### INDEX OF SHEETS

BE-05

BE-06

# VENETIAN CAUSEWAY BRIDGE NO. 874459 AND NO. 874474 **HURRICANE IRMA REPAIRS**

SHEET DESCRIPTION SHT. No. B-00 COVER SHEET B-01 SUMMARY OF PAY ITEMS B-02 GENERAL NOTES 1 OF 3 GENERAL NOTES 2 OF 3 B-03 GENERAL NOTES 3 OF 3 B-04 B-05 PLAN AND ELEVATION BRIDGE 874459 B-06 FENDER SYSTEM PLAN VIEW BRIDGE 874459 B-07 PLAN AND FLEVATION BRIDGE 874474 B-08 FENDER SYSTEM PLAN VIEW BRIDGE 874474 B-09 FENDER SYSTEM DETAILS 1 OF 2 B-10 FENDER SYSTEM DETAILS 2 OF 2 STRUCTURAL TREATED TIMBER BILL OF MATERIALS 1 OF 2 B-11 B-12 STRUCTURAL TREATED TIMBER BILL OF MATERIALS 2 OF 2 LADDER AND PLATFORM DETAILS B-13 B-14 GENERATOR BUILDING REPAIR DETAILS B-15 REPAIR DETAILS BRIDGE No. 874459 BE-01 SYMBOLS ABBREVIATIONS AND NOTES WEST VENETIAN CAUSEWAY BE-02 PLAN AND ELEVATION BRIDGE 874459 BF-0.3 BRIDGE CONDUIT DIAGRAM BRIDGE 874459 BE-04

PLAN AND ELEVATION BRIDGE 874474

NAVIGATION LIGHT DETAILS

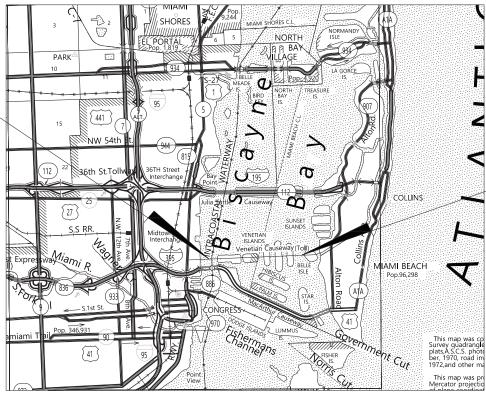
THESE PLANS HAVE BEEN PREPARED IN ACCORDANCE WITH AND ARE GOVERNED BY THE MIAMI-DADE COUNTY PUBLIC WORKS DEPARTMENT STANDARDS AND SPECIFICATIONS PARTS 1, 2 AND 3. THE MANUAL OF UNIFORM MINIMUM STANDARDS FOR DESIGN,

DEPARTMENT OF TRANSPORTATION ROADWAY AND TRAFFIC DESIGN STANDARDS, AND THE FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS, AS AMENDED BY

CONSTRUCTION AND MAINTENANCE FOR STREETS AND HIGHWAYS. THE FLORIDA

BRIDGE CONDUIT DIAGRAM BRIDGE 874474

BRIDGES 874459 AND 874474 MIAMI-DADE COUNTY PROJECT NO. EDP-MT-20200094 VENETIAN CAUSEWAY MAINTENANCE



PREPARED FOR



MIAMI-DADE COUNTY DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS HIGHWAY DIVISION

> STEPHEN P. CLARK CENTER 701 NW 1 COURT MIAMI, FLORIDA 33136

> > BY





CHROME ENGINEERING, INC.

16650 N. KENDALL DR., SUITE 205 MIAMI FL. 33196 (305) 432-6826

ENGINEER OF RECORD:

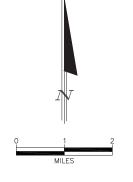
OSCAR J. CRUZ FLORIDA REGISTRATION P.E. No. 63889



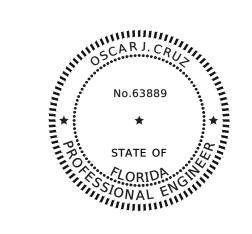
STV INCORPORATED 6303 BLUE LAGOON DR. SUITE 400 ENGINEER OF RECORD:

JORGE LEON FLORIDA REGISTRATION P.E. No. 68705

ATTENTION IS DIRECTED TO THE FACT THAT THESE PLANS MAY HAVE BEEN REDUCED IN SIZE BY REPRODUCTION. THIS MUST BE CONSIDERED WHEN



-BRIDGE No. 874474 EAST VENETIAN CAUSEWAY



LENGTH (	OF JOB	
	LIN. FT.	MILES
BRIDGE	307	0.05814
GROSS LENGTH OF JOB	307	0.05814
EXCEPTIONS	0	0
NET LENGTH OF JOB	307	0.05814

APPROVED COUNTY ENGINEER RECOMMENDED ASSISTANT DIRECTOR SUBMITTED HIGHWAY DIVISION PROPOSED CHECK DESIGN DRAWN SHEET <u>B-00</u> OF B-15 DATE

CONTRACT DOCUMENTS.

MIAMI FL, 33126

(305)537-4673 FAX: (305)751-5311

### DADE COUNTY DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS

COUNTY/SECTION LEAD PROJECT: 20200094 PROJECT(S):

				QUANTITY				
PAY ITEM NO.	PAY ITEM DESCRIPTION	UNIT	874459	874474	EGB	TOTAL		
101-1-A	MOBILIZATION	LS	1	1	1	1		
104-11A	FLOATING TURBIDITY BARRIER	LF	1,000	1,000	0	2,000		
110-82	REMOVE & DISPOSE OF STRUCTURAL TIMBER	MB	4.8	4.8	0	9.6		
401-70-2	RESTORE SPALLED AREAS, LATEX MODIFIED MORTAR STYRENE-BUTADINE	CF	4.0	11.7	16.5	32.2		
455-76	WRAP PILE CLUSTERS	EA	3	2	0	5		
460-6-1	LADDERS & PLATFORMS, NEW CONSTRUCTION	LS	1	1	0	2		
470-1	TREATED TIMBER, STRUCTURAL	MB	8.0	8.8	0	16.8		
510-1	NAVIGATION LIGHTS- FIXED BRIDGE, SYSTEM	LS	1	1	0	2		
510-1-2	ELECTRICAL SYSTEM (REMOVAL)(EXISTING FIXED BRIDGE NAVAGATIONAL LIGHTS)	LS	1	1	0	2		
750-1-59	ARCHITECTUAL — BUILDING, REHAB	SF	321	172	144	637		
751-7	ARCHITECTUAL — ROOF REPAIRS	LS	1	1	1	1		

### NOTE:

BRIDGE 874459 (WEST BRIDGE) BRIDGE 874474 (EAST BRIDGE) EGB = EAST GENERATOR BUILDING

CONTRACTOR SHALL FURNISH ALL LABOR, MATERIALS, EQUIPMENT AND SUCH MISCELLANEOUS ITEMS AS NECESSARY TO COMPLETE THE REPAIRS AS INDICATED ON THE DRAWINGS OR AS DIRECTED BY THE ENGINEER.

CONTRACT UNIT PRICES FOR PAY ITEMS SHALL INCLUDE ADDITIONAL COSTS DUE TO ADVERSE WORK SITE CONDITIONS AND ENVIRONMENTAL COMPLIANCE COSTS.

### PAY ITEM NO. 101-1-A MOBILIZATION (L.S.):

SHALL INCLUDE, BUT NOT LIMITED TO THE COST OF INSPECTION SCAFFOLDING, MOTORIZED INSPECTION VEHICLES, INSPECTION BOAT AND OPERATORS AND OTHER EQUIPMENT REQUIRED TO PROVIDE SAFE ACCESS FOR INSPECTION OR TESTING. A MANNED SAFETY BOAT SHALL BE PROVIDED AT THE BRIDGE SITE ANY TIME EMPLOYEES ARE WORKING OUTSIDE THE PROTECTION OF PERMANENT HANDRAILS OR BARRIERS.

### PAY ITEM NO. 104-11A FLOATING TURBIDITY BARRIER (L.F.):

INCLUDES THE COST OF ALL CURTAINS NECESSARY TO REACH THE CHANNEL BOTTOM AND THE TEMPORARY CHANNEL MARKERS W/ LIGHTS.

## PAY ITEM NO. 110-82 STRUCTURAL TIMBER REMOVAL AND DISPOSAL (MB):

ITEM INCLUDES THE COST OF THE REMOVAL AND DISPOSAL OF THE EXISTING TIMBER, WALES, SPACER BLOCKS, CATWALK PLANKS, DECK SUPPORTS AND CLEARANCE SIGN POST SUPPORTS WHICH HAS BEEN TREATED IN THE PAST WITH PRESERVATIVES AND SHALL BE CONSIDERED SPECIAL WASTE FOR DISPOSAL PURPOSES.

### PAY ITEM NO. 401-70-2 RESTORE SPALLED AREAS, LATEX MODIFIED MORTAR STYRENE-BUTADINE (C.F.):

THIS PAY ITEM INCLUDES THE COST TO REPAIR SPALLED AREAS ON THE TOP OF THE CONCRETE PILES AND THE GENERATOR BUILDING ROOF DECK, REFER TO "PROJECT TECHNICAL SPECIAL PROVISIONS FOR CONCRETE SPALL REPAIRS" FOR ADDITIONAL INFORMATION. THIS PAY ITEM ALSO INCLUDES THE COST OF ADDITIONAL SPLICED REINFORCEMENT AND/OR GALVANIZED WIRE FABRIC REQUIRED FOR THE SPALL REPAIRS.

### PAY ITEM 460-6-1 LADDER AND PLATFORM (LS.):

THIS PAY ITEM INCLUDES A NEW ALUMINUM CAGE LADDER CONNECTING TO THE NEW CATWALK ON THE SE SIDE OF FENDER SYSTEM. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR THE ALUMINUM CAGE LADDER SIGNED AND SEALED BY A FLORIDA LICENSED ENGINEER FOR REVIEW AND APPROVAL PRIOR TO FABRICATION.

### PAY ITEM 470-1 TREATED STRUCTURAL TIMBER (MB):

THIS PAY ITEM INCLUDES FULL COMPENSATION FOR THE INSTALLATION OF NEW TREATED STRUCTURAL TIMBER AS SPECIFIED IN THE PLANS, INCLUDING LABOR, EQUIPMENT AND MATERIALS REQUIRED TO INSTALL ALL TREATED STRUCTURAL TIMBER, FASTENERS, AND INCIDENTALS NECESSARY TO COMPLETE THE WORK. THIS PAY ITEM ALSO INCLUDES THE COST OF ALL HARDWARE, CABLES AND ERECTING CLEARANCE GAGE SIGNS.

### PAY ITEM 510-1-2 ELECTRICAL SYSTEM (REMOVAL)(EXISTING FIXED BRIDGE NAVIGATIONAL LIGHTS) (LS):

THIS PAY ITEM INCLUDES THE REMOVAL OF ALL THE EXISTING ELECTRICAL INSTALLATION TO BE REPLACED WITH NEW ONES AT EACH BRIDGE. CONTRACTOR SHALL RETURN TO MIAMI DADE COUNTY DEPARTMENT OF TRANSPORTATION PUBLIC WORKS ALL THE REMOVED EXISTING FENDER NAVIGATIONAL LIGHTS.

### PAY ITEM 750-1-59 ARCHITECTURAL, BUILDING, REHAB (SF):

TENDER HOUSE: THIS ITEM INCLUDES FULL COMPENSATION FOR THE REMOVAL AND INSTALLATION OF NEW ROOF TILES, INCLUDING LABOR, EQUIPMENT AND MATERIAL REQUIRED FOR THE IN-KIND INSTALLATION OF NEW ROOF TILE. PAY ITEM ALSO INCLUDES THE REMOVAL AND DISPOSAL OF THE DAMAGED EXISTING ROOF TILES. EAST GENERATOR BUILDING: PAY ITEM INCLUDES STUCCO REPAIRS, PRESSURE CLEANING, PAINTING OF EXTERIOR WALLS AND SOFFIT, AS WELL AS THE CLEANING AND COATING OF THE STEEL DOOR GATE. COLOR TO BE COORDINATED WITH OWNER.

### PAY ITEM 751-7 ARCHITECTURAL ROOF REPAIRS (LS):

EAST GENERATOR BUILDING: THIS ITEM INCLUDES FUL COMPENSATION FOR THE REMOVAL AND INSTALLATION OF 348 SF OF NEW MODIFIED BITUMEN ROOF SYSTEM INCLUDING LABOR, EQUIPMENT AND MATERIALS REQUIRED. PAY ITEM ALSO INCLUDES THE REMOVAL AND DISPOSAL OF THE EXISTING DAMAGED ROOF DECK.

STATE STATE ORIDA CONT. BRIDGE NO. 874459, 874474

No.63889

DESCRIPTION DESCRIPTION



CHROME ENGINEERING, INC 16650 N. KENDALL DR., SUITE 205 MIAMI FL, 33196 (305) 432-6826 OSCAR J. CRUZ. P.F. LICENSE # 63889

	NAME	DATE		NAME	DATE	
SIGNED BY	JAC	06/22/2020	DRAWN BY	ML	08/25/2020	МΙΑ
HECKED BY	oc	11/05/2020	CHECKED BY	OC	11/05/2020	COL
PERVISED B	Y:					COL

COUNTY : MIAMI-DADE

TRANSPORTATION & PUBLIC WORKS DTPW AMI-DADE UNTY 701 NW 1ST COURT MIAMI, FLORIDA 33136

SUMMARY OF PAY ITEMS

### GENERAL SPECIFICATIONS:

FLORIDA DEPARTMENT OF TRANSPORTATION STANDARDS FOR ROAD AND BRIDGE CONSTRUCTION (DATED JANUARY 2020), AS AMENDED BY CONTRACT DOCUMENTS.

### DESIGN SPECIFICATIONS:

JANUARY 2020 EDITION OF THE FDOT STRUCTURES MANUAL UNLESS OTHERWISE NOTED. AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO) LRFD BRIDGE DESIGN SPECIFICATIONS (8TH EDITION) AND ALL SUBSEQUENT INTERIMS.

### ENVIRONMENT:

SUPERSTRUCTURE: EXTREMELY AGGRESSIVE — COASTAL SUBSTRUCTURE: EXTREMELY AGGRESSIVE — COASTAL

### SURVEY:

ALL PUBLIC LAND CORNERS AND PRIMARY NETWORK CONTROL SURVEY MONUMENTS ARE TO BE PROTECTED BY THE CONTRACTOR. CORNERS AND MONUMENTS WITHIN THE WORK ZONE AND IN DANGER OF BEING DAMAGED, DESTROYED OR COVERED SHALL BE PROPERLY REFERENCED BY A REGISTERED LAND SURVEYOR IN ACCORDANCE WITH THE MINIMUM TECHNICAL STANDARDS OF THE FLORIDA BOARD OF PROFESSIONAL LAND SURVEYORS PRIOR TO THE BEGINNING OF WORK INCLUDE ALL COST OF REFERENCING AMONG THE VARIOUS SCHEDULED ITEMS ON THE CONTRACT.

### UTILITIES:

ALL EXISTING UTILITIES ARE TO REMAIN UNLESS OTHERWISE NOTED.

THE CONTRACTOR IS ADVISED THAT PROPERTIES ADJACENT TO THE PROJECT HAVE ELECTRIC, TELEPHONE, GAS, WATER AND/OR SEWER SERVICE LATERALS WHICH MAY NOT BE SHOWN IN PLANS. THE CONTRACTOR MUST REQUEST THE LOCATION OF THESE LATERAL SERVICES THE UTILITY COMPANIES. THE ADDITIONAL COST OF EXCAVATING, INSTALLING, BACKFILLING AND COMPACTING AROUND THESE LATERAL MUST BE INCLUDED IN THE BID RELATED ITEM FOR THE WORK BEING DONE.

FOR THE LIST OF UTILITY OWNERS, PLEASE REFER TO GENERAL NOTES SHEET B-03.

### REINFORCED CONCRETE REPAIR MATERIALS:

MATERIALS UTILIZED FOR REPAIRS TO THE REINFORCED CONCRETE EXISTING STRUCTURE SHALL BE IN ACCORDANCE WITH PROVIDED TECHNICAL SPECIAL PROVISION FOR CONCRETE REPAIRS.

### REINFORCING STEEL:

ALL REINFORCING STEEL SHALL BE ASTM A615, GRADE 60.

### STRUCTURAL STEEL:

ALL STRUCTURAL STEEL SHALL BE ASTM A709, GRADE 36, UNLESS NOTED OTHERWISE.

### PLAN DIMENSIONS

THE CONTRACTOR'S ATTENTION IS DIRECTED TO THE FACT THAT, DUE TO THE NATURE OF REHABILITATION/REPAIR PROJECTS, THE EXACT EXTENT OF REHABILITATION/REPAIR WORK CANNOT ALWAYS BE ACCURATELY DETERMINED PRIOR TO THE COMMENCEMENT OF WORK. THESE PLANS WERE DETAILED TO AGREE WITH THE EXISTING PLANS AND THE RESULTS OF A LIMITED FIELD INVESTIGATION. THE CONTRACTOR SHALL FIELD VERIFY PLAN DIMENSIONS AND ELEVATIONS PRIOR TO START OF WORK.

THE DETAILS ON THE DRAWINGS INDICATE THE LIMITS OF REMOVAL AND REPAIR BASED ON THE FIELD OBSERVATIONS PERFORMED ON JUNE 16, 2020 AND JULY 7, 2020. THE REMOVAL AND REPAIR UNITS SHOWN ON THE CONTRACT DRAWINGS INDICATE APPROXIMATE REMOVAL AND REPAIR LIMITS BASED ON THE CONDITION OF THE STRUCTURE AT THE TIME OF THE INSPECTIONS.

THE CONTRACTOR SHALL TAKE ALL SUCH FIELD MEASUREMENTS AS ARE NECESSARY TO ENSURE PROPER FIT OF THE FINISHED WORK, AND THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR THEIR ACCURACY. WHEN SHOP DRAWINGS BASED ON FIELD MEASUREMENTS ARE SUBMITTED FOR APPROVAL, THE FIELD MEASUREMENTS MADE SHALL BE INCLUDED IN THE SHOP DRAWINGS AND SUBMITTED TO THE ENGINEER. THE CONTRACTOR SHALL USE AN ASTERISK (\*) OR SIMILAR MEANS TO INDICATE A FIELD MEASUREMENT ON SHOP DRAWINGS.

### NAVIGATION

THE WATERS WITHIN THE PROJECT AREA ARE FREQUENTED BY BOAT TRAFFIC. THE CONTRACTOR SHALL NOTIFY THE UNITED STATES COAST GUARD MARINE COORDINATOR SAFETY OFFICE SIXTY (60) DAYS PRIOR TO BEGINNING CONSTRUCTION AND SUBMIT A PLAN FOR CLEARING THE CHANNEL IN THE EVENT OF HURRICANE WATCH/WARNING. AT NO TIME DURING THE CONSTRUCTION, SHALL THE WATERWAY BE CLOSED TO NAVIGATION.

### EXISTING BRIDGE PLANS:

FOR ADDITIONAL DETAILS OF THE BRIDGE, SEE EXISTING BRIDGE PLANS. UNLESS OTHERWISE NOTED, THE DIMENSIONS, ELEVATIONS AND INTERSECTING ANGLES SHOWN ARE BASED ON THE INFORMATION AS DETAILED IN THE ORIGINAL CONSTRUCTION PLANS OF THE EXISTING BRIDGE AND MAY NOT REPRESENT AS—BUILT CONDITIONS.

### SITE INSPECTION:

THE CONTRACTOR SHALL VISIT THE SITE BEFORE BIDDING TO BECOME FAMILIARIZED WITH THE PRESENT CONDITION AND TO JUDGE THE EXTENT AND NATURE OF THE WORK TO BE DONE UNDER THIS CONTRACT. NO EXTRA COMPENSATION WILL BE ALLOWED BECAUSE OF FAILURE TO INCLUDE IN BID ALL ITEMS AND MATERIALS WHICH ARE REQUIRED TO BE FURNISHED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.

### WATER QUALITY:

CONTRACTOR WILL BE RESPONSIBLE TO ADHERE TO ALL CLASS I PERMIT REQUIREMENTS FROM DERM BEFORE BEGINNING WORK. THIS PROJECT IS ON THE INTRACOASTAL WATERWAY, WHICH IS DESIGNATED AS OUTSTANDING FLORIDA WATERS. NO DEGRADATION OF WATER QUALITY AND/OR INCREASED TURBIDITY OF THE WATER AND/OR THE DISCHARGE OF ANY FOREIGN MATERIAL INTO THE WATER SHALL BE PERMITTED. THE CONTRACTOR WILL BE RESPONSIBLE FOR PREVENTING THE DISCHARGE OF ANY FOREIGN MATERIAL INTO THE WATER. THE CONTRACTOR SHALL ERECT THE BEST AVAILABLE MEANS OF EROSION AND TURBIDITY CONTROL MEASURES TO ISOLATE THE WORK AREA AT ALL TIMES. THE CONTRACTOR SHALL MAINTAIN APPROPRIATE SKIMMERS AND ABSORBENT MATERIALS AT THE WORK AREA FOR IMMEDIATE DEPLOYMENT IN THE EVENT OF AN ACCIDENTAL SPILL, THE COST SHALL BE INCLUDED IN PAY ITEM 104-11-A FLOATING TURBIDITY BARRIER.

### **ENVIRONMENTAL NOTES:**

- 1. THE FOLLOWING FEDERALLY AND STATE LISTED ANIMAL SPECIES COULD INHABIT OR MIGRATE THROUGH THE CONSTRUCTION AREA:
  WEST INDIAN MANATEE AND SEA TURTLES. THE CONTRACTOR SHALL COMPLY WITH ALL FEDERAL AND STATE REQUIREMENTS REGARDING
  ENDANGERED AND THREATENED SPECIES AND STATE LISTED SPECIES OF SPECIAL CONCERN. SHOULD THESE SPECIES BE ENCOUNTERED;
  THE CONTRACTOR SHALL CONTACT THE MIAMI-DADE COUNTY ENVIRONMENTAL OFFICE WITHIN 24 HOURS OF EACH ENCOUNTER.
- 2. SEAGRASS BEDS AND OTHER BENTHIC COMMUNITIES EXIST IN THE PROJECT AREA. THE CONTRACTOR SHALL PREVENT CONTACT WITH THE SEABED IN THESE AREAS AND ANY DISTURBANCE OF BOTTOM SEDIMENTS (E.G., FROM MOVING OR ANCHORING BARGES AND OTHER STRUCTURES). THE CONTRACTOR SHALL NOT SHADE ANY BENTHIC COMMUNITY FROM DIRECT SUNLIGHT FOR MORE THAN TWO WEEKS. ANCHORING LOCATIONS SHALL BE APPROVED BY THE ENGINEER WHO SHALL COORDINATE WITH THE MIAMI-DADE COUNTY ENVIRONMENTAL PERMITS COORDINATOR.
- 3. THE CONTRACTOR SHALL REVIEW ENVIRONMENTAL REQUIREMENTS OF ANY PROPOSED STAGING AREAS WITH MIAMI-DADE COUNTY DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS AT LEAST SEVENTY TWO (72) HOURS PRIOR TO USE.
- 4. THE STAGING AREA SHALL NOT BE WITHIN THE LIMITS OF THE WETLANDS.
- 5. ANY MATERIAL TO BE STOCKPILED FOR PERIODS GREATER THAN 24 HOURS SHALL BE PROTECTED BY APPROPRIATE EROSION CONTROL DEVICES AT NO ADDITIONAL COMPENSATION.
- 6. TIMBER FROM THE EXISTING FENDER SYSTEM HAS BEEN TREATED IN THE PAST WITH PRESERVATIVES AND SHALL BE CONSIDERED SPECIAL WASTE FOR DISPOSAL PURPOSES. THE CONTRACTOR SHALL PLACE THE TIMBERS ON A DRY IMPERVIOUS SURFACE. THE CONTRACTOR SHALL ADHERE TO DTPW CONSTRUCTION SPECS 110, D, 2.

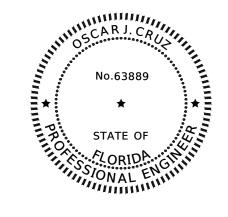
### **CONSTRUCTION NOTES:**

- 1. THE CONTRACTOR SHALL PROVIDE SAFE ACCESS FOR THE ENGINEER AT ALL TIMES FOR HIS INSPECTION OF THE PROJECT. THIS INCLUDES (BUT IS NOT LIMITED TO) SCAFFOLDING, AND/OR INSPECTION BOAT WITH OPERATOR REMAINING IN PLACE UNTIL THE ENGINEER CAN PERFORM ALL NECESSARY INSPECTIONS AMONG THE VARIOUS SCHEDULED ITEMS ON THE CONTRACT.
- 2. ALL SALVAGEABLE MATERIALS THAT ARE TO BE REMOVED MUST BE DELIVERED AND UNLOADED AT THE MIAMI-DADE ROAD, BRIDGE AND CANAL MAINTENANCE DIVISION, 9301 NW 58TH STREET, MIAMI FL. 33178 TELEPHONE NO. (305) 592-3116.
- 3. CONTRACTOR SHALL BE RESPONSIBLE TO RESTORE TO EXISTING CONDITION ALL SIGNING AND MARKING DISTURBED DURING CONSTRUCTION.

### SCOPE OF WORK:

THE PRIMARY TASKS TO BE COMPLETED BY THE CONTRACTOR ARE AS FOLLOWS:

- 1. REMOVE THE EXISTING DAMAGED TIMBER FENDER SYSTEM COMPONENTS INCLUDING, WALES, SPACER BLOCKS, CATWALK PLANKS, DECK SUPPORTS, ALL ASSOCIATED CONNECTIONS AND WIRE ROPES. INSTALL NEW WALES, SPACER BLOCKS, CATWALK PLANKS, DECK SUPPORTS, WIRE ROPES AND HANDRAIL IN ACCORDANCE WITH SHEETS B-06 THRU B-10.
- 2. REMOVE AND REPLACE FENDER NAVIGATIONAL LIGHT SYSTEM IN ACCORDANCE WITH SHEETS BE-01 THRU BE-06.
- 3. REMOVE AND REPLACE EXISTING DAMAGED LADDERS PLATFORMS IN ACCORDANCE WITH SHEET B-05, B-07 AND B-13.
- 4. REMOVE AND REPLACE ROOF TILES AT BOTH BRIDGE TENDER HOUSES AND THE ROOF MATERIALS AT THE EAST BRIDGE GENERATOR BUILDING IN ACCORDANCE WITH SHEETS B-05, B-07, B-14 AND B-15.
- 5. REPAIR SPALLS WITH EXPOSED REINFORCING AT EXISTING FENDER CONCRETE PILES, AND REPAIR CONCRETE DECK SLAB SPALLS AT EAST BRIDGE GENERATOR BUILDING IN ACCORDANCE WITH SHEETS B-14 AND B-15.
- 6. REPAIR EXISTING WALLS, REPAIR EXISTING ROOF DECK, CLEAN AND PAINT THE EXTERIOR WALLS AND STEEL GATE AT THE EAST GENERATOR BUILDING.



BRIDGE NO. 874459, 874474

R E V I S I O N S
BY DESCRIPTION DATE BY DESCRIPTION

OF THE OWN S DESCRIPTION

DATE BY DESCRIPTION

CHROM



CHROME ENGINEERING, INC. 16650 N. KENDALL DR., SUITE 205 MIAMI FL, 33196 (305) 432–6826 OSCAR J. CRUZ, P.E. LICENSE # 63889

	NAME	DATE		NAME	DATE	
DESIGNED BY	JAC	06/22/2020	DRAWN BY	ML	08/25/2020	М
CHECKED BY	oc	11/05/2020	CHECKED BY	OC	11/05/2020	-
CHDEDWICED D	v-					CC



TRANSPORTATION & PUBLIC WORKS DTPW 701 NW 15T COURT MAM, FLORIDA 33136 B-02

GENERAL NOTES 1 OF 3

### ELECTRICAL NOTES:

REFER TO SHEET BE-01 FOR ELECTRICAL GENERAL NOTES.

THE CONTRACTOR SHALL COORDINATE ALL WORK WITH THE FOLLOWING INDIVIDUALS AND/OR ENTITIES:

### **GENERAL CONTACTS:**

**COORDINATION:** 

ENGINEER OF RECORD OSCAR J. CRUZ, P.E. 16650 N. KENDALL, SUITE 205 MIAMI, FL. 33196

305-432-6826 OCRUZ@CHROMEENG.COM MIAMI-DADE COUNTY BRIDGE ENGINEER MANAGER GABRIEL DELGADO, P.E. MIAMI-DADE COUNTY DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS

701 NW 1ST COURT, MIAMI, FL. 33136 786-469-5371

GABRIEL.DELGADO@MIAMIDADE.GOV

UNITED STATES COAST GUARD

OMAR BECEIRO WATERWAY MANAGEMENT SPECIALIST 100 MACARTHUR CAUSEWAY MIAMI BEACH, FL. 33139 305-535-4317

CITY OF MIAMI PUBLIC WORKS DEPARTMENT 444 SW 2ND AVENUE MIAMI, FL. 33130 305-416-1200

### PERMIT AGENCIES:

LISA SPOTALINO 701 NW 1ST CT AVENUE FLOOR, #209

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION JENNIFER SMITH 400 N. CONGRESS AVENUE

SUITE 200

MIAMI, FL. 33136 WEST PALM BEACH, FL. 33401 305-372-6841

561-681-6642

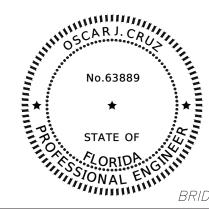
AUDREY SIU

MIAMI REGULATIONS FIELD OFFICE 6TH 9900 SOUTHWEST 107TH AVENUE

SUITE 203 MIAMI, FL 33176 305-779-6051

### UTILITIES OWNERS:

COMPANIES	CONTACT	PHONE NUMBERS
COMCAST CABLE	LEONARD MAXWELL-NEWBOLD	954-447-8405
FPL FIBERNET LLC	DANNY HASKETT	305-552-2931
FLORIDA POWER & LIGHT-SUBAQUEOUS	TRACY STERN	800-868-9554
FLORIDA POWER & LIGHT TRANSMISSION	SEYED HAJASSADOLLAH	305-228-5290
MIAMI-DADE WATER & SEWER	SERGIO GARCIA	786-268-5320
AT&T DISTRIBUTION	STEVE LOW	305-222-8745



BRIDGE NO. 874459, 874474

R E V I S I O N S DESCRIPTION DESCRIPTION DESCRIPTION



CHROME ENGINEERING, INC. 16650 N. KENDALL DR., SUITE 205 MIAMI FL, 33196 (305) 432–6826 OSCAR J. CRUZ, P.E. LICENSE # 63889

DATE | DESIGNED | DATE | NAME | DATE | NAME | DATE | DESIGNED | DESIGNE

701 NW 1ST COURT MIAMI, FLORIDA 33136

TRANSPORTATION & PUBLIC WORKS DTPW

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GENERAL NOTES 2 OF 3

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### STANDARD MANATEE CONDITIONS FOR IN - WATER WORK

- I. WEST INDIAN MANATEE (TRICHECHUS MANATUS LATIROSTRIS), A FEDERAL AND STATE LISTED ENDANGERED SPECIES, MAY MIGRATE
  THROUGH THE PROJECT AREA. THE PERMITTEE SHALL ADVISE ALL CONSTRUCTION PERSONNEL THAT THERE ARE CIVIL AND CRIMINAL
  PENALTIES FOR HARMING, HARASSING, OR KILLING MANATEES WHICH ARE PROTECTED UNDER THE MARINE MAMMAL PROTECTION ACT,
  THE ENDANGERED SPECIES ACT, AND THE FLORIDA MANATEE SANCTUARY ACT.
- 2. THE CONTRACTOR SHALL POST TEMPORARY SIGN(S) IN A LOCATION PROMINENTLY VISIBLE TO WATER RELATED CONSTRUCTION CREWS, MEASURING AT LEAST 3 BY 4 FEET THAT READS "CAUTION: MANATEE AREA", FOR A DURATION OF THE PROJECT. TEMPORARY SIGNS THAT HAVE BEEN APPROVED FOR THIS USE BY THE FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION (FWC) MUST BE USED (SEE MYFWC.COM/MANATEE). QUESTIONS CONCERNING THESE SIGNS CAN BE SENT TO THE E-MAIL ADDRESS LISTED ABOVE.
- 3. ALL VESSELS ASSOCIATED WITH THE CONSTRUCTION SHALL OPERATE AT "IDLE SPEED/NO WAKE" AT ALL, SIGNAGE WILL BE DISPLAYED NEXT TO THE CONTROLS ON ALL CONSTRUCTION RELATED VESSELS, MEASURE AT LEAST 8.5 BY 11 INCHES, AND READ "CAUTION: MANATEE HABITAT" AND AT ALL TIMES WHILE IN THE IMMEDIATE AREA AND WHILE IN WATER WHERE THE DRAFT OF THE VESSEL PROVIDES LESS THAN A FOUR FT CLEARANCE FROM THE BOTTOM. ALL VESSELS WILL FOLLOW ROUTES OF DEEP WATER WHENEVER POSSIBLE.
- 4. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING A DESIGNATED, TRAINED MANATEE OBSERVER DURING ALL WATER RELATED ACTIVITIES. THAT PERSON IS TO BE EQUIPPED WITH POLARIZED SUNGLASSES TO AID IN OBSERVATION. THAT MANATEE OBSERVER SHALL BE ON SITE DURING ALL IN WATER CONSTRUCTION ACTIVITIES AND ADVISED PERSONNEL TO CEASE OPERATION UPON SIGHTING A MANATEE WITH 50 FEET OF ANY IN WATER CONSTRUCTION ACTIVITY. ACTIVITIES WILL NOT RESUME UNTIL THE MANATEE(S) HAS MOVED BEYOND THE 50 FOOT RADIUS OF THE PROJECT OPERATION, OR UNTIL 30 MINUTES ELAPSES IF THE MANATEE(S) HAS NOT REAPPEARED WITHIN 50 FEET OF OPERATION. ANIMALS MUST NOT BE HERDED AWAY OR HARASSED INTO LEAVING.
- 5. ANY COLLISION WITH OR INJURY TO A MANATEE SHALL BE REPORTED IMMEDIATELY TO THE FISH AND WILDLIFE CONSERVATION HOTLINE AT 1-888-404-3922. COLLISION AND/OR INJURY SHOULD ALSO BE REPORTED TO THE U.S. FISH AND WILDLIFE SERVICE IN JACKSONVILLE (1-904-731-3336) FOR NORTH FLORIDA OR VERO BEACH (1-772-562-3909) FOR SOUTH FLORIDA, AND TO FWC AT IMPERILEDSPECIES@MYFWC.COM
- 6. SITUATION OR TURBIDITY BARRIERS SHALL BE MADE OF MATERIAL IN WHICH MANATEES CANNOT BECOME ENTANGLED, SHALL BE PROPERLY SECURED, AND SHALL BE REGULARLY MONITORED TO AVOID MANATEE ENTANGLEMENT OR ENTRAPMENT. BARRIERS MUST NOT IMPEDE MANATEE MOVEMENT.
- 7. MANATEES CAN GET ENTANGLED AND GET PAST TURBIDITY BARRIERS. THEREFORE, TURBIDITY BARRIERS SHALL BE MONITORED EACH MORNING AND EACH EVENING AT THE END OF THE WORK SHIFT TO CHECK FOR ENTANGLEMENT IN THE BARRIERS, AND ENTRAPMENT IN THE CONSTRUCTION AREA IF A MANATEE BECOMES ENTANGLED IN A BARRIER THE FWC MUST BE NOTIFIED IMMEDIATELY AT 1-888-404-FWCC. IF A MANATEE BECOMES ENTRAPPED WITHIN THE CONSTRUCTION AREA, THE BARRIER NEEDS TO BE REMOVED AND ONLY BE REPLACED ONCE THE ANIMAL LEAVES THE AREA UPON ITS OWN VOLITION.

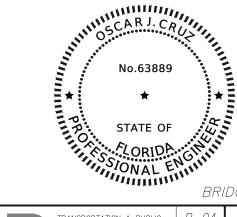
THE COST OF ALL ITEMS REQUIRED FOR THE MONITORING AND PROTECTION OF MANATEE SUCH AS, BUT NOT LIMITED TO MANATEE SIGNS, OBSERVERS, POLARIZED GLASSES, AND BINOCULARS, SHALL BE INCLUDED IN THE COST UNIT PRICE OF MOBILIZATION PAY ITEM NO. 101-1-A.

### GENERAL NOTES

- 1. U.S. COAST GUARD NOTIFICATION: NOTIFY THE LOCAL OFFICE OF THE U.S. COAST GUARD AT LEAST 60 DAYS PRIOR TO BEGINNING CONSTRUCTION OF THE FENDER SYSTEM.
- 2. CLEARANCE GAUGE AND LIGHT: CLEARANCE GAUGE TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR. CLEARANCE GAUGE WIDTH AND NUMERAL HEIGHT IS DEPENDANT ON VISIBILITY DISTANCE. THE REQUIRED VISIBILITY DISTANCE SHALL BE DETERMINED BY THE UNITED STATES COAST GUARD DISTRICT COMMANDER. PROVIDE AND INSTALL CLEARANCE GAUGE LIGHT IN ACCORDANCE WITH FDOT SPECIFICATION SECTION 510 AND FDOT STANDARD PLANS 471-030.
- 3. NAVIGATION LIGHTS: PROVIDE AND INSTALL NAVIGATION LIGHTS IN ACCORDANCE WITH PROJECT SPECIFIC DETAILS AND NOTES IN SHEETS BE-01 THROUGH BE-06. PROVIDE AND MAINTAIN TEMPORARY NAVIGATION LIGHTS DURING CONSTRUCTION UNTIL PERMANENT NAVIGATION LIGHTS ARE OPERATIONAL.
- 4. BOLTS, THREADED BARS, NUTS, SCREWS AND WASHERS: FURNISH STAINLESS STEEL BOLTS IN ACCORDANCE WITH ASTM F593 TYPE 316. FURNISH STAINLESS STEEL THREADED BARS IN ACCORDANCE WITH ASTM A193 GRADE BB/VI. FURNISH STAINLESS STEEL NUTS IN ACCORDANCE WITH ASTM VI F594 TYPE 316. FURNISH STAINLESS STEEL SCREWS IN ACCORDANCE WITH ASTM F593 TYPE 305. FURNISH STAINLESS STEEL WASHERS COMPATIBLE WITH BOLTS, THREADED RODS AND NUTS UNDER HEADS AND NUTS. TORQUE NUTS ON J" DIAMETER BOLTS AND THREADED BARS TO 150 LB-FT. KEEP THREADS ON BOLTS, THREADED BARS AND NUTS FREE FROM DIRT, COARSE GRIME AND SAND TO PREVENT GALLING AND SEIZING DURING TIGHTENING.
- 5. WIRE ROPE: PROVIDE WIRE ROPE MEETING ONE OF THE FOLLOWING REQUIREMENTS:
  - A. ½" DIAMETER 6X19, 6X25 OR 6X37 CLASS IWRC TYPE 316 STAINLESS STEEL WIRE ROPE WITH A MINIMUM BREAKING STRENGTH OF 18,000 LBS.
  - B. ½" DIAMETER 6X 19 GALVANIZED WIRE ROPE WITH ULTRAVIOLET RAY RESISTANT POLYPROPYLENE IMPREGNATION HAVING AN OUTSIDE DIAMETER OF 5/8" WITH A MINIMUM BREAKING STRENGTH OF 22,000 LBS. PROTECT ALL ENDS WITH HEAT SHRINKABLE END CAPS COMPATIBLE WITH THE ROPE'S POLYPROPYLENE THAT PROVIDE AN EFFECTIVE WATER—TIGHT SEAL.

### GENERAL NOTES (CONTD.):

- 6. DURING ALL CONSTRUCTION OPERATIONS, THE CONTRACTOR SHALL NOT BE ALLOWED TO DROP WASTE CONCRETE, DEBRIS, OR OTHER MATERIAL INTO THE CHANNEL BELOW THE BRIDGE. PLATFORMS, NETS, SCREENS, OR OTHER PROTECTIVE DEVICES SHALL BE USED TO CATCH THE MATERIAL. IF THE ENGINEER DETERMINES THAT ADEQUATE PROTECTIVE DEVICES ARE NOT BEING EMPLOYED, THE WORK SHALL BE SUSPENDED UNTIL ADEQUATE PROTECTION IS PROVIDED. THE COST OF PROVIDING SUCH PROTECTIVE DEVICES SHALL BE INCIDENTAL TO THE APPLICABLE ITEMS OF WORK HAVING AWARDED CONTRACT PRICES.
- 7. NO SPOIL AREA IS AVAILABLE FOR THIS CONTRACT WITHIN THE MIAMI-DADE COUNTY RIGHT-OF-WAY. ALL SPOIL MATERIAL (STRUCTURAL, CONCRETE, REINFORCING STEEL, ETC.) REMOVED FROM THE JOB SITE SHALL BE DISPOSED BY THE CONTRACTOR OFF OF THE MIAMI-DADE COUNTY PROPERTY. THE CONTRACTOR SHALL COMPLY WITH THE LOCAL AND STATE REGULATIONS THAT APPLY TO THE AREA CHOSEN FOR DISPOSAL OF THIS SPOIL MATERIAL. THE COST OF THIS WORK SHALL BE INCLUDED IN OTHER RELATED ITEMS. NO SEPARATE PAYMENT WILL BE ALLOWED.
- 8. ALL EXCESS MATERIAL AS DESIGNATED BY THE ENGINEER IS TO BE DISPOSED BY THE CONTRACTOR IN AREAS PROVIDED BY HIM WITHIN 72 HOURS OF BEING DEPOSITED IN THE CONSTRUCTION AREA AND AT THE CONTRACTOR'S EXPENSE.
- 9. CHAMFER: ALL EXPOSED EDGES AND CORNERS OF CONCRETE SHALL BE CHAMFERED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.
- 10. ALL TIMBER TO BE ROUGH-CUT AND SHALL RECEIVE "SALT WATER" TREATMENT IN ACCORDANCE WITH SECTION 955 OF THE SPECIFICATIONS, UNLESS OTHERWISE SPECIFIED.
- 11. ALL TIMBER SHALL BE CUT TO DIMENSIONS SHOWN PRIOR TO TREATMENT.
- 12. PAYMENT FOR INCIDENTAL ITEMS NOT SPECIFICALLY COVERED IN INDIVIDUAL BID ITEMS SHALL BE INCLUDED IN THE CONTRACT PRICES FOR BID ITEMS.
- 13. DOMEHEAD BOLTS SHALL HAVE SLOTS OR HOLES ON HEADS FOR 60D NAILS.
- 14. QUANTITIES: DUE TO THE NATURE OF THE DETERIORATION PRESENT ON THESE FENDERS, MIAMI-DADE COUNTY HAS THE AUTHORITY TO INCREASE, DECREASE, OR DELETE THE QUANTITIES OF WORK TO BE PERFORMED IN EXCESS OR BELOW THE PERCENTAGES ALLOWED BY FOOT SECTION 4-3.1 OF THE STANDARD SPECIFICATIONS AND REVISIONS THERETO WITH NO ADJUSTMENT TO THE CONTRACT UNIT PRICES AS STATED UNDER DTPW, GENERAL REQUIREMENTS, ARTICLE 1.02,B. THE WORK WILL BE ASSIGNED BY THE ENGINEER FOR A SPECIFIC GROUP OF LOCATIONS AT A TIME. IN ADDITION TO THE LOCATIONS OF CONCRETE/SPALL REPAIRS SHOWN IN THE PLANS, THE CONTRACTOR WILL PERFORM A SURVEY OF THE BRIDGE FENDER PILES AND GENERATOR BUILDING CONCRETE SLAB IN THE PRESENCE OF THE ENGINEER PRIOR TO COMMENCING ANY WORK IN ORDER TO IDENTIFY ALL LOCATIONS IN NEED OF REPAIR. NO CONCRETE REMOVAL WILL BE PERFORMED WITHOUT THE ENGINEER'S APPROVAL. THE MIAMI-DADE COUNTY WILL BE ALLOWED TO STOP WORK DUE TO POOR WORKMANSHIP, UNAPPROVED MATERIALS OR UNAPPROVED WORK PROCEDURE AT ANY TIME WITHOUT CONSEQUENCE TO MIAMI-DADE COUNTY
- 15. THE CONTRACTOR WILL ADHERE TO THE REQUIREMENTS OF THE TECHNICAL SPECIAL PROVISIONS FOR CONCRETE SPALL REPAIRS WITH POLYMER MODIFIED PORT/AND CEMENT MORTAR WITH CORROSION INHIBITORS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
- 16. IN THE EVENT THAT MORE THAN 20% OF THE CROSS SECTIONAL AREA OF ANY STRUCTURAL MEMBER NEEDS TO BE REMOVED, PRIOR TO THE REMOVAL OF MORE THAN 20% OF THE MEMBER CROSS SECTIONAL AREA, THE CONTRACTOR WILL STOP WORK AND NOTIFY THE ENGINEER FOR FURTHER INSTRUCTIONS.
- 17. STAGING AREA: CONTRACTOR SHALL COORDINATE THE LOCATION OF ANY REQUIRED STAGING AREA WITH MIAMI-DADE PARKS, RECREATION AND OPEN SPACES DEPARTMENT LOCATED AT 275 NW 2ND STREET, 4TH FLOOR, MIAMI, FLORIDA, 33128. CONTACT NUMBER: 305-755-5464
- 18. MAINTENANCE OF TRAFFIC: VEHICULAR, BICYCLE AND PEDESTRIAN ACCESS SHALL NOT BE CLOSED AT ANY TIME DURING CONSTRUCTION OPERATIONS. CONTRACTOR SHALL PROVIDE SIGNED AND SEALED TRAFFIC CONTROL PLANS FOR REVIEW AND APPROVAL BY MIAMI-DADE COUNTY PUBLIC WORKS DEPARTMENT FOR ANY VEHICULAR LANE, BICYCLE LANE AND/OR SIDEWALK CLOSURE REQUESTS.
- 19. UTILITIES: FOR PLAN LOCATION OF EXISTING UTILITIES, SEE THE PLAN AND ELEVATION SHEETS. CONTACT SUNSHINE ONE OF FLORIDA BEFORE BEGINNING WORK FOR LOCATIONS OF EXISTING FACILITIES AT 1-800-432-4770. THE CONTRACTOR SHALL NOTIFY ALL POTENTIALLY AFFECTED UTILITY OWNERS TWO (2) FULL WORKING DAYS IN ADVANCE PRIOR TO BEGINNING ANY CONSTRUCTION ACTIVITIES.



BRIDGE NO. 874459, 874474

R E V I S I O N S

E BY DESCRIPTION DATE BY DESCRIPTION

DATE BY DESCRIPTION



CHROME ENGINEERING, INC. 16650 N. KENDALL DR., SUITE 205 MIAMI FL, 33196 (305) 432–6826 OSCAR J. CRUZ, P.E. LICENSE # 63889

	NAME	DATE		NAME	DATE	
DESIGNED BY	JAC	06/22/2020	DRAWN BY	ML	08/25/2020	М
CHECKED BY	ос	11/05/2020	CHECKED BY	oc	11/05/2020	IV
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MIAMI-DADE COUNTY

TRANSPORTATION & PUBLIC WORKS DTPW

701 NW 151 COURT MAM, FLORIDA 33136

B-04

GENERAL NOTES 3 OF 3



PLAN AND ELEVATION

BRIDGE 874459

TRANSPORTATION & PUBLIC

WORKS DTPW

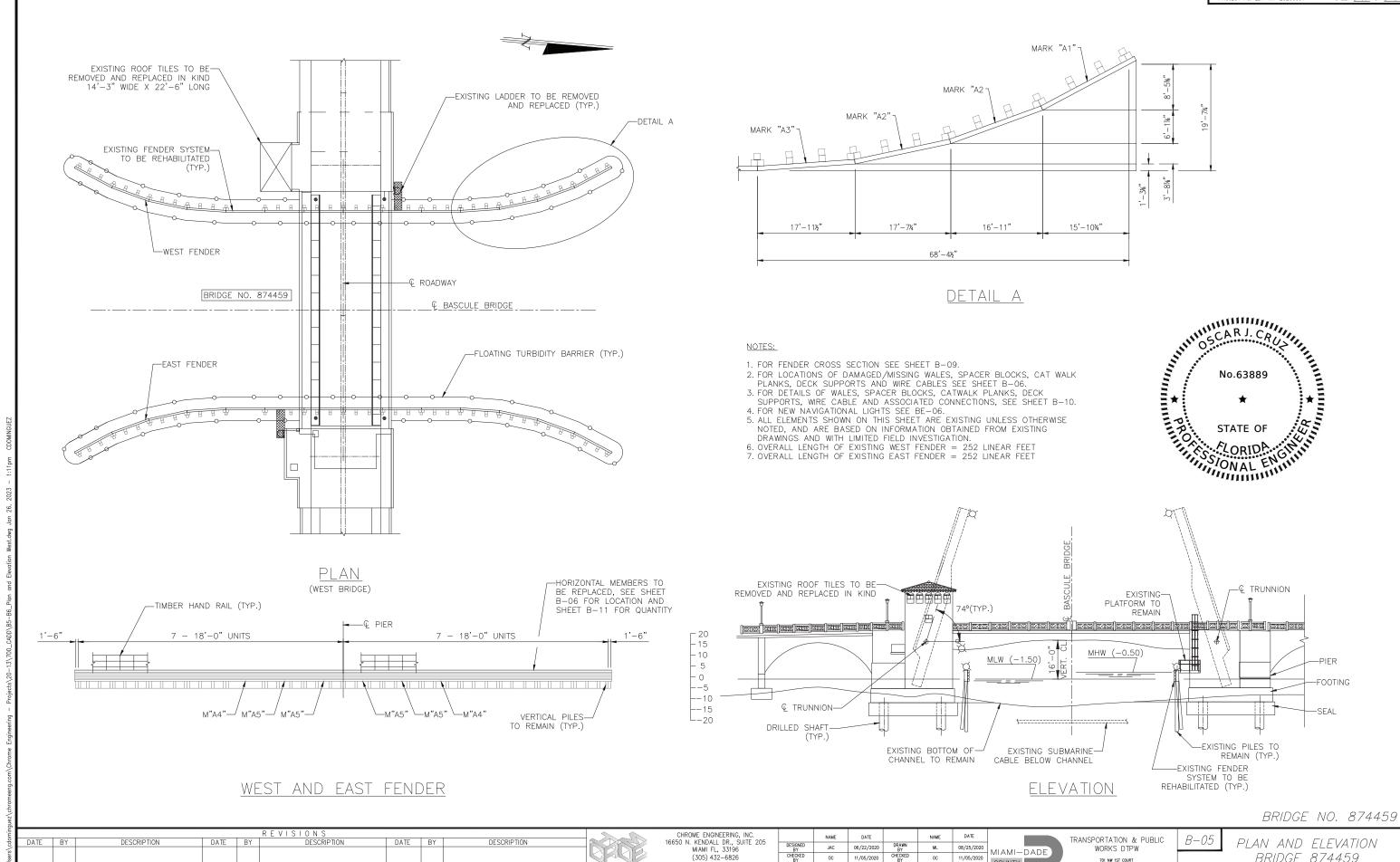
701 NW 1ST COURT MIAMI, FLORIDA 33136

MIAMI-DADE

JAC 06/22/2020 BRAWN ML 08/25/2020 OC 11/05/2020 CHECKED OC 11/05/2020

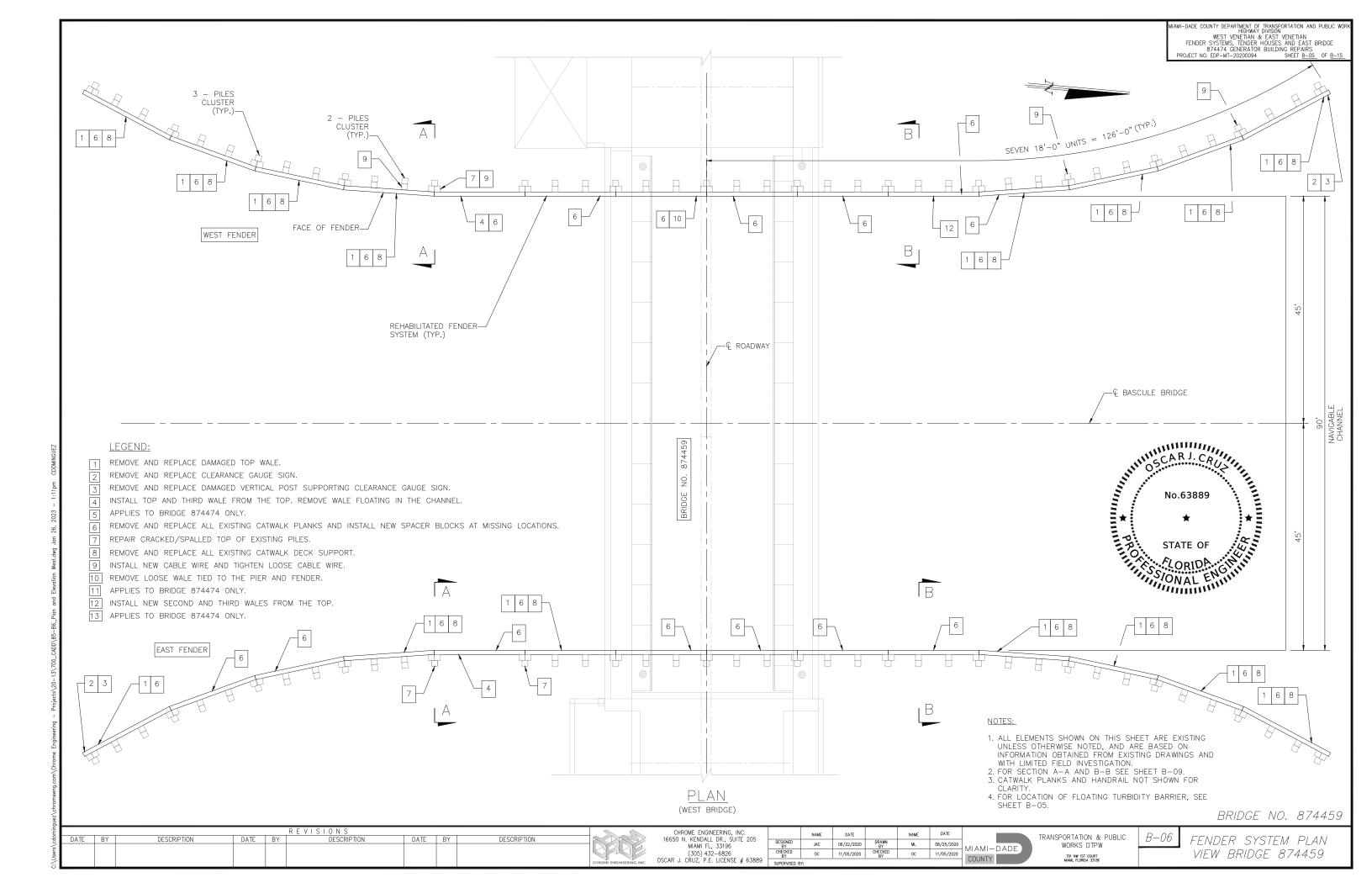
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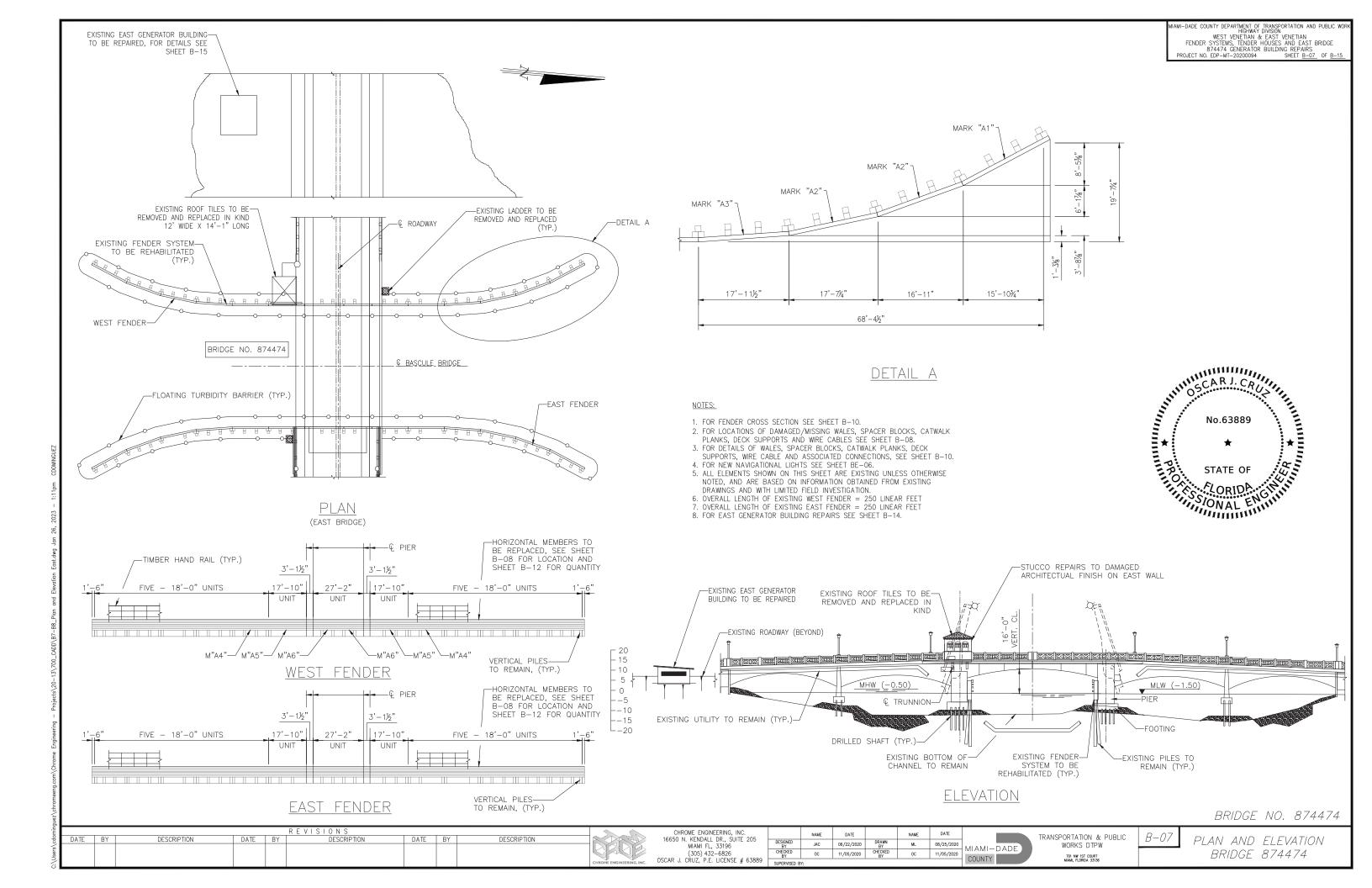
OSCAR J. CRUZ, P.E. LICENSE # 63889

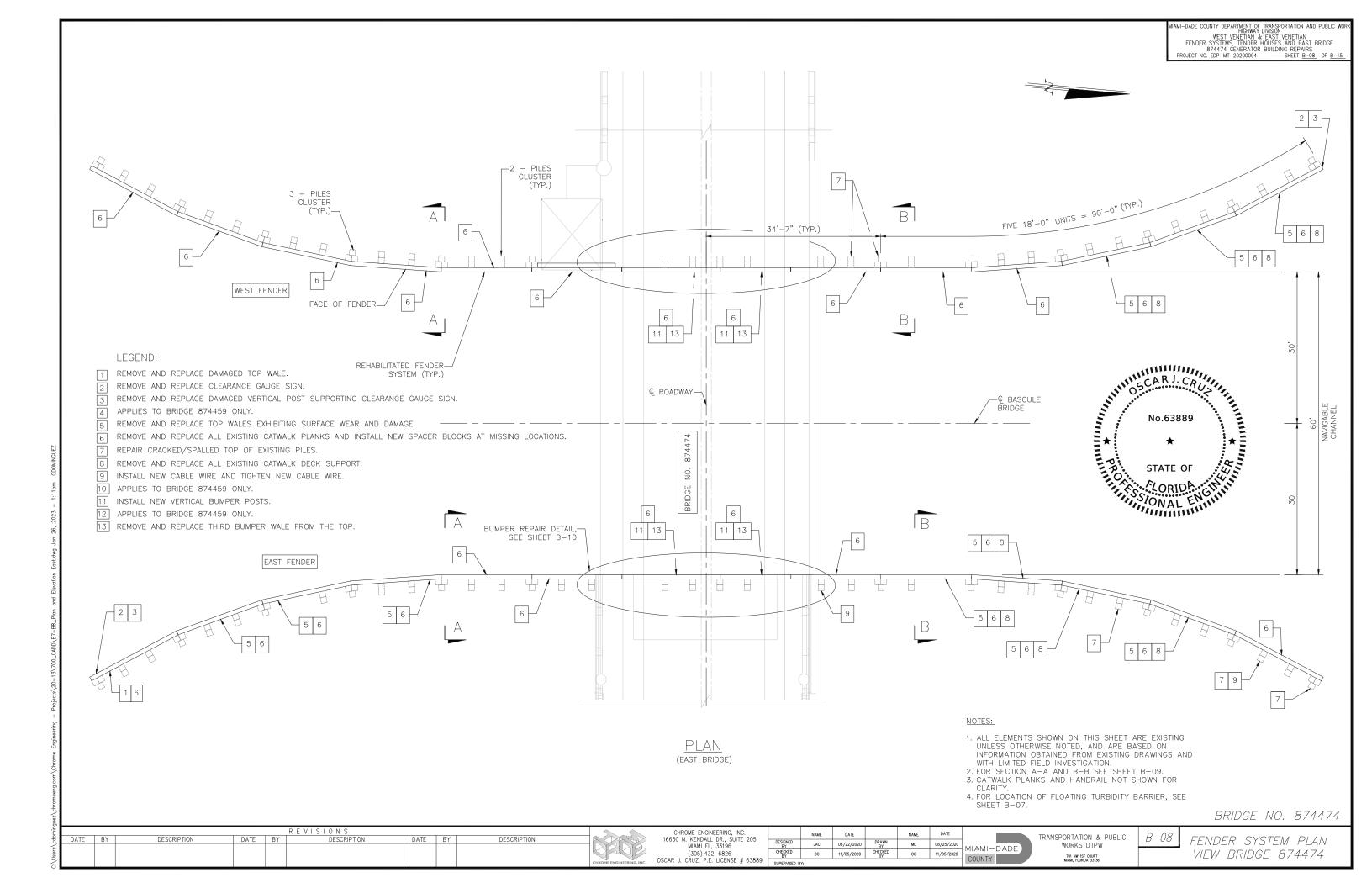


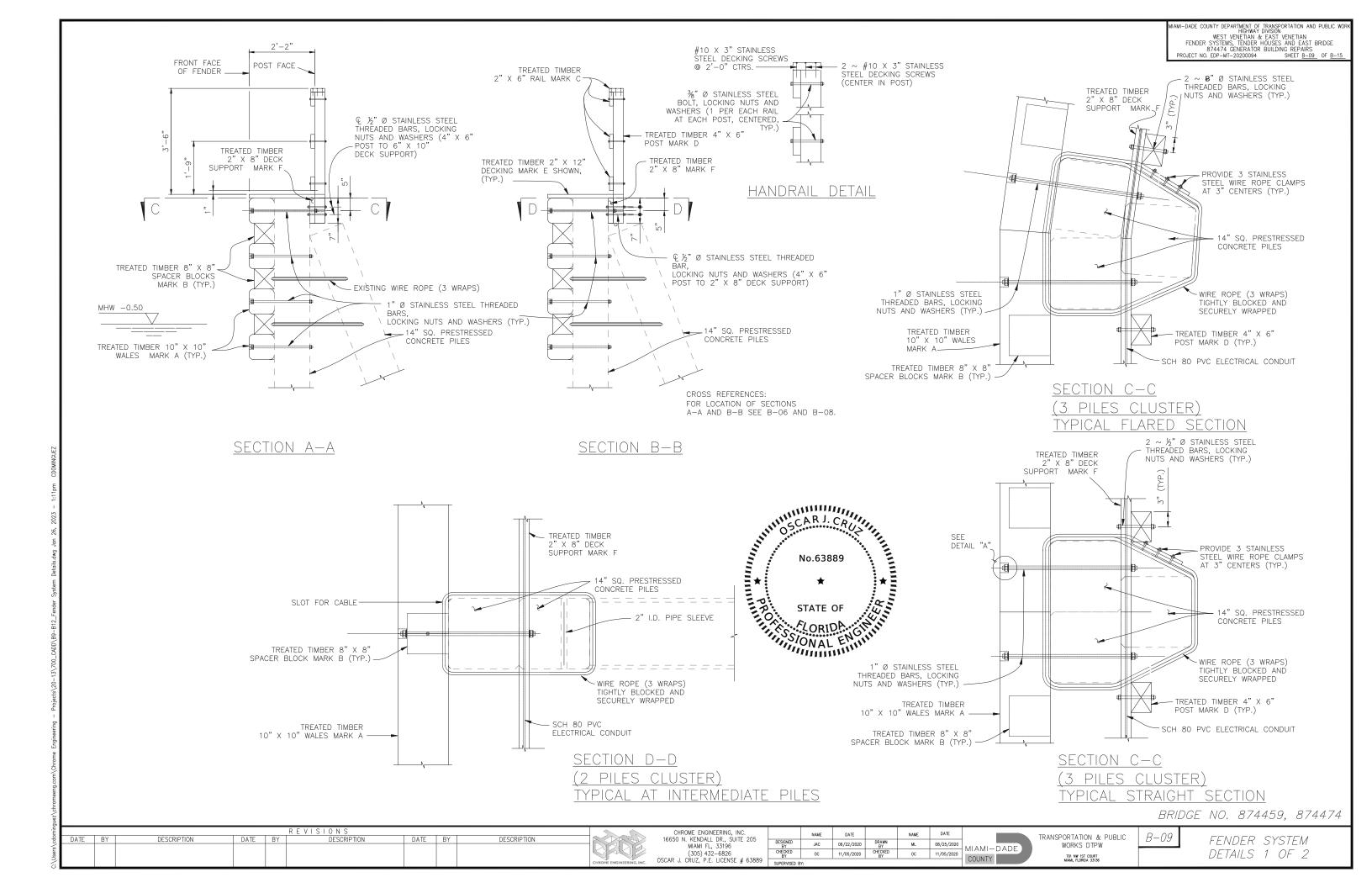
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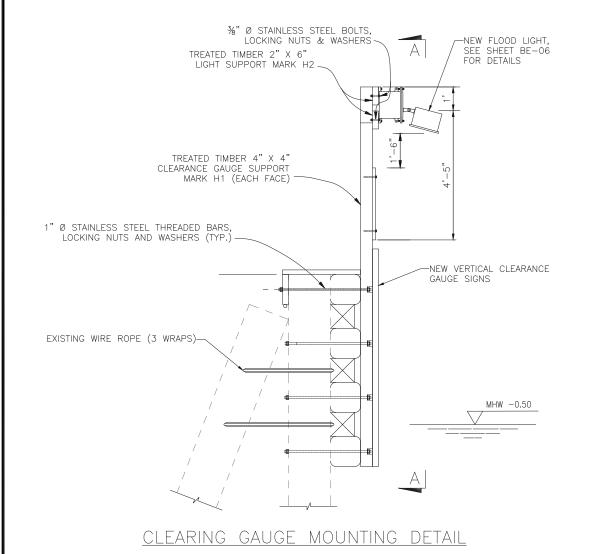
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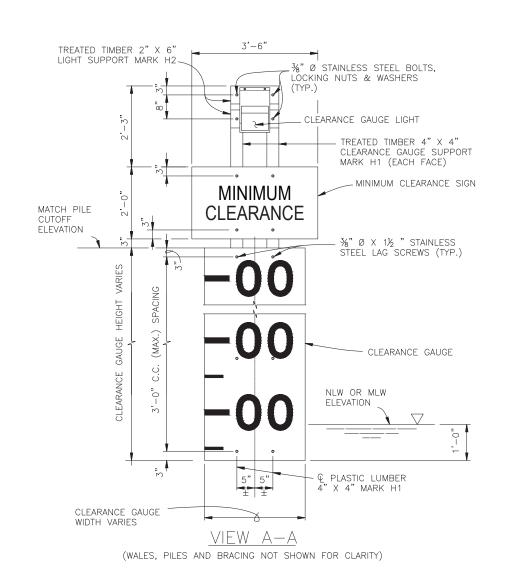


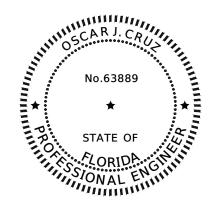


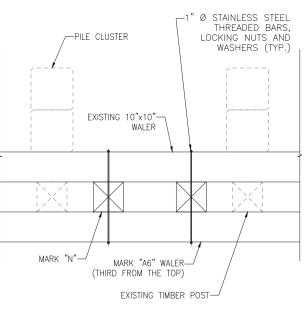












BUMPER REPAIR DETAIL

(APPLICABLE TO FENDERS AT BRIDGE 874474 ONLY)

BRIDGE NO. 874459, 874474

R E V I S I O N S DESCRIPTION DESCRIPTION DESCRIPTION

CHROME ENGINEERING, INC. 16650 N. KENDALL DR., SUITE 205 MIAMI FL, 33196 (305) 432–6826 OSCAR J. CRUZ, P.E. LICENSE # 63889

DATE 

TRANSPORTATION & PUBLIC WORKS DTPW MIAMI-DADE 701 NW 1ST COURT MIAMI, FLORIDA 33136

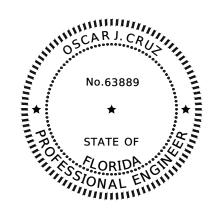
FENDER SYSTEM DETAILS 2 OF 2

S	TRUCTUR	AL TREATED TIMBER	BILL OF	MATERI	ALS
MARK	SIZE (NOMINAL)	DIMENSIONS	BOARD FT. PER EACH	NO. REQD.	QUANTITY (MB)
A1	10" X 10" TREATED TIMBER	19'-6"	162.5	4	0.650
A2	10" X 10" TREATED TIMBER	18'-0"	150.0	6	0.900
A3	10" X 10" TREATED TIMBER	18'-0"	150.0	4	0.600
A4	10" X 10" TREATED TIMBER	18'-0"	150.0	2	0.300
A5	10" X 10" TREATED TIMBER	18'-0"	150.0	1	0.150

*	ALL	TREATED	TIMBER	DIMENSIONS	AND	QUANTITIES	SHOWN A	ARE BASE	D ON THE	NOMINAL
	LUM	RER DIME	NSIONS	AND MAY V.	ARY D	FPFNDING O	N ACTUAL	TIMBER	DIMENSION	

<sup>\*\*</sup> QUANTITY SHOWN ASSUMES 10% REPLACEMENT OF ORIGINAL FENDER QUANTITY FOR BLOCK SPACERS MARK B1 AND B2.

	TREATED TIMBER BILL OF MATERIALS								
MARK	SIZE (NOMINAL)	DIMENSIONS	BOARD FT. PER EACH	NO. REQD.	QUANTITY (MB)				
B1	8" X 8" TREATED TIMBER	1'-2" (STRAIGHT)	6.2	40	0.249				
B2	8" X 8" TREATED TIMBER	1'-10" (STRAIGHT) (TRIM & MITER ENDS AS REQUIRED)	9.8	3	0.029				
С	2" X 6" TREATED TIMBER	18'-0" (STRAIGHT)	18.0	112	2.016				
D	4" X 6" TREATED TIMBER	4'-4" (STRAIGHT) (HANDRAIL POST)	9.0	84	0.756				
E	2" X 12" TREATED TIMBER	2'-2" (STRAIGHT)	4.3	438	1.898				
F	2" X 8" TREATED TIMBER	18'-0"	24.0	14	0.336				
H1	4" X 4" TREATED TIMBER	14'-10" (STRAIGHT)	19.8	4	0.079				
H2	2" X 6" TREATED TIMBER	1'-2" (STRAIGHT)	1.2	4	0.005				



BRIDGE NO. 874459

R E V I S I O N S
BY DESCRIPTION DATE BY DESCRIPTION DATE BY DESCRIPTION

CHROME ENGINEERING, INC.

CHROME ENGINEERING, INC.

16650 N. KENDALL DR., SUITE 205

MIAMI FL, 33196

(305) 432-6826

OSCAR J. CRUZ, P.E. LICENSE # 63889

		NAME	DATE		NAME	DATE		
	DESIGNED BY	JAC	06/22/2020	DRAWN BY	ML	08/25/2020	MIZ	
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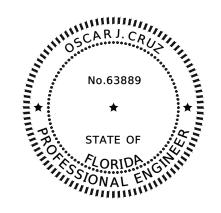
STRUCTURAL TREATED
TIMBER BILL OF MATERIALS
1 OF 2

S	TRUCTUR	AL TREATED TIMBER	BILL OF	MATERI	ALS
MARK	SIZE (NOMINAL)	DIMENSIONS	BOARD FT. PER EACH	NO. REQD.	QUANTITY (MB)
A1	10" X 10" TREATED TIMBER	18'-0"	150.0	2	0.300
A2	10" X 10" TREATED TIMBER	18'-0"	150.0	6	0.900
A3	10" X 10" TREATED TIMBER	18'-0"	150.0	2	0.300
A4	10" X 10" TREATED TIMBER	18'-0"	150.0	1	0.150
A5	10" X 10" TREATED TIMBER	20'-0"	166.7	0	0.000
A6	10" X 10" TREATED TIMBER	15'-9"	131.3	4	0.525

*	ALL TREATED TIM	MBER DIMENSIONS	AND QUANTITIES SHOWN A	RE BASED ON THE NOMINAL
	LUMBER DIMENS	IONS AND MAY VA	RY DEPENDING ON ACTUAL	TIMBER DIMENSION.

	LOWRER DIMENSION	NS AND MAT I	ART DEPENDING	ON ACTUAL	HMBEK	DIMENSION.	
**	QUANTITY SHOWN	ASSUMES 10%	REPLACEMENT	OF ORIGINAL	<b>FENDER</b>	QUANTITY FOR	BLOCK
	SPACERS MARK B	1 AND B2.					

TREATED TIMBER BILL OF MATERIALS							
MARK	SIZE (NOMINAL)	DIMENSIONS	BOARD FT. PER EACH	NO. REQD.	QUANTITY (MB)		
B1	8" X 8" TREATED TIMBER	1'-2" (STRAIGHT)	6.2	37	0.230		
B2	8" X 8" TREATED TIMBER	1'-10" (STRAIGHT) (TRIM & MITER ENDS AS REQUIRED)	9.8	3	0.029		
С	2" X 6" TREATED TIMBER	18'-0" (STRAIGHT)	18.0	112	2.016		
D	4" X 6" TREATED TIMBER	4'-4" (STRAIGHT) (HANDRAIL POST)	9.0	84	0.756		
E	2" X 12" TREATED TIMBER	2'-2" (STRAIGHT)	4.3	496	2.149		
F	2" X 8" TREATED TIMBER	18'-0"	24.0	7	0.168		
H1	4" X 4" TREATED TIMBER	14'-10" (STRAIGHT)	19.8	4	0.079		
H2	2" X 6" TREATED TIMBER	1'-2" (STRAIGHT)	1.2	4	0.005		
N	10" X 10" TREATED TIMBER	4'-6" (STRAIGHT — VERTICAL) (BUMPER REPAIR DETAIL)	37.5	32	1.200		



BRIDGE NO. 874474

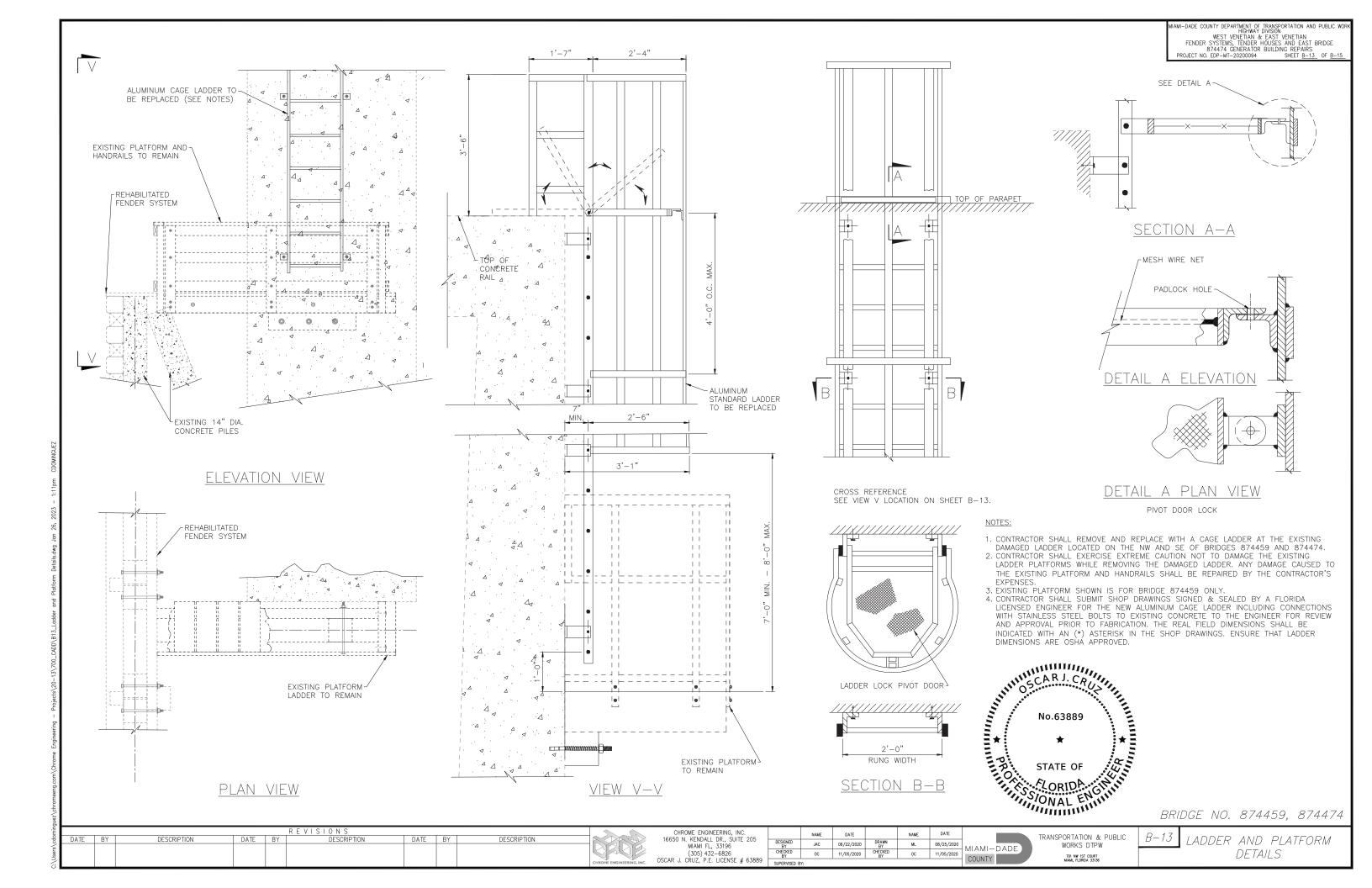
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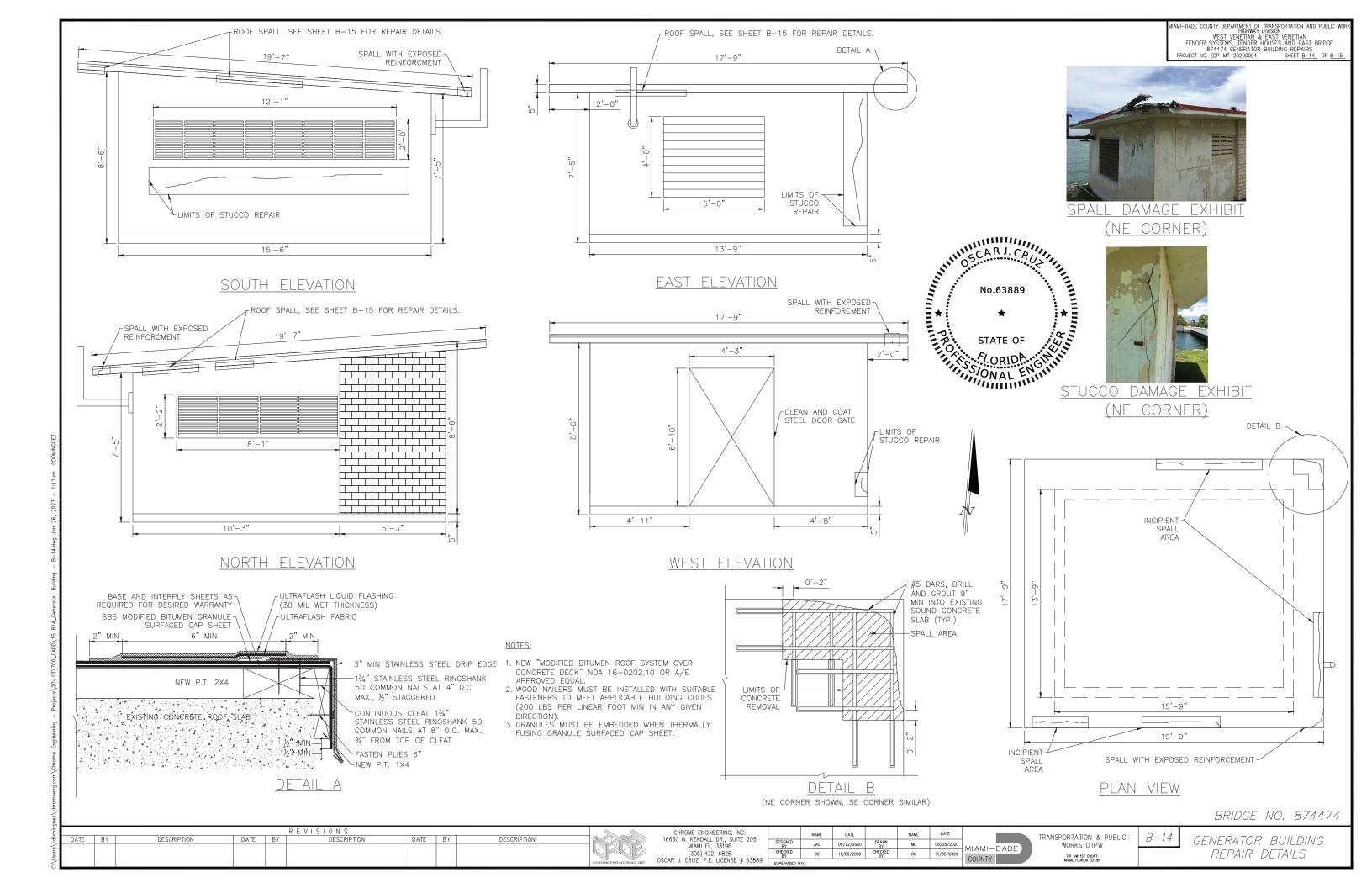
CHROME ENGINEERING, INC. 16650 N. KENDALL DR., SUITE 205 MIAMI FL, 33196 (305) 432-6826 OSCAR J. CRUZ, P.E. LICENSE # 63889

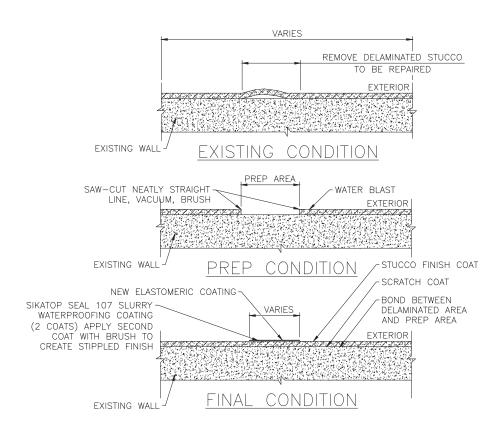
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	DESIGNED BY	JAC	06/22/2020	DRAWN BY	ML	08/25/2020	МГА	
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	SUPERVISED BY:						CO	

TRANSPORTATION & PUBLIC WORKS DTPW MIAMI-DADE 701 NW 1ST COURT MIAMI, FLORIDA 33136

STRUCTURAL TREATED TIMBER BILL OF MATERIALS 2 OF 2

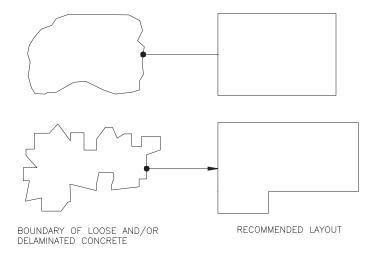




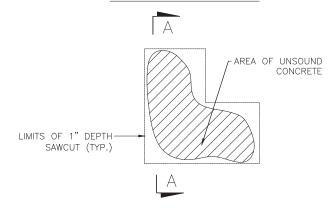


### STUCCO REPAIR NOTES PROCEDURE:

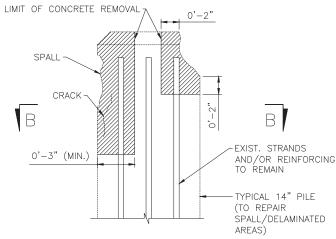
- 1. REMOVE EXISTING CRACKED AND LOOSE STUCCO INTO THE AREA BY 2" WHERE THE STUCCO IS SOLIDLY ADHERED.
- 2. CALL FOR ENGINEER'S INSPECTION IF BLOCK OR CONCRETE UNDER STUCCO IS CRACKED OR SPALLING REPAIR IS NEEDED.
- 3. BLOCK CRACKS ARE TO BE REPAIRED WITH SIKADUR 32, SIKAQUICK VOH, OR APPROVED EQUAL. IF WALL SURFACE IS BROKEN, CLEAN WALL OF LOOSE MATERIALS TO PROVIDE SOUND CONTACT FOR REPAIR PRODUCT. IF HAIRLINE CRACKS ARE PRESENT REPAIR AS PER SIKA 223 OR APPROVED EQUAL FOLLOWING THE MANUFACTURER'S RECOMMENDATIONS.
- 4. IF WALL CRACKS ARE PRESENT, COVER THE LENGTH OF CRACKS IN GALVANIZED MESH LATH USING 1/4"x2" LONG TAPCONS @ 6" O.C.
- 5. PRESSURE WASH EXISTING EXTERIOR WALLS TO RECEIVE NEW STUCCO REPAIRS AS SHOWN IN SHEET B-14.
- 6. REPLACE ALL EXISTING CAULK AROUND ALL EXTERIOR EXISTING DOORS AND WINDOWS WITH SIKAFLEX 15 LM OR EQUALLY APPROVED. CLEAN SURFACE AND APPLY SEALANT IN UNIFORM MANNER TO GIVE A CLEAN FINISH. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.
- 7. CLEAN SURFACES OF ALL DIRT, DUST OR OTHER CONTAMINANTS THAT AFFECT ADHESION FOR PAINT OR APPEARANCE OF PAINT.
- 8. PAINT ALL EXTERIOR WALLS WITH ELASTOMERIC PAINT SUCH AS BEHR PREMIUM, ELATO HERIC, SHERWIN-WILLIAMS "SHERLASTIC", OR PITTSBURGH "MANOR TIMELESS SUPER ELASTOMERIC".
  - 1ST. COAT ACRYLIC PRIMER-SEALER OR OIL-BASE TRANSITION PRIMER SEALER.
  - 2ND. COAT ELASTOMERIC WATERPROOFER.
  - 3RD. COAT ELASTOMERIC WATERPROOFER.
- A. MINIMUM THICKNESS OF DRY FILM SHALL BE 5 MILS.
- B. PAINT SHALL BE APPLIED WITH ROLLER AND BRUSH. SPRAY PAINT IS NOT ALLOWED.
- C. COLOR SELECTION TO BE CONDUCTED BY MIAMI-DADE COUNTY PUBLIC WORKS DEPARTMENT.



# TYPICAL SPALL/DELAMINATION REPAIR CONFIGURATIONS

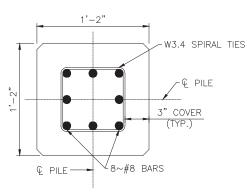


PARTIAL DEPTH REPAIR PLAN

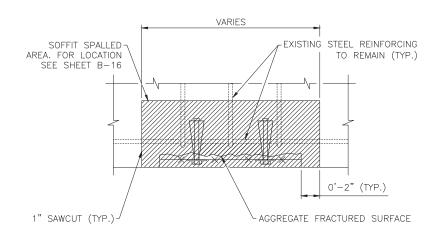


# SPALL CONCRETE PILE REPAIR DETAIL

(REPAIR SPALL/DELAMINATED AREAS)

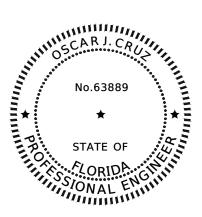


SECTION B-B



# ROOF SPALL REPAIR DETAIL

(FOR SPALL/DELAMINATION REPAIR PROCEDURE, SEE GENERAL NOTES SHEET B-4)



BRIDGE NO. 874474

R E V I S I O N S

DATE BY DESCRIPTION DATE BY DESCRIPTION DATE BY DESCRIPTION

CHROME ENGINEERING, INC.

CHROME ENGINEERING, INC. 16650 N. KENDALL DR., SUITE 205 MIAMI FL, 33196 (305) 432-6826 OSCAR J. CRUZ, P.E. LICENSE # 63889

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