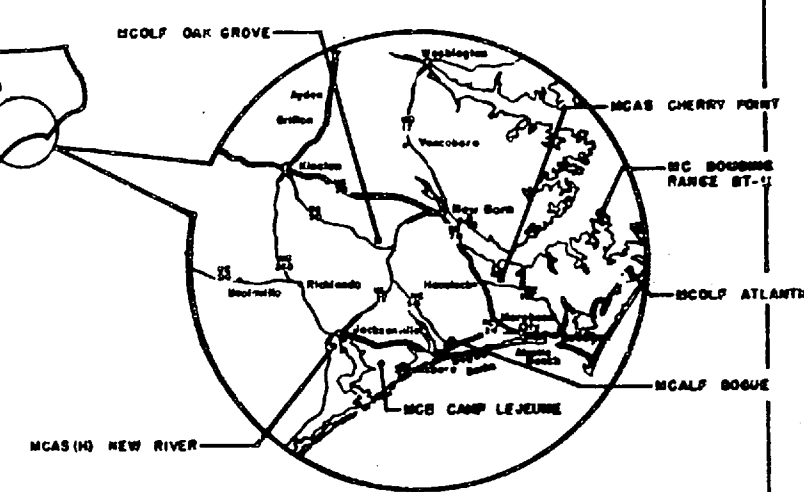


LET	DESCRIPTION	PREP'D BY	DATE	APPROVED
REVISED	"AS BUILT"	RJC	1/6/68	RJC



VICINITY MAP - CAMP LEJEUNE, N. C.
SCALE: 1" = 145 miles

PLATE NO.	SHEET NO.	FILE NO.	TITLE
I-1	1	4133250	LOCATION MAP & SHEET INDEX
CM-1	2	4133251	LOCATION & SITE GRADING PLAN - BLDG. RR-15
CM-2	3	4133252	LOCATION & SITE GRADING PLAN - BLDG. BB-9
CM-3	4	4133253	LOCATION & SITE GRADING PLAN - BLDG. 2615
CM-4	5	4133254	DEMOLITION AND DETAILS
CM-5	6	4133255	PUMP PADS AND DETAILS
CM-6	7	4133256	CONTAINMENT AREA PIPING & DETAILS
S-1	8	4133257	BOILERS ACCESS PLATFORMS & STAIRS
S-2	9	4133258	STRUCTURAL DETAILS
S-3	10	4133259	STRUCTURAL DETAILS
M-1	11	4133260	MECH. DEMOLITION PLAN - BLDG. RR-15
M-2	12	4133261	MECH. INSTALLATION PLAN - BLDG. RR-15
M-3	13	4133262	MECH. DETAILS - BLDG. RR-15
M-4	14	4133263	MECH. DEMOLITION PLAN - BLDG. BB-9
M-5	15	4133264	MECH. INSTALLATION PLAN - BLDG. BB-9
M-6	16	4133265	MECH. DETAILS - BLDG. BB-9
M-7	17	4133266	MECH. DEMOLITION PLAN - BLDG. 2615
M-8	18	4133267	MECH. INSTALLATION PLAN - BLDG. 2615
M-9	19	4133268	MECH. DETAILS - BLDG. 2615
M-10	20	4133269	SCHEMATIC FLOW DIAGRAM - BLDG. BB-9
M-11	21	4133270	SCHEMATIC FLOW DIAGRAM - BLDG. RR-15
M-12	22	4133271	EMCS SCHEMATIC DIAGRAM
M-13	23	4133272	OIL STORAGE TANKS - ABOVE GROUND
M-14	24	4133273	OIL STORAGE TANKS - BELOW GROUND
E-1	25	4133274	SITE ELECTRICAL
E-2	26	4133275	ELECTRICAL DETAILS
E-3	27	4133276	ELEC. DEMOLITION PLAN - BLDG. RR-15
E-4	28	4133277	ELEC. INSTALLATION PLAN - BLDG. RR-15
E-5	29	4133278	ELEC. DEMOLITION PLAN - BLDG. BB-9
E-6	30	4133279	ELEC. INSTALLATION PLAN - BLDG. BB-9
E-7	31	4133280	ELEC. DEMOLITION PLAN - BLDG. 2615
E-8	32	4133281	ELEC. INSTALLATION PLAN - BLDG. 2615

RECEIVED
LETTER I-1
MAY 15 1968

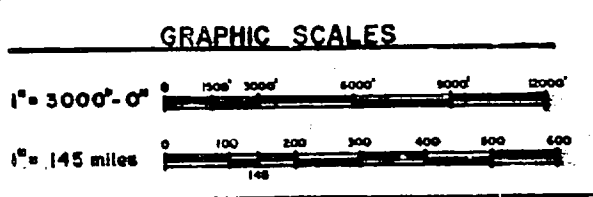
TRIANGLE ENGINEERING & SURVEYING, INC.
ARCHITECTS & ENGINEERS
100 S. 10TH ST., SUITE 100
Raleigh, N.C. 27601

DEPARTMENT OF THE NAVY
NAVAL STATION
ATLANTIC DIVISION
MARINE CORPS BASE - CAMP LEJEUNE
JACKSONVILLE, N.C.

REPLACE BOILERS - BLDGS. BB-9, RR-15, 2615

LOCATION MAP & SHEET INDEX
DRAWING NO. 4133250
OFFICE SYMBOL NO. N62470-81-B-1464
DATE 05-81-1464
SHEET 1 OF 32
FOR EFD FOR COMNAVSTA NAVFAC
175 235 233250

LOCATION MAP - U. S. MARINE CORPS BASE - CAMP LEJEUNE, N. C.
SCALE: 1" = 3000'-0"



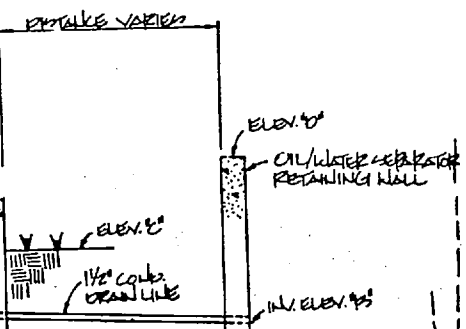
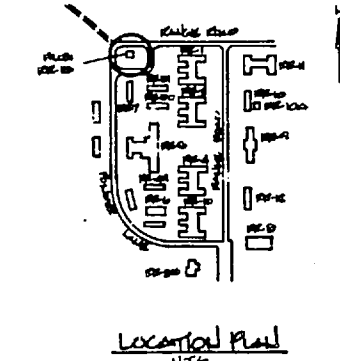
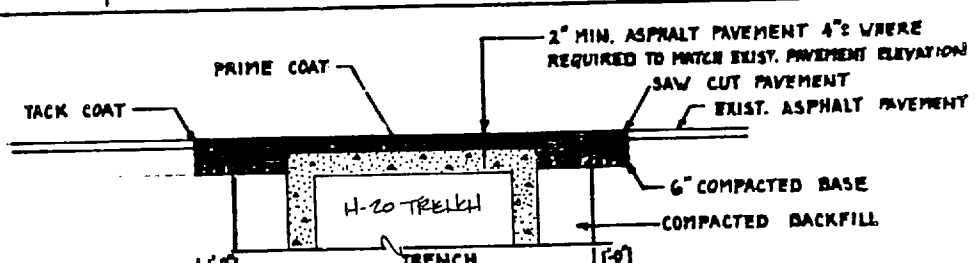
U. S. GOVERNMENT PRINTING OFFICE



NO.	DESCRIPTION	DATE	BY
1	REVISED "AS BUILT"	7/18/88	JLJ

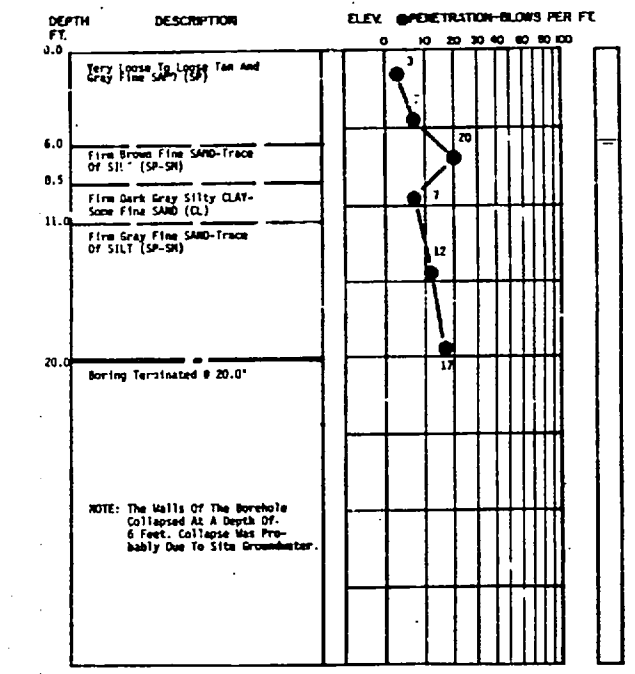
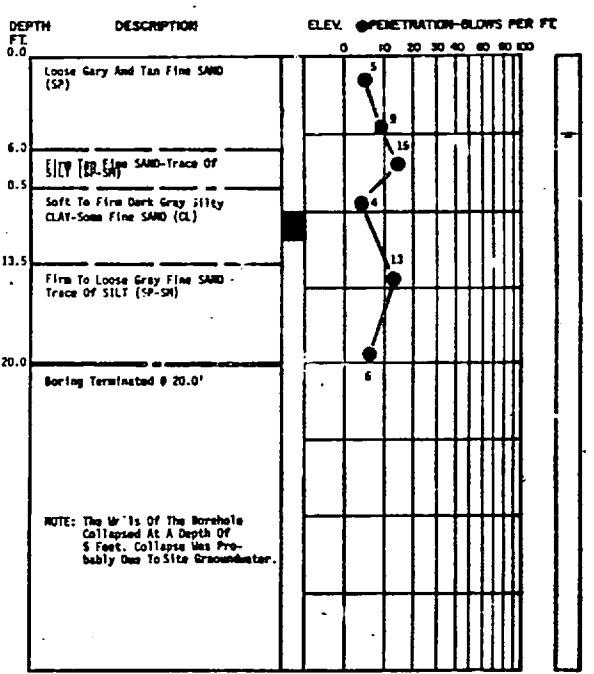
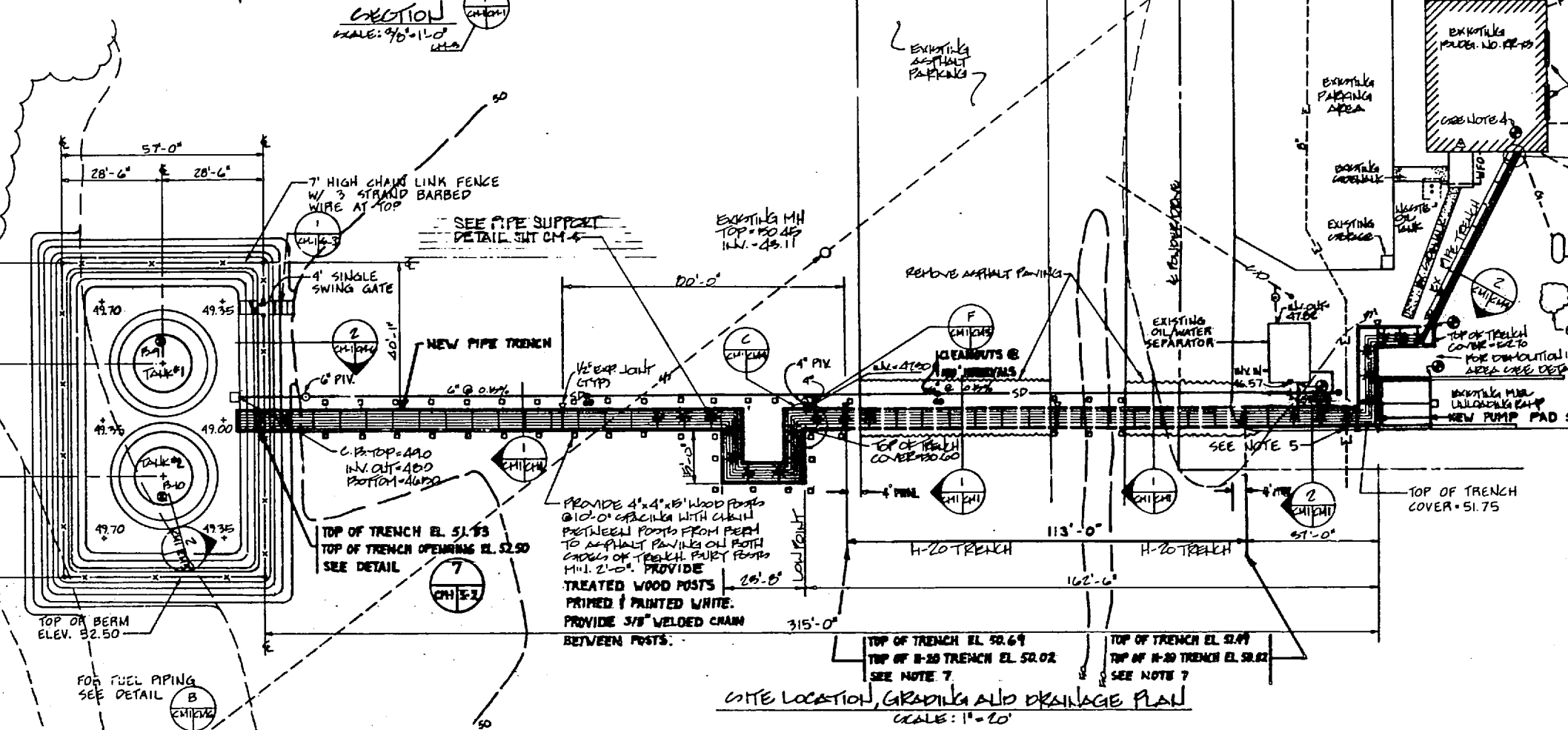
LEGEND		EXISTING	NEW
WASTE FUEL OIL	---	WFO	WFO
GAS	---	G	G
SANITARY SEWER	---	SS	SS
STORM DRAIN	---	SD	SD
WATER	---	W	W
OVERHEAD POWER/TELEPHONE	---	OP	OP
UNDERGROUND POWER/TELEPHONE	---	UP	UP
PIPEWALK	---		
SOIL BORING	---	SB	SB
CONNECT TO EXIST.	---		
CONTOUR	---	12	
GATE VALVE	---		
MANHOLE	---	0	
POLE W/ LIGHT	---		
SPOT ELEVATION	---		+11.90
CONDENSATE	---	C	
HIGH PRESSURE STEAM	---	HPS	HPS
FUEL OIL SUPPLY	---	FOS	FOS
FUEL OIL RETURN	---	FOR	FOR
FUEL OIL UNDERGND	---	FOU	FOU
CLEAN-OUT	---	CO	CO
CHILLED WATER SUPPLY	---	CWS	
CHILLED WATER RETURN	---	CWR	
TO BE REMOVED BY CONTRACTOR	---		
FENCE	---		
POST INDICATOR VALVE	---		
CONTROL VALVE	---		

- NOTES:**
1. REMOVABLE WINDOW BULKHEAD SHALL BE REMOVED AND REPLACED BY CONTRACTOR FOR THE REMOVAL OF THE OLD BOILERS AND INSTALLATION OF THE NEW BOILERS. BULKHEADS ARE APPROXIMATELY 10'-4" WIDE x 13'-4" HIGH.
 2. GUT WIRE MAY HAVE TO BE MOVED DURING BOILER REPLACEMENT. CONTRACTOR WILL BE RESPONSIBLE FOR PROVIDING ADEQUATE SUPPORT OF WIRE POLE DURING THIS TIME.
 3. LINE SIZES AND LOCATIONS ARE SHOWN ON MAPS PROVIDED BY THE OWNER AND FIELD CHECKS FOR HEAVY LOCATIONS ABOVE GROUND. THE CONTRACTOR MUST TAKE SPECIAL CARE DURING EXCAVATION DUE TO THE LIKELIHOOD OF UNDERGROUND UTILITIES.
 4. FOR COLLECTION OF NEW PIPING TO EXISTING OR NEW PIPING IN BLOCK CASE SHEET H-2.
 5. LOWER WATER MAIN AND STORM DRAINAGE WITH BELOW BOTTOM OF NEW PIPE TRENCH. CONTRACTOR SHALL EXCAVATE CAREFULLY IN THIS AREA TO LOCATE LINES PRIOR TO COLLECTION. SEE DETAIL A ON SHEET H-2.
 6. CONTRACTOR SHALL NOTIFY CONTRACTING OFFICE PRIOR TO ANY INTERRUPTION OF WATER SERVICE.
 7. NEW H-20 TRENCH TOP IS 8" LOWER THAN THE NON-TRAFFIC TRENCH TOP. SEE DETAIL "A" ON SHEET S-3 FOR SPECIAL NON-TRAFFIC COVER DETAIL AT THE TRANSITION POINTS.
 8. NEW 1000 GAL. UNDERGROUND FUEL TANK SEE DETAIL ON SHEET CH-2. PROVIDE ONE MONITORING WELL SEE DETAIL ON CH-3.



CONCRETE

AREA	ELEVATION	AREA	ELEVATION
RR-15	45.75	RR-15	45.00
RR-17	9.07	RR-17	8.75
RR-18	16.90	RR-18	16.00
		RR-19	20.00



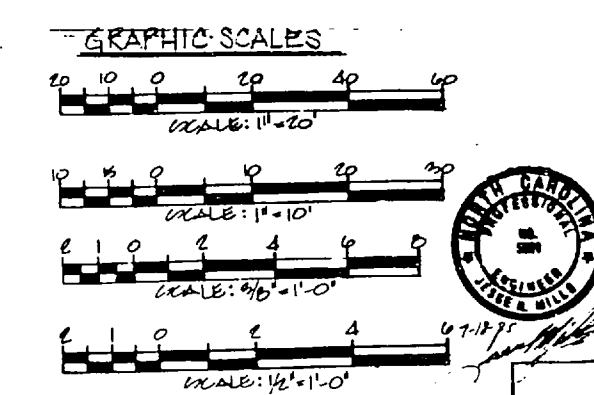
DEMOLITION PLAN AT EXISTING TRUCK UNLOADING RAMP DETAIL
SCALE: 1"=10'

- NOTES FOR DEMOLITION (RR-15):**
1. ALL NEW WORK NOT IN DEMOLITION AREA SHALL BE COMPLETE AND READY FOR OPERATION PRIOR TO INITIATING DEMOLITION WORK. DEMOLITION AND ASSOCIATED CONSTRUCTION SHALL BE COORDINATED WITH CONTRACTING OFFICE.
 2. CROSS-HATCHING INDICATES ITEMS TO BE REMOVED.
 3. REMOVE OIL AND SLUDGE FROM TANK. REMOVE TANKS AND FILL VOID LEFT BY TANK REMOVAL WITH SUITABLE BACKFILL.

ASBESTOS REMOVAL:
SAMPLES OF THE PIPE INSULATION IN THE PIPE TRENCH WERE FOUND TO BE MADE UP OF 70% AMOSITE ASBESTOS. REMOVE INSULATION AS SPECIFIED IN SECTION 02075 "REMOVAL & DISPOSAL OF ASBESTOS MATERIAL".

NOTE: COMPLETE AND REPORT TO BE INCLUDED IN APPENDIX OF SPECIFICATIONS.

4. REMOVE EXISTING PIPING IN TRENCH TO POINT WHERE NEW CONNECTION TO EXISTING IN PLACE. (SEE SHEET M-1)



RECORDED & LETTERED MAY 23 1988 **CM-1**

TRIANGLE ENGINEERING & SURVEYING, INC. ARCHITECTS & ENGINEERS
 1000 JONES BLVD. SUITE 1000 RALEIGH, N.C. 27601

DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND
 NAVAL STATION ATLANTIC DIVISION NORFOLK, VIRGINIA

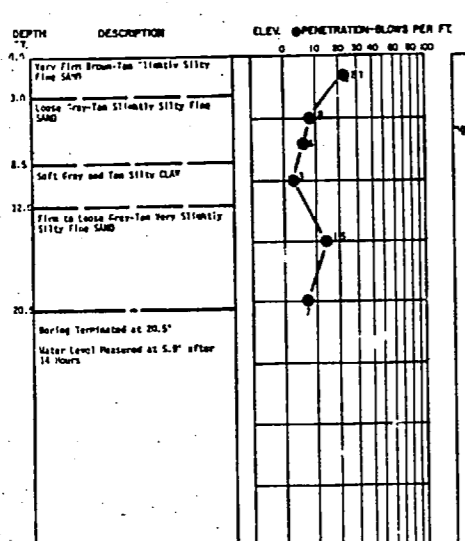
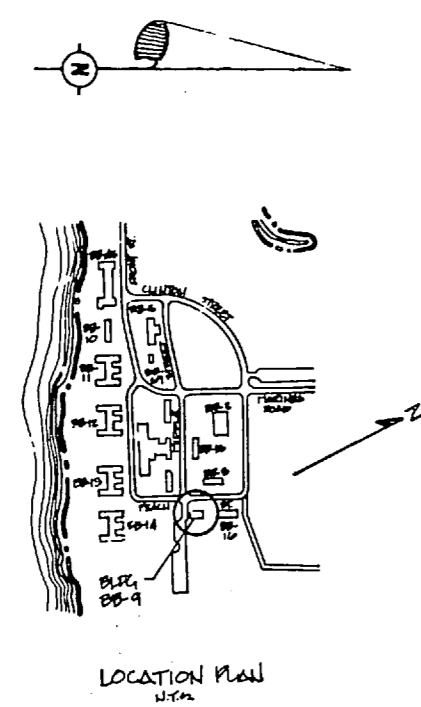
MARINE CORPS PASE - CAMP LEJEUNE JACKSONVILLE, N.C.

REPLACE BOILERS-BLDGS. BB-9, RR-15, 2615 BUILDING NO. - RR-15 LOCATION AND SITE GRADING PLAN

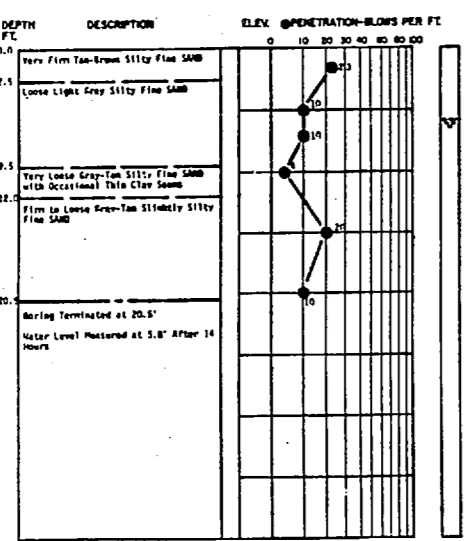
4133251

OFFICER IN CHARGE: F 80091 DATE: 7-13-88

FOR INFO FOR CONTRACTOR: 05-81-1464 SHEET 2 OF 32

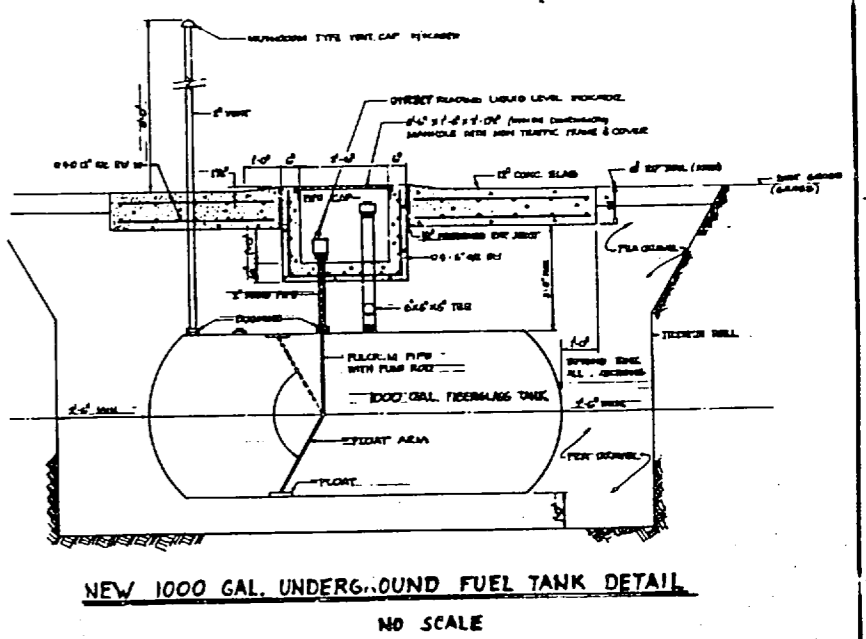
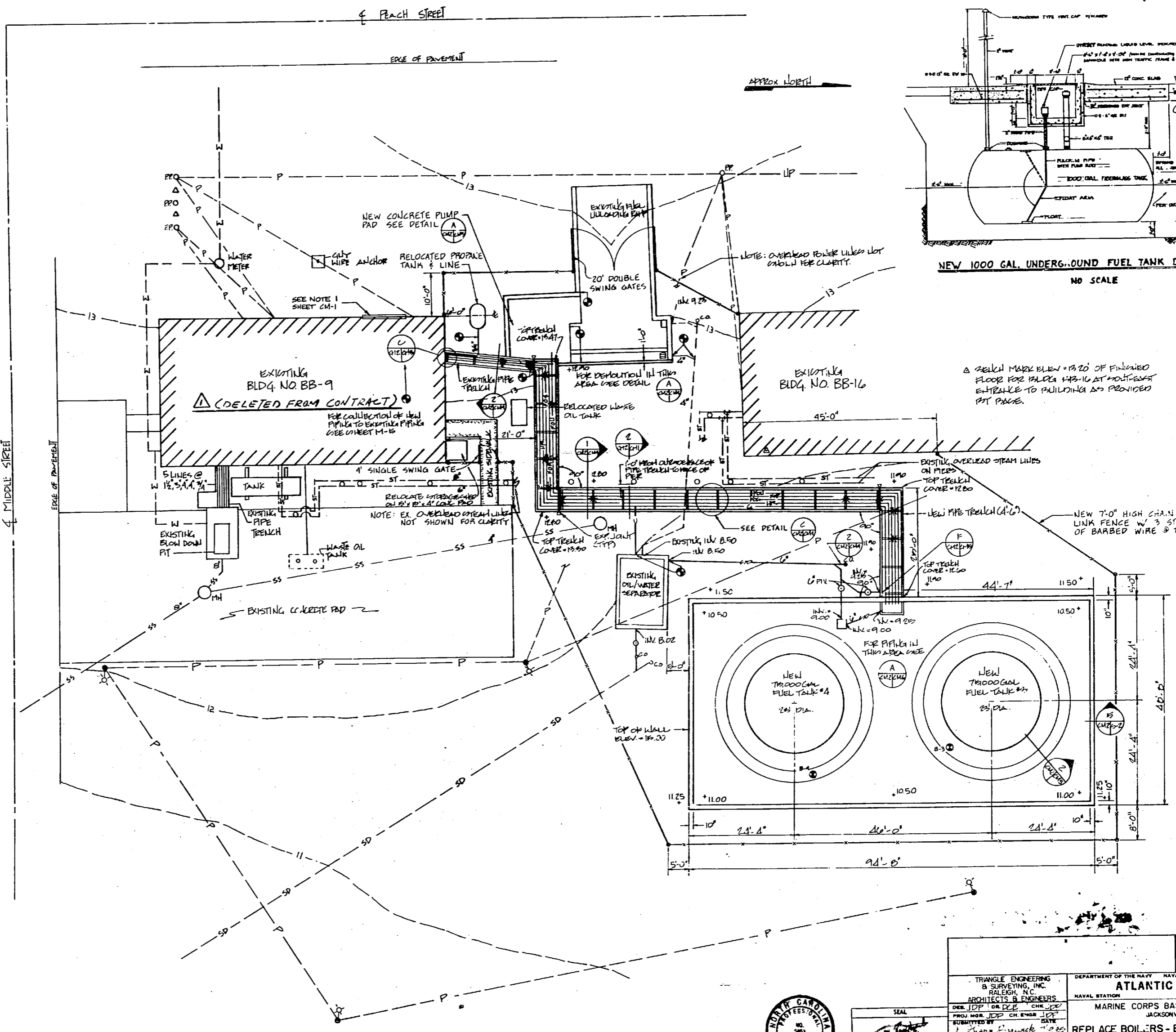


TEST BORING RECORD
SOL & MATERIAL ENGINEERS, INC.

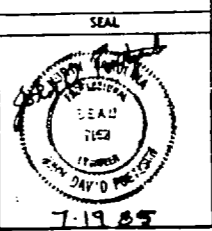
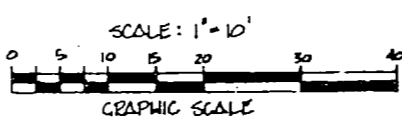


TEST BORING RECORD
SOL & MATERIAL ENGINEERS, INC.

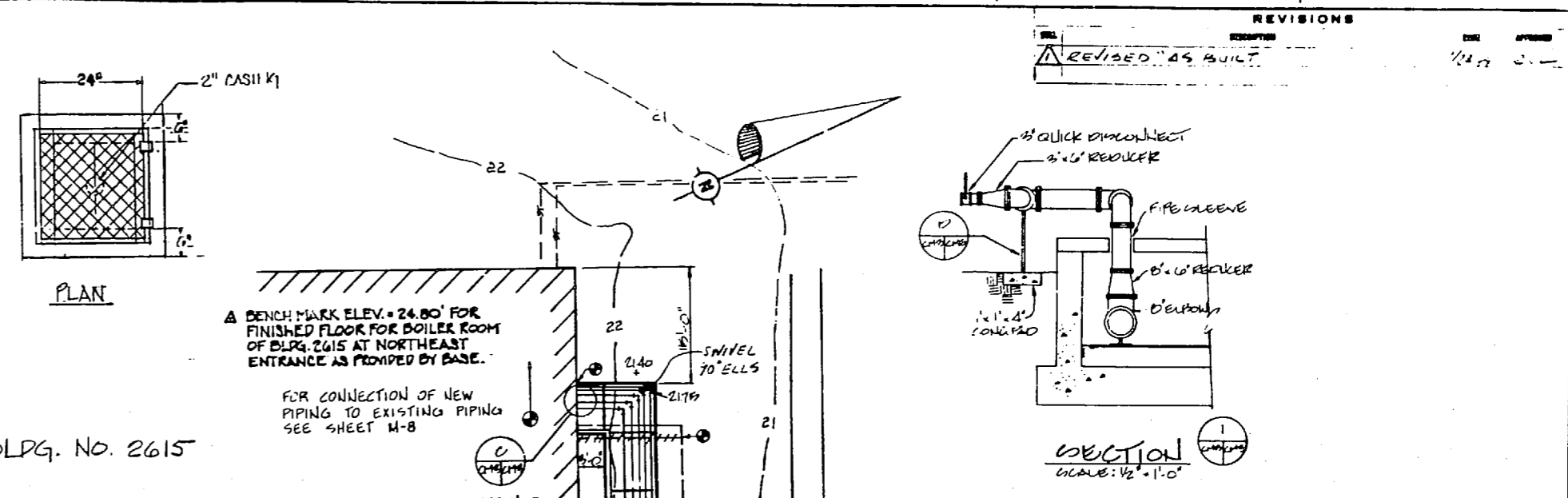
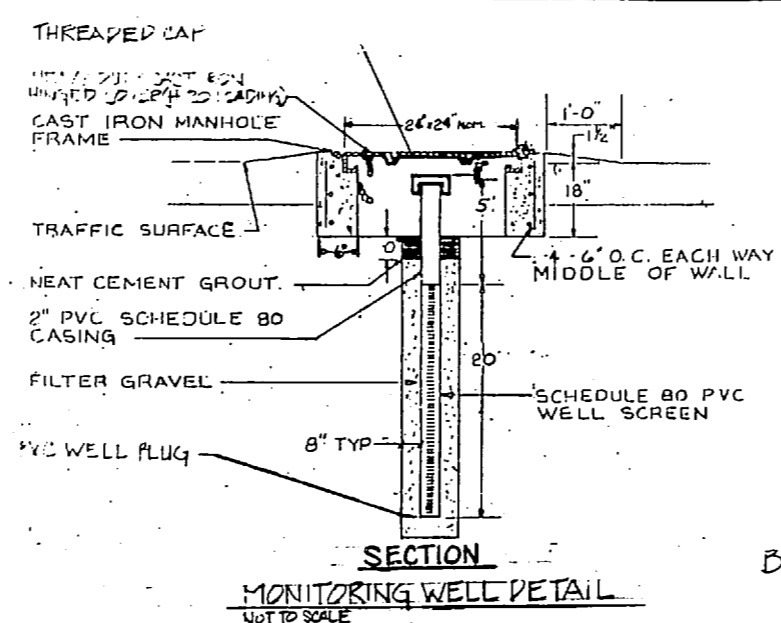
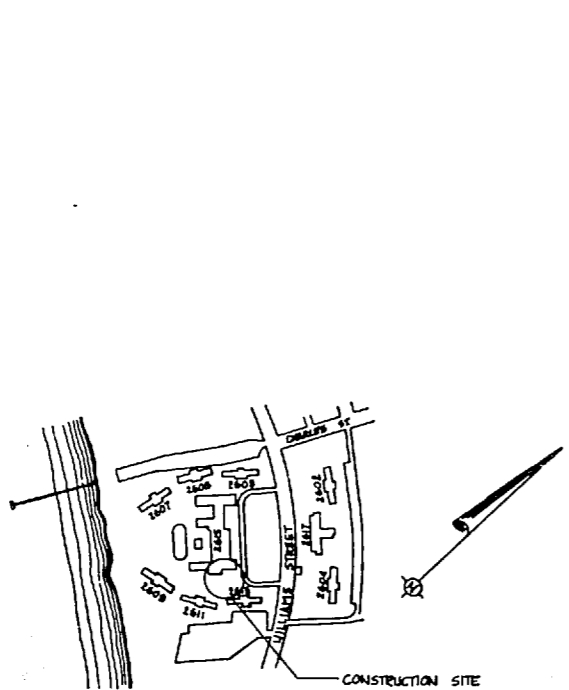
BORING LOGS
NOTE: COMPLETE SOILS REPORT IS INCLUDED IN APPENDIX OF SPECIFICATIONS.



REVISIONS
REVISED AS SHOWN
12/2/21



CM-2
TRIANGLE ENGINEERING & SURVEYING, INC.
ARCHITECTS & ENGINEERS
DEPARTMENT OF THE NAVY
ATLANTIC DIVISION
MARINE CORPS BASE - CAMP LEJEUNE
REPLACE BOILERS - BLDGS. BB-9, RR-15, 2615
LOCATION AND SITE GRADING PLAN
4133252
80091
N62470-81-B-1464



TEST BORING RECORD

DEPTH (FT)	DESCRIPTION	ELEV.	PENETRATION-BLOWS PER FT.
0.0	Loose to Very Loose Tan Silty Fine SAND (SF)	24.00	10
1.5	Very Soft to Firm Gray and Tan Sandy CLAY (CL)	22.50	25
7.0	Loose to Firm Tan and Brown Silty Fine SAND (SF)	15.50	15
18.5	Very Loose Brown Fine SAND-some SILT Layers (SF)	6.00	10
20.0	Boring Terminated @ 20.0'		

NOTE: The Walls of the Borehole Collapsed at a Depth of 11 Feet. Collapse Was Probably Due to Site Groundwater.

BORING AND SAMPLES MADE WITH 6" DIA. CORE DRILLING METER WITH 0-100 PENETRATION IN THE NUMBER OF BLOWS OF 140 LB. HAMMER FALLING 30" REQUIRED TO DRIVE 14 IN. 10.0 SAMPLES PER FEET. UNDISTURBED SAMPLE WATER TABLE-24" 1/2" NO. CORE RECOVERY WATER TABLE-14" LOSS OF DRILLING WATER

SOL.B MATERIAL ENGINEERS, INC.

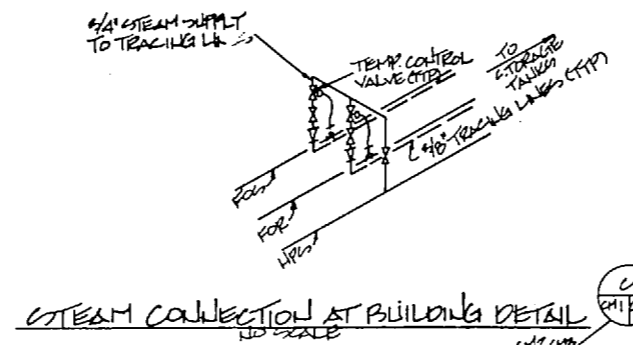
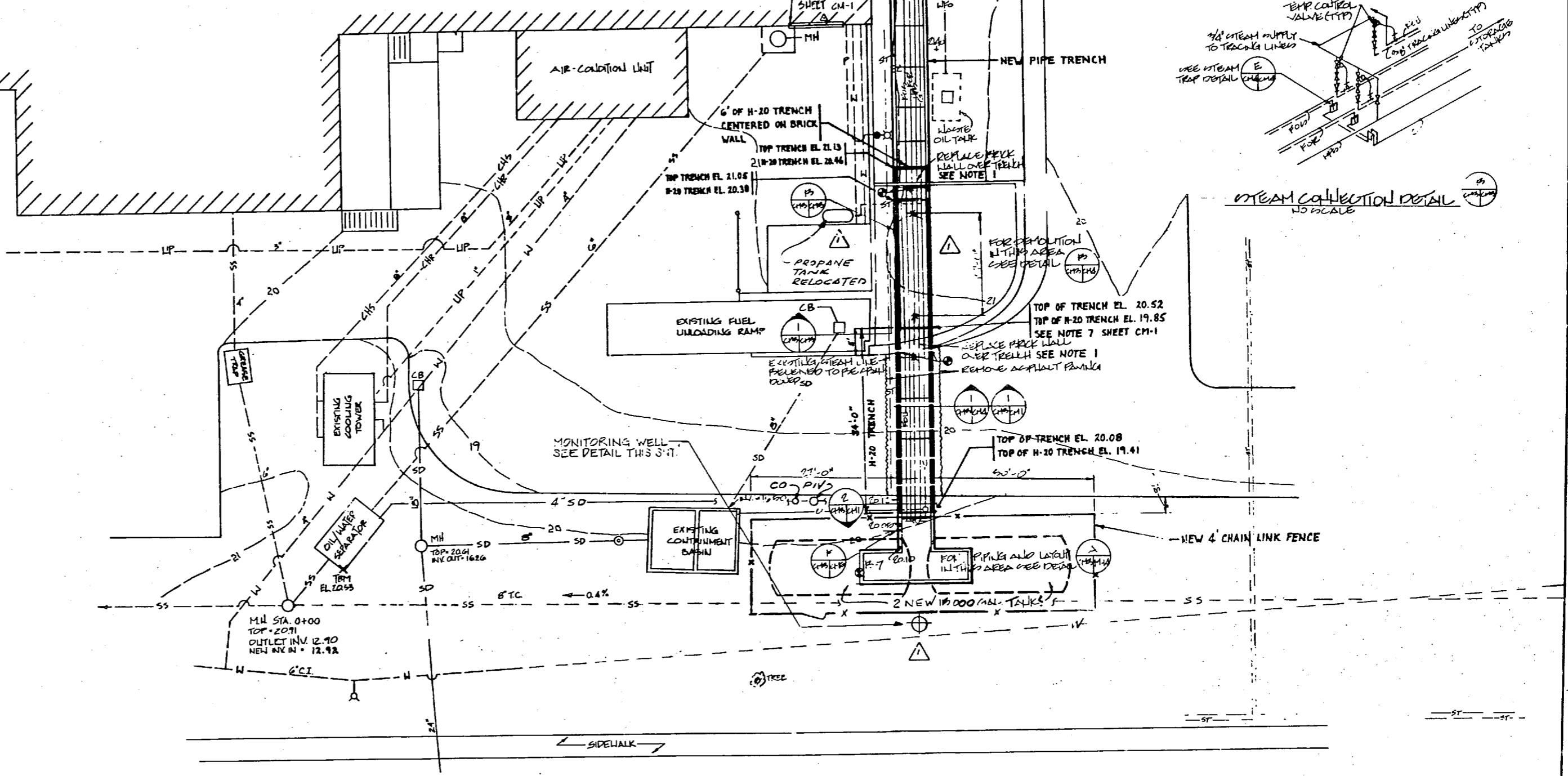
TEST BORING RECORD

DEPTH (FT)	DESCRIPTION	ELEV.	PENETRATION-BLOWS PER FT.
0.0	Loose Tan Fine SAND (SF)	20.00	10
2.0	Soft Tan Sandy CLAY (CL)	18.00	25
6.5	Loose Tan Clayey Fine SAND (SC)	13.50	15
8.5	Loose to Firm Tan and Fine SAND-Trace of SILT (SF-SI)	11.50	10
20.0	Boring Terminated @ 20.0'		

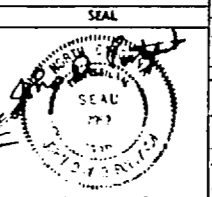
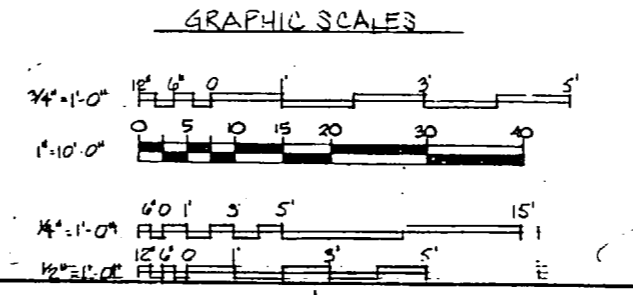
NOTE: The Walls of the Borehole Collapsed at a Depth of 11 Feet. Collapse Was Probably Due to Site Groundwater.

BORING AND SAMPLES MADE WITH 6" DIA. CORE DRILLING METER WITH 0-100 PENETRATION IN THE NUMBER OF BLOWS OF 140 LB. HAMMER FALLING 30" REQUIRED TO DRIVE 14 IN. 10.0 SAMPLES PER FEET. UNDISTURBED SAMPLE WATER TABLE-24" 1/2" NO. CORE RECOVERY WATER TABLE-14" LOSS OF DRILLING WATER

SOL.B MATERIAL ENGINEERS, INC.



SITE PLAN
SCALE: 1"=10'-0"



RECORD DRAWING LETTER DATED 1/19/85 CM-3

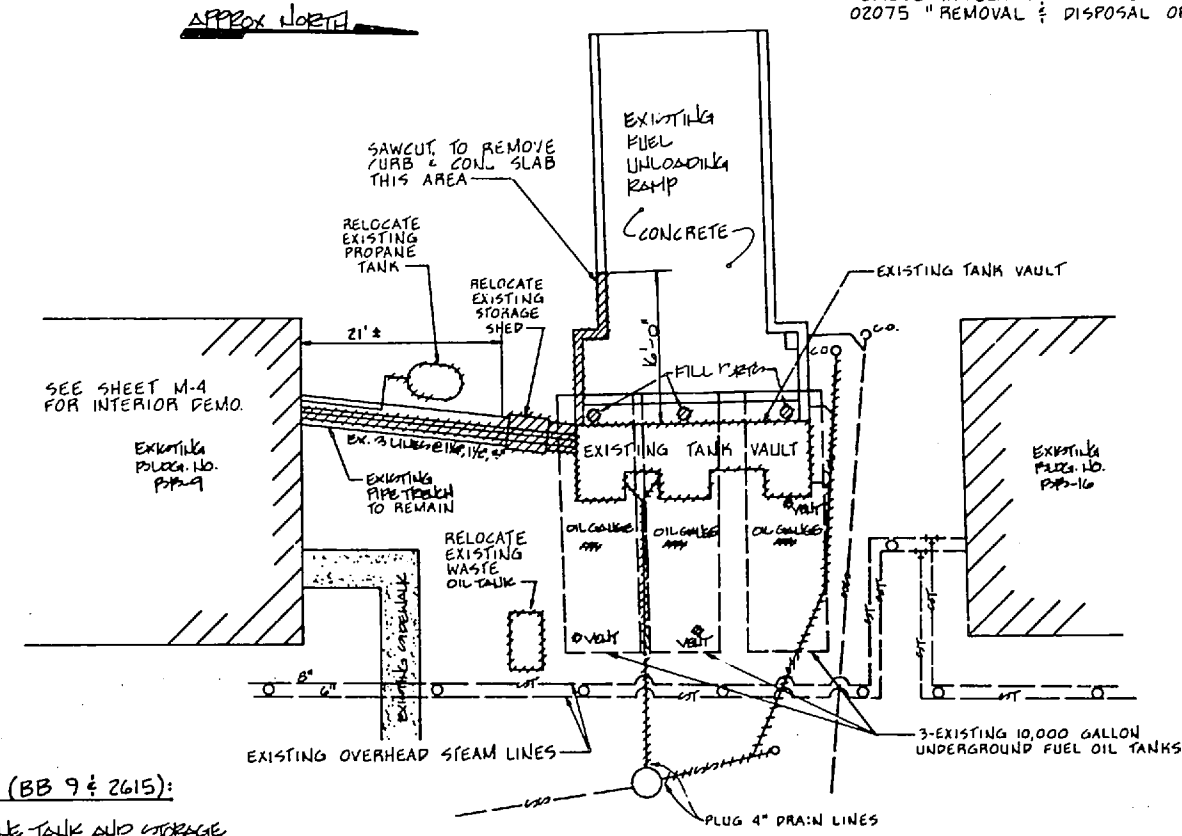
<p>FRANKLE ENGINEERING & SURVEYING, INC. ARCHITECTS & ENGINEERS</p> <p>PROJECT: RR-15, 2615 BLDGS. RR-15, 2615 BLDGS.</p> <p>DATE: 1/19/85</p> <p>APPROVED: [Signature]</p>	<p>DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND</p> <p>ATLANTIC DIVISION</p> <p>MARINE CORPS BASE - CAMP LEJEUNE JACKSONVILLE, N.C.</p> <p>REPLACE BOILERS - BLDGS. RR-15, 2615 BUILDING NO. 2615</p> <p>LOCATION AND SITE GRADING PLAN</p> <p>NAVFAC DRAWING NO. 4133253</p> <p>CONTRACT NO. N62470-81-B-1464</p> <p>DATE: 05-81-1464</p> <p>SHEET 4 OF 32</p>
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NOTES:

- REMOVE 8" HIGH BRICK WALL AS REQUIRED TO CONSTRUCT THE NEW PIPE TRENCH. WHEN TRENCH CONSTRUCTION IS COMPLETE PROVIDE A NEW BRICK WALL TO REPLACE THE WALL DAMAGED DURING CONSTRUCTION. NEW WALL SHALL MATCH EXIST. WALL.



ASBESTOS REMOVAL:
 PIPE INSULATION IN PIPE TRENCH & TANK VAULT, AT BOTH SITES, WAS FOUND TO BE MADE UP OF 95% - 98% OF AMOSITE & CRYSTOLITE ASBESTOS. REMOVE INSULATION AS SPECIFIED IN SECTION 02075 "REMOVAL & DISPOSAL OF ASBESTOS MATERIAL".



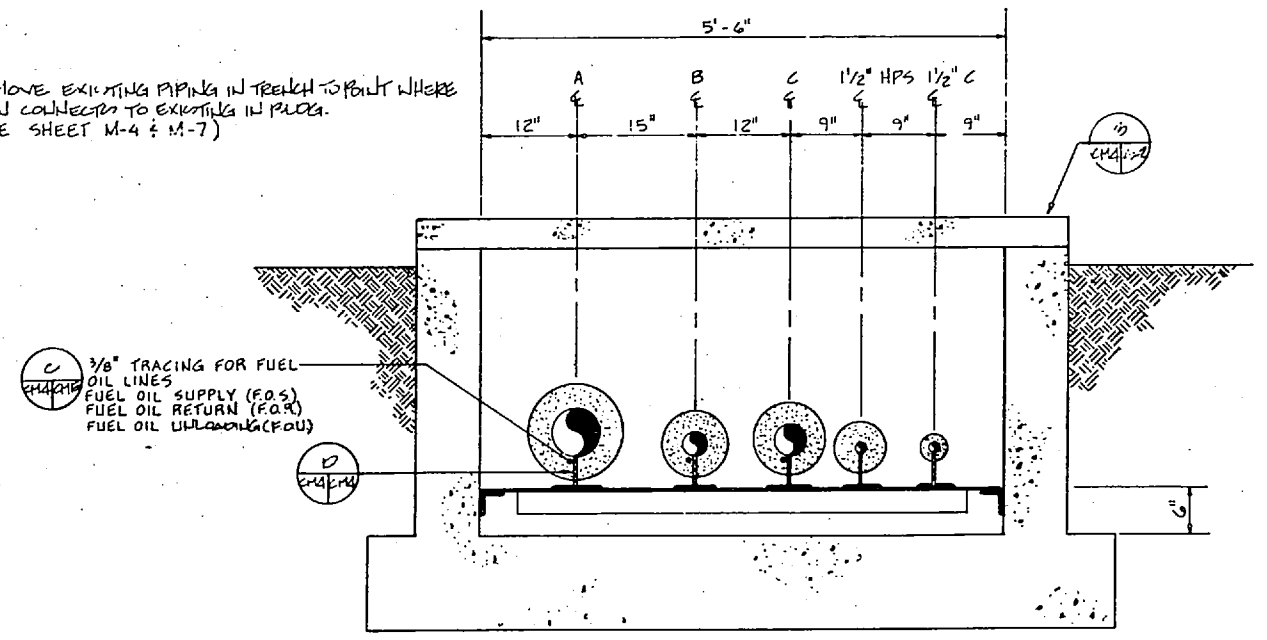
NOTES FOR DEMO. (BB 9 & 2615):

1. THE EXISTING PROpane TANK AND STORAGE SHEET SHALL BE RELOCATED AS SHOWN ON SHEET CM-2.
2. ALL NEW WORK NOT IN DEMOLITION AREA SHALL BE COMPLETE AND READY FOR OPERATION PRIOR TO COMMENCING DEMOLITION WORK. DEMOLITION AND ASSEMBLED CONTRACTORS SHALL BE COORDINATED WITH CONTRACTOR'S OFFICE.
3. CROSS-HATCHING INDICATES ITEMS TO BE REMOVED BY THE CONTRACTOR.
4. REMOVE OIL AND SLUDGE FROM ALL TANKS. REMOVE TANKS AND FILL VOID LEFT BY TANK REMOVAL WITH SUITABLE BACK-FILL.
5. REMOVE EXISTING PIPING IN TRENCH TO POINT WHERE NEW CONNECTS TO EXISTING IN BLDG. (SEE SHEET M-4 & M-7)

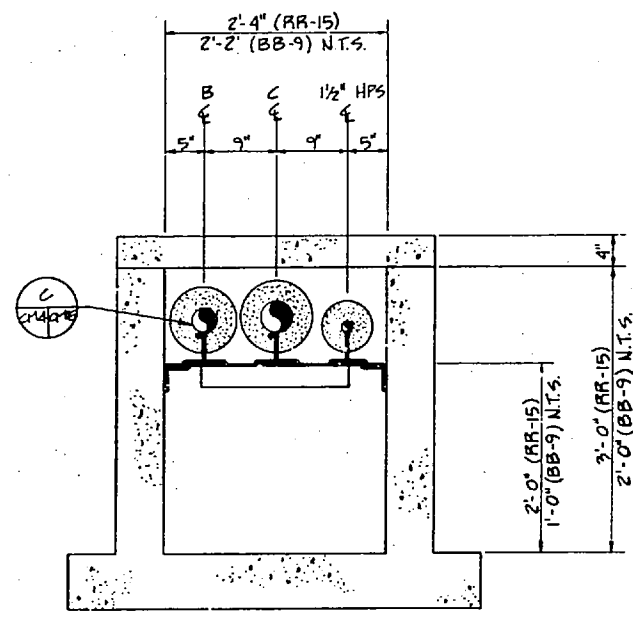
(WORK ON BLDG BB-9 DELETED FROM CONTRACT)

BUILDING NO. BB-9
 DEMOLITION AT EXISTING TRUCK UNLOADING RAMP DETAIL
 SCALE: 1"=10'

7. REMOVE EXISTING PIPING IN TRENCH TO POINT WHERE NEW COLLECTOR TO EXISTING IN PLOG. (SEE SHEET M-4 & M-7)



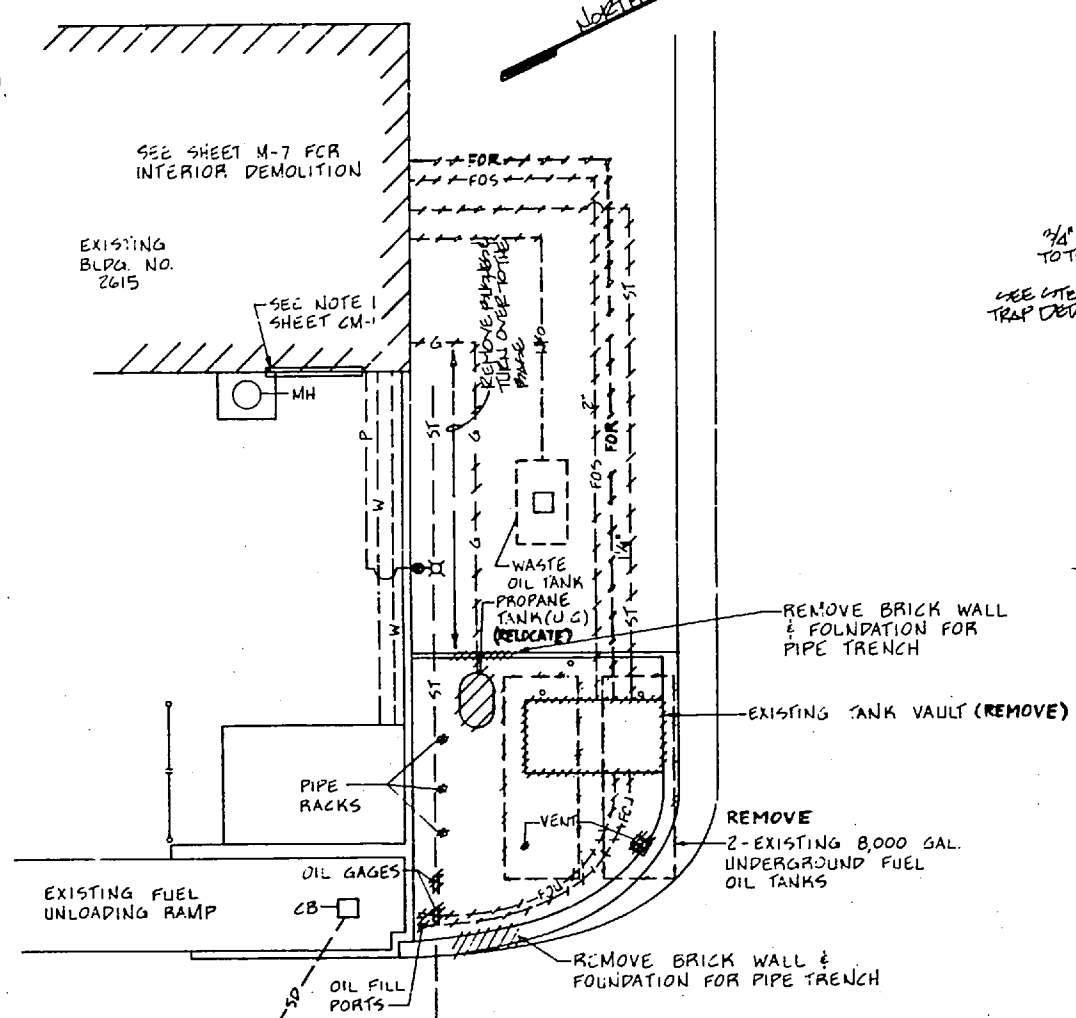
PIPE TRENCH SECTION
 SCALE: 1"=1'-0"



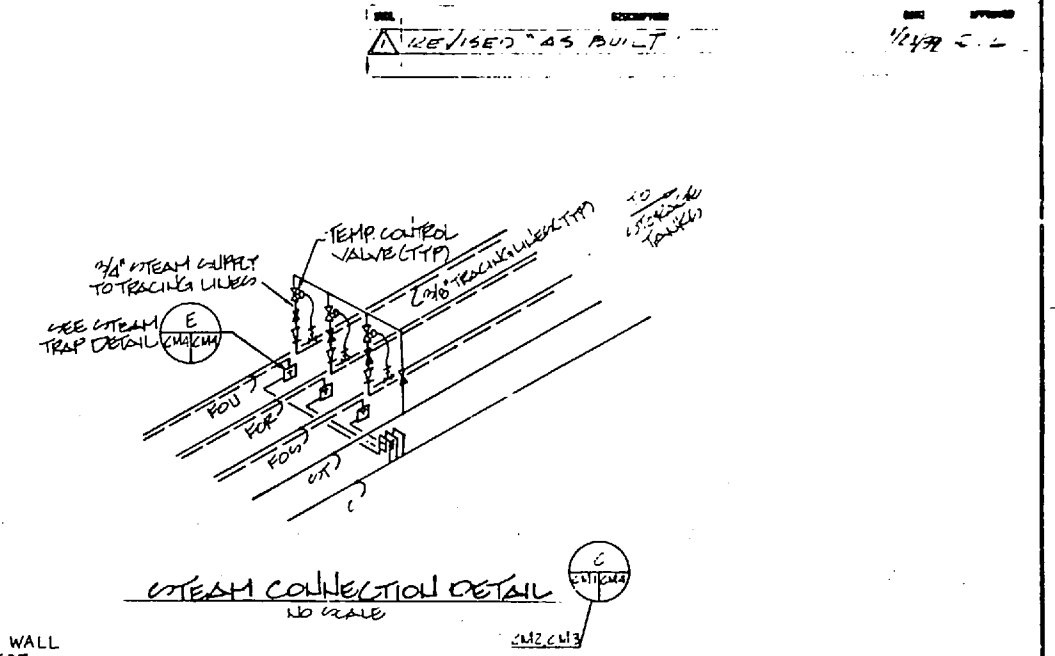
EXISTING PIPE TRENCH SECTION
 SCALE: 1"=1'-0"

RR-15	BB-9	2615
A 6" FOU	4" FOU	8" FOU
B 3" FOR	2" FOR	4" FOS
C 4" FOS	1" FOS	2" FOR

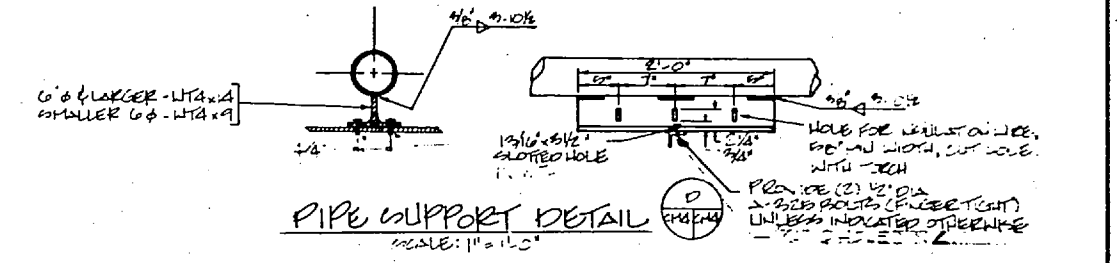
NOTE: SEE [Symbol] FOR STRUCTURAL DETAIL



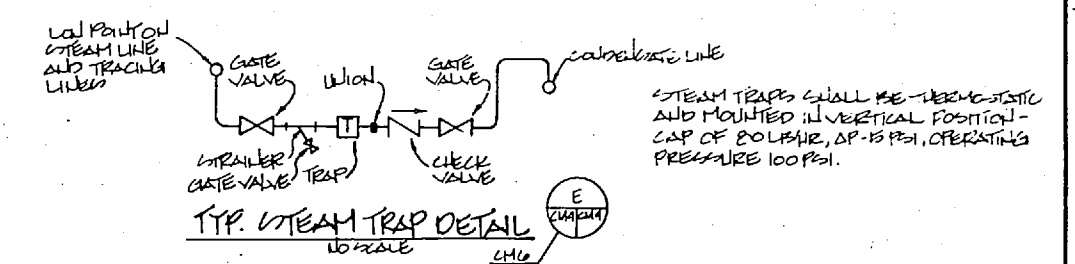
BUILDING NO. 2615
 DEMOLITION AT EXISTING TRUCK UNLOADING RAMP DETAIL
 SCALE: 1"=10'



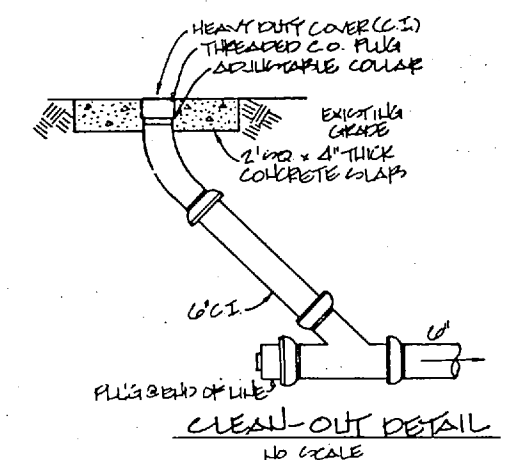
STEAM COLLECTION DETAIL
 NO SCALE



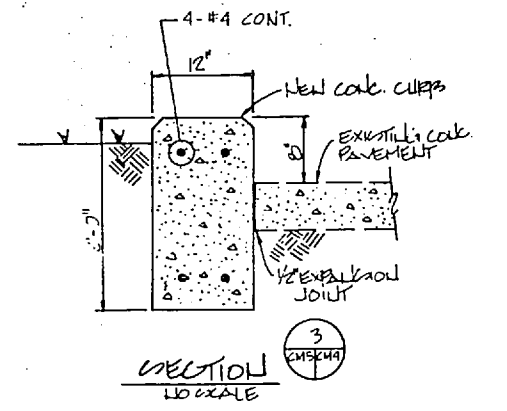
PIPE SUPPORT DETAIL
 SCALE: 1"=1'-0"



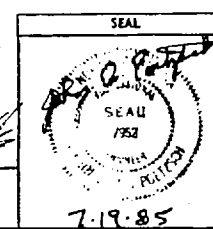
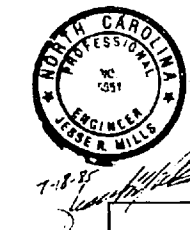
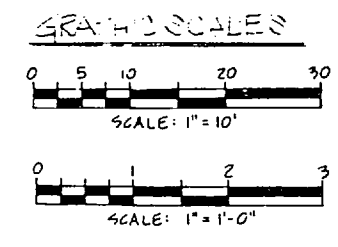
TYP. STEAM TRAP DETAIL
 NO SCALE



CLEAN-OUT DETAIL
 NO SCALE



SECTION
 NO SCALE



TRIANGLE ENGINEERING 855 PINEHURST, N.C. ARCHITECTS & ENGINEERS		DEPARTMENT OF THE NAVY - NAVAL FACILITIES ENGINEERING COMMAND ATLANTIC DIVISION MARINE CORPS BASE - CAMP LEJEUNE JACKSONVILLE, N.C.	
DES. JDD PROJ. MGR. JDD PRIN. JDD E.P.D. APPROVED: [Signature] OFFICER IN CHARGE: [Signature]	CH. ENGR. JDD DATE: 11/14/85 DATE: [Blank] DATE: [Blank]	80091 4133254 N62470-81-B-1464 05-81-1464	CM-4 MAY 23 24 1. 233254



10

9

8

7

6

5

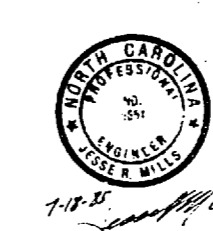
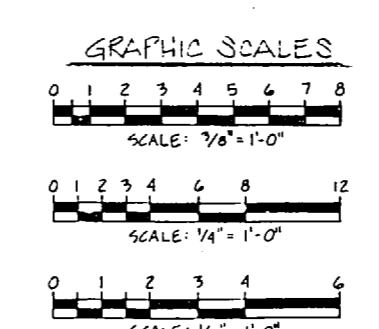
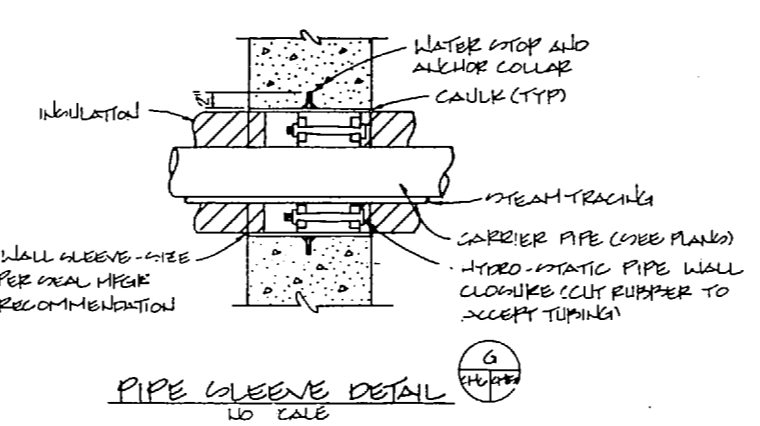
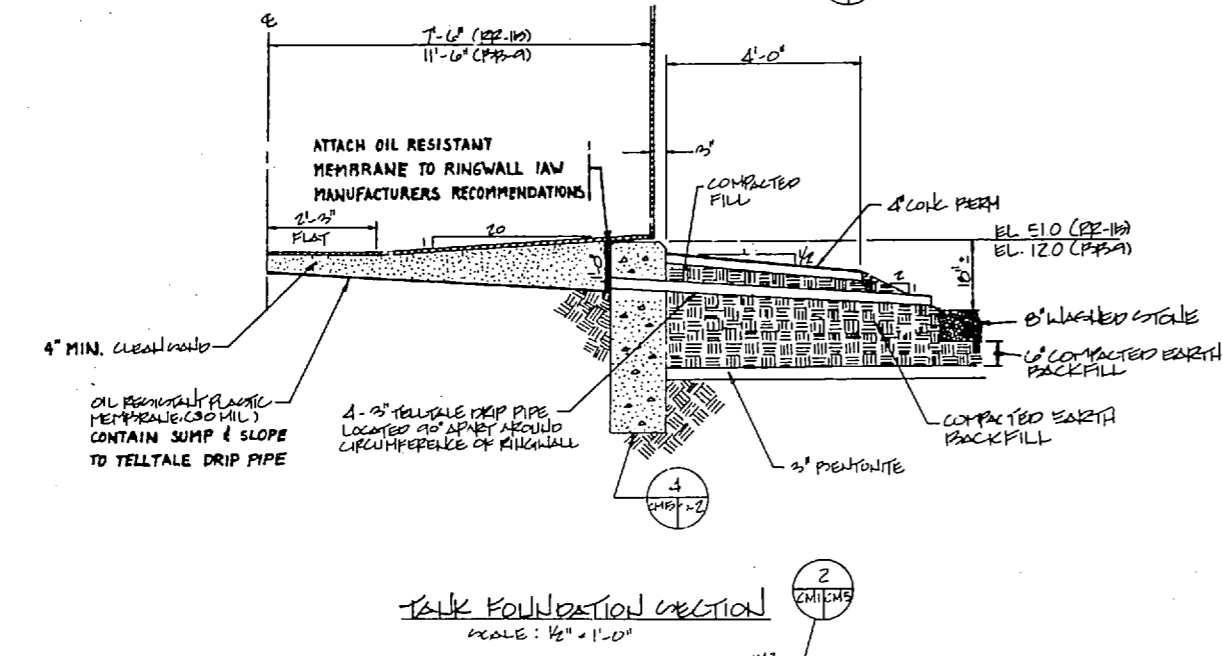
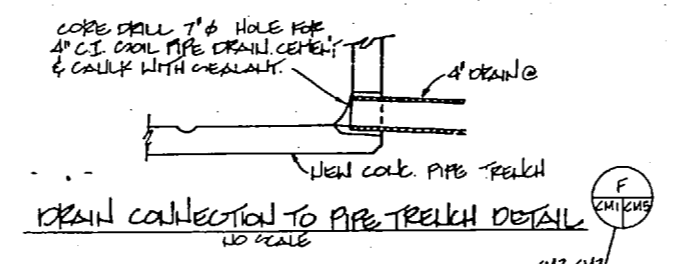
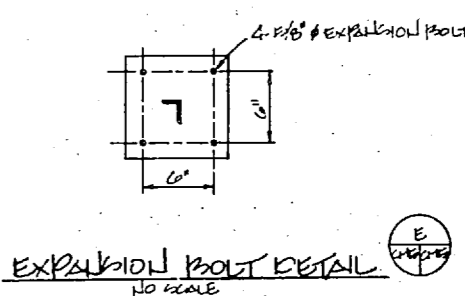
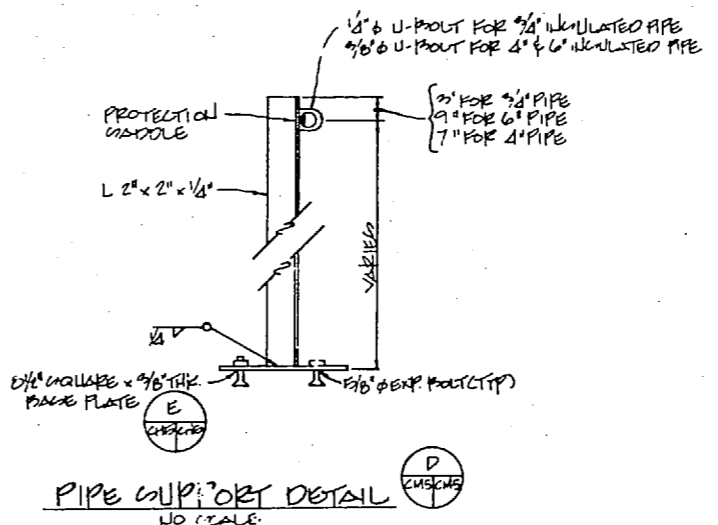
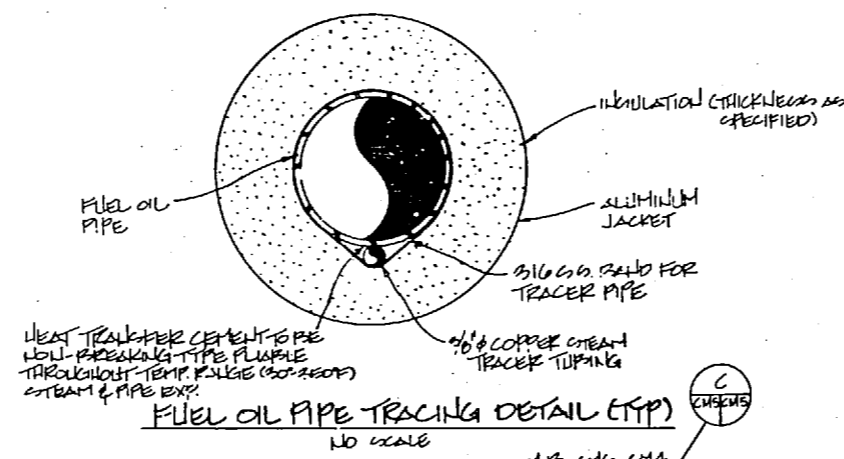
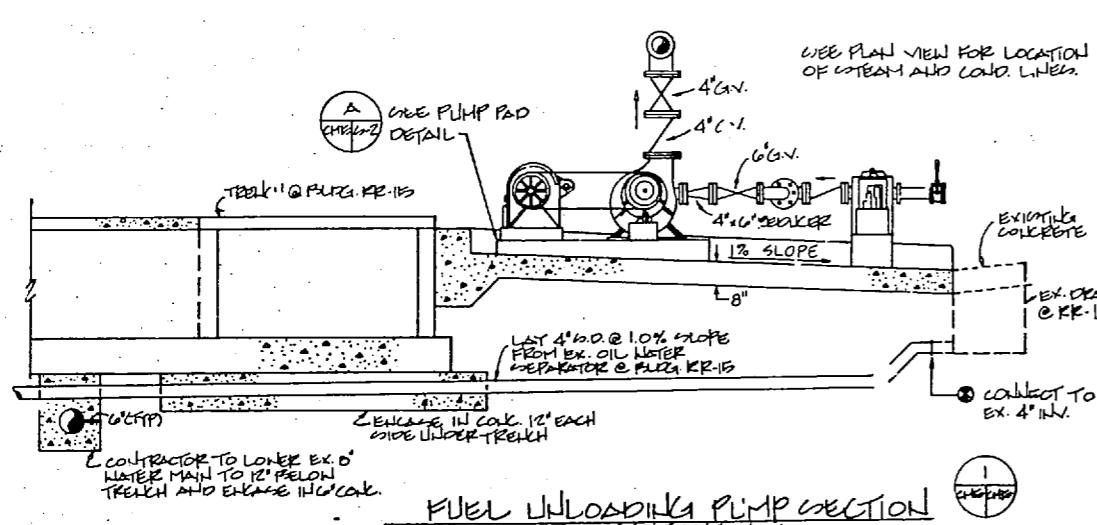
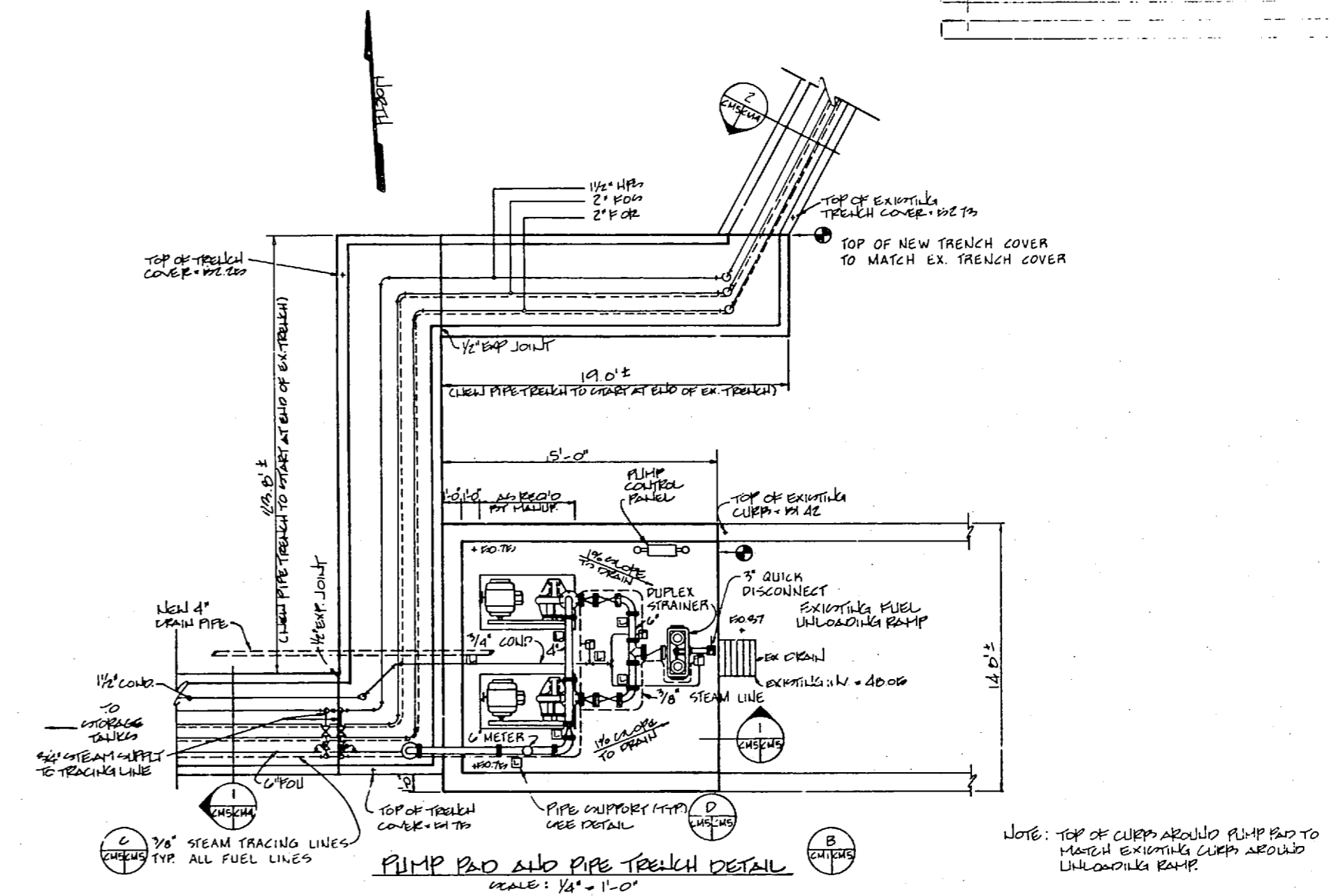
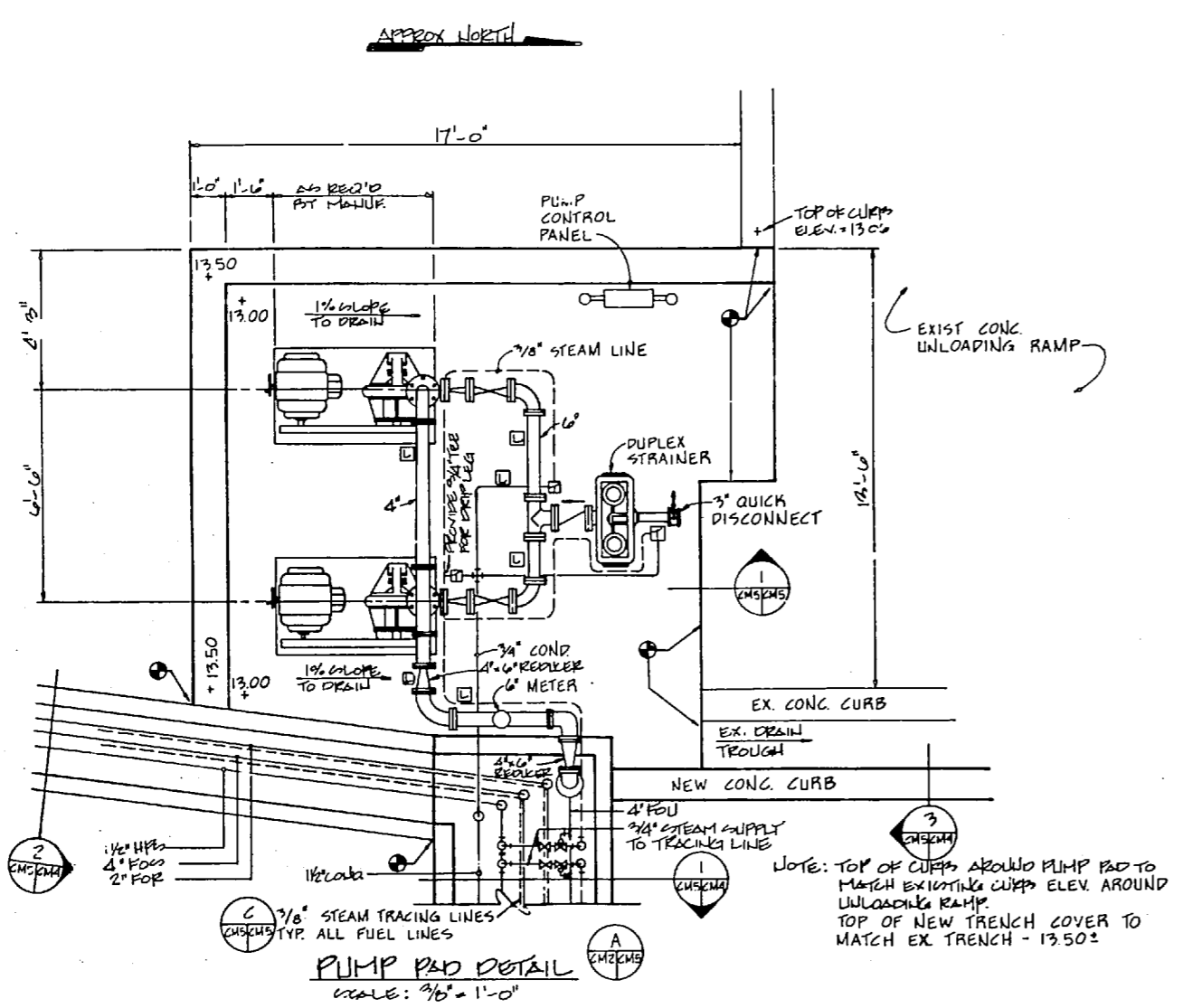
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3

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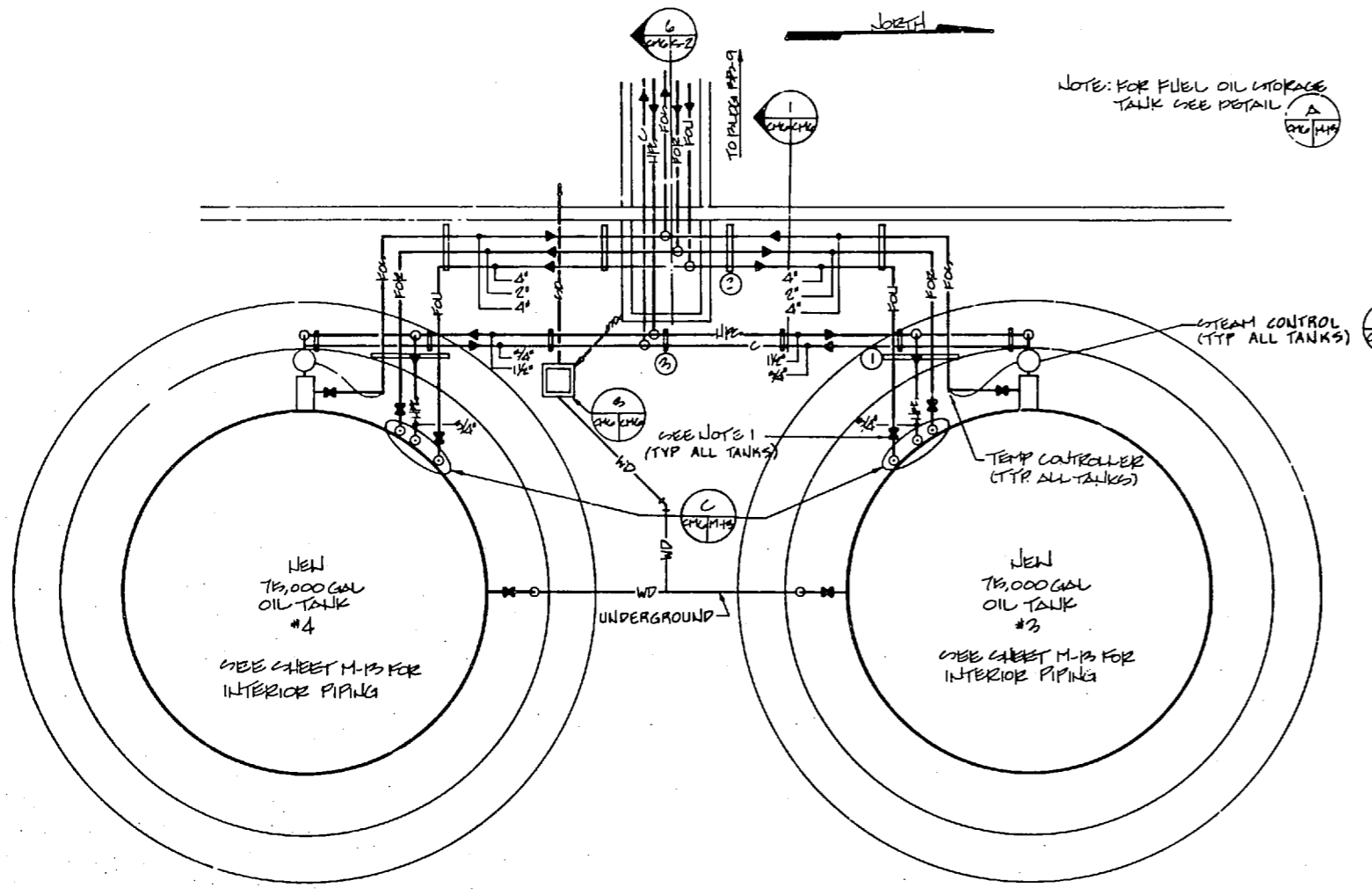
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REVISIONS



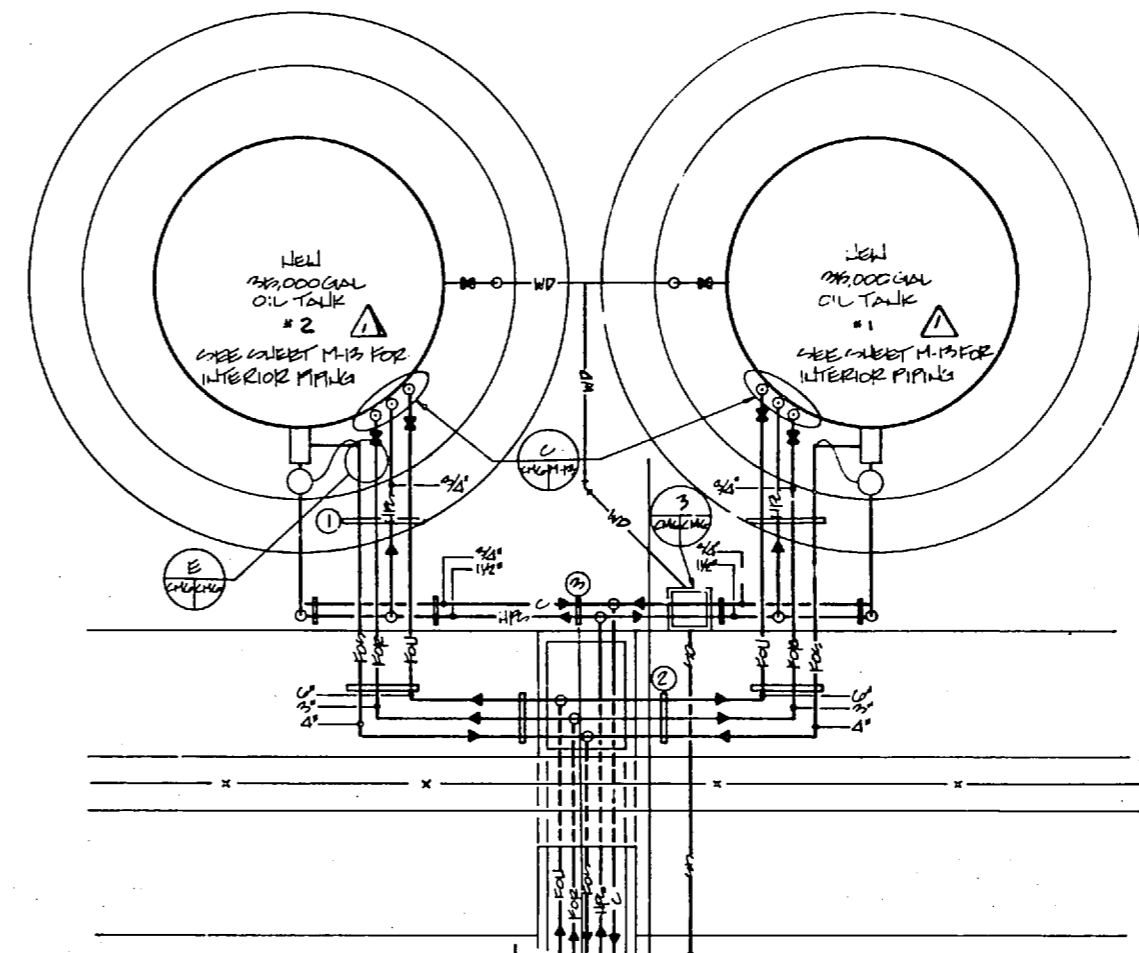
TRIANGLE ENGINEERING & SURVEYING, INC. ARCHITECTS & ENGINEERS FAYETTEVILLE, N.C.		DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND ATLANTIC DIVISION NORFOLK, VIRGINIA	
DR. J. D. J. DR. S. B. C. CH. J. D. P. PROJ. MGR. J. D. P. CH. ENGR. J. D. P. DESIGNED BY J. D. P. CHECKED BY J. D. P. DATE 7/19/85		MARINE CORPS BASE - CAMP LEJEUNE JACKSONVILLE, N.C. REPLACE BOILERS-BLDGS. BB-9, RR-15, 2615 PUMP PADS & DETAILS	
APPROVED: [Signature] OFFICER IN CHARGE		NAVY DRAWING NO. 4133255 CODE IDENT. NO. F 80091 CONSTRUCTION NO. N62470-81-B-1464 SHEET 6 OF 32	

10 9 8 7 6 5 4 3 2 1



▲ (BLDG BB-9 DELETED FROM CONTRACT)
 PLNG. BB-9 FUEL STORAGE PIPING DETAIL
 SCALE: 3/16" = 1'-0"

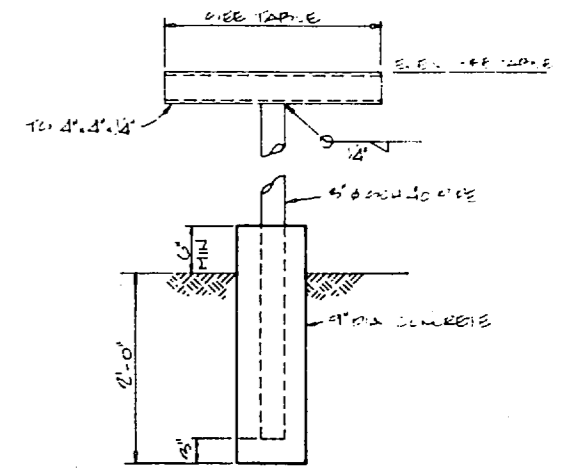
- NOTE:
 1. BALL VALVE W/LIMIT SWITCH ON ALL FUEL LINES TO STORAGE TANKS. SEE GASKET E-1.
 2. DO NOT USE B-7 CONNECTOR AS SHOWN ON DETAIL (D) WITHIN TANK AREA.



PLNG. RR-15 FUEL STORAGE PIPING DETAIL
 SCALE: 3/16" = 1'-0"

REVISIONS

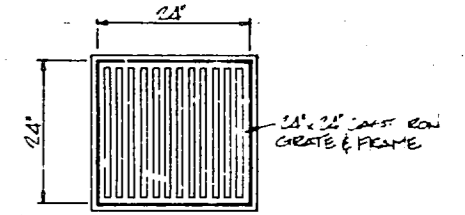
NO.	DESCRIPTION	DATE
1	REVISED AS BUILT	1/11/55



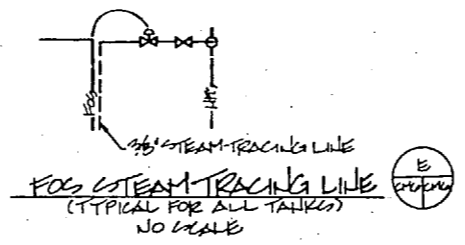
PIPE SUPPORT 4" DETAIL
 NO SCALE

PIPE SUPPORT TABLE

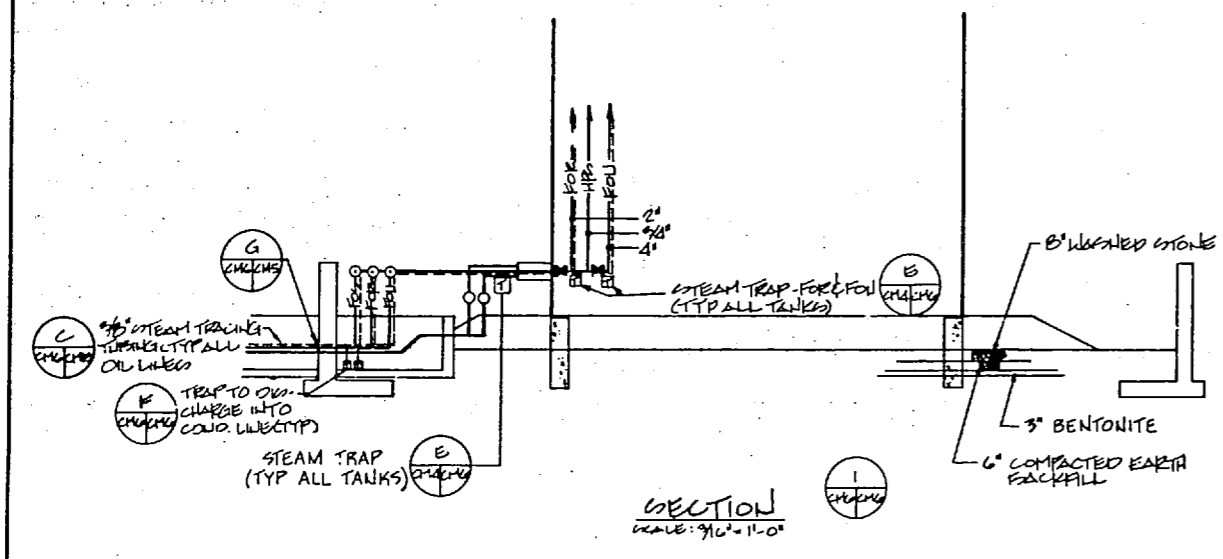
NO.	LENGTH	WGT. (LBS.)	EQ. NO.
1	5'-0"	140	530
2	3'-0"	140	530
3	1'-6"	120	510



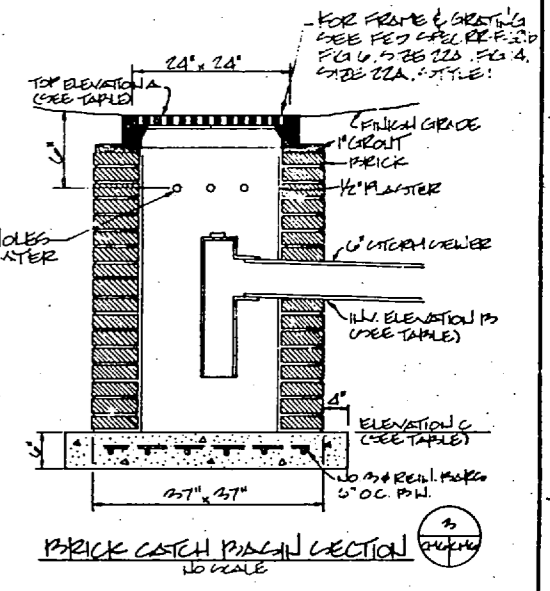
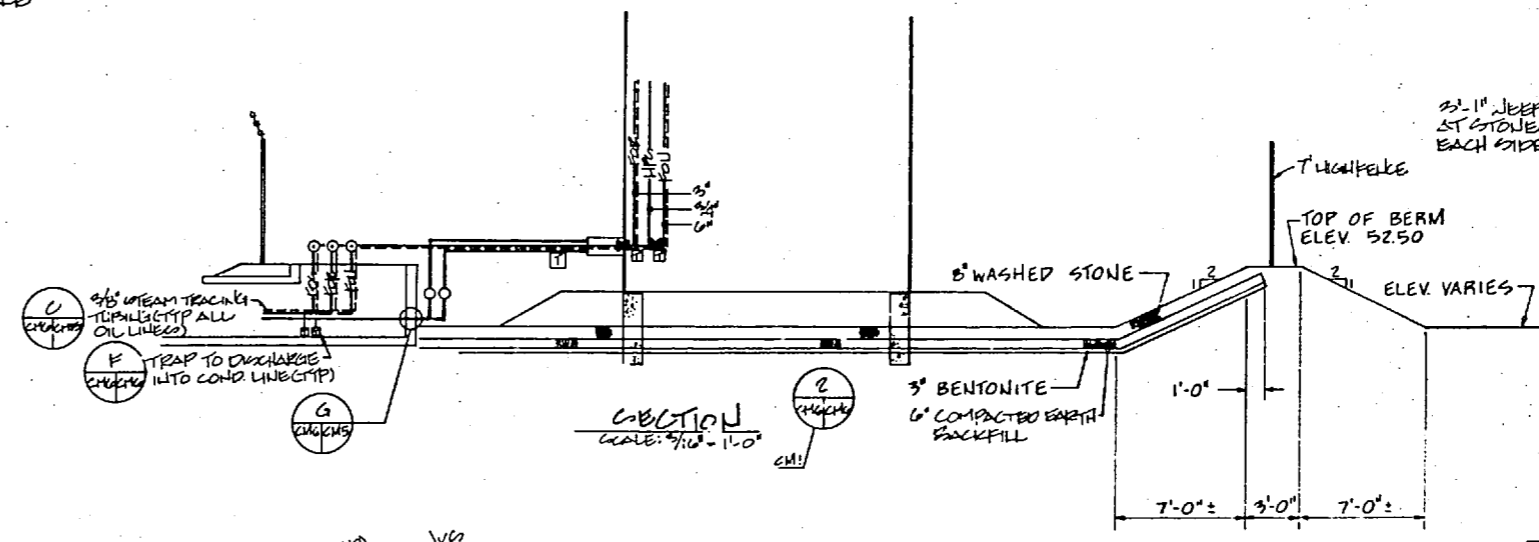
GRATE AND FRAME
 NO SCALE



FOR STEAM TRACING LINE
 (TYPICAL FOR ALL TANKS)
 NO SCALE



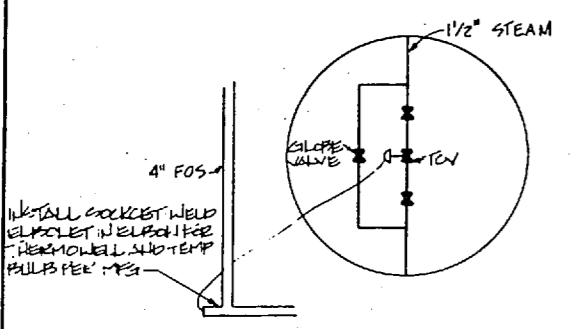
SECTION
 NO SCALE



BRICK CATCH BASIN SECTION
 NO SCALE

CATCH BASIN ELEV TABLE

ELEVATION	BB-9	RR-15
A	10.00	29.0
B	9.00	40.0
C	7.00	46.0

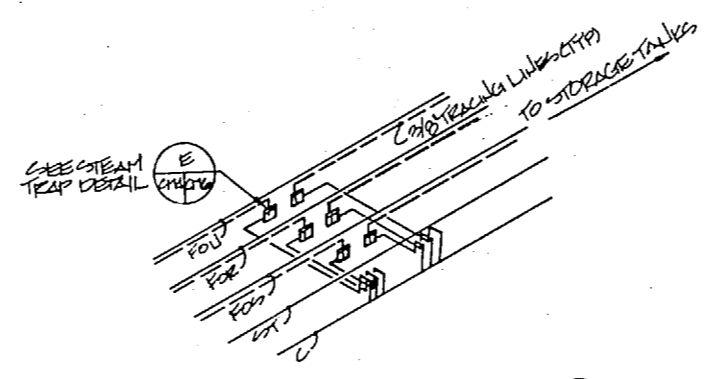


STEAM CONTROL DETAIL
 NO SCALE

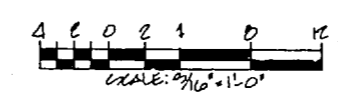
TEMPERATURE CONTROL VALVE

PLNG.	SIZE	WGT.	SP.	C.V.
BB-9	1 1/2"	320	20	2.300
RR-15	1 1/2"	280	20	1.60

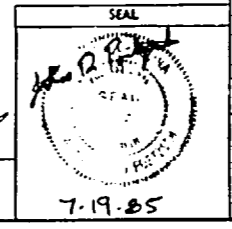
STEAM PRESSURE 100 PSI



STEAM COLLECTION DETAIL
 NO SCALE



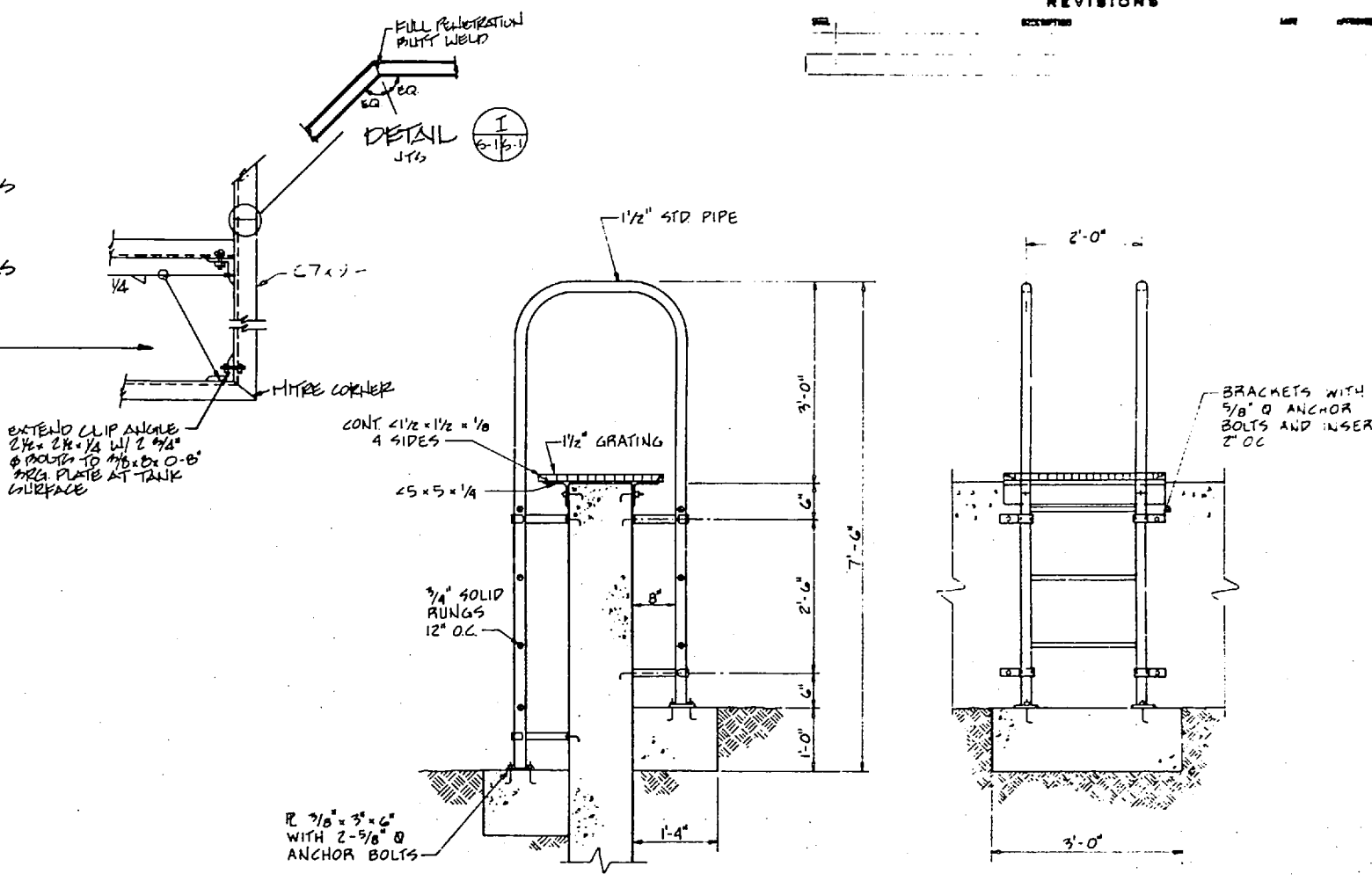
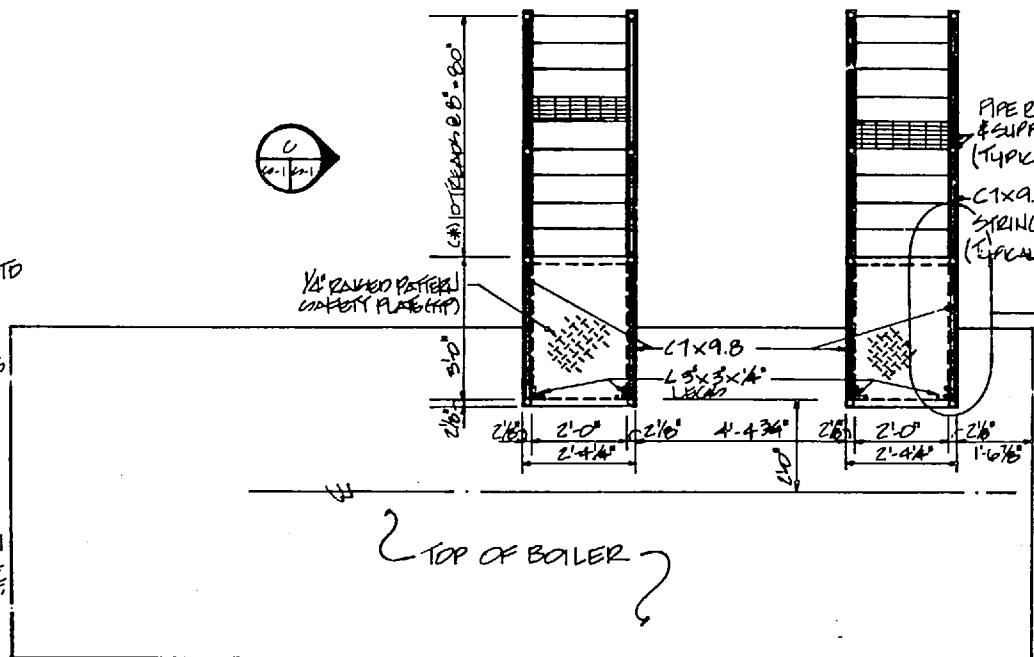
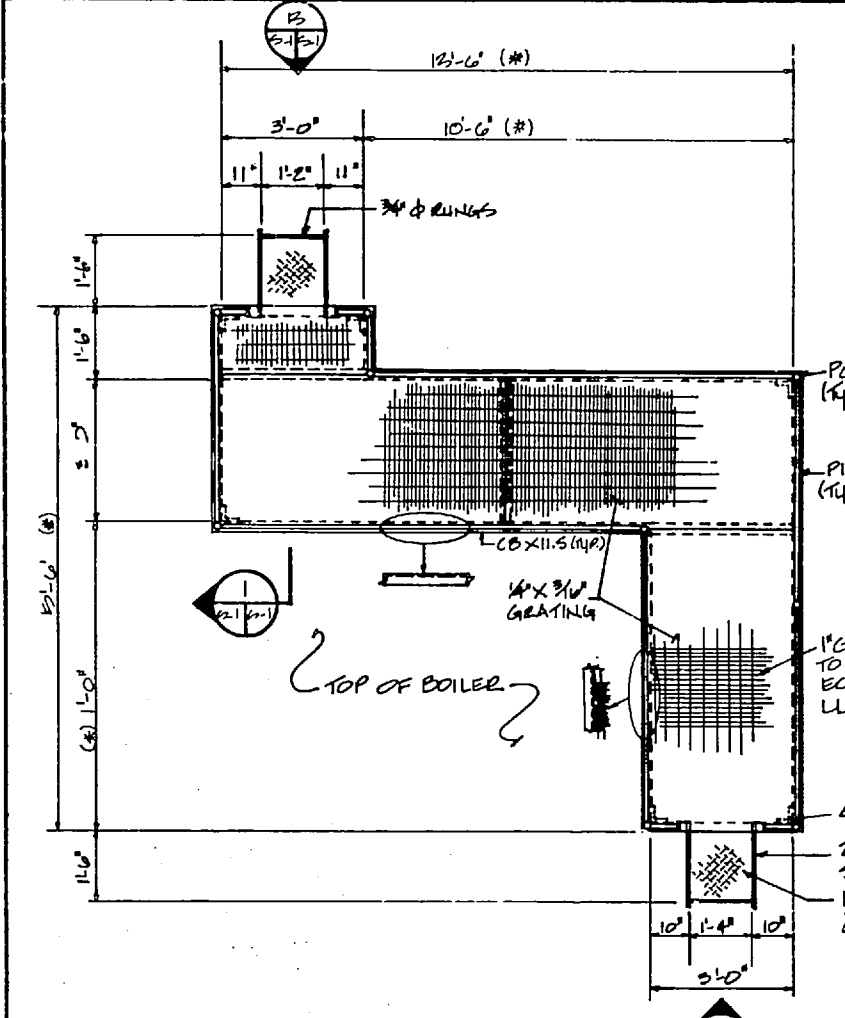
SCALE: 3/16" = 1'-0"



TRINITY ENGINEERING & SURVEYING, INC. ARCHITECTS & ENGINEERS 2310 BROADWAY WILMINGTON, N.C. 28402 TEL: 734-1111		CM-6 DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND ATLANTIC DIVISION NAVAL STATION NORFOLK, VIRGINIA MARINE CORPS BASE - CAMP LEJEUNE JACKSONVILLE, N.C.	
PROJECT: REPLACE BOILERS - BLDGS. BB-9, RR-15, 2615 CONTAINMENT AREA PIPING & DETAILS		NAVFAC DRAWING NO. 4133256 SHEET 7 OF 32 CONTRACT NO. N62470-81-B-1464 NAVFAC NOTED SPEC 05-81-1464	
DESIGNED BY: J.P. JONES CHECKED BY: J.P. JONES DATE: 7-19-55	APPROVED BY: J.P. JONES DATE: 7-19-55	OFFICER IN CHARGE: J.P. JONES DATE: 7-19-55	SEAL: J.P. JONES DATE: 7-19-55

10 9 8 7 6 5 4 3 2 1





PLAN NO SCALE

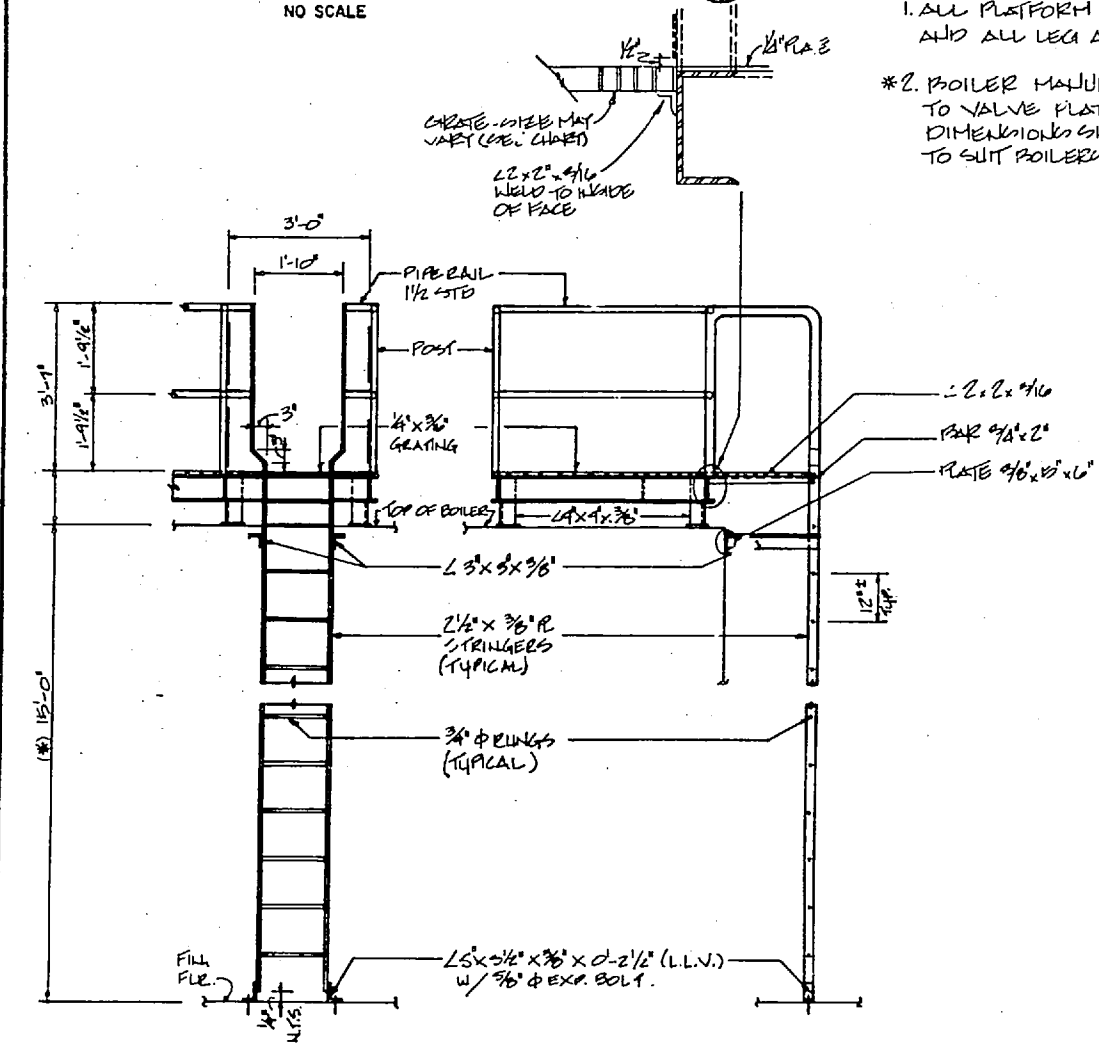
PLAN SCALE: 1/2" = 1'-0"

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

- NOTES:**
1. ALL PLATFORM CHANNELS ARE C10x11.5 AND ALL LECA ANGLES ARE 2"x4"x3/8".
 2. BOILER MANUFACTURER TO PROVIDE ACCESS TO VALVE PLATFORMS ON BOILER DRAWINGS. DIMENSIONS SHOULD BE MODIFIED IF REQUIRED TO SUIT BOILERS PROVIDED.

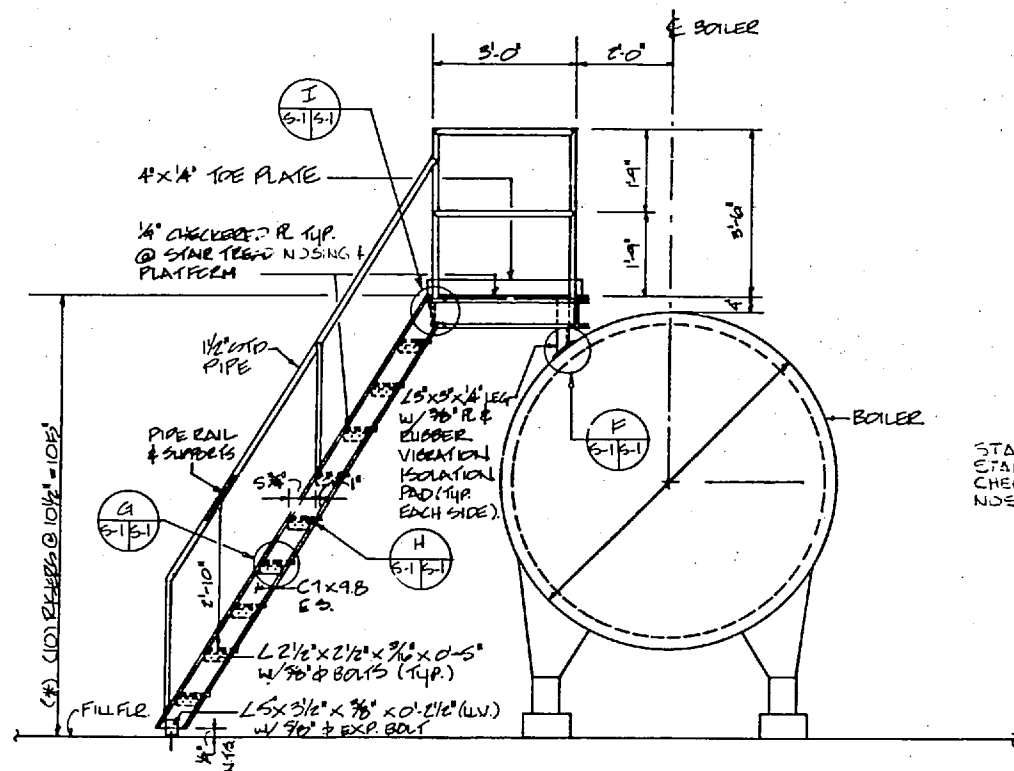
CARATING TABLE

SIZE	CON'T	INCH	MATERIAL
1 1/2" x 1/2"	.250	.224	ALUMINUM
1" x 1/2"	.229	.114	STEEL

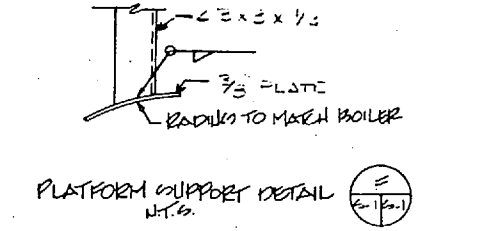


FRONT ELEVATION SCALE: 1/2" = 1'-0"

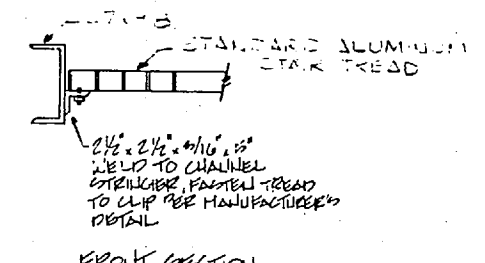
SECTION SCALE: 1/2" = 1'-0"



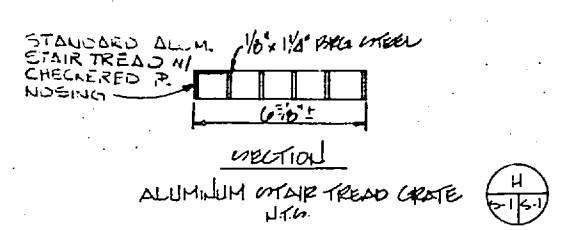
SIDE ELEVATION SCALE: 1/2" = 1'-0"



PLATFORM SUPPORT DETAIL



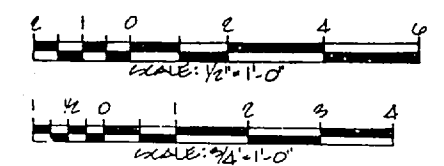
FRONT SECTION TREAD GRATE COLLECTION DETAIL



VERTICAL ALUMINUM OUTSIDE TREAD GRATE

BOILER ACCESS STAIRS & PLATFORMS-BLDG. BB-9

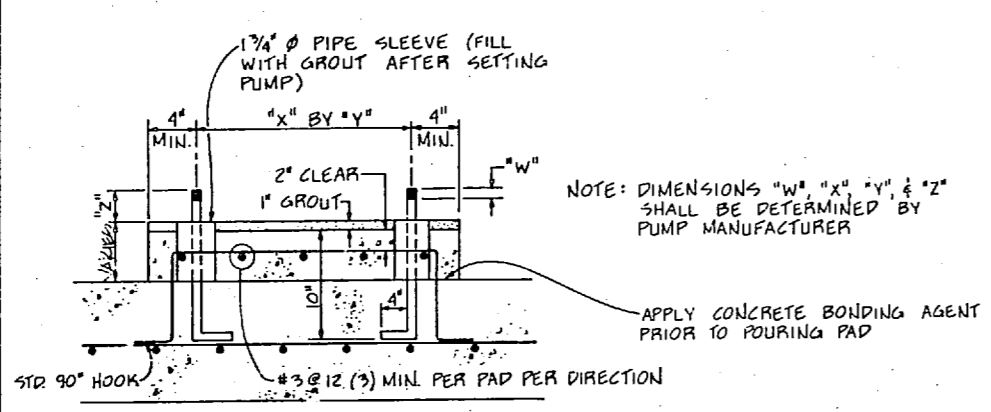
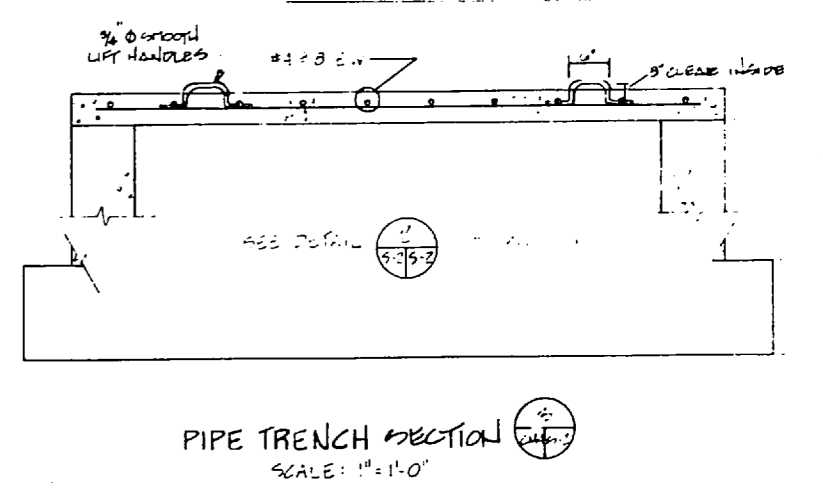
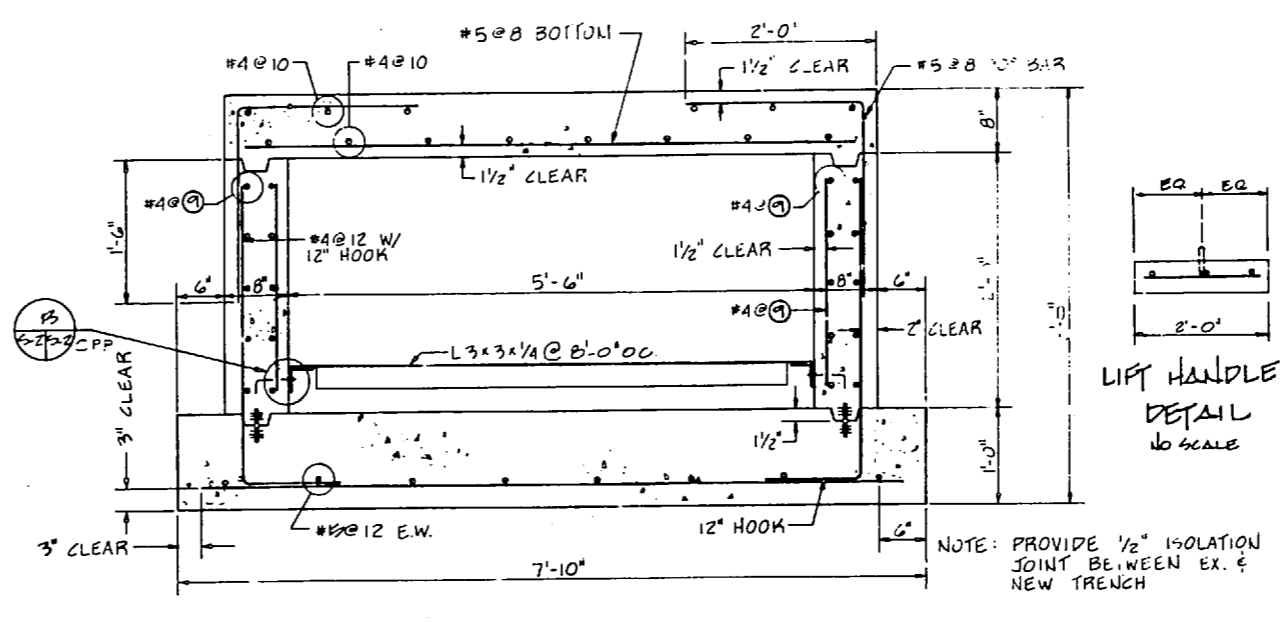
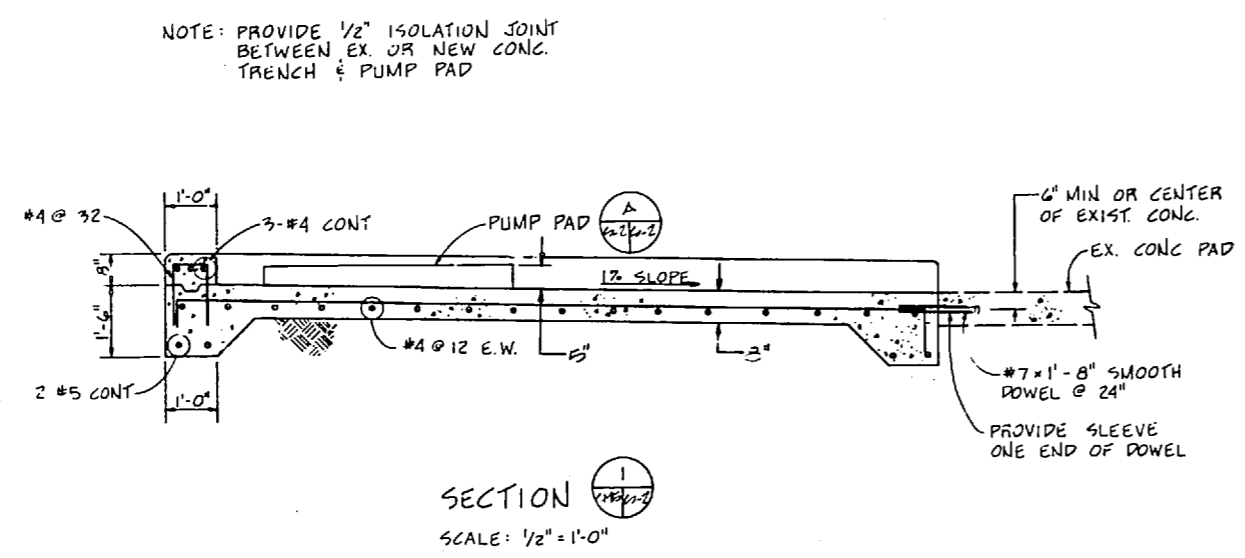
BOILER ACCESS STAIRS & PLATFORMS-BLDG. RR-15 BLDG. 2615



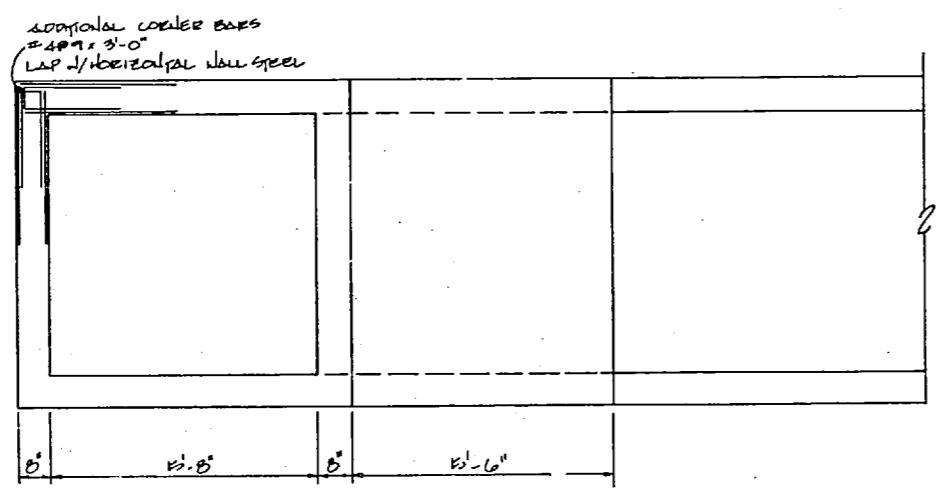
TRIANGLE ENGINEERING & SURVEYING, INC. ARCHITECTS & ENGINEERS DER DCF OR SBC CHK DCF PROJ MGR JDP CH ENGR JDP SUBMITTED BY DATE 7/1/83 RFD RYO APPROVED DATE OFFICER IN CHARGE DATE APPROVED DATE FOR SFD FOR COMMANDER NAVAL		DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND ATLANTIC DIVISION MARINE CORPS BASE - CAMP LEJEUNE JACKSONVILLE, N.C. REPLACE BOILERS - BLDGS. BB-9, RR-15, & 2615 BUILDING NOS. BB-9, RR-15, & 2615 BOILER ACCESS STAIRS & PLATFORMS NAVY DRAWING NO. 413257 CONSTRUCTION NO. N62470-81-B-1464 SHEET 8 OF 32 1/7/83	
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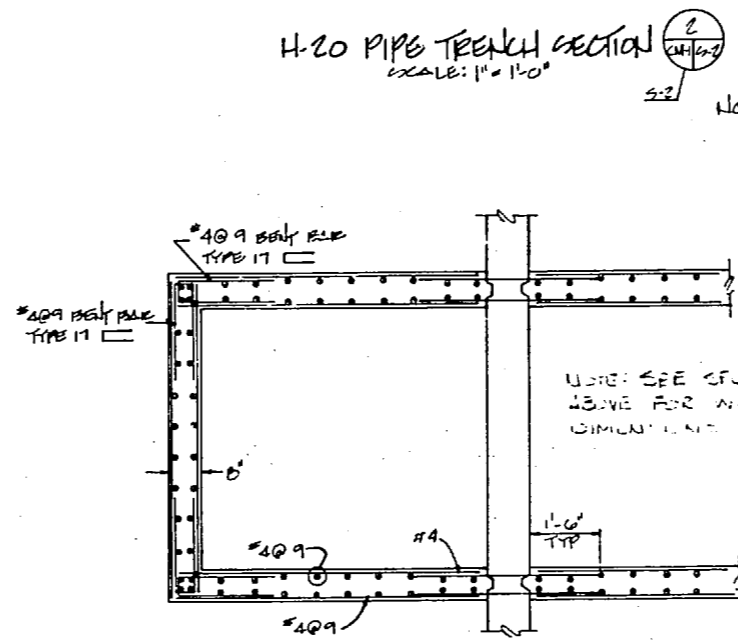
NO.	DESCRIPTION
1	REVISED AS BUILT



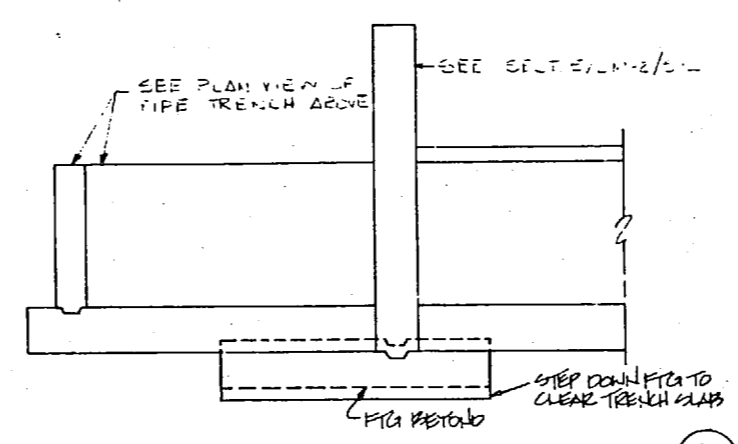
PUMP PAD DETAIL
NO SCALE



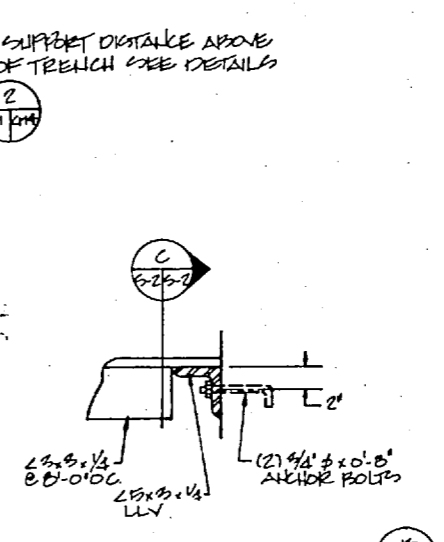
PLAN VIEW
SCALE: 1/2" = 1'-0"



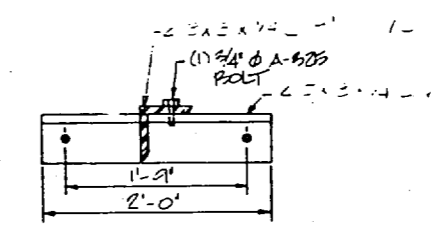
PLAN VIEW OF PIPE TRENCH
SCALE: 1/2" = 1'-0"



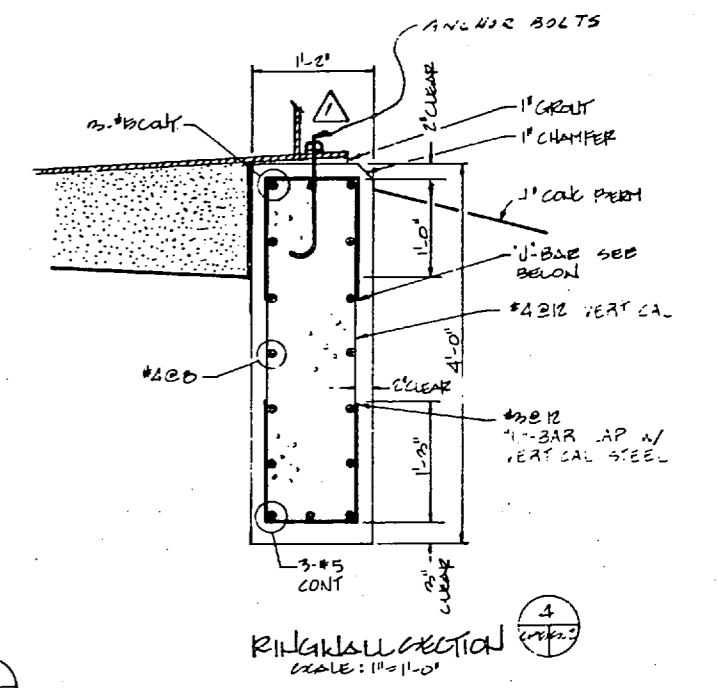
PIPE TRENCH AT RETAINING WALL
SCALE: 1/2" = 1'-0"



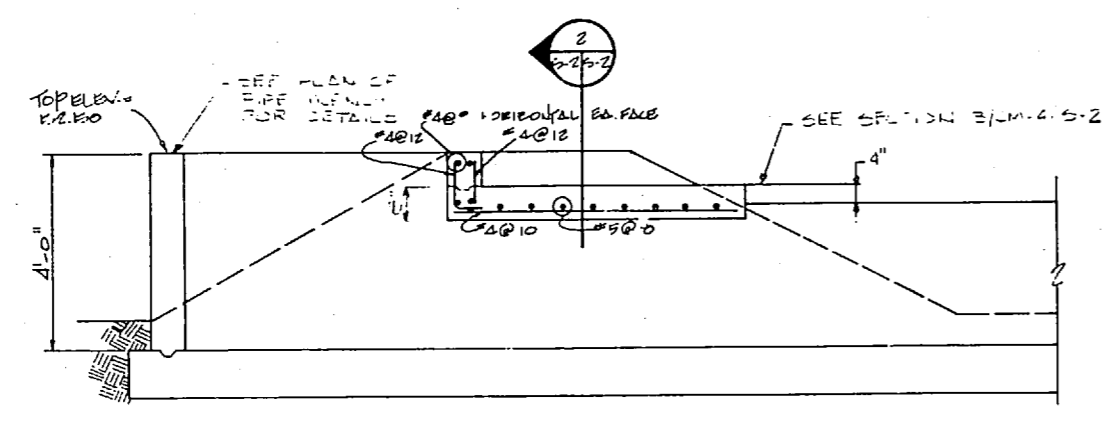
PIPE SUPPORT DETAIL
NO SCALE



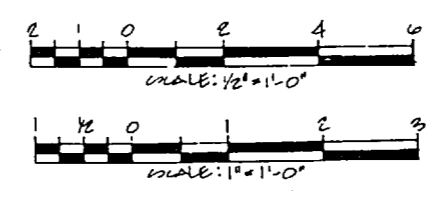
DETAIL
SCALE: 1" = 1'-0"



RETAINING WALL SECTION
NO SCALE

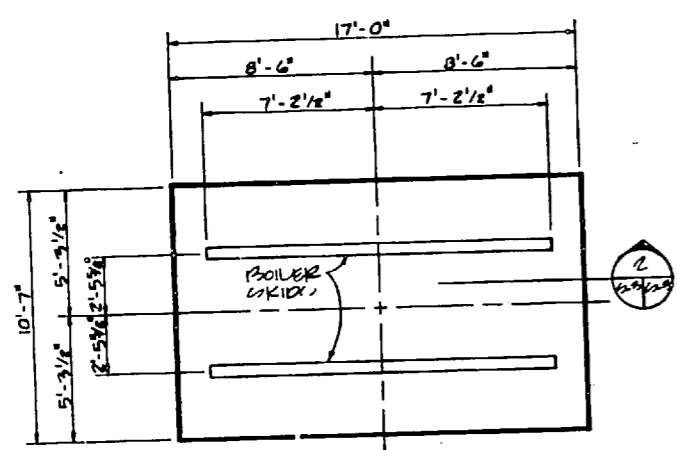


PIPE TRENCH UNDER PERM
SCALE: 1/2" = 1'-0"

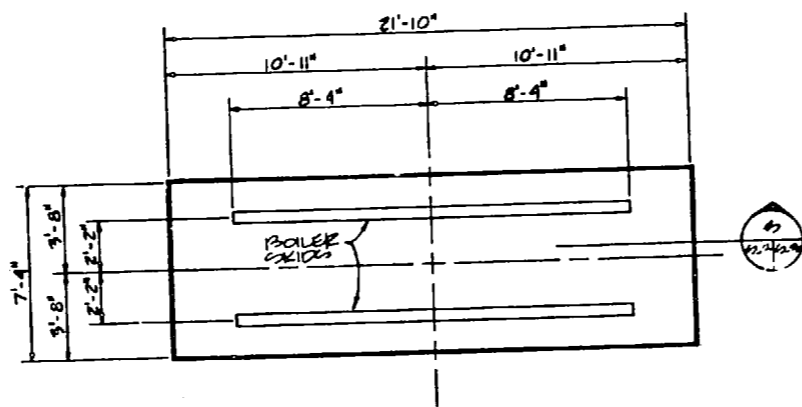


S-2	
TRIANGLE ENGINEERING & SURVEYING, INC. ARCHITECTS & ENGINEERS RALEIGH, N.C.	DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND ATLANTIC DIVISION NORFOLK, VIRGINIA
PROJ. NO. JDP SUBMITTED BY PERS. NUMBER EPD APPROVED	MARINE CORPS BASE - CAMP LEJEUNE JACKSONVILLE, N.C. REPLACE BOILERS - BLDGS. BB-9, RR-15, 26 STRUCTURAL DETAILS NO. 80091 DATE

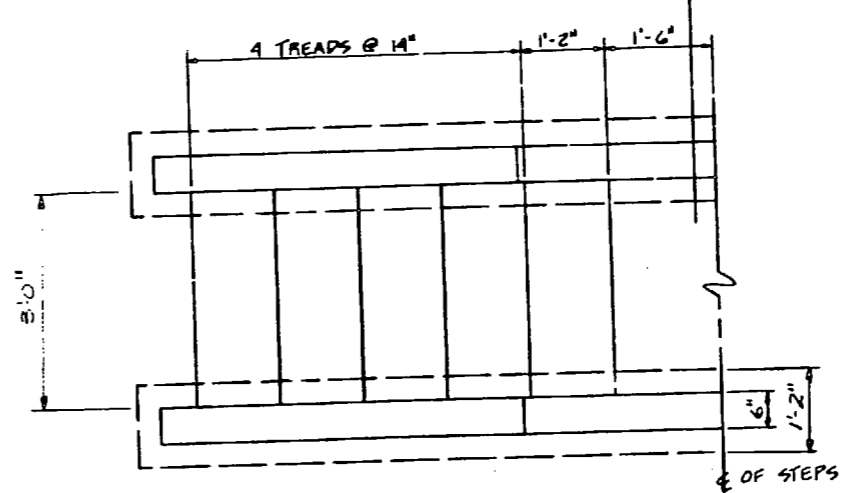
D.C. Fraw



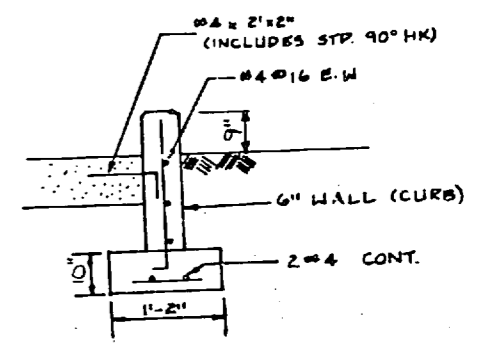
BOILER FOUNDATION - BLDGS. BB-9
SCALE: 1/4" = 1'-0"



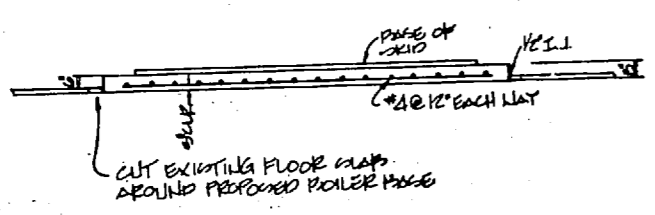
BOILER FOUNDATION - BLDGS. RR-15 AND 2615
SCALE: 1/4" = 1'-0"



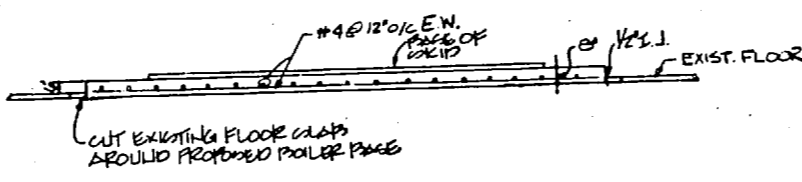
PLAN OF STEPS
SCALE: 3/4" = 1'-0"



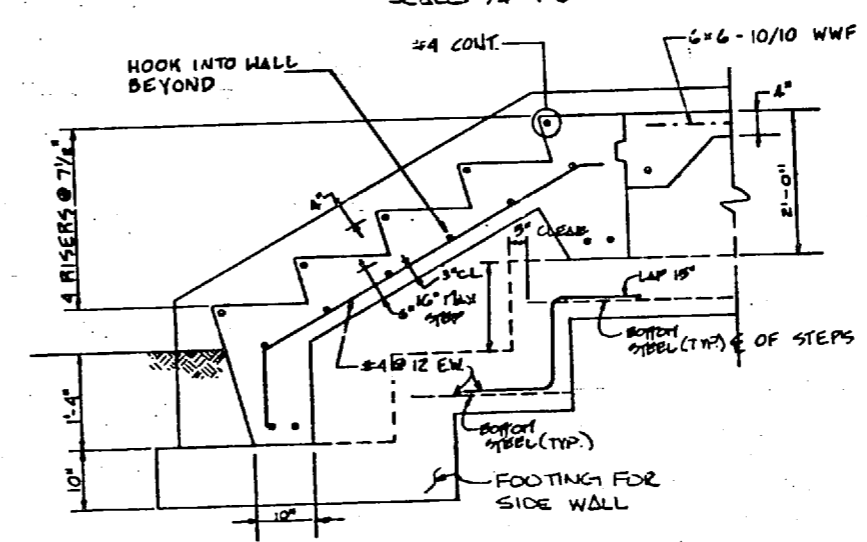
SECTION
N.T.S.



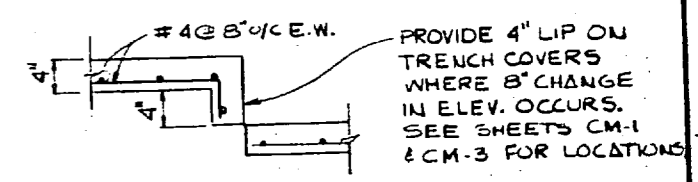
SECTION
SCALE: 1/4" = 1'-0"



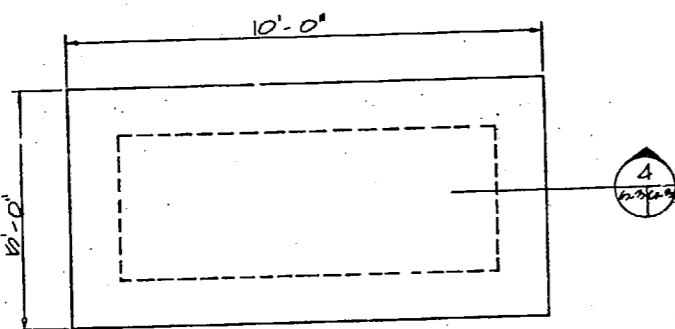
SECTION
SCALE: 1/4" = 1'-0"



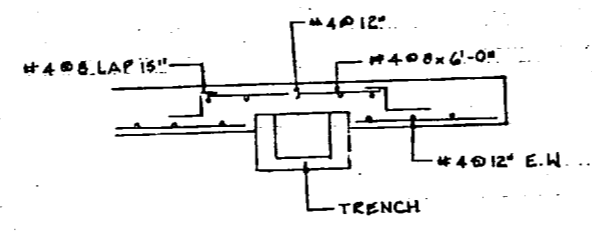
STEPS OVER BERM
SCALE: 3/4" = 1'-0"



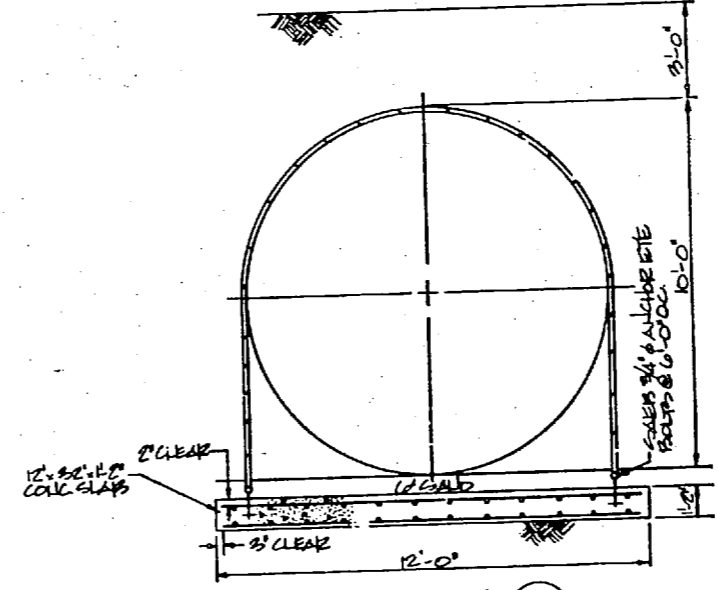
DETAIL
N.T.S.



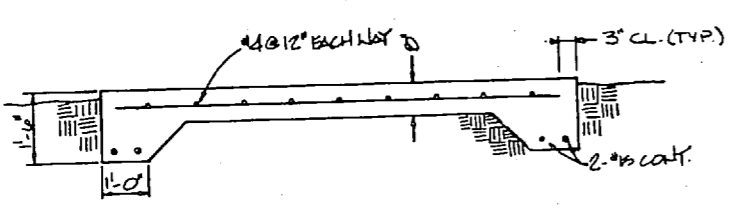
GENERATOR PAD
SCALE: 1/2" = 1'-0"



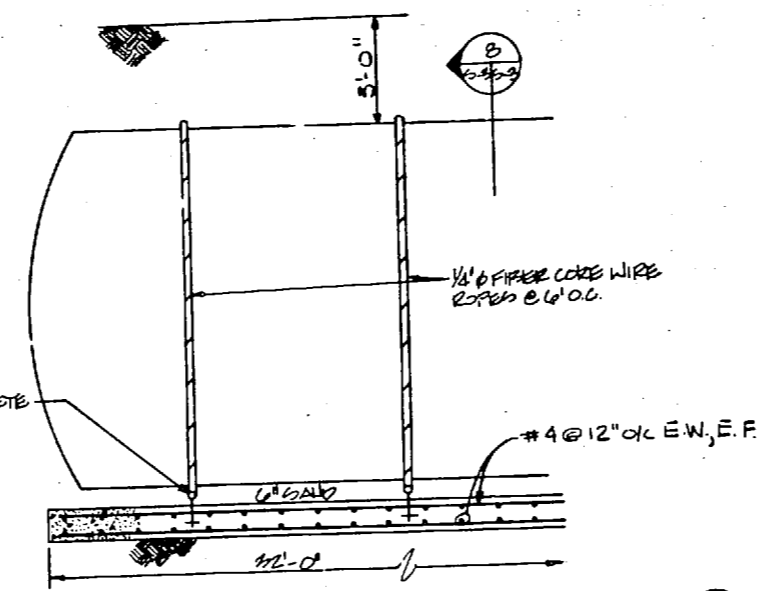
FOUNDATION OVER TRENCH
NO SCALE



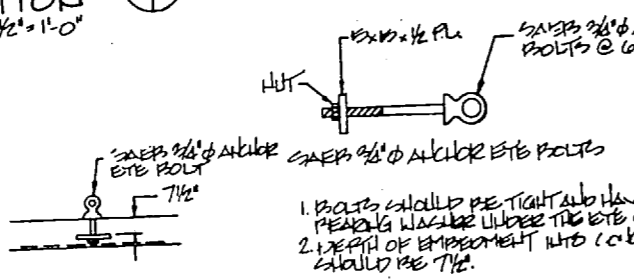
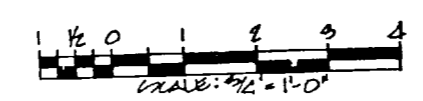
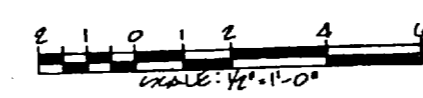
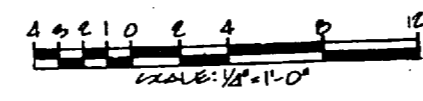
SECTION
NO SCALE



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



UNDERGROUND 17,000 GALLON TANKS FOUNDATION
SCALE: 3/8" = 1'-0"



RECORD DRAWING		LETTER DATED		S-3	
TRIANGLE ENGINEERING & SURVEYING, INC. RALEIGH, NC. ARCHITECTS & ENGINEERS		DEPT. TOWN OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND		ATLANTIC DIVISION NORFOLK, VIRGINIA	
DIR. DCF DR. JCA CHK. DCF		MARINE CORPS BASE - CAMP LEJEUNE JACKSONVILLE, NC.		REPLACE BOILERS-BLDGS. BB-9, RR-15, 2615	
PROJ. MGR. JDD CH. ENGR. JDF		NAVAL STATION		STRUCTURAL DETAILS	
TYPED BY: J. B. BARNETT		DATE: 10-1-55		REVISED BY: J. B. BARNETT	
APPROVED: [Signature]		DATE: 10-1-55		REVISED BY: J. B. BARNETT	
APPROVER IN CHARGE: [Signature]		DATE: 10-1-55		REVISED BY: J. B. BARNETT	
FOR E.P.O. FOR TRANSMISSION		REVISIONS NOTED: 05-81-1464		SHEET 10 OF 32	
		DRAWING NO. 4133259		PROJECT NO. 05-81-1464	
		SHEET NO. 10 OF 32		DRAWING NO. 1233259	

10

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7

6

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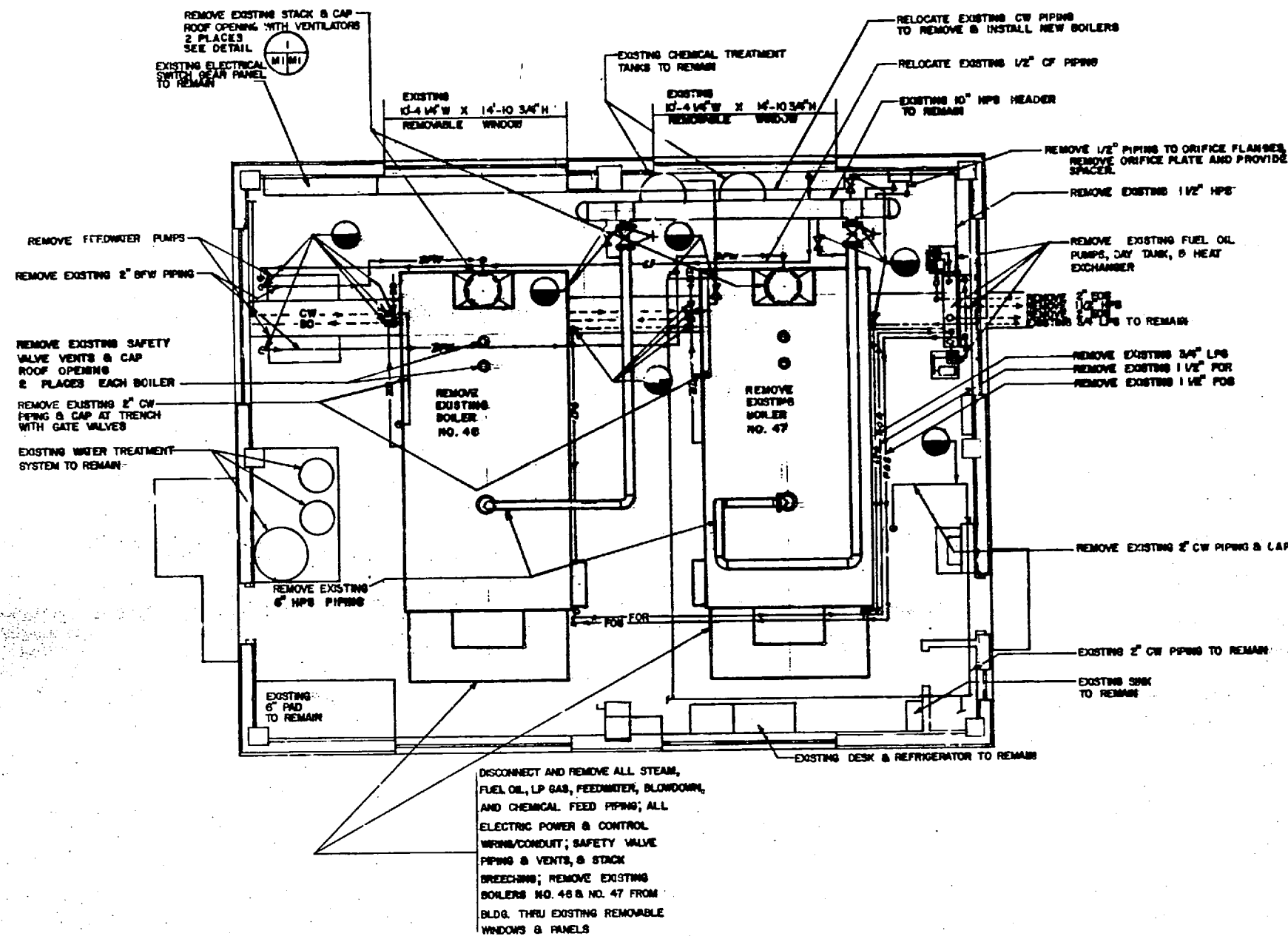
4

3

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1

REVISIONS		DATE	BY
1	REVISED "AS BUILT"	1/8/84	EJL



SYMBOLS & LEGEND

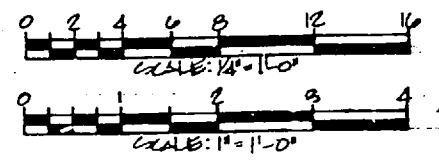
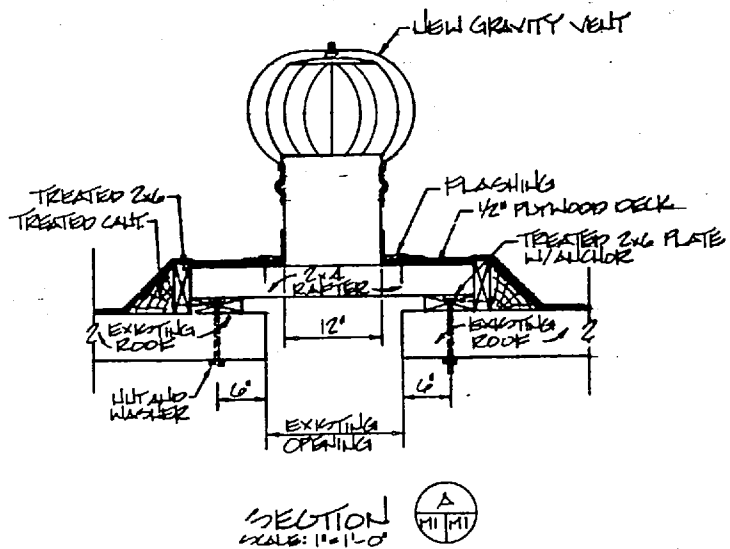
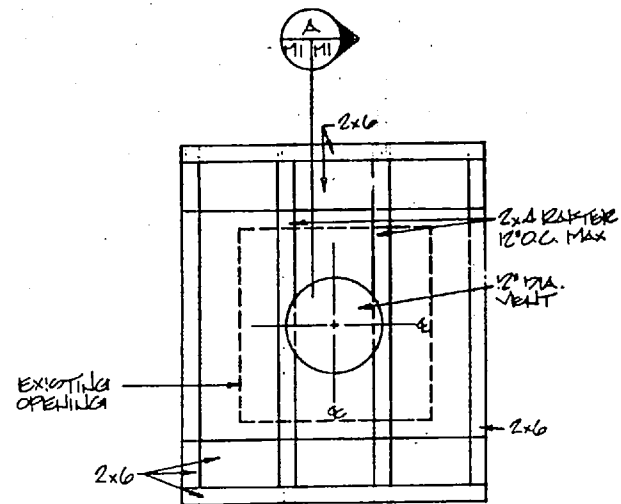
- FW — FEEDWATER
 - FWS — FEEDWATER SUCTION
 - R — RELIEF
 - D — DRAIN
 - CF — CHEMICAL FEED
 - CD — CONDENSATE DRAIN
 - HPD — HI PRESS DRAIN
 - HPS — HI PRESS STEAM
 - FOS — FUEL OIL SUPPLY
 - FOR — FUEL OIL RETURN
 - CF — CHEMICAL FEED
 - BD — BLOWDOWN
 - CBD — CONSTANT BLOWDOWN
 - BBD — BOTTOM BLOWDOWN
 - LPG — PROPANE GAS
 - CW(S) — COLD WATER - SOFT
 - BFW — BOILER FEEDWATER
 - VTR — VENT THRU ROOF
 - FWB — FEEDWATER BY-PASS
 - E — ELECTRICAL WIRING
- ⊙ BEGINNING OR END POINT OF NEW WORK
 - ⊗ GATE VALVE
 - ⊘ GLOBE VALVE
 - ⊘ CHECK VALVE
 - ⊘ RELIEF VALVE
 - ⊘ HI PRESS TRAP
 - ⊘ UNION
 - ⊘ BALANCING VALVE - PLUG VALVE
 - ⊘ GAUGE SYMPHON SCHEDULE 40 STEEL
 - ⊘ ELECTRICAL DISCONNECT SWITCH
 - ⊙ BEGINNING OR END POINT OF DEMOLITION

MECHANICAL DEMOLITION PLAN

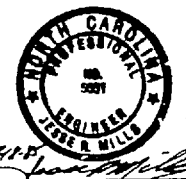
SCALE: 1/4" = 1'-0"

DEMOLITION NOTES

1. REMOVE EXISTING BOILERS NO. 46 AND NO. 47 AND ASSOCIATED STEAM, BLOWDOWN, FUEL OIL SUPPLY, FUEL OIL RETURN, LP GAS, COLD WATER, MAKE-UP WATER, AND COMPRESSED AIR PIPING, VALVES AND FITTINGS. DISCONNECT AND REMOVE ELECTRICAL POWER, CONTROL WIRING AND CONDUIT. REMOVE BOILER STACKS AND SAFETY VALVE PIPING UP THROUGH ROOF.
2. THE REMOVABLE WINDOWS AND PANELS MAY BE REMOVED AND WALL OPENINGS ENLARGED TO FACILITATE THE WORK. UPON COMPLETION OF THE WORK ALL WALL OPENINGS SHALL BE REPLACED, REMOVABLE PANELS AND WINDOWS SHALL BE RE-INSTALLED AND REPAINTED, ALL DAMAGED MATERIAL AND GLAZING SHALL BE REPLACED, AND ALL JOINTS SHALL BE CAULKED WEATHERTIGHT.
3. ABANDONED BOILER STACK ROOF OPENINGS SHALL BE CAPPED WITH A VENTILATOR. ABANDONED SAFETY VALVE PIPING ROOF OPENINGS SHALL BE CAPPED.
4. VERIFY ALL DIMENSIONS, EQUIPMENT LOCATIONS, CLEARANCES, AND CONDITIONS.
5. REMOVE ALL ASBESTOS INSULATION FROM WATER LINES AND RE-INSULATE WITH FIBERGLASS INSULATION

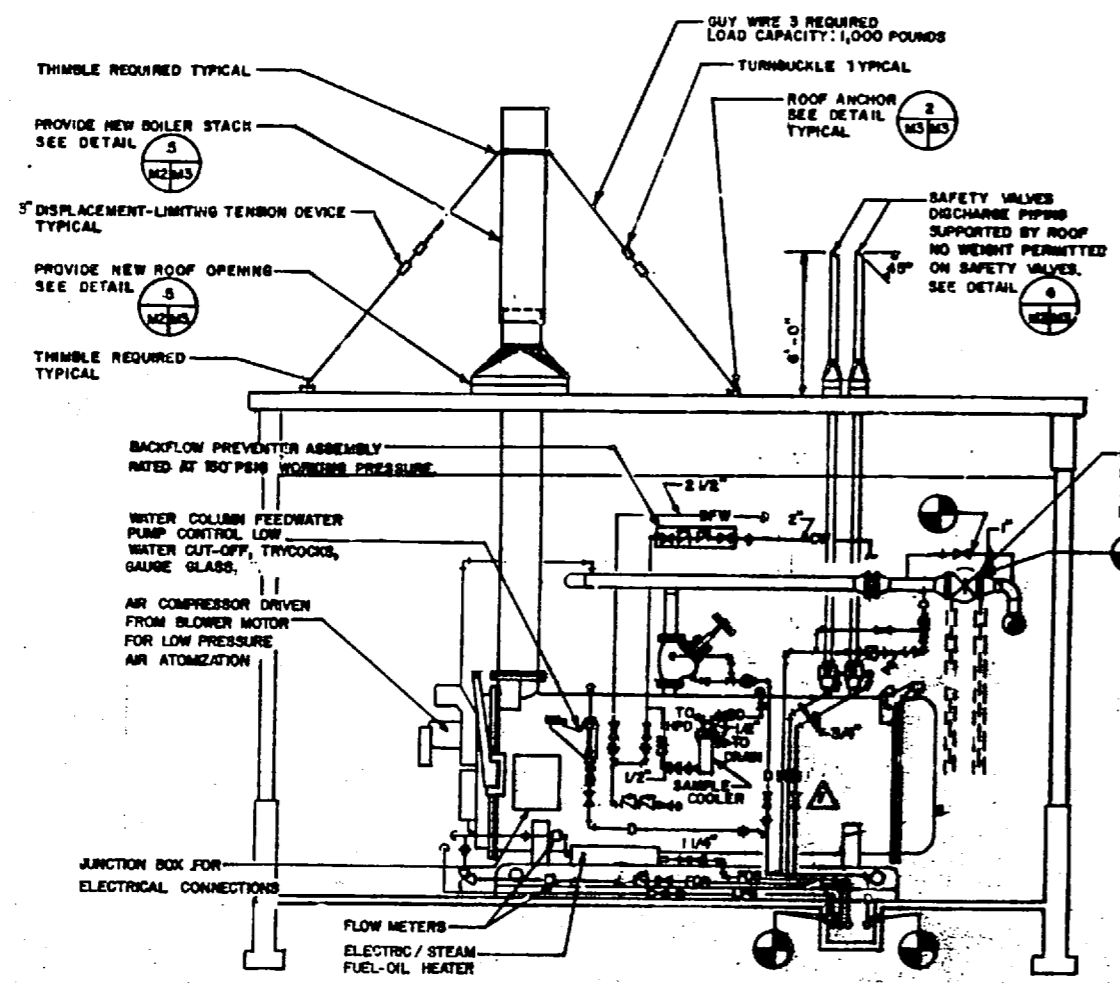


CONSULTANT MILLS ENGINEERING GASTONIA, N.C.		SEAL		RECORD DRAWING REVISION DATED MAY 25 1984 M-1	
DESIGNED BY CHECKED BY DATE		PROJECT NO. DATE		REPART OF THE NAVAL FACILITIES ENGINEERING COMMAND ATLANTIC DIVISION MARINE CORPS BASE - CAMP LEJEUNE JACKSONVILLE, N.C.	
SUBMITTED BY DATE		DRAWING NO. DATE		REPLACE BOILERS BLDGS. 88, RR-15, 2615 BUILDING NO. RR-15 MECHANICAL DEMOLITION PLAN	
APPROVED DATE		OFFICER IN CHARGE DATE		NAVFAC DRAWING NO. 4133280	
APPROVED DATE		COMPTROLLER DATE		COMPTROLLER NO. N62470-81-B-1464	
SCALE(S) NOTED		SPEC. 05-81-1464		SHEET 1 OF 32 233260	

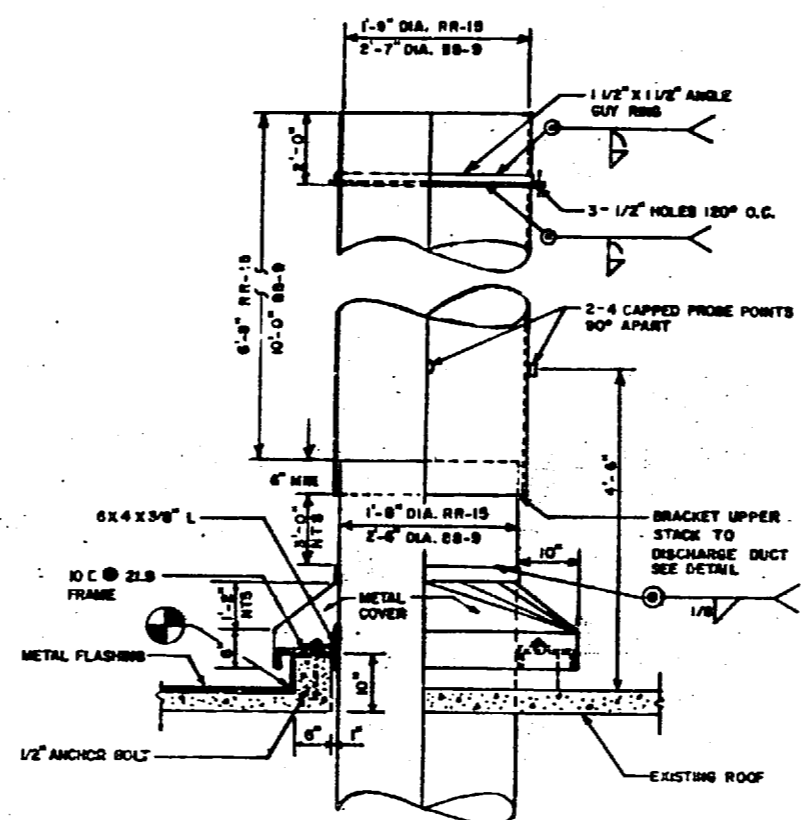




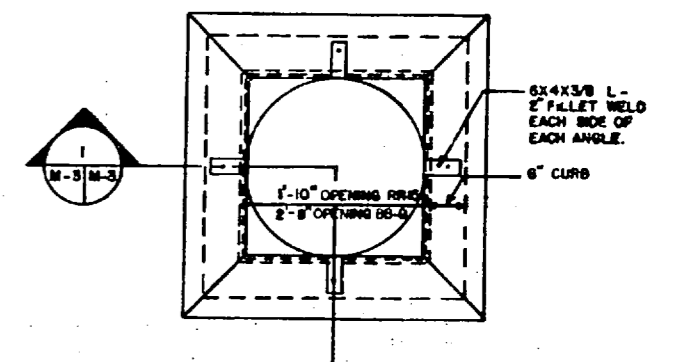
REVISIONS	
1	REVISED "AS BUILT"



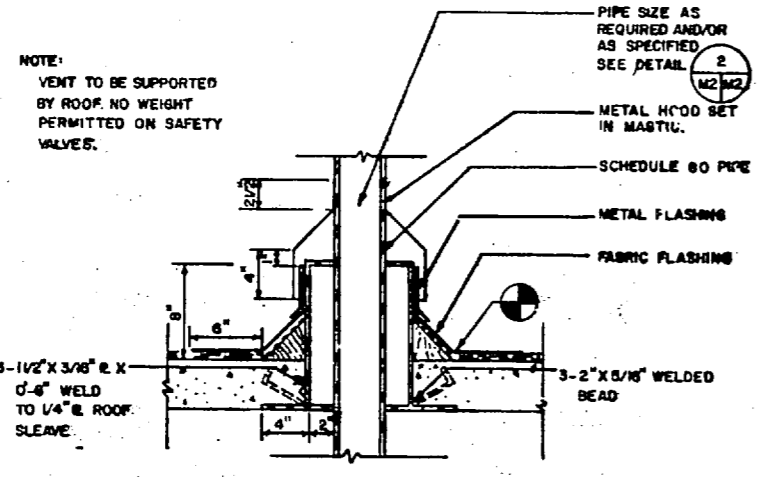
SECTION 2
SCALE: 1/2" = 1'-0"



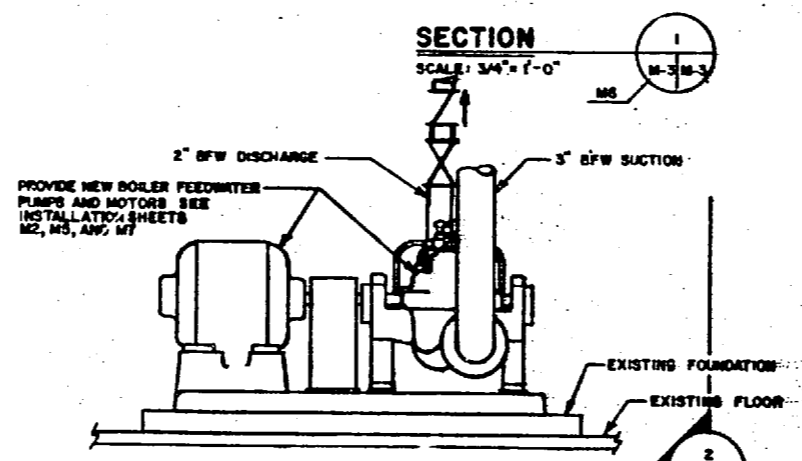
STACK BRACKET DETAIL
SCALE: 1/2" = 1'-0"



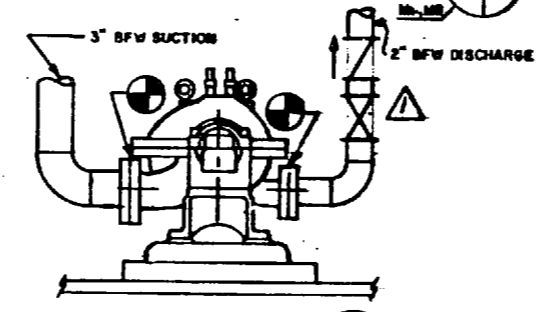
DETAILS OF BOILER STACK & ROOF OPENING
SCALE: 3/4" = 1'-0"



SAFETY VALVE VENT-SUPPORT & FLASHING DETAIL
SCALE: 1 1/2" = 1'-0"



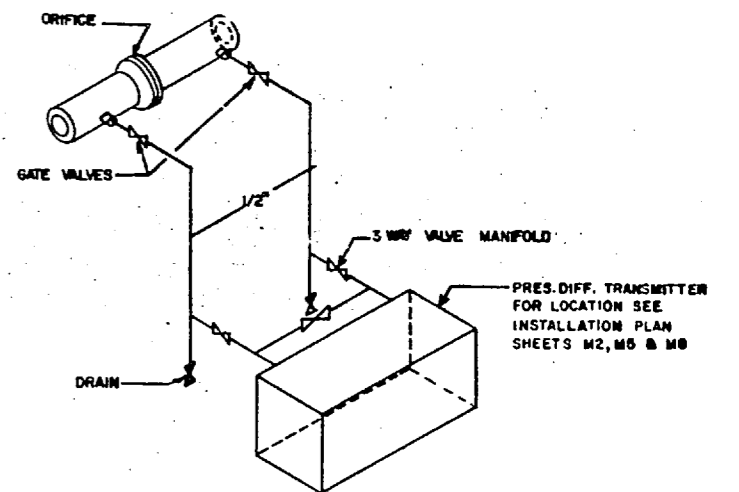
BOILER FEEDWATER PUMP DETAIL
TYPICAL NOT TO SCALE



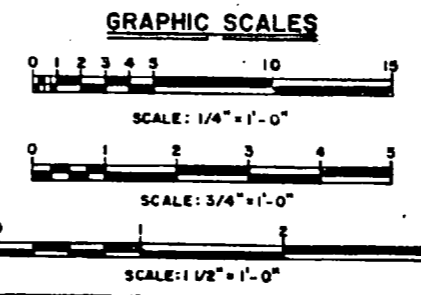
SECTION 2
NOT TO SCALE

STEAM FLOW METER INSTALLATION NOTES

1. PROVIDE & INSTALL NEW SINGLE PEN STEAM FLOW RECORDER RANGE=0-20, 500 LB. STM/HR. WITH INTEGRATOR AND PERCENT SCALE, 24 HR. CHART DRIVE. RECORDER SHALL BE PROVIDED COMPLETE WITH SQUARE ROOT GAIN & INTEGRATOR IN NEW METER PANEL. SEE DETAIL.
2. PROVIDE & INSTALL NEW ORIFICE PLATE & NEW ELECTRONIC DIFFERENTIAL PRESSURE TRANSMITTER COMPLETE WITH NEW INTL-CONNECTING PIPING/TUBING.
3. PROVIDE & INSTALL NEW WIRING FROM NEW DIFFERENTIAL PRESSURE TRANSMITTERS BACK TO NEW STEAM FLOW RECORDER IN NEW CONDUIT.
4. NEW ELECTRICAL CONDUITS SHOWN SCHEMATICALLY.
5. 16 GAUGE - 2 CONDUCTOR SHIELDED CABLE IN NEW CONDUIT.
6. DRAIN ORIFICE IN ORIFICE PLATE SHALL BE INSTALLED AT BOTTOM OF PIPE TO ALLOW DRAINAGE OF CONDENSATE.



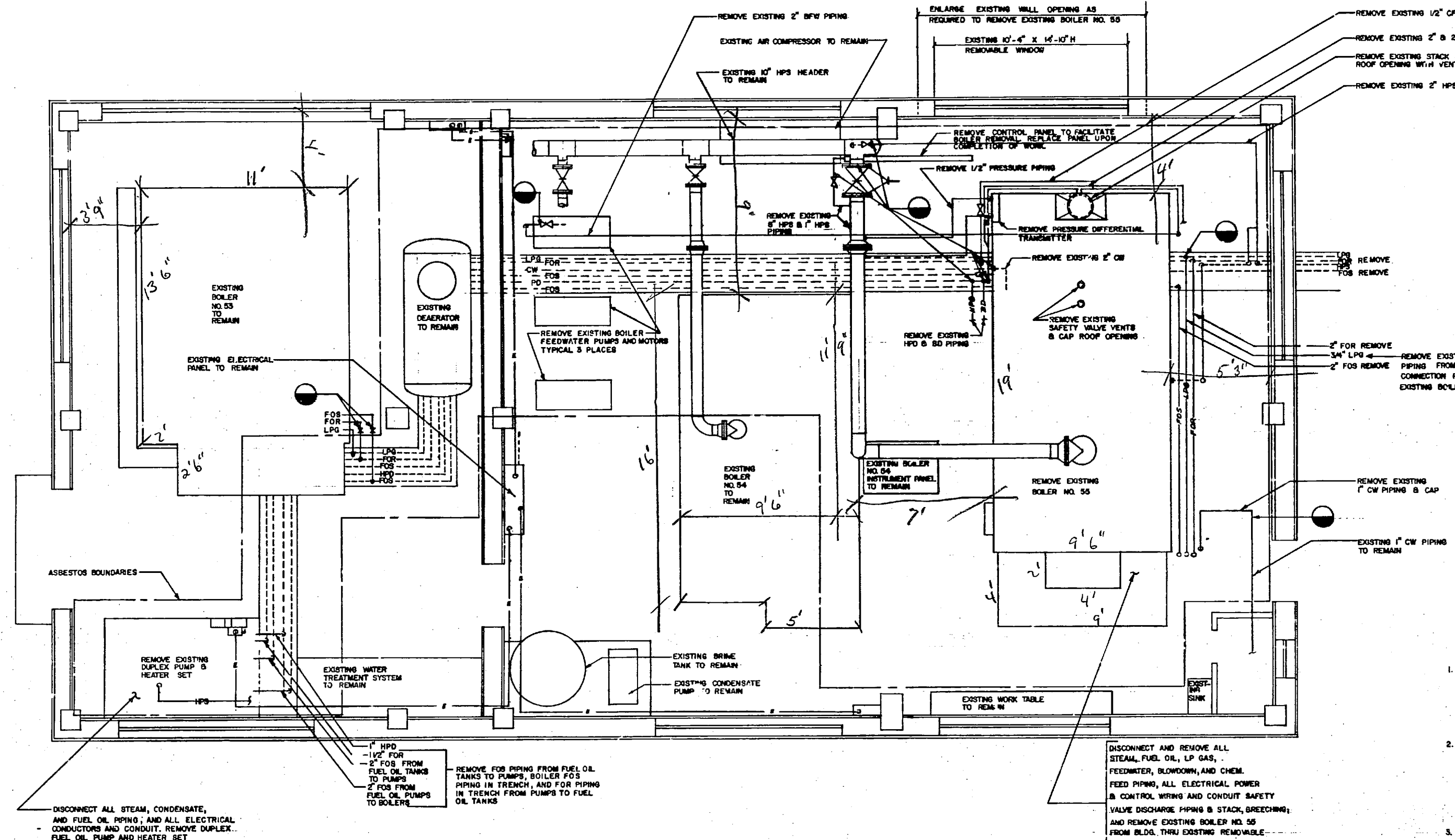
ORIFICE TO TRANSMITTER PIPE DIAGRAM DETAIL
NO SCALE



RECORD DRAWING LETTER DATED 11/1/58		M-3	
CONSULTANT MILLS ENGINEERING GASTONIA, N.C.	TRIANGLE ENGINEERING & SURVEYING, INC. RALEIGH, N.C. ARCHITECTS & ENGINEERS	DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND ATLANTIC DIVISION MARINE CORPS BASE CAMP LEJEUNE JACKSONVILLE, N.C.	
PROJECT NO. 101-82 DRAWN BY: [Signature] CHECKED BY: [Signature] DATE: []		DRAWING NO. 4133202 PROJECT NO. N62470-81-B-1464 SHEET 13 OF 32	



REVISIONS	
1	REVISED "AS BUILT"

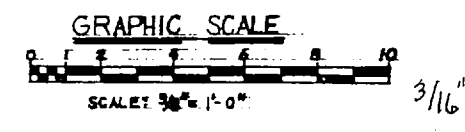


- DEMOLITION NOTES:**
1. REMOVE EXISTING BOILER NO. 55 AND ASSOCIATED STEAM, BLOWDOWN, FUEL OIL SUPPLY, FUEL OIL RETURN, GAS, COLDWATER, MAKE-UP WATER, AND COMPRESSED AIR PIPING, VALVES, AND FITTINGS. DISCONNECT AND REMOVE ELECTRICAL POWER, CONTROL WIRES AND CONDUIT. REMOVE BOILER STACK AND SAFETY VALVE PIPING UP THROUGH ROOF.
 2. THE REMOVABLE WINDOWS AND PANELS MAY BE REMOVED AND WALL OPENINGS ENLARGED TO FACILITATE THE WORK. UPON COMPLETION OF THE WORK ALL WALL OPENINGS SHALL BE REPLACED. REMOVABLE PANELS AND WINDOWS SHALL BE RE-INSTALLED AND RE-PAINTED AND ALL DAMAGED MATERIAL AND GLAZING SHALL BE REPLACED AND ALL JOINTS SHALL BE CAULKED WEATHERTIGHT.
 3. ABANDONED BOILER STACK ROOF OPENING SHALL BE CAPPED WITH A VENTILATOR. ABANDONED SAFETY VALVE PIPING ROOF OPENINGS SHALL BE CAPPED.
 4. VERIFY ALL DIMENSIONS, EQUIPMENT LOCATIONS, CLEARANCES, AND CONDITIONS.
 5. ASBESTOS REMOVAL AND HANDLING SHALL BE CONTAINED WITHIN THE BOUNDARIES INDICATED AS SHOWN BY _____

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

DISCONNECT AND REMOVE ALL STEAM, FUEL OIL, LP GAS, FEEDWATER, BLOWDOWN, AND CHEM. FEED PIPING, ALL ELECTRICAL POWER & CONTROL WIRING AND CONDUIT SAFETY VALVE DISCHARGE PIPING & STACK, BREECHING, AND REMOVE EXISTING BOILER NO. 55 FROM BLDG. THRU EXISTING REMOVABLE WINDOW. SEE DEMOLITION NOTES

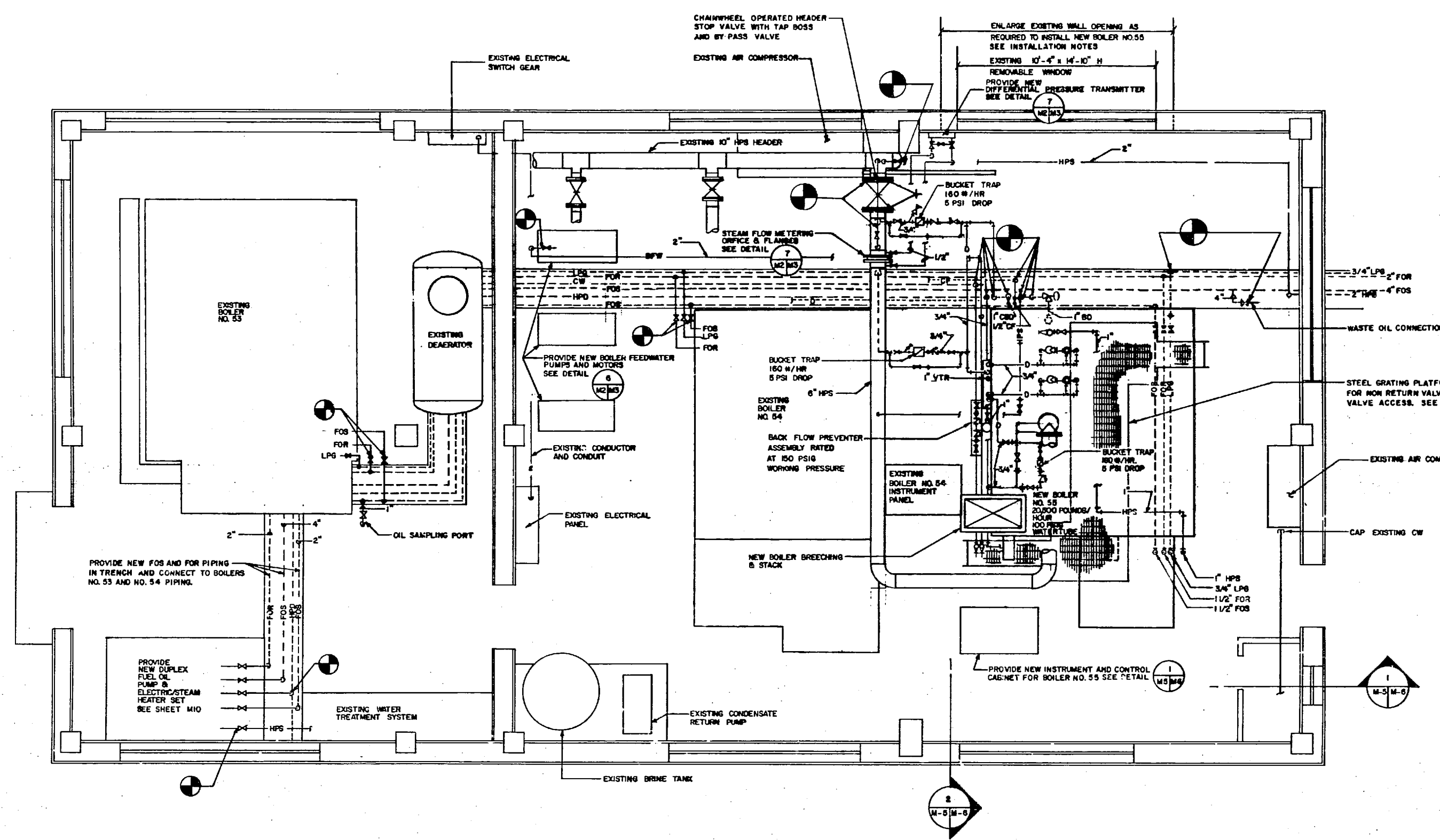
△ BLDG BB-9 DELETED



CONSULTANT MILLS ENGINEERING GASTONIA, N.C.	TRIANGLE ENGINEERING & SURVEYING, INC. RALEIGH, N.C.	DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND NORFOLK, VIRGINIA
	ARCHITECTS & ENGINEERS PROJ. MGR. J.P. BE... SUBMITTED BY... DATE... RVD... DATE...	NAVAL STATION MARINE CORPS BASE - CAMP LEJEUNE JACKSONVILLE, N.C.



REVISIONS	
1	REVISED "AS BUILT"

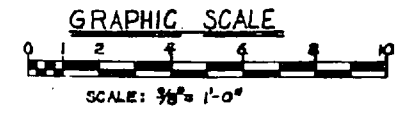


- EQUIPMENT SCHEDULE:**
- BOILER: 1 REQUIRED**
 TYPE: WATER TUBE
 CAPACITY: 20,000 POUNDS STEAM/HOUR AT 100 PSI WORKING PRESSURE
 FUEL: 100% NO. 8 FUEL OIL OR 90% NO. 8 FUEL OIL AND 10% WASTE OIL MIL-F-24951.
 LPG (PROPANE) AT 11 INCHES WATER GAUGE PRESSURE FOR PILOT.
 ELECTRICAL: 208 VOLTS, 3 PHASE, 60 CYCLE.
 BLOWER MOTOR & STARTER: 15 HORSEPOWER, 208 VOLTS, 17 AMPS, 3 PHASE, 60 CYCLE.
 COMPRESSOR MOTOR & STARTER: 5 HORSEPOWER, 208 VOLTS, 17 AMPS, 3 PHASE, 60 CYCLE.
 - DUPLEX FUEL OIL PUMP AND HEATER SET: 1 REQUIRED**
 TYPE: DUPLEX GEAR PUMPS WITH DUPLEX STRAINERS. STEAM & ELECTRICALLY HEATED DUPLEX HEATERS TO HEAT 100% NO. 8 FUEL OIL OR 90% NO. 8 FUEL OIL AND 10% WASTE OIL MIL-F-24951 FROM A VISCOSITY OF 2000 SSU TO 80 SSU AT A FLOW RATE OF 18 GPM.
 CAPACITY: 15 GPM AT A VISCOSITY OF 2,000 SSU.
 TYPE LIQUID: 100% NO. 8 FUEL OIL OR 90% NO. 8 FUEL OIL AND 10% WASTE OIL MIL-F-24951.
 NPSH: 4 PSI SUCTION LIFT.
 TDH: 150 PSI.
 ELECTRICAL: 208 VOLTS, 3 PHASE, 60 CYCLE.
 MOTORS & STARTERS: 34 HORSEPOWER, 31 AMPS, 2 EACH REQUIRED.
 - BOILER FEEDWATER PUMPS: 3 REQUIRED**
 TYPE: CENTRIFUGAL HORIZONTAL SPLIT CASE
 CAPACITY: 140 GPM
 NPSH: 3 FEET
 TDH: 380 FEET
 TYPE LIQUID: FEEDWATER AT 312 DEGREES F.
 ELECTRICAL: 208 VOLTS, 3 PHASE, 60 CYCLE
 MOTORS: 30 HORSEPOWER
 MOTOR STARTER RATING: 208 VOLTS, 75 AMPS, 3 PHASE, 60 CYCLE.
 - SAMPLE COOLER: 150 POUNDS PER HOUR (0.3 GPM) SAMPLING RATE WITH 328 DEGREE F INLET TEMPERATURE AND 120 DEGREE F MAXIMUM OUTLET TEMPERATURE. COOLING WATER INLET TEMPERATURE AT 80 DEGREES F.**

- INSTALLATION NOTES:**
- THE REMOVABLE WINDOWS AND PANELS MAY BE REMOVED AND WALL OPENINGS ENLARGED TO FACILITATE THE WORK. UPON COMPLETION OF THE WORK ALL WALL OPENINGS SHALL BE REPLACED, REMOVABLE PANELS AND WINDOWS SHALL BE RE-INSTALLED AND REPAINTED AND ALL DAMAGED MATERIAL AND GLAZING SHALL BE REPLACED AND ALL JOINTS SHALL BE CAULKED WEATHER-TIGHT.
 - VERIFY ALL DIMENSIONS, EQUIPMENT LOCATIONS, CLEARANCES, AND CONDITIONS.

MECHANICAL INSTALLATION PLAN

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



△ BLDG BR-9 DELETED

CONSULTANT		MILLS ENGINEERING GASTONIA, N.C.	
TRANGLE ENGINEERING & SURVEYING, INC. RALEIGH, N.C. ARCHITECTS & ENGINEERS		DEPT. OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND	
CH. JRM: JRM		NAVAL STATION	
PROJ. MGR. J.P. CH. ENGR. J.P. DAYE		ATLANTIC DIVISION	
SUBMITTED BY: A. Brown		MARINE CORPS BASE - CAMP LEBLANC JACKSONVILLE, N.C.	
PRIN. DESIGNER: JRM		REPLACE BOILERS - BLDGS. BR-3, RR-5, 152615	
E.P.D. JRM		BUILDING NO. BR-3	
APPROVED: JRM		MECHANICAL INSTALLATION PLAN	
OFFICER IN CHARGE: JRM		SIZE: CODE 10071	
DATE: 7-15-55		4133264	
FOR E.P.D. FOR COMMANDER NAVFAC		CONTRACT NO. N62470-8-B-1464	
		SHEET 15 OF 32	

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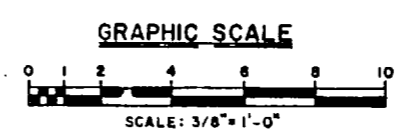
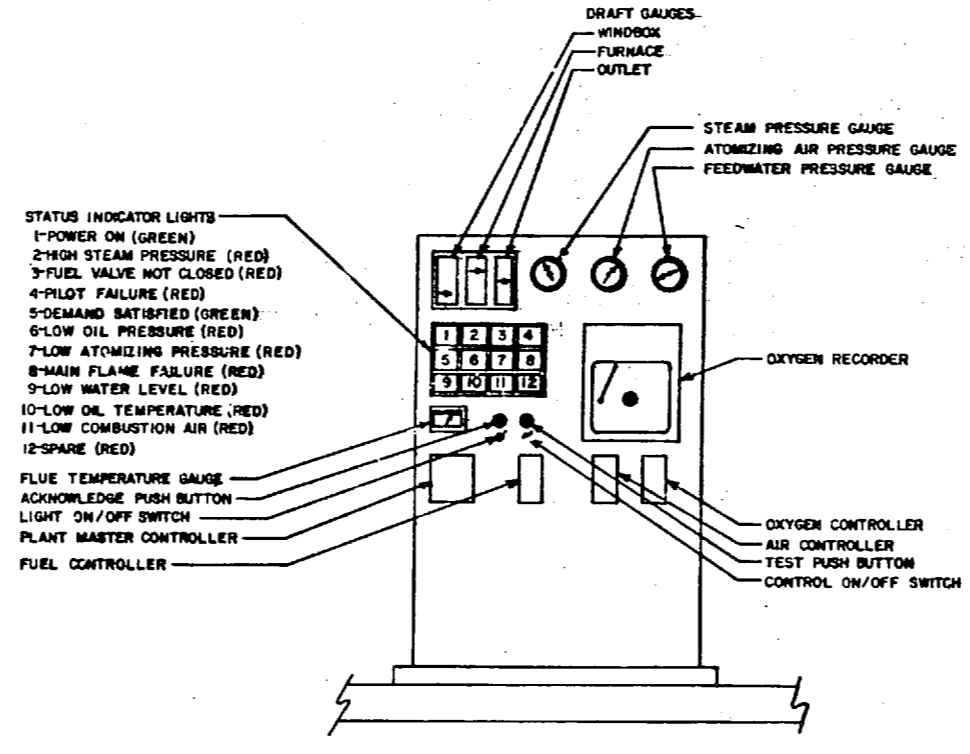
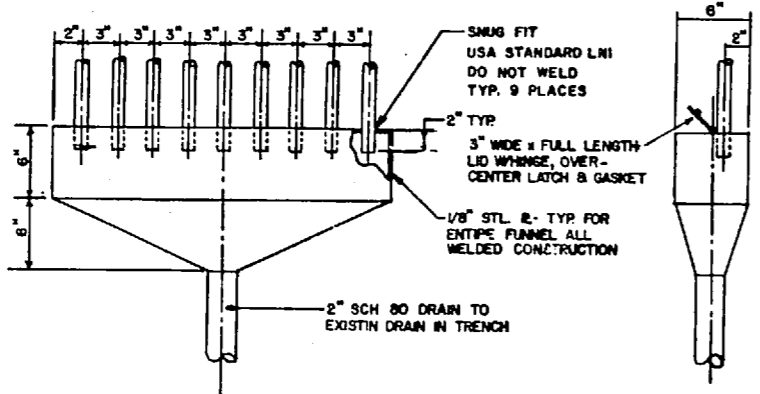
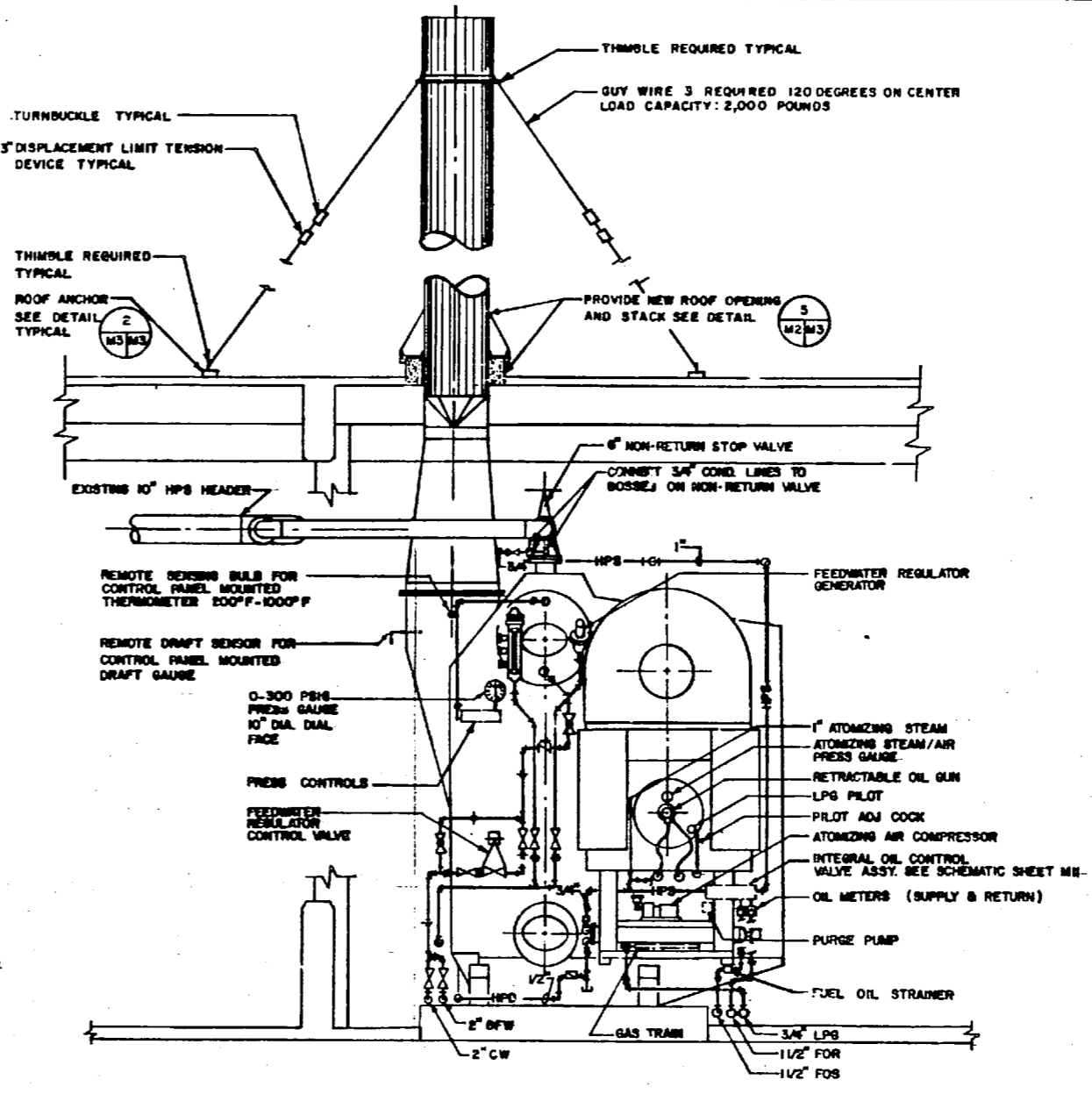
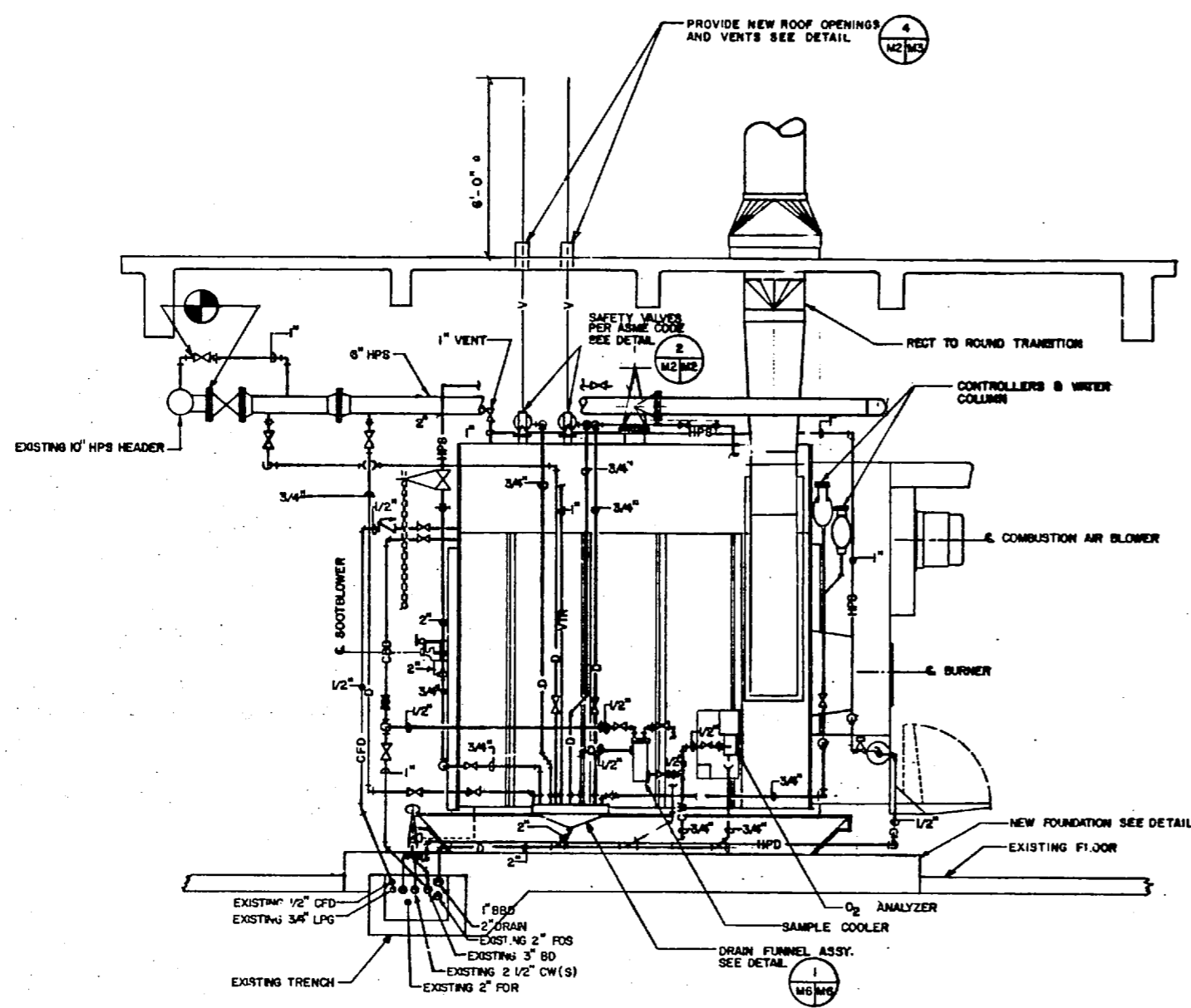
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REVISIONS	
NO.	DESCRIPTION
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BLDG AB-9 DELETED

CONSULTANT MILLS ENGINEERING GASTONIA, N.C.		TRANBLE ENGINEERING & SURVEYING, INC. ARCHITECTS & ENGINEERS GASTONIA, N.C.		DEPARTMENT OF THE NAVY - NAVAL FACILITIES ENGINEERING COMMAND ATLANTIC DIVISION MARINE CORPS BASE CAMP LEJEUNE JACKSONVILLE, N.C.	
PROJECT NO. 80091		DATE: 7/23/64		DRAWING NO. 4133265	
SCALE: 1/8" = 1'-0"		DATE: 7/23/64		SHEET 16 OF 32	

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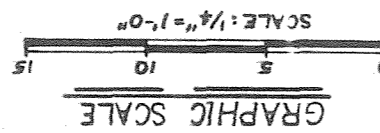
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233265

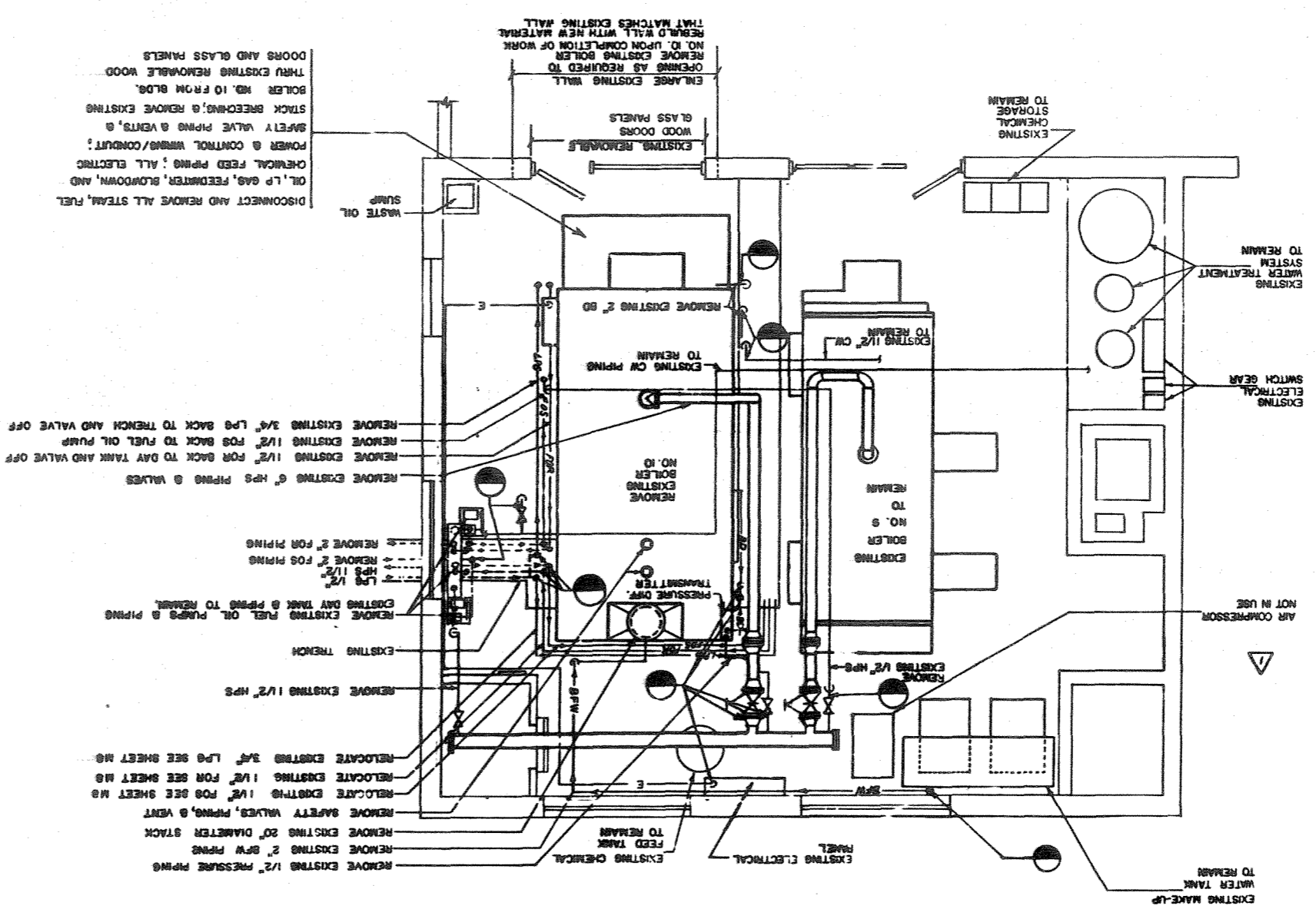


233266
 1 2 3 4 5 6 7 8 9 10
 17 of 32
 05-BI-1464
 413366
 80091
 MECHANICAL DEMOLITION
 BUILDING NO. 2615
 REFLACT BOILERS - BLDGS. RR-15, 2615
 JACKSONVILLE, N.C.
 MARINE CORPS BASE CAMP LEJUNE
 DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND
 ATLANTIC DIVISION
 ARCHITECTS & ENGINEERS
 HALEY, N.C.
 CONSULTANT
 HALLS ENGINEERING
 GASTON, N.C.
 DATE: 1-18-51
 APPROVED IN CHARGE: [Signature]
 DATE: 1-18-51
 CHECKED: [Signature]
 DATE: 1-18-51
 DRAWN: [Signature]
 DATE: 1-18-51
 FOR END FOR CONTRACTOR USE ONLY
 233266



DEMOLITION NOTES
 1. REMOVE EXISTING BOILER NO. 10 & 40 ASSOCIATED STEAM, BLOWDOWN, FUEL-OIL-SUPPLY, FUEL-OIL-RETURN, GAS, COLD WATER, AND MAKE-UP WATER PIPING, VALVES, AND FITTINGS. ALSO DISCONNECT ALL ELECTRICAL POWER AND CONTROL WIRING AND CONDUIT. REMOVE THE STACK AND SAFETY VALVE PIPING UP THROUGH ROOF.
 2. THE REMOVABLE DOOR AND GLASS PANELS MAY BE REMOVED TO FACILITATE THE WORK. HOWEVER, UPON COMPLETION OF THE WORK ALL DOORS, GLASS PANELS, AND WOOD MEMBERS SHALL BE RE-INSTALLED AND RE-PAINTED. ALL DAMAGED MATERIAL AND GLAZING SHALL BE REPLACED. CAULK ALL JOINTS WEATHERTIGHT.
 3. ALL ABANDONED ROOF OPENINGS SHALL BE RE-ROOFED TO MATCH EXISTING ROOFING. INCLUDE DECKING WITH SUPPORTING FRAMING, FELTS, AND SHINGLES.

MECHANICAL DEMOLITION PLAN



REVISIONS

1	REVISED AS BUILT
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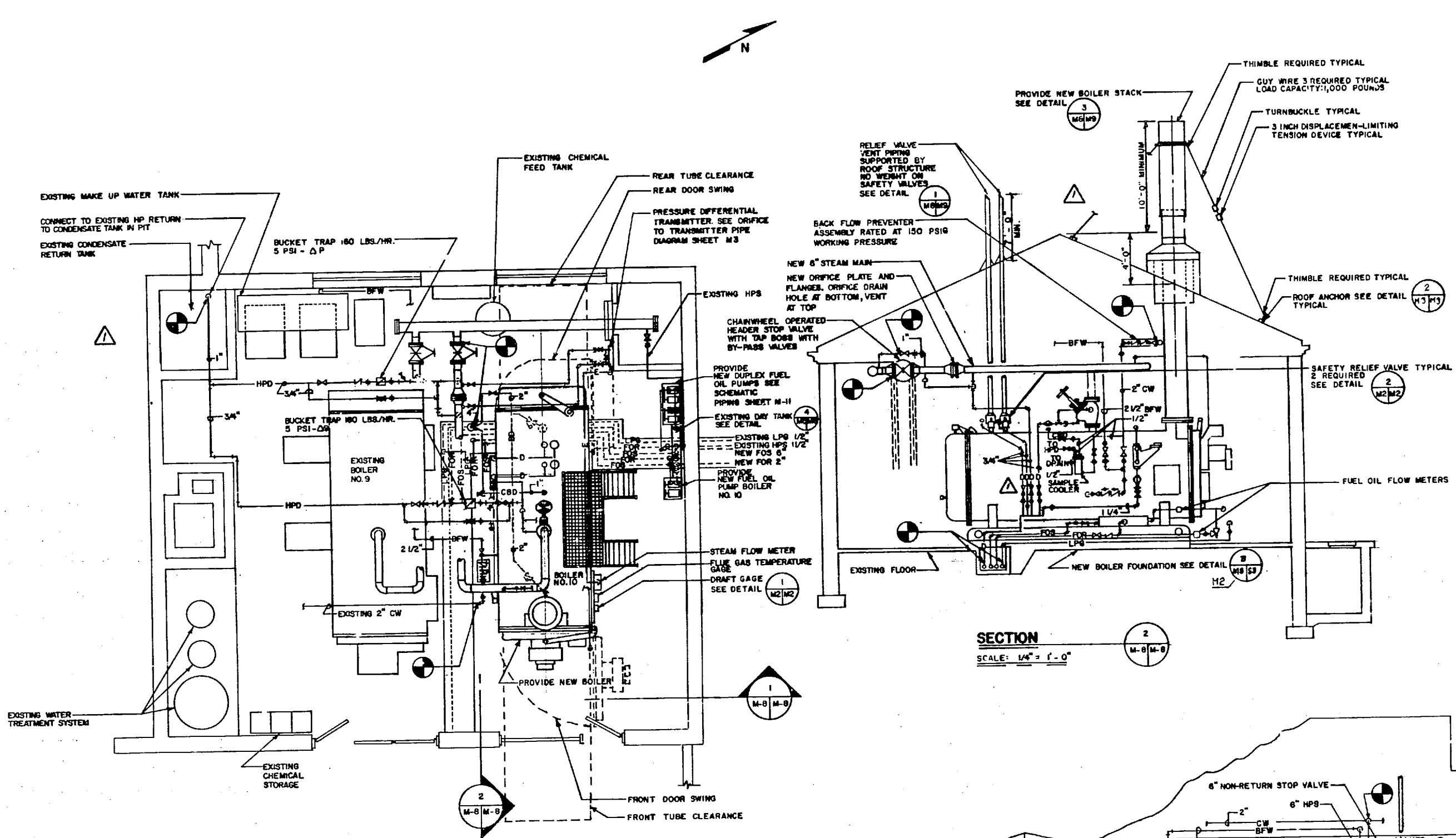
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REVISIONS	
1	REVISED "AS BUILT"

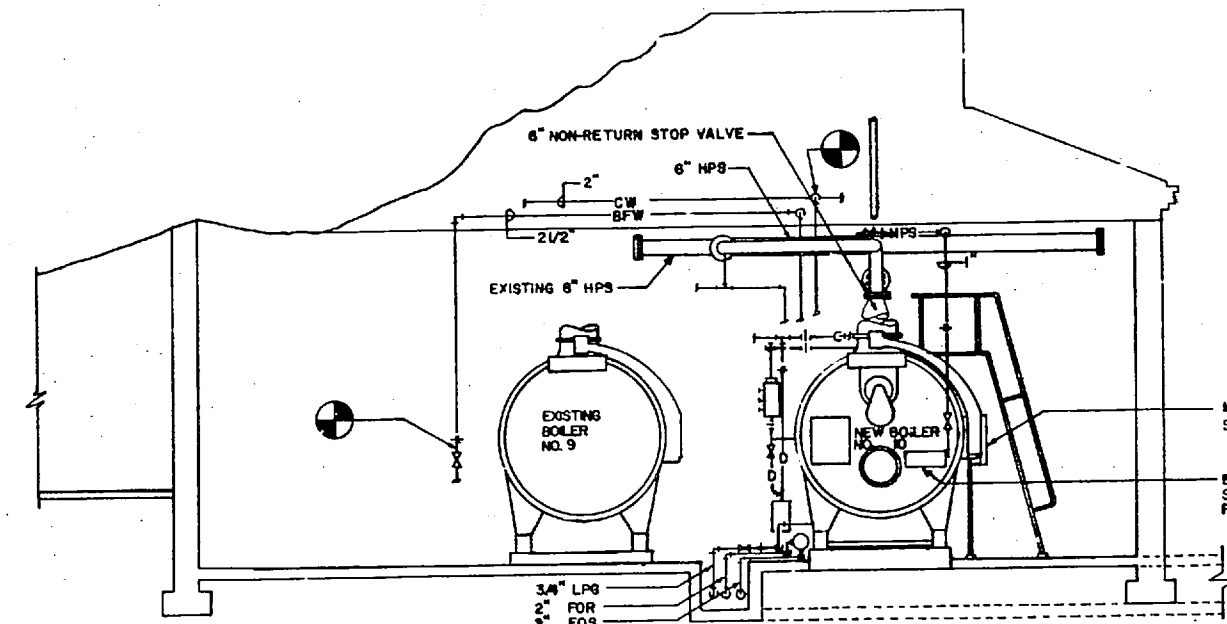
- EQUIPMENT SCHEDULE**
- BOILER: FIRE TUBE, 1 REQUIRED
CAPACITY: 12,000 POUNDS STEAM PER HOUR AT 100 PSI WORKING PRESSURE
BLOWER MOTOR: 15 HORSEPOWER
MOTOR STARTER: 208 VOLTS, 45 AMPS, 3 PHASE, 60 CYCLE
FUEL OIL HEATER: HIGH PRESSURE STEAM AND ELECTRICAL 7.5 KW
FUEL: NO. 6 FUEL OIL
LPG (PROPANE) AT 11 INCH WATER GAUGE PRESSURE FOR PILOT
ELECTRICAL: 208 VOLTS, 3 PHASE, 60 CYCLE
 - DUPLEX FUEL OIL TRANSFER PUMP SET: 1 REQUIRED
TYPE: DUPLEX GEAR PUMPS WITH DUPLEX STRAINERS
CAPACITY: 12 GPM AT 2,000 SSU VISCOSITY
TYPE LIQUID: NO. 6 FUEL OIL
NPSH: 6.5 PSI SUCTION LIFT
TDH: 30 PSI
ELECTRICAL: 208 VOLTS, 3 PHASE, 60 CYCLE
MOTORS: 1 1/2 HORSEPOWER EACH, 2 REQUIRED
 - BOILER NO. 10 FUEL OIL PUMP: 1 REQUIRED
TYPE: GEAR PUMP WITH STRAINER
CAPACITY: 5 GPM AT 2,000 SSU VISCOSITY
TYPE LIQUID: NO. 6 FUEL OIL
NPSH: 3 PSI SUCTION LIFT
TDH: 125 PSI
ELECTRICAL: 208 VOLTS, 3 PHASE, 60 CYCLE
MOTOR & STARTER: 3/4 HORSEPOWER, 3.1 AMPS
 - BOILER FEEDWATER PUMPS: 2 REQUIRED
TYPE: CENTRIFUGAL HORIZONTAL SPLIT CASE
CAPACITY: 115 GPM
NPSH: 3 FEET
TDH: 380 FEET
TYPE LIQUID: FEEDWATER AT 212 DEGREE F
ELECTRICAL: 208 VOLTS, 3 PHASE, 60 CYCLE
MOTORS: 25 HORSEPOWER, 2 REQUIRED
MOTOR STARTERS: 208 VOLTS, 75 AMPS EACH, 3 PHASE, 60 CYCLE, 2 REQUIRED
 - SAMPLE COOLER: 150 POUNDS PER HOUR (0.3 GPM) SAMPLING RATE WITH 328 DEGREE F INLET TEMPERATURE AT 100 PSI AND 120 DEGREE F MAXIMUM OUTLET TEMPERATURE WITH 80 DEGREE F COOLING WATER INLET TEMPERATURE.

- INSTALLATION NOTES:**
- THE REMOVABLE WINDOWS AND PANELS MAY BE REMOVED AND WALL OPENINGS ENLARGED TO FACILITATE THE WORK. UPON COMPLETION OF THE WORK, ALL WALL OPENINGS SHALL BE REPLACED, REMOVABLE PANELS AND WINDOWS SHALL BE RE-INSTALLED, REPAINTED, AND ALL DAMAGED MATERIAL AND GLAZING SHALL BE REPLACED AND ALL JOINTS SHALL BE CAULKED WEATHER TIGHT.
 - VERIFY ALL DIMENSIONS, EQUIPMENT LOCATIONS, CLEARANCES AND CONDITIONS.



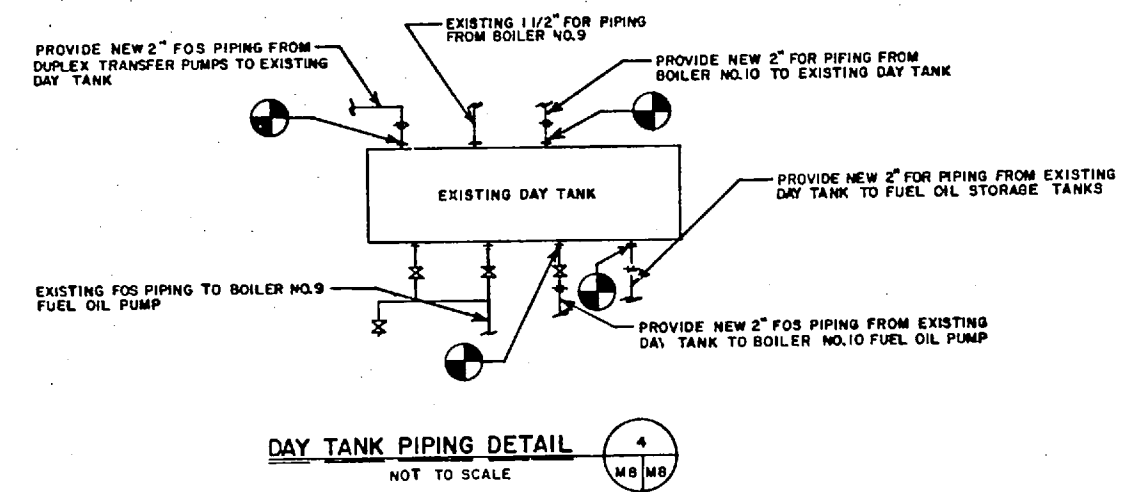
MECHANICAL INSTALLATION PLAN

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



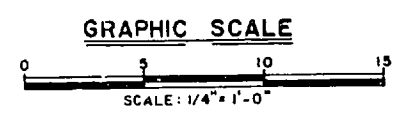
SECTION 1

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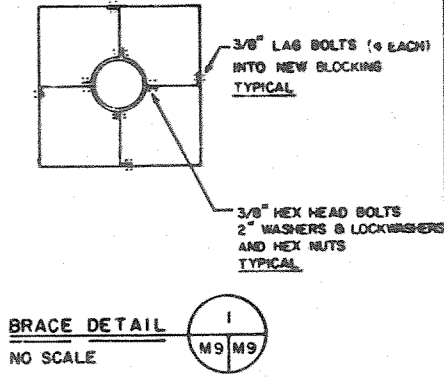
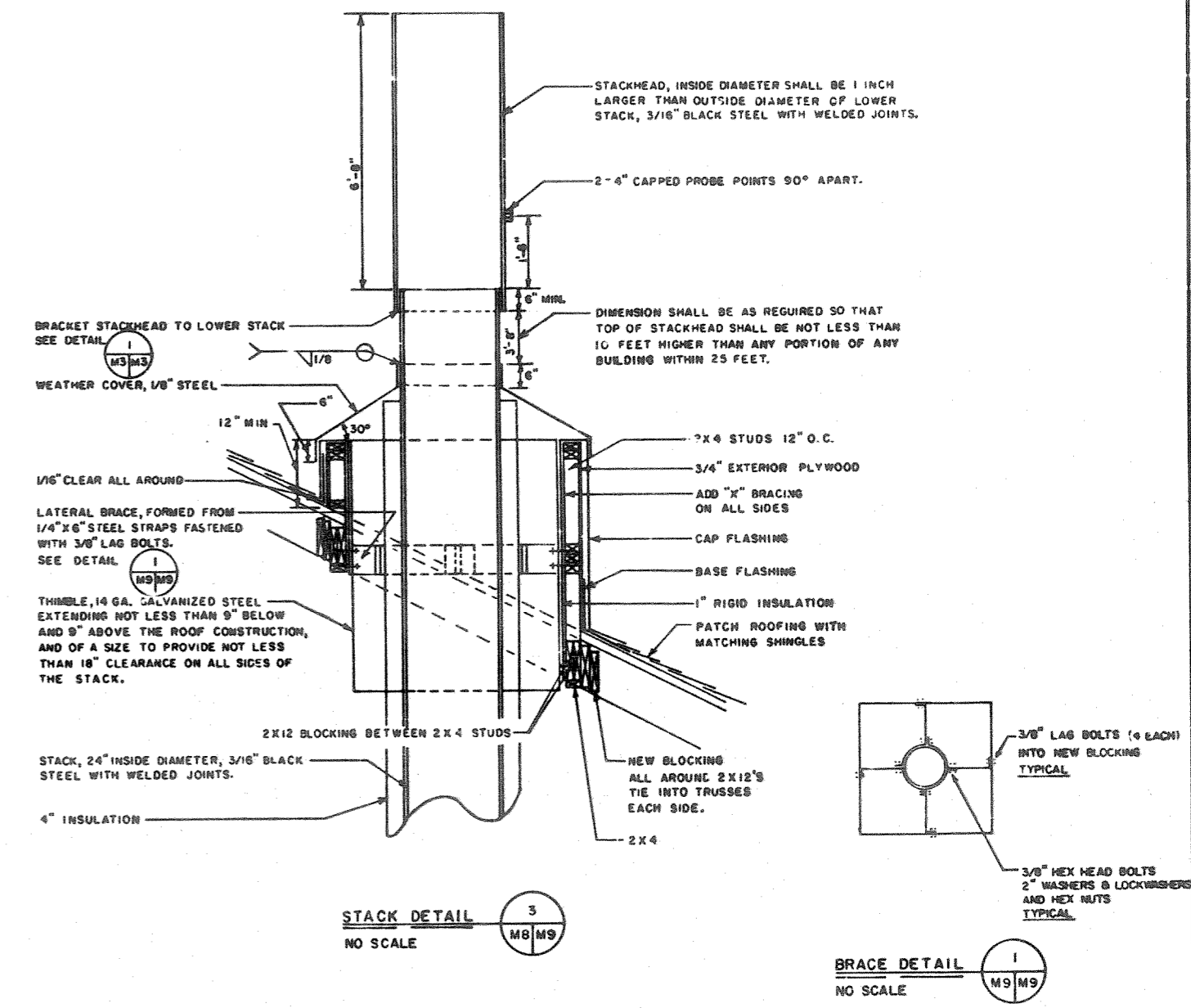
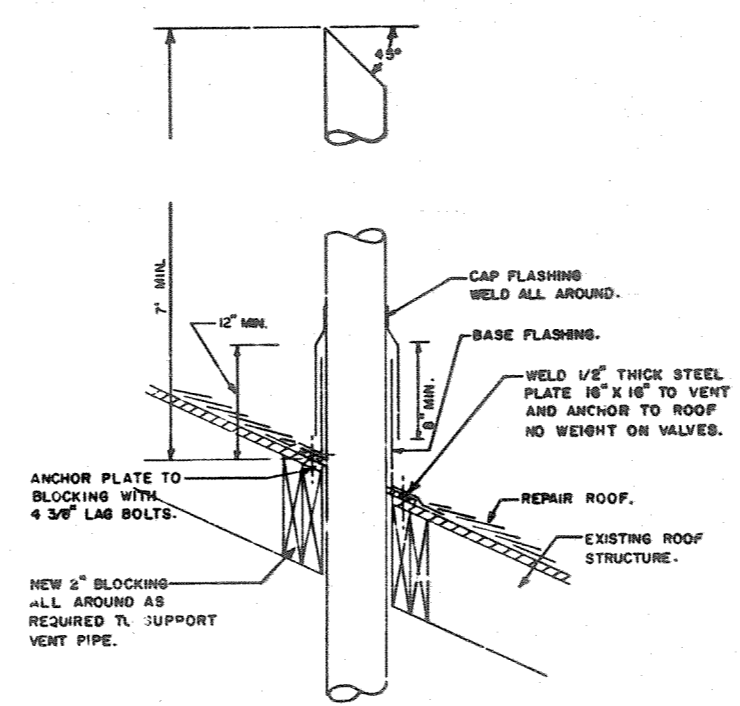
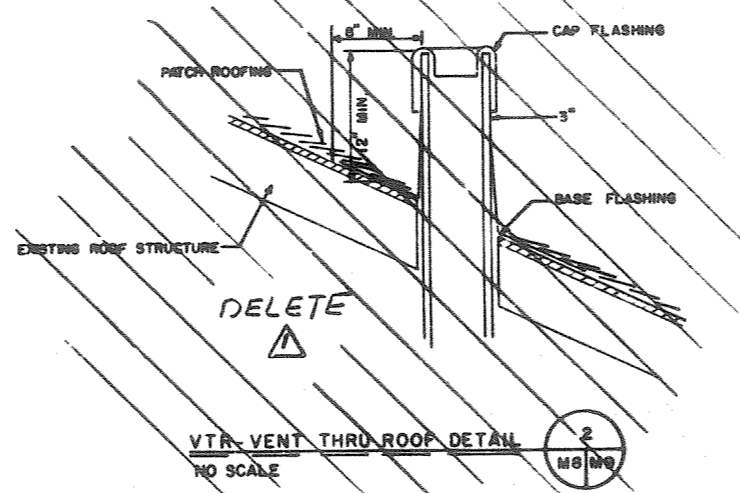
DAY TANK PIPING DETAIL

NOT TO SCALE



RECORD DRAWING DATE: 11/15/11		M-8	
CONSULTANT MILLS ENGINEERING GASTONIA, N.C.		NAVY FACILITIES ENGINEERING COMMAND ATLANTIC DIVISION NOVAPOLK, VIRGINIA	
DESIGNER: JRM PROJECT: JRM, JP, CH, ENGR, JP DATE: 11/15/11		MARINE CORPS BASE - CAMP LEJEUNE JACKSONVILLE, N.C.	
APPROVED: [Signature]		REPLACE BOILERS - BLDGS. 803, RR-15, 2615 BUILDING NO. 2615	
OFFICER IN CHARGE: [Signature]		MECHANICAL INSTALLATION PLAN	
APPROVED: [Signature]		NAVFAC DRAWING NO. 4133267	
FOR EPO FOR COMNAVBEN NAVFAC		COMNAVSTA NO. N62470-81-B-1464	
		SHEET 18 OF 32	
		233267	

REVISIONS		DATE	BY
1	REVISED AS BUILT	1/11/81	MS/MS



CONSULTANT MILLS ENGINEERING GASTONIA, N.C.		TRIANGLE ENGINEERING & SURVEYING, INC. RALEIGH, N.C. ARCHITECTS & ENGINEERS		DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND ATLANTIC DIVISION NAVAL STATION JACKSONVILLE, N.C.	
SEAL 		DESIGNED BY: JRM CHECKED BY: JRM DATE: 1/11/81		MARINE CORPS BASE - CAMP LEJEUNE JACKSONVILLE, N.C. REPLACE BOILERS- BLDGS. 2615, RR-5, 2615 BUILDING NO. 2615 SECTIONS & DETAILS	
APPROVED: [Signature] OFFICER IN CHARGE		DATE: 1/11/81		NAVFAC DRAWING NO. 4133268	
APPROVED: [Signature] FOR EPC FOR COMMANDER NAVFAC		DATE: 1/11/81		CONSTRUCTION NO. N62470-81-B-1464	
SCALE AS NOTED		SHEET NO. 19 OF 32		SHEET 19 OF 32	



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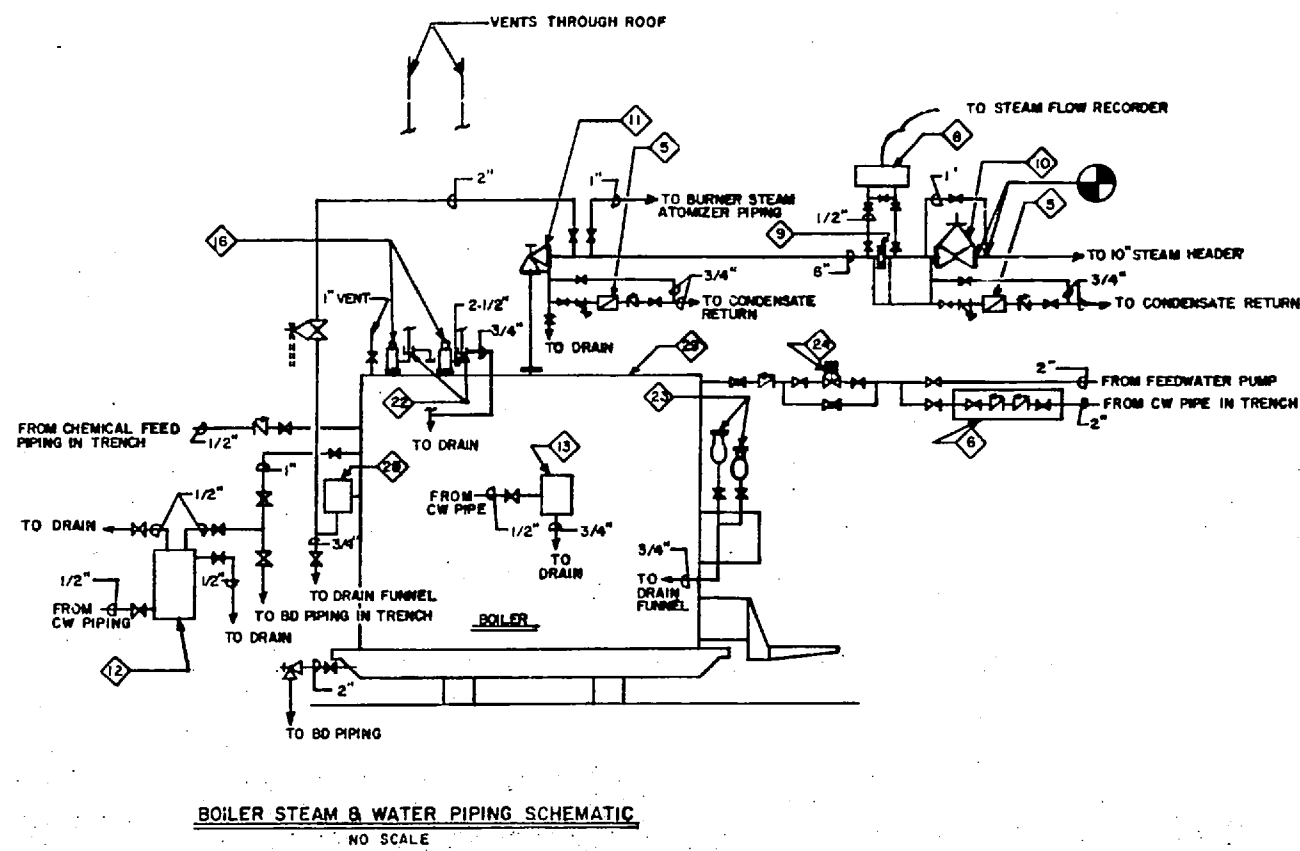
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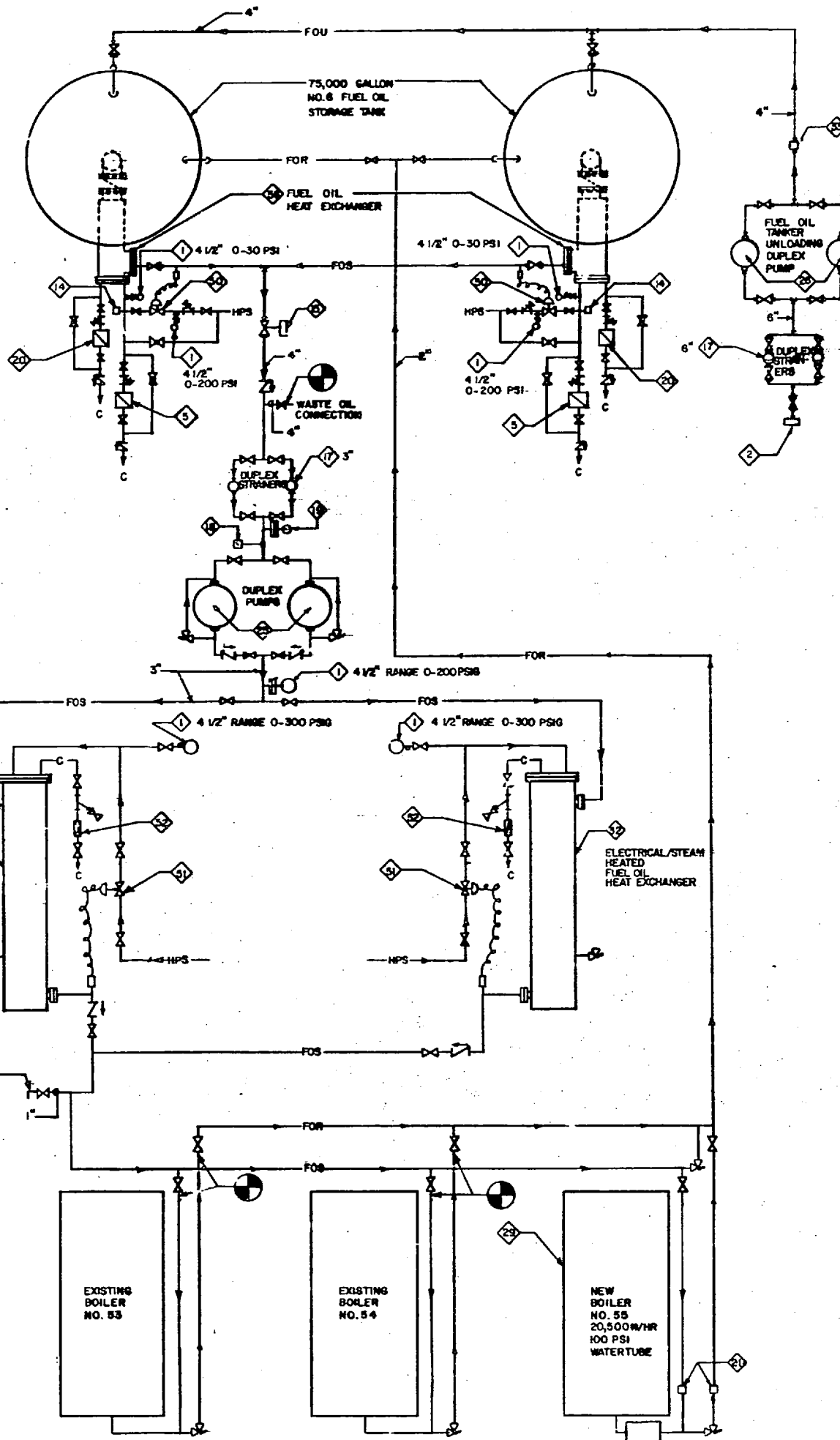
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REVISIONS	
1	REVISED "AS BUILT" <i>1/12/54</i>



BOILER STEAM & WATER PIPING SCHEMATIC
NO SCALE



BUILDING BB-9 FUEL OIL PIPING SCHEMATIC
NOT TO SCALE

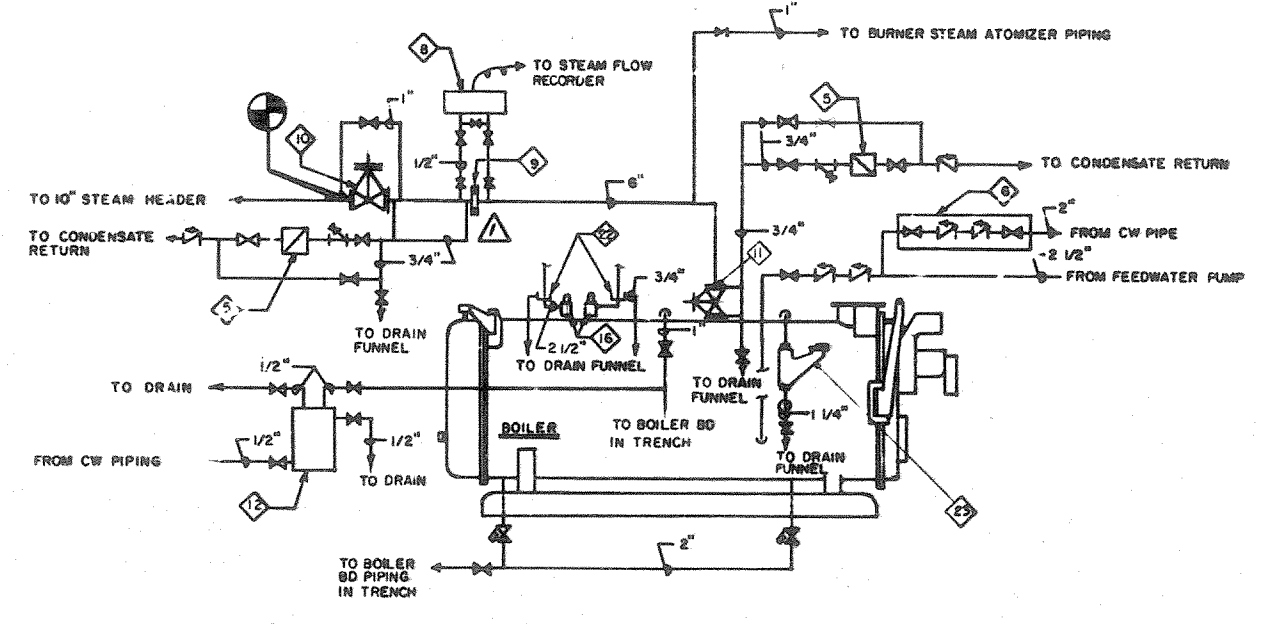
- ITEM NO. DESCRIPTION**
1. PRESSURE GAUGE W/PRESSURE INDICATED.
 2. QUICK DISCONNECT HOSE ADAPTER
 3. MERCURY FILLED INDUSTRIAL THERMOMETER, STRAIGHT STEM, 7" SCALE, BRASS STEM AND SO. I.T.
 - 3 1/2" LONG W/3/4" NPT, W/TEMPERATURE INDICATED, W/SEPERABLE WELL.
 4. PRESSURE GAUGE W/CHEMICAL PROTECTOR W/PRESSURE INDICATED.
 5. BUCKET TRAP, 100 POUNDS PER HOUR, 5 PSI PRESSURE DROP.
 6. BACK FLOW PREVENTER VALVE ASSEMBLY RATED AT 150 PSI WORKING PRESSURE.
 7. STEAM/ELECTRIC FUEL OIL HEAT EXCHANGER.
 8. DIFFERENTIAL PRESSURE TRANSMITTER.
 9. 6" ORIFICE PLATE, STEAM FLOW METERING.
 10. 6" CHAINWHEEL OPERATED STEAM HEADER STOP VALVE.
 11. 6" NON RETURN VALVE.
 12. SAMPLE COOLER.
 13. OXYGEN ANALYZER AND TRIM CONTROL.
 14. VACUUM BREAKER.
 15. NORMALLY CLOSED, SPRING LOADED, FUSIBLE LINK VALVE SET TO CLOSE IF ROOM TEMPERATURE RISES TO 100°F.
 16. SAFETY RELIEF VALVE.
 17. DUPLEX FUEL OIL STRAINERS W/40 MESH LINED BASKET W/SIZE INDICATED.
 18. FLOW SWITCH.
 19. COMPOUND GAUGE, 15 PSI TO 30" OF MERCURY, 4 1/2" DIAL. PROVIDE CHEMICAL PROTECTOR.
 20. THERMOSTATIC TRAP, 325 POUNDS PER HOUR, 50 PSI PRESSURE DROP.
 21. FLOW METER, NO. 6 FUEL OIL, 2 GPM MINIMUM FLOW, 15 GPM MAXIMUM FLOW, W/TOTALIZER AND IMPULSE TRANSMITTER.
 22. DRIP PAN ELBOWS.
 23. CONTROLLERS AND WATER COLUMNS.
 24. FEEDWATER REGULATOR CONTROL VALVE.
 25. GEAR PUMP, NO. 6 FUEL OIL, 15 GPM AT A VISCOSITY OF 2000 SSU, 150 PSI.
 26. GEAR PUMP, NO. 6 FUEL OIL, 500 GPM AT A VISCOSITY OF 2000 SSU.
 27. GEAR PUMP, NO. 6 FUEL OIL, 12 GPM AT A VISCOSITY OF 2000 SSU, 150 PSI.
 28. SOOTBLOWER.
 29. BOILER, WATERTUBE, 20,500 POUNDS STEAM PER HOUR AT 100 PSI WORKING PRESSURE FIRING NO. 6 FUEL OIL.
 30. BOILER, FIRETUBE, 12,000 POUNDS STEAM PER HOUR CAPACITY AT 100 PSI WORKING PRESSURE FIRING NO. 6 FUEL OIL.
 31. STEAM/AIR-OIL DISTRIBUTOR BLOCK.
 32. STEAM/ELECTRIC HEAT EXCHANGER TO HEAT NO. 6 FUEL OIL FROM 2000 SSU TO 80 SSU AT 15 GPM, 725 POUNDS PER HOUR AT 100 PSIG, 50 KW, 208 VOLTS, 3 PHASE, 60 CYCLE.
 33. FLOW METER, NO. 6 FUEL OIL, 350 GPM MAXIMUM FLOW, W/TOTALIZER & IMPULSE TRANSMITTER.
 34. AIR COMPRESSOR.
 35. STEAM PRESSURE REGULATING VALVE SET IN ACCORDANCE WITH BURNER MFR. RECOMMENDATIONS.
 36. STEAM METERING VALVE.
 37. STEAM ATOMIZING SOLENOID VALVE.
 38. LOW STEAM PRESSURE SWITCH.
 39. AIR ATOMIZING SOLENOID VALVE.
 40. AIR PRESSURE REGULATING VALVE.
 41. LOW AIR PRESSURE SWITCH.
 42. AIR SAFETY VALVE.
 43. AIR METER VALVE.
 44. OIL PRESSURE SWITCH.
 45. FUEL OIL METERING VALVE.
 46. PURGE SYSTEM SOLENOID VALVE.
 47. MAIN FUEL OIL SHUTOFF VALVE.
 48. SAFETY FUEL OIL SHUTOFF VALVE.
 49. AIR INTAKE FILTER.
 50. TEMPERATURE CONTROL VALVE: 325 POUNDS STEAM PER HOUR AT 100 PSI, 25 PSI PRESSURE DROP, 5.58 Cv.
 51. TEMPERATURE CONTROL VALVE: 725 POUNDS STEAM PER HOUR AT 100 PSI, 25 PSI PRESSURE DROP, 5.2 Cv.
 52. BUCKET TRAP, 725 POUNDS PER HOUR, 50 PSI PRESSURE DROP.
 53. TEMPERATURE CONTROL VALVE: 250 POUNDS STEAM PER HOUR AT 100 PSI, 25 PSI PRESSURE DROP, 1.58 Cv.
 54. THERMOSTATIC TRAP, 250 POUNDS PER HOUR, 50 PSI PRESSURE DROP.
 55. THERMOSTATIC TRAP, 100 POUNDS PER HOUR, 50 PSI PRESSURE DROP.
 56. HEAT EXCHANGER-SHELL & TUBE, HEAT NO. 6 FUEL OIL FROM 60 TO 125 DEGREES F AT 15 GPM, 325 POUNDS STEAM PER HOUR AT 100 PSIG.
 57. HEAT EXCHANGER-SHELL & TUBE, HEAT NO. 6 FUEL OIL FROM 60 TO 125 DEGREES F AT 12 GPM, 250 POUNDS STEAM PER HOUR AT 100 PSIG.

BLDG BB-9 DELETED

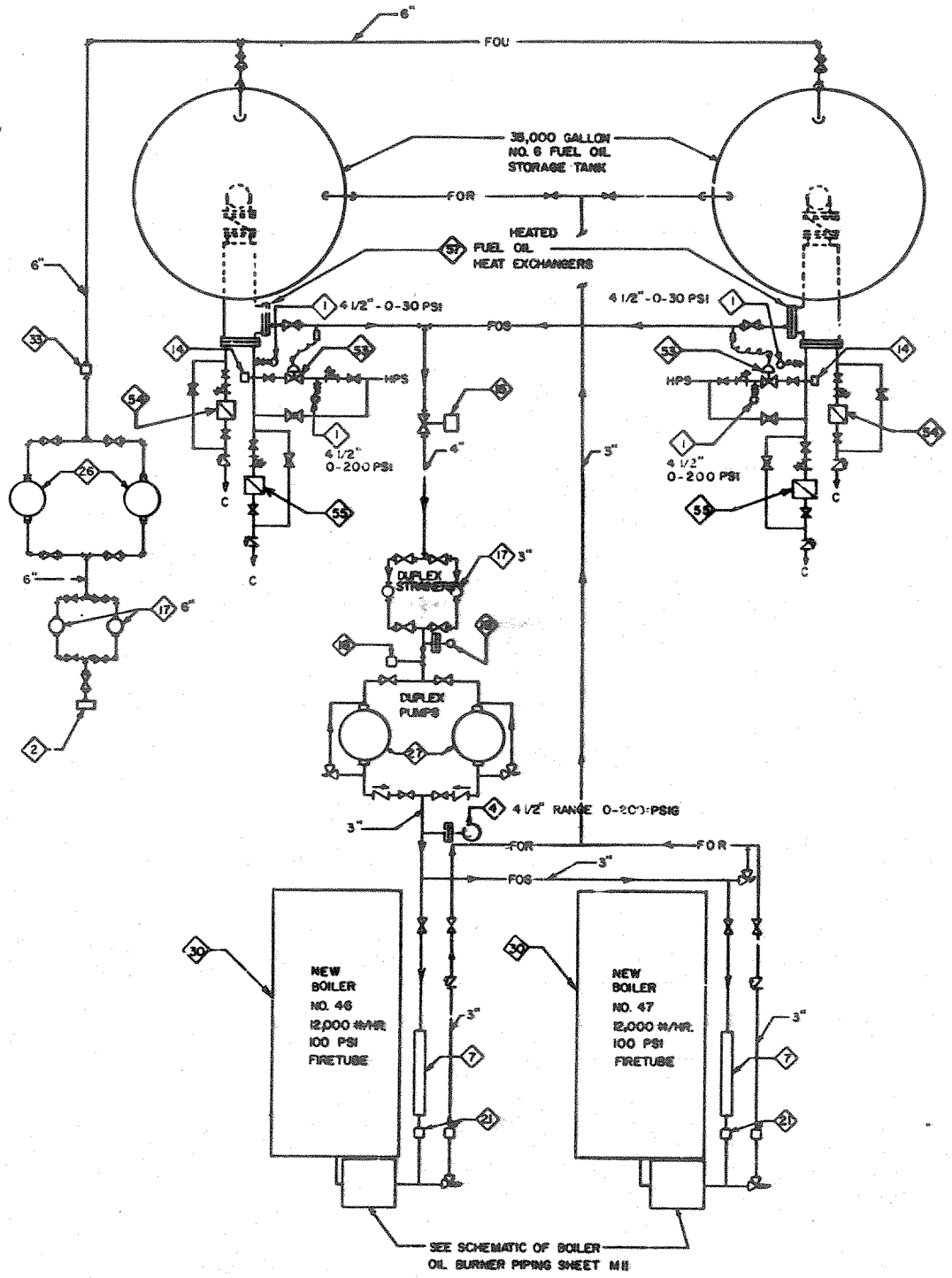
RECORDS DIVISION UNITED STATES NAVY		M-10
CONSULTANT MILLS ENGINEERING GASTONIA, N.C.	TRANGLE ENGINEERING & SURVEYING, INC. RALEIGH, N.C. ARCHITECTS & ENGINEERS	DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND ATLANTIC DIVISION NAVAL STATION MARINE CORPS BASE CAMP LEJEUNE JACKSONVILLE, N.C.
DES. ILM PROJ. MGR. JP ESTABLISHED BY PRIN. TRSMT. J. B. BOWEN REV. 1/12/54 APPROVED OFFICER IN CHARGE DATE	CHK. JRM CHK. ENGR. JP DATE PRINCIPAL DATE DATE	REPLACE BOILERS BLDGS BB-9, RR-15, 2615 BUILDING NO. 8833 SCHEMATIC FLOW DIAGRAM 4133269 F 80091 N62470-BI-1464 OC-BI-1464
SEE SCHEMATIC OF BOILER OIL BURNER PIPING SHEET M8		233269



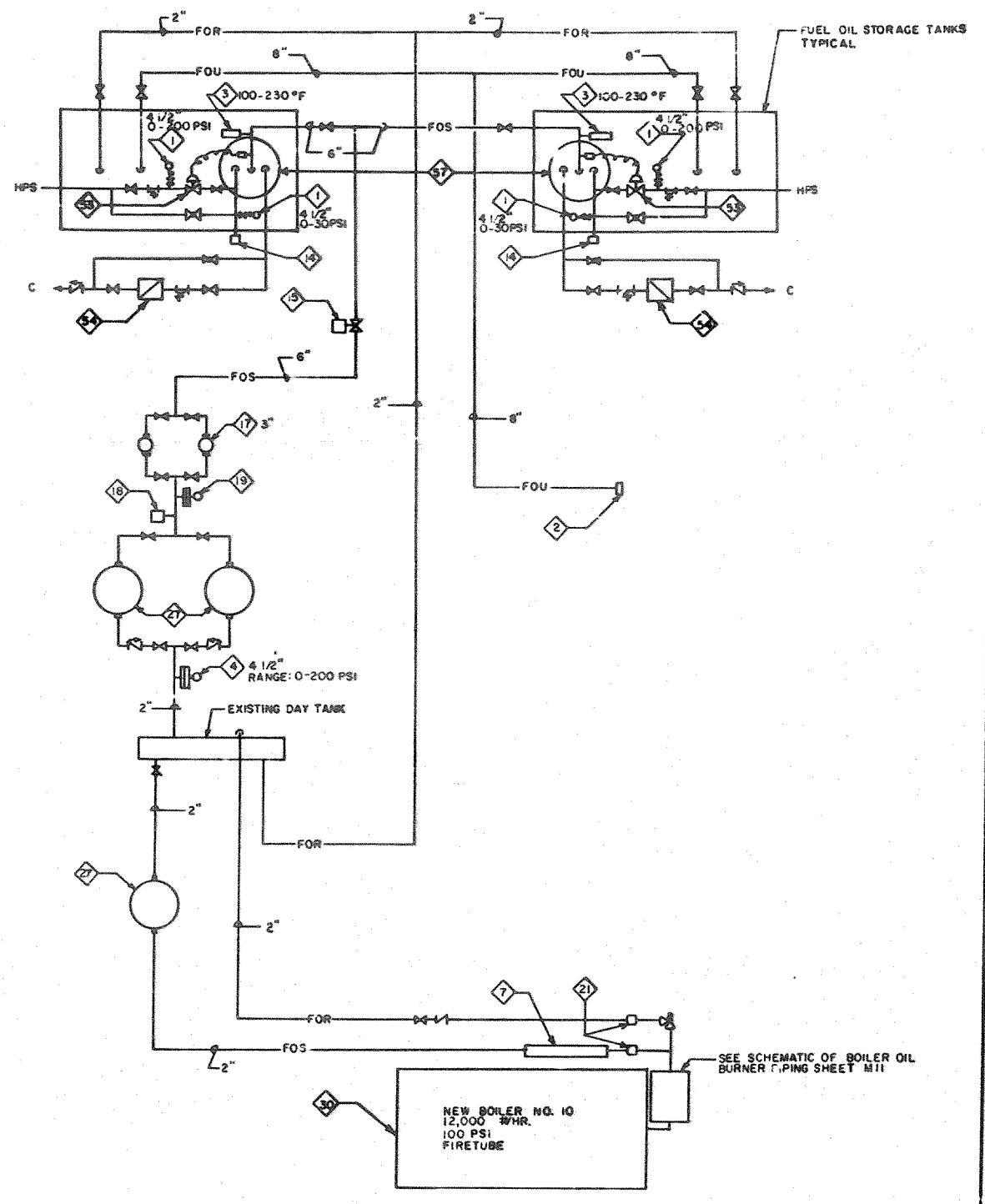
REVISIONS	
1	Revised "AS BUILT"



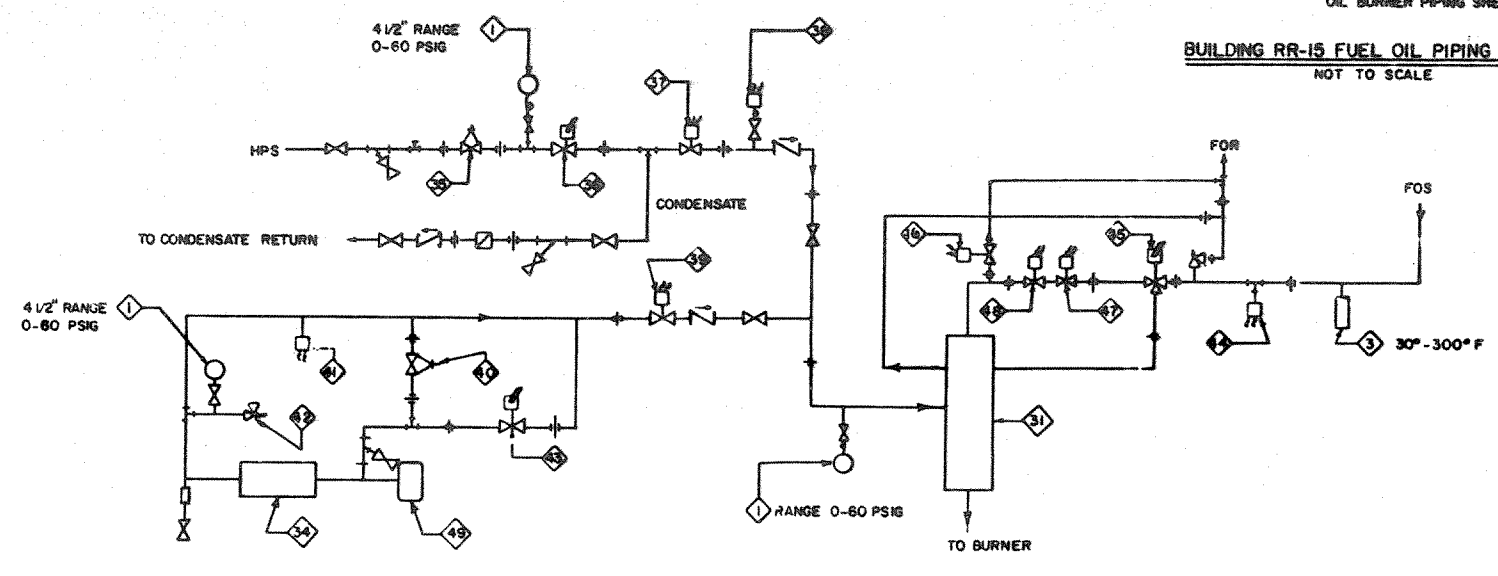
BOILER STEAM & WATER PIPING SCHEMATIC
FOR BLDGS. RR-15 & 2615 NOT TO SCALE



BUILDING RR-15 FUEL OIL PIPING SCHEMATIC
NOT TO SCALE



BUILDING 2615 FUEL OIL PIPING SCHEMATIC
NOT TO SCALE



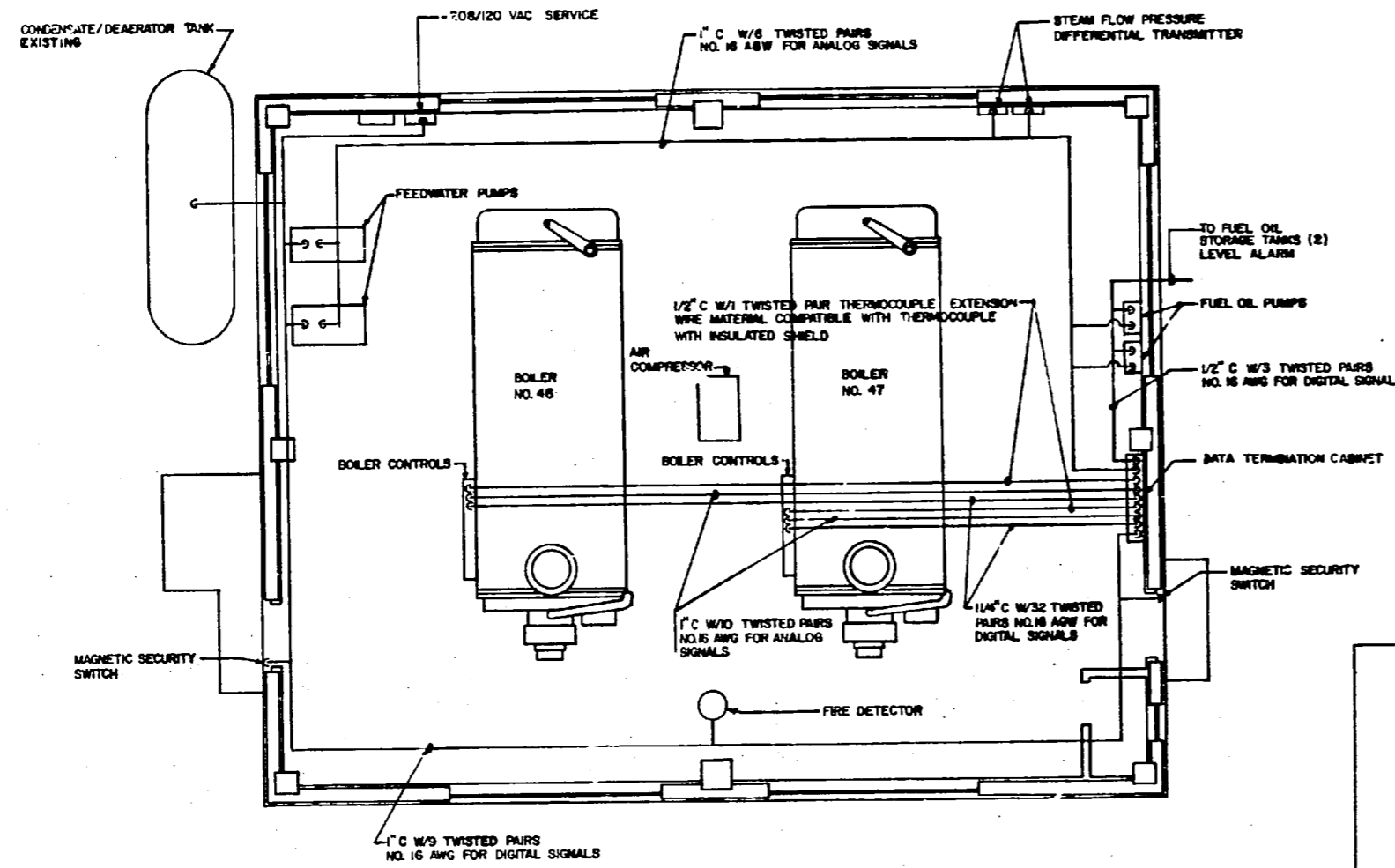
SCHEMATIC OF BOILER OIL BURNER PIPING
NOT TO SCALE TYPICAL

NOTE:
FOR SCHEDULE OF EQUIPMENT ITEMS SEE SHEET M-10

	CONSULTANT MLLS ENGINEERING GASTONIA, N.C.	TRIANGLE ENGINEERING & SURVEYING, INC. ARCHITECTS & ENGINEERS RALEIGH, N.C.	DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND ATLANTIC DIVISION NORFOLK, VIRGINIA	
	DESIGNED BY: [Signature] DRAWN BY: [Signature] CHECKED BY: [Signature]	PROJECT NO. 10-1-61 SHEET NO. 10-1-61-10	MARINE CORPS BASE CAMP LEJEUNE JACKSONVILLE, N.C. REPLACE BOILERS - BLDGS. SB-9, RR-15, 2615 BUILDING NO. RR-15 & 2615 SCHEMATIC FLOW DIAGRAM	M-11
	APPROVED BY: [Signature] DATE: [Date]	OFFICER IN CHARGE: [Signature] DATE: [Date]	NAVY DRAWING NO. 4133270 CONFR. C. & N. NO. N62470-91-B-146-1 RECALC/ASNOTED DATE 05-81-1464	SHEET 21 OF 32 233270
	REVISIONS			1



REVISIONS	
NO.	DESCRIPTION

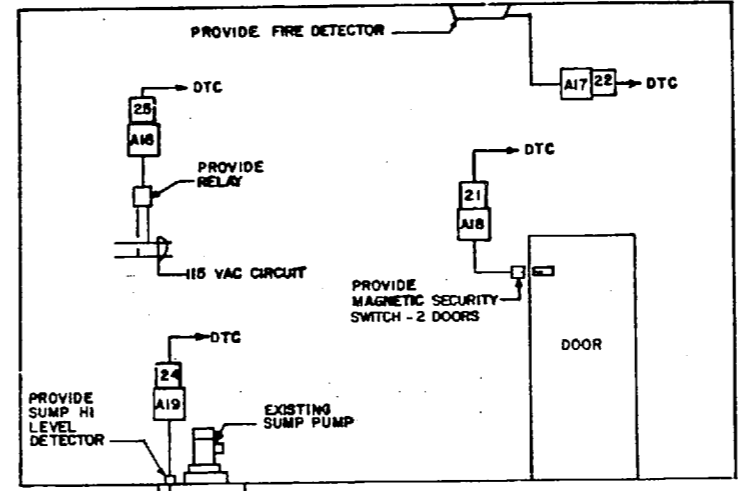


EMCS INSTALLATION PLAN
SCALE: 1/4" = 1'-0"

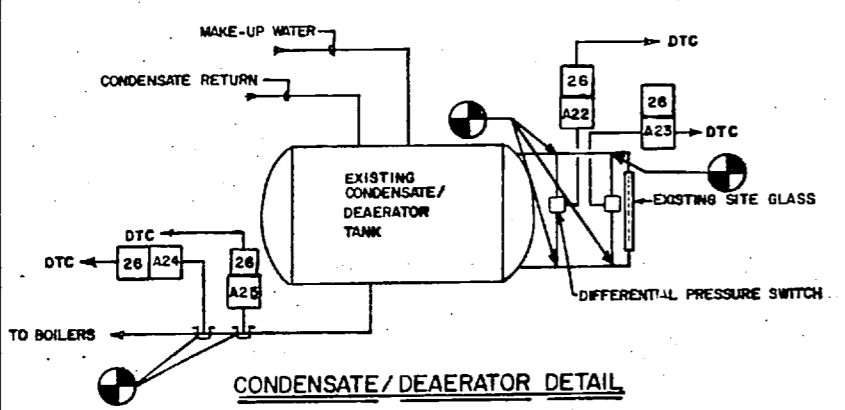
EQUIPMENT DURING OPERATION		NO.
TIME SCHEDULED OPERATION		1
DUTY CYCLING		2
START/STOP		3
GENERATOR OPERATION		4
CHILLED WATER RESET		5
O.A. TEMP. CUTOFF		6
WARM UP/NIGHT CYCLE		7
ENTHALPY ECONOMIZER		8
SPACE NIGHT SETBACK		9
HOT/COLD DECK RESET		10
COLD DECK TEMP. RESET		11
CHILLED WATER RESET		12
COND. WATER RESET		13
O.A. SCHEDULE RESET		14
		15
		16
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LEGEND
EMCS ENERGY MONITORING CONTROL SYSTEM
DTC DATA TERMINATION CABINET

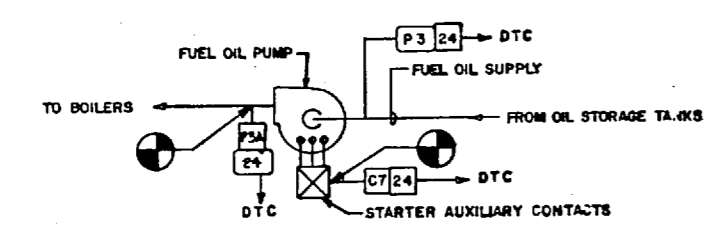
ITEM NO.	DESCRIPTION
STEAM BOILER	
F6	FUEL OIL SUPPLY FLOW RATE
F6A	FUEL OIL RETURN FLOW RATE
P6	FUEL OIL PRESSURE
T16	FUEL OIL TEMPERATURE
P5	PILOT GAS PRESSURE
P7	ATOMIZED STEAM PRESSURE
T17	STEAM SUPPLY TEMPERATURE
F1	STEAM FLOW RATE
L1	BOILER DRUM LEVEL
L2	BOILER DRUM LEVEL
C5	BOILER BURNER ON/OFF STATUS
P4	BOILER DRUM PRESSURE
S15	BOILER SHUTDOWN CONTROL
A7	LOW ATOMIZING STEAM PRESSURE SAFETY
A2A	HIGH ATOMIZING STEAM PRESSURE SAFETY
A8	HIGH OIL TEMPERATURE SAFETY
A8A	LOW OIL TEMPERATURE SAFETY
A9	LOW PILOT GAS PRESSURE SAFETY
A10	HIGH STEAM PRESSURE SAFETY
A10A	LOW STEAM PRESSURE SAFETY
A11	FLAME FAILURE SAFETY
A12	LOW FEEDWATER PRESSURE SAFETY
A2A	HIGH FEEDWATER PRESSURE SAFETY
A13	HIGH OIL PRESSURE SAFETY
A14	LOW WATER LEVEL SAFETY
A14A	HIGH WATER LEVEL SAFETY
A12	LOW OIL PRESSURE SAFETY
FUEL OIL PUMP	
C7	FUEL OIL PUMP STATUS
P3	FUEL OIL PRESSURE (SUCTION)
P3A	FUEL OIL PRESSURE (DISCHARGE)
FEEDWATER PUMP	
C3	PUMP STATUS
P2	FEEDWATER PRESSURE
CONDENSATE/DEAERATOR TANK	
A22	TANK LO LEVEL ALARM
A23	TANK H LEVEL ALARM
A24	TANK LO TEMPERATURE ALARM
A25	TANK H TEMPERATURE ALARM
FUEL OIL STORAGE TANK	
A15	LO LEVEL ALARM
BOILER HOUSE	
A16	ELECTRICAL SERVICE STATUS
A17	FIRE/SMOKE DETECTOR STATUS
A18	DOOR INTRUSION DETECTOR STATUS (QUANTITY 2)
A19	SUMP HIGH LEVEL DETECTOR ALARM



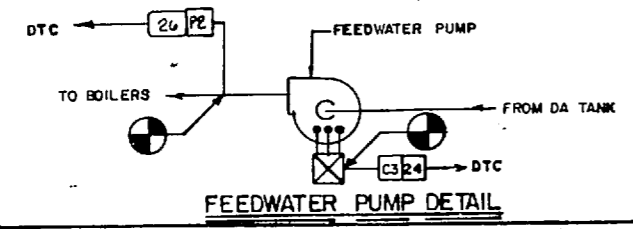
BOILER HOUSE DETAIL



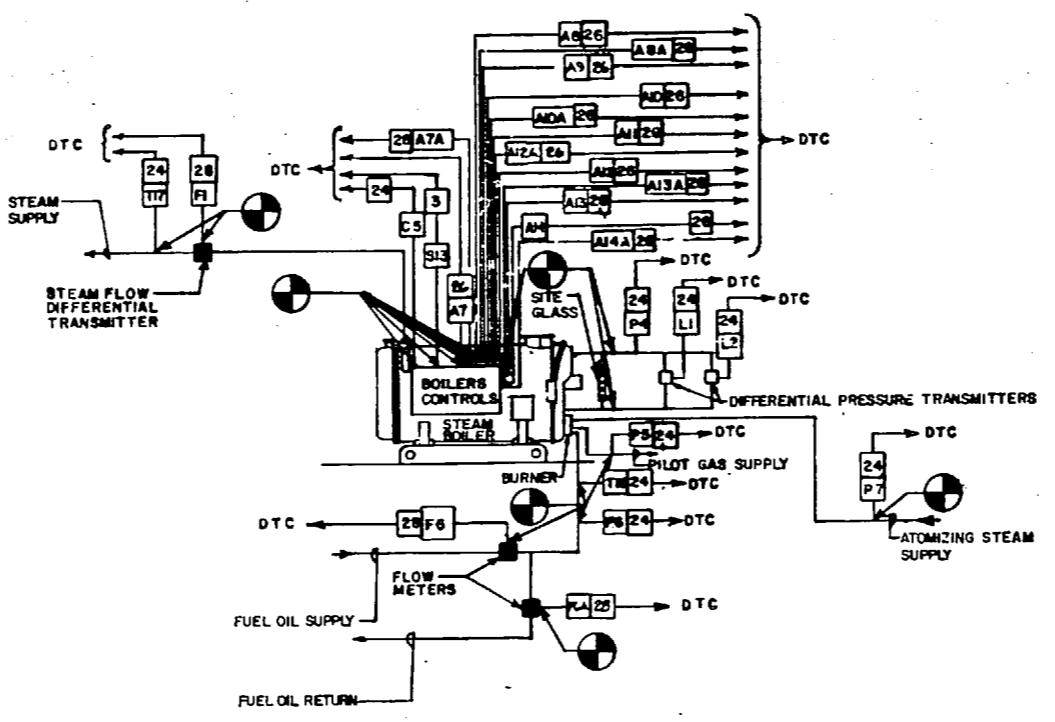
CONDENSATE/DEAERATOR DETAIL



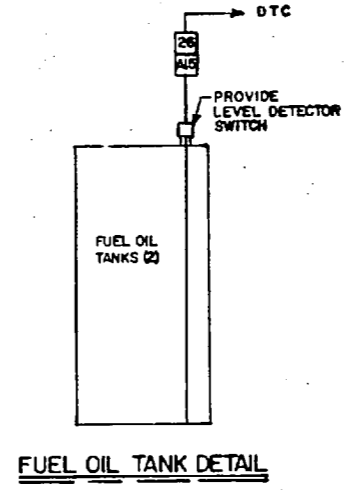
FUEL OIL PUMP DETAIL



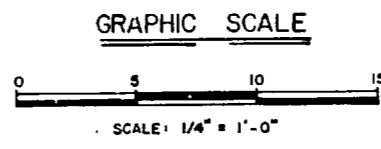
FEEDWATER PUMP DETAIL



BOILER DETAIL



FUEL OIL TANK DETAIL

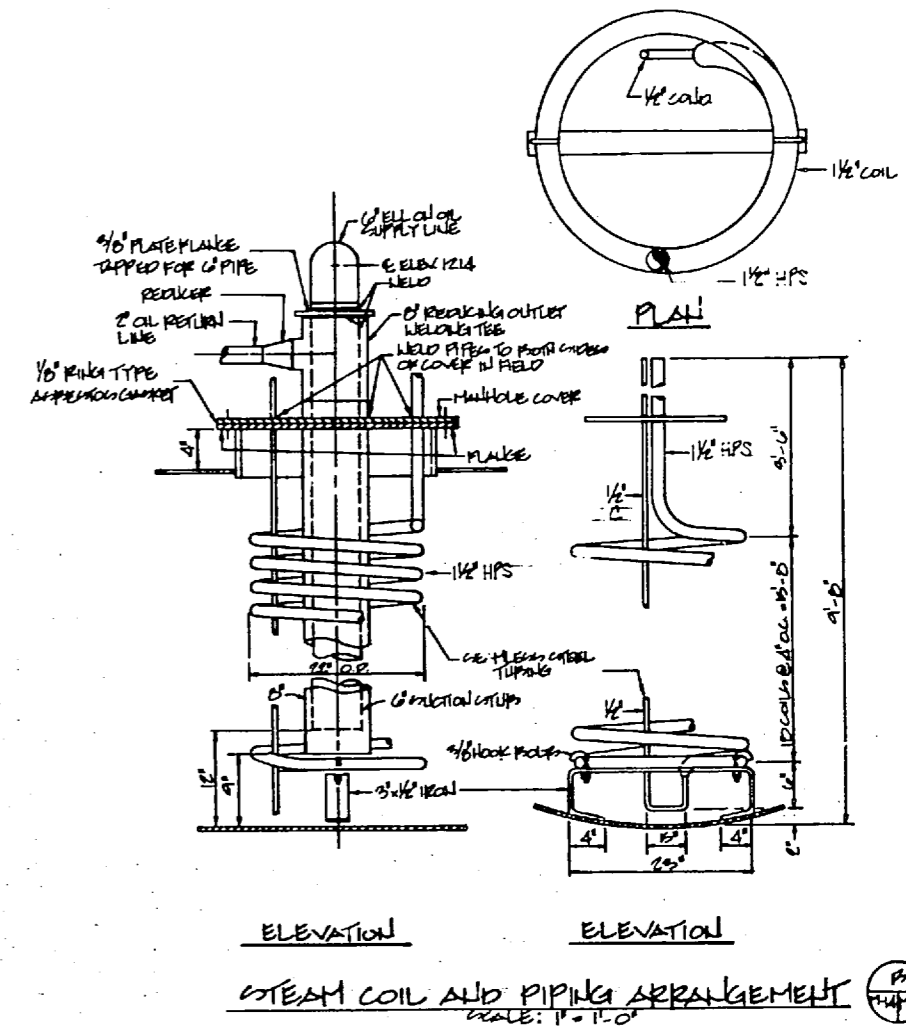
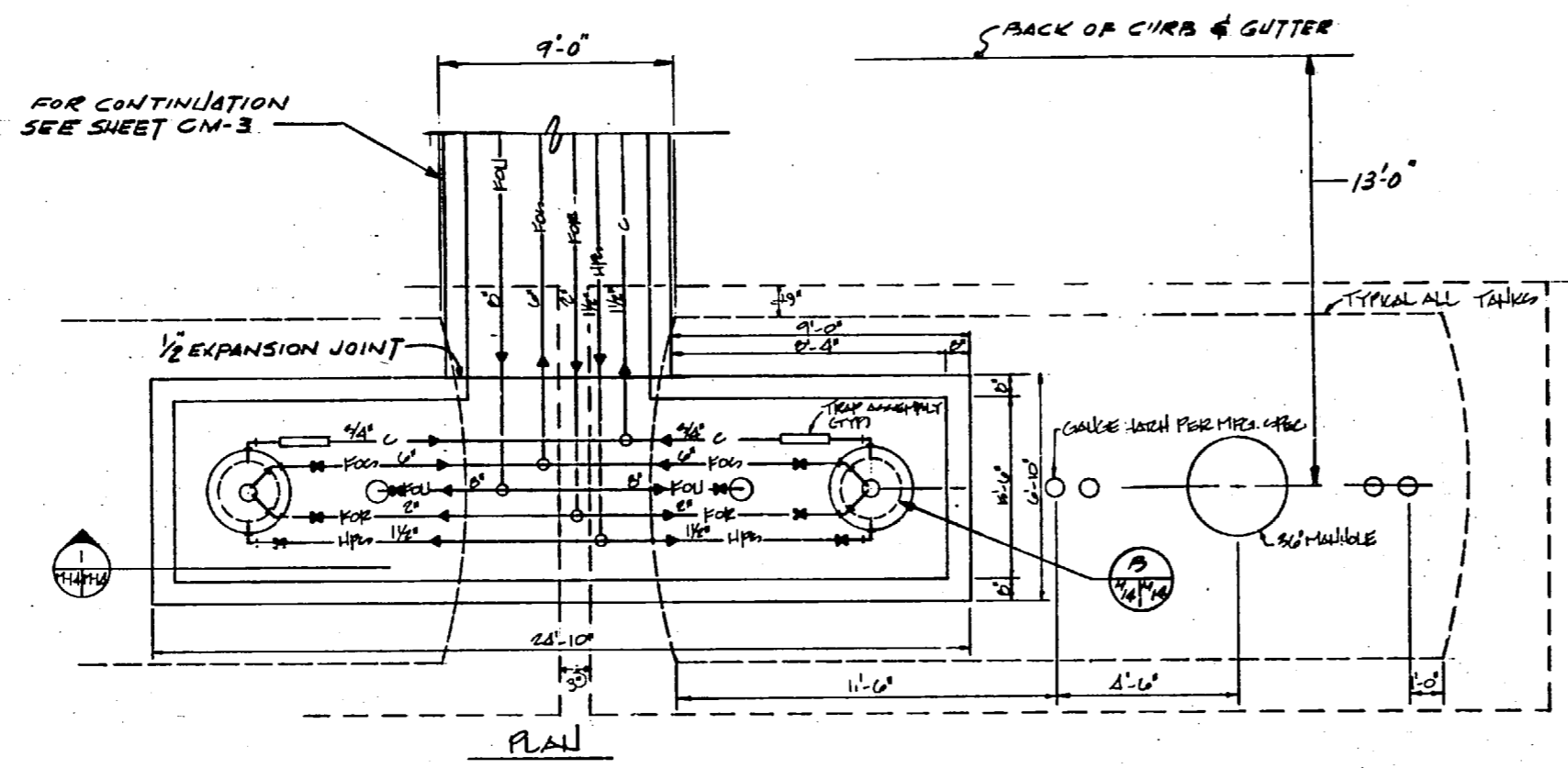


<p>CONSULTANT 1 MILLS ENGINEERING GASTON, N.C.</p>		<p>2 TRIANGLE ENGINEERING & SURVEYING, INC. RALEIGH, N.C. ARCHITECTS & ENGINEERS</p>		<p>DEPARTMENT OF THE NAVY - NAVAL FACILITIES ENGINEERING COMMAND ATLANTIC DIVISION NAVY STATION NORFOLK, VIRGINIA</p>	
<p>DESIGNED BY PROJ. MGR. JP CHKD. BY DATE</p>		<p>APPROVED BY DATE</p>		<p>MARINE CORPS BASE - CAMP LEVEUNE JACKSONVILLE, N.C. REPLACE BOILERS - BLDGS. 9, RR-5, 265 BUILDING NO. RR-15 EMCS INSTALLATION & DETAILS</p>	
<p>APPROVED DATE</p>		<p>OFFICER IN CHARGE DATE</p>		<p>ISSUE NO. 1 CODE (DD FORM) 1041-104 80091 N62470-81-B-1454 05-81-1464</p>	
<p>APPROVED DATE</p>		<p>FOR SFC FOR CONTRACTOR NAFFAC</p>		<p>NAVY DRAWING NO. 4133271 PAGE 22 OF 32 1, 233271</p>	

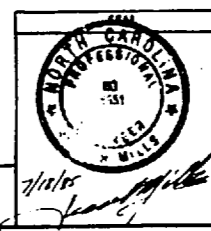
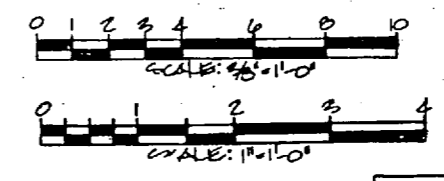
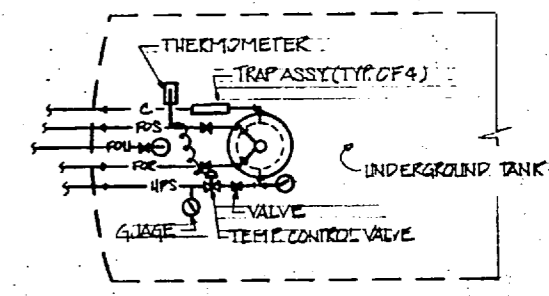
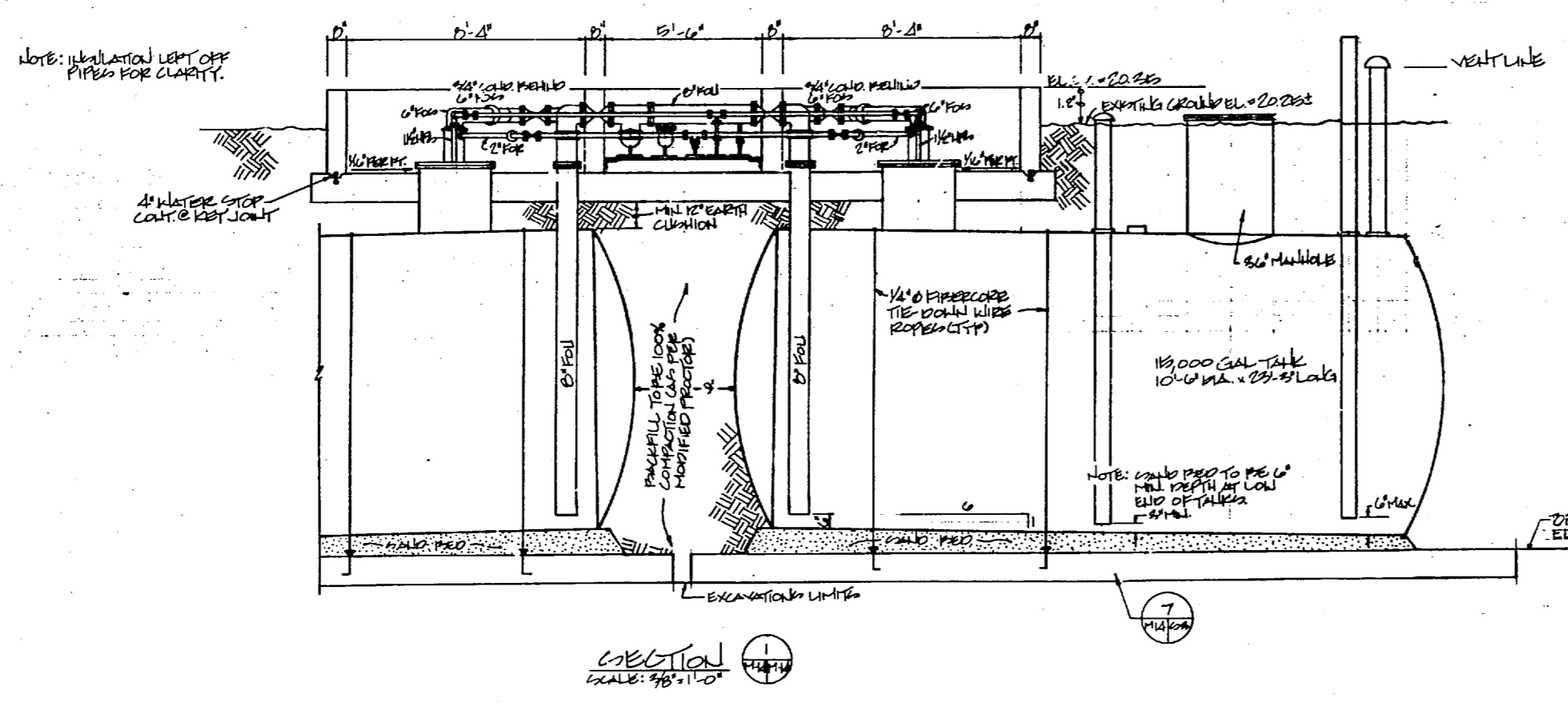




REVISIONS	
1	REVISED AS FULT 7/16/84



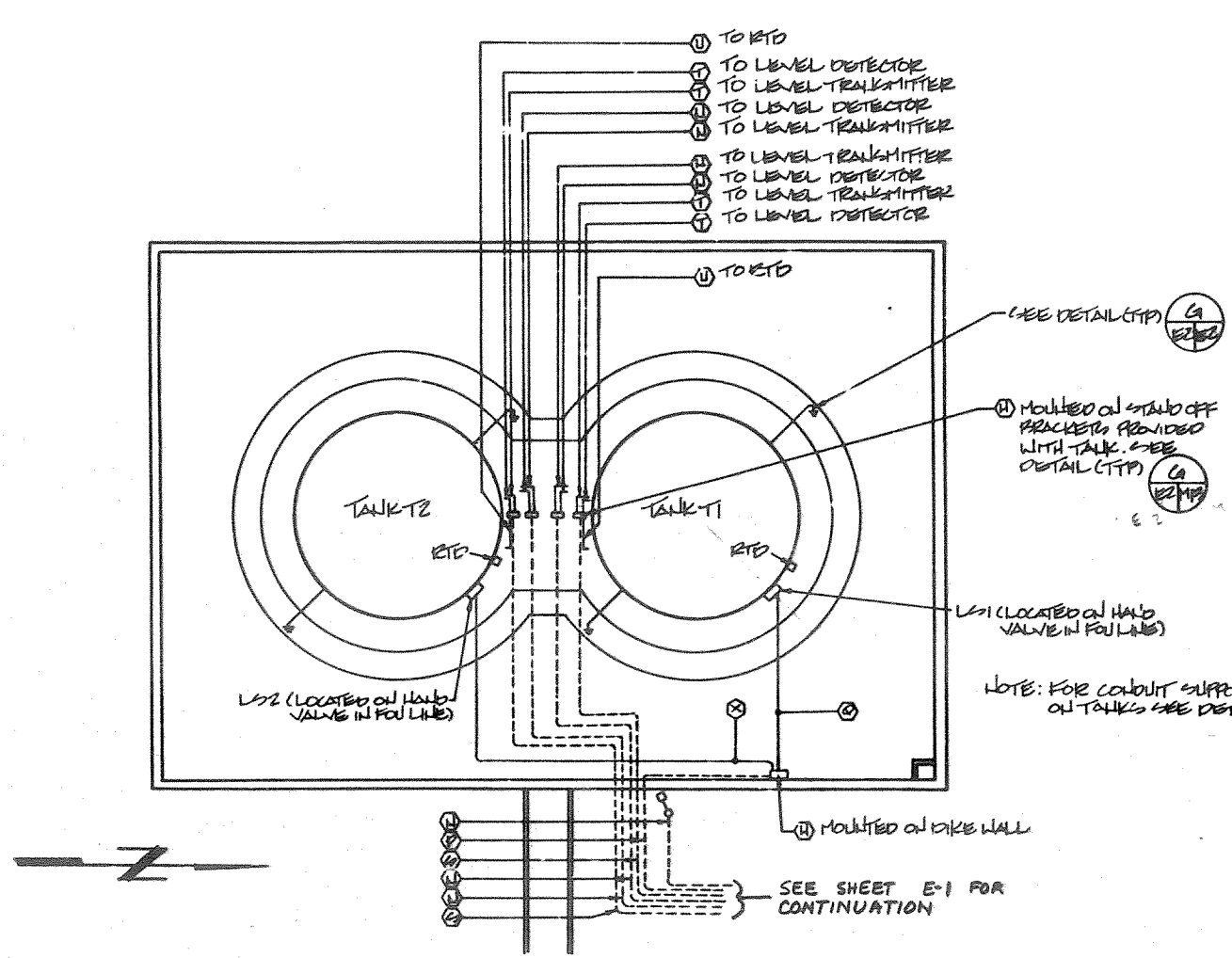
UNDERGROUND 10,000 GALLON TANKS
SCALE: 3/8" = 1'-0"



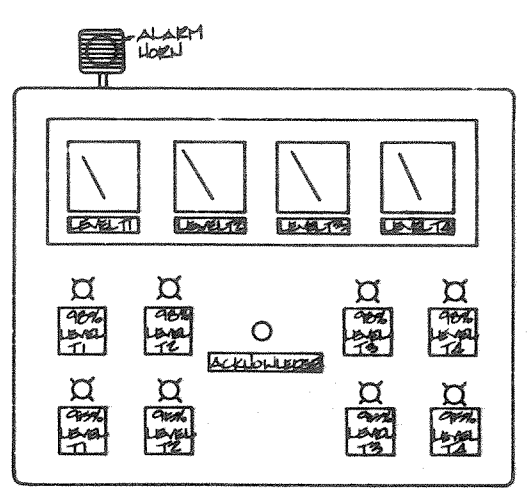
RECORD DRAWING		M-14
LETTER DATED: MAY 25 1983		
TRIMBLE ENGINEERING & SURVEYING, INC. ARCHITECTS & ENGINEERS RALPH, N.C.		DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND ATLANTIC DIVISION NORFOLK, VIRGINIA
PROJ. MGR. JDP DES. JDP CHECKED BY JDP DATE 7/16/84 APPROVED BY R. Pyle DATE 7/16/84		MARINE CORPS BASE - CAMP LEJEUNE JACKSONVILLE, N.C. REPLACE BOILERS - BLOS, RR-15, 2615 BUILDING NO. 2615 OIL STORAGE TANKS - BELOW GROUND
OFFICERS IN CHARGE DATE APPROVED DATE FOR EPO FOR COMPLIANCE NAVFAC		NAVFAC DIVISION NO. 4133273 NAVFAC DIVISION NO. 4133273 NAVFAC DIVISION NO. 4133273 NAVFAC DIVISION NO. 4133273 NAVFAC DIVISION NO. 4133273



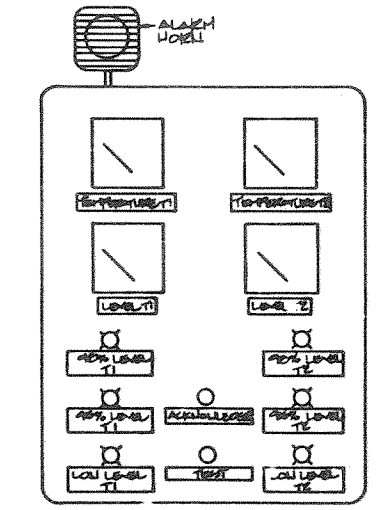
REVISIONS	



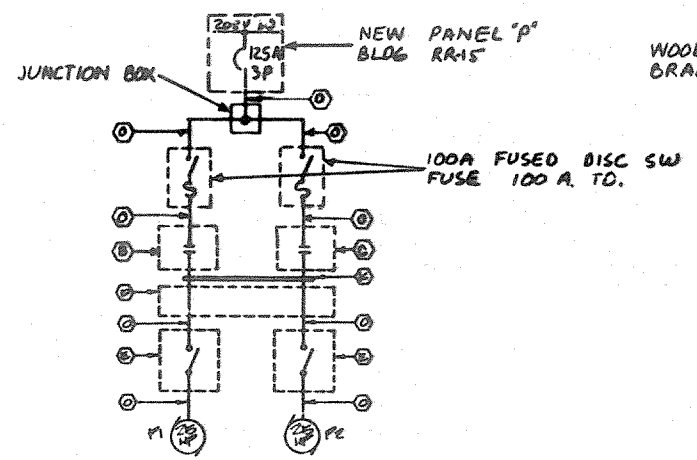
TALK CONTAINMENT ELECTRICAL PAGES BB-9 & RR-15
SCALE: 1/4"=1'-0"



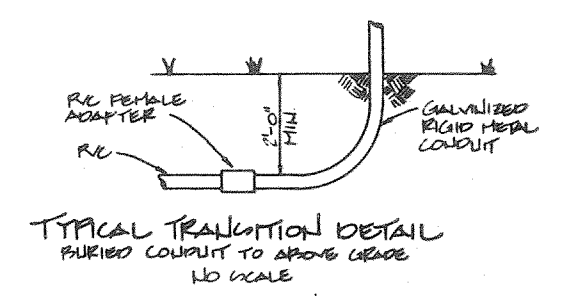
PANEL 'I' DETAIL
(INSTRUMENT AND ALARM PANEL LOCATED AT FUEL OIL TRUCK UNLOADING RAMP)
NO SCALE



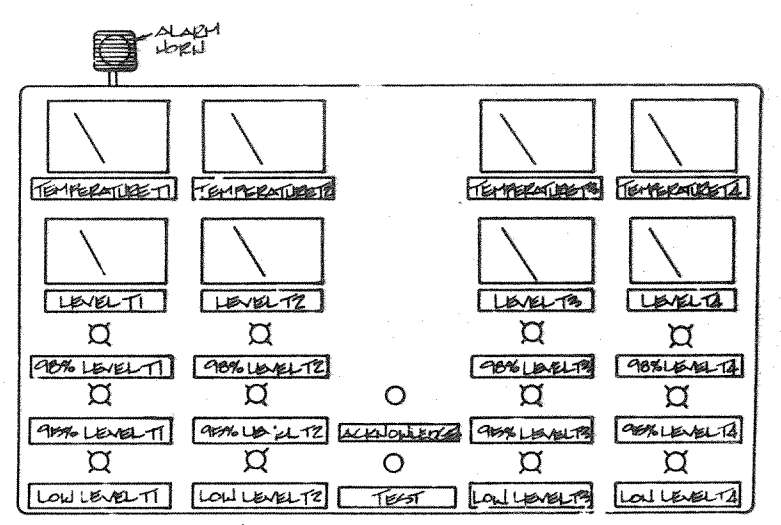
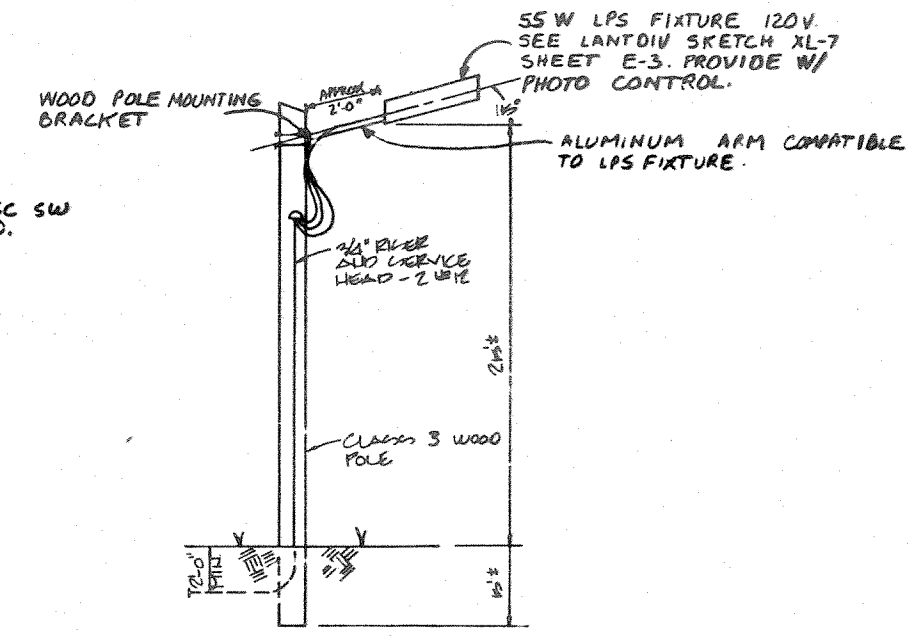
PANEL 'II' DETAIL
(INSTRUMENT AND ALARM PANEL - POWER HOUSE)
NO SCALE



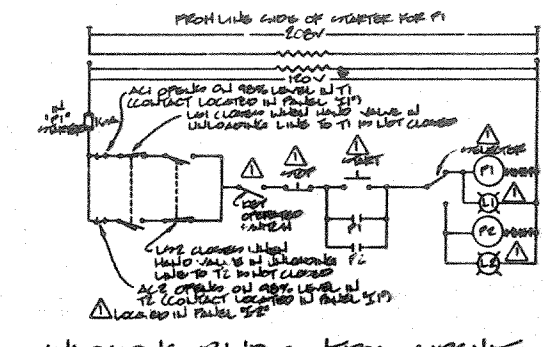
POWER ONE LINE DIAGRAM FOR FUEL OIL UNLOADING PUMPS
NO SCALE



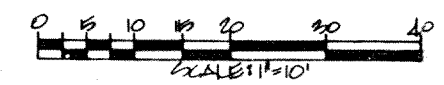
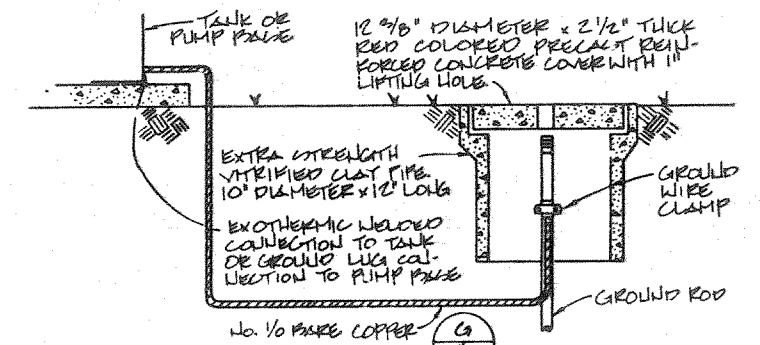
TYPICAL TRANSITION DETAIL
BURIED CONDUIT TO ABOVE GRADE
NO SCALE



PANEL 'I3' DETAIL
(INSTRUMENT AND ALARM PANEL LOCATED IN POWER HOUSE BB-9 AND RR-15)
NO SCALE

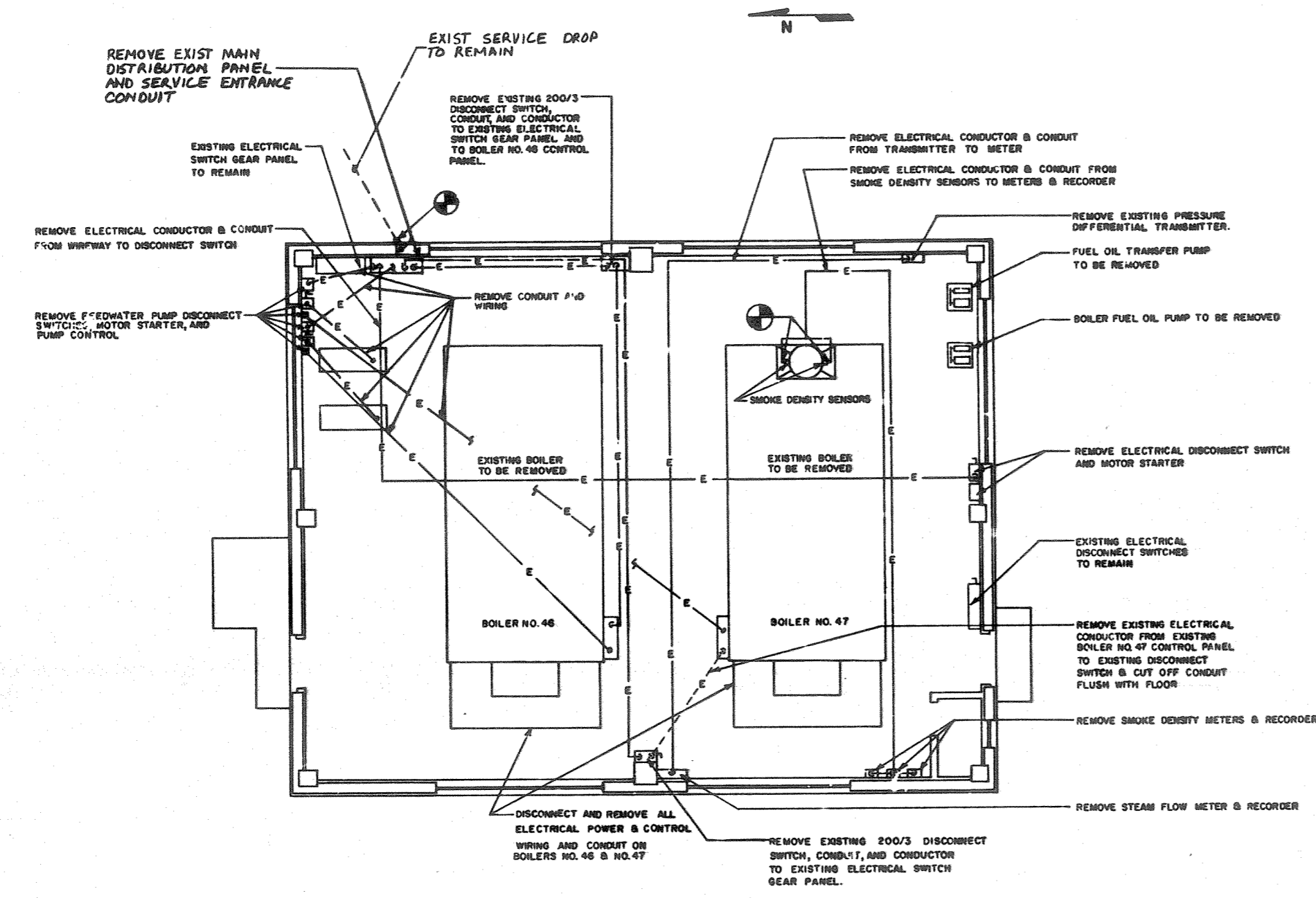


UNLOADING PUMP OPERATIONAL:
1. OPEN HAND VALVE TO TANK WHICH IS TO BE UNLOADED TO.
2. CLOSE SET OPERATED SWITCH.
3. SELECT THE PUMP WHICH IS TO RUN.
4. PUMP STARTER SWITCH AND THE PUMP WILL RUN IF:
A. OILY OIL HAND VALVE IS NOT CLOSED
B. 90% LEVEL CALIBRATED DOES NOT EXIST IN TALK BEING PUMPED TO
C. MOTOR PROTECTOR IS ENERGIZED AND THE GND CIRCUIT CONNECTED TO NOT OUT ON OVERLOAD



RECORD DRAWING		E-2	
LETTER DATED MAY 25 1998			
TRIANGLE ENGINEERING & SURVEYING, INC. ARCHITECTS & ENGINEERS		DEPARTMENT OF THE NAVY - NAVAL FACILITIES ENGINEERING COMMAND	
RALEIGH, N.C.		ATLANTIC DIVISION	
DES. JDP DR. SBC CHK. JDP		NAVAL STATION NORFOLK, VIRGINIA	
PROJ. MGR. JDP CH. ENGR. JDP		MARINE CORPS BASE - CAMP LEJEUNE JACKSONVILLE, N.C.	
DESIGNED BY G. Williams		REPLACE BOILERS-BLDGS. BB-9, RR-15, 2615 ELECTRICAL DETAILS	
DATE 9 AUG 92			
APPROVED DATE 9 AUG 92			
FOR EPC FOR COMNAVEP NAVFAC			
		NAVFAC DRAWING NO. 4133275	
		CONTRACT NO. N62470-81-B-1464	
		SPEC. NO. 05-81-1464	
		SHEET 26 OF 32	
		233275	

REVISIONS	
NO.	DESCRIPTION



ELECTRICAL DEMOLITION PLAN
SCALE: 1/4" = 1'-0"

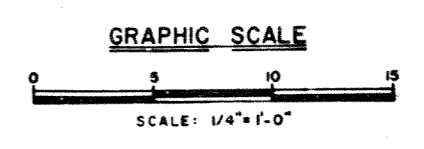
16530 (MARCH 1988)
SKETCH DATE: MARCH 1988

LUMINAIRE REQUIREMENTS

1. HOUSING, ALUMINUM - EXTRUDED OR FORMER WITH SEALED AND WELDED SEAMS.
2. REFLECTOR, BLINDED. ONE PIECE 5/16" VIOLET RESISTANT ACRYLIC - MINIMUM .125" THICK.
3. REFLECTOR - ANODIZED ALUMINUM.
4. LATCHES STAINLESS STEEL, QUICK RELEASE TYPE.
5. CASKEYING - CONTINUOUS, HEAT RESISTANT.
6. BALLAST - HIGH POWER FACTOR.
7. FINISH - BAKED ACRYLIC ENAMEL, HUNZELL GREY, EXCEPT AS INDICATED.
8. HARDWARE - CORROSION RESISTANT.
9. LAMP - 35; 55; 90; 135; OR 180-WATT AS SPECIFIED.
10. SLIPFITLER - FOR 1-1/4" TO 2" AMH.
11. PHOTO CELL - SEEN INDICATED.
12. UT LISTED - SUITABLE FOR OUTDOOR MOUNT LOCATIONS.
13. LAMP STABILIZER.

LOW PRESSURE SODIUM AREA LIGHTING LUMINAIRE
MAX. E.P.A. 2.4 SQ. FT.

SKETCH 16530-7 **XL-7**



RECORD DRAWING LETTER DATED: MAY 25 1988		E-3
CONSULTANT M.L.S. ENGINEERING GASTONIA, N.C.	TRIANGLE ENGINEERING & SURVEYING, INC. ARCHITECTS & ENGINEERS RALEIGH, N.C.	DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND ATLANTIC DIVISION MARINE CORPS BASE - CAMP LEJEUNE JACKSONVILLE, N.C.
DESIGNER J.P. BROWN	CHECKED J.P. BROWN	PROJECT NO. N62470-81-B-1464
DATE 10/21/87	DATE 10/21/87	NAVY DRAWING NO. 4133 276
OFFICE IN CHARGE J.P. BROWN	DATE 10/21/87	OFFICE IN CHARGE J.P. BROWN
FOR EFS FOR COMMANDER NAVFAC	SCALE AS NOTED	SHEET 27 OF 32



EXIST LIGHTING PANEL PROVIDE 3-20A 1P CB'S IN EXIST SPACES. TWO FOR NEW PANEL 'I-I' AND THE THIRD FOR NEW OUTDOOR UPS LIGHTING.

RECONNECT NEW SERVICE TO EXISTING AERIAL DROP BY HYDRAULIC INDENTED SERVICE LOSS.

EXISTING SERVICE DROP 2-3" RIGID CONDUIT W/ WEATHER HEADS W/ 4-3/8" MCM EACH CONDUIT.

TO NEW 20A 1P CB'S IN EXIST LIGHTING PANEL

PANEL 'I-I'

FOR CONTINUATION OF CONDUIT AND WIRING DETAIL SEE SITE ELECTRICAL BLDG. 151 SR. E-1

ELEVATION 'A-A'

PROVIDE 4"x4"x3/4" PLYWOOD BACK BOARD TO MOUNT NEW EQUIPM. IT.

SEE ONE-LINE DIAGRAM FOR WIRING DETAIL

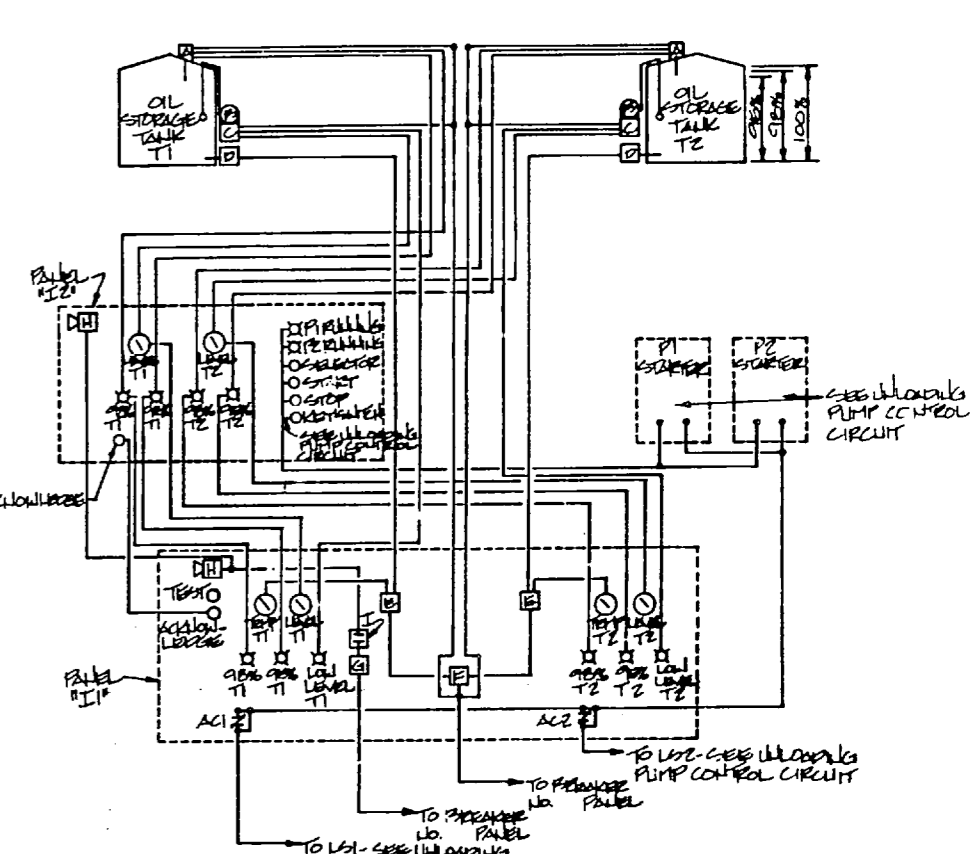
2 1/2" RIGID CONDUIT

PROVIDE NEW 600V 3-POLE 4-WIRE PANEL 'P' BELOW WIREWAY

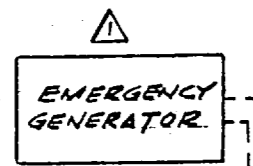
FUEL UNLOADING PUMP DISC SW'S CONTROL SEE ONE-LINE DIAGRAM FOR WIRING DETAILS

6"x6"x1 1/2" JUNCTION BOX WITH COVER (SEE RISE & DIA)

PROVIDE 4"x4"x3/4" PLYWOOD BACKBOARD TO MOUNT NEW EQUIPMENT.



INSTRUMENTATION AND ALARM BLOCK DIAGRAM-TYPICAL PAGES 153A-153F 1/27/55



BOILER NO. 66

BOILER NO. 67

TRANSFER SWITCH

REMOTE PNL.

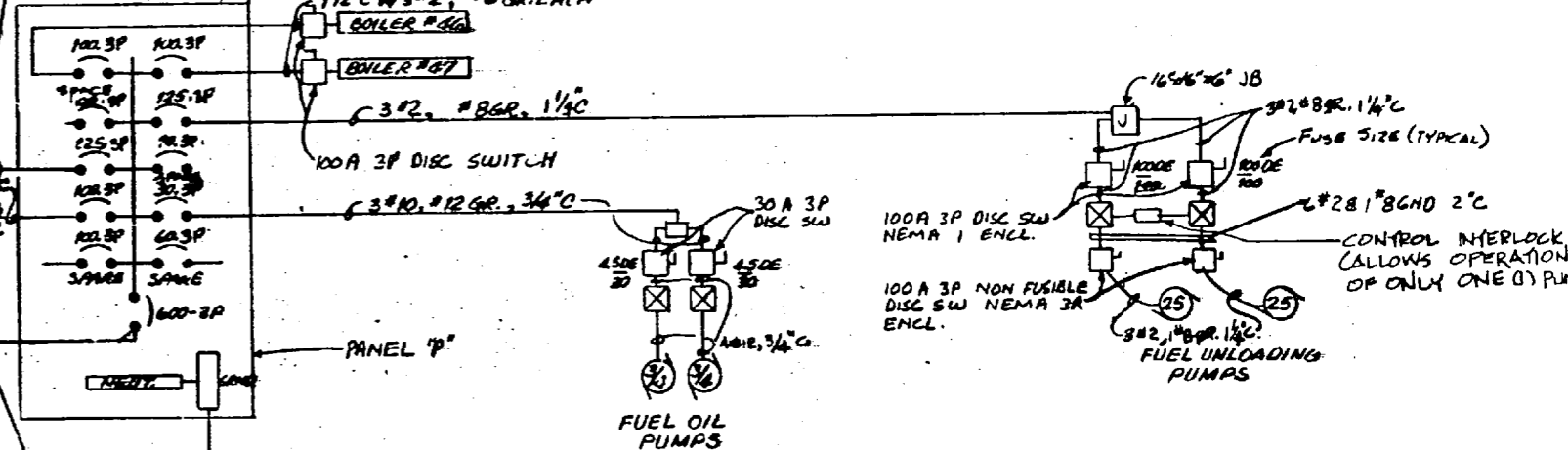
ELECTRICAL INSTALLATION PLAN SCALE: 1/4"=1'-0"

- ELECTRICAL SYMBOL LEGEND
- MOTOR CONTROLLER
 - DISCONNECT SWITCH-2POLE 3-POLE FUSED OR UNFUSED AS NOTED
 - MOTOR-HP INDICATED
 - JUNCTION BOX-WIRED PER N.E.C.

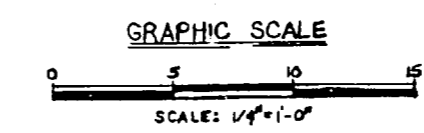
- LEGEND
- H.O.A. - HAND OFF AUTO
 - S.S. - STAINLESS STEEL
 - O'LOADS - OVERLOADS
 - O.L. - OVERLOADS
 - J.B. - JUNCTION BOX
 - W.P. - WATERPROOF
 - N.O. - NORMALLY OPEN
 - N.C. - NORMALLY CLOSED
 - B.W.F.P. - BOILER WATER FEED PUMP
 - G.R. - GROUND
 - UN. - UNLESS OTHERWISE NOTED

200V 120V 4-WIRE AUTOMATIC TRANSFER SWITCH SURFACE MOUNTED 225 AMP

NEW SERVICE PANELS: 600A 3-POLE MAIN BK. 42,000 AIC MIN. FRANK BKR'S - 125 A. FRAME - 25,000 AIC MIN. 100 A. FRAME - 10,000 AIC MIN. COPPER BUS, NEUTRAL & GROUND 1 1/2" x 3/4" #2, #6 OR EACH

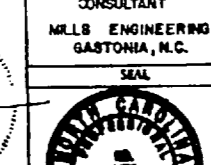
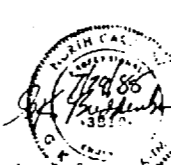


ONE LINE DIAGRAM N.T.S.



RECORD DRAWING LETTER E-4

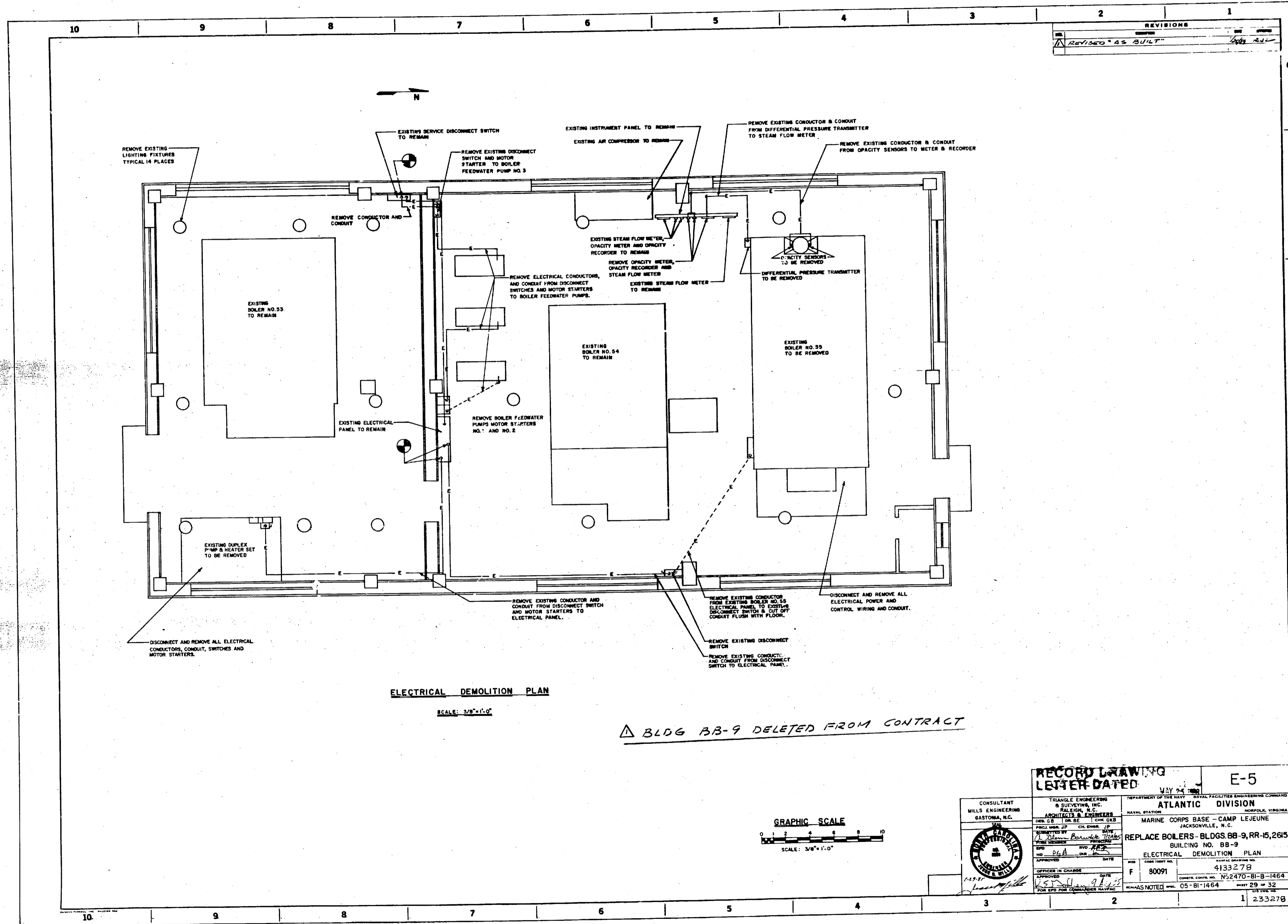
ATLANTIC DIVISION
 MARINE CORPS BASE CAMP LEJUNE JACKSONVILLE, N.C.
 REPLACE BOILERS - BLDGS. 88-9, RR-15, 2615 BUILDING NO. RR-15
 ELECTRICAL INSTALLATION & DETAILS
 DRAWING NO. 4133277
 N6247C-81-B-146-1
 15-28 OF 32
 233277



CONSULTANT M.L.S. ENGINEERING & SURVEYING, INC. RALEIGH, N.C.

ARCHITECTS & ENGINEERS TRIANGLE ENGINEERING & SURVEYING, INC. RALEIGH, N.C.

APPROVED: 1/27/55

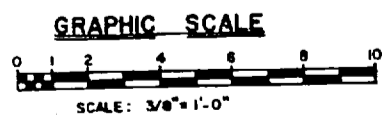


REVISIONS	
NO.	DESCRIPTION
1	REVISED "AS BUILT"

ELECTRICAL DEMOLITION PLAN

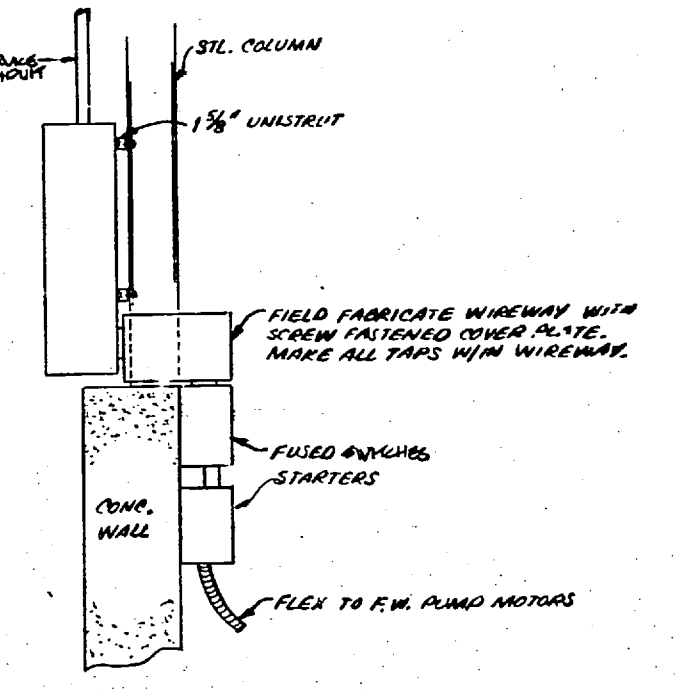
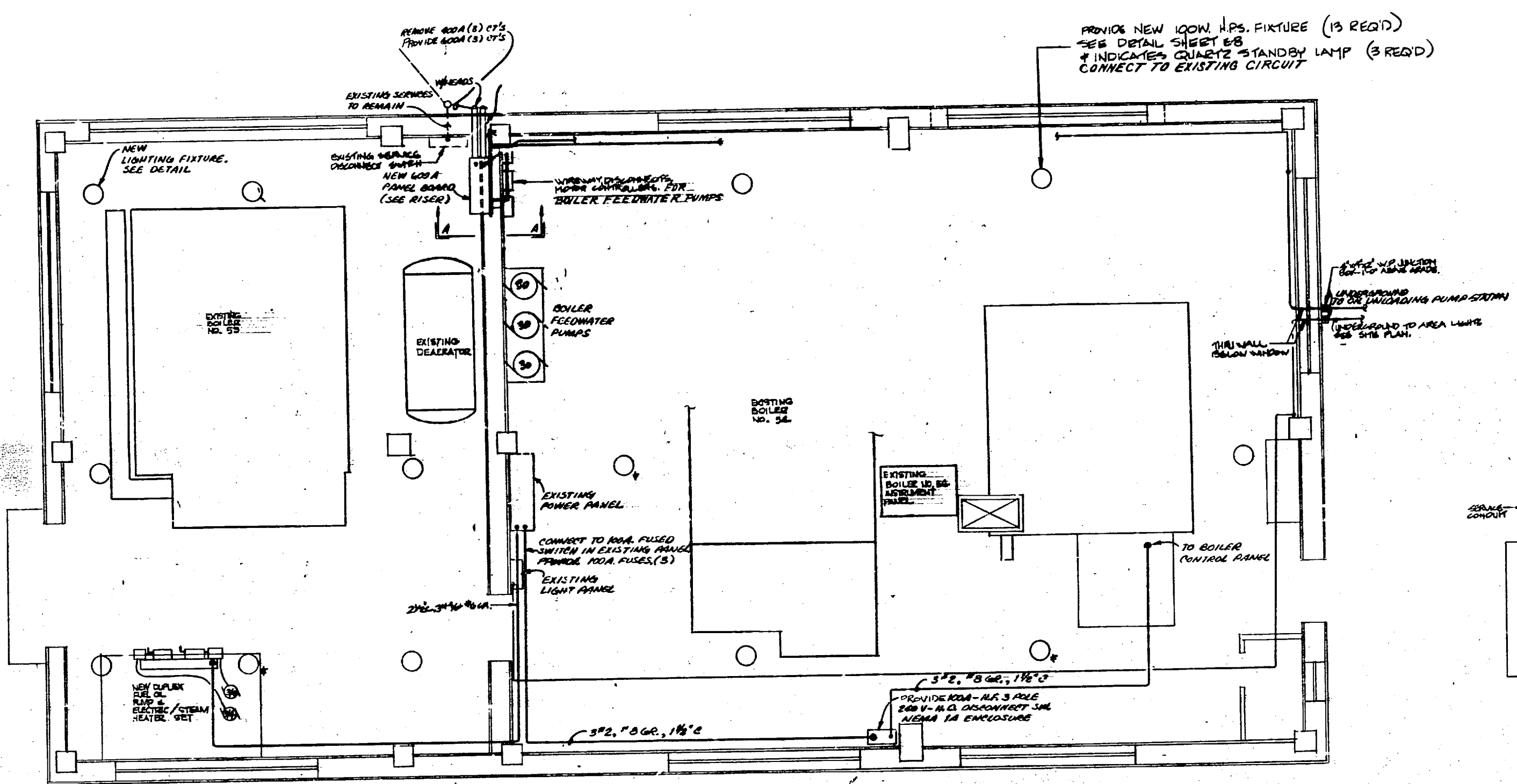
SCALE: 3/8"=1'-0"

△ BLDG BB-9 DELETED FROM CONTRACT



RECORD DRAWING		E-5	
LETTER DATED		MAY 24 1966	
CONSULTANT TRANIGLE ENGINEERING & SURVEYING, INC. ARCHITECTS & ENGINEERS GASTONIA, N.C.		DEPARTMENT OF THE NAVY ATLANTIC DIVISION NAVAL STATION NORFOLK, VIRGINIA	
PROJECT NO. 4133278 DRAWN BY: [Signature] CHECKED BY: [Signature] DATE: 4/19/66		MARINE CORPS BASE - CAMP LEJEUNE JACKSONVILLE, N.C. REPLACE BOILERS - BLDGS BB-9, RR-15, 2615 BUILDING NO. BB-9	
APPROVED BY: [Signature] DATE: 4/19/66		ELECTRICAL DEMOLITION PLAN SHEET 29 OF 32	
OFFICER IN CHARGE: [Signature] DATE: 4/19/66		CONTRACT NO. 4133278 DRAWING NO. 15-2470-B-8-1464 SHEET 29 OF 32	

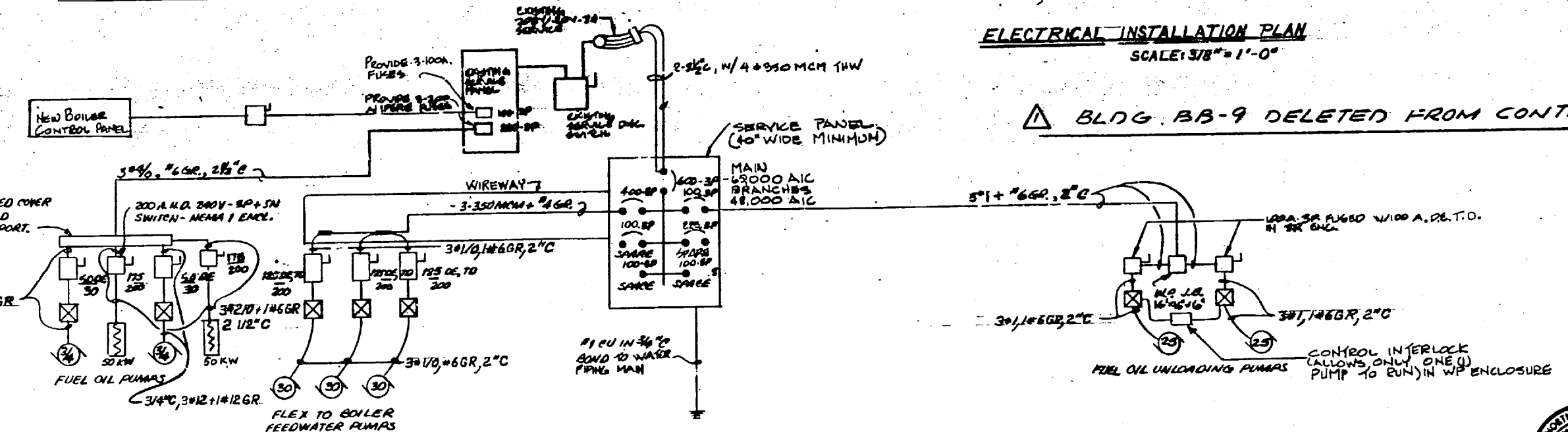
REVISIONS	
1	REVISED AS BUILT



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

▲ BLDG. BB-9 DELETED FROM CONTRACT

SECTION A-A
NO SCALE

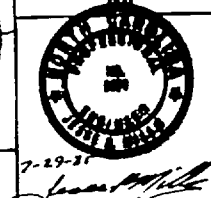


ONE LINE DIAGRAM
N.C.S.

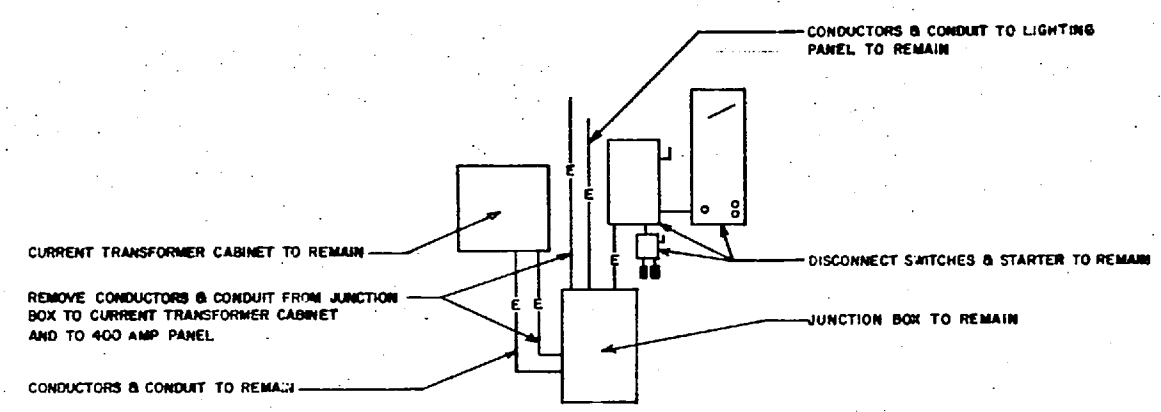
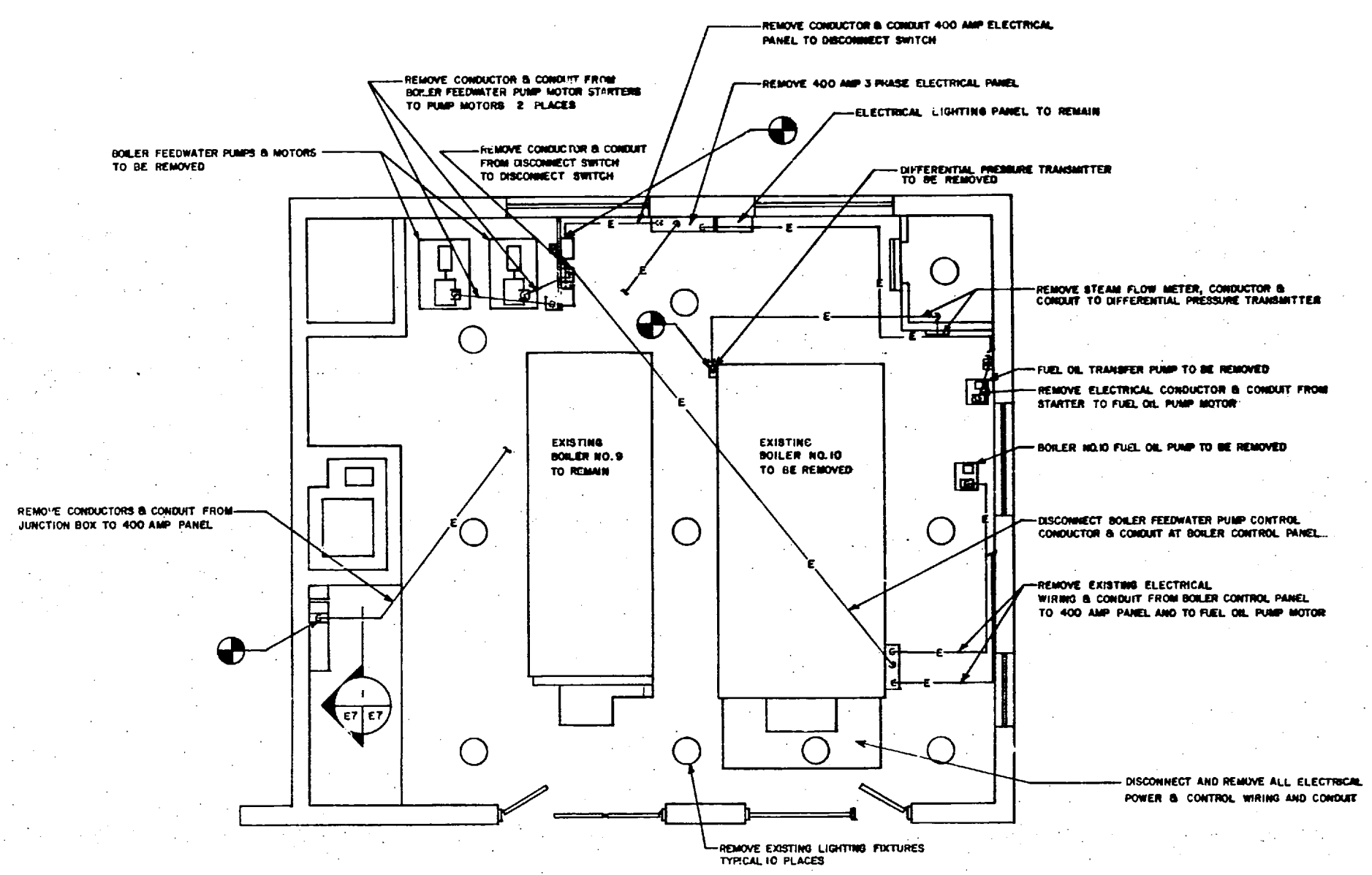
NOTE: ALL WIRING TO BE SUITABLE FOR HIGH AMBIENT TEMPERATURES EXPECTED IN BOILER PLANT. (THHN)

RECORD DRAWING LETTER DATED MAY 25 1964 E-6

CONSULTANT		DEPARTMENT OF THE NAVY - NAVAL FACILITIES ENGINEERING COMMAND	
MILLS ENGINEERING & SURVEYING, INC. GASTONIA, N.C.	ARCHITECTS & ENGINEERS	ATLANTIC DIVISION	
		MARINE CORPS BASE, CAMP LEJEUNE JACKSONVILLE, N.C.	
		REPLACE BOILERS - BLDGS. BB-9, RR-15, 2615 BUILDING NO. BB-9	
		ELECTRICAL INSTALLATION & DETAILS	
APPROVED	DATE	SHEET NO.	NAVY DRAWING NO.
OFFICER IN CHARGE	DATE	4133 279	
APPROVED	DATE	CONTRACT NO.	N62470-BE-B-1464
	DATE		1209 30 OF 32
		FOR EFD FOR CHIEFMAN NAVYAC	

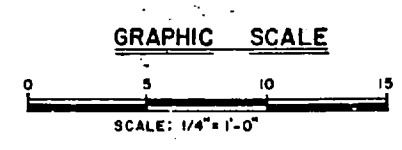


REVISIONS	
NO.	DESCRIPTION



SECTION 1-1
NOT TO SCALE

ELECTRICAL DEMOLITION PLAN
SCALE: 1/4" = 1'-0"



RECORD DRAWING
LETTER DATED MAY 25 1988 E-7

CONSULTANT MILLS ENGINEERING GASTONIA, N.C. SEAL	TRIANGLE ENGINEERING & SURVEYING, INC. RALEIGH, N.C. ARCHITECTS & ENGINEERS	DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND ATLANTIC DIVISION NAVAL STATION
	DES. G.A.B. DR. BE. CHK. GKB PROJ. MGR. J.P. CXL. ENGR. J.P. REVISIONS BY: <i>[Signature]</i> DATE: <i>[Date]</i> DATE: <i>[Date]</i> E.P.D. <i>[Signature]</i> R.V.D. <i>[Signature]</i> HO. P.A. DR. <i>[Signature]</i>	MARINE CORPS BASE CAMP LEJEUNE JACKSONVILLE, N.C. REPLACE BOILERS BLDGS. BB 9, RR 15, 26 BUILDING NO. 2615 ELECTRICAL DEMOLITION PLAN
APPROVED IN CHARGE: <i>[Signature]</i> DATE: <i>[Date]</i> APPROVED: <i>[Signature]</i> DATE: <i>[Date]</i> FOR E.D. FOR COMMANDER NAVFAC	OFFICER IN CHARGE: <i>[Signature]</i> DATE: <i>[Date]</i> APPROVED: <i>[Signature]</i> DATE: <i>[Date]</i> FOR E.D. FOR COMMANDER NAVFAC	NAVFAC DRAWING NO. 4133280 QUANTITY CODE NO. N62470 81 B 1464 RELEASES NOTE# 05-81-1464 SHEET 31 OF 32

