

Job Package Cover Sheet

WO#	4617263	WL#	N/A	Unit	UTL	Equipment/Location	UTL PIPE RACK SUPPORTS
Permitting Requirements	<input type="checkbox"/>	OPE	<input checked="" type="checkbox"/>	Hot Work	<input type="checkbox"/>	Confined Space Entry	<input type="checkbox"/>
	<input type="checkbox"/>	Blinding	<input type="checkbox"/>	Cold Work	<input checked="" type="checkbox"/>	Working at Heights	<input type="checkbox"/>
	<input type="checkbox"/>					LOTO	<input type="checkbox"/>
	<input type="checkbox"/>					Breathing Air	<input type="checkbox"/>
	<input type="checkbox"/>					Co-Issue Permit	<input type="checkbox"/>
	<input type="checkbox"/>					Crane Required	<input type="checkbox"/>

Job Description

4617263 UTL PIPE RACK SUPPORTS



Repair web and flanges of columns

General Package Documents

- | | | |
|---|---|---|
| <input type="checkbox"/> Work Order Print Out | <input type="checkbox"/> Inspection Requirements | <input type="checkbox"/> Blind Lists/Drawings |
| <input checked="" type="checkbox"/> P&ID | <input type="checkbox"/> FEWA | <input type="checkbox"/> Process Prep Plan |
| <input checked="" type="checkbox"/> Plot Plan | <input type="checkbox"/> PTR | <input type="checkbox"/> Shipping Package |
| <input checked="" type="checkbox"/> Photographs | <input type="checkbox"/> Technical Specifications | <input type="checkbox"/> Warehouse Shipping Request |
| <input type="checkbox"/> Drawings / Sketches | <input type="checkbox"/> Piping | <input type="checkbox"/> Property Removal Pass |
| <input type="checkbox"/> Management of Change | <input type="checkbox"/> Coating | <input type="checkbox"/> MSDS |
| MOC # <input checked="" type="checkbox"/> | <input type="checkbox"/> Insulation/Fireproofing | |
| <input type="checkbox"/> Other : | | |

Special Procedures/SHE Required Documents

- | | |
|--|---|
| <input type="checkbox"/> JLA | <input type="checkbox"/> LRDS |
| <input type="checkbox"/> Ventilation Plan | <input type="checkbox"/> SAFE-NP-6102-1: LEAK REPAIR DATA SHEET |
| <input type="checkbox"/> Equipment Closure | <input type="checkbox"/> SAFE-NP-6102-2: VALVE PACKING GLAND LEAK SEALING CHECKLIST |
| <input type="checkbox"/> Hot Tap/ In-Service Repair Control Form | <input type="checkbox"/> Torquing Procedure |
| <input type="checkbox"/> Lift Plan | <input type="checkbox"/> Flange Torquing |
| <input type="checkbox"/> Furnace Burner Cleaning | <input type="checkbox"/> Equipment Torquing |
| <input type="checkbox"/> Other : | |

Purchase Order Info

Material Vendor	Material Purchase Order	Service Vendor	Service Purchase Order

C1



C1

- Base plate of the column is shot, base plate procedure must be use to repair, using C channel C 12 to make the East beam regular size and an extended on the West side.

C2



C2

- Column flanges seem to be in decent shape, Uts are required to determine the extent of the web repair, column replacement or repair is not consider necessary at the moment.

C3



C3

- Column repair in the bottom along with flange repair in the bottom section of the column, Uts will determine the need for the entire column replacement if good webbing cannot be determined.

C4



C4

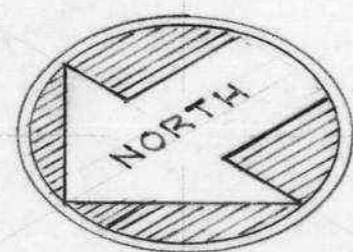
- Column repair procedure on the bottom along with web repair as well for the bottom member, Uts will determine a good landing zone for the webbing. Cut and completely replace the bracing rods with a new 1 1/2", see detail in the construction drawing.

C5



C5

- Entire column is shifted 6" due to its collapse. Entire column replacement is required in this case, use procedure attached for similar repair on the CK1, temporary support of the column is required while the total replacement takes place.

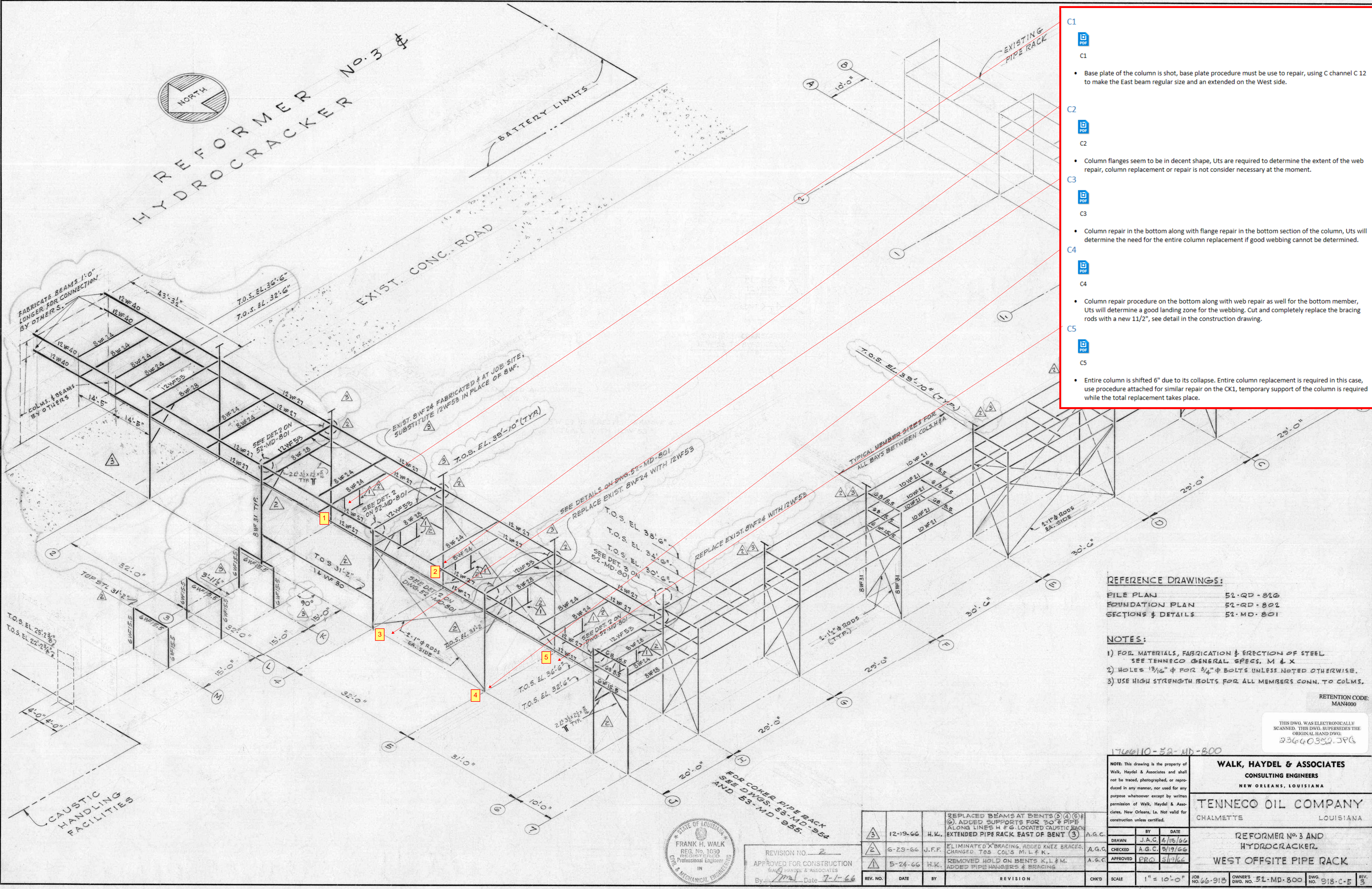


REFORMER No. 3 HYDROCRACKER

EXIST. CONC. ROAD

BATTERY LIMITS

EXISTING PIPE RACK



- C1**
Base plate of the column is shot, base plate procedure must be use to repair, using C channel C 12 to make the East beam regular size and an extended on the West side.
- C2**
Column flanges seem to be in decent shape, Uts are required to determine the extent of the web repair, column replacement or repair is not consider necessary at the moment.
- C3**
Column repair in the bottom along with flange repair in the bottom section of the column, Uts will determine the need for the entire column replacement if good webbing cannot be determined.
- C4**
Column repair procedure on the bottom along with web repair as well for the bottom member, Uts will determine a good landing zone for the webbing. Cut and completely replace the bracing rods with a new 1 1/2", see detail in the construction drawing.
- C5**
Entire column is shifted 6" due to its collapse. Entire column replacement is required in this case, use procedure attached for similar repair on the CK1, temporary support of the column is required while the total replacement takes place.

REFERENCE DRAWINGS:

FILE PLAN	52-QD-826
FOUNDATION PLAN	52-QD-802
SECTIONS & DETAILS	52-MD-801

- NOTES:**
- FOR MATERIALS, FABRICATION & ERECTION OF STEEL SEE TENNECO GENERAL SPECS. M & X
 - HOLES 1 3/16" & FOR 3/4" BOLTS UNLESS NOTED OTHERWISE.
 - USE HIGH STRENGTH BOLTS FOR ALL MEMBERS CONN. TO COLS.

RETENTION CODE: MAN4000

THIS DWG. WAS ELECTRONICALLY SCANNED. THIS DWG. SUPERSEDES THE ORIGINAL HAND DWG. 23640352.JPG

1766110-52-MD-800

NOTE: This drawing is the property of Walk, Haydel & Associates and shall not be traced, photographed, or reproduced in any manner, nor used for any purpose whatsoever except by written permission of Walk, Haydel & Associates, New Orleans, La. Not valid for construction unless certified.

WALK, HAYDEL & ASSOCIATES
CONSULTING ENGINEERS
NEW ORLEANS, LOUISIANA

TENNECO OIL COMPANY
CHALMETTE, LOUISIANA

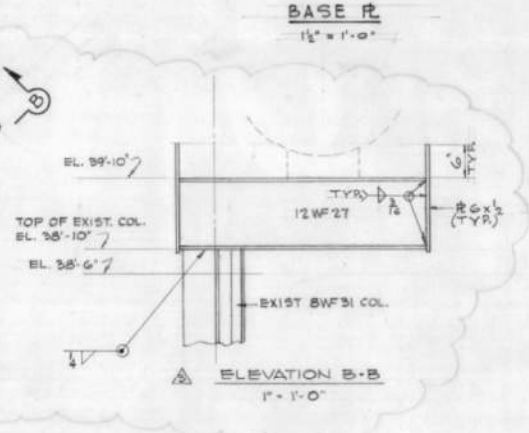
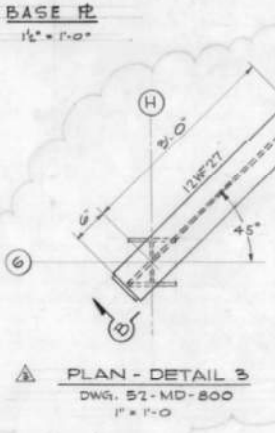
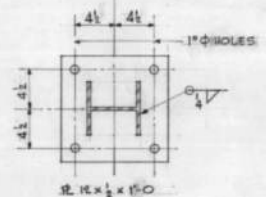
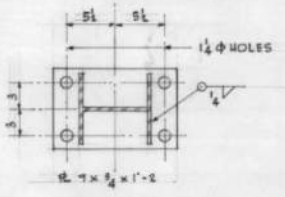
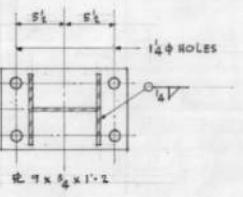
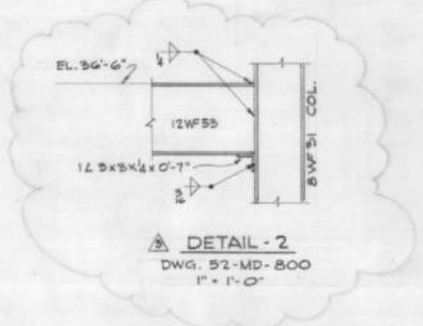
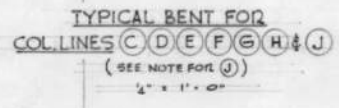
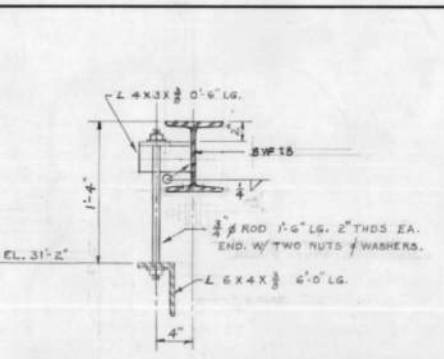
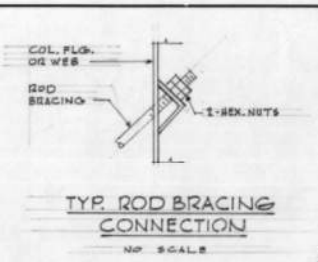
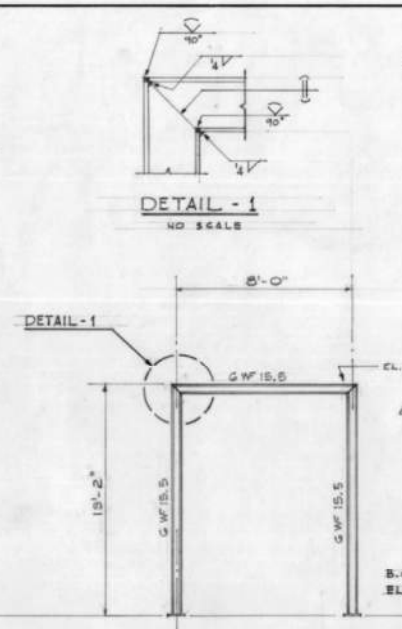
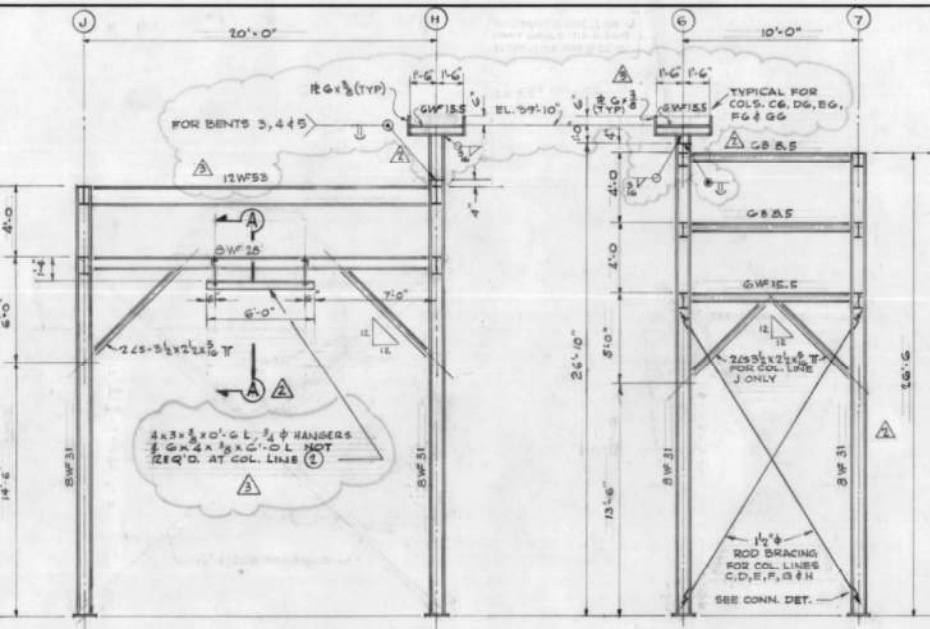
REFORMER No. 3 AND
HYDROCRACKER
WEST OFFSITE PIPE RACK



REVISION NO. 2
APPROVED FOR CONSTRUCTION
WALK, HAYDEL & ASSOCIATES
By: [Signature] Date: 7-1-66

REV. NO.	DATE	BY	REVISION	CHK'D	SCALE
1	12-19-66	H.K.	REPLACED BEAMS AT BENTS (4) & (5) & (6). ADDED SUPPORTS FOR 20" PIPE ALONG LINES H & G. LOCATED CAUSTIC RACK EXTENDED PIPE RACK EAST OF BENT (3)	A.G.C.	1" = 10'-0"
2	6-29-66	J.F.F.	ELIMINATED 'X' BRACING, ADDED KNEE BRACES, CHANGED TOS COL'S M, L & K.	A.G.C.	
3	5-24-66	H.K.	REMOVED HOLD ON BENTS K, L & M. ADDED PIPE HANGERS & BRACING	A.G.C.	

JOB NO. 66-918 OWNER'S DWG. NO. 52-MD-800 DWG. NO. 918-C-5 REV. 3



NOTES:
 WORK THIS DWG. WITH PIPE RACK ISOMETRIC DWG. NO. 51-MD-800



REVISION NO. 2
 APPROVED FOR CONSTRUCTION
 BY: [Signature] DATE: 7-1-66

REV. NO.	DATE	BY	REVISION	CHKD	SCALE	AS NOTED
1	7-19-66	H.K.	ADDED COL. LINE (2), BEAM CHANGES, PIPE SUPPORTS	A.G.C.		
2	6-30-66	J.P.F.	ELIMINATED 'X' BRACINGS, ADDED ROBE BRACING CHANGED T.S.S. COLS. M.L. & R.L.	A.G.C.		
3	5-13-66	M.K.	REMOVED WELD & ADDED PIPE HANGERS	B.S.S.		

176(610-52-4D-501)

WALK, HAYDEL & ASSOCIATES
 CONSULTING ENGINEERS
 NEW ORLEANS, LA.

TENNECO OIL
 CHALMETTE

PIPE RACK SECTION

DATE: 7-1-66
 DRAWN BY: H.K.
 CHECKED BY: A.G.C.
 APPROVED BY: J.P.F.

PROJECT NO. 52-MD-800



LOOKING WEST





1150

PT-0002

TC-112

Danger
Authorized Personnel Only

Danger
Authorized Personnel Only





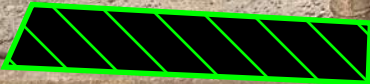


EYES ONLY

LOTO DEVICE
DO NOT ALTER POSITION
ENERGY
ISOLATION DEVICE

FORCIBLE ENTRY

Cut and replace beam



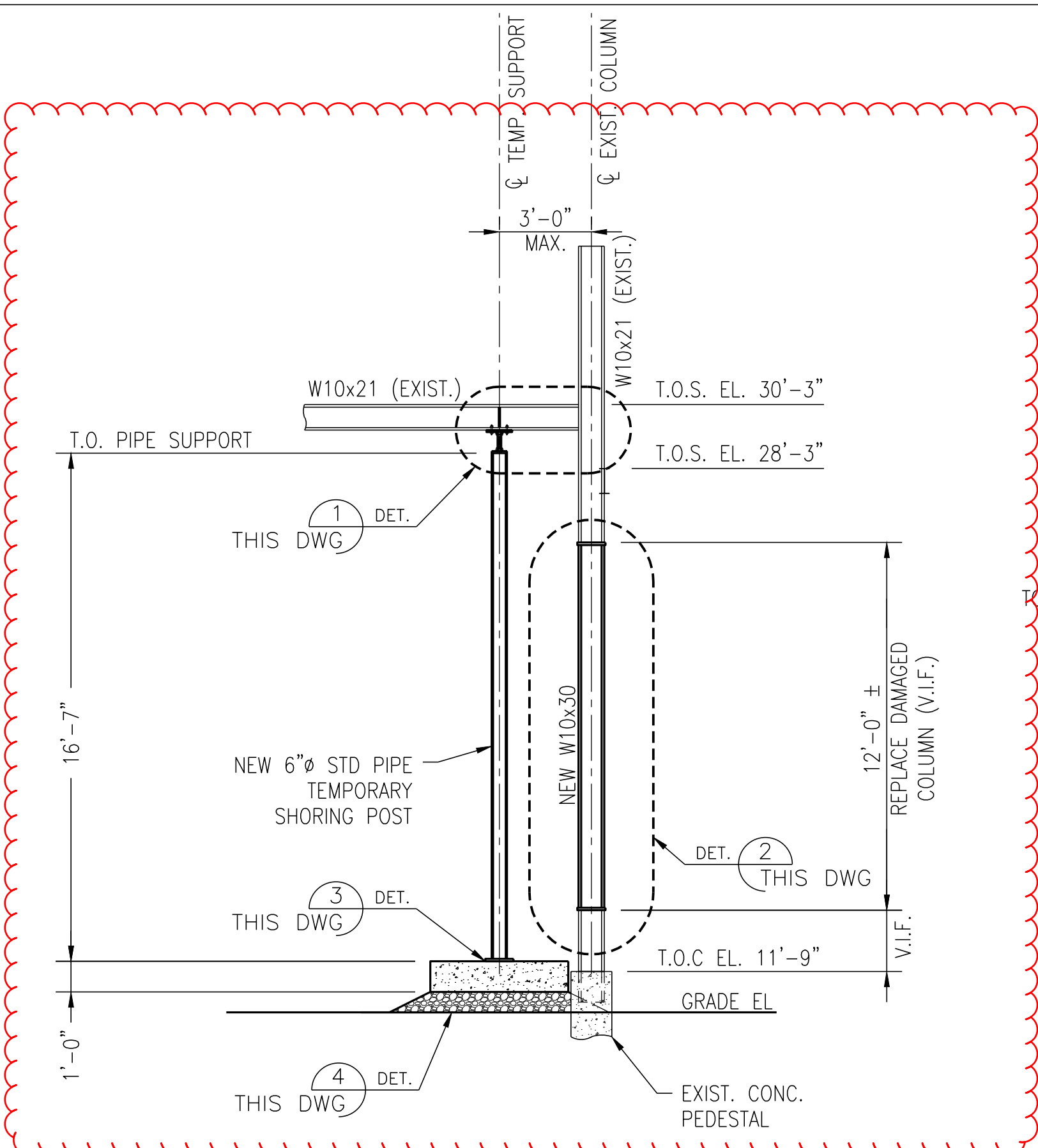
Will require shoring to remove section of column.... use of cribbing or rock to build up

DANGER
ACID
PROPER PPE
REQUIRED

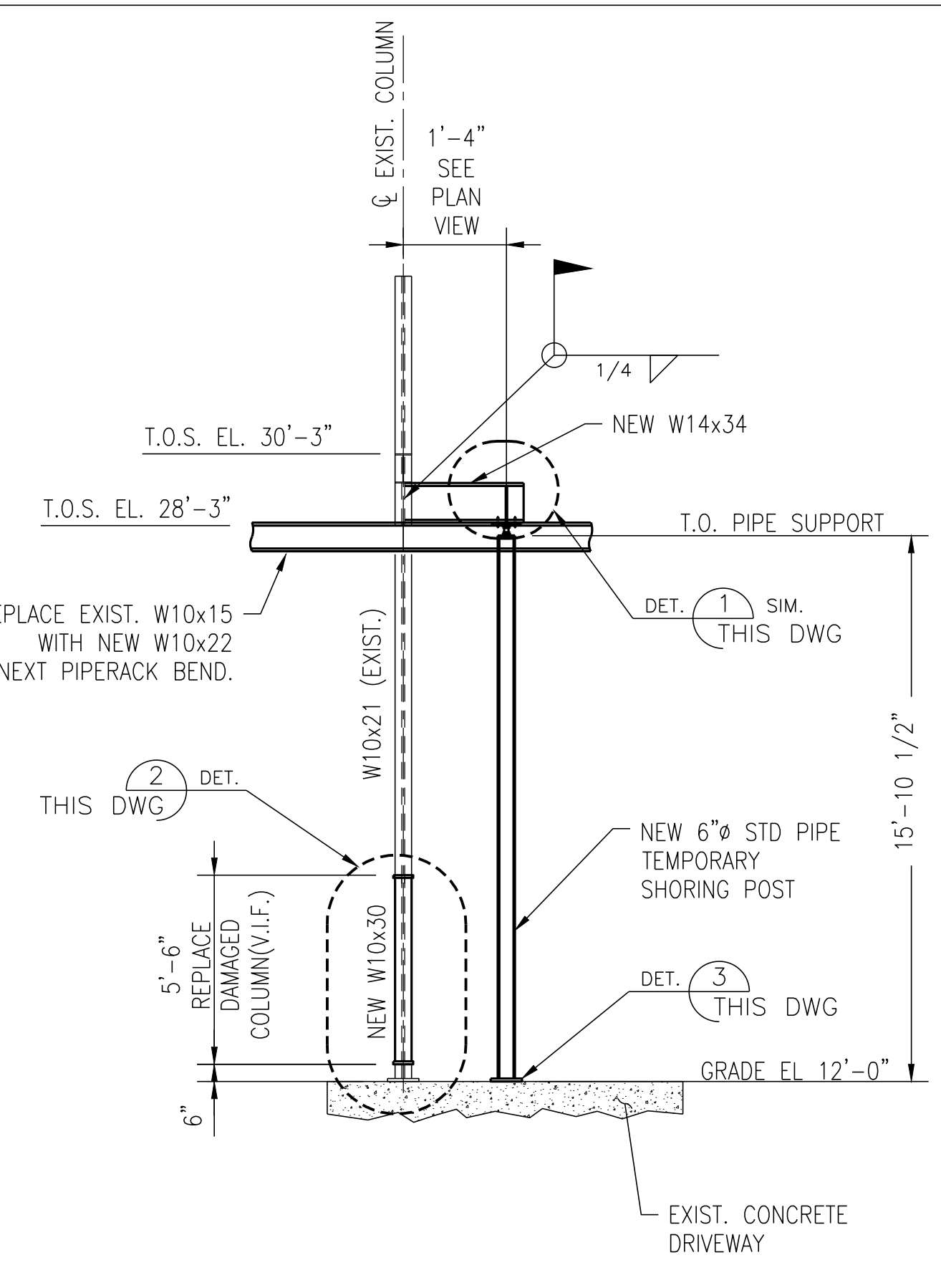


REPLACE COLUMN AND BASE PLATE

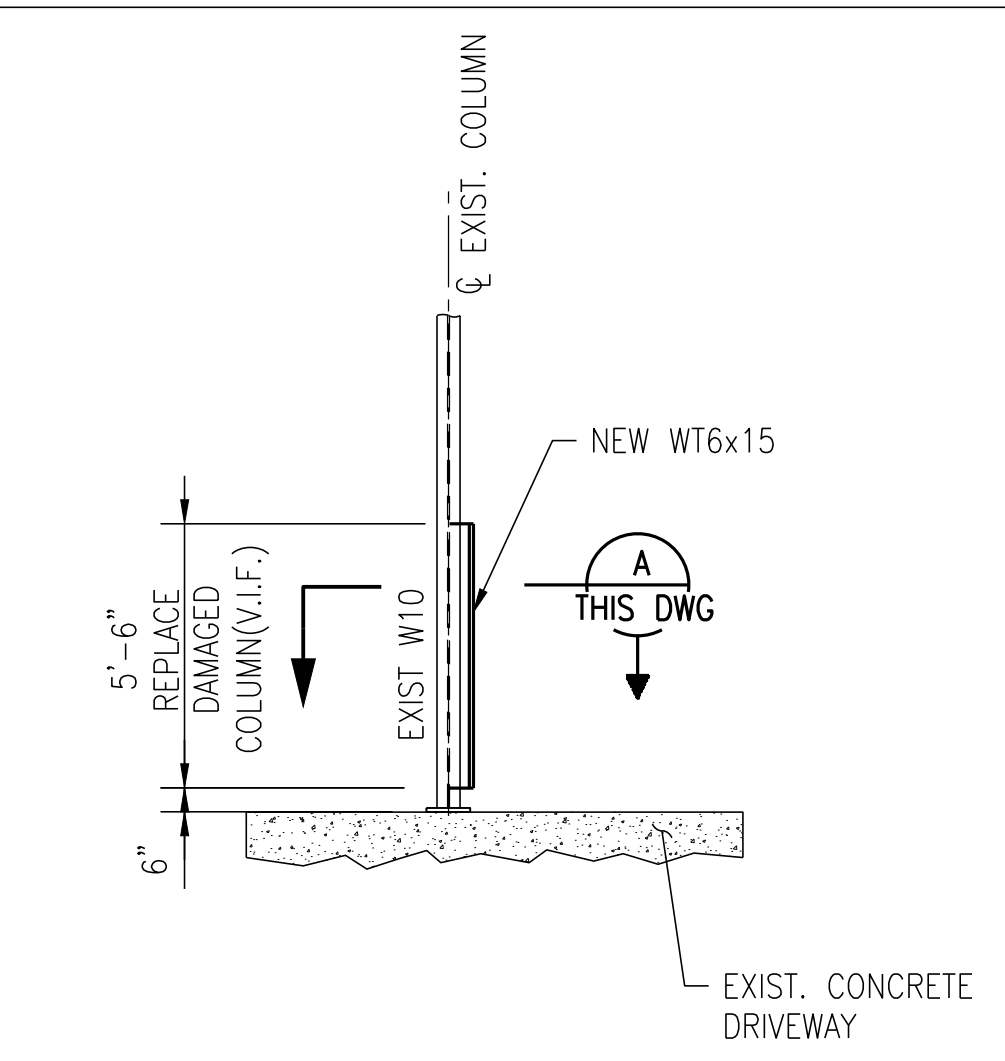
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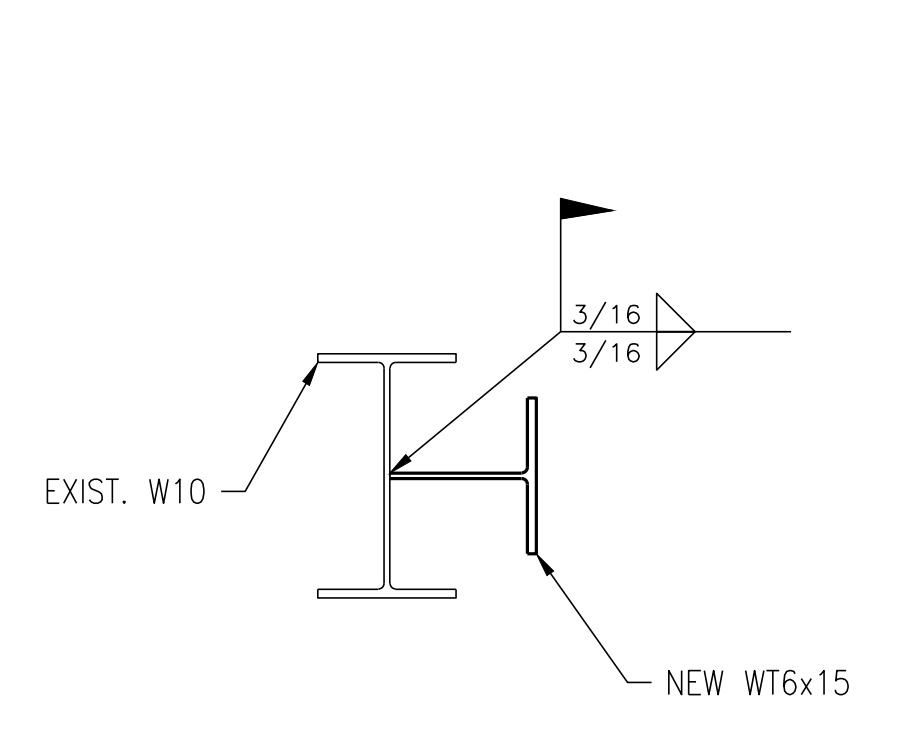
(2 LOOKING NORTH, 1 LOOKING SOUTH)
PIPERRACK REPAIR ELEVATION
 @ PS 5D, 10C (SIM), & 32D
 1/4"=1'-0"



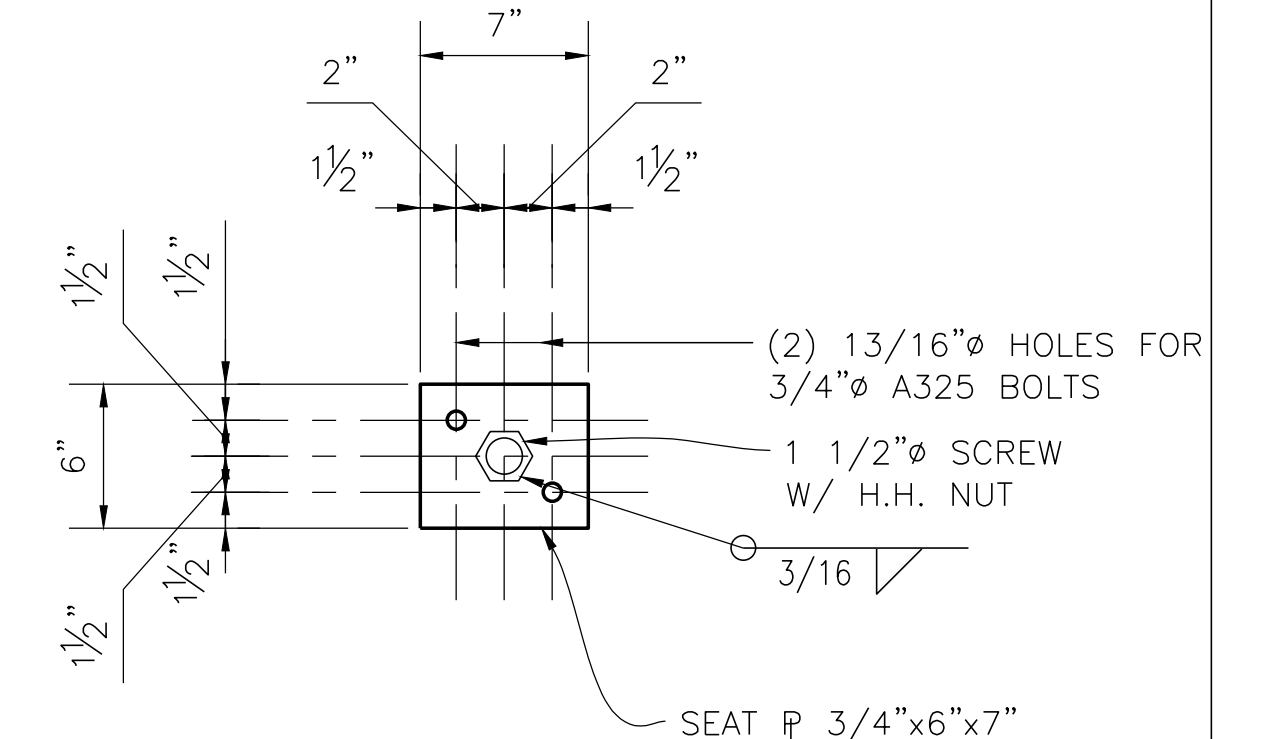
(2 LOOKING EAST)
PIPERRACK REPAIR ELEVATION
 @ PS 8C & 8D
 1/4"=1'-0"



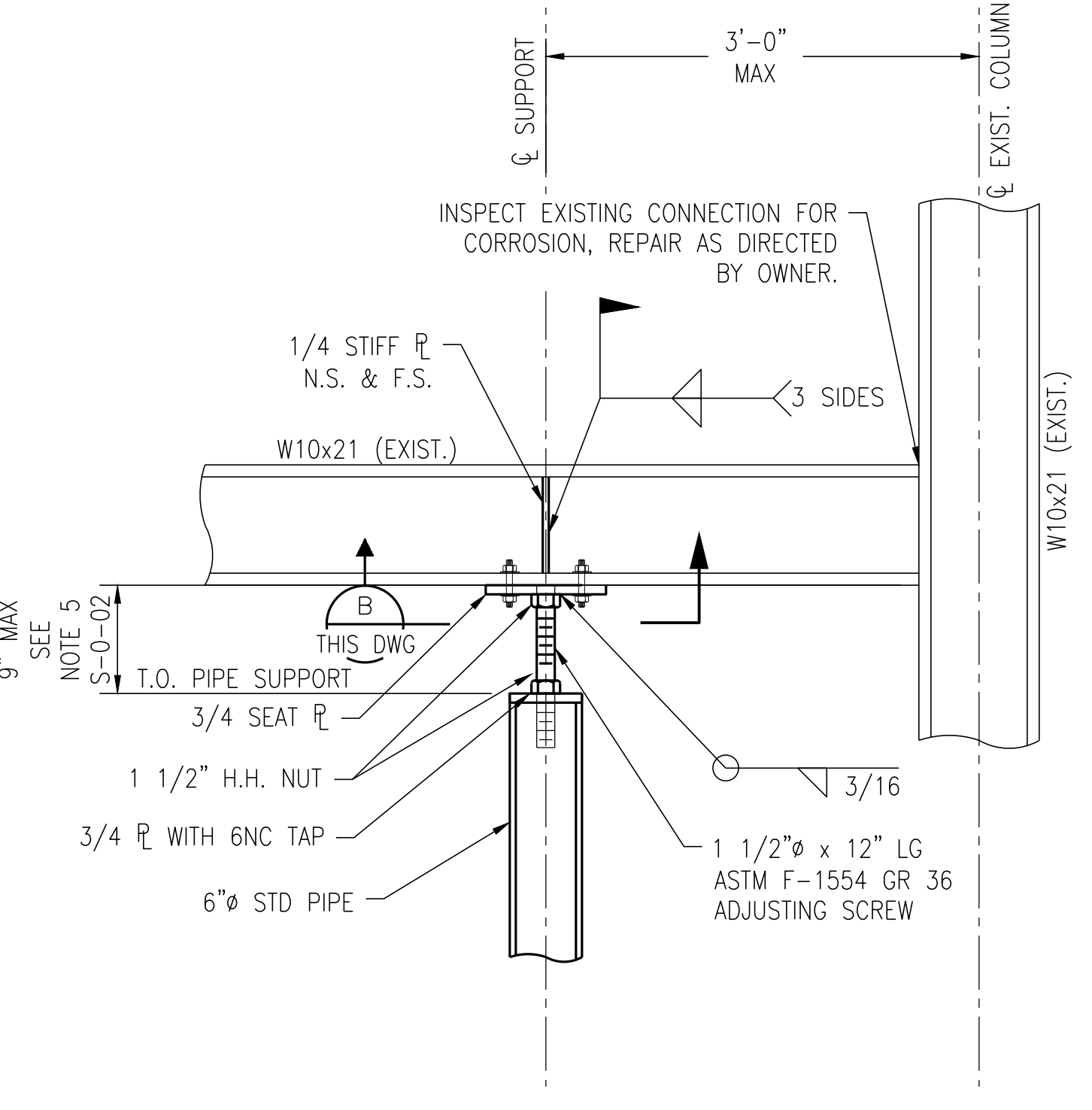
(LOOKING WEST)
PIPERRACK REPAIR ELEVATION
 @ PS 9C
 1/4"=1'-0"



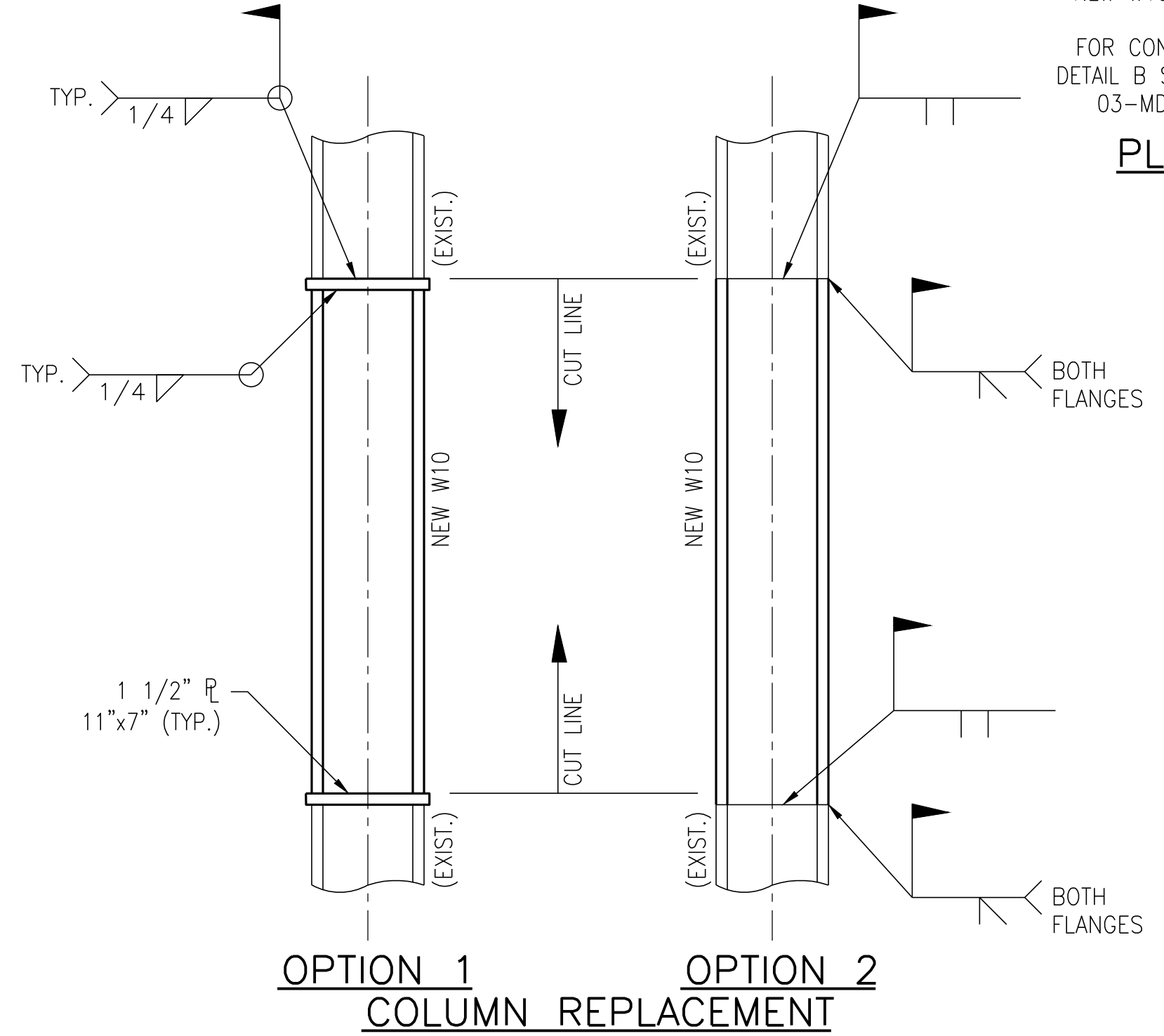
SECTION A
 SCALE: 1 1/2"=1'-0"



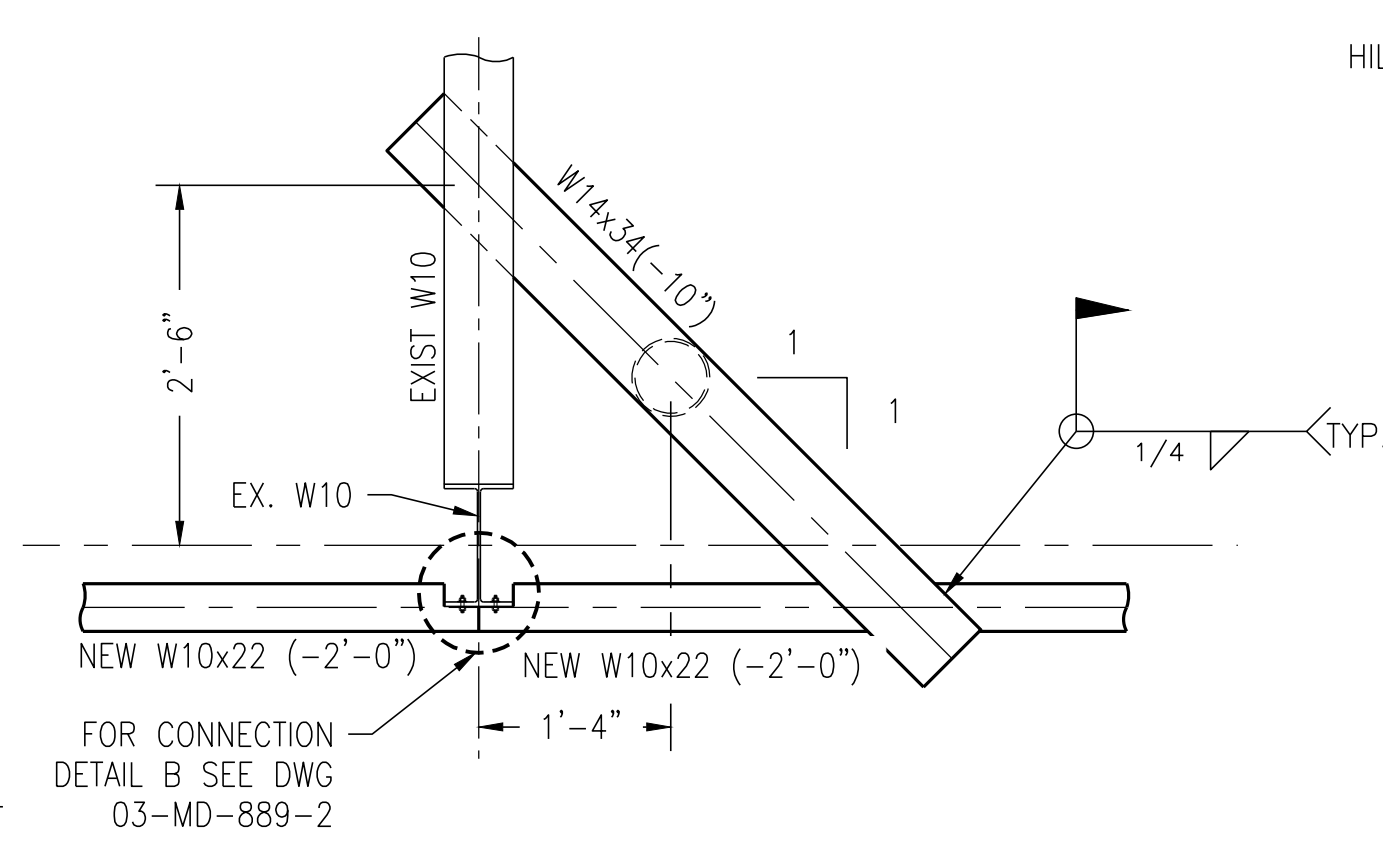
SECTION B
 SCALE: 1 1/2"=1'-0"



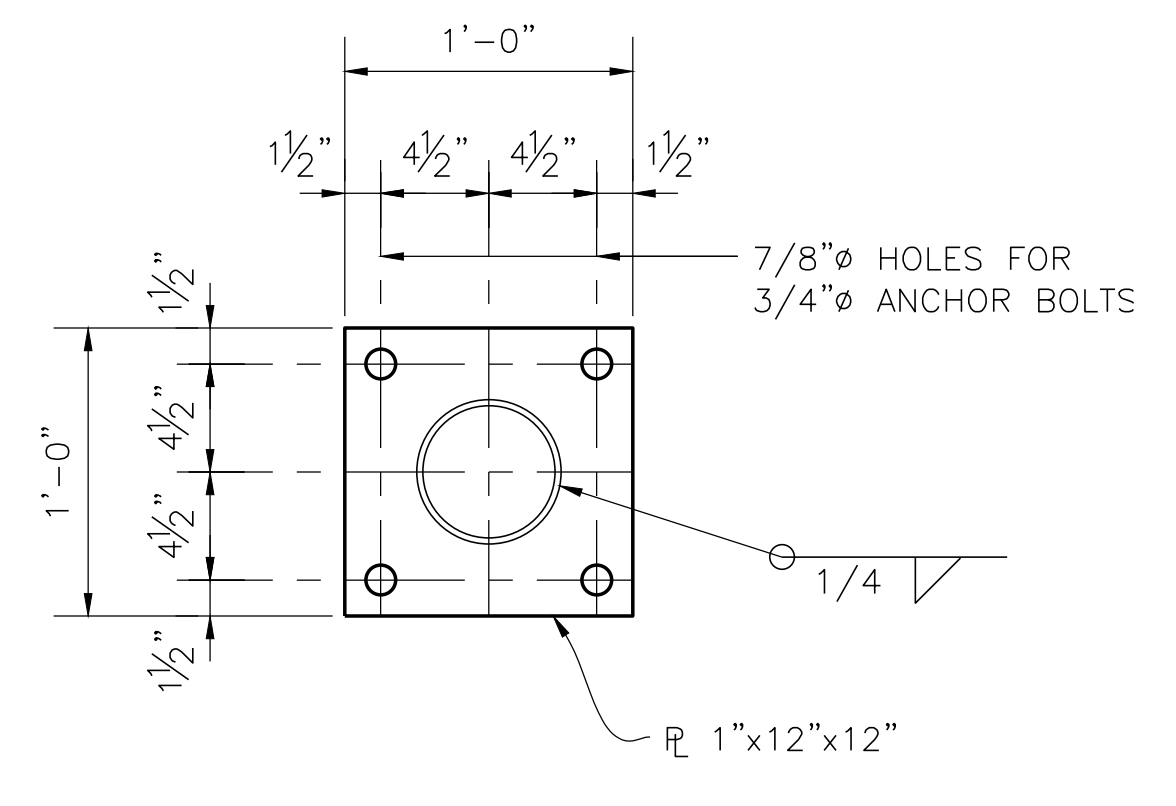
DETAIL 1
 1"=1'-0"



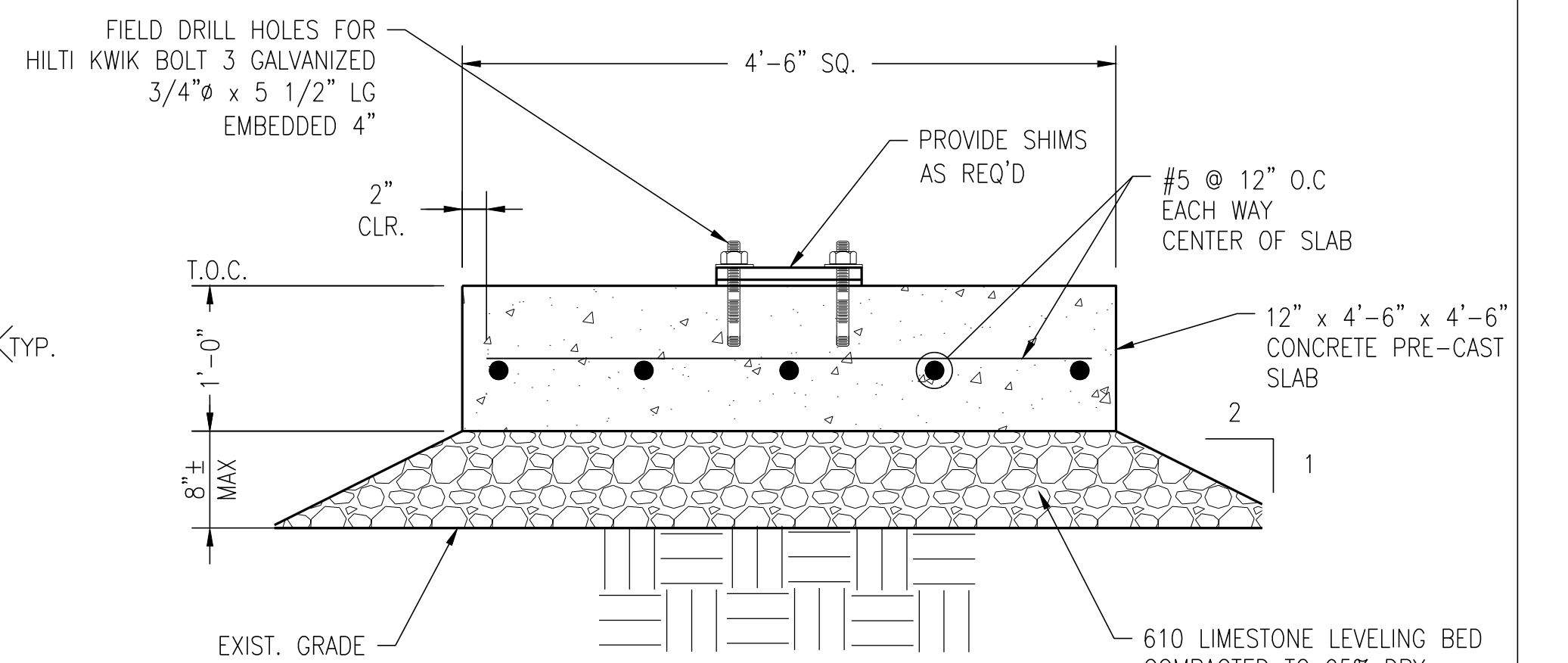
OPTION 1
OPTION 2
COLUMN REPLACEMENT
 1"=1'-0"



PLAN T.O.S. EL 30'-3"
 @ PS 8C & 8D
 3/4"=1'-0"



DETAIL 3
 SCALE: 1 1/2"=1'-0"



DETAIL 4
 1"=1'-0"

CHALMETTE REFINING 24 X 36 SCALEABLE.DWT (05/01/07)

REVISIONS						
NO.	DATE	REVISION DESCRIPTION	FIRM	CHECKER	DRAFTER	CHR PROJ ENGINEER
0	5/29/19	ISSUED FOR CONSTRUCTION	SE	BMF	ABF/ABF	BMF

GENERAL NOTES	
1. FOR INSTALLATION, GENERAL, STEEL AND FOUNDATION NOTES SEE DWG S-0-02.	
LEGEND	

REFERENCE DRAWINGS	
1.	S-0-02
2.	03-MD-886-2
3.	03-MD-889-2
4.	03-MD-890-2

CHR PROJECT ENGINEER:	
CONSULTANT APPROVAL:	
DRAFTER:	ABF
CHECKER:	BMF
FIRM:	SPECIALIZED ENGINEERING
DATE:	5/29/19
SCALE:	AS NOTED

LA COA: 5809

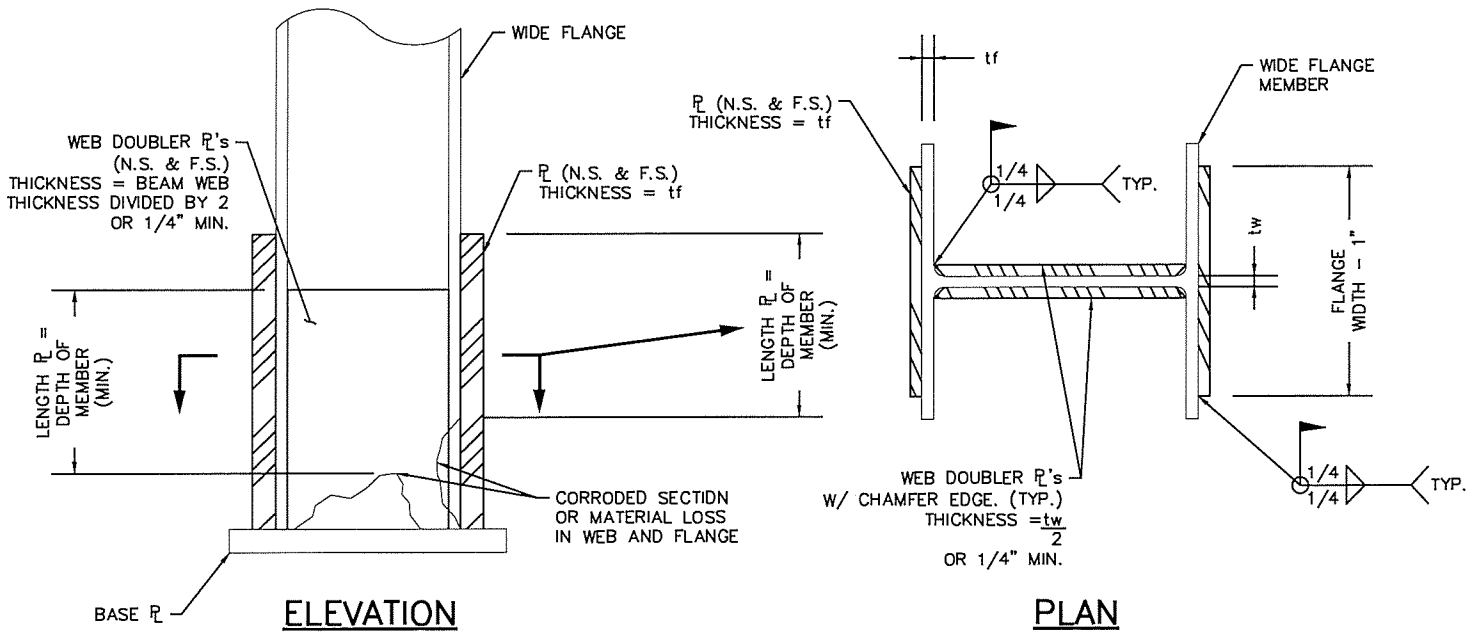
BRIAN M. FROEBA
 License No. 37141
 PROFESSIONAL ENGINEER
 CIVIL ENGINEERING
 5/29/19 rev 0

ENGINEER OF RECORD
 NAME: BRIAN M. FROEBA
 NUMBER: 37141

COKER UNIT
 OFFSITE PIPEWAY
 COKER 1 PIPERRACK COLUMN REPAIR
 STEEL DETAILS & ELEVATIONS

SAP NO.:	CHALMETTE JOB NO.: 4510355170
CHALMETTE CADD NO.:	S-0-01
CHALMETTE DWG NO.:	
RETENTION CODE:	
DWG TYPE:	S
REV.:	0

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WIDE FLANGE COLUMN REPAIR W/ WEB & FLANGE LOSS
SCALE: 3"=1'-0"

STRUCTURAL NOTES:

- DESIGN, FABRICADION AND ERECTION OF STRUCTURAL STEEL SHALL BE IN ACCORDANCE WITH THE LATEST REVISION OF THE A.I.S.C. MANUAL OF STEEL CONSTRUCTION AND WITH PBF ENGINEERING PRACTICE EP 4-5-1 AND EP 4-5-2.
- ALL STRUCTURAL STEEL CHANNELS, PLATES AND ANGLES SHALL CONFORM TO ASTM A36 (36KSI). W SHAPES SHALL CONFORM TO ASTM A992 (50KSI) U.N.D. DESIGN SHALL BE IN ACCORDANCE WITH STANDARD EP 4-5-1.
- ALL STRUCTURAL AND MISCELLANEDUS STEEL SHALL BE HOT DIP GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH ASTM A123.
- ALL WELDED JOINTS ON MEMBERS REQUIRED TO BE GALVANIZED SHALL HAVE A MIN 1/8" SEAL WELD IN AREAS OUTSIDE OF MAIN STRENGTH WELDS.
- WELDING SHALL BE NOT LESS THAN THE LATEST EDITION OF THE "STRUCTURAL WELDING CODE D1.1" OF THE AMERICAN WELDING SOCIETY, USING E70XX ELECTRODES.
- ALL STRUCTURAL BOLTS SHALL BE 3/4" MINIMUM IN ACCORDANCE WITH ASTM F3125 A325 TYPE 1 UNLESS NOTED OTHERWISE.
- COATINGS DAMAGED BY HANDLING, CUTTING, BURNING OR WELDING SHALL BE REPAIRED PER PBF ENGINEERING PRACTICE EP 1D-3-8.

NO.	DATE	ISSUED FOR	DRAFT CHECK	ENGR	ENGR
0	1/10/20	ISSUED FOR USE	ABF BMF	ABF	MFF

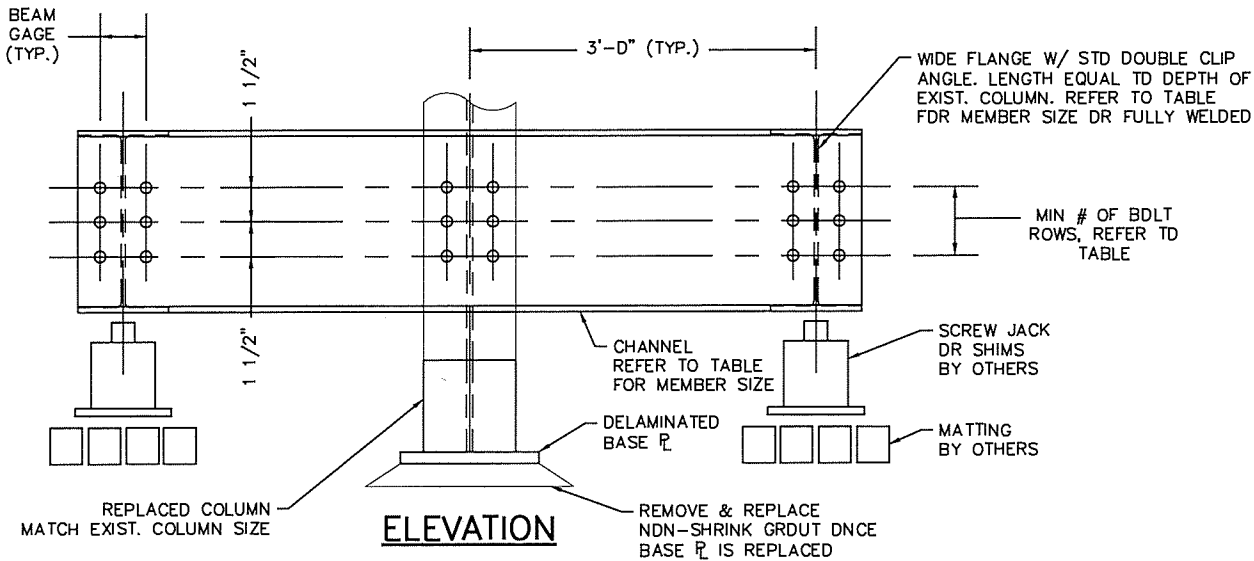
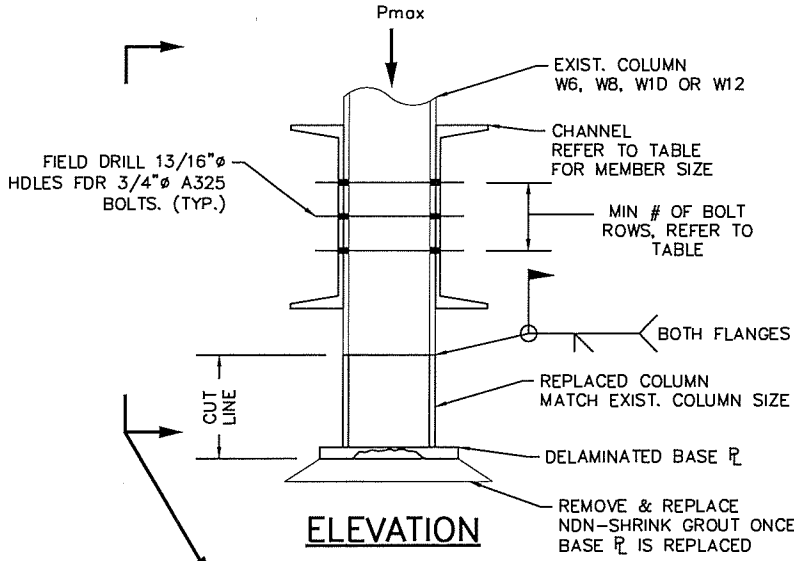


GENERAL REFINERY REPAIRS
CIVIL / STRUCTURAL
WIDE FLANGE COLUMN REPAIR

SAP NO.: XXX	CHALMETTE JOB NO.: XXX	RETENTION CODE: MAN4000	
CHALMETTE CADD NO.: GENERAL REPAIR S-DD5.DWG		DWG TYPE: M	REV. 0
CHALMETTE DWG NO.: GENERAL REPAIR S-DD5			

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MAX CD COLUMN SIZE	CHANNEL SIZE	MIN # DF BOLT ROWS	W/OE FLANGE SIZE	MAX P (KIPS)
W6x25	C8x11.5	2	WBx18	2D
W8x67	C1Dx2D	3	W1Dx26	4D
W1Dx68	C12x25	3	W12x3D	6D
W12x96	C15x33.9	4	W14x30	80



BASE DELAMINATION REPAIR
SCALE: N.T.S

STRUCTURAL NOTES:

- DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL SHALL BE IN ACCORDANCE WITH THE LATEST REVISION OF THE A.I.S.C. MANUAL OF STEEL CONSTRUCTION AND WITH PBF ENGINEERING PRACTICE EP 4-5-1 AND EP 4-5-2.
- ALL STRUCTURAL STEEL CHANNELS, PLATES AND ANGLES SHALL CONFORM TO ASTM A36 (36KSI). W SHAPES SHALL CONFORM TO ASTM A992 (50KSI) U.N.O. DESIGN SHALL BE IN ACCORDANCE WITH STANDARD EP 4-5-1.
- ALL STRUCTURAL AND MISCELLANEOUS STEEL SHALL BE HOT DIP GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH ASTM A123.
- ALL WELDED JOINTS ON MEMBERS REQUIRED TO BE GALVANIZED SHALL HAVE A MIN 1/8" SEAL WELD IN AREAS OUTSIDE OF MAIN STRENGTH WELDS.
- WELDING SHALL BE NOT LESS THAN THE LATEST EDITION OF THE "STRUCTURAL WELDING CODE D1.1" OF THE AMERICAN WELDING SOCIETY, USING E70XX ELECTRODES.
- ALL STRUCTURAL BOLTS SHALL BE 3/4" MINIMUM IN ACCORDANCE WITH ASTM F3125 A325 TYPE 1 UNLESS NOTED OTHERWISE.
- COATINGS DAMAGED BY HANDLING, CUTTING, BURNING OR WELDING SHALL BE REPAIRED PER PBF ENGINEERING PRACTICE EP 1D-3-8.

NO.	DATE	ISSUED FOR	DRAFT CHECK	ENGR	ENGR
0	1/10/20	ISSUED FOR USE	ABF BMF	ABF	MFF



GENERAL REFINERY REPAIRS
CIVIL / STRUCTURAL
BASE DELAMINATION REPAIR

SAP NO.: XXX

CHALMETTE JDB NO.: XXX

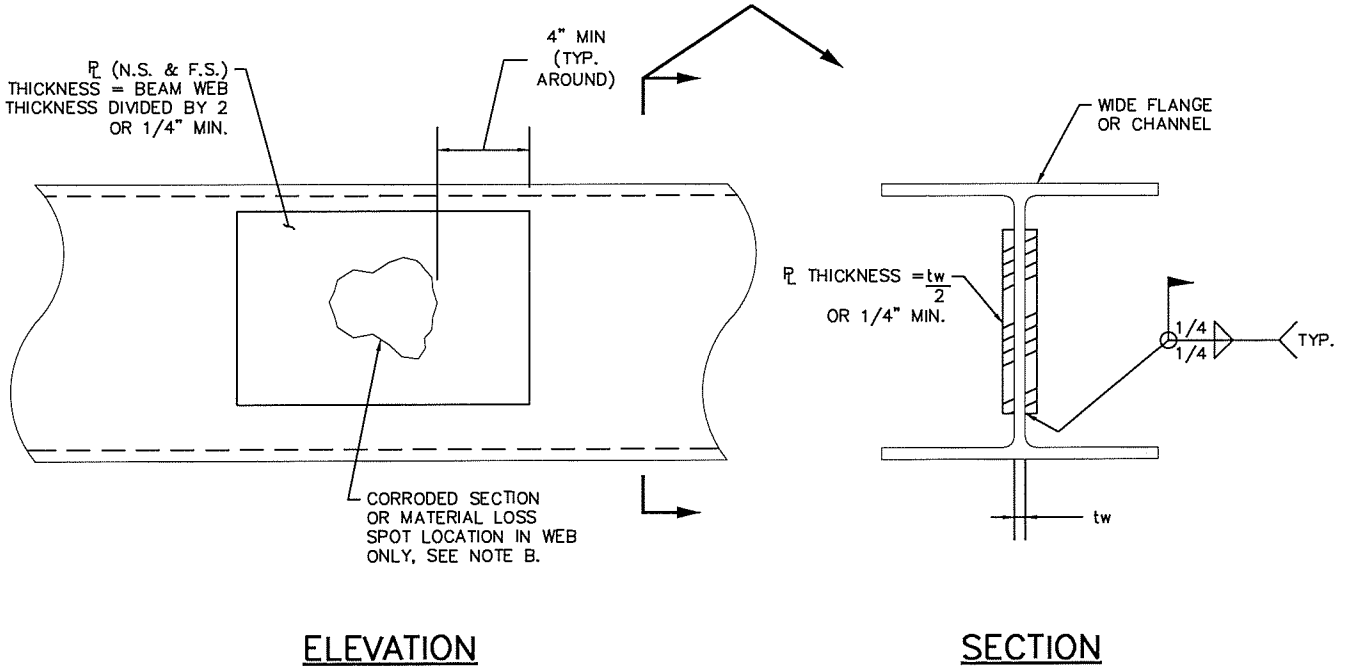
CHALMETTE CADD NO.: GENERAL REPAIR S-DD8.DWG

RETENTION CODE:
MAN4DDC

CHALMETTE DWG NO.: GENERAL REPAIR S-DD8

DWG TYPE: M
REV: 0

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ELEVATION

SECTION

BEAM WEB SPOT REPAIR

SCALE: 3"=1'-0"

STRUCTURAL NOTES:

- DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL SHALL BE IN ACCORDANCE WITH THE LATEST REVISION OF THE A.I.S.C. MANUAL OF STEEL CONSTRUCTION AND WITH PBF ENGINEERING PRACTICE EP 4-5-1 AND EP 4-5-2.
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- WELDING SHALL BE NOT LESS THAN THE LATEST EDITION OF THE "STRUCTURAL WELDING CODE D1.1" OF THE AMERICAN WELDING SOCIETY, USING E70XX ELECTRODES.
- ALL STRUCTURAL BOLTS SHALL BE 3/4" MINIMUM IN ACCORDANCE WITH ASTM F3125 A325 TYPE 1 UNLESS NOTED OTHERWISE.
- COATINGS DAMAGED BY HANDLING, CUTTING, BURNING OR WELDING SHALL BE REPAIRED PER PBF ENGINEERING PRACTICE EP 1D-3-8.
- IF MATERIAL LOSS IS LESS THAN HALF OF WEB THICKNESS, THAN REINFORCEMENT PLATE MAY BE PERMITTED ON ONLY ONE SIDE OF BEAM. UT READINGS SHALL BE CONDUCTED TO CONFIRM MATERIAL LOSS.

NO.	DATE	ISSUED FOR	DRAFT	ENGR	ENGR
			CHECK		
0	1/10/20	ISSUED FOR USE	ABF	ABF	MFF
			BMF		



GENERAL REFINERY REPAIRS
CIVIL / STRUCTURAL
BEAM WEB SPOT REPAIR

SAP NO.: XXX

CHALMETTE JOB NO.: XXX

CHALMETTE CADD NO.: GENERAL REPAIR S-DD4.DWG

RETENTION CODE:
MAN4DOC

CHALMETTE DWG NO.: GENERAL REPAIR S-DD4

DWG TYPE: M
REV: D

PLANNER FEED BACK FORM

Work Order#:
Date of Work:

- Did work order have proper steps for completing job?

- Was estimated job step hours correct, if no please provide correct hours below?

- Was correct material ordered for the job?

- Were there any delays in receiving material?

- If outside resources/vendors were required, were there any issues getting them onsite?

- If outside resources/vendors were required, were the resources/vendors perform the task

- Additional Notes for Planner