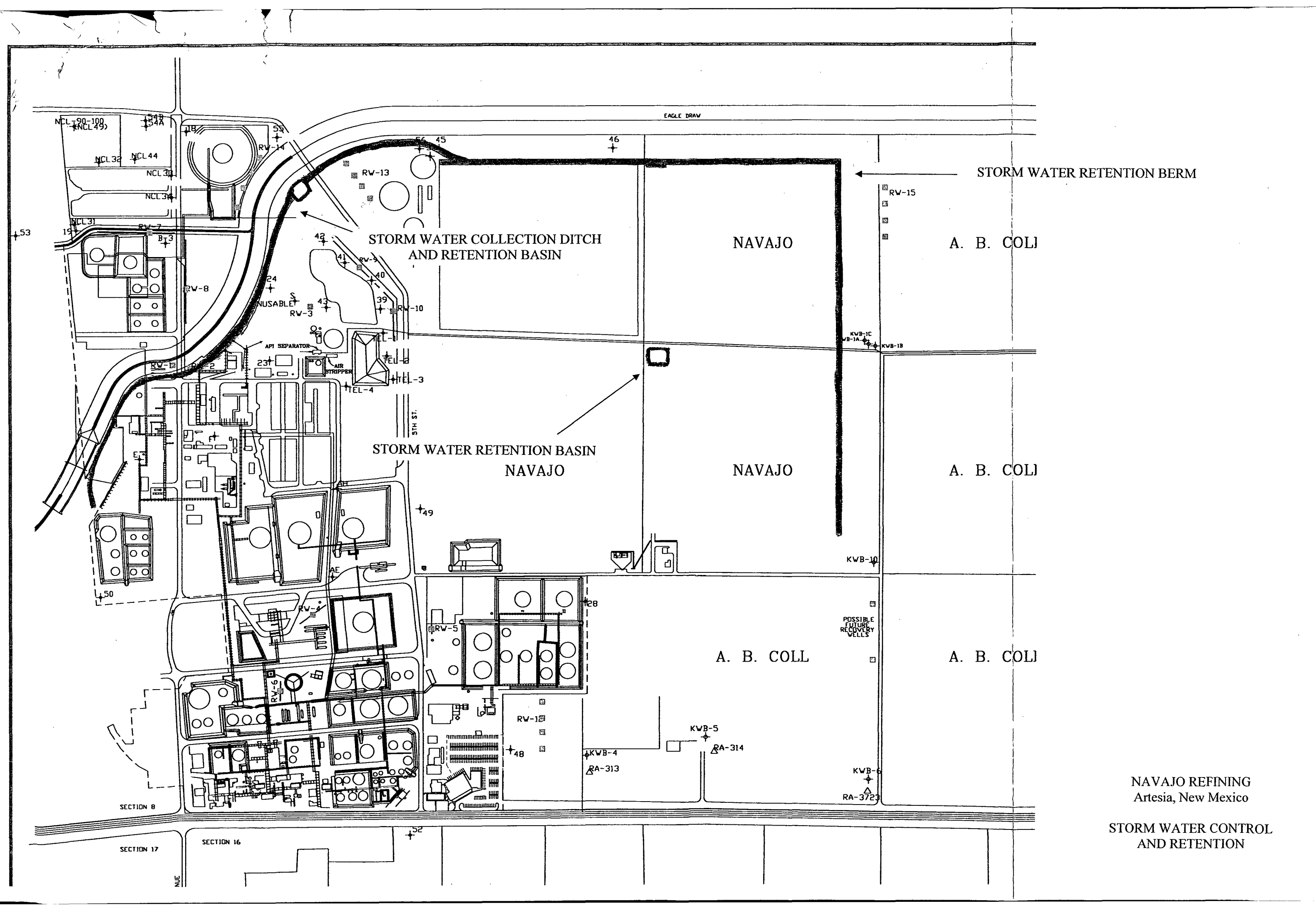


GW - 28

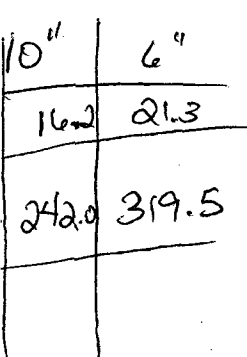
REPORTS

YEAR(S):

2002-2000



NAVAJO REFINING
 Artesia, New Mexico
 STORM WATER CONTROL
 AND RETENTION





P.O. Box 390
Artesia, NM 88211-0390
Office # (505) 748-2142
Fax # (505) 748-2142
NM License # 81259

Navajo Refining Co.
P.O. Box 159
Artesia, NM 88211-0159
Attn: Daryl Moore

May 2, 2000

Dear Mr. Moore

Attached please find the results of your Annual Sump Testing per the list provided by the maintenance department.

Thank you,

A handwritten signature in black ink, appearing to read 'Thomas N. Giles', is written over the typed name.

Thomas N. Giles
Giles Incorporated
NM #81259

GILES INCORPORATED

**ANNUAL SUMP INSPECTION
NAVAJO REFINING CO.
ARTESIA PLANT**

SUMP LOCATION: UNLOADING RACK SOUTH OF 400 TK

STATUS: CLEANED-OUT / LINES ISOLATED

VISUAL INSPECTION: NO JOINTS, CRACKS, FLAWS

INSPECTED BY: THOMAS SIDNEY GILES

DATE OF TEST: 1-12-00

START TIME: 4:00 P.M.

FINISH TIME: 7:30 AM

TESTED BY: THOMAS SIDNEY GILES

RESULTS: NO LEAKS

GILES INCORPORATED

ANNUAL SUMP INSPECTION
NAVAJO REFINING CO.
ARTESIA PLANT

SUMP LOCATION: SOUTH PLANT TOOL ROOM

STATUS: CLEANED - OUT / COMPLETELY FULL OF WATER

VISUAL INSPECTION: NO JOINTS, CRACKS, FLAWS

INSPECTED BY: THOMAS SIDNEY GILES

DATE OF TEST: 1-13-00

START TIME: 8:50 A.M.

FINISH TIME: 1:00 P.M.

TESTED BY: THOMAS SIDNEY GILES

RESULTS: NO LEAKS

GILES INCORPORATED

**ANNUAL SUMP INSPECTION
NAVAJO REFINING CO.
ARTESIA PLANT**

SUMP LOCATION: NORTH PLANT TOOL ROOM

STATUS: CLEANED OUT / FILLED COMPLETELY FULL OF WATER

VISUAL INSPECTION: NO JOINTS, CRACKS, FLAWS

INSPECTED BY: THOMAS SIDNEY GILES

DATE OF TEST: 1-13-00

START TIME: 11:00 A.M.

FINISH TIME: 3:00 P.M.

TESTED BY: THOMAS SIDNEY GILES

RESULTS: NO LEAKS

GILES INCORPORATED

ANNUAL SUMP INSPECTION
NAVAJO REFINING CO.
ARTESIA PLANT

SUMP LOCATION: SOUTH EAST CORNER @ PUMPS IN #2 YARD

STATUS: CLEANED OUT / COMPLETELY FULL OF WATER

VISUAL INSPECTION: NO JOINTS, CRACKS, FLAWS

INSPECTED BY: THOMAS SIDNEY GILES

DATE OF TEST: 1/13/00

START TIME: 11:45 A.M

FINISH TIME: 3:45 P.M.

TESTED BY: THOMAS SIDNEY GILES

RESULTS: NO LEAKS

GILES INCORPORATED

ANNUAL SUMP INSPECTION
NAVAJO REFINING CO.
ARTESIA PLANT

SUMP LOCATION: CHEMICAL PAD NORTH OF #2 YARD

STATUS: CLEANED-OUT / COMPLETELY FULL OF WATER

VISUAL INSPECTION: NO JOINTS, CRACKS, FLAWS

INSPECTED BY: THOMAS SIDNEY GILES

DATE OF TEST: 1/14/00

START TIME: 8:00 A.M.

FINISH TIME: 12:10 P.M.

TESTED BY: THOMAS SIDNEY GILES

RESULTS: NO LEAKS

GILES INCORPORATED

**ANNUAL SUMP INSPECTION
NAVAJO REFINING CO.
ARTESIA PLANT**

SUMP LOCATION: NORTH WEST CORNER OF MAIN WAREHOUSE

STATUS: CLEANED-OUT / COMPLETELY FULL OF WATER

VISUAL INSPECTION: —

INSPECTED BY: THOMAS SIDNEY GILES

DATE OF TEST: 1-19-00

START TIME: 9:00 A.M.

FINISH TIME: 1:00 P.M.

TESTED BY: THOMAS SIDNEY GILES

RESULTS: NO LEAKS

GILES INCORPORATED

ANNUAL SUMP INSPECTION
NAVAJO REFINING CO.
ARTESIA PLANT

SUMP LOCATION: (2) SUMPS @ EAST SIDE MECHANIC SHOP

STATUS: CLEANED - OUT / COMPLETELY FULL OF WATER

VISUAL INSPECTION: TRENCH IS SEVERELY CRACKED w/ REINFORCING
EXPOSED. SUMPS HAVE NO CRACKS, JOINTS, FLAWS.

INSPECTED BY: THOMAS SIDNEY GILES

DATE OF TEST: 1-18-00

START TIME: 1:00 P.M.

FINISH TIME: 7:15 A.M.

TESTED BY: THOMAS SIDNEY GILES

RESULTS: NO LEAKS @ SUMPS

GILES INCORPORATED

ANNUAL SUMP INSPECTION
NAVAJO REFINING CO.
ARTESIA PLANT

SUMP LOCATION: FUEL CONTAINMENTS - INTER PLANT

STATUS: CLEANED - OUT / FILLED w/ WATER

VISUAL INSPECTION: RANGE FROM FIBERGLASS TO 55 GALLON DRUMS

INSPECTED BY: THOMAS SIDNEY GILES

DATE OF TEST: _____

START TIME: _____

FINISH TIME: _____

TESTED BY: THOMAS SIDNEY GILES

RESULTS: NO LEAKS

GILES INCORPORATED

**ANNUAL SUMP INSPECTION
NAVAJO REFINING CO.
ARTESIA PLANT**

SUMP LOCATION: LAB

STATUS: CLEANED OUT / COMPLETELY FULL OF WATER

VISUAL INSPECTION: APPEARS TO BE AN UNDERGROUND
STORAGE TANK (CARBON STEEL)

INSPECTED BY: THOMAS SIDNEY GILES

DATE OF TEST: 2-2-00

START TIME: 11:00 A.M.

FINISH TIME: 3:30 P.M.

TESTED BY: THOMAS SIDNEY GILES

RESULTS: NO LEAKS

GILES INCORPORATED

**ANNUAL SUMP INSPECTION
NAVAJO REFINING CO.
ARTESIA PLANT**

SUMP LOCATION: SLURRY SAMPLE BLDG.

STATUS:

VISUAL INSPECTION:

NOT A

INSPECTED BY:

SUMP !

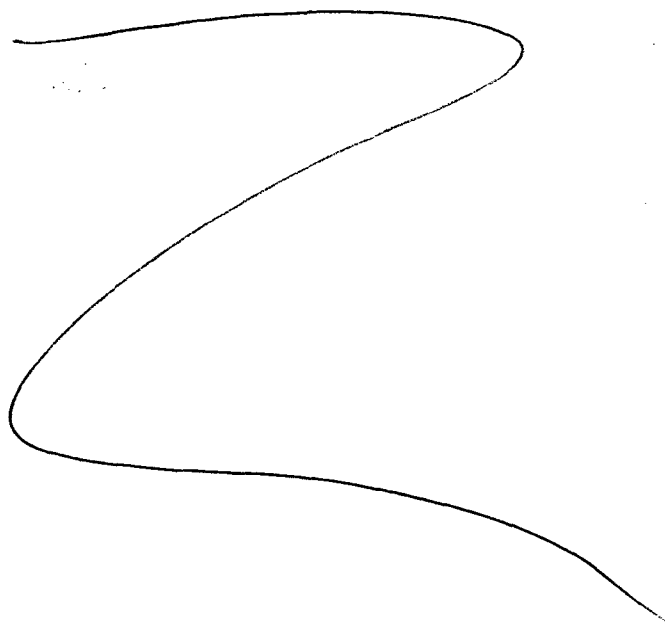
DATE OF TEST:

START TIME:

FINISH TIME:

TESTED BY:

RESULTS:



GILES INCORPORATED

**ANNUAL SUMP INSPECTION
NAVAJO REFINING CO.
ARTESIA PLANT**

SUMP LOCATION: Sumps & SLINGERS

STATUS:

VISUAL INSPECTION:

INSPECTED BY:

DATE OF TEST:

START TIME:

FINISH TIME:

TESTED BY:

RESULTS:

NOT TESTED DUE TO
ONGOING PROJECTS & SLINGERS
BY MAINT.

GILES INCORPORATED

**ANNUAL SUMP INSPECTION
NAVAJO REFINING CO.
ARTESIA PLANT**

SUMP LOCATION: *SOUTHWEST CORNER of 835 Tank*

STATUS:

VISUAL INSPECTION:

INSPECTED BY:

DATE OF TEST:

START TIME:

FINISH TIME:

TESTED BY:

RESULTS:

*NOT TESTED PER
BRIAN MADRIZ*

GILES INCORPORATED

**ANNUAL SUMP INSPECTION
NAVAJO REFINING CO.
ARTESIA PLANT**

SUMP LOCATION: 838 TANK

STATUS:

VISUAL INSPECTION:

INSPECTED BY:

DATE OF TEST:

START TIME:

FINISH TIME:

TESTED BY:

RESULTS:

NOT TESTED

PER BRIAN MADRID

GILES INCORPORATED

ANNUAL SUMP INSPECTION
NAVAJO REFINING CO.
ARTESIA PLANT

SUMP LOCATION: CBO RACK (SOUTH)

STATUS: CLEANED - OUT / LINES ISOLATED / COMPLETELY FULL OF WATER

VISUAL INSPECTION: NO CRACKS, JOINTS / FLAWS

INSPECTED BY: THOMAS SIDNEY GILES

DATE OF TEST: 1-26-00

START TIME: 7:00 A.M.

FINISH TIME: 1:15 P.M.

TESTED BY: THOMAS SIDNEY GILES

RESULTS: NO LEAKS.

GILES INCORPORATED

**ANNUAL SUMP INSPECTION
NAVAJO REFINING CO.
ARTESIA PLANT**

SUMP LOCATION: CBO RACK (NORTH)

STATUS: CLEANED OUT / LINES ISOLATED / COMPLETELY FULL OF
WATER

VISUAL INSPECTION: NO CRACKS, JOINTS, FLAWS

INSPECTED BY: THOMAS SIDNEY GILES

DATE OF TEST: 1-26-00

START TIME: 8:05 A.M.

FINISH TIME: 2:12 P.M.

TESTED BY: THOMAS SIDNEY GILES

RESULTS: NO LEAKS

GILES INCORPORATED

**ANNUAL SUMP INSPECTION
NAVAJO REFINING CO.
ARTESIA PLANT**

SUMP LOCATION: NEW ASPHALT RACK - 433 TANK

STATUS: CLEANED-OUT / COMPLETELY FULL OF WATER

VISUAL INSPECTION: NO CRACKS, JOINTS, FLAWS

INSPECTED BY: THOMAS SIDNEY GILES

DATE OF TEST: 1-21-00

START TIME: 12:00 P.M.

FINISH TIME: 4:00 P.M.

TESTED BY: THOMAS SIDNEY GILES

RESULTS: NO-LEAKS

GILES INCORPORATED

**ANNUAL SUMP INSPECTION
NAVAJO REFINING CO.
ARTESIA PLANT**

SUMP LOCATION: ASPHALT LOADING RACK WEST OF LAB

STATUS: CLEANED-OUT / COMPLETELY FULL OF WATER

VISUAL INSPECTION: NO CRACKS, JOINTS, FLAWS.

INSPECTED BY: THOMAS SIDNEY GILES

DATE OF TEST: 2-1-00

START TIME: 4:00 P.M.

FINISH TIME: 7:15 A.M.

TESTED BY: THOMAS SIDNEY GILES

RESULTS: NO-LEAKS

GILES INCORPORATED

ANNUAL SUMP INSPECTION
NAVAJO REFINING CO.
ARTESIA PLANT

SUMP LOCATION: NORTH OF I & E SHOP

STATUS: CLEANED OUT / COMPLETELY FULL OF WATER

VISUAL INSPECTION: NO CRACKS, NON-MONOLITHIC POOL
BETWEEN FLOOR AND WALLS

INSPECTED BY: THOMAS SIDNEY GILES

DATE OF TEST: 1-19-00

START TIME: 4:00 P.M.

FINISH TIME: 7:08 A.M. (1-20-00)

TESTED BY: THOMAS SIDNEY GILES

RESULTS: WATER LEVEL DROPPED 6" OVERNIGHT,
NEEDS NEW CONCRETE LINER.

LEAKED.

GILES INCORPORATED

ANNUAL SUMP INSPECTION
NAVAJO REFINING CO.
ARTESIA PLANT

SUMP LOCATION: 835 TANK

STATUS: CLEANED-OUT / COMPLETELY FULL OF WATER

VISUAL INSPECTION: LARGE VERTICAL CRACKS ON
WALLS (LARGER THAN $\frac{1}{4}$ ")

INSPECTED BY: THOMAS SIDNEY GILES

DATE OF TEST: 1-20-00

START TIME: 10:30 A.M.

FINISH TIME: 2:40 P.M.

TESTED BY: THOMAS SIDNEY GILES

RESULTS:

LEAKS!

GILES INCORPORATED

ANNUAL SUMP INSPECTION
NAVAJO REFINING CO.
ARTESIA PLANT

SUMP LOCATION: 415 TANK

STATUS: CLEANED OUT / COMPLETELY FULL OF WATER / LINES ISOLATED

VISUAL INSPECTION: LARGE CRACKS IN TOP HALF OF ALL 4 WALLS
REINFORCING BARS ARE EXPOSED AND RUSTED OUT.

INSPECTED BY: THOMAS SIDNEY GILES

DATE OF TEST: 1-26-00

START TIME: 9:15 A.M.

FINISH TIME: 1:30 P.M.

TESTED BY: THOMAS SIDNEY GILES

RESULTS: LEAKS

OCD FILES

35MM DRAWINGS

610.58

FILE NUMBER

Reports

DOCUMENT TYPE

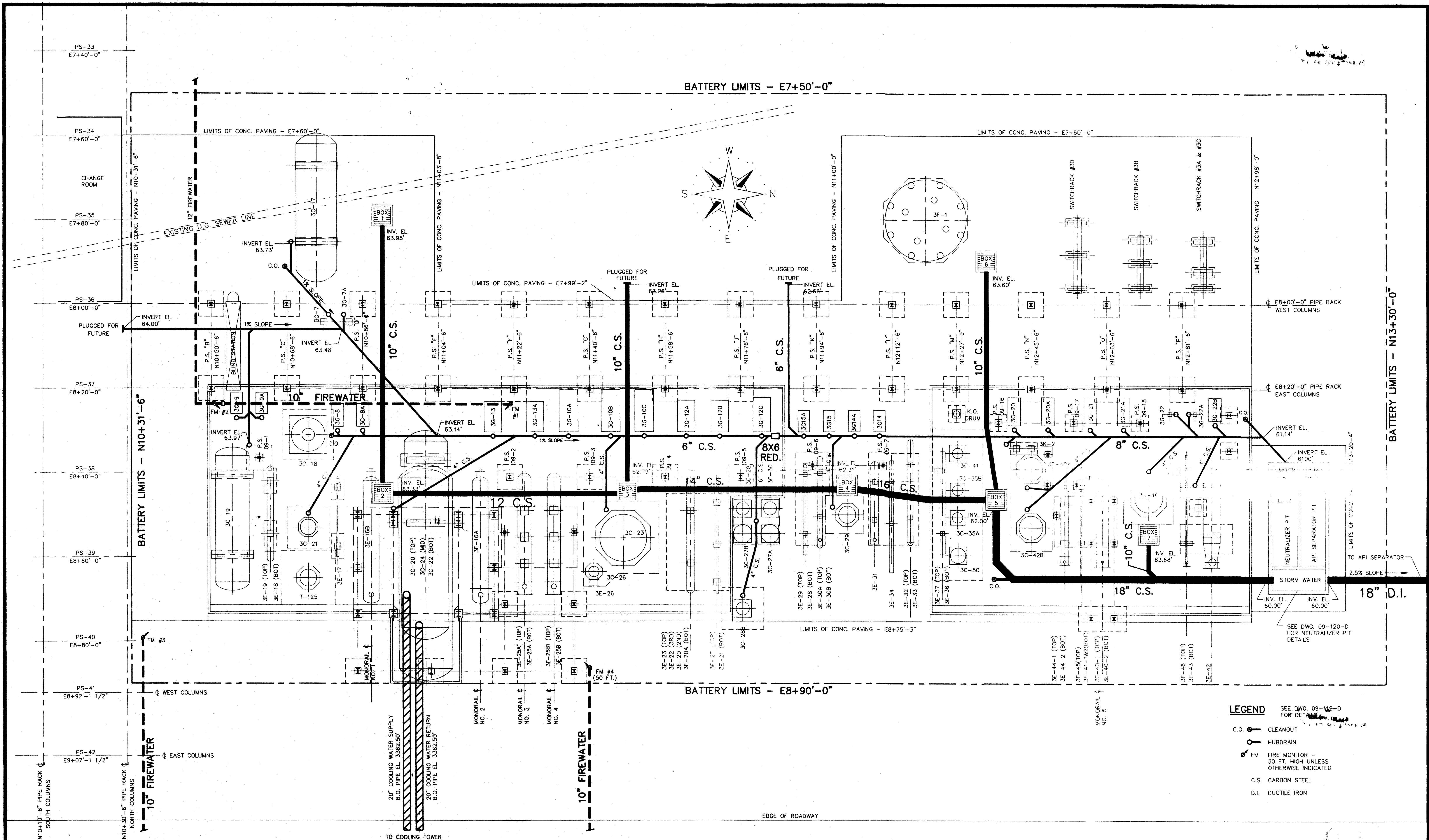
2002 - 2000

20

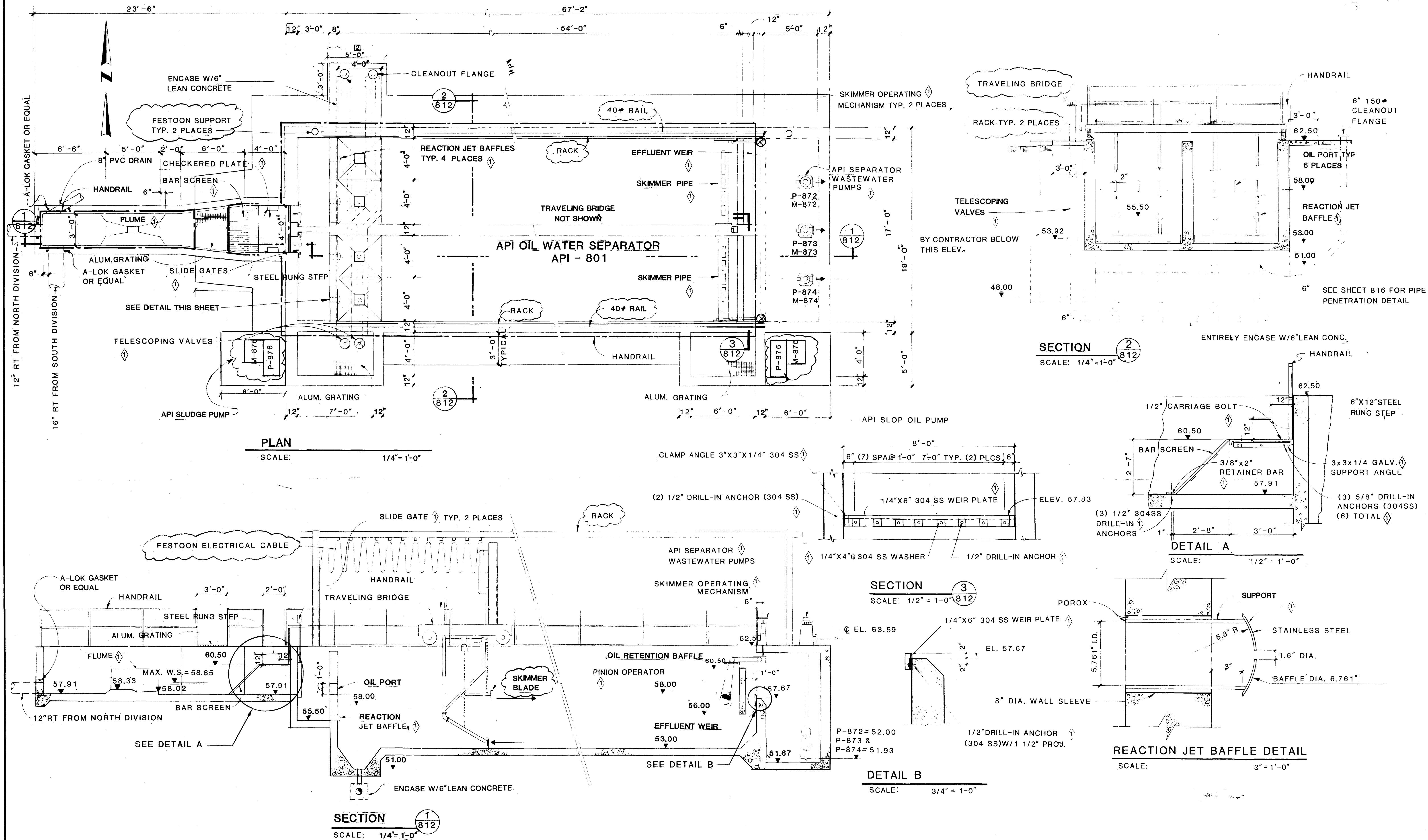
NO OF DWGS

63

BOX



NOTES	REFERENCE DRAWINGS	NO.	REVISIONS				BY	CHK.	DATE	APPR.	APPR.	NO.	REVISIONS				BY	CHK.	DATE	APPR.	APPR.	DRAWING TITLE														
			A	ISSUED FOR REVIEW									NMM																							
			O	ISSUED FOR CONSTRUCTION									NMM		3/91																					
1. DOPE AND WRAP ALL UNDERGROUND PIPING.	09-Z-100-D																				 NAVAJO REFINING CO. ENGINEERING DEPARTMENT P.O. DRAWER 159 ARTESIA, NEW MEXICO H.F. ALKYLATION UNIT RELOCATION UNDERGROUND UTILITY SITE PLAN <table><tr><td>DRAWN BY</td><td>CHK'D BY</td><td>SCALE</td></tr><tr><td>ROCHA</td><td>MOSES</td><td>1" = 10'- 0"</td></tr><tr><td>DATE</td><td>APPR BY</td><td>DRAWING NUMBER</td></tr><tr><td>01/17/91</td><td></td><td>09-Z-103-D</td></tr><tr><td></td><td></td><td>REV. 0</td></tr></table>	DRAWN BY	CHK'D BY	SCALE	ROCHA	MOSES	1" = 10'- 0"	DATE	APPR BY	DRAWING NUMBER	01/17/91		09-Z-103-D			REV. 0
DRAWN BY	CHK'D BY	SCALE																																		
ROCHA	MOSES	1" = 10'- 0"																																		
DATE	APPR BY	DRAWING NUMBER																																		
01/17/91		09-Z-103-D																																		
		REV. 0																																		
2. ELEVATIONS ARE BASED ON 3300.00' (+) (I.E. 66.00' EQUALS 3366.00')	09-Z-101-D																																			
3. HIGH POINT ELEVATION IS 3366.00'.	09-Z-102-D																																			
	09-119-D																																			



NOTES

1. FURNISHED BY OWNER AND INSTALLED BY CONTRACTOR TO BE INSTALLED AT A LATER DATE

REFERENCE DRAWINGS

808-PLANT PROCESS PIPING SOUTH
810-PLANT PROCESS PIPING SOUTH
813-API SEPARATOR STRUCTURAL
814-MISC. DETAILS
816-INSTRUMENTATION AND MISC. DETAILS

NO.	REVISIONS	BY	CHK.	DATE	APPR.	APPR.	NO.	REVISIONS	BY	CHK.	DATE	APPR.	APPR.
1	WALL SLEEVE												
2	CLEANOUT SLAB DIMENSIONS												

DRAWING TITLE
PRIMARY
WASTEWATER TREATMENT PLANT
API SEPARATOR

DRAWN BY
GA

CHK'D BY
STM

SCALE
AS NOTED

DATE
2/18/87

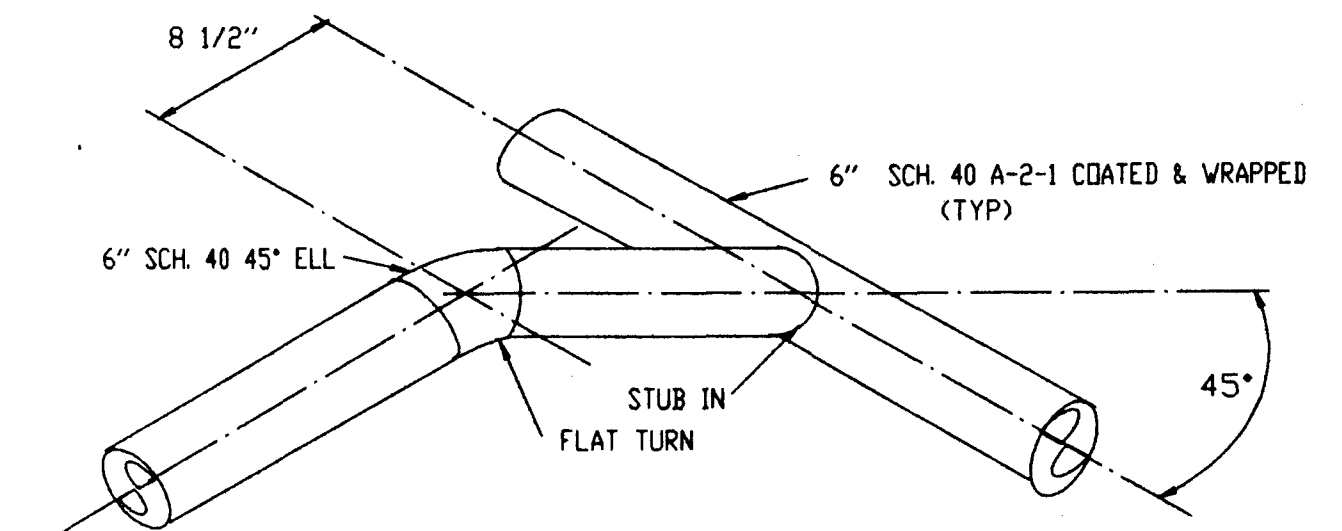
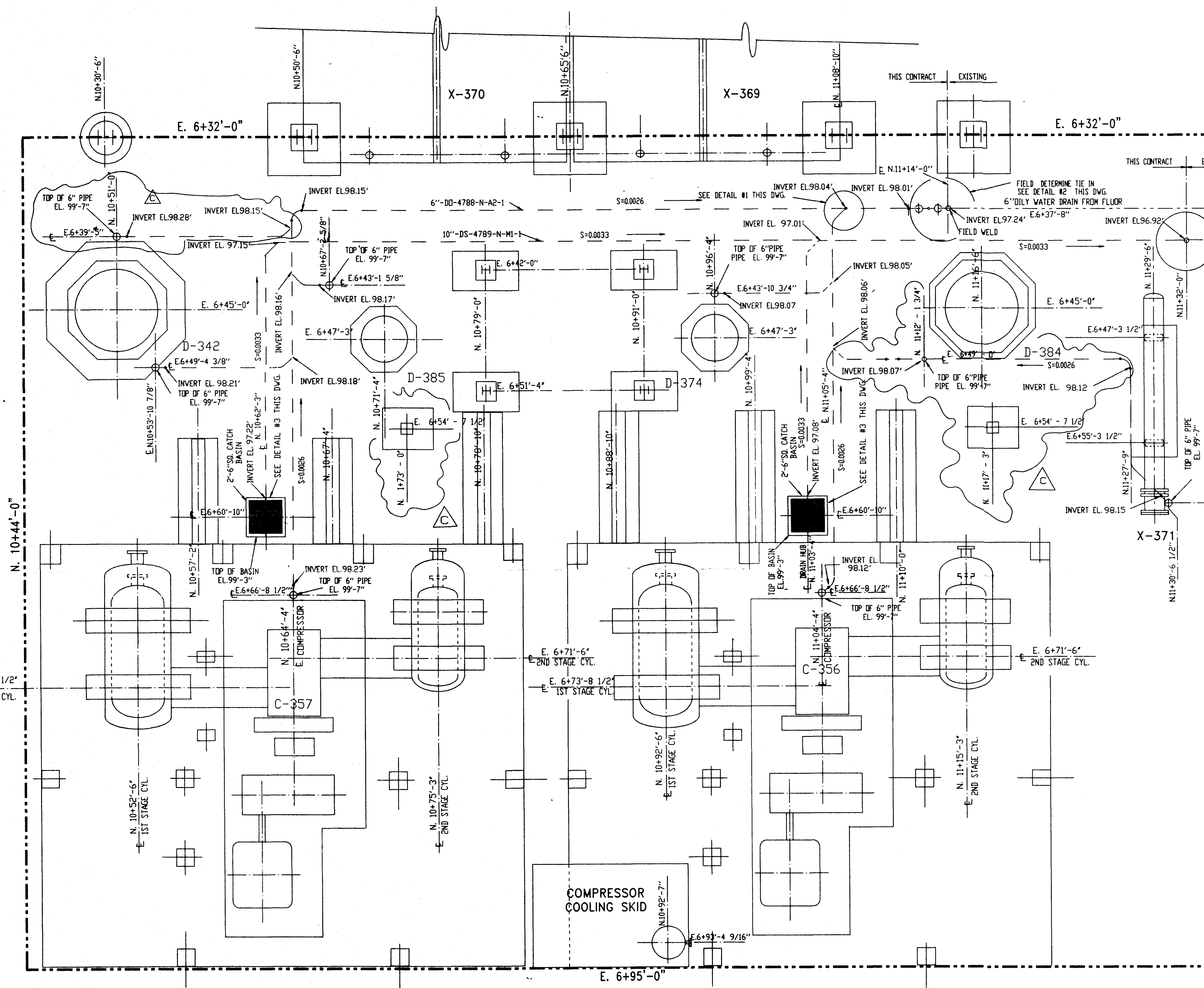
DATE
2/18/87

DRAWING NO.
80-1-D-1

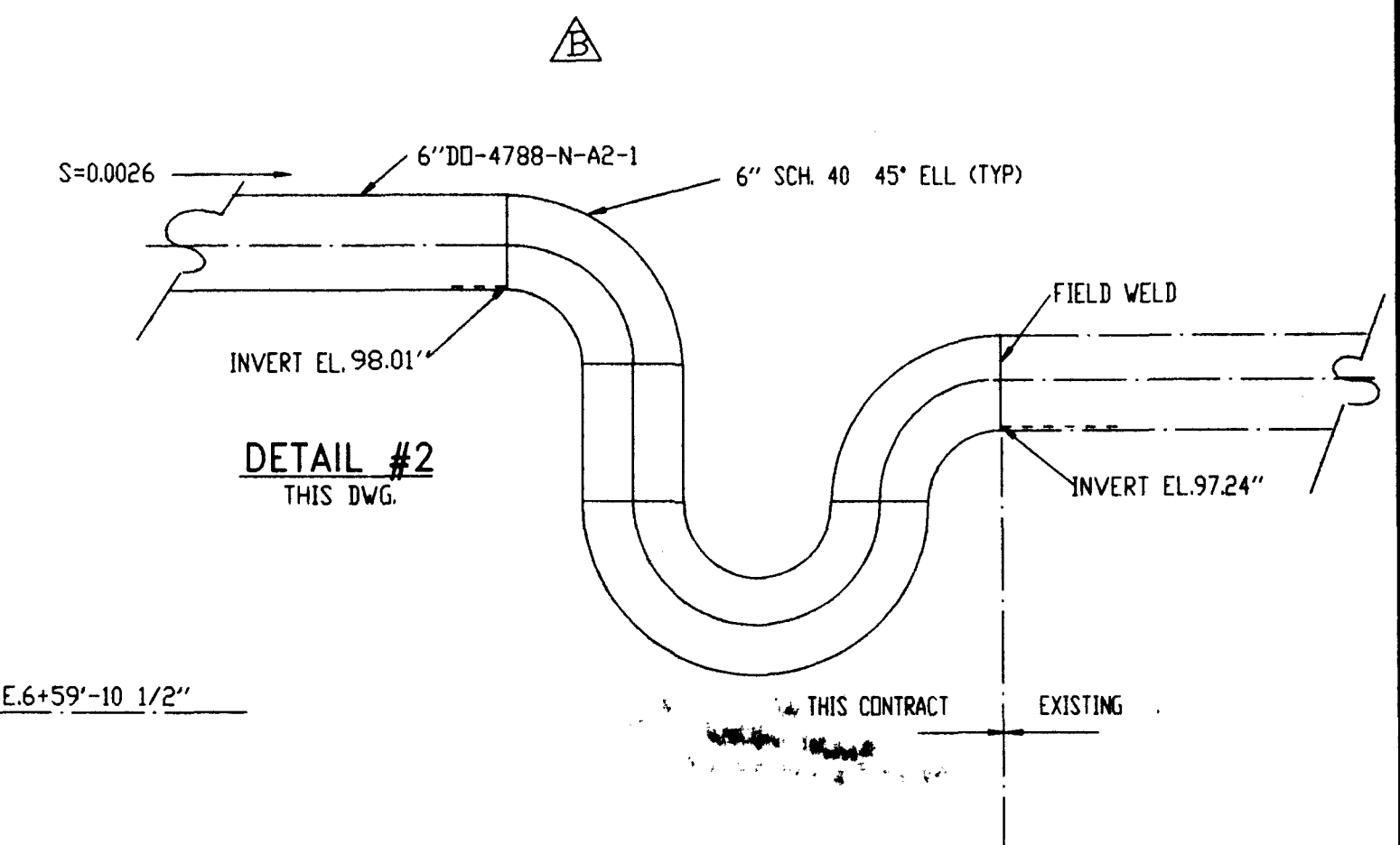
REV.
2

PSG
Parkhill, Smith & Cooper, Inc.
Engineers - Architects - Planners
810 E. Yandell, El Paso, Texas 79902

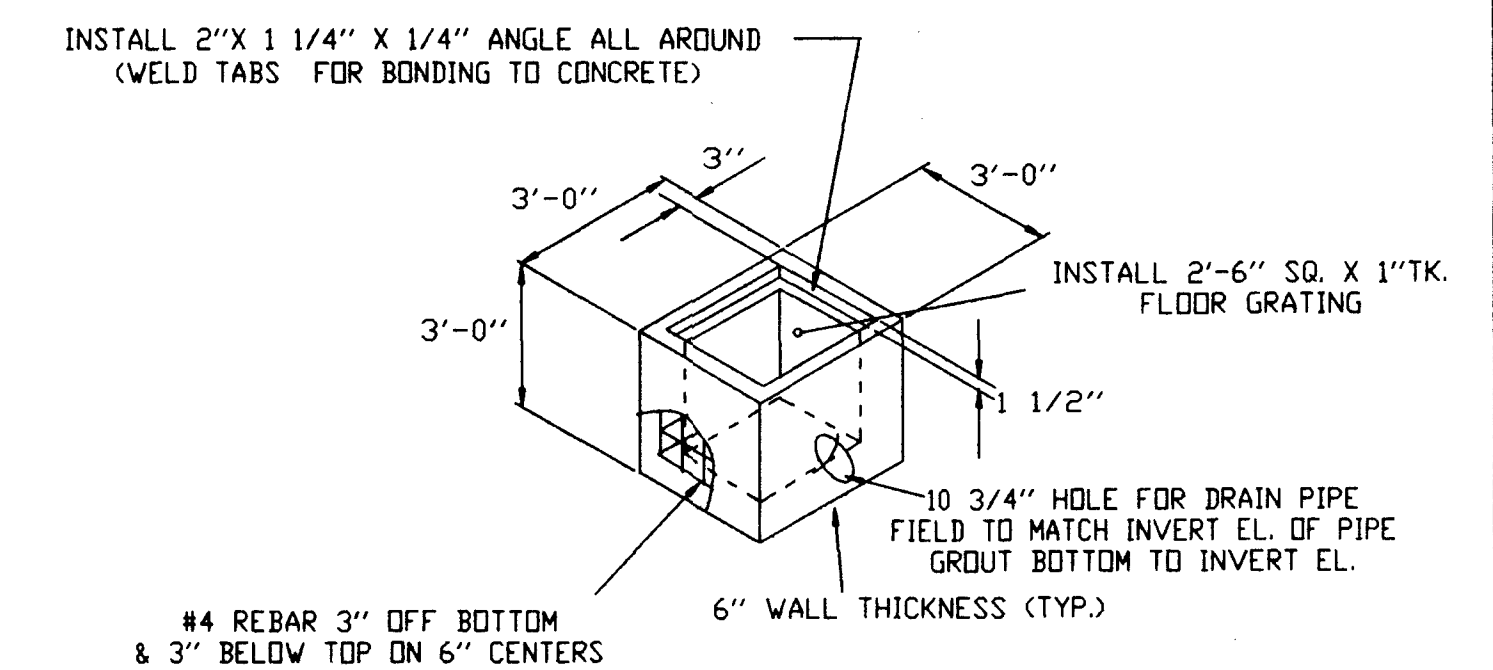
Navajo
REFINING COMPANY
ENGINEERING DEPARTMENT
ARTESIA, NEW MEXICO



DETAIL #1
THIS DWG.
(TYP. FOR S)
NOTE: ALL 6" PIPE TURNS SIMILAR.



DETAIL #2
THIS DWG.



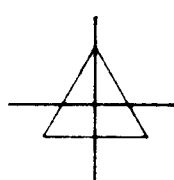
DETAIL #3
THIS DWG.

DL
engineering inc.
Odessa, Texas

NOTES		REFERENCE DRAWINGS		NO.		DATE		BY		REVISION		APR		W.D. NUMBER		1140	
1. DILY WATER DRAIN TO BE SCH. 40 SPEC-A-2-1 COATED AND WRAPPED.		PLOT PLAN		70-2-01-D-1		A		1/11/91		DRH		ISSUED FOR BID		SCALE 1/4" = 1'-0"		ENG. RECORD	
2. STORM SYSTEM DRAIN TO BE SPEC. MI-1		PIPING PLAN		70-38-D		B		1/11-91		DRH		ADDED PEA TRAP		DATE		DRAWN BY	
		DWG. INDEX		70-39-D		C		1/31/91		SM		ADDED PIPE PIERS PP70 - 7 & 8 AND MISC.		1-7-91		CHECKED BY	
																APPD. BY	
																DRAWING NO.	
																70-04-D	
																C	
																REVISION NO.	

REFINING COMPANY
ENGINEERING DEPARTMENT
ARTESIA, NEW MEXICO

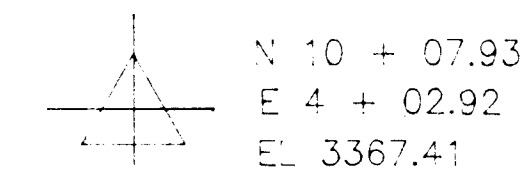
NET GAS AREA
UNDER GROUND PIPING PLAN



1. ALL PIPING LOCATED BY CONSTRUCTION MUST BE DOCUMENTED BY "AS-BUILT" DRAWINGS.
2. WHERE DRAIN OR SEWER LINE SLOPE IS NOT INDICATED ON THIS PLAN, INSTALL THE LINE AT A UNIFORM SLOPE BETWEEN THE SPECIFIED INVERTS.
3. SEWER AND DRAIN SYSTEM SHALL BE TESTED IN CONFORMANCE WITH SPECIFICATION LATER .
4. ALL KNOWN UNDERGROUND FACILITIES ALONG THE SEWER ROUTING THAT MAY INTERFERE WITH THE NEW SEWER LINES HAVE BEEN SHOWN. THESE WERE OBTAINED FROM EXISTING DRAWINGS AND/OR SURVEYS AND FIELD CHECKS.

IT IS THE CONTRACTORS RESPONSIBILITY TO FIELD VERIFY THIS INFORMATION AND LOCATE ANY OTHER INTERFERENCES NOT SHOWN ON THIS DRAWING. PROBLEMATIC INTERFERENCES SHALL BE SOLVED DURING CONSTRUCTION.
5. ALL NEW AND MODIFIED MANHOLES ARE TO BE PROVIDED WITH ONE 4" VENT EACH, TO BE FIELD ROUTED IN ACCORDANCE WITH NAVAJO SPECIFICATIONS, ATTACHMENT "G" PARAGRAPH 10.2.

EXISTING BEACH MARK



PLANT SURVEY MONUMENTS

EXISTING BENCHMARKS

- (c) N 10 + 07.93
E 4 + 02.92
EL 3367.41
- (b) N 13 + 67.16
E 6 + 76.65
EL 3364.10

DIESEL HDS COORDINATES & ELEVATIONS

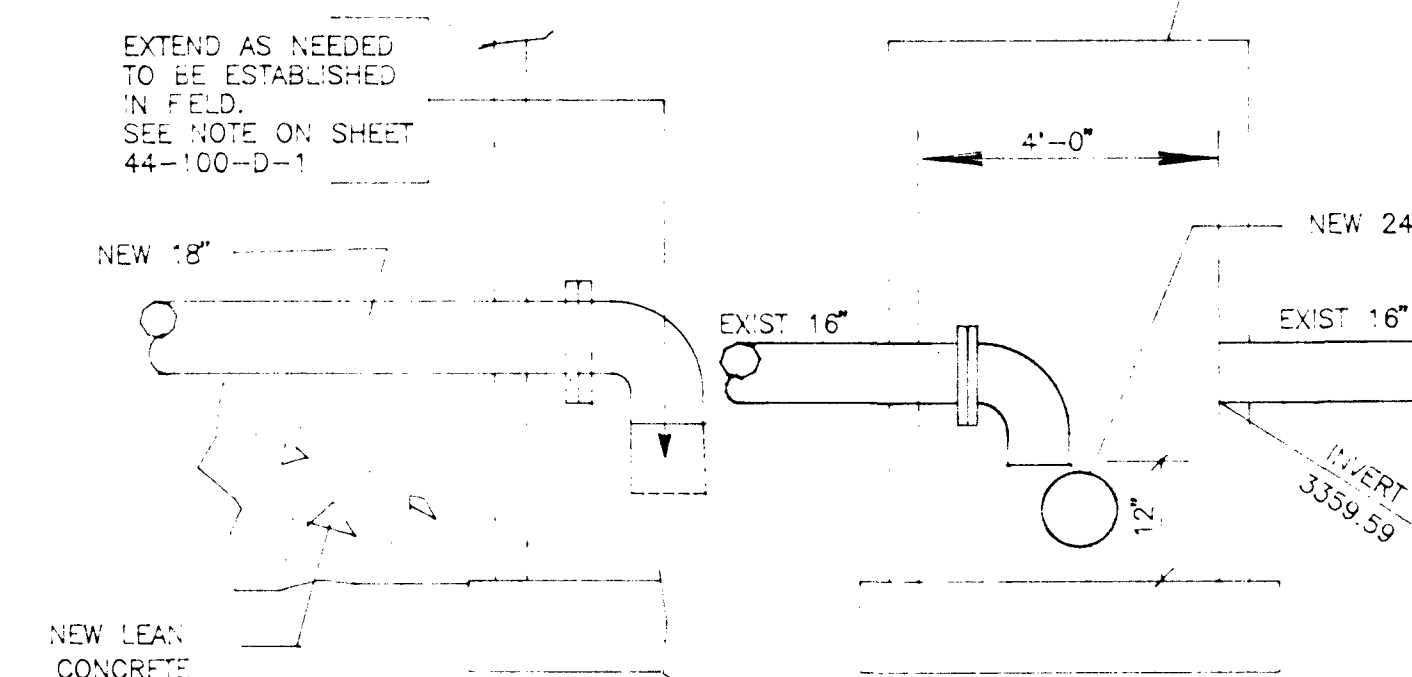
DIESEL HDS NORTH = PLANT NORTH - 665.5'
DIESEL HDS WEST = PLANT EAST - 990.02'
DIESEL HDS ELEV = PLANT ELEV - 3268.5'

MATERIAL FOR SEWER SYSTEMS SHALL BE DUCTILE IRON PIPE WITH CLASS 350 FITTINGS, UNLESS OTHERWISE SPECIFIED.

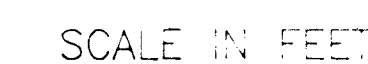
LEGEND

-  EXISTING MANHOLE
 NEW MANHOLE
 MANHOLE WITH SEAL

FOR EXISTING MANHOLE DETAIL
SEE DWG 80-10-D-6



MODIFICATION OF EXISTING NAVAJO
MANHOLE @ STA 8 + 00



DRAWING TITLE

UNDERGROUND PIPING PLAN
OFFSITE

DIESEL HDS UNIT

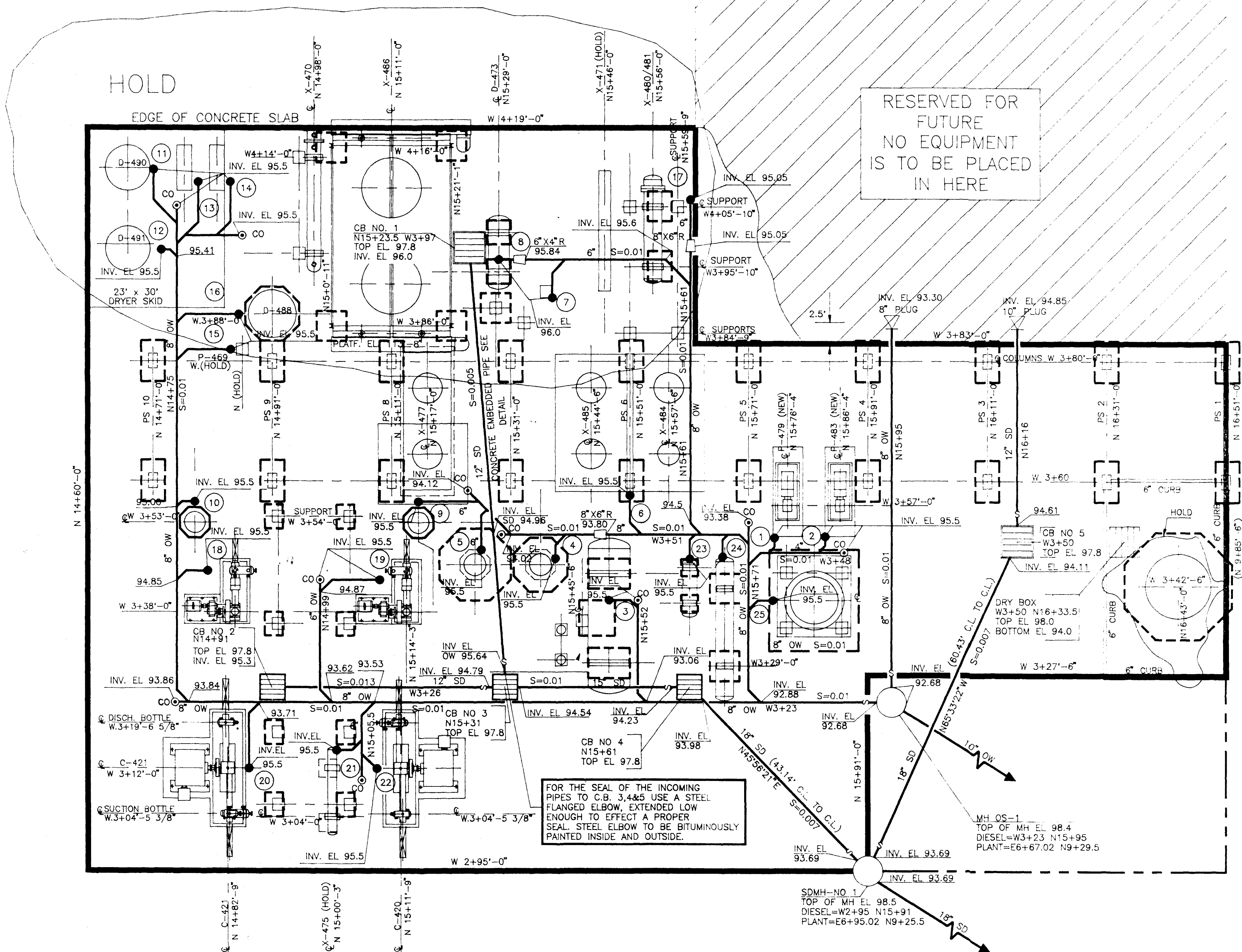
 MARTECH International, Inc. ENGINEERS AND MANAGERS Covina, California		PROJECT NO. 92086-R	
		NAVAJO REFINING CO. ENGINEERING DEPARTMENT P.O. DRAWER 159 ARTESIA, NEW MEXICO	
DRAWN BY JY	CHK'D BY ESM	SCALE $1'' = 30'-0''$	
DATE 10-21-92	APPR BY	DRAWING NUMBER 44-100-D-2	REV 1

NAVAJO	DIESELOF:DGN	J.YEE	10:40	10-21-92
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MAY 15 2002



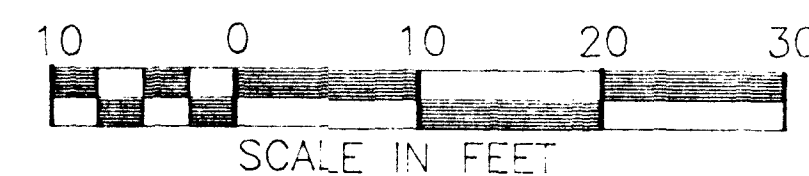
PLANT NORTH



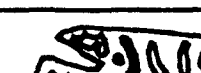
RESERVED FOR
FUTURE
NO EQUIPMENT
IS TO BE PLACED
IN HERE

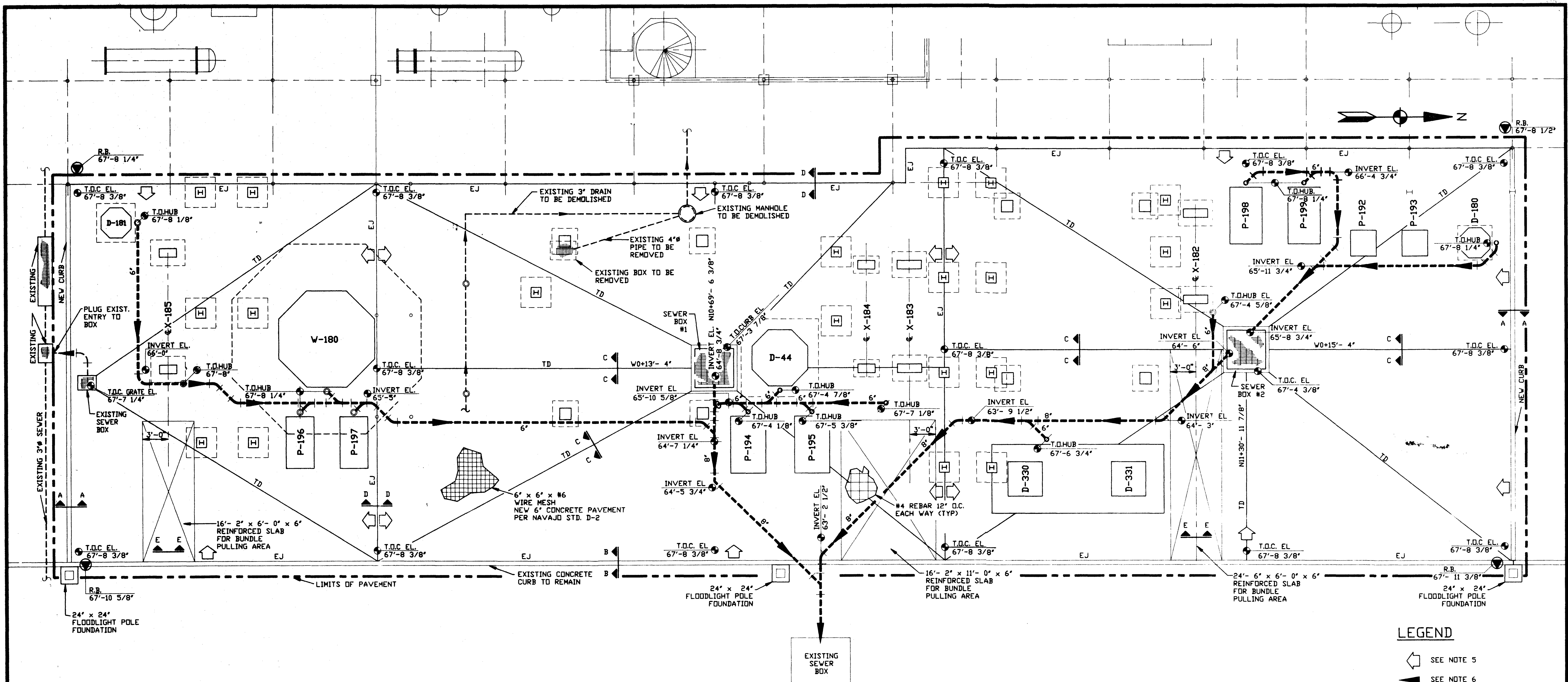
1. NOTES APPLY UNLESS OTHERWISE NOTED ON DRAWING.
2. WHERE PIPING IS NOT DIMENSIONALLY TIED DOWN OR LOCATED, CONSTRUCTION SHALL INSTALL THIS PIPING AS CLOSE AS PRACTICAL TO THE INDICATED ROUTING.
3. ALL PIPING LOCATED BY CONSTRUCTION MUST BE DOCUMENTED BY "AS-BUILT" DRAWINGS.
4. ALL DRAIN & SEWER PIPING ARE TO BE:
 - 2" & SMALLER - CAST IRON PIPE
 - 15" & LARGER - DUCTILE IRON PIPE

CO	CLEAN OUT
DB	DRY BOX
MH	MANHOLE
OW	OILY WATER SEWER
OWA	OILY WATER AREA DRAIN
SD	STORM SEWER
CB	CATCH BASIN
+	INLET SEAL

[illegible]

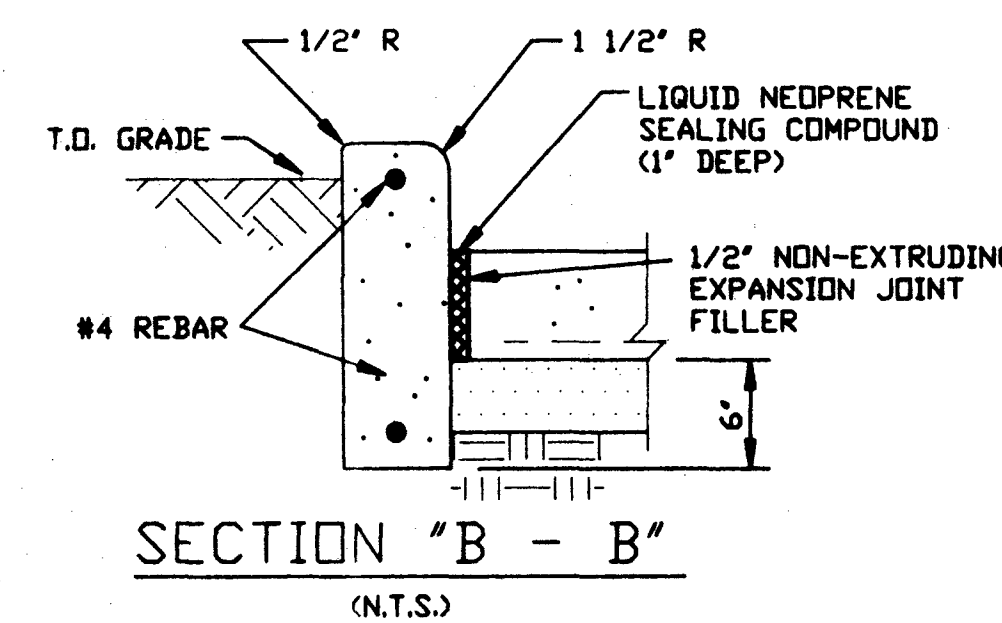
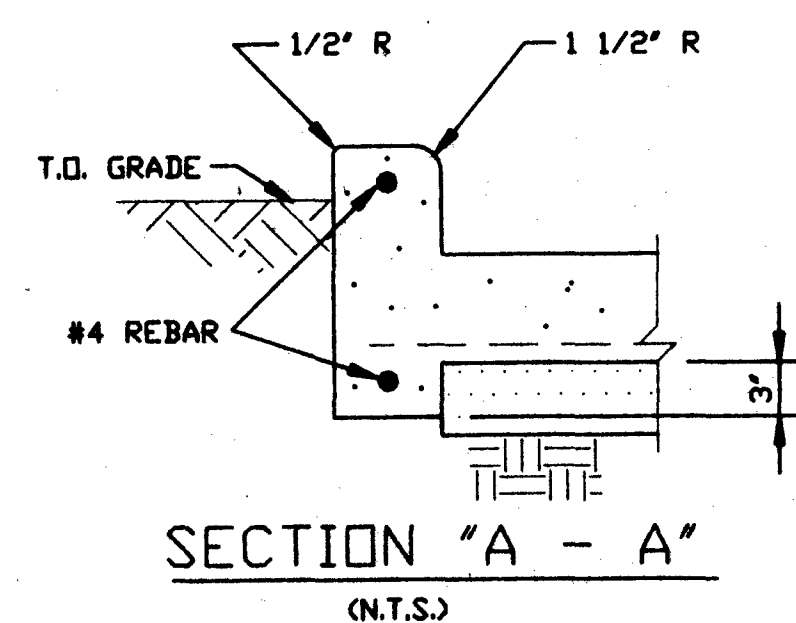
DIESEL HDS UNIT

 MARTECH International, Inc. ENGINEERS AND ARCHITECTS Covina, California		PROJECT NO. 92086-R	
		NAVAJO REFINING CO. ENGINEERING DEPARTMENT P.O. DRAWER 159 ARTESIA, NEW MEXICO	
DRAWN BY	CHECK'D BY	SCALE	
JY	ESM	1" = 10' - 0"	
DATE	APPR BY	DRAWING NUMBER	REV.
10-21-92		44-100-D-1	

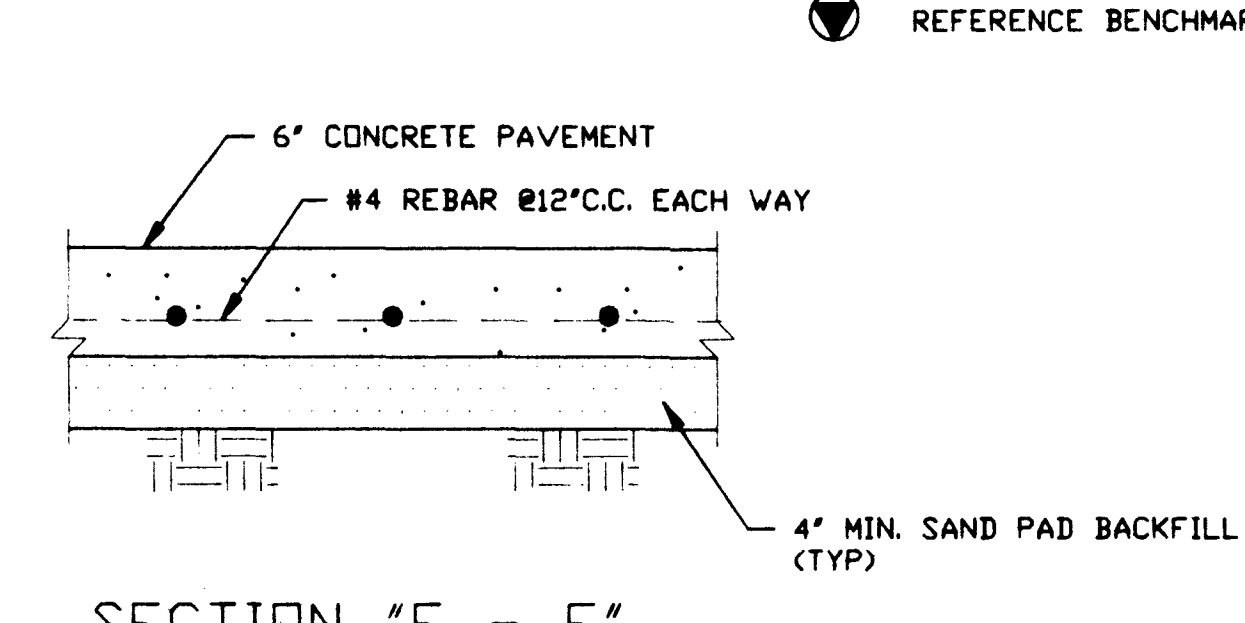
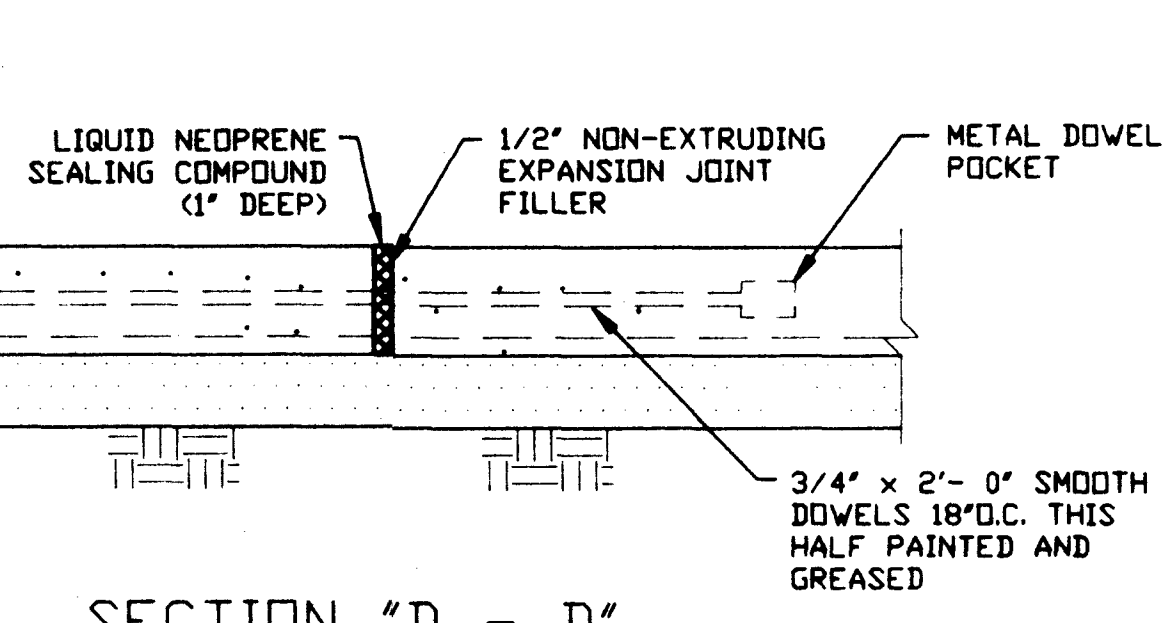
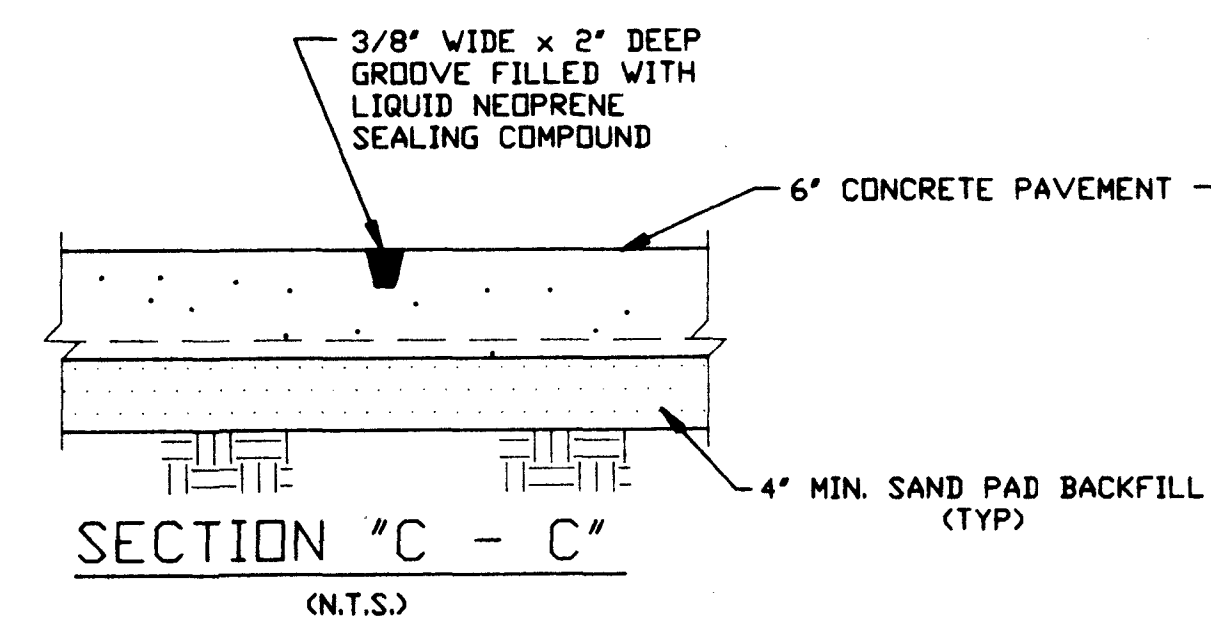


LEGEND

- SEE NOTE 5
- SEE NOTE 6
- TOP OF CONCRETE, HUB, OR INVERT ELEVATION OF SEWER PIPE
- REFERENCE BENCHMARK



NOTE: THIS CONDITION SIMILAR AT ALL EQUIPMENT FOUNDATION PADS.



- NOTES**
- GOVERNING SPECIFICATIONS: NAVAJO REFINERY SECTIONS D AND D.
 - ALL SEWER PIPE AND FITTINGS ARE ASA 021 C.I.
 - SEWER PIPE SHALL HAVE 4" SANDPAD ALL AROUND.
 - ALL NEW EQUIPMENT FOUNDATIONS AND PIERS SHALL HAVE EXPANSION JOINTS ALL AROUND AT THE SLAB JOINTS PER NAVAJO STD. D-2.
 - DESIGNATES DOWNWARD SLOPE OF CONCRETE PAVING @ 1" PER 8' LINEAR FT. MIN.
 - DESIGNATES DOWNWARD SLOPE OF PIPING @ 1/4" PER LINEAR FT. MIN.
 - FINAL POSITION OF SEWER BOX #1 TO BE DETERMINED ONCE ALL FOUNDATIONS ARE IN PLACE.

REFERENCE DRAWINGS

102-07-D SHT. 1 REV. 2
13-240-D-1 REV. 0
13-244-D-1 - SEWER BOX AND PIPING DETAIL

REVISIONS

NO.	REVISIONS	BY	CHK.	DATE	APPR.	APPR.
1	NAVAJO REVIEW CHANGES	RGE	RHM	11/90		

REVISIONS

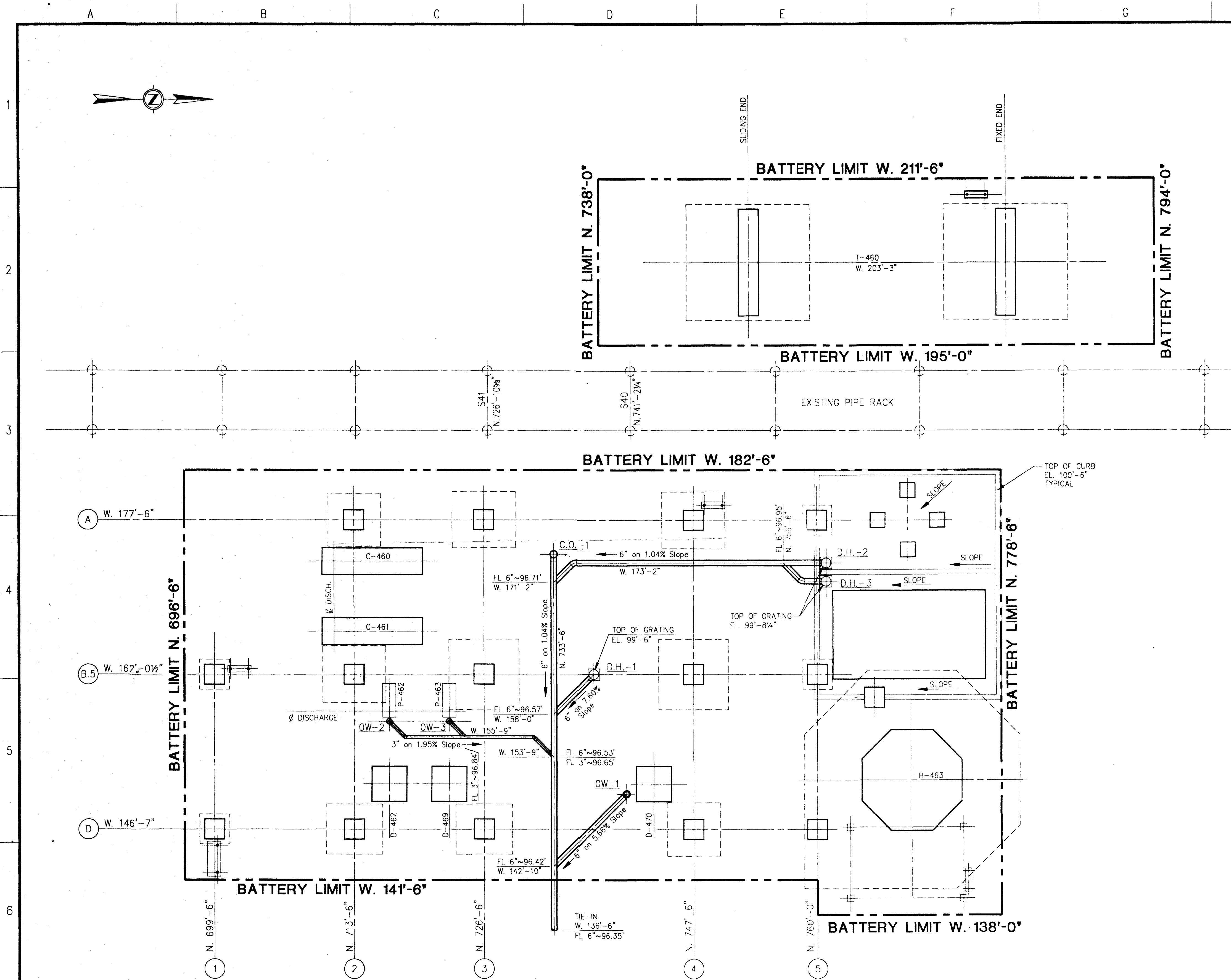
NO.	REVISIONS	BY	CHK.	DATE	APPR.	APPR.

DRAWING TITLE
 NAPHTHA HYDRODESULFURIZER UNIT
 REVAMP - 1990
 UNDERGROUND UTILITIES
 PLOT PLAN

NAVAJO REFINING CO.
 ENGINEERING DEPARTMENT
 ARTESIA, NEW MEXICO

DRAWN BY S. ROCHA	SCALE 3/16" = 1' - 0"
DATE 10-12-90	DRAWING NUMBER 13-241-D
	REV. 1

PROJECT NUMBER: 90520 REVISION DATE: 11-21-90 FILENAME: 13-241-D.DWG



OILY WATER HUB LOCATION CHART

HUB NUMBER	DRAIN SIZE	COORDINATE		FLOW LINE
		NORTH	WEST	
O.W.-1	6"	N. 740'-9"	W. 150'-1"	97.00'
O.W.-2	6"	N. 717'-0"	W. 157'-4"	97.00'
O.W.-3	3"	N. 723'-0"	W. 157'-4"	97.00'

NOTE:
TOP OF HUB EL. 100'-6".

OILY WATER CLEAN-OUT LOCATION CHART

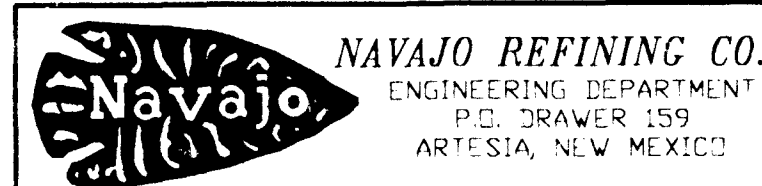
CLEAN-OUT NUMBER	DRAIN SIZE	COORDINATE		FLOW LINE
		NORTH	WEST	
C.O.-1	6"	N. 733'-6"	W. 174'-0"	96.74'

NOTE:
SET TOP OF CLEAN-OUT FLUSH WITH PAVING.

STORM WATER DRAIN LOCATION CHART

HUB NUMBER	DRAIN SIZE	COORDINATE		FLOW LINE
		NORTH	WEST	
D.H.-1	6"	N. 737'-6"	W. 162'-0 1/2"	97.00'
D.H.-2	6"	N. 760'-11"	W. 173'-2"	97.00'
D.H.-3	6"	N. 760'-11"	W. 171'-4"	97.00'

NOTE:
SEE PLAN FOR TOP OF GRATE ELEVATION.
TOP OF GRATE TO BE FLUSH WITH TOP OF PAVING.



TPA, Inc. Consultants/Engineers/Managers
Dallas, Texas

**20 TPD SULFUR RECOVERY UNIT
UNDERGROUND PIPING PLAN
STORM & OILY WATER**

CLIENT: NAVAJO REFINING COMPANY	ARTESIA, NEW MEXICO
FILE NAME: 0100\130	JOB NUMBER: 0100C
SCALE: 3/16" = 1'-0"	DRAWING NUMBER: D-100-11130
DATE: 11-13-90	REVISION: 0

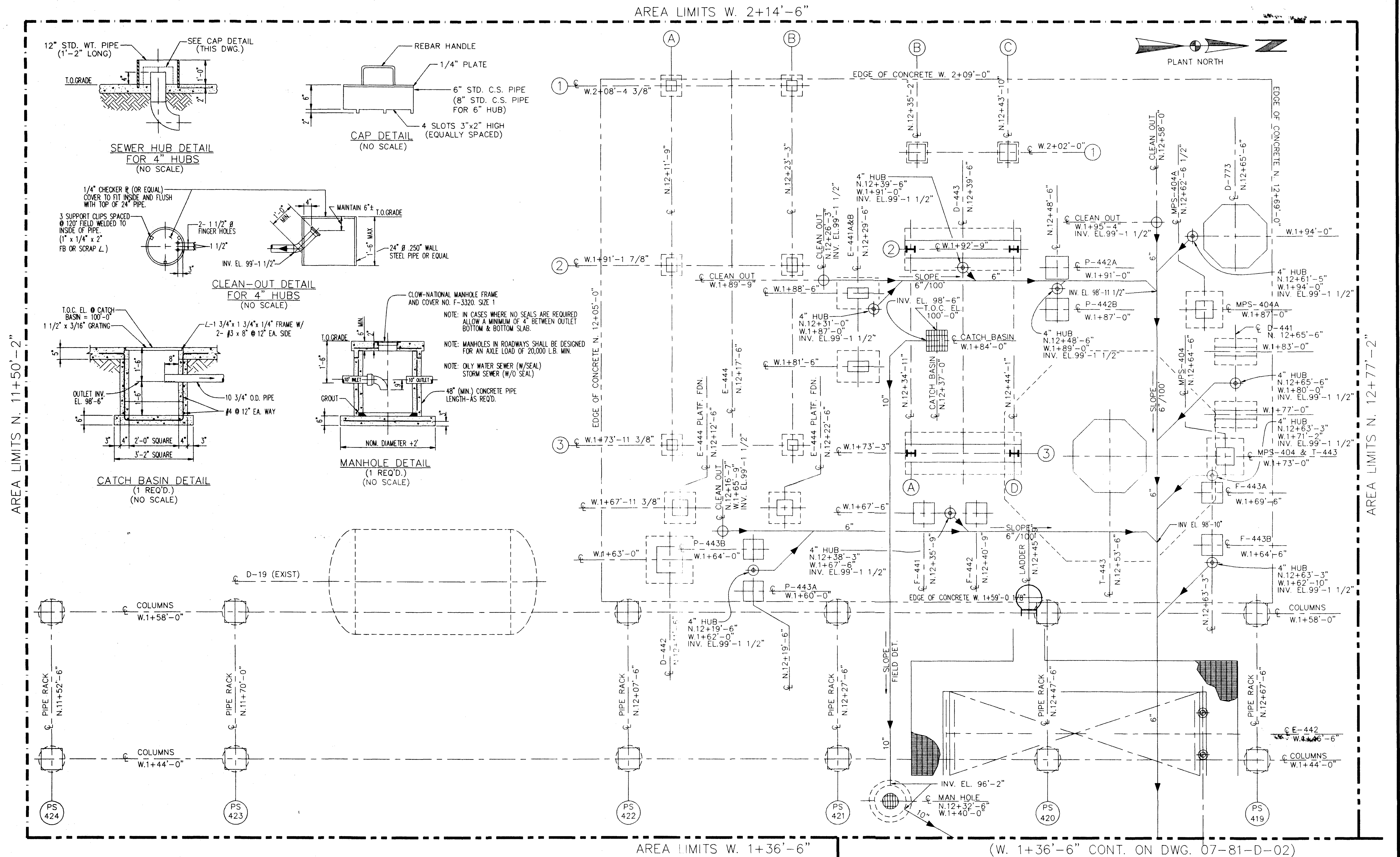
NOTES:

REVISIONS					REFERENCE DRAWINGS	
NO.	DATE	DESCRIPTION	BY	CHK'D	APP'D	DRAWING NUMBER
						D-100-11101
						D-100-11113
						D-100-11131

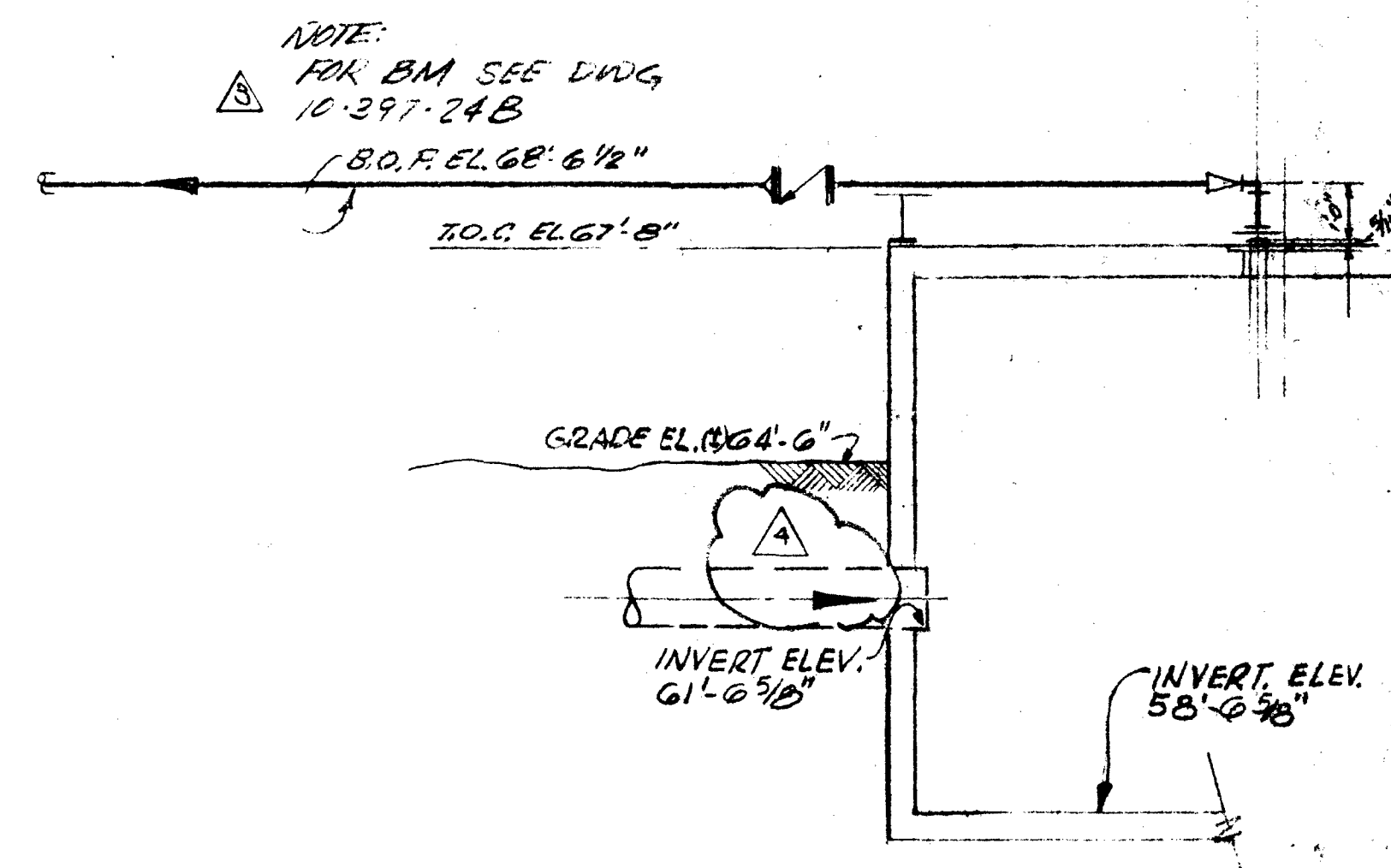
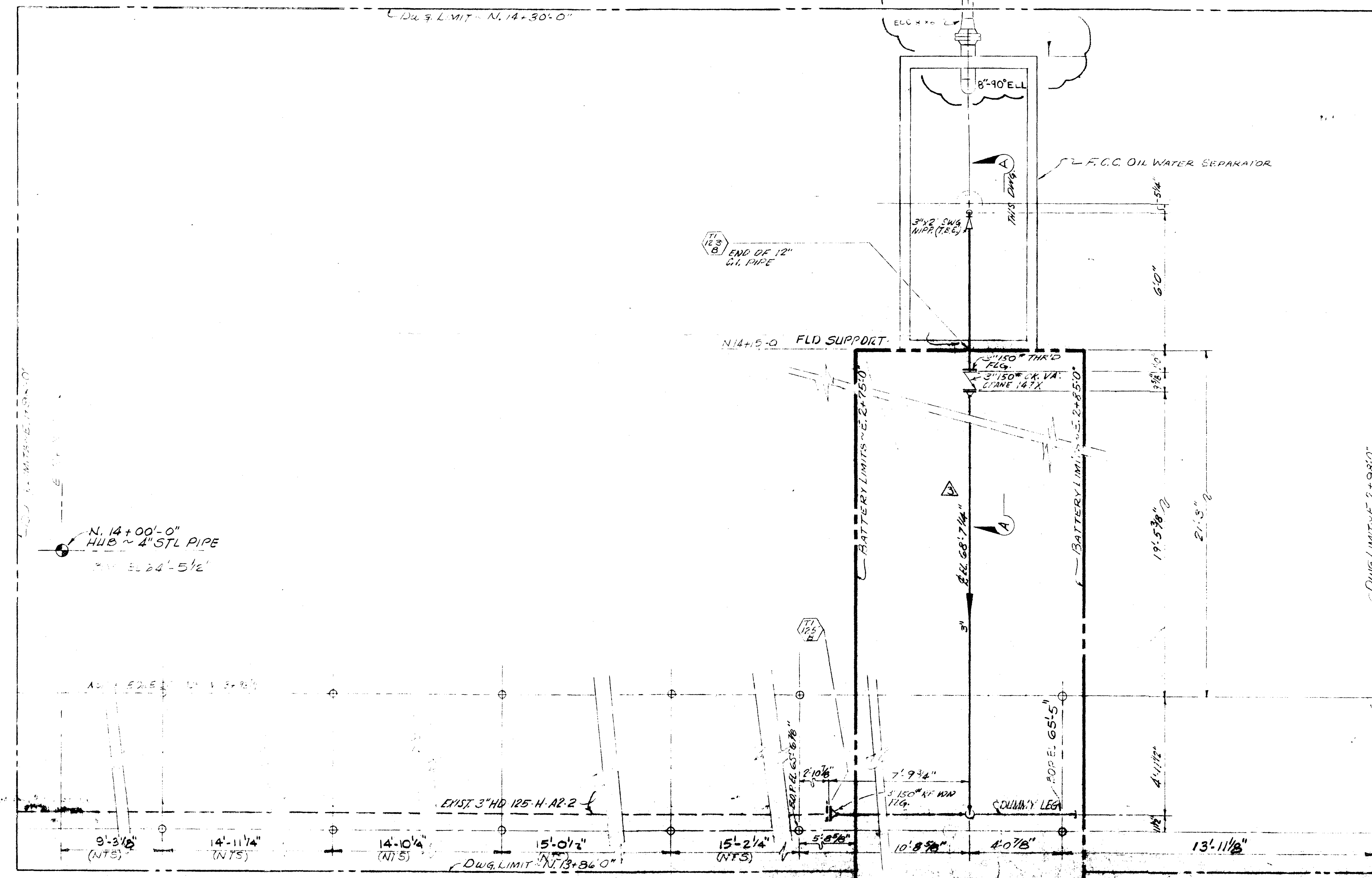
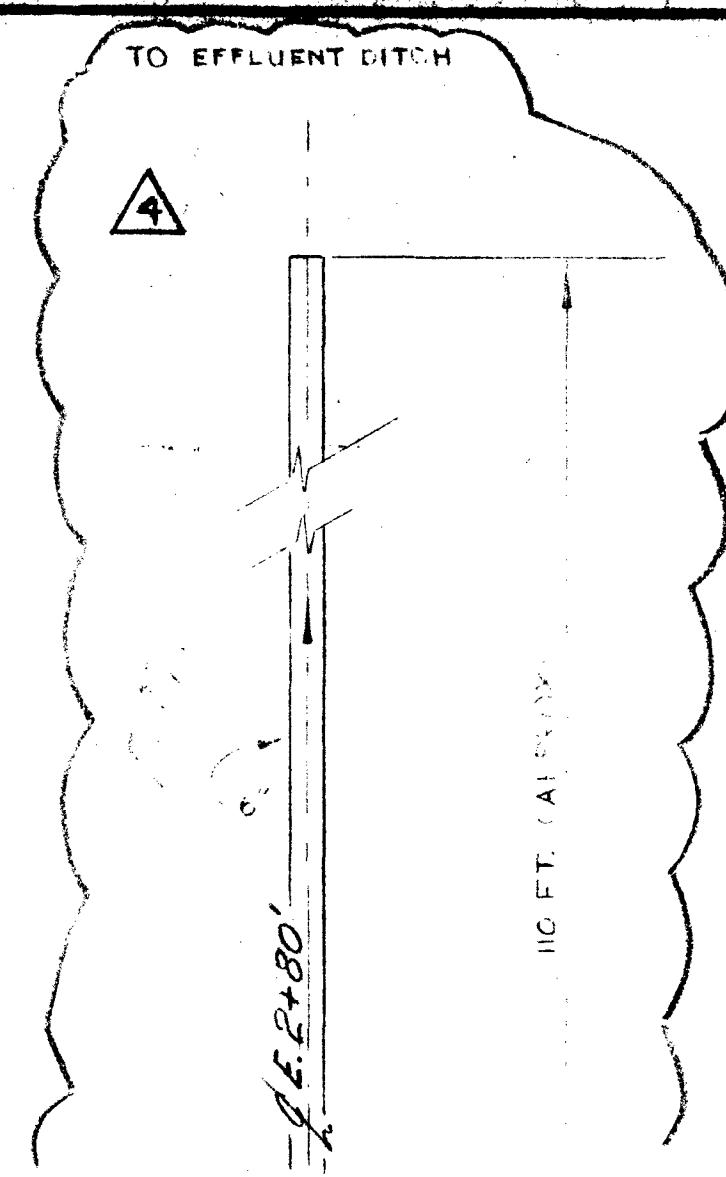
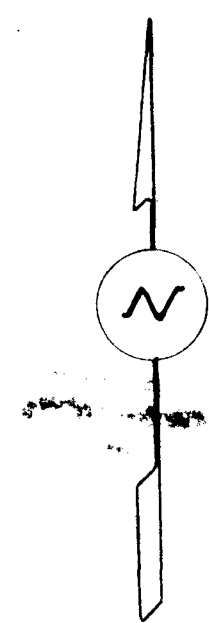
CONFIDENTIAL

THIS DRAWING IS BASED ON LICENSED INFORMATION AND IS NOT TO BE USED OTHER THAN IN THE CONSTRUCTION, OPERATION, AND MAINTENANCE OF THE PLANT FOR WHICH IT WAS PREPARED.

ISSUE RECORD				ENGINEERING RECORD	
DATE	NO.	REV.	TO	FOR	
12-10-90	1	A	CLIENT	REVIEW	DRAWN BY: GWS
1-21-91	2	0	CLIENT	CONSTRUCTION	CHECKER: SLS
					SQUAD LEADER: PS
					STRUCT. ENGINEER: JCO
					PROJECT ENGINEER: JCO
					PROJECT MANAGER: JRD



NOTES HIGH POINT OF FINISHED GRADE ELEVATION EQUALS 100'-6"		REFERENCE DRAWINGS 07-87-D PIPING PLAN FROM GRADE TO EL. 118'-5 3/4"		<table><tr><th>NO.</th><th>REVISIONS</th><th>BY</th><th>CHK.</th><th>DATE</th><th>APPR</th><th>NO.</th><th>REVISIONS</th><th>BY</th><th>CHK.</th><th>DATE</th><th>APPR</th></tr><tr><td>A</td><td>ISSUED FOR APPROVAL</td><td>JLC</td><td>YVF</td><td>7/23/92</td><td>SD</td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>B</td><td>REVISED COORDS. PER CLIENTS DIRECTIONS</td><td>JLC</td><td>G.A.</td><td>7/23/92</td><td>SD</td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>C</td><td>REVISED MPS-404A</td><td>JLC</td><td>G.A.</td><td>8/12/92</td><td>SD</td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>D</td><td>ISSUED FOR CONSTRUCTION</td><td>BRENT</td><td>D.G.</td><td>8/28/92</td><td>SD</td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></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REVISIONS	BY	CHK.	DATE	APPR	NO.	REVISIONS	BY	CHK.	DATE	APPR	A	ISSUED FOR APPROVAL	JLC	YVF	7/23/92	SD							B	REVISED COORDS. PER CLIENTS DIRECTIONS	JLC	G.A.	7/23/92	SD							C	REVISED MPS-404A	JLC	G.A.	8/12/92	SD							D	ISSUED FOR CONSTRUCTION	BRENT	D.G.	8/28/92	SD																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
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- NOTE -
EQUATION FOR ELEVATION CALCULATION
BETWEEN NAVAJO & BLOUNT 3368.13 (68.13) = 100'-2"

NOTES

- REFERENCE DRAWINGS
1. PLOT PLAN - FCC UNIT - 10-341-24B
 2. F.C.C. OIL WATER SEPARATOR - 10-759-24B
 3. INTERPLANT LINE BLOCK FLOW DIAGRAM - 10-820-24B
 4. PIPING ISOMETRIC - FCC UNIT - 10-397-24B

NO.	REVISION
1	GENERAL REV. 10-13-54
2	ADDED TIE-IN NUMBER
3	ADDED 3\"/>
4	ADDED 6\"/>

REFINING COMPANY
ENGINEERING DEPARTMENT
ALBERTA, NEW MEXICO

PIPING PLAN
F.C.C. UNIT
OIL WATER SEWER BOX

N

4

N 4+00-0"
H-4 STL PFE

E.S. HG REF. 12.1

NOTES

REFERENCE DRAWINGS

1. 10-320-248
2. 10-320-248
3. 10-320-248
4. 10-320-248

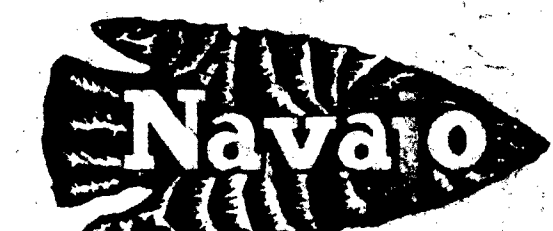
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1	GENERAL REVISION	J.P.	JS	7.1.80		
2	GENERAL REVISION	J.P.	JS	7.2.80		
3	GENERAL REVISION	J.P.	JS	7.2.80		
4	GENERAL REVISION	J.P.	JS	7.2.80		

Navajo REFINING COMPANY
ENGINEERING DEPARTMENT
ARTESIA, NEW MEXICO

DRAWN BY: J. POORE DATE 7.1.80	CHKD. BY: JS DATE 7.2.80	SCALE 3/8" = 1'-0"
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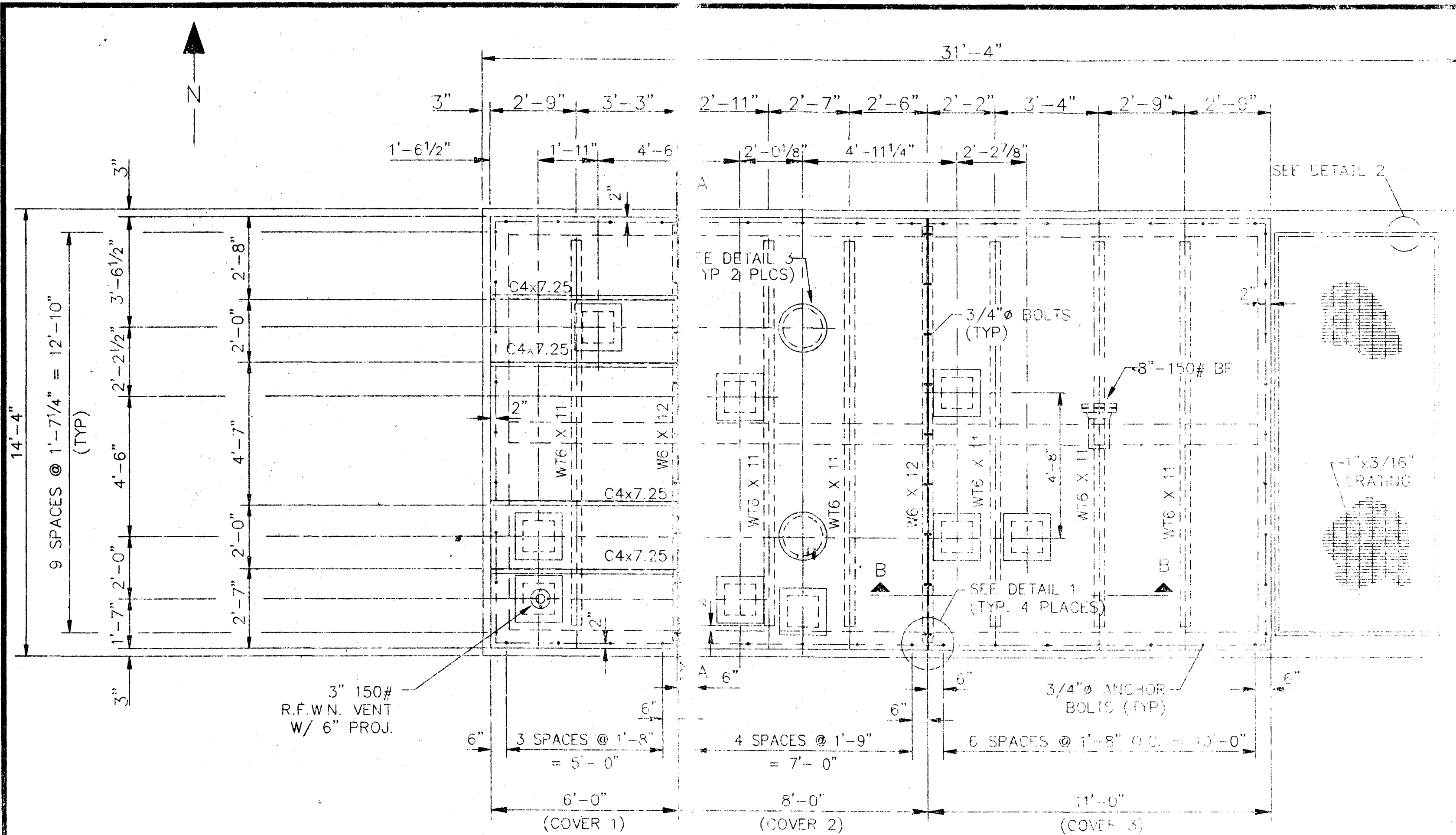
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PIPING PLAN
F.C.C. UNIT
OILY WATER SEWER BOX



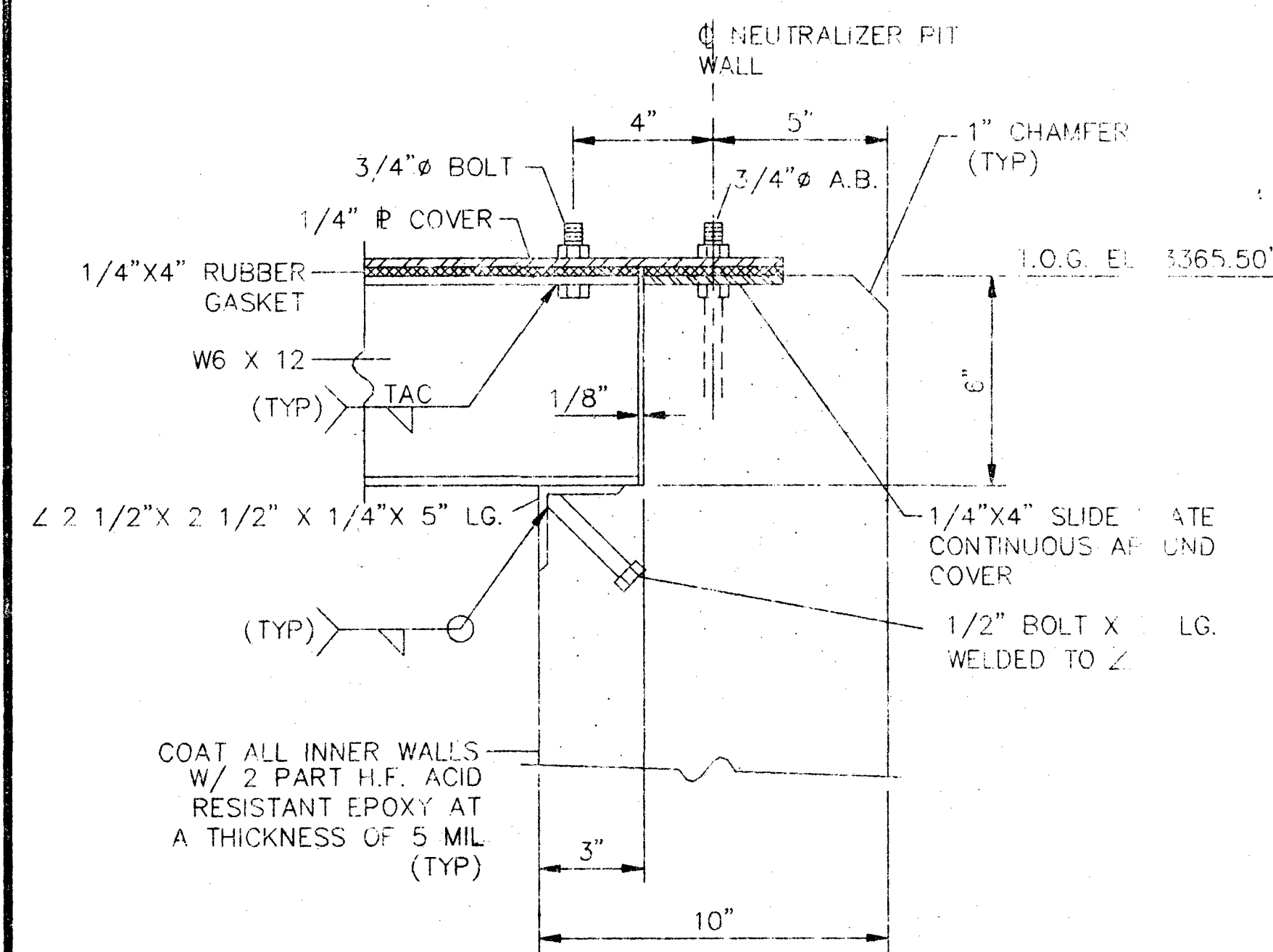
DRAWING NO.
10-761-D

MAY 15 2002

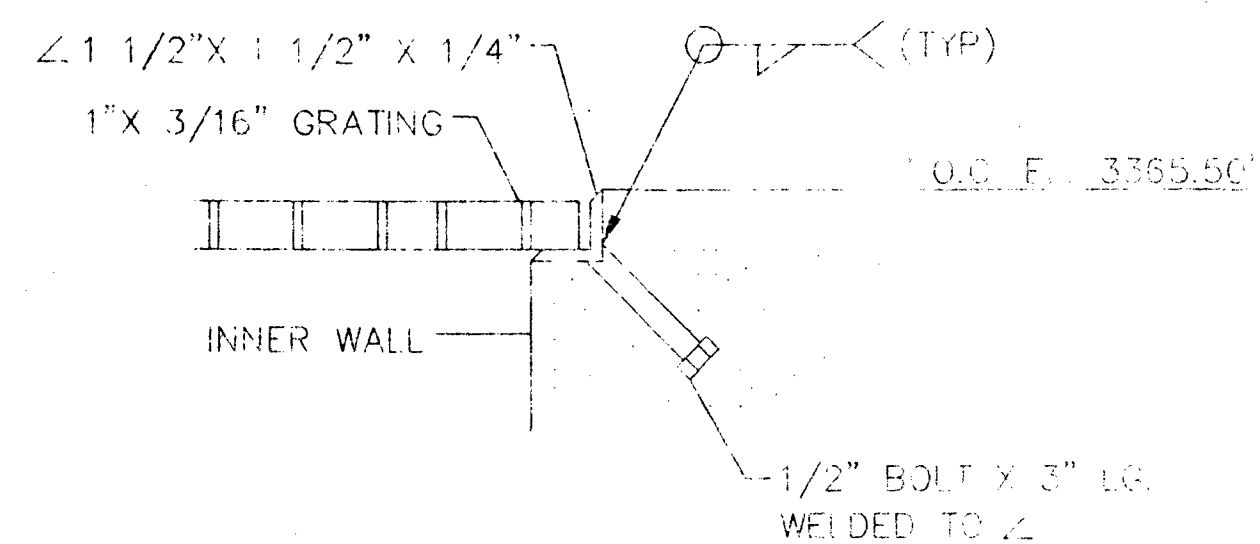


NEUTRALIZER COVER PLAN

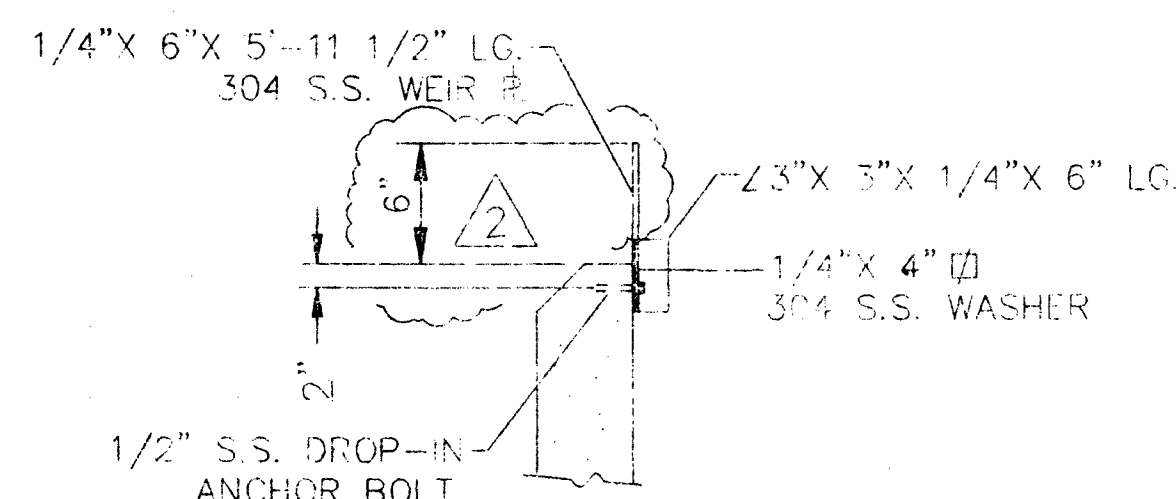
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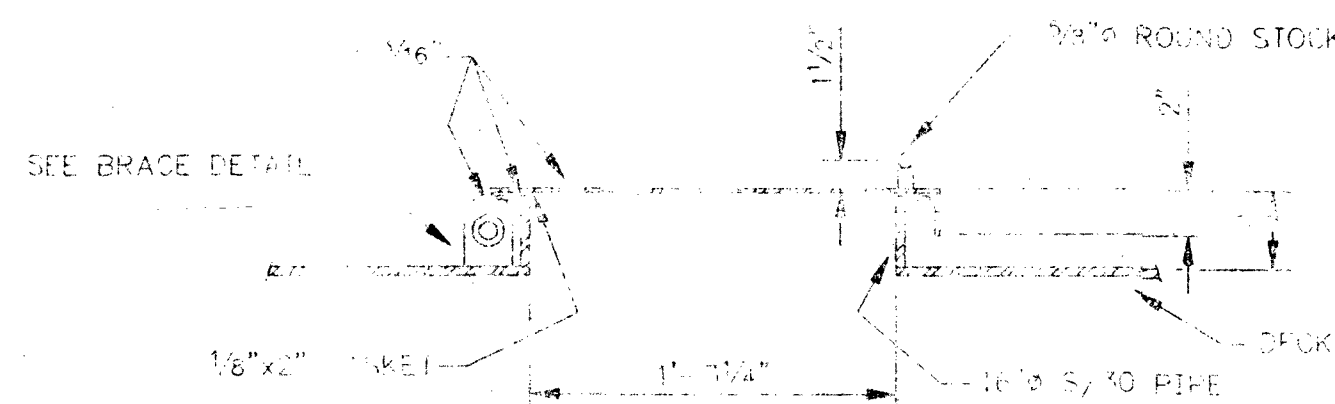
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SCALE: 3\"/>



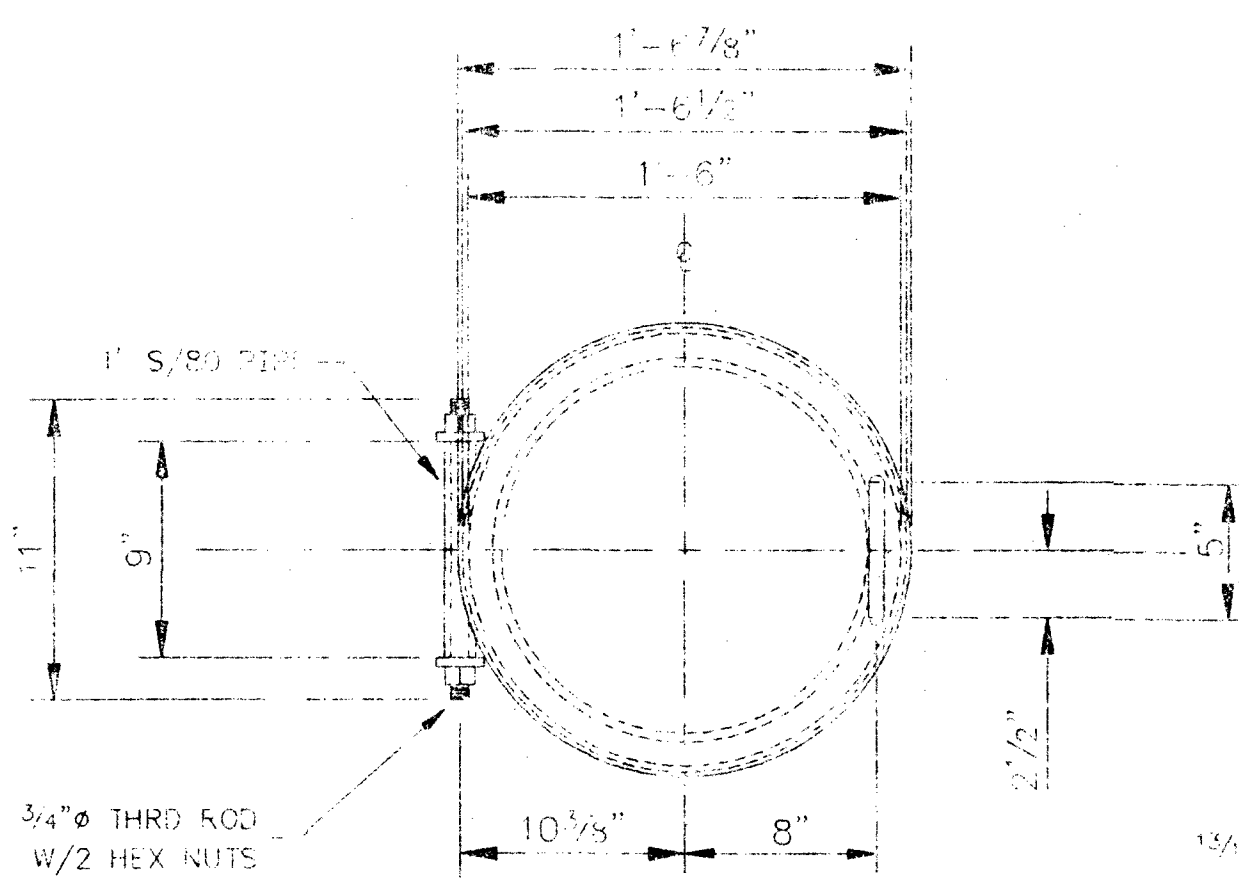
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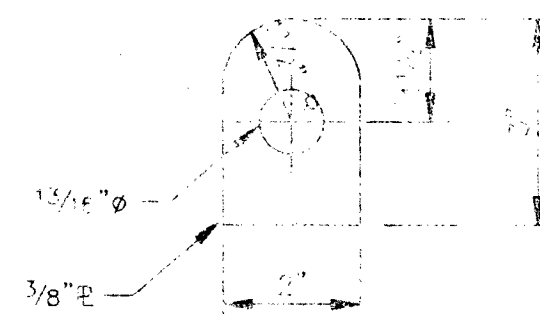
DETAIL 4
SCALE: 3/4\"/>



ELEVATION

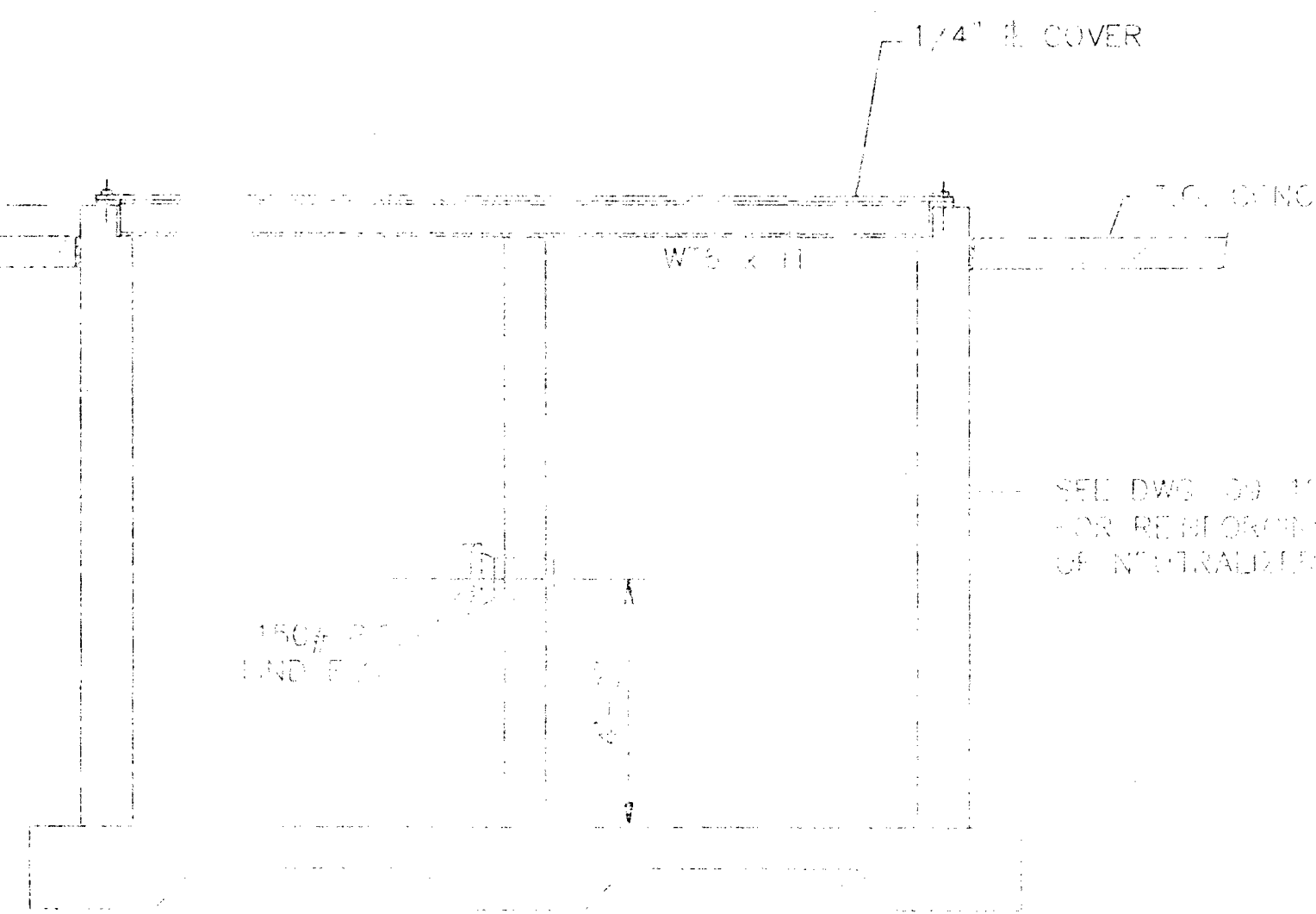


PLAN VIEW

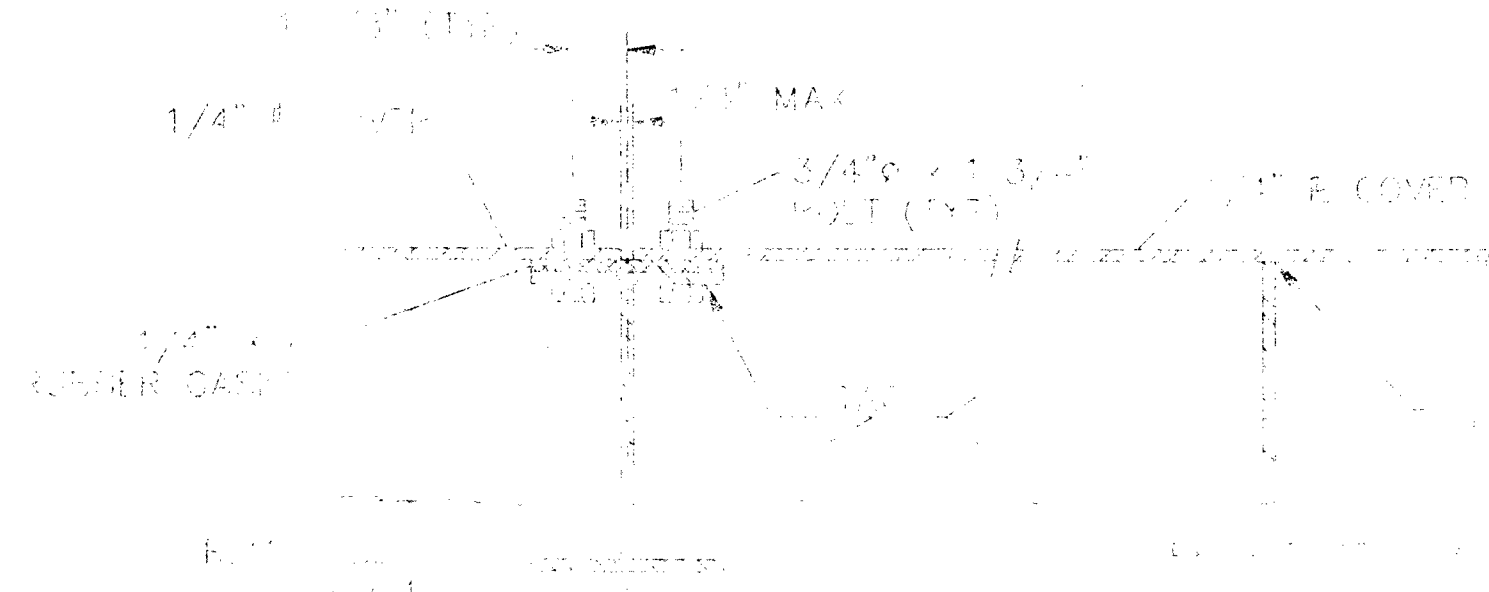


BRACE DETAIL
2 REV'D

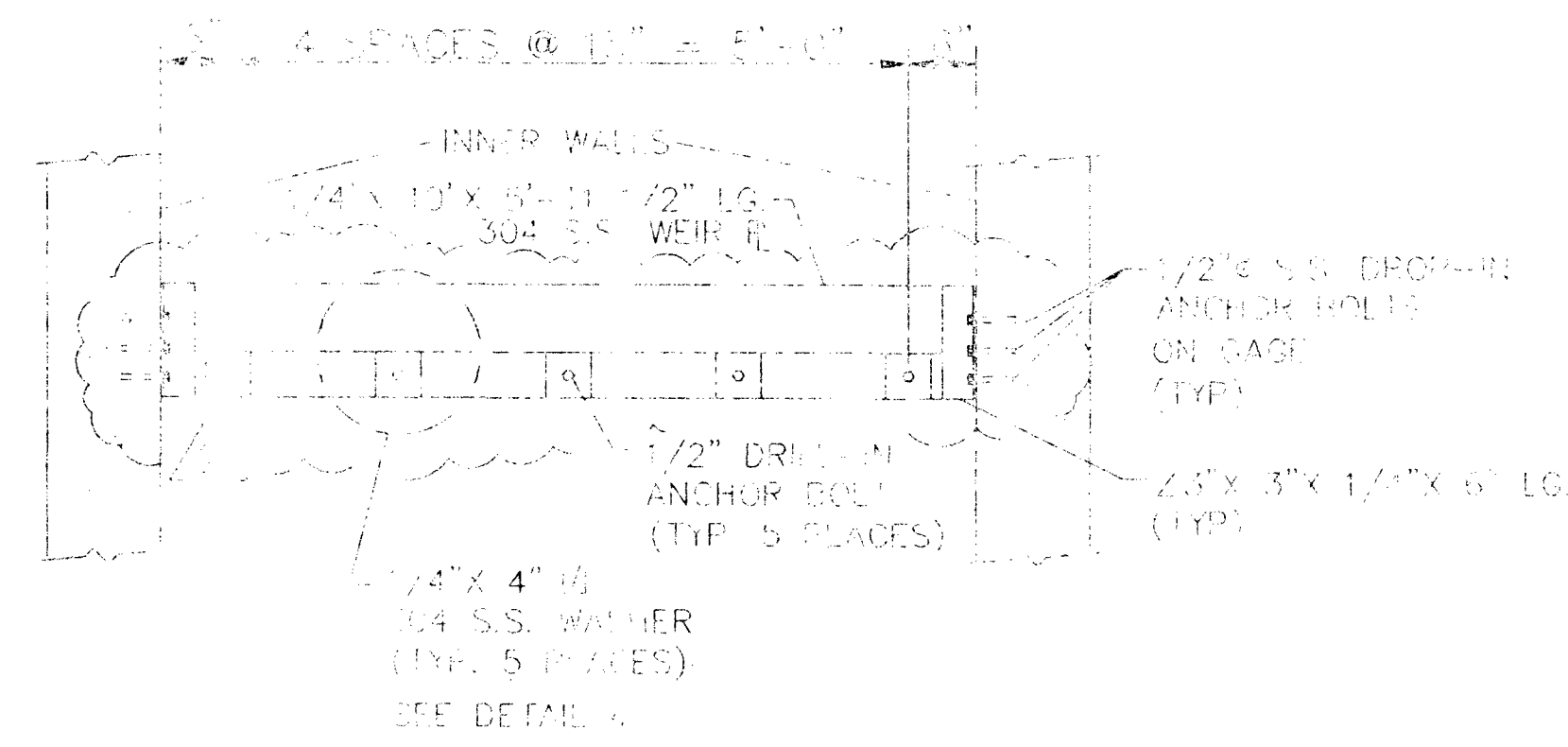
I.O.G.
EL. 3365.50'



SECTION "A-A"
SCALE: 3/8\"/>



SECTION "B-B"
SCALE: 3\"/>



ELEVATION
SCALE: 3/4\"/>

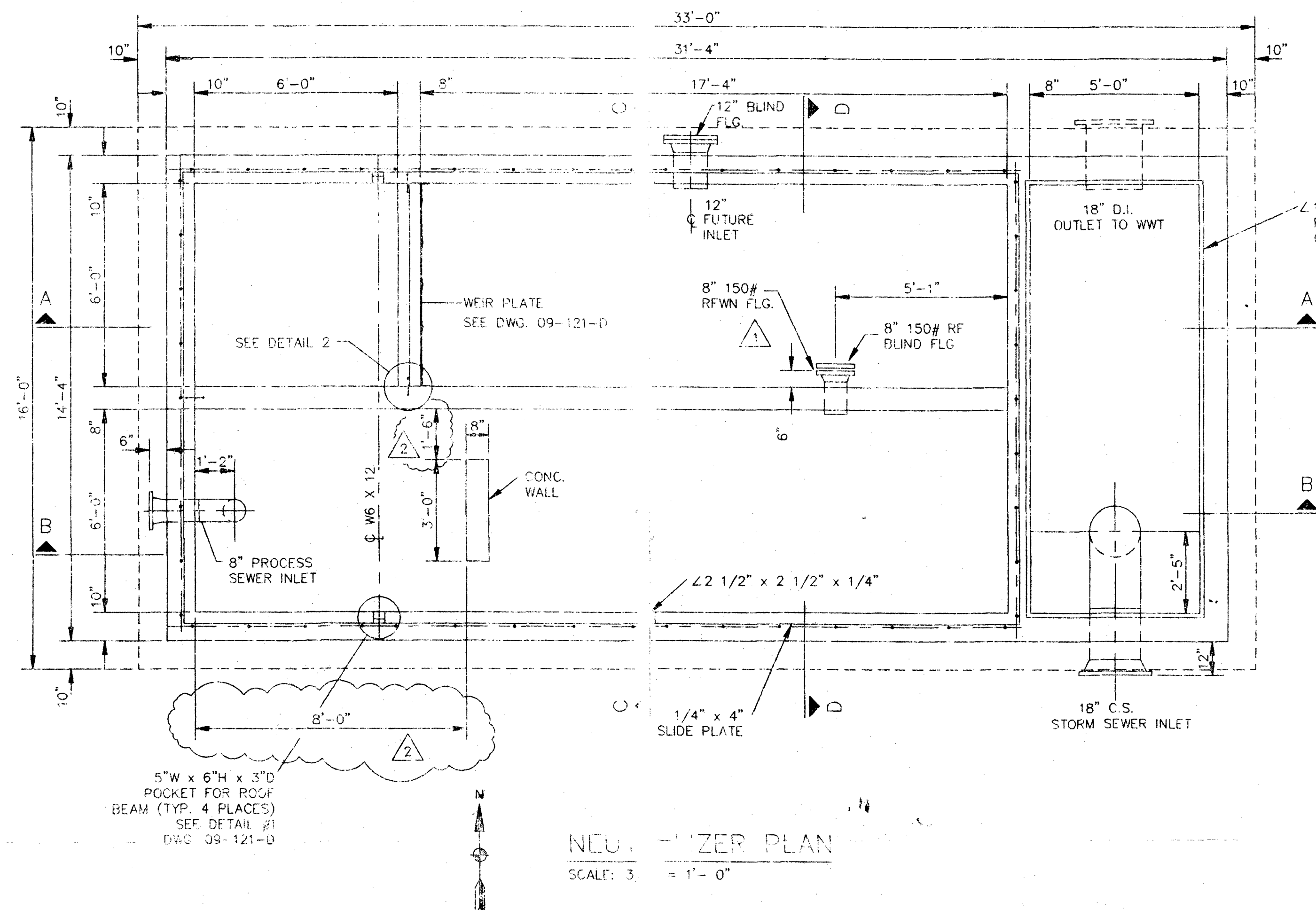
NOTES

REFERENCE DRAWINGS
09-Z-10-D EQUIPMENT SITE PLAN
09-Z-10-D-4 FOUNDATION PLAN - SHEET 4 OF 4
09-120- NEUTRALIZER PIT - PLAN & ELEVATIONS

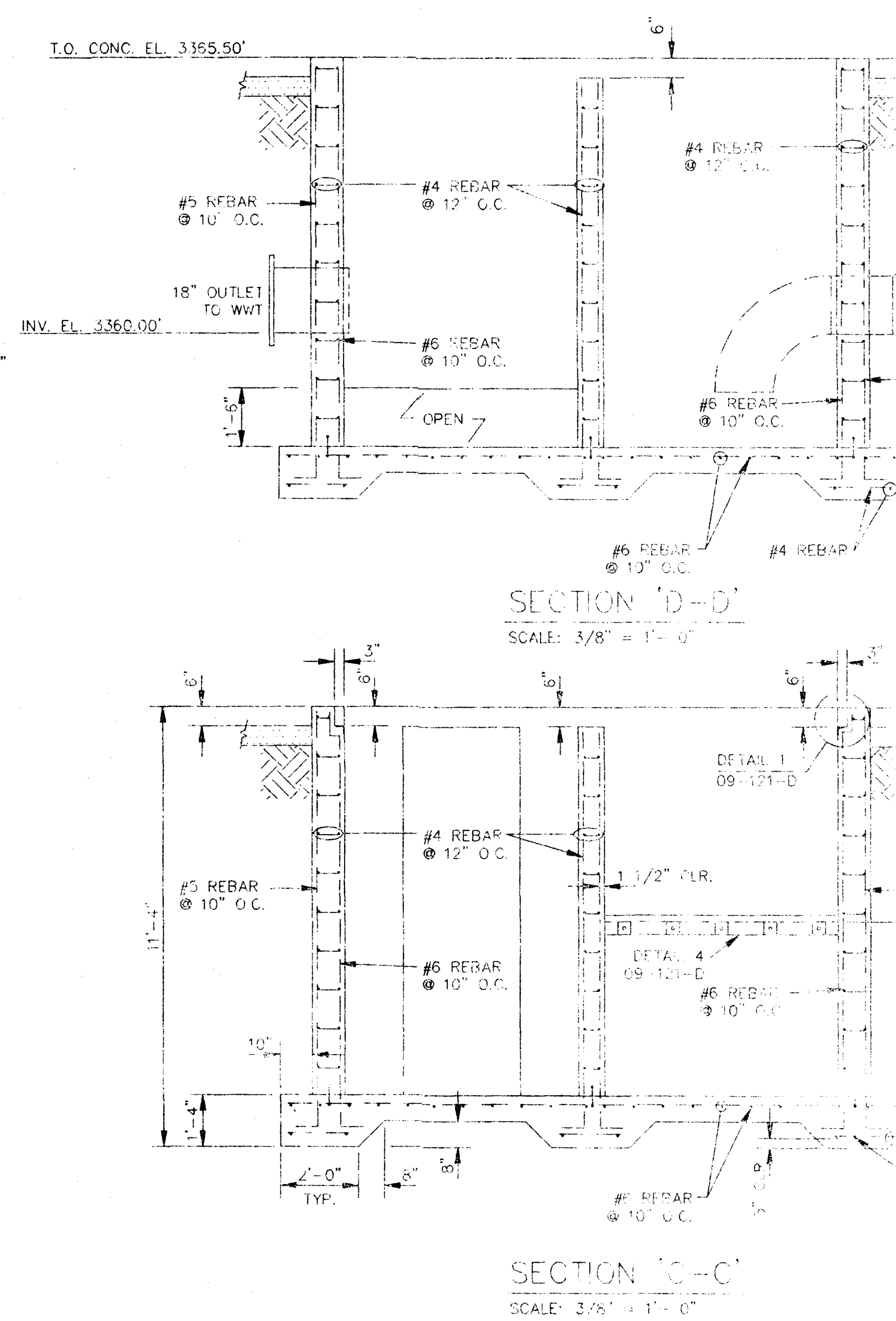
NO.	REVISIONS	BY	CHK.	DATE	APPROVED	NO.	REVISIONS	BY	CHK.	DATE	APPROVED
2	REVISED PER NRI MODIFICATIONS					2	REVISED PER NRI MODIFICATIONS				
1	REVISED PER NRI MODIFICATIONS					1	REVISED PER NRI MODIFICATIONS				
0	ISSUED FOR CONSTRUCTION					0	ISSUED FOR CONSTRUCTION				
A	ISSUED FOR REVIEW					A	ISSUED FOR REVIEW				

NAVAJO REFINING CO.
ENGINEERING DEPARTMENT
P.O. DRAWING ROOM
ARTESIA, NEW MEXICO
H.P. ALKYLATION UNIT
RELOCATION
NEUTRALIZER PIT
DETAILS

DATE	BY	CHK.	DATE	APPROVED
03/10/91	S. ROCHA			

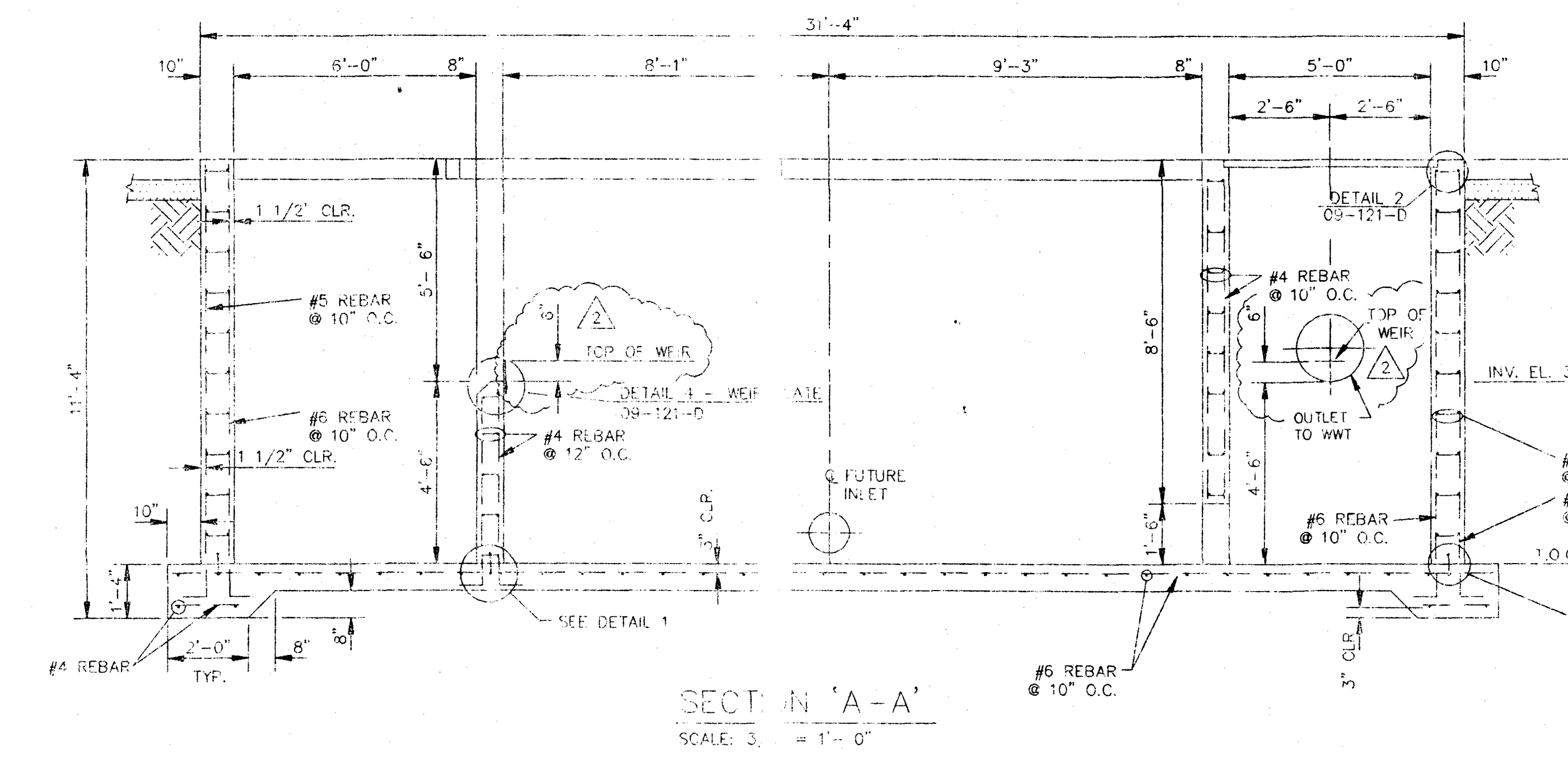


NEUTRALIZER PLAN
SCALE: 3/8" = 1'-0"

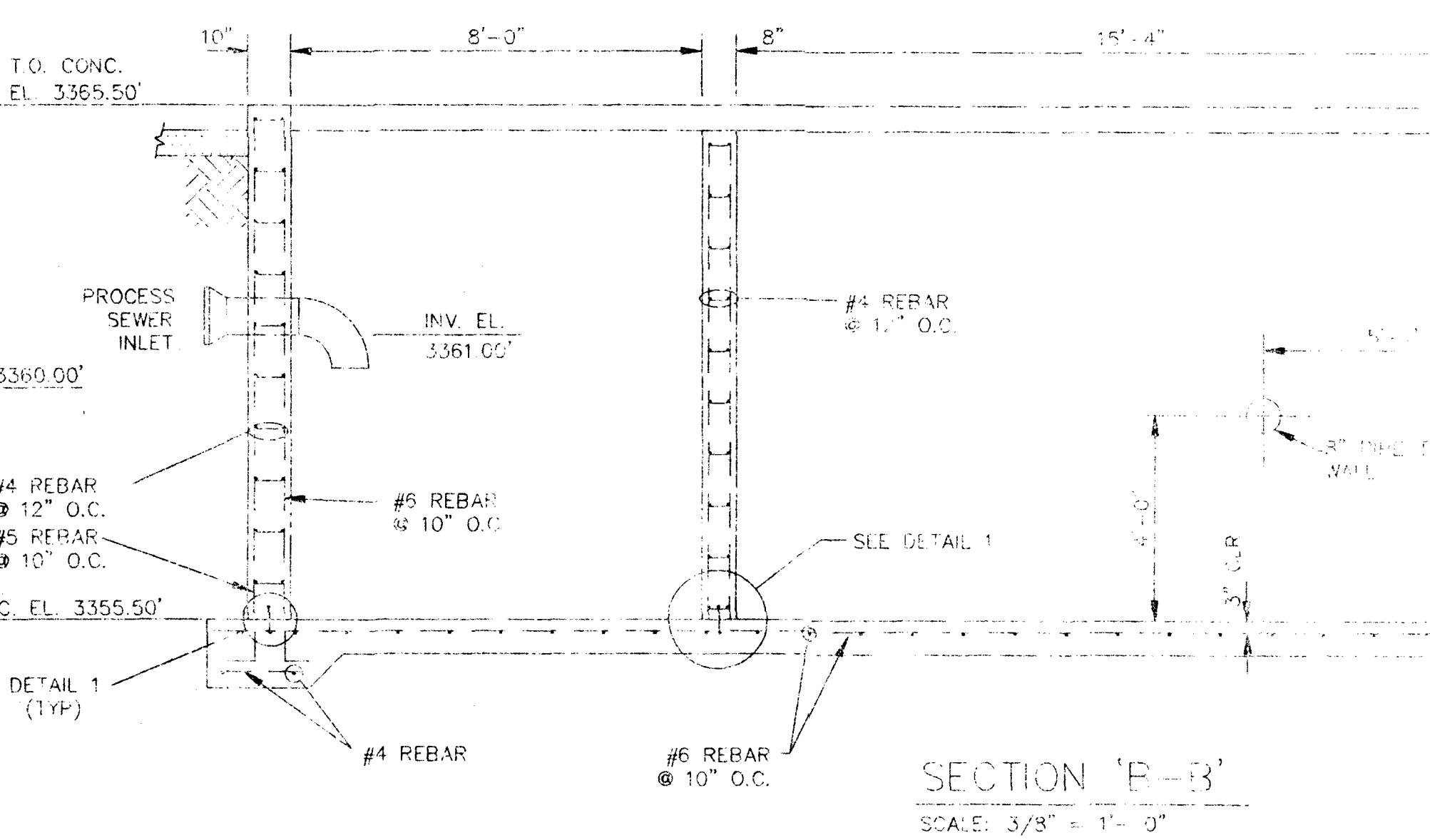


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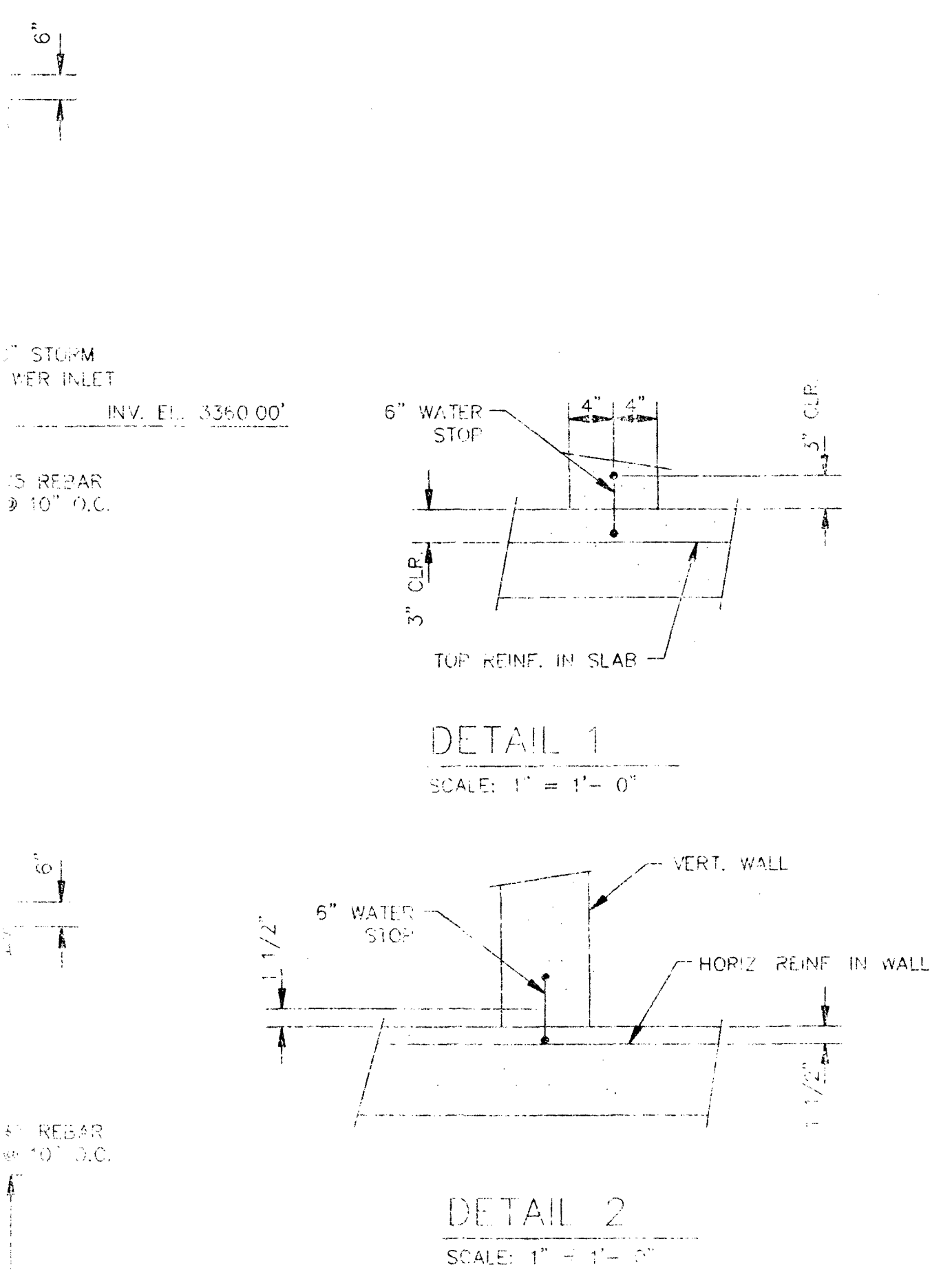
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SCALE: 3/8" = 1'-0"



SECTION 'A-A'
SCALE: 3/8" = 1'-0"



SECTION 'B-B'
SCALE: 3/8" = 1'-0"



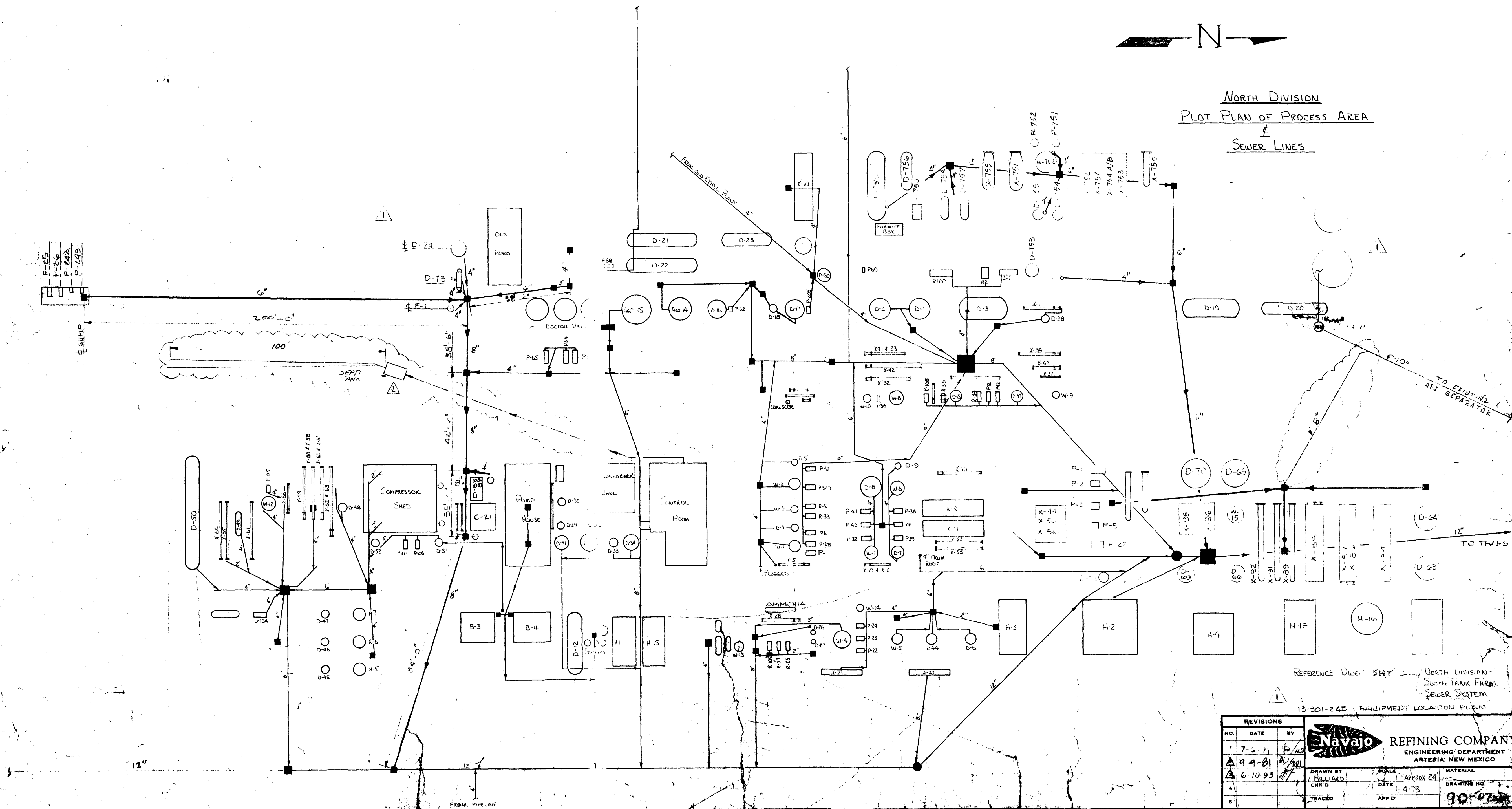
DETAIL 1
SCALE: 1" = 1'-0"

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

NOTES	REFERENCE DRAWINGS		REVISIONS					REVISIONS				
	09-Z-10-D	EQUIPMENT SITE PLAN										
	09-Z-10-C-4	FOUNDATION PLAN										
	09-Z-10-D	SEWER PLAN										
	09-121-D	NEUTRALIZER PIT - DETAILS										
	09-E-10-D	ELECTRICAL POWER PLAN										



NORTH DIVISION
PLOT PLAN OF PROCESS AREA
&
SEWER LINES

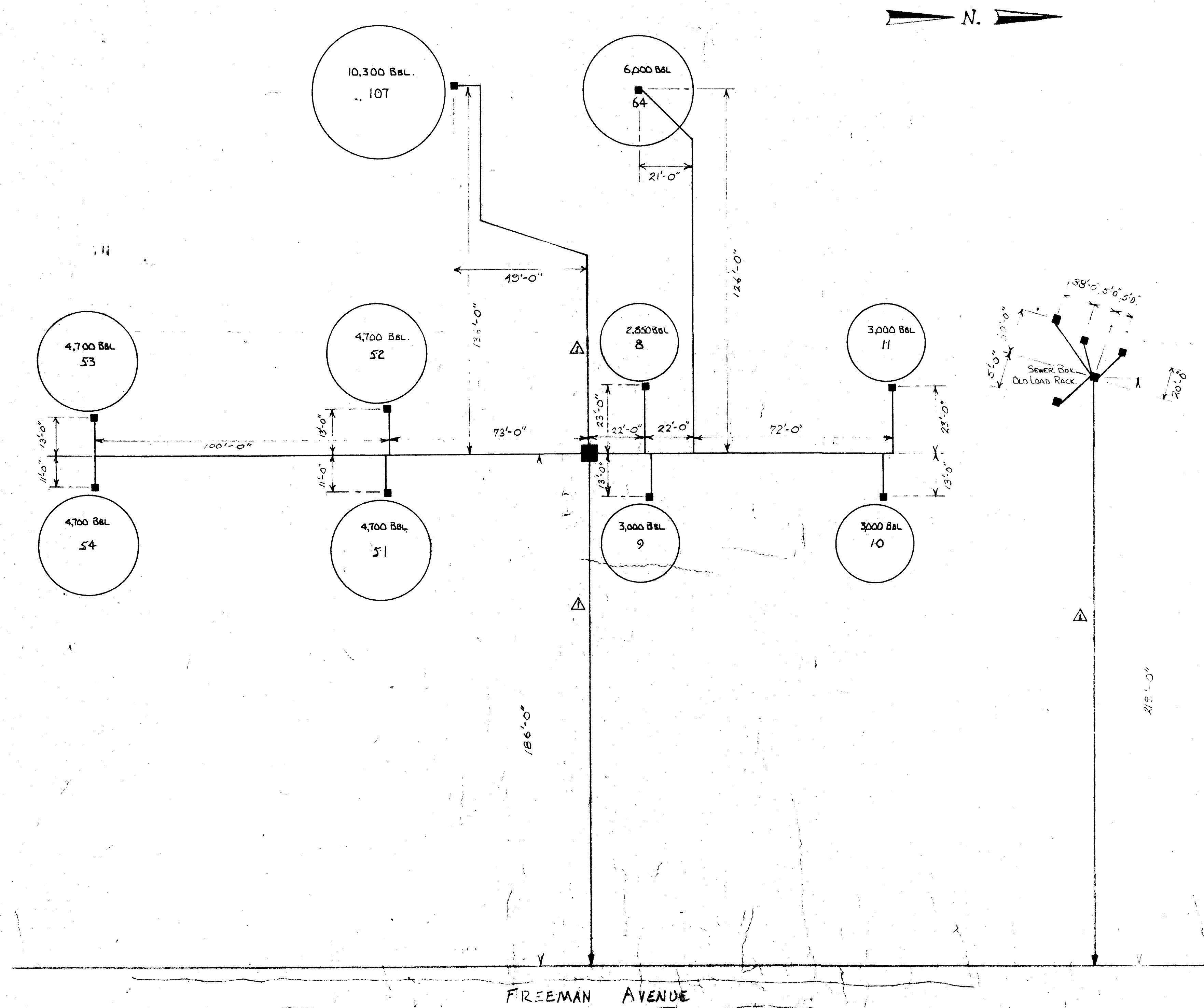


REFERENCE DWG. SHY 1 NORTH DIVISION
SOUTH TANK FARM
SEWER SYSTEM
13-301-245 - EQUIPMENT LOCATION PLAN

REVISIONS				DRAWN BY HILLIARD	DATE 1-4-73	SCALE AS SHOWN	MATERIAL
NO.	DATE	BY	REASON				
1	7-6-71	6/75					
2	9-9-81	6/75					
3	6-10-93	6/75					

TRACED	APP'D	DRAWING NO. 90-775
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MAY 15 2002



REFERENCE DWG: SHT 1# NORTH DIVISION - PLOT PLAN OF PROCESS AREA # SEWER LINES

NORTH DIVISION SOUTH TANK FARM - SEWER SYSTEM		
REVISIONS NO. DATE BY 1 5-26-78 JAS 2 3 4		
DRAWN BY HILLIARD CHECKED TRACY		SCALE 1" = APPROX 20' DATE 1-11-73 APP'D
MATERIAL DRAWING NO. SHT 1#		NAVAJO REFINING COMPANY ENGINEERING DEPARTMENT ARTESIA, NEW MEXICO

MAY 15 1978

124 127 413 123 132 130 121

TRUCK LOADING RACK

CHANGE ROOM

ALKYL CONTROL ROOM

WASH

TREATER UNIT

COOLING TOWER BASIN

COOLING TOWER

REACTOR

BLOWERS

COMPRESSOR BUILDING

OVERHEAD

CRUDE TOWER

CRUDE PETROCHEM HEATER

GAS DRUM

SELAS FURNACE

SPRAY JET

LINE PLUGGED

DRAINAGE TRENCH

ROUND BOX

ACID SETTLER

EMERGENCY BOOTH

CONTROL ROOM

PUMP HOUSE

BRINE HOUSE

ACID

FUNNEL

DRAINAGE DITCH

SPLITTER TOWER

MEROX UNIT

DRAINAGE DITCH

PLUGGED

BLOWDOWN LINE ABOVE GROUND

BLOWDOWN LINE 60ER UNDERGROUND

SWITCH GEAR ROOM

SMOKE HOUSE

TRANSFORMER BANK

STACK

FIRE PUMP HOUSE

NO 1 BOILER

NO 2 BOILER

NO 3 BOILER

NO 4 BOILER

CAT STORAGE

FRACK TOWER

CONTROL ROOM

SWITCH ROOM

CESS POOL

SMOKE

LINE PIT

SK #1

SK #2

SK #3

LEGEND

■ OIL SEWER BOXES & LINES

□ FRESH WATER BOXES & LINES

TYPICAL OF TCC & CRUDE UNIT PUMP DRAINS

NAVJO REFINING COMPANY

ENGINEERING DEPARTMENT

ARTESIA, NEW MEXICO

DESIGNED BY: HILLIARD

CHECKED: CHED

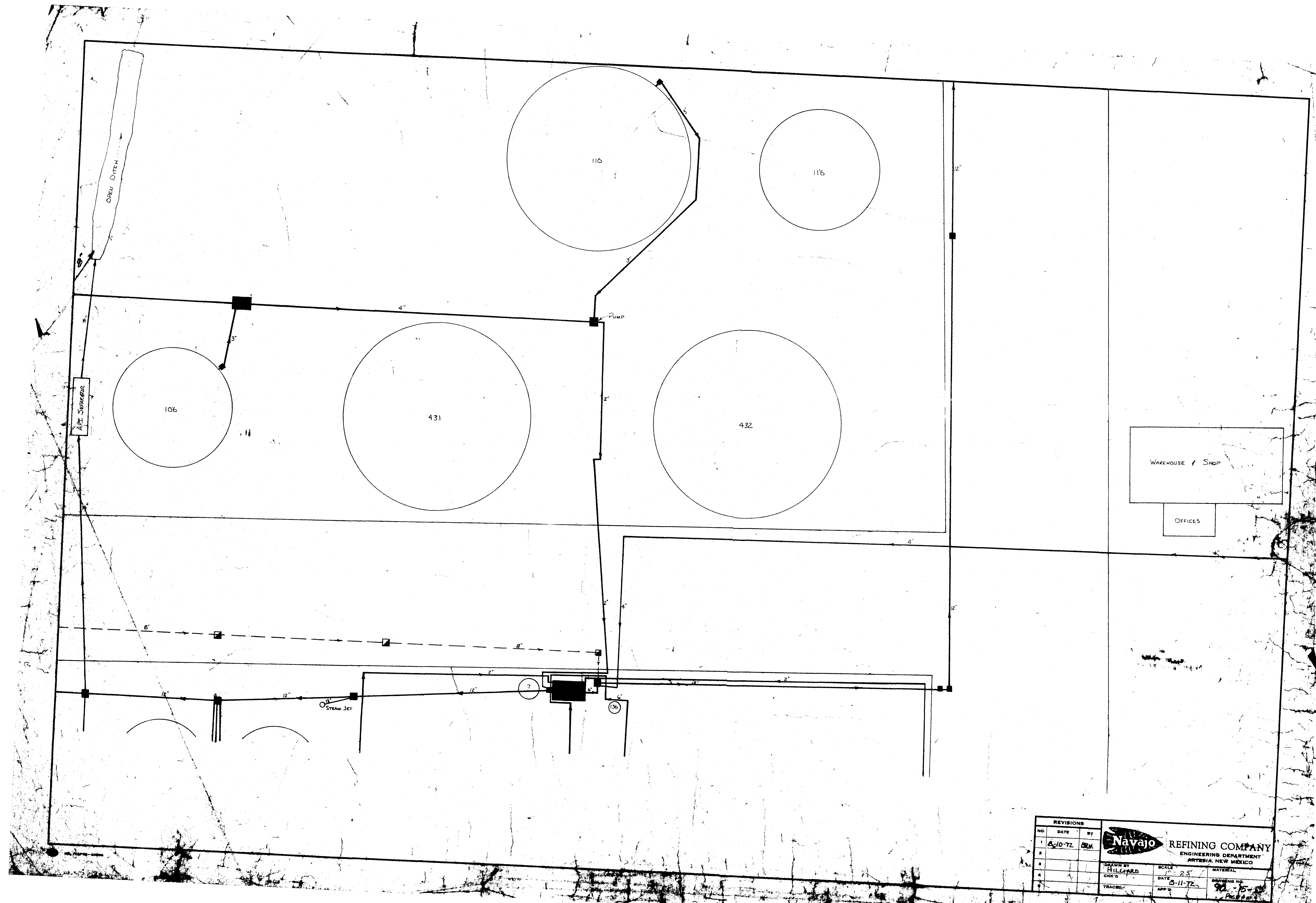
DATE: 8/11/72

SCALE: 1"=25'

DRAWING NO.: 90-15-0

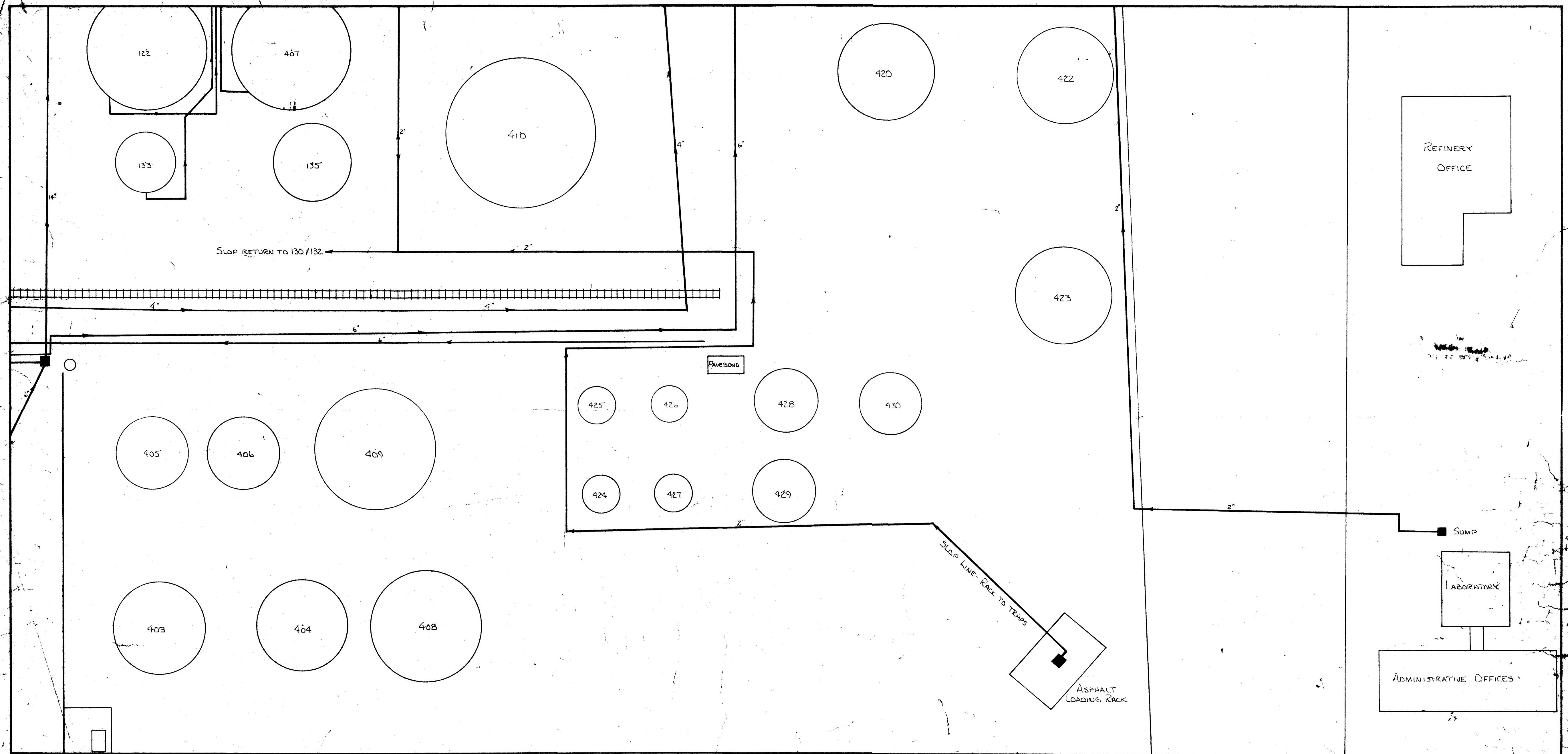
PAGE 1 OF 1

MAY 15 2005



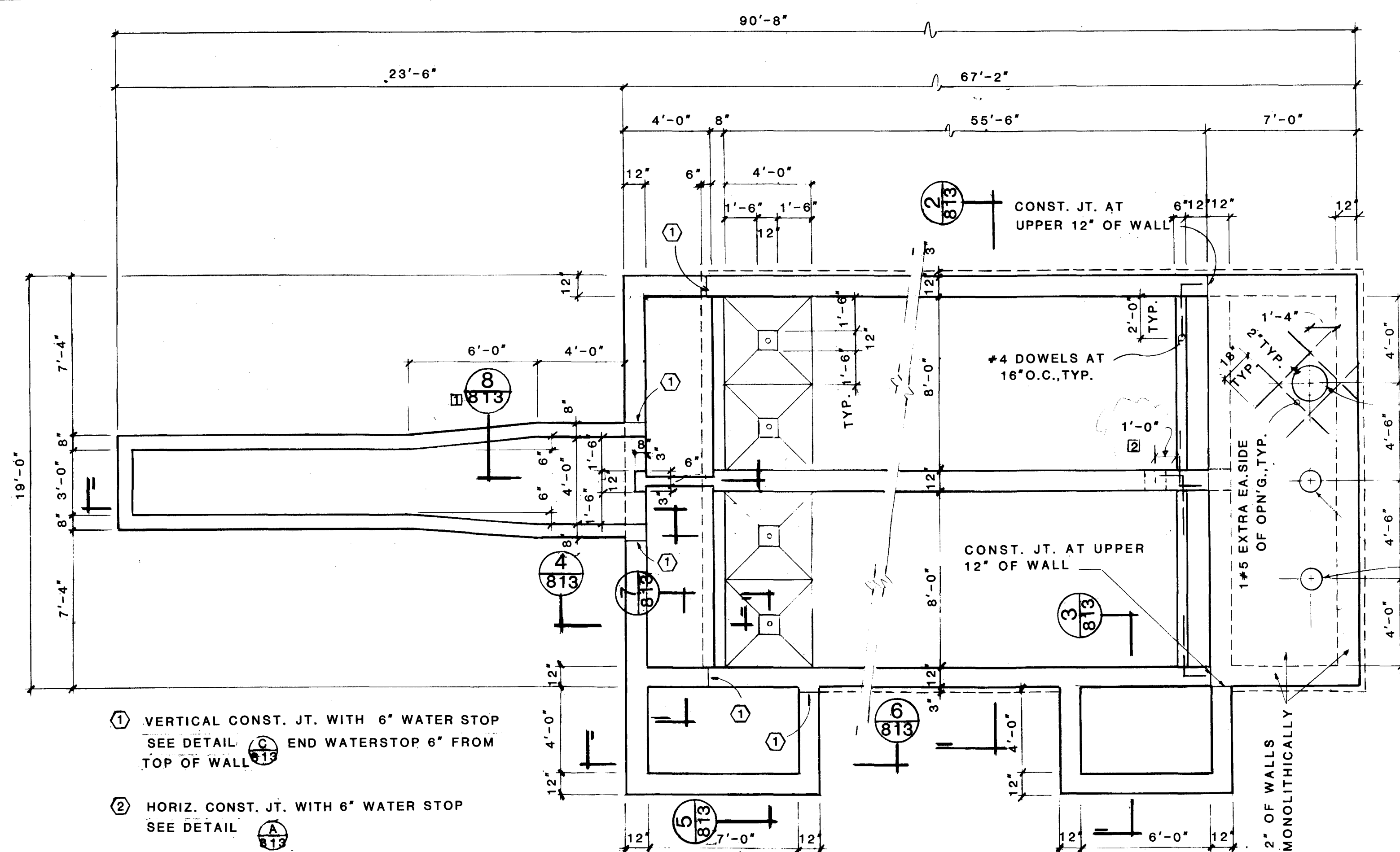
REVISIONS			DRAWN BY	SCALE	DATE	MATERIAL
NO.	DATE	BY				
1	8-10-72	GRM	HILLIARD	1" = 25'	8-11-72	
2			CHKD			
3			TRACED			
4						
5						

Navajo REFINING COMPANY
 ENGINEERING DEPARTMENT
 ARTESIA, NEW MEXICO



REVISIONS			 Navajo REFINING COMPANY ENGINEERING DEPARTMENT ARTESIA, NEW MEXICO		
NO.	DATE	BY			
1	8-10-72	BRM	DESIGNED BY	SCALE	DRAWN BY
2			CHIEF	1"=25'	9023
3			DATE	APPROVED	
4			TRACED		
5					

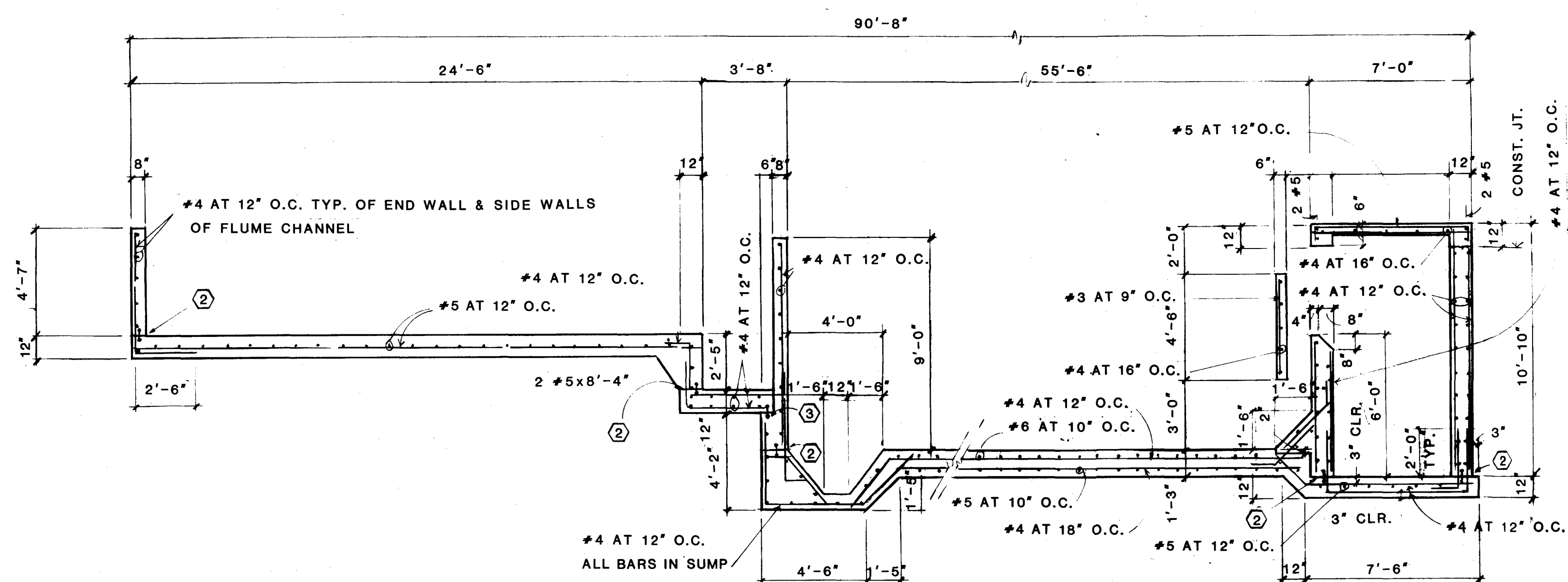
MAY 15 1973



- ① VERTICAL CONST. JT. WITH 6" WATER STOP
SEE DETAIL  END WATERSTOP 6" FROM
TOP OF WALL
- ② HORIZ. CONST. JT. WITH 6" WATER STOP
SEE DETAIL 
- ③ SPECIAL HORIZ. CONST. JT. WITH 6" WATER STOP
SEE DETAIL 

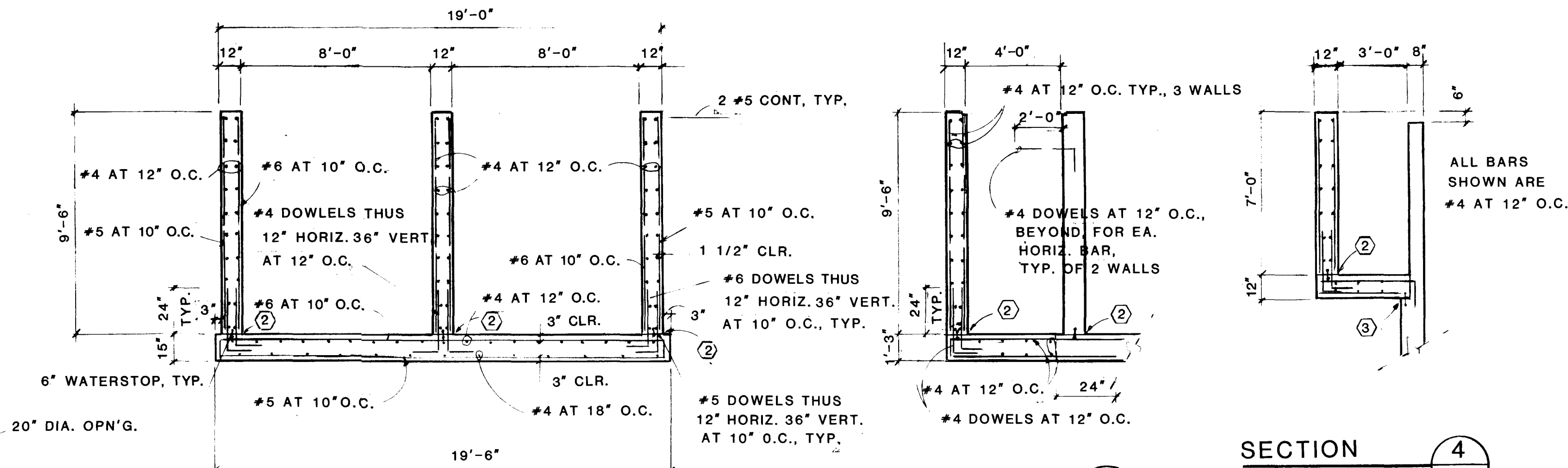
PLAN

SCALE: 1/4" = 1'-0"



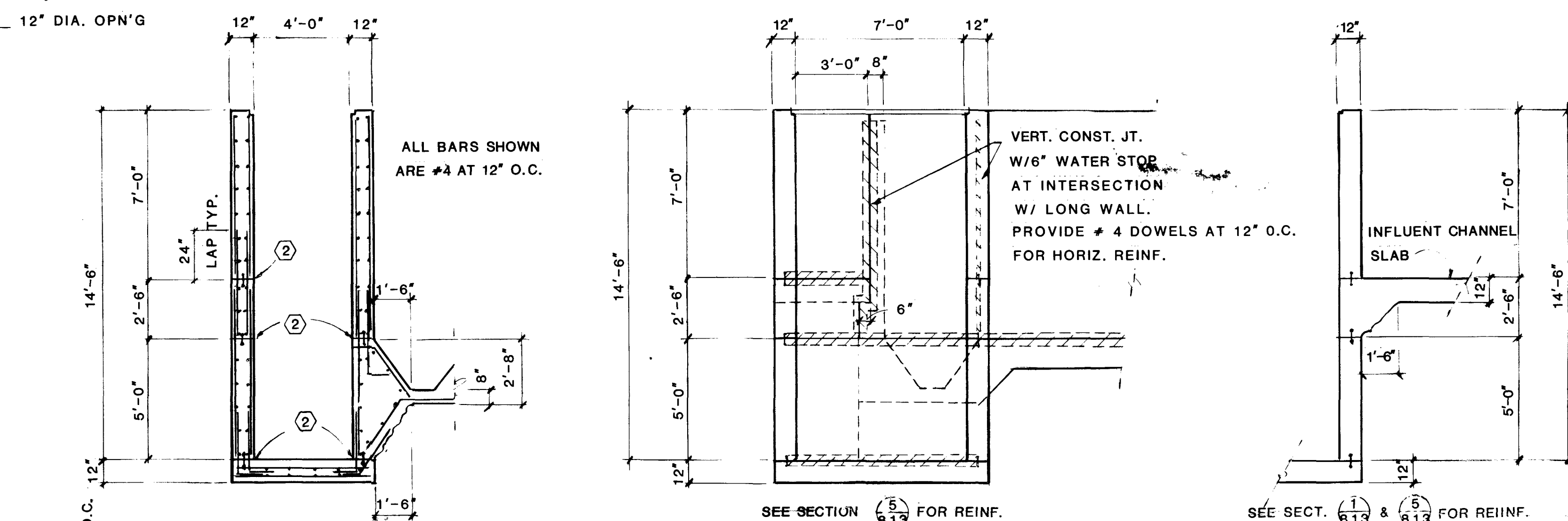
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SCALE: 1/4" = 1'-0" 813



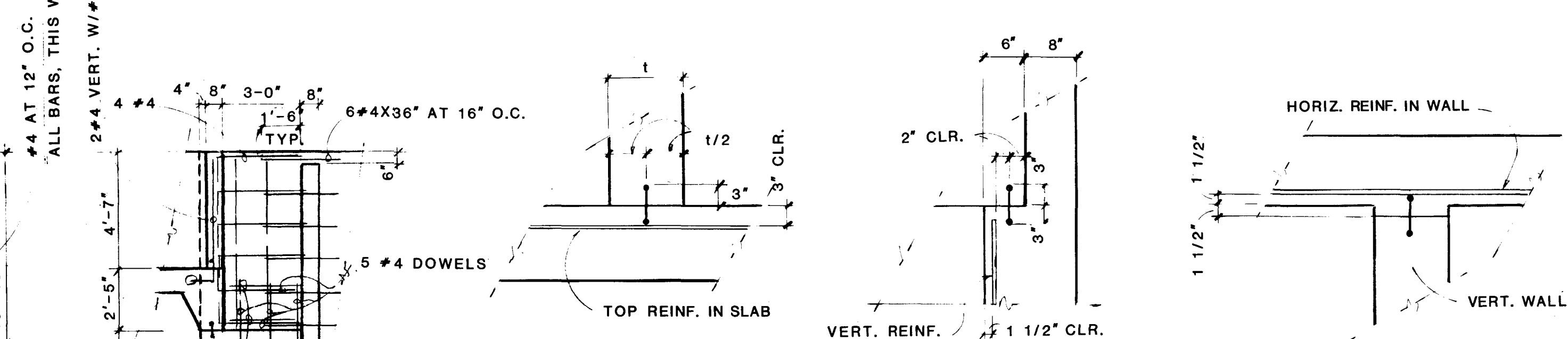
SECTION

SCALE 1/4" 1'-0" 813



SECTION

SCALE: 1/4" = 1'-0" 813



SECTION

SCALE: 1/4" = 1'-0" 813

SECTION

SCALE: 1/4" 1'-0" 813

SECTION

SCALE: 1/4" = 1'-0" 813

DETAIL

SCALE: 3/4" 1'-0" 813

DETAIL

SCALE: 3/4" 1'-0" 813

DETAIL

SCALE: 3/4" 1'-0" 813

1. SEE "MISCELLANEOUS DETAILS" SHEET 815 FOR EXTRA
CORNER REINFORCEMENT REQUIREMENTS AND
GENERAL NOTES

2. WATER STOPS ARE REQUIRED ON ALL CONSTRUCTION JOINTS

REFERENCE DRAWINGS

808 - PLANT PROCESS PIPING SOUTH
812 - API SEPARATOR
815 - MISCELLANEOUS DETAILS

[illegible]

PRIMARY
WASTEWATER TREATMENT PLANT

API SEPARATOR STRUCTURAL



Parkhill, Smith & Cooper, Inc.
Engineers • Architects • Planners
810 E. Yandell, El Paso, Texas 79902



REFINING COMPANY
ENGINEERING DEPARTMENT
ARTESIA, NEW MEXICO

DRAWN BY RRM	CHK'D BY RWR	SCALE AS SHOWN
DATE 2/18/87	DATE 2/18/87	DRAWING NO. 80-1-D-2