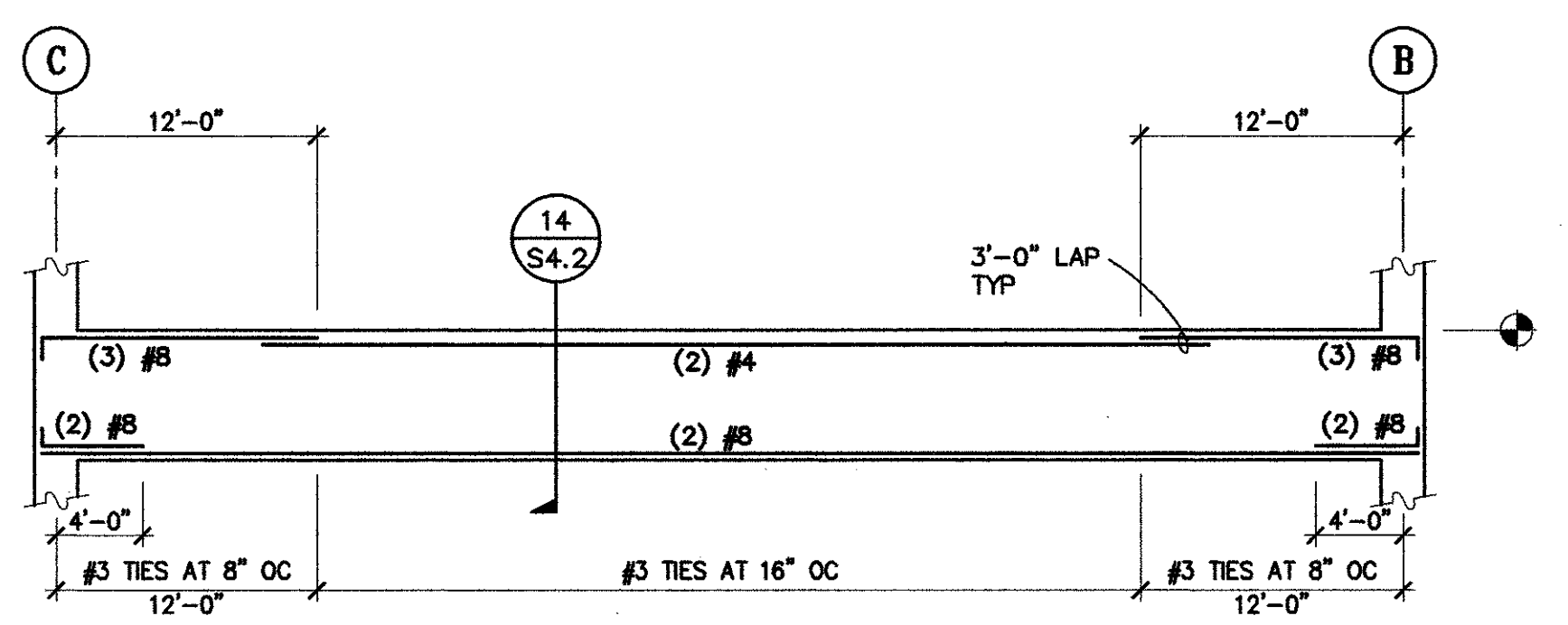
**BEAM ELEVATION AT GRIDS 2 & 3** 5  
NO SCALE S4.10

- NOTES:**
- SEE PLANS FOR P/T CABLES AND PROFILE.
  - LOCATE FIRST BEAM TIE 2" FROM COLUMN FACE
  - LENTON REBAR TERMINATORS MAY BE SUBSTITUTED FOR 90° HOOKS AT CONTRACTOR'S OPTION.



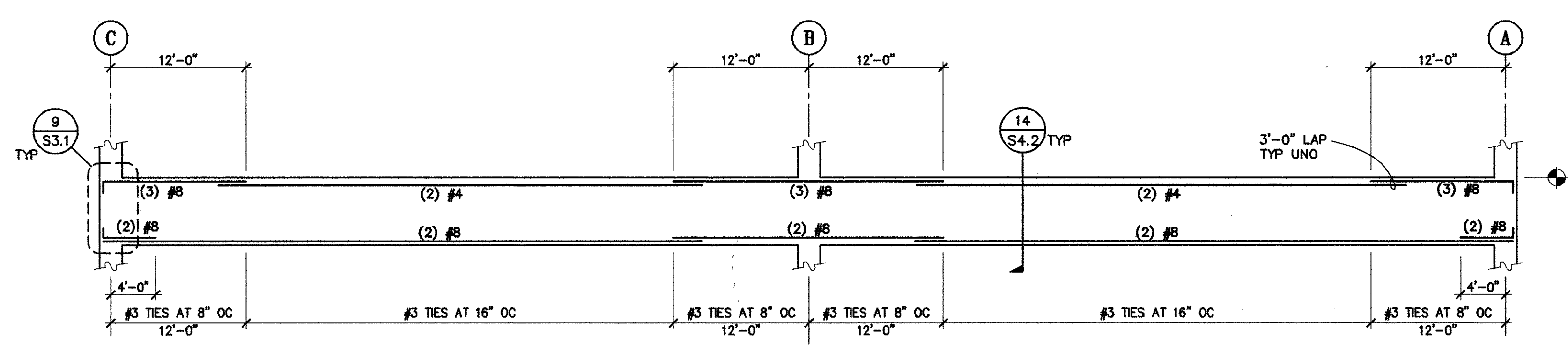
**GIRDER ELEVATION AT GRIDS A.7 & B.3** 19  
NO SCALE S4.10

- NOTES:**
- SEE PLANS FOR P/T CABLES AND PROFILE. PROVIDE HARPED TENDON PROFILE AT ALL TRANSFER GIRDERS.
  - LENTON REBAR TERMINATORS MAY BE SUBSTITUTED FOR 90° HOOKS AT CONTRACTOR'S OPTION.
  - NO SLEEVES OR OPENINGS THROUGH GIRDER ALLOWED.



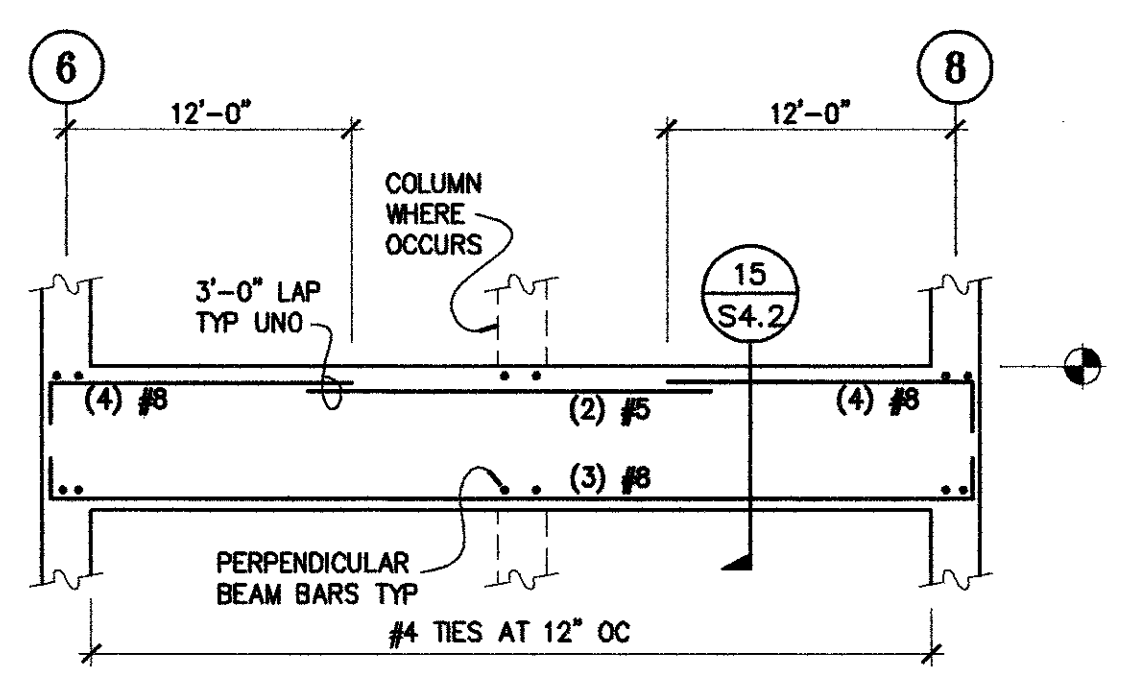
**TYPICAL BEAM ELEVATION** 14  
NO SCALE S4.10

- NOTES:**
- SEE PLANS FOR P/T CABLES AND PROFILE.
  - LOCATE FIRST BEAM TIE 2" FROM COLUMN FACE
  - LENTON REBAR TERMINATORS MAY BE SUBSTITUTED FOR 90° HOOKS AT CONTRACTOR'S OPTION.
  - SEE 11/S4.2 AT SLEEVES.



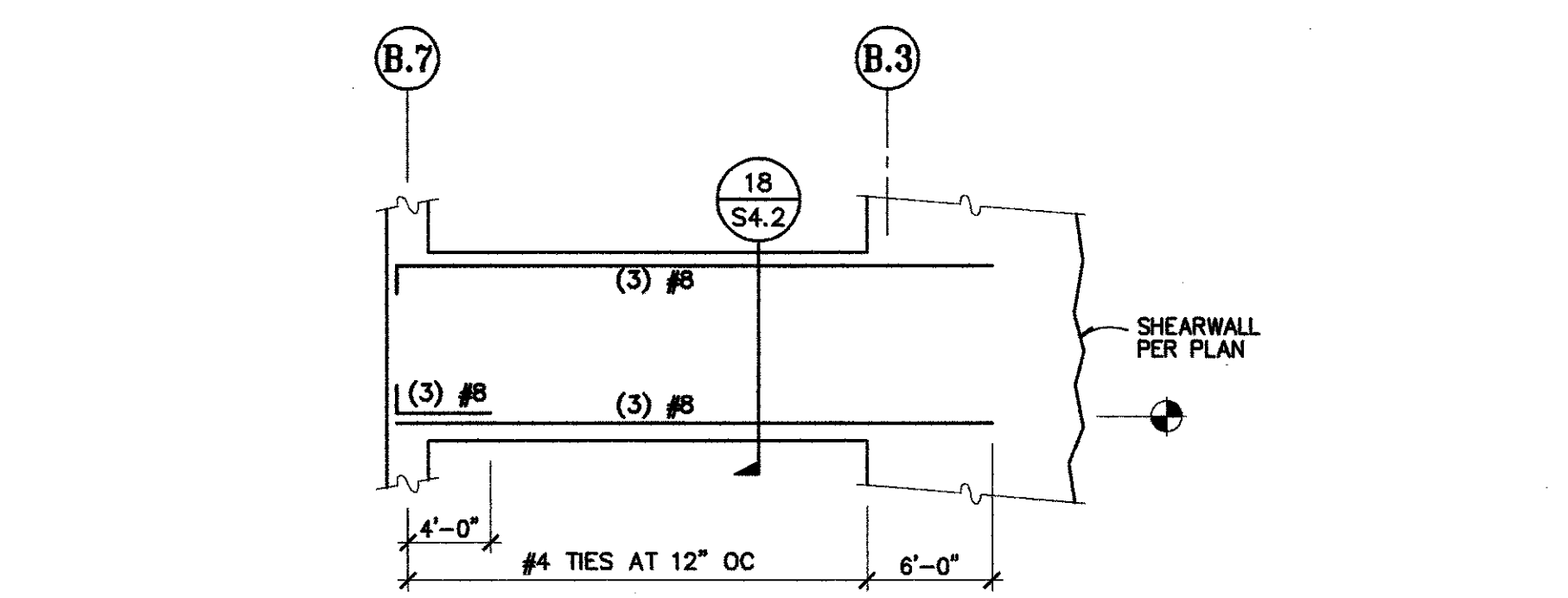
**BEAM ELEVATION AT GRID 4** 4  
NO SCALE S4.10

- NOTES:**
- SEE PLANS FOR P/T CABLES AND PROFILE.
  - LOCATE FIRST BEAM TIE 2" FROM COLUMN FACE
  - LENTON REBAR TERMINATORS MAY BE SUBSTITUTED FOR 90° HOOKS AT CONTRACTOR'S OPTION.



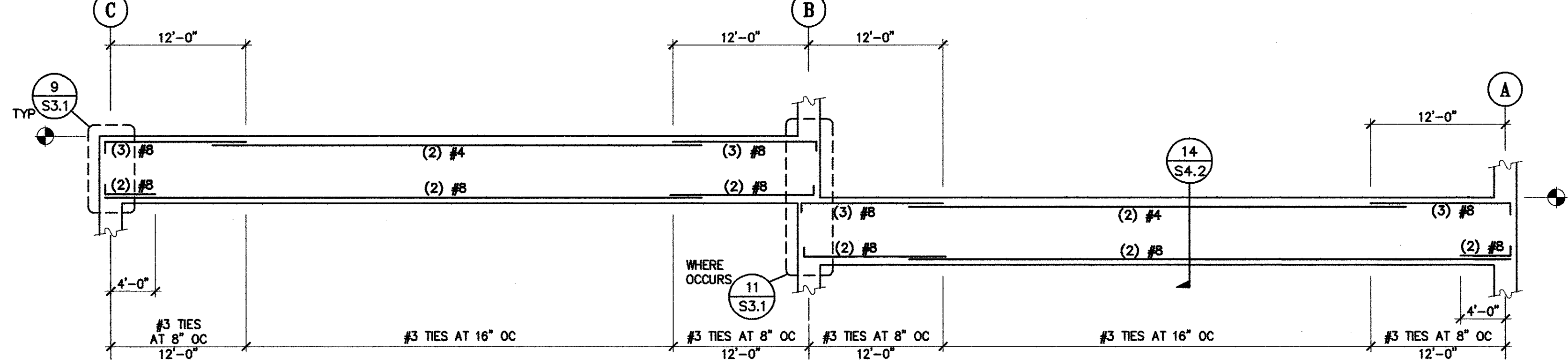
**GIRDER ELEVATION AT GRID B** 18  
NO SCALE S4.10

- NOTES:**
- SEE PLANS FOR P/T CABLES AND PROFILE. PROVIDE HARPED TENDON PROFILE AT ALL TRANSFER GIRDERS.
  - LENTON REBAR TERMINATORS MAY BE SUBSTITUTED FOR 90° HOOKS AT CONTRACTOR'S OPTION.
  - NO SLEEVES OR OPENINGS THROUGH GIRDER ALLOWED.



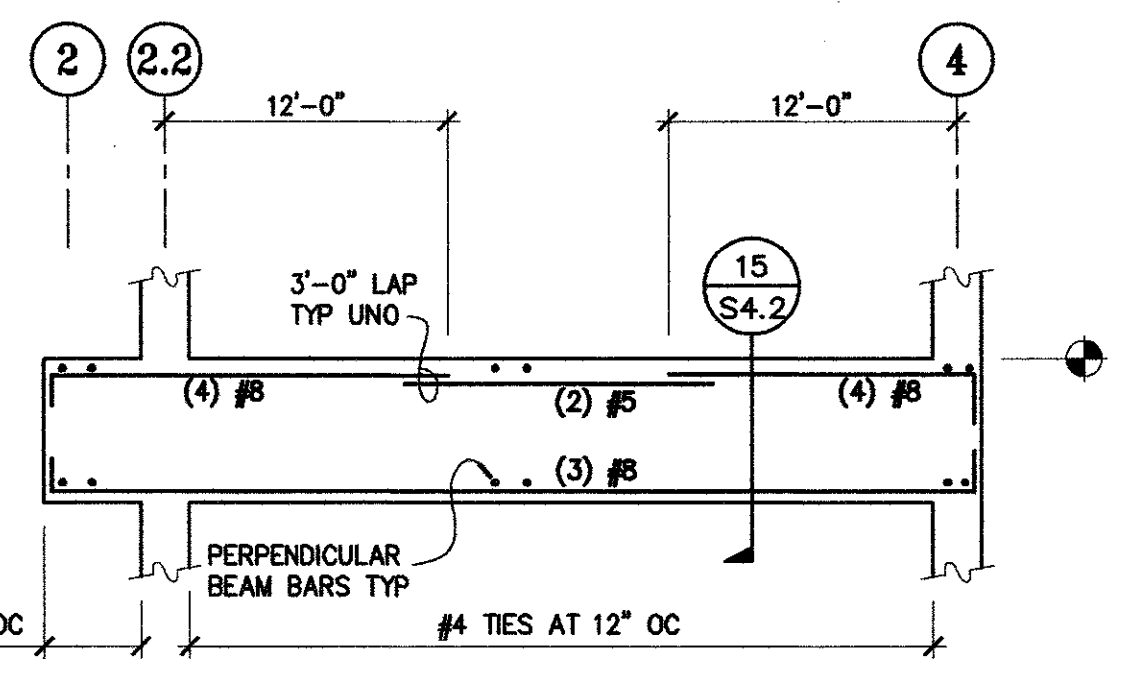
**BEAM ELEVATION AT GRID 11** 13  
NO SCALE S4.10

- NOTES:**
- SEE PLANS FOR P/T CABLES AND PROFILE.
  - LENTON REBAR TERMINATORS MAY BE SUBSTITUTED FOR 90° HOOKS AT CONTRACTOR'S OPTION.



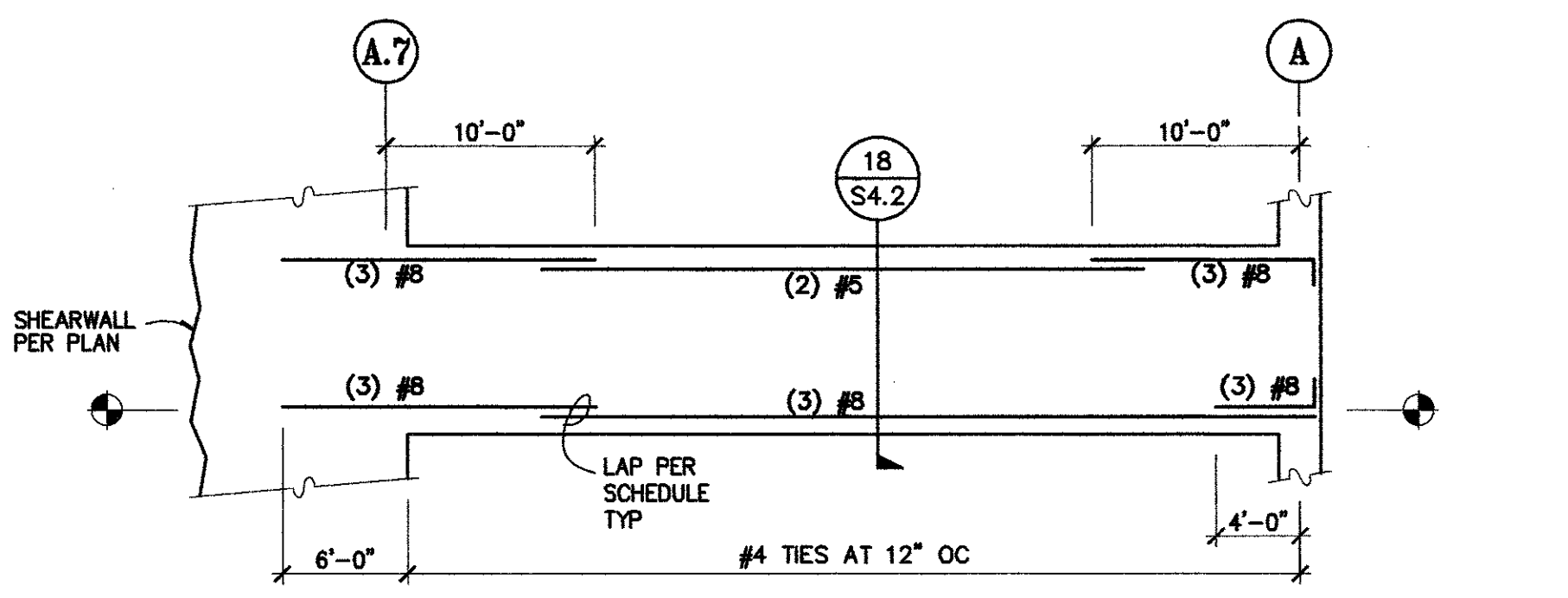
**BEAM ELEVATION** 3  
NO SCALE S4.10

- NOTES:**
- SEE PLANS FOR P/T CABLES AND PROFILE.
  - LOCATE FIRST BEAM TIE 2" FROM COLUMN FACE
  - LENTON REBAR TERMINATORS MAY BE SUBSTITUTED FOR 90° HOOKS AT CONTRACTOR'S OPTION.
  - SEE 11/S4.2 AT SLEEVES



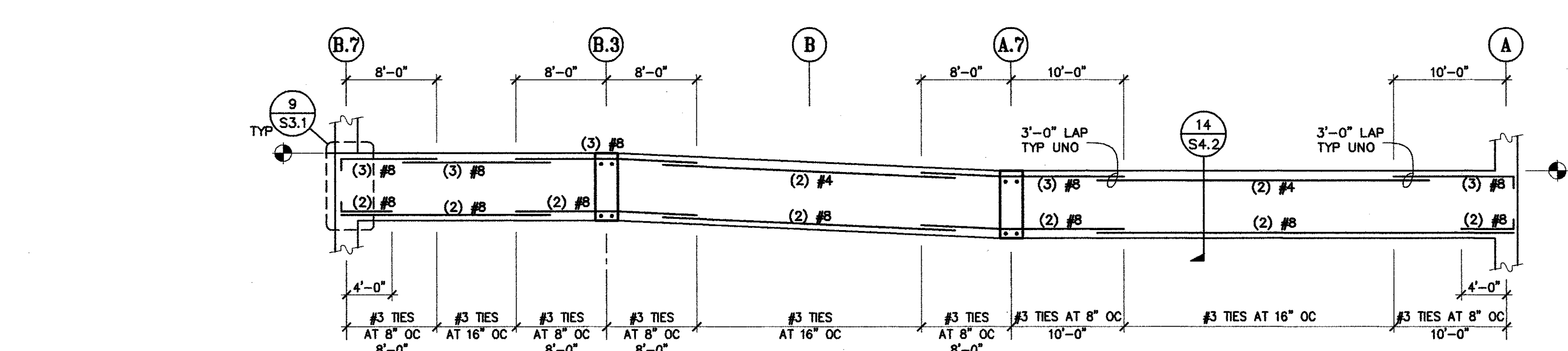
**GIRDER ELEVATION AT GRID B** 17  
NO SCALE S4.10

- NOTES:**
- SEE PLANS FOR P/T CABLES AND PROFILE. PROVIDE HARPED TENDON PROFILE AT ALL TRANSFER GIRDERS.
  - LENTON REBAR TERMINATORS MAY BE SUBSTITUTED FOR 90° HOOKS AT CONTRACTOR'S OPTION.
  - NO SLEEVES OR OPENINGS THROUGH GIRDER ALLOWED.



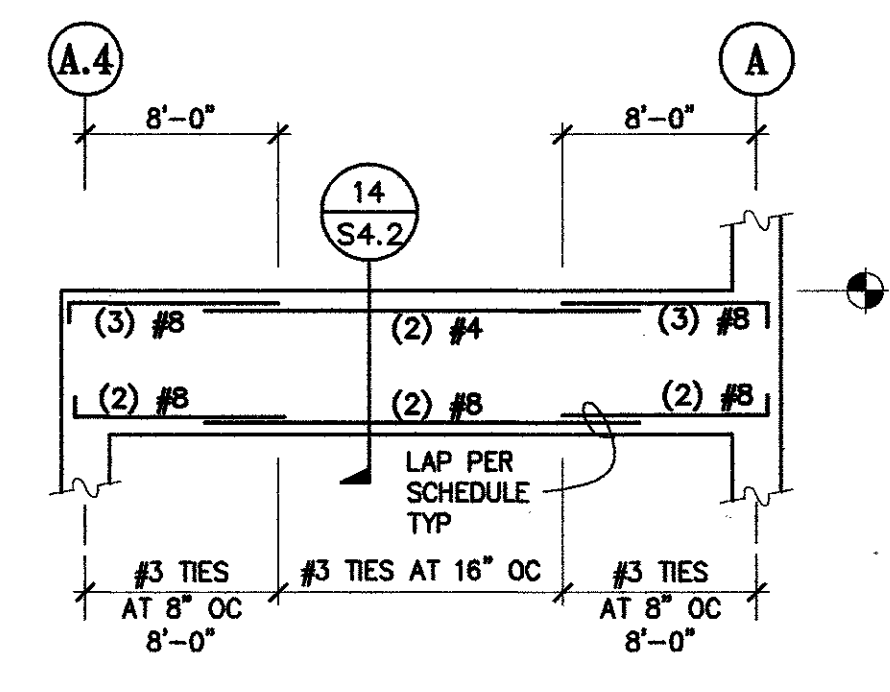
**BEAM ELEVATION AT GRIDS 1 & 11** 12  
NO SCALE S4.10

- NOTES:**
- SEE PLANS FOR P/T CABLES AND PROFILE.
  - LENTON REBAR TERMINATORS MAY BE SUBSTITUTED FOR 90° HOOKS AT CONTRACTOR'S OPTION.



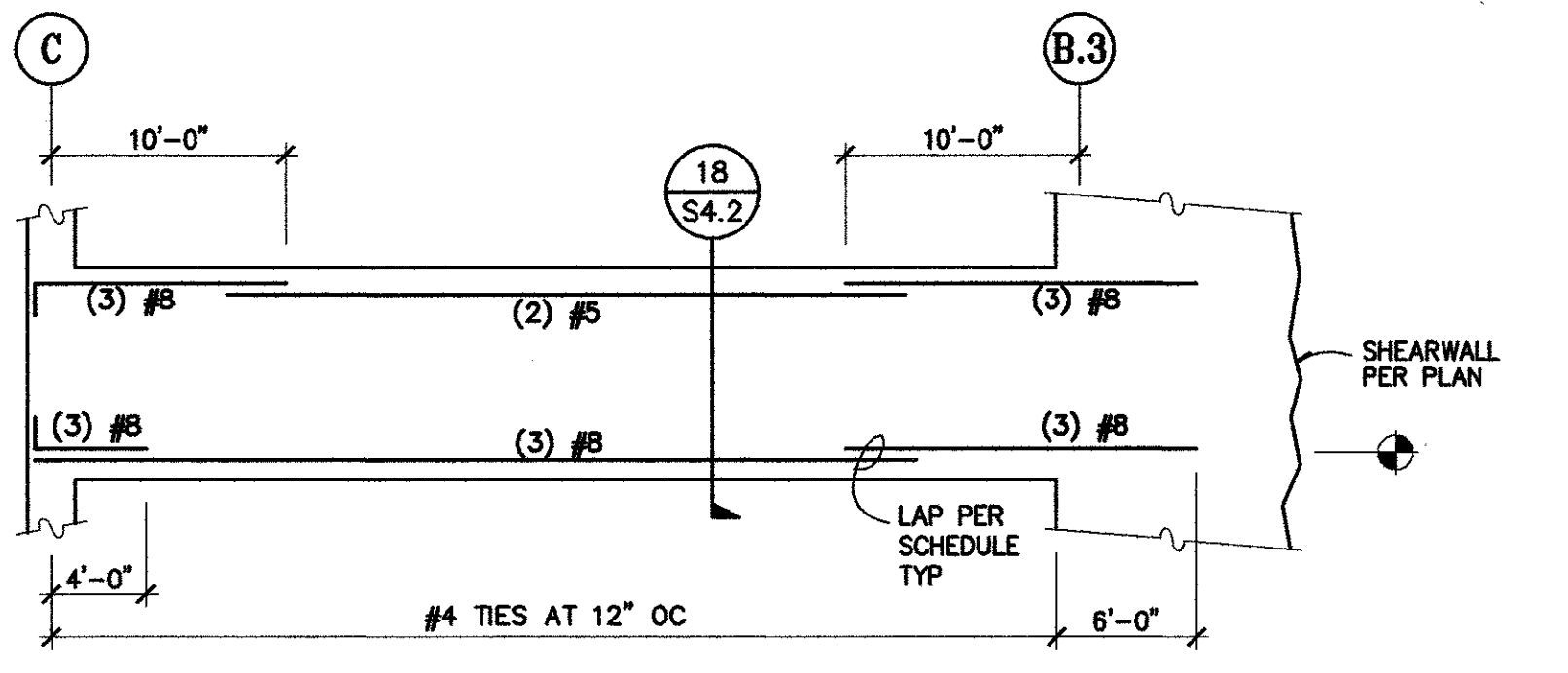
**BEAM ELEVATION AT GRID 10** 2  
NO SCALE S4.10

- NOTES:**
- SEE PLANS FOR P/T CABLES AND PROFILE.
  - LOCATE FIRST BEAM TIE 2" FROM COLUMN FACE
  - LENTON REBAR TERMINATORS MAY BE SUBSTITUTED FOR 90° HOOKS AT CONTRACTOR'S OPTION.
  - SEE 11/S4.2 AT SLEEVES



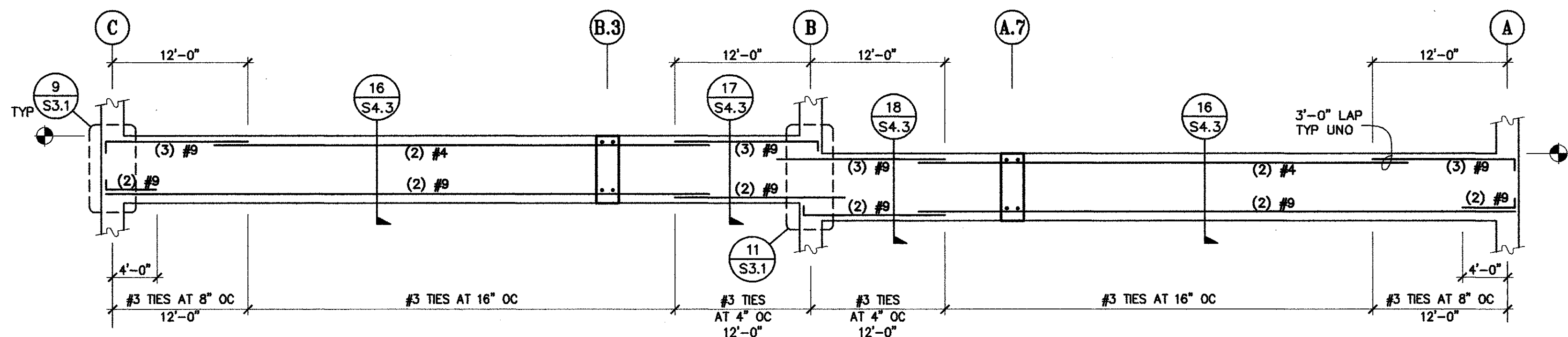
**BEAM ELEVATION** 16  
NO SCALE S4.10

- NOTES:**
- SEE PLANS FOR P/T CABLES AND PROFILE.
  - LENTON REBAR TERMINATORS MAY BE SUBSTITUTED FOR 90° HOOKS AT CONTRACTOR'S OPTION.



**BEAM ELEVATION AT GRID 1** 11  
NO SCALE S4.10

- NOTES:**
- SEE PLANS FOR P/T CABLES AND PROFILE.
  - LENTON REBAR TERMINATORS MAY BE SUBSTITUTED FOR 90° HOOKS AT CONTRACTOR'S OPTION.



**BEAM ELEVATION AT GRID 9** 1  
NO SCALE S4.10

- NOTES:**
- SEE PLANS FOR P/T CABLES AND PROFILE.
  - LOCATE FIRST BEAM TIE 2" FROM COLUMN FACE
  - LENTON REBAR TERMINATORS MAY BE SUBSTITUTED FOR 90° HOOKS AT CONTRACTOR'S OPTION.
  - SEE 11/S4.2 AT SLEEVES

C:\Users\amandad\Documents\2014\_03\_27\_Plan\_Links\_Visual\_Parking\_Structure\_Camille\_email\Drawings

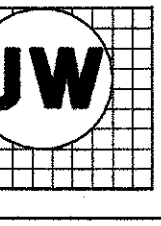


# SGPA

## ARCHITECTURE AND PLANNING

1545 HOTEL CIR. S. STUDIO 200  
SAN DIEGO, CA 92108  
(P) 619.297.0131  
WWW.SGPA.COM

**JESSEN-WRIGHT**  
Structural Engineers  
100 AMBER GROVE DR  
SUITE 109  
CHICO, CA 95973  
530.884-5345



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**SUNDT CONSTRUCTION**  
SAN DIEGO, CALIFORNIA

**SAN DIEGO STATE UNIVERSITY**  
SAN DIEGO, CALIFORNIA

### SOUTH CAMPUS PLAZA DESIGN-BUILD PARKING STRUCTURE

SAN DIEGO STATE UNIVERSITY

OFFICE OF THE STATE FIRE MARSHAL  
APPROVED FIRE RESISTANCE CHECK  
Reviewed by: *[Signature]*  
Brady Goodner, USFM

APR 27 2016

Approval of this plan does not authorize or approve any omission or deviation from applicable regulations. Final approval is subject to final inspection. A set of approved plans shall be available on the project site at all times.

SUBMITTAL SCHEDULE:

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IDENTIFICATION STAMP  
DIVISION OF THE STATE ARCHITECT  
OFFICE OF REGULATION SERVICES

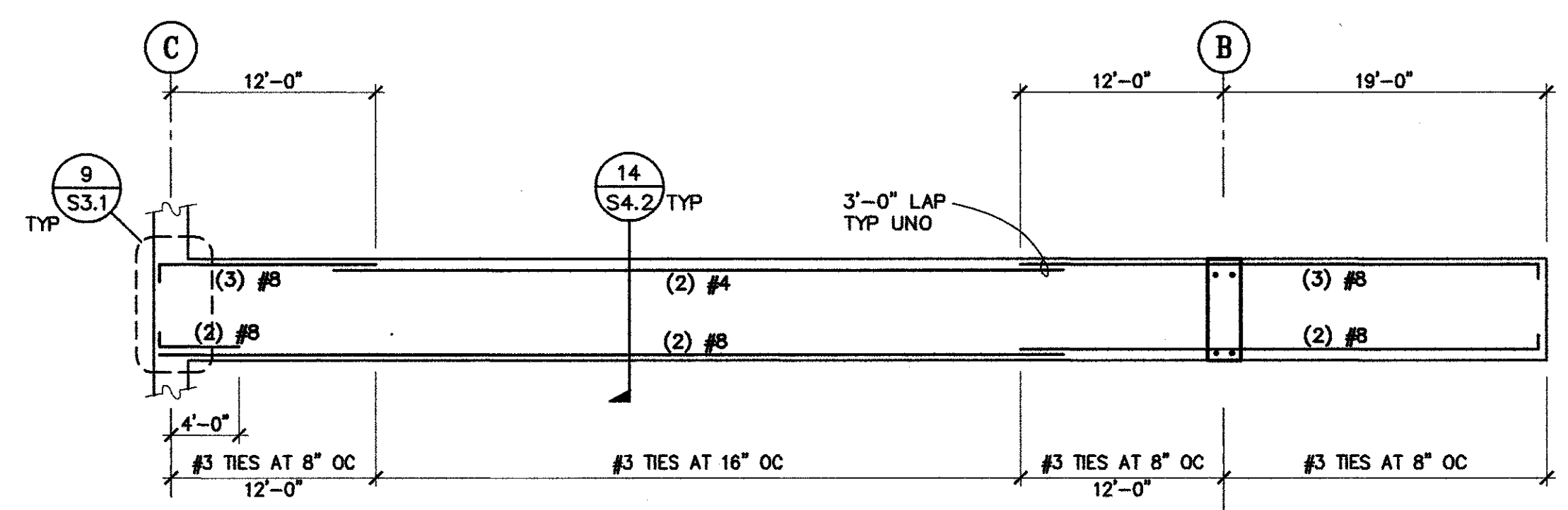
FILE #  
APR. # 04-114204

AC \_\_\_\_\_ DATE: \_\_\_\_\_

PROJECT NO: 21305-G-50

### BEAM ELEVATIONS

**S4.11**

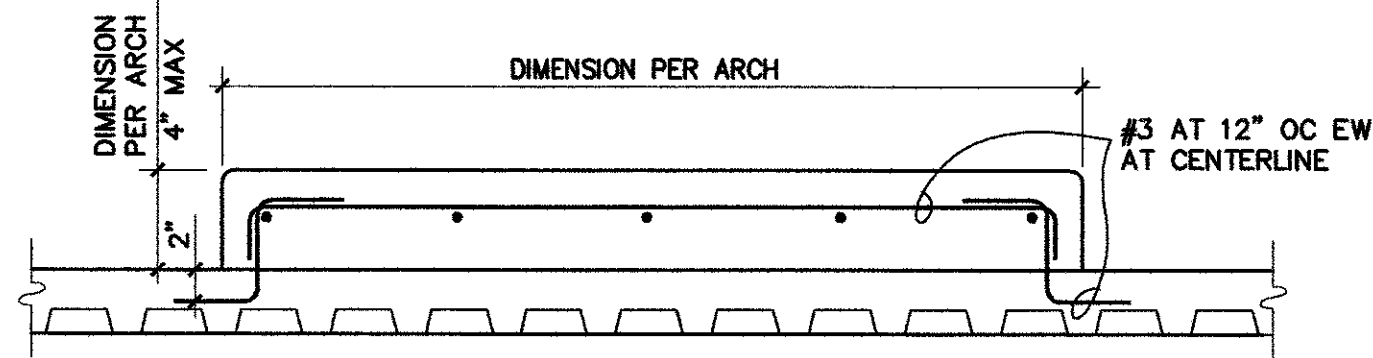


- NOTES:**
- SEE PLANS FOR P/T CABLES AND PROFILE
  - LOCATE FIRST BEAM TIE 2" FROM COLUMN FACE
  - LENTON REBAR TERMINATORS MAY BE SUBSTITUTED FOR 90° HOOKS AT CONTRACTOR'S OPTION.

**BEAM ELEVATION AT GRIDS 2, 3, & 4**  
NO SCALE

1  
S4.11

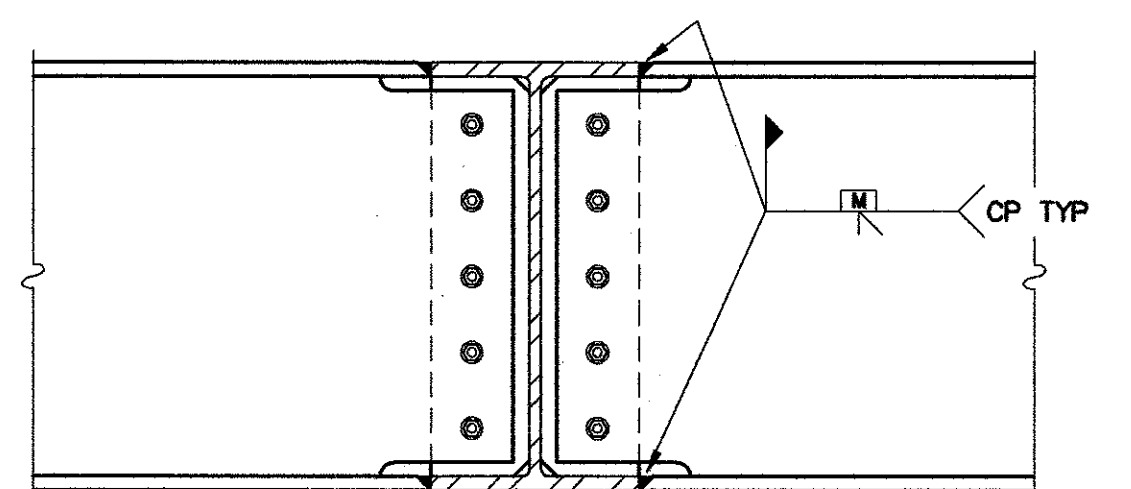




**SLAB STEP UP TO 4"**

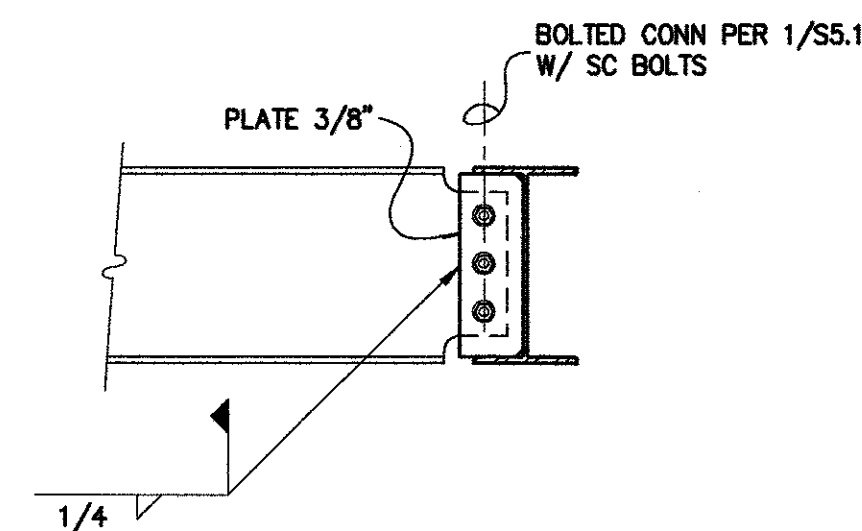
NOTE:  
DETAIL APPLIES TO CURBS  
& EQUIPMENT PADS

**RAISED SLAB OVER METAL DECK SLAB** 20  
NO SCALE S5.1

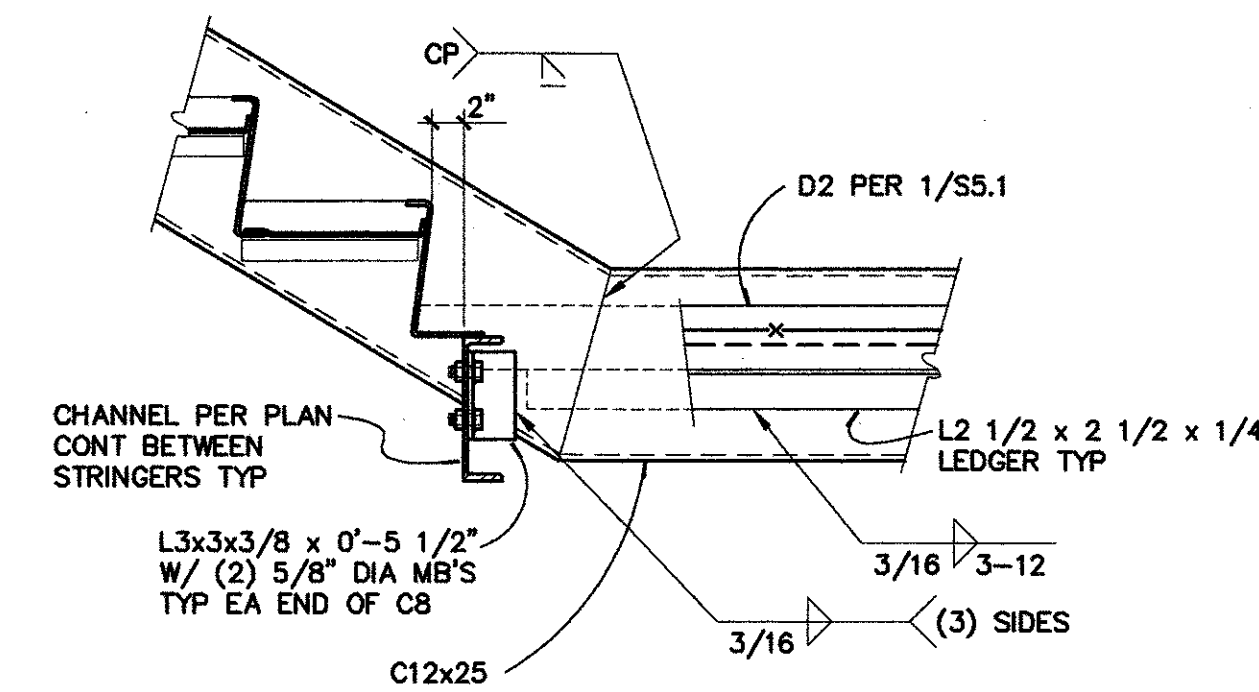


NOTE:  
NUMBER OF SLIP CRITICAL BOLTS  
AND CONNECTION PLATES PER  
DETAIL 1/SS.1

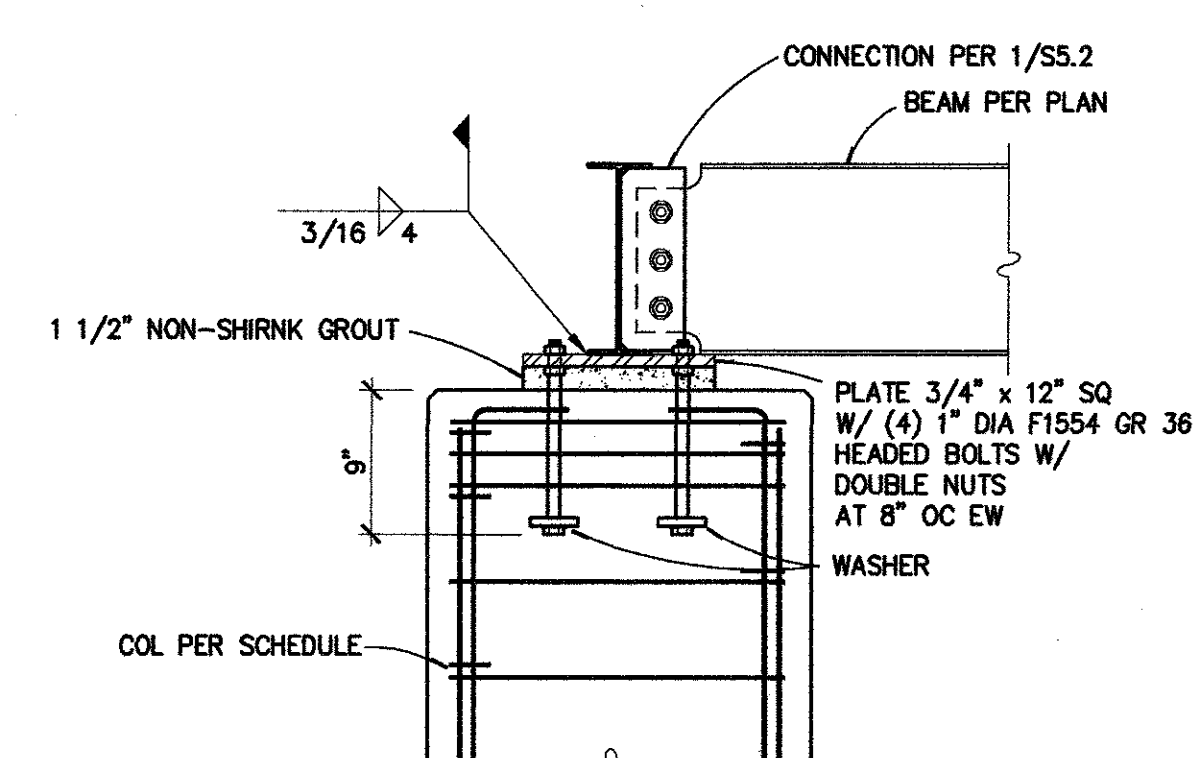
**TYPICAL BEAM MOMENT CONNECTIONS** 16  
NO SCALE S5.1



**SECTION** 8  
NO SCALE S5.1

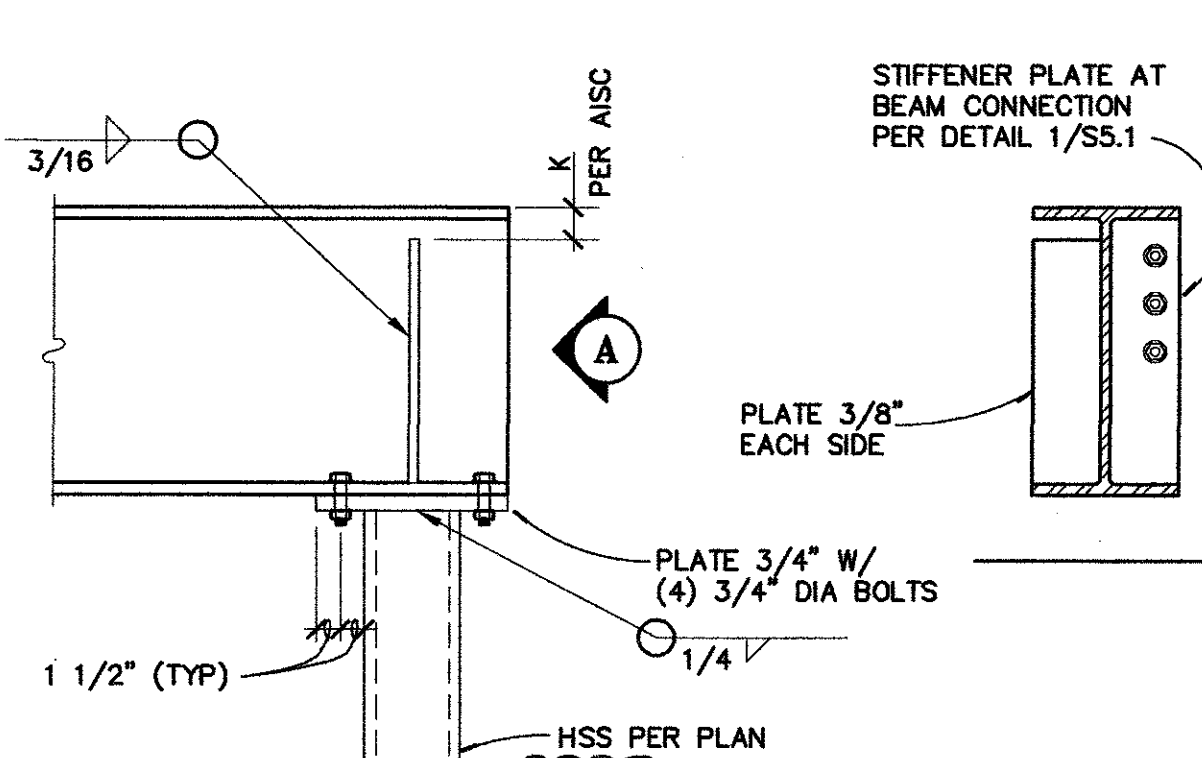


**TYP STAIR TO LANDING CONNECTION** 4  
NO SCALE S5.1



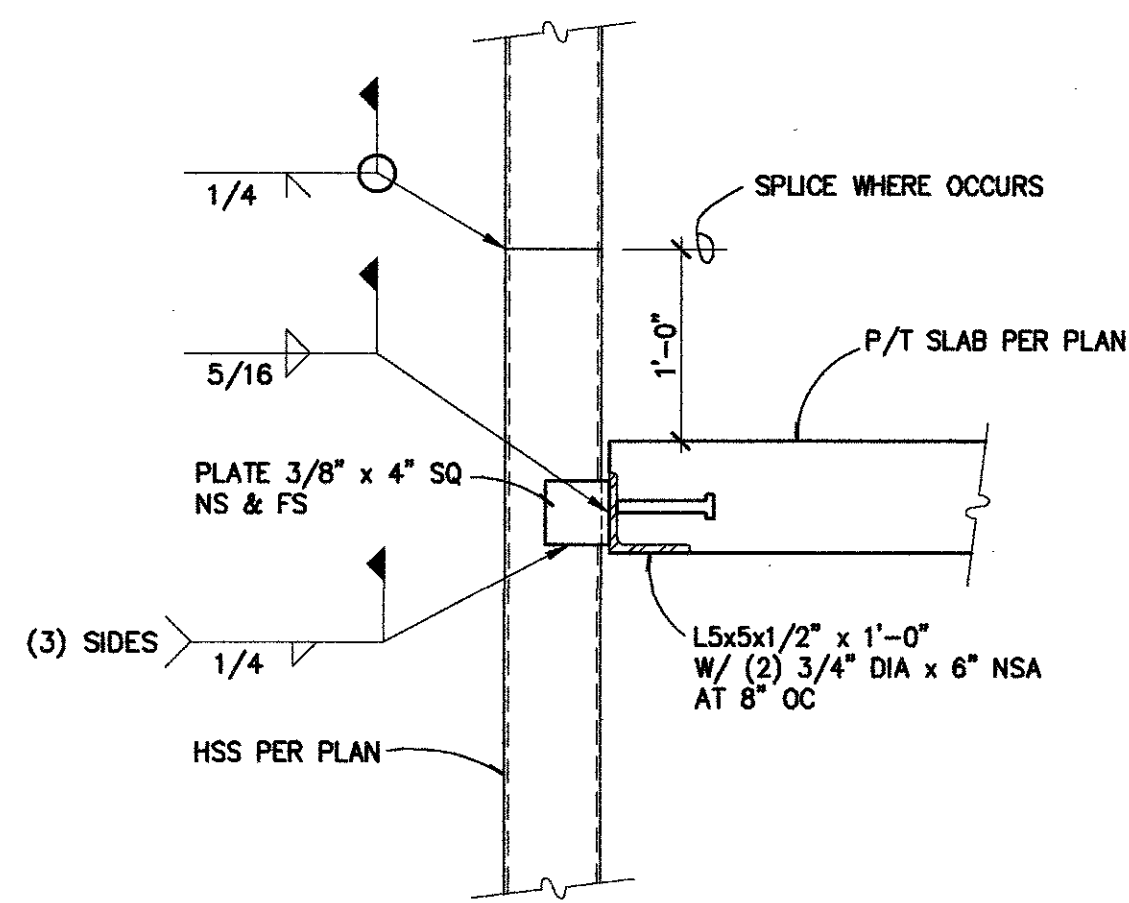
NOTE:  
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BEAMS AND HSS COLUMNS AND BRACES, EXCLUDING STAIR FRAMING  
MEMBERS PER UL 7710, S735, AND D925 ON SHEET A-008.

**SECTION** 19  
NO SCALE S5.1

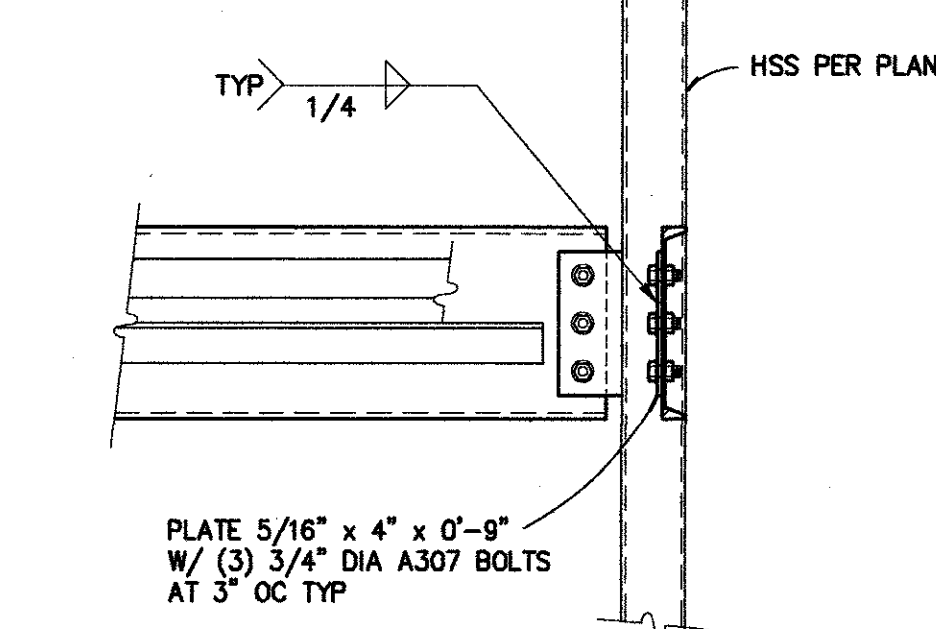


NOTE:  
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BEAMS AND HSS COLUMNS AND BRACES, EXCLUDING STAIR FRAMING  
MEMBERS PER UL 7710, S735, AND D925 ON SHEET A-008.

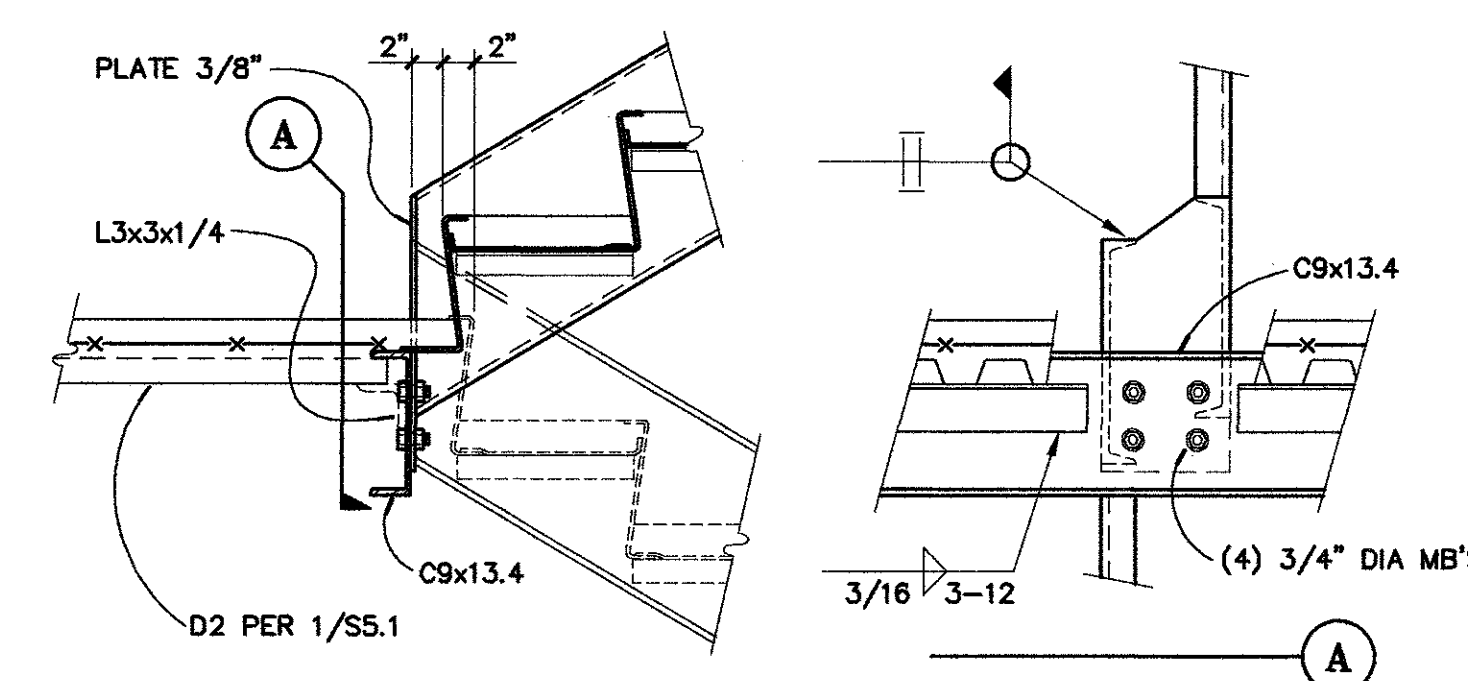
**TYPICAL WIDE FLANGE BEAM OVER COLUMN** 15  
NO SCALE S5.1



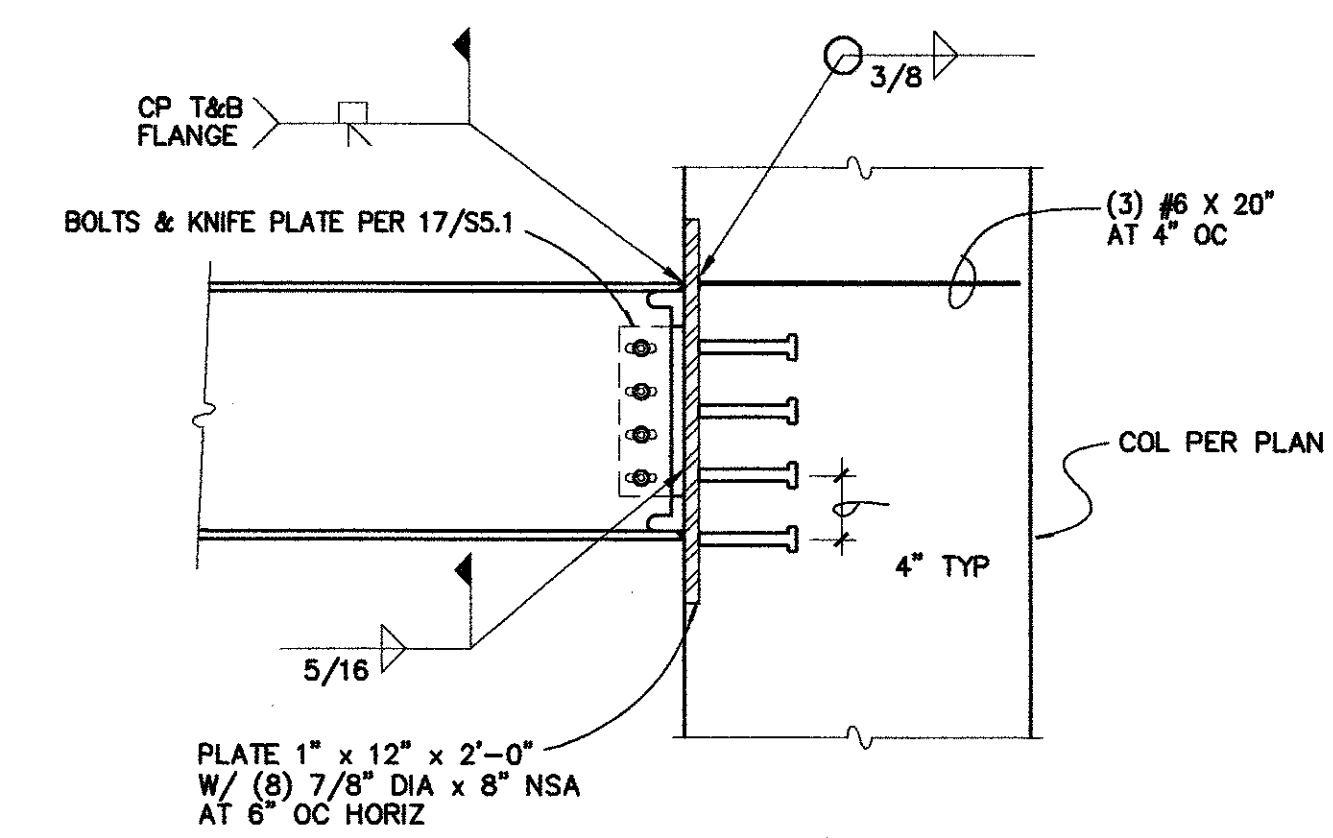
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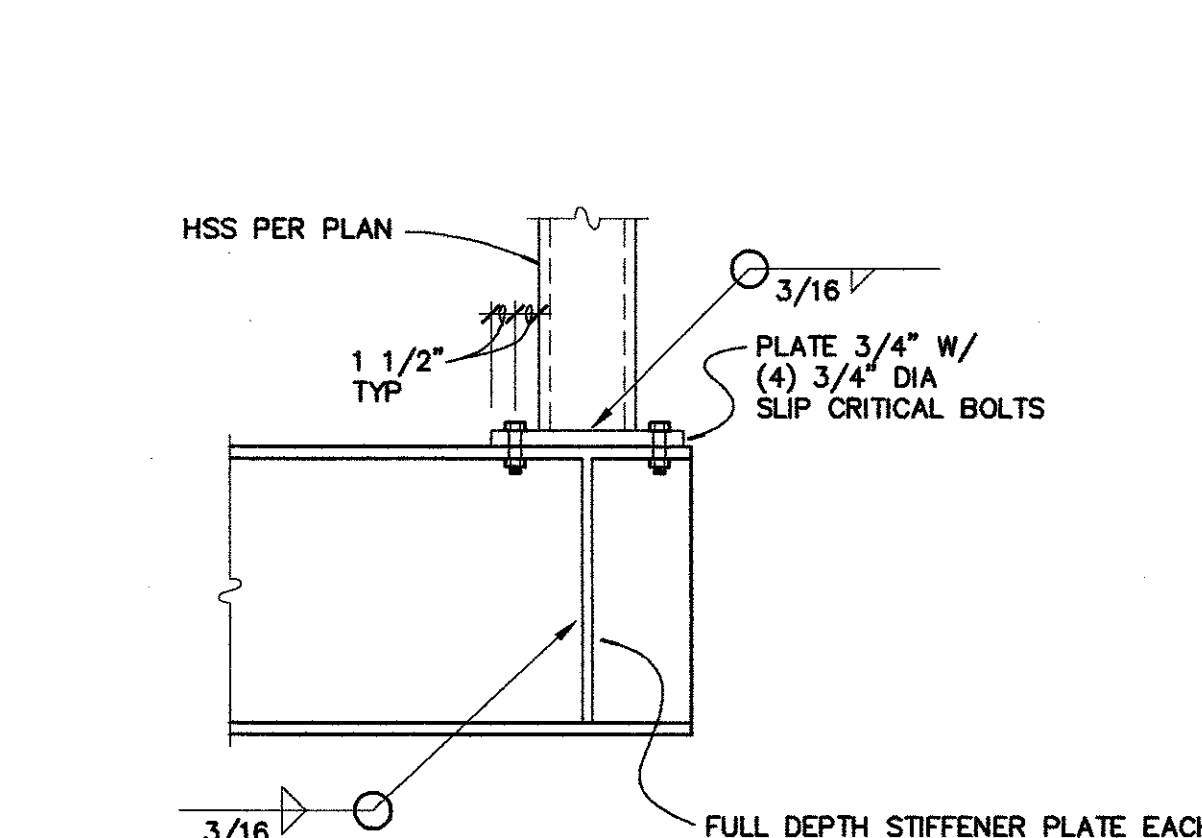
**SECTION** 7  
NO SCALE S5.1



**TYP STAIR TO LANDING CONNECTION** 3  
NO SCALE S5.1

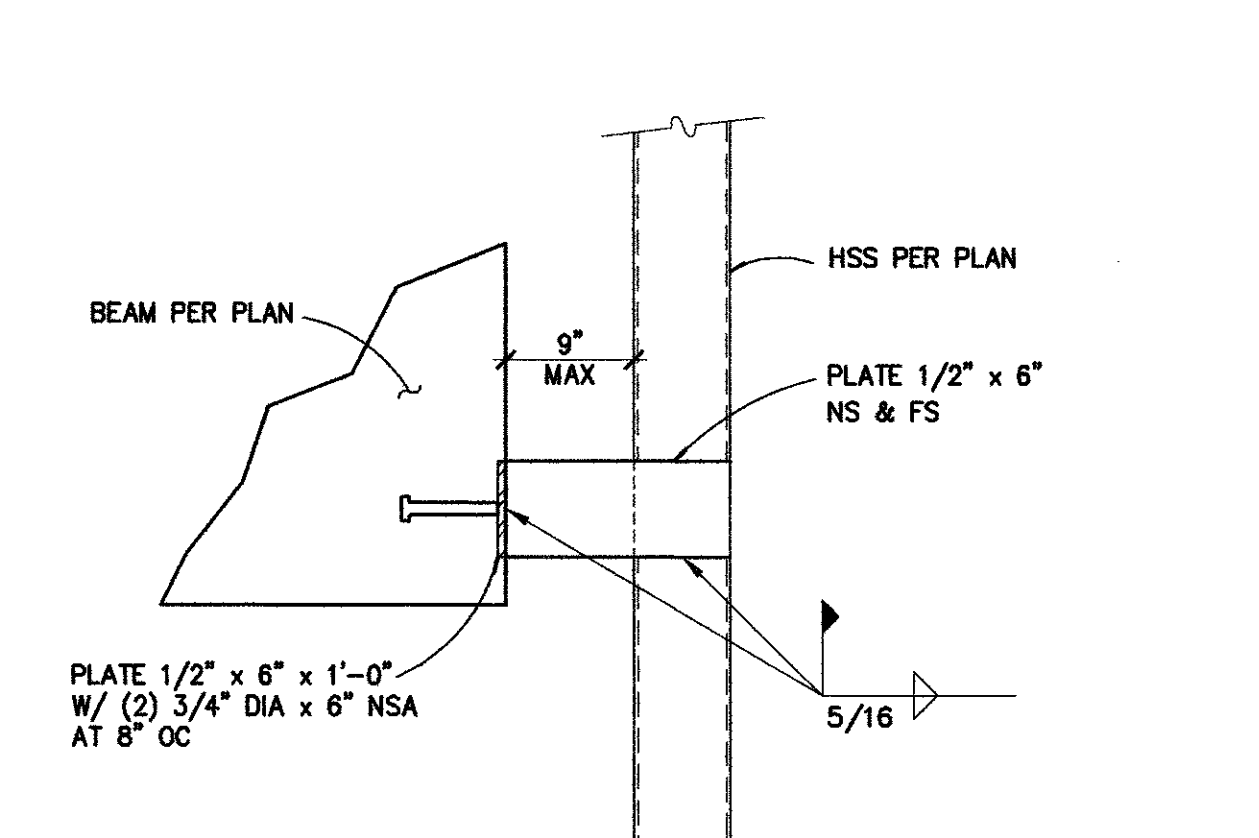


**SECTION** 18  
NO SCALE S5.1

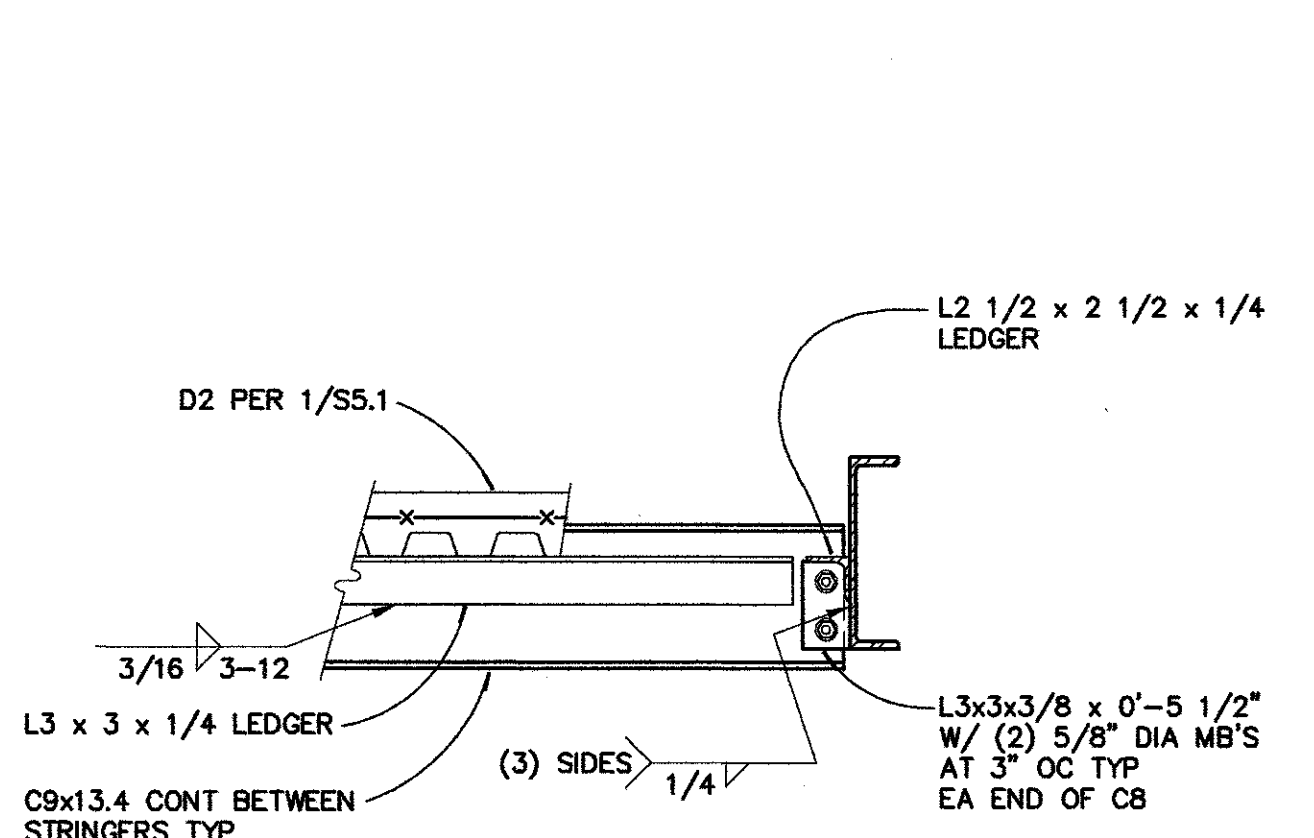


NOTE:  
PROVIDE SPRAY APPLIED FIRE PROOFING TO ALL WIDE FLANGE  
BEAMS AND HSS COLUMNS AND BRACES, EXCLUDING STAIR FRAMING  
MEMBERS PER UL 7710, S735, AND D925 ON SHEET A-008.

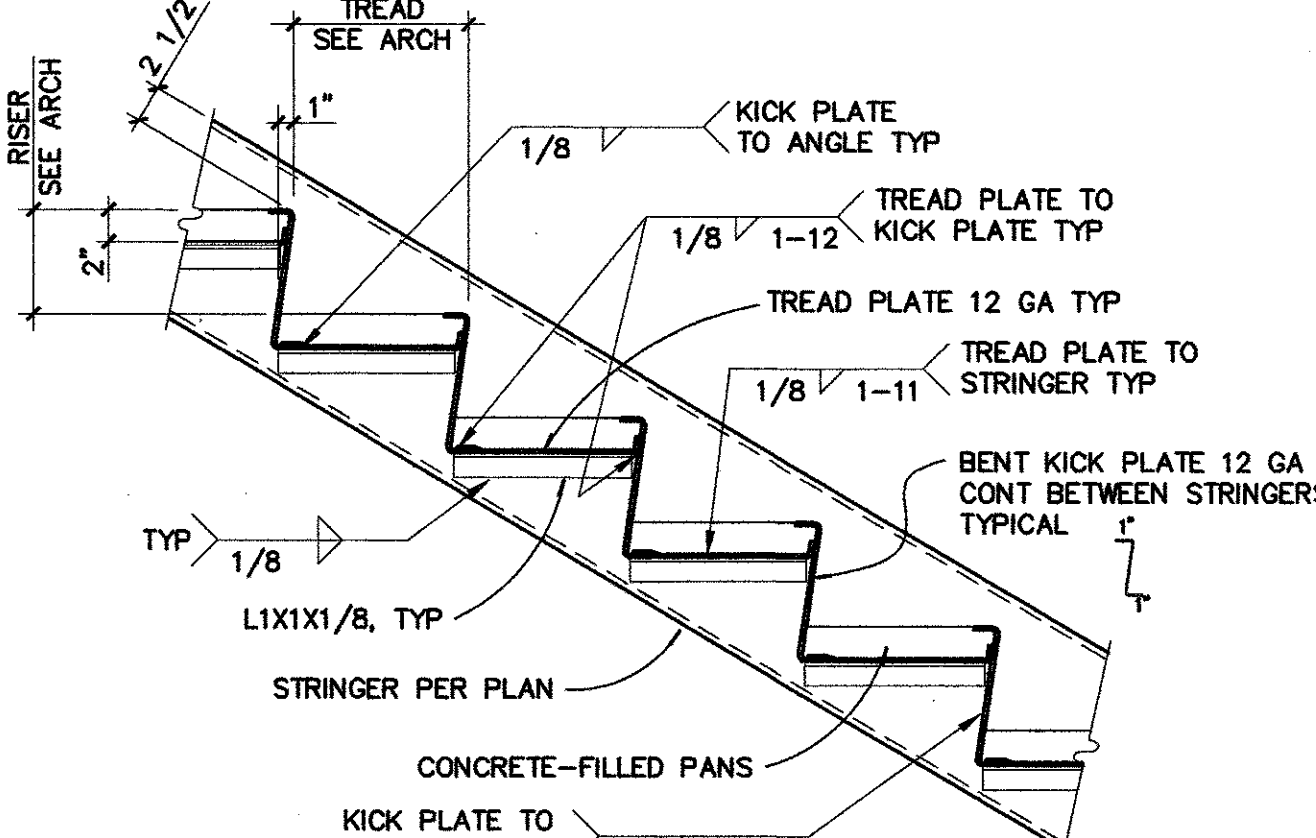
**TYP COLUMN ON WIDE FLANGE BEAM** 14  
NO SCALE S5.1



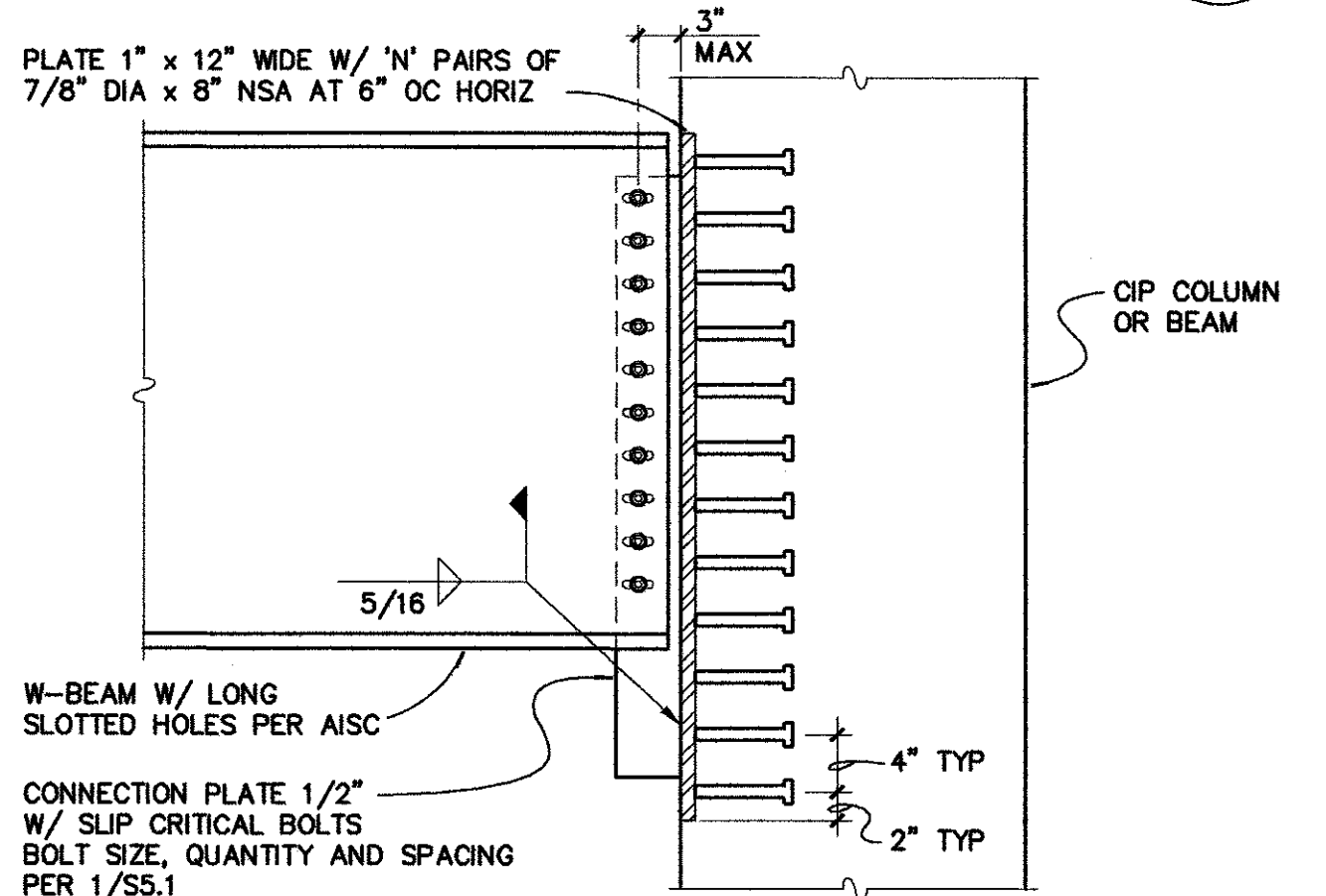
**SECTION** 10  
NO SCALE S5.1



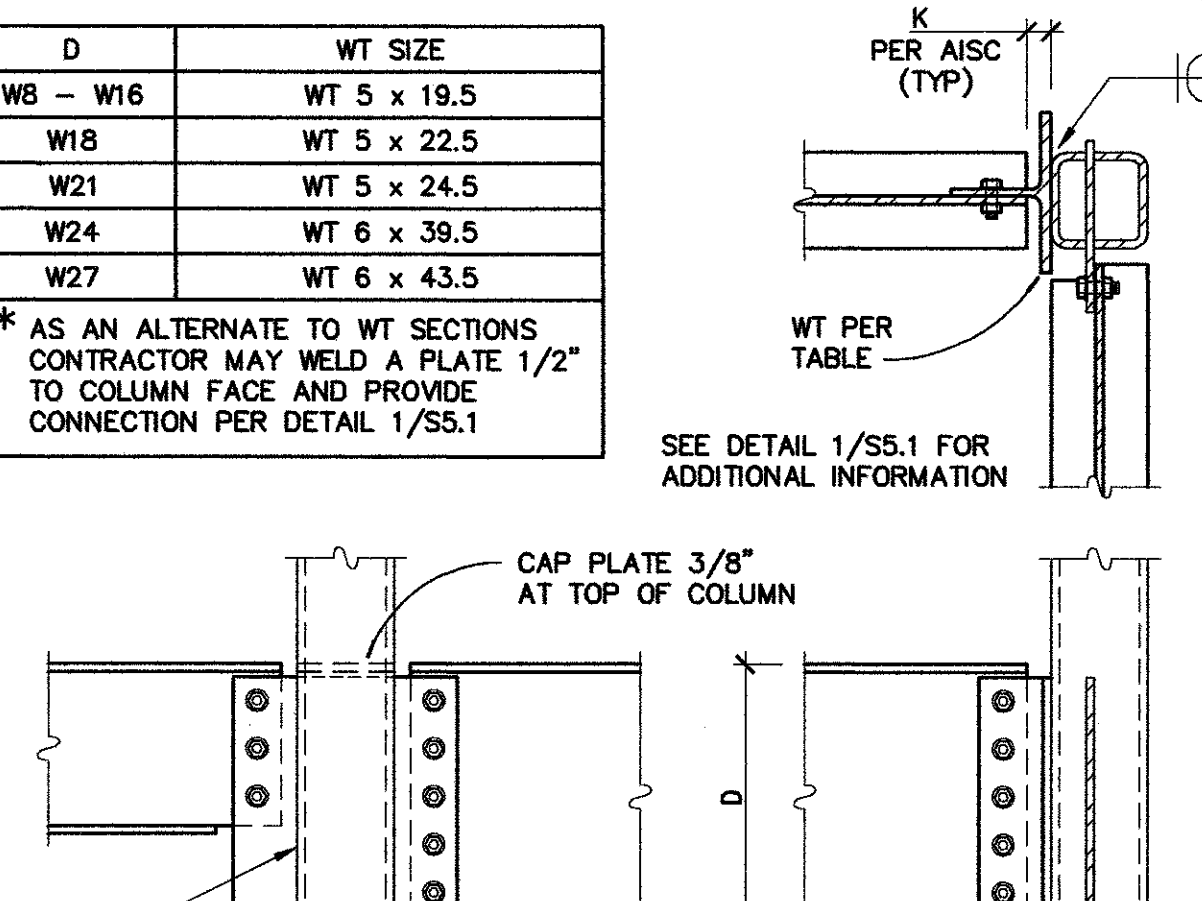
**TYPICAL STAIR LANDING SECTION** 6  
NO SCALE S5.1



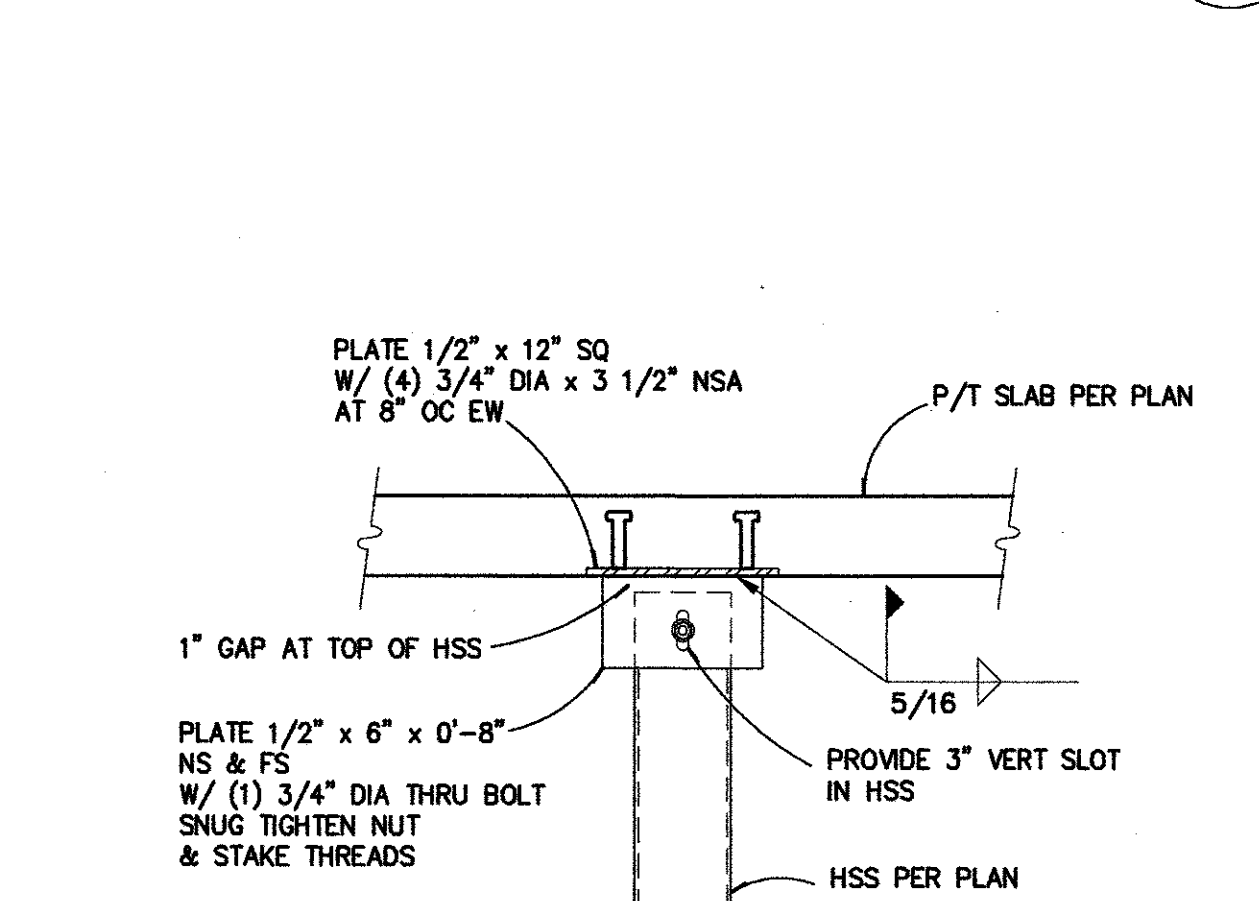
**TYPICAL STAIR SECTION** 2  
NO SCALE S5.1



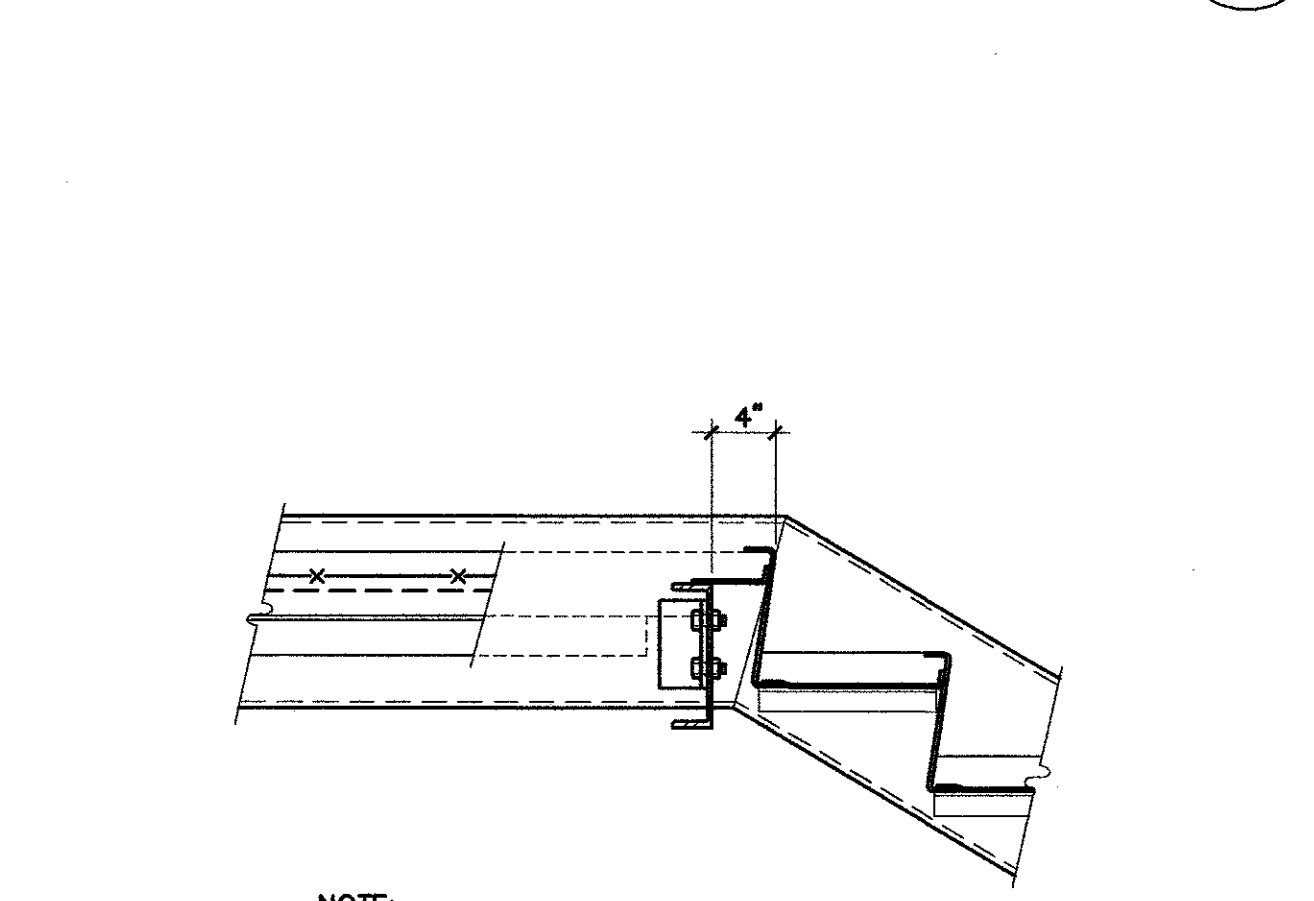
**TYPICAL W-BEAM CONCRETE EMBED** 17  
NO SCALE S5.1



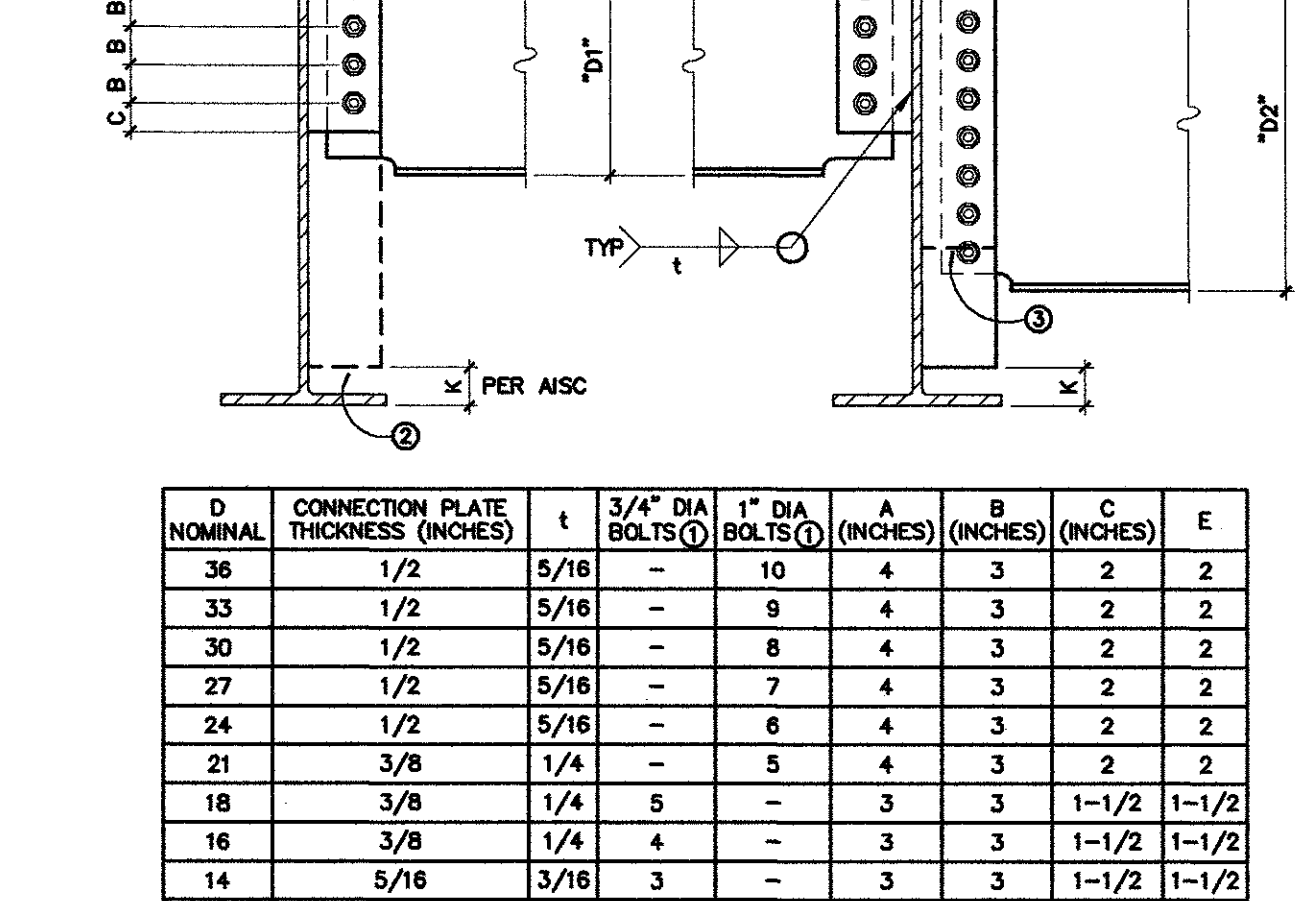
**TYPICAL WIDE FLANGE BEAM TO TUBE STEEL OR PIPE COLUMN CONNECTION** 13  
NO SCALE S5.1



**SECTION** 9  
NO SCALE S5.1



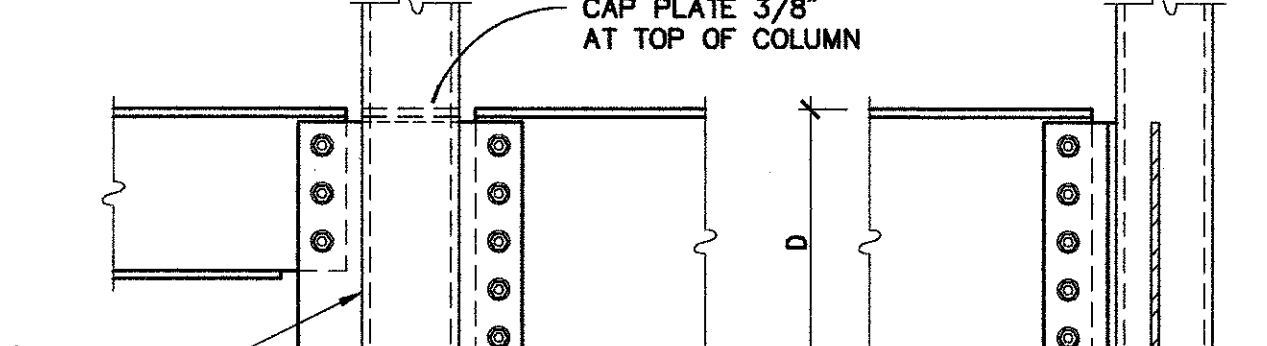
**TYP STAIR TO LANDING CONNECTION** 5  
NO SCALE S5.1



**TYPICAL BOLTING SCHEDULE** 1  
NO SCALE S5.1

D	WT SIZE
W8 - W16	WT 5 x 19.5
W18	WT 5 x 22.5
W21	WT 5 x 24.5
W24	WT 6 x 39.5
W27	WT 6 x 43.5

\* AS AN ALTERNATE TO WT SECTIONS  
CONTRACTOR MAY WELD A PLATE 1/2"  
TO COLUMN FACE AND PROVIDE  
CONNECTION PER DETAIL 1/SS.1



NOTE:  
PROVIDE SPRAY APPLIED FIRE PROOFING TO ALL WIDE FLANGE  
BEAMS AND HSS COLUMNS AND BRACES, EXCLUDING STAIR FRAMING  
MEMBERS PER UL 7710, S735, AND D925 ON SHEET A-008.

SUBMITTAL SCHEDULE:

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50% PRELIM. DESIGN	05/14/2014
100% PRELIM. DESIGN	05/28/2014
50% CONST. DOCS.	07/02/2014
95% CONST. DOCS.	08/07/2014
100% BACKCHECK	11/10/2014
100% BACKCHECK 2	01/22/2015
100% BACKCHECK 3	03/20/2015
ASH101 SFM RESUB 2	11/06/2015
ASH101 SFM RESUB 3	03/03/2016

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OFFICE OF REGULATION SERVICES

FILE # 04-114204  
AC DATE

PROJECT NO: 21305-G-50

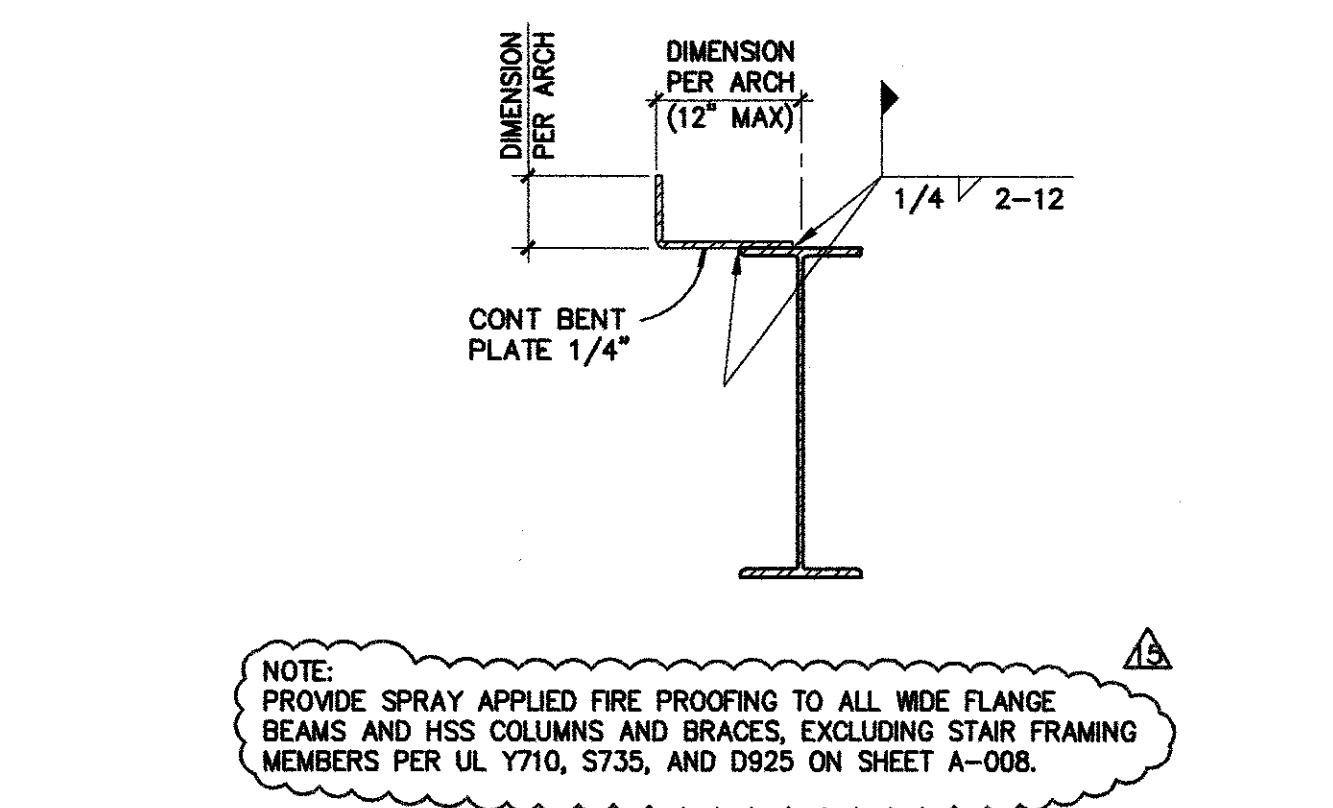


**SUBMITTAL SCHEDULE:**

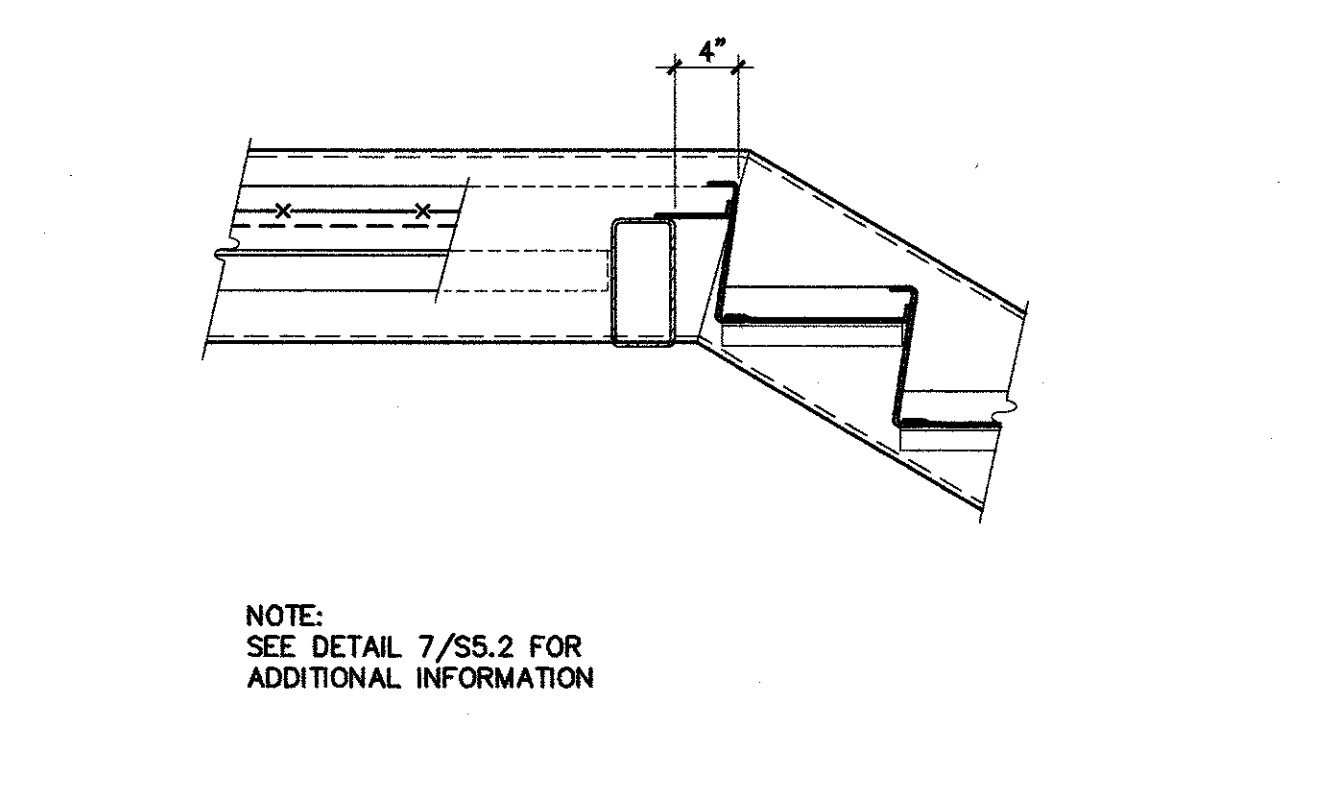
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100% BACKCHECK	11/10/2014
100% BACKCHECK 2	01/22/2015
100% BACKCHECK 3	03/20/2015
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AS18015 SFM RESUB 3	03/03/2016

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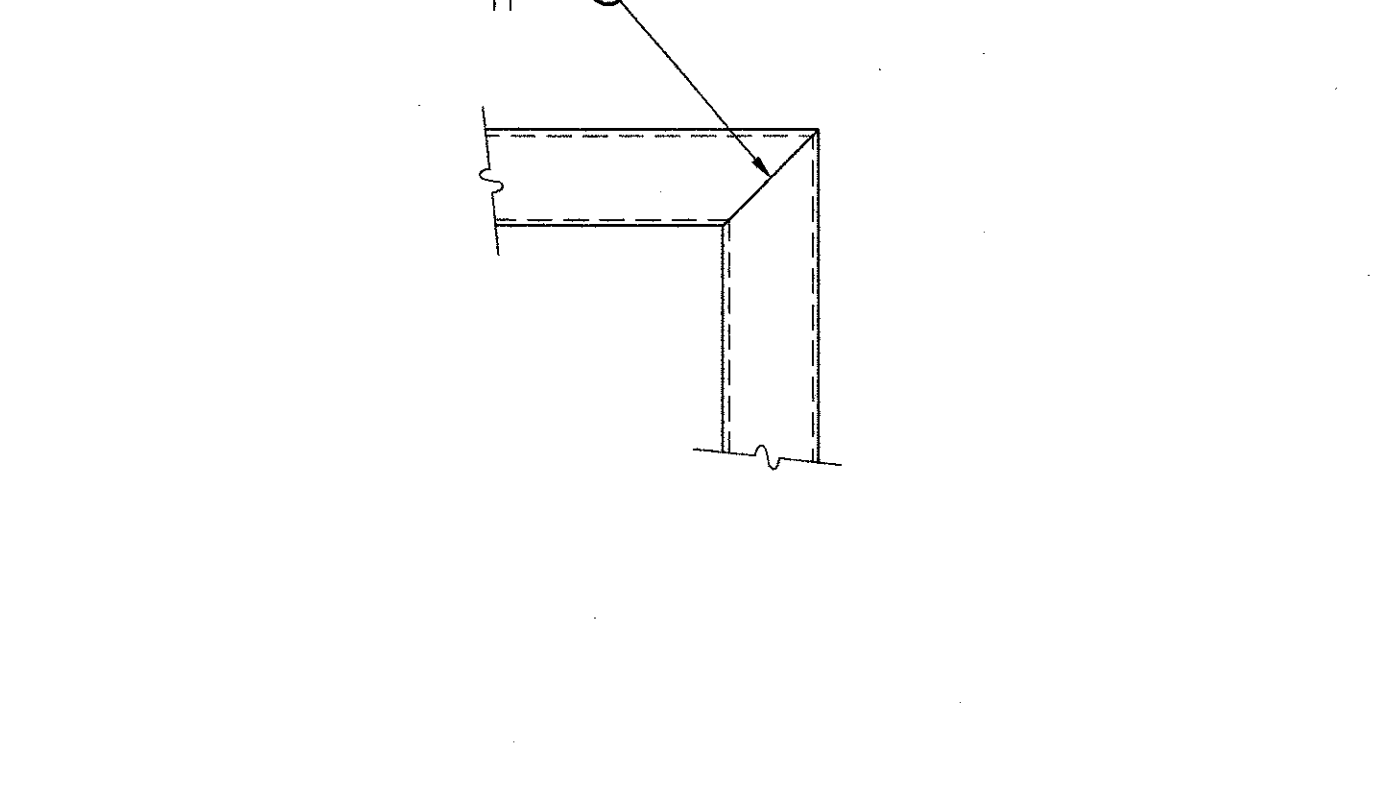
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APR # 04-114204  
AC \_\_\_\_\_ DATE \_\_\_\_\_



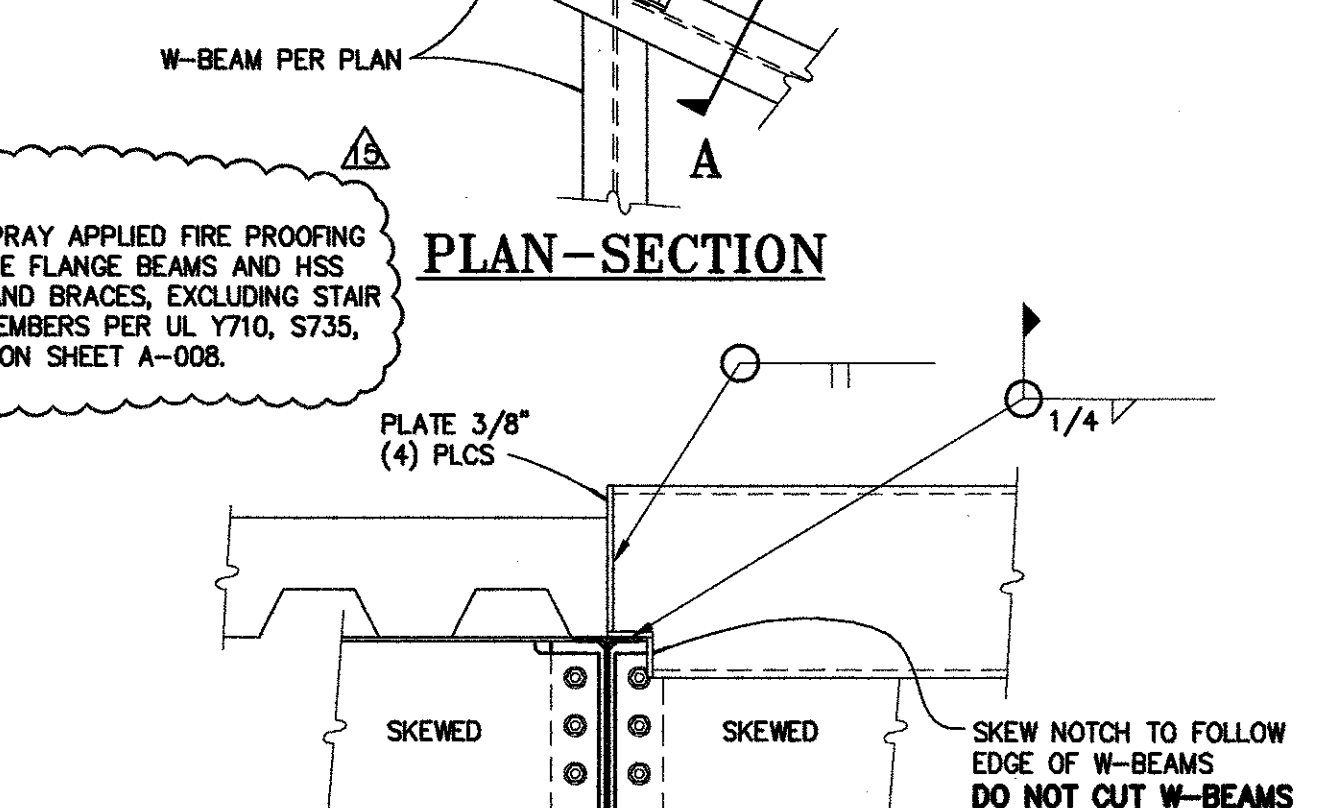
**TYPICAL DETAIL AT ROOF EDGE** 4  
NO SCALE S5.2



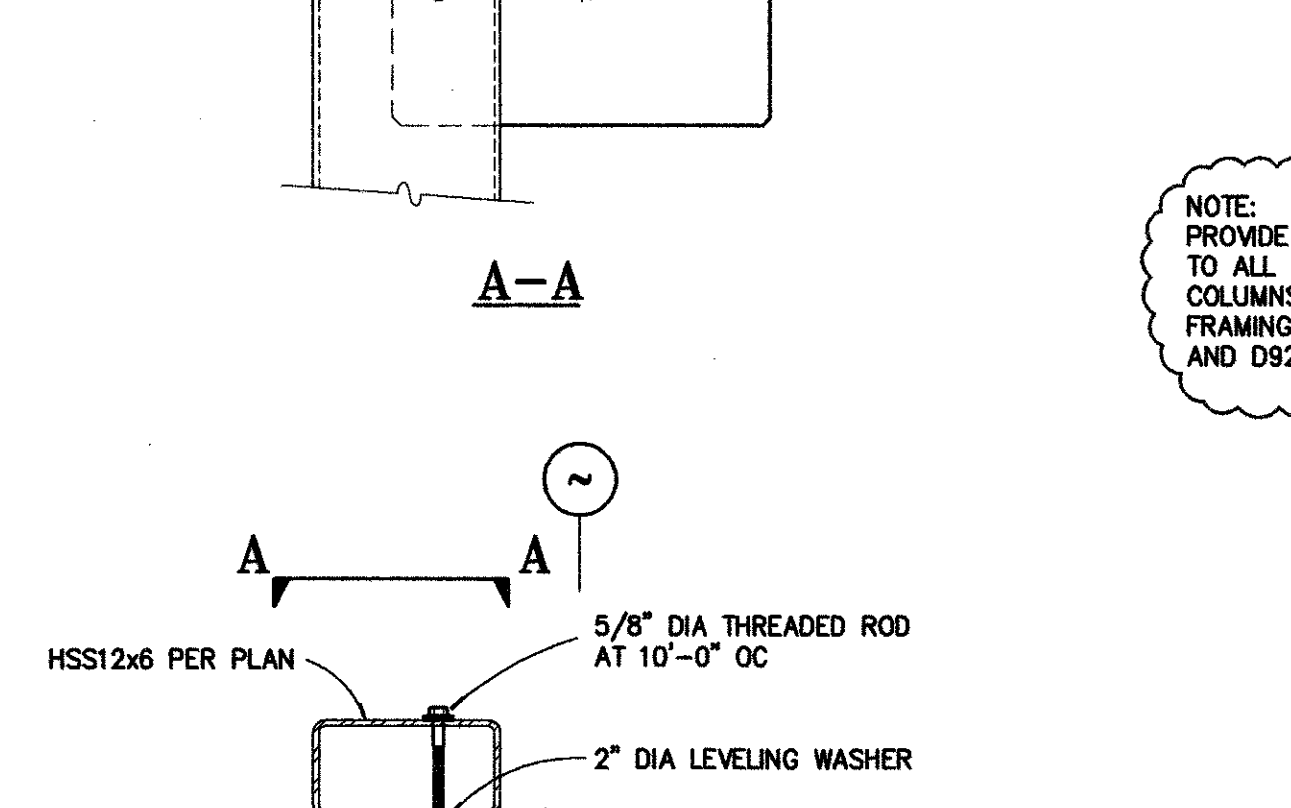
**TYP STAIR TO LANDING CONNECTION** 8  
NO SCALE S5.2



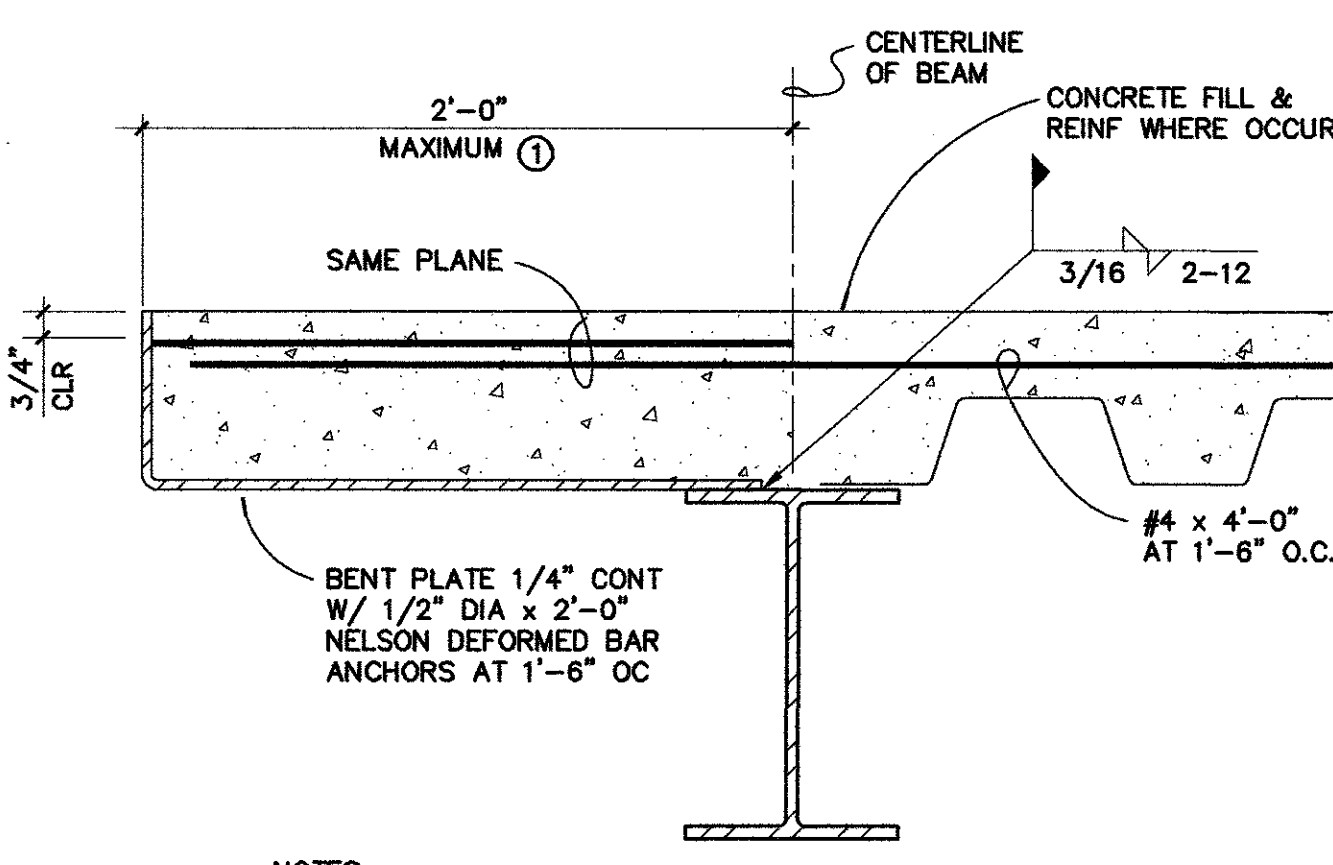
**PLAN-SECTION** 12  
NO SCALE S5.2



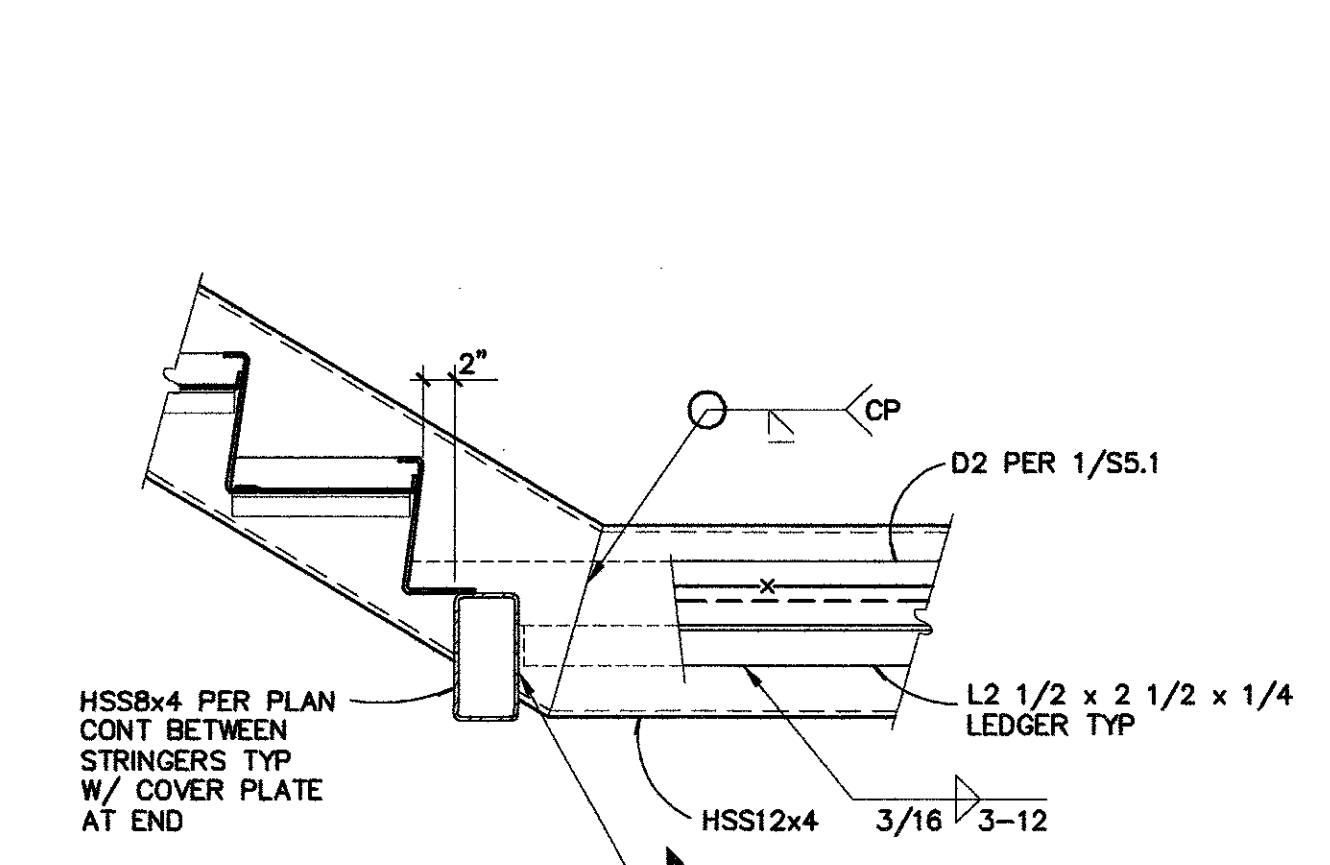
**SECTION** 16  
NO SCALE S5.2



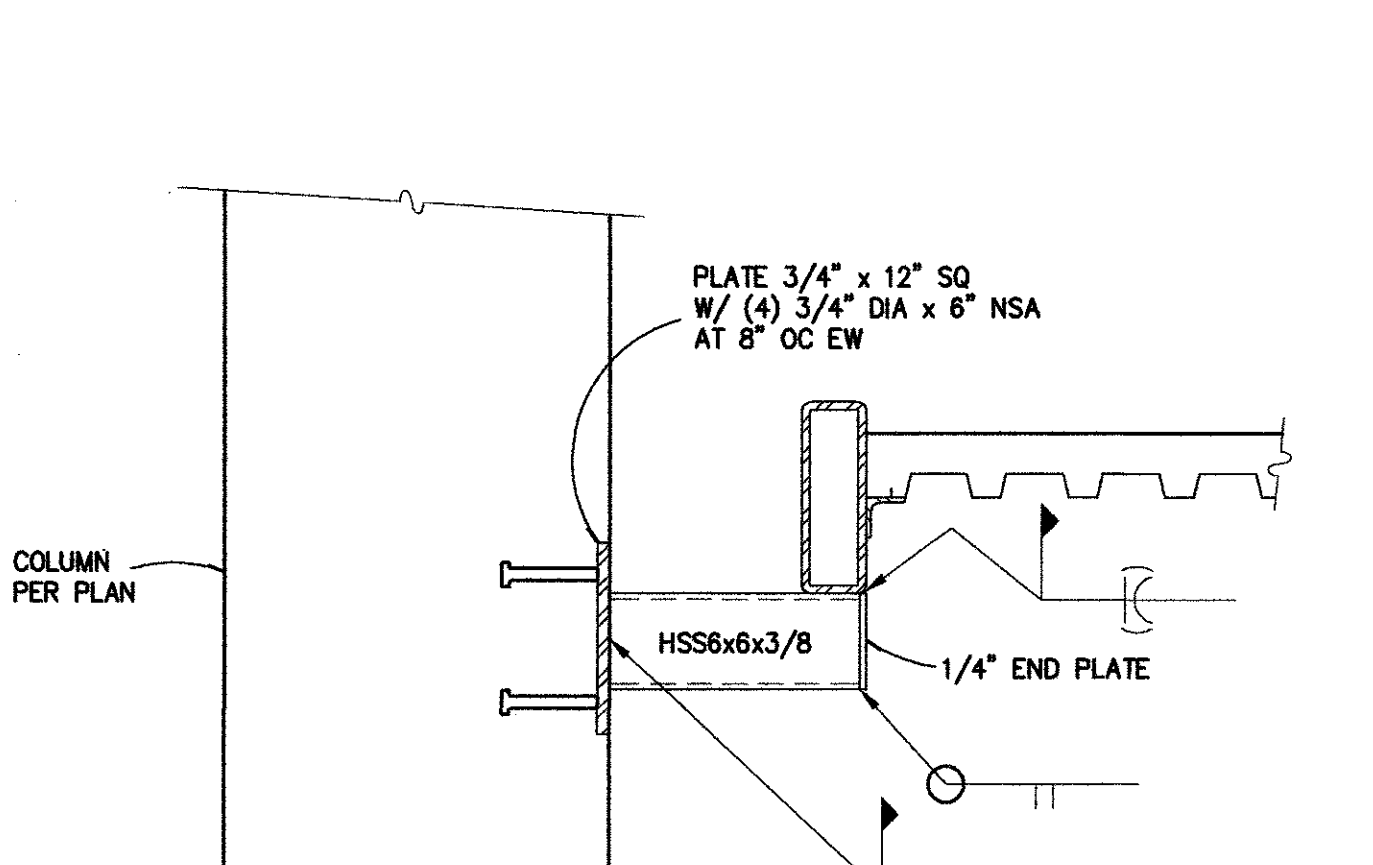
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NO SCALE S5.2



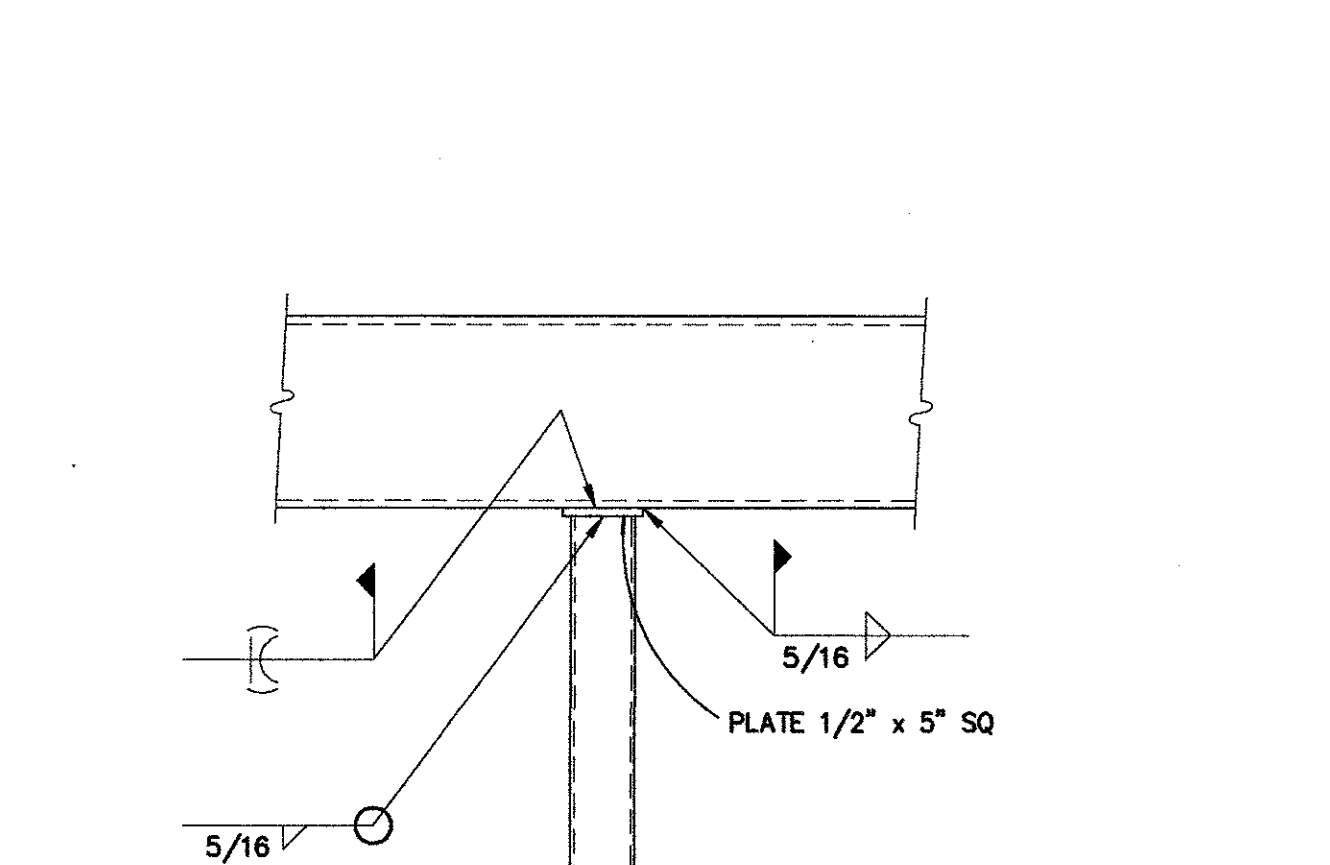
**EDGE OF SLAB MTL DECK CANTILEVERS** 3  
NO SCALE S5.2



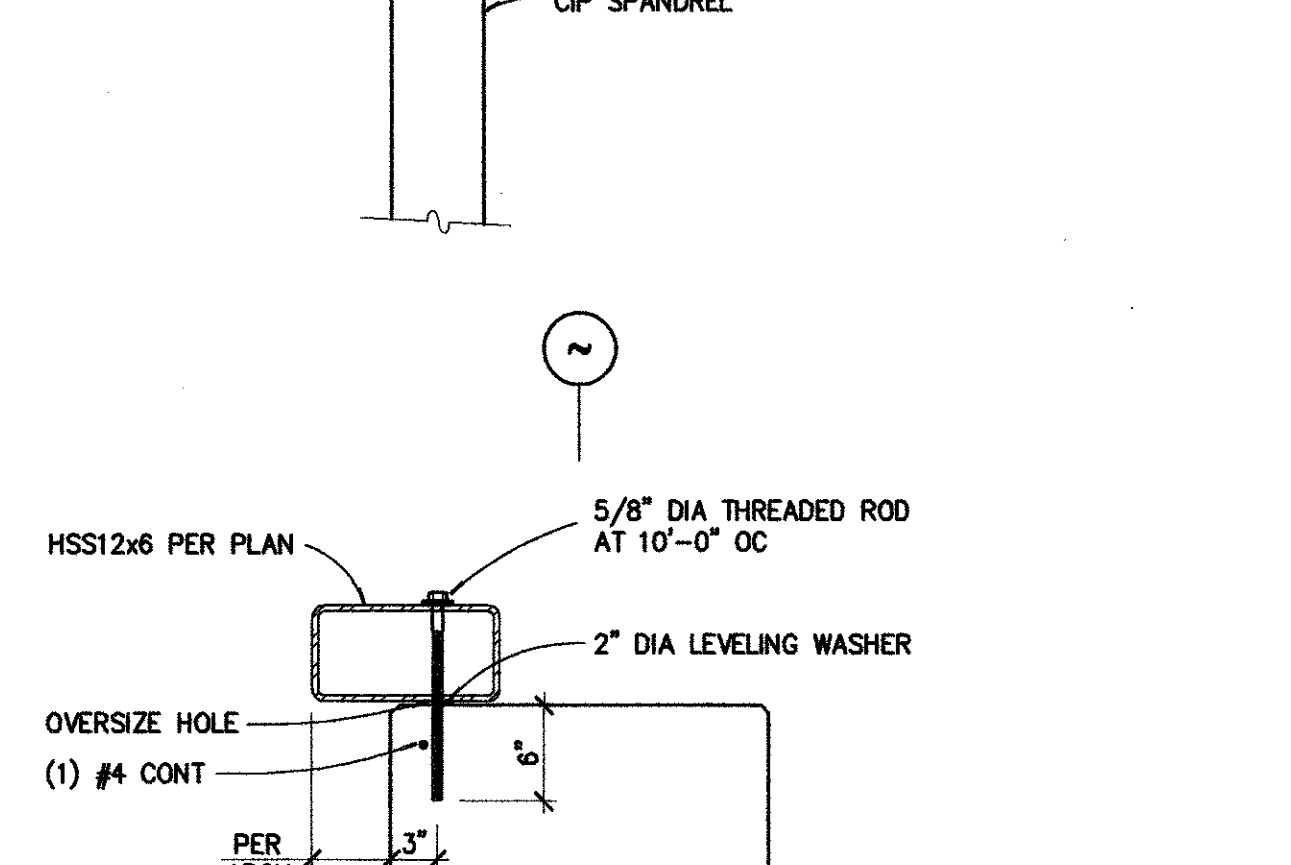
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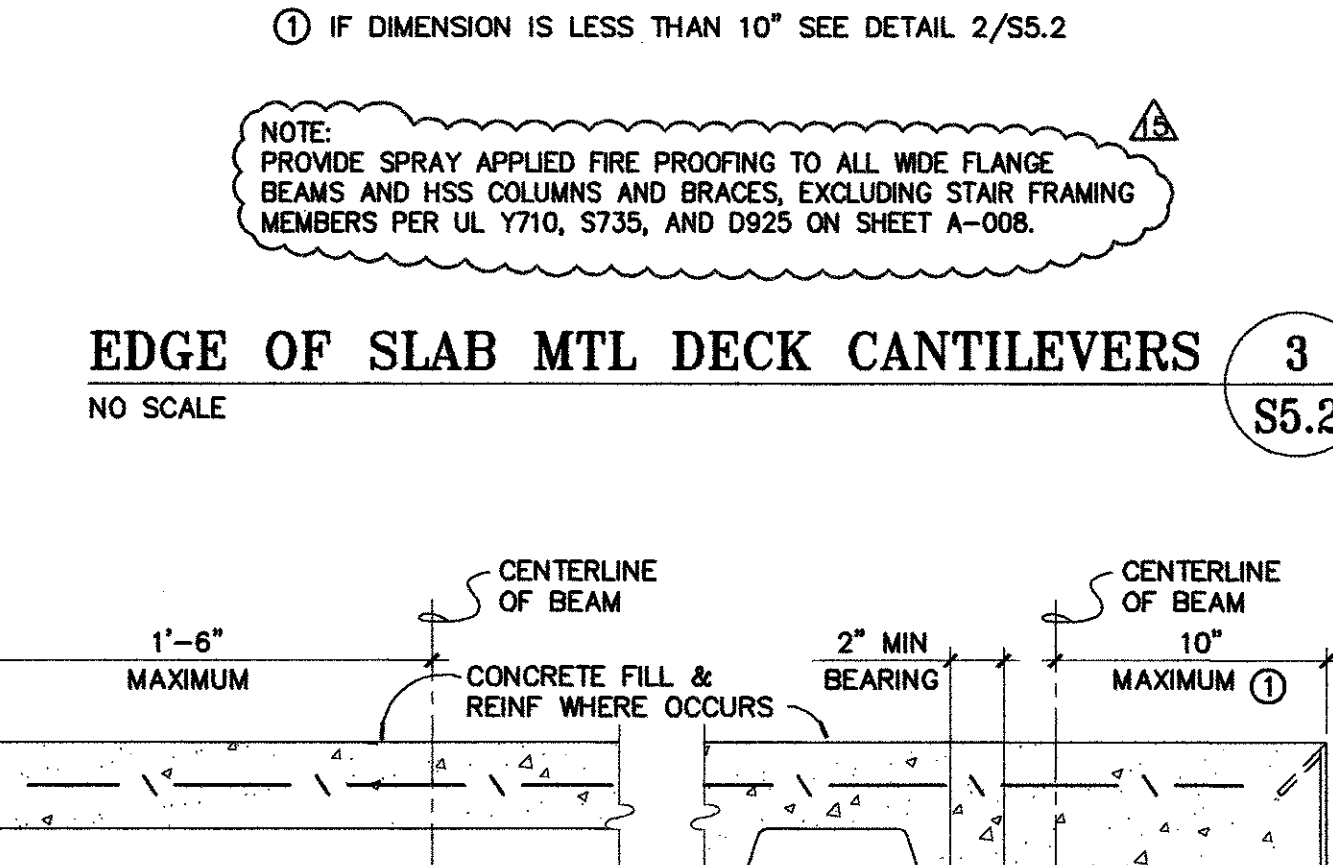
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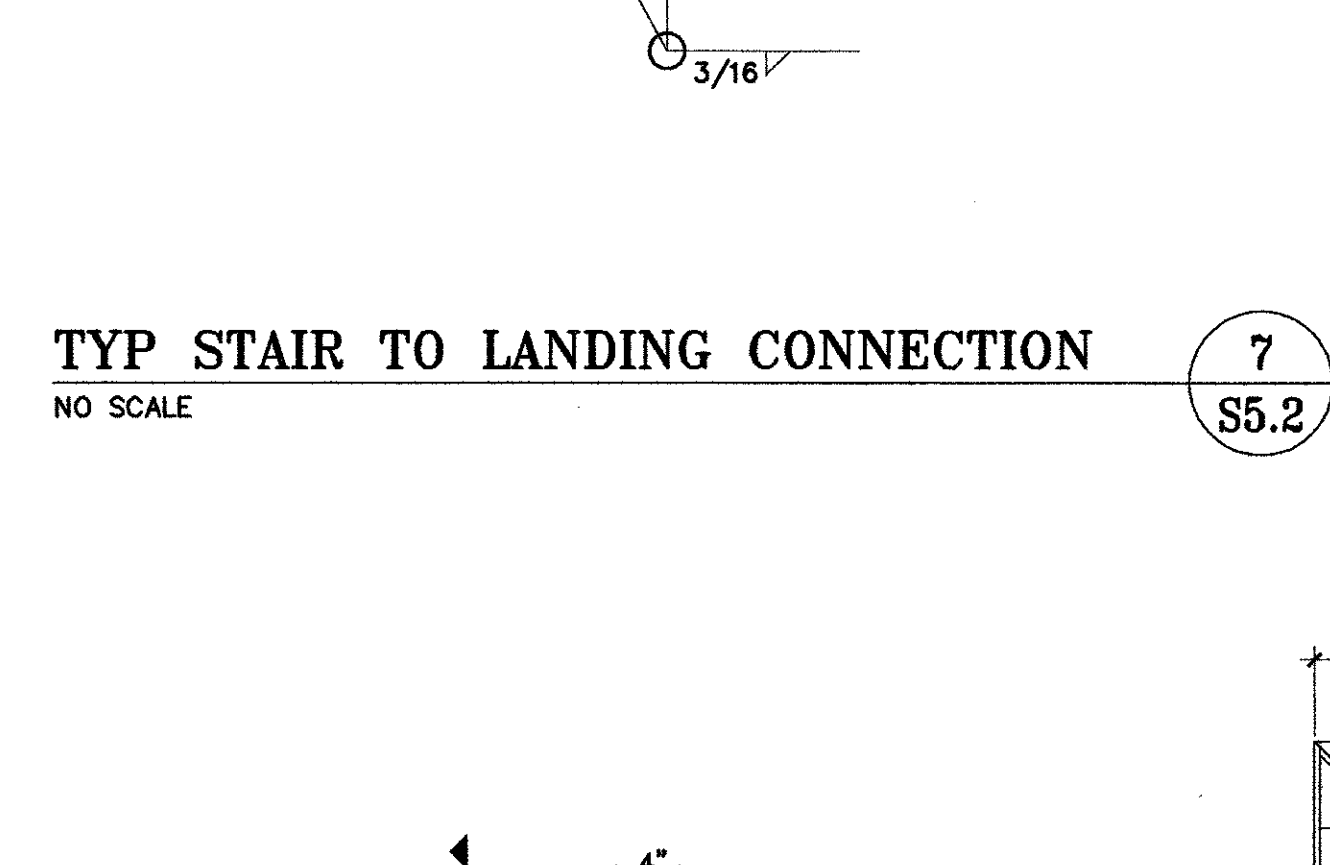
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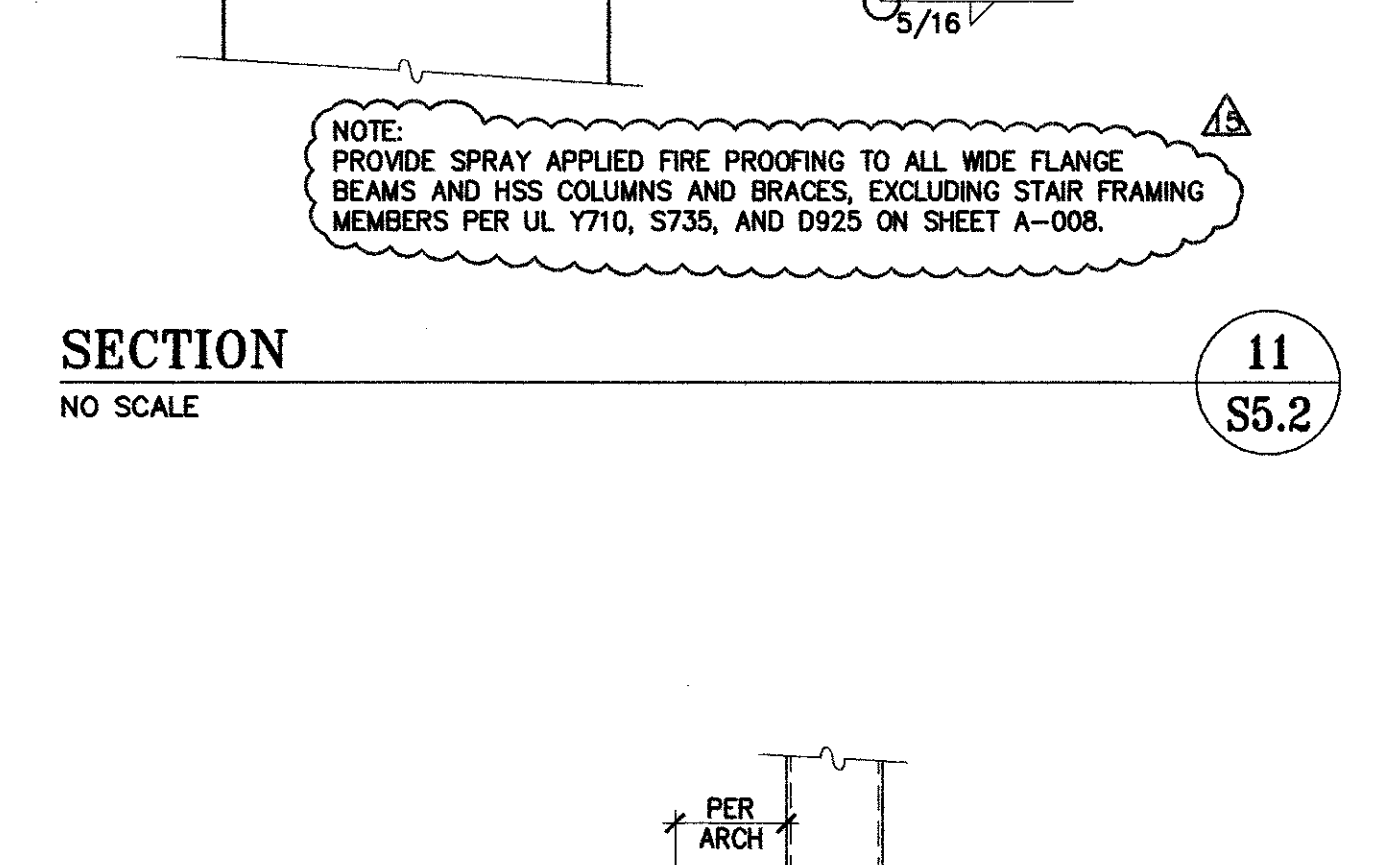
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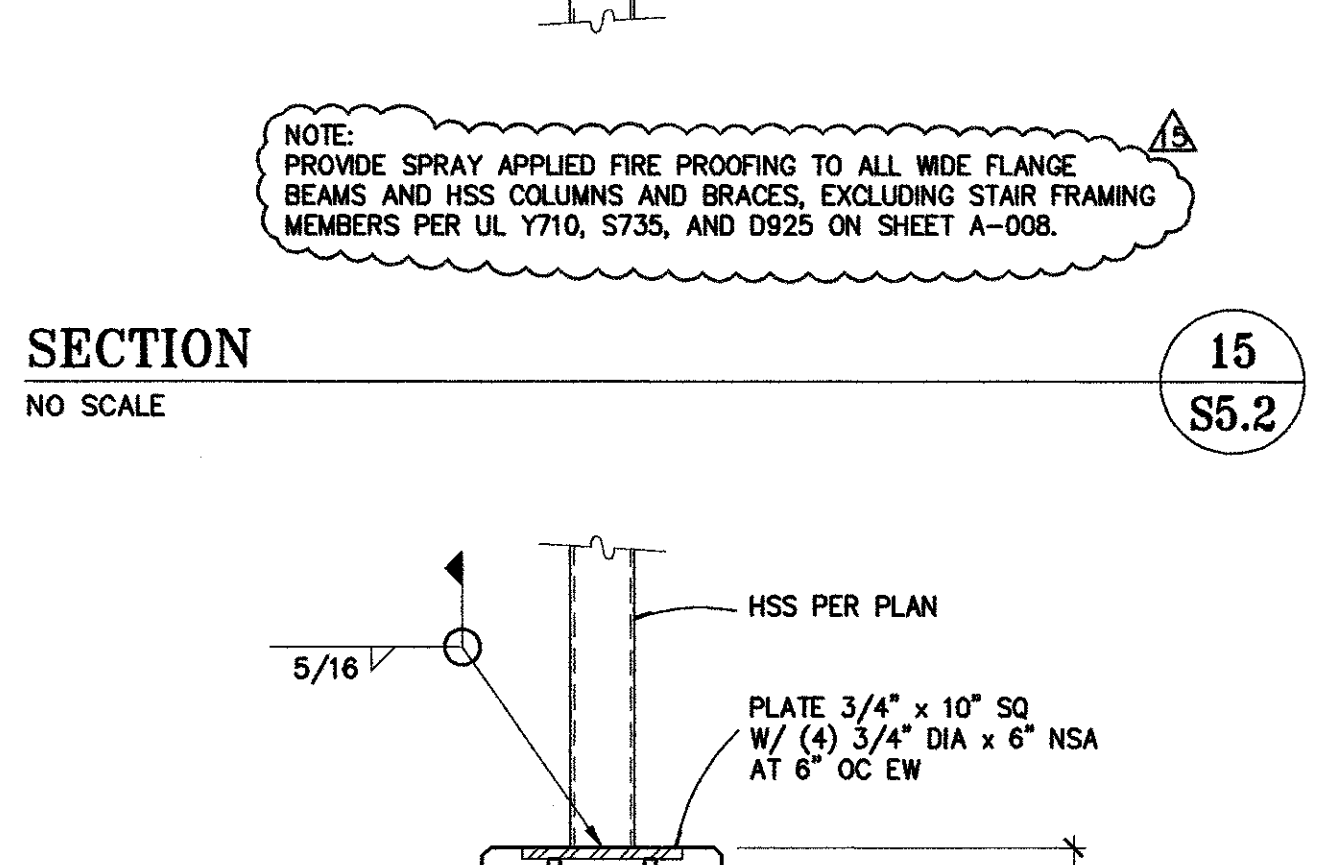
**EDGE OF DECK PERPENDICULAR TO FLUTES** 2  
**EDGE OF DECK PARALLEL TO FLUTES** 2  
NO SCALE S5.2



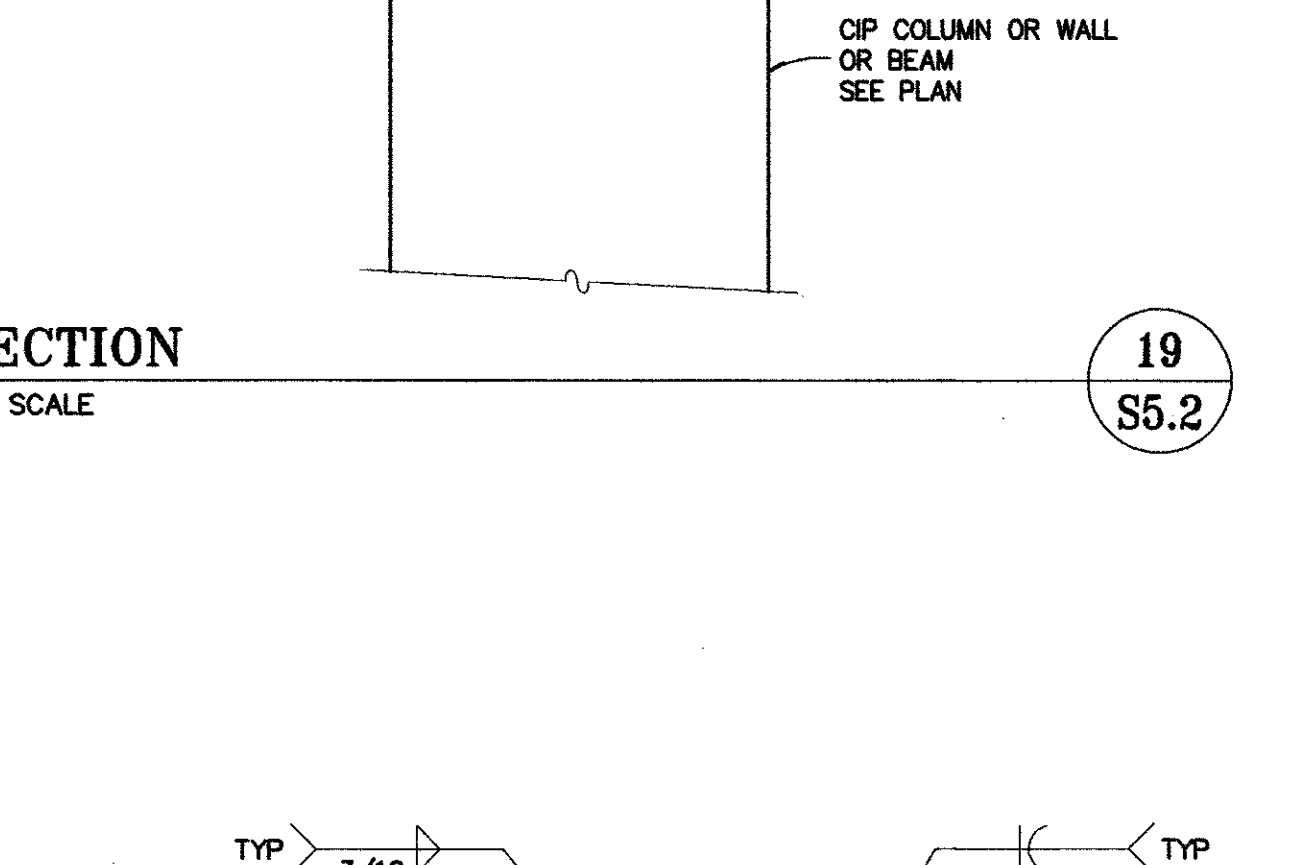
**TYP STAIR TO LANDING CONNECTION** 6  
NO SCALE S5.2



**SECTION** 10  
NO SCALE S5.2



**SECTION** 14  
NO SCALE S5.2



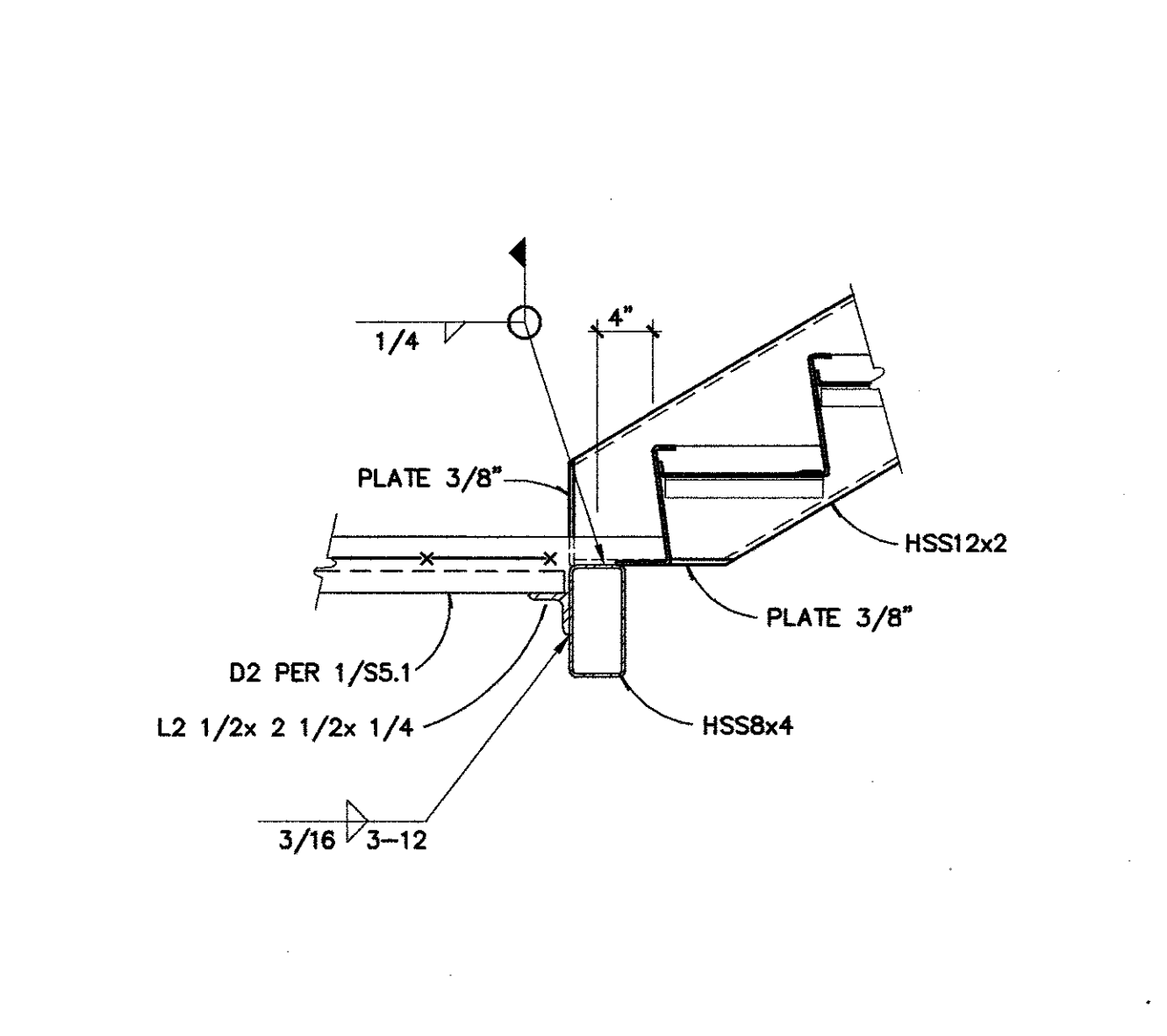
**SECTION** 17  
NO SCALE S5.2

**EDGE OF SLAB MTL DECK CANTILEVERS** 2  
NO SCALE S5.2

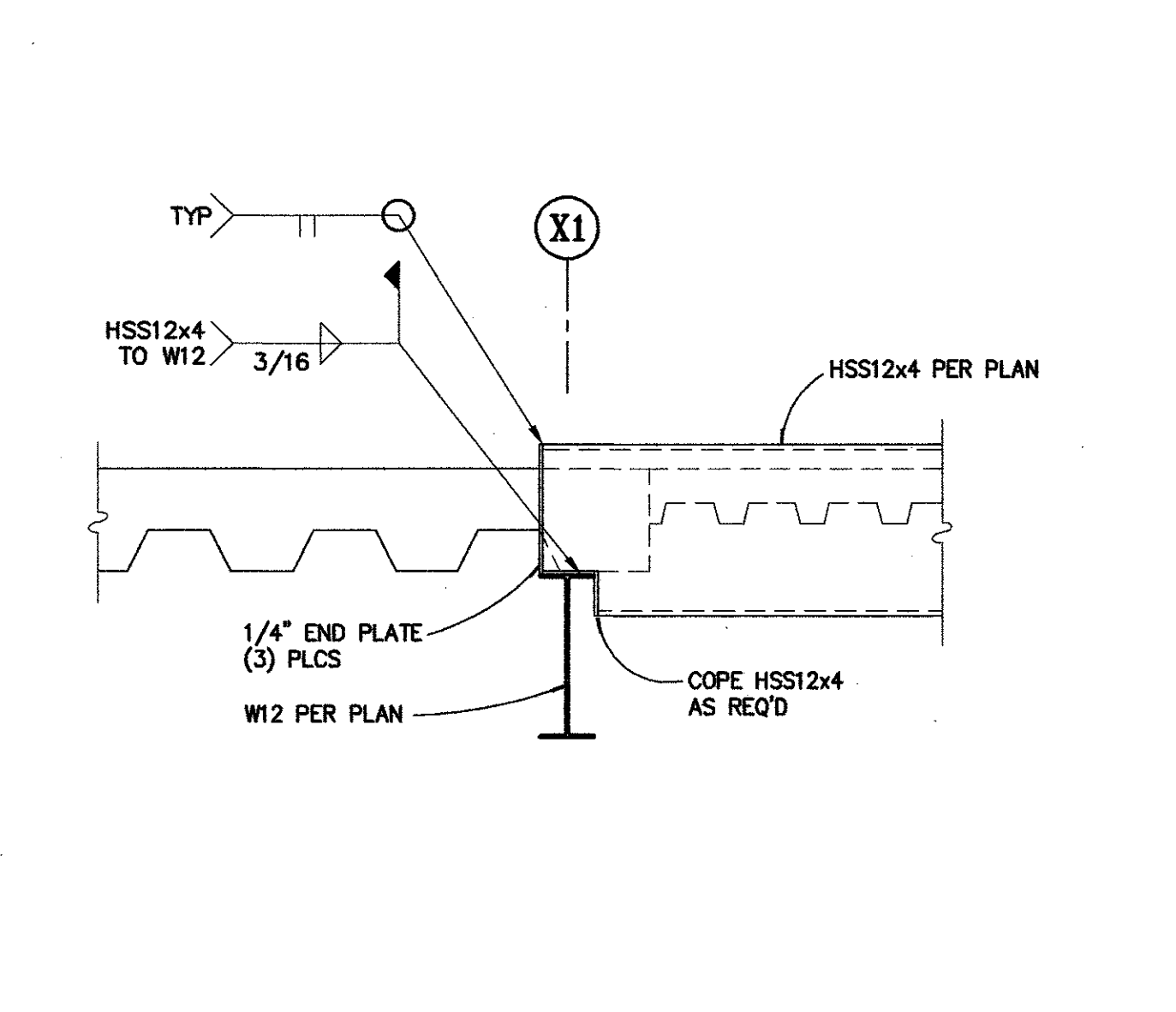
DECK MARK	DECK GAGE	GALVANIZED METAL DECK W/ VERCO OR EQUIVALENT ④	MINIMUM SPANS	CONCRETE FILL ③	NET THICKNESS (INCHES)	TOTAL THICKNESS (INCHES)	WELDS TO SUPPORTS ⑥	WELDS TO FLUTES	WELDS PER SPACING PARALLEL TO FLUTES	PUDDLE WELDS PER SH. PERPENDICULAR TO FLUTES	SIDE LAPSP	ICCF#
D1	16	W3 FORMLOCK	1	②	②	②	②	②	②	②	24	---
D2	20	B FORMLOCK	1	2 1/2	4	12	7	12	---	---	12	---
D3	18	HSB-36	1	---	---	12	7	12	---	---	12	---
D4	16	W3 FORMLOCK	1	4 1/2	7 1/2	---	---	---	---	---	24	---

**NOTES:**

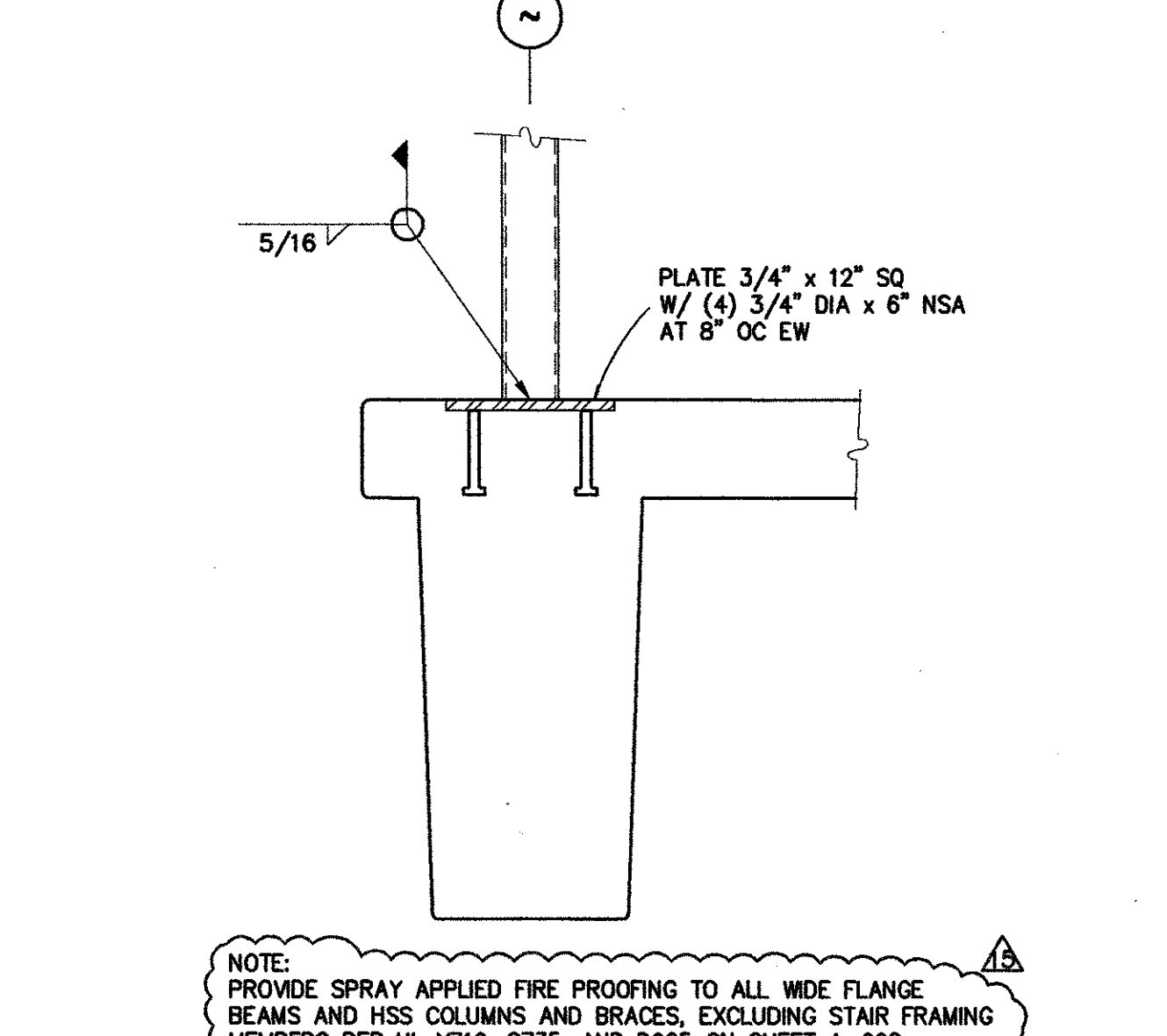
- DECK ORIENTATION AS SHOWN ON PLANS OVER MINIMUM NUMBER OF SPANS SHOWN. INCREASE METAL DECK GAGE AS REQUIRED TO ALLEVIATE SHORING IF MINIMUM NUMBER OF SPANS CAN NOT BE OBTAINED.
- SEE DETAILS 4/S4.6 & 9/S4.6 FOR CONCRETE FILL THICKNESS.
- SEE GENERAL NOTES FOR CONCRETE TYPE & STRENGTH. REINFORCE WITH 6#5 - W/ 4#X1.4 W/F.
- WHERE CONCRETE FILL OR INSULATING CONCRETE FILL IS PLACED OVER METAL DECK, PROVIDE VENT TABS PER MANUFACTURER'S RECOMMENDATIONS.
- PROVIDE 3/4" DIA PUDDLE WELDS AS INDICATED.



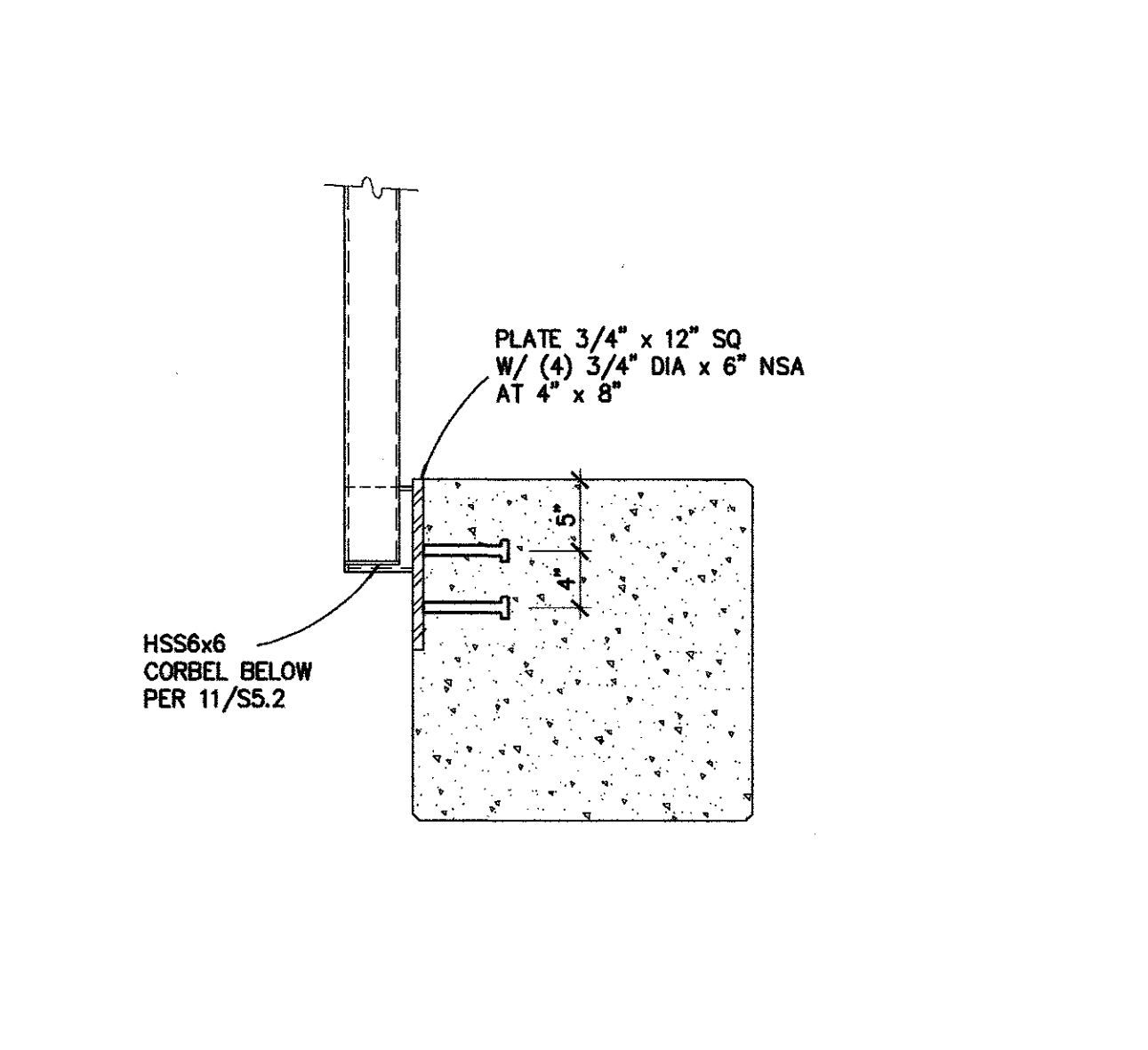
**TYP STAIR TO LANDING CONNECTION** 5  
NO SCALE S5.2



**SECTION** 9  
NO SCALE S5.2



**SECTION** 13  
NO SCALE S5.2



**PLAN-SECTION** 17  
NO SCALE S5.2



**SUBMITTAL SCHEDULE:**

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95% CONST. DOCS.	08/07/2014
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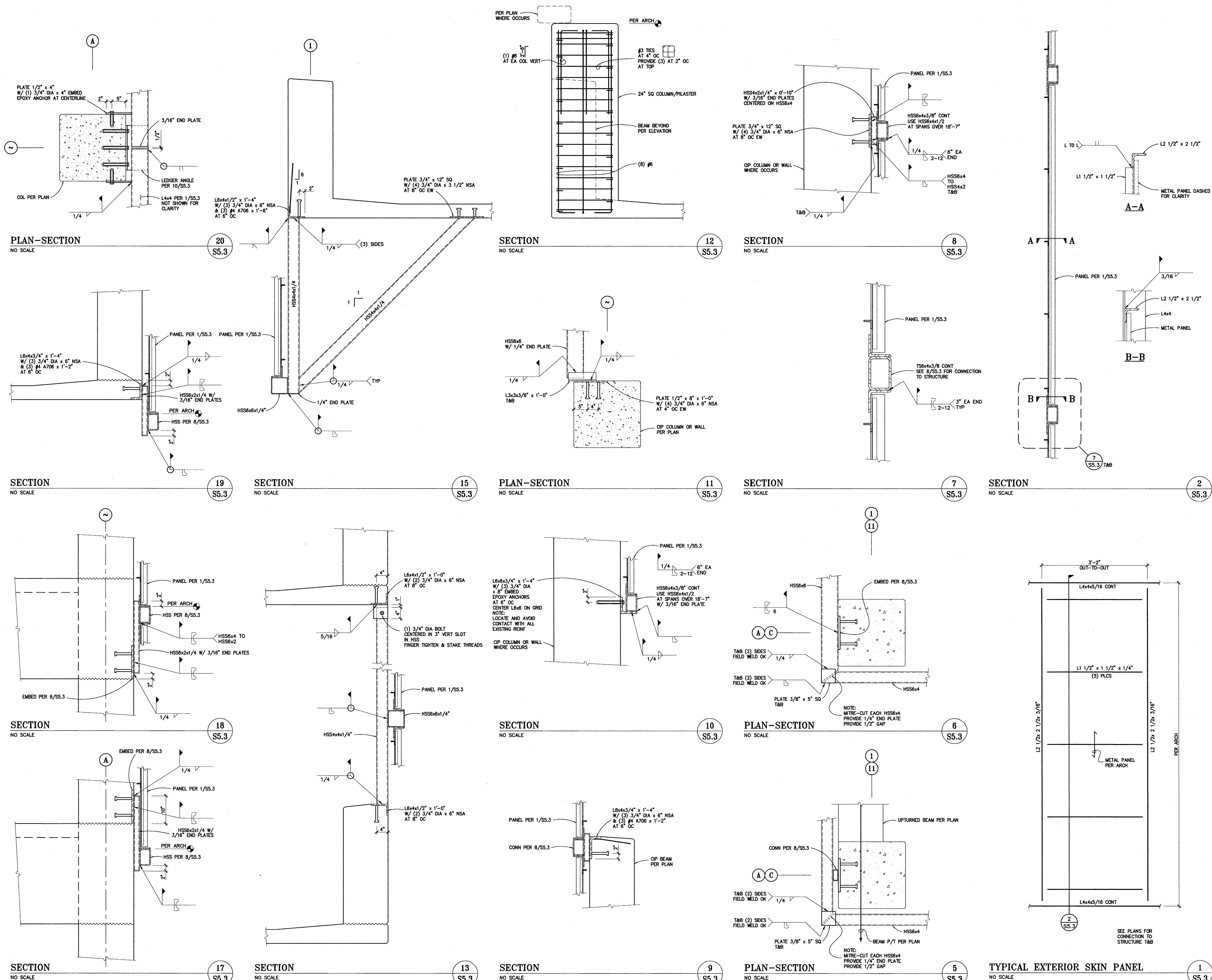
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OFFICE OF REGULATION SERVICES

FILE # \_\_\_\_\_  
APP. # 04-114204  
AC \_\_\_\_\_ DATE: \_\_\_\_\_

PROJECT NO: 21305-G-50

**STEEL DETAILS**

**S5.3**



4/20/2014 11:07:25 AM C:\Users\jwheeler\Documents\2014\_03\_27\_Plan\_Lines\_Visual\_Parking\_Structure\_Connections.dwg





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OFFICE OF THE STATE FIRE MARSHAL  
APPROVED FIRE PROOFING ONLY  
Reviewed by: *Brady Goodrich, DSRM*

APR 27 2016  
Approval of this plan does not authorize or approve any addition or deviation from applicable regulations. Final approval is subject to final inspection. One set of approved plans shall be available on the project site at all times.

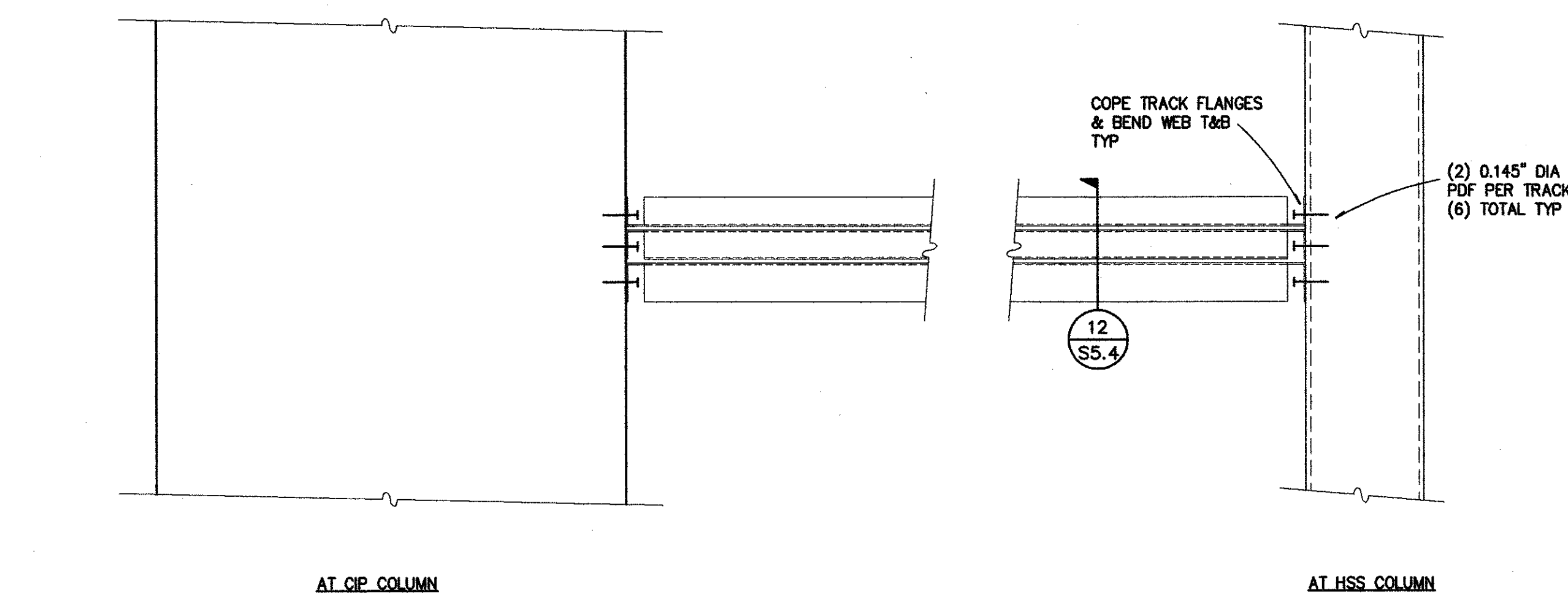
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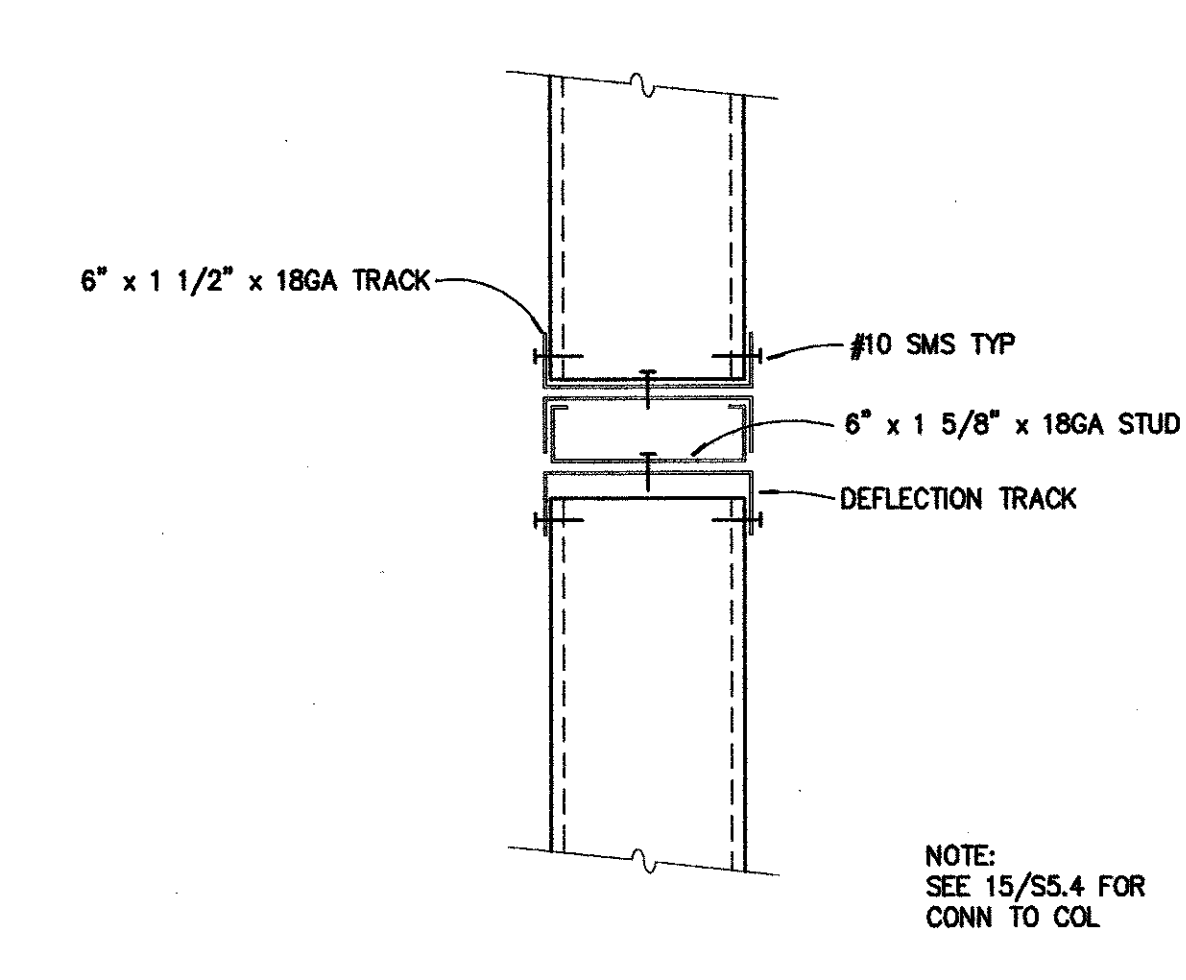
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AC \_\_\_\_\_ DATE: \_\_\_\_\_

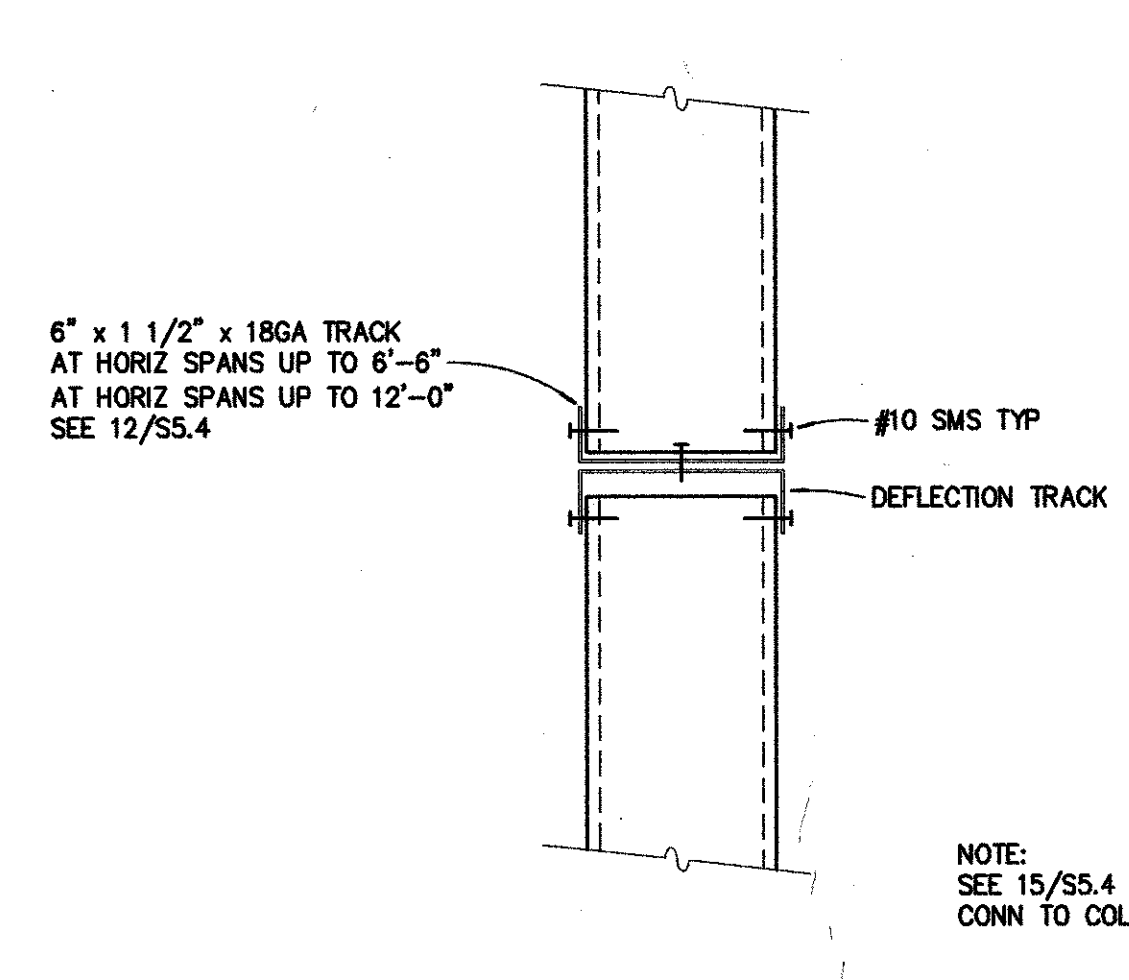
PROJECT NO: 21305-G-50



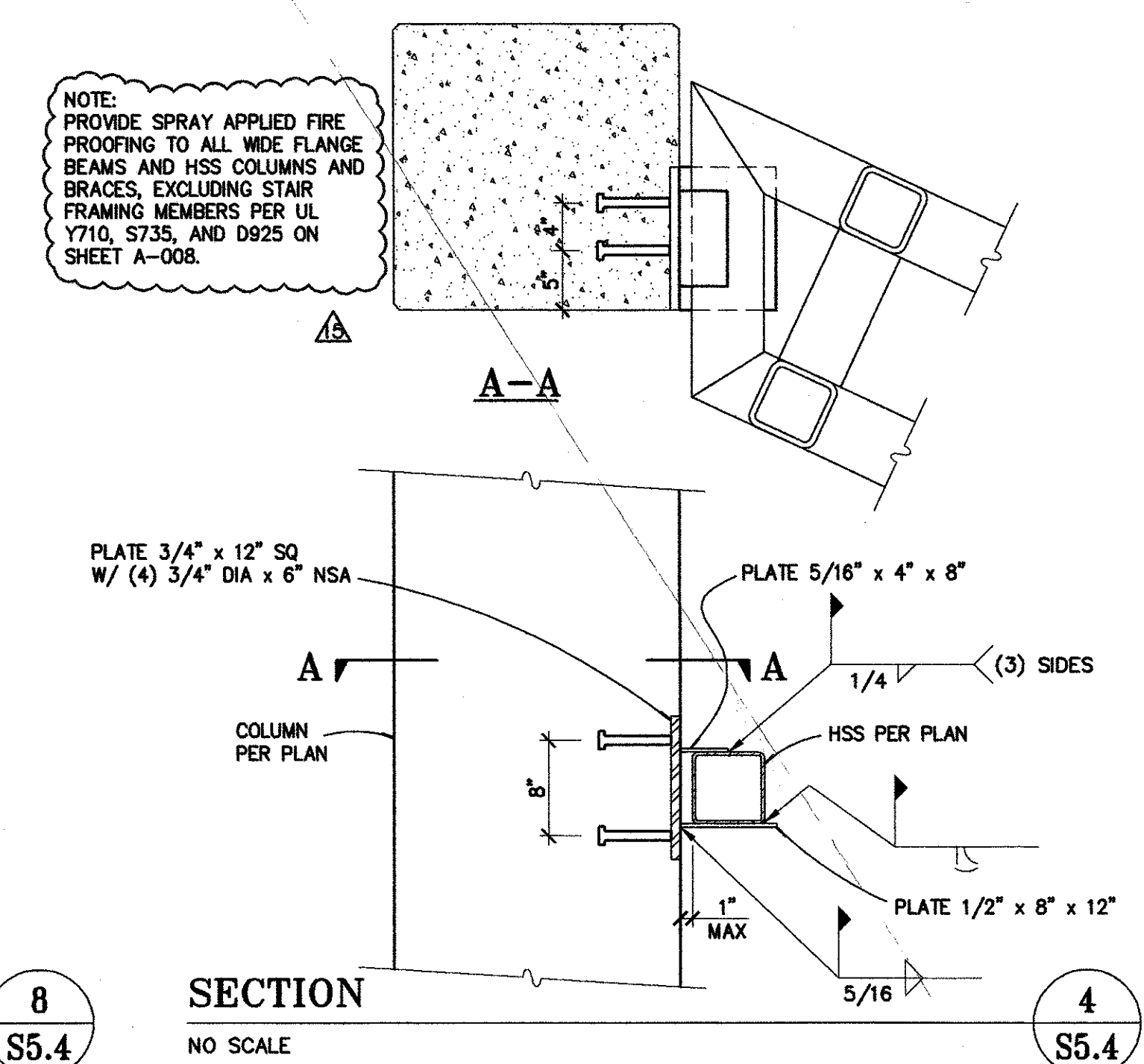
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S5.4



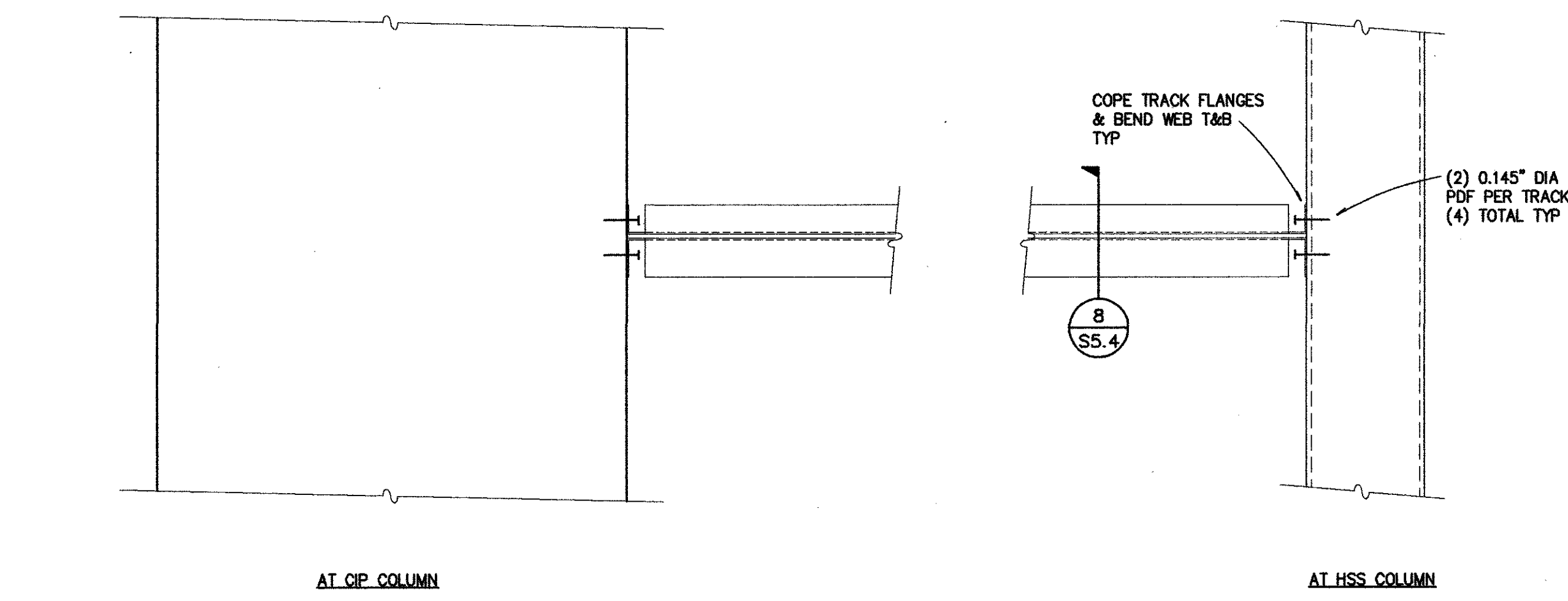
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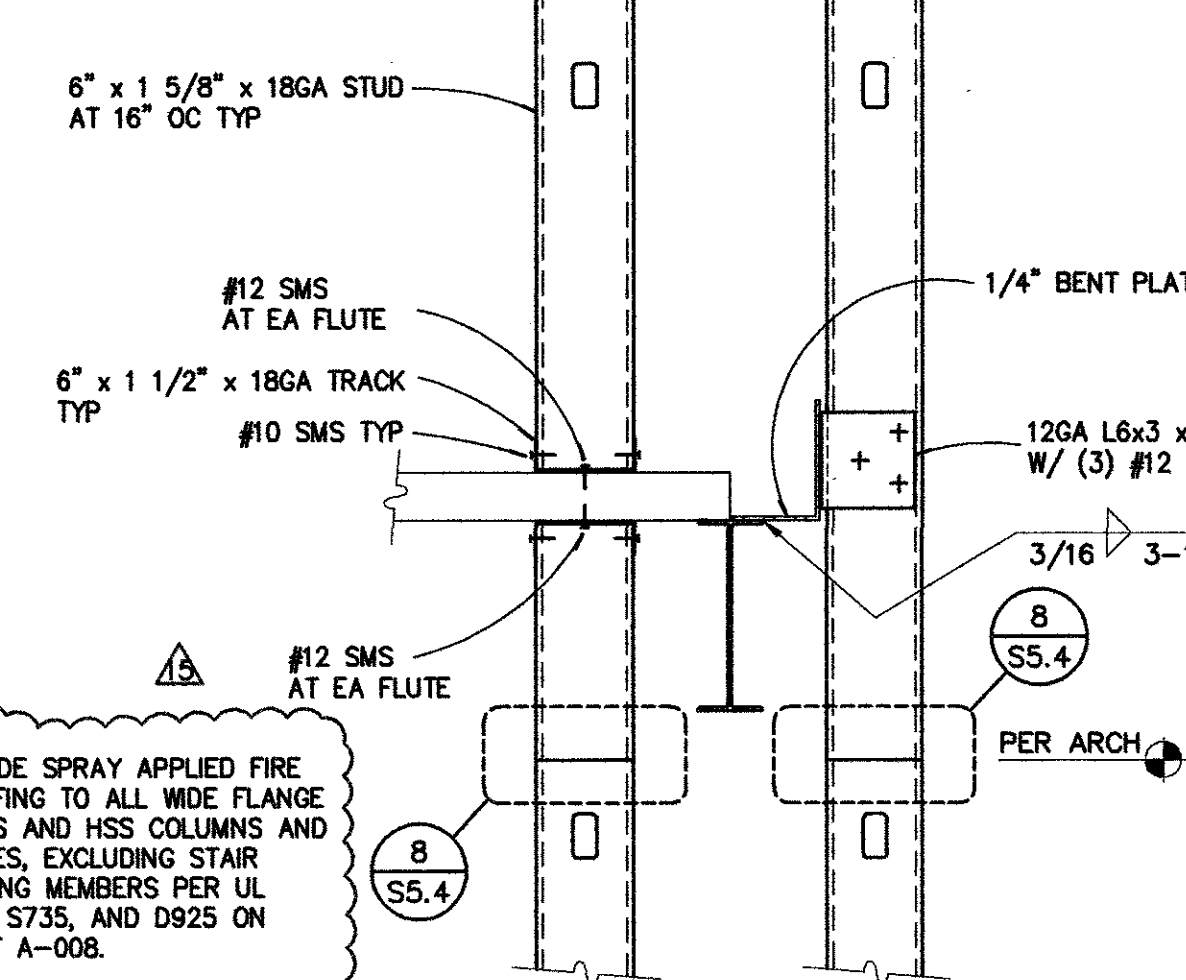
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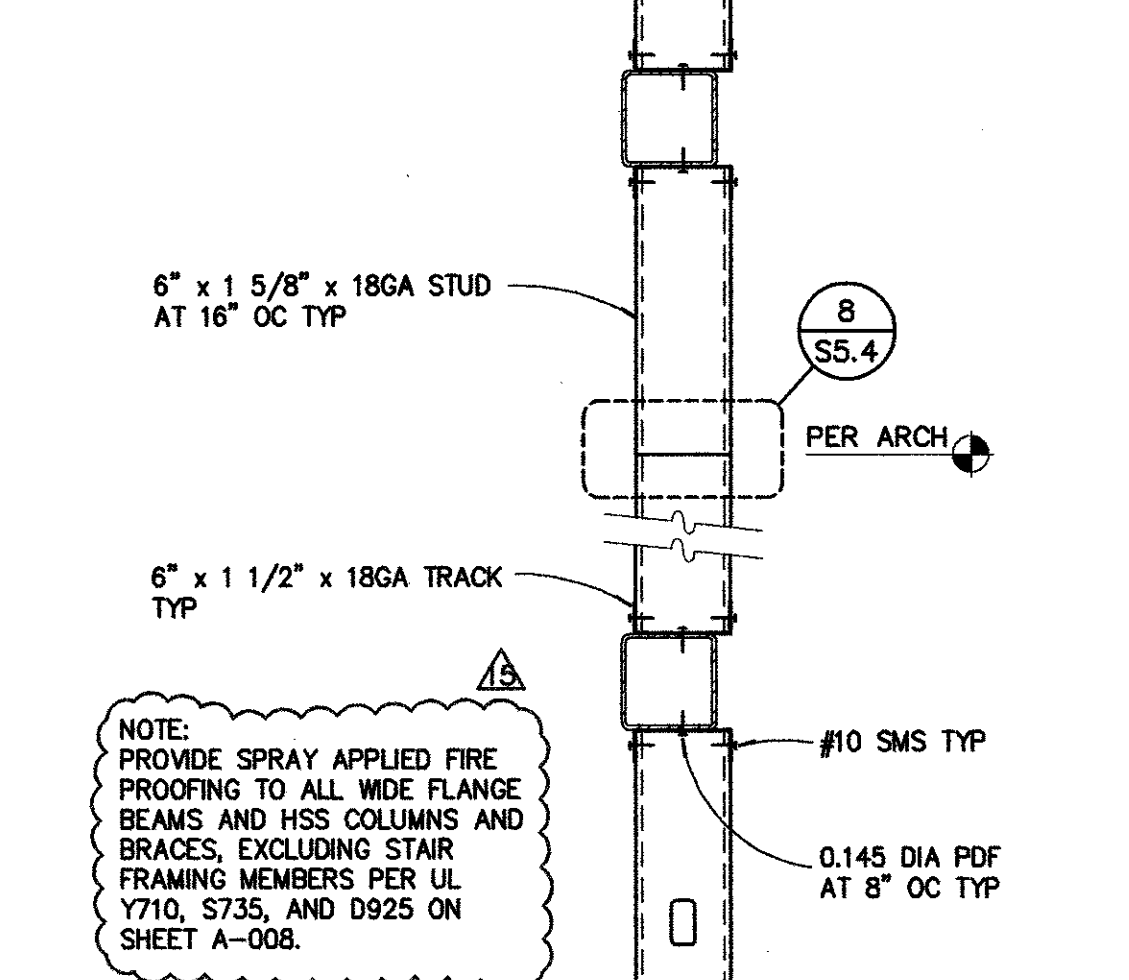
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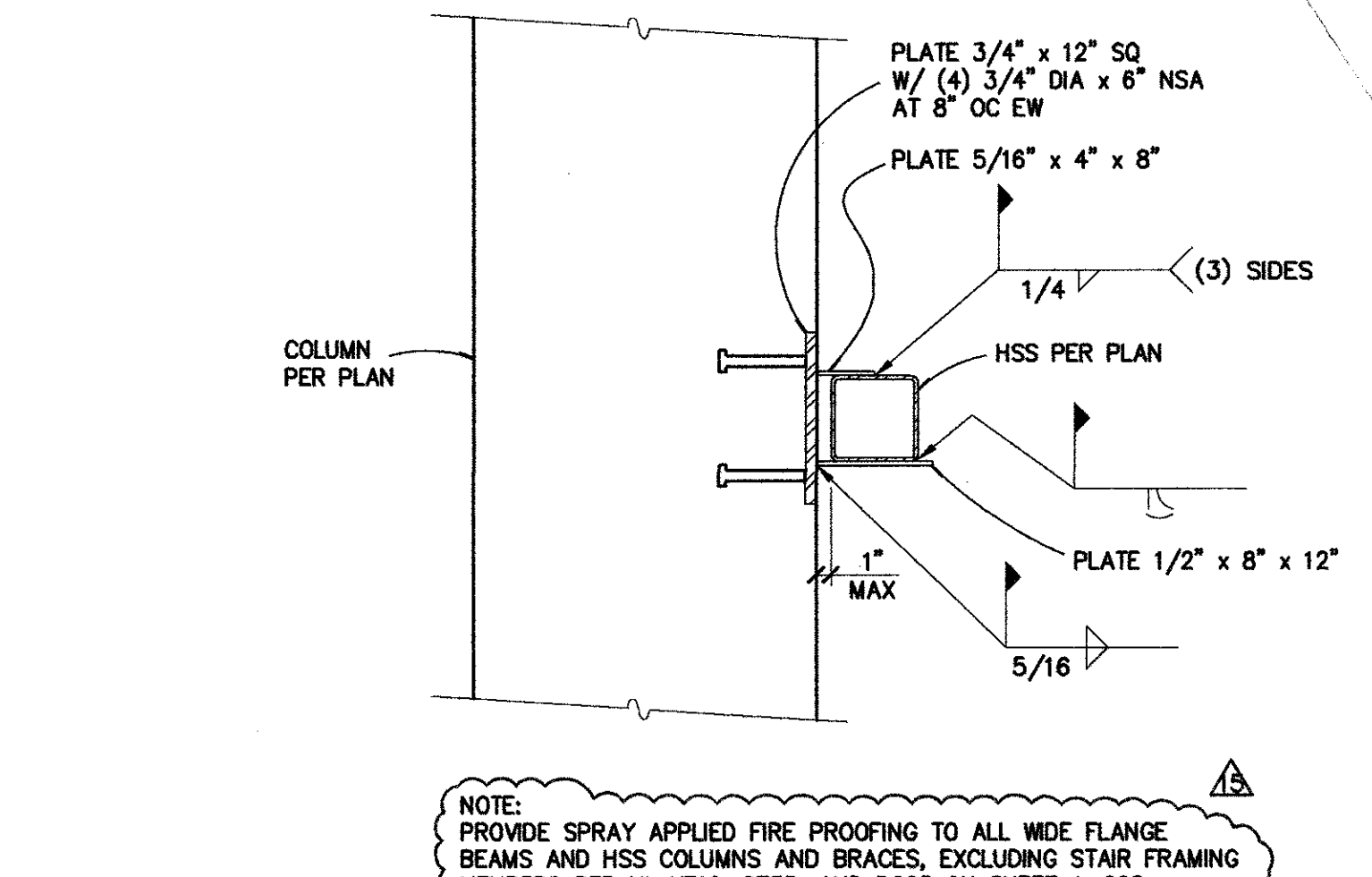
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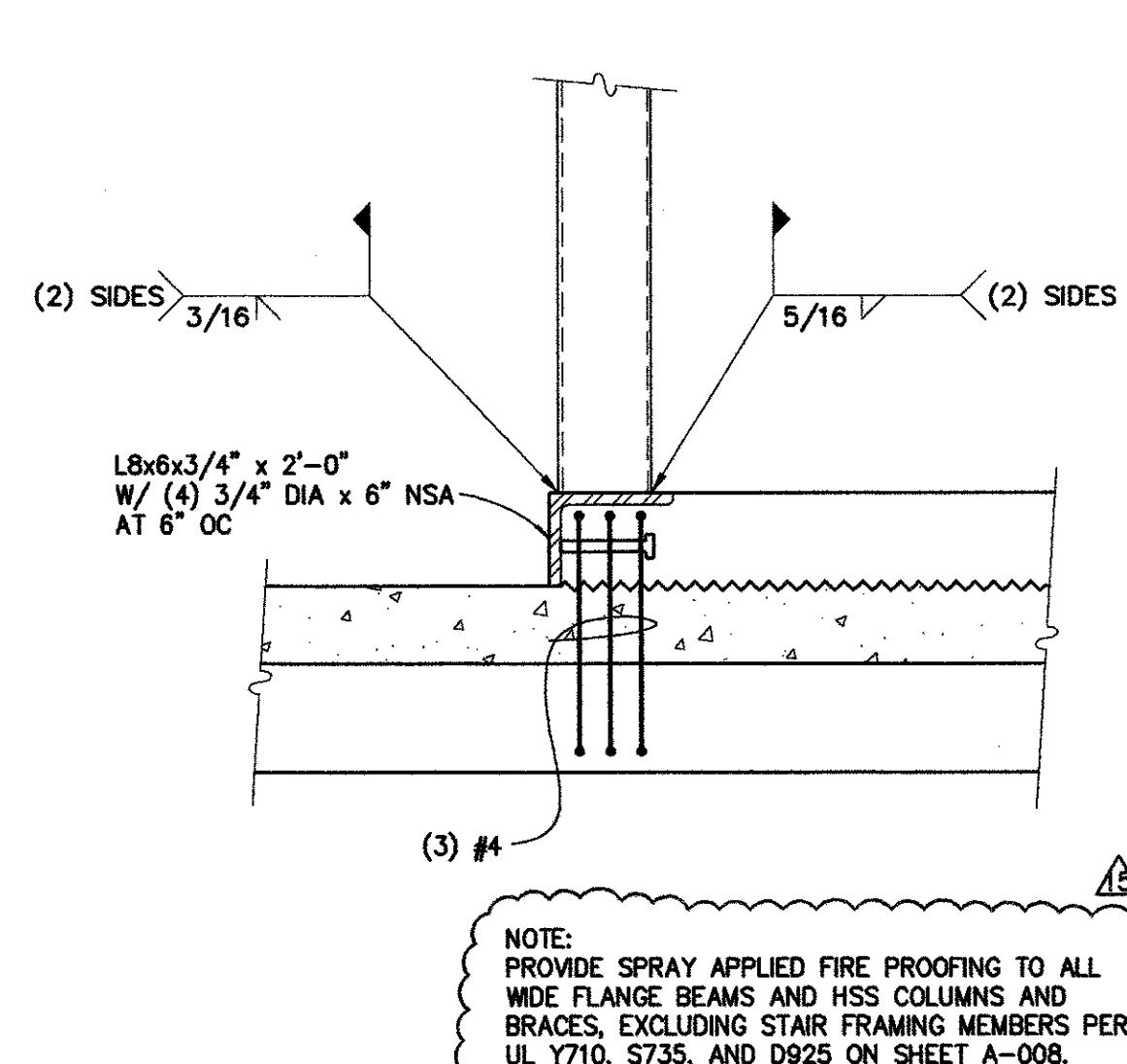
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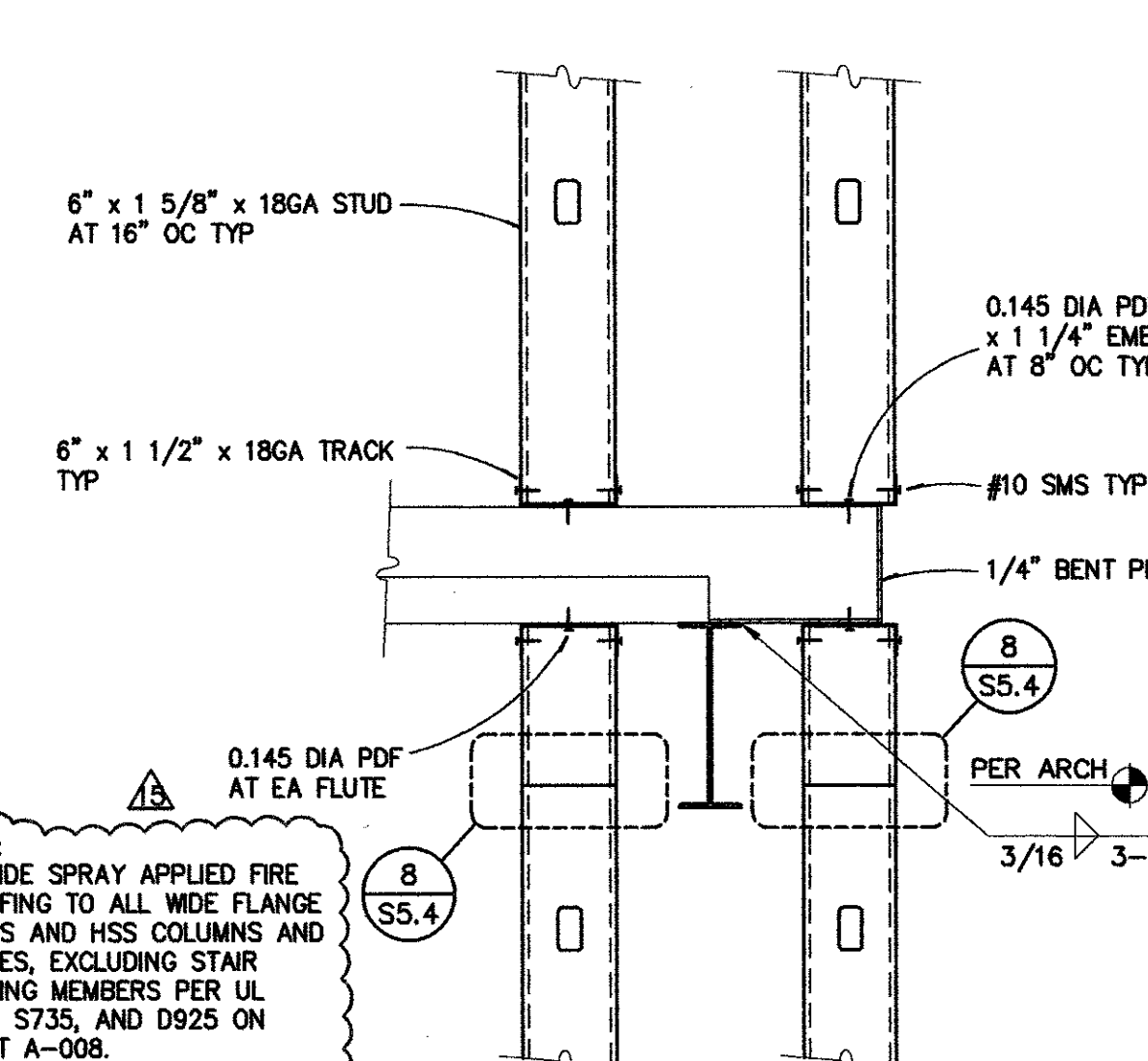
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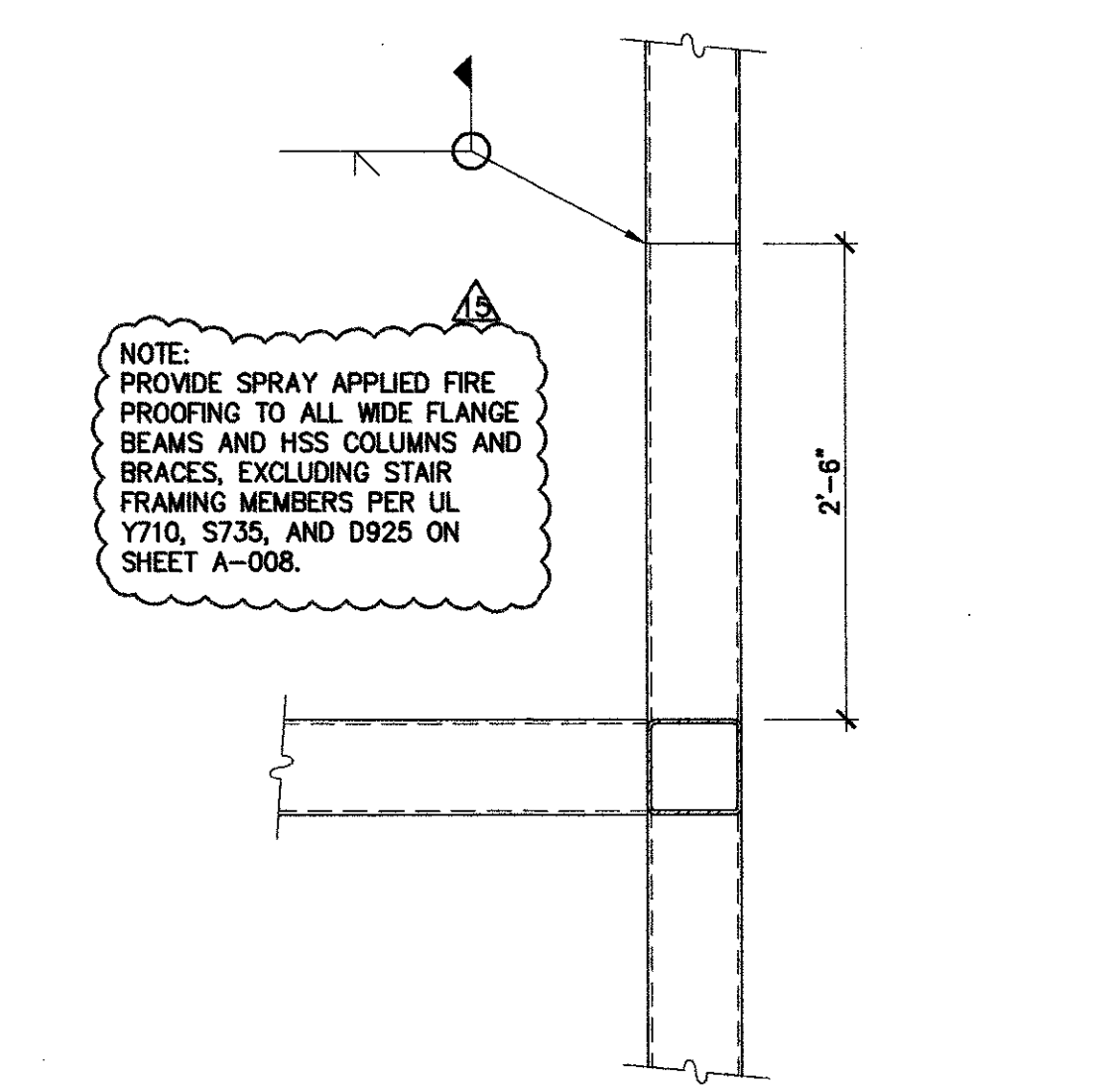
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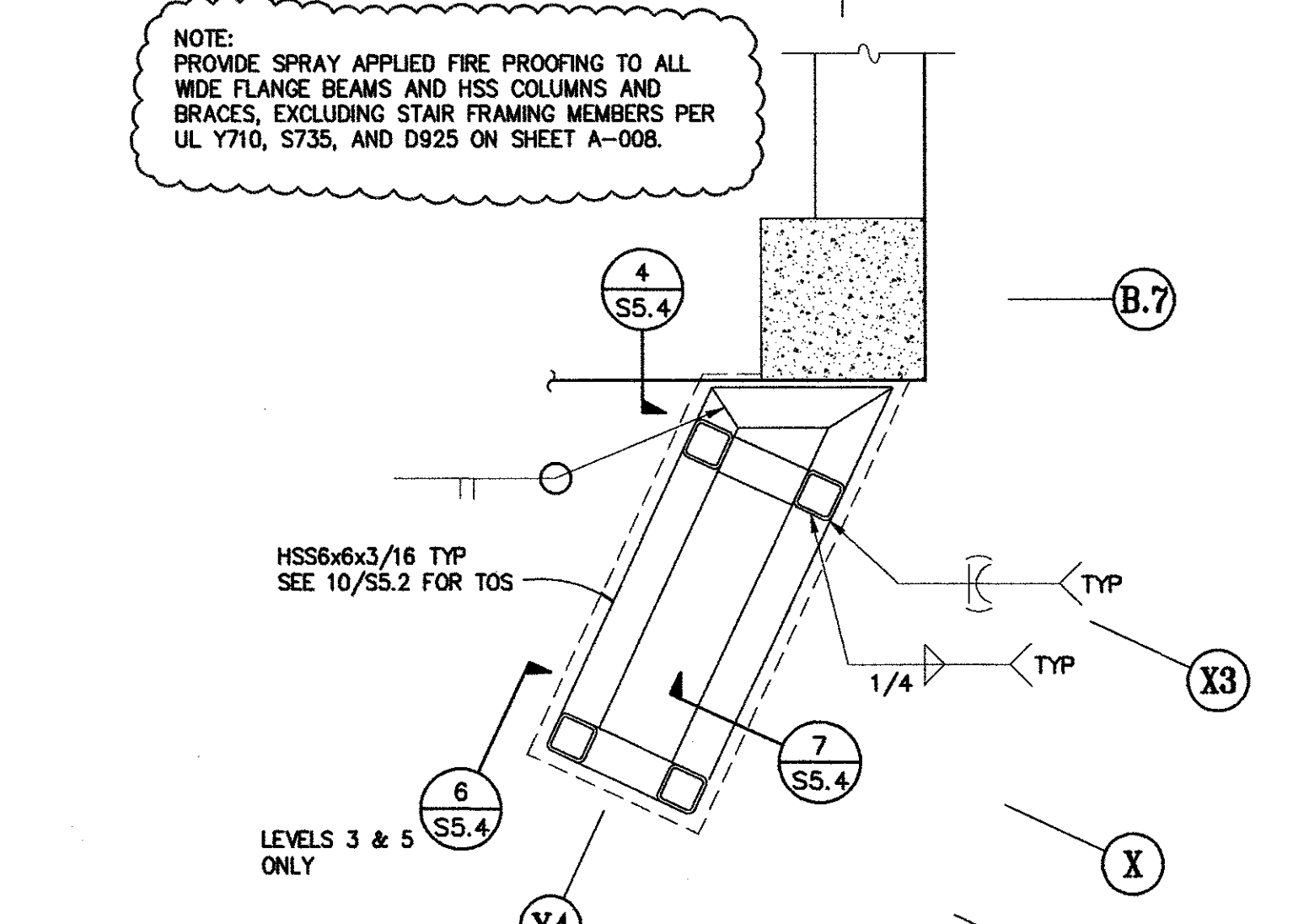
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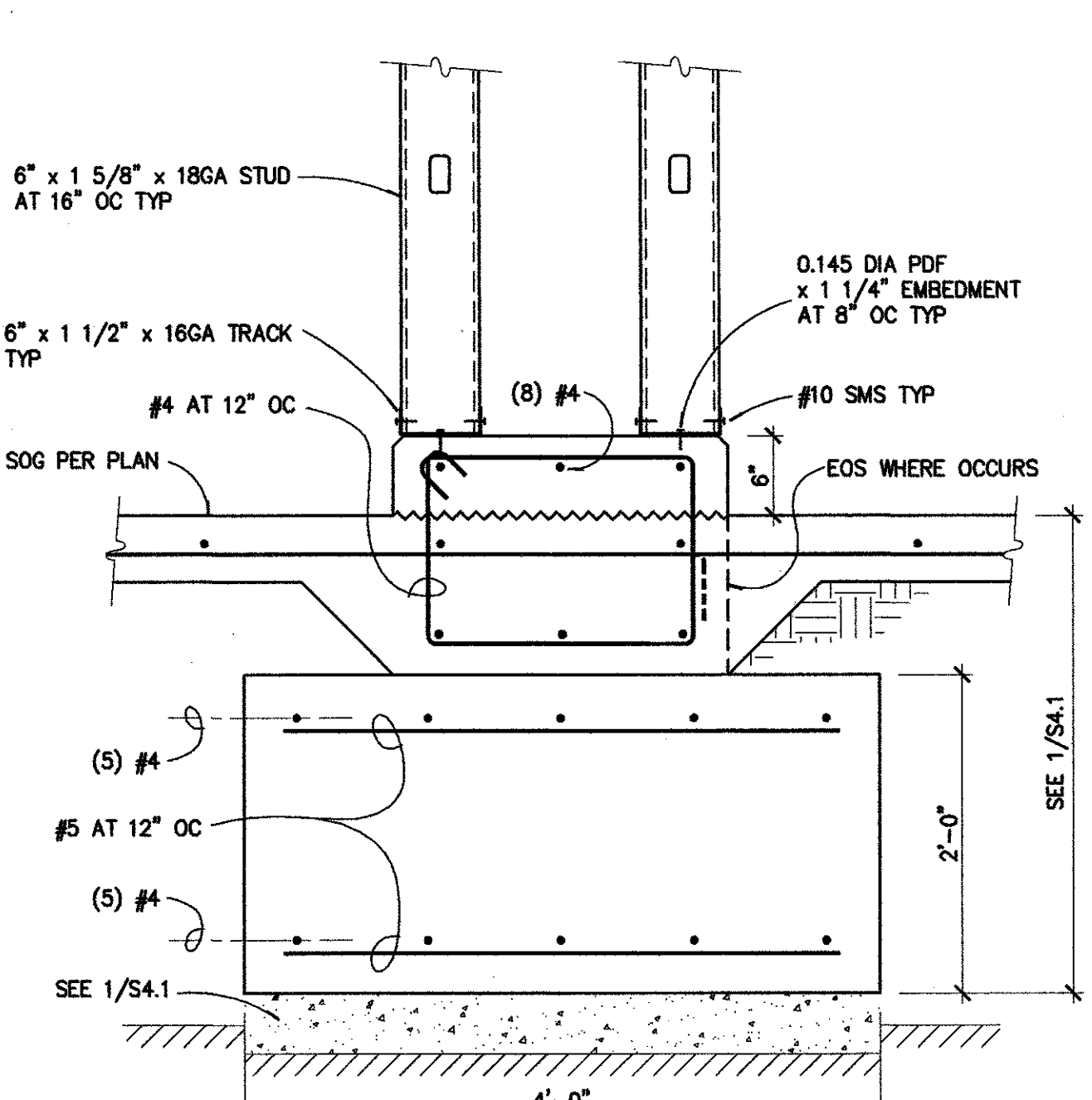
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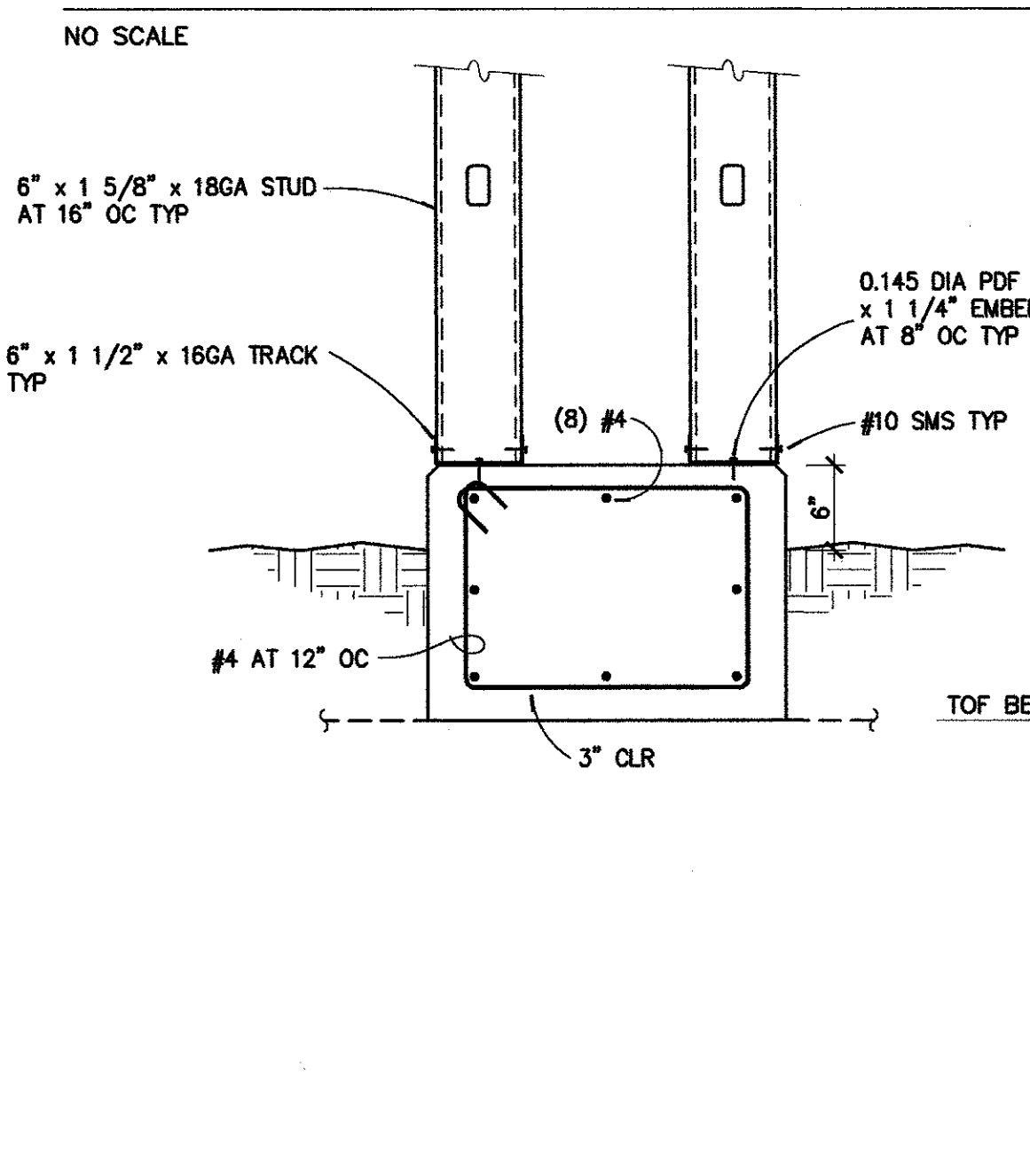
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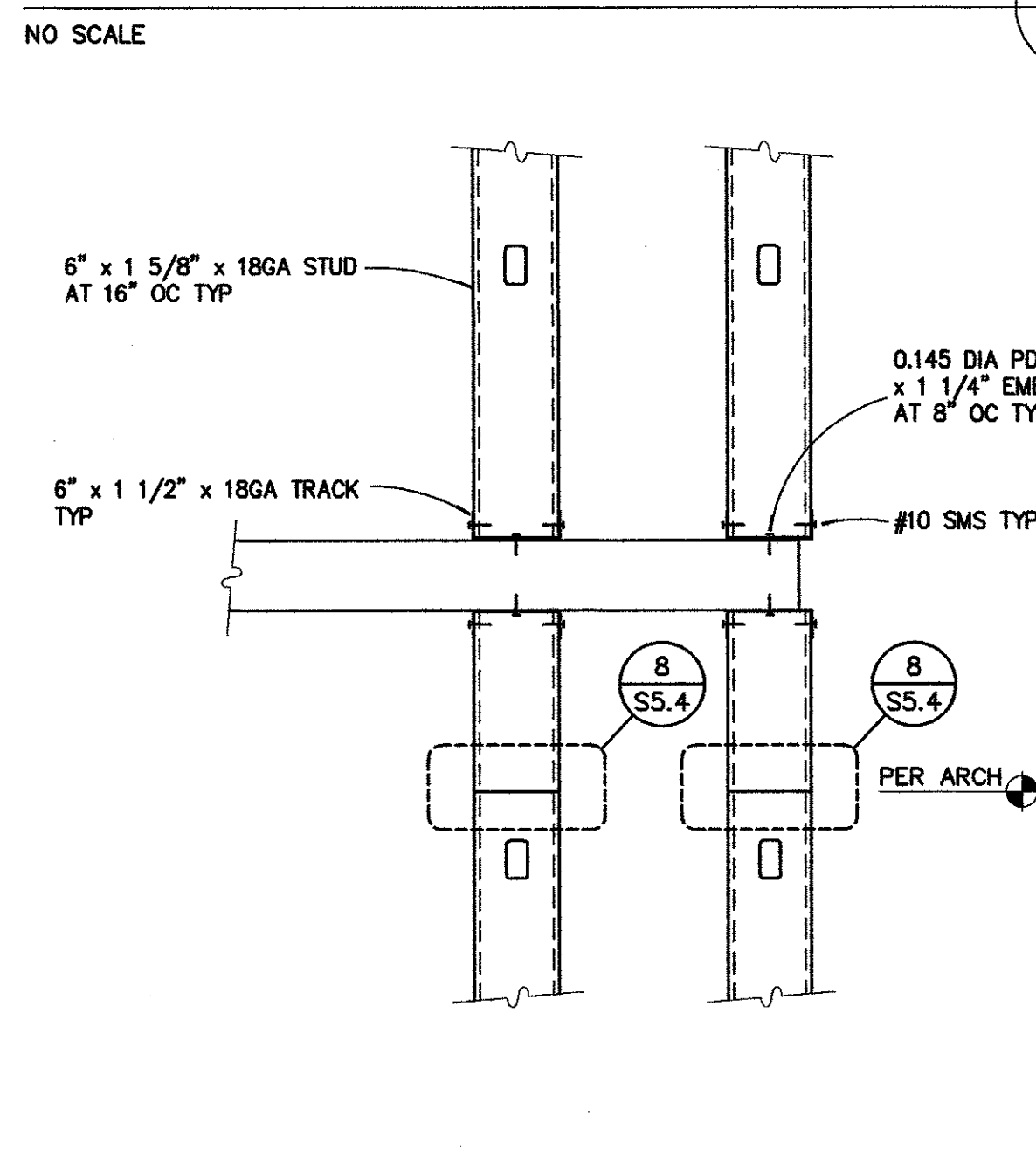
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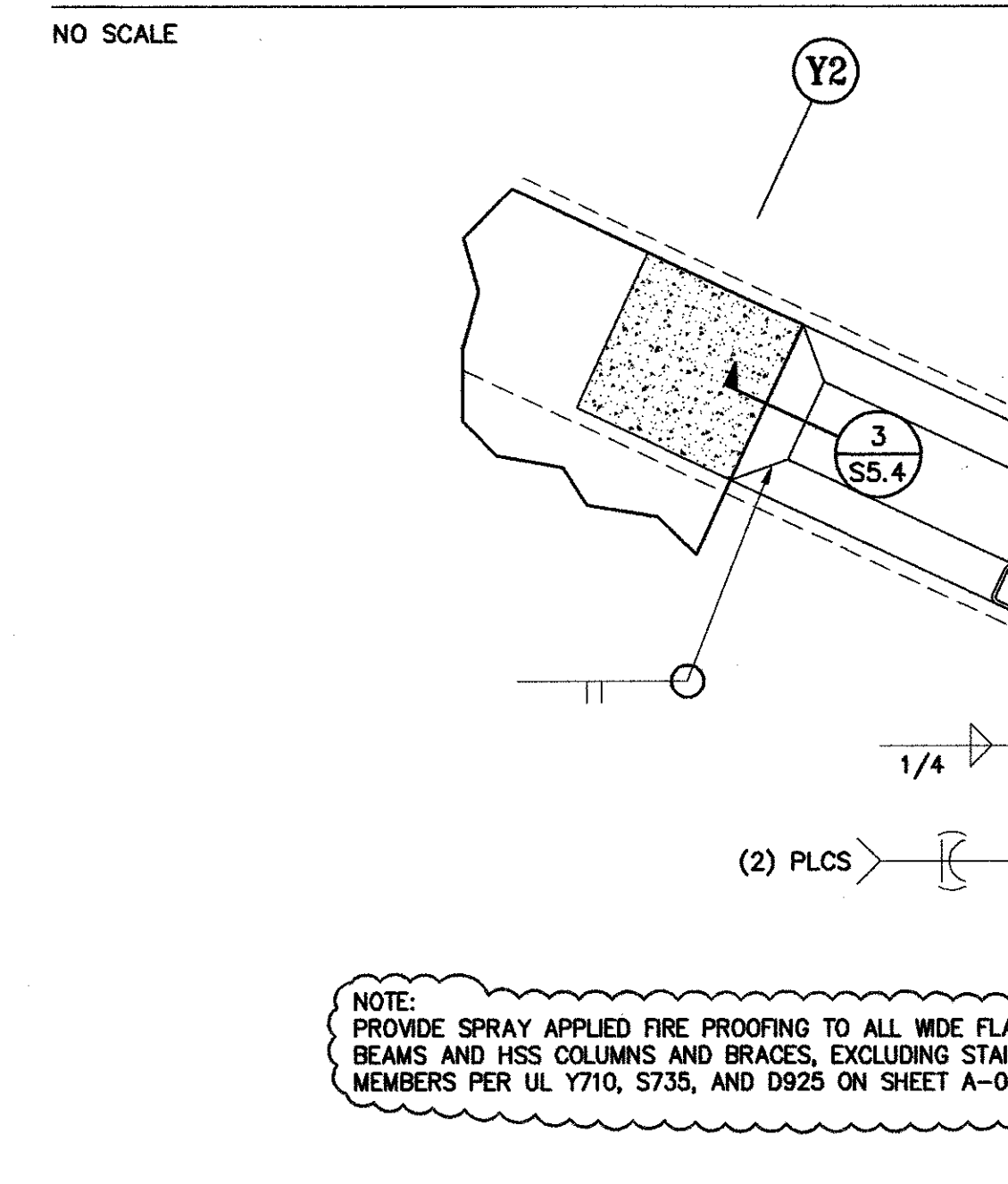
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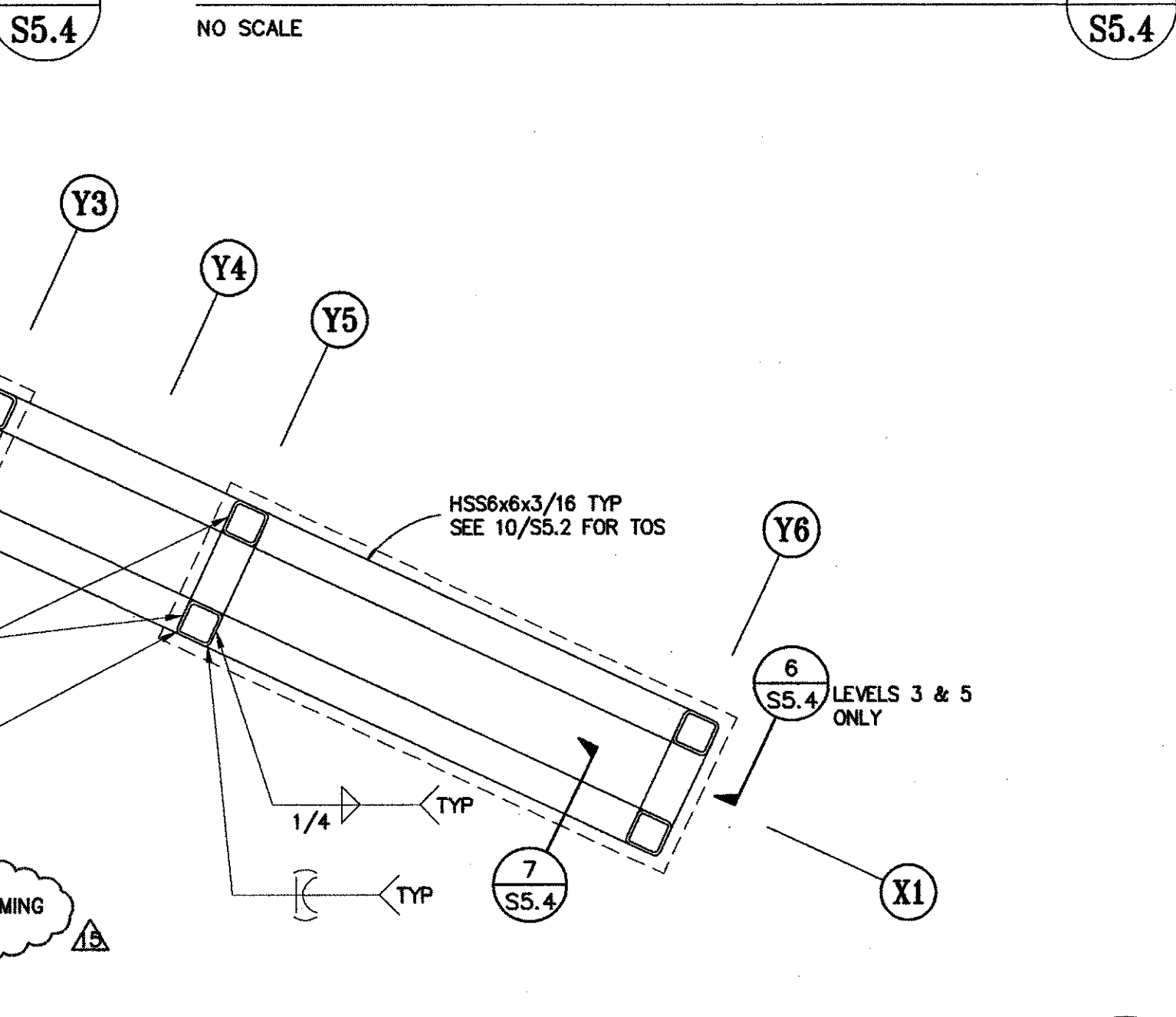
**SECTION 13**  
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S5.4



**SECTION 9**  
NO SCALE  
S5.4



**PARTIAL PLAN 1**  
NO SCALE  
S5.4



**PARTIAL PLAN 1**  
NO SCALE  
S5.4

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**CAL GREEN NOTES**

- 5.201.1 SCOPE. THE CALIFORNIA ENERGY COMMISSION WILL CONTINUE TO ADOPT MANDATORY BUILDING STANDARDS.
- 5.410.2 COMMISSIONING FOR NEW BUILDINGS 10,000 SQUARE FEET AND OVER. BUILDING COMMISSIONING SYSTEMS BY TITLE 24 DOCUMENTATION, PART 6, PROCESS SYSTEMS AND RENEWABLE ENERGY SYSTEMS SHALL BE INCLUDED IN THE DESIGN AND CONSTRUCTION PROCESSES OF THE BUILDING PROJECT. COMMISSIONING REQUIREMENTS SHALL INCLUDE ITEMS LISTED IN SECTION 5.410.2.
- COVERING OF DUCT OPENINGS AND PROTECTION OF MECHANICAL EQUIPMENT DURING CONSTRUCTION. AT THE TIME OF ROUGH INSTALLATION OR DURING STORAGE ON THE CONSTRUCTION SITE AND UNTIL FINAL STARTUP OF THE HEATING AND COOLING EQUIPMENT, ALL DUCT AND OTHER RELATED AIR DISTRIBUTION COMPONENT OPENINGS SHALL BE COVERED WITH TAPE, PLASTIC, SHEET METAL, OR OTHER METHODS ACCEPTABLE TO ENFORCING AGENCY TO REDUCE THE AMOUNT OF DUST OR DEBRIS WHICH MAY COLLECT IN THE SYSTEM.
- 5.504.5.3 FILTERS. IN MECHANICALLY VENTILATED BUILDINGS, PROVIDE REGULARLY OCCUPIED AREAS OF THE BUILDING WITH AIR FILTRATION MEDIA FOR OUTSIDE AND RETURN AIR PRIOR TO OCCUPANCY THAT PROVIDES AT LEAST A MERV OF 8. AS 504.5.3.1 FILTERS. IN MECHANICALLY VENTILATED BUILDINGS, PROVIDE REGULARLY OCCUPIED AREA OF THE BUILDING WITH AIR FILTRATION MEDIA FOR OUTSIDE AND RETURN AIR PRIOR TO OCCUPANCY THAT PROVIDES AT LEAST A MERV 11.
- 5.5506.1 OUTSIDE AIR DELIVERY. FOR MECHANICALLY OR NATURALLY VENTILATED SPACES IN BUILDINGS, MEET THE MINIMUM REQUIREMENTS OF SECTION 121 OF THE CALIFORNIA ENERGY CODE, C.C.R., TITLE 24, PART 6, AND CHAPTER 4 OR C.C.R., TITLE 8 OR THE APPLICABLE LOCAL CODE, WHICHEVER IS MORE STRINGENT.
- 5.506.2 CARBON DIOXIDE (CO2) MONITORING. FOR BUILDINGS EQUIPPED WITH DEMAND CONTROL VENTILATION, CO2 SENSORS AND VENTILATION CONTROLS SHALL BE SPECIFIED AND INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF THE LATEST EDITION OF THE CALIFORNIA ENERGY CODE, C.C.R., TITLE 24, PART 6, SECTION 121 (C).
- 5.508.1 OZONE DEPLETION AND GLOBAL WARMING REDUCTIONS. INSTALLATION OF HVAC, REFRIGERATION AND FIRE SUPPRESSION OF EQUIPMENT SHALL COMPLY WITH SECTION 5.508.1.1 AND 5.508.1.2 C.F.C.S. INSTALL HVAC AND REFRIGERATION EQUIPMENT THAT DOES NOT CONTAIN CFC'S, 508.1.2 HALONS. INSTALL FIRE SUPPRESSION EQUIPMENT THAT DOES NOT CONTAIN HCFC'S, A5.508.1.4 HYDROFLUOROCARBONS (HFC'S). INSTALL HVAC COMPLYING WITH EITHER OF THE FOLLOWING:
  - INSTALL HVAC, REFRIGERATION, AND FIRE SUPPRESSION EQUIPMENT THAT DOES NOT CONTAIN HCFC'S OR THAT DO NOT CONTAIN HFC'S WITH A GLOBAL WARMING POTENTIAL GREATER THAN 150.
  - INSTALL HVAC AND REFRIGERANT EQUIPMENT THAT LIMIT THE USE OF HFC REFRIGERANT THROUGH USE OF A SECONDARY HEAT TRANSFER FLUID WITH A GLOBAL WARMING POTENTIAL NO GREATER THAN 1.

**MECHANICAL LEGEND (CONT.)**

SYMBOL	ABBR.	DESCRIPTION
		UNION
		AUTOMATIC VALVE
		AUTOMATIC AIR VENT
		RELIEF VALVE
		MAKE-UP WATER VALVE
		GATE VALVE
		FLEXIBLE PIPE CONNECTOR
		DRAIN VALVE WITH HOSE BIBB
		PRESSURE GAUGE WITH BALL VALVE
		THERMOMETER
		PETEE'S PLUG
		MECHANICAL COUPLING
		MANUAL AIR VENT
		PUMP SUCTION DIFFUSER
	OBD	OPPOSED BLADE DAMPER
	AFF	ABOVE FINISHED FLOOR
	SQ. FT.	SQUARE FEET
	DB	DRY BULB
	WB	WET BULB
	°F	DEGREES FAHRENHEIT
	MAX.	MAXIMUM
	MIN.	MINIMUM
	PD	PRESSURE DROP (FEET OF WATER)
	VEL	VELOCITY
	GPM	GALLONS PER MINUTE
	LBS	POUNDS (WEIGHT)
	GAL	GALLON
	AMB	AMBIENT
	H2O	WATER
	FLA	FULL LOAD AMPERES
	KW	KILOWATTS
	HP	HORSE POWER
	TONS	CAPACITY IN TONS OF REFRIGERATION
	EF	EXHAUST FAN
	OA	OUTSIDE AIR
	ESP	EXTERNAL STATIC PRESSURE (INCHES OF WATER)
	TSP	TOTAL STATIC PRESSURE (INCHES OF WATER)
	CFM	CUBIC FEET PER MINUTE
	OV	OUTLET VELOCITY
	FPM	FEET PER MINUTE
	RPM	REVOLUTIONS PER MINUTE
	MBH	CAPACITY EXPRESSED IN THOUSANDS OF BTU/HR
	B/G	BELOW GRADE

**GENERAL NOTES**

- ALL WORK SHALL BE IN ACCORDANCE WITH CITY CODES, STATE OF CALIFORNIA ENERGY CONSERVATION STANDARDS, AND ALL OTHER APPLICABLE CODES.
- ALL CEILING DIFFUSERS SHALL BE 4-WAY THROW, UNLESS SHOWN OTHERWISE.
- ALL H.V.A.C. SYSTEMS SHALL MEET THE CONTROL REQUIREMENTS PER SECTION 111 AND 122 E.E.S.
- ALL H.V.A.C. EQUIPMENT AND APPLIANCES SHALL MEET THE REQUIREMENTS PER SECTIONS 111-113, 115, AND 120-129 E.E.S.
- SEE PLUMBING DRAWINGS FOR GAS PIPING, MAKE-UP WATER, DRAIN PRIMARY AND SECONDARY CONDENSATE PIPING, AND FINAL CONNECTIONS.
- NO RANGE HOOD VENTS, DRYER VENTS, COMBUSTION VENTS, OR HEATING DUCTS ARE PERMITTED IN AREA SEPARATION WALL.
- PROVIDE SEISMIC RESTRAINTS FOR ALL MECHANICAL SYSTEMS PER CODE.
- ALL PIPING AND DUCTWORK SHALL BE INSULATED CONSISTENT WITH THE REQUIREMENTS OF SECTIONS 118, 123, 124 OF THE TITLE 24 ENERGY STANDARDS AND TABLE 6-6A AND 6-6B OF C.M.C.
- INSULATION, ADHESIVES, VAPOR-BARRIER MATERIALS, AND OTHER ACCESSORIES SHALL BE NON-COMBUSTIBLE. THE MATERIALS SHALL HAVE U.L. FLAMESPREAD RATING NOT MORE THAN 25 AND A SMOKE DENSITY NO MORE THAN 50.
- EACH SYSTEM SUPPLYING AIR IN EXCESS OF 2,000 CFM SHALL BE EQUIPPED WITH AN AUTOMATIC SHUTOFF. AUTOMATIC SHUTOFF SHALL SHUT DOWN THE AIR-MOVING EQUIPMENT WHEN SMOKE IS DETECTED IN THE SUPPLY AIR. DETECTOR SHALL BE INSTALLED IN THE MAIN SUPPLY, AHEAD OF ANY SUPPLY BRANCHES. SPACES SERVED BY MULTIPLE AIR-MOVING SYSTEMS SHALL HAVE INTERLOCKED SMOKE DETECTORS, CONNECTED TOGETHER THROUGH A RELAY PANEL TO SHUTOFF ALL EQUIPMENT SERVING THE SPACE WHEN SMOKE IS DETECTED BY ANY SINGLE SMOKE DETECTOR.
- FIRE STOPPING SHALL BE PROVIDED WHERE PENETRATING ITEMS PASS ENTIRELY THROUGH BOTH PROTECTIVE MEMBRANES OF BEARING WALLS REQUIRED TO HAVE A FIRE-RESISTIVE RATING, AND WALLS REQUIRING PROTECTED OPENINGS. FIRE STOPPING SHALL ALSO BE PROVIDED AT PENETRATIONS OF FIRE RESISTIVE FLOORS, AND FLOORS WHICH ARE PART OF CEILING-FLOOR ASSEMBLY. FIRE STOPPING SHALL HAVE AN "F" OF "T" RATING AS DETERMINED BY TEST CONDUCTED IN ACCORDANCE WITH C.B.C. 2007 EDITION.
- OUTDOOR AIR SUPPLY AND EXHAUST EQUIPMENT SHALL BE INSTALLED WITH DAMPERS THAT AUTOMATICALLY CLOSE DURING PERIODS OF NON-USE OF THE AREAS SERVED BY THE EQUIPMENT.
- CERTIFICATE OF ACCEPTANCE (MECH-LA) AND ALL RELATED ACCEPTANCE DOCUMENTS SHALL BE SUBMITTED TO THE FIELD INSPECTOR DURING CONSTRUCTION. CERTIFICATE OF OCCUPANCY WILL NOT BE ISSUED UNTIL THESE FORMS ARE REVIEWS AND APPROVED.

**MECHANICAL LEGEND**

SYMBOL	ABBR.	DESCRIPTION
		DUCTWORK
		LINED DUCTWORK
		FLEXIBLE DUCTWORK
		SUPPLY DIFFUSER
		RETURN AIR REGISTER
		EXHAUST AIR GRILLE
		ACCESS DOORS, VERTICAL OR HORIZONTAL
		SUPPLY DUCT SECTION
		RETURN DUCT SECTION
		EXHAUST DUCT SECTION
		ROUND DUCT SECTION
	SR	SIDEWALL REGISTER
		LINEAR SLOT SUPPLY DIFFUSER
		LINEAR SLOT RETURN AIR (DUCTED AND NON-DUCTED)
	FC	FLEXIBLE CONNECTION
	TG	TRANSFER AIR GRILLE BOOT ASSEMBLY
	FD/SFD	FIRE DAMPER OR SMOKE / FIRE DAMPER (DIAGRAMMATIC)
	VD	VOLUME DAMPER (DIAGRAMMATIC)
	MD	MOTORIZED CONTROL DAMPER (DIAGRAMMATIC)
	MDFA	MOTORIZED DAMPER FIRE ALARM (DIAGRAMMATIC)
		RECTANGULAR DUCTWORK (DOUBLE LINE) FIRST NUMBER INDICATES SIDE SHOWN
		ROUND DUCTWORK (DOUBLE LINE)
		RECTANGULAR 90° ELBOW WITH AIR-OIL TURNING VANES
	DL	DOOR LOUVER (INDICATED FREE AREA)
	UC	UNDERCUT DOOR (INDICATED AFF CLEARANCE)
	P.O.C.	POINT OF CONNECTION
		SMOKE DETECTOR
		THERMOSTAT
		SENSOR
		CARBON MONOXIDE REMOTE SENSOR
		DIFFUSER / GRILLE CALLOUT
		CFM
	CHWS	CHILLED WATER SUPPLY
	CHWR	CHILLED WATER RETURN
	HHWS	HEATING HOT WATER SUPPLY
	HHWR	HEATING HOT WATER RETURN
	CWS	CONDENSER WATER SUPPLY
	CWR	CONDENSER WATER RETURN
		DIRECTION OF FLOW
		BUTTERFLY VALVE
		BALANCING VALVE (MEMORY VALVE)
		BALANCING VALVE (PLUG VALVE)
		BALL VALVE
		GLOBE VALVE
		REDUCER
		TEMPERATURE CONTROL VALVE
		AUTOMATIC / MOTORIZED VALVE
		PIPING ANCHOR
		CHECK VALVE
		CHECK VALVE - SPRING LOADED
		DOUBLE CHECK BACKFLOW PREVENTER
		STRAINER W/BLOWDOWN
		FLOW SENSOR
		BTU METER

OFFICE OF THE STATE ARCHITECT  
APPROVED FOR THE ARCHITECT  
Reviewed by: \_\_\_\_\_  
Bridgette Gordon, ASPE

APR 27 2016

Approval of this plan does not authorize or approve any construction or deviation from the approved plan. The approval is subject to field inspection. One set of approved plans shall be available on the project site at all times.

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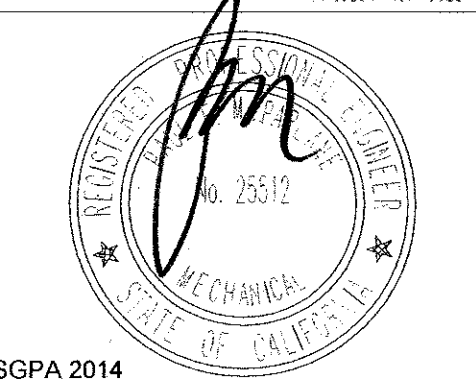
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**SOUTH CAMPUS PLAZA DESIGN-BUILD PARKING  
STRUCTURE**  
SAN DIEGO STATE UNIVERSITY

**SUBMITTAL SCHEDULE:**

50% PRELIM. DESIGN	05/14/2014
100% PRELIM. DESIGN	05/28/2014
50% CONST. DOCS.	07/02/2014
95% CONST. DOCS.	08/07/2014
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100% BACKCHECK SET 3	03/20/2015
SFM BACKCHECK SET	06/10/2015
ASI003	07/15/2015
ASI 07 - SFM RESUBMITTAL	07/29/2015
ASI 011 - SFM RESUBMITTAL 2	11/06/2015
SFM RESUBMITTAL	11/16/2015
ASI - SFM RESUBMITTAL #3	03/03/2016

**PROJECT NO:**

**MECHANICAL  
NOTES,  
LEGEND, AND  
SCHEDULES**

**M-001**



**PARKING STRUCTURE SPLIT SYSTEM - COOLING ONLY**

MARK	MANUFACTURER	MODEL NO.	LOCATION	AREA SERVED	CFM	MIN. O.A.	EXT. SP (IN. WC)	SPL #8(A)	ELECTRICAL				COOLING				OPER. WEIGHT (LBS.)	A-WGT dBA	REMARKS					
									FAN MOTOR ECM (FLA)	BLOWER ECM (FLA)	VOLT	PH.	CYCLE	MCA	MAX. FUSE	CAP. (MBH)				CAP. SENS.	ENT. DB (°F)	ENT. WB (°F)	AMB. (°F)	S.E.E.R.
FC P-1	DAIKIN	MSY-GE24NA	PARKING STRUCTURE	ELECTRICAL ROOM GROUND FLOOR	600	NR	-	49	-	0.76	24	-	1	-	-	97	69	95	19.0	45	49	1 2 3		
CU P-1	DAIKIN	MUY-GE24NA	PARKING STRUCTURE	FC P-1 GROUND FLOOR	-	-	-	55	0.93	-	208	1	60	17.1	20	22.5	18.5	97	69	95	19.0	150	55	4
FC P-2	DAIKIN	MSY-GE24NA	PARKING STRUCTURE	ELECTRICAL ROOM GROUND FLOOR	600	NR	-	49	-	0.76	24	-	1	-	-	97	69	95	19.0	45	49	1 2 3		
CU P-2	DAIKIN	MUY-GE24NA	PARKING STRUCTURE	FC P-2 GROUND FLOOR	-	-	-	55	0.93	-	208	1	60	17.1	20	22.5	18.5	97	69	95	19.0	150	55	4
FC P-3	DAIKIN	MSY-GE24NA	PARKING STRUCTURE	ELEVATOR EQUIPMENT ROOM ON ROOF	600	NR	-	49	-	0.76	24	-	1	-	-	97	69	95	19.0	45	49	1 2 3		
CU P-3	DAIKIN	MUY-GE24NA	PARKING STRUCTURE	FC P-3 ON ROOF	-	-	-	55	0.93	-	208	1	60	17.1	20	22.5	18.5	97	69	95	19.0	150	55	4

**NOTES:**

- 1 INDOOR UNIT POWER BY OUTDOOR UNIT.
- 2 PROVIDE WITH FACTORY CONDENSATE PUMP.
- 3 CONTROL THROUGH ROOM THERMOSTAT SET AT 75° (ADJ.).
- 4 LOW AMBIENT KIT PROVIDE SENSOR TO MONITOR UNIT THROUGH BMS.

**AUTOMATIC CONTROL VALVE SCHEDULE**

MARK	LOCATION	SERVICE	SIZE (INCHES)	FLOW (GPM)	CV	PD (FT. OF HEAD)	BODY TYPE	REMARKS
AV 1	CHILLER ROOM	CHILLER COND WATER	8	840	343.0	15.0	2-WAY	CW-1 ISOLATION VALVE PROVIDE 120V-1PH BY ELECTRICAL CONTRACTOR 1
AV 2	CHILLER ROOM	CHILLER COND WATER	8	840	343.0	15.0	2-WAY	CW-2 ISOLATION VALVE PROVIDE 120V-1PH BY ELECTRICAL CONTRACTOR 1
AV 3	CHILLER ROOM	CHILLER SUPPLY WATER	6	515	258.0	9.25	2-WAY	CH-1 ISOLATION VALVE PROVIDE 120V-1PH BY ELECTRICAL CONTRACTOR 1
AV 4	CHILLER ROOM	CHILLER SUPPLY WATER	6	515	258.0	9.25	2-WAY	CH-2 ISOLATION VALVE PROVIDE 120V-1PH BY ELECTRICAL CONTRACTOR 1
AV 5	CHILLER ROOM	CHW DECOUPLER	4	260	250.0	9.25	2-WAY	DC VALVE PROVIDE 120V-1PH BY ELECTRICAL CONTRACTOR
AV 6	ROOF	CT-1 CELL 1 CWS	8	840	343.0	15	2-WAY	CT CELL 1 SUPPLY VALVE, PROVIDE 120V-1PH BY ELECTRICAL CONTRACTOR
AV 7	ROOF	CT-1 CELL 1 CWR	8	840	343.0	15	2-WAY	CT CELL 1 RETURN VALVE, PROVIDE 120V-1PH BY ELECTRICAL CONTRACTOR
AV 8	ROOF	CT-1 CELL 2 CWS	8	840	343.0	15	2-WAY	CT CELL 2 SUPPLY VALVE, PROVIDE 120V-1PH BY ELECTRICAL CONTRACTOR
AV 9	ROOF	CT-1 CELL 2 CWR	8	840	343.0	15	2-WAY	CT CELL 2 RETURN VALVE, PROVIDE 120V-1PH BY ELECTRICAL CONTRACTOR
AV 10	ROOF	CT DECOUPLER	8	840	343.0	15	2-WAY	DC VALVE PROVIDE 120V-1PH BY ELECTRICAL CONTRACTOR.

**NOTES:**

- 1 BTU METER FOR CHILLED WATER AND HHW BY BMS CONTRACTOR.
- 2 MOTORIZED CONTROL VALVES AND FLOW METER DISPLAYS SHALL BE MOUNTED ACCESSIBLE FROM FLOOR LEVEL WITHOUT THE USE OF LADDERS.

**WATER COOLED CHILLER SCHEDULE**

MARK	MANUFACTURER	MODEL NO.	LOCATION	AREA SERVED	TYPE	CAP. (TONS)	CHILLED WATER				CONDENSER WATER				COMPRESSOR				MCA	MOCP AMP	OPER. WEIGHT (LBS.)	REFRIG. TYPE CLASS	FULL LOAD EFF. KW/T	IPLV KW/T	REMARKS
							ENT. (°F)	LVG. (°F)	GPM	MAX. HEAD (FT.)	ENT. (°F)	LVG. (°F)	GPM	MAX. HEAD (FT.)	MAX. KW INPUT	VOLT	PH.	CYCLE							
CH 1	DAIKIN	VMC290	PARKING STRUCTURE	CHILLED WATER	CENTR	291.2	56	42	514	14.8	82.0	91.25	900	15.8	84.5	460	3	60	295	400	13000	R-134A-A1	0.397	0.314	FACTORY INSTALLED STARTER, REFRIGERANT MONITORING TO INCLUDE AUDIO AND VISUAL ALARMS.
CH 2	DAIKIN	VMC290	PARKING STRUCTURE	CHILLED WATER	CENTR	291.2	56	42	514	14.8	82.0	91.25	900	15.8	84.5	460	3	60	295	400	13000	R-134A-A1	0.397	0.314	FACTORY INSTALLED STARTER, REFRIGERANT MONITORING TO INCLUDE AUDIO AND VISUAL ALARMS.

**COOLING TOWER SCHEDULE**

MARK	MANUFACTURER	MODEL NO.	LOCATION	SYSTEM SERVED	WATER				AIR WB (°F)	(2) FANS ELECTRICAL			OPER. WEIGHT (LBS.)	REMARKS	
					CAP. (TONS)	GPM	ENT. (°F)	LVG. (°F)		HP	VOLT	PH.			CYCLE
CT 1	MARLEY	MD5010PA	ROOF	CONDENSER WATER	600	1800	92	91.28	74	2X 15	460	3	60	20,000	SEE VFD SCHEDULE, PROVIDE STAINLESS STEEL CASING, GALVANIZED SERVICE PLATFORM

**HEATING HOT WATER BOILER SCHEDULE**

MARK	MANUFACTURER	MODEL NO.	LOCATION	SYSTEM SERVED	GPM	ENT. TEMP (°F)	LVG. TEMP (°F)	PD (FT.)	INPUT RATING (MBH)	OUTPUT RATING (MBH)	ELECTRICAL			OPER. WEIGHT (LBS.)	REMARKS
											VOLT	PH.	CYCLE		
B 1	RAYPAK	1802B	PARK. STRUCT	HEATING HOT WATER	105	150	180	10.8	1800	1512	120	1	60	1500	PROVIDE 115V, 3/4 HP, 10.8 AMPS, RECIRCULATION PUMP AND FLUE CONNECTION. NON-CONDENSING BOILER 84% EFF.
B 2	RAYPAK	1802B	PARK. STRUCT	HEATING HOT WATER	105	150	180	10.8	1800	1512	120	1	60	1500	PROVIDE 115V, 3/4 HP, 10.8 AMPS, RECIRCULATION PUMP AND FLUE CONNECTION. NON-CONDENSING BOILER 84% EFF.

**PUMP SCHEDULE**

MARK	MANUFACTURER	MODEL NO.	LOCATION	SYSTEM SERVED	IMPELLER SHAFT SLEEVE	TYPE	PUMP MOTOR				OPER. WEIGHT (LBS.)	REMARKS					
							GPM	HEAD FT. H2O	MIN. NPSH FT. H2O	MAX. RPM							
CHWP 1	BELL & GOSSETT	5GB1510	PARK. STRUCT	CHILLED WATER	B584-844 304 SS	CENTR.	1030	120	8.2	1800	50	34	460	3	60	1200	PROVIDE WITH END SUCTION DIFFUSER, SEE VFD SCHEDULE
CWP 1	BELL & GOSSETT	6E1510	PARK. STRUCT	CONDENSER WATER	B584-844 304 SS	CENTR.	1800	80	22.4	1800	50	38	460	3	60	1100	PROVIDE WITH END SUCTION DIFFUSER, SEE VFD SCHEDULE
HHWP 1	BELL & GOSSETT	2AD1510	PARK. STRUCT	HEATING HOT WATER	B584-844 304SS	CENTR.	210	120	8.3	1800	15	8.5	460	3	60	750	PROVIDE WITH END SUCTION DIFFUSER, SEE VFD SCHEDULE

**BLADDER TYPE EXPANSION TANK SCHEDULE**

MARK	MANUFACTURER	MODEL NO.	LOCATION	SYSTEM SERVED	SIZE (DIA. X LENGTH)	CAP. (GALS.)	PRESSURIZED	INLET SIZE (INCHES)	REMARKS
ET 1	BELL & GOSSETT	B-300	CHILLER ROOM (PARKING STRUCTURE)	CHILLED WATER	24"x54"	79.3	12 PSI	8	FLOOR MOUNTED SEPARATORS WITH SEISMIC HOLD DOWN LUGS.
ET 2	BELL & GOSSETT	B-200	BOILER ROOM (PARKING STRUCTURE)	HEATING HOT WATER	24"x40"	45	12 PSI	8	FLOOR MOUNTED SEPARATORS WITH SEISMIC HOLD DOWN LUGS.

**HEATING HOT WATER BUFFER/DECOUPLER TANK SCHEDULE**

MARK	MANUFACTURER	MODEL NO.	LOCATION	SYSTEM SERVED	SIZE (DIA. X LENGTH)	CAP. (GALS.)	REMARKS
BD 1	RAYPAK	115	BOILER ROOM (PARKING STRUCTURE)	HEATING HOT WATER	24"x63"	115	VERTICAL FLOOR MOUNTED WITH SEISMIC HOLD DOWN LUGS.

**AIR SEPARATOR SCHEDULE**

MARK	MANUFACTURER	MODEL NO.	SERVICE	GPM	INLET SIZE (INCHES)	DIMENSIONS (DIA. X HEIGHT) (INCHES)	OPER. WEIGHT (LBS.)	MAXIMUM P.D. (FT.)	STRAINER	REMARKS
AS 1	BELL & GOSSETT	R-8F	CHW	1030	8	20	550	10	STEEL MESH	-

**VARIABLE FREQUENCY DRIVE SCHEDULE**

MARK	MANUFACTURER	MODEL NO.	SERVICE	LOCATION	MOTOR HP	MOTOR VOLTAGE	MINIMUM AMP RATING	FREQUENCY RANGE, HZ	CONTROL COMMUNICATION	DISCONNECT	BYPASS	ENCLOSURE	OPER. WEIGHT (LBS.)	REMARKS
VFD 1	ABB	ACH 550	CHW PUMPS	CHILLER ROOM	50	460	157	0-70	LONWORKS	YES	NO	NEMA 1	30	-
VFD 2	ABB	ACH 550	CHW PUMPS	CHILLER ROOM	50	460	157	0-70	LONWORKS	YES	NO	NEMA 1	30	-
VFD 3	ABB	ACH 550	CHW PUMPS	CHILLER ROOM	50	460	157	0-70	LONWORKS	YES	NO	NEMA 1	30	-
VFD 4	ABB	ACH 550	CHW PUMPS	CHILLER ROOM	50	460	157	0-70	LONWORKS	YES	NO	NEMA 1	30	-
VFD 5	ABB	ACH 550	HHW PUMPS	BOILER ROOM	15	460	157	0-70	LONWORKS	YES	NO	NEMA 1	30	-
VFD 6	ABB	ACH 550	HHW PUMPS	BOILER ROOM	15	460	157	0-70	LONWORKS	YES	NO	NEMA 1	30	-
VFD 7	ABB	ACH 550	HHW PUMPS	BOILER ROOM	15	460	157	0-70	LONWORKS	YES	NO	NEMA 1	30	-
VFD 8	ABB	ACH 550	CT FANS	PARKING ROOF	15	460	157	0-70	LONWORKS	YES	NO	NEMA 3R	30	-
VFD 9	ABB	ACH 550	E-GEN FAN	PARKING ROOF	15	460	157	0-70	LONWORKS	YES	NO	NEMA 3R	30	-
VFD 10	ABB	ACH 550	EF-P-2	CHILLER ROOM REFRIGERATION	1 1/2	460	157	0-70	LONWORKS	YES	NO	NEMA 3R	30	-

**PARKING STRUCTURE EXHAUST FAN SCHEDULE**

MARK	MANUFACTURER	MODEL NO.	LOCATION	AREA SERVED	TYPE	CFM	SP (IN H2O)	FAN RPM	HP	ELECTRICAL			OPER. WEIGHT (LBS.)	A-WGT dBA	REMARKS	
										VOLT	PH.	CYCLE				
EF P-1	GREENHECK	SWB-340-150	PARKING ROOF	E-GENERATOR ROOM	UTILITY	23000	1.5	1725	15	460	3	60	YES	1800	75	1 3 5 7 9 10
EF P-2	GREENHECK	GB-180HP-15	PARKING ROOF	CHILLER ROOM REFRIGERANT VENTILATION	CENT	2550	1.5	1360	1 1/2	460	3	60	YES	150	67	2 4 5 6 8 9
EF P-3	ENERVEX	RSV-315	PARKING ROOF	BOILER FLUE	CENT	1500	0.5	1600	5.8	120	1	60	NO	-	40	2 11

**EXHAUST EXHAUST FAN NOTES**

- 1 PROVIDE WITH INLET GUARD
- 2 MOUNTED ON CONCRETE CURB BY OTHERS
- 3 PROVIDE MOTOR GUARD
- 4 PROVIDE BACKDRAFT DAMPER
- 5 SEE VFD SCHEDULE
- 6 FAN TO BE CONTROLLED THROUGH ROOM THERMOSTAT SET AT 78°F (ADJ.) & INTERLOCKED WITH REFRIGERANT LEAK ALARM TO OPERATE BY EITHER INPUT
- 7 PROVIDE DRAIN PLUG
- 8 FAN IS PROVIDED WITH VFD AND SHALL BE CONSTANTLY OPERATED @ 1850 CFM. IN THE CASE CHILLER REFRIGERANT LEAK VFD SHALL BE SPEED UP TO 2550 CFM FOR ROOM PURGE PER 2010 CMC, CHAPTER II, SECTION 1109.2
- 9 EMERGENCY POWER
- 10 CONTROLS CONTRACTOR TO PROVIDE FAN INTERLOCK WITH E-GEN FOR SIMULTANEOUS OPERATION AT MAX. CONDITION. FAN TO OPERATE AT MIN. SETTING OF 1350 CFM CONTINUOUSLY.
- 11 INTERLOCK WITH BOILER AND OPERATED THROUGH VFD BASE ON BOILER DEMAND

**GENERAL NOTE:**

- 1. ALL EQUIPMENT SHALL BE THE BASIS OF FINAL SELECTION.

APR 27 2016  
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 REVIEWED BY: [Signature]

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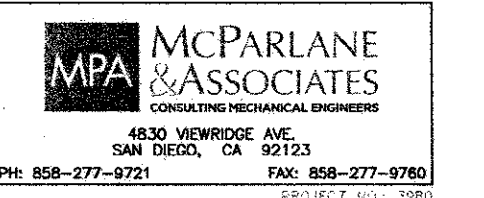
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AS1003	07/15/2015
AS107 - SFM RESUBMITTAL	07/29/2015
AS1011 - SFM RESUBMITTAL 2	11/06/2015
SFM RESUBMITTAL	11/16/2015
SFM RESUBMITTAL #3	03/03/2016

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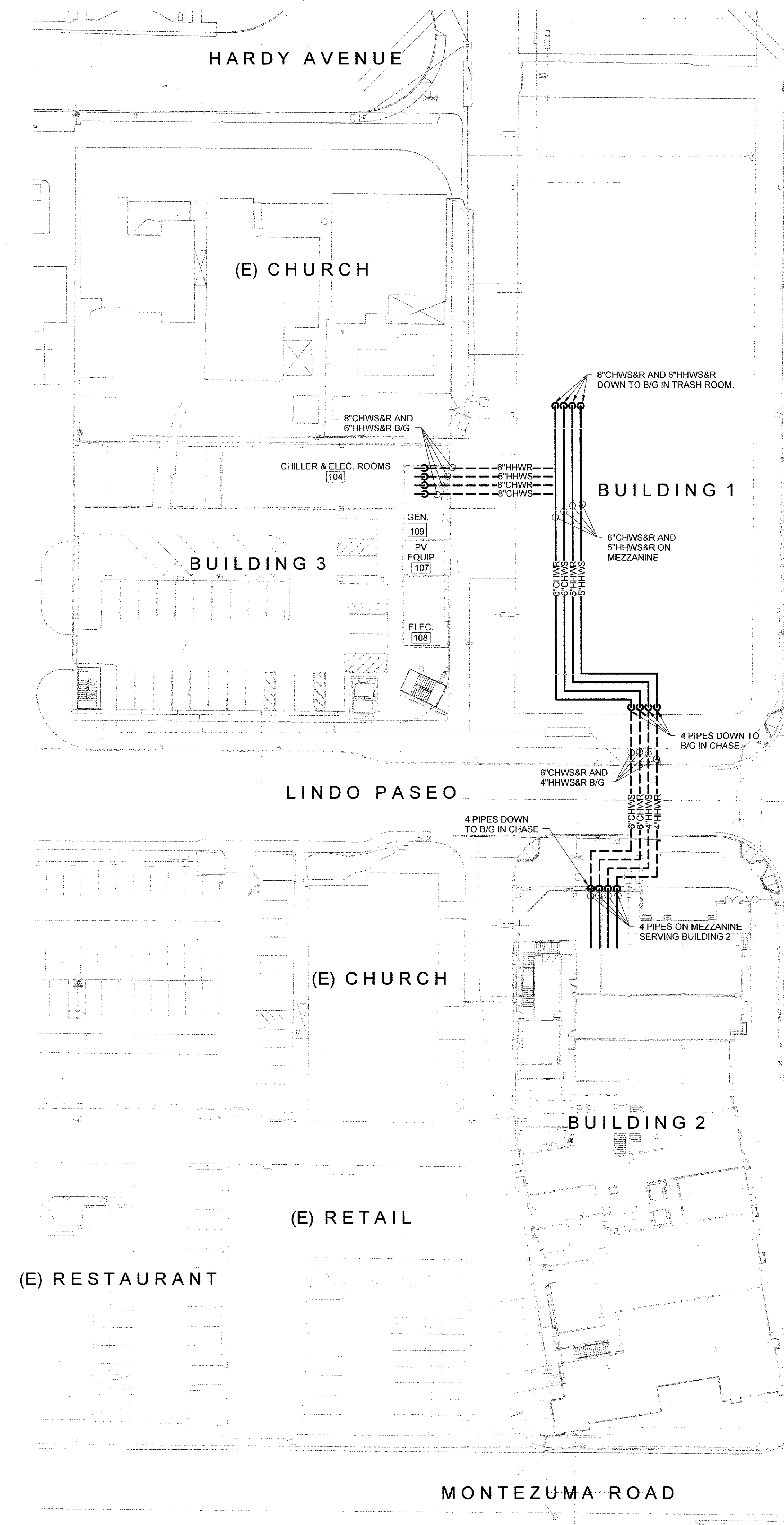


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SAN DIEGO STATE UNIVERSITY



**MECHANICAL SITE PLAN** 1/32" = 1'-0" ①



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Reviewed by: *[Signature]*  
Brady C. Borch, DSFM

APR 27 2016

Approval of this plan does not authorize or approve any omission or deviation from applicable regulations. Final approval is subject to field inspection. One set of approved plans shall be available on the project site at all times.

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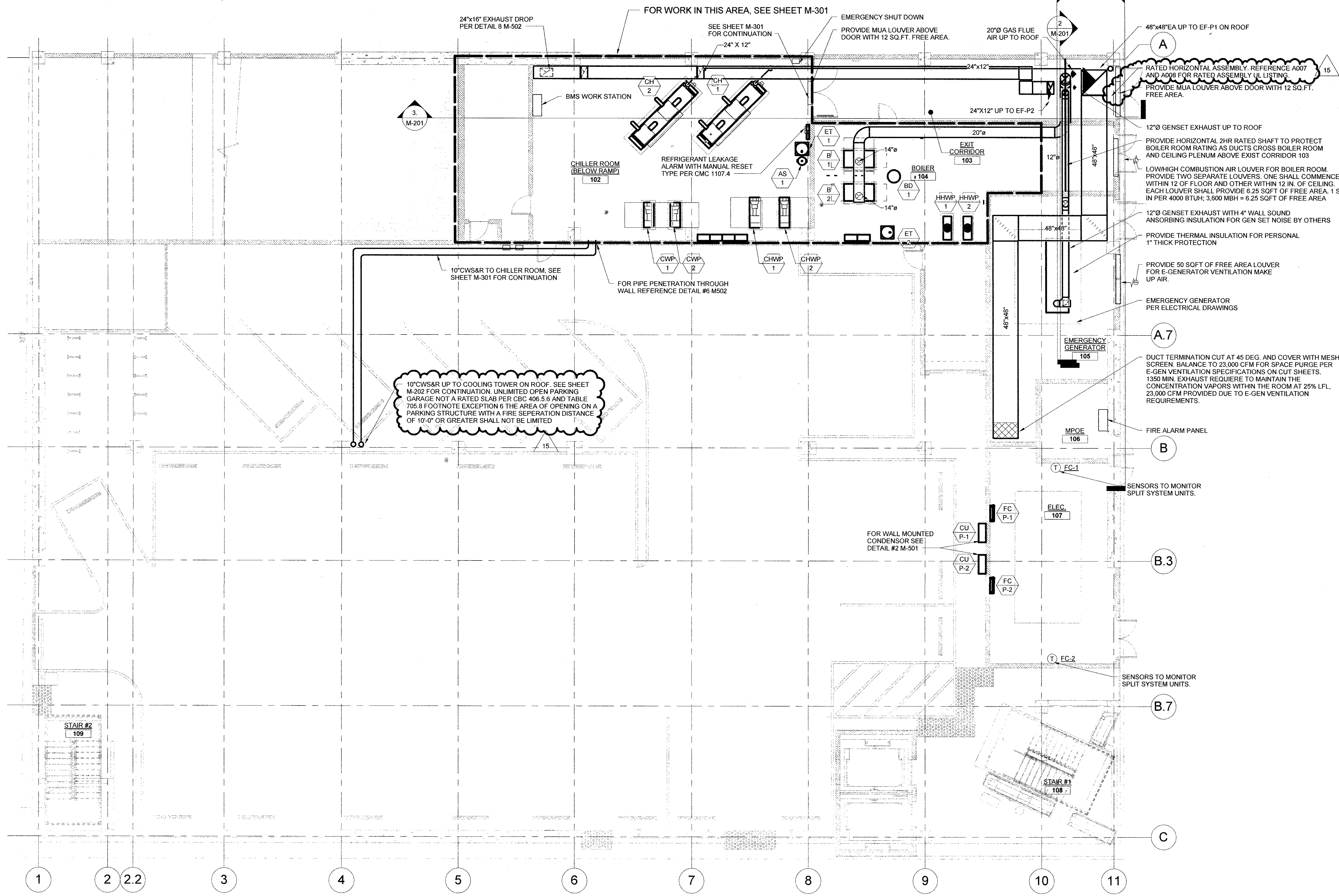
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ASI 011- SFM RESUBMITTAL 2	11/06/2015
SFM RESUBMITTAL	11/16/2015
15 SFM RESUBMITTAL #3	03/03/2016

PROJECT NO:

**MECHANICAL  
SITE PLAN**

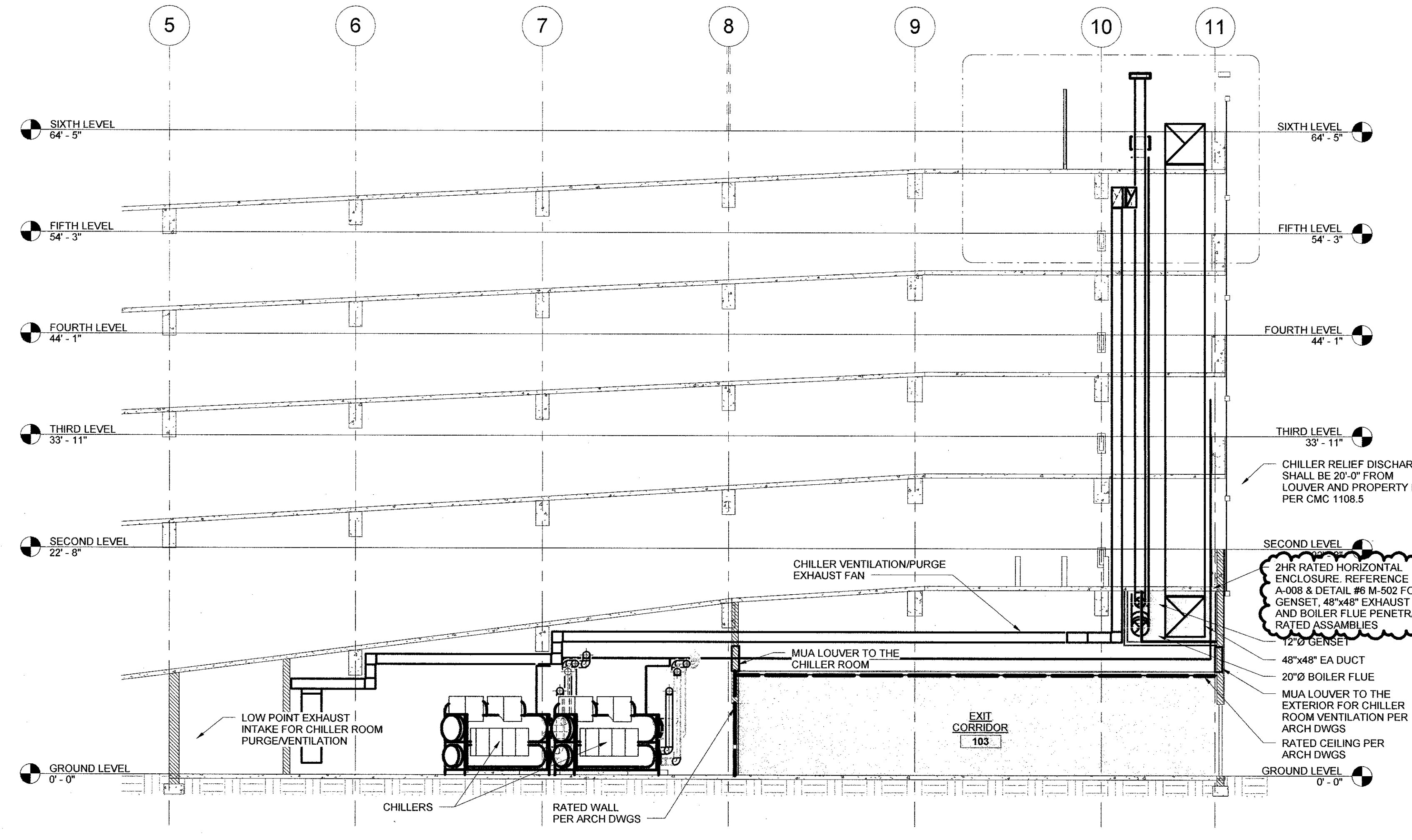
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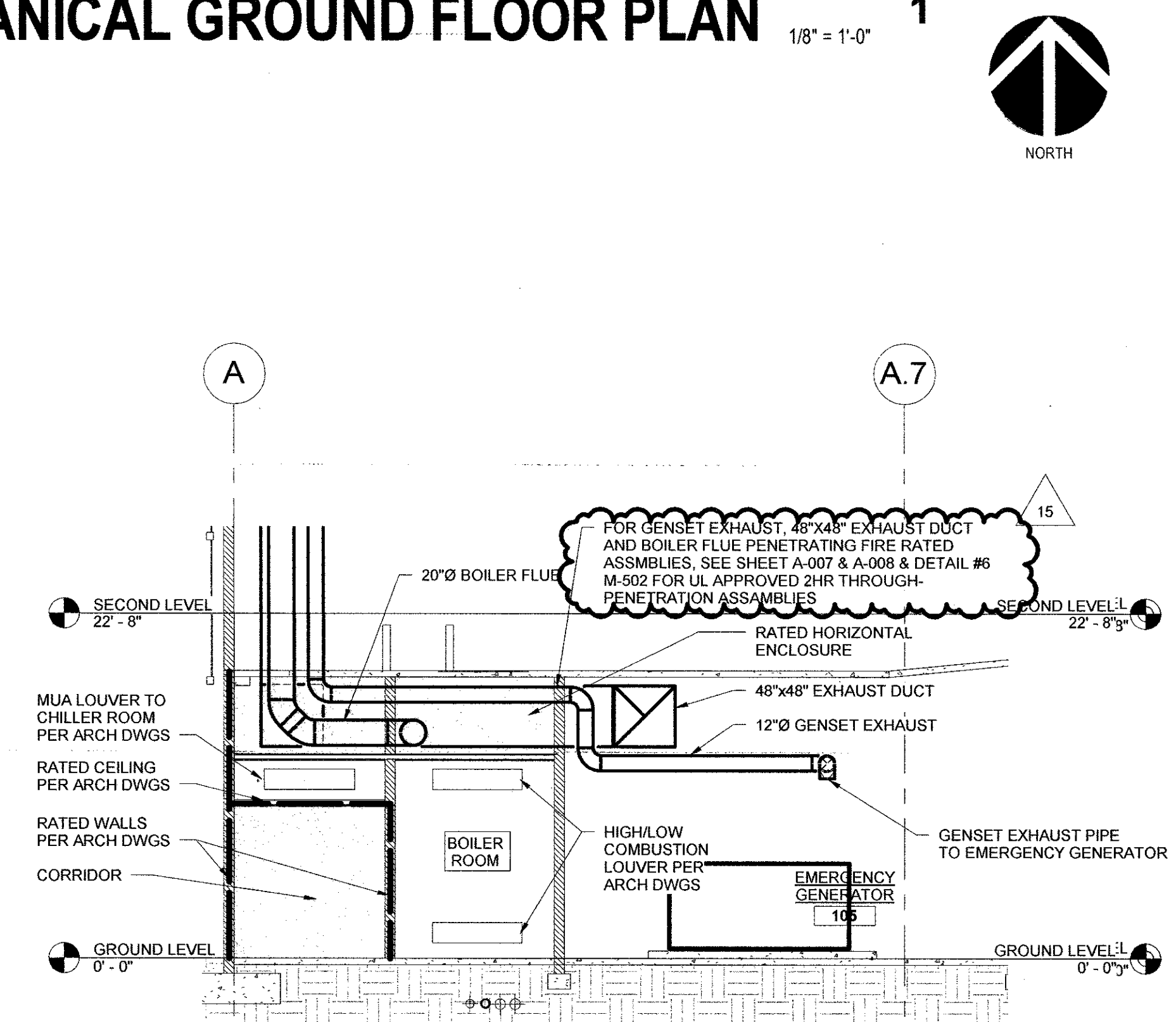


10" CWS&R UP TO COOLING TOWER ON ROOF. SEE SHEET M-202 FOR CONTINUATION. UNLIMITED OPEN PARKING GARAGE NOT A RATED SLAB PER CBC 408.5.6 AND TABLE 705.8 FOOTNOTE EXCEPTION 6 THE AREA OF OPENING ON A PARKING STRUCTURE WITH A FIRE SEPARATION DISTANCE OF 10'-0" OR GREATER SHALL NOT BE LIMITED.

**MECHANICAL GROUND FLOOR PLAN** 1/8" = 1'-0" 1



3. Section - 1  
1/8" = 1'-0"



2. Section - 2  
1/8" = 1'-0"

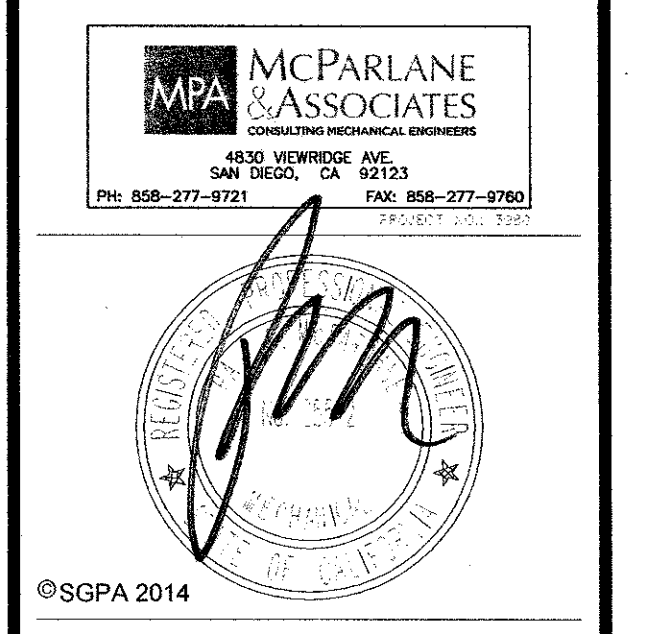
OFFICE OF THE STATE FIRE MARSHAL  
APPROVED FIRE AND SMOKE ONLY  
Reviewed by: *Bradley Goodson, DSFM*

APR 27 2016

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APPL # 04-14204  
AC \_\_\_\_\_ DATE: \_\_\_\_\_



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SAN DIEGO, CA

**SOUTH CAMPUS PLAZA DESIGN-BUILD PARKING STRUCTURE**  
SAN DIEGO STATE UNIVERSITY

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ASI 011- SFM RESUBMITTAL 1	11/06/2015
SFM RESUBMITTAL 2	11/16/2015
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**MECHANICAL GROUND FLOOR PLAN**

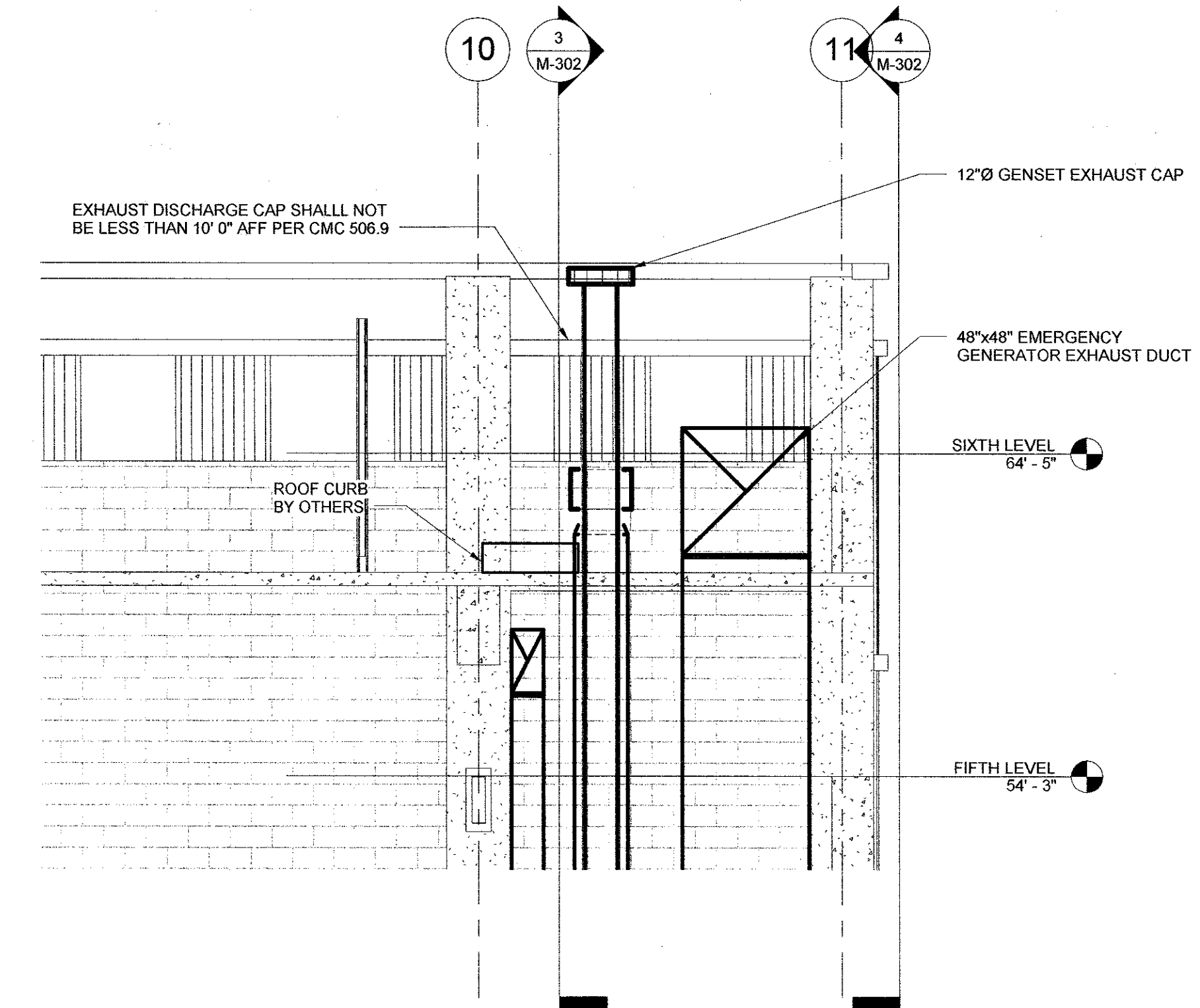
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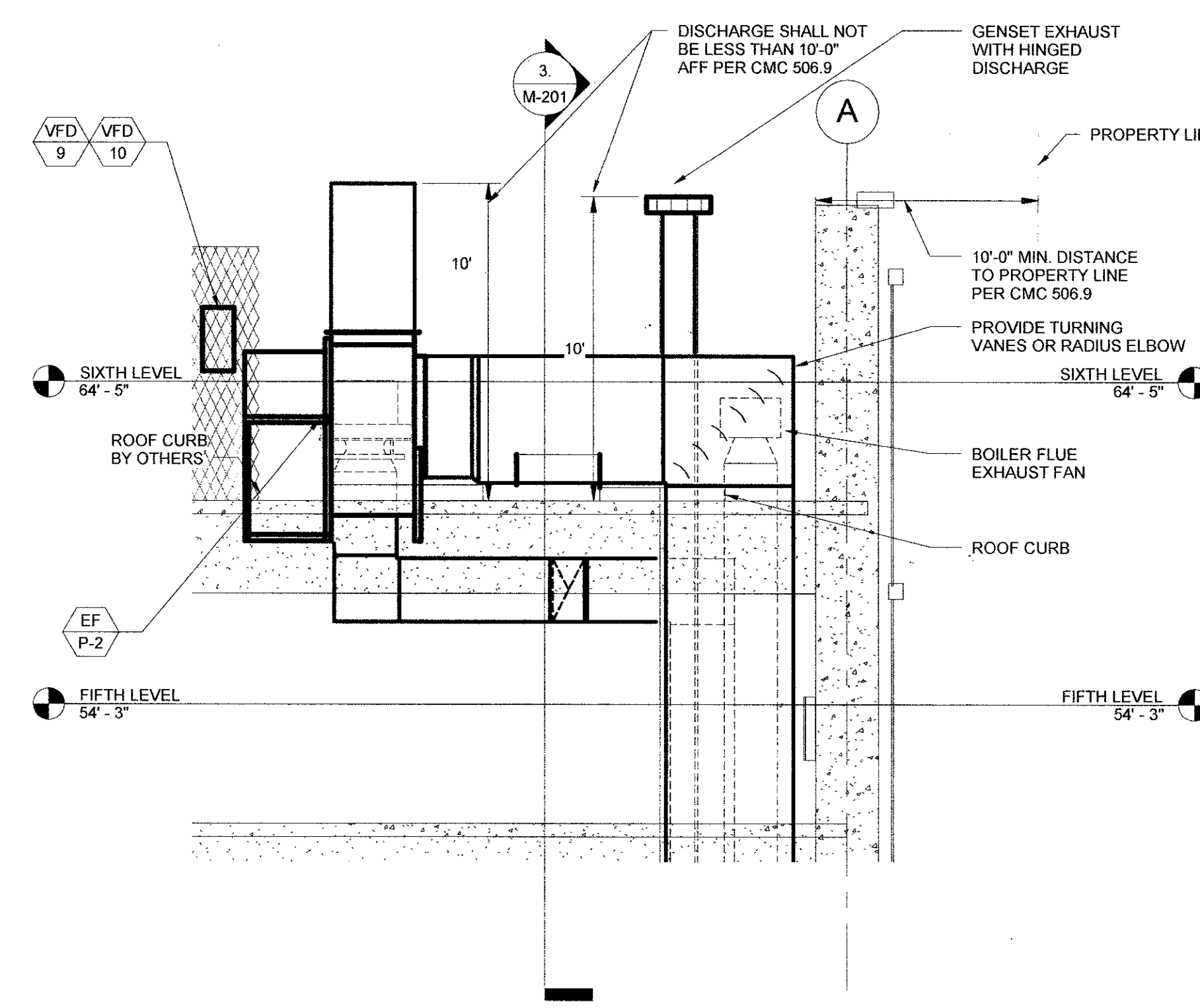
**SUBMITTAL SCHEDULE:**

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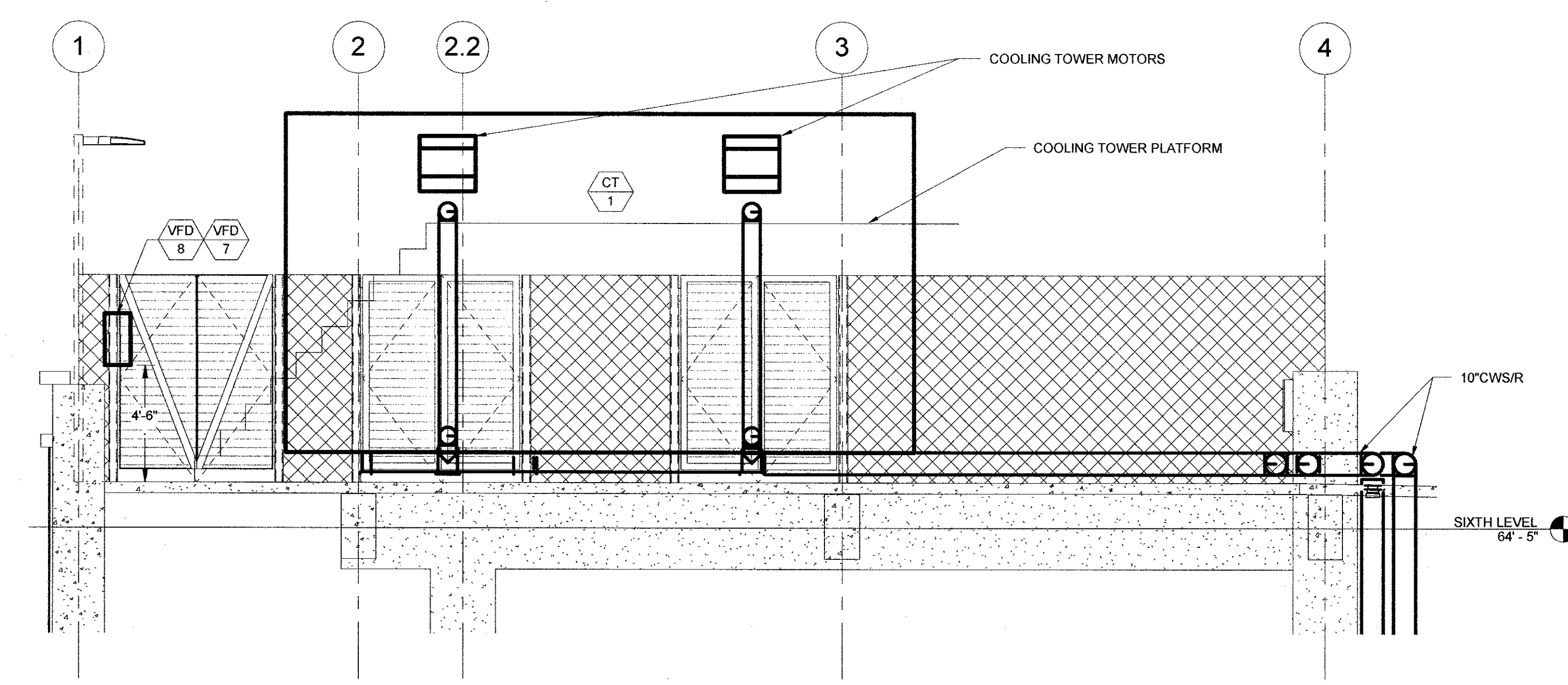
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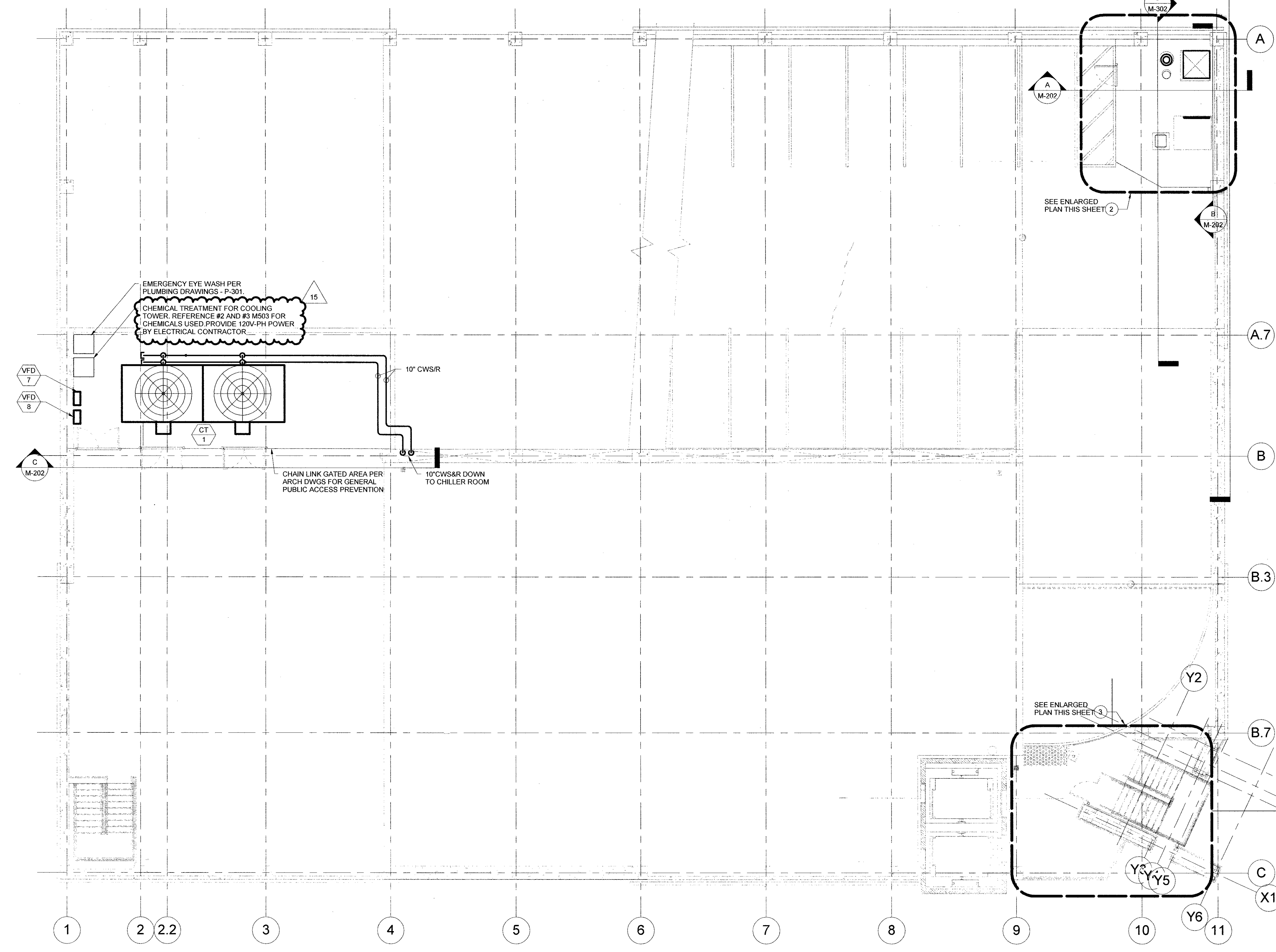
**A SECTION A**  
 1/4" = 1'-0"



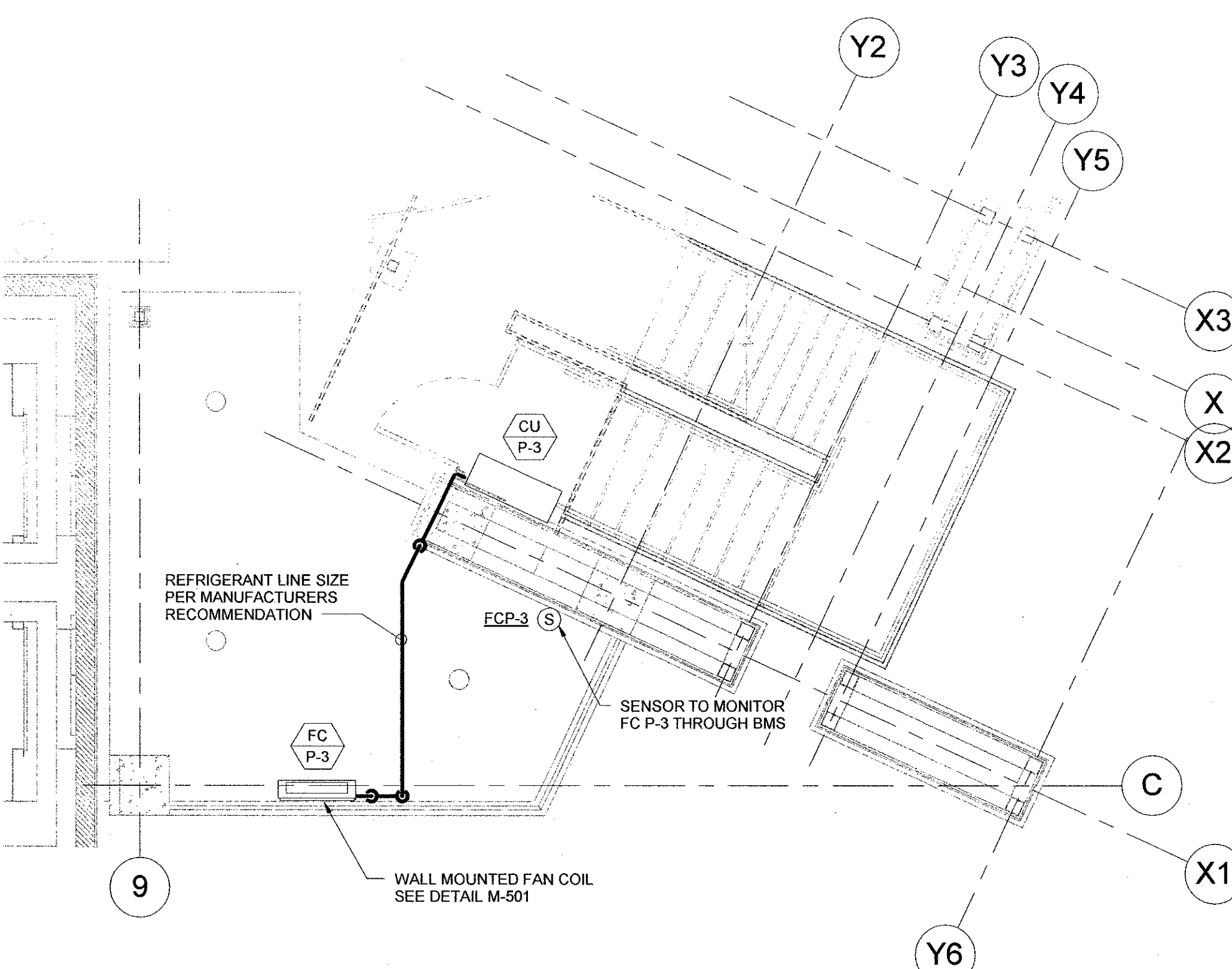
**B SECTION B**  
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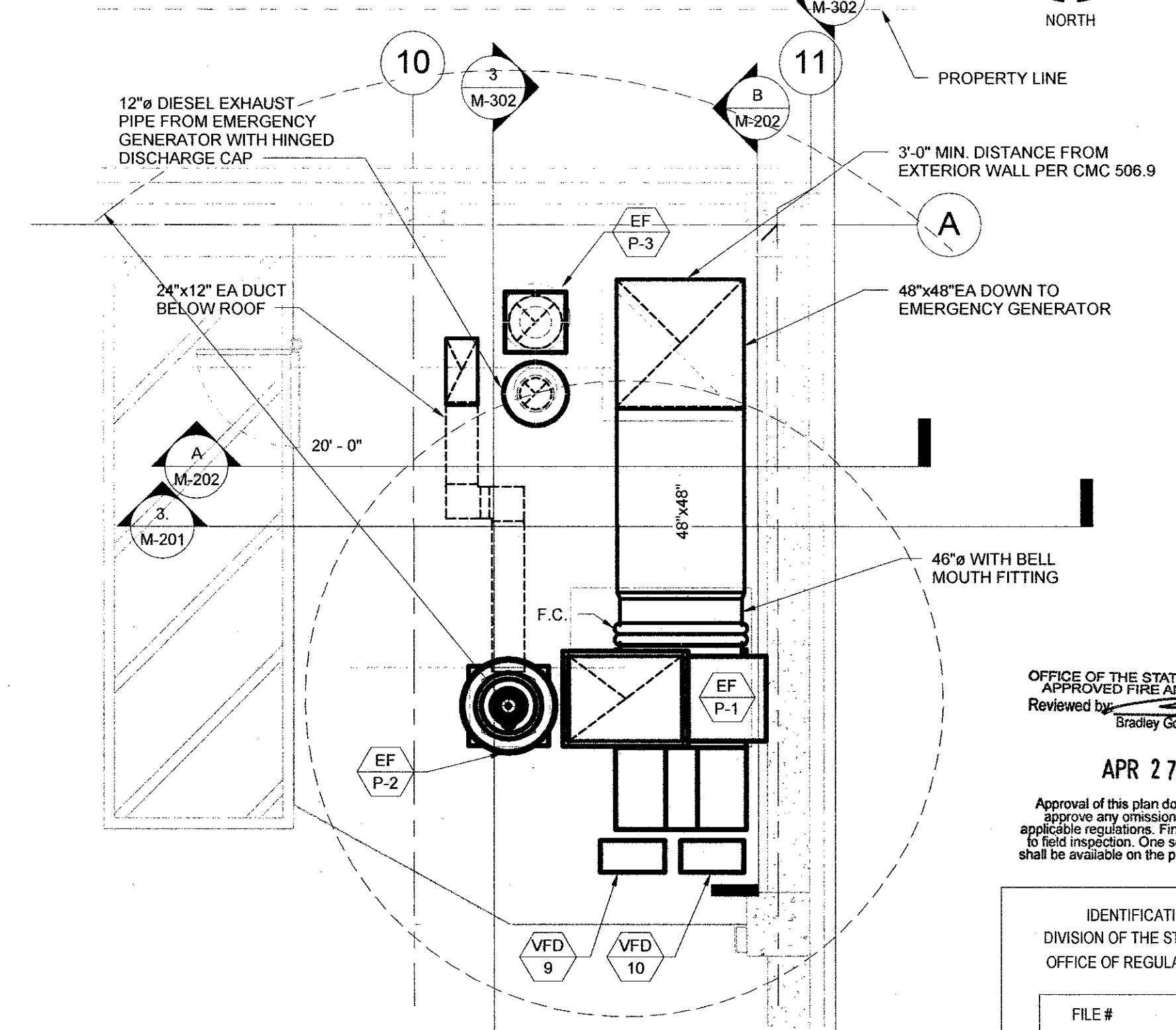
**C SECTION C**  
 1/4" = 1'-0"



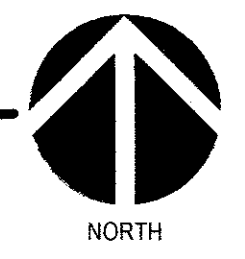
**1 MECHANICAL ROOF PLAN**  
 1/8" = 1'-0"



**3 ENLARGED MECHANICAL PLAN - ROOF**  
 1/4" = 1'-0"



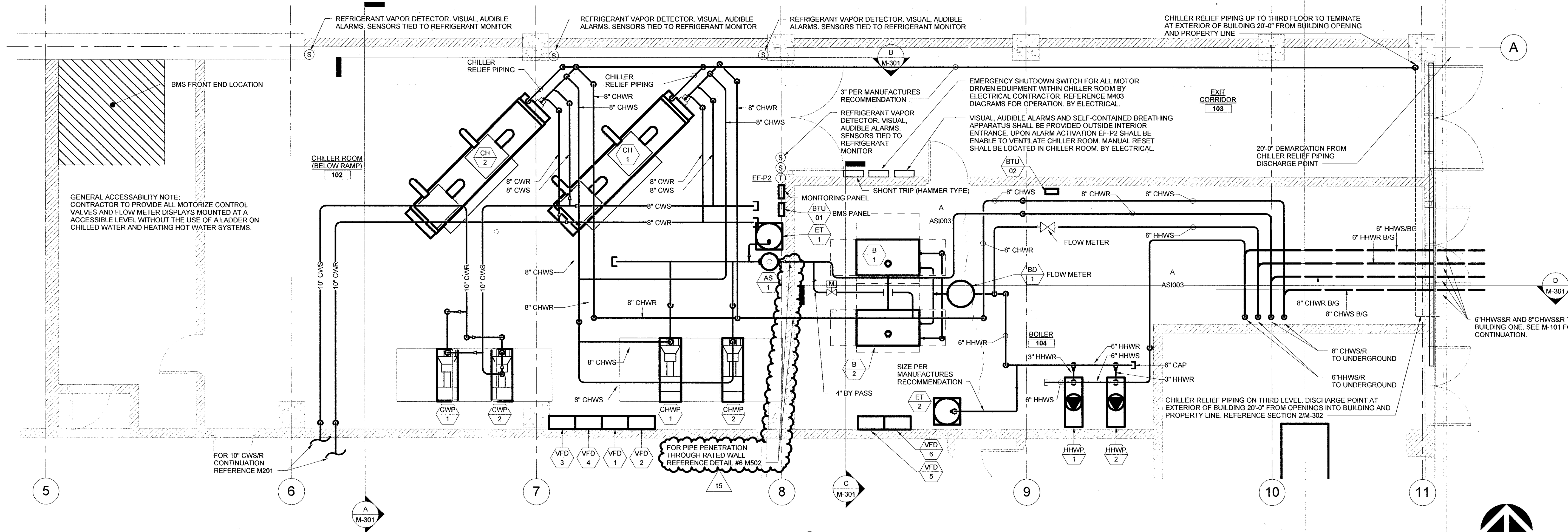
**2 ENLARGED MECHANICAL PLAN - ROOF**  
 1/4" = 1'-0"



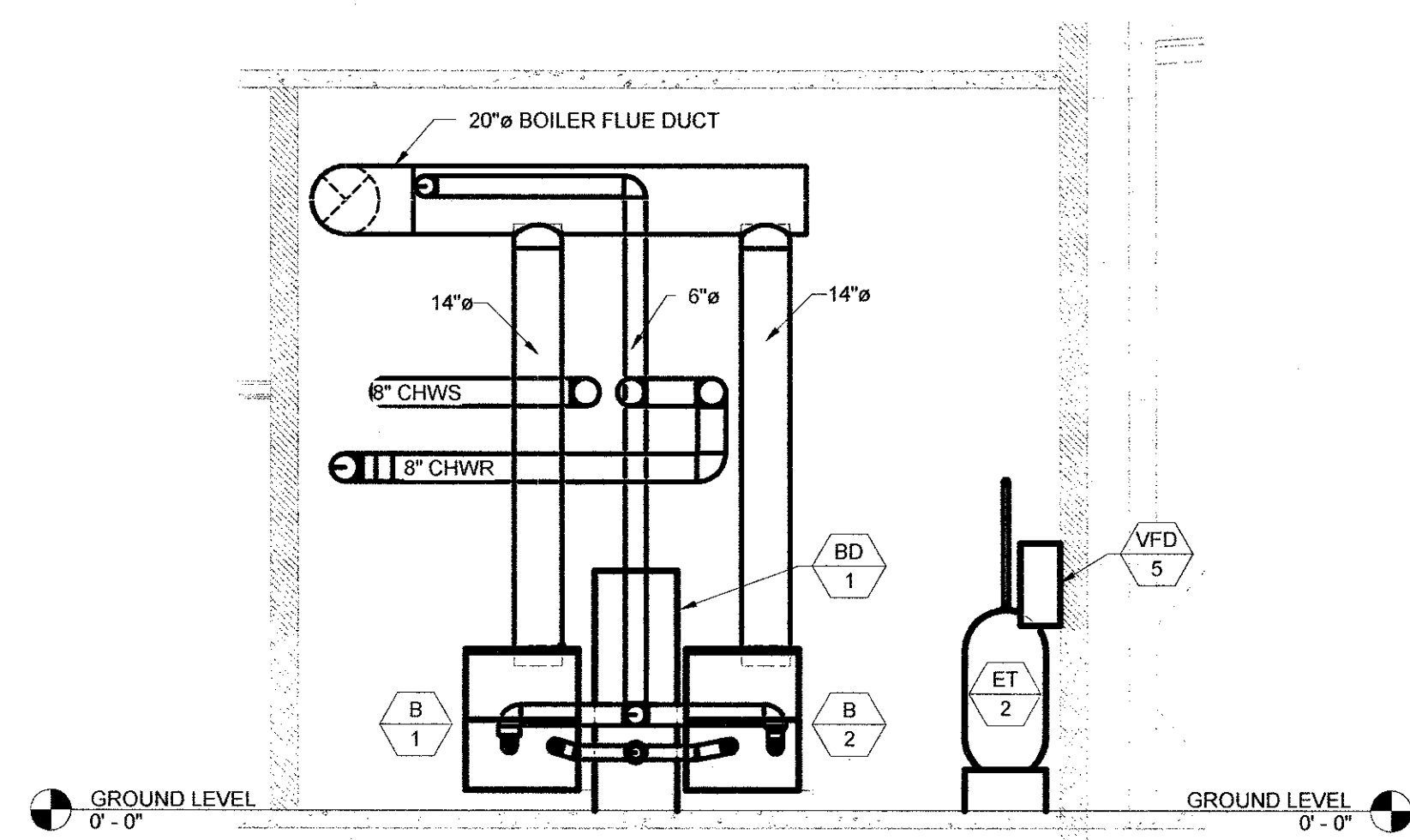
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 APPROVED FOR INSTALLATION  
 Reviewed by: [Signature]  
**APR 27 2016**  
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 APPL # 04-14204  
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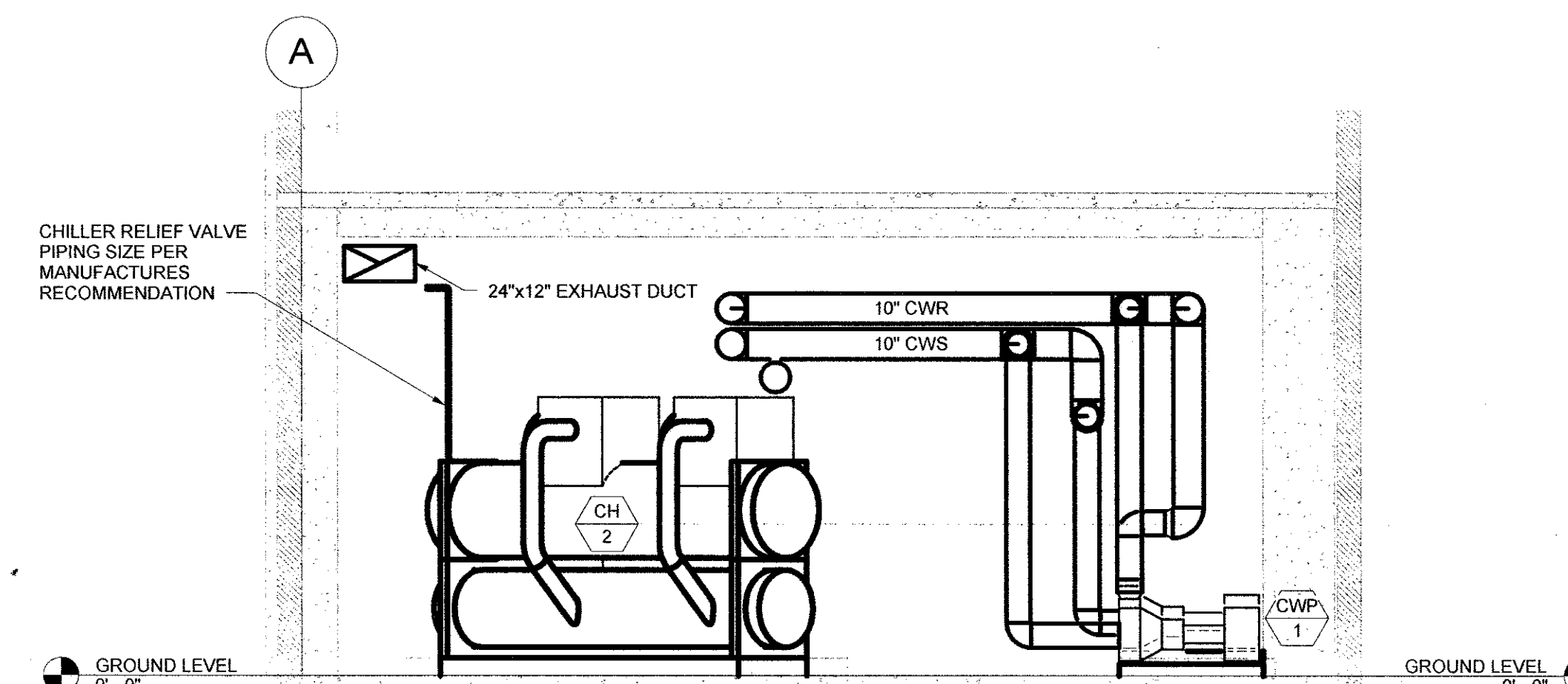




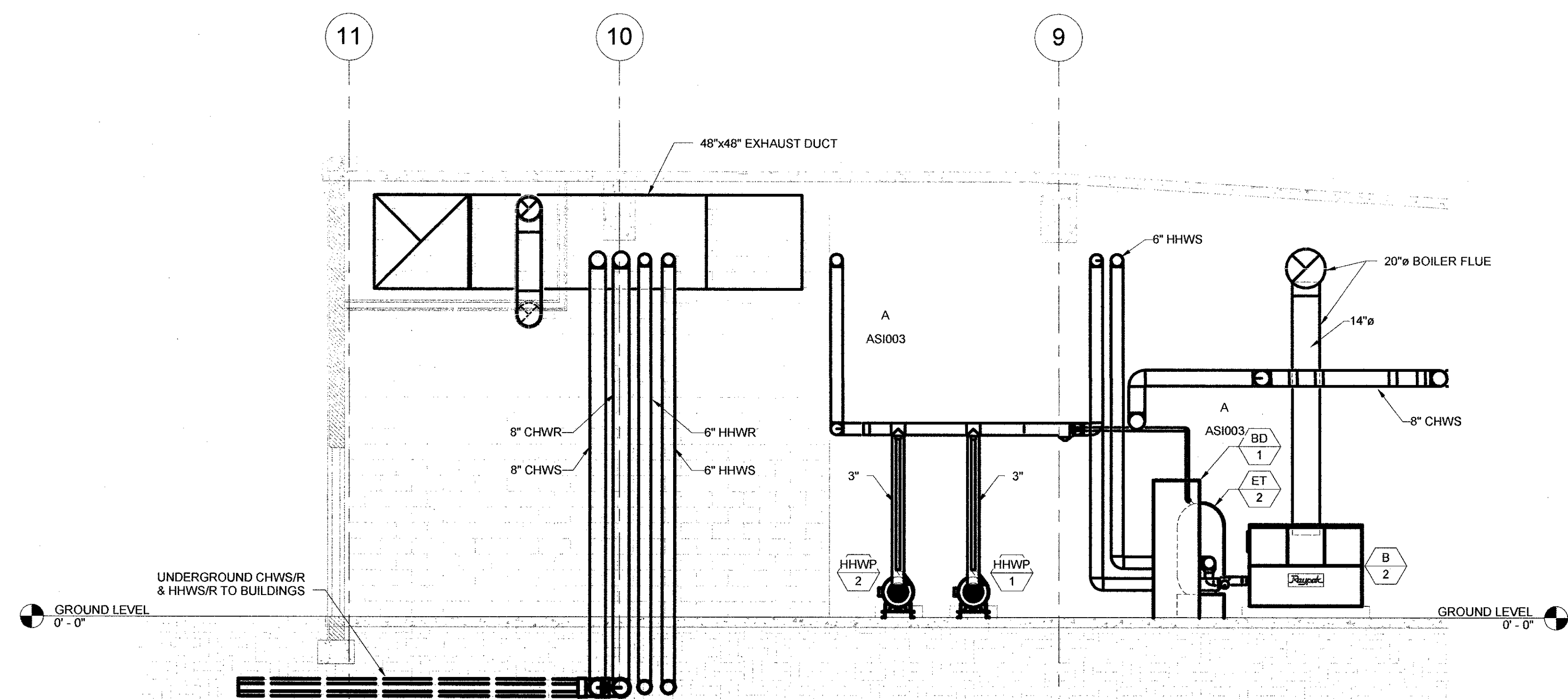
**MECHANICAL ENLARGED CHILLER AND BOILER ROOM PLAN** 1/4" = 1'-0" ①



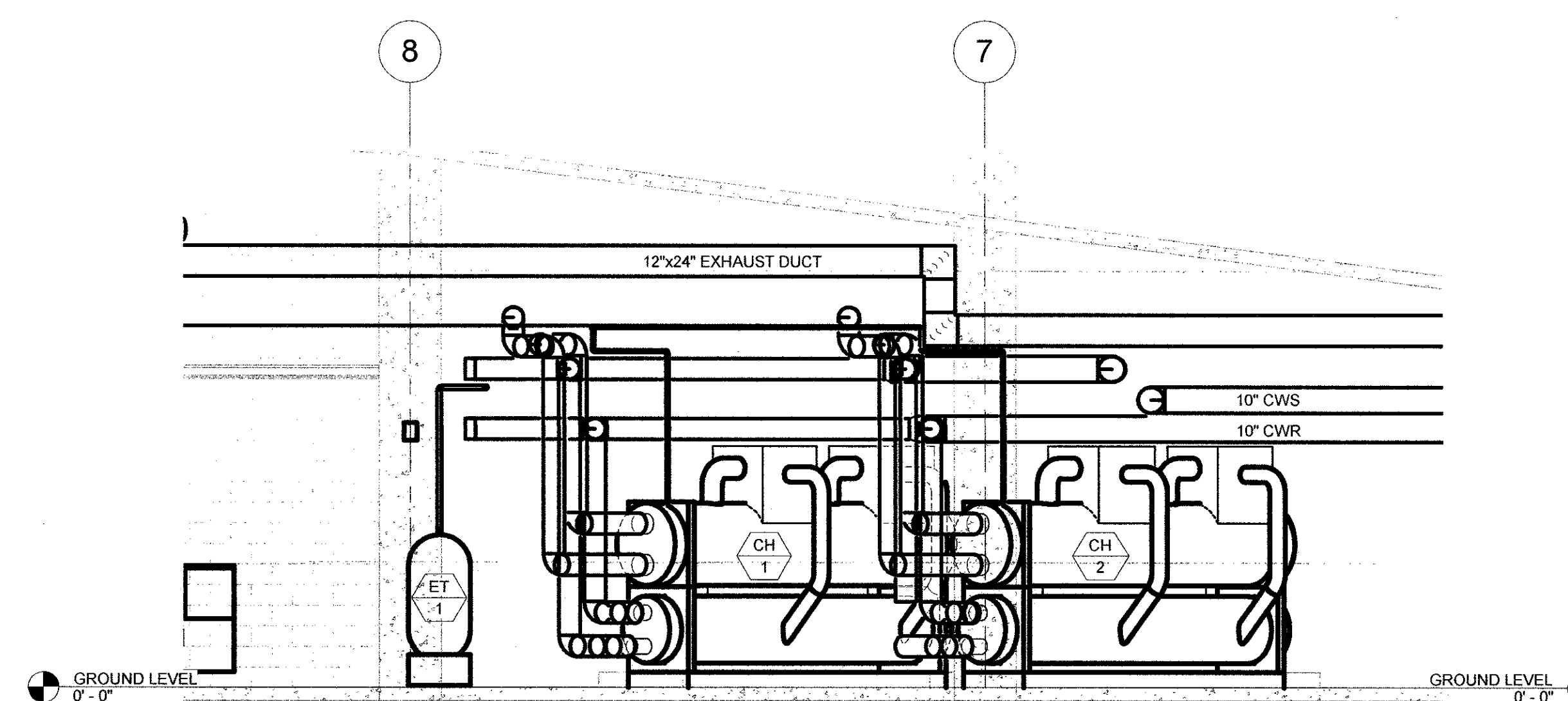
**SECTION - C**  
1/4" = 1'-0"



**SECTION - A**  
1/4" = 1'-0"



**SECTION - D**  
1/4" = 1'-0"



**SECTION - B**  
1/4" = 1'-0"

OFFICE OF THE STATE FIRE MARSHAL  
APPROVED FIRE ANALYSIS ONLY  
Reviewed by: *Bradley Goorch, DSFM*

APR 27 2016

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AC DATE:

University Mechanical & Engineering Contractors  
An EMCOR Company

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PROJECT NO:

**MECHANICAL ENLARGED CHILLER AND BOILER ROOM PLAN**  
**M-301**



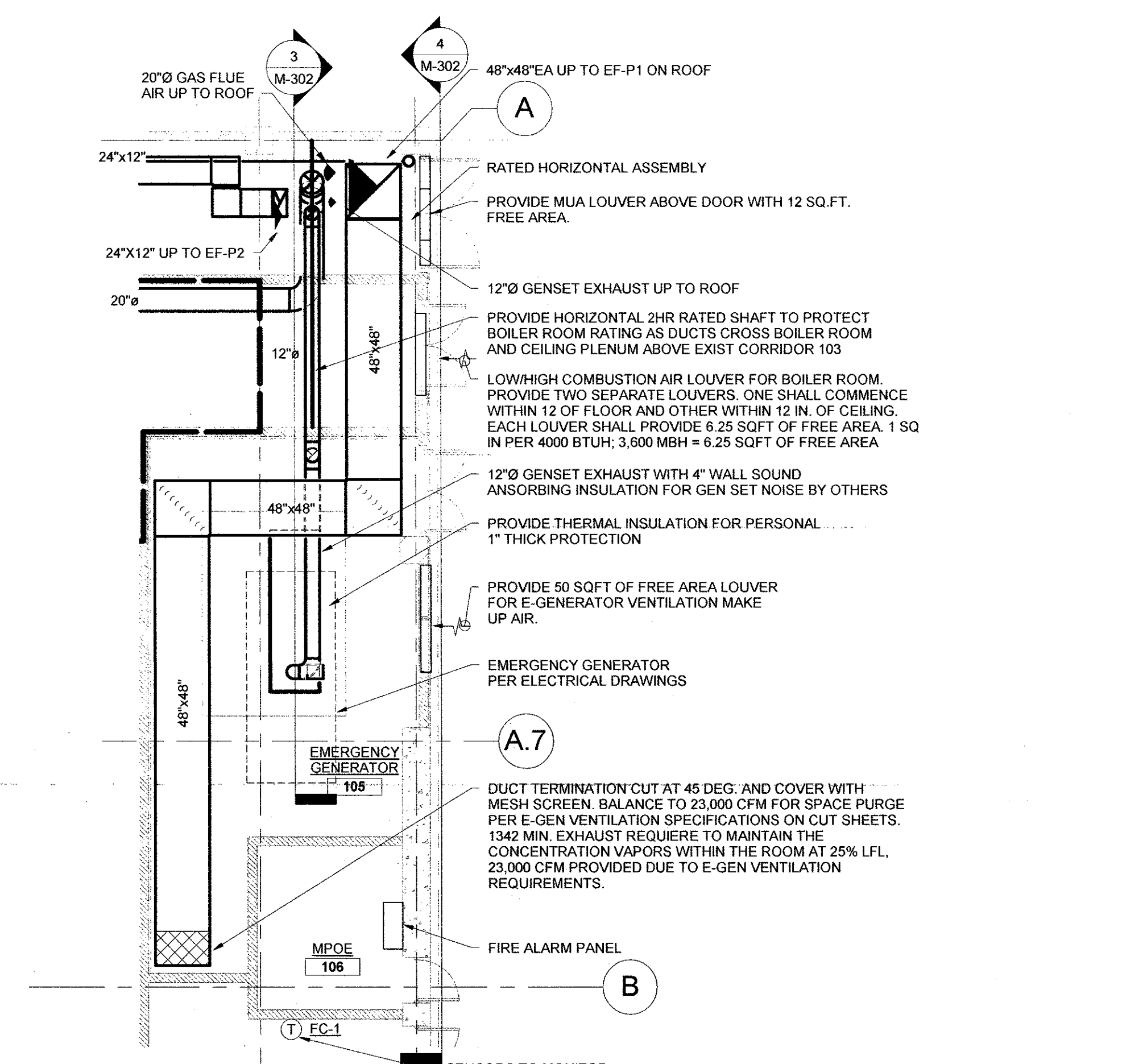
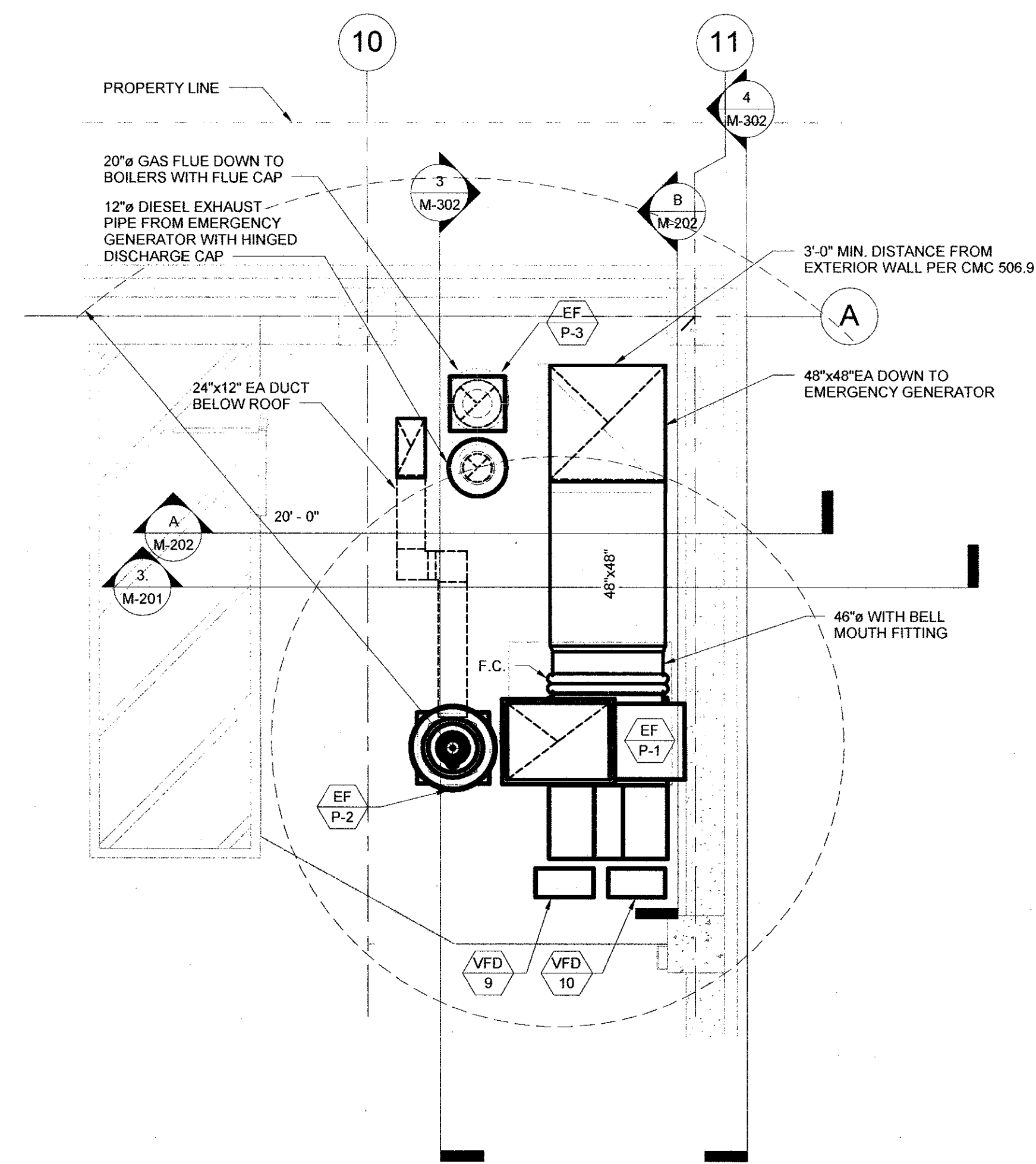
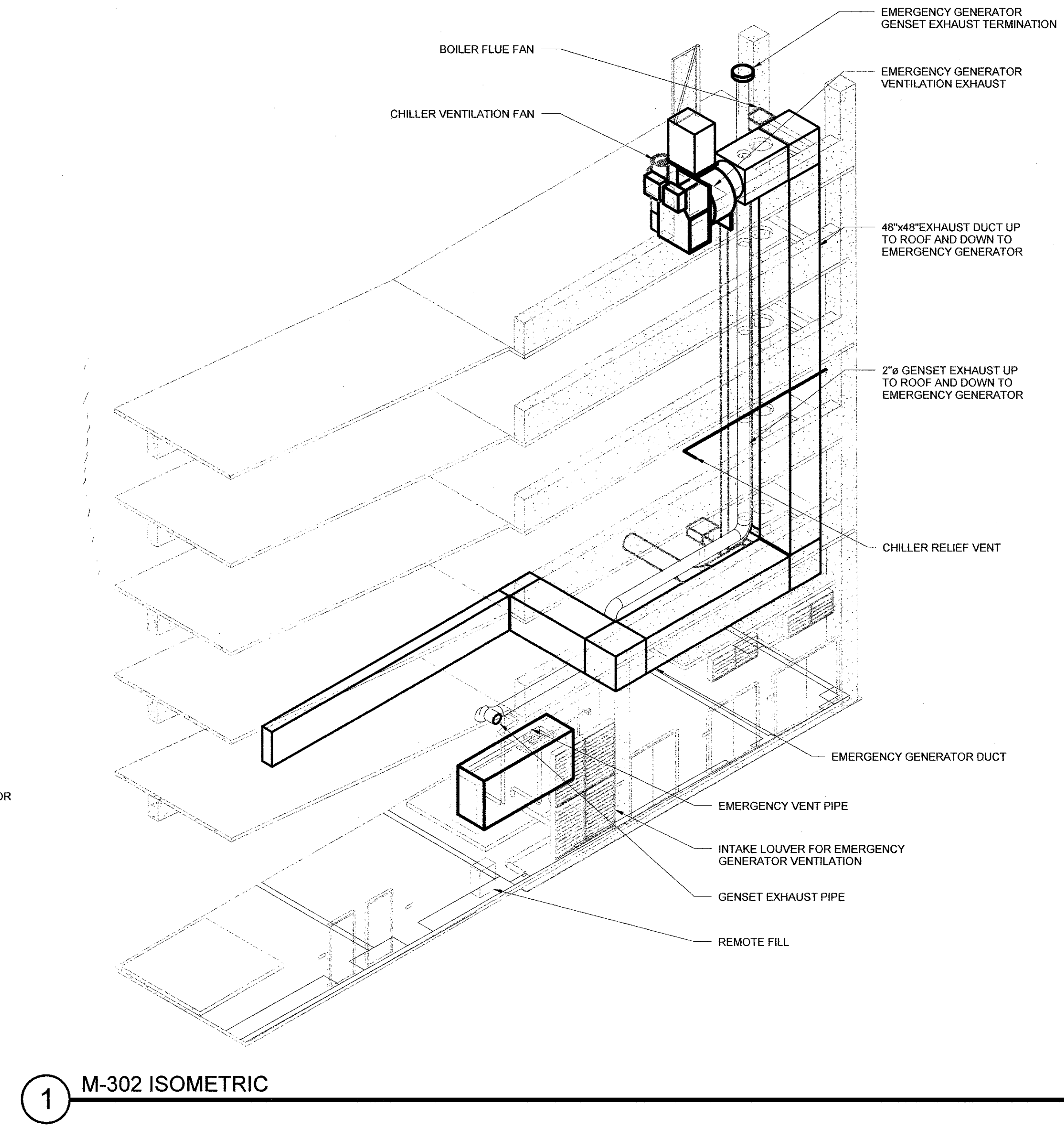
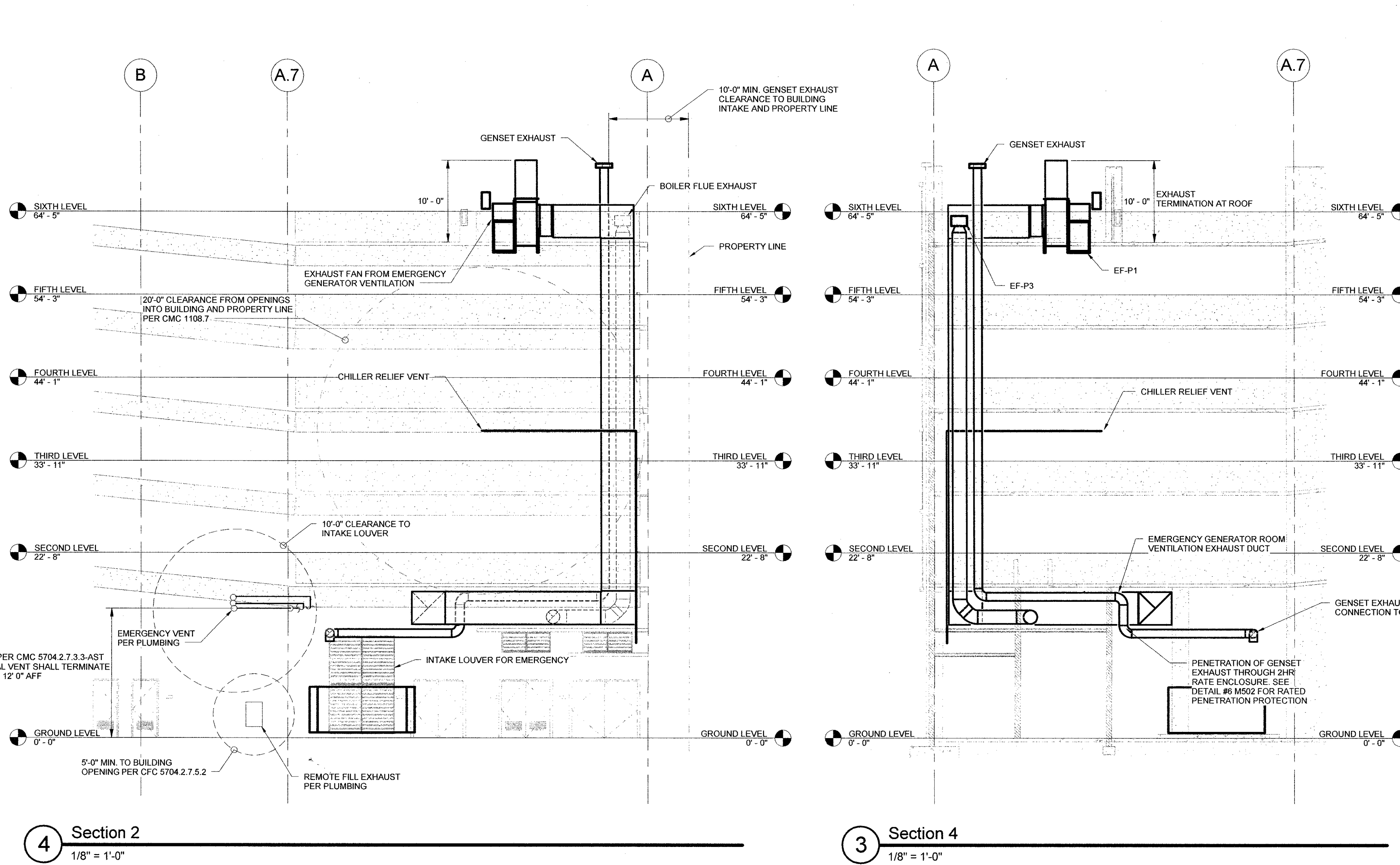
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SFM RESUBMITTAL	11/10/2015
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PROJECT NO: 15

**MECHANICAL EMERGENCY GENERATOR SYSTEM**

**M-302**



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Reviewed by: Stanley Goodson, USM

APR 27 2016

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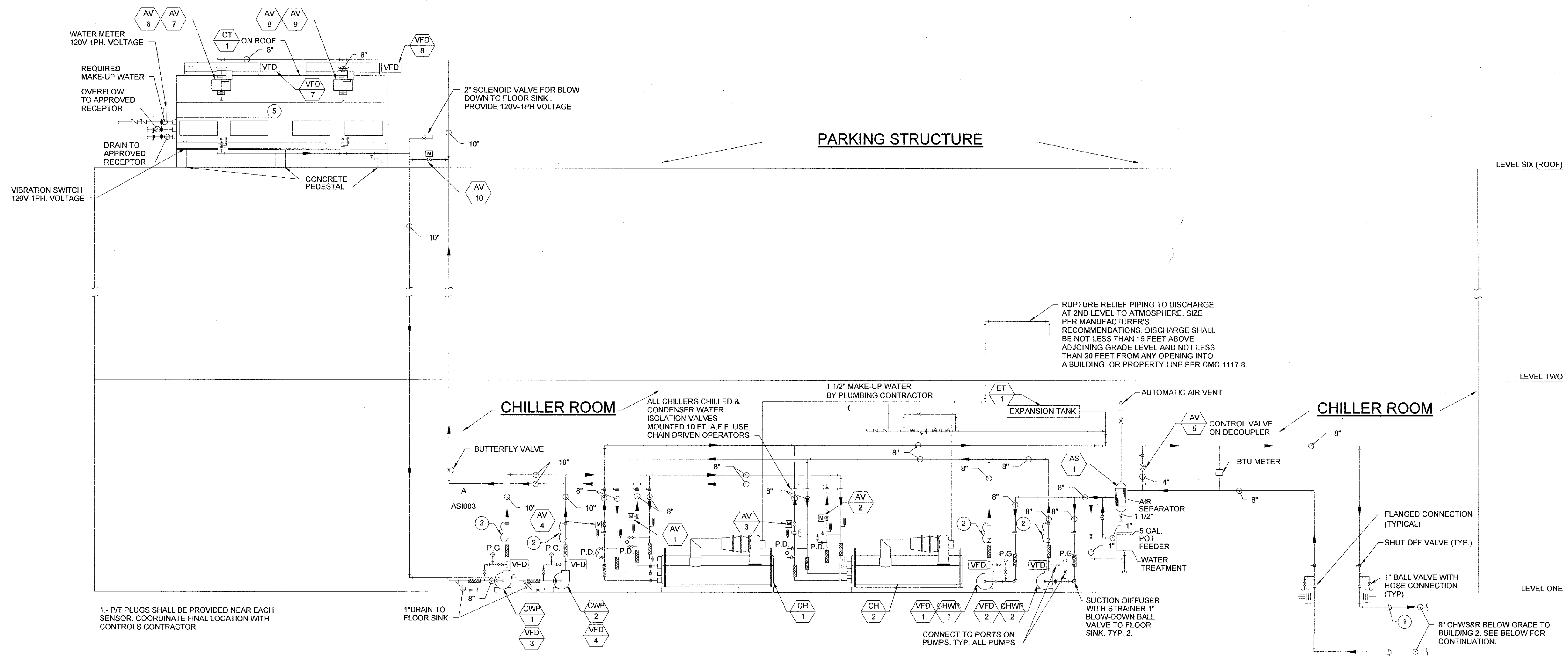
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SAN DIEGO, CA

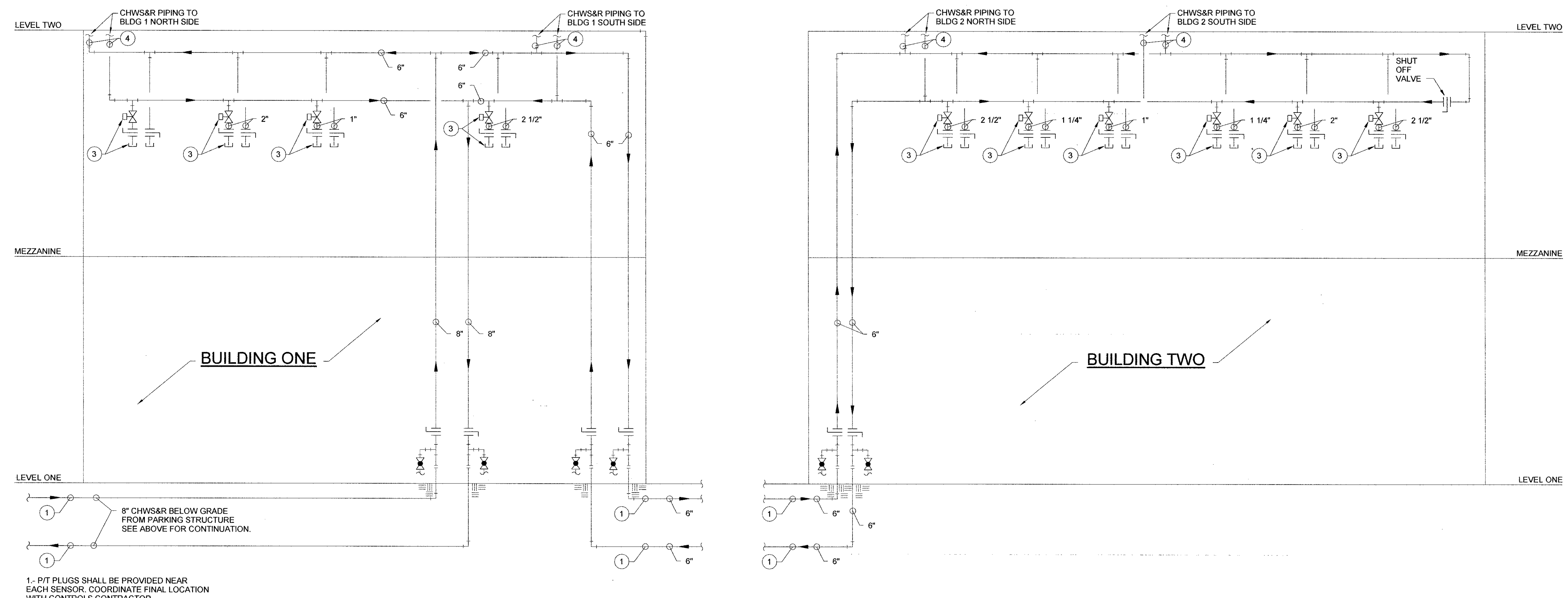
SOUTH CAMPUS PLAZA DESIGN-BUILD PARKING STRUCTURE

SAN DIEGO STATE UNIVERSITY



**CONDENSER AND PRIMARY VARIABLE CHILLED WATER SYSTEMS FLOW DIAGRAM**

NO SCALE



**PRIMARY VARIABLE CHILLED WATER SYSTEM FLOW DIAGRAM (CONTINUED)**

NO SCALE

**SHEET NOTES:**

- 1 CHWS&R PIPING BELOW GRADE SHALL BE DOUBLE WALL PIPE. SEE DETAILS
- 2 INSTALL SHUT OFF AND CHECK VALVES. DO NOT USE TRIPLE DUTY VALVES
- 3 BTU METER AND GAPPED VALVES FOR CONNECTION BY FUTURE TENANT (TYPX10)
- 4 CHWS&R PIPING TO SERVE FAN COILS IN BUILDINGS 1 & 2. SEE FLOOR PLANS AND RISER DIAGRAMS FOR ACTUAL ROUTING.
- 5 COOLING TOWER TO HAVE GALVANIZED ACCESS PLATFORM AND STAINLESS STEEL BASIN.

**GENERAL NOTES:**

1. PROVIDE DRAINS AT ALL LOW POINTS. DO NOT PROVIDE DRAINS ON BELOW GRADE PIPING
2. PROVIDE AIR VENTS AT ALL HIGH POINTS
3. FLOOR MOUNTED EQUIPMENT TO BE INSTALLED ON CONCRETE HOUSE KEEPING PADS BY OTHERS
4. GENERAL ACCESSIBILITY NOTE: CONTRACTOR TO PROVIDE ALL MOTORIZED CONTROL VALVES AND FLOW METER DISPLAYS MOUNTED AT A ACCESSIBLE LEVEL WITHOUT THE USE OF A LADDER ON CHILLED WATER AND HEATING HOT WATER SYSTEMS.

1  
M-401

OFFICE OF THE STATE ARCHITECT  
APPROVED FOR FINAL SUBMITTAL  
Reviewed by: [Signature]  
Sandy Goodrich, DESM

APR 27 2016

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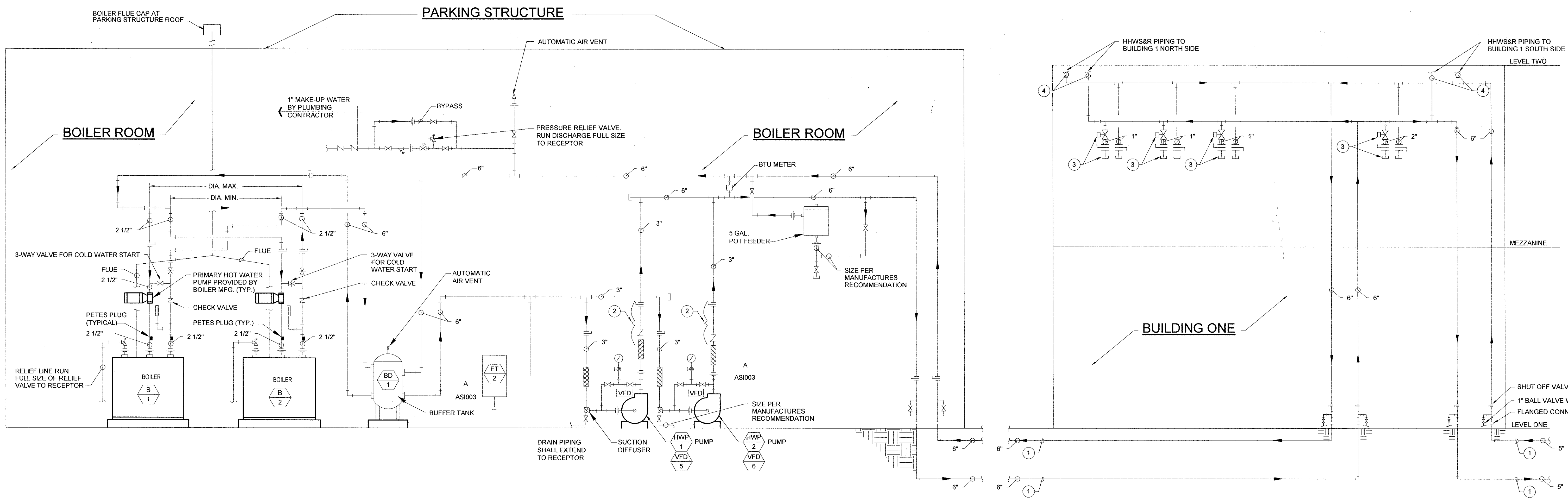
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SFM RESUBMITTAL 2	11/16/2015
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PROJECT NO:  
**CONDENSER AND CHILLED WATER SYSTEMS FLOW DIAGRAMS**  
**M-401**

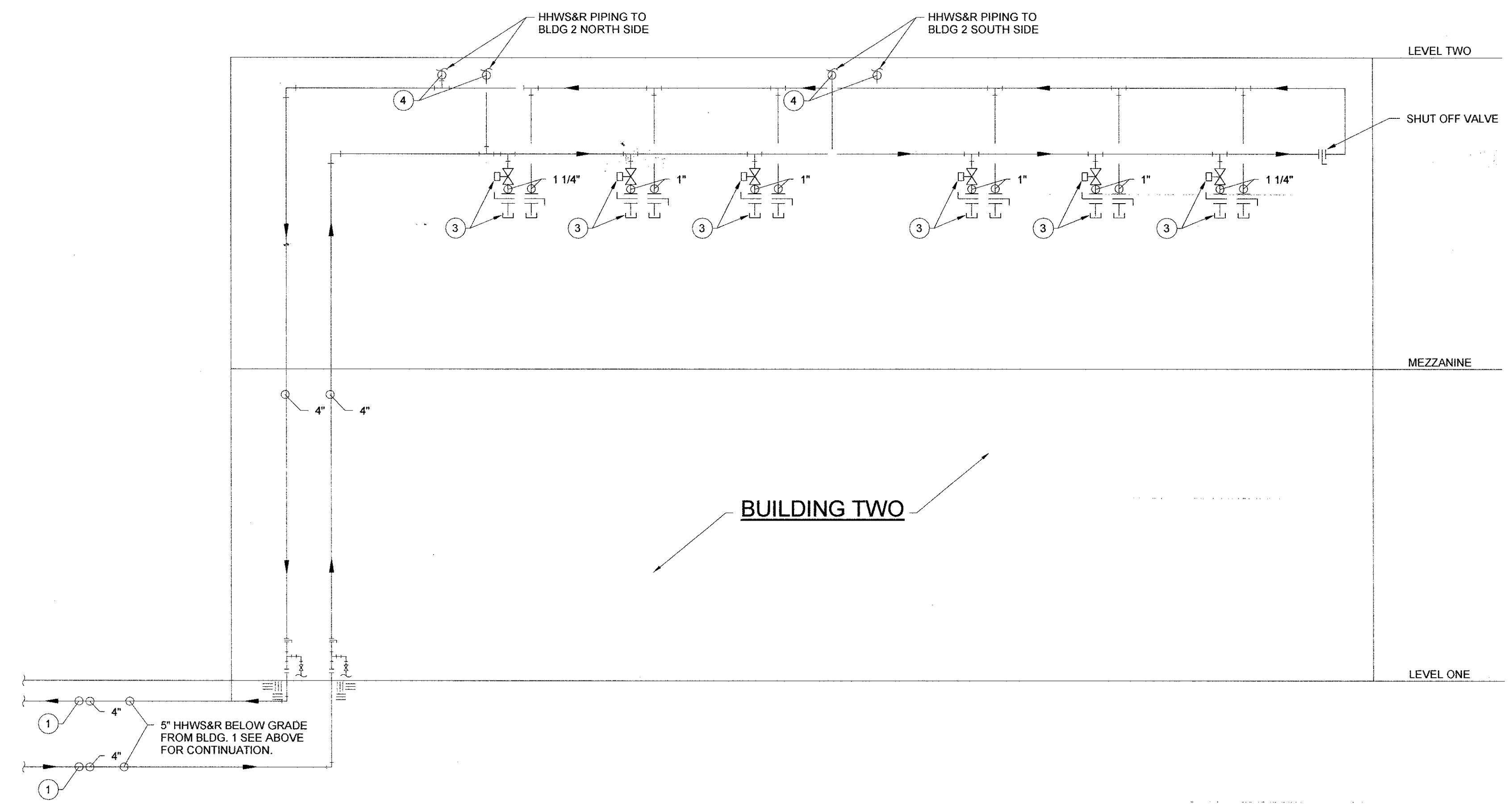


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SFM RESUBMITTAL	11/16/2015	
ASI SFM RESUBMITTAL #3	03/03/2016	



**BOILER/HEATING WATER SYSTEM FLOW DIAGRAM**

NO SCALE



**BOILER/HEATING WATER SYSTEM FLOW DIAGRAM (CONTINUED)**

NO SCALE

**SHEET NOTES:**

- HHWS&R PIPING BELOW GRADE TO BE PRE-ENGINEERED DOUBLE WALL PIPE. SEE DETAILS
- INSTALL SHUT OFF AND CHECK VALVES, DO NOT USE TRIPLE DUTY VALVES
- BTU METER, TEMP SENSORS, AND CAPPED VALVES FOR CONNECTION BY FUTURE TENANT (TYPX10).
- HHWS&R PIPING TO SERVE FAN COILS IN BUILDING 1 AND 2. SEE FLOOR PLANS AND RISER DIAGRAMS FOR ACTUAL ROUTING.

**GENERAL NOTES:**

- PROVIDE DRAINS AT ALL LOW POINTS, DO NOT PROVIDE DRAINS ON BELOW GRADE PIPING
- PROVIDE AIR VENTS AT ALL HIGH POINTS
- FLOOR MOUNTED EQUIPMENT TO BE INSTALLED WITH NEOPRENE PADS ON CONCRETE HOUSE KEEPING PADS BY OTHERS
- GENERAL ACCESSIBILITY NOTE: CONTRACTOR TO PROVIDE ALL MOTORIZED CONTROL VALVES AND FLOW METER DISPLAYS MOUNTED AT A ACCESSIBLE LEVEL WITHOUT THE USE OF A LADDER ON CHILLED WATER AND HEATING HOT WATER SYSTEMS.

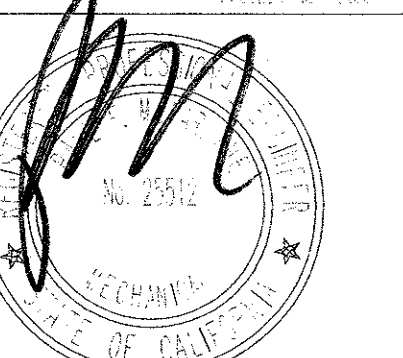
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Reviewed by: *Bradley Goodrich, USFM*

APR 27 2015

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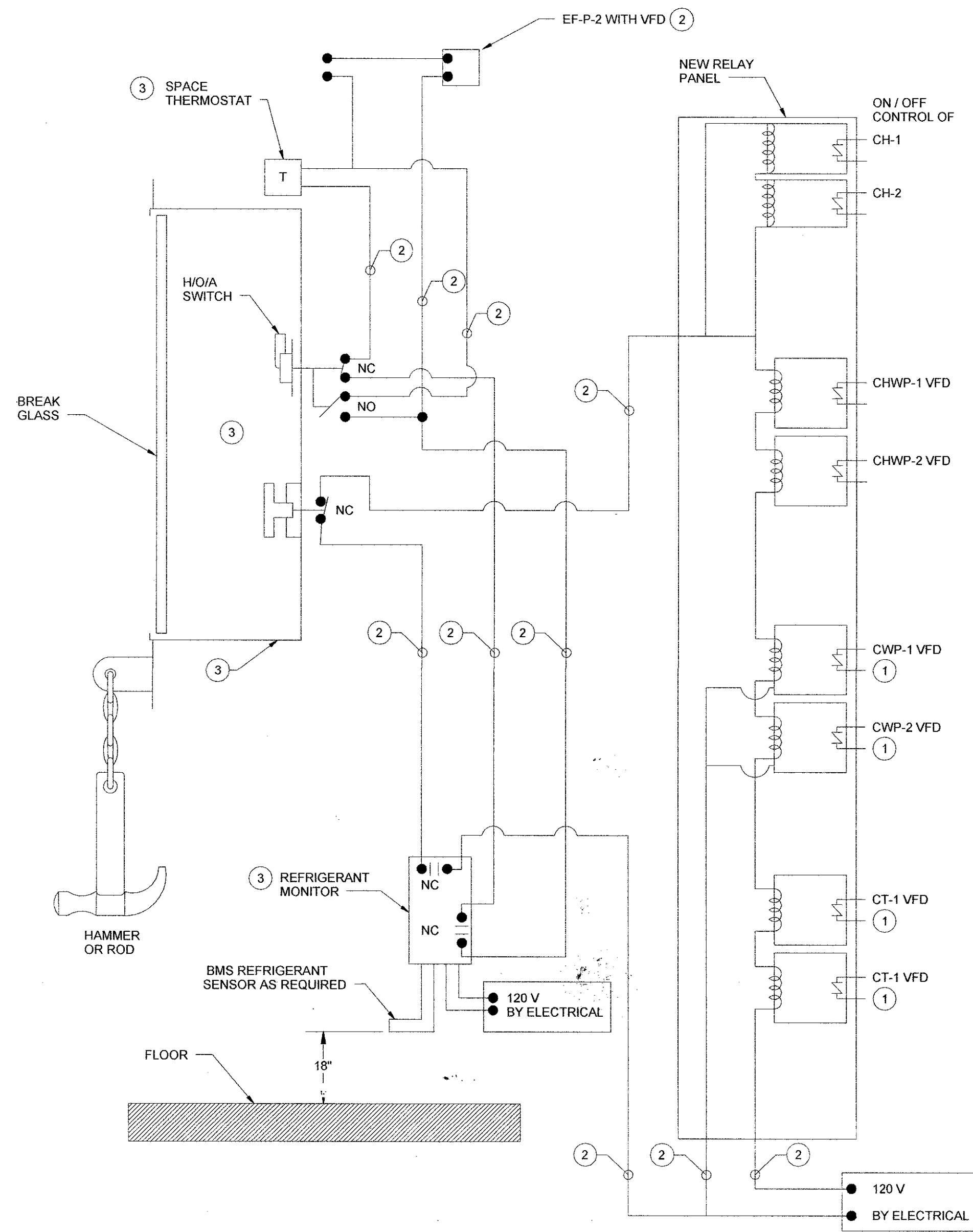


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UNIVERSITY**  
SAN DIEGO, CA

**SOUTH CAMPUS PLAZA DESIGN-BUILD PARKING  
STRUCTURE**  
SAN DIEGO STATE UNIVERSITY



**GENERAL NOTES:**

- BMS FURNISH AND INSTALL BY ELECTRICAL CONTRACTOR. USE 1" TALL LETTERING. USE RED LETTERING ON BLACK BACKGROUND. INSTALL SIGN ON OUTSIDE WALL OF CHILLER ROOM 6" ABOVE THE SWITCH, SIGN TO READ, "EMERGENCY SHUT DOWN".
- CHILLERS SHALL BE TURNED OFF IN A WAY THAT ALLOWS A NORMAL SHUT DOWN TO THE CHILLERS. BMS FURNISH BY BMS AND INSTALL.
- EMERGENCY SHUTDOWN SWITCH SHALL DE-ENERGIZE ALL ELECTRICAL EQUIPMENT AND DEVICES INSIDE THE CHILLER ROOM. IN ADDITION, EMERGENCY SHUT SHALL ALSO BE AUTOMATICALLY ACTIVATED WHEN CONCENTRATION OF REFRIGERANT VAPOR EXCEEDS 25% OF THE LFL. IN THIS SCENARIO, ONLY REFRIGERANT EXHAUST FAN (EF-P-1) SHALL BE ALLOWED TO OPERATE. BMS FURNISH AND INSTALL BY BMS CONTRACTOR WITH SHUTDOWN SWITCH.
- REFRIGERANT DETECTOR SHALL BE PROVIDED WITH AUDIBLE AND VISUAL ALARMS. THESE ALARMS SHALL BE LOCATED NEXT TO MAIN ACCESS DOOR/EXIT TO THE ROOM. THE DETECTOR SHALL BE LOCATED IN AN AREA WHERE REFRIGERANT FROM A LEAK WILL CONCENTRATE. THE ALARMS SHALL BE ACTIVATED AT A VALUE NOT GREATER THAN THE CORRESPONDING TLV-TWA VALUES SHOWN IN 2013 CMC. BMS FURNISH AND INSTALL BY BMS CONTRACTOR.
- THE REFRIGERANT DETECTION SYSTEM, FURNISHED AND INSTALLED BY BMS, SHALL BE LISTED OR APPROVED PER PARAGRAPH 2703.1.3 OF THE 2013 CALIFORNIA FIRE CODE.
- ALARMS SHALL BE BMS FURNISH AND INSTALL.
- REFRIGERANT DETECTION SYSTEM, INCLUDING ALARMS SHALL BE IN EMERGENCY POWER. ELECTRICAL CONTRACTOR TO PROVIDE E-POWER.
- THE REFRIGERANT DETECTION SYSTEM, FURNISHED AND INSTALLED BY BMS, SHALL BE ACTIVATED MANUALLY AND THROUGH THE ENERGY MANAGEMENT SYSTEM. REFER TO DETAIL #11M403 FOR SEQUENCE OF OPERATIONS.

**KEY NOTES:**

- 5 MIN DELAY BEFORE OPENING CONTACT.
- FURNISH AND INSTALL BY BMS CONTRACTOR.
- FURNISH AND INSTALL BY BMS CONTRACTOR, ONE SWITCH (AND PANEL) AT EACH ACCESS DOOR TO CHILLER ROOM.

**EMERGENCY SHUTDOWN ELECTRICAL SCHEMATIC**

NO SCALE

2  
M-403

**AREA OF WALL SEPARATING CHILLER ROOM AND BOILER ROOM:**  
AC = 44' (W) x 28' 4" (H)  
AC = 1,232 SQFT.

**ROOM SIZE:**  
VOL = 1,232 SQFT. x 14'6" (AVG) = 17,900 CUFT. VOLUME

**REFRIGERANT MASS:**  
637 LBS (EACH OF 2 MACHINES) HFC-134A

**EQUATION 11-2**  
Q = 0.5 X 1,232  
Q = 616 CFM

**EQUATION 11-4**  
Q = 100 √(6(LBS/REFRIG))  
Q = 100 √637  
Q = 2,525 CFM

VENTILATION AIR @ 65% OF TOTAL Q VALUE  
Q = 1,640 CFM (VENTILATION ONLY)

**1108.0 REFRIGERATION MACHINERY ROOM VENTILATION**

1108.1 GENERAL. REFRIGERATION MACHINERY ROOMS SHALL BE PROVIDED WITH SOURCE OF OUTSIDE AIR FOR VENTILATION AND REMOVAL OF REJECTED HEAT.

1108.2 REFRIGERATION MACHINERY ROOMS. REFRIGERATION MACHINERY ROOMS SHALL BE PROVIDED WITH DEDICATED MECHANICAL EXHAUST SYSTEMS. THE EXHAUST SYSTEMS SHALL HAVE THE CAPACITY TO ACHIEVE EACH OF THE FOLLOWING:

EXCEPTION: REFRIGERATION MACHINERY ROOM LOCATED IN ENTIRELY DETACHED STRUCTURES AND MORE THAN TWENTY (20) FEET (6.096 MM) FROM PROPERTY LINES OR OPENING INTO BUILDINGS.

(1) LIMIT THE TEMPERATURE RISE WITHIN THE REFRIGERATION MACHINERY ROOM TO A MAXIMUM OF 10°F (40°C) AS CALCULATED BY:

$$Q = \sum q / 1.08 \Delta T \quad \text{[EQUATION 11-2]}$$

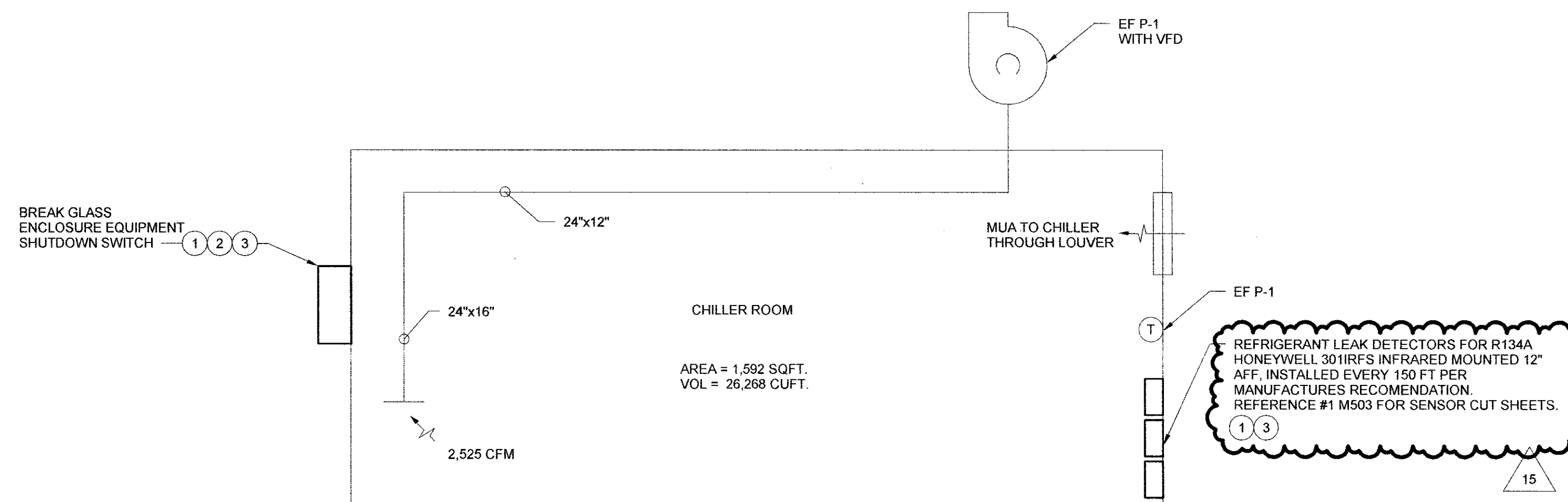
(2) PROVIDE EMERGENCY PURGE OF ESCAPING REFRIGERANT AT A RATE OF 30 AIR CHANGES PER HOUR (ACH) FOR AMMONIA, OR FOR OTHER REFRIGERANTS AS CALCULATED BY:

$$Q = 100 \sqrt{M} \quad \text{[EQUATION 11-4]}$$

WHERE:

- q = BRITISH THERMAL UNIT PER HOUR OF HEAT-PRODUCING EQUIPMENT
- Q = AIR-FLOW RATE, CUBIC FEET PER MINUTE
- ΔT = TEMPERATURE DIFFERENCE BETWEEN MACHINERY ROOM AND SUPPLY AIR, °F
- G = REFRIGERANT MASS IN LARGEST SYSTEM, POUNDS.

FOR SI UNITS: 1000 BRITISH THERMAL UNITS PER HOUR = 0.293KW. 1 CUBIC FOOT PER MINUTE = 0.00047 M<sup>3</sup>/S. °C = (°F-32)/1.8. 1 POUND = 0.453 KG



**KEY NOTES:**

- DEVICE ON STAND BY ELECTRICAL POWER.
- INSTALL ONE SWITCH AT EACH ACCESS DOOR.
- REFER TO DETAIL #31M601 FOR CONTROL DIAGRAM OR REFRIGERANT DETECTION SYSTEM.

**SEQUENCE OF OPERATIONS:**

- STAND-BY OPERATION MODE: NORMALLY EXHAUST FAN SHALL BE OFF.
- NORMAL OPERATION MODE: WHEN SPACE TEMP. IS ABOVE 80°F (ADJ) FOR AT LEAST 3 MINUTES (ADJ) EF-P-1 SHALL OPERATE AT VENTILATION MODE (1,640 CFM) UNTIL SPACE TEMPERATURE IS BELOW DESIRE SET POINT FOR AT LEAST 5 MIN. (ADJ). THE EXHAUST AIR SYSTEM SHALL THEN RETURN TO "STAND-BY" MODE.
- ALARM OPERATION MODE: WHEN REFRIGERANT LEAKAGE (AT MAX CONCENTRATION OF 25% LFL) IS DETECTED FOR AT LEAST 1 MINUTE (ADJ) EF-P-1 SHALL OPERATE AT "PURGE MODE" (2,525 CFM).
- UNTIL SPACE REFRIGERANT CONCENTRATION IS BELOW DESIRE SETPOINT FOR AT LEAST 10 MIN. (ADJ), THE EXHAUST AIR SYSTEM SHALL THEN RETURN TO "STAND-BY MODE".
- IN THE CASE EXHAUST SYSTEM IS REQUIRED TO OPERATE IN "NORMAL" AND "ALARM" MODES AT THE SAME TIME, THE EXHAUST EF-P-1 SHALL OPERATE ON "ALARM" MODE (2,525 CFM).
- AUDIBLE AND VISUAL ALARMS SHALL BE ENABLE WHEN REFRIGERANT LEAKAGE IS DETECTED.

**CHILLER ROOM VENTILATION AIR FLOW DIAGRAM**

NO SCALE

1  
M-403

OFFICE OF THE STATE FIRE MARSHAL  
APPROVED FIRE AND PANIC ONLY  
Reviewed by: [Signature] 03/20/15

APR 27 2016

Approval of this plan does not authorize or approve any omission or deviation from applicable regulations. Final approval is subject to field inspection. One set of approved plans shall be available on the project site at all times.

IDENTIFICATION STAMP  
DIVISION OF THE STATE ARCHITECT  
OFFICE OF REGULATION SERVICES

FILE #  
APPL # 04-14204

AC \_\_\_\_\_ DATE: \_\_\_\_\_

**SUBMITTAL SCHEDULE:**

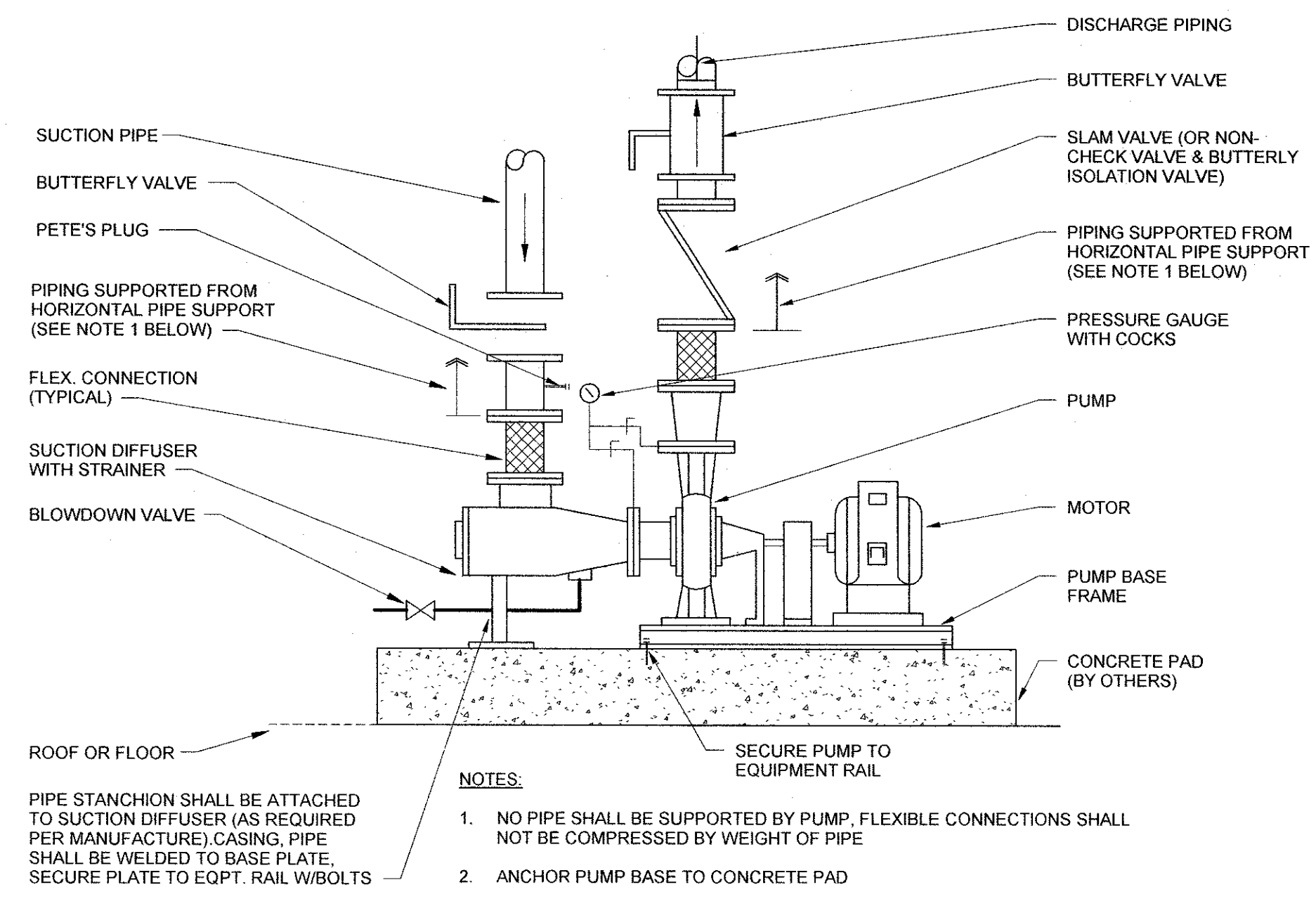
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100% PRELIM. DESIGN	05/28/2014
50% CONST. DOCS.	07/02/2014
95% CONST. DOCS.	08/07/2014
PROGRESS / COORDINATION	09/24/2014
100% BACKCHECK SET	11/10/2014
100% BACKCHECK SET 2	01/22/2015
100% BACKCHECK SET 3	03/20/2015
SFM BACKCHECK SET	09/10/2015
ASI003	07/15/2015
ASI 07- SFM RESUBMITTAL	07/29/2015
ASI 011- SFM RESUBMITTAL 2	11/06/2015
SFM RESUBMITTAL	11/16/2015
ASI SFM RESUBMITTAL #3	03/03/2016

**PROJECT NO.:**

**CALCULATIONS  
& SCHEMATICS**

**M-403**

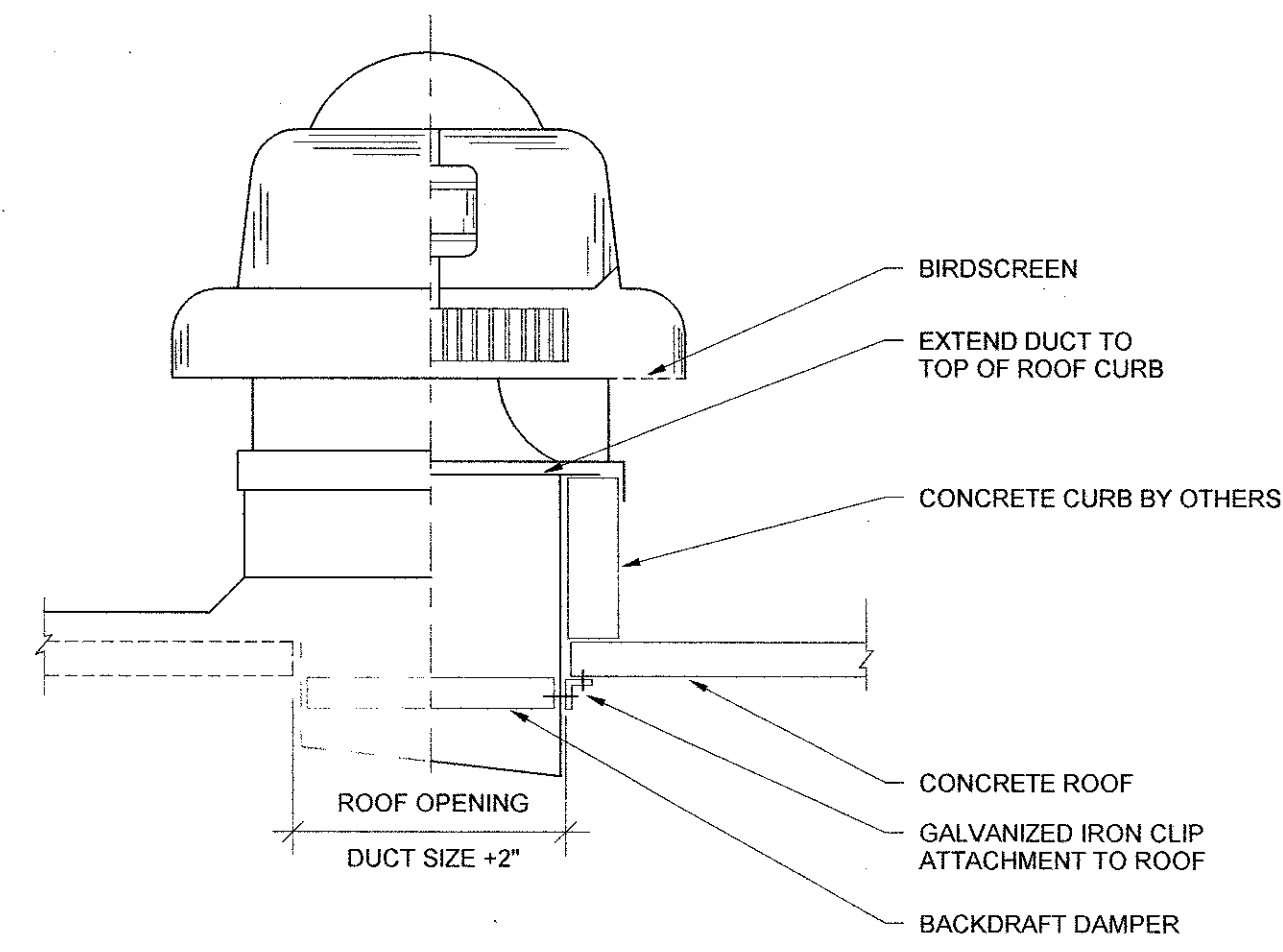




**PUMP MOUNTING DETAIL**

NO SCALE

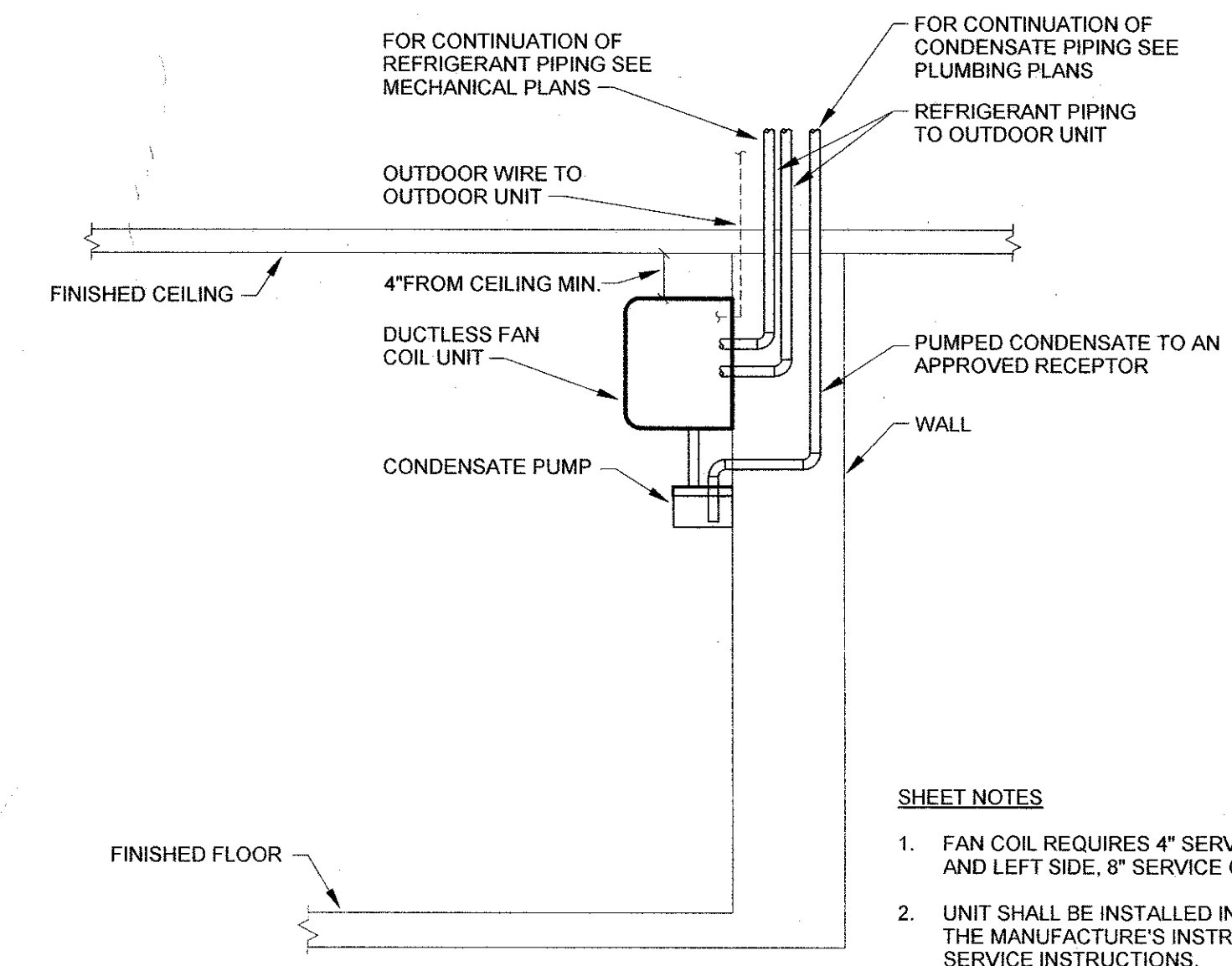
7  
M-501



**ROOF MOUNTED EXHAUST FAN DETAIL**

NO SCALE

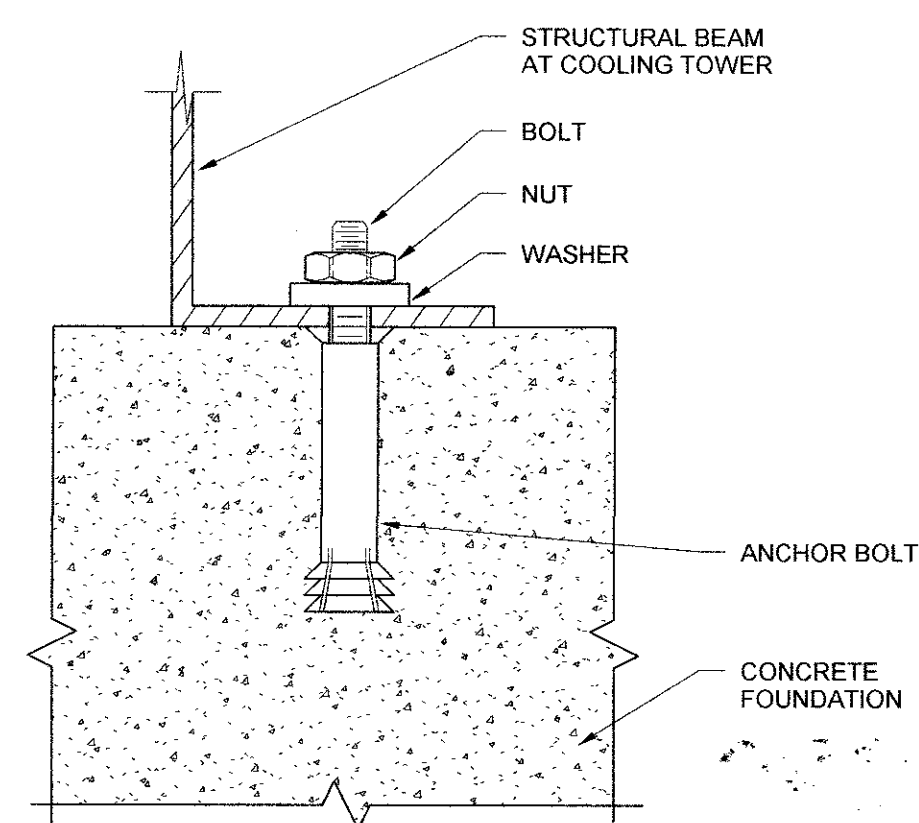
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M-501



**DUCTLESS FAN COIL UNIT MOUNTING DETAIL**

NO SCALE

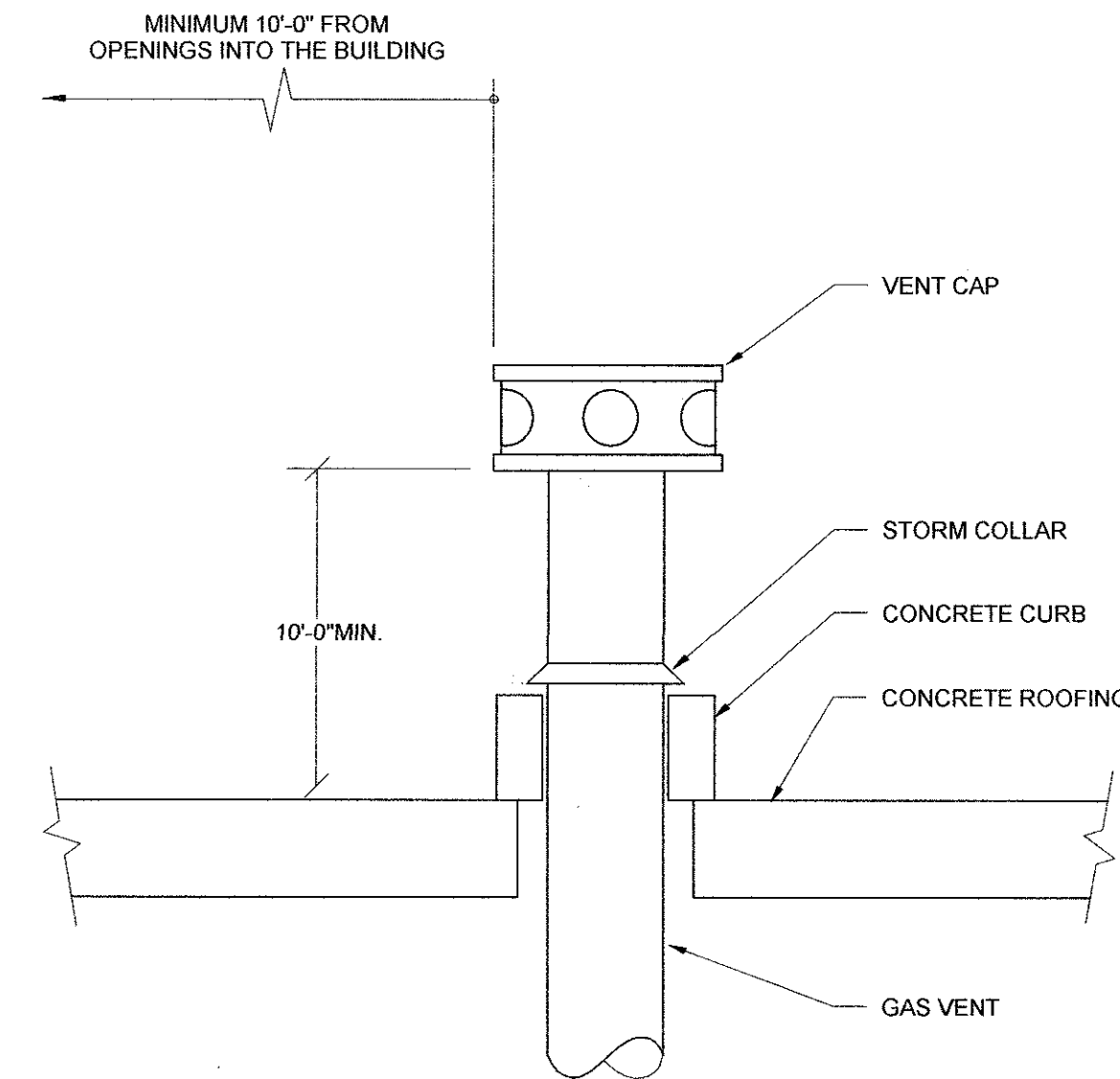
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M-501



**COOLING TOWER & PUMP HOLD-DOWN DETAIL**

NO SCALE

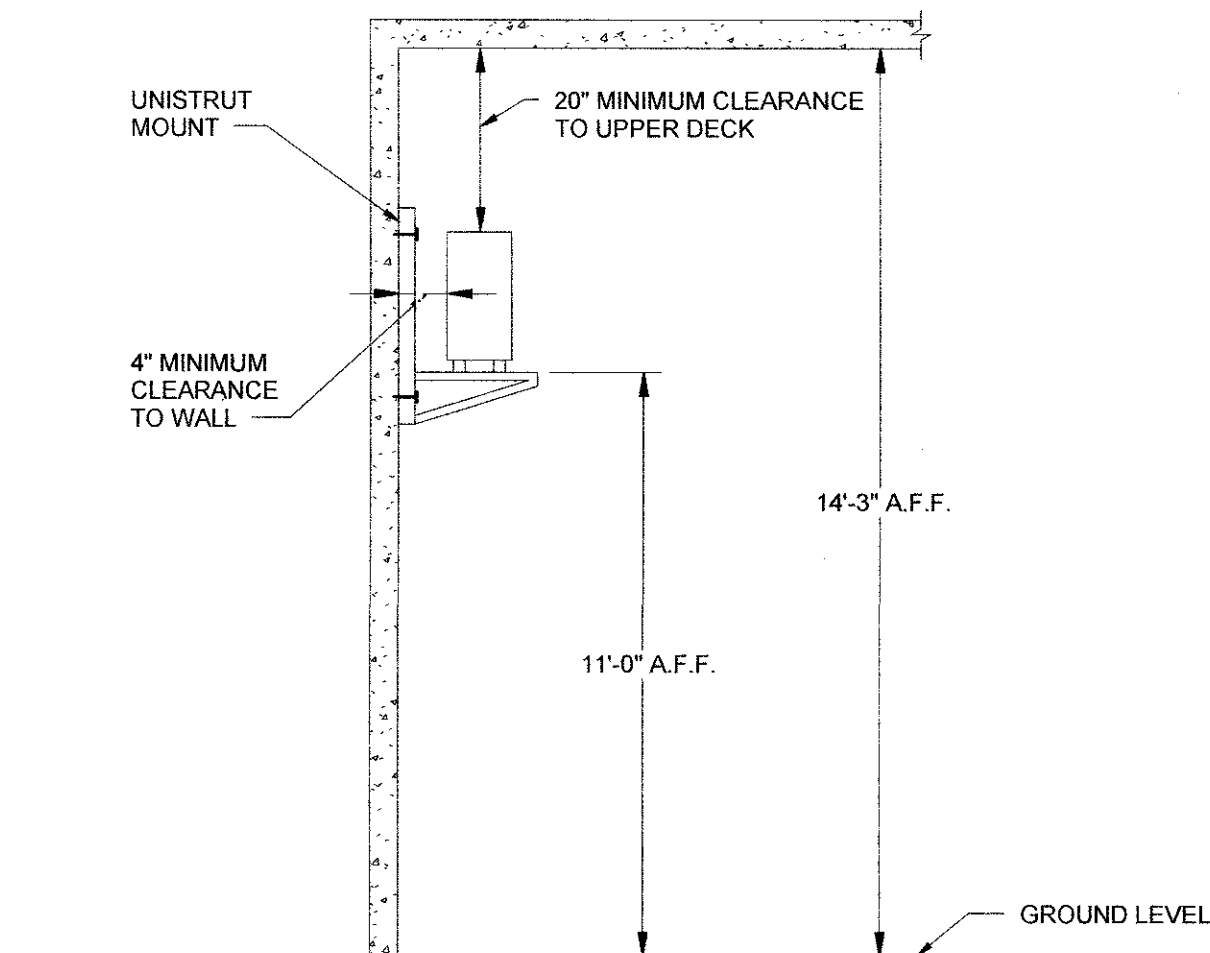
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M-501



**GAS VENT DETAIL**

NO SCALE

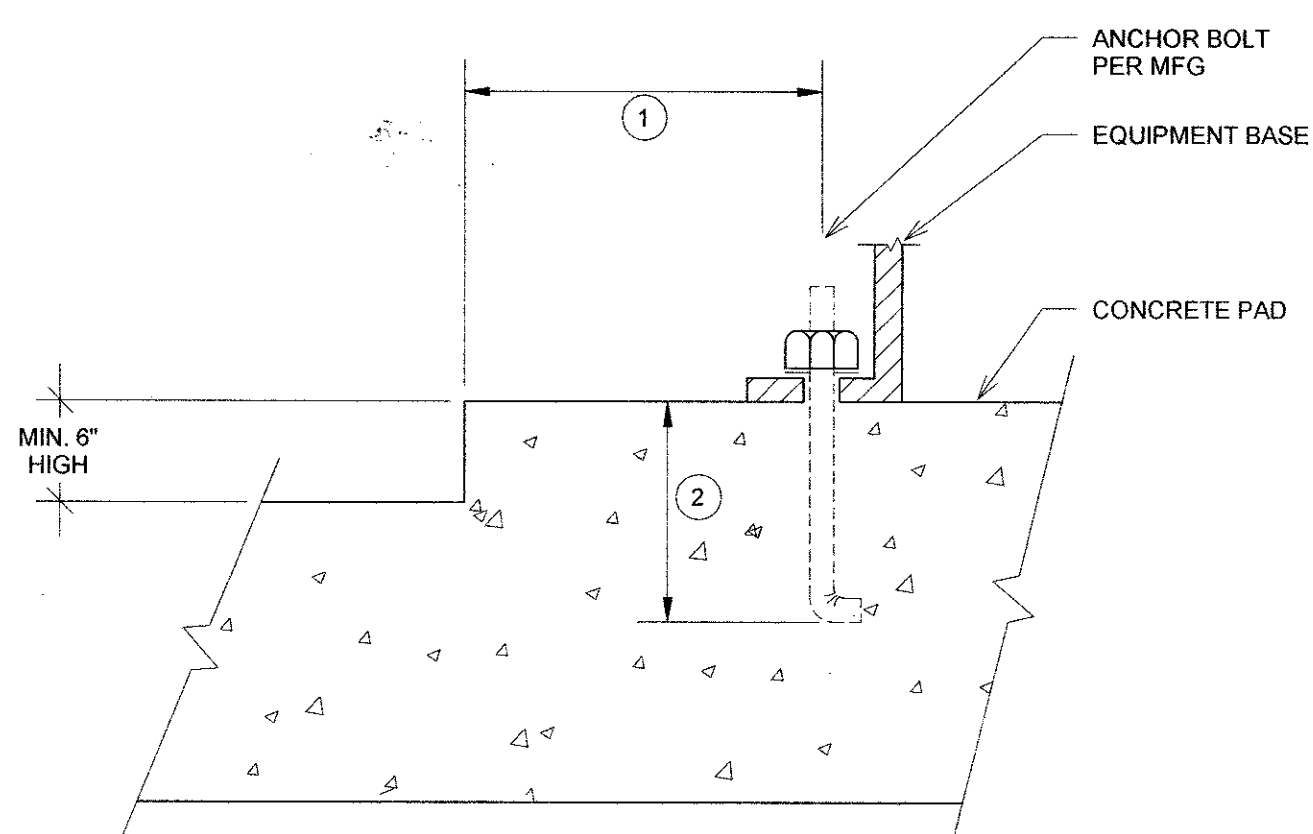
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M-501



**CONDENSING UNIT MOUNTING DETAIL**

NO SCALE

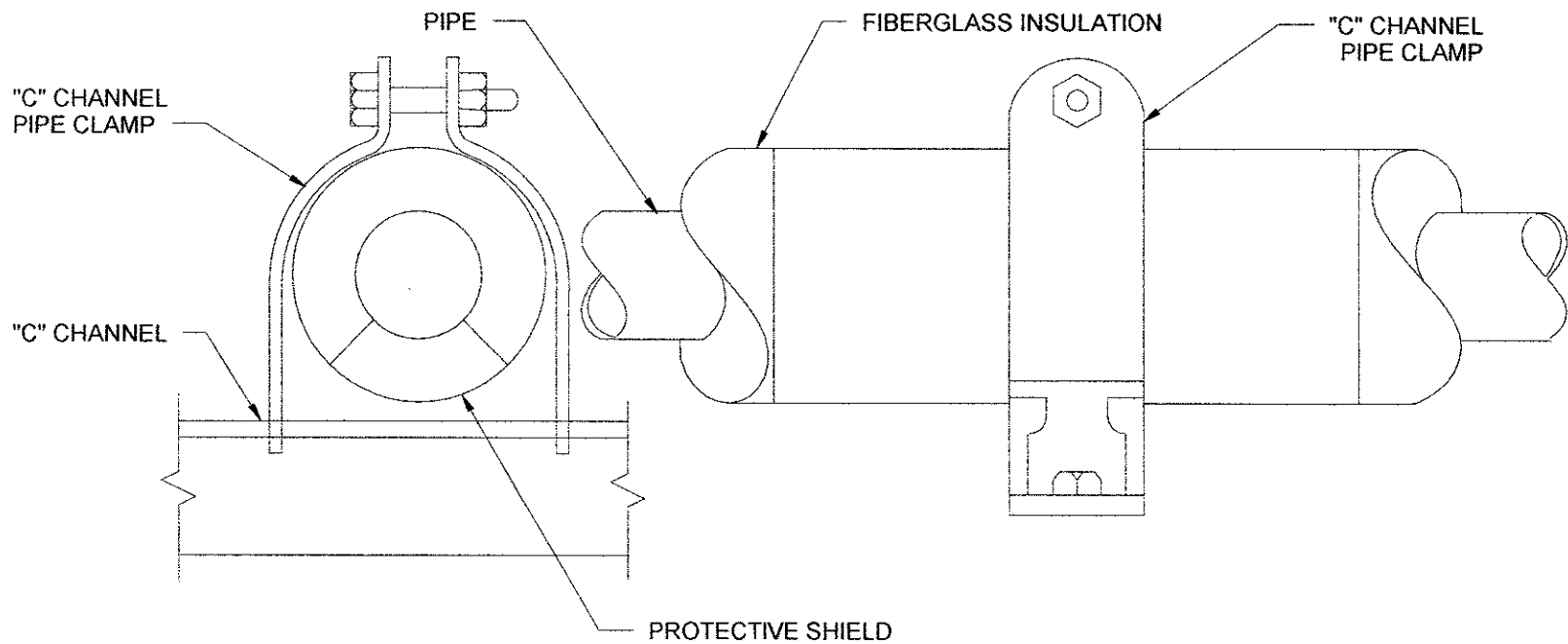
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M-501



**BASE MOUNTED EQUIPMENT ANCHOR DETAIL**

NO SCALE

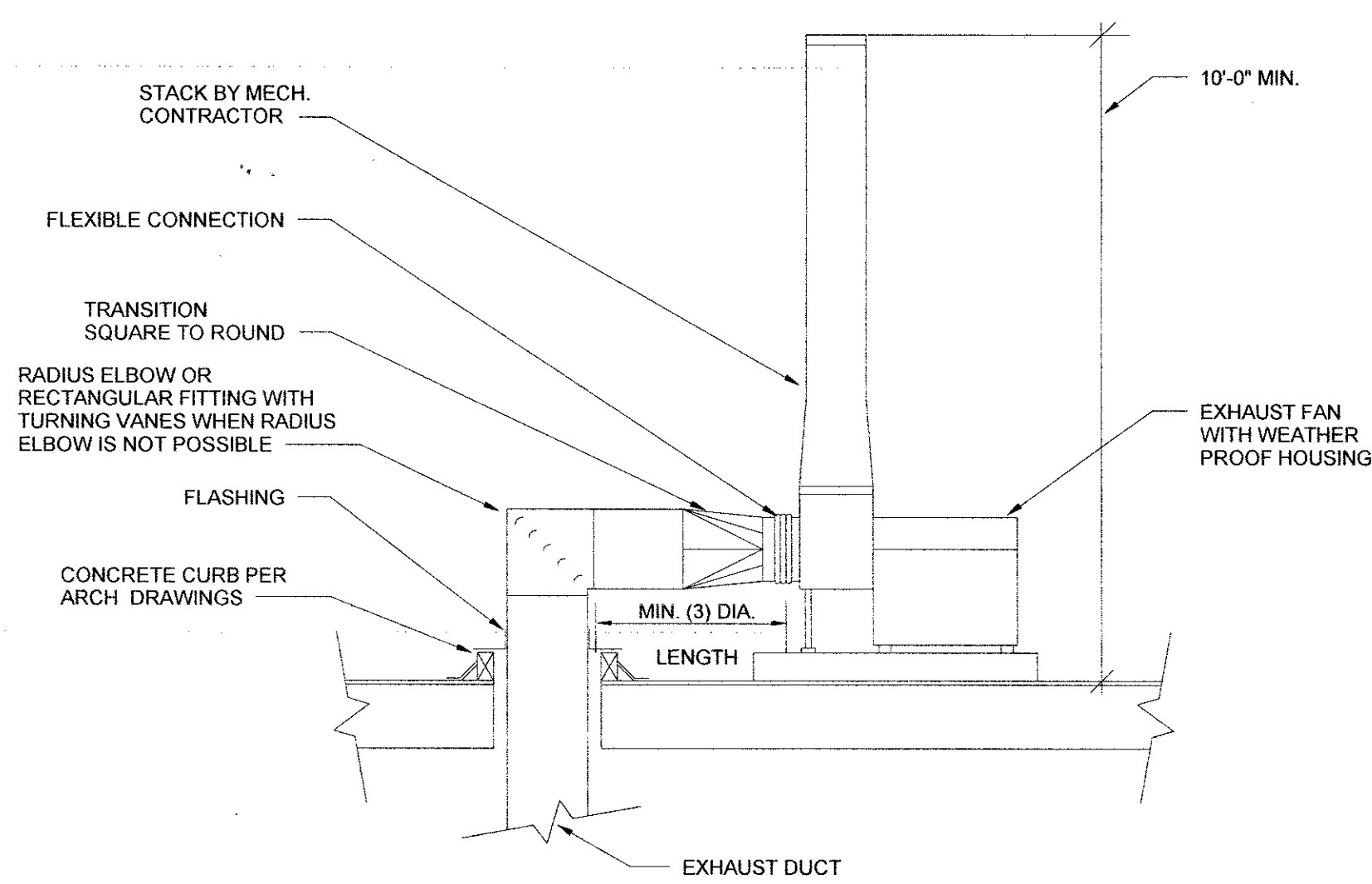
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M-501



**PIPE SUPPORT DETAIL**

NO SCALE

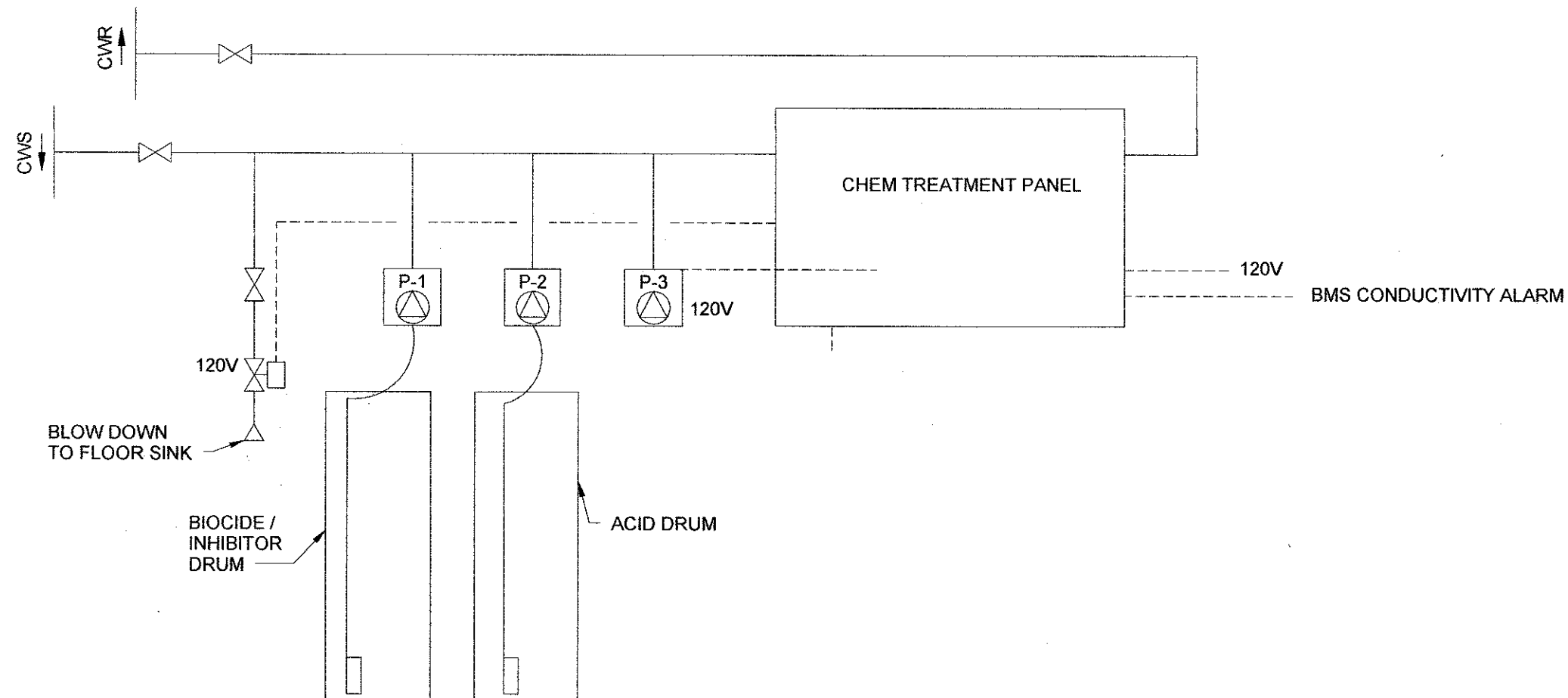
6  
M-501



**UTILITY EXHAUST FAN DETAIL**

NO SCALE

3  
M-501



**CONDENSER WATER TREATMENT SYSTEM OUTDOOR RATED PANEL, PUMPS, AND VALVE**

NO SCALE

9  
M-501

SUBMITTAL SCHEDULE:

50% PRELIM. DESIGN	05/14/2014
100% PRELIM. DESIGN	05/28/2014
50% CONST. DOCS.	07/02/2014
95% CONST. DOCS.	08/07/2014
PROGRESS / COORDINATION	09/24/2014
100% BACKCHECK SET 1	11/10/2014
100% BACKCHECK SET 2	01/22/2015
100% BACKCHECK SET 3	03/20/2015
SFM BACKCHECK SET	06/10/2015
ASI003	07/15/2015
ASI 07- SFM RESUBMITTAL	07/29/2015
ASI 011- SFM RESUBMITTAL 1	11/06/2015
SFM RESUBMITTAL 2	11/16/2015
13- SFM RESUBMITTAL #3	03/03/2016

OFFICE OF THE STATE ARCHITECT  
 APPROVED BY STATE ARCHITECT  
 Reviewed by: [Signature]  
 M-501

APR 27 2016  
 Approval of this plan does not authorize or approve any addition or deviation from applicable regulations. Final approval is subject to field inspection. One set of approved plans shall be available on the project site at all times.

IDENTIFICATION STAMP  
 DIVISION OF THE STATE ARCHITECT  
 OFFICE OF REGULATION SERVICES  
 FILE #  
 APPL # 04-114204  
 AC \_\_\_\_\_ DATE \_\_\_\_\_







**MATERIAL SAFETY DATA SHEET**

InterChem Services, Inc.  
70 West 10th Street, Suite 200, San Diego, CA 92101-3114  
EMERGENCY 24 HOURS PHONE  
619-434-9300

**SECTION 1 - IDENTIFICATION**

**SECTION 2 - HAZARD IDENTIFICATION**

**SECTION 3 - COMPOSITION INFORMATION**

**SECTION 4 - FIRST AID MEASURES**

**SECTION 5 - FIRE FIGHTING MEASURES**

**SECTION 6 - ACCIDENT PREVENTION**

**SECTION 7 - PHYSICAL AND CHEMICAL PROPERTIES**

**SECTION 8 - STABILITY AND REACTIVITY**

**SECTION 9 - TOXICOLOGICAL INFORMATION**

**SECTION 10 - ECOLOGICAL INFORMATION**

**SECTION 11 - DISPOSAL INFORMATION**

**SECTION 12 - TRANSPORT INFORMATION**

**SECTION 13 - REGULATORY INFORMATION**

**SECTION 14 - OTHER INFORMATION**

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**SECTION 13 - REGULATORY INFORMATION**

**SECTION 14 - OTHER INFORMATION**

**MATERIAL SAFETY DATA SHEETS**

**NO SCALE**

**CLOSED LOOP TREATMENT**

**9416P**

**DESCRIPTION**

**APPLICATION**

**PHYSICAL PROPERTIES**

**Color & Form**..... Whitish-white granules  
**Smell**..... Sulfur  
**pH of 1% Solution**..... 6.1  
**OSD**..... Chlorides

**DOSE & FEEDING**

Initially, add one (1) pound of 9416P per 100 gallons of system capacity.

Subsequent additions are required on the basis of one pound of product per 100 gallons of makeup water to the system to compensate for system water losses. Discard the required quantity of product in water and add to the system using a bypass feeder. The feeder can be installed at any convenient location in the system where there is a pressure drop. Sodium nitrite residual level is generally maintained

**PHENIX WATER MANAGEMENT LLC**

**MICROBICIDE**

**BRT 90**

**DESCRIPTION**

**APPLICATION**

**PHYSICAL PROPERTIES**

**Color & Form**..... Clear liquid  
**Smell**..... Chlorine  
**Specific Gravity**..... 1.20 (20°C) @ 20°C  
**pH (1% Solution)**..... 3-5

**DOSE & FEEDING**

Batch feed system should be cleaned every feeding interval. Apply 0.1 to 0.5 pounds of BRT90 Microbicide per 1000 gallons of total system water. The system is continuously fed, to be properly sized for flow. Apply the initial dosage rate at least 0.5-1.0 ppm increase residual is

**NO SCALE**

**CLEANER**

**6483**

**DESCRIPTION**

**APPLICATION**

**PHYSICAL PROPERTIES**

**Color & Form**..... Amber liquid  
**Smell**..... Sulfur  
**Specific Gravity**..... 1.19 @ 20°C  
**OSD**..... Chlorides

**DOSE & FEEDING**

9416P is packaged in:  
Drum..... net wt. 400 lbs.  
Pails..... net wt. 50 lbs.

**PHENIX WATER MANAGEMENT LLC**

**COOLING WATER TREATMENT**

**5913**

**DESCRIPTION**

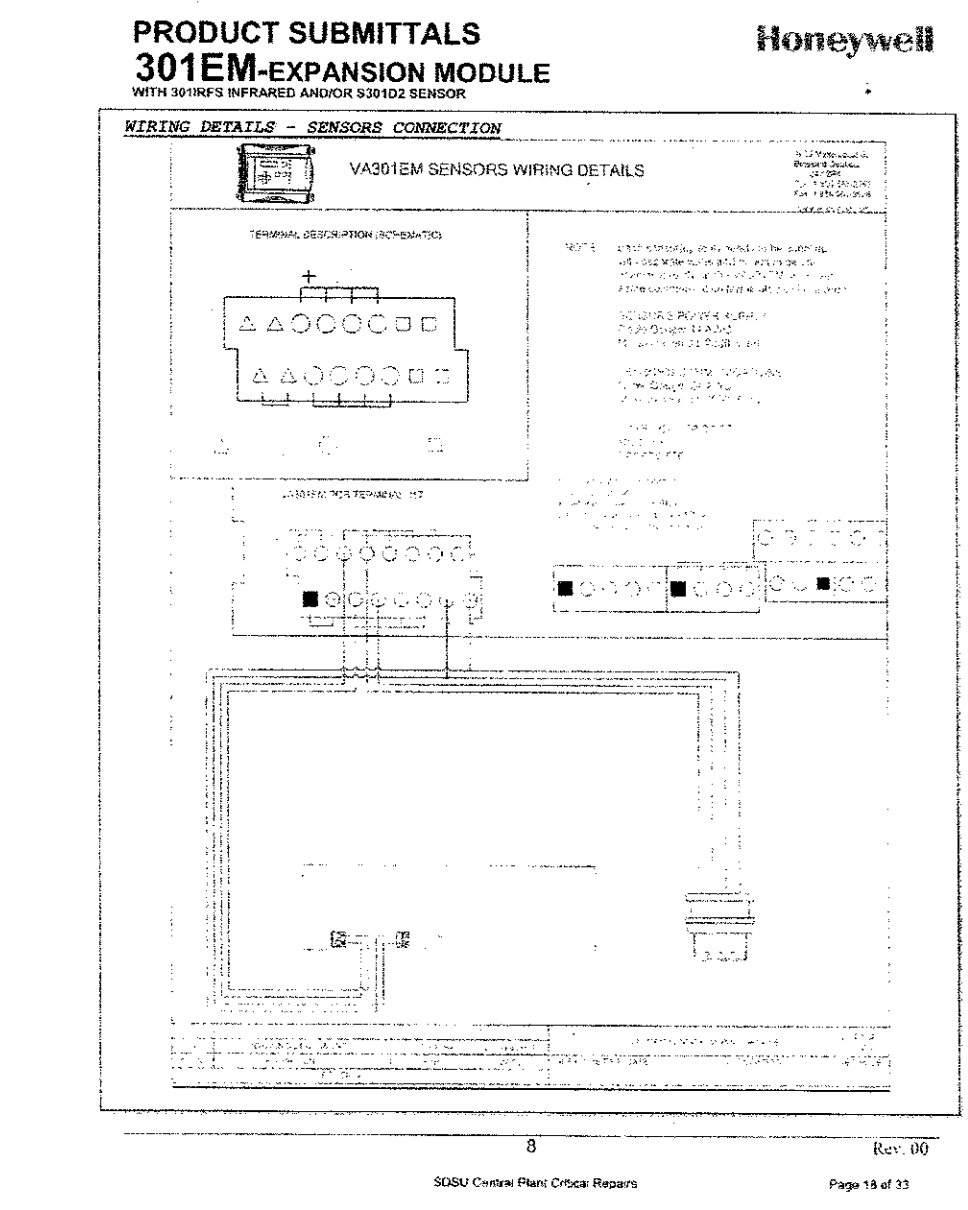
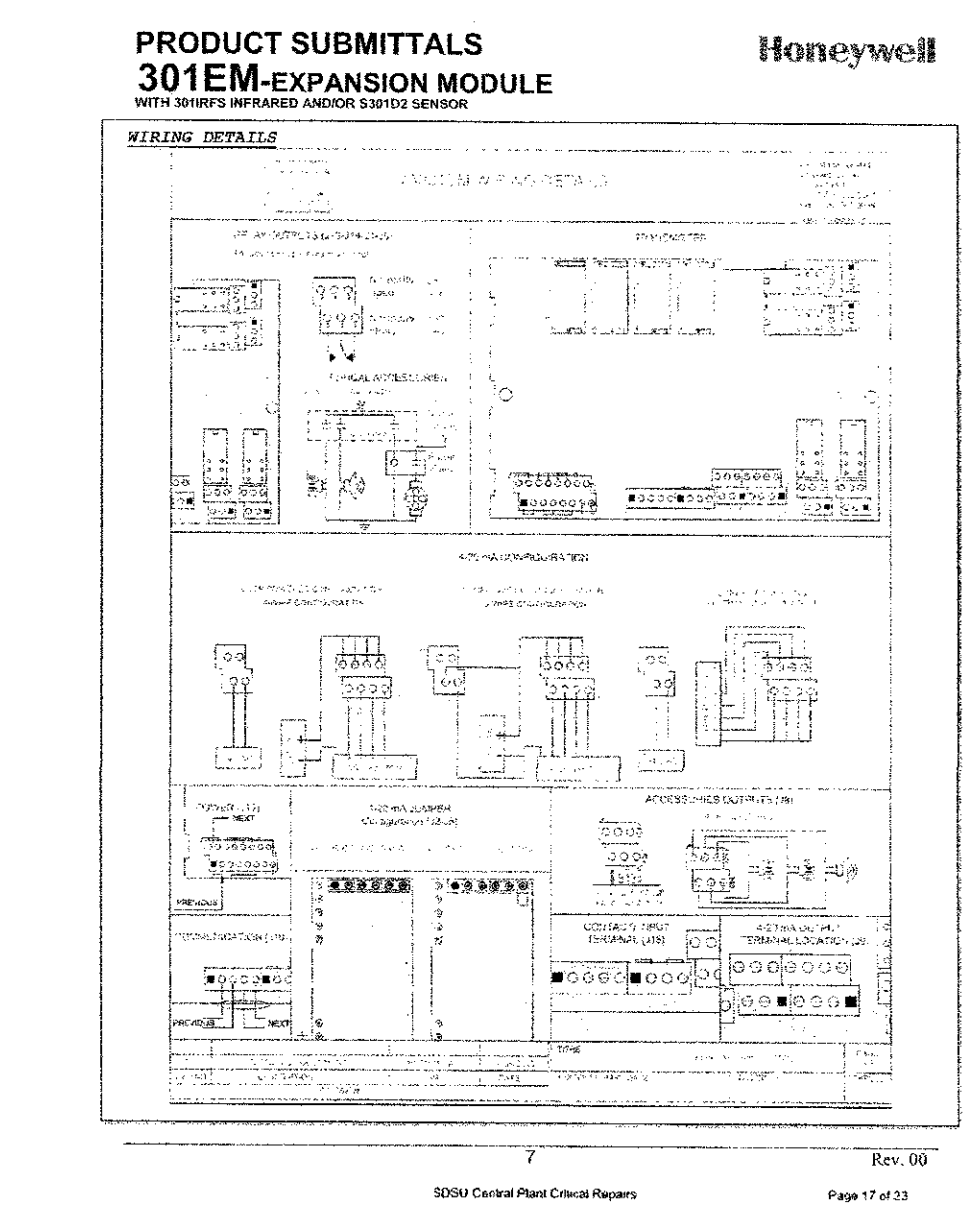
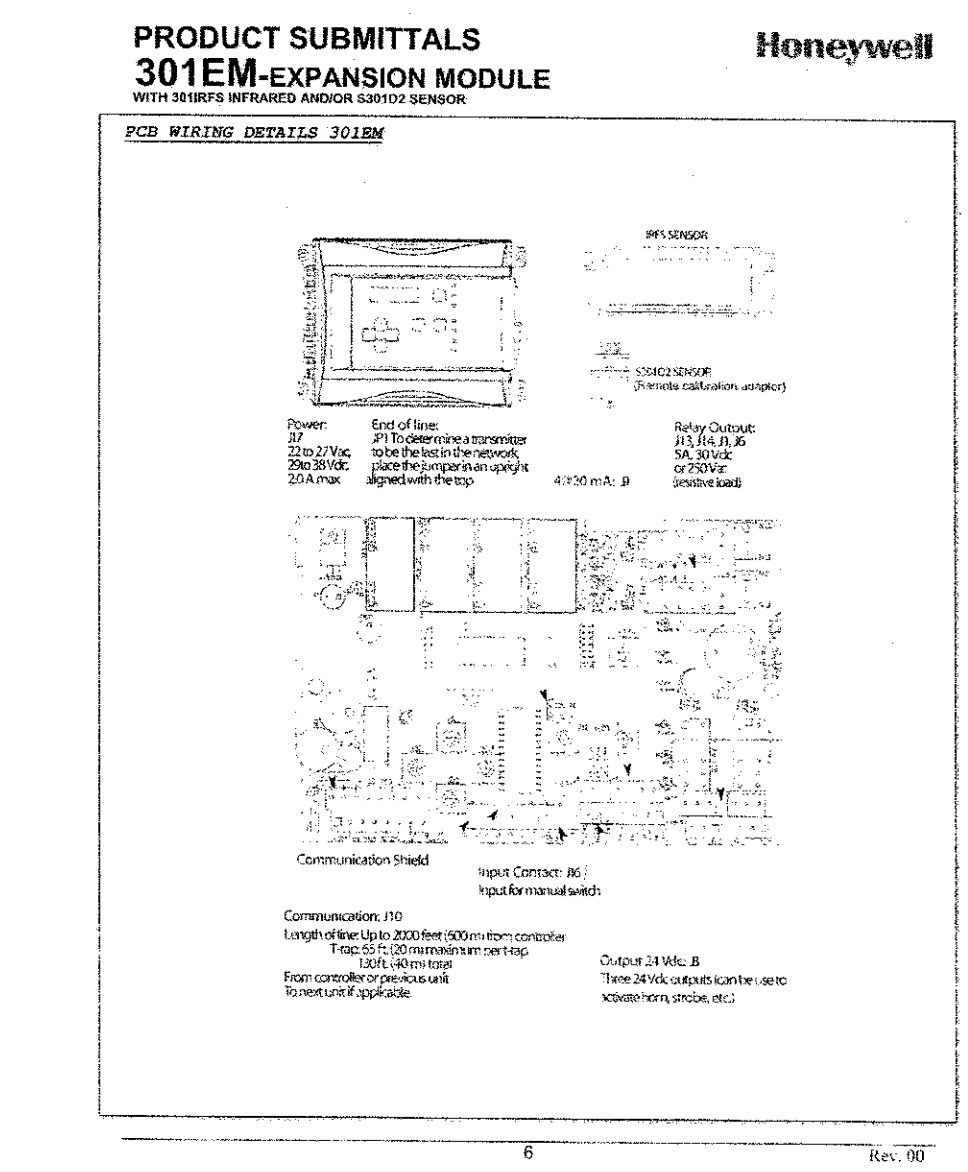
**APPLICATION**

**PHYSICAL PROPERTIES**

**Color & Form**..... Pale yellow liquid  
**Smell**..... Chlorine  
**Specific Gravity**..... 1.07  
**Density**..... 9.931 lbs/gal @ 20°C  
**Other**..... slightly viscous

**DOSE & FEEDING**

5913M liquid is available in:  
5-gallon pails..... net wt. 40 lbs.  
20-gallon drums..... net wt. 265 lbs.  
25-gallon drums..... net wt. 310 lbs.



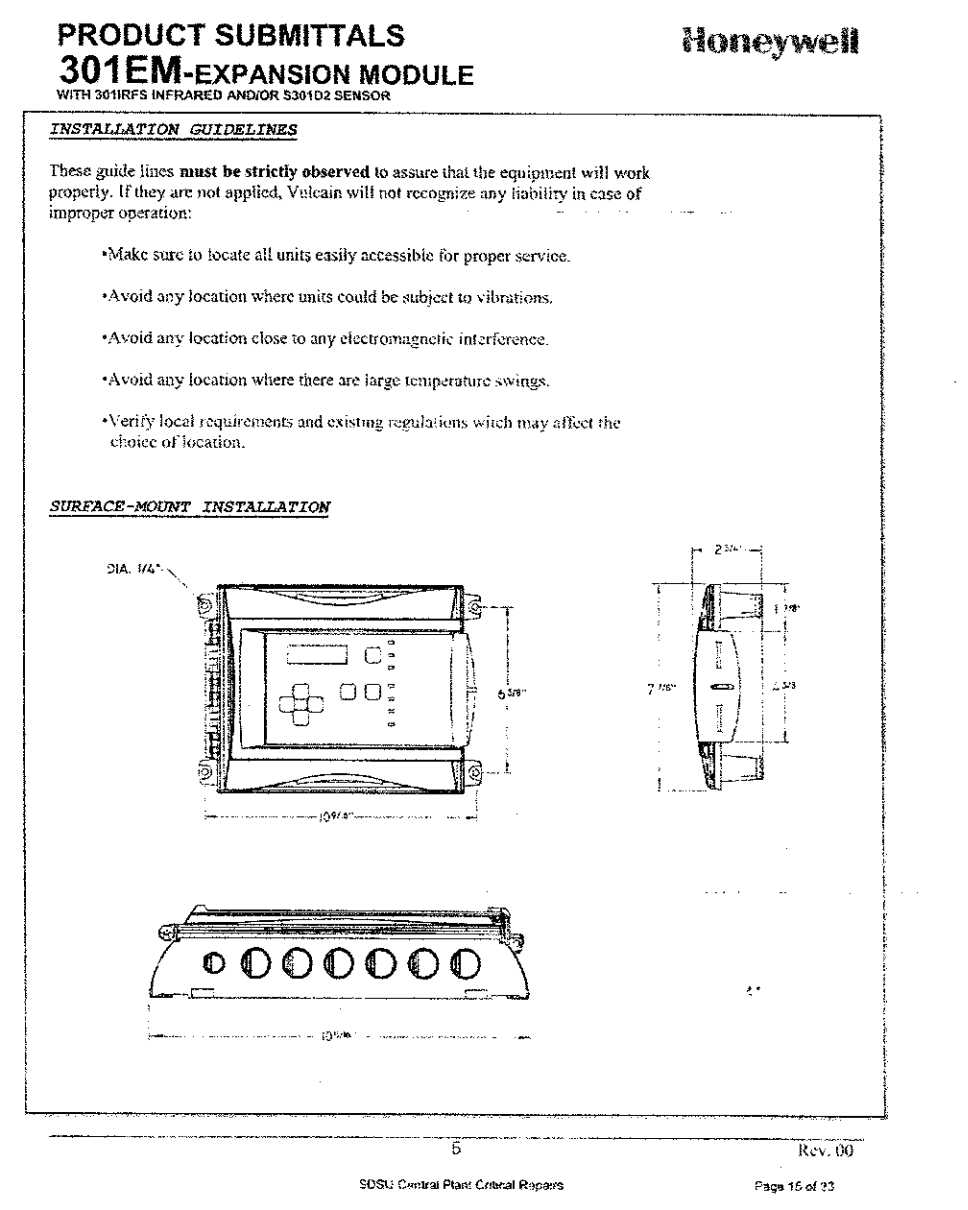
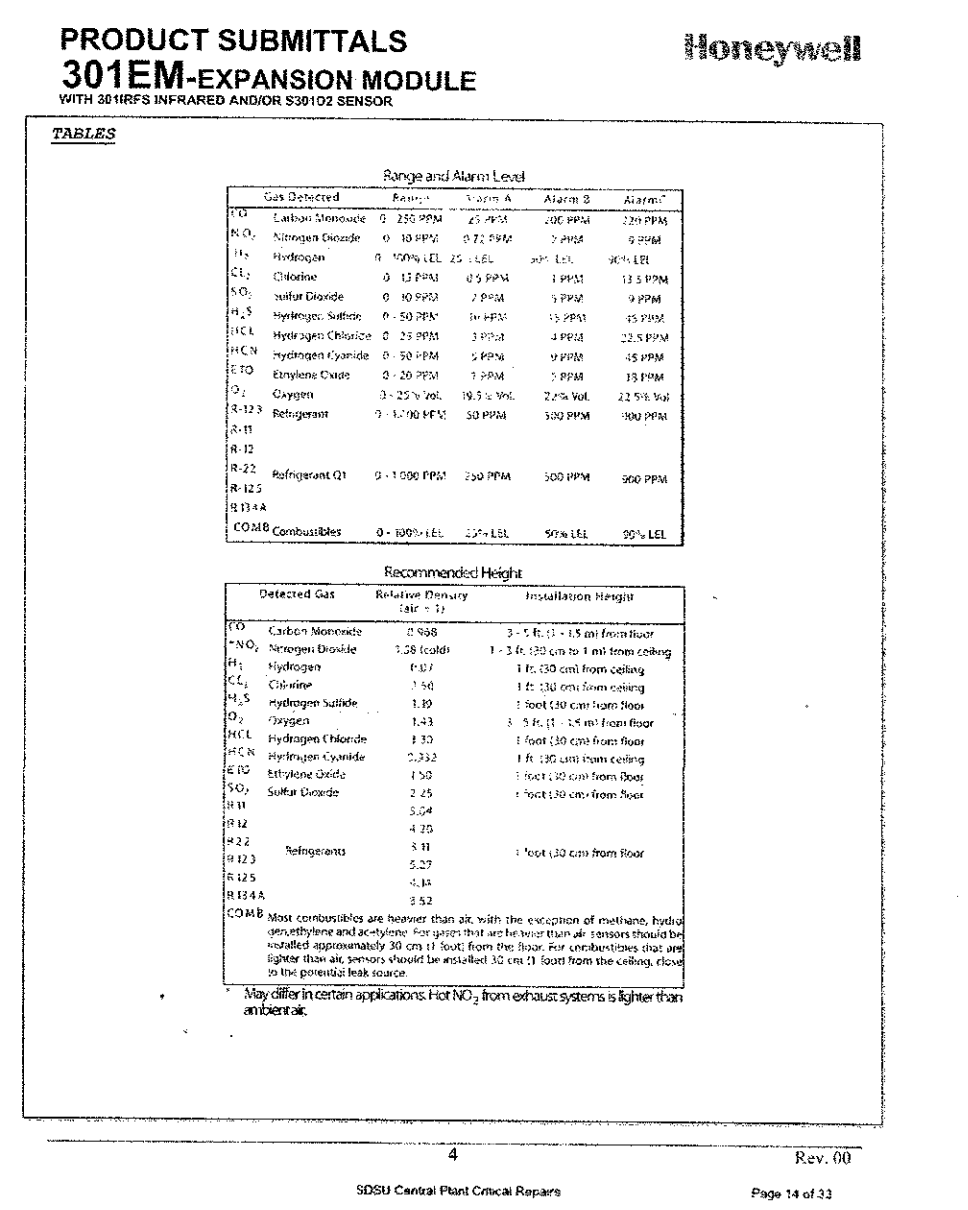
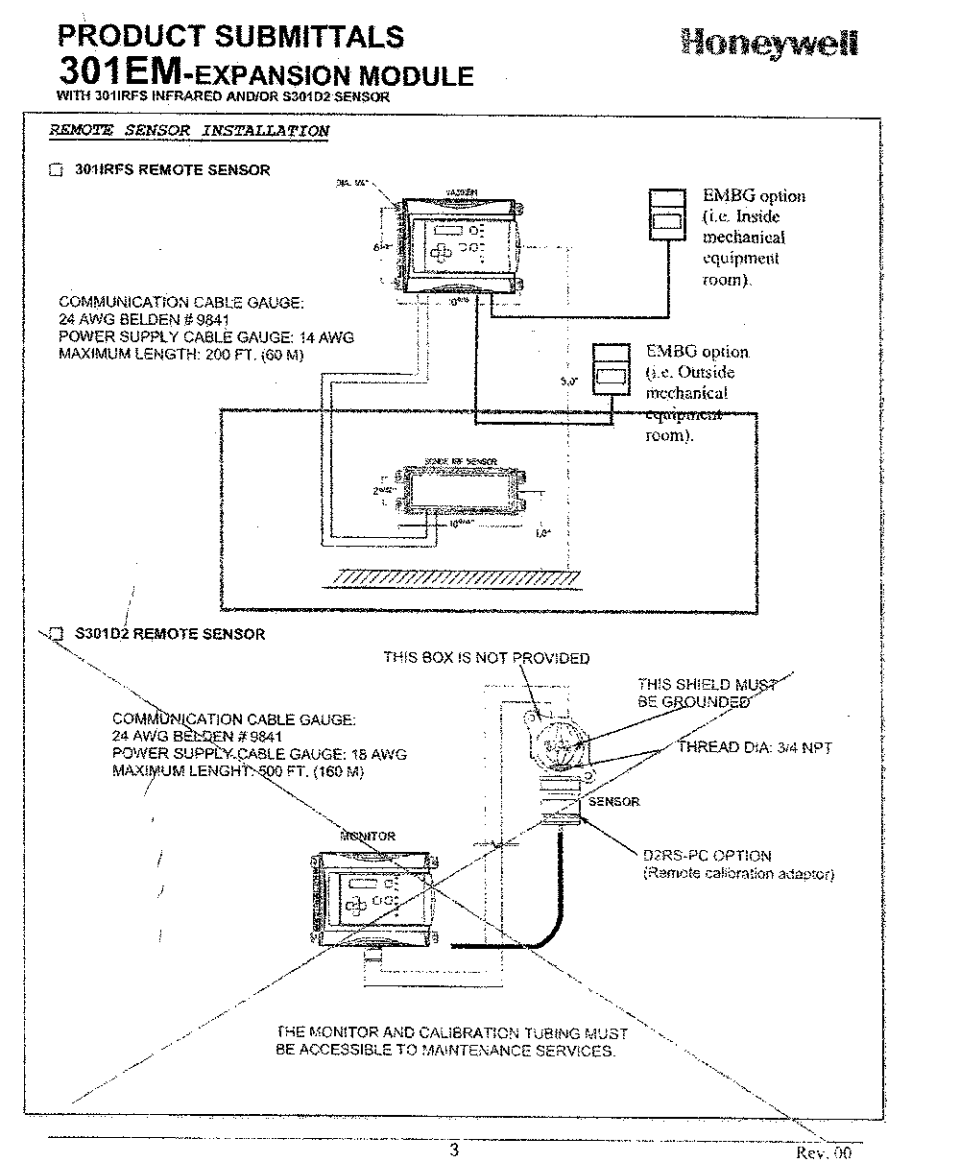
**MATERIAL SAFETY DATA SHEETS**

**NO SCALE**

**CHEMICAL CLASSIFICATION FORM**

COMMON NAME	CHEMICAL NAME	% CAS #	FORM	QUANT IN USE	LOCATION	HAZ. CLASSIF.	JUSTIFICATION
Cooling Tower Inhibitor	PHENIX 5913M	10%	3059-21-1	Liquid	40 gal / day	Health 3 Flame 0 Reactivity 0	Concentrated liquid is diluted 4:1 in the chemical data tank.
Cooling Tower Inhibitor	Bromine Chlorine	2%	26772-55-4	Liquid	40 gal / week	Health 3 Flame 0 Reactivity 0	Concentrated liquid is diluted 4:1 with water in the chemical data tank.
Cooling Tower Inhibitor	Bromine Chlorine	2%	1310-73-2	Liquid	40 gal / week	Health 3 Flame 0 Reactivity 0	Concentrated liquid is diluted 4:1 with water in the chemical data tank.

\*1) PHENIX - Tris(hydroxymethyl)aminomethane, HEDP - Hydroxyethylidene Diphosphonic acid  
\*2) 5-Chloro-methyl-isothiazolin-3-one  
\*3) Stabilized bromine / chlorine halogenated compound



**MATERIAL SAFETY DATA SHEETS**

**NO SCALE**

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\*2) 5-Chloro-methyl-isothiazolin-3-one  
\*3) Stabilized bromine / chlorine halogenated compound

**301EM-20 SPECIFICATIONS**

**Controller**

**Standard Features:**

- Expansion Module to 24VDC Output, Relay-Relay, 4-20mA I/O, Network
- 24VDC Output, 24VDC Output, 24VDC Output, Relay-Relay, 4-20mA I/O, Network
- 24VDC Output, 24VDC Output, 24VDC Output, Relay-Relay, 4-20mA I/O, Network
- 24VDC Output, 24VDC Output, 24VDC Output, Relay-Relay, 4-20mA I/O, Network

**Optional Features:**

- 24VDC Output, 24VDC Output, 24VDC Output, Relay-Relay, 4-20mA I/O, Network
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**NO SCALE**

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\*3) Stabilized bromine / chlorine halogenated compound

**COOLING TOWER CHEMICALS USE FOR CHEMICAL TREATMENT**

**NO SCALE**

**CHEMICAL CLASSIFICATION FORM**

**NO SCALE**

**SGPA**

**ARCHITECTURE AND PLANNING**

1545 HOTEL CIR. S. STUDIO 200  
SAN DIEGO, CA 92108  
(P) 619.297.0131  
WWW.SGPA.COM

**MPC**

**McPARRAN & ASSOCIATES**

REGISTERED PROFESSIONAL ARCHITECTS

4430 LA JOLLA VILLAGE ROAD, SUITE 100  
SAN DIEGO, CA 92122  
TEL: 619-577-2722 FAX: 619-577-2720

**SGPA 2014**

**SUNDT CONSTRUCTION**

**SAN DIEGO STATE UNIVERSITY**

SAN DIEGO, CA

**SOUTH CAMPUS PLAZA DESIGN-BUILD PARKING STRUCTURE**

SAN DIEGO STATE UNIVERSITY

**SUBMITTAL SCHEDULE:**

50% PRELIM. DESIGN	05/14/2014
100% PRELIM. DESIGN	05/28/2014
50% CONST. DOCS.	07/02/2014
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100% BACKCHECK SET 3	03/20/2015
SFM BACKCHECK SET	06/10/2015
AS1003	07/15/2015
AS1 07 - SFM RESUBMITTAL	07/29/2015
AS1 011 - SFM RESUBMITTAL 2	11/08/2015
SFM RESUBMITTAL	11/16/2015
AS1 - SFM RESUBMITTAL #3	03/03/2016

**MECHANICAL DETAILS**

**M-503**

**OFFICE OF THE STATE FIRE MARSHAL**

**APPROVED FOR CONSTRUCTION ONLY**

Reviewed by: *Bruce Goodrich, DSFM*

**APR 27 2016**

Approval of this plan does not authorize or approve any construction or deviation from applicable regulations. Final approval is required in field inspection. One set of approved plans shall be available on the project site at all times.

**IDENTIFICATION STAMP**

**DIVISION OF THE STATE ARCHITECT**

**OFFICE OF REGULATION SERVICES**

FILE # **APPL # 04-11424**

AC \_\_\_\_\_ DATE: \_\_\_\_\_

**University Mechanical & Engineering Contractors**  
An EMCOR Company



**SEQUENCE OF OPERATIONS:**

Description: This is a Primary - Secondary Heating Hot Water control description.

Items underlined> are adjustable via the Building Management System (BMS) graphic screens with proper password authorization. The items in **RED** are determined during Start-Up, Test and Balance and Commissioning and are adjusted by the BMS programmer. The **Pink** BMS Points are part of a system and should be required for reliable operation. The **Green** BMS Points are part of an Enhanced system and not required for reliable operation.

**I. Operation & Switch-over:**

- The BMS shall enable the Lead boiler. The boiler controls its own primary pump and fire rate.
- Boiler Lead - Lag assignment will rotate weekly on **Tuesday mornings at 9:00 AM** regardless of run time.
- Upon call for Switch-over: The Lead Boiler is disabled. The Lag Boiler is enabled. The Lag will now be identified as Lead and the stopped will become the Lag.
- The Lead Boiler shall be enabled based upon a schedule. Initially set as **24 / 7 / 365**.
- The Lag Boiler shall be enabled when the BTU demand is greater than 1,800 MBH or HHW supply Temp (T-1 comm) is 3 deg F below setpoint for 20 minutes.
- The Lag Boiler shall be disabled when the BTU demand is less than 1,200 MBH or HHW supply Temp (T-1 comm) is 3 deg F above setpoint for 20 minutes.

**II. Failures, Alarms & Trending:**

- If actual loop DP is not within 10% of setpoint for 5 minutes, generate an alarm, but continue to operate.
- If T-1 is not within 3 deg F of setpoint for 20 minutes, generate an alarm, but continue to operate.
- All Points shall be logged once every 10 minutes and on a change-of-state.

**III. Control:**

- The BMS shall modulate the secondary pumps to maintain the differential pressure (DP) out in the loop.

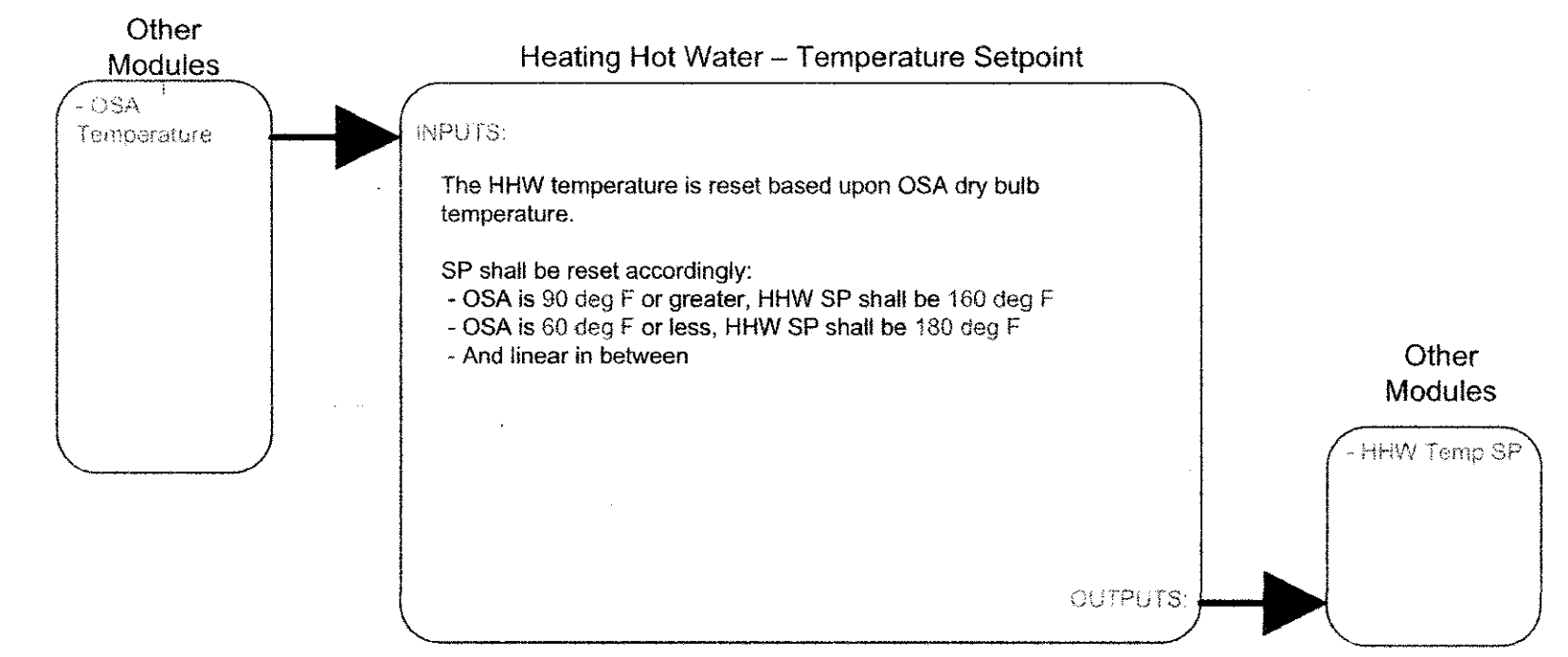
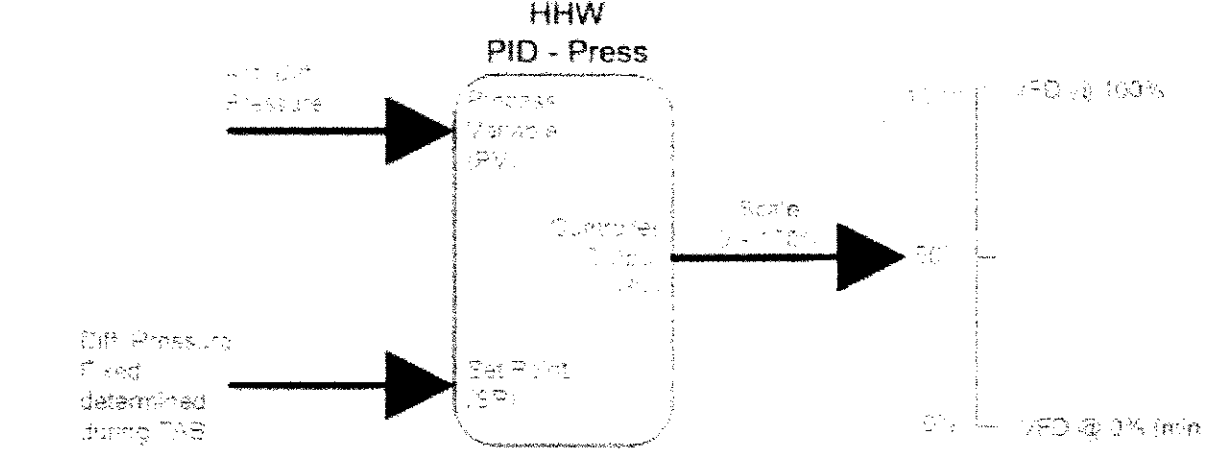
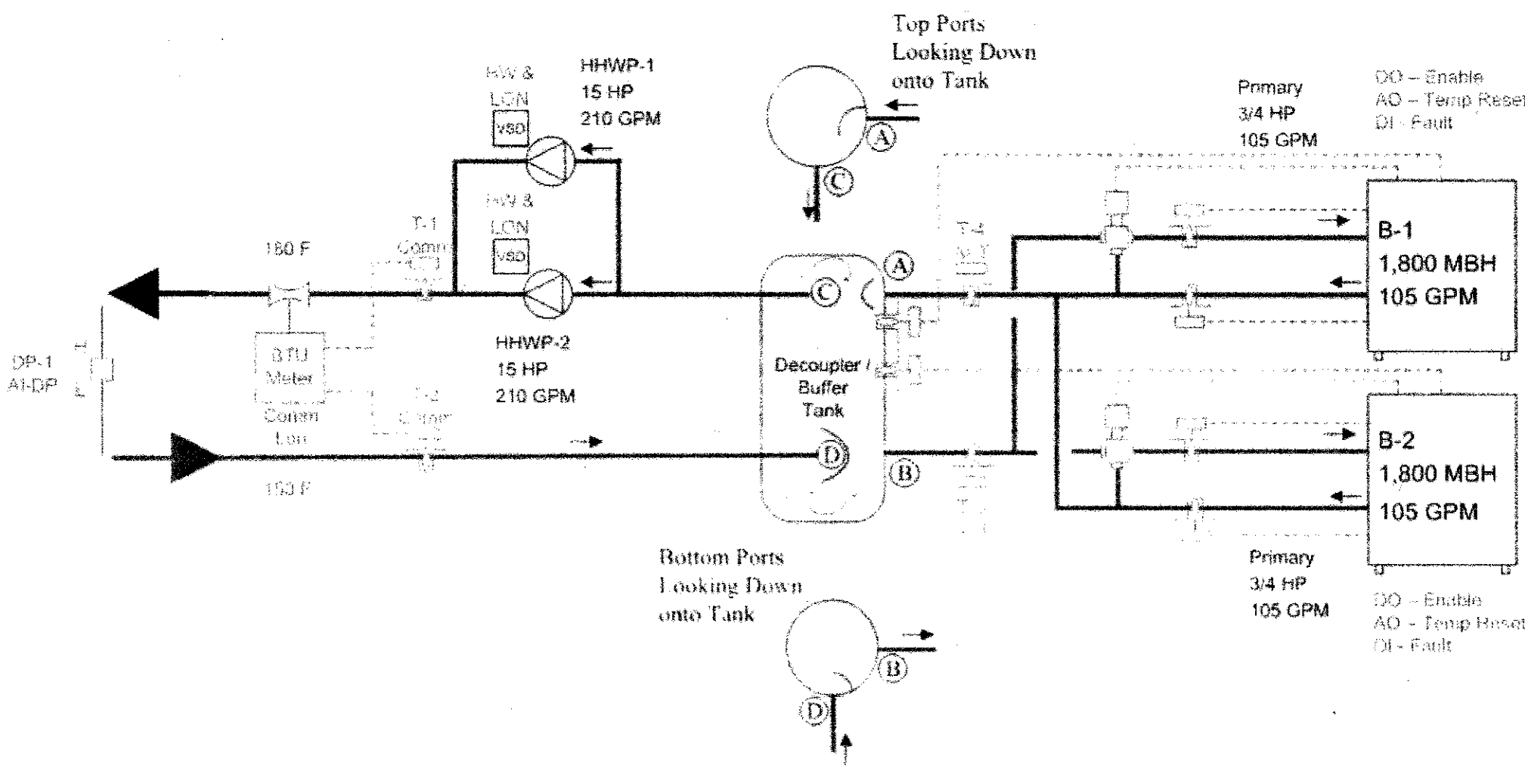
**IV. Overrides:**

- The BMS operator (with proper password access) shall be able to change the loop differential pressure setpoint or the minimum and maximum values.

**V. Notes:**

- The DP should be measured approximately 2/3 down the system.

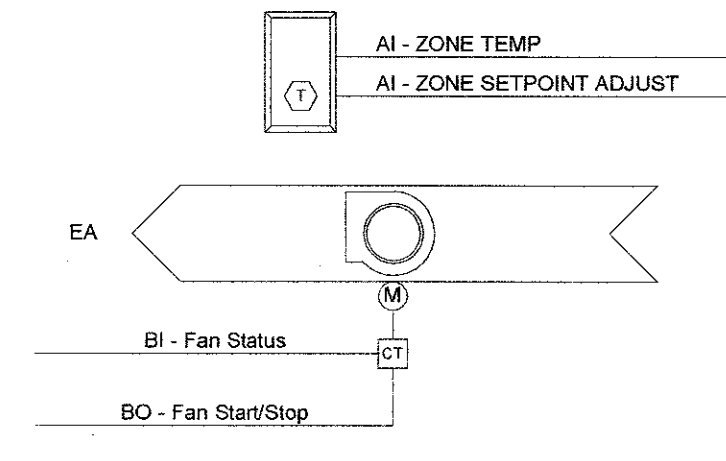
1 - P/T PLUGS SHALL BE PROVIDED NEAR EACH SENSOR. COORDINATE FINAL LOCATION WITH CONTROLS CONTRACTOR



## HEATING HOT WATER SYSTEM CONTROLS DIAGRAM

NO SCALE

1  
M-601



### Exhaust Fan

**Run Conditions - Scheduled:**  
The fan shall run according to a user definable schedule.

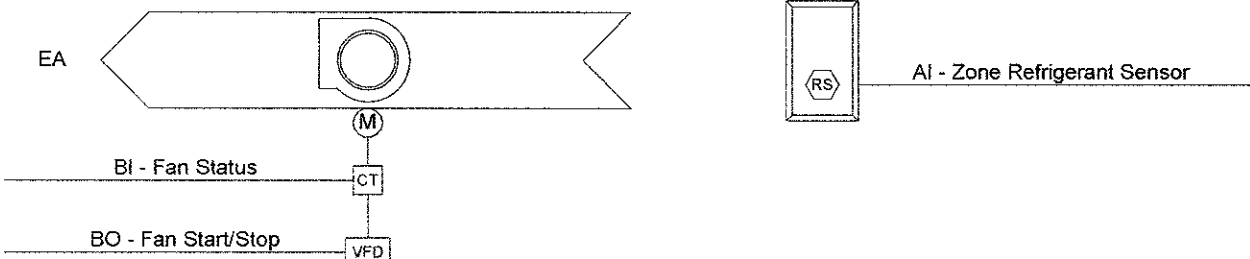
**Fan:**  
The fan shall have a user definable (adj.) minimum runtime. The fan shall be interlocked with and operate whenever the emergency generator operates.

**Fan Status:**  
The controller shall monitor the fan status.

Alarms shall be provided as follows:

- Fan Failure: Commanded on, but the status is off.
- Fan in Hand: Commanded off, but the status is on.
- Fan Runtime Exceeded: Fan status runtime exceeds a user definable limit (adj.).

Point Name	Hardware Points				Software Points				Alarm	Show On Graphic
	AI	AO	BI	BO	AV	BV	Loop	Sched		
Fan Status			x						x	x
Fan Start/Stop				x					x	x
Schedule							x			
Fan Failure									x	
Fan in Hand									x	
Fan Runtime Exceeded									x	
<b>Totals</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>2</b>	<b>2</b>



### Exhaust Fan - On/Off

**Run conditions - Enable Refrigerant Levels:**  
The exhaust fan shall run whenever zone refrigerant levels rise above 25ppm (adj.).

**Alarms shall be provided as follows:**  
High Zone Refrigerant Vapor as monitored by multiple sensor mounted in room.

**Fan:**  
The fan shall have a user definable (adj.) minimum runtime.

**Fan Status:**  
The controller shall monitor the fan status.

Alarms shall be provided as follows:

- Fan failure: Commanded on, but the status is off.
- Fan in Hand: Commanded off, but the status is on.
- Fan Runtime Exceeded: Fan status runtime exceeds a user definable limit (adj.).

Point Name	Hardware Points				Software Points				Alarm	Show On Graphic
	AI	AO	BI	BO	AV	BV	Loop	Sched		
Zone Refrigerant Vapor	x								x	
Fan Status			x						x	x
Fan Start/Stop				x					x	x
High Zone Refrigerant Vapor									x	
Fan Failure									x	
Fan in Hand									x	
Fan Runtime Exceeded									x	
<b>Totals</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>3</b>

## CHILLER ROOM EXHAUST/VENTILATION FAN CONTROL DIAGRAM

NO SCALE

3  
M-601

### SEQUENCE OF OPERATIONS:

Description: This is a typical control description for a Variable Frequency Drive (VFD) controlled motor operating in a Lead - Standby configuration.

Items underlined> are adjustable via the Building Management System (BMS) graphic screens with proper password authorization. The items in **RED** are determined during Start-Up, Test and Balance and Commissioning and are adjusted by the BMS programmer.

**I. Operation - Switch over:**

- Lead - Standby assignment will rotate weekly on **Tuesday mornings at 7:00 AM** regardless of run time.
- Upon call for switch over, the Standby will be enabled and commanded to the same speed as the Lead. If after 30 seconds the speed feedback of the Standby equals the commanded +/- 5%, then the Lead will be stopped.
- The Standby will now be identified as Lead and the stopped will become the Standby.

**II. Failures, Alarms & Trending:**

- If at any time the speed feedback does not equal the commanded speed +/- 5% for 30 seconds, then the motor shall be considered 'Failed'. A BMS alarm generated and the Standby shall be started. The now operating motor shall now be identified as Lead and the 'Failed' motor will be tried again at the next Lead - Standby Switch over.
- If the BMS receives the VFD Failure signal it shall stop the motor, a BMS alarm generated and the Standby shall be started. The now operating motor shall now be identified as Lead and the 'Failed' motor will be tried again at the next Lead - Standby Switch over.
- Failures are non-latching, meaning once the motor is stopped it is considered available for restart, as the BMS operator has had to acknowledge the alarm.
- All Points shall be logged once every minutes and on a change-of-state.

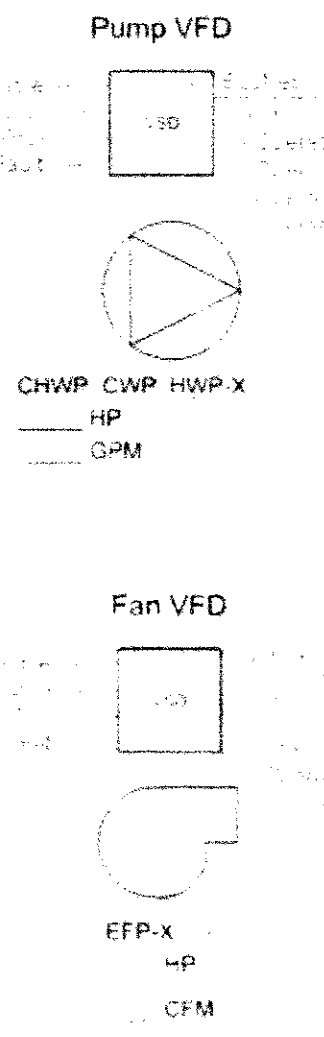
**III. Control:**

- The BMS shall control the motor through hard wired points (so that a data link loss does not affect operation) and the data link shall only provide data for BMS display and trending.
- The following shall be hard wired:
  - Enable (DO from BMS to VFD)
  - Speed Command (AO from BMS to VFD)
  - Speed Feedback (AI to BMS from VFD)
  - Fail / Fault (DI to BMS from VFD)
- The following minimum data shall be polled from the VFD via the data link:
  - Operating Hz
  - Operating KW
  - Operating Volts (Avg)
  - Operating Amps (Avg)

**IV. Overrides:**

- The BMS operator (with proper password access) shall be able to:
  - Force a Lead - Standby Switch over
  - Start a non-failed motor
  - Force a speed command
  - Stop an operating motor

**V. Notes:**



## VARIABLE FREQUENCY DRIVE (VFD) MOTORS IN LEAD-LAG STANDBY OPERATION CONTROLS DIAGRAM

NO SCALE

2  
M-601

## EMERGENCY GENERATOR ROOM EXHAUST/VENTILATION FANS CONTROLS DIAGRAM

NO SCALE

4  
M-601

OFFICE OF THE STATE ARCHITECT  
APPROVED FOR PUBLIC REVIEW  
Reviewed by: [Signature]  
Bryan Gordon USFM

APR 27 2016

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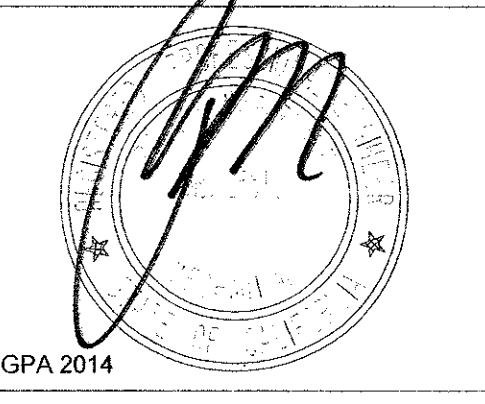
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SOUTH CAMPUS PLAZA DESIGN-BUILD PARKING STRUCTURE  
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**SUBMITTAL SCHEDULE:**

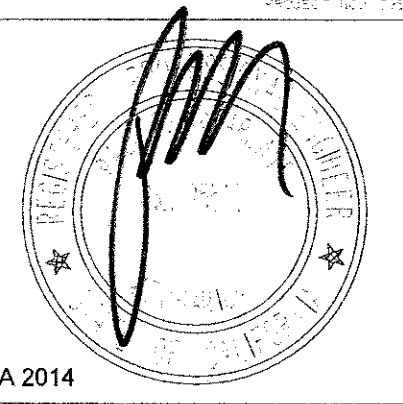
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SFM RESUBMITTAL	11/16/2015
△ SFM RESUBMITTAL #3	03/03/2016

PROJECT NO.:

MECHANICAL CONTROL DIAGRAMS

M-601





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**SOUTH CAMPUS PLAZA DESIGN-BUILD PARKING STRUCTURE**  
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**SEQUENCE OF OPERATIONS:**

Description: This loop is for a Variable Primary CHW system. The two critical controlled variable are: maintaining minimum flow through the chillers and maintaining system DP.

Items underlined are adjustable via the Building Management System (BMS) graphic screens with proper password authorization. The items in **RED** are determined during Start-Up, Test and Balance and Commissioning and are adjusted by the BMS programmer.

**I. Operation – Switch-over:**

- The CHW system shall have a BMS adjustable schedule, initially set at **24/7/365**
- Lead – Lag assignment will rotate weekly on **Tuesday** mornings at **8:00 AM** regardless of run time.
- Upon call for Switch-over:
  - 1) If the Lag chiller is not operating and the Lag cooling tower is not operating, then the Lag cooling tower is enabled (see CT logic).
  - 2) After 120 seconds the Lag Chiller isolation valves are opened and the chiller is enabled.
  - 3) The Lead chiller is then stopped and the isolation valves closed.
  - 4) If the Lag chiller is operating then no operational change is made; however, the Lead-Lag assignment is switched.

**II. Failures, Alarms & Trending:**

- If actual loop DP is not within 1 PSI of setpoint for 5 minutes, generate an alarm, but continue to operate.
- If T-1 is not within 1 deg F of T-2 for 10 minutes, generate a "CHWS Calibration" alarm, but continue to operate.
- If T-1 is less than T-2 by 2 deg F for 5 minutes, generate a "Secondary Over-Pumping" alarm, but continue to operate.
- If the CHWS temperature is 3 degrees greater than setpoint for 15 minutes, generate an alarm, but continue to operate.
- All Points shall be logged once every **10 minutes** and on a **change-of-state**.

**III. Control:**

- If the CHWS temperature is 2 degrees greater than setpoint for 10 minutes, start Lag chiller.
- If the sum of Chiller 1 and 2 loading is less than 90% for 20 minutes, stop and isolate Lag Chiller.

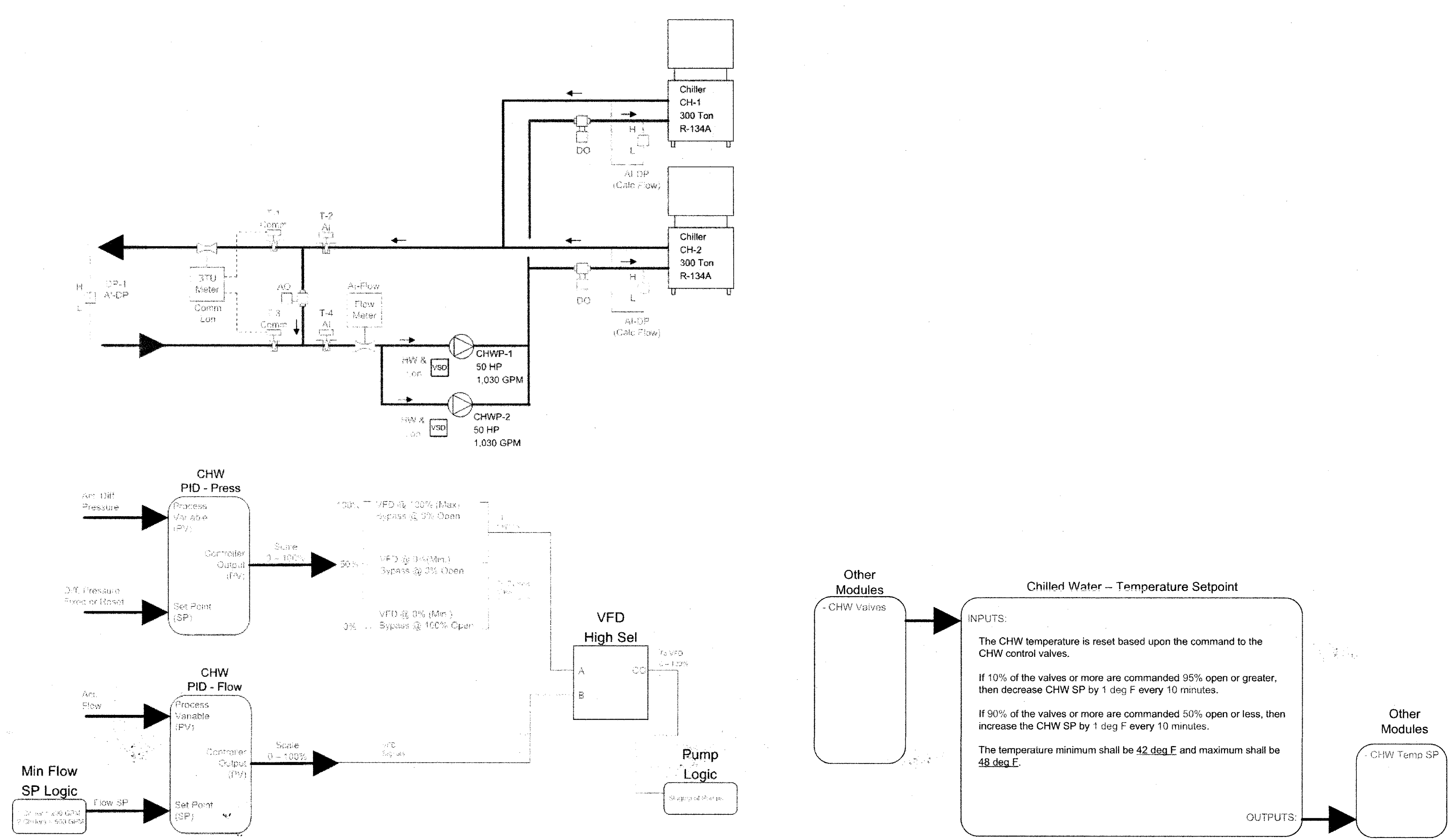
**IV. Overrides:**

- The BMS operator (with proper password access) shall be able to:
  - 1) Initiate a Lead-Lag Switch-over.

**V. Notes:**

- The CHW pumps (CHWP-1 & 2) operate in a Lead – Standby configuration.
- As there are periods when each PID loop does not affect the final control, the 'auto-tune' feature must be disabled for these PID controllers.

1- P/T PLUGS SHALL BE PROVIDED NEAR EACH SENSOR. COORDINATE FINAL LOCATION WITH CONTROLS CONTRACTOR



**CHILLED WATER SYSTEM CONTROLS DIAGRAM**

NO SCALE

1  
M-602

**SEQUENCE OF OPERATIONS:**

Description: This control sequence is for the condenser water system (CW) which includes two Cooling Towers, Fans, hotwell isolation valves and bypass valve. It is applicable for Crossflow or Counterflow units.

Items underlined are adjustable via the Building Management System (BMS) graphic screens with proper password authorization. The items in **RED** are determined during Start-Up, Test and Balance and Commissioning and are adjusted by the BMS programmer.

**I. Operation – Switch-over:**

- Lead – Lag assignment will rotate weekly on **Tuesday** mornings at **8:00 AM** regardless of run time.
- Upon call for Switch-over:
  - 1) If the Lag tower fan is not operating & hotwell isolation valve is closed, then the hotwell isolation valve will be commanded open and tower fan will be enabled and commanded to the same speed as the Lead. If after 90 seconds the speed feedback of the Lag tower fan equals the commanded **100%**, then the Lead fan will be stopped and Lead hotwell isolation valve will be closed. The Lag will now be identified as Lead and the stopped will become the Lag.
  - 2) If the Lag tower fan is operating and the hotwell isolation valve is open then no operational change is made; however, the Lead-Lag assignment is switched.

**II. Failures, Alarms & Trending:**

- If at any time the speed feedback does not equal the commanded speed **100%** for 90 seconds, then the fan motor shall be considered 'Failed' a BMS alarm generated and the Lag shall be started. The now operating fan shall now be identified as Lead and the 'Failed' fan will become Lag and tried again at the next Lead – Lag Switch-over.
- If the BMS receives the VFD Failure signal it shall stop the fan motor, a BMS alarm generated and the Lag fan shall be started. The now operating fan shall now be identified as Lead and the 'Failed' fan will become Lag and tried again at the next Lead – Lag Switch-over.
- Failures are non-latching, meaning once the fan is stopped it is considered available for restart, as the BMS operator has had to acknowledge the alarm.
- CW shall have conductivity high level alarm from chemical treatment panel.
- All Points shall be logged once every **10 minutes** and on a **change-of-state**.

**III. Control:**

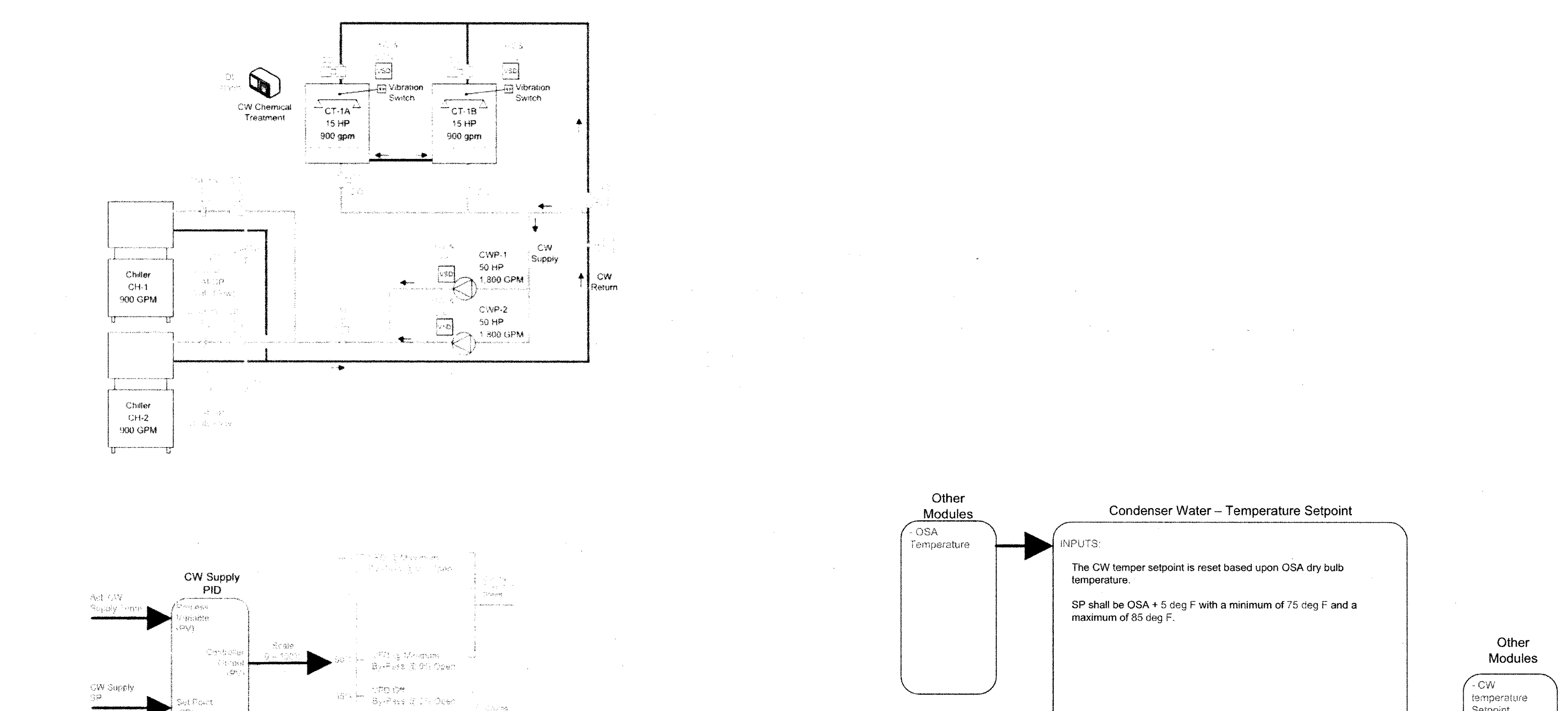
- The BMS shall utilize a PID loop to maintain CW supply temperature at Setpoint.
- For one chiller operation:
  - 1) If the Lead tower is operating **> 90%** for **20 minutes** the Lag tower shall be enabled.
  - 2) If the Lead & Lag towers are operating **< 35%** for **20 minutes** the Lag tower shall be stopped.
- For two chiller operation:
  - 1) Both Lead and Lag shall be enabled.

**IV. Overrides:**

- The BMS operator (with proper password access) shall be able to:
  - 1) Initiate a Lead-Lag Switch-over.
  - 2) Start, Stop or set CT fan speed.
  - 3) Actuate control valves.

**V. Notes:**

1- P/T PLUGS SHALL BE PROVIDED NEAR EACH SENSOR. COORDINATE FINAL LOCATION WITH CONTROLS CONTRACTOR



**CONDENSER WATER SYSTEM CONTROLS DIAGRAM**

NO SCALE

2  
M-602

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Reviewed by: Brady Goodrich, USFM  
**APR 27 2016**  
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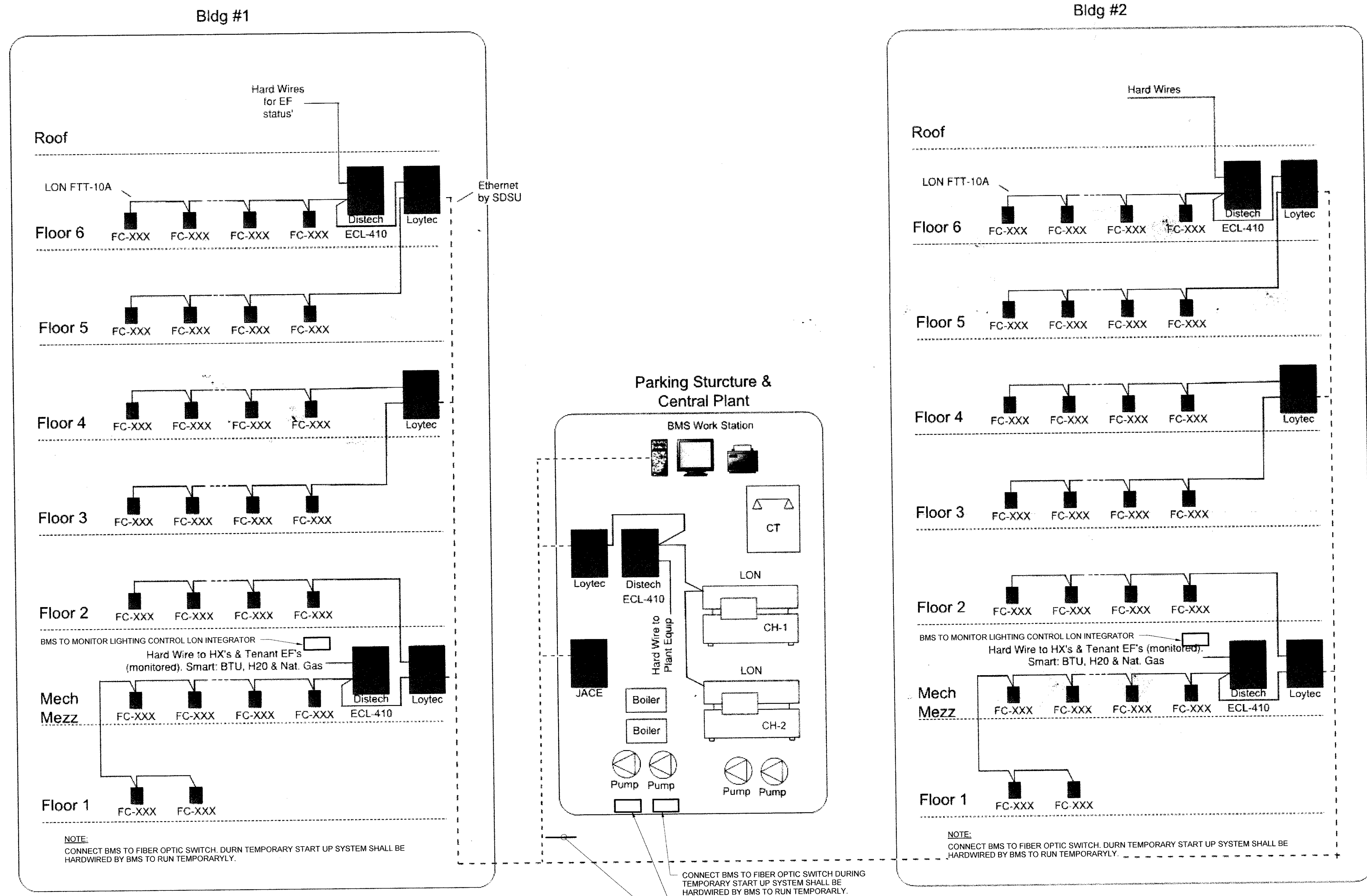
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PROJECT NO:

**MECHANICAL CONTROL DIAGRAMS**

**M-602**





- BMS SYSTEM TO INCLUDE**
1. DUCTLESS SPLIT SYSTEM TEMPERATURE MONITORING THROUGH SPACE TEMP. SENSOR PROVIDED BY CONTROLS CONTRACTOR. TYPICAL FOR 3 SPLIT SYSTEMS ON PARKING STRUCTURE AND 1 SPLIT SYSTEM ON EACH RESIDENTIAL BUILDING.
  2. LIGHTING CONTROL MONITORING FOR PARKING STRUCTURE AND RESIDENTIAL BUILDING.
  3. MONITOR OF ELECTRICAL VAULT SUMP PUMPS AT PARKING STRUCTURE.
  4. MONITOR OF BOOSTER PUMP AND MAKE UP WATER TO COOLING TOWER ON PARKING STRUCTURE.
  5. MONITOR OF EMERGENCY GENERATOR FUEL OIL HIGH LEVEL ALARMS ON PARKING STRUCTURE.
  6. MONITORING OF BTU METERS FOR CHW AND HHW FOR FUTURE TENANT SPACES ON BLDG 1 & 2.
  7. MONITOR DOMESTIC HOT WATER SYSTEMS ON BLDG 1 & 2.
  8. MONITOR OF UTILITY METERING FOR GAS, WATER & ELECTRIC ON PARKING STRUCTURE AND BUILDING 1 & 2.
  9. MONITOR OF UTILITY METERING FOR GAS, WATER & ELECTRIC FOR FUTURE TENANT SPACES.

**DIRECT DIGITAL CONTROLS ARCHITECTURE DIAGRAM**  
NO SCALE

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SFM RESUBMITTAL	11/16/2015
ASI SFM RESUBMITTAL #3	03/03/2016

OFFICE OF THE STATE ARCHITECT  
APPROVED FOR PUBLIC RECORD  
Reviewed by: [Signature]  
[Signature] DSRM

APR 27 2016

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## PLUMBING FUEL OIL VENT CALCULATIONS

THE WETTED AREA OF THE TANK IS 160 SQ.FT.  
 PER MANUFACTURER EQUIPMENT TAG:  
 THE INTERSTITIAL SPACE OF THIS SECONDARY CONTAINMENT DIESEL FUEL TANK REQUIRES EMERGENCY RELIEF VENTING CAPACITY NOT LESS THAN 118,745 CUBIC FEET PER HOUR.  
 THE PRIMARY TANK OF THIS DIESEL FUEL TANK REQUIRES EMERGENCY RELIEF VENTING CAPACITY NOT LESS THAN 118,745 CUBIC FEET PER HOUR PER MANUFACTURER'S DATA.  
 FUEL OIL STORAGE CAPACITY 488 GALLONS  
 FUEL OIL NORMAL VENT CONNECTION SIZE 2"  
 FUEL OIL VENT PIPE DEVELOPED LENGTH TO TERMINATION ON EXTERIOR OF BUILDING 100 FEET  
 EMERGENCY FUEL OIL VENT QUANTITY 2  
 EMERGENCY FUEL OIL VENT CONNECTION SIZE 4"  
 EMERGENCY FUEL OIL PIPE DEVELOPED LENGTH TO TERMINATION ON EXTERIOR OF BUILDING 100 FEET  
 NORMAL AND EMERGENCY VENTING SHALL BE PROVIDED IN COMPLIANCE WITH CFC SECTION 5704.2.7.3 AND 5704.2.7.4.  
 EACH EMERGENCY VENT PIPING SHALL BE ROUTED OUT OF BUILDING INDEPENDENT OF ALL OTHER VENTS.  
 NORMAL AND EMERGENCY VENT PIPE SIZING FROM BELLY TANK CALCULATED BASED UPON 2013 CA FIRE CODE SECTION 5704.2.7.3 & 5704.2.7.4 AND REFERENCED API 2000 STANDARD SECTION 4.3.3.2.

### NORMAL VENT CALCULATIONS

API STANDARD 2000, SECTION 4.3.3.2.1 - TABLE 1A

FLASH POINT ABOVE 100DEGREE F

INBREATHING 5.6 SCFH X 11 BARRELS = 61.6 SCFM BARRELS

OUTBREATHING 6 SCFH X 11 BARRELS = 66 SCFM BARRELS

UL 142 PER TABLE 6 VENTING CAPACITY

160 SQ. FT. OF WETTED AREA REQUIRES A 5" VENT PIPE

### EMERGENCY VENT CALCULATIONS

API STANDARD 2000, SECTION 4.3.3.2.1

$$SCFH = 3.091 \times \frac{QF}{L} \times \left(\frac{T}{M}\right)^{0.5} \text{ (EQUATION 1A)}$$

WHERE  
 SCFH = VENTING REQUIREMENT, IN STANDARD CUBIC FEET PER HOUR OF AIR  
 Q = HEAT INPUT FROM FIRE EXPOSURE, IN BTU PER HOUR. HEAT INPUT IS PROVIDED IN FIGURE B-1 OF APPENDIX B OR THE FOLLOWING SUMMARY

WETTED SURFACE AREA (SQARE FEET)	DESIGN PRESSURE (PSIG)	HEAT INPUT (BTU / HR)
<200	<15	Q = 20,000A
>200 AND <1000	<15	Q = 199,300A <sup>0.598</sup>
>1000 AND <2800	<15	Q = 963,400A <sup>0.598</sup>
>2800	BETWEEN 1 PSIG AND 15	Q = 21,000A <sup>1.402</sup>
>2800	>1	Q = 14,090,000

A = WETTED SURFACE AREA OF THE TANK, IN SQUARE FEET (SEE TABLE 3A, FOOTNOTES A AND B)

F = ENVIRONMENTAL FACTOR FROM TABLE 4A. CREDIT MAY BE TAKEN FOR ONLY ONE ENVIRONMENTAL FACTOR.

L = LATENT HEAT OF VAPORIZATION OF THE RELIEVING LIQUID AT THE RELIEVING PRESSURE AND TEMPERATURE, IN BTU PER POUND.

T = TEMPERATURE OF THE RELIEVING VAPOR, IN DEGREES RANKINE. IT IS NORMALLY ASSUMED THAT THE TEMPERATURE OF THE RELIEVING VAPOR CORRESPONDS TO THE BOILING POINT OF THE STORED FLUID AT THE RELIEVING PRESSURE.

M = MOLECULAR WEIGHT OF THE VAPOR BEING RELIEVED.

$$SCFH = 3.091 \times \frac{QF}{L} \times \left(\frac{T}{M}\right)^{0.5}$$

A = 160 SF

$$Q = 20,000 \times A = (20,000)(160) = 3,200,000 \text{ BTU / HR}$$

F = 1.0

$$L = 100 \text{ BTU / LB @ } 60^{\circ}\text{F}$$

T = 1104 R

M = 200

$$SCFH = 3.091 \times \frac{(3,200,000)(1.0)}{100} \times \left(\frac{1104}{200}\right)^{0.5} = 232,390.58 \text{ SCFH}$$

### TO CALCULATE DIAMETER OF EMERGENCY VENT.

CALCULATION:  
**NFPA 30 ANNEX A 22.7.3.10.4**  
 $CFH = 1.667 C_v A_v (P_i - P_o)$

WHERE CFH = VENTING REQUIREMENT IN CUBIC FEET OF FREE AIR PER HOUR

C<sub>v</sub> = 0.5 (THE FLOW COEFFICIENT)

A<sub>v</sub> = THE ORIFICE AREA IN SQ. IN.

P<sub>i</sub> = THE ABSOLUTE PRESSURE INSIDE THE TANK IN INCHES OF WATER

P<sub>o</sub> = THE ABSOLUTE ATMOSPHERIC PRESSURE OUTSIDE THE TANK IN INCHES OF WATER

### PER NFPA 30 ANNEX A 22.7.3.10.4

$$CFH = 1.667 C_v A_v \Delta P$$

$$CFH = A_v$$

$$1.667 C_v \Delta P = A_v$$

$$\frac{232,390.58}{(1.667)(0.5)(\Delta P)} = A_v$$

$$1 \text{ IN WC} = 0.0361 \text{ PSI}$$

$$P_i = 14.7 \text{ PSI} = 407.20 \text{ IN WC}$$

$$P_o = 17.2 \text{ PSI} = 475.45 \text{ IN WC}$$

$$A_v = \frac{232,390.58}{(1.667)(0.5)(475.45 - 407.20)} = 4.026 \text{ IN}$$

NOTE: AUTHORITY CITED: SECTION 142.3, LABOR CODE.

2 1/2" PIPE ACTUAL DIAMETER 2.469" 4" PIPE ACTUAL DIAMETER 4.026"

3" PIPE ACTUAL DIAMETER 3.068" 5" PIPE ACTUAL DIAMETER 5.563"

ONE 5" NORMAL VENT FROM 2" VENT CONNECTION POINT AT TANK TO FINAL LOCATION OUTSIDE OF THE BUILDING 10 FEET ABOVE THE TOP OF STRUCTURE ON LEVEL 6 (100' TOTAL DEVELOPED LENGTH).

TWO 4" EMERGENCY VENT FROM 4" VENT CONNECTION POINT AT TANK TO FINAL LOCATION OUTSIDE OF THE BUILDING 10 FEET ABOVE THE TOP OF STRUCTURE ON LEVEL 6 (100' TOTAL DEVELOPED LENGTH).

## FIXTURE CONNECTION SCHEDULE

SYMBOL	DESCRIPTION	PIPE SIZE (INCHES)					REMARKS
		CW	HW	W	V	TRAP	
AD-1	AREA DRAIN	-	-	4	2	4	ZURN #Z503 WITH MINIMUM GRATE OPEN AREA OF 26 SQ. IN. MINIMUM 26 SQ. IN. CONNECTED TO STORM DRAIN SYSTEM.
AD-2	AREA DRAIN	-	-	3	-	-	ZURN #Z415B WITH 5" TOP CONNECTED TO STORM DRAIN SYSTEM.
FS-1	FLOOR SINK	-	-	4	2	4	12"x12"x10"
FD-1	FLOOR DRAIN	-	-	2	1 1/2	2	4"DIAMETER, WITH TRAP PRIMER CONNECTION
DN-1	DOWNSPOUT NOZZLE	-	-	3	-	-	ZURN Z199-NH-ZAB DOWNSPOUT NOZZLE WITH POLISHED BRONZE BODY.
TD-1	TRENCH DRAIN	-	-	4	-	-	CAST IN PLACE TRENCH - GRATE BY UMEC. THE GRATE IS A SLOTTED DUCTILE IRON "CLASS C". TRENCH LENGTH 13 FT. 4 IN.
TD-2	TRENCH DRAIN	-	-	4	-	-	CAST IN PLACE TRENCH - GRATE BY UMEC. THE GRATE IS A SLOTTED DUCTILE IRON "CLASS C". TRENCH LENGTH 16 FT. 6 IN.
TD-3	TRENCH DRAIN	-	-	4	-	-	CAST IN PLACE TRENCH - GRATE BY UMEC. THE GRATE IS A SLOTTED DUCTILE IRON "CLASS C". TRENCH LENGTH 5 FT. 0 IN.
HB-1	HOSE BIBB	3/4	-	-	-	-	WALL MOUNT WITH INTEGRAL BREAKER
HB-2	HOSE BIBB	3/4	-	-	-	-	RECESSED BOX WITH COVER
ESH-1	EMERGENCY SHOWER	1 1/4	-	-	-	-	GUARDIAN #G1909BC, STAINLESS STEEL BOWL WITH COVER
RR-1	ROOF RECEPTOR	-	-	4	2	4	ZURN #Z122
RD-1 / DRD-1	ROOF DRAIN	-	-	-	-	-	SEE FLOOR PLAN FOR SIZE ZURN #Z164

## PIPE SIZING SCHEDULE-CW

SIZE	GPM	FT/SEC	FIXTURE UNITS	
			FLUSH TANK	FLUSH VALVE
1/2"	2	2.5	1	0
3/4"	5	3.5	6	0
1"	11	4	15	0
1 1/4"	19	4.5	28	0
1 1/2"	27	5	46	10
2"	56	6	155	63
2 1/2"	105	7	406	270

## FIXTURE UNIT SUMMARY

FIXTURE	TYPE	QTY	WATER		WASTE	
			FU	TOTAL	FU	TOTAL
FLOOR SINK/DRAIN	-	13	-	-	2	26
FUTURE	-	ILS	-	100	-	100
HOSE BIBB	-	1/2	2.51	4.5	-	-
TOTAL FIXTURE UNITS	-	-	-	104.5	-	128
GPM	-	-	-	45	-	-
COOLING TOWER GPM	-	-	-	20	-	-
TOTAL GPM	-	-	-	65	-	-

## WATER CALCULATIONS

METER LOCATION(S): PLAZA LINDA VERDE PARKING STRUCTURE AT COLLAGE

TOTAL FIXTURE UNITS: 42 DEMAND FLOW: 25 GPM.

FLUSHMETER  TANK TYPE  FIXTURES PREDOMINANTLY USED.

SOFT WATER CONNECTION WILL  WILL NOT  BE USED.

NUMBER OF BUILDING STORIES: 6

NORMAL MINIMUM PRESSURE AT MAIN: 65 PSI

DEVELOPED PRESSURE LOSS THROUGH METER: 4 PSI

BACKFLOW PREVENTER REQUIRED? YES  NO  PRESSURE LOSS: 8 PSI

BOOSTER PUMP INLET PRESSURE: 53 PSI

BOOSTER PUMP OUTLET PRESSURE: 70 PSI

METER (REGULATOR) TO HIGH OUTLET: 68 FT. X 43 = 29.2 PSI

RESIDUAL PRESSURE REQUIRED: 25 PSI

PRESSURE AVAILABLE FOR DROP (DESIGN PRESSURE): 15.8 PSI

MAXIMUM DEVELOPED LENGTH OF WATER SYSTEM: 250 FEET

ALLOWABLE MAXIMUM FRICTION LOSS PER 100 FEET OF PIPE: 6.3 PSI

## WATER CALCULATIONS - LOWER LEVEL FUTURE MEZZANINE

METER LOCATION(S): PLAZA LINDA VERDE PARKING STRUCTURE AT COLLAGE

TOTAL FIXTURE UNITS: 100 DEMAND FLOW: 88 GPM.

FLUSHMETER  TANK TYPE  FIXTURES PREDOMINANTLY USED.

SOFT WATER CONNECTION WILL  WILL NOT  BE USED.

NUMBER OF BUILDING STORIES: 1.5

NORMAL MINIMUM PRESSURE AT MAIN: 65 PSI

DEVELOPED PRESSURE LOSS THROUGH METER: 4 PSI

BACKFLOW PREVENTER REQUIRED? YES  NO  PRESSURE LOSS: 8 PSI

PRESSURE REGULATOR SET AT: 50 PSI

METER (REGULATOR) TO HIGH OUTLET: 10 FT. X 43 = 4.3 PSI

RESIDUAL PRESSURE REQUIRED: 30 PSI

PRESSURE AVAILABLE FOR DROP (DESIGN PRESSURE): 15.7 PSI

MAXIMUM DEVELOPED LENGTH OF WATER SYSTEM: 250 FEET

ALLOWABLE MAXIMUM FRICTION LOSS PER 100 FEET OF PIPE: 6.8 PSI

## PUMP SCHEDULE

SYMBOL	DESCRIPTION	GPM	FEET OF HEAD	PIPE SIZE (IN.)	OUTPUT PSI	ELECTRICAL DATA						OPER WEIGHT (LBS)	REMARKS
						VOLT	PHASE	CYCLE	RPM	AMPS	HP		
WPB-1	DUPLEX WATER PRESSURE BOOSTER	40	70	2"	70	480	3	60	-	7.4	(2) 2	2000	GRUNFOS #MPC-ER-CR-ES-6 INTEGRATED VFD SKID MOUNTED WITH BLADDER TANK AND CONTROL PANE. SEE CONTROL REVISION NOTES.
SP-1	SUMP PUMP	28	20	1 1/2"	-	115	1	60	-	7.8	1/3	50	HYDROMATIC #OSP50A1A1 1 1/2" DISCHARGE AUTOMATIC CONTROLS. OVERLOAD PROTECTION AND REMOTE ALARM CONTROL ON ADJACENT PROJECT PROPERTY BY OTHERS. LOCATED IN ELECTRICAL VAULTS ON SITE. STORM DRAIN CONNECTION TO SITE STORM SYSTEM BY CIVIL.

## GAS CALCULATIONS FUTURE T.I.

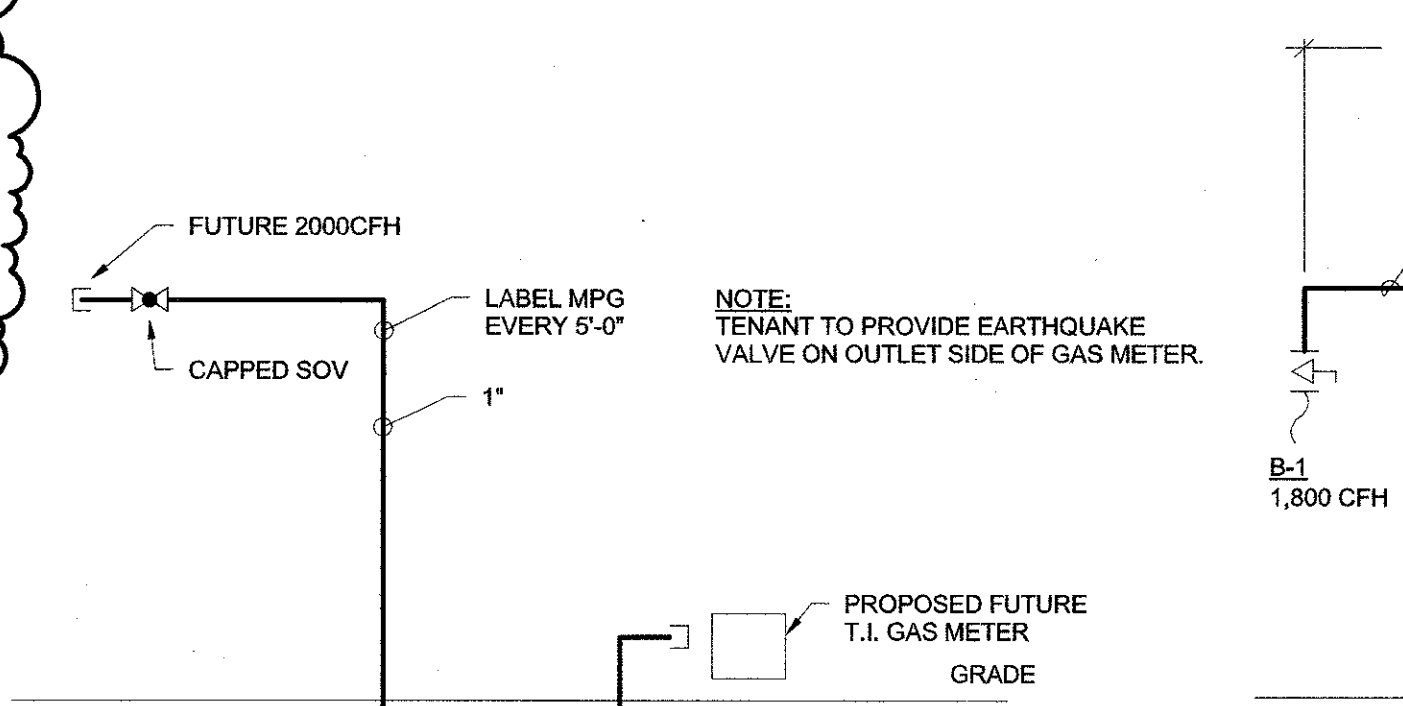
DESCRIPTION	QUANTITY	BTUH EA	BTUH TOTAL
FUTURE	1LS	2,000,000	2,000,000
TOTAL BTUH DEMAND			2,000,000
TOTAL CFH DEMAND (BTUH - 1000)			2,000
MAXIMUM DEVELOPED LENGTH OF PIPING: 5 PSI			200 FEET

\* ALL GAS PIPING SIZED PER 2013 CPC  
 FOR GAS PIPING DIAGRAM, SEE P-001

## GAS CALCULATIONS

DESCRIPTION	QUANTITY	BTUH EA	BTUH TOTAL
SPACE HEATING BOILER	2 EA	1,800,000	3,600,000
FUTURE	1LS	2,000,000	2,000,000
TOTAL BTUH DEMAND			5,600,000
TOTAL CFH DEMAND (BTUH - 1000)			5,600
MAXIMUM DEVELOPED LENGTH OF PIPING: 5 PSI			175 FEET

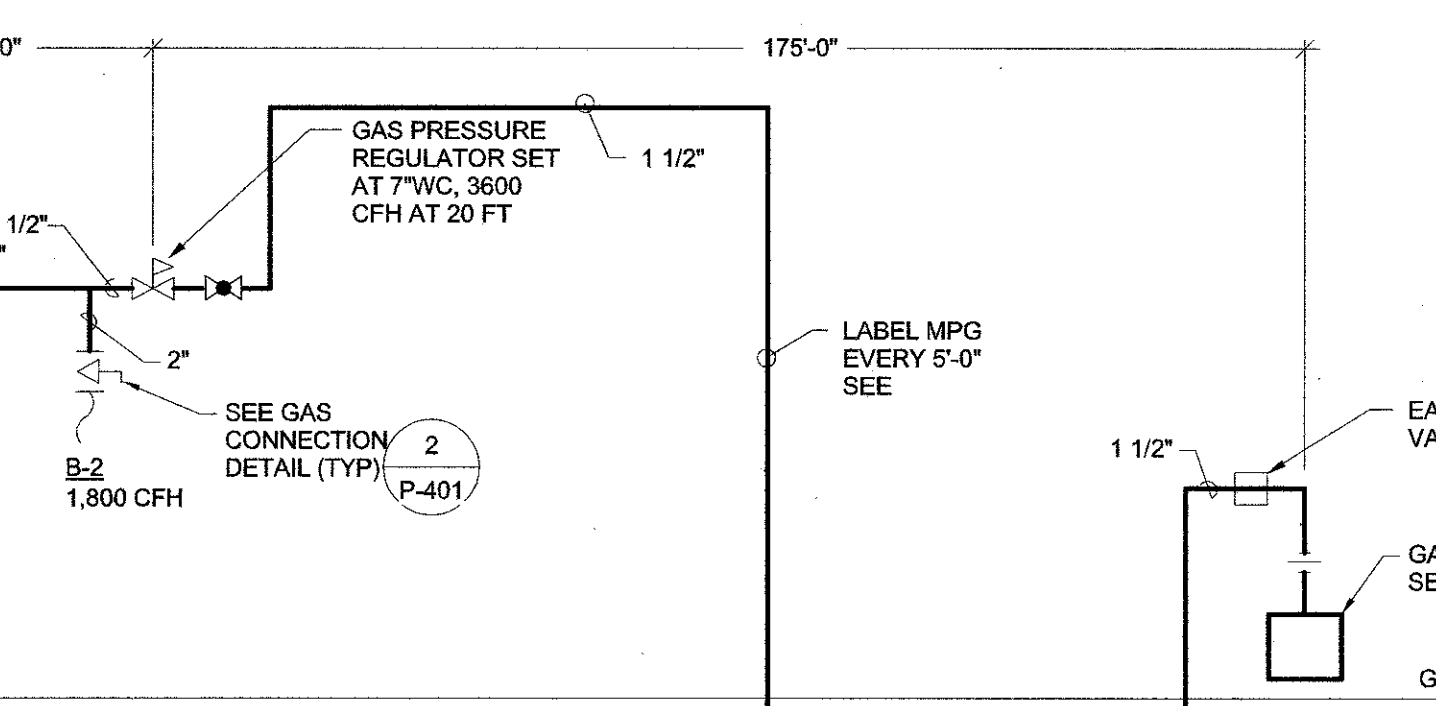
\* ALL GAS PIPING SIZED PER 2013 CPC  
 FOR GAS PIPING DIAGRAM, SEE P-001



GAS PIPING DIAGRAM

NO SCALE

2 P-001



GAS PIPING DIAGRAM

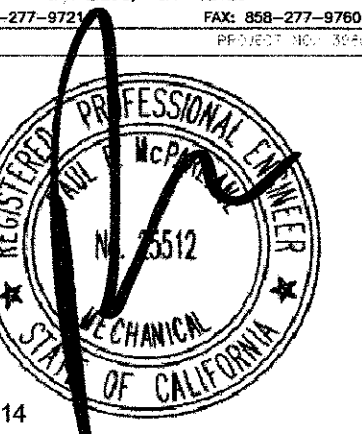
NO SCALE

1 P-001

## PLUMBING LEGEND & ABBREVIATIONS

SYMBOL	ABBREV.	DESCRIPTION
POC		POINT OF CONNECTION
SOR W		SOIL OR WASTE BELOW SLAB
SD		SOIL OR WASTE ABOVE SLAB
OSD		OVERFLOW STORM DRAIN PIPING
CD		CONDENSATE DRAIN PIPING
V		SANITARY VENT PIPING
FOR		FUEL OIL SUPPLY
FOS		FUEL OIL RETURN
FOV		FUEL OIL VENT
EFOV		EMERGENCY FUEL OIL VENT
CW		COLD WATER PIPING
HW		HOT WATER PIPING (120")
HWR		HOT WATER RETURN PIPING
TP		TRAP PRIMER LINE
G		GAS PIPING
MPG		MEDIUM PRESSURE GAS PIPING
RPBP		REDUCED PRESSURE PRINCIPAL BACKFLOW PREVENTER (DIAGRAMMATIC)
SOV		SHUT-OFF VALVE (BALL VALVE) (DIAGRAMMATIC)
SOV		SHUT-OFF VALVE (GATE VALVE) (DIAGRAMMATIC)
CV		CHECK VALVE (DIAGRAMMATIC)
PRV		PRESSURE REDUCING VALVE (DIAGRAMMATIC)
RV		TEMPERATURE & PRESSURE RELIEF VALVE (DIAGRAMMATIC)
COG		CLEAN-OUT TO GRADE (DIAGRAMMATIC)
FCO		FLOOR CLEAN OUT (DIAGRAMMATIC)
WCO		WALL CLEAN-OUT (DIAGRAMMATIC)
CL		CAPPED LINE (DIAGRAMMATIC)
DN		DOWN OR DROP (DIAGRAMMATIC)
UP		RISE OR RISER (DIAGRAMMATIC)
VHB		WALL HOSE BIBB (DIAGRAMMATIC)
HB		HOSE BIBB (DIAGRAMMATIC)
U		UNION (DIELECTRIC) (DIAGRAMMATIC)
WH(A)		WATER HAMMER ARRESTOR (P.D.I. SIZE) (DIAGRAMMATIC)
FS		FLOOR SINK
FD		FLOOR DRAIN
A/C		ABOVE CEILING
AD		AREA DRAIN
AFF		ABOVE FINISHED FLOOR
ADA		AMERICANS WITH DISABILITIES ACT
BTUH		BRITISH THERMAL UNITS PER HOUR
SF		BELOW FLOOR
BLDG		BUILDING
B/G		BELOW GRADE
CBC		CALIFORNIA BUILDING CODE
CPC		CALIFORNIA PLUMBING CODE
CFM		CUBIC FEET PER MINUTE
CFH		CUBIC FEET PER HOUR
EA		EACH
(E)		EXISTING
FT		FEET/FOOT
FT/SEC		FEET PER SECOND
FU		FIXTURE UNIT
GPM		GALLONS PER MINUTE
GPH		GALLONS PER HOUR
GAL		GALLON
HVAC		HEATING, VENTILATING, & AIR CONDITIONING
HP		HORSE POWER
IN		INCH
INT		INTEGRAL
LBS		POUNDS
MIN		MINIMUM
MAX		MAXIMUM
MFRS		MANUFACTURER'S
NO		NUMBER
OPER		OPERATING
PRV		PRESSURE REGULATING VALVE
PSI		POUNDS PER SQUARE INCH
QTY		QUANTITY
SQ		SQUARE
TI		TENANT IMPROVEMENT
TD		TRENCH DRAIN
TYP		TYPICAL
TDL		TOTAL DEVELOPED LENGTH
UPC		UNIFORM PLUMBING CODE
VFD		VARIABLE FREQUENCY DRIVE
VTR		VENT THRU ROOF
V/PH		



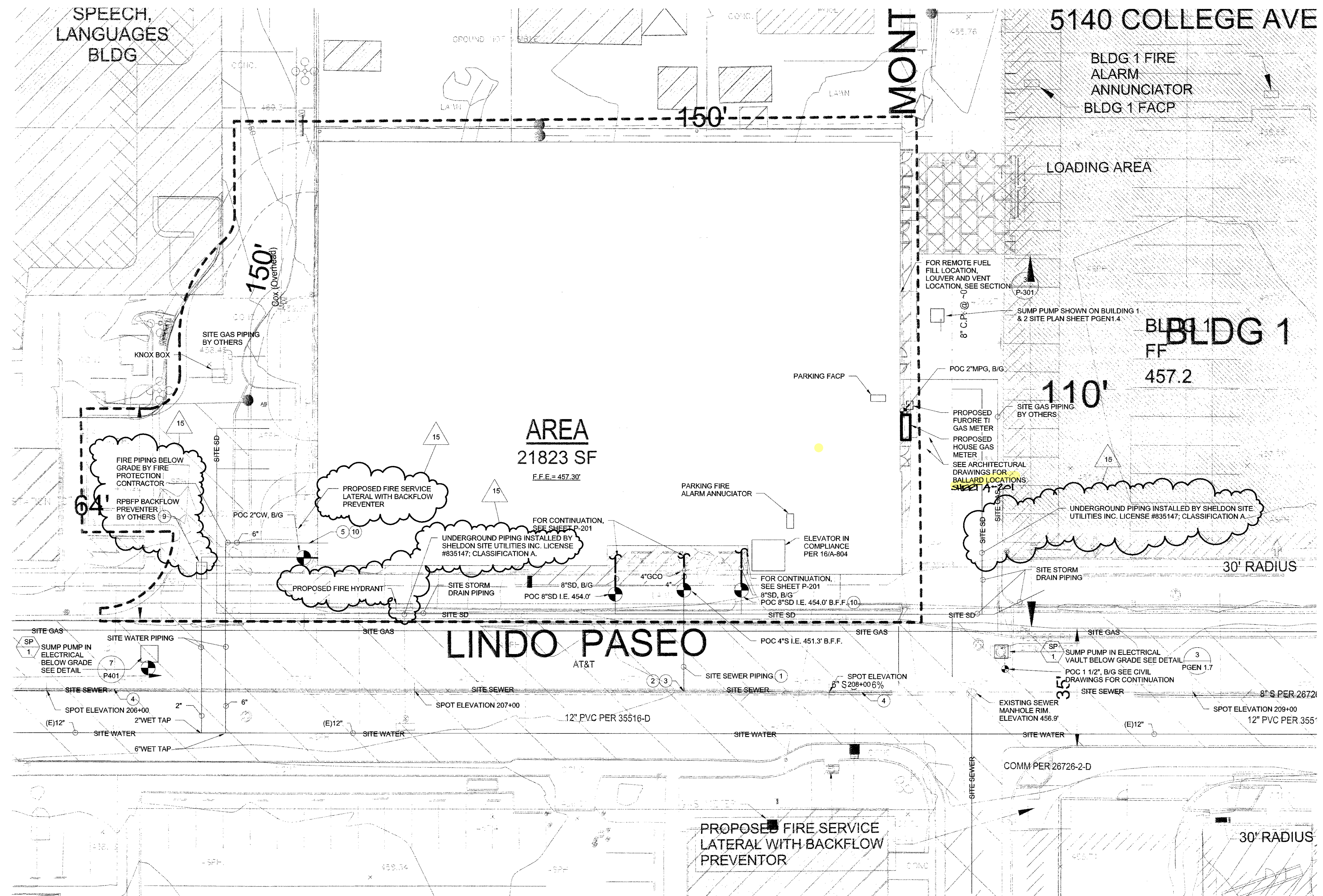


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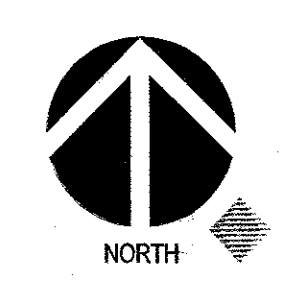
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**SHEET NOTES**

- 1) 8" SEWER LATERAL BY OTHERS
- 2) CONNECT TO EXISTING SEWER MAIN BY OTHERS
- 3) SEWER LATERAL PER SDS 105 AND SEWER LATERAL CLEANOUTS (IN PAVED ALLEY, SIDEWALK OR AREAS SUBJECT TO TRAFFIC).
- 4) EXISTING SEWER LATERAL.
- 5) FIRE SERVICE WITH PVT, 6" BACKFLOW PREVENTION ASSEMBLY TYPE WITH TAMPER SWITCHES, TYP PER SDW-105 AND SDW-115.
- 6) 4" WATER SERVICE WITH 3" METERS.
- 7) 2-3" BACKFLOW PREVENTION ASSEMBLY PER SDW-104.
- 8) 2" WATER SERVICE.
- 9) 1.5" METER WITH DUAL BACKFLOW PREVENTER ASSEMBLY PER SDW-140 BY OTHERS
- 10) SITE STORM WATER TO FILTRATION DEVICE BY CIVIL.

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BRUCE SANDRICH, DSRM  
APR 27 2016  
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**PLUMBING SITE PLAN** 1/16" = 1'-0" 1

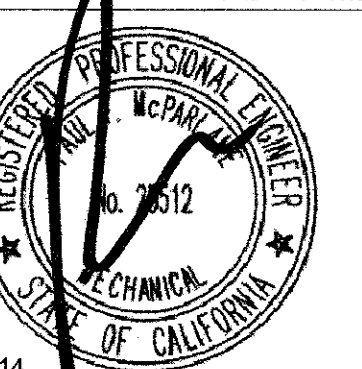
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PROJECT NO:  
**PLUMBING SITE PLAN**

**P-101**



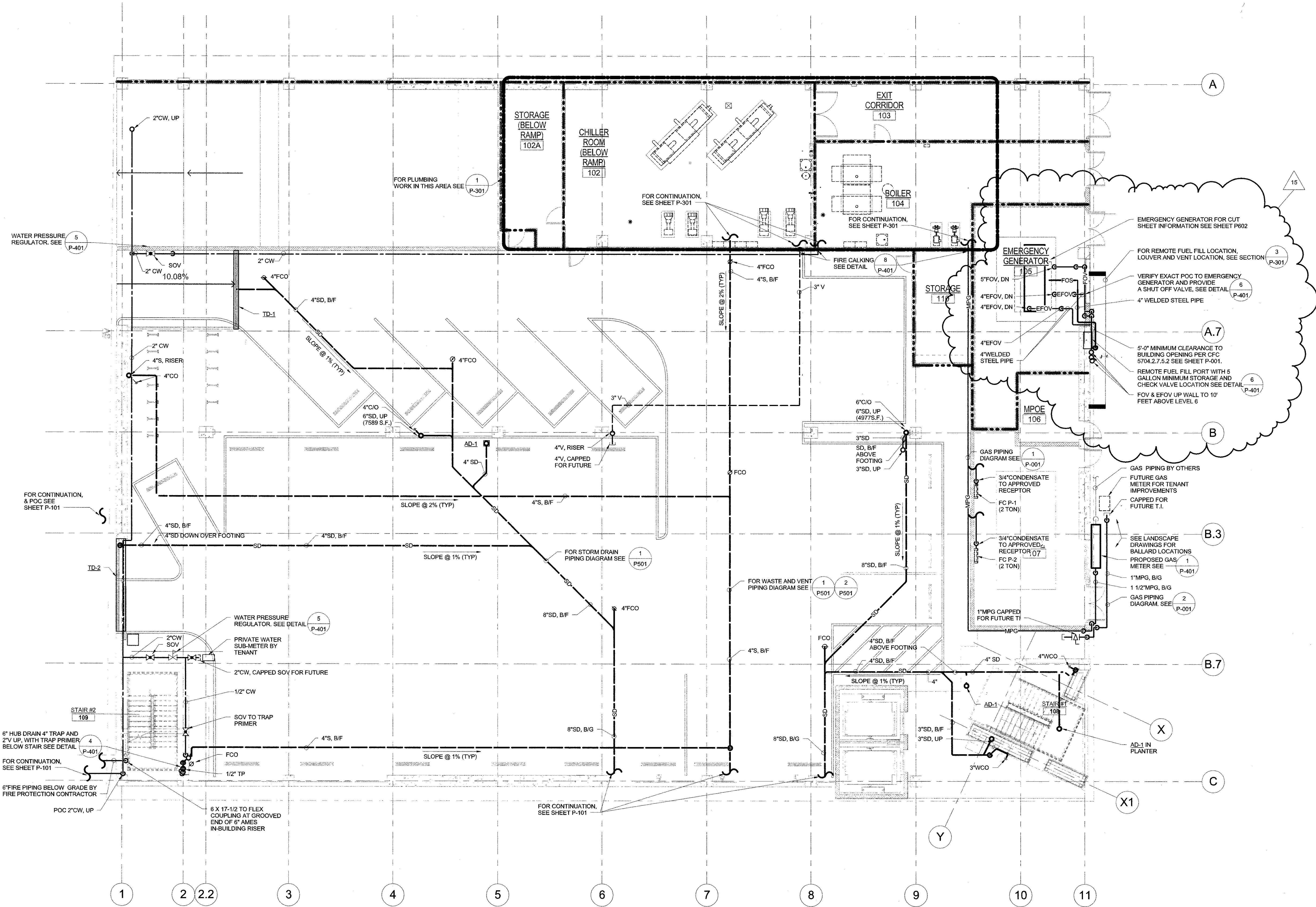


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**PLUMBING GROUND FLOOR PLAN**

1/8" = 1'-0"

1



NORTH

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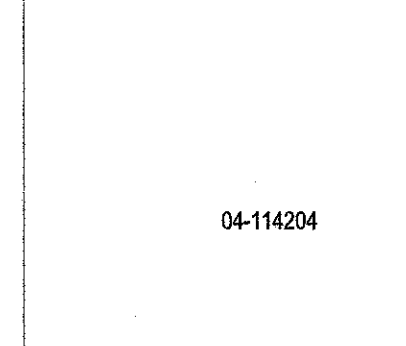
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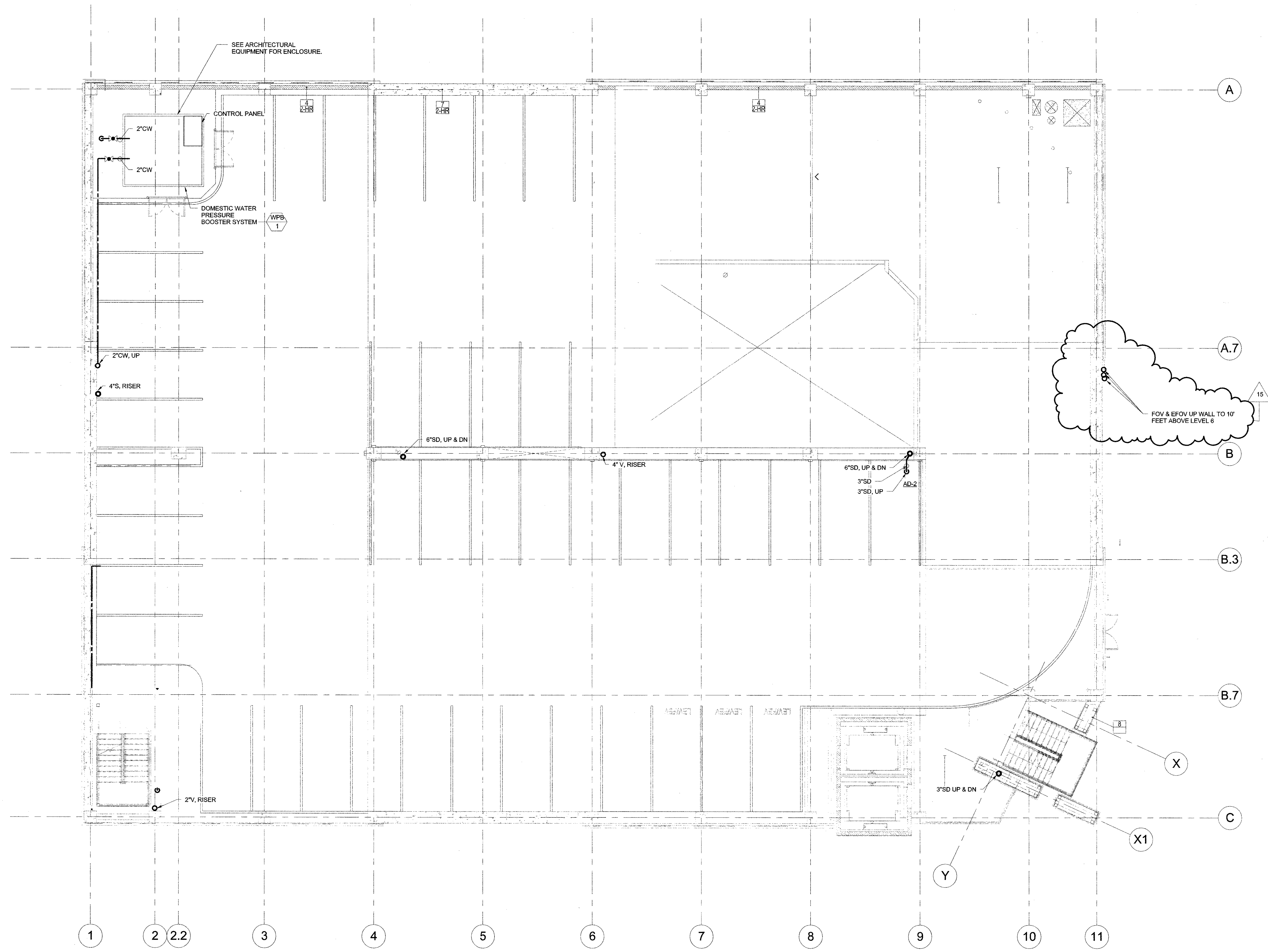
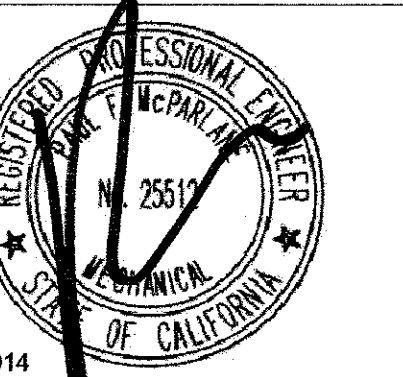
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**PLUMBING SECOND FLOOR PLAN**

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

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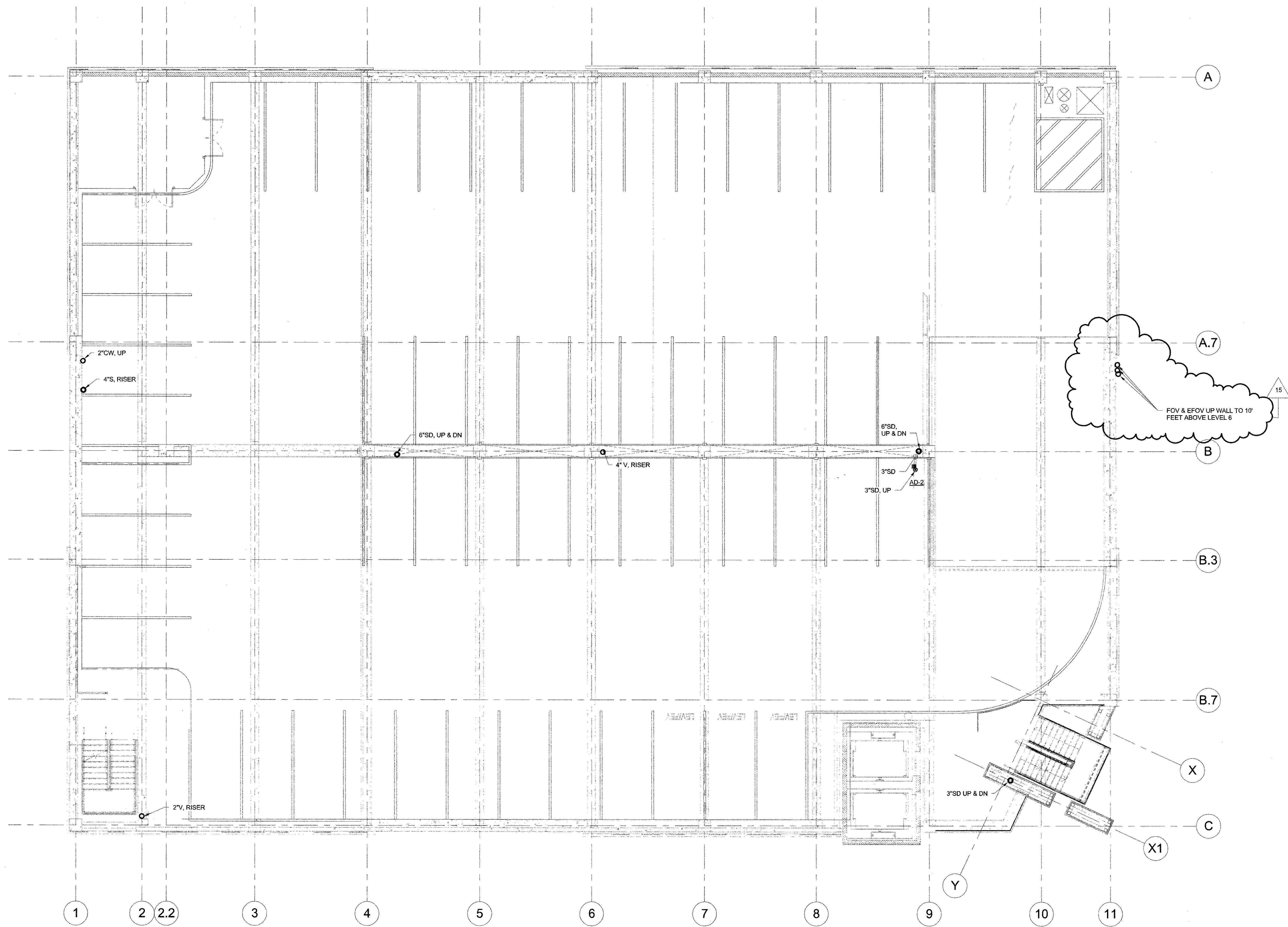


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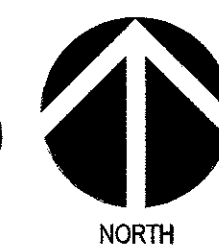
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**PLUMBING THIRD FLOOR PLAN** 1/8" = 1'-0"

1



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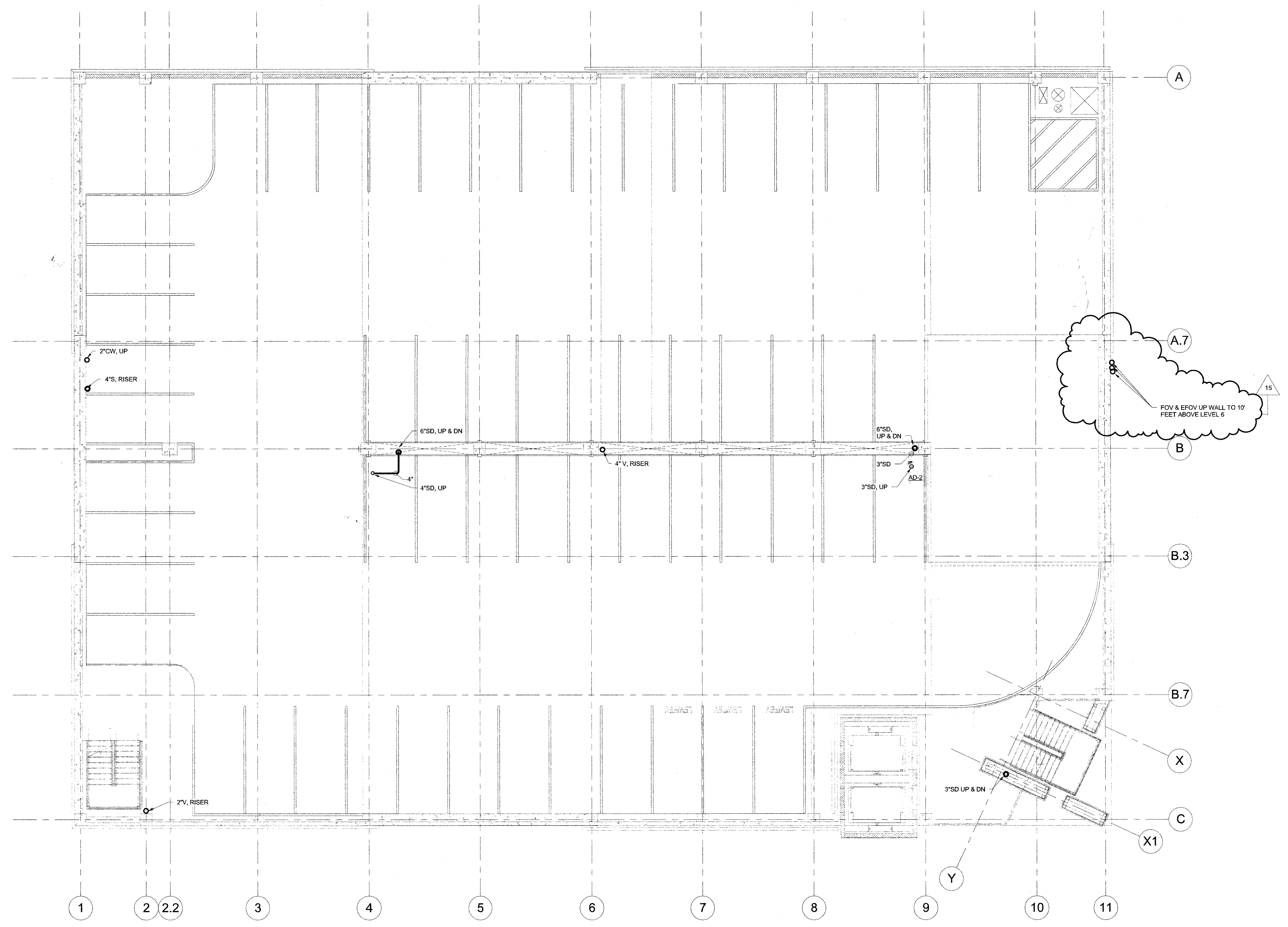
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**PLUMBING  
 THIRD FLOOR  
 PLAN**

**P-203**



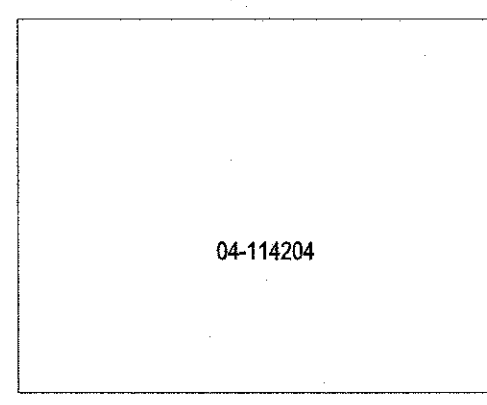


**PLUMBING FOURTH FLOOR PLAN** 1/8" = 1'-0" **1** NORTH

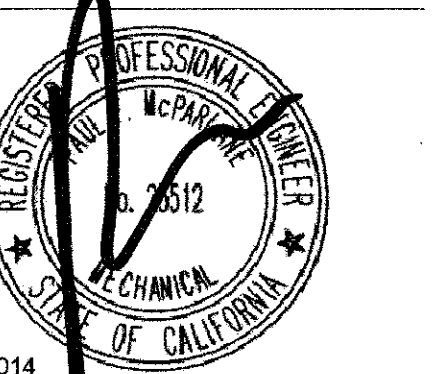
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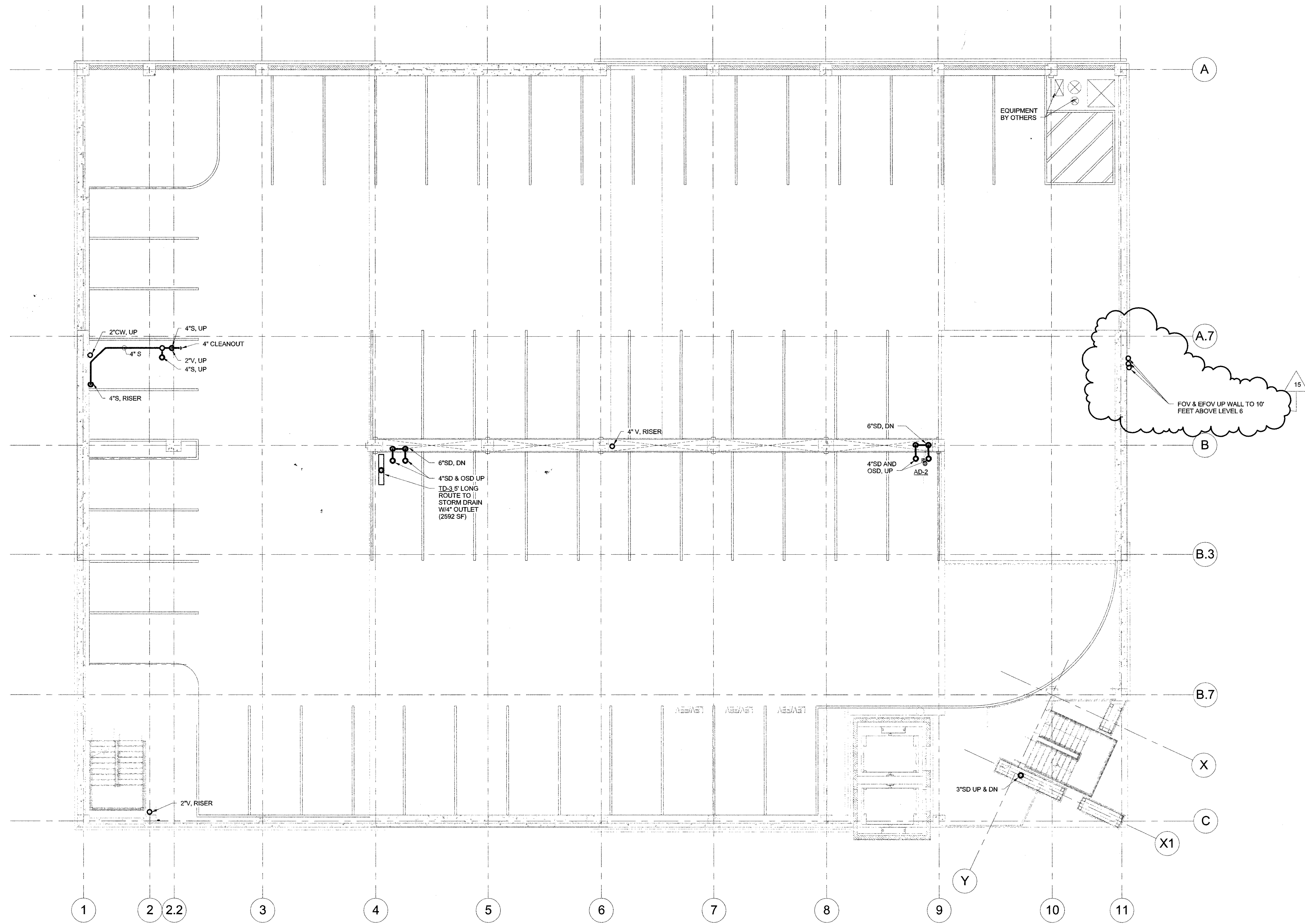


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**PLUMBING FIFTH FLOOR PLAN** 1/8" = 1'-0"



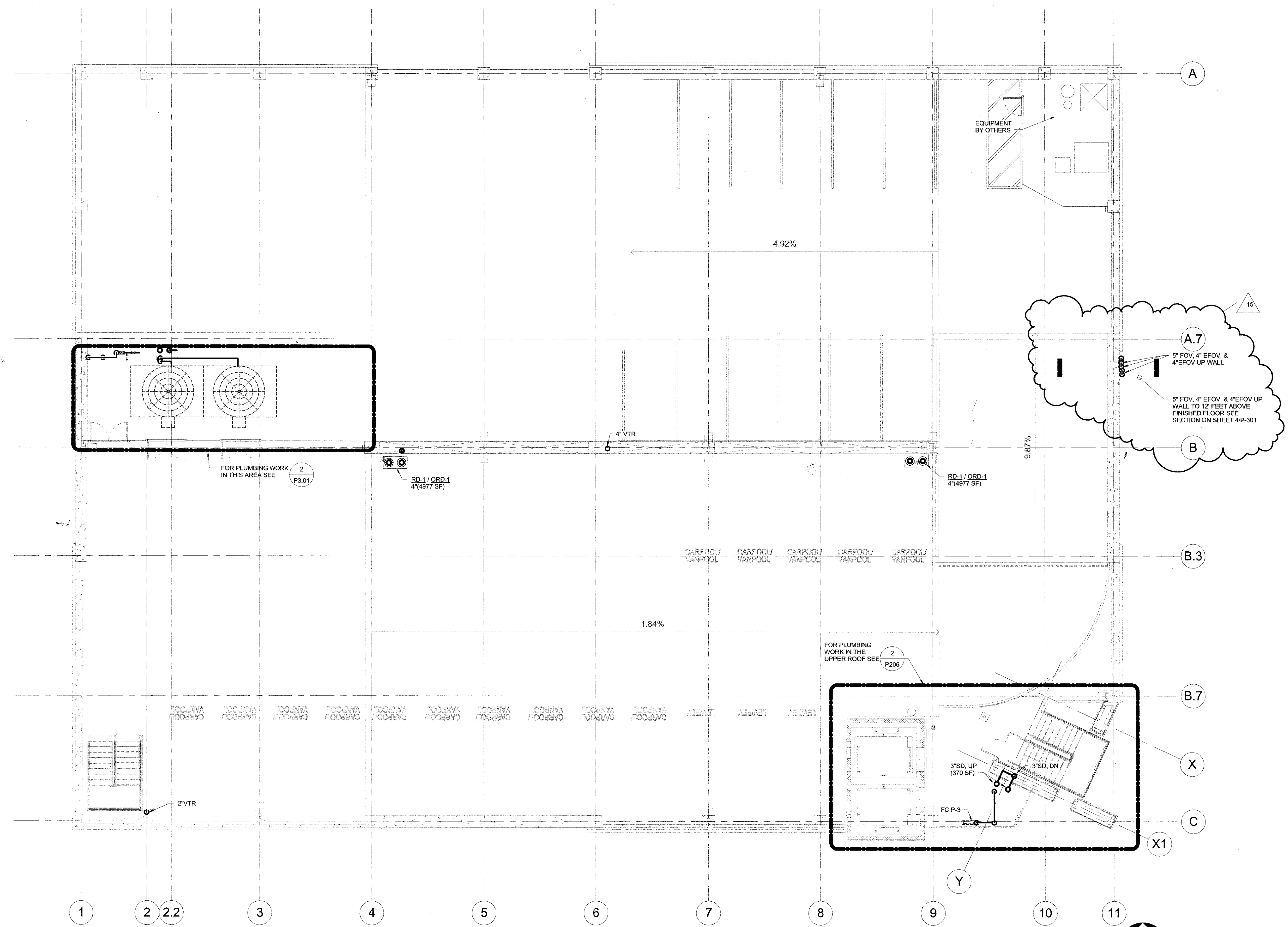
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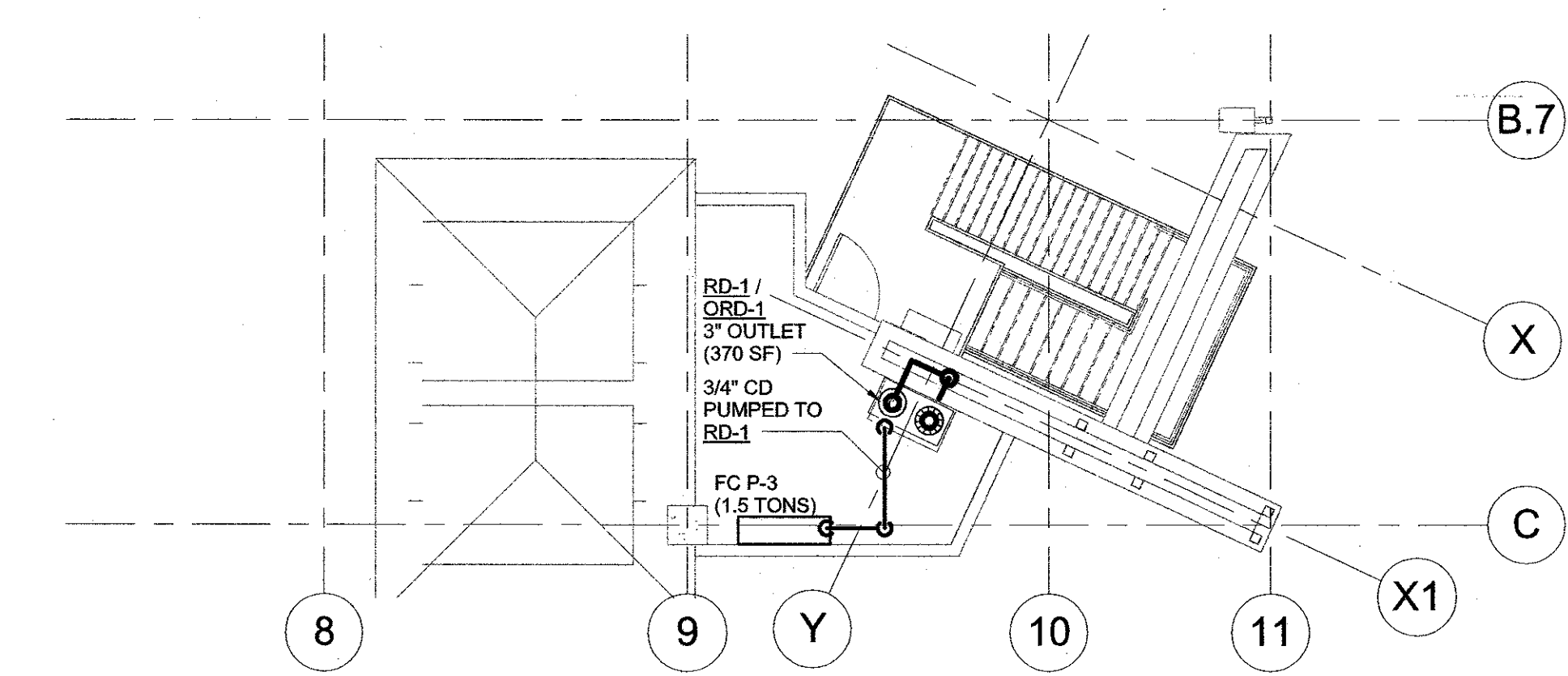
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**PLUMBING SIXTH FLOOR PLAN** 1/8" = 1'-0" ①



**PLUMBING ELEVATOR TOWER AND MACHINE ROOM ROOF PLAN** 1/8" = 1'-0" ②

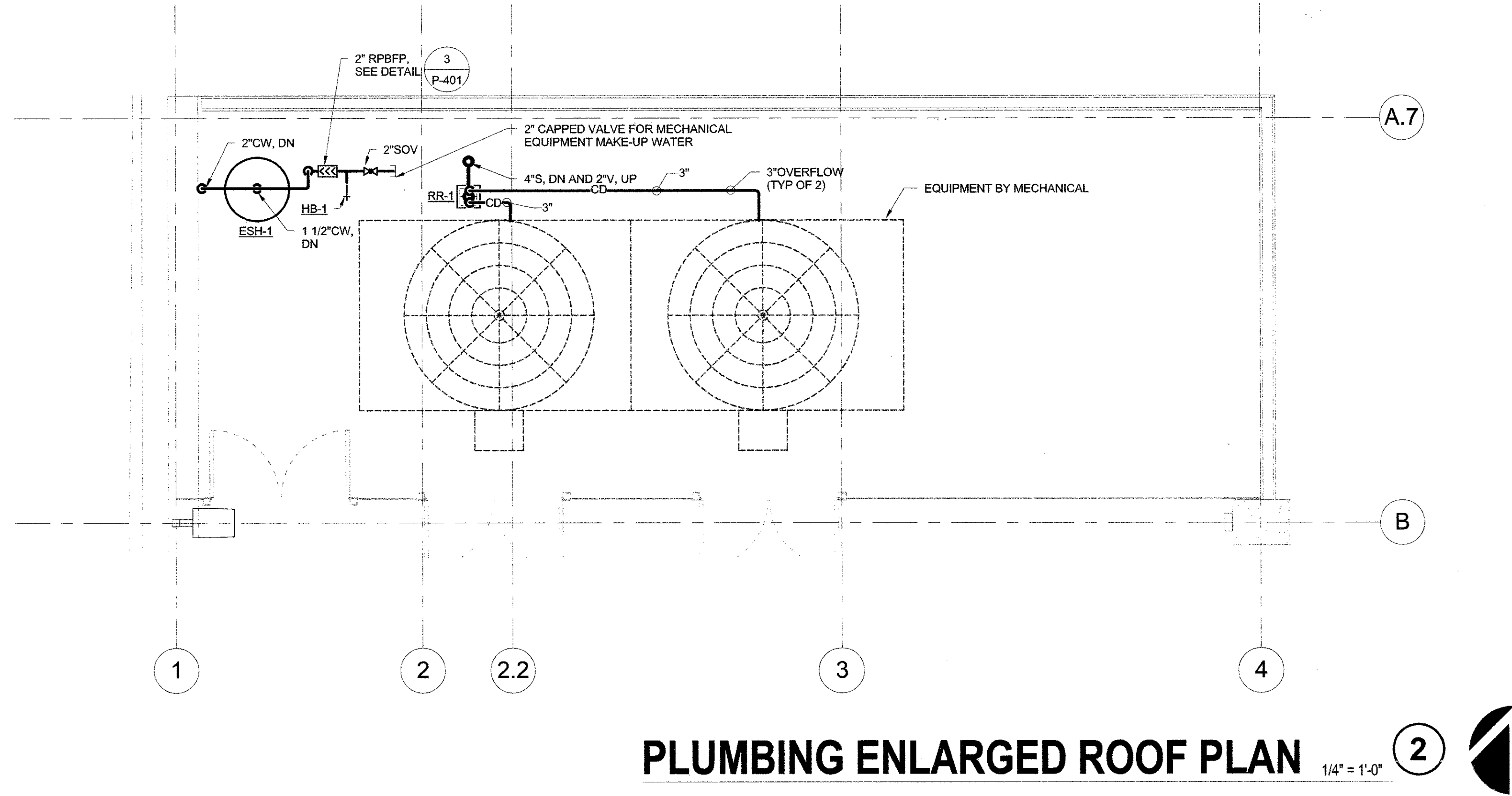
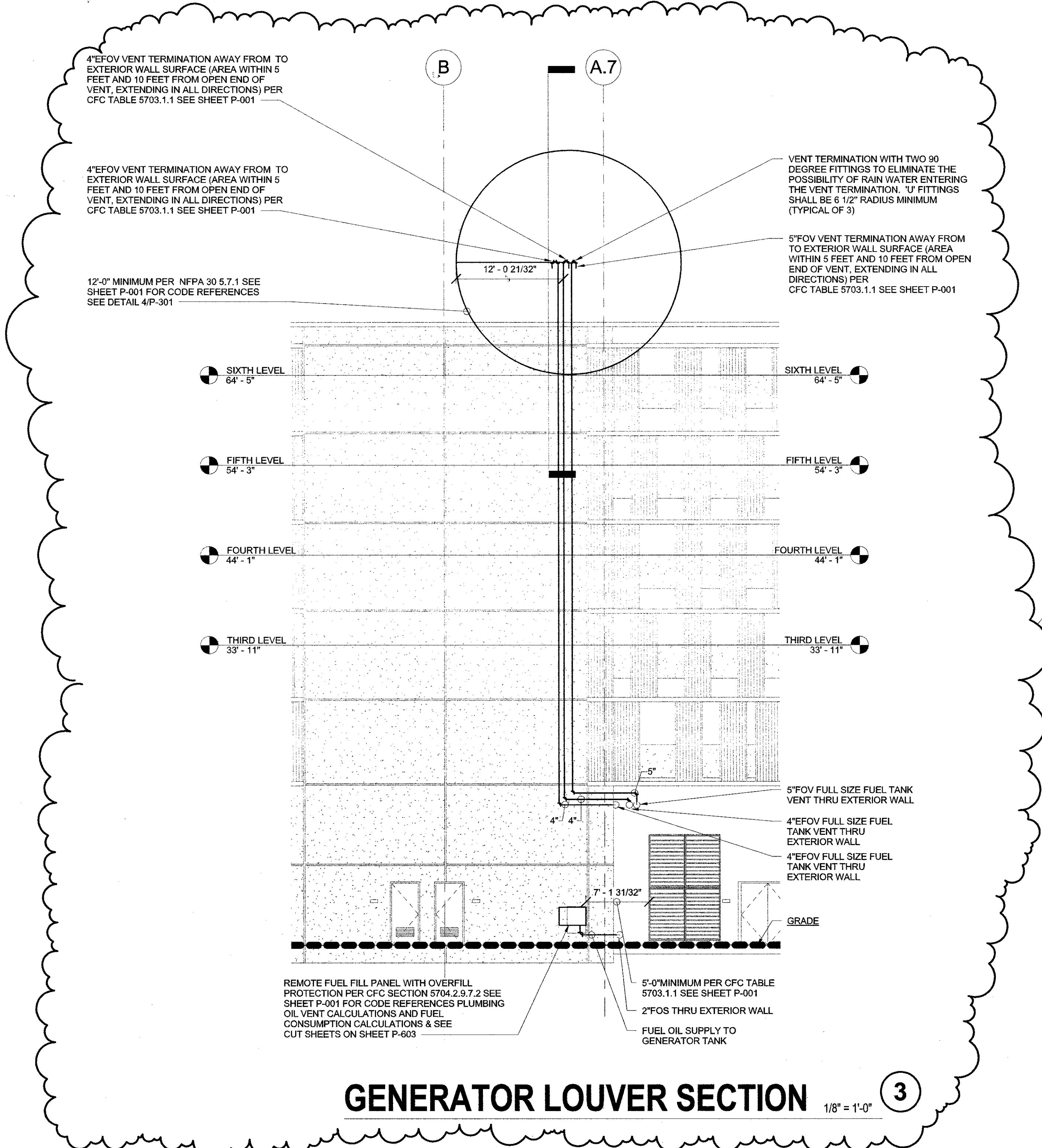
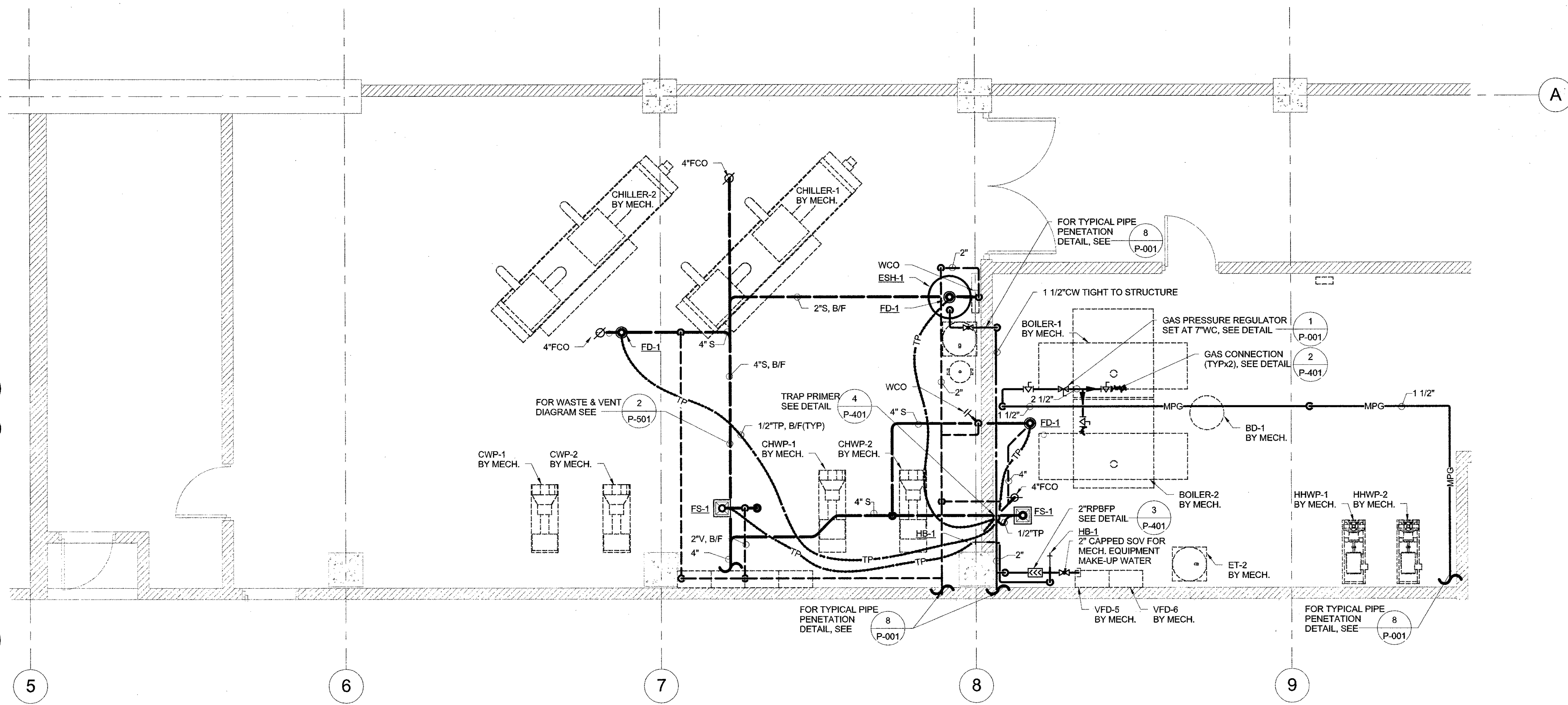
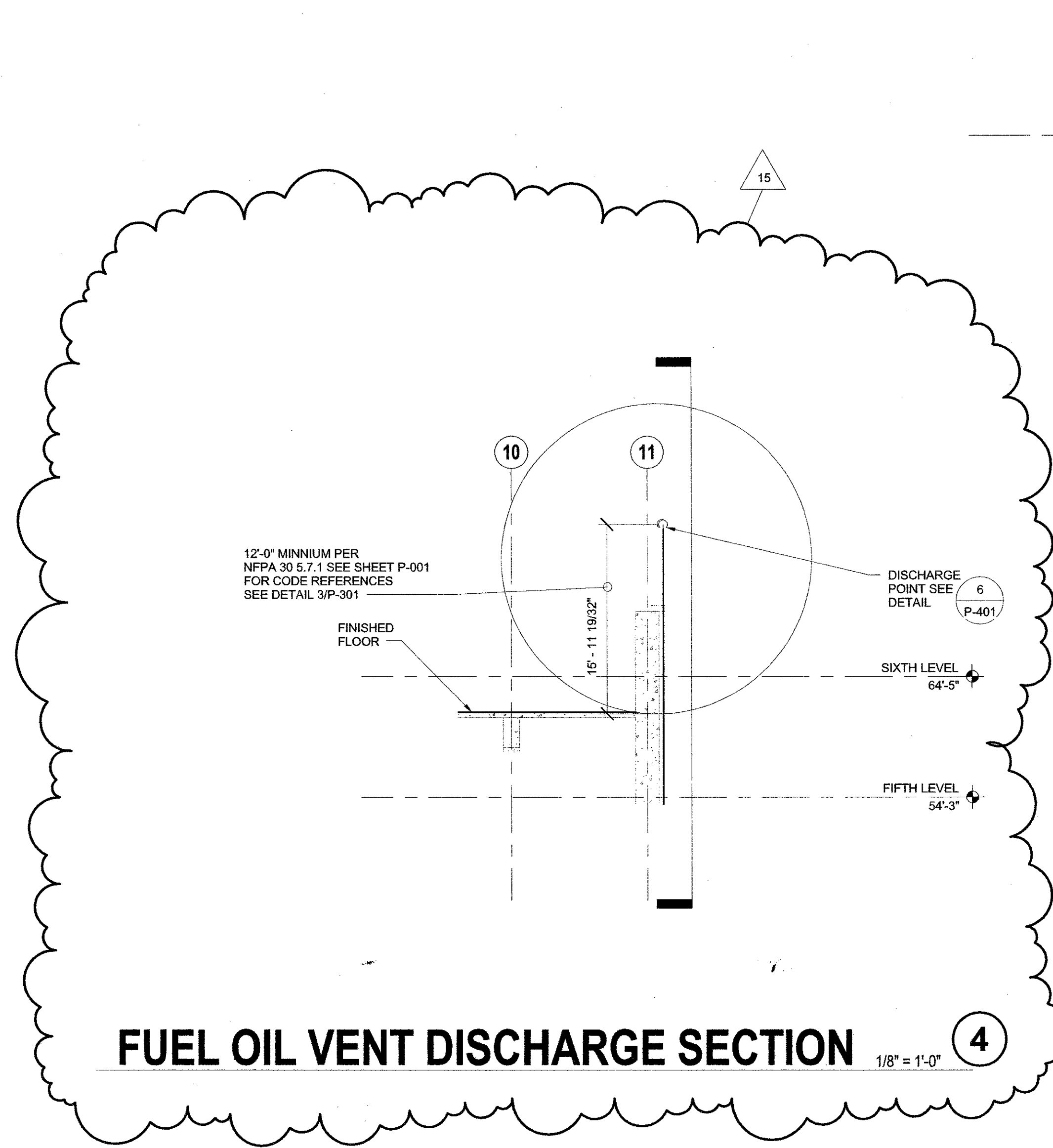
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PROJECT NO:

**PLUMBING ENLARGED CHILLER AND BOILER ROOMS PLAN**

**P-301**







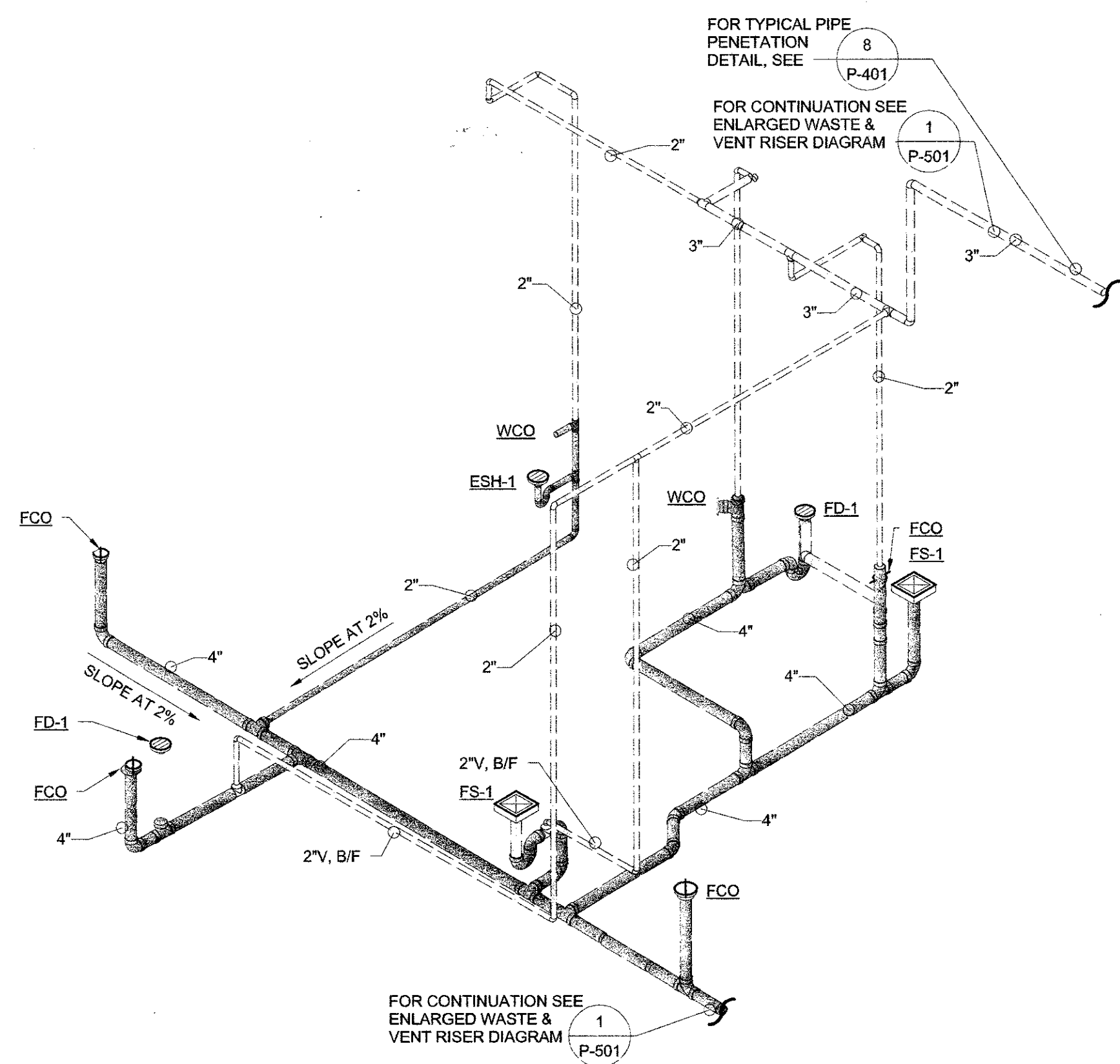


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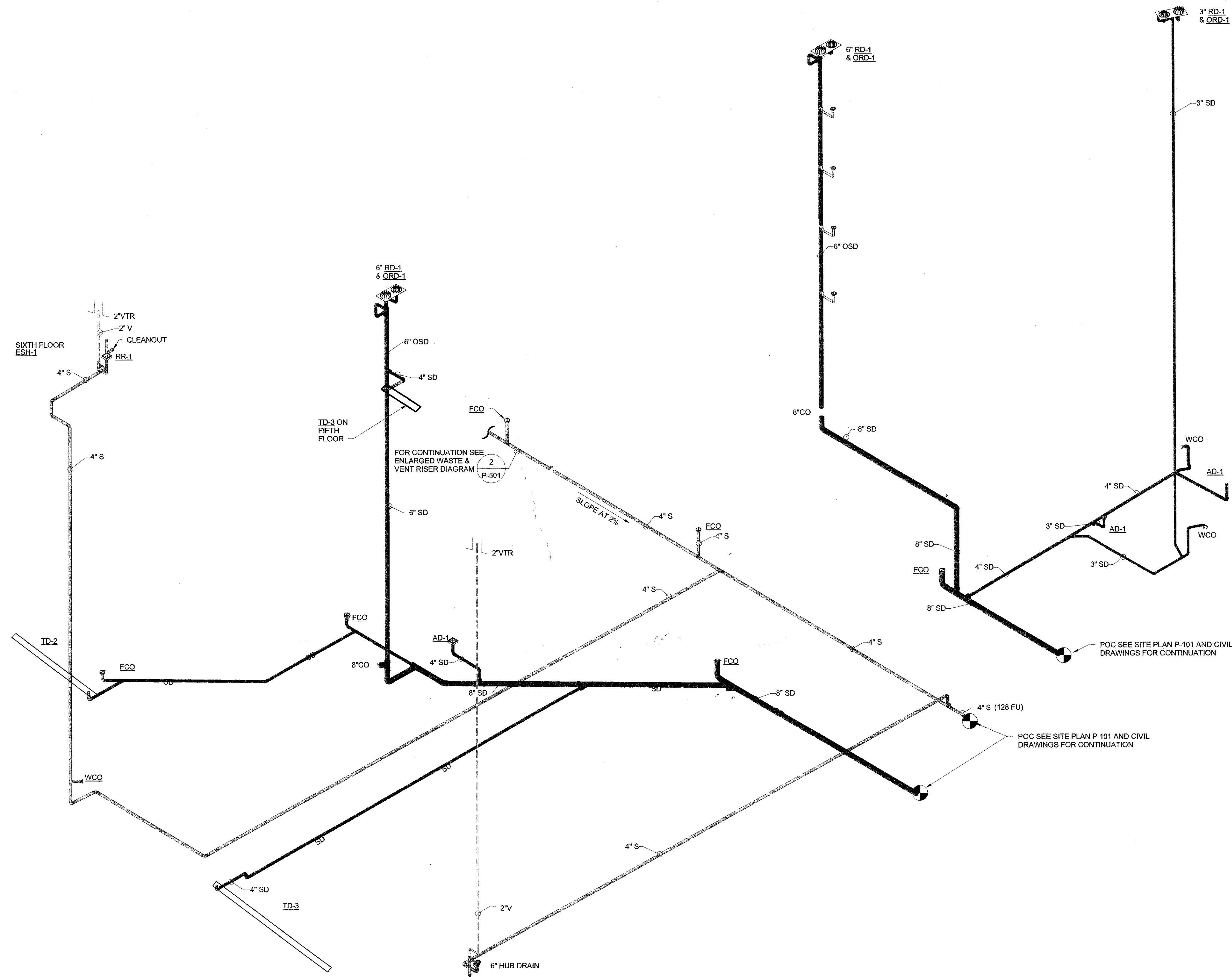
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**ENLARGED WASTE & VENT RISER DIAGRAM** (2)

NOT TO SCALE



**STORM DRAIN, WASTE & VENT RISER DIAGRAM** (1)

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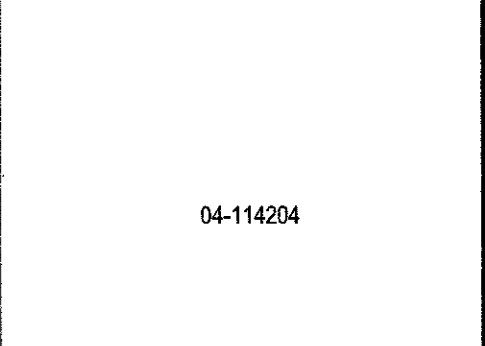
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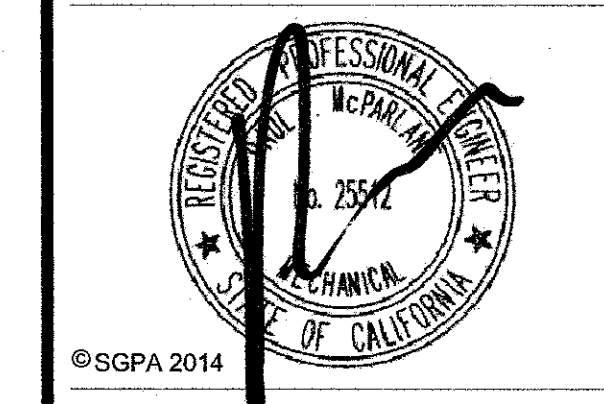








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SFM BACKCHECK SET	06/10/2015
ASI001	06/15/2015
SFM RESUBMITTAL	07/29/2015
ASI 008	09/24/2015
ASI 011- SFM RESUBMITTAL 2	11/06/2015
SFM RESUBMITTAL	11/16/2015
15% SFM RESUBMITTAL #3	03/03/2016

PROJECT NO. \_\_\_\_\_

**MISCELLANEOUS PLUMBING PIPING DATA**

**P-603**

220451 - 2.2.0 - Emergency Generator Fuel Oil Distribution System- Remote Fuel Fill Panel

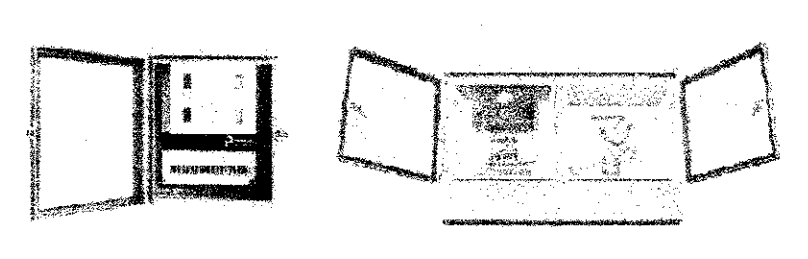
PRYCO, INC.  
**FACTORY TESTING PROCEDURES**  
All systems are carefully tested for proper operation. Power is applied to the unit and all aspects of the operation are tested. Alarms are tested by manually creating abnormal conditions in the sequences of operation. All reset and test switches are checked for proper operation.

**WARRANTY**  
PRYCO, INC.  
All sales by PRYCO, INC. are subject to the following terms and conditions as to Warranty:  
PRYCO, INC. warrants that its products shall be as represented in its catalog and manuals to provide against defects in workmanship and materials under normal use and conformance with manufacturer's instructions for installation and use for a period of one year from date of sale determined by invoice date and which PRYCO's examination shall disclose to be defective.  
This warranty is agreed by Buyer and PRYCO to constitute a sole and exclusive remedy and all sales are made subject to the condition that PRYCO is not liable for consequential damages or for personal injuries of its customers or others.  
PRYCO will not warrant installation of fuel tank. Alteration of design or repair without written authorization will void warranty.  
During such period, PRYCO will repair or replace, at its option, such defective parts without charge to buyer, provided buyer pays shipping charges for return of such products to PRYCO.  
Electrical parts are warranted only to the extent of the warranty provided by their respective manufacturers for such parts.  
**THIS WARRANTY IS EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING THE WARRANTY OF MERCHANTABILITY, FITNESS OR PRODUCTIVENESS. THIS WARRANTY SHALL NOT APPLY TO ANY PRYCO PRODUCT OR ANY PART THEREOF WHICH HAS BEEN THE SUBJECT OF ACCIDENT, NEGLIGENCE, ABUSE OR MISUSE. PRYCO WARRANTY IN RESPECT TO ACCESSORIES OR PARTS NOT SUPPLIED BY PRYCO, THERE ARE NO OTHER WARRANTIES WHICH EXTEND BEYOND THE DESCRIPTION ON THE PAGE HEREOF.**

**PRYCO, INC.**  
P. O. BOX 108  
Mechanicsburg, IL 62545  
Telephone: 217/364-4467 Fax: 217/364-4494 Email: pryco@pryco.com

220451 - 2.2.0 - Emergency Generator Fuel Oil Distribution System- Remote Fuel Fill Panel

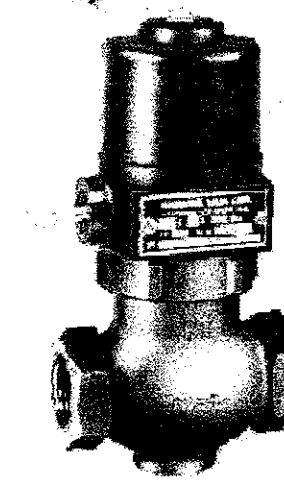
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**OPERATIONS and MAINTENANCE MANUAL For REMOTE FUEL FILL PANEL and STATION**

220451 - 2.2.0 - Emergency Generator Fuel Oil Distribution System- Solenoid Valve

**PRYCO's Option #361**  
**Magnatrol Valve Corporation SOLENOID VALVE**  
**Type AR Full Port - Normally Open**  
Internal Not Operated



**Operation:** Valve closes when energized and opens when de-energized. When the coil is energized, the laminated plunger overcomes the spring closing the plunger orifice and opens a bleed passage to permit pressure to build above the plunger and seating it. Upon de-energizing the coil, the plunger orifice allows the pressure above the plunger allow it to leave its seat. The bottom spring allows the valve to operate at zero-pressure differential.

**Pipe Size:** 1/2 in. to 3 in.  
**Max. Fluid Temperature:** 212 deg. F.  
**Max. Static Pressure:** 500 psi, except valves listed for 500-PSI differential.

**Construction:**

- Valve Body - Cast Bronze, Ductile Pattern
- Piston - Cast Bronze
- Coil Enclosure - Malleable or Cast Iron
- Plunger - 435 Stainless Steel
- Pilot (Poppet) Valve - 303 Stainless Steel
- Stem - 435 Stainless Steel
- Bonnet Tube - 304 Stainless Steel
- Spring - Inconel and 302 1/2 In. Hex Steel
- Body Seal - Buna N or Non Asbestos Gasket
- Orifice Seal - Buna N (Viton or Glass F-100 Teflon available)
- AC Shading Coil - Copper
- Stem Pin - 304 Stainless Steel
- Coil - Encapsulated, Class A, 1/2 Leads (Class II available)

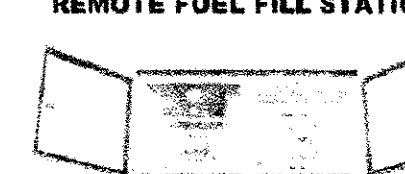
**Application:** To control the flow of water, oil, air, gas, solvents, brine, etc. in other fluids. Do not use with caustic, caustic, caustic, caustic and free of sulfuric. Valve operates from zero to maximum differential pressure as indicated in table. Valve must be mounted in horizontal pipe with solenoid enclosure vertical and on top.

**NO DIFFERENTIAL PRESSURE REQUIRED TO OPEN**

220451 - 2.2.0 - Emergency Generator Fuel Oil Distribution System- Remote Fuel Fill Panel

**PRODUCT DESCRIPTIONS**

**OPTION 230 REMOTE FUEL FILL STATION**



The Remote Fuel Fill Station, like the Remote Fuel Fill Panel, is used to monitor the fueling operation. It also provides a fueling connection point that is plumbed to the tank. There are two independent and isolated sections—an Electrical Compartment for monitoring controls and a Fueling Compartment where the fuel delivery service connects for fueling operations.

The station components are within a NEMA 3R enclosure for outdoor installation near a "point of fill" location.

The components within the Electrical Compartment function as described in the Remote Fuel Fill Panel at the left.

The Fueling Compartment is located behind the right door. It features either a 2" or a 3" Camlock connector, a check valve, and a manual shut-off valve. The compartment is designed with a 7.5 gallon containment sump with a drain connection.

Option features may include: a Solenoid Valve, Flash-Mounting Adapter, a Post Mounting Kit, Lockable Drain Valve, Dry-Break Disconnect Adapter, an Analog Level Gauge, or a Digital Level Gauge.

220451 - 2.2.0 - Emergency Generator Fuel Oil Distribution System- Remote Fuel Fill Panel

**PRYCO, INC. REMOTE FILL STATION**

The Remote Fuel Station is a lockable, weatherproof, dust-door enclosure. It is designed for safe filling of above-ground fuel oil storage tanks via hose connection from a delivery truck.

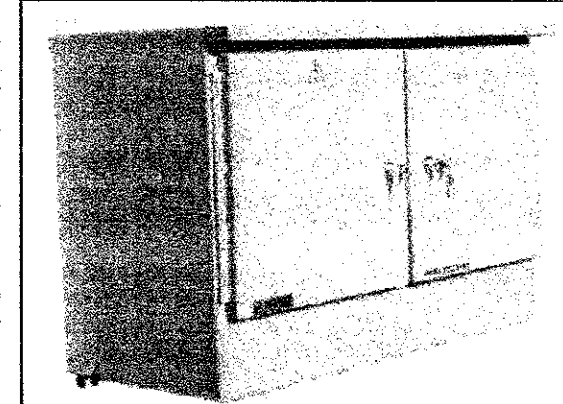
The left-side Electrical Compartment (shown below) houses control components, such as, alarms, and switches. The compartment design allows the electrical components to be fully isolated from the filling area.

The Fueling Compartment (shown below) is located behind the right door. It features a 2" or 3" Camlock connector, a check valve and a manual shut-off valve. This compartment is designed with a 7.5 gallon containment sump with a drain connection.

When the tank being filled reaches a 90% set point, a warning light comes on and an alarm horn sounds. If filling continues, a second light comes on at 95% capacity and an alarm horn again sounds. At this time, an optional solenoid valve will close, allowing no more fuel to enter the tank. A solenoid valve and set-point contact outputs are standard.

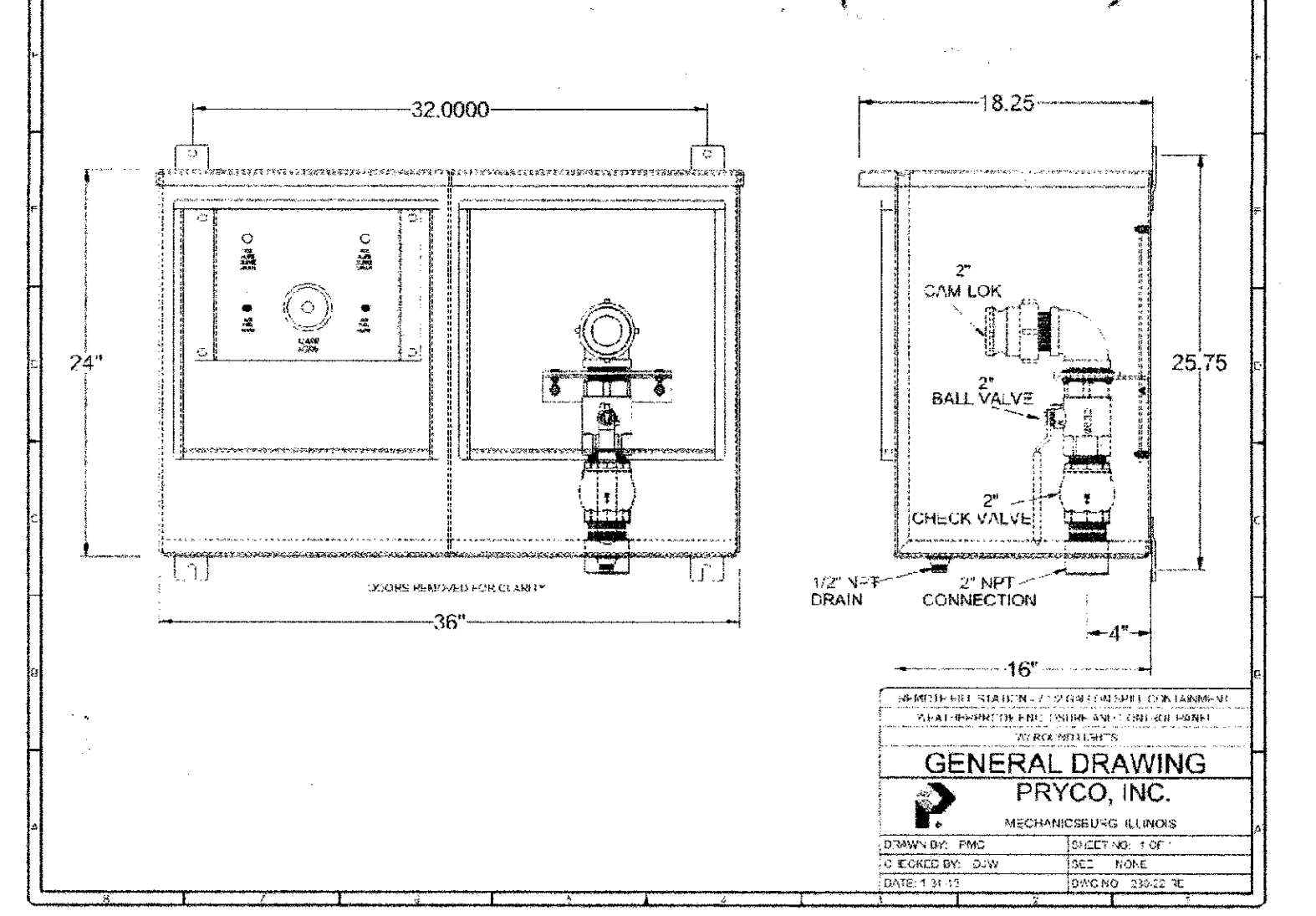
Optional features include:  
Solenoid Valve  
Flash-Mounting Adapter  
Post Mounting Kit  
Lockable Drain Valve  
Dry-Break Disconnect Adapter  
Analog Level Gauge (range up to 48" depth)  
Digital Level Gauge (range up to 80" depth)

A mechanical drawing of Remote Fuel Station is on the reverse side.

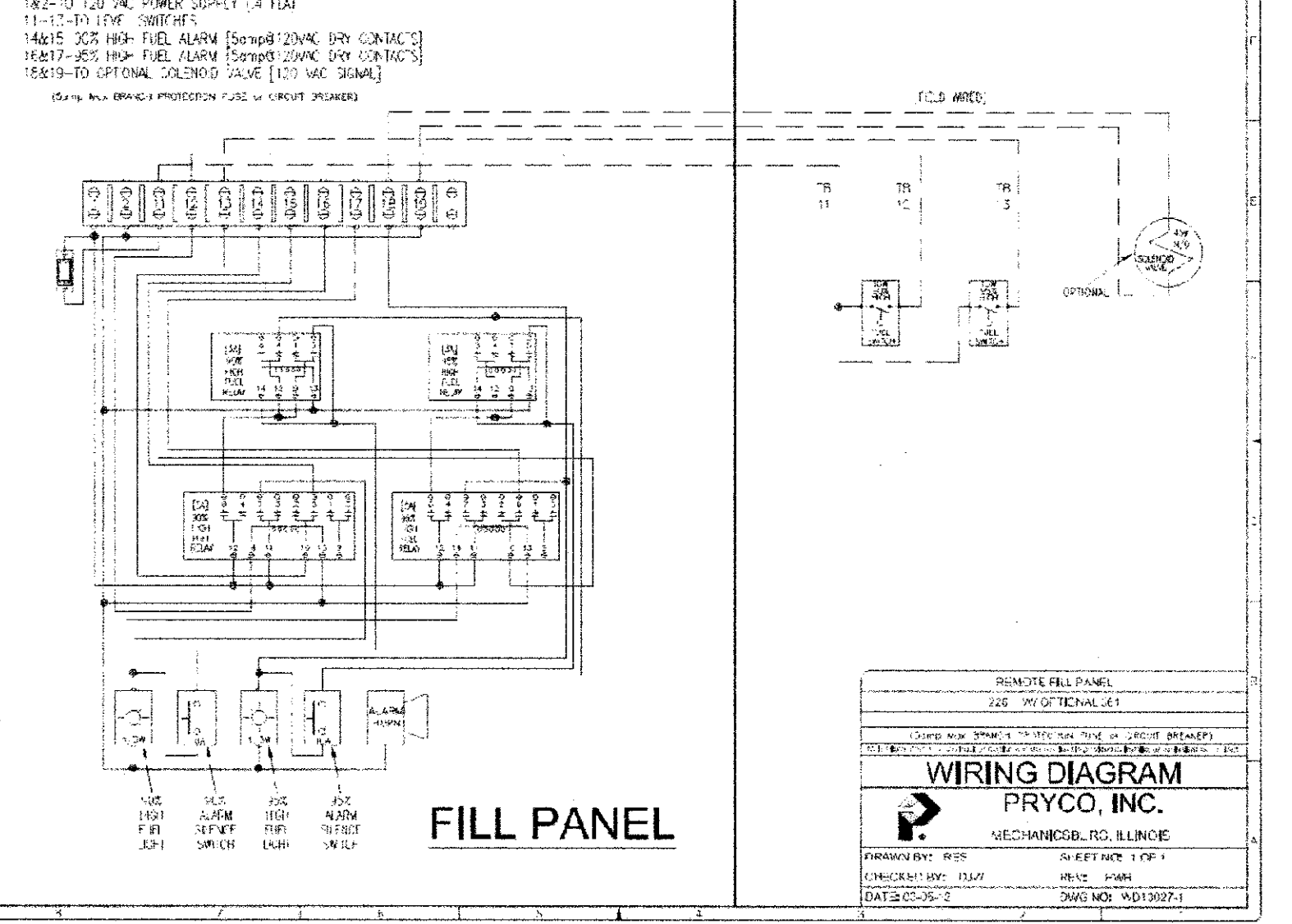


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220451 - 2.2.0 - Emergency Generator Fuel Oil Distribution System- Remote Fuel Fill Panel



220451 - 2.2.0 - Emergency Generator Fuel Oil Distribution System- Remote Fuel Fill Panel



**EMERGENCY GENERATOR FUEL OIL DISTRIBUTION SYSTEM**

NO SCALE

1  
M-603

04-114204

**University Mechanical & Engineering Contractors**  
An EMCOR Company



ABBREVIATIONS AND DESCRIPTIONS		SINGLELINE SYMBOLS AND DESCRIPTIONS		LIGHTING SYMBOLS AND DESCRIPTIONS	
A	AMPERES	KCM	KILO - CIRCULAR - MIL	(A)	AMP METER
AC	ALTERNATING CURRENT	KS	KNEE SPACE	(V)	VOLT METER
ACR	AIR CONDITIONING	KVA	KILO-VOLT-AMPERE	(CT)	CURRENT TRANSFORMER
ACC	AMPERES INTERRUPTING CAPACITY	KW	KILO-WATT	(GFI)	GROUND FAULT CIRCUIT INTERRUPTER
AFC	AVAILABLE FAULT CURRENT	KWH	KILO-WATT-HOUR	(M)	MOTOR OR EQUIPMENT AS NOTED
AFB	ABOVE FINISHED FLOOR			(LUG)	LUGS LANDING LUGS
AFG	ABOVE FINISHED GRADE	LBS	POUNDS	(S)	SWITCH, SINGLE POLE 20A, MTD 48" AFF TO TOP OF CONTROL BOX, WHITE COVERPLATE, WHITE COVERPLATE, RED
AFV	AMP FRAME/AMP FUSE	LF	LINEAL FEET	(S <sub>20</sub> )	SWITCH, SINGLE POLE 20A, MTD 48" AFF TO TOP OF CONTROL BOX, WHITE COVERPLATE, WHITE COVERPLATE, RED
ABV	ABOVE	LOC	LOCATION	(S <sub>3</sub> )	SWITCH, THREE WAY, 20A, MTD 48" AFF TO TOP OF CONTROL BOX, WHITE COVERPLATE, WHITE COVERPLATE, RED
AL	ALUMINUM	LT	LIGHT	(S <sub>3</sub> )	SWITCH, THREE WAY, 20A, MTD 48" AFF TO TOP OF CONTROL BOX, WHITE COVERPLATE, WHITE COVERPLATE, RED
ARCH	ARCHITECT OR ARCHITECTURAL	LTG	LIGHTING	(S <sub>3</sub> )	SWITCH, THREE WAY, 20A, MTD 48" AFF TO TOP OF CONTROL BOX, WHITE COVERPLATE, WHITE COVERPLATE, RED
AS	AMP SWITCH	LV	LOW VOLTAGE	(S <sub>3</sub> )	SWITCH, THREE WAY, 20A, MTD 48" AFF TO TOP OF CONTROL BOX, WHITE COVERPLATE, WHITE COVERPLATE, RED
AT	AMP TRIP			(S <sub>3</sub> )	SWITCH, THREE WAY, 20A, MTD 48" AFF TO TOP OF CONTROL BOX, WHITE COVERPLATE, WHITE COVERPLATE, RED
ATS	AUTOMATIC TRANSFER SWITCH	MH	MOUNTING HEIGHT	(S <sub>3</sub> )	SWITCH, THREE WAY, 20A, MTD 48" AFF TO TOP OF CONTROL BOX, WHITE COVERPLATE, WHITE COVERPLATE, RED
AWG	AMERICAN WIRE GAUGE	MANUF	MANUFACTURER	(S <sub>3</sub> )	SWITCH, THREE WAY, 20A, MTD 48" AFF TO TOP OF CONTROL BOX, WHITE COVERPLATE, WHITE COVERPLATE, RED
B/G	BELOW GRADE	MC	MECHANICAL CONTRACTOR	(S <sub>3</sub> )	SWITCH, THREE WAY, 20A, MTD 48" AFF TO TOP OF CONTROL BOX, WHITE COVERPLATE, WHITE COVERPLATE, RED
BKBD	BACKBOARD	MCC	MOTOR CONTROL CENTER	(S <sub>3</sub> )	SWITCH, THREE WAY, 20A, MTD 48" AFF TO TOP OF CONTROL BOX, WHITE COVERPLATE, WHITE COVERPLATE, RED
BEL	BELOW	MCP	MOTOR CIRCUIT PROTECTION	(S <sub>3</sub> )	SWITCH, THREE WAY, 20A, MTD 48" AFF TO TOP OF CONTROL BOX, WHITE COVERPLATE, WHITE COVERPLATE, RED
		MECH	MOTOR CIRCUIT	(S <sub>3</sub> )	SWITCH, THREE WAY, 20A, MTD 48" AFF TO TOP OF CONTROL BOX, WHITE COVERPLATE, WHITE COVERPLATE, RED
C	CONDUIT WITH WIRE	MM	MINIMUM	(S <sub>3</sub> )	SWITCH, THREE WAY, 20A, MTD 48" AFF TO TOP OF CONTROL BOX, WHITE COVERPLATE, WHITE COVERPLATE, RED
CATV	CABLE TELEVISION	M/O	MAIN LUGS ONLY	(S <sub>3</sub> )	SWITCH, THREE WAY, 20A, MTD 48" AFF TO TOP OF CONTROL BOX, WHITE COVERPLATE, WHITE COVERPLATE, RED
CCTV	CLOSED CIRCUIT TELEVISION	MTD	MOUNTED	(S <sub>3</sub> )	SWITCH, THREE WAY, 20A, MTD 48" AFF TO TOP OF CONTROL BOX, WHITE COVERPLATE, WHITE COVERPLATE, RED
CB	CIRCUIT BREAKER	MTG	MOUNTING	(S <sub>3</sub> )	SWITCH, THREE WAY, 20A, MTD 48" AFF TO TOP OF CONTROL BOX, WHITE COVERPLATE, WHITE COVERPLATE, RED
CLG	CEILING			(S <sub>3</sub> )	SWITCH, THREE WAY, 20A, MTD 48" AFF TO TOP OF CONTROL BOX, WHITE COVERPLATE, WHITE COVERPLATE, RED
CLF	CURRENT LIMITING FUSE	N	NEUTRAL	(S <sub>3</sub> )	SWITCH, THREE WAY, 20A, MTD 48" AFF TO TOP OF CONTROL BOX, WHITE COVERPLATE, WHITE COVERPLATE, RED
CLR	CLEAR	NC	NORMALLY CLOSED	(S <sub>3</sub> )	SWITCH, THREE WAY, 20A, MTD 48" AFF TO TOP OF CONTROL BOX, WHITE COVERPLATE, WHITE COVERPLATE, RED
CO	CONDUIT ONLY WITH NYLON PULLCORD	NEC	NATIONAL ELECTRICAL CODE	(S <sub>3</sub> )	SWITCH, THREE WAY, 20A, MTD 48" AFF TO TOP OF CONTROL BOX, WHITE COVERPLATE, WHITE COVERPLATE, RED
COAX	COAXIAL CABLE	NIC	NOT IN CONTRACT	(S <sub>3</sub> )	SWITCH, THREE WAY, 20A, MTD 48" AFF TO TOP OF CONTROL BOX, WHITE COVERPLATE, WHITE COVERPLATE, RED
CONC	CONCRETE	NL	NIGHT LIGHT	(S <sub>3</sub> )	SWITCH, THREE WAY, 20A, MTD 48" AFF TO TOP OF CONTROL BOX, WHITE COVERPLATE, WHITE COVERPLATE, RED
CONN	CONNECT OR CONNECTION	NTS	NOT TO SCALE	(S <sub>3</sub> )	SWITCH, THREE WAY, 20A, MTD 48" AFF TO TOP OF CONTROL BOX, WHITE COVERPLATE, WHITE COVERPLATE, RED
CONT	CONTINUATION	NO	NORMALLY OPEN	(S <sub>3</sub> )	SWITCH, THREE WAY, 20A, MTD 48" AFF TO TOP OF CONTROL BOX, WHITE COVERPLATE, WHITE COVERPLATE, RED
CONTR	CONTRACTOR			(S <sub>3</sub> )	SWITCH, THREE WAY, 20A, MTD 48" AFF TO TOP OF CONTROL BOX, WHITE COVERPLATE, WHITE COVERPLATE, RED
CPT	CONTROL POWER TRANSFORMER	OC	ON CENTER	(S <sub>3</sub> )	SWITCH, THREE WAY, 20A, MTD 48" AFF TO TOP OF CONTROL BOX, WHITE COVERPLATE, WHITE COVERPLATE, RED
CU	COPPER	OFI	OWNER FURNISHED CONTRACTOR INSTALLED	(S <sub>3</sub> )	SWITCH, THREE WAY, 20A, MTD 48" AFF TO TOP OF CONTROL BOX, WHITE COVERPLATE, WHITE COVERPLATE, RED
CU	CURRENT TRANSFORMER	OFOW	OWNER FURNISHED OWNER INSTALLED	(S <sub>3</sub> )	SWITCH, THREE WAY, 20A, MTD 48" AFF TO TOP OF CONTROL BOX, WHITE COVERPLATE, WHITE COVERPLATE, RED
OW	COLD WATER			(S <sub>3</sub> )	SWITCH, THREE WAY, 20A, MTD 48" AFF TO TOP OF CONTROL BOX, WHITE COVERPLATE, WHITE COVERPLATE, RED
D	DEDICATED OUTLET	PB	PULLBOX	(S <sub>3</sub> )	SWITCH, THREE WAY, 20A, MTD 48" AFF TO TOP OF CONTROL BOX, WHITE COVERPLATE, WHITE COVERPLATE, RED
DC	DIRECT CURRENT	PC	PHOTOCELL CONTROL	(S <sub>3</sub> )	SWITCH, THREE WAY, 20A, MTD 48" AFF TO TOP OF CONTROL BOX, WHITE COVERPLATE, WHITE COVERPLATE, RED
DIA	DIAMETER	PCTC	PHOTOCELL/TIMELOCK CONTROL	(S <sub>3</sub> )	SWITCH, THREE WAY, 20A, MTD 48" AFF TO TOP OF CONTROL BOX, WHITE COVERPLATE, WHITE COVERPLATE, RED
DISC	DISCONNECT	PE	PNEUMATIC-ELECTRIC	(S <sub>3</sub> )	SWITCH, THREE WAY, 20A, MTD 48" AFF TO TOP OF CONTROL BOX, WHITE COVERPLATE, WHITE COVERPLATE, RED
DIST	DISTRIBUTION	PH	PHASE	(S <sub>3</sub> )	SWITCH, THREE WAY, 20A, MTD 48" AFF TO TOP OF CONTROL BOX, WHITE COVERPLATE, WHITE COVERPLATE, RED
DL	DAMP LOCATION	PV	POST INDICATING VALVE	(S <sub>3</sub> )	SWITCH, THREE WAY, 20A, MTD 48" AFF TO TOP OF CONTROL BOX, WHITE COVERPLATE, WHITE COVERPLATE, RED
DB	DISTRIBUTION SWITCHBOARD	PL	PILOT LIGHT	(S <sub>3</sub> )	SWITCH, THREE WAY, 20A, MTD 48" AFF TO TOP OF CONTROL BOX, WHITE COVERPLATE, WHITE COVERPLATE, RED
DWS	DRAWINGS	PLGB	PLUMBING	(S <sub>3</sub> )	SWITCH, THREE WAY, 20A, MTD 48" AFF TO TOP OF CONTROL BOX, WHITE COVERPLATE, WHITE COVERPLATE, RED
		PNL	PANEL	(S <sub>3</sub> )	SWITCH, THREE WAY, 20A, MTD 48" AFF TO TOP OF CONTROL BOX, WHITE COVERPLATE, WHITE COVERPLATE, RED
		PWR	POLYVINYL CHLORIDE	(S <sub>3</sub> )	SWITCH, THREE WAY, 20A, MTD 48" AFF TO TOP OF CONTROL BOX, WHITE COVERPLATE, WHITE COVERPLATE, RED
EA	EACH	PVC	POLYVINYL CHLORIDE	(S <sub>3</sub> )	SWITCH, THREE WAY, 20A, MTD 48" AFF TO TOP OF CONTROL BOX, WHITE COVERPLATE, WHITE COVERPLATE, RED
EB	EMERGENCY BATTERY CONNECTED TO UNIT	PP	POWER POLE	(S <sub>3</sub> )	SWITCH, THREE WAY, 20A, MTD 48" AFF TO TOP OF CONTROL BOX, WHITE COVERPLATE, WHITE COVERPLATE, RED
EC	ELECTRICAL CONTRACTOR	PS	POWER SENTRY EMERGENCY BATTERY UNIT	(S <sub>3</sub> )	SWITCH, THREE WAY, 20A, MTD 48" AFF TO TOP OF CONTROL BOX, WHITE COVERPLATE, WHITE COVERPLATE, RED
EDF	ELECTRICAL DRINKING FOUNTAIN			(S <sub>3</sub> )	SWITCH, THREE WAY, 20A, MTD 48" AFF TO TOP OF CONTROL BOX, WHITE COVERPLATE, WHITE COVERPLATE, RED
EG	CONNECTED TO EMERGENCY GENERATOR	Q	FIXTURE WITH QUARTZ RESTRIKE	(S <sub>3</sub> )	SWITCH, THREE WAY, 20A, MTD 48" AFF TO TOP OF CONTROL BOX, WHITE COVERPLATE, WHITE COVERPLATE, RED
EF	EXHAUST FAN	QTY	QUANTITY	(S <sub>3</sub> )	SWITCH, THREE WAY, 20A, MTD 48" AFF TO TOP OF CONTROL BOX, WHITE COVERPLATE, WHITE COVERPLATE, RED
EI	CONNECTED TO EMERGENCY INVERTER			(S <sub>3</sub> )	SWITCH, THREE WAY, 20A, MTD 48" AFF TO TOP OF CONTROL BOX, WHITE COVERPLATE, WHITE COVERPLATE, RED
ELECT	ELECTRICAL	REC	RECESSED	(S <sub>3</sub> )	SWITCH, THREE WAY, 20A, MTD 48" AFF TO TOP OF CONTROL BOX, WHITE COVERPLATE, WHITE COVERPLATE, RED
ELEV	ELEVATION/ELEVATOR	RECEPT	RECEPTACLE	(S <sub>3</sub> )	SWITCH, THREE WAY, 20A, MTD 48" AFF TO TOP OF CONTROL BOX, WHITE COVERPLATE, WHITE COVERPLATE, RED
EMER, EM	EMERGENCY	REF	REFRIGERATOR	(S <sub>3</sub> )	SWITCH, THREE WAY, 20A, MTD 48" AFF TO TOP OF CONTROL BOX, WHITE COVERPLATE, WHITE COVERPLATE, RED
EMT	ELECTRO-METALLIC TUBING	REQ	REQUIREMENTS	(S <sub>3</sub> )	SWITCH, THREE WAY, 20A, MTD 48" AFF TO TOP OF CONTROL BOX, WHITE COVERPLATE, WHITE COVERPLATE, RED
EQUIP	EQUIPMENT	RGS	RIGID GALVANIZED STEEL	(S <sub>3</sub> )	SWITCH, THREE WAY, 20A, MTD 48" AFF TO TOP OF CONTROL BOX, WHITE COVERPLATE, WHITE COVERPLATE, RED
EXIST, EX	EXISTING	RM	ROOM	(S <sub>3</sub> )	SWITCH, THREE WAY, 20A, MTD 48" AFF TO TOP OF CONTROL BOX, WHITE COVERPLATE, WHITE COVERPLATE, RED
F	DEGREES FAHRENHEIT	SB	STANDBY	(S <sub>3</sub> )	SWITCH, THREE WAY, 20A, MTD 48" AFF TO TOP OF CONTROL BOX, WHITE COVERPLATE, WHITE COVERPLATE, RED
FA	FIRE ALARM	SD	SMOKE DETECTOR	(S <sub>3</sub> )	SWITCH, THREE WAY, 20A, MTD 48" AFF TO TOP OF CONTROL BOX, WHITE COVERPLATE, WHITE COVERPLATE, RED
FF	FURNITURE FEED, FINISHED FLOOR	SPEC	SPECIFICATION	(S <sub>3</sub> )	SWITCH, THREE WAY, 20A, MTD 48" AFF TO TOP OF CONTROL BOX, WHITE COVERPLATE, WHITE COVERPLATE, RED
FFE	FINISH FLOOR ELEVATION	SQ FT	SQUARE FEET OR SQUARE FOOT	(S <sub>3</sub> )	SWITCH, THREE WAY, 20A, MTD 48" AFF TO TOP OF CONTROL BOX, WHITE COVERPLATE, WHITE COVERPLATE, RED
FIN	FINISH OR FINISHED	STRUCT	STRUCTURE	(S <sub>3</sub> )	SWITCH, THREE WAY, 20A, MTD 48" AFF TO TOP OF CONTROL BOX, WHITE COVERPLATE, WHITE COVERPLATE, RED
FIXT	FIXTURE	SW	SWITCH	(S <sub>3</sub> )	SWITCH, THREE WAY, 20A, MTD 48" AFF TO TOP OF CONTROL BOX, WHITE COVERPLATE, WHITE COVERPLATE, RED
FLUOR	FLUORESCENT	SWBD	SWITCHBOARD	(S <sub>3</sub> )	SWITCH, THREE WAY, 20A, MTD 48" AFF TO TOP OF CONTROL BOX, WHITE COVERPLATE, WHITE COVERPLATE, RED
FT	FEET OR FOOT	SWGR	SWITCHGEAR	(S <sub>3</sub> )	SWITCH, THREE WAY, 20A, MTD 48" AFF TO TOP OF CONTROL BOX, WHITE COVERPLATE, WHITE COVERPLATE, RED
FTG	FOOTING			(S <sub>3</sub> )	SWITCH, THREE WAY, 20A, MTD 48" AFF TO TOP OF CONTROL BOX, WHITE COVERPLATE, WHITE COVERPLATE, RED
FVNR	FULL VOLTAGE NON-REVERSING	TEMP	TEMPERATURE OR TEMPORARY	(S <sub>3</sub> )	SWITCH, THREE WAY, 20A, MTD 48" AFF TO TOP OF CONTROL BOX, WHITE COVERPLATE, WHITE COVERPLATE, RED
		TV	TELEVISION	(S <sub>3</sub> )	SWITCH, THREE WAY, 20A, MTD 48" AFF TO TOP OF CONTROL BOX, WHITE COVERPLATE, WHITE COVERPLATE, RED
G	GROUND BUS OR WIRE	TEL, TELE	TELEPHONE	(S <sub>3</sub> )	SWITCH, THREE WAY, 20A, MTD 48" AFF TO TOP OF CONTROL BOX, WHITE COVERPLATE, WHITE COVERPLATE, RED
GA	GAUGE	TO	TIMELOCK	(S <sub>3</sub> )	SWITCH, THREE WAY, 20A, MTD 48" AFF TO TOP OF CONTROL BOX, WHITE COVERPLATE, WHITE COVERPLATE, RED
GAU	GALVANIZED	TRANSF	TRANSFORMER	(S <sub>3</sub> )	SWITCH, THREE WAY, 20A, MTD 48" AFF TO TOP OF CONTROL BOX, WHITE COVERPLATE, WHITE COVERPLATE, RED
GC	GENERAL CONTRACTOR	TYP	TYPICAL	(S <sub>3</sub> )	SWITCH, THREE WAY, 20A, MTD 48" AFF TO TOP OF CONTROL BOX, WHITE COVERPLATE, WHITE COVERPLATE, RED
GD	GARBAGE DISPOSAL			(S <sub>3</sub> )	SWITCH, THREE WAY, 20A, MTD 48" AFF TO TOP OF CONTROL BOX, WHITE COVERPLATE, WHITE COVERPLATE, RED
GFI	GROUND FAULT INTERRUPTER	UGPS	UNDERGROUND PULL SECTION	(S <sub>3</sub> )	SWITCH, THREE WAY, 20A, MTD 48" AFF TO TOP OF CONTROL BOX, WHITE COVERPLATE, WHITE COVERPLATE, RED
GFR	GROUND FAULT RELAY	UL	UNDERWRITERS LABORATORIES	(S <sub>3</sub> )	SWITCH, THREE WAY, 20A, MTD 48" AFF TO TOP OF CONTROL BOX, WHITE COVERPLATE, WHITE COVERPLATE, RED
GG	GREEN GROUND	UNO	UNLESS NOTED OTHERWISE	(S <sub>3</sub> )	SWITCH, THREE WAY, 20A, MTD 48" AFF TO TOP OF CONTROL BOX, WHITE COVERPLATE, WHITE COVERPLATE, RED
GND	GROUND			(S <sub>3</sub> )	SWITCH, THREE WAY, 20A, MTD 48" AFF TO TOP OF CONTROL BOX, WHITE COVERPLATE, WHITE COVERPLATE, RED
		V	VOLTS	(S <sub>3</sub> )	SWITCH, THREE WAY, 20A, MTD 48" AFF TO TOP OF CONTROL BOX, WHITE COVERPLATE, WHITE COVERPLATE, RED
H	HORIZONTAL	VA	VOLT-AMPERE	(S <sub>3</sub> )	SWITCH, THREE WAY, 20A, MTD 48" AFF TO TOP OF CONTROL BOX, WHITE COVERPLATE, WHITE COVERPLATE, RED
HAZMAT	HAZARDOUS MATERIAL	VFD	VARIABLE FREQUENCY DRIVE	(S <sub>3</sub> )	SWITCH, THREE WAY, 20A, MTD 48" AFF TO TOP OF CONTROL BOX, WHITE COVERPLATE, WHITE COVERPLATE, RED
HR	HOUR			(S <sub>3</sub> )	SWITCH, THREE WAY, 20A, MTD 48" AFF TO TOP OF CONTROL BOX, WHITE COVERPLATE, WHITE COVERPLATE, RED
HP	HORSEPOWER	WH	WITH	(S <sub>3</sub> )	SWITCH, THREE WAY, 20A, MTD 48" AFF TO TOP OF CONTROL BOX, WHITE COVERPLATE, WHITE COVERPLATE, RED
HDA	HAND-OFF-AUTOMATIC	WH	WATER HEATER	(S <sub>3</sub> )	SWITCH, THREE WAY, 20A, MTD 48" AFF TO TOP OF CONTROL BOX, WHITE COVERPLATE, WHITE COVERPLATE, RED
HT	HEIGHT	WP	WEATHER PROOF	(S <sub>3</sub> )	SWITCH, THREE WAY, 20A, MTD 48" AFF TO TOP OF CONTROL BOX, WHITE COVERPLATE, WHITE COVERPLATE, RED
HTR	HEATER	WT	WEIGHT	(S <sub>3</sub> )	SWITCH, THREE WAY, 20A, MTD 48" AFF TO TOP OF CONTROL BOX, WHITE COVERPLATE, WHITE COVERPLATE, RED
HZ	HERTZ	X	EXISTING	(S <sub>3</sub> )	SWITCH, THREE WAY, 20A, MTD 48" AFF TO TOP OF CONTROL BOX, WHITE COVERPLATE, WHITE COVERPLATE, RED
IG	ISOLATED GROUND	XFMR	TRANSFORMER	(S <sub>3</sub> )	SWITCH, THREE WAY, 20A, MTD 48" AFF TO TOP OF CONTROL BOX, WHITE COVERPLATE, WHITE COVERPLATE, RED
IMC	INTERMEDIATE METAL CONDUIT	XL	EXISTING TO BE RELOCATED	(S <sub>3</sub> )	SWITCH, THREE WAY, 20A, MTD 48" AFF TO TOP OF CONTROL BOX, WHITE COVERPLATE, WHITE COVERPLATE, RED
INCAND	INCANDESCENT	XN	NEW LOCATION OF RELOCATED FIXTURE	(S <sub>3</sub> )	SWITCH, THREE WAY, 20A, MTD 48" AFF TO TOP OF CONTROL BOX, WHITE COVERPLATE, WHITE COVERPLATE, RED
		XR	EXISTING TO BE REMOVED	(S <sub>3</sub> )	SWITCH, THREE WAY, 20A, MTD 48" AFF TO TOP OF CONTROL BOX, WHITE COVERPLATE, WHITE COVERPLATE, RED
J-BOX	JUNCTION BOX			(S <sub>3</sub> )	SWITCH, THREE WAY, 20A, MTD 48" AFF TO TOP OF CONTROL BOX, WHITE COVERPLATE, WHITE COVERPLATE, RED

SINGLELINE SYMBOLS AND DESCRIPTIONS		LIGHTING SYMBOLS AND DESCRIPTIONS	
(A)	AMP METER	(A)	AMP METER
(V)	VOLT METER	(V)	VOLT METER
(CT)	CURRENT TRANSFORMER	(CT)	CURRENT TRANSFORMER
(GFI)	GROUND FAULT CIRCUIT INTERRUPTER	(GFI)	GROUND FAULT CIRCUIT INTERRUPTER
(M)	MOTOR OR EQUIPMENT AS NOTED	(M)	MOTOR OR EQUIPMENT AS NOTED
(LUG)	LUGS LANDING LUGS	(LUG)	LUGS LANDING LUGS
(S)	SWITCH, SINGLE POLE 20A, MTD 48" AFF TO TOP OF CONTROL BOX, WHITE COVERPLATE, WHITE COVERPLATE, RED	(S)	SWITCH, SINGLE POLE 20A, MTD 48" AFF TO TOP OF CONTROL BOX, WHITE COVERPLATE, WHITE COVERPLATE, RED
(S <sub>20</sub> )	SWITCH, SINGLE POLE 20A, MTD 48" AFF TO TOP OF CONTROL BOX, WHITE COVERPLATE, WHITE COVERPLATE, RED	(S <sub>20</sub> )	SWITCH, SINGLE POLE 20A, MTD 48" AFF TO TOP OF CONTROL BOX, WHITE COVERPLATE, WHITE COVERPLATE, RED
(S <sub>3</sub> )	SWITCH, THREE WAY, 20A, MTD 48" AFF TO TOP OF CONTROL BOX, WHITE COVERPLATE, WHITE COVERPLATE, RED	(S <sub>3</sub> )	SWITCH, THREE WAY, 20A, MTD 48" AFF TO TOP OF CONTROL BOX, WHITE COVERPLATE, WHITE COVERPLATE, RED
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**SUNDT CONSTRUCTION**  
SAN DIEGO, CALIFORNIA

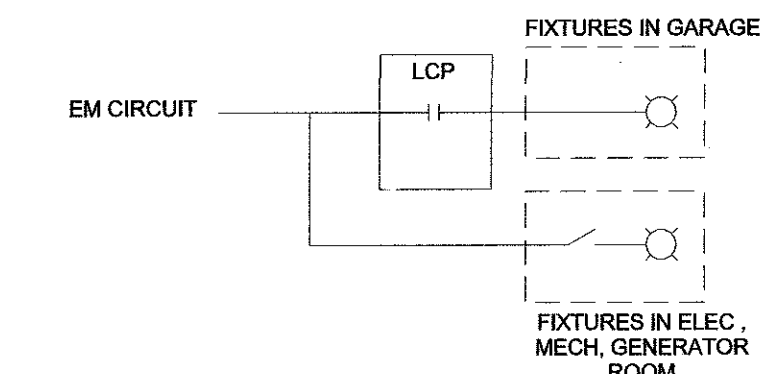
**SAN DIEGO STATE UNIVERSITY**  
SAN DIEGO, CA

**SOUTH CAMPUS PLAZA DESIGN-BUILD PARKING STRUCTURE**  
SAN DIEGO STATE UNIVERSITY

TYPE	VOLTAGE*	INPUT WATTAGE	MOUNTING	FIXTURE DESCRIPTION	CATALOG #	LAMP
A	120-277	108	SURFACE CEILING	SURFACE MOUNTED LED. MINI DIMMING OCCUPANCY SENSOR (8'-10" MOUNTING)	COOPER LIGHTING: #TT-A5-LED-WQ -MSP/DIM-L12 OR EQUAL	LED 4000K
A1	120-277	108	SURFACE CEILING	SAME AS TYPE 'A' WITHOUT OCCUPANCY SENSOR	COOPER LIGHTING: #TT-A5-LED-WQ -MSP/DIM-L12 OR EQUAL	LED 4000K
B	120-277	50	SURFACE CEILING	NARROW LENSED STRIPLIGHT WITH INTEGRAL OCCUPANCY SENSOR.	COOPER LIGHTING: #SNLED-LD1-49-LC-UNV-L840-CD1-U-LB-ERMS360 OR EQUAL	LED 4000K
B1	120-277	50	SURFACE CEILING	SAME AS FIXTURE 'B' WITH OUT OCCUPANCY SENSOR.	COOPER LIGHTING: #SNLED-LD1-49-LC-UNV-L840-CD1-U OR EQUAL	LED 4000K
C	120-277	30	RECESSED CEILING	LENS DOWNLIGHT	COOPER LIGHTING: #PD6-18-ED010-PDM6-840-61V-C OR EQUAL	LED 4000K
L10	120-277	69	SURFACE WALL	WALL PACK MOUNTED AT 13'	LITHONIA: #CSWX-30C-700-40K-TFTM OR EQUAL	LED 4000K
P1	120-277	159	POLE	SINGLE HEAD POLE FIXTURE MOUNTED AT 20'. 0-10V DIMMING WITH OCC.SENSOR MOUNTED TO THE FIXTURE. BUG RATING OF B2-U0-G3	COOPER LIGHTING: #GLEON-AE-06-LED-E1-SL3-MS/DIM-L20-530 OR EQUAL	LED 4000K
P2	120-277	318	POLE	DOUBLE HEAD POLE FIXTURE MOUNTED AT 20'. 0-10V DIMMING WITH OCC.SENSOR MOUNTED TO THE FIXTURE. BUG RATING OF B3-U0-G3	COOPER LIGHTING: #GLEON-AE-06-LED-E1-T4W-MS/DIM-L20-530 OR EQUAL	LED 4000K
X1	120-277	5	UNIVERSAL	LED EXIT SIGN. SINGLE FACE	COOPER LIGHTING: #SLX-6-G OR EQUAL	LED 4000K
X2	120 or 277	5	UNIVERSAL	LED EXIT SIGN. DOUBLE FACE	COOPER LIGHTING: #SLX-6-G OR EQUAL	LED 4000K
X3	120 or 277	5	UNIVERSAL	LED EXIT SIGN SINGLE FACE WET LISTED.	LITHONIA LIGHTING: #WLTE-W-1-G OR EQUAL	LED 4000K

**1 LUMINAIRE SCHEDULE**  
NO SCALE

RELAY	PANEL	CIRCUIT	VOLTS	ZONE	NOTES
R1	G	1	277	A	FIRST LEVEL LIGHTING
R2	G	2	277	C	THIRD LEVEL LIGHTING
R3	G	3	277	B	SECOND LEVEL LIGHTING
R4	G	4	277	E	FIFTH LEVEL LIGHTING
R5	G	5	277	D	FOURTH LEVEL LIGHTING
R6	G	6	277	F	SIXTH FLOOR LIGHTING
R7	G	7	277	F	SIXTH FLOOR LIGHTING
R8	G	9	277	H	EXTERIOR LIGHTING
R9	EL1G	1	277	I	FIRST LEVEL EMERGENCY
R10	EL1G	2	277	I	THIRD LEVEL EMERGENCY
R11	EL1G	3	277	I	SECOND LEVEL EMERGENCY
R12	EL1G	4	277	I	FIFTH LEVEL EMERGENCY
R13	EL1G	5	277	I	FOURTH LEVEL EMERGENCY
R14	EL1G	6	277	J	SIXTH LEVEL EMERGENCY
R15	-	-	277		SPARE
R16	-	-	277		SPARE



**2 LIGHTING CONTROL RELAY SCHEDULE 'LCPG'**  
NO SCALE

ZONE	CONTROL	OVERRIDE SWITCHES	NOTES
A	TIMECLOCK 'ON/OFF' PHOTOCELL 'OFF'		
B	TIMECLOCK 'ON/OFF' PHOTOCELL 'OFF'		
C	TIMECLOCK 'ON/OFF' PHOTOCELL 'OFF'		
D	TIMECLOCK 'ON/OFF' PHOTOCELL 'OFF'		
E	TIMECLOCK 'ON/OFF' PHOTOCELL 'OFF'		POLE FIXTURES TO BE PROVIDED WITH OCCUPANCY SENSOR
F	TIMECLOCK 'ON/OFF' PHOTOCELL 'OFF'		
H	TIMECLOCK 'ON/OFF' PHOTOCELL 'OFF'		
I	TIMECLOCK 'ON/OFF' PHOTOCELL 'OFF'		

**3 LIGHTING CONTROL ZONE SCHEDULE 'LCPG'**  
NO SCALE

**SUBMITTAL SCHEDULE:**

100% BACKCHECK SET 3	03/20/2015
DSA BACKCHECK SET	06/15/2015
SFM RESUBMITTAL	07/29/2015
ASH#011 - SFM RESUB. 2	11/09/2015
ASI-013	12/08/2015
SFM RESUBMITTAL #3	03/03/2016

OFFICE OF THE STATE FIRE MARSHAL  
APPROVED FIRE AND LIFE SAFETY PLAN  
Reviewed by: [Signature]  
Bryan S. Gannon, DSFM

APR 27 2016  
Approval of this plan does not authorize or absolve any conditions or deviations from applicable regulations. Final approval is subject to field inspection. One set of approved plans shall be available on the project site at all times.

IDENTIFICATION STAMP  
DIVISION OF THE STATE ARCHITECT  
OFFICE OF REGULATION SERVICES  
FILE #  
APPL # 04-14204  
AC \_\_\_\_\_ DATE: \_\_\_\_\_

Bergmatic Corp. Contractors & Engineers  
810-880848  
650 COPPER STREET  
ESCONDIDO, CA 92029  
TEL (760) 746-1003  
FAX (760) 746-6412

PROFESSIONAL STATEMENT  
I, THE ARCHITECT, DESIGN AND CALCULATE ON THIS DRAWING AND FOR THE EXCLUSIVE USE OF CONSTRUCTION BY THE REGISTERED CONTRACTOR. I AM NOT PROVIDING ANY SERVICE OR REPRESENTATION OF INDEMNITY TO ANY OTHER PARTY. I AM NOT PROVIDING ANY SERVICE OR REPRESENTATION OF INDEMNITY TO ANY OTHER PARTY.  
MICHAEL WALL ENGINEERING  
4115 Sorrento Valley Blvd  
San Diego, CA 92121  
REGISTERED ELECTRICAL ENGINEER

**MICHAEL WALL ENGINEERING**  
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4115 Sorrento Valley Blvd  
San Diego, CA 92121  
REGISTERED ELECTRICAL ENGINEER

PROJECT NO: 21305-G-00

**LUMINAIRE SCHEDULE**

**E-002**





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**SUNDT CONSTRUCTION**  
SAN DIEGO, CALIFORNIA

**SAN DIEGO STATE UNIVERSITY**  
SAN DIEGO, CA

**SOUTH CAMPUS PLAZA DESIGN-BUILD PARKING STRUCTURE**  
SAN DIEGO STATE UNIVERSITY

SUBMITTAL SCHEDULE:

100% BACKCHECK SET 3	03/20/2015
DSA BACKCHECK SET	06/15/2015
SFM RESUBMITTAL	07/29/2015
ASH#011 - SFM RESUB. 2	11/09/2015
ASH-013	12/08/2015
SFM RESUBMITTAL #3	03/03/2016

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San Diego, CA 92121  
REGISTERED ELECTRICAL ENGINEERS

PROJECT NO: 21305-G-50

**GROUND LEVEL ELECTRICAL PLAN**

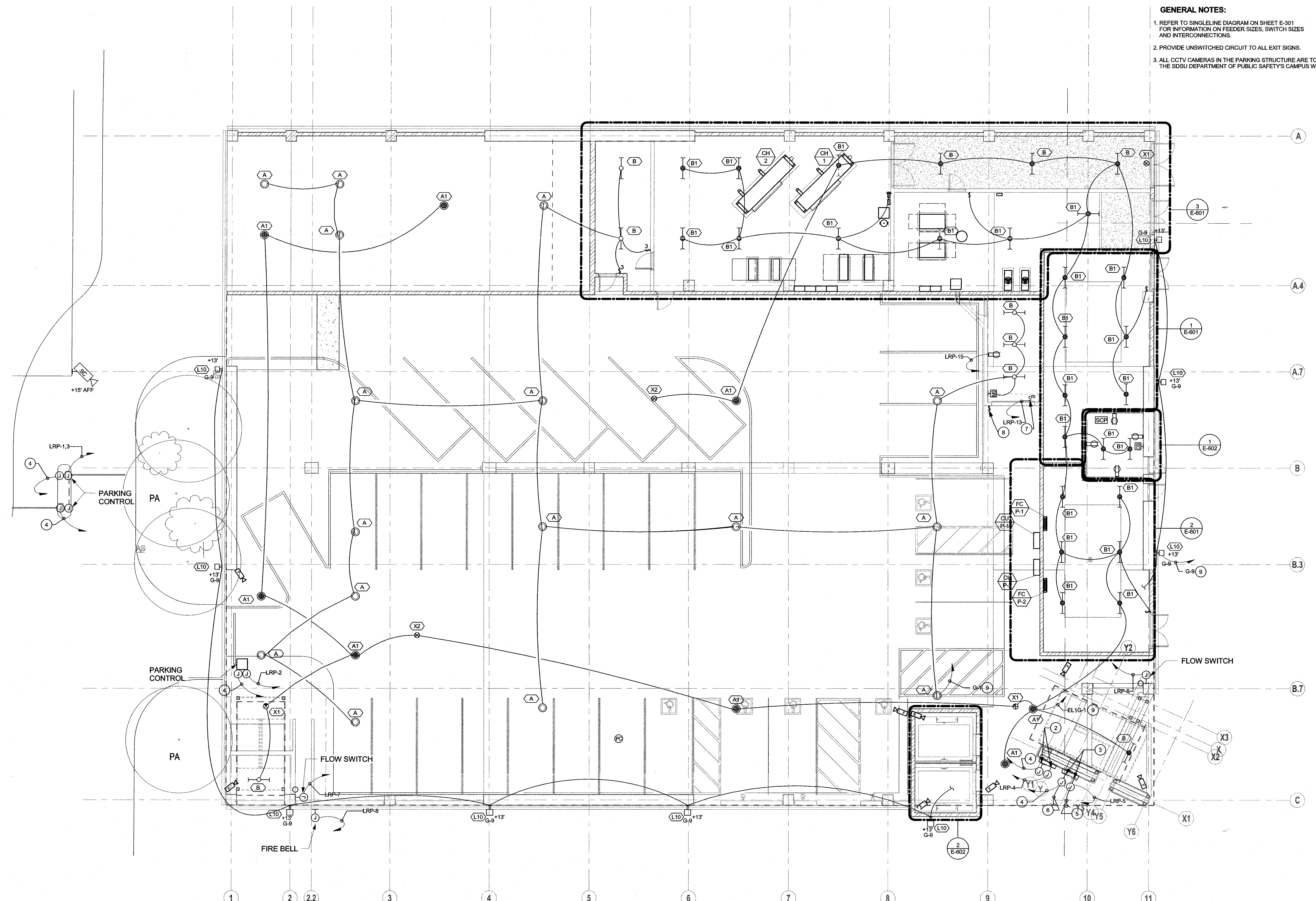
**E-201**

**KEYNOTES:**

- ROUTE TO 3-WAY SWITCH ON OTHER SIDE OF ROOM.
- POWER & COMM FOR PAY ON FOOT STATIONS.
- PROVIDE J-BOX FOR BLUE PHONE.
- PROVIDE 3/4" C.O TO THE MPOEMDF ROOM.
- ROUTE CIRCUIT TO FLOOR ABOVE.
- ROUTE 3/4" C.O TO THE BLUE PHONE ON THE FLOOR ABOVE.
- PROVIDE 1-POLE DISCONNECT SWITCH FOR ROLL UP DOOR.
- PROVIDE 1/2" C. FROM CONTROL SWITCH TO ROLL UP DOOR MOTOR.
- ROUTE THROUGH LIGHTING CONTROL PANEL.

**GENERAL NOTES:**

- REFER TO SINGLELINE DIAGRAM ON SHEET E-301 FOR INFORMATION ON FEEDER SIZES, SWITCH SIZES AND INTERCONNECTIONS.
- PROVIDE UNSWITCHED CIRCUIT TO ALL EXIT SIGNS.
- ALL CCTV CAMERAS IN THE PARKING STRUCTURE ARE TO BE ADDED TO THE SDSU DEPARTMENT OF PUBLIC SAFETY'S CAMPUS WIDE CCTV CAMERA SYSTEM.



**1 GROUND LEVEL ELECTRICAL PLAN**  
1/8" = 1'-0"

OFFICE OF THE STATE FIRE MARSHAL  
APPROVED FIRE MARSHAL ONLY  
Reviewed by: *Gregory Goodrich, DSFM*

APR 27 2016  
Approval of this plan does not authorize or approve any revision or deviation from applicable regulations. Final approval is subject to field inspection. One set of approved plans shall be available on the project site at all times.

IDENTIFICATION STAMP  
DIVISION OF THE STATE ARCHITECT  
OFFICE OF REGULATION SERVICES

FILE #  
APPL # 04-114204  
AC DATE:

Bergquist Corp. Contractors & Engineers  
660 OFFER STREET  
ESCONDIDO, CA 92029  
TEL (760) 749-1003  
FAX (760) 749-6412

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SFM RESUBMITTAL #3 03/03/2016





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**SUNDT CONSTRUCTION**  
SAN DIEGO, CALIFORNIA

**SAN DIEGO STATE UNIVERSITY**  
SAN DIEGO, CA

**SOUTH CAMPUS PLAZA DESIGN-BUILD PARKING STRUCTURE**  
SAN DIEGO STATE UNIVERSITY

**SUBMITTAL SCHEDULE:**

100% BACKCHECK SET 3	03/20/2015
DSA BACKCHECK SET	06/15/2015
SFM RESUBMITTAL	07/29/2015
ASH#011 - SFM RESUB. 2	11/06/2015
ASH-013	12/08/2015
SFM RESUBMITTAL #3	03/03/2016



**MICHAEL WALL ENGINEERING**  
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San Diego, CA 92121  
REGISTERED ELECTRICAL ENGINEER

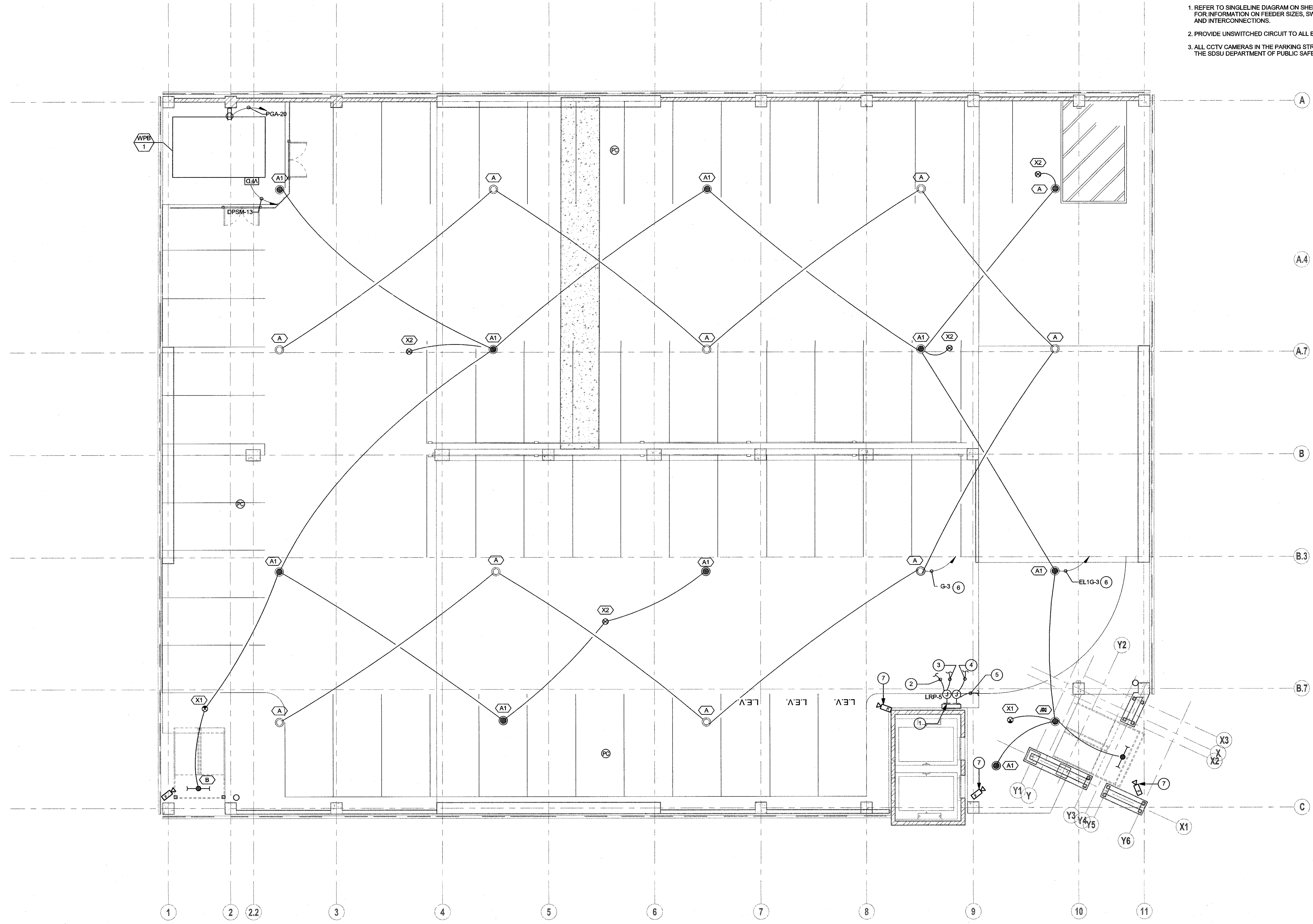
PROJECT NO: 21305-G-00

**SECOND FLOOR ELECTRICAL PLAN**

**E-202**

- KEYNOTES:**
- 1 PROVIDE J-BOX FOR BLUE PHONE.
  - 2 ROUTE CIRCUIT TO FLOOR ABOVE.
  - 3 ROUTE CIRCUIT TO FLOOR BELOW.
  - 4 ROUTE 34°C.O TO THE BLUE PHONE ON THE FLOOR ABOVE.
  - 5 ROUTE 34°C.O TO THE BLUE PHONE ON THE FLOOR BELOW.
  - 6 ROUTE THROUGH LIGHTING CONTROL PANEL.
  - 7 FUTURE CAMERA LOCATION. PROVIDE CONDUIT AND BACK BOX ONLY.

- GENERAL NOTES:**
1. REFER TO SINGLELINE DIAGRAM ON SHEET E-301 FOR INFORMATION ON FEEDER SIZES, SWITCH SIZES AND INTERCONNECTIONS.
  2. PROVIDE UNSWITCHED CIRCUIT TO ALL EXIT SIGNS.
  3. ALL CCTV CAMERAS IN THE PARKING STRUCTURE ARE TO BE ADDED TO THE SDSU DEPARTMENT OF PUBLIC SAFETY'S CAMPUS WIDE CCTV CAMERA SYSTEM.



**1 SECOND LEVEL ELECTRICAL PLAN**  
1/8" = 1'-0"

OFFICE OF THE STATE FIRE MARSHAL  
APPROVED FIRE & LIFE SAFETY PLAN  
Reviewed by: Bradley Goodrich, USFPM

APR 27 2016

Approval of this plan does not authorize or approve any revision or alteration from applicable regulations. Final approval is subject to field inspection. Copy and approved plans shall be available on the project site at all times.

IDENTIFICATION STAMP  
DIVISION OF THE STATE  
ARCHITECT  
OFFICE OF REGULATION  
SERVICES

FILE #  
APPL # 04-14204  
AC \_\_\_\_\_ DATE: \_\_\_\_\_

Berginco Corp. Contractors & Engineers  
**b**  
850 UPPER STREET  
ESCONDIDO, CA 92029  
TEL (760) 746-1003  
FAX (760) 746-6412

PROPRIETARY DOCUMENT  
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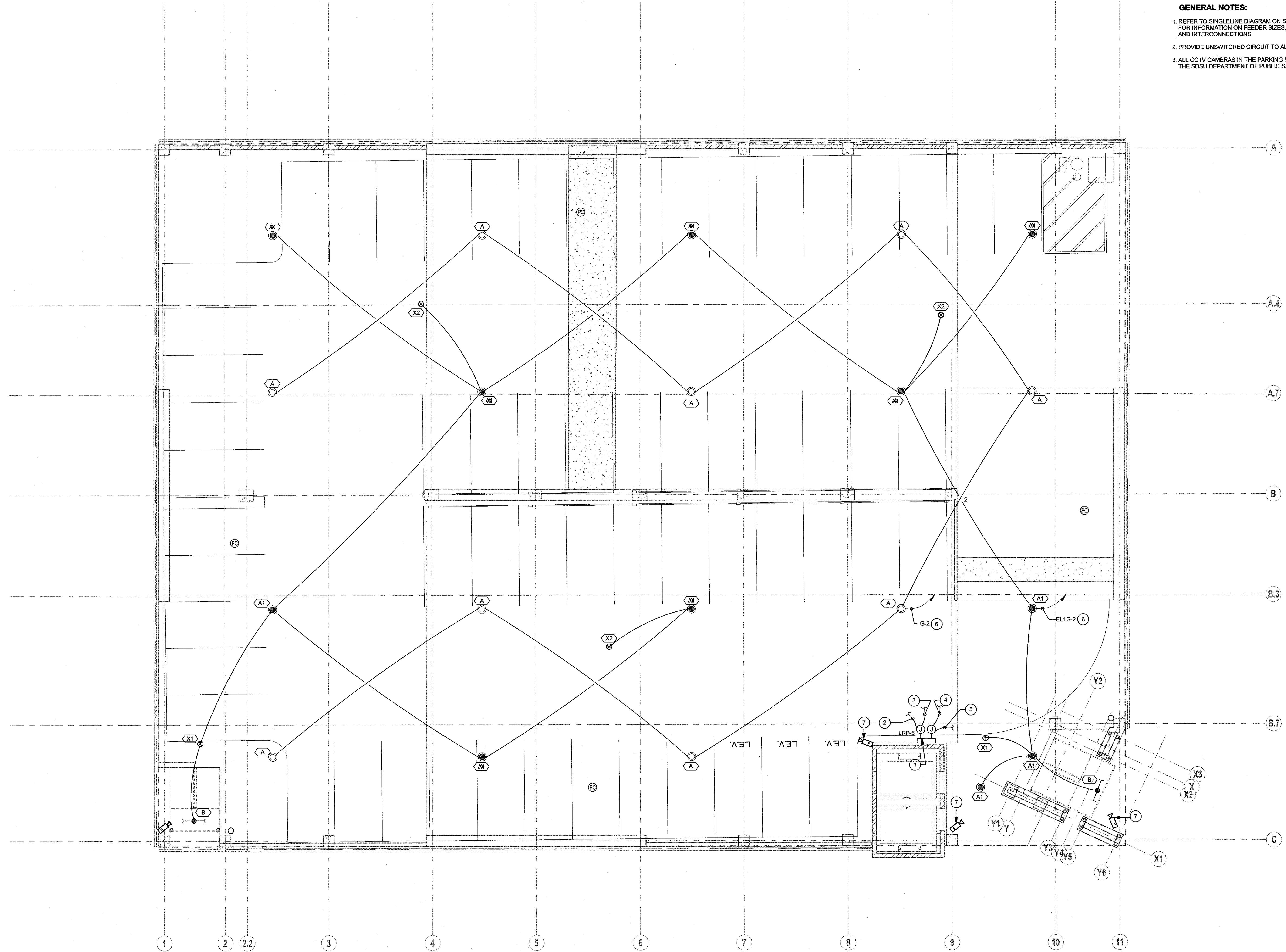
**SUNDT CONSTRUCTION**  
SAN DIEGO, CALIFORNIA

**SAN DIEGO STATE UNIVERSITY**  
SAN DIEGO, CA

**SOUTH CAMPUS PLAZA DESIGN-BUILD PARKING STRUCTURE**  
SAN DIEGO STATE UNIVERSITY

- KEYNOTES:**
- 1 PROVIDE J-BOX FOR BLUE PHONE.
  - 2 ROUTE CIRCUIT TO FLOOR ABOVE.
  - 3 ROUTE CIRCUIT TO FLOOR BELOW.
  - 4 ROUTE 34°C. TO THE BLUE PHONE ON THE FLOOR ABOVE.
  - 5 ROUTE 34°C. TO THE BLUE PHONE ON THE FLOOR BELOW.
  - 6 ROUTE THROUGH LIGHTING CONTROL PANEL.
  - 7 FUTURE CAMERA LOCATION. PROVIDE CONDUIT & BACK BOX ONLY.

- GENERAL NOTES:**
1. REFER TO SINGLELINE DIAGRAM ON SHEET E-301 FOR INFORMATION ON FEEDER SIZES, SWITCH SIZES AND INTERCONNECTIONS.
  2. PROVIDE UNSWITCHED CIRCUIT TO ALL EXIT SIGNS.
  3. ALL CCTV CAMERAS IN THE PARKING STRUCTURE ARE TO BE ADDED TO THE SDSU DEPARTMENT OF PUBLIC SAFETY'S CAMPUS WIDE CCTV CAMERA SYSTEM.



**1 THIRD LEVEL ELECTRICAL PLAN**  
1/8" = 1'-0"

OFFICE OF THE STATE FIRE MARSHAL  
APPROVED FIRE AND SAFETY ONLY  
Reviewed by: *[Signature]*  
Bradley Gordon, USFM

APR 27 2016

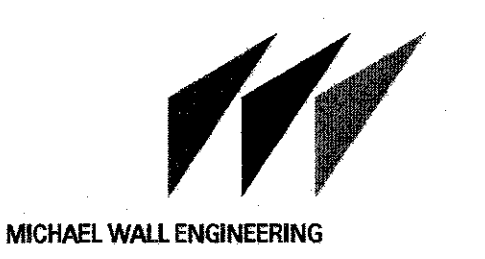
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IDENTIFICATION STAMP  
DIVISION OF THE STATE ARCHITECT  
OFFICE OF REGULATION SERVICES

FILE #  
APPL # 04-114204  
AC DATE:

Bergalactic Corp. **b** Contractors & Engineers  
850 OFFER STREET  
ESCONDIDO, CA 92029  
TEL (760) 746-1003  
FAX (760) 746-4412

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858-538-0660  
858-538-0640 (fax)  
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4105 Sorrento Valley Blvd  
San Diego, CA 92121  
REGISTERED ELECTRICAL ENGINEER

PROJECT NO: 21305-G-50

**THIRD LEVEL ELECTRICAL PLAN**

**E-203**

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SFM RESUBMITTAL #3 03/03/2016









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**SUNDT CONSTRUCTION**  
SAN DIEGO, CALIFORNIA

**SAN DIEGO STATE UNIVERSITY**  
SAN DIEGO, CA

### SOUTH CAMPUS PLAZA DESIGN-BUILD PARKING STRUCTURE

SAN DIEGO STATE UNIVERSITY

**SUBMITTAL SCHEDULE:**

100% BACKCHECK SET 3	03/20/2015
DSA BACKCHECK SET	06/15/2015
SFM RESUBMITTAL	07/29/2015
ASH#011 - SFM RESUB. 2	11/06/2015
ASH-013	12/08/2015
SFM RESUBMITTAL #3	03/03/2016



**MICHAEL WALL ENGINEERING**  
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858-638-0640 (fax)  
www.mwalleng.com  
4115 Sorrento Valley Blvd.  
San Diego, CA 92121  
REGISTERED ELECTRICAL ENGINEERS

PROJECT NO: 21305-G-50

### FIFTH LEVEL ELECTRICAL PLAN

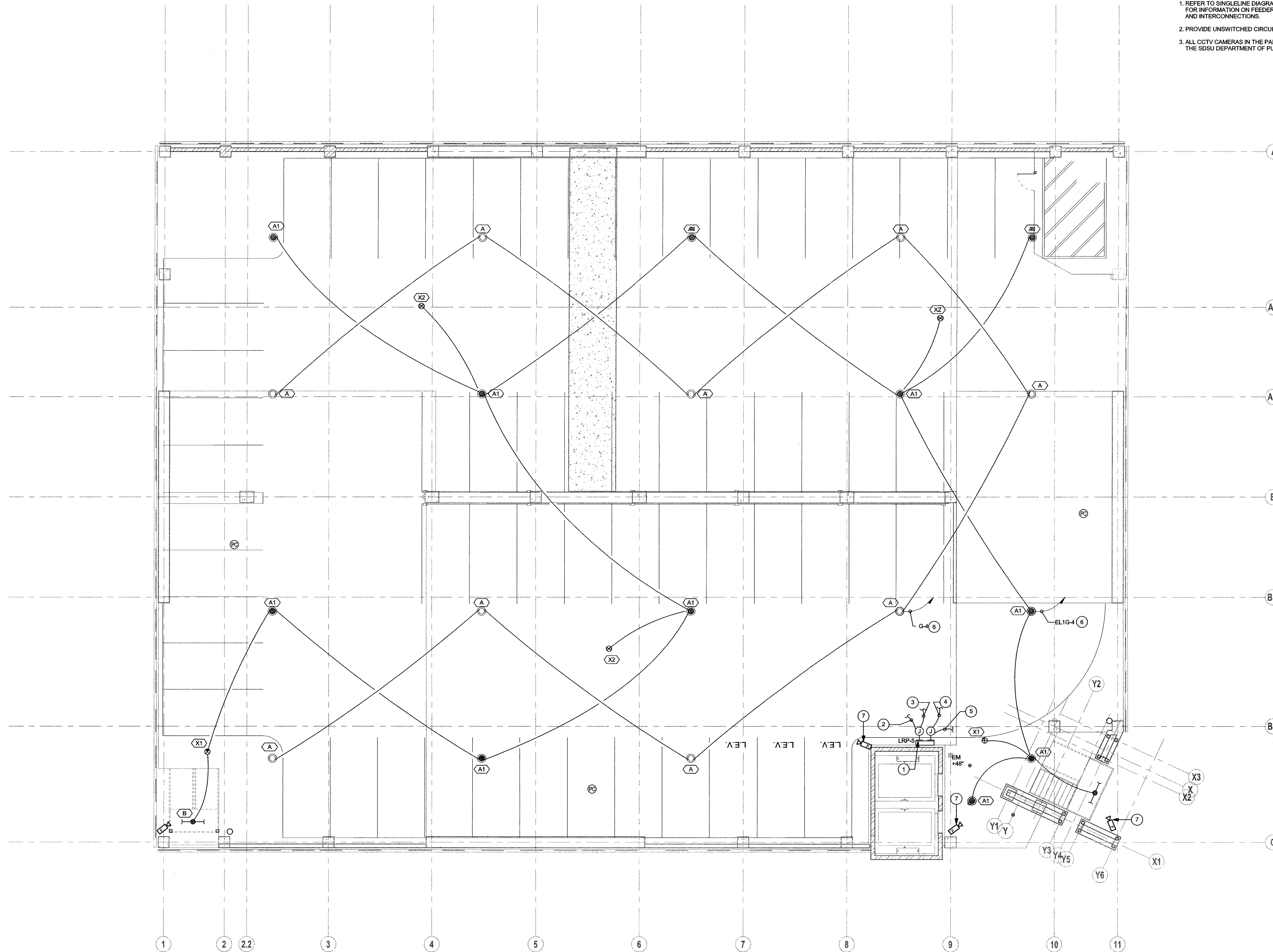
# E-205

**KEYNOTES:**

- 1 PROVIDE J-BOX FOR BLUE PHONE.
- 2 ROUTE CIRCUIT TO FLOOR ABOVE.
- 3 ROUTE CIRCUIT TO FLOOR BELOW.
- 4 ROUTE 3/4" O TO THE BLUE PHONE ON THE FLOOR ABOVE.
- 5 ROUTE 3/4" O TO THE BLUE PHONE ON THE FLOOR BELOW.
- 6 ROUTE THROUGH LIGHTING CONTROL PANEL.
- 7 FUTURE CAMERA LOCATION. PROVIDE CONDUIT & BACK BOX ONLY.

**GENERAL NOTES:**

1. REFER TO SINGLELINE DIAGRAM ON SHEET E-301 FOR INFORMATION ON FEEDER SIZES, SWITCH SIZES AND INTERCONNECTIONS.
2. PROVIDE UNSWITCHED CIRCUIT TO ALL EXIT SIGNS.
3. ALL CCTV CAMERAS IN THE PARKING STRUCTURE ARE TO BE ADDED TO THE SDSU DEPARTMENT OF PUBLIC SAFETY'S CAMPUS WIDE CCTV CAMERA SYSTEM.



**1 FIFTH LEVEL ELECTRICAL PLAN**  
1/8" = 1'-0"

OFFICE OF THE STATE FIRE MARSHAL  
APPROVED FIRE AND PDM ONLY  
Reviewed by: Bradley Council, DSPM

APR 27 2016

Approval of this plan does not authorize or approve any construction or installation prior to field inspections. Final approval is subject to field inspections. Check seal of approval plate what be available on the project site at all times.

IDENTIFICATION STAMP  
DIVISION OF THE STATE ARCHITECT  
OFFICE OF REGULATION SERVICES

FILE #  
APPL # 04-14204

AC \_\_\_\_\_ DATE: \_\_\_\_\_

Bergalactic Corp. Contractors & Engineers



650 OFFER STREET  
ESCONDIDO, CA 92029  
TEL (760) 746-1003  
FAX (760) 746-6412

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**SAN DIEGO STATE UNIVERSITY**  
SAN DIEGO, CA

**SOUTH CAMPUS PLAZA DESIGN-BUILD PARKING STRUCTURE**  
SAN DIEGO STATE UNIVERSITY

**SUBMITTAL SCHEDULE:**

100% BACKCHECK SET 3	03/20/2015
DSA BACKCHECK SET	06/15/2015
SFM RESUBMITTAL	07/29/2015
ASH#011 - SFM RESUB. 2	11/06/2015
ASH-013	12/08/2015
SFM RESUBMITTAL #3	03/03/2016

**MICHAEL WALL ENGINEERING**  
854-638-0600  
854-638-0640 (fax)  
4115 Sorrento Valley Blvd  
San Diego, CA 92121  
REGISTERED ELECTRICAL ENGINEER

PROJECT NO: 21305-G-50

**SIXTH LEVEL ELECTRICAL PLAN**

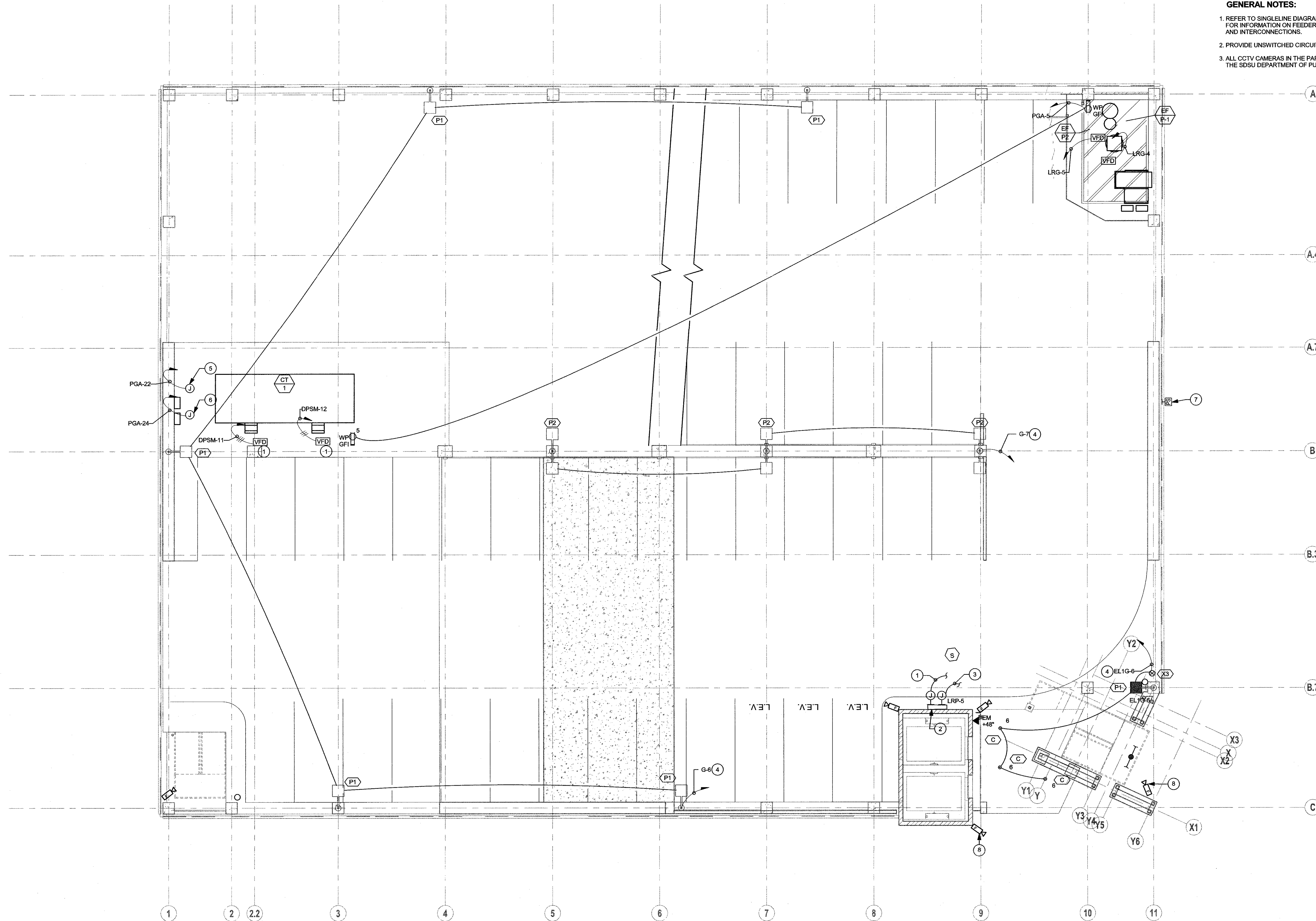
**E-206**

**KEYNOTES:**

- 1 ROUTE 3/4" CO TO THE BLUE PHONE ON THE FLOOR BELOW.
- 2 PROVIDE J-BOX FOR BLUE PHONE.
- 3 ROUTE CIRCUIT TO FLOOR BELOW.
- 4 ROUTE CIRCUIT THROUGH LIGHTING CONTROL PANEL.
- 5 PROVIDE J-BOX FOR CONNECTION TO CHEMICAL TREATMENT PANEL, AUTOMATIC VALVE AND VIBRATION SENSOR FOR COOLING TOWER. COORDINATE WITH MECHANICAL CONTRACTOR FOR FINAL LOCATION PRIOR TO ROUGH-IN.
- 6 PROVIDE J-BOX FOR CONNECTION TO WATER METER.
- 7 PHOTOCELL, AIMED NORTH.
- 8 FUTURE CAMERA LOCATION. PROVIDE CONDUIT & BACK BOX ONLY.

**GENERAL NOTES:**

1. REFER TO SINGLELINE DIAGRAM ON SHEET E-301 FOR INFORMATION ON FEEDER SIZES, SWITCH SIZES AND INTERCONNECTIONS.
2. PROVIDE UNSWITCHED CIRCUIT TO ALL EXIT SIGNS.
3. ALL CCTV CAMERAS IN THE PARKING STRUCTURE ARE TO BE ADDED TO THE SDSU DEPARTMENT OF PUBLIC SAFETY'S CAMPUS WIDE CCTV CAMERA SYSTEM.



1 **SIXTH LEVEL ELECTRICAL PLAN**  
1/8" = 1'-0"

OFFICE OF THE STATE FIRE MARSHAL  
APPROVED FIRE AND PLUMBING ONLY  
Reviewed by: [Signature]  
Travis J. Goodson, CSFM

APR 27 2016

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DIVISION OF THE STATE ARCHITECT  
OFFICE OF REGULATION SERVICES

FILE #  
APPL # 04-14204  
AC DATE:

**b** Berg Electric Corp. Contractors & Engineers  
4015-8804  
650 COPPER STREET  
ESCONDIDO, CA 92029  
TEL (760) 746-1003  
FAX (760) 746-4412

PROFESSIONAL STATEMENT  
I, THE UNDERSIGNED, AS ARCHITECT, DESIGNER AND CALCULATOR OF THIS PLAN, HAVE PREPARED THE SAME AND I AM A LICENSED ARCHITECT IN THE STATE OF CALIFORNIA. I HAVE REVIEWED THE WORK OF THE ENGINEER AND I AM NOT PROVIDING ANY PROFESSIONAL ENGINEERING SERVICES. I AM NOT PROVIDING ANY PROFESSIONAL ENGINEERING SERVICES. I AM NOT PROVIDING ANY PROFESSIONAL ENGINEERING SERVICES.

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SFM RESUBMITTAL #3 03/03/2016



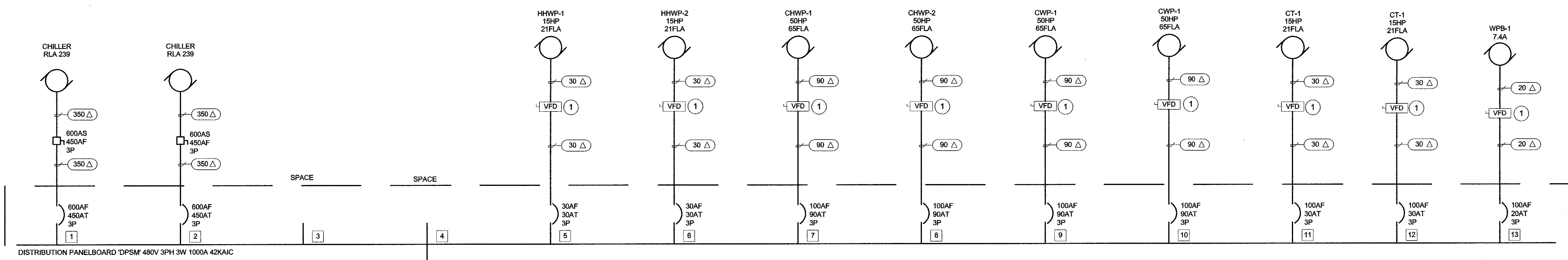


**SUBMITTAL SCHEDULE:**

100% BACKCHECK SET 3	03/20/2015
DSA BACKCHECK SET	06/15/2015
SFM RESUBMITTAL	07/29/2015
ASHW11 - SFM RESUB. 2	11/06/2015
ASI-013	12/08/2015
SFM RESUBMITTAL #3	03/03/2016

**MICHAEL WALL ENGINEERING**  
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558-638-0640 (fax)  
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San Diego, CA 92121  
REGISTERED ELECTRICAL ENGINEER

PROJECT NO: 21305-G-50  
**SINGLELINE  
DIAGRAM  
NORMAL  
POWER**  
**E-301**

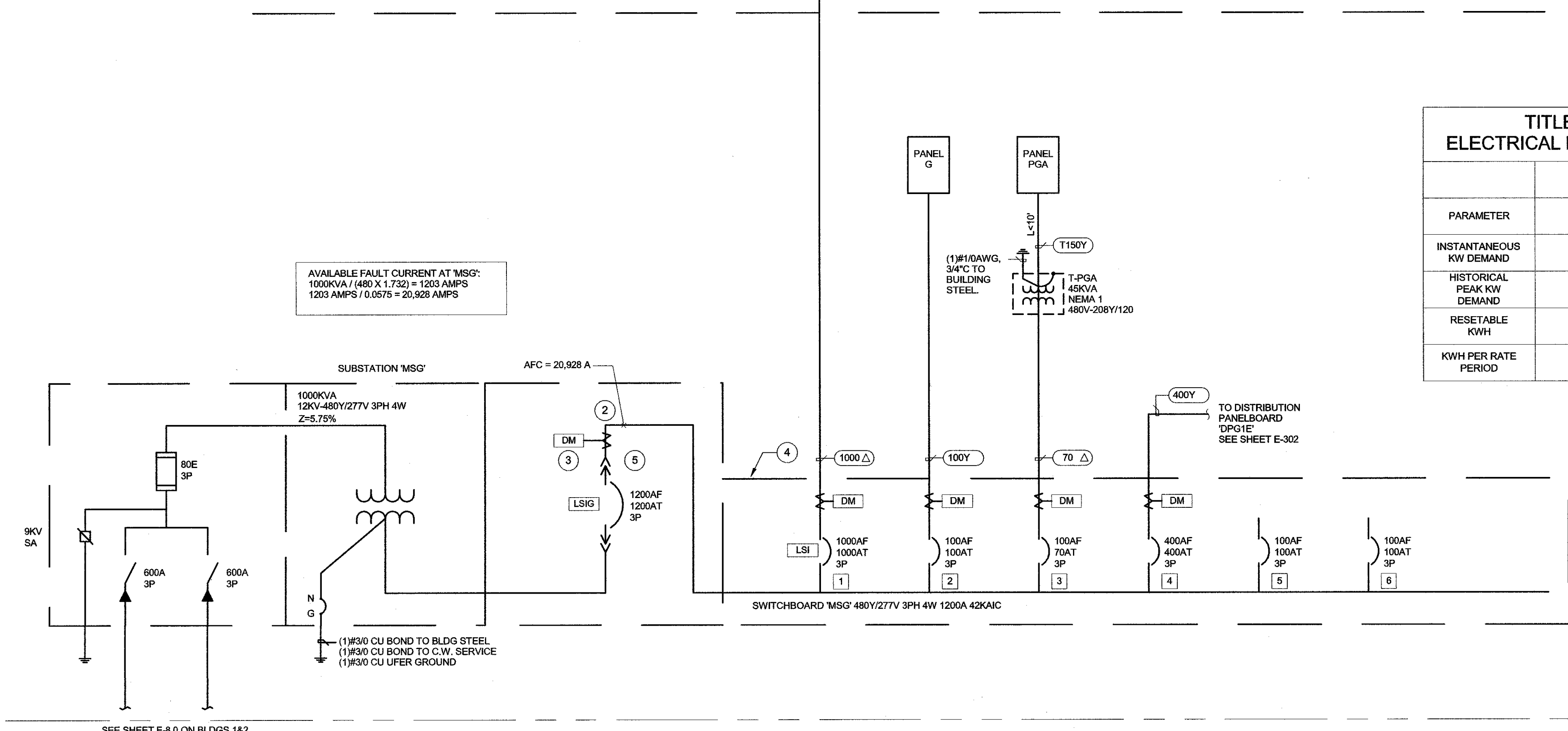


**TITLE 24 SECTION 130.5  
ELECTRICAL METERING REQUIREMENTS**

PARAMETER	OVER 1000KVA
INSTANTANEOUS KW DEMAND	REQUIRED
HISTORICAL PEAK KW DEMAND	REQUIRED
RESETTABLE KWH	REQUIRED
KWH PER RATE PERIOD	REQUIRED

- KEY NOTES:**
- VFD WITH INTEGRAL DISCONNECT IS PROVIDED AND INSTALLED BY MECHANICAL CONTRACTOR. WIRING IS PROVIDED BY ELECTRICAL CONTRACTOR.
  - PROVIDE FOLLOWING LABEL: "SERVICE DISCONNECTING MEANS."
  - DIGITAL METER SHALL COMPLY WITH SECTION 130.5 T-24 REQUIREMENT AS NOTED ON THIS SHEET.
  - SIGNAGE SHALL BE PLACED AT SERVICE ENTRANCE. PLEASE SEET DEAL #2 ON SHEET E-801.
  - THE FOLLOWING PLAQUE SHALL BE PROVIDED AT THE MAIN SERVICE DISCONNECT.

**WARNING**  
SHOCK HAZARD EXISTS IF GROUNDING ELECTRODE CONDUCTOR OR BONDING JUMPER CONNECTION IN THIS EQUIPMENT IS REMOVED WHILE ALTERNATE SOURCE(S) IS ENERGIZED.



AVAILABLE FAULT CURRENT AT MISC:  
1000KVA / (480 X 1.732) = 1203 AMPS  
1203 AMPS / 0.0575 = 20,928 AMPS

AFC = 20,928 A

(1) #3/0 CU BOND TO BLDG STEEL  
(1) #3/0 CU BOND TO C.W. SERVICE  
(1) #3/0 CU UPPER GROUND

**1 SINGLELINE DIAGRAM NORMAL POWER**  
12" = 1'-0"

OFFICE OF THE STATE ARCHITECT  
APPROVED FIRE AND PANIC ONLY  
Reviewed by: *Bradley Goodrich, DSRM*

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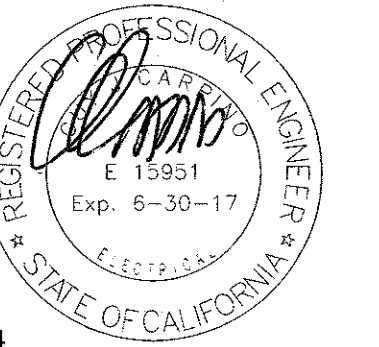
**IDENTIFICATION STAMP**  
DIVISION OF THE STATE ARCHITECT  
OFFICE OF REGULATION SERVICES

FILE #  
APPL # 04-114204  
AC DATE:

**b**  
Biologic Corp  
650 OFFER STREET  
ESCONDIDO, CA 92029  
TEL (760) 746-1003  
FAX (760) 746-6412

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SAN DIEGO, CALIFORNIA

**SAN DIEGO  
STATE  
UNIVERSITY**  
SAN DIEGO, CA

**SOUTH CAMPUS PLAZA DESIGN-BUILD PARKING  
STRUCTURE**  
SAN DIEGO STATE UNIVERSITY

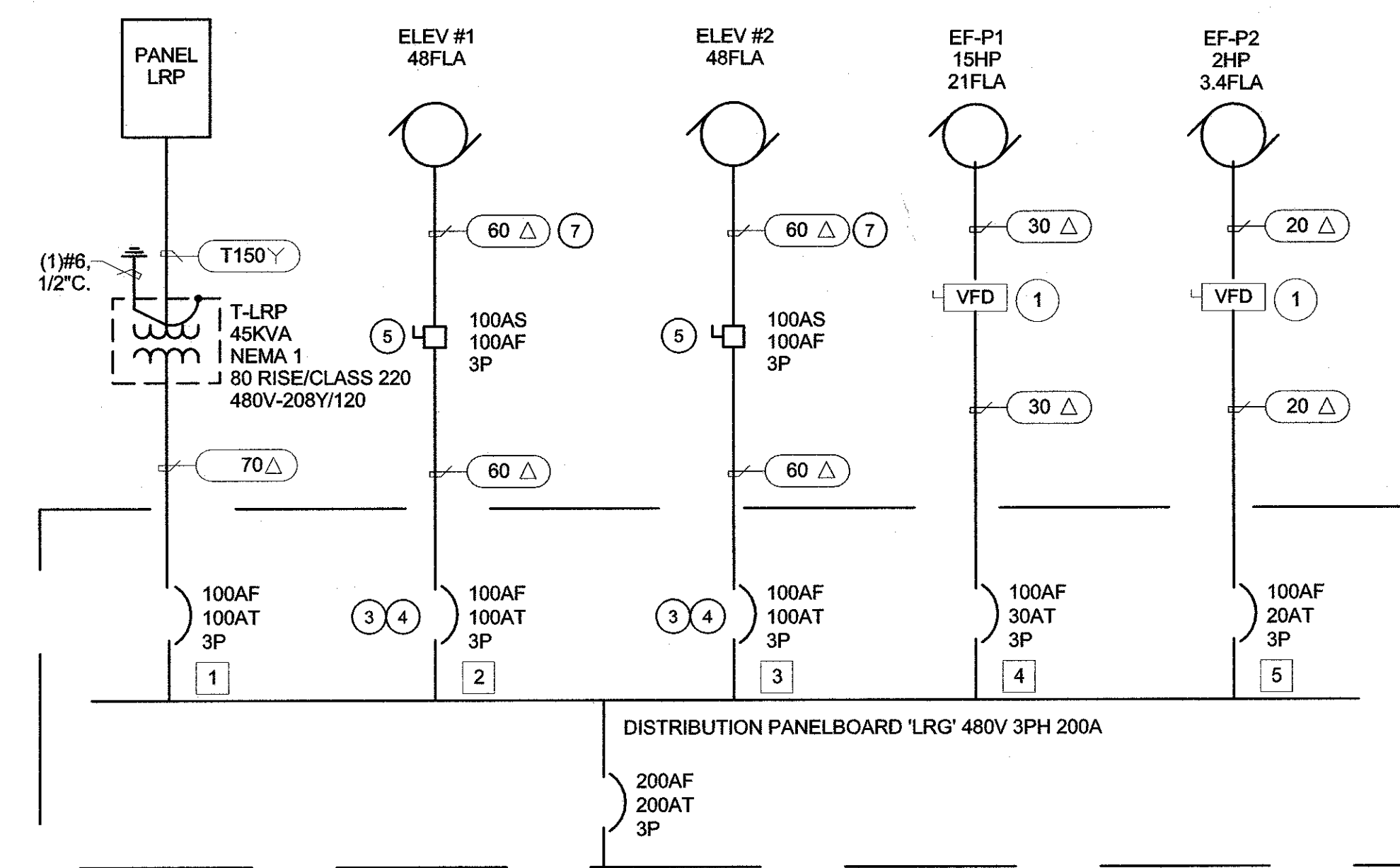
**SUBMITTAL SCHEDULE:**

100% BACKCHECK SET 3	03/20/2015
DSA BACKCHECK SET	06/15/2015
SFM RESUBMITTAL	07/29/2015
ASH#011 - SFM RESUB. 2	11/06/2015
ASI-013	12/08/2015
SFM RESUBMITTAL #3	03/03/2016

**MICHAEL WALL ENGINEERING**  
858-438-0600  
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www.mwalleng.com  
4115 Sorrento Valley Blvd  
San Diego, CA 92121  
REGISTERED ELECTRICAL ENGINEER

PROJECT NO: 21305-G-00

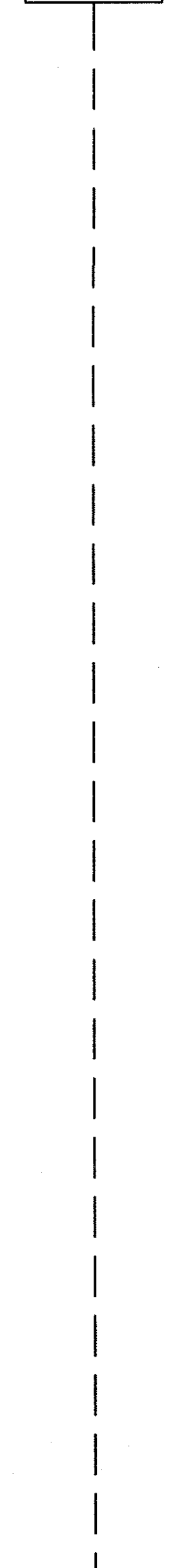
**SINGLELINE  
DIAGRAM  
EMERGENCY  
POWER  
E-302**



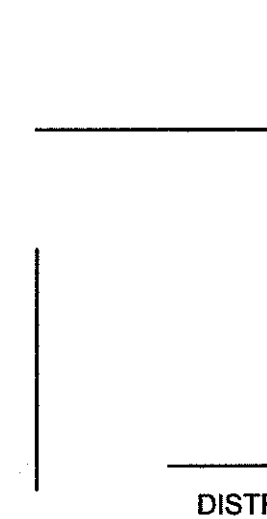
- KEY NOTES:**
- VFD WITH INTEGRAL DISCONNECT IS PROVIDED AND INSTALLED BY MECHANICAL CONTRACTOR. WIRING IS PROVIDED BY ELECTRICAL CONTRACTOR.
  - PROVIDE 3#14, 1/2" C FOR PRE-SIGNAL TO ELEVATOR CONTROLLER LOCATED IN THE ELEVATOR MACHINE ROOM.
  - PROVIDE AND INSTALL SHUNT TRIP CIRCUIT BREAKER FOR ELEVATOR FEED. PROVIDE 120V COIL AND DEDICATED CIRCUIT FOR CONTROL.
  - VERIFY SHUNT TRIP AND LOCK-OUT CONTROL WITH ELEVATOR CONTRACTOR, AND FIRE ALARM CONTRACTOR.
  - FUSIBLE DISCONNECT WITH LOCKING DEVICE. PROVIDE FUSE PER ELEVATOR MANUFACTURER'S RECOMMENDATIONS.
  - DISTRIBUTION BOARD 'EDBG' SHALL HAVE VERTICAL SECTIONS AS TO COMPLY WITH CEC 700.10(B).5.
  - PROVIDE #6 EQUIPMENT GROUNDING CONDUCTOR.

SEE SHEET E-601  
DETAIL #1 FOR  
LOCATION.

GENERATOR  
REMOTE  
START STOP

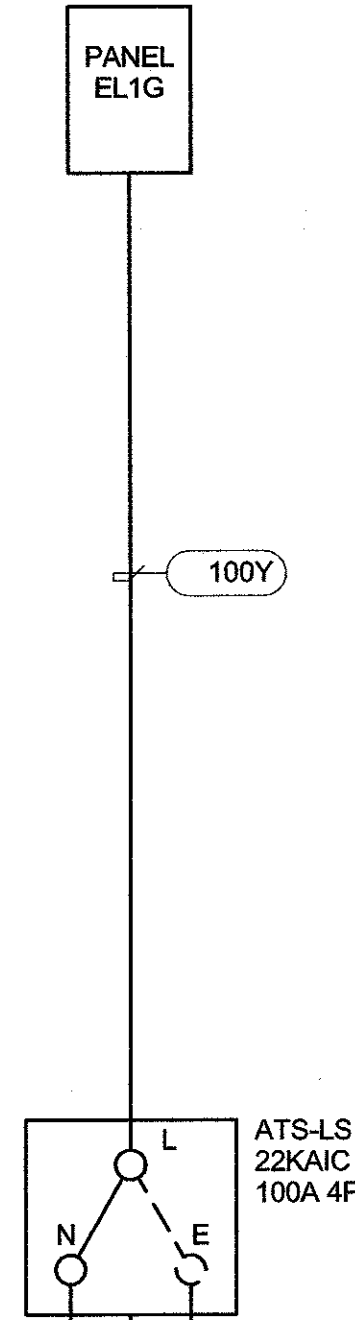


TO  
MSG 1 SEE  
SHEET E-301

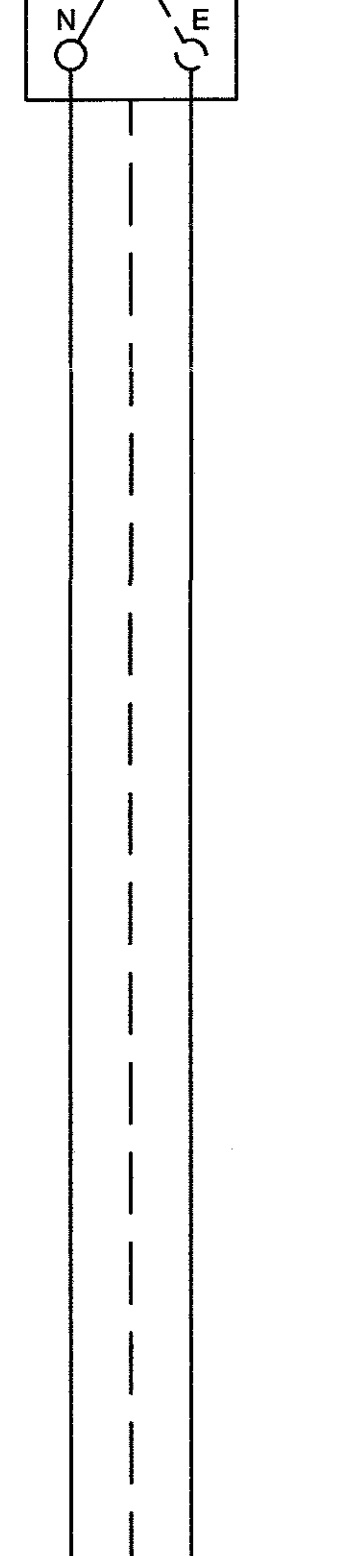


DISTRIBUTION PANELBOARD 'DPG1E' 480Y/277V 3PH 4W 400A 22KAIC

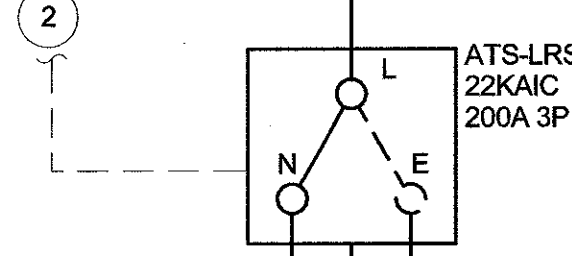
**1 SINGLELINE DIAGRAM EMERGENCY POWER**  
12" = 1'-0"



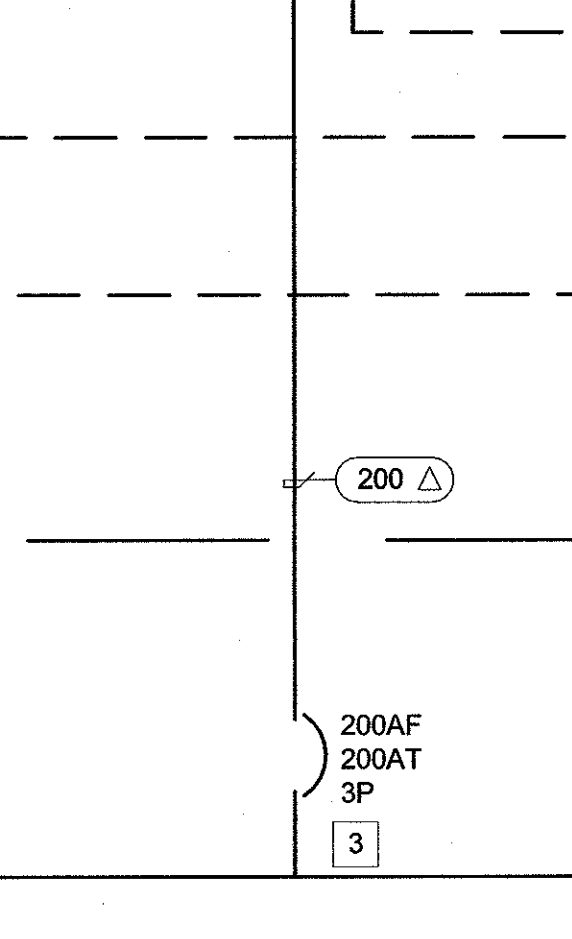
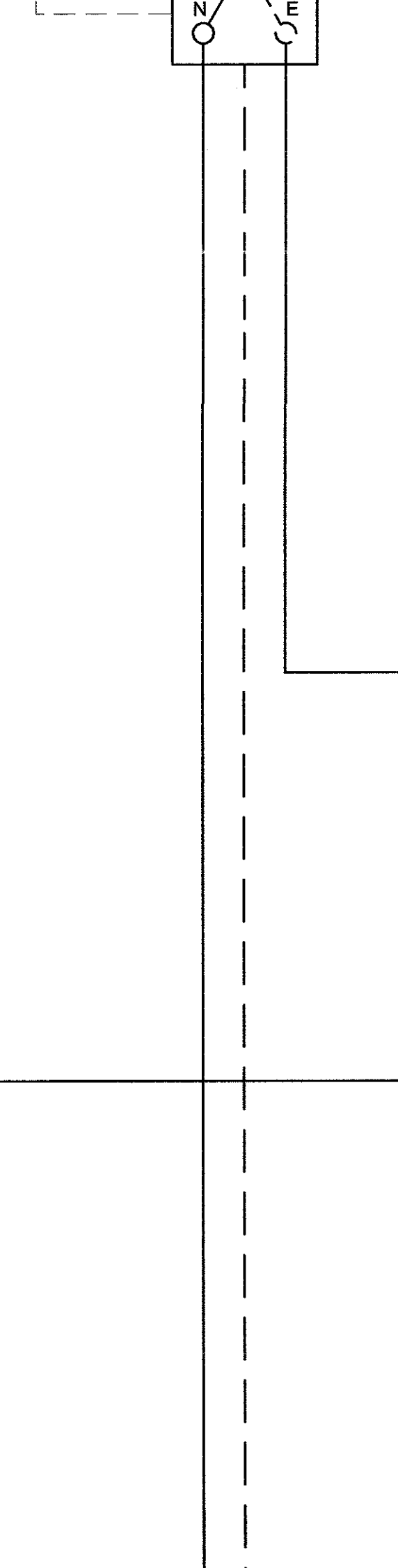
ATS-LRS  
22KAIC  
100A 4P



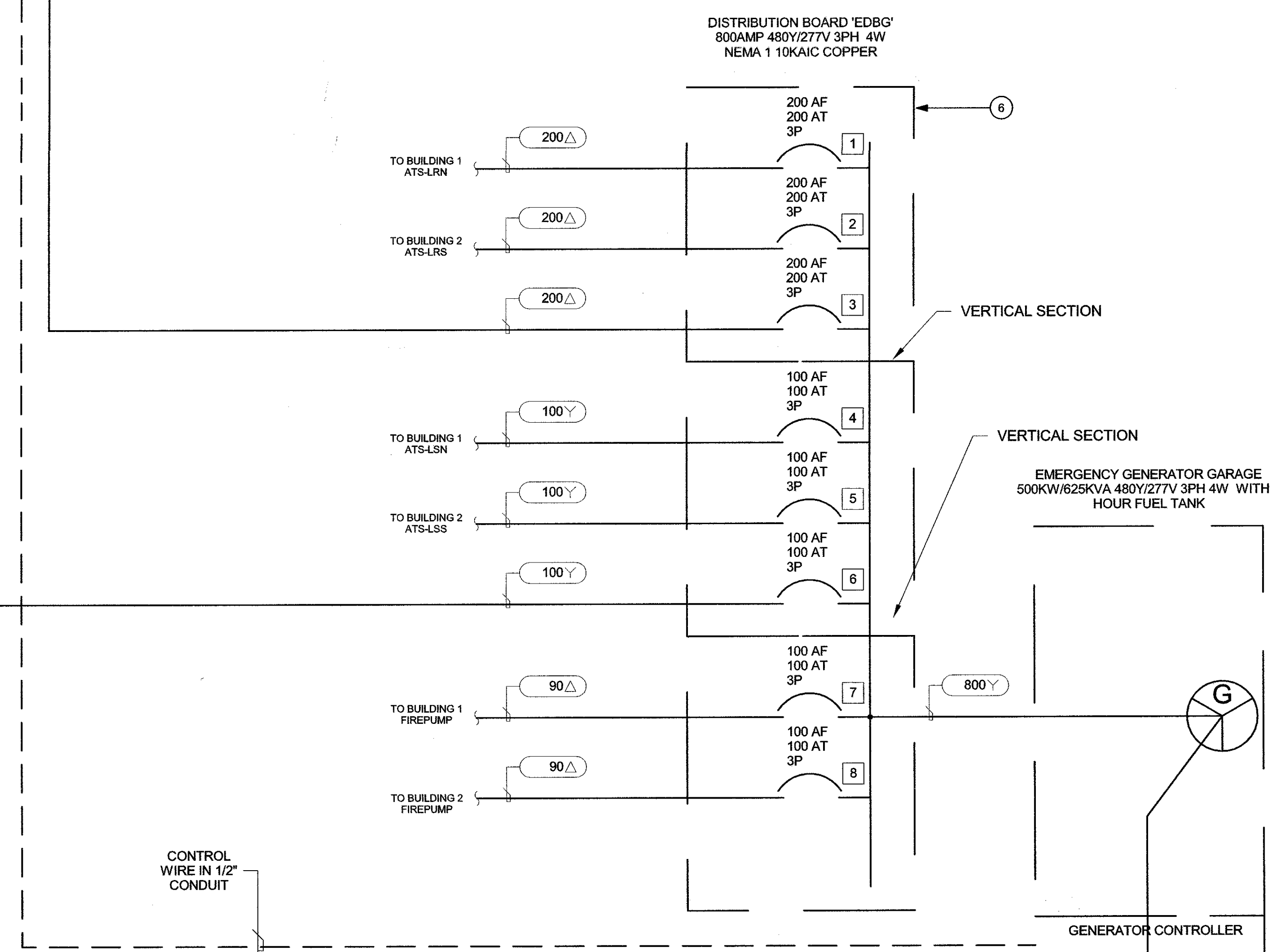
DISTRIBUTION PANELBOARD 'DPG1E' 480Y/277V 3PH 4W 400A 22KAIC



ATS-LRS  
22KAIC  
200A 3P



DISTRIBUTION PANELBOARD 'DPG1E' 480Y/277V 3PH 4W 400A 22KAIC



DISTRIBUTION BOARD 'EDBG'  
800AMP 480Y/277V 3PH 4W  
NEMA 1 10KAIC COPPER

TO BUILDING 1  
ATS-LRN

TO BUILDING 2  
ATS-LRS

TO BUILDING 1  
ATS-LRN

TO BUILDING 2  
ATS-LRS

TO BUILDING 1  
FIREPUMP

TO BUILDING 2  
FIREPUMP

TO BUILDING 1  
FIREPUMP

TO BUILDING 2  
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FIREPUMP

TO BUILDING 2  
FIREPUMP

TO BUILDING 1  
FIREPUMP

TO BUILDING 2  
FIREPUMP

CONTROL  
WIRE IN 1/2"  
CONDUIT

PROVIDE AND INSTALL BELDEN CONTROL  
CABLE IN 1" CONDUIT AS RECOMMENDED BY  
THE GENERATOR MANUFACTURER.

GROUNDING PER NEC 250.30  
(1) #3/0 CU UFER GROUND

OFFICE OF THE STATE FIRE MARSHAL  
APPROVED FIRE AND LIFE SAFETY PLAN  
Reviewed by: \_\_\_\_\_  
Inspector, DFRM

APR 27 2016

Approval of this plan does not authorize or  
approve any omission or deviation from  
applicable regulations. Final approval is subject  
to field inspection. One set of approved plans  
shall be available on the project site at all times.

IDENTIFICATION STAMP  
DIVISION OF THE STATE  
ARCHITECT  
OFFICE OF REGULATION  
SERVICES

FILE #  
APPL # 04-114204

AC DATE:

Bergalactic Corp. Contractors & Engineers

**b**  
800-850-8046  
650 OFFER STREET  
ESCONDIDO, CA 92029  
TEL (760) 746-1000  
FAX (760) 746-6412

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SAN DIEGO, CALIFORNIA

**SAN DIEGO  
STATE  
UNIVERSITY**  
SAN DIEGO, CA

**SOUTH CAMPUS PLAZA DESIGN-BUILD PARKING  
STRUCTURE**  
SAN DIEGO STATE UNIVERSITY

SUBMITTAL SCHEDULE:

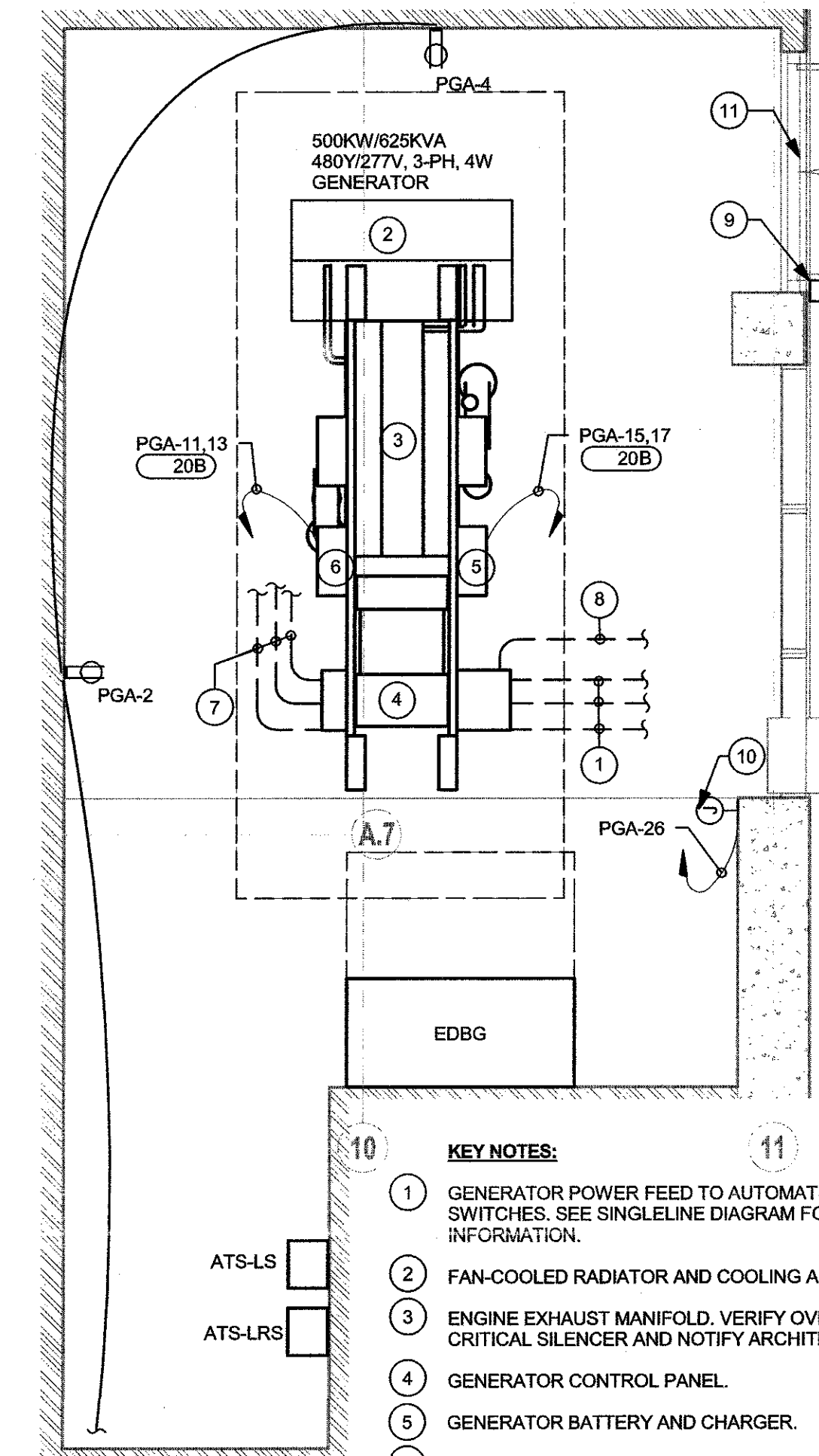
100% BACKCHECK SET 3	03/20/2015
DSA BACKCHECK SET	06/15/2015
SFM RESUBMITTAL	07/29/2015
ASH011 - SFM RESUB. 2	11/08/2015
ASH-013	12/08/2015
SFM RESUBMITTAL #3	03/03/2016

**MICHAEL WALL ENGINEERING**  
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4115 Sorrento Valley Blvd  
San Diego, CA 92121  
REGISTERED ELECTRICAL ENGINEER

PROJECT NO: 21305-G-50

**ENLARGED  
PLANS**

**E-601**



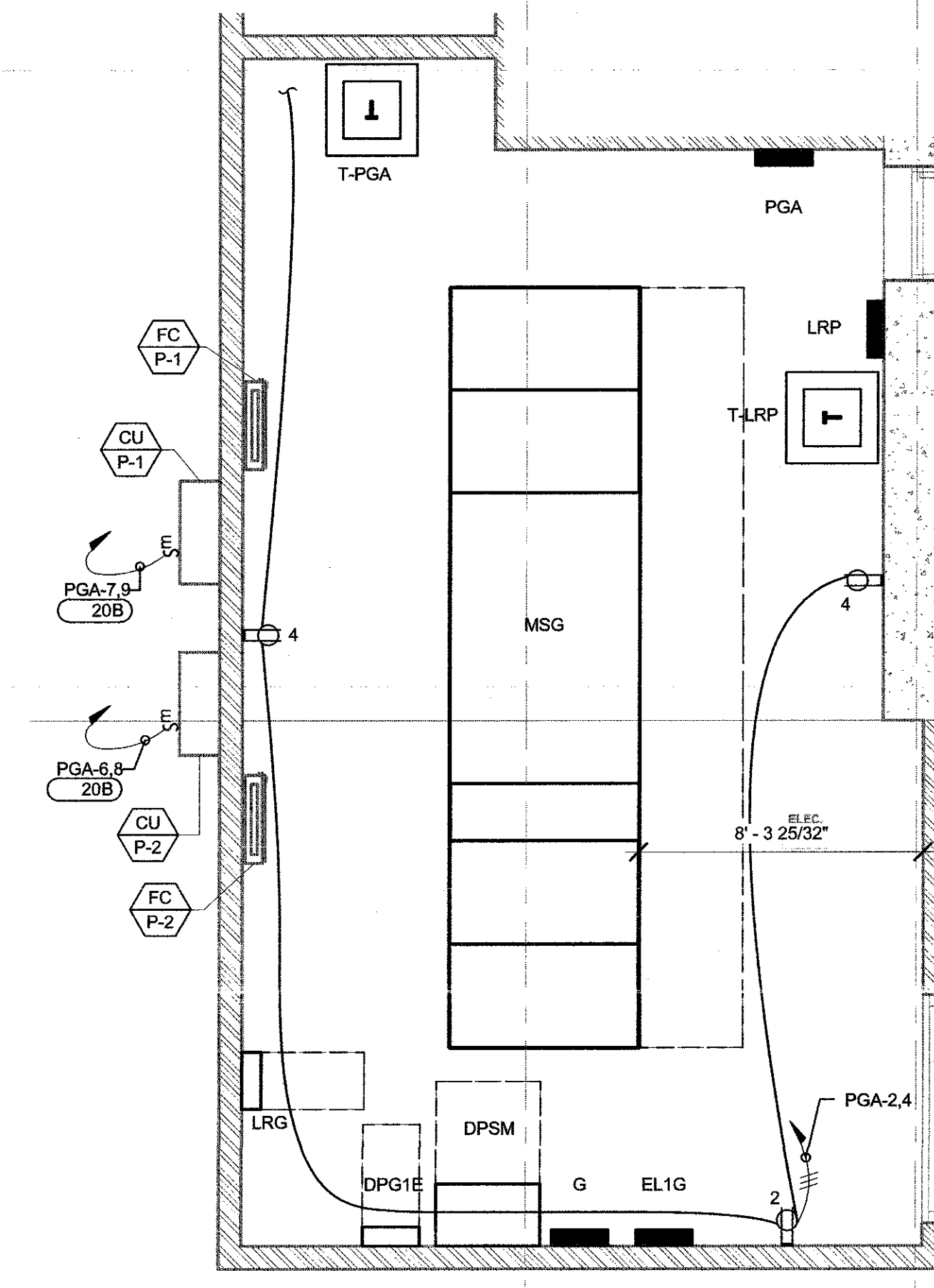
**KEY NOTES:**

- GENERATOR POWER FEED TO AUTOMATIC TRANSFER SWITCHES. SEE SINGLELINE DIAGRAM FOR MORE INFORMATION.
- FAN-COOLED RADIATOR AND COOLING AIR DISCHARGE.
- ENGINE EXHAUST MANIFOLD. VERIFY OVERALL HEIGHT OF CRITICAL SILENCER AND NOTIFY ARCHITECT.
- GENERATOR CONTROL PANEL.
- GENERATOR BATTERY AND CHARGER.
- JACKET WATER HEATER.
- ROUTE A MINIMUM 8#14 1" C. TO EACH ATS FOR TRANSFER SIGNAL.
- 3/4" C. 1#30 BARE COPPER WIRE TO BUILDING GROUND.
- PROVIDE EMERGENCY SHUT-OFF BUTTON OF A TYPE SIMILAR TO A BREAK-GLASS STATION. PER NFPA 110 5.8.5.5
- PROVIDE J-BOX FOR REMOTE FILL PANEL. COORDINATE EXACT LOCATION PRIOR TO ROUGH-IN.
- GENERAL CONTRACTOR/ARCHITECT TO PROVIDE A NFPA 704 PLACARD WITH THE FOLLOWING: BLUE 0 RED 2 YELLOW 2.

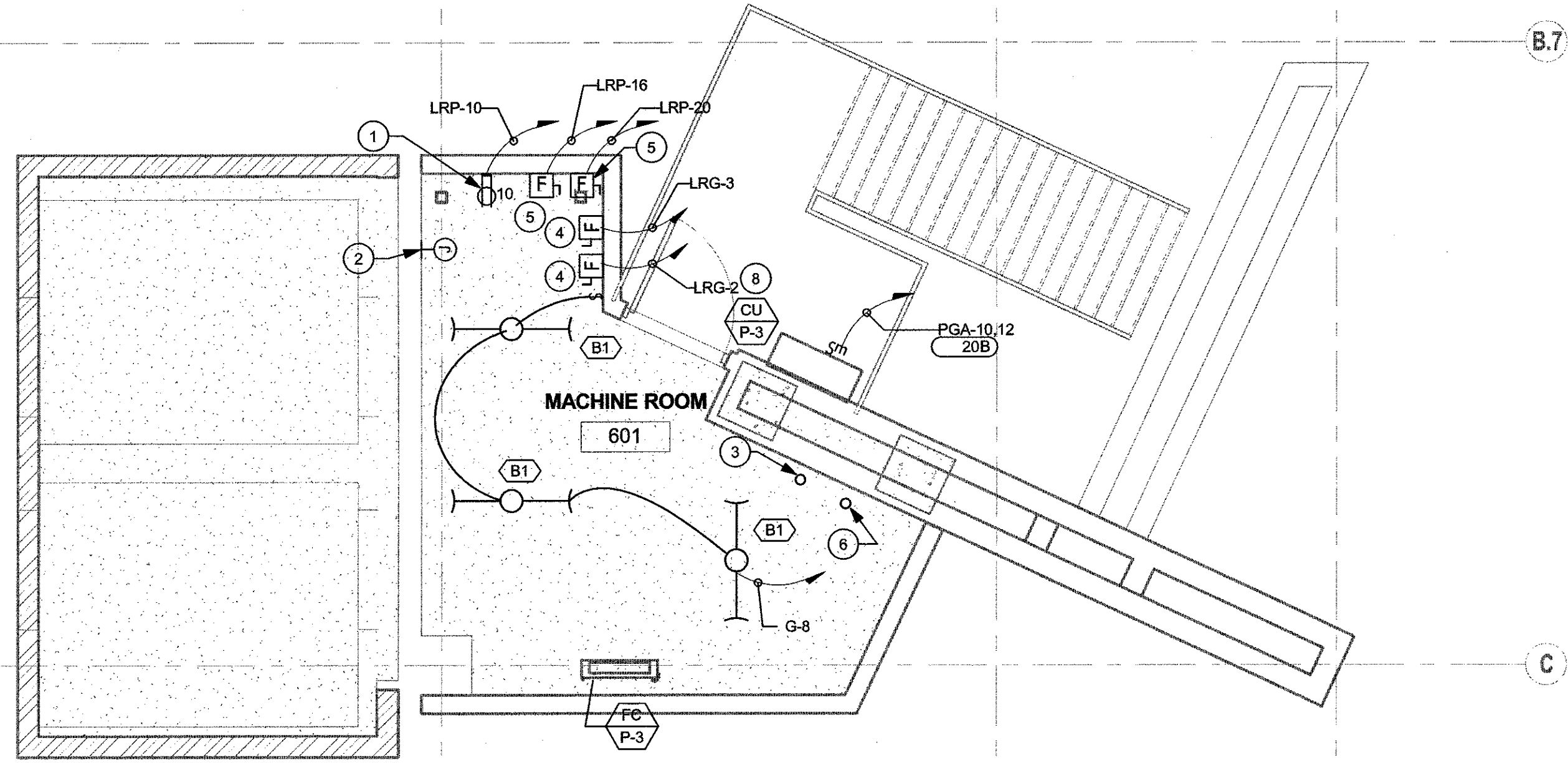
**GENERAL NOTES:**

- VERIFY FINAL GENERATOR DIMENSIONS WITH SHOP DRAWINGS.

AS1007



**2 MAIN ELECTRICAL ROOM**  
1/4" = 1'-0"



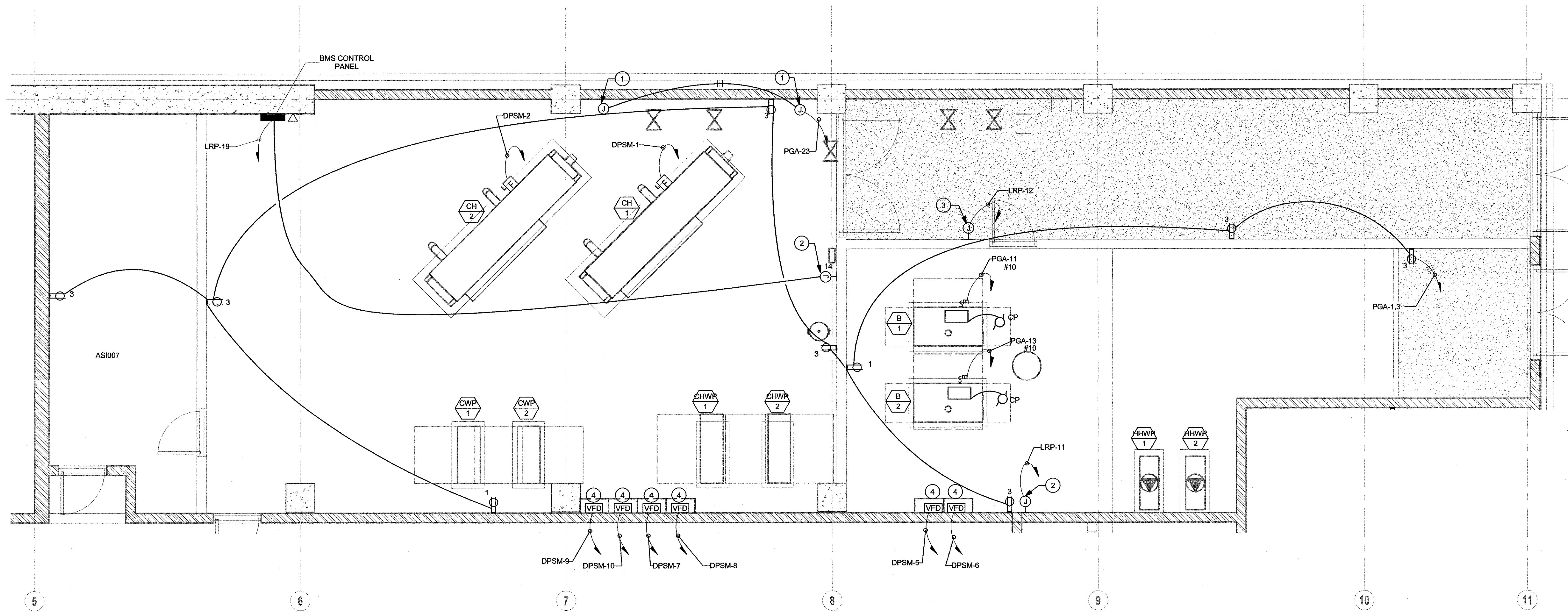
**KEY NOTES:**

- DUPLEX GFI OUTLET IN ELEVATOR MACHINE ROOM. LOCATE PER MANUFACTURER AND CODE REQUIREMENTS.
- PROVIDE 2-GANG J-BOX WITH 1" CONDUIT TO IDF FOR ELEVATOR CAMERA AND PHONE CABLEING PATHWAY. ELEVATOR CONTRACTOR TO PROVIDE AND INSTALL CAMERA AND PHONE, AND REQUIRED TRAVEL CABLEING TO CONNECT TO CONTRACTOR PROVIDED POINT OF CONNECTION FOR ELEVATOR CARS. CONTRACTOR TO PROVIDE CABLEING TO THE IDF/EMDF. COORDINATE EXACT REQUIREMENTS WITH ELEVATOR CONTRACTOR.
- ROUTE 3/4" C. TO TELEPHONE BACKBOARD.
- COORDINATE LOCATION OF DISCONNECT SWITCH FOR MOTOR. CONNECTION WITH MANUFACTURER AND CODE REQUIREMENTS.
- PROVIDE AND INSTALL 30AS20AF/1P DISCONNECT SWITCH WITH LOCKING DEVICE FOR ELEVATOR CAB LIGHTING.
- PROVIDE 3/4" C. O. TO MAIN FIRE ALARM CONTROL PANEL.

**GENERAL NOTES:**

- REFER TO SINGLELINE DIAGRAM ON SHEET E-302 FOR INFORMATION ON FEEDER SIZES, SWITCH SIZES, AND INTERCONNECTIONS.

**4 ENLARGED SEVENTH LEVEL PLAN**  
1/4" = 1'-0"



**KEY NOTES:**

- PROVIDE J-BOX FOR CONNECTION TO REFRIGERANT VAPOR DETECTOR.
- PROVIDE J-BOX FOR CONNECTION TO MONITORING PANEL FOR CHILLED WATER. COORDINATE WITH MECHANICAL CONTRACTOR FOR FINAL LOCATION PRIOR TO ROUGH-IN.
- PROVIDE J-BOX FOR CONNECTION TO EMERGENCY SHUTDOWN SWITCH.
- VFD WITH INTEGRAL DISCONNECT IS PROVIDED AND INSTALLED BY MECHANICAL CONTRACTOR. WIRING IS PROVIDED BY ELECTRICAL CONTRACTOR.

**GENERAL NOTES:**

- REFER TO SINGLELINE DIAGRAM ON SHEET E-301 FOR INFORMATION ON FEEDER SIZES, SWITCH SIZES, AND INTERCONNECTIONS.
- VFD'S ARE PROVIDED & INSTALLED BY MECHANICAL CONTRACTOR. WIRING CONNECTION IS DONE BY ELECTRICAL CONTRACTOR.

OFFICE OF THE STATE ENGINEER  
APPROVED: [Signature]  
Reviewed by: [Signature]

APR 27 2016

Approval of this plan does not authorize or approve any alterations or deviations from applicable regulations. Final approval is subject to field inspection. Care and of approved plans shall be available on the project site at all times.

IDENTIFICATION STAMP  
DIVISION OF THE STATE ARCHITECT  
OFFICE OF REGULATION SERVICES

FILE #  
APPL # 04-14204  
AC DATE:

Registered Professional Engineer  
**bd**  
450 CUMBER STREET  
ESCONDIDO, CA 92029  
TEL: (760) 746-1003  
FAX: (760) 746-6412

PROFESSIONAL STATEMENT  
THE ELECTRICAL DESIGN AND CALCULATION ON THESE DRAWINGS HAS BEEN REVIEWED AND FOUND TO BE IN ACCORDANCE WITH THE CALIFORNIA ELECTRICAL CODE AND THE NATIONAL ELECTRICAL CODE. I AM A REGISTERED PROFESSIONAL ENGINEER IN THE STATE OF CALIFORNIA. I HAVE NOT BEEN ADVISED OF ANY CHANGES TO THESE DRAWINGS SINCE I HAVE REVIEWED THEM. I HAVE REVIEWED THESE DRAWINGS WITH THE ARCHITECT AND HAVE FOUND THEM TO BE IN ACCORDANCE WITH THE CALIFORNIA ELECTRICAL CODE AND THE NATIONAL ELECTRICAL CODE. I HAVE REVIEWED THESE DRAWINGS WITH THE ARCHITECT AND HAVE FOUND THEM TO BE IN ACCORDANCE WITH THE CALIFORNIA ELECTRICAL CODE AND THE NATIONAL ELECTRICAL CODE. I HAVE REVIEWED THESE DRAWINGS WITH THE ARCHITECT AND HAVE FOUND THEM TO BE IN ACCORDANCE WITH THE CALIFORNIA ELECTRICAL CODE AND THE NATIONAL ELECTRICAL CODE.

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SFM RESUBMITTAL #3 03/03/2016



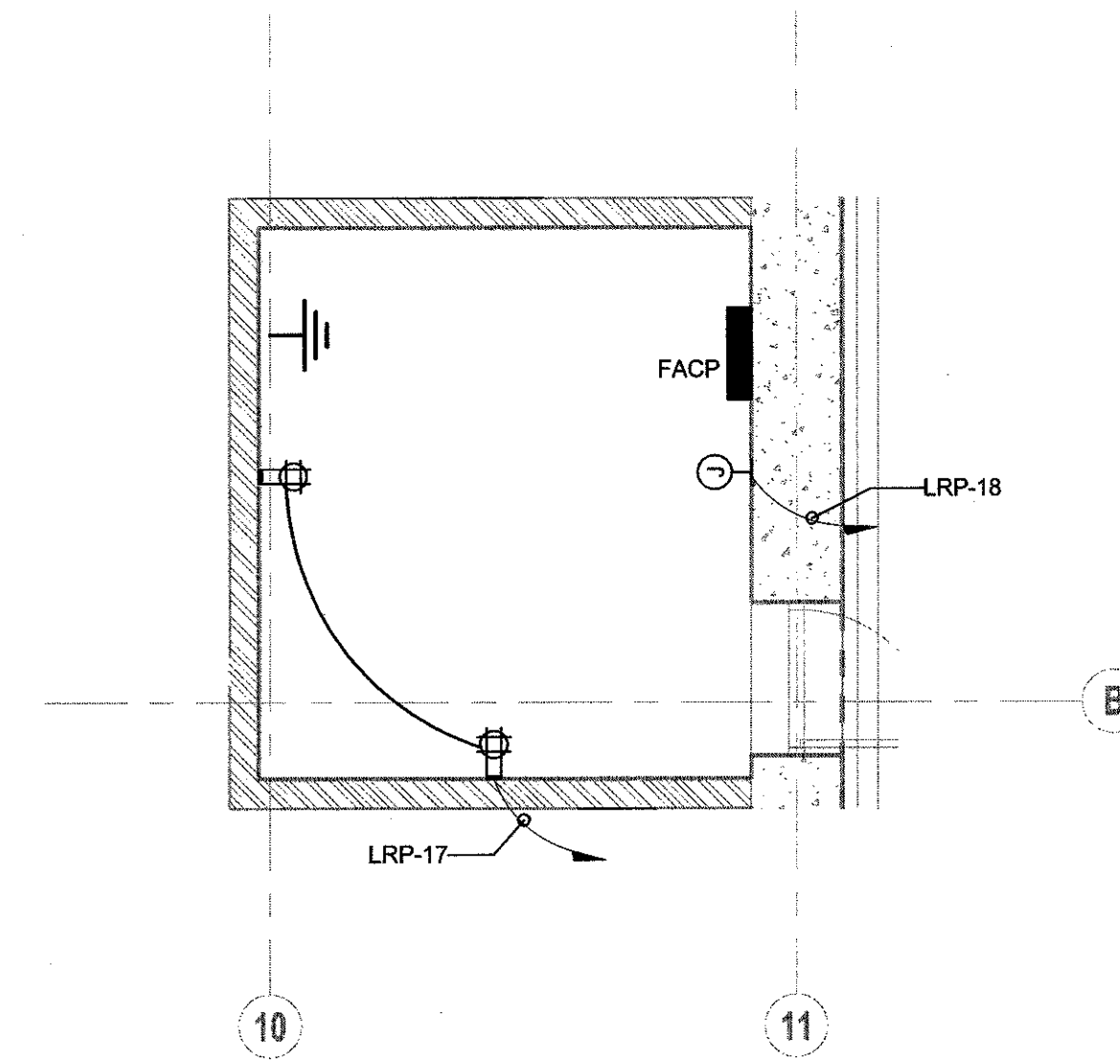


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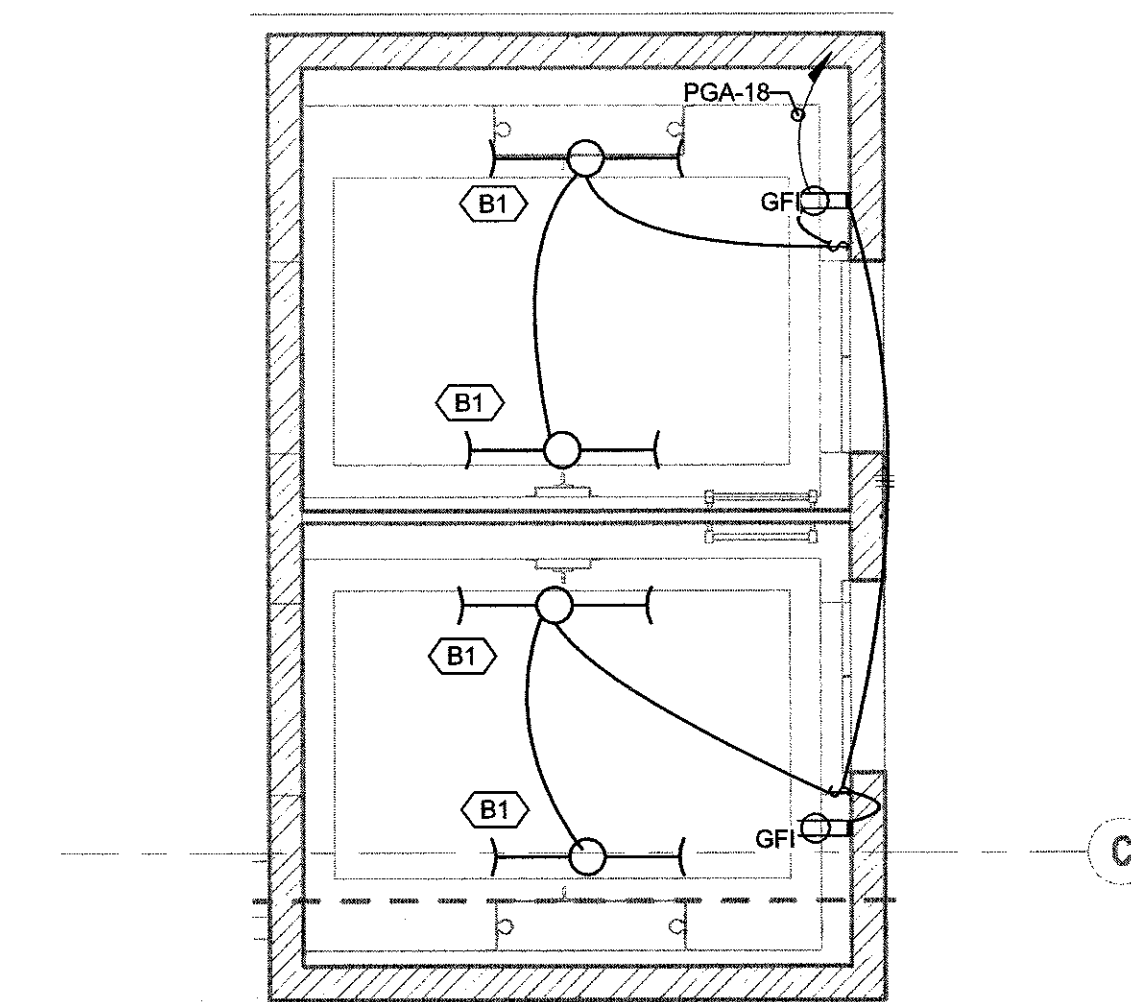
**SUNDT CONSTRUCTION**  
SAN DIEGO, CALIFORNIA

**SAN DIEGO STATE UNIVERSITY**  
SAN DIEGO, CA

**SOUTH CAMPUS PLAZA DESIGN-BUILD PARKING STRUCTURE**  
SAN DIEGO STATE UNIVERSITY



**1 ENLARGED IDF ROOM**  
1/4" = 1'-0"



**GENERAL NOTES:**  
1. VERIFY ALL ELEVATOR POWER, CONTROL, AND COMMUNICATION REQUIREMENTS WITH ELEVATOR SHOP DRAWINGS PRIOR TO INSTALLATION.

**2 ENLARGED ELEVATOR PIT**  
1/4" = 1'-0"

OFFICE OF THE STATE ARCHITECT  
APPROVED BY: [Signature]  
Reviewed by: [Signature] SUPERVISOR, USFPM

APR 27 2016

Approval of this plan does not authorize or approve any changes or deviation from applicable regulations. Final approval is subject to field inspection. One set of approved plans shall be available on the project site at all times.

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DIVISION OF THE STATE ARCHITECT  
OFFICE OF REGULATION SERVICES

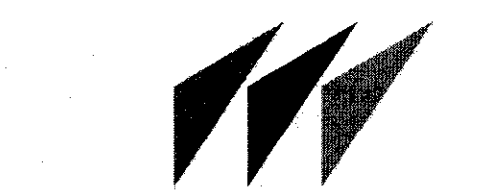
FILE #  
APPL # 04-14204

AC DATE:

Biometric Corp. Contractors & Engineers

**b**  
850 OPFER STREET  
ESCONDIDO, CA 92029  
TEL (760) 746-1000  
FAX (760) 746-6412

PROFESSIONAL STATEMENT  
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**MICHAEL WALL ENGINEERING**  
858-638-0600  
858-638-0640 (fax)  
www.mwalleng.com  
415 Sorrento Valley Blvd  
San Diego, CA 92121  
REGISTERED ELECTRICAL ENGINEERS

PROJECT NO: 21305-G-00

**ENLARGED PLANS**

**E-602**





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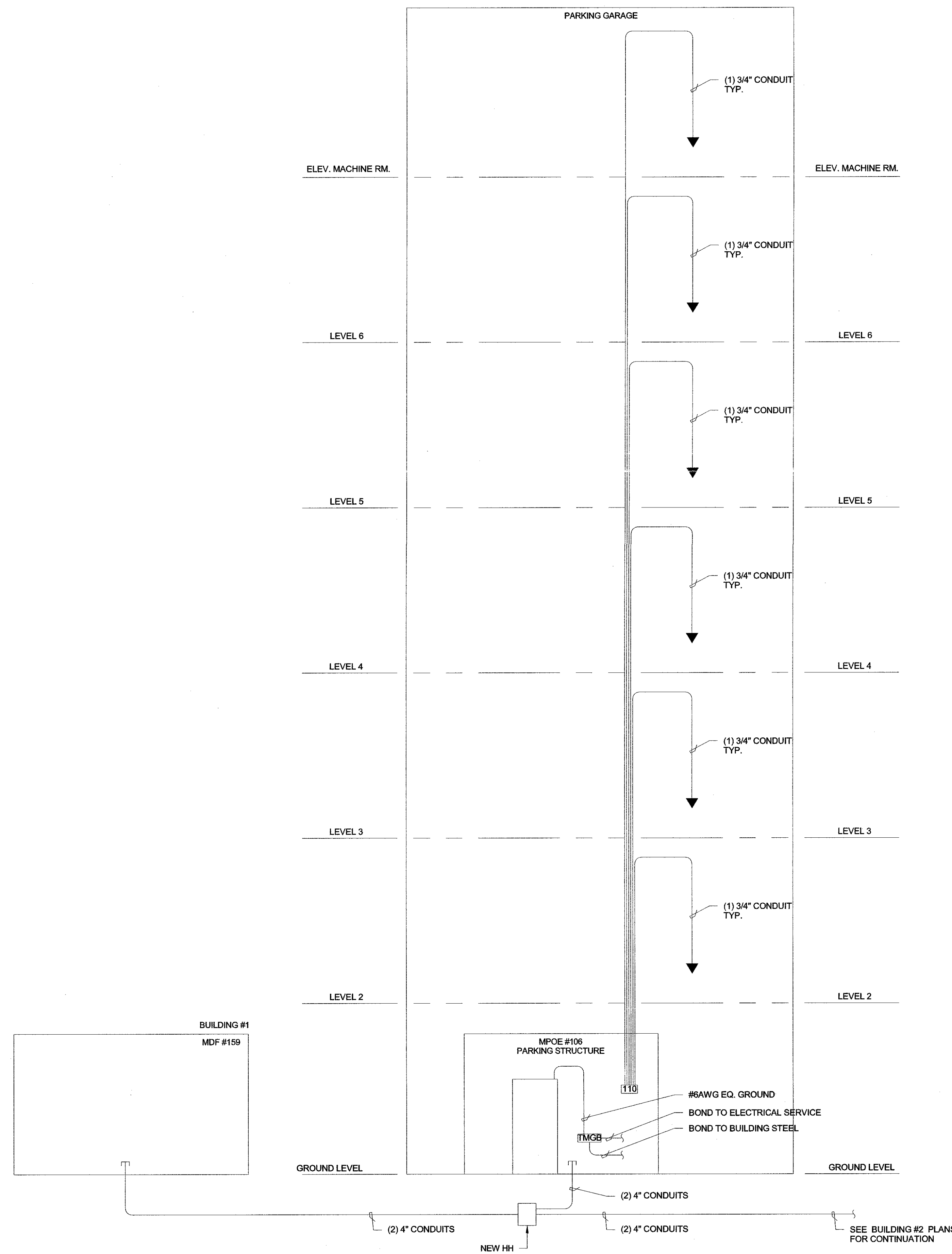
**SOUTH CAMPUS PLAZA DESIGN-BUILD PARKING STRUCTURE**  
SAN DIEGO STATE UNIVERSITY

**KEY NOTES:**

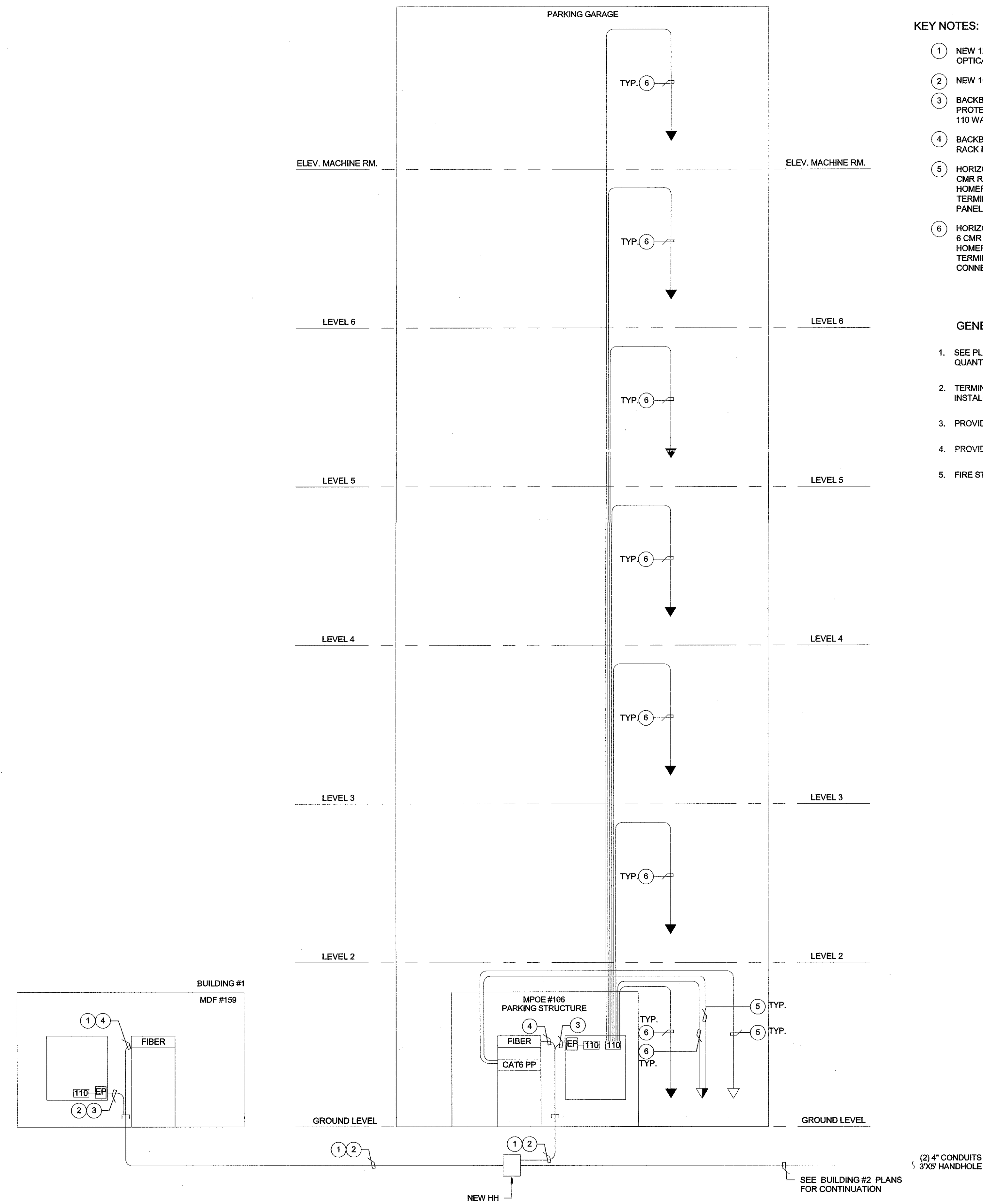
- 1 NEW 12 SINGLEMODE / 12 (OM3) MULTIMODE OSP RATED OPTICAL FIBERS FROM BUILDING #1 MDF.
- 2 NEW 100-PAIR COPPER BACKBONE FROM BUILDING #1 MDF.
- 3 BACKBONE COPPER TERMINATED ON ENTRANCE PROTECTORS LOADED WITH 481E MODULES, AND TIED TO 110 WALLFIELD WITH C5 CONNECTORS.
- 4 BACKBONE FIBERS TERMINATE WITH LC CONNECTORS IN RACK MOUNT FIBER ENCLOSURE.
- 5 HORIZONTAL DATA CABLE - PROVIDE BLUE CATEGORY 6 CMR RATED (FIRE RATED) CABLE WITH AN ORANGE CAT6 INSERT AND HOMERUN TO MDF / IDF INDICATED IN 3/4" CONDUIT. TERMINATE ON RACK MOUNT CAT6 48-PORT PATCH PANELS.
- 6 HORIZONTAL VOICE CABLE - PROVIDE YELLOW CATEGORY 6 CMR RATED (FIRE RATED) CABLE WITH A YELLOW CAT6 INSERT AND HOMERUN TO MDF / IDF INDICATED IN 3/4" CONDUIT. TERMINATE ON CAT6 110 WALLFIELD WITH C4 CONNECTORS.

**GENERAL NOTES:**

1. SEE PLANS FOR TYPICAL DEVICE LOCATIONS AND QUANTITIES.
2. TERMINATE, TEST AND LABEL EACH END OF EVERY CABLE INSTALLED.
3. PROVIDE PULL ROPES IN ALL CONDUITS.
4. PROVIDE DUCT PLUGS IN ALL UNUSED CONDUITS.
5. FIRE STOP AND SEAL ALL FIRE RATED PENETRATIONS.



**2 PATHWAYS & GROUNDING RISER DIAGRAM**  
NO SCALE



**1 TELECOM RISER DIAGRAM**  
NO SCALE

OFFICE OF THE STATE ENGINEER  
APPROVED FIRE AND SAFETY PLAN ONLY  
Reviewed by: *Heath Goodrich, DSEFM*

APR 27 2016

Approval of this plan does not authorize or disapprove any deviation or departure from applicable regulations. Final approval is subject to field inspection. One set of approved plans shall be available on the project site at all times.

IDENTIFICATION STAMP  
DIVISION OF THE STATE ARCHITECT  
OFFICE OF REGULATION SERVICES

FILE #  
APPL # 04-14204

AC DATE:

Berg Electric Corp. Contractors & Engineers  
650 COPPER STREET  
ESCONDIDO, CA 92029  
TEL (760) 746-1003  
FAX (760) 746-4412

EDUCATIONAL STATEMENT  
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**SUBMITTAL SCHEDULE:**

100% BACKCHECK SET 3	03/20/2015
DSA BACKCHECK SET	08/15/2015
SFM RESUBMITTAL	07/29/2015
ASH#011 - SFM RESUB. 2	11/06/2015
ASH-013	12/08/2015
SFM RESUBMITTAL #3	03/03/2016

**MICHAEL WALL ENGINEERING**  
858-638-0650  
858-638-0640 (fax)  
www.mwalleng.com  
4110 Sateles Valley Blvd  
San Diego, CA 92121  
REGISTERED ELECTRICAL ENGINEER

PROJECT NO: 21305-G-50

**GARAGE TELECOM RISER DIAGRAM**

**E-701**





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SAN DIEGO, CALIFORNIA

**SAN DIEGO STATE UNIVERSITY**  
SAN DIEGO, CA

**SOUTH CAMPUS PLAZA DESIGN-BUILD PARKING STRUCTURE**  
SAN DIEGO STATE UNIVERSITY

**SUBMITTAL SCHEDULE:**

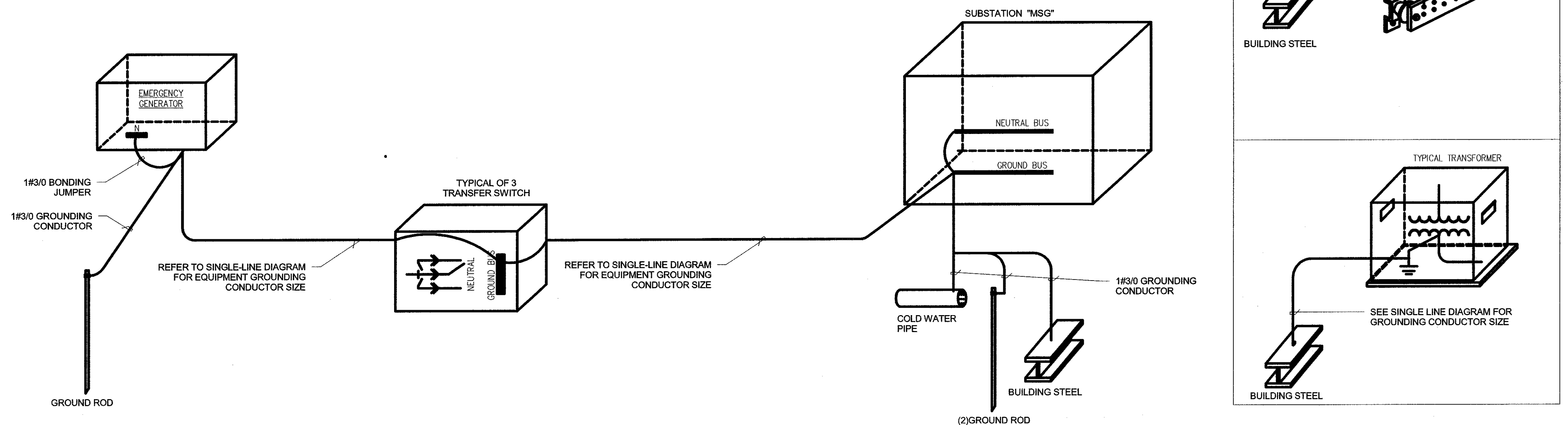
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DSA BACKCHECK SET	06/19/2015
SFM RESUBMITTAL	07/29/2015
ASI#011 - SFM RESUB. 2	11/06/2015
ASI-013	12/08/2015
SFM RESUBMITTAL #3	03/03/2016

**MICHAEL WALL ENGINEERING**  
558-638-0600  
558-638-0640 (fax)  
www.mwalleng.com  
4155 Saratoga Valley Blvd.  
San Diego, CA 92121  
REGISTERED ELECTRICAL ENGINEER

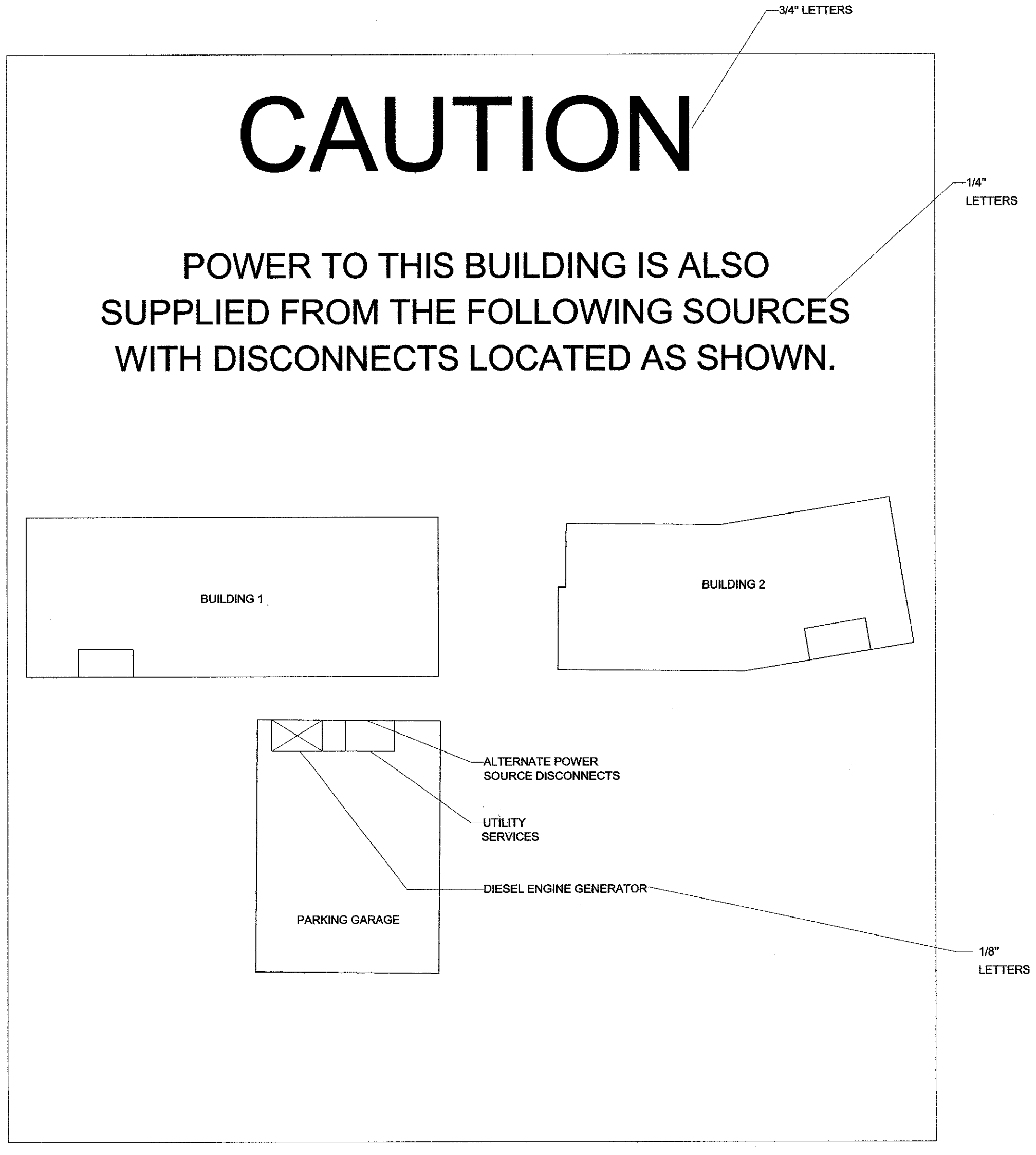
PROJECT NO: 21305-G-50

**DETAIL SHEET**

**E-801**



**1 GROUNDING DETAIL**  
12" = 1'-0"



**GENERAL NOTES:**

1. PLAQUE SHALL BE METAL OR PLASTIC, WITH ENGRAVED OR MACHINE PRINTED LETTERS, OR ELECTRO-PHOTO PLATING.
2. PLAQUE SHALL BE RED WITH WHITE LETTERING.
3. PLAQUE SHALL BE ATTACHED TO THE UTILITY SERVICE EQUIPMENT WITH RIVETS, SCREWS, OR EPOXY ADHESIVE.

**2 GENERATOR PLAQUE DETAIL**  
NO SCALE

OFFICE OF THE STATE ENGINEER  
APPROVED FIRE AND SAFETY PLAN  
Reviewed by: *[Signature]*  
Bryan G. Brown, CSPM

APR 27 2016

Approval of this plan does not authorize or approve any omission or deviation from applicable regulations. Final approval is subject to field inspection. One set of approved plans shall be available on the project site at all times.

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DIVISION OF THE STATE ARCHITECT  
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FILE #  
APPL # 04-114204

AC \_\_\_\_\_ DATE: \_\_\_\_\_

**Bryant Electric Corp**  
Contractors & Engineers  
650 OFFER STREET  
ESCONDIDO, CA 92029  
TEL (760) 746-1003  
FAX (760) 746-6412

**PROFESSIONAL STATEMENT**  
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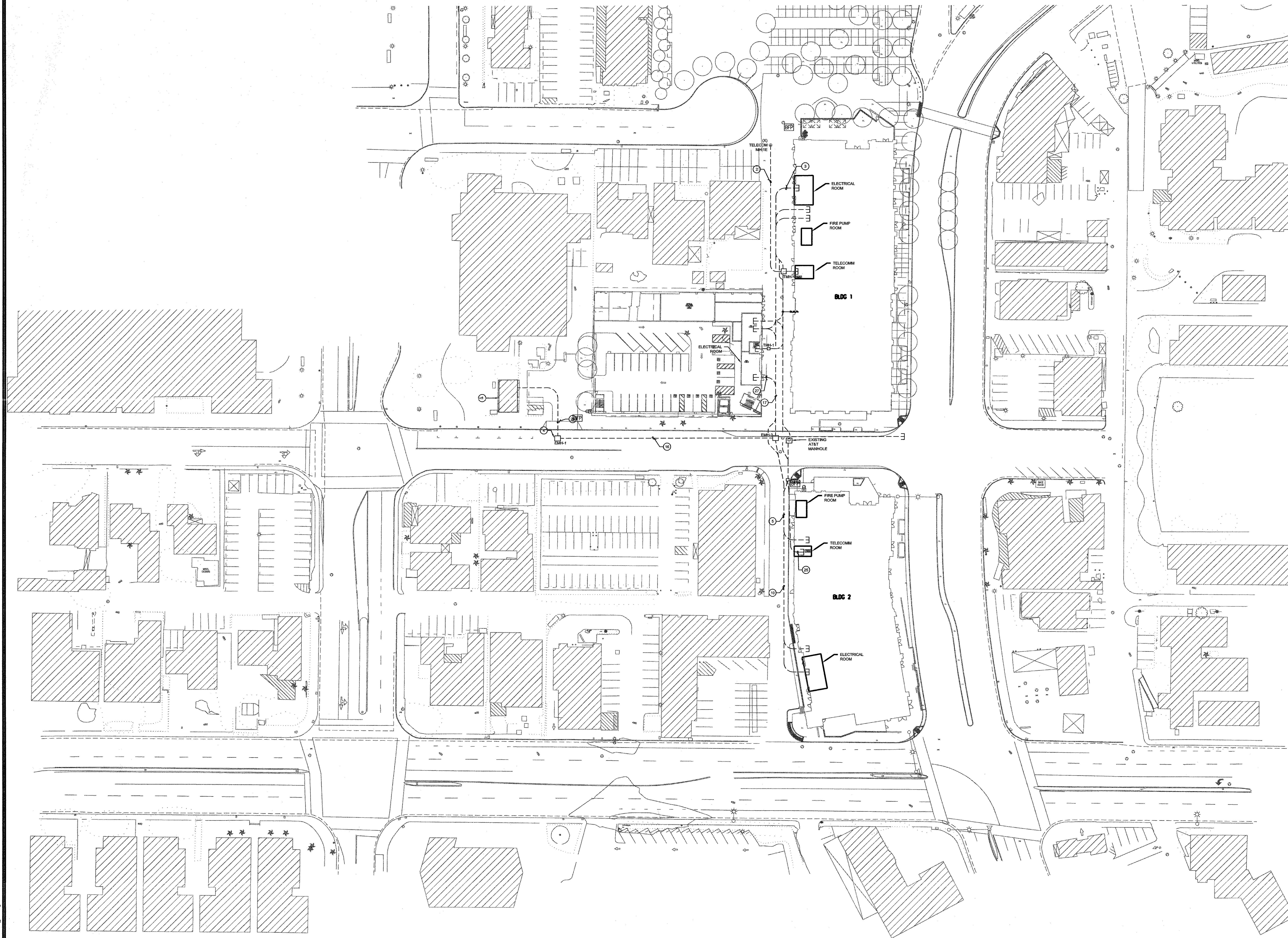












PLAN NORTH  
**FIRE ALARM SITE PLAN**  
 SCALE: 1" = 40'-0"  
 0 20 40 80  
 (IN FEET)

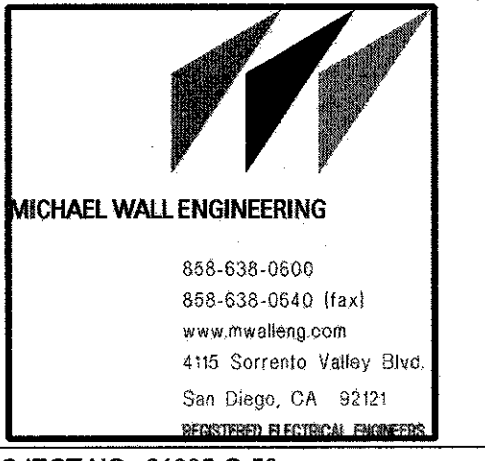
OFFICE OF THE STATE ARCHITECT  
 APPROVED FIRE ALARM PLAN  
 Reviewed by: Stanley Goodwin, SSFU  
**APR 27 2016**  
 Approval of this plan does not authorize or approve any addition or deviation from application regulations. Final approval is subject to field inspection. One set of approved plans shall be available on the project site at all times.

IDENTIFICATION STAMP  
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100% BACKCHECK SET	11/10/2014
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100% BACKCHECK SET 3	03/20/2015
DSA BACKCHECK SET	06/15/2015
SFM RESUBMITTAL	07/29/2015
ASI #011 - SFM RESUB.2	07/29/2015
▲ SFM RESUBMITTAL #3	03/03/2016



PROJECT NO: 21305-G-60

**FIRE ALARM SITE PLAN**

4210-B048  
 800 UPPER STREET  
 ESCONDIDO, CA 92029  
 TEL (760) 746-1005  
 FAX (760) 746-6412

**FA-100**

**SGPA**  
 ARCHITECTURE  
 AND PLANNING  
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 SAN DIEGO, CA 92108  
 (P) 619.297.0131  
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SUNDT  
 CONSTRUCTION  
 SAN DIEGO, CALIFORNIA  
 SAN DIEGO  
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 SAN DIEGO, CA

**SOUTH CAMPUS PLAZA DESIGN-BUILD PARKING STRUCTURE**  
 SAN DIEGO STATE UNIVERSITY

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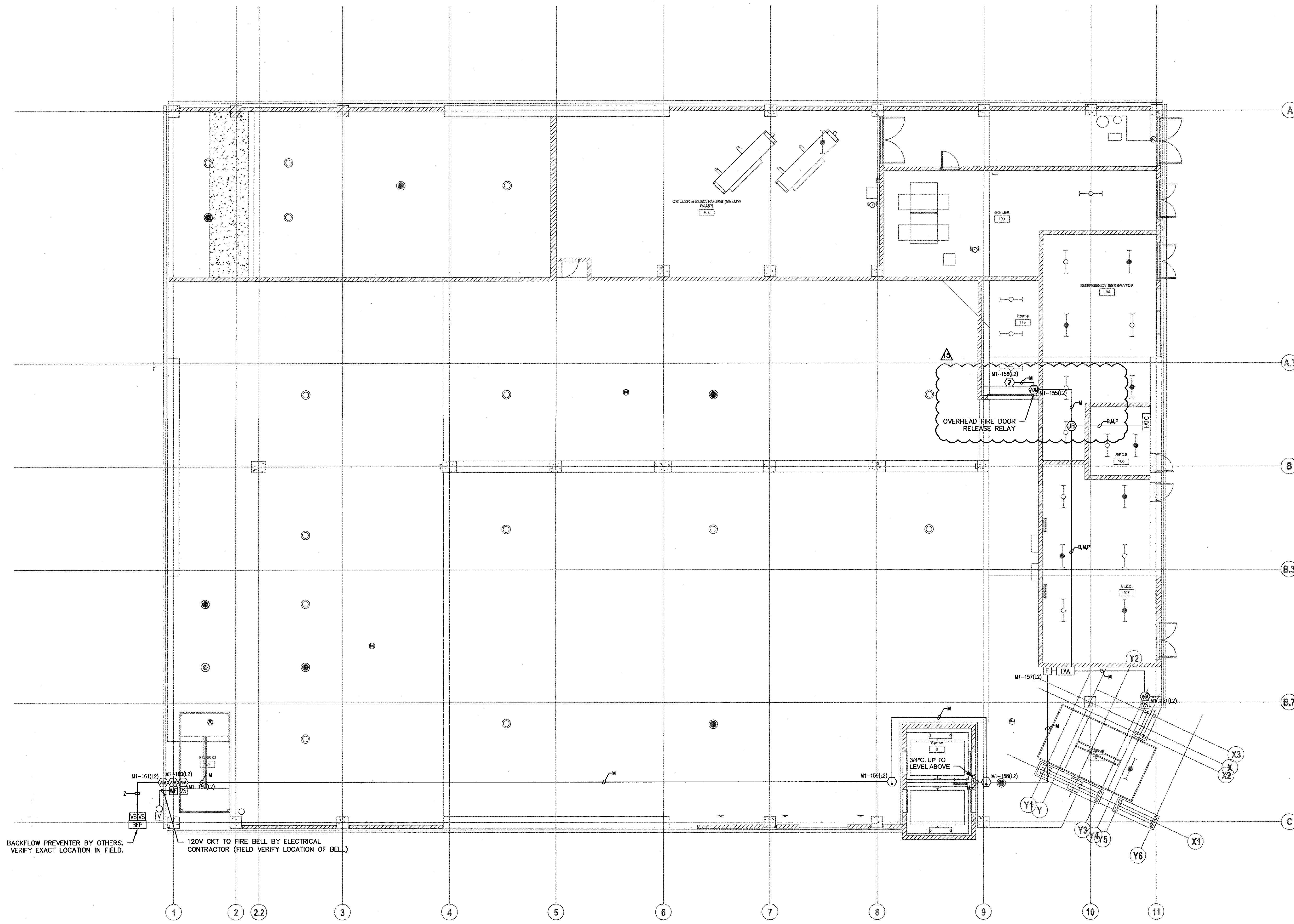


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SAN DIEGO, CALIFORNIA

**SAN DIEGO STATE UNIVERSITY**  
SAN DIEGO, CA

**SOUTH CAMPUS PLAZA DESIGN-BUILD PARKING STRUCTURE**  
SAN DIEGO STATE UNIVERSITY



BACKFLOW PREVENTER BY OTHERS. VERIFY EXACT LOCATION IN FIELD.  
120V CKT TO FIRE BELL BY ELECTRICAL CONTRACTOR (FIELD VERIFY LOCATION OF BELL)

PLAN NORTH  
**FIRE ALARM GROUND LEVEL FLOOR PLAN**  
SCALE: \_\_\_\_\_ (IN FEET)

SUBMITTAL SCHEDULE:

100% BACKCHECK SET	11/10/2014
100% BACKCHECK SET 2	01/22/2015
100% BACKCHECK SET 3	03/20/2015
DSA BACKCHECK SET	06/15/2015
SFM RESUBMITTAL	07/29/2015
ASI #011 - SFM RESUB.2	07/29/2015
▲ SFM RESUBMITTAL #3	03/03/2016

**FOR REFERENCE ONLY**

OFFICE OF THE STATE FIRE MARSHAL  
APPROVED FIRE ALARM PLAN  
Reviewed by: \_\_\_\_\_  
DATE: APR 27 2016

IDENTIFICATION STAMP  
OFFICE OF THE STATE ARCHITECT  
OFFICE OF REGULATION SERVICES  
FILE # \_\_\_\_\_  
APPL # 04-114204  
AC \_\_\_\_\_ DATE: \_\_\_\_\_



PROJECT NO: 21305-G-00

**FIRE ALARM GROUND LEVEL FLOOR PLAN**

**FA-201**





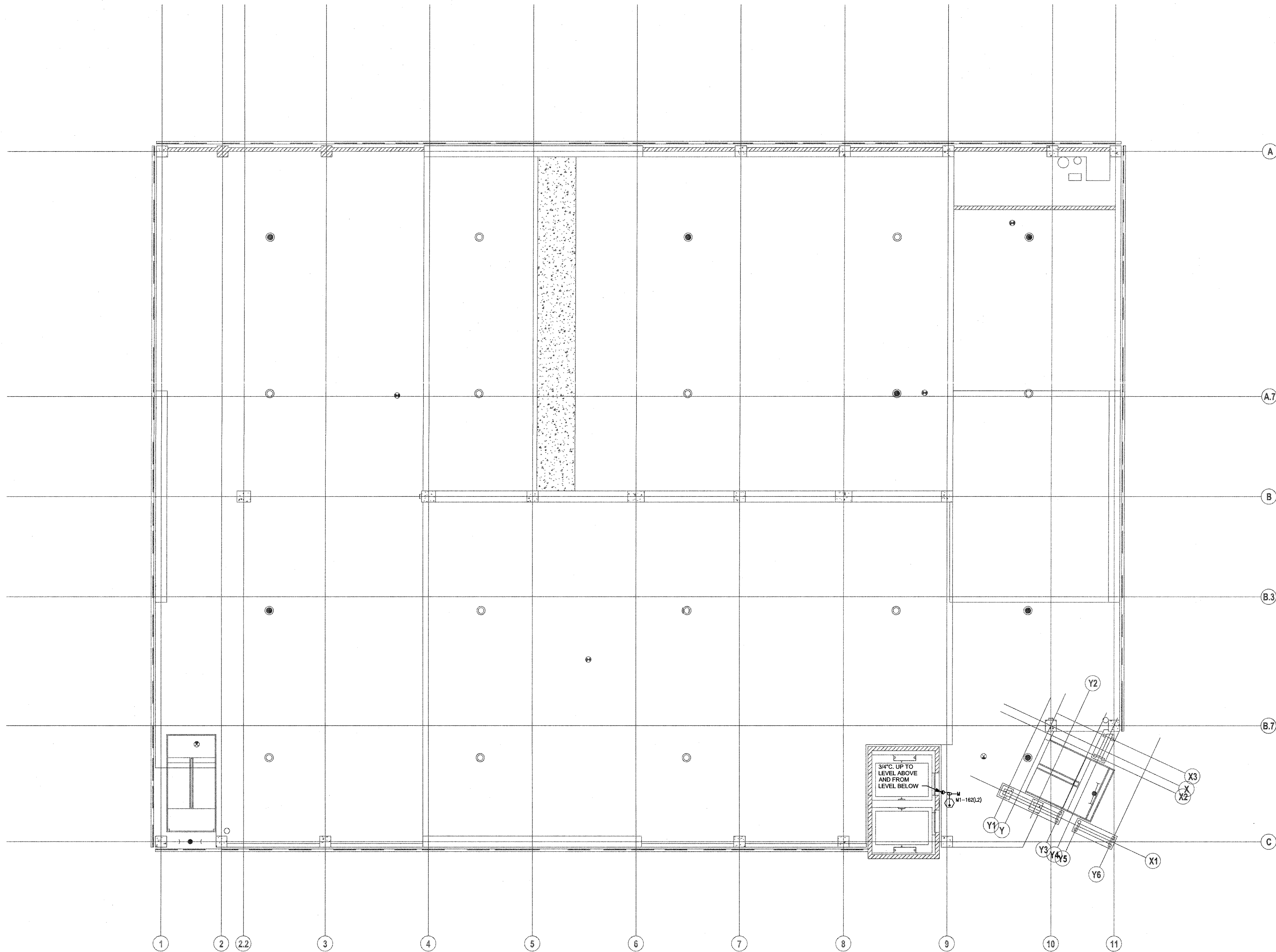
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### SOUTH CAMPUS PLAZA DESIGN-BUILD PARKING STRUCTURE

SAN DIEGO STATE UNIVERSITY



SUBMITTAL SCHEDULE:

100% BACKCHECK SET	11/10/2014
100% BACKCHECK SET 2	01/22/2015
100% BACKCHECK SET 3	03/20/2015
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▲ SFM RESUBMITTAL #3	03/03/2016



PROJECT NO: 21305-G-50

### FIRE ALARM SECOND LEVEL FLOOR PLAN

## FA-202



PLAN NORTH  
**FIRE ALARM SECOND LEVEL FLOOR PLAN**

SCALE: (IN FEET)

OFFICE OF THE STATE FIRE MARSHAL  
APPROVED FIRE AND LIFE SAFETY ONLY  
Reviewed by: (Michael Wall) 2016  
**APR 27 2016**  
Approval of this plan does not authorize or approve any design or deviation from applicable regulations. Final approval is subject to field inspection. One set of approved plans shall be available on the project site at all times.

**FOR REFERENCE ONLY**

IDENTIFICATION STAMP  
DIVISION OF THE STATE ARCHITECT  
OFFICE OF REGULATION SERVICES

FILE #  
APPL # 04-114204  
AC \_\_\_\_\_ DATE: \_\_\_\_\_

Bergelectric Corp. Contractors & Engineers

800 OPPER STREET  
ESCONDIDO, CA 92029  
TEL (760) 748-1003  
FAX (760) 748-4412

PROPRIETARY STATEMENT  
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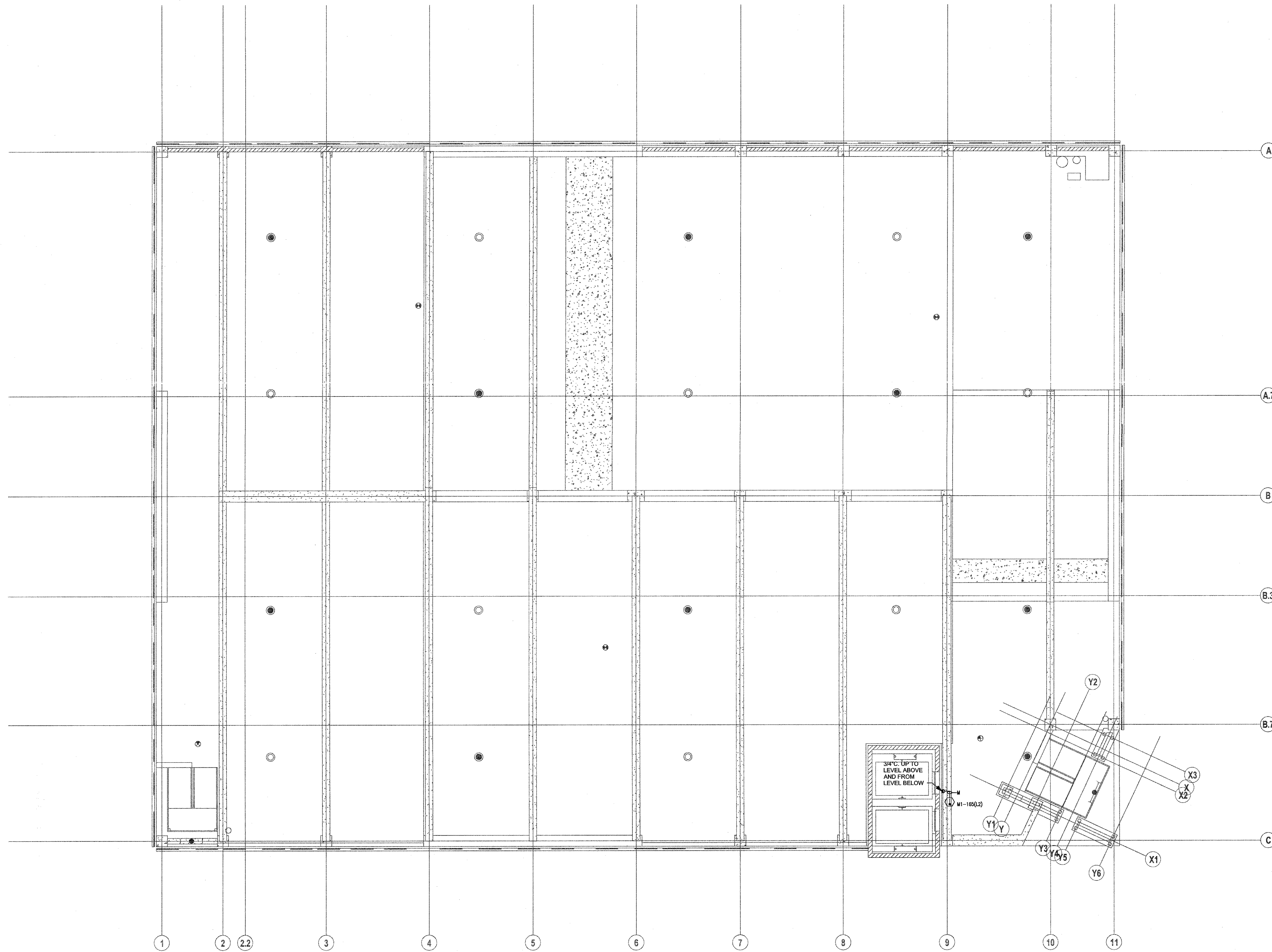


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SAN DIEGO, CALIFORNIA

**SAN DIEGO STATE UNIVERSITY**  
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**SOUTH CAMPUS PLAZA DESIGN-BUILD PARKING STRUCTURE**  
SAN DIEGO STATE UNIVERSITY



SUBMITTAL SCHEDULE:

100% BACKCHECK SET	11/10/2014
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SFM RESUBMITTAL	07/29/2015
ASI #011 - SFM RESUB.2	07/29/2015
SFM RESUBMITTAL #3	03/03/2016

**FOR REFERENCE ONLY**

PLAN NORTH  
**FIRE ALARM THIRD LEVEL FLOOR PLAN**  
SCALE: \_\_\_\_\_ (IN FEET)

OFFICE OF THE STATE FIRE MARSHAL  
APPROVED BY: \_\_\_\_\_  
Reviewed by: \_\_\_\_\_  
DATE: **APR 27 2016**  
Approval of this plan does not authorize or approve any assignment or deviation from applicable regulations. Final approval is subject to field inspection. One set of approved plans shall be available on the project site at all times.

IDENTIFICATION STAMP  
DIVISION OF THE STATE ARCHITECT  
OFFICE OF REGULATION SERVICES  
FILE # \_\_\_\_\_  
APPL # 04-114204  
AC \_\_\_\_\_ DATE: \_\_\_\_\_



PROJECT NO: 21305-G-00  
**FIRE ALARM THIRD LEVEL FLOOR PLAN**

**FA-203**

Proprietary Seal  
Bergalactic Corp. Contractors & Engineers  
630 COPPER STREET  
ESCONDIDO, CA 92029  
TEL: (760) 746-1003  
FAX: (760) 746-8412

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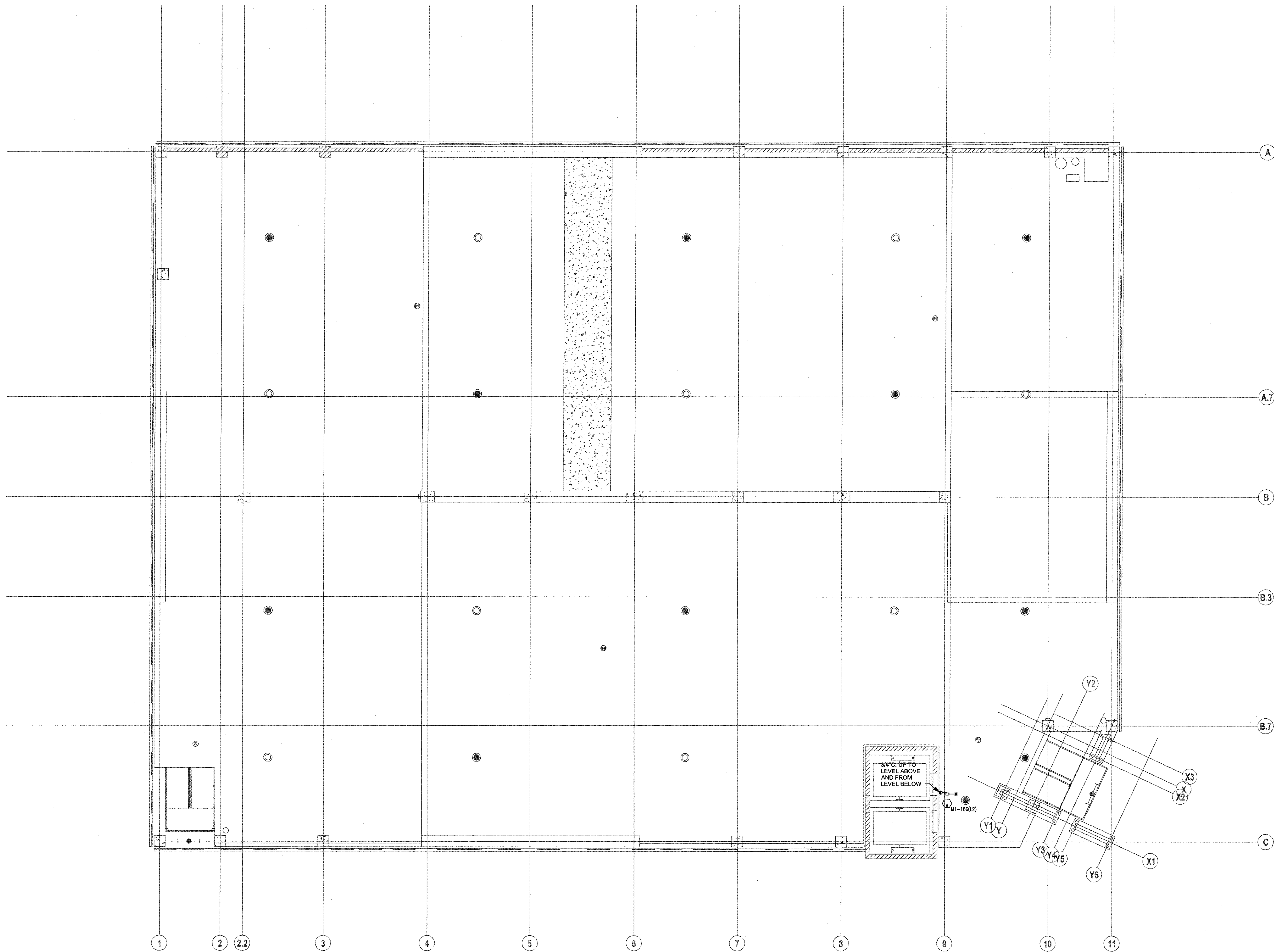


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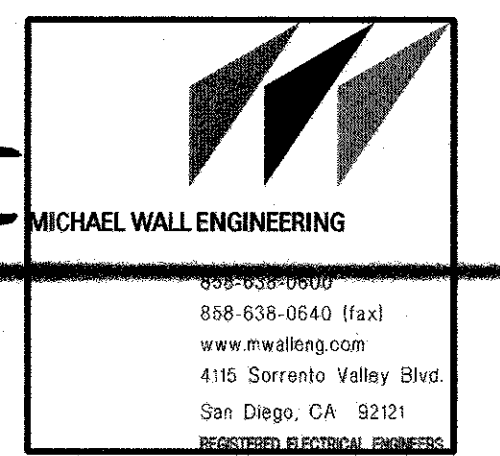
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SAN DIEGO, CA

**SOUTH CAMPUS PLAZA DESIGN-BUILD PARKING STRUCTURE**  
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**SUBMITTAL SCHEDULE:**

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100% BACKCHECK SET 3	03/20/2015
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SFM RESUBMITTAL	07/29/2015
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PROJECT NO: 21305-G-50

**FIRE ALARM  
FOURTH  
LEVEL  
PLAN**

**FA-204**



**FIRE ALARM FOURTH LEVEL FLOOR PLAN**

SCALE: \_\_\_\_\_ (IN FEET)

OFFICE OF THE STATE FIRE MARSHAL  
APPROVED FIRE AND FLOOD ONLY  
Reviewed by: \_\_\_\_\_  
Fire Safety Council, DSRM

APR 27 2016

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IDENTIFICATION STAMP  
DIVISION OF THE STATE  
ARCHITECT  
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SERVICES

FILE #  
APPL # 04-114204  
AC \_\_\_\_\_ DATE: \_\_\_\_\_

Bergstedt Corp. Contractors & Engineers



600 OPFER STREET  
ESCONDIDO, CA 92029  
TEL: (760) 746-4003  
FAX: (760) 746-4412

PROFESSIONAL ENGINEER

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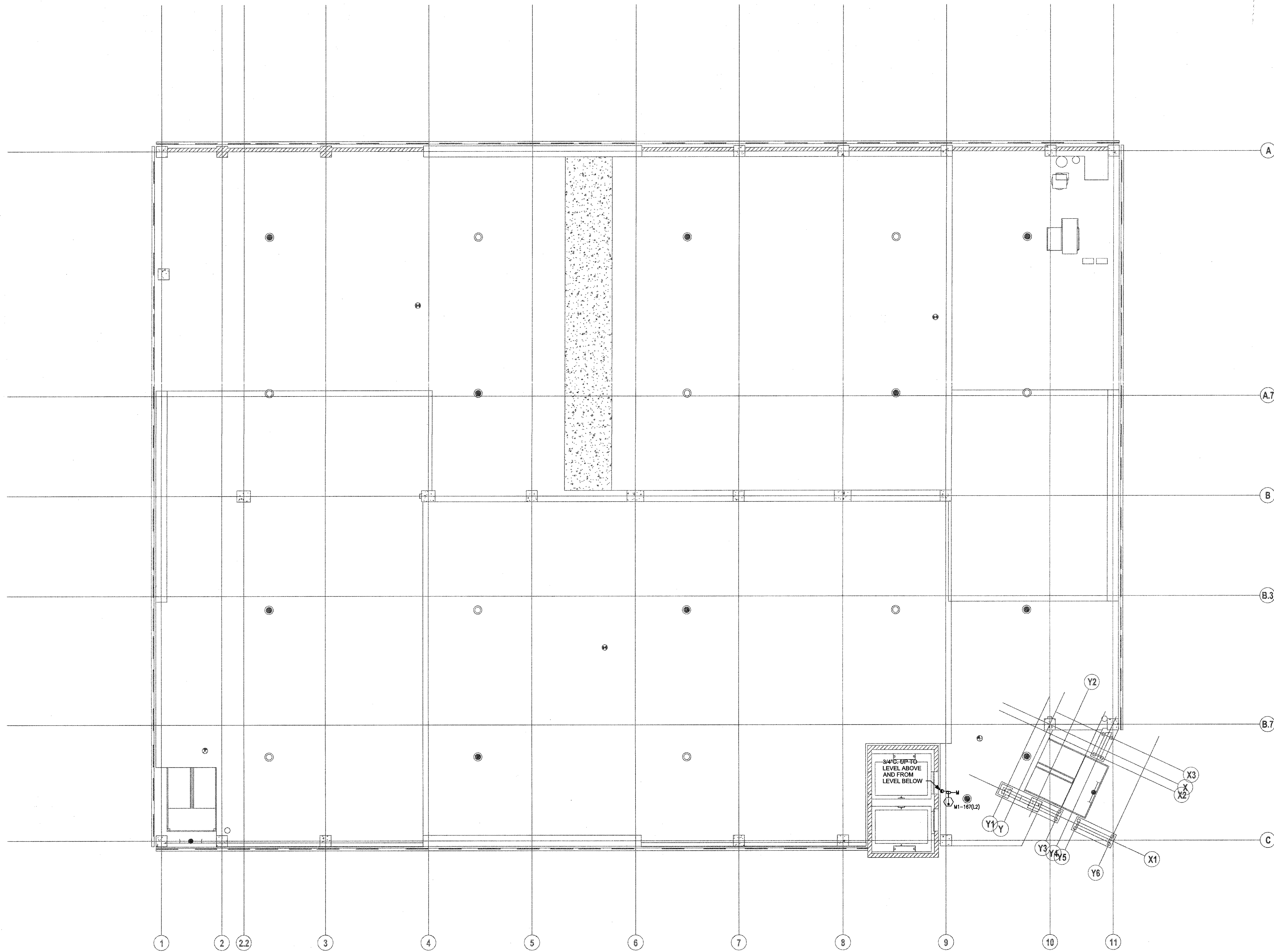


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CONSTRUCTION  
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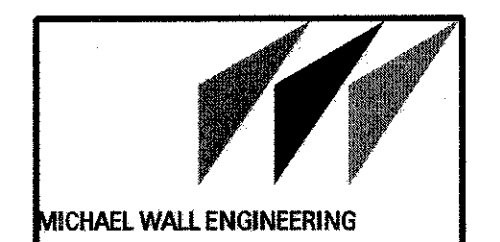
SAN DIEGO  
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SAN DIEGO, CA

SOUTH CAMPUS PLAZA DESIGN-BUILD PARKING  
STRUCTURE  
SAN DIEGO STATE UNIVERSITY



SUBMITTAL SCHEDULE:

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100% BACKCHECK SET 2	01/22/2015
100% BACKCHECK SET 3	03/20/2015
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SFM RESUBMITTAL	07/29/2015
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4105 Sorrento Valley Blvd  
San Diego, CA 92121

PROJECT NO: 21305-G-50

FIRE ALARM  
FIFTH LEVEL  
FLOOR PLAN

FA-205

FOR REFERENCE  
ONLY

OFFICE OF THE STATE FIRE MARSHAL  
APPROVED FIRE ALARM PLAN ONLY  
Reviewed by:

APR 27 2016

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approve any omission or deviation from  
applicable regulations. Final approval is subject  
to field inspection. One set of approved plans  
shall be available on the project site at all times.

Registered Civil Engineers & Engineers



650 OPPEP STREET  
ESCONDIDO, CA 92029

TEL (760) 746-1000  
FAX (760) 746-6412

IDENTIFICATION STAMP  
DIVISION OF THE STATE  
ARCHITECT  
OFFICE OF REGULATION  
SERVICES

FILE #  
APPL # 04-14204

AC \_\_\_\_\_ DATE: \_\_\_\_\_



PLAN NORTH  
FIRE ALARM FIFTH LEVEL FLOOR PLAN

SCALE: (IN FEET)



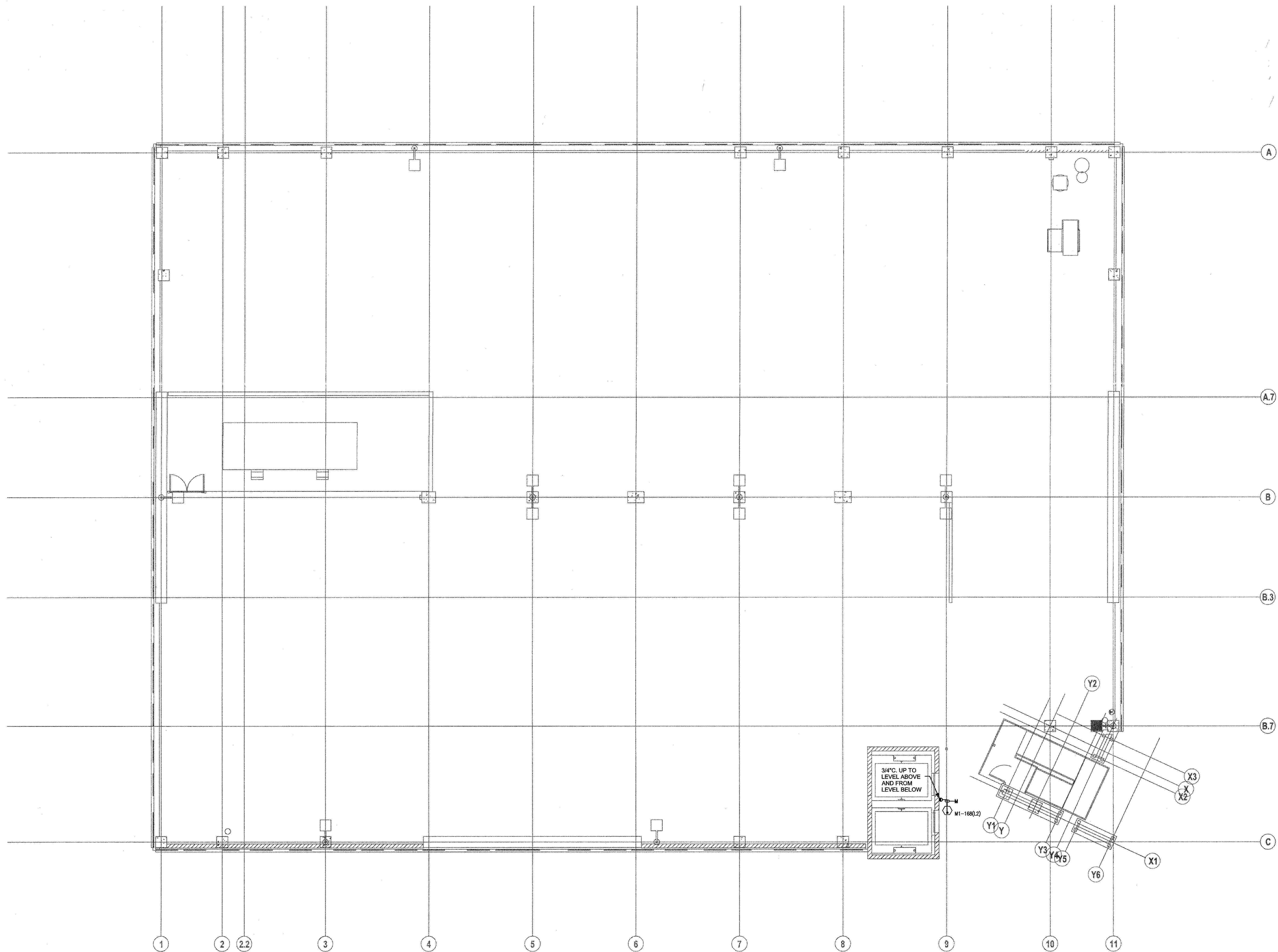


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**SUNDT CONSTRUCTION**  
SAN DIEGO, CALIFORNIA

**SAN DIEGO STATE UNIVERSITY**  
SAN DIEGO, CA

**SOUTH CAMPUS PLAZA DESIGN-BUILD PARKING STRUCTURE**  
SAN DIEGO STATE UNIVERSITY



**SUBMITTAL SCHEDULE:**

100% BACKCHECK SET	11/10/2014
100% BACKCHECK SET 2	01/22/2015
100% BACKCHECK SET 3	03/20/2015
DSA BACKCHECK SET	06/15/2015
SFM RESUBMITTAL	07/28/2015
ASI #011 - SFM RESUB.2	07/28/2015
▲ SFM RESUBMITTAL #3	03/03/2016

**FOR REFERENCE ONLY**

PLAN NORTH  
**FIRE ALARM SIXTH LEVEL FLOOR PLAN**  
SCALE: \_\_\_\_\_ (IN FEET)

OFFICE OF THE STATE FIRE MARSHAL  
APPROVED FIRE ALARMING ONLY  
Reviewed by: \_\_\_\_\_  
Bradley Cooper DSRM

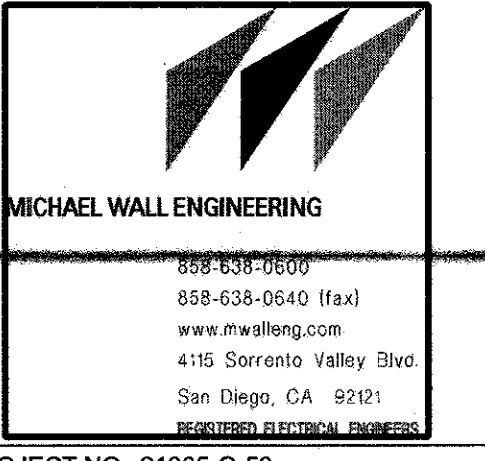
APR 27 2016

Approval of this plan does not authorize or approve any alteration or deviation from applicable regulations. Field approval is subject to field inspection. One set of approved plans shall be available on the project site at all times.

IDENTIFICATION STAMP  
DIVISION OF THE STATE ARCHITECT  
OFFICE OF REGULATION SERVICES

FILE # \_\_\_\_\_  
APPL # 04-114204

AC \_\_\_\_\_ DATE: \_\_\_\_\_



PROJECT NO: 21305-G-50  
**FIRE ALARM SIXTH LEVEL FLOOR PLAN**

**FA-206**

Bergatec Corp. Contractors & Engineers  
8010-85046  
850 OFFER STREET  
ESCONDIDO, CA 92029

TEL (760) 746-1000  
FAX (760) 746-6412

**PROFESSIONAL SEAL**  
THE DIVISION OF THE STATE ARCHITECT HAS REVIEWED THE DESIGN AND CONSTRUCTION OF THIS PROJECT AND HAS FOUND IT TO BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE ARCHITECTURE ACT. THIS SEAL IS TO BE USED FOR CONTRACTING PURPOSES AND DOES NOT REPRESENT AN ENDORSEMENT OR GUARANTEE OF THE QUALITY OF THE WORK OR THE PERFORMANCE OF THE CONTRACTOR. THE ARCHITECT ASSUMES NO LIABILITY FOR THE WORK OR THE PERFORMANCE OF THE CONTRACTOR.



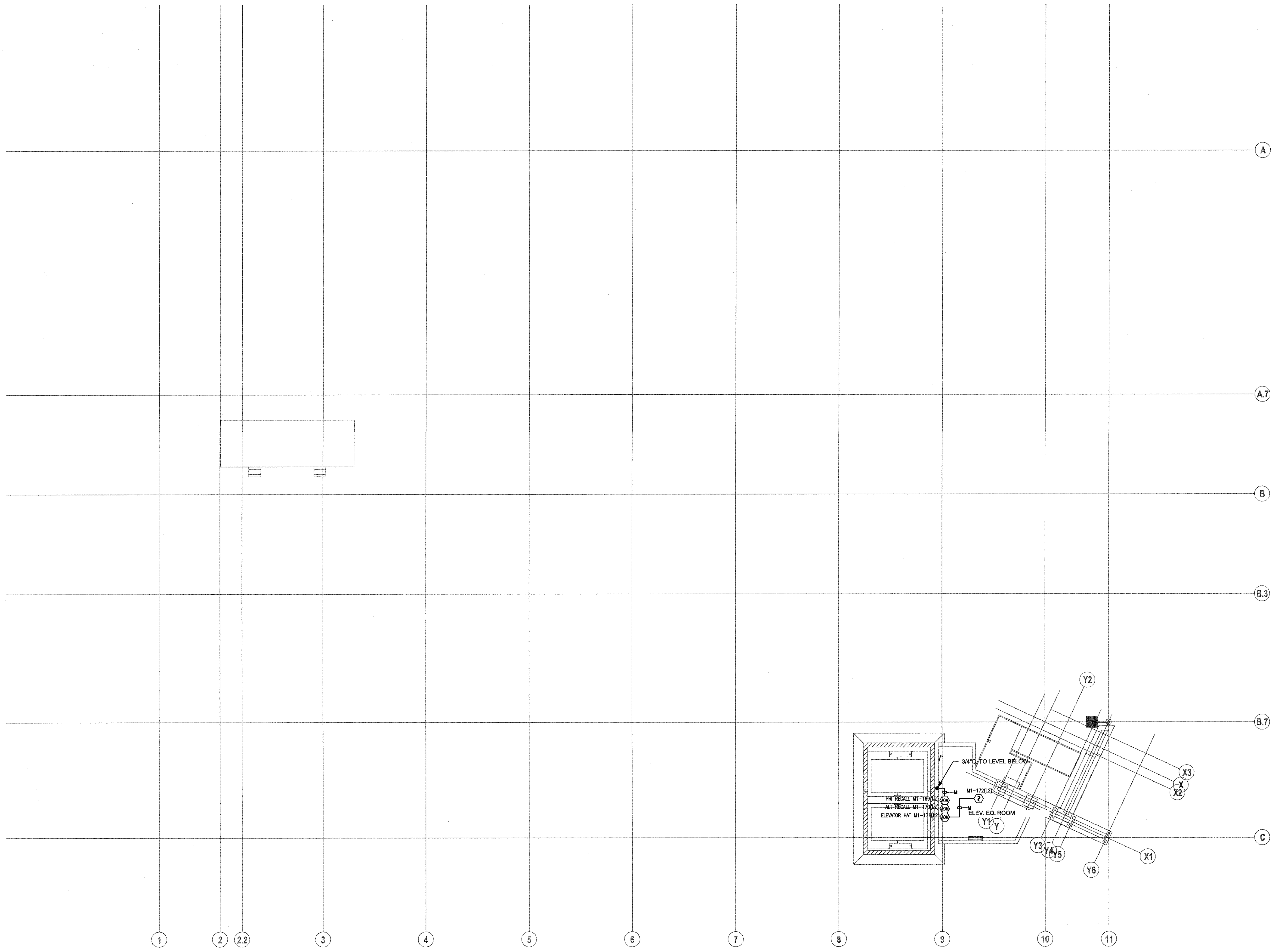


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SAN DIEGO, CALIFORNIA

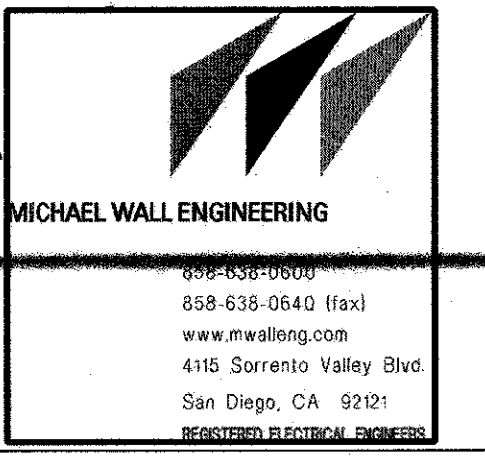
**SAN DIEGO STATE UNIVERSITY**  
SAN DIEGO, CA

**SOUTH CAMPUS PLAZA DESIGN-BUILD PARKING STRUCTURE**  
SAN DIEGO STATE UNIVERSITY



**SUBMITTAL SCHEDULE:**

100% BACKCHECK SET	11/10/2014
100% BACKCHECK SET 2	01/22/2015
100% BACKCHECK SET 3	03/20/2015
DSA BACKCHECK SET	06/15/2015
SFM RESUBMITTAL	07/29/2015
ASI #011 - SFM RESUB.2	07/29/2015
▲ SFM RESUBMITTAL #3	03/03/2016



PROJECT NO: 21305-G-50

**FIRE ALARM SEVENTH LEVEL FLOOR PLAN**

**FA-207**

PLAN NORTH  
**FIRE ALARM SEVENTH LEVEL FLOOR PLAN**  
SCALE: \_\_\_\_\_ (IN FEET)

**FOR REFERENCE ONLY**

OFFICE OF THE STATE FIRE MARSHAL  
APPROVED FIRE ALARM PLAN ONLY  
Reviewed by: \_\_\_\_\_  
Bradley Goehner, ESFM

**APR 27 2016**

Approval of this plan does not authorize or approve, any addition or deviation from applicable regulations. Final approval is subject to field inspection. One set of approved plans shall be available on the project site at all times.

Bergalactic Corp. Contractors & Engineers

**PROPRIETARY STATEMENT**  
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4019-85040  
650 OPPER STREET  
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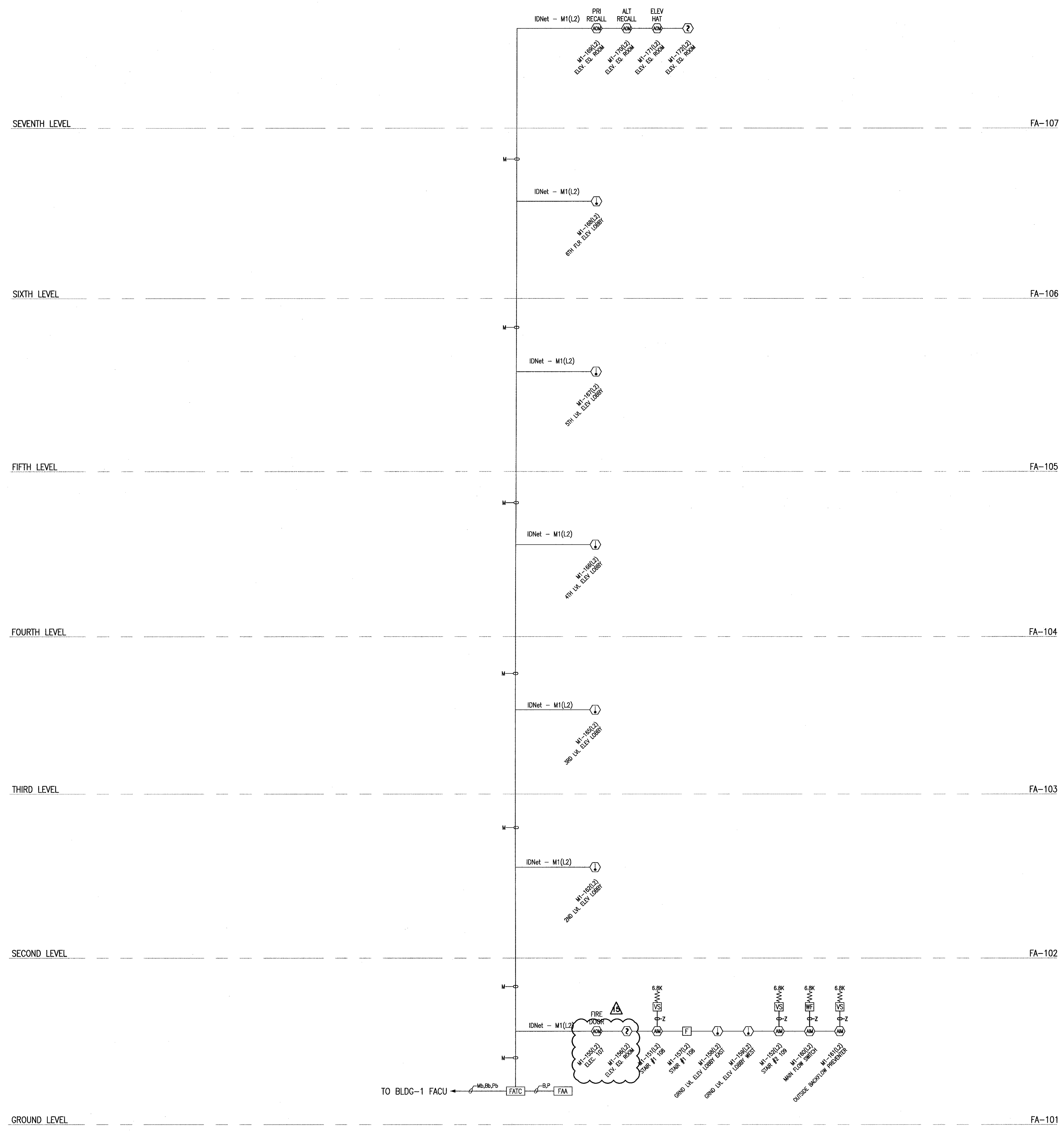


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SAN DIEGO, CALIFORNIA

**SAN DIEGO STATE UNIVERSITY**  
SAN DIEGO, CA

**SOUTH CAMPUS PLAZA DESIGN-BUILD PARKING STRUCTURE**  
SAN DIEGO STATE UNIVERSITY



**RISER DIAGRAM**  
SCALE: NTS

**FOR REFERENCE ONLY**

OFFICE OF THE STATE FIRE MARSHAL  
APPROVED FIRE AND LIFE SAFETY ONLY  
Reviewed by: [Signature]  
Bridget C. Galt, USFSM

APR 27 2016

Approval of this plan does not authorize or  
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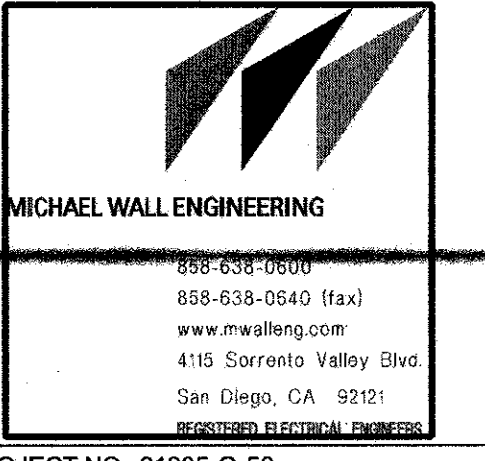
IDENTIFICATION STAMP  
DIVISION OF THE STATE ARCHITECT  
OFFICE OF REGULATION SERVICES

FILE #  
APPL # 04-14204

AC DATE:

Bergalick Corp. Contractors & Engineers  
**bd**  
8010-80046  
650 OFFER STREET  
ESCONDIDO, CA 92029

INDEPENDENT STATEMENT  
THE ARCHITECT, ENGINEER AND ARCHITECTURE OR OTHER  
PROFESSIONAL PERSONS HAVE REVIEWED THE CONSTRUCTION  
DOCUMENTS AND THE WORK OF THE CONTRACTOR AND CONFIRMED  
THE WORK IS IN ACCORDANCE WITH THE CONSTRUCTION DOCUMENTS.  
THEY WILL BE USED FOR CONSTRUCTION PURPOSES.  
THEY WILL NOT BE USED FOR ANY OTHER PURPOSES.  
FOR MORE INFORMATION, CONTACT THE ARCHITECT.  
BERGALICK CORPORATION 650 OFFER STREET  
ESCONDIDO, CALIFORNIA 92029



PROJECT NO: 21305-G-50

**FIRE ALARM RISER**

**FA-300**



Building 1 1st Floor 4100es FACP							
Module	Qty	Description	Standby Current	Total Standby	Alarm Current	Total Alarm	Total Alarm
<b>Panel Equipment</b>							
4100-9311	1	4100 CONEIG. DOMESTIC 120V		0.4250	0.4250	0.7350	0.7350
4100-5325	1	ENHANCED POWER SUPPLY, 3 CHANNELS, 120V		0.1250	0.1250	0.2200	0.2200
4100-9620	1	BASIC AUDIO WITH MICROPHONE - ANALOG		0.2250	0.2250	0.2250	0.2250
4100-1241	1	MESSAGE EXPANSION BOARD - 8 MINUTES		0.0020	0.0020	0.0170	0.0170
4100-1252	1	1 CHANNEL AUDIO OPERATOR INTERFACE		0.0000	0.0000	0.0240	0.0240
4100-1288	1	64/64 LED/SWITCH CONTROLLER		0.0200	0.0200	0.0200	0.0200
4100-1280	1	8 SWITCH, 8 RED LED MODULE		0.0000	0.0000	0.0240	0.0240
4100-1315	1	ANALOG 100W AMP W/6 B NACS 120VAC 70V		0.0850	0.0850	3.8000	3.8000
4100-6078	1	NETWORK IF CARD, MODULAR		0.0460	0.0460	0.0460	0.0460
4100-6056	2	NETWORK MEDIA CARD WIRED		0.0550	0.1100	0.0550	0.1100
4100-1270	1	MASTER TELEPHONE, PHONE CONTROL		0.0800	0.0800	0.1400	0.1400
4100-3110	1	IDNet2+2 MODULE - UP TO 250 DEVICES 4 ISOLATED LOOPS		0.6500	0.6500	0.1000	0.1000
Panel Totals				1.1680			5.4610
<b>IDNet Addressable Devices (SLC)</b>							
4099-9021	2	ADDRESSABLE SINGLE ACTION NO GRIP PULL STATION					
4090-9001	29	IDNET SUPERVISED IAM					
4090-9007	65	IDNET ADDRESSABLE SIGNAL ZM					
4098-9714	129	TRUALARM PHOTO SMOKE SENSOR					
4098-9733	28	TRUALARM HEAT SENSOR					
4098-9756	3	TRUALARM DUCT SMOKE SENSOR W/ RELAY OUTPUT					
4098-9792	70	TRUALARM SENSOR BASE					
4090-9010	21	8 AMP RELAY IAM					
4098-9770	87	TRUALARM SENSOR BASE WITH CO MODULE					
<b>Miscellaneous Peripheral Devices That May Require System Power</b>							
4098-9843	3	ENCAPSULATED RELAY PAM-SD		0.0000	0.0000	0.0150	0.0450
4098-9756	3	TRUALARM DUCT SMOKE SENSOR W/ RELAY OUTPUT		0.0030	0.0090	0.0150	0.0450
4603-9101	1	SERIAL LCD ANNUNCIATOR		0.0650	0.0650	0.1400	0.1400
2098-9806	3	REMOTE TEST STATION W/ LED AND KEY SWITCH		0.0000	0.0000	0.0000	0.0000
<b>Notification Appliances</b>							
4905-9816	2	TRUALERT ADAPTER, ADDRESSABLE		0.0004	0.0009	0.1500	0.3000
4906-9204	5	ADDRESSABLE CEILING MNT MC V/O, WHITE	15	0.0002	0.0010	0.0600	0.3000
4906-9204	1	ADDRESSABLE CEILING MNT MC V/O, WHITE	30	0.0002	0.0002	0.0920	0.0920
4906-9204	2	ADDRESSABLE CEILING MNT MC V/O, WHITE	75	0.0002	0.0004	0.1800	0.3600
4906-9253	7	ADDRESSABLE WALL MNT MC S/V, WHITE	110	0.0002	0.0014	0.1900	1.3300
4906-9253	4	ADDRESSABLE WALL MNT MC S/V, WHITE	75	0.0002	0.0008	0.0500	0.2000
4906-9253	1	ADDRESSABLE WALL MNT MC S/V, WHITE	15	0.0002	0.0002	0.1370	0.1370
4906-9254	1	ADDRESSABLE CEILING MNT S/V 25V/70VRMS WHITE	110	0.0002	0.0002	0.2400	0.2400
4906-9254	20	ADDRESSABLE CEILING MNT S/V 25V/70VRMS WHITE	15	0.0002	0.0040	0.0600	1.2000
4906-9254	12	ADDRESSABLE CEILING MNT S/V 25V/70VRMS WHITE	30	0.0002	0.0024	0.0920	1.1040
4906-9254	4	ADDRESSABLE CEILING MNT S/V 25V/70VRMS WHITE	75	0.0002	0.0008	0.1800	0.7200
49V0-WWFO-BA	5	VO, WALL MT, WHITE, FIRE LABEL, WEATHERPROOF	15	0.0008	0.0040	0.0600	0.3000
49V0-WWFO-BA	2	VO, WALL MT, WHITE, FIRE LABEL, WEATHERPROOF	WP185	0.0008	0.0016	0.2390	0.4780
49V0-WWF	1	VO, WALL MT, WHITE, FIRE LABEL	30	0.0008	0.0008	0.0570	0.0570
SWK	2	WEATHERPROOF STROBE ONLY, WHITE	15	0.0000	0.0000	0.0660	0.1320
Peripheral Totals				0.0927			7.1800
Added Current for EPS Conversion of 24 to 29 Volt IDNet Devices				0.0000			2.5715
RUI Connected Peripheral Devices			1	0.0035		0.0035	
Address Totals			342	0.2216		0.2270	
Total Standby				1.4858			15.4930
Total Alarm							15.4930

\* 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:					
EPS-1			0.7392		4.8800
EPS-2			0.5104		3.9610
Amp-1			0.0850		3.8000
Sub Total			1.3347		12.6410
<b>Additional Current Draws:</b>					
Current for Conversion of Battery Voltage to 29 volt EPS IDNet Devices					
RUI Connected Peripheral Devices	1	x 0.0035	= 0.0035	x 0.0035	= 0.0035
MAPNET/IDNet Device Address Communication Current	342	x 0.000648	= 0.2216	x 0.000810	= 0.2770
Sub Total			1.5598		15.4930
Spare addressable point capacity 0% 0 x 0.000648 = 0.0000 x 0.00081 = 0.0000					
Total			1.5598		15.4930
Standby Time = 24 Hrs x 1.5598 = 37.4340 Standby Ah					
Alarm Time = 15 Min 0.25 x 15.493 = 3.8733 Alarm Ah					
Additional Spare Battery Capacity = 0%					41.3073
Battery Discharge Factor = 20%					8.2615
Minimum Battery Required 2081-9296 50AH (2x)					49.5687
Battery Supplied 2081-9296 50AH (2x)					

IDNET CHANNEL M1				SWITCH SETTINGS							
Address				1	2	3	4	5	6	7	8
M1-128(L4)	SIGIAM	SIGNAL	STUDENT UNIT 241	X	X	X	X	X	X	X	ON
M1-127(L4)	MCOOP	UTILITY	STUDENT UNIT 241	X	X	X	X	X	X	X	ON
M1-128(L4)	SIGIAM	SIGNAL	STUDENT UNIT 240								X ON
M1-129(L4)	MCOOP	UTILITY	STUDENT UNIT 240	X							X ON
M1-130(L4)	SIGIAM	SIGNAL	STUDENT UNIT 239	X	X						X ON
M1-131(L4)	MCOOP	UTILITY	STUDENT UNIT 239	X	X						X ON
M1-132(L4)	SIGIAM	SIGNAL	STUDENT UNIT 238	X	X						X ON
M1-133(L4)	MCOOP	UTILITY	STUDENT UNIT 238	X	X						X ON
M1-134(L4)	SIGIAM	SIGNAL	STUDENT UNIT 237	X	X						X ON
M1-135(L4)	MCOOP	UTILITY	STUDENT UNIT 237	X	X						X ON
M1-136(L4)	SIGIAM	SIGNAL	STUDENT UNIT 236	X	X						X ON
M1-137(L4)	MCOOP	UTILITY	STUDENT UNIT 236	X	X						X ON
M1-138(L4)	SIGIAM	SIGNAL	STUDENT UNIT 235	X	X						X ON
M1-139(L4)	MCOOP	UTILITY	STUDENT UNIT 235	X	X						X ON
M1-140(L4)	SIGIAM	SIGNAL	STUDENT UNIT 234	X	X						X ON
M1-141(L4)	MCOOP	UTILITY	STUDENT UNIT 234	X	X						X ON
M1-142(L4)	SIGIAM	SIGNAL	R.A. UNIT 233	X	X						X ON
M1-143(L4)	MCOOP	UTILITY	R.A. UNIT 233	X	X						X ON
M1-144				X	X						X ON
M1-145				X	X						X ON
M1-146				X	X						X ON
M1-147				X	X						X ON
M1-148				X	X						X ON
M1-149				X	X						X ON
M1-150				X	X						X ON
M1-151	IAM	SD	STAR #1 108	X	X						X ON
M1-152	IAM	SD	STAR #2 109	X	X						X ON
M1-153				X	X						X ON
M1-154				X	X						X ON
M1-155	RAM	RELAY	(STORAGE) SPACE 118 FIRE DOOR RELAY	X	X						X ON
M1-156	PHOTO	RELAY	(STORAGE) SPACE 118 FIRE DOOR	X	X						X ON
M1-157	ADRIEL	DBAL	STAR #1 108	X	X						X ON
M1-158	HEAT	HEAT	GRND LVL. ELEV LOBBY EAST	X	X						X ON
M1-159	HEAT	HEAT	GRND LVL. ELEV LOBBY WEST	X	X						X ON
M1-160	IAM	WATER	MAIN FLOW SWITCH	X	X						X ON
M1-161	IAM	SD	OUTSIDE BACKFLOW PREVENTER	X	X						X ON
M1-162	HEAT	HEAT	2ND LVL. ELEV LOBBY	X	X						X ON
M1-163				X	X						X ON
M1-164				X	X						X ON
M1-165	HEAT	HEAT	3RD LVL. ELEV LOBBY	X	X						X ON
M1-166	HEAT	HEAT	4TH LVL. ELEV LOBBY	X	X						X ON
M1-167	HEAT	HEAT	5TH LVL. ELEV LOBBY	X	X						X ON
M1-168	HEAT	HEAT	6TH LVL. ELEV LOBBY	X	X						X ON
M1-169	RAM	PRIMARY	ELEV EQ ROOM	X	X						X ON
M1-170	RAM	ALTERN	ELEV EQ ROOM	X	X						X ON
M1-171	RAM	ELEV HAT	ELEV EQ ROOM	X	X						X ON
M1-172	PHOTO	RELAY	ELEV EQ ROOM	X	X						X ON
M1-173				X	X						X ON
M1-174				X	X						X ON
M1-175				X	X						X ON
M1-176				X	X						X ON
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M1-216				X	X						X ON
M1-217				X	X						X ON
M1-218				X	X						X ON
M1-219				X	X						X ON
M1-220				X	X						X ON
M1-221				X	X						X ON
M1-222				X	X						X ON
M1-223				X	X						X ON
M											







SUBMITTAL SCHEDULE:

SCHEMATIC DESIGN	04/17/2014
50% PRELIM. DESIGN	05/14/2014
100% PRELIM. DESIGN	05/28/2014
50% CONST. DOCS.	07/02/2014
95% CONST. DOCS.	08/07/2014
100% BACKCHECK	11/10/2014
100% BACKCHECK 2	01/29/2015
100% BACKCHECK 3	03/20/2015
ASI - 007	07/28/2015
ASI - 011	11/6/2015
SFM Resubmittal #3	3/3/2016

NFPA 14 SECTION 7.8.1  
MANUAL STANDPIPE SYSTEMS SHALL BE DESIGNED TO PROVIDE 100 PSI AT THE TOPMOST OUTLET WITH THE CALCULATION TERMINATING AT THE FIRE DEPARTMENT CONNECTION.

NFPA 14 SECTION 7.10.1.1.1  
FOR CLASS I AND CLASS III SYSTEMS, THE MINIMUM FLOW RATE FOR THE HYDRAULICALLY MOST REMOTE STANDPIPE SHALL BE 500 GPM, THROUGH TWO 2 1/2" OUTLETS AT ONE LOCATION, AND THE CALCULATION PROCEDURE SHALL BE IN ACCORDANCE WITH 7.10.1.2.

NFPA 14 SECTION 7.10.1.2.1  
HYDRAULIC CALCULATIONS AND PIPE SIZES FOR EACH STANDPIPE SHALL BE BASED ON 250 GPM AT THE TWO HYDRAULICALLY MOST REMOTE HOSE CONNECTIONS ON THE STANDPIPE AND AT THE TOP OUTLET OF EACH OF THE OTHER STANDPIPES AT THE MINIMUM RESIDUAL PRESSURE REQUIRED BY SECTION 7.8.

NFPA 14 SECTION A.7.10.1.2  
FIRE APPARATUS TO SUPPLY MANUAL WET STANDPIPES WITH 750 GPM AT 150 PSI.

HYDRAULIC CALCULATIONS:  
STATIC: 150 PSI  
RESIDUAL: 149 PSI  
FLOW: 750 GPM

REMOTE STAIR #1 TO BE CAPABLE OF SUPPLYING 250 GPM AT 100 PSI AT NODE HS1 AND 250 GPM AT 100 PSI AT NODE HS2.  
REMOTE STAIR #2 TO BE CAPABLE OF SUPPLYING 250 GPM AT 100 PSI AT NODE HS3.

### PROJECT DATA:

CONSTRUCTION TYPE: TYPE I-B  
SPRINKLERED: NO - CLASS I MANUAL WET STANDPIPE

OCCUPANCY CLASSIFICATION: S-2, S1  
ACTUAL HEIGHT: 6 STORIES - 64'-5" LEVEL 6 DECK  
APPROXIMATE SQUARE FOOTAGE: 122,250 SQ. FT.

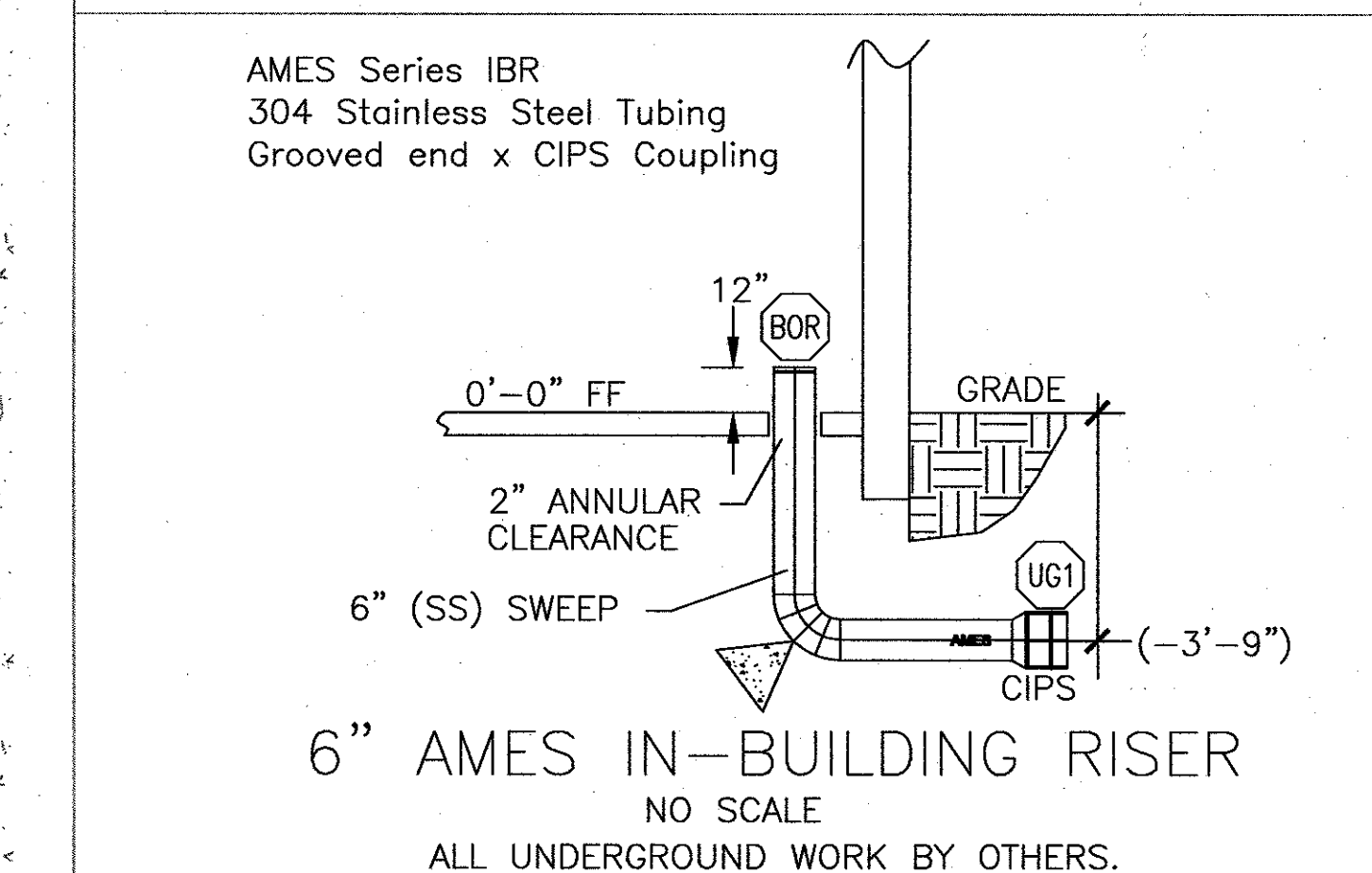
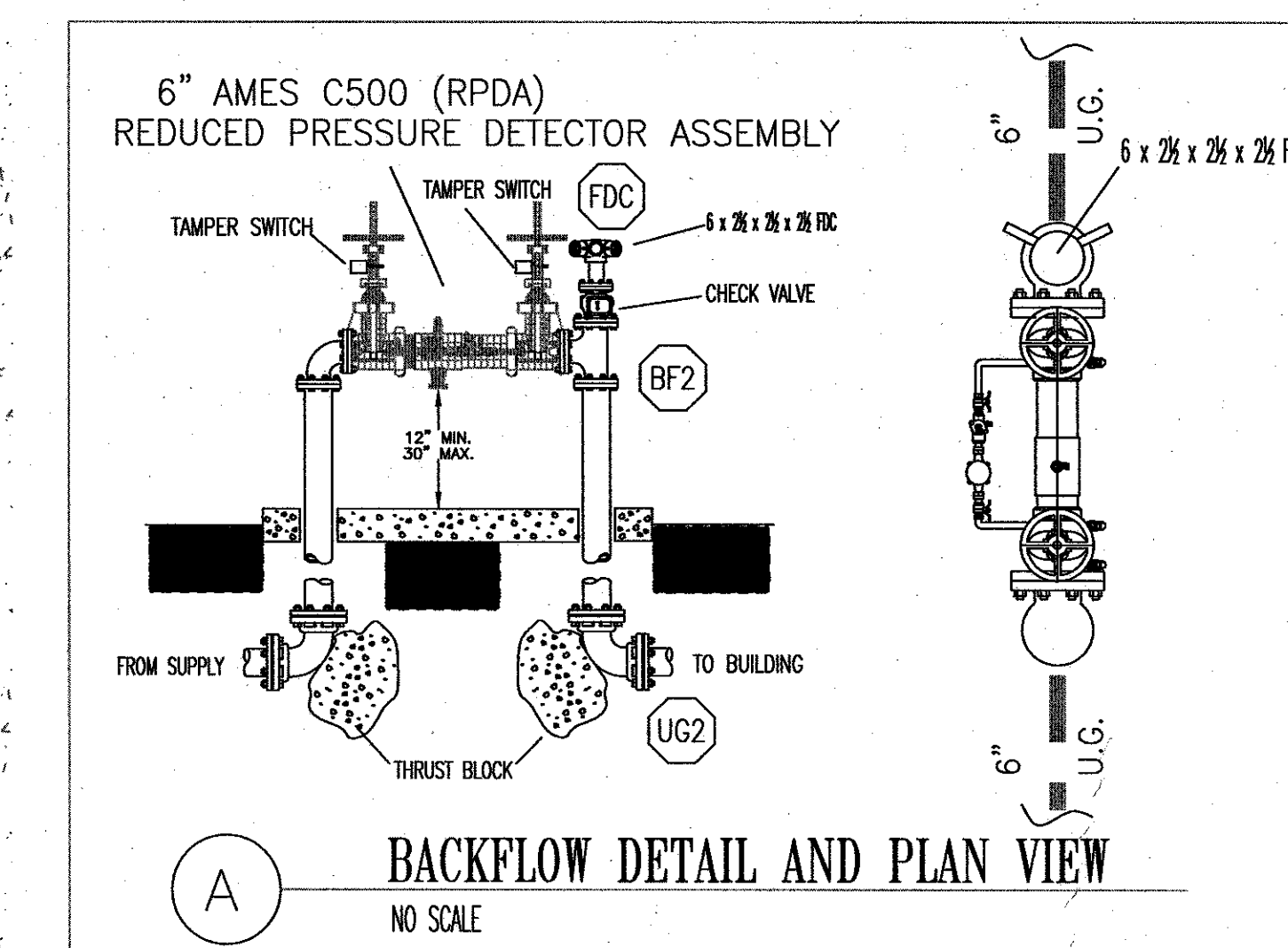
ENTIRE BUILDING: 122,250 SQ. FT.  
LEVEL ONE: 21,823 SQ. FT. (S-2)  
LEVEL TWO: 21,798 SQ. FT. (S-2)  
LEVEL THREE: 21,798 SQ. FT. (S-2)  
LEVEL FOUR: 21,798 SQ. FT. (S-2)  
LEVEL FIVE: 21,798 SQ. FT. (S-2)  
LEVEL SIX: 11,405 SQ. FT. (S-2)

NONCOMBUSTIBLE CONSTRUCTION  
CONCRETE CONSTRUCTION WITH PRE-FABBED METAL STAIRS.

Table 9.3.5.2(a) Maximum Load (Fpw) in Zone of Influence (lb), (Fy=30 ksi) Schedule 10 Steel Pipe

Pipe (in.)	Lateral Sway Brace Spacing (ft) a				
	20 <sup>b</sup>	25 <sup>b</sup>	30 <sup>c</sup>	35 <sup>c</sup>	40 <sup>d</sup>
1"	111	89	73	63	52
1 1/4"	176	141	116	99	83
1 1/2"	241	193	158	136	114
2"	390	312	256	219	183
2 1/2"	641	513	420	360	301
3"	966	733	633	543	454
4"	1634	1307	1071	918	769
6" Larger	4039	3231	2647	2269	1900

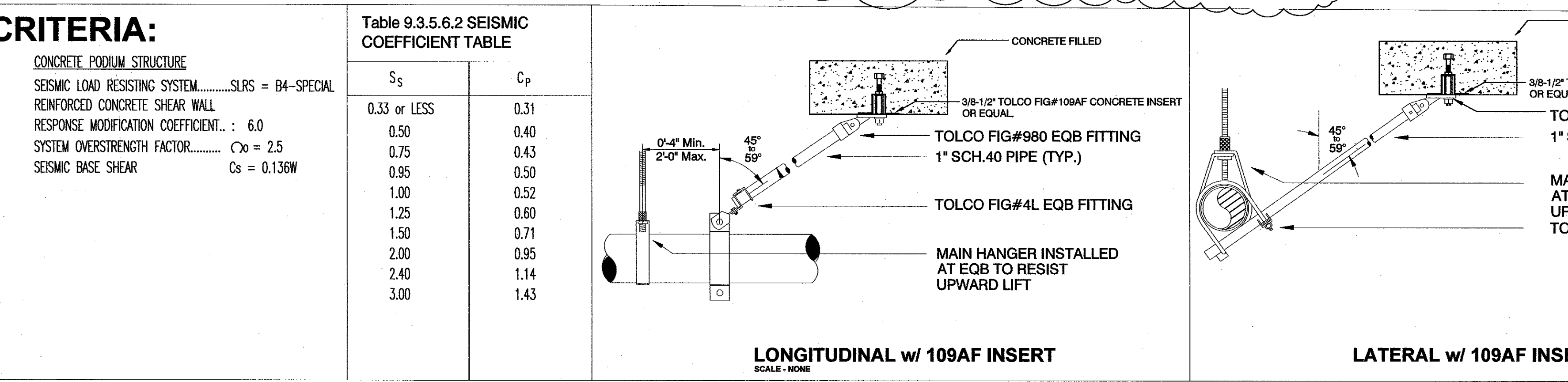
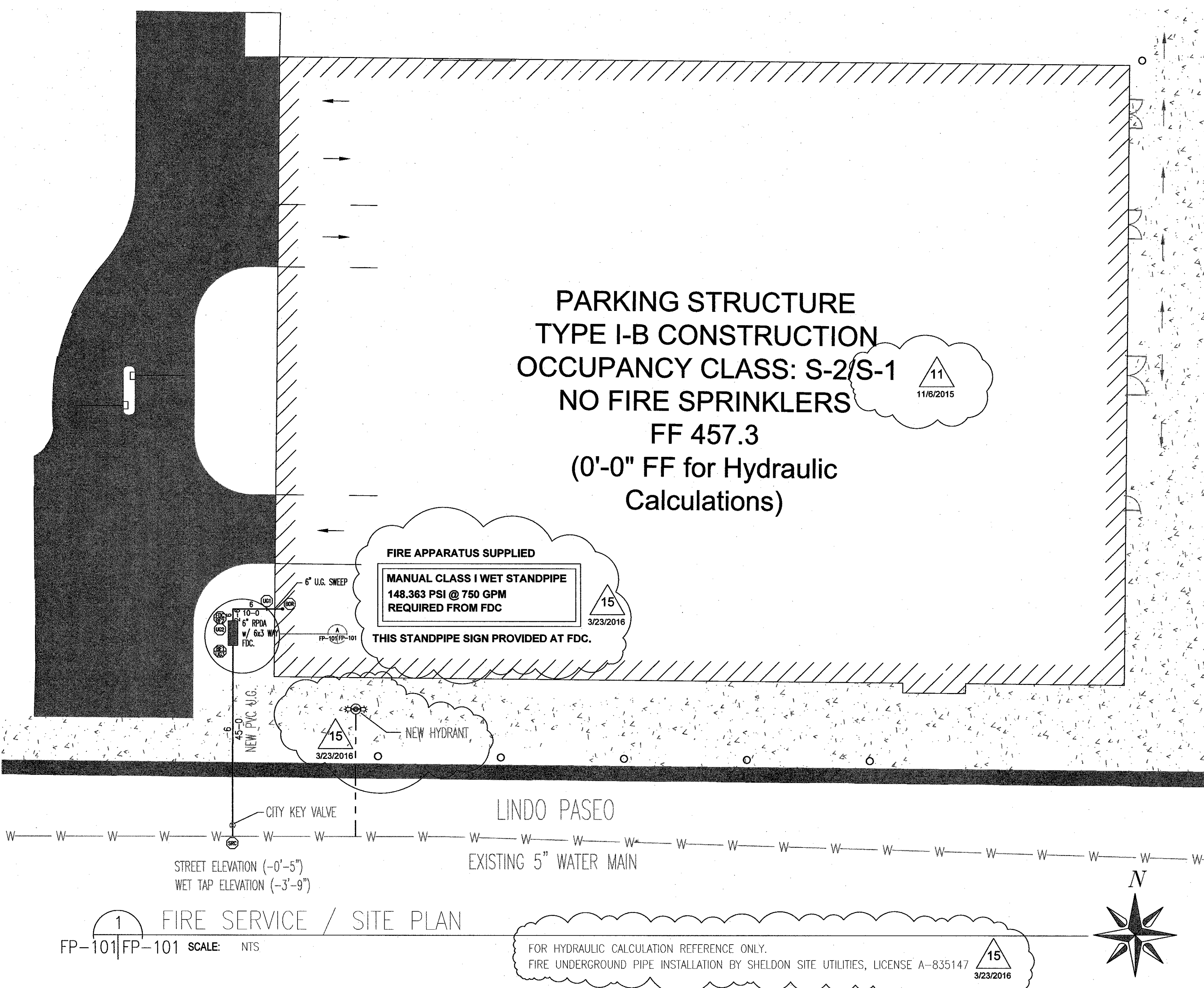
- a The tables for the maximum load Fpw in zone of influence are based on specific configurations of mains and branch lines.
- b Assumes branch lines at center of pipe span and near each support.
- c Assumes branch lines at third points of pipe span and near each support.
- d Assumes branch lines at quarter points of pipe span and near each support.
- e Larger diameter pipe may be used when justified by engineering analysis.
- NOTE:  
ASTM A 106 Grade B or A 53 Grade B has an Fy = 35 ksi. An Fy = 30 ksi was used also as a conservative value to account for differences in material properties as well as other operational stresses.



### HYDRANT FLOW TEST INFORMATION

STATIC: 76.97 PSI  
RESIDUAL: 66.5074 PSI  
FLOW: 1272.1219 GPM  
DATE: OCTOBER 14, 2014  
JURISDICTION: SAN DIEGO DEVELOPMENTAL SERVICES  
COMPUTER HYDRANT MODEL (FSN) H538316  
LOCATION OF HYDRANTS: College Avenue (Looped water main)  
Computer model includes a 10% reduction  
SEE SHEET FP-102 FOR ACTUAL REPORT  
THIS HYDRANT FLOW TEST IS FOR INFORMATION ONLY.

FIRE FLOW INFORMATION - PARKING STRUCTURE:  
SEE HYDRANT FLOW GRAPH ON CIVIL SHEET C-60  
CONSTRUCTION TYPE: TYPE I-B  
SQUARE FOOTAGE: 21,823 SF  
REQUIRED HYDRANT FLOW (TABLE B105.1): 1,500 GPM (TYPE I-B, 0-22,700 SF - B104.3 EXCEPTION)  
REQUIRED FLOW FOR CLASS I MANUAL WET STANDPIPE: 750 GPM  
TOTAL REQUIRED FLOW: 2,250 GPM  
PROVIDED FLOW: 4,594 GPM - COMPLIANT WATER SUPPLY CONFIRMED BY CITY. SEE DOCUMENTATION ON SHEET C-60  
NO. OF HYDRANTS REQUIRED (TABLE C016.1): 2 REQUIRED, 2 PROVIDED.  
AVERAGE HYDRANT SPACING (TABLE C016.1): 450 - FT REQUIRED, 275-FT PROVIDED.



Brace Information	Seismic Brace Attachments	Brace Information	Seismic Brace Attachments	Brace Information	Seismic Brace Attachments	Brace Information	Seismic Brace Attachments		
Length of brace: 7'-0"	Structure attachment fitting or tension-only bracing system: Make: TOLCO Model: 980 Listed load rating: 2015 Adjusted load rating per 9.3.5.2.4: 1745	Length of brace: 7'-0"	Structure attachment fitting or tension-only bracing system: Make: TOLCO Model: 980 Listed load rating: 2015 Adjusted load rating per 9.3.5.2.4: 1745	Length of brace: 7'-0"	Structure attachment fitting or tension-only bracing system: Make: TOLCO Model: 980 Listed load rating: 2015 Adjusted load rating per 9.3.5.2.4: 1745	Length of brace: 7'-0"	Structure attachment fitting or tension-only bracing system: Make: TOLCO Model: 980 Listed load rating: 2015 Adjusted load rating per 9.3.5.2.4: 1745		
Diameter of brace: 1"	Sway brace (pipe attachment) fitting: Make: TOLCO Model: 1001 Listed load rating: 2015 Adjusted load rating per 9.3.5.2.4: 1745	Diameter of brace: 1"	Sway brace (pipe attachment) fitting: Make: TOLCO Model: 4L Listed load rating: 2015 Adjusted load rating per 9.3.5.2.4: 1745	Diameter of brace: 1"	Sway brace (pipe attachment) fitting: Make: TOLCO Model: 1001 Listed load rating: 2015 Adjusted load rating per 9.3.5.2.4: 1745	Diameter of brace: 1"	Sway brace (pipe attachment) fitting: Make: TOLCO Model: 4L Listed load rating: 2015 Adjusted load rating per 9.3.5.2.4: 1745		
Type of brace: Schedule 40		Type of brace: Schedule 40		Type of brace: Schedule 40		Type of brace: Schedule 40			
Angle of brace: 60° to 90°		Angle of brace: 60° to 90°		Angle of brace: 60° to 90°		Angle of brace: 60° to 90°			
Least radius of gyration: 0.42		Least radius of gyration: 0.42		Least radius of gyration: 0.42		Least radius of gyration: 0.42			
L/R value: 200		L/R value: 200		L/R value: 200		L/R value: 200			
Maximum horizontal load: 1604		Maximum horizontal load: 1604		Maximum horizontal load: 1604		Maximum horizontal load: 1604			
Fastener Information		Fastener Information		Fastener Information		Fastener Information			
Type: TOLCO 109AF		Type: TOLCO 109AF		Type: TOLCO 109AF		Type: TOLCO 109AF			
Diameter: 1/2"		Diameter: 1/2"		Diameter: 1/2"		Diameter: 1/2"			
Length: 3 1/2"		Length: 3 1/2"		Length: 3 1/2"		Length: 3 1/2"			
Maximum load: 781 lb		Maximum load: 781 lb		Maximum load: 781 lb		Maximum load: 781 lb			
Adjusted load rating per 9.3.5.10.3: 676 lb		Adjusted load rating per 9.3.5.10.3: 676 lb		Adjusted load rating per 9.3.5.10.3: 676 lb		Adjusted load rating per 9.3.5.10.3: 676 lb			
Brace identification no. (to be used on plans): <input checked="" type="checkbox"/> Lateral brace <input type="checkbox"/> Longitudinal brace		Brace identification no. (to be used on plans): <input type="checkbox"/> Lateral brace <input checked="" type="checkbox"/> Longitudinal brace		Brace identification no. (to be used on plans): <input checked="" type="checkbox"/> Lateral brace <input type="checkbox"/> Longitudinal brace		Brace identification no. (to be used on plans): <input type="checkbox"/> Lateral brace <input checked="" type="checkbox"/> Longitudinal brace			
Sprinkler System Load Calculation (Fpw = CpWp) Cp = 0.50		Sprinkler System Load Calculation (Fpw = CpWp) Cp = 0.50		Sprinkler System Load Calculation (Fpw = CpWp) Cp = 0.50		Sprinkler System Load Calculation (Fpw = CpWp) Cp = 0.50			
Diameter: 4"	Type: SCH. 10	Length (ft): 40 ft	Weight per ft: 11.78 lb/ft	Weight: 471.20 lb	Diameter: 4"	Type: SCH. 10	Length (ft): 80 ft	Weight per ft: 11.78 lb/ft	Weight: 942.40 lb
Subtotal weight		471.20 lb		Subtotal weight		942.40 lb		Subtotal weight	
Wp (incl. 15%)		541.88 lb		Wp (incl. 15%)		1083.76 lb		Wp (incl. 15%)	
Cp (0.50) x Wp (541.88) = Total (Fpw)		270.94 lb		Cp (0.50) x Wp (1083.76) = Total (Fpw)		541.88 lb		Cp (0.50) x Wp (1059.38) = Total (Fpw)	
MAXIMUM (Fpw) PER NFPA 13 2013 ED. 9.3.5.2 (IF APPLICABLE)		N/A		MAXIMUM (Fpw) PER NFPA 13 2013 ED. 9.3.5.2 (IF APPLICABLE)		N/A		MAXIMUM (Fpw) PER NFPA 13 2013 ED. 9.3.5.2 (IF APPLICABLE)	

### SEISMIC CRITERIA:

PER 2013 CBC  
IMPORTANCE FACTOR = 1  
SITE CLASS C  
RISK CATEGORY II  
SEISMIC DESIGN CATEGORY D  
SYSTEM OVERSTRENGTH FACTOR: Co = 2.5  
Ss = 0.74 Sds = 0.817  
S1 = 0.21 Sd1 = 0.334

CONCRETE POODUM STRUCTURE  
SEISMIC LOAD RESISTING SYSTEM: SLRS = B4-SPECIAL  
REINFORCED CONCRETE SHEAR WALL  
SYSTEM MODIFICATION COEFFICIENT: 6.0  
SEISMIC BASE SHEAR Cs = 0.136W

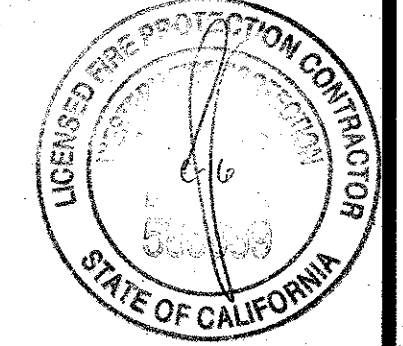
LIGHTGAUGE LOAD BEARING STRUCTURE  
R (STEEL SPECIAL CONCENTRICALLY BRACED FRAMES):  
Cd = 6.0  
Cd = 5.0  
Co = 2.0

Table 9.3.5.6.2 SEISMIC COEFFICIENT TABLE

Ss	Cp
0.33 or LESS	0.31
0.50	0.40
0.75	0.43
0.95	0.50
1.00	0.52
1.25	0.60
1.50	0.71
2.00	0.95
2.40	1.14
3.00	1.43

OFFICE OF THE STATE FIRE MARSHAL  
APPROVED FOR FIRE MARSHAL USE ONLY  
Reviewed by: [Signature]  
DATE: APR 27 2016





SUBMITTAL SCHEDULE:

SCHEMATIC DESIGN	04/17/2014
50% PRELIM. DESIGN	05/14/2014
100% PRELIM. DESIGN	05/28/2014
50% CONST. DOCS.	07/02/2014
95% CONST. DOCS.	08/07/2014
100% BACKCHECK	11/10/2014
100% BACKCHECK 2	01/29/2015
100% BACKCHECK 3	03/20/2015
ASI #007	07/28/2015
ASI - 011	11/6/2015
SFM Resubmittal #3	3/3/2016

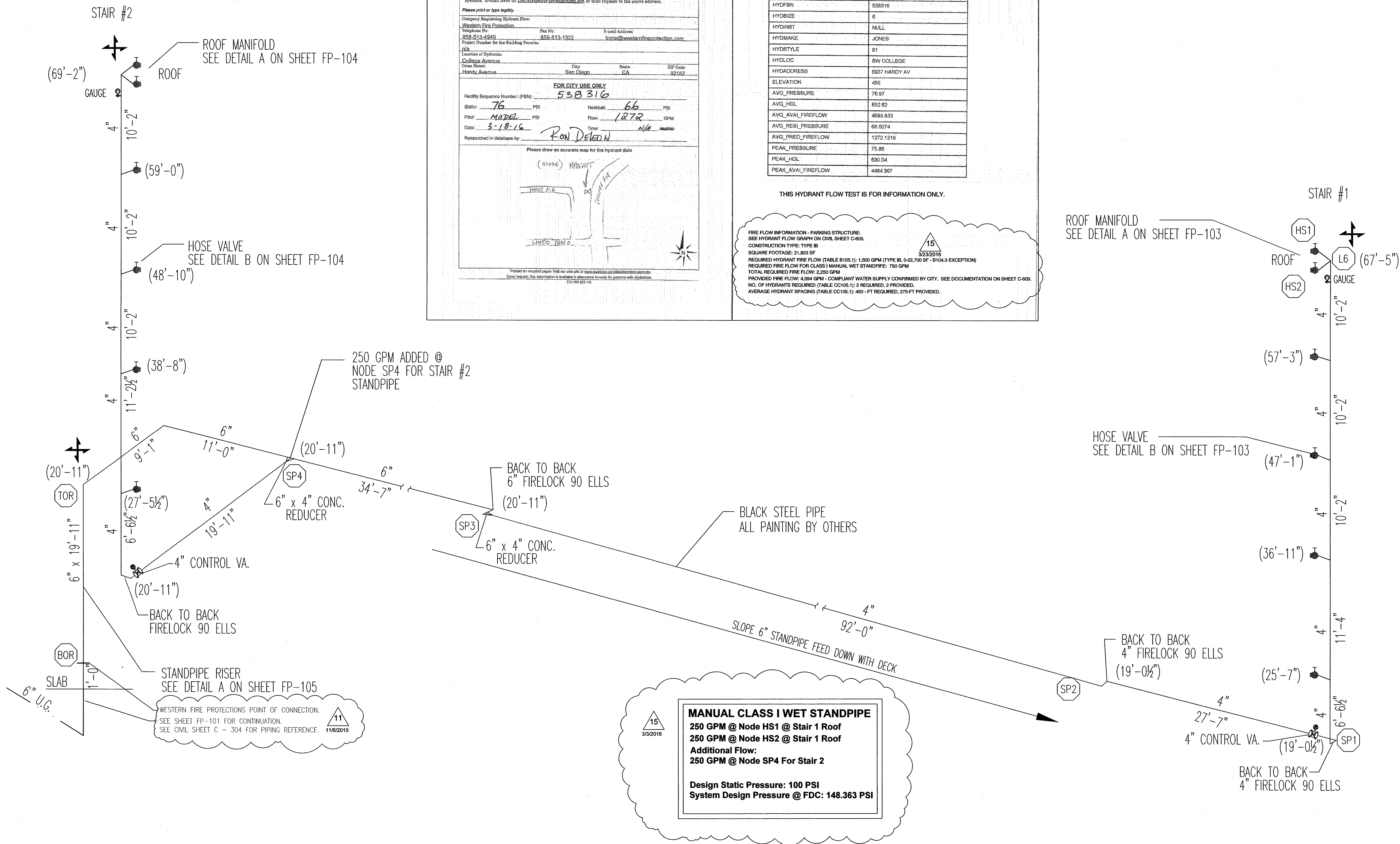
**Hydrant Flow Request DS-160**

HYDNAME	HS38316
X	6309596
Y	1661851
HYDFSN	538316
HYDSIZE	6
HYDNST	NULL
HYDMAKE	JONES
HYDSTYLE	81
HYDLOC	SW COLLEGE
HYDADDRESS	5937 HARDY AV
ELEVATION	455
AVG. PRESSURE	76.97
AVG. HGL	632.82
AVG. AVAL FIREFLOW	4583.833
AVG. REBL. PRESSURE	66.6074
AVG. PRED. FIREFLOW	1272.1219
PEAK. PRESSURE	75.86
PEAK. HGL	630.04
PEAK. AVAL FIREFLOW	4484.967

FOR CITY USE ONLY  
Facility Sequence Number (FSN): 538316  
Station: 76 PFI Residual: 66 PSI  
Pipe: MODEL PSI Flow: 1.272 GPM  
Date: 3-18-16 Time: N/A  
Resubmitted in database by: Ron DeLeon

THIS HYDRANT FLOW TEST IS FOR INFORMATION ONLY.

FIRE FLOW INFORMATION - PARKING STRUCTURE:  
SEE HYDRANT FLOW GRAPH ON CIVIL SHEET C-609.  
CONSTRUCTION TYPE: TYPE B  
SQUARE FOOTAGE: 21,823 SF  
REQUIRED HYDRANT FIRE FLOW (TABLE B105.1): 1,500 GPM (TYPE B, 0-22,700 SF - B104.3 EXCEPTION)  
REQUIRED FIRE FLOW FOR CLASS I MANUAL WET STANDPIPE: 750 GPM  
TOTAL REQUIRED FIRE FLOW: 2,250 GPM  
PROVIDED FIRE FLOW: 4,894 GPM - COMPLIANT WATER SUPPLY CONFIRMED BY CITY. SEE DOCUMENTATION ON SHEET C-609.  
NO. OF HYDRANTS REQUIRED (TABLE CCI05.1): 2 REQUIRED; 2 PROVIDED.  
AVERAGE HYDRANT SPACING (TABLE CCI05.1): 450 - FT REQUIRED; 275-FT PROVIDED.

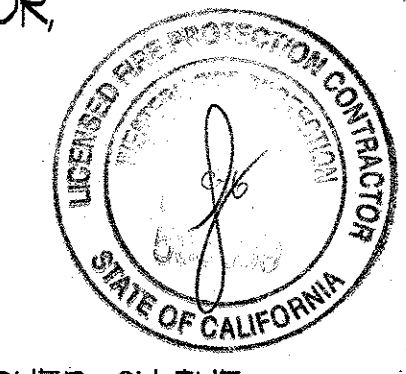


**MANUAL CLASS I WET STANDPIPE**  
250 GPM @ Node HS1 @ Stair 1 Roof  
250 GPM @ Node HS2 @ Stair 1 Roof  
Additional Flow:  
250 GPM @ Node SP4 For Stair 2  
Design Static Pressure: 100 PSI  
System Design Pressure @ FDC: 148.363 PSI

1 FIRE PROTECTION STANDPIPE ISOMETRIC SCHEMATIC PLAN  
FP-102|FP-102 SCALE: 1/4" = 1'-0"  
SCHEMATIC DRAWING FOR HYDRAULIC CALCULATION REFERENCE ONLY.

OFFICE OF THE STATE FIRE MARSHAL  
APPROVED FIRE ALARM PLAN ONLY  
Reviewed by: Bradley Obenich, USFM  
APR 27 2016  
Approval of this plan does not authorize or approve any omission or deviation from applicable regulations. Final approval is subject to final inspection. One set of approved plans shall be available on the project site at all times.





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SUNDT CONSTRUCTION  
SAN DIEGO, CALIFORNIA

SAN DIEGO STATE UNIVERSITY  
SAN DIEGO, CA

SOUTH CAMPUS PLAZA DESIGN-BUILD PARKING STRUCTURE  
SAN DIEGO STATE UNIVERSITY

SUBMITTAL SCHEDULE:

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100% BACKCHECK 3	03/20/2015
ASI - 007	07/28/2015
ASI - 011	11/6/2015
SFM Resubmittal #3	3/3/2016

PROJECT NO: 21305-G-50

STAIR #1  
STANDPIPE  
PLANS

FP-103

### FLEX COUPLINGS

NFPA 13 (2013 ed.) SECTION 9.2.5.4 - MULTISTORY BUILDINGS  
9.2.5.1 - IN MULTISTORY BUILDINGS, RISER SUPPORTS SHALL BE PROVIDED AT THE LOWEST LEVEL, AT EACH ALTERNATE LEVEL ABOVE, ABOVE AND BELOW OFFSETS, AND AT THE TOP OF THE RISER.

NFPA 13 (2013 ed.) SECTION 9.3.4 CLEARANCE  
SECTION 9.3.4.5 NO CLEARANCE SHALL BE REQUIRED IF FLEXIBLE COUPLINGS ARE LOCATED WITHIN 1 FOOT OF EACH SIDE OF A WALL, FLOOR, PLATFORM, OR FOUNDATION.

### SWAY BRACING OF RISERS

NFPA 13 (2013 ed.) SECTION 9.3.5.8.3  
WHEN A FOUR-WAY BRACE AT THE TOP OF A RISER IS ATTACHED ON THE HORIZONTAL PIPING, IT SHALL BE WITHIN 24 IN. OF THE CENTERLINE OF THE RISER AND THE LOADS FOR THAT BRACE SHALL INCLUDE BOTH THE VERTICAL AND HORIZONTAL PIPE.

NFPA 13 (2013 ed.) SECTION 9.3.5.8.5  
FOUR-WAY BRACING SHALL NOT BE REQUIRED WHERE RISERS PENETRATE INTERMEDIATE FLOORS IN MULTISTORY BUILDINGS WHERE THE CLEARANCE DOES NOT EXCEED THE LIMITS OF 9.3.4.

NFPA 14 (2013 ed.) SECTION 13.11 - LOCATION OF HOSE VALVES  
HOSE CONNECTIONS AND HOSE STATIONS SHALL BE UNOBSTRUCTED AND SHALL BE LOCATED NOT LESS THAN 3 FT. OR MORE THAN 5 FT. ABOVE THE FLOOR.

NFPA 14 (2013 ed.) SECTION 4.10  
SIGNS:  
SIGNS SHALL BE PERMANENTLY MARKED AND SHALL BE CONSTRUCTED OF WEATHER-RESISTANT METAL OR RIGID PLASTIC MATERIAL.

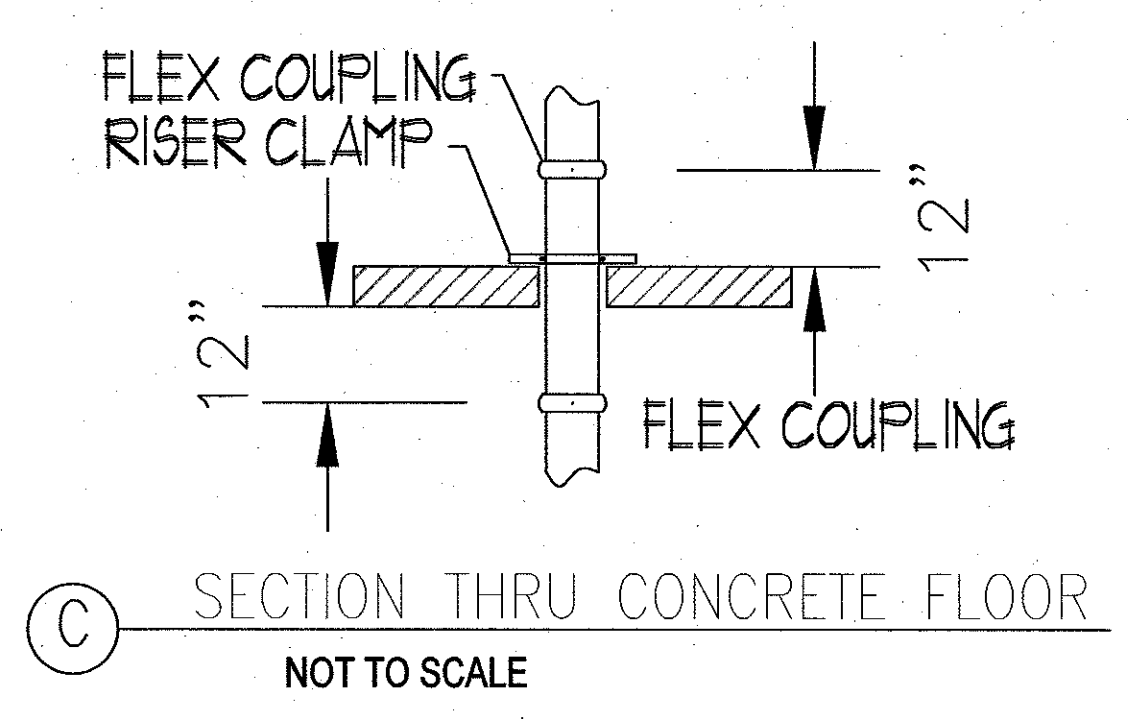
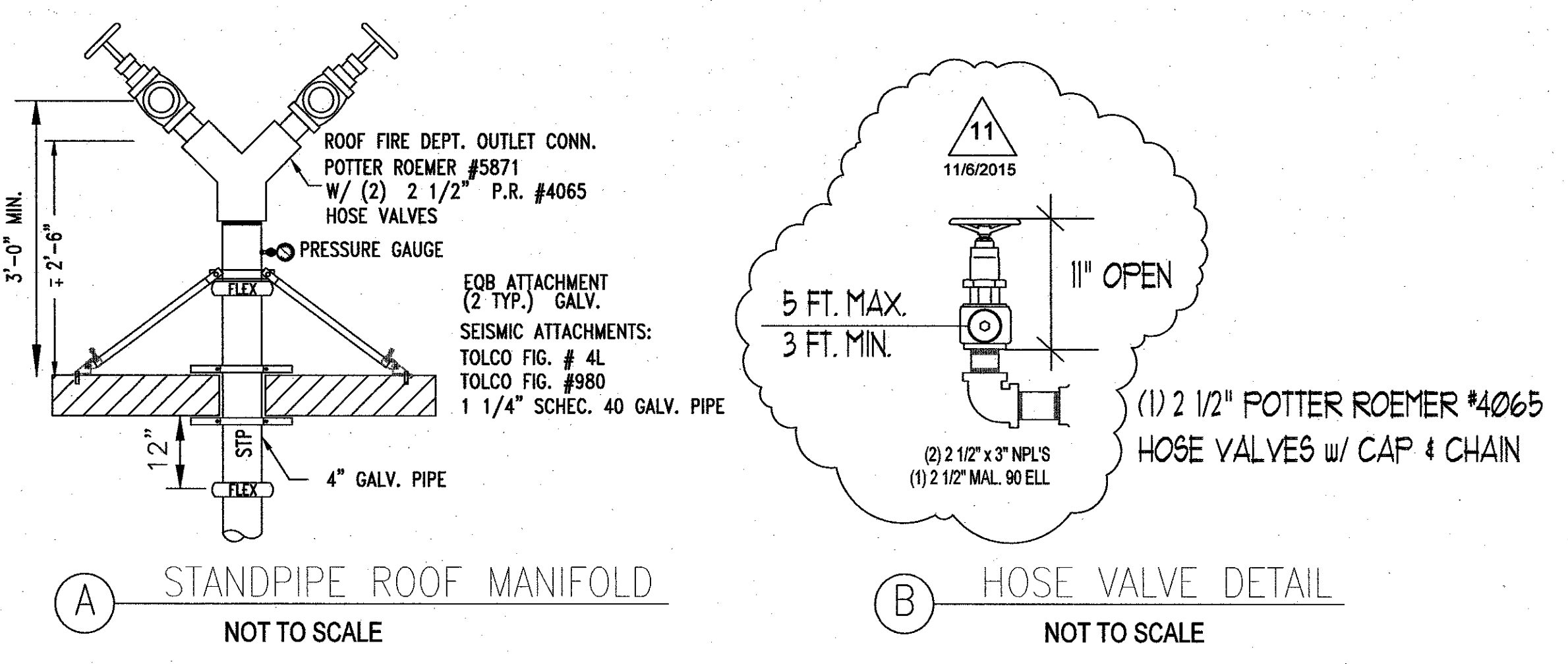
WET  
STANDPIPE  
FOR FIRE  
DEPARTMENT  
USE ONLY

FIRE  
HOSE  
CONNECTION

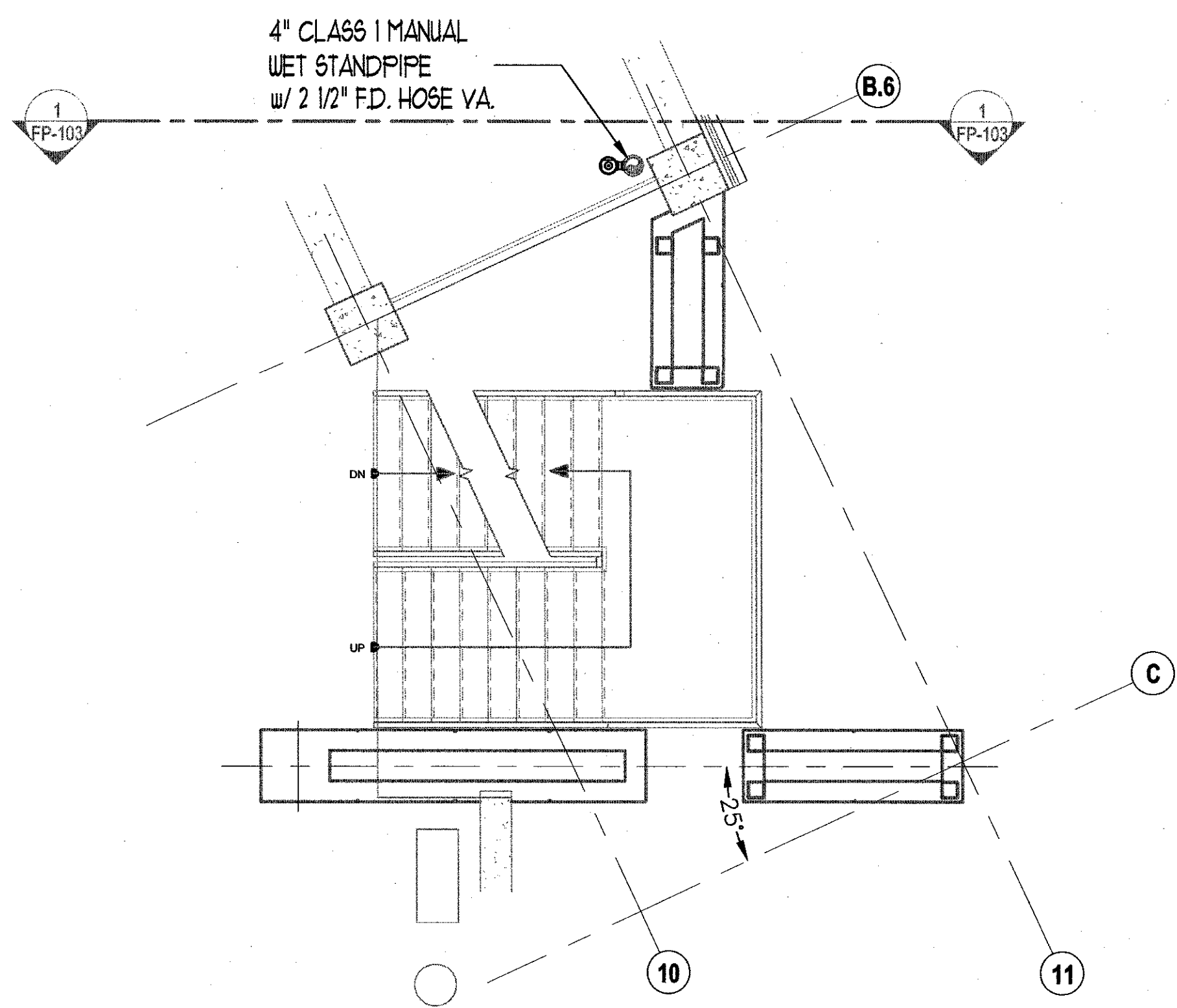
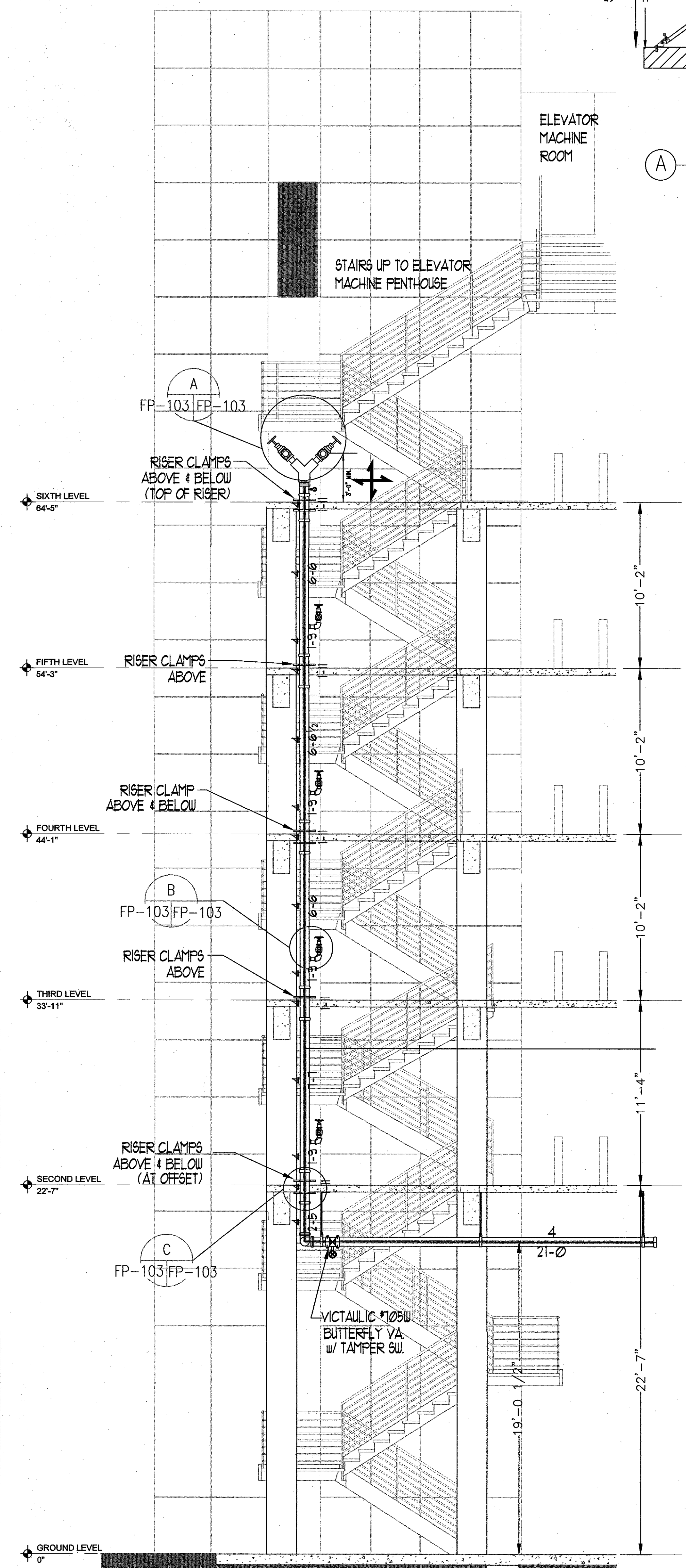
OFFICE OF THE STATE FIRE MARSHAL  
APPROVED FIRE PLAN ONLY  
Reviewed by: [Signature]

APR 27 2016

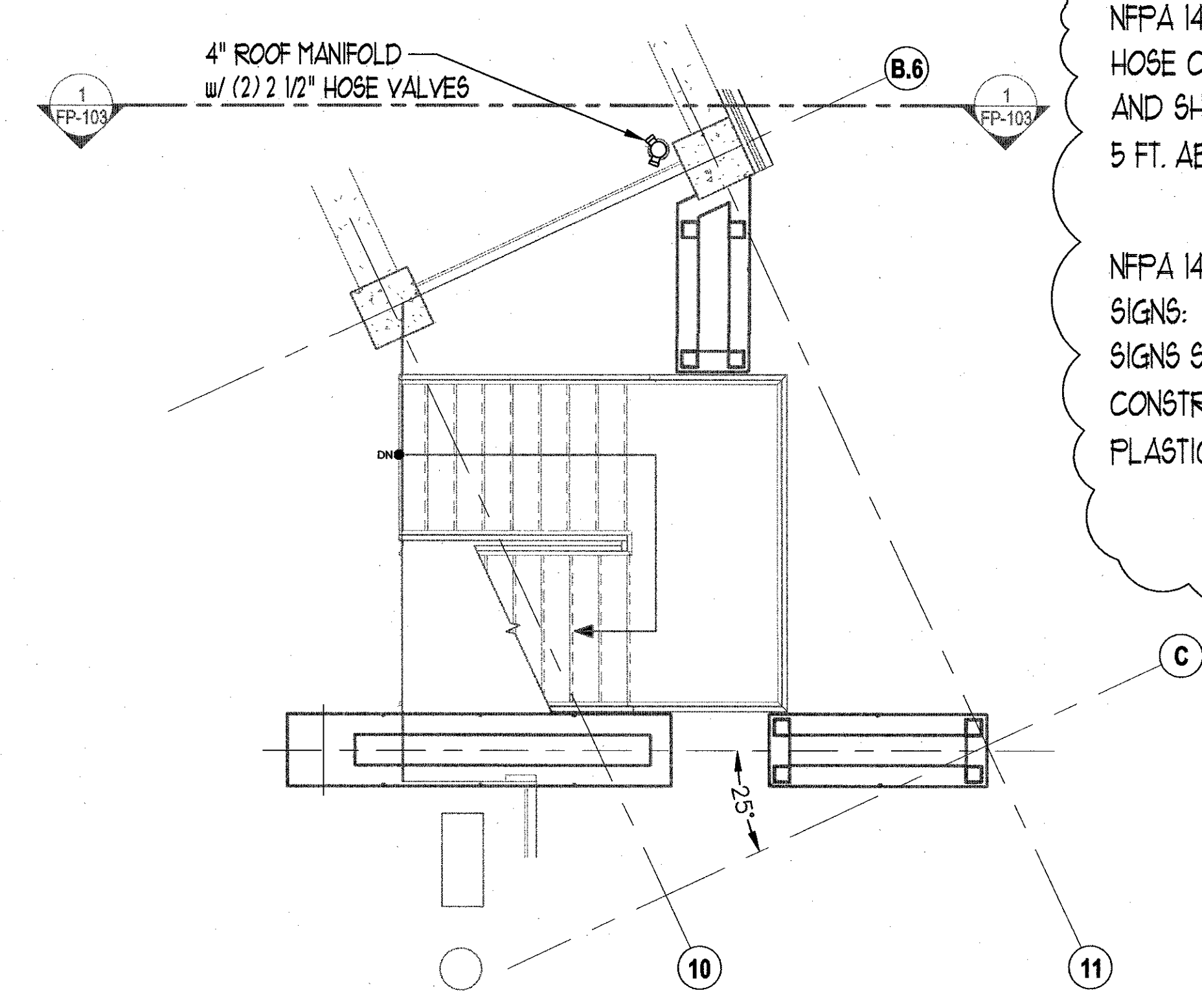
Approval of this plan does not constitute or approve any construction or deviation from applicable regulations. Field approval is subject to field inspection. One set of approved plans shall be available on the project site at all times.



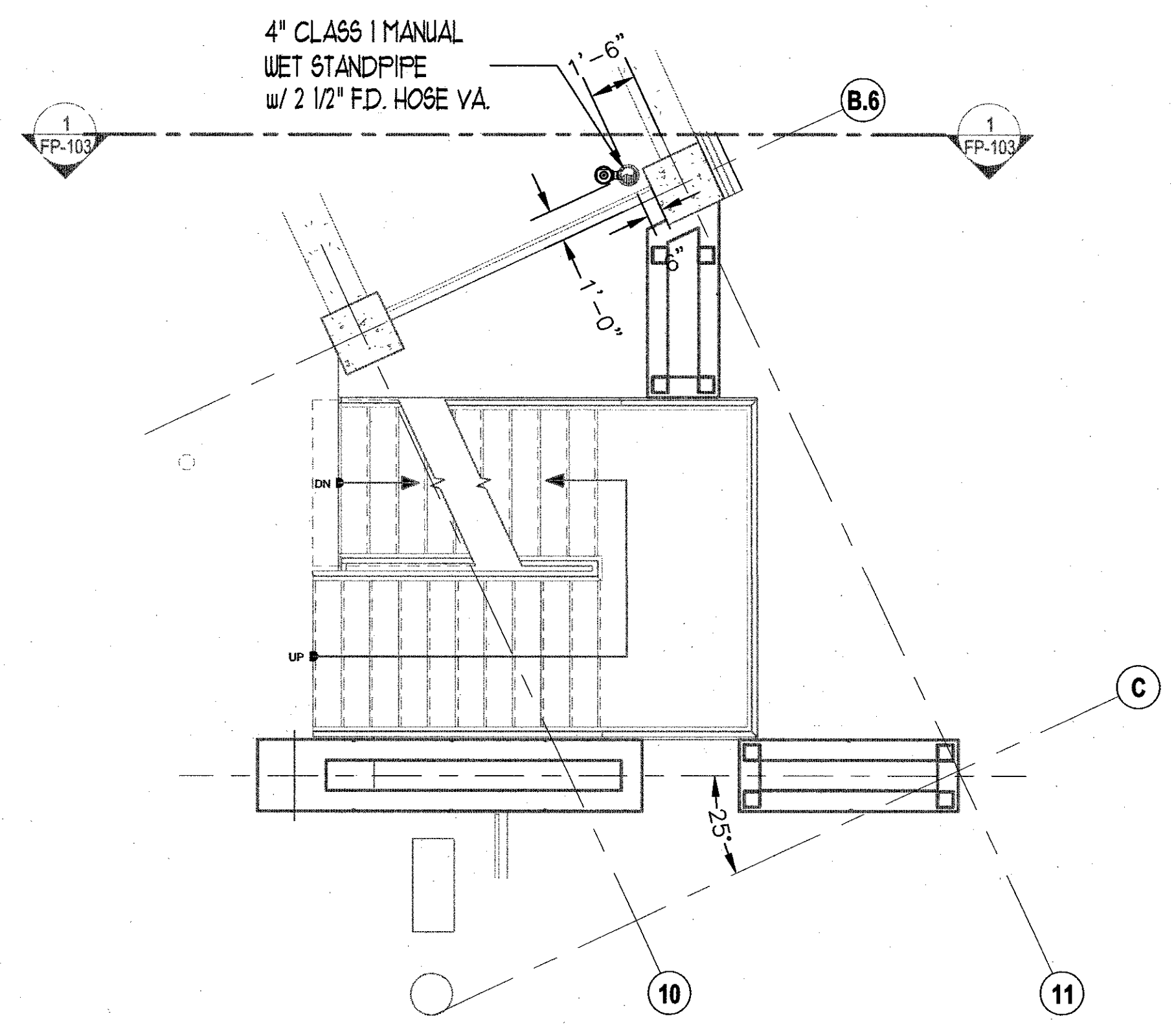
FLEX COUPLINGS REQUIRED WITHIN 12" ABOVE AND 24" BELOW THE FLOOR IN MULTI-STORY BUILDINGS.



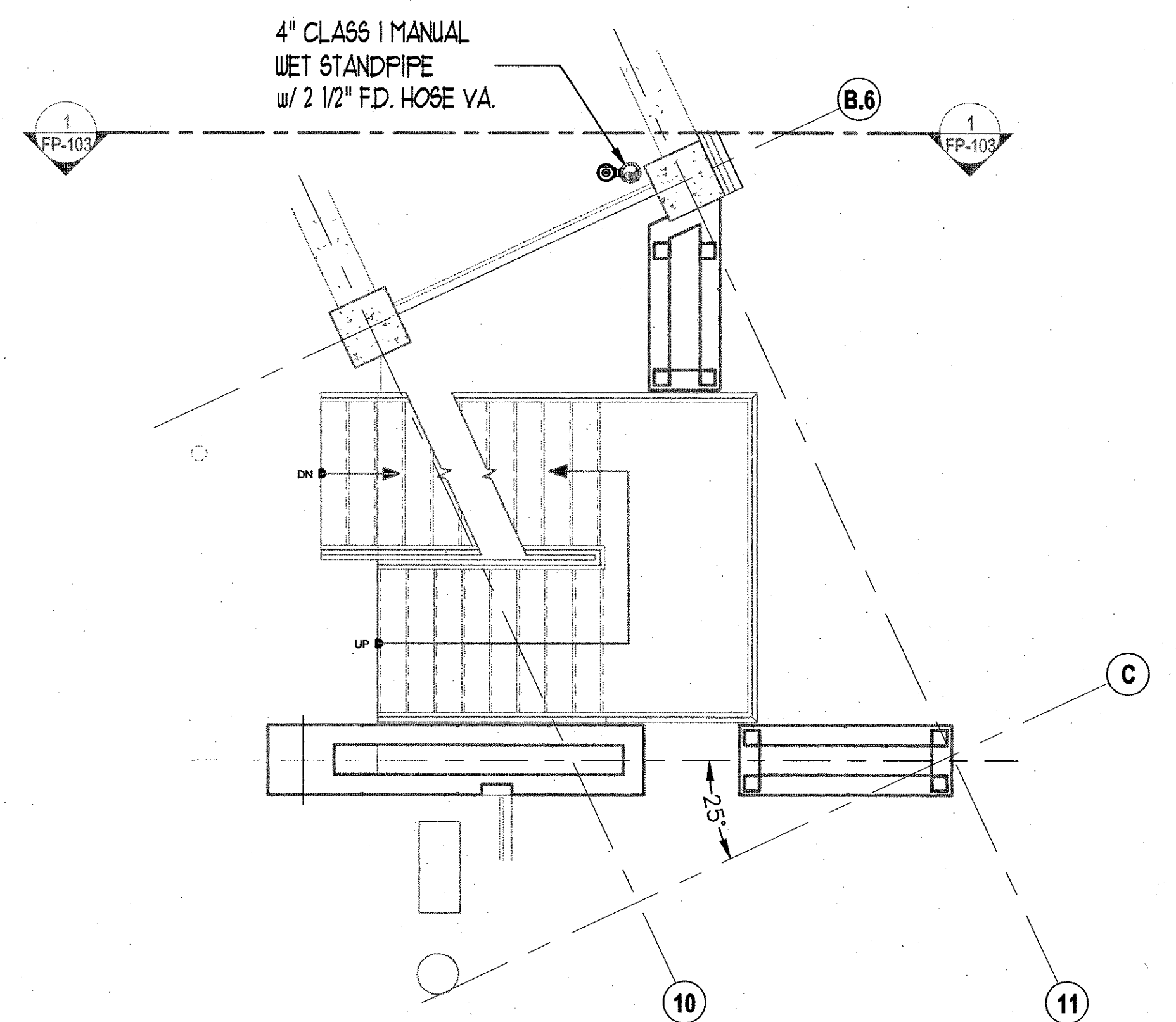
4 LEVEL 4-5 STP w/ HOSE VALVE  
 SCALE 1/4"=1'-0"



5 LEVEL 6/ROOF STP w/ HOSE VALVE  
 SCALE 1/4"=1'-0"



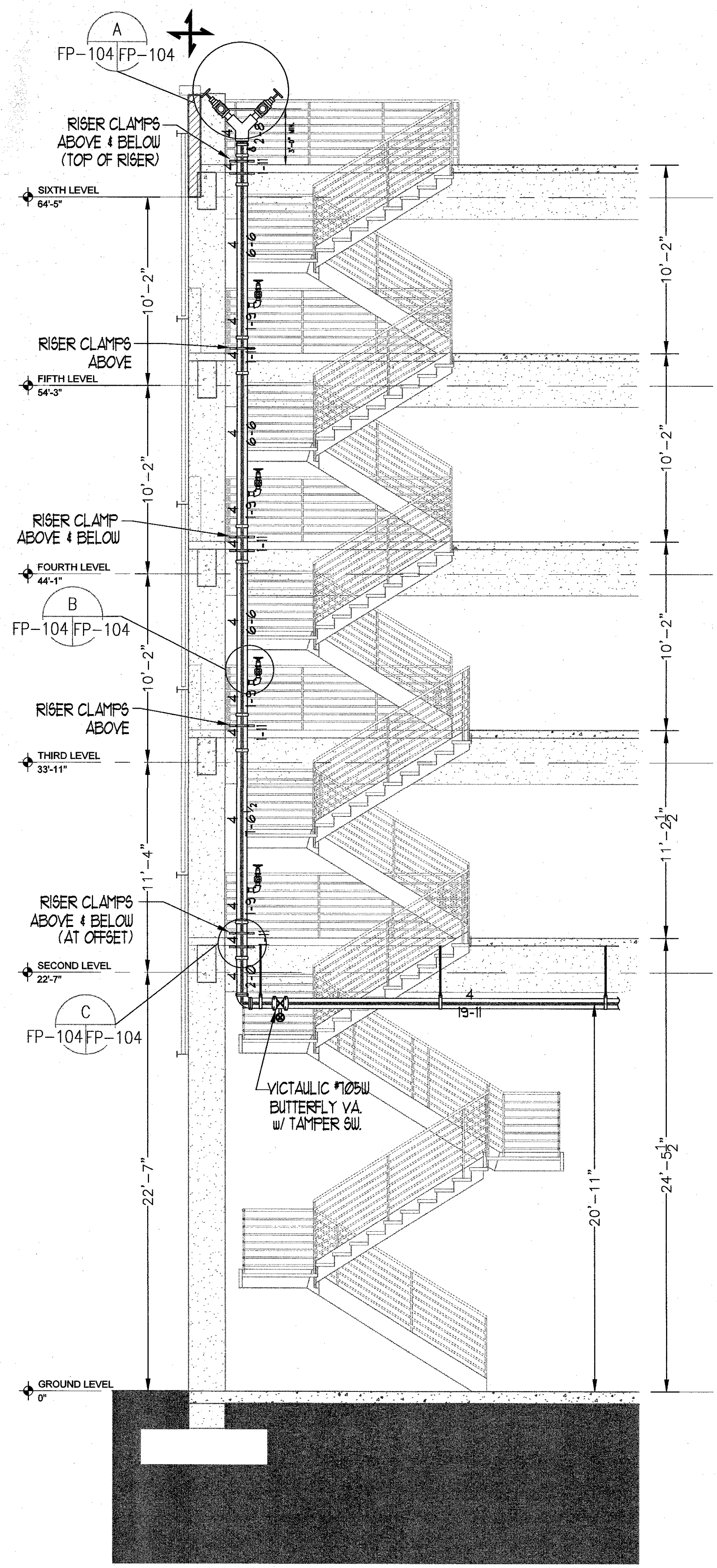
2 LEVEL 2 STP w/ HOSE VALVE  
 SCALE 1/4"=1'-0"



3 LEVEL 3 STP w/ HOSE VALVE  
 SCALE 1/4"=1'-0"

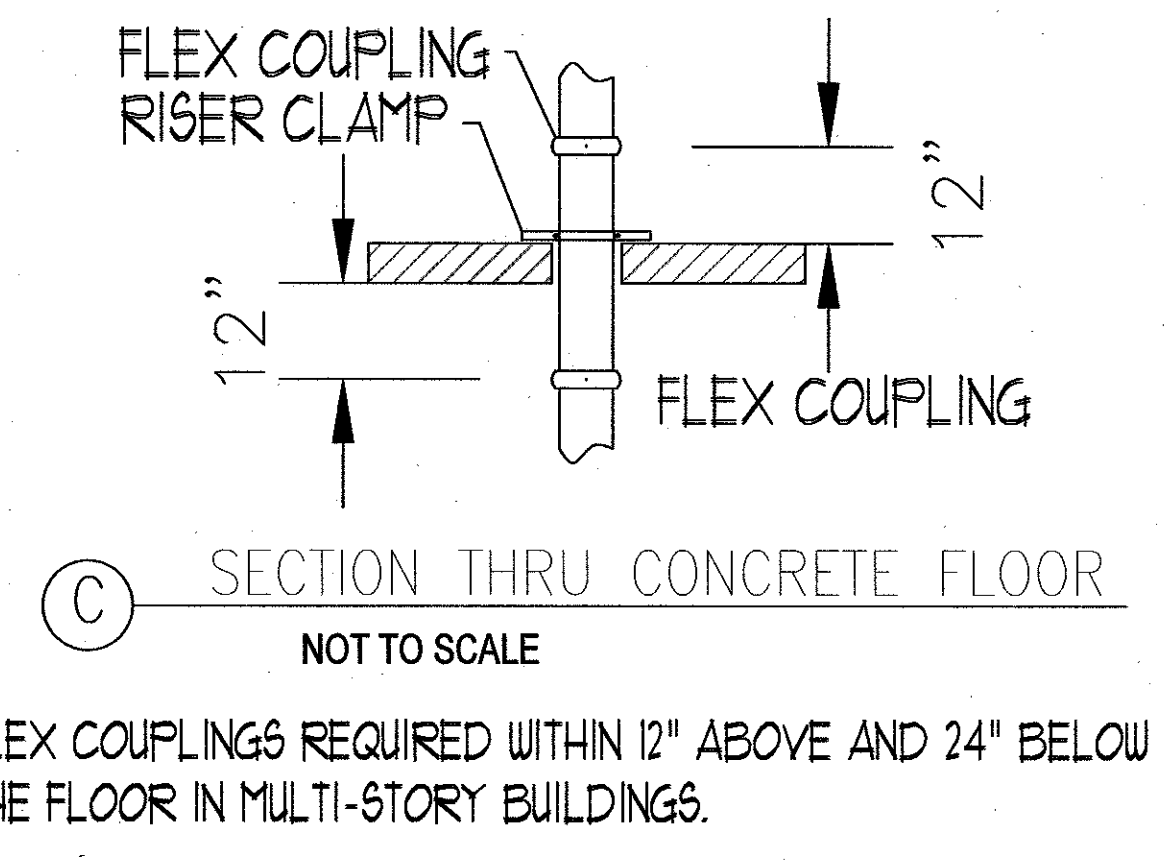
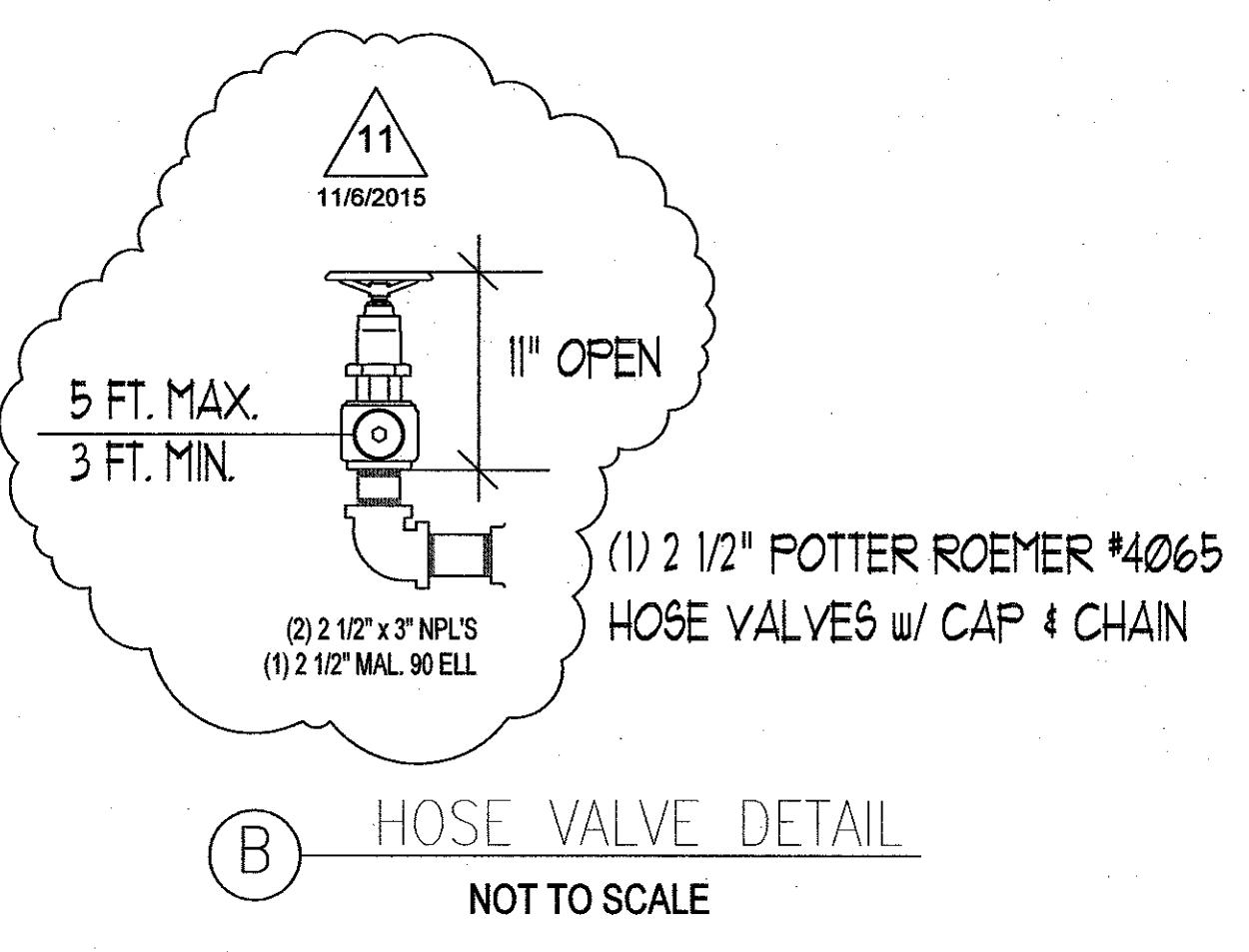
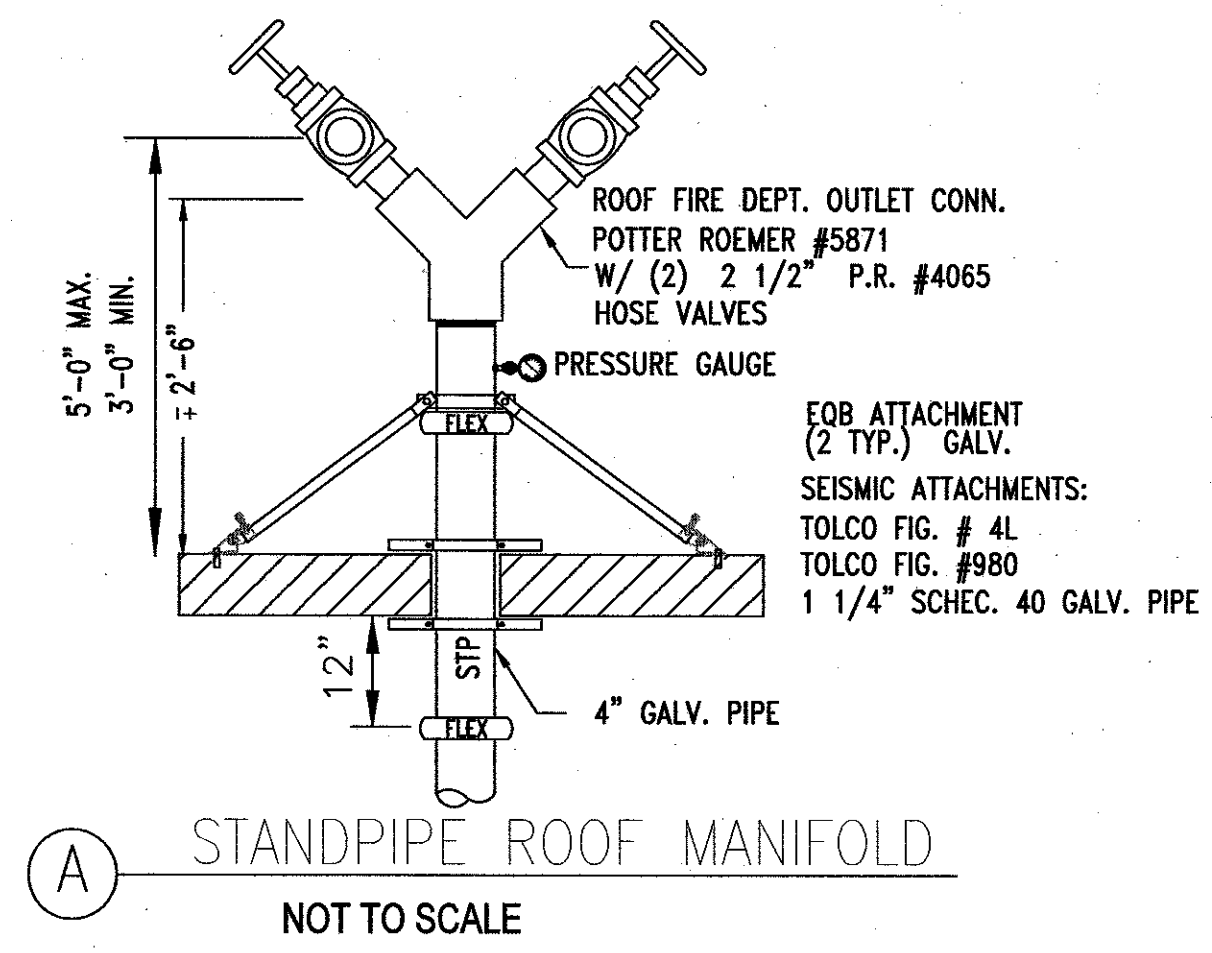
1 HOSE VALVES ARE NOT REQUIRED ON LEVEL 1  
 STAIR 2 STANDPIPE SECTION  
 FP-103 FP-103 SCALE 1/4"=1'-0"



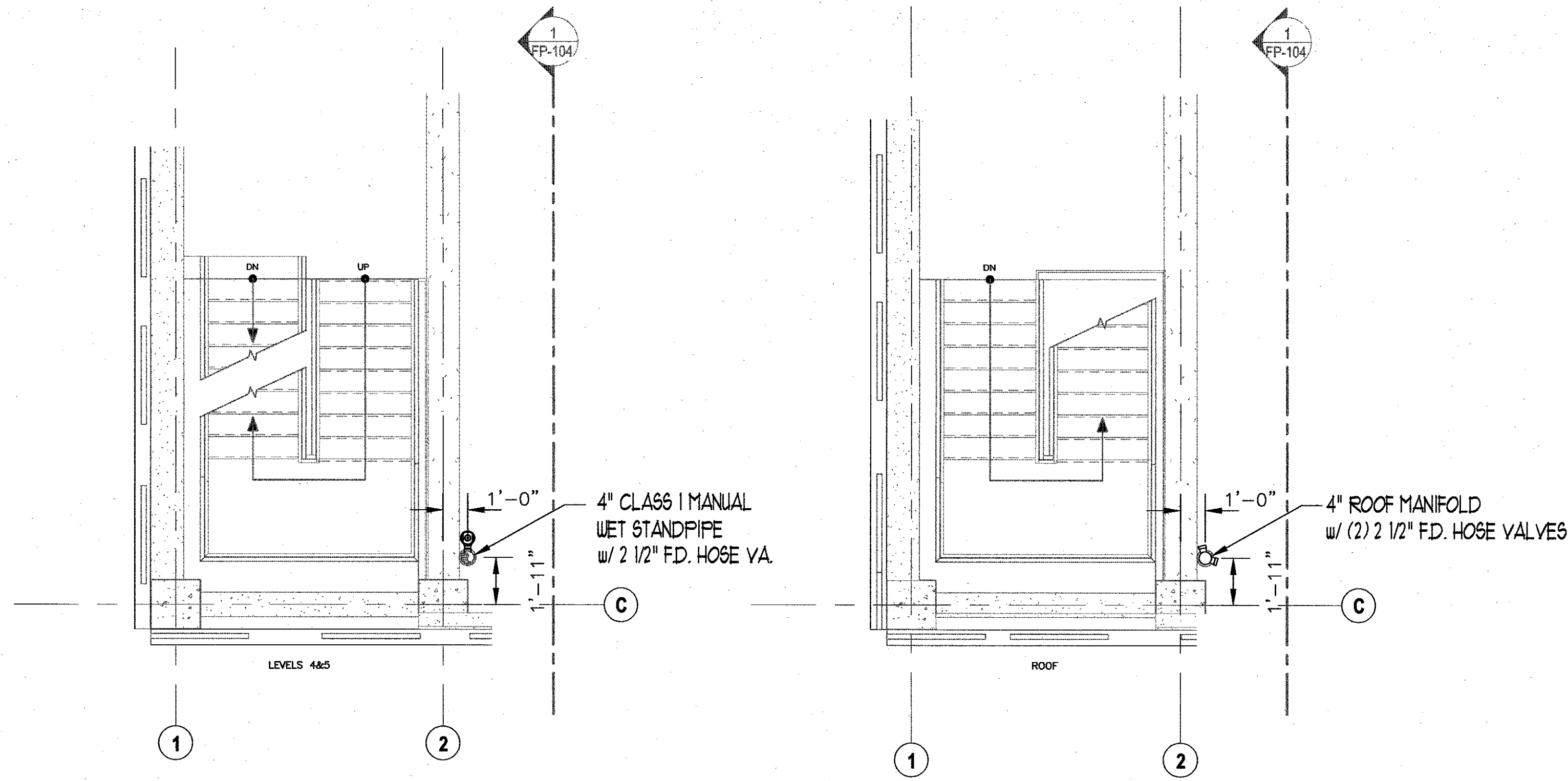


HOSE VALVES ARE NOT REQUIRED ON LEVEL 1

1 STAIR 2 STANDPIPE SECTION  
FP-104|FP-104 SCALE: 1/4" = 1'-0"

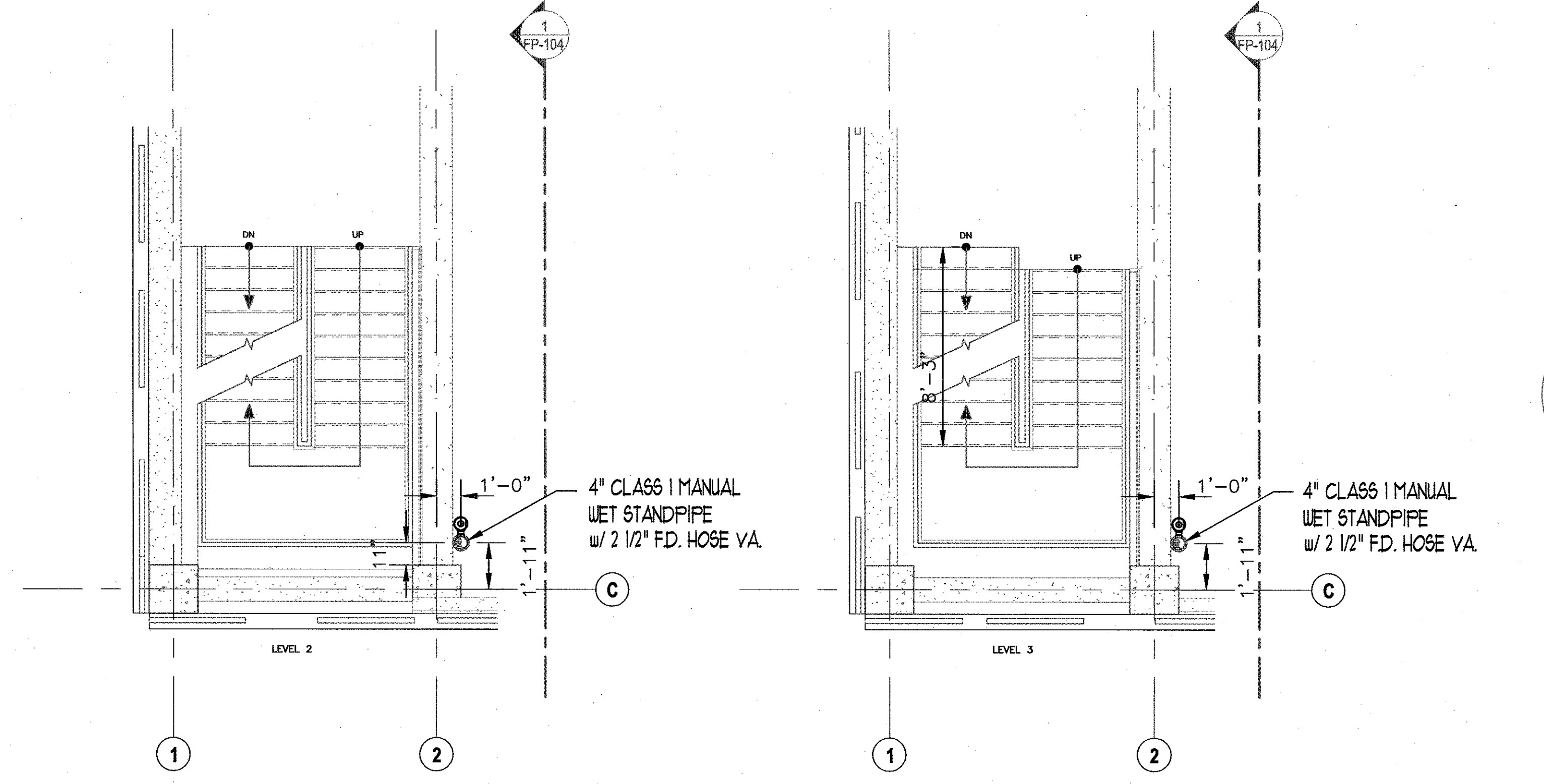


FLEX COUPLINGS REQUIRED WITHIN 12" ABOVE AND 24" BELOW THE FLOOR IN MULTI-STORY BUILDINGS.



4 LEVEL 4-5 STP w/ HOSE VALVE  
SCALE 1/4"=1'-0"

5 LEVEL 6/ROOF STP w/ HOSE VALVE  
SCALE 1/4"=1'-0"



2 LEVEL 2 STP w/ HOSE VALVE  
SCALE 1/4"=1'-0"

3 LEVEL 3 STP w/ HOSE VALVE  
SCALE 1/4"=1'-0"

FLEX COUPLINGS  
NFPA 13 (2013 ed.) SECTION 9.2.5.4 - MULTISTORY BUILDINGS  
9.2.5.1 - IN MULTISTORY BUILDINGS, RISER SUPPORTS SHALL BE PROVIDED AT THE LOWEST LEVEL, AT EACH ALTERNATE LEVEL ABOVE, ABOVE AND BELOW OFFSETS, AND AT THE TOP OF THE RISER.

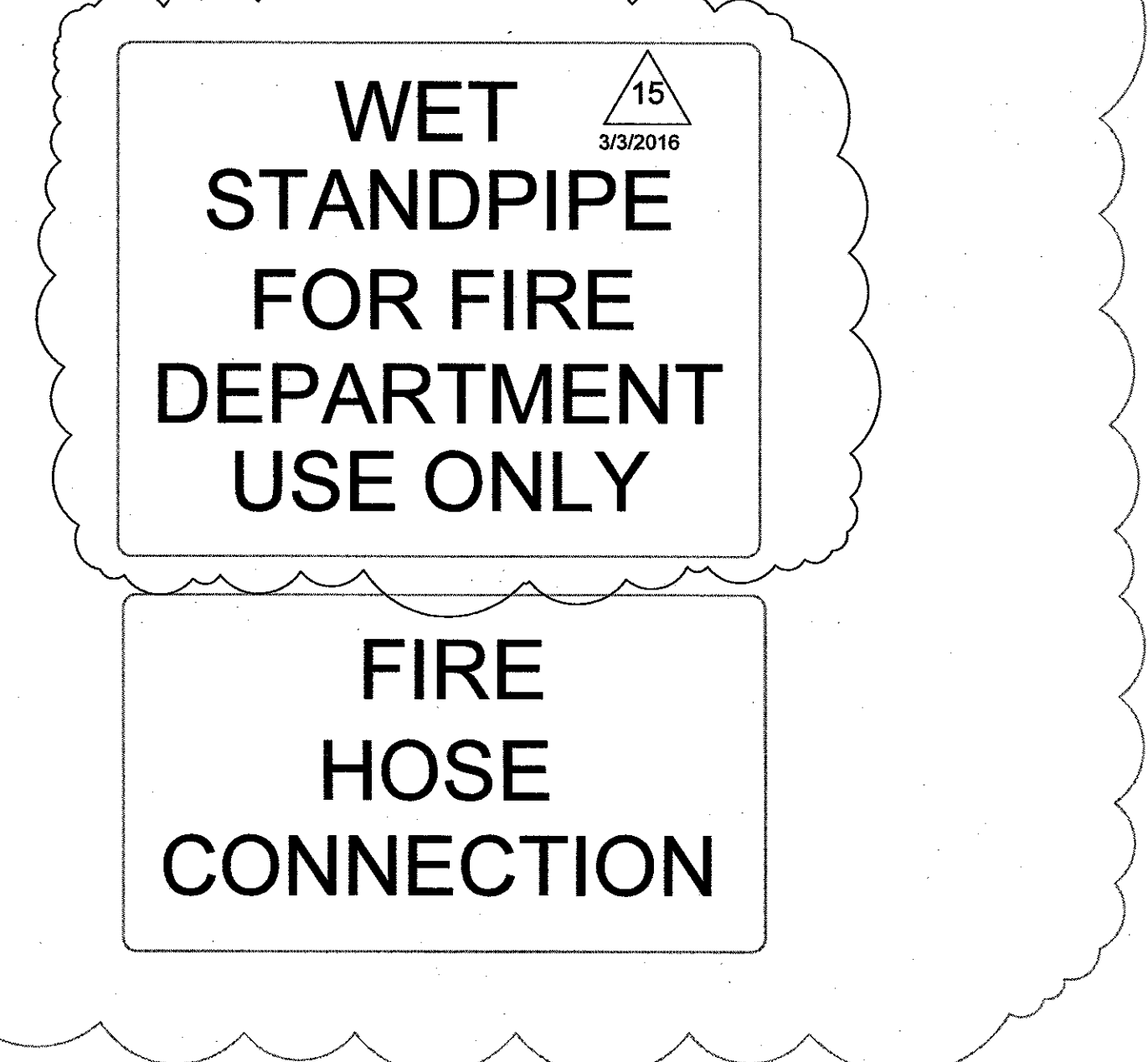
NFPA 13 (2013 ed.) SECTION 9.3.4 CLEARANCE  
SECTION 9.3.4.5 NO CLEARANCE SHALL BE REQUIRED IF FLEXIBLE COUPLINGS ARE LOCATED WITHIN 1 FOOT OF EACH SIDE OF A WALL, FLOOR PLATFORM, OR FOUNDATION.

SWAY BRACING OF RISERS  
NFPA 13 (2013 ed.) SECTION 9.3.5.8.3  
WHEN A FOUR-WAY BRACE AT THE TOP OF A RISER IS ATTACHED ON THE HORIZONTAL PIPING, IT SHALL BE WITHIN 24 IN. OF THE CENTERLINE OF THE RISER AND THE LOADS FOR THAT BRACE SHALL INCLUDE BOTH THE VERTICAL AND HORIZONTAL PIPE.

NFPA 13 (2013 ed.) SECTION 9.3.5.8.5  
FOUR-WAY BRACING SHALL NOT BE REQUIRED WHERE RISERS PENETRATE INTERMEDIATE FLOORS IN MULTISTORY BUILDINGS WHERE THE CLEARANCE DOES NOT EXCEED THE LIMITS OF 9.3.4.

NFPA 14 (2013 ed.) SECTION 13.1.1 - LOCATION OF HOSE VALVES  
HOSE CONNECTIONS AND HOSE STATIONS SHALL BE UNOBSTRUCTED AND SHALL BE LOCATED NOT LESS THAN 3 FT. OR MORE THAN 5 FT. ABOVE THE FLOOR.

NFPA 14 (2013 ed.) SECTION 4.10  
SIGNS:  
SIGNS SHALL BE PERMANENTLY MARKED AND SHALL BE CONSTRUCTED OF WEATHER-RESISTANT METAL OR RIGID PLASTIC MATERIAL.



**SGPA**  
ARCHITECTURE AND PLANNING  
1545 HOTEL CIR. S.  
STUDIO 200  
SAN DIEGO, CA 92108  
(P) 619.297.0131  
WWW.SGPA.COM

Western Fire Protection, Inc.  
13630 DANIELSON ST. POWAY, CA 92064  
PH: (858)513-4840 FX: (858)513-1322  
CONTRACTORS LICENSE C-16 # 588039  
Expires: 2-28-2016 CONTRACT: C-3356

SUNDT CONSTRUCTION  
SAN DIEGO, CALIFORNIA

SAN DIEGO STATE UNIVERSITY  
SAN DIEGO, CA

SOUTH CAMPUS PLAZA DESIGN-BUILD PARKING STRUCTURE  
SAN DIEGO STATE UNIVERSITY

SUBMITTAL SCHEDULE:

SCHEMATIC DESIGN	04/17/2014
50% PRELIM. DESIGN	05/14/2014
100% PRELIM. DESIGN	05/28/2014
50% CONST. DOCS.	07/02/2014
95% CONST. DOCS.	08/07/2014
100% BACKCHECK	11/10/2014
100% BACKCHECK 2	01/28/2015
100% BACKCHECK 3	03/20/2015
ASI - 007	07/28/2015
ASI - 011	11/8/2015
SFM Resubmittal #3	3/3/2016

PROJECT NO: 21305-G-50

APR 27 2016  
Approval of this plan does not authorize or approve any additions or deviations from applicable regulations. Final approval is subject to fire inspection. One set of approved plans shall be available on the project site at all times.

**STAIR #2 STANDPIPE PLANS**  
FP-104





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CONSTRUCTION  
SAN DIEGO, CALIFORNIA

SAN DIEGO  
STATE  
UNIVERSITY  
SAN DIEGO, CA

SOUTH CAMPUS PLAZA DESIGN-BUILD PARKING  
STRUCTURE  
SAN DIEGO STATE UNIVERSITY

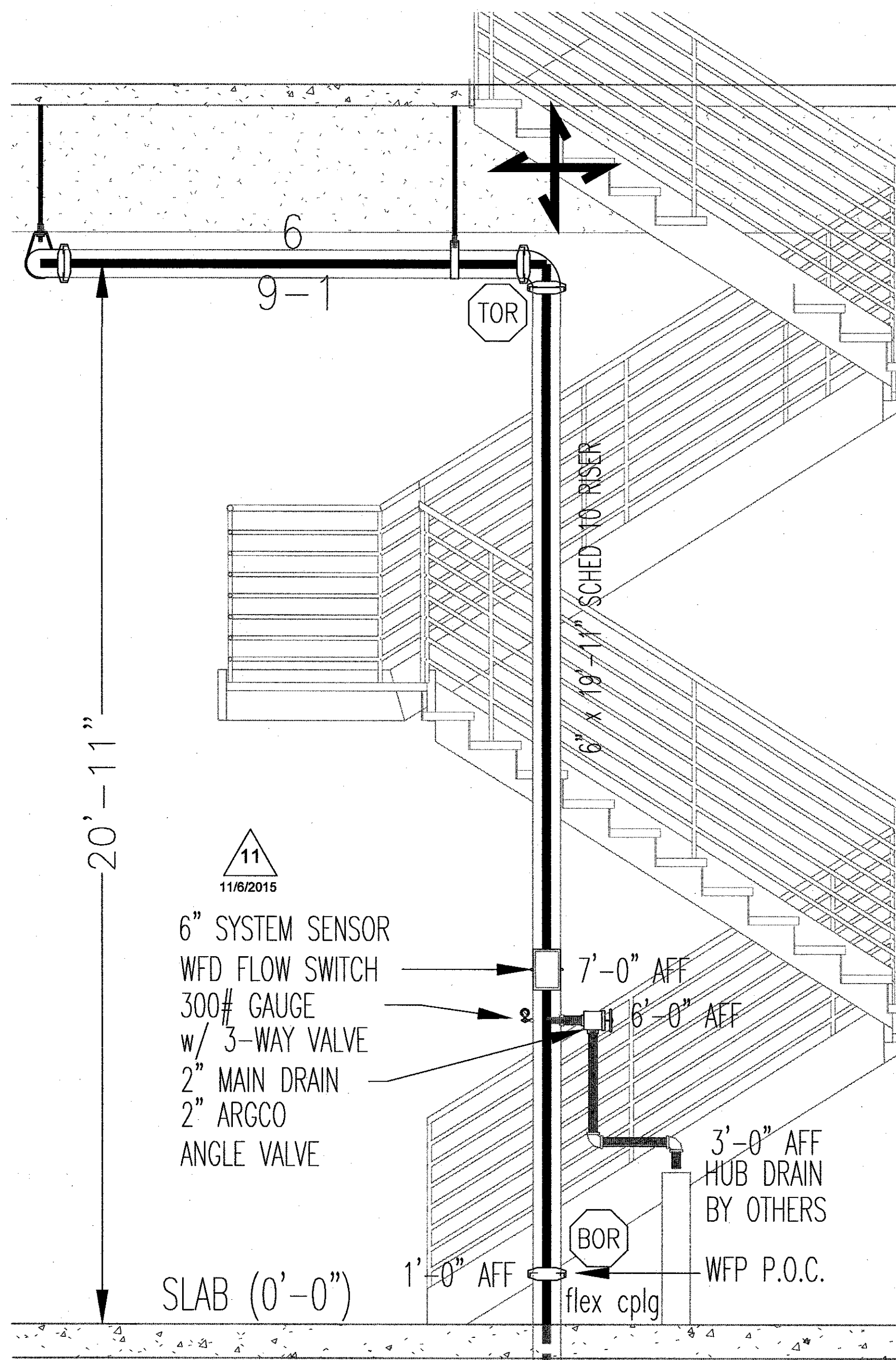
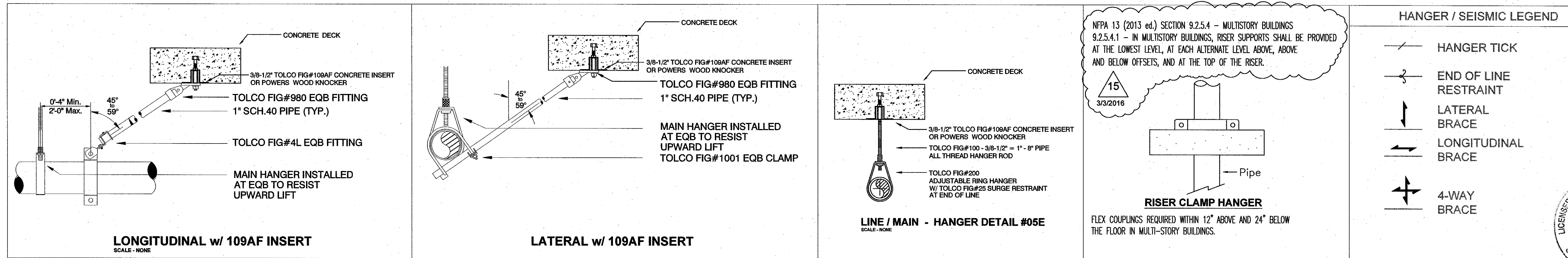
SUBMITTAL SCHEDULE:

SCHEMATIC DESIGN	04/17/2014
50% PRELIM. DESIGN	05/14/2014
100% PRELIM. DESIGN	05/28/2014
50% CONST. DOCS.	07/02/2014
95% CONST. DOCS.	08/07/2014
100% BACKCHECK	11/10/2014
100% BACKCHECK 2	01/28/2015
100% BACKCHECK 3	03/20/2015
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ASI - 011	11/18/2015
SPM Resubmittal #3	3/3/2016

PROJECT NO: 21305-G-50

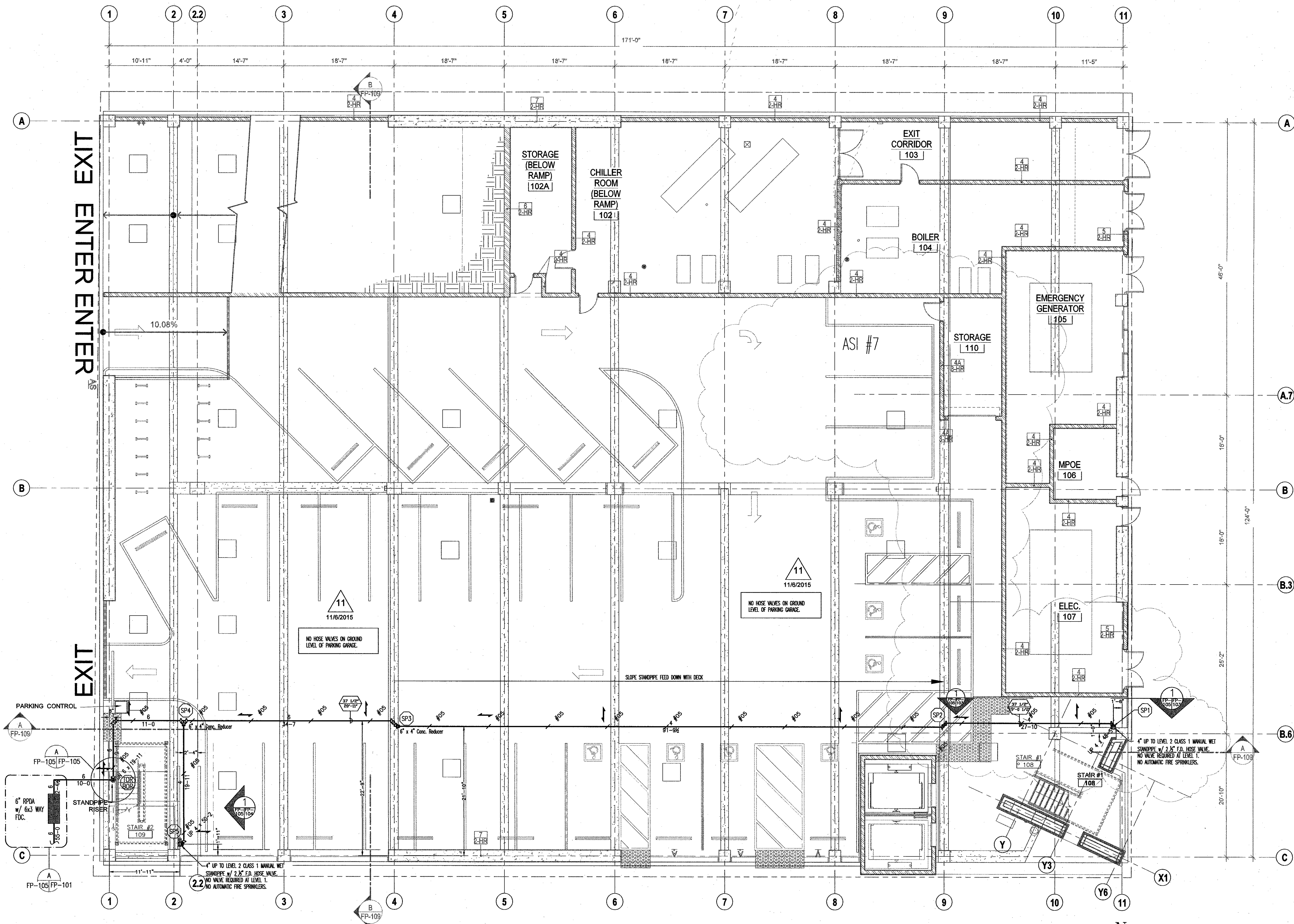
LEVEL 1  
PIPING PLAN

FP-105



SEE SHEET FP - 2 FOR  
UNDERGROUND STUB-IN DETAIL.

A STANDPIPE RISER  
FP-105|FP-105 SCALE: 1/2" = 1'-0"



1 PARKING GARAGE LEVEL 1 - CLASS 1 MANUAL WET STANDPIPE PIPING PLAN  
FP-105|FP-105 SCALE: 1/8" = 1'-0"

OFFICE OF THE STATE FIRE MARSHAL  
APPROVED FIRE MARSHAL  
Reviewed by: [Signature]  
APR 27 2016  
Approval of this plan does not authorize or approve any changes or deviation from applicable regulations. Final approval is subject to final inspection. One set of approved plans shall be available on the project site at all times.





**SUBMITTAL SCHEDULE:**

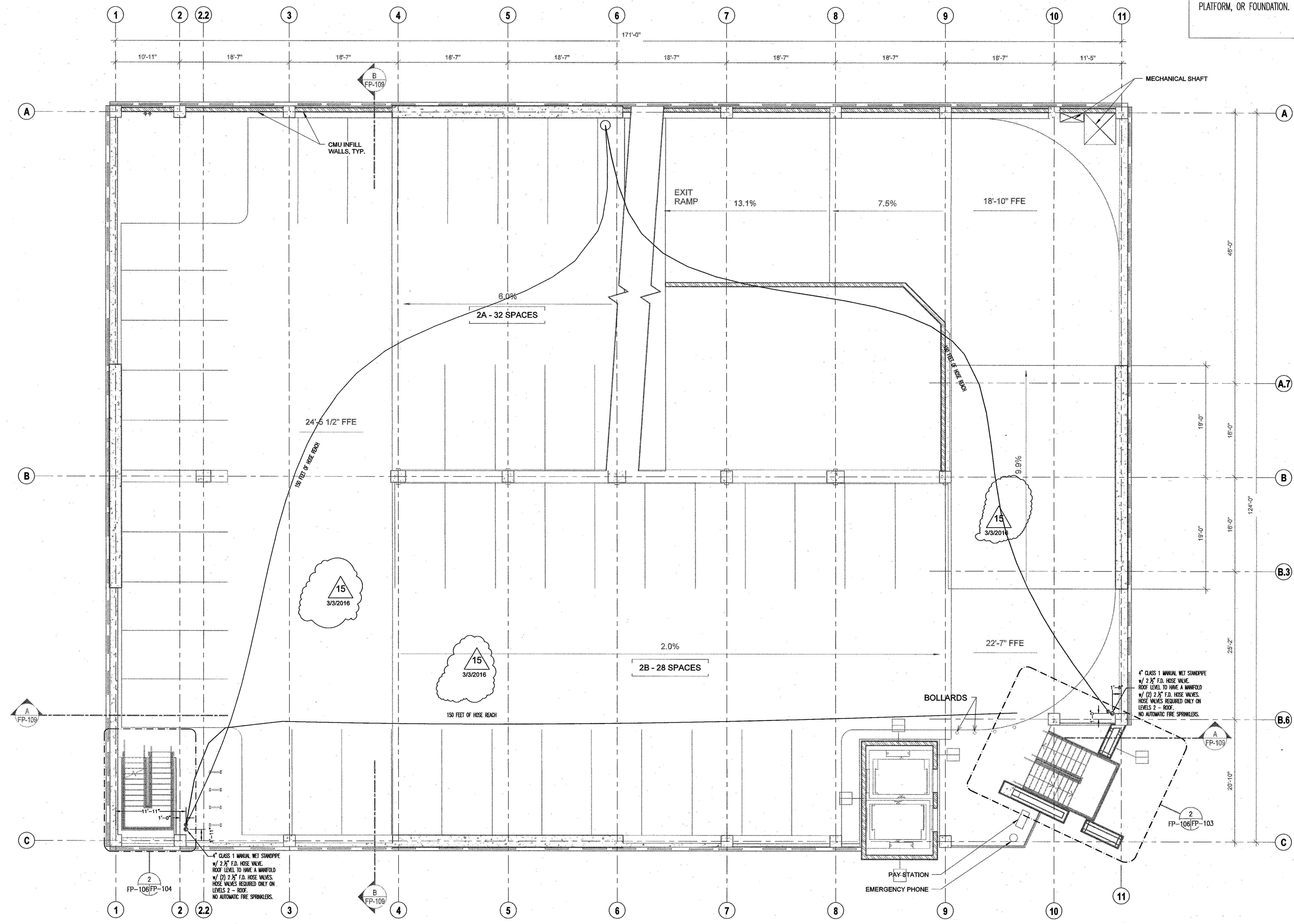
Schematic Design	04/17/2014
50% Prelim. Design	05/14/2014
100% Prelim. Design	05/28/2014
50% Const. Docs.	07/02/2014
95% Const. Docs.	08/07/2014
100% Backcheck	11/10/2014
100% Backcheck 2	01/29/2015
100% Backcheck 3	03/29/2015
ASI - 007	07/29/2015
ASI - 011	11/6/2015
SFM Resubmittal #3	3/3/2016

NFPA 13 (2013 ed.) SECTION 9.2.5.4 - MULTISTORY BUILDINGS  
9.2.5.4.1 - IN MULTISTORY BUILDINGS, RISER SUPPORTS SHALL BE PROVIDED AT THE LOWEST LEVEL, AT EACH ALTERNATE LEVEL ABOVE, ABOVE AND BELOW OFFSETS, AND AT THE TOP OF THE RISER.

**RISER CLAMP HANGER**

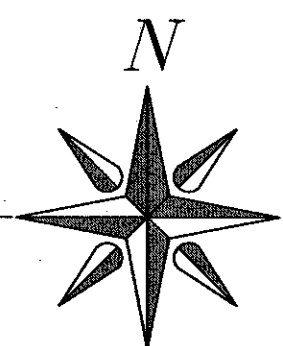
FLEX COUPLINGS REQUIRED WITHIN 12" ABOVE AND 24" BELOW THE FLOOR IN MULTI-STORY BUILDINGS.

NFPA 13 (2013 ed.) SECTION 9.3.4 CLEARANCE  
SECTION 9.3.4.5 NO CLEARANCE SHALL BE REQUIRED IF FLEXIBLE COUPLINGS ARE LOCATED WITHIN 1 FOOT OF EACH SIDE OF A WALL, FLOOR, PLATFORM, OR FOUNDATION.



**1** PARKING GARAGE LEVEL 2 - 5 - CLASS 1 MANUAL WET STANDPIPE PIPING PLAN  
FP-106|FP-106 SCALE: 1/8" = 1'-0"

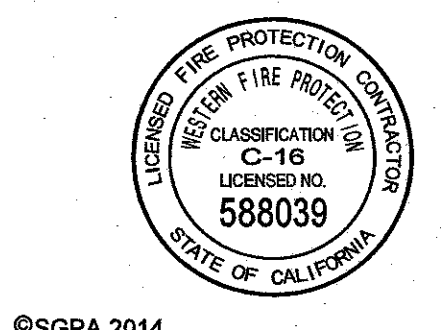
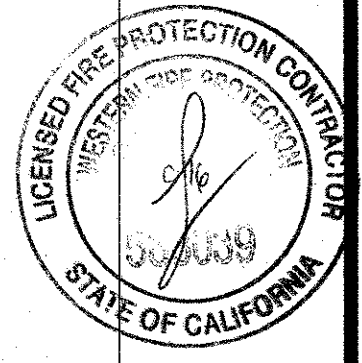
OFFICE OF THE STATE FIRE MARSHAL  
APPROVED FOR FIRE PROTECTION PLAN  
Reviewed by: [Signature]  
APR 27 2016  
Approval of this plan does not authorize or approve any alterations or deviations from applicable regulations. Final approval is subject to field inspection. Copy and of approved plans shall be available on the project site at all times.











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**SUNDT CONSTRUCTION**  
SAN DIEGO, CALIFORNIA

**SAN DIEGO STATE UNIVERSITY**  
SAN DIEGO, CA

**SOUTH CAMPUS PLAZA DESIGN-BUILD PARKING STRUCTURE**  
SAN DIEGO STATE UNIVERSITY

SUBMITTAL SCHEDULE:

SCHEMATIC DESIGN	04/17/2014
50% PRELIM. DESIGN	05/14/2014
100% PRELIM. DESIGN	05/28/2014
50% CONST. DOCS.	07/02/2014
95% CONST. DOCS.	08/07/2014
100% BACKCHECK	11/10/2014
100% BACKCHECK 2	01/28/2015
100% BACKCHECK 3	03/20/2015
ASI - 007	07/29/2015
ASI - 011	11/02/2015
SFM Resubmittal #3	3/3/2016

PROJECT NO: 21305-G-50

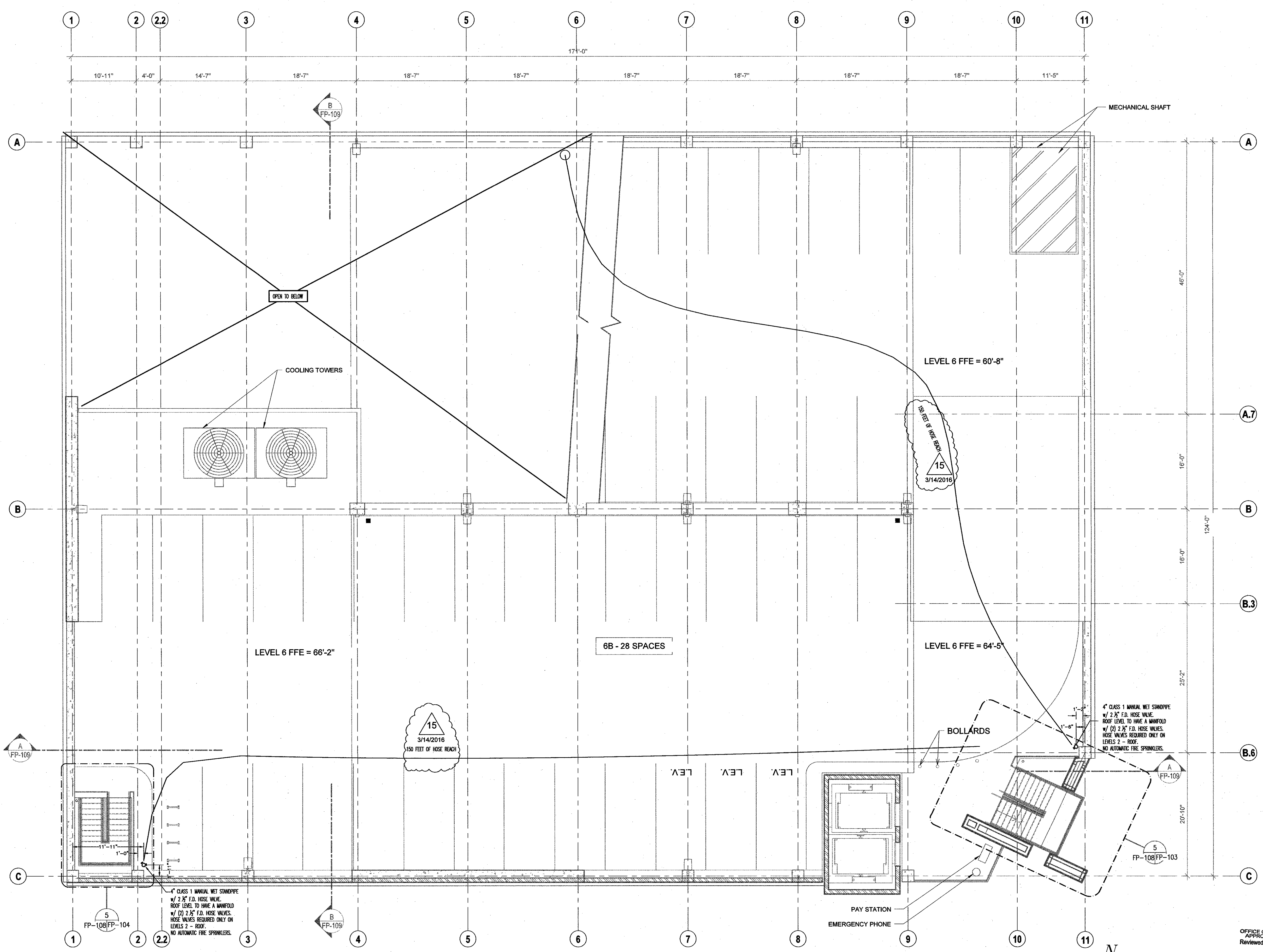
**LEVEL 6 PIPING PLAN**

**FP-108**

NFPA 13 (2013 ed.) SECTION 9.2.5.4 - MULTISTORY BUILDINGS  
9.2.5.4.1 - IN MULTISTORY BUILDINGS, RISER SUPPORTS SHALL BE PROVIDED AT THE LOWEST LEVEL, AT EACH ALTERNATE LEVEL ABOVE, ABOVE AND BELOW OFFSETS, AND AT THE TOP OF THE RISER.

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1 PARKING GARAGE LEVEL 6 - CLASS 1 MANUAL WET STANDPIPE PIPING PLAN  
FP-108 | FP-108 SCALE: 1/8" = 1'-0"

OFFICE OF THE STATE FIRE MARSHAL  
APPROVED FIRE AND PANIC PLAN  
Reviewed by:   
Brady Coomb, USFM  
APR 27 2016

Approval of this plan does not constitute approval of any omission or deviation from applicable regulations. Final approval is subject to field inspection. The seal or approved plans shall be available on the project site at all times.

