Construction Agreement No.: 2020-C-491-0000x

THIS CONSTRUCTION AGREEMENT (this "Agreement") is made and entered into by and between the State of Florida, Department of Transportation, <u>(3400 West Commercial Blvd, Ft. Lauderdale FL 33309)</u> (hereinafter referred to as the "DEPARTMENT") and <u>The City of Fort Lauderdale (hereinafter referred to as the "Construction Coordinator")</u>.

WITNESSETH:

WHEREAS, the DEPARTMENT is authorized and required by Section 334.044(13), Florida Statutes, to coordinate the planning, development, and operation of the State Highway System; and

WHEREAS, pursuant to Section 339.282, Florida Statutes, the DEPARTMENT may contract with a property owner to finance, construct, and improve public transportation facilities; and

 WHEREAS, the Construction Coordinator proposes to construct certain improvements to

 SR A1A (Seabreeze Blvd.)
 Section 86180
 Subsection 000 /000
 from Begin MP

 2.312 to End MP 2.348
 Local Name: Seabreeze Blvd.
 located in Broward
 County (hereinafter referred to as the "Project"); and

WHEREAS, the parties desire to enter into this Agreement for the Construction Coordinator to make improvements within the DEPARTMENT'S right of way to construct the Project, which will become the property of the Department upon acceptance of the work.

NOW, THEREFORE, based on the premises above, and in consideration of the mutual covenants contained herein, the parties hereby agree that the construction of the Project shall proceed in accordance with the following terms and conditions:

1. The recitals set forth above are specifically incorporated herein by reference and made a part of this Agreement. The Construction Coordinator is authorized, subject to the conditions set forth herein, to enter the DEPARTMENT'S right of way to perform all activities necessary for the construction of **See attached exhibit A scope of services/special provisions**.

2. The Project shall be designed and constructed in accordance with the latest edition of the DEPARTMENT'S Standard Specifications for Road and Bridge Construction and DEPARTMENT Design Standards and Manual of Uniform Traffic Control Devices ("MUTCD"). The following guidelines shall apply as deemed appropriate by the DEPARTMENT: the DEPARTMENT Structures Design Manual, AASHTO Guide Specifications for the Design of Pedestrian Bridges, AASHTO LRFD Bridge Design Specifications, and the DEPARTMENT Plans Preparation Manual ("PPM") Manual for Uniform Minimum Standards for Design, Construction and Maintenance for Streets and Highways (the "Florida Green Book") and the DEPARTMENT Traffic Engineering Manual. The Construction Coordinator will be required to submit any construction plans required by the DEPARTMENT for review and approval prior to any work being commenced. Should any changes to the plans be required during construction of the Project, the Construction Coordinator shall be required to notify the DEPARTMENT of the changes and receive approval from the DEPARTMENT prior to the changes being constructed. The Construction Coordinator shall maintain the area of the project at all times and coordinate any work needs of the DEPARTMENT during construction of the project.

3. The Construction Coordinator shall notify the DEPARTMENT a minimum of 48 hours before beginning construction within DEPARTMENT right of way. The Construction Coordinator shall notify the DEPARTMENT should construction be suspended for more than 5 working days.

4. Pursuant to Section 7-13 of the DEPARTMENT Standard Specifications, the Construction Coordinator is required to possess a general liability insurance naming the DEPARTMENT as an additional insured and insuring the DEPARTMENT and the Construction Coordinator against any and all claims for injury or damage to persons and property, and for the loss of life or property that may occur (directly or indirectly) by reason of the Construction Coordinator accessing DEPARTMENT right of way and the Construction Coordinator's performance of the Project. Such amount shall be carried in a minimum amount of not less than

<u>one million</u> and 00/100 Dollars (\$ <u>1,000,000.00</u>) for bodily injury or death to any one person or any number of persons in any one occurrence, and not less than <u>fifty thousand</u> and 00/100 Dollars (\$ <u>50,000.00</u>) for property damage, or a combined coverage of not less than <u>one million fifty thousand</u> and 00/100 Dollars (\$ <u>1,050,000.00</u>). Additionally, the Construction Coordinator shall supply the DEPARTMENT with a payment and performance bond in the amount of the estimated cost of construction, provided by a surety authorized to do business in the State of Florida, payable to the DEPARTMENT. The bond and insurance shall remain in effect until completion of construction and acceptance by the DEPARTMENT. Prior to commencement of the Project and on such other occasions as the DEPARTMENT may reasonably require, the Construction Coordinator shall provide the DEPARTMENT with certificates documenting that the required insurance coverage is in place and effective. If the Construction Coordinator is a governmental entity they will be exempt from these requirements.

5. The Construction Coordinator shall be responsible for monitoring construction operations and the maintenance of traffic ("MOT") throughout the course of the project in accordance with the latest edition of the DEPARTMENT Standard Specifications, section 102. The Construction Coordinator is responsible for the development of a MOT plan and making any changes to that plan as necessary. The MOT plan shall be in accordance with the latest version of the DEPARTMENT Design Standards, Index 600 series. Any MOT plan developed by the Construction Coordinator that deviates from the DEPARTMENT Design Standards must be signed and sealed by a professional engineer. MOT plans will require approval by the DEPARTMENT prior to implementation.

6. The Construction Coordinator shall be responsible for locating all existing utilities, both aerial and underground, and for ensuring that all utility locations be accurately documented on the construction plans. All utility conflicts shall be fully resolved directly with the applicable utility.

7. The Construction Coordinator will be responsible for obtaining all permits that may be required by other agencies or local governmental entities.

8. It is hereby agreed by the parties that this Agreement creates a permissive use only and all improvements resulting from this agreement shall become the property of the DEPARTMENT. Neither the granting of the permission to use the DEPARTMENT right of way nor the placing of facilities upon the DEPARTMENT property shall operate to create or vest any property right to or in the Construction Coordinator, except as may otherwise be provided in separate agreements. The Construction Coordinator shall not acquire any right, title, interest or estate in DEPARTMENT right of way, of any nature or kind whatsoever, by virtue of the execution, operation, effect, or performance of this Agreement including, but not limited to, the Construction Coordinator's use, occupancy or possession of DEPARTMENT right of way. The parties agree that this Agreement does not, and shall not be construed to, grant credit for any future transportation concurrency requirements pursuant to chapter 163, Florida Statutes.

9. The Construction Coordinator shall perform all required testing associated with the design and construction of the project. Testing results shall be made available to the DEPARTMENT upon request. The DEPARTMENT shall have the right to perform its own independent testing during the course of the Project.

10. The Construction Coordinator shall exercise the rights granted herein and shall otherwise perform this Agreement in a good and workmanlike manner, with reasonable care, in accordance with the terms and provisions of this Agreement and all applicable federal, state, local, administrative, regulatory, safety and environmental laws, codes, rules, regulations, policies, procedures, guidelines, standards and permits, as the same may be constituted and amended from time to time, including, but not limited to, those of the DEPARTMENT, applicable Water Management District, Florida Department of Environmental Protection, Environmental Protection Agency, the Army Corps of Engineers, the United States Coast Guard and local governmental entities.

11. If the DEPARTMENT determines a condition exists which threatens the public's safety, the DEPARTMENT may, at its discretion, cause construction operations to cease and immediately have any potential hazards removed from its right of way at the sole cost, expense, and effort of the Construction Coordinator. The Construction Coordinator shall bear all construction delay costs incurred by the DEPARTMENT.

12. All work and construction shall be completed within <u>365</u> days of the date of the last signature affixed to this agreement. If construction is not completed within this time, the DEPARTMENT may make a claim on the bond. The DEPARTMENT may terminate this Agreement at any time, with or without cause and without DEPARTMENT liability to the Construction Coordinator, by providing sixty (60) days prior written notice of termination to the Construction Coordinator.

13. The Construction Coordinator shall be responsible to maintain and restore all features that might require relocation within the DEPARTMENT right of way.

14. The Construction Coordinator will be responsible for clean up or restoration required to correct any environmental or health hazards that may result from construction operations.

15. Upon completion of construction, the Construction Coordinator will be required to submit to the DEPARTMENT final as-built plans and an engineering certification that construction was completed in accordance to the plans. Prior to the termination of this Agreement, the Construction Coordinator shall remove its presence, including, but not limited to, all of the Construction Coordinator's property, machinery, and equipment from DEPARTMENT right of way and shall restore those portions of DEPARTMENT right of way disturbed or otherwise altered by the Project to substantially the same condition that existed immediately prior to the commencement of the Project.

16. If the DEPARTMENT determines that the Project is not completed in accordance with the provisions of this Agreement, the DEPARTMENT shall deliver written notification of such to the Construction Coordinator. The Construction Coordinator shall have thirty (30) days from the date of receipt of the DEPARTMENT'S written notice, or such other time as the Construction Coordinator and the DEPARTMENT mutually agree to in writing, to complete the Project and provide the DEPARTMENT with written notice of the same (the "Notice of Completion"). If the Construction Coordinator fails to timely deliver the Notice of Completion, or if it is determined that the Project is not properly completed after receipt of the Notice of Completion, the DEPARTMENT, within its discretion may: 1) provide the deficiency(ies); or 2) correct the deficiency(ies) at the Construction Coordinator's sole cost and expense, without DEPARTMENT liability to the Construction Coordinator for any resulting loss or damage to property, including, but not limited to, machinery and equipment. If the DEPARTMENT elects to correct the deficiency(ies), the DEPARTMENT shall provide the Construction Coordinator with an invoice for the costs incurred by the DEPARTMENT and the Construction Coordinator shall pay the invoice within thirty (30) days of the date of the invoice.

17. Nothing in this Agreement shall be deemed or otherwise interpreted as waiving the DEPARTMENT'S sovereign immunity protections, or as increasing the limits of liability as set forth in Section 768.28, Florida Statutes. The DEPARTMENT'S liability for breach of this Agreement is limited in amount and shall not exceed the limitations of liability for tort actions as set forth in Section 768.28(5), Florida Statutes.

18. All formal notices, proposed changes and determinations between the parties hereto and those required by this Agreement, including, but not limited to, changes to the notification addresses set forth below, shall be in writing and shall be sufficient if mailed by regular United States mail, postage prepaid, to the parties at the contact information listed below.

19. The Construction Coordinator shall not cause any liens or encumbrances to attach to any portion of DEPARTMENT right of way.

20. This Agreement shall be governed by the laws of the State of Florida in terms of interpretation and performance. Venue for any and all actions arising out of or in any way related to the interpretation, validity, performance or breach of this Agreement shall lie exclusively in a state court of appropriate jurisdiction in Leon County, Florida.

21. The Construction Coordinator may not assign, pledge or transfer any of the rights, duties and obligations provided in this Agreement without the prior written consent of the DEPARTMENT'S District Secretary or his/her designee. The DEPARTMENT has the sole discretion and authority to grant or deny proposed assignments, with or without cause. Nothing herein shall prevent the Construction Coordinator from delegating its duties hereunder, but such delegation shall not release the Construction Coordinator from this Agreement.

22. This Agreement shall be binding upon and inure to the benefit of the parties hereto and their respective successors and assigns. Nothing in this Agreement is intended to confer any rights, privileges, benefits, obligations or remedies upon any other person or entity except as expressly provided for herein.

23. This instrument, together with the attached exhibits and documents made part hereof by reference, contain the entire agreement of the parties and no representations or promises have been made except those that are specifically set out in this Agreement. All prior and contemporaneous conversations, negotiations, possible and alleged agreements and representations, covenants, and warranties with respect to the subject matter of this Agreement, and any part hereof, are waived, merged herein and superseded hereby.

24. By their signature below, the parties hereby acknowledge the receipt, adequacy and sufficiency of consideration provided in this Agreement and forever waive the right to object to or otherwise challenge the same.

25. The failure of either party to insist on one or more occasions on the strict performance or compliance with any term or provision of this Agreement shall not be deemed a waiver or relinquished in the future of the enforcement thereof, and it shall continue in full force and effect unless waived or relinquished in writing by the party seeking to enforce the same.

26. No term or provision of this Agreement shall be interpreted for or against any party because that party or that party's legal representative drafted the provision.

27. If any section, paragraph, clause or provision of this Agreement is adjudged by a court, agency or authority of competent jurisdiction to be invalid, illegal or otherwise unenforceable, all remaining parts of this Agreement shall remain in full force and effect and the parties shall be bound thereby so long as principle purposes of this Agreement remain enforceable.

28. A modification or waiver of any of the provisions of this Agreement shall be effective only if made in writing and executed with the same formality as this Agreement.

29. The Construction Coordinator agrees to promptly indemnify, defend, save and hold harmless the DEPARTMENT and all of its officers, agents and employees from and pay all demands, claims, judgments, liabilities, damages, fines, fees, taxes, assessments, penalties, costs, expenses, attorneys' fees and suits of any nature or kind whatsoever caused by, or arising out of or related to the performance or breach of this Agreement by the Construction Coordinator, including, without limitation, performance of the Project within the DEPARTMENT'S right of way. The term "liabilities" shall specifically include, without limitation, any act, action, neglect or omission by the Construction Coordinator, its officers, agents, employees or representatives in any way pertaining to this Agreement, whether direct or indirect, except that neither the Construction Coordinator nor any of its officers, agents, employees or representatives in any way pertaining from the sole negligence, intentional or wrongful acts of the DEPARTMENT or any of its officers, agents or employees. The Construction Coordinator shall notify the DEPARTMENT in writing immediately upon becoming aware of such liabilities. The Construction Coordinator's inability to evaluate liability, or its evaluation of liability, shall not excuse performance of the provisions of this paragraph. The indemnities assumed by the Construction Coordinator shall survive termination of this Agreement. The insurance coverage and limits required in this Agreement may or may not be adequate to protect the DEPARTMENT and such insurance coverage shall not be deemed a limitation on the Construction Coordinator's liability under the indemnities granted to the DEPARTMENT in this Agreement.

30. Construction Coordinator:

- (1) shall utilize the U.S. Department of Homeland Security's E-Verify system to verify the employment eligibility of all new employees hired by the Construction Coordinator during the term of the contract; and
- (2) shall expressly require any subcontractors performing work or providing services pursuant to the state contract to likewise utilize the U.S. Department of Homeland Security's E-Verify system to verify the employment eligibility of all new employees hired by the subcontractor during the contract term.

31. <u>COMPLIANCE WITH LAWS</u>

The Construction Coordinator shall allow public access to all documents, papers, letters, or other material subject to the provisions of Chapter 119, Florida Statutes, and made or received by the Construction Coordinator in conjunction with this Agreement. Specifically, if the Construction Coordinator is acting on behalf of a public agency the Construction Coordinator shall:

- (1) Keep and maintain public records that ordinarily and necessarily would be required by the Department in order to perform the services being performed by the Construction Coordinator.
- (2) Provide the public with access to public records on the same terms and conditions that the Department would provide the records and at a cost that does not exceed the cost provided in Chapter 119, Florida Statutes, or as otherwise provided by law.
- (3) Ensure that public records that are exempt or confidential and exempt from public records disclosure requirements are not disclosed except as authorized by law.
- (4) Meet all requirements for retaining public records and transfer, at no cost, to the Department all public records in possession of the Construction Coordinator upon termination of the contract and destroy any duplicate public records that are exempt or confidential and exempt from public records disclosure requirements. All records stored electronically must be provided to the Department in a format that is compatible with the information technology systems of the Department. Failure by the Construction Coordinator to grant such public access shall be grounds for immediate unilateral cancellation of this Agreement by the Department. The Construction Coordinator shall promptly provide the Department with a copy of any request to inspect or copy public records in possession of the Construction Coordinator and shall promptly provide the Department a copy of the Construction Coordinator's response to each such request.

CONSTRUCTION COORDINATOR CONTACT INFORMATION

Name Chris Lagerbloom		Title: C	ity Manager	
Office No. <u>954-828-5013</u>	Cell	EmailC	Lagerbloom@fortlauderdale	e.gov
Name		Title Office No.		
	Cell	Email		
Mail Address				
IN WITNESS WHEREOF herein expressed on the dates ind	, Construction Coordinator an icated below.	nd the DEPARTME	NT have executed this Agreen	nent for the purposes
CONSTRUCTION COORDINATO	R	DEPAR	TMENT OF TRANSPORTATIO	N
Ву:	(Signature)	Ву:		(Signature)
Chris Lagerbloom	(Print Name)	Antonio	Castro, PE	(Print Name)
City Manager	(Title)	District 4	1 Maintenance Engineer	(Title)
	(Date)			(Date)

Legal Review:

EXHIBIT A 2020-C-491-0000x

DRAFT VERSION AS OF 2.26.2020

I. SCOPE OF SERVICES

The Proposed Project consists of Repairs at pedestrian bridge at 801 Seabreeze Blvd. (A1A) from Bahia Mar Hotel to the beach (City of Ft. Lauderdale Right-of-way). Replacement of the following: Walkway Surface, Stairs, Fencing, Repair spalled Concrete on I-beams of Pedestrian Bridge.

II. PROJECT PLANS

The Construction Coordinator is authorized to install the Project in accordance with the attached plans prepared by Marcus O. Unterweger, P.E. and dated 10/28/2019. Any revisions must be approved by the DEPARTMENT in writing.

III. SPECIAL PROVISIONS FOR CONSTRUCTION

- Prior to any work requiring lane closures, mobile operations or traffic pacing operations, the contractor or permittee shall submit a request to the Department that includes the time, location, and description of work being performed. The lane closure request shall be submitted to the Department a minimum of 2 weeks prior to the proposed closure date and must be approved by the Department before work requiring the closure may begin within the FDOT Right of Way. You must also comply with the lane closure analysis as outlined in the FDOT Design Manual 241.1 & FDM 240.4.2.7. The request shall be entered into the Lane Closure Information System (LCIS) by the permittee at the following URL address: https://www.fdotlcis.com/login.aspx. Each request will be reviewed by the appropriate Department personnel for compliance with contract or permit requirements and coordination with adjacent projects or work activities.
- Maintenance of Traffic (lane closures on the state road system occurring during peak hours 7:00-9:00 AM or 4:00 –6:00 PM), lasting over 24 hours and/or at limited access facilities must contact Barbara Guillermo Canedo (<u>Guillermo.canedo@dot.state.fl.us</u>)two weeks prior closures.

Guillermo Canedo can be reached at 954-777-4302 Florida Department of Transportation Public Information Office 3400 West Commercial Blvd. Fort Lauderdale, Florida 33309

- During construction, highest priority should be given to ensure pedestrian safety. If permission is granted to temporarily close a sidewalk, it should be done with the express condition that an alternate route will be provided and shall continuously maintain pedestrian features to meet Americans with Disability Act (ADA) standards.
- The D.O.T. right-of-way cannot be utilized for staging, storage or mobilization of equipment, supplies and/or vehicles used to perform work for on-site (non-FDOT right-of-way) construction.
- The D.O.T. roadway, sidewalk, etc. must not be disturbed until the off-site improvements shown on the permit are ready to be constructed. This construction should be completed as soon as possible so as to minimize disruption within the R/W.
- A copy of this permit and plan will be on the job site at all times during the construction of this facility.
- This permit is valid only for work proposed within the D.O.T. right-of-way. Contact Louis Berger Asset Management Contractor (us1-A1A-permits@louisberger.com) at 888-934-1669 to schedule a pre-construction meeting 48 hours prior commencement of construction. Certification acceptance and final approval is contingent upon conformity of all work done according to this approved permit.
- Permittee is cautioned that utilities may be located within the construction area.

EXHIBIT A 2020-C-491-0000x

- Validity of this permit is contingent upon permittee obtaining necessary permits from all other agencies involved.
- All maintenance of traffic (MOT) will be in accordance with the Department's current edition of the Design Standards, (102-600 series). The Operations Engineer or his designee reserves the right to direct the removal/relocation/modification of any traffic device(s) at the Permittee's sole expense.
- Contain all erosion and sedimentation on-site and prevent its entry into the state road storm sewer system. The Permittee shall implement best management practices for erosion and pollution control to prevent violation of state water quality standards. The Permittee shall be responsible for the correction of any erosion, shoaling, or water quality problems that result from the construction or operation of the surface water management system.
- All materials and construction within the FDOT right-of-way shall conform to the latest FDOT Design Standards and latest Standard Specifications for Road and Bridge construction.

CONSTRUCTION COORDINATOR PLEASE NOTE:

- Call for a Preliminary "Structural Inspection":
 - The DEPARTMENT requires an anticipated date of inspection of structures at the beginning of the project. A tentative date shall be the schedule at the pre-con. If the estimated schedule changes by more than a few months then DEPARTMENT would expect to be notified of the new dates.
 - Once the main assembly of the structure have been mounted onto their respective foundation(s), a *Pre-Acceptance Structural Inspection* is required by the DEPARTMENT. It is the responsibility of the qualified Structural CEI that has been contracted throughout the construction to contact the DEPARTMENT and schedule the field inspection. This Inspection shall be conducted prior to grouting the base(s) to include the inspection of the leveling bolts along with the foundation and structure. All Punch list items must be completed at the time of the Pre-Inspection. A 2-week advanced notification is required for pre-acceptance inspections which must include a list of outstanding punch list items, the structure plans/shop drawings, and a Structure Number Request Form filled out.
- Storm Water Pollution Prevention Plan The Construction Coordinator shall implement best
 management practices for erosion and pollution control to prevent violation of state water quality
 standards. The Construction Coordinator shall be responsible for the correction of any erosion,
 shoaling, or water quality problems that result from the construction or operation of the surface
 water management system.
- Restricted hours of operation will be from 9:00am to 3:30 pm, (Monday-Friday), unless otherwise approved by the Operations Engineer, or designee.
- The Operations Engineer or his designee reserves the right to direct the removal / relocation / modification of any traffic device(s) at the Construction Coordinator's sole expense. Traffic Control Plans (TCP) must be submitted and reviewed during the pre-construction meeting

IV. MODIFICATIONS TO BASIC AGREEMENT

- A. Section 4 is hereby deleted and replaced with the following: Construction Coordinator is an entity subject to Section 768.28, Florida Statutes, and Construction Coordinator shall furnish DEPARTMENT with written verification of liability protection in accordance with state law prior to final execution of this Agreement.
- **B.** Section 29 the following is hereby added: Nothing herein is intended to serve as a waiver of sovereign immunity by any party nor shall anything included herein be construed as consent to be sued by third parties in any matter arising out of this

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Agreement or any other contract. Construction Coordinator is a state agency or political subdivision as defined in Chapter 768.28, Florida Statutes, and shall be fully responsible for the acts and omissions of its agents or employees to the extent permitted by law. 00STRUCTURAL NOTES

 ELECTRONIC VERSIONS OF STRUCTURAL DRAWINGS ARE THE SOLE, COPYRIGHTED PROPERTY OF MUENGINEERS, INC.

- ELECTRONIC VERSIONS OF DRAWINGS ARE NOT TO BE USED OR TRANSFERRED WITHOUT THE EXPRESS, WRITTEN PERMISSION OF MUENGINEERS, INC. 010000-GENERAL:
- DIMENSIONS AND CONDITIONS MUST BE VERIFIED IN THE FIELD. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER
- BEFORE PROCEEDING WITH THE AFFECTED PART OF THE WORK. DO NOT SCALE DRAWINGS TO OBTAIN DIMENSIONAL INFORMATION
- NOTES, TYPICAL DETAILS AND SCHEDULES APPLY TO ALL STRUCTURAL WORK UNLESS OTHERWISE NOTED. FOR CONDITIONS NOT SPECIFICALLY SHOWN, PROVIDE DETAILS OF A SIMILAR NATURE. VERIFY APPLICABILITY BY SUBMITTING SHOP DRAWINGS FOR REVIEW.
- AT ALL TIMES THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE CONDITIONS OF THE JOBSITE INCLUDING SAFETY OF PERSONS AND PROPERTY MUENGINEERS' PRESENCE OR REVIEW OF WORK DOES NOT INCLUDE THE
- ADEQUACY OF THE CONTRACTORS' MEANS OR METHODS OF CONSTRUCTION. SHORING, BRACING AND PROTECTION OF EXISTING AND ADJACENT STRUCTURES DURING CONSTRUCTION IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. PROTECT AND MAINTAIN THE ENTIRETY OF ADJACENT STREETS, BUILDINGS AND ALL OTHER STRUCTURES.
- THE STRUCTURE IS DESIGNED TO BE SELF-SUPPORTING AND STABLE AFTER THE STRUCTURE IS COMPLETE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE ERECTION
- PROCEDURES AND SEQUENCE TO INSURE SAFETY OF THE BUILDING AND ITS COMPONENTS DURING ERECTION. THIS INCLUDES THE ADDITION OF NECESSARY SHORING, SHEETING, TEMPORARY BRACING, GUYS OR TIEDOWNS.
- THE CONTRACTOR IS SOLELY RESPONSIBLE FOR INITIATING, MAINTAINING AND SUPERVISING ALL SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK. THE ENGINEER OF RECORD IS NOT RESPONSIBLE FOR ANY MEANS AND METHODS OF CONSTRUCTION OR FOR ANY RELATED SAFETY PRECAUTIONS OR PROGRAMS
- 010001-DESIGN LOADS
- THE REPAIRS AND MODIFICATIONS TO THE EXISTING BRIDGE STRUCTURE HAVE BEEN DESIGNED IN ACCORDANCE WITH THE 2017 FLORIDA BUILDING CODE AND APPLICABLE REFERENCE STANDARDS.
- ALL VERTICAL ELEMENTS LOCATED ALONG ACCESSIBLE FLOOR AREAS AND SEPARATING SLABS PLACED AT DIFFERENT ELEVATIONS WHEN POSITIONED WITHIN 3'-6" FROM FINISHED FLOOR ELEVATION SHALL, IN ADDITION TO ALL OTHER APPLICABLE LOADS BE DESIGNED AS A GUARDRAIL (FOLLOWING GUIDELINES OF THE FLORIDA BUILDING CODE):
- THE FOLLOWING SUPERIMPOSED LOADINGS HAVE BEEN UTILIZED: o BRIDGE DECK:
 - LIVE LOAD
 - SUPERIMPOSED DEAD LOAD (ALLOWANCE FOR MECHANICAL ELECTRICAL PLUMBING ETC.) 5 PSF
 - o WIND
 - ASCE 7-10
 - BROWARD COUNTY: RISK CATEGORY III ULTIMATE DESIGN WIND SPEED Vult=170 MPH (3-SECOND GUST) NOMINAL DESIGN WIND SPEED Vasd=132 MPH (3-SECOND GUST) EXPOSURE D

100 psf

- 010004-SHOP DRAWING REVIEW:
- SHOP DRAWINGS SHALL BE SUBMITTED IN ELECTRONIC PDF FORMAT ONLY. SHOP DRAWINGS SHALL BE SUBMITTED VIA E-MAIL TO <u>HYPERLINK</u>
- "mailto:ADMIN@MUENGINEERS.COM" ADMIN@MUENGINEERS.COM PRINTED PAPER COPIES WILL NOT BE REVIEWED AND RETURNED WITHOUT
- MUENGINEERS' REVIEW SHOP DRAWING SUBMITTALS ARE REQUIRED FOR ALL FRAMING SHOWN ON THESE DRAWINGS INCLUDING, BUT NOT LIMITED TO: CONCRETE MIXES, CONCRETE AND MASONRY REINFORCING, STRUCTURAL STEEL AND CONNECTIONS, STEEL DECK, LIGHT GAUGE FRAMING, WOOD ROOF TRUSS
- FRAMING ELECTRONIC VERSIONS OF STRUCTURAL DRAWINGS ARE THE SOLE, COPYRIGHTED PROPERTY OF MUENGINEERS, INC. ELECTRONIC VERSIONS OF DRAWINGS ARE NOT TO BE USED OR TRANSFERRED WITHOUT THE EXPRESS WRITTEN PERMISSION OF MUENGINEERS, INC. USERS WILL SIGN A RELEASE
- SHOP DRAWINGS WILL BE REVIEWED FOR GENERAL COMPLIANCE WITH THE DESIGN INTENT OF THE CONTRACT DOCUMENTS ONLY.
- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY COMPLIANCE WITH THE CONTRACT DOCUMENTS AS TO QUANTITY, LENGTH, ELEVATIONS, DIMENSIONS, CONSTRUCTION METHODS, DIMENSIONING, OTHER TRADE
- REQUIREMENTS ETC. PRIOR TO SUBMITTAL TO THE ARCHITECT/ENGINEER DRAWINGS WITHOUT CONTRACTOR'S APPROVAL STAMP AND WHICH HAVE NOT BEEN REVIEWED BY THE CONTRACTOR WILL BE RETURNED WITHOUT MUENGINEERS' REVIEW
- MUENGINEERS RESERVES A TWO WEEK SHOP DRAWING REVIEW TIME (FROM THE DATE OF RECEIPT
- IN CASES OF A CONFLICT, INFORMATION PRESENTED ON STRUCTURAL DRAWINGS SHALL TAKE PRECEDENCE OVER THAT WITHIN SHOP DRAWINGS, UNLESS SPECIFICALLY NOTED BY MUENGINEERS IN WRITING.
- THROUGH THE PROCESS OF A CURSORY REVIEW, MUENGINEERS ASSUMES NO RESPONSIBILITY FOR DIMENSIONS, QUANTITIES, ERRORS OR OMISSIONS. ANY ERRORS OR OMISSIONS IRRESPECTIVE OF MUENGINEERS' COMMENTS OR DURATION OF THE REVIEW SHALL BE THE RESPONSIBILITY OF AND MUST BE CORRECTED BY THE CONTRACTOR AT NO ADDITIONAL SERVICE CHARGE EVEN IF SUCH WORK WAS DONE IN ACCORDANCE WITH THE SHOP DRAWINGS CHANGES AND ADDITIONS MADE ON RE-SUBMITTALS SHALL BE CLEARLY
- FLAGGED AND NOTED. THE PURPOSE OF THE RE-SUBMITTALS SHALL BE CLEARLY NOTED ON THE LETTER OF TRANSMITTAL. REVIEW WILL BE LIMITED TO THE FLAGGED AND NOTED ITEMS CAUSING THE RE-SUBMITTAL.
- 010005-SHOP DRAWINGS FOR SPECIALTY ENGINEERED PRODUCTS: SHOP DRAWINGS SHALL BE SUBMITTED IN ELECTRONIC PDF FORMAT ONLY. SHOP DRAWINGS SHALL BE SUBMITTED VIA E-MAIL TO <u>HYPERLINK</u>
- "mailto:ADMIN@MUENGINEERS.COM" ADMIN@MUENGINEERS.COM PRINTED PAPER COPIES WILL NOT BE REVIEWED AND RETURNED WITHOUT
- MUENGINEERS' REVIEW.
- THE FOLLOWING SYSTEMS AND COMPONENTS AS A MINIMUM REQUIRE FABRICATION AND ERECTION DRAWINGS PREPARED BY A DELEGATED ENGINEER HOLLOW CORE PLANK DESIGN AND LAYOUT
- RAILING SYSTEMS AND THEIR CONNECTIONS TO THE BRIDGE STRUCTURE o SIGNAGE FRAMING AND SIGNAGE CONNECTIONS TO THE BRIDGE STRUCTURE
- DELEGATED ENGINEER SHALL POSSESS CURRENT PROFESSIOANL LICENSURE IN THE LOCALITY OF THE PROJECT AND SHALL MAINTAIN MINIMUM LIABILITY INSURANCE COVERAGE OF \$1,000,000.
- SUBMITTALS SHALL CLEARLY IDENTIFY THE SPECIFIC PROJECT AND APPLICABLE CODES, LIST THE DESIGN CRITERIA, AND SHOW ALL DETAILS AND PLANS NECESSARY FOR PROPER FABRICATION AND INSTALLATION.
- CALCULATIONS AND SHOP DRAWINGS SHALL IDENTIFY SPECIFIC PRODUCT UTILIZED.
- GENERIC PRODUCTS WILL NOT BE ACCEPTED. SHOP DRAWINGS AND CALCULATIONS SHALL BE PREPARED UNDER THE DIRECT
- SUPERVISION AND CONTROL OF THE DELEGATED ENGINEER. SHOP DRAWINGS AND CALCULATIONS REQUIRE THE SEAL, DATE AND SIGNATURE
- OF THE DELEGATED ENGINEER. DRAWINGS PREPARED SOLELY TO SERVE AS A GUIDE FOR FABRICATION AND INSTALLATION (SUCH AS REINFORCING STEEL SHOP DRAWINGS OR STRUCTURAL
- STEEL ERECTION DRAWINGS) AND REQUIRING NO ENGINEERING DO NOT REQUIRE THE SEAL OF A DELEGATED ENGINEER. CATALOG INFORMATION ON STANDARD PRODUCTS DOES NOT REQUIRE THE SEAL
- OF A DELEGATED ENGINEER. REVIEW OF SUBMITTALS BY MUENGINEERS IS LIMITED TO VERIFYING THE FOLLOWING:
 - o THAT THE SPECIFIED STRUCTURAL SUBMITTALS HAVE BEEN FURNISHED. o THAT THE STRUCTURAL SUBMITTALS HAVE BEEN SIGNED AND SEALED BY THE DELEGATED ENGINEER.
 - o THAT THE DELEGATED ENGINEER HAS UNDERSTOOD THE DESIGN INTENT AND HAS USED THE SPECIFIED STRUCTURAL CRITERIA. (NO DETAILED CHECK OF CALCULATIONS WILL BE MADE).
 - 0 THAT THE CONFIGURATION SET FORTH IN THE STRUCTURAL SUBMITTALS IS CONSISTENT WITH THE CONTRACT DOCUMENTS. (NO DETAILED CHECK
- OF DIMENSIONS OR QUANTITIES WILL BE MADE). SUBMITTALS NOT MEETING THE ABOVE CRITERIA WILL NOT BE REVIEWED. 020000-EXISTING STRUCTURE: ALL EXISTING DIMENSIONS AND LOCATIONS OF EXISTING STRUCTURES
- INDICATED ON THE DRAWINGS SHALL BE VERIFIED BY FIELD MEASUREMENTS PRIOR TO COMMENCEMENT OF CONSTRUCTION. ANY DISCREPANCIES SHALL BE
- REPORTED TO THE ENGINEER AND ARCHITECT. DRAWINGS HAVE BEEN PREPARED BASED ON AVAILABLE KNOWLEDGE OF EXISTING CONDITIONS. IF, DURING DEMOLITION, EXCAVATION OR CONSTRUCTION, ACTUAL CONDITIONS ARE DISCOVERED TO DIFFER FROM THOSE INDICATED ON
- DRAWINGS, ENGINEER AND ARCHITECT SHALL BE NOTIFIED. WORK SHOWN ON THESE PLANS ASSUMES THAT THE ORIGINAL CONSTRUCTION WAS PERFORMED IN ACCORDANCE WITH THE ABOVE INDICATED ORIGINAL
- DRAWINGS INCLUDING (BUT NOT LIMITED TO) DIMENSIONS, ELEVATIONS, MEMBER SIZES, MATERIALS, DETAILS, ETC. • IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE
- CONDITIONS RELATING TO THE EXISTING STRUCTURE AND TO NOTIFY THE

DEMOLITION

- ALL EXISTING AND REMAINING STRUCTURAL COMPONENTS SHALL BE X-RAYED AND ALL EXISTING REINFORCING AND PRESTRESSED CABLES SHALL BE LOCATED BEFORE DRILLING OR CUTTING INTO THEM.
- NO EXISTING RRE-STRESSED CABLES OR REINFORCING SHALL BE CUT OR DAMAGED IN ANY WAY UNLESS EXPLICITLY INDICATED AND SPECIFICALLY CALLED
- OUT OTHERWISE ON THE STRUCTURAL DRAWINGS. NOTIFY ARCHITECT OF DISCREPANCIES BETWEEN EXISTING CONDITIONS AND DRAWINGS BEFORE PROCEEDING WITH SELECTIVE DEMOLITION.
- VERIFY ALL DIMENSIONS AFFECTED BY EXISTING CONSTRUCTION PRIOR TO DEMOLITION.
- INFORMATION ON THESE PLANS REGARDING THE EXISTING STRUCTURE WAS TAKEN FROM AVAILABLE RECORD CONSTRUCTION DOCUMENTS. ACTUAL FIELD AS-BUILD CONDITIONS MAY VARY FROM WHAT IS INDICATED ON THE PLANS. ALL DIMENSIONS, ELEVATIONS AND ANY OTHER CONDITIONS OF THE EXISTING STRUCTURE SHALL BE FIELD VERIFIED PRIOR TO DEMOLITION, FABRICATION AND
- INSTALLATION OF NEW BUILDING COMPONENTS. VERIFY WITH THE EOR PRIOR TO REMOVING OR MODIFYING ANY STRUCTURAL MEMBERS THAT HAVE NOT BEEN INCLUDED IN THE STRUCTURAL CONSTRUCTION DOCUMENTS.
- REMOVE, REPLACE, PATCH AND REPAIR MATERIALS AND SURFACES CUT OR DAMAGED DURING SELECTIVE DEMOLITION, BY METHODS AND WITH MATERIALS SO AS NOT TO VOID EXISTING WARRANTIES.
- SURVEY EXISTING CONDITIONS AND CORRELATE WITH REQUIREMENTS INDICATED TO DETERMINE EXTENT OF SELECTIVE DEMOLITION REQUIRED.
- WHEN UNANTICIPATED STRUCTURAL ELEMENTS THAT CONFLICT WITH THE INTENDED FUNCTION OR DESIGN ARE ENCOUNTERED, INVESTIGATE AND MEASURE THE NATURE AND EXTENT OF THE CONFLICT(S) PROMPTLY AND SUBMIT A WRITTEN REPORT TO THE EOR AND AOR.
- IT IS THE GENERAL CONTRACTOR'S RESPONSIBILITY TO VERIFY THAT THE REMOVAL OF ANY ELEMENT WILL NOT RESULT IN A STRUCTURAL DEFICIENCY OR UNPLANNED COLLAPSE OF ANY PORTION OF THE STRUCTURE OR ADJACENT STRUCTURES DURING SELECTIVE DEMOLITION ACTIVITIES.
- PERFORM SURVEYS AS THE WORK PROGRESSES TO DETECT HAZARDS RESULTING FROM SELECTIVE DEMOLITION ACTIVITIES.
- PROVIDE AND MAINTAIN SHORING, BRACING, AND STRUCTURAL SUPPORTS AS REQUIRED TO PRESERVE STABILITY AND PREVENT MOVEMENT, SETTLEMENT, OR COLLAPSE OF CONSTRUCTION AND FINISHES TO REMAIN, AND TO PREVENT UNEXPECTED OR UNCONTROLLED MOVEMENT OR COLLAPSE OF CONSTRUCTION BEING DEMOLISHED
- STRENGTHEN OR ADD NEW SUPPORTS WHEN REQUIRED DURING PROGRESS OF SELECTIVE DEMOLITION.
- SHORING LAYOUT AND DESIGN SHALL BE PERFORMED BY AN ENGINEER REGISTERED IN THE STATE OF FLORIDA. SHORING SHOP DRAWINGS SHALL BE SUBMITTED TO MUENGINEERS FOR REVIEW PRIOR TO DEMOLITION.
- DEMOLISH AND REMOVE EXISTING CONSTRUCTION ONLY TO THE EXTENT REQUIRED BY NEW CONSTRUCTION AND AS INDICATED. USE METHODS REQUIRED TO COMPLETE THE WORK WITHIN LIMITATIONS OF GOVERNING REGULATIONS.
- PROTECTIVE RAILING SHALL BE PUT IN PLACE AT ALL CHANGES IN ELEVATION OVER 12". 030001-CONCRETE
- CONCRETE FORMWORK AND SHORING INCLUDING BUT NOT LIMITED TO CONCRETE SLABS AND BEAMS:
 - o DESIGN, ERECTION AND REMOVAL OF ALL FORMWORK, SHORES AND RESHORES SHALL MEET REQUIREMENTS SET FORTH IN ACI STANDARDS 347 AND 301.
 - o SHORING DRAWINGS SHALL BE SUBMITTED FOR ALL ELEVATED STRUCTURAL COMPONENTS, INCLUDING BUT NOT LIMITED TO BEAMS AND SLABS, FOR REVIEW AND APPROVAL BY THE ARCHITECT/ENGINEER.
 - o SHOP DRAWINGS SHALL BE SIGNED AND SEALED BY A FLORIDA
 - REGISTERED PROFESSIONAL ENGINEER. o DRAWINGS SHALL CLEARLY INDICATE LOADS USED IN THE DESIGN AS
 - WELL AS SEQUENCING AND TIMING RELATING TO ALL SHORING AND RE-SHORING WORK o NO ELEVATED WORK SHALL BE ALLOWED TO PROCEED WITHOUT A PRIOR
 - APPROVAL OF THE SUBMITTAL. o UNLESS NOTED OTHERWISE ON THE STRUCTURAL DRAWINGS, FORMS SHALL NOT BE REMOVED PRIOR TO STRUCTURAL CONCRETE REACHING A
 - MINIMUM OF TWO- THIRDS (COLUMNS) OR THREE-QUARTERS (BEAMS AND SLABS) OF ITS SPECIFIED 28-DAY COMPRESSIVE STRENGTH. o A MINIMUM OF 3 STORIES OF SHORING AND (/OR) RE-SHORING SHALL BE USED WHICH SHALL CONSIST OF ONE COMPLETE SET OF VERTICAL
 - SHORES AND TWO SETS OF VERTICAL SHORES THAT COMPRISE AT LEAST 50% OF A COMPLETE SET. 0 RE-SHORING FOR SLABS AND BEAMS SHALL REMAIN IN PLACE FOR A
 - MINIMUM OF 14 DAYS FOLLOWING PLACEMENT OF CONCRETE. DELEGATED SHORING ENGINEER OR AN AUTHORIZED REPRESENTATIVE SHALL BE REQUIRED TO INSPECT ERECTED SHORING TO ENSURE AS-BUILT CONDITIONS REFLECT THE DESIGN INTENT.
 - DELEGATED ENGINEER SHALL BE REQUIRED TO PROVIDE SIGNED AND SEALED WRITTEN REPORTS PRIOR TO ALL CONCRETE POURS VERIFYING THAT THE WORK WAS OBSERVED TO BE IN COMPLIANCE WITH THE DRAWINGS
- REINFORCING STEEL o SHALL BE ASTM A615 GRADE 60 DEFORMED BARS, FREE FROM OIL, SCALE AND RUST AND PLACED IN ACCORDANCE WITH THE TYPICAL BENDING DIAGRAM AND PLACING DETAILS OF ACI STANDARDS AND SPECIFICATIONS.
- SECURE APPROVAL OF SHOP DRAWINGS PRIOR TO COMMENCING FABRICATION. WELDED WIRE FABRIC
- TO CONFORM TO ASTM A-185, FREE FROM OIL, SCALE AND RUST AND PLACED IN ACCORDANCE WITH THE TYPICAL PLACING DETAILS OF ACI STANDARDS AND SPECIFICATIONS. MINIMUM LAP SHALL BE PLUS TWO INCHES. USE OF FLAT MANUFACTURED SHEETS IS RECOMMENDED.
- CONCRETE o SHALL BE PER AN APPROVED MIX DESIGN PROPORTIONED TO ACHIEVE A STRENGTH AT 28 DAYS AS LISTED BELOW WITH A PLASTIC AND WORKABLE MIX:
 - 6000 psi FOR ALL STRUCTURAL CONCRETE. o CONCRETE SHALL BE PLACED AND CURED ACCORDING TO ACI
 - STANDARDS AND SPECIFICATIONS.
 - SUBMIT PROPOSED MIX DESIGN WITH RECENT FIELD CYLINDER OR LAB TESTS FOR REVIEW PRIOR TO USE. o MIX SHALL BE UNIQUELY IDENTIFIED BY MIX NUMBER OR OTHER POSITIVE
 - IDENTIFICATION. 0 MIX SHALL MEET THE REQUIREMENTS OF ASTM C33 FOR COARSE
 - AGGREGATE.
 - CONCRETE SHALL COMPLY WITH THE REQUIREMENTS OF ASTM STANDARD C94 FOR MEASURING, MIXING, TRANSPORTING, ETC.
 - CONCRETE TICKETS SHALL BE TIME STAMPED WHEN CONCRETE IS BATCHED • THE MAXIMUM TIME ALLOWED FROM THE TIME THE MIXING WATER IS
 - ADDED UNTIL IT IS DEPOSITED IN ITS FINAL POSITION SHALL NOT EXCEED ONE AND ONE HALF (1-1/2) HOURS. 0 IF FOR ANY REASON THERE IS A LONGER DELAY THAN THAT STATED
 - ABOVE, THE CONCRETE SHALL BE DISCARDED. o IT SHALL BE THE RESPONSIBILITY OF THE TESTING LAB TO NOTIFY THE OWNER'S REPRESENTATIVE AND THE CONTRACTOR OF ANY
 - NONCOMPLIANCE WITH THE ABOVE.
 - ALL SLABS (INCLUDING TOPPING SLABS) SHALL BE CURED USING A DISSIPATING CURING COMPOUND MEETING ASTM STANDARD C309 TYPE 1-D AND SHALL HAVE A FUGITIVE DYE. THE COMPOUND SHALL BE PLACED AS SOON AS THE FINISHING IS COMPLETED OR AS SOON AS THE WATER HAS LEFT THE UNFINISHED CONCRETE. SCUFFED OR BROKEN AREAS IN THE CURING MEMBRANE SHALL BE RECOATED DAILY. CALCIUM CHLORIDES SHALL NOT BE UTILIZED; OTHER ADMIXTURES MAY BE USED ONLY WITH THE APPROVAL OF THE ENGINEER.

0 ASTM C143: "STANDARD TEST METHOD FOR SLUMP OF PORTLAND CEMENT

o ASTM C39: "STANDARD TEST METHOD FOR COMPRESSIVE STRENGTH OF

CYLINDRICAL CONCRETE SPECIMENS." A SEPARATE TEST SHALL BE

CONDUCTED FOR EACH CLASS, FOR EVERY 50 CUBIC YARDS (OR

FRACTION THEREOF), PLACED PER DAY. REQUIRED CYLINDER(S)

ONE ADDITIONAL RESERVE CYLINDER TO BE TESTED UNDER THE

- WATER/CEMENT RATIO SHALL NOT EXCEED 0.40 BY WEIGHT. CORROSION RESISTANT REINFORCING STEEL:
- ALL REINFORCING SHALL BE GALVANIZED

1 AT 3 DAYS

1 AT 7 DAYS

2 AT 28 DAYS

CONCRETE TESTING: 0 AN INDEPENDENT TESTING LABORATORY SHALL PERFORM THE FOLLOWING TESTS ON CAST IN PLACE CONCRETE:

CONCRETE." MAXIMUM SLUMP SHALL BE XX INCHES.

QUANTITIES AND TEST AGE AS FOLLOWS:

030001-CONCRETE (CONT.) POST-INSTALLED ANCHORS

- o POST-INSTALLED ANCHORS SHALL ONLY BE USED WHERE SPECIFIED ON THE DRAWINGS.
- 0 CONTRACTOR SHALL OBTAIN APPROVAL FROM ENGINEER OF RECORD PRIOR TO USING POST-INSTALLED ANCHORS FOR MISSING OR MISPLACED CAST-IN-PLACE ANCHORS.
- o CARE SHALL BE GIVEN TO AVOID CONFLICTS WITH EXISTING REBAR AND POST TENSIONING STRANDS WHEN DRILLING HOLES. HOLES SHALL BE
- DRILLED AND CLEANED PER THE MANUFACTURER'S INSTRUCTIONS. UNLESS SPECIFIED OTHERWISE, ANCHORS SHALL BE EMBEDDED IN THE APPROPRIATE SUBSTRATE WITH A MINIMUM EMBEDMENT OF 8 TIMES THE
- NOMINAL ANCHOR DIAMETER OR THE EMBEDMENT REQUIRED TO SUPPORT THE INTENDED LOAD. o ANCHORS SHALL BE INSTALLED PER THE MANUFACTURER'S
- INSTALLATION INSTRUCTIONS AT NOT LESS THAN MINIMUM EDGE DISTANCE AND/OR SPACINGS INDICATED IN THE MANUFACTURER'S LITERATURE
- o SUBSTITUTION REQUESTS, FOR PRODUCTS OTHER THAN THOSE LISTED BELOW. SHALL BE SUBMITTED TO THE ENGINEER WITH CALCULATIONS THAT ARE PREPARED & SEALED BY A REGISTERED PROFESSIONAL ENGINEER SHOWING THAT THE SUBSTITUTED PRODUCT WILL ACHIEVE AN
- EQUIVALENT CAPACITY USING THE APPROPRIATE DESIGN PROCEDURE $\boxed{3}$ REQUIRED BY THE BUILDING CODE.
- o ACCEPTABLE PRODUCTS ARE: ADHESIVE ANCHORS FOR ANCHORING INTO SOLID BASE MATERIAL SET EPOXY-TIE (SET) WITH RETROFIT BOLTS (RFB), BY
 - SIMPSON STRONG-TIE HIT RE 500v3, BY HILTI
 - HIT HY 200-R ADHESIVE ANCHORS FOR ANCHORING INTO HOLLOW BASE MATERIAL
- CONTACT ENGINEER OF RECORD EXTRA STOCK
 - THE CONTRACTOR SHALL INCLUDE IN HIS BID THE COST OF 2,000 POUNDS OF ADDITIONAL REINFORCING STEEL, INCLUDING FABRICATION, BENDING, FURNISHING AND INSTALLATION AS REQUIRED FOR USE AS DIRECTED BY THE DESIGN CONSULTANT, HIS AGENT OR BY THE OWNER'S CONSTRUCTION SUPERVISOR.
- 034100-PRECAST / PRE-STRESSED CONCRETE
- 034107-HOLLOW-CORE SLABS
- FLOORS SHALL BE PRE-STRESSED CONCRETE HOLLOW-CORE SLABS DESIGNED IN ACCORDANCE WITH ACI 318 FOR THE SUPERIMPOSED LOAD LISTED ABOVE: SHOP DRAWINGS AND CALCULATIONS SHALL BE PREPARED FOR WORK AND
- SUBMITTED FOR REVIEW. SHOP DRAWINGS SHALL BEAR THE SIGNATURE AND IMPRESSED SEAL OF A
- FLORIDA REGISTERED PROFESSIONAL ENGINEER. 055213-RAILING:
- THE CONFIGURATION OF THE RAILING SYSTEM SHALL BE AS SHOWN ON THE ARCHITECTURAL DRAWINGS. RAILING SYSTEM AND CONNECTIONS SHALL BE DESIGNED FOR APPLICABLE LOADS AS INDICATED ON THE PLANS AND IN THE LATEST EDITION OF THE
- FLORIDA BUILDING CODE.
- THE LOADS SHALL BE CLEARLY INDICATED ON SHOP DRAWINGS. SHOP DRAWINGS SHALL SHOW AND SPECIFY CONNECTIONS UTILIZED WITHIN THE RAILING SYSTEM AS WELL AS CONNECTIONS TO AND LOADS IMPOSED UPON THE STRUCTURAL SYSTEM SHOWN ON THESE PLANS.
- ENGINEERED RAILING SYSTEM AND CONNECTION OF SAME TO THIS STRUCTURE SHALL BE DESIGNED BY AN ENGINEER REGISTERED IN THE STATE OF FLORIDA. SUBMIT SHOP DRAWINGS BEARING THE SEAL AND THE SIGNATURE OF THE
- ENGINEER FOR REVIEW PRIOR TO FABRICATION.

COLUMN LEGEND



 DETAIL NUMBER S0.3 / - SHEET WHERE DETAIL IS DRAWN

S0.3

DETAIL MARK

VIEW REFERENCE SYMBOLS









REFERENCE

SHEET NUMBER

OVERALL SECTION

SHEET WHERE SECTION IS DRAWN

S-302

	SC	CHEDULE OF VALUES			
ITEM NUMBER	ITEM DESCRIPTION	LOCATIONS	ESTIMATED QUANTITY	UNIT	
1	WATER PROOFING TOP OF BRIDGE SURFACE	COMPLETE BRIDGE AND NEW STAIR SURFACE 4'-3" EAST OF GRIDLINE	SEE PLAN	SF	
2	SURFACE COATING TOP OF THE BRIDGE	COMPLETE BRIDGE AND NEW STAIR SURFACE 4'-3" EAST OF GRIDLINE	SEE PLAN		
3	NEW CONCRETE STAIR	SEE PLANS	SEE PLANS		
4	FDOT PRECAST CONCRETE I BEAM SPALL REPAIR AS PER DETAILS 1/S-1.00 AND 2/S-1.00	EAST OF GRIDLINE J ONLY	125	ft ³	
5	CONCRETE BEAM REPAIRS AS PER DETAILS 1/S-1.00 AND 2/S-1.00	SEE ELEVATIONS ON SHEET S-3.00	120	ft²	
6	CONCRETE COLUMN REPAIRS AS PER DETAILS 1/S-1.00 AND 2/S-1.00	SEE ELEVATIONS ON SHEET S-3.00	251	ft²	
7	EPOXY INJECTION AS PER DETAIL 3/S-1.00	AS NEEDED	9	ft ³	
8	EXPANSION JOINT REPAIRS AS PER DETAILS 4/S-1.00 AND 5/S-1.00	GRIDLINES J, K, L AND M	40	ft ³	
9	DEMOLITION OF EXISTING HOLLOW CORE PLANKS AND STEEL ANGLES	EAST OF GRIDLINE J	SEE PLANS AND SCHEDULES		
10	NEW HOLLOW CORE PLANKS	EAST OF GRIDLINE J	SEE PLANS AND SCHEDULES		
11	REMOVAL OF THE EXISTING STEEL LEDGER ANGLES AND ANCHOR BOLTS	EAST OF GRIDLINE J	SEE PLANS, DETAILS, SECTIONS AND SCHEDULES		
12	NEW STEEL ANGLES AND ANCHOR BOLTS	EAST OF GRIDLINE J	SEE PLANS, DETAILS, SECTIONS AND SCHEDULES		
13	NEW CONCRETE BEAMS AND COLUMNS	AT INTERMEDIATE CONCRETE STAIR LANDING	SEE PLANS, DETAILS, SECTIONS AND SCHEDULES		
14	REMOVAL OF CHAIN LINK FENCE RAILING ON TOP OF FDOT PRECAST I BEAMS	COMPLETE BRIDGE SURFACE 4'-3" EAST OF GRIDLINE	828		
15	NEW CHAIN LINK FENCE RAILING ON TOP OF FDOT PRECAST I BEAMS (REPLACING EXISTING ONE)	COMPLETE BRIDGE SURFACE 4'-3" EAST OF GRIDLINE	828		
16	PRESSURE CLEAN, PRIME AND PAINT THE BRIDGE EAST OF GRIDLINE J	BRIDGE SECTION EAST OF GRIDLINE J	SEE PLANS AND SECTIONS FOR BRIDGE DIMENSIONS		
17	MOBILIZATION		1		
18	DEMOBILIZATION		1		
				I	

REMARKS

ALL QUANTITIES INDICATED ABOVE ARE ESTIMATED MAXIMUM QUANTITIES;

ACTUAL QUANTITIES FOR EACH LOCATION SHALL BE RECORDED BY THE GENERAL CONTRACTOR AND BE SUBMITTED WITH PURCHASE ORDER BACKUPS FOR EACH LOCATION AND OCCURANCE. ITEM PAID ON LUMP SUM BASIS - ESTIMATED QUANTITY GIVEN FOR INFORMATIONAL PURPOSES ONLY. CONTRACTOR TO FIELD VERIFY QUANTITY PRIOR TO BID DATE. SEE PLANS AND SECTIONS FOR ADDITIONAL INFORMATION. (**)



Exhibit 1 Page 8 of 15



- REMOVE LOOSE, UNSOUND AND HONEYCOMBED CONCRETE 1. IF MORE 50% OF CIRCUMFERENCE OF STEEL REBAR IS VISIBLE, EXPOSE ENTIRE CIRCUMFERENCE OF EXISTING STEEL REBAR WITH A MINIMUM OF 3/4" CLEAR AROUND THE COMPLETE REBAR PERIMETER. CLEAN ALL LOOSE RUST FROM EXISTING REINFORCEMENT USING HIGH PRESSURE WATER OR ABRASIVE BLAST CLEANING (MECHANICALLY POWERED WIRE BRUSHES MAY ONLY BE USED IF ENTIRE CIRCUMFERENCE OF REINFORCEMENT IS ACCESSIBLE) OR OTHER APPROPRIATE MEANS
- WHERE APPROX. 20% OR MORE OF MATERIAL LOSS HAS OCCURRED TO THE EXISTING STEEL REINFORCEMENT, ADEQUATELY SHORE THE DIRECTLY AND INDIRECTLY AFFECTED MEMBERS AND CONTINUE TO STEP 7, OTHERWISE SKIP STEP 7 BELOW. CHIP JUST ENOUGH OF EXISTING CONCRETE TO EXPOSE THE ADEQUATE LENGTH REQUIRED TO INSTALL SPLICE BAR TO MATCH SIZE OF EXISTING REINFORCEMENT. PROVIDED ADEQUATE CONCRETE COVERAGE. BARS MAY BE LAP SPLICED (MINIMUM 48 BAR DIAMETER FOR 3/4" Ø BARS AND SMALLER AND 55 BAR DIAMETERS FOR LARGER BARS), OR WHERE ADEQUATE COVERAGE IS PROVIDED, BARS MAY BE MECHANICALLY SPLICED USING A REBAR COUPLER (SUBMIT PRODUCT INFORMATION TO
- ENGINEER) PREPARE CONCRETE SURFACE TO BE REPAIRED SUCH THAT THE SURFACE IS ROUGH WITH A MINIMUM 1/4" AMPLITUDE, FREE OF DELAMINATIONS AND VOIDS, AND SQUARE ALL EDGES TO ENSURE A MINIMUM 3/8" THICKNESS. CLEAN EXISTING CONCRETE SURFACES OF ALL DIRT, DUST AND OTHER DELETERIOUS MATERIALS SUCH THAT PORE STRUCTURE IS UNCLOGGED AND OPEN. USE BLASTING AND/OR VACUUMING METHODS TO ENSURE PORE STRUCTURE IS PROPERLY
- PREPARED. INSPECT ALL SURFACES FOR FOREIGN MATERIALS WHICH MIGHT INHIBIT BOND. 10. CLEANS AND COAT ALL STEEL WITH CORROSION INHIBITING PRIMER. APPLY (2) TWO COATS AT 10 MILS EACH. ALLOW COATING TO PROPERLY DRY (USUALLY 2-3 HOURS) PRIOR TO APPLYING PATCHING MORTAR. IF COATING DRIES FOR OVER 24 HOURS, **RE-APPLY ONE (1) COAT**
- 1. MOISTEN CONCRETE SURFACES TO BE REPAIRED (SUBSTRATE SHALL BE SATURATED SURFACE DRY (SSD) W/ NO STANDING WATER DURING APPLICATION). 12. APPLY A SCRUB COAT (FLUID PASTE) OF PATCHING MORTAR FILLING ALL PORES AND VOIDS. USE BONDING AGENT**, IN LIEU OF SCRUB COAT FOR OVERHEAD APPLICATIONS ONLY AND WITH PRIOR APPROVAL OF ENGINEER AND SPECIAL INSPECTOR
- 13. WHILE SCRUB COAT OR BONDING AGENT IS STILL WET, APPLY PATCHING MORTAR. USING LOW OR HIGH VELOCITY IMPACT OR OTHER APPROVED INTIMATE CONTACT TECHNIQUE 14. FOR APPLICATIONS WHERE "X" IS GREATER THAN 1-1/2", APPLY PATCHING MORTAR IN LIFTS. SCORE THE TOP SURFACE OF EACH PREVIOUS LIFT TO PRODUCE A ROUGHENED SURFACE OF THE NEXT LIFT. ALLOW EACH PRECEDING LIFT TO REACH FINAL SET (APPROX. 30-50 MINS). REPEAT STEPS 8 AND 9 FOR EACH LIFT. DO NOT EXCEED 8" IN TOTAL DEPTH (NOTE: THIS STEP IS NOT APPLICABLE TO FORM-AND-CAST REPAIRS.
- 15. FINISH REPAIR AREA IMMEDIATELY AFTER INITIAL SET. MATCH FINISH OF EXISTING ADJACENT AREAS. ALLOW AREA TO PROPERLY CURE
- 16. USE ALL PRODUCTS IN STRICT ACCORDANCE W/ MANUFACTURER'S RECOMMENDATIONS. 17. * SEE PROCEDURE NOTES ABOVE FOR SPLICE LENGTH
- 18. ** FOR OVERHEAD APPLICATIONS ONLY: USE BONDING AGENT IN LIEU OF SCRUB COAT (FLUID PASTE). MIX, HANDLE AND APPLY BONDING AGENT IN STRICT ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. APPLY FRESH PATCHING MORTAR WHILE BONDING AGENT IS STILL WET OR WIN ACCEPTABLE "OPEN TIME", SEE MANUFACTURER'S WRITTEN RECOMMENDATIONS.

1 TYP. OVERHEAD AND VERTICAL CONCRETE SURFACES REPAIR (WITH EXPOSED REINFORCEMENT) S-1.00/ 1 1/2" = 1'-0" IF PRINTED ON 24X36

GENERAL CONCRETE REPAIR NOTES

- 1. SHORE THE EXISTING STRUCTURE 100% BEFORE STARTING ANY CONSTRUCTION WORK 2. IN THE EVENT THAT MORE THAN 15% OF THE CROSS SECTIONAL AREA NEEDS TO
- BE REMOVED, PRIOR TO THE REMOVAL THE CONTRACTOR SHALL NOTIFY THE ENGINEER FOR FURTHER INSTRUCTIONS. REMOVE CONCRETE FROM AROUND OXIDIZED REINFORCING STEEL
- PROVIDE 1/2" OR LESS (AS REQUIRED TO AVOID CUTTING REINFORCING STEEL DEEP RIGHT ANGLE SAW CUTS. KEEP REPAIR CONFIGURATIONS AS SIMPLE AS POSSIBLE AND UTILIZE STRAIGHT EDGED REGULAR SHAPED PATTERNS AROUND PERIMETER OF REPAIR AREA.
- MECHANICALLY REMOVE ALL LOOSE. DELAMINATED CONCRETE AND DEFICIENT CONCRETE WITH CHIPPING HAMMER TO SOUND CONCRETE. USE A MAXIMUM 15LB CHIPPING HAMMER AND A MAXIMUM 4 LB. SCALING HAMMER SO THAT THE AGGREGATE DOESN'T SUSTAIN MICRO FRACTURING
- 6. EXTEND THE PERIMETER OF THE AREA TO BE REPAIRED AS REQUIRED TO EXPOSE REINFORCING STEEL A MINIMUM OF SIX INCHES FROM THE OXIDIZED PORTION AND NO MORE THAN 4 INCHES FROM THE SAWCUT EDGE OF SPALL 7. IF MORE THAN HALF OF REBAR PERIMETER IS EXPOSED, MECHANICALLY
- UNDERCUT ALL REINFORCING WITH MAXIMUM 15LB CHIPPING HAMMER. PROVIDE MINIMUM ³/₄" TO 1" CLEARANCE BETWEEN THE EXPOSED REBARS AND SURROUNDING CONCRETE OR 1/4" LARGER THAN THE LARGEST AGGREGATE IN THE REPAIR MATERIAL, WHICHEVER IS GREATER, CONCRETE REMOVALS SHALL EXTEND ALONG THE BARS TO LOCATIONS ALONG THE BAR FREE OF BOND INHIBITING CORROSION, AND WHERE THE BAR IS WELL BONDED TO THE SURROUNDING CONCRETE
- CREATE HORIZONTAL AND VERTICAL SURFACES WHERE CONCRETE HAS BEEN MECHANICALLY REMOVED.FEATHER EDGING OF REPAIRS SHALL NOT BE ACCEPTED.
- 9. IF NON-CORRODED REINFORCING STEEL IS EXPOSED DURING THE UNDERCUTTING PROCESS, CARE SHALL BE TAKEN NOT TO DAMAGE THE REINFORCING'S BOND TO SURROUNDING CONCRETE. IF BOND BETWEEN BAR AND CONCRETE IS BROKEN, UNDERCUTTING OF THE BAR IS REQUIRED. 10. CONTRACTOR SHALL USE EXTREME CAUTION NOT TO DAMAGE EXISTING STEEL.
- IF ANY STEEL IS DAMAGED, THE CONTRACTOR SHALL NOTIFY THE ENGINEER FOR ADDITIONAL INSTRUCTIONS ON THE APPLICABLE REPAIR. ANY STEEL THAT IS DAMAGED BY THE CONTRACTOR IS TO BE REPAIRED AT NO ADDITIONAL COST. 11. ALL HEAVY CORROSION AND SCALE SHALL BE REMOVED FROM THE REINFORCING
- BARS AS NECESSARY TO PROMOTE MAXIMUM BOND OR REPLACEMENT REPAIR MATERIAI 12. WIRE BRUSH ALL EXPOSED STEEL REINFORCING TO REMOVE LOOSE CONCRETE.
- 13. REMOVE ANY BOND INHIBITING MATERIALS (DIRT, CONCRETE SLURRY, LOOSELY BONDED AGGREGATES) BY ABRASIVE BLASTING OR HIGH PRESSURE WATER BLASTING WITH OR WITHOUT ABRASIVE. 14. REMAINING STEEL MUST DISPLAY ACCEPTABLE BONDING WITH EXISTING
- CONCRETE, IF BONDING IS LOST OR DAMAGED, ADDITIONAL STEEL SHALL BE EXPOSED UNTIL BONDED UNDAMAGED STEEL IS REACHED. 15. IF THE EXISTING REINFORCEMENT HAS LOST MORE THAN 20% OF ITS CROSS
- SECTION, A NEW BAR OF EQUAL SIZE (DIAMETER) SHALL BE DRILLED AND EPOXIED WITH AN EMBEDDED LENGTH AND/OR LAP SPLICE AS INDICATED IN THESE PLANS. IN NO CASE SHALL ANY REBAR BE PLACED WITH A COVER LESS THAN 3 INCHES. 16. IF IT IS DETERMINED THAT DAMAGE BY THE CONTRACTOR HAS ADVERSELY
- EFFECTED THE CAPACITY OF ANY STRUCTURAL COMPONENT, THE CONTRACTOR SHALL PROVIDE A LOAD RATING SIGNED AND SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF FLORIDA AT NO ADDITIONAL COST
- 17. CHECK THE CONCRETE SURFACES AFTER CLEANING TO INSURE THAT THE SURFACE IS FREE FROM ADDITIONAL LOOSE AGGREGATE, OR THAT ADDITIONAL DAMAGED AREAS ARE NOT PRESENT. 18. SECURE ANY LOOSE REINFORCING IN PLACE BY TYING IT TO OTHER SECURED
- 19. MAINTAIN THE SUBSTRATE IN SATURATED, SURFACE DRY CONDITION OR APPLY BONDING AGENT TO THE CONCRETE SURFACE.
- 20. POUR BACK FULL DEPTH SECTION REPAIRS WITH AN APPROVED, PLASTIC AND WORKABLE CONCRETE MIX THAT ACHIEVES A STRENGTH OF MINIMUM 6000PSI AT 28 DAYS. THE WATER/CEMENT RATIO OF THE MIX SHALL NOT EXCEED 0.40 BY WEIGHT. SURFACES SHALL BE CURED USING A DISSIPATING CURING COMPOUND MEETING ASTM STANDARD C309 TYPE 1D AND SHALL HAVE A FUGITIVE DYE. THE COMPOUND SHALL BE PLACED AS SOON AS THE FINISHING IS COMPLETED OR AS SOON AS THE WATER HAS LEFT THE UNFINISHED CONCRETE.
- 21. PATCH PARTIAL DEPTH REPAIRS WITH A POLYMER MODIFIED VERTICAL REPAIR MORTAR SUCH AS SIKATOP 123 PLUS (7000PSI) OR A BY THE EOR APPROVED EQUAL PRODUCT PER MANUFACTURERS RECOMMENDATIONS. FOLLOW MANUFACTURER'S RECOMMENDATIONS AND REPAIR PROCEDURE STRICTLY. CURE PER MANUFACTURER'S RECOMMENDATIONS
- 22. PATCH MATERIAL SHALL REACH AT LEAST 2/3 DESIGN STRENGTH PRIOR TO

JOINT REPAIR NOTES:

- 1. JOINT REPAIRS SHALL BE COMPLETED PRIOR TO THE APPLICATION OF THE
- METHACRYLATE SEALER REFER TO STANDARD SPECIFICATION 458 FOR INSTALLATION AND CONSTRUCTION REQUIREMENTS
- 3. EXPANSION JOINT REPAIR PROCEDURES SHALL PROCEED AS OUTLINED BEOW A. REMOVE EXISTING JOINT EXPANSION MATERIAL. EXISTING BRIDGE DECK SHALL REMAIN
- B. CLEAN EXISTING JOINT AND PROVIDE POURED JOINT WITH BACKER ROD SYSTEM (POURED JOINT MATERIAL WITH BACKER ROD) IN ACCORDANCE
- WITH STANDARD SPECIFICATION SECTION 458 AND 932. C. REFER TO STANDARD INDEX NO.21110 FOR ADDITIONAL DETAILS AND INFORMATION.
- INSTALATTION: THE JOINT SYSTEM INSTALLER SHALL BE LICENSED BY THE MANUFACTURER. A COPY OF THE LICENCING CONTRACT SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL. INSTALLATION OF THE JOINT SYSTEM SHALL BE STRICT ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. THE EXISTING JOINT NOSING SHALL BE INSPECTED SOR CRACKS, SPALLS, UNSOUND MATERIAL, ETC. AND PROPERLY REPAIRED AS NEEDED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS PRIOR TO INSTALLING THE EXPANSION JOINT MATERIAL. 5. ACTUAL JOINT OPENING WILL VARY. MATCH EXISTING JOINT WIDTHS.
- 6. WARRANTY: THE CONTRACTOR SHALL PROVIDE THE OWNER(PDOT DISTRICT 6 MAINTENANCE OFFICE, (ROADWAY/ROADSIDE UNIT) WITH A WRITTEN WARRANTY OF THE INSTALLED SYSTEM AGAINST LEAKAGE, ADHESIVE FAILURE, AND JOINT SYSTEM MATERIAL FAILURE. THE WARRANTY SHALL EXTEND FOR A PERIOD OF FIVE (5) YEARS AFTER THE DATE OF FINAL ACCEPTANCE.
- 7. VERIFY EXISTING JOINT OPENINGS BEFORE ORDRING JOINT MATERIAL. THE MINIMUM RECOMMENDED JOINT WIDTH AT THE TIME OF JOINT INSTALATTION IS 1 INCH. UNLESS OTHERWISE SPECIFIED BY THE MANUFACTURER. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IF A JOINT WIDTH LESS THAN 1/2 INCH, OR MORE THAN 3 INCHES, IS ENCOUNTERED. THE BACKER ROD SHALL ACCOMODATE ANY CHANGES IN JOINT WIDTH ALONG THE LENGTH OF THE JOINT, ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IF THE JOINT WIDTH ALONG THE LENGTH OF THE JOINT VARIES BY MORE THAN 1/8".
- 8. THE PRICE AND PAYMENT FOR TE EXPANSION JOINTS SHALL BE FULL COMPENSATION FOR ALL EQUIPMENT, LABOR, AND MATERIALS NECESSARY TO COMPLETE THE REMOVAL OF EXISTING EXPANSION JOINT MATERIAL, ANY REQUIRED REPAIRS OF THE JOINT NOSING, AND INSTALLATION OF

RESTORATION SHEET NOTES

- GENERAL 1. AREAS OF EXISTING CONCRETE REQUIRING REPAIR ARE INDICATED IN THESE
- DRAWINGS. 2. AFTER REMOVAL OF AREAS OF LOOSE CONCRETE IDENTIFIED IN THESE DRAWINGS, ENGINEER WILL EXAMINE THE EXPOSED STRUCTURAL CONCRETE MEMBERS AND DETERMINE ANDY FURTHER EXTEND OF REQUIRED CONCRETE REPAIR WORK
- NOTIFY THE SPECIAL INSPECTOR FOR OBSERVATION PRIOR TO ALL PHASES OF THE CONCRETE REPAIR WORK INCLUDING MIXING OF REPAIR PRODUCTS, SURFACE PREPARATION, APPLICATION OF BONDING AGENT AND REPAIR MORTAR.
- 4. THE GC SHALL BE RESPONSIBLE TO VERIFY AND CONFIRM ALL CONDITIONS INDICATED ON THE CONSTRUCTION DOCUMENTS AND INFORM THE OWNER AND MUENGINEERS, INC. IMMEDIATELY IF ANY DISCREPANCIES ARE BEING NOTED.
- 5. THE GC SHALL BE RESPONSIBLE TO SHORE AND SECURE ALL SEA WALL COMPONENTS TO PREVENT STRUCTURAL FAILURE OR COLLAPSE PRIOR TO STARTING ANY RESTORATION WORK
- 6. COORDINATED AND SCHEDULE A PRE-CONSTRUCTION MEETING WITH THE GENERAL CONTRACTOR, CONCRETE REPAIR CONTRACTOR, PRODUCT MANUFACTURER REPRESENTATIVE, SPECIAL INSPECTOR AND ENGINEER OR RECORD PRIOR TO COMMENCEMENT

WIDTH (VARIES)

- FILLED

SAW CUT ALL AROUND AREA TO REPAIR WITHOUT DAMAGING EXIST. STEEL REINF. DEPTH OF SAWCUT SHALL BE 1/4" LESS THAN DEPTH OF EXIST. REINF STEEL COVERAGE AND NO DEEPER THAN DEPTH OF PATCH OR 1/2" (WHICHEVER IS DEEPER); NO "FEATHER

MOISTEN CONCRETE, SSD, AND APPLY SCRUB COAT/BONDING

THOROUGHLY CLEAN EXIST. STL. REINF. AND APPLY CORROSION INHIBITOR TO ALL STEEL REINFORCEMENT

SPLICE BAR TO MATCH SIZE OF EXISTING STEEL REINFORCEMENT

AFTER INSTALLING APPROPRIATE SHORING REMOVE UNSOUND PORTIONS OF EXISTING CONCRETE AND STEEL REINFORCEMENT

CHIP & REMOVE ENOUGH CONCRETE TO FULLY EXPOSE CIRCUMFERENCE OF EXISTING STEEL REINFORCEMENT AND INSTALL **REPAIR/ PATCHING MORTAR**

ROUGHEN AND CLEAN SURFACE

EXIST. SOUND STEEL REINFORCEMENT



CRACK REPAIR NOTE: 1. SOUND AREA AROUND CRACKS PRIOR TO INJECTING, TO CONFIRM NATURE OF REQUIRED REPAIR.

EPOXY INJECTION

 SURFACES ADJACENT TO CRACKS OR OTHER AREAS OF APPLICATION SHALL BE CLEANED OF DIRT, DUST, OIL, AND GREASE OR OTHER FOREIGN MATTER WHICH MAY BE DETRIMENTAL TO BOND OF INJECTION SURFACE SEAL. • ENTRY PORTS SHALL BE PROVIDED ALONG THE CRACK AT INTERVALS OF NOT LESS THAN THE THICKNESS OF CONCRETE AT THAT LOCATION. SURFACE SEAL MATERIAL SHALL BE APPLIED TO THE FACE OF THE CRACK

BETWEEN THE ENTRY PORTS. ALLOW SURFACE SEAL MATERIAL TO GAIN STRENGTH PRIOR TO INJECTION. INJECTION SHALL BEGIN AT THE LOWEST ENTRY PORT AND CONTINUE UNTIL

THERE IS AN APPEARANCE OF EPOXY ADHESIVE AT THE NEXT PORT ADJACENT TO THE ENTRY PORT BEING PUMPED. THE EPOXY INJECTION SHALL BE TRANSFERRED TO THE NEXT ADJACENT PORT WHERE THE ADHESIVE HAS APPEARED. INJECTION SHALL BE PERFORMED UNTIL CRACKS ARE COMPLETELY

• WHEN CRACKS ARE COMPLETELY FILLED, EPOXY ADHESIVE SHALL BE CURED FOR SUFFICIENT TIME TO ALLOW REMOVAL OF SURFACE SEAL WITHOUT ANY DRAINING OR RUN-BACK OF EPOXY ADHESIVE MATERIAL. SURFACE SEAL MATERIAL AND ANY ADHESIVE RUNS SHALL BE REMOVED FROM CONCRETE SURFACES. THE FACE OF THE CRACK SHALL BE FINISHED FLUSH WITH CONCRETE, SHOWING NO INDENTATIONS OR PROTRUSIONS CAUSED BY PLACEMENT OF ENTRY PORTS.

• FILLING CORED HOLES: AFTER THE WORK HAS BEEN ACCEPTED BY THE ARCHITECT, CORED HOLES SHALL BE REPAIRED USING A TWO COMPONENT-BONDING AGENT AND A SUITABLE REPAIR MORTAR. THE BONDING AGENT SHALL BE APPLIED TO THE SURFACES OF THE CORED HOLES, FOLLOWED BY APPLICATION OF REPAIR MORTAR PLACED BY HAND TROWEL, THOROUGHLY RODDED AND TAMPED IN PLACE, AND FINISHED TO MATCH COLOR, FINISH, AND TEXTURE OF EXISTING CONCRETE.

TYP. DETAIL A EPOXY INJECT & SEAL

S-1.00/ 3/4" = 1'-0" IF PRINTED ON 24X36



PROCEDURE & NOTES:

- 1. REMOVE UNNECESSARY LOADS AND PROVIDE ADEQUATE TEMPORARY SHORING AND BRACING TO STRUCTURAL MEMBERS TO REMOVE LOAD TO MEMBER WHICH IS TO BE REPAIRED. WHERE SHORING IS NOT PRACTICAL OR POSSIBLE, REMOVE EXISTING DETERIORATED CONCRETE AND COMPLETE REPAIRS IN SECTIONS SMALL ENOUGH NOT TO REQUIRE SHORING OR BRACING. STRUCTURAL STABILITY SHALL BE MAINTAINED AT ALL TIMES
- REMOVE LOOSE, UNSOUND AND HONEYCOMBED CONCRETE PREPARE CONCRETE SURFACE TO BE REPAIRED SUCH THAT THE SURFACE HAS A MINIMUM AMPLITUDE OF 1/4", FREE OF DELAMINATIONS AND VOIDS, AND SQUARE ALL EDGES tO ENSURE A MINIMUM 3/8" THICKNESS. CLEAN EXISTING CONCRETE SURFACE OF ALL DIRT, DUST AND OTHE DELETERIOUS MATERIALS SUCH THAT CONCRETE PORE STRUCTURE IS UNCLOGGED AND OPEN. USE BLASTING AND/OR VACUUMING METHODS TO
- ENSURE PORE STRUCTURE IS PROPERLY PREPARED. INSPECT ALL SURFACES FOR FOREIN MATERIALS WHICH MIGHT INHIBIT BOND. MOISTEN CONCRETE SURFACES TO BE REPAIRED (SUBSTRATE SHALL BE SATURATED SURFACE DRY (SSD) W/ NO STANDING WATER DURING APPLICATION) APPLY A SCRUB COAT (FLUID PASTE) OF PATCHING MORTAR FILLING ALL PORES AND VOIDS, USE BONDING AGENT**. IN LIEU OF SCRUB COAT FOR OVERHEAD APPLICATIONS ONLY AND WITH PRIOR APPROVAL
- APPROVAL OF ENGINEER AND SPECIAL INSPECTOR WHILE SCRUB COAT OR BONDING AGENT IS STILL WET. APPLY PATCHING MORTAR. USING LOW OR HIGH VELOCITY IMPACT OR OTHER APPROVED INTIMATE CONTACT TECHNIQUE
- 9. FOR APPLICATIONS WHERE "X" IS GRETAER THAN 1-1/2", APPLY PATCHING MORTAR IN LIFTS. SCORE THE TOP SURFACE OF EACH PREVIOUS LIFT TO PRODUCE A ROUGHENED SURFACE FOR THE NEXT LIFT. ALLOW EACH PRECEDING LIFT TO REACH FINAL SET (APPROX. 30 MINS.). REPEAT STEPS 4 & 5 FOR EACH LIFT. (NOTE: THIS STEP IS NOT APPLICABLE TO FORM-AND-CAST REPAIRS.) 0. USE ALL PRODUCTS IN STRICT ACCORDANCE W/ MANUFACTURER'S RECOMMENDATIONS.
- 11. * FOR OVERHEAD APPLICATIONS ONLY: USE BONDING AGENT IN LIEU OF SCRUB COAT (FLUID PASTE). MIX, HANDLE AND APPLY BONDING AGENT IN STRICT ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. APPLY FRESH PATCHING MORTAR WHILE BONDING AGENT IS STILL WET OR WIN ACCEPTABLE "OPEN TIME" SEE MANUFACTURER'S WRITTEN RECOMMENDATIONS

7 TYP. OVERHEAD AND VERTICAL CONCRETE SURFACES REPAIR (WITHOUT EXPOSED REINFORCEMENT) S-1.00/ 1 1/2" = 1'-0" IF PRINTED ON 24X36



SEE TYPICAL EXPANSION JOINT WATERPROOFING DETAIL FOR ADDITIONAL INFORMATION FOLLOW THE MANUFACTURER'S SPECIFICATIONS AND INSTALLATION INSTRUCTIONS/RECOMMENDATIONS

STRICTLY SEE 5/S-1.00 FOR ADDITIONAL INFORMATION

> **4** EXPANSION JOINT RESTORATION DETAIL S-1.00 3" = 1'-0" IF PRINTED ON 24X36

APPLICATION	PRODUCT
BONDING AGENT	ULTRABOND 2
CORROSION INHIBITING COATING	CARBOZINC 859/ CARBOGUARD 893/ CARBOTHANE 133 VOC
VERTICAL AND OVERHEAD REPAIRS	EUCOREPAIRV100
	SIKAQUICK VOH
	PLANITOP XS
HORIZONTAL REPAIRS	EXPRESS REPAIR
FORM-AND-CAST REPAIRS (FULL DEPTH)	EUCOREPAIR SCC
. , ,	PLANITOP 11SCC

SUBMIT PRODUCT DATA SHEETS FOR PRODUCTS TO BE USED TO ENGINEER OF RECORD AND KEEP A COPY OF ALL CURRENT PRODUCT SHEETS ON SITE SUBSTITUTIONS WILL BE CONSIDERED. PROPOSED SUBSTITUTIONS SHALL BE REVIEWED AND APPROVED BY THE ENGINEER PRIOR TO USE.

MAPE





SAWCUT ALL AROUND AREA TO BE REPAIRED WITHOUT DAMAGING EXIST STEEL REINF. DEPTH OF SAWCUST SHALL BE 1/4" LESS THAN DEPTH OF EXIST. REINF. STEEL AND NO DEEPER THAN DEPTH OF PATCH OR 1/4" (WHICHEVER IS DEEPER) (NOTE: NO FEATHER EDGES")

MOISTEN CONCRETE SURFACE SSD, AND APPLY SCRUB COAT

REPAIR/ PATCHING MORTAR

CHIP AND REMOVE EXISTING DAMAGED/ SPALLED/ HONEYCOMBED CONCRETE ROUGHEN AND CLEAN SURFACE

EXIST. SOUND EXIST. SOUND STEEL REINF.

ONCRETE REPAIR PRODUCT SCHEDULE MANUFACTURER REMARKS

	TEWARKS
ADHESIVES TECHNOLOGY CORP.	ONLY FOR PVERHEAD APPLICATIONS, USE SCRUB COAT FOR VERTICAL AND HORIZONTAL APPLICATIONS (OPEN AND UNCLOG CONCRETE PORE STRUCTURE
CARBOLINE COMPANY	APPLY TO ALL EXPOSED SURFACES OF STEEL REINFORCING AND OTHER EMBEDDED STEEL MEMBERS
EUCLID CHEMICAL	TROWEL APPLIED IN LIFTS. MAXIMUM LIFT THICKNESS NOT MORE THAN 1.5
SIKA CORPORATION	INCHES. DO NOT EXCEED 8 INCHES TOTAL THICKNESS
MAPEI	
EUCLID CHEMICAL	TROWEL APPLIED IN LIFTS; MAXIMUM LIFT THICKNESS NOT MORE THAN 1.0 INCHES;
EUCLID CHEMICAL	UP TO 8 INCHES THICK APPLICATIONS; CONTACT ENGINEER OF RECORD FOR
	APPLICATIONS OF MORE THAN 8 INCHES THICKNESS

NOTE: MUE18061201 THESE DRAWINGS. ALONG WITH THE ARCHITECTURAL DRAWINGS. AND PROJECT MANUAL CONSTITUTE A SINGULAR CONTRACT DOCUMENT AND MUST BE USED TOGETHER IN THEIR ENTIRETY IN THE CONSTRUCTION OF THIS PROJECT. DETAILS AND VIEWS ON THIS SHEET ARE TO SCALE INDICATED WHEN PRINTED ON A 24"X36" SIZE SHEET.





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KEY VALUE	
2	RUSTED STEEL ANG CORROSION INHIBIT
4	CRACKED AND SPAL SHEET S-1.00
5	CRACKED AND SPAL SHEET S-1.00
6	SEVERELY CRACKED AS INDICATED ON TH
7	REMOVE TOPPING S
8	RUSTED STEEL ANC COATS OF CORROSI
9	APPLY A WATERPRO
3	

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ETBD BRIDGE PLANK SCHEDULE											
IDENTITY MARK	TYPE DESCRIPTION	TYPE COMMENTS	IDENTITY COMMENTS	PHASE CREATED	PHASE DEMOLISHED						
ETBD-HCP-51	6" HCP		5	EXISTING	DEMOLITION	E					
ETBD-HCP-52	6" HCP		5	EXISTING	DEMOLITION	E					
ETBD-HCP-53	6" HCP		5	EXISTING	DEMOLITION	E					
ETBD-HCP-54	6" HCP		5	EXISTING	DEMOLITION	E					
ETBD-HCP-55	6" HCP		5	EXISTING	DEMOLITION	E					
ETBD-HCP-56	6" HCP		5	EXISTING	DEMOLITION	E					
ETBD-HCP-57	6" HCP		5	EXISTING	DEMOLITION						
ETBD-HCP-58	6" HCP		5	EXISTING	DEMOLITION						
ETBD-HCP-59	6" HCP		5	EXISTING	DEMOLITION						
EIBD-HCP-60	6" HCP		5	EXISTING	DEMOLITION						
			5	EXISTING							
ETBD-HCP-02			5	EXISTING							
ETBD-HCP-64			5	EXISTING							
ETBD-HCP-65	6" HCP		5	EXISTING							
ETBD-HCP-66	6" HCP		5	EXISTING							
ETBD-HCP-67	6" HCP		5	EXISTING	DEMOLITION						
ETBD-HCP-68	6" HCP		5	EXISTING	DEMOLITION	E					
ETBD-HCP-69	6" HCP		5	EXISTING	DEMOLITION	E					
ETBD-HCP-70	6" HCP		5	EXISTING	DEMOLITION	E					
ETBD-HCP-71	6" HCP		5	EXISTING	DEMOLITION	E					
ETBD-HCP-72	6" HCP		5	EXISTING	DEMOLITION	E					
ETBD-HCP-73	6" HCP		5	EXISTING	DEMOLITION	E					
ETBD-HCP-74	6" HCP		5	EXISTING	DEMOLITION	E					
ETBD-HCP-75	6" HCP		5	EXISTING	DEMOLITION	E					
ETBD-HCP-76	6" HCP		5	EXISTING	DEMOLITION	E					
ETBD-HCP-77	6" HCP		5	EXISTING	DEMOLITION	E					
ETBD-HCP-78	6" HCP		5	EXISTING	DEMOLITION	E					
ETBD-HCP-79	6" HCP		5	EXISTING	DEMOLITION	E					
ETBD-HCP-80	6" HCP		5	EXISTING	DEMOLITION						
ETBD-HCP-81	6" HCP		5	EXISTING	DEMOLITION						
ETBD-HCP-82	6" HCP		5	EXISTING	DEMOLITION						
EIBD-HCP-83	6" HCP		5	EXISTING	DEMOLITION						
			5	EXISTING							
			5	EXISTING							
ETBD-HCP-87			5	EXISTING							
ETBD-HCP-88	6" HCP		5	EXISTING							
ETBD-HCP-89	6" HCP		5	EXISTING	DEMOLITION						
ETBD-HCP-90	6" HCP		5	EXISTING	DEMOLITION	E					
ETBD-HCP-91	6" HCP		5	EXISTING	DEMOLITION	E					
ETBD-HCP-92	6" HCP		5	EXISTING	DEMOLITION	E					
ETBD-HCP-93	6" HCP		5	EXISTING	DEMOLITION	E					
ETBD-HCP-94	6" HCP		5	EXISTING	DEMOLITION	E					
ETBD-HCP-95	6" HCP		5	EXISTING	DEMOLITION	E					
ETBD-HCP-96	6" HCP		5	EXISTING	DEMOLITION	E					
ETBD-HCP-97	6" HCP		5	EXISTING	DEMOLITION	E					
ETBD-HCP-98	6" HCP		5	EXISTING	DEMOLITION	E					
ETBD-HCP-99	6" HCP		5	EXISTING	DEMOLITION	E					
ETBD-HCP-100	6" HCP		5	EXISTING	DEMOLITION	E					
ETBD-HCP-101	6" HCP		5	EXISTING	DEMOLITION						
EIBD-HCP-102	6" HCP		5	EXISTING	DEMOLITION						
EIBD-HCP-103	6" HCP		5	EXISTING	DEMOLITION						
			5								
			5 E								
			5								
			5								
ETBD-HCP 100			5								
ETBD-HCP-109	6" HCP		5	FXISTING							
ETBD-HCP-111	6" HCP		5	EXISTING	DEMOLITION						
ETBD-HCP-112	6" HCP		5	EXISTING	DEMOLITION						
ETBD-HCP-113	6" HCP		5	EXISTING	DEMOLITION						
ETBD-HCP-114	6" HCP		5	EXISTING	DEMOLITION						
ETBD-HCP-115	6" HCP		5	EXISTING	DEMOLITION						

	ETR BRIDGE PLANK SCHEDULE												
IDENTITY	TYPE	TYPE	IDENTITY	PHASE	PHASE								
MARK	DESCRIPTION	COMMENTS	COMMENTS	CREATED	DEMOLISHED								
FTR-HCP-1	6" HCP	1	2	FXISTING	None								
ETR-HCP-2	6" HCP	1	2	EXISTING	None								
ETR-HCP-3	6" HCP	1	2	EXISTING	None								
ETR-HCP-4	6" HCP	1	2	EXISTING	None								
ETR-HCP-5	6" HCP	1	2	EXISTING	None								
ETR-HCP-6	6" HCP	1	2	EXISTING	None								
ETR-HCP-7	6" HCP	1	2	EXISTING	None								
		1	2	EXISTING	None								
		1	2	EXISTING	None								
		1	2	EVISTING	None								
		1	2	EXISTING	None								
		1	2	EXISTING	None								
		1	2		None								
ETR-HCP-13		1	2	EXISTING	None								
ETR-HCP-14		1	2	EXISTING	None								
ETR-HCP-15		1	2	EXISTING	None								
ETR-HCP-16		1	2	EXISTING	None								
ETR-HCP-17		1	2	EXISTING	None								
ETR-HCP-18	6" HCP	1	2	EXISTING	None								
ETR-HCP-19	6" HCP	1	2	EXISTING	None								
ETR-HCP-20	6" HCP	1	2	EXISTING	None								
ETR-HCP-21	6" HCP	1	2	EXISTING	None								
ETR-HCP-22	6" HCP	1	2	EXISTING	None								
ETR-HCP-23	6" HCP	1	2	EXISTING	None								
ETR-HCP-24	6" HCP	1	2	EXISTING	None								
ETR-HCP-25	6" HCP	1	2	EXISTING	None								
ETR-HCP-26	6" HCP	1	2	EXISTING	None								
ETR-HCP-27	6" HCP	1	2	EXISTING	None								
ETR-HCP-28	6" HCP	1	2	EXISTING	None								
ETR-HCP-29	6" HCP	1	2	EXISTING	None								
ETR-HCP-30	6" HCP	1	2	EXISTING	None								
ETR-HCP-31	6" HCP	1	2	EXISTING	None								
ETR-HCP-32	6" HCP	1	2	EXISTING	None								
ETR-HCP-33	6" HCP	1	2	EXISTING	None								
ETR-HCP-34	6" HCP	1	2	EXISTING	None								
ETR-HCP-35	6" HCP	1	2	EXISTING	None								
ETR-HCP-36	6" HCP	1	2	EXISTING	None								
ETR-HCP-37	6" HCP	1	2	EXISTING	None								
ETR-HCP-38	6" HCP	1	2	EXISTING	None								
ETR-HCP-39	6" HCP	1	2	EXISTING	None								
ETR-HCP-40	6" HCP	1	2	EXISTING	None								
ETR-HCP-41	6" HCP	1	2	EXISTING	None								
ETR-HCP-42	6" HCP	1	2	EXISTING	None								
ETR-HCP-43	6" HCP	1	2	EXISTING	None								
ETR-HCP-44	6" HCP	1	2	EXISTING	None								
ETR-HCP-45	6" HCP	1	2	EXISTING	None								
ETR-HCP-46	6" HCP	1	2	EXISTING	None								
ETR-HCP-47	6" HCP	1	2	EXISTING	None								
ETR-HCP-48	6" HCP	1	2	EXISTING	None								
ETR-HCP-49	6" HCP	1	2	EXISTING	None								
ETR-HCP-50	6" HCP	1	2	EXISTING	None								

			BEAM SCHEDULE		
IDENTITY MARK	TYPE DESCRIPTION	TYPE COMMENTS	IDENTITY COMMENTS	PHASE CREATED	PHASE DEMOLISHED
ETBD-RCB-8	EXISTING TO BE DEMOLISHED CONCRETE BEAM		EXSITING CONCRETE BEAM TO BE DEMOLISHED AT THE TIME OF THE STAIR DEMOLITION	EXISTING	DEMOLITION
ETBD-RCB-9	EXISTING TO BE DEMOLISHED CONCRETE BEAM		EXSITING CONCRETE BEAM TO BE DEMOLISHED AT THE TIME OF THE STAIR DEMOLITION	EXISTING	DEMOLITION
ETR STL ANGLE	EXISTING TO REMAIN STEEL ANGLE			EXISTING	None
ETR-PCB-1	EXISTING TO REMAIN PRECAST I BEAM			EXISTING	None
ETR-PCB-2	EXISTING TO REMAIN PRECAST I BEAM			EXISTING	None
ETR-PCB-3	EXISTING TO REMAIN PRECAST I BEAM			EXISTING	None
ETR-PCB-4	EXISTING TO REMAIN PRECAST I BEAM			EXISTING	None
ETR-PCB-5	EXISTING TO REMAIN PRECAST I BEAM			EXISTING	None
ETR-PCB-6	EXISTING TO REMAIN PRECAST I BEAM			EXISTING	None
ETR-PCB-7	EXISTING TO REMAIN PRECAST I BEAM			EXISTING	None
ETR-PCB-8	EXISTING TO REMAIN PRECAST I BEAM			EXISTING	None
ETR-PCB-9	EXISTING TO REMAIN PRECAST I BEAM			EXISTING	None
ETR-PCB-10	EXISTING TO REMAIN PRECAST I BEAM			EXISTING	None
ETR-PCB-11	EXISTING TO REMAIN PRECAST I BEAM			EXISTING	None
ETR-PCB-12	EXISTING TO REMAIN PRECAST I BEAM			EXISTING	None
ETR-RCB-1	EXISTING TO REMAIN CONCRETE BEAM			EXISTING	None
ETR-RCB-2	EXISTING TO REMAIN CONCRETE BEAM			EXISTING	None
ETR-RCB-3	EXISTING TO REMAIN CONCRETE BEAM			EXISTING	None
ETR-RCB-4	EXISTING TO REMAIN CONCRETE BEAM		REPAIR CRACKED AND SPALLED CONCRETE BEAM SECTIONS REFERENCED IN SECTION 4/S-3.00 AND 5/S1-3.00 ON S-3.00 AS PER THE REPAIR DETAILS INDICATED ON S-1.00	EXISTING	None
ETR-RCB-5	EXISTING TO REMAIN CONCRETE BEAM	I	NO SPALLS, CRACKS OR DELAMINATED CONCRETE OBSERVED AT THE TIME OF OUR SITE OBSERVATIONS	EXISTING	None
ETR-RCB-6	EXISTING TO REMAIN CONCRETE BEAM		EPOXY INJECT THE CRACKED BEAM SECTIONS INDICATED IN SECTION 9/S-3.00 ON S-3.00 AS PER THE TYPICAL DETAILS INDICATED ON S-1.00	EXISTING	None
ETR-RCB-7	EXISTING TO REMAIN CONCRETE BEAM		EPOXY INJECT THE CRACKED BEAM SECTIONS INDICATED IN SECTION 9/S-3.00 ON S-3.00 AS PER THE TYPICAL DETAILS INDICATED ON S-1.00	EXISTING	None
RCB-8	NEW CONCRETE BEAM		NEW 10"X24" CONCRETE BEAM WITH 3#8 TOP AND BOTTTOM BARS AND #3 TIES AT 10"C/C; TOP AND BOTTOM REINFOCING SHALL BE CONTINUOUS AND NOT BE SPLICED AND HAVE STANDARD HOOKS AT EACH END	NEW CONSTRUCTION	None
RCB-9	NEW CONCRETE BEAM		NEW 12"X16" CONCRETE BEAM WITH 2#6 TOP AND BOTTTOM BARS AND #3 TIES AT 6"C/C	NEW CONSTRUCTION	None

	NE	W BRIDGE	PLANK SC	HEDULE		PLANK SCHEDULE	NOTES:			M	JEngine	ers, Inc.
IDENTITY	TYPE	TYPE	IDENTITY		PHASE	1. EXISTING TO RE 2. NOT INCLUDED	EMAIN PRECAST CONCRETE			Cert	ificate of Authorization	n No.29348
MARK HCP-51	6" HCP	COMMENTS 3	COMMENTS 4	PHASE CREATED	DEMOLISHED None	S. DESIGN BY THE PROVIDE MINIM MINIMUM 5000E	UM 1 1/2" CONCRETE COVE	RAGE AND UTILIZE AT A			CONSULTING STRU	JCTURAL
HCP-52	6" HCP	3	4	NEW CONSTRUCTION	None	RATIO OF 0.4 4 PROVIDE TWO	1X4X1/4" EMBED PLATES WI	TH 1/2" DIA WEI DED				
HCP-53 HCP-54	6" HCP	3	4	NEW CONSTRUCTION	None	THREADED ROL WELD THEM TO	S AT BOTH ENDS WITHIN T	HE TOP SURFACE AND			OAKLAND PARK, FI	_ 33334
HCP-55	6" HCP 6" HCP	3	4 4	NEW CONSTRUCTION	None None	THE FACE OF T	HE EXISTING CONCRETE I B	BEAM			FAX: 954-324-473	70
HCP-57	6" HCP	3	4	NEW CONSTRUCTION	None	HOLLOW CORE	PLANK; SEE PLANS, SECTIO	ONS AND DETAILS FOR				
HCP-58 HCP-59	6" HCP 6" HCP	3	4 4	NEW CONSTRUCTION	None None		ORMATION					
HCP-60	6" HCP	3	4	NEW CONSTRUCTION	None							
HCP-61 HCP-62	6" HCP	3	4 4	NEW CONSTRUCTION	None							
HCP-63	6" HCP	3	4	NEW CONSTRUCTION	None							
HCP-65	6" HCP	3	4	NEW CONSTRUCTION	None							
HCP-66 HCP-67	6" HCP 6" HCP	3	4 4	NEW CONSTRUCTION	None							·/ .
HCP-68	6" HCP	3	4	NEW CONSTRUCTION	None						CENS	NE"
HCP-69 HCP-70	6" HCP 6" HCP	3	4 4	NEW CONSTRUCTION	None None						No 63860	. CER
HCP-71	6" HCP	3	4	NEW CONSTRUCTION	None						★	★
HCP-72 HCP-73	6" HCP 6" HCP	3	4 4	NEW CONSTRUCTION	None None				01/10/2020		で、 ろ、STATE OF	
HCP-74	6" HCP	3	4	NEW CONSTRUCTION	None						ORIDA	
HCP-75 HCP-76	6" HCP 6" HCP	3	4 4	NEW CONSTRUCTION	None None						IN ONALEN	nu.
HCP-77	6" HCP	3	4	NEW CONSTRUCTION	None					1	MARCUS O. UNTER\ FL P.E. # 6386	VEGER 0
HCP-78 HCP-79	6" HCP	3	4 4	NEW CONSTRUCTION	None						JANUARY 06, 20	020
HCP-80	6" HCP	3	4	NEW CONSTRUCTION	None							
HCP-81 HCP-82	6" HCP	3	4 4	NEW CONSTRUCTION	None							
HCP-83	6" HCP	3	4	NEW CONSTRUCTION	None							
HCP-85	6" HCP	3	4 4	NEW CONSTRUCTION	None							
HCP-86	6" HCP	3	4	NEW CONSTRUCTION	None							
HCP-87	6" HCP	3	4	NEW CONSTRUCTION	None						~	
HCP-89	6" HCP	3	4	NEW CONSTRUCTION	None						Á	()
HCP-90	6" HCP	3	4 4	NEW CONSTRUCTION	None						Ň	316
HCP-92	6" HCP	3	4	NEW CONSTRUCTION	None						\mathbf{X}	pv 333
HCP-94	6" HCP	3	4	NEW CONSTRUCTION	None							
HCP-95	6" HCP 6" HCP	3	4	NEW CONSTRUCTION	None						A	Ъ
HCP-97	6" HCP	3	4	NEW CONSTRUCTION	None						\leq	ee.
HCP-98 HCP-99	6" HCP 6" HCP	3	4 4	NEW CONSTRUCTION	None None						Ŕ	bre da
HCP-100	6" HCP	3	4	NEW CONSTRUCTION	None						${\sf A}$	ea ler
HCP-101 HCP-102	6" HCP 6" HCP	3	4 4	NEW CONSTRUCTION	None None						Σ	S
HCP-103	6" HCP	3	4	NEW CONSTRUCTION	None						⊲	La La
HCP-104 HCP-105	6" HCP 6" HCP	3	4 4	NEW CONSTRUCTION	None							8 JT
HCP-106	6" HCP	3	4	NEW CONSTRUCTION	None						\checkmark	Ц
HCP-107 HCP-108	6" HCP 6" HCP	3	4 4	NEW CONSTRUCTION	None						В В	
HCP-109	6" HCP	3	4	NEW CONSTRUCTION	None							
HCP-111	6" HCP	3	4	NEW CONSTRUCTION	None							
HCP-112	6" HCP	3	4	NEW CONSTRUCTION	None							
HCP-114	6" HCP	3	4	NEW CONSTRUCTION	None							
HCP-115		3	4	NEW CONSTRUCTION	None							
												00.00.0010
			COLU	MN SCHEDUL	.E					DATE.		08.00.2018
	TYPE								ž	No.	Description	Date
DESCRIPTIC	N COMMENTS			IDENTITY COMMEN	TS		PHASE CREATED	PHASE DEMOLIS	SHED			
TING TO REMAIN CRETE COLUMN		NOT INCLUDED IN	THE PROJECT SCOPE				EXISTING	None	eers			
TING TO REMAIN		NOT INCLUDED IN	THE PROJECT SCOPE	-			EXISTING	None	inain	,		
TING TO REMAIN		REPAIR THE SPAL	LED CONCRETE SECT	IONS REFERENCED IN SEC	TION 6/S-3.00 ON S-3.	00 AS PER THE REPAIR	EXISTING	None				
CRETE COLUMN		REPAIR THE SPAL	D ON S-1.00 LED CONCRETE SECT	IONS REFERENCED IN SEC	TIONS 7/S-3.00 AND 8	/S-3.00 ON S-3.00 AS	EXISTING	None				
			DETAILS INDICATED O	N S-1.00	ED IN SECTIONS 7/9		FYISTING	None	hartin			
CRETE COLUMN		S-3.00 AS PER THE	REPAIR DETAILS IND	ICATED ON S-1.00						ı 🕂 🕂		
TING TO REMAIN		REPAIR THE CRAC	KED AND SPALLED CO	UNCRETE SECTIONS REFE	RENCED IN SECTION	12/S-3.00 ON S-3.00 AS	EXISTING	None	wit17			
LACED COLUMN		REPLACE THE EXIS	STING COLUMN WITH	A 14"X14" RC COLUMN WIT	H 8#6 VERTICAL REBA	ARS (3 PER FACE) AND	NEW CONSTRUCTION	None	-sRe	.		
		NOT INCLUDED IN	THE PROJECT SCOPE				EXISTING	None	1201			
UKETE COLUMN		NOT INCLUDED IN	THE PROJECT SCOPE				EXISTING	None	1806			
CRETE COLUMN							FYISTING	None				
CRETE COLUMN		THE REPAIR DETA	ILS INDICATED ON S-1	.00					≥nts\/			
TING TO REMAIN		KEPAIR THE CRAC	KED AND SPALLED CO	UNCRETE SECTIONS REFE		5 //S-3.00 AND 8/S-3.00	EXISTING	None	cnme			
TING TO REMAIN CRETE COLUMN		NO SPALLS, CRAC	KS OR DELAMINATED	CONCRETE OBSERVED AT	THE TIME OF OUR SI	TE OBSERVATIONS	EXISTING	None		,		
		REPAIR THE CRAC	KED SPALLED CONCE	RETE SECTIONS REFERENC	CED IN SECTION 12/S-	3.00 ON S-3.00 AS PER	EXISTING	None				

IK SCI	HEDULE		PLANK SCHEDULE I	NOTES:			N	1UE ngine	eers,
ITITY		PHASE	1. EXISTING TO RE 2. NOT INCLUDED	EMAIN PRECAST CONCRETE				Certificate of Authorizati	on No.29348
AENTS 4	PHASE CREATED	DEMOLISHED None	3. DESIGN BY THE PROVIDE MINIM MINIMUM 50005	IUM 1 1/2" CONCRETE COVE	RAGE AND UTILIZE AT A			CONSULTING STR	RUCTURAL
4	NEW CONSTRUCTION	None	RATIO OF 0.4						
4 4	NEW CONSTRUCTION	None	4. PROVIDE TWO THREADED ROL	DS AT BOTH ENDS WITHIN T	THE TOP SURFACE AND			OAKLAND PARK, I	FL 33334
4	NEW CONSTRUCTION	None	THE FACE OF T	HE EXISTING CONCRETE I B	BEAM			PH: 954-324-47 FAX: 954-653-4	30 170
4	NEW CONSTRUCTION	None	5. REMOVE / DEMO HOLLOW CORE	DLISH THE EXISTING PRECA PLANK; SEE PLANS, SECTIO	AST CONCRETE DNS AND DETAILS FOR				
4	NEW CONSTRUCTION	None	ADDITIONAL INF	FORMATION					
4 4	NEW CONSTRUCTION	None							
4	NEW CONSTRUCTION	None							
4	NEW CONSTRUCTION	None							
4	NEW CONSTRUCTION	None							
4	NEW CONSTRUCTION	None							
4 4	NEW CONSTRUCTION	None						INNIS O. UNTE	PW.
4	NEW CONSTRUCTION	None						CENSE	E C F I I
4 4	NEW CONSTRUCTION	None						I ← No 63860	
4	NEW CONSTRUCTION	None				04/40/2020			A
4 4	NEW CONSTRUCTION	None None				01/10/2020		STATE OF	N.
4	NEW CONSTRUCTION	None						JUNS/ONALE	NGIII
4 4	NEW CONSTRUCTION	None None						MARCUS O. UNTER	RWEGER
4	NEW CONSTRUCTION	None						FL P.E. # 638 JANUARY 06, 2	60 2020
4 4	NEW CONSTRUCTION	None None							
4	NEW CONSTRUCTION	None							
4 4	NEW CONSTRUCTION	None None							
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4 4	NEW CONSTRUCTION	None None						A	L
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4 4	NEW CONSTRUCTION	None None							
4	NEW CONSTRUCTION	None							
4 4	NEW CONSTRUCTION	None							
4	NEW CONSTRUCTION	None							
4	NEW CONSTRUCTION	inone							
COLU	MN SCHEDUL	E					DATE	:	08.06.
						خ	No.	Description	
	IDENTITY COMMEN	TS		PHASE CREATED	PHASE DEMOLIS	HED			
ECT SCOPE				EXISTING	None	jineers.o			
RETE SECTI	ONS REFERENCED IN SEC	CTION 6/S-3.00 ON S-3.	.00 AS PER THE REPAIR	EXISTING	None)MUEnç			
RETE SECTI	ONS REFERENCED IN SEC	CTIONS 7/S-3.00 AND 8	8/S-3.00 ON S-3.00 AS	EXISTING	None	nez@			
DICATED ON ED CONCR	I S-1.00 ETE SECTIONS REFERENC	CED IN SECTIONS 7/S-	-3.00 AND 8/S-3.00 ON	EXISTING	None	martii			
ETAILS INDI	CATED ON S-1.00 INCRETE SECTIONS REFE	RENCED IN SECTION	12/S-3.00 ON S-3.00 AS	EXISTING	None				
DICATED ON UMN WITH A PACING	I S-1.00 A 14"X14" RC COLUMN WIT	H 8#6 VERTICAL REB	ARS (3 PER FACE) AND	NEW CONSTRUCTION	None	I-sRevit			
ECT SCOPE				EXISTING	None	31201			
ECT SCOPE				EXISTING	None	E1806			
ED CONCR	ETE SECTIONS REFERENC	CED IN SECTION 6/S-3	0.00 ON S-3.00 AS PER	EXISTING	None				
PALLED CC R DETAILS I	NCRETE SECTIONS REFE NDICATED ON S-1.00	RENCED IN SECTION	S 7/S-3.00 AND 8/S-3.00	EXISTING	None	Cumer			
AMINATED	CONCRETE OBSERVED AT	THE TIME OF OUR SI	TE OBSERVATIONS	EXISTING	None	۸y Dc			
ED CONCR	ETE SECTIONS REFERENC	CED IN SECTION 12/S-	3.00 ON S-3.00 AS PER	EXISTING	None	nez/M	L		

			NE	N BRIDGE	PLANK SC	HEDULE		PLANK SCHEDULE	<u>NOTES:</u> EMAIN PRECAST CONCRET	F PI ANK		M	UEngin	neers,
SE	PHASE		TYPE	TYPE			PHASE	2. NOT INCLUDED	IN THE PROJECT SCOPE			0	Certificate of Authoriz	ation No.29348
	None	HCP-51	=SCRIPTION 6" HCP	3	4	NEW CONSTRUCTION	None	PROVIDE MININ MINIMUM 5000	AUM 1 1/2" CONCRETE COVE	ERAGE AND UTILIZE AT A			CONSULTING S	STRUCTURAL
ING	None	HCP-52	6" HCP	3	4	NEW CONSTRUCTION	None	RATIO OF 0.4						:KS
ING ING	None None	HCP-53 HCP-54	6" HCP 6" HCP	3	4 4	NEW CONSTRUCTION	None None	4. PROVIDE TWO THREADED RO	4X4X1/4" EMBED PLATES W DS AT BOTH ENDS WITHIN 1	THE TOP SURFACE AND			3440 N.E. 12TH OAKLAND PARł	H AVENUE K, FL 33334
ING	None	HCP-55	6" HCP	3	4	NEW CONSTRUCTION	None	WELD THEM TO THE FACE OF T) THE CONTINUOUS BEARIN HE EXISTING CONCRETE I	NG ANGLE BOLTED TO BEAM			PH: 954-324- FAX: 954-65	-4730 3-4170
ING ING	None	HCP-56 HCP-57	6" HCP 6" HCP	3 3	4 4	NEW CONSTRUCTION	None None	5. REMOVE / DEM HOLLOW CORE	OLISH THE EXISTING PRECA E PLANK; SEE PLANS, SECTION	AST CONCRETE ONS AND DETAILS FOR				
ING	None	HCP-58	6" HCP	3	4	NEW CONSTRUCTION	None	ADDITIONAL IN	FORMATION					
ING ING	None	HCP-59 HCP-60	6" HCP 6" HCP	3	4 4	NEW CONSTRUCTION	None None							
ING	None	HCP-61	6" HCP	3	4	NEW CONSTRUCTION	None							
ING ING	None	HCP-62 HCP-63	6" HCP 6" HCP	3	4 4	NEW CONSTRUCTION	None None							
ING	None	HCP-64	6" HCP	3	4	NEW CONSTRUCTION	None							
ING ING	None None	HCP-65 HCP-66	6" HCP 6" HCP	3	4 4	NEW CONSTRUCTION	None None							-
ING	None	HCP-67	6" HCP	3	4	NEW CONSTRUCTION	None						1111 O. UN7	11111 TED, 111
ING ING	None	HCP-68 HCP-69	6" HCP 6" HCP	3	4 4	NEW CONSTRUCTION	None None						CEN.	SE EG
ING	None	HCP-70	6" HCP	3	4	NEW CONSTRUCTION	None						E €: No 638€	
ING ING	None None	HCP-71 HCP-72	6" HCP 6" HCP	3	4 4	NEW CONSTRUCTION	None None							
ING	None	HCP-73	6" HCP	3	4	NEW CONSTRUCTION	None			0,	1/10/2020		STATE (OF
ING ING	None	HCP-74	6" HCP 6" HCP	3	4 4	NEW CONSTRUCTION	None						ORIC ORIC	CNCIN
ING	None	HCP-76	6" HCP	3	4	NEW CONSTRUCTION	None							
ING	None	HCP-77	6" HCP 6" HCP	3	4 4	NEW CONSTRUCTION	None						FL P.E. # 6	S3860
ING	None	HCP-79	6" HCP	3	4	NEW CONSTRUCTION	None						JANUARY 06	6, 2020
ING	None	HCP-80	6" HCP 6" HCP	3	4 4	NEW CONSTRUCTION	None							
ING	None	HCP-82	6" HCP	3	4	NEW CONSTRUCTION	None							
	None	HCP-83	6" HCP	3	4	NEW CONSTRUCTION	None							
ING	None	HCP-85	6" HCP	3	4	NEW CONSTRUCTION	None							
	None	HCP-86	6" HCP	3	4	NEW CONSTRUCTION	None							
ING	None	HCP-88	6" HCP	3	4	NEW CONSTRUCTION	None						\succ	,
	None	HCP-89	6" HCP	3	4	NEW CONSTRUCTION	None						Á	
ING	None	HCP-91	6" HCP	3	4	NEW CONSTRUCTION	None						\geq	
	None	HCP-92	6" HCP	3	4	NEW CONSTRUCTION	None						$\mathbf{\Sigma}$	
ING	None	HCP-94	6" HCP	3	4	NEW CONSTRUCTION	None							Ξ.
	None	HCP-95	6" HCP	3	4	NEW CONSTRUCTION	None						A	e u
ING	None	HCP-90	6" HCP	3	4 4	NEW CONSTRUCTION	None						5	
	None	HCP-98	6" HCP	3	4	NEW CONSTRUCTION	None						Ŷ	
ING	None	HCP-100	6" HCP	3	4	NEW CONSTRUCTION	None						Ā	eal
		HCP-101	6" HCP	3	4	NEW CONSTRUCTION	None						Š	۳ ۵
		HCP-103	6" HCP	3	4	NEW CONSTRUCTION	None							5 2
		HCP-104	6" HCP	3	4	NEW CONSTRUCTION	None							$\widetilde{\omega}_{t}$
		HCP-106	6" HCP	3	4 4	NEW CONSTRUCTION	None						Ţ	с Ц
		HCP-107	6" HCP	3	4	NEW CONSTRUCTION	None						≥ S P	
		HCP-108	6" HCP	3	4 4	NEW CONSTRUCTION	None						ш	
		HCP-110	6" HCP	3	4	NEW CONSTRUCTION	None							
		HCP-112	6" HCP	3	4 4	NEW CONSTRUCTION	None							
		HCP-113	6" HCP	3	4	NEW CONSTRUCTION	None							
		HCP-114 HCP-115	0 HCF	3	4 4	NEW CONSTRUCTION	None							
Г												DATE:		08.06.
_		1		1	COLU				1	1				
							те					No.	Description	n
-		EXISTING TO REMAIN	COMMENTS	NOT INCLUDED IN T	HE PROJECT SCOPE		10		EXISTING	None				
-	2	CONCRETE COLUMN				-			EXISTING	None	ineer			
	Z	CONCRETE COLUMN			HE PROJECT SCOPE	-			EXISTING	None	Eng			
	3	EXISTING TO REMAIN		REPAIR THE SPALLI	ED CONCRETE SECT	TIONS REFERENCED IN SEC	CTION 6/S-3.00 ON S-3	00 AS PER THE REPAIR	EXISTING	None	UM@			
-	4	EXISTING TO REMAIN		REPAIR THE SPALL	ED CONCRETE SECT	TIONS REFERENCED IN SEC	CTIONS 7/S-3.00 AND 8	3/S-3.00 ON S-3.00 AS	EXISTING	None				
-	5	EXISTING TO REMAIN		REPAIR THE REPAIR DE	ETAILS INDICATED O	IN S-1.00 RETE SECTIONS REFERENC	CED IN SECTIONS 7/S	-3.00 AND 8/S-3.00 ON	EXISTING	None	nartii			
	6			S-3.00 AS PER THE		DICATED ON S-1.00		12/8 2 00 01 0 0 00 10		NI				
	0	CONCRETE COLUMN		PER THE REPAIR DE	ETAILS INDICATED O	N S-1.00		12/3-3.00 ON S-3.00 AS	EXISTING	None	svit17			
	7	EXISTING TO BE REPLACED COLUMN		REPLACE THE EXIS	TING COLUMN WITH	A 14"X14" RC COLUMN WIT	H 8#6 VERTICAL REB	ARS (3 PER FACE) AND	NEW CONSTRUCTION	None	-sRe			
F	8	EXISTING TO REMAIN		NOT INCLUDED IN T	HE PROJECT SCOPE	Ē			EXISTING	None	1201			
-	9	EXISTING TO REMAIN		NOT INCLUDED IN T	HE PROJECT SCOPE				EXISTING	None	1806			
Ļ	-	CONCRETE COLUMN						00 ON 0 0 00 40 555						
	10	CONCRETE COLUMN		THE REPAIR DETAIL	SPALLED CONCE	RETE SECTIONS REFERENC	JED IN SECTION 6/S-3	.00 ON 5-3.00 AS PER	EXISTING	None	nts\N			
	11	EXISTING TO REMAIN CONCRETE COLUMN		REPAIR THE CRACK ON S-3.00 AS PFR T	ED AND SPALLED C	ONCRETE SECTIONS REFE INDICATED ON S-1.00	RENCED IN SECTION	S 7/S-3.00 AND 8/S-3.00	EXISTING	None	nme			
F	12	EXISTING TO REMAIN		NO SPALLS, CRACK	S OR DELAMINATED	CONCRETE OBSERVED AT	THE TIME OF OUR S	TE OBSERVATIONS	EXISTING	None	, Doc			
-	13	EXISTING TO REMAIN		REPAIR THE CRACK	ED SPALLED CONC	RETE SECTIONS REFERENCE	CED IN SECTION 12/S-	3.00 ON S-3.00 AS PER	EXISTING	None	(M/z€			
		CONCRETE COLUMN		THE REPAIR DETAIL	S INDICATED ON S-1	1.00					i i			



NOTE: MUE18061201 THESE DRAWINGS, ALONG WITH THE ARCHITECTURAL DRAWINGS, AND PROJECT MANUAL CONSTITUTE A SINGULAR CONTRACT DOCUMENT AND MUST BE USED TOGETHER IN THEIR ENTIRETY IN THE CONSTRUCTION OF THIS PROJECT. DETAILS AND VIEWS ON THIS SHEET ARE TO SCALE INDICATED WHEN PRINTED ON A 24"X36" SIZE SHEET.

