

November 6, 2024 REVISION DESCRIPTION BY DATE ADDED ELECTRICAL PLAFORMS ALONG MAINWALK. TGJ 6/3/24 OMITTED DOCK K AND ADDED TO ALL FAIRWAY SPACING. T.G.J. 10/16/24

NO.

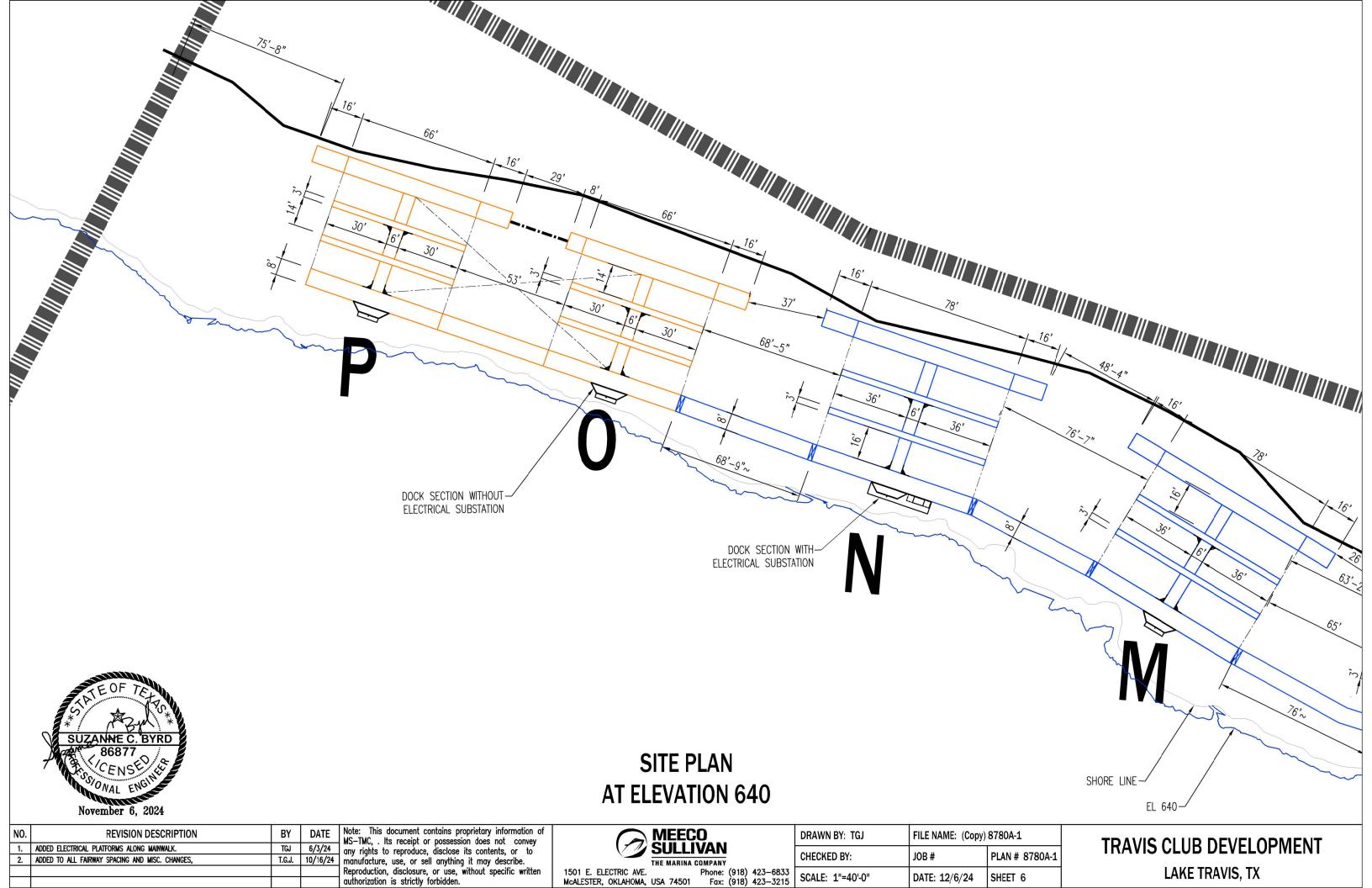
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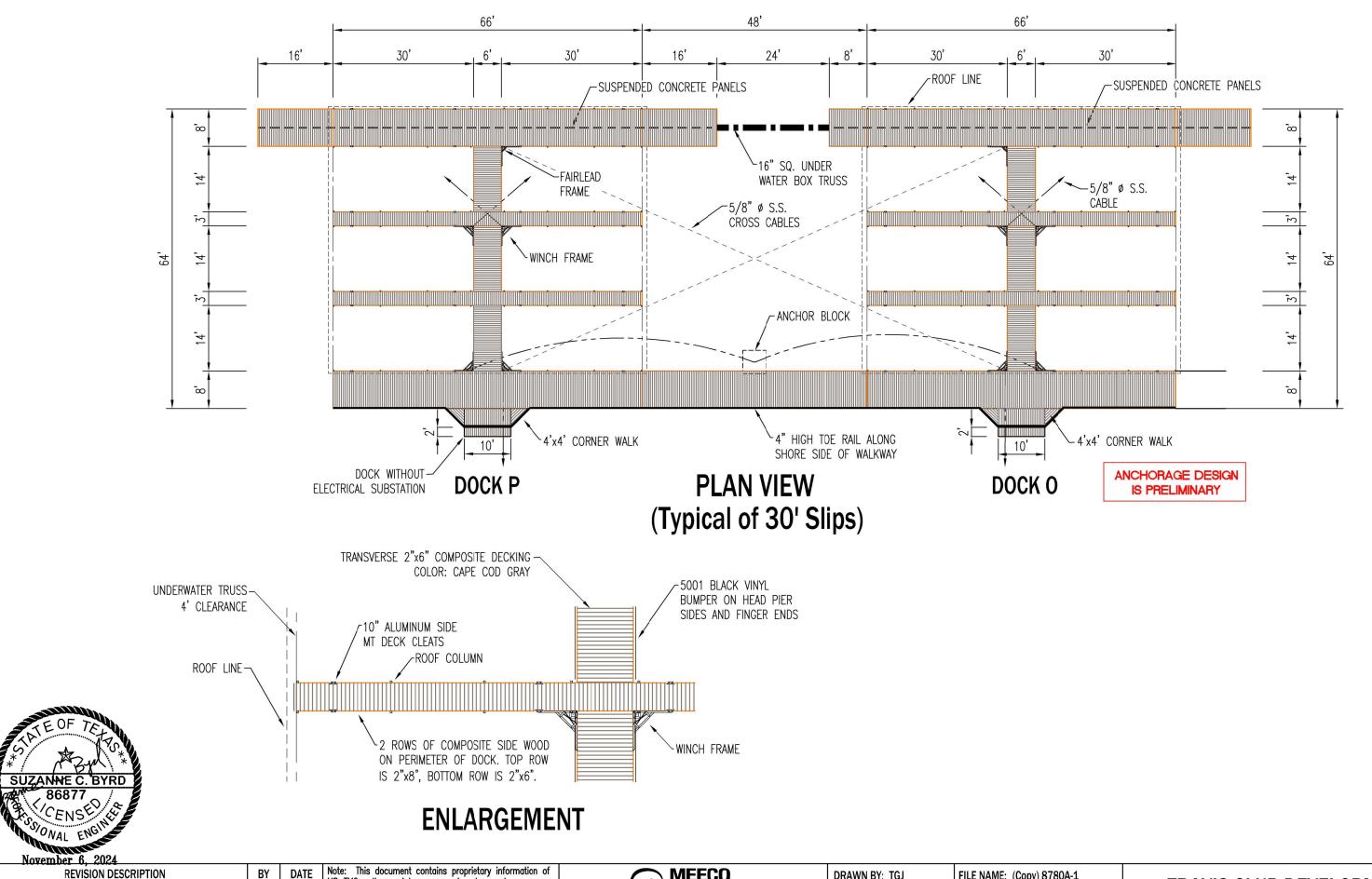
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MEECO SULLIVAN THE MARINA COMPANY

1501 E. ELECTRIC AVE. Phone: (918) 423-6833 McALESTER, OKLAHOMA, USA 74501 Fax: (918) 423-3215

DRAWN BY: TGJ	FILE NAME: (Copy)	8780A-1	
CHECKED BY:	JOB#	PLAN # 8780A-1	
SCALE: 1"=40'-0"	DATE: 12/6/24	SHEET 5	





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T.G.J. 3/26/24

TGJ 6/3/24

T.G.J. 10/22/24

NO.

CHANGED DECKING & SIDE WOOD AND MISC.

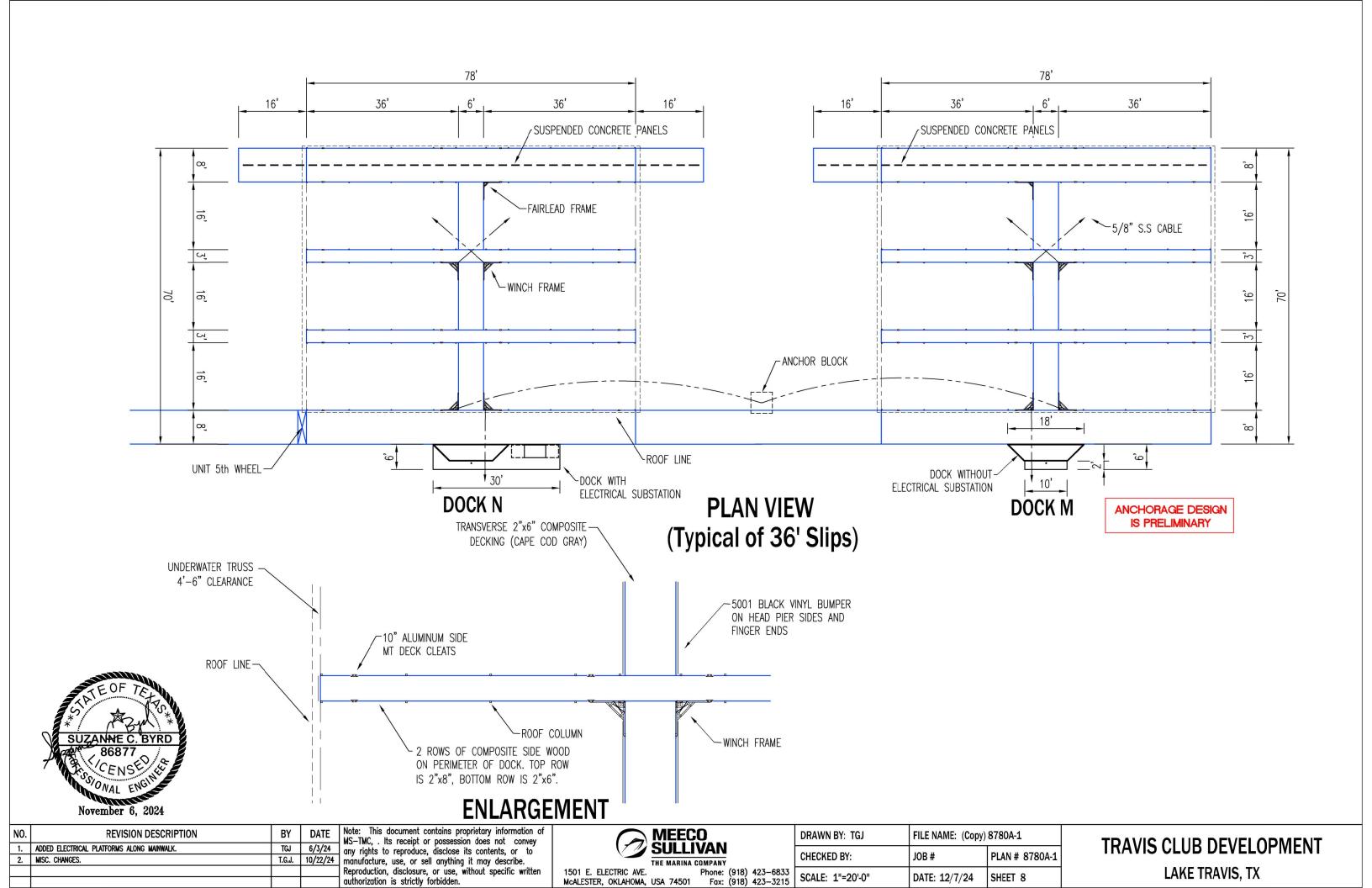
ADDED ELECTRICAL PLATFORMS ALONG MAIONWALK.

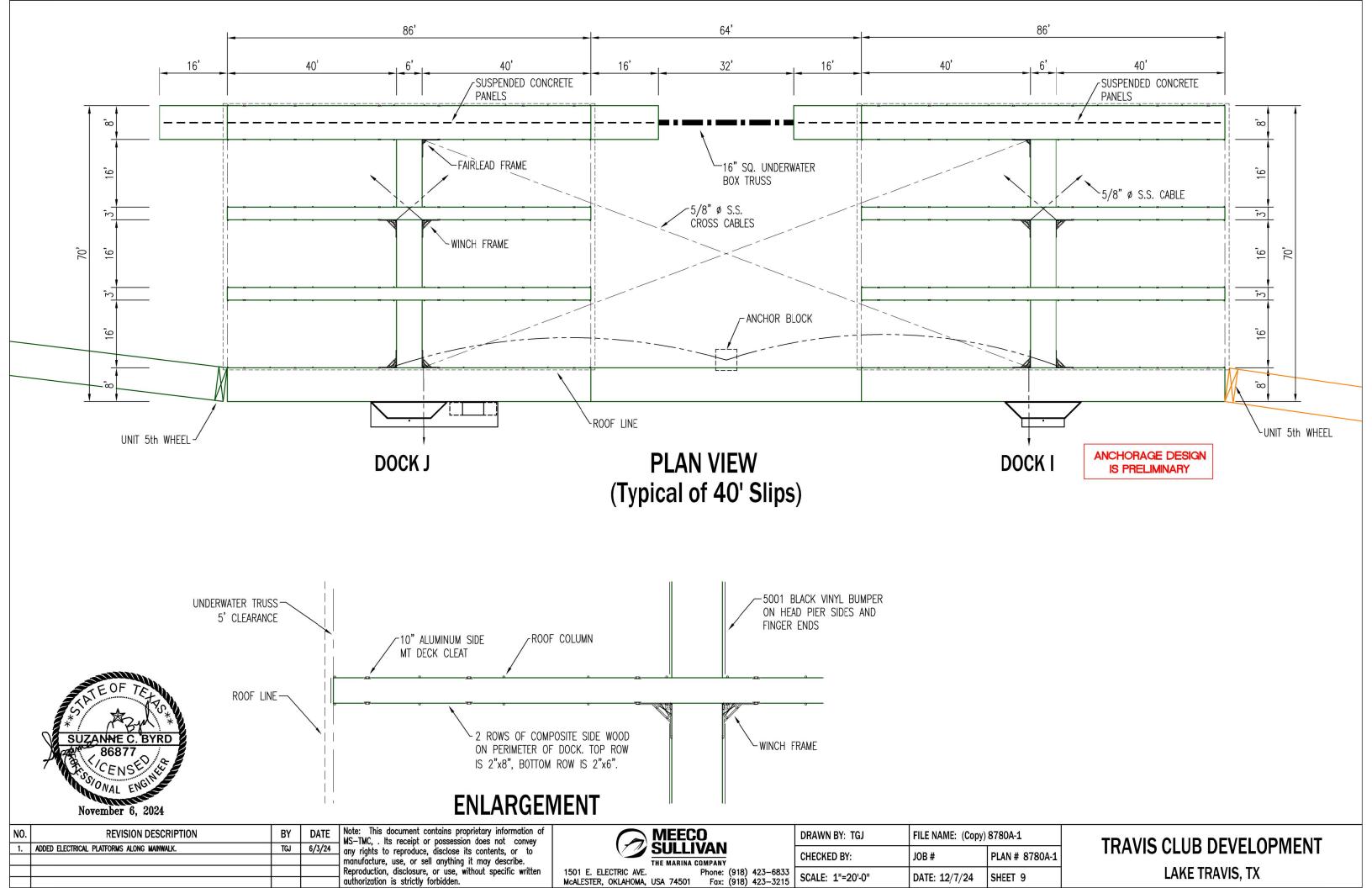
CHANGED DOCK DESIGNATIONS & MISC CHANGES.

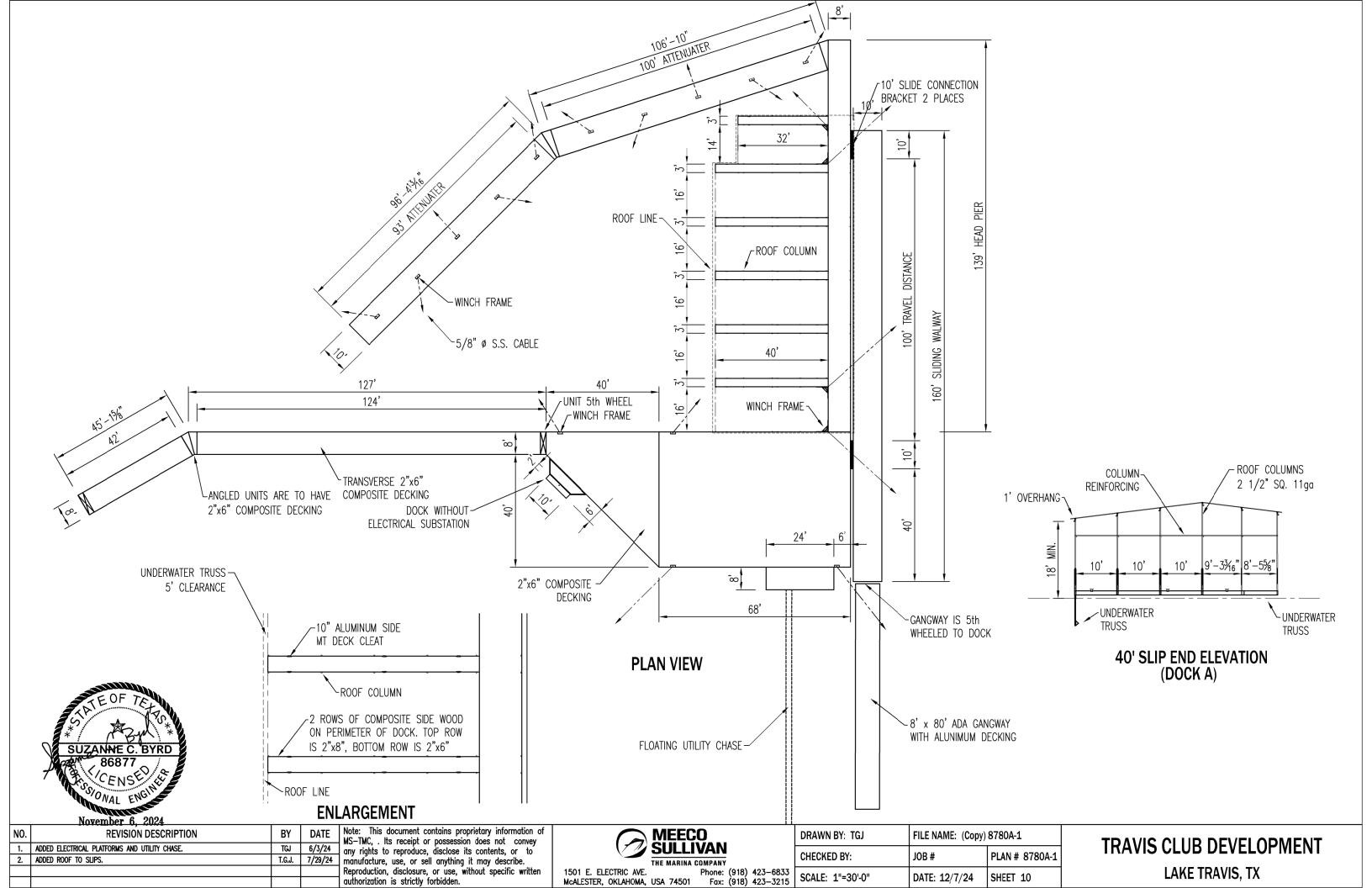
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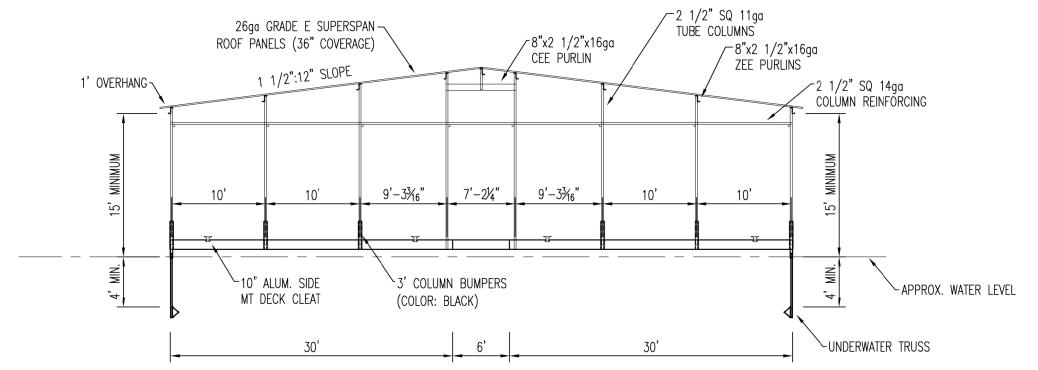
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 JOB #
 PLAN # 8780A-1

 SCALE: 1"=20'-0"
 DATE: 12/7/24
 SHEET 7

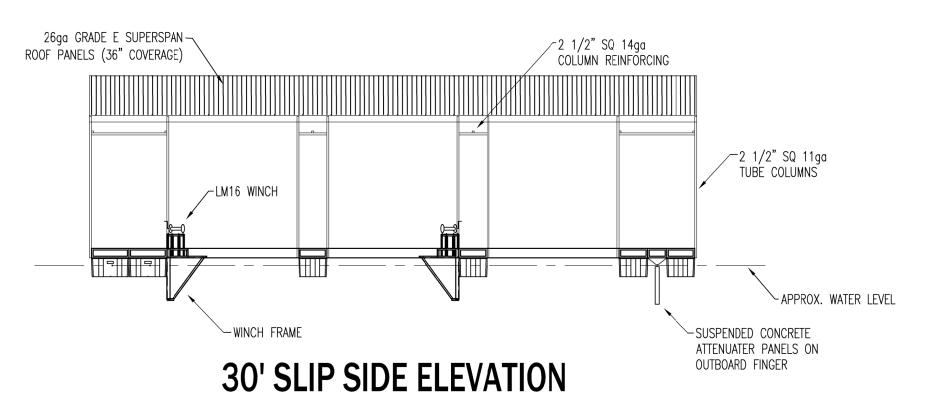








30' SLIP END ELEVATION

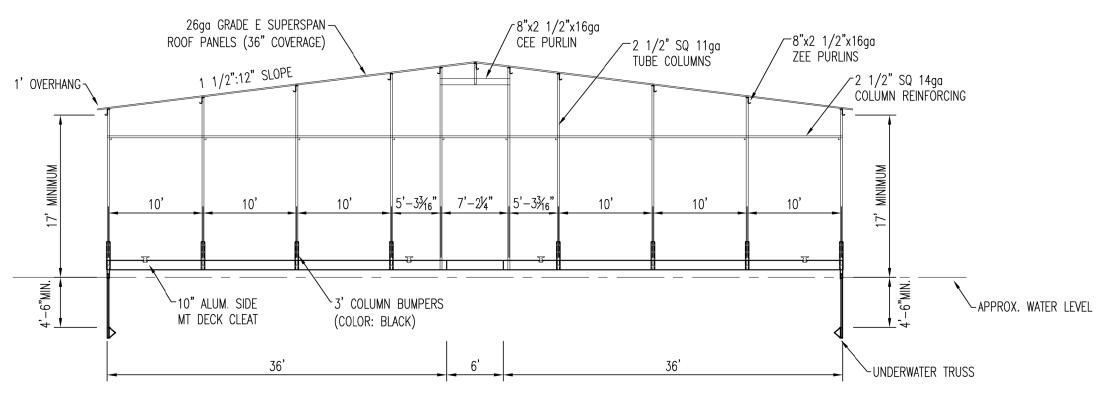




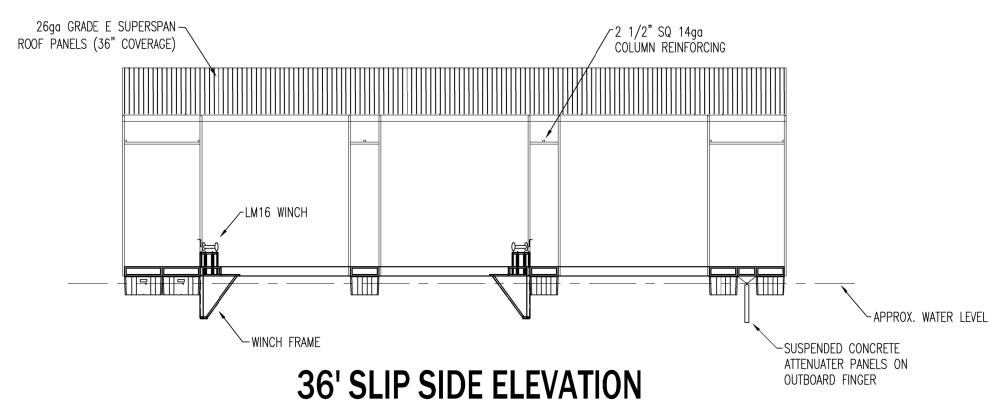
	November D. 2024			
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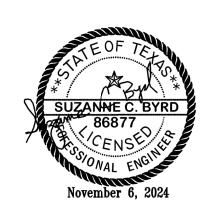


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SCALE: 3/32" = 1'-0"	DATE: 12/7/24	SHEET 11



36' SLIP END ELEVATION



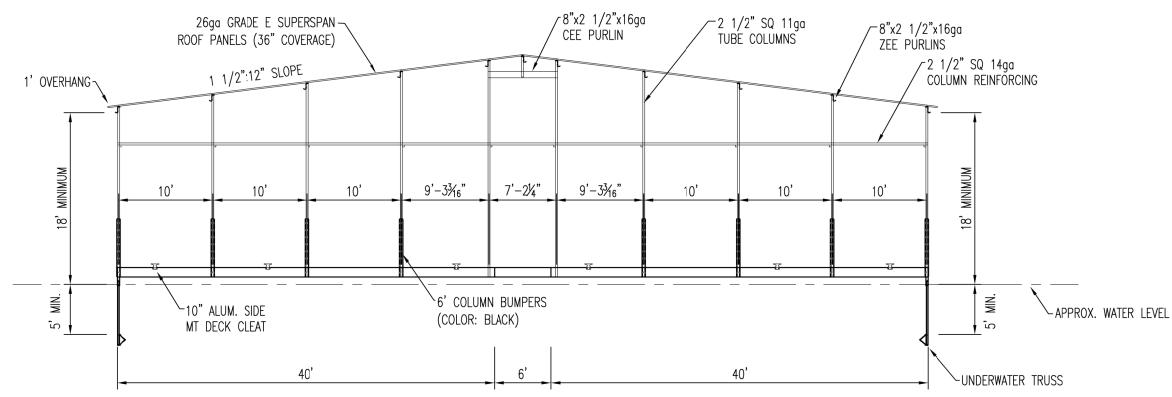


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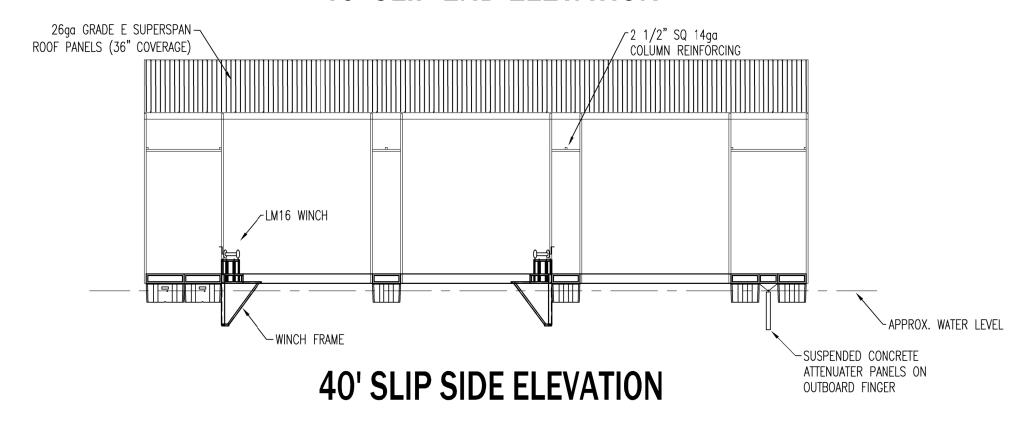


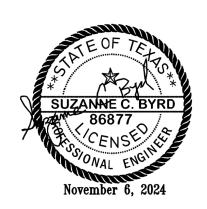
McALESTER, OKLAHOMA, USA 74501

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SCALE: 3/32" = 1'-0"	DATE: 12/7/24	SHEET 12	



40' SLIP END ELEVATION



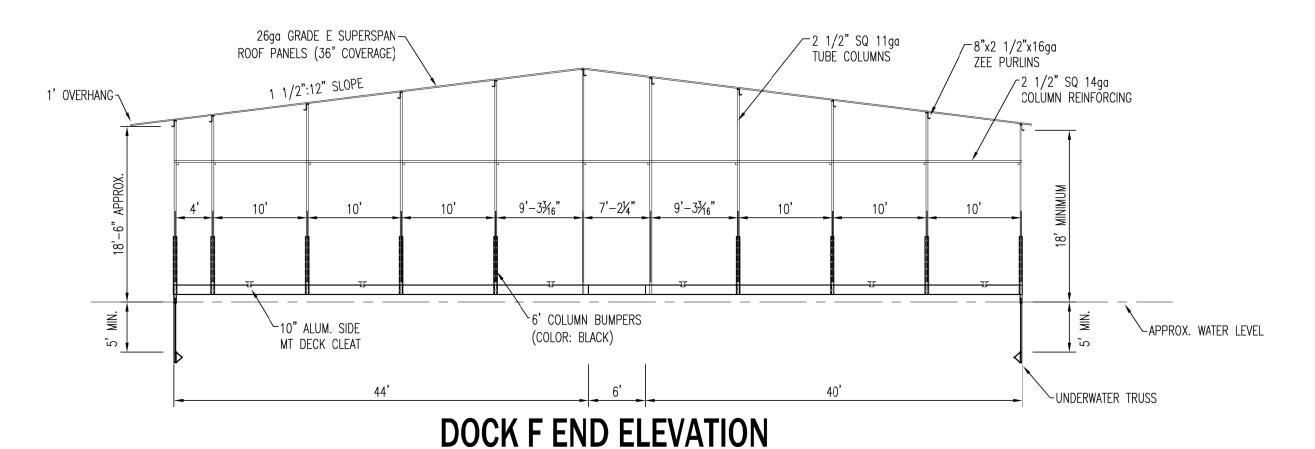


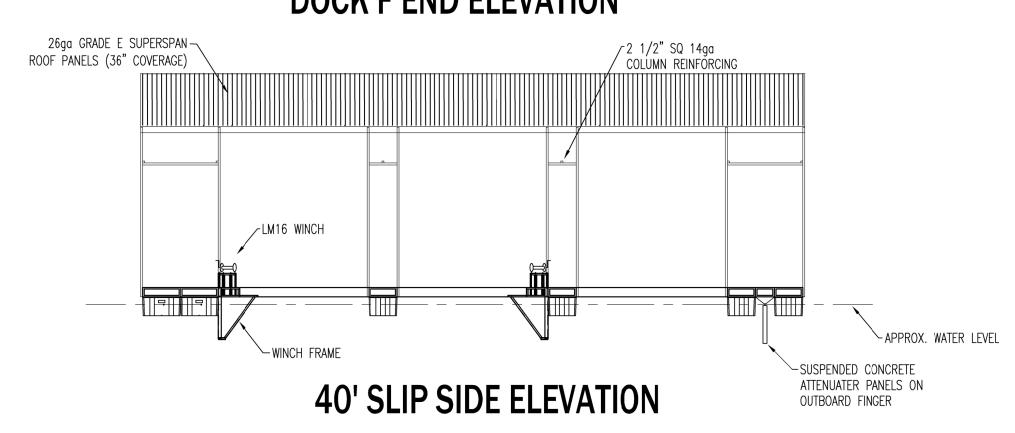
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SUZANNE C. BYRD

November 6, 2024

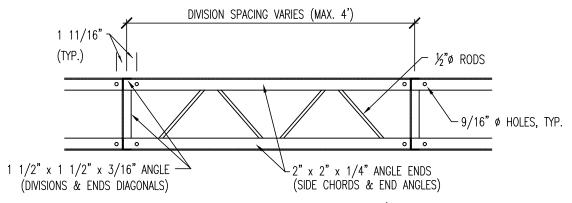
MEECO SULLIVAN

THE MARINA COMPANY

1501 E. ELECTRIC AVE. Phone: (918) 423-6833

McALESTER, OKLAHOMA, USA 74501 Fax: (918) 423-3215

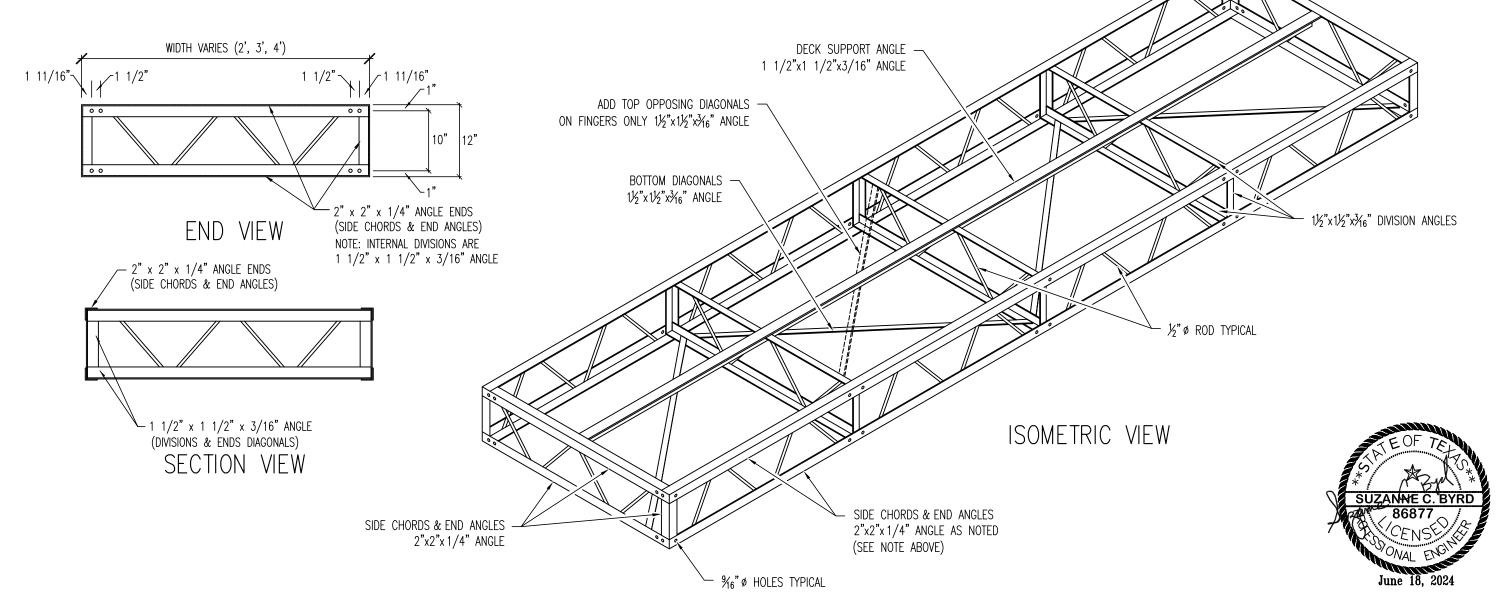
DRAWN BY: TGJ	FILE NAME: (Copy)	8780A-1
CHECKED BY:	JOB#	PLAN # 8780A-1
SCALE: 3/32" = 1'-0"	DATE: 6/6/24	SHEET 13A



PARTIAL SIDE VIEW - 4' DIVISION

NOTE:

ATTENUATOR SECTIONS OF DOCKS HAVE MAIN STRUCTURAL SIDE CHORDS AND ENDS FROM 2"x2"x4" ANGLE AS SHOWN. ALL REMAINING STRUCTURES HAVE 2"x2"x16" ANGLE SIDE CHORDS AND ENDS.



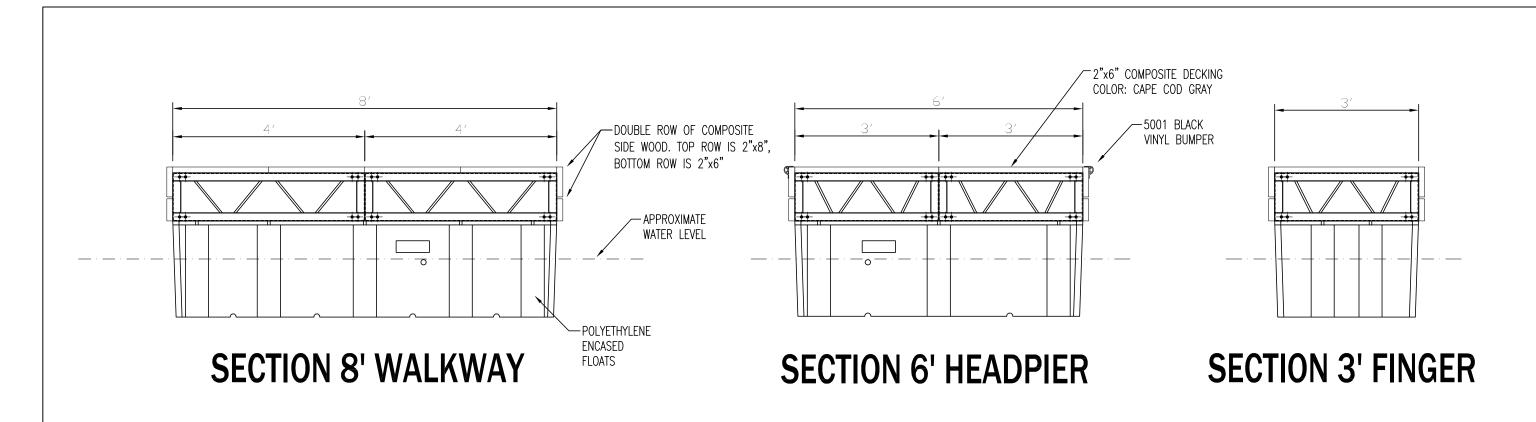
STANDARD FRAME DETAIL

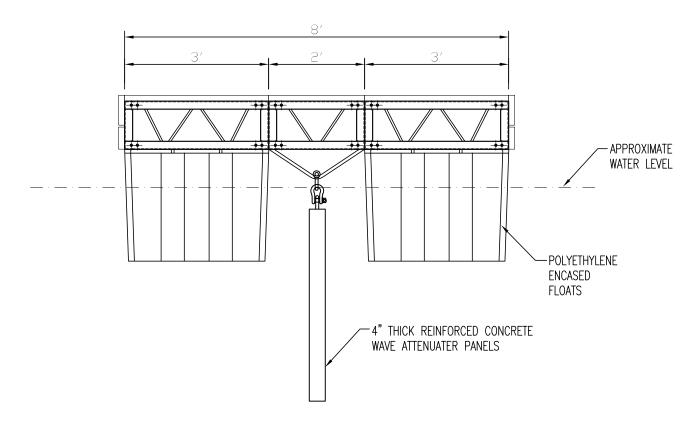
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McALESTER, OKLAHOMA, USA 74501 Fax: (918) 42	3–3215 ³

DRAWN BY: TGJ	FILE NAME: 8780A-2	
CHECKED BY:	JOB#	PLAN # 8780A
SCALE: 3/8" = 1'	DATE: 2/8/24	SHEET 14







NO.	REVISION DESCRIPTION	BY	DATE	N
1.	CHANGED DECKING AND SIDE WOOD.	TGJ	6/3/24] "
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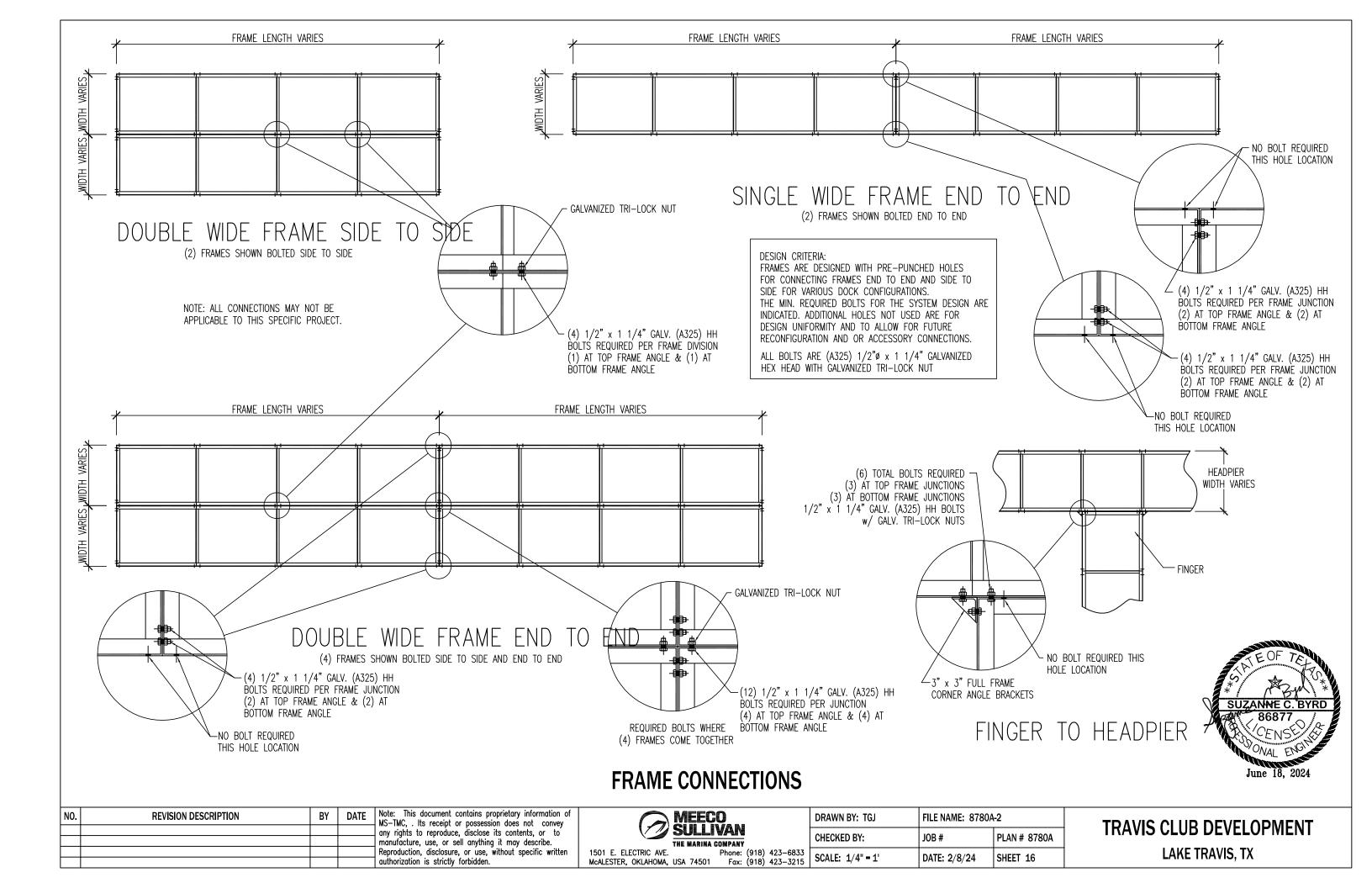


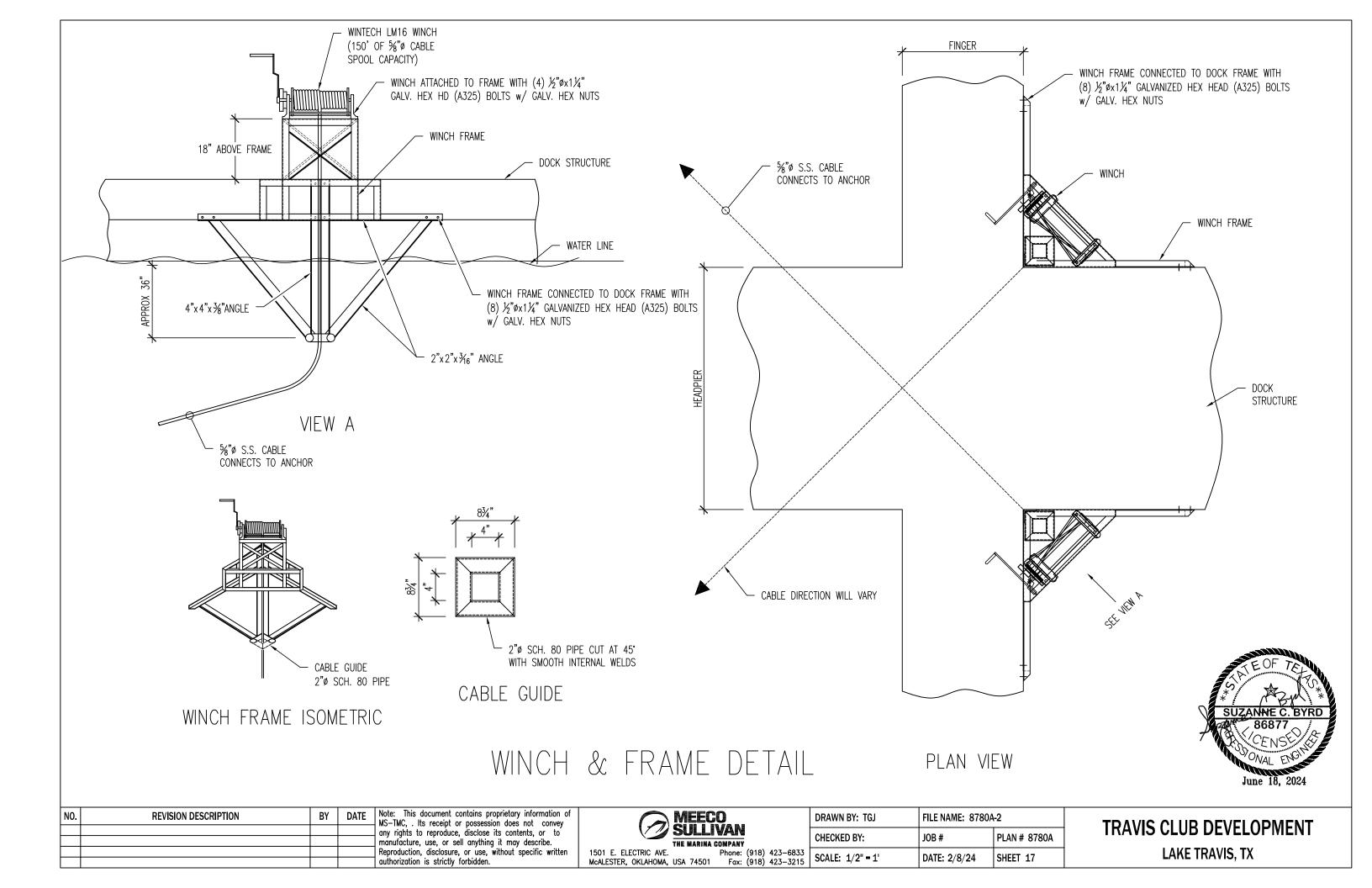
	THE MARINA COMPA	MA
1501 E. ELECTRIC AVE.	Phor	ne: (918) 423-6833
McALESTER, OKLAHOMA,	USA 74501 Fo	x: (918) 423-3215

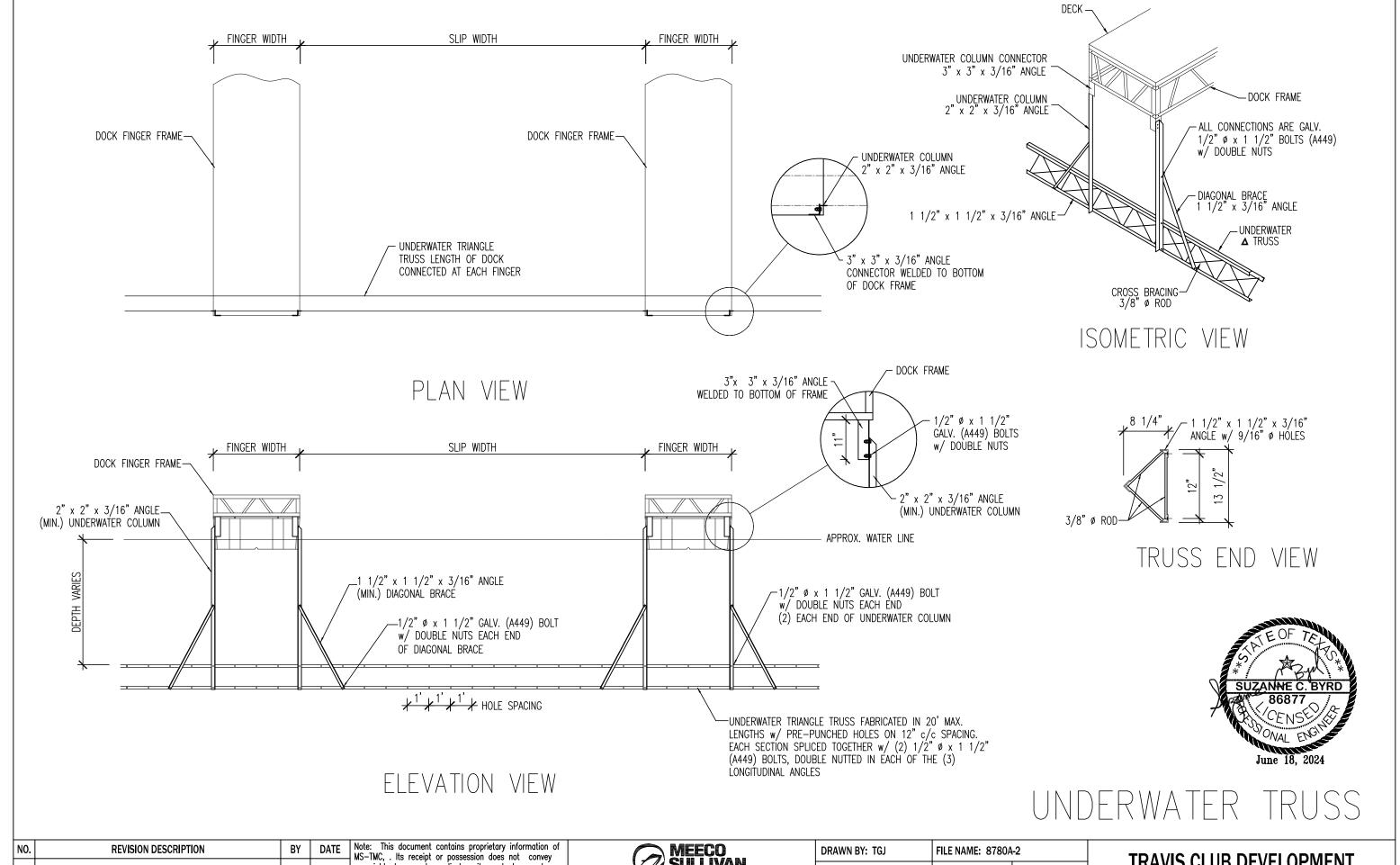
DRAWN BY: TGJ	FILE NAME: 8780A-2		
CHECKED BY:	JOB#	PLAN # 8780A	
SCALE: 1/2" = 1'	DATE: 2/8/24	SHEET 15	

TRAVIS CLUB DEVELOPMENT
LAKE TRAVIS, TX

June 18, 2024





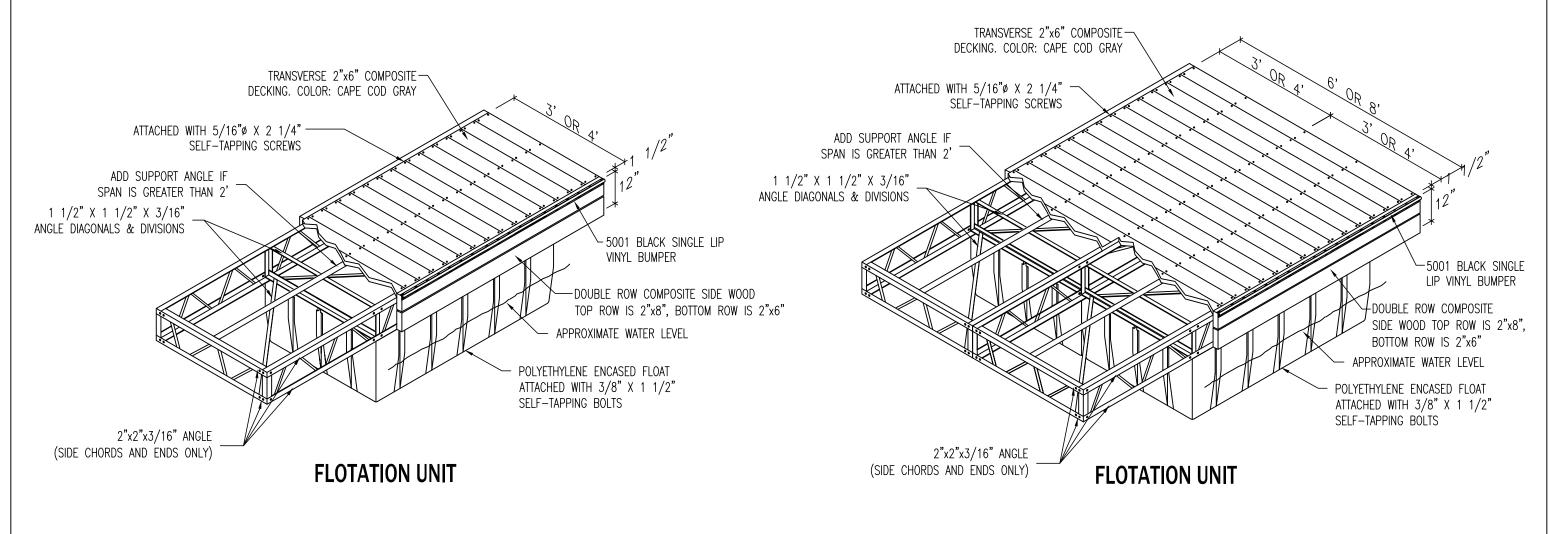


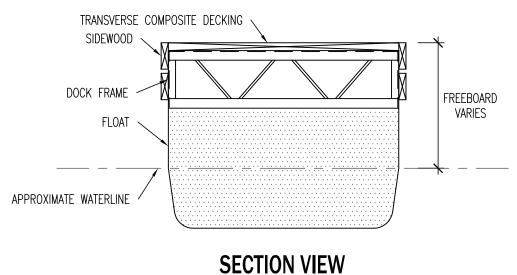
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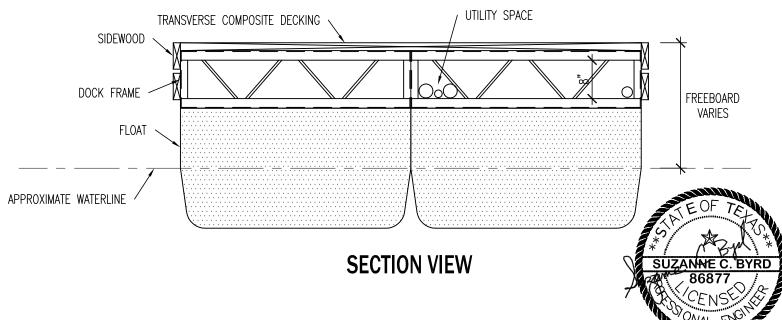


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	CHECKED BY:	JOB#	PLAN # 8780A		
5	SCALE: 1/4" = 1'	DATE: 2/8/24	SHEET 18	l	







NO.	REVISION DESCRIPTION	ВҮ	DATE	Ī
1.	CHANGED DECKING FROM CONCRETE TO COMPOSITE.	TGJ	5/31/24]
]
				1

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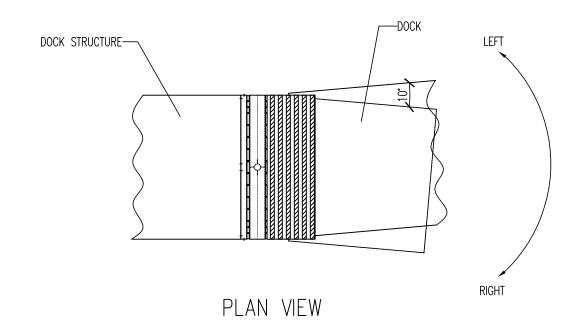
1501 E. ELECTRIC AVE. Phone: (918) 423–6833

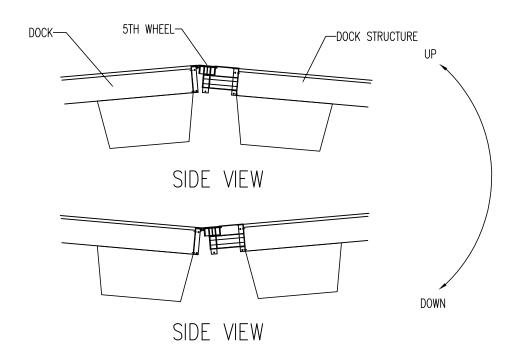
McALESTER, OKLAHOMA, USA 74501 Fax: (918) 423–3215

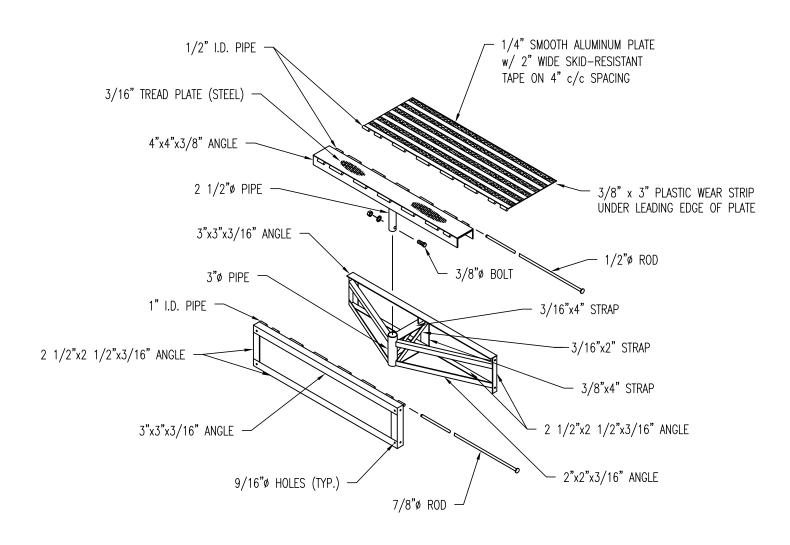
	DRAWN BY: TGJ	FILE NAME: 8780A-2		
	CHECKED BY:	JOB#	PLAN # 8780A	
3 5	SCALE: 6" = 1'	DATE: 2/8/24	SHEET 19	

TRAVIS CLUB DEVELOPMENT LAKE TRAVIS, TX

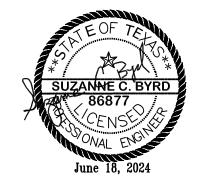
June 18, 2024







UNIT 5th WHEEL CONNECTION (ISOMETRIC VIEW-EXPLODED)



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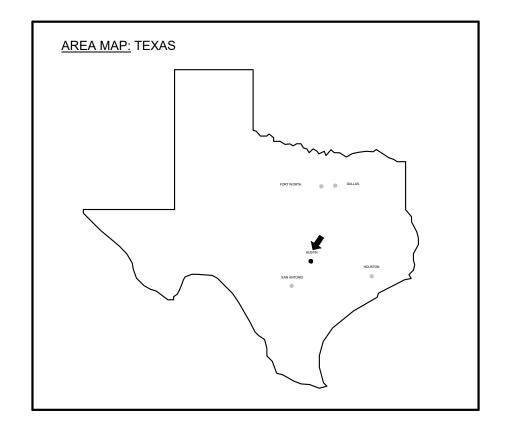
	THE MARINA	COMPANY		
1501 E. ELECTRIC AVE.		Phone:	(918)	423-6833
McALESTER, OKLAHOMA,	USA 74501	Fax:	(918)	423-3215

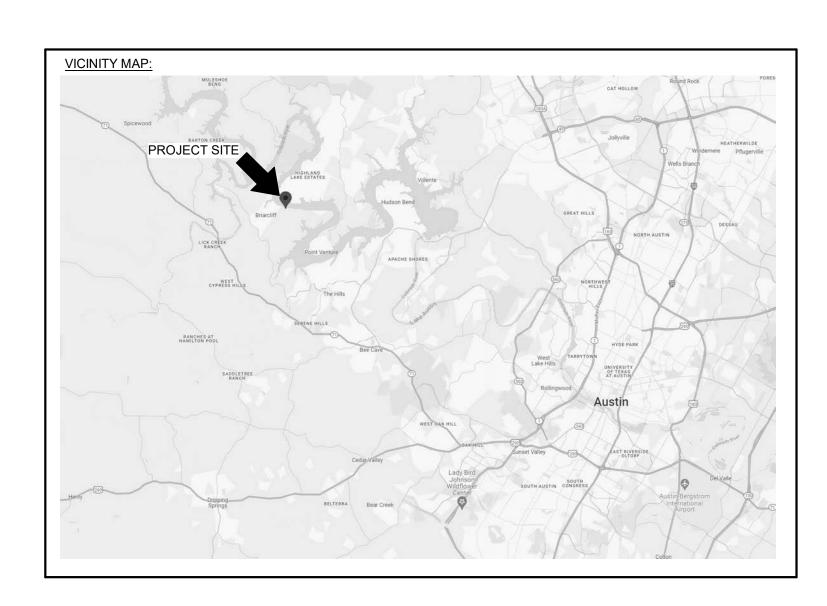
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CHECKED BY:	JOB#	PLAN # 8780A	
SCALE: 1/4" = 1'	DATE: 2/8/24	SHEET 20	

MARINA UTILITIES FOR TRAVIS CLUB AUSTIN

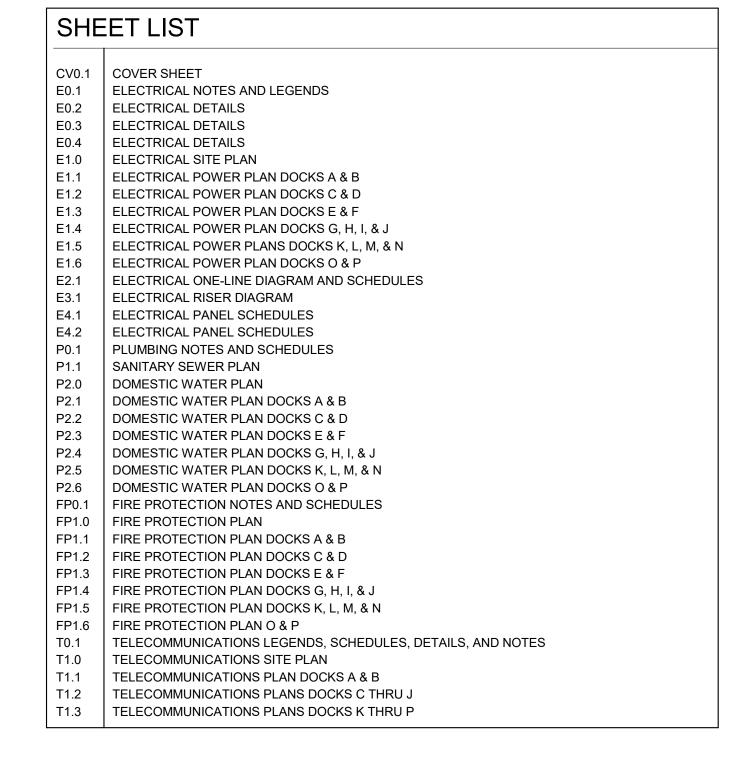
21400 THURMAN BEND ROAD SPICEWOOD, TX

CONSTRUCTION DOCUMENTS





CODE	<u>ANALYSIS</u>
• 2023 NATIONAL ELECTRIC CODE (NFPA 70)	PLUMBING: • 2018 INTERNATIONAL PLUMBING CODE (IPC) • 2015 INTERNATIONAL BUILDING CODE (IBC)
TELECOMMUNICATIONS: BICSI TELECOMMUNICATIONS DISTRIBUTION METHODS MANUAL - 2020 EDITION NFPA 70 - NATIONAL ELECTRIC CODE - 2023 EDITION	 FIRE PROTECTION: 2015 INTERNATIONAL FIRE CODE (IFC) 2019 STANDARD FOR THE INSTALLATION OF STANDPIPE AND HOSE SYSTEMS (NFPA 14) 2021 FIRE PROTECTION STANDARD FOR MARINAS AND BOATYARDS (NFPA 303)





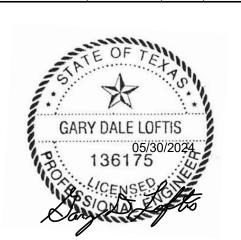


Revisions indicated w/ ENGI

COVER SHEET

ES

COVER SHEET



ELECTRICAL LEGEND

GENERAL

PANEL

- → HOT LEG
- HOT LEG WITH NEUTRAL HOT LEG WITH GROUND
- SWITCH LEG --- THREE-WAY CIRCUIT

CIRCUIT HOME RUN

POWER NON-FUSED DISCONNECT

- ** TRANSFORMER
- □ 120V DUPLEX RECEPTACLE
- # 120V QUAD RECEPTACLE
- 240V RECEPTACLE
- * RECEPTACLE WITH GROUND FAULT CIRCUIT INTERRUPTER
- RECEPTACLE, IN-FLOOR BOX & COVER
- WEATHER-RESISTANT RECEPTACLE, IN-USE, METAL, HEAVY-DUTY, WITH GROUND FAULT CIRCUIT INTERRUPTER
- ABOVE COUNTER RECEPTACLE, COORDINATE WITH
- ARCHITECTURE UNDER COUNTER RECEPTACLE, COORDINATE WITH
- ⊃辛 ARCHITECTURE
- DATA / TELEPHONE STUB UP CONDUIT ABOVE WALL ◆ TELEPHONE - STUB UP CONDUIT ABOVE WALL
- JUNCTION BOX
- → NORMALLY CLOSED CONTACT
- → NORMALLY OPEN CONTACT
- ® CONTACT
- DELAY OFF
- ① THERMOSTAT
- TIMER FUSE

LIGHTING

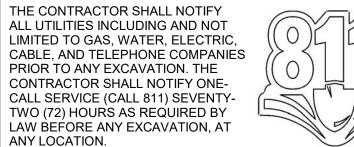
- \$ SWITCH
- 3 4 WAY SWITCH
- \$□ DIMMER SWITCH
- \$0S OCCUPANCY SENSOR SWITCH, TIME SETTING OF 30 MIN. UON
- CEILING-MOUNTED OCCUPANCY SENSOR, TIME SETTING OF 30 MIN. UON HATCHING ON PLANS INDICATES AIMING OF SENSOR
- ♦ EXTERIOR PHOTO-ELECTRIC CELL SWITCH

CALL BEFORE YOU DIG

www.call811.com

THE CONTRACTOR SHALL NOTIFY ALL UTILITIES INCLUDING AND NOT LIMITED TO GAS, WATER, ELECTRIC, CABLE, AND TELEPHONE COMPANIES PRIOR TO ANY EXCAVATION. THE CONTRACTOR SHALL NOTIFY ONE-CALL SERVICE (CALL 811) SEVENTY-

ANY LOCATION.



WIRING COLOR CODE

CONDUCTOR	COLOR	
120/208 (240)		
PHASE A	BLACK	
PHASE B	RED	
PHASE С (3Ф ONLY)	BLUE	
NEUTRAL	WHITE	
GROUND	GREEN	
277/480		
PHASE A	BROWN	
PHASE B	ORANGE	
PHASE С (3Ф ONLY)	YELLOW	
NEUTRAL	GRAY	
GROUND	GREEN	

OUTLET

ELECTRICAL ABBREVIATIONS

- A / AB ABOVE AMPERE FRAME ABOVE FINISHED FLOOR ABOVE FINISHED GRADE
- AUTHORITY HAVING JURISDICTION AVAILABLE FAULT CURRENT

ARC FAULT INTERRUPTER

- AMPERE AP ANNUNCIATOR PANEL
- ΑT AMPERE TRIP AUTOMATIC TRANSFER SWITCH
- AUTO AUTOMATIC
- BELOW FINISHED GRADE BASIS OF DESIGN CONTACTOR
- CKT CIRCUIT COM COMMUNICATION
- CURRENT TRANSFORMER DACR DIGITAL ALARM COMMUNICATION RECEIVER
- DACT DIGITAL ALARM COMMUNICATION TRANSMITTER DETD DUAL ELEMENT TIME DELAY
- DOWN DN
 - DWG DRAWING
 - ELECTRICAL CONTRACTOR ENCLOSED CIRCUIT BREAKER

 - EDP ELECTRICAL DATUM PLANE EQUIP EQUIPMENT
 - ETB ELECTRONIC TRIP BREAKER
 - FACP FIRE ALARM CONTROL PANEL FAP FIRE ALARM PANEL
 - FAS FIRE ALARM SYSTEM
 - GARBAGE DISPOSAL GROUND-FAULT CIRCUIT INTERRUPTER
 - GROUND FAULT MONITOR GFPE GROUND-FAULT PROTECTION OF EQUIPMENT
 - HACR HEATING, AIR CONDITIONING, REFRIGERATION
 - HERTZ INTEGRATED POWER CENTER
 - KILOVOLT-AMPERE KW KILOWATT
 - LIGHTING CONTACTOR
 - LEUD LOCAL ELECTRICAL AND UTILITY DEPARTMENT
 - MAX MAXIMUM MCB MAIN CIRCUIT BREAKER
 - MCS MOLDED CASE SWITCH MDP MAIN DISTRIBUTION PANEL
 - MFG MANUFACTURING MFR MANUFACTURER
 - MINIMUM MLB MICROLOGIC BREAKER
 - MLO MAIN LUG ONLY MOCP MAIN OVERCURRENT PROTECTION
 - N.C. NORMALLY CLOSED N.O. NORMALLY OPEN
 - OCP OVERCURRENT PROTECTION
 - OH OVERHEAD PUSH BUTTON
 - PH/Φ PHASE PNL PANEL PPC PORTABLE POWER CABLE
 - RECPT RECEPTACLE SCH SCHEDULE SER SERVICE ENTRANCE CONDUCTOR
 - SPD SURGE PROTECTIVE DEVICE ST SHUNT TRIP TEL TELEPHONE
 - TMB THERMAL MAGNETIC BREAKER TYP TYPICAL U / UC UNDER / UNDER CABINET
 - UG UNDERGROUND UON UNLESS OTHERWISE NOTED
 - UPS UNINTERRUPTIBLE POWER SUPPLY US UNDERSLAB
 - UW UNDERWATER VOLT VA VOLT-AMPERE
 - WATT WR WEATHER-RESISTANT WRI WEATHER-RESISTANT, IN-USE

MARINA POWER PEDESTAL LEGEND

- (1) kWH METER INCLUDED PER ACTIVE SIDE UNLESS OTHERWISE NOTED
- ÀLL SHORE POWER RECEPTACLES SHALL BE PROTECTED BY A LISTED GFPE DEVICE SET TO TRIP BETWEEN 25mA 30mA AND 250ms OR FASTER LOCATED IN THE SHORE POWER PEDESTAL
- COORDINATE LIGHT COLOR AND/OR LENS COLOR WITH OWNER AND LOCAL REQUIREMENTS

LABEL	SIDE 1	SIDE 2	LIGHTING	OTHER UTILITIES	MOUNTING	MODEL#
А	N/A	N/A	10W LED W/ INTEGRAL PHOTOCELL	N/A	DECK-MOUNTED	HYPOWER LIGHTCENTER OR APPROVED EQUAL
P1	(1) 30A 120V & (1) 50A 240V METERED SHORE POWER RECEPTACLES - 120V GFCI MAINTENANCE OUTLET	(1) 30A 120V & (1) 50A 240V METERED SHORE POWER RECEPTACLES - 120V GFCI MAINTENANCE OUTLET	10W LED W/ INTEGRAL PHOTOCELL	COORDINATE WITH OWNER	DECK-MOUNTED	HYPOWER POWERPORT OR APPROVED EQUAL
P2	(1) 30A 120V & (1) 50A 240V METERED SHORE POWER RECEPTACLES - 120V GFCI MAINTENANCE OUTLET	(2) 30A 120V METERED SHORE POWER RECEPTACLES - 120V GFCI MAINTENANCE OUTLET	10W LED W/ INTEGRAL PHOTOCELL	COORDINATE WITH OWNER	DECK-MOUNTED	HYPOWER POWERPORT OR APPROVED EQUAL
P3	(2) 30A 120V METERED SHORE POWER RECEPTACLES - 120V GFCI MAINTENANCE OUTLET	(2) 30A 120V METERED SHORE POWER RECEPTACLES - 120V GFCI MAINTENANCE OUTLET	10W LED W/ INTEGRAL PHOTOCELL	COORDINATE WITH OWNER	DECK-MOUNTED	HYPOWER POWERPORT OR APPROVED EQUAL
P4	(2) 30A 120V METERED SHORE POWER RECEPTACLES - 120V GFCI MAINTENANCE OUTLET	BLANK	10W LED W/ INTEGRAL PHOTOCELL	COORDINATE WITH OWNER	DECK-MOUNTED	HYPOWER POWERPORT OR APPROVED EQUAL
P5	(1) 30A 120V & (1) 50A 240V METERED SHORE POWER RECEPTACLES - 120V GFCI MAINTENANCE	BLANK	10W LED W/ INTEGRAL PHOTOCELL	COORDINATE WITH OWNER	DECK-MOUNTED	HYPOWER POWERPORT OR APPROVED EQUAL

ELECTRICAL NOTES

- 1 APPLICABLE CODES INCLUDE, BUT ARE NOT RESTRICTED TO, THE LATEST ADOPTED VERSIONS OF THE FOLLOWING CODES AT THE TIME OF THE - NFPA 70 NATIONAL ELECTRIC CODE
 - INTERNATIONAL BUILDING CODE - UL UNDERWRITERS LABORATORY
- 2 ELECTRICAL SYSTEM(S) SHALL BE INSTALLED COMPLETE WITH ALL WORK, MATERIALS, AND EQUIPMENT CUSTOMARILY CONSIDERED PART OF SUCH WORK FOR A FULLY OPERATIONAL, COMPLETE, AND CODE COMPLIANT SYSTEM.
- PLANS ARE DIAGRAMMATIC AND ARE PROVIDED ONLY TO SHOW GENERAL SYSTEM. CONTRACTOR SHALL CONSIDER ACTUAL FIELD CONDITIONS DURING INSTALLATION. ANY GROSS INTERFERENCE SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE CONTINUING.
- 4 ALL ELECTRICAL CONNECTIONS SHALL BE MOUNTED ABOVE ELECTRICAL DATUM PLANE COORDINATE FINAL LOCATIONS OF ALL SWITCHES AND OUTLETS WITH OWNER. OWNER SHALL RETAIN RIGHT TO MAKE MINOR LOCATION
- 6 ALL 3Φ CIRCUITS SHALL HAVE A-B-C PHASE ROTATION. ALL 3Φ ELECTRICAL SWITCHGEAR, SWITCHBOARDS, MCC'S, AND SIMILAR EQUIPMENT SHALL HAVE A-B-C PHASE ROTATION FROM LEFT TO RIGHT. REFER TO THE POWER WIRING COLOR CODE ON THIS SHEET.
- VERIFY AVAILABLE CIRCUIT CURRENT WITH ELECTRICAL POWER SUPPLIER. PROVIDE COMPLETE AND COMPLIANT EQUIPMENT AND SYSTEM GROUNDING THROUGHOUT ELECTRICAL INSTALLATION. INSTALL BONDING
- JUMPERS TO OUTLET BOXES IN METALLIC CONDUIT SYSTEMS UNLESS OTHERWISE NOTED, EACH CONDUIT OR RACEWAY SHALL CONTAIN ONLY A SINGLE CIRCUIT.

ADJUSTMENTS PRIOR TO EQUIPMENT INSTALLATION WITHOUT ADDITIONAL COST.

- 10 ALL EXTERIOR EQUIPMENT SHALL BE NEMA 3R RAINTIGHT.
- 11 WITH ALL LIGHTING AND MOTOR LOADS OPERATING, CONTRACTOR SHALL VERIFY THAT THE PHASE BALANCE IN EACH PANEL IS WITHIN 5%. 12 COMPLETE ELECTRICAL SYSTEMS SHALL BE TESTED FOR COMPLIANCE AND FUNCTION IN ACCORDANCE WITH LOCAL INSPECTIONS AND
- 13 CONTRACTOR SHALL INSTALL EXPANSION AND DEFLECTION CONDUIT FITTINGS PER NEC 300.7(B), PLANS, AND SPECIFICATIONS.
- 14 THE AMPACITY, VOLTAGE, AND PHASE OF ALL DISCONNECTS SHALL BE RATED PER THE SPECIFIED CIRCUIT AND UPSTREAM OVERCURRENT PROTECTION UON. THE ENCLOSURE NEMA RATING SHALL BE COORDINATED AS REQUIRED BY THE ENVIRONMENT. 15 IF DISCREPANCIES EXIST WITHIN THE PLANS AND/OR SPECIFICATIONS, THE MOST STRINGENT SHALL APPLY AND SHALL BE THE RESPONSIBILITY
- OF THE CONTRACTOR TO BRING IT TO THE ATTENTION OF THE ENGINEER BEFORE WORK IS STARTED OR MATERIAL/EQUIPMENT IS ORDERED. 16 THE PLANS AND SPECIFICATIONS FOR THIS WORK HAVE BEEN PREPARED WITH THE INTENT TO BE AS ACCURATE AND COMPLETE AS PRACTICAL BUT ERRORS, OMISSIONS, AND CONFLICTS MAY EXIST, PRIOR TO SUBMITTING A BID FOR CONSTRUCTING THE WORK, THE CONTRACTOR SHALL REVIEW THE PLANS AND SPECIFICATIONS IN DETAIL. ANY QUESTIONS OR COMMENTS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO SUBMITTING A BID. BY SUBMITTING A BID FOR THE WORK, THE CONTRACTOR ACKNOWLEDGES THAT HE HAS REVIEWED THE PLANS
- AND SPECIFICATIONS, UNDERSTANDS THE DESIGN INTENT, AND DOES NOT HAVE ANY FURTHER QUESTIONS OR COMMENTS. 17 CONTRACTOR SHALL FIELD VERIFY THAT ALL PARALLEL CONDUCTOR RUNS OF SERVICE ENTRANCE OR FEEDER CONDUCTORS FOR EACH CIRCUIT FOLLOW THE SAME PATH AND ARE OF EQUAL LENGTH.
- 18 CONTRACTOR SHALL BE RESPONSIBLE FOR ALL UTILITY FEES AND CHARGES FOR INSTALLATION AND UTILITY UPGRADES FOR PROJECT.
- 19 CONTRACTOR SHALL COORDINATE AND PAY FOR ALL PERMITS, INSPECTION FEES, UTILITY FEES, AND UTILITY CHARGES FOR THIS PROJECT. 20 CONTRACTOR SHALL WARRANTY ALL SYSTEMS FOR PARTS, EQUIPMENT, MATERIAL, AND LABOR FOR A PERIOD OF ONE YEAR FROM THE DATE OF SUBSTANTIAL COMPLETION.

21 THE OWNER AND/OR OWNER'S REPRESENTATIVE SHALL INSPECT THE INSTALLATION AT SUBSTANTIAL COMPLETION AND AT ONE YEAR FROM

- SUBSTANTIAL COMPLETION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CORRECTIONS THAT DO NOT CONFORM TO THE CODE AND/OR 22 KELLEMS GRIPS SHALL BE INSTALLED SO THE GRIP IS ALIGNED WITH THE CABLE TO AVOID ANY PRESSURE POINTS ANYWHERE ALONG THE
- LENGTH OF THE GRIP. THIS INCLUDES INSTALLATION PROJECTS WHERE TIDAL ACTION MAY CHANGE THE ANGLE OF THE CABLE IN REFERENCE TO THE GRIP POSITION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBSERVING AND MAKING ANY ADJUSTMENTS TO THE GRIP MOUNTING POSITION AND CABLE LENGTHS AS REQUIRED TO MITIGATE PRESSURE POINTS AT LOW AND HIGH TIDES. REFER TO PLANS AND DETAILS WHERE THE GRIPS ARE INDENDED TO BE INSTALLED. ALL KELLEMS GRIPS, SUPPORT CABLE, AND MOUNTING HARDWARE SHALL BE STAINLESS STEEL 23 LABEL REQUIREMENTS
- A. ALL ELECTRICAL EQUIPMENT SHALL BE AFFIXED WITH A PERMANENT LABEL STATING THE EQUIPMENT NAME, VOLTAGE AND PHASE CLASS, AMPACITY, AND WHERE THE EQUIPMENT IS FED FROM. B. PANEL DIRECTORIES SHALL BE TYPED SHOWING EACH BRANCH BREAKER LOAD AS SHOWN IN THE PANEL SCHEDULES. C. EACH SHORE POWER PEDESTAL SHALL BE LABELED WITH THE UPSTREAM CIRCUIT AND PANEL.
- 24 CONTRACTOR SHALL CARRY CONTINGENCY IN THE AMOUNT OF 10% OF BID.
- 25 SUBMITTAL REQUIREMENTS: CONTRACTOR SHALL PREPARE AND SUBMIT TO THE ENGINEER FOR REVIEW AND APPROVAL DETAILED PRODUCT INFORMATION ON ALL EQUIPMENT INCORPORATED IN THE PROJECT RELATED TO THE SPECIFIC CONTRACTOR TRADE. SUBMITTAL SHALL BE PROVIDED, AND ENGINEER SHALL REVIEW AND APPROVE, PRIOR TO EQUIPMENT PURCHASE. FOUR COPIES OF SUBMITTALS SHALL BE PROVIDED TO THE ENGINEER, TWO COPIES SHALL BE RETURNED TO THE CONTRACTOR, PRIOR TO SUBMITTAL, CONTRACTOR SHALL REVIEW AND CERTIFY BY SIGNATURE THE SUBMITTED EQUIPMENT MEETS SPECIFICATION. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DIMENSIONS, FITTINGS, AND CONSTRUCTION FEATURES RELATIVE TO EQUIPMENT. APPROVAL OF SUBMITTAL INFORMATION BY THE ENGINEER ONLY REFERS TO MATERIALS, DESIGN, AND ADHERENCE TO SPECIFICATIONS, "APPROVED EQUAL" MEANS THE CONTRACTOR SHALL SUBMIT A REQUEST FOR ALTERNATE EQUIPMENT AND/OR MATERIAL FOR ENGINEER'S REVIEW AND APPROVAL. THE CONTRACTOR SHALL NOT ASSUME THE ALTERNATE WILL BE APPROVED.

CONDUCTOR

VOLTAGE

- 26 ALL CONNECTIONS SHALL BE MADE WITH A LISTED BI-METAL GALVANIC CORROSION INHIBITOR. 27 ALL ALUMINUM CONNECTIONS AND TERMINATION BLOCKS SHALL BE LISTED FOR BOTH ALUMINUM AND COPPER CONDUCTORS.

NUMBER

BRANCH CIRCUIT AND FEEDER LEGEND W/ EQUIP. GND.

ALL WIRE SIZED FOR THWN COPPER ALL CONDUIT SIZED FOR RIGID PVC, SCHEDULE 40; RESIZE FOR DIFFERENT CONDUIT AS REQUIRED FEEDER LABEL WITH * IN THE PLANS INDICATES NEUTRAL IS NOT REQUIRED

LABEL	CONDUCTORS PER CONDUIT	OF RUNS	MINIMUM CONDUIT	CONDUCTOR AMPACITY 75 °C	Φ	VOLTAGE RANGE
A20	(2) #12 & (1) #12 GND.	1	1/2"	20	1	120 OR 277
A30	(2) #10 & (1) #10 GND.	1	3/4"	30	1	120 OR 277
A50	(2) #8 & (1) #10 GND.	1	3/4"	50	1	120 OR 277
B20	(3) #12 & (1) #12 GND.	1	1/2"	20	1	208 - 480
B30	(3) #10 & (1) #10 GND.	1	3/4"	30	1	208 - 480
B50	(3) #8 & (1) #10 GND.	1	3/4"	50	1	208 - 480
B60	(3) #6 & (1) #10 GND.	1	3/4"	65	1	208 - 480
B80	(3) #4 & (1) #8 GND.	1	1"	85	1	208 - 480
B100	(3) #3 & (1) #8 GND.	1	1-1/2"	100	1	208 - 480
B110	(3) #2 & (1) #6 GND.	1	1-1/2"	115	1	208 - 480
B125	(3) #1 & (1) #6 GND.	1	1-1/2"	130	1	208 - 480
B150	(3) #1/0 & (1) #6 GND.	1	2"	150	1	208 - 480
B175	(3) #2/0 & (1) #6 GND.	1	2"	175	1	208 - 480
B200	(3) #3/0 & (1) #6 GND.	1	2"	200	1	208 - 480
B225	(3) #4/0 & (1) #4 GND.	1	2-1/2"	230	1	208 - 480
B250	(3) #250 KCM & (1) #4 GND.	1	2-1/2"	255	1	208 - 480
B275	(3) #300 KCM & (1) #4 GND.	1	2-1/2"	285	1	208 - 480
B300	(3) #350 KCM & (1) #4 GND.	1	3"	310	1	208 - 480
B350	(3) #500 KCM & (1) #3 GND.	1	3"	380	1	208 - 480
B400	(3) #3/0 & (1) #3 GND.	2	2"	400	1	208 - 480
B450	(3) #4/0 & (1) #2 GND.	2	2-1/2"	460	1	208 - 480
B500	(3) #250 KCM & (1) #2 GND.	2	2-1/2"	510	1	208 - 480
B600	(3) #350 KCM & (1) #1 GND.	2	3"	620	1	208 - 480
B800	(3) #300 KCM & (1) #1/0 GND.	3	2-1/2"	855	1	208 - 480
B1000	(3) #250 KCM & (1) #2/0 GND.	4	2-1/2"	1020	1	208 - 480
B1200	(3) #350 KCM & (1) #3/0 GND.	4	3"	1240	1	208 - 480
C20	(4) #12 & (1) #12 GND.	1	1/2"	20	3	208 - 480
C30	(4) #10 & (1) #10 GND.	1	3/4"	30	3	208 - 480
C50	(4) #8 & (1) #10 GND.	1	3/4"	50	3	208 - 480
C60	(4) #6 & (1) #10 GND.	1	1"	65	3	208 - 480
C80	(4) #4 & (1) #8 GND.	1	1-1/2"	85	3	208 - 480
C100	(4) #3 & (1) #8 GND.	1	1-1/2"	100	3	208 - 480
C110	(4) #2 & (1) #6 GND.	1	1-1/2"	115	3	208 - 480
C125	(4) #1 & (1) #6 GND.	1	1-1/2"	130	3	208 - 480
C150	(4) #1/0 & (1) #6 GND.	1	2"	150	3	208 - 480
C175	(4) #2/0 & (1) #6 GND.	1	2"	175	3	208 - 480
C200	(4) #3/0 & (1) #6 GND.	1	2"	200	3	208 - 480
C225	(4) #4/0 & (1) #4 GND.	1	3"	230	3	208 - 480
C250	(4) #250 KCM & (1) #4 GND.	1	3"	255	3	208 - 480
C300	(4) #350 KCM & (1) #4 GND.	1	3"	310	3	208 - 480
C350	(4) #500 KCM & (1) #3 GND.	1	3-1/2"	380	3	208 - 480
C400	(4) #3/0 & (1) #3 GND.	2	2"	400	3	208 - 480
C450	(4) #4/0 & (1) #2 GND.	2	3"	460	3	208 - 480
C500	(4) #250 KCM & (1) #2 GND.	2	3"	510	3	208 - 480
C600	(4) #350 KCM & (1) #1 GND.	2	3"	620	3	208 - 480
C800	(4) #300 KCM & (1) #1/0 GND.	3	3"	855	3	208 - 480
C1000	(4) #250 KCM & (1) #2/0 GND.	4	3"	1020	3	208 - 480
C1200	(4) #350 KCM & (1) #3/0 GND.	4	3"	1240	3	208 - 480
C1400	(4) #500 KCM & (1) #4/0 GND.	4	3-1/2"	1520	3	208 - 480
C1600	(4) #400 KCM & (1) #4/0 GND.	5	3"	1675	3	208 - 480
C2000	(4) #600 KCM & (1) #250 KCM GND.	5	4"	2100	3	208 - 480

SERVICE ENTRANCE CONDUCTOR & CONDUIT LEGEND

ALL WIRE SIZED FOR THWN COPPER ALL CONDUIT SIZED FOR RIGID PVC, SCHEDULE 40; RESIZE FOR DIFFERENT CONDUIT AS REQUIRED

LABEL	ELECTRODE CONDUCTOR	CONDUCTORS PER CONDUIT	NUMBER OF RUNS	MINIMUM CONDUIT	CONDUCTOR AMPACITY 75 °C	Φ	VOLTAGE RANGE
1S60	#8	(3) #6	1	2"	65	1	208 - 480
1S100	#8	(3) #3	1	3"	100	1	208 - 480
1S150	#6	(3) #1/0	1	3"	150	1	208 - 480
1S200	#4	(3) #3/0	1	3"	200	1	208 - 480
1S225	#2	(3) #4/0	1	3"	230	1	208 - 480
1S400	#1/0	(3) #3/0	2	3"	400	1	208 - 480
1S400	#1/0	(3) #600 KCM	1	4"	420	1	208 - 480
1S600	#3/0	(3) #3/0	3	3"	600	1	208 - 480
1S600	#3/0	(3) #350 KCM	2	3"	620	1	208 - 480
1S800	#3/0	(3) #3/0	4	3"	800	1	208 - 480
1S800	#3/0	(3) #300 KCM	3	3"	855	1	208 - 480
1S1000	#3/0	(3) #250 KCM	4	3"	1020	1	208 - 480
3S100	#8	(4) #3	1	3"	100	3	208 - 480
3S200	#4	(4) #3/0	1	3"	200	3	208 - 480
3S225	#2	(4) #4/0	1	3"	230	3	208 - 480
3S400	#1/0	(4) #3/0	2	3"	400	3	208 - 480
3S600	#3/0	(4) #350 KCM	2	3"	620	3	208 - 480
3S800	#3/0	(4) #300 KCM	3	3"	855	3	208 - 480
3S1000	#3/0	(4) #400 KCM	3	3"	1005	3	208 - 480
3S1000	#3/0	(4) #250 KCM	4	3"	1020	3	208 - 480
3S1200	#3/0	(4) #350 KCM	4	3"	1240	3	208 - 480
3S1400	#3/0	(4) #500 KCM	4	4"	1520	3	208 - 480
3S1600	#3/0	(4) #400 KCM	5	3"	1675	3	208 - 480
3S2000	#3/0	(4) #600 KCM	5	4"	2100	3	208 - 480
3S2500	#3/0	(4) #600 KCM	6	4"	2520	3	208 - 480
3S3000	#3/0	(4) #500 KCM	8	4"	3040	3	208 - 480
3S3500	#3/0	(4) #700 KCM	8	4"	3680	3	208 - 480
3S3500	#3/0	(4) #600 KCM	9	4"	3780	3	208 - 480
3S4000	#3/0	(4) #600 KCM	10	4"	4200	3	208 - 480

PORTABLE POWER CABLE

GROUNDING

BRANCH CIRCUIT AND FEEDER LEGEND

ALL WIRE SIZED USING NEC 400.5(A)(2), WITH GREEN INSULATED GROUND ALL CONDUCTORS SHALL BE COPPER

- WET LISTED
- APPROVED FOR MARINA USE
- SUITABLE FOR CONTINUOUS SUBMERSION IN WATER

ALL CONDUIT SIZED FOR RIGID PVC, SCHEDULE 40; RESIZE FOR DIFFERENT CONDUIT AS REQUIRED FEEDER LABEL WITH * IN THE PLANS INDICATES NEUTRAL IS NOT REQUIRED

LABEL	CABLE FOR MARINA / BOATYARD APPLICATION	NUMBER OF RUNS	MINIMUM CONDUIT	CONDUCTOR AMPACITY 75 °C	Φ	VOLTAGE RANGE
1G35	#12 AWG SOOW CABLE	1	1-1/2"	37	1	240 - 480
1G50	#10 AWG SOOW CABLE	1	1-1/2"	52	1	240 - 480
1G60	#8 AWG TYPE G OR W CABLE	1	2"	65	1	240 - 480
1G80	#6 AWG TYPE G OR W CABLE	1	2"	88	1	240 - 480
1G100	#4 AWG TYPE G OR W CABLE	1	2"	115	1	240 - 480
1G125	#3 AWG TYPE G OR W CABLE	1	2"	135	1	240 - 480
1G150	#2 AWG TYPE G OR W CABLE	1	2-1/2"	152	1	240 - 480
1G175	#1 AWG TYPE G OR W CABLE	1	2-1/2"	178	1	240 - 480
1G200	#1/0 AWG TYPE G OR W CABLE	1	3"	207	1	240 - 480
1G225	#2/0 AWG TYPE G OR W CABLE	1	3"	238	1	240 - 480
1G250	#3/0 AWG TYPE G OR W CABLE	1	3"	275	1	240 - 480
1G300	#4/0 AWG TYPE G OR W CABLE	1	3-1/2"	317	1	240 - 480
1G350	250 KcMIL TYPE G OR W CABLE	1	4"	354	1	240 - 480
1G400	#1/0 AWG TYPE G OR W CABLE	2	3"	414	1	240 - 480
1G450	#400 AWG TYPE G OR W CABLE	1	4"	469	1	240 - 480
1G500	500 KcMIL TYPE G OR W CABLE	1	5"	537	1	240 - 480
1G500	#3/0 AWG TYPE G OR W CABLE	2	3"	550	1	240 - 480
1G600	#4/0 AWG TYPE G OR W CABLE	2	3-1/2"	634	1	240 - 480
1G600	#1/0 AWG TYPE G OR W CABLE	3	3"	621	1	240 - 480
1G800	350 KcMIL TYPE G OR W CABLE	2	4"	870	1	240 - 480
1G800	#3/0 AWG TYPE G OR W CABLE	3	3"	825	1	240 - 480
1G800	#1/0 AWG TYPE G OR W CABLE	4	3"	828	1	240 - 480
1G1000	500 KcMIL TYPE G OR W CABLE	2	5"	1074	1	240 - 480
1G1000	250 KcMIL TYPE G OR W CABLE	3	4"	1062	1	240 - 480
1G1000	#3/0 AWG TYPE G OR W CABLE	4	3"	11002	1	240 - 480
1G1000	350 KcMIL TYPE G OR W CABLE	3	4"	1305	1	240 - 480
1G1200	#4/0 AWG TYPE G OR W CABLE	4	3-1/2"	1268	1	240 - 480
3G30	#12 AWG TYPE G OR W CABLE	1	1-1/2"	31	3	
3G40	#10 AWG TYPE G OR W CABLE	1	1-1/2"	43	3	208 - 480
3G50	#8 AWG TYPE G OR W CABLE	1	2"			208 - 480
		1	2"	57	3	208 - 480
3G70	#6 AWG TYPE G OR W CABLE	1	2"	77	3	208 - 480
3G100	#4 AWG TYPE G OR W CABLE			101	3	208 - 480
3G110	#3 AWG TYPE G OR W CABLE	1	3"	118	3	208 - 480
3G125	#2 AWG TYPE G OR W CABLE	1	3"	133	3	208 - 480
3G150	#1 AWG TYPE G OR W CABLE	1	3"	156	3	208 - 480
3G175	#1/0 AWG TYPE G OR W CABLE	1	3"	181	3	208 - 480
3G200	#2/0 AWG TYPE G OR W CABLE	1	3"	208	3	208 - 480
3G225	#3/0 AWG TYPE G OR W CABLE	1	3"	241	3	208 - 480
3G250	#4/0 AWG TYPE G OR W CABLE	1	4"	277	3	208 - 480
3G300	250 KcMIL TYPE G OR W CABLE	1	4"	310	3	208 - 480
3G350	350 KcMIL TYPE G OR W CABLE	1	5"	381	3	208 - 480
3G400	400 KcMIL TYPE G OR W CABLE	1	5"	410	3	208 - 480
3G400	#2/0 AWG TYPE G OR W CABLE	2	3"	416	3	208 - 480
3G450	500 KcMIL TYPE G OR W CABLE	1	5"	470	3	208 - 480
3G450	#3/0 AWG TYPE G OR W CABLE	2	3"	482	3	208 - 480
3G500	#1/0 AWG TYPE G OR W CABLE	3	3"	543	3	208 - 480
3G500	#4/0 AWG TYPE G OR W CABLE	2	4"	554	3	208 - 480
3G600	250 KcMILTYPE G OR W CABLE	2	4"	620	3	208 - 480
3G600	#2/0 AWG TYPE G OR W CABLE	3	3"	624	3	208 - 480
3G800	#4/0 AWG TYPE G OR W CABLE	3	4"	831	3	208 - 480
3G800	#2/0 AWG TYPE G OR W CABLE	4	3"	832	3	208 - 480
3G1000	350 KcMIL TYPE G OR W CABLE	3	5"	1143	3	208 - 480
3G1000	#4/0 AWG TYPE G OR W CABLE	4	4"	1108	3	208 - 480
3G1200	400 KcMIL TYPE G OR W CABLE	3	5"	1230	3	208 - 480
3G1200	250 KcMIL TYPE G OR W CABLE	4	4"	1240	3	208 - 480

LIGHTING FIXTURE SCHEDULE

LABEL MANUFACTURER

A. HATCHING ON PLANS INDICATES 24/7 LIGHT WIRED HOT TO CIRCUIT INDICATED ON PLANS B. HATCHING ON PLANS INDICATES ILLUMINATED SIDES OF LIGHT - SEE PLANS FOR CHEVRONS

MODEL

P1S

P CHLORIDE LED LED STEP LIGHT

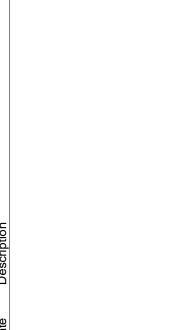
CONTACTOR SCHEDULE								
LABEL	SIZE	AREA	CIRCUITS	CONTROL				
C1	1-POLE - 20A	GANGWAY LIGHTING	PLA-15 SWITCH LEG	PHOTOCELL				

DESCRIPTION



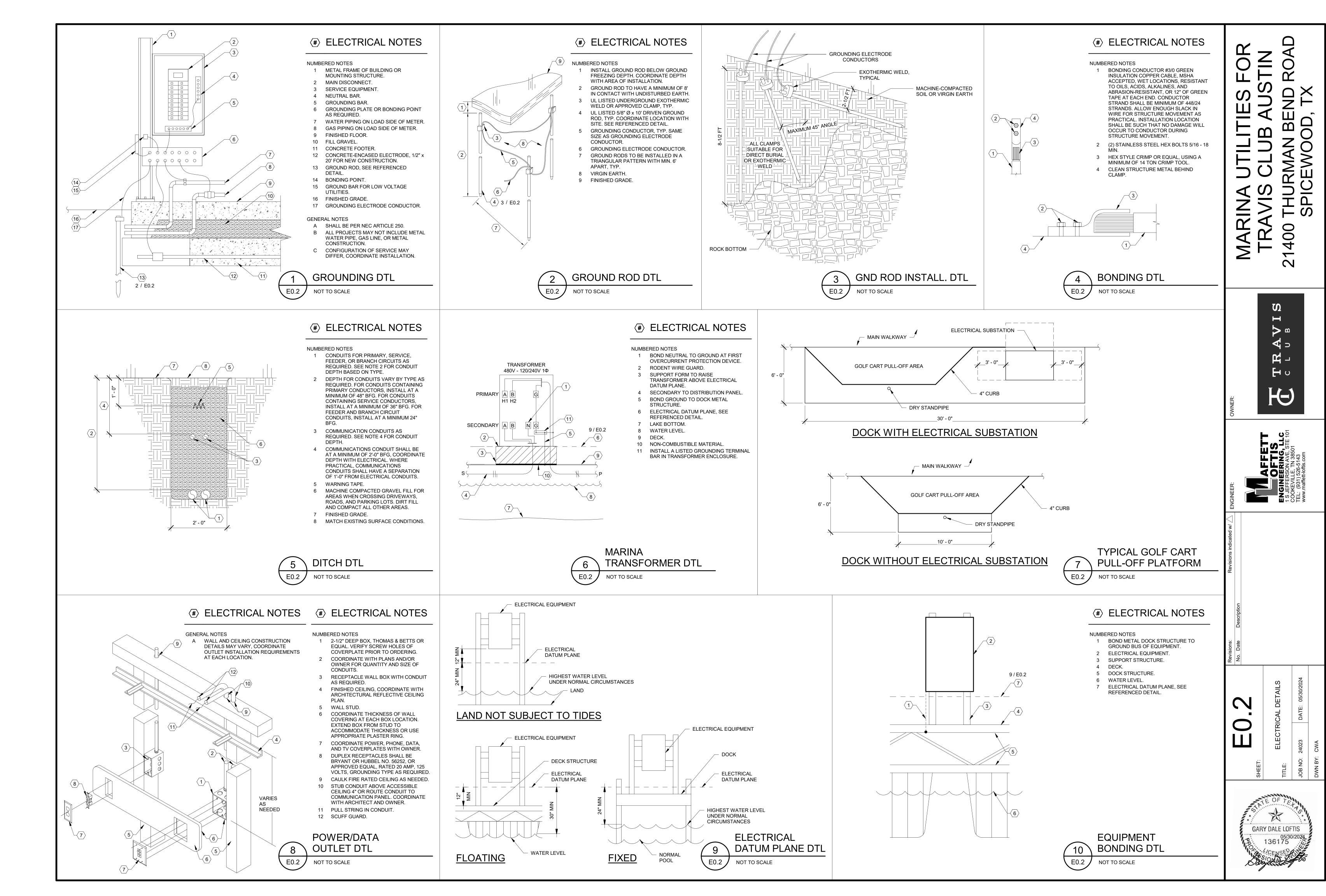


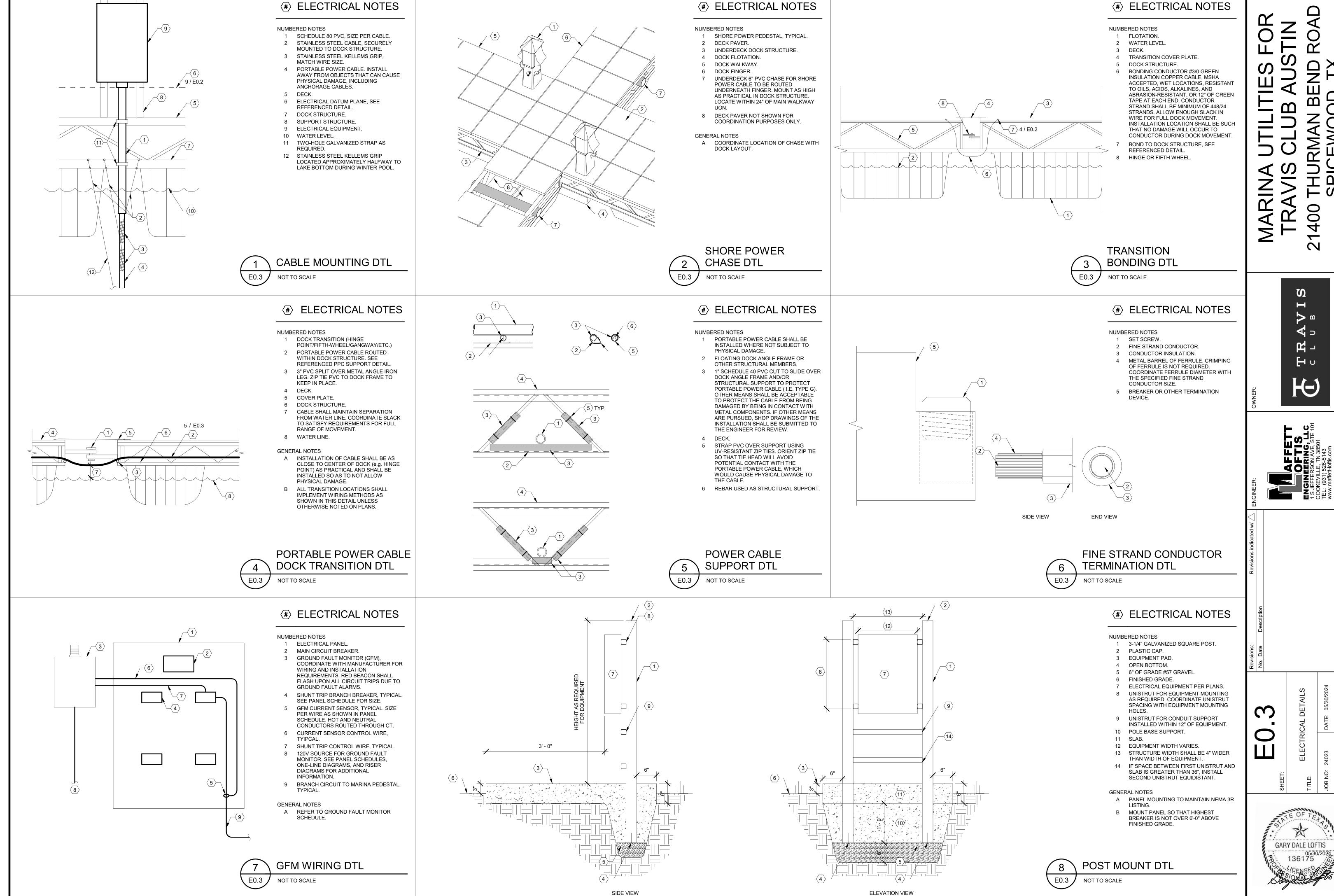




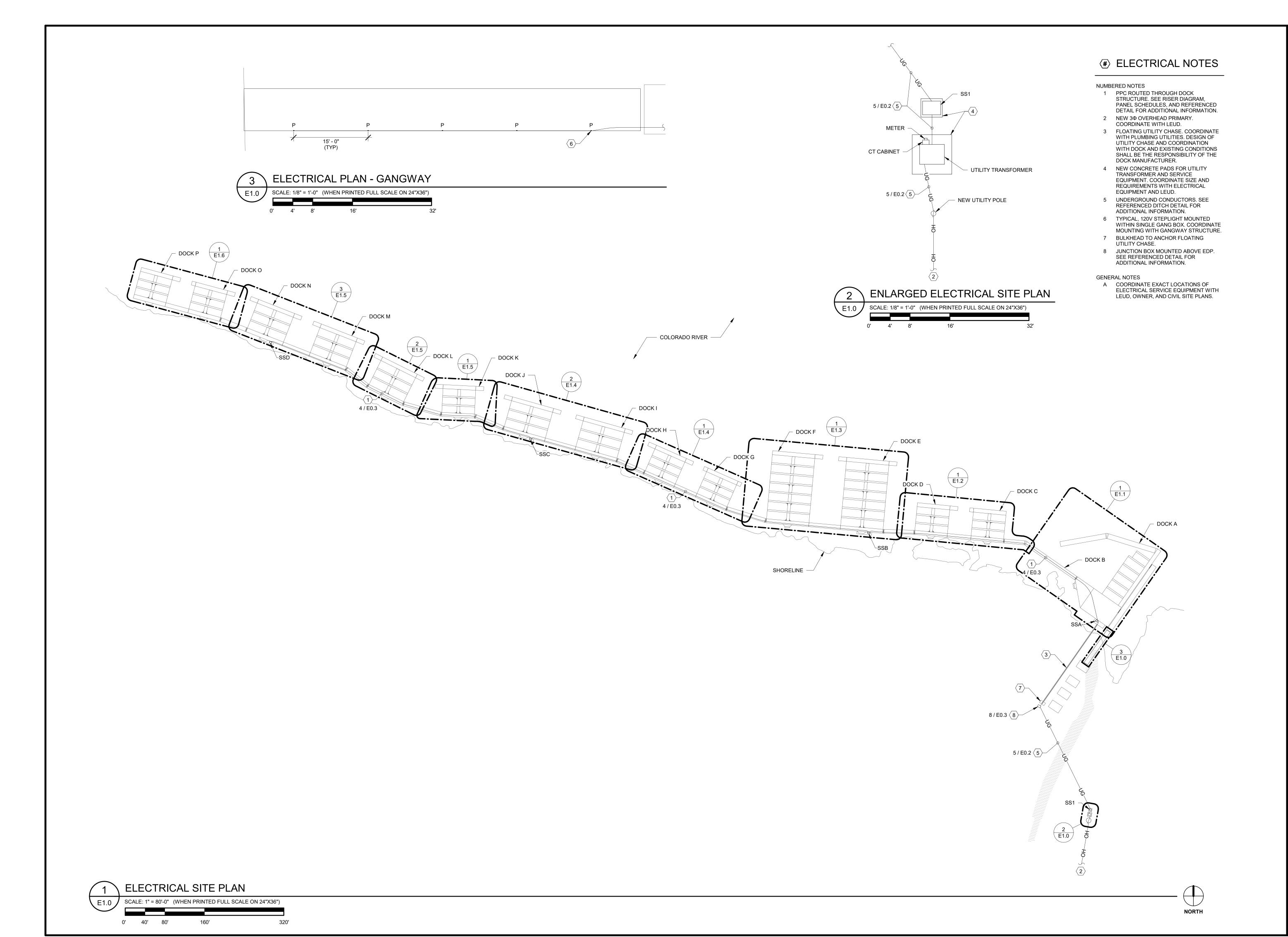


WATTS VOLTS 5 120

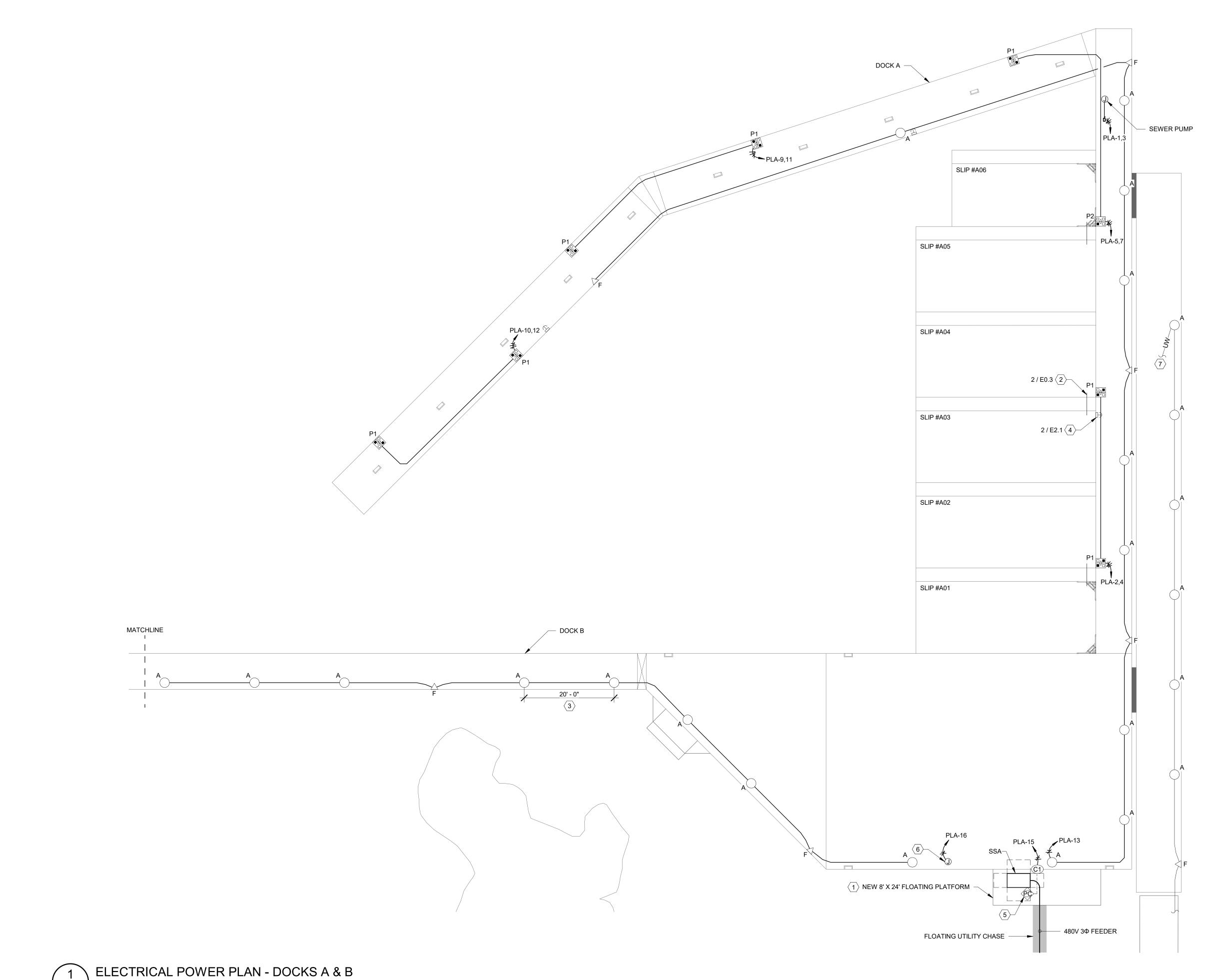








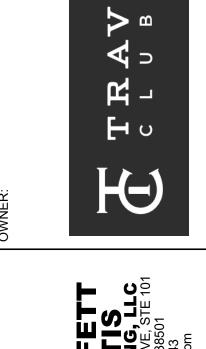




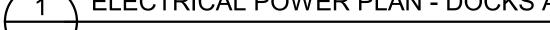
ELECTRICAL NOTES

NUMBERED NOTES

- 1 COORDINATE FLOTATION
 REQUIREMENTS WITH ELECTRICAL
 EQUIPMENT.
- 2 TYP, PVC CHASE FOR SHORE POWER CORD. SEE REFERENCED DETAIL FOR ADDITIONAL INFORMATION.
- 3 TYPICAL, LIGHT BOLLARDS SHALL BE SPACED ON 20'-0" CENTERS AS PRACTICAL COORDINATE WITH DOCK STRUCTURE.
- 4 TYPICAL, INSTALL EMERGENCY SHUT OFF PUSH BUTTON TO SHUNT TRIP MCB IN PANEL PLA. BUTTON SHALL BE LABELED "EMERGENCY SHUT OFF." SEE REFERENCED DETAIL FOR ADDITIONAL INFORMATION.
- 5 PHOTOCELL FOR CONTROL OF GANGWAY LIGHTING MOUNTED TO TOP OF SUBSTATION ENCLOSURE AS PRACTICAL.
- 6 120V DEDICATED CIRCUIT FOR NETWORKING CABINET. SEE TELECOMMUNICATIONS SHEETS FOR
- ADDITIONAL INFORMATION.
- 7 UNDERWATER CABLE FOR GANGWAY LIGHTING BRANCH CIRCUIT. CABLE
 SHALL BE ROUTED TO PANEL PLA
 THROUGH CONTACTOR C1. SEE RISER
 DIAGRAM FOR ADDITIONAL
 INFORMATION.



2

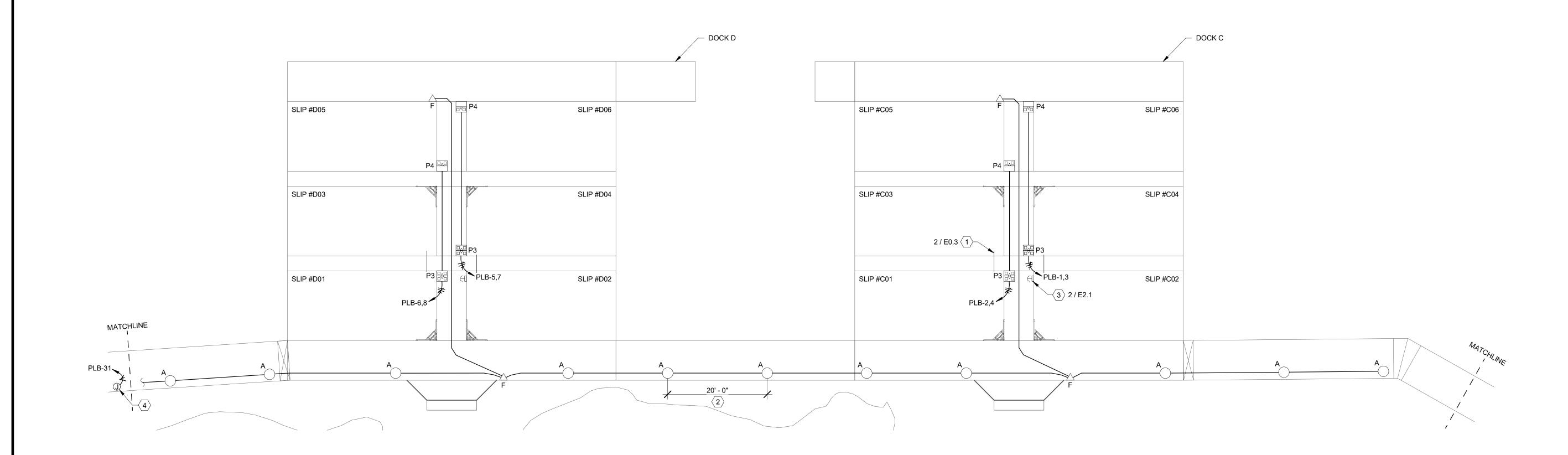




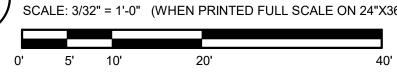
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- 3 TYPICAL, INSTALL EMERGENCY SHUT OFF PUSH BUTTON TO SHUNT TRIP MCB IN PANEL PLB. BUTTON SHALL BE LABELED "EMERGENCY SHUT OFF." SEE REFERENCED DETAIL FOR ADDITIONAL INFORMATION.
- 4 120V DEDICATED CIRCUIT FOR NETWORKING CABINET. SEE TELECOMMUNICATIONS SHEETS FOR ADDITIONAL INFORMATION.









MARINA UTILITIES FOR TRAVIS CLUB AUSTIN 21400 THURMAN BEND ROA



ENGINEERING, LLC
1 S JEFFERSON AVE, STE 101
COOKEVILLE, TN 38501
TEL: (931) 526-5143

Date Description

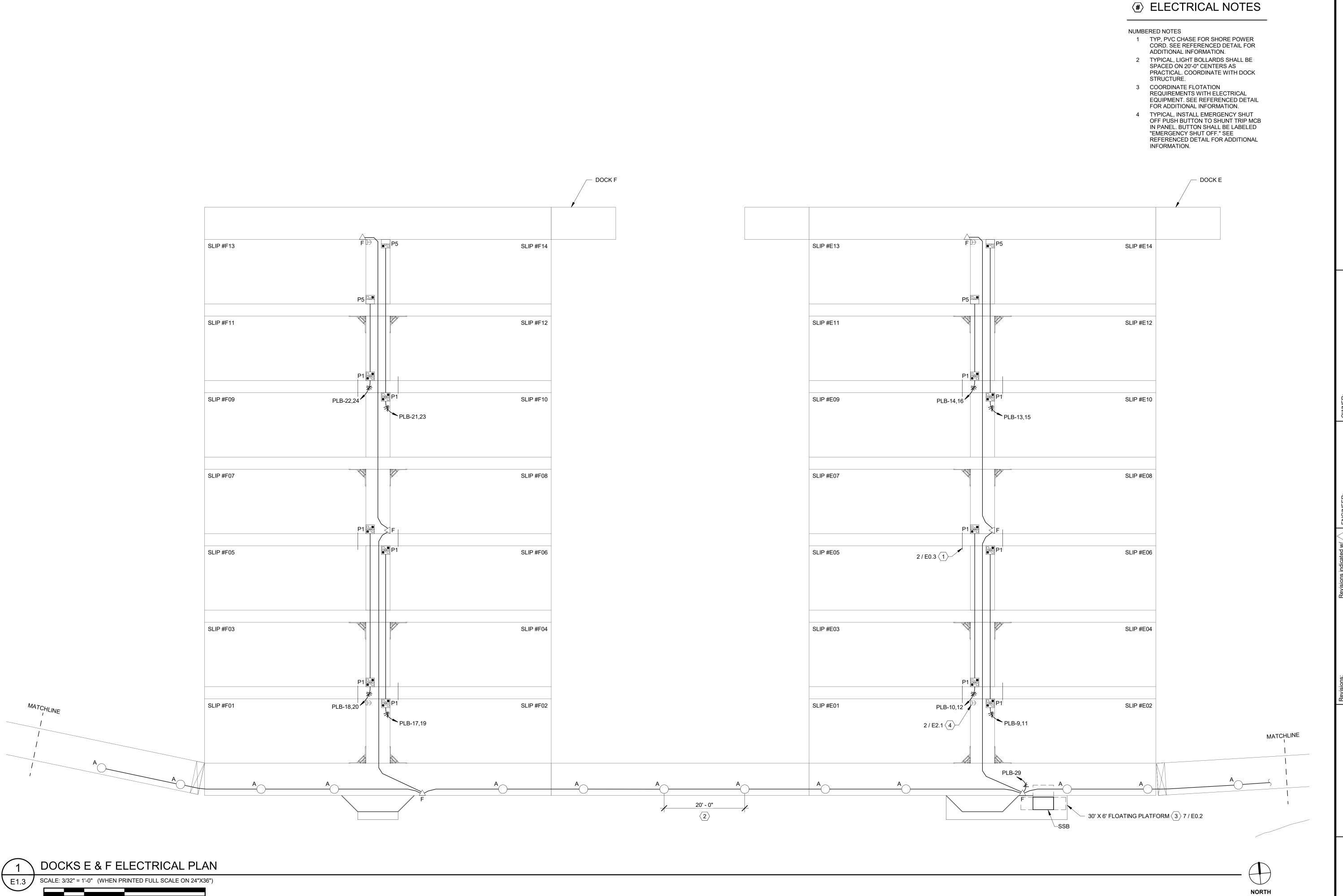
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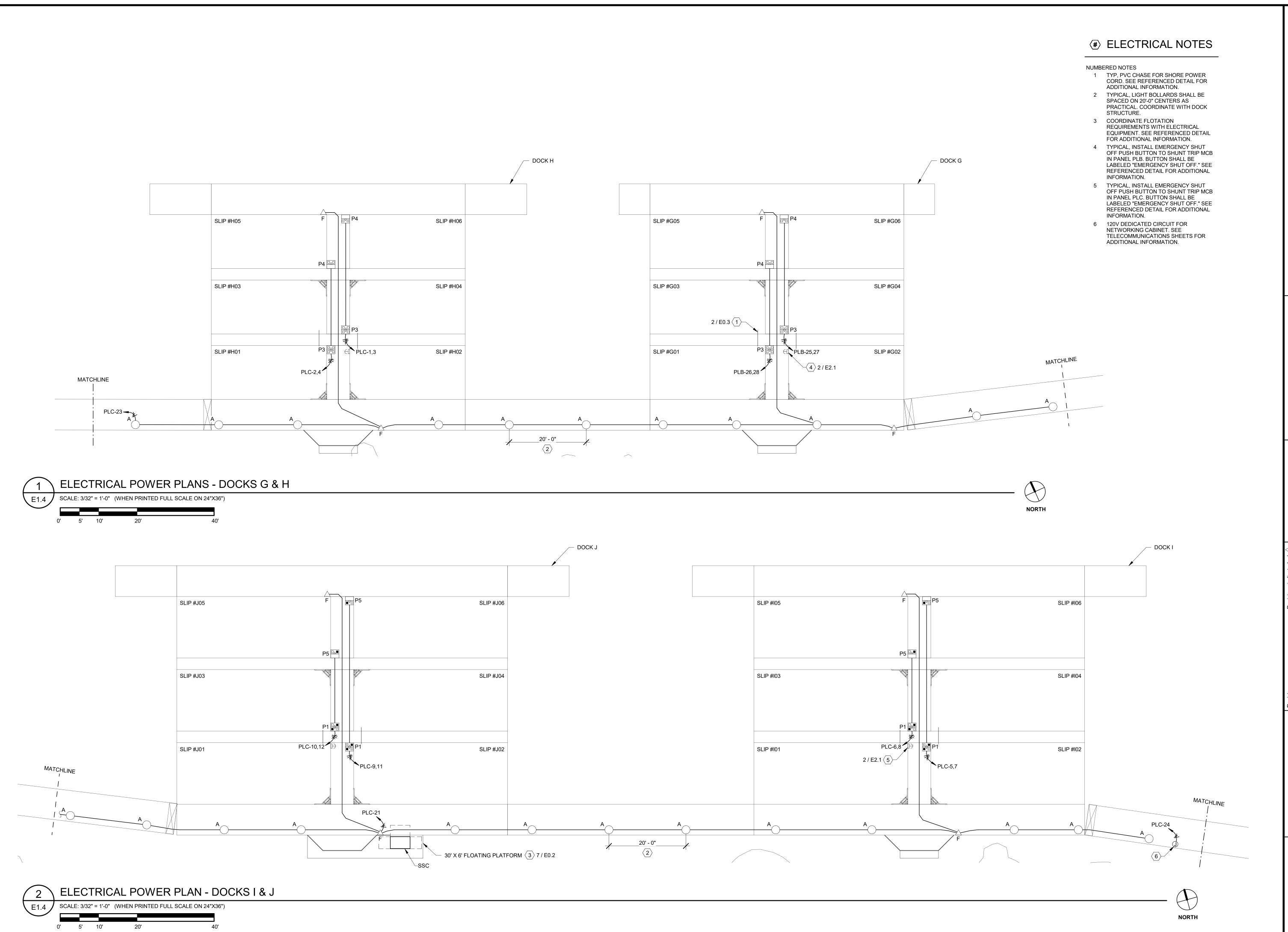
ELECTRICAL POWER PLAN
DOCKS C & D
NO: 24023

DATE: 05/30/2024









MARINA UTILITIES FOR
TRAVIS CLUB AUSTIN
21400 THURMAN BEND ROAD

TRAVIS

ENGINEER:

AFFETT

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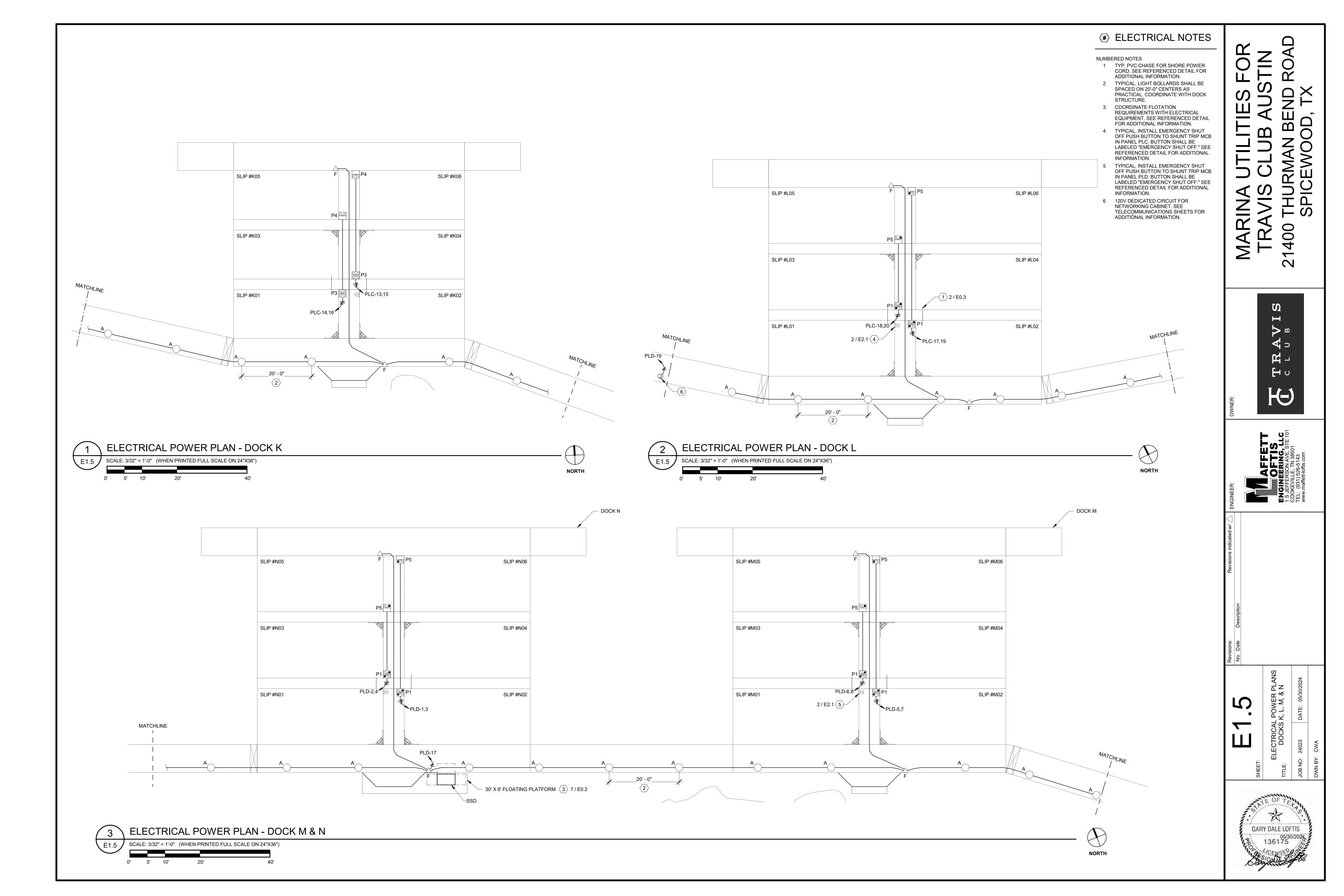
ENGINEERING, LLC

cription

No. Date Description
PLAN

ELECTRICAL POWER PLAN E. DOCKS G, H, I, & J NO: 24023 DATE: 05/30/2024

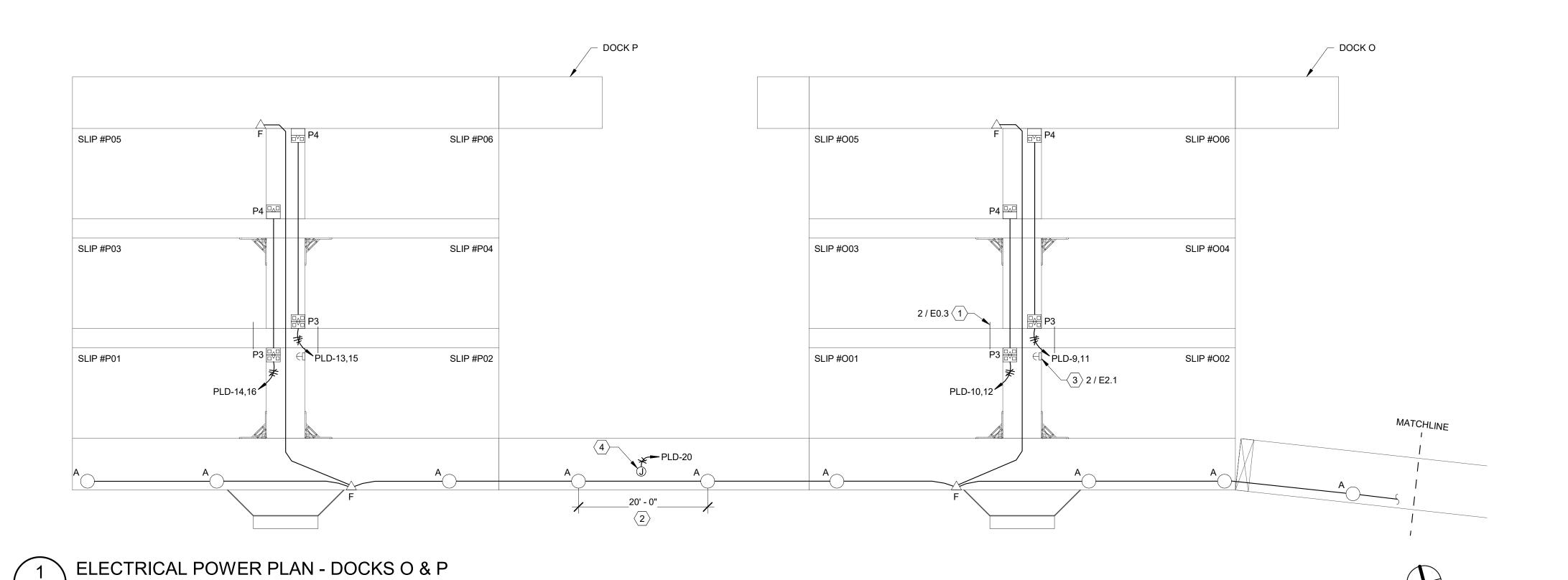


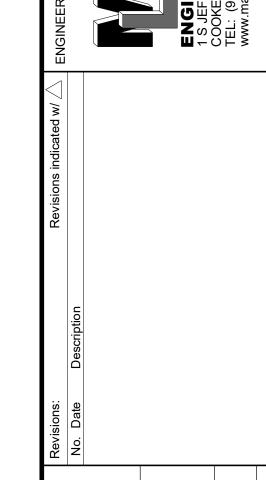


ELECTRICAL NOTES

NUMBERED NOTES

- 1 TYP, PVC CHASE FOR SHORE POWER CORD. SEE REFERENCED DETAIL FOR ADDITIONAL INFORMATION.
- 2 TYPICAL, LIGHT BOLLARDS SHALL BE SPACED ON 20'-0" CENTERS AS PRACTICAL. COORDINATE WITH DOCK STRUCTURE.
- 3 TYPICAL, INSTALL EMERGENCY SHUT OFF PUSH BUTTON TO SHUNT TRIP MCB IN PANEL PLD. BUTTON SHALL BE LABELED "EMERGENCY SHUT OFF." SEE REFERENCED DETAIL FOR ADDITIONAL INFORMATION.
- 4 120V DEDICATED CIRCUIT FOR NETWORKING CABINET. SEE TELECOMMUNICATIONS SHEETS FOR ADDITIONAL INFORMATION.





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E1.6

SHEET:

ELECTRICAL POWER PL,

TITLE:

JOB NO: 24023

DATE: 05/30/202

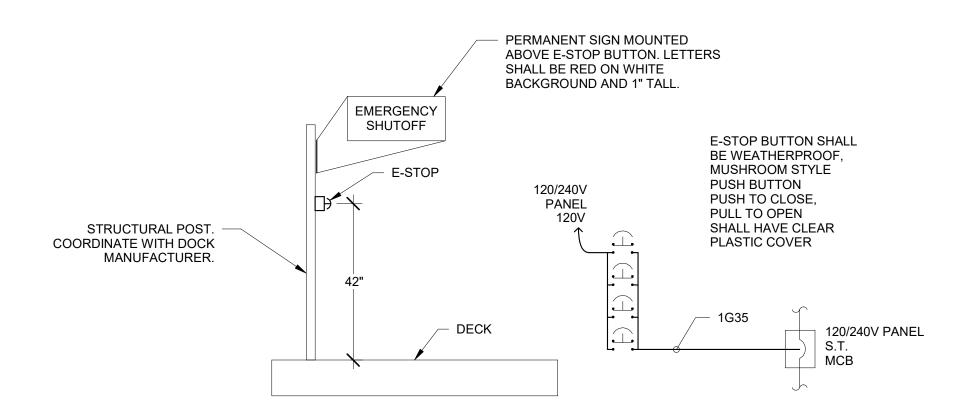


WATER PHA (CALCULATED VD: 1.03%) (CALCULATED VD: 1.2%) (CALCULATED VD: 1.3%) (PHASES A & C) TYP, FEEDER TAP $\langle 2 \rangle$ SSD B400* B300* -(PHASES B & C) (PHASES B & C) ECB-B ECB-C ECB-D TC _____ TD GFM-A GFM-B1 GFM-B2 GFM-C1 GFM-C2 GFM-D

1 ELECTRICAL ONE-LINE DIAGRAM

NOT TO SCALE

LAND



2 TYPICAL EMERGENCY SHUT OFF DIAGRAM
NOT TO SCALE

ELECTRICAL NOTES

NUMBERED NOTES

- 1 TYP, DIN RAIL MOUNTED TIME-DELAY FUSE MOUNTED INSIDE SUBSTATION
- ENCLOSURE.

 2 INSTALL PROVISIONS FOR A 3Φ TAP OF
- INSTALL PROVISIONS FOR A 3Ф TAP OF THE INCOMING FEEDER. TAPS OR SPLICES SHALL NOT BE LOCATED BELOW THE EDP.

MARINA GROUND FAULT PERFORMANCE TESTING NOTES

PER THE CONTRACT WITH THE CLIENT, THE ENGINEER'S SCOPE FOR THIS PROJECT INCLUDES THE ENGINEER AND/OR ENGINEER'S TEAM COMPLETING GROUND FAULT DEVICE PERFORMANCE TESTING. THE PERFORMANCE TESTING EFFORTS INCLUDE ONE SITE VISIT AT THE END OF THE CONSTRUCTION ADMINISTRATION PHASE TO TEST THE PROPER FUNCTION OF ALL FEEDER, BRANCH CIRCUIT, AND SHORE POWER RECEPTACLE GROUND FAULT DEVICES. THIS VISIT IS REQUIRED AND SHALL OCCUR AFTER SUBSTANTIAL COMPLETION OF THE CONSTRUCTION. THE SCHEDULE OF THIS VISIT SHALL BE COORDINATED WITH THE ENGINEER, THE CLIENT, AND THE CONTRACTOR.

THE PERFORMANCE TESTING PROCESS SHALL CONSIST OF THE FOLLOWING:

- VERIFY PARAMETERS OF GROUND FAULT MONITORING DEVICES ARE SET TO THE SPECIFIED VALUES PROVIDED IN THE DESIGN PLANS AND
- TEST GFCI DEVICES TO VERIFY THEY MEET THE DESIGN SPECIFICATIONS AND UL943 REQUIREMENTS.

 TEST OFFICE PROVIDED PROTECTING CHAPTER PROVIDED PROTECTIONS AND UL943 REQUIREMENTS.

 TEST OFFICE PROVIDED PROTECTING CHAPTER PROVIDED PROTECTIONS.

 TO SEE THE PROVIDED PROTECTION OF THE PROPERTY OF THE PROPE
- TEST GFPE DEVICES PROTECTING SHORE POWER RECEPTACLES, BRANCH CIRCUITS, AND FEEDERS BY SAFELY INJECTING LEAKAGE CURRENT TO VERIFY THEY MEET THE DESIGN SPECIFICATIONS AND UL1053 REQUIREMENTS.
- TEST TRIP TIMES OF GFCI AND GFPE DEVICES.

 AD JUST PARAMETERS AS REQUIRED FOR CERE DEVICES IN ORDER TO
- ADJUST PARAMETERS AS REQUIRED FOR GFPE DEVICES IN ORDER TO VERIFY FULL COORDINATION.

IT IS RECOMMENDED FOR THE ELECTRICAL CONTRACTOR TO CHECK ALL WIRING METHODS AND THE INSTALLATION OF THE GFPE SYSTEM'S CT'S AND SHUNT-TRIP BREAKERS, AND TO ALSO PRE-TEST ALL GFPE DEVICES BEFORE THE ENGINEER TRAVELS TO THE SITE TO PERFORM THE PERFORMANCE TESTING EFFORTS. IF DEFICIENCIES ARE FOUND IN THE ELECTRICAL AND/OR GFPE SYSTEMS THAT CANNOT BE REMEDIED WITHIN A REASONABLE TIME OF THE SAME SITE VISIT, ADDITIONAL SITE VISITS SHALL BE REQUIRED AT THE EXPENSE OF THE CONTRACTOR. THE ADDITIONAL SITE VISIT SHALL BE QUOTED TO THE CONTRACTOR BASED ON THE EXPECTED EFFORTS TO RETEST THE DEFICIENCIES AND TRAVEL COST.

THE CONTRACTOR SHALL ASSIST THE ENGINEER FOR THE ENTIRE DURATION OF THE PERFORMANCE TESTING BY PROVIDING EXPERIENCED STAFF THAT INSTALLED AND HAS KNOWLEDGE OF THE ELECTRICAL SYSTEMS OF THE PROJECT. THIS ASSISTANCE SHALL INCLUDE, BUT NOT BE LIMITED TO, THE OPENING AND CLOSING OF ELECTRICAL EQUIPMENT AND SHORE POWER PEDESTALS. TROUBLESHOOTING AND REPAIRING OF DEFICIENCIES SHALL ALSO BE THE RESPONSIBILITY OF THE CONTRACTOR.

A DETAILED PERFORMANCE TESTING REPORT BY THE ENGINEER SHALL BE GENERATED DESCRIBING THE FINDINGS OF THE TESTS. PERFORMANCE TESTING SHALL NOT GUARANTEE THE SAFETY OR CODE COMPLIANCE OF THE SYSTEM BUT WILL HELP MITIGATE OPERATIONAL AND SAFETY ISSUES.

GROUND FAULT MONITOR SCHEDULE

- ALL PARAMETERS SHALL BE PROGRAMMED PER THE DESIGN

- SEE CIRCUIT SCHEDULES FOR TRIP SETTINGS

- CT SENSORS SHALL BE SOLID CORE, AND THE CIRCULAR OPENING SHALL BE COORDINATED WITH THE SPECIFIED CONDUCTOR SIZE - SHUNT TRIP OUTPUT CONTROL SHALL BE 120VAC

- EXTERNAL STROBE LIGHT TO FLASH UPON A GROUND FAULT ALARM - SHALL BE UL 1053-LISTED

- TIME AND DATE SHALL BE SET FOR THE PROJECT LOCATION TIME ZONE

- SPARE CHANNELS SHALL BE DISABLED - SHALL HAVE LOCKABLE DOOR

- USE SPECIFIED EQUIPMENT WITH NO SUBSTITUTIONS

- SEE GROUND FAULT MONITOR WIRING DETAIL

LABEL	MANUFACTURER	MODEL	INPUTS / OUTPUTS	ENCLOSURE	NOTES
GFM-A	BENDER	RCMS490	12	SSA	LISTED ASSEMBLY
GFM-B1	BENDER	RCMS490	12	SSB	LISTED ASSEMBLY
GFM-B2	BENDER	RCMS490	12	SSB	LISTED ASSEMBLY
GFM-C1	BENDER	RCMS490	12	SSC	LISTED ASSEMBLY
GFM-C2	BENDER	RCMS490	12	SSC	LISTED ASSEMBLY
GFM-D	BENDER	RCMS490	12	SSD	LISTED ASSEMBLY
GFM-S	BENDER	RCM420	1	SS1	LISTED ASSEMBLY

ENCLOSED CIRCUIT BREAKER SCHEDULE

- USE SPECIFIED EQUIPMENT OR APPROVED EQUAL

- LOCKAB	LE DOOR						
LABEL	FRAME RATING	TRIP RATING	ENCLOSURE	VOLTS	Ф	POLES	NOTES
ECB-B	400 A	400 A	SSB	480 V	1	2	
ECB-C	400 A	300 A	SSC	480 V	1	2	
ECB-D	400 A	300 A	SSD	480 V	1	2	

TRANSFORMER SCHEDULE - USE SPECIFIED EQUIPMENT OR APPROVED EQUAL **SECONDARY** LOCATION MANUFACTURER MODEL KVA ENCLOSURE 2-LUG | VOLTS | Φ | WINDING | VOLTS | Φ | WINDING DOCK A HAMMOND HAMMOND SSB DOCK E LOW-dB DOCK J HAMMOND 167 SSC 480 1 1 120/240 1 CTR TAP LOW-dB DOCK N SSD 480 | 1 | 1 | 120/240 | 1 | CTR TAP | HAMMOND LOW-dB

SS1

DRY

SUB-STATION SCHEDULE

UPLAND

TS1

- NEMA 3R, ALUMINUM, WHITE
- USE AMERICAN MIDWEST POWER OR APPROVED EQUAL
- SEE ONE-LINE & SCHEDULES

SQUARE-D

1.5S1F

- SEE ONE-LINE & SCHEDULES	TO TELE EQUITE
SS1	
PANEL	MDP
TRANSFORMER	TS1
GFM	GFM-S
SSA	
PANEL	PHA
TRANSFORMER	TA
PANEL	PLA
GFM	GFM-A
SSB	
ENCLOSED CIRCUIT BREAKER	ECB-B
TRANSFORMER	ТВ
PANEL	PLB
GFM	GFM-B1
GFM	GFM-B2
SSC	
ENCLOSED CIRCUIT BREAKER	ECB-C
TRANSFORMER	TC
PANEL	PLC
GFM	GFM-C1
GFM	GFM-C2
SSD	
ENCLOSED CIRCUIT BREAKER	ECB-D
TRANSFORMER	TD

PLD GFM-D

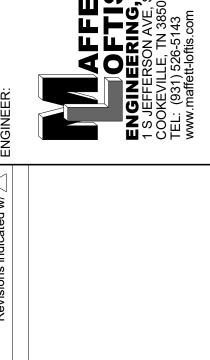
SURGE PROTECTION DEVICE SCHEDULE									
LABEL MODEL PART # AMP RATING									
SPD-1	SQUARE-D	HL4IMA24C	240,000						
NOTES: 1. USE SPECIFIED DEVICE, SIEMENS, OR INNOVATIVE TECHNOLOGIES									

2. INSTALL PER MANUFACTURER'S REQUIREMENTS AND SPD DETAIL

N 277 1 1 1 120 1 1

MAKINA UTILITES FOR TRAVIS CLUB AUSTIN 21400 THURMAN BEND ROA SPICEWOOD, TX

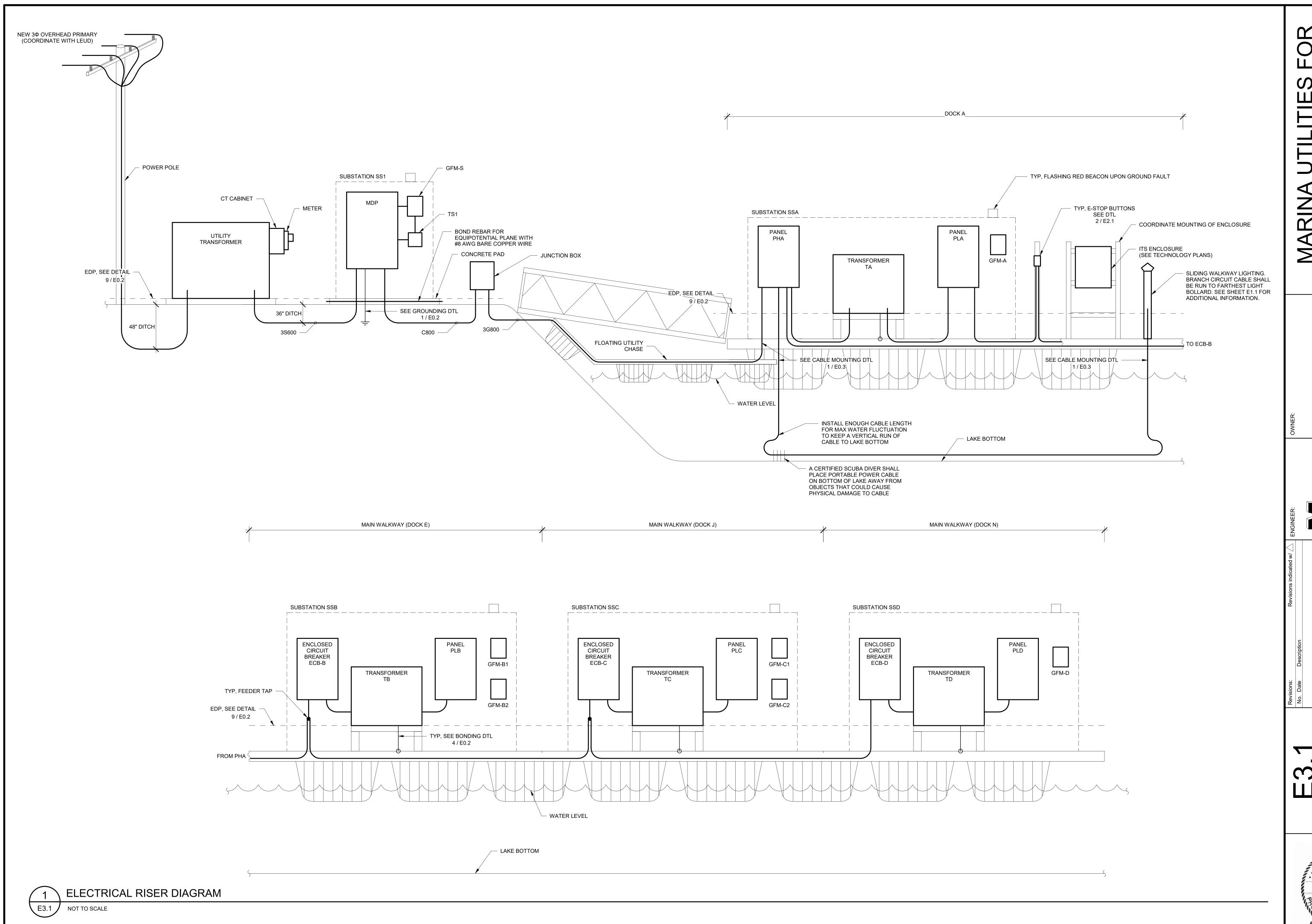




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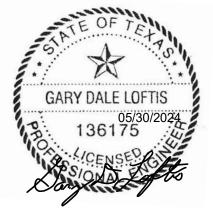
ELECTRICAL ONE-LINE
LE: DIAGRAM AND SCHEDUL
S NO: 24023 | DATE: 05/30/202





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> a



	1		- SPACE -		11						12	- SPACE -			1	
	1		- SPACE -		13						14	- SPACE -			1	
	1		- SPACE -		15						16	- SPACE -			1	
				TOTAL	LOAD:	372.0	kVA	454.6 kVA	391.7	' kVA				·		
LOAD CI	_ASSIFI	CATION		CONNE	CTED ((kVA)	DEN	MAND FACTOR	EST.	DEMAND	(kVA)		PANEL T	OTALS		
Other				0.	0 kVA			0.00%		0.0 kVA						
Continuo	us			2.	0 kVA			125.00%		2.4 kVA		TC	OTAL CONN. LOAD (kVA):	1218.3 kVA		
Non-Con	tinuous			9.	8 kVA			100.00%		9.8 kVA		TO	TAL EST. DEMAND (kVA):	347.8 kVA		
Metered :	Shore Po	ower		118	5.6 kV <i>A</i>	4		27.00%		320.1 kVA			TOTAL CONN.:	1465 A		
Maint. Re	ecpt.			20	.9 kVA			73.95%		15.4 kVA			TOTAL EST. DEMAND:	118 A		

100.1 354.5

1 100.2 271.8

BREAKER NOTES (REFERENCED IN NOTES COLUMN):

2. COMBINATION AFCI

1. GFCI

4. 30mA GFPE

5. TAP BLOCK

2. COMBINATION AFCI

3. SHUNT TRIP - REFER TO GFM WIRING DETAIL

-- 1

-- 1

3. SHUNT TRIP - REFER TO GFM WIRING DETAIL

4. 30mA GFPE

CIRCUIT SCHEDULE

BRANCH PANEL: PLB

TA

- SPACE

- SPACE -

- SPACE -

CIRCUIT NOTES (REFERENCED IN NOTES COLUMN) A. CONTINUOUS METAL RACEWAY

-- 391.7 6

PANEL NOTES: A. INSTALL PERMANENT LABEL ON THE DOOR OF THE ENCLOSURE STATING "480V LOADS ONLY, 277V LOADS

4 ECB-B, ECB-C, & ECB-D

10 - SPACE -

NOT PERMITTED."

GFPE GFPE CKT# DESCRIPTION TRIP (mA) TIME (ms) ECB-B, ECB-C, & ECB-D 90-100

BRANCH PANEL: MDP

3 PHA

BREAKER NOTES (REFERENCED IN NOTES COLUMN):

DESCRIPTION

3. SHUNT TRIP - REFER TO GFM WIRING DETAIL

CIRCUIT SCHEDULE

- SPACE

- SPACE -

- SPACE -

- SPACE -

- SPACE -

AMPS POLES FEED NOTES

600 A 3 C800*

-- 1

-- 1

Continuous

Maint. Recpt.

4. 30mA GFPE

CKT#

1,3,5

Non-Continuous

Metered Shore Power

2. COMBINATION AFCI

PHA

LOAD CLASSIFICATION

LOCATION: UPLAND

MOUNTING: SURFACE

CIRCUIT DESCRIPTION

GFPE GFPE

1000

VD % TRIP (mA) TIME (ms)

1.46% 90-100 0.01% --

SUPPLY FROM: UTILITY

ENCLOSURE: SS1

BRANCH PANEL: PLA MANUFACTURER: SQUARE D LOCATION: DOCK A A.I.C. RATING: COORDINATE SUPPLY FROM: TA MAINS TYPE: MCB (SHUNT TRIP) SEE NOTE: B MODEL: I-LINE **MOUNTING:** SURFACE PANEL NOTES: MAINS RATING: 800 A **ENCLOSURE**: SSA **VOLTS**: 120/240 1Φ.3-WIRE MCB RATING: 800 A

MANUFACTURER: SQUARE D

PANEL NOTES: SER

1 372.0 0.1

7 -- --

13 -- 0.0

TOTAL LOAD: 372.1 kVA

CONNECTED (kVA)

0.0 kVA

2.0 kVA

9.8 kVA

1185.6 kVA

20.9 kVA

MODEL: I-LINE

454.6 --

-- 0.0

454.6 kVA

DEMAND FACTOR

0.00%

125.00%

100.00%

27.00%

73.95%

VOLTS: 277/480 3Φ,4-WIRE

A.I.C. RATING: COORDINATE

PANEL TOTALS

TOTAL CONN. LOAD (kVA): 1218.3 kVA

TOTAL EST. DEMAND: 418 A

TOTAL CONN.: 1465 A

TOTAL EST. DEMAND (kVA): 347.8 kVA

NOTES FEED POLES AMPS

1 | --

1 --

C30 3 30 A

A20

MAINS TYPE: MCB

MCB RATING: 600 A

MAINS RATING: 600 A

CIRCUIT DESCRIPTION

2 TS1

391.7 -- 6 - SPACE -

-- 0.0 12

EST. DEMAND (kVA)

0.0 kVA

2.4 kVA

9.8 kVA

320.1 kVA

15.4 kVA

CIRCUIT NOTES (REFERENCED IN NOTES COLUMN):

391.7 kVA

A. CONTINUOUS METAL RACEWAY

4 - SPACE

10 - SPACE

14 SPD-1

TRIP	DOLES	FFFD	NOTES	CIDCUIT DESCRIPTION	CIVI				_	CIVI	CIRCUIT DESCRIPTION	NOTES	FFFD	DOL ES	TRIP
AMPS	POLES	FEED	NOTES	CIRCUIT DESCRIPTION	СКТ		Α	·	3	СКТ	CIRCUIT DESCRIPTION	NOTES	FEED	POLES	AMPS
20 A	2	1G35	3	P-1	1	2.0	24.4			2	METERED SHORE POWER	3	1G175	2	200 A
	_				3			2.0	24.4	4				_	
150 A	2	1G175	3	METERED SHORE POWER	5	22.0	1.4			6	P-2	3	1G35	2	20 A
130 A		10173		WETERED SHORET OWER	7			22.0	1.4	8	1 -2		1000		207
200 A	2	1G300	3	METERED SHORE POWER	9	24.4	24.4			10	METERED SHORE POWER	3	1G300	2	200 A
200 A		16300	3	WETERED SHORE POWER	11			24.4	24.4	12	METERED SHORE POWER	3	16300		200 A
20 A	1	1G35	3	WALKWAY LIGHTING	13	0.2	0.0			14	E-STOP	3,B	1G35	1	20 A
20 A	1	1G60	3	GANGWAY LIGHTING	15			0.1	0.0	16	NETWORK CABINET	3	1G35	1	20 A
	1			- SPACE -	17		1.4			18	D 0		4005		00.4
	1			- SPACE -	19				1.4	20	P-3	3	1G35	2	20 A
	1			- SPACE -	21					22	- SPACE -			1	
	1			- SPACE -	23					24	- SPACE -			1	
	1			- SPACE -	25					26	- SPACE -			1	
	1			- SPACE -	27					28	- SPACE -			1	
	1			- SPACE -	29					30	- SPACE -			1	
	1			- SPACE -	31					32	- SPACE -			1	
	1			- SPACE -	33					34	- SPACE -			1	
	1			- SPACE -	35					36	- SPACE -			1	
	1			- SPACE -	37					38	- SPACE -			1	
	1			- SPACE -	39					40	- SPACE -			1	
	1			- SPACE -	41					42	- SPACE -			1	

TOTAL LOAD: 100.2 kVA 100.1 kVA LOAD CLASSIFICATION CONNECTED (kVA) **DEMAND FACTOR** EST. DEMAND (kVA) PANEL TOTALS 0.0 kVA 0.00% 0.0 kVA Continuous 125.00% TOTAL CONN. LOAD (kVA): 200.3 kVA 0.4 kVA 0.5 kVA TOTAL EST. DEMAND (kVA): 131.1 kVA Non-Continuous 9.8 kVA 100.00% 9.8 kVA Metered Shore Power 187.2 kVA 117.9 kVA TOTAL CONN.: 835 A 63.00% Maint. Recpt. 2.9 kVA 100.00% 2.9 kVA TOTAL EST. DEMAND: 546 A

CIRCUIT NOTES (REFERENCED IN NOTES COLUMN):

A. CONTINUOUS METAL RACEWAY

B. REFER TO DIAGRAM 2 / E2.1

4. 30mA GFPE 5. TAP BLOCK

2. COMBINATION AFCI

1. GFCI

CIRCUIT SCHEDULE CEDE CEDE

BREAKER NOTES (REFERENCED IN NOTES COLUMN):

3. SHUNT TRIP - REFER TO GFM WIRING DETAIL

			GFPE	GFPE
CKT#	DESCRIPTION	VD %	TRIP (mA)	TIME (ms
1,3	P-1	2.89%	90-100	600
2,4	METERED SHORE POWER	2.26%	90-100	600
5,7	METERED SHORE POWER	2.47%	90-100	600
6,8	P-2	0.90%	90-100	600
9,11	METERED SHORE POWER	2.80%	90-100	600
10,12	METERED SHORE POWER	2.82%	90-100	600
13	WALKWAY LIGHTING	2.49%	90-100	600
14	E-STOP	0.00%	90-100	600
15	GANGWAY LIGHTING	0.55%	90-100	600
16	NETWORK CABINET	0.00%	90-100	600
18,20	P-3	0.90%	90-100	600

LOCATION: DOCK E A.I.C. RATING: COORDINATE MANUFACTURER: SQUARE D MAINS TYPE: MCB (SHUNT TRIP) SEE NOTE: B **SUPPLY FROM:** TB **MODEL:** I-LINE **MOUNTING:** SURFACE PANEL NOTES: MAINS RATING: 800 A ENCLOSURE: SSB MCB RATING: 800 A **VOLTS**: 120/240 1Φ,3-WIRE AMPS POLES FEED NOTES CIRCUIT DESCRIPTION CIRCUIT DESCRIPTION NOTES | FEED | POLES | AMPS 2 METERED SHORE POWER 1 11.1 11.1 3 1G150 100 A 2 1G150 3 METERED SHORE POWER 2 100 A 11 1 11 1 Δ 5 11.1 11.1 6 METERED SHORE POWER 100 A 2 1G100 3 METERED SHORE POWER 3 1G100 2 100 A 3 1G200 2 200 A 200 A 1G200 3 METERED SHORE POWER 150 A 3 METERED SHORE POWER 3 1G150 2 150 A 1G150 3 METERED SHORE POWER 200 A 1G225 3 1G225 2 200 A 150 A 1G225 3 METERED SHORE POWER 3 1G200 2 150 A 3 | 1G175 | 2 100 A 100 A 2 1G200 3 METERED SHORE POWER 29 0.3 0.0 30 E-STOP WALKWAY LIGHTING 3,B 1G35 1G35 20 A 31 0.0 -- 32 - SPACE -3 NETWORK CABINET 1G35 33 -- -- 34 - SPACE -- SPACE -1 --- SPACE --- - 36 - SPACE -1 --- SPACE -37 -- --38 - SPACE -- SPACE --- 40 - SPACE -- SPACE -42 - SPACE -41 -- --1 --TOTAL LOAD: 237.4 kVA 237.1 kVA LOAD CLASSIFICATION CONNECTED (kVA) DEMAND FACTOR EST. DEMAND (kVA) PANEL TOTALS 0.7 kVA Continuous 0.6 kVA 125.00% Non-Continuous 0.0 kVA 0.00% TOTAL CONN. LOAD (kVA): 474.4 kVA 0.0 kVA Metered Shore Power TOTAL EST. DEMAND (kVA): 176.6 kVA 465.6 kVA 36.00% 167.6 kVA 8.3 kVA 100.00% TOTAL CONN.: 1977 A Maint. Recpt. 8.3 kVA TOTAL EST. DEMAND: 736 A **BREAKER NOTES (REFERENCED IN NOTES COLUMN): CIRCUIT NOTES (REFERENCED IN NOTES COLUMN):**

A. CONTINUOUS METAL RACEWAY

B. REFER TO DIAGRAM 2 / E2.1

CIRC	CIRCUIT SCHEDULE									
			GFPE	GFPE						
CKT#	DESCRIPTION	VD %	TRIP (mA)	TIME (ms)						
1,3	METERED SHORE POWER	2.90%	90-100	600						
2,4	METERED SHORE POWER	2.76%	90-100	600						
5,7	METERED SHORE POWER	2.95%	90-100	600						
6,8	METERED SHORE POWER	2.70%	90-100	600						
9,11	METERED SHORE POWER	1.15%	90-100	600						
10,12	METERED SHORE POWER	1.27%	90-100	600						
13,15	METERED SHORE POWER	2.60%	90-100	600						
14,16	METERED SHORE POWER	2.35%	90-100	600						
17,19	METERED SHORE POWER	2.46%	90-100	600						
18,20	METERED SHORE POWER	2.55%	90-100	600						
21,23	METERED SHORE POWER	2.44%	90-100	600						
22,24	METERED SHORE POWER	2.94%	90-100	600						
25,27	METERED SHORE POWER	2.32%	90-100	600						
26,28	METERED SHORE POWER	2.92%	90-100	600						
29	WALKWAY LIGHTING	2.80%	90-100	600						
30	E-STOP	0.00%	90-100	600						
31	NETWORK CABINET	0.00%	90-100	600						

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FFETT FTIS RING, LLC NA AVE, STE 101 TN 38501 TN 38501 F:5143 tis.com DOF TERROR ERSON LLE, T

ELECTRICAL F SCHEDULI

	BF	RANC	H PA	NEL: PLC													
			SUPPI MO	OCATION: DOCK J LY FROM: TC DUNTING: SURFACE ELOSURE: SSC			MANUFACTURER: SQUARE D MODEL: I-LINE PANEL NOTES: VOLTS: 120/240 1Φ,3-WIRE						A.I.C. RATING: COORDINATE MAINS TYPE: MCB (SHUNT TRIP) SEE NOTE: B MAINS RATING: 600 A MCB RATING: 600 A				
TRIP AMPS	POLES	FEED	NOTES	CIRCUIT DESCRI	PTION	СКТ		A		В	СКТ		CIRCUIT DESCRIPTION	NOTES	FEED	POLES	TRIP AMPS
100 A	2	1G150	3	METERED SHORE POWER		1	11.1	11.1			2	METERE	D SHORE POWER	3	1G150	2	100 A
	_	10.00		METERES SHORE SWER		3			11.1	11.1	4				10100	_	1007
150 A	2	1G175	3	METERED SHORE POWER		5 7	18.3	18.3	18.3	18.3	6 8	METERE	D SHORE POWER	3	1G150	2	150 A
150 A	2	1G150	3	METERED SHORE POWER		9 11	18.3	18.3	18.3	18.3	10 12	METERE	D SHORE POWER	3	1G150	2	150 A
100 A	2	1G125	3	METERED SHORE POWER		13	11.1	11.1			14	METERE	D SHORE POWER	3	1G125	2	100 A
150 A	2	1G225	3	METERED SHORE POWER		15 17	18.3	18.3	11.1	11.1	16 18	METERE	D SHORE POWER	3	1G225	2	150 A
						19			18.3	18.3	20						
20 A	1	1G35	3	WALKWAY LIGHTING		21	0.3	0.0				E-STOP		3,B	1G35	1	20 A
20 A	1	1G35	3	WALKWAY LIGHTING		23			0.1	0.0	24		RK CABINET	3	1G35	1	20 A
	1			- SPACE -		25					26	- SPACE				1	
	1			- SPACE -		27					28	- SPACE				1	
	1			- SPACE -		29					30	- SPACE				1	
	1			- SPACE - - SPACE -		31 33					32	- SPACE				1	
	1			- SPACE -		35					36	- SPACE				1	
	1			- SPACE -		37			-	-	38	- SPACE				1	
	1			- SPACE -		39					40	- SPACE				1	
	1			- SPACE -		41					42	- SPACE				1	
	'			SI 7.0L	TOTAL			⊥ 3 kVA	154	.1 kVA	72	OI / (OL				'	
LOAD C	LASSIFICA	TION			CONNECTED (EMAND FAC			EMAND	(kVA)	PANEL	TOTALS			
Continuo	us				0.6 kVA			125.00%			0.8 kVA	,					
Non-Con	tinuous				0.0 kVA			0.00%			0.0 kVA		TOTAL CONN. LOAD (kVA)	: 308.4 kVA	١		
Metered	Shore Powe	ər			302.4 kVA			45.00%		1	36.1 kVA	\	TOTAL EST. DEMAND (kVA)	: 142.2 kVA	\		
Maint. Re	ecpt.				5.4 kVA			100.00%			5.4 kVA		TOTAL CONN				
													TOTAL EST. DEMAND	: 593 A			
								_				_					

CIRCUIT NOTES (REFERENCED IN NOTES COLUMN):

A. CONTINUOUS METAL RACEWAY

B. REFER TO DIAGRAM 2 / E2.1

BREAKER NOTES (REFERENCED IN NOTES COLUMN):

DESCRIPTION
METERED SHORE POWER

METERED SHORE POWER

METERED SHORE POWER
METERED SHORE POWER

METERED SHORE POWER

METERED SHORE POWER

METERED SHORE POWER

METERED SHORE POWER

METERED SHORE POWER

METERED SHORE POWER

WALKWAY LIGHTING

WALKWAY LIGHTING

NETWORK CABINET

E-STOP

GFPE GFPE

600

600

VD % TRIP (mA) TIME (ms)

2.91% 90-100

2.83% 90-100

2.97% 90-100

1.33% 90-100

1.17% 90-100

2.54% 90-100

2.50% 90-100

3.00% 90-100

2.91% 90-100

1.97% 90-100

0.00% 90-100 1.72% 90-100

0.00% 90-100

3. SHUNT TRIP - REFER TO GFM WIRING DETAIL

CIRCUIT SCHEDULE

1. GFCI

2. COMBINATION AFCI

4. 30mA GFPE

5. TAP BLOCK

CKT#

13,15

14,16

BRANCH PANEL: PLD A.I.C. RATING: COORDINATE **LOCATION**: DOCK N MANUFACTURER: SQUARE D SUPPLY FROM: TD MODEL: I-LINE MAINS TYPE: MCB (SHUNT TRIP) SEE NOTE: B MOUNTING: SURFACE PANEL NOTES: MAINS RATING: 600 A ENCLOSURE: SSD **VOLTS:** 120/240 1Φ,3-WIRE MCB RATING: 600 A AMPS POLES FEED CIRCUIT DESCRIPTION CIRCUIT DESCRIPTION NOTES FEED POLES AMPS
 CKT
 A
 B
 CKT
 CIRCUIT DESCRII

 1
 18.3
 18.3
 2
 METERED SHORE POWER

 5
 18.3
 18.3
 4
 METERED SHORE POWER

 9
 11.1
 11.1
 10
 METERED SHORE POWER

 13
 11.1
 11.1
 12
 METERED SHORE POWER

 15
 11.1
 11.1
 16
 METERED SHORE POWER

 17
 0.3
 0.0
 18
 E-STOP

 19
 0.0
 0.0
 20
 NETWORK CABINET
 3 METERED SHORE POWER 3 1G150 2 150 A 150 A 2 1G175 3 METERED SHORE POWER 3 METERED SHORE POWER 100 A 2 3 1G100 2 100 A 1G125 100 A 2 1G150 3 METERED SHORE POWER 3 1G150 2 100 A 3,B 1G35 1 20 A 20 A 1 1G35 3 WALKWAY LIGHTING 0.0 0.0 20 NETWORK CABINET 19 0.0 0.0 20 NETWORK
21 -- -- 22 - SPACE 23 -- -- 24 - SPACE -20 A 1 1G35 3 NETWORK CABINET 1G35 1 20 A - SPACE -- SPACE -26 - SPACE --- | -- | 28 |- SPACE -- SPACE -- SPACE -30 - SPACE -- - 32 - SPACE -- SPACE -- SPACE -34 - SPACE --- - 36 - SPACE -- SPACE -- SPACE -38 - SPACE --- 1 -- 1 1 --- SPACE -39 -- 40 - SPACE -- SPACE -TOTAL LOAD: 117.7 kVA 117.4 kVA LOAD CLASSIFICATION CONNECTED (kVA) DEMAND FACTOR EST. DEMAND (kVA) PANEL TOTALS

125.00%

0.00%

54.00%

0.5 kVA

0.0 kVA

124.4 kVA

A. CONTINUOUS METAL RACEWAY

B. REFER TO DIAGRAM 2 / E2.1

CIRCUIT NOTES (REFERENCED IN NOTES COLUMN):

TOTAL CONN. LOAD (kVA): 235.1 kVA

TOTAL EST. DEMAND (kVA): 129.2 kVA

TOTAL EST. DEMAND: 538 A

TOTAL CONN.: 980 A

0.4 kVA

0.0 kVA

230.4 kVA

4.3 kVA

1. GFCI
2. COMBINATION AFCI
3. SHUNT TRIP - REFER TO GFM WIRING DETAIL
4. 30mA GFPE
5. TAP BLOCK

CIRCUIT SCHEDULE

BREAKER NOTES (REFERENCED IN NOTES COLUMN):

Non-Continuous

Maint. Recpt.

Metered Shore Power

			GFPE	GFPE
CKT#	DESCRIPTION	VD %	TRIP (mA)	TIME (ms)
1,3	METERED SHORE POWER	1.33%	90-100	600
2,4	METERED SHORE POWER	1.16%	90-100	600
5,7	METERED SHORE POWER	2.58%	90-100	600
6,8	METERED SHORE POWER	2.83%	90-100	600
9,11	METERED SHORE POWER	2.41%	90-100	600
10,12	METERED SHORE POWER	2.91%	90-100	600
13,15	METERED SHORE POWER	2.95%	90-100	600
14,16	METERED SHORE POWER	2.90%	90-100	600
17	WALKWAY LIGHTING	2.38%	90-100	600
18	E-STOP	0.00%	90-100	600
19	NETWORK CABINET	0.00%	90-100	600
20	NETWORK CABINET	0.00%	90-100	600

OWNER:			μ Ε-] •		
ENGINEER:		MAFFETT		ENGINEERING, LLC	COOKEVILLE, TN 38501	TEL: (931) 526-5143 www.maffett-loftis.com	
Revisions indicated w/ \triangle ENGINEER:	Description						

4

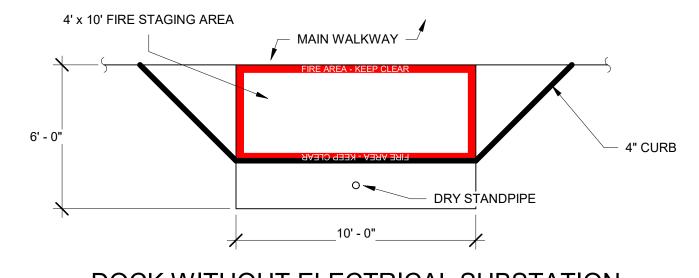
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4' x 10' FIRE STAGING AREA ELECTRICAL SUBSTATION -- MAIN WALKWAY 4" CURB DRY STANDPIPE 30' - 0" **DOCK WITH ELECTRICAL SUBSTATION**



DOCK WITHOUT ELECTRICAL SUBSTATION



FIRE STAGING AREA PLATFORMS

NOT TO SCALE

PIPE MATERIAL

DOCK SIDE:

- HDPE BLACK, UV STABLE, FM APPROVED, DR-7.3 PIPE AND FITTINGS, MIN. 265 PSI HDPE PIPE JOINING SHALL BE HEAT FUSION WELDING, ASTM F2620
- FLEXIBLE PIPE SHALL BE TANK TRUCK, 300 PSI, MWHTT300-64

(12) (6)

NUMBERED NOTES:

- (1) 16" x16" x 1/2" 304 STAINLESS STEEL BASE PLATE. SECURE TO DOCK STRUCTURE OR CONCRETE PAD.
- (2) STAINLESS STEEL PIPE CLAMP WITH SS BOLTS. WELD TO 6"Ø PIPE CAP.
- (3) 6"Ø SCHEDULE 80 STAINLESS STEEL 304 PIPE.
- (4) 2 1/2"Ø HOSE VALVE. COORDINATE WITH LOCAL FIRE DEPARTMENT.
- (5) DOCK FINISH SURFACE.
- (6) DOCK STRUCTURE.
- (7) 6"Ø HDPE FIRE LINE (FP) BLACK, UV STABLE FM APPROVED, CLASS 200, DR-9 PIPE AND FITTINGS. SUPPORT FROM DOCK STRUCTURE. COORDINATE.
- (8) COORDINATE ROUTING OF PIPE THRU DOCK STRUCTURE. OVERSIZE OPENING FOR EXPANSION AND CONTRACTION OF PIPE.
- (9) SIGNAGE. COORDINATE WITH LOCAL FIRE DEPARTMENT AND OWNER.
- (10) ALL FITTINGS SHALL BE RATED AND INSTALLED TO WITHSTAND THE FULL WORKING PRESSURE RATING OF THE PIPE.
- (11) CAP 6"Ø PIPE WITH 1/2" STAINLESS STEEL PLATE. WELD ALL AROUND.
- (13) HDPE TO 304 STAINLESS STEEL TRANSITION FITTING.

(12) ROUTED WITHIN 6"Ø SS PIPE.

STANDPIPE DETAIL (SP)

NOT TO SCALE

GENERAL STANDPIPE FIRE PROTECTION NOTES:

- A. STANDPIPE SYSTEMS SHALL BE INSTALLED COMPLETE WITH ALL WORK, MATERIALS, AND EQUIPMENT CUSTOMARILY CONSIDERED PART SUCH WORK FOR FULLY OPERATIONAL, COMPLETE, AND CODE COMPLIANT SYSTEMS. PROVIDE AND INSTALL ALL PIPING, EQUIPMENT, CONNECTIONS, VALVES, FITTINGS, ETC. AS REQUIRED.
- B. PLANS ARE DIAGRAMMATIC AND ARE PROVIDED ONLY TO SHOW GENERAL SYSTEMS. CONTRACTOR SHALL CONSIDER ACTUAL FIELD CONDITIONS DURING INSTALLATION. ANY GROSS INTERFERENCES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE CONTINUING.
- C. PLAN SCALES NOTED, IF ANY, ARE ONLY APPLICABLE TO PLANS PLOTTED AT FULL SIZE CONTRACTOR IS CAUTIONED WHEN USING PLANS PLOTTED AR REDUCED SIZES. REGARDLESS, CONTRACTOR SHALL NOT SCALE PLANS, BUT SHALL REFER TO NOTED DIMENSIONS. FOR DIMENSIONS NOT NOTED, CONTRACTOR SHALL REFER TO ACTUAL FIELD CONDITIONS AND/OR DIMENSIONED ARCHITECTURAL, STRUCTURAL, OR CIVIL
- D. LOCATE AND INSTALL ALL EQUIPMENT CONSIDERING MANUFACTURER'S RECOMMENDED CLEARANCES.
- E. INSTALL ALL SERVICEABLE EQUIPMENT, VALVES, ETC. IN ACCESSIBLE LOCATIONS.
- F. INSTALL ALL PLASTIC PIPING SO TO BE SHIELDED FROM DIRECT SUNLIGHT AND UV RADIATION.
- G. ALL EQUIPMENT AND COMPONENTS SHALL BEAR UL AND FM LABEL OR MARKINGS.
- H. COORDINATE ROUTING OF MAIN AND BRANCH PIPING WITH OTHER TRADES AND STRUCTURAL INSTALLATION.
- I. ALL PIPING SHALL BE SUPPORTED AND BRACED AS REQUIRED BY CODE AND THE PIPE MANUFACTURER. PIPE HANGER MATERIAL SHALL BE AS APPROVED BY AHJ.
- J. FOR PROPER DRAINAGE, PITCH BRANCH PIPING TOWARD MAINS AND MAINS TOWARD RISER AND AUXILIARY DRAINS AS PRACTICAL. INSTALL AUXILIARY DRAINS FOR PIPING SECTIONS THAT CANNOT BE DRAINED BACK TO MAIN.
- K. ALL EXPOSED METALLIC PIPING SHALL BE PAINTED RED.
- L. ALL STANDPIPE SYSTEM PIPING FROM "POINT OF SERVICE" NOTED SHALL BE INSTALLED BY A REGISTERED SPRINKLER CONTRACTOR.
- M. PORTABLE FIRE EXTINGUISHERS SHALL BE LOCATED PER ELECTRICAL.
- N. PRESSURE TEST ALL PIPING AND FITTINGS PER CODE AND TO THE OPERATIONAL RATING OF THE PIPING: 200psi.
- O. CONFIGURE SYSTEM SO TO ALLOW FOR 6" EXPANSION / CONTRACTION EVERY 100'-0"
- P. COORDINATE ROUTING OF PIPE THRU DOCK STRUCTURE. OVERSIZE OPENINGS FOR EXPANSION AND CONTRACTION OF PIPE.
- Q. ALLOW FOR WATER ELEVATION CHANGE IN ALL PIPES CONNECTION TO SHORE.
- R. SYSTEM SHALL MEET THE REQUIREMENTS OF THE APPLICABLE PORTIONS OF THE FOLLOWING (LATEST ADOPTED VERSIONS - NOT ALL-INCLUSIVE LIST - SYSTEMS SHALL MEET ALL CODES AND REGULATIONS ENFORCED AT THE PROJECT SITE):

INTERNATIONAL FIRE CODE

NFPA 13 STANDARD FOR THE INSTALLATION OF SPRINKLER SYSTEMS

NFPA 14 STANDARD FOR THE INSTALLATION OF STANDPIPE AND HOSE SYSTEMS

NFPA 303 FIRE PROTECTION STANDARD FOR MARINAS AND BOATYARDS

NFPA 307 STANDARD FOR THE CONSTRUCTION AND FIRE PROTECTION OF MARINE TERMINALS, PIERS AND WHARVES

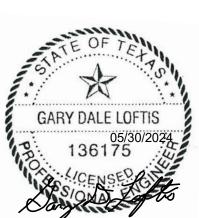
NFPA 25 STANDARD FOR THE INSPECTION, TESTING AND MAINTENANCE OF WATER-BASED FIRE PROTECTION SYSTEMS.

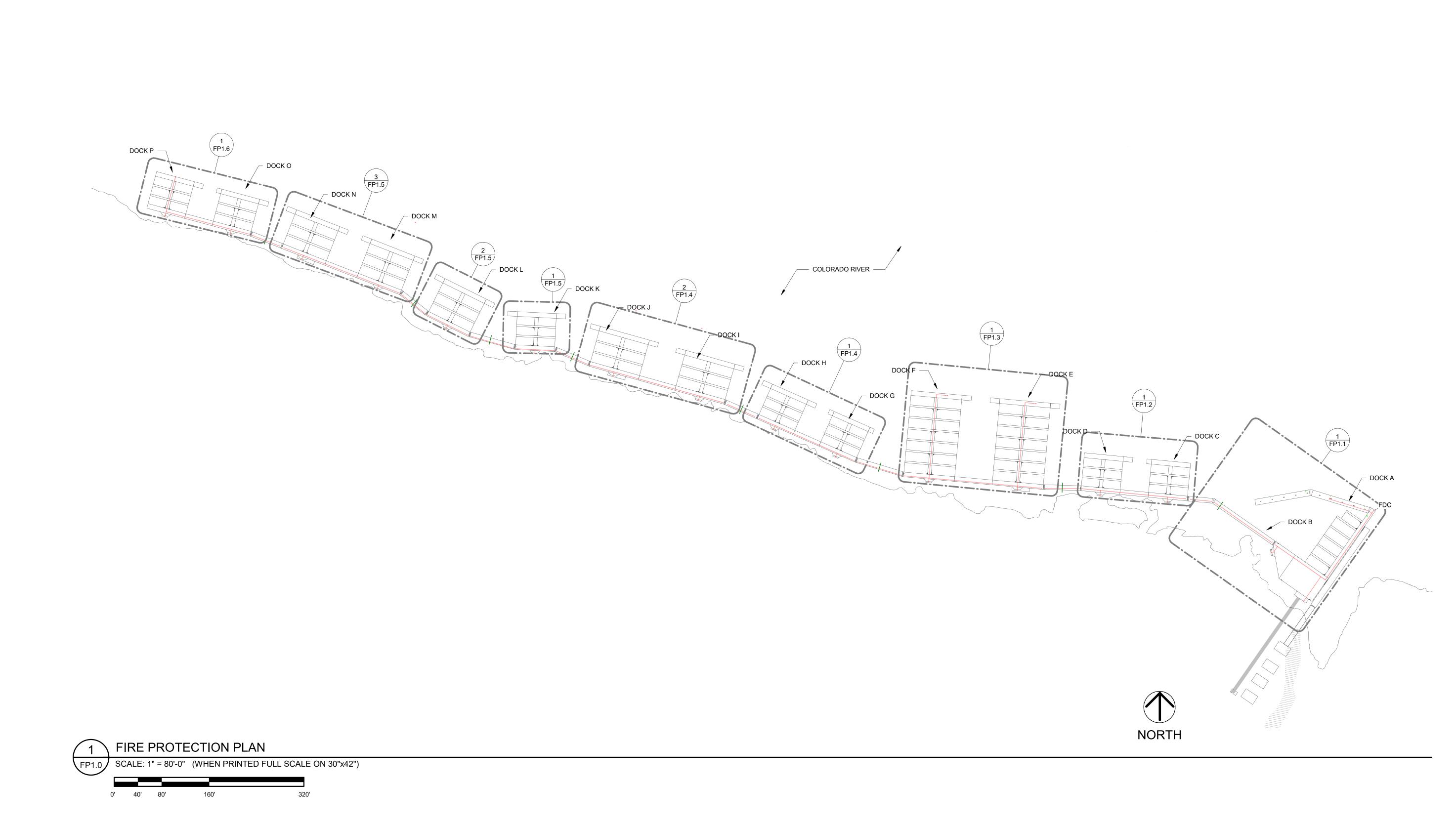


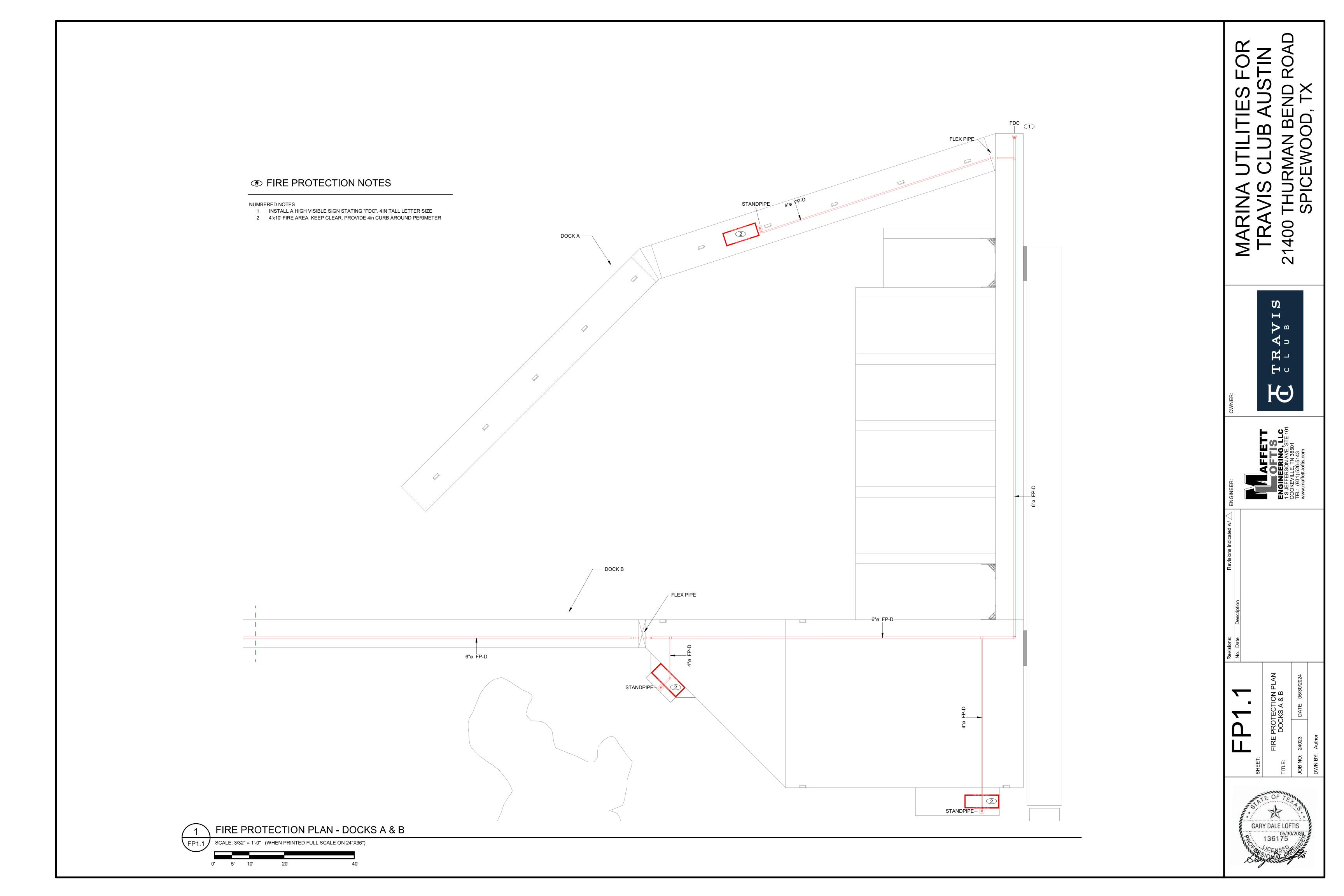
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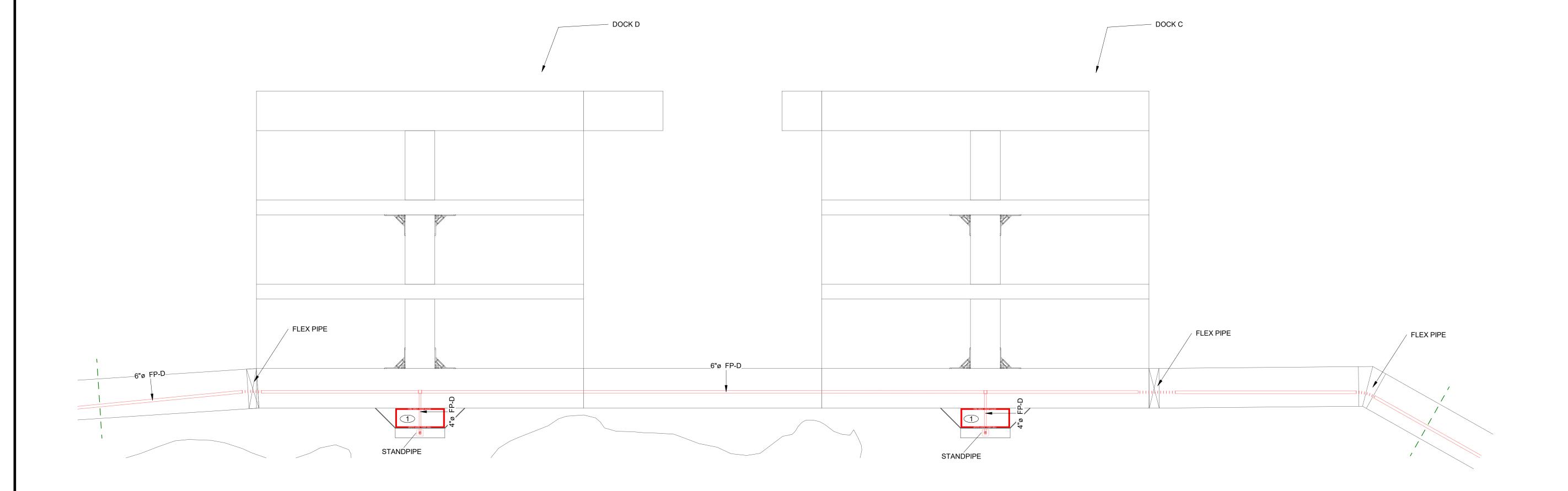


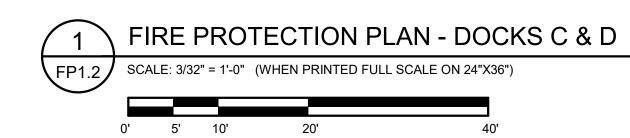


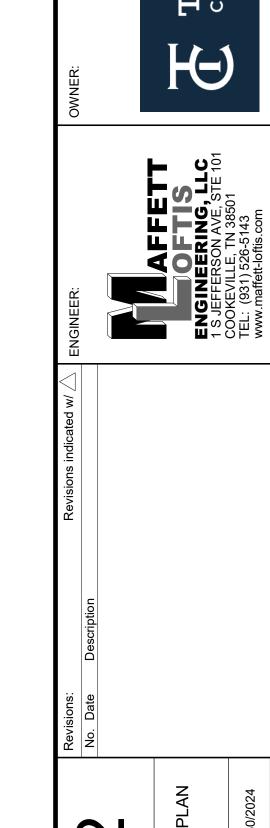




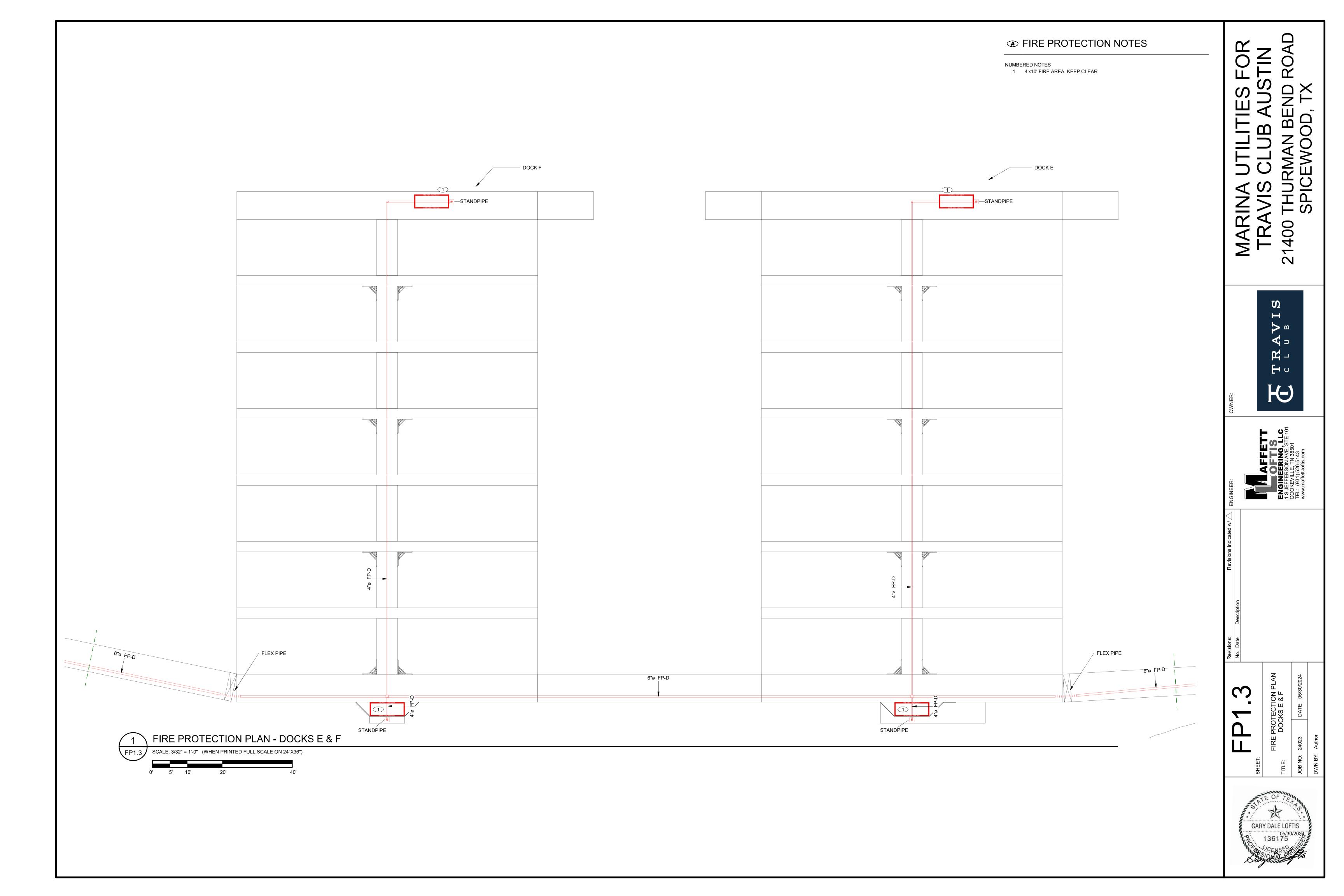


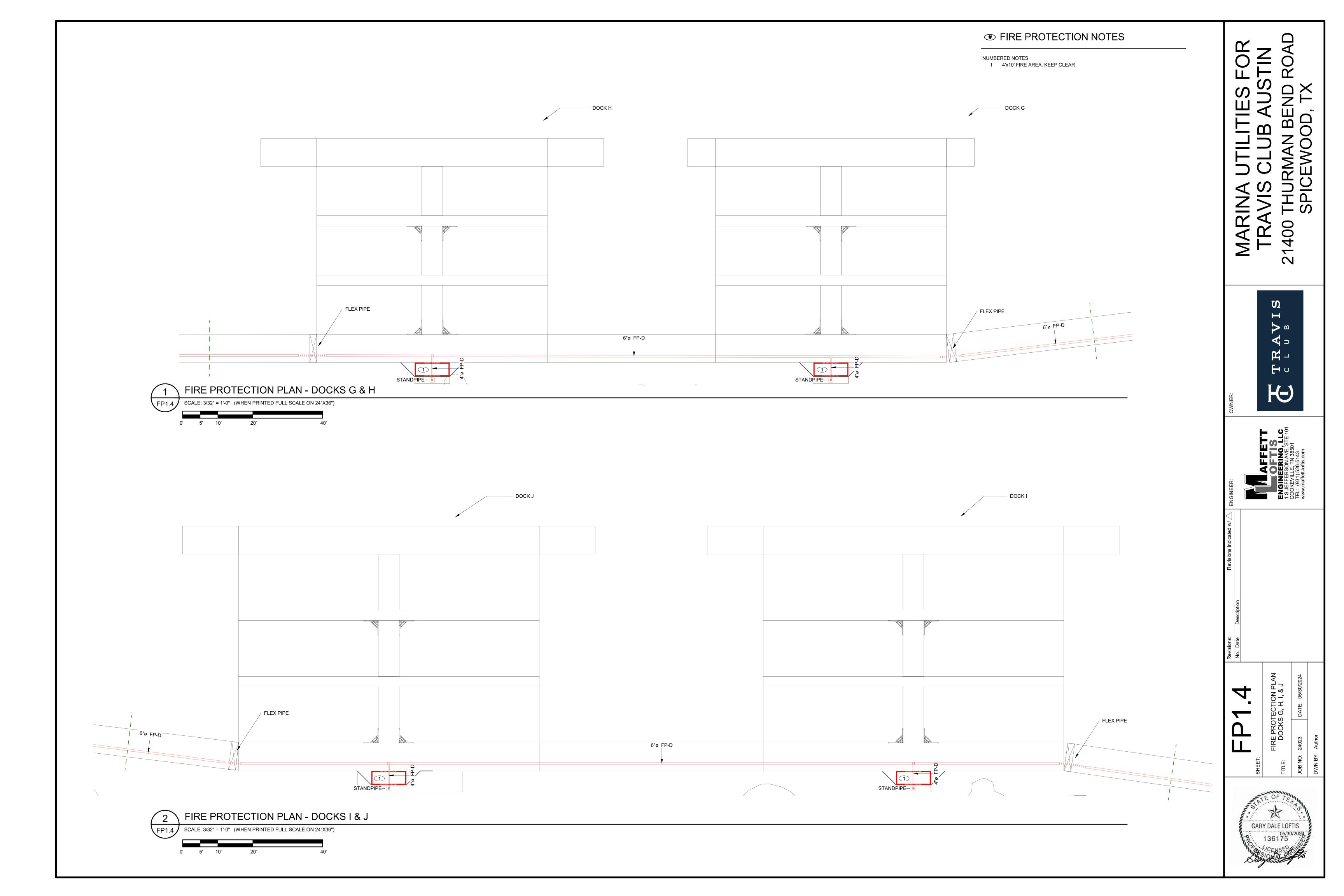


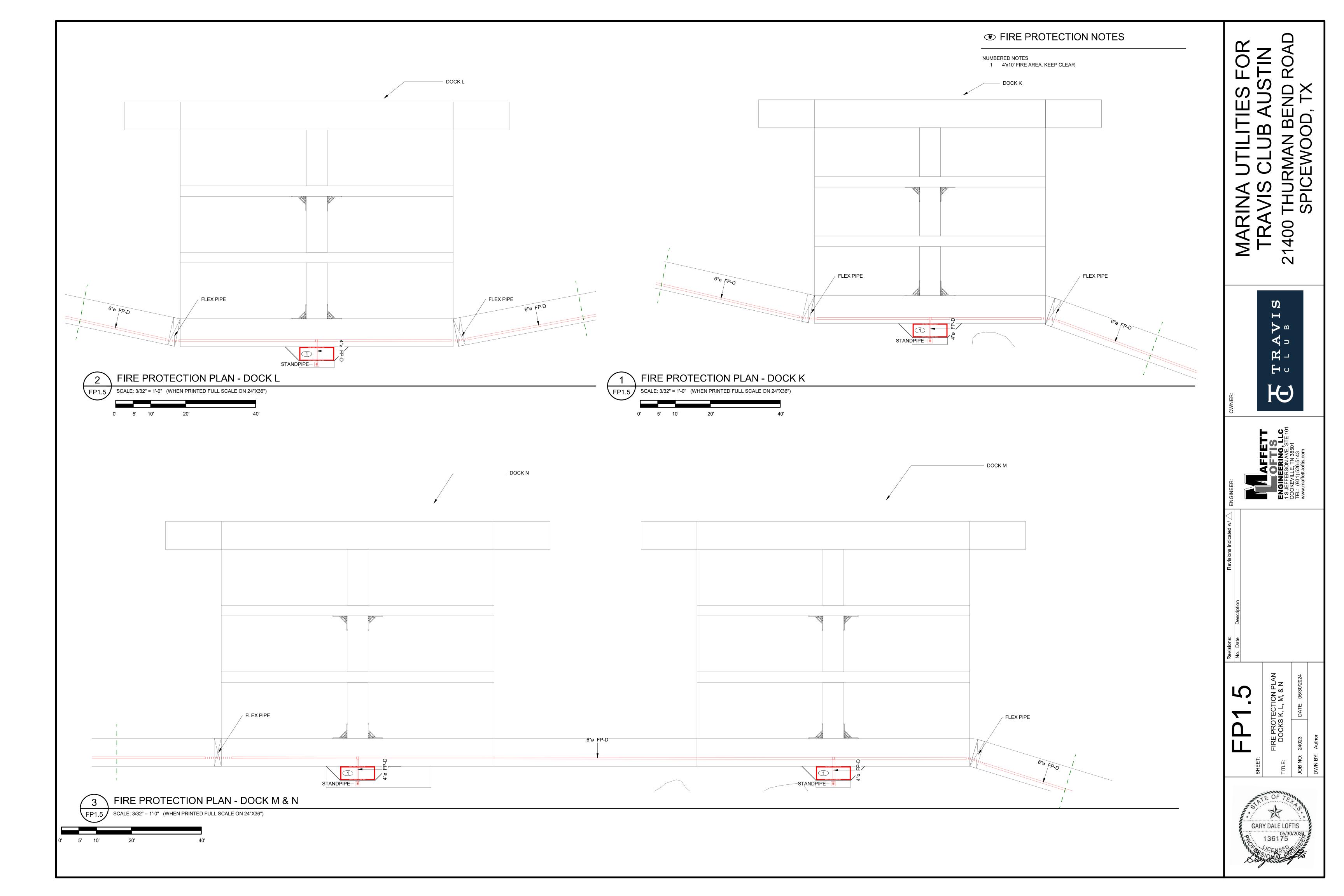




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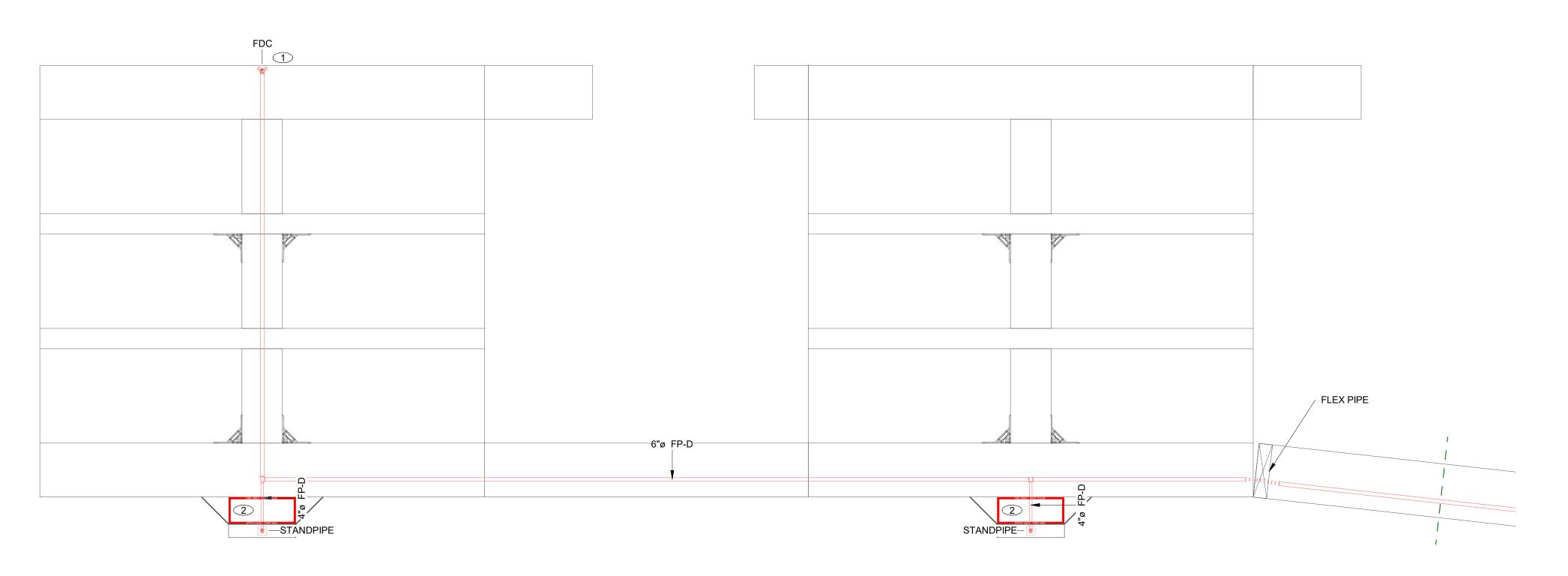




FIRE PROTECTION NOTES

NUMBERED NOTES

1 INSTALL A HIGH VISIBLE SIGN STATING "FDC". 4IN TALL LETTER SIZE
2 4'x10' FIRE AREA. KEEP CLEAR





PIPING MATERIALS SCHEDULE MATERIAL STANDARDS REMARKS DOMESTIC WATER SERVICE PERFORMANCE PIPE DRISCOPLEX OR HDPE ASTM D3035 ASTM F714 EQUAL NSF/ANSI 14 HEAT FUSED WELDED JOINTS (MIN. 160 PSI @ 73.4 F) DOMESTIC WATER DISTRIBUTION ASTM D3035 HDPE PERFORMANCE PIPE DRISCOPLEX OR ASTM F714 NSF/ANSI 14 HEAT FUSED WELDED JOINTS (MIN. 100 PSI @ 180 F) SCHEDULE 40 PVC GRAVITY DRAIN. ASTM D2665 **SOLVENT JOINT** (SOLID WALL) (PROTECTED WASTE, & VENT LOCATIONS) PIPING PERFORMANCE PIPE DRISCOPLEX OR ASTM D3035 ASTM F714 (WHERE EXPOSED) HEAT FUSED WELDED JOINTS FORCED SEWER SCHEDULE 40 PVC ASTM D2665 **SOLVENT JOINT** PIPING (SOLID WALL) PERFORMANCE PIPE DRISCOPLEX OR ASTM D3035 HDPE ASTM F714 HEAT FUSED WELDED JOINTS FLEX PIPE MWHTT300-64 TANK TRUCK (MIN. 100 PSI @ 180 F) HANGERS 2'-8" O.C. MAX. PER CODE SCHEDULE 40 PVC PER CODE 4'-0" O.C. MAX.

PLUMBING FIXTURE SCHEDULE

					SERVICES			
MARK	DESCRIPTION	MANUFACTURER	MODEL	C.W.	H.W.	S.S.	V.	REMARKS
Н В	HOSE BIBB	ZURN	195XL	3/4"				LOW LEAD, CAST BRONZE, NEOPRENE ELASTOMERS, MAX. WORKING PRESSURE 125 psi, PROVIDE VACUUM BREAKER
PHM	PUMPOUT HYDRANT MOUNT	EDSON	160-A-2383-200					BALL VALVE, DECK MOUNT, QUICK CLAMP HOSE CONNECTION, TETHERED PLUG w/ FEMALE #160-A-2384-150
3V	Ball Valve	Zurn Wilkins	850					Threaded Connections ANSI B1.20.1

PLUMBING LEGEND

	SANITARY SEWER
=======	VENT AND/OR DRAIN ABOVE
======	COLD WATER DISTRIBUTION
==	HOT WATER DISTRIBUTION
===	HOT WATER RETURN
	WATER SERVICE PIPING
-G -G	GAS PIPING
—CA — CA	COMPRESSED AIR PIPING
	RISER DOWN
	RISER UP
	SINGLE LINE RISER DOWN
	SINGLE LINE RISER UP
	SINGLE LINE TEE DOWN
	SINGLE LINE TEE UP
Ю	BALL VALVE
-1'-2"	INVERT ELEVATION POINT WITH DIMENSION RELATIVE TO FINISH FLOOR

PUMP SCHEDULE						
DESIGNATION	P1	P2	P3			
SERVICE	BOAT HOLDING TANK PUMP-OUT	BATH HOUSE AND DOCK	PRESSURE BOOSTER			
TYPE	PERISTALTIC	DUPLEX GRINDER	PROGRESSIVE CAVITY			
GPM	40	39	35			
TDH (FT H ₂ O)		50	100			
NPSH	SPEC	SPEC	4.1			
POWER	3 HORSEPOWER	(2) 2 HORSEPOWER	2 HORSEPOWER			
VOLTAGE / PHASE	240V, SINGLE PHASE	240V, SINGLE PHASE	240V, SINGLE PHASE			
RPM	80	SPEC	700			
MANUFACTURER	EDSON, PLATINUM SERIES	LIBERTY PUMPS	LIBERTY PROCESS			
MODEL NUMBER	28623 - 3HP	D3672LSG	1LL6			

P1 REMARKS:

- . PUMP MOTOR SHALL BE HIGH EFFICIENCY TYPE AND NON-
- OVERLOADING. PROVIDE SUCTION HOSE, HOSE STAND, AND INTAKE FITTING PER
- PUMP MANUFACTURER. COORDINATE WITH OWNER. WEATHER COVER BOX BY MANUFACTURER.
- RADIO REMOTE CONTROL. COORDINATE WITH OWNER.

- WEIGHT 515 LBS EMPTY, 3,160 LBS FILLED DIMENSIONS - 42"Ø X 72"H
- 317 GAL WOUND FIBERGLASS TANK WITH STEEL COVER
- 4. STAINLESS STEEL GUIDE RAIL SYSTEM COORDINATE WITH DOCK MANUFACTURER FOR INSTALLATION OF TANK.

- WEIGHT 515 LBS EMPTY, 3,160 LBS FILLED
- DIMENSIONS 42"Ø X 72"H 317 GAL WOUND FIBERGLASS TANK WITH STEEL COVER
- STAINLESS STEEL GUIDE RAIL SYSTEM
- COORDINATE WITH DOCK MANUFACTURER FOR INSTALLATION OF TANK.

NUMBERED NOTES

A. PERFORMANCE PIPE -DRISCOPLEX SERIES OR EQUAL

B. WATER PIPING TO BE BLUE, SEWER PIPING TO BE GREEN

1 FLEXIBLE PIPING. PROVIDE LOOP IN ALL TO ALLOW ADEQUATE MOVEMENT OF CHASE. FLEXIBLE PIPE SHALL NOT COME IN CONTACT WITH WATER AT ANY TIME.

4. WITHOUT EXCEPTION, ONLY PLUMBING COMPONENTS THAT HAVE BEEN CERTIFIED AS "LEAD FREE" SHALL BE

2 FLOATING UTILITY CHASE - FOR REFERENCE ONLY.

1. INSTALL ALL MATERIALS CONSISTENT WITH CODES, LISTING AGENCIES, AND MANUFACTURER

3. ALL DOMESTIC WATER PIPING SHALL CONFORM WITH NSF 14 AND 61 AS APPLICABLE

ALLOWED TO BE INSTALLED ON POTABLE WATER SYSTEMS. REFERENCE NSF/ANSI 371.

2. CONTRACTOR MUST BE TRAINED AND MANUFACTURER CERTIFIED FOR THE MATERIALS UTILIZED.

(3) WATER LEVEL.

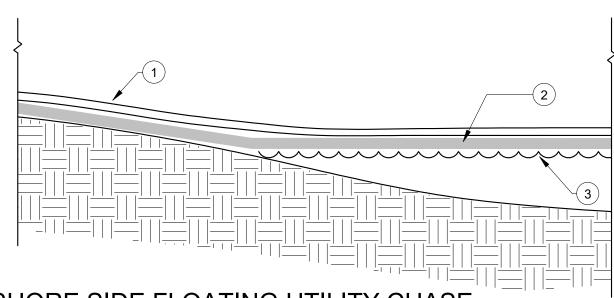
RECOMMENDATIONS.

FLEXIBLE PIPING TO BE:

P0.1

NOT TO SCALE

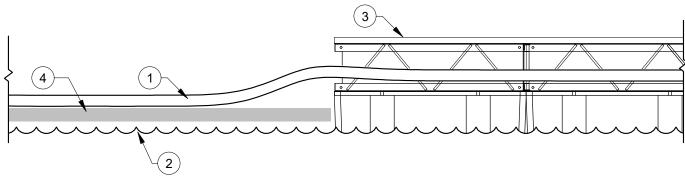
NOT TO SCALE



SHORE SIDE FLOATING UTILITY CHASE

NUMBERED NOTES

- 1) FLEXIBLE PIPING. PROVIDE LOOP IN ALL TO ALLOW ADEQUATE MOVEMENT OF GANGWAY. FLEXIBLE PIPE SHALL NOT COME IN CONTACT WITH WATER AR ANY TIME.
- (2) WATER LEVEL.
- (3) DOCK FRAMING FOR REFERENCE ONLY.
- ig(f 4 ig) FLOATING UTILITY CHASE FOR REFERENCE ONLY.



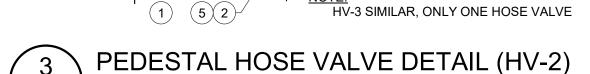
DOCK SIDE FLOATING UTILITIES CHASE P0.1 NOT TO SCALE

(2) (3) (4)

NUMBERED NOTES

- (1) COORDINATE ROUTING OF PIPE WITH DOCK MANUFACTURER.
- (2) PEX DOMESTIC WATER PIPING. SEE PLANS FOR SIZE.
- (3) 1"Ø PEX DOMESTIC WATER PIPING.
- 4) 3/4"Ø PEX DOMESTIC WATER PIPING.
- COORDINATE ROUTING OF PIPING THRU DOCK STRUCTURE. OVERSIZE OPENING FOR EXPANSION AND CONTRACTION OF PIPE
- (6) HOSE VALVE (HV). SEE SCHEDULE.
- POWER PEDESTAL REFERENCE ONLY.

HV-3 SIMILAR, ONLY ONE HOSE VALVE





NUMBERED NOTES

- (1) 4" ELECTRICAL PVC CONDUIT
- 4" TELECOMMUNICATIONS PVC
- 4" SANITARY SEWER PVC
- 2" DOMESTIC WATER PVC
- FLOATING UTILITY CHASE. COORDINATE
- WITH DOCK MANUFACTURER
- (6) WATER LEVEL. (7) 8" FLEX AREA

GENERAL PLUMBING NOTES:

- 1. INSTALLATION SHALL COMPLY WITH ALL APPLICABLE, CURRENTLY ADOPTED, CODES AT THE TIME OF THE PLAN DATE, INCLUDING (BUT NOT LIMITED TO) THE FOLLOWING:
 - IBC INTERNATIONAL BUILDING CODE IFC INTERNATIONAL FIRE CODE NFPA 101 LIFE SAFETY CODE IPC INTERNATIONAL PLUMBING CODE

PLUMBING ABBREVIATIONS

COLD WATER UP FROM BELOW

DOUBLE COMPARTMENT SINK

COLD WATER UP TO ABOVE

ELECTRIC WATER HEATER

GREASE INTERCEPTOR

HANDICAPPED WATER CLOSET

HOT WATER DOWN FROM ABOVE

HOT WATER DOWN TO BELOW

HWRUFB HOT WATER RETURN UP FROM BELOW

HOT WATER UP FROM BELOW

ON DEMAND ELECTRIC WATER HEATER

REDUCED PRESSURE BACKFLOW

STORM DRAIN DOWN FROM ABOVE

SANITARY SEWER DOWN FROM ABOVE

SANITARY SEWER DOWN TO BELOW

TRAP PRIMER DISTRIBUTION UNIT

STORM DRAIN DOWN TO BELOW

SINGLE COMPARTMENT SINK

HWRUTA HOT WATER RETURN UP TO ABOVE

HOT WATER UP TO ABOVE

RECIRCULATING PUMP

GAS WATER HEATER

AIR ADMITTANCE VALVE

CLOTHES WATER BOX

DOWNSPOUT NOZZLE

EXPANSION TANK

FLOOR CLEAN OUT

FLOOR DRAIN

FLOOR SINK

GATE VALVE

HOSE BIBB

HOT WATER

LAVATORY

MOP SINK

ROOF HYDRANT

PREVENTER

STORM DRAIN

SHOWER

URINAL

VALVE BOX

VENT THRU ROOF

VENT UP TO ABOVE

WATER CLOSET

WALL CLEAN OUT

WATER HAMMER

YARD CLEAN OUT

YCO (TR) YARD CLEAN OUT - TRAFFIC RATED

VENT UP FROM BELOW

VENT

TRAP PRIMER

SANITARY SEWER

BALL VALVE

COLD WATER

CWUFB

CWUTA

HWDFA

HWUTA

lodewh

ISDDTB

SSDTB

CHECK VALVE

- PLUMBING SYSTEMS SHALL BE INSTALLED COMPLETE WITH ALL WORK, MATERIALS, AND EQUIPMENT CUSTOMARILY CONSIDERED PART OF SUCH WORK FOR FULLY OPERATIONAL, COMPLETE, AND CODE COMPLIANT SYSTEMS. PROVIDE AND INSTALL ALL PIPING, CONNECTIONS, VALVES, FITTINGS, AND FIXTURES COMPLETE WITH TRAPS, SUPPLIES, STOPS, ETC. AS REQUIRED.
- 3. PLANS ARE DIAGRAMMATIC AND ARE PROVIDED ONLY TO SHOW GENERAL SYSTEMS. CONTRACTOR SHALL CONSIDER ACTUAL FIELD CONDITIONS DURING INSTALLATION. ANY GROSS INTERFERENCES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE CONTINUING.
- 4. PLAN SCALES NOTED, IF ANY, ARE ONLY APPLICABLE TO PLANS PLOTTED AT FULL SIZE. CONTRACTOR IS CAUTIONED WHEN USING PLANS PLOTTED AT REDUCED SIZES. REGARDLESS, CONTRACTOR SHALL NOT SCALE PLANS, BUT SHALL REFER TO ACTUAL FIELD CONDITIONS AND/OR DIMENSIONED ARCHITECTURAL, STRUCTURAL, OR CIVIL PLANS.
- 5. SUBMITTAL REQUIREMENTS: CONTRACTOR SHALL PREPARE AND SUBMIT TO THE ENGINEER FOR REVIEW AND APPROVAL DETAILED PRODUCT INFORMATION ON ALL EQUIPMENT PROPOSED FOR USE SUBMITTAL SHALL BE APPROVED. AND ENGINEER SHALL REVIEW AND APPROVE PRIOR TO EQUIPMENT PURCHASE. SUBMITTALS SHALL BE SUBMITTED IN ELECTRONIC (PDF) FORMAT WITH THE FILES NAMED WITH THE RELEVANT SPEC SECTION NUMBERING. PRIOR TO SUBMITTAL CONTRACTOR SHALL REVIEW AND CERTIFY BY SIGNATURE THE SUBMITTED EQUIPMENT MEET SPECIFICATIONS. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DIMENSIONS, FITTINGS, AND CONSTRUCTION FEATURES RELATIVE TO EQUIPMENT, APPROVAL OF SUBMITTAL INFORMATION BY THE ENGINEER DOES NOT RELIEVE THE CONTRACTOR'S OBLIGATION TO PROVIDE CODE COMPLIANT SYSTEMS.
- 6. LOCATE AND INSTALL ALL EQUIPMENT CONSIDERING MANUFACTURER'S RECOMMENDED CLEARANCES. MANUFACTURER'S INSTALLATION INSTRUCTIONS, AND LISTING AGENCY CERTIFICATIONS.
- 7. INSTALL ALL SERVICEABLE EQUIPMENT, VALVES, UNIONS, CLEAN OUTS, ETC. IN ACCESSIBLE LOCATIONS.
- 8. VERIFY ALL ELECTRICAL REQUIREMENTS WITH EQUIPMENT MANUFACTURERS. COORDINATE WITH ELECTRICAL CONTRACTOR.
- 9. FIRE STOPPING SYSTEM SHALL BE INSTALLED AT ALL PIPING PENETRATIONS THROUGH FIRE RATED WALLS, CEILINGS, OR CONSTRUCTION.
- 10. PROVIDE AND INSTALL ALL HANGERS AND SUPPORTS AS REQUIRED BY CODE CONSISTENT WITH THE MATERIAL OR EQUIPMENT SUPPORTED.
- 11. SLEEVE ALL PENETRATIONS THROUGH MASONRY OR CONCRETE FLOOR SLABS, WALLS, OR FOOTINGS.
- 12. THE PLANS AND SPECIFICATIONS FOR THIS WORK HAVE BEEN PREPARED WITH THE INTENT TO BE AS ACCURATE AND COMPLETE AS PRACTICAL, BUT ERRORS, OMISSIONS, AND CONFLICTS MAY EXIST. PRIOR TO SUBMITTING A BID FOR CONSTRUCTION. THE CONTRACTOR SHALL REVIEW THE PLANS AND SPECIFICATIONS IN DETAIL. ANY QUESTIONS OR COMMENTS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO SUBMITTING A BID. BY SUBMITTING A BID FOR THE WORK, THE CONTRACTOR ACKNOWLEDGES THAT HE HAS REVIEWED THE PLANS AND SPECIFICATIONS, UNDERSTANDS THE DESIGN INTENT, AND DOES NOT HAVE ANY FURTHER QUESTIONS OR COMMENTS.
- 13. WITHOUT EXCEPTION, ONLY PLUMBING COMPONENTS THAT HAVE BEEN CERTIFIED AS "LEAD FREE" SHALL BE ALLOWED TO BE INSTALLED ON POTABLE WATER SYSTEMS. REFERENCE NSF/ANSI

DOMESTIC WATER NOTES:

- 1. FLUSH AND CLEAN DOMESTIC WATER LINES BEFORE CONNECTION FIXTURES.
- 2. TEST WATER PIPING TO 100 psi HYDROSTATIC PRESSURE FOR FOUR HOURS MINIMUM BEFORE BACK FILLING OR CONCEALMENT.

SANITARY SEWER NOTES:

- 1. ALL HORIZONTAL SWEEPS IN SEWER PIPING SHALL INCORPORATE 450 WYE FITTINGS.
- 2. TEST FORCE MAIN TO 5 psi GREATER THAN THE PUMP RATING FOR

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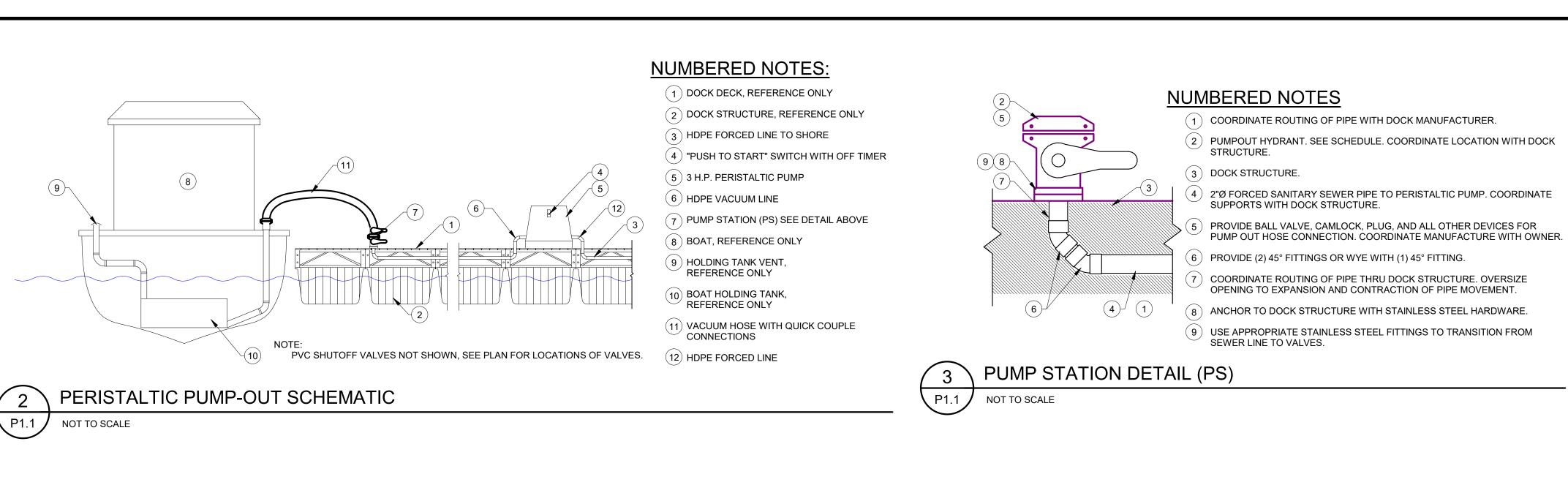
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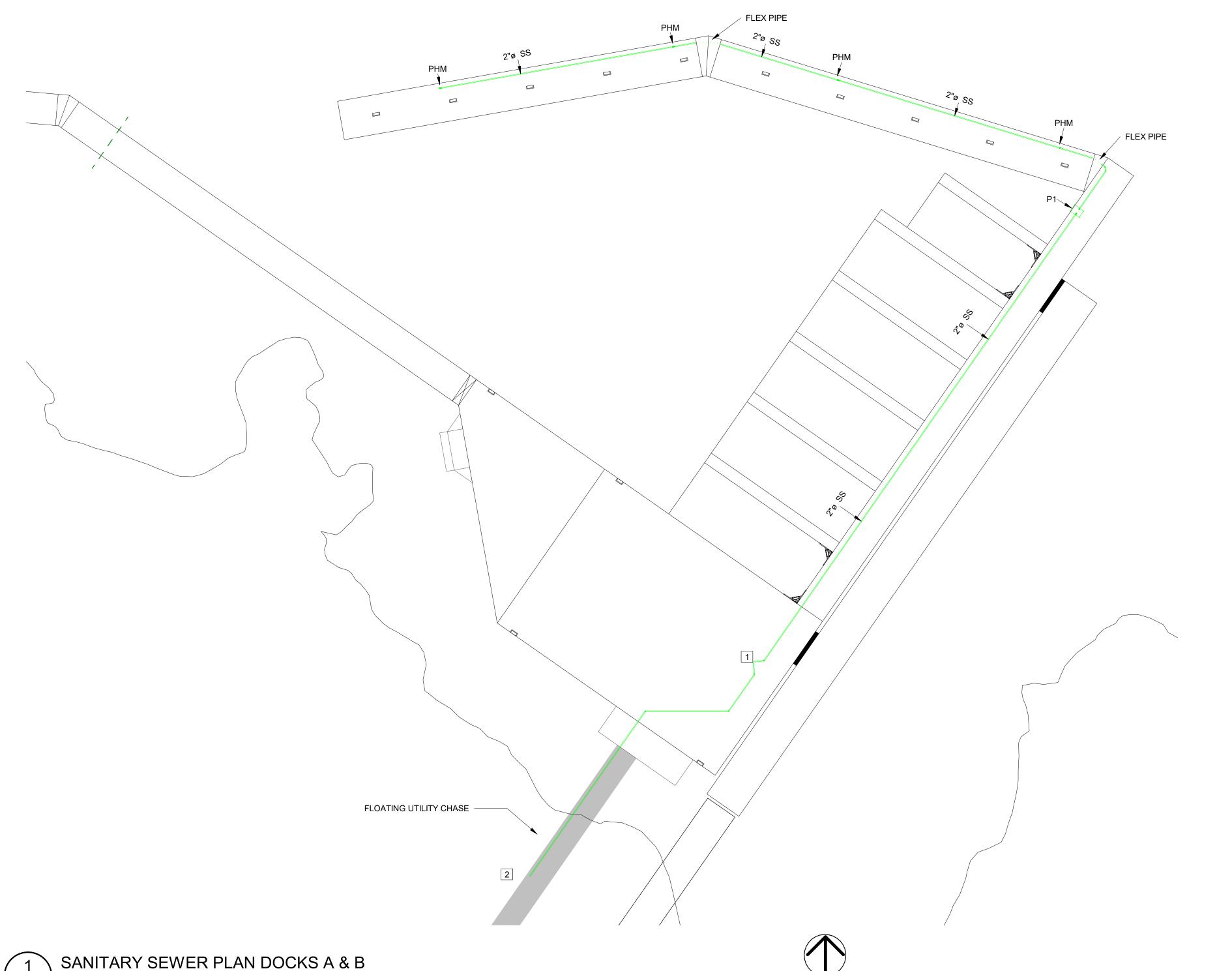
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SCALE: 1/16" = 1'-0" (WHEN PRINTED FULL SCALE ON 24"X36")

0' 8' 16'

PLUMBING NOTES

GENERAL NOTE

- A SEE SANITARY SEWER ISOMETRIC FOR PIPE SIZES NOT SHOWN.
 B ALL FLOOR DRAINS TO BE SUPPLIED WITH WATER FROM TRAP PRIMER
- TAILPIECE FROM A LAVATORY OR TRAP PRIMER.

 C COORDINATE ROUTING OF PIPE WITH OTHER TRADES.

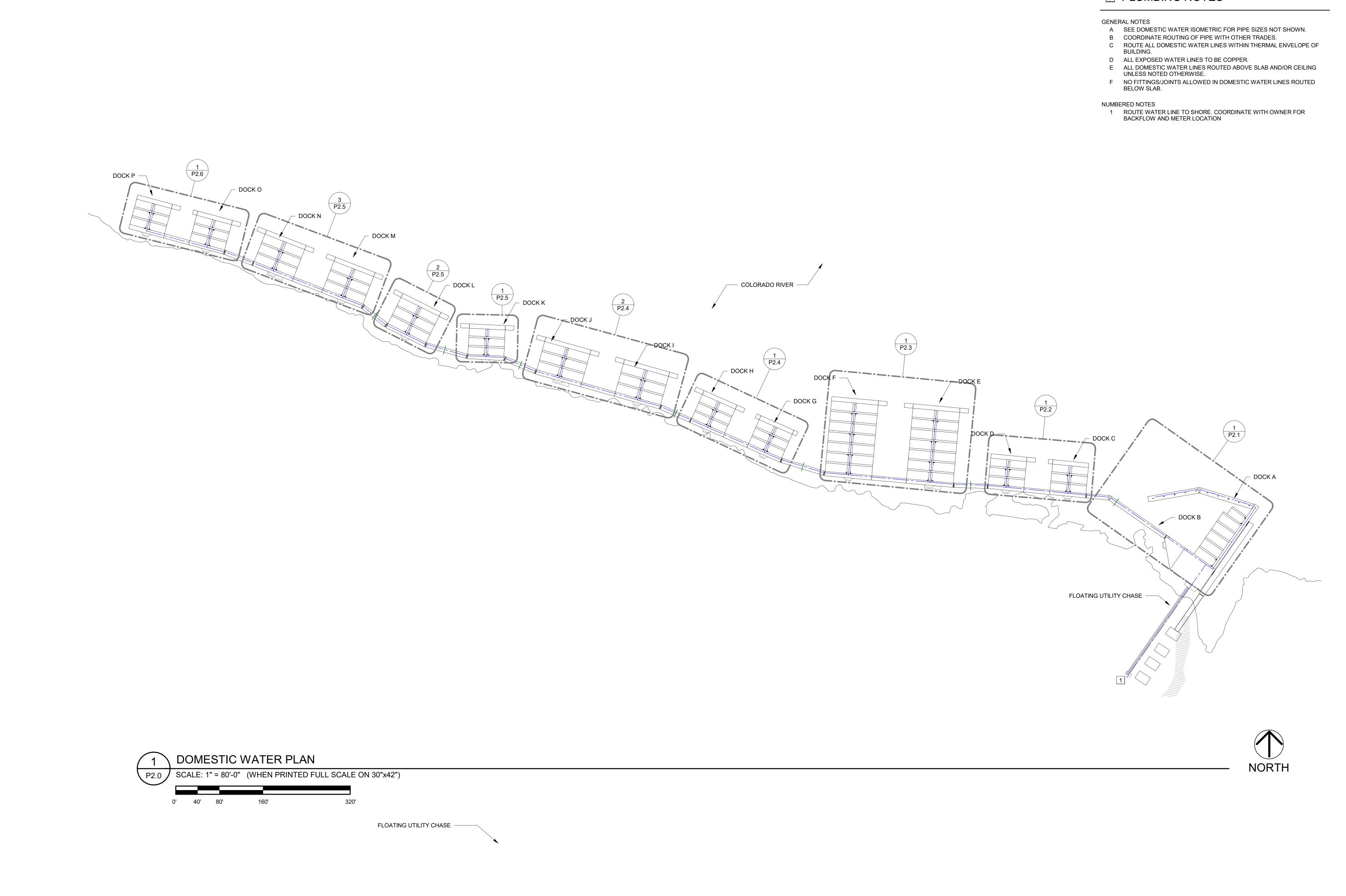
NUMBERED NOTES

- 1 LIBERTY LIFT STATION. COORDINATE ACTUAL LOCATION WITH OWNER TO ALLOW FOR GRAVITY FLOW FROM BATHHOUSE SEWER. BATHHOUSE SEWER DESIGN SHALL BE PROVIDED BY OWNER AND SHALL GRAVITY FLOW INTO LIFT STATION RESEVOIR.
- 2 ROUTE SEWER LINE TO LOCATION ON SHORE. COORDINATE WITH OWNER FOR MANHOLE LOCATION.



T:
SANITARY SEWER PLAN





PLUMBING NOTES



FFETT

FTIS

ERING, LLC

ON AVE, STE 101

E, TN 38501

Column 26-5143

ENGINEER:

ENGINEER:

ENGINEER:

OFTE

1 S JEFFERSON AVE, STE 10

COOKEVILLE, TN 38501

TEL: (931) 526-5143

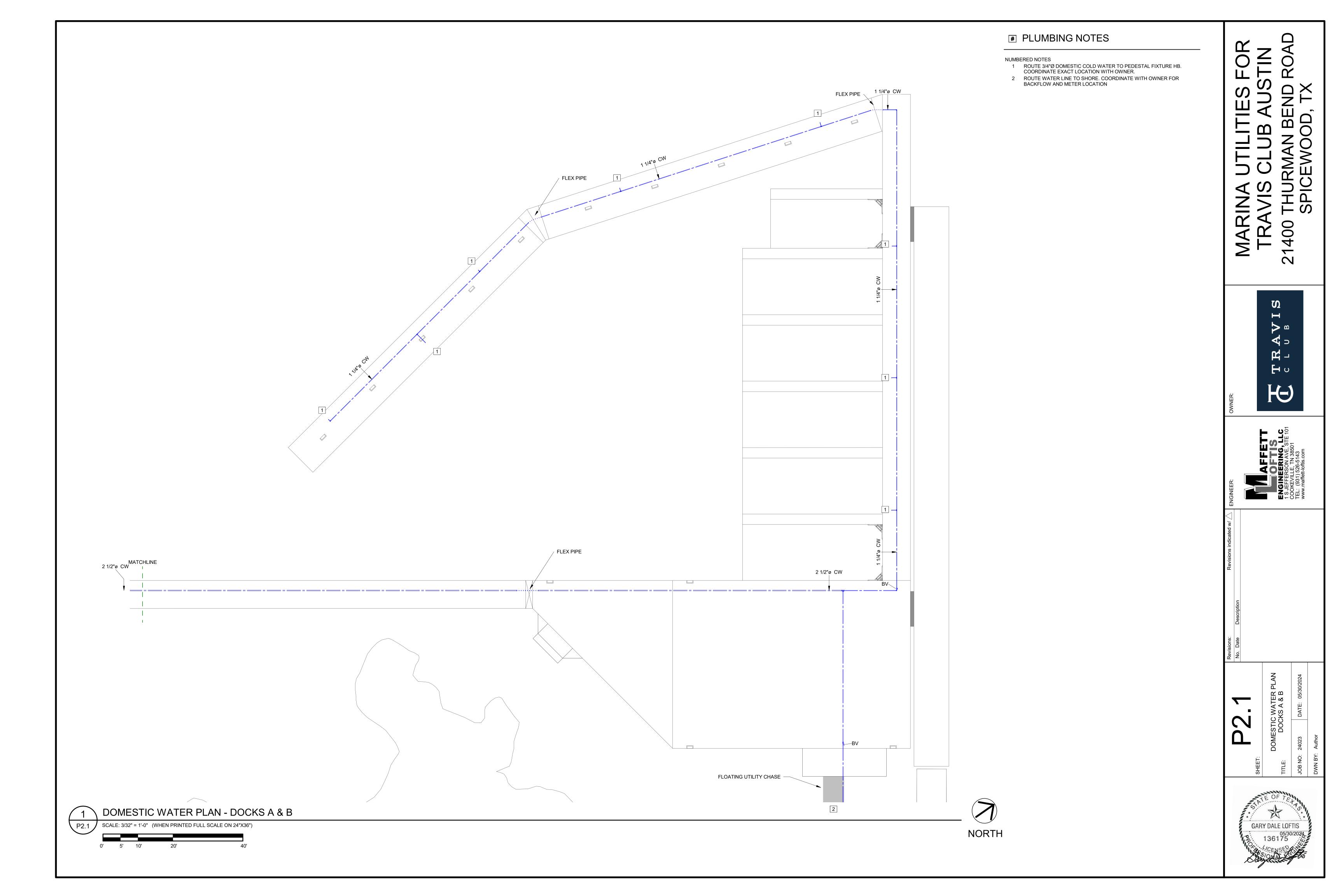
No. Date Description

L.OSOMESTIC WATER PLAN

SHEET:

DOMESTIC WATER
TITLE:
JOB NO: 24023 DATE: 05/3







Revisions:

No. Date Description

No. Date Description

AFFET

OFTIS

ENGINEER:

OFTIS

ENGINEERING, L.

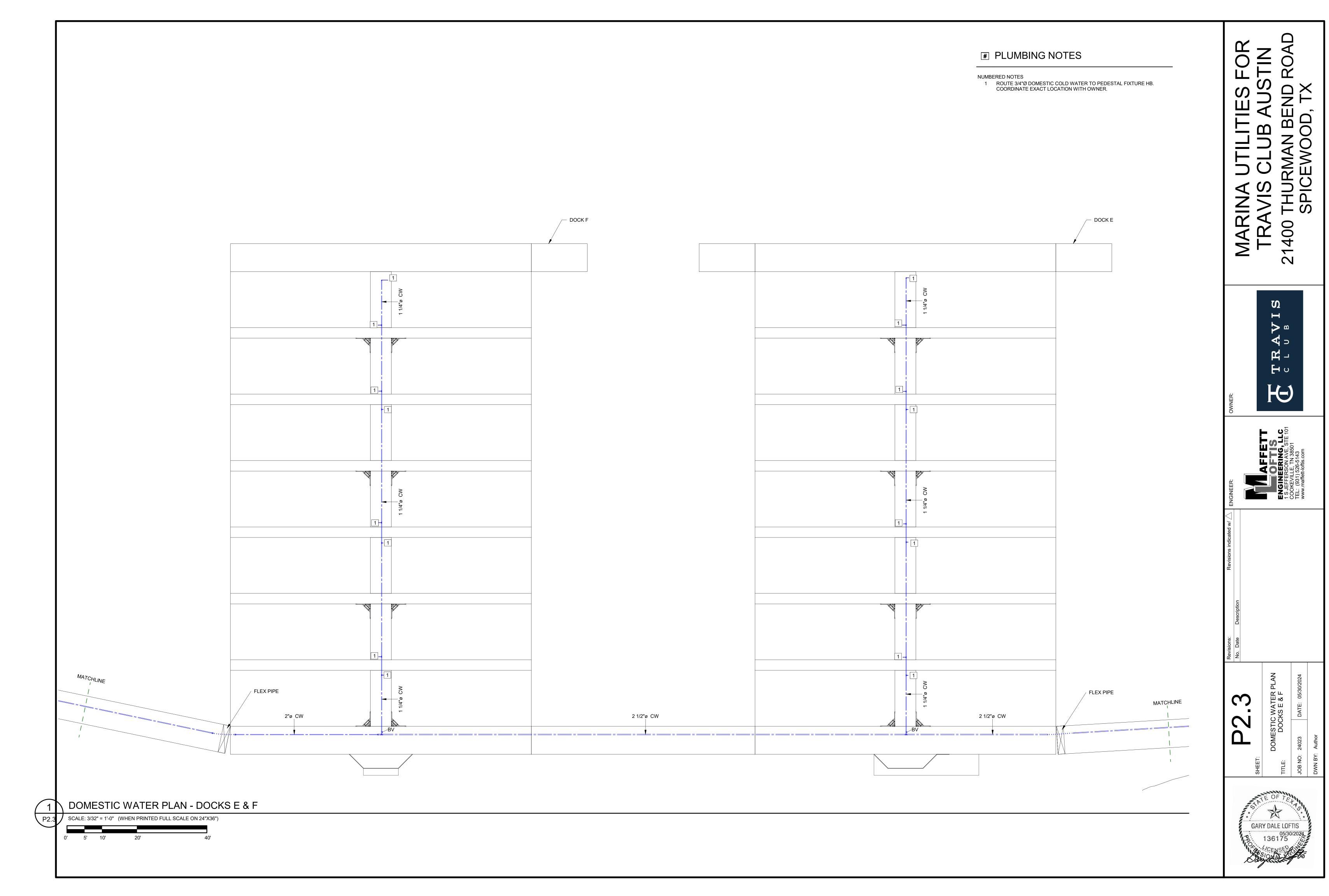
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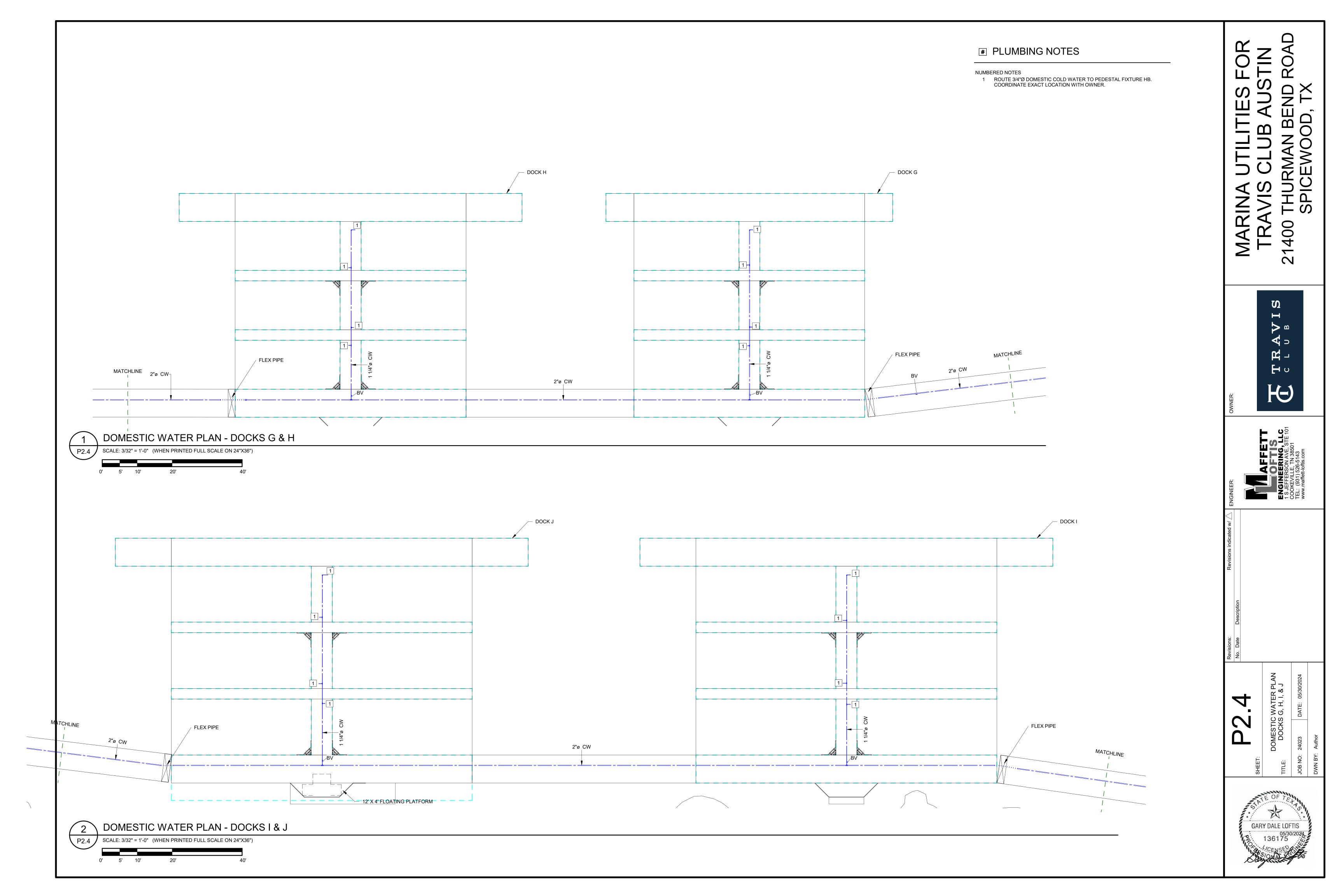
COOKEVILLE, TN 38501

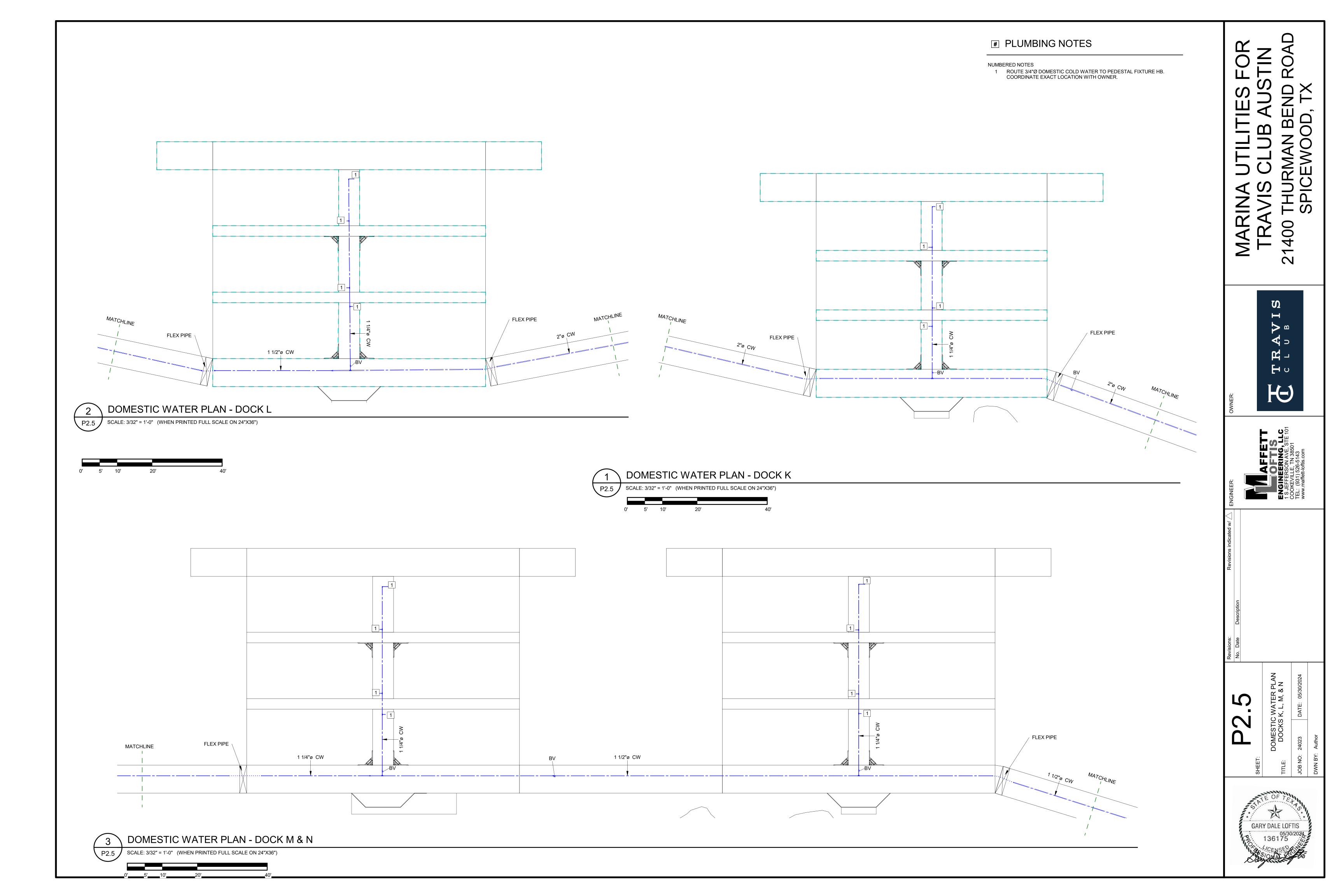
TEL: (931) 526-5143

P2.2 EET: DOMESTIC WATER PLAN DOCKS C & D



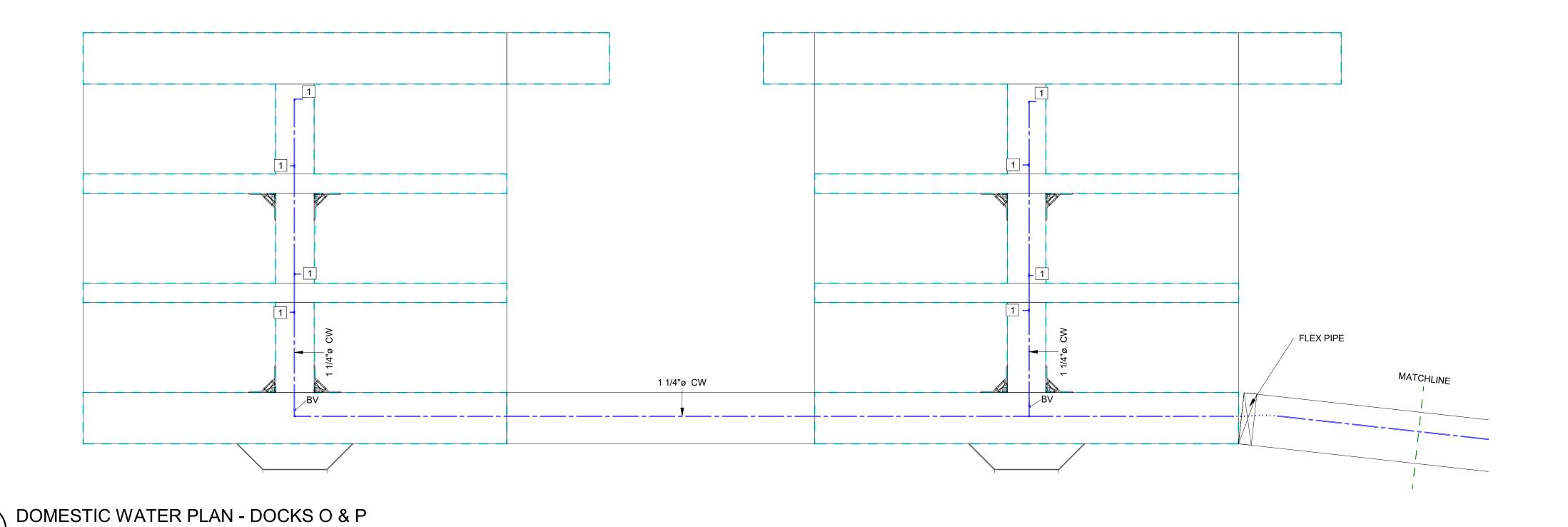






NUMBERED NOTES

1 ROUTE 3/4"Ø DOMESTIC COLD WATER TO PEDESTAL FIXTURE HB.
COORDINATE EXACT LOCATION WITH OWNER.

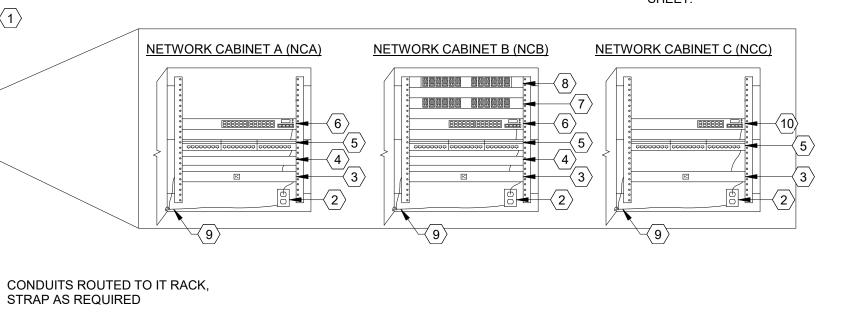


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- 1 ELECTRICAL SCOPE: THE INFRASTRUCTURE PORTION OF THESE DOCUMENTS SHALL BE PROVIDED AND INSTALLED BY THE ELECTRICAL CONTRACTOR, AND SHALL INCLUDE, BUT NOT BE LIMITED TO THE FOLLOWING: A. TELECOM SPACES
- a. BONDING OF CONDUITS ENTERING IT ENCLOSURES
- a. EMPTY CONDUIT WITH PULL-WIRE
 - b. CONDUIT PULL BOXES c. JUNCTION BOXES
- CABLING SCOPE: THE CABLING PORTION OF THESE DOCUMENTS SHALL BE PROVIDED AND INSTALLED BY THE COMMUNICATIONS CABLING CONTRACTOR, AND SHALL INCLUDE, BUT NOT BE LIMITED TO THE FOLLOWING:
 - a. TELECOM RELAY RACKS AND EQUIPMENT CABINETS/ENCLOSURES
- c. TERMINATION BLOCKS
- CAT5e RJ45 TERMINATIONS. RACK-MOUNTED POE SWITCH SW-1. SEE NETWORK SWITCH SCHEDULE THIS
- SHEET. 7 24 PORT FIBER PATCH PANEL. CONNECTIONS SHALL BE SUITABLE FOR LC DUPLEX FIBER TERMINATIONS.
- RACK-MOUNTED FIBER CASSETTE. BOD: CORNING CCH-CS24-A9-P00RE OR AN APPROVED EQUAL.
- 9 INSTALL BONDING CONDUCTORS AS REQUIRED BY CODE. THE ENCLOSURE, ENCLOSURE DOOR, AND ALL EQUIPMENT WITHIN THE ENCLOSURE SHALL BE **BONDED TOGETHER AS PRACTICAL**
- 10 RACK-MOUNTED POE SWITCH SW-2. SEE NETWORK SWITCH SCHEDULE THIS



3 / T0.1

FLOATING

UTILITY CHASE

NETWORKING CABINET DTL

NOT TO SCALE

T0.1

AERIAL

FIBER

NUMBERED NOTES

- 1 NEMA 4X COMMUNICATIONS CABINET MOUNTED TO STAINLESS STEEL UNISTRUT. SEE REFERENCED DETAIL FOR ADDITIONAL INFORMATION. SEE ELECTRICAL PLANS FOR MOUNTING
- 2 TYPICAL, (1) 4 STRAND OS2 SM FIBER CABLE RUN WITHIN PVC THROUGH DOCK STRUCTURE TO EACH NETWORKING CABONET. BASIS OF DESIGN: CORNING 004Z81-31131 OR AN APPROVED EQUAL
- 3 ALL FIBER CABLING WITHIN DOCK STRUCTURE TO BE ROUTED WITHIN THE SAME 4" PVC CONDUIT.
- TYPICAL, INSTALL PVC TEE FITTINGS OR JUNCTION BOXES TO ALLOW FOR PULLING OF FIBER CABLING.

TELECOM SCOPE GUIDANCE & GENERAL NOTES

- B. EXTERIOR/UNDERGROUND PATHWAYS
- d. BONDING AND GROUNDING CONDUIT AND RACEWAY TO GROUND BUS
- A. IT ENCLOSURES
- b. PATCH PANELS
- d. VERTICAL AND HORIZONTAL CABLE MANAGEMENT e. BONDING AND GROUNDING OF EQUIPMENT TO GROUND BUS (AS PROVIDED BY THE ELECTRICAL PORTION)
- f. CABLE STRAIN RELIEF DEVICES B. CABLING AND CONNECTIVITY
- a. ALL COPPER, COAXIAL, AND FIBER CABLING PATCH CORDS b. ALL COPPER, COAXIAL, AND FIBER CONNECTORS AND JACKS
- c. ALL COPPER, COAXIAL, AND FIBER TERMINATIONS d. EXTERIOR / OUTSIDE PLANT CABLING, INCLUDING TERMINATIONS AND TESTING
- C. EXTERIOR PATHWAYS a. SEALING OF TELECOM CONDUITS AND SLEEVES
- D. WIRELESS ACCESS POINTS a. WIRELESS ACCESS POINTS SHALL BE CONTRACTOR-FURNISHED, CONTRACTOR INSTALLED
- b. ASSUME THAT WIRELESS ACCESS POINTS SHALL BE PROVIDED WITH STANDARD MOUNTING ACCESSORIES ONLY. ANY SPECIALTY MOUNTING EQUIPMENT, FITTINGS, OR ACCESSORIES SHALL BE PROVIDED BY THE CONTRACTOR.
- c. CONTRACTOR TO PROVIDE ALL PATCH CORDS, LABELING, AND AS-BUILT DOCUMENTATION. d. CONTRACTOR TO SUBMIT FOR APPROVAL ANY DEVIATIONS FROM THE DETAILS INCLUDED IN THESE DESIGN DOCUMENTS. E. SECURITY CAMERAS
- a. CAMERAS SHALL BE CONTRACTOR-FURNISHED, CONTRACTOR INSTALLED b. ASSUME THAT WIRELESS ACCESS POINTS SHALL BE PROVIDED WITH STANDARD MOUNTING ACCESSORIES ONLY.
- ANY SPECIALTY MOUNTING EQUIPMENT, FITTINGS, OR ACCESSORIES SHALL BE PROVIDED BY THE CONTRACTOR. c. CONTRACTOR TO PROVIDE ALL PATCH CORDS, LABELING, AND AS-BUILT DOCUMENTATION. d. CONTRACTOR TO SUBMIT FOR APPROVAL ANY DEVIATIONS FROM THE DETAILS INCLUDED IN THESE DESIGN DOCUMENTS.
- THE CONTRACTOR RESPONSIBLE FOR THE ELECTRICAL PORTION SHALL PROVIDE AND INSTALL ALL INCIDENTAL EQUIPMENT AND MATERIALS RELATED TO THEIR WORK AND REQUIRED BY THE COMMUNICATIONS CABLING DOCUMENTS. FOR EXAMPLE.
- INSULATED BUSHINGS ON CONDUIT ENDS SHALL BE PROVIDED BY THE ELECTRICAL CONTRACTOR. THE CONTRACTOR RESPONSIBLE FOR THE CABLING PORTION SHALL PROVIDE AND INSTALL ALL INCIDENTAL EQUIPMENT AND
- MATERIALS RELATED TO THEIR WORK AND REQUIRED BY THE COMMUNICATIONS CABLING DOCUMENTS. FOR EXAMPLE, CABLE TIES NECESSARY FOR CABLE MANAGEMENT SHALL BE PROVIDED BY THE CABLING CONTRACTOR. FOR THE INFRASTRUCTURE PORTION, ANY AND ALL DEVIATIONS FROM THE CONTRACT DOCUMENTS REQUIRED BY FIELD

CONDITIONS SHALL BE RESOLVED THROUGH THE RFI (REQUEST FOR INFORMATION) PROCESS TO AVOID INADEQUATE OR

- INCORRECT FOR USE BY THE CABLING CONTRACTOR. 6 ALL EQUIPMENT, DEVICES, AND CABLING SHALL BE SUITABLE FOR THE INSTALLATION ENVIRONMENT. ALL OUTDOOR
- ENCLOSURES SHALL BE NEMA 4X.
- CABLING INSTALLATION MEANS AND METHODS SHALL COMPLY WITH THE FOLLOWING:
- a. BICSI TELECOMMUNICATIONS DISTRIBUTION METHODS MANUAL 2020 EDITION b. TIA 569-E-2-2019
 - c. TIA/EIA 568
- d. TIA/EIA 606-C-2017
- e. TIA 607 f. NFPA 70 - NATIONAL ELECTRIC CODE - 2020 EDITION
- EACH STRUCTURED CABLING SYSTEM INSTALLER SHALL CURRENTLY BE A MANUFACTURER'S CERTIFIED SYSTEM INSTALLER IN GOOD STANDING WITH FIVE YEARS MINIMUM EXPERIENCE ON PROJECTS SIMILAR IN SCOPE TO THAT SHOWN ON THE
- 9 ALL GROUNDING AND BONDING SYSTEMS SHALL BE INSTALLED AS REQUIRED BY THE NEC AND OTHER APPLICABLE CODES AND STANDARDS.

TELECOM ABBREVIATIONS TELECOM DEVICE LEGEND

AP ACCESS POINT

BOD BASIS OF DESIGN

CONDUIT

CIRCUIT

CEILING

EC ELECTRICAL CONTRACTOR

EMT ELECTRICAL METALLIC TUBING

FIBER OPTIC CABLING

HORIZONTAL CROSS-CONNECT

INTRUSION DETECTION SYSTEM

OFCI OWNER FURNISHED, CONTRACTOR INSTALLED

INTERNET SERVICE PROVIDER

INSTALLATION DISPLACEMENT CONNECTOR

CONN CONNECTION

EQUIP EQUIPMENT

FIBER

FIRE ALARM

JUNCTION BOX

NOT IN CONTRACT

MULTI-MODE

MTD MOUNTED

NTS NOT TO SCALE

OSP OUTSIDE PLANT

RISER RATED

SINGLE MODE

TGB TELECOM GROUNDING BUS BAR

UON UNLESS OTHERWISE NOTED

TMGB TELECOM MAIN GROUNDING BUS BAR

UPS UNINTERRUPTIBLE POWER SUPPLY

RACK UNITS

SPEC SPECIFICATION

WP WEATHERPROOF

XFMR TRANSFORMER

ST STRAND

SW SWITCH

OC ON CENTER

PAIR

PNL PANEL

PR

SM

GROUND

EXIST EXISTING

BCKBD BACKBOARD

CKT

CLG

FOC

G

HC

IDS

ISP

COMMUNICATION DEVICES

- WIRELESS ACCESS POINT BOD: CISCO MERAKI
- MR76 OUTDOOR OR AN APPROVED EQUAL

ELECTRICAL NOTES

S

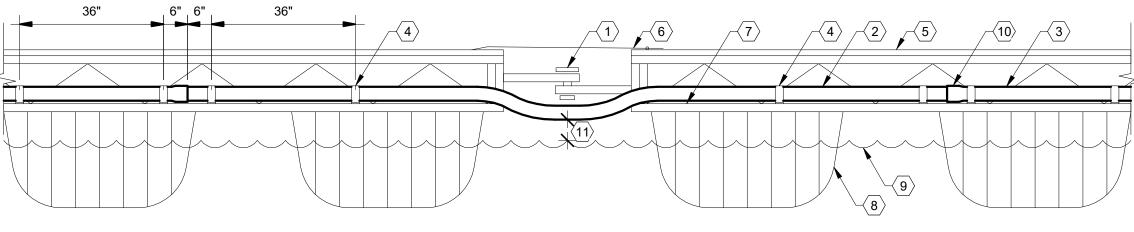
GARY DALE LOFTIS

NUMBERED NOTES

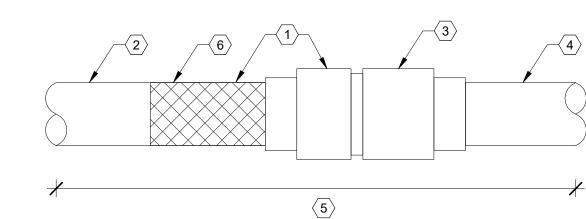
- 1 DOCK TRANSITION (HINGE
- POINT/FIFTH-WHEEL/GANGWAY/ETC.) 2 FLEXIBLE CONDUIT. UTILIZE TYPE LFNC FOR ALL FLEXIBLE CONDUITS SIZED 2" AND SMALLER. FOR ALL FLEXIBLE CONDUITS SIZED ABOVE 2", UTILIZE TYPE
- 3 PVC CONDUIT.
- 4 GALVANIZED TWO-HOLE STRAPS BOLTED TO DOCK STRUCTURE, TYPICAL.
- 5 DECK. 6 COVER PLATE.
- 7 DOCK STRUCTURE.
- 8 FLOTATION.
- 9 WATER LINE.
- 10 PVC TO FLEXIBLE CONDUIT
- CONNECTION. 11 CONDUIT SHALL MAINTAIN SEPARATION
- FROM WATER LINE. COORDINATE SLACK TO SATISFY REQUIREMENTS FOR TRANSITION.

GENERAL NOTES

- A INSTALLATION OF CABLE SHALL BE AS CLOSE TO CENTER OF DOCK (e.g. HINGE POINT) AS PRACTICAL AND SHALL BE INSTALLED SO AS TO NOT ALLOW PHYSICAL DAMAGE.
- B ALL TRANSITION LOCATIONS SHALL IMPLEMENT WIRING METHODS AS SHOWN IN THIS DETAIL UNLESS OTHERWISE NOTED ON PLANS.







PVC TO FLEX CONDUIT CONNECTION DTL T0.1 NOT TO SCALE

ELECTRICAL NOTES

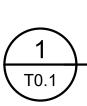
NUMBERED NOTES

- 1 PVC FITTING WITH STAINLESS STEEL WIRE MESH STRAIN RELIEF, WET-LISTED. SHALL BE USED AT ALL CONNECTION
- FLEXIBLE CONDUIT WITH STRAIN RELIEF. UTILIZE TYPE LFNC FOR ALL FLEXIBLE CONDUITS SIZED 2" AND SMALLER. FOR ALL FLEXIBLE CONDUITS SIZED ABOVE 2", UTILIZE TYPE LFMC.
- 3 PVC FITTING AS REQUIRED.
- 4 PVC CONDUIT.
- FINAL INSTALLATION OF CONDUITS ACROSS FITTINGS SHALL BE STRAIGHT SO THERE IS NO BEND AT CONNECTION
- 6 STAINLESS STEEL KELLEMS CABLE GRIP - SIZE FOR WIRE DIAMETER.

NETWORK SWITCH SCHEDULE						
LABEL	MANUFACTURER (BASIS OF DESIGN)	PART#	PoE POWER (W)	NOTES		
SW-1	CISCO	C9200L-24P-4G	600			
SW-2	CISCO	C9200CX-12P-2XGH	240			

NETWORK CABLING LEGEND					
TYPE	CONNECTION	SHIELDING	CABLE COLOR	BONDED PAIR	MANUFACTURERS
CAT5e	RJ-45	UTP	BLACK	Υ	BELDEN, CORNING, C2G, OR APPROVED EQUAL
OS2 SM FIBER	LC (SFP MODULE)	N/A	YELLOW	N/A	BELDEN, CORNING, C2G, OR APPROVED EQUAL

NETWORK CABLING LEGEND						
TYPE	CONNECTION	SHIELDING	CABLE COLOR	BONDED PAIR	MANUFACTURERS	
CAT5e	RJ-45	UTP	BLACK	Υ	BELDEN, CORNING, C2G, OR APPROVED EQUAL	
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TELECOMMUNICATIONS RISER DIAGRAM

FIBER IN PVC -

FIBER UTILITY PEDESTAL

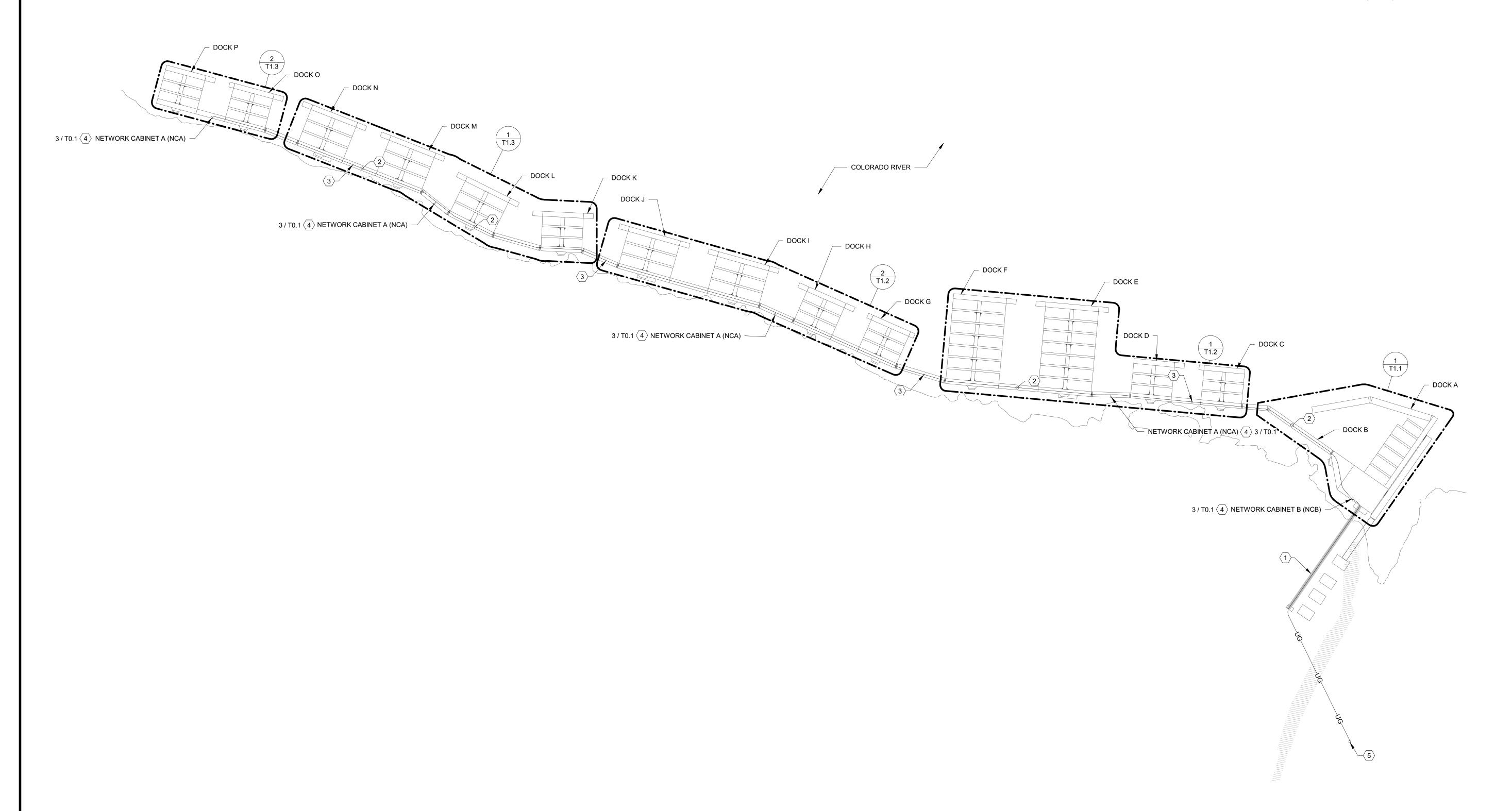
FIBER DEMARCATION POINT

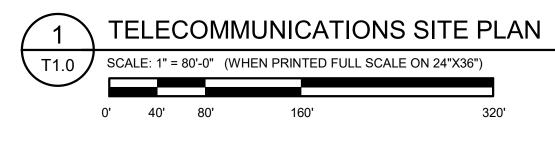
BELL END FITTING

NOT TO SCALE

GENERAL NOTES A SEE TELECOMMUNICATIONS RISER DIAGRAM FOR ADDITIONAL INFORMATION.

5 UTILITY FIBER PEDESTAL. COORDINATE EXACT LOCATION WITH ISP.







TELECOMMUNICATIONS PLAN - DOCKS A & B

ELECTRICAL NOTES

NUMBERED NOTES

- 1 TYPICAL, CAT5e CABLING ROUTED IN (1) 2" PVC CONDUIT TO DEVICES AS INDICATED.
- 2 TYPICAL, WI-FI ACCESS POINT MOUNTED 9'-0" ABOVE DECK ON POLE USING STAINLESS STEEL HARDWARE. POLE BOD: CAMERA POLES CP10SA04 OR APPROVED EQUAL.
- 3 ROUTE (1) CAT5e CABLE TO ENTRY GATE FOR ACCESS CONTROL SYSTEM.
 COORDINATE EXACT LOCATION WITH OWNER. ACCESS CONTROL EQUIPMENT BY OTHERS.

GENERAL NOTES

A INSTALL FLEXIBLE CONDUIT AT ALL DOCK HINGES, FIFTH-WHEELS, TRANSITIONS, ETC.





ELECTRICAL NOTES

TRAVIS

ENGINEER:

OFTE

1 S JEFFERSON AVE, STE 101

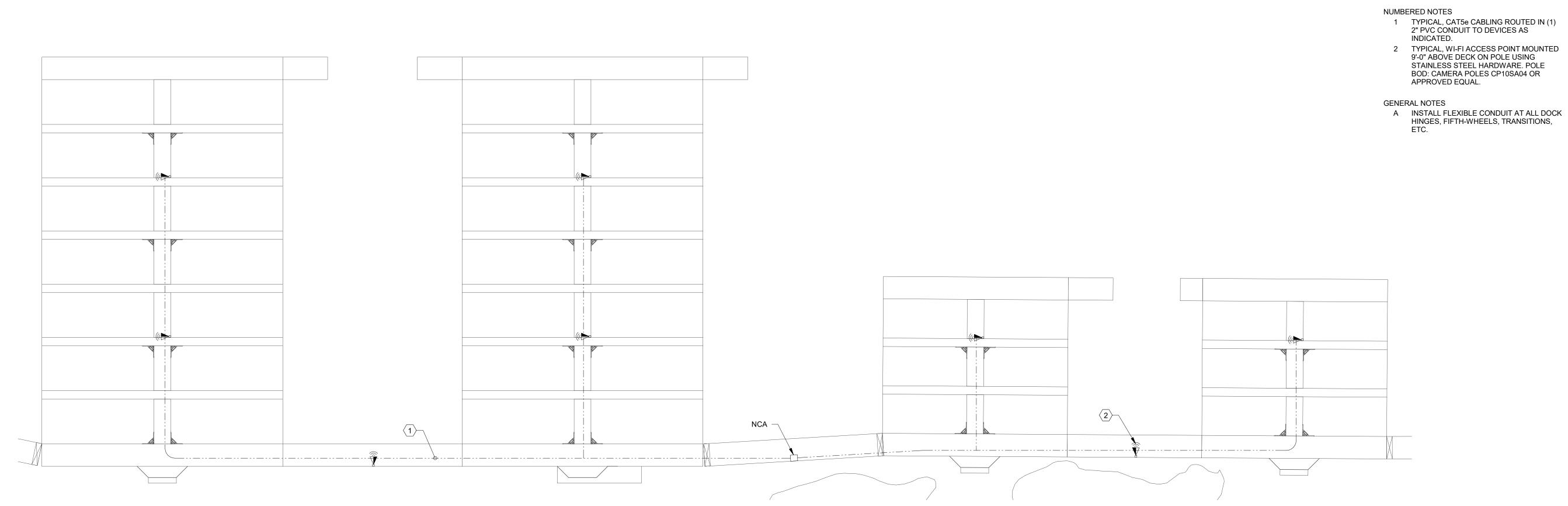
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TELECOMMUNICATIONS
PLANS DOCKS C THRU

GARY DALE LOFTIS

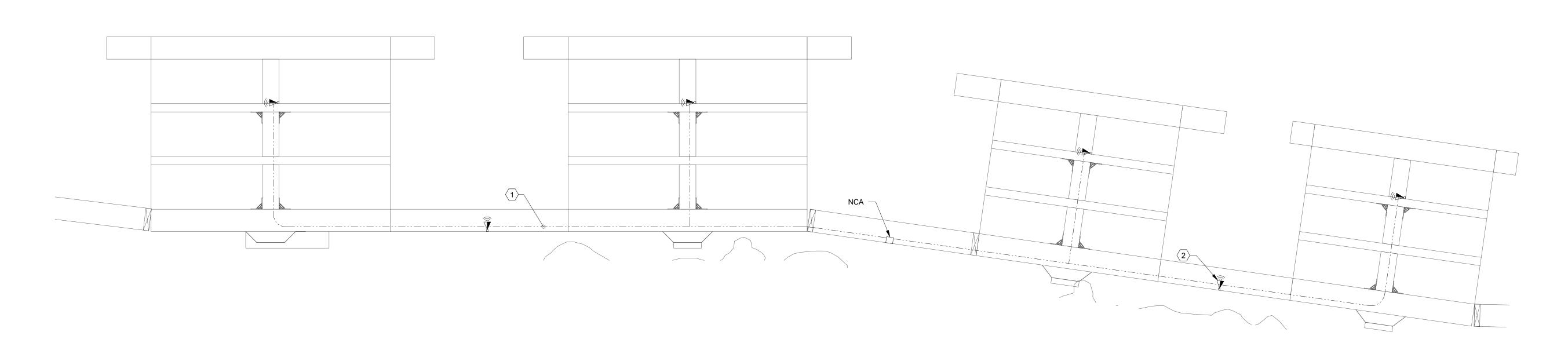
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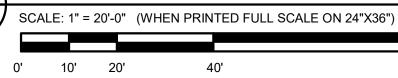


TELECOMMUNICATIONS PLAN - DOCKS C, D, E, & F

SCALE: 1" = 20'-0" (WHEN PRINTED FULL SCALE ON 24"X36")



TELECOMMUNICATIONS PLAN - DOCKS G, H, I, & J



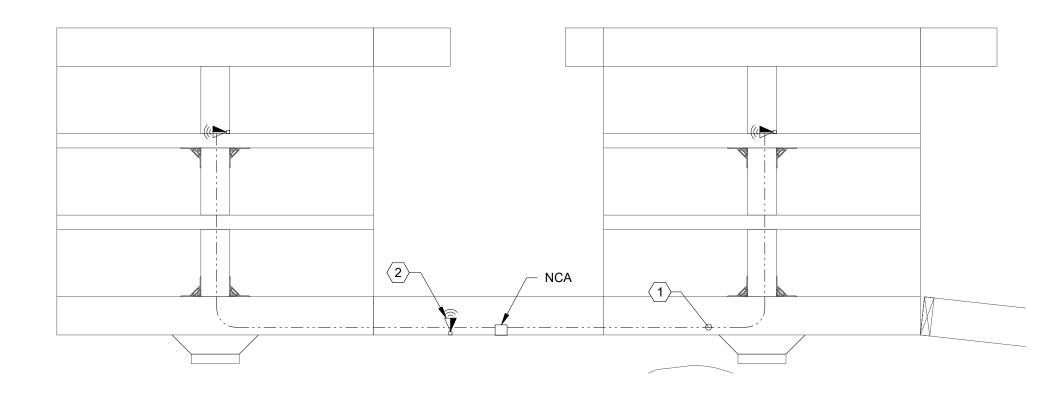
ELECTRICAL NOTES

NUMBERED NOTES

- 1 TYPICAL, CAT5e CABLING ROUTED IN (1) 2" PVC CONDUIT TO DEVICES AS INDICATED.
- 2 TYPICAL, WI-FI ACCESS POINT MOUNTED 9'-0" ABOVE DECK ON POLE USING STAINLESS STEEL HARDWARE. POLE BOD: CAMERA POLES CP10SA04 OR APPROVED EQUAL.

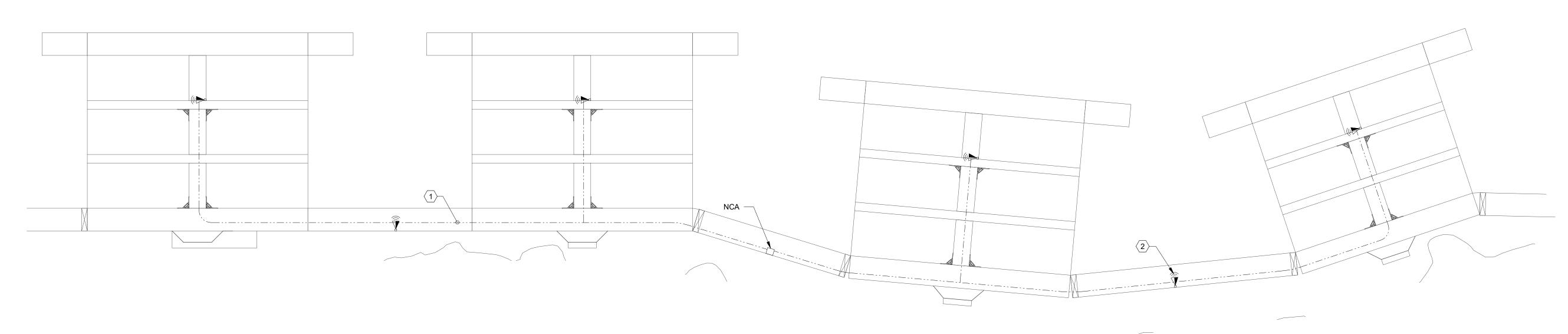
GENERAL NOTES

A INSTALL FLEXIBLE CONDUIT AT ALL DOCK HINGES, FIFTH-WHEELS, TRANSITIONS, ETC.

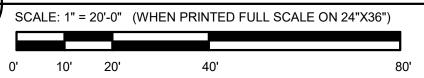


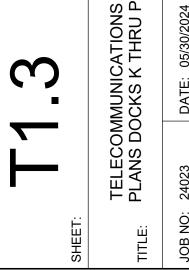
TELECOMMUNICATIONS PLAN - DOCKS O & P

SCALE: 1" = 20'-0" (WHEN PRINTED FULL SCALE ON 24"X36")



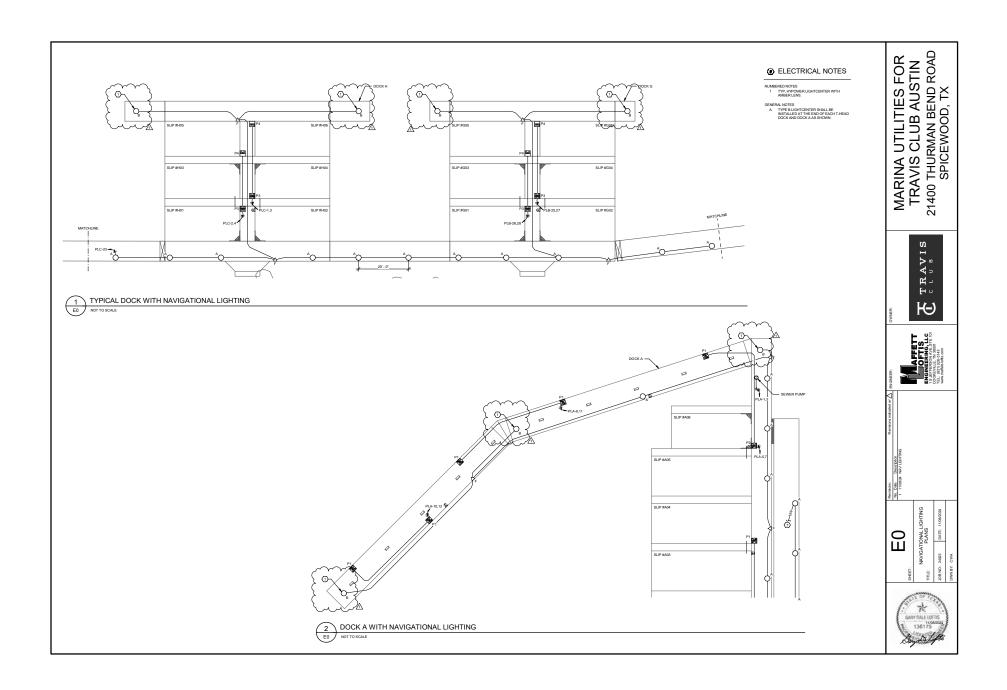
TELECOMMUNICATIONS PLAN - DOCKS K, L, M, & N













146 Duchaine Blvd. New Bedford, MA 02745 Tel. 508/995-9711, Fax # 508/995-5021 e-Mail: pumps@edsonint.com

28621 / 28623 / 28624 **Platinum Series**

Peristaltic Pump

General Description:

The 2862** is Edson premium peristaltic pump. It combines ease of maintenance with power and reliability. The pump is available in many configurations.

Performance Features:

- Up to 43 GPM
- 140' Discharge Pressure
- 28' Suction Lift

Construction:

- Marine Grade Aluminum Castings
- Stainless Steel Hardware
- 2" NPT Connections
- **3hp Motor TEFC (5hp Available)**
- 1 ph or 3ph versions available
- Many Voltage, Phase Options Available
- Epoxy Painted Exterior
- Natural Rubber Internal Hose
- **Edson's Easy Change Internal Hose**

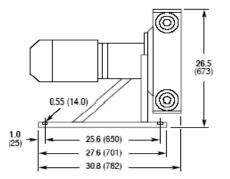
Options Available:

- Internal Leak Detector
- 3 or 5 hp TEFC Motor
- Explosion Proof Motor
- Variable Frequency Drive
- Low Voltage/ Timer Controls
- RF Radio Controls
- Many more options shown on accessories page



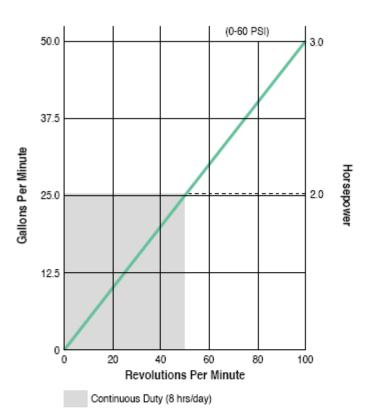
inches (mm)

Dimensions



28.6 (726)





Fluid Characteristics

Viscosity	15,000 cps (max)
Liquid Temperature	180°F (82° C) (max)
Solid Size	1/4 inch (6.3 mm) (max)
Fiber Length	2-3/8 inch (60 mm) (max)

Specifications

Discharge Pressure	60 psi (4.1 bar) max	
Suction Lift	24 ft (7.3 m)	
Suction Pressure (max)	25 psi (1.7 bar)	
Horsepower (max)¹	3	
Hose Size	45 x 75 x 1455 mm	
Displacement	0.51 gal/rev	
Weight (pump only)	185 lbs (84 kg)	
Weight with Drive	275 lbs (125 kg)	

¹ Pumps are shaft driven and require a gearbox and motor. See Ordering Information for details.

	Drive						
	Flow	Gear	Pump	Max			
	GPM	Ratio	RPM	PSI			
	30, 1-1	/2 BHP TE	FC, 230-46	0 VAC, 60 H			
	4:1 Co	nstant Tord	que Speed I	Range			
B2	7.1	121:1	14	45(60)			
D2	10.5	82:1	21	45(60)			
	30, 2 B	HP TEFC,	230-460 VA	AC, 60 Hz			
	4:1 Co	4:1 Constant Torque Speed Range					
F2	15.3	58:1	30	45(60)			
H2	20.4	43:1	40	45(60)			
J2	25.8	33:1	51	40(55)			
	3Ø, 3 BHP TEFC, 230-460 VAC, 60 Hz						
	3:1 Co	3:1 Constant Torque Speed Range					
1.2	40.5	21:1	80	35(45)			

OPTIONS

Stainless Steel Cover Order No. 26151

Available in 304 or 316 stailess steel this modular cover comes complete with hour meter and start/stop controls. It measures 34" x 34" x 36"(86.36cm x 86.36cm x 91.44cm). Shown here with optional hose rack and fitting rack.



Hose Stands Order Nos. 260

White Powder Coated
Aluminum or Stainless, for
pump out stations setup
remote from the pump.
They can be equipped
with start/stop buttons or
token operated starter. All
versions come with
Operation Instruction Sign
and (4) 1/2" X 7"
Aluminum Hex Head
Mounting Bolts.



#26030 Standard

#26035 On/Off

#26040 Token

#26011 Stainless Steel

Control Panel Timer Order No. 161-A-2324 Control Panel Installed On Pump Unit.

High inpact resistant NEMA4X rated enclosure comes complet with contactor, programable run timer and step down transformer for low 24 volt power at the start/stop controls. It includes terminal connections for the remote start/stops.

Order No. 161-K-0006B



Stainless Deck Fitting Rack Order No. 26045

Stainless steel wire form designed to organize loose deck adapters. The rack holds up to four fittings most often used in performing pump outs. No need to keep a bucket or box for your adapters. The rack mounts vertically with predrilled feet that makes it simple to mount on a pole, wall, hose stand or the pump cover.

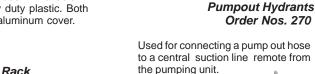
#270PV-150/200



Up To 100 ft In Length

Recessed Hydrant Containers Order Nos. 265

Used to hide pump out hydrants out of the way, below the dock. Available in aluminum or heavy duty plastic. Both come with a flush aluminum cover.



out

on



Hose Rack Order No. 26000

Mounts to any vertical surface including enclosures. Holds up to 75 ft of 1 1/2" hose.



OTHER PUMP OPTIONS

Peristaltic Pump Units - Diaphragm Pump Units

Need a pump with greater discharge capability or just more power consider the Edson peristaltic pump units. Available from 3/4Hp to 5Hp.



Edson can provide any continuous length

3/4 HP Diaphragm Order No.120ELB-40-200



Double Diaphragm Order No. 25200



3/4 HP Peristaltic Order No. 286EP-.75HP



2 HP Peristaltic Order No. 286EP-.2HP



146 Duchaine Blvd., New Bedford, MA 02745

www.edsonpumps.com

Tel. 508-995-9711

Fax 508-995-5021



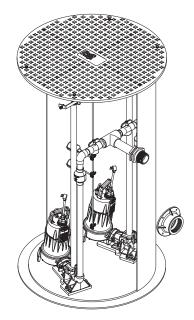




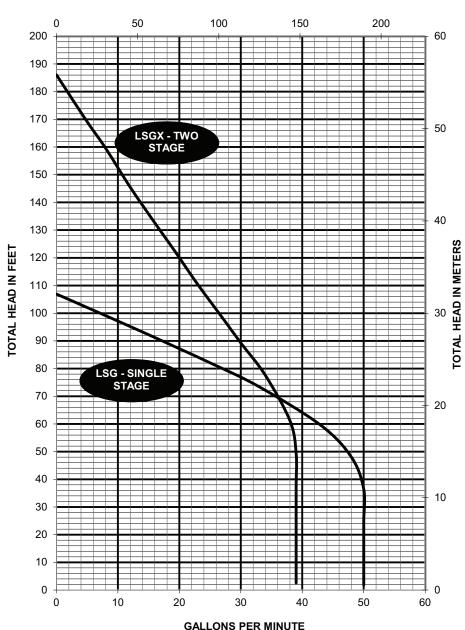
Pump **Specification**

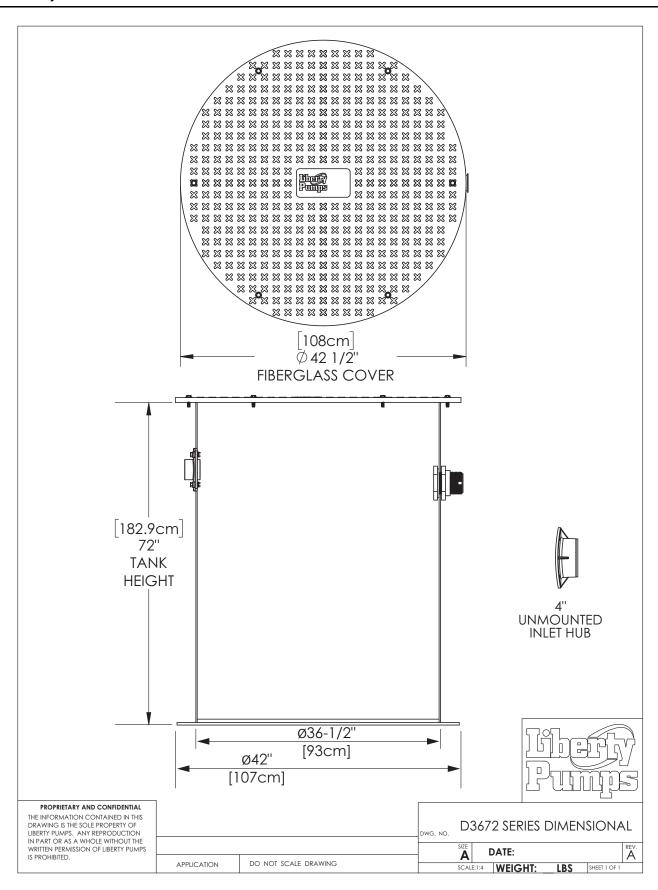
D3672LSG, D3672LSGX

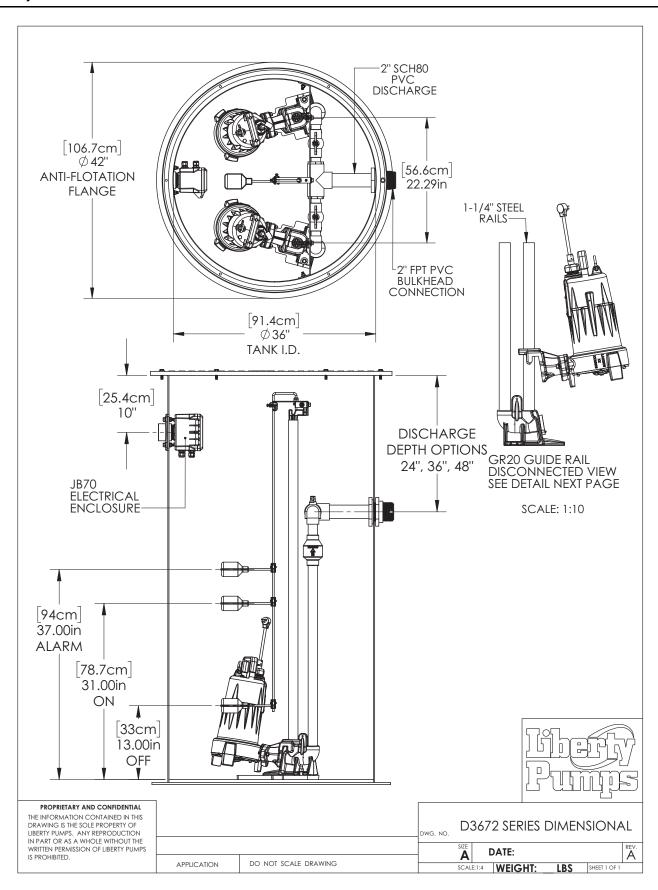
Omnivore® 2 HP Duplex Grinder Packages

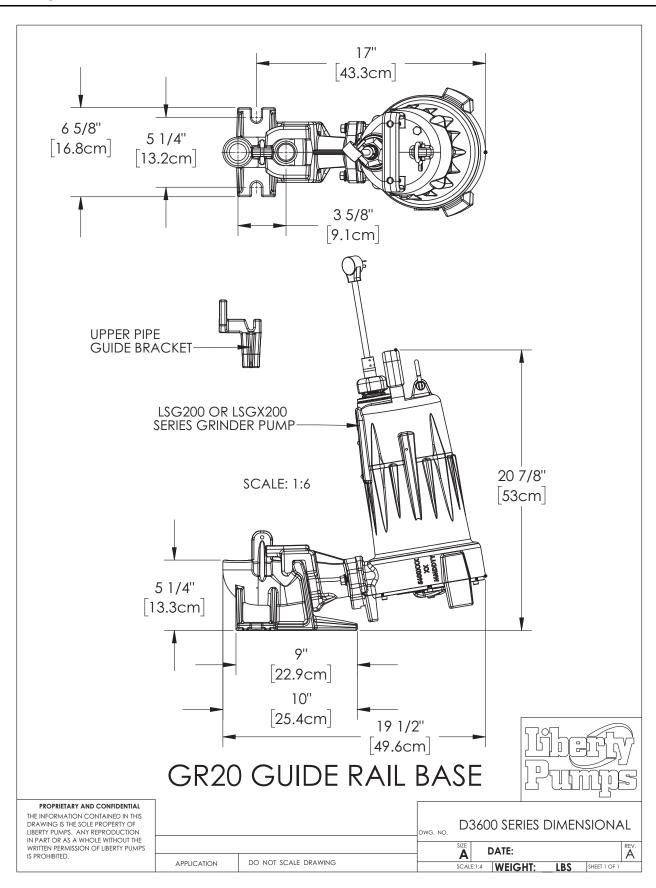


LITERS PER MINUTE









D3672LSG/LSGX-Series Electrical Data

MODEL ¹	НР	VOLTAGE	PHASE	SF	FULL LOAD AMPS ²	LOCKED ROTOR AMPS ²	THERMAL OVERLOAD TEMP	STATOR WINDING CLASS	CORD LENGTH [FT]	PUMP DISCHARGE	STANDARD CONTROL PANEL ³
D3672LSG202	2	208/230	1	1.0	15	53	105°C / 221°F	В	25	1-1/4" NPT	AE24H=3
D3672LSG202-C	2	208/230	1	1.0	15	53	135°C / 275°F	В	35	1-1/4" NPT	AE24HC=3
D3672LSG203	2	208/230	3	1.0	10.6	61	N/A	В	25	1-1/4" NPT	AE34=3-511
D3672LSG204	2	440–480	3	1.0	5.3	31	N/A	В	25	1-1/4" NPT	AE34=3-171
D3672LSG205	2	575	3	1.0	4.9	31	N/A	В	25	1-1/4" NPT	AE54=3-161
D3672LSGX202	2	208–230	1	1.0	15	53	135°C / 275°F	В	25	1-1/4" NPT	AE24H=3
D3672LSGX202-C	2	208–230	1	1.0	15	53	135°C / 275°F	В	35	1-1/4" NPT	AE24HC=3
D3672LSGX203	2	208/230	3	1.0	10.6	61	N/A	В	25	1-1/4" NPT	AE34=3-511
D3672LSGX204	2	440–480	3	1.0	5.3	31	N/A	В	25	1-1/4" NPT	AE34=3-171
D3672LSGX205	2	575	3	1.0	4.9	31	N/A	В	25	1-1/4" NPT	AE54=3-161

¹ Add **–IP** to the model number **for IP-Series**[™] panel upgrade.

² Amperage values are for *each* pump.

³ Electrical service shall be sized to support all pumps running simultaneously.

TANK	WOUND FIBERGLASS WITH ANTI-FLOTATION FLANGE STANDARD – FIBERGLASS COVER OPTIONAL – STEEL COVER
CAPACITY	317 GALLON TOTAL BASIN VOLUME (PUMP CYCLE = 88 GALLONS)
GUIDE RAIL	STANDARD – SCHEDULE 40 GALVANIZED OPTIONAL – SCHEDULE 40 STAINLESS STEEL
GUIDE RAIL BASE / DISCONNECT (GR20)	CAST IRON
INLET HUB	4" WITH FLANGE GASKET AND PIPE SEAL
DISCHARGE PIPING	SCHEDULE 80 PVC
CONTROL PANEL	NEMA 4X DUPLEX OUTDOOR ALTERNATING PANEL WITH AUDIBLE (80 dBi) AND VISUAL HIGH WATER ALARM
IMPELLER	300 SERIES STAINLESS STEEL
PAINT	POWDER COAT
MAX LIQUID TEMP	60°C (140°F
MAX STATOR TEMP (1-PHASE)	LSG202 – 105°C / 221°F LSG202-C AND LSGX MODELS – 135°C / 275°F
THERMAL OVERLOAD (1-PHASE)	LSG202 – 105°C / 221°F LSG202-C AND LSGX MODELS – 135°C / 275°F
POWER CORD TYPE	SJOOW (1-phase) SEOOW (3-phase) SOOW (external capacitor models)
MOTOR HOUSING	CLASS 25 CAST IRON
VOLUTE	CLASS 25 CAST IRON
SHAFT	300 SERIES STAINLESS STEEL
HARDWARE	STAINLESS
O-RINGS	BUNA-N
MECHANICAL SEAL	UNITIZED SILICON CARBIDE
MIN BEARING LIFE	50,000 HRS
WEIGHT	526 LBS / 239 KG

D3672LSG/LSGX-Series Specifications

1.01 GENERAL				
specified herein. The pump mo	dels covered in this specificati	ion are LSG/LSGX	red to provide (QTY) centrifugal g -Series single/three-phase grinder pumps. as manufactured by Liberty Pumps.	
2.01 OPERATING CONDIT	IONS			
Each submersible pump shall b		volts,	phase, 60 Hz, 3450 RPM. The unit sha	all produce
pumped over long distances in	pipelines as small as 1.25" in maximum flow of 50 GPM @	diameter. The LSC 10 feet of total d	al sewage and grinding it to a fine slurry en G-Series single-stage submersible pump sh lynamic head. The LSGX-Series 2-stage sub eet of total dynamic head.	hall have a
3.01 CONSTRUCTION				
Bergen NY. The castings shall be shall not be considered equal swith a Buna-N O-ring. All faster cord entry plate with molded p shall be protected on the lower second/main seal shall be a unit	e constructed of class 25 cast ince they do not properly dissociates exposed to the liquid shalt ins to conduct electricity eliminates with a dual seal arrangentized hard face silicon carbides.	iron. The motor he sipate heat from the stainless stee inating the ability ment. The first seate seal with stainless		Air filled motors ned and sealed side with sealed ord. The motor tomer. The
handle the downward axial thrube of the concentric design the	ist produced by the impeller a reby equalizing the pressure f II be no cutwater in the housin	nd cutters by desi forces inside the h ng volute in order	ds. The lower bearing shall have the additic ign of angular contact roller races. The pun nousing which will extend the service life o to discourage the entrapment of flowing d	mp housing shal of the seals and
4.01 ELECTRICAL POWER	CORD			
cord type SJOOW (1-phase), SE liquid. The power cord shall be cable shall not enter the motor	OOW (3-phase), or SOOW (exsized for the rated full load are housing directly but will condu	kternal capacitor r mps of the pump uct electricity to th	ver cord (35 feet for external capacitor models), capable of continued exposure to in accordance with the National Electric Cone motor by means of a watertight compressability of water to enter internally through	the pumped ode. The power ssion fitting cord
5.01 MOTORS				

integral thermal overload switch in the windings for protecting the motor.

All motors shall be oil filled and class B insulated NEMA B design rated for continuous duty. Since air filled motors are not capable of dissipating heat as effectively, they shall not be considered equal. Single-phase motors shall be capacitor start/capacitor run and have an

BEARINGS AND SHAFT 6.01

An upper radial and a lower angular contact ball bearing shall be required. The upper bearing shall be a single ball/race type bearing. The lower bearing shall be an angular contact heavy-duty ball/race type bearing, designed to handle axial grinder pump thrust loads. Both bearings shall be permanently lubricated by the oil, which fills the motor housing. The bearing system shall be designed to enable proper cutter alignment from shut off head to maximum load at 10 feet of TDH. The motor shaft shall be made of 300 series stainless steel and have a minimum diameter of 0.670".

7.01 **SEALS**

The pump shall have a dual seal arrangement consisting of a lower and upper seal to protect the motor from the pumping liquid. The lower seal shall be a fluoroelastomer molded double lip seal designed to exclude foreign material away from the main upper seal. The upper seal shall be a unitized silicon carbide hard face seal with stainless steel housings and spring equal to Crane Type T-6a. The motor plate/housing interface shall be sealed with a Buna-N O-ring.

8.01 IMPELLER

The impeller shall be an investment cast stainless steel impeller with pump out vanes on the back shroud to keep debris away from the seal area. It shall be keyed and bolted to the motor shaft.

CUTTER MECHANISM 9.01

The cutter and plate shall consist of 440 stainless steel with a Rockwell C hardness of 55-60. The stationary cutter plate shall have specially designed orifices through it, which enable the slurry to flow through the pump housing at an equalized pressure and velocity. The stationary cutter shall consist of V shapes to maximize cutting action and arc shape exclusion slots to outwardly eject debris from under the rotary cutter. The rotary cutter shall have (4) blades and be designed with a recessed area behind the cutting edge to prevent the accumulation and binding of any material between rotary cutter and the stationary cutter. The cutting system must incorporate close tolerances for optimum performance. Ring or radial cutters, or those that grind on the outside circumference, shall not be considered equal.

10.01 CONTROLS

The pumps shall be controlled with a NEMA 4X outdoor duplex control panel with three float switches and a high water alarm or with optional IP Series NEMA 4X outdoor duplex control panel with transducer, adjustable setpoints, data logging, and a high water alarm.

11.01 PAINT

The exterior of the casting shall be protected with powder coat paint.

12.01 SUPPORT

The pumps shall have cast iron support legs enabling it to be a freestanding unit. The legs will be high enough to allow solids and long stringy debris to enter the cutter assembly.

13.01 SERVICEABILITY

Components required for the repair of the pump shall be shipped within a period of 24 hours.

14.01 FACTORY ASSEMBLED TANK SYSTEMS WITH GUIDE RAIL AND QUICK DISCONNECT DISCHARGE

Factory mounted guide rail system with pump suspended by means of bolt-on quick disconnect that is sealed by means of nitrile grommets. The discharge piping shall be schedule 80 PVC and furnished with a check valve and PVC shut-off ball valve. The tank shall be wound fiberglass. An inlet hub shall be provided with the system.

15.01 TESTING

The pump shall have a ground continuity check and the motor chamber shall be hi-potted to test for electrical integrity, moisture content and insulation defects. The motor and volute housing shall be pressurized, and an air leak decay test performed to ensure integrity of the motor housing. The pump shall be run, voltage current monitored, and checked for noise or other malfunction.

16.01 QUALITY CONTROL

The pumps shall be manufactured in an ISO 9001 certified facility.

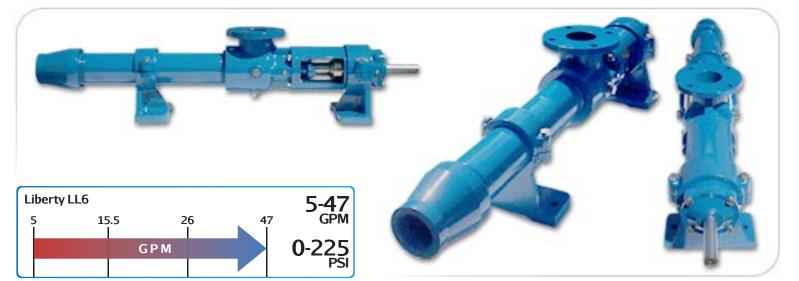
17.01 WARRANTY

Standard limited warranty shall be 3 years.



LIBERTY SERIES - LL6

Progressive Cavity Pump



Features

- Modular Design
- Maintenance Free
- Easy Assembly/Disassembly
- Simple Pin Joint Design
- Non-Pulsating Low Shear
- NPT Discharge Connection
- Can Be Run In Either Direction

Materials

Rotor: Tool Steel & Stainless Steel, Chrome-Plated

Stator: Buna, Rubber, Viton™, EPDM

Motor: 1.5, 2, 3, and 5 hp

Inlet: 3"
Outlet: 2-1/2"

Bases: Carbon and Stainless Steel



Curves

Click Links Below

1-Stage

2-Stage 2LL6

3-Stage 3LL6

D

Drawings

Click Links Below

1-Stage 1LL6

2-Stage 2LL6

3-Stage 3LL6

Pump Description

The Liberty LL6 Progressive Cavity Pump is a low-cost, maintenance free, dependable drop-in replacement pump and is an ideal pump unit for abrasive pump applications such as the mud rotary drilling process for well drilling geotechnical and environment industrial applications due to its robust construction and design.

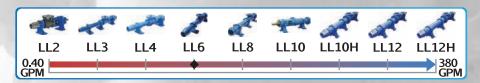
The Liberty LL6 Series PC Pump is a standard flanged progressive cavity pump manufactured with cast iron or 316 stainless steel casings and designed in 1, 2, and 3 stages for 75, 150, and 225 psi discharge pressures. Higher discharge pressures are available, please contact a Liberty representative for more information.

Flow rates to be achieved from 0-47 GPM (5.20 Gallons per 100 revolutions). The pump units modular design with simple hardened pinned joint drive assembly is a proven design that can handle the most difficult pumping applications. The LL6 Series Progressive Cavity Pump Rotors are typically tool steel or 316 stainless steel with a hard chrome plating for added durability. All other wetted parts are either carbon steel or 316 stainless steel.

The LL6 PC Pump Stators are available in many elastomer materials such as buna, natural rubber, epdm and viton depending upon your application. The standard seal design is a set of gland packing with Lantern Ring and flush connections. Mechanical seal options are readily available.

The Liberty LL6 Progressive Cavity Pump parts are direct aftermarket replacement pump parts for the Moyno™ L8, Tarby™ TL8 and Continental CL6 Series. Please contact your Liberty Process representative to help you select the pumps and parts that are right for your application and budget!

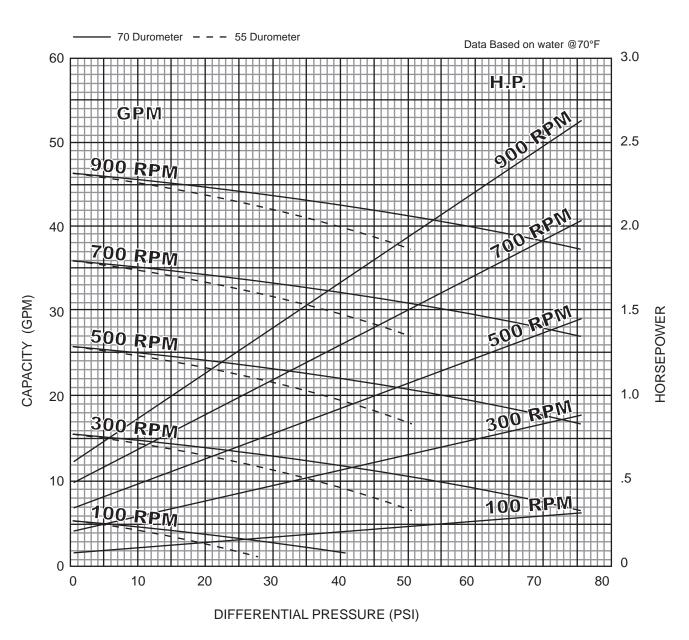
Contact a Liberty Process representative today for more information about the LL6 Series.



P: 847.640.7867 F: 847.640.7855 2525 Clearbrook Drive Arlington Heights, IL 60005

LIBERTY SERIES - 1LL6 Progressive Cavity Pump Performance Curves

RPM	100	300	500	700	900
NPSH REQ'D	.6	1.7	2.9	4.1	6.9
MIN. HP	1/3	3/4	1	1/1/2	2



1 Stage Pump

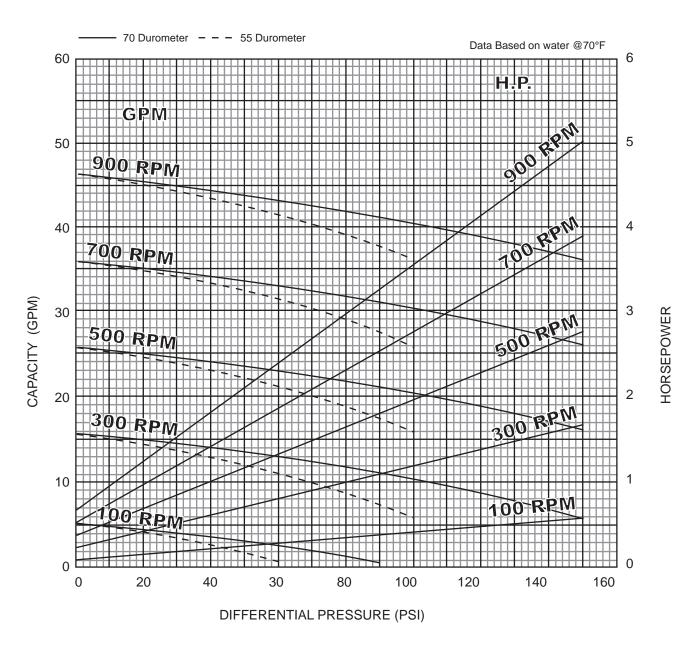




LIBERTY SERIES - 2LL6

Progressive Cavity Pump
Performance Curves

RPM	100	300	500	700	900
NPSH REQ'D	.6	1.7	2.9	4.1	6.9
MIN. HP	1/2	1/1/2	2	3	3



2 Stage Pump



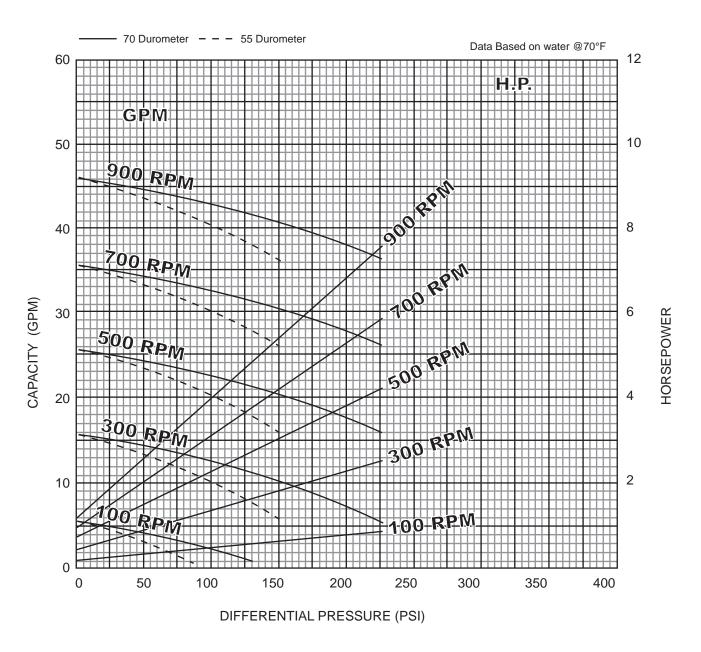
P: 847.640.7867 F: 847.640.7855 2525 Clearbrook Drive Arlington Heights, IL 60005



LIBERTY SERIES - 3LL6

Progressive Cavity Pump
Performance Curves

RPM	100	300	500	700	900
NPSH REQ'D	.6	1.7	2.9	4.1	6.9
MIN. HP	1	2	3	4	5



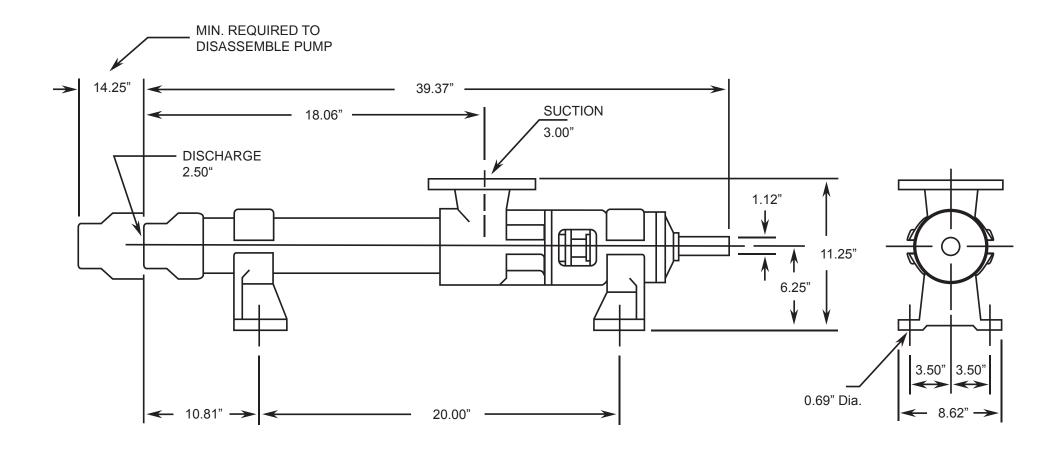
3 Stage Pump



LIBERTY SERIES - ILL6

Progressive Cavity Pump

Dimensional Drawings





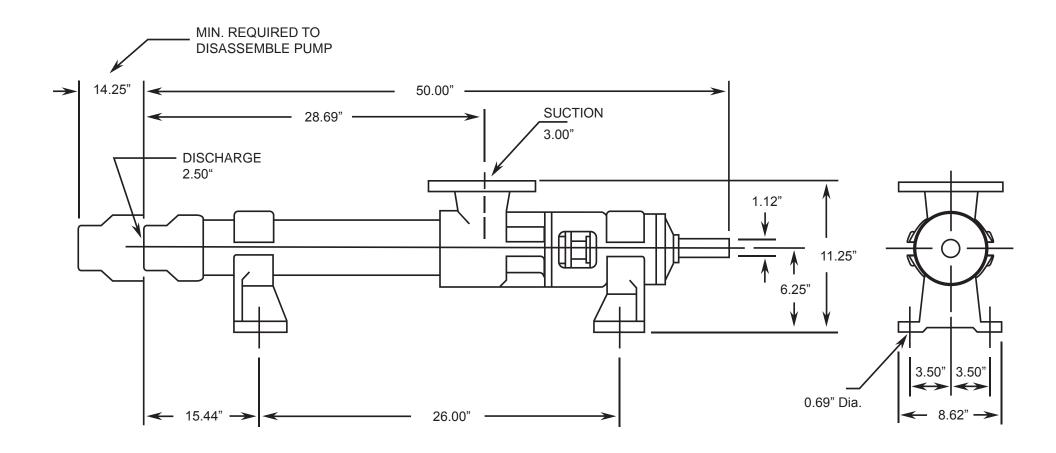
≈ lbs. **ALL DIMN: Inches** 141

P: 847.640.7867 F: 847.640.7855

Net weight

LIBERTY SERIES - 2LL6

Progressive Cavity Pump **Dimensional Drawings**





≈ lbs. 159

ALL DIMN: Inches

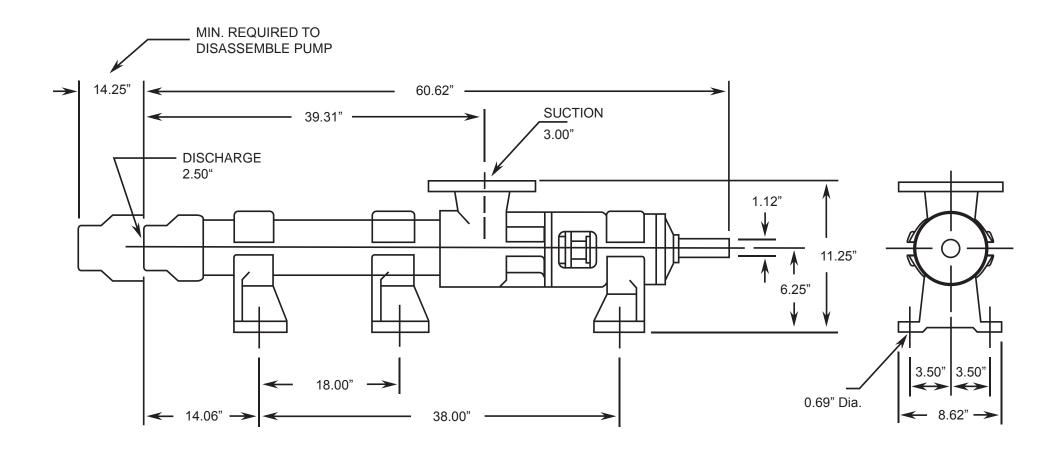
Net weight

P: 847.640.7867 F: 847.640.7855 2525 Clearbrook Drive Arlington Heights, IL 60005



LIBERTY SERIES - 3LL6

Progressive Cavity Pump **Dimensional Drawings**





≈ lbs. **ALL DIMN: Inches** 192

Net weight

Travis Club Marina Water Quality Analysis Statement

The marina has been designed to have the minimum potential impact on the overall environment and water quality. The management of the marina will take specific actions to further mitigate any risk to water quality from the operation of the marina.

Dock Design and Construction

The marina, connecting walkway and docks have been designed to cause no potential impact on water quality. The dock structure will be provided by Meeco Sullivan, LLC and will be based on galvanized steel frames, composite decking and side wood, fully encased floats provided by Hendren. The marina will be anchored with a winch and cable system that will incorporate stainless steel cable and hardware.

There is no element of the design or construction of the marina that would create any risk to water quality.

No Fuel Sold

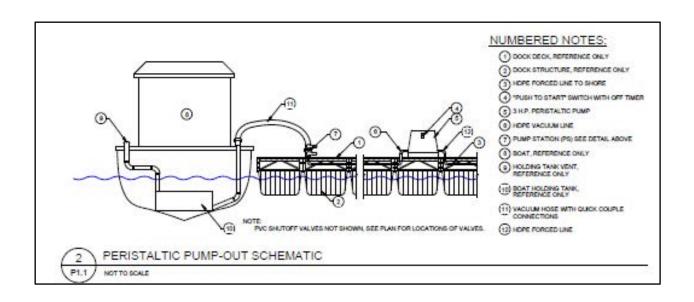
There will not be any fuel sold at the marina, and marina management will not allow fuel to be transported onto the marina at any time.

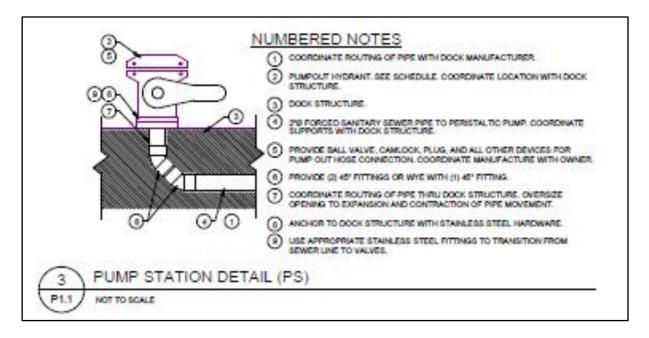
Boat Sewage

We will provide a qualified pump-out station that will be available only to those people that have their boat in one of our slips. There will be no charge for our patrons to use the pump-out station. This will not be open to the public. The system will be designed and installed to meet all relevant codes.

You will see below the basic design of this pump-out station that is in the set of Stamped Plans for Travis Club Marina Utilities. We will ensure that a trained and qualified person will be available to support our customers in the proper use of the pump-out station.

The pump-out station WILL NOT BE OPERABLE until we are able to develop the upland sewage access. We do not yet know when that access will become available, but the pump-out station will be secured and not available for use until there is access for all marina wastewater to be securely pumped into an appropriate sewage access.





Bath House Sewage

We will incorporate a bath house in Dock B, but we have not yet determined the precise location or the exact configuration. Per the notes included in the set of Stamped Plans for Travis Club Marina Utilities, there will be a gravity feed from the bath house into the Liberty Lift Station reservoir.

All bath house sewage and boat sewage will be pumped off the marina via fully compliant means to a manhole cover on shore for complete and proper management of all sewage.

PLUMBING NOTES

GENERAL NOTES

- A SEE SANITARY SEWER ISOMETRIC FOR PIPE SIZES NOT SHOWN
- B ALL FLOOR DRAINS TO BE SUPPLIED WITH WATER FROM TRAP PRIMER TAILPIECE FROM A LAVATORY OR TRAP PRIMER
- C COORDINATE ROUTING OF PIPE WITH OTHER TRADES

NUMBERED NOTES

- LIBERTY LIFT STATION. COORDINATE ACTUAL LOCATION WITH OWNER TO ALLOW FOR GRAVITY FLOW FROM BATHHOUSE SEWER. BATHHOUSE SEWER DESIGN SHALL BE PROVIDED BY OWNER AND SHALL GRAVITY FLOW INTO LIFT STATION RESEVOIR.
- 2 ROUTE SEWER LINE TO LOCATION ON SHORE COORDINATE WITH OWNER FOR MANHOLE LOCATION.

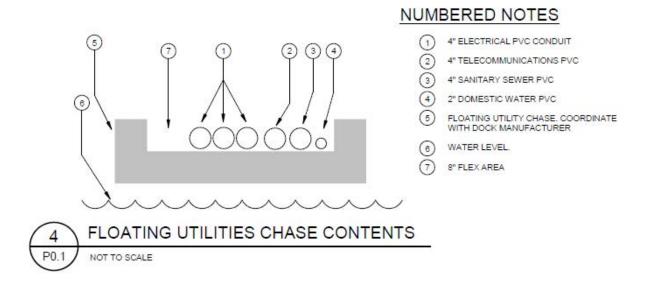
NUMBERED NOTES

- FLEXIBLE PIPMS. PROVIDE LOOP IN ALL TO ALLOW ADEQUATE.
 MOVEMENT OF GANGWAY FLEXIBLE PIPE SHALL NOT COME IN
 CONTACT WITH WATER AR ANY TIME.
- (2) WATER LEVEL
- (3) DOCK FRAMING FOR REFERENCE ONLY.
- (4) FLOATING LITILITY CHASE FOR REFERENCE ONLY.



PO.1 NOT TO SCALE

Bathhouse sewage and sewage from the pump-out station will exit the marina on a floating utility chase that will keep them secure and accommodate the relatively dramatic water level changes at Lake Travis.



Solid Waste Collection

We will provide appropriate trash bins that will be conveniently located for all slips to ensure that our patrons have ready access to properly dispose of all trash. These bins will be of a design that will limit the risk of trash inadvertently being blown out of the receptacle or otherwise getting into the lake.

Our marina is designed to support golf cart traffic, and we will have trained staff that will regularly collect all trash to be taken off the marina and properly disposed of in a receptacle on shore.

Lake Water Circulation

The location and basic design of this marina will not inhibit in any way the circulation of lake water.

Boat Cleaning

There will be no boat cleaning allowed by the marina and no chemicals allowed to be stored by the tenants of the marina.

Interim Solutions for Boat Sewage and Restroom Facilities

The shoreside development required to remove boat sewage and bathhouse sewage may not be available at the time the marina is installed. Without an appropriate connection from the marina to a shoreside sewer line, temporary restroom facilities will be provided at various locations where people will enter and exit the main access to the marina. We will also limit the number of watercraft that are required by TCEQ regulations to be equipped with marine sanitation devices to not more than 25 until all shoreside development is completed and all marina sewage systems are functioning properly. We are investigating the opportunity of

having a local provider with a mobile pump out capability to service any boats in the marina wit onboard marine sanitation devices.	th

MURFEE ENGINEERING COMPANY, INC.

1101 Capital of Texas Highway South

Building D, Suite 110 Austin, Texas 78746

Phone: (512) 327-9204

Texas Registered Engineering Firm F-353

MEMO

DATE:

October 18, 2024

MEC File:

21007.500

TO:

Whom it May Concern

FROM:

James Scaief, P.E., P.G.

SUBJECT:

Travis Club Marina, Lake Travis

Section 5.2(b)(iii)(1)b of the LCRA Highland Lakes Marina Ordinance, Amended May 24, 2023, provides requirements for approval of an exception to locate marina facilities where located less than 200 feet from the main channel of the Colorado River.

The proposed Travis Club Marina is to be located along the river at 30.4143 degrees north and 98.0316 degrees west. Due to the width of the lake at both normal pool and flooding condtions, water currents will be sufficiently slow such that the proposed facility will not be adversely impacted by strong currents or present a hazard to public safety.

Texas Professional Engineer's Certification:

JAMES F. SCAIEF

D. 54777

CENSED

SOLUTION

10/18/24