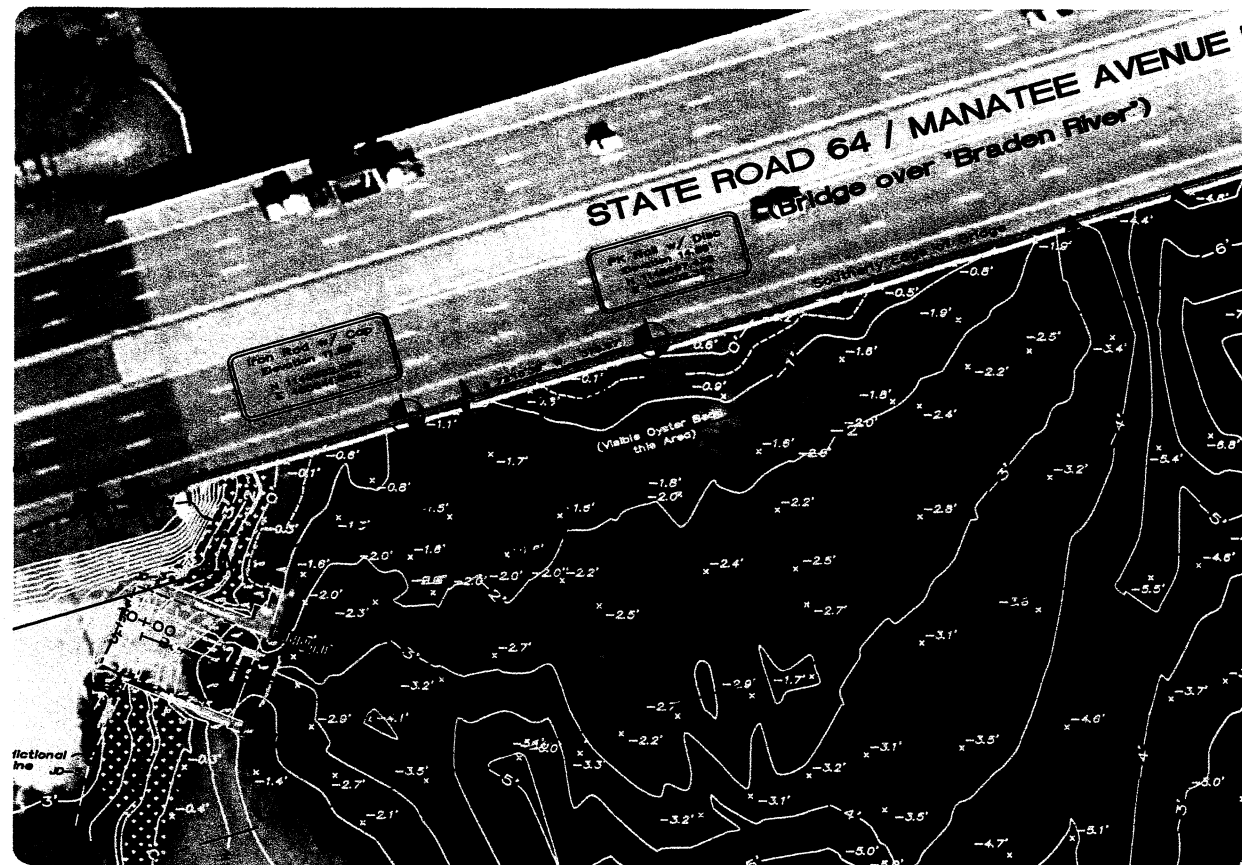


# CONSTRUCTION PLANS FOR S.R.-64 BOAT RAMP IMPROVEMENTS

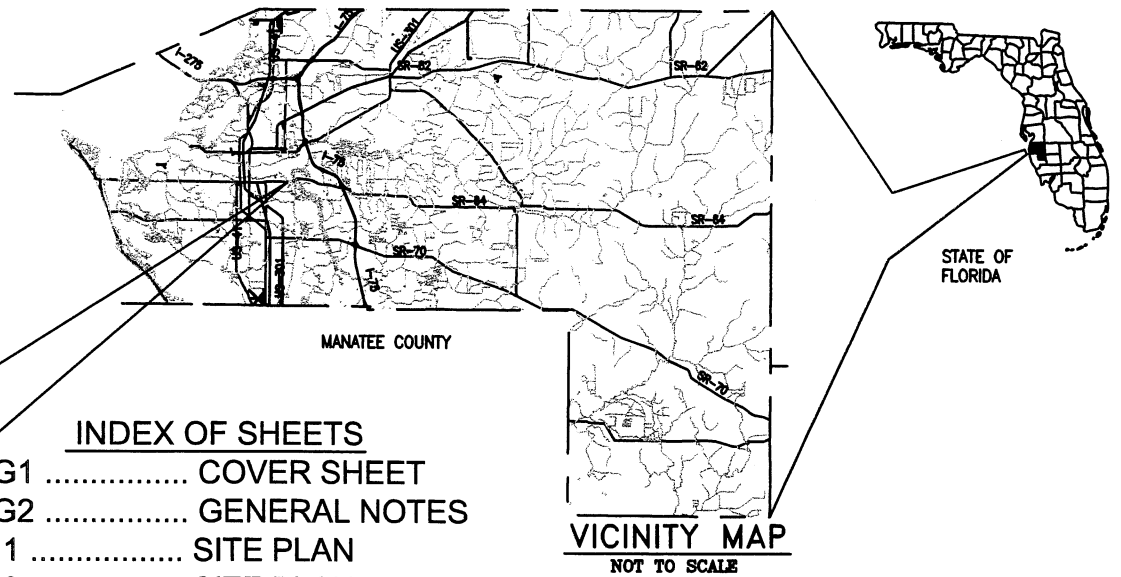
OWNER:  
MANATEE COUNTY  
NATURAL RESOURCES DEPARTMENT  
1112 6th AVENUE WEST  
BRADENTON, FL 34207  
941-749-3070

PREPARED BY:  
BOYLE ENGINEERING CORP., INC.  
5971 CATTLEDGE BLVD., STE 200  
SARASOTA, FL 34232  
Ph: 941-377-8858



**LOCATION MAP**  
NOT TO SCALE

PROJECT LOCATION



**INDEX OF SHEETS**

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6 .....	ADDITIONS TO EXISTING DOCK
7 .....	DOCK FRAMING PLANS
8 .....	SECTIONS AND DETAILS
9 .....	EROSION PROTECTION PLAN
10 .....	CROSS-SECTIONS

DWG: X:\Projects\Manatee\_County\17076.00 (SR 64 Boat Ramp)\CAD\PlanSet\Const-Dwgs\Figure G1.dwg  
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**BOYLE**  
ENGINEERING CORPORATION

5971 Cattelidge Boulevard, Suite 200  
Sarasota, Florida 34232 941-377-8858  
FL Engineering Business No. EB-2005

S.R.-64 BOAT RAMP	
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BEC PROJECT NO.  17076.00
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FIGURE  G1
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DWG: X:\Projects\Manatee\_County\17076.00 (SR 64 Boat Ramp)\CAD\PlanSet\Const-Dwgs\Figure G2.dwg USER: mboyce  
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GENERAL NOTES

1. ALL STATIONS AND OFFSETS REFER TO CONSTRUCTION REFERENCE LINE, UNLESS OTHERWISE NOTED.
2. SURVEY FOR THIS PROJECT WAS PREPARED BY THE HYATT SURVEYING, INC. DATED MARCH 6, 2008.
3. ATTENTION IS DIRECTED TO THE FACT THAT THESE PLANS MAY HAVE BEEN ALTERED IN SIZE BY REPRODUCTION. THIS MUST BE CONSIDERED WHEN OBTAINING SCALED DATA.
4. THE CONTRACTOR SHALL FIELD VERIFY ANY AND ALL EXISTING CONDITIONS PRIOR TO COMMENCING CONSTRUCTION, AND SHALL NOTIFY THE ENGINEER PROMPTLY OF ANY DISCREPANCIES.
5. THE CONSTRUCTION LENGTHS INDICATED IN THESE PLANS ARE APPROXIMATE. ACTUAL LIMITS MAY BE SET IN THE FIELD AS DIRECTED BY THE ENGINEER.
6. LOCATIONS, ELEVATIONS AND DIMENSIONS OF EXISTING UTILITIES, STRUCTURES, AND OTHER FEATURES ARE SHOWN ACCORDING TO THE BEST INFORMATION AVAILABLE AT THE TIME THESE DRAWINGS WERE PREPARED, BUT DO NOT PURPORT TO BE ABSOLUTELY CORRECT. THE INDICATED LOCATION OF UNDERGROUND UTILITIES, STRUCTURES, AND FACILITIES IS APPROXIMATE, AND REFLECTS THE BEST INFORMATION AVAILABLE FROM SURVEYS AND RECORDS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE EXACT SIZE, LOCATION, DEPTH, HEIGHT, ELEVATION, DIMENSION, AND EXTENT OF ALL UNDERGROUND AND OVERHEAD FACILITIES AND OTHER FEATURES AFFECTING HIS WORK PRIOR TO PROCEEDING WITH ANY CONSTRUCTION ACTIVITY THAT MAY AFFECT SUCH FACILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE CAUSED BY FAILURE TO COMPLY WITH THESE INSTRUCTIONS.
7. THE CONTRACTOR MUST USE EXTREME CARE IN THE INSTALLATION OF STRUCTURES, DUE TO THE CLOSE PROXIMITY OF OVERHEAD AND UNDERGROUND UTILITY LINES.
8. THE LOCATION AND ELEVATION OF THE PROPOSED AMENITIES, AS SHOWN ON THE PLANS, IS FOR GRAPHICAL ORIENTATION PURPOSES ONLY. ACTUAL LOCATION OF THE PROPOSED AMENITIES IS TO BE DETERMINED IN THE FIELD UTILIZING THE MINIMUM STANDARDS DEPICTED ON THE PLANS AND THE EXISTING TOPOGRAPHY AND PHYSICAL FEATURES FOUND IN THE FIELD. THE CONTRACTOR SHALL OBTAIN APPROVAL FROM THE MANATEE COUNTY INSPECTOR/ENGINEER OF THE ACTUAL LAYOUT PROPOSED PRIOR TO ORDERING OF MATERIALS AND/OR COMMENCEMENT OF WORK.
9. SEPARATE PAYMENT SHALL BE MADE ONLY FOR THE ITEMS OF WORK LISTED AND IDENTIFIED BY THE APPROPRIATE PAY ITEM ON THE BID FORM. THE COST OF ANY RELATED WORK NOT SPECIFICALLY IDENTIFIED, BUT WHICH IS REQUIRED FOR SATISFACTORY COMPLETION OF THE WORK, SHALL BE CONSIDERED TO BE INCLUDED IN THE CONTRACT PRICE FOR THE APPROPRIATE BID ITEM.
10. THE CONTRACTOR'S ATTENTION IS DIRECTED TO THE FACT THAT ALL CONSTRUCTION ACTIVITIES SHALL CONFORM TO THE CITY OF BRADENTON, FLORIDA DEPARTMENT OF TRANSPORTATION, FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION, AND MANATEE COUNTY CODES AND STANDARDS.
11. THE CONTRACTOR SHALL HAVE A FOREMAN, OR RESPONSIBLE PARTY, ON SITE AT ALL TIMES WHEN WORK IS BEING PERFORMED. ALL WORKERS ON THE JOB SITE WILL BE COURTEOUS TO THE PUBLIC AT ALL TIMES, AND SHALL REFER ANY QUESTIONS OR CONCERNS TO THE CONTRACTOR'S FOREMAN OR THE COUNTY INSPECTOR. THE FOREMAN SHALL SPEAK AND UNDERSTAND ENGLISH AND SHALL BE AVAILABLE AT ALL TIMES FOR TIMELY RESOLUTION OF PROJECT RELATED ISSUES. THE CONTRACTOR MUST PROVIDE A 24-HOUR EMERGENCY PHONE NUMBER TO THE COUNTY INSPECTOR.
12. THE CONTRACTOR IS RESPONSIBLE TO PRACTICE AND ENFORCE ALL LOCAL AND STATE JOB AND CONSTRUCTION SAFETY LAWS AND REGULATIONS, ESPECIALLY OSHA, WITH REGARDS TO CONSTRUCTION PRACTICES AND PROCEDURES. ANY VIOLATION OF THESE LAWS WILL BE REPORTED TO THE AUTHORITIES.

MAINTENANCE OF TRAFFIC

13. THE COST OF MAINTENANCE OF TRAFFIC OPERATIONS SHALL BE INCLUDED UNDER THE LUMP SUM PAY ITEM FOR MOBILIZATION; UNLESS A SEPARATE PAY ITEM IS PROVIDED.
14. THE CONTRACTOR SHALL PROVIDE FOR THE SAFE MOVEMENT OF PEDESTRIANS AND VEHICLES AROUND THE PROJECT ARE, THROUGHOUT ALL PHASES OF CONSTRUCTION, INCLUDING DELIVERIES AND DROP-OFF IN WORK ZONES. THE CONTRACTOR SHALL FURNISH, ERECT AND MAINTAIN ALL NECESSARY TRAFFIC CONTROL AND SAFETY DEVICES, IN ACCORDANCE WITH THE U.S. DEPARTMENT OF TRANSPORTATION "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" AND THE CURRENT FLORIDA DEPARTMENT OF TRANSPORTATION "ROADWAY AND DESIGN STANDARDS, INDEX SERIES 600", AS AMENDED BY THE SPECIFICATIONS FOR THIS PROJECT.
15. THE SEQUENCE OF CONSTRUCTION AND METHODS DESCRIBED IN THIS PLAN SET, IF PROVIDED, IS A SUGGESTED MAINTENANCE OF TRAFFIC SCHEME. THE CONTRACTOR HAS THE OPTION, AT HIS EXPENSE, TO SUBMIT FOR APPROVAL TO THE MANATEE COUNTY PUBLIC WORKS DEPARTMENT, HIS OWN "TRAFFIC CONTROL THROUGH WORK ZONE" PLANS, AND PRIOR TO CONSTRUCTION ALL CONTRACTOR PROPOSED TRAFFIC CONTROL PLANS/SCHEMES MUST BE SIGNED AND SEALED BY A FLORIDA REGISTERED PROFESSIONAL ENGINEER, AND SHALL BE IN ACCORDANCE WITH FDOT INDEX 600 SERIES REQUIREMENTS. ACCESS SHALL BE CONTINUOUSLY MAINTAINED AT ALL SIDE STREETS AND DRIVEWAYS FOR THE DURATION OF THE PROJECT.
16. WHEN CONSTRUCTION EQUIPMENT IS BEING DRIVEN OR TRANSPORTED ON THE OPEN TRAVEL LANES, THE CONTRACTOR SHALL UTILIZE FDOT INDEX 619.

UTILITIES

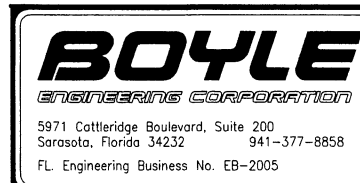
17. THE CONTRACTOR SHALL ARRANGE HIS SCHEDULE TO ALLOW UTILITY OWNERS TIME FOR THE NECESSARY RELOCATION AND ADJUSTMENT OF UTILITIES AND RELATED STRUCTURES. THE OWNERS HAVING LINES AND FACILITIES ARE INCLUDED BUT NOT LIMITED TO THE FOLLOWING:
  - (1) TECO GAS (UNDERGROUND LINES)
18. ABOVE GROUND AND/OR UNDERGROUND UTILITIES MAY BE IN THE AREA OF THIS PROJECT - PROCEED WITH CAUTION - THE CONTRACTOR SHALL CALL "SUNSHINE STATE ONE CALL" AND THE UTILITY OWNERS IN ADVANCE OF BEGINNING WORK, IN ACCORDANCE WITH CHAPTER 556, FLORIDA STATUTES, UNDERGROUND FACILITY DAMAGE PREVENTION & SAFETY. ALL UTILITY OWNERS MAY NOT BE A MEMBER, REQUIRING DIRECT CONTACT. THE CONTRACTOR SHALL FURTHER COORDINATE WITH UTILITY OWNERS TO RESOLVE CONFLICTS THAT MAY ARISE IN THE FIELD DURING CONSTRUCTION. THE CONTRACTOR WILL BE RESPONSIBLE FOR ANY UTILITIES DAMAGED AS A RESULT OF THE CONTRACTOR'S FAILURE TO CALL "SUNSHINE STATE ONE CALL" AND THE UTILITY OWNERS.
19. THE CONTRACTOR IS REQUIRED TO COORDINATE AND/OR PROVIDE FOR THE BRACING/SUPPORT OF EXISTING UTILITY POLES WITH THE UTILITY OWNERS, PRIOR TO THE COMMENCEMENT OF EXCAVATION/CONSTRUCTION ACTIVITIES.
20. THE CONTRACTOR SHALL PROVIDE TEMPORARY FACILITIES AS REQUIRED TO ISOLATE PIPELINES INSTALLED UNDER THIS CONTRACT FOR THE PERFORMANCE OF TESTING UNDER THIS CONTRACT.

DRAINAGE AND EROSION CONTROL

21. THE ITEM FOR RIP RAP RUBBLE SHALL USE NATURAL BROKEN STONE AS REQUIRED IN SECTION 530- 2000. BROKEN CONCRETE SHALL NOT BE ACCEPTED OR USED.
22. IN WORKING NEAR A WETLAND, THE CONTRACTOR MUST COMPLY WITH REQUIREMENTS OF SECTION 3.2.4.1 CHAPTER B (SHORT TERM WATER QUALITY CONSIDERATIONS), SWFWMD RULES.

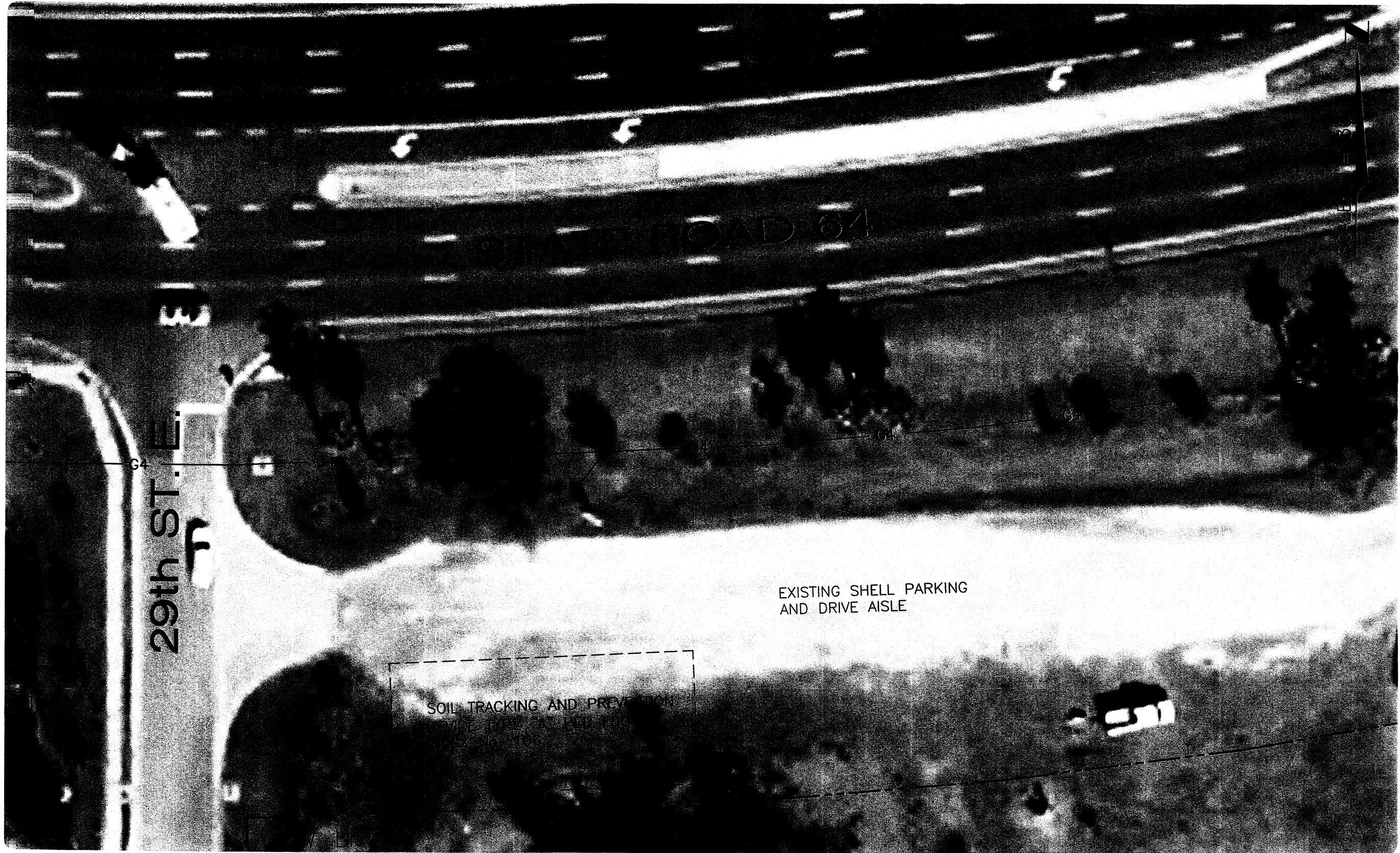
CLEARING AND GRUBBING

23. THE CONTRACTOR SHALL ONLY REMOVE TREES DESIGNATED FOR REMOVAL IN THE PLAN, OR AS DIRECTED BY THE ENGINEER. CONTRACTOR IS TO OBTAIN THE TREE REMOVAL PERMIT FROM THE CITY OF BRADENTON. TREE REMOVAL SHALL BE PAID FOR UNDER THE PAY ITEM CLEARING AND GRUBBING.
24. ALL STUMPS, ROOTS, AND OTHER DEBRIS PROJECTING THROUGH OR APPEARING ON THE SURFACE OF THE GROUND SHALL BE REMOVED TO A DEPTH OF 1-FOOT BELOW THE COMPLETED SURFACE. THIS WORK SHALL BE INCLUDED IN AND PAID FOR UNDER THE PAY ITEM CLEARING AND GRUBBING.
25. THE CONTRACTOR SHALL REMOVE ALL CONCRETE RAMP, CURBS, AND ALL ABANDONED UTILITY LINES, PIPES, STRUCTURES, FLUMES AND OTHER SUBTERRANEAN OBJECTS TO A MINIMUM DEPTH OF FOUR (4) FEET BELOW GRADE, OR AS OTHERWISE DIRECTED BY THE ENGINEER. THIS WORK SHALL BE INCLUDED IN AND PAID FOR UNDER THE PAY ITEM CLEARING AND GRUBBING.
26. ALL MATERIALS NOT CLAIMED BY THE COUNTY SHALL BECOME THE PROPERTY OF THE CONTRACTOR, AND SHALL BE DISPOSED OF BY THE CONTRACTOR IN AREAS PROVIDED BY THE CONTRACTOR. THIS WORK SHALL BE INCLUDED IN AND PAID FOR UNDER THE PAY ITEM CLEARING AND GRUBBING.

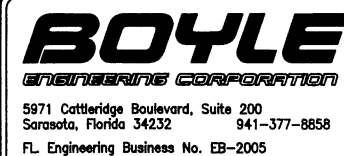


<b>S.R.-64 BOAT RAMP</b>  <b>GENERAL NOTES</b>	BEC PROJECT NO.  <b>17076.00</b>	FIGURE  <b>G2</b>

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**Applicant:** Manatee County  
**Water Body:** Braden River  
**County:** Manatee  
**Datum:** N.G.V.D. 1929



S.R.-64 BOAT RAMP

SITE PLAN

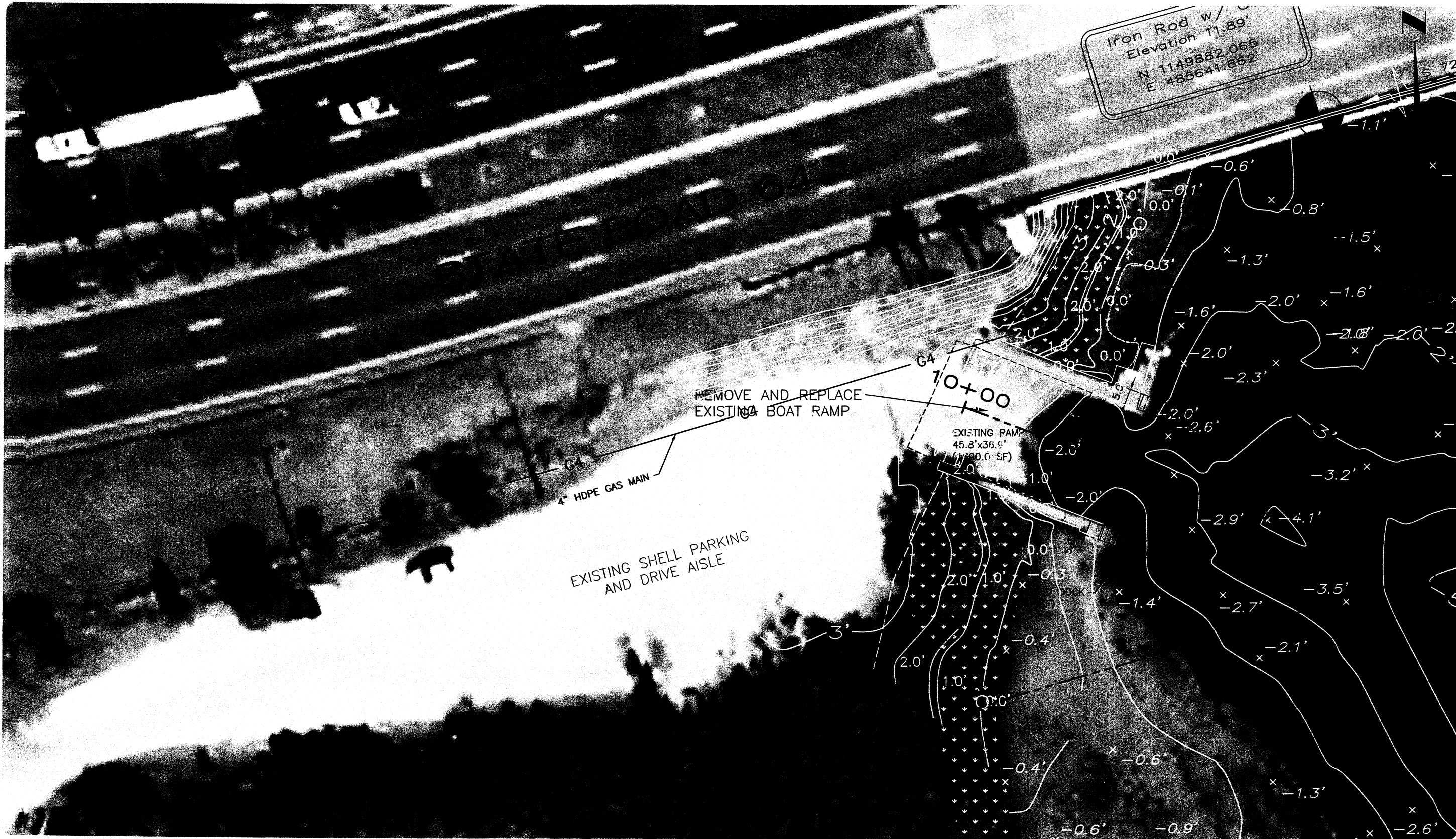
BEC  
PROJECT NO.  
17076.00

FIGURE  
1



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MATCH LINE



**Applicant:** Manatee County  
**Water Body:** Braden River  
**County:** Manatee  
**Datum:** N.G.V.D. 1929

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 FL Engineering Business No. EB-2005

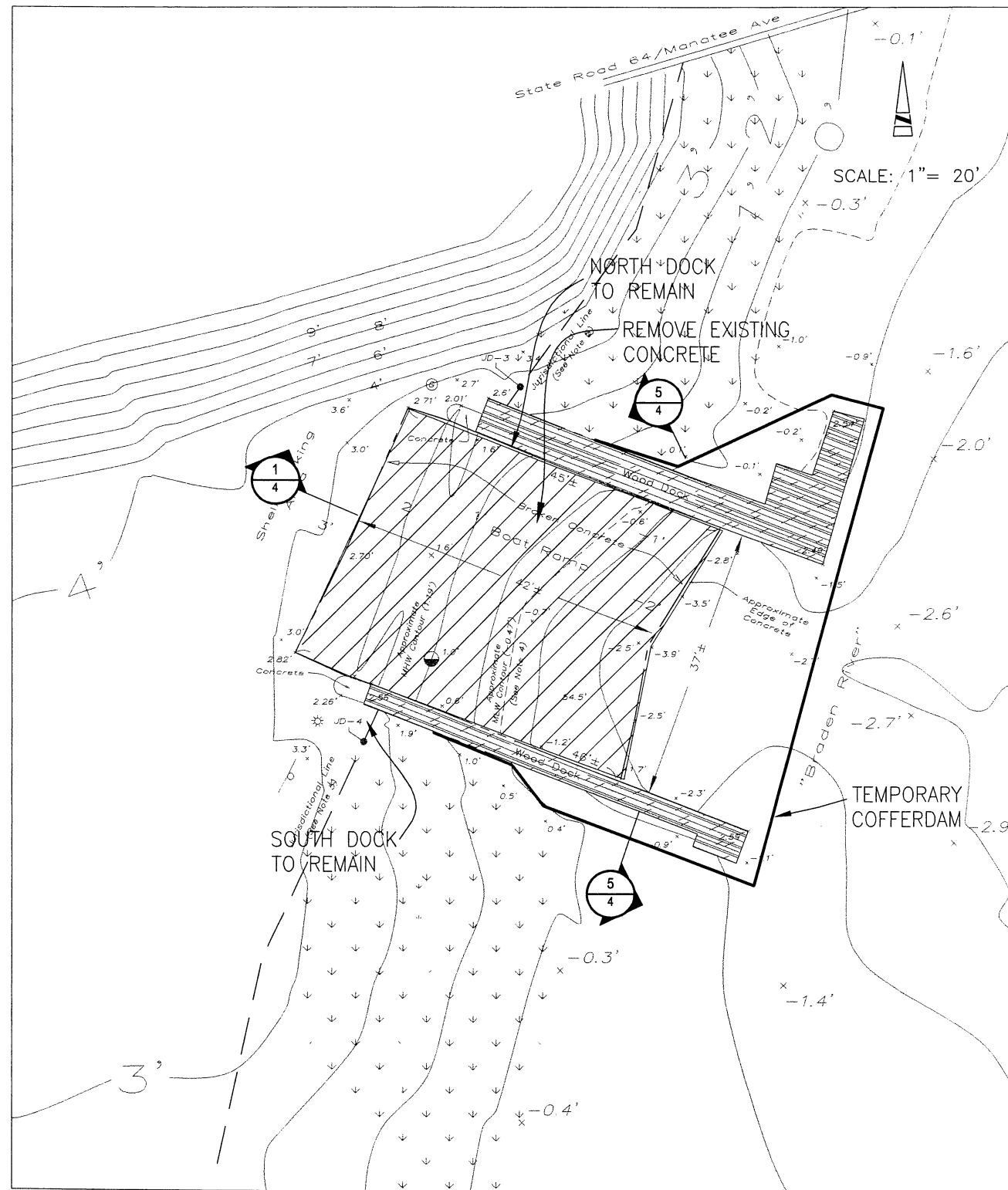
S.R.-64 BOAT RAMP

SITE PLAN

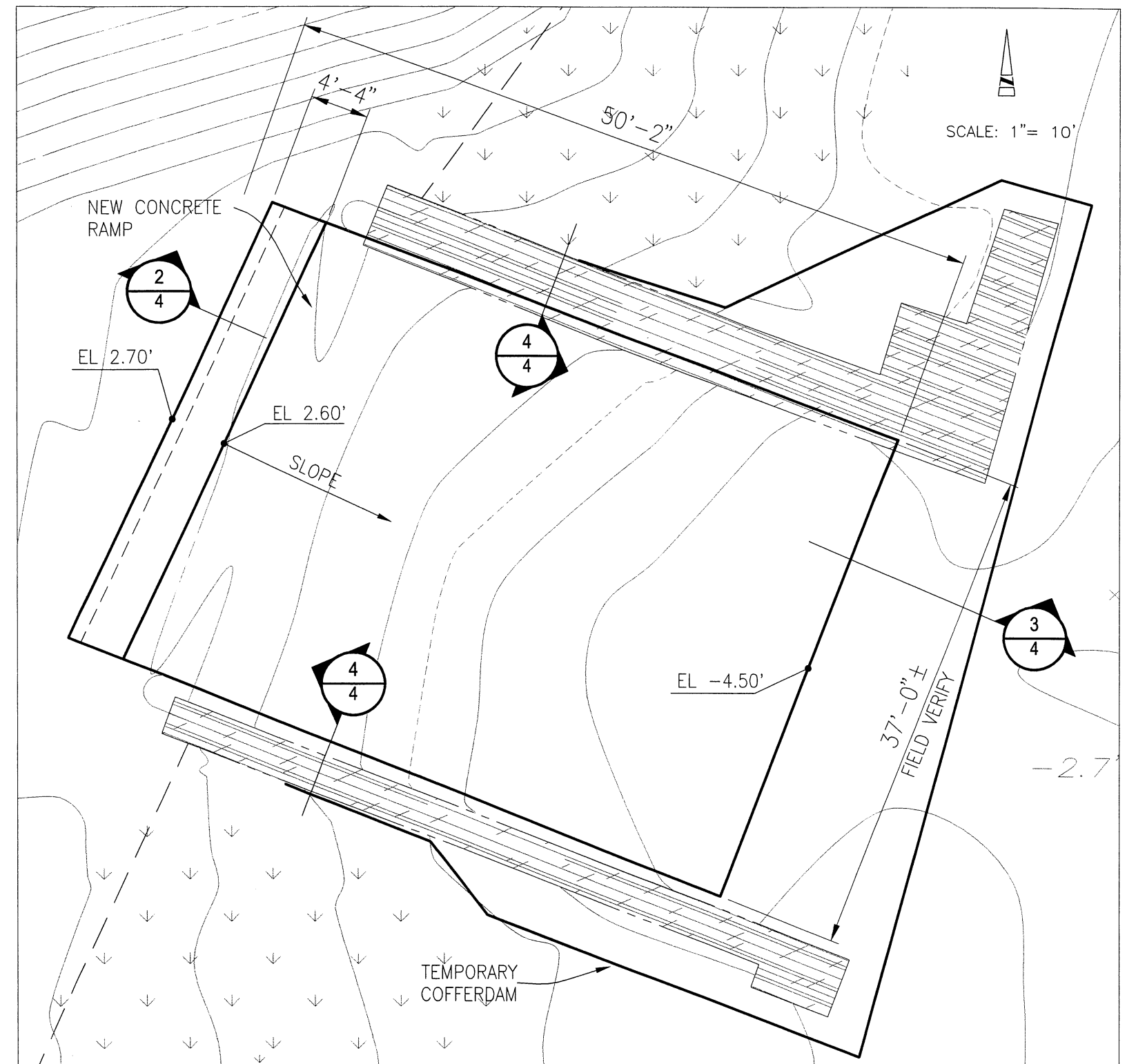
BEC  
 PROJECT NO.  
 17076.00

FIGURE  
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COFFERDAM & REMOVAL PLAN



RAMP REPLACEMENT PLAN

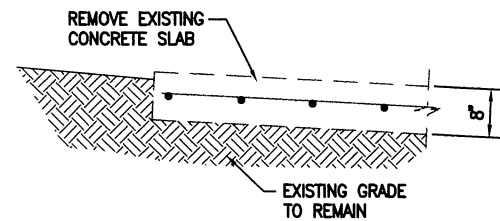
**BOYLE**  
 ENGINEERING CORPORATION  
 5971 Cattle Ridge Boulevard, Suite 200  
 Sarasota, Florida 34232 941-377-8858  
 FL Engineering Business No. EB-2005

S.R.-64 BOAT RAMP	
BOAT RAMP REMOVAL AND REPLACEMENT PLANS	

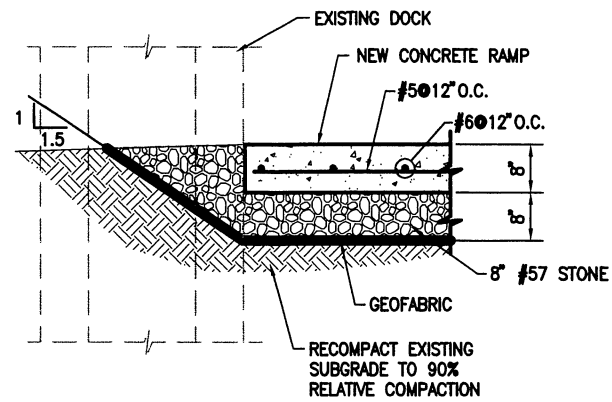
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17076.00

FIGURE
3

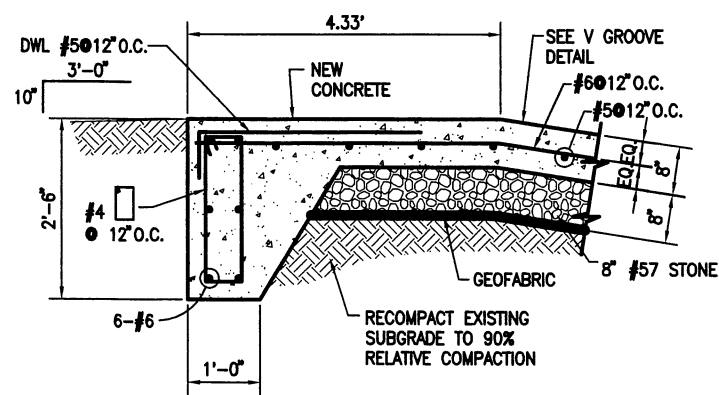
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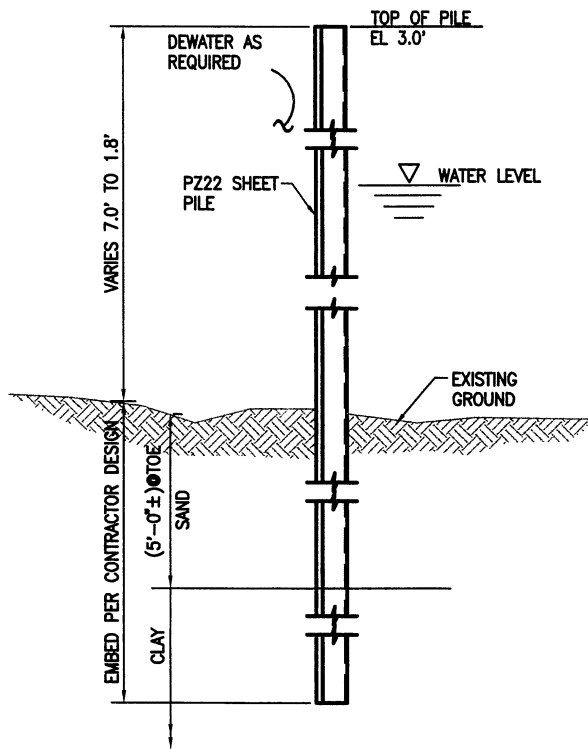
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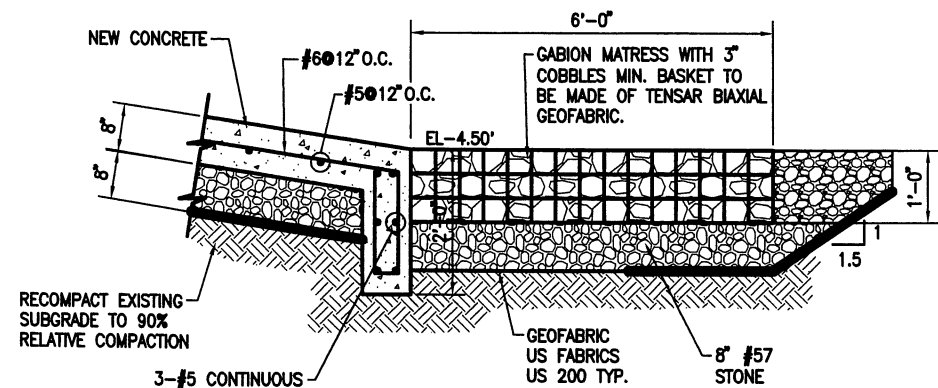
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SECTION 2  
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SECTION 5  
 SCALE: 3/4"=1'-0"



SECTION 3  
 SCALE: 3/4"=1'-0"

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S.R.-64 BOAT RAMP	
BOAT RAMP SECTIONS AND DETAILS	

BEC PROJECT NO.	17076.00
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FIGURE	4
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**STRUCTURAL NOTES**

**A. DESIGN CRITERIA**

1. FLORIDA BUILDING CODE: FBC 2004.
2. ASCE 7-05 MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES.
3. ACI 318-05, BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE, BY THE AMERICAN CONCRETE INSTITUTE.
4. U.S. ARMY CORPS OF ENGINEERS, ENGINEER MANUALS, EM1110-1-400 RECREATION FACILITY AND CUSTOMER SERVICES STANDARDS

**B. LOADINGS**

1. DEAD LOADS  
-BUILDING MATERIALS SEE DRAWINGS
2. LIVE LOADS = 60 PSF
3. WIND  
-BASIS FOR WIND LOADS: FBC 2004, ASCE 7-05  
-DESIGN WIND VELOCITY 130 MPH (3 SEC)  
-EXPOSURE: C  
-WINDERS: C  
-IMPORTANCE FACTOR BUILDING 1.0

**C. GENERAL REQUIREMENTS**

1. ALL DETAILS ARE TYPICAL. INCORPORATE INTO PROJECT AT APPROPRIATE LOCATIONS WHERE CONDITIONS ARE SIMILAR WHETHER SPECIFICALLY INDICATED OR NOT.
2. SHORING REQUIRED FOR THE STABILITY OF THE UNCOMPLETED STRUCTURE OR FOR INSTALLATION OR MODIFICATION OF STRUCTURAL MEMBERS SHALL BE THE CONTRACTOR'S RESPONSIBILITY.
3. CONTRACTOR TO SUBMIT DOCUMENTS SHOWING METHOD OF SHORING TO THE ENGINEER FOR REVIEW.
4. CONTRACTOR TO VERIFY ALL EXISTING CONDITIONS, DIMENSIONS AND ELEVATION PRIOR TO START OF CONSTRUCTION. NOTIFY ENGINEER OF ANY DISCREPANCIES OR CONFLICTS FOUND IN CONTRACT DOCUMENTS AND/OR FIELD CONDITIONS.
5. THE ENGINEER OF RECORD PERMITS NO OPENINGS OR ALTERATIONS THROUGH BEAMS OR COLUMNS UNLESS DETAILED ON THE STRUCTURAL DRAWINGS OR APPROVED IN WRITING.
6. SHOP DRAWINGS SHALL BE FURNISHED FOR REVIEW BEFORE ANY FABRICATION AND ERECTION IS STARTED. POORLY EXECUTED SHOP DRAWINGS SHALL BE REJECTED AND RESUBMITTED.

**D. EXCAVATION AND EARTHWORK**

1. REFERENCE GEOTECHNICAL REPORT, BY PROFESSIONAL SERVICE INDUSTRIES INC. PROJECT NO. 787-75199 DATED NOV. 26, 2007 FOR SITE, EXCAVATION, FILL, AND BACKFILL RECOMMENDATIONS.
2. REFER TO SPECIFICATIONS FOR ADDITIONAL SITE PREPARATION AND FOUNDATION SUPPORT REQUIREMENTS.
3. LOCATE ANY EXISTING UTILITY LINES AND OR APPURTENANCES AND ADVISE ENGINEER OF ANY CONFLICTS WITH NEW STRUCTURES PRIOR TO THEIR CONSTRUCTION. DO NOT DESTROY ANY EXISTING UNDERGROUND STRUCTURES WITHOUT WRITTEN AUTHORIZATION.

**E. FOUNDATIONS**

FOUNDATION PREPARATION: SLAB ON GRADE SHALL BE BASED ON COMPACTED OR APPROVED SUBGRADE AND 8" GRAVEL AGGREGATE BASE OVER GEOFABRIC. SUBGRADE SOILS SHALL BE PROOF ROLLED TO A MIN. OF 90% MODIFIED PROCTOR DENSITY (ASTM D1557)

BACKFILLS: BACKFILL AND STRUCTURAL BACKFILL SHALL BE COMPACTED TO AT LEAST 90% RELATIVE COMPACTION AND TESTED BY SOILS ENGINEER.  
SITE DRAINAGE: CONTRACTOR SHALL BE RESPONSIBLE FOR DEWATERING AND COFFERDAM REQUIREMENT.

**F. CONCRETE AND REINFORCING**

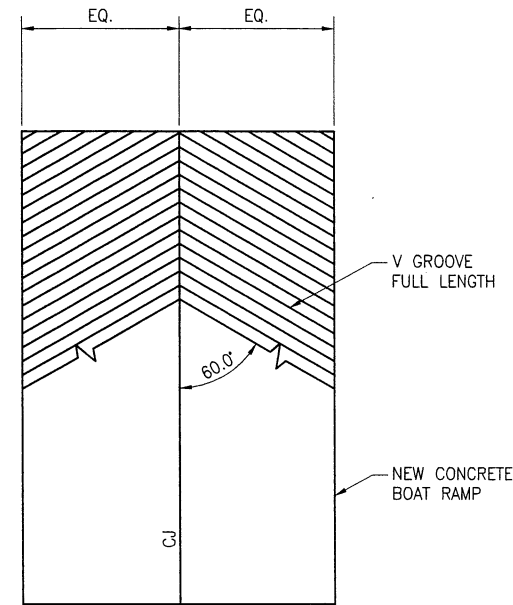
1. BOAT RAMP CAST-IN-PLACE CONCRETE SHALL BE CLASS II (BRIDGE DECK) CONCRETE (UNIT WT. = 150 PCF)  
TYPE II CEMENT  $f_c = 4500$  PSI @ 28 DAYS (AIR ENTRAINED)
2. PRECAST CONCRETE PILES SHALL BE IN ACCORDANCE WITH FDOT STANDARD SPECIFICATION FOR ROAD AND BRIDGE CONSTRUCTION, SECTION 450. PRESTRESSED CONSTRUCTION. PRE-CAST CONCRETE SHALL BE CLASS III TYPE II CEMENT  $f_c = 5000$  PSI @ 28 DAYS.
3. ALL REINFORCING STEEL SHALL CONFORM TO ASTM A615 GRADE 60-WELDED REINF. PER A706
4. ALL SPLICES SHALL BE TENSION LAPS 37" FOR #6, 31" FOR #5, 25" FOR #4 UNLESS NOTED ON PLANS.
5. DO NOT WELD OR TACK WELD REINFORCING STEEL.
6. REINFORCING BARS SHALL HAVE MATCHING CORNER BARS.
7. CONDUITS AND PIPES MAY BE EMBEDDED WITHIN A SLAB, WALL, OR BEAM ONLY IF CONSTRUCTED TO COMPLY WITH THE REQS OF SECTION 6.3 OF ACI 318-05, BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE, PUBLISHED BY ACI.
8. CONST. JTS SHOWN ON THE DWGS HAVE BEEN LAID OUT TO ENSURE PROPER STRUCT PERFORMANCE AND STRUCTURAL SERVICEABILITY. THE CONTRACTOR MAY NEED TO ADD TO OR ALTER THE CONST. JT LAYOUT TO ENABLE PROPER CONC FINISHING. SUBMIT FOR REVIEW THE LOCATION OF PROPOSED CONSTRUCTION JOINTS THAT ARE NOT SHOWN ON THE DRAWINGS.

**G. COFFERDAM**

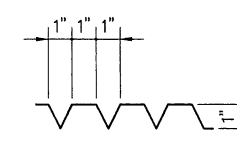
THE CONTRACTOR SHALL BE RESPONSIBLE FOR COFFERDAM SYSTEM DESIGN.  
-MATERIALS SHALL CONFORM TO ASTM A328 OR ASTM A572 GR 50  
-WELD:  
ALL WELDING SHALL BE DONE BY CERTIFIED WELDERS AND SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS OF THE AWS AND AISC.

**H. WOOD FRAMING**

1. ALLOWABLE STRESS DESIGN VALUES SHALL CONFORM TO ANSI NFPA NDS-1997, "NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION"
2. EACH PIECE OF LUMBER SHALL BEAR THE GRADE STAMP OF A GRADING RULES AGENCY APPROVED BY THE AMERICAN LUMBER STANDARDS COMMITTEE.
3. ALL SAWN LUMBER SHOWN SHALL BE AS FOLLOWS:
  - a. DECK AND BEAMS = SOUTHERN PINE NUMBER 2 OR BETTER
  - b. NO SPLIT IS ALLOWED IN BEAMS.
  - c. MOISTURE CONTENT 15% TO 19%.
4. NAILING TO BE IN ACCORDANCE WITH TABLE 2304.9.1 OF THE BUILDING CODE UNLESS NOTED OTHERWISE.
5. WOOD SHALL BE MARINE GRADE PRESSURE TREATED WITH A MINIMUM 2.5 MARINE GRADE TREATMENT.
6. CONNECTIONS:
  - ALL CONNECTOR DESIGNATIONS ARE FOR SIMPSON STRONG TIE CO. PRODUCTS OF EQUAL CAPACITY AND QUALITY MAY BE SUBSTITUTED. SUBMIT MANUFACTURER'S SPECIFICATION RATINGS FOR APPROVAL. CONNECTORS SHALL BE COMPATIBLE WITH PRESSURE TREATMENT PROCESS.
7. ALL SCREWS SHALL BE STAINLESS STEEL.



PLAN



TYP. V GROOVE DETAIL

SCALE: NTS



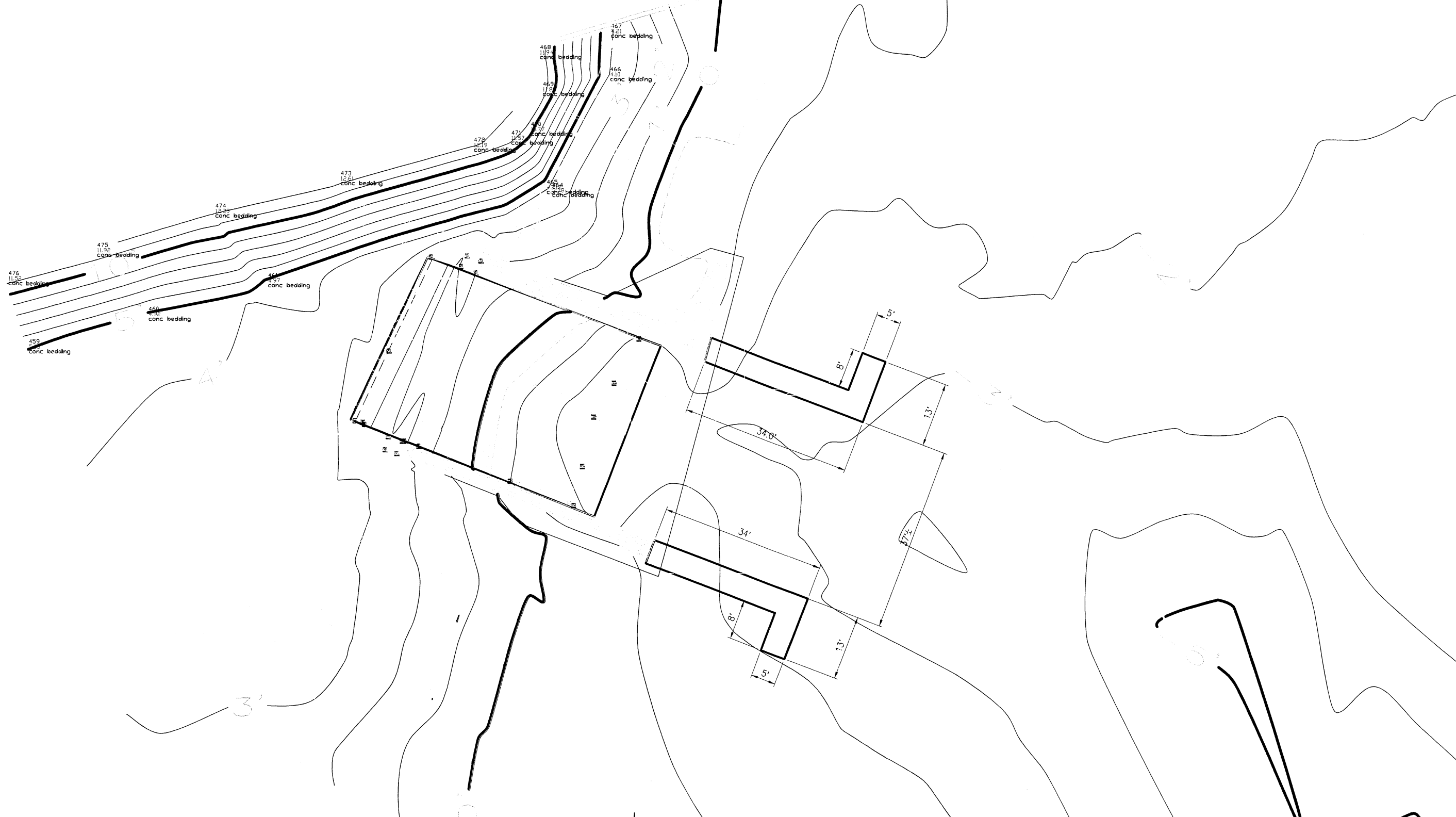
**BOYLE**  
ENGINEERING CORPORATION  
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Sarasota, Florida 34232 941-377-8858  
FL Engineering Business No. EB-2005

S.R.-64 BOAT RAMP	
STRUCTURAL NOTES	

BEC PROJECT NO.  17076.00	FIGURE  5
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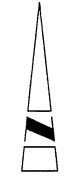
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 USER: mboyce BEC-STD-logoSA IMAGES:

(Visible)



# BOAT RAMP/DOCK PLAN

SCALE: 1" = 20'



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S.R.-64 BOAT RAMP
ADDITIONS TO EXISTING DOCK

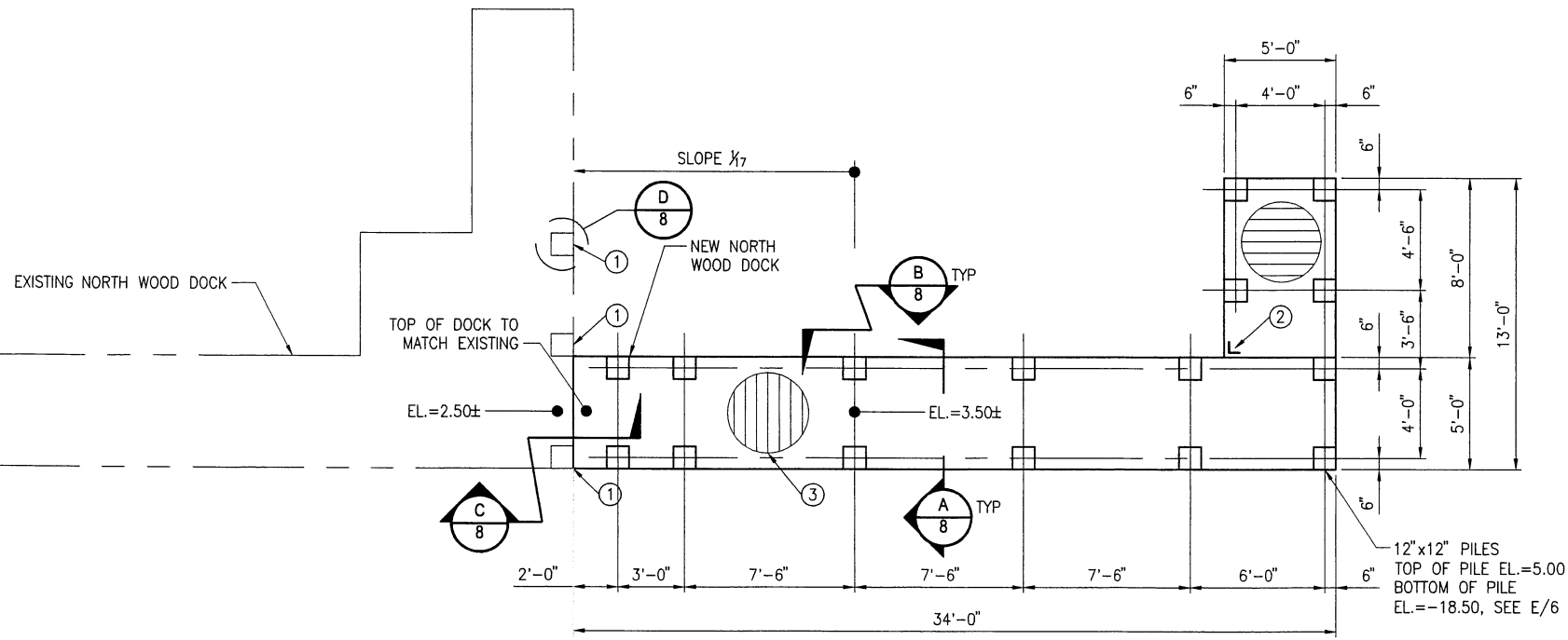
BEC PROJECT NO.
17076.00

FIGURE
6

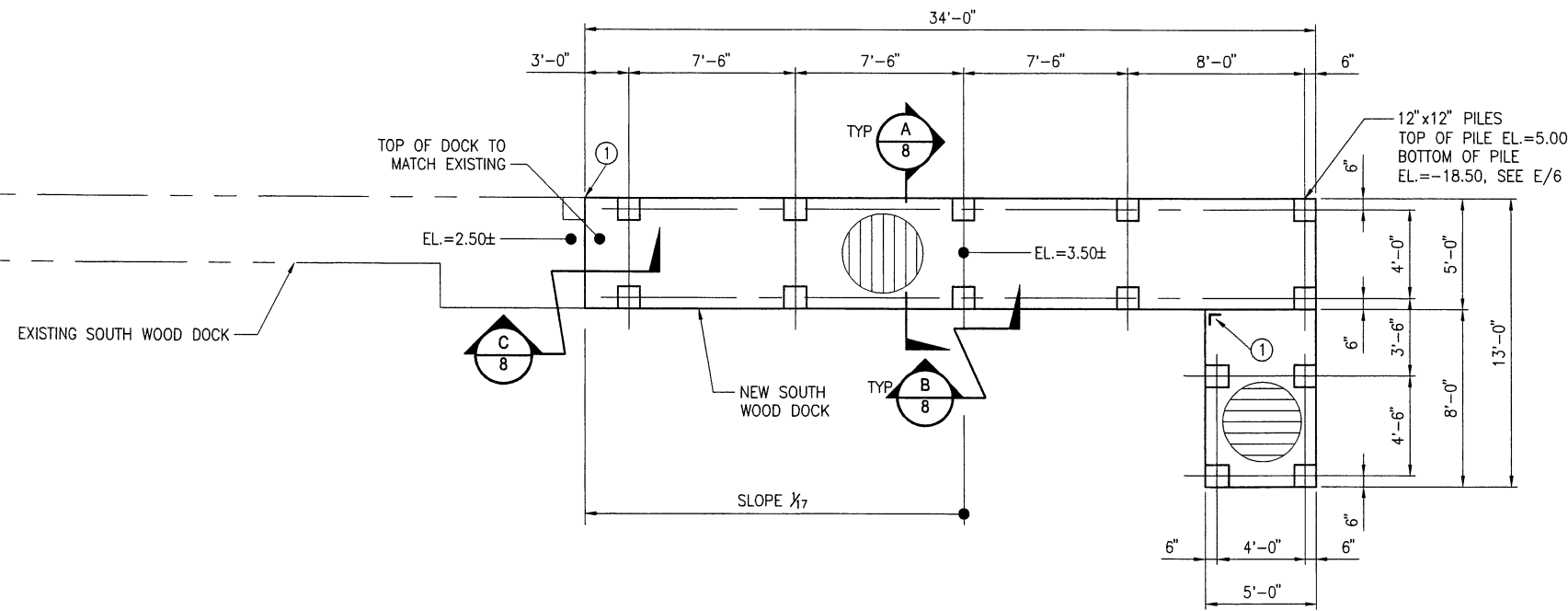
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DWG: X:\Projects\Manatee\_County\17076.00 (SR 64 Boat Ramp)\CAD\Planset\Const-Dwgs\Figure 7.dwg USER: mboyce  
 DATE: Oct 06, 2008 3:36pm XREFS: SR64BOAT-RAMP-BDR G-BD11x17h\_SR\_64 BEC-STD-logoSA IMAGES:



**NORTH DOCK FRAMING PLAN**  
 SCALE: 1/8"=1'-0"



**SOUTH DOCK FRAMING PLAN**  
 SCALE: 1/8"=1'-0"

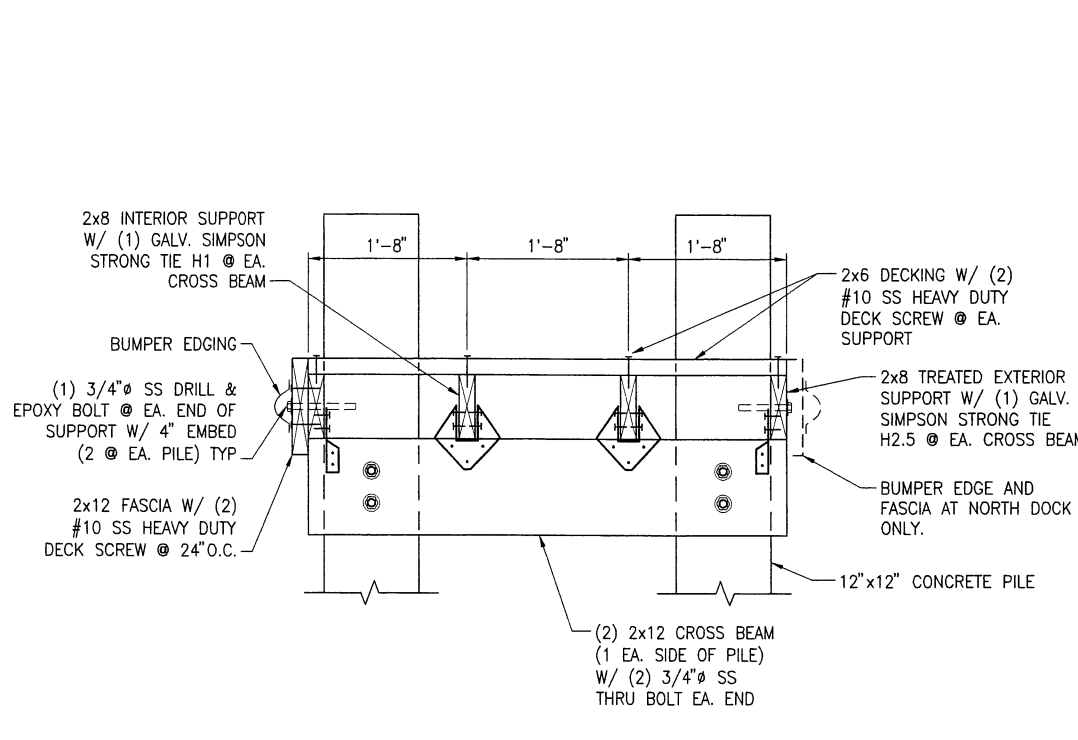
**KEYED NOTES:**

- ① REPAIR EXISTING TOP OF CONCRETE PILE, SEE D/6.
- ② GALVANIZED SIMPSON A35 FRAMING ANCHOR.
- ③ 2x6 TREATED DECKING.

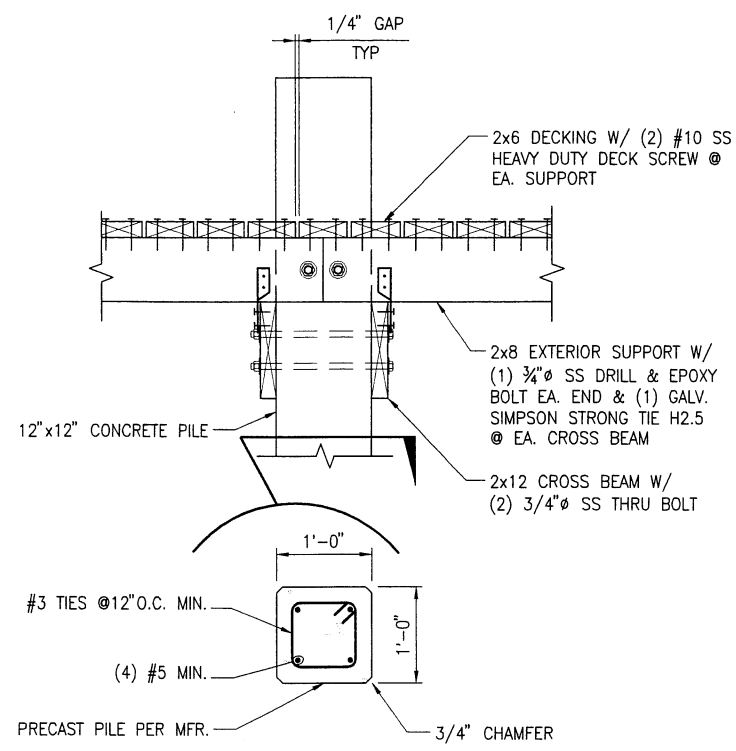
**BOYLE**  
 ENGINEERING CORPORATION  
 5971 Catteridge Boulevard, Suite 200  
 Sarasota, Florida 34232 941-377-8858  
 FL Engineering Business No. EB-2005

S.R.-64 BOAT RAMP	BEC PROJECT NO.	FIGURE
DOCK FRAMING PLANS	17076.00	7

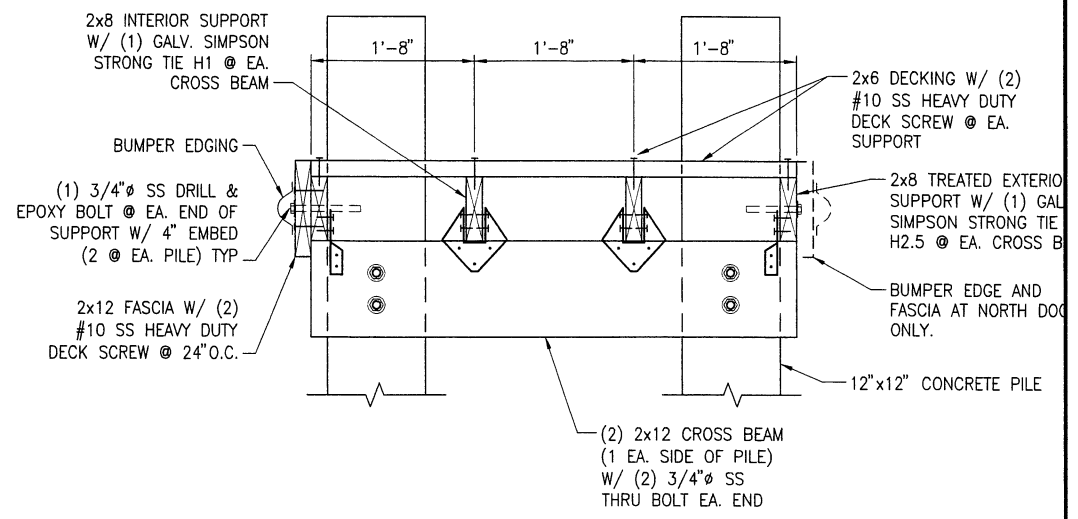
DWG: X:\Projects\Manatee\_County\17076.00 (SR 64 Boat Ramp)\CAD\PlanSet\Const-Dwgs\Figure 8.dwg  
 DATE: Oct 06, 2008 3:36pm XREFS: G-BD11x17h\_SR\_64 BEC-STD-logoSA IMAGES:  
 USER: mboyce



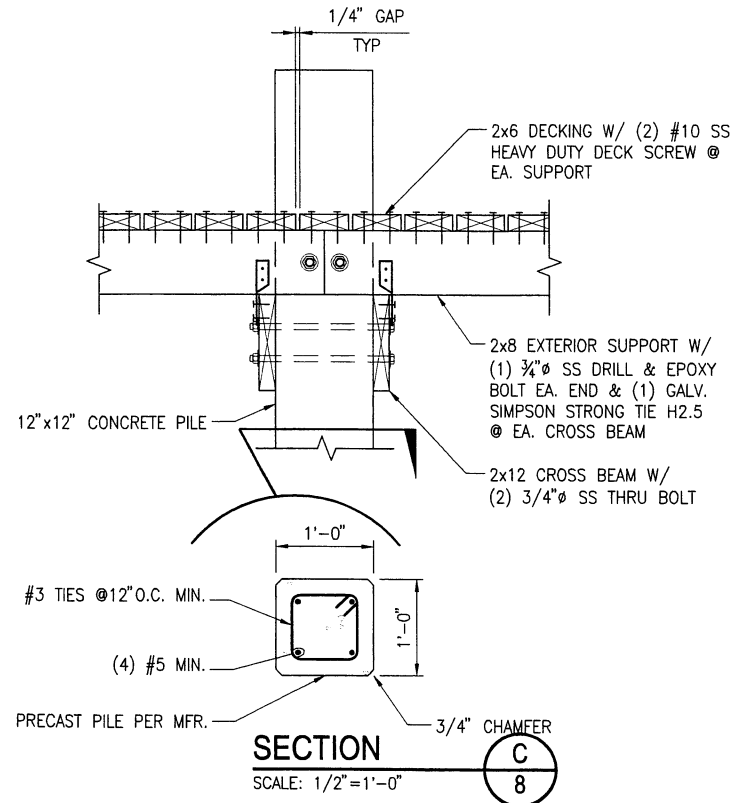
**TYPICAL SECTION** A  
SCALE: 1/2"=1'-0"



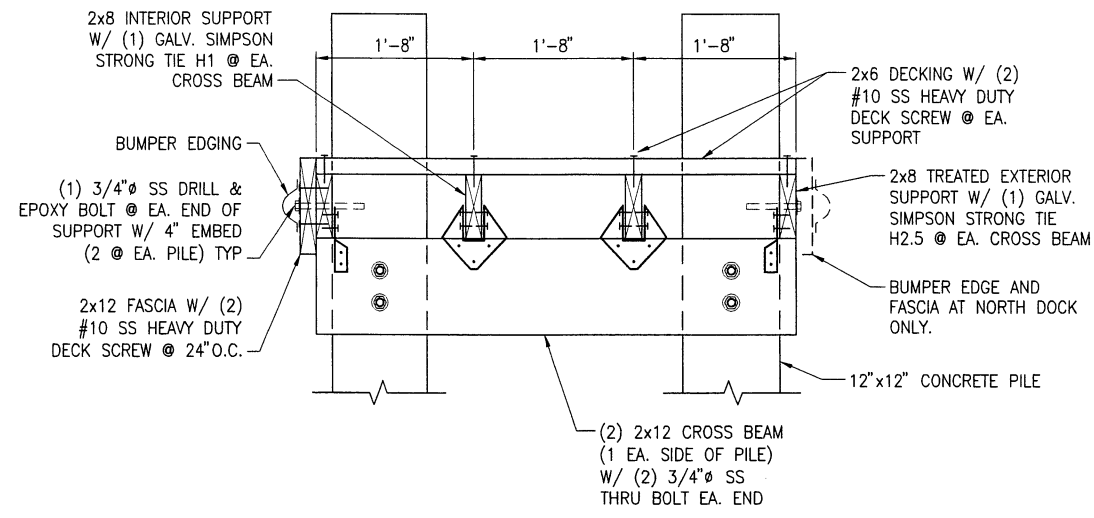
**ELEVATION DETAIL** B  
SCALE: 1/2"=1'-0"



**PILE DETAIL** E  
SCALE: 1/2"=1'-0"



**SECTION** C  
SCALE: 1/2"=1'-0"



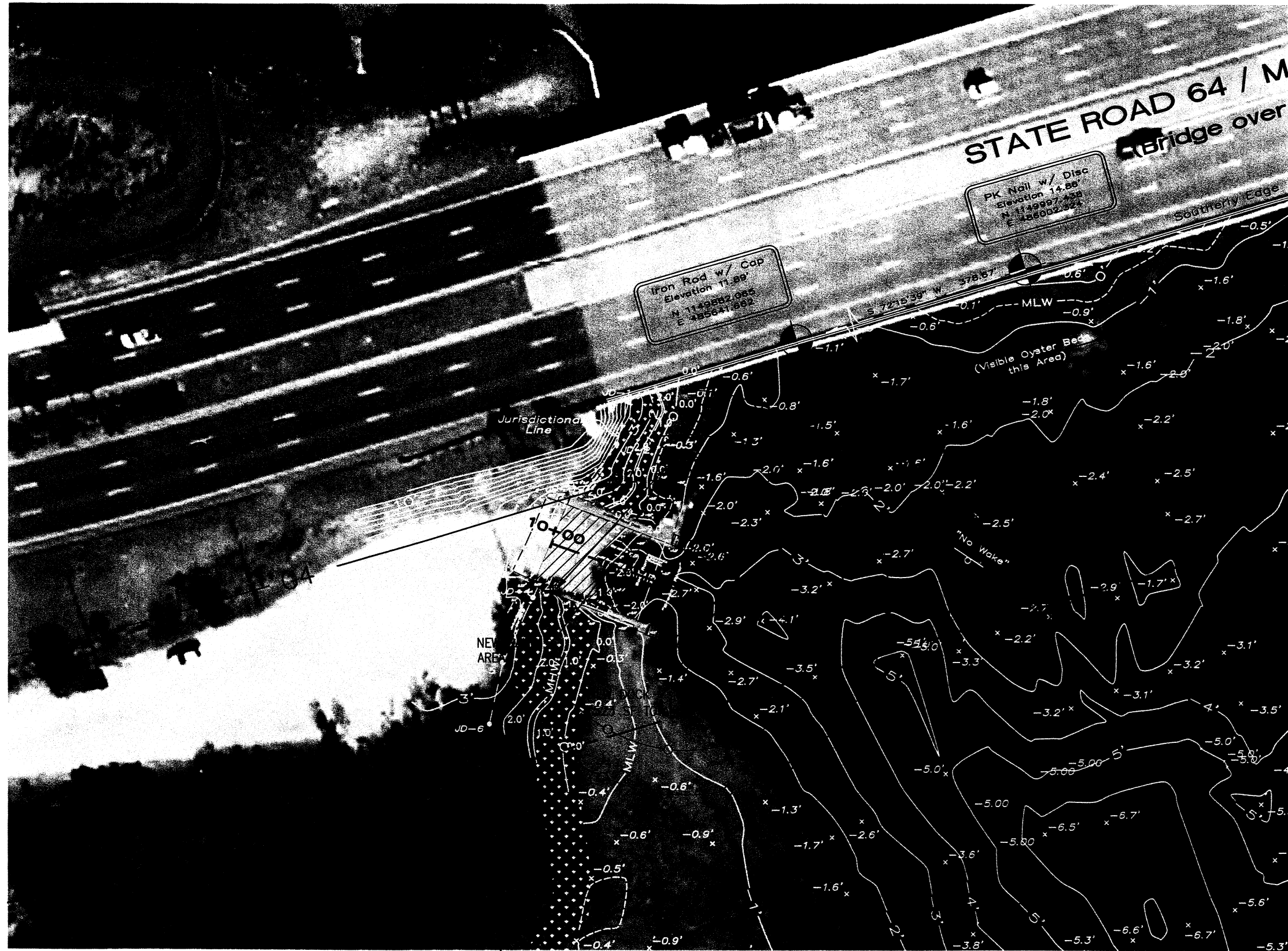
**PILE REPAIR DETAIL** D  
SCALE: 1/2"=1'-0"

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<b>S.R.-64 BOAT RAMP</b>	
<b>SECTIONS AND DETAILS</b>	

BEC PROJECT NO.	FIGURE
17076.00	8

DWG: X:\Projects\Manatee\_County\17076.00 (SR 64 Boat Ramp)\CAD\Planset\Const-Dwgs\Figure 9.dwg  
 DATE: Oct 06, 2008 3:37pm XREFS: Base Images G-BD11x17h\_SR\_64 BEC-STD-logoSA USER: mboyce  
 op2007\_81098\_nc.sid op2007\_80798\_nc.sid



SCALE: 1" = 50'

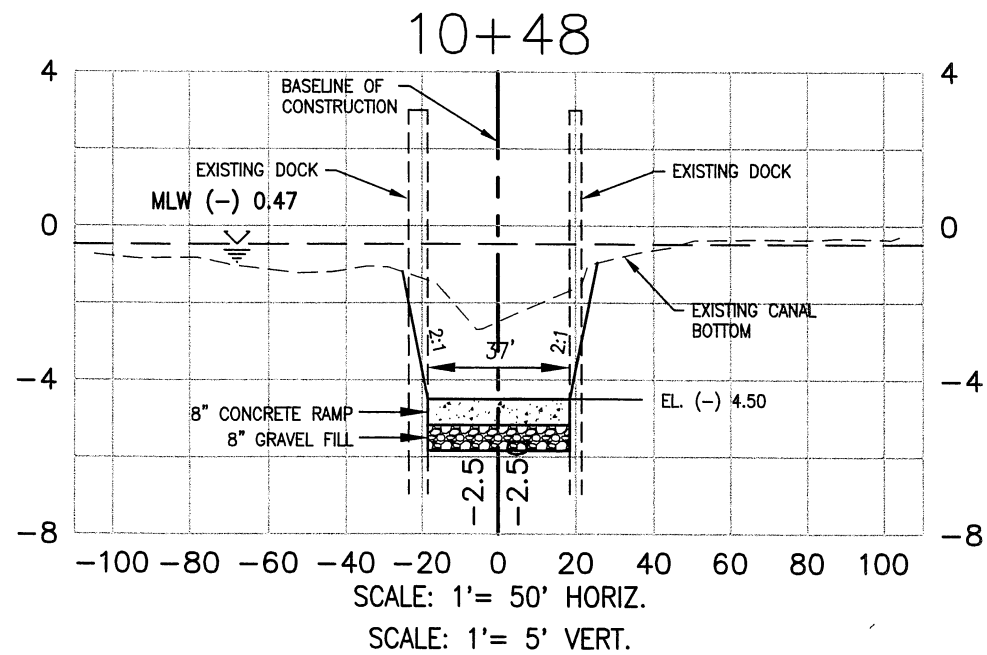
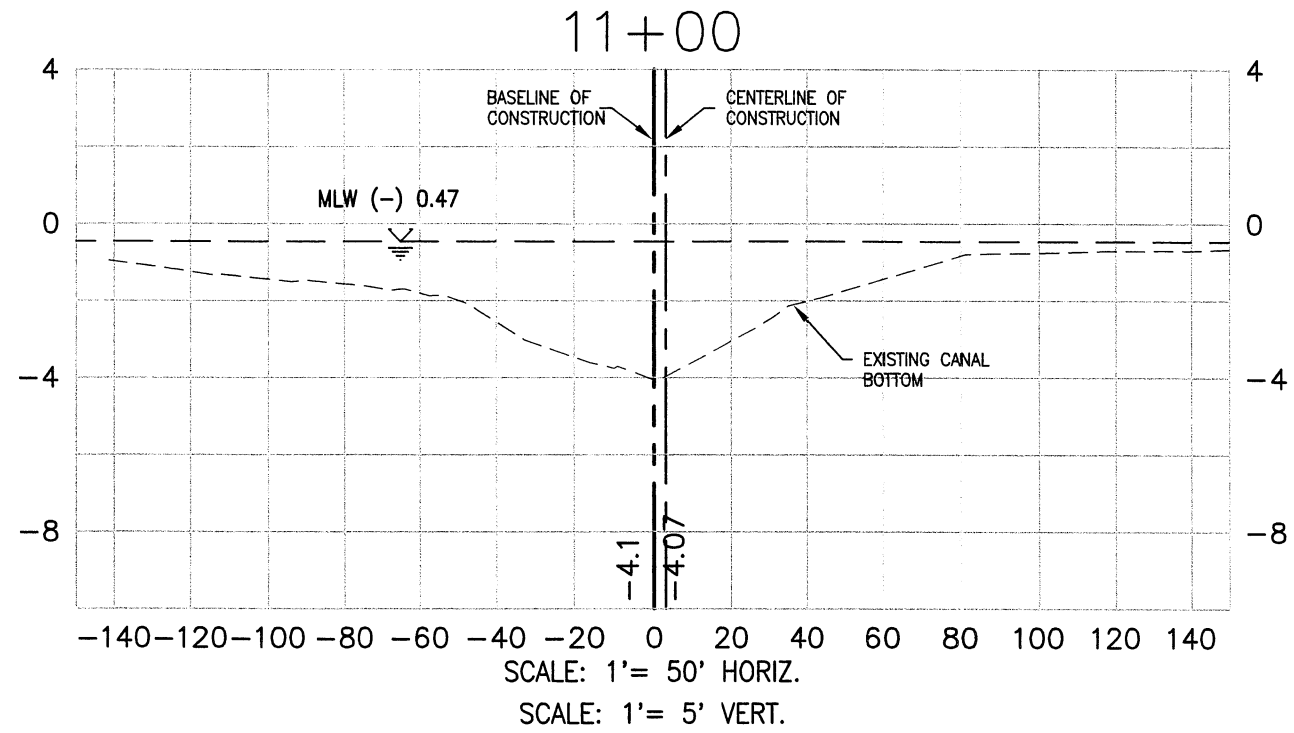
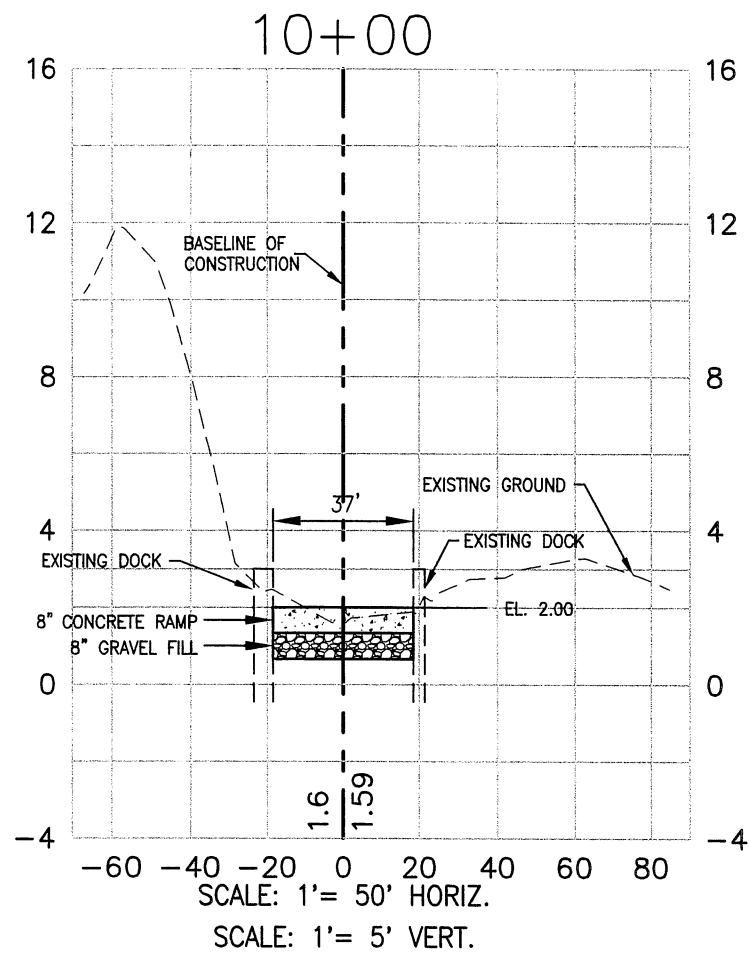
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S.R.-64 BOAT RAMP
EROSION PROTECTION PLAN

BEC PROJECT NO.  17076.00
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FIGURE  9
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DWG: X:\Projects\Manatee\_County\17076.00 (SR 64 Boat Ramp)\CAD\Planset\Const-Dwgs\Figure 10.dwg  
 DATE: Oct 06, 2008 3:38pm  
 USER: mboyce  
 XREFS: Base G-BD11x17h\_SR\_64  
 IMAGES: BEC-STD-logoSA



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S.R.-64 BOAT RAMP	BEC PROJECT NO.	FIGURE
CROSS-SECTIONS	17076.00	10

BEC PROJECT NO.	FIGURE
17076.00	10