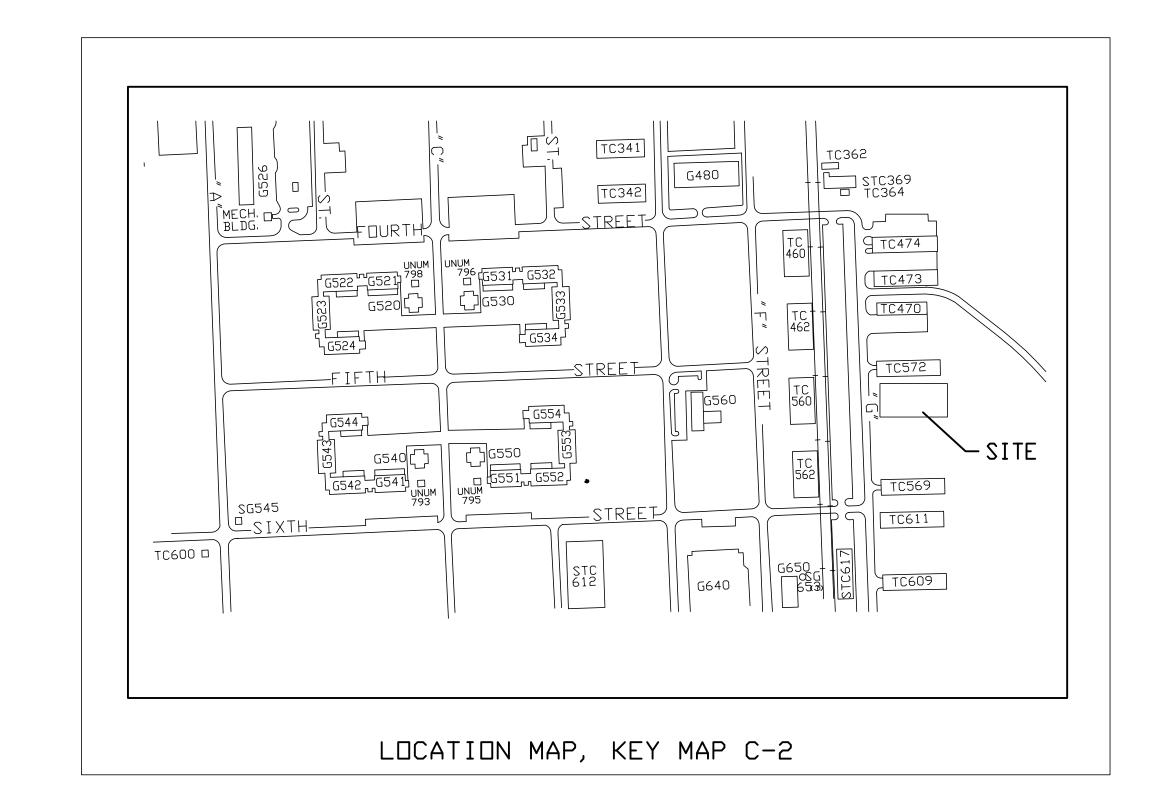
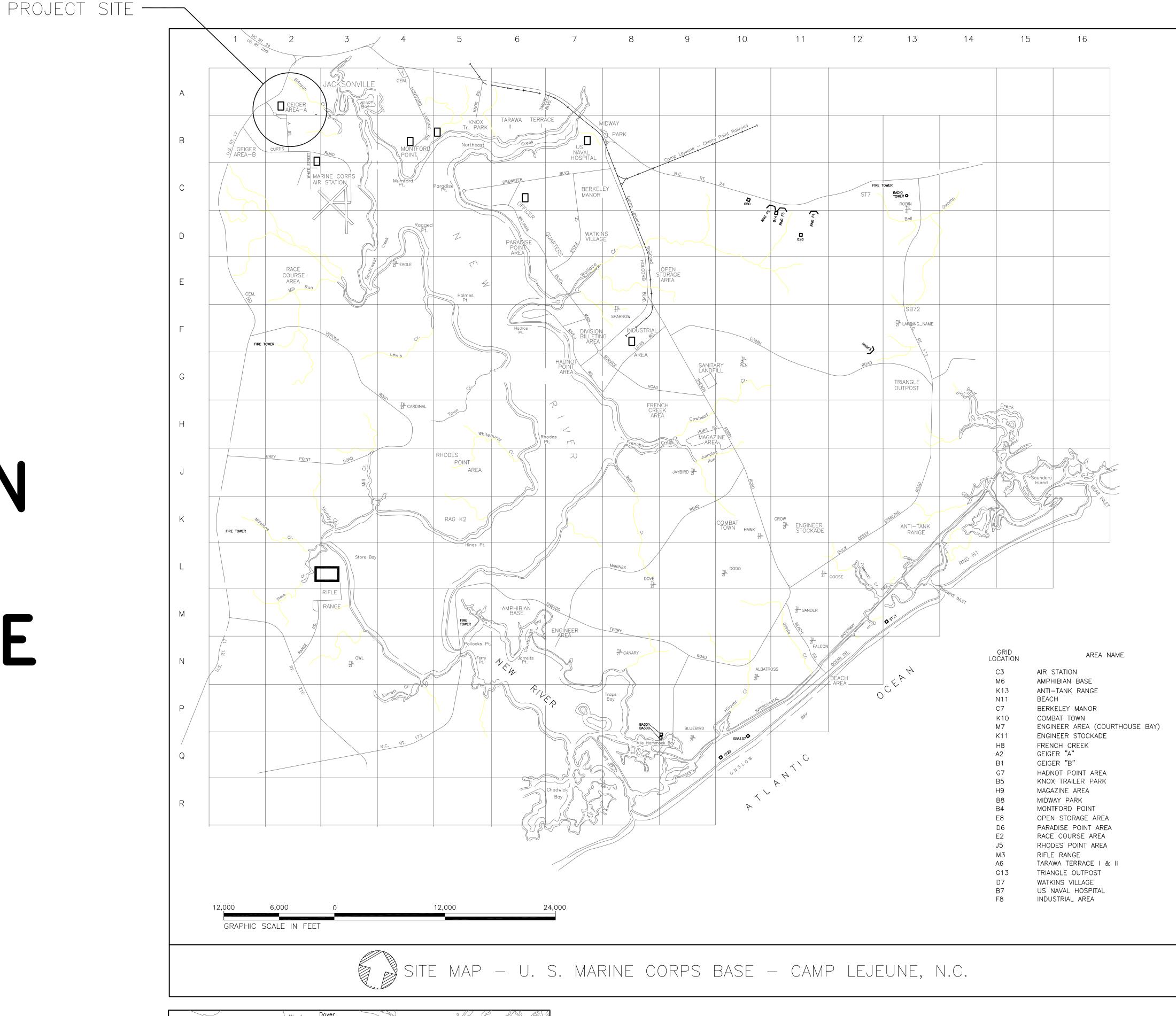
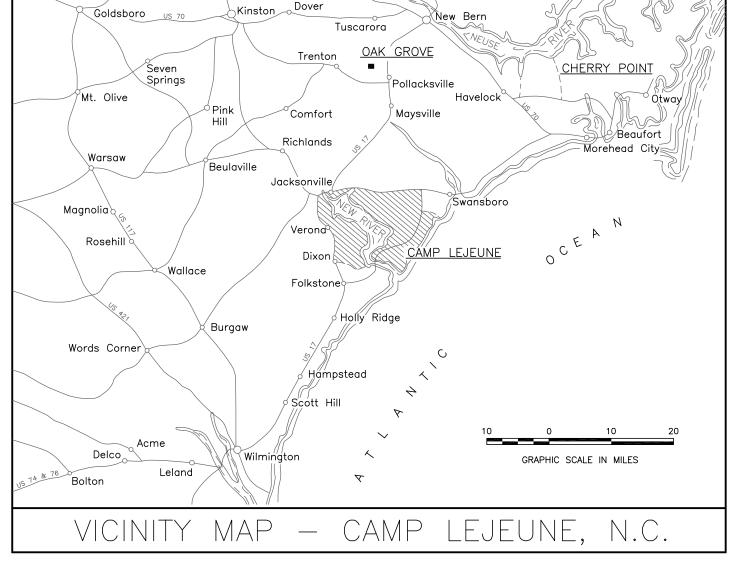
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ONE DESCRIPTION DATE APPROVED



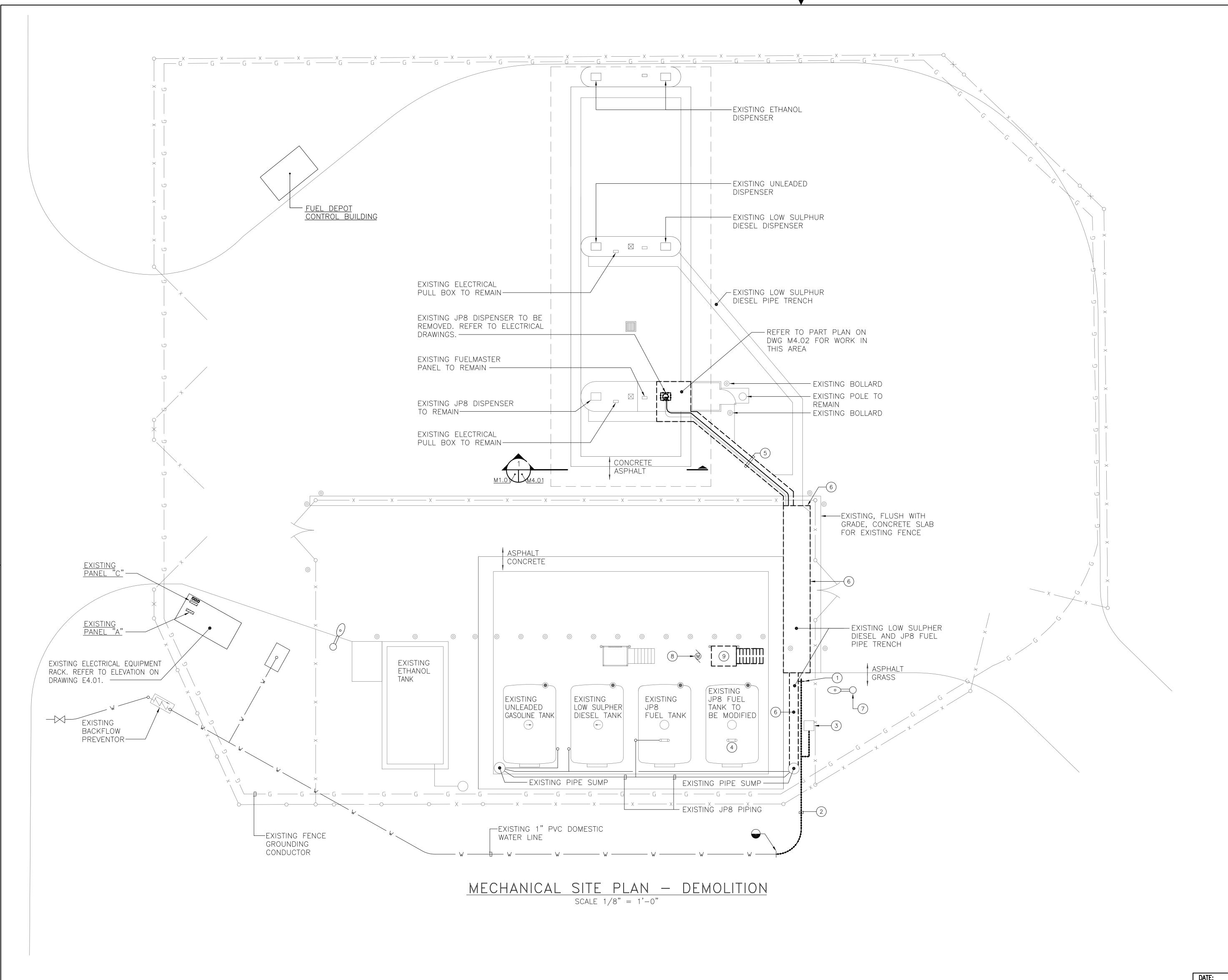
FUEL TANK TRANSITION BUILDING TC366 U.S. MARINE CORPS BASE CAMP LEJEUNE, N.C.

LIST OF DRAWINGS					
NO.	NAVFAC NO.	TITLE			
T0.01	60010014	TITLE AND LIST OF DRAWINGS			
M1.01	60010015	MECHANICAL SITE PLAN — DEMOLITION			
M2.01	60010016	MECHANICAL SITE PLAN — NEW CONSTRUCTION			
M4.01	60010017	SCHEMATICS			
M4.02	60010018	DETAILS			
E-101	60010019	ELECTRICAL SITE PLAN — DEMOLITION			
E-201	60010020	ELECTRICAL SITE PLAN — NEW CONSTRUCTION			
E-401	60010021	DETAILS			





DATE: 4/25/12	FINAL SUI	T0.01				
MILE VA	FACILITY ENGINEERING DEPT DWG NO	DEPT OF NAVY	PUBLIC WORKS DIVISION			
RMF ENGINEERING, INC. 190 WEST OSTEND STREET BALTIMORE, MARYLAND 21230 PHONE: 410–576–0505		MARINE CORPS BASE, CAMP LEJEUNE, N.C.				
FAX: 410-385-0327	DES JWM					
11.19 B24	DR CAS	FUEL TANK TRANSITION BUILDING TC366				
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SYM ZONE DESCRIPTION DATE APPROVED

GENERAL NOTES

1. CONTRACTOR IS RESPONSIBLE FOR LOCATION OF ALL UTILITIES. LOCATIONS SHOWN ARE APPROXIMATE AND TAKEN FROM AVAILABLE RECORDS. CONTRACTOR SHALL TEST PIT FOR UNDERGROUND UTILITY CONNECTIONS, AND SHALL BE RESPONSIBLE FOR PROTECTION OF ALL UNDERGROUND UTILITIES.

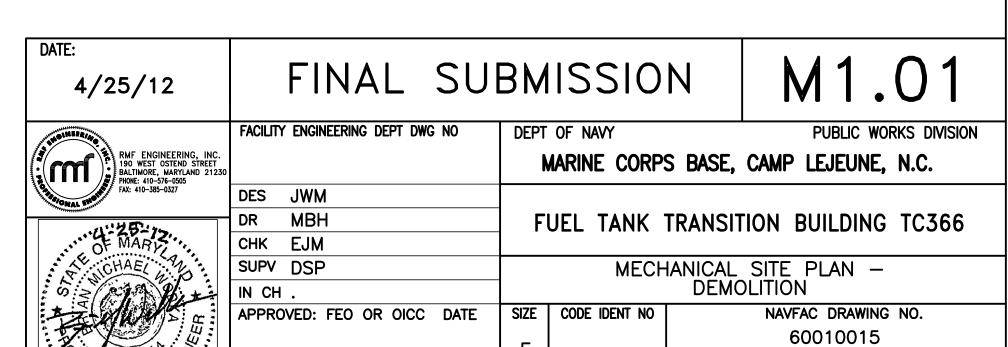
2. DURING CONSTRUCTION ACTIVITIES IN ROADWAYS, TRAFFIC CONTROL MUST CONFORM TO THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES", 2010 EDITION.

3. ALL CONSTRUCTION AREAS, EXCEPT THOSE SHOWN OTHERWISE, SHALL BE RESTORED TO THEIR ORIGINAL CONDITION USING NEW MATERIALS WHICH MATCH THE EXISTING IN STRENGTH AND TEXTURE. THIS INCLUDES AREAS DAMAGED BY CONSTRUCTION VEHICLES AND ACTIVITIES WHICH MAY OR MAY NOT BE WITHIN THE LIMITS OF WORK.

4. ANY STOCKPILED OR UNSTABILIZED SOIL SHALL BE PROTECTED FROM EROSION USING SILT FENCE. STORM DRAIN INLETS WITHIN THE WORK AREA SHALL BE PROTECTED AS DETAILED. ALL STREETS AND WALKWAYS SHALL BE SWEPT CLEAN OF SOIL AS NEEDED. DURING TRENCHING OPERATIONS, SOIL SHOULD BE PLACED ON THE UPHILL SIDE OF THE TRENCH WHEN POSSIBLE.

DRAWING NOTES:

- (1) REMOVE EXISTING YARD HYDRANT. RETAIN ON SITE FOR REUSE.
- 2) REMOVE EXISTING PVC DOMESTIC WATER PIPING.
- 3 DISCONNECT EXISTING POST INDICATOR VALVE. REMOVE EXISTING 1" PVC DOMESTIC WATER PIPING.
- 4 EXISTING 10,000 GALLON JP8 FUEL TANK SHALL BE CLEANED ACCORDING TO EPA REGULATIONS AND CAMP LEJEUNE GUIDELINES TO COMPLY WITH REUSE FOR B20 FUEL SYSTEM. DISPOSE REMAINING JP8 JET FUEL ACCORDING TO EPA REGULATIONS AND GUIDELINES.
- (5) SAW-CUT CONCRETE/ASPHALT SECTION AS SHOWN. FOLLOW CONTOURS OF PREVIOUS SAW-CUT IN THIS AREA. COORDINATE EXACT LOCATION IN THE FIELD.
- 6 SAW-CUT, REMOVE AND REPLACE ALL ASPHALT IN THIS AREA.
- 7 EXISTING COBRAHEAD STYLE LIGHTING FIXTURE TO REMAIN (TYP).
- 8 EXISTING FUEL UNLOADING TRANSFER PUMP SHALL REMAIN. REFER TO SCHEMATIC PIPING DIAGRAM ON DRAWING M4.01 FOR WORK IN THIS AREA.
- 9 REMOVE EXISTING STEEL STAIRS AND PLATFORM. PROVIDE NEW 4" DIAMETER GALVANIZED STEEL VERTICAL SUPPORT FOR EXISTING 3" DISCHARGE PIPING AND EXISTING FLEXIBLE PIPING. PROVIDE PIPE FLANGE AND SECURE TO EXISTING CONCRETE SLAB WITH STAINLESS STEEL EXPANSION ANCHORS. PROVIDE GALVANIZED STEEL BRACKET AND REINSTALL AND CONNECT EXISTING CIVACON GROUND MONITOR.



SCALE NOTED SPEC 11-0185

CONSTRUCTION CONTRACT NO. N 40085-11-D-0185

SHEET 2 OF 8

GRAPHIC SCALE

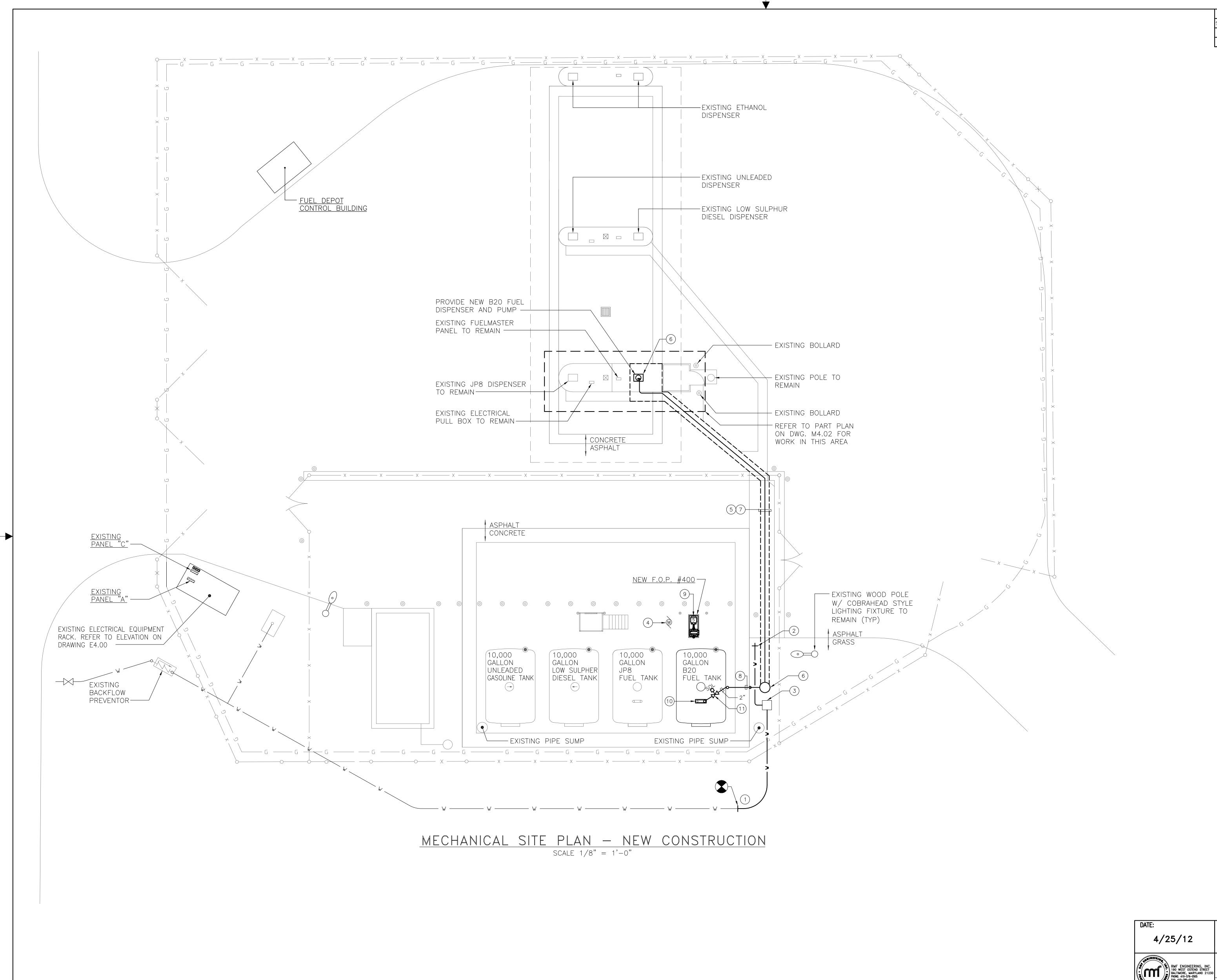
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DESCRIPTION DATE APPROVED

DRAWING NOTES:

- 1) CONNECT TO EXISTING 1"PVC DOMESTIC WATER LINE 36" BELOW FINISHED GRADE AND EXTEND 36" BELOW GRADE TO NEW LOCATION.
- (2) REINSTALL EXISTING YARD HYDRANT.
- (3) CONNECT TO EXISTING POST INDICATOR VALVE.
- (4) EXISTING FUEL UNLOADING TRANSFER PUMP SHALL REMAIN.
 REFER TO SCHEMATIC PIPING DIAGRAM ON DRAWING M4.02 FOR
 WORK IN THIS AREA.
- 5) REFER TO DRAWING M4.02 FOR SAW CUTTING, TRENCHING, BACKFILLING AND REPAIRING ASPHALT AND CONCRETE SURFACE AREAS.
- 6 PROVIDE NEW PIPE SUMP PIT, BASIS OF DESIGN IS OPW FUEL CONTAINMENT SYSTEMS. INSTALL AND TEST PER MANUFACTURER. BACKFILL WITH ROUNDED PEA GRAVEL OR SAND.
- 7 PROVIDE NEW DOUBLE WALL 4"/2" FUEL DISPENSING PIPE.
 BASIS OF DESIGN IS OPW FUEL SYSTEMS, "FLEXWORKS." INSTALL
 NEW PIPING SYSTEM IN TRENCH . REFER TO DETAIL ON DWG.
 M4.02.
- (8) INSTALL FUEL PIPING EXPOSED IN THIS AREA. TRANSITION TO UNDERGROUND AT EDGE OF CONCRETE APRON INTO SUMP PIT.
- 9 NEW B20 FUEL TRANSFER PUMP LOCATION. REFER TO DRAWING M4.01 FOR WORK IN THIS AREA. PROVIDE NEW PUMP AS MANUFACTURED BY MP PUMPS, INC. MODEL #23234 (SERIAL#: 01B1342) TO MATCH EXISTING.
- (1) PROVIDE NEW SUBMERSIBLE PUMP AND INSTALL IN TANK #400.
 PUMP SHALL BE F.E. PETRO INC. MODEL #STP75-WL2-17. 75
 HORSEPOWER, 208V. 3Ø 60HZ, CLASS 1, GROUP D, CONTINUOUS
 DUTY EXPLOSION PROOF MOTOR. (TO MATCH EXISTING)
- (1) PROVIDE A SOLENOID VALVE, CLASS 1, DIV 1, GROUP D. PROVIDE SNAP-TITE/JEFFERSON SERIES "IHA" MODEL #Z6214BBVEA-240/60, 30WATTS, 176° F, 105 PSI, 2" DIA PIPING (TO MATCH EXISTING).

A/25/12

FINAL SUBMISSION

MARINE CORPS BASE, CAMP LEJEUNE, N.C.

PUBLIC WORKS DIVISION

MARINE CORPS BASE, CAMP LEJEUNE, N.C.

DES JWM

DR MBH

CHK EJM

FUEL TANK TRANSITION BUILDING TC366

FAX: 410-385-0327

GRAPHIC SCALE

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

UNIT OF MEASURE: FEET

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MECHANICAL SITE PLAN —
NEW CONSTRUCTION

SIZE CODE IDENT NO NAVFAC DRAWING NO.
60010016

CONSTRUCTION CONTRACT NO. N 40085-11-D-018

SHEET 3 OF 8

SCALE NOTED SPEC 11-0185

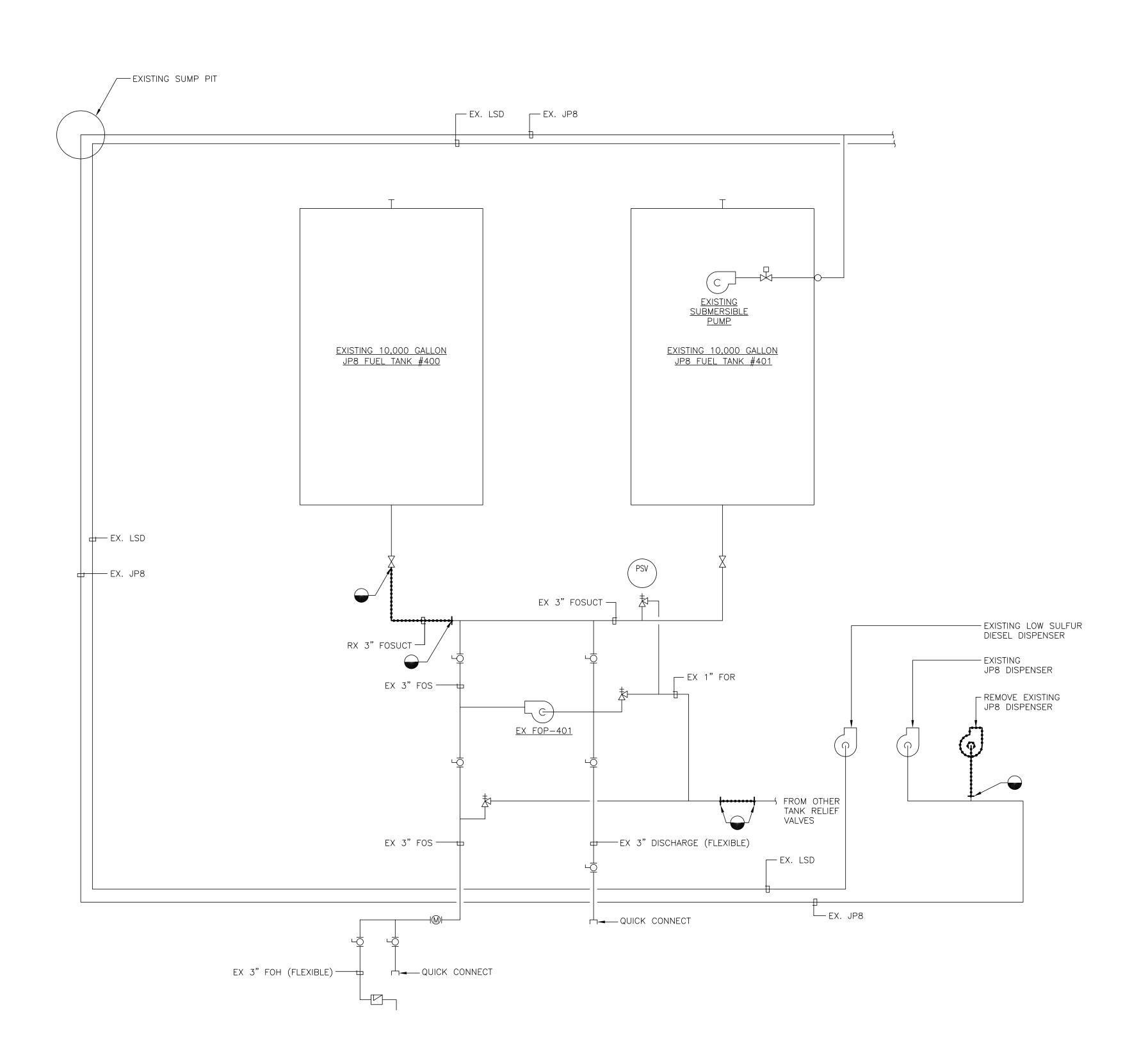
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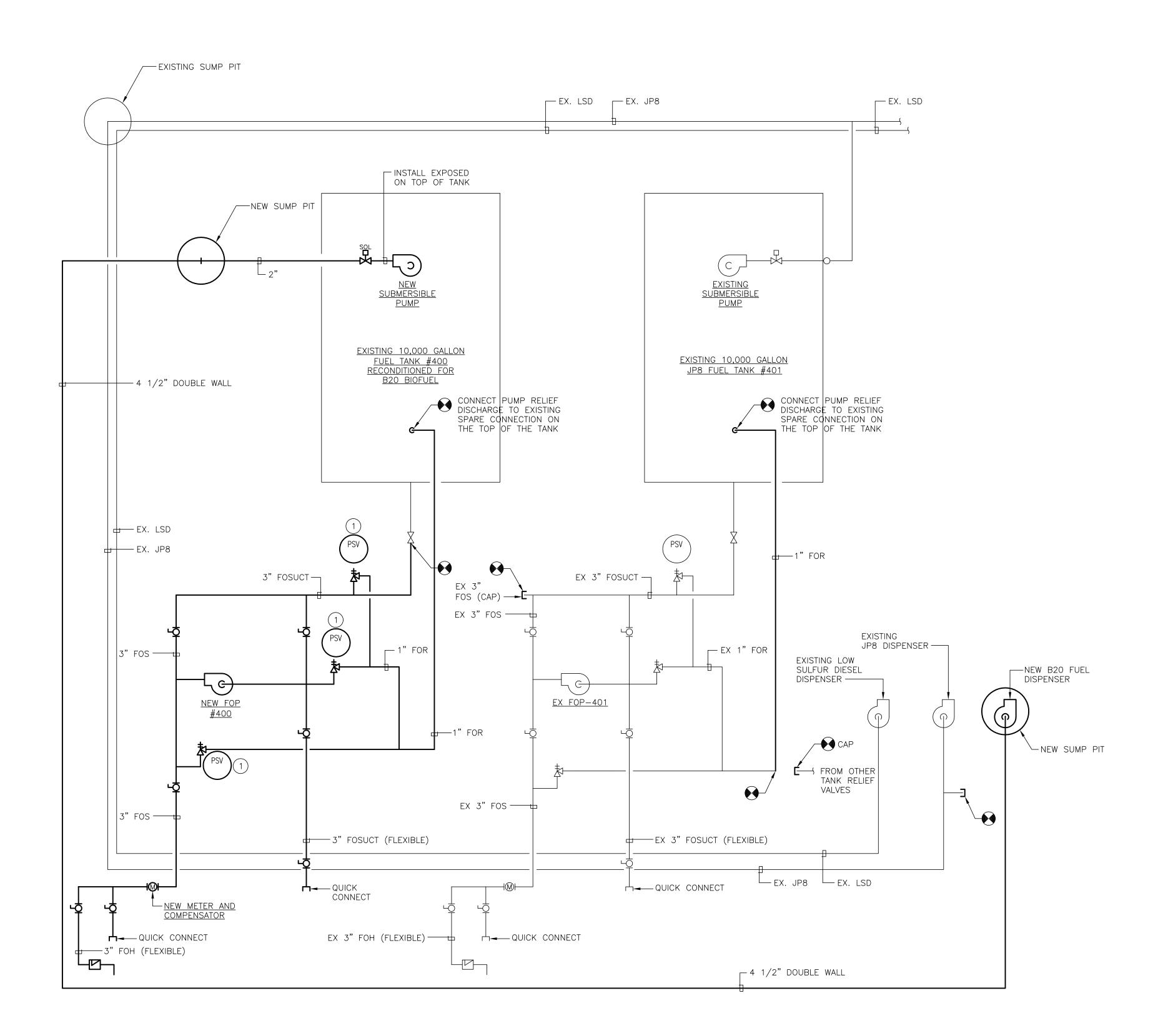
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DRAWING NOTES:

1) REPLACE SAFETY RELIEF VALVE TO MATCH EXISTING VALVES (SETPOINT, CAPACITY, MATERIAL, ETC.). EXISTING VALVE IS MANUFACTURED BY HYDROSEAL INC. TYPE 1CXV-0.0/ SET PRESSURE 9.0 PSIG, 14 GPM CAPACITY. SIZE INLET PER PIPE SIZE.



TANK 400 & 401 FUEL OIL
PIPING - SCHEMATIC - DEMOLITION
SCALE: NONE

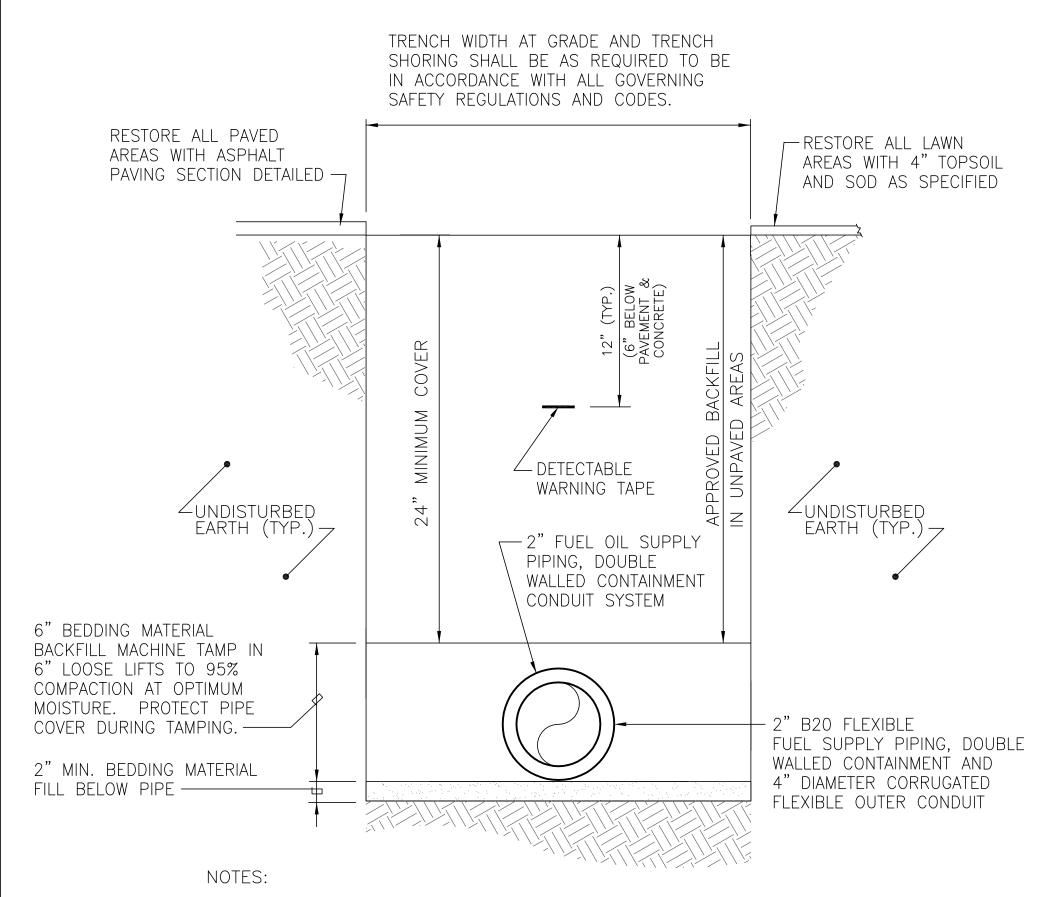


TANK 400 & 401 FUEL OIL
PIPING - SCHEMATIC - NEW WORK

SCALE: NONE

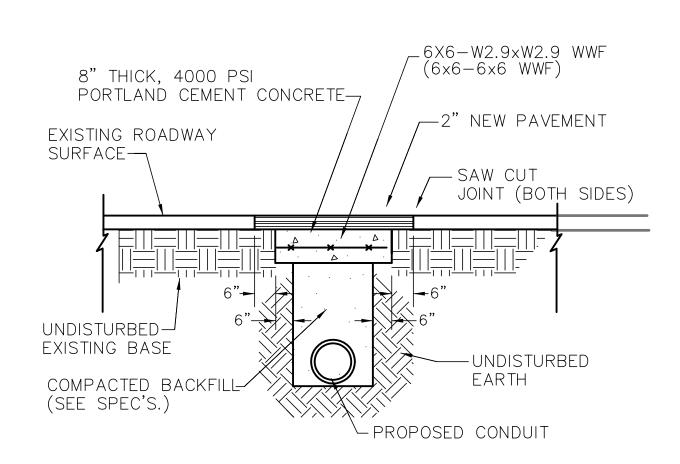
DATE: 4/25/12	FINAL SUBMISSION				M4	.01	
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RMF ENGINEERING, INC. 190 WEST OSTEND STREET AALTIMORE, MARYLAND 21230			MARINE CORPS BASE, CAMP LEJEUNE, N.C.				
FAX: 410-385-0327	DES JWM						
	DR MBH	_ 	FUEL TANK TRANSITION BUILDING TC366				
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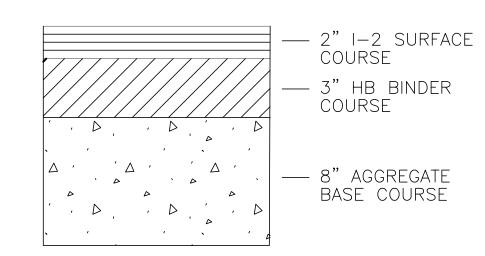


- 1. REFER TO SPECIFICATIONS FOR WALKS, BACKFILL AND REPLACEMENT OF SURFACE.
- 2. ALL EXISTING UTILITIES UNCOVERED DURING EXCAVATION SHALL BE SUPPORTED AND PROTECTED AT ALL TIMES. ALL UTILITIES DAMAGED AS A RESULT OF NEW WORK SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
- 3. REMOVE ALL DEMOLISHED MATERIALS AND UNUSED EXCAVATED EARTH FROM
- 4. INSTALL DETECTABLE WARNING TAPE ABOVE ALL UTILITIES, 12" BELOW GRADE.

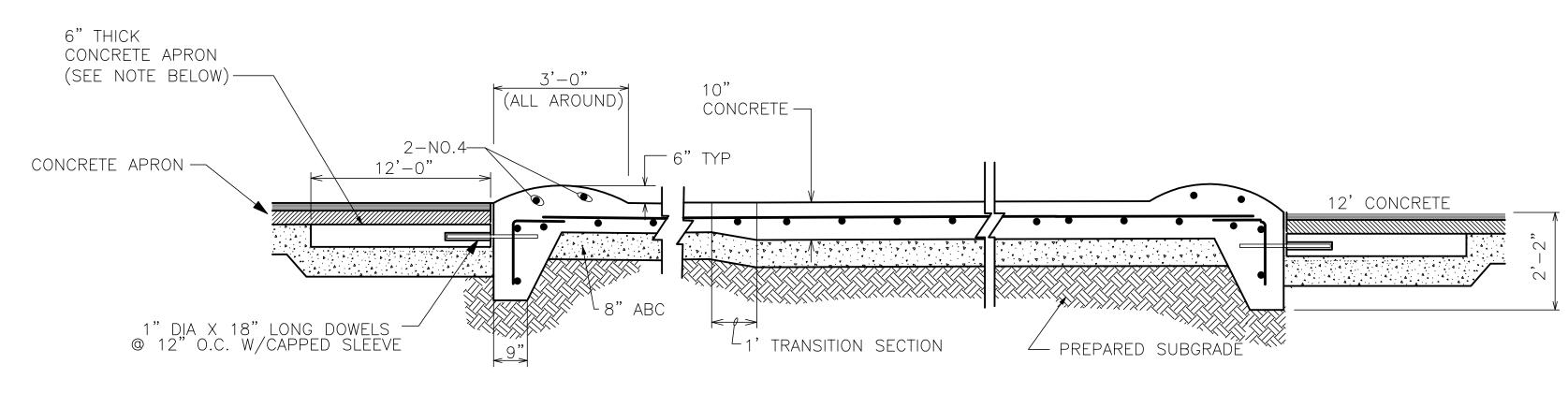
TYPICAL SECTION DIRECT BURIAL B20 FUEL PIPING



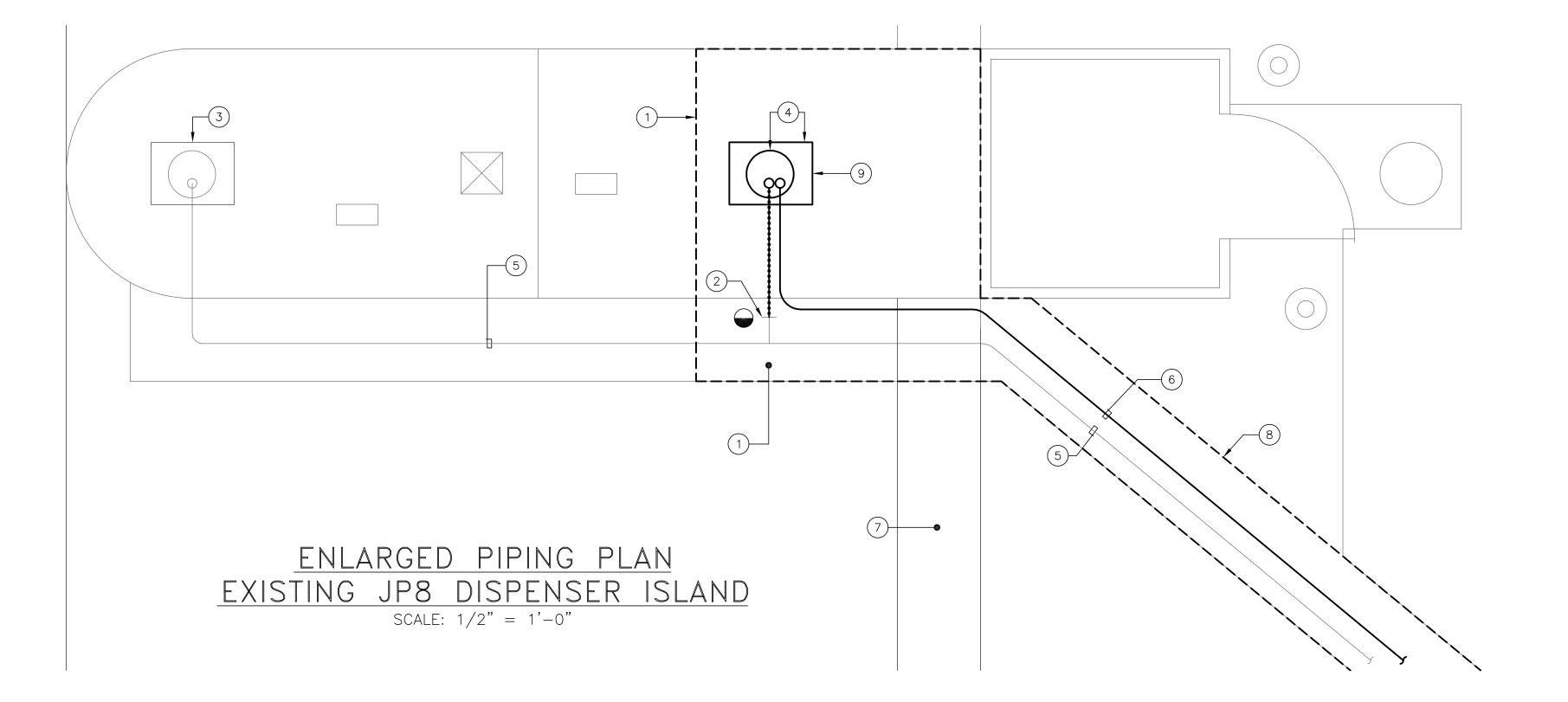
TYPICAL FLEXIBLE PAVEMENT REPAIR SCALE: NONE



TYPICAL PAVEMENT SECTION SCALE: NONE



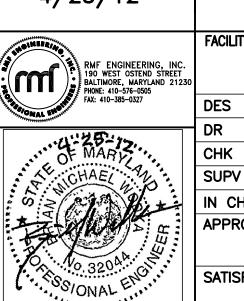
NOTE: CONCRETE APRON TYPICAL FOR ALL CONCRETE PAD TO ASPHALT PAVEMENT TRANSITIONS



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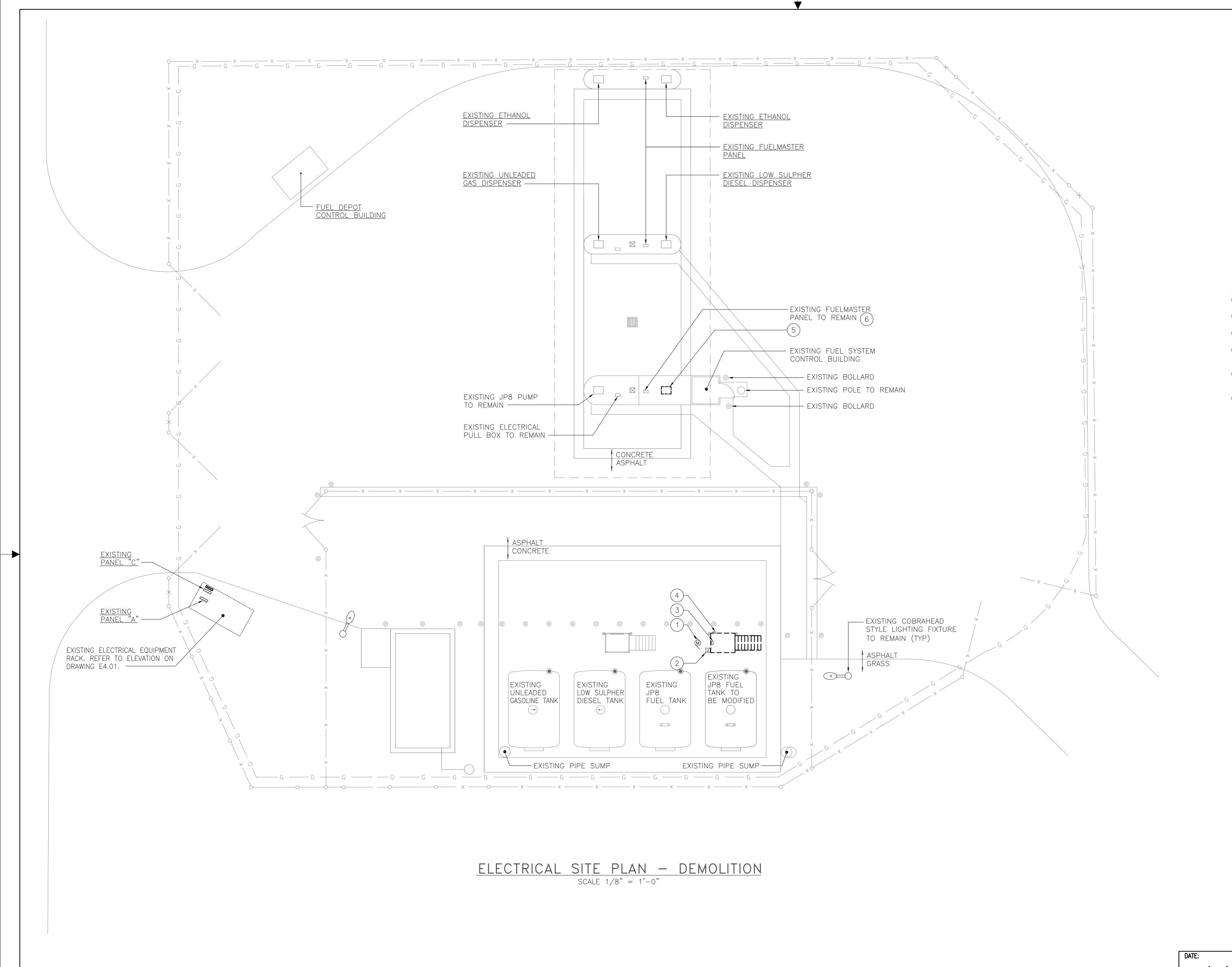
DRAWING NOTES:

- 1) SAW CUT, REMOVE AND REPLACE EXISTING CONCRETE SLAB AND FUEL DISPENSING ISLAND FOR NEW B20 FUEL SUMP PIT, PIPING AND DISPENSER.
- 2 CUT AND CAP EXISTING JP8 FUEL LINE. REMOVE FUEL PIPING TO EXISTING DISPENSER SUMP.
- (3) EXISTING JP8 DISPENSER AND SUMP. (4) PROVIDE NEW BIOFUEL DISPENSER AND SUMP
- (5) EXISTING UNDERGROUND JP8 FUEL PIPING.
- (6) NEW BIOFUEL 4"/2" DOUBLE WALL FUEL PIPING IN TRENCH. REFER TO DETAIL ON THIS SHEET.
- 7) CUT, REPAIR AND REPLACE EXISTING CONCRETE SPILL CONTAINMENT. REFER TO SECTION 1 THIS SHEET.
- 8) SAW CUT AND REMOVE EXISTING ASPHALT FOR NEW BIOFUEL PIPING INSTALLATION. REFER TO SECTION 1 THIS
- 9 REMOVE AND REPLACE EXISTING JP8 FUEL DISPENSER WITH NEW BIOFUEL DISPENSER.



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- INITE	FACILITY ENGINEERING DEPT DWG NO	DEPT OF NAVY	PUBLIC WORKS DIVISION			
RMF ENGINEERING, INC. 190 WEST OSTEND STREET BALTIMORE, MARYLAND 21230		MARINE CORPS BASE,	CAMP LEJEUNE, N.C.			
FAX: 410-385-0327	DES JWM					
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GRAPHIC SCALE SCALE: 1/2"=1'-0"
UNIT OF MEASURE: FEET



REVISIONS

SYM ZONE DESCRIPTION DATE APPROVED

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Description Date Approved

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GENERAL NOTES

1. CONTRACTOR IS RESPONSIBLE FOR LOCATION OF ALL UTILITIES.
LOCATIONS SHOWN ARE APPROXIMATE AND TAKEN FROM AVAILABLE
RECORDS. CONTRACTOR SHALL TEST PIT FOR UNDERGROUND UTILITY
CONNECTIONS, AND SHALL BE RESPONSIBLE FOR PROTECTION OF ALL
UNDERGROUND UTILITIES.

2. DURING CONSTRUCTION ACTIVITIES IN ROADWAYS, TRAFFIC CONTROL MUST CONFORM TO THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES", 2003 EDITION.

3. ALL CONSTRUCTION AREAS, EXCEPT THOSE SHOWN OTHERWISE, SHALL BE RESTORED TO THEIR ORIGINAL CONDITION USING NEW MATERIALS WHICH MATCH THE EXISTING IN STRENGTH AND TEXTURE. THIS INCLUDES AREAS DAMAGED BY CONSTRUCTION VEHICLES AND ACTIVITIES WHICH MAY OR MAY NOT BE WITHIN THE LIMITS OF WORK.

4. ANY STOCKPILED OR UNSTABILIZED SOIL SHALL BE PROTECTED FROM EROSION USING SILT FENCE. STORM DRAIN INLETS WITHIN THE WORK AREA SHALL BE PROTECTED AS DETAILED. ALL STREETS, ALLEYS, AND WALKWAYS SHALL BE SWEPT CLEAN OF SOIL AS NEEDED. DURING TRENCHING OPERATIONS, SOIL SHOULD BE PLACED ON THE UPHILL SIDE OF THE TRENCH WHEN POSSIBLE.

DRAWING NOTES:

- 1) EXISTING 5HP TANK 401 FILL TANK PUMP TO REMAIN.
- 2) REMOVE AND RELOCATE EXISTING ELECTRICAL JUNCTION BOX.
- (3) REMOVE AND RELOCATE EXISTING STOP/START SWITCH.
- (4) REMOVE AND RELOCATE EXISTING EMERGENCY GROUND MONITOR.
- (5) REMOVE EXISTING JP8 FUEL DISPENSER. EXISTING POWER AND CONTROL WIRING AND CONDUITS SHALL REMAIN FOR REUSE.
- 6 EXISTING FLUIDMASTER PANEL SHALL REMAIN. EXISTING POWER AND CONTROL WIRING AND CONDUITS SHALL REMAIN FOR REUSE.

FINAL SUBMISSION

FACILITY ENGINEERING DEPT DWG NO

DEPT OF NAVY

MARINE CORPS BASE, CAMP LEJEUNE, N.C.

PUBLIC WORKS DIVISION

MARINE CORPS BASE, CAMP LEJEUNE, N.C.

DES JWM

DR MBH

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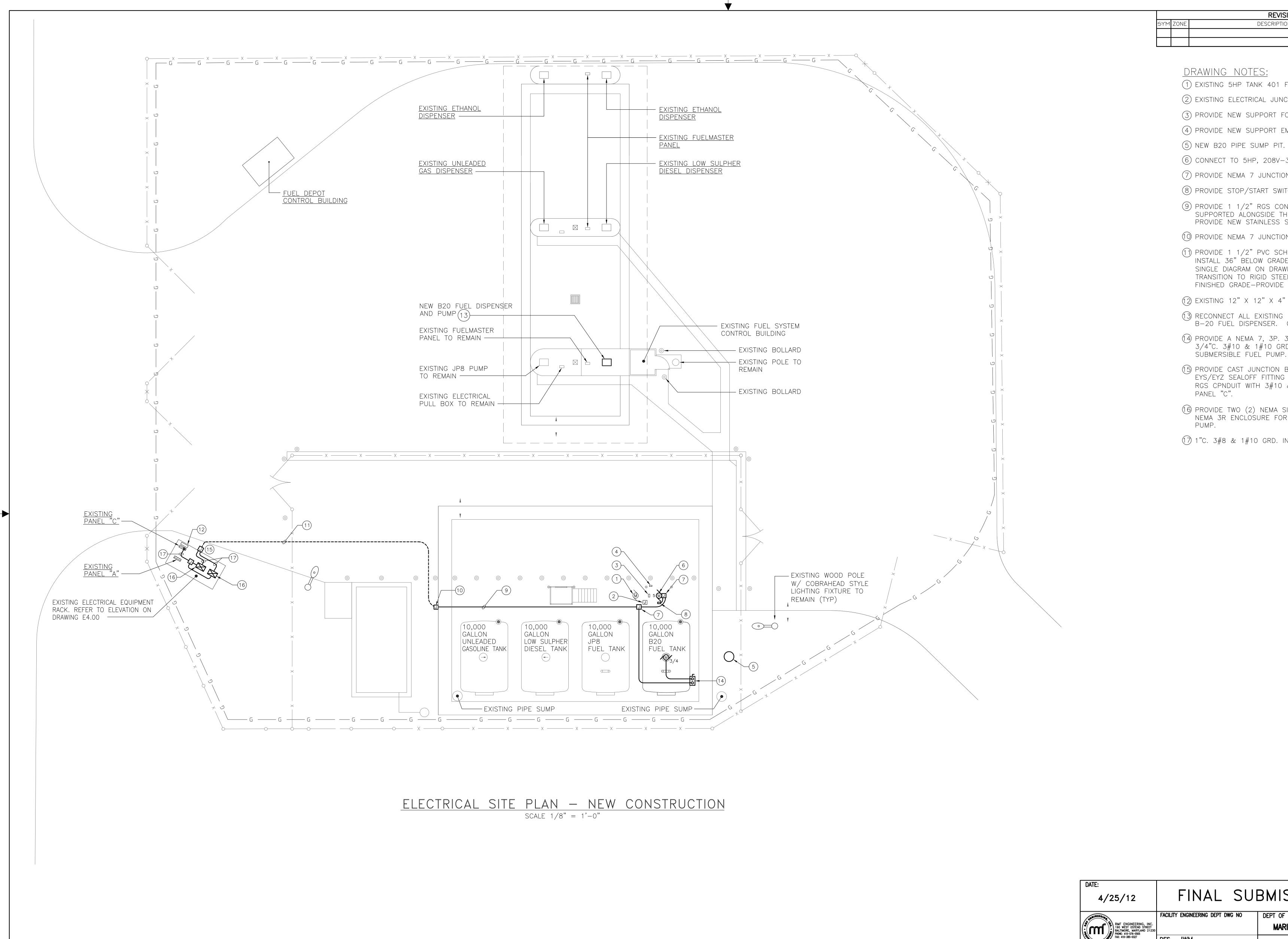
CONSTRUCTION CONTRACT NO. N 40085-11-D-0185

SHEET 6 OF 8

GRAPHIC SCALE

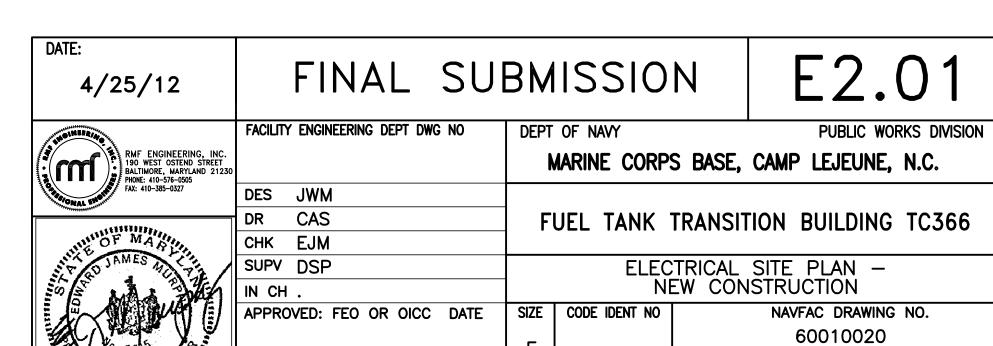
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REVISIONS DESCRIPTION APPROVED

- (1) EXISTING 5HP TANK 401 FILL TRANSFER PUMP TO REMAIN.
- (2) EXISTING ELECTRICAL JUNCTION BOX TO REMAIN.
- (3) PROVIDE NEW SUPPORT FOR STOP/START SWITCH.
- 4) PROVIDE NEW SUPPORT EMERGENCY GROUND MONITOR.
- 6 CONNECT TO 5HP, 208V-3PH, B20 FUEL TANK FILL PUMP.
- (7) PROVIDE NEMA 7 JUNCTION BOX FOR POWER.
- 8 PROVIDE STOP/START SWITCH IN NEMA 7 ENCLOSURE.
- 9) PROVIDE 1 1/2" RGS CONDUIT WITH 6#8 & 2#10 GRD. SUPPORTED ÁLONGSIDE THE EXISTING POWER CONDUITS. PROVIDE NEW STAINLESS STEEL HARDWARE FOR ALL SUPPORTS.
- 10 PROVIDE NEMA 7 JUNCTION BOX.
- (1) PROVIDE 1 1/2" PVC SCHEDULE 40 CONDUIT 6#8 & 2#10 GRD. INSTALL 36" BELOW GRADE FOR POWER CONDUCTORS (REFER TO SINGLE DIAGRAM ON DRAWING E4.00 FOR MORE INFORMATION). TRANSITION TO RIGID STEEL AT ELBOW PRIOR TO RISE ABOVE FINISHED GRADE-PROVIDE EYS/EYZ SEALOFF FOR ALL CONDUITS.
- (12) EXISTING 12" X 12" X 4" NEMA 3R JUNCTION BOX.
- (13) RECONNECT ALL EXISTING POWER AND CONTROL WIRING TO NEW B-20 FUEL DISPENSER. COORDINATE IN THE FIELD.
- (14) PROVIDE A NEMA 7, 3P. 30A. DISCONNECT SWITCH. EXTEND 3/4"C. 3#10 & 1#10 GRD. TO TOP OF TANK. CONNECT TO NEW SUBMERSIBLE FUEL PUMP.
- (15) PROVIDE CAST JUNCTION BOX WITH THREADED HUBS. PROVIDE EYS/EYZ SEALOFF FITTING FOR EACH CONDUIT. EXTEND 3/4" RGS CPNDUIT WITH 3#10 & 1#10 GRD. TO EACH STARTER AND
- (6) PROVIDE TWO (2) NEMA SIZE "1" MAGNETIC MOTOR STARTERS IN NEMA 3R ENCLOSURE FOR UNLOADING PUMP AND SUBMERSIBLE
- 1"C. 3#8 & 1#10 GRD. IN EACH.



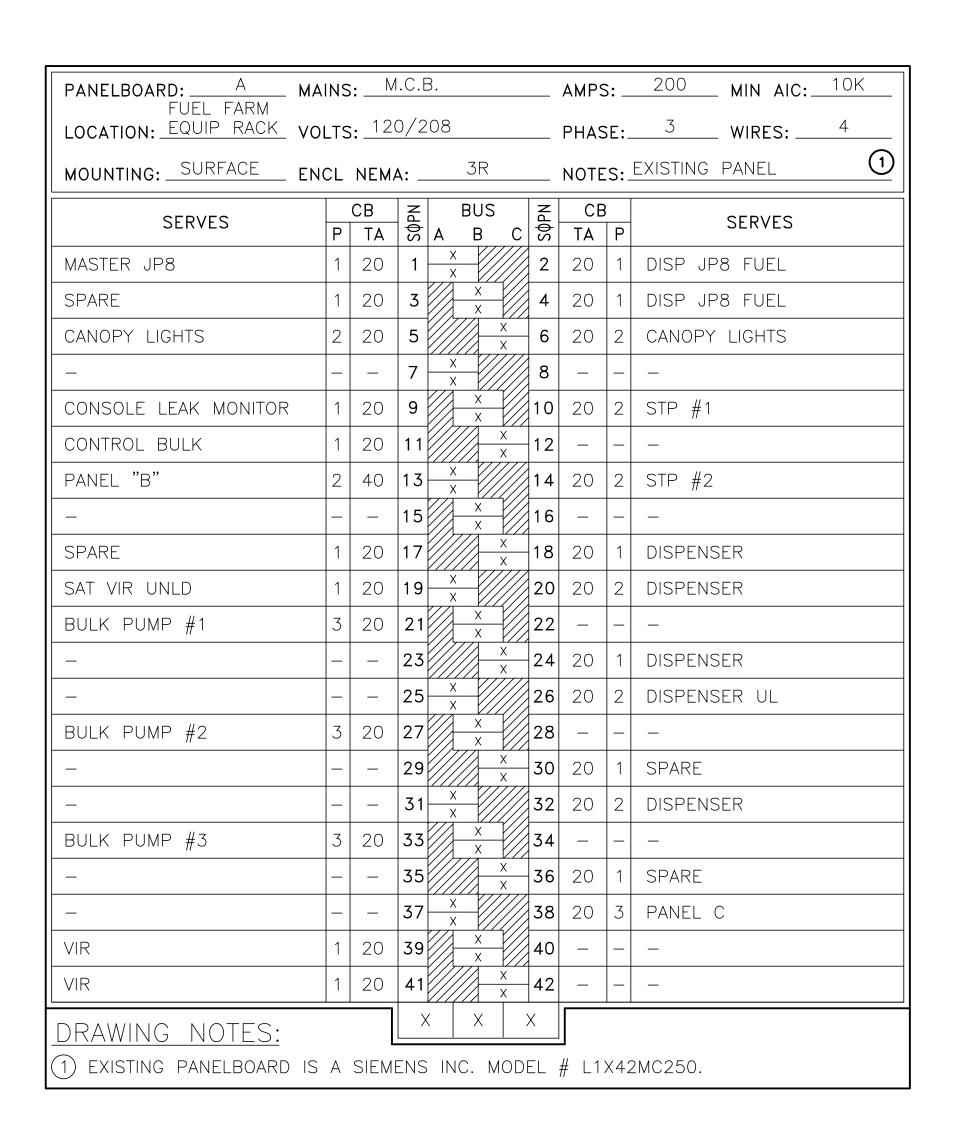
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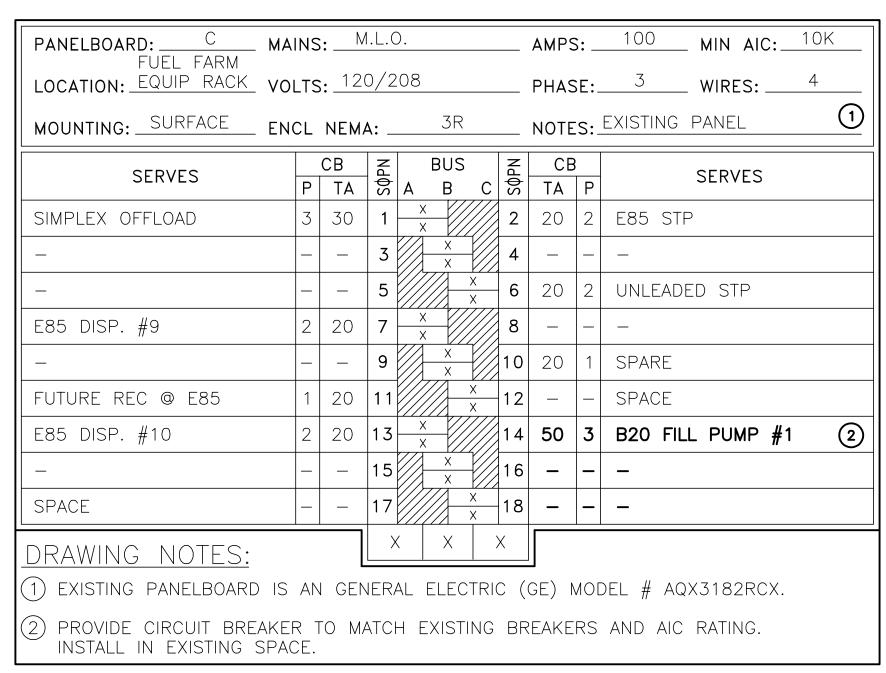
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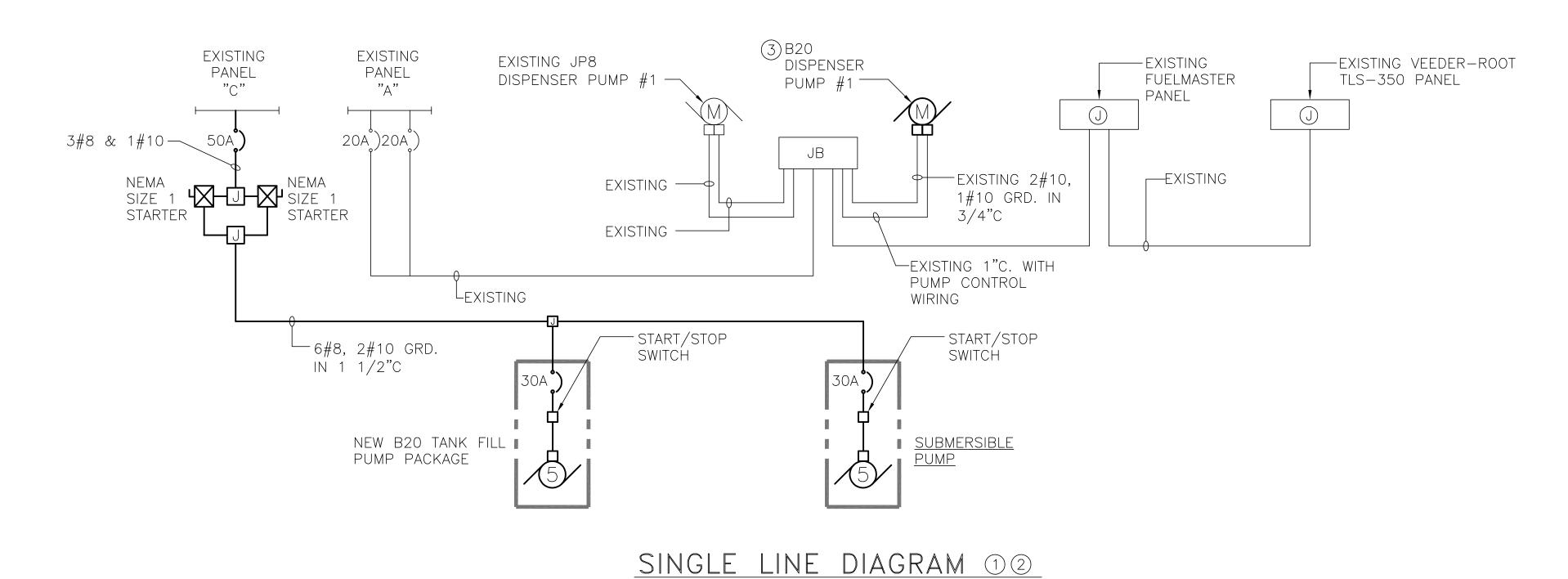
CONSTRUCTION CONTRACT NO. N 40085-11-D-0185

SHEET 7 OF 8

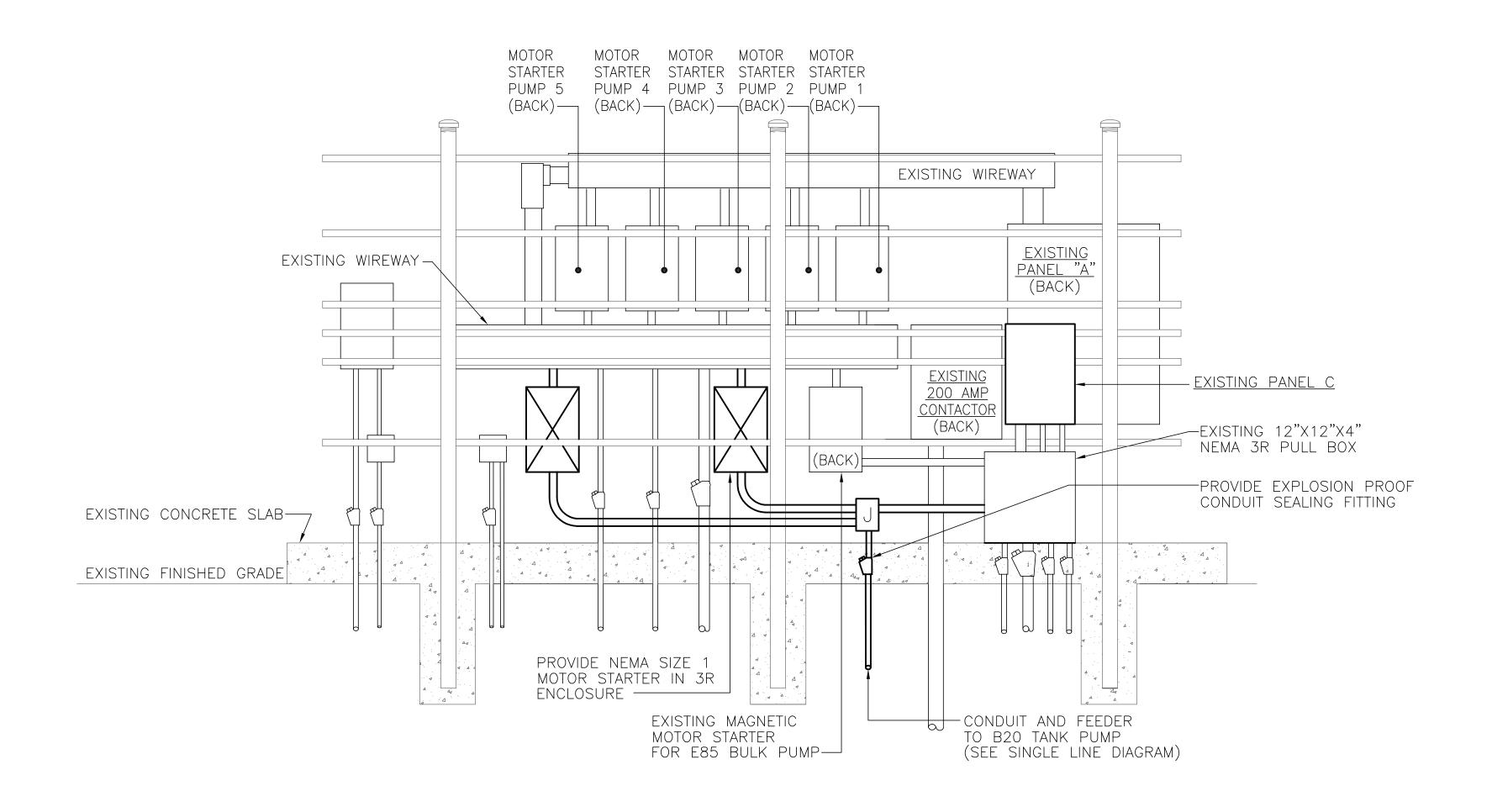
GRAPHIC SCALE SCALE: 1/8"=1'-0'UNIT OF MEASURE: FEET







SCALE: NONE

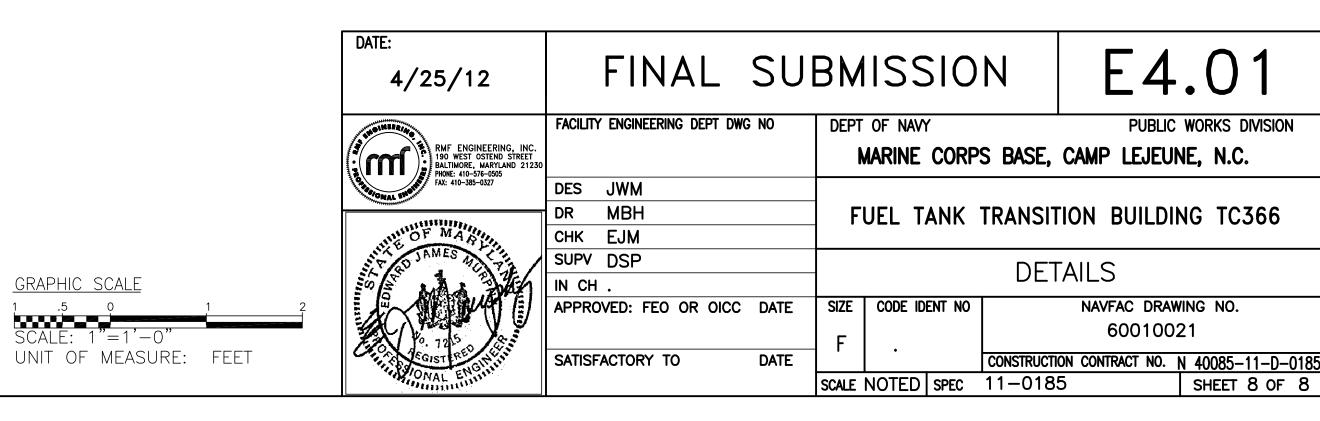


REAR VIEW - ELECTRICAL RACK DETAIL SCALE: 1"=1'-0"

REVISIONS DESCRIPTION DATE APPROVED

DRAWING NOTES:

- (1) ALL RACEWAYS SHALL BE INSTALLED IN ACCORDANCE WITH NEC. ARTICLE 500, CLASS 1, DIVISION 1 REQUIREMENTS.
- (2) REFER TO PANEL SCHEDULE FOR NUMBER OF POLES FOR EACH CIRCUIT BREAKER SHOWN.
- 3 REUSE EXISTING FEEDER/CONDUIT AND CONTROL WIRING/CONDUIT SHOWN.



E4.01

60010021

PUBLIC WORKS DIVISION

SHEET 8 OF 8