

## DOCKETED

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<b>Project Title:</b>	Colusa Generating Station - Compliance
<b>TN #:</b>	216317
<b>Document Title:</b>	Pacific Gas & Electric Company's Petition to Amend for Colusa Generating Station ACC Pump Pit Stairway
<b>Description:</b>	N/A
<b>Filer:</b>	Marie Fleming
<b>Organization:</b>	DayZen LLC
<b>Submitter Role:</b>	Applicant Representative
<b>Submission Date:</b>	3/2/2017 9:58:38 AM
<b>Docketed Date:</b>	3/2/2017



# PETITION TO AMEND

COLUSA GENERATING STATION (06-AFC-9C)

SUBMITTED TO: CALIFORNIA ENERGY COMMISSION  
SUBMITTED BY: PACIFIC GAS & ELECTRIC  
COMPANY (PG&E)

**MARCH 2017**



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## **Section 1 INTRODUCTION**

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### **1.1 INTRODUCTION TO PETITION**

Pursuant to Section 1769 of the California Energy Commission (Commission) regulations<sup>1</sup>, Pacific Gas & Electric Company (PG&E) files this Petition For Amendment (Petition) with the California Energy Commission (Commission) to modify the Colusa Generating Station (CGS). This Petition requests addition of a permanent stairway to access two condensate return pumps for the Air Cooled Condenser (ACC). The ACC steam duct has a low point to collect all condensate to return it to the condensate tank for usage. The bottom part of this steam duct is below grade, housed in a pit that is approximately 17-1/2 feet deep. Two condensate return pumps are located at the bottom of this pit. This section describes the procedural background of the CGS and cites the authority for the Commission to process this Petition.

Section 2 of the Petition describes the modifications proposed the CGS including an explanation of the need for the modification.

Sections 3, 4, 5 and 6 contain analysis of the proposed modifications comparing the potential environmental impacts from the modifications to the potential environmental impacts of the CGS as approved in the Commission Final Decision<sup>2</sup>. As discussed in these Sections, PG&E does not anticipate any significant environmental impacts from the proposed modifications and therefore is not proposing any modifications to the existing Conditions of Certification.

Section 7 contains an analysis demonstrating that the modifications do not increase any potential effects on nearby property owners or the public.

### **1.2 FINAL DECISION BACKGROUND**

E&L Westcoast, LLC filed an Application For Certification (AFC) with the Commission on November 6, 2006 to construct and operate the CGS, a nominal 660 megawatt (MW) combined cycle power plant. The CGS was proposed by E&L Westcoast, LLC in response to PG&E's 2004 Request For Offers and on January 11, 2008, PG&E became the Applicant and Project Owner. The Commission issued its Final Decision approving the CGS on April 23, 2008 (Order No. 08-0423-23, the "Final Decision", 06-AFC-9).

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<sup>1</sup> Title 20 CCR Section 1769

<sup>2</sup> References to the Commission Final Decision include all amendments approved after issuance and prior to the date of this Petition For Amendment.

### 1.3 PRIOR PETITIONS FOR AMENDMENT

On August 14, 2008, PG&E filed a Petition For Amendment to revise the general equipment arrangement, eliminate the diesel emergency generator, replace the diesel fire pump with an electric fire pump, eliminate the auxiliary boiler, relocate the natural gas metering station, and incorporate a natural gas water bath heater system and a wet surface air cooler. On July 15, 2009 the Commission approved the Petition For Amendment.<sup>3</sup>

On January 21, 2009, PG&E submitted a Petition For Amendment proposing slight modifications to the size and layout of the switchyard and the electric transmission interconnection route. On April 16, 2009 the Commission approved the Petition For Amendment.<sup>4</sup>

On November 13, 2013, PG&E submitted a Petition For Amendment proposing to modify its ultra-filtration system. The Commission approved the Petition For Amendment on December 13, 2013.<sup>5</sup>

On February 6, 2014 PG&E submitted a Petition For Amendment to store a spare generator step-up transformer at the CGS site. The Commission approved the Petition For Amendment on March 14, 2014.<sup>6</sup>

On March 14, 2014, PG&E submitted an Emergency Petition for Amendment to allow temporary withdrawal and trucking of water from the Glenn Colusa Canal in the same manner that was authorized during construction. On April 22, 2014, the Commission approved the Petition For Amendment.

On May 28, 2014, PG&E filed a Petition For Amendment to replace the temporary withdrawal and trucking of water from the Glenn Colusa Canal with a permanent water supply line. The Commission approved the Petition For Amendment on August 22, 2014.<sup>7</sup>

On February 6, 2015, PG&E filed a Petition For Amendment to add a fin fan cooling apparatus to dry cool the Heat Recovery Steam Generator (HRSG) Blowdown effluent water and a separate Petition For Amendment to install additional grating on the steam

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<sup>3</sup> Order No. 09-715-2, dated July 15, 2009, TN 522443

<sup>4</sup> Letter from Chris Davis, CEC Compliance Project Manager, dated April 16, 2009 to John Maring, PG&E, TN 51119

<sup>5</sup> Notice of Determination, dated December 13, 2013, TN 201431, no objections filed within 14 days

<sup>6</sup> Notice of Determination, dated March 14, 2014, TN 201878, no objections filed with 14 days

<sup>7</sup> Notice of Determination, dated August 22, 2014, TN 202974, no objections filed with 14 days

turbine deck to expand the useful area and make it safer for turbine and generator work. On March 25, 2015, the Commission approved both Petitions.<sup>8</sup>

On June 25, 2015, PG&E filed a Petition For Amendment to conform the Air Quality Conditions of Certification to the Revised Title V Operating Permit. On July 27, 2015, PG&E revised the Petition For Amendment as requested by CEC Staff. The Commission approved the Petition For Amendment as revised on December 9, 2015.<sup>9</sup>

On June 28, 2016, PG&E filed a Petition For Amendment to install a new Warehouse, install electrical equipment to enable variable operation of the ACC, and installation of rotating intake screens to control algae blooms at the water intakes for the Tehama Colusa Canal (TCC). Due to data requests by the CEC Staff relating only to the rotating intake screens which required information from the U.S. Bureau of Reclamation and others, PG&E requested that Staff separate the Petition and process the Warehouse and ACC electrical upgrades quickly and prepare a separate analysis of the rotating intake screens later when the information is received from the U.S. Bureau of Reclamation and others.<sup>10</sup> The Commission approved the Petition For Amendment for the Warehouse and ACC electrical upgrades on October 17, 2016.<sup>11</sup>

On December 22, 2016, at the request of CEC Staff, PG&E prepared a separate Petition For Amendment for the rotating intake screens that was contained in the June 28, 2016 Petition. That Petition is still pending.

## **1.4 SUMMARY OF ENVIRONMENTAL IMPACTS**

As described in Sections 3, 4, 5 and 6 of this Petition, the project modifications proposed herein, with implementation of the Conditions of Certification contained in the Final Decision and subsequent amendments will not result in significant environmental impacts and will comply with all applicable LORS.

## **1.5 CONSISTENCY OF PROJECT MODIFICATIONS WITH LICENSE**

As demonstrated in Sections 3 through 6 the proposed modifications proposed in this Petition do not undermine any of the findings and conclusions contained in the Final Decision.

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<sup>8</sup> Notice of Determination, dated March 25, 2015, TN 203959 and letter dated April 22, 2015 from CEC Compliance Project Manager Eric Veer Kamp to Charles Price, PG&E, TN 204312

<sup>9</sup> Order No. 15-1209-3, dated December 9, 2015, TN 207036

<sup>10</sup> Letter from Day Zen LLC to Anwar Ali, Compliance Project Manager, CEC, dated September 30, 2016, TN 213864

<sup>11</sup> Notice of Determination, dated October 17, 2016, TN 214076. There were no objections filed within the objection timeline and therefore the Notice of Determination became final approval of the Petition.

## **Section 2 DESCRIPTION OF PROJECT AMENDMENT**

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### **2.1 DESCRIPTION OF PROPOSED MODIFICATION**

PG&E is proposing in this Petition For Amendment to install a permanent stairway to access two condensate return pumps for the Air Cooled Condenser (ACC). The ACC steam duct has a low point to collect all condensate to return it to the condensate tank for usage. The bottom part of this steam duct is below grade, housed in a pit that is approximately 17-1/2 feet deep. Two condensate return pumps are located at the bottom of this pit which are currently accessed via a ladder.

The use of the ladder has proven inefficient for operators and/or maintenance personnel in accessing the condensate return pumps. Personnel are limited in transporting tools up and down the ladder. The installation of the permanent stairway will be much safer and efficient.

Appendix A includes the design drawings for the stairway.

### **2.2 CONSTRUCTION ACTIVITIES AND SCHEDULE**

PG&E will hire a contractor to install the stairway. It is anticipated that the materials for stairway will be transported to the CGS site in one truck trip. It is anticipated that the stairway installation will be completed within three working days using approximately 3 to 4 workers.

### **2.3 PURPOSE AND NEED FOR AMENDMENT**

During the time of licensing, PG&E did not envision needing the stairway and therefore it was not requested by PG&E at the time of the original licensing proceedings. The need for the stairway has been discovered during routine operation and maintenance activities since the CGS has been in service. As described above, the addition of the stairway will provide a safer and more efficient mechanism for servicing the condensate return pumps.



## **Section 3 ENGINEERING ASSESSMENT**

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This section contains an evaluation of the modification proposed in this Petition For Amendment to determine if it would result in modification of the findings, conclusions or conditions of certification for each technical discipline included within the Engineering Assessment section of the Final Decision.

### **3.1 FACILITY DESIGN**

The installation of the proposed new stairway will not undermine any finding or conclusion contained in the Final Decision. The proposed new stairway will be installed in accordance with the existing conditions of certification which will ensure it will comply with all applicable laws, ordinances, regulations and standards (LORS). Therefore, no modifications to the analysis, findings, conclusions or conditions to the certification contained in the Facility Design section of the Final Decision are necessary.

#### **3.1.1 Changes in LORS Conformance and Other Permits**

There are no changes in Facility Design LORS or required permits necessary to install the stairway.

#### **3.1.2 Conditions of Certification**

No modifications to the any of the existing Facility Design conditions of certification are necessary.

### **3.2 POWER PLANT EFFICIENCY AND RELIABILITY**

The proposed stairway does not result in any effect on power plant efficiency or reliability.

### **3.3 TRANSMISSION SYSTEM ENGINEERING**

The proposed stairway does not result in any effect on the switchyard or the transmission line. Therefore it will have no effect on the findings, conclusions or conditions of certification contained in the Transmission System Engineering section of the Final Decision.

### **3.4 TRANSMISSION LINE SAFETY AND NUISANCE**

The proposed stairway does not result in any effect on the switchyard or the transmission line. Therefore it will have no effect on the findings, conclusions or

conditions of certification contained in the Transmission Line Safety and Nuisance section of the Final Decision.

## **Section 4 PUBLIC HEALTH AND SAFETY**

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This section contains an evaluation of the modification proposed in this Petition to determine if it would result in modification to the findings, conclusions or conditions of certification for each technical discipline included within the Public Health and Safety section of the Final Decision.

### **4.1 AIR QUALITY, GREENHOUSE GASES AND PUBLIC HEALTH**

The proposed stairway does not result in any measurable air emissions. Therefore it will have no effect on the findings, conclusions or conditions of certification contained in the Air Quality or Public Health sections of the Final Decision.

#### **4.1.1 Changes in LORS Conformance and Other Permits**

There are no new Air Quality, Public Health, or Greenhouse Gases LORS or required permits for the stairway proposed in this Petition.

#### **4.1.2 Conditions of Certification**

No modifications to the any of the existing Air Quality and Public Health conditions of certification are necessary.

### **4.2 HAZARDOUS MATERIALS MANAGEMENT**

The installation of the proposed stairway will not affect the findings and conclusions contained in the Hazardous Materials Management section of the Final Decision as stairway will not involve the use of hazardous materials.

### **4.3 WORKER SAFETY/FIRE PROTECTION**

The proposed stairway installation will not expose workers to any additional risks not evaluated in the Worker Safety/Fire Protection section of the Final Decision. PG&E will require the contractors to comply with its various safety plans during construction. Ultimately the installation of the proposed safety will reduce potential injuries to workers by eliminating the potential use of a ladder while transporting tools and equipment necessary to maintain the condensate return pumps.

Since installation of the proposed stairway will be performed in accordance with the Conditions of Certification, the proposed modifications do not undermine any finding or conclusion of the Worker Safety/Fire Protection section of the Final Decision.

## **Section 5 ENVIRONMENTAL ANALYSIS**

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This section contains an evaluation of the modification proposed in this Petition to determine if it would result in modification to any of the findings, conclusions or conditions of certification for each technical discipline included within the Environmental Assessment section of the Final Decision.

### **5.1 BIOLOGICAL RESOURCES**

Installation of the stairway will not involve any disturbance outside the ACC condensate pit other than routine worker traffic and transportation of the stairway building materials to the site. These types of activities are already authorized and are ongoing at the site and do not result in significant impacts to Biological Resources. Installation of the proposed new stairway will comply with the conditions of certification and therefore will not undermine any of the findings and conclusions of the Biological Resources sections of the Final Decision.

#### **5.1.1 Changes in LORS Conformance and Other Permits**

There are no new applicable Biological Resource LORS or required permits for the proposed stairway described in this Petition.

#### **5.1.2 Conditions of Certification**

No modifications to any of the existing Biological Resource conditions of certification are necessary.

### **5.2 SOIL AND WATER RESOURCES**

The installation of the stairway will not involve grading or additional use of water resources. Therefore, it will not undermine any of the findings or conclusions contained in the Soil and Water Section of the Final Decision. No modification to any Soil and Water Resource condition of certification is necessary.

### **5.3 CULTURAL RESOURCES**

Since all of the construction will take place within the ACC condensate pit installation of the stairway proposed in this Petition will not have any effect on the findings, conclusions or will not require any modification to the conditions of certification contained in the Cultural Resources Section of the Final Decision.

## **5.4 GEOLOGICAL AND PALEONTOLOGICAL RESOURCES**

Since all of the construction will take place within the ACC condensate pit installation of the stairway proposed in this Petition will not have any effect on the findings, conclusions or will not require any modification to the conditions of certification contained in the Cultural Resources Section of the Final Decision.

## **5.5 WASTE MANAGEMENT**

The installation of the stairway proposed in this Petition will create minor amounts of construction related waste materials. However, compared to the amount of construction waste created during construction of the plant, the amounts are negligible. Therefore, the proposed stairway will not undermine any findings or conclusions of the Waste Management section of the Final Decision. No modifications to the Waste Management conditions of certification are required.

## **Section 6 LOCAL IMPACT ANALYSIS**

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This section contains an evaluation of the stairway proposed in this Petition to determine if it would result in modification to any findings, conclusions or conditions of certification for each technical discipline included within the Local Impact Assessment section of the Final Decision.

### **6.1 LAND USE**

The stairway proposed in this Petition will not affect the findings and conclusions contained in the Land Use section of the Final Decision as it will not involve the use of new land areas.

### **6.2 NOISE AND VIBRATION**

The installation of the stairway proposed in this Petition will not affect the findings and conclusions, nor require any modifications to the existing conditions of certification, contained in the Noise and Vibration section of the Final Decision as installation will not create new sources of noise or vibration. Any noise and vibration will be consistent with allowable noise experienced during routine operations and maintenance activities.

### **6.3 SOCIECONOMICS**

The stairway proposed in this Petition will not affect the findings and conclusions, nor require any modifications to the existing conditions of certification, contained in the Socioeconomic Resources section of the Final Decision as it will not burden existing public services.

### **6.4 TRAFFIC AND TRANSPORTATION**

The stairway proposed in this Petition will not affect the findings and conclusions, nor require any modifications to the existing conditions of certification, contained in the Traffic and Transportation section of the Final Decision as the installation activities will not significantly increase traffic on local roads.

### **6.5 VISUAL RESOURCES**

The stairway proposed in this Petition will not affect the findings and conclusions, nor require any modifications to the existing conditions of certification, contained in the Visual Resources section of the Final Decision as the stairway will not be visible outside the ACC condensate pit.

## **Section 7 POTENTIAL EFFECTS ON PROPERTY OWNERS**

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The Commission's Power Plant Siting Regulations require a Petition For Amendment to include 1) a discussion of how the modification affects the public; 2) a list of property owners potentially affected by the modification; and 3) a discussion of the potential effect on nearby property owners, the public and the parties in the application proceedings.

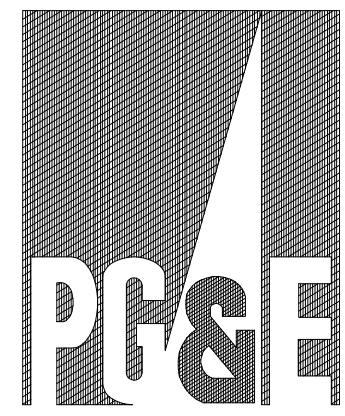
As described in technical area evaluated in Sections 3, 4, 5 and 6 of this Petition, with implementation of the existing conditions of certification the impacts of the proposed modifications are less than significant and therefore would not affect the public differently than the identified in the Final Decision.

PG&E has not included a list of property owners for this Petition because the property owners are the same as provided for the Commission during the previous Petitions For Amendment.

## **Appendix A**

### Stairway Design Drawings





# PACIFIC GAS & ELECTRIC CO.

## ACC SUMP AND PUMP PIT STAIRWAY

### COLUSA GENERATING STATION

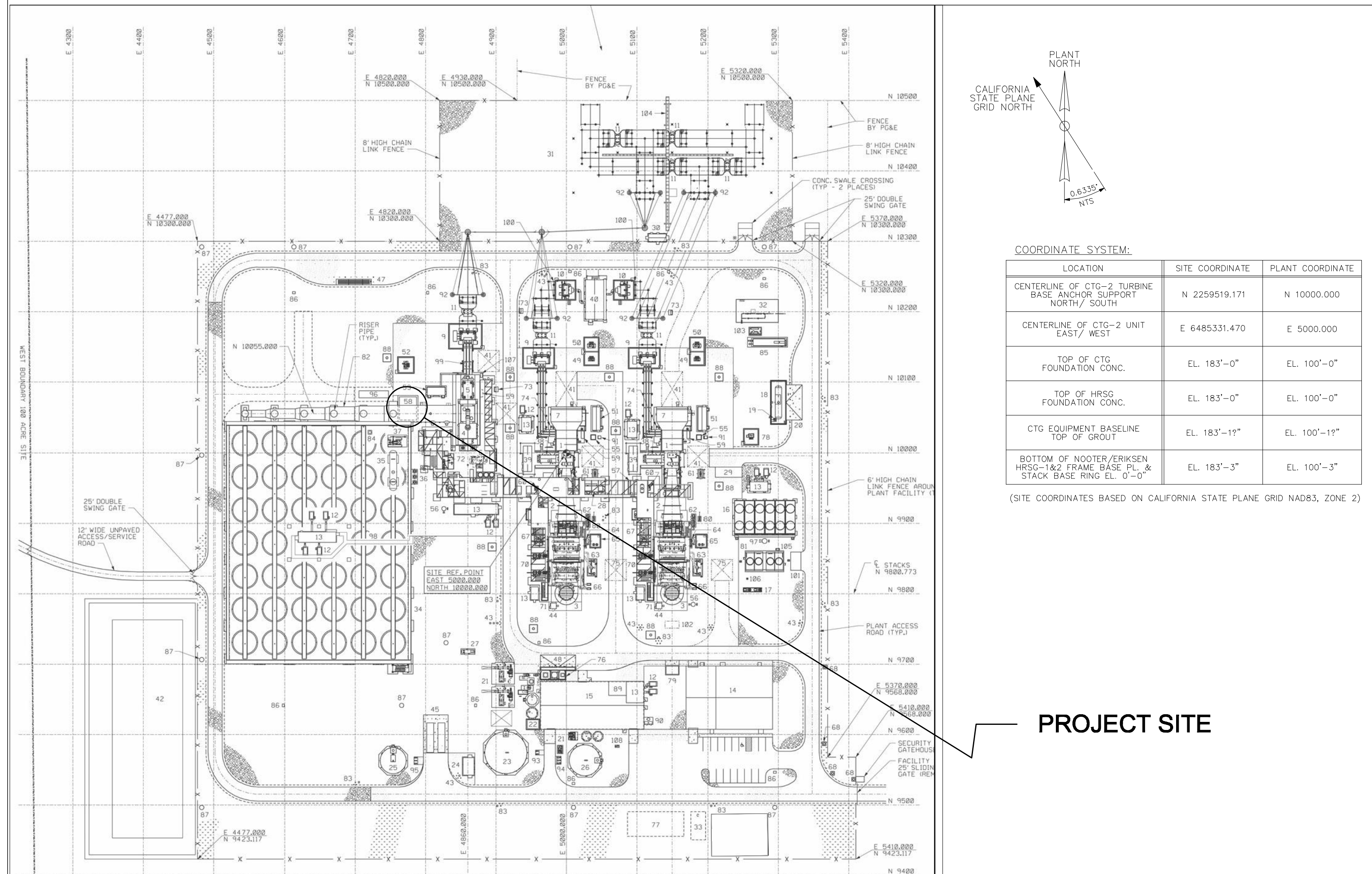
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MAXWELL, CA 95955

#### ENGINEERS:

### CHOW ENGINEERING INC.

7770 PARDEE LANE  
OAKLAND, CA 94621  
PHONE: (510) 636-8500 FAX: (510) 636-8544

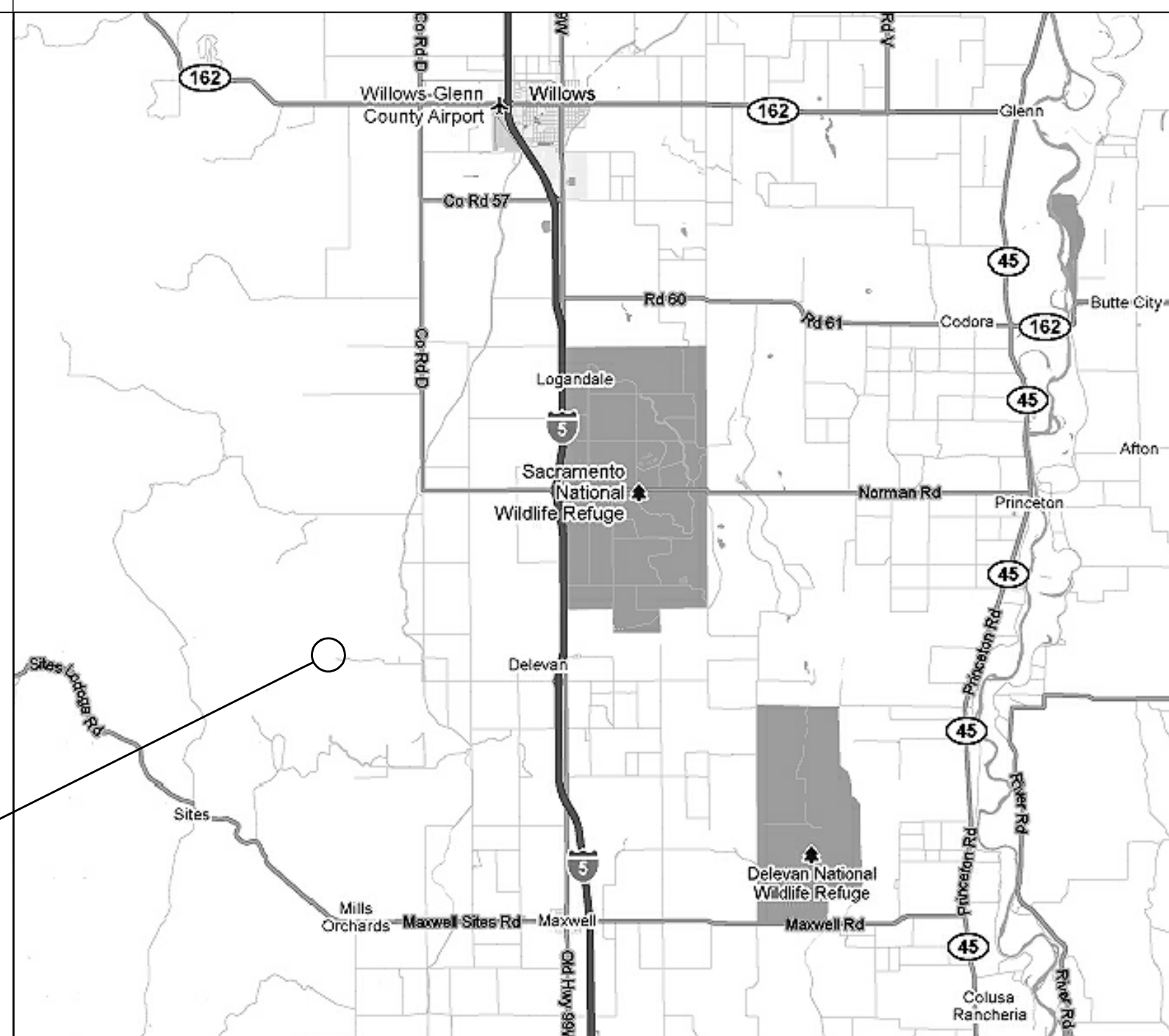
### LOCATION PLAN



### ABBREVIATIONS

A.F.F.	above finish floor	GLU	glue
AGG	aggregate	GA	gage
ALT	alternate	G.B.	grade break
ANCH	anchor	HK	hook
APPROX	approximately	HORIZ	horizontal
@	at	ISA	International Symbol of Accessibility
B.G.S.	below grade surface	LONG	longitudinal
BLDG	building	MFR	manufacturer
B.O.F.	bottom of footing or foundation	MATL	material
BOT	bottom	MAX	maximum
CBC	California Building Code	MIN	minimum or minute
CTR	center	MISC	miscellaneous
CIDH	cast-in-drilled hole concrete pile	N.F.	near face
C/C	center to center	N.S.	near side
CLR	clear	N	north
COL	column	(N)	new
CONC	concrete	N.I.C.	not in contract
C.M.U	concrete masonry unit	N.T.S.	not to scale
CONN	connection	O.C.	on center
CONST	construction grade	OPNG	opening
CONSTR	construction	OPP	opposite
C.J.	construction joint	O.D.	outside diameter
CONT	continuous, continued	LB	pound
DET	detail	PSI	pounds per square inch
DIA	diameter	PSF	pound per square foot
DIM	dimension	REF	reference
D.F.	Douglas Fir	REINF	reinforcing steel
DN	down	SECT	section
DWG	drawing	SF	square foot or square feet
EA	each	SPEC	specification
E.F.	each face	STD	standard
E.W.	each way	STL	steel
EL	elevation	STRUCT	structural
ENGR	engineer	SYMM	symmetrical
EQ	equal	T.O.C.	top of concrete
EXST, (E)	existing	T.O.S.	top of steel
EXT	exterior	TRANS.	transverse
F.G.	finished grade	TYP	typical
F.F.	finished floor	TOT	total
FTG	footing	U.O.N.	unless otherwise noted
FDN	foundation	W/	with
JT	joint		

### VICINITY MAP



### SCOPE OF PROJECT

SCOPE OF WORK ON THESE PLANS INCLUDE:  
SITE PREPARATION AND FOUNDATION CONSTRUCTION FOR  
70 FT X 130 FT WAREHOUSE BUILDING.

### DRAWING INDEX

SHEET DWG NO.	SHEET TITLE
1	C-1 TITLE SHEET
2	C-2 GENERAL NOTES
3	C-3 STAIRWAY LAYOUT
4	C-4 SECTIONS AND DETAILS
5	SD-1 STANDARD STAIR DETAILS
6	SD-2 STANDARD RAIL DETAILS

DATE	BY	REVISIONS
10/07/16	AZ	

FOR REVIEW

**CHOW ENGINEERING, INC.**  
7770 PARDEE LANE, SUITE 100  
OAKLAND, CA 94621  
Phone: (510) 636-8500 Fax: (510) 636-8544  
Web: www.choweng.com E-Mail: info@choweng.com



DRAWING TITLE: **TITLE SHEET**  
**ACC SUMP AND PUMP PIT STAIRWAY**  
**COLUSA GENERATING STATION**  
OWNER: **PACIFIC GAS & ELECTRIC COMPANY**  
**COLUSA GENERATING STATION**  
MAXWELL, CA.

STAMP

DATE	10/07/2016
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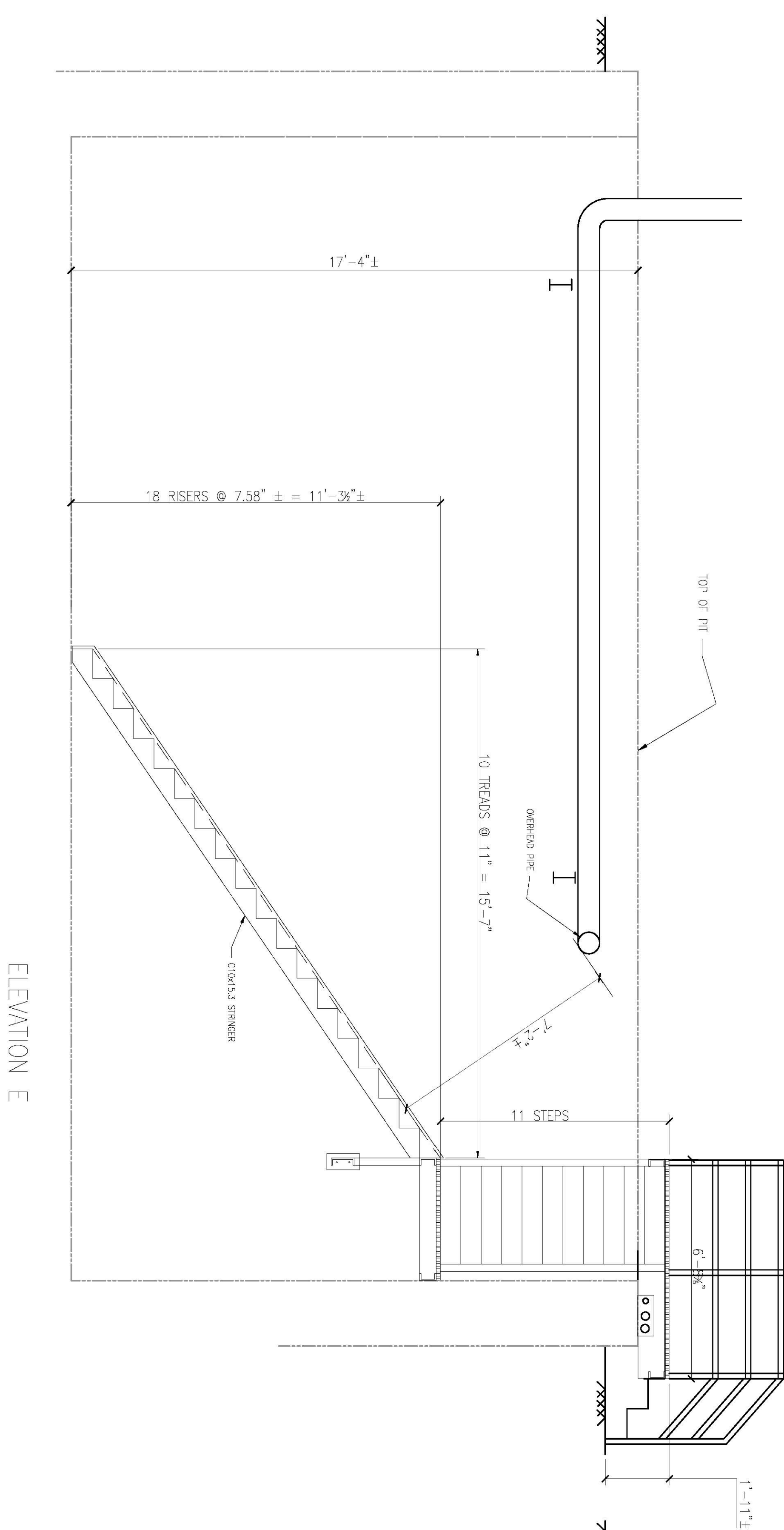
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SHEET No. 1 of 6  
ISSUE A

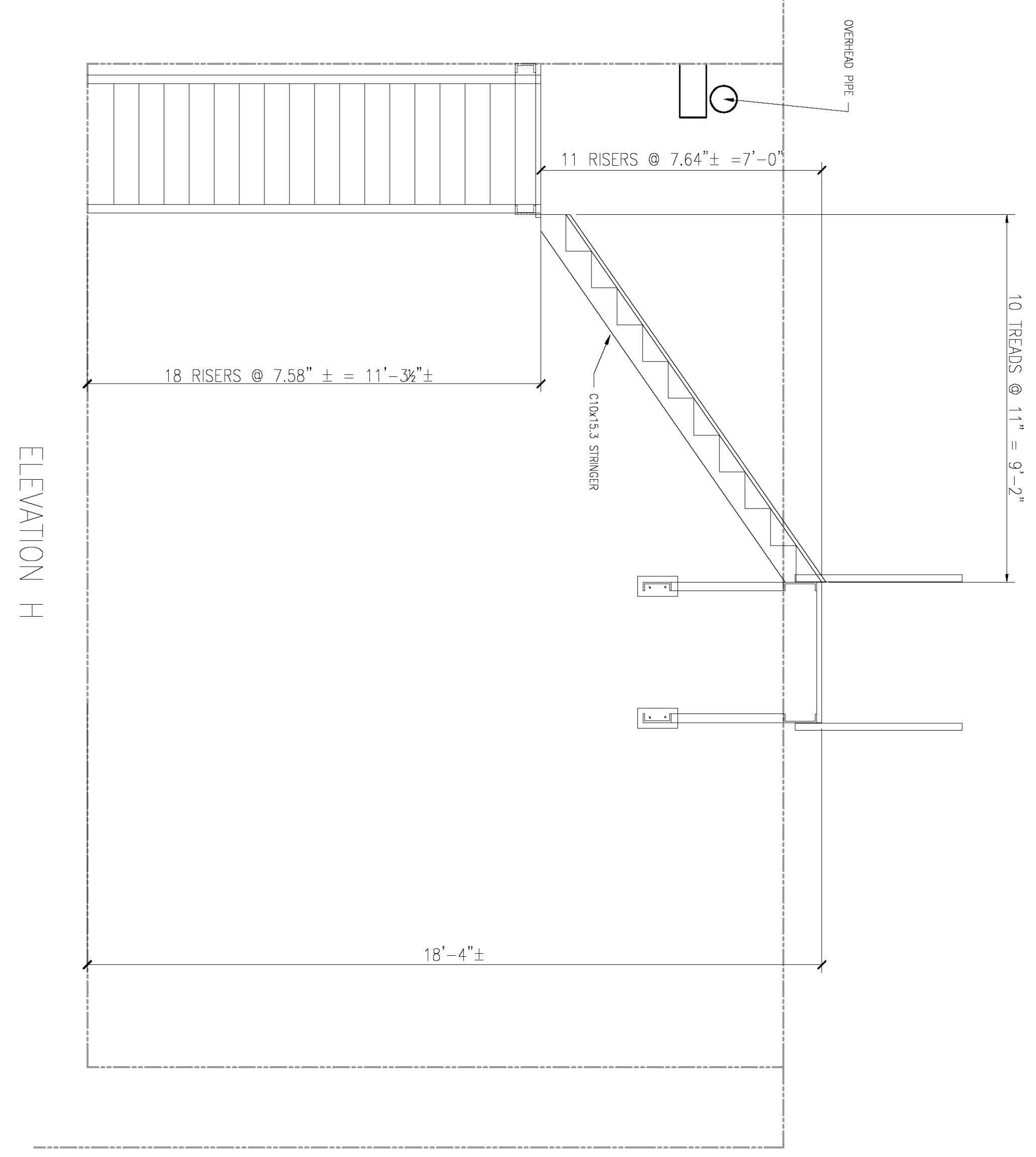




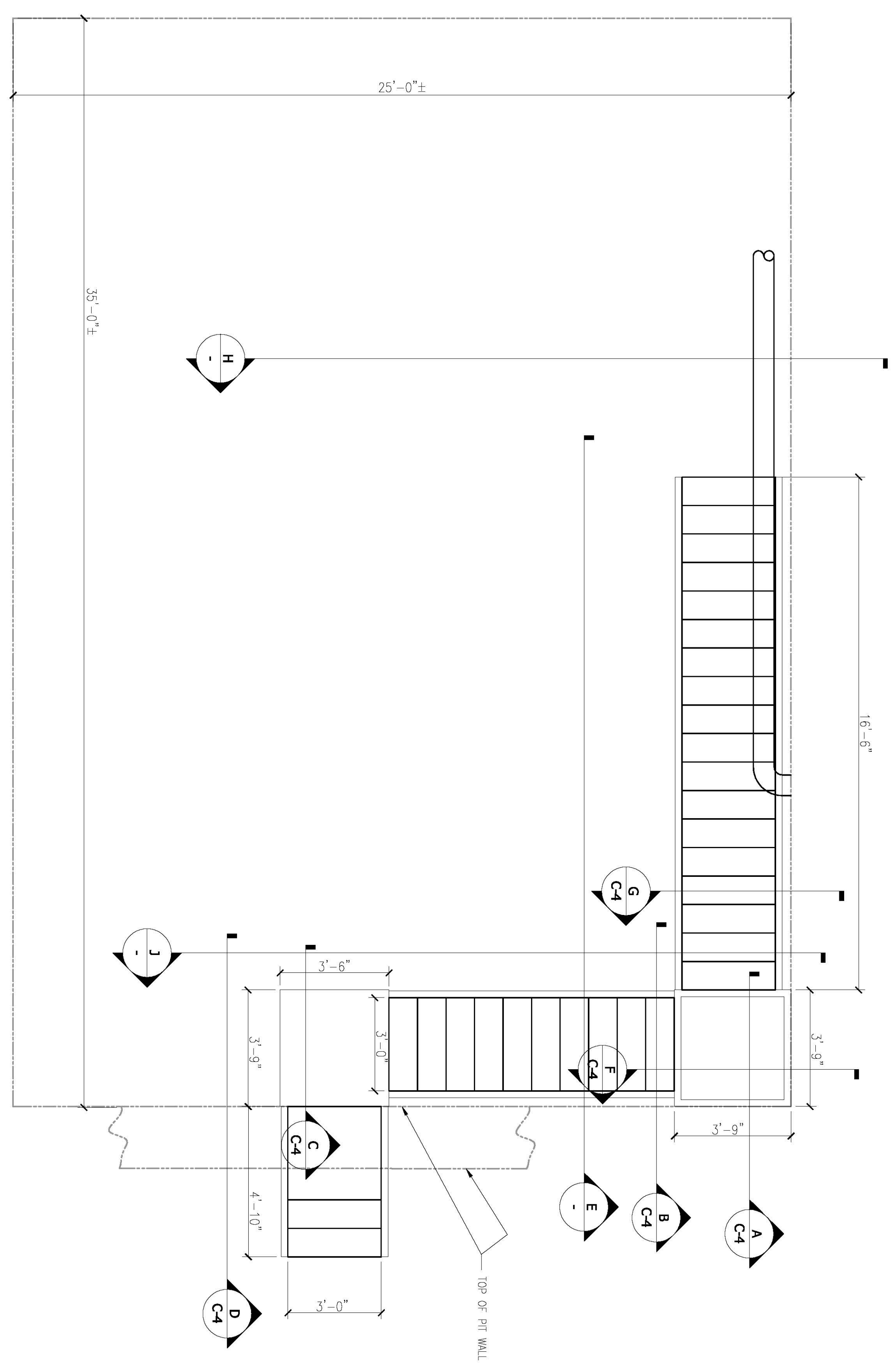




ELEVATION E



ELEVATION H



DRAWING TITLE:  
**STAIRWAY LAYOUT**  
 ACC SUMP AND PUMP PIT  
 COLUSA GENERATING STATION

OWNER:  
 PACIFIC GAS & ELECTRIC COMPANY  
 COLUSA GENERATING STATION  
 MAXWELL, CA.

**CHOW ENGINEERING, INC.**  
 7770 PARDEE LANE, SUITE 100  
 OAKLAND, CA 94621

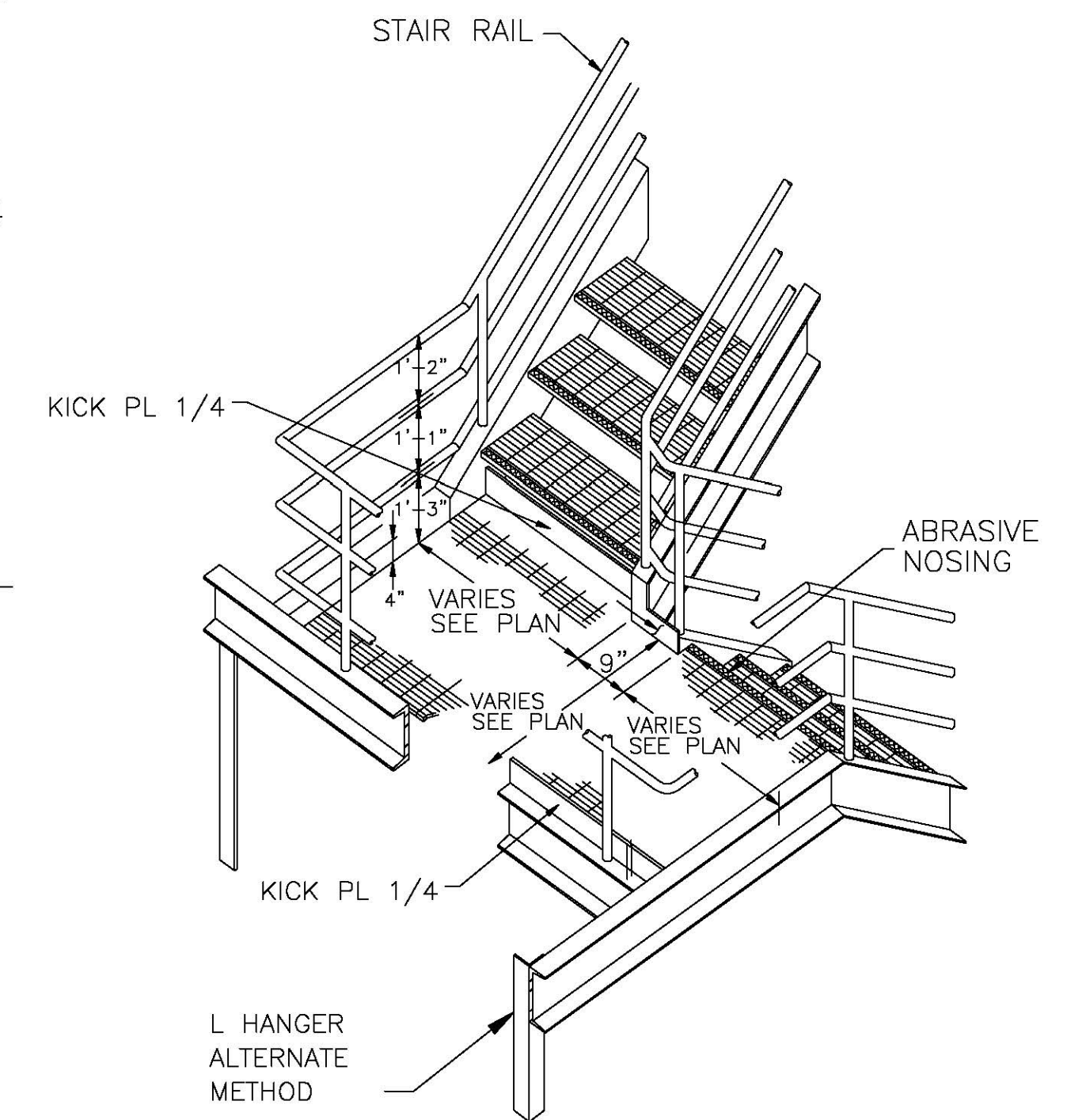
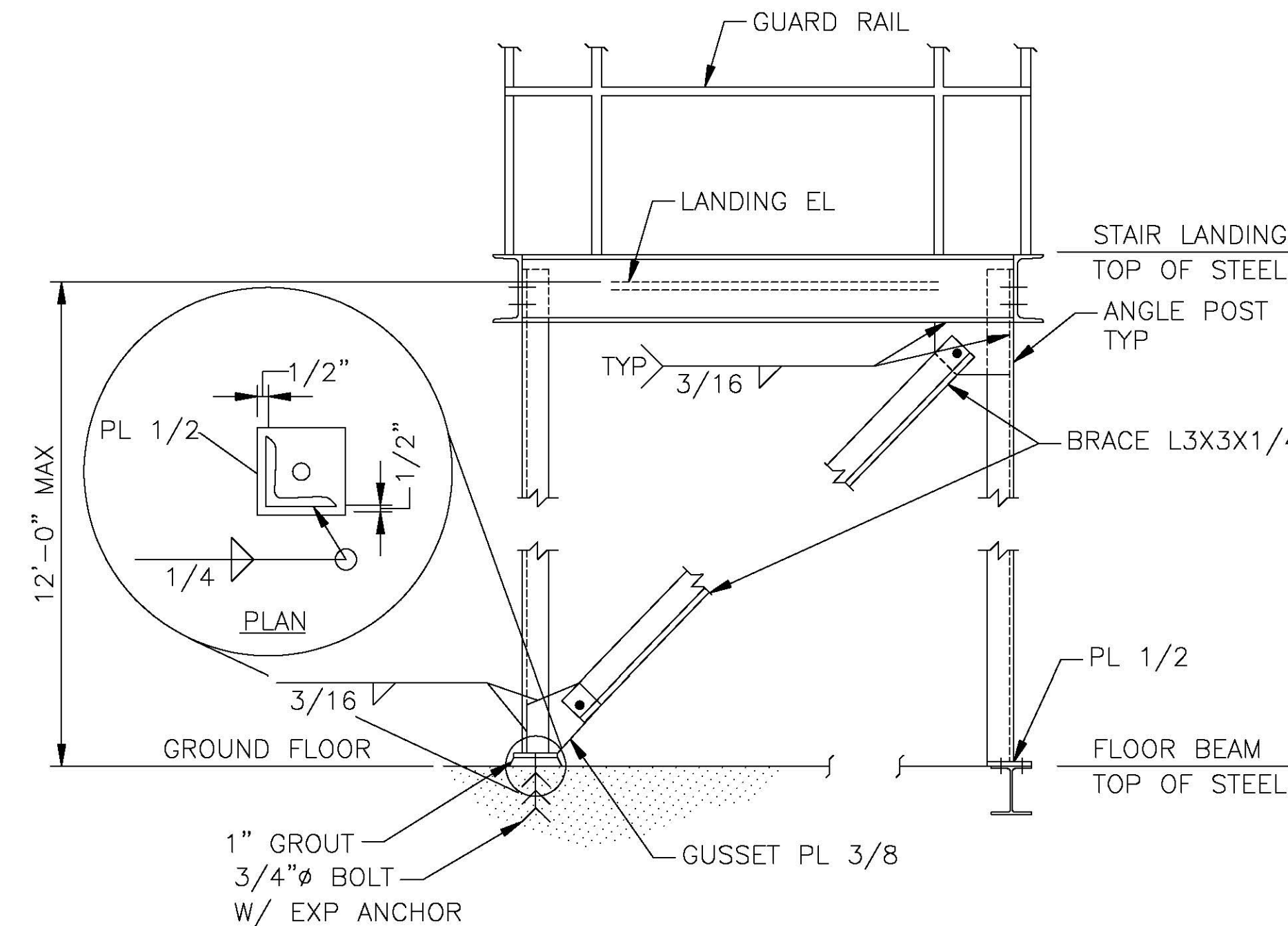
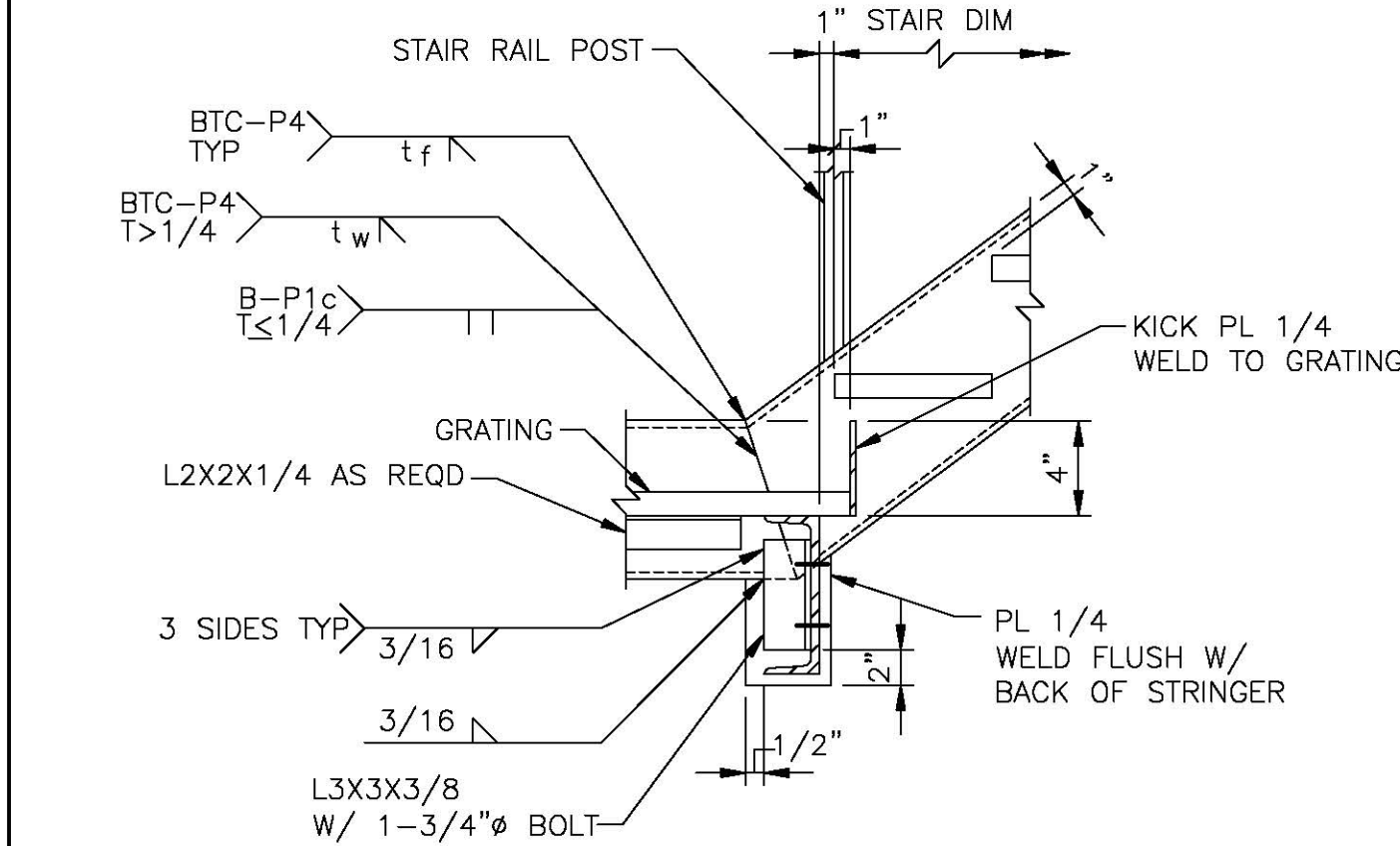
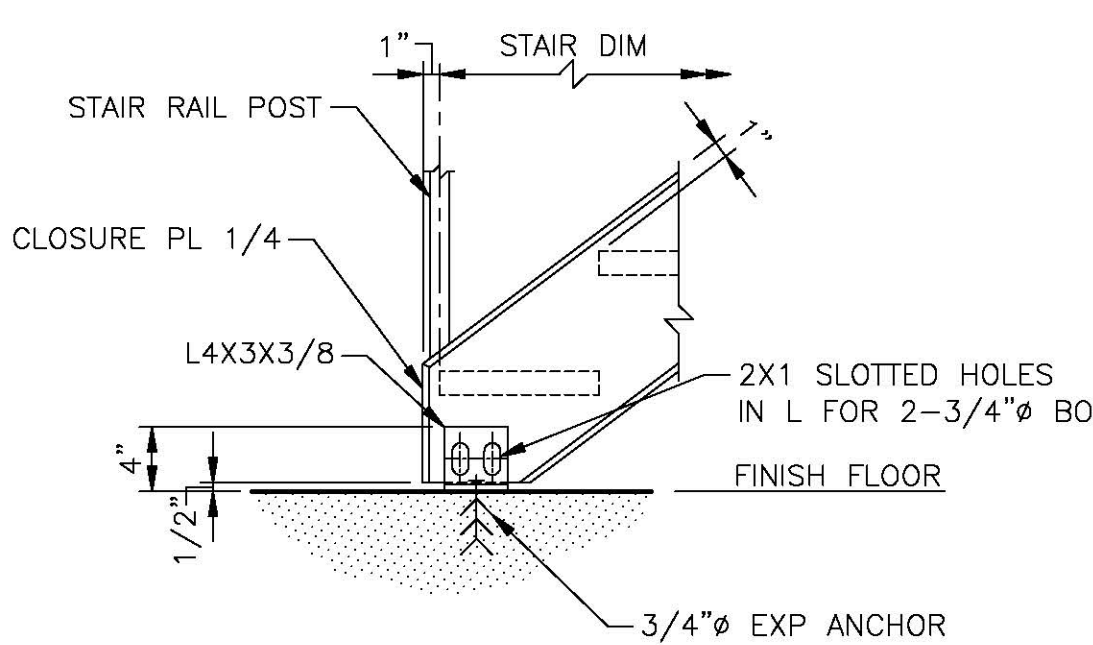
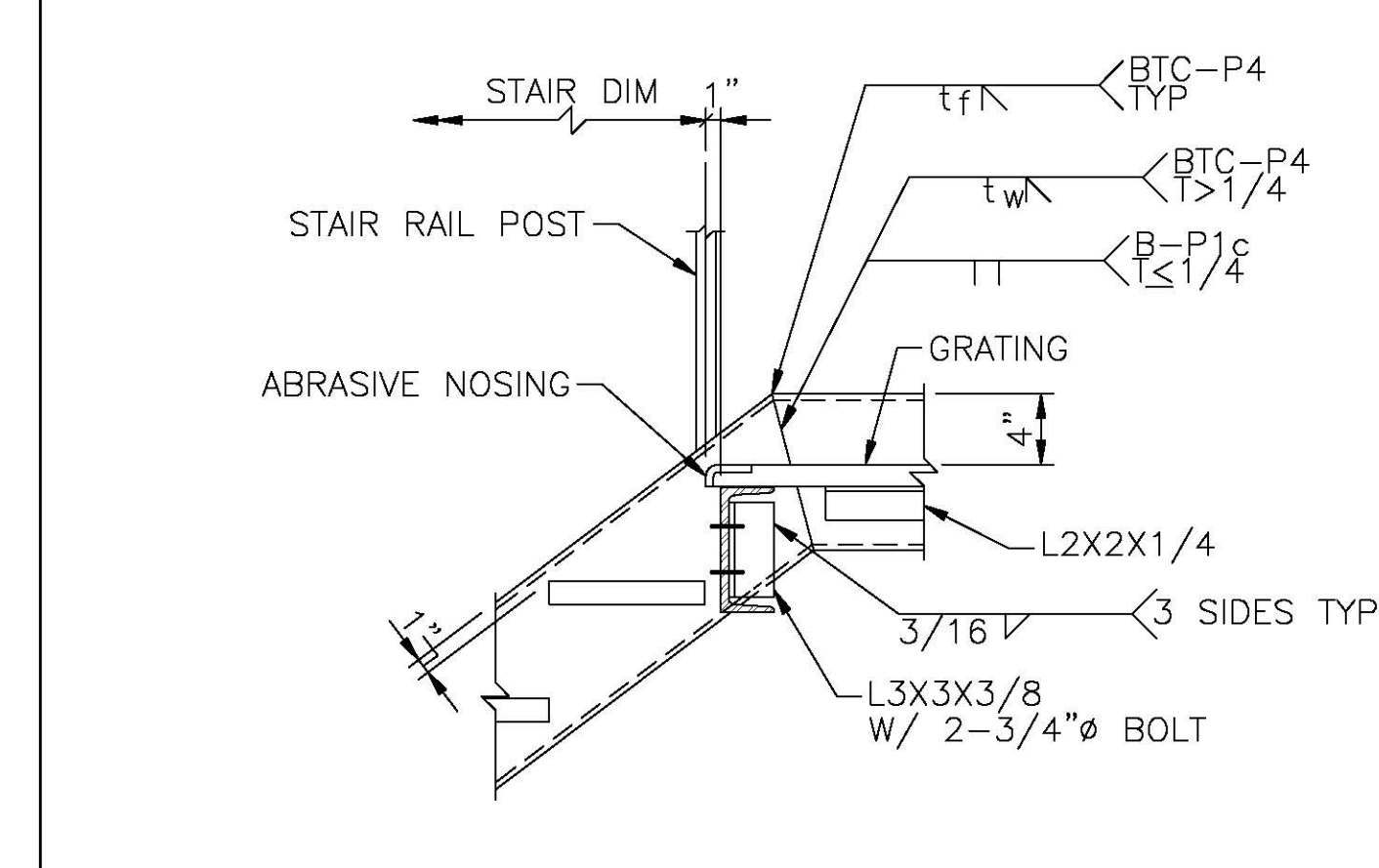
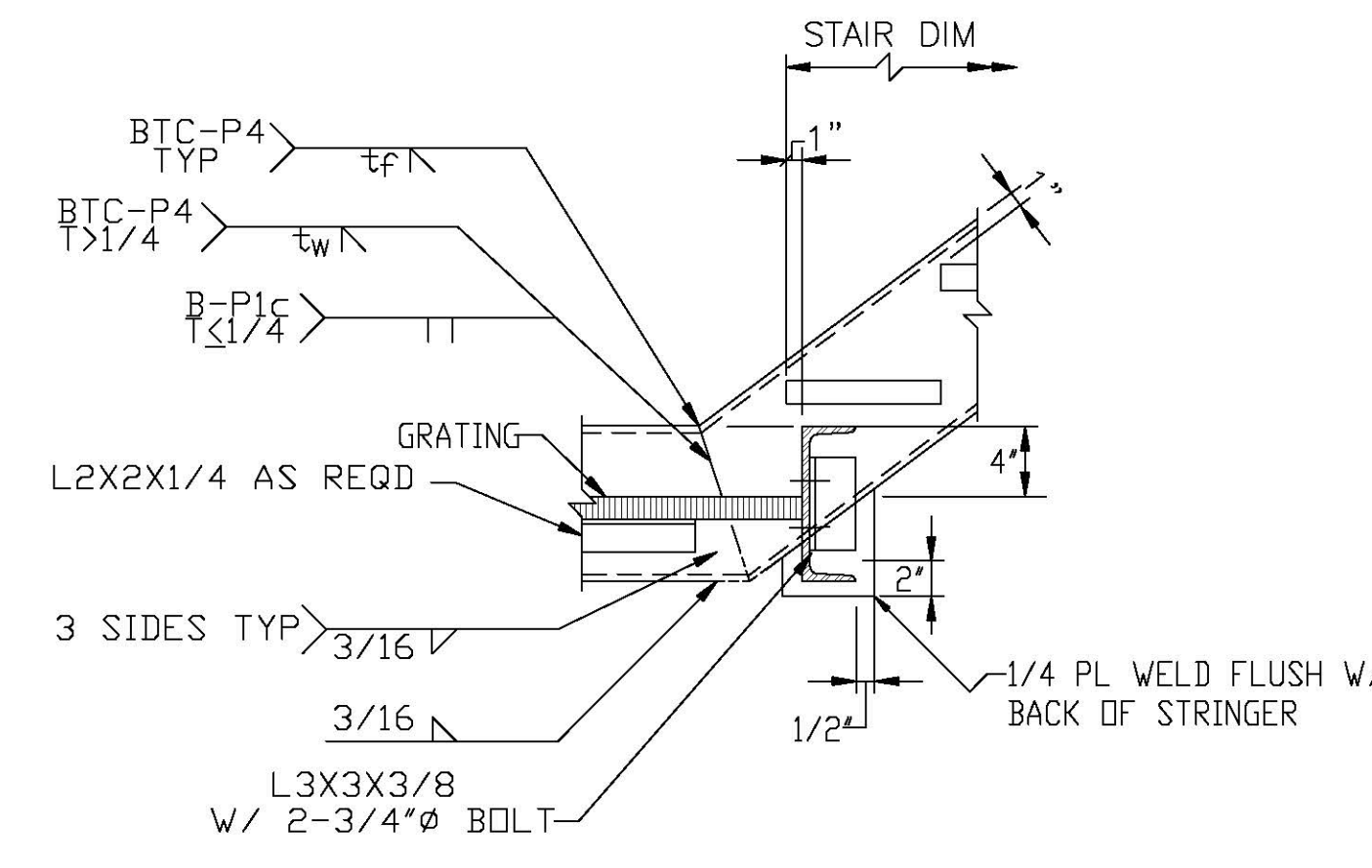
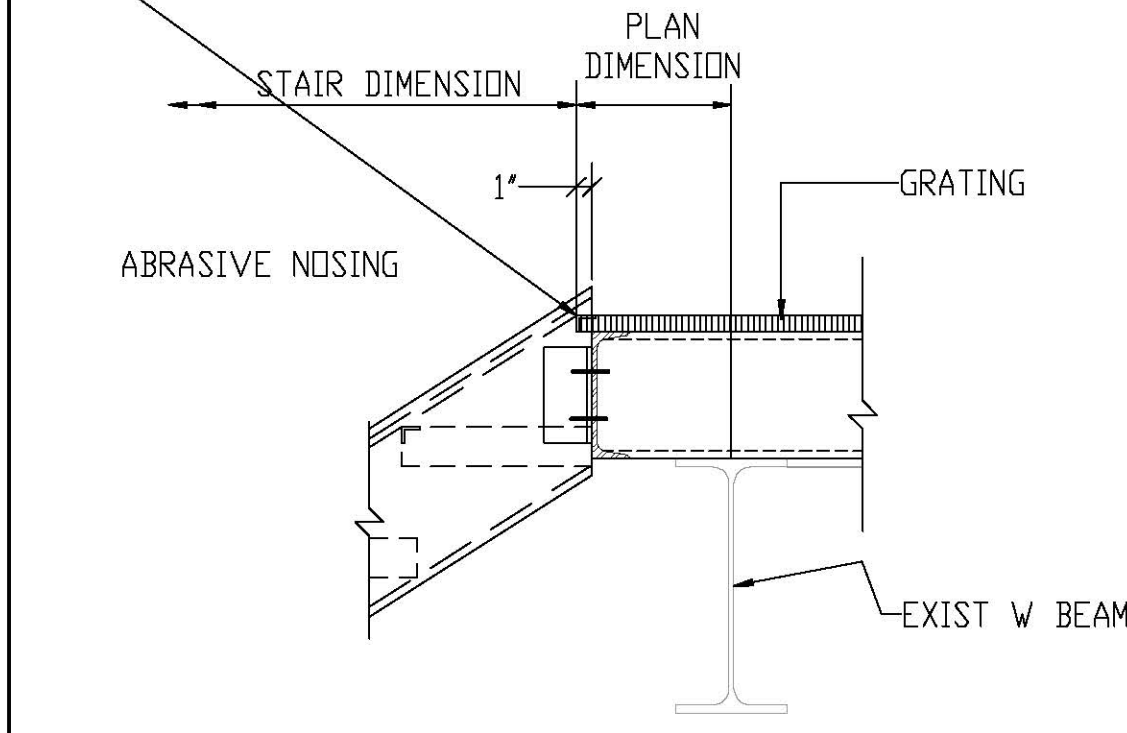
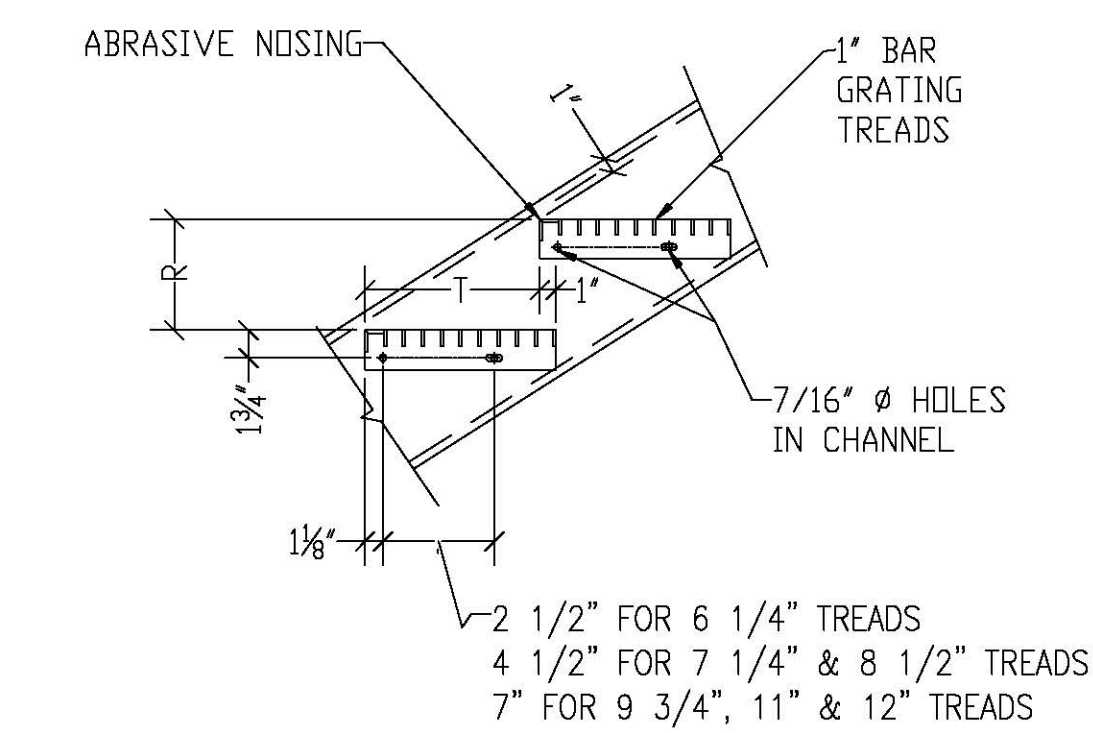
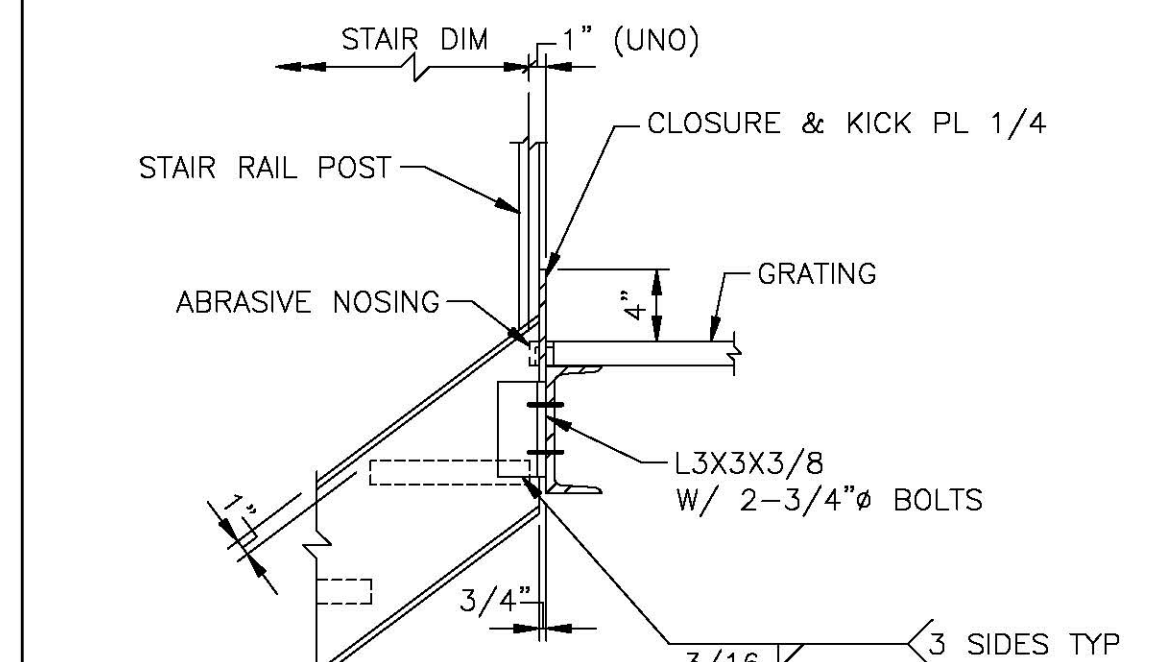
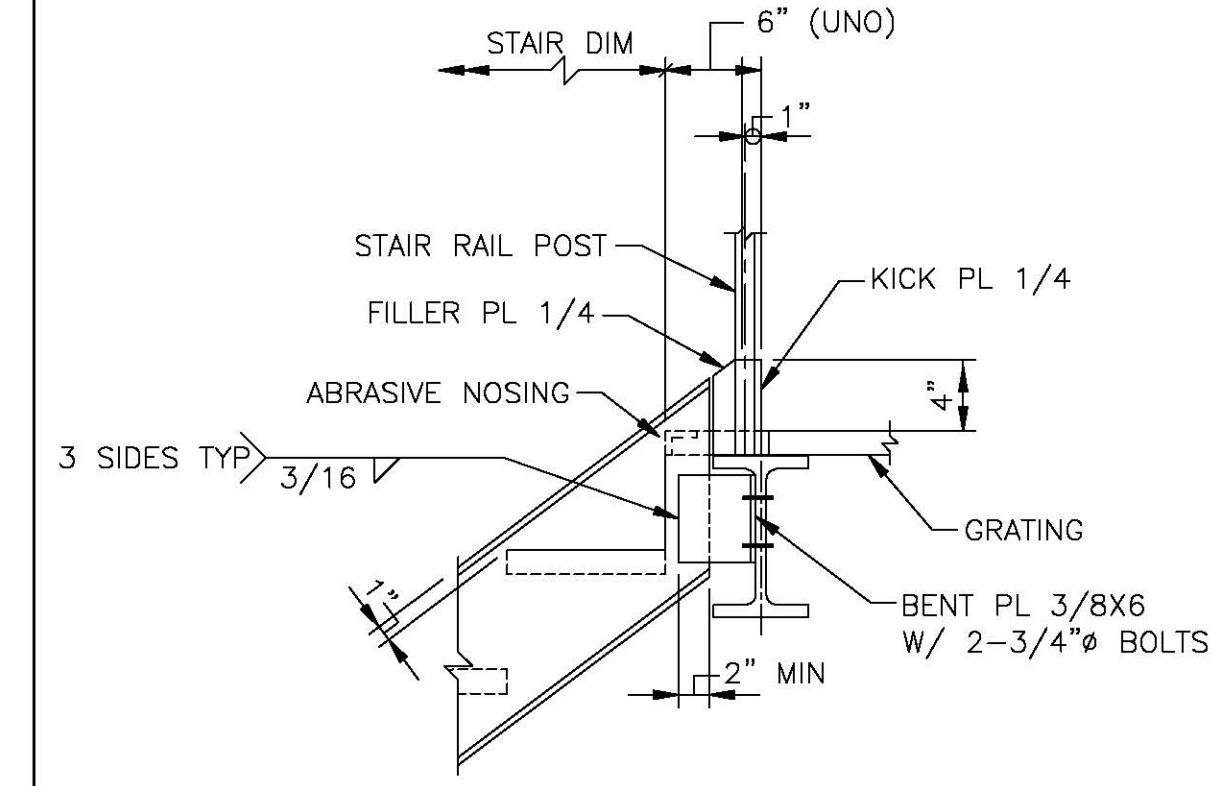
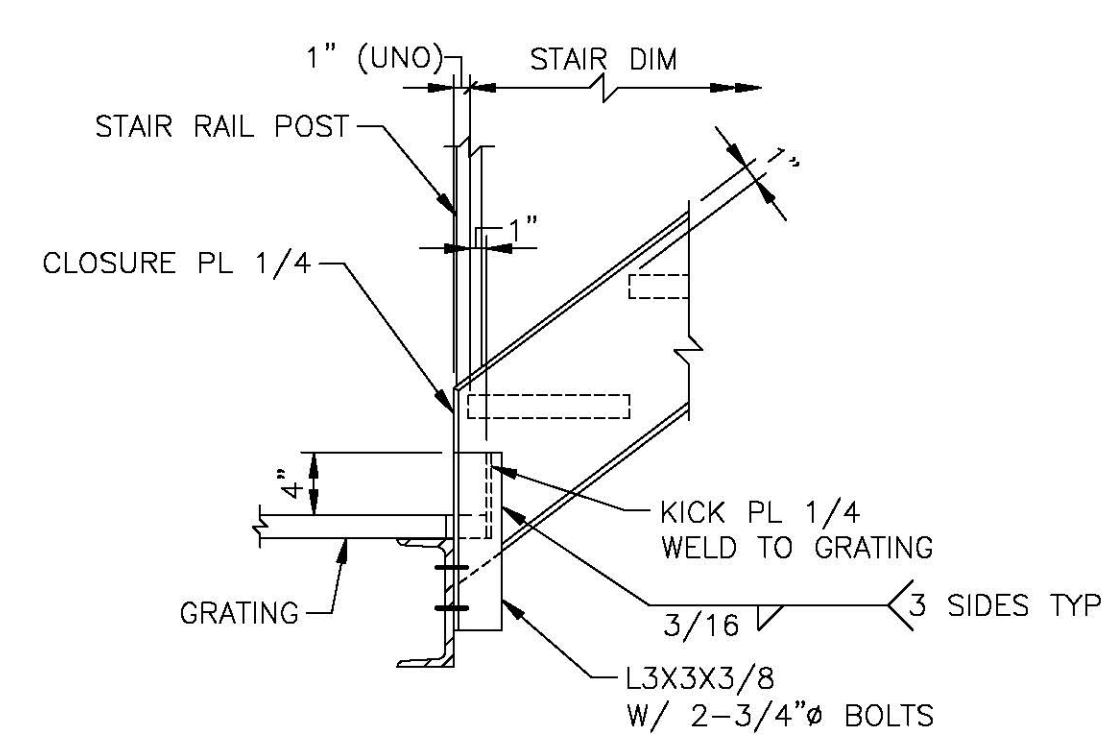
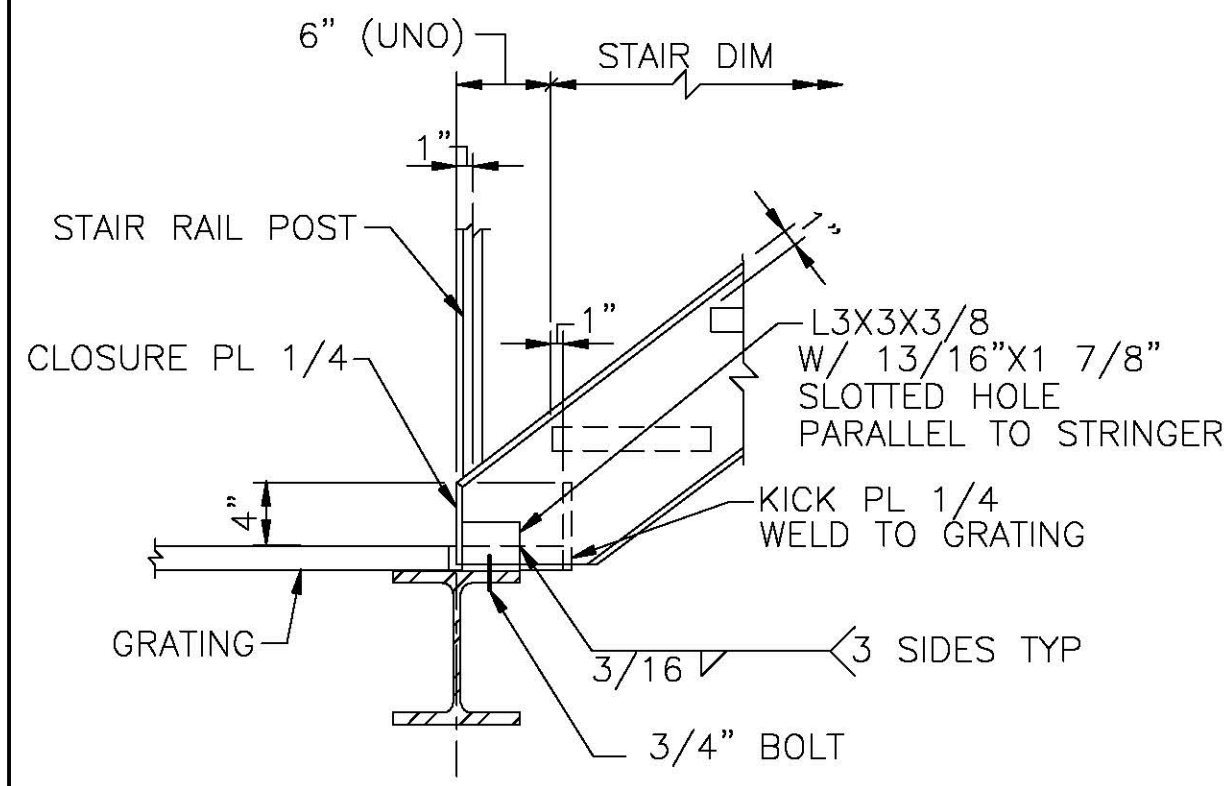
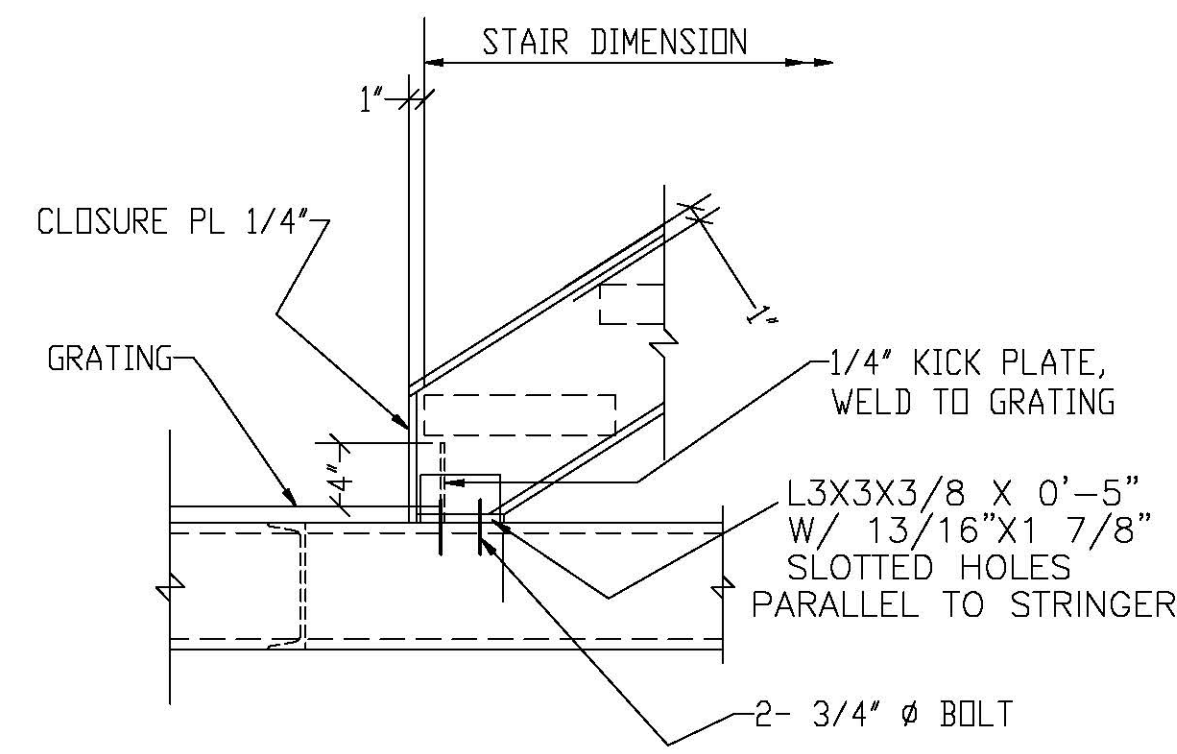
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REVISIONS	BY	DATE
FOR REVIEW	AZ	10/07/16

DATE: 10/07/2016  
 DRAWN: AZ  
 CHECKED: DW  
 JOB NO.: 16R-123  
 SCALE: AS NOTED  
 DRAWING NO.: C-3

SHEET No. 3 of 6  
 ISSUE A





DATE	10/07/16
BY	AZ
REVISIONS	
FOR REVIEW	

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**CE**  
**CHOW ENGINEERING, INC.**  
 7770 PARDEE LANE, SUITE 100  
 OAKLAND, CA 94621  
 Phone: (510) 838-8900 Fax: (510) 838-8544  
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DRAWING TITLE:  
**STANDARD STAIR DETAILS**  
**ACC SUMP AND PUMP PIT STAIRS**  
**COLUSA GENERATING STATION**

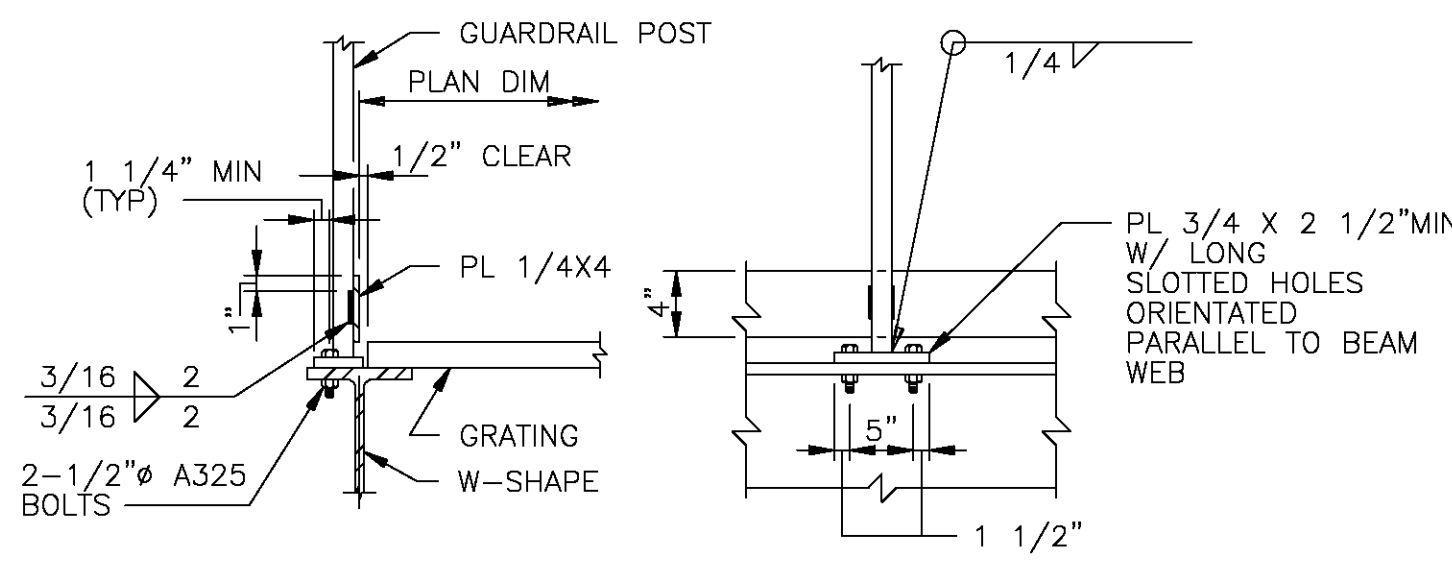
OWNER:  
**P&G**  
**PACIFIC GAS & ELECTRIC COMPANY**  
**COLUSA GENERATING STATION**  
**MAXWELL, CA.**

STAMP

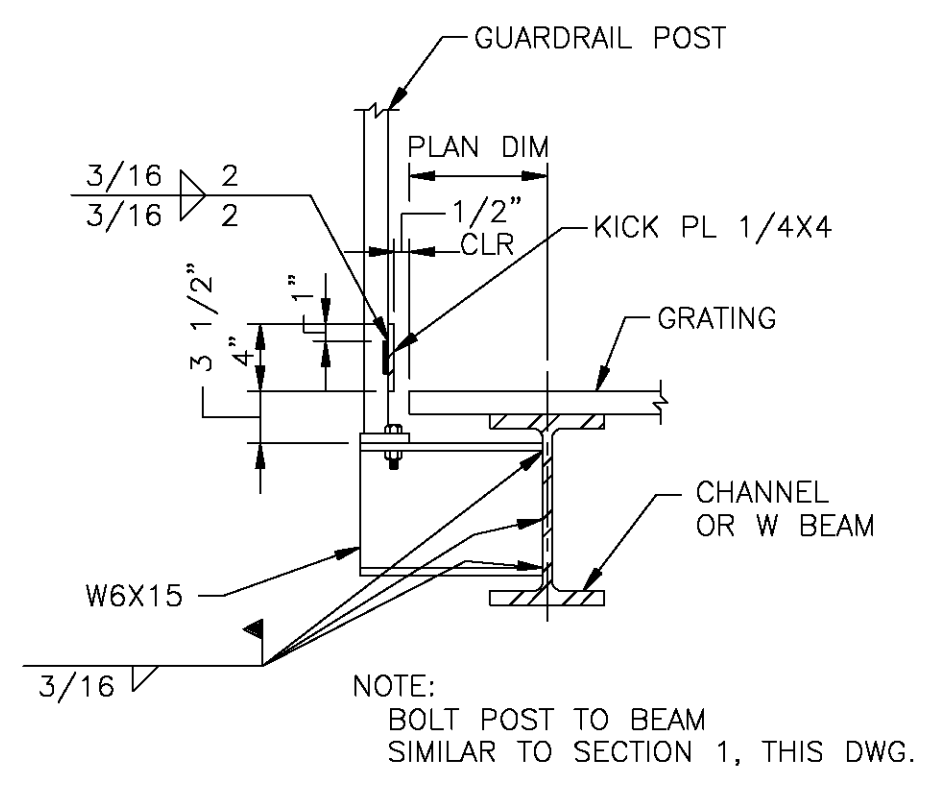
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 CHECKED DW  
 JOB NO. 16R-123  
 SCALE AS NOTED  
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 SHEET No. 5 of 6  
 ISSUE A

DWG. CE 10/07/2016 10:13 PM 16R-123\_ACC Stairs.dwg/404

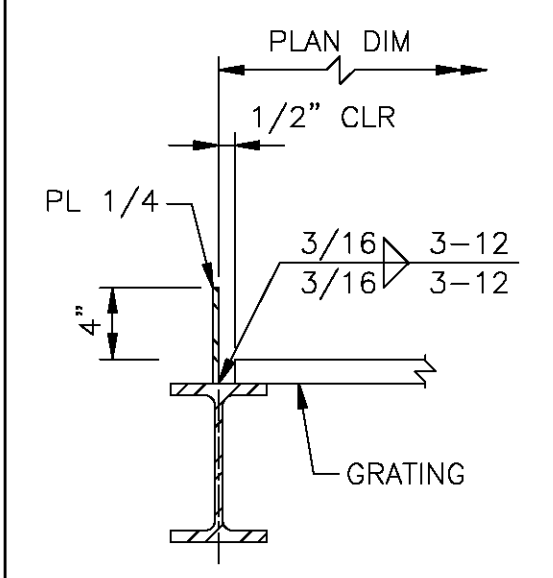




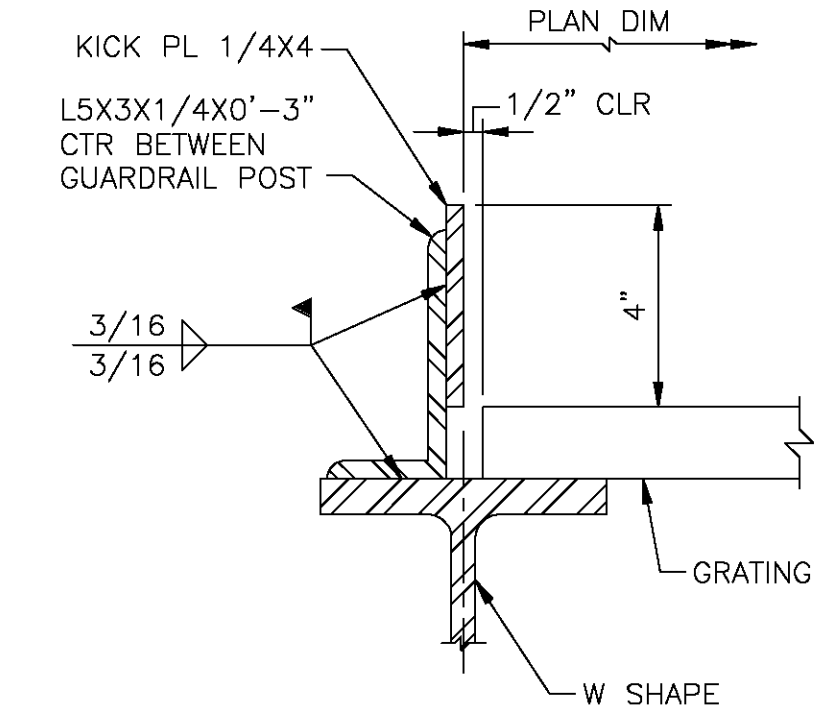
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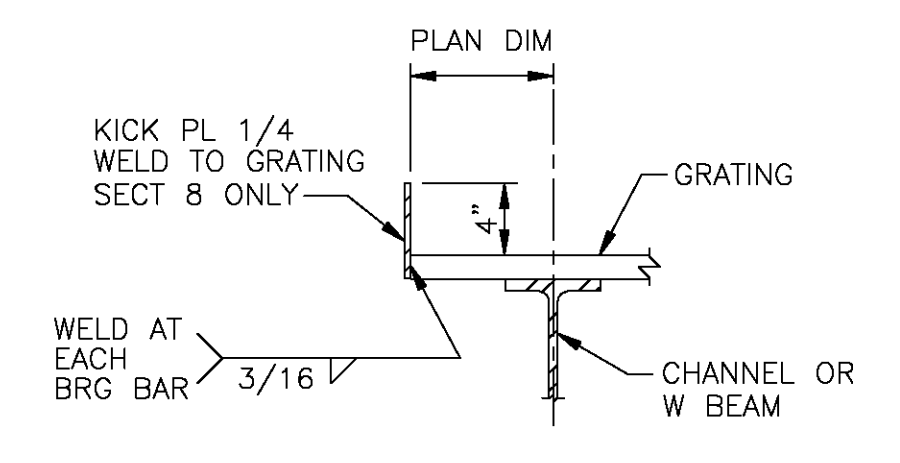
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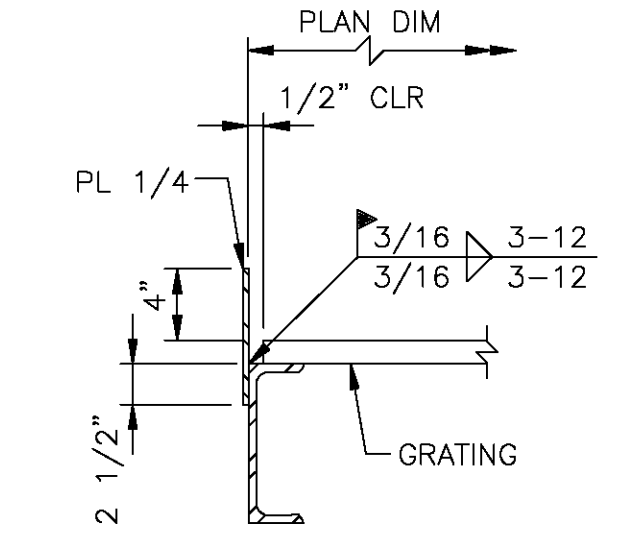
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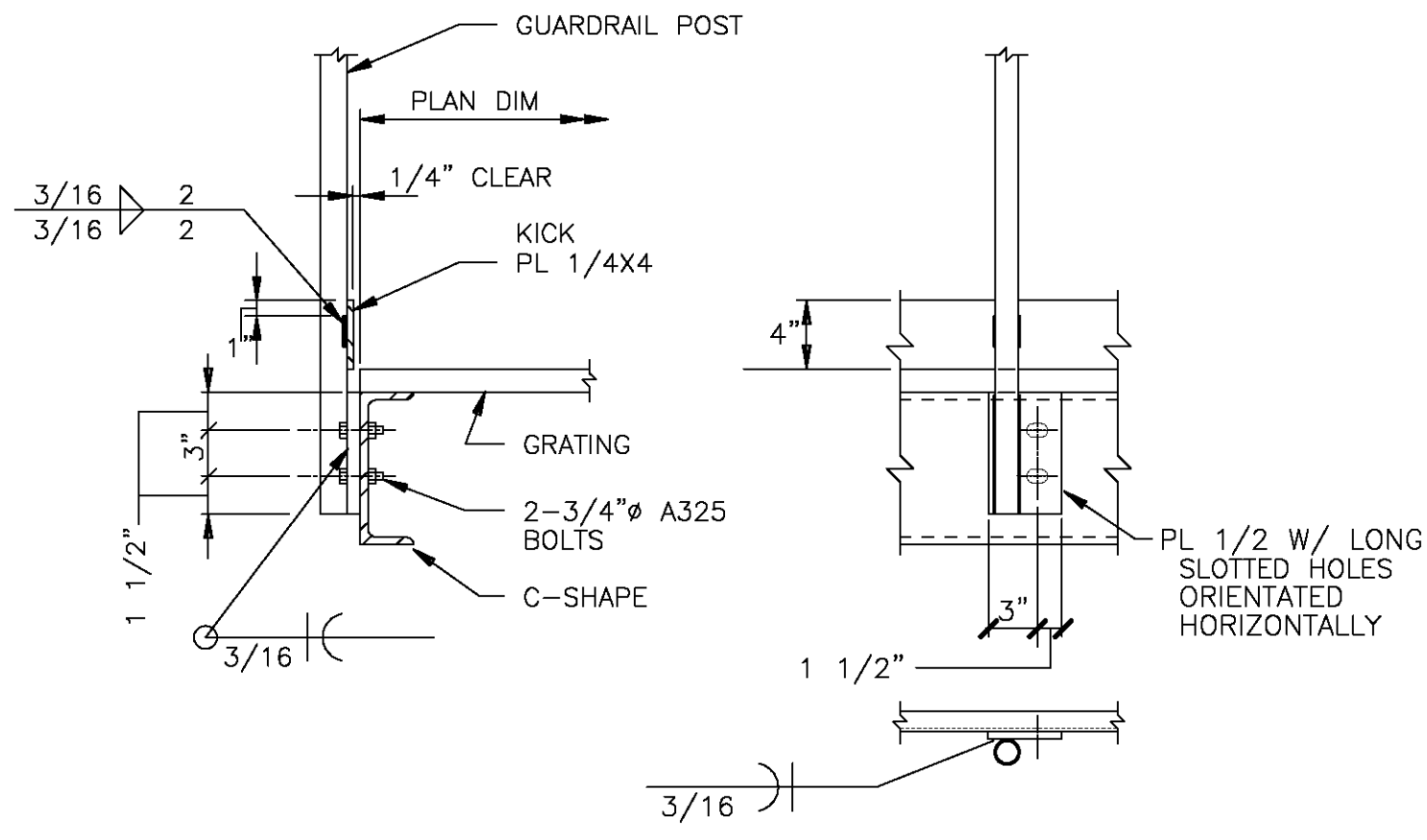
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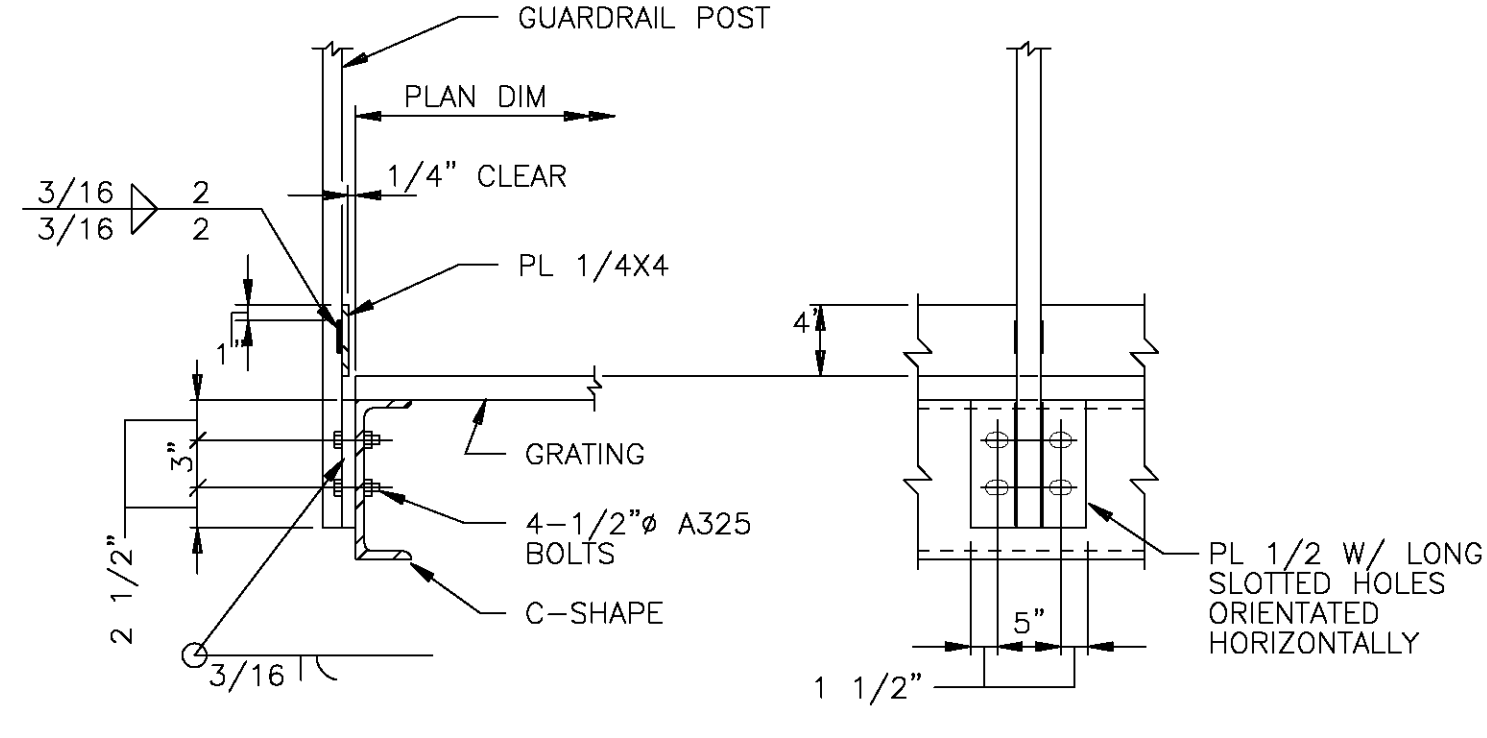
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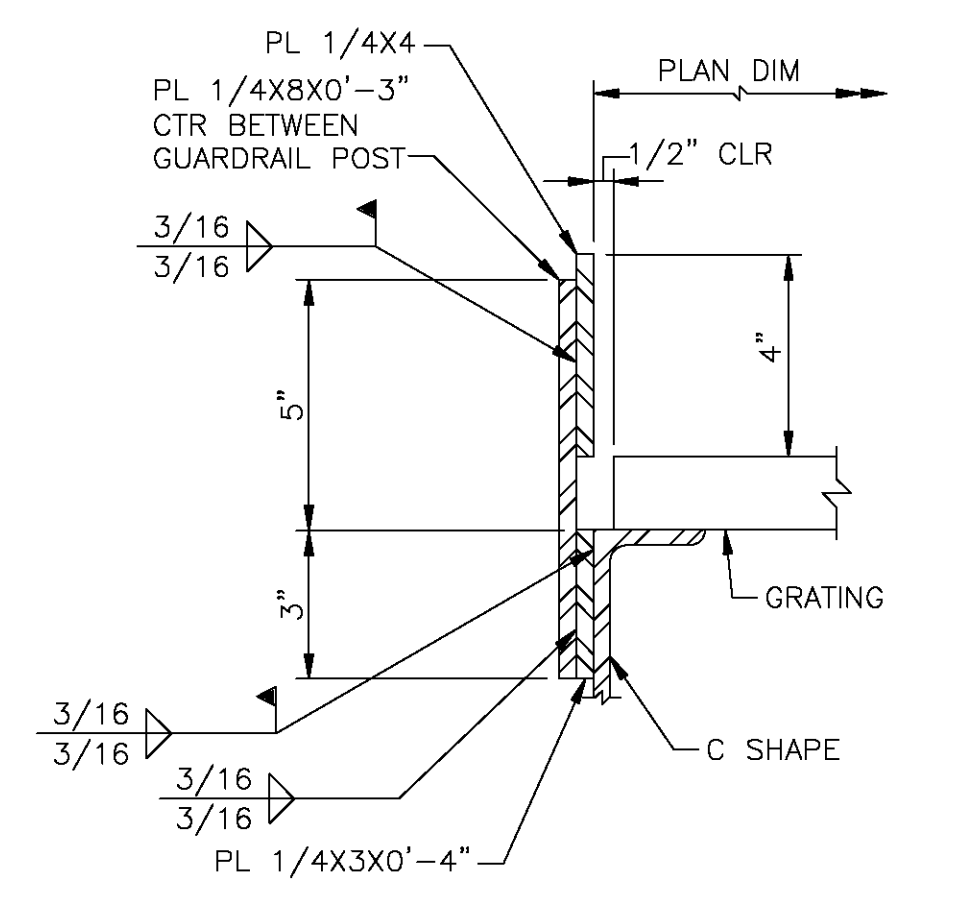
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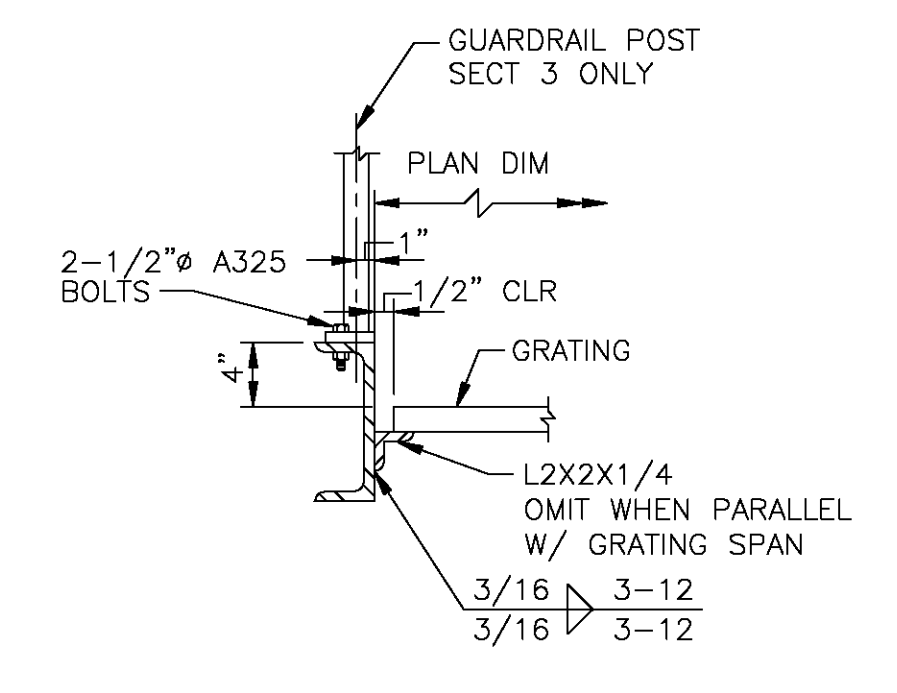
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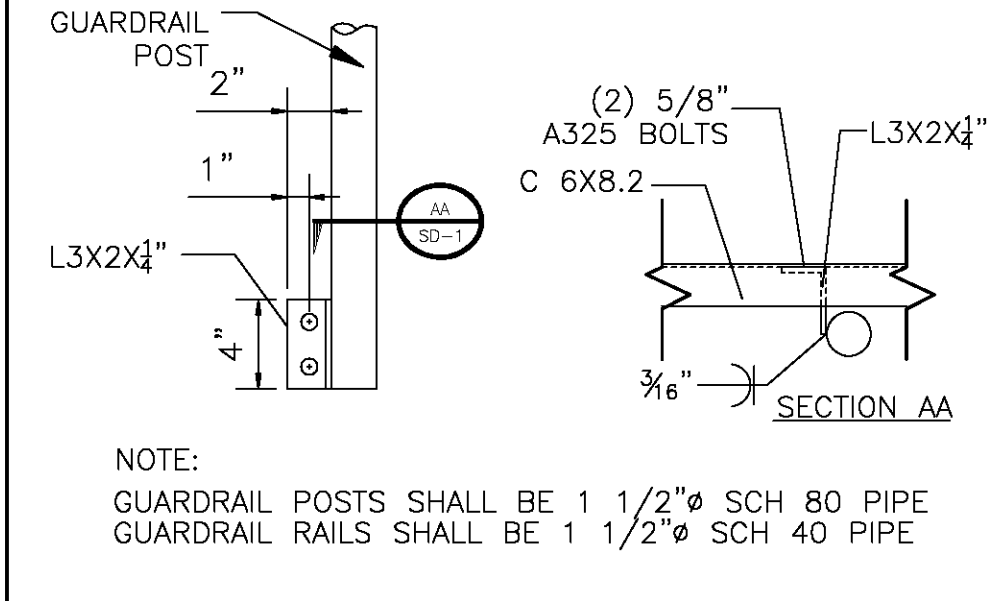
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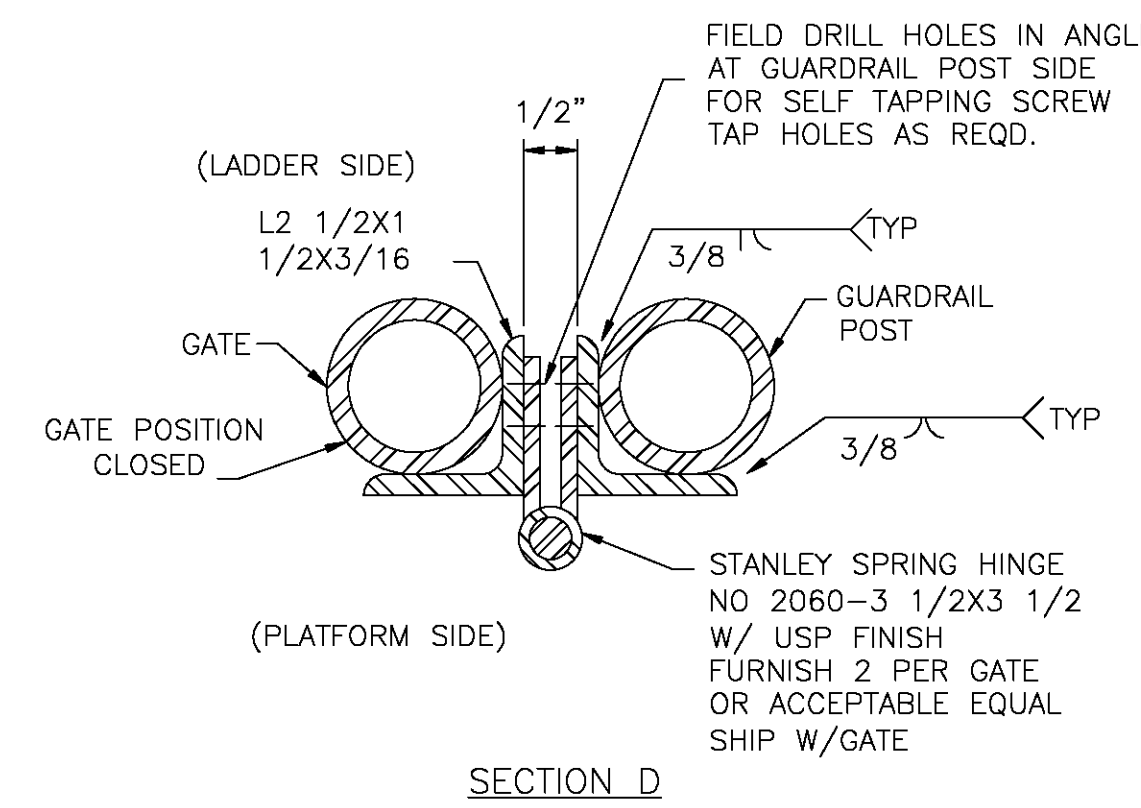
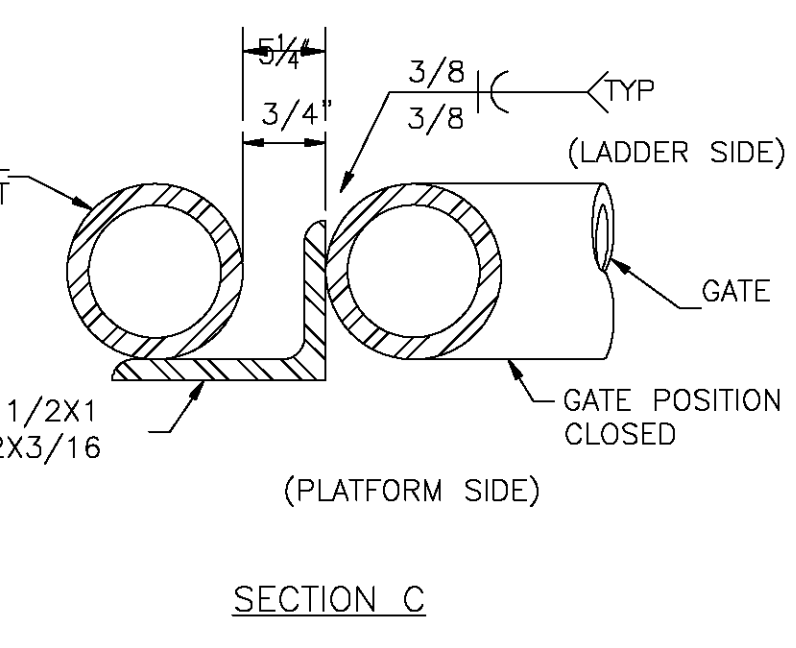
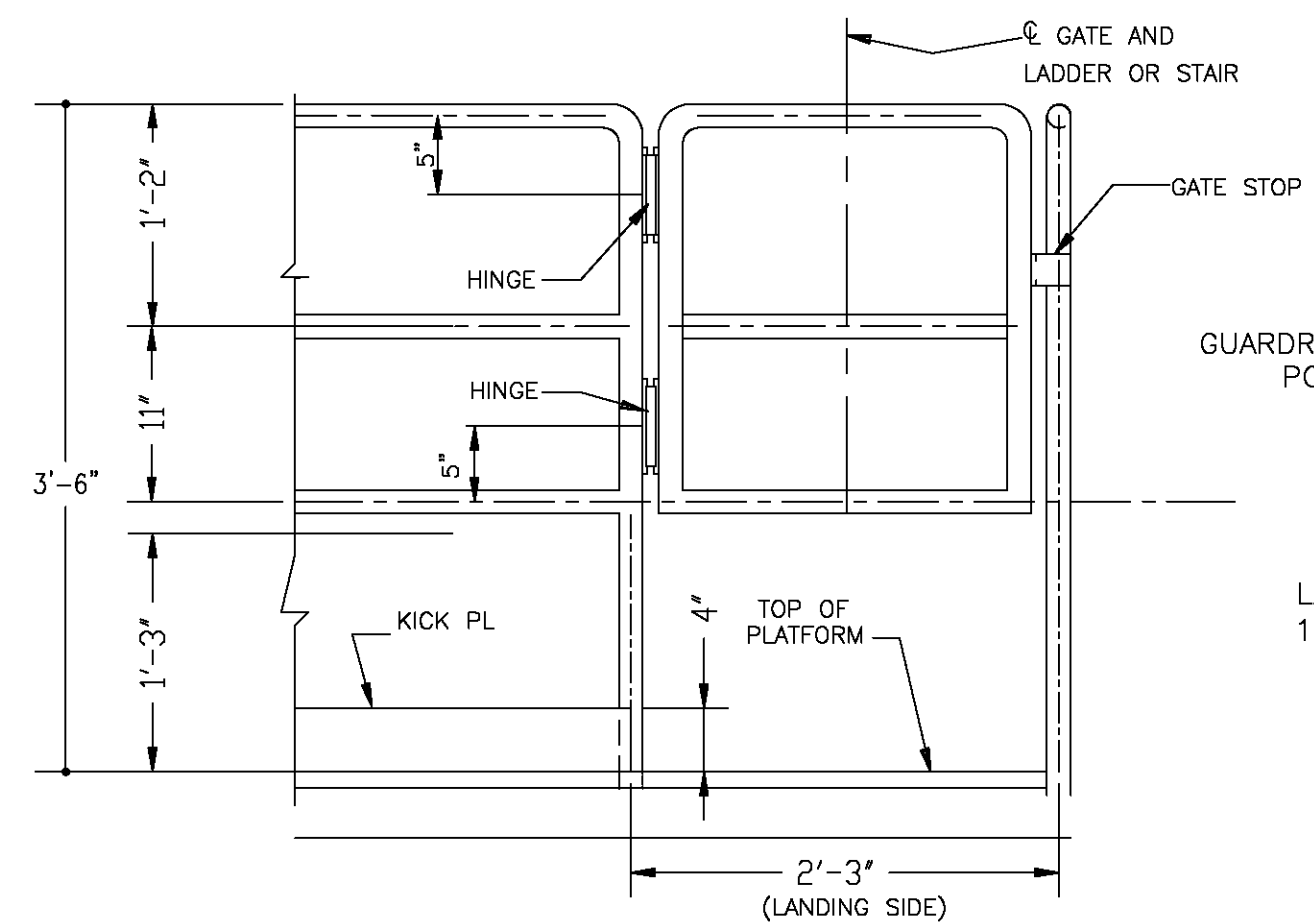
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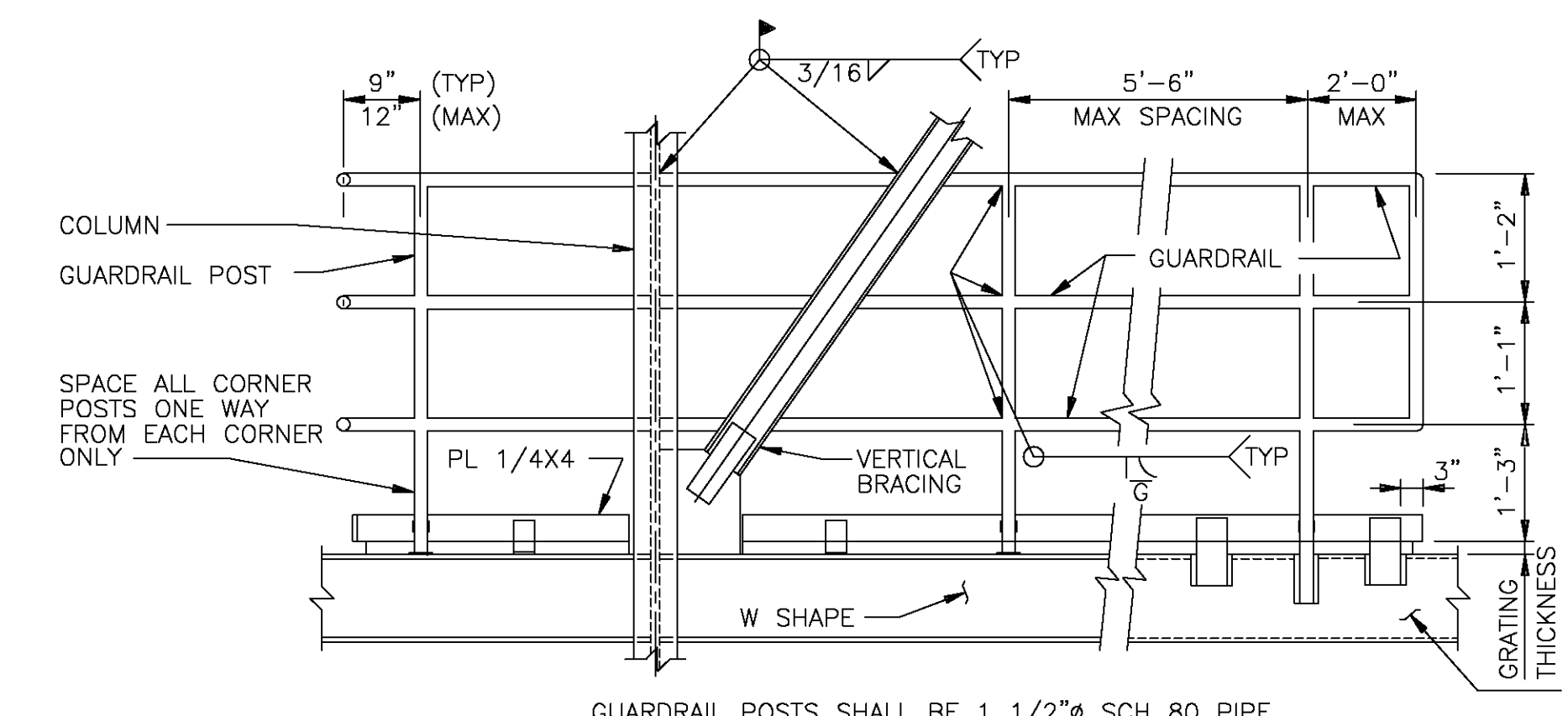
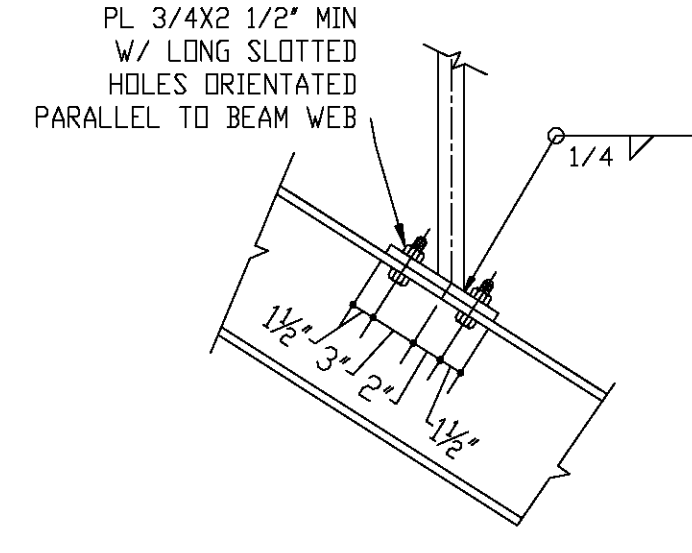
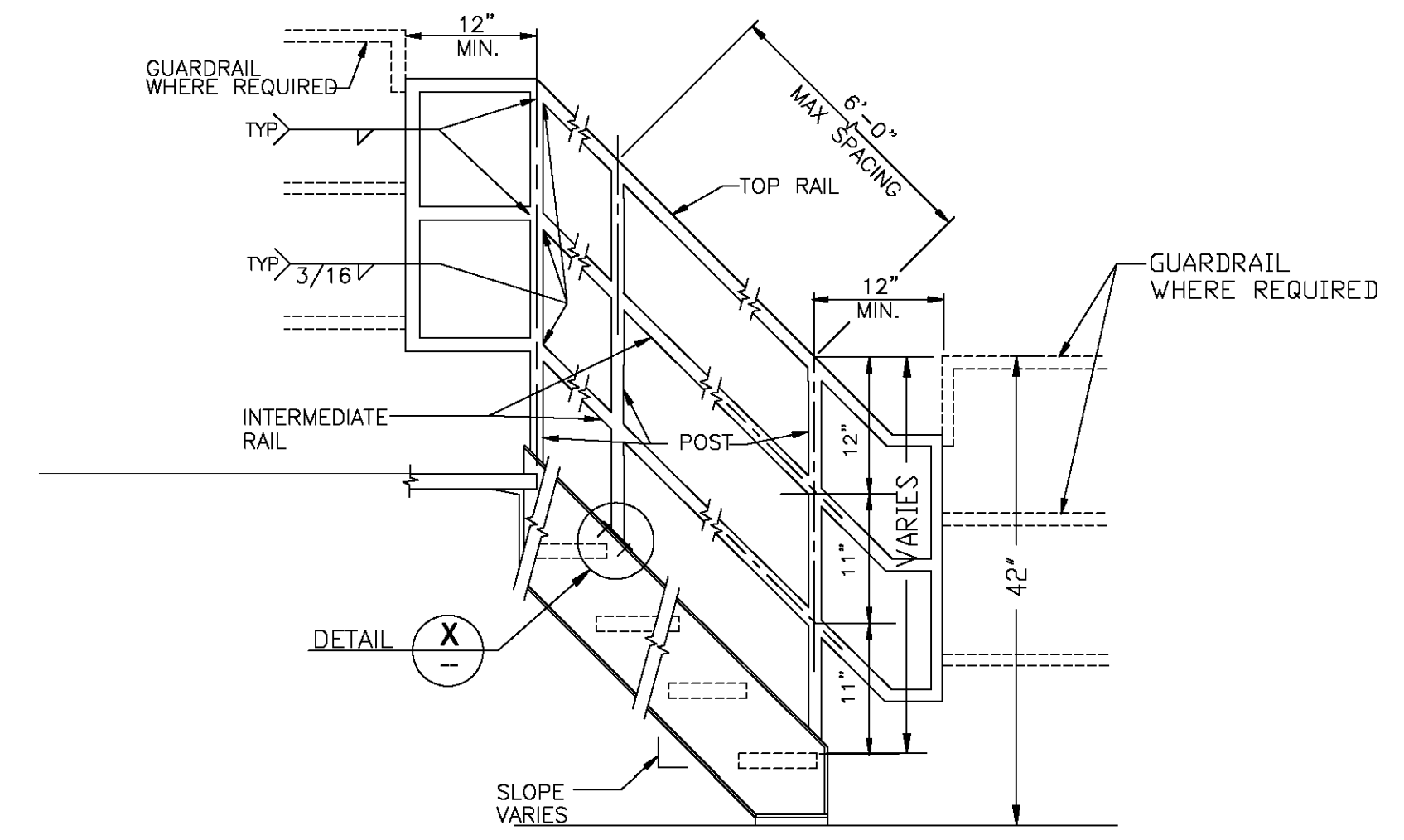


11



TYPICAL GATE DETAILS

12



NOTE: SHIP RAILS 3" LONGER THAN INTERSECTION WITH VERTICAL BRACING. FIELD CUT RAILS TO CORRECT ANGLE AND WELD TO BRACE.

NOTE: PL 1/4x4 SHALL BE STRAIGHT AND TRUE AT TIME OF WELDING TO GUARDRAIL POSTS.

GUARDRAIL POSTS SHALL BE 1 1/2" SCH 80 PIPE  
GUARDRAIL RAILS SHALL BE 1 1/2" SCH 40 PIPE

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DRAWING TITLE: STANDARD RAIL DETAILS  
ACC SUMP AND PUMP PIT STAIRS  
COLUSA GENERATING STATION

OWNER: PACIFIC GAS & ELECTRIC COMPANY  
COLUSA GENERATING STATION  
MAXWELL, CA.

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DATE	10/07/2016
DRAWN	AZ
CHECKED	DW
JOB NO.	16R-123
SCALE	AS NOTED
DRAWING No.	SD-2
SHEET No.	6 of 6
ISSUE	A

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