

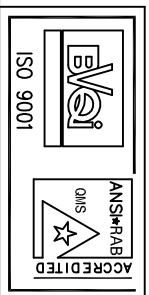
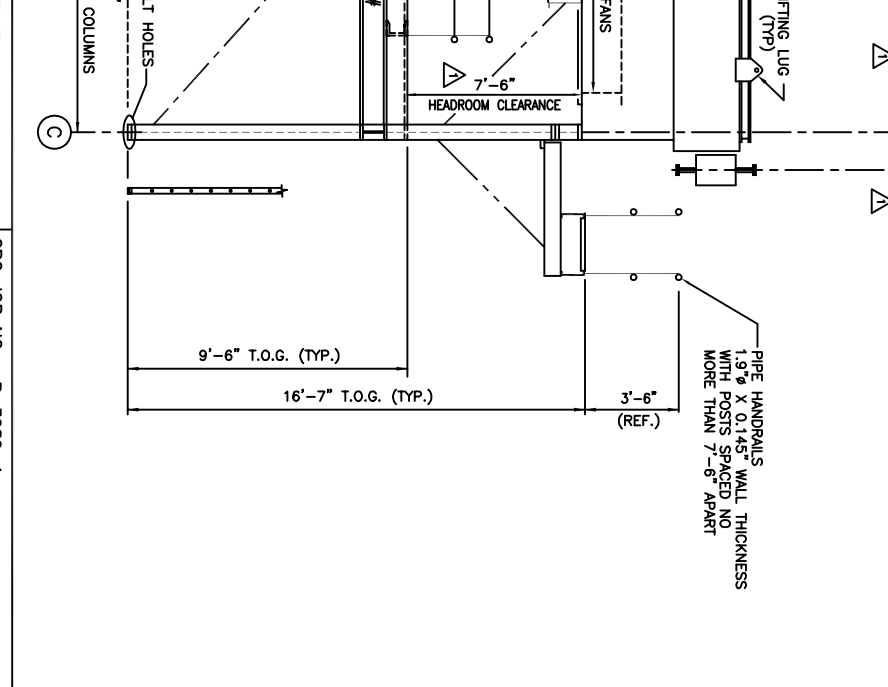
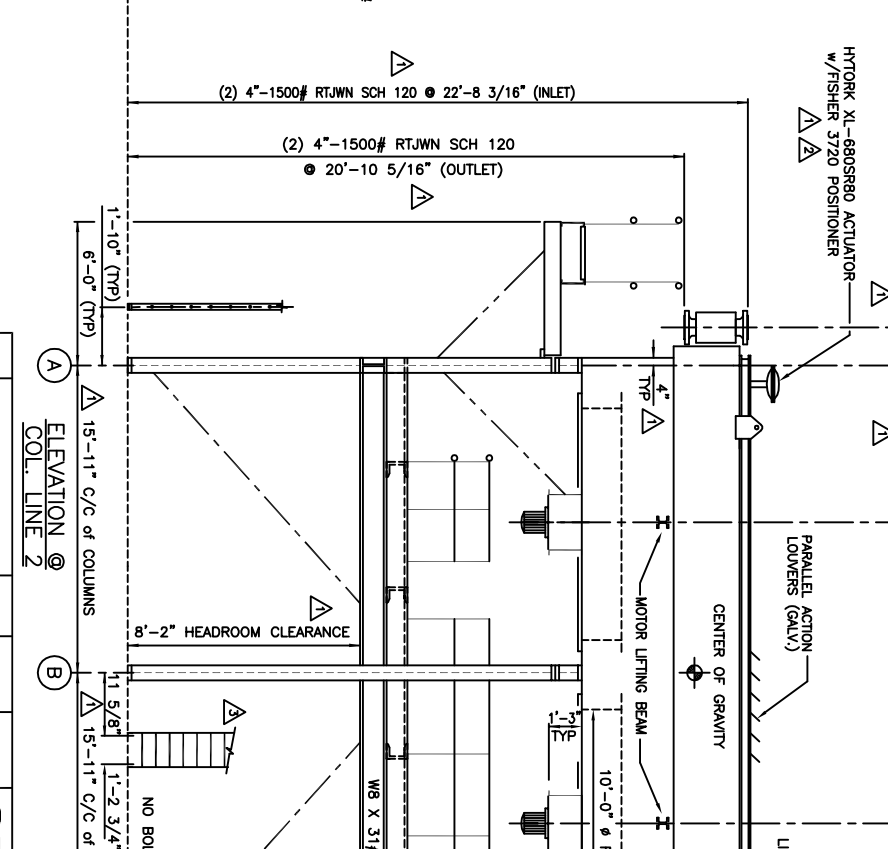
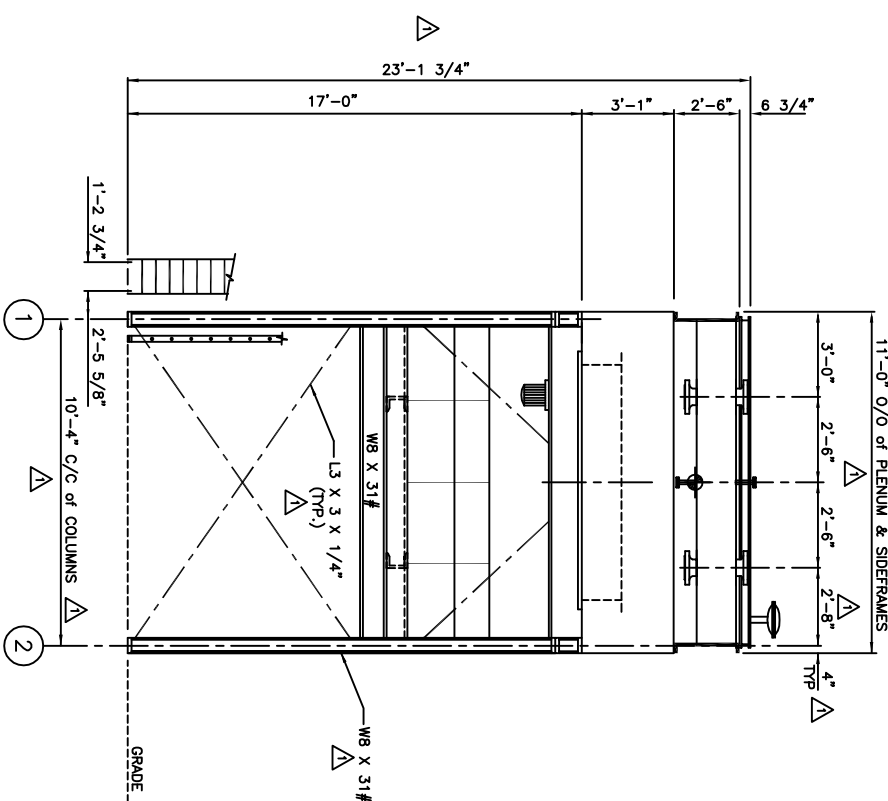
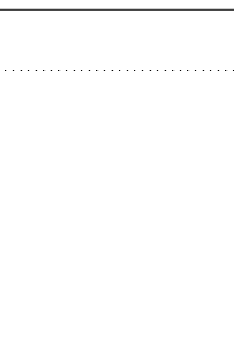
COLUMN LOADS	
COLUMN	1 or 2
DEAD LOAD	5875
LIVE LOAD	5725
OPERATING LOAD	3300
TRANSVERSE WIND SHEAR	2200
LONGITUDINAL WIND SHEAR	700
TRANSVERSE WIND VERTICAL	8745
LONGITUDINAL WIND VERTICAL	1350
EARTHQUAKE SHEAR	± 0
EARTHQUAKE VERTICAL	± 0
SNOW LOAD	0
COLUMN	1 or 2
DEAD LOAD	11375
LIVE LOAD	6250
OPERATING LOAD	450
TRANSVERSE WIND SHEAR	2200
LONGITUDINAL WIND SHEAR	700
TRANSVERSE WIND VERTICAL	± 8745
LONGITUDINAL WIND VERTICAL	± 0
EARTHQUAKE SHEAR	± 0
EARTHQUAKE VERTICAL	± 0
SNOW LOAD	0

**NOTES FOR LOADING CHART:**

- 1) ALL LOADS ARE IN POUNDS.
- 2) LIVE LOADS INCLUDE WALKWAY LOADS BASED ON 100 PSF.
- 3) OPERATING LOADS INCLUDE LOAD OF HEADERS & TUBES FULL OF WATER & NOZZLE LOADS PER API-661, 4th ED., 1997, FIGURE 8.
- 4) WIND LOADS ARE PER ANSI/ASCE 7-95 USING:  
 $V = 140$  MPH  
 $Kz = 1.03$   
 $Kd = 1.0$   
 $Gf = 0.85$   
 $G = 1.3$   
 $F =$  DESIGN WIND FORCE  
 $Ce = (0.44)(No)$   
 $No = 1.0$   
 $R = 4.2$   
 $Sd =$  SOIL PROFILE
- 5) VERTICAL WIND LOADS ARE LOADS COMING FROM OVERTURNING MOMENT
- 6) EARTHQUAKE LOADS ARE PER UBC 1997 EDITION (1626) USING:  
 $Ce = (0.44)(No)$   
 $No = 1.0$   
 $R = 4.2$   
 $Sd =$  SOIL PROFILE

**GENERAL NOTES:**

- 1) DESIGNED PER API-661, 4th ED., 1997, OVERALL TOLERANCES PER API-661, 4th ED., 1997, FIGURE 8.
- 2) MAXIMUM PIPE NOZZLE LOAD 2.5 TIMES NOZZLE LOADING SPECIFIED IN API-661, 4th ED., 1997, FIGURE 8.
- 3) PROVISION FOR MINIMUM LATERAL MOVEMENT OF TUBE BUNDLES OF 1/4" IN BOTH DIRECTIONS OR 1/2" IN ONE DIRECTION.
- 4) STRUCTURAL STEEL DESIGNED PER AISC/OSHA REQUIREMENTS AND APPLICABLE SPECIFICATIONS.
- 5) REFERENCE DIMS:  
 3989010HDR ~ HEADER DETAIL  
 3989010BO ~ BUNDLE OUTLINE  
 3989010FT ~ FINNED TUBE DETAIL  
 3989010MFD ~ FAN DRIVE ASSEMBLY  
 3989000DAS ~ ASSEMBLY, TESTING & SHIPPING  
 3989-1-FE ~ FIELD ERECTION
- 6) GEA RAINIER REQUIRES A STRAIGHT LIFT.



NO.	DESCRIPTION	DATE	DWN.	APPROVED
3	LADDER LOCATION	5/15/02	KEG	
2	LADDER LOCATION, COL DIM	5/18/02	PH	DMW
1	WIDTH/LADDER LOCATION	2/28/02	PH	DMW
0	ORIGINAL ISSUE	01/15/02	PH	DMW

**GEA** Railway Corporation  
Tulsa Port of Catoosa  
Catoosa, Oklahoma

**EXXONMOBIL GLOBAL SERVICES COMPANY**

GRC JOB NO: R-3989-1  
CUST. P.O. NO: 4501066852  
CUST. ITEM NO: G-HAL-201  
SERVICE: WELLSTREAM COOLER

THEODORE, AL

SCALE: NONE  
DWG. NO: 3989010PE  
REV. 3