

CITY OF KEY WEST
DOLPHIN PIER DOCK REPLACEMENT
CITY MARINA AT GARRISON BIGHT , ITB# 17-015

MONROE COUNTY, FLORIDA
STANTEC PROJECT NO. 215613443

SECTION : 32
TOWNSHIP: 67S
RANGE: 25E
LATITUDE: 24°33'83"
LONGITUDE: 81°47'04"

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LOCATION MAP
Scale: N.T.S.



MAYOR & COMMISSION:

Craig Cates, Mayor
Jimmy Weekley, Commissioner
Samuel Kaufman, Commissioner
Billy Wardlow, Commissioner
Richard Payne, Commissioner
Margaret Romero, Commissioner
Clayton Lopez, Commissioner
City Manager: James Scholl

100% SET
APRIL , 2017

.....APPROVALS.....			
AGENCY	SUBMITTAL DATE	APPROVAL DATE	PERMIT NUMBER



Stantec

901 Ponce de Leon Blvd. Suite 900
Coral Gables, Florida, 33134
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APPROVED BY

CARLOS M. HERDOCIA
REGISTERED ENGINEER NO. 47660
STATE OF FLORIDA



SITE SURVEY INFORMATION FROM:
FLORIDA KEYS LAND SURVEYORS
19960 OVERSEAS HIGHWAY
SUGARLOAF KEY, FL 33042
FIELD WORK DATE: 8/16/16 THRU 9/14/16
SIGNED AND SEALED BY:
ERIC ISAACS LS 7847
OCTOBER 15, 2016

[illegible]

Drawing No.	Sheet	Revision
C02	of 27	

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2017/04/24 2:37 PM By: Nardine, Red

NOTE: WATER ELEVATION DATA WAS OBTAINED FROM THE LAND BOUNDARY INFORMATION SYSTEM WEBSITE (LABINS.ORG) AND IS REFERENCED TO TIED INTERPOLATION POINT #3262.
MEAN HIGH WATER EL. =0.94' NGVD29
MEAN LOW WATER EL. =-0.09' NGVD29.

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FLORIDA KEYS LAND SURVEYORS
19960 OVERSEAS HIGHWAY
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NOTE: ELEVATIONS SHOWN HEREON ARE IN FEET AND BASED ON THE NATIONAL GEODETIC VERTICAL DATUM OF 1929 (NGVD 1929)
BENCHMARK DESCRIPTION: NATIONAL GEODETIC SURVEY BENCHMARK, DESIGNATION W267, P.I.D. AA0022, ELEVATION 5.09' (NGVD 1929)
MEAN LOW WATER ELEVATION AT TIME OF SURVEY= -0.09 NGVD 1929
MEAN HIGH WATER ELEVATION AT TIME OF SURVEY= 0.94 NGVD 1929

Revision	By	Appd.	YY.MM.DD	Issued	By	Appd.	YY.MM.DD

Seal

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REGISTERED ENGINEER NO. 47660
STATE OF FLORIDA

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CITY OF KEY WEST
DOLPHIN PIER DOCK REPLACEMENT
Key West, Florida

File Name: RM CMH CMH 2017/04/20
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EXISTING CONDITIONS

Project No. 215613443
Drawing No. C03

Scale
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SEE PLANS
Revision

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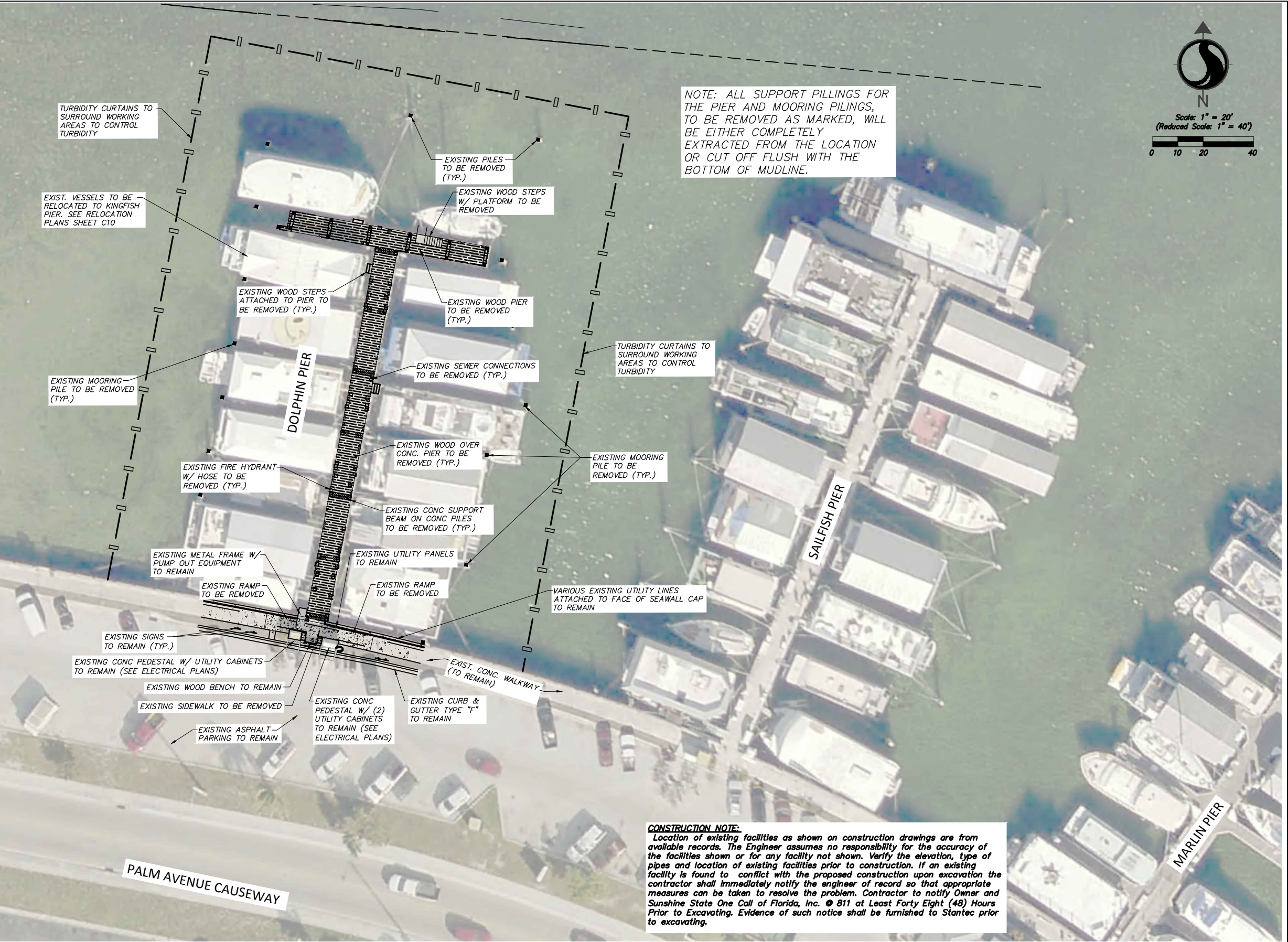
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Drawing No.	Sheet	Revision
C04	of 27	

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2017/04/24 2:37 PM By: Norbert, Red



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MEAN LOW WATER EL. =-0.09' NGVD29.



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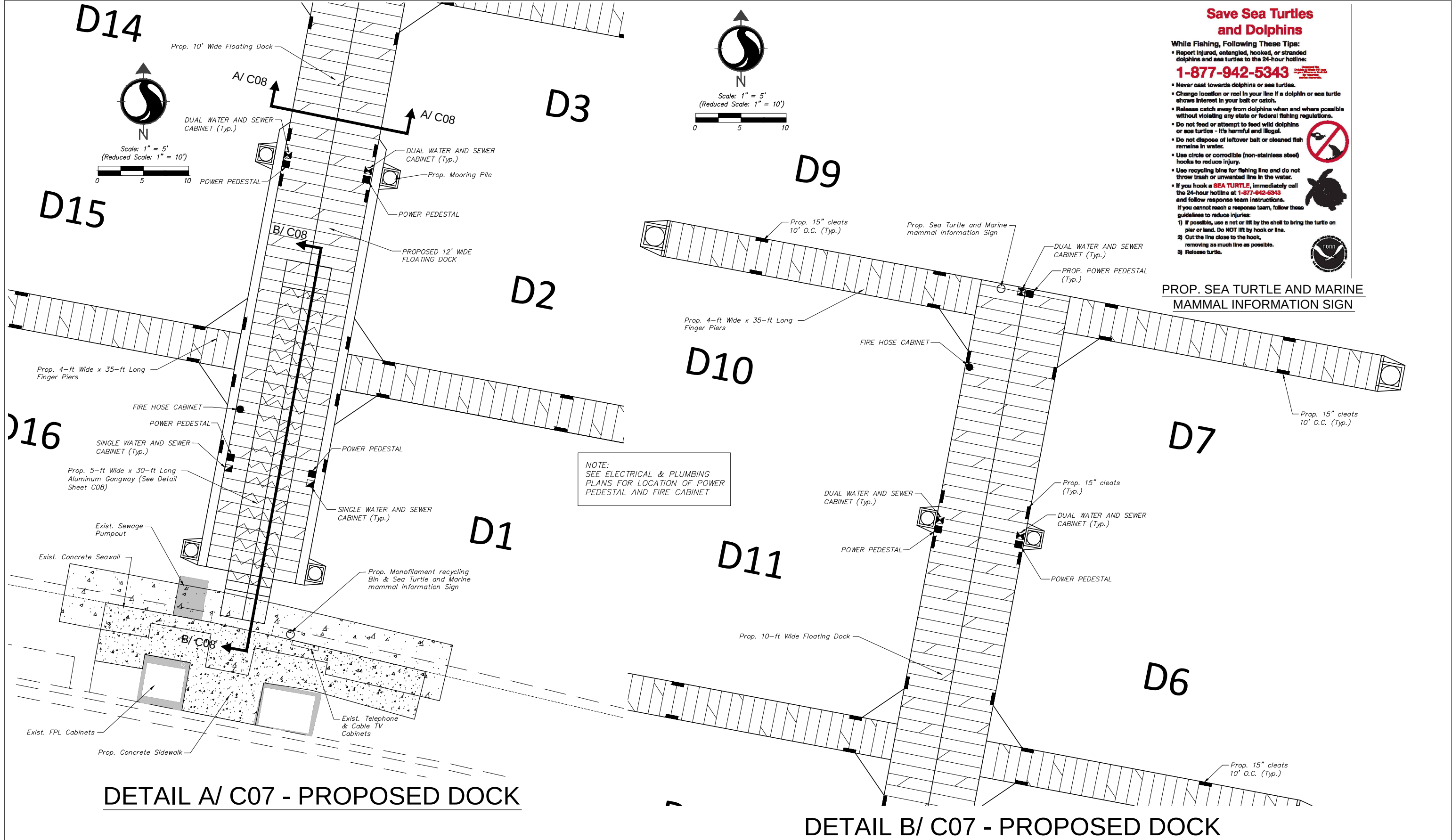
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Key West, Florida

File Name: RM CMH CMH 2017/04/20
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DEMOLITION PLANS			
Project No.	Scale	SEE PLANS	
215613443			
Drawing No.	Sheet	Revision	
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Save Sea Turtles and Dolphins

While Fishing, Following These Tips:
• Report injured, entangled, hooked, or stranded dolphins and sea turtles to the 24-hour hotline:

1-877-942-5343

- Never cast towards dolphins or sea turtles.
- Change location or reel in your line if a dolphin or sea turtle shows interest in your bait or catch.
- Release catch away from dolphins when and where possible without violating any state or federal fishing regulations.
- Do not feed or attempt to feed wild dolphins or sea turtles - it's harmful and illegal.
- Do not dispose of leftover bait or cleaned fish remains in water.
- Use circle or corrodible (non-stainless steel) hooks to reduce injury.
- Use recycling bins for fishing line and do not throw trash or unwanted line in the water.
- If you hook a **SEA TURTLE**, immediately call the 24-hour hotline at **1-877-942-5343** and follow response team instructions. If you cannot reach a response team, follow these guidelines to reduce injuries:
 - 1) If possible, use a net or lift by the shell to bring the turtle on pier or land. Do NOT lift by hook or line.
 - 2) Cut the line close to the hook, removing as much line as possible.
 - 3) Release turtle.

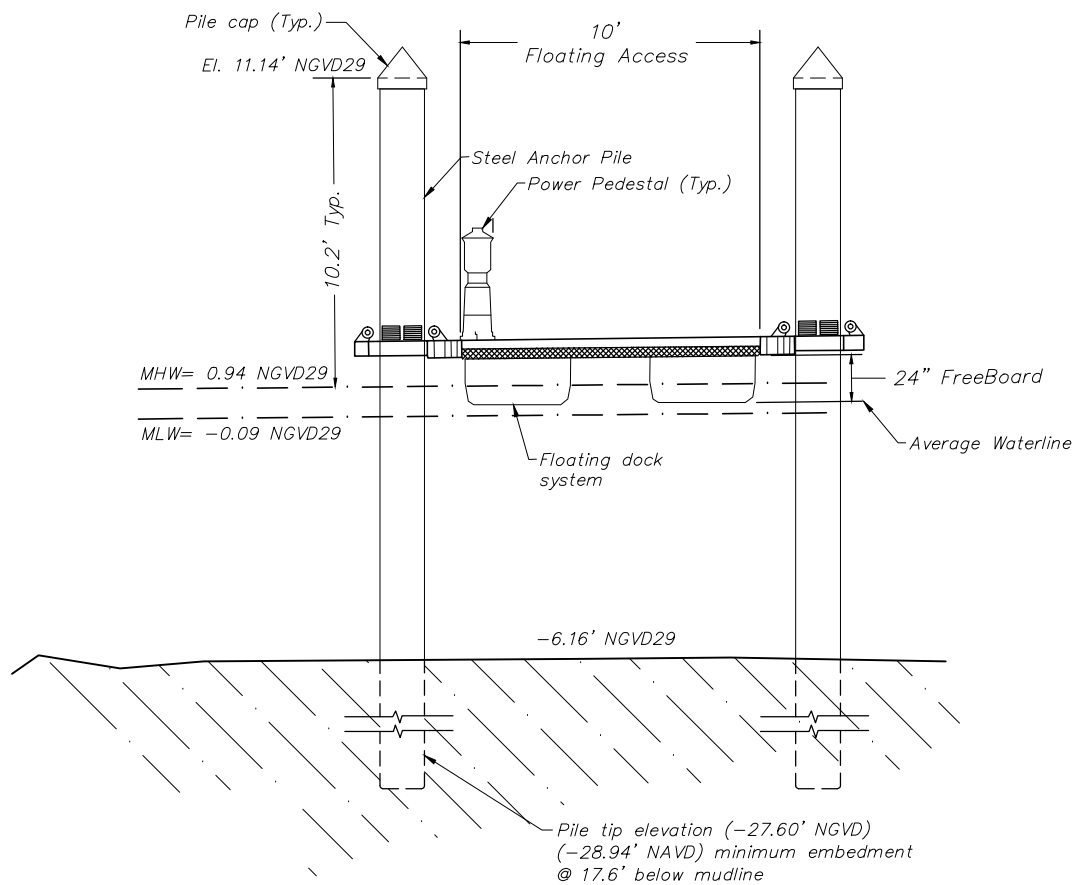


PROP. SEA TURTLE AND MARINE MAMMAL INFORMATION SIGN

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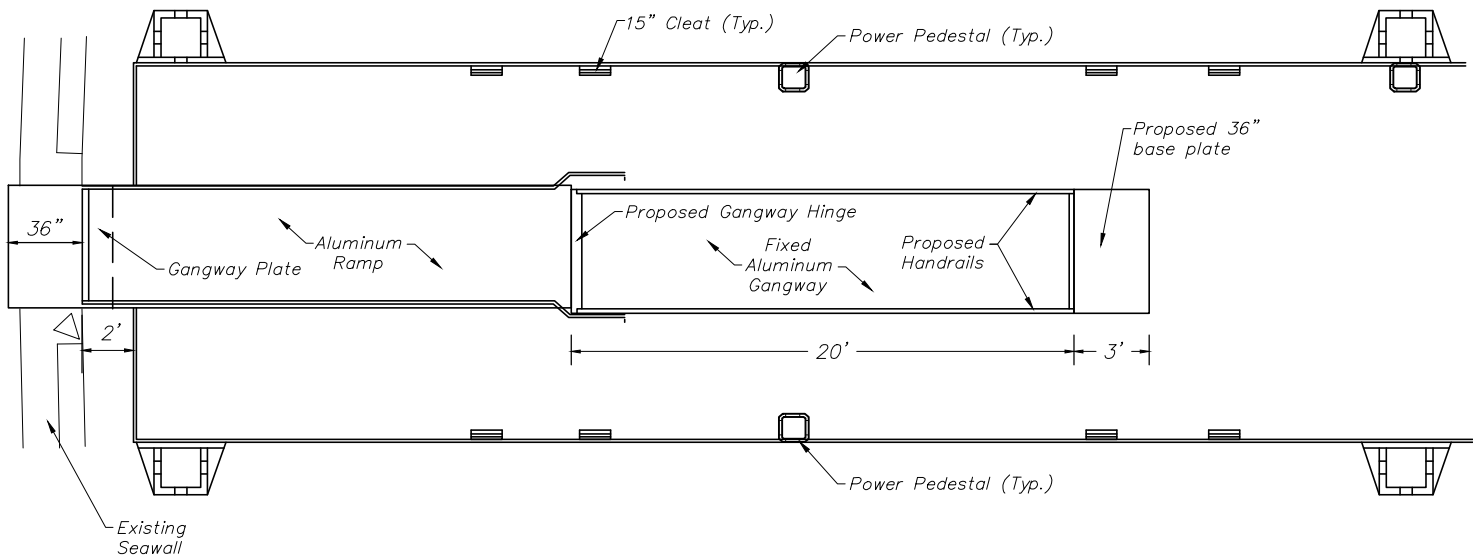
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2017/04/24 2:38 PM By: Morales, Rod

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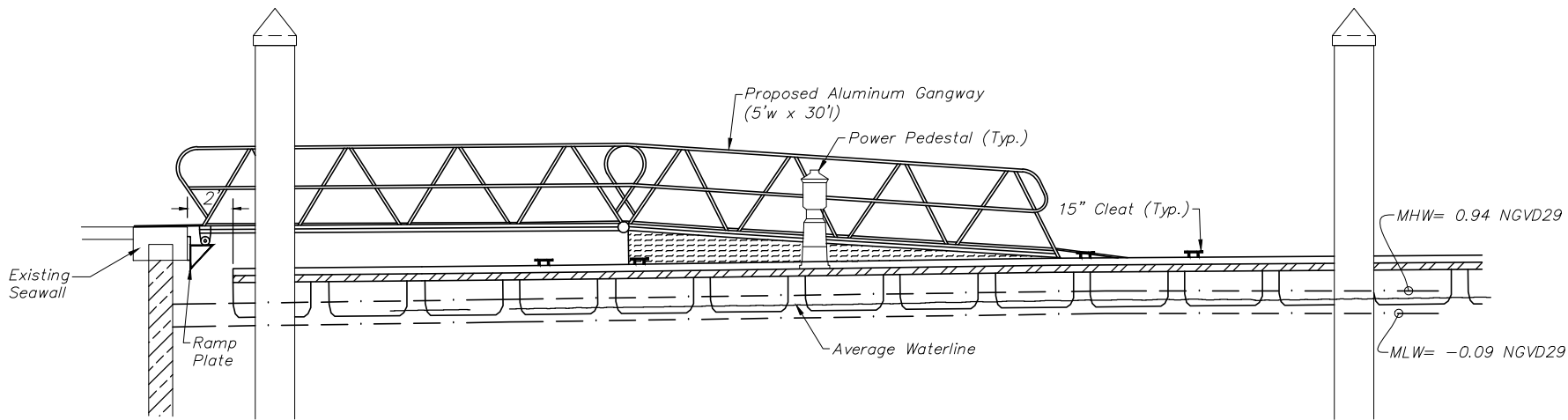


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MEAN LOW WATER EL. =-0.09' NGVD29.

CROSS SECTION A-A/ C08
N.T.S.



PLAN VIEW
N.T.S.



CROSS SECTION B-B/ C08
N.T.S.

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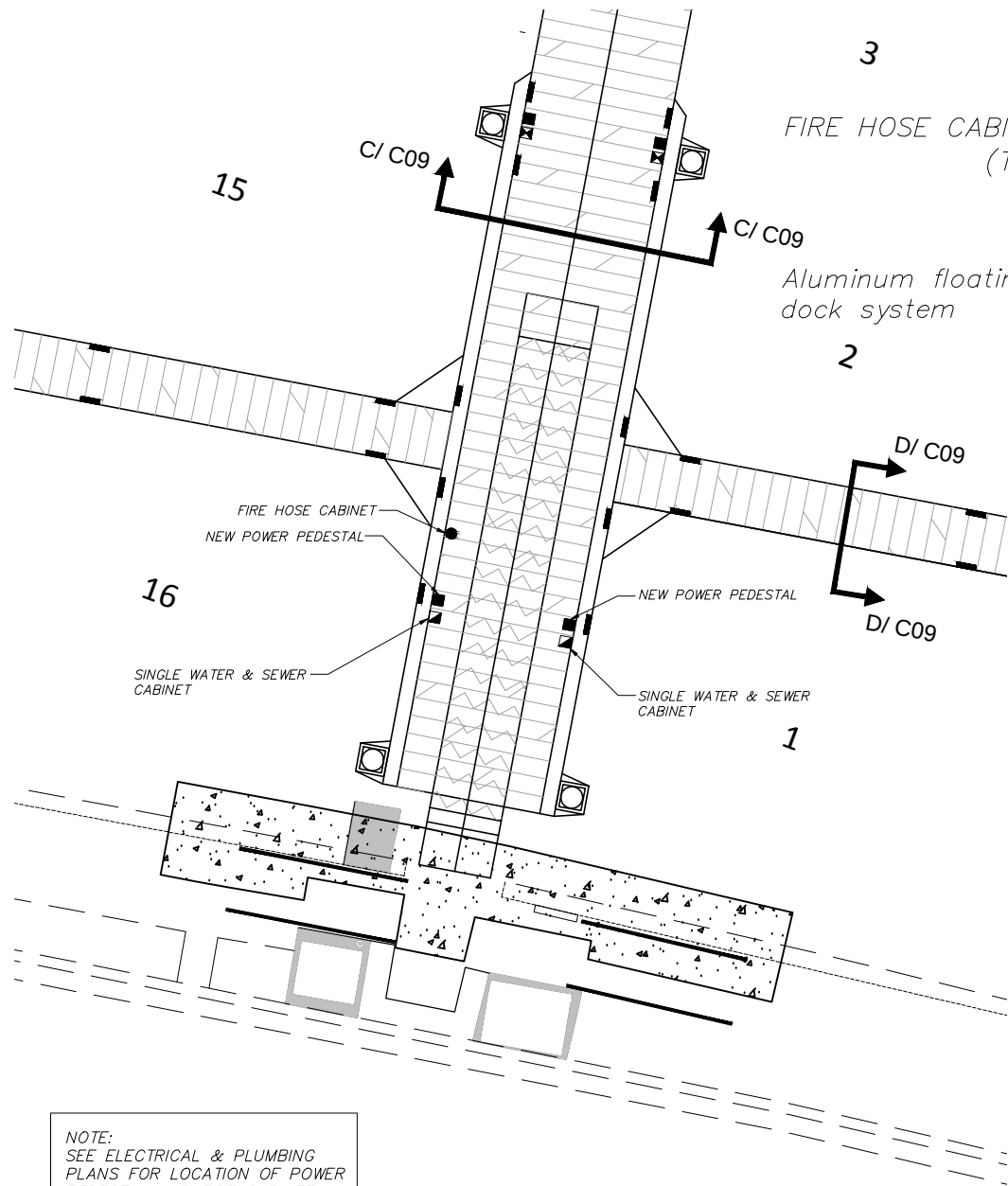
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DOLPHIN PIER DOCK REPLACEMENT
Key West, Florida

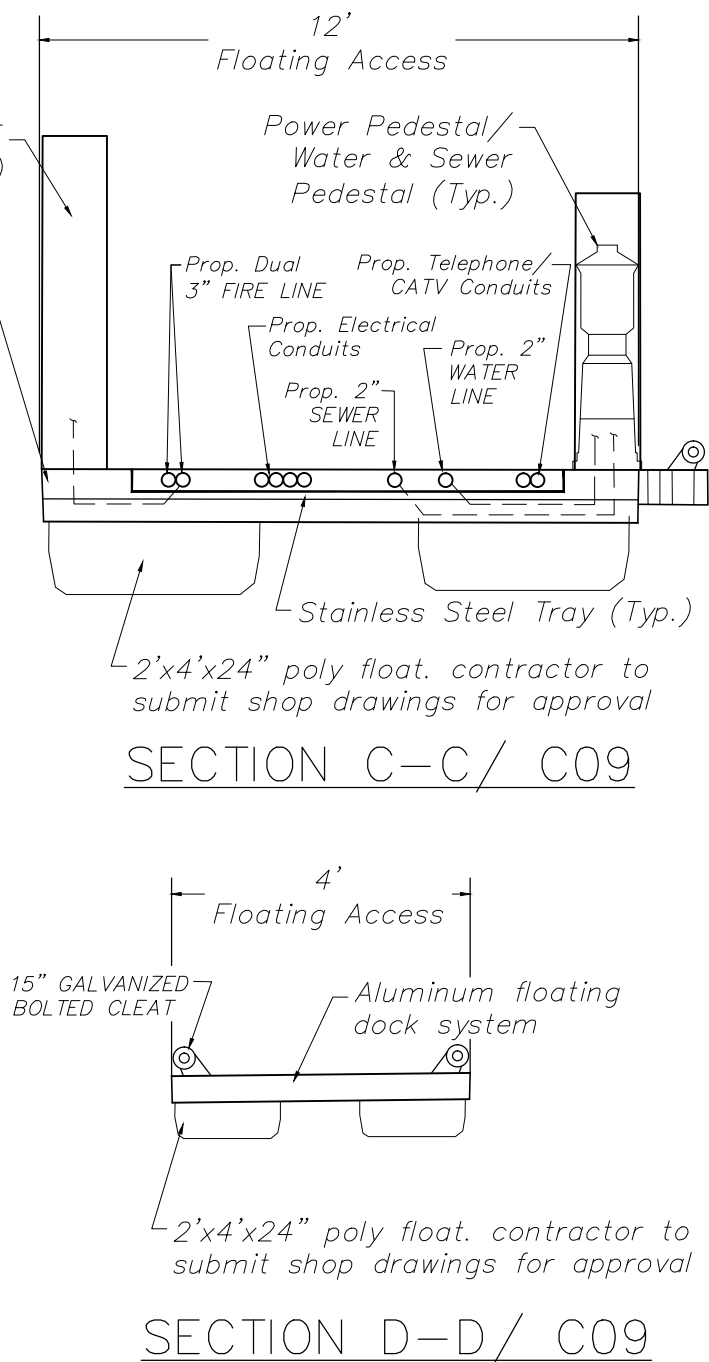
PROPOSED CROSS SECTIONS

Project No. 215613443
Drawing No. C08
Scale SEE PLANS
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Revision

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STATE OF FLORIDA

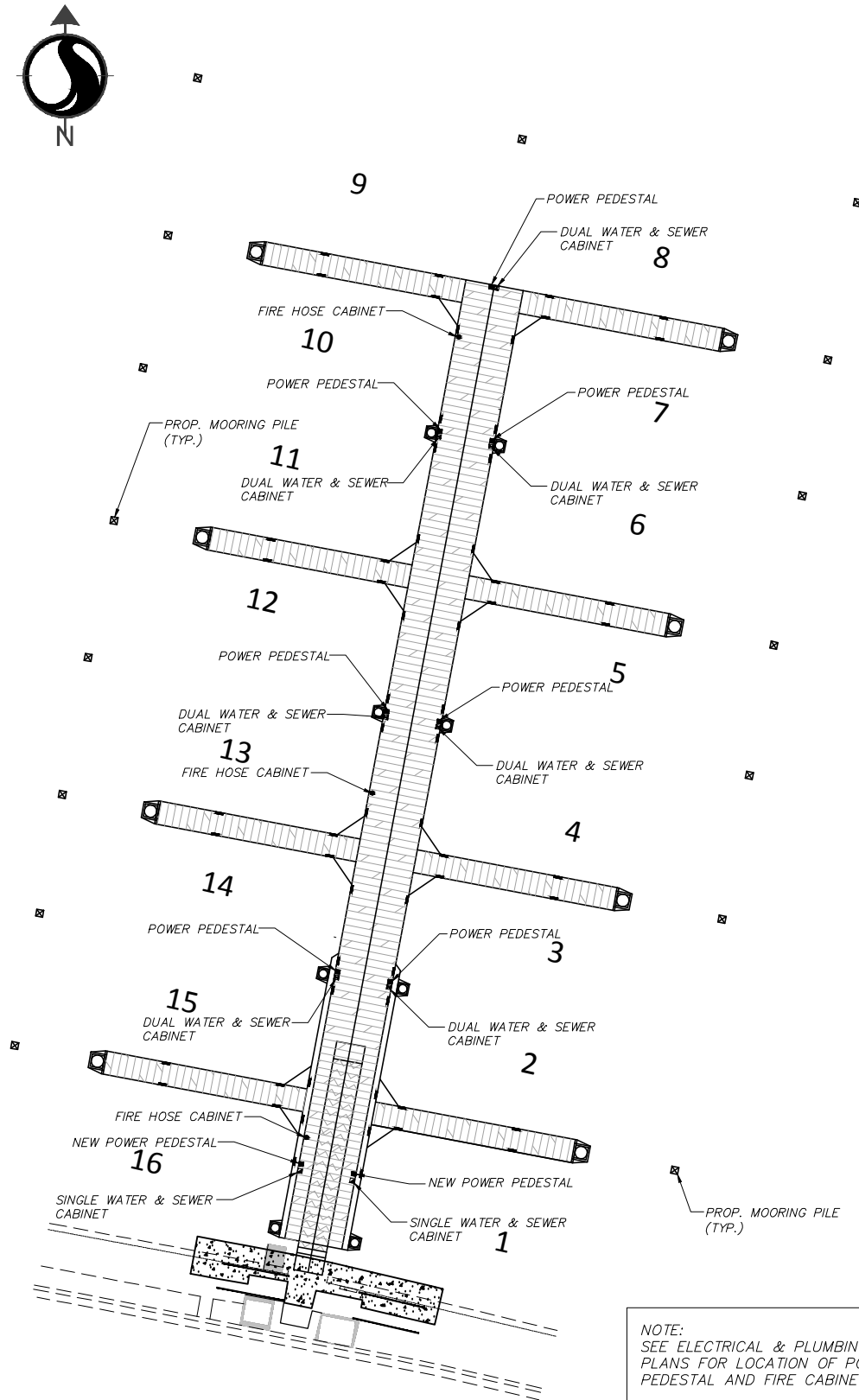


TYPICAL PEDESTAL /CABINET LOCATION



NOTES:

- 1) POSITION UTILITY PEDESTAL AND CABINETS AS CLOSE TO SIDE OF MAIN PIER AS POSSIBLE TO MAXIMIZE CLEAR SPACE FROM EQUIPMENT UP TO FINGER PIER.
- 2) ALL UTILITIES SHALL BE RUN IN STAINLESS STEEL TRAYS.
- 3) SEWER LINE, WATER LINE, FIRE LINE, POWER LINE SHOWN FOR COORDINATION ONLY. SEE CONSTRUCTION PLANS OF OTHER TRADES FOR ADDITIONAL INFORMATION.



OVERALL PEDESTAL CABINET LOCATION



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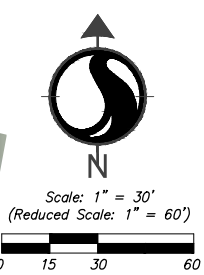
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Key West, Florida

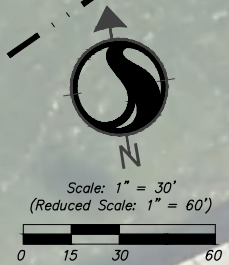
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UTILITY PLAN

Project No. 215613443
Drawing No. C09
Scale SEE PLANS
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RELOCATED LOCATION
PROVIDE TEMPORARY MOORING PILES.
TO BE REMOVED UPON COMPLETION
OF CONSTRUCTION.



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2017/04/24 2:38 PM By: Morales, Rod

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Key West, Florida

File Name: _____
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RELOCATION PLAN			
Project No.	Scale	SEE PLANS	
215613443			
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2017/04/24 2:44 PM By: Morades, Rod

SECTION 16450 SECONDARY GROUNDING				CIRCUIT BREAKERS, WITH COMMON TRIP HANDLE FOR ALL POLES. PROVIDE CIRCUIT BREAKERS UL LISTED AS TYPE SWD FOR LIGHTING CIRCUITS.				I. SUPPRESSORS SHALL BE MANUFACTURED IN THE UNITED STATES. ALL MAJOR COMPONENTS SHALL ALSO BE OF AMERICAN MANUFACTURE.				J. GROUND LEAKAGE CURRENT SHALL BE INDICATED ON THE LED BAR GRAPH INDICATOR AND THE EXTERNAL METER IN PERCENT RELATED TO THE ALARM SET-POINT VALUE.				PART 3 - EXECUTION			
PART 1 - GENERAL				PART 3 - EXECUTION				J. SUPPRESSOR SHALL HAVE A FIVE-YEAR WARRANTY, INCORPORATING UNLIMITED REPLACEMENTS OF SUPPRESSORS IF THEY ARE DESTROYED BY TRANSIENTS WITHIN THE WARRANTY PERIOD.				K. CONNECTION TO THE EXTERNAL CURRENT TRANSFORMER SHALL BE CONTINUOUSLY MONITORED. AN OPEN CIRCUIT WITHIN THE CURRENT TRANSFORMER SHALL BE INDICATED BY FLASHING ALARM LED AND ALARM RELAY. THE FUNCTION OF THE CURRENT TRANSFORMER AND MEASURING CIRCUIT AS WELL AS THE ALARM LED AND THE ALARM RELAY SHALL BE CHECKED BY PUSHING THE TEST BUTTON.				3.01 INSTALLATION			
1.01 WORK INCLUDED				A. INSTALL PANELBOARDS PLUMB AND FLUSH WITH SUPPORTING STRUCTURE.				K. SUPPRESSOR SHALL BE AN INTEGRAL PART OF THE MAIN POWER DISTRIBUTION PANEL AND SHALL BE AS MANUFACTURED BY ADVANCED PROTECTION TECHNOLOGIES, INC. XTE/XHP SERIES, OR APPROVED EQUAL BY SQUARE D, SIEMENS, OR G.E.				L. MONITOR SHALL INDIVIDUALLY MONITOR EACH FEEDER CIRCUIT LEAVING THE PANEL IN LIEU OF THE INCOMING MAIN. ALARM RELAY SHALL BE CONNECTED TO SHUNT TRIP OF ASSOCIATED CIRCUIT BREAKER.				A. MOUNT INDIVIDUAL CIRCUIT BREAKERS WITH TOPS AT UNIFORM HEIGHT, UNLESS OTHERWISE INDICATED.			
A. POWER SYSTEM GROUNDING.				B. HEIGHT: 6 FT. TO TOP.				PART 3 - EXECUTION				PART 3 - EXECUTION				B. COMPLY WITH MOUNTING AND ANCHORING REQUIREMENTS SPECIFIED BY MANUFACTURER.			
B. COMMUNICATION SYSTEM GROUNDING				C. PROVIDE FILLER PLATES FOR UNUSED SPACES IN PANELBOARDS.				PART 3 - EXECUTION				A. CONDUCTORS BETWEEN THE MONITOR AND POINT OF ATTACHMENT SHALL BE KEPT SHORT AND STRAIGHT.				C. TEMPORARY LIFTING PROVISIONS: REMOVE TEMPORARY LIFTING EYES, CHANNELS, AND BRACKETS AND TEMPORARY BLOCKING OF MOVING PARTS FROM ENCLOSURES AND COMPONENTS.			
C. ELECTRICAL EQUIPMENT AND RACEWAY GROUNDING AND BONDING.				D. PROVIDE TYPED CIRCUIT DIRECTORY FOR EACH BRANCH CIRCUIT PANELBOARD. REVISE DIRECTORY TO REFLECT CIRCUITING CHANGES REQUIRED TO BALANCE PHASE LOADS.				PART 3 - EXECUTION				A. CONDUCTORS BETWEEN THE MONITOR AND POINT OF ATTACHMENT SHALL BE KEPT SHORT AND STRAIGHT.				D. IDENTIFY FIELD-INSTALLED CONDUCTORS, INTERCONNECTING WIRING, AND COMPONENTS; PROVIDE WARNING SIGNS AS REQUIRED.			
1.02 SYSTEM DESCRIPTION				3.02 FIELD QUALITY CONTROL				END OF SECTION				END OF SECTION				3.02 FIELD QUALITY CONTROL			
A. GROUND THE ELECTRICAL SERVICE SYSTEM NEUTRAL AT SERVICE ENTRANCE EQUIPMENT TO METALLIC WATER SERVICE, BUILDING STEEL, CONCRETE REINFORCING STEEL, AND TO SUPPLEMENTARY GROUNDING ELECTRODES.				A. VISUAL AND MECHANICAL INSPECTION: INSPECT FOR PHYSICAL DAMAGE, PROPER ALIGNMENT, ANCHORAGE, AND GROUNDING. CHECK PROPER INSTALLATION AND TIGHTNESS OF CONNECTIONS FOR CIRCUIT BREAKERS, FUSIBLE SWITCHES, AND FUSES.				SECTION 16610 SURGE PROTECTIVE DEVICE (SPD)				SECTION 16750 ENCLOSED CIRCUIT BREAKERS				A. INSPECT MECHANICAL AND ELECTRICAL CONNECTIONS.			
B. PROVIDE COMMUNICATIONS SYSTEM GROUNDING CONDUCTOR AT POINT OF SERVICE ENTRANCE AND CONNECT TO NEAREST EFFECTIVELY GROUNDED METALLIC WATER PIPE AND NEAREST EFFECTIVELY GROUNDED BUILDING STRUCTURAL STEEL MEMBER.				PART 1 - GENERAL				PART 1 - GENERAL				PART 1 - GENERAL				END OF SECTION			
C. BOND TOGETHER SYSTEM NEUTRALS, SERVICE EQUIPMENT ENCLOSURES, EXPOSED NON-CURRENT CARRYING METAL PARTS OF ELECTRICAL EQUIPMENT, METAL RACEWAY SYSTEMS, GROUNDING CONDUCTOR IN RACEWAYS AND CABLES, RECEPTACLE GROUND CONNECTORS, AND PLUMBING SYSTEMS.				1.01 DESCRIPTION				A. THIS SECTION DESCRIBES THE MATERIALS AND INSTALLATION REQUIREMENTS FOR SURGE PROTECTIVE DEVICES (SPD) FOR THE PROTECTION OF ALL AC ELECTRICAL CIRCUITS FROM THE EFFECTS OF LIGHTING INDUCED CURRENTS, SUBSTATION SWITCHING TRANSIENTS AND INTERNALLY GENERATED TRANSIENTS RESULTING FROM INDUCTIVE AND/OR CAPACITIVE LOAD SWITCHING.				A. THIS SECTION INCLUDES THE FOLLOWING INDIVIDUALLY MOUNTED CIRCUIT BREAKERS:				1. MOLDED-CASE CIRCUIT BREAKERS.			
PART 2 - PRODUCTS				1.01 DESCRIPTION				1.02 RELATED WORK SPECIFIED ELSEWHERE				1.02 SUBMITTALS				A. PRODUCT DATA: FOR EACH TYPE OF ENCLOSED CIRCUIT BREAKER, ACCESSORY, AND COMPONENT INDICATED.			
2.01 MATERIALS				A. THIS SECTION DESCRIBES THE MATERIALS AND INSTALLATION REQUIREMENTS FOR SURGE PROTECTIVE DEVICES (SPD) FOR THE PROTECTION OF ALL AC ELECTRICAL CIRCUITS FROM THE EFFECTS OF LIGHTING INDUCED CURRENTS, SUBSTATION SWITCHING TRANSIENTS AND INTERNALLY GENERATED TRANSIENTS RESULTING FROM INDUCTIVE AND/OR CAPACITIVE LOAD SWITCHING.				A. GENERAL ELECTRICAL REQUIREMENTS				B. SHOP DRAWINGS: DIAGRAM POWER, SIGNAL, AND CONTROL WIRING.				C. FIELD QUALITY-CONTROL TEST REPORTS			
A. GROUND RODS: COPPER-ENCASED STEEL, ¾ INCH DIAMETER, MINIMUM LENGTH 10 FEET.				1.02 RELATED WORK SPECIFIED ELSEWHERE				B. RACEWAYS, BOXES, AND FITTINGS.				D. OPERATION AND MAINTENANCE DATA.				1.03 QUALITY ASSURANCE			
PART 3 - EXECUTION				A. PROVIDE A SEPARATE, INSULATED EQUIPMENT GROUNDING CONDUCTOR WITH EACH FEEDER AND BRANCH CIRCUIT. TERMINATE EACH END ON A GROUNDING LUG, BUS, OR BUSHING.				A. SUBMIT SHOP DRAWINGS, PRODUCT DATA AND MANUFACTURER'S INSTALLATION INSTRUCTIONS.				A. ELECTRICAL COMPONENTS, DEVICES, AND ACCESSORIES LISTED AND LABELED AS DEFINED BY A TESTING AGENCY ACCEPTABLE TO AUTHORITIES HAVING JURISDICTION, AND MARKED FOR INTENDED USE.				PART 2 - PRODUCTS			
3.01 INSTALLATION				B. CONNECT GROUNDING ELECTRODE CONDUCTORS TO METAL WATER PIPE USING AN APPROVED GROUND CLAMP. MAKE CONNECTIONS TO FLANGED PIPING AT STREET SIDE OF FLANGE. PROVIDE BONDING JUMPER AROUND WATER METER.				B. THE SURGE SUPPRESSION SUBMITTALS SHALL ALSO INCLUDE:				A. IN OTHER PART 2 ARTICLES WHERE TITLES BELOW INTRODUCE LISTS, THE FOLLOWING REQUIREMENTS APPLY TO PRODUCT SELECTION:				1. AVAILABLE MANUFACTURERS: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, MANUFACTURERS OFFERING PRODUCTS THAT MAY BE INCORPORATED INTO THE WORK INCLUDE, BUT ARE NOT LIMITED TO, MANUFACTURERS SPECIFIED.			
A. PROVIDE A SEPARATE, INSULATED EQUIPMENT GROUNDING CONDUCTOR WITH EACH FEEDER AND BRANCH CIRCUIT. TERMINATE EACH END ON A GROUNDING LUG, BUS, OR BUSHING.				C. USE MINIMUM 6 AWG COPPER CONDUCTORS FOR COMMUNICATIONS SERVICE GROUNDING CONDUCTOR, LEAVE 10 FEET SLACK CONDUCTOR TERMINAL BOARD.				1. DIMENSIONAL DRAWING OF EACH SUPPRESSOR TYPE INDICATING THE FOLLOWING:				2. MANUFACTURERS: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, PROVIDE PRODUCTS BY ONE OF THE MANUFACTURERS SPECIFIED.				2.02 MOLDED-CASE CIRCUIT BREAKERS AND SWITCHES			
B. CONNECT GROUNDING ELECTRODE CONDUCTORS TO METAL WATER PIPE USING AN APPROVED GROUND CLAMP. MAKE CONNECTIONS TO FLANGED PIPING AT STREET SIDE OF FLANGE. PROVIDE BONDING JUMPER AROUND WATER METER.				D. ALL GROUND CONNECTIONS AT GROUND RODS, BUILDING STEEL, AND CONCRETE REINFORCING STEEL SHALL BE THERMOFUSION TYPE.				a. SERVICE ENTRANCE SUPPRESSORS				1. STANDARD FRAME SIZES, TRIP RATINGS, AND NUMBER OF POLES.				1. ENCLOSURE SHALL BE WEATHER RESISTANT, NEMA 3R.			
3.02 FIELD QUALITY CONTROL				A. INSPECT GROUNDING AND BONDING SYSTEM CONDUCTORS AND CONNECTIONS FOR RIGHTNESS AND PROPER INSTALLATION.				b. THE SURGE SUPPRESSION SUBMITTALS SHALL ALSO INCLUDE:				2. LUGS: MECHANICAL STYLE WITH COMPRESSION LUG KITS SUITABLE FOR NUMBER, SIZE, TRIP RATINGS, AND CONDUCTOR MATERIAL.							
END OF SECTION				1. DIMENSIONAL DRAWING OF EACH SUPPRESSOR TYPE INDICATING THE FOLLOWING:				2. IEEE C62.41-1991 CATEGORY C3 (20 KV, 10 KA, 8/20 MS WAVEFORM) CLAMP VOLTAGE TEST RESULTS FROM AN INDEPENDENT TEST LAB.											
SECTION 16470 PANELBOARD				a. SERVICE ENTRANCE SUPPRESSORS				A. ALL SUPPRESSORS FOR AC DISTRIBUTION AND BRANCH CIRCUIT PROTECTION WITHIN A SINGLE FACILITY SHALL BE PROVIDED BY A SINGLE MANUFACTURER. THE SAME MANUFACTURER WHO PROVIDES MAIN PANEL SUPPRESSORS SHALL PROVIDE SUPPRESSORS FOR DISTRIBUTION AND BRANCH PANELS.											
PART 1 - GENERAL				- COOPER BUS BARS FOR INTERNAL CONNECTIONS.				PART 2 - PRODUCTS											
1.01 WORK INCLUDED				- REPLACEABLE MODULES ON EACH PHASE				2.01 MAIN SERVICE MONITORS AT DISTRIBUTION PANELS											
A. MAIN SERVICE, LIGHTING, AND APPLIANCE BRANCH CIRCUIT PANELBOARD WITH RATINGS AS INDICATED.				- REPLACEABLE 200,000 AIC FUSES ON EACH MODULE.				A. MONITORS SHALL BE LISTED IN ACCORDANCE WITH U.L. FILE #E173157.											
1.02 SUBMITTALS				b. DOWNSTREAM SUPPRESSORS				B. THE GROUND FAULT MONITORS SHALL BE BENDER MODEL RCM470LY-13-MA/RCMS460-D OR APPROVED EQUAL. THESE DEVICES SHALL MONITOR THE INSULATION LEVEL OF GROUNDED SINGLE PHASE MARINA POWER SYSTEM BY MEASURING THE GROUND FAULT LEAKAGE CURRENT.											
A. SUBMIT SHOP DRAWINGS FOR EQUIPMENT AND COMPONENT DEVICES.				- LINE TO NEUTRAL, LINE TO GROUND, AND NEUTRAL TO GROUND SUPPRESSION PATHS.				C. THE MONITORS SHALL PROVIDE ADVANCED WARNING OF DEVELOPING FAULTS WITHOUT THE PROBLEMS ASSOCIATED WITH HIGH SENSITIVITY NUISANCE TRIPPING. THE MONITORS SHALL BE AN IEC755 TYPE A GROUND FAULT MONITOR THAT CAN DETECT SINUSOIDAL AC GROUND FAULT CURRENTS AND PULSATING DC GROUND FAULT CURRENTS.											
B. INCLUDE OUTLINE AND SUPPORT POINT DIMENSIONS, VOLTAGE, MAIN BUS AMPACITY, INTEGRATED SHORT CIRCUIT AMPERE RATING, CIRCUIT BREAKER AND FUSIBLE SWITCH ARRANGEMENT AND SIZES.				2. IEEE C62.41-1991 CATEGORY C3 (20 KV, 10 KA, 8/20 MS WAVEFORM) CLAMP VOLTAGE TEST RESULTS FROM AN INDEPENDENT TEST LAB.				D. THE RESPONSE VALUE CURRENT SHALL BE STEPLESSLY ADJUSTABLE BETWEEN 10MA AND 10 A AND THE DELAY TIME SHALL BE ADJUSTABLE BETWEEN 0 AND 10 S. THE RELAY SHALL BE EQUIPPED WITH AN LED BAR GRAPH INDICATOR. AN EXTERNAL ANALOG METER SHALL BE CAPABLE OF BEING CONNECTED AND BY USING AND OPTIONAL EXTERNAL TRANSDUCER, A 4 TO 20MA SIGNAL SHALL BE AVAILABLE. METER INDICATION SHALL BE FROM 10 TO 100% WHERE 100% IS EQUAL TO THE ALARM SET-POINT VALUE.											
PART 2 - PRODUCTS				A. ALL SUPPRESSORS FOR AC DISTRIBUTION AND BRANCH CIRCUIT PROTECTION WITHIN A SINGLE FACILITY SHALL BE PROVIDED BY A SINGLE MANUFACTURER. THE SAME MANUFACTURER WHO PROVIDES MAIN PANEL SUPPRESSORS SHALL PROVIDE SUPPRESSORS FOR DISTRIBUTION AND BRANCH PANELS.				E. THE RCM470LY-13-MA SHALL BE DESIGNED FOR USE WITH EXTERNAL SPECIAL U.L. LISTED CURRENT TRANSFORMERS DESIGNED TO PREVENT NUISANCE TRIPPING.											
2.01 ACCEPTABLE MANUFACTURERS - PANELBOARDS				PART 2 - PRODUCTS				F. MONITORS SHALL BE SUITABLE FOR INSTALLATION INTO STANDARD DISTRIBUTION PANELS.											
A. EATON				2.01 MAIN SERVICE SUPPRESSORS AT DISTRIBUTION PANEL.				G. GROUND FAULT CURRENT SHALL BE EVALUATED BY SPECIAL CURRENT TRANSFORMERS AND CONVERTED INTO MEASURING SIGNAL.											
B. SQUARE D				A. SUPPRESSORS SHALL BE LISTED IN ACCORDANCE WITH UL 1449, STANDARD FOR SAFETY, TRANSIENT VOLTAGE SURGE SUPPRESSORS, AND UL 1283 ELECTROMAGNETIC INTERFERENCE FILTERS.				H. WHEN A GROUND FAULT CURRENT EXCEEDS THE ALARM SETUP POINT VALUE, THE ALARM LED ILLUMINATES AND THE ALARM RELAY SWITCHES AFTER THE ADJUSTED TIME DELAY. THE ALARM RELAY SHALL BE SELECTABLE TO BE IN THE NORMALLY ENERGIZED OR NORMALLY DE-ENERGIZED MODE AND WITH OR WITHOUT LATCHING.											
C. G.E.				B. THE UNIT SHALL PROVIDE THE FOLLOWING SUPPRESSION PATHS: LINE TO GROUND, LINE TO NEUTRAL, AND NEUTRAL TO GROUND.				I. THE FAULT MEMORY SHALL BE RESET BY PUSHING A TEST/RESET BUTTON LOCATED AT THE FRONT PLATE, PROVIDED THAT THE GROUND LEAKAGE CURRENT IS 25% BELOW THE ALARM SET-POINT VALUE.											
D. SIEMENS				C. SUPPRESSORS SHALL MEET OR EXCEED THE FOLLOWING CRITERIA SET FORTH IN C.U.L.															
E. OR EQUAL				D. SUPPRESSORS SHALL BE MADE OF SOLID-STATE COMPONENTS AND OPERATE BIDIRECTIONALLY.															
2.02 PANELBOARDS				E. THE SUPPRESSOR SHALL HAVE A RESPONSE TIME NO GREATER THAN FIVE NANOSECONDS FOR ANY OF THE INDIVIDUAL PROTECTION MODES.															
A. PANELBOARDS SHALL BE CIRCUIT BREAKER TYPE.				F. SUPPRESSORS SHALL BE DESIGNED TO WITHSTAND A MAXIMUM CONTINUOUS OPERATING VOLTAGE (MCOV) OF NOT LESS THAN 115% OF NOMINAL RMS VOLTAGE.															
B. ENCLOSURE SHALL BE NEMA 3R STAINLESS STEEL W/WHITE POWDER COATED PAINT FINISH, RAINPROOF.				G. VISIBLE INDICATION OF PROPER SUPPRESSOR CONNECTION AND OPERATION SHALL BE PROVIDED.															
C. PROVIDE PANELBOARDS WITH BUS RATINGS AS SCHEDULED.				H. THE SUPPRESSOR MANUFACTURER SHALL PROVIDE CERTIFIED TEST DATA CONFIRMING A 'FAIL-SHORT' FAILURE MODE.															
D. ALL PANELBOARDS SHALL BE FULLY RATED WITH MINIMUM INTEGRATED SHORT CIRCUIT RATING AS INDICATED ON DRAWINGS.																			
E. MOLDED CASE CIRCUIT BREAKERS: BOLT-ON TYPE THERMAL/MAGNETIC TRIP																			

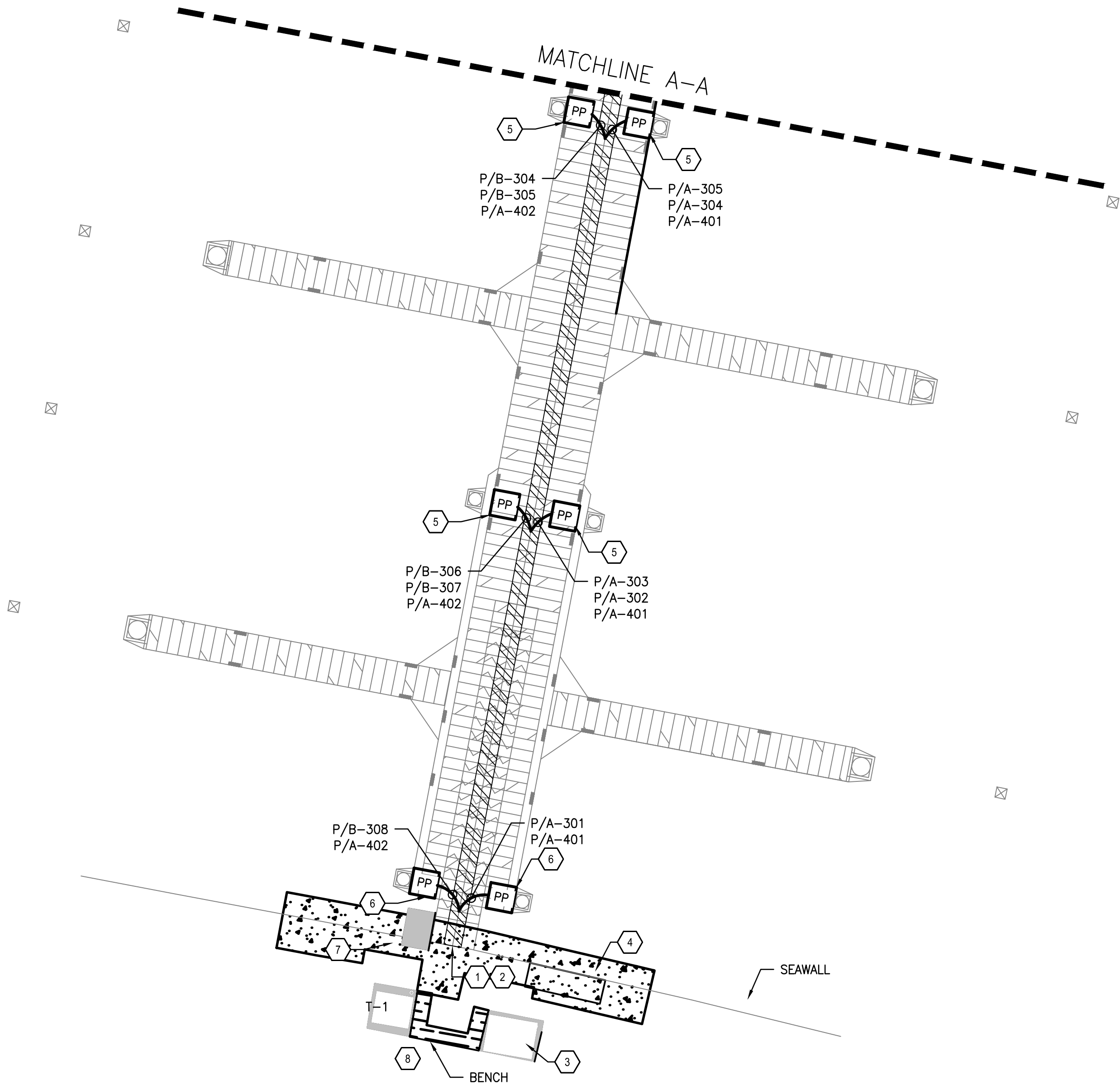
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KEY NOTES

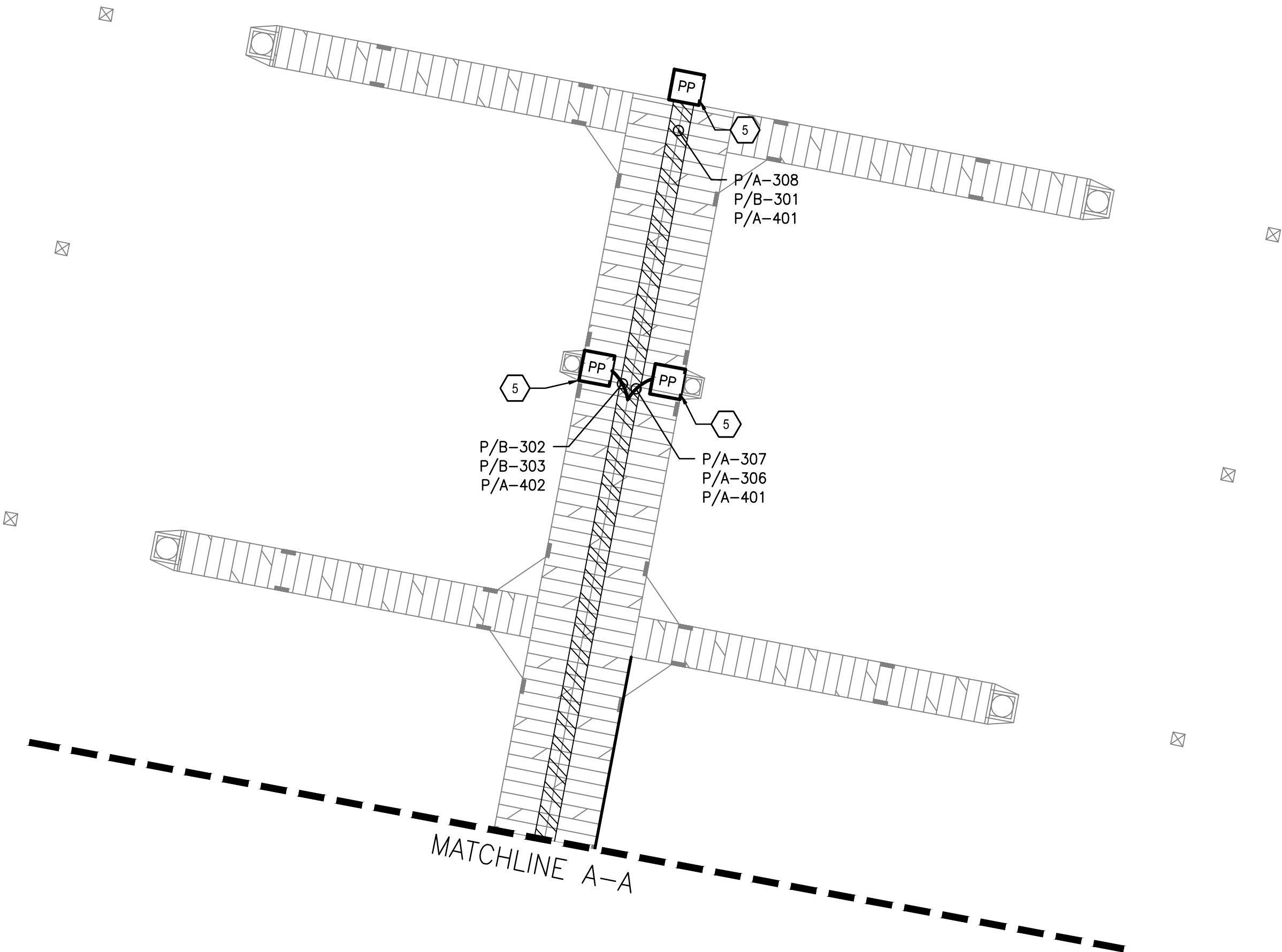
- 1. PROVIDE POWER CABLE TRAY UNDERSIDE OF DECK.
- 2. PROVIDE TYPE G-GC CABLE (3 CONDUCTOR PLUS GROUND) IN CABLE TRAY FOR PEDESTAL ELECTRICAL POWER.
- 3. EXISTING ELECTRICAL DISTRIBUTION EQUIPMENT.
- 4. NEW COMBINATION TEL/CAT CABINET FOR EXISTING TEL/CATV EQUIPMENT RECONNECT EXISTING AND ESTABLISH NEW CONNECTIONS AS NEEDED.
- 5. NEW CONFIG. A POWER PEDESTAL, SEE SCHEDULE ON SHEET E08.
- 6. NEW CONFIG. B POWER PEDESTAL, SEE SCHEDULE ON SHEET E08.
- 7. VACUUM SEWER PUMP.
- 8. ANY SHORE MOUNTED EQUIPMENT TO BE 1 ft. ABOVE BFE.

GENERAL NOTES

- A. CONTRACTOR SHALL REPLACE EXISTING CONDUCTORS. NO SPLICING SHALL BE PERMITTED.
- B. CONTRACTOR SHALL VERIFY THE CONDITION AND SUITABILITY OF DISTRIBUTION EQUIPMENT INTENDED FOR RE-USE.
- C. REPLACE EXISTING 120/240V HOUSE PANEL (LOAD CENTER) TO SUPPORT PEDESTAL LIGHTING, TEL/CATV CABINET AND VACUUM SEWER PUMP. NEW HOUSE PANEL PB-H SHALL HAVE GFCI PROTECTION FOR ALL BRANCH CIRCUITS PER NEC.
- D. CABLE SHALL BE IN CONDUIT IN GROUND AND IN CABLE TRAY AT FLOATING DOCK. ROUTING OF CONDUIT, TRAY AND CONDUCTORS ON THIS DRAWING IS FOR INFORMATION ONLY, IT IS THE CONTRACTORS RESPONSIBILITY TO VERIFY THE BEST ROUTING TO SUIT LOCAL CONDITIONS.
- E. THE POWER DISTRIBUTION LAYOUT IS DIAGRAMMATIC ONLY AND DOES NOT SHOW EVERY FITTING THAT MAY BE REQUIRED.
- F. COORDINATE THIS LAYOUT WITH OTHER EQUIPMENT AND STRUCTURES BEFORE ROUGHING IN!
- G. GROUNDING CONTINUITY SHALL BE MAINTAINED THROUGH THE ENTIRE RACEWAY SYSTEM.
- H. SEE PEDESTAL AND MDP SCHEDULES ON DRAWINGS E07 AND E08.
- I. PROVIDE PULL AND/OR JUNCTION BOXES WHERE REQUIRED BY NEC AND LOCAL CODES WHETHER OR NOT SHOWN ON DRAWINGS.
- J. TWO SEPARATE CIRCUITS FED FROM PB-H WILL SUPPORT LIGHTING. PROVIDE CABLE TYPE "SOOW" FOR THIS PURPOSE.
- K. CONTRACTOR TO COORDINATE METER REMOVAL/RE-INSTALLATION WITH KEYS ENERGY SYSTEM (KES) IF REQUIRED BY KES.



ELECTRICAL CATV PLAN VIEW
SCALE: 1"=10'
(REDUCED SCALE: 1" = 20')



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2017/04/24 2:45 PM By: Morales, Rod

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Seal

EDWIN J. MARTINEZ, P.E.
REGISTERED ENGINEER NO. 81692
STATE OF FLORIDA

Consultants



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CITY OF KEY WEST
DOLPHIN PIER DOCK REPLACEMENT
Key West, Florida

File Name:

DLS
Dwn.

BCB
Chkd.

BCB
Dsgn.

2017/04/20
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ELECTRICAL SITE PLAN-POWER

Project No.
215613443

Scale
1"=10'

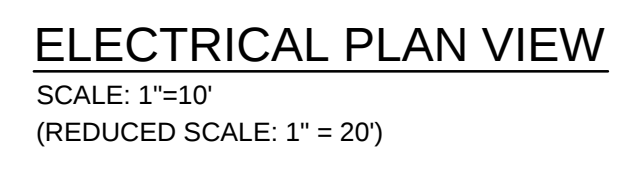
Drawing No.
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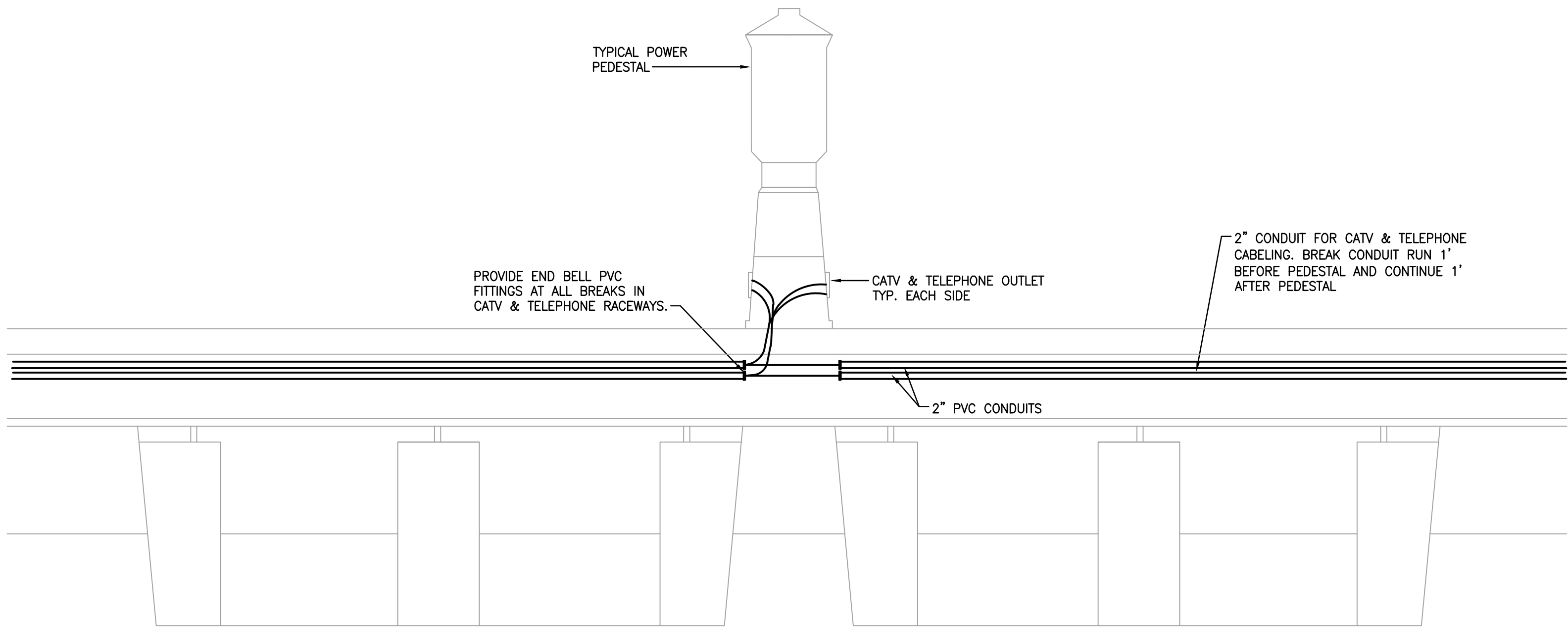
Sheet
of 27

Revision

- A. CONTRACTOR SHALL REPLACE EXISTING CABLES.
NO SPLICING SHALL BE PERMITTED.
- B. THIS TEL/CATV DISTRIBUTION LAYOUT IS DIAGRAMMATIC
ONLY. DOES NOT SHOW EVERY FITTING THAT MAY BE
REQUIRED.
- C. COORDINATE THIS LAYOUT WITH OTHER EQUIPMENT
AND STRUCTURES PRIOR TO CONSTRUCTION.
- D. GROUNDING CONTINUITY SHALL BE MAINTAINED
THROUGH THE ENTIRE RACEWAY SYSTEM.
- E. ALL PVC JOINTS SHALL BE STAGGERED AT LEAST 6
INCHES PROVIDE EXPANSION FITTINGS AS NEEDED.

1. TEL/CATV IS INTEGRAL TO POWER PEDESTAL
2. (2) 2" CONDUITS FOR CATV AND TELEPHONE WIRING. SEE SHEET E06 FOR DETAILS.
3. NEW COMBINATION TEL/CATV CABINET FOR EXISTING TEL/CATV EQUIPMENT. RECONNECT EXISTING AND ESTABLISH NEW CONNECTIONS AS NEEDED.
4. 4-PAIRS 20 GAUGE GEL FILLED CABLES RUNNING IN SCH 40 CONDUIT. THIS CABLE SHALL BE APPROVED FOR WET LOCATION AND MARINE AMBIENT.
5. VIDEO RG-II GEL FILLED CABLE RUNNING IN SCH 40 CONDUIT APPROVED FOR WET LOCATION AND SUITABLE FOR MARINE AMBIENT SHALL BE USED AS BACKBONE CABLE. VIDEO RG-6U OF SIMILAR SPEC SHALL BE USED FOR EACH T-OFF.
6. ALL SHORE MOUNTED EQUIPMENT TO BE 1 ft. ABOVE BFE.

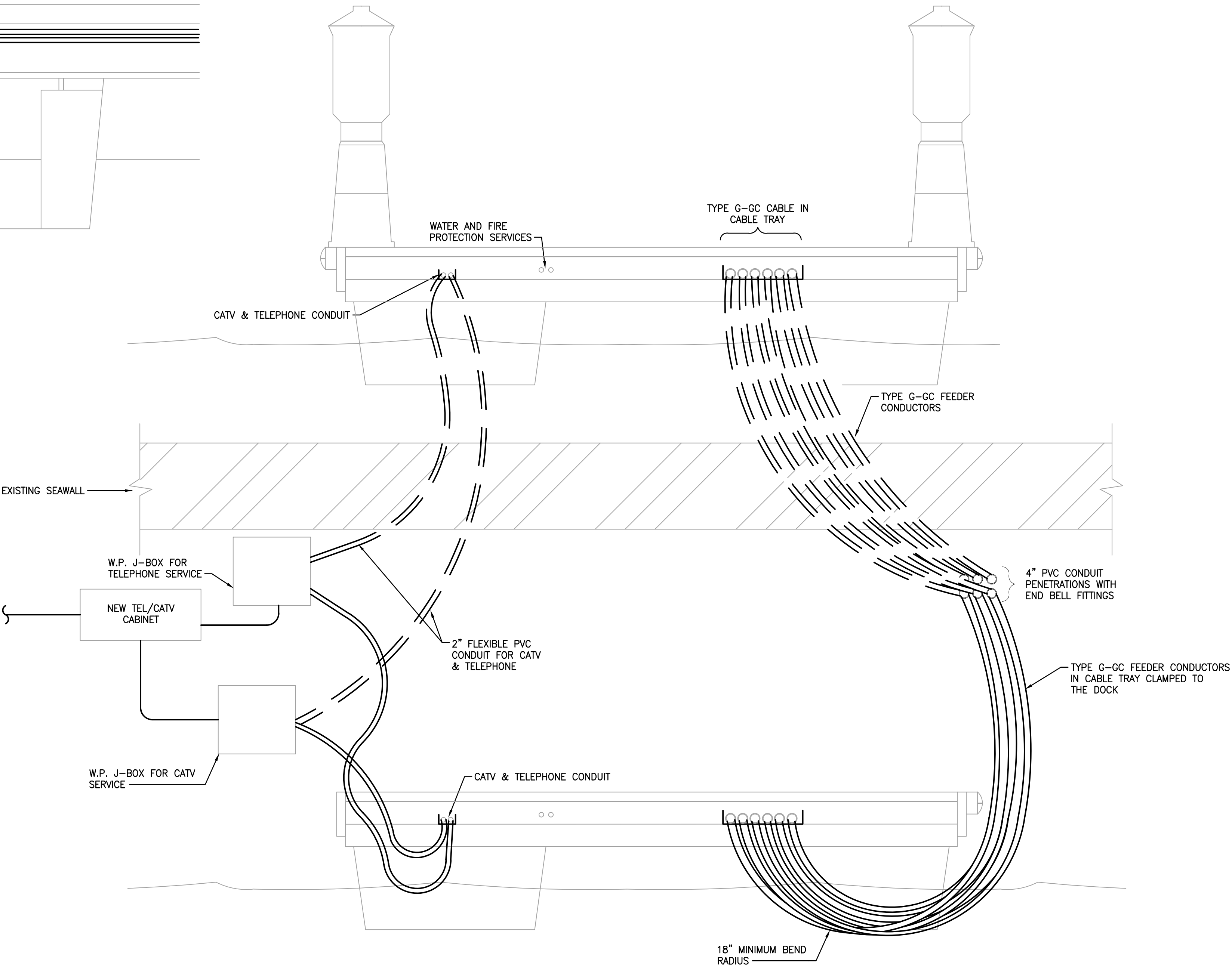
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CATV & TELEPHONE SERVICE DETAIL
N.T.S.



TELE/CATV CABINET DETAIL
NO SCALE



FLEXIBLE ELECTRICAL SERVICE CONNECTION DETAIL
NO SCALE

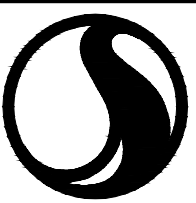
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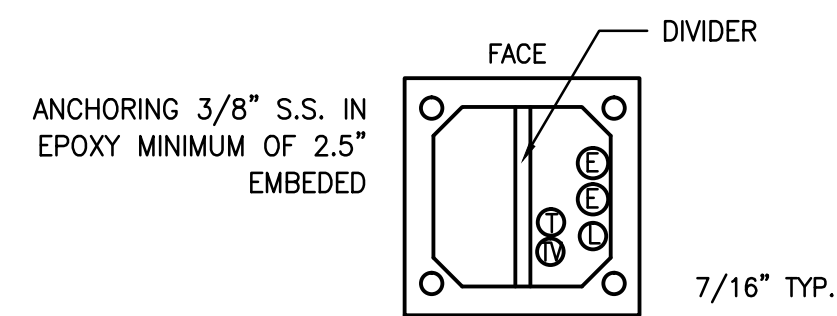


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CITY OF KEY WEST DOLPHIN PIER DOCK REPLACEMENT Key West, Florida			
File Name:	DLS Dwn.	BCB Chkd.	BCB 2017/04/20 Dsgn. YY.MM.DD

ELECTRICAL DETAILS		
Project No. 215613443	Scale NO SCALE	
Drawing No. E06	Sheet of 27	Revision

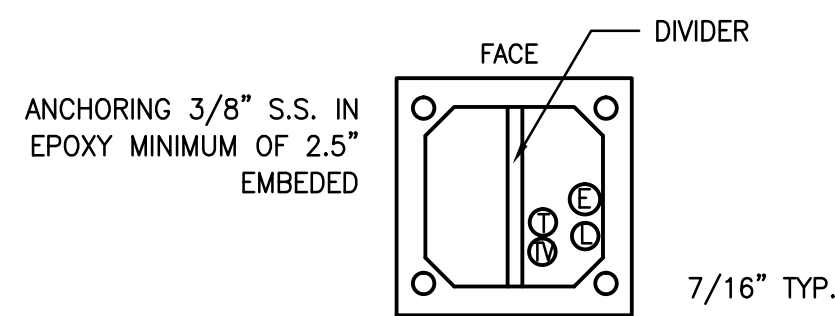


- LEGEND
- Ⓔ POWER: 3C#1/0 CABLE TYPE "G"
 - Ⓕ LIGHTING: 3C#10 CABLE TYPE "SOOW"
 - Ⓖ TELEPHONE
 - Ⓗ CATV

NOTES:
FRONT OF PEDESTAL FACES MIDDLE OF PIER.
ALL ELECTRIC TO BE TURNED UP IN THE 2.5x6" OPENING FORWARD OF THE HI/LO DIVIDER. TELE/CATV TO BE TURNED UP IN THE BACK SIDE OF THE HI/LO DIVIDER.

NOTE:
CONFIGURATION A PEDESTALS SUPPLIED BY TWO SOURCES. PROVIDE NAMEPLATE INDICATING THIS PEDESTAL SUPPLIED BY TWO SOURCES.

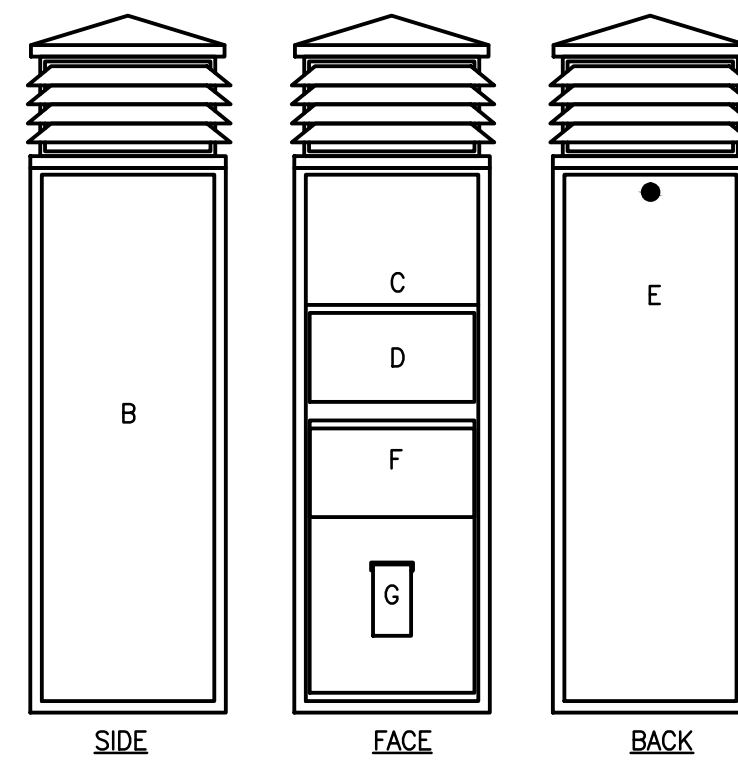
PEDESTAL BASE DETAIL
(CONFIGURATION "A")
N.T.S.



- LEGEND
- Ⓔ POWER: 3C#1/0 CABLE TYPE "G"
 - Ⓕ LIGHTING: 3C#10 CABLE TYPE "SOOW"
 - Ⓖ TELEPHONE
 - Ⓗ CATV

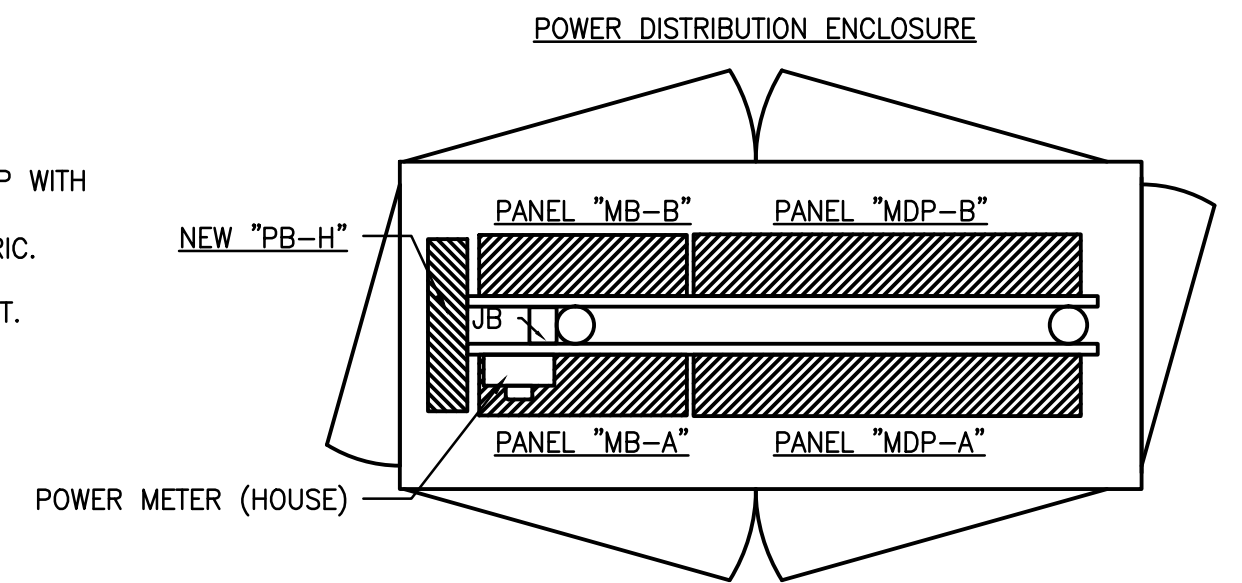
NOTES:
FRONT OF PEDESTAL FACES MIDDLE OF PIER.
ALL ELECTRIC TO BE TURNED UP IN THE 2.5x6" OPENING FORWARD OF THE HI/LO DIVIDER. TELE/CATV TO BE TURNED UP IN THE BACK SIDE OF THE HI/LO DIVIDER.

PEDESTAL BASE DETAIL
(CONFIGURATION "B")
N.T.S.

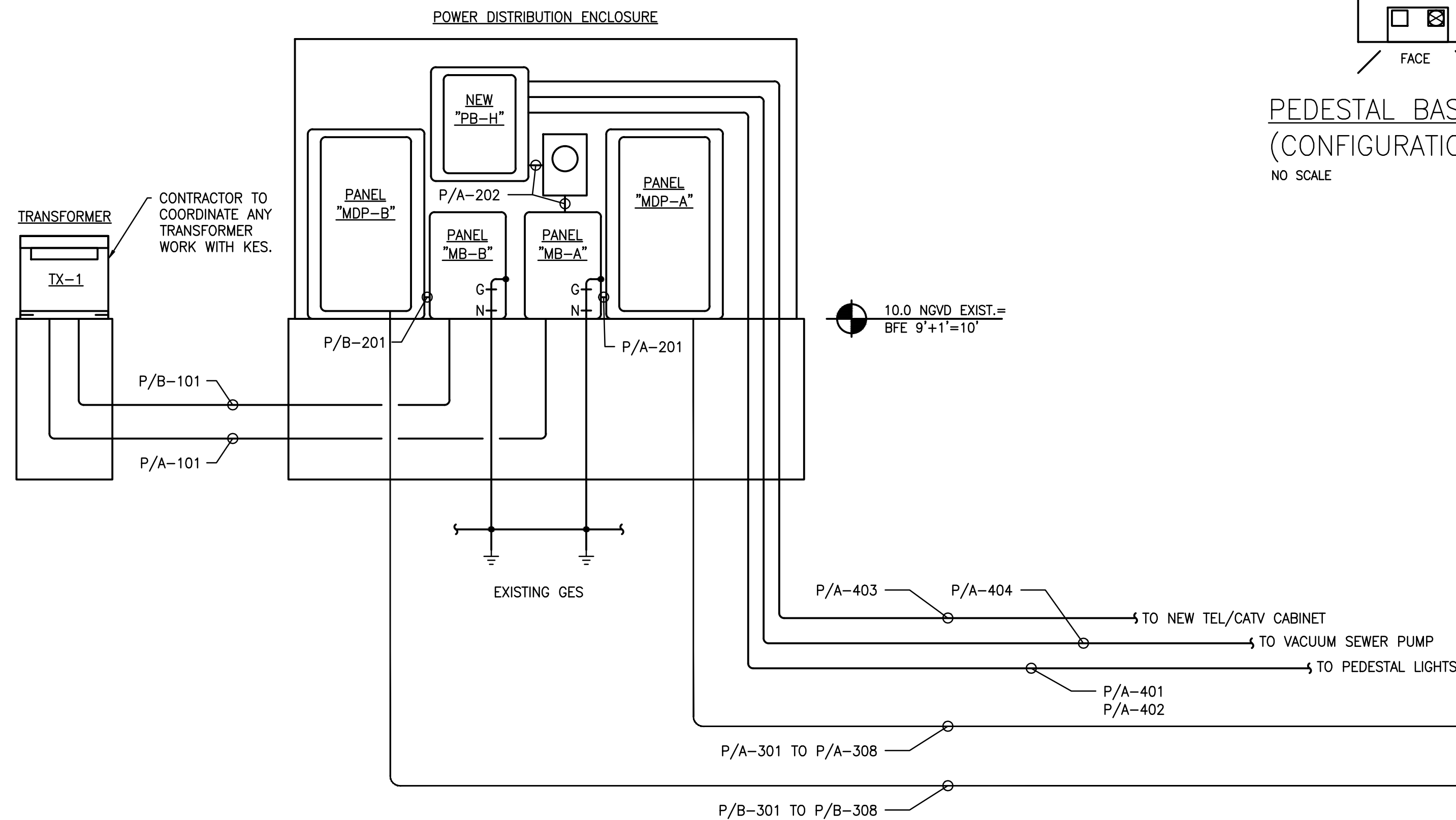


- A. FOUR TIER LOUVERED LIGHT TOP WITH (2) PL9 FLOURSCENT LAMPS.
B. SIDE ACCESS COVER TO ELECTRIC.
C. BREAKER COMPARTMENT.
D. 100A RECEPTACLE COMPARTMENT.
E. BACK ACCESS COVER
F. 20A RECEPTACLE COMPARTMENT
G. TEL/CATV DOOR.

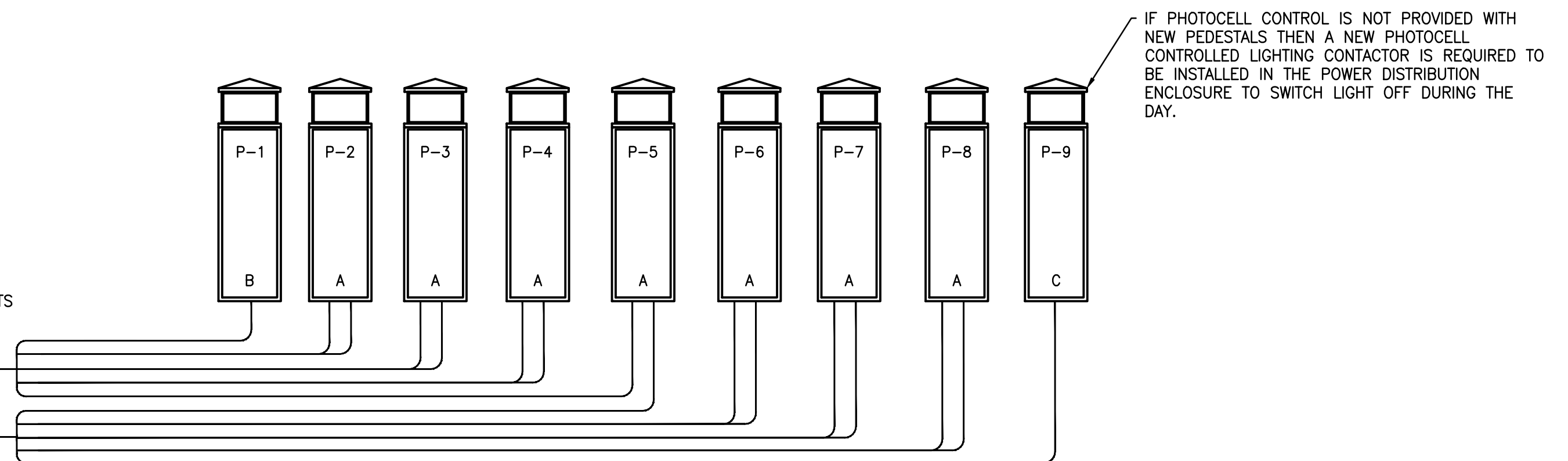
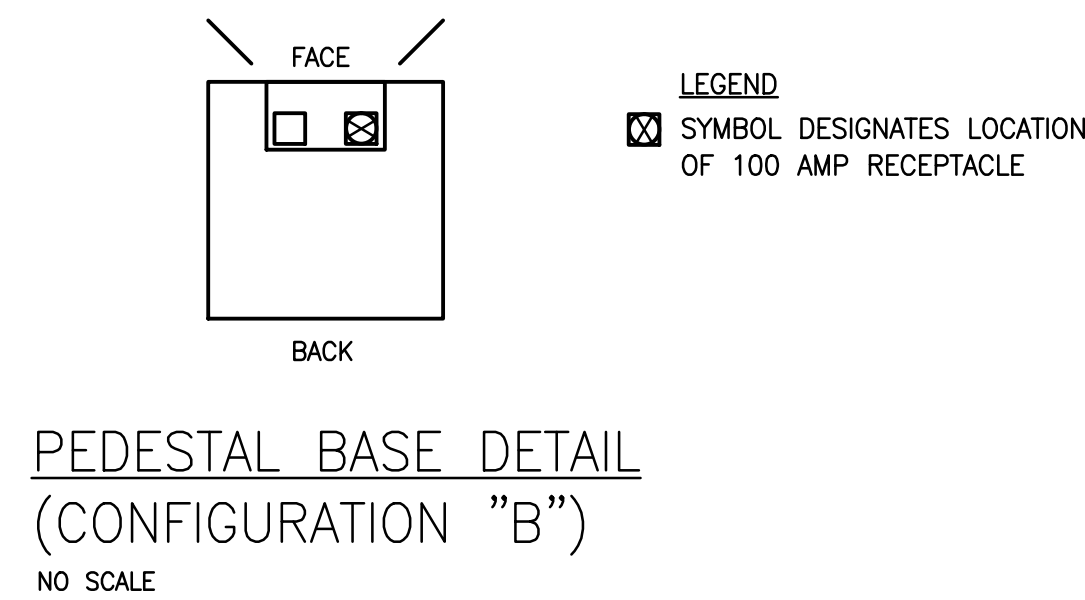
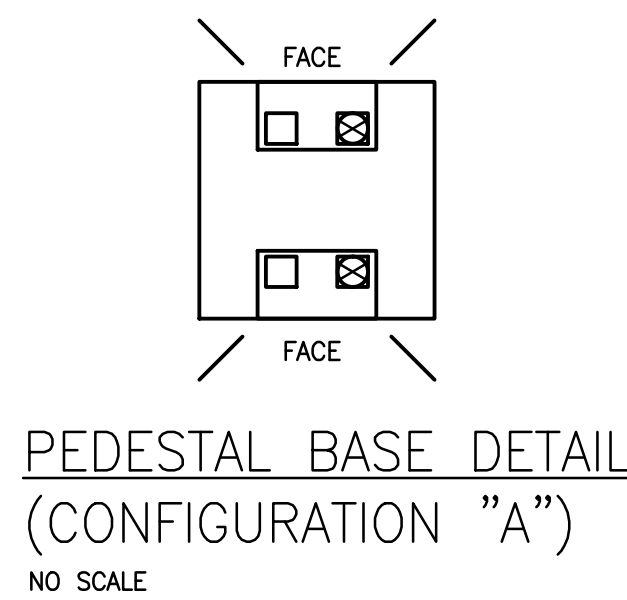
PEDESTAL DETAIL
N.T.S.



POWER SERVICE ENTRANCE
CABINET DETAIL
N.T.S.



ELECTRICAL RISER DIAGRAM
NO SCALE



IF PHOTOCELL CONTROL IS NOT PROVIDED WITH NEW PEDESTALS THEN A NEW PHOTOCELL CONTROLLED LIGHTING CONTACTOR IS REQUIRED TO BE INSTALLED IN THE POWER DISTRIBUTION ENCLOSURE TO SWITCH LIGHT OFF DURING THE DAY.

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CITY OF KEY WEST
DOLPHIN PIER DOCK REPLACEMENT
Key West, Florida

File Name: DLS BCB BCB 2017/04/20
Dwn. Chkd. Dsgn. YY.MM.DD

ELECTRICAL DETAILS

Project No. 215613443
Drawing No. E07
Scale NO SCALE
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POWER DISTRIBUTION VOLT DROP SCHEDULE												
CIRC. No. OR PANEL	SERVICING	VOLTAGE	PH	POWER FACTOR	LOAD IN AMPS.	AMBIENT TEMP(°C)	WIRE OP TEMP(°C)	FEEDER				TOTAL VOLT DROP IN %
								NUMBER	SIZE	*LENGTH IN FT.	QTY. PER PH.	
TX-1	MB-A	120/240	1	.085	752	30	75	P/A-101	2[3#500 KCMIL]	35	2	0.5%
MB-A	MDP-A	120/240	1	0.85	720	30	75	P/A-201	2[3#500 KCMIL]	3	2	0.5%
MB-A	PB-H	120/240	1	0.85	29	30	75	P/A-202	3#3 + 1#8G	3	1	0.6%
MDP-A-1	P-1	120/240	1	0.85	100	30	75	P/A-301	3#1/0 + 1#6G	44	1	1.0%
MDP-A-2	P-2	120/240	1	0.85	100	30	75	P/A-302	3#1/0 + 1#6G	88	1	1.4%
MDP-A-3	P-2	120/240	1	0.85	100	30	75	P/A-303	3#1/0 + 1#6G	88	1	1.4%
MDP-A-4	P-3	120/240	1	0.85	100	30	75	P/A-304	3#1/0 + 1#6G	134	1	1.9%
MDP-A-5	P-3	120/240	1	0.85	100	30	75	P/A-305	3#1/0 + 1#6G	134	1	1.9%
MDP-A-6	P-4	120/240	1	0.85	100	30	75	P/A-306	3#1/0 + 1#6G	183	1	2.4%
MDP-A-7	P-4	120/240	1	0.85	100	30	75	P/A-307	3#1/0 + 1#6G	183	1	2.4%
MDP-A-8	P-5	120/240	1	0.85	100	30	75	P/A-308	3#1/0 + 1#6G	210	1	2.7%
TX-1	MB-B	120/240	1	0.85	720	30	75	P/B-101	2[3#500 KCMIL]	35	2	0.5%
MB-B	MDP-B	120/240	1	0.85	720	30	75	P/B-201	2[3#500 KCMIL]	3	2	0.5%
MDP-B-1	P-5	120/240	1	0.85	100	30	75	P/B-301	3#1/0 + 1#6G	210	1	2.6%
MDP-B-2	P-6	120/240	1	0.85	100	30	75	P/B-302	3#1/0 + 1#6G	183	1	2.4%
MDP-B-3	P-6	120/240	1	0.85	100	30	75	P/B-303	3#1/0 + 1#6G	183	1	2.4%
MDP-B-4	P-7	120/240	1	0.85	100	30	75	P/B-304	3#1/0 + 1#6G	134	1	1.9%
MDP-B-5	P-7	120/240	1	0.85	100	30	75	P/B-305	3#1/0 + 1#6G	134	1	1.9%
MDP-B-6	P-8	120/240	1	0.85	100	30	75	P/B-306	3#1/0 + 1#6G	88	1	1.4%
MDP-B-7	P-8	120/240	1	0.85	100	30	75	P/B-307	3#1/0 + 1#6G	88	1	1.4%
MDP-B-8	P-9	120/240	1	0.85	100	30	75	P/B-308	3#1/0 + 1#6G	44	1	1.0%
PB-H-1	P-1 - P-5	120	1	0.85	1	30	75	P/A-401	2#12 + 1#12G	210	1	1.7%
PB-H-2	P-6 - P-9	120	1	0.85	1	30	75	P/A-402	2#12 + 1#12G	210	1	1.7%
PB-H-3	TEL/CATV	120	1	0.85	125	30	75	P/A-403	2#12 + 1#12G	30	1	2.1%
PB-H-4	SWR. PUMP	120/240	1	0.85	16	30	75	P/A-404	2#10 + 1#10G	30	1	0.9%
NOTES: 1. FEEDER LENGTHS HERE IN ARE FOR VOLTAGE DROP CALCULATION ONLY. THE REAL LENGTH SHALL BE MEASURED ON FIELD.												

POWER PEDESTAL SCHEDULE		
ID	MANUFACTURER/ MODEL NO.	QUANTITY
CONFIGURATION A	MARINA POWER COMPANY CAT. NO. PCMFS 16-E(ST)DA(GFI)-E(ST)DA(GFI)-L-2TTV-RLF-TPL(LED) OR EQUAL AS APPROVED BY OWNER	7
CONFIGURATION B	MARINA POWER COMPANY CAT. NO.: PCMFS 16-E(ST)DA(GFI)-BLANK-L-1TTV-RLF-TPL(LED) OR EQUAL AS APPROVED BY OWNER	2

LOAD CALCULATION FOR MB-A

SERVICE VOLTAGE 120/240V–1PH–3W+G
QUANTITY OF RECEPTACLES 8
DEMAND FACTOR PER NEC TABLE 555.12 IS 90%

CONNECTED LOAD
8 RECEPTACLES @ 24,000VA EACH
WITH 90% DEMAND FACTOR
PANEL "H" LOADS

= 172,800VA

= 7,606VA

180,406VA

TOTAL MDP–A LOAD
172,800VA @ 240V = 720A

TOTAL SERVICE ENTRANCE LOAD
180,406VA @ 240V = 752A

LOAD CALCULATION FOR MB-B

SERVICE VOLTAGE 120/240V–1PH–3W+G
QUANTITY OF RECEPTACLES 8
DEMAND FACTOR PER NEC TABLE 555.12 IS 90%

CONNECTED LOAD
8 RECEPTACLES @ 24,000VA EACH WITH 90% DEMAND
FACTOR= 172,800VA

TOTAL SERVICE ENTRANCE LOAD
172,800VA @ 240V = 720A

TYPE: SIEMENS POWER MOD		EXISTING METER STACK "MDP-A"			ENCLOSURE: SURFACE-NEMA 3R
VOLTAGE: 120/240V-1PH-3W					LOCATION: MARINA POWER CABINET
A.I.C.S.: 22K					FED FROM: MB-A
CIRC. No.	SERVICING	CIRCUIT BREAKER			SLIP NUMBER
		POLE	TRP	TYPE	
1	PEDESTAL P-1	2	150	QPPH	1
2	PEDESTAL P-2	2	150	QPPH	2
3	PEDESTAL P-2	2	150	QPPH	3
4	PEDESTAL P-3	2	150	QPPH	4
5	PEDESTAL P-3	2	150	QPPH	5
6	PEDESTAL P-4	2	150	QPPH	6
7	PEDESTAL P-4	2	150	QPPH	7
8	PEDESTAL P-5	2	150	QPPH	8
NOTES:					
1. SEE LOAD CALCULATION ON THIS SHEET					
2. FOR FEEDER SIZE SEE VOLTAGE DROP SCHEDULE ON THIS SHEET					

TYPE: SIEMENS POWER MOD		EXISTING METER STACK "MDP-B"			ENCLOSURE: SURFACE-NEMA 3R
VOLTAGE: 120/240V-1PH-3W					LOCATION: MARINA POWER CABINET
A.I.C.S.: 22K					FED FROM: MB-B
CIRC. No.	SERVICING	CIRCUIT BREAKER			SLIP NUMBER
		POLE	TRP	TYPE	
1	PEDESTAL P-5	2	150	QPPH	9
2	PEDESTAL P-6	2	150	QPPH	10
3	PEDESTAL P-6	2	150	QPPH	11
4	PEDESTAL P-7	2	150	QPPH	12
5	PEDESTAL P-7	2	150	QPPH	13
6	PEDESTAL P-8	2	150	QPPH	14
7	PEDESTAL P-8	2	150	QPPH	15
8	PEDESTAL P-9	2	150	QPPH	16
NOTES:					
1. SEE LOAD CALCULATION ON THIS SHEET					
2. FOR FEEDER SIZE SEE VOLTAGE DROP SCHEDULE ON THIS SHEET					

TYPE: SIEMENS TYPE LOAD CENTER		NEW PANEL "PB-H"			MODIFICATION: GROUND BUS	
VOLTAGE: 120/240V-1PH-3W					ENCLOSURE: SURFACE-NEMA 1	
MAINS: 100A. M.B. TYPE "QJ2H"					LOCATION: MARINA POWER Co. CABINET	
A.I.C.S.: 25K					FED FROM: PAD TRANSFORMER	
CIRC. No.	SERVICING	CIRCUIT BREAKER			LOAD IN VA	
		POLE	TRP	TYPE	Ø A	Ø B
1	PEDESTAL LTG.	1	20	QP	45	-
2	PEDESTAL LTG.	1	20	QP	-	36
3	TEL/CATV SYSTEM	1	20	QP	1500	-
4	VACUUM SEWER PUMP	2	20	QP	1920	1920
5	SPACE ONLY	1	20	QP	-	-
6	SPACE ONLY	1	-	-	-	-
7	SPACE ONLY	1	-	-	-	-
8	SPACE ONLY	1	-	-	-	-
		TOTAL VA :			3465	1956
		TOTAL PHASE AMPS:			28.9	16.3
NOTES:						
THIS PANEL IS SUITABLE FOR SERVICE ENTRANCE AND EQUIPPED WITH INTEGRAL MAIN CIRCUIT BREAKER. THIS MAIN C/B AND BRANCH C/B ARE IN SERIES SHORT CIRCUIT CURRENT RATING.						

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REGISTERED ENGINEER NO. 81692
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DOLPHIN PIER DOCK REPLACEMENT
Key West, Florida

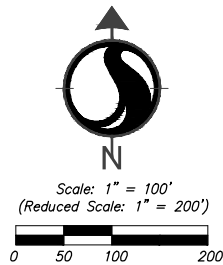
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ELECTRICAL SCHEDULES

Project No. 215613443
Scale NO SCALE

Drawing No. E08
Sheet of 27
Revision

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2017/04/24 2:45 PM By: Morales, Rod



GENERAL NOTES:

- 1. EXISTING FIRE PUMP HOUSE INCLUDES ONE PATTERSON PUMP CO. VERTICAL IN-LINE PUMP MODEL 5x3 500 gpm @ 162 Ft.TH (70 psi) WITH 30 hp MOTOR rpm.
- 2. DEPTHS REFERENCE MEAN LOW WATER PER DEP TIDE STATION 872-4542. MEAN HIGH WATER EL. -0.23' NGVD29; MEAN LOW @ -1.24' NGVD29.



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Seal

EDWARD J. DVORACK, P.E.
REGISTERED ENGINEER NO. 40961
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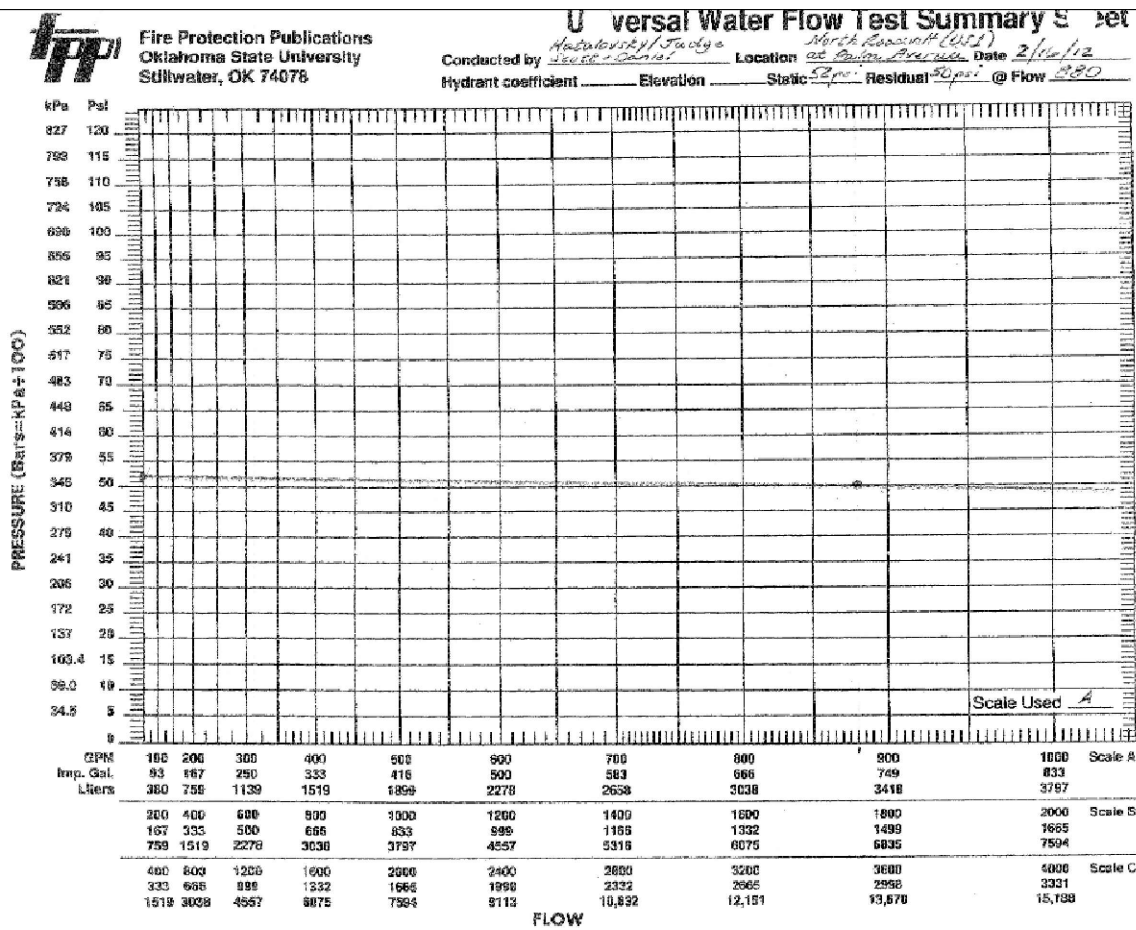
CITY OF KEY WEST
DOLPHIN PIER DOCK REPLACEMENT
Key West, Florida

File Name:	DLS	BCB	BCB	2017/04/20
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FIRE PROTECTION SITE PLAN

Project No.	Scale	
215613443		
Drawing No.	Sheet	Revision
FP01	of 27	

FIRE HYDRANT FLOW TEST SUMMARY



DRAWING SYMBOLS

1
FP03

PLAN OR DIAGRAM DESIGNATION

A
FP04

SECTION DESIGNATION

PLAN NORTH

GRAPHIC SCALE

FW

PW

POTABLE WATER PIPE

SW

SANITARY VACUUM PIPE

PIPE TURN UP

PIPE TURN DOWN

RISE OR DROP IN PIPE

SIDE CONNECTION

BOTTOM CONNECTION

TOP CONNECTION

CROSS BOTTOM CONNECTION

CHECK VALVE

BALL VALVE

HICO

SEWER CLEANOUT

KEYED NOTE

REVISION NUMBER

CONNECT TO EXISTING

POTABLE WATER AND SANITARY SEWER DCK BOX

FIRE EXTINGUISHER CABINET

FIRE HOSE CABINET

ELECTRICAL POWER PEDESTAL

ELECTRICAL DISTRIBUTION PANEL

EXISTING

HOSE BIBB

FIRE PROTECTION DESIGN

DOLPHIN PIER, GARRISON BIGHT MARINA KEY WEST, FL

A. GIVEN: CITY WATER PRESSURE IS 53 psig

B. FIRE PUMP DELIVERS ≈ 100 gpm @ 81 psig TH [booster PS]
ADD PRESSURES 53+81= 134 psig AVAILABLE

C. SYSTEM HEAD LOSSES:

1. 640 FT 4" PIPE

= 1.35 psi

[$h_f = 0.21$ psi/100 ft]

2. 170 FT 3" + 3" = 4" PIPE*

= 0.36 psi

[$h_f = 0.21$ psi/100 ft]

3. 75 FT 1.5" HOSE

= 18.75 psi

4. BRASS NOZZLE

= 2.0 psi

5. ACCESSORIES

= 2.0 psi

TOTAL HEAD LOSS

= 25 psi

D. SUMMATION

134psi - 25 psig

= 109psig > 100psig OKAY

*TWO 3" PIPES ARE EQUAL TO ONE 4" PIPE HYDRAULICALLY.

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EDWARD J. DVORACK, P.E.
REGISTERED ENGINEER NO. 40961
STATE OF FLORIDA

Consultants

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CITY OF KEY WEST
DOLPHIN PIER DOCK REPLACEMENT
Key West, Florida

File Name: _____
DLS BCB BCB 2017/04/20
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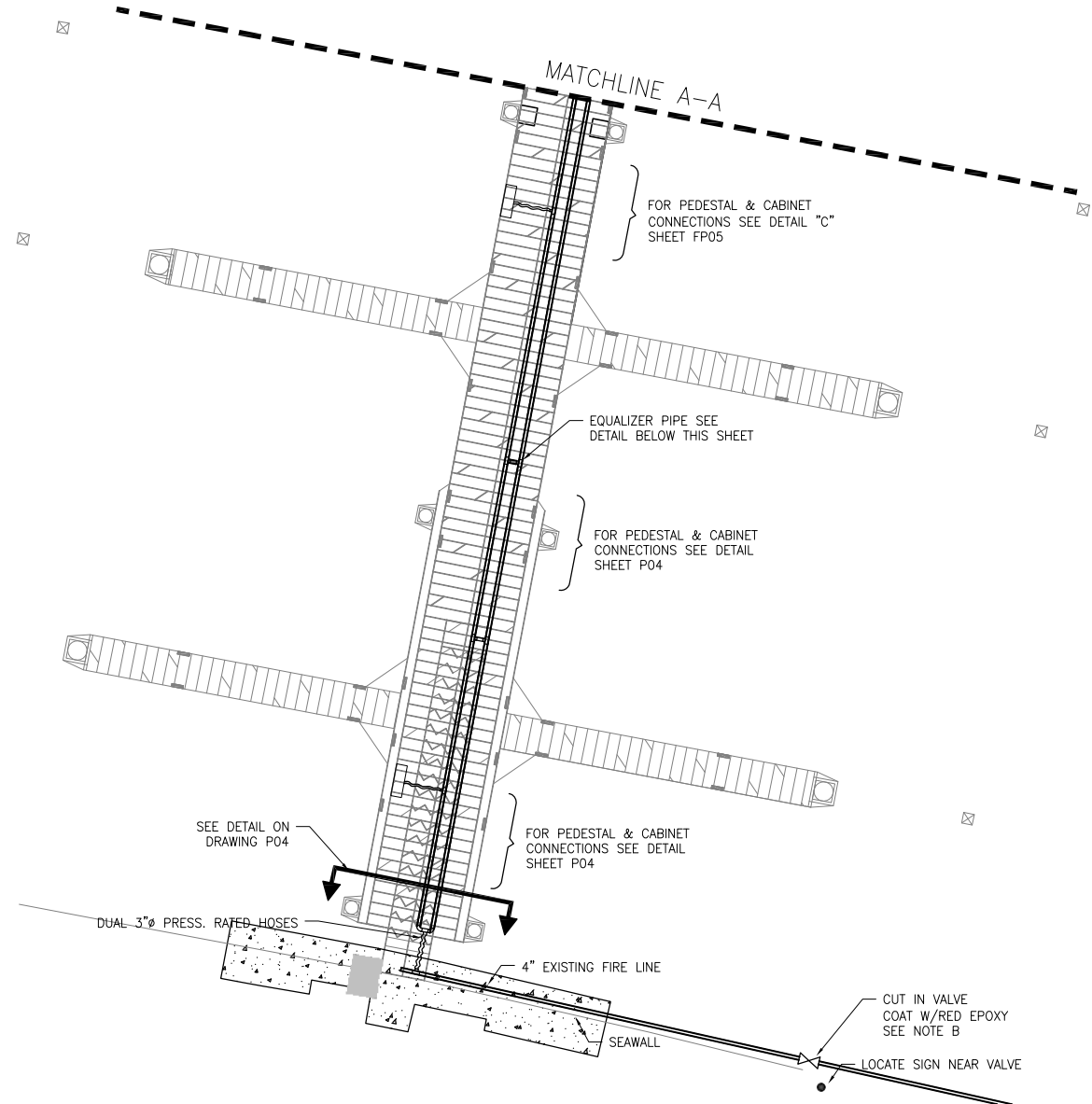
FIRE PROTECTION LEGEND

Project No. 215613443
Drawing No. FP02

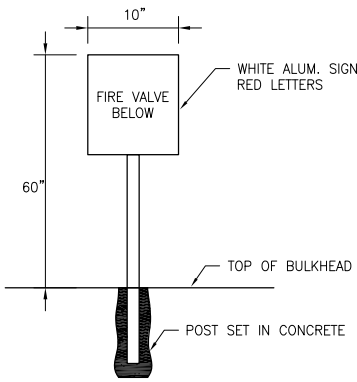
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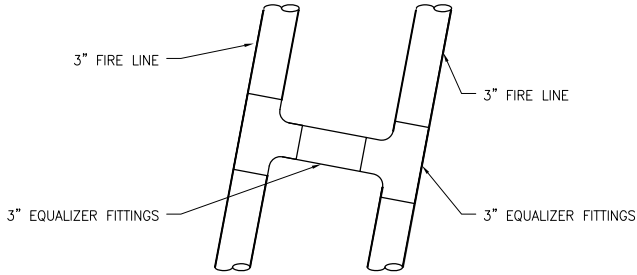
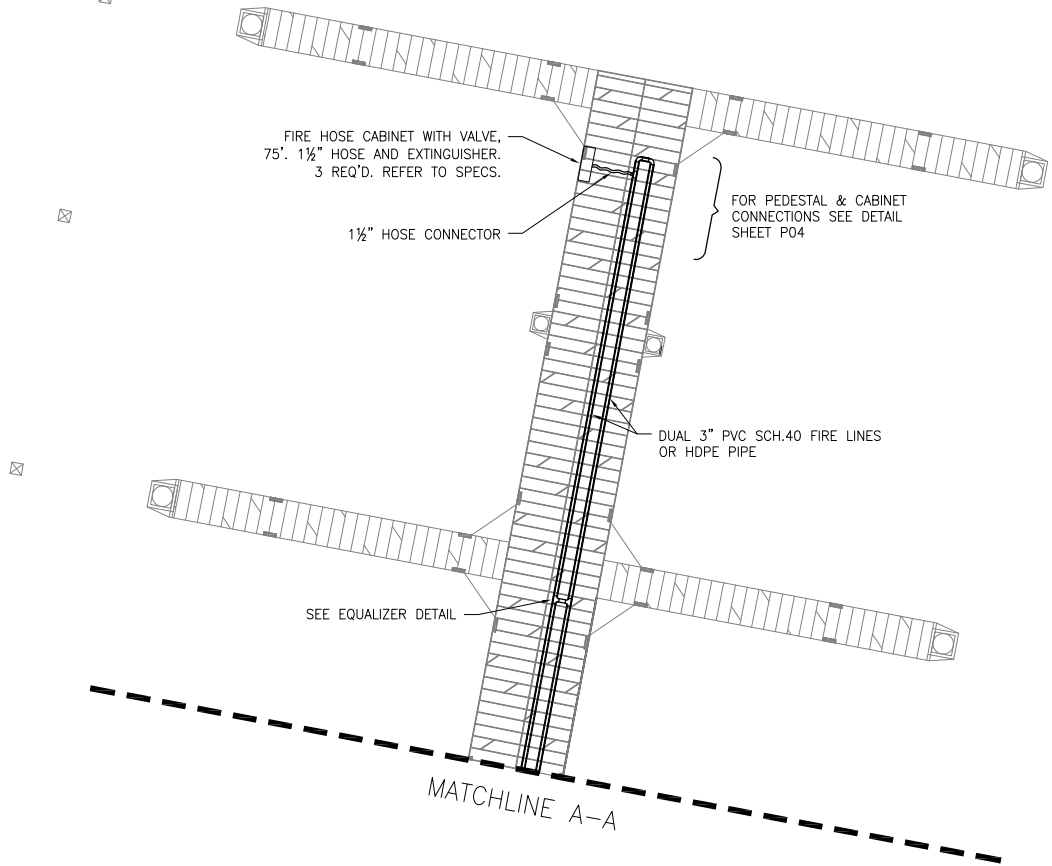
- GENERAL NOTES:
- A. ALL DEPTHS REFERENCE MEAN LOW WATER PER DEP TIDE STATION 872-4542. MEAN HIGH WATER EL.-0.23' NGVD29; MEAN LOW @ -1.24' NGVD29.
 - B. INSTALL 4" BUTTERFLY VALVE UL & FM LISTED WITH RESTRAINED JOINT COUPLINGS, BOTH SIDES. PROVIDE EPOXY COATING TO EXTERIOR OF VALVE BODY. PROVIDE WHEEL STYLE HANDLE AND S.S. CHAIN TO LOCK IN OPEN POSITION.



FIRE PROTECTION PLAN
SCALE: 1" = 10'
(REDUCED SCALE: 1" = 20')



SIGN DETAIL
SCALE: N.T.S.



3" PIPE EQUALIZER DETAIL
SCALE: N.T.S.

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DOLPHIN PIER DOCK REPLACEMENT
Key West, Florida

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FIRE PROTECTION SITE PLAN

Project No. 215613443

Drawing No. FP04

Scale 1"=10' 0' 5' 10' 15' 20'

Sheet Revision

of 27

PLUMBING DESIGN

SAILFISH PIER, GARRISON BIGHT MARINA KEY WEST, FL

A. GIVEN: 16 SLIPS, ASSUME 8@ 2-2 AND 8@ 2-1

B. USE HUNTER’S METHOD = CURVE [PLUMBING DESIGN]

HOUSE BOAT 2 BED 2 BATH	FU
K. SINK 1	2
LAV. 2	2
WATER CLOSET (TANK) 2	6
SHOWER 2	4
	14

HOUSE BOAT 2 BED 1 BATH	FU
K. SINK 1	2
LAV. 1	1
WATER CLOSET (TANK) 1	3
SHOWER 1	2
	8

C. TOTAL FU: 8 SLIPS X 14= 112 FU
8 SLIPS X 8= 64 FU
176 FU

PER HUNTER CURVE= 60 gpm (DEMAND) TOTAL

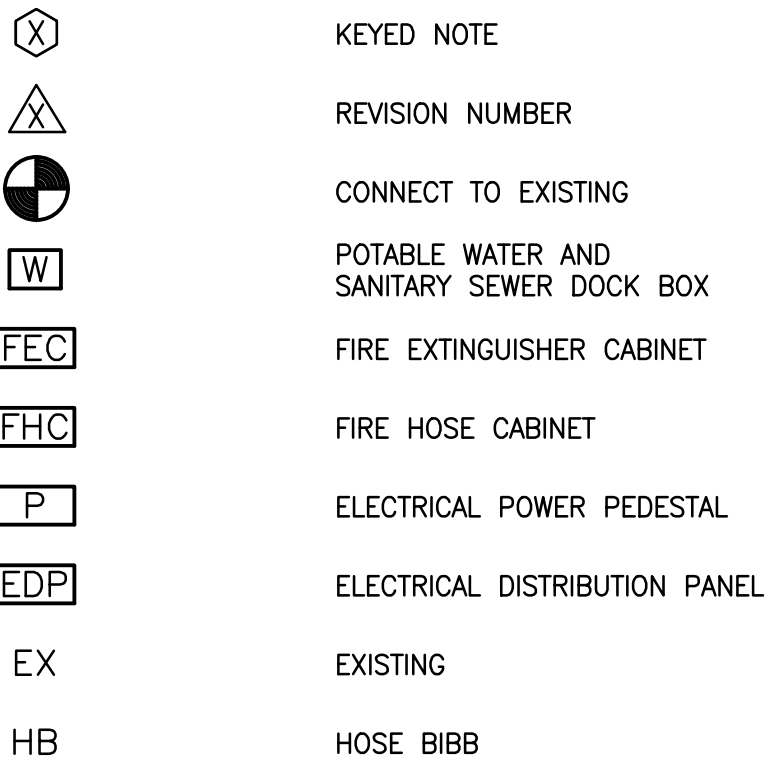
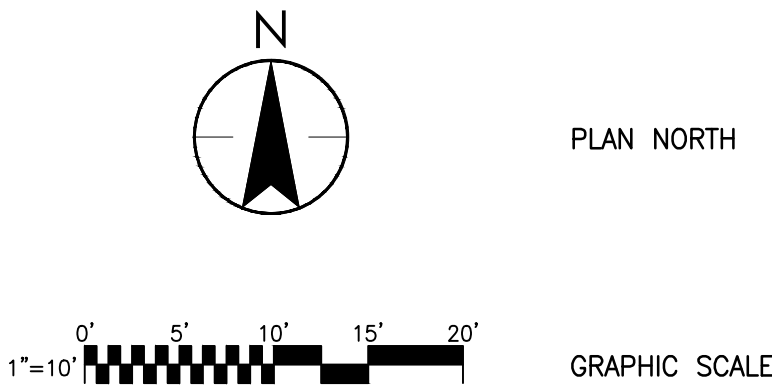
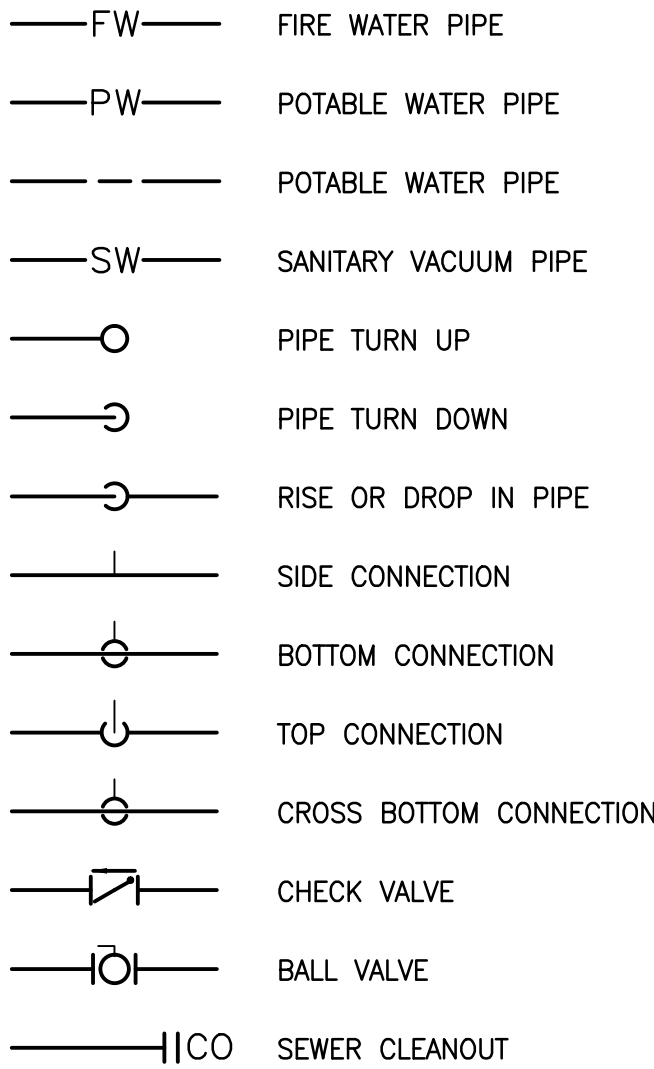
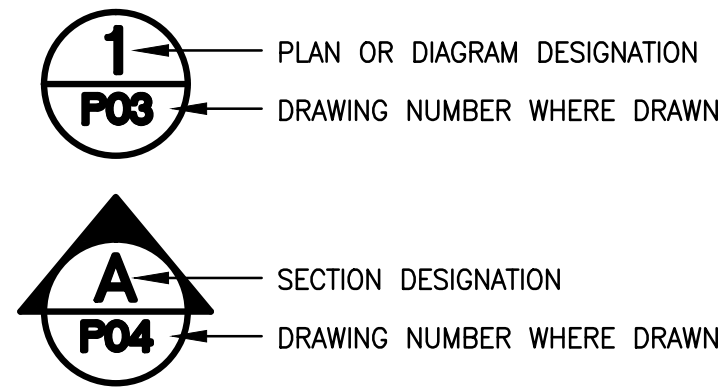
D. PER HYDRAULIC TABLES

FOR 60 gpm USE 2” PE PIPE VELOCITY= 5.7 < 8fps OKAY.

E. SERVICE SIZING=
DUAL= 28 FU 20 gpm
PROVIDE 1” DIA. SERVICE PIPE

SINGLE= 14 FU= 11 gpm
PROVIDE 3/4” DIA. SERVICE PIPE

DRAWING SYMBOLS



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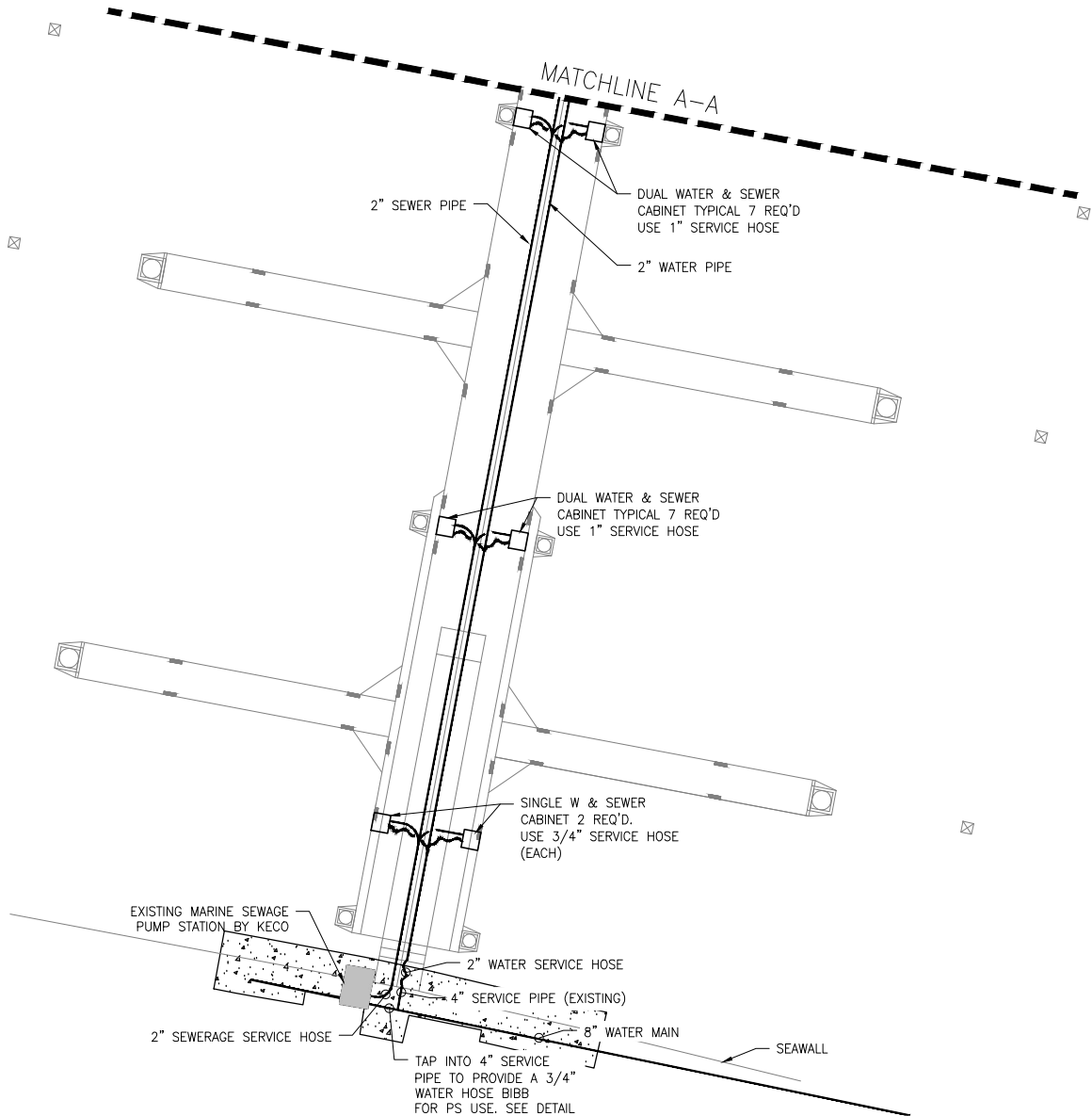
PLUMBING LEGEND		
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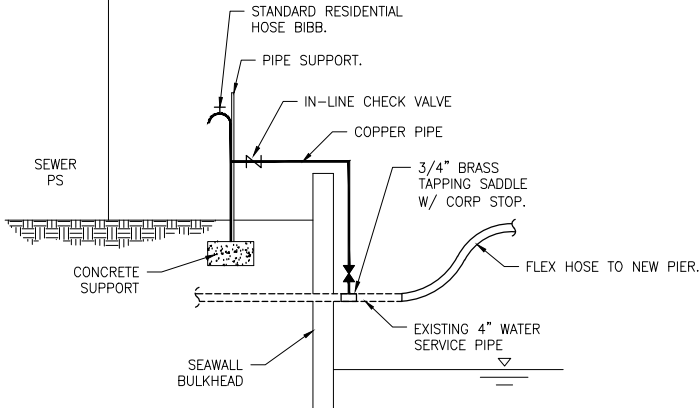
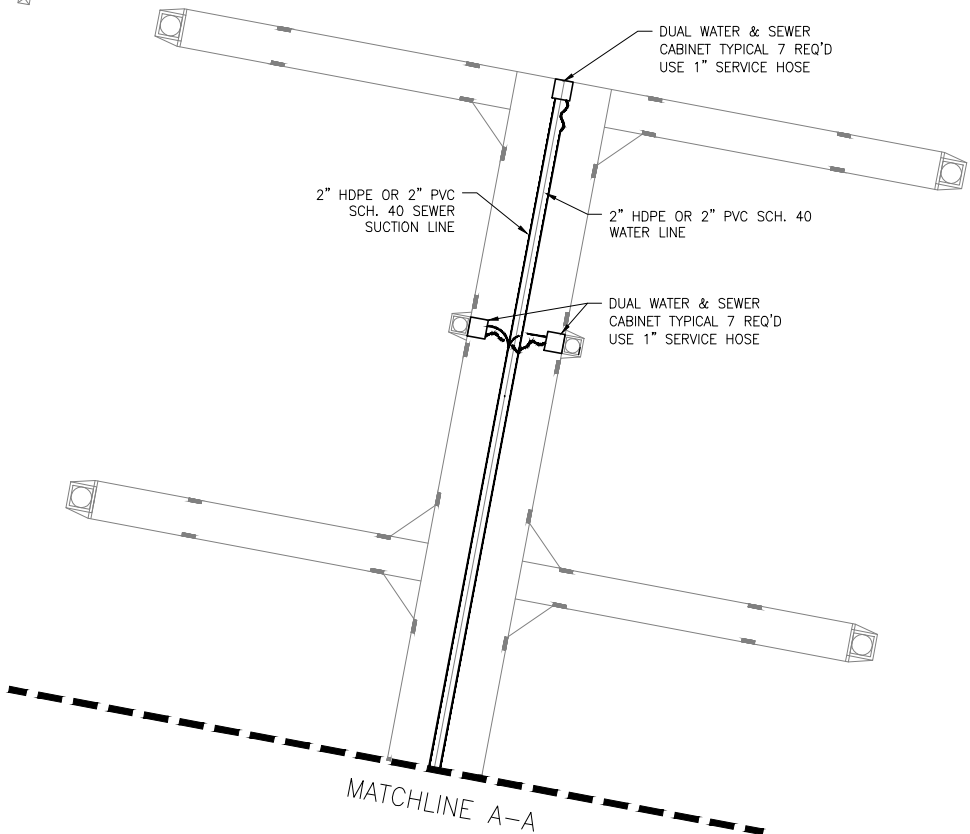
PLUMBING SYSTEM SPECIFICATIONS				PRESSURE RATINGS:				AN EQUIVALENT HOSE PRODUCT BY ALTERNATIVE MANUFACTURERS SHALL BE ACCEPTABLE.				AND OPERATIONS PRIOR TO EQUIPMENT INSTALLATION.				RETEST SYSTEM OR PORTION THEREOF UNTIL SATISFACTORY RESULTS ARE OBTAINED			
PART 1 – GENERAL REQUIREMENTS				WATER DISTRIBUTION SYSTEMS: 125 PSIG.				B.ELBOWS, FLANGES AND ACCESSORIES SHALL BE 316 STAINLESS STEEL CONSTRUCTION INCLUDING PLATES, BOLTS, WASHERS, NUTS AND OTHER COMPONENTS AS MAY BE REQUIRED.				B.IDENTIFY EXACT LOCATIONS OF EXISTING SERVICES TO BE REUSED.				D.PREPARE REPORTS FOR TESTS AND REQUIRED CORRECTIVE ACTION.			
1.1 SYSTEM DESCRIPTION				C.INSTALL PLUMBING SYSTEMS IN A NEAT AND WORKMANLIKE MANNER UTILIZING PERSONNEL LICENSED AND SKILLED IN THE TRADES.				2.3 PLUMBING VALVES AND ACCESSORIES				3.3 INSTALLATION OF PIPING				3.9 CLEANING			
A.DOLPHIN PIER PLUMBING SYSTEMS SHALL CONSIST OF POTABLE WATER DISTRIBUTION AND SANITARY VACUUM EXTENDED FROM EXISTING LANDSIDE UTILITIES AND SHALL INCLUDE POTABLE WATER AND SANITARY SEWER DOCK CABINETS.				1.8 WARRANTY				A.PROVIDE AN UNCONDITIONAL WARRANTY FROM FAILURE AND/OR DEFECTS ON ALL PRODUCTS AND WORKMANSHIP PROVIDED FOR THIS PROJECT FOR A MINIMUM OF ONE (1) YEAR FROM DATE OF SUBSTANTIAL COMPLETION.				A.USE PIPE, FITTINGS AND JOINING METHODS FOR PIPING SYSTEMS ACCORDING TO THE FOLLOWING APPLICATIONS:				A.PURGE NEW POTABLE WATER DISTRIBUTION PIPING SYSTEMS PRIOR TO USE.			
1.2 SUMMARY OF WORK				1.9 DELIVERY AND STORAGE				A.HANDLE, STORE AND PROTECT EQUIPMENT AND MATERIALS IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. REPLACE DAMAGED OR DEFECTIVE ITEMS WITH NEW ITEMS.				B.INSTALL PIPING AT RIGHT ANGLES OR PARALLEL TO SEAWALLS AND FRAMING MEMBERS.				B.USE PURGING AND DISINFECTING PROCEDURE PRESCRIBED BY AUTHORITY HAVING JURISDICTION OR, IF A METHOD IS NOT PRESCRIBED BY THAT AUTHORITY, THE PROCEDURE DESCRIBED IN EITHER AWWA C651 OR AWWA C652 OR AS DESCRIBED BELOW:			
A.NEW CONSTRUCTION WORK SHALL INCLUDE BUT IS NOT LIMITED TO PROVIDING COMPLETE NEW POTABLE WATER DISTRIBUTION SYSTEMS AND SANITARY VACUUM SYSTEMS AS DESCRIBED IN THESE SPECIFICATIONS AND DRAWINGS FOR THE PROPOSED PIER.				1.10 DEMOLITION, CUTTING AND PATCHING				A.PROTECT ALL EXISTING ACTIVE SERVICES AGAINST DAMAGE INCLUDING WATER, ELECTRIC, SEWER, ETC., IN AREAS OF PROPOSED CONSTRUCTION. IF ACTIVE SERVICES ARE ENCOUNTERED THAT REQUIRE RELOCATION, MAKE REQUEST TO OWNER FOR DETERMINATION OF PROCEDURES.				C.INSTALL FITTINGS FOR CHANGES IN DIRECTION AND BRANCH CONNECTIONS. USE LONG SWEEP FITTINGS FOR SANITARY VACUUM PIPING.				FLUSH PIPING SYSTEM WITH CLEAN, POTABLE WATER UNTIL DIRTY WATER DOES NOT APPEAR AT OUTLETS. FILL SYSTEM OR PART THEREOF WITH WATER/CHLORINE SOLUTION CONTAINING AT LEAST 50 PARTS PER MILLION OF CHLORINE. ISOLATE (VALVE OFF) AND ALLOW TO STAND FOR 24 HOURS. PROVIDE PROPER SIGNAGE TO PREVENT ACCIDENTAL USE DURING DISINFECTION. DRAIN SYSTEM OR PART THEREOF OF PREVIOUS SOLUTION AND REFILL WITH WATER/CHLORINE SOLUTION CONTAINING AT LEAST 200 PARTS PER MILLION OF CHLORINE. ISOLATE AND ALLOW TO STAND FOR 3 HOURS. FLUSH SYSTEM WITH CLEAN, POTABLE WATER UNTIL CHLORINE DOES NOT REMAIN IN WATER COMING FROM SYSTEM FOLLOWING ALLOWED STANDING TIME.			
B.BIDS SHALL INCLUDE AS A MINIMUM ALL LABOR, TOOLS, MATERIALS, PLANT, TRANSPORTATION, TAXES, RELATED ITEMS, ETC., ESSENTIAL FOR DEMOLISHING EXISTING WORK AND FURNISHING, INSTALLING, OPERATING AND TESTING OF THE PROPOSED NEW WORK.				A.REMOVE AND DISPOSE OF PROPERLY OFF-SITE, ALL ABANDONED PLUMBING PIPING, VALVES, PIPE SUPPORTS, EQUIPMENT, ETC., RENDERED OBSOLETE BY WORK OF THIS PROJECT.				B.CABINETS SHALL BE COMPLETE WITH A TAPERED ALUMINIUM TOP AND SHALL INCLUDE TYPE 316 STAINLESS STEEL HINGES AND LATCH. THE TWO SIDE FACES OF THE CABINET SHALL EACH HAVE ALUMINIUM HOSE HANGERS. ALUMINIUM COMPONENTS SHALL BE CONSTRUCTED AND FINISHED AS DESCRIBED ABOVE. CABINET SHALL HAVE FLANGES OR MOUNTING PLATES AS SUITABLE FOR MECHANICALLY FASTENING THE UNIT TO THE SURFACE OF THE DECK.				D.INSTALL PIPING AND HOSES IN STRICT ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS AND RECOMMENDATIONS.				C.SUBMIT WATER SAMPLES IN STERILE BOTTLES TO AUTHORITY HAVING JURISDICTION. REPEAT PROCEDURE IF BIOLOGICAL EXAMINATION MADE BY THE AUTHORITY SHOWS EVIDENCE OF CONTAMINATION. PROVIDE 2 CONSECUTIVE DAYS OF APPROVED BACTERIOLOGICAL TEST.			
1.3 EXAMINATION OF DOCUMENTS				C.PROVIDE ALL NECESSARY CUTTING AND PATCHING REQUIRED IN CONNECTION WITH PLUMBING WORK. COORDINATE WITH AND OBTAIN WRITTEN APPROVAL FROM THE MARINE CONTRACTOR FOR ALL PROPOSED CUTTING AND PATCHING PRIOR TO COMMENCEMENT OF WORK. SAWCUT EXISTING PAVEMENT OR CONCRETE AND EXCAVATE AS REQUIRED FOR INSTALLATION OF UNDERGROUND PIPING. BACKFILL AND COMPACT SOIL AND PROVIDE FINISHED SURFACES TO MATCH ADJACENT MATERIALS AND CONSTRUCTION.				2.4 POTABLE WATER AND SANITARY SEWER CABINET				D.INSTALL PIPING AND HOSES IN STRICT ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS AND RECOMMENDATIONS.				D.PREPARE AND SUBMIT REPORTS FOR PURGING AND DISINFECTING ACTIVITIES.			
A.THE INTENT OF THE DRAWINGS AND SPECIFICATIONS IS TO ESTABLISH TYPE AND QUALITY OF MATERIALS AND A GENERAL LAYOUT AND LOCATION OF COMPONENTS THAT COMPRISE THE PLUMBING SYSTEMS. THEY ARE NOT INTENDED TO SHOW IN MINUTE DETAIL EVERY OR ALL ACCESSORIES INTENDED FOR THE PURPOSES OF EXECUTING THE WORK, BUT IT IS UNDERSTOOD THAT SUCH DETAILS ARE PART OF THE PROJECT SCOPE.				1.11 CLEANING				A.CLEAR AWAY ALL DEBRIS, SURPLUS MATERIALS, ETC., RESULTING FROM PLUMBING SYSTEM INSTALLATION WORK AND OPERATIONS. LEAVE THE JOB AND EQUIPMENT PROVIDED UNDER CONTRACT IN A CLEAN AND FIRST-CLASS CONDITION.				4.0 INSTALLATION OF PIPE SUPPORTS							
B.WHERE CONFLICTS EXIST BETWEEN DRAWINGS AND SPECIFICATIONS THE MOST STRINGENT REQUIREMENTS SHALL APPLY.				1.12 TEST AND DEMONSTRATIONS				A. PERFORM TESTS OF THE PLUMBING SYSTEMS AS SPECIFIED HEREIN. REPEAT AS REQUIRED UNTIL PROVEN ACCEPTABLE TO THE ENGINEER, OWNER AND AUTHORITY HAVING JURISDICTION. PROVIDE ALL GAUGES, TOOLS, PUMPS, GAS, AIR OR OTHER REQUIRED EQUIPMENT OR MATERIALS.				A.INSTALL SUPPORTS, ANCHORS AND FASTENERS FOR PLUMBING SYSTEMS IN ACCORDANCE WITH THE FLORIDA PLUMBING CODE AND PIPE MANUFACTURERS WRITTEN INSTALLATION INSTRUCTIONS. SEE PLANS FOR ADDITIONAL REQUIREMENTS. MINIMUM SUPPORT REQUIREMENTS SHALL BE AS INDICATED IN THE FOLLOWING SCHEDULE:							
1.4 CODES AND STANDARDS				1.13 RECORD DOCUMENTS				A.MAINTAIN AT THE JOB SITE ONE SET OF PRINTS ON WHICH ARE RECORDED ALL FIELD CHANGES AND OTHER PORTIONS OF THE PLUMBING SYSTEM WORK THAT VARY FROM THE CONTRACT DOCUMENTS. INDICATE ACTUAL PIPE SYSTEM ROUTING AND INSTALLED ACCESSORIES AND DEVICES.				PIPE SIZE				SUPPORT SPACING			
A.FURNISH AND INSTALL PLUMBING SYSTEMS TO MEET ALL CURRENT REQUIREMENTS OF NATIONAL, STATE AND MUNICIPAL CODES, RULES, REGULATIONS, LAWS, AND STANDARDS AS THEY ARE ADOPTED BY THE GOVERNING AGENCY AND AS THEY MAY APPLY.				A.MAINTAIN AT THE JOB SITE ONE SET OF PRINTS ON WHICH ARE RECORDED ALL FIELD CHANGES AND OTHER PORTIONS OF THE PLUMBING SYSTEM WORK THAT VARY FROM THE CONTRACT DOCUMENTS. INDICATE ACTUAL PIPE SYSTEM ROUTING AND INSTALLED ACCESSORIES AND DEVICES.				B.PROVIDE AS-BUILT RECORD DRAWINGS TO THE OWNER AT THE COMPLETION OF THE PROJECT.				2" DIAMETER AND SMALLER				36" MAXIMUM			
FLORIDA BUILDING CODE, BUILDING 2014EDITION				PART 2 – PRODUCT REQUIREMENTS				2.1 PIPING, FITTINGS, AND JOINING MATERIAL				2½" DIAMETER AND LARGER				48" MAXIMUM			
FLORIDA BUILDING CODE, PLUMBING 2014 EDITION				B.POLY (VINYL CHLORIDE) (PVC) PLASTIC PIPE: ASTM D 2665, SCHEDULE 40, PLAIN ENDS, SOCKET TYPE FITTINGS AND ASTM D 2564 SOLVENT CEMENT.				B.COORDINATE WITH ALL TRADES IN SUBMITTAL OF SHOP DRAWINGS AND FOR SPACE REQUIREMENTS. IF WORK IS INSTALLED PRIOR TO COORDINATION WITH OTHER TRADES WHICH INTERFERES WITH RELATED WORK, MAKE ALL NECESSARY CHANGES TO CORRECT THE CONDITION AT NO ADDITIONAL COST TO THE OWNER.				5.052, 090 GAUGE, MARINE GRADE ALUMINIUM CONSTRUCTION WITH WELDED JOINTS AND POWDER COATED GLOSS WHITE FINISH INSIDE AND OUTSIDE. CABINET SIZE SHALL BE DESIGNED TO ACCOMMODATE TWO WATER SUPPLY ASSEMBLIES AND TWO SANITARY VACUUM ASSEMBLIES EXCEPT WHERE SERVING A SINGLE SLIP AS INDICATED ON THE PLANS. PRODUCT SHALL BE SIMILAR TO EXISTING CABINETS ON THE KINGFISH PIER AND TARFON PIER, AND SHALL BE AS MANUFACTURED BY MARINA POWER COMPANY, MIAMI, FLORIDA OR EQUIVALENT OWNER APPROVED PRODUCT.				5.1 INSTALLATION OF CABINETS AND ACCESSORIES			
UNDERWRITERS LABORATORIES				C.POLY (VINYL CHLORIDE) (PVC) PLASTIC, PRESSURE PIPE: ASTM D 1785, SDR 21, PLAIN ENDS, ASTM D 2467 SOCKET TYPE FITTINGS. SOLVENT CEMENT SHALL BE ASTM D 2564 WITH ASTM F 656 PRIMER. PLASTIC PIPE-FLANGES AND GASKETS SHALL BE OF TYPE AND MATERIAL RECOMMENDED BY THE PIPING SYSTEM MANUFACTURER. BOLTS, WASHERS AND NUTS SHALL BE TYPE 316 STAINLESS STEEL.				1.5 PERMITS AND INSPECTIONS				A.INSTALL CABINETS AT LOCATIONS INDICATED ON THE PLANS AND AS DIRECTED BY THE ENGINEER AND THE OWNER.							
1.5 PERMITS AND INSPECTIONS				2.2 HOSES				A.SANITARY HOSE SHALL BE #2710 AS SUPPLIED BY THE FOLLOWING:				B.MOUNT EQUIPMENT SECURELY TO FRAMING AND/OR DECKING WITH MECHANICAL FASTENERS. INSTALL IN STRICT ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS AND RECOMMENDATIONS.							
A.SECURE AND PAY FOR ALL PERMITS AND LICENSES BEFORE ACTUAL WORK IS STARTED AND OBSERVE ALL REQUIREMENTS STIPULATED THEREON.				A.SANITARY HOSE SHALL BE #2710 AS SUPPLIED BY THE FOLLOWING:				CROUGH SUPPLY CO., INC.; 305 S. MAIN STREET; FORT WORTH, TEXAS 76104				C.INSTALL POTABLE WATER RF METERS THAT ARE FURNISHED BY THE WATER UTILITY COMPANY. COORDINATE SPACE REQUIREMENTS. SEE NOTE AND DETAILS ON SHEET P03.							
B.COORDINATE WITH AND GIVE ALL NECESSARY NOTICES TO THE AUTHORITY HAVING JURISDICTION FOR INSPECTION AND TESTING OF THE PLUMBING SYSTEMS REQUIRED TO BE WITNESSED BY THEIR AGENT.				ATTN.: MARVIN CARR 1-800-825-1110				3.1 EXAMINATION				D.INSTALL PIPING AT RIGHT ANGLES OR PARALLEL TO SEAWALLS AND FRAMING MEMBERS.							
1.6 SHOP DRAWING SUBMITTALS AND PRE-INSTALLATION COORDINATION												5.2 TESTING OF POTABLE WATER DISTRIBUTION SYSTEMS							
A.PRIOR TO ORDERING MATERIALS SUBMIT SHOP DRAWINGS INCLUDING MANUFACTURER'S CATALOG CUTS, BROCHURES AND PERFORMANCE DATA OF PIPE AND FITTING MATERIALS, HOSES, VALVES, SUPPORTS, PIPE MARKERS, DOCK BOXES, AND OTHER APPURTENANCES AS MAY BE REQUIRED. UNLESS SPECIFIED ELSEWHERE, PROVIDE A MINIMUM OF SIX COPIES FOR REVIEW BY ENGINEER AND OWNER.												A.PERFORM A HYDRO-STATIC PRESSURE TEST FOR LEAKS AND DEFECTS IN NEW WATER DISTRIBUTION PIPING SYSTEMS. IF TESTING IS PERFORMED IN SEGMENTS, SUBMIT SEPARATE REPORT FOR EACH TEST, COMPLETE WITH DIAGRAM OF PORTION OF SYSTEM TESTED.							
B.COORDINATE WITH ALL TRADES IN SUBMITTAL OF SHOP DRAWINGS AND FOR SPACE REQUIREMENTS. IF WORK IS INSTALLED PRIOR TO COORDINATION WITH OTHER TRADES WHICH INTERFERES WITH RELATED WORK, MAKE ALL NECESSARY CHANGES TO CORRECT THE CONDITION AT NO ADDITIONAL COST TO THE OWNER.												B.CAP AND SUBJECT THE PIPING SYSTEM TO A STATIC WATER PRESSURE OF 125 PSIG OR 50 PSIG ABOVE THE OPERATING PRESSURE WITHOUT EXCEEDING PRESSURE RATING OF PIPING SYSTEM MATERIALS. ISOLATE TEST SOURCE AND ALLOW TO STAND FOR 4 HOURS. LEAKS AND LOSS IN TEST PRESSURE CONSTITUTE DEFECTS THAT MUST BE REPAIRED.							
C.COORDINATE WITH FLOATING DOCK SUPPLIER FOR PIPE SUPPORT SPACING REQUIREMENTS INTEGRAL WITH STRUCTURAL FRAMING.												C.REPAIR LEAKS AND DEFECTS WITH NEW MATERIALS AND RETEST SYSTEM OR PORTION THEREOF UNTIL SATISFACTORY RESULTS ARE OBTAINED.							
1.7 PRODUCTS AND WORKMANSHIP												D.PREPARE REPORTS FOR TESTS AND REQUIRED CORRECTIVE ACTION.							
A.ALL EQUIPMENT AND MATERIALS SHALL BE NEW AND UNUSED AS MANUFACTURED BY COMPANIES REGULARLY ENGAGED IN THE FABRICATION OF THE TYPE SPECIFIED EXCEPT AS OTHERWISE NOTED HEREIN. USE PRODUCTS OF A SINGLE MANUFACTURER FOR SIMILAR TYPE EQUIPMENT. MODIFIED OR RE-BUILT EQUIPMENT OR MATERIALS ARE NOT ACCEPTABLE.												5.3 TESTING OF SANITARY PIPING SYSTEMS							
B.PROVIDE PLUMBING COMPONENTS AND SYSTEM INSTALLATION CAPABLE OF SUSTAINING THE FOLLOWING MINIMUM WORKING												A.PERFORM A STATIC VACUUM TEST FOR LEAKS AND DEFECTS IN SANITARY PIPING SYSTEMS. IF TESTING IS PERFORMED IN SEGMENTS, SUBMIT A SEPARATE REPORT FOR EACH TEST, COMPLETE WITH A DIAGRAM OF THE PORTION OF THE SYSTEM TESTED.							
												B.CAP AND SUBJECT THE PIPING SYSTEM TO A STATIC VACUUM PRESSURE OF 12 INCHES OF HG. ISOLATE TEST SOURCE AND ALLOW TO STAND FOR 4 HOURS. LEAKS AND LOSS OF TEST PRESSURE . CONSTITUTE DEFECTS THAT MUST BE REPAIRED.							
												C.REPAIR LEAKS AND DEFECTS USING NEW MATERIALS AND							

GENERAL NOTES:

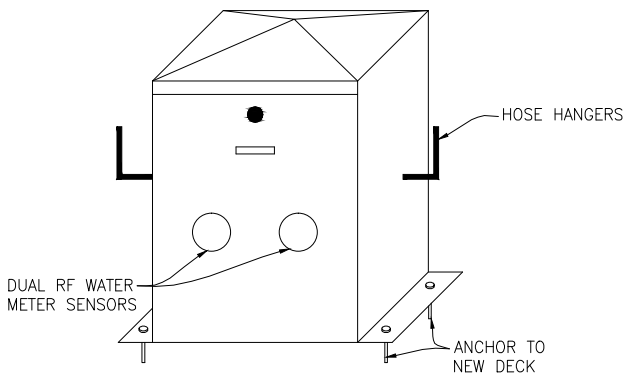
- A. COORDINATE EXISTING WATER METER REMOVAL & RE-INSTALL PER FKAA REQUIREMENTS.



PLUMBING SECTION THRU MAIN PIER PLAN
SCALE: 1"=10'
(REDUCED SCALE: 1" = 20')



HOSE BIBB DETAIL
SCALE: N.T.S.



- NOTES:
1. PROVIDE 1" SERVICE TO EACH CABINET.

DUAL WATER & SEWER CABINET DETAIL
SCALE: N.T.S.



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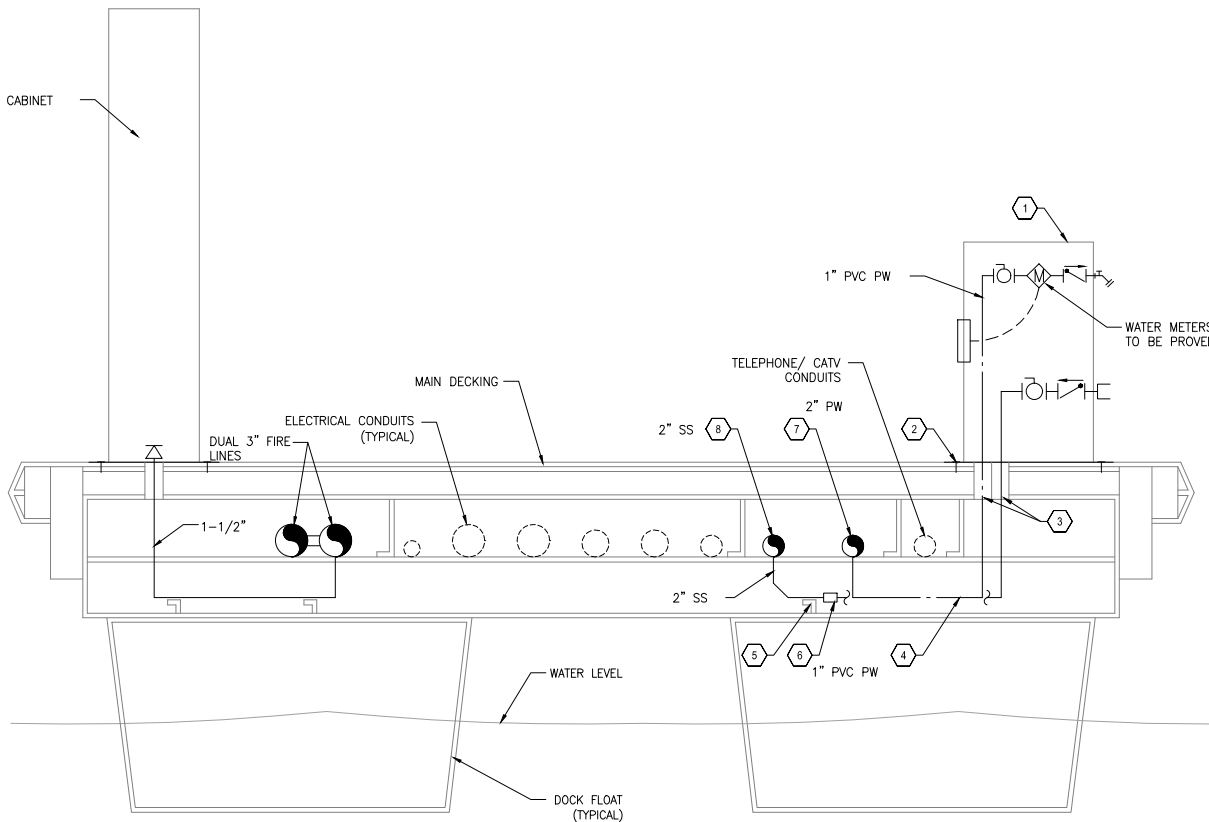
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CITY OF KEY WEST
DOLPHIN PIER DOCK REPLACEMENT
Key West, Florida

File Name: DLS BCB BCB 2017/04/20
Dwn. Chkd. Dsgn. YY.MM.DD

PLUMBING SITE PLAN

Project No. 215613443
Drawing No. P03
Scale 1"=10'
Sheet of 27
Revision



KEY NOTES:

1. SINGLE SLIP POTABLE WATER & SANITARY SEWER CABINET. INSTALL DOCK BOX NEAR OUTBOARD EDGE OF PIER SO AS TO OPTIMIZE AVAILABLE SPACE FOR PEDESTRIAN TRAFFIC IN THE CENTER OF THE PIER. ORIENT CABINET WITH HOSE BIBBS TO THE OUTBOARD SIDE AND RF METER READER DEVICES TO THE INBOARD SIDE. SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION AND WORK ITEMS.
2. SECURE CABINET TO DECK WITH MINIMUM OF FOUR STAINLESS STEEL FASTENERS OR AS RECOMMENDED BY CABINET MANUFACTURER.
3. CORE DRILL DECK FOR POTABLE WATER AND SANITARY SEWER PIPE INSTALLATION. MAKE THE OPENING A MINIMUM OF 1 INCH LARGER THAN OUTSIDE DIAMETER OF PIPE. PROVIDE SHRINK WRAP ON THE PIPE AT THE DECK PENETRATION TO PROTECT AGAINST ABRASION.
4. EXTEND PVC PRESSURE PIPE FOR POTABLE WATER SUPPLY TO DOCK CABINET AND TIE INTO SINGLE POINT CONNECTION FOR PW SUPPLY.
5. TYPICAL PIPE SUPPORT STRUT BETWEEN CROSS MEMBERS AT 3-FOOT O.C. SECURE PIPE TO STRUCTURE WITH CLAMP OR EQUIVALENT STRAPPING METHOD.
6. PROVIDE FERNCO OR EQUIVALENT RUBBER BOOT CONNECTOR WITH 316 STAINLESS STEEL HARDWARE TO CONNECT HDPE BRANCH TEE TO PVC-DWV SANITARY CABINET BRANCH PIPE.
7. ROUTE HDPE POTABLE WATER SUPPLY MAIN IN TRAY BETWEEN PIER FRAMING MEMBERS. PROVIDE HDPE TEE FITTING AT EACH PAIR OF PROPOSED POTABLE WATER CABINETS. TRANSITION TO PVC PRESSURE PIPE AFTER BRANCH TEE.
8. ROUTE HDPE SANITARY VACUUM PIPE MAIN IN TRAY BETWEEN PIER FRAMING MEMBERS. PROVIDE HDPE TEE FITTING AT EACH PIER OF PROPOSED CABINETS. USE LONG SWEEP FITTINGS.

PLUMBING SECTION THRU MAIN PIER PLAN
SCALE: N.T.S.

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Seal

EDWARD J. DVORACK, P.E.
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CITY OF KEY WEST
DOLPHIN PIER DOCK REPLACEMENT
Key West, Florida

File Name: DLS BCB BCB 2017/04/20
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PLUMBING SECTION

Project No.

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P04

Sheet

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Revision



FLOATING DOCK BY
MANUFACTURER (TYP)

INTERIOR PILES TO BE
HSS 20 X 0.5 WITH EPOXY
COATING. (TYP)

FLOATING DOCK MANUFACTURER TO PROVIDE RIGID
FRAMING TO DISTRIBUTE LOADS TO PILES (TYP)

FLOATING DOCK MANUFACTURER
TO SPACE AND CONNECT CLEATS
ACCORDING TO FLOATING DOCK
FRAME CAPACITY. (TYP)

GANGWAY BY FLOATING DOCK MANUFACTURER

DOCK TO BE SEPARATE
FROM EXISTING SEAWALL

CONNECTION TO UPLAND BY
FLOATING DOCK MANUFACTURER.

EXISTING BOAT EXTENT OUTLINE
PROVIDED BY CLIENT (TYP)

MOORING PILES TO BE HSS 14 X 0.5
WITH EPOXY COATING.
INSTALL MIDWAY BETWEEN EACH
VESSEL WHICH EXTENDS PAST THE
FINGER PIER END PILE. SEE CIVIL
PLANS FOR VESSEL DIMENSIONS (TYP)

PILE PLAN

SCALE: $1/16'' = 1'-0''$

Revision	By	Appd.	YY.MM.DD
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File Name:	RM	CMH	HRA	17.04.18
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Project No. 215613443	Scale	
Drawing No. S01	Sheet 28 of 28	Revision