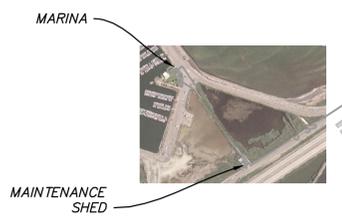
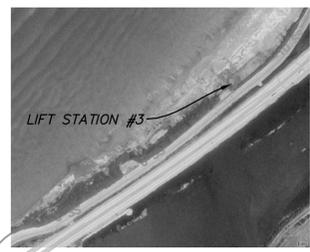
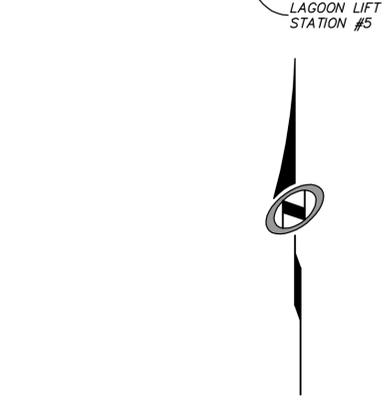
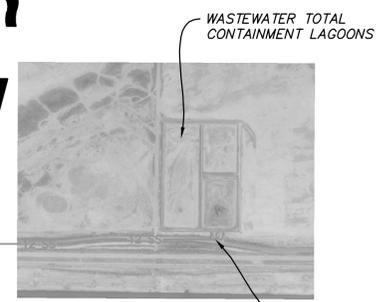
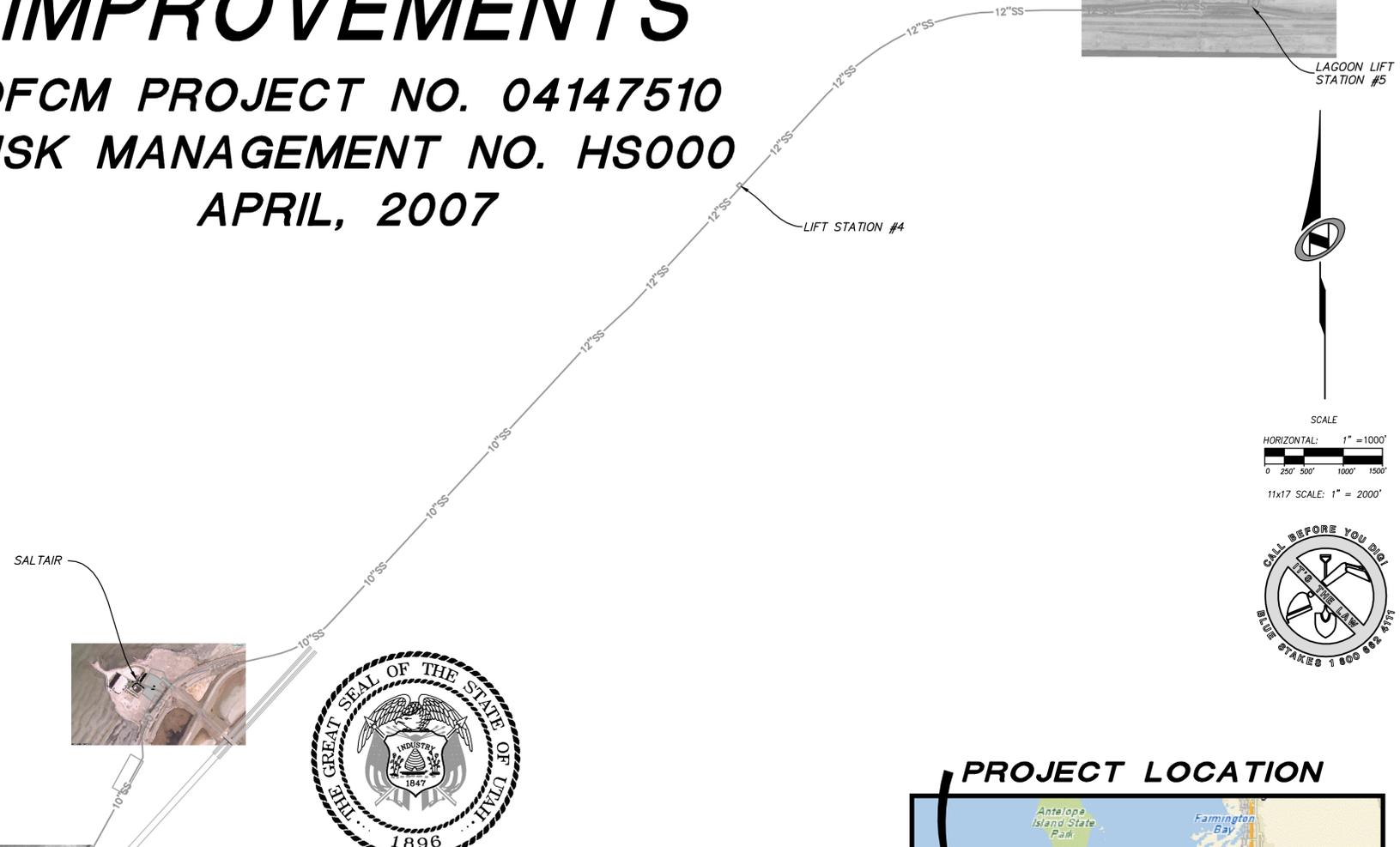


GREAT SALT LAKE MARINA, SALTAIR AND LAGOON WASTEWATER SYSTEM IMPROVEMENTS

DFCM PROJECT NO. 04147510
 RISK MANAGEMENT NO. HS000
 APRIL, 2007

SHEET INDEX

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2. CD102 GENERAL NOTES, ABBREVIATIONS, AND LEGEND
3. CD103 OVERALL SITE PLAN
4. CD104 MAINTENANCE SHED SITE PLAN
5. CD105 LIFT STATION #3 SITE PLAN
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23. E501 ELECTRICAL DETAILS

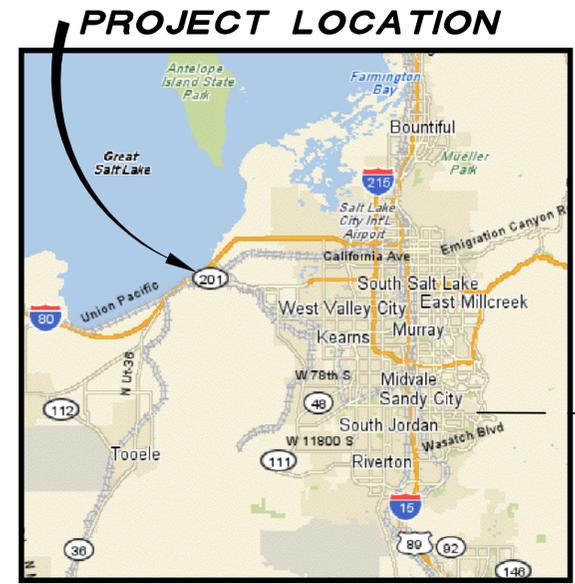


State of Utah—Department of Administrative Services
DIVISION OF FACILITIES CONSTRUCTION AND MANAGEMENT
 4110 State Office Building/Salt Lake City, Utah 84114/538-3018

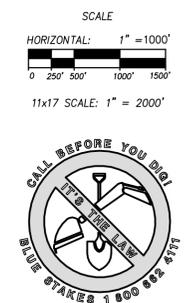
APPROVALS:

DFCM _____	Date _____
DIVISION OF PARKS & RECREATION _____	Date _____
DIVISION OF FORESTRY, FIRE & STATE LANDS _____	Date _____

APPROVAL DOES NOT RELIEVE A/E OF DESIGN LIABILITY



VICINITY MAP
 NOT TO SCALE



CREATED BY: NOLTE ASSOCIATES



SITE/LOCATION
 RM#: HS000
 SALTAIR/MARINA
 GREAT SALT LAKE &
 I-80 AT SALTAIR,
 UTAH

PROJECT TITLE
 GREAT SALT LAKE
 MARINA, SALTAIR &
 LAGOON WASTEWATER
 SYSTEM IMPROVEMENTS

MARK	DATE	DESCRIPTION
		ISSUE TYPE: CONSTRUCTION SET
		ISSUE DATE: APRIL, 2007

DFCM PROJECT NO: 04147510
 RISK MANAGEMENT NO: HS000
 CAD PROJECT NO: SLB0264
 CAD DWG FILE: IP01T.DWG
 DRAWN BY: JLB, JWS, KLH, CLN
 CHK'D BY: DWJ
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SHEET TITLE

TITLE SHEET

SHEET NUMBER

CD101

SHEET 1 OF 22

GENERAL NOTES

- CONTRACTOR SHALL CALL BLUE STAKES (800) 862-4111 FOR UNDERGROUND UTILITY MARKING AT LEAST 48 HOURS PRIOR TO COMMENCEMENT OF ANY EXCAVATION. ALL SEWER AND OTHER UTILITY INFORMATION SHOWN IS TAKEN FROM PLANS, AND A PARTIAL FIELD INVESTIGATION. PRIOR TO BEGINNING EXCAVATION, CONTRACTOR SHALL VERIFY VERTICAL AND HORIZONTAL LOCATION OF EXISTING SEWER SYSTEM AND OTHER UTILITIES WHICH CROSS IT. CONTRACTOR SHALL IMMEDIATELY REPORT ANY DISCREPANCIES OR CONFLICTS TO ENGINEER FOR RESOLUTION.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERTICALLY AND HORIZONTALLY LOCATE ALL LINES, UTILITIES, LIFT STATIONS, AND MANHOLES PRIOR TO COMMENCING CONSTRUCTION.
- THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES/OBSTRUCTIONS SHOWN HEREON ARE APPROXIMATE ONLY. ALL UTILITIES/OBSTRUCTIONS MAY NOT BE SHOWN. CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND PROTECTING ALL UNDERGROUND UTILITIES/OBSTRUCTIONS, WHETHER OR NOT SHOWN.
- CONTRACTOR SHALL COORDINATE AND OBTAIN ALL CONSTRUCTION PERMITS REQUIRED BY REGULATORY AUTHORITIES.
- CONTRACTOR SHALL MAKE THEMSELVES AWARE OF ALL CONSTRUCTION REQUIREMENTS, CONDITIONS, AND LIMITATIONS IMPOSED BY PERMITS AND APPROVALS ISSUED BY REGULATORY AUTHORITIES PRIOR TO COMMENCEMENT OF WORK.
- SAFETY MEASURES, CONSTRUCTION METHODS AND CONTROL OF WORK SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- UTILITY SERVICES TO EXISTING STRUCTURES MAY NOT BE SHOWN. THEY DO EXIST AND SHALL BE PROTECTED AND KEPT IN SERVICE AT NO ADDITIONAL COST TO OWNER.
- CONTRACTOR SHALL PROVIDE ALL TEMPORARY FACILITIES REQUIRED TO COMPLETE THE WORK DESCRIBED IN THESE SPECIFICATIONS AND DRAWINGS. SUCH TEMPORARY FACILITIES MAY OR MAY NOT BE SHOWN ON THE DRAWINGS. THE COST OF SUCH TEMPORARY FACILITIES SHALL BE INCLUDED IN THE LUMP SUM BID.
- BIDDERS/CONTRACTORS ARE RESPONSIBLE FOR VISITING THE SITE PRIOR TO SUBMITTING PROPOSALS TO MAKE THEMSELVES AWARE OF ANY POTENTIAL PROBLEMS WHILE CONSTRUCTING THE FACILITIES PER THE CONTRACT DOCUMENTS.
- CONTRACTORS SHALL BE RESPONSIBLE FOR DUST CONTROL AND PERMITS.
- ACCESS TO THE PROJECT WILL BE FROM PUBLIC AND/OR PRIVATE RIGHT OF WAY.
- CONTRACTOR SHALL BE AWARE OF EXISTING SOIL CONDITIONS.
- CURB AND GUTTER AND SIDEWALK TO BE REMOVED, SHALL BE REMOVED TO NEAREST CONTRACTION JOINT, MATCHING PLAN AS CLOSELY AS POSSIBLE.
- CONTRACTOR SHALL VERIFY ORIGIN AND ABANDONMENT OF ALL TRIBUTARY SEWER LINES TO PROPOSED SEWER TO BE ABANDONED.
- ALL NEW BURIED PIPE SHALL BE INSTALLED AS NOTED IN THE DRAWINGS, WITHOUT HIGH OR LOW POINTS EXCEPT AT ENDS.
- ALL PRECAST VAULTS TO BE CONSTRUCTED WITH SUFFICIENT REINFORCING STEEL TO MEET THE LATEST VERSION ON ACI 318 REQUIREMENTS.
- ALL JOINTS IN NEW PRE-CAST CONCRETE VAULTS SHALL BE WATERTIGHT.
- COORDINATE UNAVOIDABLE INTERRUPTION SERVICE WITH STATE PARKS DEPT.

ABBREVIATIONS

APWA	AMERICAN PUBLIC WORKS ASSOC.	MIN	MINIMUM
AC	ASPHALTIC CONCRETE	N	NORTH
&	AND	NG	NATURAL GRADE
APPR.	APPROXIMATELY	NIC	NOT IN CONTRACT
⊙	AT	NTS	NOT TO SCALE
BF	BUILDING FOUNDATION	O.C.	ON CENTER
CMP	CORRUGATED METAL PIPE	OH	OVERHEAD
CL OR ☉	CENTERLINE	PL	PROPERTY LINE
CONC	CONCRETE	POC	POINT ON CURVE
DET	DETAIL	PP	POWER POLE
DIA	DIAMETER	PVC	POLYVINYL CHLORIDE
D.I.P.	DUCTILE IRON PIPE	PUE	PUBLIC UTILITY EASEMENT
EG	EXISTING GRADE	R	RADIUS
EP	EDGE OF PAVEMENT	RCP	REINFORCED CONCRETE PIPE
ELEV	ELEVATION	R.O.W.	RIGHT-OF-WAY
ESMT	EASEMENT	SS	SANITARY SEWER
EX.	EXISTING	SD	STORM DRAIN
FF	FINISH FLOOR	SW	SIDEWALK
FH	FIRE HYDRANT	SCH	SCHEDULE
FL	FLOWLINE	S.F.	SQUARE FEET
FT	FEET	SHT	SHEET
HP	HIGH POINT	SIM	SIMILAR
IR OR IRR	IRRIGATION	STD	STANDARD
IE	INVERT ELEVATION	TBC	TOP BACK OF CURB
L	LENGTH	TOG	TOP OF GRATE
L.F.	LINEAR FEET	TYP	TYPICAL
LP	LOW POINT	VAR	VARIES
MAX	MAXIMUM	W OR WT	WATER
MH	MANHOLE	W/	WITH

DISCLAIMER

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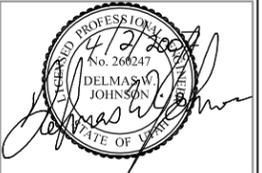
LEGEND

	EXISTING SIDEWALK		EXISTING WATER VALVE		EXISTING IRRIGATION
	EXISTING EDGE OF ASPHALT		EXISTING IRRIGATION VALVE		EXISTING WATER
	EXISTING CURB AND GUTTER		EXISTING CONTOUR		EXISTING WATER (ABANDONED)
	EXISTING TREE		EXISTING CHAINLINK FENCE		EXISTING SANITARY SEWER
	EXISTING FIRE HYDRANT		REMOVE AND REPLACE EXISTING ASPHALT AND CURB AND GUTTER, TRENCH FOR NEW SEWER LINE PER DETAIL (B/CD107)		EXISTING STORM DRAIN
	EXISTING INLET BOX/SUMP/UTILITY BOX				EXISTING UNDERGROUND ELECTRIC
	EXISTING IRRIGATION VALVE BOX				EXISTING UNDERGROUND TELEPHONE
	EXISTING LIGHT POLE				EXISTING GAS
	EXISTING STORM DRAIN LINE				PROPOSED SLIPLINED & BURIED SANITARY SEWER
	EXISTING CURB INLET BOX				
	EXISTING STORM DRAIN INLET				
	EXISTING STORM DRAIN MANHOLE/CLEANOUT				
	EXISTING SANITARY SEWER LINE				
	EXISTING SANITARY SEWER MANHOLE				
	EXISTING WATER MANHOLE OR VAULT				

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CREATED BY: NOLTE ASSOCIATES



SITE/LOCATION

RM#: HS000
SALT AIR/MARINA
GREAT SALT LAKE &
I-80 AT SALT AIR,
UTAH

PROJECT TITLE

GREAT SALT LAKE
MARINA, SALT AIR &
LAGOON WASTEWATER
SYSTEM IMPROVEMENTS

MARK DATE DESCRIPTION

ISSUE TYPE: CONSTRUCTION SET

ISSUE DATE: APRIL, 2007

DFCM PROJECT NO: 04147510

RISK MANAGEMENT NO: HS000

CAD PROJECT NO: SLB0264

CAD DWG FILE: IP02GN.DWG

DRAWN BY: JLB, JWS, CLN

CHK'D BY: DWJ

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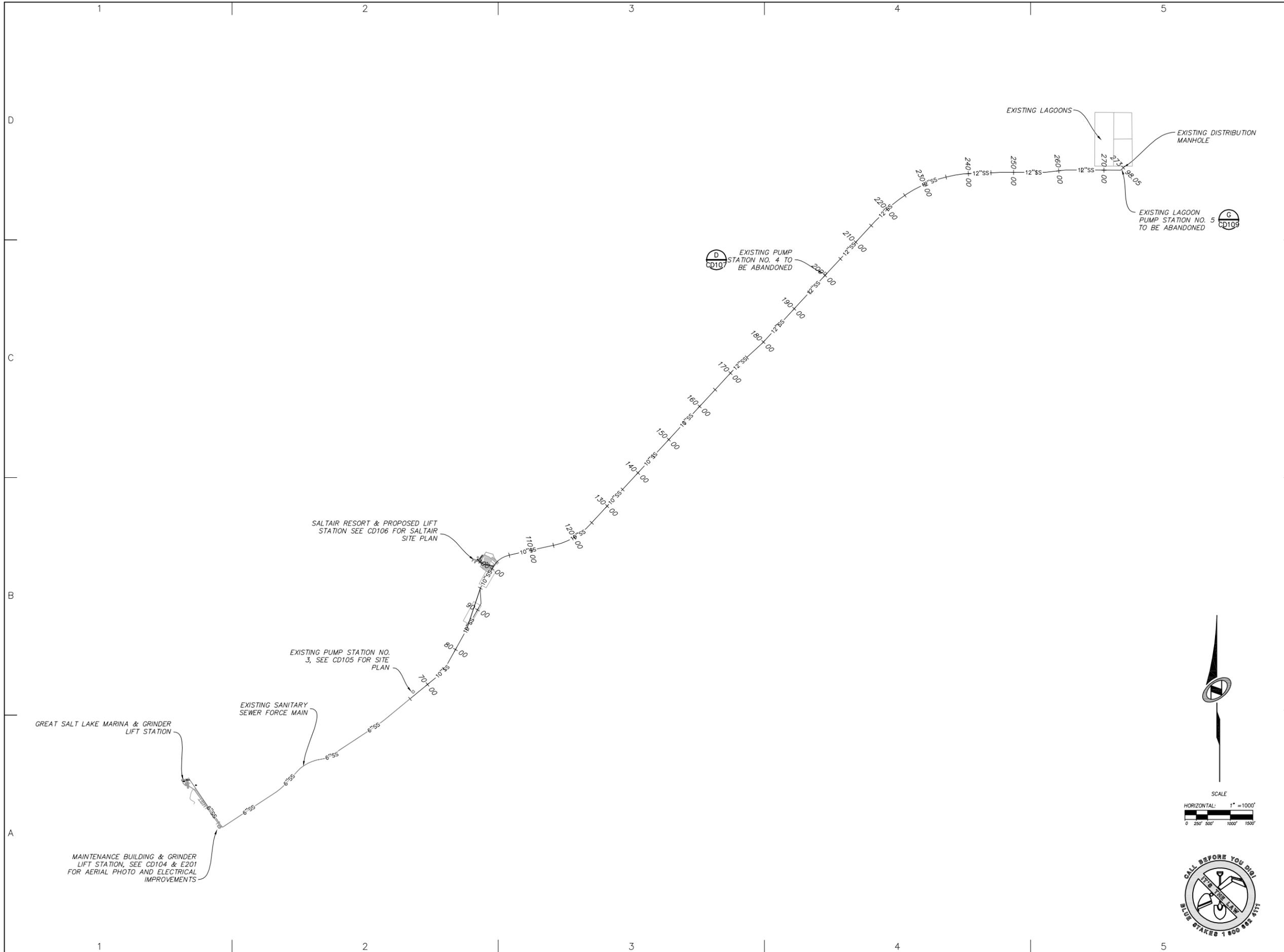
SHEET TITLE

GENERAL NOTES
ABBREVIATIONS, AND
LEGEND

SHEET NUMBER

CD102

SHEET 2 OF 22



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SITE/LOCATION

RM#: HS000
SALTAIR/MARINA
GREAT SALT LAKE &
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PROJECT TITLE

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ISSUE DATE: APRIL, 2007		

DFCM PROJECT NO:	04147510
RISK MANAGEMENT NO:	HS000
CAD PROJECT NO:	SLB0264
CAD DWG FILE:	IP03SP.DWG
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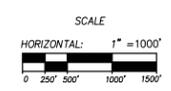
SHEET TITLE

OVERALL SITE PLAN

SHEET NUMBER

CD103

SHEET 3 OF 22





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ISSUE TYPE: CONSTRUCTION SET

ISSUE DATE: APRIL, 2007

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RISK MANAGEMENT NO: HS000

CAD PROJECT NO: SLB0264

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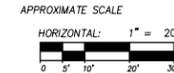
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LIFT STATION #3
SITE PLAN

SHEET NUMBER

CD105

SHEET 5 OF 22





SITE/LOCATION

RM#: HS000
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UTAH

PROJECT TITLE

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MARINA, SALTAIR &
LAGOON WASTEWATER
SYSTEM IMPROVEMENTS

MARK DATE DESCRIPTION

ISSUE TYPE: CONSTRUCTION SET

ISSUE DATE: APRIL, 2007

DFCM PROJECT NO: 04147510

RISK MANAGEMENT NO: HS000

CAD PROJECT NO: SLB0264

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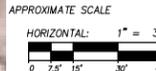
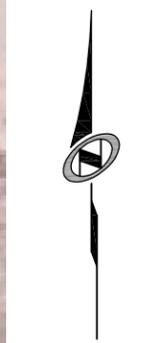
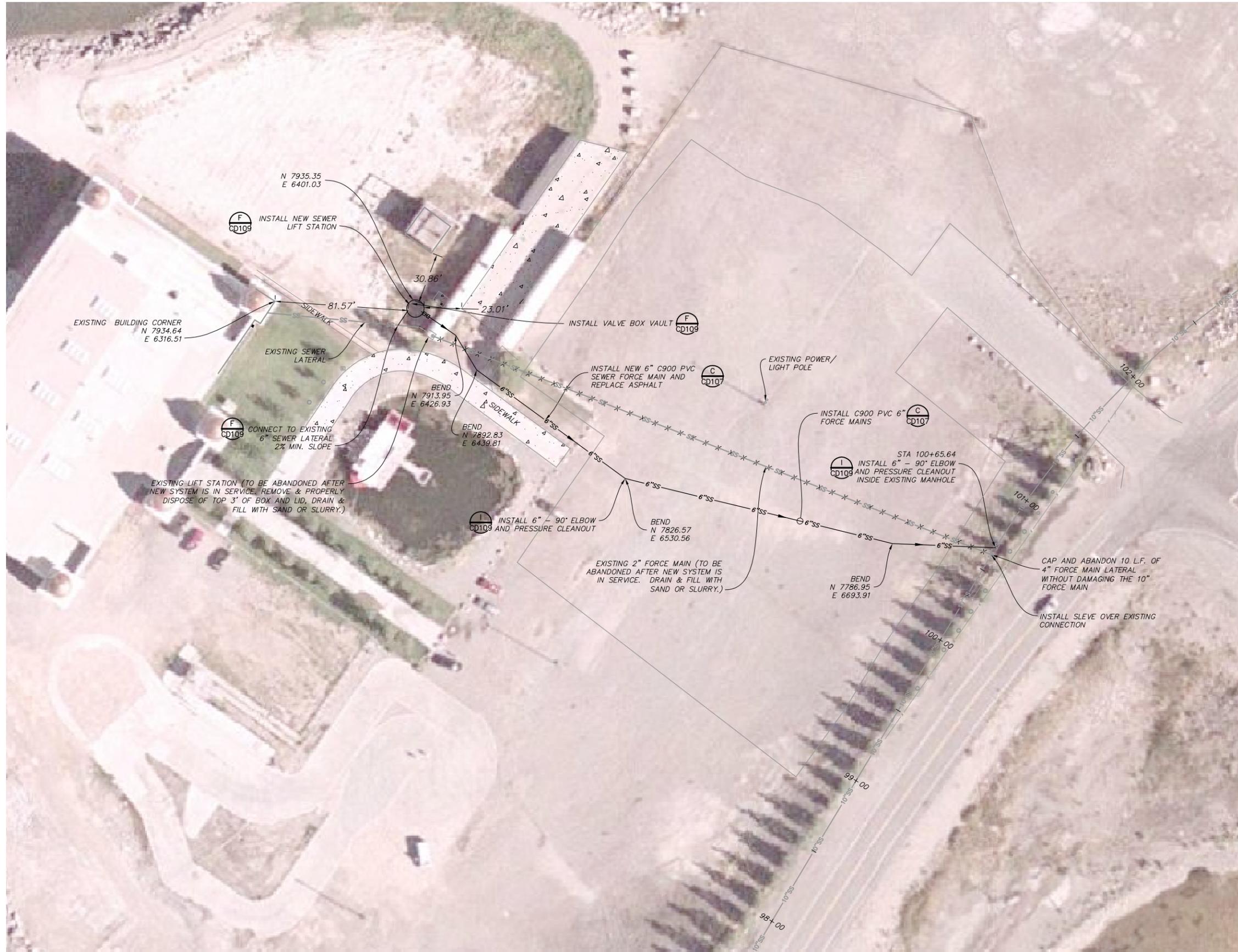
SHEET TITLE

SALTAIR SITE PLAN

SHEET NUMBER

CD106

SHEET 6 OF 22



1 2 3 4 5

D

C

B

A

1 2 3 4 5



SITE/LOCATION

RM#: HS000
SALT AIR/MARINA
GREAT SALT LAKE &
I-80 AT SALT AIR,
UTAH

PROJECT TITLE

GREAT SALT LAKE
MARINA, SALT AIR &
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SYSTEM IMPROVEMENTS

MARK DATE DESCRIPTION

ISSUE TYPE: CONSTRUCTION SET

ISSUE DATE: APRIL, 2007

DFCM PROJECT NO: 04147510

RISK MANAGEMENT NO: HS000

CAD PROJECT NO: SLB0264

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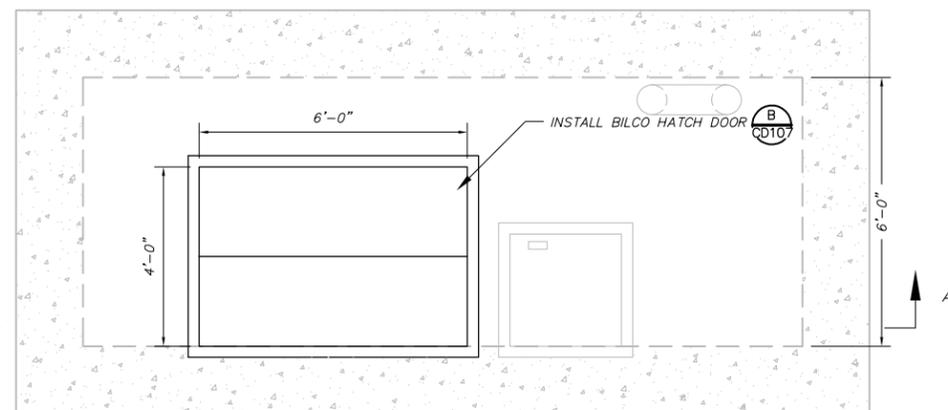
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LIFT STATION #3 DETAILS

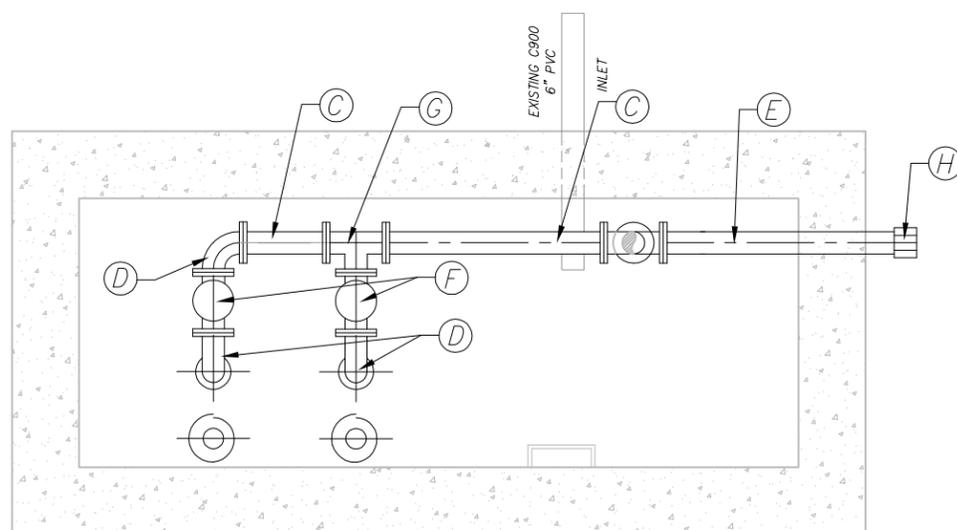
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CD108

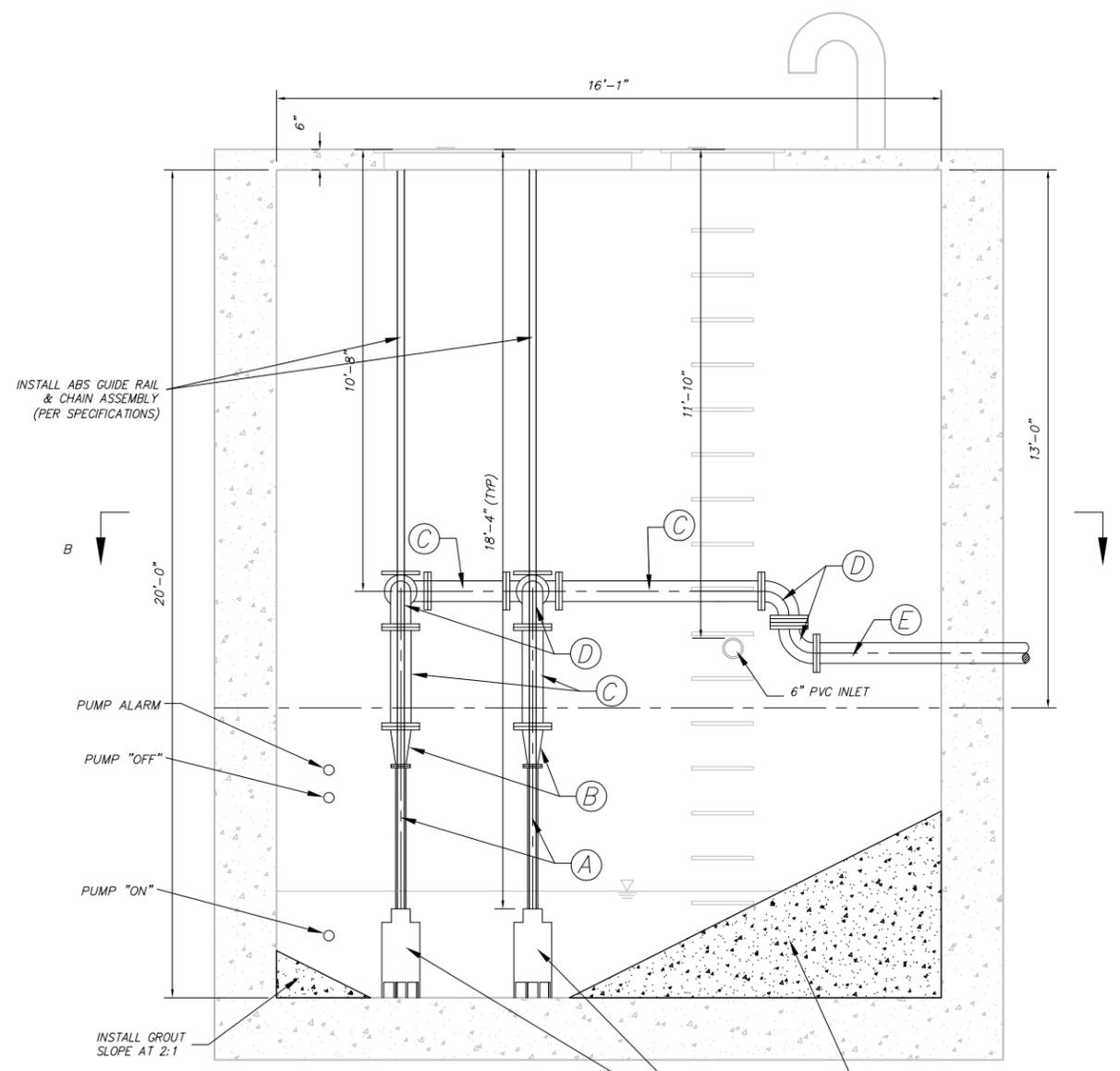
SHEET 7 OF 22



VAULT LID



SECTION B-B



SECTION A-A

NOTE:
1. PIPE DEPTH IS APPROXIMATED

INSTALL ABS 0841 DUPLEX SOLIDS
PASSING PUMPS, AND LEVEL SWITCHES
(PER SPECIFICATIONS)

TABLE OF PUMP CONTROL ELEVATIONS			
LOCATION	PUMP "OFF"	PUMP "ON"	PUMP ALARM
LIFT STATION 3 - FEET BELOW GRADE	19'	15.67'	15'

LIST OF COMPONENTS	
A	3" FL X FL DIP
B	3" X 6" REDUCER
C	6" DIP FL X FL
D	90° FL X FL BEND
E	6" FL DIP
F	6" CHECK VALVE
G	6" FL TEE
H	TRANSITION COUPLING

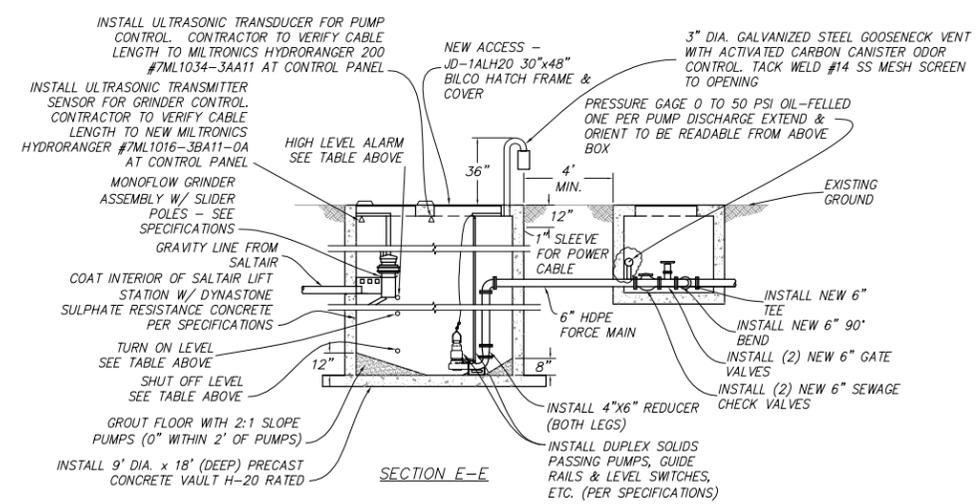
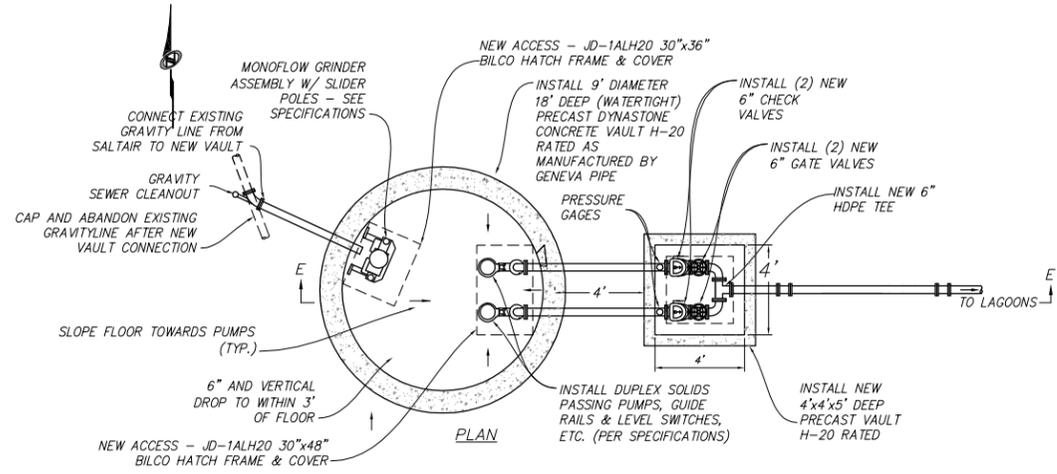
LIFT STATION NO. 3 INSTALLATION DETAIL

VAR

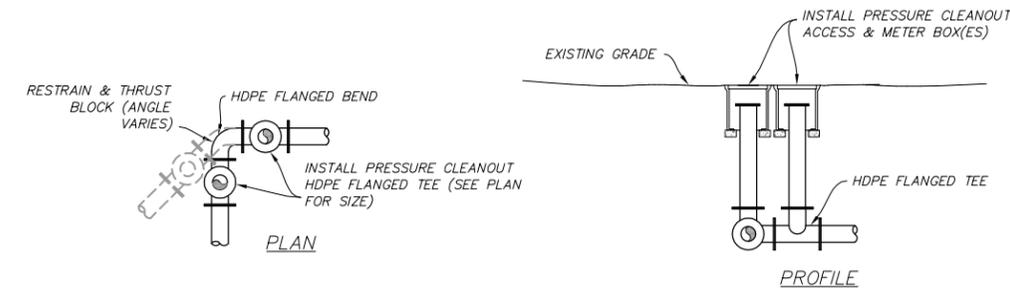
NOT TO SCALE

TABLE OF PUMP CONTROL ELEVATIONS			
LOCATION	OFF SWITCH	ON SWITCH	ALARM
SALTAIR LIFT STATION - FEET BELOW GRADE	15.25'	13.25'	9.0'

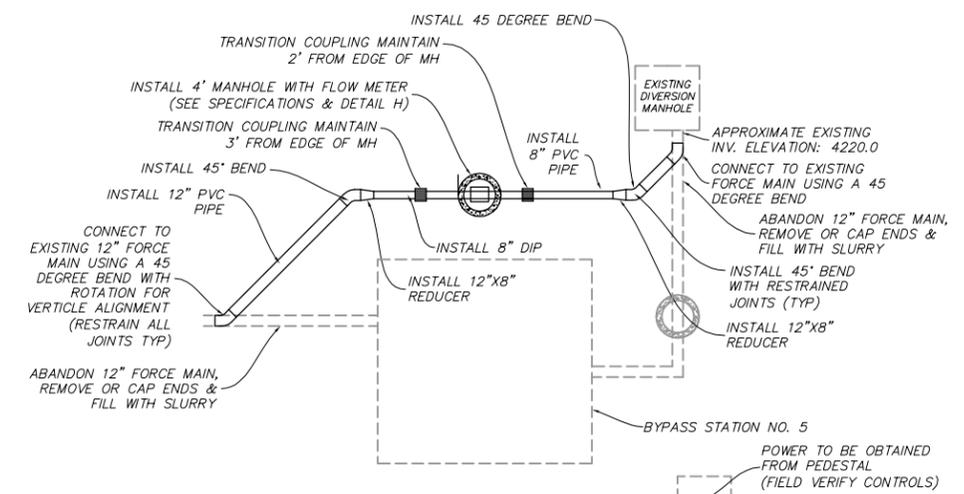
NOTE:
SEAL ALL WALL PENETRATIONS WITH ACCEPTED WATER STOPS
SEE ELECTRICAL SHEET FOR DETAILS



F NEW SALTAIR LIFT STATION
VAR NOT TO SCALE

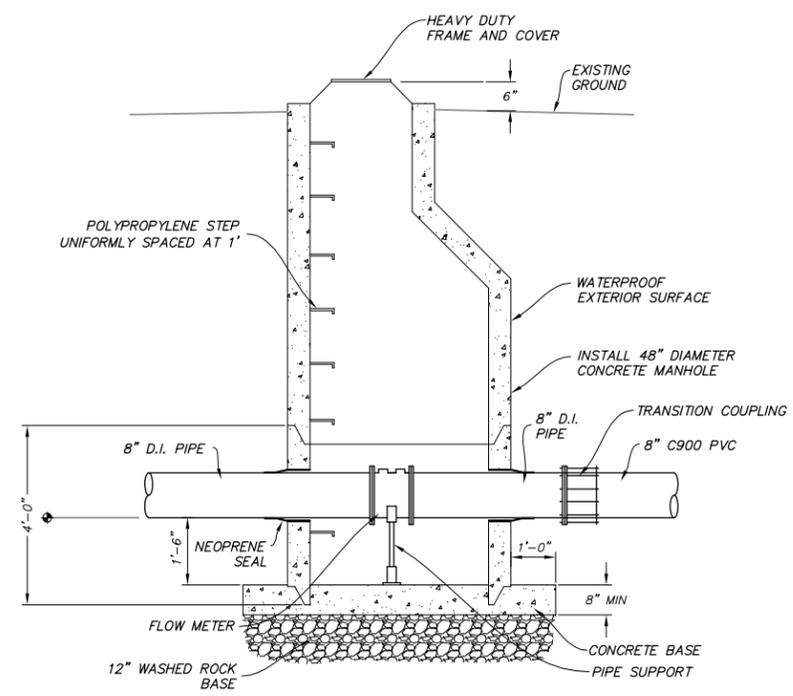


I TYPICAL CLEANOUTS DETAIL AT BENDS
VAR NOT TO SCALE



NOTES:
1. PIPE LOCATION AND SIZES TO BE FIELD VERIFIED
2. CONTRACTOR TO FIELD VERIFY THE NEED FOR ADDITIONAL FITTINGS

G ABANDONMENT AND BYPASS OF EXISTING LIFT STATION NO. 5
CD103 NOT TO SCALE



H FLOW METER MANHOLE
CD103 NOT TO SCALE

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SYSTEM IMPROVEMENTS

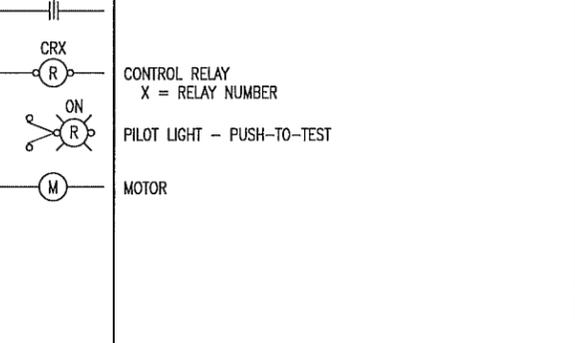
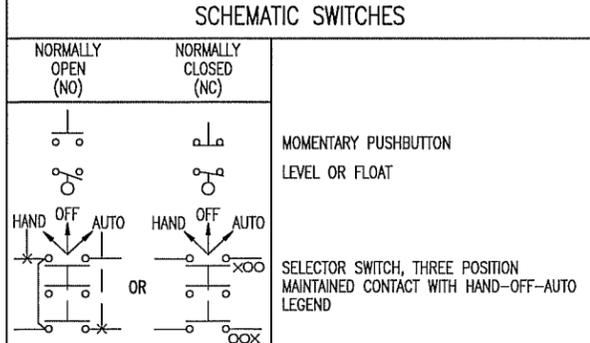
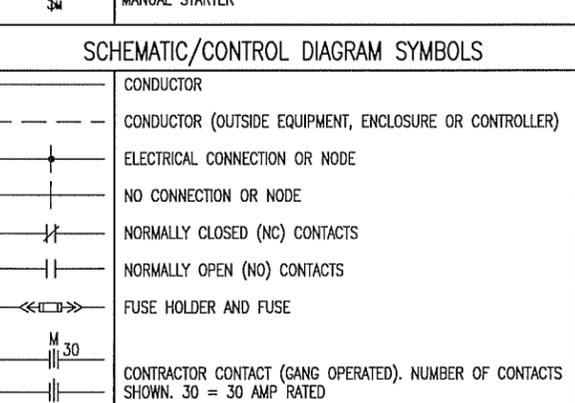
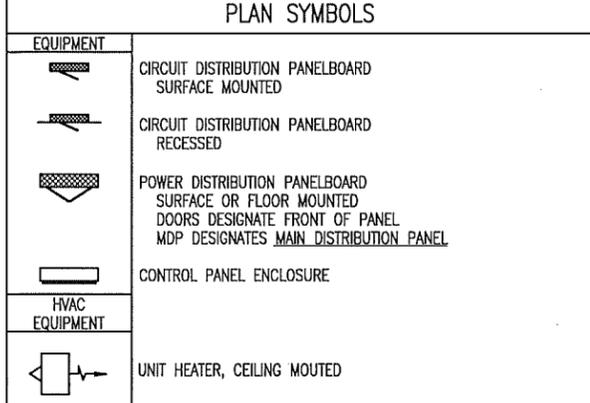
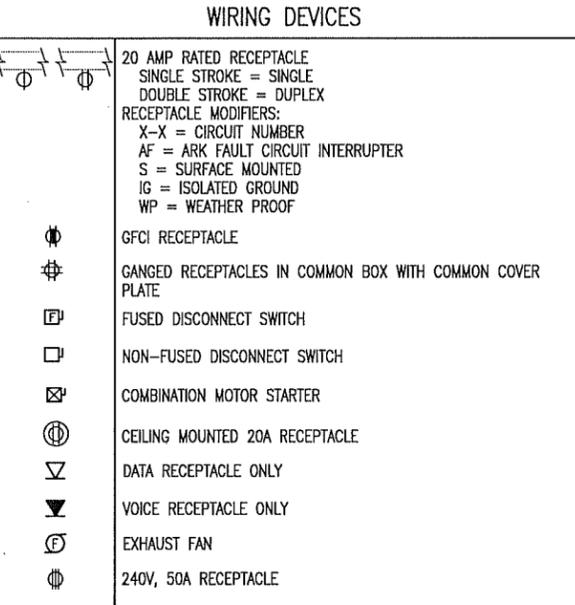
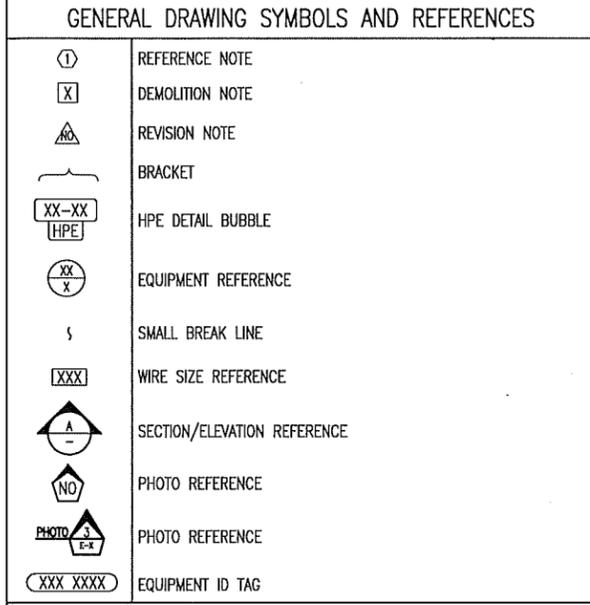
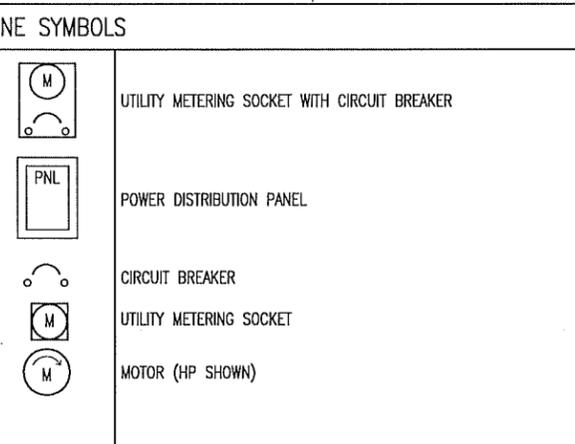
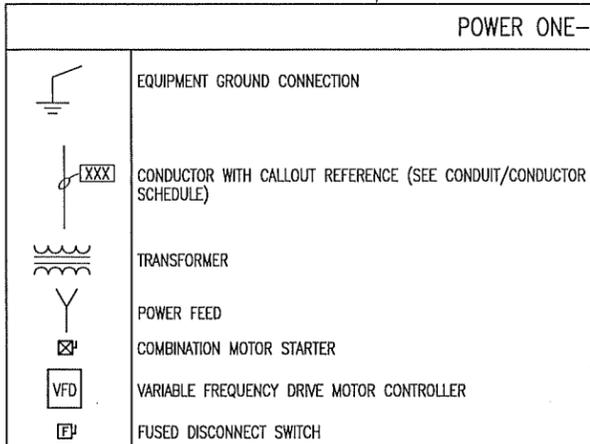
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DFCM PROJECT NO:	04147510
RISK MANAGEMENT NO:	HS000
CAD PROJECT NO:	SLB0264
CAD DWG FILE:	IP09DT.DWG
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SHEET TITLE
SALTAIR LIFT STATION
DETAILS

SHEET NUMBER
CD109

SHEET 8 OF 22



CONDUIT/CONDUCTOR SCHEDULE
THHN, THWN, THWN-2

AMP RATING	DRAWING ID TAG.	CONDUCTOR QTY.*	CONDUCTOR SIZE	MIN. CONDUIT SIZE	EXCEPTIONS
20	212	2		3/4"	
	312	3	#12	3/4"	
	412	4		3/4"	
30	20	2		3/4"	
	30	3	#10	3/4"	
	40	4		3/4"	
50	28	2		3/4"	
	38	3	#8	3/4"	
	48	4		3/4"	
65	26	2		3/4"	
	36	3	#6	3/4"	
	46	4		3/4"	1"(C9)
85	24	2		3/4"	1"(C2,C9)
	34	3	#4	1"	3/4"(C4), 1-1/4"(C9)
	44	4		1"	1-1/4"(C9)
115	22	2		1"	
	32	3	#2	1"	1-1/4"(C9)
	42	4		1-1/4"	
130	21	2		1-1/4"	1"(C3,C4)
	31	3	#1	1-1/4"	1"(C3)
	41	4		1-1/4"	1-1/2"(C2,C9,C10)
150	210	2		1-1/4"	
	310	3	1/0	1-1/4"	1-1/2"(C3,C9)
	410	4		1-1/2"	2"(C9)
175	220	2		1-1/4"	1-1/2"(C3,C4,C9)
	320	3	2/0	1-1/2"	
	420	4		2"	
200	230	2		1-1/2"	1-1/4"(C4)
	330	3	3/0	1-1/2"	2"(C3,C9)
	430	4		2"	
230	240	2		1-1/2"	2"(C3)
	340	3	4/0	2"	
	440	4		2"	2-1/2"(C9)
255	225	2		2"	1-1/2"(C4)
	325	3	250 KCMIL	2"	2-1/2"(C1,C8)
	425	4		2-1/2"	2"(C4)
310	235	2		2"	2-1/2"(C9)
	335	3	350 KCMIL	2-1/2"	2"(C4)
	435	4		3"	2-1/2"(C1,C4)
380	250	2		2-1/2"	2"(C4)
	350	3	500 KCMIL	3"	2-1/2"(C1,C4)
	450	4		3"	3-1/2"(C9)
475	275	2		3"	
	375	3	750 KCMIL	3-1/2"	3"(C1,C7,C8)
	475	4		4"	3-1/2"(C1,C4,C8)

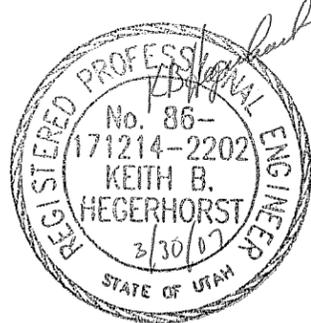
* CONDUCTOR QUANTITY DOES NOT INCLUDE GROUNDING CONDUCTORS. SEE EQUIPMENT GROUNDING CONDUCTORS FOR WIRE SIZE.

WHERE: C1 = ELECTRICAL METALLIC TUBING
C2 = ELECTRICAL NON-METALLIC TUBING
C3 = FLEXIBLE STEEL CONDUIT
C4 = INTERMEDIATE METALLIC CONDUIT
C7 = LIQUIDTIGHT FLEXIBLE METAL CONDUIT
C8 = RIGID METALLIC CONDUIT
C9 = PVC SCHEDULE 80 CONDUIT
C10 = PVC SCHEDULE 40 CONDUIT

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GENERAL NOTES:

- VERIFY ALL EQUIPMENT DIMENSIONS AND LOCATIONS BEFORE BEGINNING ROUGH-IN. CONSULT ALL APPLICABLE CONTRACT DRAWINGS AND SHOP DRAWINGS TO ENSURE NEC CODE CLEARANCE REQUIRED AROUND ALL ELECTRICAL EQUIPMENT.
- CONTRACTOR SHALL VERIFY ALL ELECTRICAL LOADS (VOLTAGE, PHASE, CONNECTION REQUIREMENTS, ETC.) OF EQUIPMENT FURNISHED BEFORE BEGINNING ROUGH-IN.
- SEE APPLICABLE SHOP DRAWINGS FOR ROUGH-IN LOCATION OF ALL EQUIPMENT, WIRING DEVICES, ETC.
- THE ELECTRICAL CONTRACTOR SHALL NOTIFY AND COOPERATE WITH THE MECHANICAL CONTRACTOR SUCH THAT NO PIPING, OR EQUIPMENT FOREIGN TO THE OPERATION OF THE ELECTRICAL EQUIPMENT SHALL BE PERMITTED TO BE INSTALLED IN, ENTER OR PASS THROUGH ELECTRICAL ROOMS OR SPACES; OR ABOVE OR BELOW ELECTRICAL EQUIPMENT IN THE OTHER AREAS.
- ALL PENETRATIONS OF FLOORS, WALLS AND CEILINGS SHALL BE SEALED WITH APPROVED MATERIAL.
- FOR PACKAGE EQUIPMENT PROVIDED ON THE PROJECT, SOME CONDUITS AND WIRES ARE SHOWN ON THE DRAWINGS, BUT IT IS EXPECTED THAT SOME ADDITIONAL CONDUITS AND WIRES MAY BE REQUIRED BY EQUIPMENT MANUFACTURERS TO COMPLETE INSTALLATION. IT IS INCUMBENT UPON THE GENERAL CONTRACTOR TO COORDINATE THIS REQUIREMENT WITH HIS SUBCONTRACTORS TO MAKE SURE THAT EQUIPMENT SUPPLIER PROVIDED ALL NECESSARY ELECTRICAL INFORMATION TO ELECTRICAL SUBCONTRACTOR FOR INCLUSION WHETHER SHOWN OR NOT SHOWN ON THE DRAWINGS.
- IF OTHER THAN FIRST NAMED EQUIPMENT IS USED, IT SHALL BE CAREFULLY CHECKED FOR ELECTRICAL REQUIREMENTS AND CONTROL REQUIREMENTS OF ALTERNATE EQUIPMENT. SHOULD CHANGES OR ADDITIONS OCCUR IN ELECTRICAL WORK, OR THE WORK OF OTHER CONTRACTORS BE REVISED BY THE ALTERNATE EQUIPMENT, THE COST OF ALL CHANGES SHALL BE BORNE BY THE ELECTRICAL CONTRACTOR.
- FOR UTILITY COORDINATION PURPOSES:
POWER COMPANY: ROCKY MOUNTAIN POWER
ATTENTION: Alan Draper
PHONE: (801) 220-7267
WORK REQUEST NO: 2698013

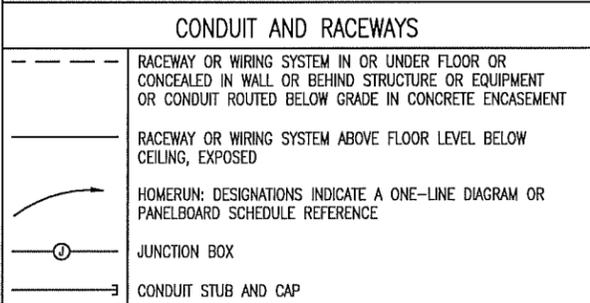


EQUIPMENT GROUNDING CONDUCTORS

FUSE OR CB SIZE	SIZE (COPPER)
15	14
20	12
30	10
40	10
60	10
100	8
200	6
300	4
400	3
500	2
600	1
800	1/0
1000	2/0
1200	3/0
1600	4/0
2000	250
2500	350

GROUNDING ELECTRODE CONDUCTOR SERVICE ENTRANCE OR SEPARATELY DERIVED SYSTEM

COPPER CONDUCTOR	WIRE SIZE
#2 OR SMALLER	#8
1 OR 1/0	#6
2/0 OR 3/0	#4
>3/0 THRU 350 KCMIL	#2
>350 KCMIL THRU 600 KCMIL	1/0
>600 KCMIL THRU 1100 KCMIL	2/0
>1100 KCMIL	3/0



CREATED BY: NOLTE ASSOCIATES

SITE/LOCATION
RM#: HS000
SALT AIR/MARINA
GREAT SALT LAKE &
I-80 AT SALT AIR,
UTAH

PROJECT TITLE
GREAT SALT LAKE
MARINA, SALT AIR &
LAGOON WASTEWATER
SYSTEM IMPROVEMENTS

MARK	DATE	DESCRIPTION
		ISSUE TYPE: CONSTRUCTION SET

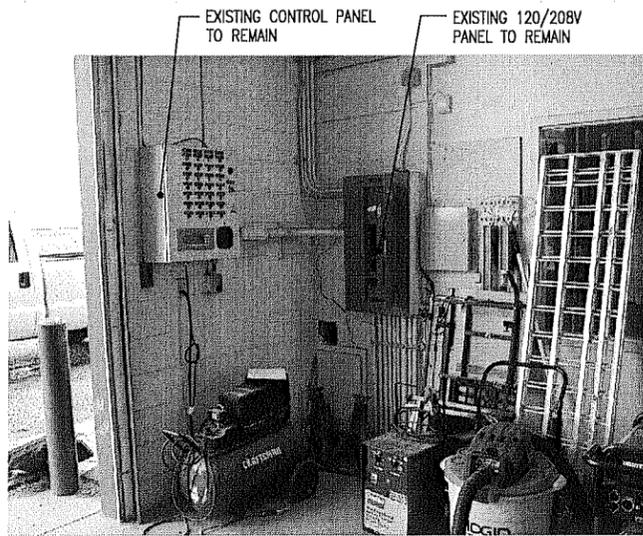
ISSUE DATE: MARCH, 2007

DCM PROJECT NO: 04147510
RISK MANAGEMENT NO: HS000
CAD PROJECT NO: SLB0284
CAD DWG FILE: E101.DWG
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SHEET TITLE
GENERAL NOTES,
ELECTRICAL LEGENDS
AND SCHEDULES

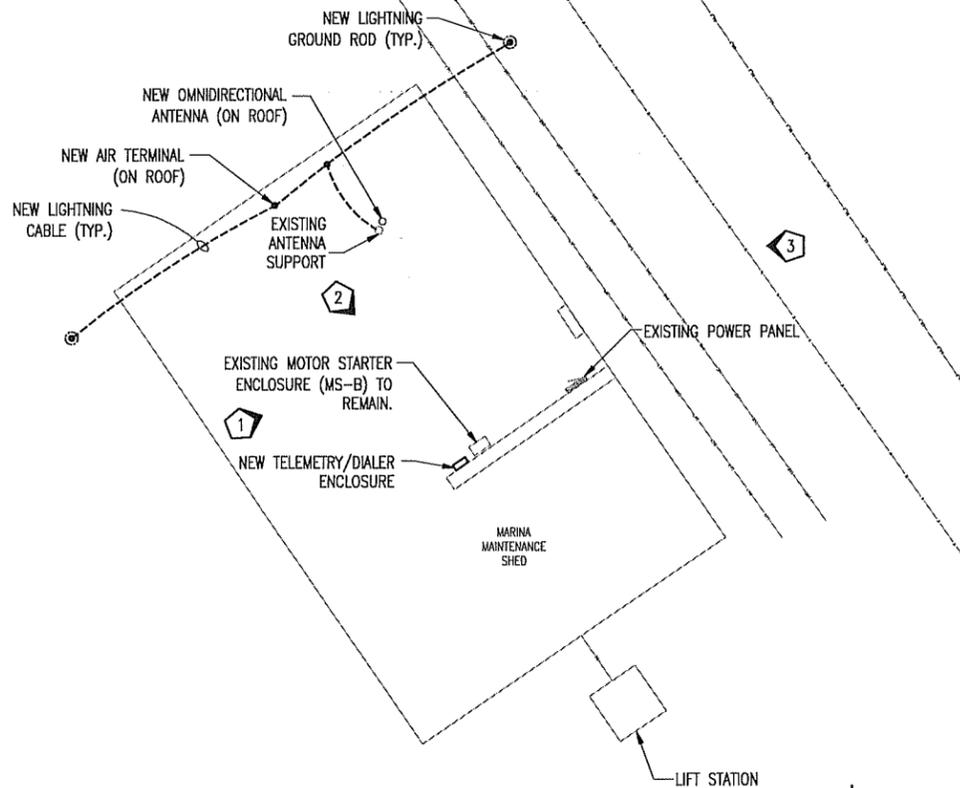
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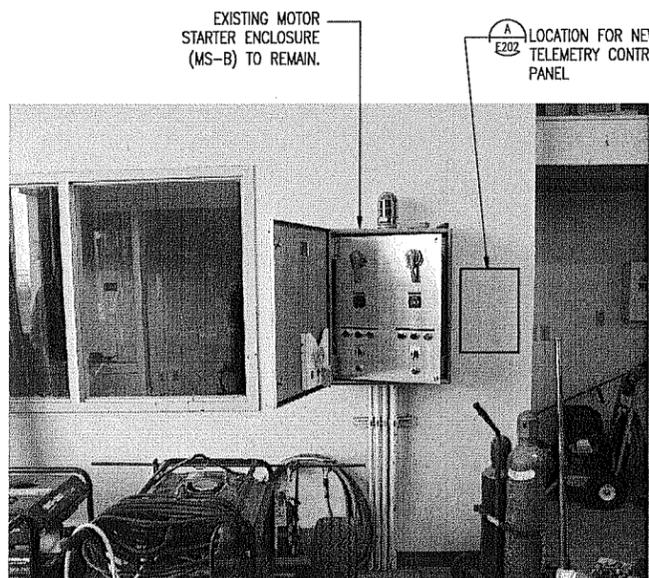


EXISTING CONTROL PANEL TO REMAIN
EXISTING 120/208V PANEL TO REMAIN

PHOTO 1



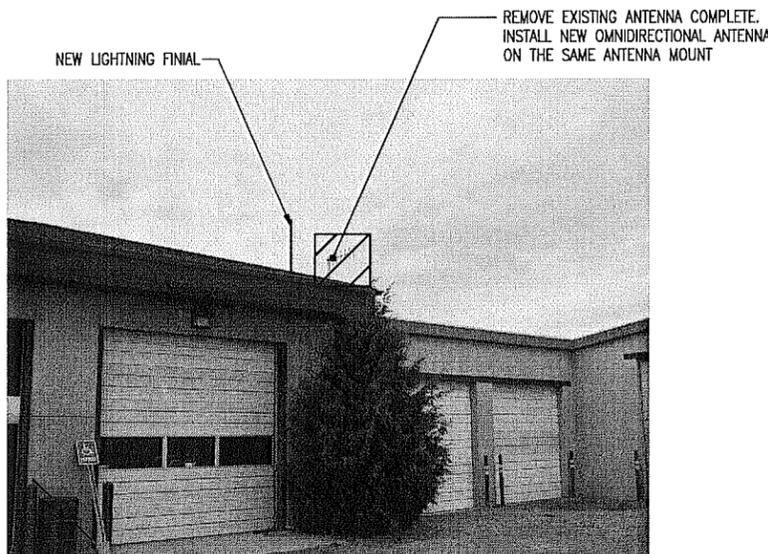
MARINA MAINTENANCE SHED ELECTRICAL SITE PLAN
SCALE: 1" = 20'-0"



EXISTING MOTOR STARTER ENCLOSURE (MS-B) TO REMAIN.
LOCATION FOR NEW TELEMETRY CONTROL PANEL

PHOTO 2

SEE PHOTO #18 FOR ENLARGED VIEW OF MOTOR STARTER ENCLOSURE



NEW LIGHTNING FINIAL
REMOVE EXISTING ANTENNA COMPLETE. INSTALL NEW OMNIDIRECTIONAL ANTENNA ON THE SAME ANTENNA MOUNT

PHOTO 5

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NOTES:
1. MOUNT NEW ANTENNA ON THE SAME ANTENNA SUPPORT AS THE EXISTING ANTENNA. REMOVE EXISTING ANTENNA AND CABLE COMPLETE.
2. EXISTING PHONE DIALER IN MAINTENANCE SHED SHALL REMAIN (NOT SHOWN). CONTRACTOR SHALL DETERMINE LOCATION IN FIELD, AND WIRE NEW ALARMS TO DIALER.
3. CONTRACTOR SHALL PROVIDE 4#14 AND 4#14 SPARE IN 3/4" C FOR ALARM SIGNALS BETWEEN CONTROL PANEL AND AUTO DIALER.
4. PROVIDE A 20A/1P CIRCUIT BREAKER IN POWER PANEL FOR POWER TO NEW TELEMETRY PANEL. INSTALL 3/4" C WITH 2#12, 1#12G FROM POWER PANEL TO TELEMETRY ENCLOSURE.



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SITE/LOCATION
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SALT AIR/MARINA
GREAT SALT LAKE &
I-80 AT SALT AIR,
UTAH

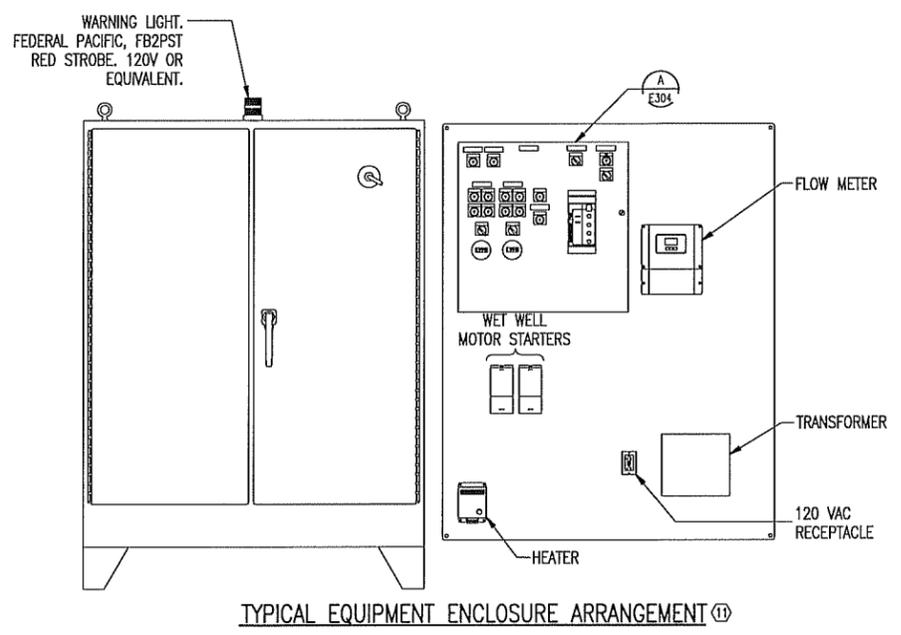
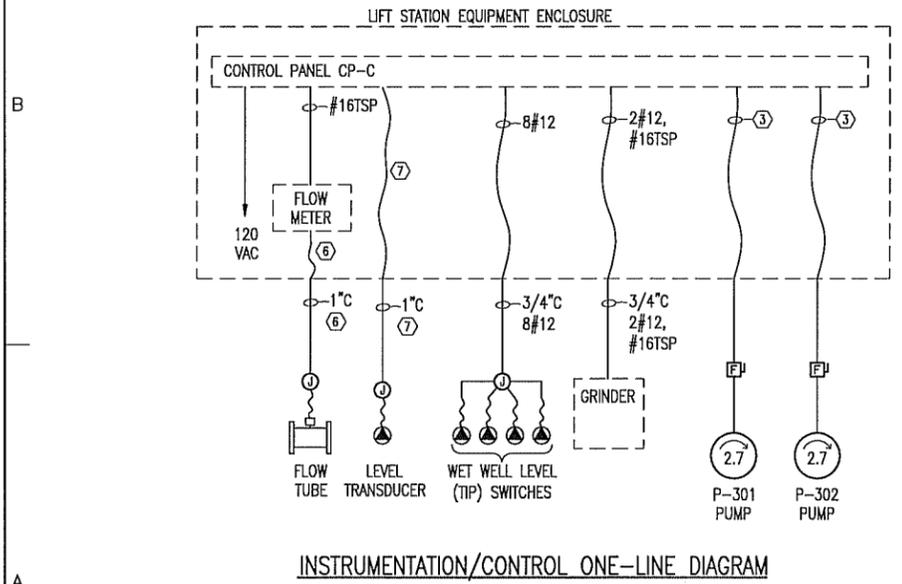
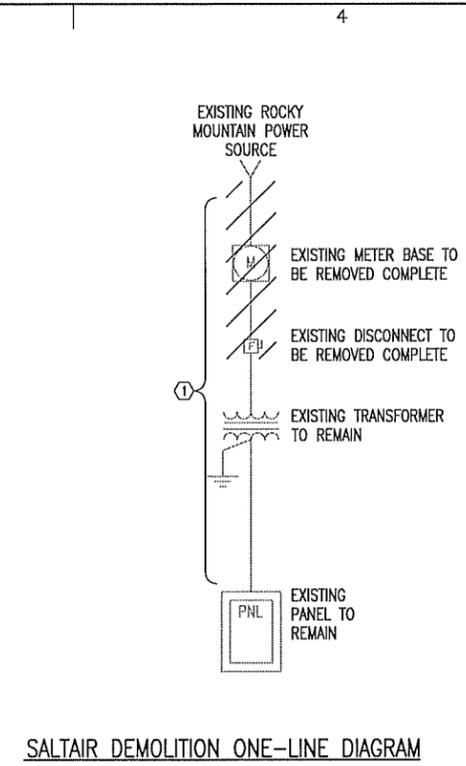
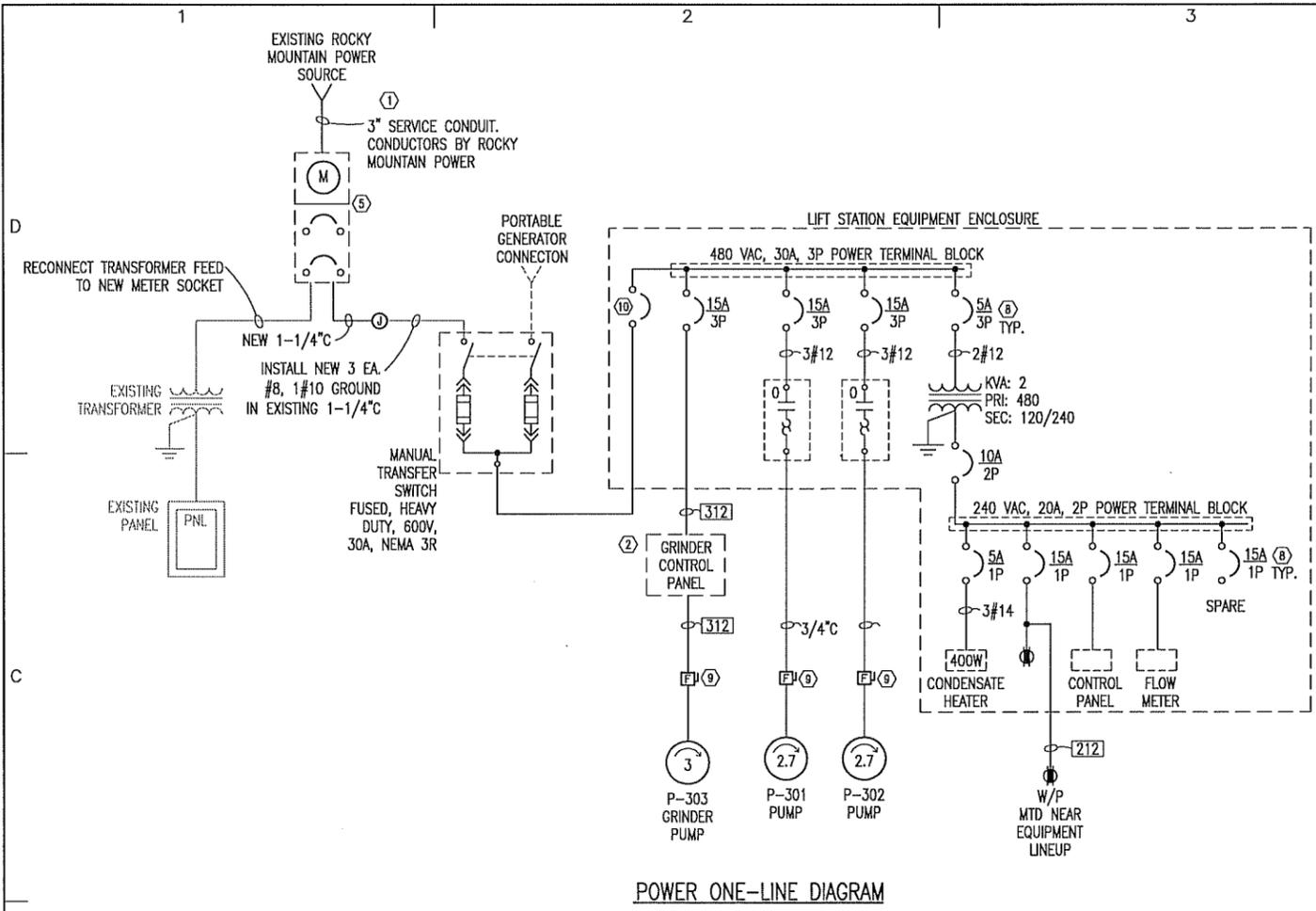
PROJECT TITLE
GREAT SALT LAKE
MARINA, SALT AIR &
LAGOON WASTEWATER
SYSTEM IMPROVEMENTS

MARK	DATE	DESCRIPTION
		ISSUE TYPE: CONSTRUCTION SET
		ISSUE DATE: MARCH, 2007
		DFCM PROJECT NO: 04147510
		RISK MANAGEMENT NO: HS000
		CAD PROJECT NO: SLB0284
		CAD DWG FILE: E201.dwg
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		SHEET TITLE



ELECTRICAL SITE PLANS
MAINTENANCE SHED

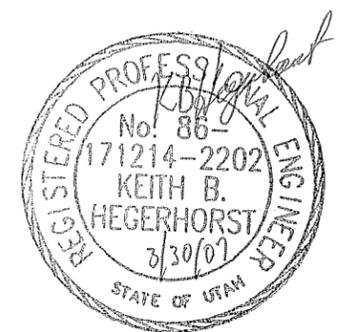
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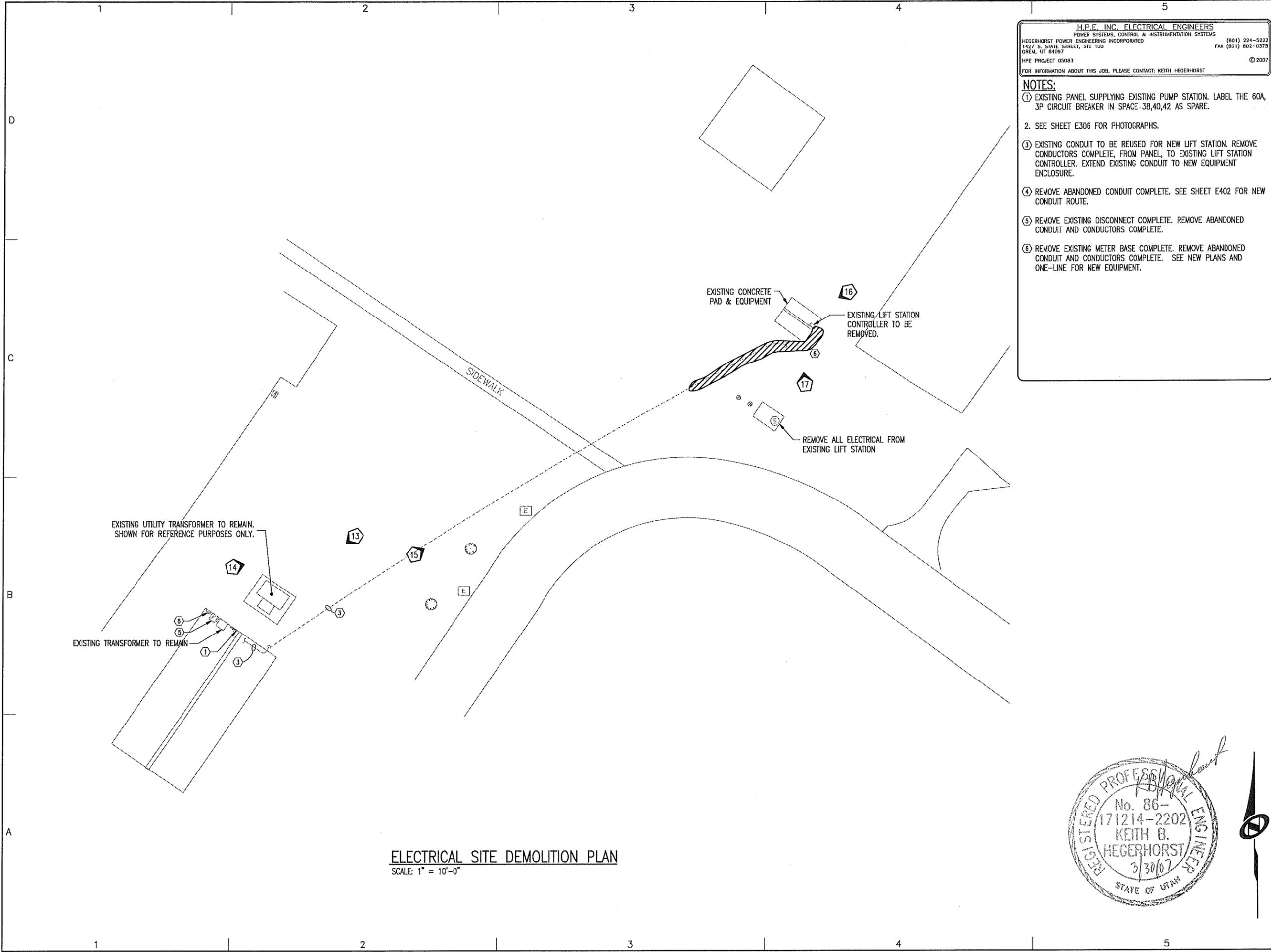
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NOTES:

- REMOVE ABANDONED CONDUITS COMPLETE. EXISTING CONDUITS MAY BE REUSED IF THEY ARE IN GOOD CONDITION AND REQUIRED FOR THIS CONTRACT.
- GRINDER SHALL BE SUPPLIED WITH ITS OWN CONTROL PANEL. CONTRACTOR SHALL INSTALL AND WIRE AS REQUIRED BY SUPPLIERS INSTALLATION INSTRUCTIONS.
- PUMPS HAVE INTERNAL THERMAL DEVICE AND MOISTURE SENSORS. INSTALL CABLE SUPPLIED WITH MOTOR TO CONTROL PANEL. WIRE POWER CONDUCTORS TO STARTERS, THERMAL/MOISTURE SENSOR TO CONTROL PANEL.
- MANUAL TRANSFER SWITCH: 600V/100A/3P NEMA 4 (FIBERGLASS) W/ STAINLESS STEEL LATCHES.
- INSTALL A NEW 200A METER SOCKET PER UTILITY COMPANY REQUIREMENTS. PROVIDE 1-90A/3P CIRCUIT BREAKER (EXISTING TRANSFORMER) AND 1-30A/3P (NEW LIFT STATION). RECONNECT EXISTING SERVICE EQUIPMENT GROUNDING SYSTEM.
- CABLE PROVIDED BY METER MANUFACTURER. SPECIFY SUFFICIENT LENGTH WHEN ORDERING TO BE INSTALLED FROM FLOW TUBE TO INDICATOR/DISPLAY WITHOUT SPLICING.
- CABLE PROVIDED BY TRANSDUCER MANUFACTURER. SPECIFY SUFFICIENT LENGTH WHEN ORDERING TO BE INSTALLED FROM TRANSDUCER IN WET WELL TO INSTRUMENT WITHOUT SPLICING. INSTALL CABLE IN PVC COATED RMC.
- DIN RAIL MOUNTED CIRCUIT BREAKERS.
- 600V, 30A, 3P, NEMA 4X (STAINLESS STEEL) FUSED DISCONNECT SWITCH.
- 480 VAC, 30A, 3P. PROVIDE EXTERNAL HANDLE OPERATOR. LABEL AS "PANEL MAIN DISCONNECT".
- TYPICAL EXAMPLE OF EQUIPMENT ENCLOSURE. NOT ALL DEVICES AND COMPONENTS ARE SHOWN. ENCLOSURE SIZE DETERMINED BY CONTRACTOR.



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SITE/LOCATION	
RM#: HS000 SALT AIR/MARINA GREAT SALT LAKE & I-80 AT SALT AIR, UTAH	
PROJECT TITLE	
GREAT SALT LAKE MARINA, SALT AIR & LAGOON WASTEWATER SYSTEM IMPROVEMENTS	
MARK	DATE
ISSUE TYPE: CONSTRUCTION SET	
ISSUE DATE: MARCH, 2007	
DFCM PROJECT NO: 04147510	
RISK MANAGEMENT NO: HS000	
CAD PROJECT NO: SLB0264	
CAD DWG FILE: E301.DWG	
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SHEET TITLE	
SALT AIR ONE-LINE DIAGRAMS	
SHEET NUMBER	
E301	
SHEET OF ??	



ELECTRICAL SITE DEMOLITION PLAN

SCALE: 1" = 10'-0"

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NOTES:

- EXISTING PANEL SUPPLYING EXISTING PUMP STATION. LABEL THE 60A, 3P CIRCUIT BREAKER IN SPACE 38,40,42 AS SPARE.
- SEE SHEET E306 FOR PHOTOGRAPHS.
- EXISTING CONDUIT TO BE REUSED FOR NEW LIFT STATION. REMOVE CONDUCTORS COMPLETE, FROM PANEL, TO EXISTING LIFT STATION CONTROLLER. EXTEND EXISTING CONDUIT TO NEW EQUIPMENT ENCLOSURE.
- REMOVE ABANDONED CONDUIT COMPLETE. SEE SHEET E402 FOR NEW CONDUIT ROUTE.
- REMOVE EXISTING DISCONNECT COMPLETE. REMOVE ABANDONED CONDUIT AND CONDUCTORS COMPLETE.
- REMOVE EXISTING METER BASE COMPLETE. REMOVE ABANDONED CONDUIT AND CONDUCTORS COMPLETE. SEE NEW PLANS AND ONE-LINE FOR NEW EQUIPMENT.



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SITE/LOCATION

RM#: HS000
 SALT AIR/MARINA
 GREAT SALT LAKE &
 I-80 AT SALT AIR,
 UTAH

PROJECT TITLE

GREAT SALT LAKE
 MARINA, SALT AIR &
 LAGOON WASTEWATER
 SYSTEM IMPROVEMENTS

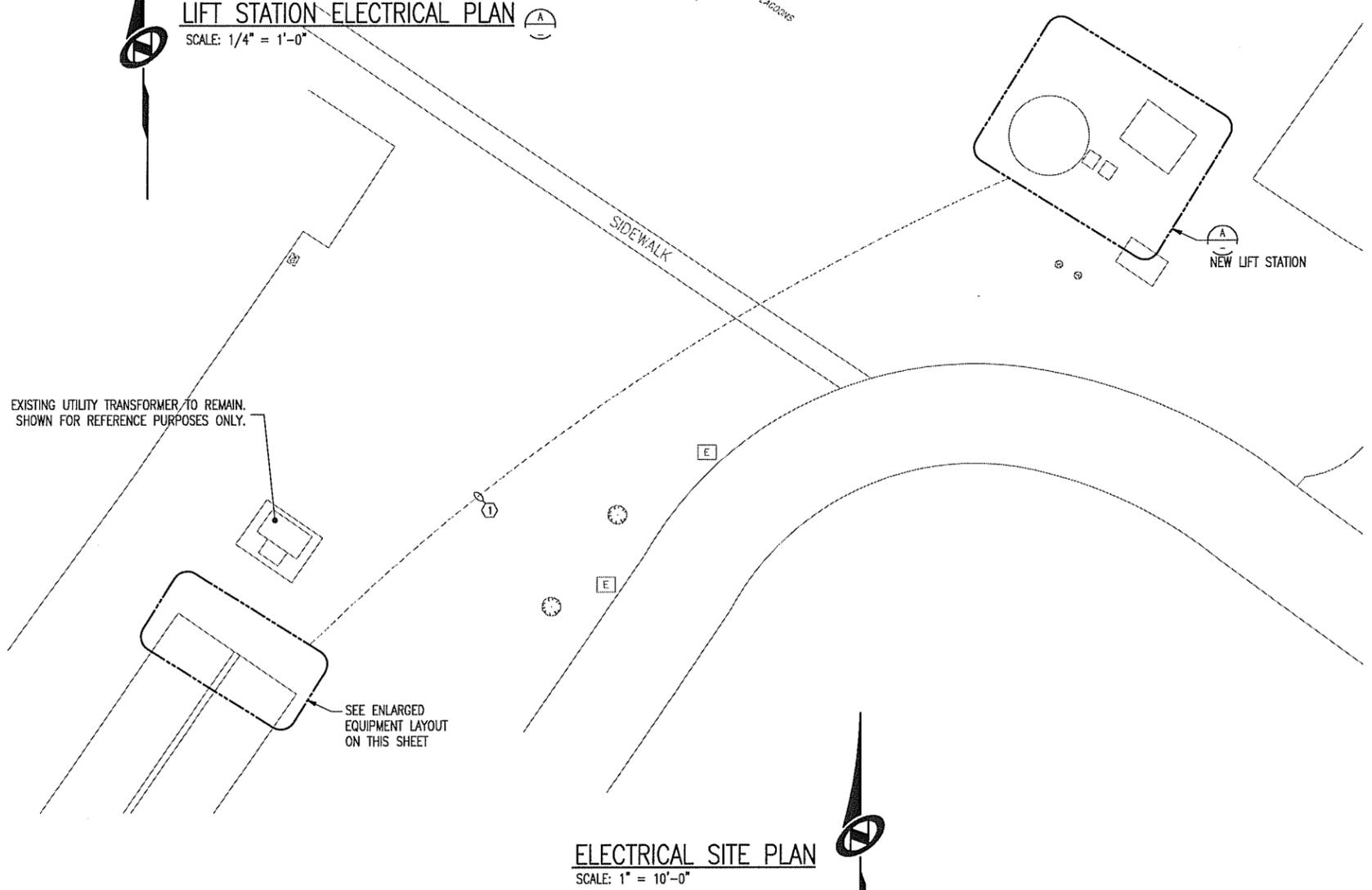
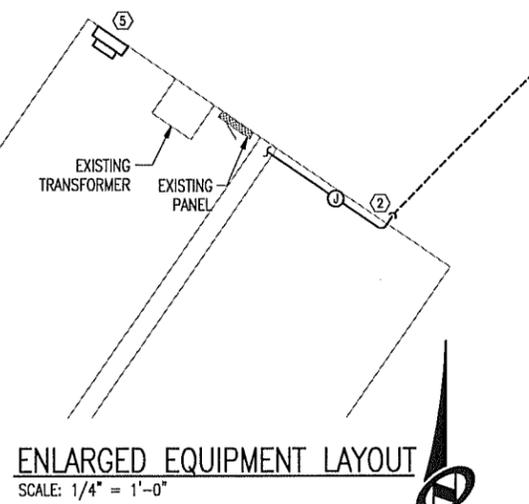
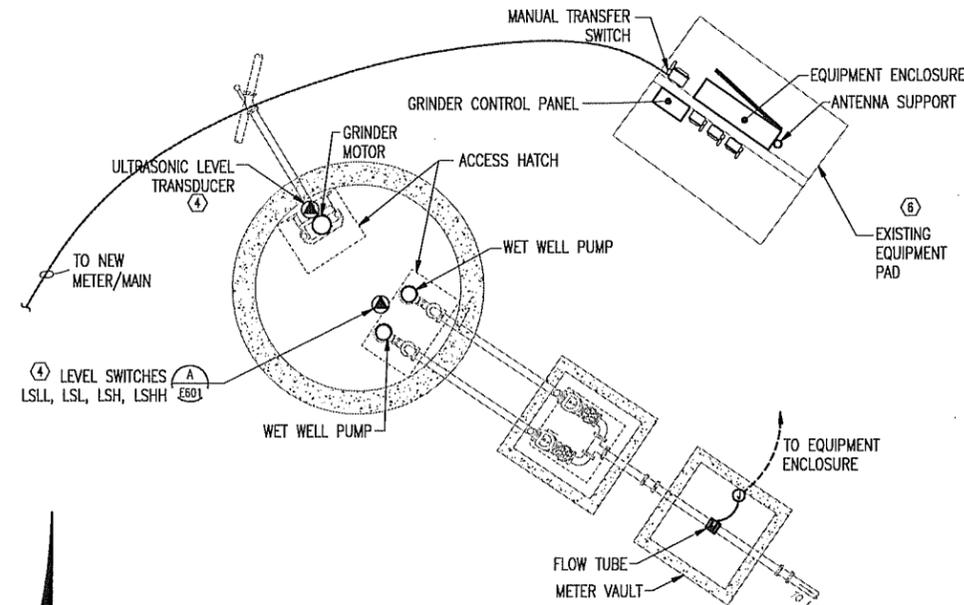
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ISSUE TYPE: CONSTRUCTION SET		
ISSUE DATE: MARCH, 2007		

DFCM PROJECT NO:	04147510
RISK MANAGEMENT NO:	HS000
CAD PROJECT NO:	SLB0264
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SALT AIR
 ELECTRICAL SITE
 DEMOLITION PLAN

SHEET NUMBER	E302
SHEET OF ??	





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NOTES:

- EXISTING LIFT STATION FEEDER CONDUIT.
- EXISTING CONDUIT PENETRATION INTO BUILDING TO REMAIN. SHOWN FOR REFERENCE PURPOSES ONLY.
- SEE ONE-LINE DIAGRAMS FOR CONDUIT/CONDUCTOR REQUIREMENTS.
- FIELD LOCATE LEVEL PROBE AND FLOAT SWITCHES IN WET WELL AND GRINDER CHANNEL.
- PROVIDE A NEW UTILITY METER IN THE SAME LOCATION AS THE EXISTING METER BASE.
- LOCATE NEW ELECTRICAL EQUIPMENT TO COMPLY ALL NATIONAL ELECTRIC CODE CLEARANCE REQUIREMENTS. AREA 18-INCHES ABOVE WET WELL HATCHES EXTENDING 36-INCHES BEYOND OPENING IS HAZARDOUS AREA.
- ANTENNA SUPPORT SHALL BE 2" RGS. MOUNT TO EXISTING STRUCTURE AND TO EQUIPMENT ENCLOSURE.
- EQUIPMENT LAYOUT IS CONCEPTUAL CONTRACTOR MAY MAKE ADJUSTMENTS TO FIT FIELD CONDITIONS.
- AREA ABOVE WET WELL HATCHES TO A HEIGHT OF 18 INCHES AND WIDTH OF 36 INCHES FROM OPENING IS CLASS 1 DIVISION 1 HAZARDOUS AREA.



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SITE/LOCATION
RM#: HS000
SALTAIR/MARINA
GREAT SALT LAKE &
I-80 AT SALTAIR,
UTAH

PROJECT TITLE
GREAT SALT LAKE
MARINA, SALTAIR &
LAGOON WASTEWATER
SYSTEM IMPROVEMENTS

MARK	DATE	DESCRIPTION
ISSUE TYPE: CONSTRUCTION SET		
ISSUE DATE: MARCH, 2007		

DFCM PROJECT NO:	04147510
RISK MANAGEMENT NO:	HS000
CAD PROJECT NO:	SLB0284
CAD DWG FILE:	SALTAIR
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ELECTRICAL
SITE PLAN

SHEET NUMBER
E303
SHEET X OF ??



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- NOTES:**
- NOT ALL SPARES ARE SHOWN.
 - PROVIDE ON/OFF SIGNAL(S) AS REQUIRED TO GRINDER CONTROLLER FROM GRINDER CHANNEL LEVEL DEVICE. (ANALOG SIGNAL SHOWN.) SEE GRINDER MANUFACTURER'S INSTALLATION INSTRUCTION FOR SPECIFIC CONTROL REQUIREMENTS.
 - WIRING DIAGRAM IS CONCEPTUAL. CONTRACTOR IS EXPECTED TO MAKE MODIFICATIONS AS NECESSARY FOR THE SPECIFIC DETAILS OF THE EQUIPMENT SELECTED.
 - DR9011 TRANSMITTER (SENSORAD) FROM WILKERSON INSTRUMENT COMPANY (HTTP://WWW.WICI.COM).
 - 900MHZ COMPACT YAGI ANTENNA PART NO.: ANT-8.0-15-Y (WILKERSON INSTRUMENT COMPANY).
 - ANTENNA SURGE PROTECTOR (POLYPHASE IS-B50LN-C2). INSTALL IN CONTROL PANEL.
 - ANTENNA GROUND ROD 3/4" X 10' CU CLAD STEEL GROUND ROD.



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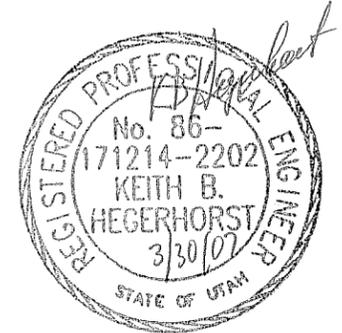
PROJECT TITLE
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 SYSTEM IMPROVEMENTS

MARK	DATE	DESCRIPTION
ISSUE TYPE:	CONSTRUCTION SET	
ISSUE DATE:	MARCH, 2007	

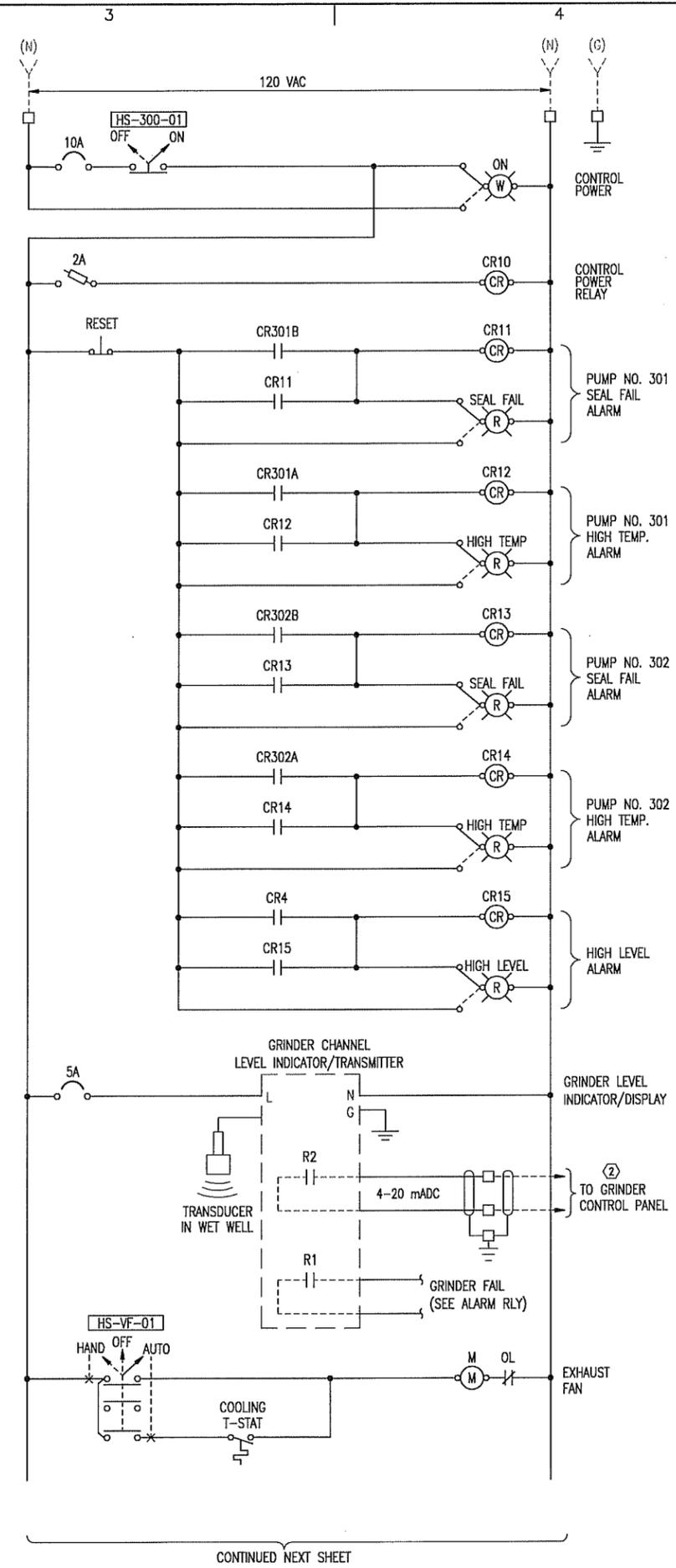
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SALTAIR
 WIRING DIAGRAM
 CONTROL PANEL CP-C
 SHEET 1 OF 2

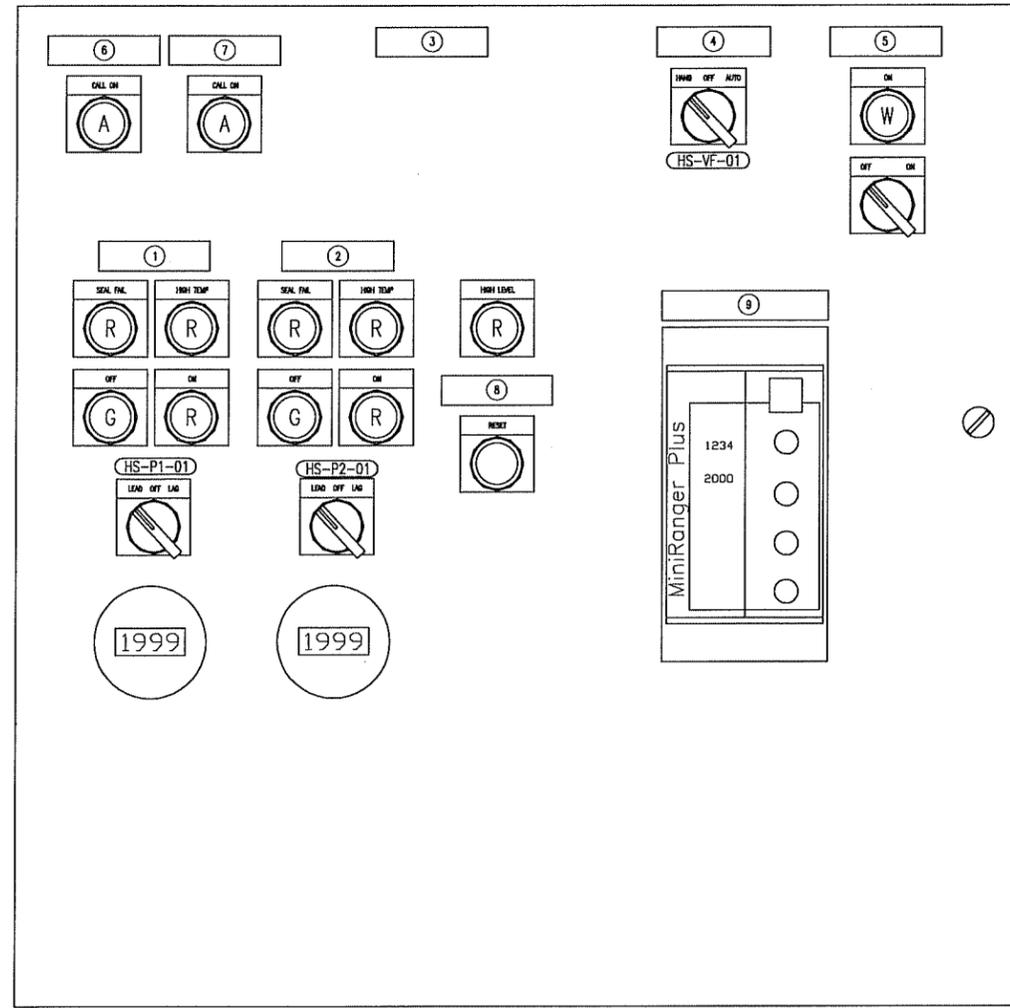
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**ELECTRICAL WIRING DIAGRAM
 CONTROL PANEL (CP-C)**



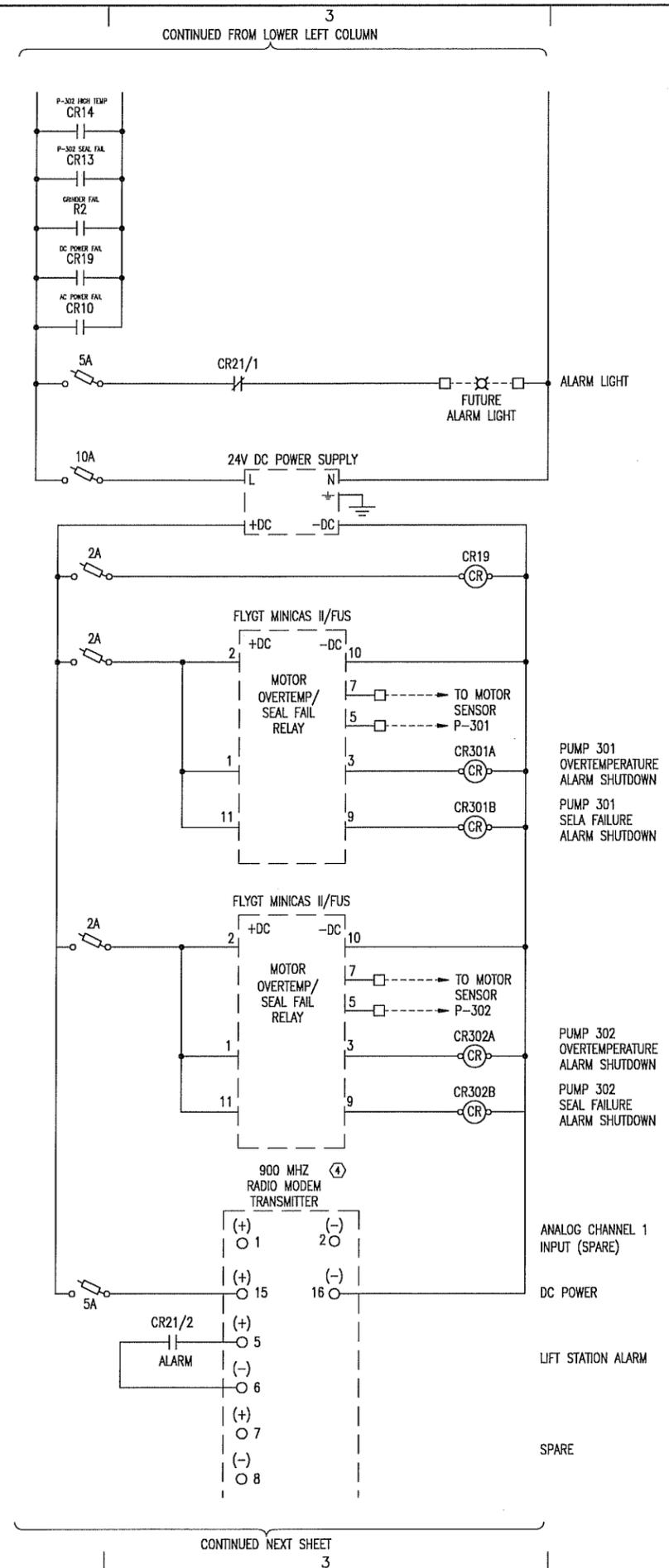
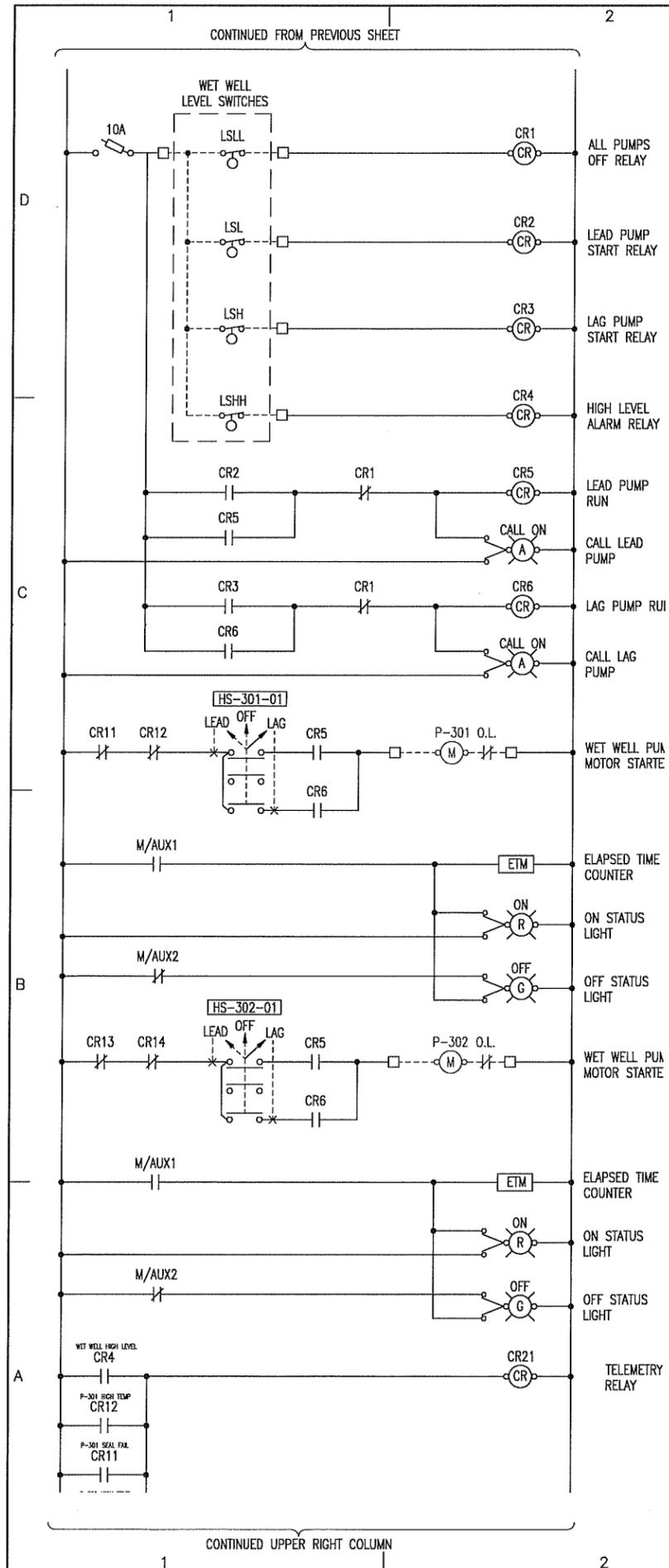
CONTINUED NEXT SHEET



**CONTROL PANEL
 EXTERIOR ARRANGEMENT**

- NAMEPLATES**
- WET WELL PUMP #301
 - WET WELL PUMP #302
 - SALTAIR LIFT STATION
 - EQUIPMENT VENTILATION FAN
 - CONTROL POWER
 - LEAD PUMP
 - LAG PUMP
 - ALARM RESET
 - GRINDER CHANNEL LEVEL

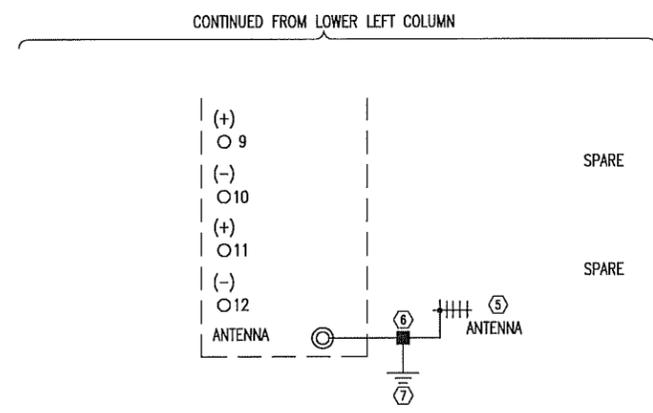
D
C
B
A



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NOTES:
 1. REFER TO NOTES ON PREVIOUS SHEET.



ELECTRICAL WIRING DIAGRAM
 CONTROL PANEL (CP-C)

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NOTES:
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PROJECT TITLE

GREAT SALT LAKE
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 LAGOON WASTEWATER
 SYSTEM IMPROVEMENTS

MARK	DATE	DESCRIPTION
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		ISSUE DATE: MARCH, 2007
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		CAD PROJECT NO: SLB0284
		CAD DWG FILE: E304.DWG
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		SALT AIR WIRING DIAGRAM CONTROL PANEL CP-C SHEET 2 OF 2
		SHEET NUMBER
		E305
		SHEET OF ??

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PROJECT TITLE

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 RISK MANAGEMENT NO: HS000
 CAD PROJECT NO: SLB0284
 CAD DWG FILE: E306.DWG
 DRAWN BY: KBH
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SHEET TITLE

SALT AIR
 ELECTRICAL
 PHOTOGRAPHS

SHEET NUMBER

E306

SHEET X OF ??

EXISTING LIFT
STATION CONDUIT
TO BUILDING

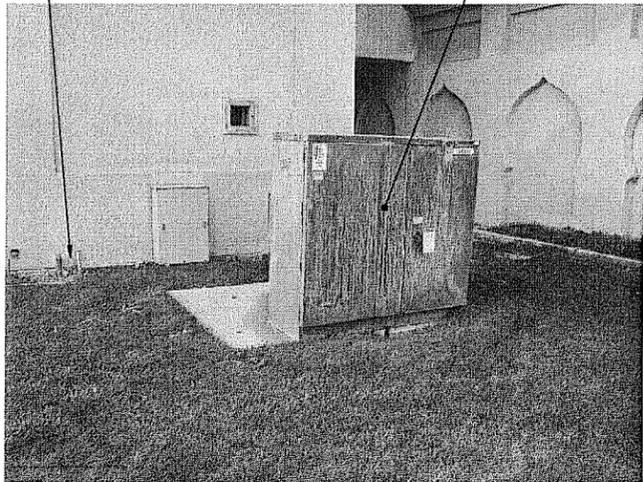


PHOTO 13

EXISTING UTILITY
TRANSFORMER TO REMAIN

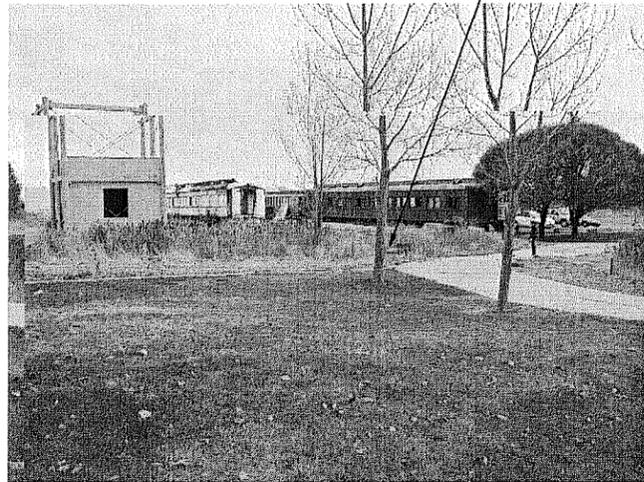


PHOTO 14

EXISTING LIFT
STATION



PHOTO 15

EXISTING LIFT
STATION

EXISTING LIFT STATION
CONTROL PANEL TO BE
REMOVED

EXISTING EQUIPMENT TO BE
REMOVED. NEW CONTROL
PANEL TO BE INSTALLED IN
THE SAME LOCATION.

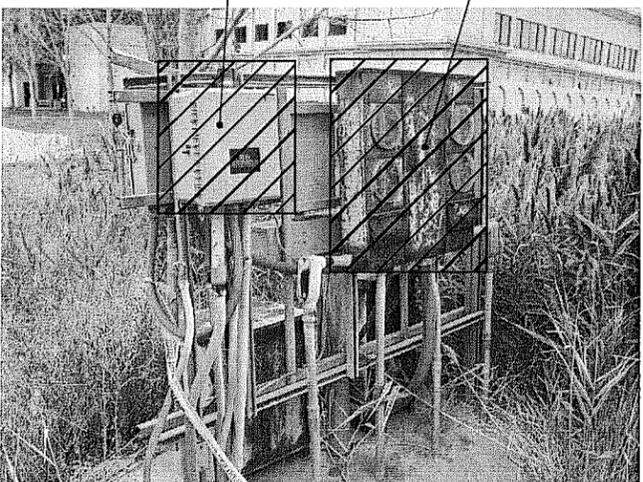


PHOTO 16

SEE SHEET E402 FOR LOCATION OF
NEW MANUAL TRANSFER SWITCH, MOTOR
STARTER ENCLOSURE (MS-C) AND
CONTROL PANEL (CP-C)

EXISTING EQUIPMENT TO BE
REMOVED AS REQUIRED FOR
THE NEW EQUIPMENT

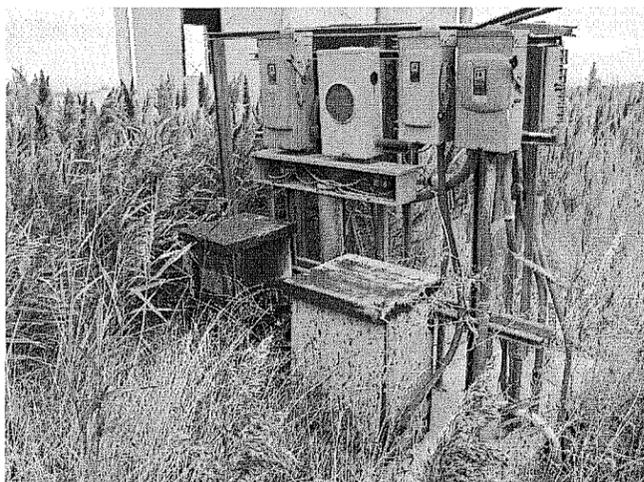
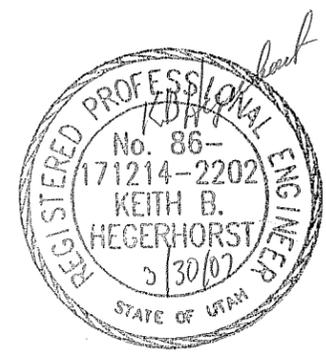


PHOTO 17



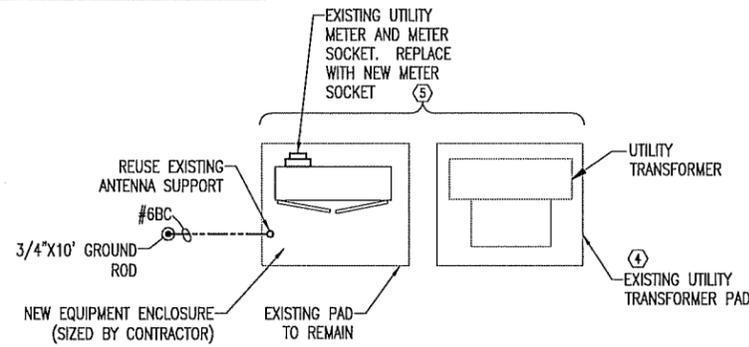
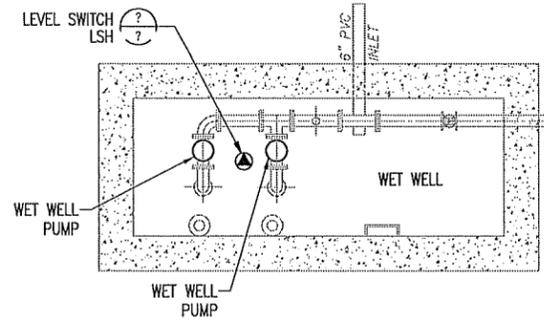
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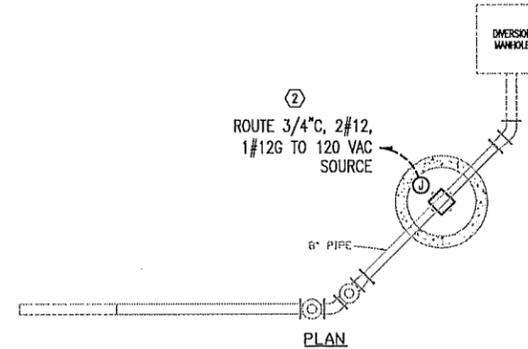
3

4

5



LIFT STATION #3 ELECTRICAL PLAN
SCALE: NONE



LIFT STATION #5 ELECTRICAL PLAN
SCALE: NONE

H.P.E. INC. ELECTRICAL ENGINEERS
POWER SYSTEMS, CONTROL & INSTRUMENTATION SYSTEMS
HEGERHORST POWER ENGINEERING INCORPORATED (801) 224-5222
1427 S. STATE STREET, STE 100 OREM, UT 84057 FAX (801) 802-0375
HPE PROJECT 05083 © 2007
FOR INFORMATION ABOUT THIS JOB, PLEASE CONTACT: KEITH HEGERHORST

NOTES:

1. REFER TO ONE-LINE DIAGRAMS FOR WIRE AND CONDUIT REQUIREMENTS.
2. LIFT STATION #5 IS BEING MODIFIED AND ABANDONED (REFER TO CIVIL DRAWINGS). UTILITY POWER IS AVAILABLE. LOCATION OF AND CONDITION OF SERVICE/DISTRIBUTION EQUIPMENT IS UNVERIFIED. MODIFY AS REQUIRED TO OBTAIN 120 VAC FOR FLOW METER. NO TELEMETRY WILL BE REQUIRED.
3. ENGINEER SHALL PROVIDE HEIGHTS OF LEVEL SWITCHES DURING CONSTRUCTION.
4. STATION IS BEING DOWNSIZED. EXISTING TRANSFORMER SIZED FOR LARGER PUMPS. COORDINATE WITH ROCKY MOUNTAIN POWER REGARDING REPLACEMENT OF TRANSFORMER AND PAD REQUIREMENTS.
5. LOCATION SHOWN FOR EXISTING EQUIPMENT AND PADS IS APPROXIMATE. REFER TO PHOTOGRAPHS. CONDITION OF EMBEDDED AND BURIED CONDUIT IS UNKNOWN. REUSE AS PRACTICAL FOR NEW MOTORS.
6. CONTRACTOR SHALL REMOVE AND DISPOSE OF EXISTING ENCLOSURE AND ALL EQUIPMENT. RETAIN ANTENNA SUPPORT. INSTALL NEW ENCLOSURE IN SAME LOCATION.

NOLTE
BEYOND ENGINEERING

6671 SOUTH REDWOOD ROAD, SUITE 101 SALT LAKE CITY, UT 84084
801.743.1500 TEL. 801.743.0300 FAX WWW.NOLTE.COM

CREATED BY: NOLTE ASSOCIATES

SITE/LOCATION

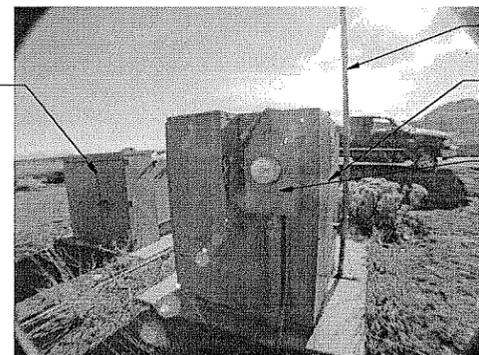
RM#: HS000
SALT AIR/MARINA
GREAT SALT LAKE &
I-80 AT SALT AIR,
UTAH

PROJECT TITLE

GREAT SALT LAKE
MARINA, SALT AIR &
LAGOON WASTEWATER
SYSTEM IMPROVEMENTS

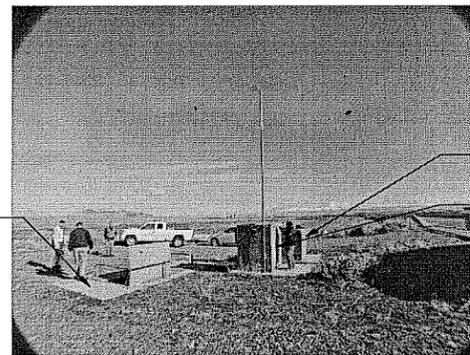
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ISSUE TYPE: CONSTRUCTION SET		
ISSUE DATE: MARCH, 2007		
DFCM PROJECT NO: 04147510		
RISK MANAGEMENT NO: HS000		
CAD PROJECT NO: SLB0284		
CAD DWG FILE: E401.DWG		
DRAWN BY: KBH		
CHK'D BY: KBH		
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SHEET TITLE		
LIFT STATION #3 LIFT STATION #5 ELECTRICAL PLANS		
SHEET NUMBER		
E401		
SHEET OF ??		

UTILITY TRANSFORMER



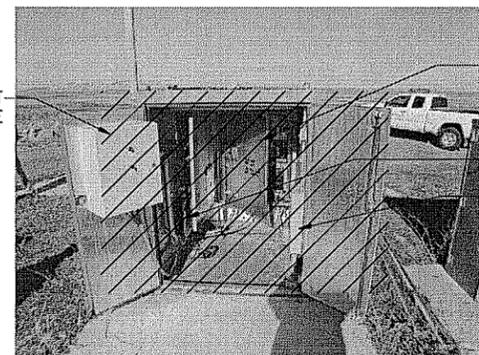
EQUIPMENT - LOOKING SOUTH

WET WELL



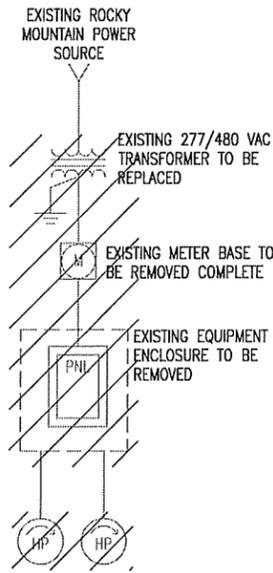
EQUIPMENT - LOOKING EAST

TELEMETRY EQUIPMENT ENCLOSURE

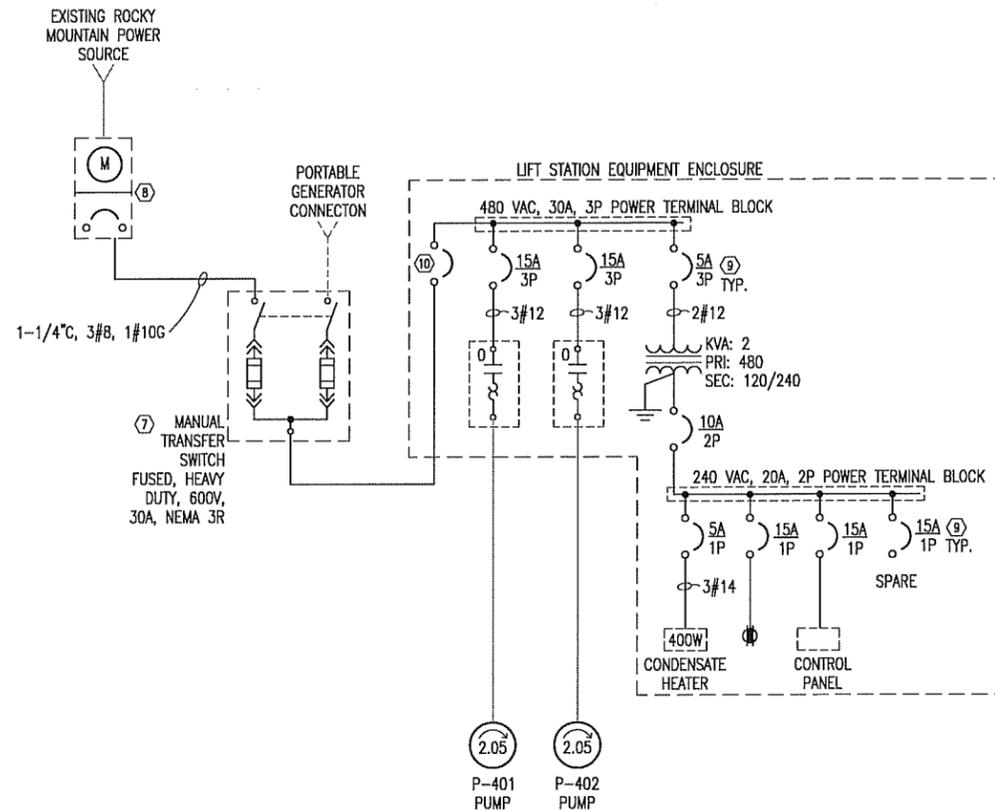


EQUIPMENT ENCLOSURE ⑥

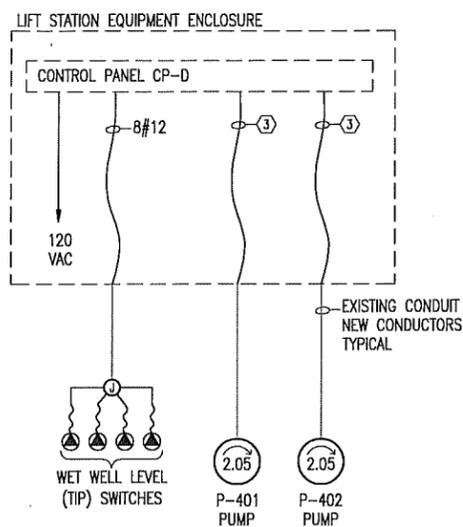




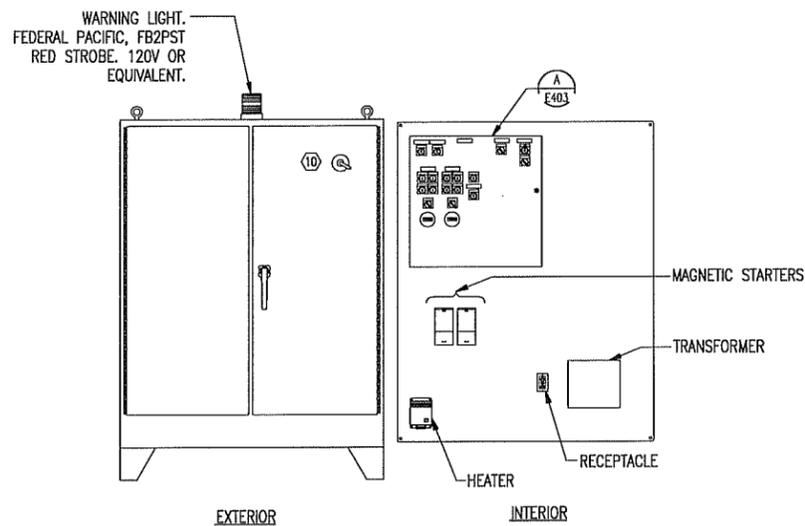
LIFT STATION #3 DEMOLITION ONE-LINE DIAGRAM



POWER ONE-LINE DIAGRAM



INSTRUMENTATION/CONTROL ONE-LINE DIAGRAM



TYPICAL EQUIPMENT ENCLOSURE ARRANGEMENT
SCALE: NONE

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HPE PROJECT 05083 © 2007
FOR INFORMATION ABOUT THIS JOB, PLEASE CONTACT: KEITH HEGERHORST

NOTES:

1. REFER TO PLANS FOR LOCATIONS OF EQUIPMENT.
2. STATION IS BEING DOWNSIZED. EXISTING TRANSFORMER SIZED FOR LARGER PUMPS. COORDINATE WITH ROCKY MOUNTAIN POWER REGARDING REPLACEMENT OF TRANSFORMER AND PAD REQUIREMENTS.
3. LOCATION SHOWN FOR EXISTING EQUIPMENT AND PAD IS APPROXIMATE. REFER TO PHOTOGRAPHS. CONDITION OF EMBEDDED AND BURIED CONDUIT IS UNKNOWN. REUSE AS PRACTICAL FOR NEW MOTORS.
4. CONTRACTOR SHALL REMOVE AND DISPOSE OF EXISTING ENCLOSURE AND ALL EQUIPMENT. RETAIN ANTENNA SUPPORT. INSTALL NEW ENCLOSURE IN SAME LOCATION.
5. REMOVE ABANDONED CONDUITS COMPLETE. EXISTING CONDUITS MAY BE REUSED IF THEY ARE IN GOOD CONDITION.
6. PUMPS HAVE INTERNAL THERMAL DEVICE AND MOISTURE SENSORS. INSTALL CABLE SUPPLIED WITH MOTOR TO CONTROL PANEL. WIRE POWER CONDUCTORS TO STARTERS, THERMAL/MOISTURE SENSORS TO CONTROL PANEL.
7. MANUAL TRANSFER SWITCH: 600V/100A/3P NEMA 4 (FIBERGLASS) W/ STAINLESS STEEL LATCHES.
8. INSTALL A NEW METER SOCKET AS REQUIRED BY ROCKY MOUNTAIN POWER COMPANY. PROVIDE A 30A/3P CIRCUIT BREAKER FOR THE NEW LIFT STATION EQUIPMENT ENCLOSURE.
9. DIN RAIL MOUNTED CIRCUIT BREAKERS IN ENCLOSURE.
10. 480 VAC, 30A, 3P. PROVIDE EXTERNAL HANDLE OPERATOR. LABEL AS "PANEL MAIN DISCONNECT".
11. TYPICAL EXAMPLE OF EQUIPMENT ENCLOSURE. NOT ALL DEVICES OR COMPONENTS MAY BE SHOWN ON THESE DRAWINGS. ENCLOSURE SIZE SHALL BE DETERMINED BY CONTRACTOR BASED ON EQUIPMENT SELECTED.



CREATED BY: NOLTE ASSOCIATES

SITE/LOCATION

RM#: HS000
SALT AIR/MARINA
GREAT SALT LAKE &
I-80 AT SALT AIR,
UTAH

PROJECT TITLE

GREAT SALT LAKE
MARINA, SALT AIR &
LAGOON WASTEWATER
SYSTEM IMPROVEMENTS

MARK	DATE	DESCRIPTION
ISSUE TYPE: CONSTRUCTION SET		
ISSUE DATE: MARCH, 2007		
DFCM PROJECT NO: 04147510		
RISK MANAGEMENT NO: HS000		
CAD PROJECT NO: SLB0284		
CAD DWG FILE: E402.DWG		
DRAWN BY: KBH		
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SHEET TITLE		
LIFT STATION #3 ONE-LINE DIAGRAMS		
SHEET NUMBER		
E402		
SHEET OF ??		

MARK DATE DESCRIPTION

ISSUE TYPE: CONSTRUCTION SET

ISSUE DATE: MARCH, 2007

DFCM PROJECT NO: 04147510

RISK MANAGEMENT NO: HS000

CAD PROJECT NO: SLB0284

CAD DWG FILE: E402.DWG

DRAWN BY: KBH

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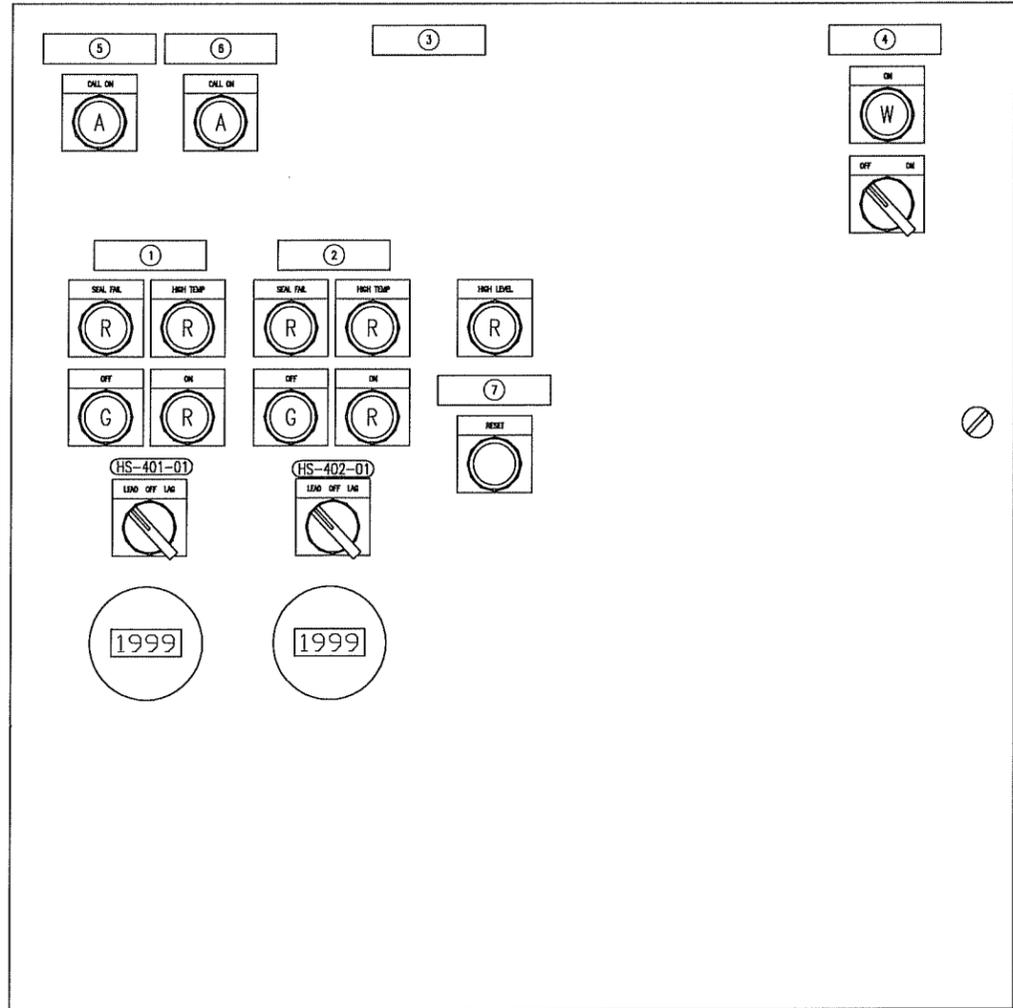
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ONE-LINE DIAGRAMS

SHEET NUMBER

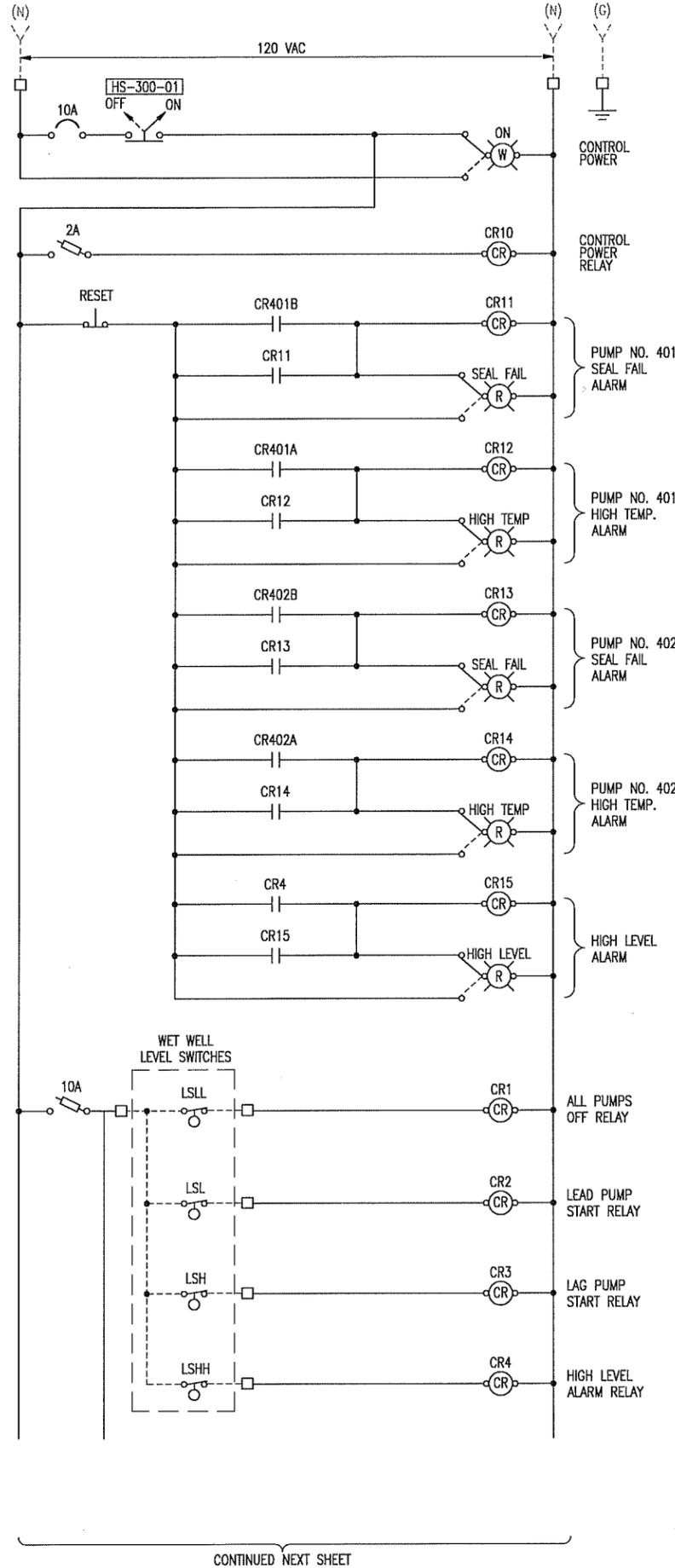
E402

SHEET OF ??



- ① NAMEPLATES
- 1 - WET WELL PUMP #401
 - 2 - WET WELL PUMP #402
 - 3 - LIFT STATION #3
 - 4 - CONTROL POWER
 - 5 - LEAD PUMP
 - 6 - LAG PUMP
 - 7 - ALARM RESET

CONTROL PANEL
EXTERIOR ARRANGEMENT



CONTINUED NEXT SHEET

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FOR INFORMATION ABOUT THIS JOB, PLEASE CONTACT: KEITH HEGERHORST

NOTES:

1. NOT ALL SPARES ARE SHOWN.
2. WIRING DIAGRAM IS CONCEPTUAL. CONTRACTOR IS EXPECTED TO MAKE MODIFICATIONS AS NECESSARY FOR THE SPECIFIC DETAILS OF THE EQUIPMENT SELECTED.
- ③ DR9011 TRANSMITTER (SENSORAD) FROM WILKERSON INSTRUMENT COMPANY (HTTP://WWW.WICL.COM).
- ④ 900MHZ COMPACT YAGI ANTENNA PART NO.: ANT-8.0-15-Y (WILKERSON INSTRUMENT COMPANY).
- ⑤ ANTENNA SURGE PROTECTOR (POLYPHASER IS-B50LN-C2). INSTALL IN CONTROL PANEL.
- ⑥ ANTENNA GROUND ROD 3/4" X 10' CU CLAD STEEL GROUND ROD.



ELECTRICAL WIRING DIAGRAM
CONTROL PANEL (CP-D)



CREATED BY: NOLTE ASSOCIATES

SITE/LOCATION
RM#: HS000
SALTAIR/MARINA
GREAT SALT LAKE &
I-80 AT SALTAIR,
UTAH

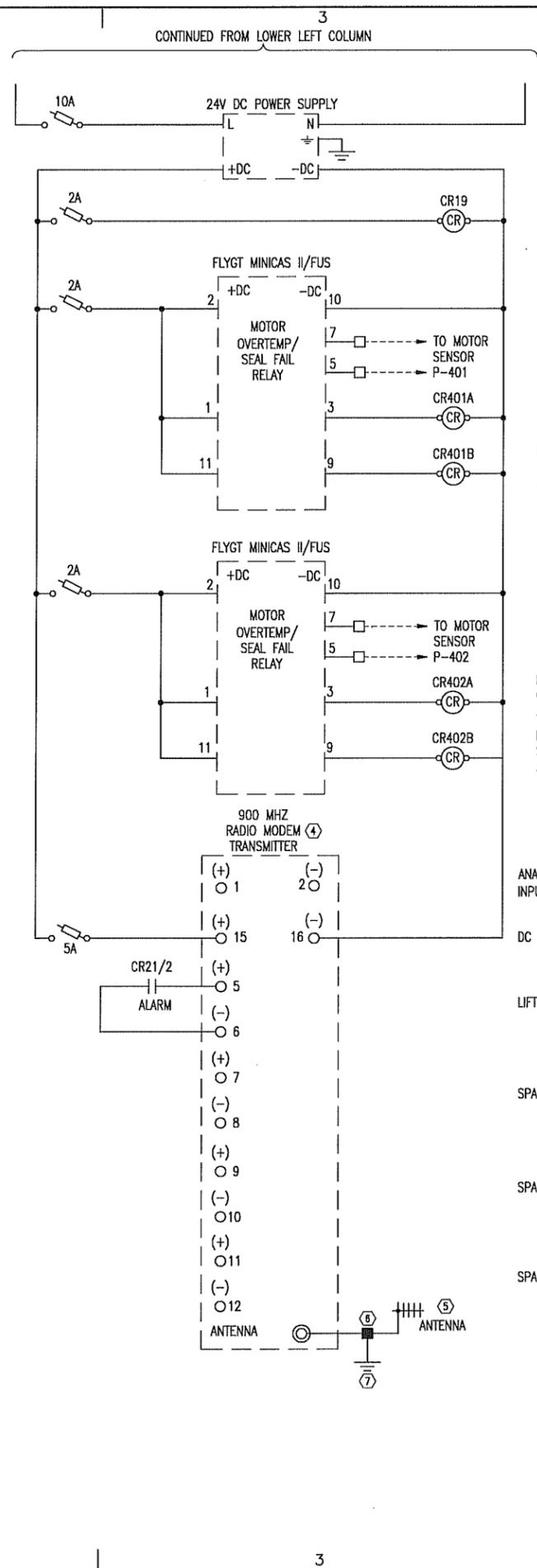
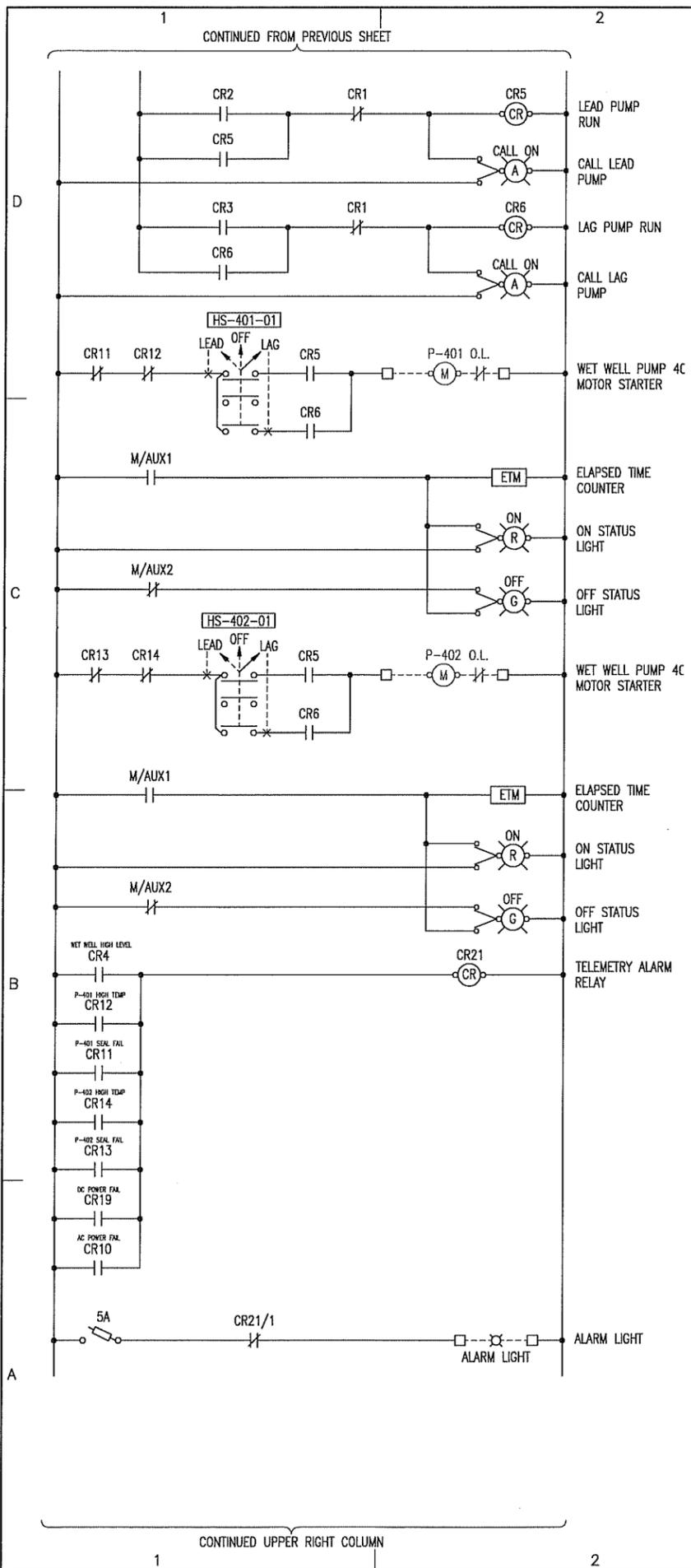
PROJECT TITLE
GREAT SALT LAKE
MARINA, SALTAIR &
LAGOON WASTEWATER
SYSTEM IMPROVEMENTS

MARK	DATE	DESCRIPTION
		ISSUE TYPE: CONSTRUCTION SET
		ISSUE DATE: MARCH, 2007

DFCM PROJECT NO:	04147510
RISK MANAGEMENT NO:	HS000
CAD PROJECT NO:	SLB0284
CAD DWG FILE:	E403.DWG
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SHEET TITLE	

LIFT STATION #3
WIRING DIAGRAM
CONTROL PANEL D
SHEET 1 OF 2

SHEET NUMBER	E403
SHEET OF ??	



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NOTES:
1. REFER TO NOTES ON PREVIOUS SHEET.

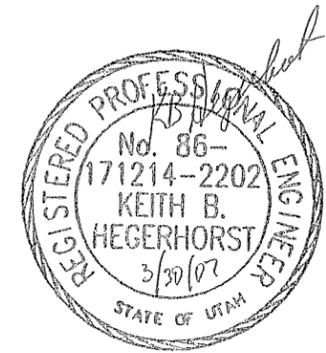
NOLTE
BEYOND ENGINEERING
6671 SOUTH REDWOOD ROAD, SUITE 101 SALT LAKE CITY, UT 84084
801.743.1300 TEL 801.743.0300 FAX WWW.NOLTE.COM

CREATED BY: NOLTE ASSOCIATES

SITE/LOCATION
RM#: HS000
SALTAIR/MARINA
GREAT SALT LAKE &
I-80 AT SALTAIR,
UTAH

PROJECT TITLE
GREAT SALT LAKE
MARINA, SALTAIR &
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MARK	DATE	DESCRIPTION
		ISSUE TYPE: CONSTRUCTION SET
		ISSUE DATE: MARCH, 2007
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		RISK MANAGEMENT NO: HS000
		CAD PROJECT NO: SLB0284
		CAD DWG FILE:
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		SHEET TITLE
		LIFT STATION #3 WIRING DIAGRAM CONTROL PANEL CP-D SHEET 2 OF 2
		SHEET NUMBER
		E404
		SHEET OF ??



**ELECTRICAL WIRING DIAGRAM
CONTROL PANEL (CP-D)**

