

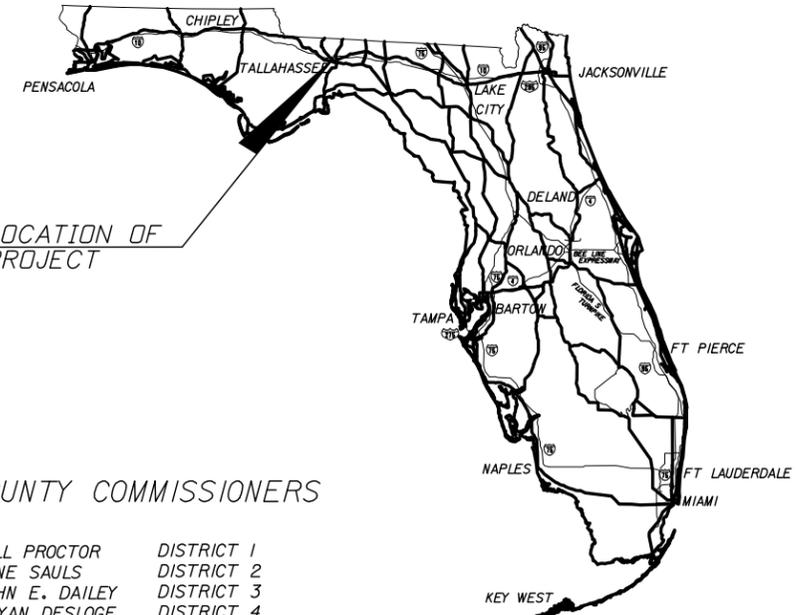
**LEON COUNTY
DEPARTMENT OF PUBLIC WORKS**

CONTRACT PLANS

**OKEEHEEPKE PRAIRIE
BOAT RAMP REHABILITATION**

INDEX OF PLANS

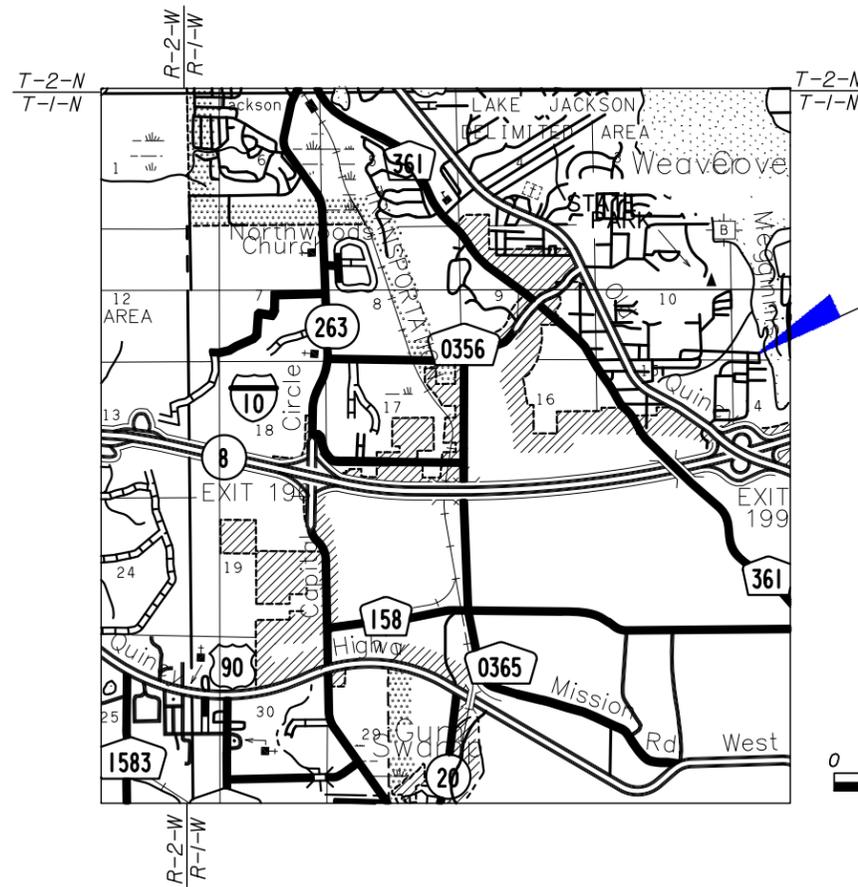
SHEET NO.	SHEET DESCRIPTION
61	KEY SHEET
1	SUMMARY OF PAY ITEMS
2	TYPICAL SECTION & MISCELLANEOUS DETAILS
3	SUMMARY OF QUANTITIES
4	GENERAL NOTES
5	PROJECT SURVEY CONTROL
6	EXISTING CONDITIONS
7	EROSION CONTROL & DEMOLITION PLAN
8	PROPOSED LAYOUT
9	PLAN AND PROFILE
10-II	CROSS-SECTIONS
12	STRUCTURAL SLAB DETAILS
13	TRAFFIC CONTROL PLAN



LOCATION OF PROJECT

COUNTY COMMISSIONERS

- | | |
|-----------------|--------------------------|
| BILL PROCTOR | DISTRICT 1 |
| JANE SAULS | DISTRICT 2 |
| JOHN E. DAILEY | DISTRICT 3 |
| BRYAN DESLOGE | DISTRICT 4 |
| KRISTIN DOZIER | DISTRICT 5 |
| NICK MADDOX | AT-LARGE/VICE-CHAIRMAN |
| AKIN AKINYEMI | AT-LARGE/CHAIRMAN |
| VINCENT S. LONG | COUNTY ADMINISTRATOR |
| TONY PARK | DIRECTOR OF PUBLIC WORKS |



PROJECT LOCATION

PLANS PREPARED FOR:



LEON COUNTY DEPARTMENT OF PUBLIC WORKS
2280 MICCOSUKEE ROAD, TALLAHASSEE, FLORIDA 32308
PHONE (850) 606-1500 * FAX (850) 606-1501

PLANS PREPARED BY:

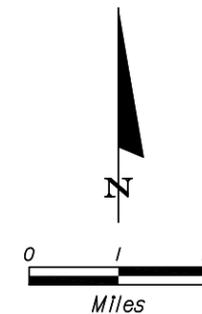


REGISTE, SLIGER ENGINEERING, INC.
CIVIL AND STRUCTURAL ENGINEERING CONSULTANT
CERT. OF AUTHORIZATION # 9292
1427 N. Bronough Street- Tallahassee, FL 32303
PHONE: (850) 894-4521 - FAX: (850) 224-0505

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

GOVERNING STANDARDS AND SPECIFICATIONS:
FLORIDA DEPARTMENT OF TRANSPORTATION,
DESIGN STANDARDS DATED 2010,
AND STANDARD SPECIFICATIONS FOR ROAD AND
BRIDGE CONSTRUCTION DATED 2010,
AS AMENDED BY CONTRACT DOCUMENTS.

APPLICABLE DESIGN STANDARDS MODIFICATIONS: 01/01/12
For Design Standards modifications go to the following Web site:
<http://www.dot.state.fl.us/rddesign/Design/Standards/Standards.htm>



KEY SHEET REVISIONS		
DATE	BY	DESCRIPTION

ENGINEER OF RECORD: JOHN F. SLIGER, II, P.E.

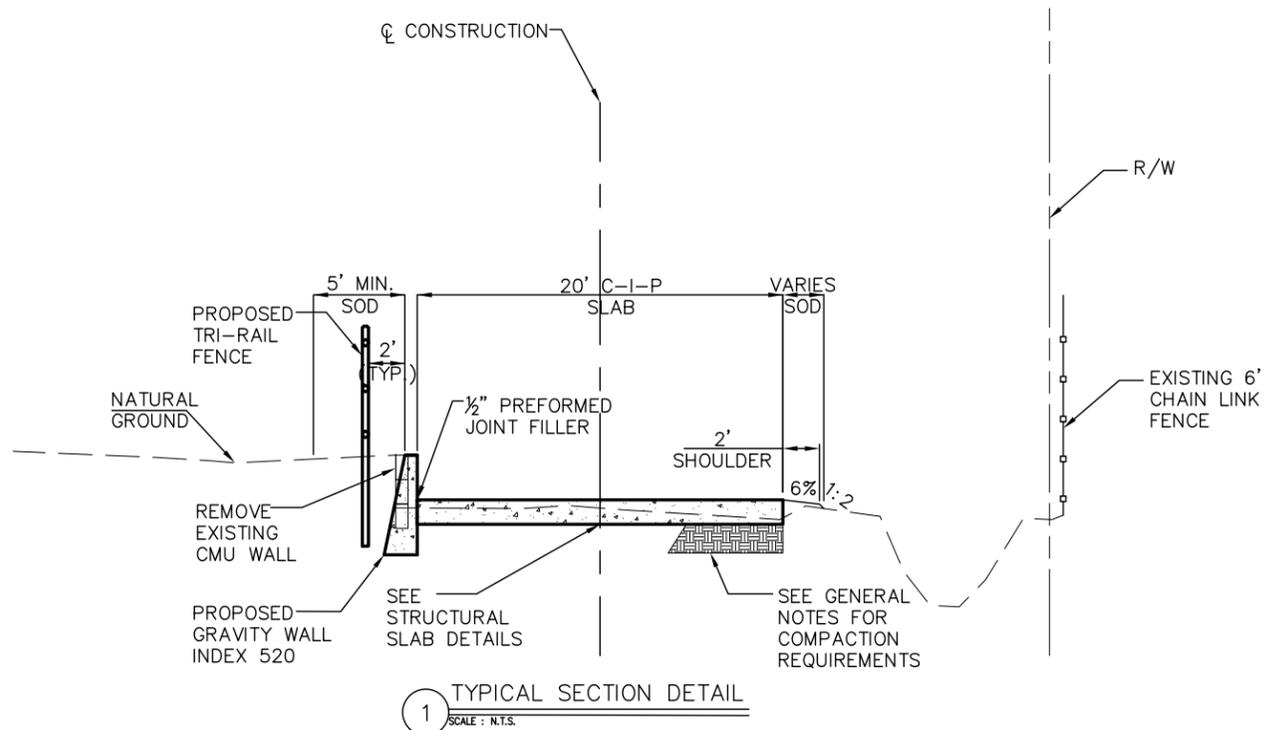
P.E. NO.: 55550

FISCAL YEAR	SHEET NO.
12	61

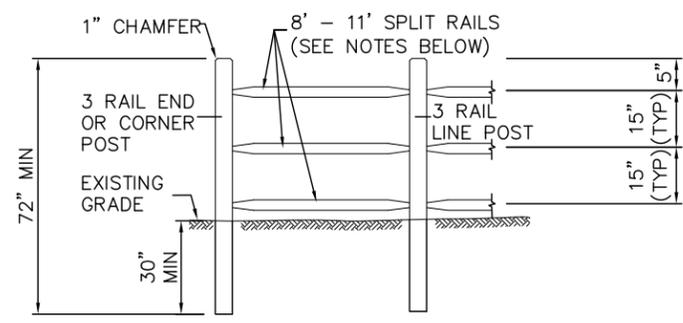
LEON COUNTY PROJECT MANAGER: FELTON ARD, P.E.

ITEM NUMBER	SUMMARY OF FULLER ROAD BOAT RAMP REHABILITATION PAY ITEMS	SECONDARY UNIT	SECONDARY QUANTITY	PRIMARY UNIT	PRIMARY QUANTITY	QUANTITY TOTAL
0101 1	MOBILIZATION			LS	1	1
0102 1	MAINTENANCE OF TRAFFIC	ED	66	LS	1	1
0104 10 3	SEDIMENT BARRIER			LF	364	364
0104 12	STAKED TURBIDITY BARRIER			LF	112	112
0110 1 1	CLEARING & GRUBBING	AC	0.07	LS	1	1
0110 4	REMOVAL OF EXISTING CONCRETE PAVEMENT	SY	102	LS	1	1
0120 5	CHANNEL EXCAVATION			CY	33	33
0120 6	EMBANKMENT			CY	2	2
0400 0 11	CONCRETE CLASS NS, GRAVITY WALL			CY	12.8	12.8
0400 2 10	* CONCRETE CLASS II, APPROACH SLABS			CY	36.4	36.4
0415 1 9	REINFORCING STEEL, APPROACH SLABS			LB	2,766	2,766
0530 3 4	RIPRAP, RUBBLE, F&I, DITCH LINING			TN	10.7	10.7
0550 10929	FENCING, SPECIAL TYPE, 5.1-6.0', SPECIAL FEATURES			LF	40	40
0570 1 2	PERFORMANCE TURF, SOD			SY	93	93
0700 48 48	SIGN PANELS RELOCATE, 15 OR <			EA	1	1
	* COST OF V-GROOVE INCLUDED IN THE COST OF CONCRETE-CLASS II					

REVISIONS DATE BY DESCRIPTION			INITIAL B.A.W. C.M.C. J.F.S. J.R. DATE 3/2012	ENGINEER OF RECORD: JOHN F. SLIGER, II, P.E. P.E. #55550	 REGISTE, SLIGER ENGINEERING, INC. CIVIL AND STRUCTURAL ENGINEERING CONSULTANT CERT. OF AUTHORIZATION # 9292 1427 N. Bronough Street - Tallahassee, FL 32303 PHONE (850) 894-4521 - FAX (850) 224-0505 PROJECT NUMBER: IIII	 LEON COUNTY DEPARTMENT OF PUBLIC WORKS 2280 MICCOSUKEE ROAD, TALLAHASSEE, FLORIDA 32308 PHONE (850) 606-1500 * FAX (850) 606-1501	SUMMARY OF PAY ITEMS PROJECT NAME: BOAT RAMP REHABILITATION	SHEET NO. 1
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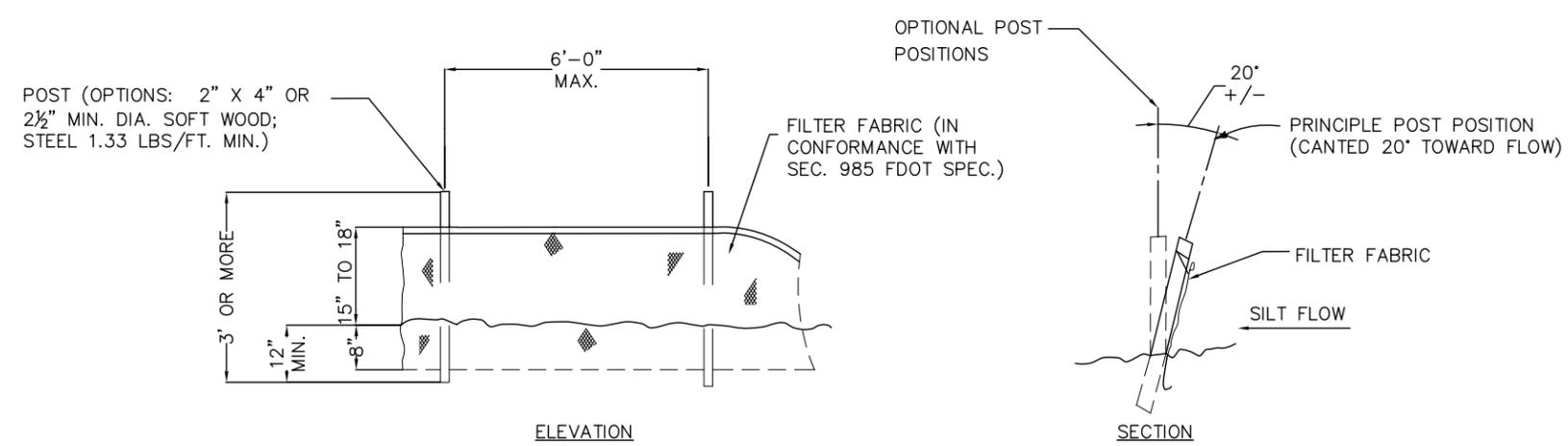


1 TYPICAL SECTION DETAIL
SCALE: N.T.S.

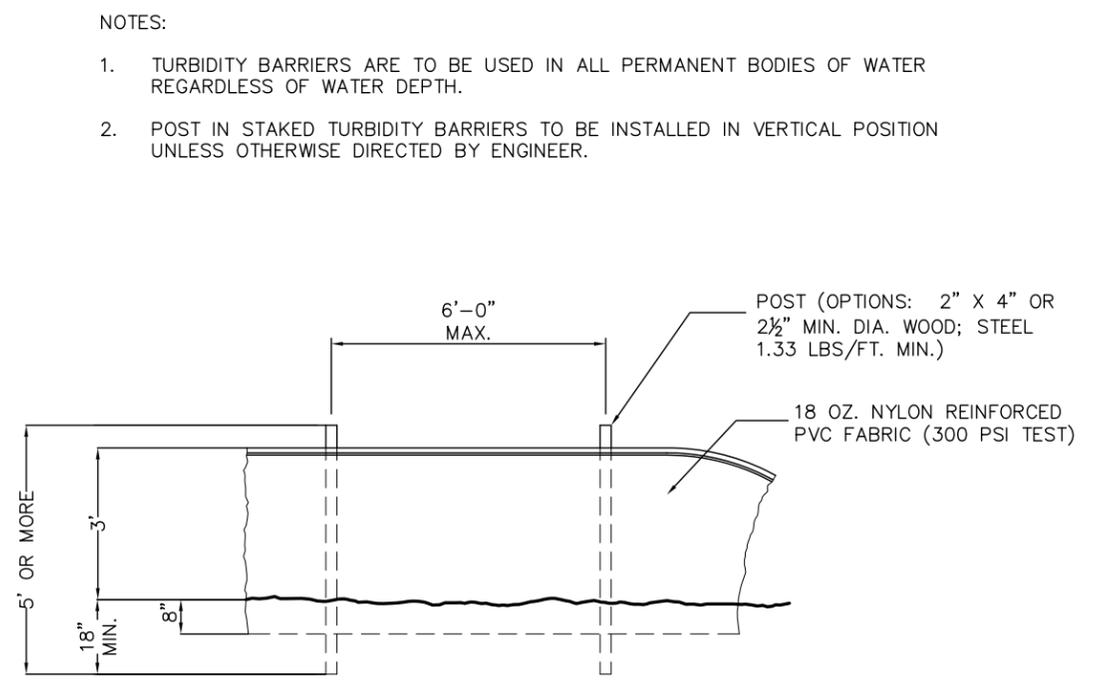


- NOTES:
1. ALL COMPONENTS SHALL BE PRE-FABRICATED P.T. PINE
 2. DIMENSIONS ARE APPROXIMATE ONLY. CONTRACTOR SHALL PROVIDE PROJECT MANAGER WITH SHOP DRAWINGS FOR APPROVAL PRIOR TO INSTALLATION FOR PROPOSED FENCE DETAIL.

2 TRI-RAIL FENCE DETAIL
SCALE: N.T.S.

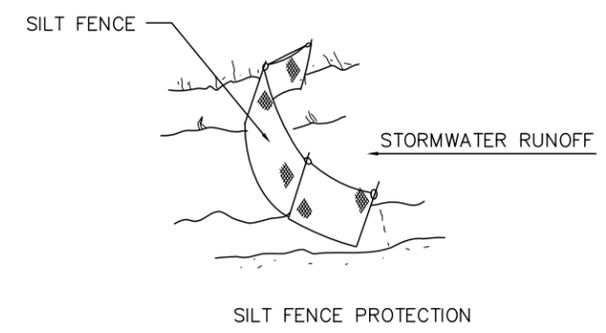


3 TYPE III SILT FENCE
SCALE: N.T.S.



4 STAKED TURBIDITY BARRIER
SCALE: N.T.S.

- NOTES:
1. TURBIDITY BARRIERS ARE TO BE USED IN ALL PERMANENT BODIES OF WATER REGARDLESS OF WATER DEPTH.
 2. POST IN STAKED TURBIDITY BARRIERS TO BE INSTALLED IN VERTICAL POSITION UNLESS OTHERWISE DIRECTED BY ENGINEER.



SILT FENCE PROTECTION

REVISIONS			INITIAL	ENGINEER OF RECORD:	 REGISTE, SLIGER ENGINEERING, INC. CIVIL AND STRUCTURAL ENGINEERING CONSULTANT CERT. OF AUTHORIZATION # 9292 1427 N. Bronough Street - Tallahassee, FL 32303 PHONE: (850) 894-4521 - FAX: (850) 224-0505	 LEON COUNTY DEPARTMENT OF PUBLIC WORKS 2280 MICCOSUKEE ROAD, TALLAHASSEE, FLORIDA 32308 PHONE (850) 606-1500 * FAX (850) 606-1501	TYPICAL SECTION & MISCELLANEOUS DETAILS		SHEET NO.
DATE	BY	DESCRIPTION	DRAWN BY	DATE			PROJECT NAME:	BOAT RAMP REHABILITATION	
			B.A.W.	3/2012	JOHN F. SLIGER, II, P.E. P.E. #55550				
			C.M.C.						
			J.F.S.						
			J.R.						

PAY ITEM NOTES :

1. REMOVAL OF EXISTING CONCRETE MASONRY WALL (CMU) INCLUDED IN PAY ITEM (110 1 1) CLEARING AND GRUBBING.
2. GEOTEXTILE FABRIC D-2 INCLUDED IN PAY ITEM (400 2 10) CONCRETE CLASS 11, APPROACH SLABS

SUMMARY OF SODDING									
LOCATION		SIDE	P			F			NOTES
STA.	TO STA.		L (FT.)	W (FT.)	SY	L	W	SY	
14+50.00	TO 15+20.00	LT	70.0	7.0	54				
14+50.00	TO 15+20.00	RT	70.0	3.0	23				
SUB-TOTAL					78				
+20%					15				LAP & PIN INCREASE
TOTAL					93				

PLACEMENT OF STAKED TURBIDITY BARRIER			
STATION	OFFSET	LENGTH (FT)	REMARKS
14+90.00 TO 15+30.00	20.00' L to 20.00' L	40	
15+30.00 TO 15+30.00	20.00' L to 12.00' R	32	
14+90.00 TO 15+30.00	12.00' R to 12.00' R	40	
TOTAL		112	

L - INDICATES LEFT OF \mathcal{C} CONSTRUCTION
R - INDICATES RIGHT OF \mathcal{C} CONSTRUCTION

SUMMARY OF EARTHWORK		
DESCRIPTION	CY	
	P	F
CHANNEL EXCAVATION FULLER ROAD	33	
TOTAL EXCAVATION	33	
EMBANKMENT FULLER ROAD	2	
TOTAL EMBANKMENT	2	

PLACEMENT OF SEDIMENT BARRIER			
STATION	OFFSET	LENGTH (FT)	REMARKS
14+45.00 TO 14+45.00	17.00'L to 50.00'L	33	
14+45.00 TO 14+90.00	50.00'L to 50.00'L	45	
14+90.00 TO 14+90.00	50.00'L to 20.00'L	30	
14+50.00 TO 14+90.00	12.00'R to 12.00'R	40	
14+53.00 TO 14+83.00	45.00'L to 45.00'L	30	
14+83.00 TO 14+83.00	45.00'L to 25.00'L	20	
14+53.00 TO 14+83.00	25.00'L to 25.00'L	30	
14+53.00 TO 14+53.00	25.00'L to 45.00'L	20	
14+51.00 TO 14+85.00	47.00'L to 47.00'L	34	
14+85.00 TO 14+85.00	23.00'L to 47.00'L	24	
14+51.00 TO 14+85.00	23.00'L to 23.00'L	34	
14+51.00 TO 14+51.00	23.00'L to 47.00'L	24	
TOTAL		364	

L - INDICATES LEFT OF \mathcal{C} CONSTRUCTION
R - INDICATES RIGHT OF \mathcal{C} CONSTRUCTION

NOTE:

1. EARTHWORK SHOWN ARE IN-PLACE VOLUMES. NO INCREASE OF DECREASE FOR CLEARING AND GRUBBING. NO SHRINKAGE OR SWELLING ADJUSTMENTS HAVE BEEN MADE.

REVISIONS			DATE	BY	DESCRIPTION	DRAWN BY	INITIAL	ENGINEER OF RECORD:	 REGISTE, SLIGER ENGINEERING, INC. CIVIL AND STRUCTURAL ENGINEERING CONSULTANT CERT. OF AUTHORIZATION # 9292 1427 N. Bronough Street - Tallahassee, FL 32303 PHONE: (850) 894-4521 - FAX: (850) 224-0505	 LEON COUNTY DEPARTMENT OF PUBLIC WORKS 2280 MICCOSUKEE ROAD, TALLAHASSEE, FLORIDA 32308 PHONE (850) 606-1500 * FAX (850) 606-1501	SUMMARY OF QUANTITIES		SHEET NO.
								JOHN F. SLIGER, II, P.E. P.E. #55550					PROJECT NAME: BOAT RAMP REHABILITATION

GENERAL NOTES:

1. CONSTRUCTION SPECIFICATIONS:

FLORIDA DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION", (2010 EDITION) AND SUPPLEMENTS THERE TO.

2. DESIGN SPECIFICATIONS:

- FLORIDA DEPARTMENT OF TRANSPORTATION STRUCTURES MANUAL (JANUARY 2011).
- FLORIDA DEPARTMENT OF TRANSPORTATION DESIGN STANDARDS DATED 2010.
- AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO) LRFD BRIDGE DESIGN SPECIFICATIONS.

3. DESIGN LOADING:

TRUCK LIVE LOAD : H15
UNIT WEIGHT OF REINFORCED CONCRETE :150 LB/FT3

4. CONTRACTOR SHALL CALL SUNSHINE STATE ONE CALL AT 1-800-432-4770 PRIOR TO COMMENCEMENT OF CONSTRUCTION.

5. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL WORK UNDER IMPROVEMENT, AT HIS COST, UNTIL SUCH TIME AS THE ENGINEER ISSUES A CERTIFICATE OF COMPLETION.

6. ALL SIDE SLOPES CREATED OR DISTURBED DURING CONSTRUCTION SHALL BE STABILIZED AS SHOWN ON PLANS WITHIN 7 DAYS TO AVOID EROSION.

7. ALL SURVEY INFORMATION INCLUDING BOUNDARY INFORMATION, EXISTING UTILITIES AND TOPOGRAPHY WAS SUPPLIED BY NOBLES CONSULTING GROUP, INC.

8. DURING NON-WORK HOURS, NO EQUIPMENT, VEHICLES OR MATERIALS SHALL BE STORED WITHIN THE EXISTING ROADWAY. ALL STORAGE AND/OR STAGING AREAS USED SHALL BE APPROVED BY LEON COUNTY.

9. VERIFY ALL DIMENSIONS AND SITE CONDITIONS PRIOR TO START OF CONSTRUCTION NOTIFY THE ENGINEER OF ANY DISCREPANCIES OR INCONSISTENCIES. NO CHANGES TO INFORMATION SHOWN ON THE DRAWINGS SHALL BE MADE WITHOUT THE SPECIFIC WRITTEN APPROVAL OF THE ENGINEER. DESIGN INFORMATION SHOWN ON THE DRAWINGS PROVIDE OVERALL DIMENSIONAL PARAMETERS AND DESCRIBE ELEMENTS TO BE CONSTRUCTED. THE CONTRACTOR SHALL ADJUST DIMENSIONS AND DETAILS AS REQUIRED TO FIT EXISTING CONDITIONS. THE ENGINEER SHALL BE NOTIFIED OF ANY PROPOSED MODIFICATIONS.

10. DETAILS LABELED "TYP." APPLY TO ALL SITUATIONS THAT ARE THE SAME OR SIMILAR TO THOSE SPECIFICALLY REFERENCED, WHETHER OR NOT THEY ARE KEYED IN AT EACH LOCATION. QUESTIONS REGARDING THE APPLICABILITY OF TYPICAL DETAILS SHALL BE RESOLVED BY THE ENGINEER.

11. CONTRACTORS WHO DISCOVER DISCREPANCIES, OMISSIONS OR VARIATIONS IN THE CONTRACT DOCUMENTS SHALL IMMEDIATELY NOTIFY THE ENGINEER. THE ENGINEER WILL RESOLVE THE CONDITION AND ISSUE A WRITTEN CLARIFICATION.

12. THE GENERAL CONTRACTOR SHALL COORDINATE ALL CONTRACT DOCUMENTS WITH FIELD CONDITIONS, DIMENSIONS AND PROJECT SHOP DRAWINGS PRIOR TO CONSTRUCTION. DO NOT SCALE DRAWINGS (+/-). USE ONLY PRINTED DIMENSIONS. ELECTRONIC DRAWINGS SHOULD NOT BE ASSUMED TO BE DRAWN TO SCALE. REPORT ANY DISCREPANCIES IN WRITING TO THE ENGINEER PRIOR TO PROCEEDING WITH WORK.

13. THE CONTRACTOR SHALL SUBMIT FOR APPROVAL 3 SETS OF PLANS, CALCULATIONS, AND SPECIFICATIONS SIGNED AND SEALED BY A LICENSED PROFESSIONAL ENGINEER IN THE STATE OF FLORIDA, FOR ANY PROPOSED CHANGES TO THE CONTRACT DOCUMENTS.

14. THE CONTRACTOR SHALL PROTECT ADJACENT PROPERTY, HIS OWN WORK AND THE PUBLIC FROM HARM. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR CONSTRUCTION MEANS AND METHODS AND JOB SITE SAFETY INCLUDING ALL OSHA REQUIREMENTS.

15. ALL PUBLIC LAND CORNERS WITHIN THE LIMITS OF CONSTRUCTION ARE TO BE PROTECTED. IF A CORNER MONUMENT IS IN DANGER OF BEING DESTROYED, AND HAS NOT BEEN PROPERLY REFERENCED, THE CONTRACTOR SHALL NOTIFY THE ENGINEER WITHOUT DELAY. ANY MONUMENT OTHERWISE DESTROYED, DURING CONSTRUCTION WILL BE RESET BY A FLORIDA REGISTERED LAND SURVEYOR AT THE CONTRACTOR'S EXPENSE.

16. NO DEVIATIONS OR REVISIONS FROM THESE PLANS BY THE CONTRACTOR SHALL BE ALLOWED WITHOUT PRIOR APPROVAL FROM BOTH THE DESIGN ENGINEER AND LEON COUNTY.

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

18. THE CONTRACTOR IS RESPONSIBLE FOR THE DISPOSAL OF ALL ACCUMULATED WATER IN A MANNER THAT DOES NOT INCONVENIENCE OR DAMAGE THE WORK.

19. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR ALL EXCAVATION PROCEDURES INCLUDING LOGGING, SHORING, AND PROTECTION OF ADJACENT PROPERTY, STRUCTURES, AND UTILITIES IN ACCORDANCE WITH THE REQUIREMENTS OF OSHA REGULATIONS. DO NOT EXCAVATE WITHIN ONE FOOT OF THE ANGLE OF REPOSE OF ANY SOIL BEARING FOUNDATION UNLESS THE FOUNDATION IS PROPERLY PROTECTED AGAINST SETTLEMENT.

20. IF ANY CULTURAL OR HISTORIC ARTIFACTS, OR SUSPECTED HUMAN REMAINS ARE DISCOVERED, CONSTRUCTION IN THAT AREA SHALL CEASE IMMEDIATELY AND THE PROJECT MANAGER NOTIFIED.

21. CONTRACTOR TO MAINTAIN ALL ROADS THROUGHOUT CONSTRUCTION. ROADS SHALL BE REHABILITATED TO THE SAME CONDITION AS BEFORE CONSTRUCTION.

22. FDOT STANDARD INDEX REFERENCE SHEETS ARE AVAILABLE IN PDF FORMAT AT [HTTP://WWW.DOT.STATE.FL.US/](http://www.dot.state.fl.us/)

EROSION CONTROL NOTES:

1. THE PURPOSE OF EROSION CONTROL IS TO PREVENT DAMAGE TO ADJACENT PROPERTY, WATERWAY AND WORK IN PROGRESS.

2. CONTRACTOR SHALL TAKE ALL PRACTICAL MEASURES TO PROTECT AGAINST WIND AND STORMWATER RUNOFF EROSION, I.E. STAKED HAY BALES, SILT FENCE, TURBIDITY BARRIERS, ETC. EROSION CONTROL SHALL BE IN PLACE PRIOR TO ANY LAND ALTERATION AND MAINTAINED UNTIL SOILS ARE STABILIZED.

3. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO INSPECT ALL EROSION CONTROL DEVICES PERIODICALLY AND AFTER ANY RAINFALL. ANY NECESSARY CLEANUP TO MAINTAIN THE EFFECTIVENESS OF THE EROSION CONTROL DEVICES SHALL BE MADE IMMEDIATELY.

4. SEDIMENT MUST BE REMOVED WHEN DEPOSITS REACH APPROXIMATELY ONE-HALF THE HEIGHT OF THE BARRIER.

5. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SILT FENCE OR FILTER BARRIER IS NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM WITH THE PROPOSED AND EXISTING GRADES, PREPARED AND SEEDED.

6. SILT FENCE SHALL BE REMOVED UPON COMPLETION OF THE PROJECT OR AT A TIME DIRECTED BY THE OWNER. IF THE OWNER FEELS IT IS NECESSARY FOR THE SILT FENCE TO REMAIN IN PLACE FOR SOME GIVEN TIME AFTER CONSTRUCTION IS COMPLETE, THE CONTRACTOR SHALL LEAVE IT IN PLACE, IN THE PROPERLY INSTALLED WAY, AND WILL, AT THE DIRECTION OF THE OWNER, REMOVE IT AT NO ADDITIONAL COST TO THE OWNER WHEN THE OWNER DEEMS IS APPROPRIATE.

7. ANY DISTURBED AREA WHICH WILL NOT BE PAVED, SODDED OR BUILT UPON SHALL HAVE A MINIMUM OF 80% VEGETATIVE COVER PRIOR TO FINAL INSPECTION, AND IN THE OPINION OF THE ENGINEER, WILL BE MATURE ENOUGH TO CONTROL SOIL EROSION AND SURVIVE SEVERE WEATHER CONDITIONS.

8. AREAS TO BE SODDED SHALL BE RAKED OR OTHERWISE CLEARED OF STONES LARGER THAN 2 INCHES (50 MM) IN DIAMETER, STICKS, STUMPS, AND OTHER DEBRIS THAT MIGHT INTERFERE WITH SODDING, GROWTH OF GRASSES, OR SUBSEQUENT MAINTENANCE OF GRASS-COVERED AREAS. IF ANY DAMAGE BY EROSION OR OTHER CAUSES OCCURS AFTER GRADING OF AREAS AND BEFORE BEGINNING THE APPLICATION OF FERTILIZER AND GROUND LIMESTONE, THE CONTRACTOR SHALL REPAIR SUCH DAMAGE.

9. THE SOD SHALL BE DELIVERED ALIVE, FRESH AND UNINJURED, AND SHALL BE TRANSPLANTED WITHIN 24 HOURS OF THE TIME IT WAS CUT. THE CONTRACTOR SHALL WATER THE SOD DAILY UNTIL ROOTS HAVE BEEN ESTABLISHED. DEAD SOD SHALL BE REPLACED AND MAINTAINED AT NO COST TO THE OWNER. THE SOD SHALL HAVE A SOIL MAT OF SUFFICIENT THICKNESS ADHERING FIRMLY TO THE ROOTS TO WITHSTAND ALL NECESSARY HANDLING. IN ADDITION, SOD SHALL BE SUFFICIENTLY THICK TO SECURE A DENSE STAND OF LIVE GRASS.

10. THE CONTRACTOR SHALL ENSURE THAT SEDIMENTS ARE NOT RELEASED TO THE WATERBODY DURING ANY PART OF THE CONSTRUCTION OPERATIONS.

SITE/SOIL PREPARATION:

1. CLEAR AND GRUB ALL SURFACE VEGETATION, DEBRIS, AND OTHER DELETERIOUS MATERIAL ENCOUNTERED AROUND ENTIRE PROPOSED AREA PLUS TWO (2) FEET BEYOND THE EDGE OF THE PROPOSED SLAB. DURING THE CLEARING AND GRUBBING OPERATION, ROOTS WITH A DIAMETER GREATER THAN ONE (1) INCH OR SMALL ROOTS IN HIGH DENSITY SHALL BE COMPLETELY REMOVED.

2. AFTER REMOVAL OF EXISTING PAVEMENT HAS BEEN COMPLETED, AND PRIOR TO PLACING ANY REINFORCING STEEL AND/OR CONCRETE, THE BEARING SURFACES SHOULD BE CLEANED OF ALL LOOSE DISTURBED SOILS AND ORGANICS.

3. IF GROUNDWATER IS ENCOUNTERED WITHIN THE PROPOSED EXCAVATION AREA, THE CONTRACTOR SHALL BE REQUIRED TO USE A SUITABLE METHOD OF DEWATERING TO ADEQUATELY MAKE THIS EXCAVATION AND ACHIEVE COMPACTION REQUIREMENTS.

4. BEARING SURFACE SHALL BE COMPACTED TO A MINIMUM DRY DENSITY OF AT LEAST 98% OF THE SOIL'S MODIFIED PROCTOR DRY DENSITY FOR A DEPTH OF AT LEAST TWO (2) FEET BELOW BEARING SURFACE.

5. PREPARE THE SOIL BELOW THE SLAB IN ACCORDANCE WITH THE REQUIREMENTS FOR SPREAD FOOTINGS IN THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION SECTION 455.

6. IF COMPACTION CANNOT BE OBTAINED, OVER-EXCAVATE AT LEAST TWO (2) FEET BELOW THE BOTTOM OF THE BASE LAYER. THE EXCAVATED SURFACE SHALL BE COMPACTED TO A DRY DENSITY OF AT LEAST 98% OF THE SOIL'S MODIFIED PROCTOR DRY DENSITY, AND BACKFILLED WITH THE SOILS DESCRIBED BELOW.

7. FILL SOILS SHALL BE COMPRISED OF "SELECT" SILTY FINE SAND (SM/A-2-4) WITH AT LEAST 12% PERCENT FINES PASSING NO. 200 SIEVE AND NOT OVER 24% MATERIAL WITH GREATER THAN 24% FINES ARE MOISTURE SENSITIVE AND WILL BE EXTREMELY DIFFICULT TO COMPACT. THE FILL SOIL SHALL BE PLACED IN LIFTS NOT TO EXCEED 9 INCHES OF LOOSE SOIL AND COMPACTED TO MEET REQUIREMENTS IN NOTE 4 ABOVE.

CONSTRUCTION SEQUENCE:

1. CONDUCT PRE-CONSTRUCTION CONFERENCE WITH THE CONTRACTOR, ENGINEER OF RECORD AND LEON COUNTY ENVIRONMENTAL INSPECTOR (CEI) PRIOR TO BEGINNING ANY CONSTRUCTION ACTIVITIES AT THE SITE.

2. INSTALL ALL PERIMETER SILT FENCE AND TURBIDITY BARRIERS.

3. REMOVE EXISTING CONCRETE SLAB. CLEAR AND GRUB PROPOSED SLAB.

4. PREPARE BASE FOR CIP SLAB. INSTALL CIP SLAB.

5. EXCAVATE FOR RUBBLE RIP RAP AT TOE OF SLAB, BACKFILL WITH RUBBLE.

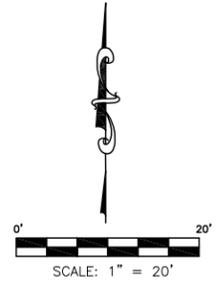
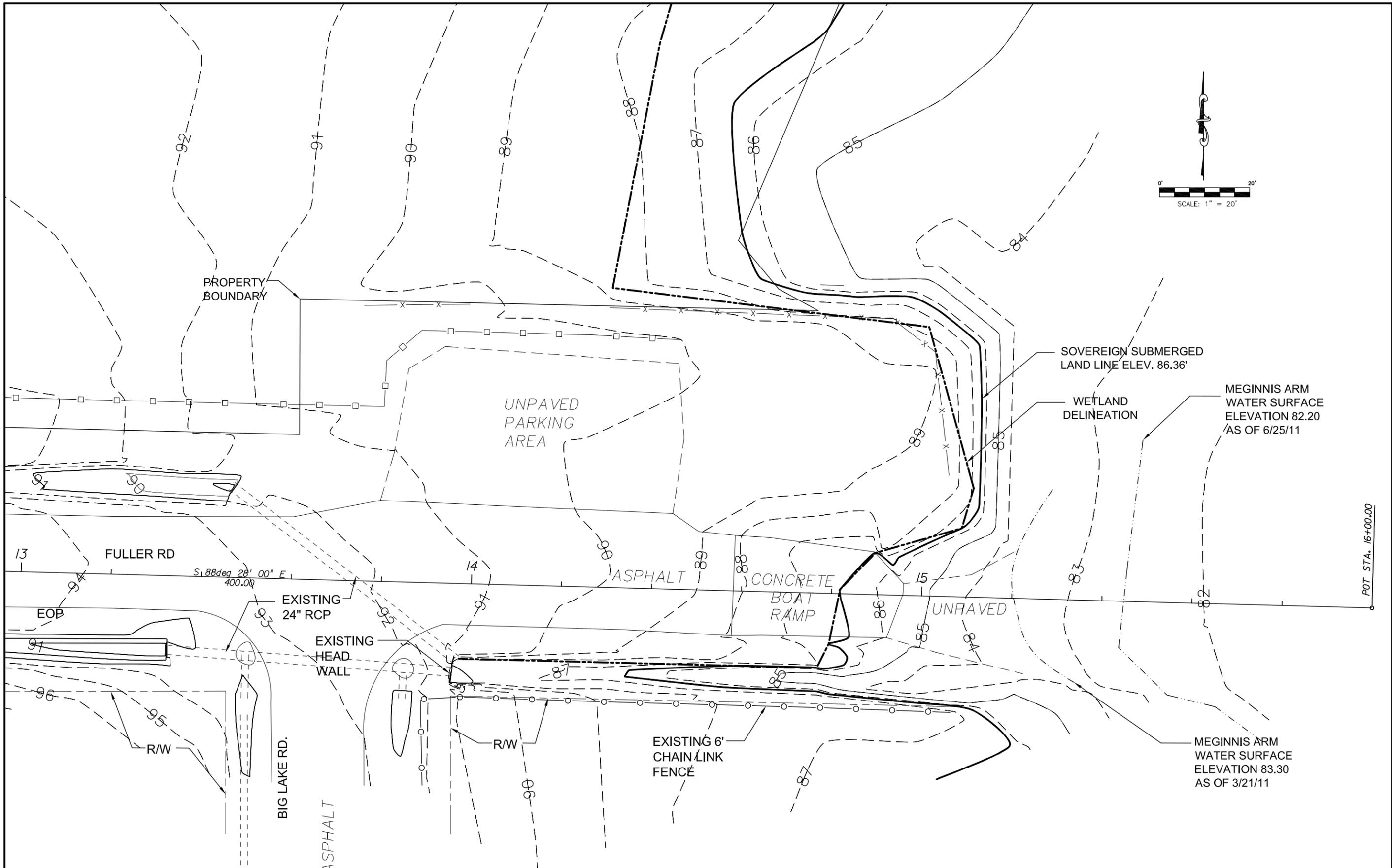
6. SOD AND STABILIZE DISTURBED AREAS WITHIN 7 DAYS OF CONSTRUCTION ACTIVITIES COMMENCING.

7. COMPLETE AS-BUILT SURVEY WHEN CONSTRUCTION IS COMPLETE.

8. AS-BUILT SURVEY AND PE COMPLIANCE NARRATIVE SHALL BE SUBMITTED TO LEON COUNTY DEVELOPMENT SUPPORT AND ENVIRONMENTAL MANAGEMENT DIVISION AT LEAST TWO WEEKS PRIOR TO REQUESTING FINAL INSPECTION.

9. REMOVE ALL EROSION CONTROL DEVICES AND TREE PROTECTION BARRICADES AT THE DIRECTION OF THE LEON COUNTY ENVIRONMENTAL INSPECTOR.

REVISIONS			INITIAL	ENGINEER OF RECORD:	 REGISTE, SLIGER ENGINEERING, INC. <small>CIVIL AND STRUCTURAL ENGINEERING CONSULTANT CERT. OF AUTHORIZATION # 9292 1427 N. Bronough Street - Tallahassee, FL 32303 PHONE: (850) 894-4521 - FAX: (850) 224-0505</small>	 LEON COUNTY DEPARTMENT OF PUBLIC WORKS 2280 MICCOSUKEE ROAD, TALLAHASSEE, FLORIDA 32308 PHONE (850) 606-1500 * FAX (850) 606-1501	GENERAL NOTES PROJECT NAME: BOAT RAMP REHABILITATION	SHEET NO. 4
DATE	BY	DESCRIPTION	DRAWN BY B.A.W. CHECKED BY C.M.C. DESIGN BY J.F.S. CHECKED BY J.R. DATE 3/20/12					
				JOHN F. SLIGER, II, P.E. P.E. #55550				



REVISIONS		
DATE	BY	DESCRIPTION

DRAWN BY	B.A.W.
CHECKED BY	C.M.C.
DESIGN BY	J.F.S.
CHECKED BY	J.R.
DATE	3/20/12

ENGINEER OF RECORD:
 JOHN F. SLIGER, II, P.E.
 P.E. #55550



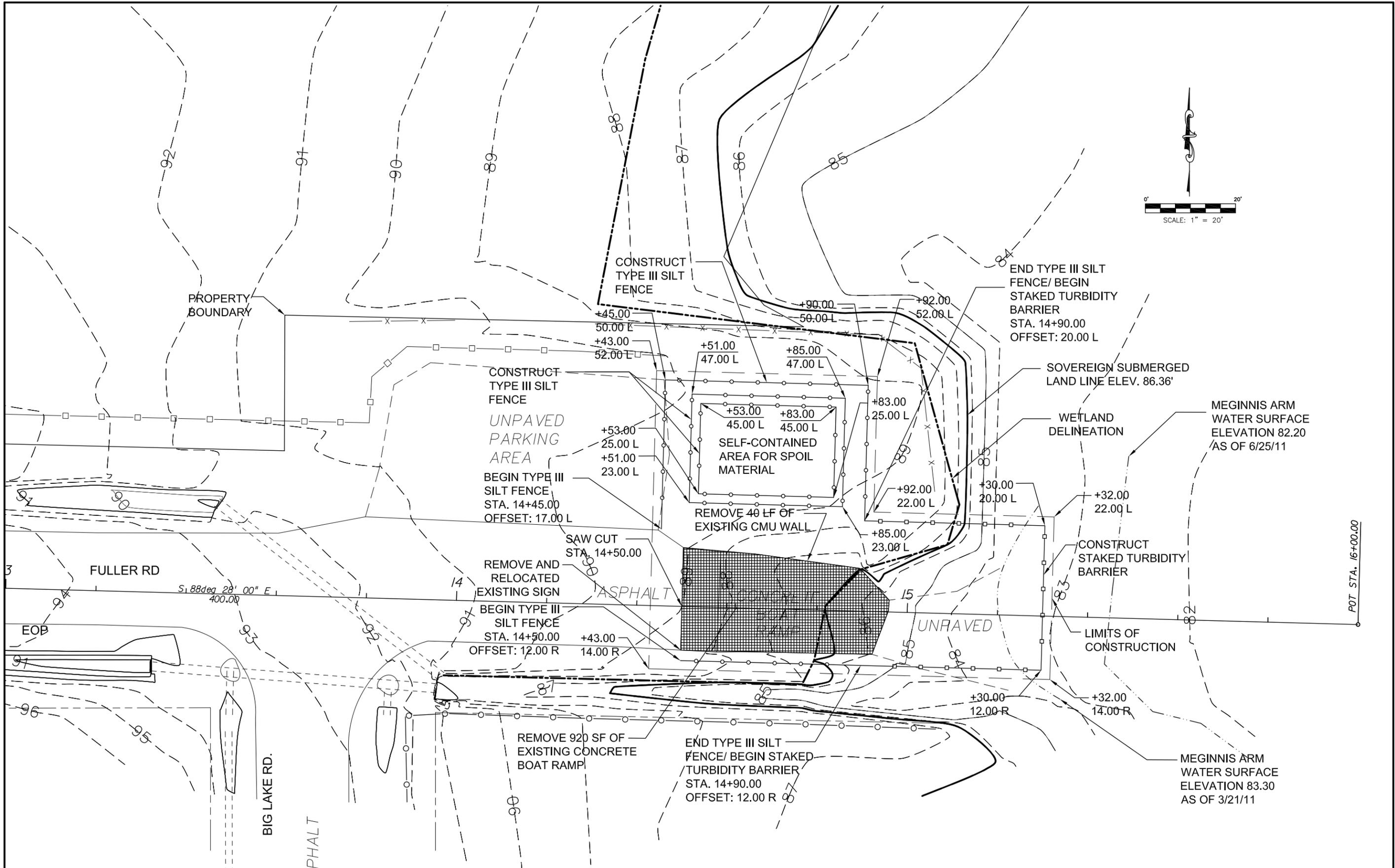
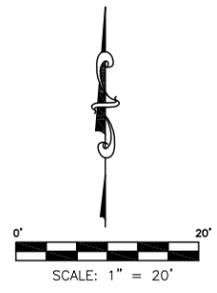
REGISTE, SLIGER ENGINEERING, INC.
 CIVIL AND STRUCTURAL ENGINEERING CONSULTANT
 CERT. OF AUTHORIZATION # 9292
 1427 N. Bronough Street - Tallahassee, FL 32303
 PHONE: (850) 894-4521 - FAX: (850) 224-0505
 PROJECT NUMBER: IIII



LEON COUNTY DEPARTMENT OF PUBLIC WORKS
 2280 MICCOSUKEE ROAD, TALLAHASSEE, FLORIDA 32308
 PHONE (850) 606-1500 * FAX (850) 606-1501

EXISTING CONDITIONS
 PROJECT NAME:
BOAT RAMP REHABILITATION

SHEET NO.
6



REVISIONS	
DATE	DESCRIPTION

DRAWN BY	B.A.W.
CHECKED BY	C.M.C.
DESIGN BY	J.F.S.
CHECKED BY	J.R.
DATE	3/20/12

ENGINEER OF RECORD:
 JOHN F. SLIGER, II, P.E.
 P.E. #55550



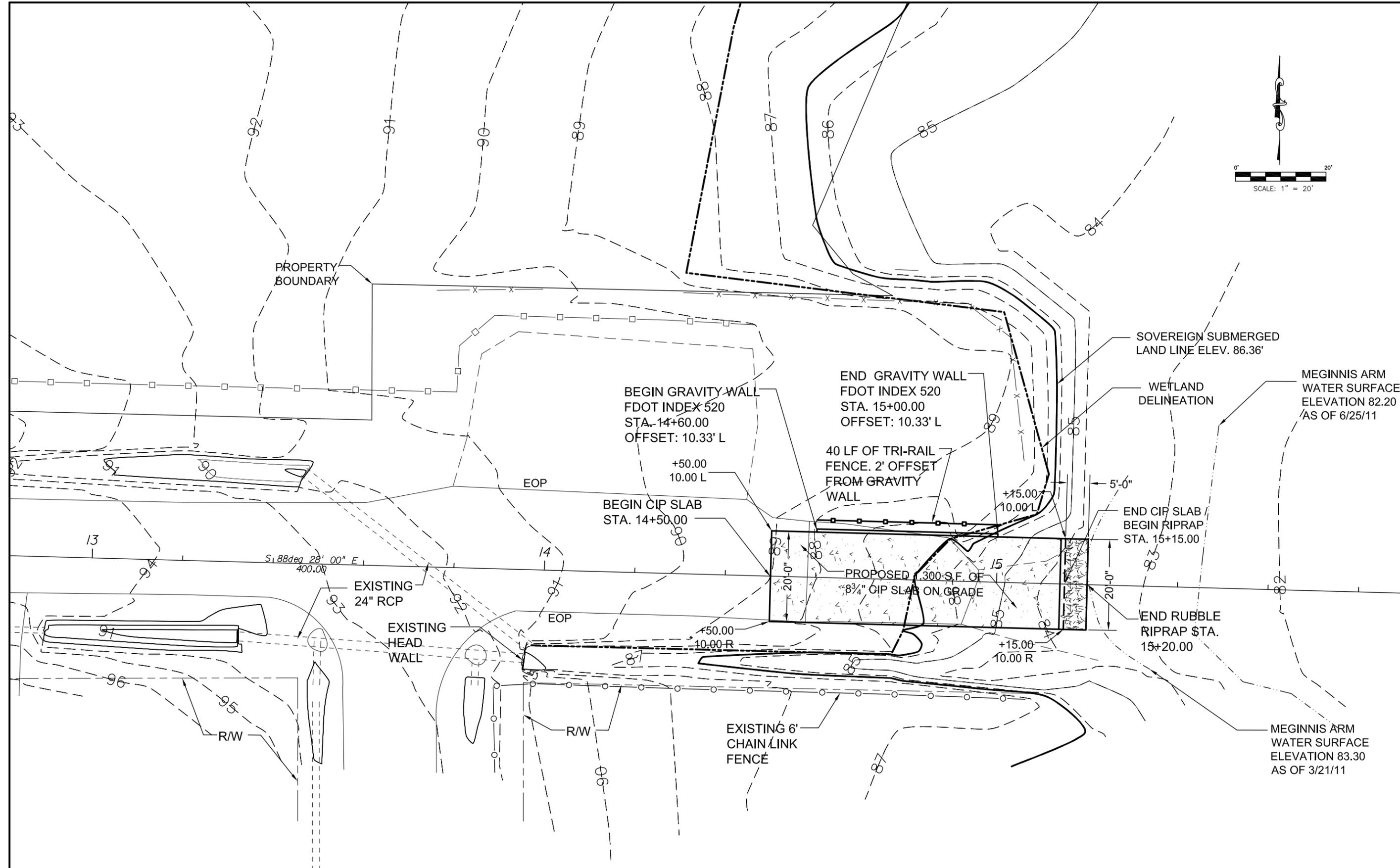
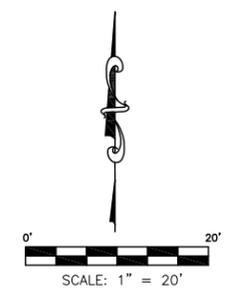
REGISTE, SLIGER ENGINEERING, INC.
 CIVIL AND STRUCTURAL ENGINEERING CONSULTANT
 CERT. OF AUTHORIZATION # 9292
 1427 N. Bronough Street - Tallahassee, FL 32303
 PHONE: (850) 894-4521 - FAX: (850) 224-0505
 PROJECT NUMBER: IIII



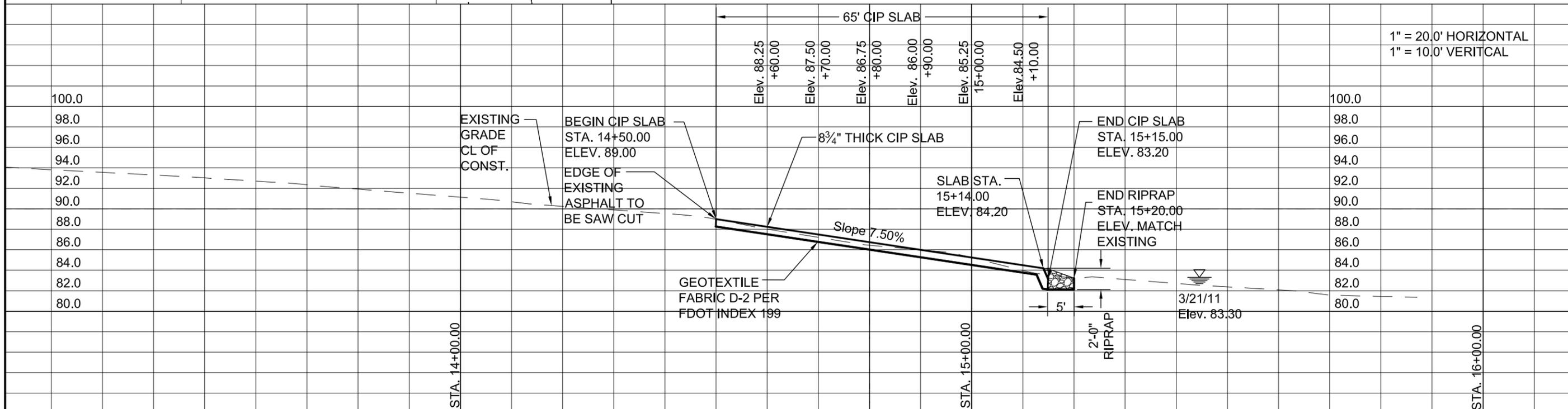
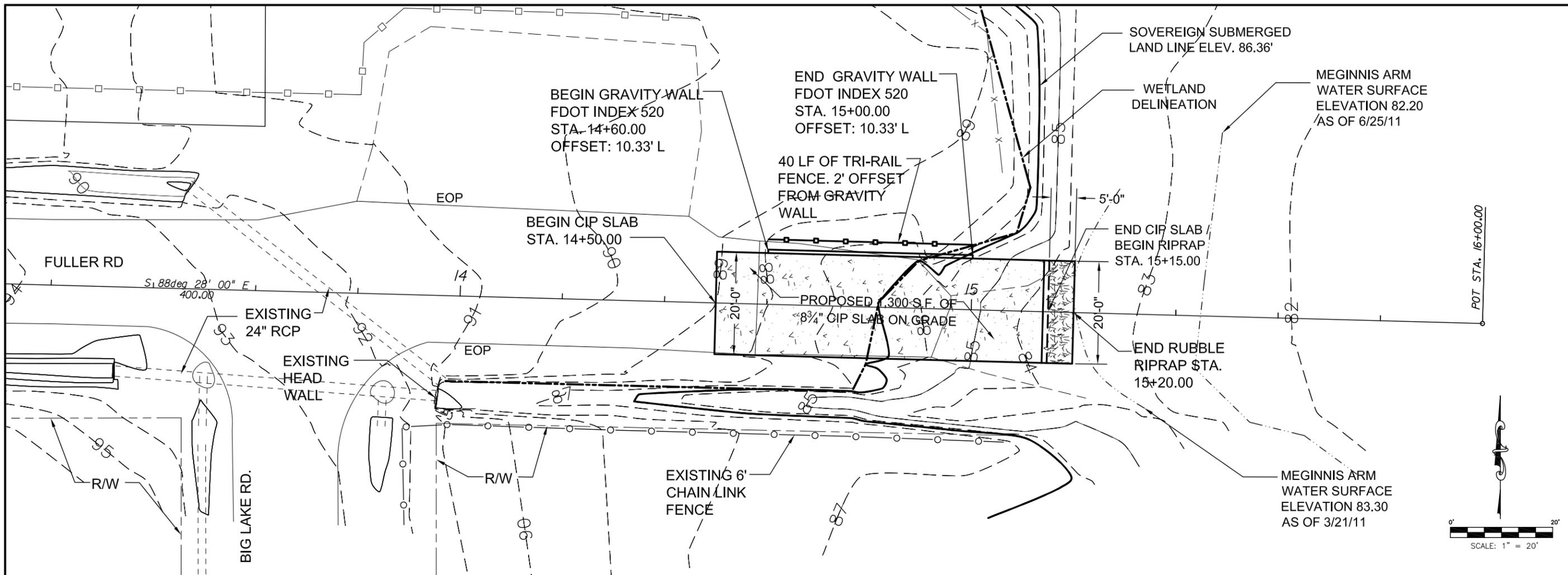
LEON COUNTY DEPARTMENT OF PUBLIC WORKS
 2280 MICCOSUKEE ROAD, TALLAHASSEE, FLORIDA 32308
 PHONE (850) 606-1500 * FAX (850) 606-1501

EROSION CONTROL & DEMOLITION PLAN
 PROJECT NAME:
BOAT RAMP REHABILITATION

SHEET NO.
7



REVISIONS			DATE	BY	DESCRIPTION	DRAWN BY B.A.W.	INITIAL	ENGINEER OF RECORD:		REGISTE, SLIGER ENGINEERING, INC. CIVIL AND STRUCTURAL ENGINEERING CONSULTANT CERT. OF AUTHORIZATION # 9292 1427 N. Bronough Street - Tallahassee, FL 32303 PHONE: (850) 894-4521 - FAX: (850) 224-0505		LEON COUNTY DEPARTMENT OF PUBLIC WORKS 2280 MICCOSUKEE ROAD, TALLAHASSEE, FLORIDA 32308 PHONE (850) 606-1500 * FAX (850) 606-1501	PROJECT NAME:		SHEET NO.
DATE	BY	DESCRIPTION											DATE	BY	
								JOHN F. SLIGER, II, P.E. P.E. #55550					PROPOSED LAYOUT BOAT RAMP REHABILITATION		8



REVISIONS		DATE	BY	DESCRIPTION

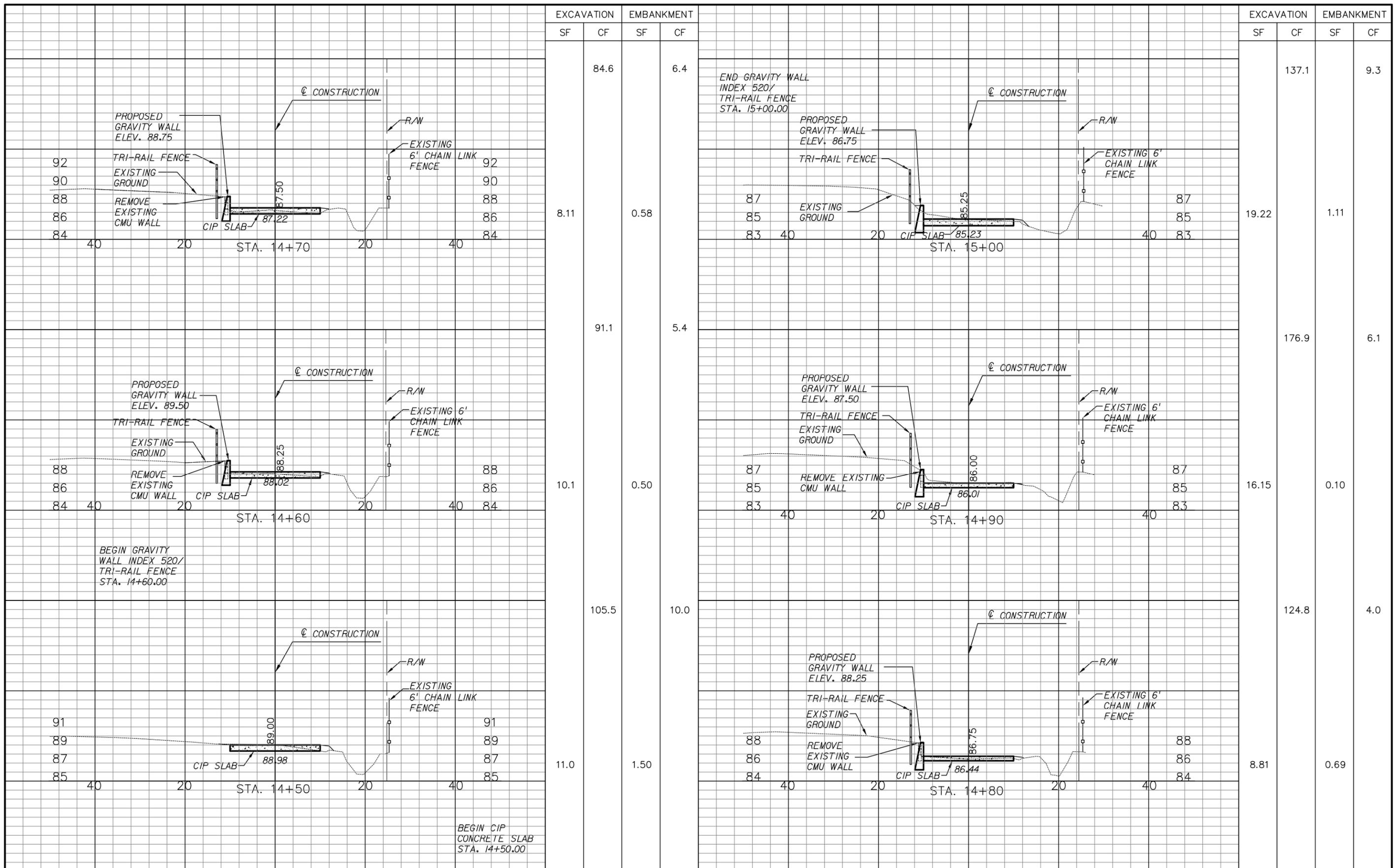
INITIAL	B.A.W.
CHECKED BY	C.M.C.
DESIGN BY	J.F.S.
CHECKED BY	J.R.
DATE	3/20/12

ENGINEER OF RECORD:	JOHN F. SLIGER, II, P.E. P.E. #55550
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	REGISTE, SLIGER ENGINEERING, INC. CIVIL AND STRUCTURAL ENGINEERING CONSULTANT CERT. OF AUTHORIZATION # 9292 1427 N. Bronough Street - Tallahassee, FL 32303 PHONE: (850) 894-4521 - FAX: (850) 224-0505
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	LEON COUNTY DEPARTMENT OF PUBLIC WORKS 2280 MICCOSUKEE ROAD, TALLAHASSEE, FLORIDA 32308 PHONE (850) 606-1500 * FAX (850) 606-1501
--	--

PLAN AND PROFILE PROJECT NAME: BOAT RAMP REHABILITATION	SHEET NO. 9
---	-----------------------



REVISIONS			DATE	BY	DESCRIPTION

DRAWN BY	B.A.W.	INITIAL	
CHECKED BY	C.M.C.	ENGINEER OF RECORD:	
DESIGN BY	J.F.S.		
CHECKED BY	J.R.		
DATE	3/2012		

JOHN F. SLIGER, II, P.E.
P.E. #55550



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PHONE: (850) 894-4521 - FAX: (850) 224-0505
PROJECT NUMBER: IIII

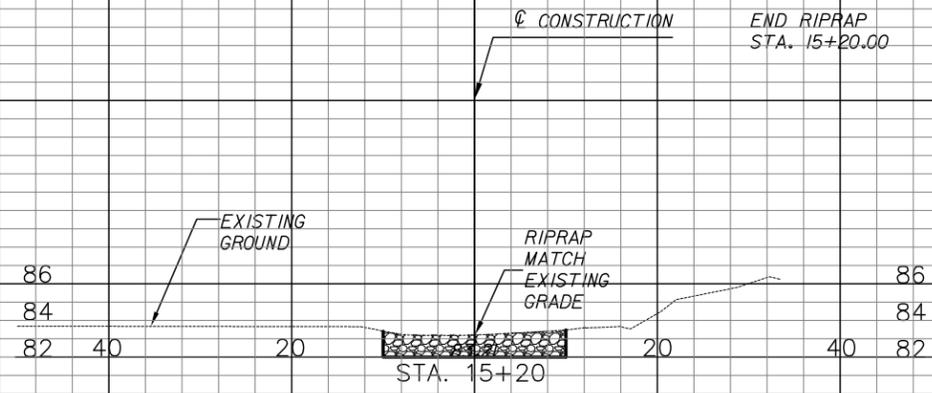


LEON COUNTY DEPARTMENT OF PUBLIC WORKS
2280 MICCOSUKEE ROAD, TALLAHASSEE, FLORIDA 32308
PHONE (850) 488-8003 * FAX (850) 488-1260

CROSS - SECTIONS				SHEET NO.
PROJECT NAME:				10
BOAT RAMP REHABILITATION				

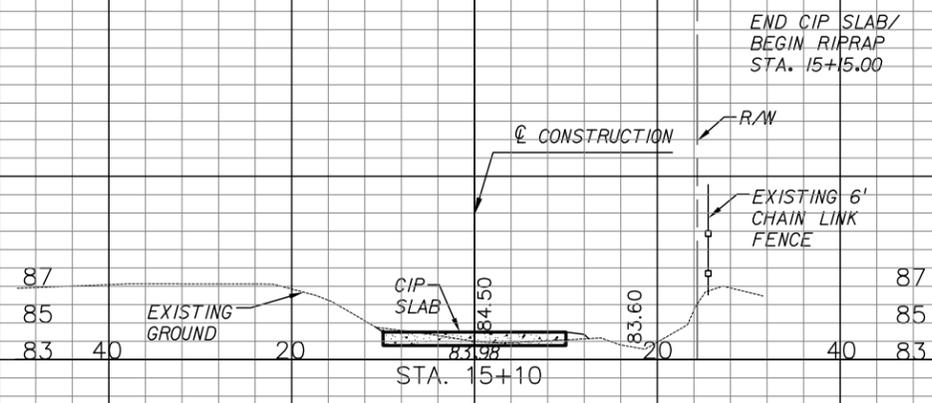
EXCAVATION		EMBANKMENT	
SF	CF	SF	CF
	TOTAL 889 33 CY		TOTAL 45 2 CY

EXCAVATION		EMBANKMENT	
SF	CF	SF	CF



25.68

0



8.19

0.75

169.4

3.8

REVISIONS		
DATE	BY	DESCRIPTION

DRAWN BY	B.A.W.
CHECKED BY	C.M.C.
DESIGN BY	J.F.S.
CHECKED BY	J.R.
DATE	3/2012

ENGINEER OF RECORD:

JOHN F. SLIGER, II, P.E.
P.E. #55550



REGISTE, SLIGER ENGINEERING, INC.
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CERT. OF AUTHORIZATION # 9292
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LEON COUNTY DEPARTMENT OF PUBLIC WORKS
2280 MICCOSUKEE ROAD, TALLAHASSEE, FLORIDA 32308
PHONE (850) 488-8003 * FAX (850) 488-1260

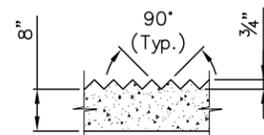
CROSS - SECTIONS
PROJECT NAME:
BOAT RAMP REHABILITATION

SHEET NO.
II

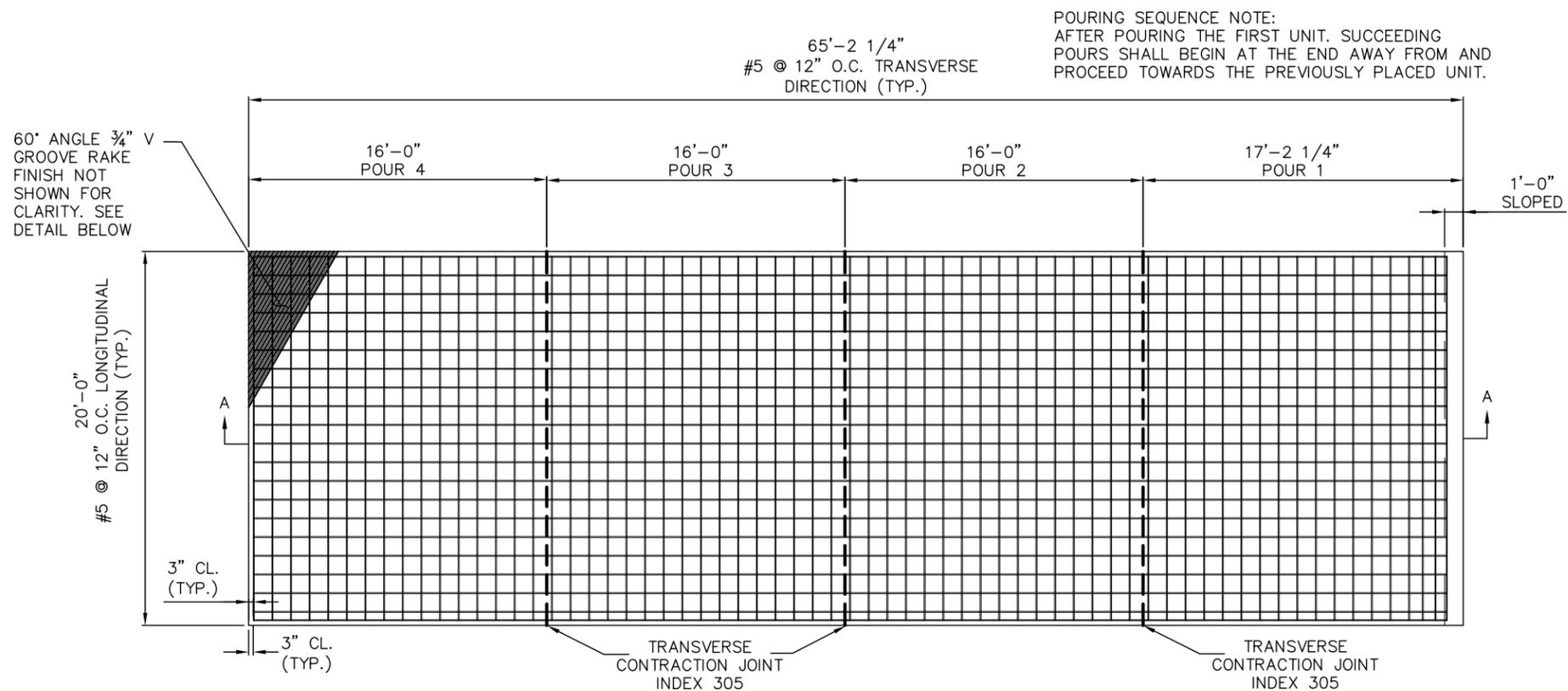
CAST-IN-PLACE CONCRETE (CIP):

1. CONCRETE SHALL BE IN ACCORDANCE WITH SECTION 346 OF FDOT STANDARD SPECIFICATIONS.
2. PROVIDE STRUCTURAL CONCRETE CLASS II (DECK), WITH MINIMUM ULTIMATE COMPRESSIVE DESIGN STRENGTH IN 28 DAYS OF 4500 PSI AND A MAXIMUM WATER/CEMENT RATIO OF 0.44.
3. CONCRETE COVER: UNLESS OTHERWISE NOTED, CONCRETE COVER SHALL CONFORM TO THE FOLLOWING:
CIP - SLAB: 3" MIN.
4. CONCRETE COVERS SHOWN IN THE PLANS DO NOT INCLUDE PLACEMENT AND FABRICATION.
5. TOLERANCE UNLESS SHOWN AS "MINIMUM COVER". SEE FDOT STANDARD SPECIFICATIONS FOR ALLOWABLE REINFORCEMENT TOLERANCES.
6. CONTRACTION JOINTS WILL BE PERMITTED ONLY AT LOCATIONS SHOWN ON THE PLANS. ADDITIONAL CONTRACTION JOINTS, OR ALTERNATE LOCATIONS TO THOSE SHOWN, REQUIRE WRITTEN APPROVAL FROM THE ENGINEER.
7. REINFORCEMENT STEEL SHALL BE IN ACCORDANCE WITH ASTM A 615, GRADE 60 DEFORMED BARS UNLESS OTHERWISE NOTED.
8. PLACING OF CONCRETE - VIBRATE CONCRETE TO PREVENT HONEYCOMBS AND VOIDS. DO NOT USE ADMIXTURES CONTAINING CHLORIDE SALTS IN THE CONCRETE.
9. ALL CONCRETE SURFACES SHALL RECEIVE A GENERAL SURFACE FINISH.

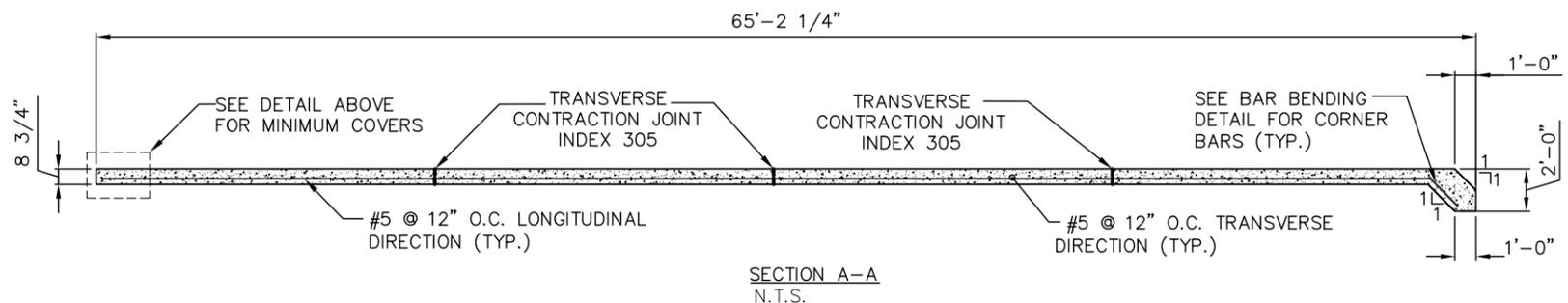
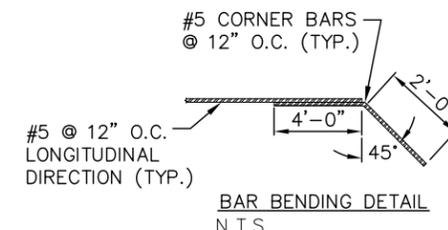
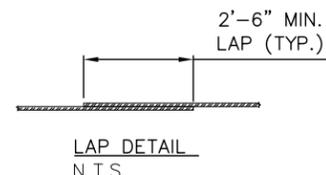
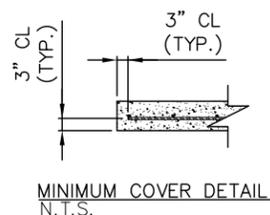
Estimated Quantities:		
ITEM	UNIT	QUANTITY
Concrete (Class II)	CY	36.4
Reinforcing Steel	LB	2766



V-GROOVE RAKE FINISH DETAIL
N.T.S.



POURING SEQUENCE NOTE:
AFTER POURING THE FIRST UNIT, SUCCEEDING POURS SHALL BEGIN AT THE END AWAY FROM AND PROCEED TOWARDS THE PREVIOUSLY PLACED UNIT.



REVISIONS		INITIAL
DATE	BY	DESCRIPTION
		DRAWN BY B.A.W.
		CHECKED BY C.M.C.
		DESIGN BY J.F.S.
		CHECKED BY J.R.
		DATE 3/2012

ENGINEER OF RECORD:

JOHN F. SLIGER, II, P.E.
P.E. #55550



REGISTE, SLIGER ENGINEERING, INC.
CIVIL AND STRUCTURAL ENGINEERING CONSULTANT
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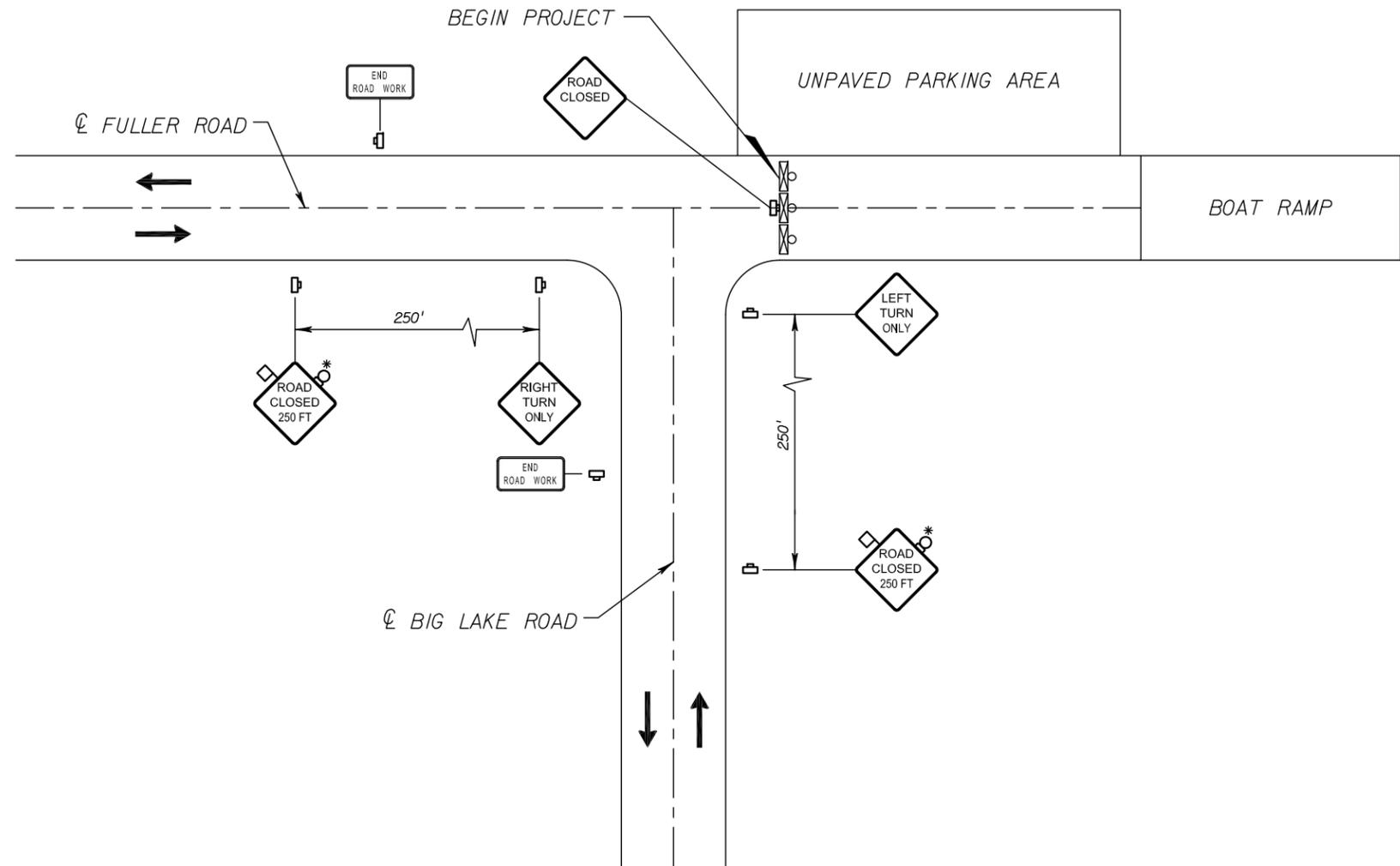
LEON COUNTY DEPARTMENT OF PUBLIC WORKS
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STRUCTURAL SLAB DETAILS
PROJECT NAME:
BOAT RAMP REHABILITATION

SHEET NO.
12

ROAD CLOSURE NOTES

1. THE TRAFFIC SHALL BE MAINTAINED IN ACCORDANCE WITH THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS", AND THE FLORIDA DEPARTMENT OF TRANSPORTATION'S "ROADWAY AND TRAFFIC DESIGN STANDARDS".
2. POSITIVE DRAINAGE SHALL BE MAINTAINED PRIOR TO, DURING, AND AFTER CONSTRUCTION.
3. LOCATION /PLACEMENT OF ADVANCE WARNING ARROW PANELS, IF UTILIZED, TO BE APPROVED BY THE PROJECT ADMINISTRATOR
4. CONTRACTOR SHALL PROVIDE EROSION CONTROL UNDER FDOT DESIGN STANDARDS (2010) FOR DURATION OF PROJECT.
5. CONTRACTOR IS RESPONSIBLE FOR KEEPING UP ROAD MAINTENANCE DURING CONSTRUCTION.
6. ANY DEVIATION FROM THE MOT PLAN SHALL BE SIGNED AND SEALED BY A FLORIDA PROFESSIONAL ENGINEER AND SUBMITTED FOR REVIEW AND APPROVAL/DISAPPROVAL BY THE COUNTY.



* To Be High Intensity Flashing Lights

⊠ Type III Barricade with High Intensity Flashing Lights

REVISIONS			DRAWN BY	INITIAL	ENGINEER OF RECORD:			TRAFFIC CONTROL PLAN		SHEET NO.
DATE	BY	DESCRIPTION	C.M.C.	J.F.S.	JOHN F. SLIGER, II, P.E. P.E. #55550			LEON COUNTY DEPARTMENT OF PUBLIC WORKS 2280 MICCOSUKEE ROAD, TALLAHASSEE, FLORIDA 32308 PHONE (850) 606-1500 * FAX (850) 606-1501		PROJECT NAME:
								BOAT RAMP REHABILITATION		

DESIGN NOTES

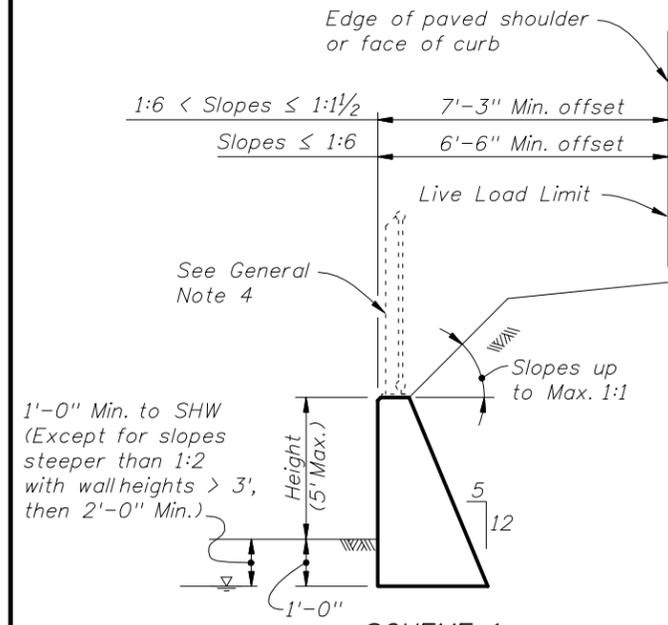
- Gravity wall design is based on the following soil criteria which covers the majority of soil types found in Florida:
 Classification = Cohesionless (Fine Sand)
 Friction Angle = 30 Degrees
 Moist Unit Weight of Backfill = 120 lbs./cu. ft.
 Presumptive Allowable Bearing Pressure:
 = 2,500 psf for slopes equal to or flatter than 1:1½
 = 3,300 psf for slopes steeper than 1:1½
 Corrected SPT Blow Count for foundation = 35 blows/ft.
 (average value within the range of depth from the base of wall to 2.0 x base width below wall).
 Max. Seasonal High Water Table (SHWT) is one (1) foot below the horizontal ground surface at the toe of the wall, except as noted.
- In cases where the Designer considers the soil at the specific site location to be of lesser strength, an analysis is required to verify that sliding, bearing, overturning and stability requirements are satisfied.
- Overall stability of the wall shall be analyzed when the backfill slope exceeds 1:2 (vert. : horiz.) or the seasonal high water (SHW) is less than 2 ft. below the ground surface.
- Stability of the slope above the top of the gravity wall shall be analyzed for slopes steeper than 1:2 (vert. : horiz.) with a minimum Factor of Safety = 1.3.
- For Scheme 1 or Scheme 2, when a roadside barrier is required above the wall (guardrail, barrier wall, etc.) the deflection space required for the barrier must be considered. Locate the barrier so that there is no conflict between guardrail posts or barrier footing and the gravity wall or soil reinforcement. This may result in an offset greater than the minimum offset for the live load limit.

GENERAL NOTES

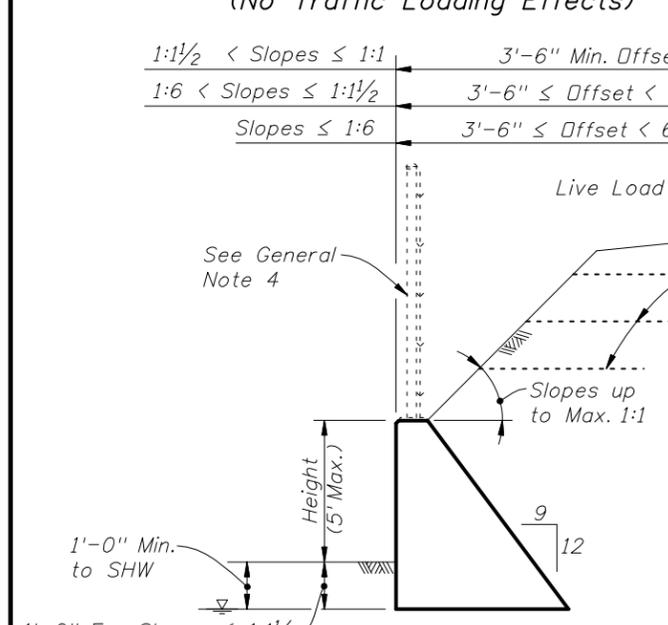
- Gravity walls constructed as extensions of reinforced concrete retaining walls, except walls of proprietary designs, shall have the same face texture and finish as the reinforced concrete retaining wall.
- Concrete for Gravity Wall shall be Class NS per Section 347. Concrete for Scheme 3 Junction Slab and Traffic Railing shall be Class II per Section 346, unless otherwise specified in the plans.
- Reinforcing steel shall be ASTM A615, Grade 40 or 60 provided at the max. spacings shown. ASTM A185 Smooth or ASTM A497 Deformed Welded Wire Fabric (WWF) may be substituted on an equal area basis. Do not increase bar/wire spacing for Grade 60 reinforcing steel or WWF.
- When required, for adjunct guiderail or pedestrian/bicycle railings see the plans, Index No. 850, 860 or 870 as appropriate. For adjunct Type B fence see Index No. 802.
- Joint seal to be two layers of 30# smooth roofing paper or Type D-5 geotextile fabric in accordance with Index No. 199. Mop all contact surfaces of concrete and roofing paper or geotextile fabric with cut-back asphalt. Stop roofing paper or geotextile fabric 6" below top of wall.
- Provide a continuous 1'x1' clean gravel or crushed rock drain for wall heights 3 ft. and higher. Wrap drainage layer as shown, with Type D-3 geotextile fabric in accordance with Index No. 199. Provide 8"x8" galvanized mesh with ¼" openings, at the inside end of the PVC Drain Pipe. Provide 2" Ø PVC Drain Pipe (Sch. 40) at 10 ft. max. spacing (When Drainage Layer required). Locate minimum 2'-0" clear of wall joints.
- Cost of reinforcing steel, face texture, finish, joint seal, drain pipes, drainage layer, galvanized mesh and geotextile fabric to be included in the Contract Unit Price for Class NS Concrete (Gravity Wall), CY. Cost of concrete for Junction Slab in Scheme 3, to be included in Contract Unit Price for Class II Concrete (Retaining Walls), CY. Adjunct traffic railings, pedestrian/bicycle railings or fences to be paid for separately.

HEIGHT (FT.)	PER LINEAR FOOT OF WALL			REINF. STEEL (LB.)	WEEP HOLES & DRAIN REQD.
	CLASS I CONCRETE (CY)				
	SCHEME 1	SCHEME 2	SCHEME 3		
1'	0.08	0.11 (0.20*)	0.03	3 (4*)	No
2'	0.14	0.20 (0.32*)	0.09	4 (5*)	No
3'	0.22	0.32 (0.47*)	0.29	5 (6*)	Yes
4'	0.32	0.47 (0.65*)	0.43	6 (7*)	Yes
5'	0.43	0.65 (0.85*)	0.60	7 (8*)	Yes

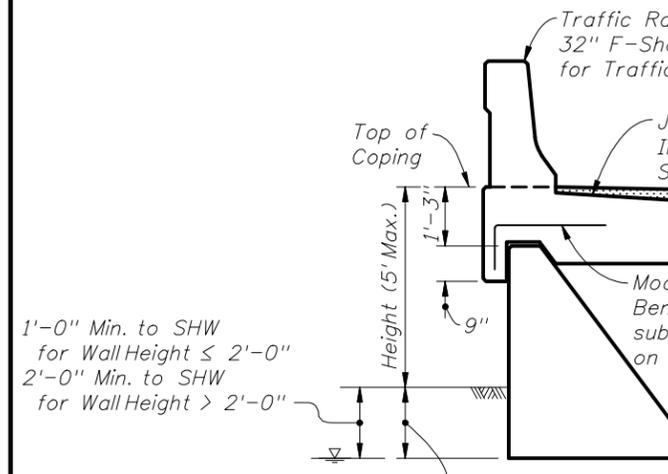
ESTIMATED QUANTITIES NOTES:
 For Scheme 3 Junction Slab and Traffic Railing see the referenced Design Standards for estimated quantities.
 * For 2'-0" Toe Depth in Scheme 2.



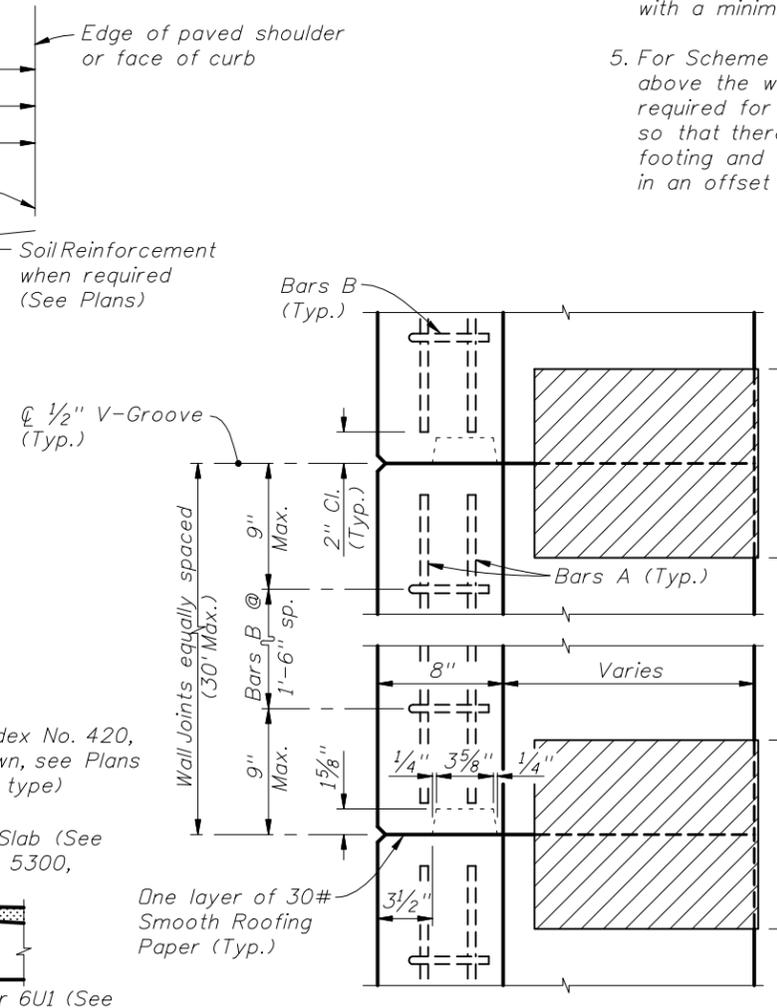
SCHEME 1
(No Traffic Loading Effects)



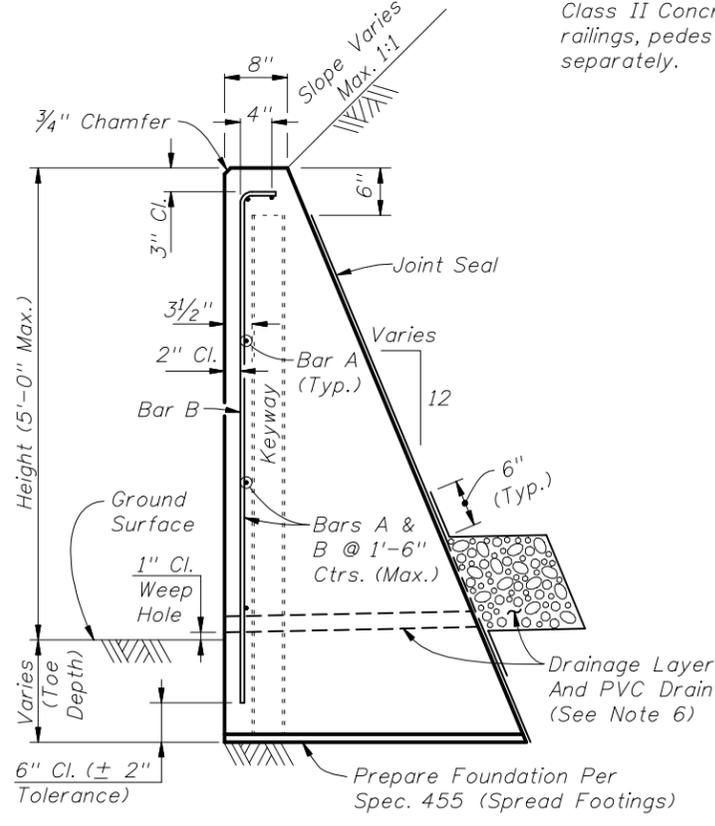
SCHEME 2
(With Traffic Loading or Slopes > 1:1½)



SCHEME 3
(With Traffic Railing)

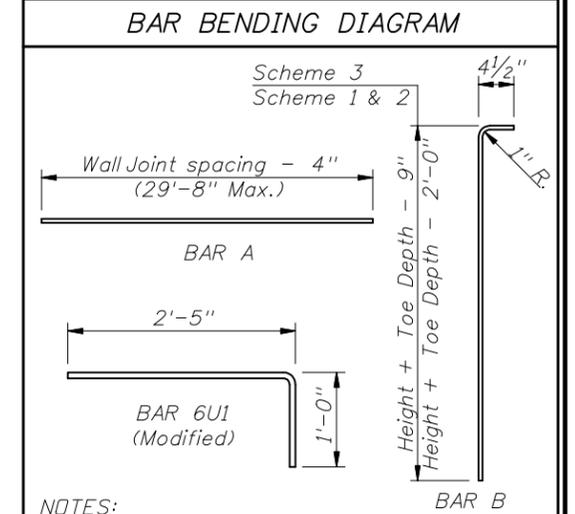


KEYWAY & WALL JOINT DETAIL
(TOP VIEW)



TYPICAL SECTION

BILL OF REINFORCING STEEL		
MARK	SIZE	LENGTH
A	4	As Reqd.
B	4	As Reqd.
UI (Mod.)	6	3'-5"



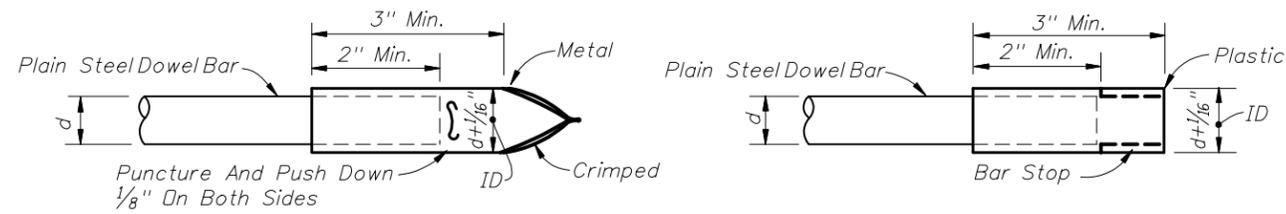
NOTES:
 1. All bar dimensions are out to out.
 2. Lap splices for Bars A must be a minimum of 1'-6".



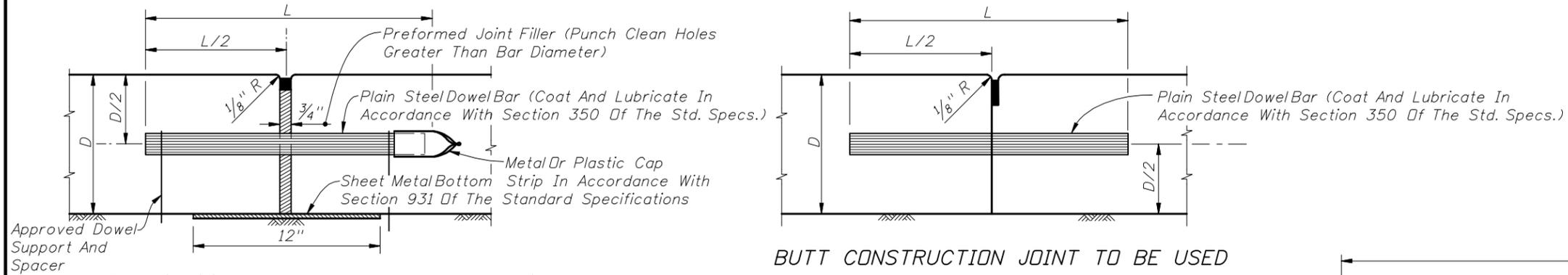
2010 FDOT Design Standards

GRAVITY WALL

Last Revision: 01/01/07
 Sheet No. 1 of 1
 Index No. 520



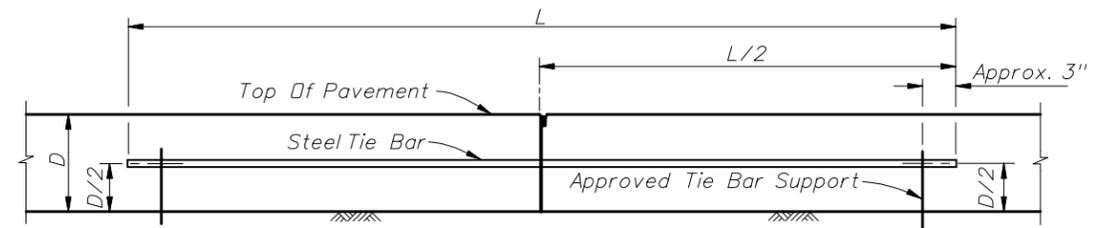
METAL OR PLASTIC CAPS FOR DOWEL BARS



Approved Dowel Support And Spacer
 Note: Expansion joints to be placed on approaches to bridges, at street intersections and other locations indicated in detail plans.

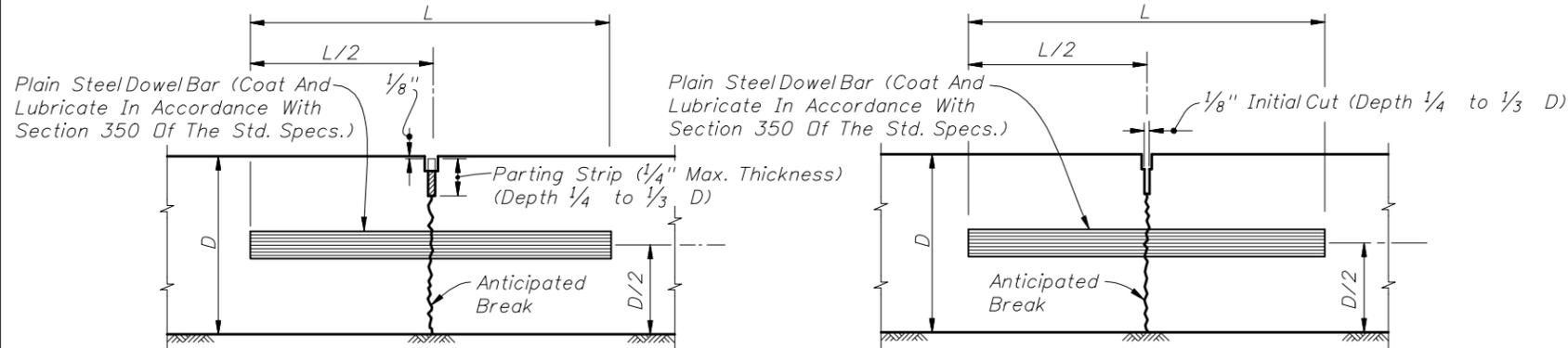
TRANSVERSE EXPANSION JOINT

BUTT CONSTRUCTION JOINT TO BE USED AT DISCONTINUANCES OF WORK



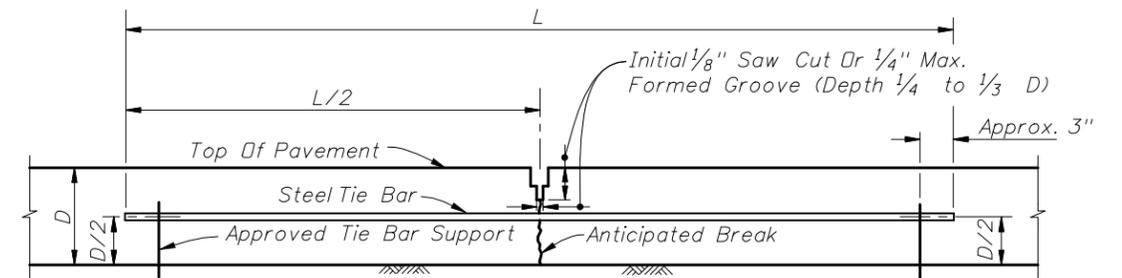
Note: Tie bar spacing shall not exceed 24" at these joints.

LONGITUDINAL BUTT CONSTRUCTION JOINT



TRANSVERSE CONTRACTION JOINT, VIBRO CAST METHOD

TRANSVERSE CONTRACTION JOINT, SAWED METHOD



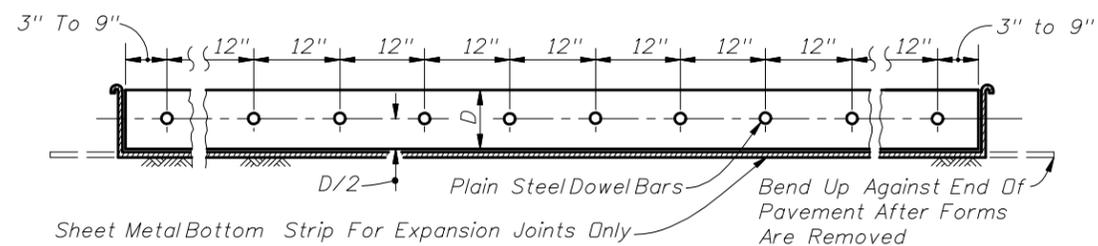
Note: Slabs poured simultaneously. Tie bars may be inserted in the plastic concrete by means approved by the Engineer.

LONGITUDINAL LANE-TIE JOINT

Tie bars are deformed #4 or #5 reinforcing steel bars meeting the requirements of Section 931 of the Standard Specifications.

Provide a standard load transfer tied joint with #4 bars 25" in length at 24" or #5 bars 30" in length at 38" spacing.

LONGITUDINAL JOINTS



DOWEL BAR LAYOUT

DOWELS (LENGTH 18")	
Pavement Thickness "D"	Diameter
6" - 6 1/2"	3/4"
7" - 8 1/2"	1"
9" - 10 1/2"	1 1/4"
≥ 11"	1 1/2"

TRANSVERSE JOINTS ARE TO BE SPACED AT A MAXIMUM OF 15'. DOWELS ARE REQUIRED AT ALL TRANSVERSE JOINTS UNLESS OTHERWISE NOTED IN PLANS.

TRANSVERSE JOINTS

Note: For joint seal dimensions see Sheet 2.

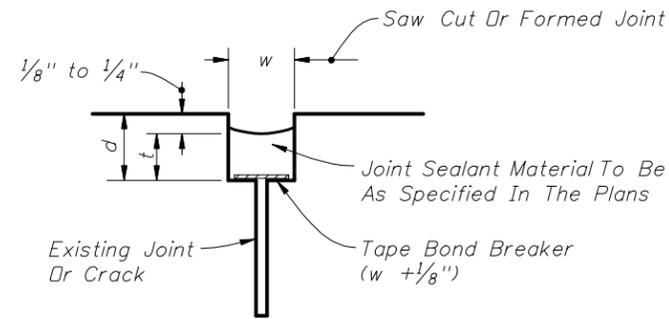


2010 FDOT Design Standards

CONCRETE PAVEMENT JOINTS

Last Revision 07/01/09 Sheet No. 1 of 4

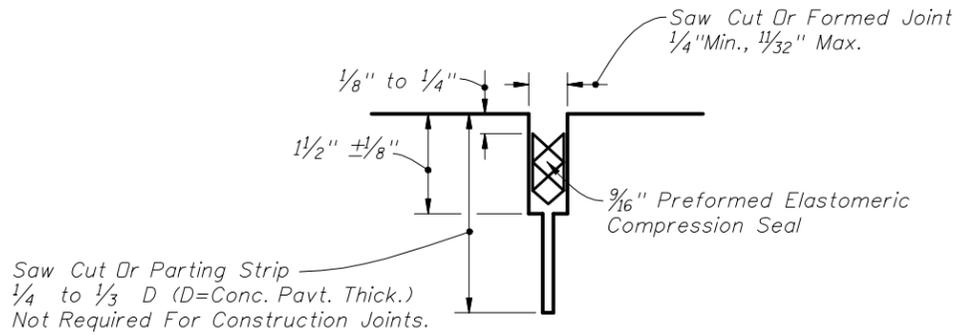
Index No. 305



Note: Dimension *w* will be shown in the plans or established by the Engineer based on field conditions. Dimension *d* will be constructed so that the shape factor *w/t* has a maximum value of 2.0 and a minimum value of 1.0.

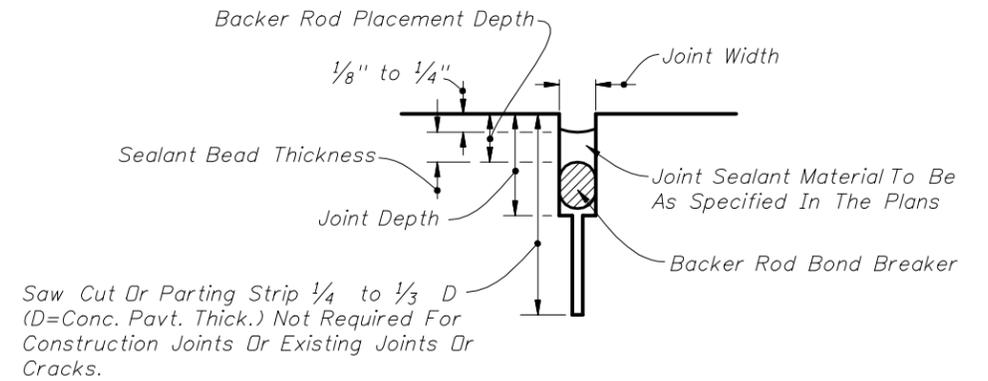
FOR REHABILITATION PROJECTS

TAPE BOND BREAKER



FOR NEW PROJECTS

PREFORMED ELASTOMERIC COMPRESSION SEAL

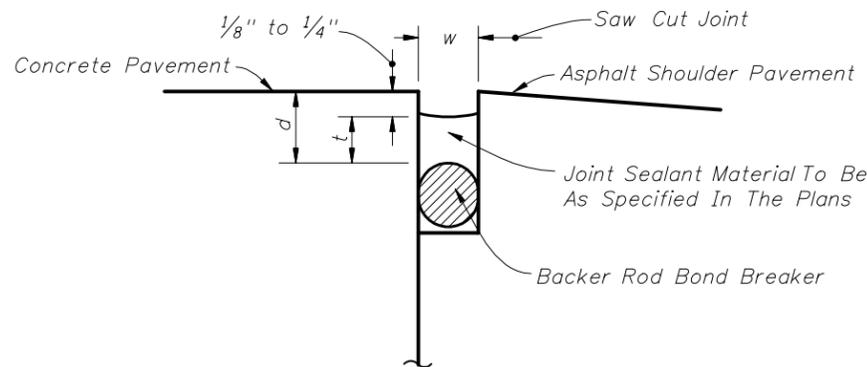


FOR NEW AND REHABILITATION PROJECTS

BACKER ROD BOND BREAKER

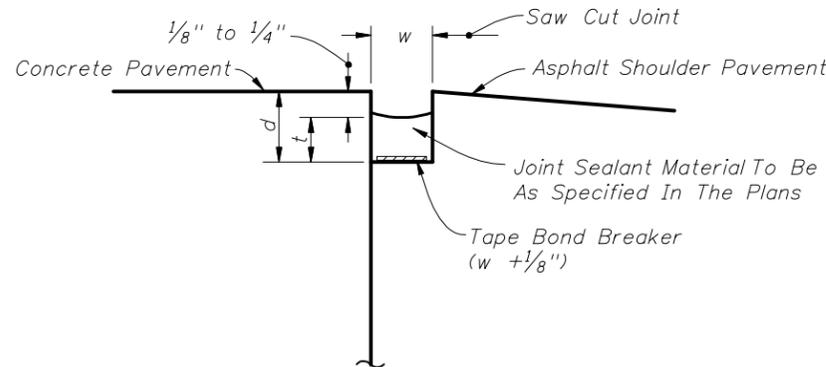
CONCRETE-CONCRETE JOINTS

$d = w = 3/4$ " Unless Specified Otherwise In The Plans



BACKER ROD BOND BREAKER

$d = w = 3/4$ " Unless Specified Otherwise In The Plans



TAPE BOND BREAKER

FOR NEW AND REHABILITATION PROJECTS;
EITHER TAPE OR BACKER ROD BOND BREAKER REQUIRED;
SHOULDER MUST BE REPAIRED IF PROPER JOINT SHAPE
CAN NOT BE ATTAINED

CONCRETE-ASPHALT SHOULDER JOINTS

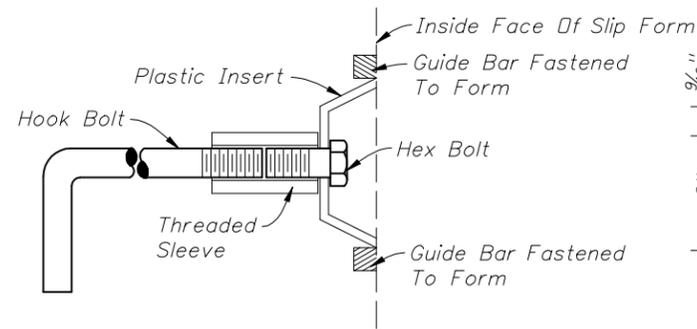
JOINT SEAL DIMENSIONS

BACKER ROD BOND BREAKER (CONCRETE-CONCRETE JOINTS)				
JOINT DIMENSIONS (INCHES)				
JOINT WIDTH	SEALANT BEAD THICKNESS	BACKER ROD DIA.	MINIMUM JOINT DEPTH	BACKER ROD PLACEMENT DEPTH
1/4	1/4	3/8	1	1/2
3/8	1/4	1/2	1 1/4	1/2
1/2	1/4	5/8	1 1/4	1/2
5/8	5/16		1 1/2	
	3/8	1	1 3/4	5/8
		1 1/8	1 3/4	
1	1/2	1 1/4	2	
>1	1/2	1 1/4+	2+	

Unless otherwise indicated on the plans the joint width for new construction will be 1/4" for construction joints, 3/8" for all other joints.

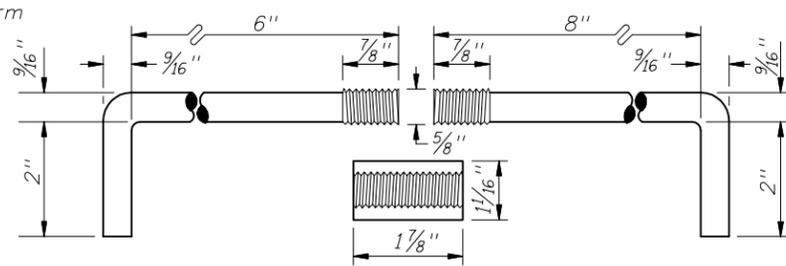
For rehabilitation projects the joint width will be shown on the plans or established by the Engineer based on field conditions.





NOTE: After the concrete has set to the extent that the Keyway will retain its shape, the hex bolt and plastic insert shall be removed. The remaining portion of the hook bolt assembly shall be installed immediately prior to placing of concrete in the adjacent lane.

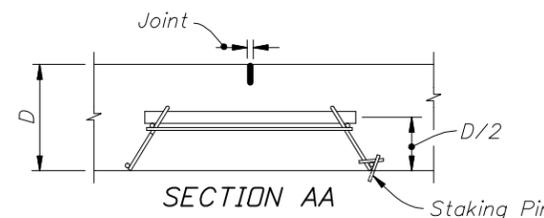
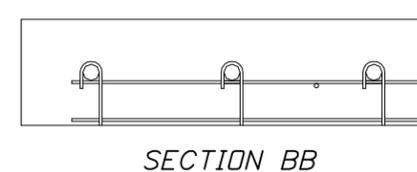
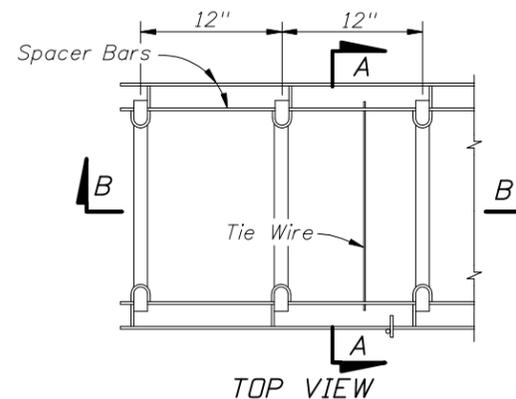
ALTERNATE KEYWAY AND HOOK BOLT



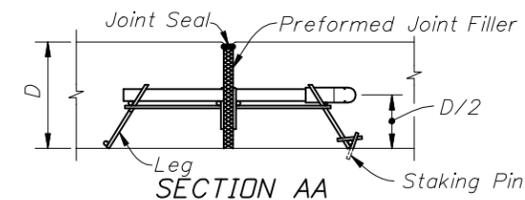
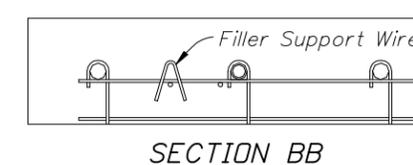
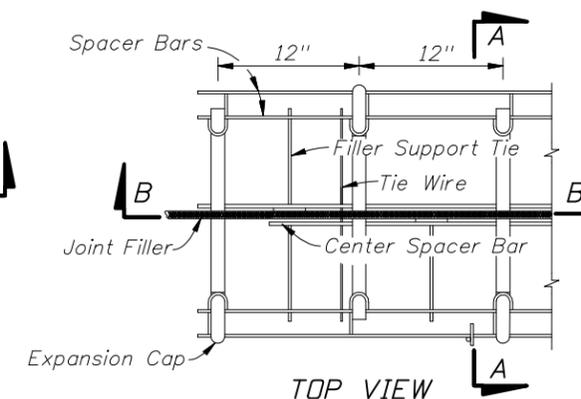
Anchor bolts shall be Grade C in accordance with ASTM A 307.

Threaded sleeves shall develop the full strength of the bolt and meet the material and thread requirements of ASTM A 563.

STEEL HOOK BOLT ASSEMBLY

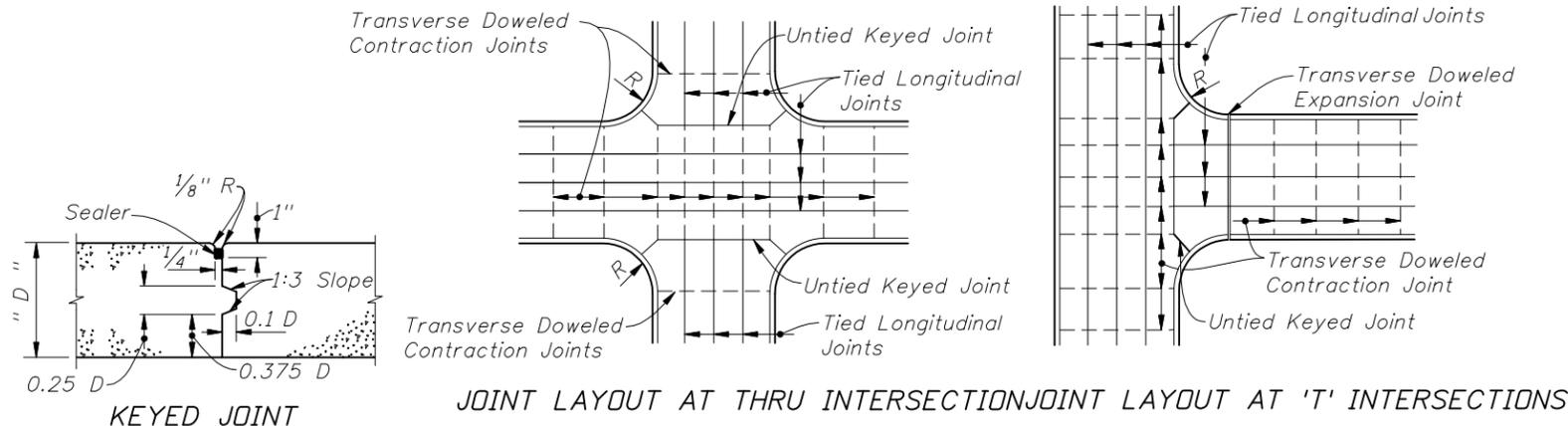


CONTRACTION ASSEMBLY



EXPANSION ASSEMBLY

Note:
Proprietary contraction and expansion assemblies may be used. Products shall be introduced to the State Construction Office in accordance with section (C) of the Product Evaluation Procedure.



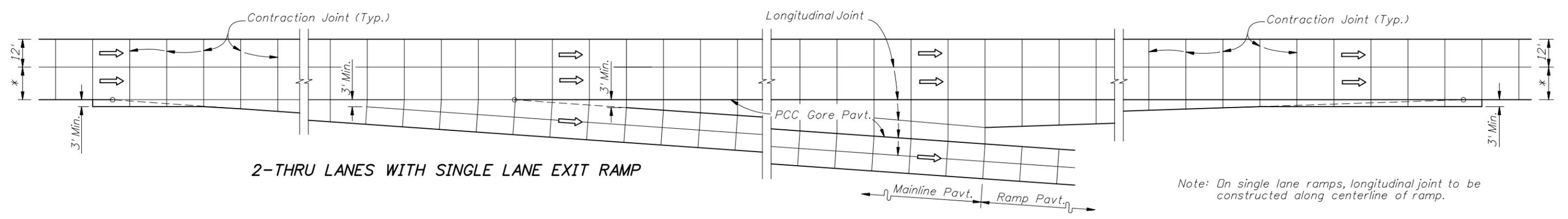
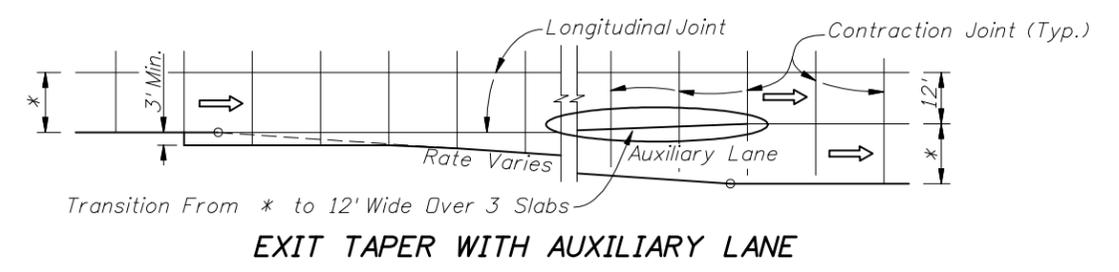
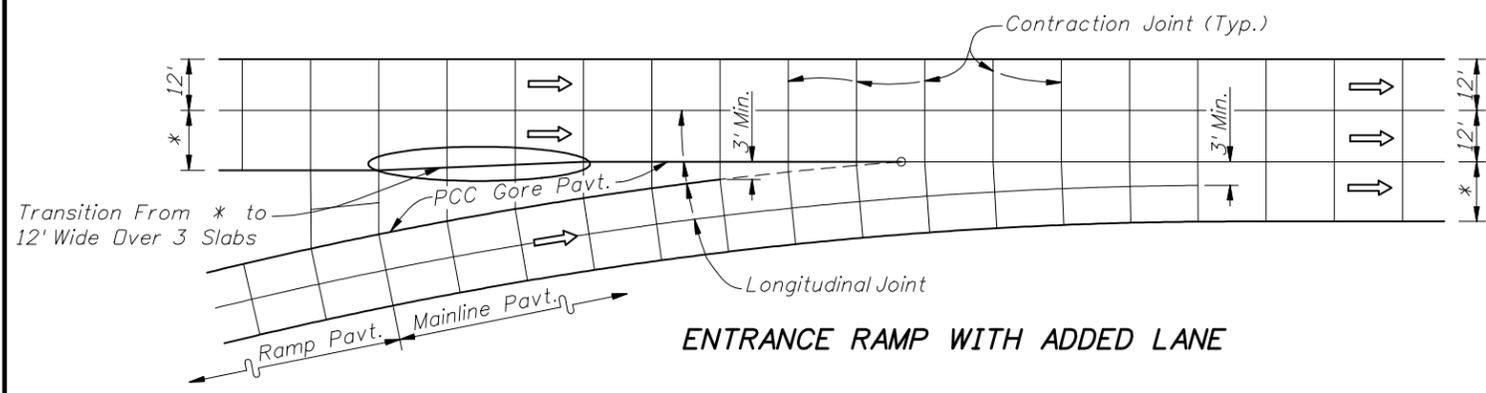
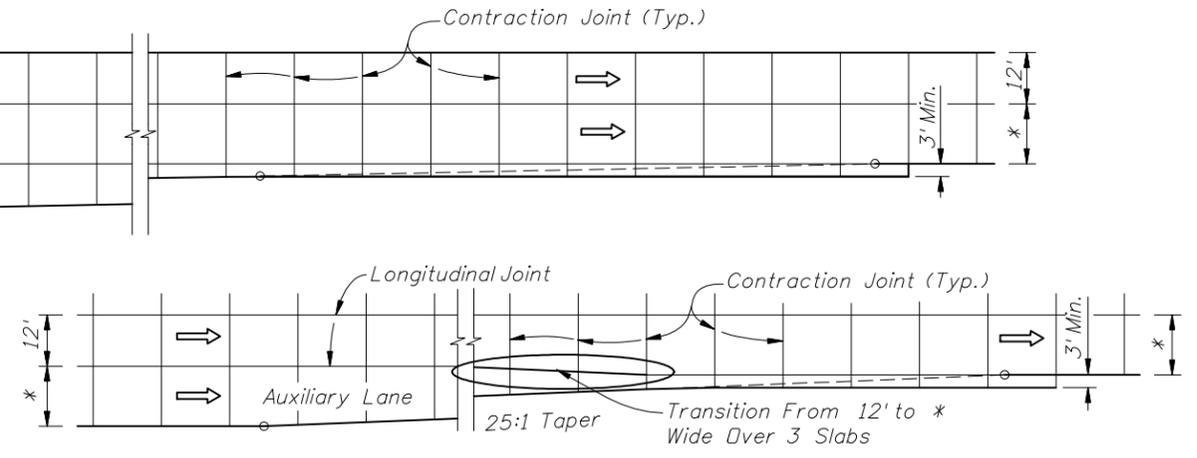
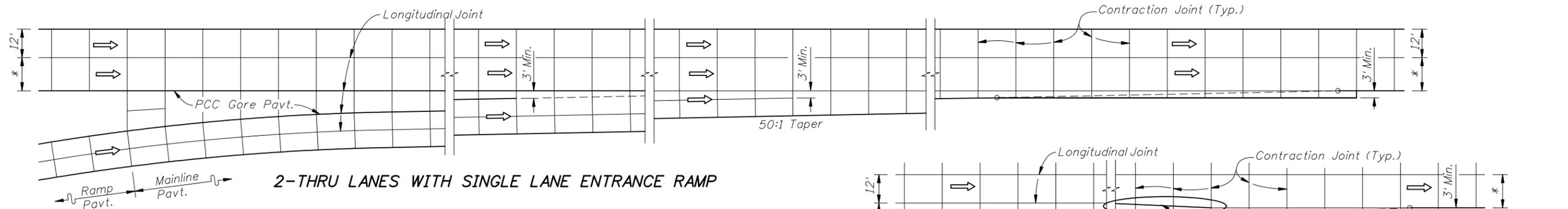
JOINT LAYOUT AT THRU INTERSECTION JOINT LAYOUT AT 'T' INTERSECTIONS

NOTES

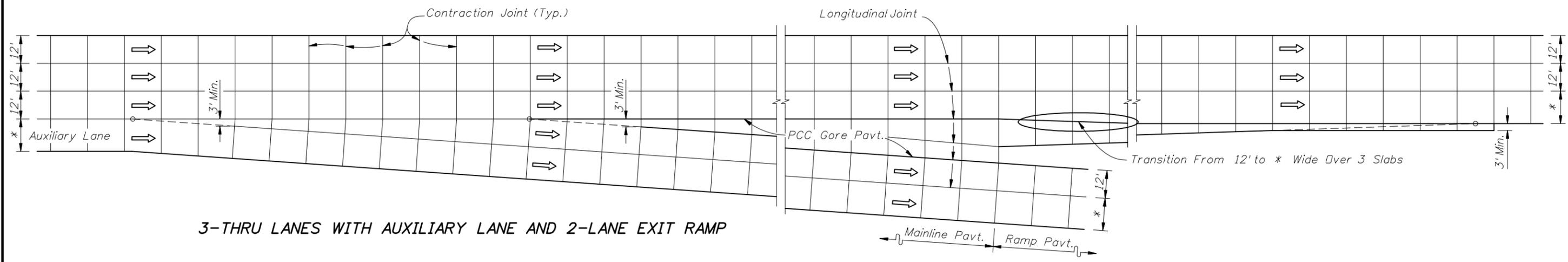
1. Longitudinal joints will not be required for single lane pavement 14' or less in width. For entrance and exit ramp joint details, see Sheet 4 of 4.
2. Arrangement of longitudinal joints are to be as directed by the Engineer.
3. All manholes, meter boxes and other projections into the pavement shall be boxed-in with 1/2" preformed expansion joint material.

JOINT ARRANGEMENT





Note: On single lane ramps, longitudinal joint to be constructed along centerline of ramp.



JOINT LAYOUT AT ENTRANCE AND EXIT RAMP TERMINALS

* 13' with tied Concrete Shoulders or 14' with Asphalt Shoulders.



2010 FDOT Design Standards

CONCRETE PAVEMENT JOINTS

Last Revision 07/01/09	Sheet No. 4 of 4
Index No. 305	