GRCC05

GIANT
REFINING COMPANY

ROUTE 3 BOX 7
GALLUP
NEW MEXICO 87301

PHONE
505-722-3833
INTERNET
WWW.GIANT.COM

CERTIFIED MAIL 7003 3110 0004 1983 3698

June 21, 2005

RECEIVED
JUN 2005
NMED Hazardous
Waste Bureau

Mr. Wayne Price
New Mexico Oil Conservation Division
1220 South Street Francis Drive
Santa Fe, NM 87505

Re: Discharge Permit GW-032 Approval Conditions

Enclosed are spreadsheets that meet the requirements of the Giant Ciniza Refinery Discharge Permit GW-032, Discharge Permit Approval Conditions 9. and 8.c. Enclosed as Attachment 1, Giant has developed a spreadsheet that contains all underground process and wastewater lines as required by Condition 9. Each line has an identification number, drawing reference, date installed, test dates, test method, pass/fail/repair information, inspector and investigation results. The alkylation unit which had several lines fail last fall is scheduled for repair/replacement by Rin-chem beginning on June 27. Please see Attachment 2 for the alkylation unit schedule.

Giant plans to complete testing on the crude unit and test the DHT, Isom, SRU, Sats, RR loading, and part of the tank farm in 2005. The remaining units to be tested in 2006 include completion of the tank farm and the boiler unit. This will complete the 5 year cycle for testing all of the units.

Enclosed as Attachment 3, Giant has developed a spreadsheet that contains all single lined underground tanks/sumps/pits as required by Condition 8.c. Each device or system has an identification number, drawing reference, date installed, test dates, test method, pass/fail/repair information, inspector and investigation results. These systems will be tested by the end of July.

If you have any questions regarding this report please contact me at (505) 722-0217.

Sincerely,

Ed Riege
Environmental Superintendent

C: Ed Rios w/o report
Joel Quinones
✓ Hope Monzeglio, NMED Hazardous Waste Bureau

LIBRARY COPY

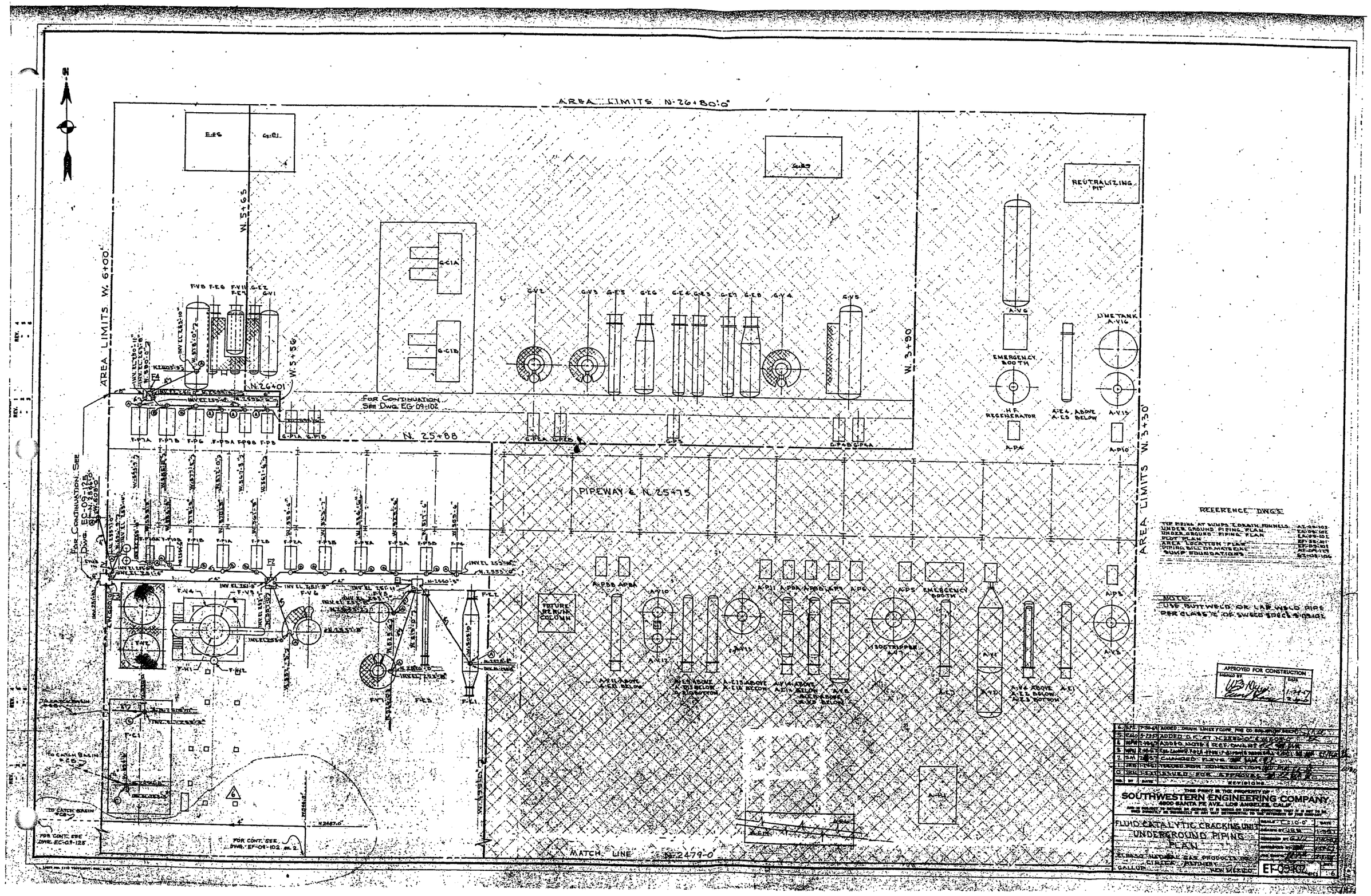
Giant Ciniza Refinery
Underground Process and
Wastewater Lines

FLUID CATALYTIC CRACKING UNIT UNDERGROUND PIPING PLAN

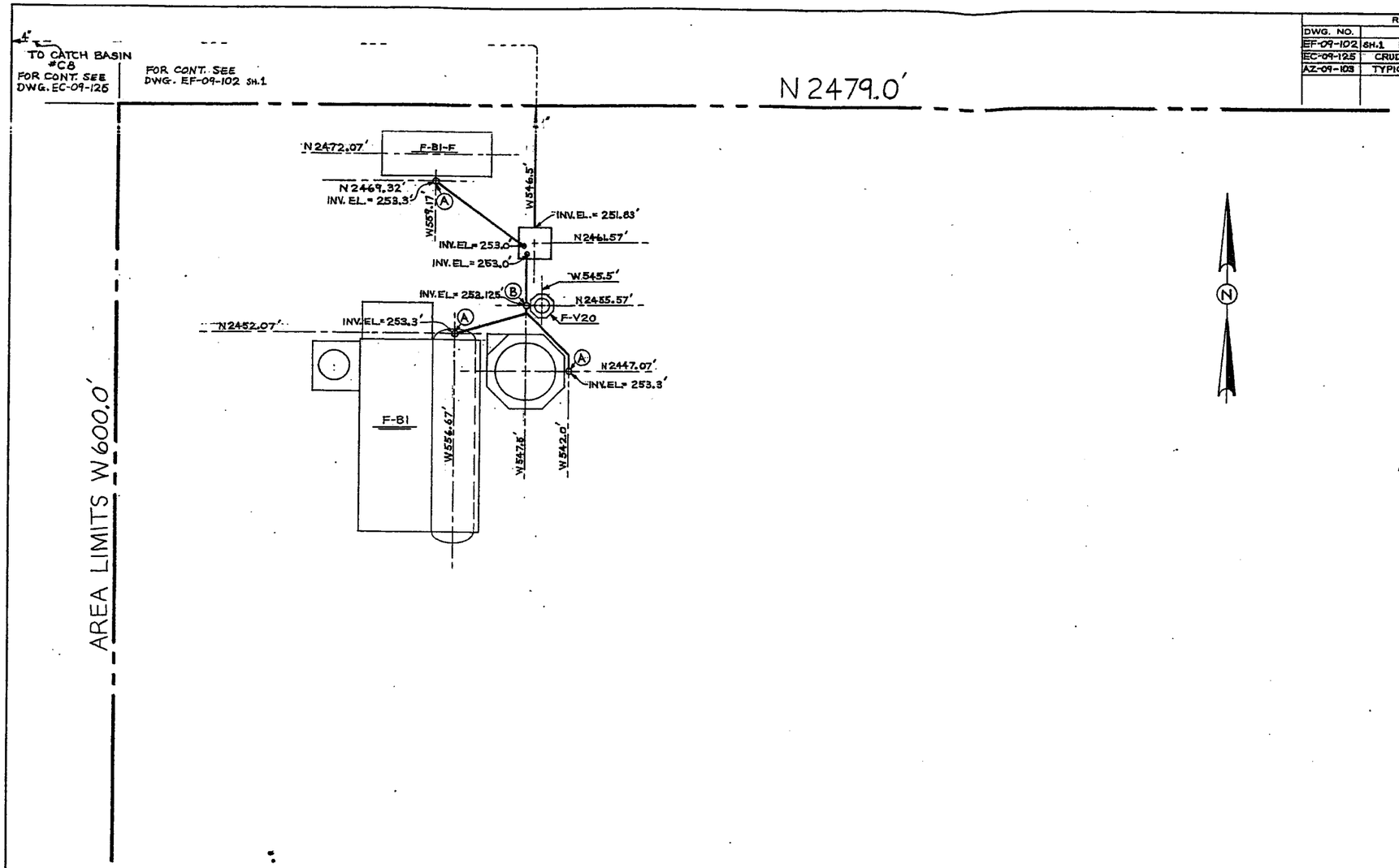
UNDERGROUND PROCESS AND WASTEWATER LINES

FLUID CATLALYTIC CRACKING UNIT UNDERGROUND PIPING PLAN

ID Number (Sewer Box or Catch Basin	Lateral Drains and/or Headers	Date Installed	Drawing Reference	Test Date	Pass/Fail/ Repair Information	Test Water Column (Feet)	Test Duration (Minutes)	Signature	Investigation Results
F1	F-E1 To F1	1957	EF-09-102 SH.1	07/31/02	Pass	4	25	B. Loos	
	F-V7 To F1	1957	EF-09-102 SH.1	07/31/02	Pass	4	25	B. Loos	
	F-V5 To F1	1957	EF-09-102 SH.1	07/31/02	Pass	4	25	B. Loos	
F2	F1 Flows W.To F2	1957	EF-09-102 SH.1	07/31/02	Pass	4	25	B. Loos	
	F-P4 To F-P5B To F-P5A To F-P3A To F-P3B To F-P2A To F2	1957	EF-09-102 SH.1	07/31/02	Pass	4	25	B. Loos	
	F-P10A To F-P10B To F-P1B To F-P1A To F-P2B To F2	1957	EF-09-102 SH.1	07/31/02	Pass	4	25	B. Loos	
	F-V6 To F2	1957	EF-09-102 SH.1	07/31/02	Pass	4	25	B. Loos	
F3	F2 Flows W. To F3	1957	EF-09-102 SH.1	07/31/02	Pass	4	25	B. Loos	
	Drain Coordinate N.2557'-0", W.596'-0" To F3	1957	EF-09-102 SH.1	07/31/02	Pass	4	25	B. Loos	
	Drain Coordinate N.2566'-0", W.603'-0" To F3	1957	EF-09-102 SH.1	07/31/02	Pass	4	25	B. Loos	
F4	G4 to F4	1957	EF-09-102 SH.1 & EG-09-102EP	01/11/02	Pass	7	25	B. Loos	
	G-P1B To G-P1A To F-P8 To F-P9B To F-P9A To F-P6 To F-P7B To F4	1957	EF-09-102 SH.1	01/11/02	Pass	7	25	B. Loos	
	F-P7A To F4	1957	EF-09-102 SH.1	01/11/02	Pass	7	25	B. Loos	
	F-V8 To F4	1957	EF-09-102 SH.1	01/11/02	Pass	7	25	B. Loos	
FCC Box N2461.57' W546.5'	F-B1 & Drain N2447.07' W542.0' To F-V20 To Sewer Box N2461.57' W546.5'	1969	EF-09-102 SH.2	07/31/02	Pass	4	25	B. Loos	
	F-B1-F To Sewer Box N2461.57' W546.5'	1969	EF-09-102 SH.2	07/31/02	Pass	4	25	B. Loos	


AREA LIMITS N. 26+80.0'
AREA LIMITS W. 6+00'
AREA LIMITS W. 3+30'
W. 5+65
W. 5+56
W. 3+90
N. 26+01
N. 25+88
N. 25+75
PIPEWAY & N. 25+75
FOR CONTINUATION SEE DWG. EG-09-102
FOR CONTINUATION SEE DWG. EC-09-125
FOR CONT. SEE DWG. EF-09-102 SH. 2
TO CATCH BASIN
MATCH LINE N. 2479.0'
NEUTRALIZING PIT
EMERGENCY BOOTH
H.F. REGENERATOR
LIME TANK
FUTURE REBUILD COLUMN
REFERENCE DWGS
NOTE:
USE BUTTWELD OR LAP WELD PIPE PER CLASS "E" OF SWECO SPECS.
APPROVED FOR CONSTRUCTION
SOUTHWESTERN ENGINEERING COMPANY
4600 SANTA FE AVE. LOS ANGELES, CALIF.
FLUID CATALYTIC CRACKING UNIT
UNDERGROUND PIPING PLAN
EF-09-102

REFERENCE DRAWINGS	
DWG. NO.	DESCRIPTION
EF-09-102 SH.1	F.C.C. UNIT UNDERGROUND PIPING
EC-09-125	CRUDE UNIT UNDERGROUND PIPING
AZ-09-103	TYPICAL PIPING AT SUMPS & FUNNELS



MARK	DATE	DESCRIPTION	BY	APRVD
		REVISIONS		

SHELL OIL COMPANY
CINIZA REFINERY — GALLUP, N. M.

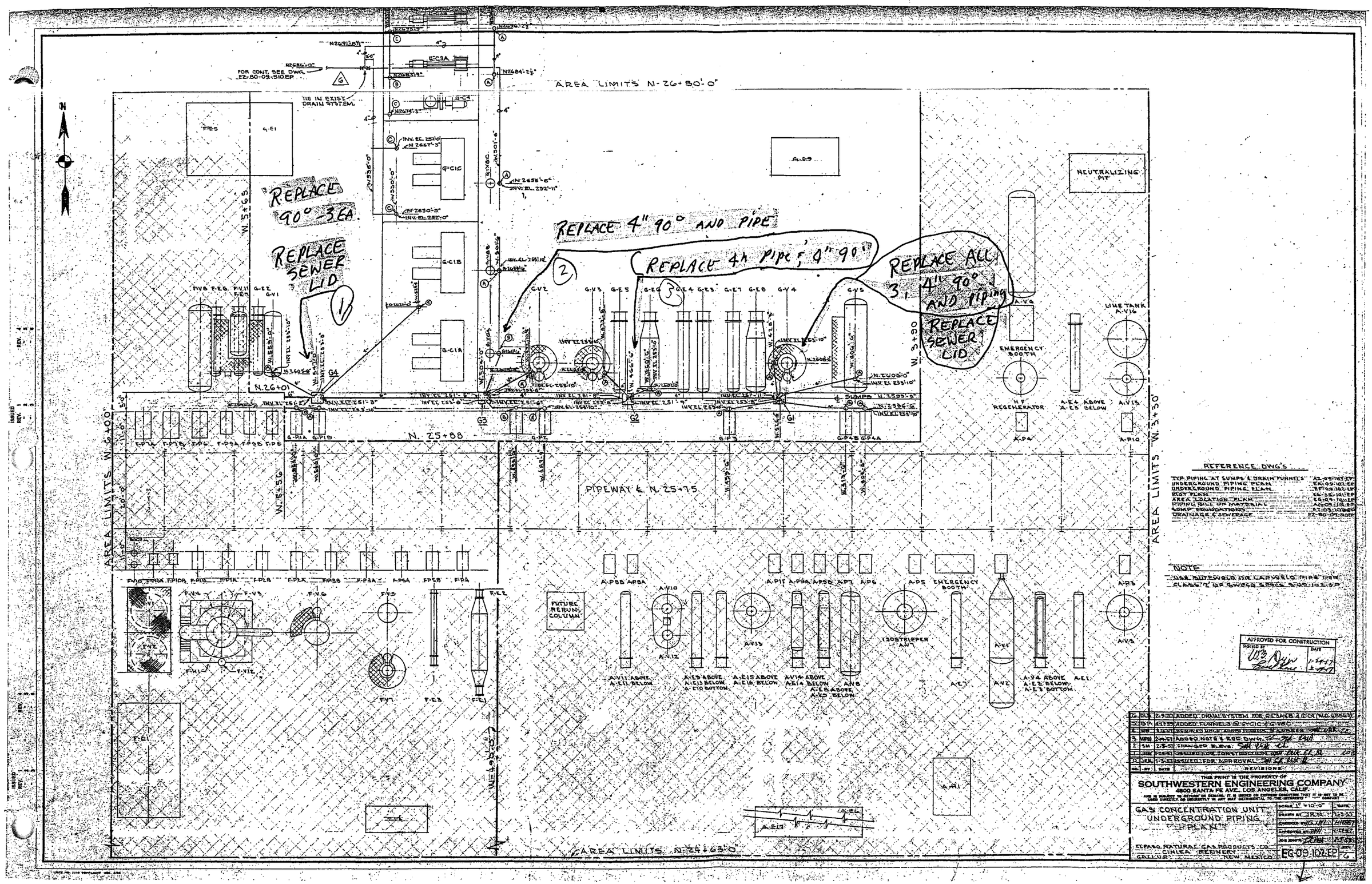
FLUID CATALYTIC CRACKING UNIT
UNDERGROUND PIPING
PLAN

SCALE 1" = 10'	APRVD
DATE 8-1-69	APRVD
DRWN EFS	

W. O. NO. 68539

EF 09 102 SH2

THIS DRAWING IS THE PROPERTY OF SHELL OIL COMPANY NEITHER THIS DRAWING NOR ANY DATA OR INFORMATION HEREIN SHALL BE COPIED OR REPRODUCED IN ANY MANNER, LOANED OR OTHERWISE DISPOSED OF, OR USED FOR ANY PURPOSE WHATSOEVER WITHOUT THE PRIOR WRITTEN PERMISSION OF SHELL OIL COMPANY. IF THIS DRAWING IS LOANED BY OR WITH AUTHORITY OF SHELL OIL COMPANY, THE BORROWER, IN CONSIDERATION OF SUCH LOAN, AGREES TO THE FOREGOING CONDITIONS AND TO RETURN THIS DRAWING UPON REQUEST.


AREA LIMITS N-26+80'-0"
FOR CONT. SEE DWG. EZ-80-09-510EP
TIE IN EXIST. DRAIN SYSTEM.
REPLACE 90° -3 EA.
REPLACE SEWER LID
REPLACE 4" 90° AND PIPE
REPLACE 4" PIPE; 4" 90°
REPLACE ALL 3 4" 90° AND PIPING
REPLACE SEWER LID
NEUTRALIZING PIT
EMERGENCY BOOTH
LIME TANK A-V16
H F REGENERATOR
A-E4 ABOVE A-E5 BELOW
A-V15
N. 25+88
PIPEWAY & N. 25+75
AREA LIMITS W. 6+00
AREA LIMITS W. 3+30
W. 5+95
W. 3+90
W. 3+30
W. 5+56
W. 4+95
FUTURE RERUN COLUMN
130 STRIPPER A-V7
AREA LIMITS N. 24+63.0
REFERENCE DWG'S
TYP. PIPING AT SUMPS & DRAIN TUNNELS
UNDERGROUND PIPING PLAN
UNDERGROUND PIPING PLAN
ROOT PLAN
AREA LOCATION PLAN
PIPING BILL OF MATERIAL
SUMP EXCAVATIONS
DRAINAGE & SEWERAGE
NOTE
USE BUTTWELD FOR LARGE LINE PIPE PER CLASS "C" & SWEAGE SOCKET FOR 1½ & UP
APPROVED FOR CONSTRUCTION
ISSUED BY
DATE
ADDED DRAIN SYSTEM FOR G-C1 SAND & G-C4 (W.O. 43564)
ADDED TUNNELS G-C1C & G-C1B
ADDED NOTE & EQE DWG.
CHANGED ELEVS.
REVISED FOR CONSTRUCTION
ISSUED FOR APPROVAL
REVISIONS
THIS PRINT IS THE PROPERTY OF
SOUTHWESTERN ENGINEERING COMPANY
4800 SANTA FE AVE. LOS ANGELES, CALIF.
GAS CONCENTRATION UNIT
UNDERGROUND PIPING
PLANT
SCALE 1" = 10'-0"
DRAWN BY J.R.N.
CHECKED BY
APPROVED BY
JOB NUMBER
EL PASO NATURAL GAS PRODUCTS CO.
CINTA BERNERY
GALLUP NEW MEXICO
EG-09-102-EP

HAVE Lg Map

CRUDE UNIT

UNDERGROUND PROCESS AND WASTEWATER LINES

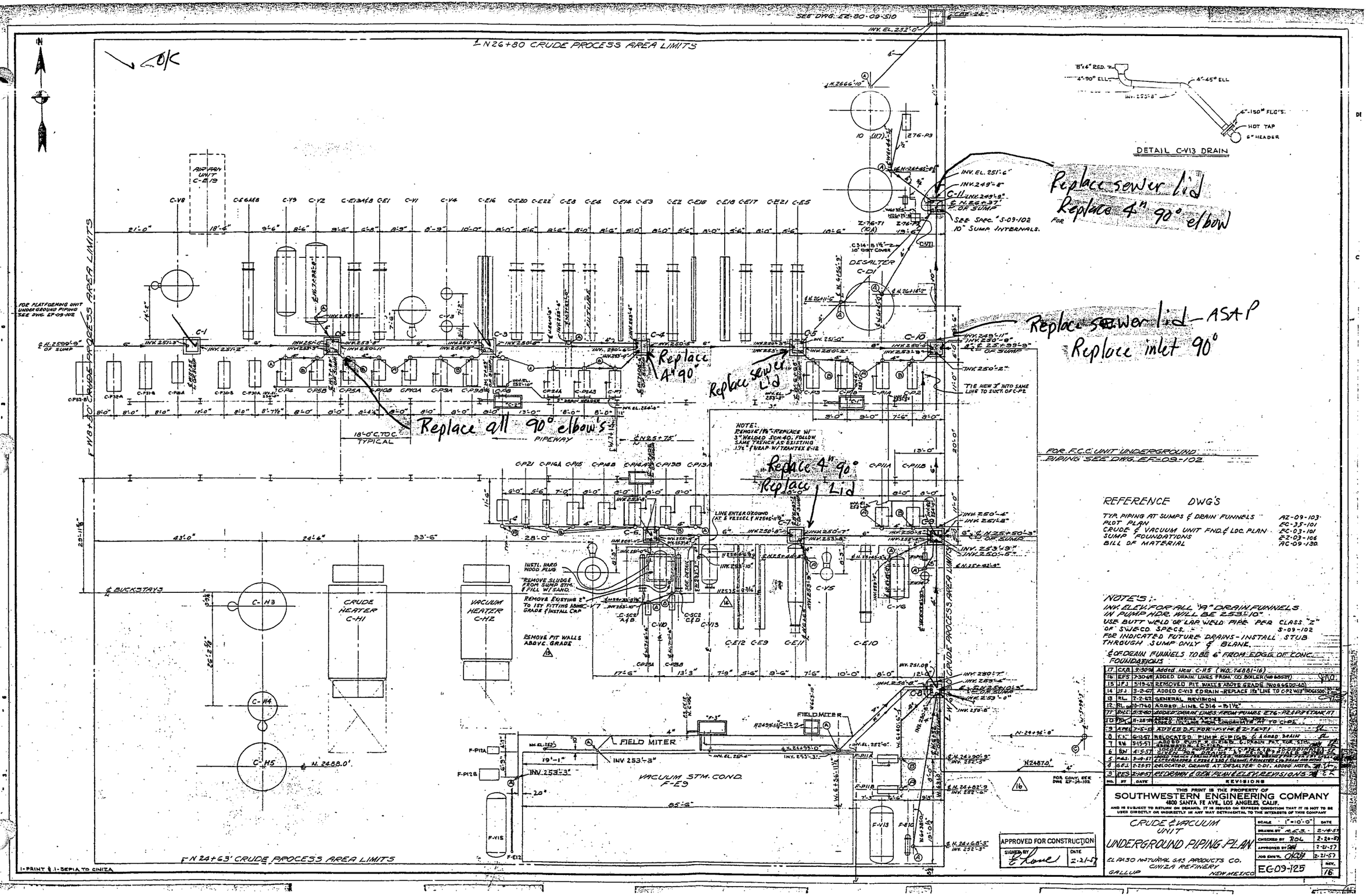
CRUDE UNIT

ID Number (Sewer Box or Catch Basin	Lateral Drains and/or Headers	Date Installed	Drawing Reference	Test Date	Pass/Fail/Repair Information	Test Water Column (Feet)	Test Duration (Minutes)	Signature	Investigation Results
C-1	P-2 (From Plat Unit) to C-1	1957	EC-09-125 & EP-09-102	10/31/02	Pass	4	30	B. Loos	
C-2	C-1 to C-2	1957	EC-09-125	10/31/02	Pass	4	30	B. Loos	
	C-V2 to C-2	1957	EC-09-125	10/31/02	Pass	4	30	B. Loos	
	C-P4 to C-P5B to C-2	1957	EC-09-125	10/31/02	Pass	4	30	B. Loos	
	C-P10B to C-P5A to C-2	1957	EC-09-125	10/31/02	Pass	4	30	B. Loos	
C-3	C-2 to C-3	1957	EC-09-125	10/31/02	Pass	4	30	B. Loos	
	C-P10A to C-P9A to C-P9B to C-3	1957	EC-09-125	10/31/02	Pass	4	30	B. Loos	
	C-P8 to C-3	1957	EC-09-125	10/31/02	Pass	4	30	B. Loos	
C-4	to C-4	1957	EC-09-125	10/31/02	Pass	4	30	B. Loos	
	C-E8 to C-4	1957	EC-09-125	10/31/02	Pass	4	30	B. Loos	
	C-24A to C-24B to C-P7 to C-4	1957	EC-09-125	10/31/02	Pass	4	30	B. Loos	
C-5	C-4 to C-5	1957	EC-09-125	10/31/02	Pass	4	30	B. Loos	
	C-P1B to C-P3 to C-5	1957	EC-09-125	10/31/02	Pass	4	30	B. Loos	
	N.26+11'-6" W.6+56'-9" (C-PV109) to C-5	1957	EC-09-125	10/31/02	Cup Fail	0	0	B. Loos	WO481143 Cup Repaired 11/18/02
C-6	C-P23A To C-P23B To C-6	1957	EC-09-125						
	C-V10 To C-6	1957	EC-09-125						
	A To C-P21 To C-P16A To C-P15 To C-P14B To C-P14A To C-6	1957	EC-09-125						
	C-V13 Drain to Pipe Between C-6 & C-7	1967	EC-09-125						
	C-P13A To C-P13B To C-6	1957	EC-09-125						
C-7	C-6 to C-7	1957	EC-09-125						
	C-E11 To C-7	1957	EC-09-125						
C-8	FCC Sewer Box N2461.57' W546.5' To C-8	1969	EC-09-125 & EF-09-102 SH.2	07/31/02	Pass	4	25	B. Loos	
	F-E10 To C-8	1957	EC-09-125	07/31/02	Pass	4	25	B. Loos	
	F-11B To F-11A To C-8	1957	EC-09-125	07/31/02	Pass	4	25	B. Loos	
	F-C1 N2515'11" W590' 0" To C-8	1957	EF-09-102 SH.1	07/31/02	Pass	4	25	B. Loos	
	F-C1 N2496" 8" W594' 3" To C-8	1957	EF-09-102 SH.1	07/31/02	Pass	4	25	B. Loos	
	F-P12B To FIELD MITER To C-8	1957	EC-09-125	07/13/02				B. Loos	Red Line ????
	FE-9 To N24+93-0" W6+56' 11" To C-8	1957	EC-09-125	07/31/02	Pass	4	25	B. Loos	
	` to C-8	1957	EC-09-125	07/31/02	Pass	4	25	B. Loos	
C-9	C-7 to C-9	1957	EC-09-125	07/31/02	Pass	4	25	B. Loos	
	C-8 to C-9	1957	EC-09-125	07/31/02	Pass	4	25	B. Loos	
	F-3 to C-9	1957	EF-09-102 SH.1	07/31/02	Pass	4	25	B. Loos	
	F-V14 To C-9	1957	EC-09-125	07/31/02	Pass	4	25	B. Loos	
	C-V6 To C-9	1957	EC-09-125	07/31/02	Pass	4	25	B. Loos	

UNDERGROUND PROCESS AND WASTEWATER LINES

CRUDE UNIT

	C-P11A To C-P11B To C-9	1957	EC-09-125	07/31/02	C-P11 Cup Fail			B. Loos	WO46749 Cup Repaired 10/23/02	
C-10	C-10	1957	EC-09-125	10/31/02				B. Loos	Did not fill C-10 during this test	
	F4 W. to C-10	1957	EC-09-125 & EF-09-102 SH.2							
	C-9 N. to C-10	1957	EC-09-125							
	C-5 E. to C-10	1957	EC-09-125	10/31/02	Pass	4	30	B. Loos		
	C-P1A to C-P2 to C-10	1957	EC-09-125	10/31/02	Cup Fail	4	0	B. Loos	WO481143 Cup Repaired 11/18/02	
C-11	C-10 N. to C-11	1957	EC-09-125							
	N.26+14'-2" W.6+45'-0" to C-11	1957	EC-09-125							
	N.26+45'-8" W.6+44'-3.5" to C11	1957	EC-09-125							
	From Sats Unit Catch Basin by S-C1 flows S then "T" from drain just S. "T" flows W to C-11	1995	95103-CC-105, Z-35-104 & EC-09-125							
C-11 flows N. to CBZ-24			EC-09-125 & EZ-80-09-510							DHT Unit
CBZ-24 2687N 632W	C-11 N to CBZ-24	1957	EZ-80-09-510EP							DHT Unit
	CBZ-25 W to CBZ-24	1957	EZ-80-09-510EP							DHT Unit
CBZ-23 2729.63N 632W	CBZ-24 N to CBZ-23	1957	EZ-80-09-510EP							DHT Unit
	Q-1 (Treaters) W to CBZ-23	1957	EQ-09-101 SH.1 EZ-80-09-EP							Treaters
	Drain Hub (Treaters) 2785.42N 524.00W to CBZ-23	1957	EZ-80-09-510EP							Treaters
CBZ-22 2900N 632W	CBZ-23 N to CBZ-22	1957	EZ-80-09-510EP							SRU
	Drain 2872.50N 574.17W to CBZ-22	1957	EZ-80-09-510EP							SRU
CBZ--21 2980N 632W	CBZ-22 flows N to CBZ-21	1957	EZ-80-09-510EP EZ-80-09-509EP							
	Cooling Tower Drain 2900N 582.92W to EZ-80-09-509EP	1957	EZ-80-09-510EP EZ-80-09-509EP							
CBZ-20 3073N 632W	CBZ-21 flows N under road to start of tank farm to CBZ-20	1957	EZ-80-509-EP							


SEE DWG. EZ-80-09-510
N26+80 CRUDE PROCESS AREA LIMITS
N24+63' CRUDE PROCESS AREA LIMITS
CRUDE PROCESS AREA LIMITS
AIR FAN UNIT C-E13
C-V8
C-E6A&B
C-V9
C-V12
C-E13A&B
C-E1
C-V1
C-V4
C-E16
C-E20
C-E22
C-E8
C-E4
C-E14
C-E3
C-E2
C-E15
C-E18
C-E17
C-E21
C-E5
C-1
C-2
C-3
C-4
C-5
C-10
C-6
C-7
C-8
C-9
C-11
DESALTER C-D1
C-V5
C-V6
C-V7
C-V13
C-H3
C-H4
C-H5
CRUDE HEATER C-H1
VACUUM HEATER C-H2
VACUUM STM. COND. F-E9
F-V13
F-V15
F-E12
F-E13
F-P12A
F-P12B
F-P11A
F-P11B
C-P4
C-P5B
C-P5A
C-P10B
C-P10A
C-P3A
C-P9A
C-P9B
C-P8
C-P21A
C-P24A
C-P24B
C-P7
C-P3
C-P6
C-P1A
C-P2
C-P21
C-P16A
C-P15
C-P16B
C-P14A
C-P13B
C-P13A
C-P11A
C-P11B
C-P32-B
C-P32-A
C-P31-B
C-P30-B
C-P30A
FOR PLATFORMING UNIT UNDERGROUND PIPING SEE DWG. EF-09-102
18'-0" C.TO.C. TYPICAL
PIPEWAY
FIELD MITER
VACUUM STM. COND. F-E9
FIELD METER
LINE ENTER GROUND AT E VESSEL
WETL. HARD WOOD PLUG
REMOVE SLUDGE FROM SUMP BTM. & FILL W/SAND.
REMOVE EXISTING 2" TO 1ST FITTING ABOVE GRADE & INSTALL CAP
REMOVE PIT WALLS ABOVE GRADE
℄ BUCKSTAYS
℄ N. 2488.0'
℄ N. 24+90'-9"
℄ N. 24+68'-5"
℄ N. 24+02'-9"
℄ N. 25+50'-3"
℄ N. 25+75'
N24870'
FOR CONT. SEE DWG. EF-09-102
FOR F.C.C. UNIT UNDERGROUND PIPING SEE DWG. EF-09-102
SEE SPEC. "S-09-102" 10" SUMP INTERNALS.
INV. EL. 251'-6"
INV. 249'-8"
INV. 249'-8" ℄ N. EL. +9'-7" OF SUMP
INV. 249'-11"
INV. 250'-8"
INV. 249'-9" ℄ N. EL. +9'-8" OF SUMP
INV. 250'-2"
THE NEW 3" INTO SAME LINE TO SUCT. OF C-P2
INV. 250'-4"
INV. 251'-8"
INV. 253'-9" SINK 250'-6"
INV. 250'-7"
INV. 250'-8"
INV. 253'-3"
INV. 253'-1"
INV. 253'-3"
INV. 253'-0"
INV. 252'-3"
INV. 252'-6"
INV. 252'-3"
INV. 252'-0"
INV. 251'-4"
INV. 251'-2"
INV. 250'-6"
INV. 250'-2"
INV. 250'-1"
INV. 250'-0"
INV. 249'-6"
INV. 249'-4"
INV. 249'-2"
INV. 248'-8"
INV. 248'-6"
INV. 248'-4"
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INV. 248'-0"
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INV. 242'-2"
INV. 242'-0"
INV. 241'-8"
INV. 241'-6"
INV. 241'-4"
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INV. 238'-4"
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INV. 229'-4"
INV. 229'-2"
INV. 229'-0"
INV. 228'-8"
INV. 228'-6"
INV. 228'-4"
INV. 228'-2"
INV. 228'-0"
INV. 227'-8"
INV. 227'-6"
INV. 227'-4"
INV. 227'-2"
INV. 227'-0"
INV. 226'-8"
INV. 226'-6"
INV. 226'-4"
INV. 226'-2"
INV. 226'-0"
INV. 225'-8"
INV. 225'-6"
INV. 225'-4"
INV. 225'-2"
INV. 225'-0"
INV. 224'-8"
INV. 224'-6"
INV. 224'-4"
INV. 224'-2"
INV. 224'-0"
INV. 223'-8"
INV. 223'-6"
INV. 223'-4"
INV. 223'-2"
INV. 223'-0"
INV. 222'-8"
INV. 222'-6"
INV. 222'-4"
INV. 222'-2"
INV. 222'-0"
INV. 221'-8"
INV. 221'-6"
INV. 221'-4"
INV. 221'-2"
INV. 221'-0"
INV. 220'-8"
INV. 220'-6"
INV. 220'-4"
INV. 220'-2"
INV. 220'-0"
INV. 219'-8"
INV. 219'-6"
INV. 219'-4"
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INV. 1'-0"
INV. 0'-8"
INV. 0'-6"
INV. 0'-4"
INV. 0'-2"
INV. 0'-0"
Replace sewer lid
Replace 4" 90° elbow
Replace sewer lid - ASAP
Replace inlet 90°
Replace 4" 90°
Replace sewer lid
Replace all 90° elbow's
Replace 4" 90°
Replace Lid
DETAIL C-V13 DRAIN
8"x4" RED.
4"-90° ELL
4"-45° ELL
4"-150# FLG'S.
HOT TAP
6" HEADER
REFERENCE DWG'S
TYP. PIPING AT SUMPS & DRAIN FUNNELS AZ-09-103
PLOT PLAN EC-35-101
CRUDE & VACUUM UNIT FND. & LOC. PLAN EC-03-101
SUMP FOUNDATIONS EZ-03-106
BILL OF MATERIAL AC-09-130
NOTES:-
INV. ELEV. FOR ALL "A" DRAIN FUNNELS IN PUMP HDR. WILL BE 253'-10".
USE BUTT WELD OR LAP WELD PIPE PER CLASS "Z" OF SUMP SPECS. S-09-102
FOR INDICATED FUTURE DRAINS - INSTALL STUB THROUGH SUMP ONLY & BLANK.
℄ OF DRAIN FUNNELS TO BE 6" FROM EDGE OF CONC. FOUNDATIONS
17 CKB 12-30-61 Added Area C-H5 (WO. 74881-16)
16 EFS 7-30-61 ADDED DRAIN LINES FROM CO. BOILER (WO 65537)
15 JFJ 5-19-61 REMOVED PIT WALLS ABOVE GRADE (WO 64500-60)
14 JFJ 3-2-61 ADDED C-V13 & DRAIN - REPLACE 1½" LINE TO C-P2 W/3" (WO 64500-60)
13 RL 7-2-60 GENERAL REVISION
12 RL 10-17-60 ADDED LINE C314 - 8-1½"
11 RLC 9-2-60 ADDED DRAIN LINES FROM PUMPS Z76-P2 & P3 & TANK H7
10 RL 11-28-59 ADDED DRAIN LINE TO C-P2
9 APM 7-5-59 ADDED D.F. FOR F.V.H. & Z-76-71
8 FJ 6-12-57 RELOCATED PUMP C-P16B & ADDED DRAIN
7 RW 5-15-57 ADDED PUMP P-D-1 (WO. 57-1) & DRAIN FOR C-STM.
6 RW 4-5-57 ADDED 3" DRAINS & VENTS & STUBS & SUMPS
5 RAS 3-18-57 ADDED DRAINS & VENTS & STUBS & SUMPS
4 SFJ 2-25-57 RELOCATED DRAINS AT DESALTER C-D1. ADDED NOTE
3 RES 2-18-57 REDRAWN & GEN. PLAN & ELEV. REVISIONS
NO. BY DATE REVISIONS
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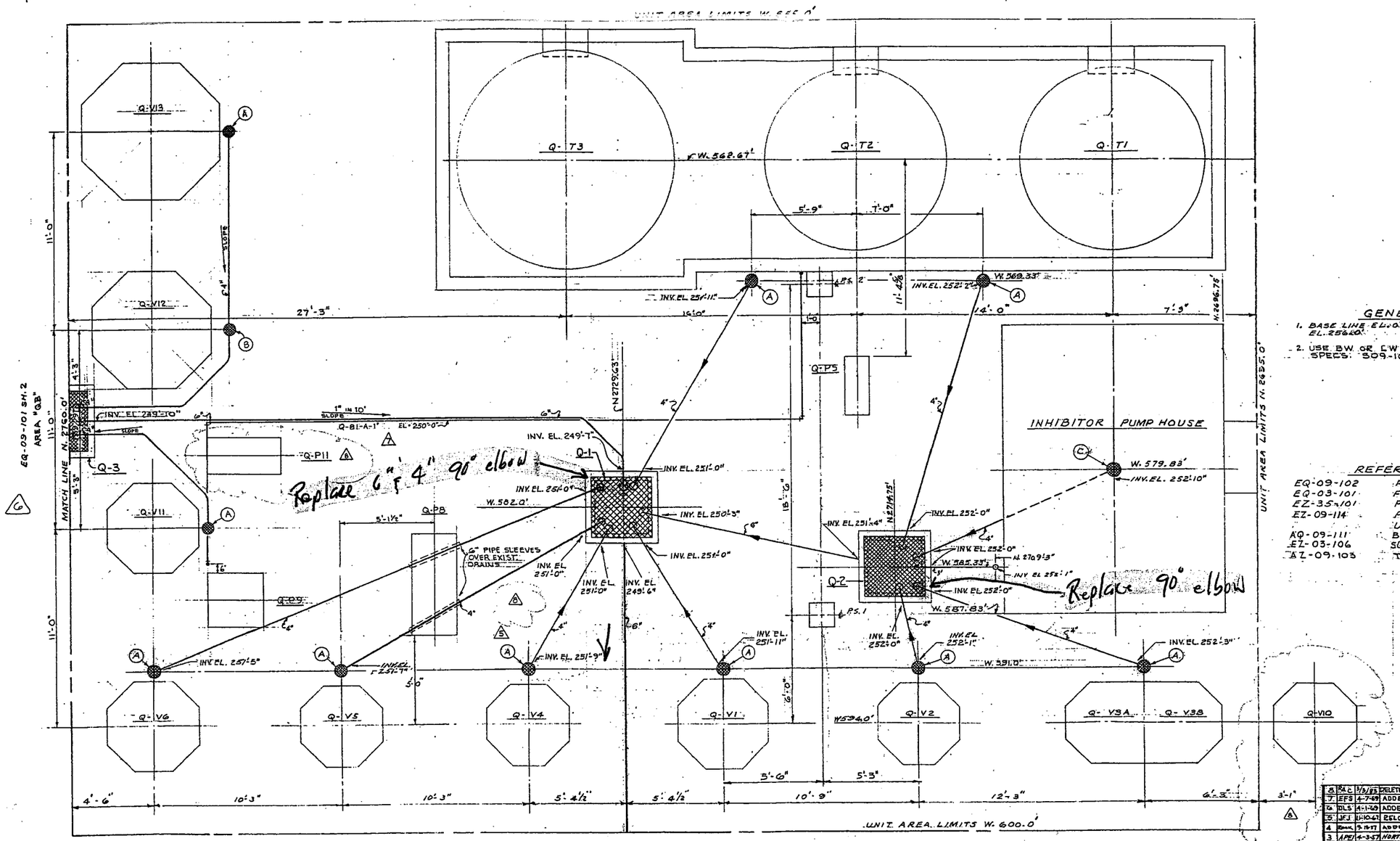
CRUDE & VACUUM UNIT
UNDERGROUND PIPING PLAN
EL PASO NATURAL GAS PRODUCTS CO.
CINIZA REFINERY
GALLUP NEW MEXICO
SCALE 1"=10'-0"
DRAWN BY R.E.S. 2-14-57
CHECKED BY RDL 2-20-57
APPROVED BY 2-21-57
JOB ENG'R. 2-21-57
EG-09-125
REV. 16
APPROVED FOR CONSTRUCTION
SIGNED BY
DATE 2-21-57
1-PRINT & 1-SEPIA TO CINIZA



GENERAL NOTES

1. BASE LINE EL. 0'-0" IS EQUIVALENT TO DATUM EL. 256.0'
2. USE BW OR CW PIPE PER CLASS "Z" OF SWECO SPECS. 509-102

REFERENCE DRAWINGS

EQ-09-102	PIPING PLAN BELOW EL. 11'-0"
EQ-03-101	FOUNDATION LOCATION PLAN
EZ-35-101	PLOT PLAN
EZ-09-114	PIPING-FIRE PROTECTION-AREA "J" UNDERGROUND PIPING
AQ-09-111	BILL OF MATERIAL LIST (UNDERGROUND PIPING)
EZ-03-106	SUMP STRUCTURAL DETAILS
AZ-09-103	TYPICAL PIPING AT DRAIN SUMPS & FUNNELS

NO.	BY	DATE	REVISIONS
8	RAC	3/3/83	DELETED Q-P4, ADDED Q-V10 & CHG'D Q-P7 TO Q-P11
7	EFS	4-7-69	ADDED Q-81-A-1" (WO 68564 & 68560)
6	DLS	4-1-69	ADDED Q-P7, 8 & 9 - Q-V11, 12 & 13 (WO. 68564 & 68560)
5	JFJ	11-10-67	RELOCATED Q-P6 (WO 67543-10-30)
4	[illegible]	9-15-57	ADDED DRAIN FOR INHIBITOR BLDG SINK
3	APE	4-3-57	NORTH COORDINATION SUMP - Q2 - CHG'D TO N 2714.75'
2	S.M.	2-18-57	ISSUED FOR CONSTRUCTION
1	JBS	12-27-56	REVISED PER U.O.D. COMMENTS - ISSUED FOR APPROVAL
0	J.A.P.	11-23-56	ISSUED FOR APPROVAL

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TREATING UNIT
PLAN
UNDERGROUND PIPING
AREA "QA"

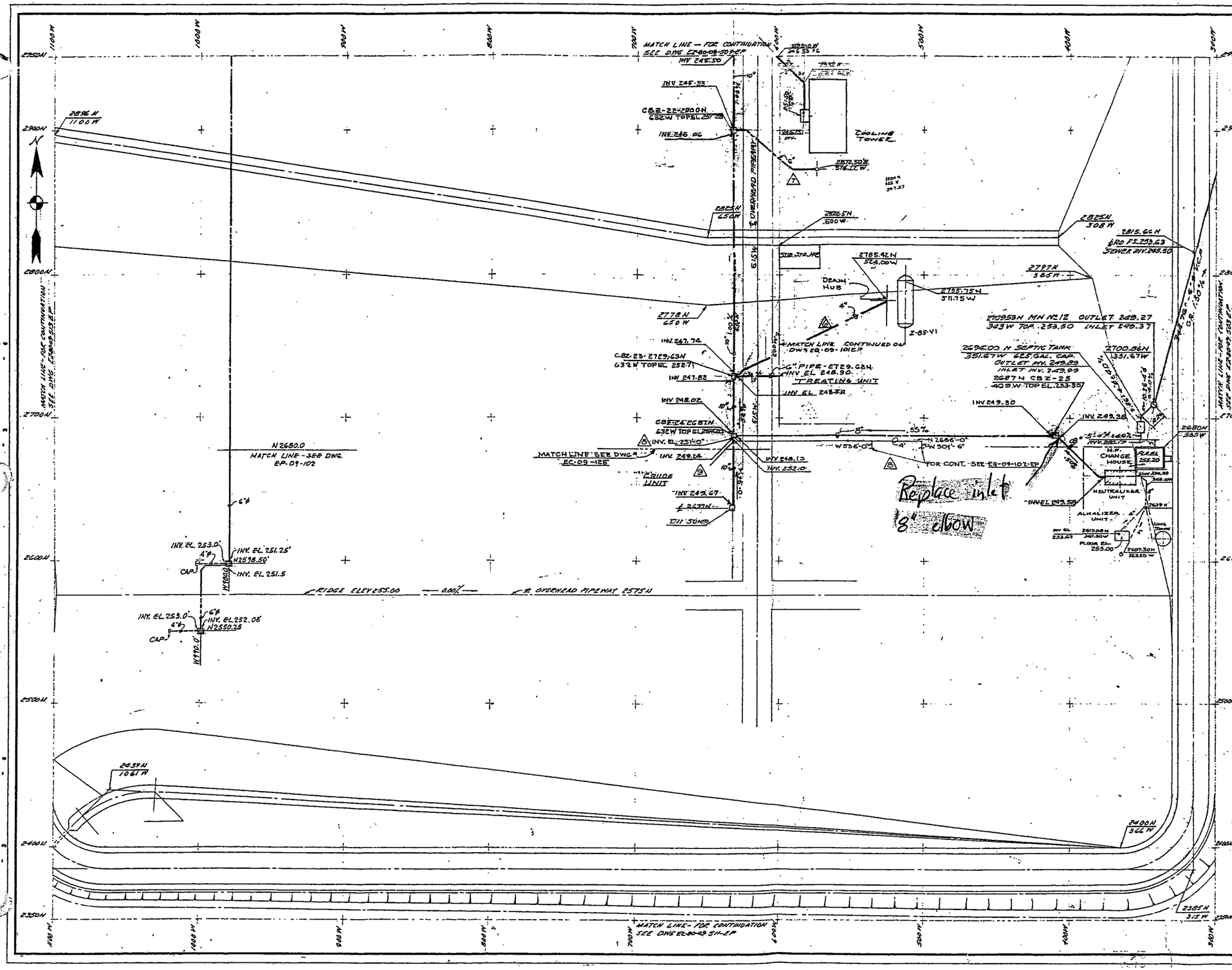
ELPASO NATURAL GAS PRODUCTS CO.
CINIZA REFINERY
GALLUP NEW MEXICO

SCALE 3/8" = 1'-0"	DATE
DRAWN BY PATRICK	11-23-56
CHECKED BY VELLS	11-23-56
APPROVED BY [illegible]	11-23-56
JOB ENG'R. [illegible]	11-23-56

EQ-09-101 SH. 1 REV. 8

APPROVED FOR CONSTRUCTION
SIGNED BY [illegible] DATE 2/13/57
[illegible] 2/18/57

2 PRINTS & 1 SEPIA TO CINIZA 5/29/62



NOTE:-
H.P. CHANGE HOUSE SHOWER DRAINS TO ENTER NEUTRALIZER UNIT FROM S.W. CORNER OF CHANGE HOUSE.
SEPTIC TANKS 3' WIDE x 8' LONG x 5' DEEP.
FIELD PROVISION LEVEL BOTTOM 41.4" BELOW INVERT OF PIPE

APPROVED FOR CONSTRUCTION
SIGNED BY W B Dyer — DATE 3-7-57
E. Lowe — 3-4-57

EQ-09-102-EP	GAS CON. UNDERGROUND PIPING PLAN
RZ-SK-80	ENTRANCE TO CBZ-23 FROM TANK Z85V2
AZ-03-03-106EP	DRAIN & OVERFLOW PIPE DETAILS
EZ-03-106EP	SUMP DETAILS
EZ-80-09-30EP	KEY PLAN
EZ-02-110EP	SITE GRADING PLAN
DWG NO.	REFERENCE DRAWING

NO.	BY	DATE	REVISIONS
9	RNL	5-8-60	ADDED DRAIN FROM TANK 10 CONN. EL. OF CBZ-24
8	DB	4-17-59	ADDED DRAIN FROM G.C.I.C. & G.VOC
7	EB	8-19-57	ADDED 1" FROM WATER FILTER TO MAIN 1" CBZ
6	JJ	10-1-57	RELOCATED Z-85-V1
5	RNR	5-21-57	CHANGED POSITION OF Z-85-V1
4	JJ	4-19-57	REVISED SEPTIC TANKS
3	RNR	4-18-57	ADDED TRAP, Z-85-V2, CBZ-31
2	RW	4-8-57	SANITARY WASTE FROM H.P. CHANGE HOUSE
2-R	RW	4-8-57	CHANGED GRADE OUT LOCATION, NEW PIPE PROTECTION
1	JJ	3-15-57	RELEASED HOLD. REVISED SUMP CAS-EZ-80-09-30
0	JJ	2-25-57	ISSUED FOR CONSTRUCTION

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DRAINAGE & SEWERAGE
2350 N TO 2950 N
300 W TO 1100 W

EL PASO NATURAL GAS PRODUCTS COMPANY
GALLUP — CINIZA REFINERY — NEW MEXICO

SCALE 30' 1"=30' — DATE
DRAWN BY RNR 2-24-57
CHECKED BY EJH 2-27-57
APPROVED BY EJH 2-27-57
JOB DWG. Lowe 3-4-57
EZ-80-09-30EP — REV. 9

DRAWING SIZE A-7028

TO CUSTOMER ISSUED REV. 1 2 3 — DATE
TO SHOP ISSUED REV. 1 2 3 — DATE
REV. 4 5 6
DET.
CHK.

REFERENCE DRAWINGS

N 3000

N 2500

W 1500

W 1000

W 500

SWITCH HOUSE

SUB STA

BOILER AREA

GARAGE

SHOP

FIRE

RECEIVING

TRUCK LOADING RACK

WAREHOUSE

LAB

GUARD

OFFICE BLDG

NAPHTHA HYDROTREATER UNIT

PLATFORMING UNIT

ISOM UNIT

SULFUR RECOVERY UNIT

DHT UNIT

CRUDE UNIT

APM MCC BUILDING

SUB STATIONS

COOLING TOWER

TREATING UNIT

SWITCH GEAR HOUSE

SATS UNIT

GAS CONCENTRATION UNIT

CHANGE HOUSE

ASO PIT

FLUID CATALYTIC CRACKING UNIT

CONTROL

ALKYLATION UNIT

ALKY CHANGE HOUSE

UTILITY FIELD OFFICE

FOR REVIEW

THIS DRAWING HAS BEEN ISSUED FOR REVIEW
AS OF 11/03/95
RAPLEY ENGINEERING SERVICES, INC.

LEGEND

- EDGE OF CONCRETE
- EXIST CONCRETE CURB
- APPROX RIDGE LINE (HP)
- EXIST PROCESS DRAINS
- EXIST TRENCH DRAINS
- PROPOSED CONCRETE AREA
- (12-1) DRAINAGE AREA
- (K) STUDY POINT

NOTES

1. UNLESS NOTED ALL EXISTING PROCESS DRAINS ARE 4⌀.
   PIPE DIAMETER BASED ON INFORMATION PROVIDED BY GIANT REFINERY.

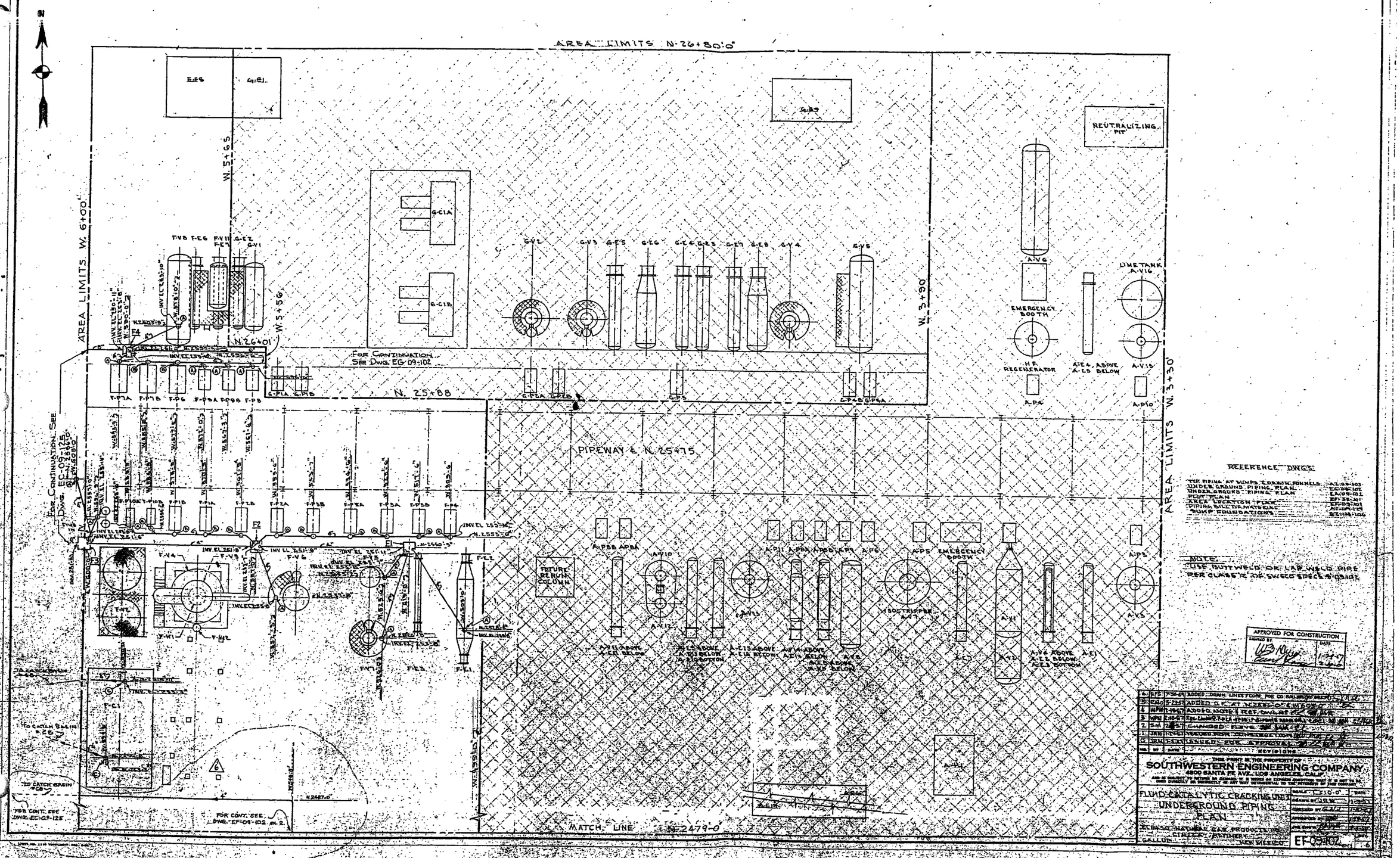
MARK	DATE	DESCRIPTION	BY	APRVD
A	11/03/95	CLIENT REVIEW	DPB	

CINIZA REFINERY — GIANT REFINING, CO. — GALLUP NEW MEXICO
A DIVISION OF GIANT INDUSTRIES

PROCESS AREA
PROCESS DRAINAGE
STUDY PLAN

SCALE	1"=40'	APRV'D.	
DATE	10-25-95	APRV'D	
DRN.	DPB	40	REV.
CHK'D.	DWG NO. 95103-CC-105		—

11/03/95 14:11 DPB AT SCALE 1 = 40.10 - K:\VRA\95103\95103CC05.DWG



AREA LIMITS N-26+80'-0"
AREA LIMITS W. 6+00'
AREA LIMITS W. 3+30'
W. 5+65
W. 5+56
W. 3+90
N. 26+01
N. 25+88
PIPEWAY ℄ N. 25+75
MATCH LINE N-2479-0
FOR CONTINUATION SEE DWG. EG-09-102
FOR CONTINUATION SEE DWG. EC-09-125
FOR CONT. SEE DWG. EF-09-102 SH. 2
NEUTRALIZING PIT
EMERGENCY BOOTH
H.F. REGENERATOR
LIME TANK A-V16
FUTURE RERUN COLUMN
ISOSTRIPPER A-V7
REFERENCE DWGS.
TYP. PIPING AT SUMPS & DRAIN FUNNELS
UNDER GROUND PIPING PLAN
UNDER GROUND PIPING PLAN
PLOT PLAN
AREA LOCATION PLAN
PIPING BILL OF MATERIAL
SUMP FOUNDATIONS
NOTE:
USE BUTT WELD OR LAP WELD PIPE PER CLASS "C" OF SWECO SPECS. S-09-102
APPROVED FOR CONSTRUCTION
SIGNED BY
DATE
6 RFS 7-30-69 ADDED DRAIN LINES & CORR. FOR CO. BOILERS
5 RAO 5-22-67 ADDED D.F. AT N-2586'-0" & W-605'-0"
4 WPH 2-19-67 ADDED NOTE & REF. DWGS.
3 WPH 2-16-67 REF. DWGS.
2 SM 2-8-67 CHANGED FLOWS
1 JRG 1-24-67 ISSUED FOR CONSTRUCTION
0 JRG 1-5-67 ISSUED FOR APPROVAL
NO. BY DATE REVISIONS
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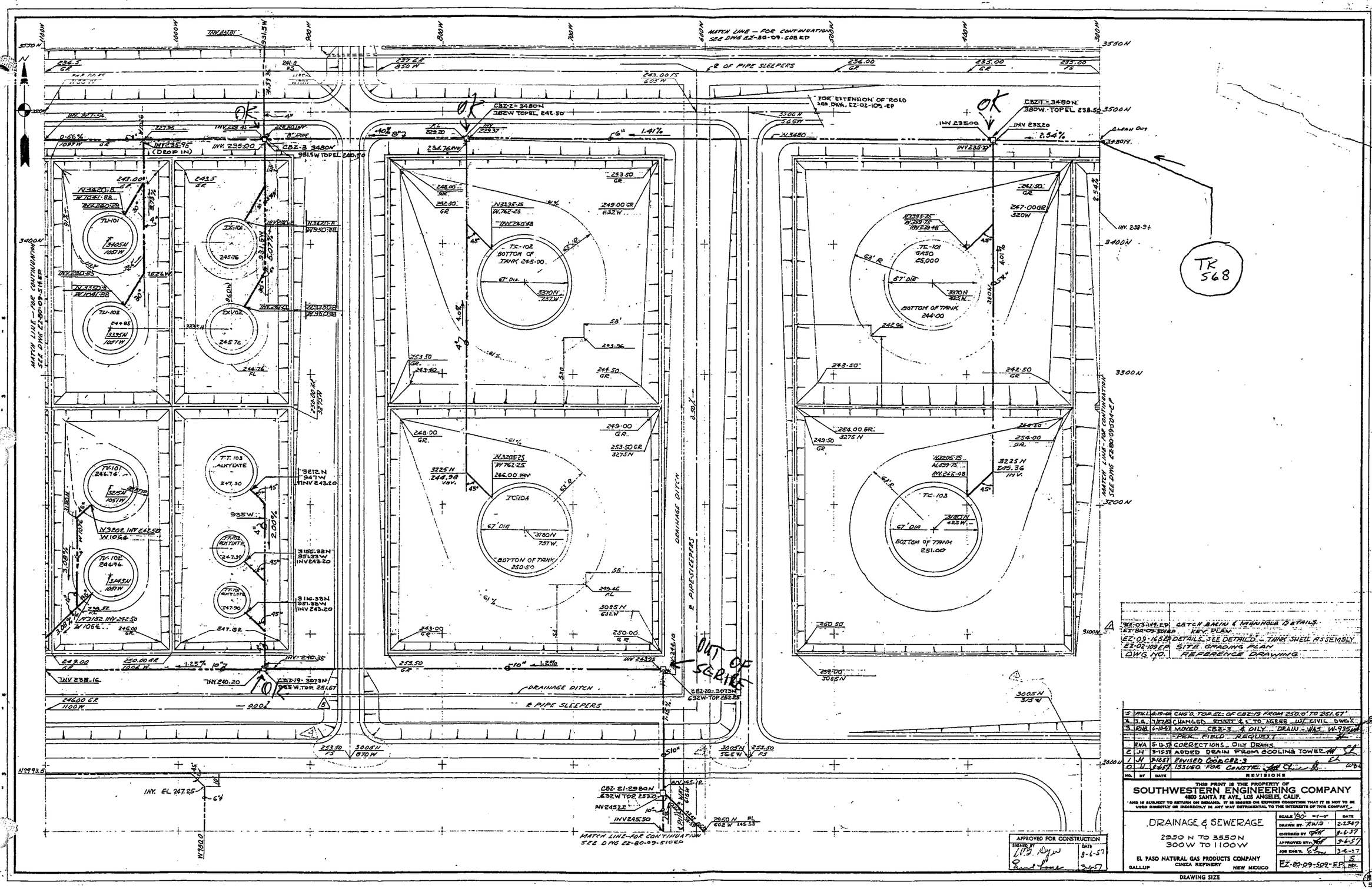
FLUID CATALYTIC CRACKING UNIT
UNDERGROUND PIPING PLAN
EL PASO NATURAL GAS PRODUCTS CO.
CINTRA, ALTHERY
GALLUP NEW MEXICO
SCALE 1"=10'-0"
DRAWN BY JRG
CHECKED BY
APPROVED BY
EF-09-102
6



EZ-03-119 EP	CATCH BASIN & MANHOLE DETAILS.
EZ-80-09-501 EP	KEY PLAN
EZ-09-165 EP	DETAILS SEE DETAIL "D" - TANK SHELL ASSEMBLY
EZ-02-109 EP	SITE GRADING PLAN
DWG NO.	REFERENCE DRAWING

NO.	BY	DATE	REVISIONS
5	RWL	4-19-60	CHG'D. TOP EL. OF CBZ-19 FROM 250.0' TO 251.67'
4	J.G.	7-22-57	CHANGED RIGHT & S TO AGREE W/ CIVIL DWG'S
3	RHB	6-10-57	MOVED CBZ-3 & OILY DRAIN - WAS W-935
			PER FIELD REQUEST
	RWA	5-13-57	CORRECTIONS - OILY DRAINS.
2	JH	3-15-57	ADDED DRAIN FROM COOLING TOWER
1	JH	3-15-57	REVISED COOR CBZ-3
0	JH	3-6-57	ISSUED FOR CONSTR.

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DRAINAGE & SEWERAGE
2950 N TO 3550 N
300 W TO 1100 W

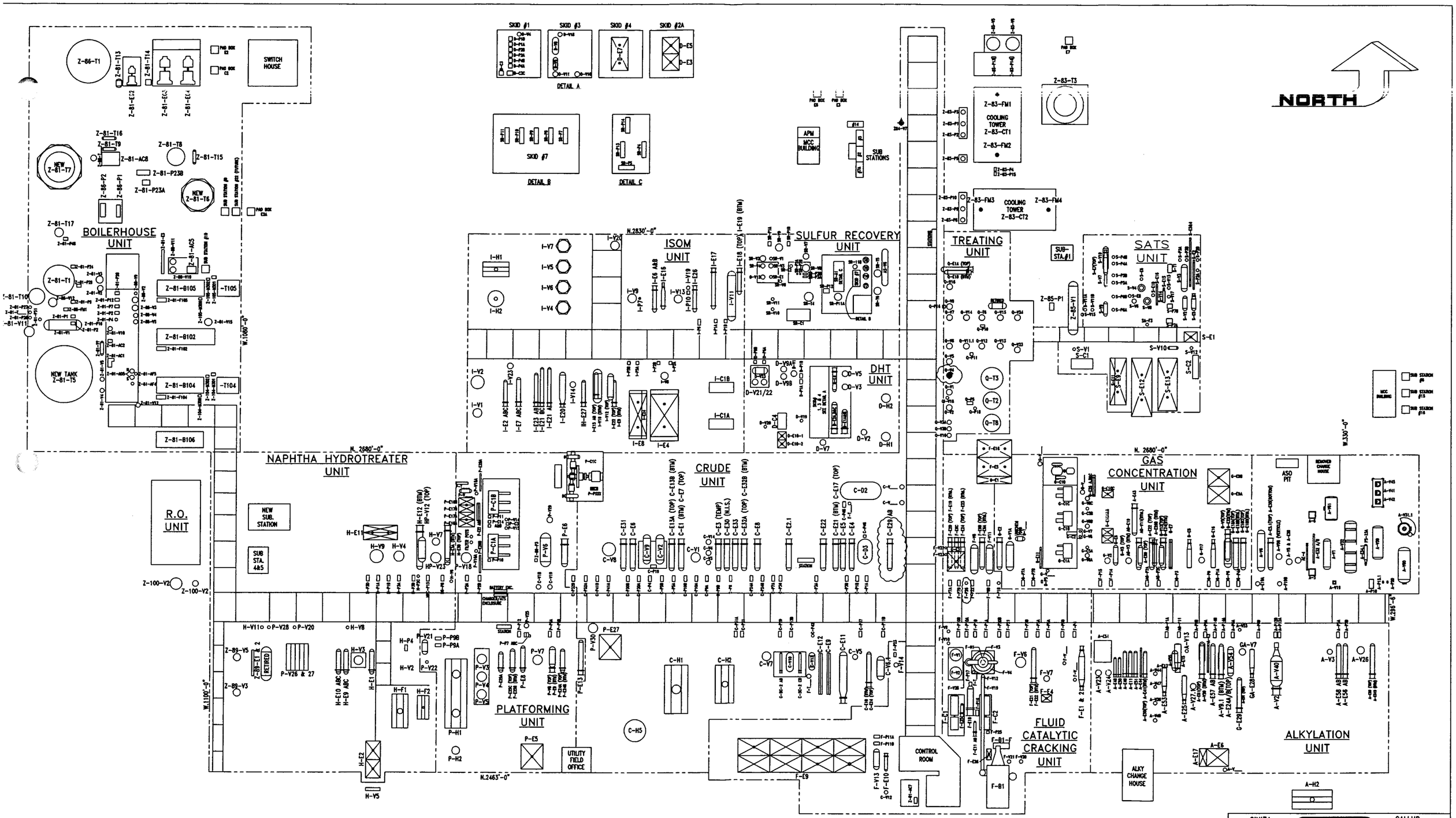
EL PASO NATURAL GAS PRODUCTS COMPANY
GALLUP CINIZA REFINERY NEW MEXICO

SCALE 1/30" = 1'-0"		DATE
DRAWN BY	RWA	2-27-57
CHECKED BY		3-6-57
APPROVED BY		3-6-57
JOB ENG'R.		3-6-57
EZ-80-09-509-EP		REV. 5

APPROVED FOR CONSTRUCTION
SIGNED BY W.B. Dyer DATE 3-6-57
Ernest Lowe 3-6-57

DRAWING SIZE

M.F. 57



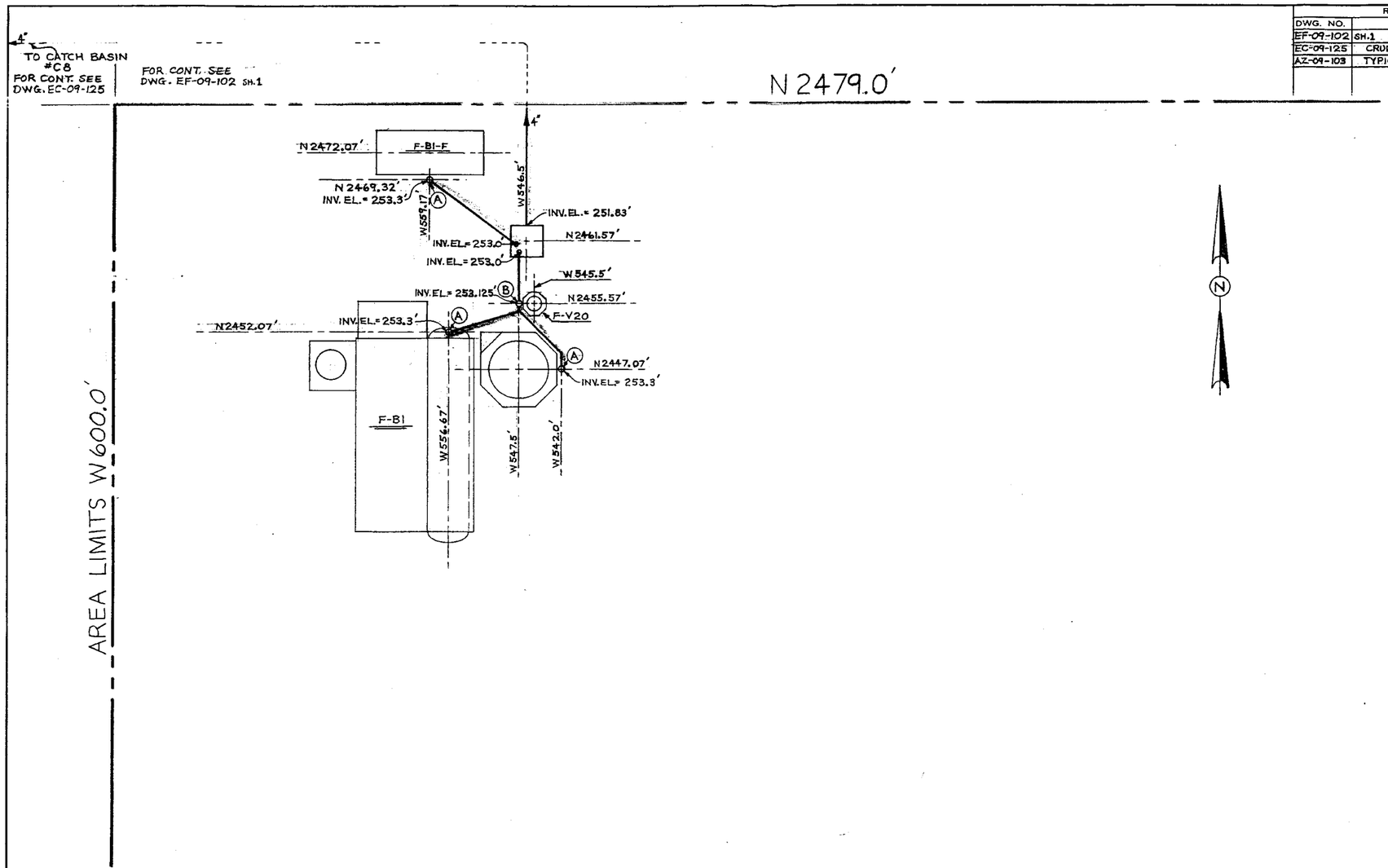
CINIZA REFINERY — GIANT REFINING,CO. A DIVISION OF GIANT INDUSTRIES — GALLUP NEW MEXICO

MASTER EQUIPMENT PLOT PLAN

MARK	DATE	DESCRIPTION	BY	APRVD
13	11/03	UPDATED	CLM	

SCALE:	1" = 30'-0"
APRV'D.:	
DATE:	28SEP00
DRAWN BY:	C.L.M.
CHK'D.:	
DWG NO.	Z-35-104
REV.	13

REFERENCE DRAWINGS	
DWG. NO.	DESCRIPTION
EF-09-102 SH.1	RCC. UNIT UNDERGROUND PIPING
EC-09-125	CRUDE UNIT UNDERGROUND PIPING
AZ-09-103	TYPICAL PIPING AT SUMPS & FUNNELS



MARK	DATE	DESCRIPTION	BY	APRVD
		REVISIONS		

SHELL OIL COMPANY
CINIZA REFINERY GALLUP, N. M.

FLUID CATALYTIC CRACKING UNIT
UNDERGROUND PIPING
PLAN

SCALE 1"=10'	APRVD
DATE 8-1-69	APRVD
DRWN E.F.S	
CHKD	EF-09-102 SH. 2

W. O. NO. 68539

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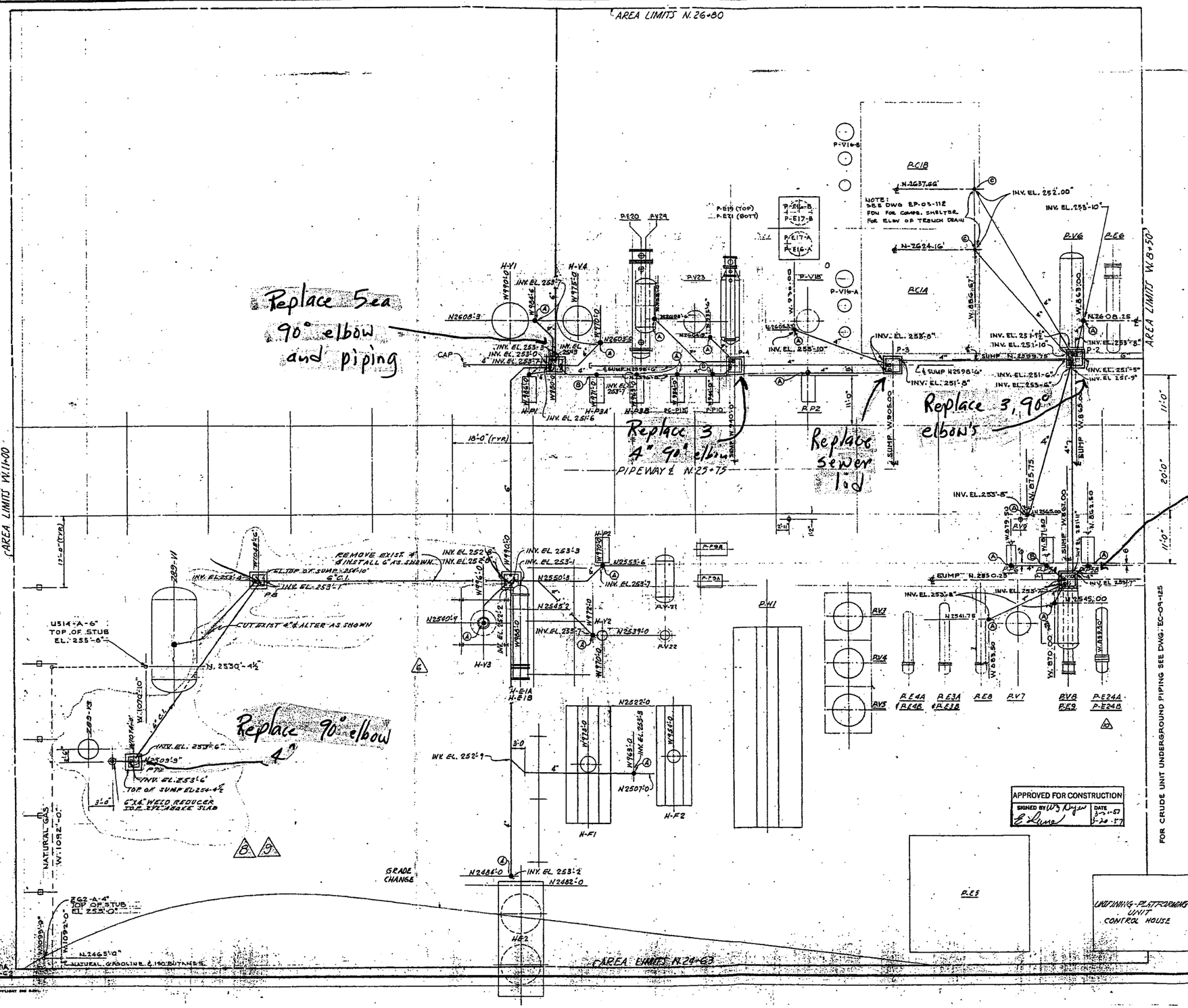

EQUIPMENT LIST

VESSELS

P-V1 OXYGEN STRIPPER
P-V2 UNIFINING STRIPPER RECEIVER
P-V3 PLATFORMING REACTOR #1
P-V4 PLATFORMING REACTOR #2
P-V5 PLATFORMING REACTOR #3
P-V6 PLATFORMING REACTOR PRODUCTS SEPARATOR
P-V7 STABILIZER
P-V8 STABILIZER RECEIVER
P-V9 CHEMICAL & CONDENSATE GAUGING TANK
P-V10 UNIFINING REACTOR
P-V11 UNIFINING REACTOR PRODUCTS SEPARATOR
P-V12 FLASH DRUM
P-V13 UNIFINING WATER INJECTION SUCTION TANK
P-V14 STARTING AIR RECEIVER (IN COMPRESSOR HOUSE)
P-V15 STARTING AIR RECEIVER (IN COMPRESSOR HOUSE)
P-V16 COMPRESSOR COOLING WATER MAKE-UP TANK
P-V18 PLATFORMING UNIT SURGE DRUM
Z-81-V-1 FUEL GAS BALANCE DRUM
P-V21 STEAM/WATER SEPARATOR
P-V22 BLOW DOWN DRUM

HEATERS

P-PH1 PLATFORMING CHARGE HEATER
P-PH2 UNIFINING HEATER

HEAT EXCHANGERS

P-E1 UNIFINING STRIPPER FEED EXCHANGER
P-E2 UNIFINING STRIPPER CONDENSER
P-E3 PLATFORMING COLD COMBINED FEED EXCH.
P-E4 PLATFORMING HOT COMBINED FEED EXCH.
P-E5 PLATFORMING REACTOR PRODUCTS CONDENSER
P-E6 PLATFORMING REACTOR PRODUCTS COOLER
10 P-E7 STABILIZER FEED EXCHANGER
P-E8 STABILIZER REBOILER
P-E9 STABILIZER CONDENSER

10 P-E11 STABILIZER BOTTOMS FINAL COOLER
P-E12 UNIFINING NAPHTHA FEED EXCH.
P-E13 UNIFINING GAS PREHEATER
P-E14 UNIFINING REACTOR PRODUCTS CONDENSER
P-E15 UNIFINING REACTOR PRODUCTS COOLER
P-E16 RECYCLE GAS COMPRESSOR JACKET WATER COOLER
P-E17 RECYCLE GAS COMPRESSOR LUBE OIL COOLER
10 P-E24A & B STABILIZER FEED & BOTTOMS

COMPRESSORS

P-C1A & B RECYCLE GAS COMPRESSORS

PUMPS

P-P2 PLATFORMING REACTOR CHARGE PUMP
P-P3A & B UNIFINING STRIPPER REFLUX PUMPS
P-P4A & B UNIFINING STRIPPER REBOILER PUMPS
P-P5A & B STABILIZER REFLUX PUMPS
P-P6 CHEMICAL & CONDENSATE INJECTION PUMP
P-P7 UNIFINING REACTOR CHARGE PUMP
P-P8 UNIFINING WATER INJECTION PUMP (NOT SHOWN)
P-P9A STEAM/CONDENSATE P-V21 CIRC.
P-P9B " "

MISCELLANEOUS

P-J1 EXHAUSTER (NOT SHOWN)

REFERENCE DRAWINGS:
PLOTPLAN EP-35-101
SUMP DETAILS EE-09-106
TYPICAL PIPING AT DRAIN SUMPS & FUNNELS AP-09-103
BILL OF MATERIAL AP-09-131

NOTES:-

1. FUTURE UNIFINING EQUIPMENT IS SHADED
2. INVERT ELEVATION FOR ALL "A" DRAIN FUNNELS IN PUMP DRAIN HEADER WILL BE 253'-10"

NO	BY	DATE	REVISIONS
9	HGH	4-15-74	REVISED DRN. FUNNEL LOC.
8	HGH	4-17-74	ADDED DRN SUMPS P3 & P4 & 2 C.I. DRNS.
7	R.F.	7-3-70	ADDED DRAINS @ N2684-0 & N2507-0
6	R.F.	6-5-70	ADDED SUMPS & DRAINS FOR NAPTHA HYDROTREATER
5	D.K.	3-11-69	ADDED SUMP & DRAINS FOR PLATFORMER SUMP PUMPS
4	[illegible]	2-20-65	LOCATED STUB-UP FOR LUBE 2 GAS
3	DON	7-23-57	RELOCATED P-P2 & DRAIN
2	R.L.S.	2-10-57	LOCATED NAT. GAS STUB-UP
1	R.A.	3-26-57	ISSUED FOR CONSTRUCTION.
10	R.A.	4-14-82	DELETED P-E7 (P-E11), ADDED P-E24 A & B.

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SOUTHWESTERN ENGINEERING COMPANY
4800 SANTA FE AVE., LOS ANGELES, CALIF.
AND IS SUBJECT TO RETURN ON DEMAND. IT IS ISSUED ON EXPRESS CONDITION THAT IT IS NOT TO BE USED DIRECTLY OR INDIRECTLY IN ANY WAY DETRIMENTAL TO THE INTERESTS OF THIS COMPANY

UNIFINING - PLATFORMING UNIT
UNDERGROUND PIPING PLAN
EL PASO NATURAL GAS PRODUCTS COMPANY
GALLUP SUNTZA REFINERY NEW MEXICO

SCALE 1/8" = 1'-0"		DATE
DRAWN R.L.S.		2-21-57
CHECKED BY E.O.L.K.		2-21-57
APPROVED BY		5-16-57
JOB SUPER.		3-26-57
EP 09-102		REV. 10

SRU UNIT

UNDERGROUND PROCESS AND WASTEWATER LINES

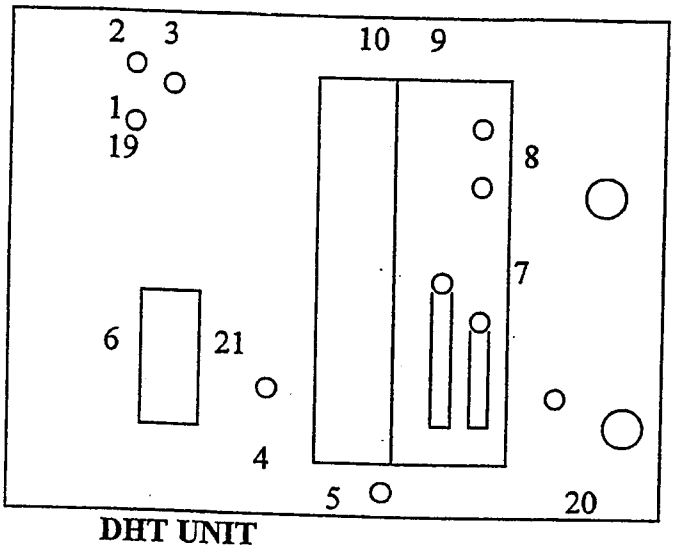
SRU UNIT

ID Number (Sewer Box or Catch Basin	Lateral Drains and/or Headers	Date Installed	Drawing Reference	Test Date	Pass/Fail/Repair Information	Test Water Column (Feet)	Test Duration (Minutes)	Signature	Investigation Results
Sump at N.2836.0	Start Drain SR-P1A @ N2836.0 W.728.0. to 1st "T"@ W713.0. Start from 14" Area Drain @ N.2815.0 to 1st "T" @ W.713.0. From 1st "T" @ W.713.0 to 1st "Y' @ W.704'-3". Start Drain @ N.2770'-3" W.717'-3" to "Y" @ N.2773'-9". Start Drain near SR-C1 to "Y" @ N.2773'-9". From "Y' @ N.2773'-9" to other "Y". From 2" pipe drain on S. side of SRU Bldg. to other "Y". From other "Y" to "Y" @ N.2780'-9". From Drain N.2779'-3" W.709'-0" to "Y' @ N.2780'-9". From "Y" @ N.2780'-9" to "Y" @ N.2836-0" W.704'-3" From "Y" @ N2836'-0" W.704'-3" flows W. to "T" @ N.2836'-0" W.668'-0"	Aug-93	PRO-QUIP D-3146-671						
	From "T" @ N.2836'-0" W.668'-0"		PRO-QUIP D-3146-527						
	From Drains Inside SRU Bldg.		PRO-QUIP D-3146-527						
	Start Drain N.2781'-3' W.660'-0" to 1st "Y". From Clean Out (CO) to 1st "Y". From 1st "Y" flows N. to 2nd "Y". From Drain N.2791'-0" to 2nd "Y". From 2nd "Y" flows N. to 3rd "Y". From Drain N.2806'-0" to 3rd "Y". From 3rd "Y" N. to 4th "Y". Start from Drain N.2786'-3" W.684'-0" to a "Y", also a CO to same "Y". Drain N.2800'-0" W.680'-0" to other "Y" and flows NW to join 4th "Y". 4th "Y" flows N. out under SRU Bldg. to join "T" @ N.2836-0" W.668'-0" (DWG.D-3146-671)	Aug-93	PRO-QUIP D-3146-527						
Sump at N.2836 0	"T" @ N.2836-0" W.668'-0" flows W. to last "Y". Drain N 2808-0' W.650'-1" flows N. to last "Y". From last "Y" flows W. to sump N2836'-0"	Aug-93	PRO-QUIP D-3146-671						
NOTE TO SHEET; SRU DRAINS ARE ALSO KNOWN AS FOLLOWING FROM DHT/SRU WEEKLY DRAIN SEAL INSPECTION SHEETS:									
11	NEAR SR-C1								
12	NEAR SR-T4								
13	NEAR SR-V7, SR-V8, & SR-V9								
14	NEAR SR-T5								
15	IN SRU BLDG NEAR SR-T7								
16	IN SRU BLDG NEAR SR-T8								
17	IN SRU BLDG NEAR SR-A1								
18	IN SRU BLDG NEAR SR-P111A								
22	IN SRU STORAGE ROOM								

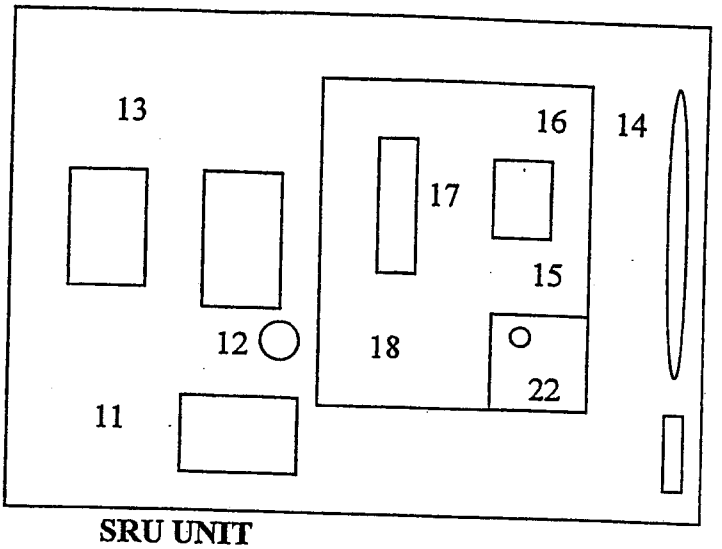
GIANT REFINING COMPANY
CINIZA ENVIRONMENTAL
40 CFR 61 SUBPART QQQ

DHT / SRU WEEKLY DRAIN SEAL INSPECTION

INSPECTION DATE: _____ INSPECTION BY: _____



DHT UNIT



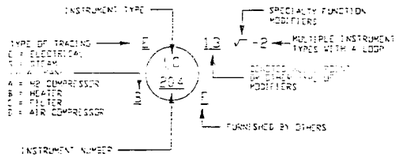
SRU UNIT

DRAIN #	LOCATION	SEALED?		COMMENTS
1	NEAR D-V9B		DHT	
2	NEAR D-V9A			
3	NEAR D-V1			
4	NEAR D-V19 (STEAM)			
5	NEAR D-V7			
6	NEAR D-C4			
7	NEAR D-V3			
8	NEAR D-V5			
9	NEAR D-V4			
10	NEAR D-V4 (SLOP)			
11	NEAR SR-C1		SRU	
12	NEAR SR-T4			
13	NEAR SR-V7, SR-V8, & SR-V9			
14	NEAR SR-T5			
15	IN SRU BLDG NEAR SR-T7			
16	IN SRU BLDG NEAR SR-T8			
17	IN SRU BLDG NEAR SR-A1			
18	IN SRU BLDG NEAR SR-P111A			
19	NEAR V-V9A & D-V9B		DHT	
20	SEWER JUNCTION BOX			
21	NEAR D-C4			
22	IN SRU STORAGE ROOM		SRU	

SYMBOLS

- MAJOR FLOW LINE
- MINOR FLOW LINE
- SKID OUTLINE
- FUTURE
- BY OTHERS
- ELECTRIC HEAT TRACING
- STEAM HEAT TRACING
- ELECTRICAL SIGNAL
- PNEUMATIC TRANSMISSION LINE
- CAPILLARY TUBING
- SOFTWARE DIGITAL LINK
- FLANGED VALVE
- WELD END VALVE
- SCREWED OR SOCKET WELD VALVE
- GATE VALVE
- BALL VALVE
- GLOBE VALVE
- PLUG VALVE
- BUTTERFLY VALVE
- CHECK VALVE
- PISTON CHECK VALVE
- PLUG/CHECK VALVE
- RELIEF VALVE
- VACUUM BREAKER
- ANGLE VALVE
- 3-WAY VALVE
- GAGE VALVE
- STEAM JACKETED VALVE
- CONTROL VALVE
- CONTROL VALVE W/POSITIONER
- DOUBLE ACTING DIAPHRAGM ACTUATED VALVE
- PISTON OPERATED VALVE
- ELECTRIC MOTOR VALVE
- DIAPHRAGM VALVE
- SOLENOID OPERATED VALVE

- 3-WAY SOLENOID VALVE
- 4-WAY SOLENOID VALVE
- 4-WAY SPOOL VALVE
- PI — DIAPHRAGM SEALED PI
- FLOW ELEMENT (ORIFICE)
- FLOW ELEMENT (CHAMBER TYPE ORIFICE)
- PITOT TUBE
- WEDGE TYPE FLOW ELEMENT
- POSITIVE DISPLACEMENT METER
- FLOW INDICATOR-ROTAMETER TYPE
- SIGHT FLOW INDICATOR
- STRAINER 'Y' TYPE
- STR — STRAINER CONE OR FLAT TYPE
- OPEN / CLOSED — SPECTACLE BLIND
- TIE-IN
- F — FLARE SYSTEM
- EF — COMPRESSOR FLARE
- OWS — OILY WATER SEWER
- FN — FLARE KNOCKOUT SYSTEM
- CDN 200 202 — STEAM CONDENSATE
- LINE RATING CHANGE
- MANUAL RESET (PUSHBUTTON)
- RUPTURE DISC (PRESSURE)
- XT — STEAM TRAP



- LOCAL MOUNTED INSTRUMENT
- PANEL MOUNTED INSTRUMENT
- DCS CONTROL
- MOUNTED BEHIND THE PANEL
- LOCAL PANEL MOUNTED INSTRUMENT
- MOUNTED BEHIND THE LOCAL PANEL
- PILOT LIGHT
- OR — OR - OUTPUT EXISTS IF ONE OR MORE INPUTS EXIST
- AND — AND - OUTPUT EXISTS ONLY IF ALL INPUTS EXIST
- INTERLOCK (DEFINED ELSEWHERE)
- STREAM CONTINUATION
- INSTRUMENTATION CONTINUATION
- ELECTRICAL CONTINUATION

ABBREVIATIONS

CSO	CAR SEAL OPEN
CSC	CAR SEAL CLOSED
FC	FAIL CLOSED
FO	FAIL OPEN
LC	LOCK CLOSED
LO	LOCK OPEN
NC	NORMALLY CLOSED
NO	NORMALLY OPEN
RO	RESTRICTION ORIFICE
SI	SIGHT FLOW INDICATOR
SC	SAMPLE CONNECTION
CC	CORROSION COUPON
VB	VACUUM BREAKER
FAR	FLAME ARRESTOR
SP	SPECIALTY ITEM
TP	TRANSITION PIECE
XFV	EXCESS FLOW VALVE
PIV	POST INDICATOR VALVE

LEVEL GAGE DESIGNATION

R	REFLEX
TRB	TRANSPARENT BACK LIT
TR	TRANSPARENT
TU	TUBULAR
B	BULLS EYE
WP	WELD PAD
(2)	NUMBER ON BRIDLE
BC	BIG CAGE

LEVEL TRANSMITTER DESIGNATION

DIF	DIFFERENTIAL PRESSURE
DSP	DISPLACER
BBL	BUBBLER
FLT	FLOAT

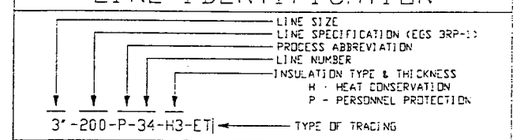
MEANINGS OF IDENTIFICATION LETTERS

	FIRST LETTER		SUCCEEDING LETTERS		
	MEASURED OR INITIATING VARIABLE	MODIFIER	READOUT OR PASSIVE FUNCTION	OUTPUT FUNCTION	MODIFIER
A	ANALYSIS		ALARM		
B	BURNER FLAME		USER'S CHOICE	USER'S CHOICE	USER'S CHOICE
C	CONDUCTIVITY (ELECTRICAL)			CONTROL	
D	DENSITY (MASS) OR SPECIFIC GRAVITY	DIFFERENTIAL			
E	VOLTAGE (EMF)		PRIMARY ELEMENT		
F	FLOW RATE	RATIO (FRACTION)			
G	GAGING (DIMENSIONAL)		GLASS		
H	HAND (MANUALLY INITIATED)				HIGH
I	CURRENT (ELECTRICAL)		INDICATE		
J	POWER	SCAN			
K	TIME OR TIME-SCHEDULE			CONTROL STATION	
L	LEVEL		LIGHT (PILOT)		LOW
M	MOISTURE OR HUMIDITY				MIDDLE OR INTERMEDIATE
N	SHUTDOWN		USER'S CHOICE	USER'S CHOICE	USER'S CHOICE
O	USER'S CHOICE		ORIFICE (RESTRICTION)		
P	PRESSURE OR VACUUM		POINT (TEST CONNECTION)		
Q	QUANTITY OR EVENT	INTEGRATE OR TOTALIZE			
R	RADIOACTIVITY		RECORD OR PRINT		
S	SPEED OR FREQUENCY	SAFETY		SWITCH	
T	TEMPERATURE			TRANSMIT	
U	MULTIVARIABLE		MULTIFUNCTION	MULTIFUNCTION	MULTIFUNCTION
V	VISCOSITY			VALVE OR LOUVER	
W	WEIGHT OR FORCE (VIBRATION)		USER CHOICE	USER CHOICE	USER CHOICE
X	UNCLASSIFIED		UNCLASSIFIED	UNCLASSIFIED	UNCLASSIFIED
Y	USER'S CHOICE			RELAY OR COMPUTE	
Z	POSITION			DRIVE, ACTUATE OR UNCLASSIFIED FINAL CONTROL ELEMENT	

EQUIPMENT LIST

- A AUXILIARY OR - MISCELLANEOUS EQUIPMENT
- B BOILER
- C COMPRESSOR
- D DRIVERS
- E AIR COOLED EXCHANGER
- E HEAT EXCHANGER
- H HEATER
- G HEATING ELEMENT OR BURNER
- J JET APPARATUS
- M MIXER
- P PUMP
- Q MOBILE EQUIPMENT
- S STRAINERS
- T TANK
- V VESSELS, COLUMNS, REACTORS & FILTERS
- W COOLING WATER TOWER

LINE IDENTIFICATION



SERVICE DESIGNATION

BFW	BOILER FEED WATER
CF	CHEMICAL FEED
CDN	CONDENSATE
CS	CHEMICAL SEWER
CWR	COOLING WATER RETURN
CWS	COOLING WATER SUPPLY
DR	DRAIN
DW	DOMESTIC WATER
EDH	EQUIPMENT DRAIN HEADER
F	FLARE
FG	FUEL GAS
FW	FIREWATER
FN	FLARE KNOCKOUT
HV	HYDROCARBON VENT
HD	HYDROCARBON DRAIN
IA	INSTRUMENT AIR
NG	NATURAL GAS
NH	HIGH PRESSURE NITROGEN
NL	LOW PRESSURE NITROGEN
OWS	OILY WATER SEWER
P	OTHER PROCESS STREAMS
PH	PROCESS HYDROCARBON
PA	PROCESS AIR
PS	PROCESS SLURRY
RC	REACTOR COOLANT
RFP	REACTOR FEED OR PRODUCT
RS	RICH SOLVENT
S	MOLTEN SULFUR
SV	SULFUR VAPOR
SH	225 PSIG STEAM
SW	SOUR WATER
UA	UTILITY AIR
UW	UTILITY WATER
WW	WELL WATER

PIPING SPECIFICATION INDEX

INSULATION

C	COLD
H	HOT
PP	PERSONNEL PROTECTION

OPTIONS

ST	HEAT TRACE (STEAM)
SR	STRESS RELIEVE
N	NACE MR-01-75
ET	ELECTRICAL TRACE

REV.	ISSUE	BY	DATE	PROC.	PROJ.	APPR.	DATE	PRELIM.	CONST.
4	ISSUED FOR CONSTRUCTION	BB	4-10-92	DL		NGS	3-20-92		REV. 4
5	ISSUED FOR CONSTRUCTION	CM	5-19-92			NGS	5-19-92		REV. 5
6	ISSUED FOR CONSTRUCTION	BB	6-04-92	DL	SAM	NGS	6-01-92		REV. 6
7	ISSUED FOR CONSTRUCTION	SUE	6-30-92		SAM	NGS	7-07-92		REV. 7
8	ISSUED FOR CONSTRUCTION	CM	8-06-92						REV. 8
9	GIANT AS-BUILT/MODIFIED	SPS	4-17-95						

PRO-QUIP
TULSA — THE PRO-QUIP CORPORATION — OKLAHOMA

GIANT REFINING CO.

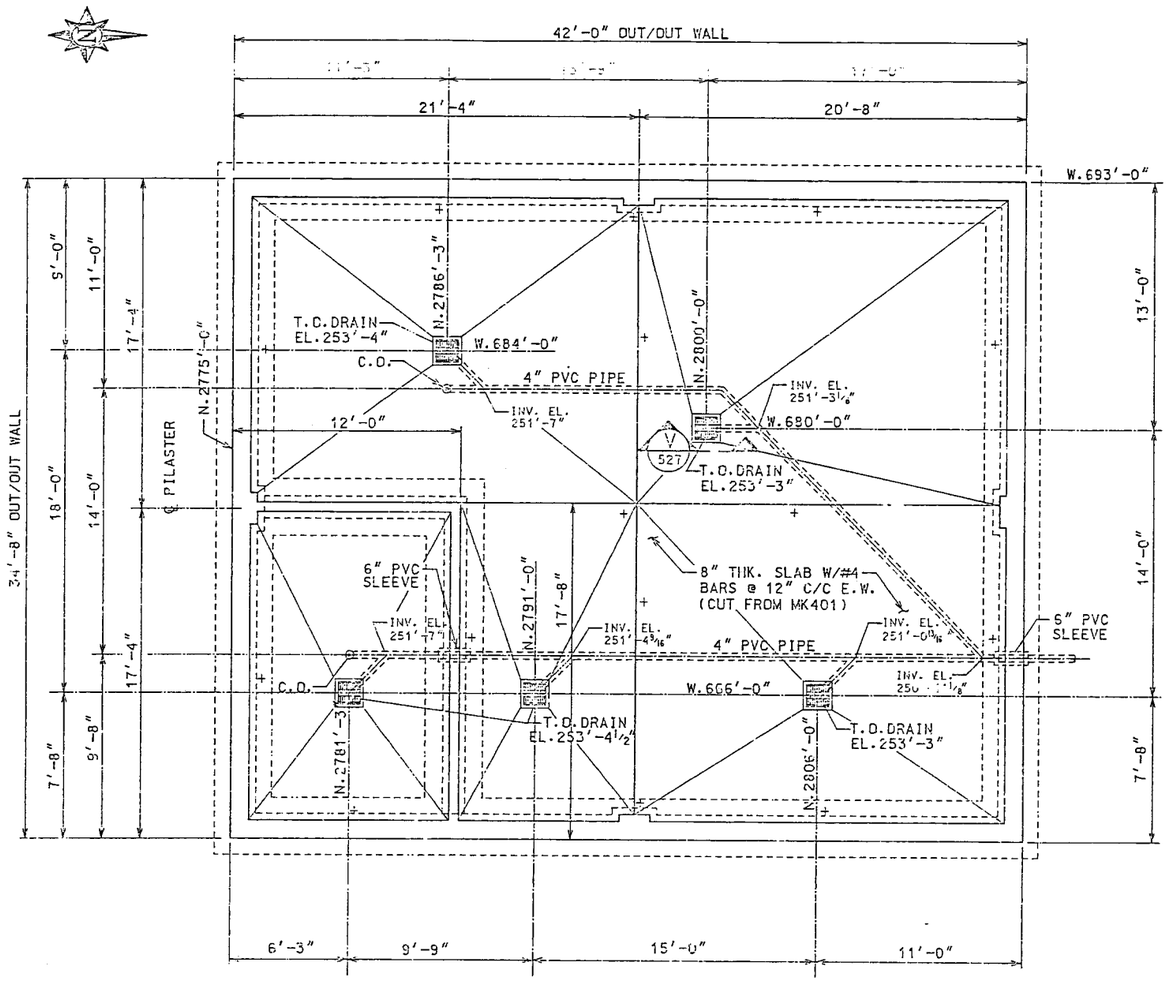
DRAWN	MARY	DATE	11-05-91
CHECKED		DATE	
APPROVED		DATE	

PROJECT NUMBER 91-3146

DHT UNIT
SYMBOL LEGEND

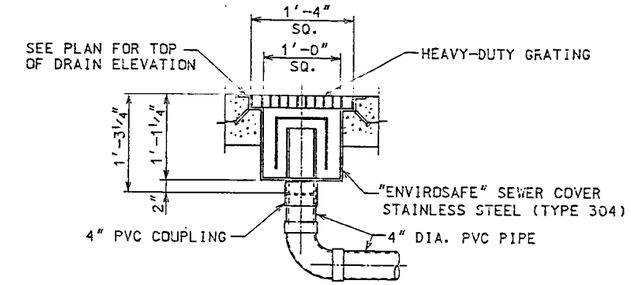
GALLUP NEW MEXICO

SCALE | DWG D-34-000 | REV. 9

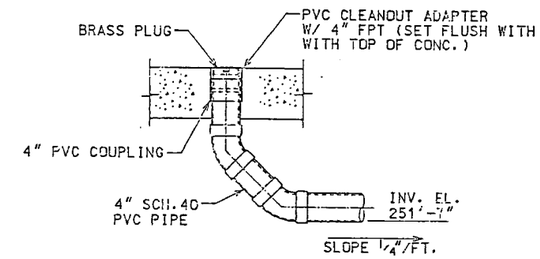


SEWER PLAN

+ INDICATES TOP OF SLAB
EL. 253'-6"



SECTION V
SCALE: 1"= 1'-0" 527



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

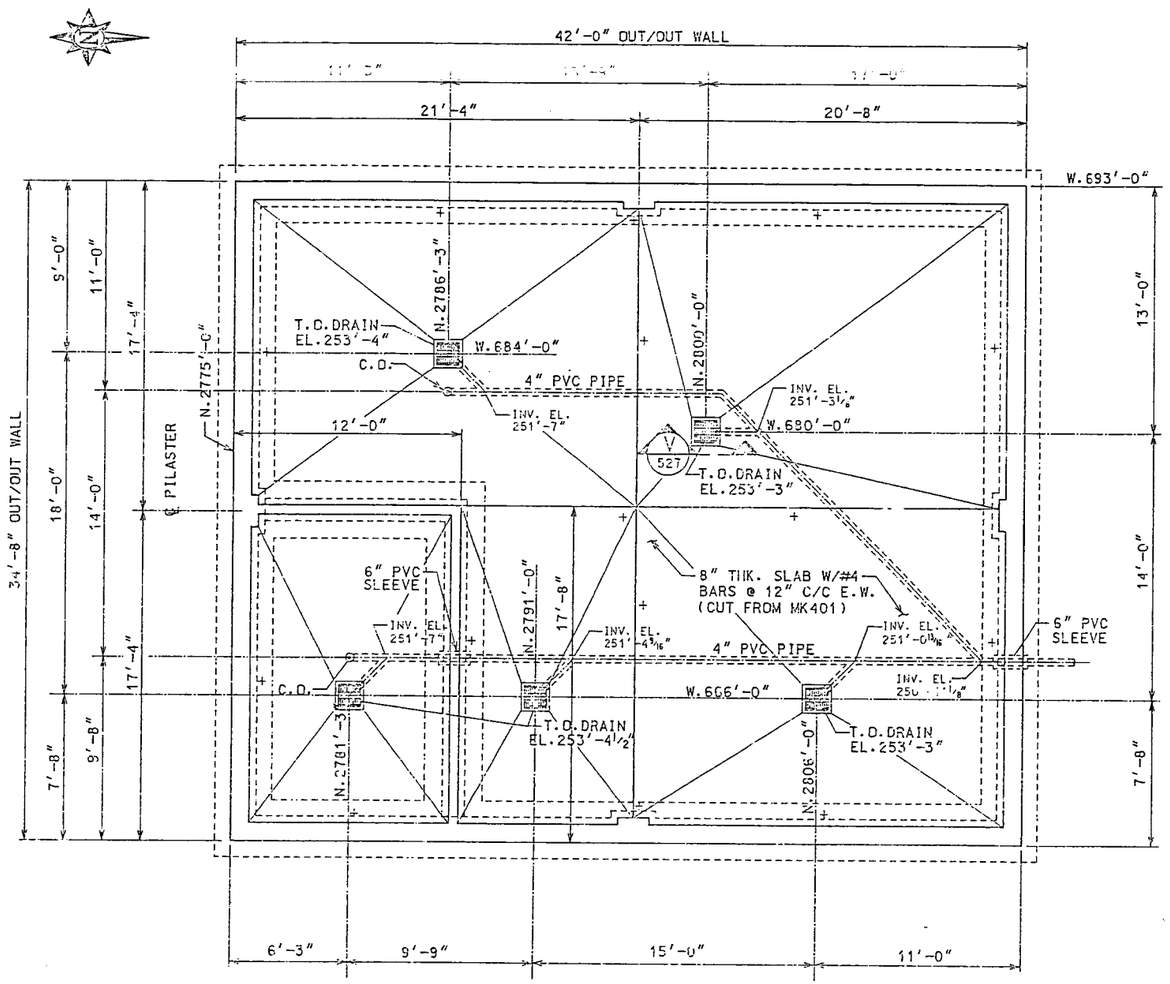
D-3146-526	SULFEROX BUILDING	FOUNDATION PLAN
D-3146-525	SULFEROX BUILDING	DETAILS
D-3146-524	SULFEROX BUILDING	DETAILS
D-3146-521	SULFEROX BUILDING	ELEVATIONS

TULSA OKLA.
THE PRO-QUIP CORP.
FOR: GIANT REFINING CO.

PROJECT NO.		
DRAWN:	KM	DATE: 7/92
CHECKED:	PFH	DATE: 7/92

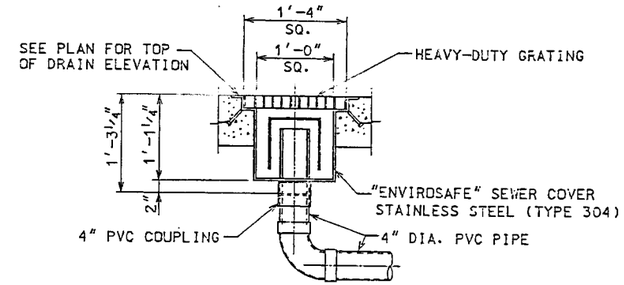
SULFEROX BUILDING SEWER PLAN
CINIZA REFINERY
NEW MEXICO

PAYNE-HUBER ENGINEERING, INC.



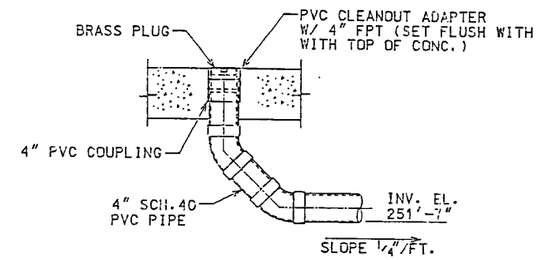
SEWER PLAN

+ INDICATES TOP OF SLAB
EL. 253'-6"



SECTION V 527

SCALE: 1"= 1'-0"



CLEAN OUT DETAIL

SCALE: 1"= 1'-0"

PAYNE-HUBER ENGINEERING, INC.

D-3146-526	SULFERDX BUILDING	FOUNDATION PLAN	
D-3146-525	SULFEROX BUILDING	DETAILS	
D-3146-524	SULFEROX BUILDING	DETAILS	
D-3146-521	SULFEROX BUILDING	ELEVATIONS	

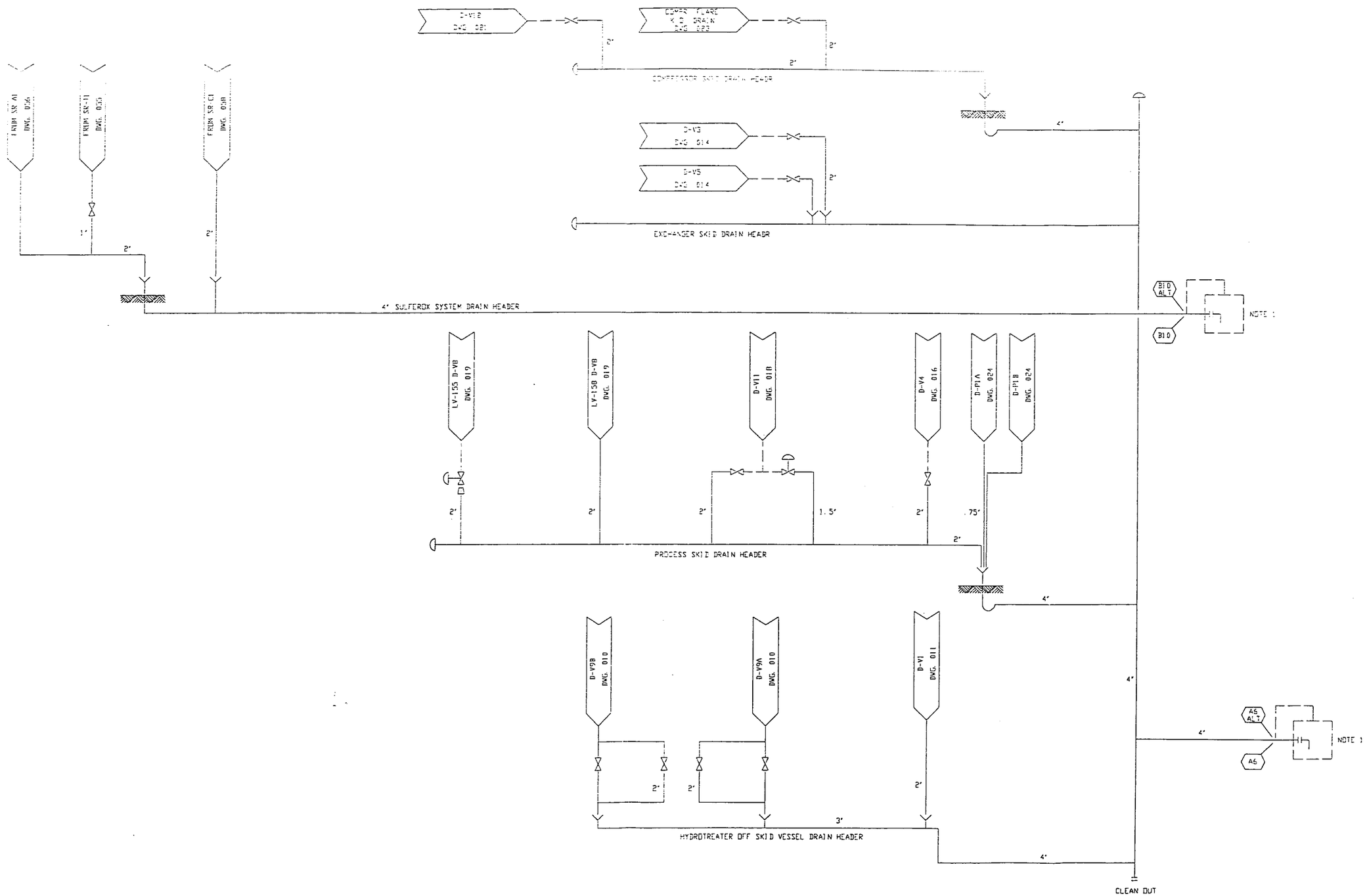
1	7/92	ISSUE FOR APPROVAL	

TULSA THE PRO-QUIP CORP. OKLA.

FOR: GIANT REFINING CO.

PROJECT NO. | DRAWN: KM | DATE: 7/92
CHECKED: FFH | DATE: 7/92

SULFEROX BUILDING SEWER PLAN
CINIZA REFINERY
NEW MEXICO



NOTE:
1. TIE-IN AT EXISTING DRAIN PIT.

REV.	ISSUE	BY	DATE	PROC.	PROJ.	APPR.	DATE	PRELIM.	CONST.
4	ISSUED FOR CONSTRUCTION	CK	8-06-92		SAM	NGS	8-11-92		REV. 4
5	ISSUED FOR CONSTRUCTION	CK	9-09-92		SAM	NGS	9-18-92		REV. 5
6	ISSUED FOR CONSTRUCTION	BB	11-11-92		SAM	NGS	12-3-92		REV. 6
7	ISSUED FOR CONSTRUCTION	CK	3-19-93			NGS	3-24-93		REV. 7
8	AS BUILT	CK	7-09-93						REV. 8
9	GIANT AS-BUILT/MODIFICATIONS	SPS	4-18-95						

PRO-QUIP.
TULSA THE PRO-QUIP CORPORATION OKLAHOMA

GIANT REFINING CO.

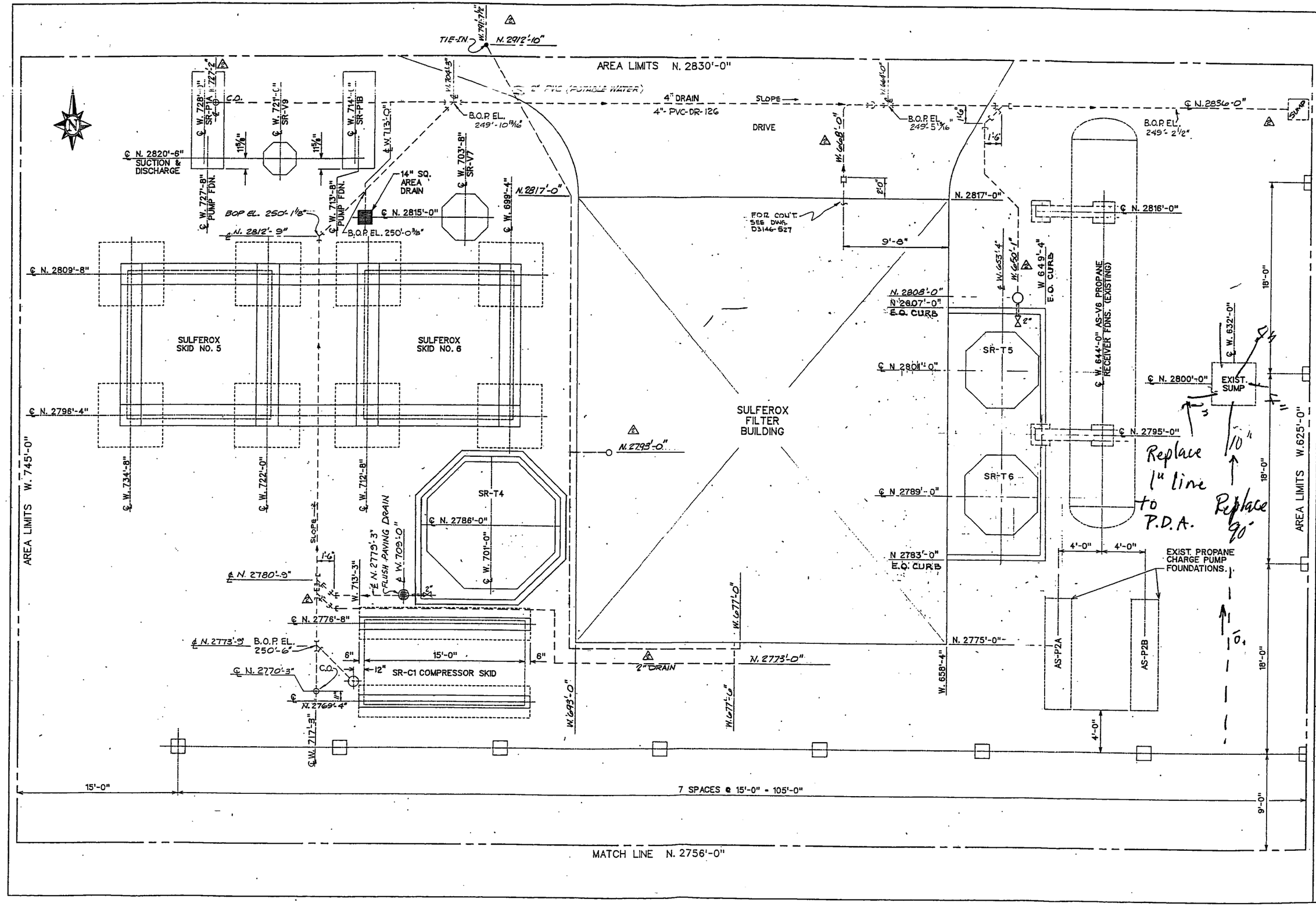
DRAWN	SUC	DATE	2-19-92
CHECKED		DATE	
APPROVED	NGS	DATE	7-7-92

PROJECT NUMBER 91-3146

MECHANICAL FLOW DIAGRAM
DRAIN SYSTEM

GALLUP NEW MEXICO

SCALE | DWG. D-34-80-100 | REV. 9



DWG. NO.	REFERENCE DRAWINGS
D-3146-527	SULFEROX BUILDING SEWER PLAN
D-3146-526	SULFEROX BUILDING FOUNDATION PLAN
D-3146-525	SULFEROX BUILDING DETAILS
D-3146-524	SULFEROX BUILDING DETAILS
D-3146-521	SULFEROX BUILDING ELEVATIONS
D-3146-520	SULFEROX BUILDING ELEVATIONS

ISSUE	DATE	APPR.
PRELIM.		
CONST.		
0	8/6/93	
1	11/4/92	
2	11/19/92	

NO.	REVISION	BY	DATE	CHK.	APPR.
2	REVISED "AS BUILT"	WTA	11/19/92	WTA	
1	ADDED FLUSH PAVING DRAIN	JWH	11/4/92	LJH	WTA
0	ISSUE FOR APPROVAL	JBD	8/6/92	LJ	WTA

THE PRO-QUIP CORP.
TULSA OKLA.

FOR: GIANT REFINING CO.

PROJECT NO.	91-3146
DRAWN: JBD	DATE: 9-30-92
CHECKED: LJH	DATE: 10/8/92
APPR: WTA	DATE: 11/3/92

UNDERGROUND PIPING PLAN
SULFEROX UNIT
CINIZA REFINERY

GALLUP NEW MEXICO

DWG. D-3146-671 | REV. 2 | SCALE 1/4"=1'-0"

D-09-154

SATS UNIT

UNDERGROUND PROCESS AND WASTEWATER LINES

SATS UNIT

ID Number (Sewer Box or Catch Basin	Lateral Drains and/or Headers	Date Installed	Drawing Reference	Test Date	Pass/Fail/Repair Information	Test Water Column (Feet)	Test Duration (Minutes)	Signature	Investigation Results
Catch Basin by S-C1	Drain near S-V9 flows S then W to Catch Basin by S-C1	1995	95103-CC-105, Z-35-104 & EC-09-125						
Catch Basin just SW of S-V2	Drain by S-P2B, drain by S-E4, drain by S-E5, 2 drains by S-V3, & drain by S-V2	1995?	No Drawing, Based on Visual Sight						
Catch Basin just W of Catch Basin just SW of S-V2	Drains on either side of SV-13, 3 drains by S-V4, & other drain	1995?	No Drawing, Based on Visual Sight						
Catch Basin & drain by S-11B	2 drains by S-E10 , other drain, & drain by Z-85-P1	1995?	No Drawing, Based on Visual Sight						

REFERENCE DRAWINGS

N 3000

N 2500

W 1500

W 1000

W 500

SWITCH HOUSE

GARAGE

SNOF

BOILER AREA

FIRE

RECEIVING

TRUCK LOADING RACK

WAREHOUSE

LAB

GUARD

OFFICE BLDG

NAPHTHA HYDROTREATER UNIT

PLATFORMING UNIT

CRUDE UNIT

ISOM UNIT

SULFUR RECOVERY UNIT

TREATING UNIT

SWITCH GEAR HOUSE

SATS UNIT

DHT UNIT

GAS CONCENTRATION UNIT

CHANGE HOUSE

ASO FIR

FLUID CATALYTIC CRACKING UNIT

CONTROL HOUSE

ALKYLATION UNIT

ALKY CHANGE HOUSE

UTILITY FIELD OFFICE

COOLING TOWER

APM MCC BUILDING

SUB STATIONS

FOR REVIEW

THIS DRAWING HAS BEEN ISSUED FOR REVIEW AS OF 11/03/95

RAPLEY ENGINEERING SERVICES, INC.

LEGEND

- EDGE OF CONCRETE
- EXIST CONCRETE CURB
- APPROX RIDGE LINE (HP)
- EXIST PROCESS DRAINS
- EXIST TRENCH DRAINS
- PROPOSED CONCRETE AREA
- (12-1) DRAINAGE AREA
- (K) STUDY POINT

NOTES

1. UNLESS NOTED ALL EXISTING PROCESS DRAINS ARE 4'ø. PIPE DIAMETER BASED ON INFORMATION PROVIDED BY GIANT REFINERY.

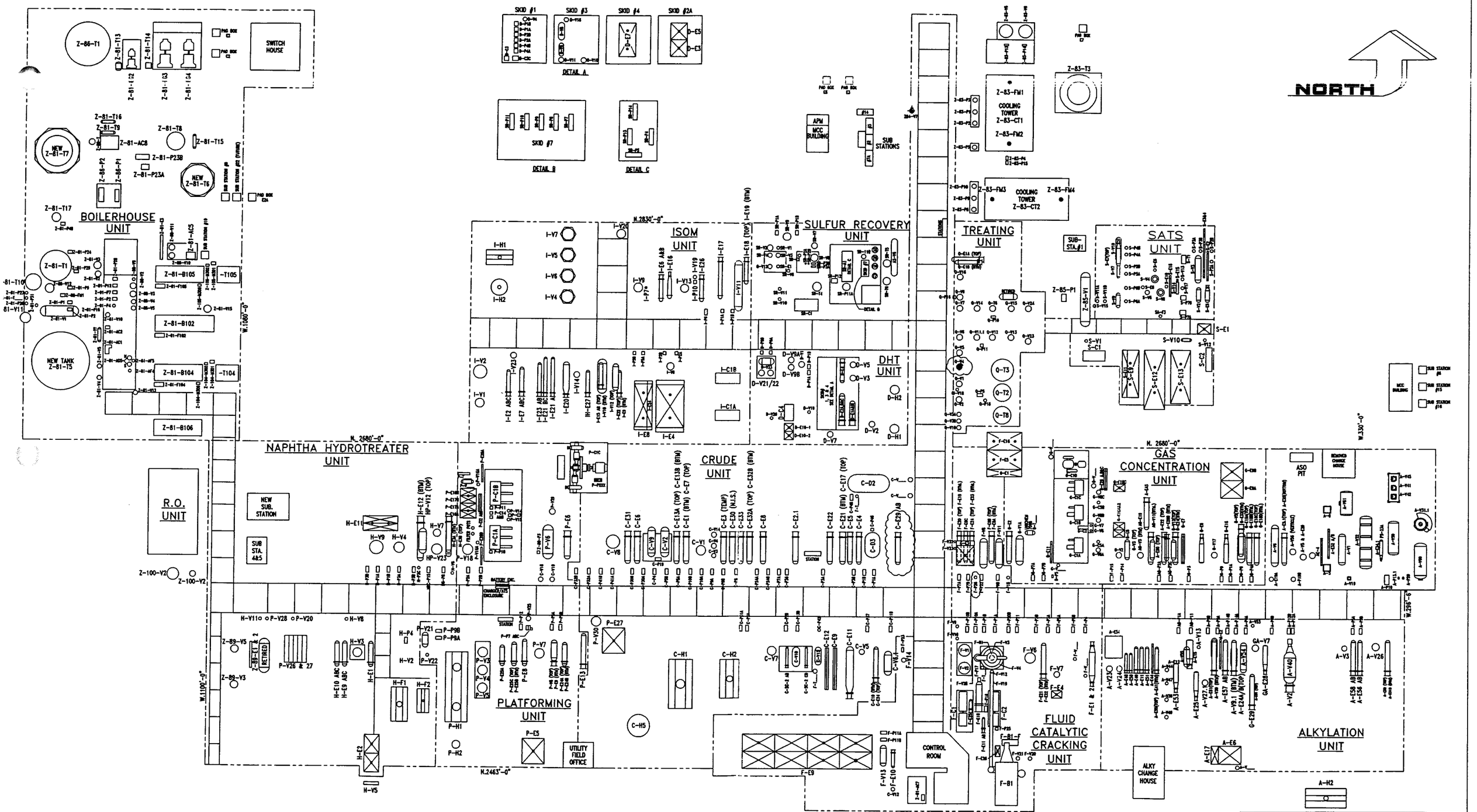
MARK	DATE	DESCRIPTION	BY	APRVD
A	11/03/95	CLIENT REVIEW	DPB	

CINIZA REFINERY — GIANT REFINING,CO. — GALLUP NEW MEXICO

A DIVISION OF GIANT INDUSTRIES

PROCESS AREA
PROCESS DRAINAGE
STUDY PLAN

SCALE	1"=40'	APRV'D.	
DATE	10-25-95	APRV'D	
DRN.	DPB	40	REV.
CHK'D.	DWG NO. 95103-CC-105		-



CINIZA REFINERY — GIANT REFINING,CO. A DIVISION OF GIANT INDUSTRIES — GALLUP NEW MEXICO

MASTER EQUIPMENT PLOT PLAN

SCALE: 1" = 30'-0"			APRV'D.:	
DATE: 28SEP00				
DRAWN BY: C.L.M.				REV.
CHK'D.:	DWG NO. Z-35-104			13

MARK	DATE	DESCRIPTION	BY	APRVD
13	11/03	UPDATED	CLM	

DHT UNIT

UNDERGROUND PROCESS AND WASTEWATER LINES

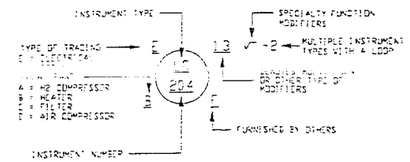
DHT UNIT

ID Number (Sewer Box or Catch Basin	Lateral Drains and/or Headers	Date Installed	Drawing Reference	Test Date	Pass/Fail/Repair Information	Test Water Column (Feet)	Test Duration (Minutes)	Signature	Investigation Results
CBZ-23 2729.63N 632W	Start Drain D-V9B to D-V9A to D-V1 to 1st"T"to CBZ-23. Start Drain LV 155 DV-8 to LV-158 DV-8 to D-V11to D-V4 with D-P1A with D-P1B to 2nd "T" to 1st "T" to CBZ-23. Start D-V5 to D-V3 to 3rd "T" to 2nd "T" to 1st "T" to CBZ-23. Start D-V12 to Comp. Flare K.O. Drain to 4th "T" to 3rd "T" to 2nd "T" to 1st "T" to CBZ-23 .	Jul-93	EZ-80-09-510EP, PROQUIP D-34-000 & D-34-80-1OO						
NOTE TO SHEET; DHT DRAINS ARE ALSO KNOWN AS FOLLOWING FROM DHT/SRU WEEKLY DRAIN SEAL INSPECTION SHEETS:									
1	NEAR D-V9B								
2	NEAR D-V9A								
3	NEAR D-V1								
4	NEAR D-V19 (STEAM)								
5	NEAR D-V7								
6	NEAR D-C4								
7	NEAR D-V3								
8	NEAR D-V5								
9	NEAR D-V4								
10	NEAR D-V4 (SLOP)								
19	NEAR V-V9A & D-V9B								
20	SEWER JUNCTION BOX								
21	NEAR D-C4								

SYMBOLS

- MAJOR FLOW LINE
- MINOR FLOW LINE
- FUTURE
- BY OTHERS
- ELECTRIC HEAT TRACING
- STEAM HEAT TRACING
- ELECTRICAL SIGNAL
- PNEUMATIC TRANSMISSION LINE
- CAPILLARY TUBING
- SOFTWARE DIGITAL LINK
- FLANGED VALVE
- WELD END VALVE
- SCREWED OR SOCKET WELD VALVE
- GATE VALVE
- BALL VALVE
- GLOBE VALVE
- PLUG VALVE
- BUTTERFLY VALVE
- CHECK VALVE
- PISTON CHECK VALVE
- PLUG/CHECK VALVE
- RELIEF VALVE
- VACUUM BREAKER
- ANGLE VALVE
- 3-WAY VALVE
- GAGE VALVE
- STEAM JACKETED VALVE
- CONTROL VALVE
- CONTROL VALVE W/POSITIONER
- DOUBLE ACTING DIAPHRAGM ACTUATED VALVE
- PISTON OPERATED VALVE
- ELECTRIC MOTOR VALVE
- DIAPHRAGM VALVE
- SOLENOID OPERATED VALVE

- 3-WAY SOLENOID VALVE
- 4-WAY SOLENOID VALVE
- 4-WAY SPOOL VALVE
- DIAPHRAGM SEALED PI
- FLOW ELEMENT (ORIFICE)
- FLOW ELEMENT (CHAMBER TYPE ORIFICE)
- PITOT TUBE
- WEDGE TYPE FLOW ELEMENT
- POSITIVE DISPLACEMENT METER
- FLOW INDICATOR-ROTAMETER TYPE
- SIGHT FLOW INDICATOR
- STRAINER 'Y' TYPE
- STRAINER CONE OR FLAT TYPE
- SPECTACLE BLIND (OPEN / CLOSED)
- TIE-IN
- FLARE SYSTEM
- COMPRESSOR FLARE
- OILY WATER SEWER
- FLARE KNOCKOUT SYSTEM
- STEAM CONDENSATE
- LINE RATING CHANGE
- MANUAL RESET (PUSHBUTTON)
- RUPTURE DISC (PRESSURE)
- STEAM TRAP



- LOCAL MOUNTED INSTRUMENT
- PANEL MOUNTED INSTRUMENT
- DCS CONTROL
- MOUNTED BEHIND THE PANEL
- LOCAL PANEL MOUNTED INSTRUMENT
- MOUNTED BEHIND THE LOCAL PANEL
- PILOT LIGHT
- OR - OUTPUT EXISTS IF ONE OR MORE INPUTS EXIST
- AND - OUTPUT EXISTS ONLY IF ALL INPUTS EXIST
- INTERLOCK (DEFINED ELSEWHERE)
- STREAM CONTINUATION
- INSTRUMENTATION CONTINUATION
- ELECTRICAL CONTINUATION

ABBREVIATIONS

CSO	CAR SEAL OPEN
CSC	CAR SEAL CLOSED
FC	FAIL CLOSED
FO	FAIL OPEN
LC	LOCK CLOSED
LO	LOCK OPEN
NC	NORMALLY CLOSED
NO	NORMALLY OPEN
RO	RESTRICTION ORIFICE
SI	SIGHT FLOW INDICATOR
SC	SAMPLE CONNECTION
CC	CORROSION COUPON
VB	VACUUM BREAKER
FAR	FLAME ARRESTOR
SP	SPECIALTY ITEM
TP	TRANSITION PIECE
XFV	EXCESS FLOW VALVE
PIV	POST INDICATOR VALVE

LEVEL GAGE DESIGNATION

R	REFLEX
TRB	TRANSPARENT BACK LIT
TR	TRANSPARENT
TU	TUBULAR
B	BULLS EYE
WP	WELD PAD
(2)	NUMBER ON BRIDLE
BC	BIG CAGE

LEVEL TRANSMITTER DESIGNATION

DIF	DIFFERENTIAL PRESSURE
DSP	DISPLACER
BBL	BUBBLER
FLT	FLOAT

MEANINGS OF IDENTIFICATION LETTERS

	FIRST LETTER		SUCCEEDING LETTERS		
	MEASURED OR INITIATING VARIABLE	MODIFIER	READOUT OR PASSIVE FUNCTION	OUTPUT FUNCTION	MODIFIER
A	ANALYSIS		ALARM		
B	BURNER FLAME		USER'S CHOICE	USER'S CHOICE	USER'S CHOICE
C	CONDUCTIVITY (ELECTRICAL)			CONTROL	
D	DENSITY (MASS) OR SPECIFIC GRAVITY	DIFFERENTIAL			
E	VOLTAGE (EMF)		PRIMARY ELEMENT		
F	FLOW RATE	RATIO (FRACTION)			
G	GAGING (DIMENSIONAL)		GLASS		
H	HAND (MANUALLY INITIATED)				HIGH
I	CURRENT (ELECTRICAL)		INDICATE		
J	POWER	SCAN			
K	TIME OR TIME-SCHEDULE			CONTROL STATION	
L	LEVEL		LIGHT (PILOT)		LOW
M	MOISTURE OR HUMIDITY				MIDDLE OR INTERMEDIATE
N	SHUTDOWN		USER'S CHOICE	USER'S CHOICE	USER'S CHOICE
O	USER'S CHOICE		ORIFICE (RESTRICTION)		
P	PRESSURE OR VACUUM		POINT (TEST CONNECTION)		
Q	QUANTITY OR EVENT	INTEGRATE OR TOTALIZE			
R	RADIOACTIVITY		RECORD OR PRINT		
S	SPEED OR FREQUENCY	SAFETY		SWITCH	
T	TEMPERATURE			TRANSMIT	
U	MULTIVARIABLE		MULTIFUNCTION	MULTIFUNCTION	MULTIFUNCTION
V	VISCOSITY			VALVE OR LOUVER	
W	WEIGHT OR FORCE (VIBRATION)		USER CHOICE	USER CHOICE	USER CHOICE
X	UNCLASSIFIED		UNCLASSIFIED	UNCLASSIFIED	UNCLASSIFIED
Y	USER'S CHOICE			RELAY OR COMPUTE	
Z	POSITION			DRIVE, ACTUATE OR UNCLASSIFIED FINAL CONTROL ELEMENT	

EQUIPMENT LIST

- A AUXILIARY OR - MISCELLANEOUS EQUIPMENT
- B BOILER
- C COMPRESSOR
- D DRIVERS
- E AIR COOLED EXCHANGER
- E HEAT EXCHANGER
- H HEATER
- G HEATING ELEMENT OR BURNER
- J JET APPARATUS
- M MIXER
- P PUMP
- Q MOBILE EQUIPMENT
- S STRAINERS
- T TANK
- V VESSELS, COLUMNS, REACTORS & FILTERS
- W COOLING WATER TOWER

LINE IDENTIFICATION

3"-200-P-34-H3-ET

- LINE SIZE
- LINE SPECIFICATION (EGS 3RP-1)
- PROCESS ABBREVIATION
- LINE NUMBER
- INSULATION TYPE & THICKNESS
  - H - HEAT CONSERVATION
  - P - PERSONNEL PROTECTION
- TYPE OF TRACING

SERVICE DESIGNATION

BFW	BOILER FEED WATER
CF	CHEMICAL FEED
CDN	CONDENSATE
CS	CHEMICAL SEWER
CWR	COOLING WATER RETURN
CWS	COOLING WATER SUPPLY
DR	DRAIN
DW	DOMESTIC WATER
EDH	EQUIPMENT DRAIN HEADER
F	FLARE
FG	FUEL GAS
FW	FIREWATER
FN	FLARE KNOCKOUT
HV	HYDROCARBON VENT
HD	HYDROCARBON DRAIN
IA	INSTRUMENT AIR
NG	NATURAL GAS
NH	HIGH PRESSURE NITROGEN
NL	LOW PRESSURE NITROGEN
OWS	OILY WATER SEWER
P	OTHER PROCESS STREAMS
PH	PROCESS HYDROCARBON
PA	PROCESS AIR
PS	PROCESS SLURRY
RC	REACTOR COOLANT
RFP	REACTOR FEED OR PRODUCT
RS	RICH SOLVENT
S	MOLTEN SULFUR
SV	SULFUR VAPOR
SH	225 PSIG STEAM
SW	SOUR WATER
UA	UTILITY AIR
UW	UTILITY WATER
WW	WELL WATER

PIPING SPECIFICATION INDEX

INSULATION

C	COLD
H	HOT
PP	PERSONNEL PROTECTION

OPTIONS

ST	HEAT TRACE (STEAM)
SR	STRESS RELIEVE
N	NACE MR-01-75
ET	ELECTRICAL TRACE

REV.	ISSUE	BY	DATE	PROC.	PROJ.	APPR.	DATE	PRELIM.	CONST.
4	ISSUED FOR CONSTRUCTION	BB	4-10-92	DL		NGS	3-20-92		REV. 4
5	ISSUED FOR CONSTRUCTION	CM	5-19-92			NGS	5-19-92		REV. 5
6	ISSUED FOR CONSTRUCTION	BB	6-04-92	DL	SAM	NGS	6-01-92		REV. 6
7	ISSUED FOR CONSTRUCTION	SUE	6-30-92		SAM	NGS	7-07-92		REV. 7
8	ISSUED FOR CONSTRUCTION	CM	8-06-92						REV. 8
9	GIANT AS-BUILT/MODIFIED	SPS	4-17-95						

PRO-QUIP
TULSA — THE PRO-QUIP CORPORATION — OKLAHOMA

GIANT REFINING CO.

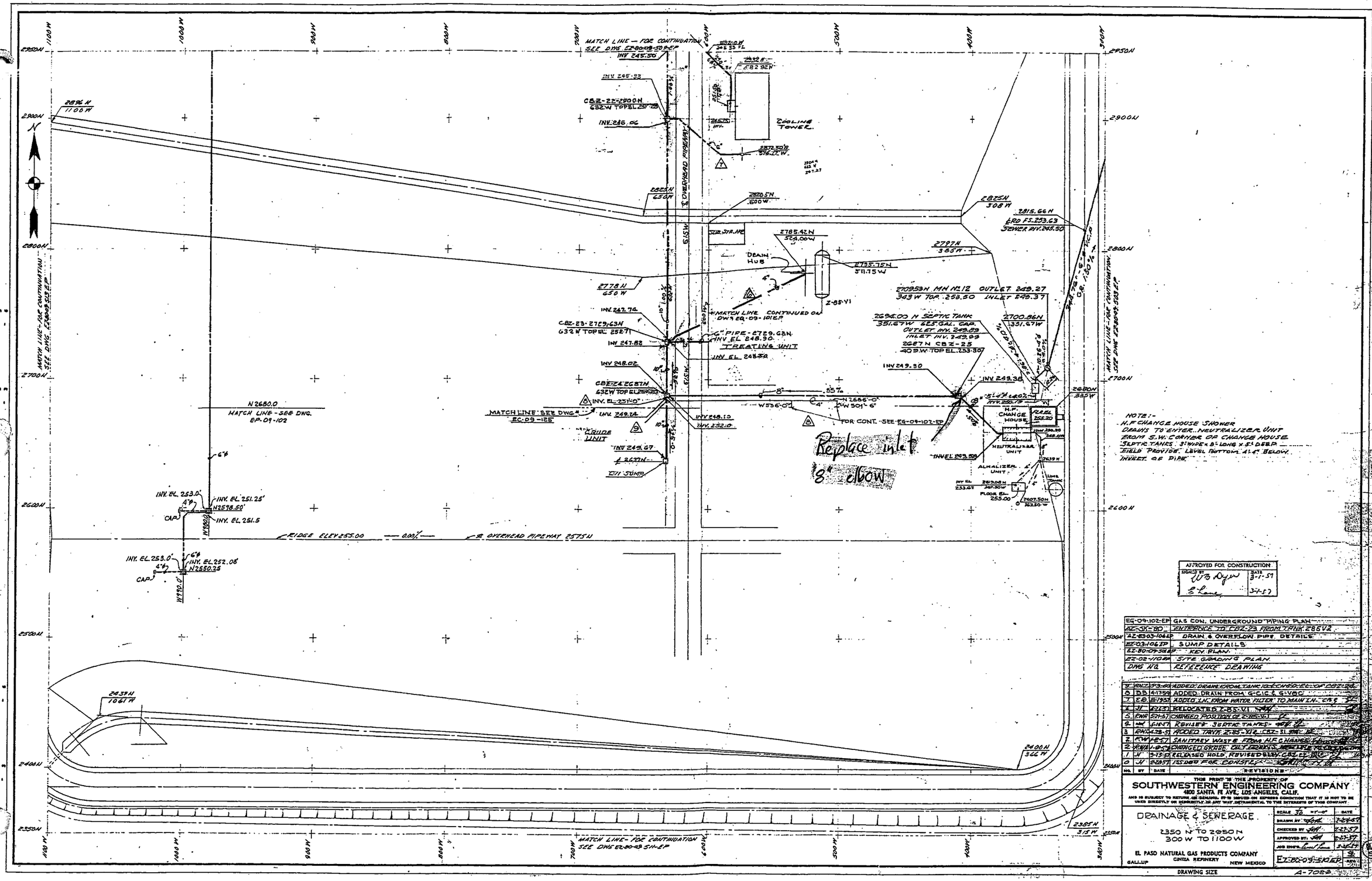
DRAWN: MARY — DATE 11-05-91
CHECKED — DATE
APPROVED — DATE

PROJECT NUMBER 91-3146

DHT UNIT
SYMBOL LEGEND

GALLUP — NEW MEXICO

SCALE — DWG D-34-000 — REV. 9



NOTE:-
H.F. CHANGE HOUSE SHOWER DRAINS TO ENTER NEUTRALIZER UNIT FROM S.W. CORNER OF CHANGE HOUSE.
SEPTIC TANKS 8' WIDE x 8' LONG x 5' DEEP
FIELD PROVISE LEVEL BOTTOM 4'-4" BELOW INVERT OF PIPE.

APPROVED FOR CONSTRUCTION
SIGNED BY W B Dyer DATE 3-1-57
E. Lane 3-1-57

EG-09-102-EP	GAS CON. UNDERGROUND PIPING PLAN
AZ-SK-80	ENTRANCE TO CBZ-23 FROM TANK Z-85-V2
AZ-83-03-106EP	DRAIN & OVERFLOW PIPE DETAILS
EZ-03-106EP	SUMP DETAILS
EZ-80-09-30EP	KEY PLAN
EZ-02-110EP	SITE GRADING PLAN
DWG NO.	REFERENCE DRAWING

No.	BY	DATE	REVISIONS
9	WHF	1-23-62	ADDED DRAIN FROM TANK 10 & CHG 50-EL-OF CBZ-26
8	DB	4-17-59	ADDED DRAIN FROM G-C.I.C. & G-VOC
7	E.B.	8-1-57	ADDED 1" LN. FROM WATER FILTER TO MAIN LN. - C.B. 5
6	JL	6-21-57	RELOCATED Z-85-V1
5	ENA	5-21-57	CHANGED POSITION OF Z-85-V1
4	[illegible]	5-16-57	REVISED SEPTIC TANKS
3	ENA	4-28-57	ADDED TANK Z-85-V2, CBZ-31
2	KW	4-2-57	SANITARY WASTE FROM H.F. CHANGE HOUSE
2	ENA	4-8-57	CHANGED GRADE, OIL SEPARATOR, [illegible]
1	JL	3-15-57	RELEASED HOLD, REVISED BY CBZ-27
0	JL	2-25-57	ISSUED FOR CONSTRUCTION

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4800 SANTA FE AVE., LOS ANGELES, CALIF.
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DRAINAGE & SEWERAGE
2350 N TO 2950 N
300 W TO 1100 W

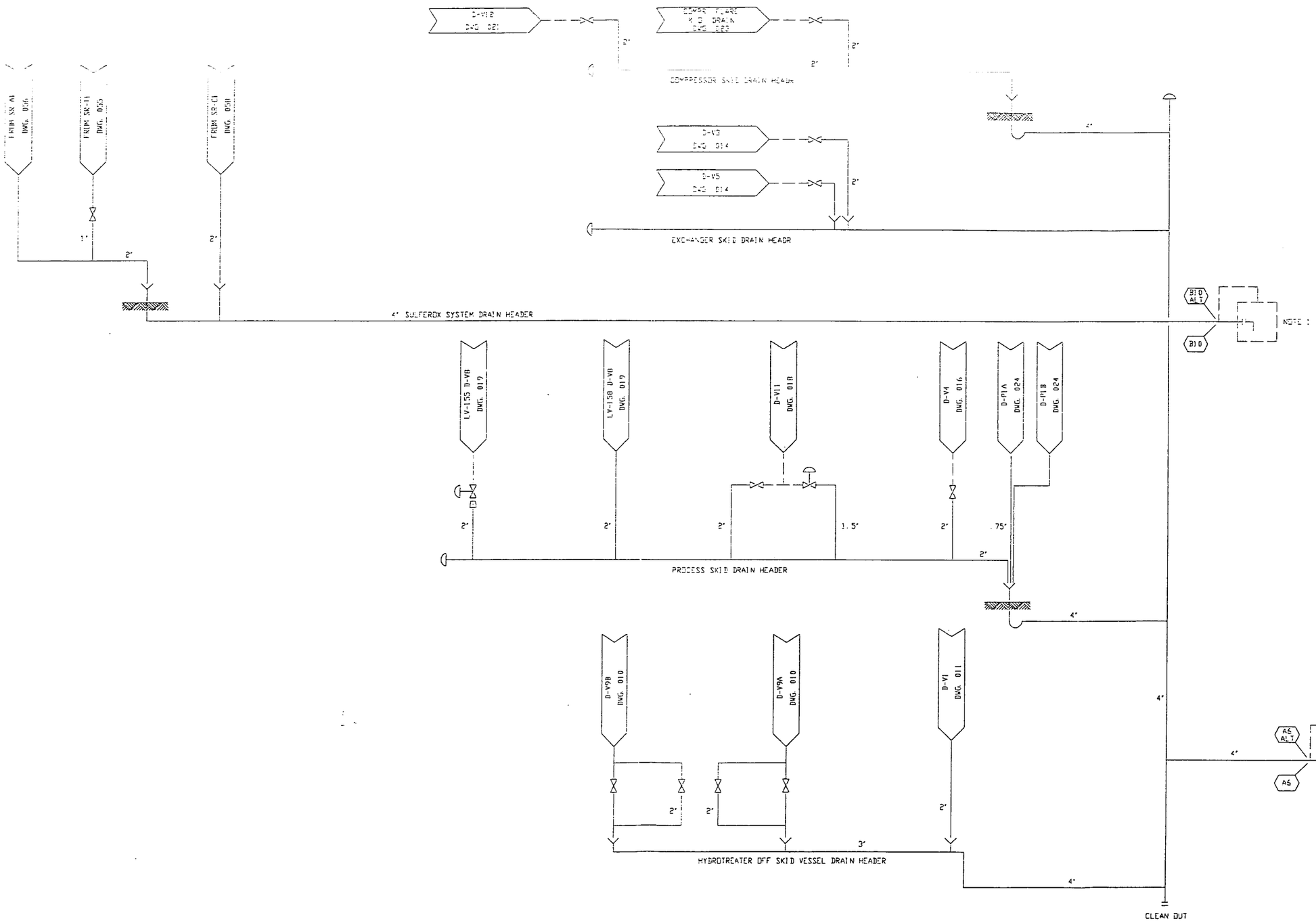
EL PASO NATURAL GAS PRODUCTS COMPANY
GALLUP — CINTA REFINERY — NEW MEXICO

SCALE 1/8" = 1'-0"	DATE
DRAWN BY [illegible]	2-24-57
CHECKED BY [illegible]	2-27-57
APPROVED BY: [illegible]	2-27-57
JOB ENGR. [illegible]	3-1-57
EZ-80-09-30EP	REV. 9

DRAWING SIZE A-7028

TO CUSTOMER DATE ISSUED REV. 1 2 3 REV. 4 5 6

TO SHOP DATE ISSUED REV. 1 2 3 REV. 4 5 6



NOTES:

1. TIE-IN AT EXISTING DRAIN PIT.

REV.	ISSUE	BY	DATE	PROC.	PROJ.	APPR.	DATE	PRELIM.	CONST.
4	ISSUED FOR CONSTRUCTION	CM	8-06-92		SAM	NGS	8-11-92		REV. 4
5	ISSUED FOR CONSTRUCTION	CM	9-09-92		SAM	NGS	9-18-92		REV. 5
6	ISSUED FOR CONSTRUCTION	BB	11-11-92		SAM	NGS	12-3-92		REV. 6
7	ISSUED FOR CONSTRUCTION	CM	3-19-93			NGS	3-24-93		REV. 7
8	AS BUILT	CM	7-09-93						REV. 8
9	GIANT AS-BUILT/MODIFICATIONS	SPS	4-18-95						

PRO-QUIP
TULSA — THE PRO-QUIP CORPORATION — OKLAHOMA

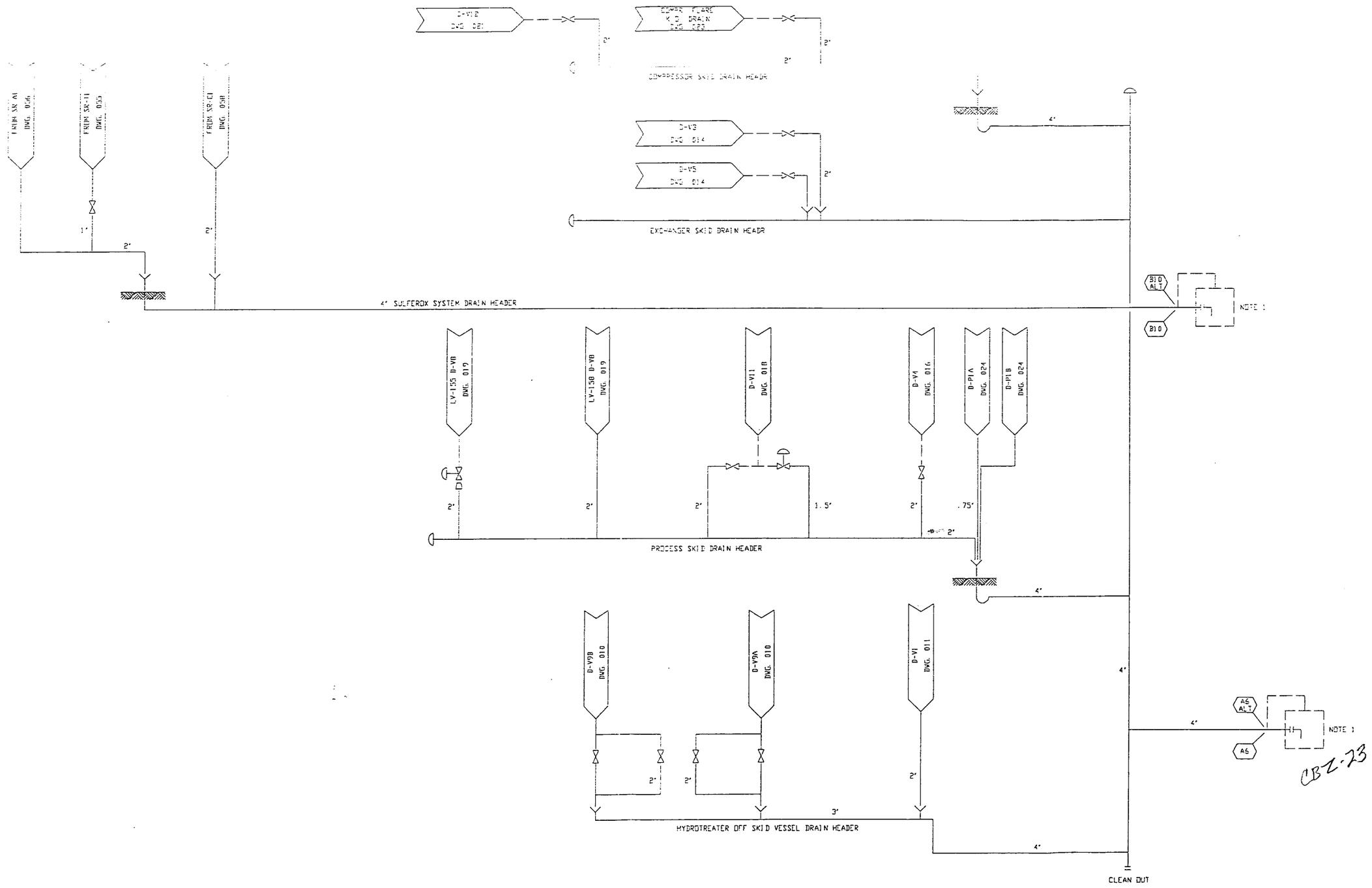
GIANT REFINING CO.

DRAWN SUC	DATE 2-19-92	PROJECT NUMBER	
CHECKED	DATE	91-3146	
APPROVED NGS	DATE 7-7-92		

MECHANICAL FLOW DIAGRAM
DRAIN SYSTEM

GALLUP — NEW MEXICO

SCALE | DWG D-34-80-100 | REV. 9



NOTE:
1. TIE-IN AT EXISTING DRAIN PIT.

REV.	ISSUE	BY	DATE	PROC.	PROJ.	APPR.	DATE	PRELIM.	CONST.
4	ISSUED FOR CONSTRUCTION	CM	8-06-92		SAM	NGS	8-11-92		REV. 4
5	ISSUED FOR CONSTRUCTION	CM	9-09-92		SAM	NGS	9-18-92		REV. 5
6	ISSUED FOR CONSTRUCTION	BB	11-11-92		SAM	NGS	12-3-92		REV. 6
7	ISSUED FOR CONSTRUCTION	CM	3-19-93			NGS	3-24-93		REV. 7
8	AS BUILT	CM	7-09-93						REV. 8
9	GIANT AS-BUILT/MODIFICATIONS	SPS	4-18-95						

PRO-QUIP
TULSA — THE PRO-QUIP CORPORATION — OKLAHOMA

GIANT REFINING CO.

DRAWN	SUC	DATE	2-19-92
CHECKED		DATE	
APPROVED	NGS	DATE	7-7-92

PROJECT NUMBER 91-3146

MECHANICAL FLOW DIAGRAM
DRAIN SYSTEM

GALLUP — NEW MEXICO

SCALE | DWG D-34-80-100 | REV. 9

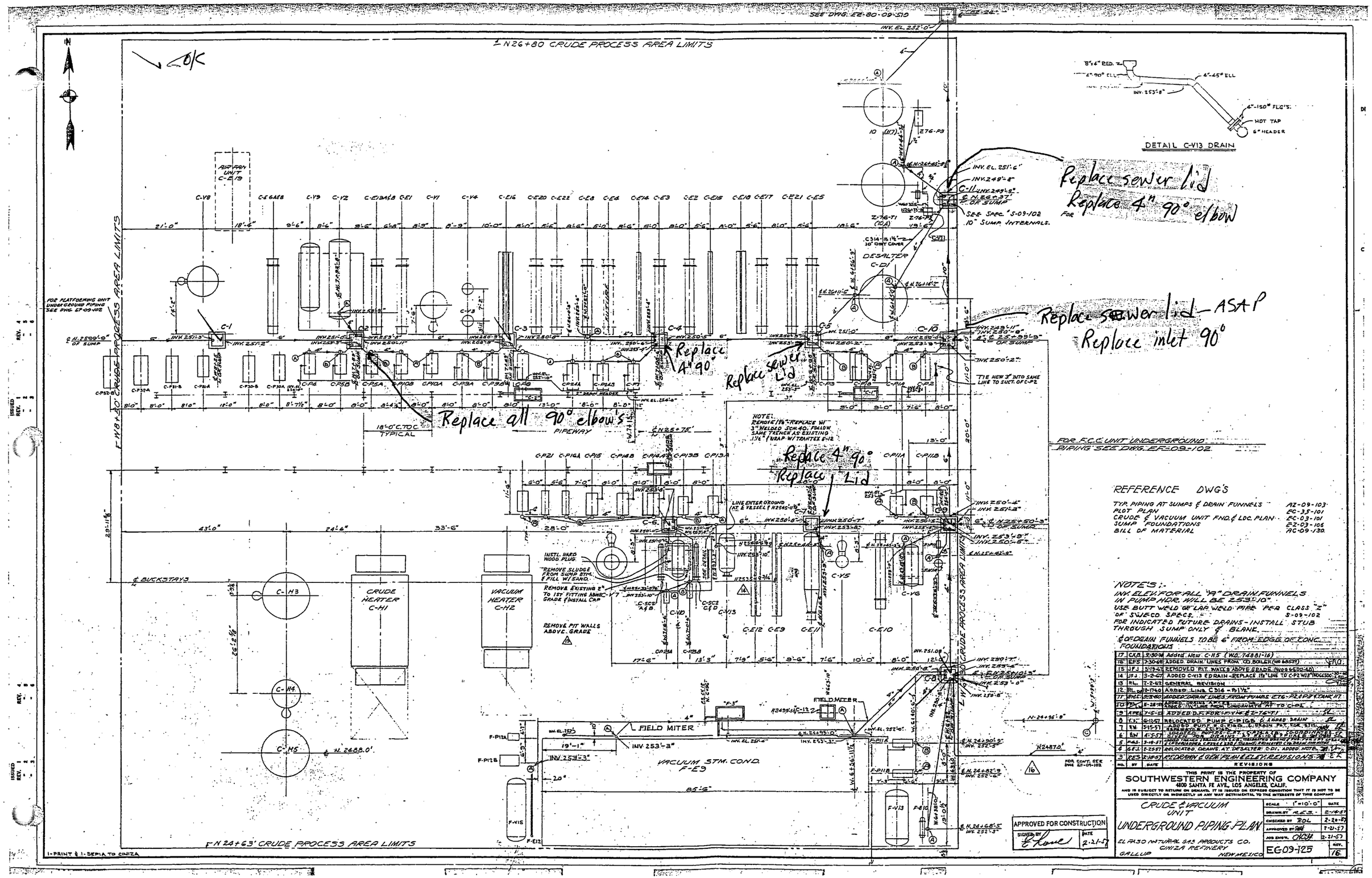
PLATFORMER UNIT AND NHT UNIT

UNDERGROUND PROCESS AND WASTEWATER LINES

PLATFORMER UNIT AND NHT UNIT

ID Number (Sewer Box or Catch Basin	Lateral Drains and/or Headers	Date Installed	Drawing Reference	Test Date	Pass/Fail/Repair Information	Test Water Column (Feet)	Test Duration (Minutes)	Signature	Investigation Results	Notes
P-1	P-E8 to P-1	1957	EP-09-102	10/31/02	Pass	3	30	B.Loos		
	P-V8/P-E9 to P1	1957	EP-09-102	10/31/02	Pass	3	30	B.Loos		
	P-P6 to P-P5A to P-1	1957	EP-09-102	10/31/02	Pass	3	30	B.Loos		
	P-P5B to P-1	1957	EP-09-102	10/31/02	Pass	3	30	B.Loos		
P-2	P-2 (From Plat Unit) flows to C-1(Crude Unit)	1957	EC-09-125 & EP-09-102	10/31/02	Pass	3	30	B.Loos		
	P-V9 to P-2	1957	EP-09-102	10/31/02	Pass	3	30	B.Loos		
	P-V6 to P-2	1957	EP-09-102	10/31/02	Pass	3	30	B.Loos		
	P-C1B to P-2	1957	EP-09-102	10/31/02	Pass	3	30	B.Loos		
	P-C1A to P-2	1957	EP-09-102	10/31/02	Pass	3	30	B.Loos		
	P-3 to P-2	1957	EP-09-102	10/31/02	Pass	3	30	B.Loos		
P-3	P-V18 to P-3	1957	EP-09-102	10/31/02	Pass	3	30	B.Loos		
	P-P2 to P-3	1957	EP-09-102	10/31/02	Pass	3	30	B.Loos		
	P-4 to P-3	1957	EP-09-102	10/31/02	Pass	3	30	B.Loos		
P-4	P-V23 to P-4	1957	EP-09-102	10/31/02	Pass	3	30	B.Loos		NHT
	P-V24 to P-4	1957	EP-09-102	10/31/02	Pass	3	30	B.Loos		NHT
	DC-P15 to P-P10 to P-4	1957	EP-09-102	10/31/02	Pass	3	30	B.Loos		NHT
P-7 N2509'-9" W1074'-0"	Z-89-V3 @ N2509'-9' to P-7	1957	EP-09-102	01/23/03	Pass	3	25	B.Loos		NHT End Drain
P-8 N2550'-3" W1048'-6"	P-7 to P-8	1957	EP-09-102	01/23/03	Pass	3	25	B.Loos		NHT
	Z89-V1 to P-8	1957	EP-09-102	01/23/03	Pass	3	25	B.Loos		NHT
P-6 N2550'-3" W990'-0"	P-8 to P-6	1957	EP-09-102	01/23/03	Pass	3	25	B.Loos		NHT
	H-F1/H-F2 to Line HE-2 to P-6	1957	EP-09-102	01/23/03	Pass	3	25	B.Loos		NHT
	HE-2 to P-6	1957	EP-09-102	01/23/03	Pass	3	25	B.Loos		NHT
	H-P2 to P-6	1957	EP-09-102	01/23/03	Pass	3	25	B.Loos		NHT
	H-V2 to H-P2 to P-6	1957	EP-09-102	01/23/03	Fail/cup by P-V3	0	0	B.Loos	Repaired 2/6/03 & Tested/Passed	NHT
P-5 N2598'-6" W980'-0"	P-6 To P-5	1957	EP-09-102	01/23/03	Pass	3	25	B.Loos		NHT
	H-P3B to H-P3A to P-5	1957	EP-09-102	01/23/03	Pass	3	25	B.Loos		NHT
	H-V4 to P-5	1957	EP-09-102	01/23/03	Pass	3	25	B.Loos		NHT
	H-V1 to P-5	1957	EP-09-102	01/23/03	Pass	3	25	B.Loos		NHT

UNDERGROUND PROCESS AND WASTEWATER LINES										
PLATFORMER UNIT AND NHT UNIT										
P-5 Flows N. @ W980"-0" thru Manhole 31 232.33 (ISOM Manhole) to EZ80-09-509-EP Map		1957	EP-09-102 , EZ80-09-509-EP &EZ80-09-Sewer2							NHT (Connects to ISOM Manhole)


N26+80 CRUDE PROCESS AREA LIMITS
SEE DWG. EE-80-09-510
INV. EL. 252'-0"
DETAIL C-V13 DRAIN
8"x6" RED.
6"-90° ELL
6"-45° ELL
INV. 253'-8"
6"-150# FLG'S.
HOT TAP
6" HEADER
Replace sewer lid
Replace 4" 90° elbow
INV. EL. 251'-6"
INV. 249'-8"
C-11
SEE SPEC. S-09-102
10" SUMP INTERNALS.
Replace sewer lid - ASAP
Replace inlet 90°
Replace 4" 90°
Replace sewer lid
Replace all 90° elbow's
Replace 4" 90°
Replace Lid
DESALTER
C-D1
FOR PLATFORMING UNIT UNDERGROUND PIPING SEE DWG. EF-09-102
AIR FAN UNIT C-E13
C-V8
C-E6 GAE8
C-V9
C-V12
C-E1 BA1,B
C-E1
C-V1
C-V4
C-E16
C-E20
C-E22
C-E8
C-E4
C-E14
C-E3
C-E2
C-E19
C-E18
C-E17
C-E21
C-E5
C-1
C-2
C-3
C-4
C-5
C-10
C-13
C-P52-B
C-P32-A
C-P31-B
C-P31-A
C-P30-B
C-P30A
C-P4
C-P5B
C-P5A
C-P10B
C-P10A
C-P9A
C-P9B
C-P8
C-P2A
C-P2A3
C-P7
C-P3
C-P1B
C-P1A
C-P2
TIE NEW 3" INTO SAME LINE TO SUCT. OF C-P2
18'-0" C.TO C. TYPICAL
PIPEWAY
C-P21
C-P16A
C-P15
C-P14B
C-P14A
C-P13B
C-P13A
C-P11A
C-P11B
FOR F.C.C. UNIT UNDERGROUND PIPING SEE DWG. EF-09-102.
NOTE: REMOVE 1½" REPLACE W/ 3" WELDED SCH. 40. FOLLOW SAME TRENCH AS EXISTING 1½" WRAP W/ TRANTEX 8-12
LINE ENTER GROUND AT ℄ VESSEL
C-G
C-7
C-Y5
C-V6
C-8
INSTL. HARD WOOD PLUG.
REMOVE SLUDGE FROM SUMP STM. & FILL W/ SAND.
REMOVE EXISTING 2" TO 1ST FITTING ABOVE GRADE & INSTALL CAP
REMOVE PIT WALLS ABOVE GRADE
C-V7
C-S22 A&B
C-V9
C-V13
C-E12
C-E9
C-E11
C-E10
C-P25A
C-P25B
℄ BUCKSTAYS
C-H3
C-H4
C-H5
CRUDE HEATER C-H1
VACUUM HEATER C-H2
N. 2488.0'
FIELD MITER
VACUUM STM. COND. F-E3
F-P12A
F-P12B
F-V15
F-E12
F-V13
F-E10
F-P11B
F-P11A
N24+63' CRUDE PROCESS AREA LIMITS
CRUDE PROCESS AREA LIMITS
APPROVED FOR CONSTRUCTION
SIGNED BY
DATE 2-21-57
REFERENCE DWG'S
TYP. PIPING AT SUMPS & DRAIN FUNNELS AZ-09-103
PLOT PLAN EC-35-101
CRUDE & VACUUM UNIT FND. & LOC. PLAN EC-03-101
SUMP FOUNDATIONS EZ-03-105
BILL OF MATERIAL AC-09-130
NOTES:
INV. ELEV. FOR ALL "A" DRAIN FUNNELS IN PUMP HDR. WILL BE 253'-10"
USE BUTT WELD OR LAP WELD PIPE PER CLASS "Z" OF SWECO SPECS. S-09-102
FOR INDICATED FUTURE DRAINS - INSTALL STUB THROUGH SUMP ONLY & BLANK.
℄ OF DRAIN FUNNELS TO BE 6" FROM EDGE OF CONC. FOUNDATIONS
17 CKB 9-30-58 Added New C-H5 (WO. 74881-16)
16 EFS 7-30-58 ADDED DRAIN LINES FROM CO. BOILER (WO 68539)
15 JFJ 5-19-57 REMOVED PIT WALLS ABOVE GRADE (WO 65200-40)
14 JFJ 3-2-57 ADDED C-V13 & DRAIN - REPLACE 1½" LINE TO C-P2 W/13" (WO 65200-40)
13 RL 2-2-57 GENERAL REVISION
12 RL 10-17-56 ADDED LINE C-514 - 1½"
11 RHC 12-5-56 ADDED DRAIN LINES FROM PUMPS C-P26, P25 & P24 TO TANK 17.
10 RL 8-28-56 ADDED DRAIN & VENT LINES FROM DESALTER "A" TO C-P25
9 KFRE 7-5-56 ADDED D.F. & HDR. & VALVE & 2" FROM
8 KAT 6-11-56 RELOCATED PUMP C-P16 & 6" & ADDED DRAIN
7 NW 5-15-56 ADDED SUMP & C-P16 & DRAIN FROM PUMP
6 BW 4-5-56 ADDED SUMP & DRAINS & VENT & SUMP & DRAINS
5 PGJ 3-16-56 ADDED DRAINS & VENTS & SUMP & DRAINS
4 GEJ 2-25-56 RELOCATED DRAINS AT DESALTER C-D1. ADDED NOTE.
3 RES 2-14-56 REDRAWN & GEN. PLAN & ELEV. REVISIONS
NO. BY DATE REVISIONS
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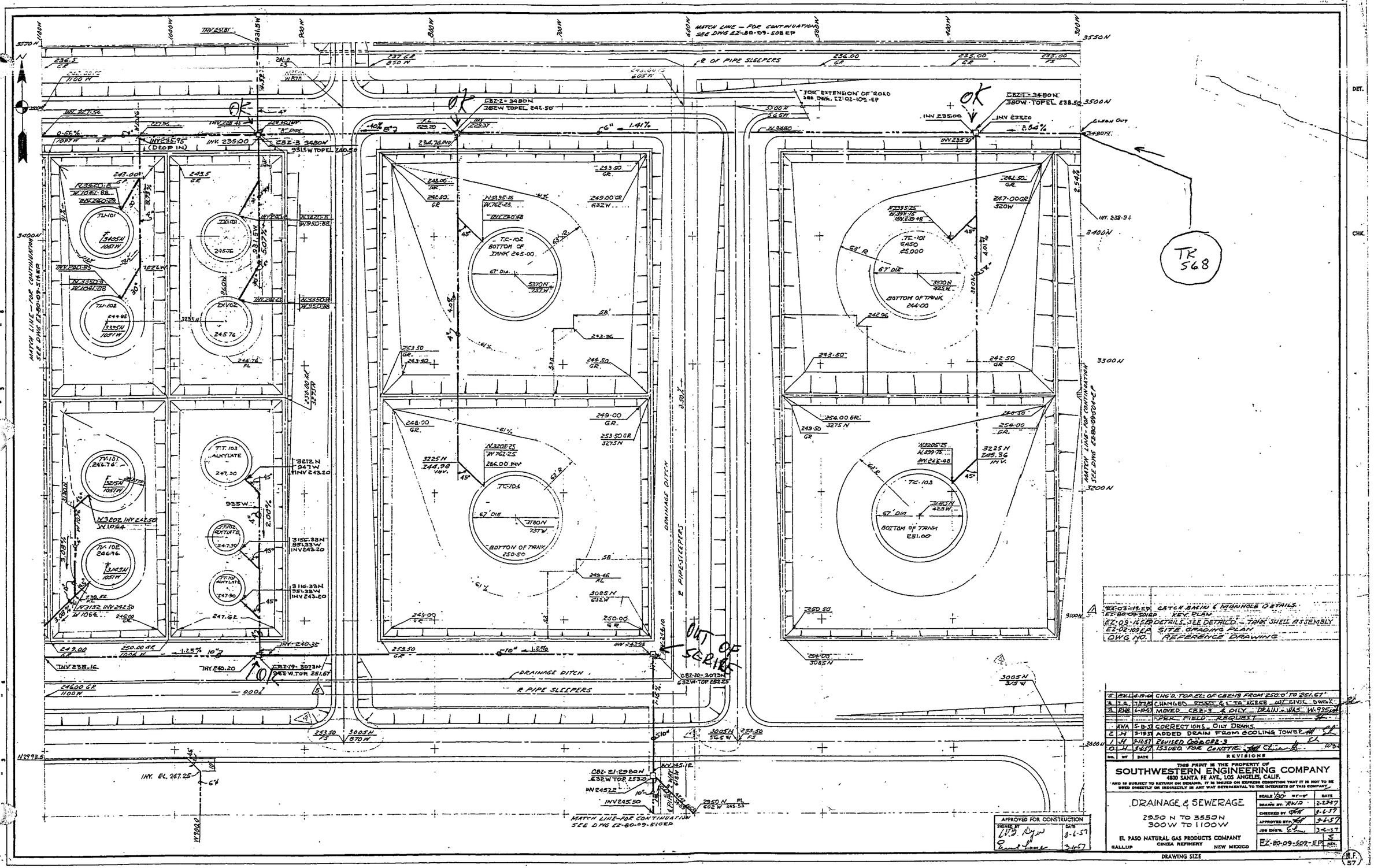
CRUDE & VACUUM UNIT
UNDERGROUND PIPING PLAN
EL PASO NATURAL GAS PRODUCTS CO.
GALLUP OJIZA REFINERY NEW MEXICO
SCALE 1" = 10'-0"
DRAWN BY R.E.S. 2-14-57
CHECKED BY RDL 2-20-57
APPROVED BY 7-21-57
JOB ENG'R. 2-21-57
EG09-125
REV. 16
1-PRINT & 1-SEPIA TO OJIZA



EZ-03-119-EP	CATCH BASIN & MANHOLE DETAILS	
EZ-80-09-501EP	KEY PLAN	
EZ-09-165EP	DETAILS - SEE DETAILD - TANK SHELL ASSEMBLY	
EZ-02-109EP	SITE GRADING PLAN	
DWG NO.	REFERENCE DRAWING	

NO.	BY	DATE	REVISIONS
5	P.W.L.	4-19-60	CHG'D. TOP. EL. OF CBZ-19 FROM 250.0' TO 251.67'
4	J.G.	7-22-58	CHANGED RIGHT & LEFT TO AGREE W/ CIVIL DWG'S
3	R.H.B.	6-10-57	MOVED CBZ-3 & OILY DRAIN - WAS W-935N
			PER FIELD REQUEST
	RWA	5-13-57	CORRECTIONS - OILY DRAINS
2	H	3-15-57	ADDED DRAIN FROM COOLING TOWER
1	H	3-12-57	REVISED COORD CBZ-3
0	H	3-6-57	ISSUED FOR CONSTR.

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DRAINAGE & SEWERAGE

2950 N TO 3550 N
300 W TO 1100 W

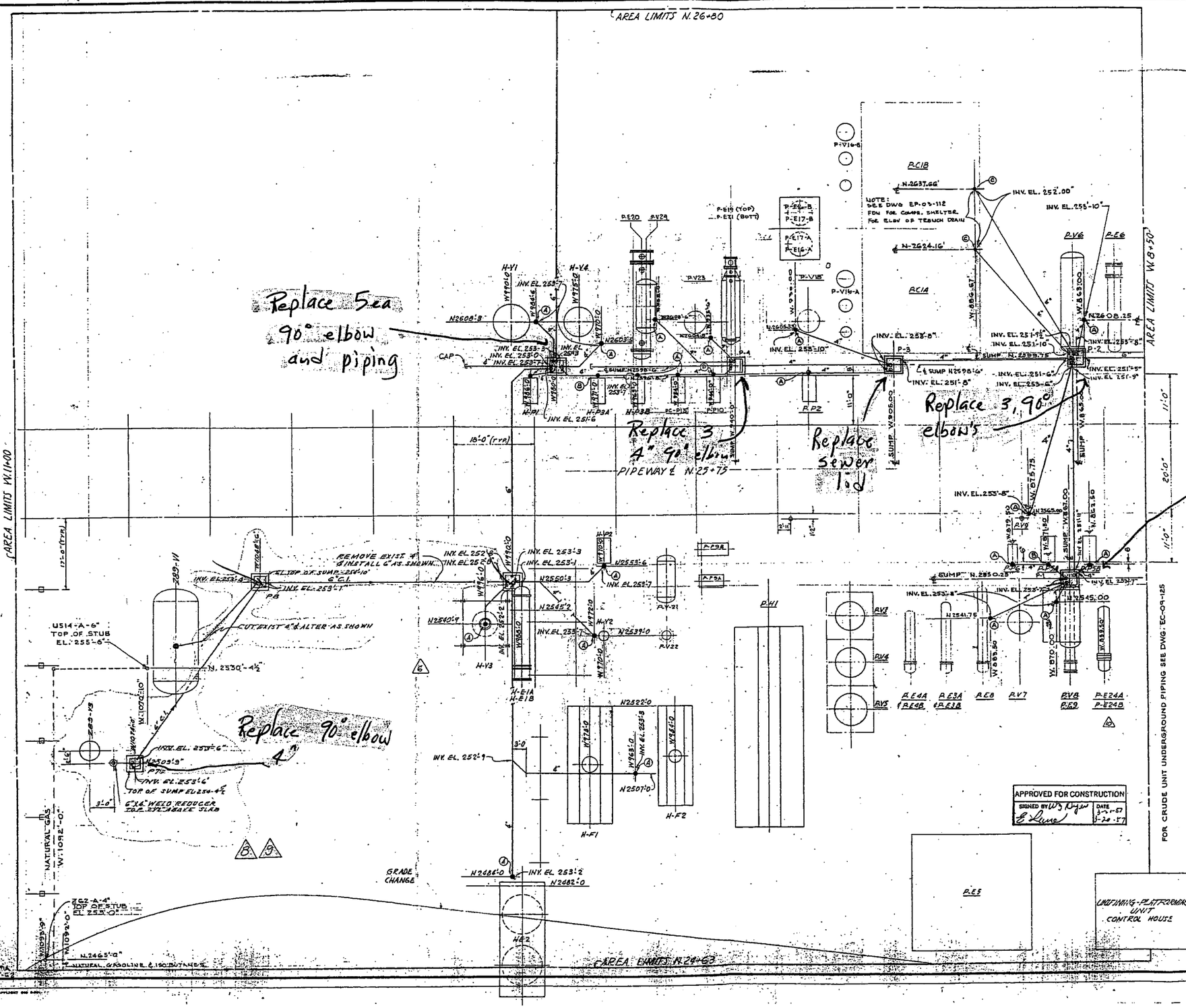
EL PASO NATURAL GAS PRODUCTS COMPANY
GALLUP CINIZA REFINERY NEW MEXICO

SCALE 1/30" = 1'-0"		DATE
DRAWN BY: RWA		2-23-57
CHECKED BY:		3-6-57
APPROVED BY:		3-6-57
JOB ENG'R:		3-6-57
EZ-80-09-509-EP		5 REV.

APPROVED FOR CONSTRUCTION
SIGNED BY: W.D. Dyer — DATE: 3-6-57
Ernest Lange — 3-6-57

DRAWING SIZE

M.F. 57



EQUIPMENT LIST

VESSELS

P-V1 OXYGEN STRIPPER
P-V2 UNIFINING STRIPPER RECEIVER
P-V3 PLATFORMING REACTOR #1
P-V4 PLATFORMING REACTOR #2
P-V5 PLATFORMING REACTOR #3
P-V6 PLATFORMING REACTOR PRODUCTS SEPARATOR
P-V7 STABILIZER
P-V8 STABILIZER RECEIVER
P-V9 CHEMICAL & CONDENSATE GAUGING TANK
P-V10 UNIFINING REACTOR
P-V11 UNIFINING REACTOR PRODUCTS SEPARATOR
P-V12 FLASH DRUM
P-V13 UNIFINING WATER INJECTION SUCTION TANK
P-V14 STARTING AIR RECEIVER (IN COMPRESSOR HOUSE)
P-V15 STARTING AIR RECEIVER (IN COMPRESSOR HOUSE)
P-V16 COMPRESSOR COOLING WATER MAKE-UP TANK
P-V18 PLATFORMING UNIT SURGE DRUM
Z-81-V-1 FUEL GAS BALANCE DRUM
P-V21 STEAM/WATER SEPARATOR
P-V22 BLOW DOWN DRUM

HEATERS

P-PH1 PLATFORMING CHARGE HEATER
P-PH2 UNIFINING HEATER

HEAT EXCHANGERS

P-E1 UNIFINING STRIPPER FEED EXCHANGER
P-E2 UNIFINING STRIPPER CONDENSER
P-E3 PLATFORMING COLD COMBINED FEED EXCH.
P-E4 PLATFORMING HOT COMBINED FEED EXCH.
P-E5 PLATFORMING REACTOR PRODUCTS CONDENSER
P-E6 PLATFORMING REACTOR PRODUCTS COOLER
10 P-E7 STABILIZER FEED-EXCHANGER
P-E8 STABILIZER REBOILER
P-E9 STABILIZER CONDENSER

10 P-E11 STABILIZER BOTTOMS FINAL COOLER
P-E12 UNIFINING NAPHTHA FEED EXCH.
P-E13 UNIFINING GAS PREHEATER
P-E14 UNIFINING REACTOR PRODUCTS CONDENSER
P-E15 UNIFINING REACTOR PRODUCTS COOLER
P-E16 RECYCLE GAS COMPRESSOR JACKET WATER COOLER
P-E17 RECYCLE GAS COMPRESSOR LUBE OIL COOLER
10 P-E24A & B STABILIZER FEED & BOTTOMS

COMPRESSORS

P-C1A & B RECYCLE GAS COMPRESSORS

PUMPS

P-P2 PLATFORMING REACTOR CHARGE PUMP
P-P3A & B UNIFINING STRIPPER REFLUX PUMPS
P-P4A & B UNIFINING STRIPPER REBOILER PUMPS
P-P5A & B STABILIZER REFLUX PUMPS
P-P6 CHEMICAL/CONDENSATE INJECTION PUMP
P-P7 UNIFINING REACTOR CHARGE PUMP
P-P8 UNIFINING WATER INJECTION PUMP (NOT SHOWN)
P-P9A STEAM/CONDENSATE P-V21 CHEC.
P-P9B " " " "

MISCELLANEOUS

P-J1 EXHAUSTER (NOT SHOWN)

REFERENCE DRAWINGS:
PLOTPLAN EP-35-101
SUMP DETAILS EZ-03-106
TYPICAL PIPING AT DRAIN SUMPS & FUNNELS AP-09-103
BILL OF MATERIAL AP-09-131

NOTES:-

1. FUTURE UNIFINING EQUIPMENT IS SHADED
2. INVERT ELEVATION FOR ALL "A" DRAIN FUNNELS IN PUMP DRAIN HEADER WILL BE 253'-10"

NO	BY	DATE	REVISIONS
9	H.C.H.	4-15-74	REVISED DRN. FUNNEL LOC.
8	H.C.H.	2-12-74	ADDED DRN SUMPS P-2, P-8 & E-2-1. DRNS.
7	R.F.	7-3-70	ADDED DRAINS @ N2684.0 & N2507.0
6	R.F.	5-5-70	ADDED SUMPS & DRAINS FOR NAPTHA HYDROTREATER
5	D.B.	1-11-69	ADDED SUMP & DRAINS FOR PLATFORMER STRIPPER
4	Rock	8-20-58	LOCATED STUB-UP FOR UNIT 262.
3	DON	7-23-58	RELOCATED P-P2 DRAIN
2	R.L.S.	2-19-58	LOCATED NAT. GAS STUBUP
1	R.A.	3-4-58	IS SUED FOR CONSTRUCTION, SEE DWG 11
10	R.A.	4-14-82	DELETED P-E7 & P-E11. ADDED P-E24 A & B.

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UNIFINING - PLATFORMING UNIT
UNDERGROUND PIPING PLAN
EL PASO NATURAL GAS PRODUCTS COMPANY
GALLUP CONTRA REFINERY NEW MEXICO

SCALE 1" = 1'-0" | DATE
DRAWN R.L.S. | 7-21-
CHECKED BY ROCK | 7-21-
APPROVED BY | 5-16-
JOB SUPR. | 5-
REV. 10

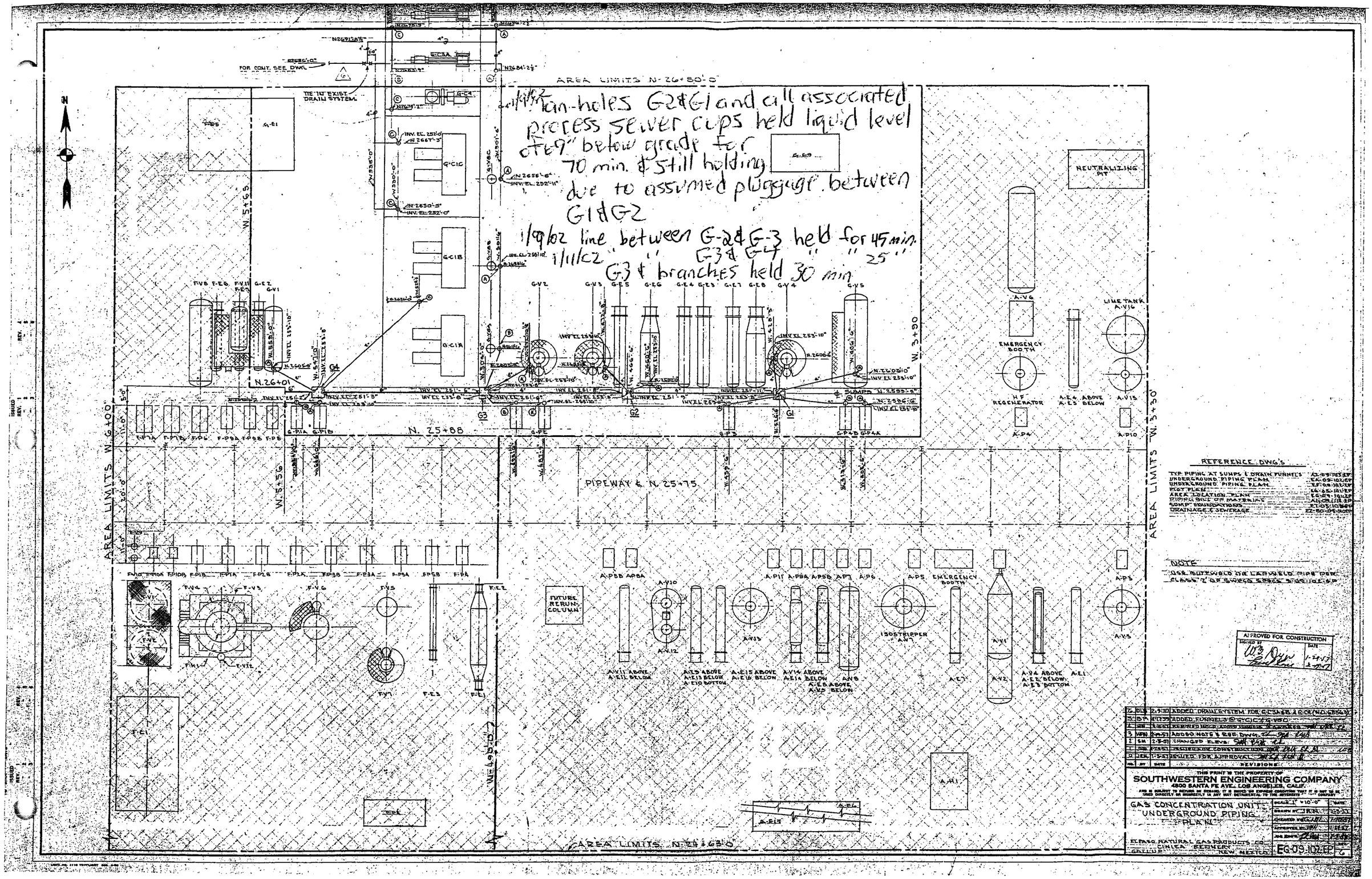
EP-09-102

GAS CONCENTRATION UNIT UNDERGROUND PIPING PLAN

UNDERGROUND PROCESS AND WASTEWATER LINES

Gas Concentration Unit Underground Piping Plan

ID Number (Sewer Box or Catch Basin	Lateral Drains and/or Headers	Date Installed	Drawing Reference	Test Date	Pass/Fail/ Repair Information	Test Water Column (Feet)	Test Duration (Minutes)	Signature	Investigation Results
G-1	G-P4A To G-P4B To G-1	1957	EG-09-102-EP	01/09/02	Pass	4	70	B.Loos	
	G-V5 To G-1	1957	EG-09-102-EP	01/09/02	Pass	4	70	B.Loos	
	G-V4 To G-1	1957	EG-09-102-EP	01/09/02	Pass	4	70	B.Loos	
	G-P3 To G-1	1957	EG-09-102-EP	01/09/02	Pass	4	70	B.Loos	
G-1 Flows W. To G-2		1957	EG-09-102-EP	01/09/02	Pass	4	70	B.Loos	
G-2	G-V3 To G-2	1957	EG-09-102-EP	01/09/02	Pass	4	70	B.Loos	
	G-E6 To G-2	1957	EG-09-102-EP	01/09/02	Pass	4	70	B.Loos	
G-2 Flows W. To G-3		1957	EG-09-102-EP	01/09/02	Pass	4	70	B.Loos	
G-3	G-V2 To G-3	1957	EG-09-102-EP	01/10/02	Pass	7	45	B.Loos	
	G-V8B To G-V8A To G-3	1957	EG-09-102-EP	01/10/02	Pass	7	45	B.Loos	
	G-P2B to G-P2A To G-3		EG-09-102-EP	01/10/02	Pass	7	45	B.Loos	
G-3 Flows W. To G-4			EG-09-102-EP	01/10/02	Pass	7	45	B.Loos	
G-4	G-C1A To G-4	1957	EG-09-102-EP	01/11/02	Pass	7	25	B.Loos	
	G-V1 To G-4	1957	EG-09-102-EP	01/11/02	Pass	7	25	B.Loos	
G-4 Flows W. To F-4		1957	EG-09-102-EP & EF-09-102 SH.1	01/11/02	Pass	7	25	B.Loos	



man-holes G2 & G1 and all associated process sewer cups held liquid level of 19" below grade for 70 min. & still holding due to assumed plugging between G1 & G2

1/9/02 line between G-2 & G-3 held for 45 min.
1/11/02 " " G3 & G4 " " 25 "
G3 & branches held 30 min

REFERENCE DWG'S

TYP. PIPING AT SUMPS & DRAIN FUNNELS	EG-09-103-EP
UNDERGROUND PIPING PLAN	EG-09-102-EP
UNDERGROUND PIPING PLAN	EF-09-102-EP
PIT PLAN	EG-65-101-EP
AREA LOCATION PLAN	EG-09-101-EP
PIPING BILL OF MATERIALS	AB-09-118-EP
SUMP FOUNDATIONS	EC-09-101-EP
DRAINAGE & SEWERAGE	EZ-50-09-1-001

NOTE

USE BUTTWELD OR LAP WELD PIPE PER CLASS "C" OR SWEG SPEC. 30-101-EP

APPROVED FOR CONSTRUCTION
SIGNED BY — DATE 1-24-02

NO.	BY	DATE	REVISIONS
6	DLS	2-9-10	ADDED DRAIN SYSTEM FOR G-C1, G-E5, & G-C1C (W.O. 65564)
5	DP	4-12-79	ADDED FUNNELS @ G-C1C & G-V6
4	MB	3-8-67	REVISED DESIGN, ADDED SUMPS, & ADDED G-E8
3	MPM	9-14-57	ADDED NOTE & REF. DWG.
2	GM	2-5-57	CHANGED ELEVS.
1	MB	7-24-57	INCORPORATE CONSTRUCTION
0	JRM	1-5-57	ISSUED FOR APPROVAL

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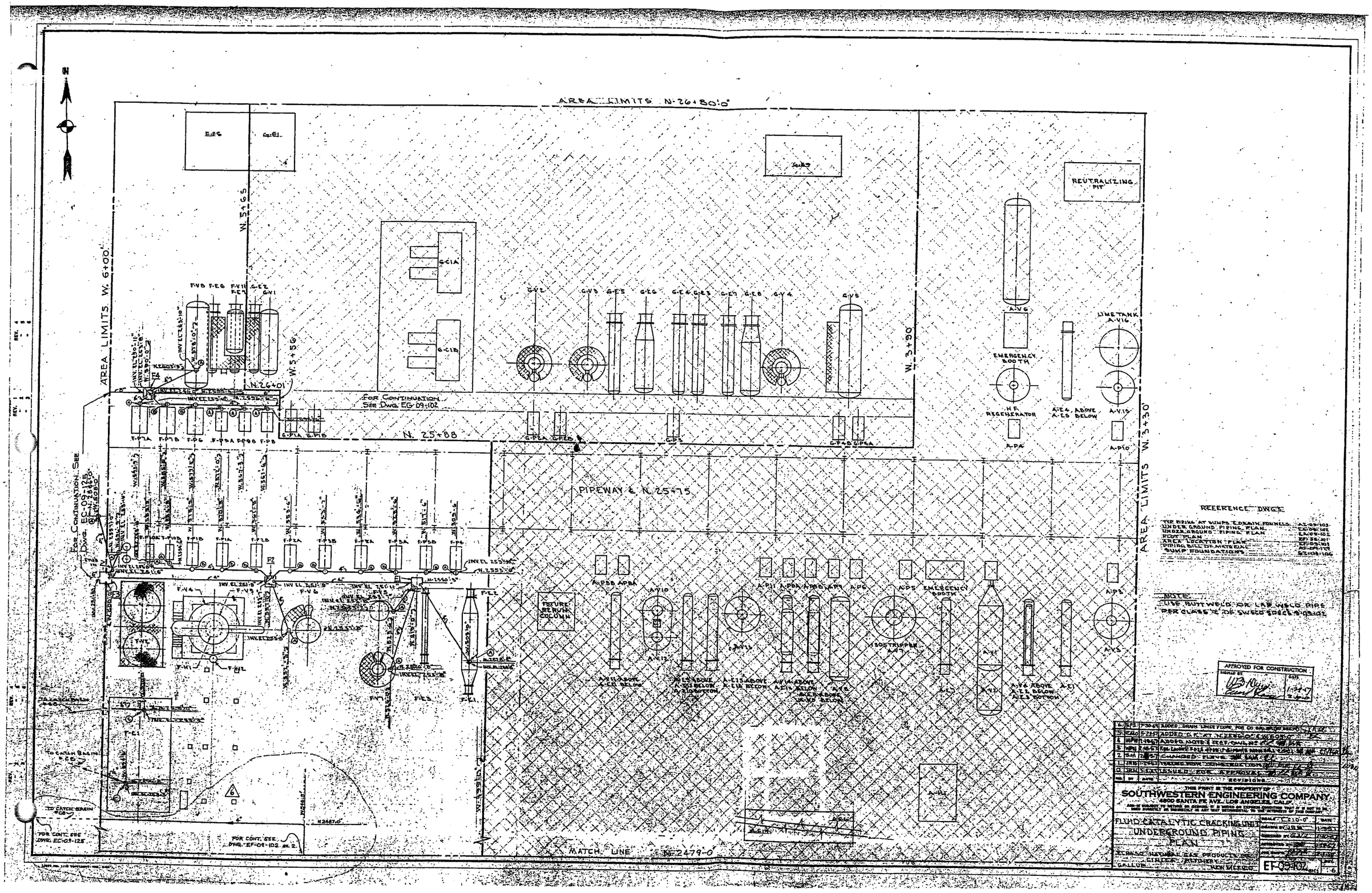
GAS CONCENTRATION UNIT
UNDERGROUND PIPING
"PLAN"

SCALE 1" = 10'-0"
DRAWN BY R.N. 1-25-57
CHECKED BY
APPROVED BY
JOB NO.

ELPASO NATURAL GAS PRODUCTS CO.
CONCA REFINERY
GALLUP NEW MEXICO

EG-09-102-EP REV. 6


AREA LIMITS N-26+80'0"
AREA LIMITS W. 6+00'
W. 5+65
W. 5+56
W. 3+90
W. 3+30'
N. 26+01
N. 25+88
PIPEWAY ℄ N. 25+75
MATCH LINE N-2479-0
FOR CONTINUATION SEE DWG. EG-09-102
FOR CONTINUATION SEE DWG. EC-09-125
FOR CONT. SEE DWG. EF-09-102 SH. 2
TO CATCH BASIN #C8
REUTRALIZING PIT
EMERGENCY BOOTH
H.F. REGENERATOR
LIME TANK A-V16
FUTURE RERUN COLUMN
ISOSTRIPPER
REFERENCE DWGS.
TYP. PIPING AT SUMPS & DRAIN FUNNELS
UNDER GROUND PIPING PLAN
UNDER GROUND PIPING PLAN
FLOW PLAN
AREA LOCATION PLAN
PIPING BILL OF MATERIAL
SUMP FOUNDATIONS
NOTE:
USE BUTTWELD OR LAP WELD PIPE PER CLASS 'E' OF SWELD SPECS S-09-102
APPROVED FOR CONSTRUCTION
REVISIONS
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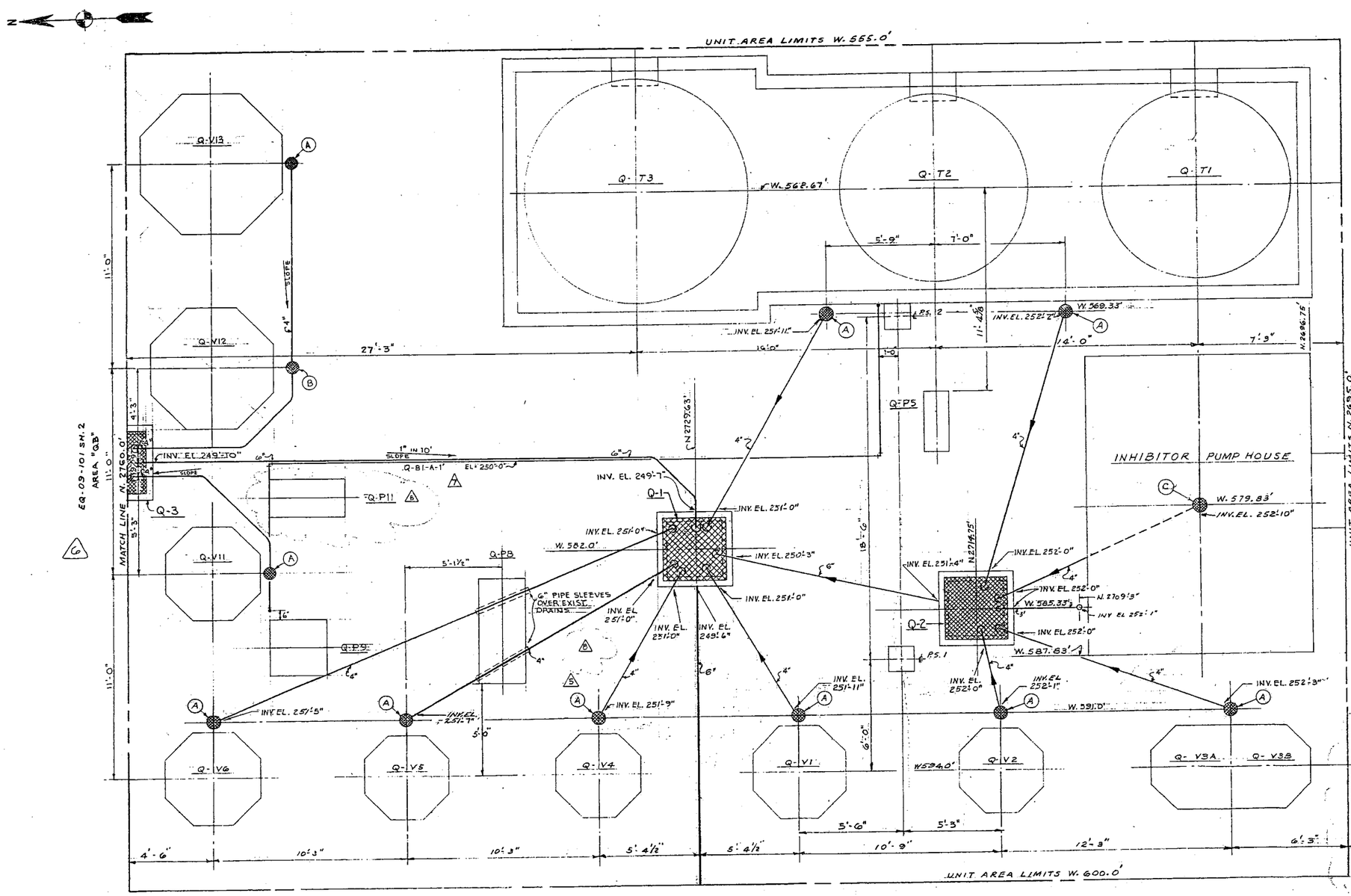
4800 SANTA FE AVE. LOS ANGELES, CALIF.
FLUID CATALYTIC CRACKING UNIT
UNDERGROUND PIPING PLAN
EL PASO NATURAL GAS PRODUCTS CO.
CINCO RIVERS
GALLUP NEW MEXICO
EF-09-102
6

TREATERS

UNDERGROUND PROCESS AND WASTEWATER LINES

Treaters

ID Number (Sewer Box or Catch Basin	Lateral Drains and/or Headers	Date Installed	Drawing Reference	Test Date	Pass/Fail/ Repair Information	Test Water Column (Feet)	Test Duration (Minutes)	Signature	Investigation Results
Q-1 N2729.63' W582.0'	Q-3 to Q-1	1957	EQ-09-101 SH.1	04/02/03	Pass	2.33+	30	B Loos	
	Q-T2 to Q-1	1957	EQ-09-101 SH.1	04/02/03	Pass	2.33+	30	B Loos	
	Q-V6 to Q-1	1957	EQ-09-101 SH.1	04/02/03	Pass	2.33+	30	B Loos	
	Q-V5 to Q-1	1957	EQ-09-101 SH.1	04/02/03	Pass	2.33+	30	B Loos	
	Q-V4 to Q-1	1957	EQ-09-101 SH.1	04/02/03	Pass	2.33+	30	B Loos	
	Q-V1 to Q-1	1957	EQ-09-101 SH.1	04/02/03	Pass	2.33+	30	B Loos	
	Q-2 to Q-1	1957	EQ-09-101 SH.1	04/02/03	Pass	2.33+	30	B Loos	
Q-1 West to CBZ-23			EZ-80-09-510EP						Continue DHT
Q-2 N2714.75' W585.33'	Q-T1 to Q-2	1957	EQ-09-101 SH.1	04/02/03	Pass	1+	30	Philbert Brown	
	Inhibitor Pump House to Q-2	1957	EQ-09-101 SH.1	04/02/03	Pass	1+	30	Philbert Brown	
	N2709'-3" W585.33' to Q-2	1957	EQ-09-101 SH.1	04/02/03	Pass	1+	30	Philbert Brown	
	Q-V3A/Q-V3B to Q-2	1957	EQ-09-101 SH.1	04/02/03	Pass	1+	30	Philbert Brown	
	Q-V2 to Q-2	1957	EQ-09-101 SH.1	04/02/03	Pass	1+	30	Philbert Brown	
Q-3 N2760.67' W576.00'	Q-V13 to Q-V12 to Q-3	1957	EQ-09-101 SH.1	04/03/03	Pass	2.5+	30	Philbert Brown	
	Q-V11 to Q-3	1957	EQ-09-101 SH.1	04/03/03	Pass	2.5+	30	Philbert Brown	
	Q-V17 to Q-V16 to Q-V9 to Q-V7 to Q-V14 to Q-3	1957	EQ-09-101 SH.2	04/03/03	Pass	2.5+	30	Philbert Brown	
	Q-T6/Q-P10 to Q-3	1957	EQ-09-101 SH.2	04/03/03	Pass	2.5+	30	Philbert Brown	
	Q-V15 to Q-3	1957	EQ-09-101 SH.2	04/03/03	Pass	2.5+	30	Philbert Brown	



GENERAL NOTES

1. BASE LINE EL. 0'-0" IS EQUIVALENT TO DATUM EL. 256'-0"
2. USE BW OR EW PIPE PER CLASS "Z" OF SWECO SPECS. 509-102

REFERENCE DRAWINGS

EQ-09-102	PIPING PLAN BELOW EL. 11'-0"
EQ-03-101	FOUNDATION LOCATION PLAN
EZ-35-101	PLOT PLAN
EZ-09-114	PIPING-FIRE PROTECTION-AREA "J" UNDERGROUND PIPING
AQ-09-111	BILL OF MATERIAL LIST (UNDERGROUND PIPING)
EZ-03-106	SUMP STRUCTURAL DETAILS.
AZ-09-103	TYPICAL PIPING AT DRAIN SUMPS & FUNNELS

No.	BY	DATE	REVISIONS
8	RAC	1/3/63	DELETED Q-P4, ADDED Q-V10 (CHGD. Q-P7 TO Q-P11)
7	EFS	4-7-49	ADDED Q-B1-A-1' (WO 68569 & 68560)
6	DLS	4-1-69	ADDED Q-P7, 8 & 9 - Q-V11, 12 & 13 (WO. 68560 & 68560)
5	JFJ	1-10-61	RELOCATED Q-P4 (WO 67583-10-30)
4	RMK	9-15-57	ADDED DRAIN FOR INHIBITOR BLDG SINK
3	APE	4-3-57	NORTH COORDINATION-SUMP-Q2-CHGD. TO N. 2714.75'
2	SM	2-18-57	ISSUED FOR CONSTRUCTION
1	JBS	12-22-56	REVISED PER D.O.P. COMMENTS - ISSUED FOR APPROVAL
0	J.A.P.	11-23-56	ISSUED FOR APPROVAL

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TREATING UNIT
PLAN
UNDERGROUND PIPING
AREA "GA"

EL PASO NATURAL GAS PRODUCTS CO.
CINIZA REFINERY
GALLUP NEW MEXICO

		DATE
SCALE 3/8"		
DRAWN BY	PATRICK	11-23-56
CHECKED BY	VELLS	11-23-56
APPROVED BY		11-23-56
JOB ENG'R		11-23-56

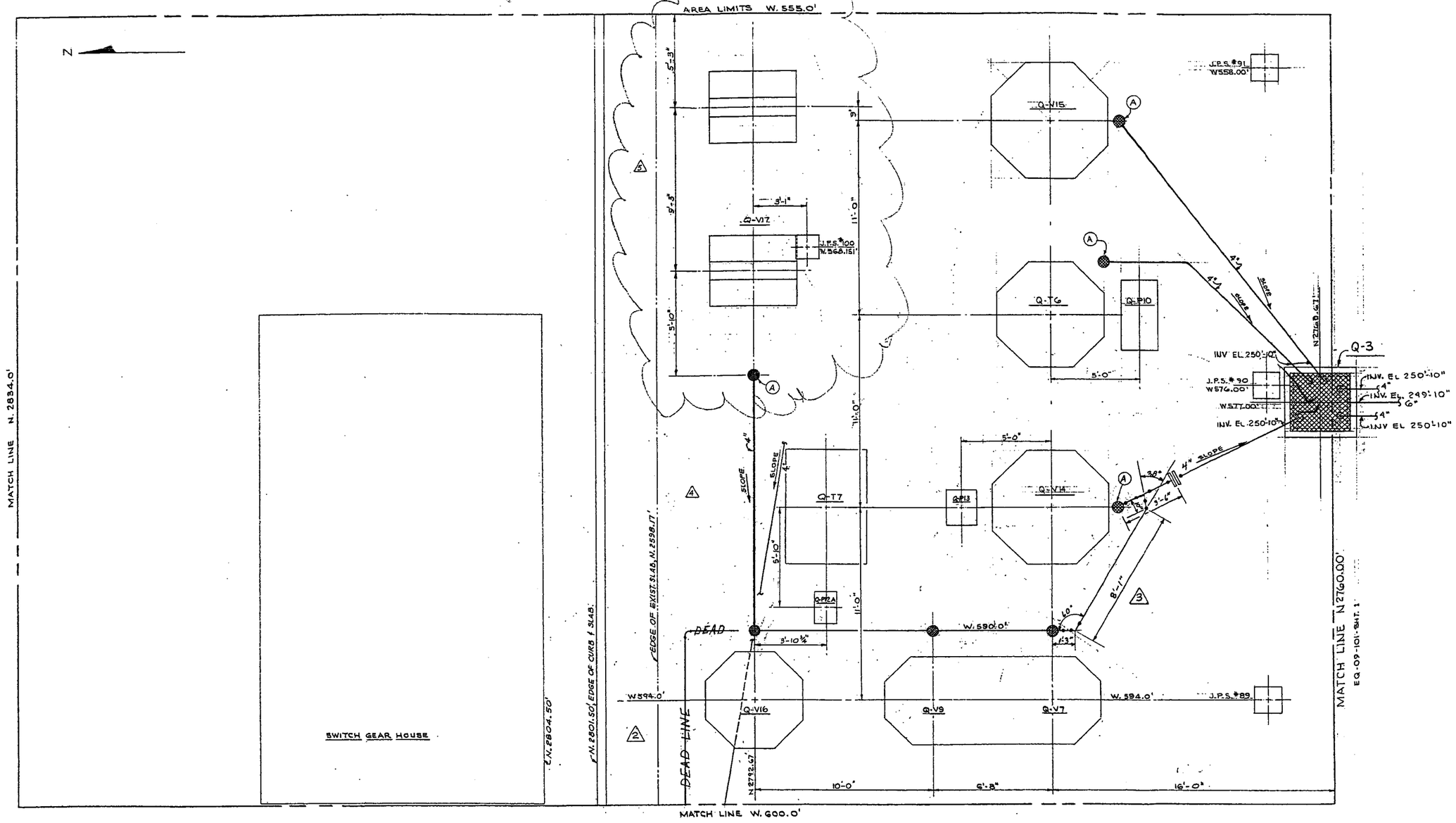
EQ-09-101 SH. 1 REV. 8

APPROVED FOR CONSTRUCTION
SIGNED BY J. A. Velle DATE 2/18/57
E. Lowe / RM

TO CUSTOMER ISSUED REV. 1 2 3 DATE REV. 4 5 6

TO SHOP ISSUED REV. 1 2 3 DATE REV. 4 5 6

2 PRINTS & 1 SEPIA TO CINIZA 5/23/62



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PRINT RECORD

NO.	DATE	TO	NO.	DATE	TO

REFERENCE DRAWINGS

EQ-09-101 SH. 1	AREA "QA"
EQ-09-106	PIPING PLAN

REVISIONS

NO.	DATE	BY	DESCRIPTION	APR
1	4-1-69	G.S.	ADDED Q-3, Q-P10, Q-T6, Q-V11 & 15 (W.O. 68560164)	
2	2-19-70	EFS	ADDED Q-V16 (W.O. 69608)	
3	1-24-77	SRB	ADDED LINE FROM Q-V7 & Q-V14 TO Q-3	
4	3-3-88	RAC	ADDED Q-P12A, Q-T7, Q-P13 & Q-V17, W/PIPING.	
5	5-31-88	RAC	RELOCATED Q-V17 & FUNNEL TO SLAT "AS BUILT."	

ENG. RECORD		DATE
DRAWN BY	LUNN	4-24-69
TRACED BY		
CHECKED BY		
APPROVED BY		
W.O. NO. AS BUILT 1960		

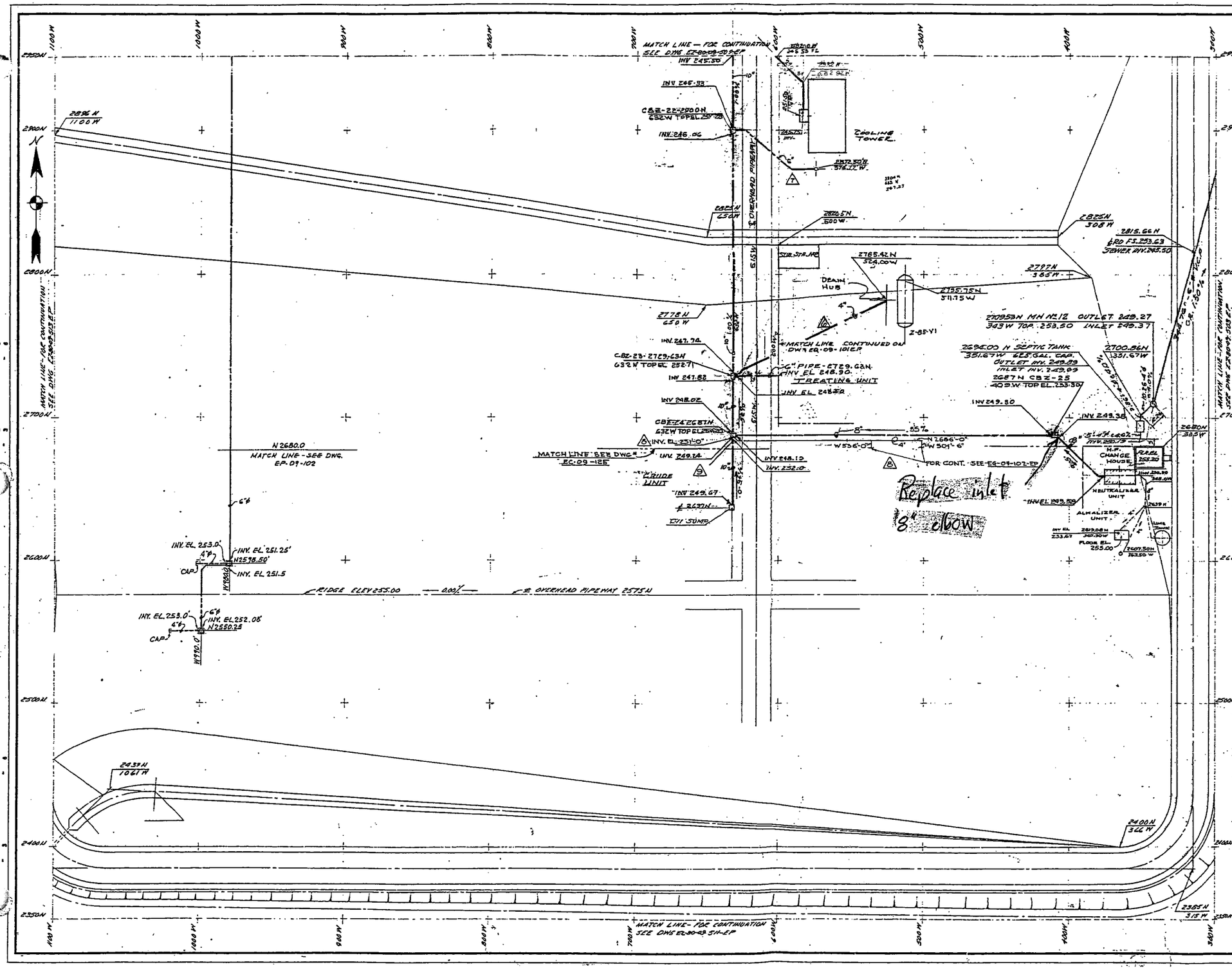
EL PASO NATURAL GAS PRODUCTS COMPANY

CINIZA REFINERY EL PASO, TEXAS GALLUP, N.M.

TREATING UNIT PLAN
UNDERGROUND PIPING
AREA "QB"

DWG. NO. EQ-09-101 SH 2

(5)



NOTE:-
H.F CHANGE HOUSE SHOWER DRAINS TO ENTER NEUTRALIZER UNIT FROM S.W. CORNER OF CHANGE HOUSE. SEPTIC TANKS 3' WIDE x 8' LONG x 5' DEEP. FIELD PROVIDE LEVEL BOTTOM 4'-4" BELOW INVERT OF PIPE.

APPROVED FOR CONSTRUCTION	
SIGNED BY	DATE
W B Dyer	3-1-57
E Lane	3-1-57

EG-09-102-EP	GAS CON. UNDERGROUND PIPING PLAN
AZ-SK-80	ENTRANCE TO CBZ-23 FROM TANK Z85V2
AZ-83-03-106EP	DRAIN & OVERFLOW PIPE DETAILS
EZ-03-106EP	SUMP DETAILS
EZ-80-09-501EP	KEY PLAN
EZ-02-110EP	SITE GRADING PLAN
DWG NO.	REFERENCE DRAWING

NO.	BY	DATE	REVISIONS
9	RNL	5-3-60	ADDED DRAIN FROM TANK 10 & CHGD. EL. OF CBZ-24
8	BB	4-17-59	ADDED DRAIN FROM G-C1C & G-V8C
7	EB	8-19-57	ADDED LN. FROM WATER FILTER TO MAIN LN. CBZ
6	JT	10-1-57	RELOCATED Z-85-V1
5	RWA	5-21-57	CHANGED POSITION OF Z-85-V1
4	[illegible]	6-16-57	REVISED SEPTIC TANKS
3	RWA	4-28-57	ADDED TANK Z-85-V12 CBZ-31
2	FW	1-8-57	SANITARY WASTE FROM H.F. CHANGE
2	RWA	1-8-57	CHANGED GRADE OUT FROM [illegible]
1	JT	3-15-57	RELEASED HOLD, REVISED BLDG. CBZ-22
0	JT	2-28-57	ISSUED FOR CONSTR.

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DRAINAGE & SEWERAGE
2350 N TO 2850 N
300 W TO 1100 W

EL PASO NATURAL GAS PRODUCTS COMPANY
GALLUP CINIZA REFINERY NEW MEXICO

SCALE 1/30 = 1'-0"	DATE
DRAWN BY [illegible]	2-24-57
CHECKED BY [illegible]	2-27-57
APPROVED BY [illegible]	2-27-57
JOB ENGR. [illegible]	2-28-57
EZ-80-09-510EP	REV. 9

DRAWING SIZE A-7028

TANK FARM

UNDERGROUND PROCESS AND WASTEWATER LINES

TANK FARM

ID Number (Sewer Box or Catch Basin	Lateral Drains and/or Headers	Date Installed	Drawing Reference	Test Date	Pass/Fail/ Repair Information	Test Water Column (Feet)	Test Duration (Minutes)	Signature	Investigation Results
CBZ-20 3073N 632W	CBZ-21 flows N under road to start of tank farm to CBZ-20	1957	EZ-80-509-EP, 95103-CC-104, & Z-01-100						
CBZ-19 3073N 935W	CBZ-20 flows W to CBZ-19	1957	EZ-80-509-EP, 95103-CC-104, & Z-01-100						
	Tk 453 drain flows S connects to Y from Tk 452 continues to Y from Tk 451 to CBZ-19	1957	EZ-80-509-EP, 95103-CC-104, & Z-01-100						
CBZ-18 3073N 1118W	CBZ-19 flows W to CBZ-18 (See EZ-80-09-514EP)	1957	EZ-80-509-EP, EZ-80-09-514EP, 95103-CC-104, & Z-01-100						
	Tk 227 drain flows S to join Tk 228 drain SW to CBZ-18	1957	EZ-80-509-EP, EZ-80-09-514EP, & Z-01-100						
	Tk 342 flows S to join Tk 343 drain S to CBZ-18	1957	EZ-80-509-EP, & Z-01-100						
CBZ-17 3073N 1260W	Tk 107 flows S to join Tk 108 drain onto S to CBZ-17	1957	EZ-80-09-514EP, & Z-01-100						
	CBZ-28 flows NW to CBZ-17	1957	EZ-80-09-514EP						
CBZ-28 2993.5N 1182.5W	Sump B-6 (Biolerhouse) flows N to CBZ-28		EZ-80-09-513EP, EZ-80-09-514EP & EZ-81-09-102EP						
CBZ-16 3073N 1350W	CBZ-17 flows W to CBZ-16	1957	EZ-80-09-514EP, & Z-01-100						
	Tk 321 drain flows S to join Tk 232 drain onto CBZ-16	1957	EZ-80-09-514EP, & Z-01-100						
CBZ-15 3073N 1440W	CBZ-16 flows W to CBZ-15	1957	EZ-80-09-514EP, & Z-01-100						
	Tk 235 drain flows S to join Tk 106 onto CBZ-15	1957	EZ-80-09-514EP, & Z-01-100						
CBZ-14 3073N 1493W	CBZ-15 flows W to CBZ-14	1957	EZ-80-09-514EP, & Z-01-100						
	CBZ-30 flows N to CBZ-14	1957	EZ-80-09-513EP & EZ-80-09-514EP						

UNDERGROUND PROCESS AND WASTEWATER LINES

TANK FARM

ID Number (Sewer Box or Catch Basin	Lateral Drains and/or Headers	Date Installed	Drawing Reference	Test Date	Pass/Fail/ Repair Information	Test Water Column (Feet)	Test Duration (Minutes)	Signature	Investigation Results
CBZ-1 3480N 380W	Start Tk 568 drain flows N and W to CBZ-1	1957	EZ-80-509-EP, 95103-CC-104, & Z-01-100						
	Tk 570 drain flows N to Y from Tk 569 & onto CBZ-1	1957	EZ-80-509-EP, 95103-CC-104, & Z-01-100						
CBZ-2 3480N 782W	CBZ-1 flows W to CBZ-2	1957	EZ-80-509-EP, 95103-CC-104, & Z-01-100						
	Tk 572 drain flows N to join Y from Tk 571drain to CBZ-2	1957	EZ-80-509-EP, 95103-CC-104, & Z-01-100						
CBZ-3 3480N 931.5W	Tk 112 drain flows N to join Y from Tk 111 to CBZ-3	1957	EZ-80-509-EP, 95103-CC-104, & Z-01-100						
	Tk 226 drain flows S to CBZ-3	1957	EZ-80-508EP, EZ-80-509-EP, 95103-CC-104, & Z-01-100						
Underground? "T" 3480N 1026W	CBZ-3 flows W to "T"	1957	EZ-80-09-509EP & Z-01-100						
	Tk 116 drain flows N to join Y from Tk 115 drain to "T"	1957	EZ-80-09-509EP & Z-01-100						
CBZ-4 3480N 1233W	CBZ-3 through "T" to CBZ-4	1957	EZ-80-09-509EP, EZ-80-09-514EP, & Z-01-100						
	Tk 567 drain flows N to CBZ-4	???	EZ-80-09-514EP, & Z-01-100						
	Tk 225 drain flows S to CBZ-4	1957	EZ-80-09-514EP, EZ-80-09-515EP, & Z-01-100						
CBZ-5 3480N 1325W	CBZ-4 flows W to CBZ-5	1957	EZ-80-09-514EP, & Z-01-100						
	Tk 338 flows N to CBZ-5	1957	EZ-80-09-514EP, & Z-01-100						
	Tk 339 flows S to CBZ-5	1957	EZ-80-09-514EP, EZ-80-09-515EP, & Z-01-100						
CBZ-6 3480N 1493W	CBZ-5 flows W to CBZ-6	1957	EZ-80-09-514EP, & Z-01-100						
	Drain fr conc floor for booster & charge pumps flows S to CBZ-6	1957	EZ-80-09-514EP, & Z-01-100						
	CBZ-14 flows N to CBZ-6	1957	EZ-80-09-514EP, & Z-01-100						

UNDERGROUND PROCESS AND WASTEWATER LINES

TANK FARM

ID Number (Sewer Box or Catch Basin	Lateral Drains and/or Headers	Date Installed	Drawing Reference	Test Date	Pass/Fail/ Repair Information	Test Water Column (Feet)	Test Duration (Minutes)	Signature	Investigation Results
CBZ-26 3480N 1750W	CBZ-6 flows W to CBZ-26	1957	EZ-80-09-514EP, & Z-01-100						
	Tk 101 drain flows N to CBZ-26	1957	EZ-80-09-514EP, & Z-01-100						
	Tk 102 drain flows N to join Tk 101 drain onto CBZ-26	Prior 1995	EZ-80-514EP, 95103-CC-104, & Z-01-100						
	CBZ-13 flows S to CBZ-26	1957	EZ-80-09-514EP, EZ-80-09-515EP, & Z-01-100						
CBZ-27 3480N 1850W	CBZ-26 flows W to CBZ-27	1957	EZ-80-09-514EP, & Z-01-100						
API Separator	CBZ-27 flows N NW to API Separator	1957	EZ-80-09-514EP & EZ-80-08-515EP						Now flows to New API Pit (2004)
CBZ-7 3745N 370W	Catch Basin at RRR pumped up to CBZ-7		95103-CC-104						
	Tk 582 drain flows N to CBZ-7	1957	EZ-80-09-508EP & Z-01-100						
CBZ-8 3745N 675W	CBZ-7 flows W to CBZ-8	1957	EZ-80-09-508EP & Z-01-100						
	Tk 581 drain flows NW to CBZ-8	1957	EZ-80-09-508EP & Z-01-100						
	Tk 575 drain flows N to join Tk 577 drain to NE to CBZ-8	1957	EZ-80-09-508EP & Z-01-100						
CBZ-9 3985N 675W	CBZ-31 uses pump to pump to CBZ-9	1957	EZ-80-09-508EP & Z-01-100						
CBZ-31 3939N 460W	Drain N3850 W460 flow N to join "Y" from Tk 574 drain to CBZ-31	1957	EZ-80-09-508EP & Z-01-100						
	CBZ-32 flows W to CBZ-31	1957	EZ-80-09-508EP & Z-01-100						
CBZ-32 3939N 425W	Tk 576 drain flows NW to CBZ-32	1957	EZ-80-09-508EP & Z-01-100						
CBZ-10 3985N 780W	CBZ-9 flows W to CBZ-10	1957	EZ-80-09-508EP & Z-01-100						
	Tk 579 drain flows W to CBZ-10	1957	EZ-80-09-508EP & Z-01-100						

UNDERGROUND PROCESS AND WASTEWATER LINES

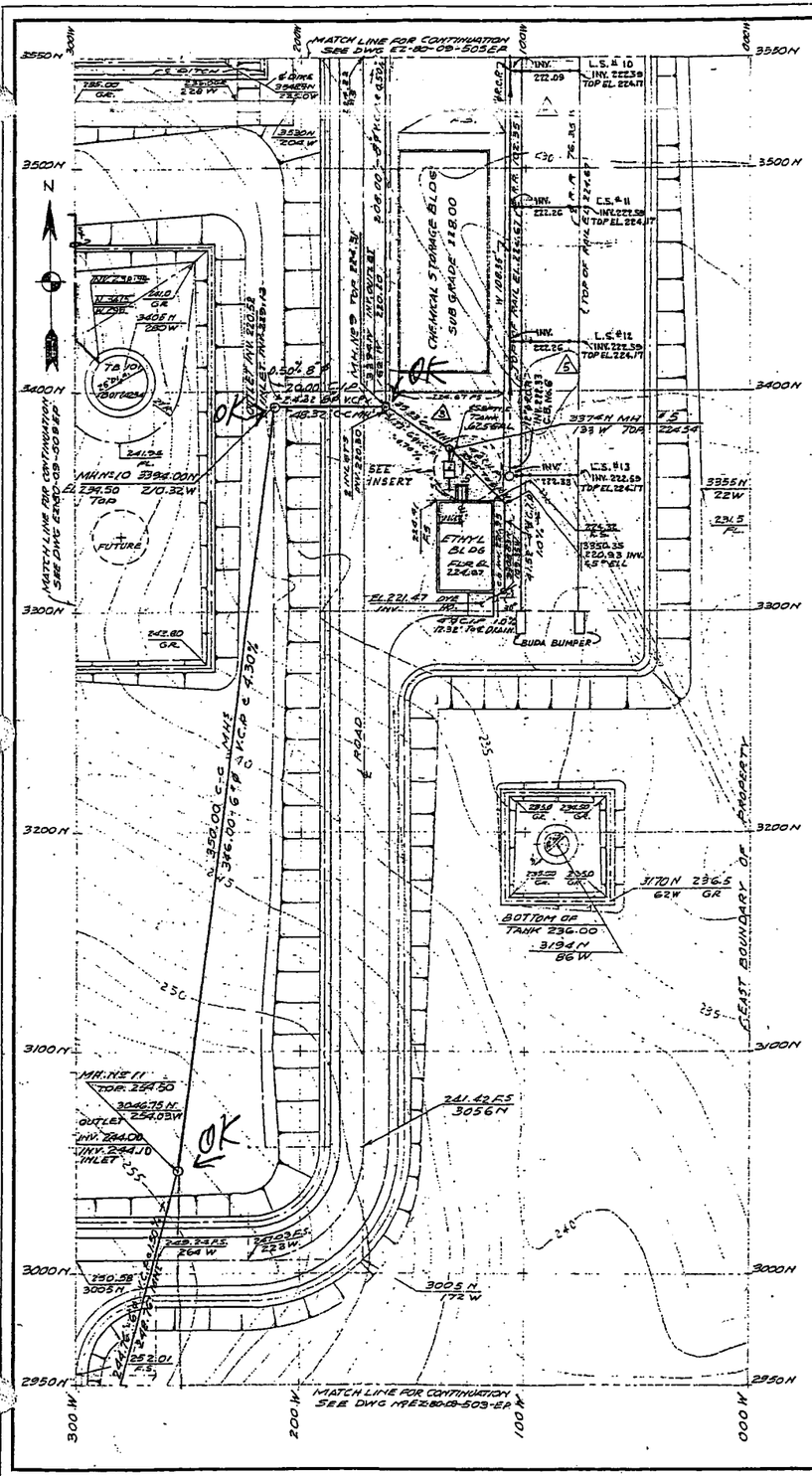
TANK FARM

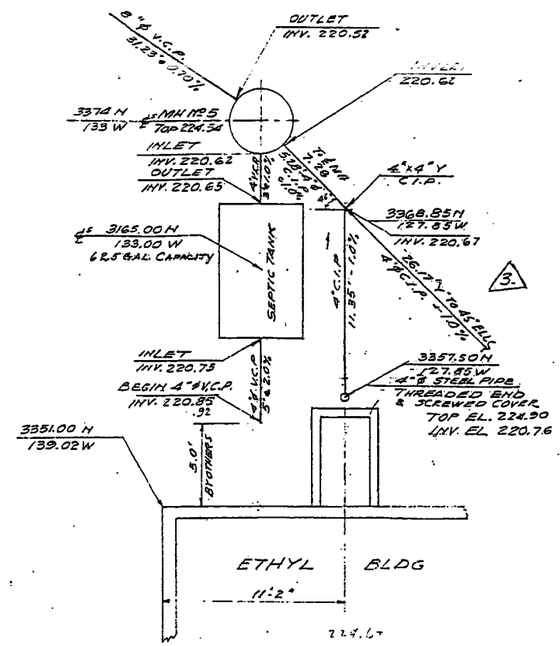
ID Number (Sewer Box or Catch Basin	Lateral Drains and/or Headers	Date Installed	Drawing Reference	Test Date	Pass/Fail/ Repair Information	Test Water Column (Feet)	Test Duration (Minutes)	Signature	Investigation Results
CBZ-11 3985N 1136W	CBZ-10 flows W to CBZ-11	1957	EZ-80-09-508EP, EZ-80-09-515EP & Z-01-100						
CBZ-12 3985N 1492W	CBZ-11 flows W to CBZ-12	1957	EZ-80-09-515EP & Z-01-100						
	Tk 345,Tk344 & Tk 337 drains to CBZ-12???	AFTER 1957	NO Drawing						
CBZ-13 3985N 1750W	CBZ-12 flows W to CBZ-13	1957	EZ-80-09-515EP & Z-01-100						
CBZ-30 2931.17N 1485.50W	Mkt 4 drain N to Mkt 1drain to Mkt 2drain to Mkt 3 drain E & NE to CBZ-30	1957	EZ-80-09-513EP						
	CBZ-29 N to CBZ-30	1957	EZ-80-09-513EP						
CBZ-29 2737.82N 1485.50W	Drains fr old Fuel Oil Loading N2618.82 W1619.75 & N2649.94 W1595.0 flow NW to CBZ-29	1957	EZ-80-09-513EP						
	2781.17N drain pipe to CBZ-29	1957	EZ-80-09-513EP						I & E Shop now
	2756.17N drain pipe to CBZ-29	1957	EZ-80-09-513EP						I & E Shop now
	2731.17N drain pipe to CBZ-29	1957	EZ-80-09-513EP						I & E Shop now
	Truck Loading, 3 Area Drains flow to sump, then sump flows to CBZ-29	1957	EZ-80-09-513EP & EZ-09-250EP						
	4" Oily & Acid Drain from Lab Sinks & Floor to tie in between Truck Loading Sump and CBZ-29	1957	EZ-80-09-513EP, EZ-09-250EP & EZ-09-174						

UNDERGROUND PROCESS AND WASTEWATER LINES

TANK FARM

ID Number (Sewer Box or Catch Basin	Lateral Drains and/or Headers	Date Installed	Drawing Reference	Test Date	Pass/Fail/ Repair Information	Test Water Column (Feet)	Test Duration (Minutes)	Signature	Investigation Results
C.B. No. 5 ~3590N 112.35W	RRR Drains L S (Loading Spot) #13 to LS #12 to LS #11 to LS #10 to CB #5	1957	EZ-80-09-504EP EZ-80-09-505EP						RRR
C.B. No. 4	LS #9, LS #8, LS #7, & LS #6 "T" into C. B. No.5 to C. B. No.4	1957	EZ-80-09-505EP						RRR
C.B. No. 3	C.B. No.4 to C.B. No. 3	1957	EZ-80-09-505EP						RRR
C.B. No. 2 3870N 112.35W	LS#5, LS#4, & LS#3 "T" in C.B. No.3 to C.B. No.2	1957	EZ-80-09-505EP						RRR
C.B. No. 1	LS #2 & LS #1 "T" to C.B. No.2 to C.B. No. 1	1957	EZ-80-09-505EP						RRR
C.B. No.1 to Sewerage Basin		1957	EZ-80-09-506EP	Made area where MH No. 8 was to a large concrete containment, sewage basin taken out of service					
MH No.7 3739.58N 137.00W	MH No.6 to MH No. 7	1957	EZ-80-09-505EP						RRR
MH No.8 4089.58N 137.00W	MH No.7 N to MH No.8	1957	EZ-80-09-505EP	Made area where MH No. 8 was to a large concrete containment, sewage basin taken out of service					
MH No.8 to Sewerage Basin		1957	EZ -80-09-505EP EZ-80-09-506EP	Made area where MH No. 8 was to a large concrete containment, sewage basin taken out of service					





INSERT
Scale: 1/4" = 1.0'

NOTE: SEPTIC TANKS: 3' WIDE x 8' LONG x 5'-0" DEEP. FIELD PROVIDE LEVEL BOTTOM. 4 1/4" BELOW INVERT OF PIPE. BATTERY OF SEPTIC TANKS ARE 625 GAL TANKS IN SERIES.

EZ-80-09-503	CATCH BASINS FOR TANK CAR DRAINAGE
EZ-80-09-505	TYP. SECT. OF DRAIN FROM R.R. TRACKS TO SEWER MAIN
EZ-80-09-504EP	CATCH BASIN & MANHOLE DETAILS
EZ-80-09-501EP	KEY PLAN
EZ-80-09-506EP	DETAILS SEE DETAIL "D" TANK SHELL ASSEMBLY
EZ-80-09-502EP	SITE GRADING PLAN
DWG NO.	REFERENCE DRAWINGS

NO.	BY	DATE	REVISIONS
5	JFJ	10/10/56	CHNG. C.B. #1 TO 6
4	JFJ	7-31-56	ADDED C.B., 12"Ø C.I.P. & R.R. TRACK DRAINAGE (IND EZ80-50)
3	JH	5-11-57	ADDED NOTE - REVISED SEPTIC TANKS
2	JH	4-8-57	ADDED SEWER LINE FROM M.P. CHANGE HOUSE
1	JH	3-22-57	ISSUED FOR CONST.
0	JH	3-19-57	ISSUED FOR APPROVAL

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SEWERAGE & DRAINAGE PLAN
2950N TO 3550N
000W TO 300W

EL PASO NATURAL GAS PRODUCTS COMPANY
GALLUP — CHIZA REFINERY — NEW MEXICO

		DATE
SCALE 1/30" = 1'-0"		
DRAWN BY	FRED W.	3-15-57
CHECKED BY	JH	3-18-57
APPROVED BY		3-19-57
JOB ENG'R		3-21-57

EZ 80-09-504EP

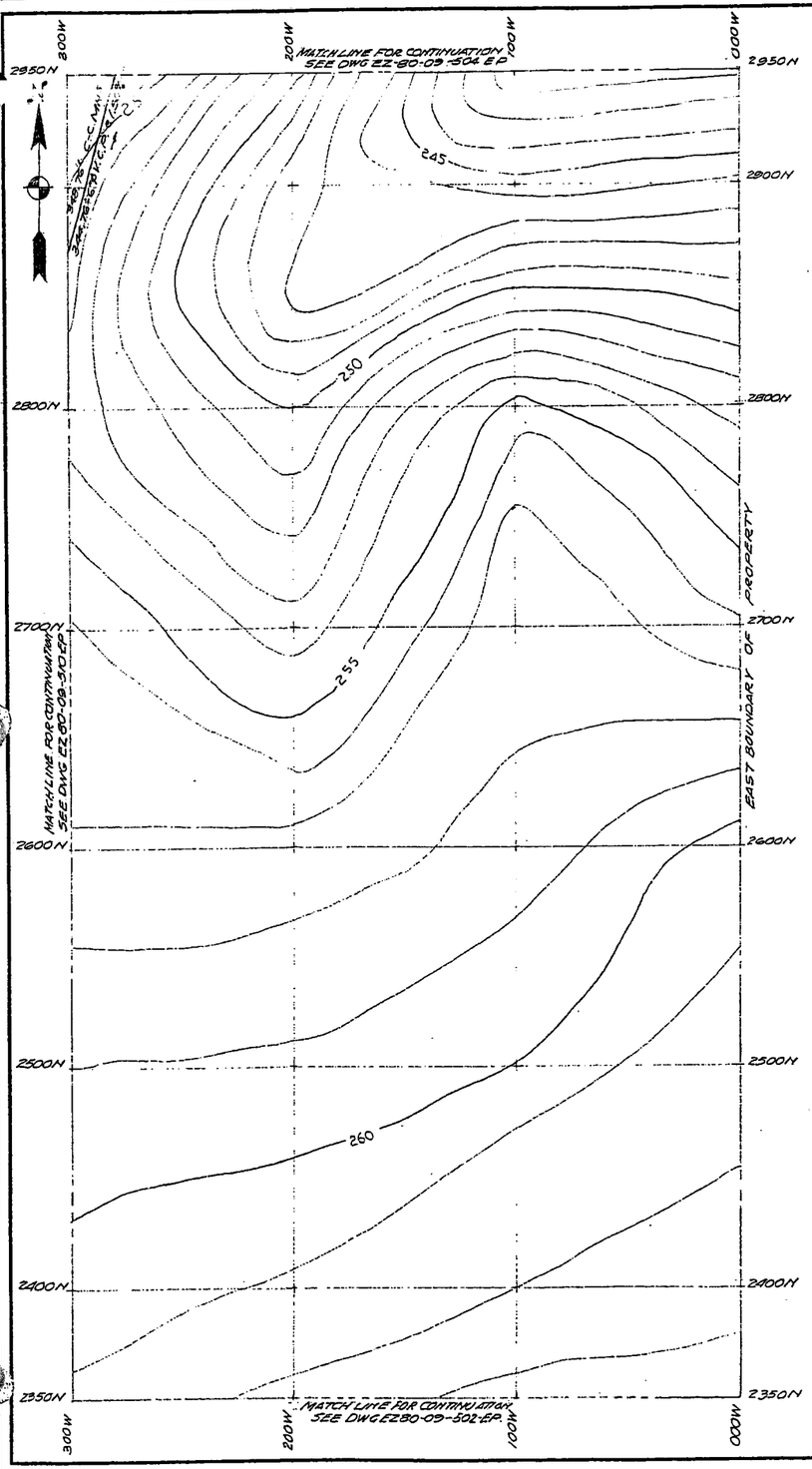
A-7026

DRAWING SIZE

APPROVED FOR CONSTRUCTION
SIGNED BY — DATE 3-21-57

DET. CHK.

REV. 4 5 6 — REV. 1 2 3 — DATE — TO CUSTOMER ISSUED



EZ-03-113 EP	CATCH BASIN & MANHOLE DETAILS
EZ-02-103 EP	SITE GRADING PLAN
EZ80-09-501 EP	KEY MAP - SEWERAGE & DRAINAGE
DWG No	REFERENCE DRAWINGS

NO.	BY	DATE	REVISIONS
0	JH	4-8-57	ISSUED FOR CONSTR.

APPROVED FOR CONSTRUCTION

SIGNED BY	DATE
E Lane	4-8-57
W B Dyer	4-8-57

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SEWERAGE & DRAINAGE PLAN
2350 N TO 2950 N
000 W TO 300 W

EL PASO NATURAL GAS PRODUCTS COMPANY
CIMIEA REFINERY
GALLUP NEW MEXICO.

SCALE 1/30" = 1'-0"		DATE
DRAWN BY	FRED W.	4-4-57
CHECKED BY	JH	4-8-57
APPROVED BY	JH	4-8-57
JOB ENG'R.	E Lane	4-8-57

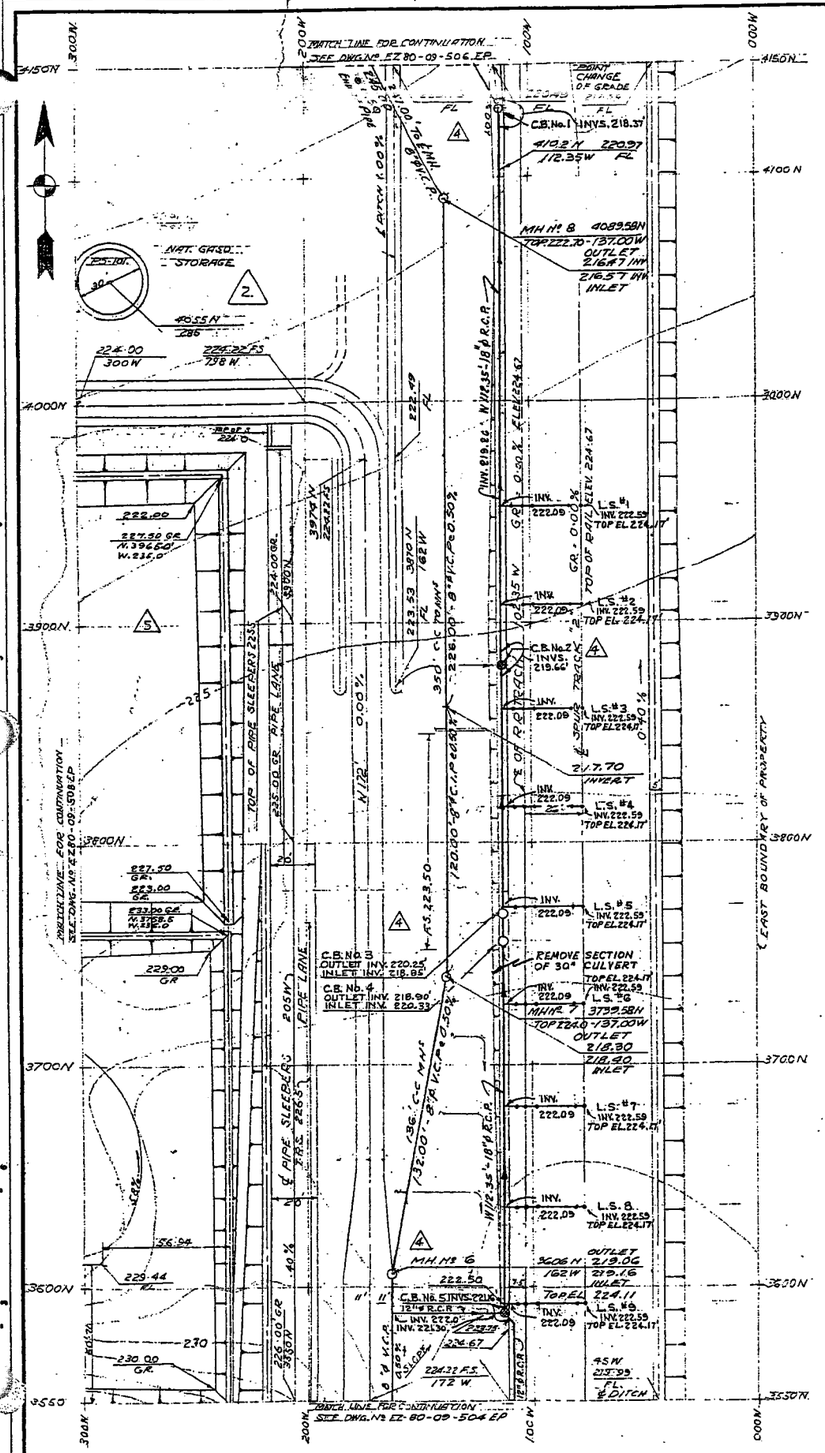
EZ80-09-503-EP REV. 0

A-7026

M.F. 57

DET.

CHK.



EZ-80-09-503	CATCH BASINS FOR TANK CAR DRAINAGE
EZ-80-09-502	TYP. SECT. OF DRAIN FROM R.R. TRACKS TO SEWER MAIN
EZ-80-09-505 EP	CATCH BASIN & MAN HOLE DETAILS
EZ-80-09-501 EP	KEY PLAN
EZ-02-105 EP	SITE GRADING PLAN
DRAWING No.	REFERENCE DRAWING.

NO.	BY	DATE	REVISIONS
5	JFJ	6-30-66	ADDED DWG. FOR TANK CAR #874 (NO. 4 B.R.)
4	JFJ	10/10/66	CHNG. C.B. # 2+J, 3+2, 2+5 & ADDED # 3 &
3	JFJ	7-21-66	ADDED C.B., 18" R.C.P. & R.R. TRACK DRAINAGE (NOTE 500-50)
2	RWA	4-3-57	COORDINATE OF B.S. 101 CHANGED
1	H	3-21-57	ISSUED FOR CONSTR.
0	H	3-13-57	ISSUED FOR APPROVAL

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SEWERAGE & DRAINAGE PLAN
3550N TO 4150N
AND
000W TO 300W

EL PASO NATURAL GAS PRODUCTS COMPANY
GALLUP — CINIZA REFINERY — NEW MEXICO

SCALE 1/30" = 1'-0"		DATE
DRAWN BY FRED W.		2-15-56
CHECKED BY		2-15-57
APPROVED BY		2-15-57
JOB ENG'R		3-20-57
EZ-80-09-505 EP		REV.

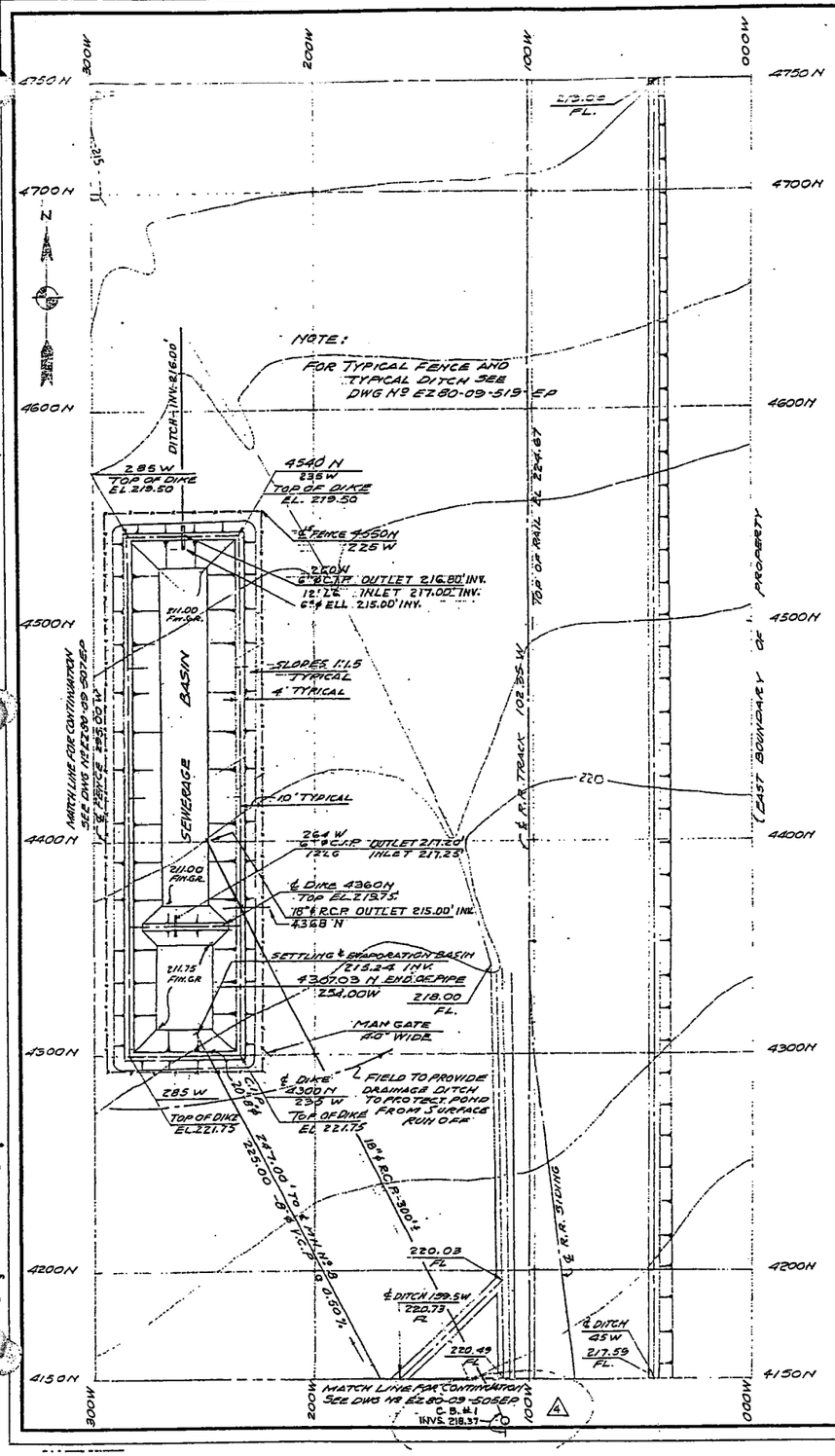
DRAWING SIZE A-7026

APPROVED FOR CONSTRUCTION
SIGNED BY — DATE 3-21-57 — DATE 3-21-57

DO NOT SCALE - FOLLOW DIMENSIONS

TO SHOP — ISSUED — REV. 1 — REV. 2 — REV. 3 — REV. 4 — REV. 5 — DATE

CHK.



EZ80-09-529	CATCH BASINS FOR TANK CAR DRAINAGE
EZ80-09-517EP	CATCH BASIN & MANHOLE DETAILS
EZ80-09-506EP	KEY PLAN
EZ80-09-507EP	SITE GRADING PLAN
DWG Nº	REFERENCE DRAWINGS

NO.	BY	DATE	REVISIONS
4	JFJ	10/14/62	CHANGED C.B. No. 4 to 1
3	JFJ	7-21-66	CHANGED DIKE ELEV., INSTALL 18" R.C.P. & C.B. (6" OVERFLOW) INVS. CHANGED
2	JFJ	8-31-57	ELIMINATED 12" & 24" PIPES & ADDED 3" PIPE
1	JFJ	3-21-57	ISSUED FOR COMMENT
0	JFJ	3-19-57	ISSUED FOR CONSTRUCTION APPROVAL

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SEWERAGE & DRAINAGE PLAN
4150N TO 4750N
AND
000W TO 300W

EL PASO NATURAL GAS PRODUCTS COMPANY
GALLUP CHINLE REFINERY NEW MEXICO.

		DATE
SCALE 1/30"		
DRAWN BY	FEBOW	3-8-57
CHECKED BY		3-18-57
APPROVED BY		3-19-57
JOB ENG'R.		3-20-57

EZ80-09-506EP — REV. 4

APPROVED FOR CONSTRUCTION
SIGNED BY — DATE 3-21-57
3-21-57

TO SHOP ISSUED REV. 1 2 3

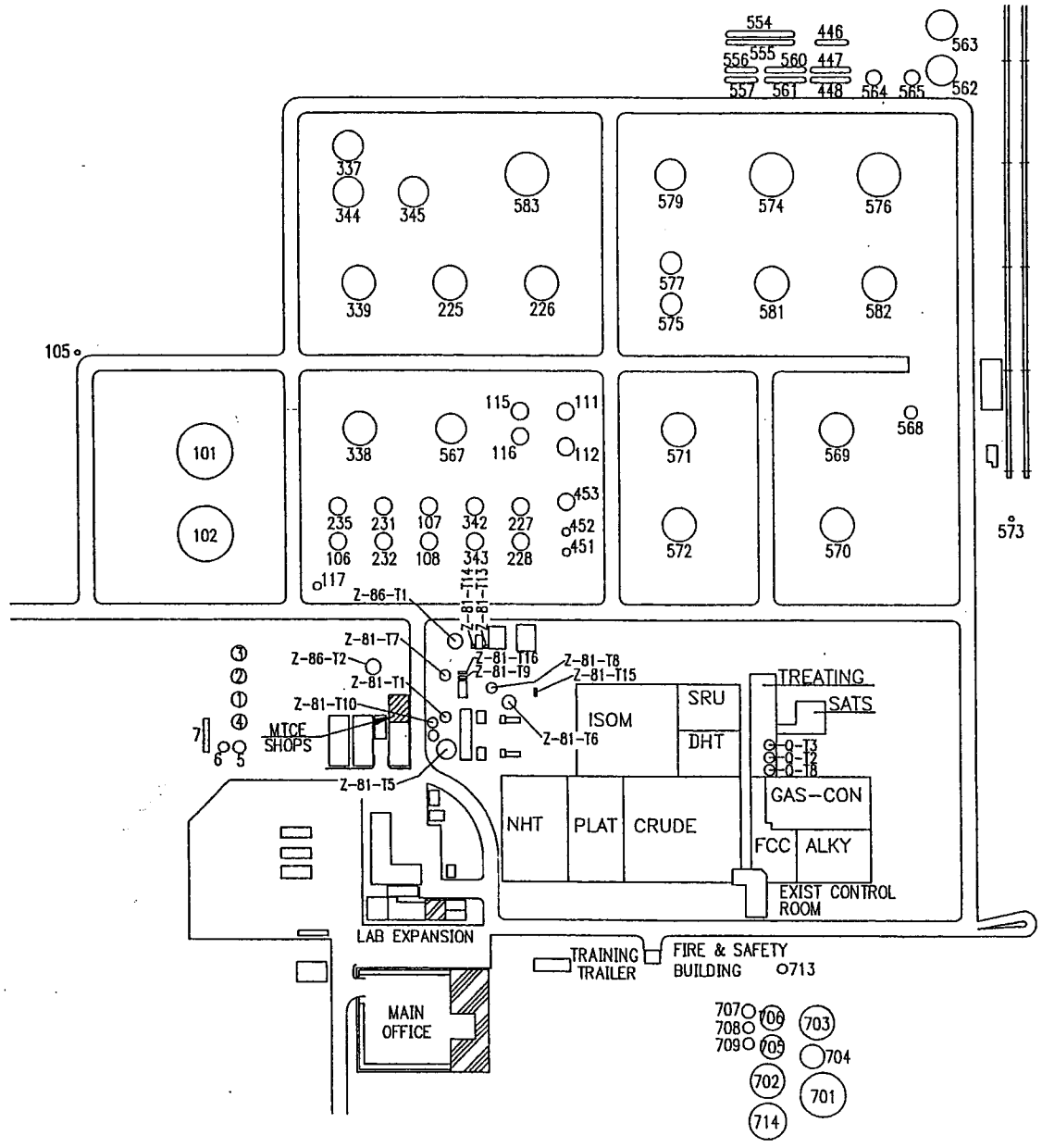
REV. 4 5 6

IV CONTINUE WHEN ISSUED REV. 1 2 3

CHK.

DFR

NLF 57



CONTRACTOR:

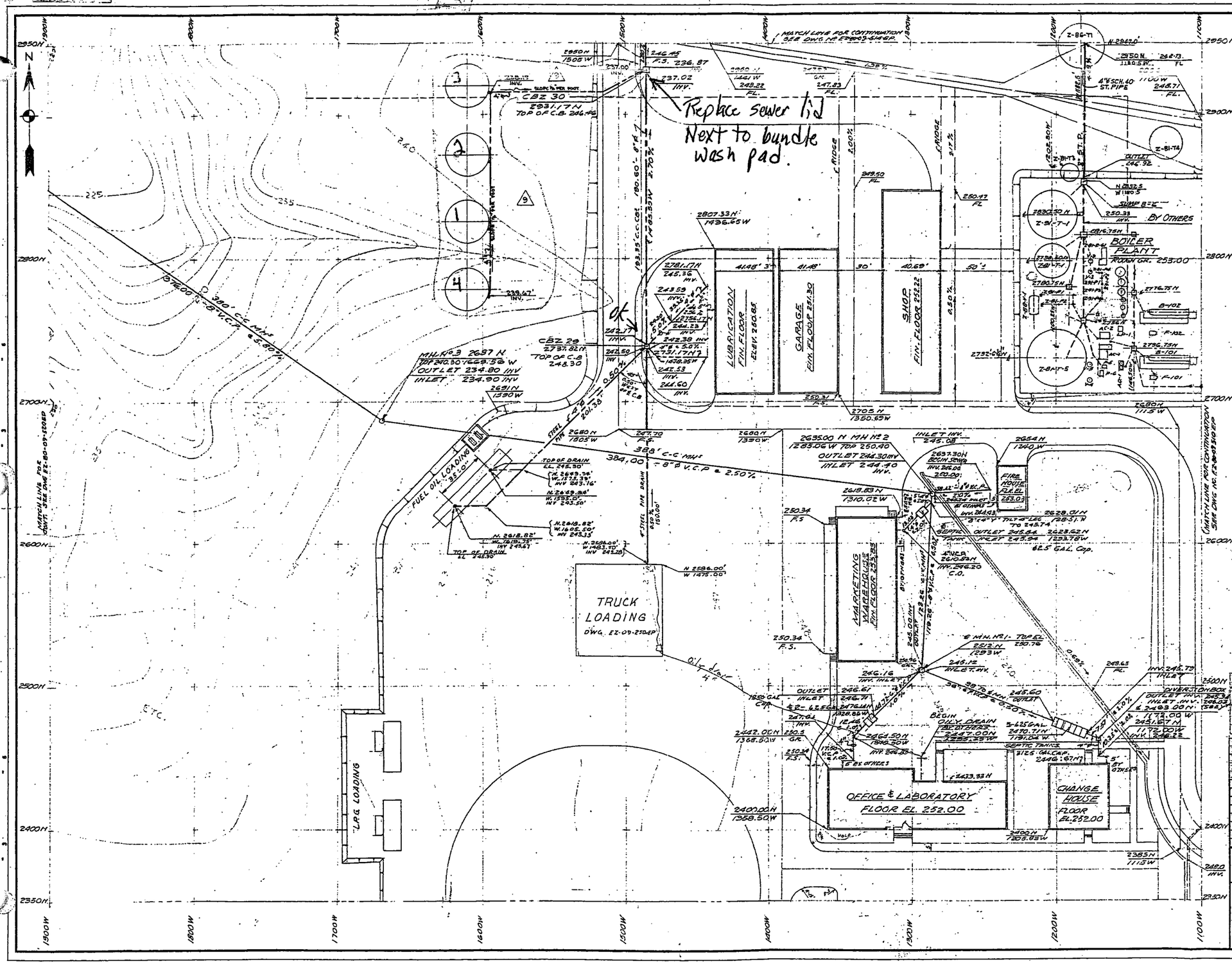
CINIZA REFINERY

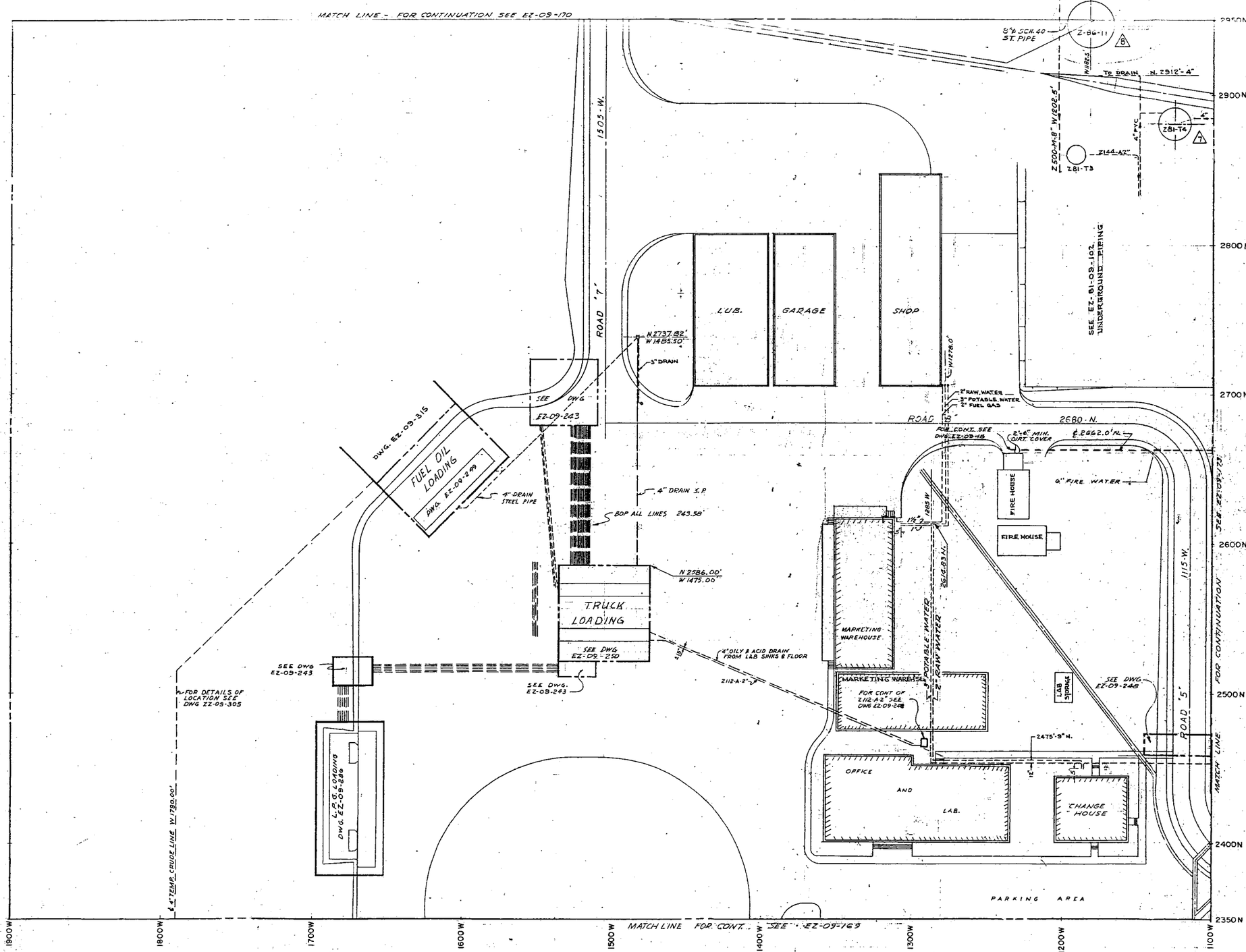
GIANT REFINING CO.
A DIVISION OF GIANT INDUSTRIES

GALLUP NEW MEXICO

GIANT REFINERY
TANK FARM PLAN

DRN. BY: CLM	DATE: 10DEC02	RFE/RFC No: –
CHK'D. BY: –	DATE: –	SCALE: NTS
APP'D. BY: –	DATE:	CAD REF: G:/BULLWINKLE
WELD SPEC: –		PAINT: –
DRAWING NO. Z-01-100		REV 0


Replace sewer tiq
Next to bundle
wash pad.
OK
MATCH LINE FOR CONTINUATION SEE DWG. NO. EZ-09-3-SHEET
CBZ 30
CBZ 29
TRUCK LOADING
DWG. EZ-09-230-EP
LUBRICATION FIN. FLOOR ELEV. 250.65
GARAGE FIN. FLOOR 251.30
SHOP FIN. FLOOR 252.22
BOILER PLANT
BY OTHERS
MARKETING WAREHOUSE FIN. FLOOR 253.25
OFFICE & LABORATORY FLOOR EL. 252.00
CHANGE HOUSE FLOOR EL. 252.00
FIRE HOUSE
FUEL OIL LOADING
L.P.G. LOADING
SEPTIC TANKS
OILY DRAIN
OUTLET
INLET
TOP OF DRAIN
MH. No. 3
OUTLET 234.80 INV
INLET 234.90 INV
OUTLET 244.30 INV
INLET 244.40 INV.
384.00
388' C-C MHS
8" ø V.C.P. @ 2.50%
4" STEEL PIPE DRAIN
4" SCH. 40 ST. PIPE
OUTLET 246.92
SUMP B-6
250.33 INV.
BOILER PLANT ROOM GR. 253.00
B-102
F-102
B-101
F-101
Z-81-TA
Z-81-T-1
Z-81-T-5
Z-86-T1
Z-81-T3
NOTE: SEPTIC TANKS 8' WIDE x 8' LONG x 5'-0" DEEP.
FIELD PROVIDE LEVEL BOTTOM 4'-4" BELOW
INVERT OF PIPE. BATTERY OF SEPTIC TANKS
ALL 625 GAL. TANKS IN SERIES.
LEGEND
SANITARY SEWER
DIRTY OIL DRAINAGE
DIRTY OIL DRAINAGE IN BOILER PLANT
NOTE:-
SEPTIC TANKS SHALL BE NOTTINGHAM OR EQUAL - BATTERY OR SINGLE.
APPROVED FOR CONSTRUCTION
EZ-09-102-EP BOILER PLANT UNDERGROUND PIPING PLAN
EZ-09-248-EP ST. PAN 2" GAS & AIR, 2" OVERHEAD 295.5W
EZ-09-118-EP CATCH BASIN, MANHOLE & DIVERSION BOX
EZ-09-201-EP KEY PLAN
EZ-09-113-EP SITE GRADING PLAN
DWG NO. REFERENCE DRAWINGS
REVISIONS
THIS PRINT IS THE PROPERTY OF
SOUTHWESTERN ENGINEERING COMPANY
4800 SANTA FE AVE., LOS ANGELES, CALIF.
SEWERAGE & DRAINAGE SYSTEM
2350N TO 2950N.
1100W. TO 1900W.
EL PASO NATURAL GAS PRODUCTS COMPANY
CINDER REFINERY
GALLUP NEW MEXICO
EZ80-09-313-EP
A-7026



NOTE:
FOR GENERAL NOTES & TYPICAL DETAILS SEE DWG. EZ-09-165

APPROVED FOR CONSTRUCTION
SIGNED R. L. Hall DATE 8-19-57

DWG. NO.	TITLE
EZ-09-105	GENERAL ARRANGEMENT-FIRE PROTECTION
EZ-09-102	OFFSITE FACILITIES-AREA LOCATION PLAN
EZ-09-164	PIPE SLEEVES-AREA LOCATION PLAN

REFERENCE

NO.	BY	DATE	REVISIONS
8	JFJ	7-29-66	ADDED Z-86-11 (WO 66500-50) DFR
7	RL	6-1-62	ADDED Z81-T4 & 4" LINE, NEW FIRE HSE. & WAREHOUSE
6	RLL	6-7-61	GENERAL REVISION.
5	AB	10-16-57	REV. PER FIELD MARKED UP PRINT (10-8-57)
4	ED	10-1-57	FIELD REVISION
3	EA	8-13-57	REVISED TRUCK LOADING AREA CDS
2	RC	5-13-57	ISSUED FOR CONSTRUCTION - CDS
1	CD	4-4-57	PRELIMINARY ISSUE TO FIELD - CDS
0			ISSUED FOR EL PASO NAT. GAS CO. APRR

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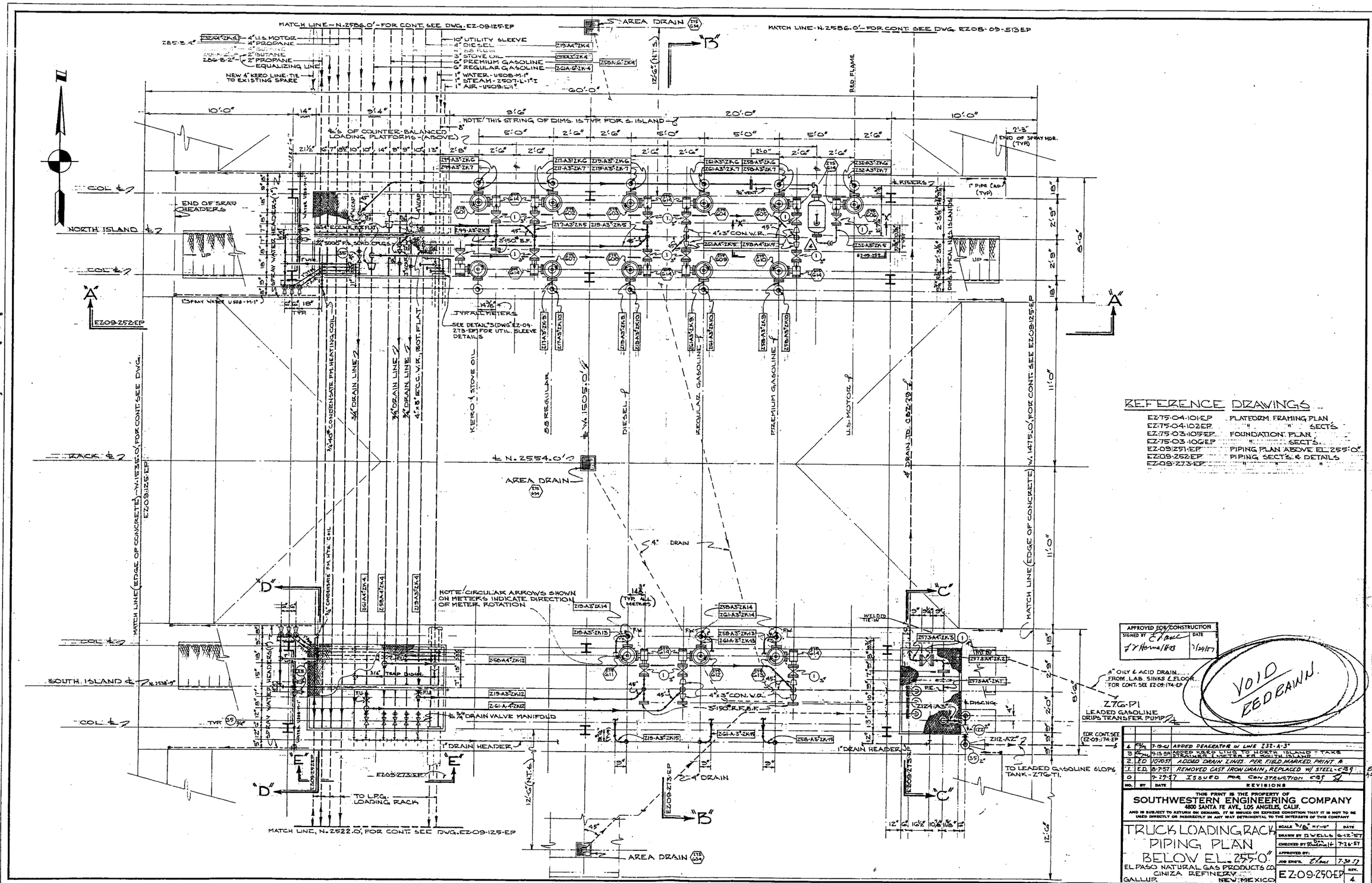
4800 SANTA FE AVE., LOS ANGELES, CALIF.
AND IS SUBJECT TO RETURN ON DEMAND. IT IS BORROWED ON EXPRESS CONDITION THAT IT IS NOT TO BE USED DIRECTLY OR INDIRECTLY IN ANY WAY DETRIMENTAL TO THE INTERESTS OF THIS COMPANY

PIPE SLEEVES & BURIED PIPING
AREA "K"
EL PASO NATURAL GAS PROD. CO.
CINIZA REFINERY
GALLUP NEW MEXICO

SCALE 1" = 30'-0" DATE
DRAWN BY S. DELL 7-30-57
CHECKED BY CDS
APPROVED BY
JOB SHEET
EZ-09-174 REV. 8



REFERENCE DRAWINGS

EZ-75-04-101-EP	PLATFORM FRAMING PLAN
EZ-75-04-102-EP	" " SECT'S
EZ-75-03-105-EP	FOUNDATION PLAN
EZ-75-03-106-EP	" SECT'S
EZ-09-251-EP	PIPING PLAN ABOVE EL. 255'-0"
EZ-09-252-EP	PIPING SECT'S & DETAILS
EZ-09-273-EP	" " "

APPROVED FOR CONSTRUCTION
SIGNED BY E. Lane — DATE 7/29/57

VOID REDRAWN

NO.	BY	DATE	REVISIONS
4	[illegible]	7-19-61	ADDED DEAERATOR IN LINE Z32-A-3"
3	[illegible]	9-15-59	ADDED KERO LINE TO NORTH ISLAND - TAKE STRAINER & METER FR. SOUTH ISLAND
2	ED	10-10-57	ADDED DRAIN LINES PER FIELD MARKED PRINT B
1	ED	8-7-57	REMOVED CAST IRON DRAIN, REPLACED W/ STEEL - CBS
0		7-29-57	ISSUED FOR CONSTRUCTION CBS

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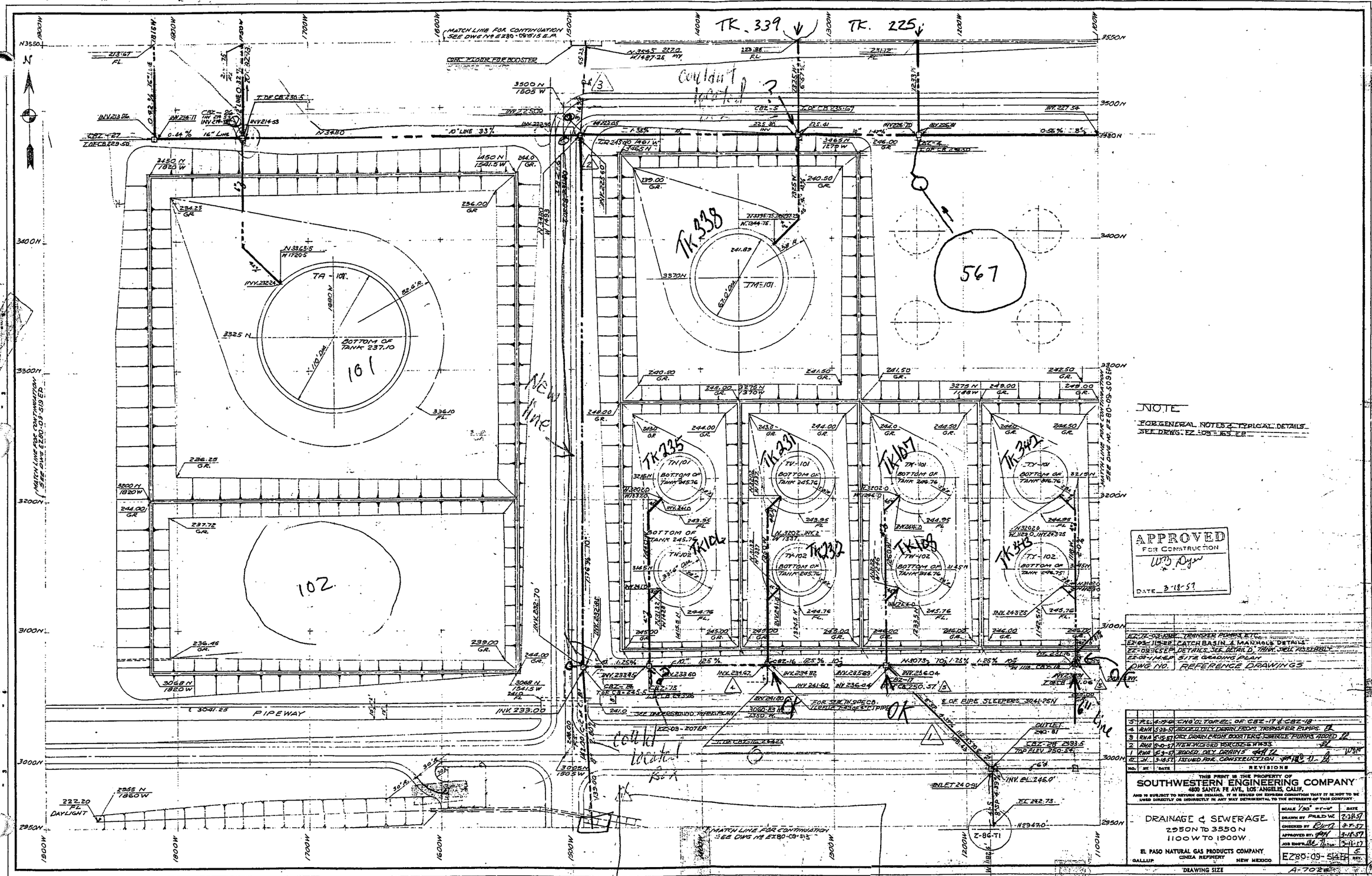
TRUCK LOADING RACK PIPING PLAN BELOW EL. 255'-0"

EL PASO NATURAL GAS PRODUCTS CO.
CINIZA REFINERY
GALLUP, NEW MEXICO

SCALE 3/8" = 1'-0"	DATE
DRAWN BY D. WELLS	6-12-57
CHECKED BY Don Rhodes	7-26-57
APPROVED BY:	
JOB ENG'R. E. Lane	7-30-57
EZ-09-250-EP	REV. 4

DET.
CHK.
TO CUSTOMER ISSUED REV. 1 2 3 — DATE
TO SHOP ISSUED REV. 1 2 3 — DATE
REV. 4 5 6



NOTE

FOR GENERAL NOTES & TYPICAL DETAILS SEE DRWG. EZ-09-165 EP

APPROVED FOR CONSTRUCTION

W.B. Dyer

DATE 3-18-57

EZ-72-03-10 EP	TRANSFER PUMPS ETC.
EZ-09-115 EP	CATCH BASIN & MANHOLE DETAILS
EZ-09-165 EP	DETAILS SEE DETAIL D, TANK SKILL ASSEMBLY
EZ-02-114 EP	SITE GRADING PLAN
DWG NO.	REFERENCE DRAWINGS

NO.	BY	DATE	REVISIONS
5	P.L.	4-19-60	CHG'D. TOP EL. OF CBZ-17 & CBZ-18
4	RWA	5-23-57	ADDED OILY DRAIN FROM TRANSFER PUMPS.
3	RWA	5-15-57	DIST. DRAIN FROM BOOSTER & CHARGE PUMPS ADDED
2	RWA	5-10-57	NEW W.COORD FOR CBZ-6 W433
1	RWA	5-9-57	ADDED OILY DRAINS
0	H.	3-18-57	ISSUED FOR CONSTRUCTION

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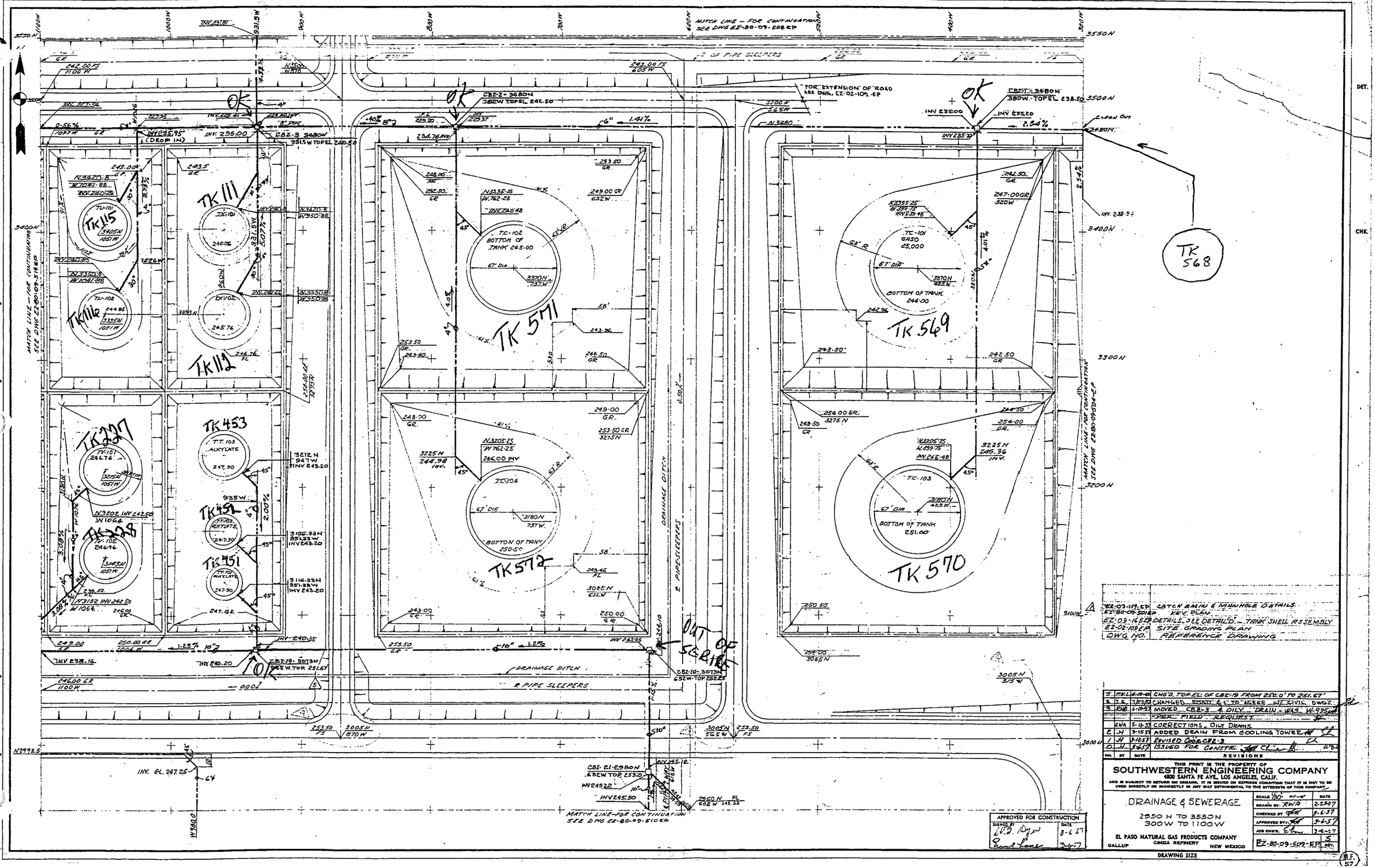
DRAINAGE & SEWERAGE
2950N TO 3550N
1100W TO 1900W

EL PASO NATURAL GAS PRODUCTS COMPANY
GALLUP CINZA REFINERY NEW MEXICO

		DATE
SCALE 1/30" = 1'-0"		
DRAWN BY	FRED W.	2-28-57
CHECKED BY		3-7-57
APPROVED BY		3-18-57
JOB ENG'R		3-11-57

EZ80-09-514 EP REV. 5

DRAWING SIZE A-702



EZ-03-119-EP	CATCH BASIN & MANHOLE DETAILS	
EZ-80-09-501 EP	KEY PLAN	
EZ-09-165 EP	DETAILS - SEE DETAILED - TANK SHELL ASSEMBLY	
EZ-02-109 EP	SITE GRADING PLAN	
DWG NO.	REFERENCE DRAWING	

NO.	BY	DATE	REVISIONS
5	P.V.L.	4-19-62	CHG'D. TOP EL. OF CBZ-19 FROM 250.0' TO 251.67'
4	J.E.	7/22/57	CHANGED ROUTED & C TO AGREE W/ CIVIL DWGS.
3	RWB.	6-19-57	MOVED CBZ-3 & OILY DRAIN - WAS W-935' -PER FIELD REQUEST
	RWA	5-13-57	CORRECTIONS - OILY DRAINS.
2	H	3-15-57	ADDED DRAIN FROM COOLING TOWER
1	H	3-12-57	REVISED CODE CBZ-3
0	H	3-6-57	ISSUED FOR CONSTR.

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DRAINAGE & SEWERAGE

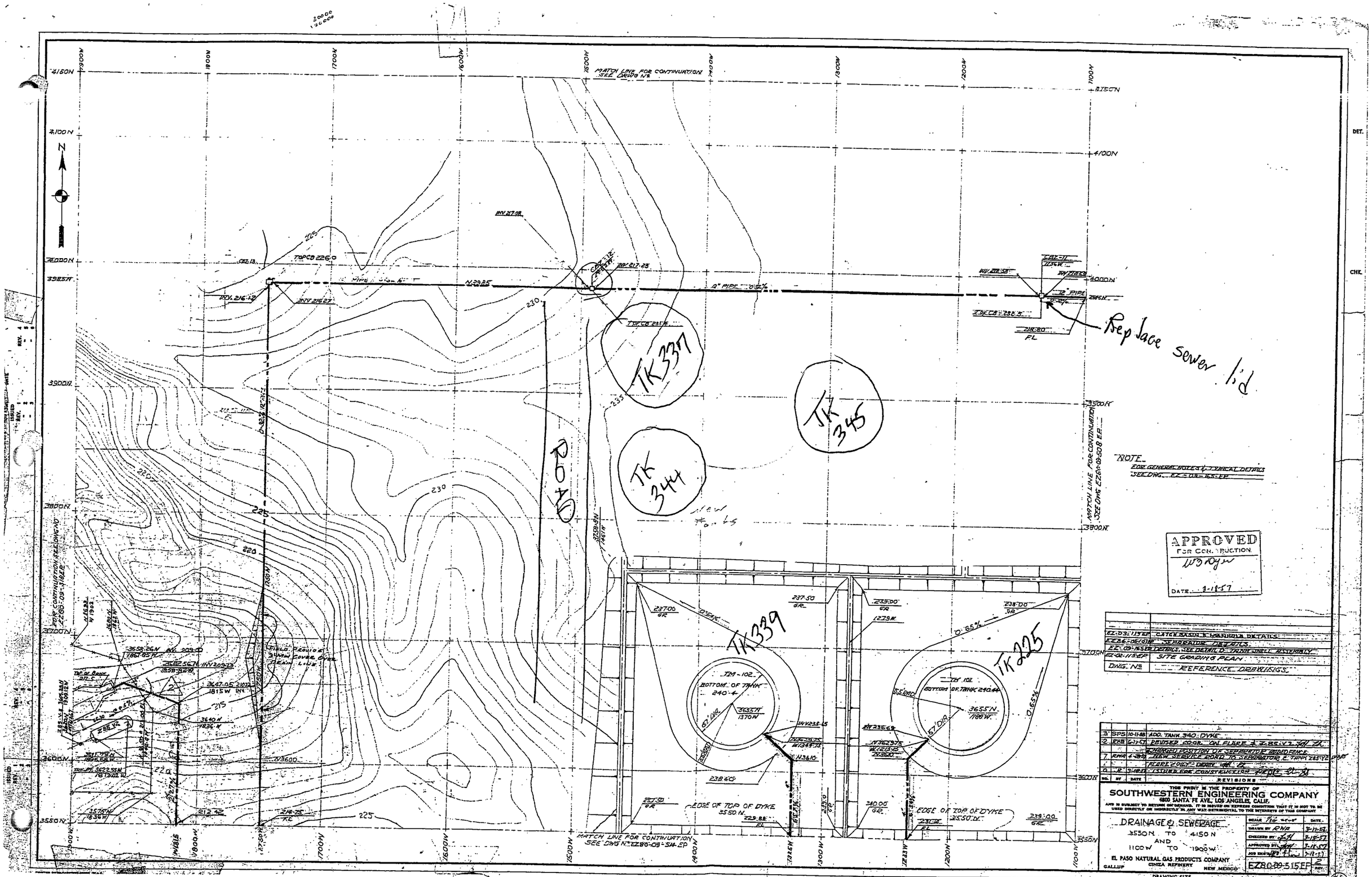
2950 N TO 3550 N
300 W TO 1100 W

EL PASO NATURAL GAS PRODUCTS COMPANY
GALLUP CINIZA REFINERY NEW MEXICO

SCALE 1/30" = 1'-0"	DATE
DRAWN BY RWB	2-23-57
CHECKED BY	3-6-57
APPROVED BY	3-6-57
JOB ENG'R.	3-6-57
EZ-80-09-509-EP	REV. 5

DRAWING SIZE

APPROVED FOR CONSTRUCTION
SIGNED BY — DATE 3-6-57



MATCH LINE FOR CONTINUATION SEE DRWG No
TK 337
TK 345
TK 344
TK 339
TK 225
ROAD
Replace sewer lid
NOTE
FOR GENERAL NOTES & TYPICAL DETAILS SEE DWG. EZ-09-165-EP
APPROVED FOR CONSTRUCTION
DATE 3-18-57
EZ-03-119-EP CATCH BASIN & MANHOLE DETAILS
EZ-04-05-(1)EP SEPARATOR DETAILS
EZ-09-165-EP DETAILS, SEE DETAIL D TANK SHELL ASSEMBLY
EZ-02-115-EP SITE GRADING PLAN
DWG. No REFERENCE DRAWINGS
3 SPS 10-11-88 ADD. TANK 340 DYKE
2 RHB 6-14-57 REVISED COOR. ON FLARE & Z-85-V2
CHANGED POSITION OF SEPARATOR ADDED FENCE
7 RWA 4-28-57 NEW SERVICE ROAD TO SEPARATOR & TANK Z85-V2
FLARE 2 OILY DRAIN
0 R 3-18-57 ISSUED FOR CONSTRUCTION
NO. BY DATE REVISIONS
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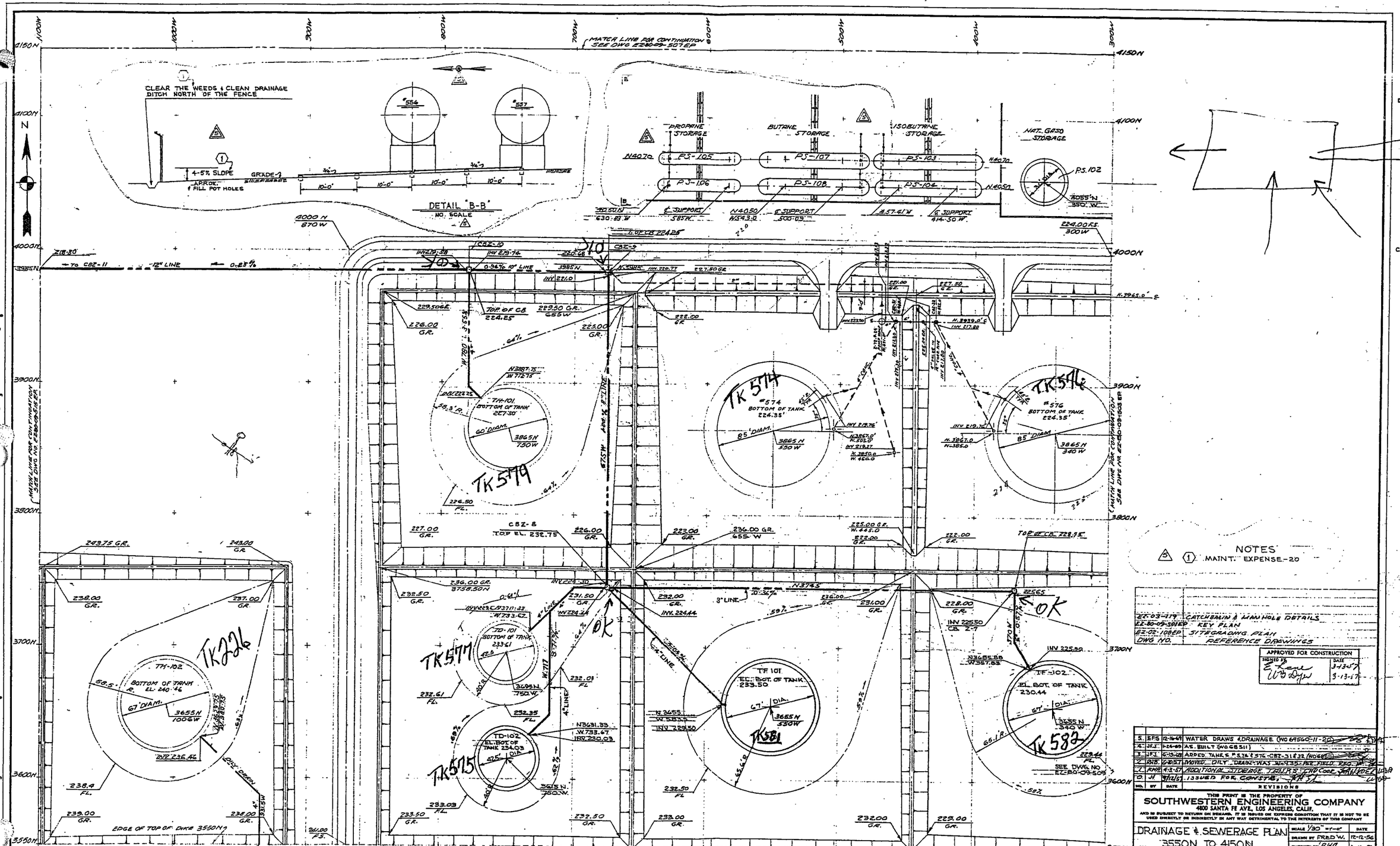
DRAINAGE & SEWERAGE
3550N TO 4150N
AND
1100W TO 1900W
EL PASO NATURAL GAS PRODUCTS COMPANY
GALLUP CINIZA REFINERY NEW MEXICO
DRAWN BY RWA 3-11-57
CHECKED BY 3-15-57
APPROVED BY 3-18-57
JOB ENG. 3-18-57
EZ80-09-515EP
DRAWING SIZE A-7026


CLEAR THE WEEDS & CLEAN DRAINAGE DITCH NORTH OF THE FENCE
4-5% SLOPE
GRADE
APROX. 1 FILL POT HOLES
DETAIL "B-B"
NO. SCALE
#554
#557
PROPANE STORAGE
BUTANE STORAGE
ISOBUTANE STORAGE
NAT. GASO STORAGE
PS-105
PS-106
PS-107
PS-108
PS-103
PS-104
PS.102
MATCH LINE FOR CONTINUATION SEE DWG EZ-80-09-507 EP
MATCH LINE FOR CONTINUATION SEE DWG EZ-80-09-508 EP
TK 574
#574 BOTTOM OF TANK 224.35'
85' DIAM.
TK 576
#576 BOTTOM OF TANK 224.35'
TK579
TH-101 BOTTOM OF TANK 227.50
60' DIAM.
TK226
TM-102 BOTTOM OF TANK EL. 240.46
67' DIAM.
TK577
TD-101 BOTTOM OF TANK 233.61
TK575
TD-102 EL. BOT. OF TANK 234.03
TF 101 EL. BOT. OF TANK 233.50
67' DIA.
TK581
TF-102 EL. BOT. OF TANK 230.44
TK582
EDGE OF TOP OF DIKE 3550N
SEE DWG. NO. EZ-80-09-509
OK
NOTES
(5) (1) MAINT. EXPENSE-20
EZ-03-179 CATCHBASIN & MANHOLE DETAILS
EZ-80-09-508EP KEY PLAN
EZ-02-108EP SITE GRADING PLAN
DWG. NO. REFERENCE DRAWINGS
APPROVED FOR CONSTRUCTION
5. EFS 12-16-69 WATER DRAWS & DRAINAGE (WO 69560-11-20)
4. J.F.J. 1-26-69 AS BUILT (WO 68511)
3. J.F.J. 6-13-68 ADDED TANKS #574 & 576 - CBZ-31 & 32 (WO 68511)
2. D.I.B. 6-8-57 MOVED OILY DRAINAGE WAYS W/ 4235 PER FIELD
1. RWH 4-2-57 ADDITIONAL STORAGE TANKS & FIRE CODE
0. JH 3/12/57 ISSUED FOR CONSTRUCTION
NO. BY DATE REVISIONS
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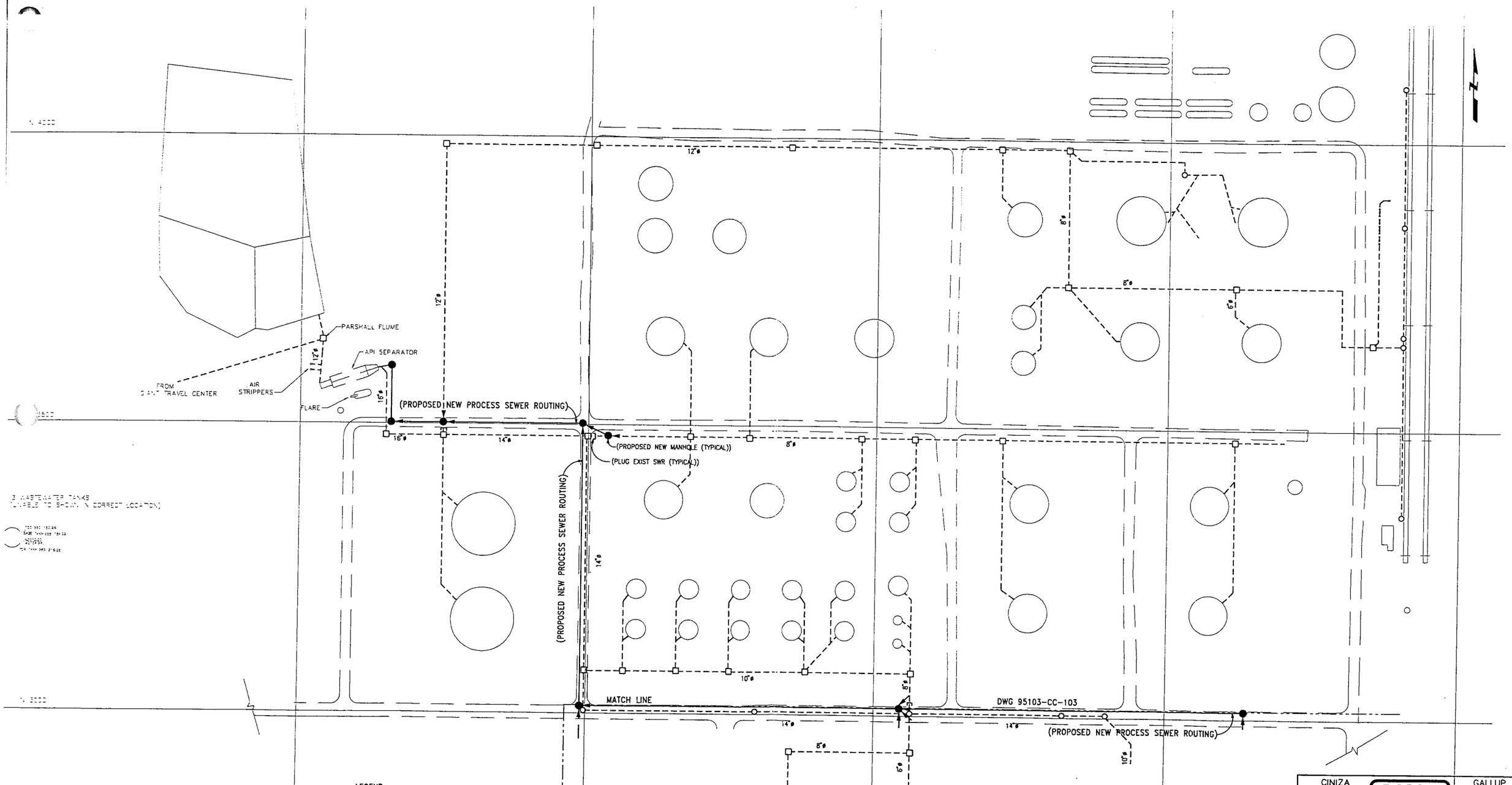
4800 SANTA FE AVE., LOS ANGELES, CALIF.
AND IS SUBJECT TO RETURN ON DEMAND. IT IS ISSUED ON EXPRESS CONDITION THAT IT IS NOT TO BE USED DIRECTLY OR INDIRECTLY IN ANY WAY DETRIMENTAL TO THE INTERESTS OF THIS COMPANY
DRAINAGE & SEWERAGE PLAN
3550N TO 4150N
300W TO 1100W
EL PASO NATURAL GAS PRODUCTS COMPANY
GALLUP CINZA REFINERY NEW MEXICO
SCALE 1/30" = 1'-0"
DRAWN BY FRED W. 12-12-56
CHECKED BY RWH 3-11-56
APPROVED BY 3-12-57
JOB ENGR. 3-13-57
EZ-80-09-508EP
DRAWING SIZE
DO NOT SCALE-FOLLOW DIMENSIONS

REFERENCE DRAWINGS



LEGEND

- EDGE OF CONCRETE
- EXIST CONCRETE CURB
- APPROX RIDGE LINE (HP)
- EXIST PROCESS DRAINS
- EXIST TRENCH DRAINS
- PROPOSED CONCRETE AREA
- PROPOSED NEW PROCESS SEWER

NOTES

1. UNLESS NOTED ALL EXISTING PROCESS DRAINS ARE 4"ø. PIPE DIAMETER BASED ON INFORMATION PROVIDED BY GIANT REFINERY.
2. FIELD SURVEY WAS PERFORMED BY HAYNES ENGINEERING, OF GALLUP, NM IN OCTOBER, 1995.

FOR REVIEW

THIS DRAWING HAS BEEN ISSUED FOR REVIEW AS OF 11/03/95

RAPLEY ENGINEERING SERVICES, INC.

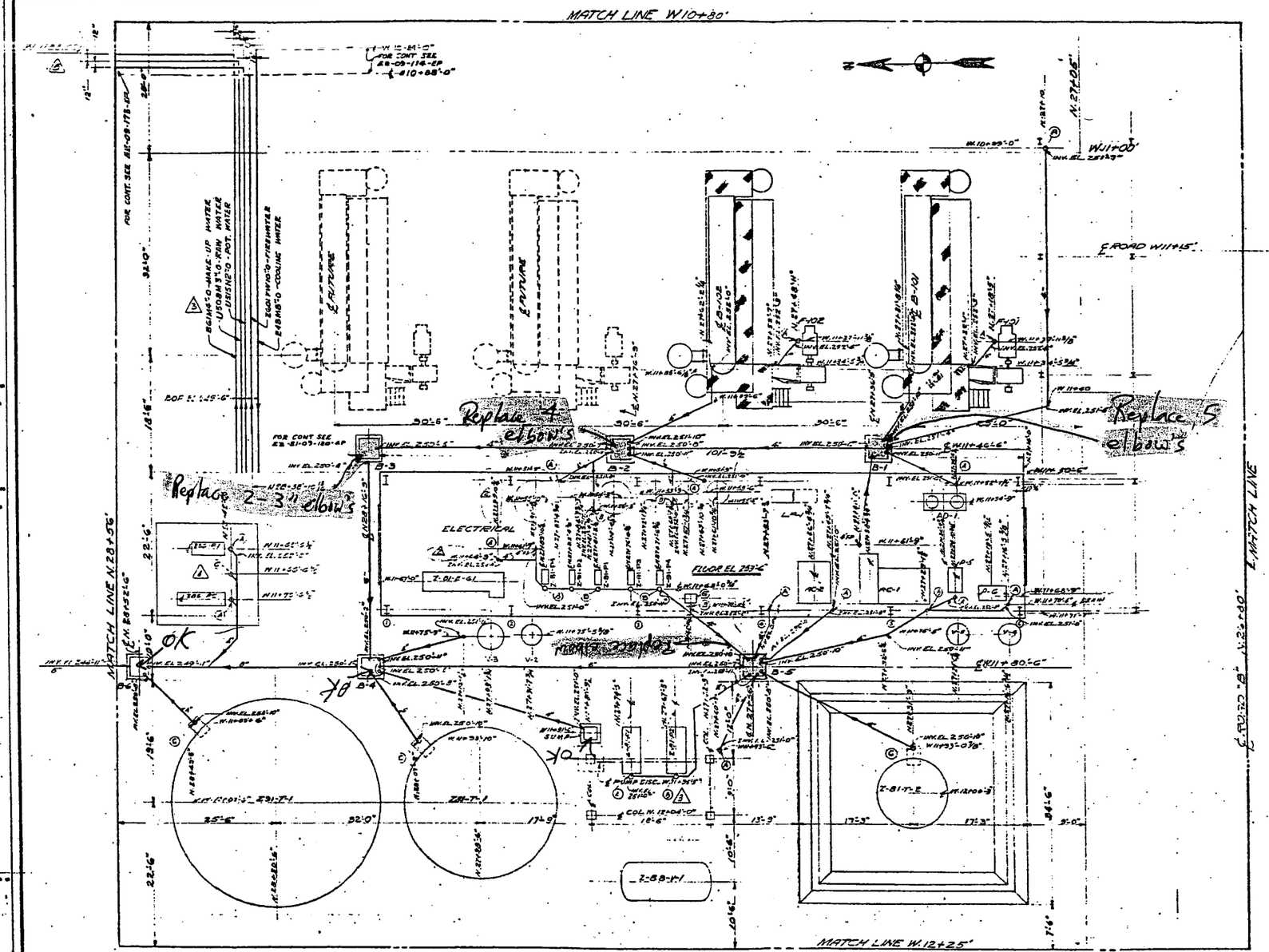
CINIZA REFINERY — GIANT REFINING, CO. A DIVISION OF GIANT INDUSTRIES — GALLUP NEW MEXICO

TANK FARM
PROCESS DRAINAGE
STUDY PLAN

MARK	DATE	DESCRIPTION	BY	APRVD
A	11/03/95	CLIENT REVIEW	DPB	

SCALE	1"=80	APRV'D.	
DATE	10-25-95	APRV'D	
DRN.	DPB	80	REV.
CHK'D.	DWG NO. 95103-CC-104		–

11/03/95 14:08 DPB RI SCALE: 1 = 80 11-K:\PROJECTS\95103\CC104.dwg



EQUIPMENT LIST

GENERATORS

B-101	STEAM GENERATOR
B-102	STEAM GENERATOR

FANS

F-101	DRAFT FAN
F-102	DRAFT FAN

PUMPS

P-5	FUEL OIL PUMP
P-6	FUEL OIL PUMP (SPARE)

TANKS

Z-81-T-1	BOILER FEED WATER
Z-91-T-1	RAW WATER
T-2	FUEL OIL

VESSELS

Z-81-V-1	DEAERATOR
Z-88-V-1	ACID STORAGE
V-2	CHEMICAL BLOWDOWN TANK
V-3	INSTRUMENT BLOWDOWN TANK
V-4	INSTRUMENT AIR RECEIVER
V-5	AUXILIARY AIR RECEIVER
V-6	CHEMICAL MIXING TANK
V-7	CHEMICAL SOLUTION TANK

COMPRESSORS

A-01	INSTRUMENT AIR COMPRESSOR
A-02	AUXILIARY AIR COMPRESSOR

MISCELLANEOUS

A-01	INSTRUMENT AIR DRYER
E-01	EMERGENCY GENERATOR
L-P	PANEL BOARD
G	HYPOCHLORINTOR

EZ-09-114-EP	FIRE PROTECTION PIPING - AREA J
EZ 81-09-120-EP	BOILER PLANT PIPING PLAN - AREA 81-F
EZ-09-173-EP	PIPE SLEEVES & BURIED PIPING - AREA J
EZ-81-09-124-EP	PIPING BILL OF MATERIAL
EZ-8-09-111-EP	FOUND. FOR BOILER HOUSE & WTR TREAT. BLDG.
EZ-8-09-0-EP	FOUNDATION PLAN FOR GENERATORS 1 & 2
EZ-09-104 EP	SUMP FOUNDATIONS
EZ-09-101 EP	USE BW OR LW PER CLASS "Z" OF SWECO SPEC.
EZ-8-09-101 EP	AREA LOCATION
EZ-8-25-101 EP	PLOT PLAN
EZ-09-103 EP	TYP PIPING AT SUMPS & DR. FUNNELS
DRAWING NO.	DRAWING TITLE

REFERENCE DRAWINGS

NO.	BY	DATE	REVISIONS
5	J	[illegible]	REVISED COORD. IN. [illegible]
4	J	[illegible]	REVISED [illegible] AS BUILT
3	A.C.	[illegible]	ADDED LINES [illegible]
	EJR		[illegible]
2	RES	[illegible]	[illegible]
1	APEL	[illegible]	CHANGE [illegible]
0	RES	[illegible]	ISSUED FOR CONSTRUCTION

THIS PRINT IS THE PROPERTY OF
SOUTHWESTERN ENGINEERING COMPANY
4200 SANTA FE AVE., LOS ANGELES, CALIF.

BOILER PLANT UNDERGROUND PIPING PLAN

EL PASO NATURAL GAS PRODUCTS COMPANY
CINZA REFINERY
GALLUP NEW MEXICO

SCALE	1/8" = 1'-0"	DATE
DRAWN BY	RES	2-26-57
CHECKED BY	APEL	4-22-57
APPROVED BY	[illegible]	4-22-57
JOB ENGR.	[illegible]	[illegible]

EZ-81-09-102-EP

APPROVED FOR CONSTRUCTION
SIGNED BY R. [illegible] DATE 4-29-57
[illegible] 4-22-57

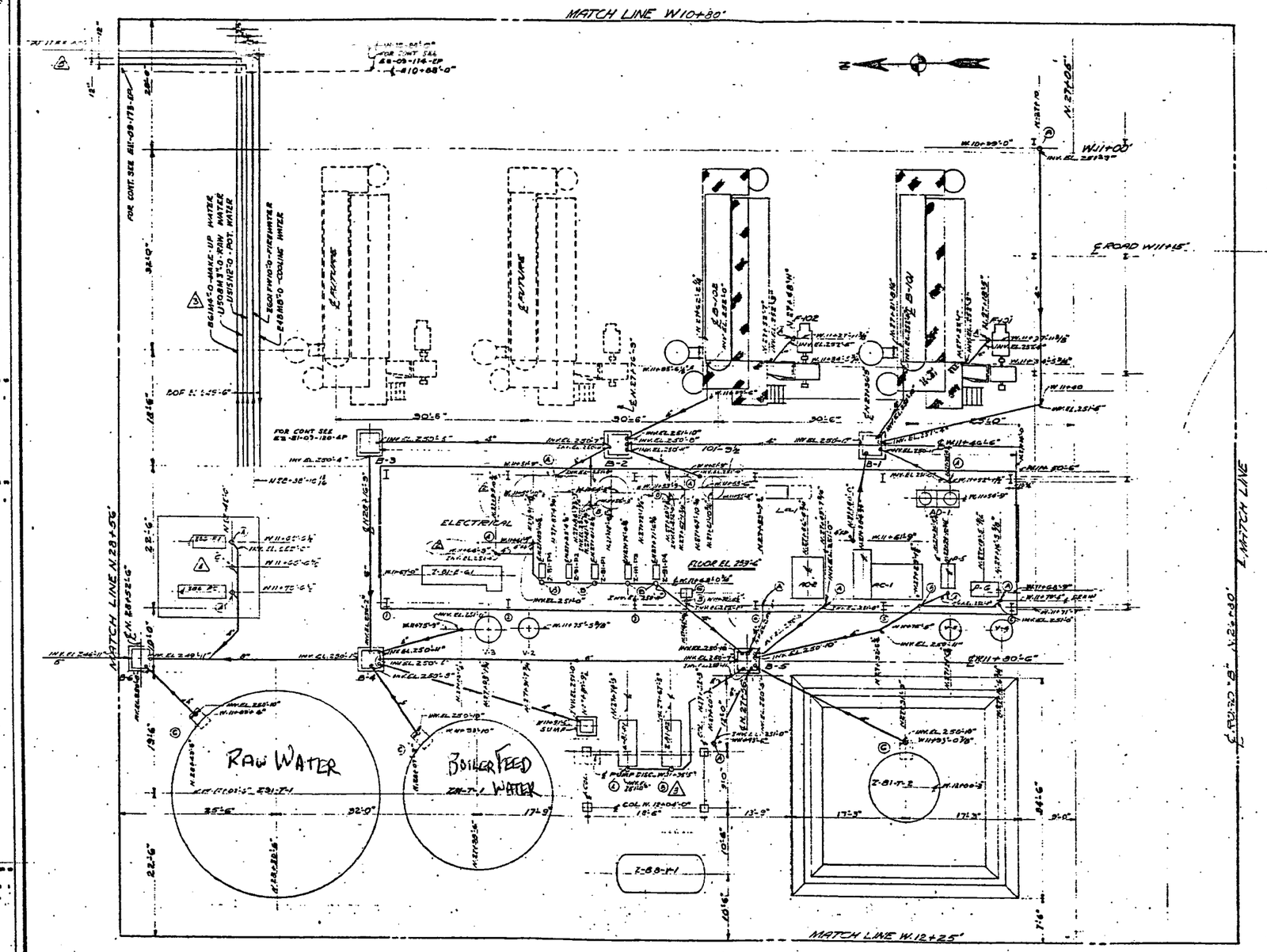
DRAWING SIZE

BOILER PLANT

UNDERGROUND PROCESS AND WASTEWATER LINES

Boiler Plant

ID Number (Sewer Box or Catch Basin	Lateral Drains and/or Headers	Date Installed	Drawing Reference	Test Date	Pass/Fail/ Repair Information	Test Water Column (Feet)	Test Duration (Minutes)	Signature	Investigation Results
CBZ-28 2993.5N 1182.5W (Continued from Tank Farm)	Sump B-6 (BoilerHouse)flows N to CBZ-28	1957	EZ-80-09-513EP, EZ-80-09-514EP & EZ-81-09-102EP						
Sump B-6 N2852.5 W1180.5	Z-91-T-1 (Raw Water Tk) drain to B-6	1957	EZ-81-09-102EP						
	3 drains from Z86-P1 & Z86-P2 area connect to "Y" from B-4 to B-6	1957	EZ-81-09-102EP						
	Sump B-4 to Sump B-6	1957	EZ-81-09-102EP						
Sump B-4 N28+16'-9" W1180.5	Z-81-T1 (Boiler Feed Water Tk.) to B-4	1957	EZ-81-09-102EP						
	Sump Just SW of Z-81-T! to B-4	1957	EZ-81-09-102EP						
	Drain By V-3 to B-4	1957	EZ-81-09-102EP						
	B-3 flows W to B-4	1957	EZ-81-09-102EP						
	B-5 flows N to B-4	1957	EZ-81-09-102EP						
Sump B-5 N27+56' W1180.5	Drains Z-81-P1 & Z-81-P2 to B-5	1957	EZ-81-09-102EP						
	Drain A to B-5	1957	EZ-81-09-102EP						
	Drain Z-81 - T-2 to B-5	1957	EZ-81-09-102EP						
	P-6 & P-5 (Fuel Oil) drain to B-5	1957	EZ-81-09-102EP						
	A-C2 (Auxiliary Air Compressor) drain to B-5	1957	EZ-81-09-102EP						
	Drain just N of A-C2 to B-5	1957	EZ-81-09-102EP						
	6 Drains inclusive Z-91-P4 to B-5	1957	EZ-81-09-102EP						
Sump -B-3 N 28+16'-9" W11+46'-6"	B-2 flows N to B-3	1957	EZ-81-09-102EP						
Sump B-2 ~N27+76'-9" W11+46"-6"	Drain fr inside boiler house flows SE to B-2	1957	EZ-81-09-102EP						
	B-102 drain to B-2	1957	EZ-81-09-102EP						
	Drain fr inside boiler house flows NE to B-2	1957	EZ-81-09-102EP						
	B-1 flows N to B-2	1957	EZ-81-09-102EP						
Sump B-1 N27+36'-5" W11+46'-6"	Drain fr inside boiler house flows E to B-1	1957	EZ-81-09-102EP						
	Drain fr AD-1 inside boiler house flows NE to B-1	1957	EZ-81-09-102EP						
	Drain fr B-101 flows NW to B-1	1957	EZ-81-09-102EP						
	Drain N27+10 W 10+99 flows W then NW to B-1	1957	EZ-81-09-102EP						
	Drain 1146.50W flows N. to B-1 NOTE: BEGINNING/END POINT	1957	EZ-81-09-102EP						



EQUIPMENT LIST

GENERATORS

B-101	STEAM GENERATOR
B-102	STEAM GENERATOR

FANS

F-101	DRAFT FAN
F-102	DRAFT FAN

PUMPS

P-5	FUEL OIL PUMP
P-6	FUEL OIL PUMP (SPARE)

TANKS

Z-81-T-1	BOILER FEED WATER
Z-91-T-1	RAW WATER
T-2	FUEL OIL

VESSELS

Z-81-V-1	DEAERATOR
Z-81-V-4	ACID STORAGE
V-2	CHEMICAL BLOWDOWN TANK
V-3	INSTRUMENT BLOWDOWN TANK
V-4	INSTRUMENT AIR RECEIVER
V-5	AUXILIARY AIR RECEIVER
V-6	CHEMICAL MIXING TANK
V-7	CHEMICAL SOLUTION TANK

COMPRESSORS

A-C1	INSTRUMENT AIR COMPRESSOR
A-C2	AUXILIARY AIR COMPRESSOR

MISCELLANEOUS

A-D1	INSTRUMENT AIR DRYER
E-G1	EMERGENCY GENERATOR
L-P1	PANEL BOARD
G-	HYPOCHLORINTOR

EZ-09-114-EP	FIRE PROTECTION PIPING - AREA J
EZ 81-09-120-EP	BOILER PLANT PIPING PLAN - AREA 81-F
EZ-09-173-EP	PIPE SLEEVES & BURIED PIPING - AREA J
EZ-81-09-134-EP	PIPING BILL OF MATERIAL
EZ-81-09-111-EP	FOUND. FOR BOILER HOUSE & WTR TREAT. BLDG.
EZ-81-09-1-EP	FOUNDATION PLAN FOR GENERATORS 1 & 2
EZ-09-104 EP	SLIMP FOUNDATIONS
EZ-09-[illegible] EP	USE SW OR LW PER CLASS "I" OF SWECO SPEC.
EZ-81-09-131 EP	AREA LOCATION
EZ-81-09-101 EP	PLOT PLAN
EZ-09-[illegible] EP	TYP PIPING AT SUMPS & DR. FUNNELS
DRAWING NO.	DRAWING TITLE

REFERENCE DRAWINGS

NO.	BY	DATE	REVISIONS
5	J	[illegible]	[illegible]
4	J	[illegible]	[illegible]
3	AR	[illegible]	[illegible]
	RJR		[illegible]
2	EES	[illegible]	[illegible]
1	APEL	[illegible]	CHANGE SWG ON PIPING BILL OF MTL. FROM 105 TO 134 [illegible]
0	EES	[illegible]	ISSUED FOR CONSTRUCTION [illegible]

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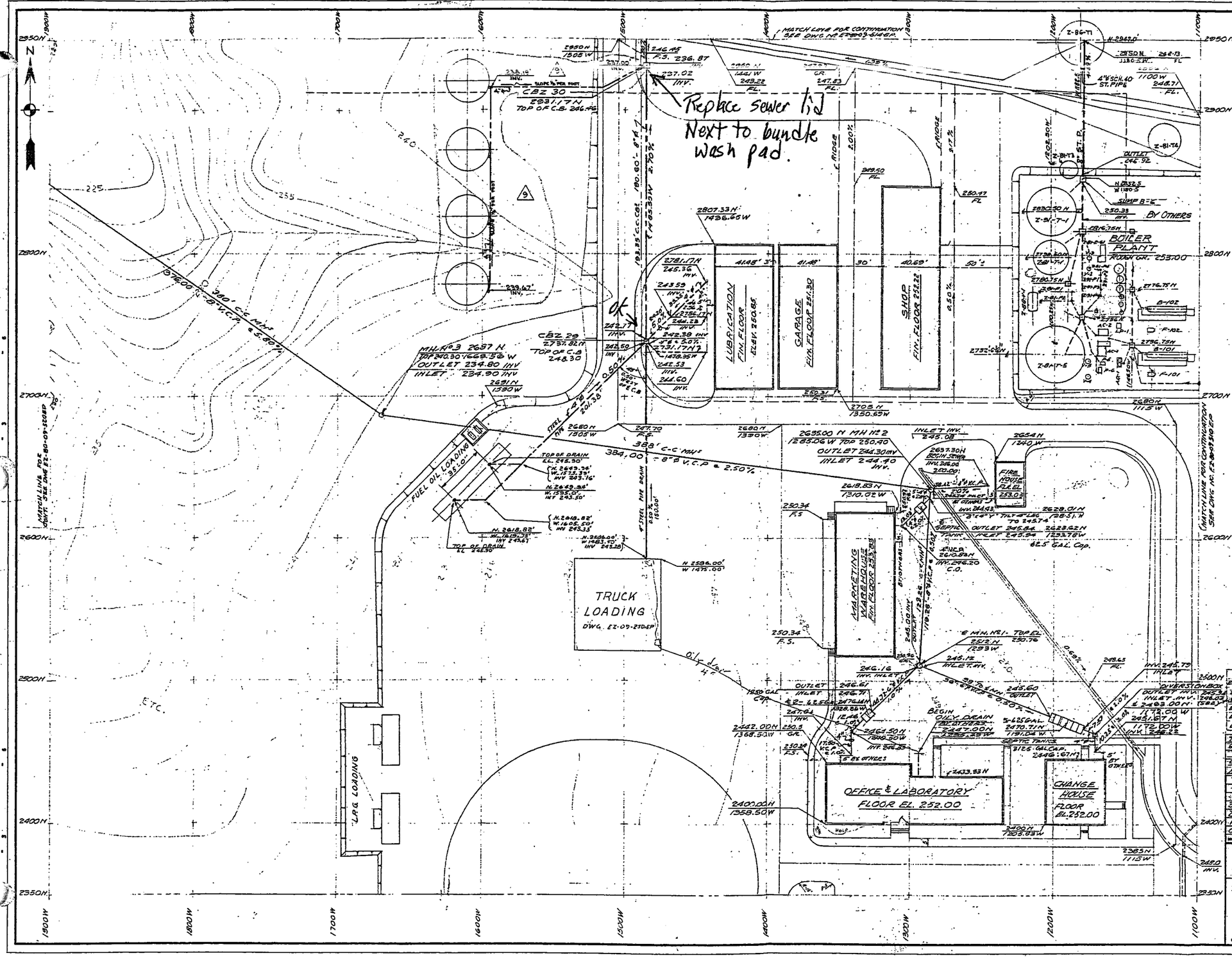
APPROVED FOR CONSTRUCTION
DESIGN ENGR. R. Pitman DATE 4-21-57
Chief Engr. 4-21-57

BOILER PLANT UNDERGROUND PIPING PLAN

EL PASO NATURAL GAS PRODUCTS COMPANY
GALLUP — CIMEZA REFINERY — NEW MEXICO

SCALE	1/8" = 1'-0"	DATE
DRAWN BY	EES	2-26-57
CHECKED BY	APEL	4-21-57
APPROVED BY	AJT	4-22-57
JOB ENGR.	R. Pitman	4-22-57
EZ-81-09-102-EP		REV. 5

DRAWING SIZE



REVISIONS			
B	JFJ	7-26-64	ADDED Z-86-71 (WO86500-50) DFE
A	EPS	12-5-70	ADDED DIRTY OIL DRAIN FROM MARKETING TANKS

NOTE: SEPTIC TANKS 5' WIDE x 8' LONG x 5'0" DEEP. FIELD PROVIDE LEVEL BOTTOM 4'4" BELOW INVERT OF PIPE. BATTERY OF SEPTIC TANKS SEE 625 GAL. TANKS IN SERIES.

LEGEND
- SANITARY SEWER
- DIRTY OIL DRAINAGE
- DIRTY OIL DRAINAGE IN BOILER PLANT

NOTE:-
SEPTIC TANKS SHALL BE NOTTINGHAM OR EQUAL - BATTERY OR SINGLE.

APPROVED FOR CONSTRUCTION

SIGNED	DATE
D. M. Ryer	7-31-57
[illegible]	8-1-57

DWG. NO.	REFERENCE DRAWINGS
EZ-09-102-EP	BOILER PLANT UNDER GROUND PIPING PLAN
EZ-09-248-EP	STEAM & GAS "AUX" OVERHEAD PIPE SW
EZ-03-118-EP	CATCH BASIN & DIVERSION BOX
EZ-09-09-301-EP	KEY PLAN
EZ-03-113-EP	SITE GRADING PLAN

No.	BY	DATE	REVISIONS
7	RCL	6-14-62	CHG'D TOP EL. OF CBZ-29 FROM 247.30 TO 248.30
6	EA	8-7-57	REVISED OILY OIL DRAINS FROM FUEL OIL
			TRUCK LOADING: DELETE CBZ-31 EPS
5	FW	7-16-57	ADDED BOILER PLANT TANKS & OILY OIL DRAINS, SEPTIC TANKS
4	FW	12-5-57	ADDED OILY DRAIN FROM TANKS & FUEL LOADING CBZ-29
			TANKS 12 TO 17 & 2 SEPTIC & SUP. TANK & BLDG. LAB. SANITARY
			ADDED OILY DRAIN FROM BOILER & LUB. PLANT
			ADDED NOTE LAB. TANK & SEW. AT CHANGE HO.
3	FW	3-19-57	RE-ALIGNMENT SEWER & ELEV.
2	H	7-1-57	ADDED NOTE AND SIZES
1	H	5-1-57	ISSUED FOR CONSTRUCTION
0	H	2-25-57	ISSUED FOR APPROVAL

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SEWERAGE & DRAINAGE SYSTEM
2350N TO 2950N.
1100W. TO 1900W.

EL PASO NATURAL GAS PRODUCTS COMPANY
GALLUP — GINIZA REFINERY — NEW MEXICO

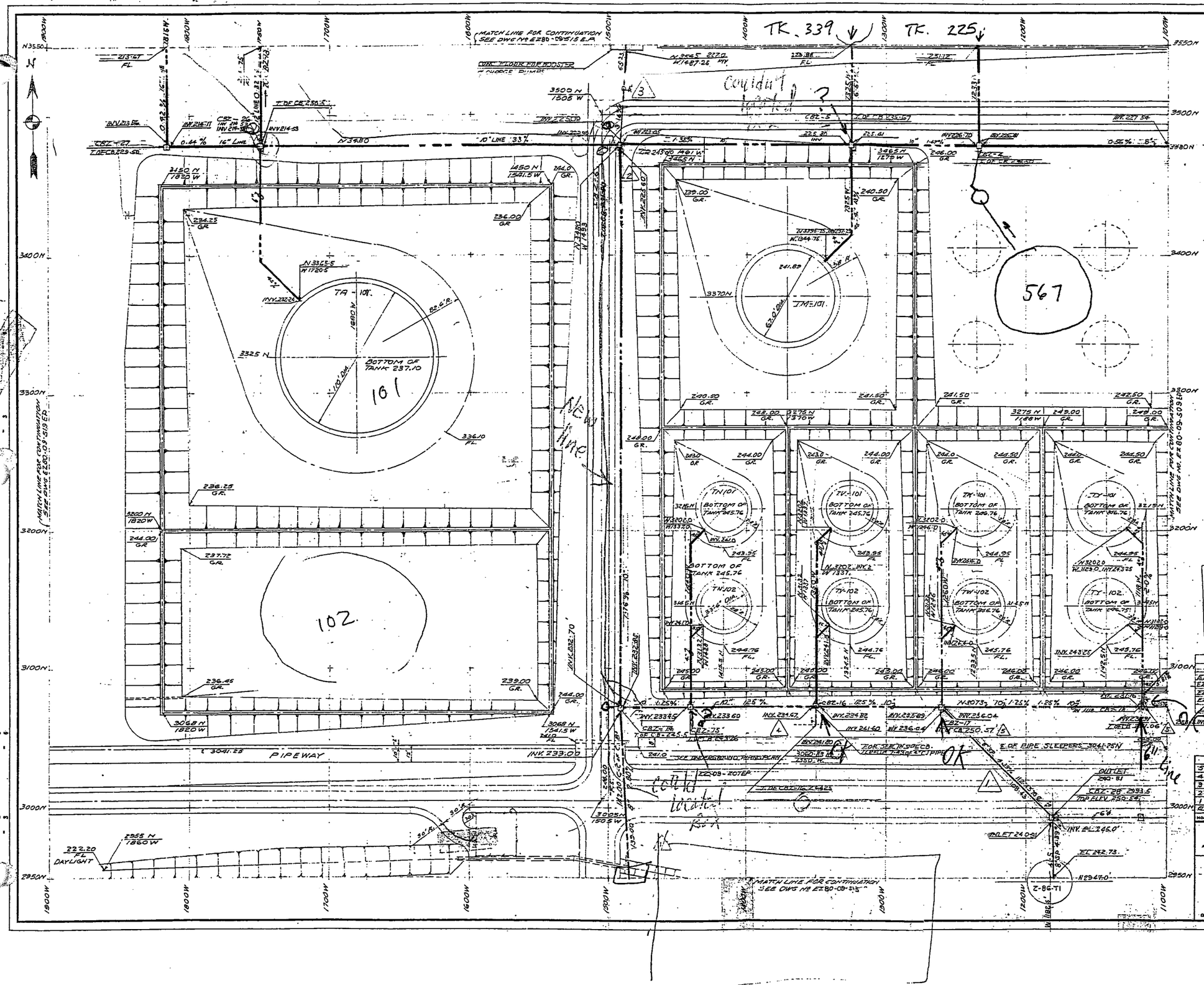
SCALE 1"=50'		DATE
DRAWN BY FRED W		1-28-57
CHECKED BY		2-21-57
APPROVED BY		2-26-57
JOB ENG'R		2-26-57
EZ80-09-512-EP		REV.

DRAWING SIZE A-7026

TO CUSTOMER ISSUED REV. 1 - 2 - 3 — DATE — REV. 4 - 5 - 6

TO SHOP ISSUED REV. 1 - 2 - 3 — DATE — REV. 4 - 5 - 6

DET. CHK.



NOTE

FOR GENERAL NOTES & TYPICAL DETAILS SEE DRWG. EZ-09-165 EP

APPROVED
FOR CONSTRUCTION
W.B. Dyer
DATE 3-18-57

DWG NO.	REFERENCE DRAWINGS
EZ-72-03-10EP	TRANSFER PUMPS ETC.
EZ-03-115EP	CATCH BASIN & MANHOLE DETAILS
EZ-09-165EP	DETAILS SEE DETAIL D, TANK SHELL ASSEMBLY
EZ-02-114EP	SITE GRADING PLAN

NO.	BY	DATE	REVISIONS
5	P.L.	4-19-60	CHG'D. TOP EL. OF CBZ-17 & CBZ-18
4	RWA	5-23-57	ADDED OILY DRAIN FROM TRANSFER PUMPS.
3	RWA	5-15-57	OILY DRAIN FROM BOOSTER & CHARGE PUMPS ADDED
2	RWA	5-10-57	NEW WLOORD FOR CBZ-6 W433
1	RWA	5-9-57	ADDED OILY DRAIN 5
0	H	3-18-57	ISSUED FOR CONSTRUCTION

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DRAINAGE & SEWERAGE
2950N TO 3550N
1100W TO 1900W

EL PASO NATURAL GAS PRODUCTS COMPANY
GALLUP CINZA REFINERY NEW MEXICO

SCALE 1/80" = 1'-0"		DATE
DRAWN BY	FRED W.	2-28-57
CHECKED BY		3-7-57
APPROVED BY		3-18-57
JOB ENG'R		3-11-57
EZ80-09-514EP		REV. 5

DRAWING SIZE A-7026

ALKYLATION UNIT

UNDERGROUND PROCESS AND WASTEWATER LINES

Alkylation Unit

The Alky sewer tests were performed on all accessible lines inside battery limits. The lateral lines were either tested individually or with the main line between consecutive boxes . Each sewer test was performed by plugging each end of the line with an inflatable stopple. An inflatable bypass stopple or plug was installed on one end of the line and connected to a 1" pipe. the pipe was filled with water to a minimum of seven feet above grade. If the water maintained a constant "full" level for a period of one hour , then the line passed.

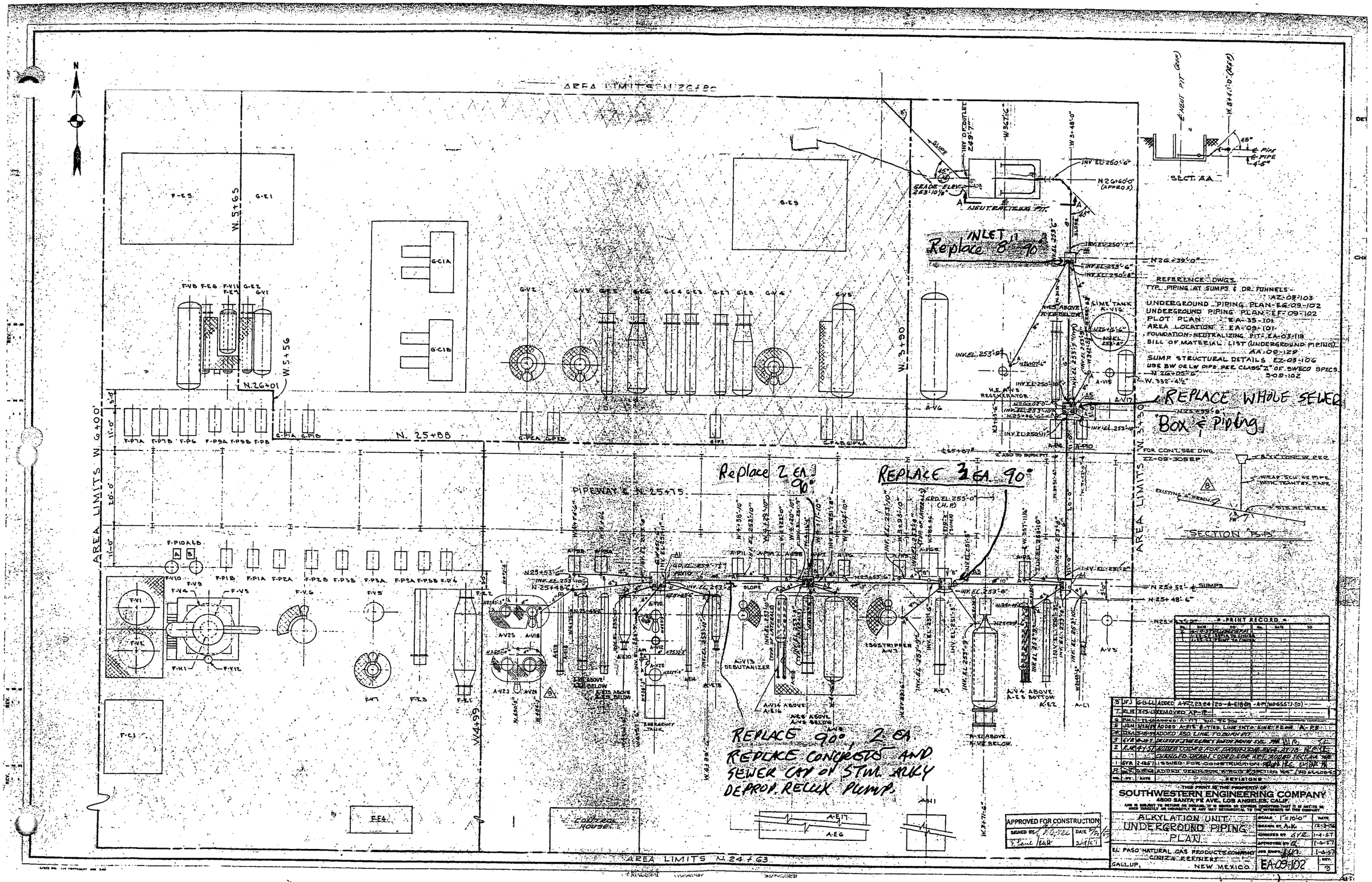
ID Number	Lateral Drains	Date Installed	Drawing Reference	Test Date	Pass/Fail/Repair Information	Signature	Investigation Results
A1	A-V23 & A-V24	1957	EA-09-102	A-04	Did not hold water	Robert Stock	
	A-V25	1957	EA-09-102	A-04	Taken out of Service & not tested	Robert Stock	
	A-P8A & A-P8B	1957	EA-09-102	A-04	Taken out of Service & not tested	Robert Stock	
	A-E10	1957	EA-09-102	A-04	Did not hold water	Robert Stock	
	A-V1O	1957	EA-09-102	A-04	Did not hold water	Robert Stock	
	A-V10 & A-V22	1957	EA-09-102	A-04	Taken out of Service & not tested	Robert Stock	
	A-E-15	1957	EA-09-102	A-04	Taken out of Service & not tested	Robert Stock	
	A-P1A	1957	EA-09-102	A-04	Did not hold water	Robert Stock	
Main line from Box A1& A2		1957	EA-09-102	A-04	Did not hold water & water seals are severely corroded.	Robert Stock	
A2	A-P1A, A-P11, A-P9A & A-P9B	1957	EA-09-102	A-04	Did not hold water	Robert Stock	
	A-P7	1957	EA-09-102	A-04	Taken out of Service & not tested	Robert Stock	
	A-P6A	1957	EA-09-102	A-04	Did not hold water	Robert Stock	
	A-V14 & A-V16	1957	EA-09-102	A-04	Taken out of Service & not tested	Robert Stock	
	A-V8 & A-V9	1957	EA-09-102	A-04	Taken out of Service & not tested	Robert Stock	
	A-V8	1957	EA-09-102	A-04	Taken out of Service & not tested	Robert Stock	
Main line from Box A2& A3		1957	EA-09-102	A-04	Did not hold water & water seals are severely corroded.	Robert Stock	
A3	A-P6B	1957	EA-09-102	A-04	Did not hold water	Robert Stock	
	A-V7	1957	EA-09-102	A-04	Taken out of Service & not tested	Robert Stock	
	A-V2	1957	EA-09-102	A-04	Did not hold water	Robert Stock	
Main line from Box A3 & A4 does not hold water and the water seals are severely corroded.		1957	EA-09-102	A-04	The 6" line is corroded into the concrete sump wall on both ends of the line. The concrete sump box bottom floor is severely corroded.	Robert Stock	
A4	A-P3	1957	EA-09-102	A-04	Did not hold water	Robert Stock	
	A-V4 & A-V5	1957	EA-09-102	A-04	Did not hold water	Robert Stock	
	A-E1	1957	EA-09-102	A-04	Did not hold water	Robert Stock	
	A-P5A & A-P5B	1957	EA-09-102	A-04	Did not hold water	Robert Stock	
Main line from Box A4 & A5 does not hold water and the water seals are severely corroded.		1957	EA-09-102	A-04	The 6" line is corroded into the concrete sump wall on both ends of the line. The concrete sump box bottom floor is severely corroded.	Robert Stock	
A5	A-E4 & A-E5	1957	EA-09-102	A-04	Did not hold water. The line is corroded into the concrete basin.	Robert Stock	
	A-P4 & A-P10	1957	EA-09-102	A-04	Taken out of Service & not tested	Robert Stock	
	A-V15	1957	EA-09-102	A-04	Taken out of Service & not tested	Robert Stock	
Main line from Box A5 & A6 does not hold water and the water seals are severely corroded.		1957	EA-09-102	A-04	The 6" line is corroded into the concrete sump wall on both ends of the line. The concrete sump box bottom floor is severely corroded.	Robert Stock	

UNDERGROUND PROCESS AND WASTEWATER LINES

Alkylation Unit

The Alky sewer tests were performed on all accessible lines inside battery limits. The lateral lines were either tested individually or with the main line between consecutive boxes . Each sewer test was performed by plugging each end of the line with an inflatable stopple. An inflatable bypass stopple or plug was installed on one end of the line and connected to a 1" pipe. the pipe was filled with water to a minimum of seven feet above grade. If the water maintained a constant "full" level for a period of one hour , then the line passed.

ID Number	Lateral Drains	Date Installed	Drawing Reference	Test Date	Pass/Fail/Repair Information	Signature	Investigation Results
A6	A-V5	1957	EA-09-102	A-04	Taken out of Service & not tested	Robert Stock	
Main line from Box A6 & ALSO Pit did not hold water.		1957	EA-09-102	A-04	The 8" line is corroded into the concrete sump wall & the concrete sump box is severely corroded.	Robert Stock	
Sewer Box A6 Flows N. then NW. then W. To Neutralizing Pit		1957	EA-09-102				
From Neutralizing Pit Drains Toward NW To Catch Basin CBZ-25 at Treating Unit		1957	EZ-80-09-510EP				
From Catch Basin CBZ-25 to Catch Basin CBZ-24		1960	EZ-80-09-510EP				End of Alky Unit
Also From Catch Basin C-11(Crude Unit) To Catch Basin CBZ-24		1957	EC-09-125 & EZ-80-510EP				Info Only, See Crude Unit



AREA LIMITS N 26+80
AREA LIMITS W 6+00
AREA LIMITS W 3+30
AREA LIMITS N 24+63
W 5+65
W 5+56
W 3+90
W 4+99
N 26+01
N 25+88
PIPEWAY ℄ N 25+75
INLET
Replace 8" 90°
REPLACE WHOLE SEWER
Box & Piping
Replace 2 EA 90°
REPLACE 3 EA 90°
REPLACE 90°, 2 EA.
REPLACE CONCRETE AND
SEWER CAP OF STM. ALKY
DEPROP. RELUX PUMP.
NEUTRALIZING PIT
SECT. AA
SECTION "B-B"
REFERENCE DWGS.
TYP. PIPING AT SUMPS & DR. FUNNELS - AZ-09-103
UNDERGROUND PIPING PLAN - EG-09-102
UNDERGROUND PIPING PLAN - EF-09-102
PLOT PLAN - EA-35-101
AREA LOCATION - EA-09-101
FOUNDATION - NEUTRALIZING PIT - EA-03-118
BILL OF MATERIAL LIST (UNDERGROUND PIPING) AA-09-129
SUMP STRUCTURAL DETAILS EZ-05-106
USE BW OR LW PIPE PER CLASS "Z" OF SWECO SPECS. 5-09-102
FOR CONT. SEE DWG. ZZ-09-305EP
PRINT RECORD
REVISIONS
THIS PRINT IS THE PROPERTY OF
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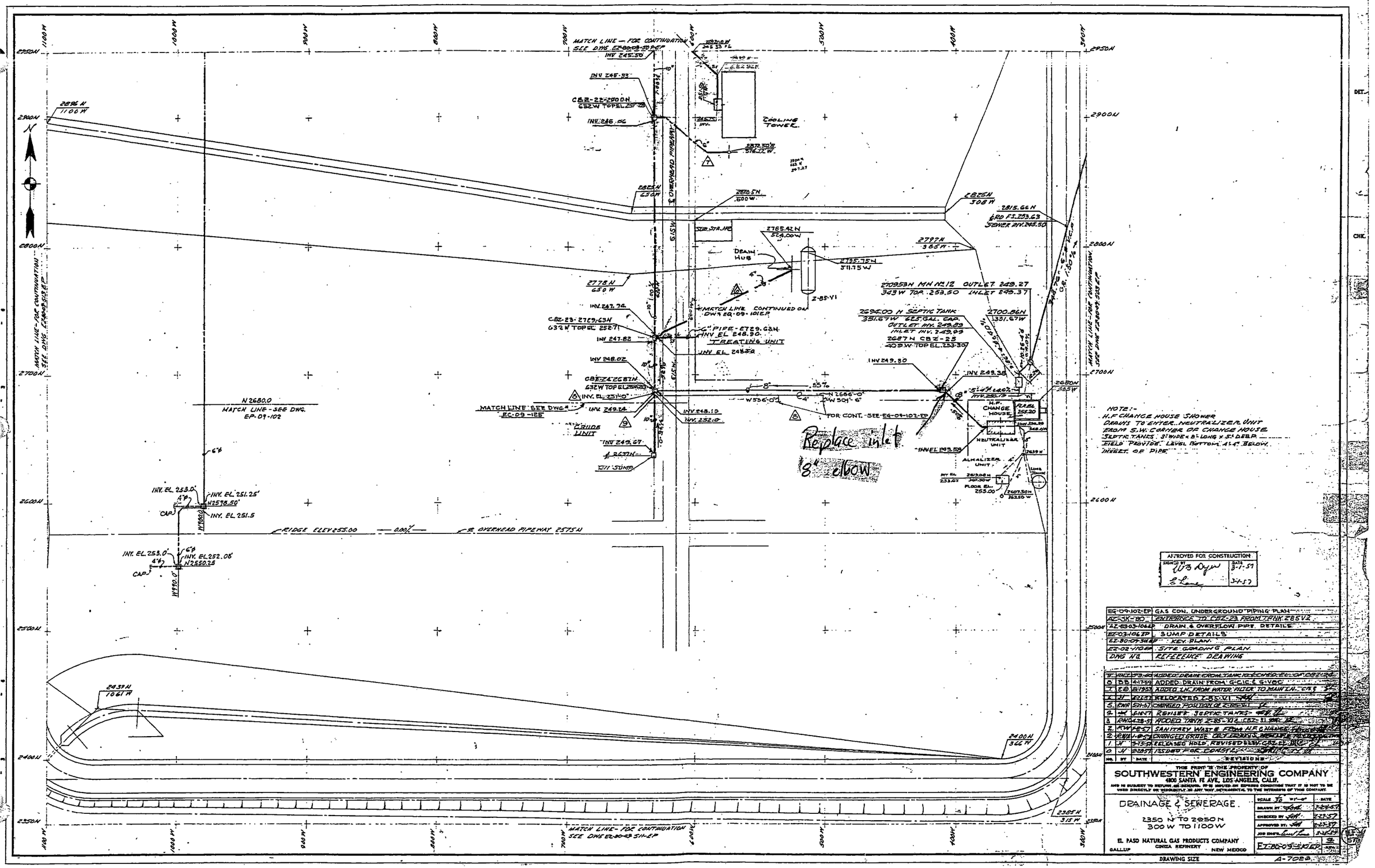
4800 SANTA FE AVE., LOS ANGELES, CALIF.
ALKYLATION UNIT
UNDERGROUND PIPING PLAN
EL PASO NATURAL GAS PRODUCTS COMPANY
CINIZA REFINERY
GALLUP, NEW MEXICO
EA-09-102
APPROVED FOR CONSTRUCTION

HAVE Lg MAP


MATCH LINE — FOR CONTINUATION SEE DWG. EZ-80-09-50-EP
COOLING TOWER
OVERHEAD PIPEWAY
DRAIN HUB
MATCH LINE CONTINUED ON DWG. EQ-09-101-EP
TREATING UNIT
MH No. 12 OUTLET 249.27 INLET 249.37
SEPTIC TANK
H.F. CHANGE HOUSE
NEUTRALIZER UNIT
ALKALIZER UNIT
OIL SUMP
MATCH LINE SEE DWG. EC-09-125
MATCH LINE - SEE DWG. EP-09-102
FOR CONT. - SEE EG-09-102-EP
RIDGE ELEV 255.00
OVERHEAD PIPEWAY 2575N
MATCH LINE - FOR CONTINUATION SEE DWG EZ-80-09-511-EP
Replace inlet 8" elbow
NOTE:- H.F CHANGE HOUSE SHOWER DRAINS TO ENTER NEUTRALIZER UNIT FROM S.W. CORNER OF CHANGE HOUSE. SEPTIC TANKS: 2' WIDE x 8' LONG x 5' DEEP. FIELD PROVIDE LEVEL BOTTOM 4'-4" BELOW INVERT OF PIPE.
APPROVED FOR CONSTRUCTION
EG-09-102-EP GAS CON. UNDERGROUND PIPING PLAN
AZ-03-106 EP DRAIN & OVERFLOW PIPE DETAILS
EZ-03-106 EP SUMP DETAILS
EZ-80-09-50 EP KEY PLAN
EZ-02-110 EP SITE GRADING PLAN
DWG NO. REFERENCE DRAWING
ADDED DRAIN FROM TANK TO 4" CONFIG. 2'-0" OF 0.82" PIPE
ADDED DRAIN FROM G.C.I.C. & G.VOC
ADDED 1" LN. FROM WATER FILTER TO MAIN LN. - CBZ
RELOCATED Z-85-V1
CHANGED POSITION OF Z-85-V1
REVISED SEPTIC TANKS
ADDED TANK 2-85-102 & CBZ-21
SANITARY WASTE FROM H.F. CHANGE HOUSE
CHANGED GRADE
RELOCATED HOLD. REVISED BLDG. CBZ-22
ISSUED FOR CONSTRUCTION
REVISIONS
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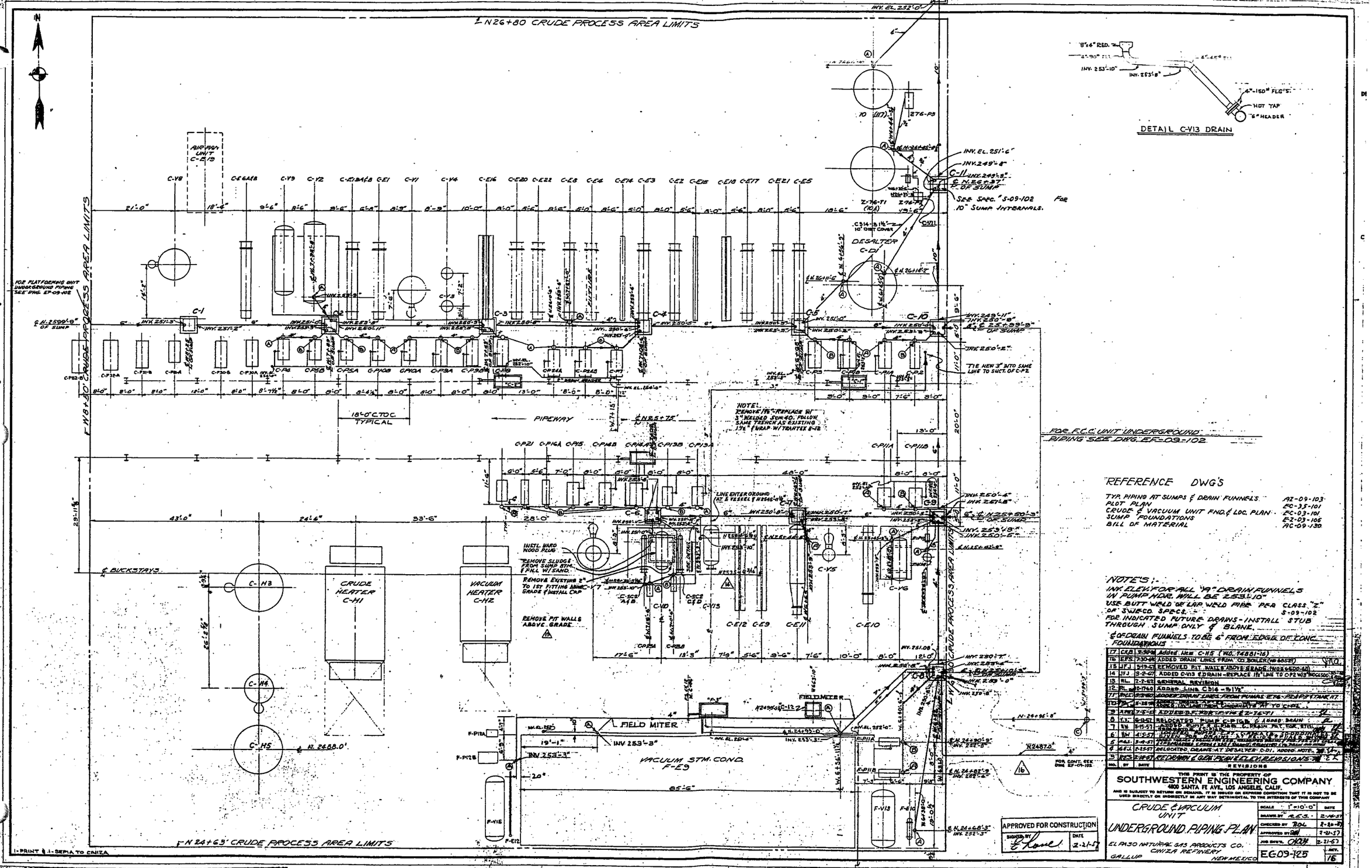
4800 SANTA FE AVE., LOS ANGELES, CALIF.
DRAINAGE & SEWERAGE
2350 N TO 2950 N
300 W TO 1100 W
EL PASO NATURAL GAS PRODUCTS COMPANY
GALLUP CINCA REFINERY NEW MEXICO
DRAWING SIZE
A-7029



REFERENCE DWG'S

TYP. PIPING AT SUMPS & DRAIN FUNNELS	AZ-09-103
PLOT PLAN	EC-35-101
CRUDE & VACUUM UNIT FND. & LOC. PLAN	EC-03-101
SUMP FOUNDATIONS	EZ-03-106
BILL OF MATERIAL	AC-09-130

NOTES:-

INV. ELEV. FOR ALL "A" DRAIN FUNNELS IN PUMP HDR. WILL BE 253'-10"
USE BUTT WELD OR LAP WELD PIPE PER CLASS "Z" OF SWECO SPECS. S-09-102
FOR INDICATED FUTURE DRAINS - INSTALL STUB THROUGH SUMP ONLY & BLANK.
℄ OF DRAIN FUNNELS TO BE 6" FROM EDGE OF CONC. FOUNDATIONS

NO.	BY	DATE	REVISIONS
17	CKB	9-30-66	Added New C-H5 (W.O. 74881-16)
16	EFS	7-30-64	ADDED DRAIN LINES FROM CO. BOILER (WO 68539)
15	JFJ	5-19-67	REMOVED PIT WALLS ABOVE GRADE (WO 66500-40)
14	JFJ	3-2-67	ADDED C-V13 & DRAIN - REPLACE 1½" LINE TO C-P2 W/3" (WO 66500-40)
13	RL	2-2-62	GENERAL REVISION
12	RL	10-17-60	ADDED LINE C314 - B1½"
11	[illegible]	[illegible]	ADDED DRAIN LINES FROM PUMPS E-76-P2 & P3 & TANK H7
10	[illegible]	[illegible]	ADDED DRAIN LINES FROM CONDENSATE AT TO C-P2
9	[illegible]	7-5-[illegible]	ADDED D.F. FOR F-V14 & Z-76-T1
8	[illegible]	6-12-57	RELOCATED PUMP C-P16B & ADDED DRAIN
7	[illegible]	5-15-57	ADDED PUMP C-P16B & DRAIN PAT. FOR STCL.
6	[illegible]	4-5-57	[illegible]
5	[illegible]	3-19-57	[illegible]
4	[illegible]	2-25-57	RELOCATED DRAINS AT DESALTER C-D1. ADDED NOTE
3	[illegible]	2-18-57	REDRAWN & GEN. PLAN & ELEV. REVISIONS

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APPROVED FOR CONSTRUCTION
SIGNED BY [signature] DATE 2-21-57

CRUDE & VACUUM UNIT
UNDERGROUND PIPING PLAN
EL PASO NATURAL GAS PRODUCTS CO.
CINIZA REFINERY
GALLUP NEW MEXICO

SCALE	1"=10'-0"	DATE
DRAWN BY	R.E.S.	2-14-57
CHECKED BY	ROL	2-20-57
APPROVED BY	[illegible]	2-21-57
JOB ENG'R.	[illegible]	2-21-57

EG09-125 REV. 16

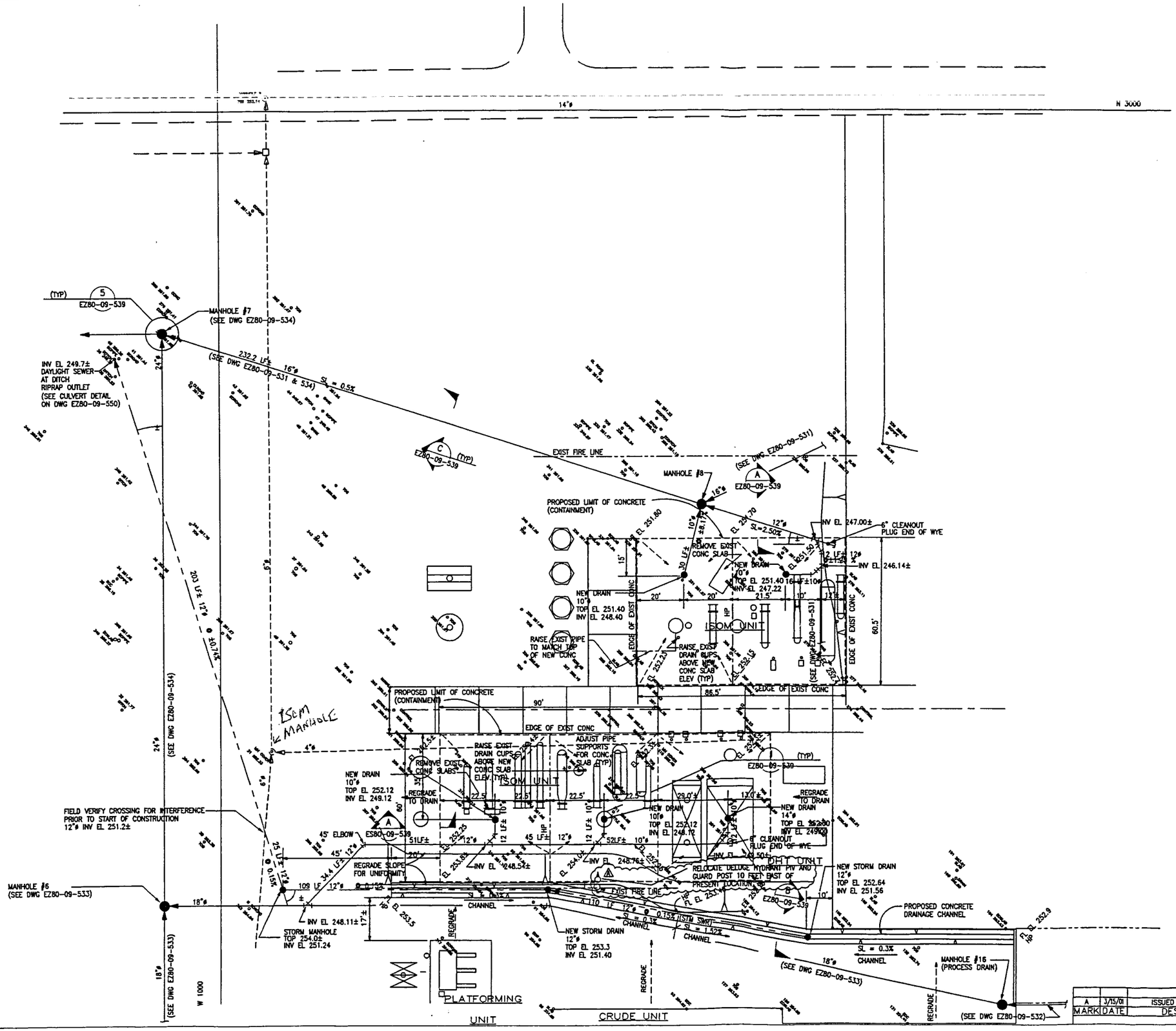
ISOM UNIT

UNDERGROUND PROCESS AND WASTEWATER LINES

ISOM UNIT

ID Number (Sewer Box or Catch Basin	Lateral Drains and/or Headers	Date Installed	Drawing Reference	Test Date	Pass/Fail/Repair Information	Test Water Column (Feet)	Test Duration (Minutes)	Signature	Investigation Results	NOTES
P-5 Flows N. @ W980"-0" thru Manhole 31 232.33 (ISOM Manhole) to EZ80-09-509-EP Map		1957	EP-09-102 , EZ80-09-509-EP &EZ80-09-Sewer2	Info maps only used to reference point W980 from NHT						NHT (Connects to ISOM Manhole)
I believe these Drains connect to East to West 4"lateral to (Isom Manhole) 31 232.33	I-V9	1998	Z-35-104 & EZ-80-09-SEWER2							
	I-V13	1998	Z-35-104 & EZ-80-09-SEWER2							
	I-P6	1998	Z-35-104 & EZ-80-09-SEWER2							
	I-P1A	1998	Z-35-104 & EZ-80-09-SEWER2							
	I-P1B	1998	Z-35-104 & EZ-80-09-SEWER2							
	I-V11	1998	Z-35-104 & EZ-80-09-SEWER2							
	I-P5B	1998	Z-35-104 & EZ-80-09-SEWER2							
	I-P2B	1998	Z-35-104 & EZ-80-09-SEWER2							
	I-P2A	1998	Z-35-104 & EZ-80-09-SEWER2							
	I-V8	1998	Z-35-104 & EZ-80-09-SEWER2							
	I-H27	1998	Z-35-104 & EZ-80-09-SEWER2							

REFERENCE DRAWINGS



NOTES

1. FOR GENERAL NOTES REFER TO DWG EZ80-09-531

LEGEND

- EDGE OF CONCRETE
- APPROX RIDGE LINE (HP)
- EXIST PROCESS DRAINS
- PROPOSED CONCRETE AREA
- PROPOSED NEW PROCESS SEWER
- PROPOSED NEW STORMWATER SEWER

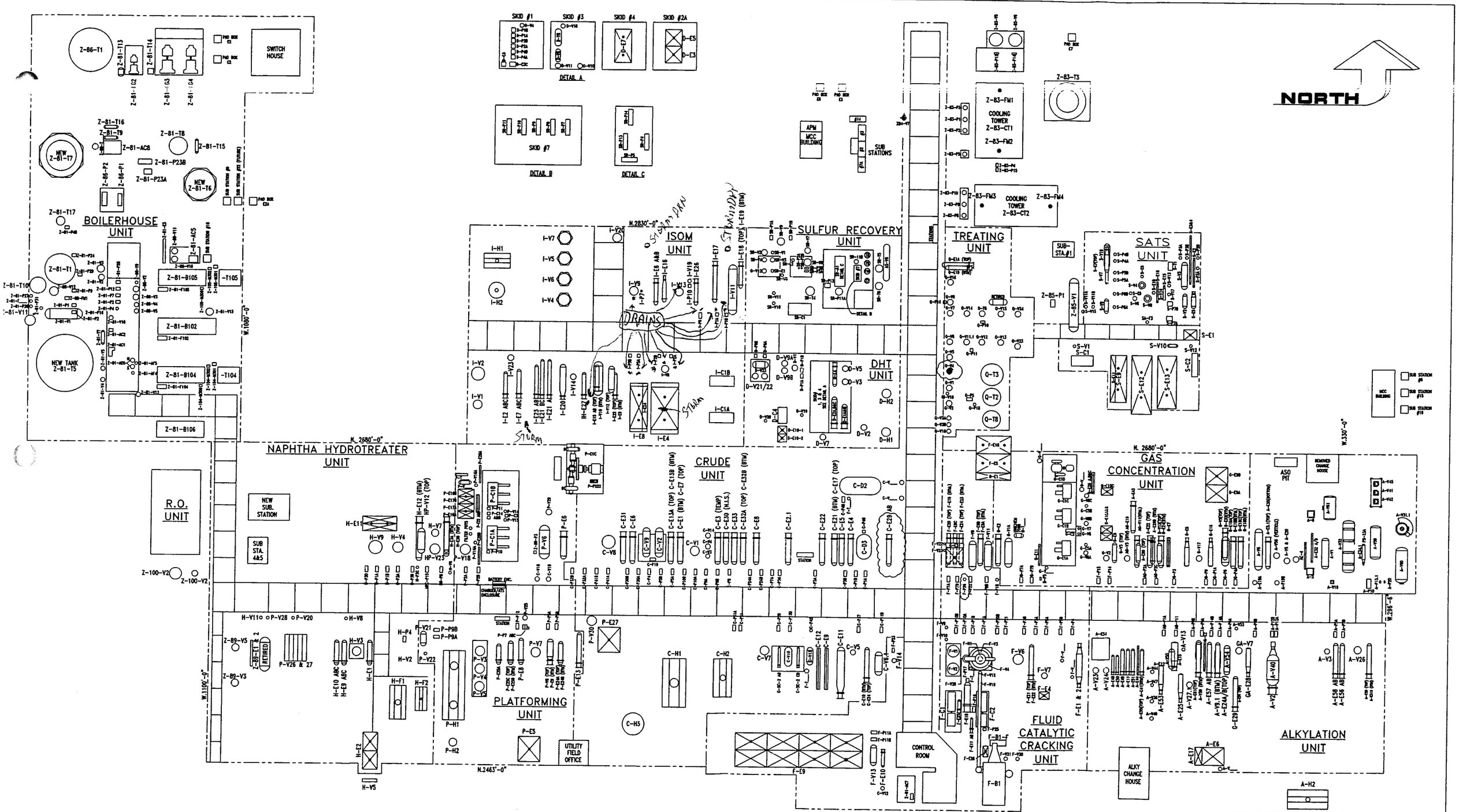
ISSUED FOR CONSTRUCTION
DATE: 12/04/97
RAPLEY ENGINEERING SERVICES, INC.

CINIZA REFINERY — GIANT REFINING, CO. — GALLUP NEW MEXICO
A DIVISION OF GIANT INDUSTRIES

ISOM UNIT
PROCESS STORM SEWER
PIPING & PAVING

MARK	DATE	DESCRIPTION	BY	APRVD
A	3/15/01	ISSUED FOR APPROVAL	RDP	JH

SCALE	1"=20'	APRV'D.
DATE	01/05/98	APRV'D
DRN.	DPB	20
CHK'D. JHW	DWG NO. EZ80-09-SEWER2	



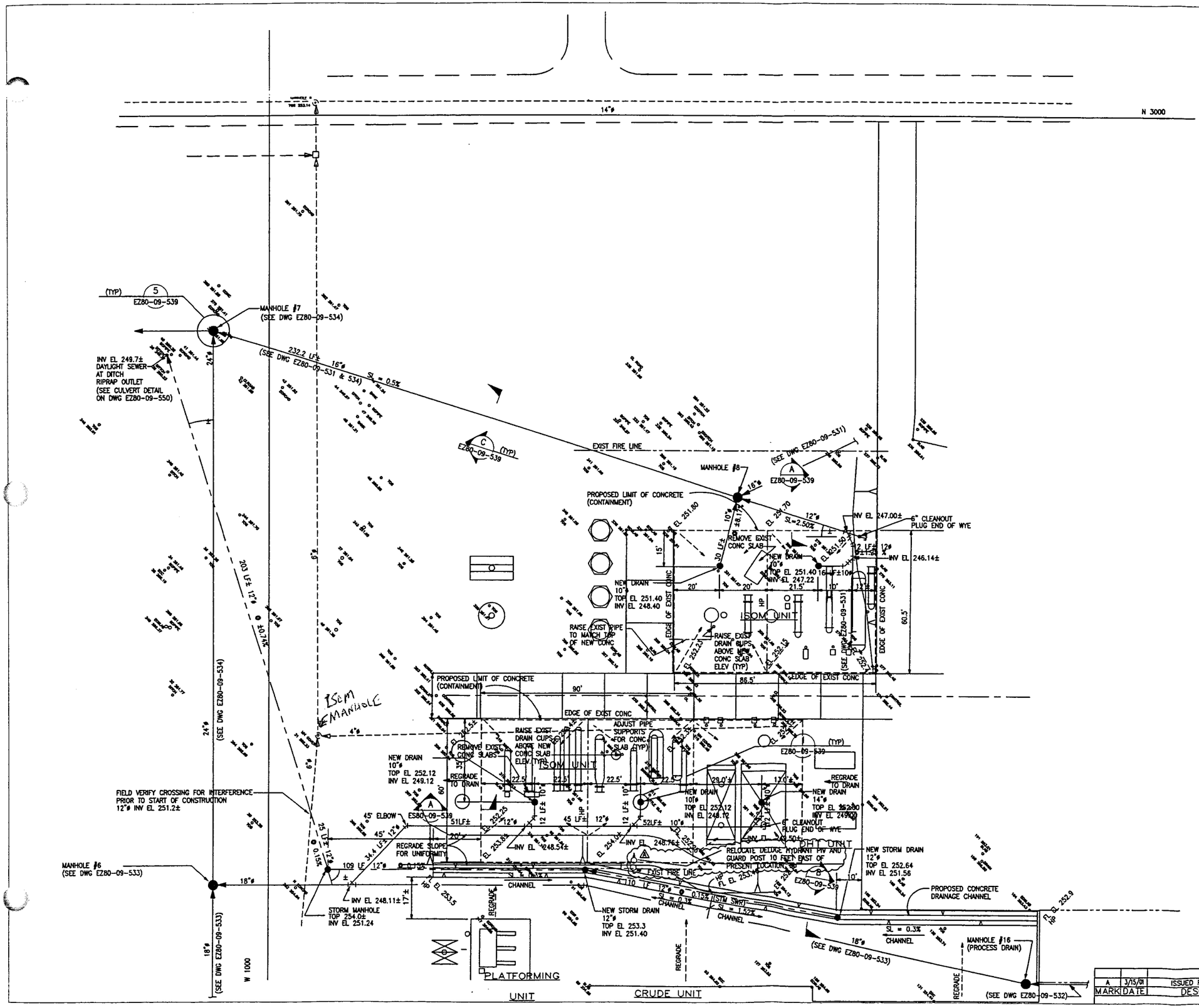
CINIZA REFINERY — GIANT REFINING,CO. A DIVISION OF GIANT INDUSTRIES — GALLUP NEW MEXICO

MASTER EQUIPMENT PLOT PLAN

MARK	DATE	DESCRIPTION	BY	APRVD
13	11/03	UPDATED	CLM	

SCALE:	1" = 30'-0"	APRV'D.:	
DATE:	28SEP00		
DRAWN BY:	C.L.M.		REV.
CHK'D.:	DWG NO. Z-35-104		13

REFERENCE DRAWINGS



NOTES

1. FOR GENERAL NOTES REFER TO DWG EZ80-09-531

LEGEND

- EDGE OF CONCRETE
- APPROX RIDGE LINE (HP)
- EXIST PROCESS DRAINS
- PROPOSED CONCRETE AREA
- PROPOSED NEW PROCESS SEWER
- PROPOSED NEW STORMWATER SEWER

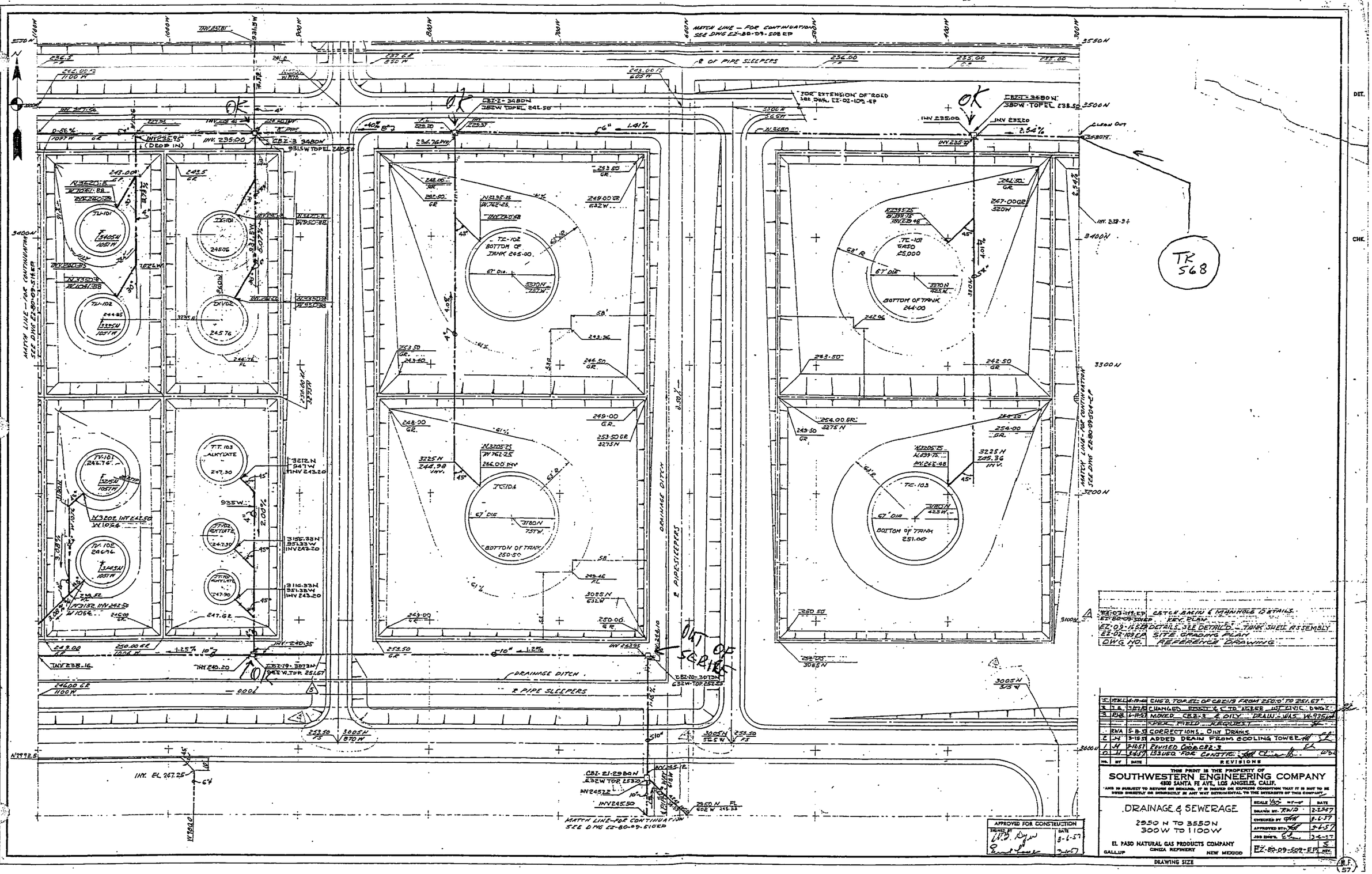
ISSUED FOR CONSTRUCTION
DATE: 12/04/97
RAPLEY ENGINEERING SERVICES, INC.

CINIZA REFINERY — GIANT REFINING, CO. — GALLUP NEW MEXICO
A DIVISION OF GIANT INDUSTRIES

ISOM UNIT
PROCESS STORM SEWER
PIPING & PAVING

MARK	DATE	DESCRIPTION	BY	APRVD
A	3/15/01	ISSUED FOR APPROVAL	RDP	JH

SCALE	1"=20'	APRV'D.	
DATE	01/05/98	APRV'D	
DRN.	DPB	20	REV A
CHK'D. JHW	DWG NO. EZ80-09-SEWER2		



EZ-03-119 EP	CATCH BASIN & MANHOLE DETAILS
EZ-80-09-501 EP	KEY PLAN
EZ-09-165 EP	DETAILS SEE DETAILED – TANK SHELL ASSEMBLY
EZ-02-109 EP	SITE GRADING PLAN
DWG NO.	REFERENCE DRAWING

NO.	BY	DATE	REVISIONS
5	WHL	4-19-60	CHG'D. TOP EL. OF CBZ-19 FROM 250.0' TO 251.67'
4	J.E.	7-27-58	CHANGED ROAD & C TO AGREE W/ CIVIL DWG.
3	RHB	6-10-57	MOVED CBZ-3 & OILY DRAIN – WAS W-935W
			PER FIELD REQUEST
	RWA	5-8-57	CORRECTIONS – OILY DRAINS
2	H	3-15-57	ADDED DRAIN FROM COOLING TOWER
1	H	3-12-57	REVISED COOP CBZ-3
0	H	3-6-57	ISSUED FOR CONSTR.

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4800 SANTA FE AVE., LOS ANGELES, CALIF.

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DRAINAGE & SEWERAGE

2950 N TO 3550 N
300 W TO 1100 W

EL PASO NATURAL GAS PRODUCTS COMPANY
CINCA REFINERY
GALLUP NEW MEXICO

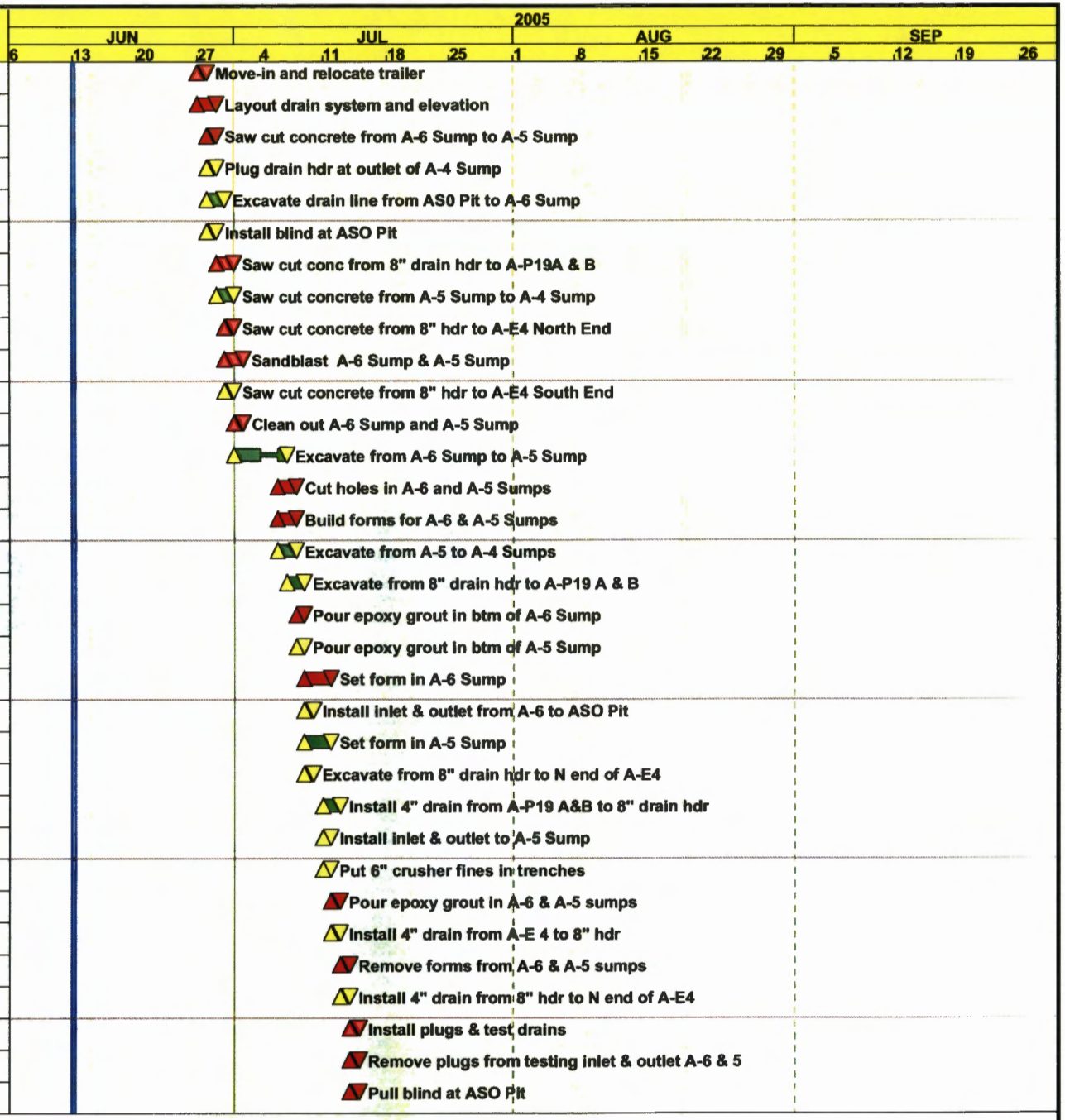
SCALE 1/80" = 1'-0"		DATE
DRAWN BY	RWD	2-23-57
CHECKED BY		3-6-57
APPROVED BY		3-6-57
JOB ENG'R.		3-6-57
EZ-80-09-509-EP		REV. 5

APPROVED FOR CONSTRUCTION
SIGNED BY W.B. Dyer DATE 3-6-57
Ernest Lowe 3-6-57

DRAWING SIZE

M.F. 57

Activity ID	Activity Description	Orig Dur	Early Start	Early Finish
10	Move-in and relocate trailer	1	27JUN05*	27JUN05
20	Layout drain system and	2	27JUN05	28JUN05
40	Saw cut concrete from A-6 Sump	1	28JUN05	28JUN05
90	Plug drain hdr at outlet of A-4	1	28JUN05	28JUN05
30	Excavate drain line from AS0 Pit	2	28JUN05	29JUN05
100	Install blind at ASO Pit	1	28JUN05	28JUN05
60	Saw cut conc from 8" drain hdr to	2	29JUN05	30JUN05
50	Saw cut concrete from A-5 Sump	2	29JUN05	30JUN05
70	Saw cut concrete from 8" hdr to	1	30JUN05	30JUN05
120	Sandblast A-6 Sump & A-5	2	30JUN05	01JUL05
80	Saw cut concrete from 8" hdr to	1	30JUN05	30JUN05
110	Clean out A-6 Sump and A-5	1	01JUL05	01JUL05
130	Excavate from A-6 Sump to A-5	2	01JUL05	06JUL05
160	Cut holes in A-6 and A-5 Sumps	2	06JUL05	07JUL05
170	Build forms for A-6 & A-5 Sumps	2	06JUL05	07JUL05
140	Excavate from A-5 to A-4 Sumps	2	06JUL05	07JUL05
150	Excavate from 8" drain hdr to	2	07JUL05	08JUL05
180	Pour epoxy grout in btm of A-6	1	08JUL05	08JUL05
190	Pour epoxy grout in btm of A-5	1	08JUL05	08JUL05
200	Set form in A-6 Sump	2	09JUL05	11JUL05
220	Install inlet & outlet from A-6 to	1	09JUL05	09JUL05
210	Set form in A-5 Sump	2	09JUL05	11JUL05
260	Excavate from 8" drain hdr to N	1	09JUL05	09JUL05
240	Install 4" drain from A-P19 A&B to	2	11JUL05	12JUL05
230	Install inlet & outlet to A-5 Sump	1	11JUL05	11JUL05
880	Put 6" crusher fines in trenches	1	11JUL05	11JUL05
280	Pour epoxy grout in A-6 & A-5	1	12JUL05	12JUL05
250	Install 4" drain from A-E 4 to 8"	1	12JUL05	12JUL05
290	Remove forms from A-6 & A-5	1	13JUL05	13JUL05
270	Install 4" drain from 8" hdr to N	1	13JUL05	13JUL05
300	Install plugs & test drains	1	14JUL05	14JUL05
310	Remove plugs from testing inlet &	1	14JUL05	14JUL05
360	Pull blind at ASO Pit	1	14JUL05	14JUL05



Start Date	03JUN05
Finish Date	22AUG05
Data Date	13JUN05
Run Date	15JUN05 15:10

Early Bar
Progress Bar
Critical Activity

GI02

Sheet 1 of 4

Giant Refining

Alky Drain System

Preliminary Schedule

Date	Revision	Checked	Approved

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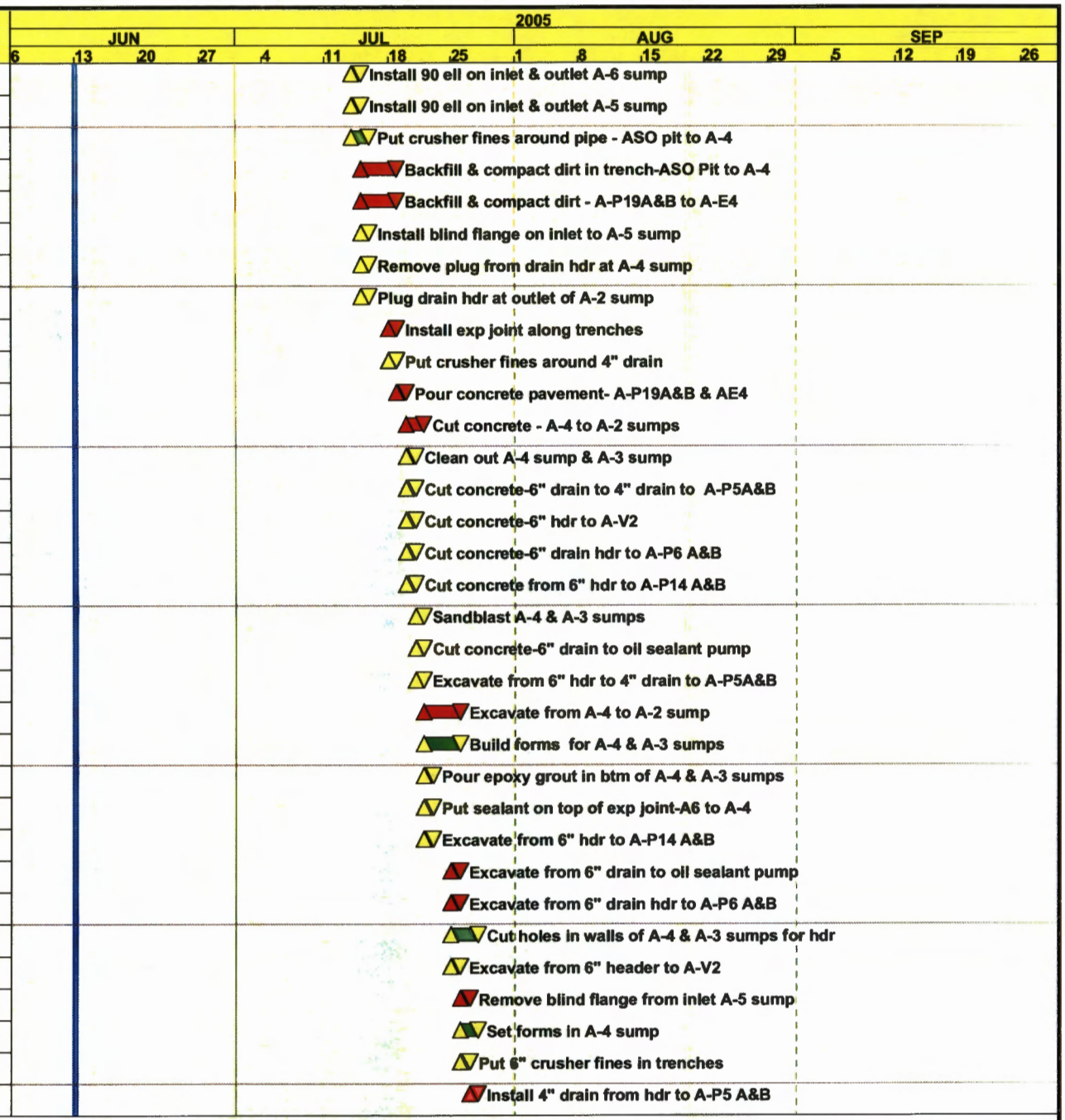
Activity ID	Activity Description	Orig Dur	Early Start	Early Finish
320	Install 90 ell on inlet & outlet A-6	1	14JUL05	14JUL05
330	Install 90 ell on inlet & outlet A-5	1	14JUL05	14JUL05
340	Put crusher fines around pipe -	2	14JUL05	15JUL05
370	Backfill & compact dirt in	2	15JUL05	18JUL05
380	Backfill & compact dirt -	2	15JUL05	18JUL05
420	Install blind flange on inlet to A-5	1	15JUL05	15JUL05
430	Remove plug from drain hdr at	1	15JUL05	15JUL05
440	Plug drain hdr at outlet of A-2	1	15JUL05	15JUL05
390	Install exp joint along trenches	1	18JUL05	18JUL05
350	Put crusher fines around 4" drain	1	18JUL05	18JUL05
400	Pour concrete pavement-	1	19JUL05	19JUL05
550	Cut concrete - A-4 to A-2 sumps	2	20JUL05	21JUL05
450	Clean out A-4 sump & A-3 sump	1	20JUL05	20JUL05
560	Cut concrete-6" drain to 4" drain	1	20JUL05	20JUL05
580	Cut concrete-6" hdr to A-V2	1	20JUL05	20JUL05
590	Cut concrete-6" drain hdr to A-P6	1	20JUL05	20JUL05
655	Cut concrete from 6" hdr to A-P14	1	20JUL05	20JUL05
460	Sandblast A-4 & A-3 sumps	1	21JUL05	21JUL05
570	Cut concrete-6" drain to oil	1	21JUL05	21JUL05
610	Excavate from 6" hdr to 4" drain	1	21JUL05	21JUL05
600	Excavate from A-4 to A-2 sump	2	22JUL05	25JUL05
490	Build forms for A-4 & A-3 sumps	2	22JUL05	25JUL05
470	Pour epoxy grout in btm of A-4 &	1	22JUL05	22JUL05
410	Put sealant on top of exp joint-A6	1	22JUL05	22JUL05
650	Excavate from 6" hdr to A-P14	1	22JUL05	22JUL05
620	Excavate from 6" drain to oil	1	25JUL05	25JUL05
640	Excavate from 6" drain hdr to	1	25JUL05	25JUL05
480	Cut holes in walls of A-4 & A-3	3	25JUL05	27JUL05
630	Excavate from 6" header to A-V2	1	25JUL05	25JUL05
700	Remove blind flange from inlet	1	26JUL05	26JUL05
500	Set forms in A-4 sump	2	26JUL05	27JUL05
1170	Put 6" crusher fines in trenches	1	26JUL05	26JUL05
710	Install 4" drain from hdr to A-P5	1	27JUL05	27JUL05



Start Date	03JUN05
Finish Date	22AUG05
Data Date	13JUN05
Run Date	15JUN05 15:10

Early Bar
Progress Bar
Critical Activity

GI02

Sheet 2 of 4

Giant Refining

Alky Drain System

Preliminary Schedule

Date	Revision	Checked	Approved

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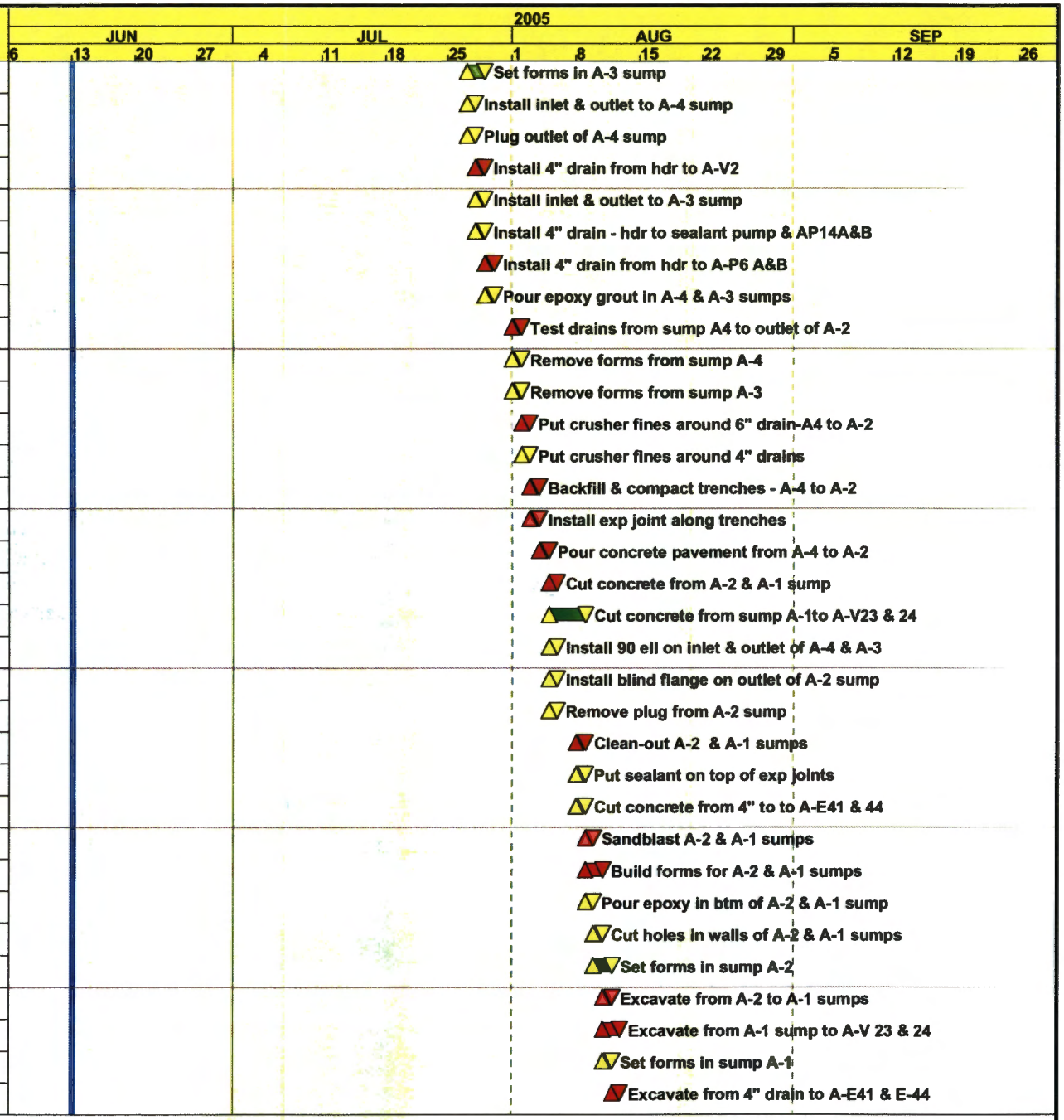
Activity ID	Activity Description	Orig Dur	Early Start	Early Finish
510	Set forms in A-3 sump	2	27JUL05	28JUL05
520	Install inlet & outlet to A-4 sump	1	27JUL05	27JUL05
720	Plug outlet of A-4 sump	1	27JUL05	27JUL05
660	Install 4" drain from hdr to A-V2	1	28JUL05	28JUL05
530	Install inlet & outlet to A-3 sump	1	28JUL05	28JUL05
680	Install 4" drain - hdr to sealant	1	28JUL05	28JUL05
670	Install 4" drain from hdr to A-P6	1	29JUL05	29JUL05
540	Pour epoxy grout in A-4 & A-3	1	29JUL05	29JUL05
750	Test drains from sump A4 to	1	01AUG05	01AUG05
730	Remove forms from sump A-4	1	01AUG05	01AUG05
740	Remove forms from sump A-3	1	01AUG05	01AUG05
760	Put crusher fines around 6"	1	02AUG05	02AUG05
770	Put crusher fines around 4" drains	1	02AUG05	02AUG05
780	Backfill & compact trenches - A-4	1	03AUG05	03AUG05
800	Install exp joint along trenches	1	03AUG05	03AUG05
810	Pour concrete pavement from A-4	1	04AUG05	04AUG05
850	Cut concrete from A-2 & A-1	1	05AUG05	05AUG05
860	Cut concrete from sump A-1to	2	05AUG05	08AUG05
790	Install 90 ell on inlet & outlet of	1	05AUG05	05AUG05
830	Install blind flange on outlet of A-2	1	05AUG05	05AUG05
840	Remove plug from A-2 sump	1	05AUG05	05AUG05
890	Clean-out A-2 & A-1 sumps	1	08AUG05	08AUG05
820	Put sealant on top of exp joints	1	08AUG05	08AUG05
870	Cut concrete from 4" to to A-E41	1	08AUG05	08AUG05
900	Sandblast A-2 & A-1 sumps	1	09AUG05	09AUG05
920	Build forms for A-2 & A-1 sumps	2	09AUG05	10AUG05
910	Pour epoxy in btm of A-2 & A-1	1	09AUG05	09AUG05
930	Cut holes in walls of A-2 & A-1	1	10AUG05	10AUG05
940	Set forms in sump A-2	2	10AUG05	11AUG05
960	Excavate from A-2 to A-1 sumps	1	11AUG05	11AUG05
970	Excavate from A-1 sump to A-V	2	11AUG05	12AUG05
950	Set forms in sump A-1	1	11AUG05	11AUG05
980	Excavate from 4" drain to A-E41	1	12AUG05	12AUG05



Start Date	03JUN05
Finish Date	22AUG05
Data Date	13JUN05
Run Date	15JUN05 15:10

Early Bar
Progress Bar
Critical Activity

GI02

Sheet 3 of 4

Giant Refining

Alky Drain System

Preliminary Schedule

Date	Revision	Checked	Approved

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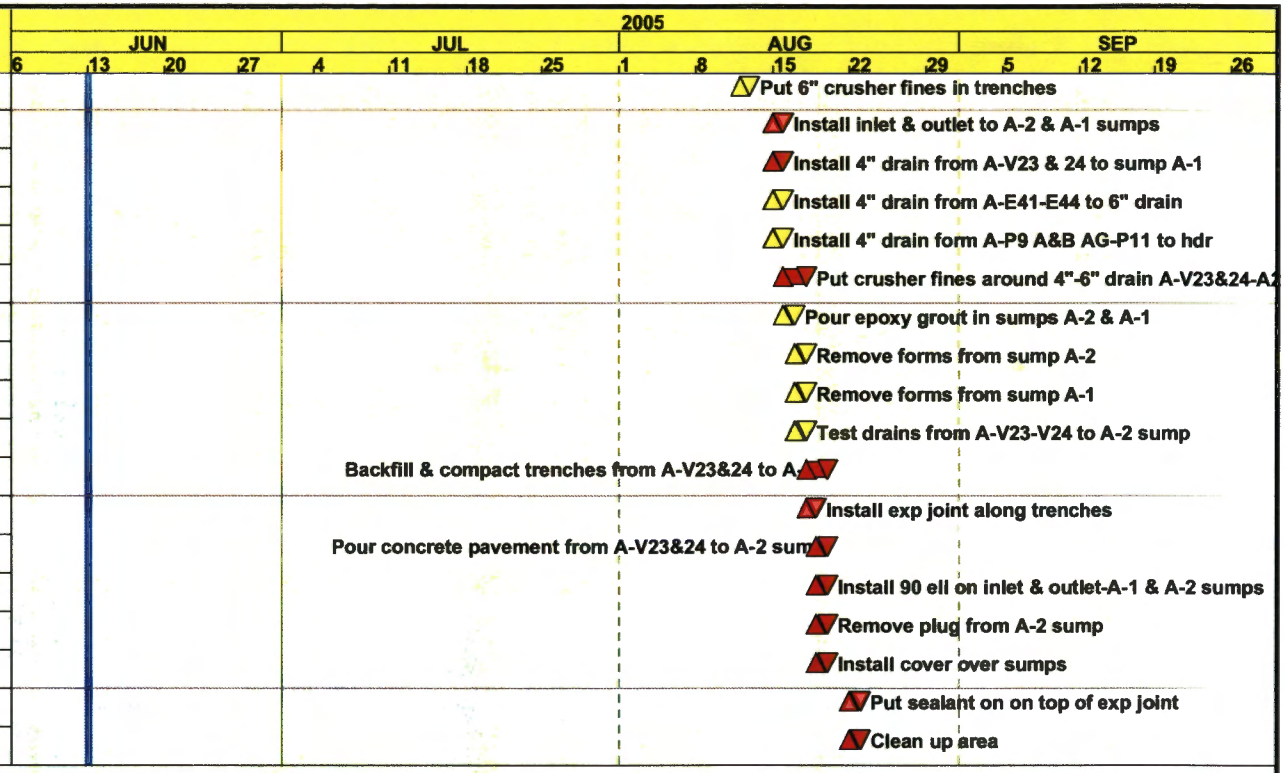
Activity ID	Activity Description	Orig Dur	Early Start	Early Finish
1180	Put 6" crusher fines in trenches	1	12AUG05	12AUG05
1000	Install inlet & outlet to A-2 & A-1	1	15AUG05	15AUG05
1010	Install 4" drain from A-V23 & 24 to	1	15AUG05	15AUG05
1020	Install 4" drain from A-E41-E44 to	1	15AUG05	15AUG05
1030	Install 4" drain form A-P9 A&B	1	15AUG05	15AUG05
1080	Put crusher fines around 4"-6"	2	16AUG05	17AUG05
1040	Pour epoxy grout in sumps A-2 &	1	16AUG05	16AUG05
1050	Remove forms from sump A-2	1	17AUG05	17AUG05
1060	Remove forms from sump A-1	1	17AUG05	17AUG05
1070	Test drains from A-V23-V24 to	1	17AUG05	17AUG05
1090	Backfill & compact trenches from	2	18AUG05	19AUG05
1100	Install exp joint along trenches	1	18AUG05	18AUG05
1110	Pour concrete pavement from	1	19AUG05	19AUG05
1130	Install 90 ell on inlet & outlet-A-1	1	19AUG05	19AUG05
1140	Remove plug from A-2 sump	1	19AUG05	19AUG05
1150	Install cover over sumps	1	19AUG05	19AUG05
1120	Put sealant on on top of exp joint	1	22AUG05	22AUG05
1160	Clean up area	1	22AUG05	22AUG05



Start Date	03JUN05
Finish Date	22AUG05
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Run Date	15JUN05 15:10

Early Bar
Progress Bar
Critical Activity

GI02

Sheet 4 of 4

Giant Refining

Alky Drain System

Preliminary Schedule

Date	Revision	Checked	Approved

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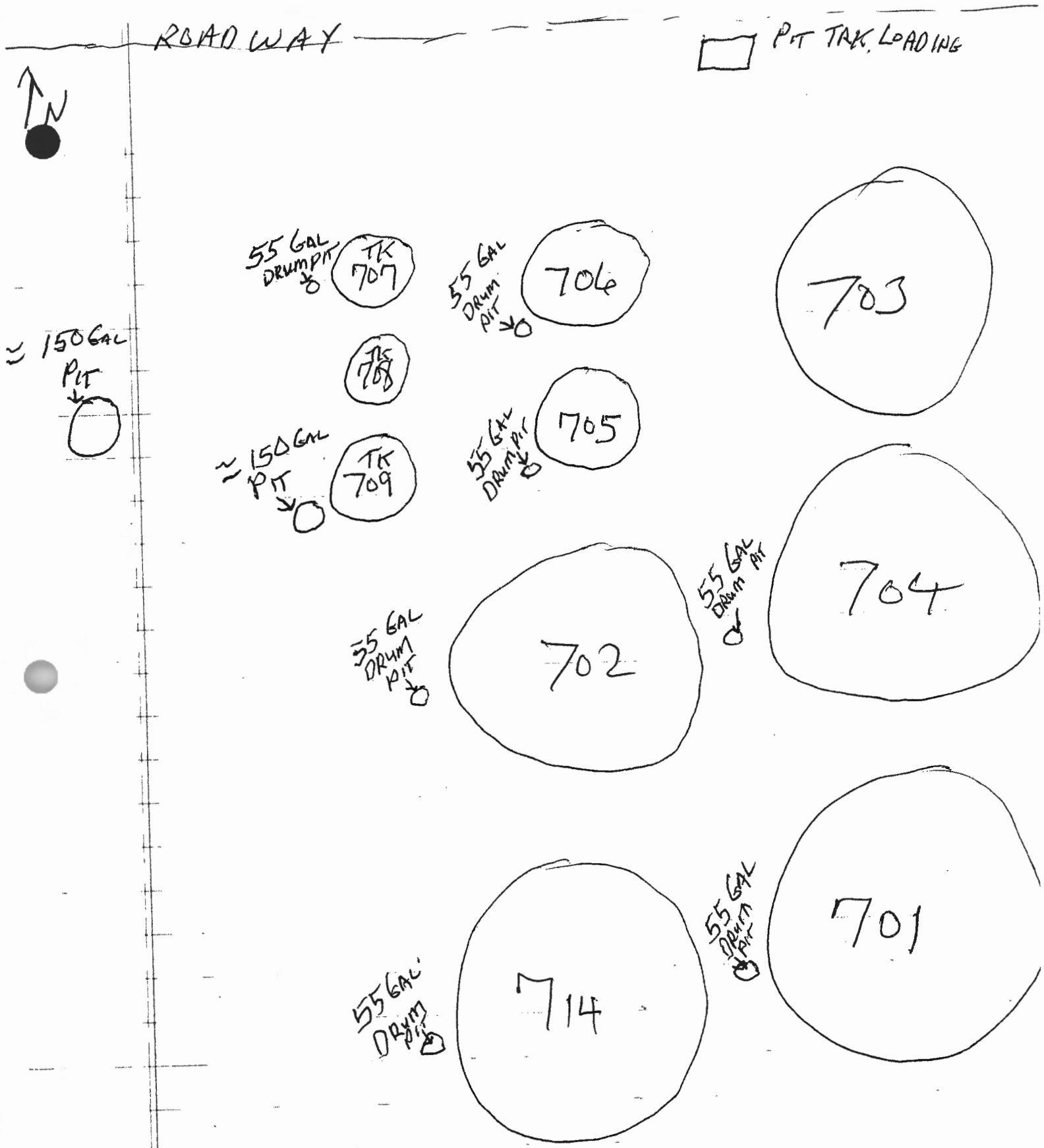
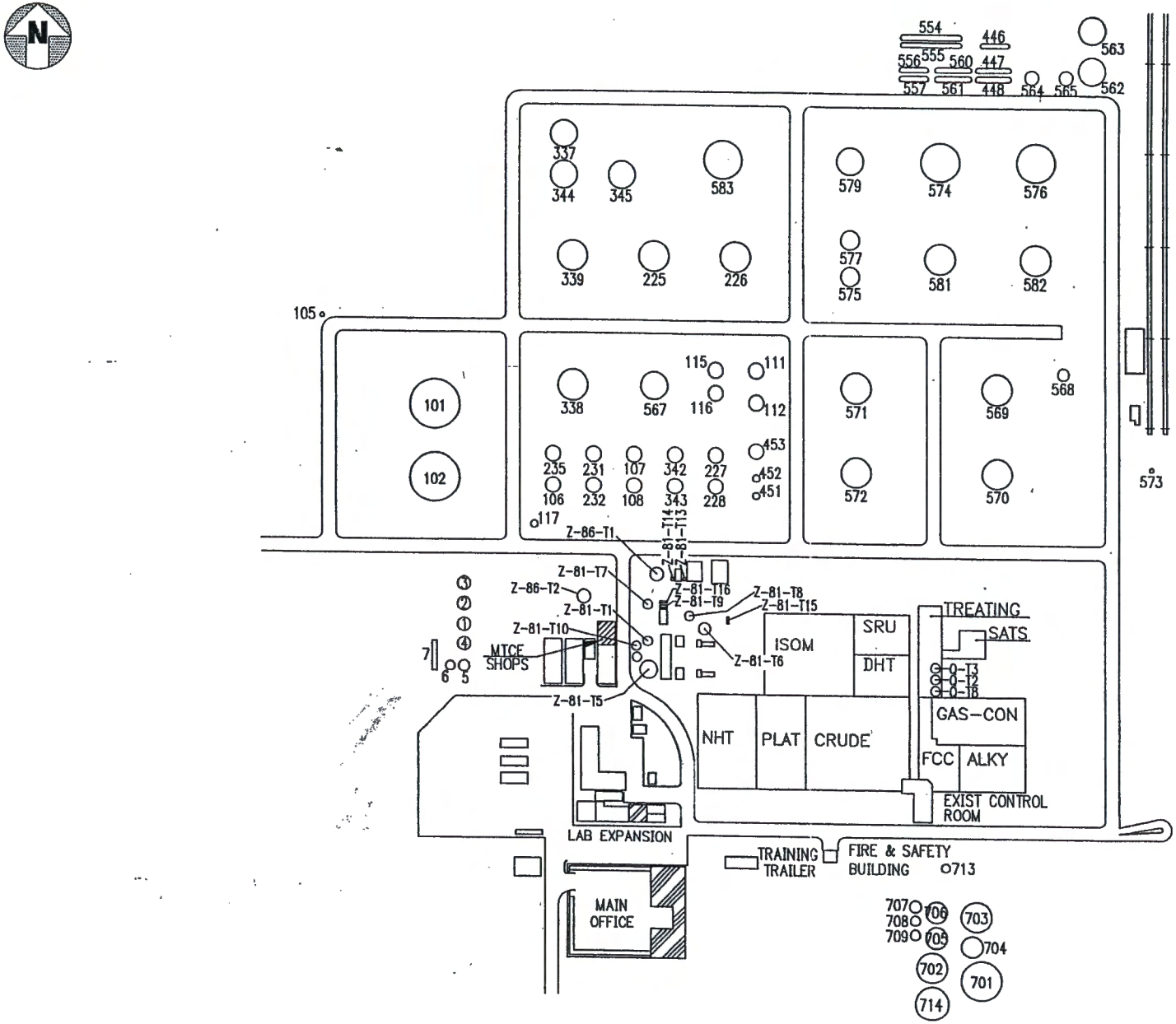
UNDERGROUND SINGLE LINED TANKS/SUMPS/PITS

Identification	Reference HOT OIL TANK FARM	Date Installed	Drawing Reference	Test Date	Pass/Fail/ Repair Information	Test Water Column (Feet)	Test Duration (Minutes)	Signature	Investigation Results
55 Gallon Drum Pit	Tank 704	1985	Z-01-100						
55 Gallon Drum Pit	Tank 701	1985	Z-01-100						
55 Gallon Drum Pit	Tank 714	1985	Z-01-100						
55 Gallon Drum Pit	Tank 702	1985	Z-01-100						
55 Gallon Drum Pit	Tank 705	1985	Z-01-100						
55 Gallon Drum Pit	Tank 706	1985	Z-01-100						
55 Gallon Drum Pit	Tank 707	1985	Z-01-100						
55 Gallon Drum Pit	Tank 709	1985	Z-01-100						
~ 150 Gallon Tank	Tank 709	1985	Z-01-100						
~ 150 Gallon Tank	West Hot Oil Pump	1985	Z-01-100						
~150 Gallon Tank	Truck Fuel Oil Loading Rack	1985	Z-01-100						

NOTE: The above Pits & Tanks are mostly used for water drainage from tanks and are emptied frequently with vacuum truck.


ROADWAY
PIT TRK. LOADING
N
55 GAL DRUM PIT
TK 707
55 GAL DRUM PIT
706
703
~ 150 GAL PIT
TK 708
55 GAL DRUM PIT
705
~ 150 GAL PIT
TK 709
55 GAL DRUM PIT
704
55 GAL DRUM PIT
702
55 GAL DRUM PIT
701
55 GAL DRUM PIT
714



CONTRACTOR:

CINIZA REFINERY

GIANT REFINING CO.
A DIVISION OF GIANT INDUSTRIES

GALLUP NEW MEXICO

GIANT REFINERY
TANK FARM PLAN

DRN. BY: CLM	DATE: 10DEC02	RFE/RFC No: –
CHK'D. BY: –	DATE: –	SCALE: NTS
APP'D. BY: –	DATE:	CAD REF: C:/
WELD SPEC: –		PAINT: –
DRAWING NO. Z-01-100		REV 0