

INDEX OF STRUCTURE PLANS

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STANDARD PLANS:

550-002 FENCE TYPE B

GOVERNING STANDARDS PLANS:

Florida Department of Transportation, FY 2019-20 Standard Plans for Road and Bridge Construction and applicable Interim Revisions (IRs).

Standard Plans for Road Construction and associated IRs are available at the following website: <http://www.fdot.gov/design/standardplans>

Standard Plans for Bridge Construction are include in the Structures Plan Component

GOVERNING STANDARD SPECIFICATIONS:

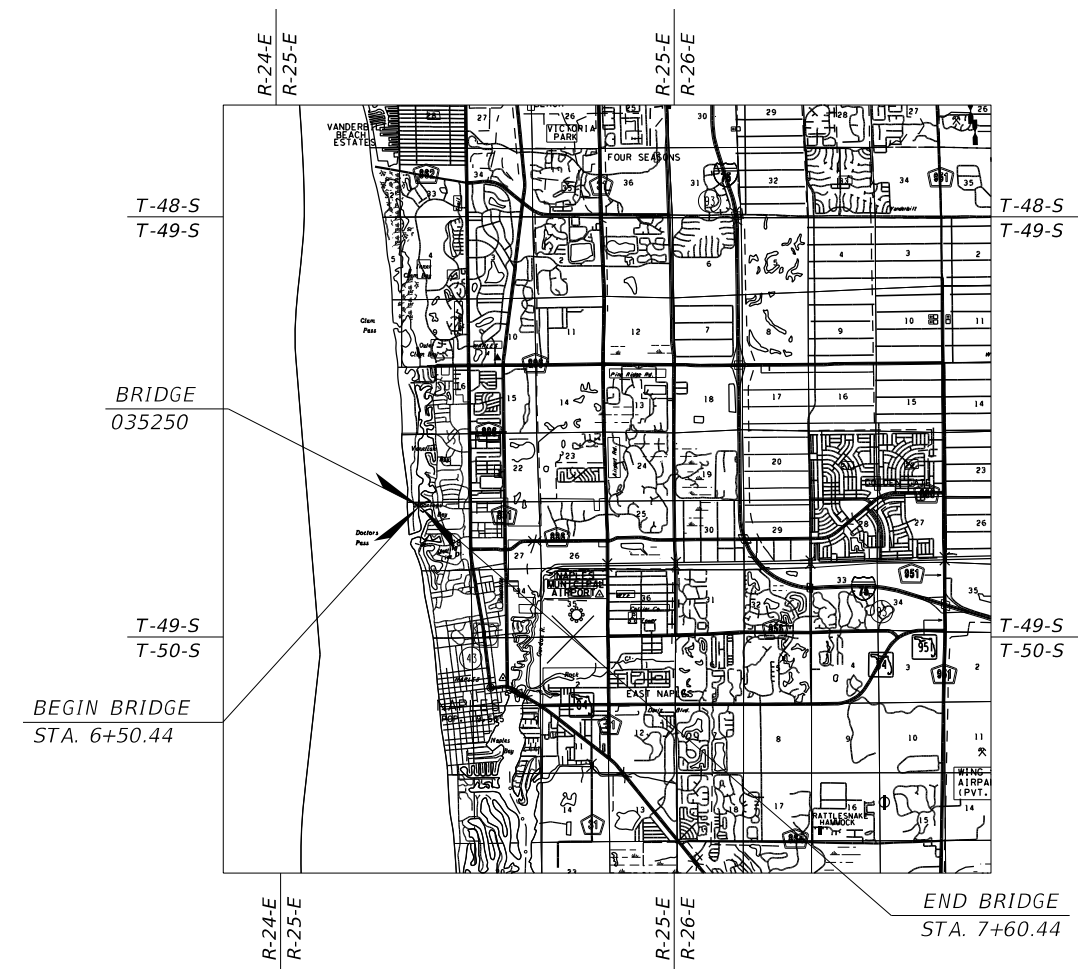
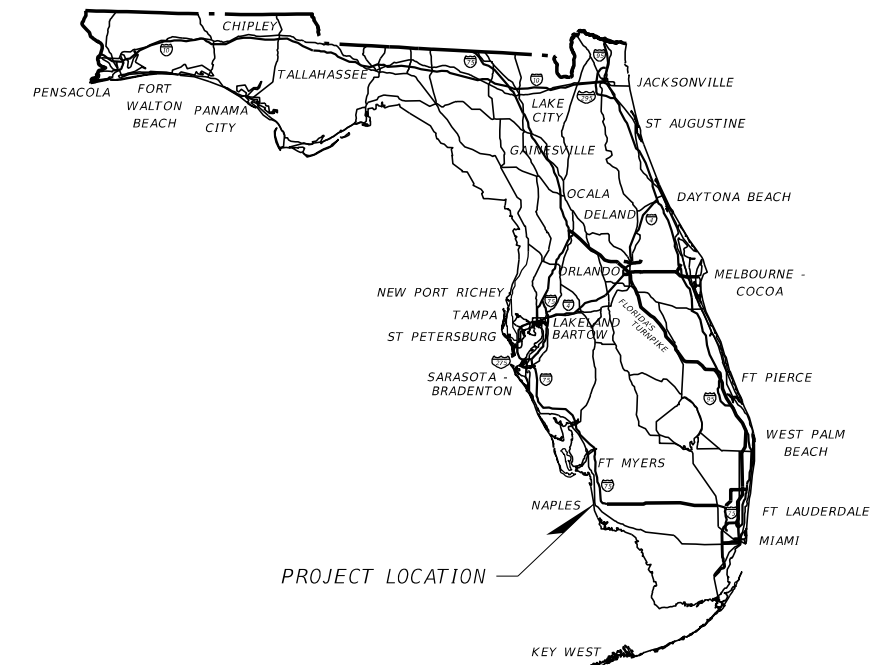
Florida Department of Transportation, July 2019 Standard Specifications for Road and Bridge Construction at the following website: <http://www.fdot.gov/programmanagement/Implemented/SpecBooks>

CITY OF NAPLES, FLORIDA

CONTRACT PLANS

**CITY OF NAPLES BRIDGE REHABILITATION PROJECT
HARBOUR DRIVE BRIDGE OVER MOORING BAY
CITY CONTRACT NO. 19-001**

STRUCTURE PLANS



STRUCTURE SHOP DRAWINGS TO BE SUBMITTED TO:
 ROLANDO CORSA, PE, CBI
 BRIDGING SOLUTIONS, LLC
 8112 CHAMPIONS FOREST WAY
 TAMPA, FL 33635

PLANS PREPARED BY:

 8112 CHAMPIONS FOREST WAY
 TAMPA, FL 33635
 ROLANDO CORSA, P.E. #73191
 CERT. OF AUTHORIZATION #30505

NOTE: THE SCALE OF THESE PLANS MAY HAVE CHANGED DUE TO REPRODUCTION.

LENGTH OF PROJECT		
	LINEAR FT.	MILES
ROADWAY	0.00	0.000
BRIDGES	110.00	0.021
NET LENGTH OF PROJ.	110.00	0.021
EXCEPTIONS	0.00	0.000
GROSS LENGTH OF PROJ.	110.00	0.021

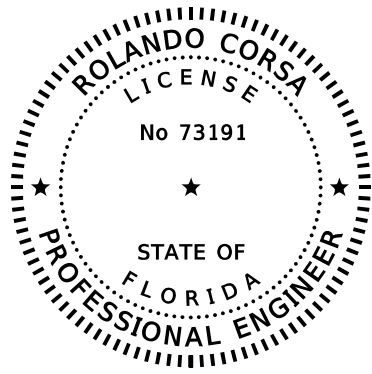
PROJECT MANAGER: GREGG R. STRAKALUSE, P.E.

STRUCTURE PLANS
 ENGINEER OF RECORD: ROLANDO CORSA, PE, CBI

P.E. NO.: 73191

FISCAL YEAR	SHEET NO.
19	B-1

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



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.

8112 CHAMPIONS FOREST WAY
TAMPA, FLORIDA 33635
PH: 813-767-0538
ROLANDO CORSA, PE #73191
CERT. OF AUTHORIZATION #30505

THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE FOR THE
FOLLOWING SHEETS IN ACCORDANCE WITH RULE 61G15-23.004, F.A.C.


STRUCTURE PLANS

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STANDARD PLANS:

550-002	FENCE TYPE B
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Bridge No. 035250

REVISIONS				8112 CHAMPIONS FOREST WAY TAMPA, FLORIDA 33635 PH: 813-767-0538 ROLANDO CORSA, PE #73191 CERT. OF AUTHORIZATION #30505	CITY OF NAPLES			SIGNATURE SHEET		REF. DWG. NO.
DATE	BY	DESCRIPTION			ROAD NO.	COUNTY	CITY CONTRACT NO.	PROJECT NAME:		SHEET NO.
					N/A	COLLIER	19-001	HARBOUR DRIVE BRIDGE OVER MOORING BAY NAPLES BRIDGE REPAIR		B-2

GENERAL NOTES

GENERAL SPECIFICATIONS

FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (CURRENT EDITION, AND APPROVED SUPPLEMENTAL SPECIFICATIONS).

DESIGN SPECIFICATIONS

1. AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO) LRFD BRIDGE DESIGN SPECIFICATION (8TH EDITION, 2017) AND APPROVED INTERIMS AS SPECIFIED IN THE STRUCTURES DESIGN GUIDELINES.
2. FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT) STRUCTURES DESIGN GUIDELINES (JANUARY 2019).

DESIGN LOADS:

LIVE LOAD: HS20-44 VEHICLE LOAD

PRIMARY SCOPE OF WORK

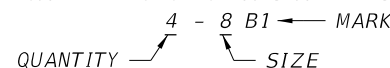
1. REMOVAL/REPLACEMENT OF ASPHALT
2. WATERPROOFING MEMBRANCE INSTALLATION
3. JOINT REPAIR
4. CONCRETE PILE PATCHING REPAIR
5. CONCRETE PILE SURFACE FINISH
6. FILL SEAWALL VOIDS
7. RIP RAP REPAIRS
8. REINSTALL BARRIER CAST STONE
9. FILL SIDEWALK VOID
10. REPLACE END APPROACH FENCING

DRAWINGS AND DIMENSIONS

1. DO NOT SCALE DRAWINGS FOR DIMENSIONS NOT GIVEN.
2. VERIFY ALL EXISTING FIELD CONDITIONS AND DIMENSIONS PRIOR TO COMMENCING REPAIRS OR ORDERING ANY MATERIALS. NOTIFY ENGINEER OF ANY DISCREPANCIES FOUND.
3. ALL DIMENSIONS ARE IN FEET AND INCHES

REINFORCING STEEL

1. ALL REINFORCING STEEL SHALL BE ASTM A615-96, GRADE 60.
2. ALL DIMENSIONS PERTAINING TO LOCATION OF REINFORCEMENT ARE TO CENTERLINE OF BARS EXCEPT WHERE THE CLEAR DIMENSION IS SHOWN TO FACE OF CONCRETE.
3. REINFORCEMENT DETAIL DIMENSIONS ARE OUT-TO-OUT OF BARS.
4. TYPICAL REINFORCING BARS ARE DESIGNATED THUS:



ENVIROMENT

LOCATION = COASTAL (SALT-WATER)
 SUPERSTRUCTURE: MODERATELY AGGRESSIVE
 SUBSTRUCTURE: EXTREMELY AGRESSIVE

CONCRETE STRESSES:

CONCRETE INFORMATION TABLE		
CLASS	APPLICATION	MIN. 28 DAY COMPRESSIVE STRESS
III	SEAL	3000 PSI

PLAN DIMENSIONS

ALL DIMENSIONS IN THESE PLANS ARE GIVEN EITHER HORIZONTALLY OR VERTICALLY, UNLESS OTHERWISE NOTED DECK JOINT OPENINGS ARE GIVEN FOR A MEAN TEMPERATURE OF 70°F.

EXISTING PLANS

EXISTING PLANS ARE FOR INFORMATIONAL PURPOSES ONLY.

DIMENSION VERIFICATION

THE DIMENSIONS, ELEVATIONS, AND INTERSECTION ANGLES SHOWN ARE BASED ON INFORMATION AS DETAILED IN THE ORIGINAL CONSTRUCTION PLANS OF THE EXISTING BRIDGES (UNLESS OTHERWISE NOTED), AND MAY NOT REPRESENT THE AS-BUILT CONDITIONS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE DATA BEFORE CONSTRUCTION OR ORDERING MATERIALS.

DATUM

CONTRACTOR SHALL VERIFY ALL EXISTING ELEVATIONS IN THE FIELD.

UTILITIES

THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL UTILITIES (INCLUDING SUBAQUEOUS CHANNEL CROSSINGS) PRIOR TO COMMENCING CONSTRUCTION. THE CONTRACTOR SHALL CONTACT SUNSHINE AT (800) 432-4770 AND ANY OTHER LOCAL UTILITIES TO VERIFY EXISTING UTILITIES AT SITE OF CONSTRUCTION IF ANY EXISTING UTILITIES CONFLICT WITH PROPOSED CONSTRUCTION METHODS, MATERIALS, OR EQUIPMENT, THE CONTRACTOR SHALL NOTIFY THE ENGINEER.

CITY OF NAPLES UTILITIES	(941) 213-5000
FLORIDA POWER AND LIGHT CO.	(941) 353-6045
TECO/PEOPLE GAS SYSTEM	(941) 366-4277
COMCAST	(941) 732-3819
SPRINT-FLORIDA, INC.,	(941) 263-2676

INCIDENTAL ITEMS

PAYMENT FOR INCIDENTAL ITEMS NOT SPECIFICALLY COVERED IN THE INDIVIDUAL PAY ITEMS SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR BID ITEMS CONTAINED IN THIS CONTRACT.

CONCRETE

ALL CONCRETE SHALL BE IN ACCORDANCE WITH SECTION 346 OF THE FDOT SPECIFICATIONS.

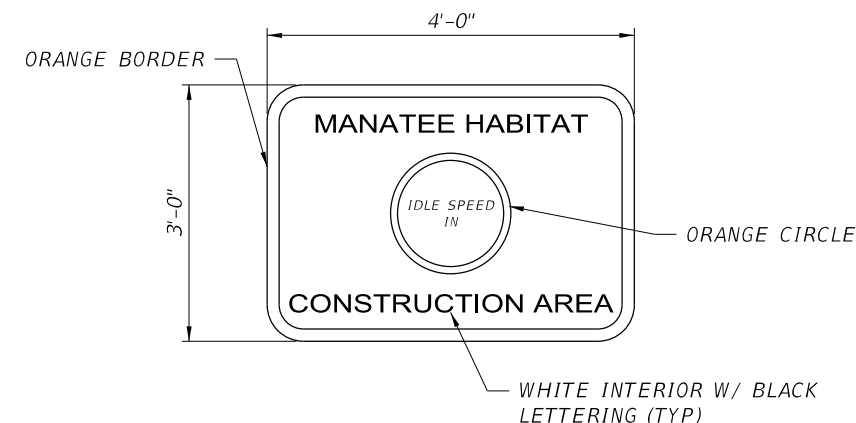
JOINTS IN CONCRETE

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.

SPECIAL MANATEE PROTECTION CONDITIONS:

MANATEES MAY BE PRESENT IN THE AREA. THE CONTRACTOR SHALL COMPLY WITH THE FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION'S STANDARD MANATEE PROTECTION CONSTRUCTION CONDITIONS FOR IN-WATER WORK.

- ALL PERSONNEL ASSOCIATED WITH THE PROJECT SHALL BE INSTRUCTED ABOUT THE PRESENCE OF MANATEES AND MANATEE SPEED ZONES, AND THE NEED TO AVOID COLLISIONS WITH AND INJURY TO MANATEES. THE PERMITTEE SHALL ADVISE ALL CONSTRUCTION PERSONNEL THAT THERE ARE CIVIL AND CRIMINAL PENALTIES FOR HARMING, HARASSING, OR KILLING MANATEES WHICH ARE PROTECTED UNDER THE MARINE MAMMAL PROTECTION ACT, THE ENDANGERED SPECIES ACT, AND THE FLORIDA MANATEE SANCTUARY ACT.
- ALL VESSELS ASSOCIATED WITH THE CONSTRUCTION PROJECT SHALL OPERATE AT "IDLE SPEED/NO WAKE" AT ALL TIMES WHILE IN THE IMMEDIATE AREA AND WHILE IN WATER WHERE THE DRAFT OF THE VESSEL PROVIDES LESS THAN A FOUR-FOOT CLEARANCE FROM THE BOTTOM, ALL VESSELS WILL FOLLOW ROUTES OF DEEP WATER WHENEVER POSSIBLE.
- SILTATION OR TURBIDITY BARRIERS SHALL BE MADE OF MATERIAL IN WHICH MANATEES CANNOT BECOME ENTANGLED, SHALL BE PROPERLY SECURED, AND SHALL BE REGULARLY MONITORED TO AVOID MANATEE ENTANGLEMENT OR ENTRAPMENT. BARRIERS MUST NOT IMPEDE MANATEE MOVEMENT.
- ALL ONSITE PROJECT PERSONNEL ARE RESPONSIBLE FOR OBSERVING WATER-RELATED ACTIVITIES FOR THE PRESENCE OF MANATEE(S), ALL IN-WATER OPERATIONS, INCLUDING VESSELS, MUST BE SHUTDOWN IF A MANATEE(S) COMES WITHIN 50 FEET OF THE OPERATION. ACTIVITIES WILL NOT RESUME UNTIL THE MANATEE(S) HAS MOVED BEYOND THE 50-FOOT RADIUS OF THE PROJECT OPERATION, OR UNTIL 30 MINUTES ELAPSES IF THE MANATEE(S) HAS NOT REAPPEARED WITHIN 50 FEET OF THE OPERATION, ANIMALS MUST NOT BE HERDED AWAY OR HARASSED INTO LEAVING.
- ANY COLLISION WITH OR INJURY TO A MANATEE SHALL BE REPORTED IMMEDIATELY TO THE FWC HOTLINE AT 1-888-404-FWCC. COLLISION AND/OR INJURY SHOULD ALSO BE REPORTED TO THE U.S. FISH AND WILDLIFE SERVICE IN JACKSONVILLE (1-904-232-2580) FOR NORTH FLORIDA OR VERO BEACH (1-561-562-3909) FOR SOUTH FLORIDA.
- TEMPORARY SIGNS CONCERNING MANATEES SHALL BE POSTED PRIOR TO AND DURING ALL IN-WATER PROJECT ACTIVITIES. ALL SIGNS ARE TO BE REMOVED BY THE PERMITTEE UPON COMPLETION OF THE PROJECT. AWARENESS SIGNS THAT HAVE ALREADY BEEN APPROVED FOR THIS USE BY THE FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION (FWC) MUST BE USED. ONE SIGN MEASURING AT LEAST 3 FT. BY 4 FT. WHICH READS CAUTION: MANATEE AREA MUST BE POSTED.



Bridge No. 035250

REVISIONS				8112 CHAMPIONS FOREST WAY TAMPA, FLORIDA 33635 PH: 813-767-0538 ROLANDO CORSA, PE #73191 CERT. OF AUTHORIZATION #30505	DRAWN BY: AFP 05/19 CHECKED BY: PDB 05/19 DESIGNED BY: RC 05/19 CHECKED BY: RV 05/19	CITY OF NAPLES			SHEET TITLE: GENERAL NOTES (1 OF 2)	REF. DWG. NO.
DATE	BY	DESCRIPTION				ROAD NO.	COUNTY	CITY CONTRACT NO.		
						N/A	COLLIER	19-001	HARBOUR DRIVE BRIDGE OVER MOORING BAY NAPLES BRIDGE REPAIR	B-3

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SPECIAL MANATEE PROTECTION CONDITIONS CONTINUED:

G. A SECOND SIGN MEASURING AT LEAST 8½" x 11" EXPLAINING THE REQUIREMENTS FOR "IDLE SPEED/NO WAKE" AND THE SHUT DOWN OF IN-WATER OPERATIONS MUST BE POSTED IN A LOCATION PROMINENTLY VISIBLE TO ALL PERSONNEL ENGAGED IN WATER-RELATED ACTIVITIES.

CAUTION: MANATEE HABITAT

All project vessels
IDLE SPEED / NO WAKE

When a manatee is within 50 feet of work
all in-water activities must
SHUT DOWN

Report any collision or injury to:
1-888-404-FWCC (1-888-404-3922)

Florida Fish and Wildlife Conservation Commission

ALL SIGNS ARE TO BE REMOVED BY THE CONTRACTOR UPON COMPLETION OF THE PROJECT.

PHASING OF WORK

WORK PHASING AND PROGRESSION OF THE WORK SHALL CONFORM WITH THE TRAFFIC CONTROL NOTES AND THE NOTES AND DETAILS IN THE CONSTRUCTION DRAWINGS.

CONCRETE RESTORATION

FOR REQUIREMENTS ON SURFACE PREPARATION MIXING, PLACING, FINISHING, MATERIAL, AND OTHER RELATED ITEMS, REFER TO THE FDOT SPECIFICATION.

SITE CONDITIONS

THE CONTRACTOR SHALL BE AWARE OF THE SITE CONDITIONS WITH REGARD TO WATER DEPTH. SEA GRASS BEDS AND OTHER HABITAT SHALL NOT BE DISTURBED.

ON SITE AREAS AVAILABLE FOR STAGING OF EQUIPMENT AND MATERIAL HANDLING ARE LIMITED. CONTRACTOR SHALL MAKE ANY NECESSARY ARRANGEMENTS FOR CARRYING OUT THE DESCRIBED WORK INCLUDING ACCESS BY WATERWAY.

CONCRETE COVER

CONCRETE COVER SHOWN IN THE PLANS DOES NOT INCLUDE PLACEMENT OR FABRICATION TOLERANCES UNLESS SHOWN AS "MINIMUM COVER." SEE FDOT SPECIFICATIONS FOR ALLOWABLE TOLERANCES. UNLESS OTHERWISE SHOWN ON THE PLANS, THE FOLLOWING CONCRETE COVERS SHALL BE USED:

CIP SUPERSTRUCTURE = 2" (BOTTOM & SIDES), 2½" TOP
CIP SUBSTRUCTURE = 4" FOR EXTERNAL FORMED SURFACES

MATERIAL PRODUCTS

MATERIAL MEETING THE REQUIREMENTS OF THE PLANS AND SPECIFICATIONS SHALL BE INSTALLED IN ACCORDANCE WITH APPROVED MANUFACTURER'S RECOMMENDATIONS.

APPLICABLE FDOT DESIGN STANDARD DRAWINGS

1. 102-600 SERIES
2. 550-002

TRAFFIC CONTROL NOTES

1. CONTRACTOR TO SUBMIT SIGNED AND SEAL TEMPORARY TRAFFIC CONTROL PLAN FOR APPROVAL TO THE CITY ENGINEER AT LEAST 10 BUSINESS DAYS BEFORE ANTICIPATED ROAD CLOSURE AND DETOUR TO PARK SHORE DRIVE.
2. TRAFFIC SHALL BE MAINTAINED IN ACCORDANCE WITH THE 2019 EDITION OF THE FLORIDA DEPARTMENT OF TRANSPORTATION DESIGN STANDARDS FOR DESIGN, CONSTRUCTION AND UTILITY OPERATIONS ON THE STATE HIGHWAY SYSTEM (102-600 SERIES). MAINTENANCE OF TRAFFIC SHALL BE IN ACCORDANCE WITH THE FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, 2019 EDITION, AND THE FEDERAL HIGHWAY ADMINISTRATION MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, 2009 EDITION.
3. UNLESS OTHERWISE NOTED IN THE PLANS, PROPOSED THRU-LANE WIDTHS SHALL BE NO LESS THAN 11 FEET IN WIDTH.
4. THE CONTRACTOR SHALL NOTIFY LOCAL EMERGENCY AND RESCUE AGENCIES LOCATED IN THE PROJECT VICINITY INCLUDING BUT NOT LIMITED TO THOSE AGENCIES LISTED BELOW AS WELL AS THE ENGINEER 14 DAYS IN ADVANCE OF ANY LANE CLOSURES OR RESTRICTIONS, AND AGAIN 24 HOURS IN ADVANCE OF EACH SERIES OF LANE CLOSURES.

NORTH NAPLES FIRE DEPARTMENT - (239) 597-3222
EAST NAPLES FIRE DEPARTMENT - (239) 774-7111
COLLIER COUNTY SHERIFF'S OFFICE - (239) 252-9300

5. THE CONTRACTOR SHALL RESTORE ALL EXISTING PAVEMENT DAMAGED AS A RESULT OF CONSTRUCTION OR MOT OPERATIONS TO ORIGINAL CONDITION (PRIOR TO CONSTRUCTION) AS DETERMINED BY THE ENGINEER. ALL COSTS SHALL BE INCLUDED IN PAY ITEM 102-1 MAINTENANCE OF TRAFFIC (LS).
6. FOR TEMPORARY CONSTRUCTION SIGNS LOCATED IN PAVED AREAS, THE CONTRACTOR SHALL PROVIDE TEMPORARY SIGN SUPPORT WHICH DOES NOT PENETRATE THE PAVEMENT.

MAINTENANCE OF NAVIGATION CHANNEL

NOTIFY MR. MICHAEL LIEBERMAN (PER RANDALL OVERTON OF THE USCG) AT 305-415-6744 PRIOR TO THE COMMENCEMENT OF CONSTRUCTION ACTIVITIES, IN ADVANCE OF ACTIONS DURING BRIDGE CONSTRUCTION OR DEMOLITION WHICH POTENTIALLY AFFECT WATERWAY USERS AND PRIOR TO THE PLACEMENT OF ANY FLOATING CONSTRUCTION EQUIPMENT IN THE WATERWAY. NOTIFY NO LESS THAN 60 DAYS IN ADVANCE OF ACTIONS WHICH COULD POTENTIALLY AFFECT THE WATERWAY.

MARINE TRAFFIC

KEEP THE CHANNEL OPEN TO TRAFFIC AT ALL TIMES. MAINTAIN A MINIMUM HORIZONTAL OPENING OF 22 FEET.

CONSTRUCTION ACCESS

CONTRACTOR SHALL ACCESS THE UNDERSIDE OF THE BRIDGE AT BENT 4 ALONG THE NE QUADRANT.

PROTECTION OF WATER RESOURCES

THE CONTRACTOR SHALL CONDUCT HIS ACTIVITIES IN A MANNER TO AVOID POLLUTION OF SURFACE AND GROUND WATER AND WETLANDS. THE CONTRACTOR'S CONSTRUCTION METHODS SHALL PROTECT WETLAND AND SURFACE WATER AREAS FROM DAMAGE DUE TO MECHANICAL GRADING, EROSION, SEDIMENTATION VEHICULAR TRAFFIC, AND TURBID DISCHARGES. NO STORAGE OR STOCKPILING OF EQUIPMENT SHALL BE ALLOWED WITHIN ANY WETLAND AREA UNLESS SPECIFICALLY AUTHORIZED UNDER PERMIT. WATER DIRECTLY DERIVED FROM CONSTRUCTION ACTIVITIES SHALL BE COLLECTED IN RETENTION AREAS TO ALLOW SETTLING OF SUSPENDED MATERIALS. ALL MONITORING OF ANY WATER AREAS THAT ARE AFFECTED BY CONSTRUCTION ACTIVITIES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.


OIL, FUEL AND HAZARDOUS SUBSTANCE SPILL PREVENTION

THE CONTRACTOR SHALL PREPARE A SPILL CONTINGENCY PLAN IN ACCORDANCE WITH 40CFR, PART 109. THE CONTRACTOR SHALL PREVENT OIL, FUEL OR OTHER HAZARDOUS SUBSTANCES FROM ENTERING THE AIR, GROUND, DRAINAGE, AND LOCAL BODIES OF WATER OR WETLANDS. IN THE EVENT THAT A SPILL OCCURS, DESPITE DESIGN AND PROCEDURAL CONTROLS, THE CONTRACTOR SHALL TAKE IMMEDIATE ACTION TO CONTAIN AND CLEANUP THE SPILL AND REPORT THE SPILL IMMEDIATELY TO THE CITY'S REPRESENTATIVE. A WRITTEN REPORT PROVIDING CERTIFICATION OF COMMITMENT OF MANPOWER, EQUIPMENT AND MATERIALS NECESSARY TO PREVENT THE SPREAD AND EFFECT EXPEDITIOUS CLEANUP AND DISPOSAL SHALL BE SUBMITTED.

FISH AND WILDLIFE RESOURCE PROTECTION

THE CONTRACTOR SHALL CONTROL AND MINIMIZE INTERFERENCE WITH, DISTURBANCE TO, AND DAMAGE OF FISH AND WILDLIFE RESOURCES. IF APPROPRIATE, THREATENED AND ENDANGERED SPECIES THAT REQUIRE SPECIFIC PROTECTION MEASURES SHALL BE LISTED IN THE ENVIRONMENTAL PROTECTION PLAN. THE PERSON DESIGNATED AS RESPONSIBLE FOR THE ENVIRONMENTAL PROTECTION PLAN SHALL BE ABLE TO IDENTIFY THE THREATENED AND ENDANGERED SPECIES LISTED IN THE ENVIRONMENTAL PROTECTION PLAN. ANY ACTIVITY OBSERVED BY THE CONTRACTOR THAT MAY RESULT IN ADVERSE IMPACT TO THREATENED OR ENDANGERED SPECIES SHALL BE REPORTED IMMEDIATELY TO THE CITY AND THE CITY'S REPRESENTATIVE, WHO SHALL HAVE SOLE AUTHORITY FOR ANY WORK STOPPAGES, CREATION OF A BUFFER AREA, OR RESTART OF CONSTRUCTION ACTIVITIES. IN THE EVENT THAT THE CITY'S REPRESENTATIVE DETERMINES THAT AN ADVERSE IMPACT TO THREATENED OR ENDANGERED SPECIES MAY OCCUR AS A RESULT OF THE CONSTRUCTION ACTIVITIES, THE CITY SHALL NOTIFY THE CORPS OF ENGINEERS AND THE FISH AND WILDLIFE SERVICE. ADVERSE IMPACT IS DEFINED AS TO HARASS, HARM, PURSUE, HUNT, SHOOT, WOUND, KILL, TRAP, CAPTURE, COLLECT, OR TO ATTEMPT TO ENGAGE IN ANY SUCH CONDUCT.

Bridge No. 035250

REVISIONS				8112 CHAMPIONS FOREST WAY TAMPA, FLORIDA 33635 PH: 813-767-0538 ROLANDO CORSA, PE #73191 CERT. OF AUTHORIZATION #30505	DRAWN BY:	CITY OF NAPLES			SHEET TITLE:	REF. DWG. NO.
DATE	BY	DESCRIPTION			AFP 05/19	ROAD NO.	COUNTY	CITY CONTRACT NO.	GENERAL NOTES (2 OF 2)	SHEET NO.
					N/A	COLLIER	19-001	PROJECT NAME: HARBOUR DRIVE BRIDGE OVER MOORING BAY NAPLES BRIDGE REPAIR	B-4	

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


BID ITEMS FOR BRIDGE NO. 035250 MOORING BAY (NOTE 1)

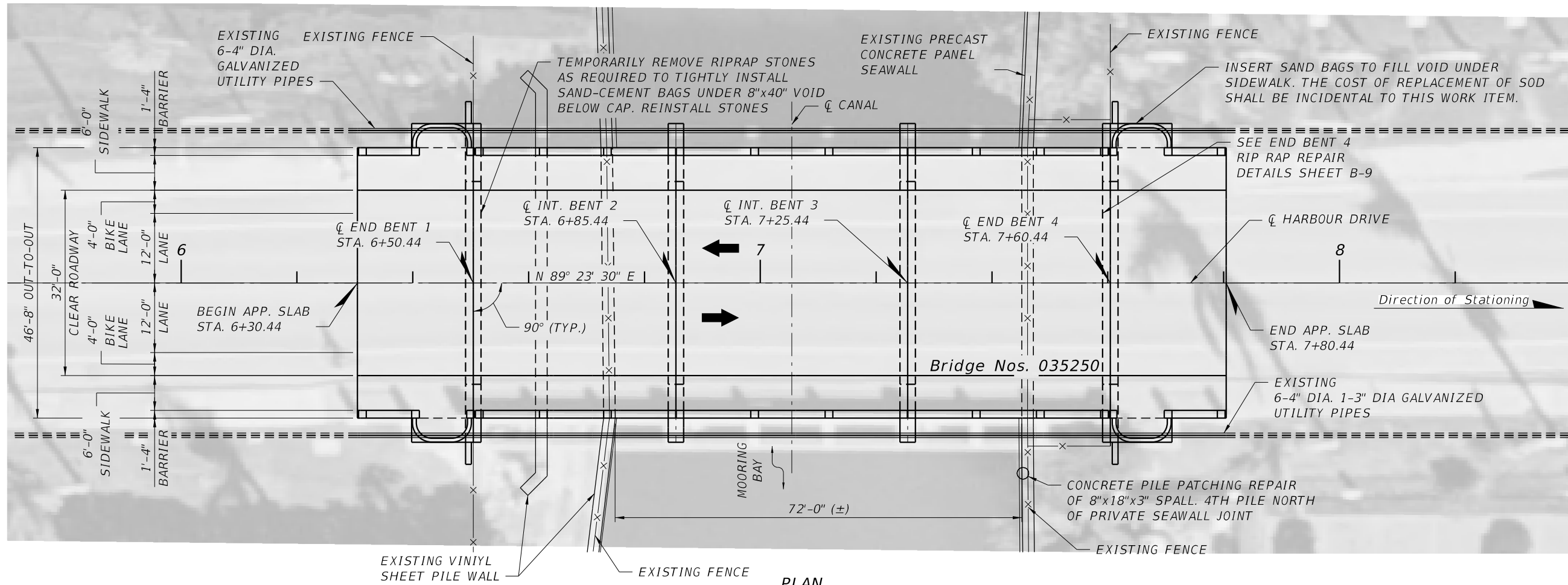
ITEM NO.	DESCRIPTION	UNIT	QUANTITY
0101-1	MOBILIZATION	LS	1
0102-1	MAINTENANCE OF TRAFFIC	LS	1
0104-11	FLOATING TURBIDITY BARRIER	LS	1
0327-70-5	MILLING EXIST. ASPH, 2" AVG DEPTH	LS	1
0334-1-12	SUPERPAVE ASPHALTIC CONC., TRAFFIC B, SP-12.5	LS	1
0400-3-20	CONC. CLASS III, SEAL (NOTE 2)	LS	1
0400-143	CLEAN & COAT CONCRETE SURFACE, CLASS 5 (NOTE 3)	LS	1
0400-153	NON SHRINK GROUT, F&I, MISCELLANEOUS (NOTE 4)	LS	1
0401-70-1	RESTOR SPALLED AREAS, EPOXY (NOTE 5)	LS	1
0530-1	RIPRAP, SAND-CEMENT (NOTE 6)	LS	1
0530-2.1.3.2	RUBBLE (DITCH LINING) - (NOTE 12)	TON	10
0530-3-1	NO. 3 STONE (NOTE 10)	LS	1
0550-102-22	FENCING, TYPE B, 5.1-6.0, W/ VINYL COAT	LS	1
0550-602-11	FENCE GATE, TYP B, SGL, 0-6.0' OPENING	LS	1
0710-11-101	6" WHITE SOLID (TEMPORARY PAINT) (NOTE 11)	LS	1
0710-11-201	6" YELLOW SOLID (TEMPORARY PAINT) (NOTE 11)	LS	1
0711-15-101	THERMOPLASTIC, STD, WHITE, SOLID, 6"	LS	1
0711-15-201	THERMOPLASTIC, STD, YELLOW, SOLID, 6"	LS	1
9341-70	WATERPROOFING MEMBRANE (SEE TSP)	LS	1
9999-1	BARRIER PRECAST STONE SECTIONS	EA	5
9999-2	SAND BAGS (NOTE 7)	LS	1
0121-70	FLOWABLE FILL (BID ALTERNATE) (NOTES 8 & 9)	CY	8

PAY ITEM NOTES:

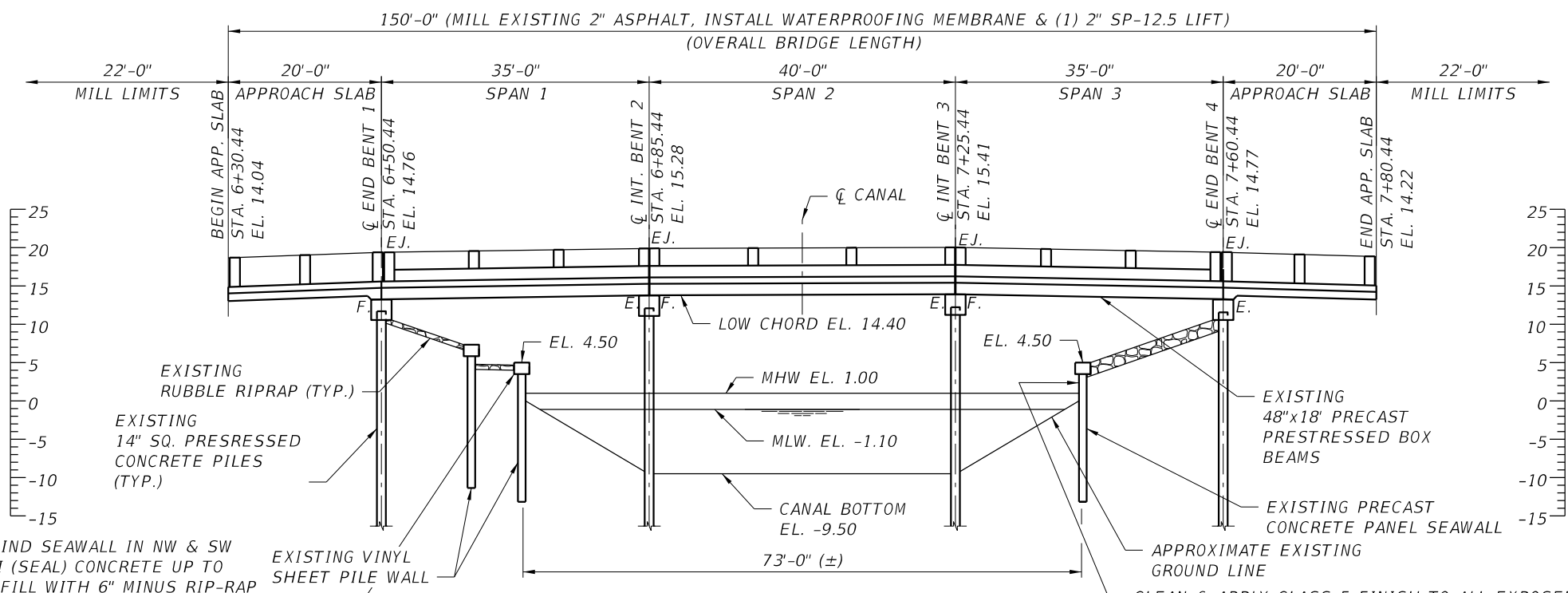
1. THE COST OF ANY ADDITIONAL FILL NEEDED TO PERFORM THE WORK SHALL BE INCIDENTAL TO THE WORK ITEMS.
2. TO PLUG SEA WALL GAPS AT SPAN 1 - COST OF FORMING FOR CONCRETE RIP RAP AND #57 STONE FILL SHALL BE INCLUDED IN THIS BID ITEM.
3. FOR 7 SEA WALL PILES - COLOR SHALL BE CLEAR OR GRAY.
4. FOR FILLING EXPANSION JOINT GAPS AT EACH BENT BEFORE INSTALLING MEMBRANE.
5. SPALL REPAIR AT ONE SEA WALL PILE.
6. FOR SAND CEMENT BAG WALL AT BENT 4 - BASE BID.
7. FOR FILLING UNDERMINED AREA UNDER BENT 4 AND SIDEWALK OVERLOOK AT NE QUADRANT - BASE BID.
8. BID ALTERNATE FOR FILLING UNDERMINED AREA UNDER BENT 4 AND SIDEWALK OVERLOOK AT NE QUADRANT - CONTRACTOR SHALL BE PAID FOR A MINIMUM OF 5 CY REGARDLESS OF QUANTITY PLACED.
9. IF BID ALTERNATE IS SELECTED BID ITEMS FOR SAND BAGS AND THE SAND CEMENT RIP RAP BAGS SHALL BE REMOVED FROM CONTRACT.
10. THE NO. 3 STONE WILL BE PLACED IN FRON TOF BENT 4 - INCLUDED IN BASE BID AND BID ALTERNATE - ESTIMATED QUANTITY IS 100 SY. THE COST OF PULVERIZING AND DISPERSING THE EXISTING RIP RAP MATERIALS SHALL BE INCLUDED IN THE PRICE BID FOR THE NO.3 STONE ITEM.
11. TEMPORARY PAINT SHALL BE INSTALLED DURING 30 DAY WAITING PERIOD FOR THERMOPLASTIC MARKINGS.
12. TO BE USED AT THE DIRECTION OF THE ENGINEER AT EAST OR WEST SLOPE PROTECTION.

Bridge No. 035250

REVISIONS				8112 CHAMPIONS FOREST WAY TAMPA, FLORIDA 33635 PH: 813-767-0538 ROLANDO CORSA, PE #73191 CERT. OF AUTHORIZATION #30505	CITY OF NAPLES			SUMMARY OF QUANTITIES		REF. DWG. NO.
DATE	BY	DESCRIPTION			ROAD NO.	COUNTY	CITY CONTRACT NO.	PROJECT NAME:		SHEET NO.
					N/A	COLLIER	19-001	HARBOUR DRIVE BRIDGE OVER MOORING BAY NAPLES BRIDGE REPAIR		B-5



PLAN



ELEVATION

(FENCE NOT SHOWN FOR CLARITY)

- LEGEND:
- E. -EXPANSION BERING.
 - F. -FIXED BEARING.
 - EJ. -EXPANSION JOINT

FILL (2) 6'x4'x3' VOIDS BEHIND SEAWALL IN NW & SW QUADRANTS WITH CLASS III (SEAL) CONCRETE UP TO LEVEL OF MLW ELEVATION, FILL WITH 6" MINUS RIP-RAP TO MIDPOINT OF SEAWALL CAP AND TOP WITH 6" OF #57 STONE. ALL COSTS ASSOCIATED WITH THIS WORK ITEM TO BE INCLUDED IN PRICE BID FOR CLASS III (SEAL) CONCRETE.

Bridge No. 035250

REVISIONS		
DATE	BY	DESCRIPTION

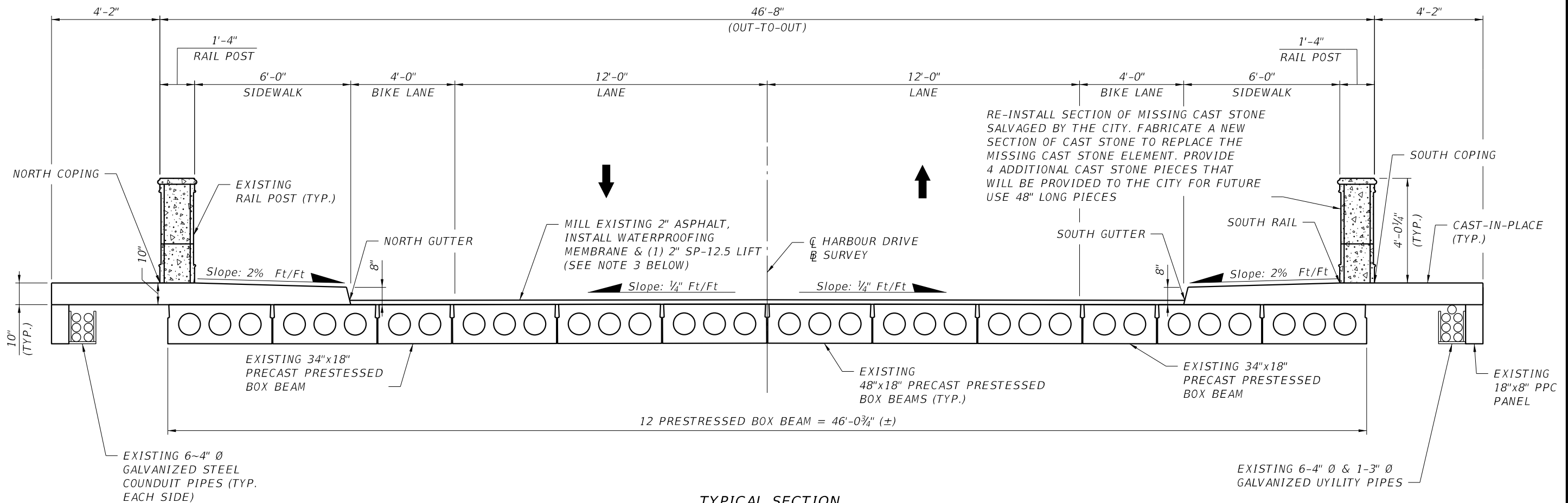


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TAMPA, FLORIDA 33635
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ROLANDO CORSA, PE #73191
CERT. OF AUTHORIZATION #30505

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DESIGNED BY: RC 05/19	N/A	COLLIER	19-001
CHECKED BY: RV 05/19			

SHEET TITLE: PLAN & ELEVATION		REF. DWG. NO.
PROJECT NAME: HARBOUR DRIVE BRIDGE OVER MOORING BAY NAPLES BRIDGE REPAIR		SHEET NO. B-6

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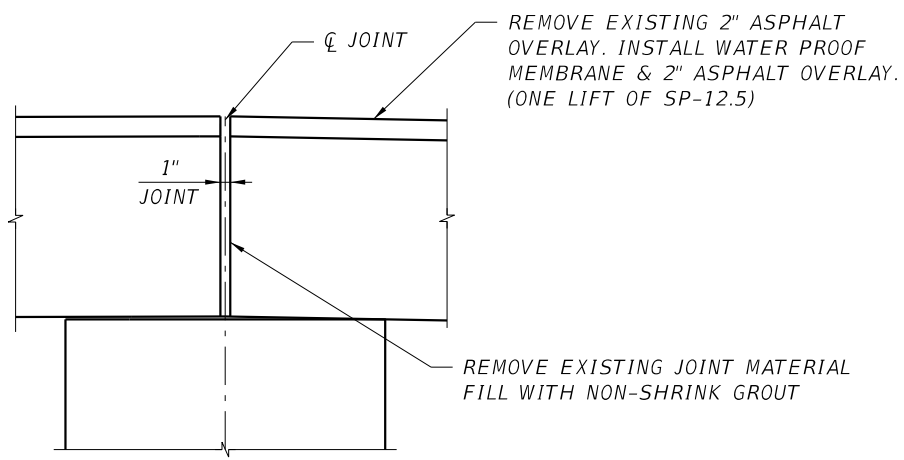


RE-INSTALL SECTION OF MISSING CAST STONE SALVAGED BY THE CITY. FABRICATE A NEW SECTION OF CAST STONE TO REPLACE THE MISSING CAST STONE ELEMENT. PROVIDE 4 ADDITIONAL CAST STONE PIECES THAT WILL BE PROVIDED TO THE CITY FOR FUTURE USE 48\"/>

TYPICAL SECTION
(LOOKING UPSTATION)


NOTES:

1. REMOVE EXISTING 2 INCH ASPHALT OVERLAY BY MILLING TO THE LIMITS SHOWN. USE EXTREME CARE WHEN REMOVING ASPHALT FROM EXISTING BRIDGE DECK. REPAIR ANY DAMAGE AT NO COST TO THE CITY. MILLING TO BE IN ACCORDANCE WITH FDOT STANDARD SPECIFICATION 327.
2. ELIMINATE EXPANSION JOINTS AT ALL BENTS. REMOVE EXISTING PREFORMED JOINT MATERIAL. FILL WITH NON SHRINK GROUT. FULL COMPENSATION FOR WORK TO BE INCLUDED IN UNIT BID PRICE FOR ITEM 400-153, NON SHRINK GROUT MISC.
3. PROVIDE AND INSTALL WATER PROOFING MEMBRANE SYSTEM OVER BRIDGE DECK AND APPROACH SLABS PER TECHNICAL SPECIAL PROVISION. CONTRACTOR SHALL SUBMIT MANUFACTURER'S PRODUCT INFORMATION FOR REVIEW. CONCRETE SURFACE PREPARATION AND MEMBRANE APPLICATION SHALL BE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. FULL COMPENSATION FOR WORK TO BE INCLUDED IN UNIT BID PRICE FOR ITEM 9341-70, WATERPROOF MEMBRANE.
4. INSTALL 2 INCH ASPHALT OVERLAY OVER MILLED AREA. ASPHALT OVERLAY SHALL BE PLACED IN ONE LAYER. FULL COMPENSATION FOR WORK TO BE INCLUDED IN UNIT BID PRICE FOR ITEM 334-1-12 SUPERPAVE ASPHALTIC CONCRETE, TRAFFIC B (SP 12.5).
5. SAW CUT 1 INCH DEEP GROOVE IN ASPHALT OVERLAY ABOVE EXISTING BENTS. FILL GROOVES WITH LIQUID ASPHALT. FULL COST OF WORK TO BE INCLUDED IN UNIT BID PRICE FOR ITEM 334-1-12 SUPERPAVE ASPHALTIC CONCRETE, TRAFFIC B (SP 12.5).



SECTION THROUGH JOINT
BENTS 2 & 3
(ABUTMENT JOINTS 1 & 4 SIMILAR)

Bridge No. 035250

REVISIONS				8112 CHAMPIONS FOREST WAY TAMPA, FLORIDA 33635 PH: 813-767-0538 ROLANDO CORSA, PE #73191 CERT. OF AUTHORIZATION #30505	DRAWN BY:	CITY OF NAPLES			SHEET TITLE:	REF. DWG. NO.
DATE	BY	DESCRIPTION			AFP 05/19 CHECKED BY: PDB 05/19 DESIGNED BY: RC 05/19 CHECKED BY: RV 05/19	ROAD NO.	COUNTY	CITY CONTRACT NO.	TYPICAL SECTION	
					N/A	COLLIER	19-001	HARBOUR DRIVE BRIDGE OVER MOORING BAY NAPLES BRIDGE REPAIR	B-7	

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

EXPOSED REINFORCING STEEL NOTES

1. REMOVE RUST FROM EXPOSED REINFORCING STEEL BY ABRADING TO "WHITE METAL CONDITION" AND PREPARE SURFACES IN ACCORDANCE WITH ICRI TECHNICAL GUIDE 03730 "GUIDE FOR SURFACE PREPARATION" OF DETERIORATED CONCRETE RESULTING FROM REINFORCING STEEL CORROSION".

CONCRETE REMOVAL AND SURFACE PREPARATION NOTES

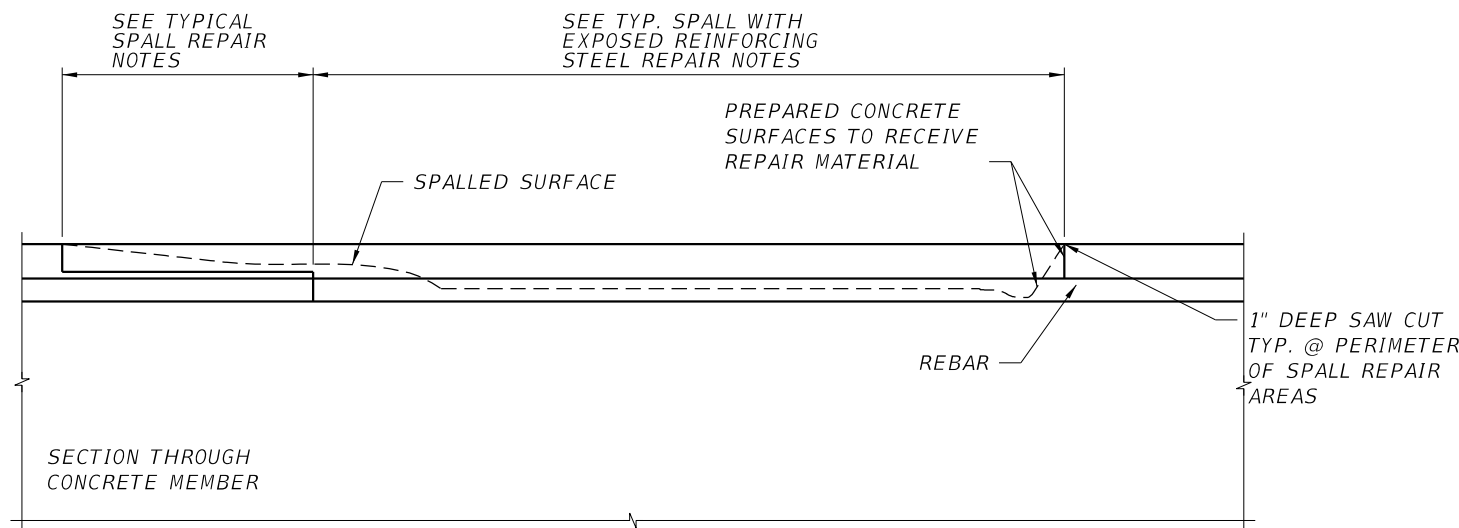
1. REMOVE ALL UNSOUND CONCRETE AND PREPARE SURFACES FOR REPAIR IN ACCORDANCE WITH ICRI TECHNICAL GUIDELINES 03730 "GUIDE FOR SURFACE PREPARATION" OF DETERIORATED CONCRETE RESULTING FROM REINFORCING STEEL CORROSION".
2. ALL REPAIR AREAS SHALL HAVE SQUARE EDGES AROUND THE PERIMETER OF THE SPALL DEFINED BY 3/4" DEEP SAW CUT LINES. CHIP THE REPAIR EDGES CLEAN TO FORM 45 TO 90 DEGREE CORNERS ALONG THE EDGES AND CORNERS OF THE REPAIR AREA. THE DEPTH OF THE CHIPPED EDGE SHALL BE 3/4" OR GREATER. FEATHERED EDGES WILL NOT BE ACCEPTABLE.
3. REMOVE UNSOUND CONCRETE USING MECHANICAL ABRASION, BUT DO NOT USE EXCESSIVE FORCE, WHICH MAY CAUSE MICRO-FRACTURING OF THE SOUND CONCRETE.
4. CARE SHALL BE TAKEN TO AVOID DAMAGING THE EXISTING REINFORCEMENT.
5. PREPARED SURFACES SHALL BE INTENTIONALLY ROUGHENED TO A MINIMUM PROFILE OF 1/4" TO PROVIDE MECHANICAL LOCK FOR THE REPAIR.
6. CONCRETE SURFACES SHALL BE STRUCTURALLY SOUND AND FREE OF BOND INHIBITING SURFACES.
7. APPLY A TYPE A EPOXY COMPOUND IN ACCORDANCE WITH SECTION 926 OF THE SPECIFICATION TO THE EXISTING CONCRETE SURFACES PRIOR TO PLACING THE FRESH REPAIR MATERIAL.

CONCRETE SPALL REPAIR NOTES

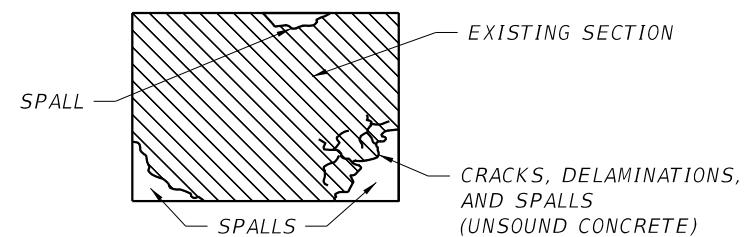
1. RESTORE CONCRETE SURFACES USING APPROVED MATERIALS IN ACCORDANCE WITH SECTION 926 OR SECTION 930 OF THE SPECIFICATIONS.
2. FOR SPALLS WITH AN AVERAGE DEPTH OF 1" OR LESS, REPAIR USING A TYPE F-1 OR TYPE F-2 EPOXY REPAIR MORTAR, FOR SPALLS WITH AN AVERAGE DEPTH GREATER THAN 1", REPAIR USING A RAPID HARDENING CONCRETE MORTAR.
3. SELECT MATERIALS SUITABLE FOR APPLICATION INCLUDING ORIENTATION (E.G. HORIZONTAL, VERTICAL OR OVERHEAD APPLICATION) AND THICKNESS.
4. MIX, PLACE AND CURE REPAIR MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
5. FINISH REPAIR MATERIALS FLUSH WITH THE ORIGINAL CONCRETE SURFACE (U.N.D). THE SURFACE FINISH SHALL MEET THE REQUIREMENTS FOR A GENERAL SURFACE FINISH PER SECTION 400 OF THE SPECIFICATIONS.
6. COMPLETION OF CLEANING OPERATIONS AND REPAIR SHALL OCCUR WITHIN THE SAME DAY AND SHALL NOT EXCEED THE BONDING AGENT WINDOW OF APPLICATION.
7. SAW-CUT 1" AT THE AREA OF THE DAMAGED CONCRETE.

GENERAL NOTE

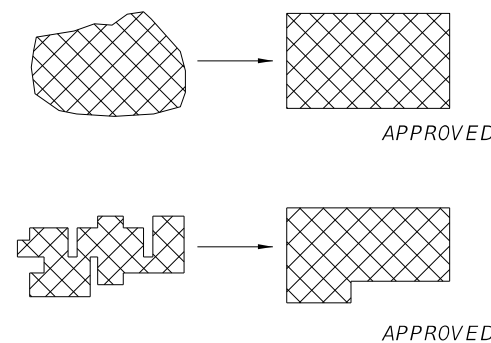
IN THE PRESENCE OF THE ENGINEER, CLEARLY OUTLINE ALL AREAS IN NEED OF REPAIR WITH AN APPROVED PAINT OR MARKER PRIOR TO DEMOLITION. NO DEMOLITION OF ANY AREA OR MEMBER OF THE BRIDGE SHALL BE PERFORMED UNTIL APPROVAL FROM THE ENGINEER. INFORM THE ENGINEER IF A REMOVAL AREA EXCEEDS HALF THE THICKNESS OF THE SECTION.



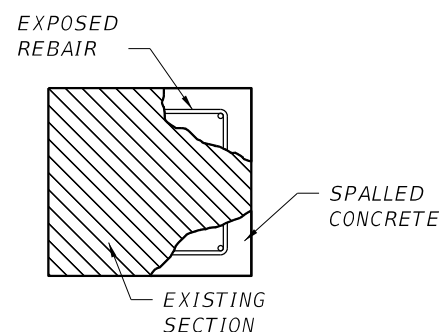
CONCRETE SPALL REPAIR DETAIL
 APPLICABLE TO HORIZONTAL, VERTICAL AND OVERHEAD LOCATIONS



TYPICAL DELAMINATION AND SPALLS



SIMPLE PATCH CONFIGURATION
 AT CORNER LOCATIONS PROVIDE RIGHT ANGLE CUTS. PATCH CONFIGURATIONS SHALL BE KEPT AS SIMPLE AS POSSIBLE. INDIVIDUAL REPAIR AREAS WITHIN 2 FEET SHALL BE JOINED AT THE DIRECTION OF THE ENGINEER.



TYPICAL SPALL WITH EXPOSED REBARS

Bridge No. 035250

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DATE	BY	DESCRIPTION

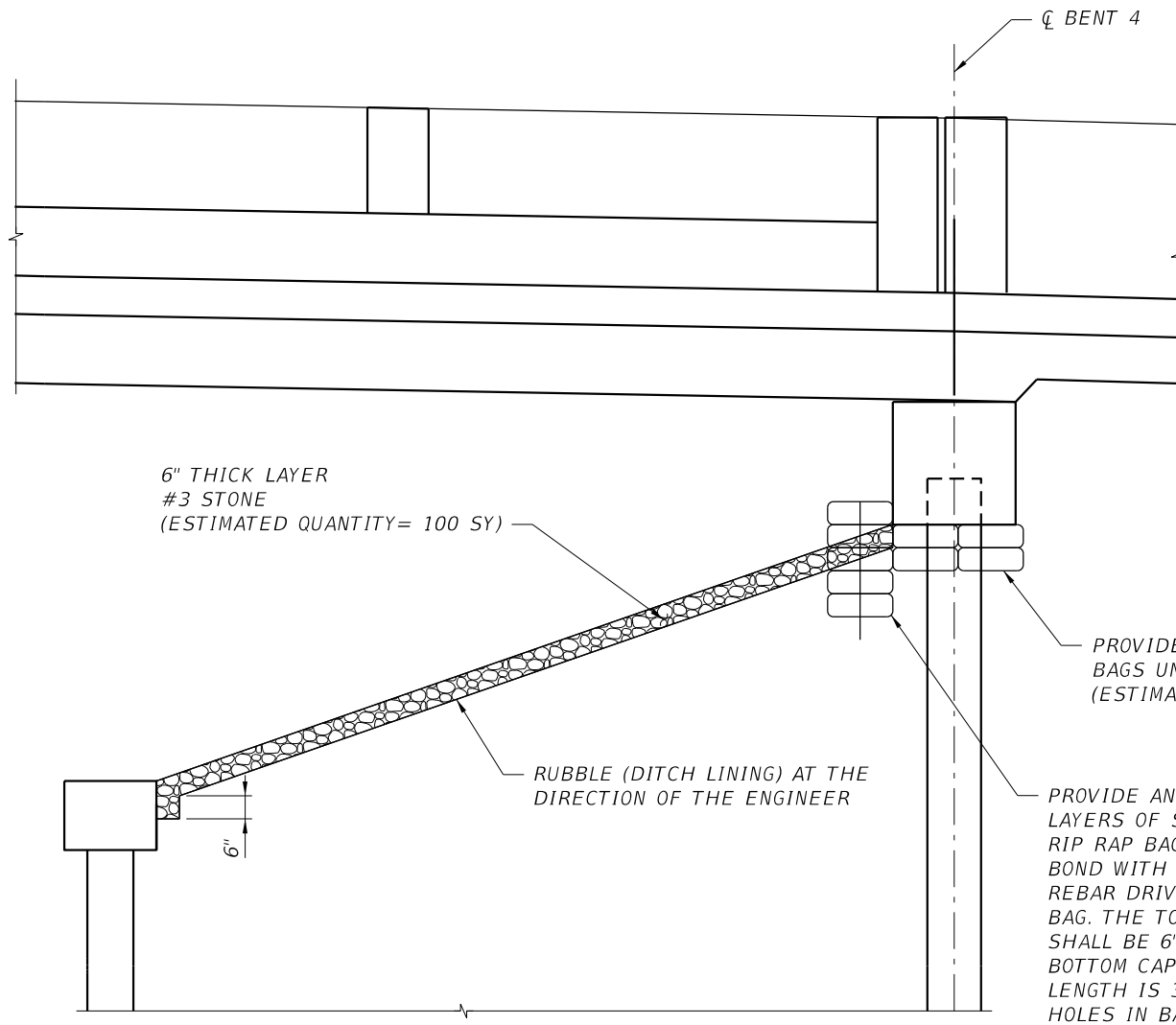


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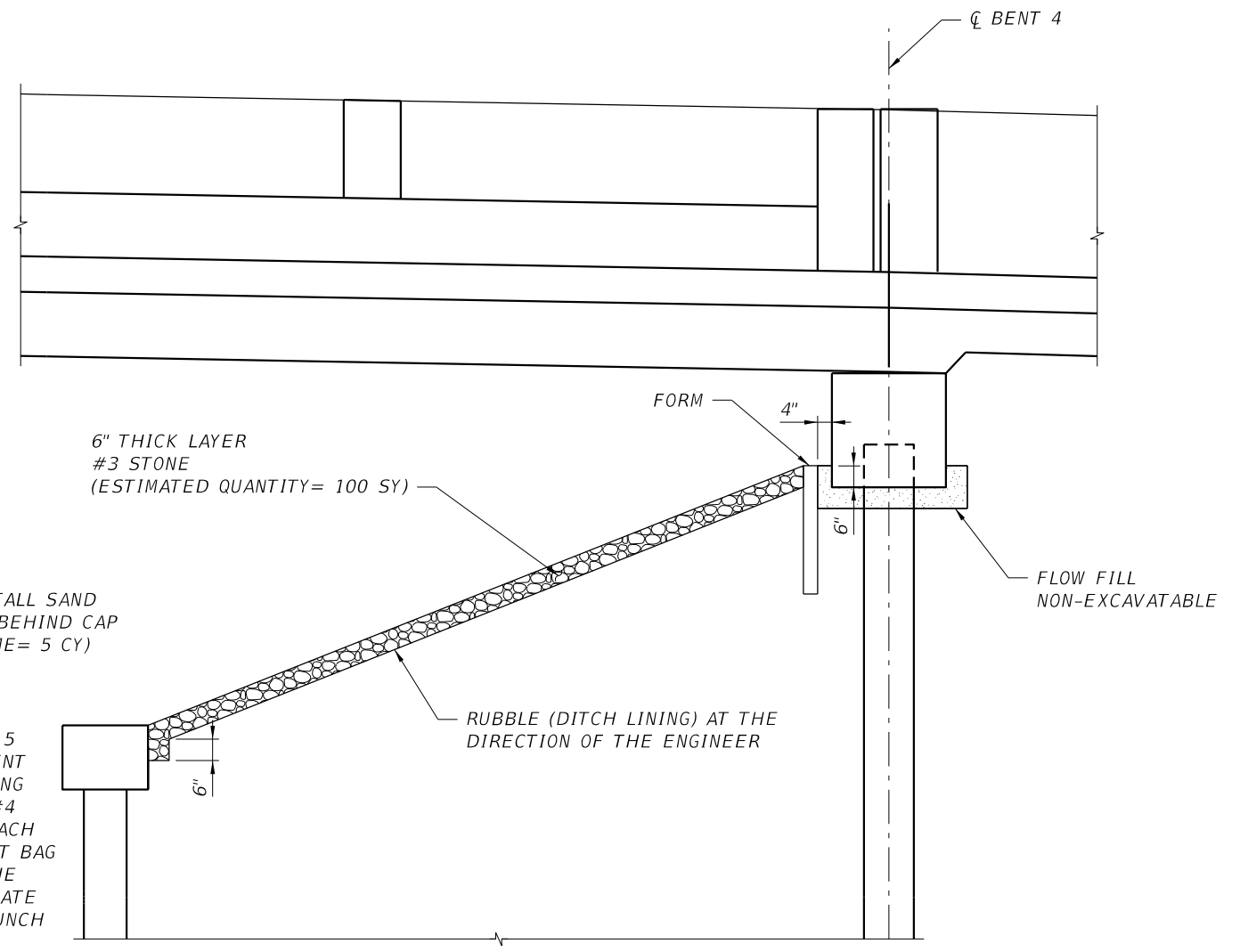
DRAWN BY: AFP 05/19	CITY OF NAPLES		
CHECKED BY: PDB 05/19	ROAD NO.	COUNTY	CITY CONTRACT NO.
DESIGNED BY: RC 05/19	N/A	COLLIER	19-001
CHECKED BY: RV 05/19			

SHEET TITLE: STANDARD CONCRETE SPALL REPAIR DETAILS	REF. DWG. NO.
PROJECT NAME: HARBOUR DRIVE BRIDGE OVER MOORING BAY NAPLES BRIDGE REPAIR	SHEET NO. B-8

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OPTION 1
(BASE BID)



OPTION 2
(BID ALTERNATE)

NOTES:

1. PULVERIZE AND DISPERSE THE EXISTING FAILED RIP RAP MATERIALS AS NECESSARY BETWEEN THE END BENT AND THE SEA WALL. ANY ASPHALT MATERIAL ENCOUNTERED SHALL BE DISPOSED OF. INCLUDE COST OF THIS WORK IN THE PRICE BID FOR #3 STONE.
2. #3 STONE SHALL BE PER FDOT SPECIFICATION 530-2.1.4.
3. SAND-CEMENT BAGS SHALL BE PER FDOT SPECIFICATION 530-2.1.2.
4. FLOWABLE FILL SHALL BE PER FDOT SPECIFICATION 121. NON EXCAVATABLE.
5. PER THE LATEST INSPECTION, THE CAP IS UNDERMINED 36' LONG x 21" HIGH x 42" UNDER CAP.

Bridge No. 035250

REVISIONS		
DATE	BY	DESCRIPTION



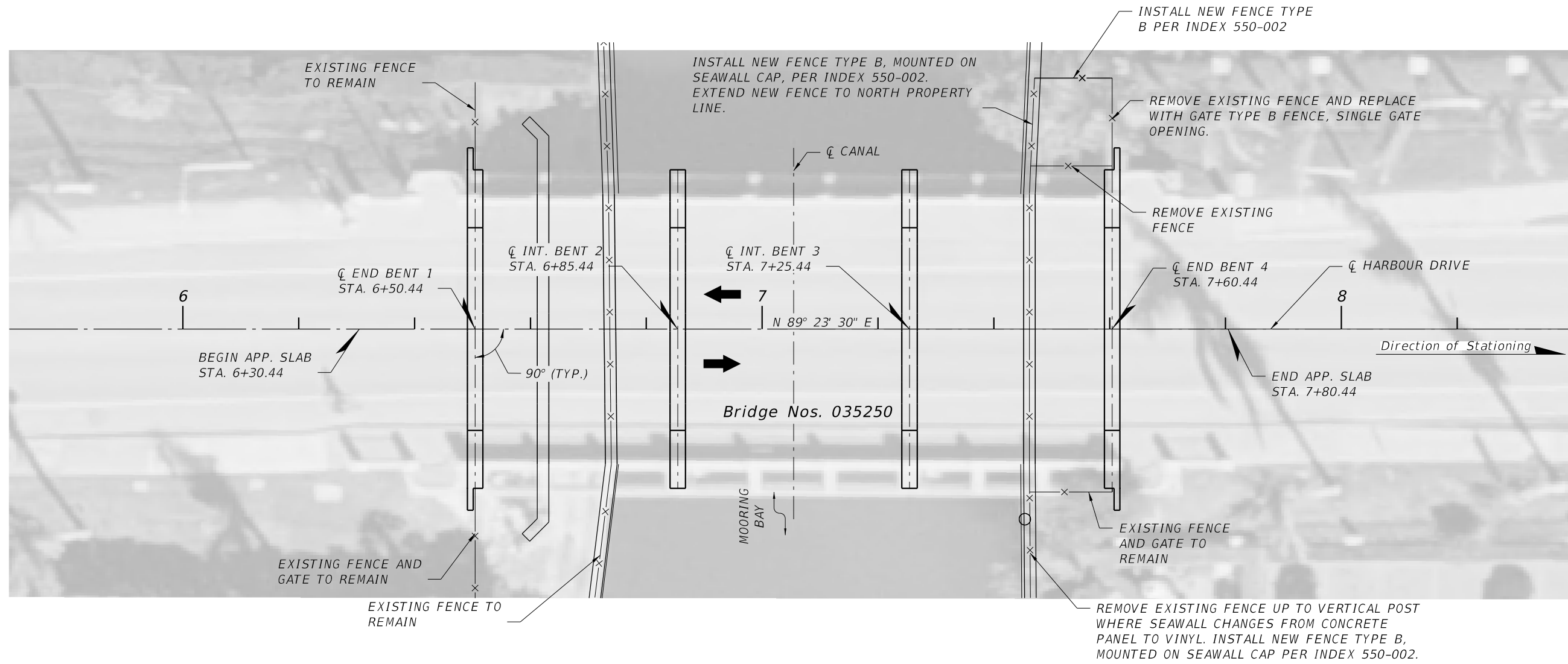
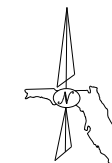
8112 CHAMPIONS FOREST WAY
TAMPA, FLORIDA 33635
PH: 813-767-0538
ROLANDO CORSA, PE #73191
CERT. OF AUTHORIZATION #30505

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DESIGNED BY:
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CHECKED BY:
RV 05/19

CITY OF NAPLES		
ROAD NO.	COUNTY	CITY CONTRACT NO.
N/A	COLLIER	19-001

SHEET TITLE: BENT 4 RIP RAP REPAIR DETAILS	REF. DWG. NO.
PROJECT NAME: HARBOUR DRIVE BRIDGE OVER MOORING BAY NAPLES BRIDGE REPAIR	SHEET NO. B-9


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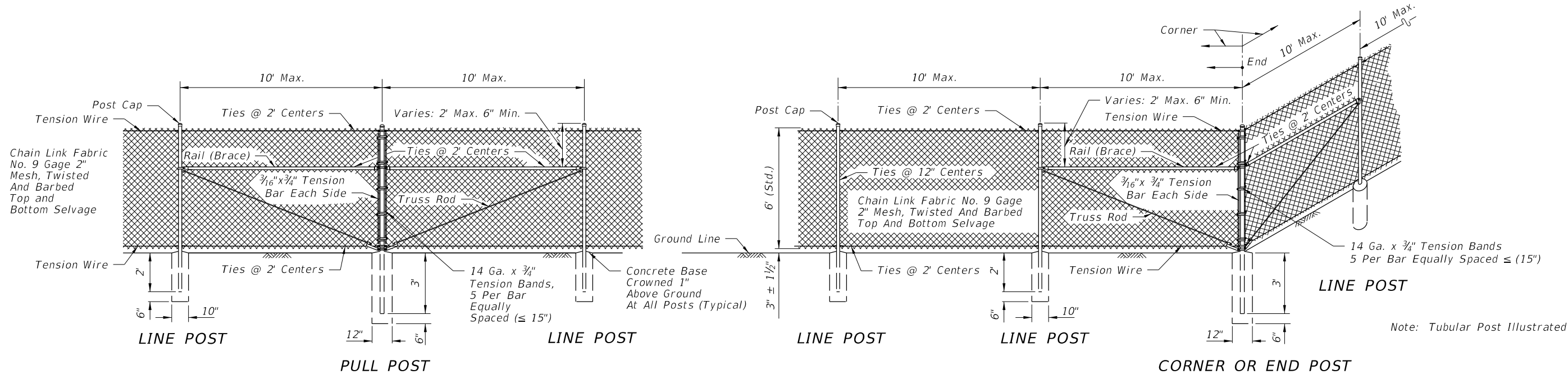
PLAN

NOTE: FENCE SHALL BE BLACK VINYL COATED.

Bridge No. 035250

REVISIONS				8112 CHAMPIONS FOREST WAY TAMPA, FLORIDA 33635 PH: 813-767-0538 ROLANDO CORSA, PE #73191 CERT. OF AUTHORIZATION #30505	DRAWN BY: AFP 05/19 CHECKED BY: PDB 05/19 DESIGNED BY: RC 05/19 CHECKED BY: RV 05/19	CITY OF NAPLES			SHEET TITLE: FENCE REPLACEMENT DETAILS	REF. DWG. NO.
DATE	BY	DESCRIPTION				ROAD NO.	COUNTY	CITY CONTRACT NO.		
						N/A	COLLIER	19-001	HARBOUR DRIVE BRIDGE OVER MOORING BAY NAPLES BRIDGE REPAIR	B-10

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GENERAL NOTES

1. This fence to be used generally in urban areas.
2. For supplemental information refer to Specification 550.
3. Chain link fabric, post, truss rods, tension wires, tie wires, stretcher bars, gates and all miscellaneous fittings and hardware shall meet the requirements of AASHTO and ASTM signify current reference.
4. Fence Component Options:
 - A. Line post options:
 - (1) Galvanized steel pipe, Schedule 40- 1 1/2" nominal dia. zinc galvanized at the rate of 1.8 oz./ft².: ASTM A53 Table 2 (Grade A or B), ASTM F1083, and AASHTO M111.
 - (2) Aluminum coated steel pipe: ASTM A53, Table 2 (Grade A or B): Schedule 40- 1 1/2" nominal dia., 1.90" OD; coated at the rate 0.40 oz./ft².: AASHTO M111.
 - (3) Aluminum alloy pipe- 2" nominal dia.: ASTM B241 or B221, Alloy 6063, T6.
 - (4) Steel H-Beam- 1 7/8" x 1 5/8": Zinc Galv. 1.8 oz./ft².: AASHTO M111 and Detail.
 - (5) Aluminum alloy H-Beam- 1 7/8" x 1 5/8" Detail.
 - (6) Steel C- 1 7/8" x 1 5/8": Galv.: 1.8 oz./ft² zinc: AASHTO M111; OR , 0.9 oz./ft² zinc-5% aluminum-mischmetal: ASTM F1043 and Detail.
 - (7) Resistance welded steel pipe; 50,000 psi min. yield strength ASTM A569/A569M, A653/A653M or undepleted stock of discontinued A446/A446M base materials; ASTM F669 Group IV (Alternative Design); fence industry 2" OD, 1 1/2" NPS, 1.900" dec. equiv., 0.120" min. wall thick. and min. wt. 2.28 lb./ft.; with ASTM F1043 metric equivalent internal coating Types A, B, C or D and external coating Types A, B, or C; the chromate conversion coating of external Type B shall have a thickness of 15µg/in². min. and the polymer film topcoat shall have a thickness of 0.0003" min.; internal and external coatings are not restricted to the combinations of Table 2, ASTM F1043.
 - B. Corner, end, and pull post options:
 - (1) Galvanized steel pipe, Schedule 40- 2" nominal dia. zinc galvanized at the rate of 1.8 oz./ft².: ASTM A53 Table X 2, ASTM F1083, and AASHTO M111.
 - (2) Aluminum coated steel pipe: ASTM A53 steel, X 2 Tables: Schedule 40; 2" nominal dia., 2.375" OD; coated at the rate 0.40 oz./ft².: AASHTO M111.
 - (3) Aluminum alloy pipe- 2 1/2" nominal dia.: ASTM B241 or B221, Alloy 6063, T6.
 - (4) Resistance welded steel pipe; 50,000 psi min. yield strength ASTM A569/A569M, A653/A653M or undepleted stock of discontinued A446/A446M base materials; ASTM F669 Group IV (Alternative Design); fence industry 2 1/2" OD, 2" NPS, 2.375" dec. equiv., 0.130" min. wall thick. and min. wt. 3.117 lb./ft.; with ASTM F1043 metric equivalent internal coating Types A, B, C or D and external coating Types A, B, or C; the chromate conversion coating of external Type B shall have a thickness of 15µg/in². min. and the polymer film topcoat shall have a thickness of 0.0003" min.; internal and external coatings are not restricted to the combinations of Table 2, ASTM F1043.

- C. Rail options:
 - (1) Galvanized steel pipe, Schedule 40- 1 1/4" nominal dia. zinc galvanized at the rate of 1.8 oz./ft².: ASTM A53 Table X 2, ASTM F1083, and AASHTO M111.
 - (2) Aluminum coated steel pipe; ASTM A53 steel, X 2 Tables Schedule 40; 1 1/4" nominal dia., 1.660" OD; coated at the rate 0.40 oz./ft².: AASHTO M111.
 - (3) Aluminum alloy pipe- 1 1/4" nominal dia.: ASTM B241 or B221, Alloy 6063, T6.
 - (4) Resistance welded steel pipe; 50,000 psi min. yeild strength ASTM A569/A569M, A653/A653M or undepleted stock of discontinued A446/A446M base materials; ASTM F669 Group IV (Alternative Design); fence industry 1 3/8" OD, 1 1/4" NPS, 1.660" dec. equiv., 0.111" min. wall thick. and min. wt. 1.836 lb./ft.; with ASTM F1043 metric equivalent internal coating Types A, B, C or D and external coating Types A, B, or C; the chromate conversion coating of external Type B shall have a thickness of 15µg/in². min. and the polymer film topcoat shall have a thickness of 0.0003" min.; internal and external coatings are not restricted to the combinations of Table 2, ASTM F1043.
- D. Chain link fabric options (2" mesh with twisted and barbed selvage top and bottom for all options except as described in Note 10):
 - (1) AASHTO M181 Type I - Zinc Coated Steel, No. 9 gage (coated wire diameter), coated at the rate of 1.8 oz./ft². (M181 Class D 2.0 oz./ft². modified to 1.8 oz./ft²).
 - (2) AASHTO M181 Type II -Aluminum Coated Steel, No. 9 gage (coated wire diameter), coated at the rate of 0.40 oz./ft².
 - (3) AASHTO M181 Type IV- Polyvinyl Chloride (PVC) Coated Steel, No. 9 gage (coated core wire diameter), core wire-zinc coated steel. PVC coating: M181 Class A (either extruded or extruded and bonded) or Class B (bonded). See table right. Unless the plans call for M181 standard colors medium green, dark green or black the coating color shall be soft gray matching that of No. 36622 of Federal Standard 595a.
- E. Tension wire options:
 - (1) Steel wire No. 7 gage zinc galvanized at the rate of 1.2 oz./ft².: AASHTO M181.
 - (2) Aluminum alloy wire with a diameter of 0.1875" or larger conforming to the requirements of ASTM B211, Alloy 5056 Temper H38, or, Alclad Alloy 5056 Temper H192.
 - (3) Aluminum coated steel wire No.7 gage coated at the rate of 0.040 oz./ft².: AASHTO M181.
- F. Tie wire and hog ring options:
 - (1) Steel wire No.9 gage zinc galvanized at the rate of 1.2 oz./ft².
 - (2) Aluminum alloy wire with a diameter of 0.1443" or larger conforming to the requirements of ASTM B211, Alloy 5056 Temper H38, or, Alclad Alloy 5056 Temper H192.
 - (3) Aluminum coated steel wire No. 7 gage coated at the rate of 0.040 oz./ft².

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LAST REVISION 11/01/17	REVISION	DESCRIPTION:	 FY 2019-20 STANDARD PLANS	FENCE TYPE B	INDEX 550-002	SHEET 1 of 3
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GENERAL NOTES CONTINUED

5. Unless a specific material is called for in the plans the Contractor may elect to use either a single type of material or a combination of material types from the component options listed in note 4. Combinations of optional materials are restricted as follows:
- (a) Only one fabric optional material will be permitted between corner and/or end post assemblies.
 - (b) Only one line post optional material will be permitted between corner and/or end post assemblies.
 - (c) Pull post assemblies shall be optional materials identical to either the linepost optional material or the corner and end post assembly optional material; but, pull post assemblies shall be the same optional material between any set of corner and/or end post assemblies.

6. Concrete for bases shall be Class NS concrete as specified in Section 347 of the Standard Specifications or a packaged, dry material meeting the requirements of a concrete under ASTM C-387. Materials for Class NS concrete may be proportioned by volume and/or by weight.

7. Line post shall be 8'-6" long (Standard). Line post are to be set in concrete as described above or by the following methods:
- (a) In accordance with special details and/or as specifically described in the contract plans and specifications.
 - (b) In accordance with ASTM F567 Subsections 5.4 through 5.10 as approved by the Engineer. Line post installed in accordance with Section 5.8 shall be 9'-6" long.
 - (c) Post mounted on concrete structure or solid rock shall be mounted in accordance with the base plate detail "Fence Mounting On Concrete Endwalls And Retaining Wall", Sheet 3; or, by embedment in accordance with ASTM F567 Subsection 5.5.

End, pull and corner post assemblies shall be in concrete as detailed above for all soil conditions other than solid rock. Post within assemblies that are located on concrete structures or solid rock shall be set by base plate or by embedment as prescribed under (b) above for line post.

Line and assembly posts for 6' fence which must be lengthened due to a variation in the normal ground clearance, shall be set an additional 3" in depth for each 1' of additional ground clearance.


8. Pull post shall be used at breaks in vertical grades of 15° or more, or at approximately 350' centers except that this maximum interval may be reduced by the Engineer on curves where the curve is greater than 3°.
9. Corner post are to be installed at all horizontal breaks in fence at 15° or more and as required at vertical breaks over 15° as determined by the Engineer.
10. When fence has an installed top of fabric height less than 6' knuckled top and bottom selvages shall be used unless the plans specifically identify locations for twisted selvage fabrics.
11. Unless sliding gates or special gates are called for in the plans, all gates shall be chain link swing gates meeting the material requirements described and as approved by the Engineer. Payment shall include the gates, single or double, all necessary hardware for installation and any additional length and/or size for posts at the opening. Gates shall be paid for under the contract unit price for Fence Gates, EA.
12. For construction purposes corner post assemblies shall consist of one corner post, two braces, two truss rods, and all necessary fittings and hardware as detailed. End post assemblies shall consist of one end post, one brace, one truss rod and all necessary fittings and hardware as detailed.
13. In areas where there are physical constraints outside the right-of-way which restricts the fence construction, the fabric may be installed on the inside of the posts..

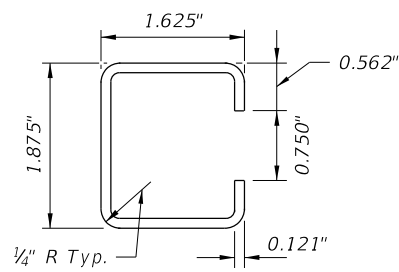
TYPE IV VINYL COATED FABRIC								
AASHTO M181 Table 4 Redefined As Follows								
Specified Diameter Of Metallic Coated Core Wire		Minimum Weight Of Zinc Coating		PVC Thickness Range				
				M181 Class A (Extruded Or Extruded And Bonded Coating)		M181 Class B (Bonded Coating)		
in.	mm	gage	oz./ft ² .	g/m ²	in.	mm	in.	mm
0.148	3.77	9	0.30	92	0.015 to 0.025	0.38 to 0.64	0.006 to 0.010	0.15 to 0.25

DESIGN NOTE

This index details fencing that is constructed with chain link fabric 6' (nominal) in height and with specific ground clearance. For fencing of different height or installation details, the fence shall be fully detailed in the Contract plans.

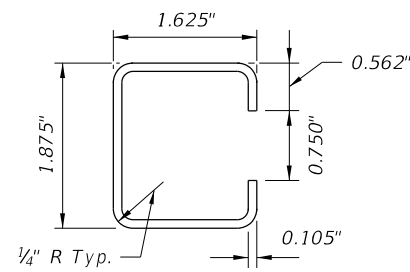
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LAST REVISION 11/01/17	REVISION	DESCRIPTION:	 FY 2019-20 STANDARD PLANS	FENCE TYPE B	INDEX 550-002	SHEET 2 of 3
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Galv. Wt. Per. Ft. = 2.34# ±5%
Yield PSI (Min.) 45,000

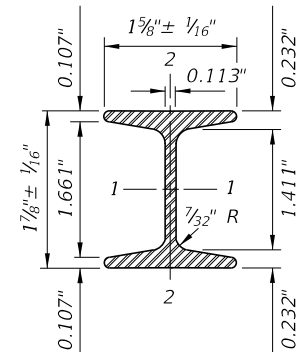
STANDARD WALL



Galv. Wt. Per. Ft. = 1.85# ±5%
Yield PSI (Min.) 45,000

THINWALL

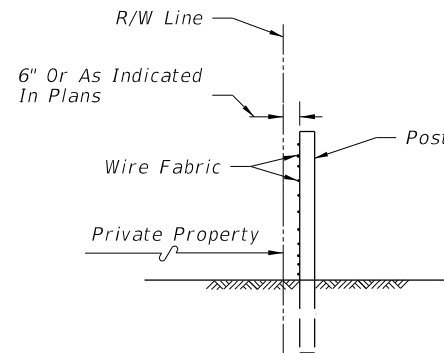
OPTIONAL "C" LINE POST



	STEEL	ALUMINUM
Area (Sq. In.)	724	724
Weight (Lb./Ft.)	2.72 ± 5% (Galv.)	0.91 ± 5%
Surface Area (SF/Ft.)	0.776	0.776
Tensile Strength (psi Min.)	80,000	30,000
Yielding Point (psi Min.)	48,000	25,000

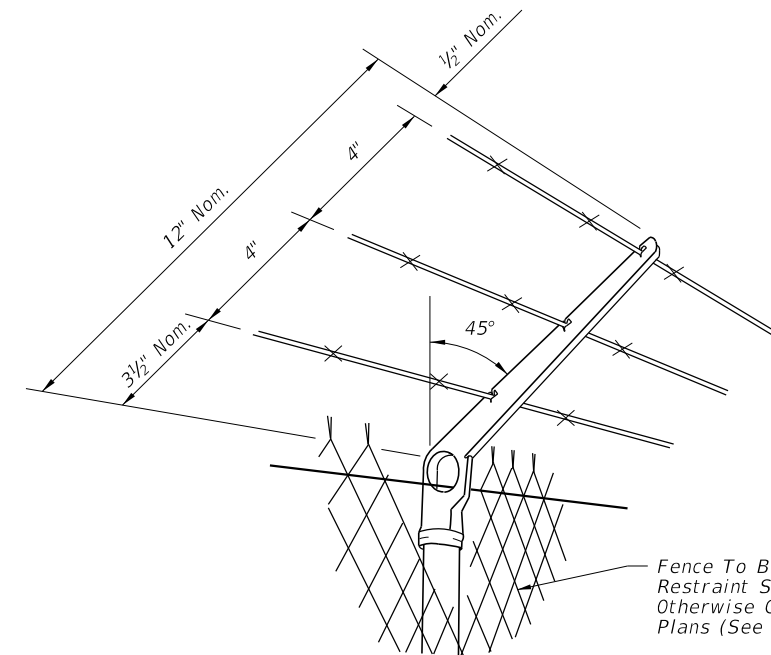
	Axes		Axes	
	1-1	2-2	1-1	2-2
Moment Of Inertia	0.428	0.101	0.428	0.101
Section Modulus	0.456	0.124	0.456	0.124
Rad. Of Gyration	0.779	0.373	0.779	0.373

OPTIONAL 1 7/8" x 1 5/8" H-BEAM LINE POST



FENCE POSITION AT LOCATIONS WITHOUT FRONTAGE ROADS

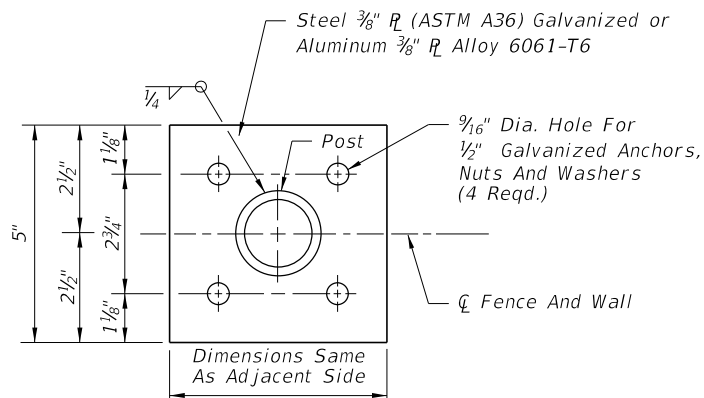
(REFER TO DETAIL PLANS FOR FENCE POSITION AT LOCATIONS WITH FRONTAGE ROADS)



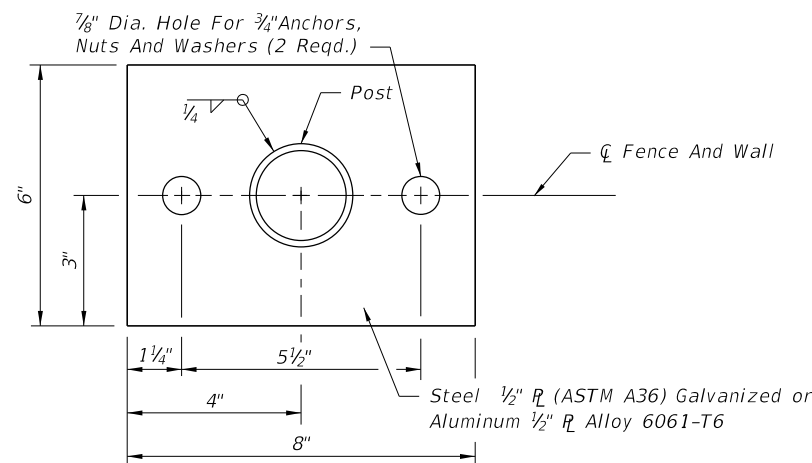
Fence To Be Mounted On Restraint Side Unless Otherwise Called For In Plans (See Notes)

NOTES

- Attachments to be used only when called for in the plans. Attachments to extend in direction of restraint. Unless otherwise called for in plans, direction of restraint will be as follows:
- Outward on limited access right of way line.
 - Outward on controlled access right of way line.
 - Outward from utilities and hazardous facilities located within highway right of way.
 - Outward from lateral ditches, outfalls, retention basins, canals, borrow areas and similar support facilities.
 - Inward on pedestrian ways.
- The cap-arm shall be designed to provide a drive fit over the top of posts and to exclude moisture in posts with tubular sections.



TOP VIEW
FOUR ANCHOR PLATE OPTION



TOP VIEW
TWO ANCHOR PLATE OPTION

FENCE MOUNTING ON CONCRETE ENDWALL AND RETAINING WALLS

BARB WIRE ATTACHMENT

BASE PLATE AND ANCHOR NOTES:

- Base plate identical for line, pull, end and corner posts and shall be considered an integral part of the respective posts for basis of payment.
- Post to be plumbed by grout shim under base plate.
- Anchors (Galvanized Steel):
12" Cast In Place, 10 1/2" Embedment:
Headed Bolts, U-Bolts or Cluster Plates.
8" Adhesive Anchors, 6" Min. Embedment.*
*Adhesive anchors shall be headless anchor bolts set in drilled holes with an Adhesive Material System in accordance with Specifications 416 and 937; drilled holes shall be 1/8" larger in diameter than the anchor bolt.
Expansion Bolts Not Permitted.

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LAST REVISION 11/01/17	DESCRIPTION:	FDOT FY 2019-20 STANDARD PLANS	FENCE TYPE B	INDEX 550-002	SHEET 3 of 3
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HARBOUR DRIVE - INDEX OF BRIDGE SHEETS

C-1 Index of Bridge Sheets & Structural General Notes
 C-2 General Notes & Details for Prestressed Concrete Piles
 C-3 Prestressed Concrete Pile Splces
 C-4 14" Sq. Prestressed Concrete Piles
 C-5 Rail Details
 C-6 Rail Column Sections & Elevation Studies
 C-7 Bridge Rail (Structural Details)
 C-8 Standard Bar Bending Details
 C-9 Plan & Elevation
 C-10 Construction Sequence
 C-11 Boring Location Plan & Profile
 C-12 Foundation Layout
 C-13 End Bent 1 Removal
 C-14 End Bent 4 Removal
 C-15 End Bent 1
 C-16 End Bent 1 Details
 C-17 End Bent 4
 C-18 End Bent 4 Details
 C-19 Intermediate Bent 2
 C-20 Intermediate Bent 3
 C-21 Bridge Deck Removal
 C-22 Deck Plan & Superstructure Section
 C-23 Finish Grade Elevations
 C-24 Superstructure Details
 C-25 Utility Details
 C-26 Precast Prestressed Box Beams
 C-27 Precast Prestressed Box Beam Details
 C-28 Approach Slabs
 C-29 Reinforcing Bar List

GENERAL NOTES

GENERAL SPECIFICATIONS: Florida Department of Transportation Standard Specifications for Road and Bridge Construction (2000).

DESIGN SPECIFICATIONS: American Association of State Highway and Transportation Officials (AASHTO) Standard Specifications for Highway Bridges (16th Edition) and FDOT Structures Design Guidelines, Topic No. 625-020-150-a, Revision dated July, 1996.

DESIGN METHOD: Strength Design Method (Load Factor Design) except that prestressed components, spread footings, pile footings, piles and drilled shafts have been designed for service load.

DESIGN LOADING: HS20-44

FUTURE WEARING SURFACE: Design includes allowance for 15 lbs. per sq. ft.

CONCRETE:

Class	Minimum 28-day Compressive Strength (psi)	Location
II	f'c = 4,500	Bridge Deck
II	f'c = 3,400	Traffic Railing Barrier
IV	f'c = 5,500	Substructures & Precast Fascia Beams
V Special	f'c = 6,000	Prestressed Beams & Piles

REINFORCING STEEL: All reinforcing steel shall be ASTM A615 Grade 60.

ENVIRONMENT: Superstructure: Moderately Aggressive
 Substructure: Extremely Aggressive

CONCRETE COVER: Concrete cover shown in the plans does not include reinforcement placement and fabrication tolerances unless shown as "minimum cover". See FDOT Standard Specifications for allowable reinforcement placement tolerances.

CONCRETE SURFACE FINISH: The sidewalk shall be built in accordance with Section 400 of the Specifications except that the sidewalk shall be finished as per Section 522-7.

PILE FOUNDATIONS: (Foundation Layout Sheet)

UTILITIES: See Harbour Drive Lighting Plans and sheet C-25.

WIND LOAD: 50 psf

THERMAL LOADS: Normal Mean Temperature: 70°F
 Thermal Coefficient: 0.000006
 Temperature Range for Design of Structures:
 Rise - 25°F
 Fall - 25°F

CHAMFER: All exposed edges and corners of concrete shall be chamfered 3/4" unless otherwise noted.

EXISTING BRIDGE PLANS: Dimensions of existing bridge are taken from existing bridge plans. It is the contractors responsibility to verify such dimensions prior to the ordering of materials. Existing bridge plans are available from the City of Naples.

MAINTENANCE OF TRAFFIC AND CONSTRUCTION SCHEDULE: See Roadway Plans.

INTEGRAL PILE JACKETS: Integral Pile Jackets shall be installed in accordance with FDOT Standard Specifications, Section 457.

Contractor shall submit shop drawings to the Engineer for approval prior to ordering of materials or beginning work.

Payment for Integral Pile Jackets shall be per linear foot and unit price shall include all labor and materials necessary to complete the work in accordance with the plans and Section 457 of the FDOT Standard Specifications.

Quantities of Integral Pile Jackets are estimated. The quantity actually required will be determined in the field by the Engineer. The Contractor will be paid for the actual amount installed at the unit price bid.

TEMPORARY RETAINING STRUCTURES:

Temporary Retaining Walls will be required at each corner of the bridge in order to construct the End Bent caps and wingwalls. Cost of the temporary retaining walls will be incidental to the construction of the bridge.

FED. ROAD DIST. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.
	FL			C-1

Engineer of Records

Scott M. Korpi, Fla. Reg. No. 50357
 American Consulting Engineers, PLC
 4111 Land O' Lakes Blvd., Suite 310
 Land O' Lakes, FL 34639
 Phone: 813-996-2800

BRIDGE NO. 035250

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							J.L.T.	5/01	AMERICAN CONSULTING ENGINEERS, PLC 4111 Land O'Lakes Boulevard Suite 310 Land O'Lakes, Florida 34639			CITY OF NAPLES			INDEX OF BRIDGE SHEETS & STRUCTURAL GENERAL NOTES	
							S.K.	5/01				COLLIER				
							S.K.	5/01				034-02				
							B.H.S.	5/01								
							SCOTT KORPI									

PRESTRESSED CONCRETE PILE NOTES

DESIGN SPECIFICATIONS:
 Florida Department of Transportation (FDOT) "Structures Design Guidelines for Load and Resistance Factor Design", Including all supplements thereto.
 The Florida Department of Transportation "Standard Specifications for Road and Bridge Construction", 2000.
 American Association of State Highway and Transportation Officials (AASHTO) "LRFD Bridge Design Specifications".

DESIGN PARAMETERS:
 Square Prestressed Concrete Section: 1,000 psi uniform compression after prestress losses w/0.0 loads.
 Pick-up, Storage, and Transportation: 0.0 psi tension w/1.5 times pile self weight.

SPIRAL TIES:
 Each wrap of spirals shall be tied to at least two corner strands. One turn required for spiral splices.

CONCRETE CLASS:
 Concrete for all piles and Pile Collars shall be Class V (Special). See "GENERAL NOTES" for any specific locations where the use of Class V (Special) with Microsilica is required.

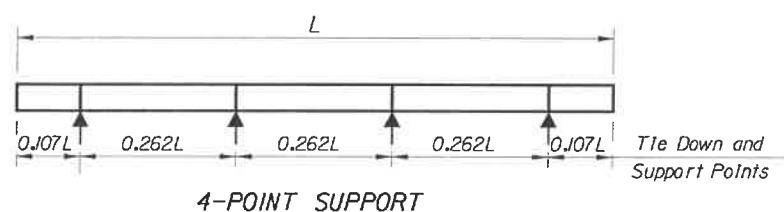
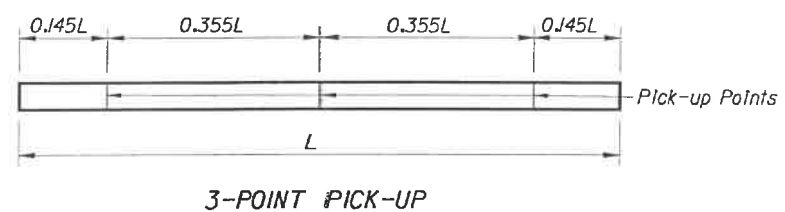
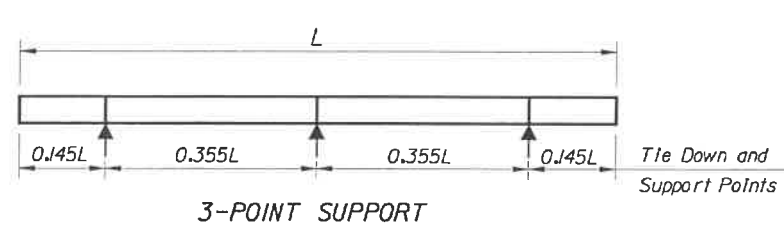
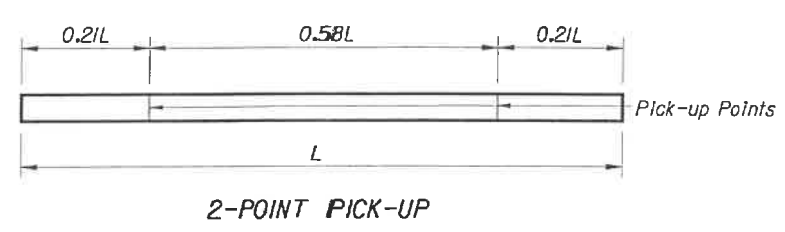
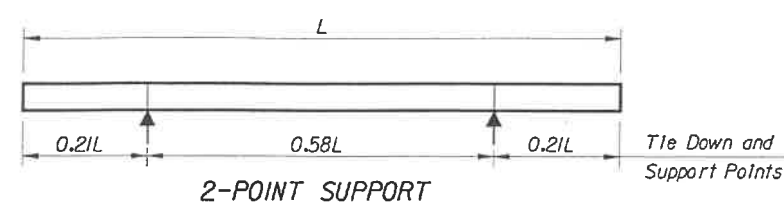
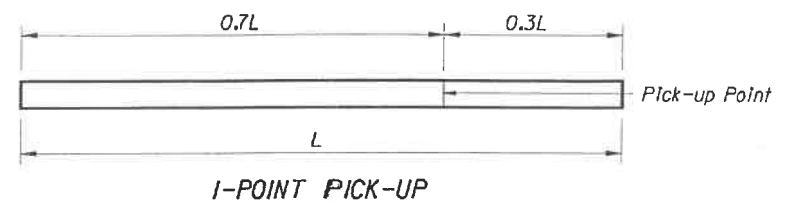
CONCRETE STRENGTH:
 The cylinder strength shall be 6,000 psi minimum at 28 days and 4,000 psi minimum at time of transfer of the Prestressing Force.

SPLICE BONDING MATERIAL:
 The adhesive bonding material to fill dowel holes and form the joint between pile sections shall conform to Section 937 of the Specifications and shall be contained on the Qualified Products List (QPL).

PICK-UP POINTS:
 Piles shall be marked at the pick-up points to indicate proper points for attaching handling lines.

REINFORCING STEEL:
 All reinforcing steel shall be Grade 60, except that spiral ties shall be manufactured from cold-drawn steel wire meeting the requirements of ASTM A82.

PRESTRESSING STEEL:
 Prestressing steel shall be seven-wire strand, Grade 270 or 250 as noted.
 S.R. = Stress Relieved Strand
 L.R.S. = Low-Relaxation Strand



1-POINT PICK-UP

2-POINT SUPPORT

2-POINT PICK-UP

3-POINT SUPPORT

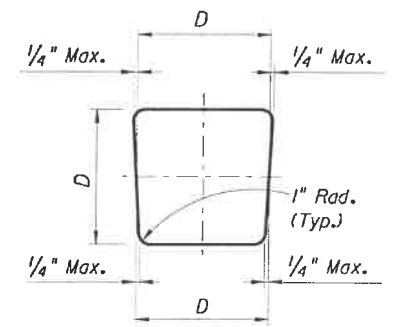
3-POINT PICK-UP

4-POINT SUPPORT

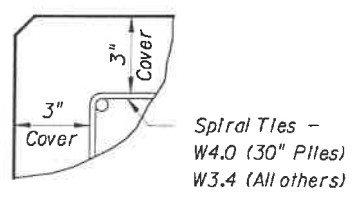
PILE PICK-UP DETAILS

STORAGE AND TRANSPORTATION SUPPORT DETAILS

TABLE OF MAXIMUM PILE PICK-UP AND SUPPORT LENGTHS								
X	Square Pile Size (inches)						Required Storage and Transportation Detail	Pick-Up Detail
	12	14	18	20	24	30		
Maximum Pile Length (Feet)	48	52	59	62	68	87	2, 3, or 4 point	1 Point
	69	75	85	89	98	124	2, 3, or 4 point	2 Point
	99	107	121	128	140	178	3 or 4 point	3 Point



TYPICAL PILE SHAPE FOR MOLD FORMS

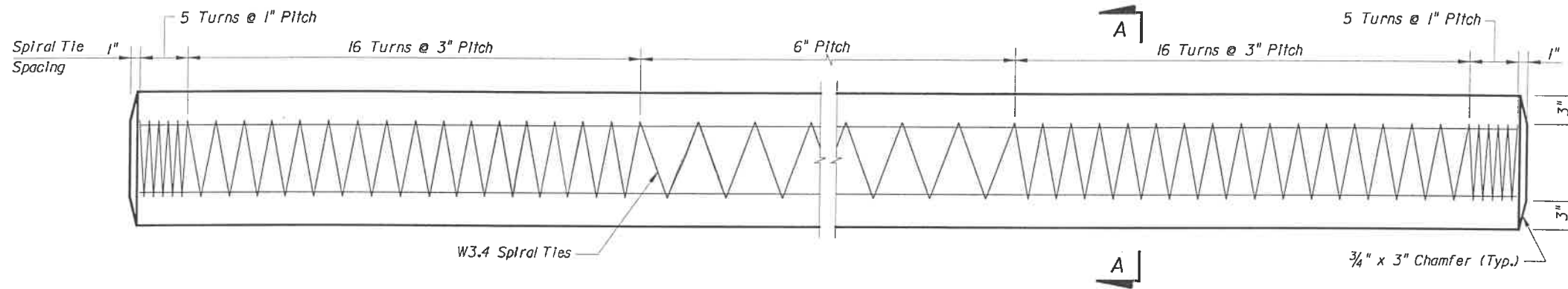


DETAIL SHOWING TYPICAL COVER

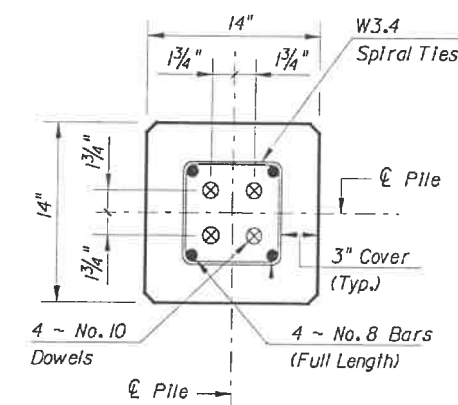
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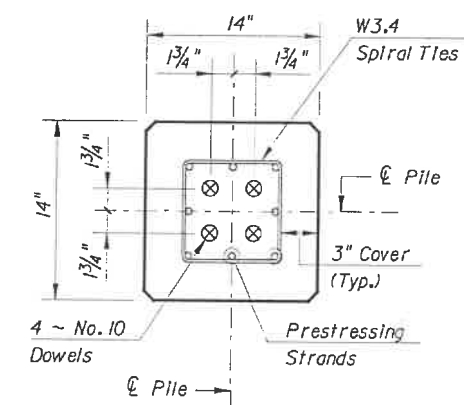
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						J.L.T.	5/01	AMERICAN CONSULTING ENGINEERS, PLC			COLLIER	034-02	1 of 1
						S.K.	5/01	4111 Land O'Lakes Boulevard Suite 310 Land O'Lakes, Florida 34639					INDEX NO. 600
						B.H.S.	5/01						
						SCOTT KORPI							



ELEVATION

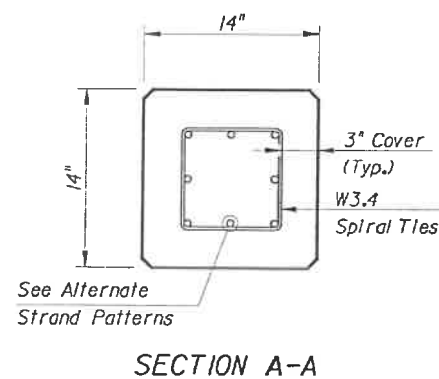


SECTION D-D
(See Non-Drivable Unforeseen Reinforced Precast Splice Detail)



SECTION E-E
(See Drivable Unforeseen Prestressed Precast Splice Detail)

PILE SPLICE REINFORCEMENT DETAILS



ALTERNATE STRAND PATTERNS

- 8 ~ 0.6" Φ , Grade 270 LRS, at 35.2 kips
- 8 ~ 1/2" Φ , Grade 270 (Spec) LRS, at 31.6 kips
- 8 ~ 1/2" Φ , Grade 270 (Spec) SR, at 31.6 kips
- 8 ~ 1/2" Φ , Grade 270 LRS, at 31.0 kips
- 12 ~ 7/16" Φ , Grade 270 SR, at 21.2 kips
- 12 ~ 1/2" Φ , Grade 250 SR, at 22.6 kips
- 16 ~ 3/8" Φ , Grade 270 SR, at 16.1 kips

NOTE: Any of the given Alternate Strand Patterns may be utilized. The strands shall be located as follows:
Place one strand at each corner and place the remaining strands equally spaced between the corner strands.
The total strand pattern shall be concentric with the nominal concrete section of the pile.

NOTE: Work this sheet with the following drawings:
Index No. 600 - Notes and Details for Square Prestressed Concrete Piles
Index No. 601 - Square Prestressed Concrete Pile Splices

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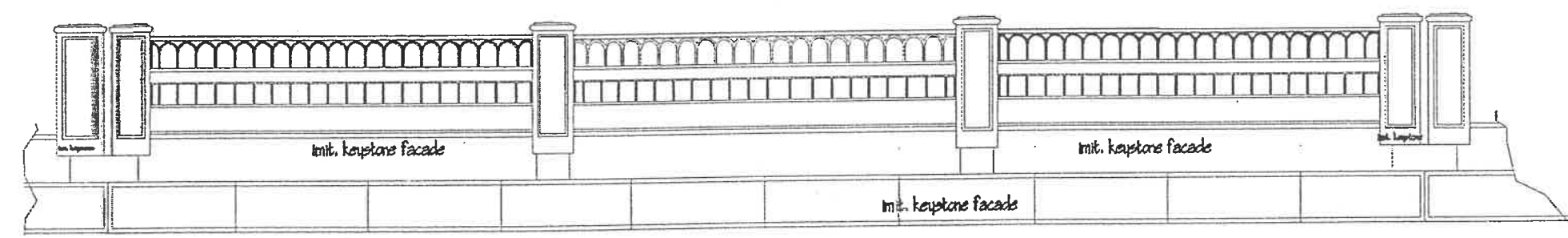
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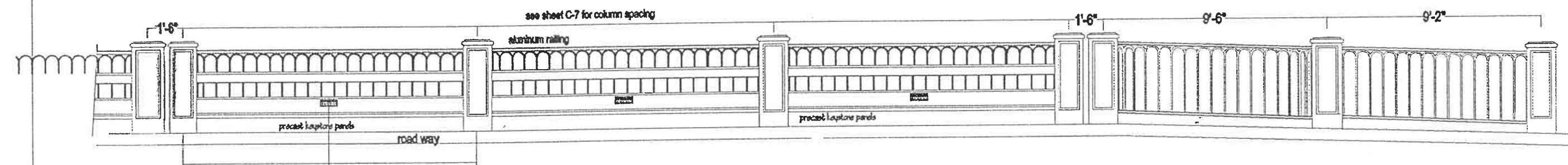
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DESIGNED BY	S.K.	5/01	4111 Land O'Lakes Boulevard Suite 310 Land O'Lakes, Florida 34639	(813) 996-2800		HARBOUR DRIVE BRIDGE WIDENING	614	
CHECKED BY	B.H.S.	5/01						
APPROVED BY	SCOTT KORPI							

ROAD NO.	COUNTY	PROJECT NO.	PROJECT NAME	INDEX NO.
	COLLIER	034-02	HARBOUR DRIVE BRIDGE WIDENING	614

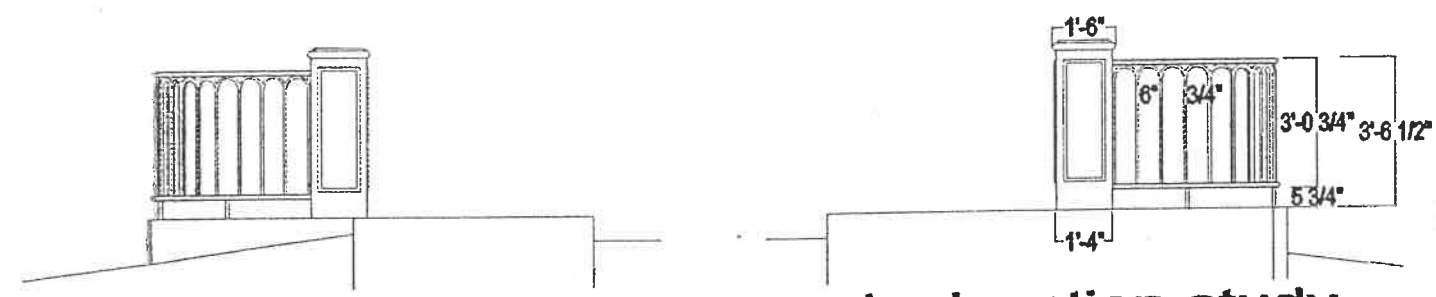
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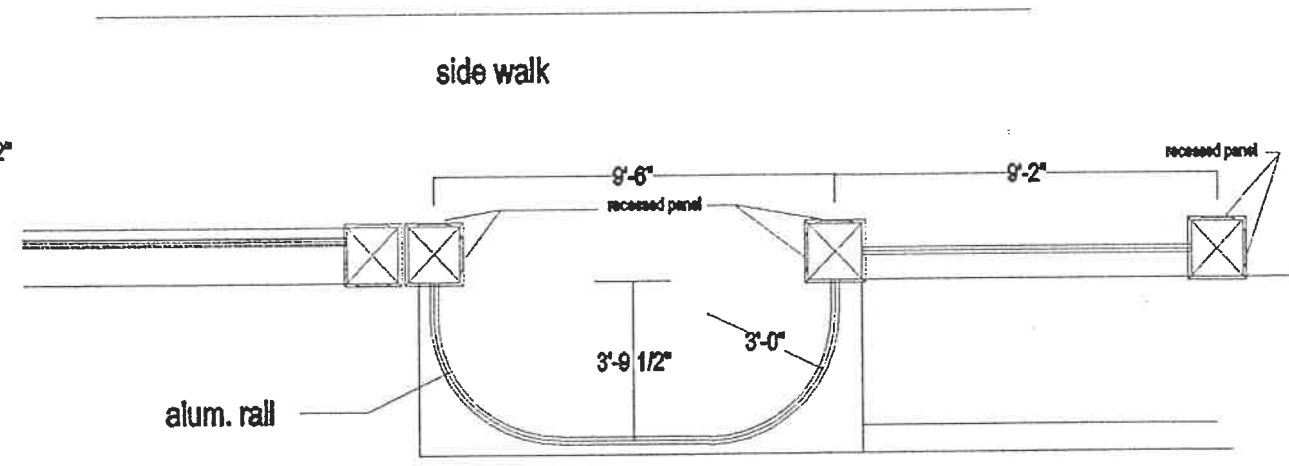
RAIL ELEVATION STUDY WATER SIDE



RAIL ELEVATION STUDY STREET SIDE



park shore bridge approach elevation study



out look plan view

w.h. buckhannan A.S.L.A.
 LANDSCAPE ARCHITECT
 900 BALD EAGLE DRIVE NAPLES, FLORIDA

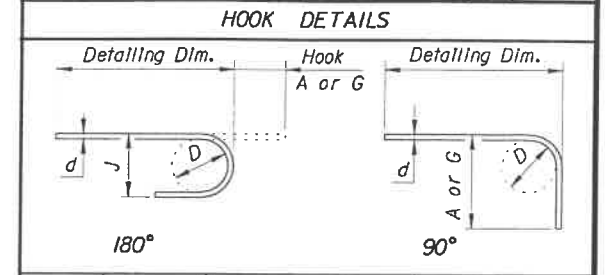
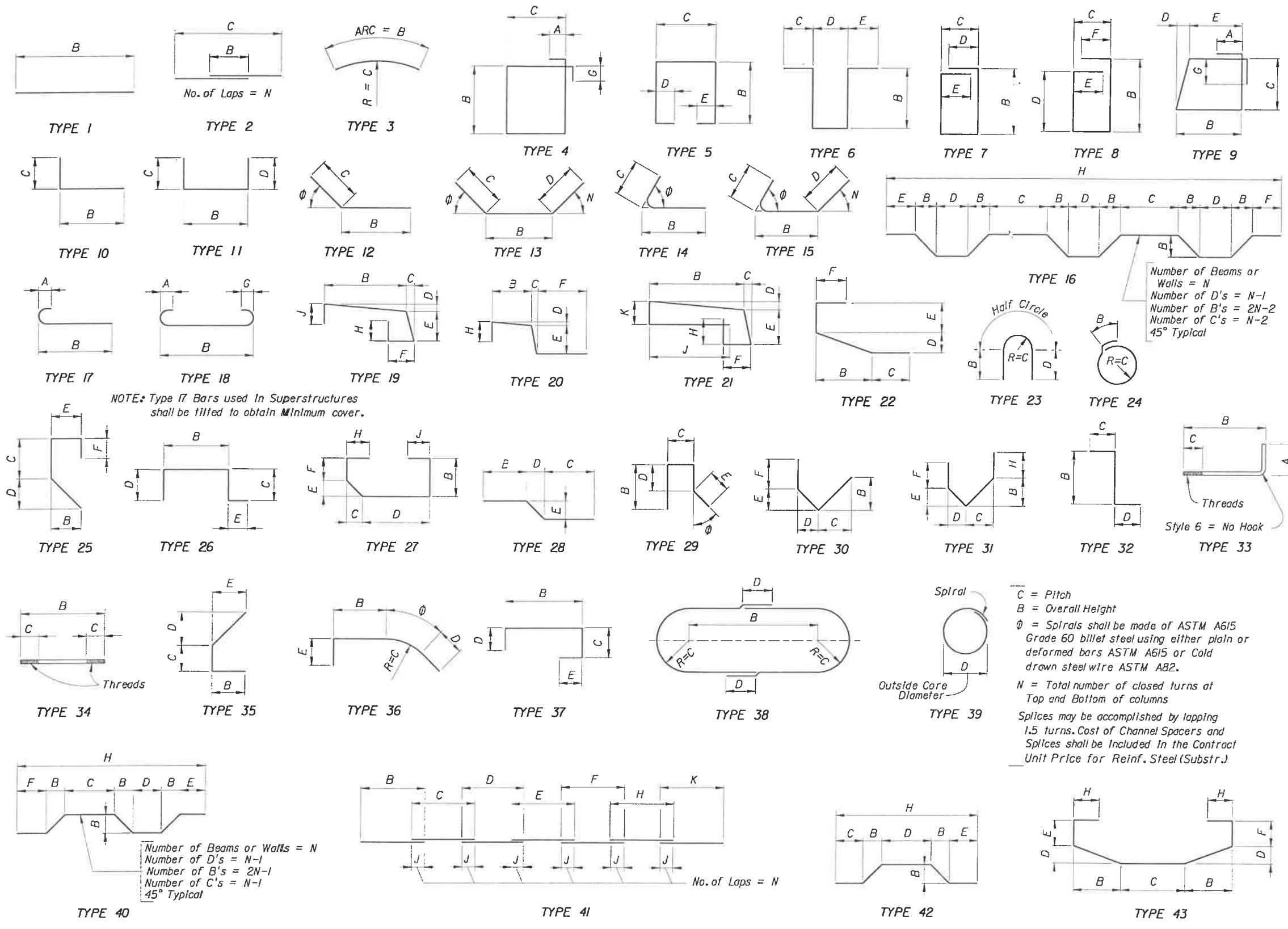


ENGINEER OF RECORD:
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 ENGINEERS, PLC
 1111 Land O'Lakes Boulevard
 Suite 310
 Land O'Lakes, Florida 34639

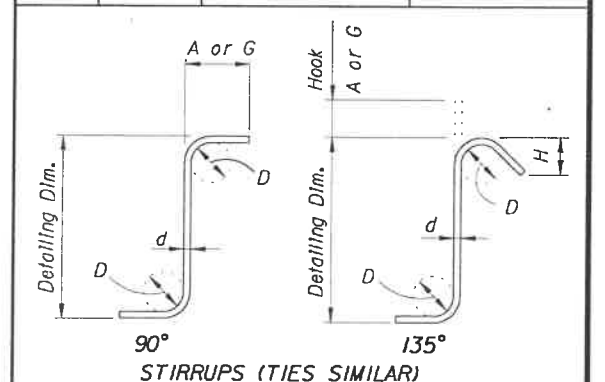
AMERICAN
 CONSULTING ENGINEERS, PLC
 (813) 996-2800

CITY OF NAPLES		
ROAD NO.	COUNTY	PROJECT NO.
X	COLLIER	X

SHEET TITLE:
rail detail sheet
 PROJECT NAME:
 HARBOUR DR. BRIDGE WIDENING



BAR SIZE	D	180° HOOKS		90° HOOKS
		A OR G	J	A OR G
#3	2 1/4"	5"	3"	6"
#4	3"	6"	4"	8"
#5	3 3/4"	7"	5"	10"
#6	4 1/2"	8"	6"	1'-0"
#7	5 1/4"	10"	7"	1'-2"
#8	6"	11"	8"	1'-4"
#9	9 1/2"	1'-3"	11 3/4"	1'-7"
#10	10 3/4"	1'-5"	1'-1 1/4"	1'-10"
#11	12"	1'-7"	1'-2 3/4"	2'-0"
#14	18 1/4"	2'-3"	1'-9 3/4"	2'-7"
#18	24"	3'-0"	2'-4 1/2"	3'-5"
STYLE		1		3



RECOMMENDED STIRRUP & TIE HOOK DIMENSIONS

BAR SIZE	D	90° HOOKS		135° HOOKS	
		A or G	A or G	A or G	H*
#3	1 1/2"	4"	4"	4"	2 1/2"
#4	2"	4 1/2"	4 1/2"	4 1/2"	3"
#5	2 1/2"	6"	5 1/2"	5 1/2"	3 3/4"
#6	4 1/2"	1'-0"	8"	8"	4 1/2"
#7	5 1/4"	1'-2"	9"	9"	5 1/4"
#8	6"	1'-4"	10 1/2"	10 1/2"	6"
STYLE		4		5	

STYLE 6 = NO HOOK

* Dimension is approximate.
Hook Styles Detailed on this sheet are for illustration only.
Actual Hook Style for any particular bar will be shown under A or G heading on REINFORCING BAR LIST sheet.
All Dimensions are out-to-out.

C = Pitch
B = Overall Height
φ = Spirals shall be made of ASTM A615 Grade 60 billet steel using either plain or deformed bars ASTM A615 or Cold drawn steel wire ASTM A82.
N = Total number of closed turns at Top and Bottom of columns
Splices may be accomplished by lapping 1.5 turns. Cost of Channel Spacers and Splices shall be included in the Contract Unit Price for Reinf. Steel (Substr.)

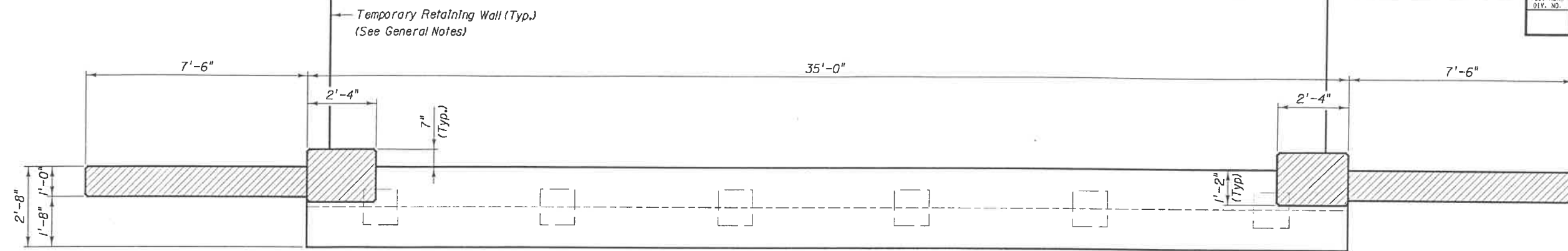
NOTE: For Bar Dimensions See REINFORCING BAR LIST Sheet.

BRIDGE NO. 035250

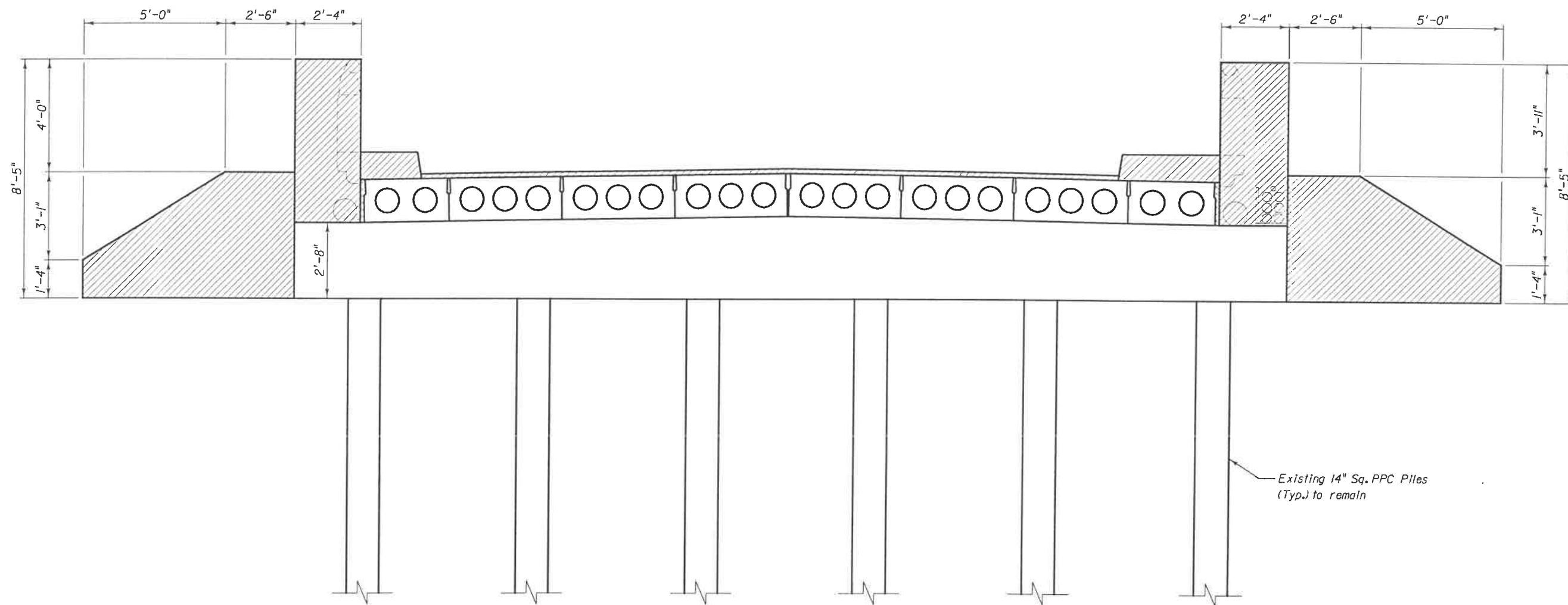
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								034-02	COLLIER	034-02	HARBOUR DRIVE BRIDGE WIDENING	1300			
				DRAWN BY	J.L.T.	5/01	AMERICAN CONSULTING ENGINEERS, PLC				STANDARD BAR BENDING DETAILS		1 of 1		
				CHECKED BY	S.K.	5/01	4111 Land O'Lakes Boulevard Suite 310 Land O'Lakes, Florida 34639				CITY OF NAPLES		INDEX NO.		
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				CHECKED BY	B.H.S.	5/01					COUNTY		HARBOUR DRIVE BRIDGE WIDENING		1300
				APPROVED BY	SCOTT CORPI				PROJECT NO.		HARBOUR DRIVE BRIDGE WIDENING		1300		

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.
	FL.			C-13




PLAN



ELEVATION

LEGEND

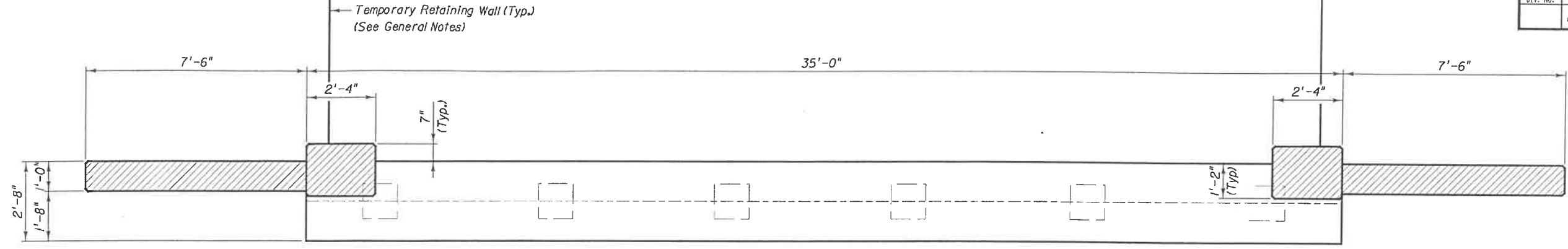
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BRIDGE NO. 035250

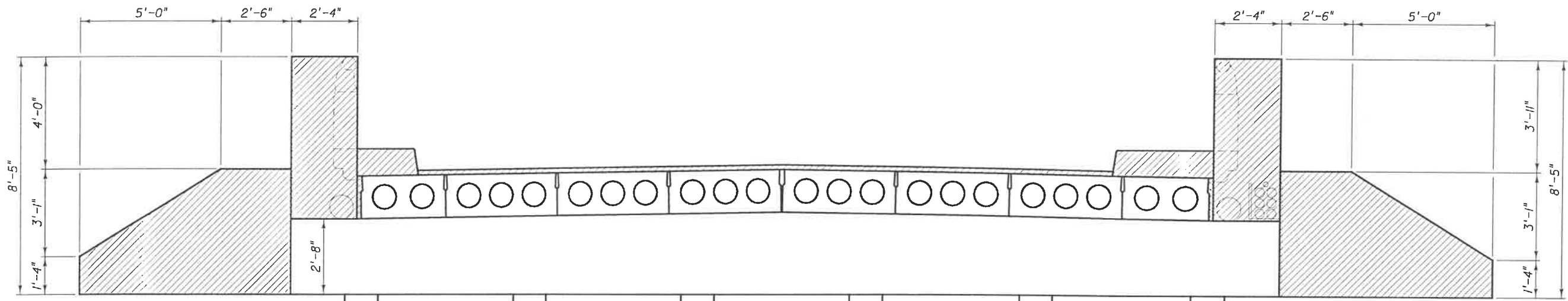
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						S.K.	5/01	4111 Land O'Lakes Boulevard Suite 310 Land O'Lakes, Florida 34639				COLLIER		HARBOR DRIVE BRIDGE WIDENING		
						B.H.S.	5/01					034-02				
						SCOTT KORPI										

FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.
	FL.			C-14



PLAN



ELEVATION

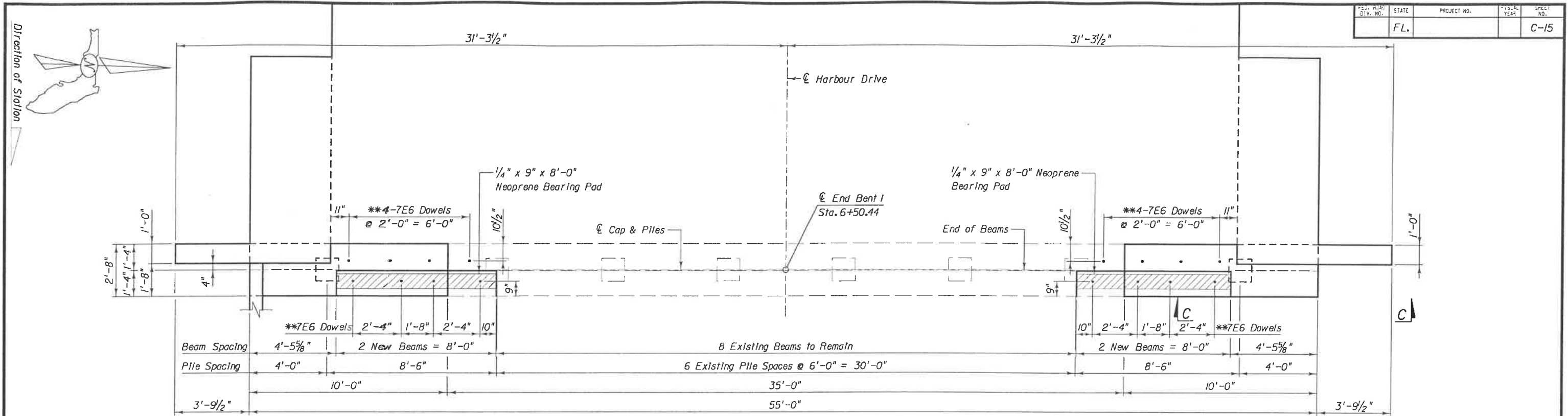
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BRIDGE NO. 035250

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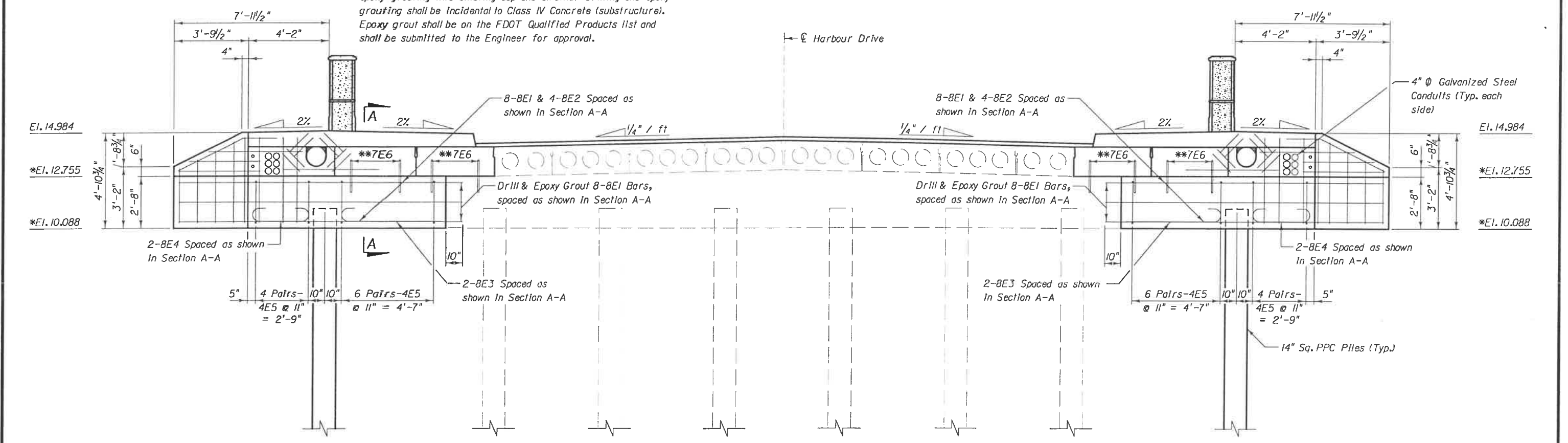
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						CHECKED BY	S.K.	5/01	4111 Land O'Lakes Boulevard Suite 310				COLLIER		034-02		HARBOUR DRIVE BRIDGE WIDENING			
						DESIGNED BY	S.K.	5/01	Land O'Lakes, Florida 34639											
						CHECKED BY	B.H.S.	5/01												
						APPROVED BY	SCOTT KORPI													

STATE	PROJECT NO.	SHEET NO.
FL.		C-15



PLAN

**Cast-in-place or drilled & epoxy grouted. Cost for drilling and epoxy grouting into existing cap and all other drilling and epoxy grouting shall be incidental to Class IV Concrete (substructure). Epoxy grout shall be on the FDOT Qualified Products list and shall be submitted to the Engineer for approval.



ELEVATION
(Looking Back Station)

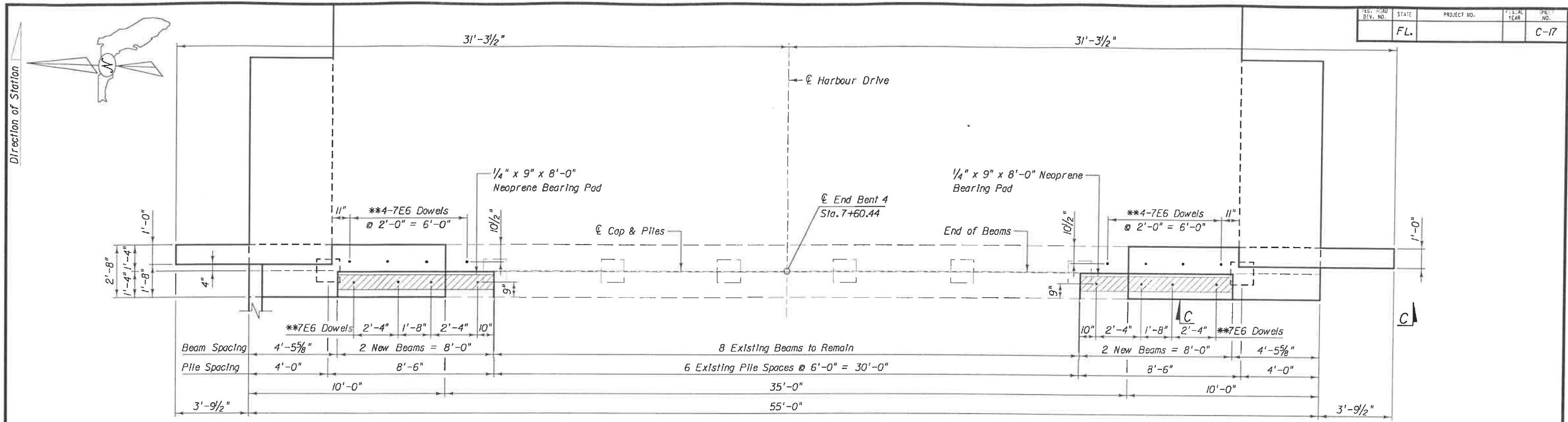
* Elevations based on field survey.
For Section A-A and View C-C, see sheet C-16.

BRIDGE NO. 035250

REVISIONS				NAMES		DATES		ENGINEER OF RECORD.		LOGO.		SEAL.		CITY OF NAPLES		SHEET TITLE	
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	AMERICAN CONSULTING ENGINEERS, PLC	4111 Land O'Lakes Boulevard Suite 310 Land O'Lakes, Florida 34639	AMERICAN CONSULTING ENGINEERS, PLC	(813) 996-2800	COLLIER	034-02	END BENT I		HARBOUR DRIVE BRIDGE WIDENING	

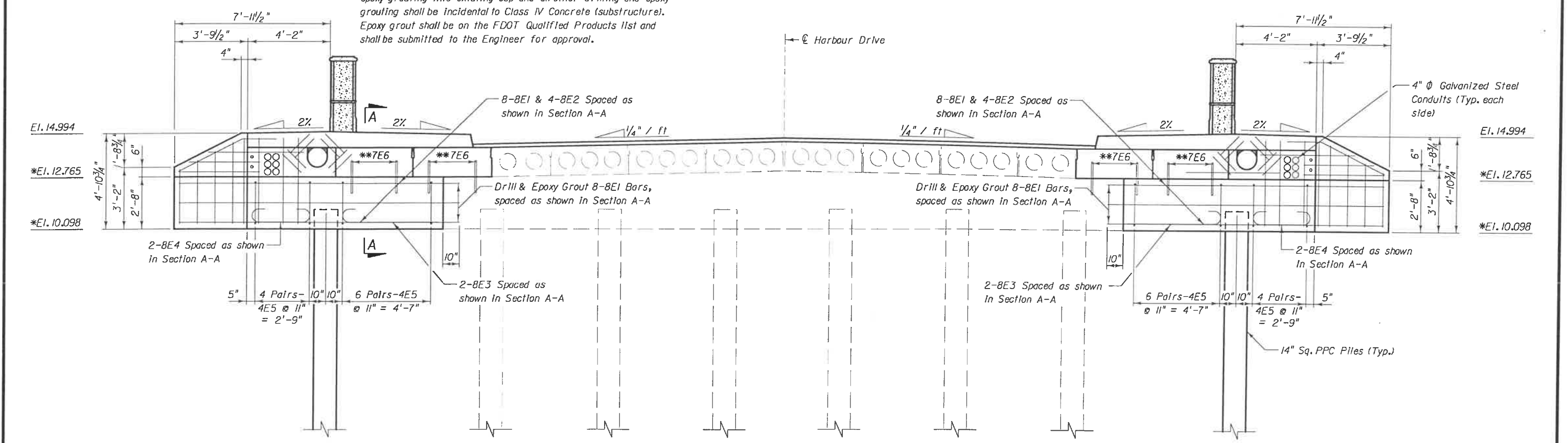
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FEED. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.
FL.				C-17



PLAN

**Cast-in-place or drilled & epoxy grouted. Cost for drilling and epoxy grouting into existing cap and all other drilling and epoxy grouting shall be incidental to Class IV Concrete (substructure). Epoxy grout shall be on the FDOT Qualified Products list and shall be submitted to the Engineer for approval.



ELEVATION
(Looking Ahead Station)

* Elevations based on field survey.
For Section A-A and View C-C, see sheet C-18.

BRIDGE NO. 035250

REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

NAME	DATE
DESIGNED BY: J.L.T.	5/01
CHECKED BY: S.K.	5/01
DESIGNED BY: S.K.	5/01
CHECKED BY: B.H.S.	5/01
APPROVED BY: SCOTT KORPI	

ENGINEER OF RECORD,
AMERICAN CONSULTING ENGINEERS, PLC
4111 Land O'Lakes Boulevard
Suite 310
Land O'Lakes, Florida 34639

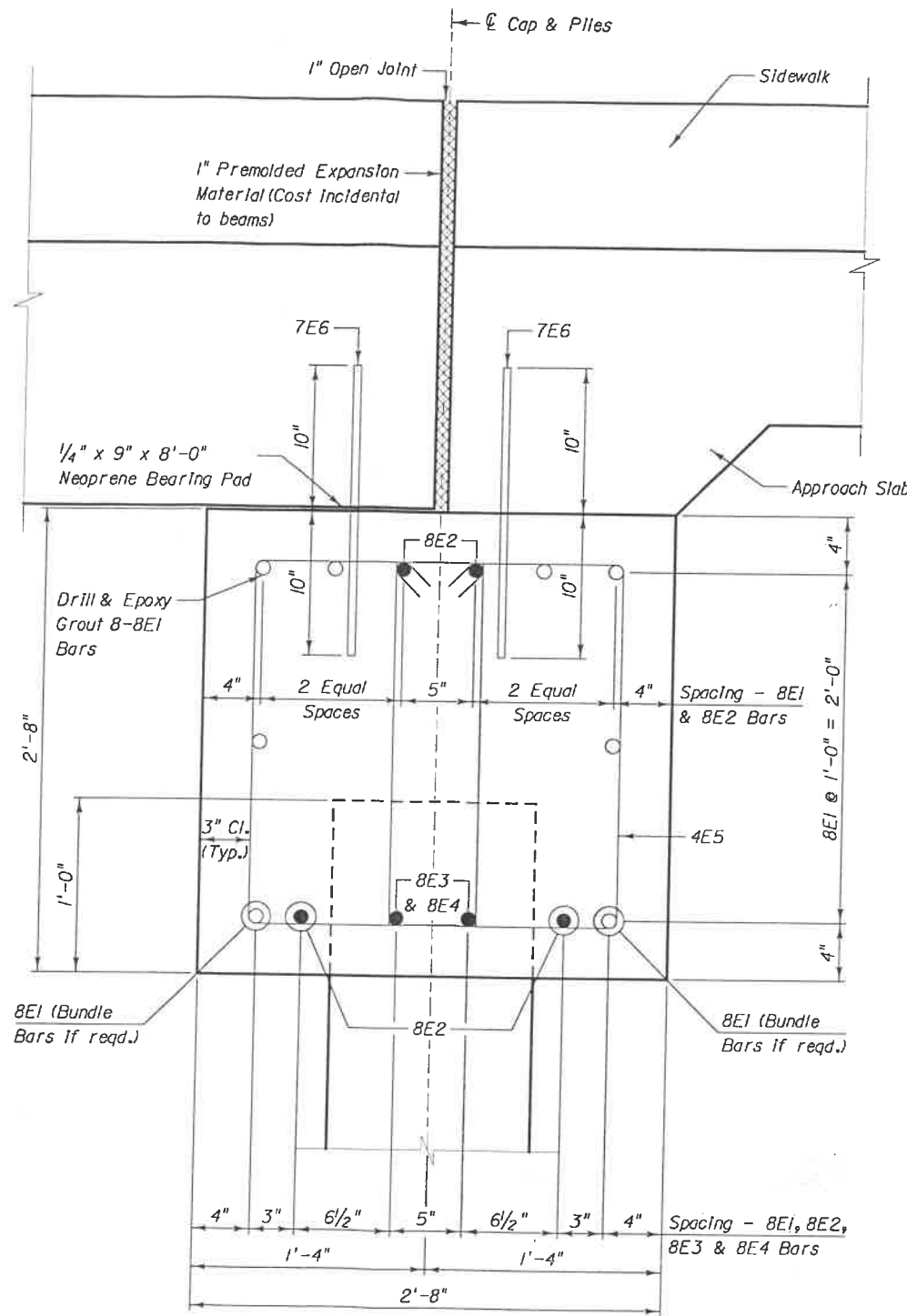
LOGO:
AMERICAN
CONSULTING ENGINEERS, PLC
(813) 996-2800

SEAL:

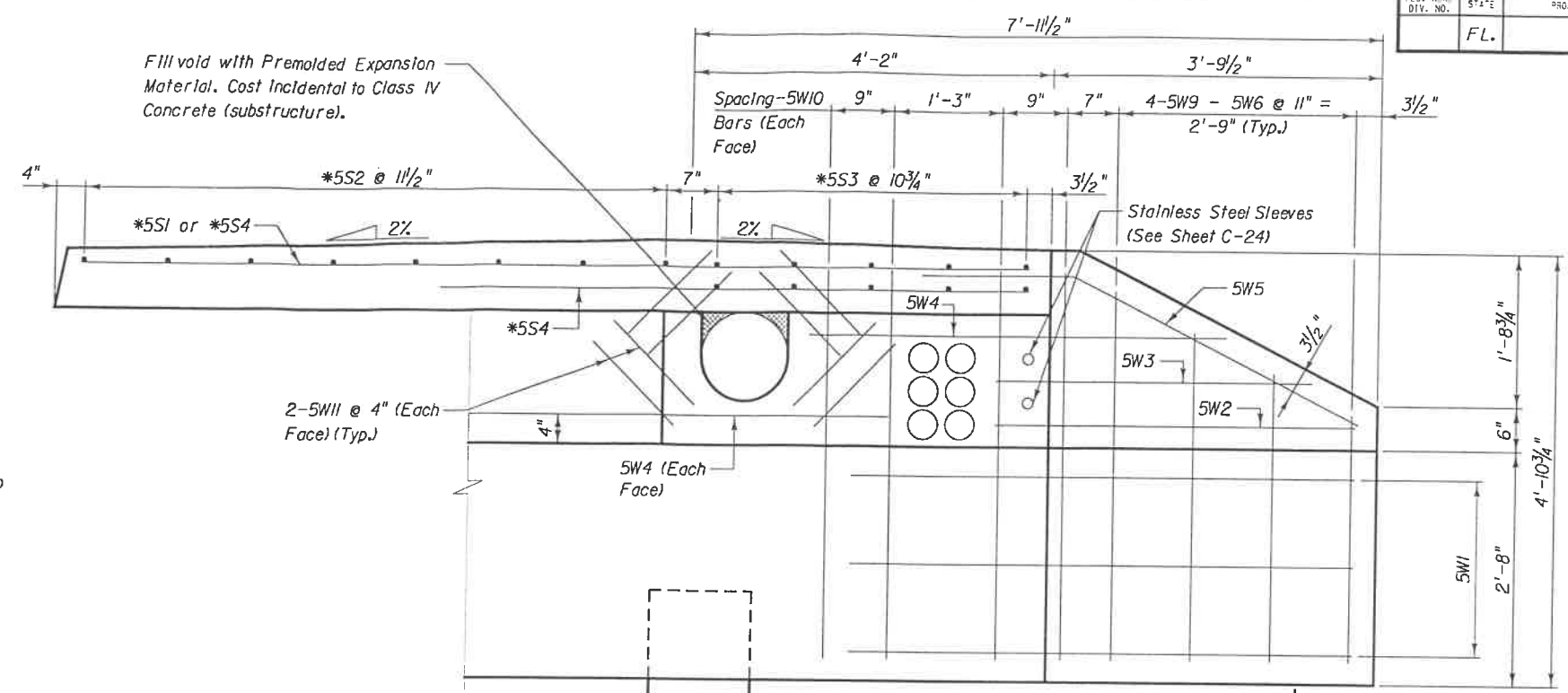
CITY OF NAPLES		
ROAD NO.	COUNTY	PROJECT NO.
	COLLIER	034-02

SHEET TITLE: END BENT 4		DRAWING NO.
PROJECT NAME: HARBOUR DRIVE BRIDGE WIDENING		INDEX NO.

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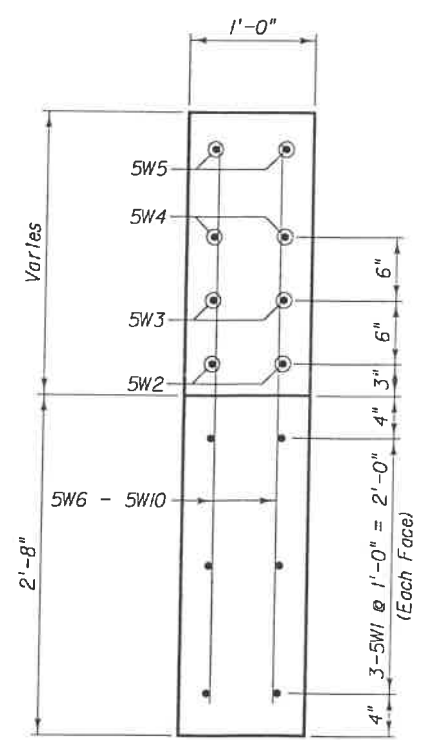
SECTION A-A



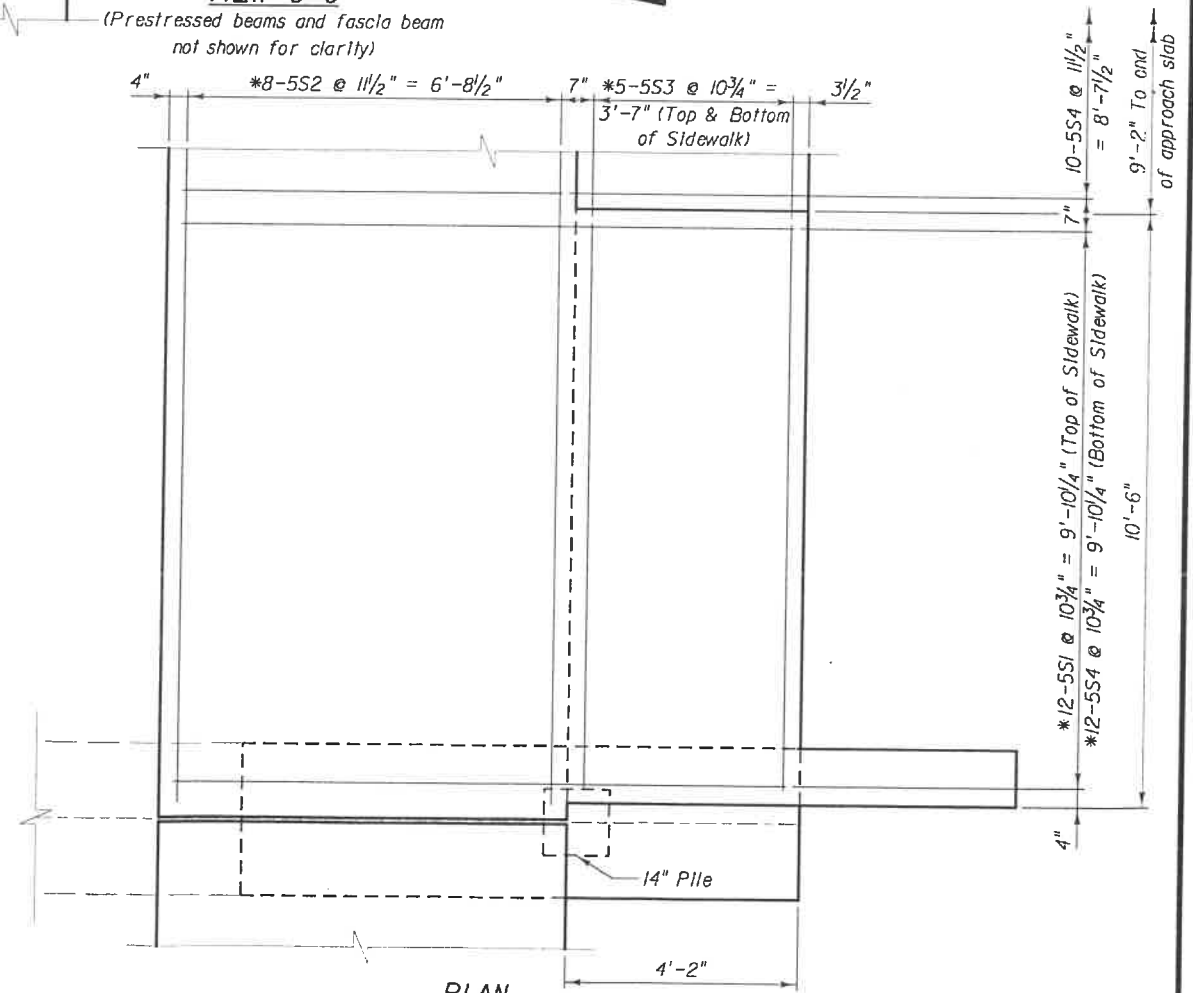
VIEW C-C

* Bars billed with superstructure.

Notes:
 Bars shown as open circles are to be drilled & epoxy grouted 10" into existing cap. Cost incidental to reinforcing steel (substructure). Epoxy grout shall be on the FDOT Qualified Products List and shall be submitted to the Engineer for approval.



SECTION B-B



PLAN
(Barrier not shown for clarity)

ESTIMATED QUANTITIES		
ITEM	UNIT	QUANTITY
Cap (Class IV) Concrete	C.Y.	5.3
Wingwalls (Class IV) Concrete	C.Y.	1.2
Reinforcing Steel (Substructure)	LBS.	1412
14" Sq. Prestressed Concrete Piles	L.F.	**

** See Summary of Bridge Pay Items.

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REVISIONS			
DATE	BY	DESCRIPTION	DATE

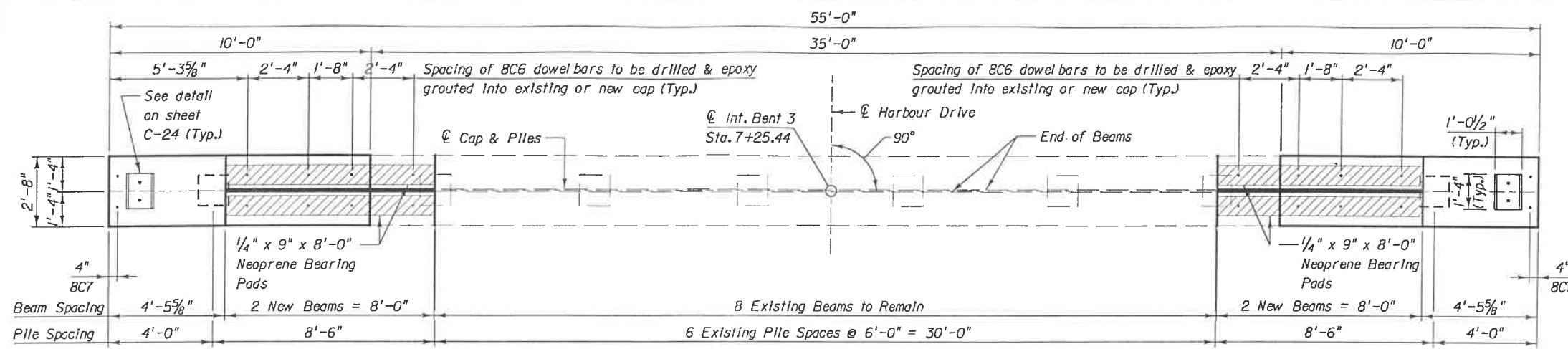
DRAWN BY	J.L.T.	5/01
CHECKED BY	S.K.	5/01
DESIGNED BY	S.K.	5/01
CHECKED BY	B.H.S.	5/01
APPROVED BY	SCOTT KORPI	

ENGINEER OF RECORD:
 AMERICAN CONSULTING ENGINEERS, PLC
 4111 Land O'Lakes Boulevard Suite 310
 Land O'Lakes, Florida 34639

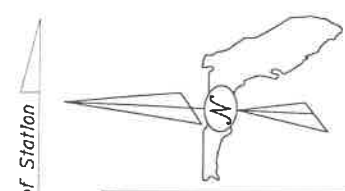
LOGO:
 AMERICAN CONSULTING ENGINEERS, PLC
 (813) 996-2800

CITY OF NAPLES		
ROAD NO.	COUNTY	PROJECT NO.
	COLLIER	034-02

BRIDGE NO. 035250	
END BENT 4 DETAILS	
DRAWING NO.	
HARBOUR DRIVE BRIDGE WIDENING	

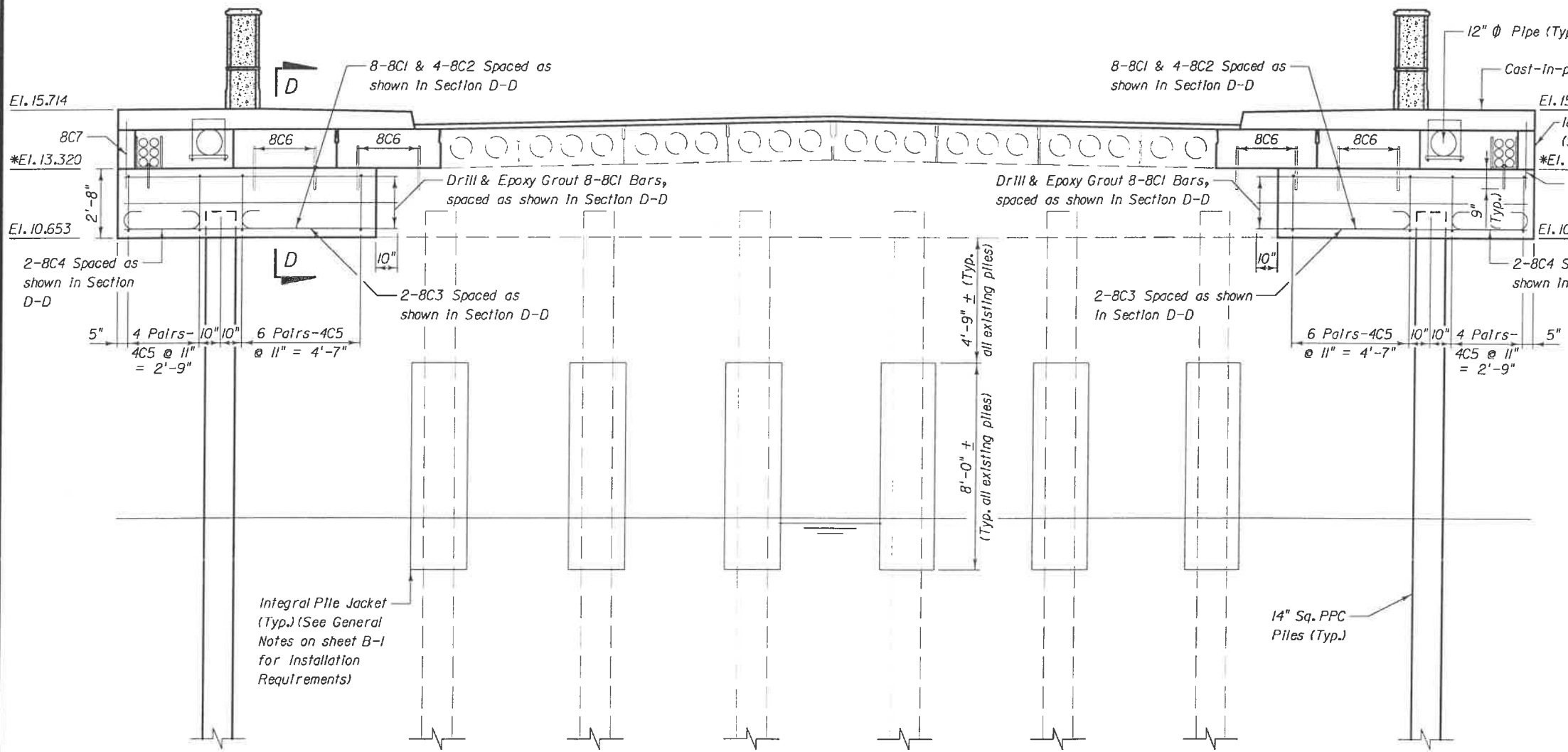


PLAN

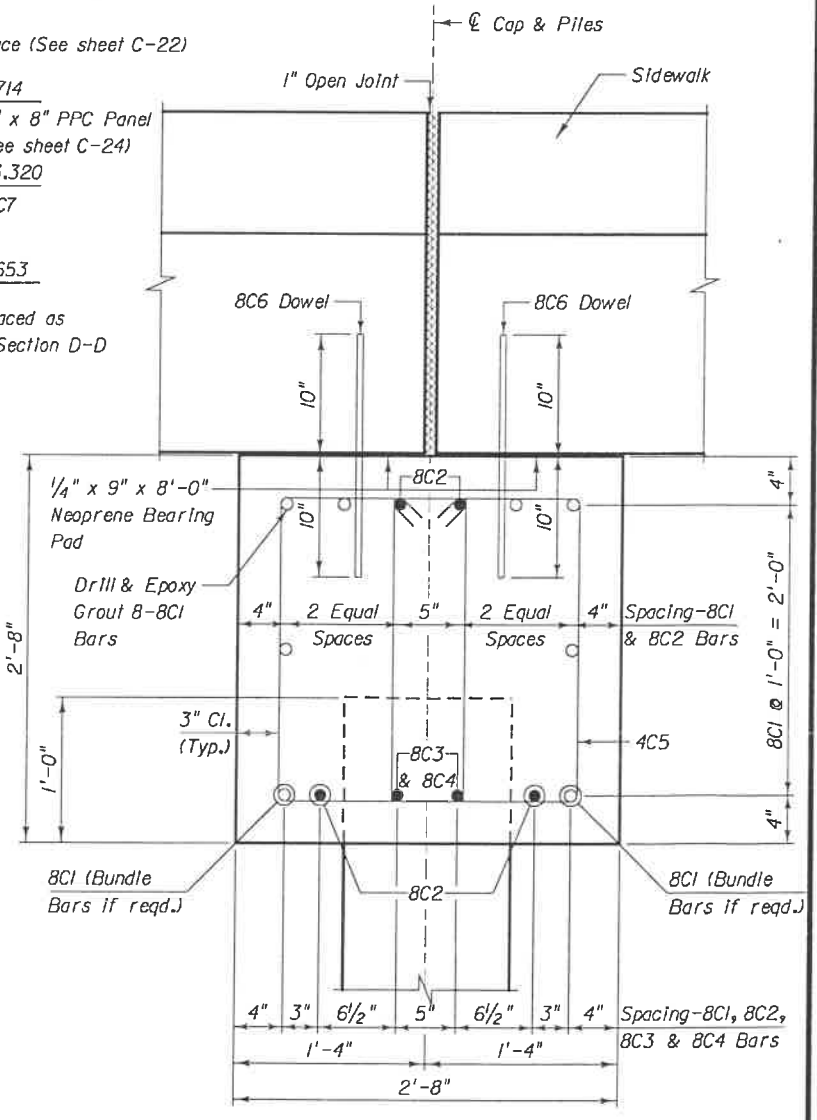


ESTIMATED QUANTITIES		
ITEM	UNIT	QUANTITY
Cap (Class IV) Concrete	C.Y.	5.3
Reinforcing Steel (Substructure)	LBS.	1114
14" Sq. Prestressed Concrete Piles	L.F.	***
Integral Pile Jacket	L.F.	48

*** See Summary of Bridge Pay Items.
 * Elevations based on field survey.
 ** Bars billed with superstructure.



ELEVATION
(Looking Ahead Station)



SECTION D-D

BRIDGE NO. 035250

Note:
 Bars shown as open circles are to be drilled & epoxy grouted 10" into existing cap. Cost incidental to reinforcing steel (substructure). Epoxy grout shall be on the FDOT Qualified Products list and shall be submitted to the Engineer for approval.

REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

NAME	DATE
DRAWN BY J.L.T.	5/01
CHECKED BY S.K.	5/01
DESIGNED BY S.K.	5/01
CHECKED BY B.H.S.	5/01
APPROVED BY SCOTT KORPI	

ENGINEER OF RECORD:
 AMERICAN CONSULTING ENGINEERS, PLC
 4111 Land O'Lakes Boulevard Suite 310
 Land O'Lakes, Florida 34639



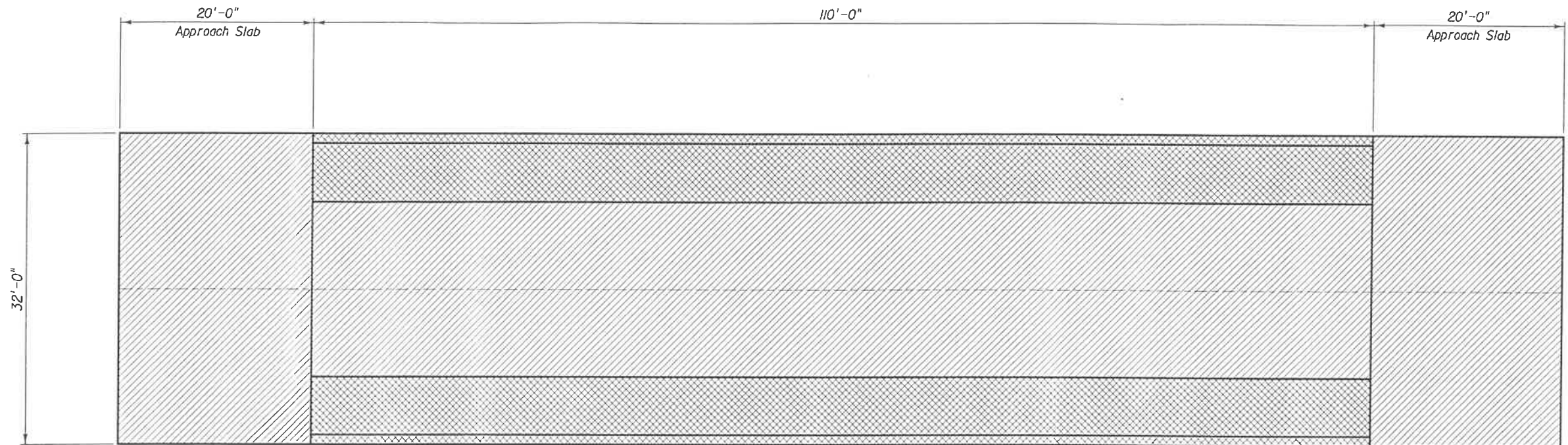
SEAL:

CITY OF NAPLES
 ROAD NO. COUNTY PROJECT NO. COLLIER 034-02

SHEET TITLE: INTERMEDIATE BENT 3
 PROJECT NAME: HARBOUR DRIVE BRIDGE WIDENING

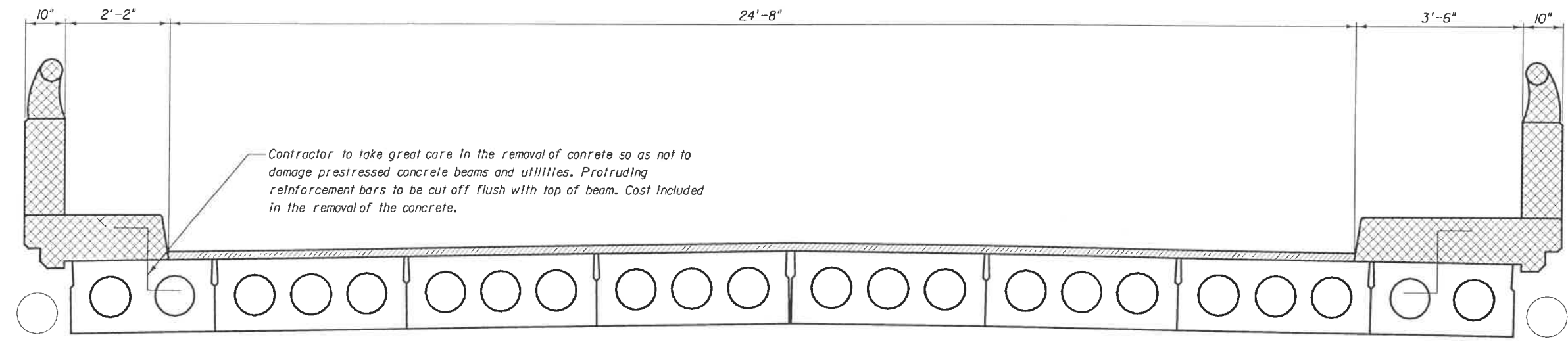
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FED. ROAD DIST. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.
	FL.			C-21



PLAN

Note:
For sequence of removal, see sheet C-10.



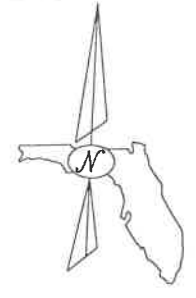
TYPICAL SECTION

- LEGEND**
- Indicates removal of curb, barrier and railing.
 - Indicates removal of asphalt wearing surface.

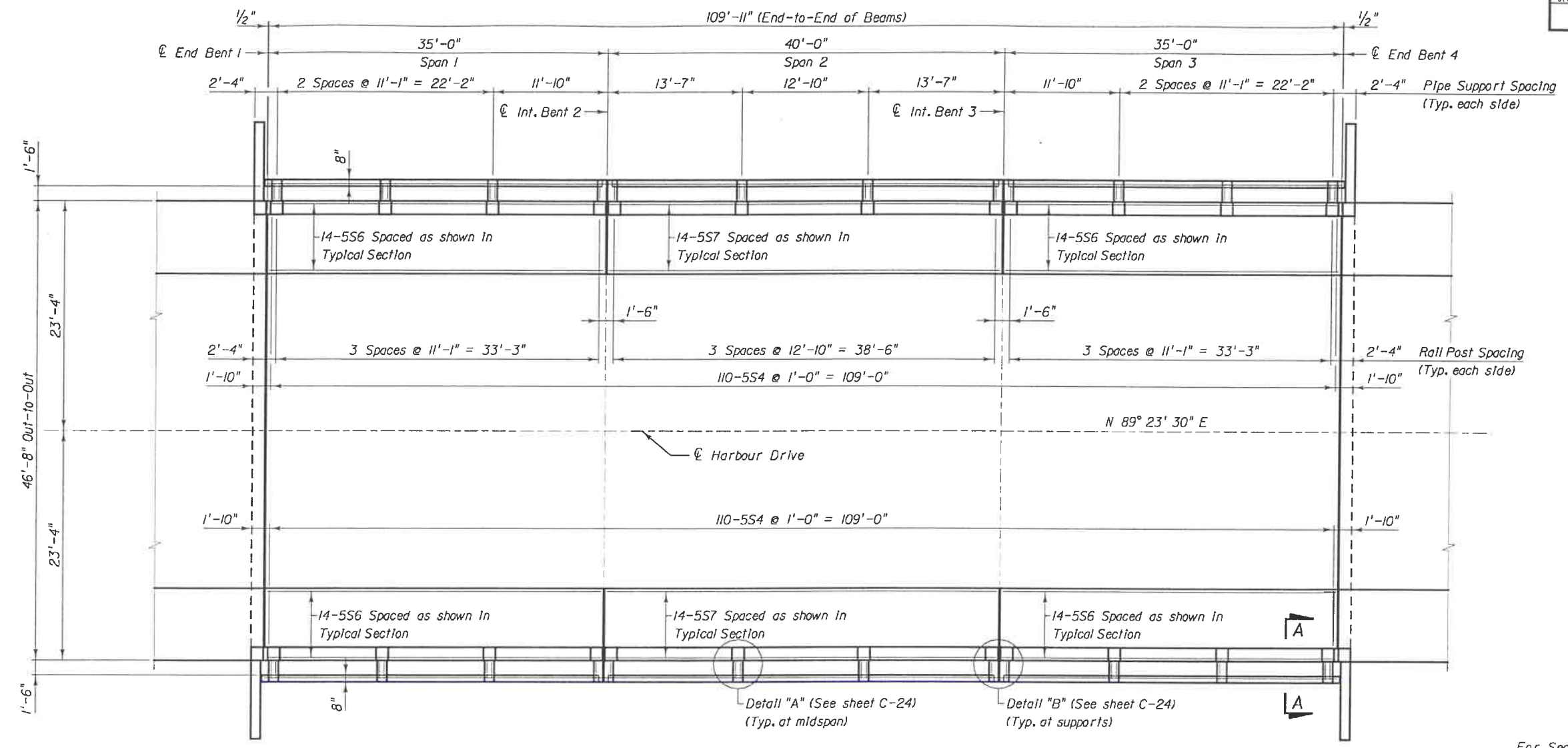
BRIDGE NO. 035250

f:\project\5009727\structure\harbourdrive\cadd\deckrem.dgn Fri Dec 07 10:23:05 2001

REVISIONS						DRAWN BY		CHECKED BY		DESIGNED BY		CHECKED BY		APPROVED BY		ENGINEER OF RECORD			LOGO		SEAL			CITY OF NAPLES			SHEET TITLE		DRAWING NO.			
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	NAME	DATE	NAME	DATE	NAME	DATE	NAME	DATE	NAME	DATE	NAME	DATE	NAME	DATE	NAME	DATE	NAME	DATE	NAME	DATE	NAME	DATE	NAME	DATE	NAME	DATE	
						J.L.T.	5/01	S.K.	5/01	S.K.	5/01	B.H.S.	5/01	SCOTT KORPI																		
																AMERICAN CONSULTING ENGINEERS, PLC 4111 Land O'Lakes Boulevard Suite 310 Land O'Lakes, Florida 34639 (813) 996-2800				CITY OF NAPLES			BRIDGE DECK REMOVAL		DRAWING NO.							
																ROAD NO.			COUNTY			PROJECT NO.			HARBOUR DRIVE BRIDGE WIDENING		INDEX NO.					
																COLLIER			034-02													

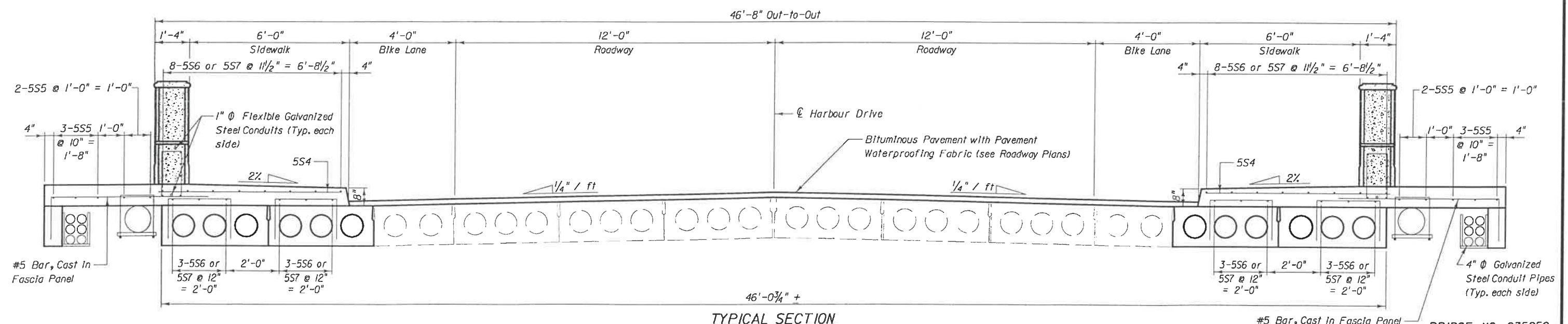


Direction of Station



DECK PLAN

For Section A-A, see sheet C-24.



TYPICAL SECTION

BRIDGE NO. 035250

REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

NAME	DATE
DRAWN BY J.L.T.	5/01
CHECKED BY S.K.	5/01
DESIGNED BY S.K.	5/01
CHECKED BY B.H.S.	5/01
APPROVED BY SCOTT KORPI	

ENGINEER OF RECORD:
AMERICAN CONSULTING ENGINEERS, PLC
 4111 Land O'Lakes Boulevard
 Suite 310
 Land O'Lakes, Florida 34639

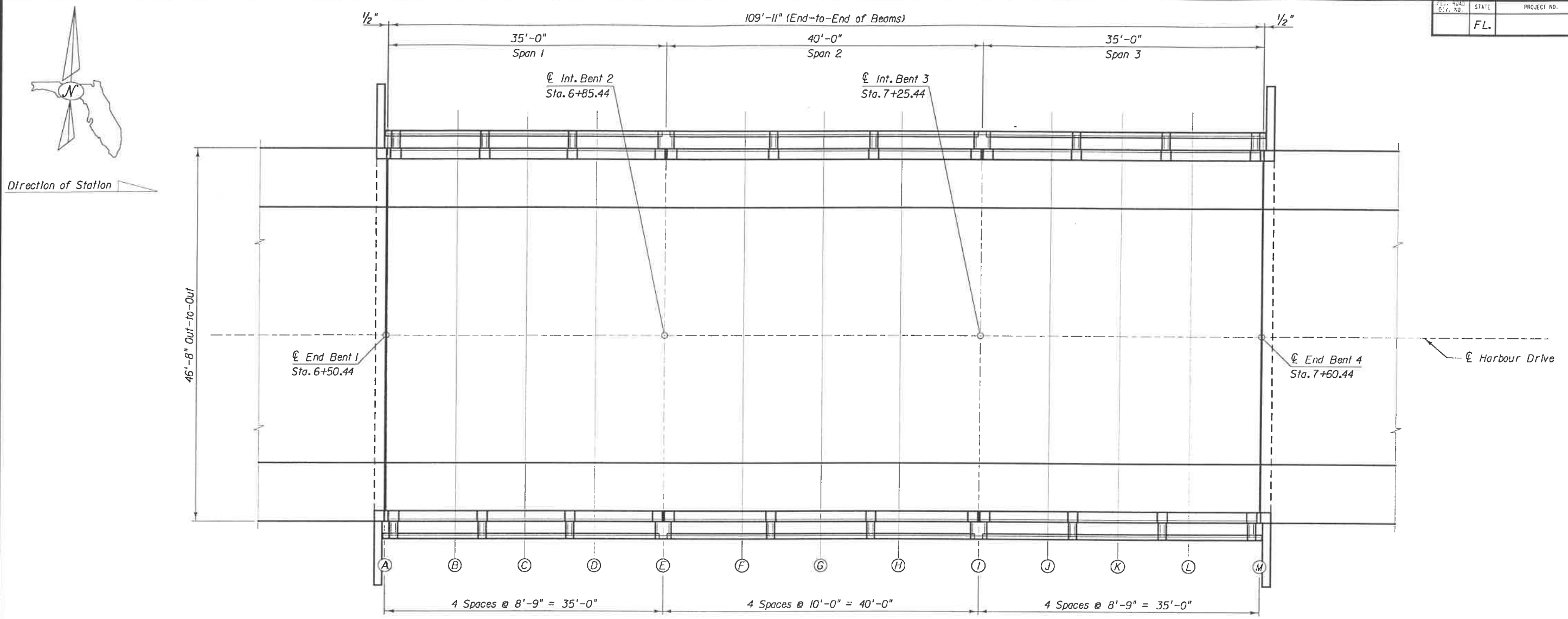
LOGO:
AMERICAN CONSULTING ENGINEERS, PLC
 (813) 996-2800

SEAL:

CITY OF NAPLES
 COUNTY: COLLIER
 PROJECT NO.: 034-02

DECK PLAN & SUPERSTRUCTURE SECTION
 HARBOUR DRIVE BRIDGE WIDENING

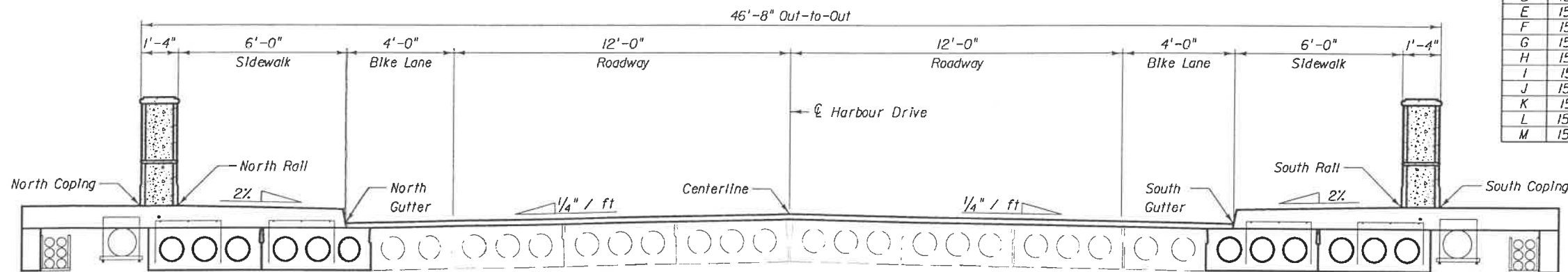
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PLAN

GRID	NORTH COPING	NORTH RAIL	NORTH GUTTER	CENTER LINE	SOUTH GUTTER	SOUTH RAIL	SOUTH COPING	* DEAD LOAD DEFLECTIONS (In)
A	15.073	15.047	14.427	14.760	14.427	15.047	15.073	0.000
B	15.215	15.189	14.569	14.902	14.569	15.189	15.215	0.146
C	15.350	15.324	14.704	15.037	14.704	15.324	15.350	0.205
D	15.475	15.449	14.829	15.162	14.829	15.449	15.475	0.146
E	15.593	15.567	14.947	15.280	14.947	15.567	15.593	0.000
F	15.697	15.670	15.050	15.383	15.050	15.670	15.697	0.249
G	15.752	15.726	15.106	15.439	15.106	15.726	15.752	0.349
H	15.757	15.730	15.110	15.443	15.110	15.730	15.757	0.249
I	15.713	15.687	15.067	15.400	15.067	15.687	15.713	0.000
J	15.568	15.541	14.921	15.255	14.921	15.541	15.568	0.146
K	15.415	15.389	14.769	15.102	14.769	15.389	15.415	0.205
L	15.253	15.226	14.606	14.940	14.606	15.226	15.253	0.146
M	15.083	15.057	14.437	14.770	14.437	15.057	15.083	0.000

* Dead Load Deflections Include the weight of the deck, sidewalk and barriers. Top of deck slab elevations shown are already adjusted for dead load deflections.

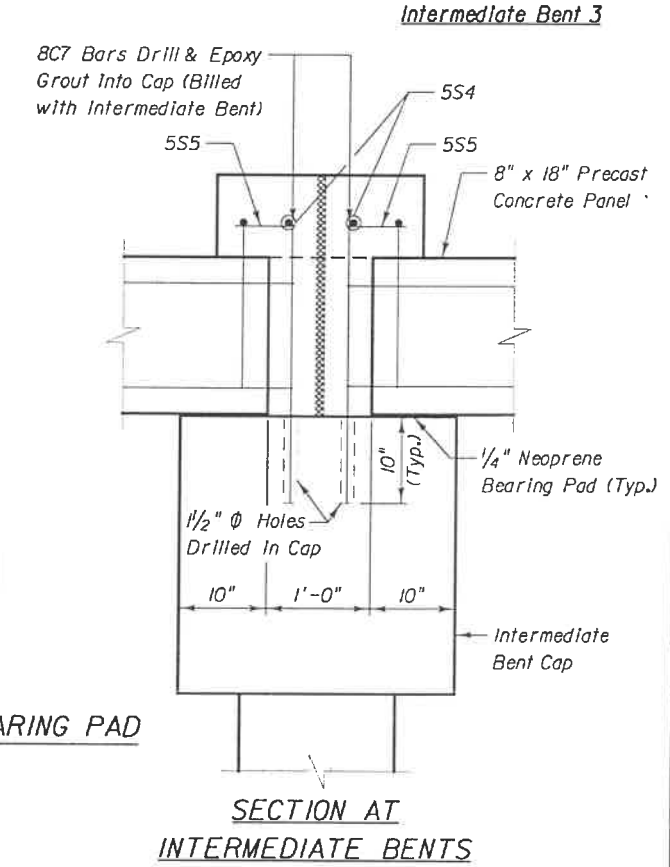
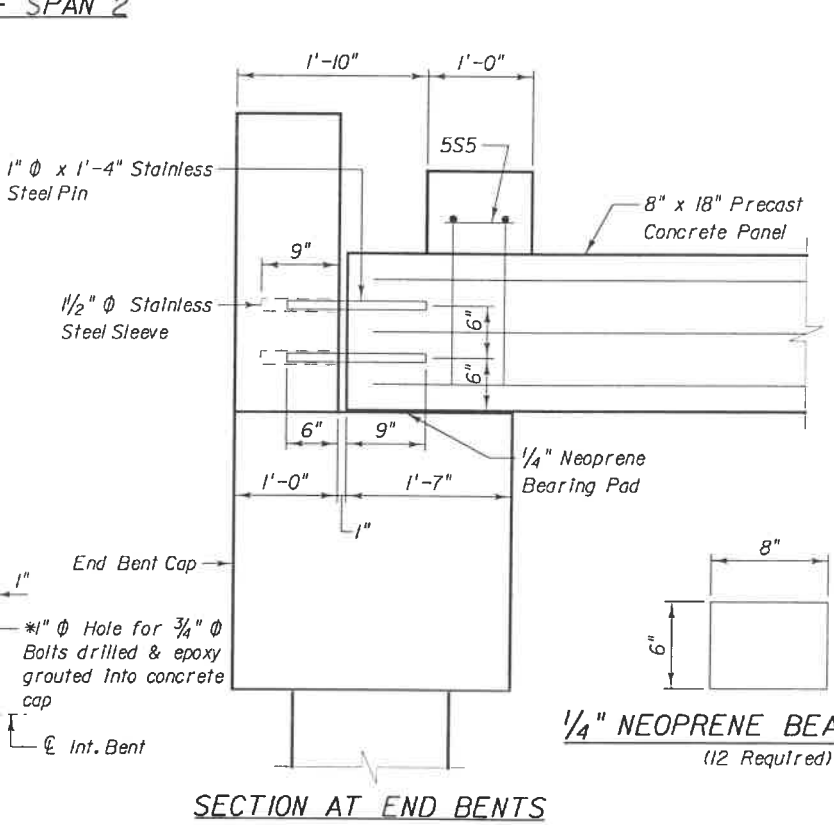
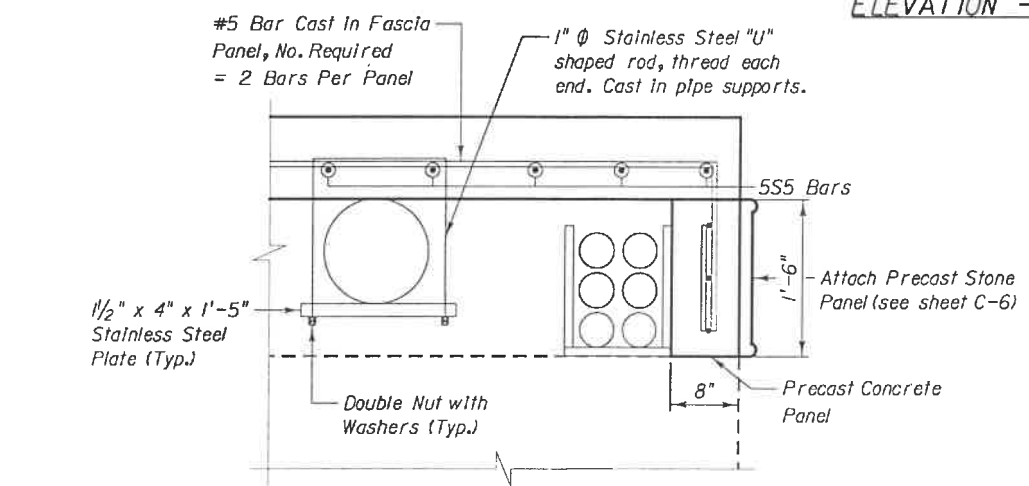
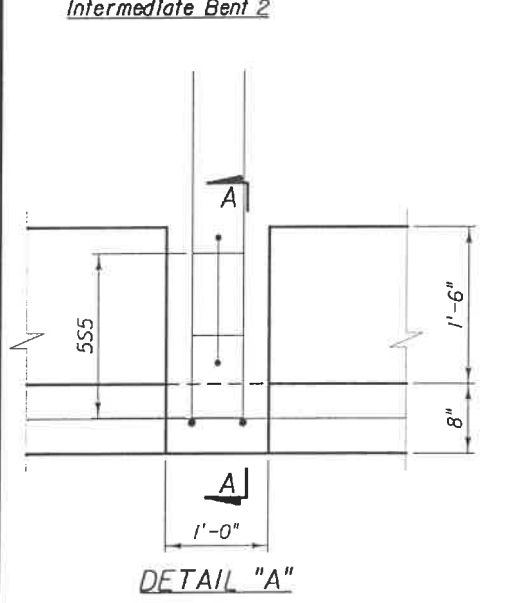
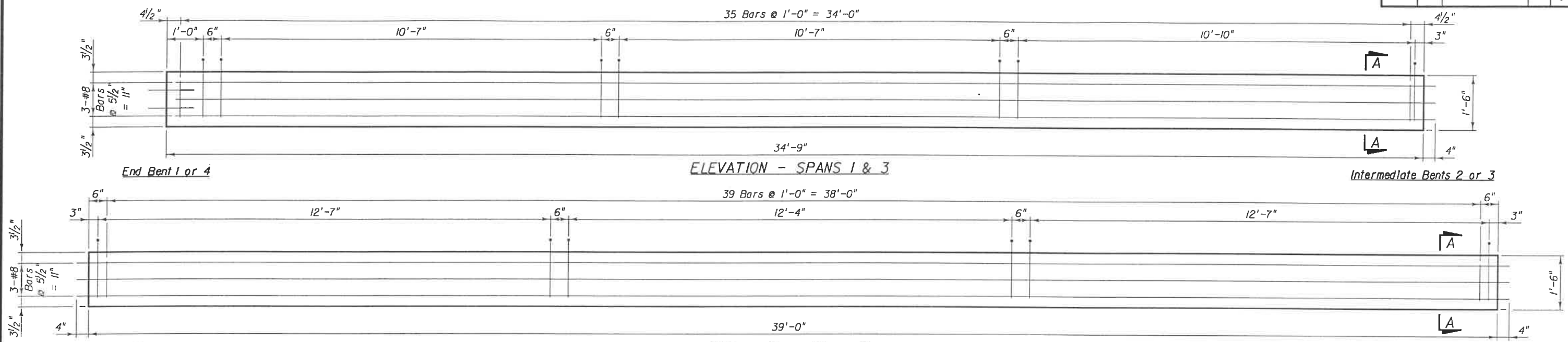


TYPICAL SECTION

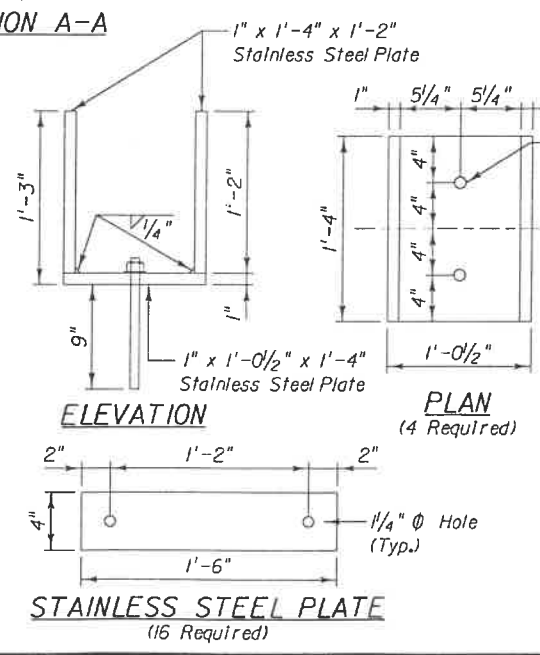
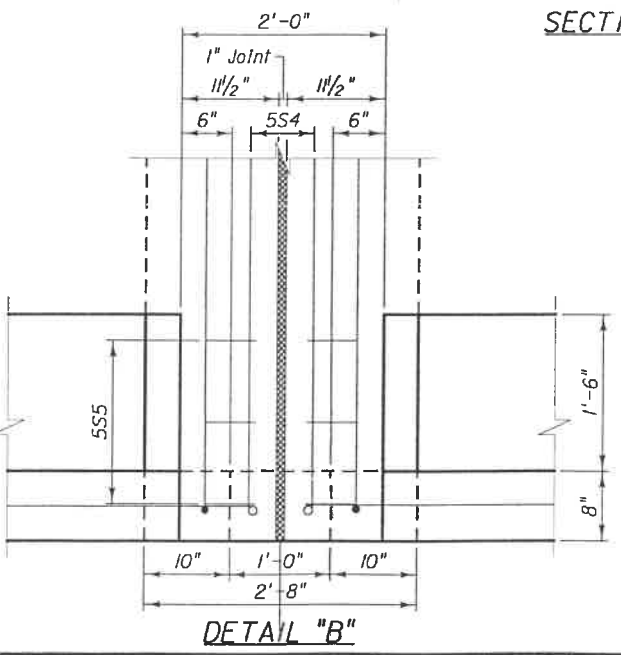
BRIDGE NO. 035250

REVISIONS				DRAWN BY		ENGINEER OF RECORD		CITY OF NAPLES		FINISH GRADE ELEVATIONS	
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	PROJECT NO.	COUNTY	PROJECT NO.
									034-02	COLLIER	034-02
				DRAWN BY: J.L.T. 5/01		ENGINEER OF RECORD: AMERICAN CONSULTING ENGINEERS, PLC		CITY OF NAPLES		FINISH GRADE ELEVATIONS	
				CHECKED BY: S.K. 5/01		4111 Land O'Lakes Boulevard Suite 310 Land O'Lakes, Florida 34639		PROJECT NO. 034-02		PROJECT NAME: HARBOUR DRIVE BRIDGE WIDENING	
				DESIGNED BY: S.K. 5/01		AMERICAN CONSULTING ENGINEERS, PLC (813) 996-2800		COUNTY: COLLIER		INDEX NO.	
				CHECKED BY: B.H.S. 5/01				PROJECT NO. 034-02			
				APPROVED BY: SCOTT KORPI							

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- Notes**
- Cost of neoprene bearing pads, reinforcement embedded in panels, and stainless steel pins and sleeves are incidental to "Precast Concrete Panel".
 - Cost of stainless steel rods, nuts and plates required to support pipes shall be incidental to "Precast Concrete Panel".
 - Cost of Precast Stone Panel shall be incidental to "Precast Concrete Panel".
- * Epoxy grout shall be on the FDOT Qualified Products list and shall be submitted to the Engineer for approval.



ITEM	UNIT	QUANTITY
Sidewalk	C.Y.	66.5
Barrier	C.Y.	18.4
Pipe Supports	C.Y.	3.1

ITEM	UNIT	QUANTITY
Bridge Deck (Class II) Concrete	C.Y.	88.0
Reinforcing Steel (Superstructure)	LBS.	15733
Traffic Railing Barrier (Bridge)	L.F.	220
Traffic Railing Barrier (Approach)	L.F.	100
Precast Concrete Panel	S.F.	325.5

REVISIONS DATE BY DESCRIPTION DATE BY DESCRIPTION				DRAWN BY: J.L.T. 5/01 CHECKED BY: S.K. 5/01 DESIGNED BY: S.K. 5/01 CHECKED BY: B.H.S. 5/01 APPROVED BY: SCOTT KORPI		ENGINEER OF RECORD: AMERICAN CONSULTING ENGINEERS, PLC 4111 Land O'Lakes Boulevard Suite 310 Land O'Lakes, Florida 34639		LOGO: AMERICAN CONSULTING ENGINEERS, PLC (813) 996-2800		SEAL: CITY OF NAPLES ROAD NO. COUNTY PROJECT NO. DATE COLLIER 034-02		SHEET TITLE: SUPERSTRUCTURE DETAILS PROJECT NAME: HARBOUR DRIVE BRIDGE WIDENING		DRAWING NO. INDEX NO.	
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MARK SIZE	DES	LENGTH		NO. BARS	TYPE BAR	STYLE		B		C		D		E		F		H		J		K		N NO	Ø ANG
		FT	IN			A	G	FT	IN	FT	IN	FT	IN	FT	IN	FT	IN	FT	IN	FT	IN	FT	IN		
LOCATION - SUPERSTRUCTURE																									
5	S1	11-0		48	1			11-0																	
5	S2	19-6		32	1			19-6																	
5	S3	10-0		40	1			10-0																	
5	S4	6-10		316	1			6-10																	
5	S5	0-6		120	1			0-6																	
5	S6	34-5		56	1			34-5																	
5	S7	39-5		28	1			39-5																	
8	S8	34-5		32	1			34-5																	
8	S9	39-5		16	1			39-5																	
8	S10	3-5		440	11			1-9		0-10		0-10													
LOCATION - END BENT 1																									
8	E1	10-7		16	1			10-7																	
8	E2	9-8		8	1			9-8																	
8	E3	5-11		4	17	0-11		5-0																	
8	E4	3-10		4	18	0-11		2-11																	
4	E5	9-5		40	4	0-4 1/2		2-2		2-2															
7	E6	1-8		16	1			1-8																	
LOCATION - END BENT 1 WINGWALLS																									
5	W1	5-10		12	1			5-10																	
5	W2	4-2		4	1			4-2																	
5	W3	3-8		4	1			3-8																	
5	W4	4-10		8	1			4-10																	
5	W5	5-5		4	12			3-8		1-9															26
5	W6	2-9		4	1			2-9																	
5	W7	3-3		4	1			3-3																	
5	W8	3-8		4	1			3-8																	
5	W9	4-2		4	1			4-2																	
5	W10	4-4		16	1			4-4																	
5	W11	1-4		32	1			1-4																	
LOCATION - END BENT 4																									
8	E1	10-7		16	1			10-7																	
8	E2	9-8		8	1			9-8																	
8	E3	5-11		4	17	0-11		5-0																	
8	E4	3-10		4	18	0-11		2-11																	
4	E5	9-5		40	4	0-4 1/2		2-2		2-2															
7	E6	1-8		16	1			1-8																	
LOCATION - END BENT 4 WINGWALLS																									
5	W1	5-10		12	1			5-10																	
5	W2	4-2		4	1			4-2																	
5	W3	3-8		4	1			3-8																	
5	W4	4-10		8	1			4-10																	
5	W5	5-5		4	12			3-8		1-9															26
5	W6	2-9		4	1			2-9																	
5	W7	3-3		4	1			3-3																	
5	W8	3-8		4	1			3-8																	
5	W9	4-2		4	1			4-2																	
5	W10	4-4		16	1			4-4																	
5	W11	1-4		32	1			1-4																	

MARK SIZE	DES	LENGTH		NO. BARS	TYPE BAR	STYLE		B		C		D		E		F		H		J		K		N NO	Ø ANG
		FT	IN			A	G	FT	IN	FT	IN	FT	IN	FT	IN	FT	IN	FT	IN	FT	IN	FT	IN		
LOCATION - INTERMEDIATE BENT 2																									
8	C1	10-7		16	1			10-7																	
8	C2	9-8		8	1			9-8																	
8	C3	5-11		4	17	0-11		5-0																	
8	C4	3-10		4	18	0-11		2-11																	
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8	C2	9-8		8	1			9-8																	
8	C3	5-11		4	17	0-11		5-0																	
8	C4	3-10		4	18	0-11		2-11																	
4	C5	9-5		40	4	0-4 1/2		2-2		2-2															
8	C6	1-8		16	1			1-8																	
8	C7	2-8		4	1			2-8																	
LOCATION - END BENT 1 APPROACH SLAB																									
5	A1	19-6		20	1			19-6																	
8	A2	19-6		22	1			19-6																	
5	A3	7-8		96	1			7-8																	
7	A4	3-4		40	1			3-4																	
LOCATION - END BENT 4 APPROACH SLAB																									
5	A1	19-6		20	1			19-6																	
8	A2	19-6		22	1			19-6																	
5	A3	7-8		96	1			7-8																	
7	A4	3-4		40	1			3-4																	

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BRIDGE NO. 035250

REVISIONS				DRAWN BY		CHECKED BY		DESIGNED BY		CHECKED BY		APPROVED BY		ENGINEER OF RECORD		LOGO		SEAL		CITY OF NAPLES		REINFORCING BAR LIST		DRAWING NO.	
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY
												AMERICAN CONSULTING ENGINEERS, PLC		AMERICAN CONSULTING ENGINEERS, PLC		CITY OF NAPLES		REINFORCING BAR LIST		DRAWING NO.					
												4111 Land O'Lakes Boulevard Suite 310 Land O'Lakes, Florida 34639		(813) 996-2800		COLLIER		034-02		HARBOUR DRIVE BRIDGE WIDENING		INDEX NO.			