



THE CITY OF KEY WEST

Post Office Box 1409 Key West, FL 33041-1409 (305) 809-3883

ADDENDUM NO. 1

EDWARD B. KNIGHT PIER BRIDGE SPAN 1 REPLACEMENT / ITB 18-029

July 05, 2018

This addendum is issued as supplemental information to the bid package for clarification of certain matters of both a general and a technical nature. The referenced Invitation to Bid (ITB) package is hereby amended in accordance with the following items:

Pre-Bid Request for Information:

- 1.) ARTICLE 39 Codes, Ordinances, Permits, and Licenses – Does not detail that a Building Permit is required for this project. Please advise if it is a requirement and the subsequent fee.
Response: A Key West Building Permit is required for this project, please contact the Building Department for the fee.

- 2.) Sheet B-02 General Notes; Utilities states “for locations of existing utilities, see plan and elevation sheet.” The aforementioned sheet has no utilities detailed on it. Please advise if currently electrical is running through existing structure. Provide any as-builts if possible. Please confirm that the disconnection & reconnection of the electrical power is part of this contract, and if so, provide details for that work including the location of the conduit and wires to be installed.
Response: The notes have been revised in Rev. 1 to clarify that existing conduits must be replaced; one 3 ½” PVC conduit is required in each curb.

The contractor is responsible for disconnecting the power supply to the bridge lighting, installation of two electrical conduits (one in each curb).

Conduits shall be continuously attached to the existing. Please note that the exact position of conduits and their size are unknown at this time. As-built drawings for the existing bridge are not available.

The contractor is to provide a separate line item for installation of two electrical grade sch 40 PVC conduits of 3-1/2" dia. (or smaller) in his bid.

The contractor is to provide a separate line item for removing and re-pulling existing electrical wiring for pier lights (size unknown).

Please see updated plans for approximate conduits location.

- 3.) Sheet B1-10 Precast Slab Data Table- Type 1 – 21 strands, while the image shows 14 ea with the caption below, 7 SPA @ 2”. Please clarify the number of strands and there spacing.
Response: The PSU section has been revised to show the locations of the 21 strands. Also, note the addition of a Bid Alternate for Stainless Steel Strands, see note on the same sheet.

- 4.) Please advise if beach access will be granted for the duration of this project.
Response: Access to Rest Beach will be discussed at the pre-construction meeting. Indigenous Park will be used for staging and debris stockpile.

5.) In the Instructions to Bidders, Item 6C states to submit with our bid experience & expertise in lighting and electrical work. There are no electrical plans in the drawings detailing any work. Please confirm this requirement.

Response: Please disregard “in the lighting and electrical related field”. Item 6C in the Instructions to Bidders and substitute “bridge repair related field”.

6.) In the Invitation to Bid, Section 5A, the bidder is to submit a Tentative Schedule with the Proposal. What format will the schedule be required to be in? Will an Excel schedule be acceptable?

Response: Any format is acceptable.

7.) Is there a budget for the project?

Response: There is no construction budget at this time.

8.) Is see the bid bond information and some Performance Bond information but wasn't certain if the performance bond needs to be 100% of the bid total or a greater amount?

Response: The performance bond must be in the full amount of the contract price.

9.) Is a GC license required?

Response: As stated in the Invitation to Bid: THE BIDDER MUST BE A LICENSED CONTRACTOR BY THE STATE OF FLORIDA AND SUBMIT PROOF OF SUCH WITH THE BID

10.) What is the current estimate/ budget for the Edward B. Knight Pier Span1 Project?

Response: The Engineer's estimate is attached (it does not include electrical) / there is currently no construction budget for this project

11.) How will the US Army Corps Permit Note concerning “all work to be completed at low tide” affect work schedule?

Response: The contractor is to perform all work without contacting the body of water below the bridge span.

The ACOE permit condition note would be applicable for any work under the existing bridge deck which may get in contact with high tide waters.

The contractor is responsible to plan and schedule his work accordingly.

ADDITIVE ALTERNATE # 1

See attached revised Page 11 of the Proposal for Additive Alternate # 1. Remove and replace page 11 with attached and submit with Proposal.

All Bidders shall acknowledge receipt and acceptance of this Addendum No. 1 with Attachment by submitting the addendum with their proposal. Proposals submitted without acknowledgement or without this Addendum may be considered non-responsive.

Signature

Name of Business

CITY OF KEY WEST

CONTRACT PLANS

CITY OF KEY WEST, MONROE COUNTY EDWARD B. KNIGHT PIER SPAN 1 DECK REPLACEMENT

STRUCTURE PLANS

INDEX OF STRUCTURE PLANS

SHEET NO. SHEET DESCRIPTION

GENERAL SHEETS

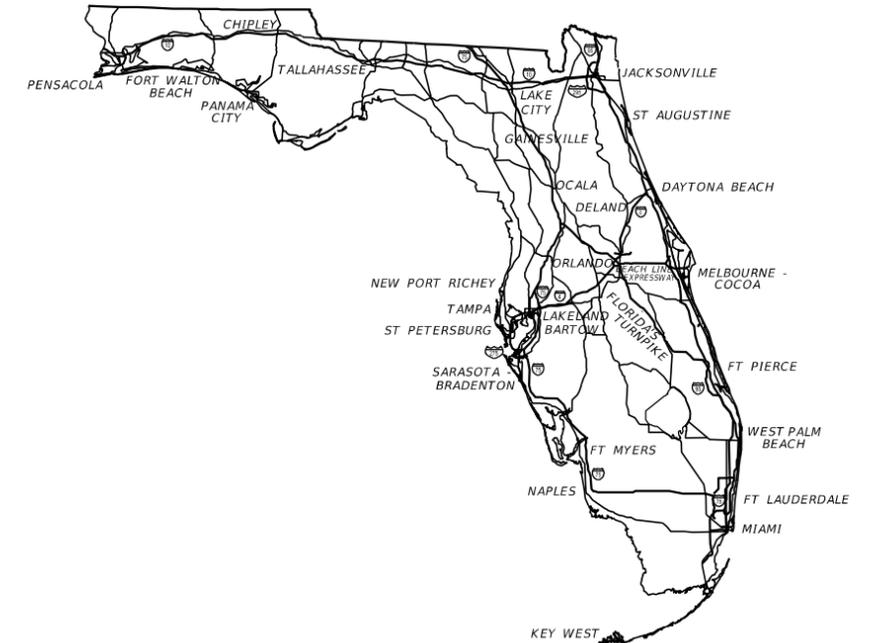
B-01 KEY SHEET
B-02 GENERAL NOTES

BRIDGE SHEETS

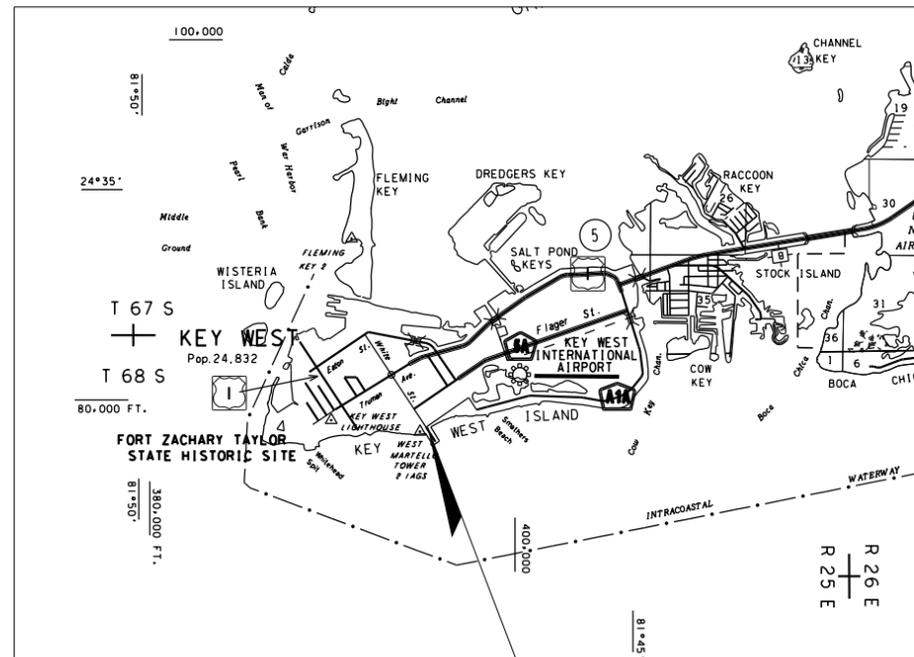
B1-01 PLAN AND ELEVATION
B1-02 TYPICAL SECTION
B1-03 FRAMING PLAN
B1-04 FINISH GRADE ELEVATIONS
B1-05 SUPERSTRUCTURE (1 OF 2)
B1-06 SUPERSTRUCTURE (2 OF 2)
B1-07 SUPERSTRUCTURE DETAILS (1 OF 2)
B1-08 SUPERSTRUCTURE DETAILS (2 OF 2)
B1-09 BEARING PAD AND JOINT DETAILS
B1-10 PRECAST DATA TABLE
B1-11 REINFORCING BAR LIST

DRAINAGE SHEETS

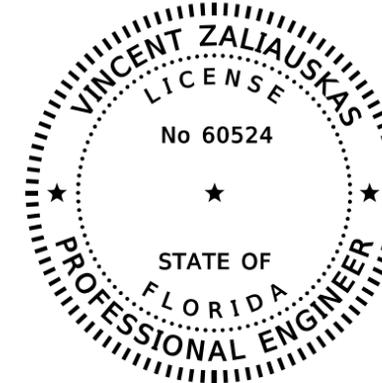
SW-01 STORMWATER POLLUTION PREVENTION PLAN



PROJECT LOCATION



PROJECT LOCATION



REVISION 1 7/2/18

THIS ITEM HAS BEEN DIGITALLY
SIGNED AND SEALED BY:

PRINTED COPIES OF THIS DOCUMENT ARE
NOT CONSIDERED SIGNED AND SEALED.
THE SIGNATURE MUST BE VERIFIED
IN THE ELECTRONIC DOCUMENTS.

STRUCTURE PLANS
ENGINEER OF RECORD:

VINCENT ZALIAUSKAS, P.E.
P.E. LICENSE NUMBER 60524
HIGHSPANS ENGINEERING, INC.
2121 MCGREGOR BLVD.
SUITE 200
FORT MYERS, FL 33901
CERTIFICATE OF AUTHORIZATION NO. 27559

CITY OF KEY WEST
PROJECT MANAGER:

JANET MUCCINO

GOVERNING DESIGN STANDARDS:

FLORIDA DEPARTMENT OF TRANSPORTATION, FY2017-2018 DESIGN STANDARDS EBOOK (DSEB)
AND APPLICABLE DESIGN STANDARDS REVISIONS (DSRS) AT THE FOLLOWING WEBSITE:
[HTTP://WWW.DOT.STATE.FL.US/RDDESIGN/DESIGNSTANDARDS/STANDARDS.SHTM](http://www.dot.state.fl.us/rddesign/designstandards/standards.shtm)

GOVERNING STANDARD SPECIFICATIONS:

FLORIDA DEPARTMENT OF TRANSPORTATION, JAN 2018 STANDARD SPECIFICATIONS
FOR ROAD AND BRIDGE CONSTRUCTION AT THE FOLLOWING WEBSITE:
[HTTP://WWW.DOT.STATE.FL.US/PROGRAMMANAGEMENT/IMPLEMENTED/SPECBOOKS](http://www.dot.state.fl.us/programmanagement/implemented/specbooks)

KEY SHEET REVISIONS

DATE	DESCRIPTION
7/2/18	SHEET B-02, B1-02 AND B1-10

CONSULTANT PROJECT MANAGER:



SERGE MASHTAKOV, P.E.
3706 N. ROOSEVELT BLVD, SUITE 1-208
KEY WEST, FL 33040
T: (305) 304-3512
E: SERGE@ARTIBUSDESIGN.COM
WWW.ARTIBUSDESIGN.COM

CONSTRUCTION CONTRACT NO.	FISCAL YEAR	SHEET NO.
		B-01

GENERAL NOTES:

DESIGN SPECIFICATIONS:

1. FDOT STRUCTURES MANUAL DATED JANUARY 2018.
2. AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO) LOAD AND RESISTANCE FACTOR (LRFD) BRIDGE DESIGN SPECIFICATIONS, 7TH EDITION, 2014.
3. FLORIDA DESIGN MANUAL DATED JANUARY, 2018.
4. FLORIDA DEPARTMENT OF TRANSPORTATION, 2017-18 DESIGN STANDARDS AND REVISED INDEX DRAWINGS AS APPENDED HEREIN AND JANUARY 2018 STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, AS AMENDED BY CONTRACT DOCUMENTS.

VERTICAL DATUM:

VERTICAL DATUM USED IS NAVD 88'.

ENVIRONMENT:

SUPERSTRUCTURE - EXTREMELY AGGRESSIVE
SUBSTRUCTURE - EXTREMELY AGGRESSIVE (CHLORIDES > 6,000 PPM)

CONCRETE:

ALL CONCRETE SHALL BE IN ACCORDANCE WITH SECTION 346. HOT WEATHER REQUIREMENTS INCLUDE TO MINIMIZE CONCRETE EXPOSURE TO ADVERSE WEATHER. SCHEDULE CONC. PLACEMENT DURING EARLY MORNING HOURS. FINISH CONCRETE AT FASTEST RATE WITH BEST EQUIPMENT POSSIBLE. CURING REQUIREMENTS ARE DETAILED IN ACI 305R AND 308R.

CONCRETE CLASS	MIN, 28-DAY COMPRESSIVE STRENGTH (PSI)	LOCATION OF CONCRETE IN STRUCTURE
IV	F'C = 5,500	C.I.P. PEDESTRIAN RAILING PARAPET
IV (SYNTHETIC FIBER REINFORCED)	F'C = 5,500	C.I.P. CONCRETE OVERLAY AND CLOSURE POUR
V w/ SILICA FUME	F'C = 6,500	SUPERSTRUCTURE PRESTRESSED SLAB UNITS (4,588 KSI @ RELEASE)

CONCRETE COVER:

C.I.P. SUPERSTRUCTURE = 2 1/2 IN. (TOP OF DECK SURFACE & RAILINGS)
PRECAST SUPERSTRUCTURE = 3 IN. INTERNAL AND EXTERNAL SURFACES AND COMPONENTS

CONCRETE COVERS SHOWN IN THE PLANS DO NOT INCLUDE PLACEMENT AND FABRICATION TOLERANCES UNLESS SHOWN AS "MINIMUM COVER". SEE FDOT STANDARD SPECIFICATIONS FOR ALLOWABLE TOLERANCES.
*DO NOT USE STEEL CHAIRS FOR COVER, USE PLASTIC ONLY.

GROUT:

GROUT FOR GROUT PAD LISTED ON APL:
COMPRESSIVE STRENGTH @ 1 HR. = 4,800 PSI
INITIAL SET TIME = 20 MIN.

REINFORCING STEEL:

ALL REINFORCING STEEL SHALL BE ASTM A1035, GRADE 75 MMFX/CHROMX

APPLIED FINISH COATING:

THE UNDERSIDE OF ALL PRECAST UNITS SHALL BE COATED WITH PILGRIM PERMOCOAT COAL TAR EPOXY PER THE MANUFACTURER'S RECOMMENDATIONS. THIS IS INTENDED TO PROTECT THE CONCRETE FROM CORROSION DUE TO SALTWATER SPRAY.

PLAN DIMENSIONS:

ALL DIMENSIONS IN THESE PLANS ARE MEASURED IN FEET EITHER HORIZONTALLY OR VERTICALLY UNLESS OTHERWISE NOTED.

UTILITIES:

THE UTILITIES SHOWN IN THE BRIDGE PLANS ARE AT APPROXIMATE LOCATIONS. FOR ADDITIONAL INFORMATION REFER TO THE UTILITIES PLANS AND FIELD-LOCATED BY THE CONTRACTOR.

POWER IS TO BE DISCONNECTED BY A LICENSED ELECTRICIAN. IT IS TO BE EMBEDDED IN THE NEW CONCRETE POUR WITH NEW 3 1/2" SCHEDULE 40 PVC CONDUIT TO BE INSTALLED AND WIRES RE-PULLED.

SCREEDING DECK SLABS:

SCREED THE RIDING SURFACE OF THE BRIDGE DECK AND APPROACH SLABS TO ACHIEVE THE FINISH GRADE ELEVATIONS SHOWN IN THE PLANS. ACCOUNT FOR THEORETICAL DEFLECTIONS DUE TO DECK SELF WEIGHT, DECK CASTING SEQUENCE, DECK FORMING SYSTEMS, CONSTRUCTION LOADS, OVERLAYS AND TEMPORARY SHORING ETC. AS REQUIRED.

JOINTS IN CONCRETE:

CONSTRUCTION JOINTS WILL BE PERMITTED ONLY AT LOCATIONS INDICATED ON THE PLANS. ADDITIONAL CONSTRUCTION JOINTS OR ALTERATIONS TO THOSE SHOWN SHALL REQUIRE APPROVAL OF THE ENGINEER.

TRAFFIC CONTROL PLANS:

FOR TRAFFIC CONTROL USE FDOT DESIGN STANDARDS INDEX, SERIES 600.

DEMOLITION PLAN:

CONTRACTOR SHALL SUBMIT FORMAL DEMOLITION PLAN FOR APPROVAL.

CHAMFERS:

ALL EXPOSED EDGES AND CORNERS OF CONCRETE SHALL HAVE 3/4"x3/4" CHAMFERS UNLESS OTHERWISE NOTED.

VESSEL COLLISION:

1. U.S. ARMY CORPS OF ENGINEERS, 2011, PART 1, WATERWAYS AND HARBORS WATERBORNE COMMERCE OF THE UNITED STATES, DOES NOT RECOGNIZE THIS CROSSING AS A COMMERCIAL WATERWAY. NO BARGES OR SHIPS USE THIS CROSSING.
2. NO ACCIDENTS ARE RECORDED.
3. LRFD IMPORTANCE CLASSIFICATION IS NOT APPLICABLE TO THIS STRUCTURE.
4. VESSEL COLLISION IS NOT INCORPORATED IN THE DESIGN OF THIS STRUCTURE.

DESIGN LOADING:

DEAD LOADS:

1. UNIT WEIGHT OF REINFORCED CONCRETE: 150 LB/CU. FT.
2. ALUMINUM PEDESTRIAN/BICYCLE BULLET RAILING 10 LB/LF
3. PEDESTRIAN RAILING CONCRETE PARAPET 150 LB/CU. FT.
4. NO ALLOWANCE FOR FUTURE WEARING SURFACE.

LIVE LOADS:

1. HS20-44 TRUCK (NO LANE LOAD)
2. PEDESTRIAN: 90 LB/SF

WIND LOADS:

WIND LOADS ARE IN ACCORDANCE WITH SDG 2.4 AND LRFD 3.8.

TIDAL/STORM EVENT LOADS:

WAVE LOADS ARE IN ACCORDANCE WITH ASCE/SEI 7-05 SECT. 5.4.4
HORIZONTAL: 116 KIPS/SPAN

EARTHQUAKE LOADS:

NO DETAILED SEISMIC ANALYSIS IS REQUIRED FOR THIS TYPE OF BRIDGE IN FLORIDA ACCORDING TO THE STRUCTURES DESIGN GUIDELINES SECTION 2.3.1A.

DESIGN TEMPERATURES:

THERMAL COEFFICIENT OF EXPANSION OF CONCRETE: 0.000006 PER °F
NORMAL MEAN TEMPERATURE = 70° F
TEMPERATURE RANGE: RISE = 35° F AND FALL = 35° F

ENVIRONMENTAL CONSIDERATIONS:

CARE SHALL BE TAKEN TO ADHERE TO ALL REQUIREMENTS NOTED IN THE ENVIRONMENTAL PERMITS, CITY OF KEY WEST, FLORIDA AND NATIONAL REGULATIONS.

ASBESTOS:

THERE IS NO ANTICIPATED CONTAMINATION BASED ON VISUAL INSPECTION.

DESIGN METHOD:

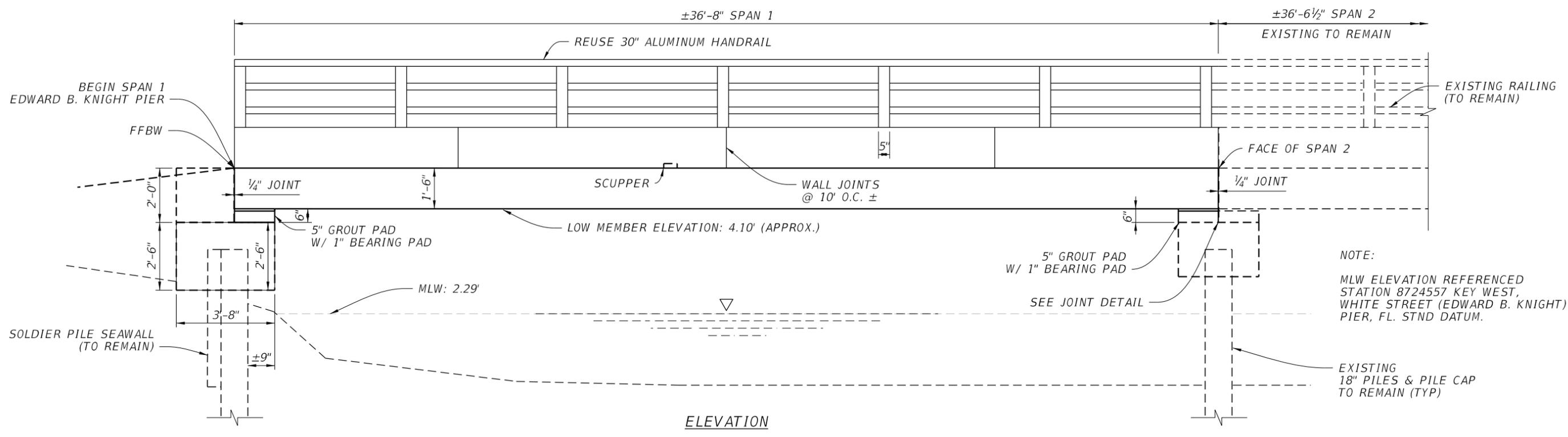
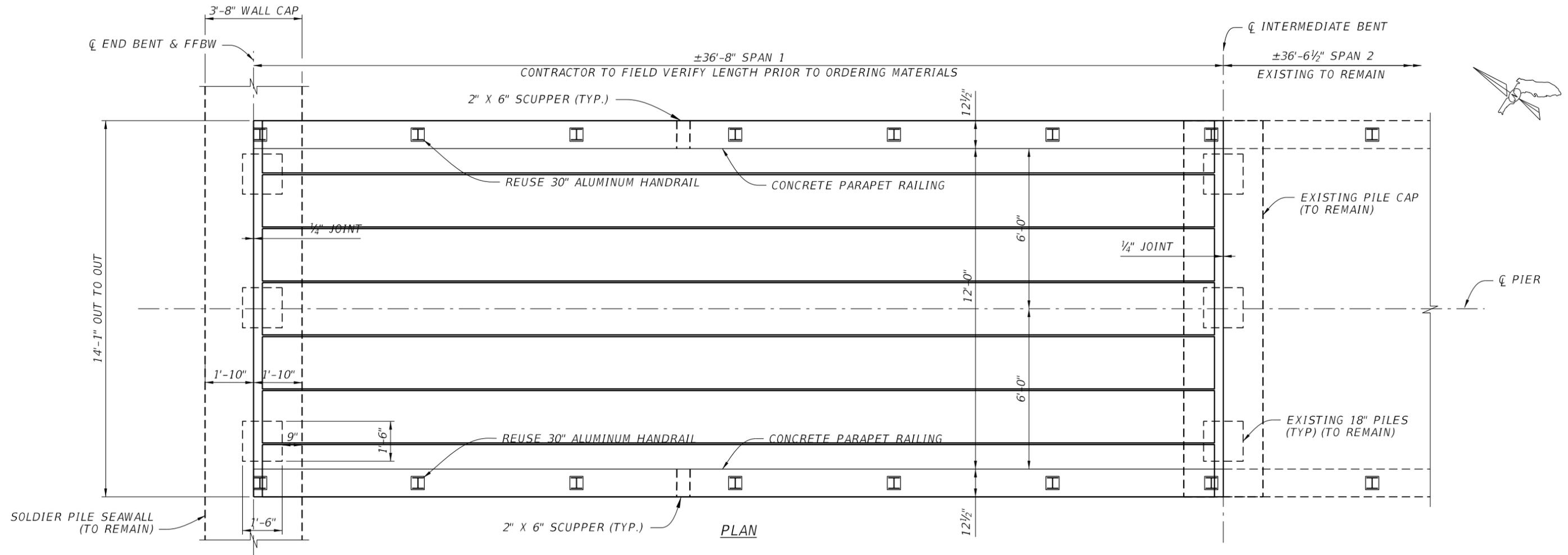
ALL ELEMENTS WERE DESIGNED USING THE LOAD AND RESISTANCE FACTOR DESIGN METHOD (LRFD). THE DESIGN LOAD COMPOSITE SECTION PROPERTIES TO RESIST LIVE LOADS AND COMPOSITE DEAD LOADS.

ESTIMATED QUANTITIES			
PAY ITEM NO.	DESCRIPTION	UNIT	QUANTITY
0104-11	FLOATING TURBIDITY BARRIER	LF	90
0110-3	REMOVAL OF EXISTING STRUCT	TN	84
0370-1	EXPANSION JOINTS	LF	29
0400148	ELASTOMERIC BEARING PAD	CF	3
0400143-1	CLEANING & COATING CONC.	SF	503
0400-2-4	CONC CLASS IV, SUPERSTRUCTURE	CY	15
0415-1-4	REINF. STEEL, SUPERSTRUCTURE	LBS	2146
0450-3-91	PSU, WIDTH 24", THICKNESS 12'	LF	250
0506-3	SCUPPERS	EA	2
0538-1	GUARDRAIL RESET	LF	74
4601121	ANCHOR BOLT REPLACEMENT	EA	28.00



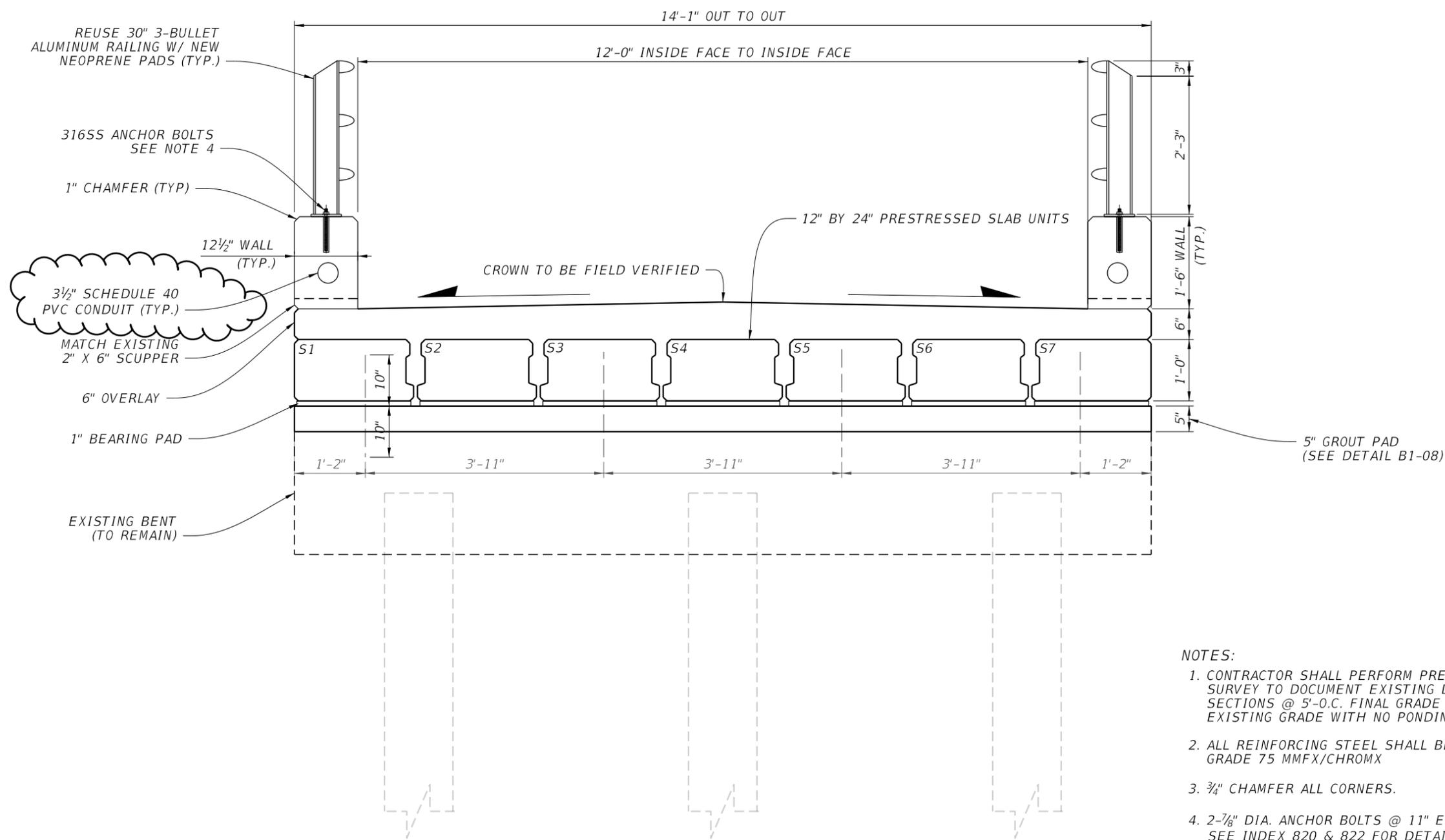
REVISIONS						VINCENT ZALIAUSKAS, P.E. P.E. LICENSE NUMBER 60524 HIGHSPANS ENGINEERING, INC. 2121 MCGREGOR BLVD. SUITE 200 FORT MYERS, FL 33901 CERTIFICATE OF AUTHORIZATION NO. 27559	DRAWN BY: CAL 4/18 CHECKED BY: VAZ 4/18 DESIGNED BY: CLH 4/18 CHECKED BY: VAZ 4/18	CITY OF KEY WEST			SHEET TITLE: GENERAL NOTES	REF. DWG. NO.
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION			ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
7/2/18	SDS	⚠️ REVISED UTILITIES NOTE				N/A	MONROE		PROJECT NAME: EDWARD B. KNIGHT PIER SPAN 1 DECK REPLACEMENT	SHEET NO. B-02		

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DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION			ROAD NO.	COUNTY	FINANCIAL PROJECT ID		SHEET NO.
						N/A	MONROE		B1-01			

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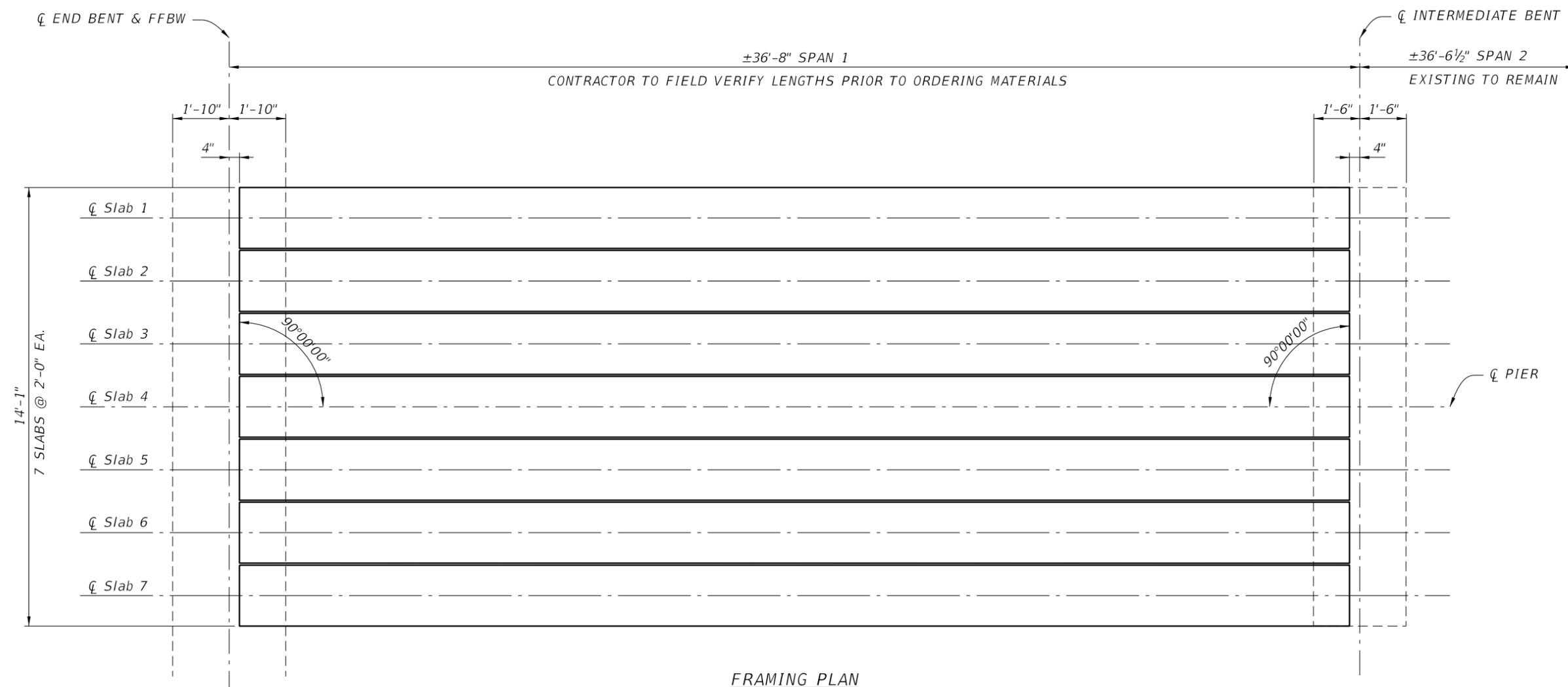
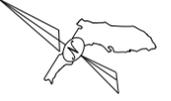


TYPICAL PIER SECTION

- NOTES:
1. CONTRACTOR SHALL PERFORM PRE-CONSTRUCTION SURVEY TO DOCUMENT EXISTING DECK CROSS SECTIONS @ 5'-O.C. FINAL GRADE SHALL MATCH EXISTING GRADE WITH NO PONDING.
 2. ALL REINFORCING STEEL SHALL BE ASTM A1035, GRADE 75 MMFX/CHROMX
 3. 3/4" CHAMFER ALL CORNERS.
 4. 2-7/8" DIA. ANCHOR BOLTS @ 11" EMBEDMENT. SEE INDEX 820 & 822 FOR DETAILS.
 5. SEE APPLIED FINISH COATING IN GENERAL NOTES.
 6. EMBEDDED RODS ARE 1'-2" FROM THE ENDS AND 3'-11" AWAY FROM EACH OTHER.

REVISIONS						VINCENT ZALIAUSKAS, P.E. P.E. LICENSE NUMBER 60524 HIGHSPANS ENGINEERING, INC. 2121 MCGREGOR BLVD. SUITE 200 FORT MYERS, FL 33901 CERTIFICATE OF AUTHORIZATION NO. 27559	DRAWN BY: CAL 4/18 CHECKED BY: VAZ 4/18 DESIGNED BY: CLH 4/18 CHECKED BY: VAZ 4/18	CITY OF KEY WEST			SHEET TITLE: TYPICAL SECTION	REF. DWG. NO.
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION			ROAD NO.	COUNTY	FINANCIAL PROJECT ID		
7/2/18	SDS	ADDED CONDUIT					N/A	MONROE		EDWARD B. KNIGHT PIER SPAN 1 DECK REPLACEMENT	SHEET NO. B1-02	

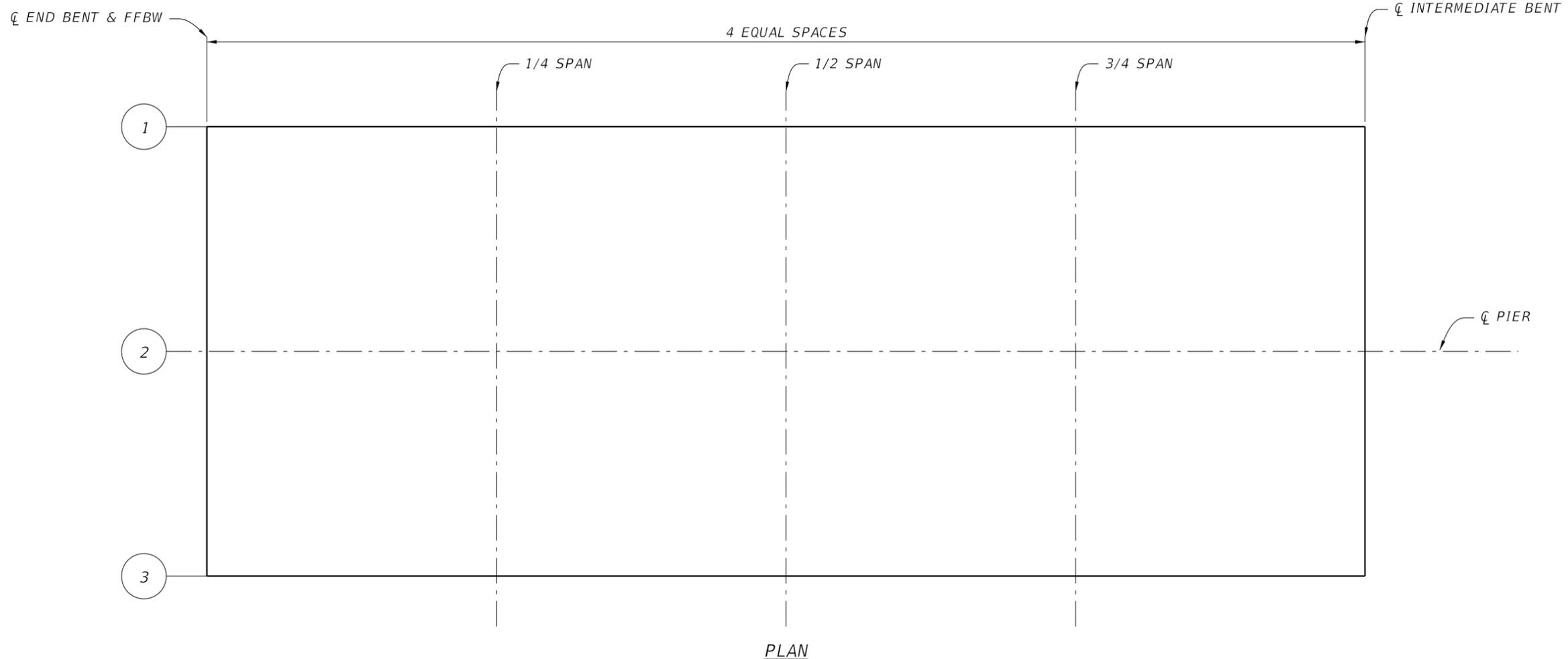
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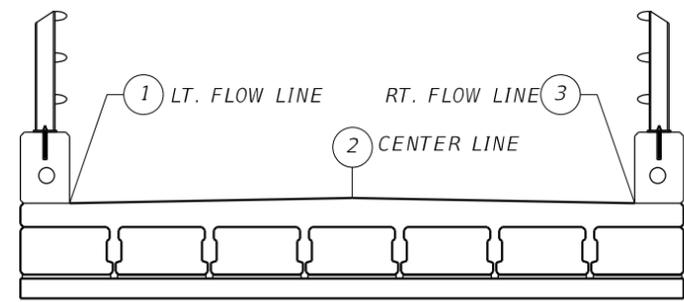
FRAMING PLAN

REVISIONS						VINCENT ZALIAUSKAS, P.E. P.E. LICENSE NUMBER 60524 HIGHSPANS ENGINEERING, INC. 2121 MCGREGOR BLVD. SUITE 200 FORT MYERS, FL 33901 CERTIFICATE OF AUTHORIZATION NO. 27559	DRAWN BY: CAL 4/18 CHECKED BY: VAZ 4/18 DESIGNED BY: CLH 4/18 CHECKED BY: VAZ 4/18	CITY OF KEY WEST			SHEET TITLE: FRAMING PLAN EDWARD B. KNIGHT PIER SPAN 1 DECK REPLACEMENT	REF. DWG. NO.
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION			ROAD NO.	COUNTY	FINANCIAL PROJECT ID		SHEET NO.
						N/A	MONROE		B1-03			

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PLAN



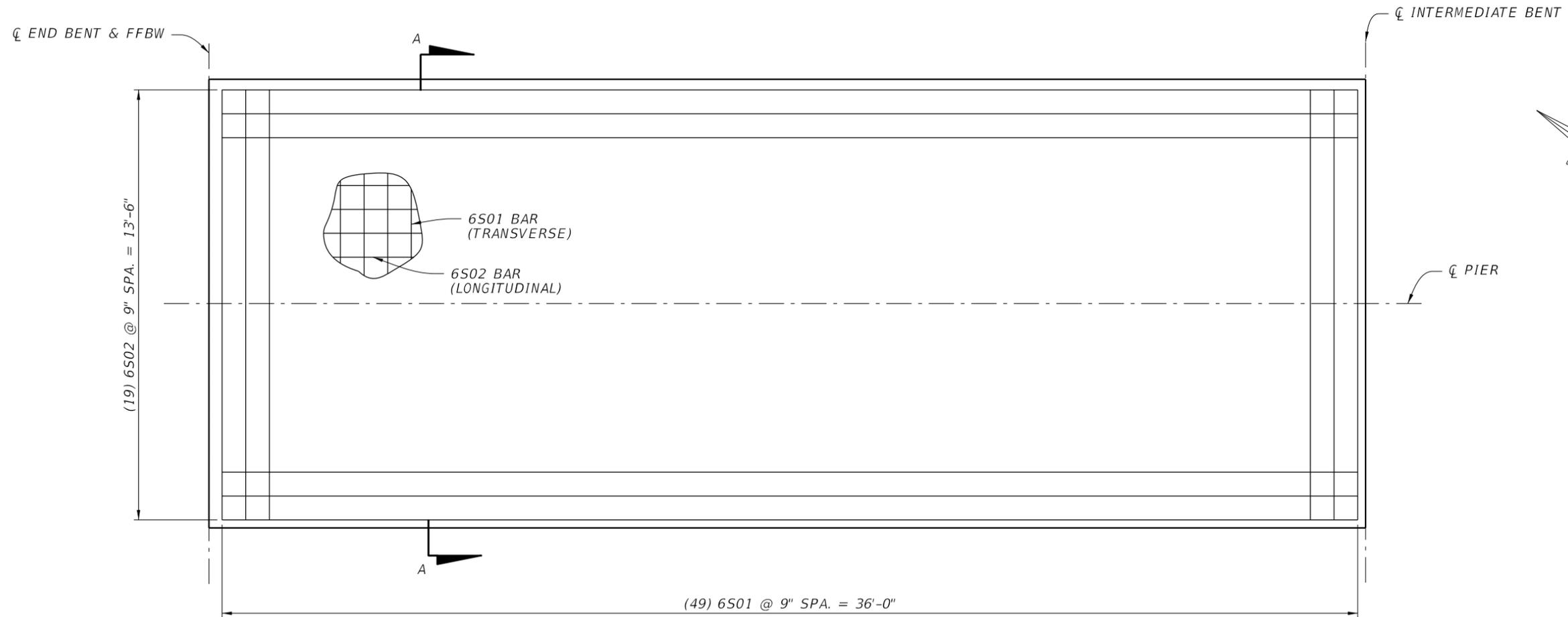
SECTION LOOKING EAST

SPAN NO. 1 FINISHED GRADE ELEVATIONS							(FEET)
LOCATION	T-LINES	FFBW EB 1	1/4	1/2	3/4	FFBW B 2	OFFSET
① LT. FLOW LINE							
② CENTERLINE							
③ RT. FLOW LINE							

- NOTES:
- CONTRACTOR TO FIELD SURVEY DECK ELEVATIONS AND COMPLETE THE TABLE PRIOR TO REMOVAL.
 - CROSS-SLOPE AND CROWN REQUIRES THAT THE CONTRACTOR PAY SPECIAL ATTENTION TO THE DECK SCREED ELEVATIONS IN ORDER TO AVOID PONDING WATER.

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DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION			ROAD NO.	COUNTY	FINANCIAL PROJECT ID		SHEET NO.
						N/A	MONROE		B1-04			

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SUPERSTRUCTURE DETAIL

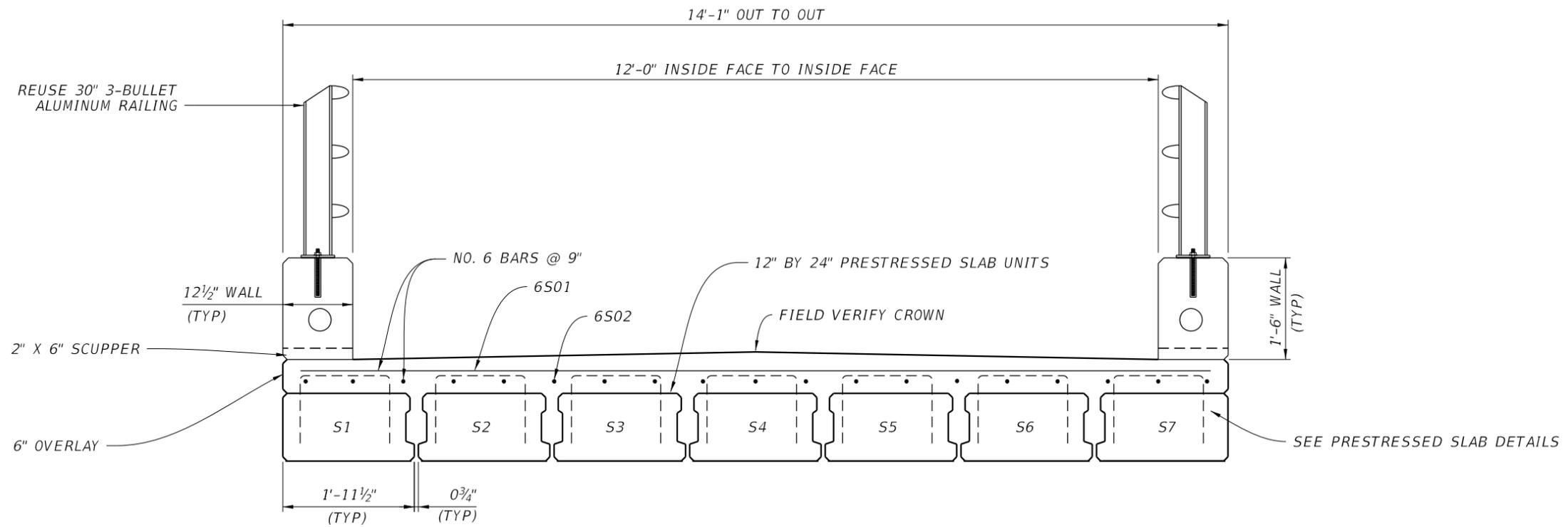
REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

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DRAWN BY: CAL 4/18	CITY OF KEY WEST		
CHECKED BY: VAZ 4/18	ROAD NO.	COUNTY	FINANCIAL PROJECT ID
DESIGNED BY: CLH 4/18	N/A	MONROE	
CHECKED BY: VAZ 4/18			

SHEET TITLE: SUPERSTRUCTURE (1 OF 2)	REF. DWG. NO.
PROJECT NAME: EDWARD B. KNIGHT PIER SPAN 1 DECK REPLACEMENT	SHEET NO. B1-05

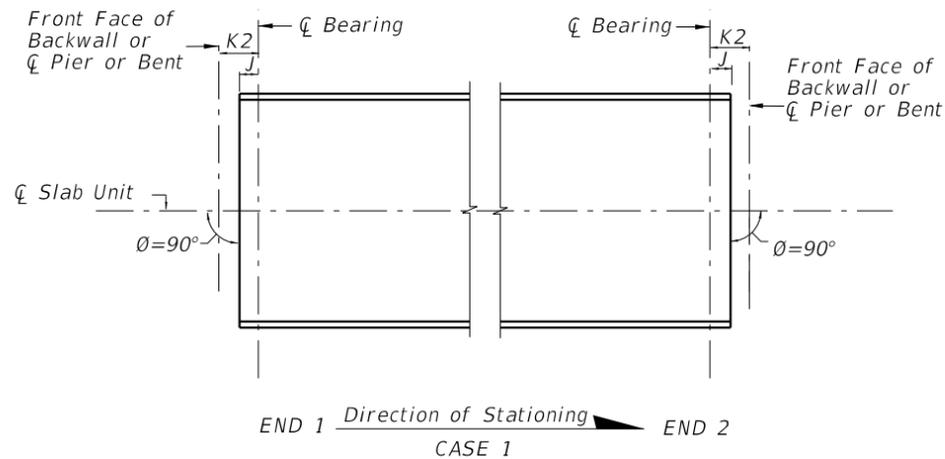
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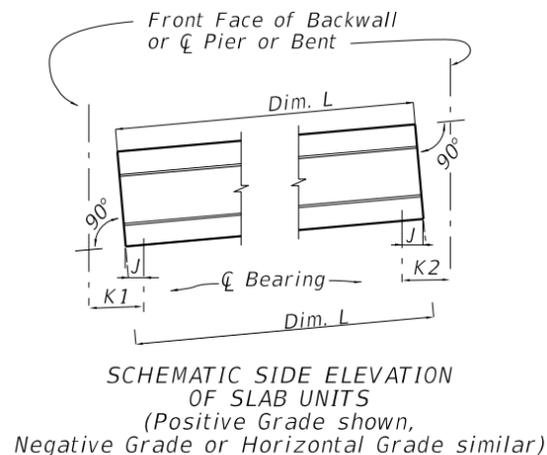
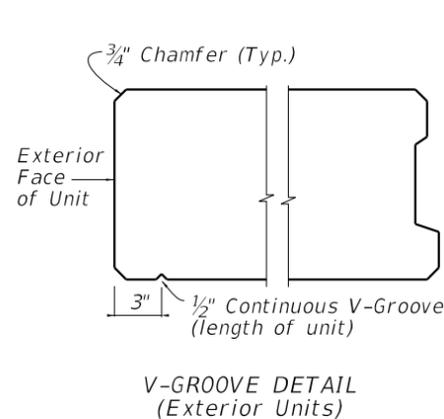
SECTION A-A
B1-05

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DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION		ROAD NO.	COUNTY	FINANCIAL PROJECT ID	SUPERSTRUCTURE (2 OF 2)		
							N/A	MONROE		EDWARD B. KNIGHT PIER SPAN 1 DECK REPLACEMENT		B1-06

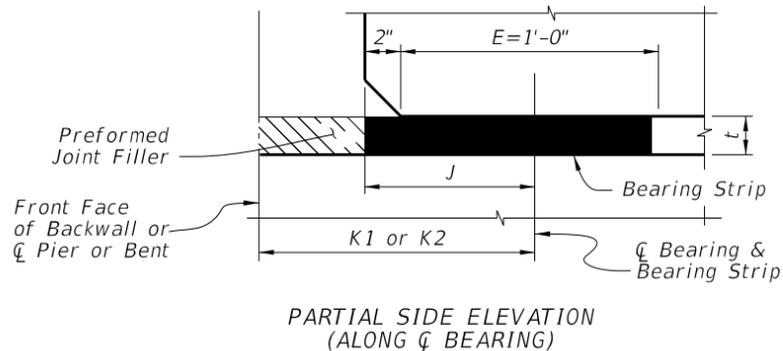


SCHEMATIC PLAN VIEWS AT SLAB ENDS



Prestressed Slab Unit (PSU) Fabrication Notes:

- All bar dimensions are out-to-out.
- Strands N shall be ASTM A416, Grade 250 or 270, 3/8" Ø or larger, stressed to 10,000 lbs. each.
- Unless otherwise noted, the minimum concrete cover for reinforcing steel shall be 3".
- For slab units with skewed end conditions, the end reinforcement, defined as Bars 4D1, 4D2, 4K and Y within the limits of the first 2'-0", shall be placed parallel to the skewed ends of the slab unit. The next two sets of Bars 4D1 or 4D2 & 4K shall be fanned to provide equal spacing. Provide additional Bars 4D1 or 4D2 for end skews ≥ 10°. See "SKEWED END TREATMENT DETAIL".
- Bars 4D1, 4D2, 4D3 & 4K shall be placed and tied to Strands N and a fully bonded strand in the bottom row. See "STRAND PATTERNS".
- At the Contractor's option, deformed welded wire reinforcement may be used in lieu of Bars 4D and 4K. Submit details to the Engineer for approval.
- For referenced Dimensions, Angles and Case Numbers, see Table of Variables in Structures Plans.
- Top surface of the slab units shall be raked transversely to provide a roughened surface with 1/4" amplitude. For proper bonding of the deck overlay, clean the top surface of the Prestressed Slab Units and thoroughly soak with potable water for a minimum of 4 hrs. then remove all excess surface water immediately prior to placement of the overlay.
- Cut strands 1" beyond the face of the slab unit.
- Bars 4D1, 5Y1 & 6Y1 correspond to END 1, and 4D2, 5Y2 & 6Y2 correspond to END 2.

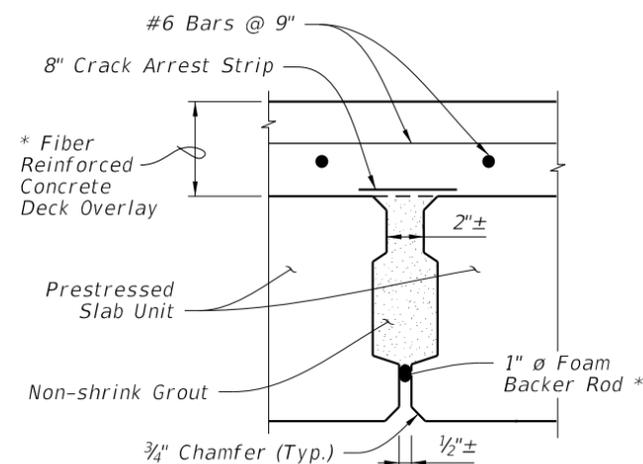


Bearing Strip Notes:

- See "bearing strip data table" in structures plans.
- Provide bearing strips in accordance with specification 932 (plain elastomeric bearing pads).
- Bearing strips may be continuous across multiple prestressed slab units.
- Limit discontinuities of bearing strips to a maximum distance of 2 inches from any longitudinal edge of prestressed slab units.
- Provide matching bearing strips at each end of prestressed slab units.

Referenced Dimensions:

- For dimensions J, K1 and K2, see table of variables in the structures plans.
- For dimensions E and t, see bearing strip data table in the structures plans.

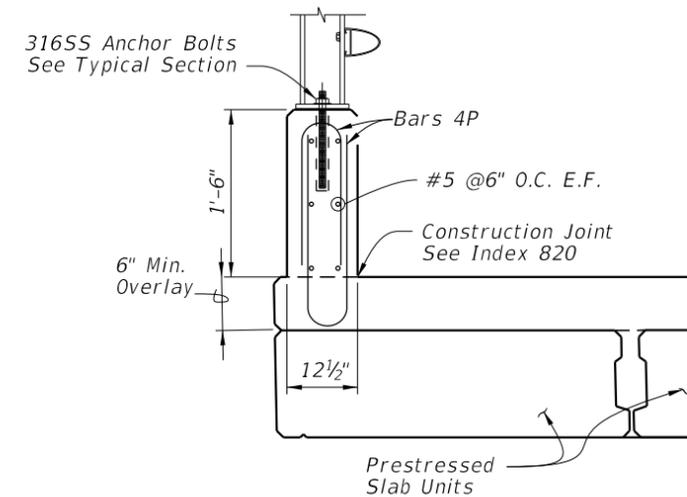


KEYWAY DETAIL

* Contractor shall test backer rod to assure no failures will occur that could result in grout spillage into canal.

Keyway Notes:

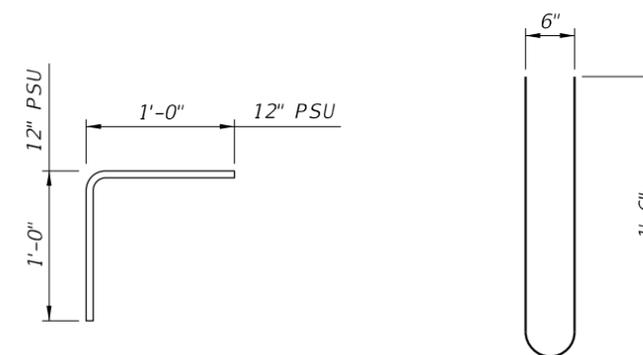
- At every keyway trowel non-shrink grout level with the top surface of the prestressed slab unit.
- Place an 8" wide crack arrest strip over keyway for the length of bridge between expansion joints.
- At expansion joints extend crack arrest strip over end of keyway to 1 1/2" from the bottom of the diaphragm.
- Crack arrest strip shall be a maximum of 1/8" thick and meet one of the following:
 - Precured silicone sealant meeting section 932 and on the APL;
 - Mastic, rubber or butyl sealing bands meeting requirements of ASTM C877;
 - Other equivalent material approved by the engineer.
- Apply crack arrest strip in accordance with the manufacturer's recommendations.



BRIDGE RAILING DETAIL

Railing Notes:

- Work this sheet with the Prestressed Slab Unit - Table of Variables and Prestressed Slab Unit - Traffic Railing Reinforcement Layout Table (if required) in the Structures Plans.
- Contractor shall direct the Precaster on how the Traffic Railing bars 5V are to be placed, either vertical (plumb) or perpendicular to the cross slope to allow proper placement of the modified railing bars.
- Modified Bars 5T & 5X for Index Nos. 422 & 423 shall be placed vertical (plumb).
- For skewed Prestressed Slab Units, place the bottom leg of vertical railing bars parallel to transverse slab reinforcement bars at unit ends.
- Concrete cover at top of railings may be increased up to 1" to accommodate camber of prestressed slab units.



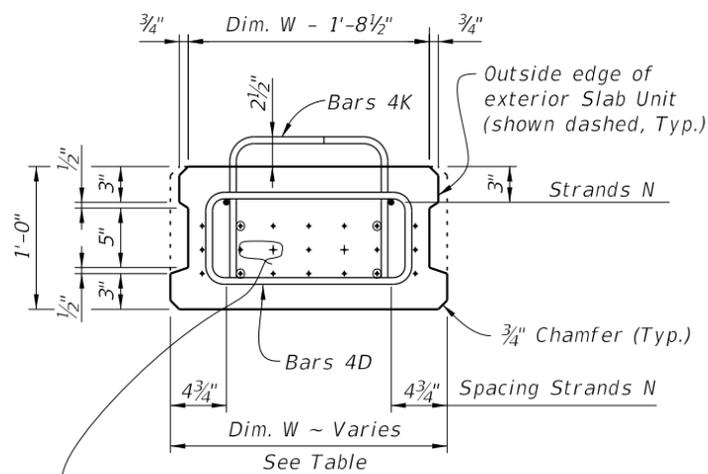
BARS 4L DETAIL

BAR 4P DETAIL

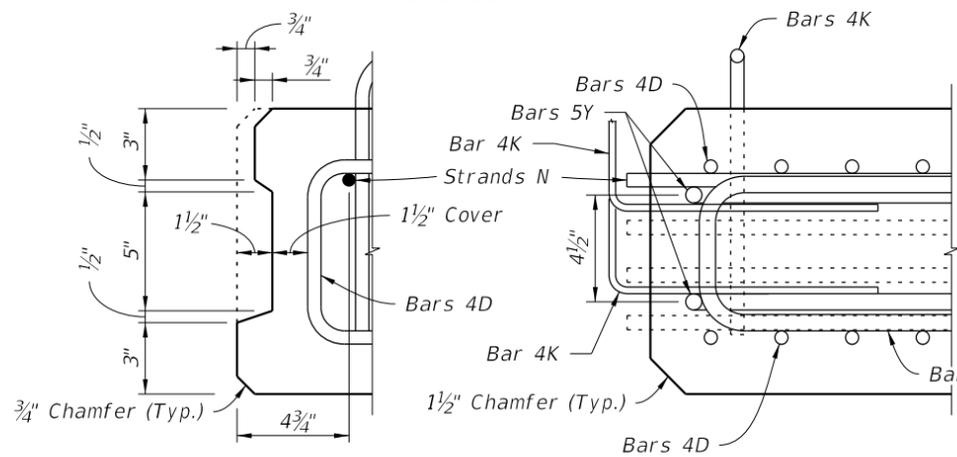
BASED ON INDEX NO. D20350

REVISIONS						VINCENT ZALIAUSKAS, P.E. P.E. LICENSE NUMBER 60524 HIGHSPANS ENGINEERING, INC. 2121 MCGREGOR BLVD. SUITE 200 FORT MYERS, FL 33901 CERTIFICATE OF AUTHORIZATION NO. 27559	DRAWN BY: CAL 4/18 CHECKED BY: VAZ 4/18 DESIGNED BY: CLH 4/18 CHECKED BY: VAZ 4/18	CITY OF KEY WEST			SHEET TITLE: SUPERSTRUCTURE DETAILS (1 OF 2)	REF. DWG. NO.
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION			ROAD NO.	COUNTY	FINANCIAL PROJECT ID		

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

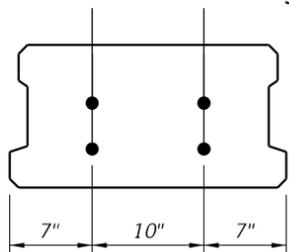


TYPICAL SECTION

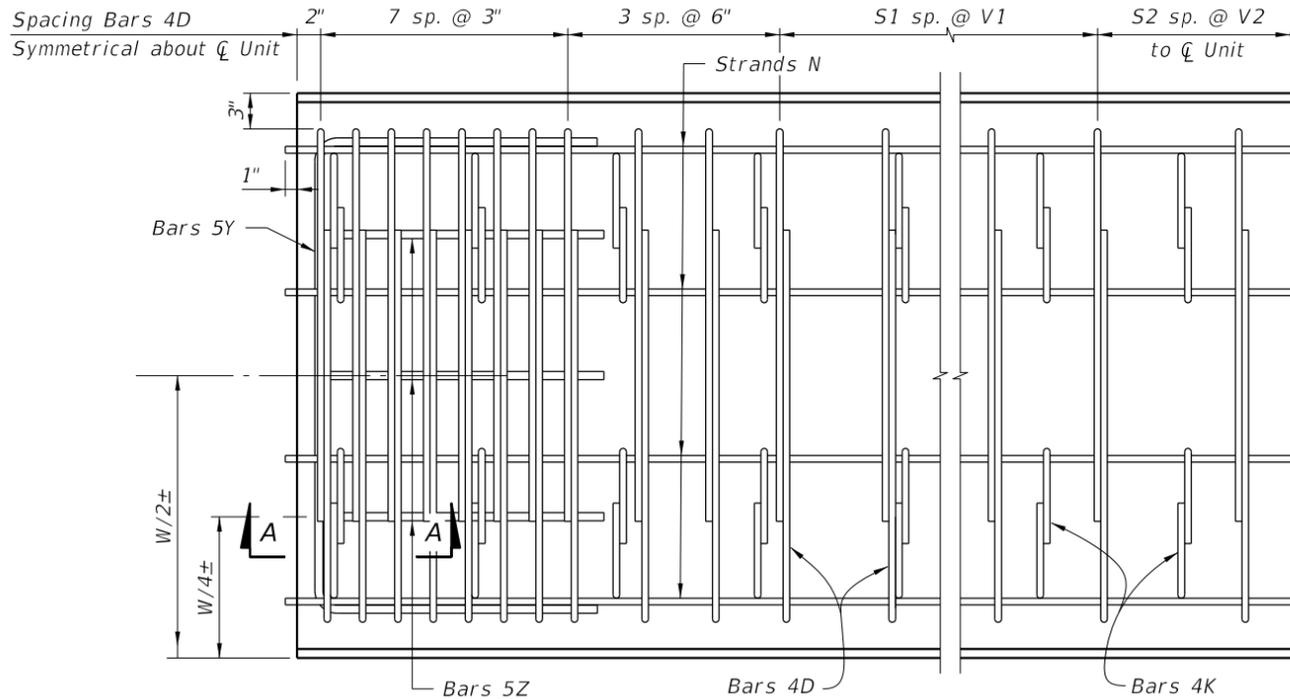


KEYWAY DETAIL

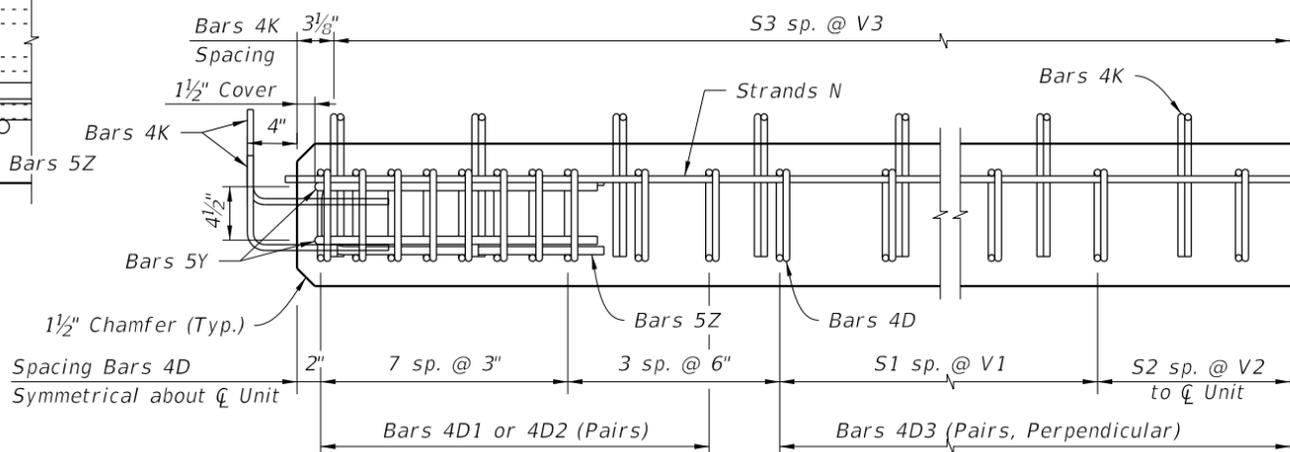
SECTION A-A



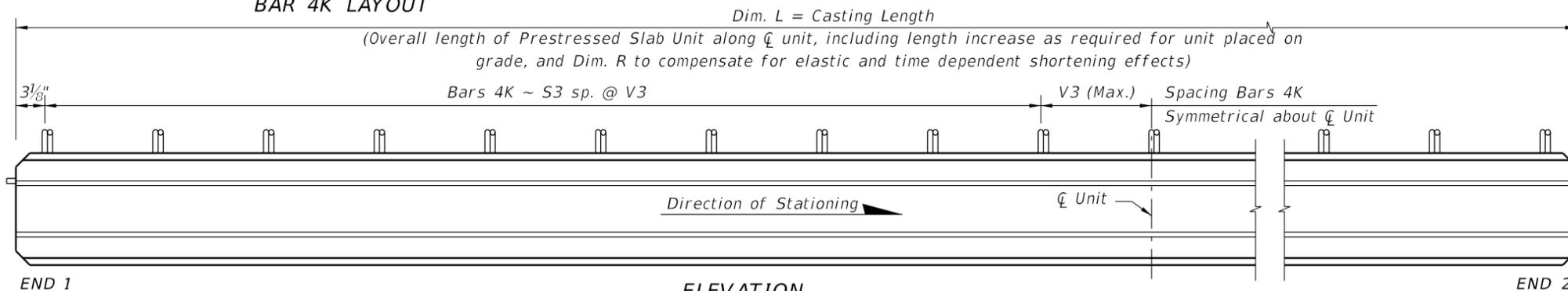
BAR 4K LAYOUT



PLAN AT END OF PRESTRESSED SLAB UNIT



ELEVATION AT END OF PRESTRESSED SLAB UNIT

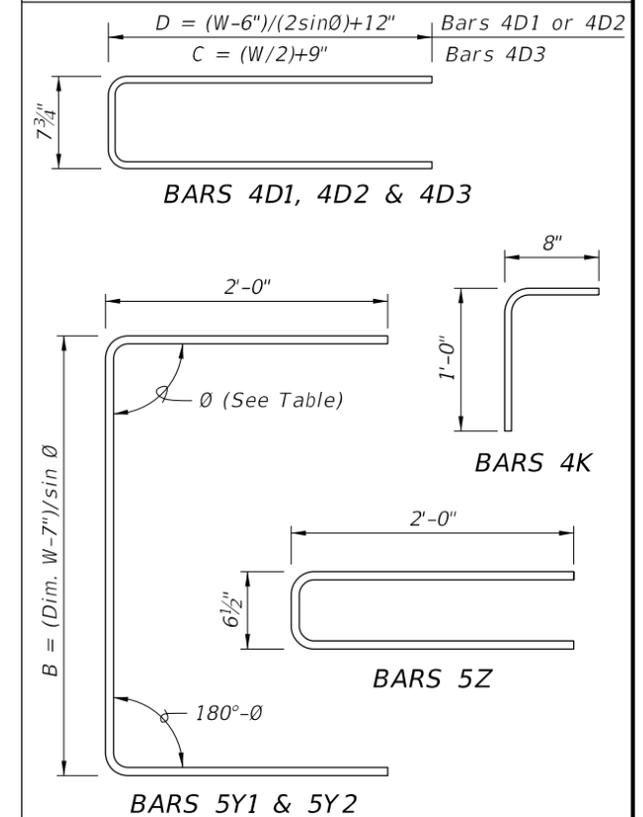


ELEVATION

BILL OF REINFORCING STEEL FOR ONE UNIT ONLY

MARK	SIZE	NOTE NUMBERS	NUMBER REQUIRED	LENGTH (NOTE 1)
D1	4	4, 5, 10	20 (End 1)*	Varies
D2	4	4, 5, 10	20 (End 2)*	Varies
D3	4	5	See Table	Varies
K	4	4, 5	See Table	1'-8"
N	3/8" Ø Strands	2, 9	4	Dim. L + 2"
Y1	5	4, 10	2 (End 1)	Varies
Y2	5	4, 10	2 (End 2)	Varies
Z	5	-	6	4'-7"

BENDING DIAGRAMS (See Note 1)



NOTES:
Work this Index with Index No. D20350 and Prestressed Custom Width Slab Units - Table of Variables in Structures Plans.

For Dimensions B, C, D, L, R, W, V1 thru V3 and number of spaces S1 thru S3, see Prestressed Custom Width Slab Units - Table of Variables in Structures Plans.

For referenced notes, see Index No. D20350, Sheet 1.

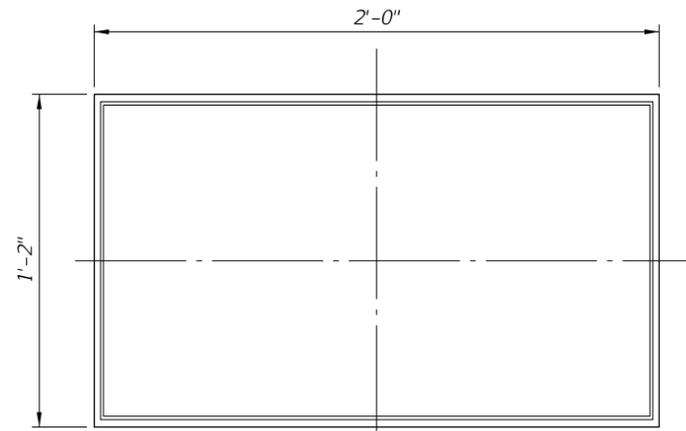
* See Note 4 for additional Bars 4D1 or 4D2 for skewed units.

EXTERIOR DECK SLAB DIMENSIONS SHOWN DASHED IN TYPICAL SECTION AND KEYWAY DETAIL. REBAR ARRANGEMENTS ARE SIMILAR.

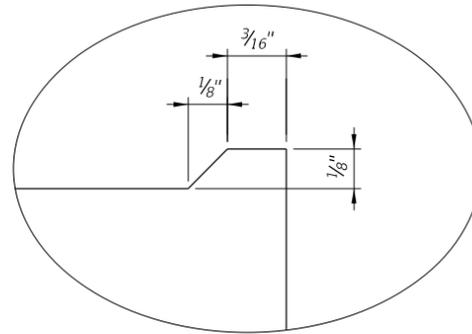
BASED ON INDEX NO. D20353

REVISIONS						VINCENT ZALIAUSKAS, P.E. P.E. LICENSE NUMBER 60524 HIGHSPANS ENGINEERING, INC. 2121 MCGREGOR BLVD. SUITE 200 FORT MYERS, FL 33901 CERTIFICATE OF AUTHORIZATION NO. 27559	DRAWN BY: CAL 4/18 CHECKED BY: VAZ 4/18 DESIGNED BY: CLH 4/18 CHECKED BY: VAZ 4/18	CITY OF KEY WEST			SHEET TITLE: SUPERSTRUCTURE DETAIL (2 OF 2)	REF. DWG. NO.
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION			ROAD NO.	COUNTY	FINANCIAL PROJECT ID		

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PLAN

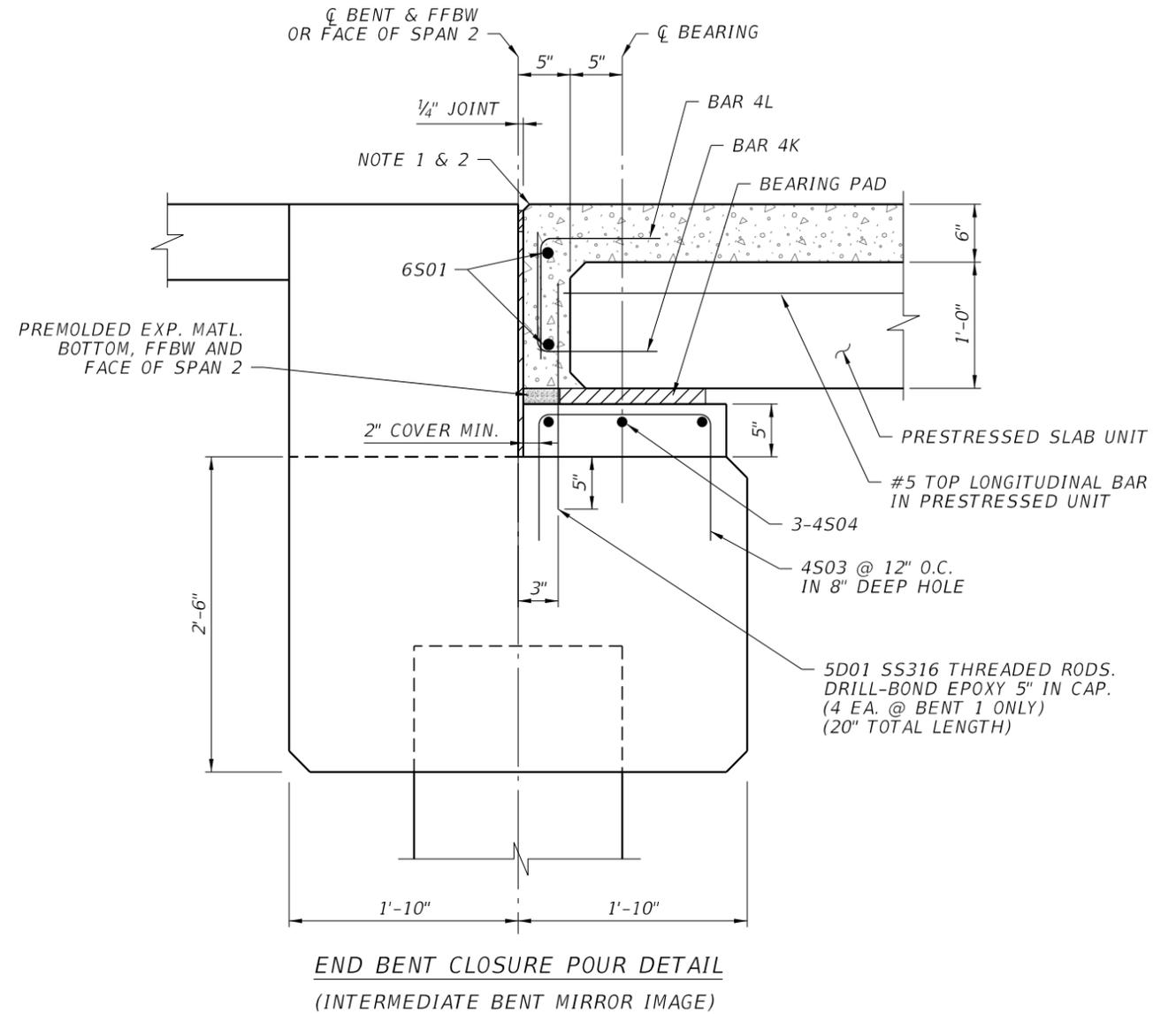


DETAIL A



SECTION

UNREINFORCED BEARING
(TYPE A)



END BENT CLOSURE POUR DETAIL
(INTERMEDIATE BENT MIRROR IMAGE)

JOINT NOTES:

1. THE CONTRACTOR SHALL USE A TOOLED GROOVE PLACED PRIOR TO THE CONCRETE OBTAINING INITIAL SET.
2. RAPID-CURE SILICONE (JOINT MATERIAL) MAY BE USED IN LIEU OF HOT-POURED SEAL IN TOOLED GROOVE. GROOVE SHALL BE CLEAN & FREE OF GREASE & DEBRIS BEFORE FILLING THE GROOVE.
3. SPACE TRANSVERSE REINFORCEMENT A MINIMUM OF 3" CLEAR OF JOINT.
4. EMBEDDED DOWELS DO NOT PROTRUDE THROUGH THE PRECAST ELEMENTS. CONSIST OF 4, 1/2" DIA. THREADED SS316 RODS. DRILLED AND EPOXIED 5" INTO THE PILE CAP.

UNREINFORCED BEARING			
ESTIMATED BEARING PAD QUANTITIES			
LOCATION	PAD TYPE	NUMBER REQUIRED	QUANTITY (CF)
END BENT	A	7	1.36
INT. BENT	A	7	1.36
TOTAL		14	2.72

REVISIONS					
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

VINCENT ZALIAUSKAS, P.E.
P.E. LICENSE NUMBER 60524
HIGHSPANS ENGINEERING, INC.
2121 MCGREGOR BLVD.
SUITE 200
FORT MYERS, FL 33901
CERTIFICATE OF AUTHORIZATION NO. 27559

DRAWN BY:
CAL 4/18
CHECKED BY:
VAZ 4/18
DESIGNED BY:
CLH 4/18
CHECKED BY:
VAZ 4/18

CITY OF KEY WEST		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
N/A	MONROE	

SHEET TITLE:
BEARING PAD AND JOINT DETAILS

PROJECT NAME:
**EDWARD B. KNIGHT PIER
SPAN 1 DECK REPLACEMENT**

REF. DWG. NO.
SHEET NO.
B1-09

Mark		Length		No	TYP	STY	B		C		D		E		F		H	J	K	N	φ
Size	Des	Ft	In	Bars	BAR	A	G	Ft	In	Ft	In	Ft	In	Ft	In	Ft	In	Ft	In	NO	ANG
Location Concrete Arch Bridge No. Required = 1																					
6	S01	36'-0"		19	1			36'-0"													
6	S02	13'-6"		49	1			13'-6"													
4	S03	3'-6"		28	11			1'-6"		1'-0"		1'-0"									
4	S04	13'-9"		6	1			13'-9"													
4	D01	1'-8"		4	1			1'-8"													

REVISIONS						VINCENT ZALIAUSKAS, P.E. P.E. LICENSE NUMBER 60524 HIGHSPANS ENGINEERING, INC. 2121 MCGREGOR BLVD. SUITE 200 FORT MYERS, FL 33901 CERTIFICATE OF AUTHORIZATION NO. 27559	DRAWN BY: CAL 4/18 CHECKED BY: VAZ 4/18 DESIGNED BY: CLH 4/18 CHECKED BY: VAZ 4/18	CITY OF KEY WEST			SHEET TITLE: REINFORCING BAR LIST		REF. DWG. NO.
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION			ROAD NO.	COUNTY	FINANCIAL PROJECT ID	PROJECT NAME: EDWARD B. KNIGHT PIER SPAN 1 DECK REPLACEMENT		SHEET NO.
								N/A	MONROE				B1-11

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

Edward B. Knight Pier Repair

Owner: City of Key West
 Project: Edward B. Knight Pier Repair
 Description: Span 1

Est. By: CLH / VAZ
 Date: 3/28/2018



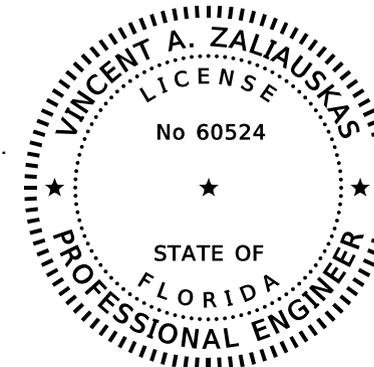
Edward B. Knight Pier Repair

PAY ITEM NO.	DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	COST	DESCRIPTION
0104-11	FLOATING TURBIDITY BARRIER	LF	90	\$ 12.00	\$ 1,080.00	AROUND BENTS
0110-3	REMOVAL OF EXISTING STRUCT	TN	84	\$ 200.00	\$ 16,800.00	REMOVAL OF EXISTING STRUCTURE/BRIDGE (60 SY)
0370-1	EXPANSION JOINTS	LF	29	\$ 25.00	\$ 725.00	BRIDGE APPROACH EXPANSION JOINT FOR CONCRETE PAVEMENT
0400148	ELASTOMERIC BEARING PAD	CF	3	\$ 1,000.00	\$ 3,000.00	PLAIN NEOPRENE BEARING PAD
0400-2-4	CONC CLASS II, SUPERSTRUCTURE	CY	15	\$ 2,000.00	\$ 30,000.00	CONCRETE CLASS II, BRIDGE SUPSTRUCTURE
0415-1-4	REINF. STEEL, SUPERSTRUCTURE	LBS	2142	\$ 2.00	\$ 4,284.00	REINFORCING STEEL, SUPERSTRUCTURE
0450-3-91	PSU, WIDTH 24", THICKNESS 12'	LF	250	\$ 300.00	\$ 75,000.00	PRESTRESSED SLAB UNITS, VARIABLE WIDTH 30-47", THICKNESS 12", INCL SHIP.
0506-3	SCUPPERS	EA	2	\$ 1,000.00	\$ 2,000.00	REPLACE DECK DRAINS
0538-1	GUARDRAIL RESET	LF	74	\$ 16.00	\$ 1,184.00	ITEM USED TO RESET HANDRAIL
					\$ 132,993.00	SUB-TOTAL COST
					\$ 26,598.60	MOBILIZATION (20%)
					\$ 13,299.30	MAINTENANCE OF TRAFFIC (10%)
					\$ 33,248.25	CONTINGENCY (25%)
					\$ 206,139.15	TOTAL

The opinions of the Engineer of probable costs provided herein are based on the information known to the Consultant at the time of the estimate preparation. Many of the prices above are based on FDOT published unit costs that can be found at the following URL: <http://www.fdot.gov/programmanagement/Estimates/HistoricalCostInformation/HistoricalCost.shtm>, plus the Engineer's Estimate for additional delivery expenses. The Engineer's signature and seal represents assurance that this estimate was prepared in substantial conformance with generally accepted project estimating principles and guidelines and is not a guarantee that proposals, bids or actual construction costs will vary from this opinion of probable costs.

Vincent A. Zaliauskas, P.E. 60524
 HighSpans Engineering, Inc.
 Certificate of Authorization 27559

Notice: The official record of this sheet is the electronic file digitally signed and sealed under rule 61G15-23.004, F.A.C. Pages 1.



LIQUIDATED DAMAGES

In the event the Bidder is awarded the Contract and shall fail to complete the work within the time limit or extended time limit agreed upon, as more particularly set forth in the Contract Documents, liquidated damages shall be paid to the Owner at the rate of \$250.00 per day for all work awarded until the work has been satisfactorily completed as provided by the Contract Documents. Saturdays and legal holidays shall be excluded in determining days in default.

ADDENDA

The Bidder hereby acknowledges that he has received Addenda No's. _____, _____, _____, _____, _____ (Bidder shall insert No. of each Addendum received) and agrees that all addenda issued are hereby made part of the Contract Documents, and the Bidder further agrees that his Proposal(s) includes all impacts resulting from said addenda.

SALES AND USE TAXES

The Bidder agrees that all federal, state, and local sales and use taxes are included in the stated bid prices for the work.

LUMP SUM ITEMS

The Bidder further proposes to accept as full payment for the work proposed herein the amounts computed under the provisions of the Contract Documents and based on the following lump sum amounts. The Bidder agrees that the lump sum represent a true measure of the labor and materials required to perform the work, including all allowances for overhead and profit for each type and unit of work called for in these Contract Documents. Lump sum includes cost of all required permits and utility service fees.

BASE BID:

All work necessary to remove and dispose of existing first bridge span and furnish and install new span on the Edward B. Knight Pier. Including all bridge span replacement components as indicated in Part 6 of these Contract Documents

TOTAL LUMP SUM BASE BID:

\$ _____ Dollars and _____ Cents

Total Bid Written in Words has precedence (Basis of Award)

ADDITIVE ALTERNATE # 1

Alternate for prestressing strand to be High Strength Stainless Steel Strand, conforming to the chemical requirements of ASTM. (See Sheet B1-10 Note 2)

\$ _____ Lump Sum