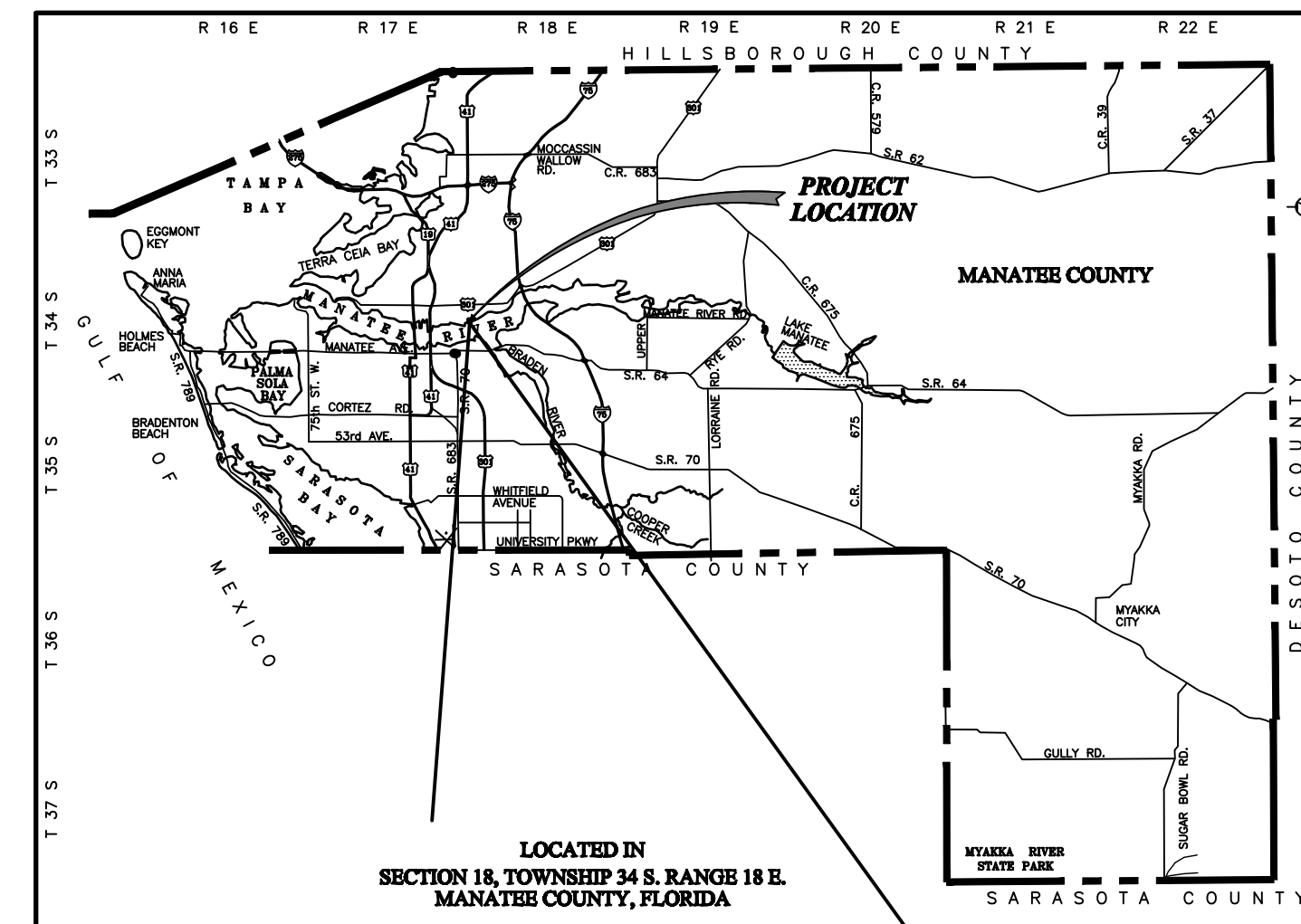


# MANATEE COUNTY HIGHLAND SHORES BOAT RAMP IMPROVEMENTS (RAPID RESPONSE - PLANNING) ADMINISTRATIVE PERMIT

**OWNER:**  
MANATEE COUNTY NATURAL  
RESOURCES DEPARTMENT  
415 10th STREET W.  
BRADENTON, FL 34205  
Telephone: (941) 748-4501

**PREPARED BY:**  
BOYLE ENGINEERING CORPORATION  
5971 CATTLEDGE BLVD.  
SARASOTA, FL 34232  
FL. ENGINEERING NO. EB-2005  
Telephone: (941) 377-8858  
www.boyleengineering.com



EXISTING SITE CONDITIONS:			
TOTAL PROJECT ACREAGE 0.64±			
EXISTING SITE USE TABLE:			
PARK/RECREATION AREA =	27,860 SF	0.64 AC.	100%
ROADWAY/ PARKING =	16,211 SF	0.37 AC.	58%
OPEN SPACE =	11,649 SF	0.27 AC.	42%
<b>TOTAL:</b>	<b>±0.64 AC.</b>	<b>±100%</b>	
EXISTING FLU	ZONING	LAND USE:	
ONSITE:	RES 6 RSF-4.5	PARK	
NORTH:	RES 6 RSF-4.5	RESIDENCE	
SOUTH:	RES 6	CANAL	
EAST:	RES 6 RSF-4.5	RESIDENCE	
WEST:	RES 6	CANAL	
EXISTING EASEMENTS AND PLATTED STREETS, ONSITE:			
THERE ARE NO KNOWN DRAINAGE AND UTILITY EASEMENTS PLATTED ONSITE.			
HISTORIC OR INDIAN MOUNDS ON SITE:			
THERE ARE NO KNOWN HISTORIC SITES OR INDIAN MOUNDS ONSITE.			
PERENNIAL STREAM INFORMATION:			
THERE ARE JURISDICTIONAL WETLANDS, AND WATER WAYS THAT ADJACENT THIS PROPERTY.			
WELL INFORMATION:			
THERE ARE NO KNOWN WELLS LOCATED ON SITE.			
FLOOD ZONE:			
ZONE AB (EL-8) PER COMMUNITY PANEL NO. 120153-0193B DATED 1984.			
PROPOSED DENSITY:			
EXISTING PARK LAND = 27,860 SF / 0.64 AC			
PERCENTAGE OF IMPERVIOUS AREA:			
PERVIOUS ACRES = 0.017 AC.			
IMPERVIOUS AREA = 0.623 AC.			
MAXIMUM BUILDING HEIGHT:			
N/A			
DEVELOPMENT CONSTRUCTION SCHEDULE:			
RECONSTRUCTION OF BOAT RAMP AND DOCKS BEGIN, MARCH 1, 2009 AND END BY MARCH 2010.			
PROPOSED SITE DESIGN:			
RECONSTRUCTION OF EXISTING RAMP, CONSTRUCT NEW BOAT DOCK.			
SETRBACKS REQUIRED:			
FRONT:	20'		
SIDE:	7.5'		
REAR:	15'		
PARKING CALCULATIONS:			
REQUIRED SPACES:	N/A		
EXISTING PARKING:	11 SPACES		
PROPOSED ADDITIONAL PARKING SPACES:	4 SPACES		
TOTAL SPACES PROVIDED:	15 SPACES (INCL 1 HC SPACE)		
LOADING CALCULATIONS:			
LOADING AREAS:	N/A		
UTILITY INFORMATION:			
WATER & SEWER SERVICES ARE AVAILABLE FROM MANATEE COUNTY PUBLIC WORKS DEPT. NO CONNECTIONS ARE PROPOSED.			
ROADWAY INFORMATION:			
ALL INTERNAL DRIVE AISLES ARE PUBLICLY MAINTAINED.			
PERPETUAL OWNERSHIP & MAINTENANCE AGREEMENTS:			
MANATEE COUNTY IS RESPONSIBLE FOR MAINTENANCE OF ALL COMMON AREAS, PARKING AREAS AND LANDSCAPING.			
PROPOSED EASEMENTS, RESTRICTIONS OR COVENANTS:			
THERE ARE NO PROPOSED EASEMENTS, RESTRICTIONS OR COVENANTS.			
SCHOOL NEEDS:			
N/A			
EFFLUENT PARTICULATES:			
1. THERE SHALL BE NO EMISSION OF SMOKE OR OTHER PARTICULATE MATTER INTO THE ATMOSPHERE IN EXCESS OF THE STANDARDS SET FORTH IN CURRENT COUNTY, STATE OR FEDERAL AIR REGULATIONS.			
2. EMISSIONS WILL BE COMPLETELY AND EFFECTIVELY CONFINED WITHIN THE PROPERTY AREA BY USE OF WATER TRUCKS AND OR IRRIGATION/ SPRAY DEVICES DURING CONSTRUCTION ACTIVITIES.			
3. ALL DISTURBED AREAS DUE TO CONSTRUCTION ACTIVITIES SHALL BE SOODED WITHIN 48 HOURS AFTER ACHIEVING THE FINAL GRADE.			
SITE LOCATION:			
THIS SITE IS APPROXIMATELY 1 MILE DOWN STREAM FROM THE I-75 BRIDGE.			

## SHEET INDEX

DRAWING	SHEET No.	TITLE
G-001	1	COVER SHEET
G-002	2	GENERAL NOTES
C-101	3	FINAL SITE PLAN
C-102	4	GRADING PLAN
C-103	5	REMOVAL AND REPLACEMENT PLAN
C-501	6	MISCELLANEOUS DETAILS
C-502	7	CONCEPTUAL DOCK FRAMING DETAILS
C-503	8	BOAT RAMP SECTIONS AND DETAILS
C-504	9	SEAWALL AND CAP DETAILS
C-505	10	DREDGING CROSS-SECTIONS
C-506	11	DREDGING CROSS-SECTIONS AND PLAN VIEW
L-001	12	LANDSCAPE PLAN
L-002	13	LANDSCAPE AND IRRIGATION DETAILS
BM-001	14	BEST MANAGEMENT PRACTICES

Approval Type:	Project Name:
APPROVED:	Date: _____ File Number: _____
PROJECT PLANNER (PD)	_____
PROJECT ENGINEER (PW)	_____
CONCURRENCY (FD)	_____
ENVIRONMENTAL PLANNING (PD)	_____
ENVIRONMENTAL HEALTH	_____
FIRE DISTRICT	_____
OWNER/ AGENT	_____

Attention: The combination of this signed plan and accompanying approval letter constitutes the complete approval document. Both documents should be provided to interested parties and submitted with any building permit application.

MANATEE COUNTY  
HIGHLAND SHORES  
BOAT RAMP IMPROVEMENTS  
ADMINISTRATIVE PERMIT  
PROJECT

A.H. EZAZI, P.E. #40109  
PRINCIPAL IN CHARGE  
A.H. EZAZI, P.E. #40109  
PROJECT MANAGER  
A.H. EZAZI, P.E. #40109  
PROJECT ENGINEER  
MAYNARD J. BOYCE  
PROJECT DESIGNER  
22180.01  
ACCOUNT NUMBER  
**G-001**  
SHEET No. 1  
of 14

CADFILE: G1.dwg  
Boyle Engineering Corporation  
5971 CATTLEDGE BLVD, STE. 200  
SARASOTA, FLORIDA 34232  
FL. ENG. BUS. NO. EB-2005  
(941) 377-8858

MANATEE COUNTY  
HIGHLAND SHORES  
BOAT RAMP IMPROVEMENTS  
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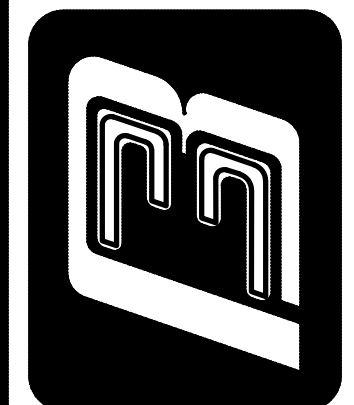
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Boyle Engineering Corporation  
5971 CATTLEDGE BLVD, STE. 200

Boyle Engineering Corporation



DWG: \\Projects\Manatee\_County\22180.00 (Highland Shores Boat Ramp) (Site Plan) (G-002.dwg) Layout Name: G-002 - Plotted by: Boyle, Raymond Date: 10/23/2008 - 9:41 AM XREFS: G-001

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**GENERAL NOTES**

1. ALL CONSTRUCTION STAKE-OUT SHALL BE UNDER THE SUPERVISION OF A FLORIDA REGISTERED LAND SURVEYOR.
2. ALL UTILITIES AND/OR DRAINAGE SHOWN AS EXISTING WERE DERIVED FROM THE BEST AVAILABLE INFORMATION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE ACTUAL LOCATION, SIZE, TYPE AND AMOUNT OF EXISTING UTILITIES PRIOR TO CONSTRUCTION. THE CONTRACTOR TO NOTIFY "FLORIDA ONE CALL", MANATEE COUNTY PUBLIC WORKS DEPARTMENT AND FP&L 48 HOURS MINIMUM PRIOR TO START OF CONSTRUCTION FOR POSSIBLE UTILITY LOCATIONS NOT SHOWN ON PLANS.
3. AS-BUILT DRAWINGS PER MANATEE COUNTY & SWFWM D STANDARD REQUIREMENTS INCLUDING TOP OF BANK AND CONTROL STRUCTURES, SHALL BE PERFORMED BY A REGISTERED LAND SURVEYOR AND REVIEWED BY THE ENGINEER OF RECORD PRIOR TO ACCEPTANCE AND PAYMENT. BENCH MARKS WITH THE ELEVATION CLEARLY AND PERMANENTLY MARKED ARE TO BE PLACED ON THE TOP OF ALL PROPOSED OUTFALL CONTROL STRUCTURES.
4. ALL PIPE LENGTHS SHOWN ON PLANS ARE MEASURED FROM THE CENTER OF INLETS, MANHOLES, CONTROL STRUCTURES, ETC. AND THE END OF MITERED END SECTIONS.
5. TO PREVENT SEDIMENTARY RUNOFF DURING CONSTRUCTION, STAKED HAYBALES, STAKED SILT SCREENS OR INLET DEBRIS CONTROL SCREENS ARE TO BE PLACED AT STORM INLETS, OUTFALL LOCATIONS AND ADJACENT PROPERTY LINES AS REQUIRED PRIOR TO ANY CONSTRUCTION ACTIVITIES. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING THE SEDIMENTATION BARRIERS IN A WORKING MANNER FOR THE DURATION OF CONSTRUCTION AND SHOULD BE CHECKED DAILY. SILTATION ACCUMULATIONS GREATER THAN THE LESSER OF 12 INCHES OR ONE-HALF OF THE DEPTH OF THE SEDIMENTATION BARRIER SHALL BE IMMEDIATELY REMOVED AND REPLACED IN UPLAND AREAS. IN ADDITION TO SPECIFIED EROSION CONTROL LOCATIONS, THE CONTRACTOR SHALL PERFORM DAILY SITE INSPECTIONS FOR POTENTIAL EROSION PROBLEMS. IF PROBLEMS OCCUR, THE CONTRACTOR IS RESPONSIBLE FOR INSTALLING APPROPRIATE EROSION CONTROL IMMEDIATELY. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING TEMPORARY EROSION CONTROL DEVICES FOLLOWING COMPLETION OF ALL CONSTRUCTION AND FINAL STABILIZATION.
6. ALL EROSION CONTROL MEASURES SHALL BE MAINTAINED IN-PLACE UNTIL THE SITE HAS BEEN STABILIZED AND REVEGETATED.
7. CONSTRUCTION METHOD AND MATERIALS FOR EROSION CONTROL MEASURES SHALL BE IN ACCORDANCE WITH SECTION 104-6 OF THE FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.
  - a) HAY BALES MUST BE BUTTED CLOSE TOGETHER AND HAVE NO GAPS TO ALLOW FLOW TO PASS THROUGH WITHOUT BEING FILTERED.
  - b) JOINTS OF THE FILTER FABRIC MUST BE OVERLAPPED AND PROPERLY CONNECTED TO PREVENT ANY OPENING FROM OCCURRING.
8. SILT SCREENS MAY ALSO REPRESENT CONSTRUCTION LIMIT BARRIERS. SILT SCREENS SHALL BE ERECTED PRIOR TO SITE CLEARING OPERATIONS NEAR WETLANDS, BUFFER AREAS AND ANY OTHER AREAS SHOWN AS PRESERVED OR PROTECTED FROM CONSTRUCTION ACTIVITIES. FAILURE TO INSTALL AND MAINTAIN BARRIERS/SILT SCREENS SHALL BE CAUSE FOR PUNITIVE FINANCIAL PENALTIES. FINANCIAL PENALTIES (PUNITIVE AND REGULATORY), CONSULTING FEES AND ESTIMATED COST OF RESTORATION WILL BE DEDUCTED FROM SUBSEQUENT PAYMENT REQUESTS.
9. CONTRACTOR IS RESPONSIBLE FOR OBTAINING APPROVAL FROM THE APPROPRIATE AGENCY FOR DEWATERING TECHNIQUES.
10. EROSION CONTROL PREVENTIVE METHODS, SILT SCREENING AND/OR HAY BALES, TO BE IN PLACE PRIOR TO COMMENCEMENT OF EARTHWORK CONSTRUCTION TO MINIMIZE EROSION AND SEDIMENTARY RUNOFF. THE CONTRACTOR SHALL PERFORM DAILY SITE INSPECTIONS FOR ANY POTENTIAL EROSION PROBLEMS. IF ANY POTENTIAL EROSION PROBLEMS ARE ENCOUNTERED, OR HAVE OCCURRED, THE CONTRACTOR SHALL INSTALL PROPER EROSION CONTROL MEASURES IMMEDIATELY. STORMWATER TREATMENT FACILITIES ARE TO BE CONSTRUCTED EARLY IN SITE DEVELOPMENT, WITH NO UNTREATED RUNOFF OFF-SITE OCCURRING DURING CONSTRUCTION.
11. EROSION CONTROL AND FUGITIVE PARTICULATE ABATEMENT PLANS ARE THE RESPONSIBILITY OF THE CONTRACTOR.
12. ALL EXISTING TREES AND BRUSH DESIGNATED FOR REMOVAL ARE TO BE CLEARED AND DISPOSED OF OFFSITE, OR BURNED ON-SITE IF APPROVED BY THE DISTRICT FIRE DEPARTMENT AND COUNTY HEALTH DEPARTMENT.

**UTILITY NOTES**


13. SODDING AND/ OR GRASSING TO BE COMPLETED IMMEDIATELY UPON COMPLETION OF FINISH GRADING. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING THE FUGITIVE ABATEMENT PLAN (DUST CONTROL)
14. THE CONTRACTOR SHALL VERIFY TOPOGRAPHY AND SATISFY HIMSELF AS TO THE EXTENT OF FILL NECESSARY TO ACHIEVE FINISHED GRADE PRIOR TO AWARD OF CONTRACT. THERE SHALL BE NO CLAIM FOR EXTRAS NOTWITHSTANDING SITE PLAN REVISIONS PROMULGATED SUBSEQUENT TO AWARD OF CONTRACT.
15. THE CONTRACTOR IS RESPONSIBLE FOR ESTIMATING AND CALCULATING ALL CUT AND FILL QUANTITIES. PRIOR TO BID SUBMISSION THE CONTRACTOR SHALL CONDUCT ANY ADDITIONAL SURVEYS AND SOIL TESTS HE DEEMS NECESSARY TO CALCULATE THE CUT AND FILL QUANTITIES PROPERLY. ADDITIONAL SURVEYS AND TESTS MADE BY THE CONTRACTOR SHALL BE MADE AT NO ADDITIONAL COST TO THE OWNER.
16. THE CONTRACTOR IS HEREBY ADVISED THAT ALL EXCAVATION ON THIS PROJECT MUST COMPLY WITH FLORIDA STATUTE 90-96 "TRENCH SAFETY ACT", AND THAT THE COST OF COMPLIANCE IS TO BE INCLUDED IN HIS BASE BID. THE BIDDER SHALL INDICATE ON THE BID FORM THE COSTS ASSOCIATED WITH COMPLIANCE.
17. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR ALL STRUCTURES TO THE OWNER/ENGINEER FOR APPROVAL PRIOR TO CONSTRUCTION.
18. REFER TO FDOT STANDARDS SPECIFICATIONS FOR ROADWAY AND BRIDGE CONSTRUCTION (2002) FOR COMPACTION REQUIREMENTS, GRASSING/SODDING REQUIREMENTS, AND PAVING CONSTRUCTION MATERIAL SPECIFICATIONS.
19. NOTIFY MANATEE COUNTY ENVIRONMENTAL MANAGEMENT DEPARTMENT (EMD) WATER QUALITY DIVISION PRIOR TO THE INITIATION OF CONSTRUCTION. A PRE-CONSTRUCTION INSPECTION OF THE SEDIMENTATION AND EROSION CONTROL (S&EC) DEVICES MAY BE REQUIRED AND WILL BE THE OPTION OF THE NRD STAFF.
20. CONTRACTOR TO OBTAIN APPLICABLE PERMITS PRIOR TO COMMENCEMENT OF CONSTRUCTION.
21. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATION AND ISSUANCE OF ALL COMMENCEMENT AND/OR PROGRESS NOTICES TO GOVERNMENTAL AGENCIES DURING THE COURSE OF CONSTRUCTION, AS REQUIRED FOR INSPECTION, TESTING AND TRACKING PER APPLICABLE AGENCY PERMIT CONDITIONS.
22. THE CONTRACTOR SHALL REMOVE ALL EXOTIC NUISANCE PLANT SPECIES FROM UPLAND AREAS OF THE PROJECT, IN ACCORDANCE WITH SECTION 715.4 OF THE MANATEE COUNTY LAND DEVELOPMENT CODE.
23. THE CONTRACTOR SHALL PROTECT AND OR PROPERLY ABANDON ANY WELLS DISCOVERED ON SITE DURING CLEARING OPERATIONS IN ACCORDANCE WITH SOUTHWEST FLORIDA WATER MANAGEMENT RULE CHAPTER 40D.

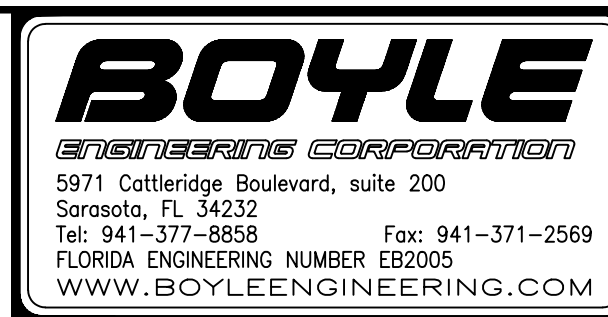
1. ALL PROPOSED POTABLE WATER, REUSE WATER AND SANITARY SEWER CONSTRUCTION MUST MEET OR EXCEED THE MOST RECENT MANATEE COUNTY PUBLIC WORKS UTILITY STANDARDS AND SPECIFICATIONS.
2. THE CONTRACTOR IS TO COORDINATE THE LOCATION AND ELEVATION OF ALL FP&L, VERIZON, CABLE TV AND IRRIGATION SERVICE SLEEVES WITH RESPECTIVE AGENCY PRIOR TO CONSTRUCTION.
3. 10' HORIZONTAL AND 1.5' VERTICAL SEPARATION SHALL BE PROVIDED BETWEEN SEWER AND WATER LINES MEETING "TEN STATE STANDARDS, SECTION 38.31".
4. A RIGHT-OF-WAY USE PERMIT IS TO BE OBTAINED BY THE CONTRACTOR FOR CONSTRUCTION WITHIN MANATEE COUNTY RIGHT OF WAY.
5. CONTRACTOR IS RESPONSIBLE FOR ALL GOVERNMENTAL CONSTRUCTION FEES AND CHARGES. I.E.; INSPECTIONS AND TESTING FEES. HOWEVER, IMPACT FEES (FIF), IF APPLICABLE, TO BE PAID BY THE OWNER.
6. TOPOGRAPHIC AND PROPERTY SURVEYS GIVING LOT SIZE, GROUND ELEVATIONS, OBSTRUCTIONS ON SITE, LOCATIONS AND DEPTHS OF SEWERS, CONDUITS, PIPES, EXISTING STRUCTURES, PAVEMENTS HAVE BEEN OBTAINED FROM RELIABLE SOURCES. THE ACCURACY OF THIS DATA IS NOT GUARANTEED, AND IS FURNISHED SOLELY AS AN ACCOMMODATION TO THE CONTRACTOR. USE OF THIS DATA SHALL BE MADE AT THE CONTRACTOR'S DISCRETION. NO ADDITIONAL COMPENSATION WILL BE GRANTED DUE TO THE CONTRACTOR'S LACK OF KNOWLEDGE OF SITE CONDITIONS. PRIOR TO BID SUBMISSION, THE CONTRACTOR SHALL CONDUCT ANY ADDITIONAL SURVEYS AND SOILS TESTS NECESSARY TO VERIFY THE ACCURACY OF THE INFORMATION PROVIDED.

**ROADWAY IMPROVEMENT NOTES**

1. THE LOCATION OF EXISTING UTILITIES HAS BEEN PREPARED FROM THE MOST RELIABLE INFORMATION AVAILABLE TO THE ENGINEER. THE INFORMATION IS NOT GUARANTEED, THEREFORE THE CONTRACTOR SHALL VERIFY THE VERTICAL AND HORIZONTAL LOCATION OF ALL UTILITIES IN THE FIELD.
2. CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES IN THE AREA BEFORE BEGINNING CONSTRUCTION, AND SHALL HAVE ALL SERVICE LINES (TELEPHONE, ELECTRIC, WATER, CABLE, GAS, SANITARY SEWER AND FORCEMAIN) LOCATED AND FLAGGED PRIOR TO EXCAVATION.
3. CONTRACTOR SHALL COORDINATE THE RELOCATION OF ALL UTILITIES THAT CONFLICT WITH THE PROPOSED IMPROVEMENTS.
4. THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING AND TESTING OF ALL UTILITY LINES AND SERVICES DAMAGED DURING CONSTRUCTION, INCLUDING IRRIGATION LINES AND SERVICES. THE APPROPRIATE UTILITY SHALL BE NOTIFIED OF ALL DAMAGED LINES PRIOR TO REPAIR. ALL NECESSARY REPAIRS SHALL BE PERFORMED IMMEDIATELY, AND IN ACCORDANCE WITH FEDERAL, STATE AND LOCAL STANDARDS AND SPECIFICATIONS.
5. ALL DRIVEWAYS, SIDEWALK, LANDSCAPING, SIGNS, GRASS, ETC. SHALL BE RESTORED TO A CONDITION EQUIVALENT TO OR BETTER THAN PRE CONSTRUCTION CONDITIONS.
6. GRADES SHOWN ARE FINISHED GRADES EXCEPT WHERE OTHERWISE SHOWN AND INDICATED AS EXISTING. ELEVATIONS ARE NATIONAL GEODETIC VERTICAL DATUM (NGVD) 1929.
7. PLACEMENT OF ALL ROADWAY SIGNS AND STRIPING SHALL CONFORM WITH THE LATEST MUTCD STANDARDS.
8. SIDEWALK SHALL BE CONSTRUCTED IN ACCORDANCE WITH MANTEE COUNTY TRANSPORTATION STANDARDS AND SPECIFICATIONS.
9. STAKED HAY BALES, FLOATING & STAKED TURBIDITY BARRIERS IN ACCORDANCE WITH FDOT INDEXES 102 & 103 SHALL BE INSTALLED AS NOTED AND AS NECESSARY TO PREVENT TURBID DISCHARGE. THE CONTRACTOR SHALL BE RESPONSIBLE TO ADJUST AND MAINTAIN ALL TURBIDITY CONTROL DEVICES AS NECESSARY TO PREVENT TURBIDITY VIOLATIONS.
10. THE CONTRACTOR SHALL REPORT ALL OFF SITE SURFACE WATER DISCHARGES WITH TURBIDITY IN EXCESS OF 29 NTU'S ABOVE BACKGROUND LEVEL TO POLLUTION CONTROL WITHIN 24 HOURS AFTER OCCURRENCE. NOTIFICATION SHALL INCLUDE REASONS FOR THE OCCURRENCE, MEASURES TAKEN TO CORRECT THE PROBLEM, AND REPAIRS MADE TO THE TEMPORARY EROSION/SEDIMENT CONTROLS. INSTALLATION OF ADDITIONAL CONTROLS NOT ALREADY SHOWN ON THE APPROVED CONSTRUCTION PLAN DRAWINGS SHALL BE REPORTED TO POLLUTION CONTROL.
11. THE CONTRACTOR SHALL REPORT TO MANATEE COUNTY ENVIRONMENTAL MANAGEMENT ANY FUEL OR OTHER PETROLEUM PRODUCT SPILL GENERATED FROM CONSTRUCTION AND HEAVY EQUIPMENT OPERATIONS WITHIN 24 HOURS AFTER OCCURRENCE. SPILLS IN EXCESS OF 25 GALLONS, OR THOSE THAT ENTER STORM WATER DRAINAGE SYSTEMS OR WATER BODIES, SHALL BE CONTAINED, CLEANED UP, AND REPORTED TO POLLUTION CONTROL IMMEDIATELY. SMALLER SURFACE SPILLS SHALL BE CLEANED UP AS SOON AS PRACTICAL.
12. THE CONTRACTOR SHALL PROVIDE A MAINTENANCE OF TRAFFIC PLAN, TO THE COUNTY FOR ACCEPTANCE PRIOR TO ANY CONSTRUCTION ACTIVITY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS.

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REV	DATE	DESCRIPTION	APPR

<b>VERIFY SCALES</b> BAR IS ONE INCH ON ORIGINAL DRAWING  IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY	DESIGNED BY <b>MJB</b>	PROJECT ENGINEER <b>A.H. EZAZI, P.E.</b>
	DRAWN BY <b>MJB</b>	REG NUMBER <b>40109</b>
	CHECKED BY <b>GIF</b>	PROJECT NUMBER <b>22180.00</b>
	DATE <b>10/2008</b>	CADD STANDARDS <b>BOYLE</b>



<b>MANATEE COUNTY HIGHLAND SHORES BOAT RAMP IMPROVEMENTS</b>	
<b>GENERAL NOTES</b>	

DRAWING <b>G-002</b>
SHEET <b>2</b>
OF 14 SHEETS

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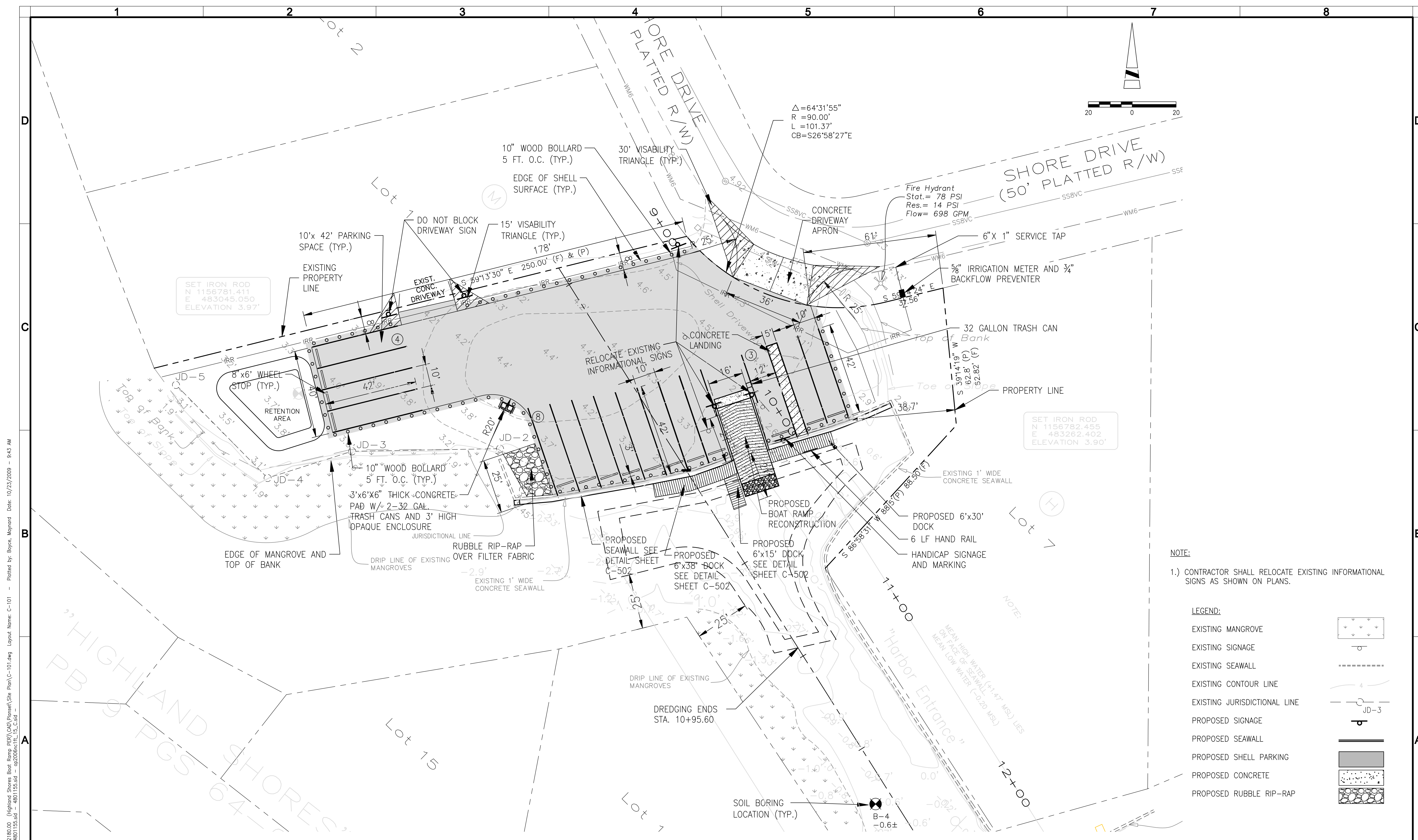
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NOTE:  
 1.) CONTRACTOR SHALL RELOCATE EXISTING INFORMATIONAL SIGNS AS SHOWN ON PLANS.

LEGEND:

EXISTING MANGROVE	
EXISTING SIGNAGE	
EXISTING SEAWALL	
EXISTING CONTOUR LINE	
EXISTING JURISDICTIONAL LINE	
PROPOSED SIGNAGE	
PROPOSED SEAWALL	
PROPOSED SHELL PARKING	
PROPOSED CONCRETE	
PROPOSED RUBBLE RIP-RAP	

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REV	DATE	DESCRIPTION	APPR
06-09-09		REVISED PER PARKS & RECREATION COMMENTS	MJB
01-27-09		REVISED PER MANATEE COUNTY REVIEW COMMENTS	MJB
10-21-08		REVISED PER OWNER COMMENTS	MJB

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IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY	CHECKED BY GIF	REG. NUMBER 40109
	DATE 10/2008	PROJECT NUMBER 221080.01
		CADD STANDARDS BOYLE

**BOYLE**  
 ENGINEERING CORPORATION  
 5971 Cattle Ridge Boulevard, suite 200  
 Sarasota, FL 34232  
 Tel: 941-377-8858 Fax: 941-371-2569  
 FLORIDA ENGINEERING NUMBER EB2005  
 WWW.BOYLEENGINEERING.COM

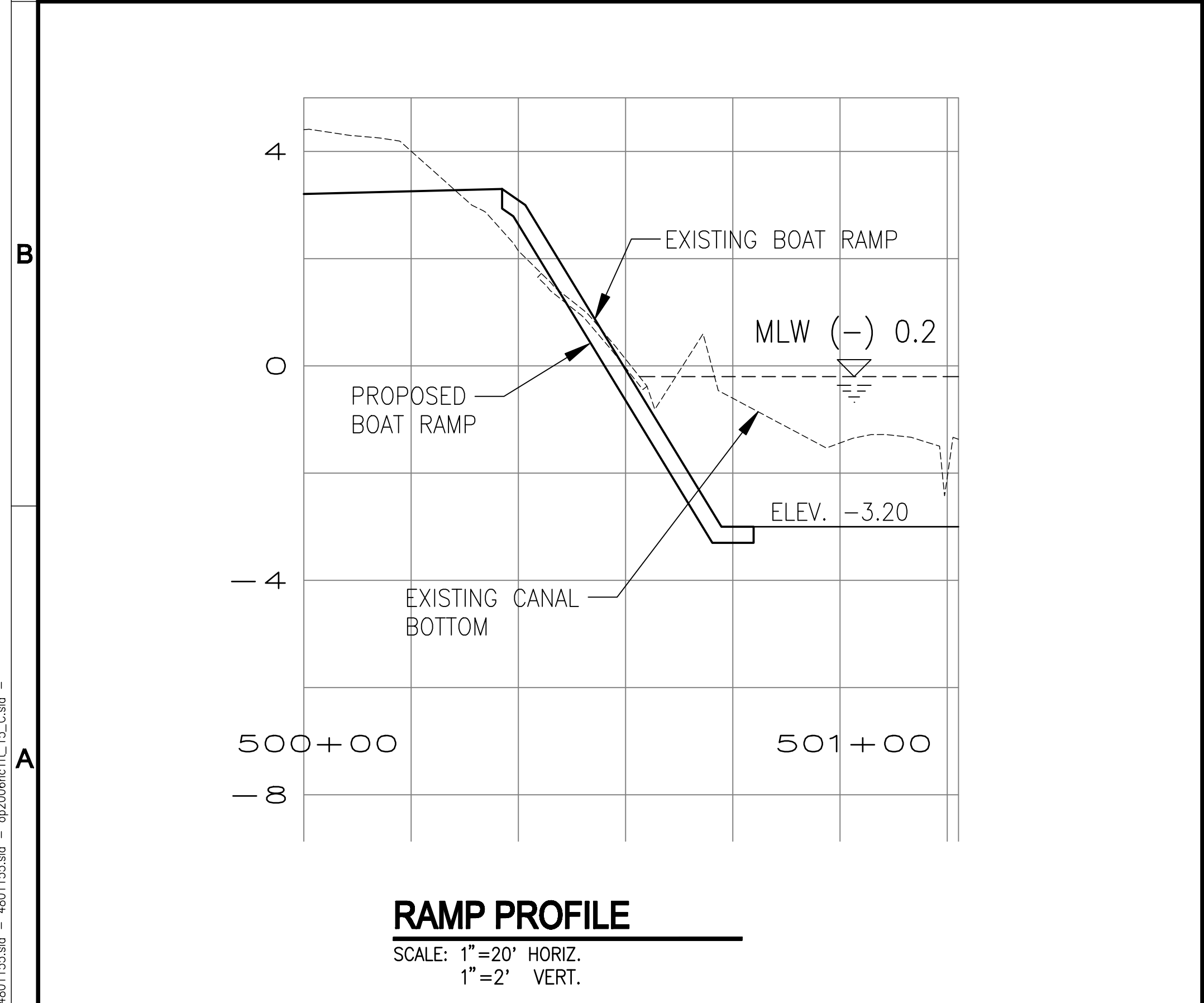
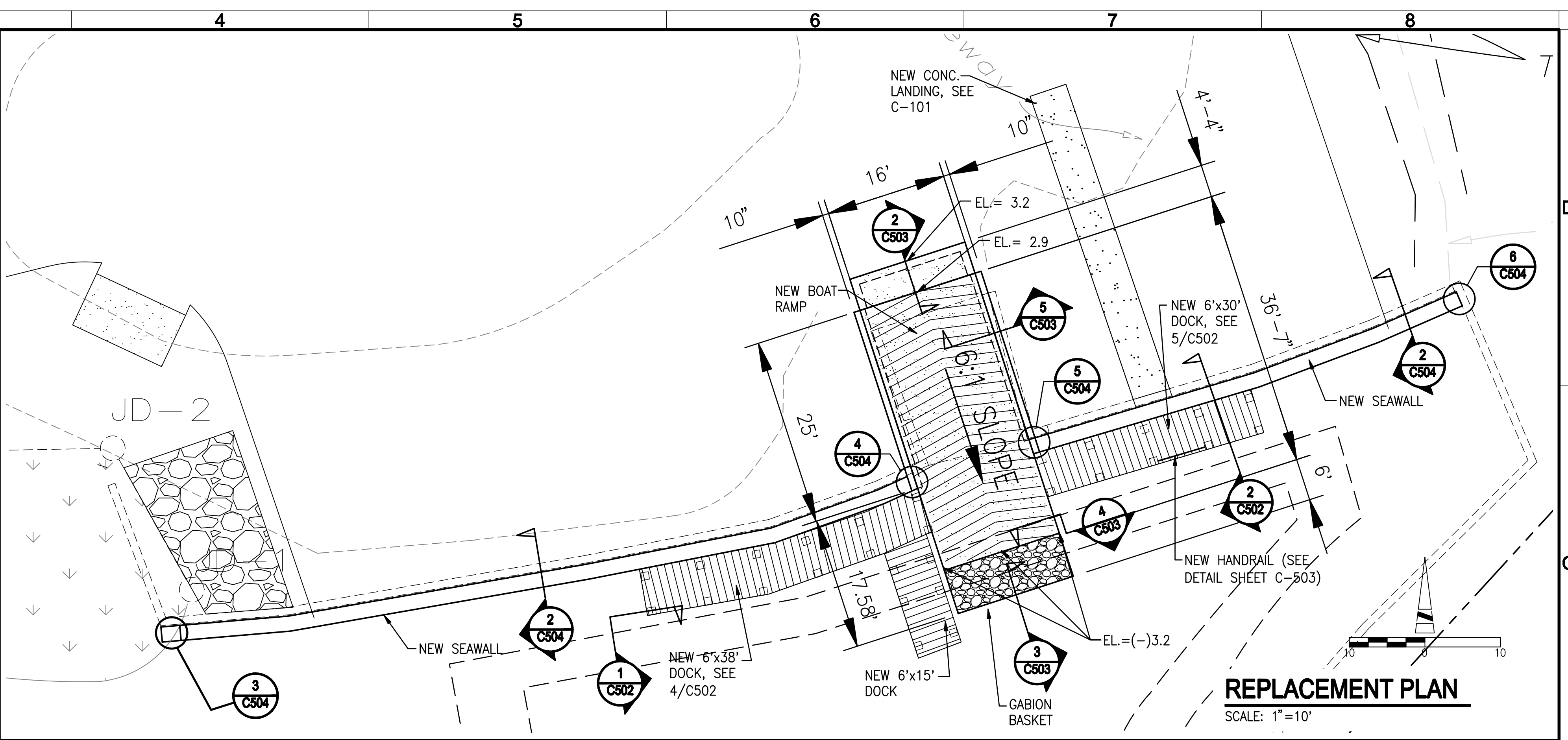
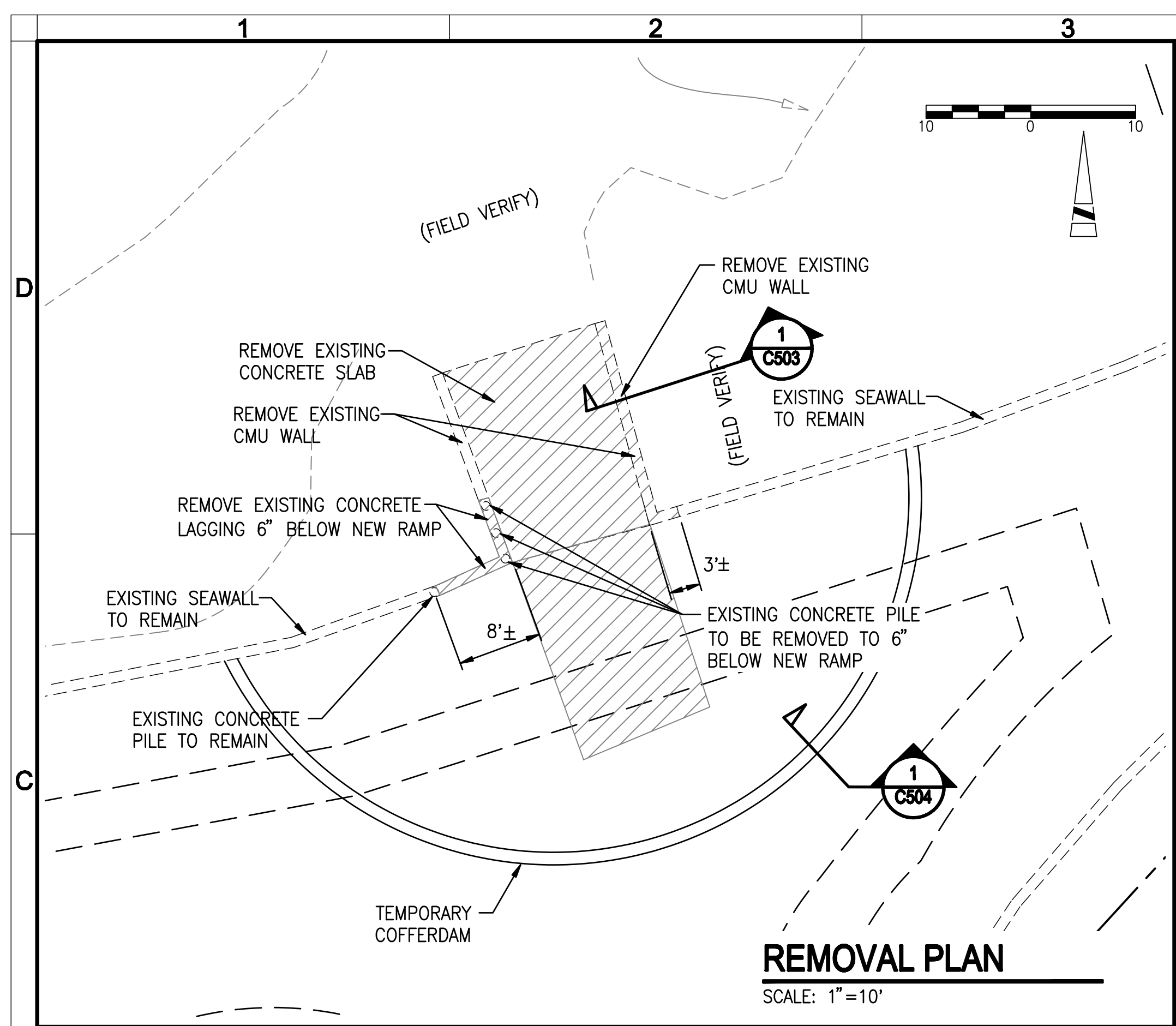
**MANATEE COUNTY HIGHLAND SHORES  
 BOAT RAMP IMPROVEMENTS**

**FINAL SITE PLAN**

DRAWING  
**C-101**  
 SHEET  
**3**  
 OF 14 SHEETS



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REV	DATE	DESCRIPTION	APPR
1	1-27-09	REVISED PER MANATEE COUNTY REVIEW COMMENTS	MJB

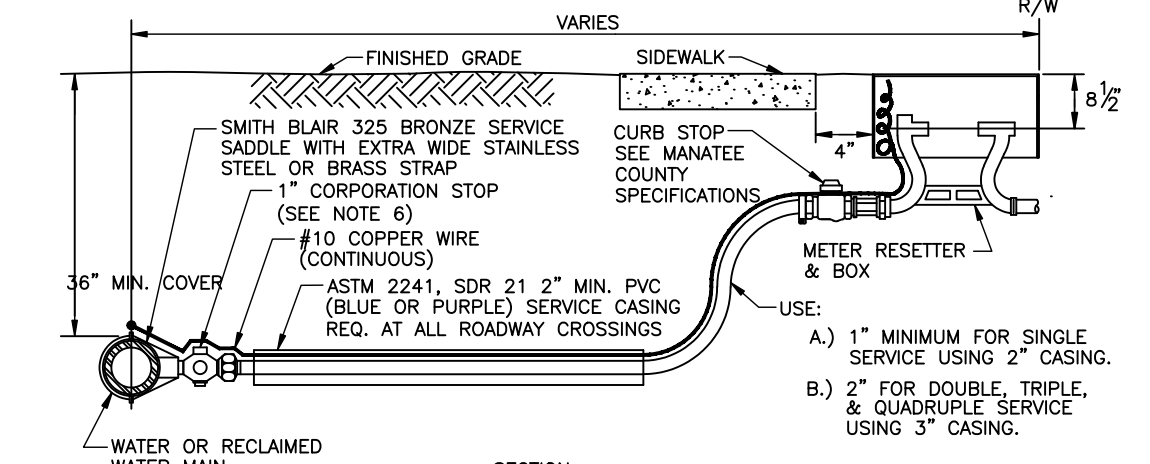
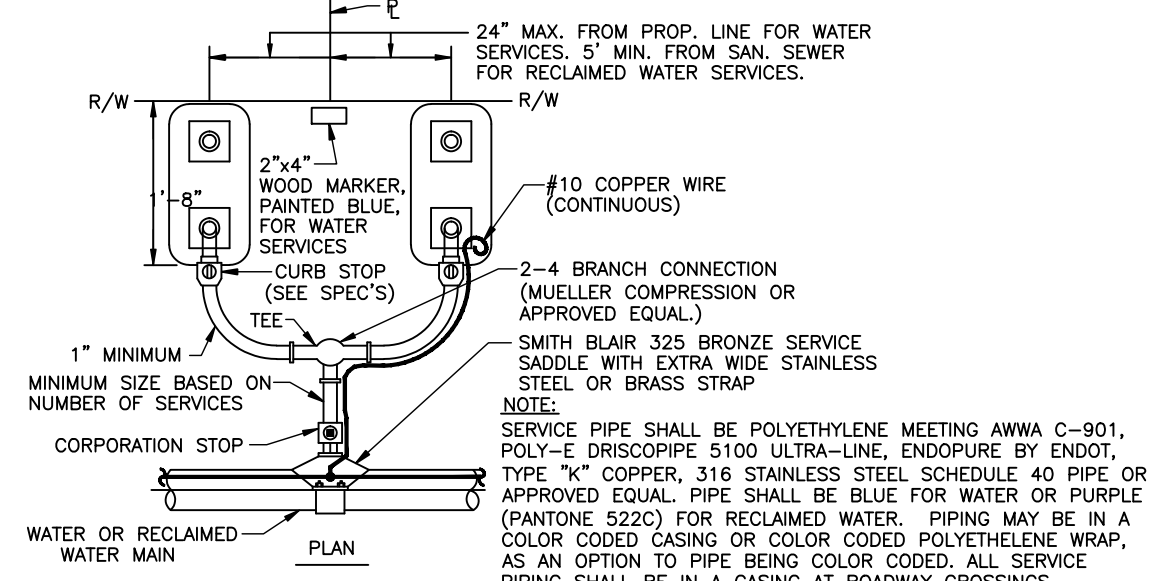
<b>VERIFY SCALES</b> BAR IS ONE INCH ON ORIGINAL DRAWING	DESIGNED BY MJB
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY	CHECKED BY DFG
	DATE 10/2008

PROJECT ENGINEER A.H. EZAZI, P.E.	REG. NUMBER 40109	EXP. DATE
CHECKED BY DFG	PROJECT NUMBER 221080.01	CADD STANDARDS
DATE 10/2008	BOYLE	

**BOYLE ENGINEERING CORPORATION**  
 5971 Cattle Ridge Boulevard, Suite 200  
 Sarasota, FL 34232  
 Tel: 941-377-8868 Fax: 941-371-2569  
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**MANATEE COUNTY HIGHLAND SHORES  
 BOAT RAMP IMPROVEMENTS**  
**REMOVAL AND REPLACEMENT PLAN**

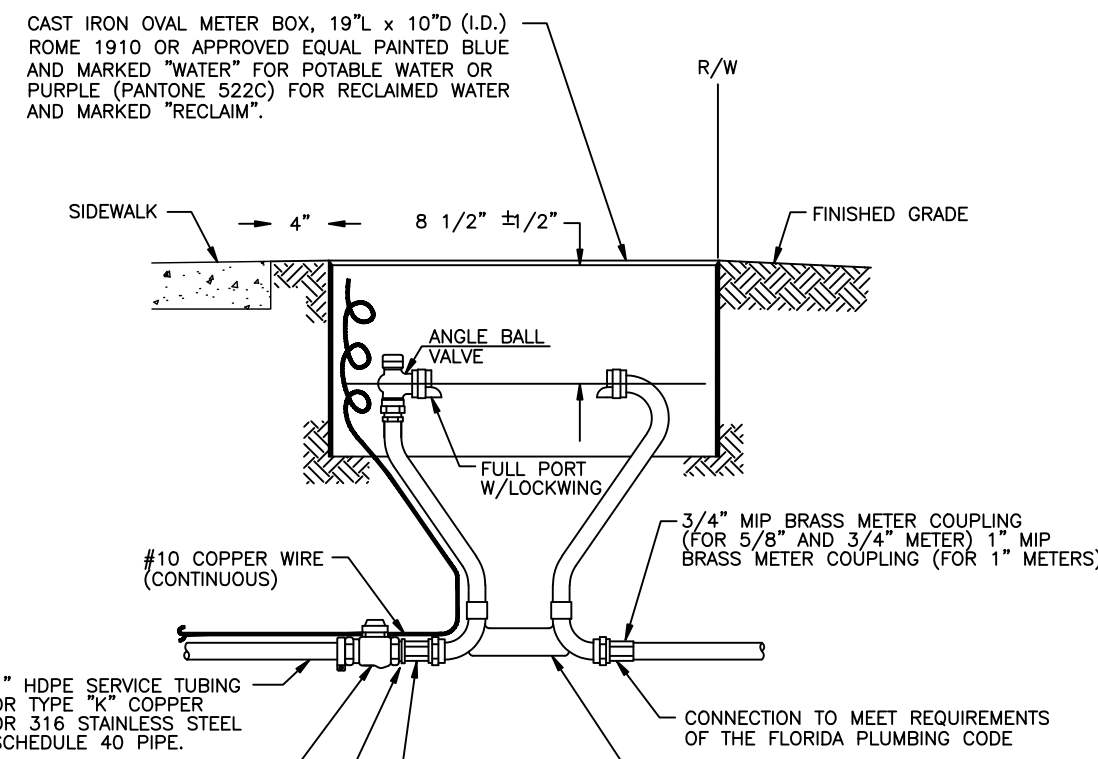
DRAWING  
**C-103**  
 SHEET  
**5**  
 OF 14 SHEETS



- NOTES:**
1. ALL SERVICE TAPS TO BE LOCATED IN THE FIELD. TAPS SHALL BE NO CLOSER THAN 2'-0" STAGGERED INTERVALS OR WITHIN 2'-0" FROM BELL OR SPIGOT ENDS.
  2. METER BOXES & RESETTERS ARE TO BE INSTALLED BY THE INFRASTRUCTURE CONTRACTOR AND SHALL NOT BE SET IN DRAINAGE SWALES, SIDEWALKS OR DRIVEWAYS.
  3. "WM" OR "RWM" TO BE IMPRESSED INTO THE NEWLY POURED CONCRETE CURB ALONG WITH DISTANCE IN FEET TO THE METER. IF NO CURB, INSTALL A BLUE DISC WITH "WM" OR A PURPLE DISC WITH "RWM" AND A 1/8" x 1" GALVANIZED STEEL SCREW IN THE EDGE OF PAVEMENT WITH THE DISTANCE (IN FEET) FROM THE DISC TO THE METER.
  4. #10 COPPER WIRE SHALL BE INSTALLED WITH WATER AND RECLAIMED MAIN AND ALL SERVICES. SERVICE WIRE SHALL BE CONNECTED TO THE TRACER WIRE ALONG THE MAIN.
  5. WATER AND RECLAIMED WATER SERVICE LINES TO BE 5" MINIMUM FROM SEWER SERVICE PIPES.
  6. FOR 2" SERVICES REPLACE CORPORATION STOP WITH 2" RESILIENT WEDGE GATE VALVE W/BOX, LID & TAG. SEE STANDARD DETAIL UW-2. MJ GATE VALVE IN DETAIL UW-2 SHALL BE SUBSTITUTED WITH THREADED FIP GATE VALVE AND BRASS NIPPLE. CENTERING COLLAR NOT REQUIRED ON 2" GATE VALVES.
  7. WHEN THE DISTANCE BETWEEN THE EDGE OF THE SIDEWALK AND THE R/W IS ONE FOOT (CUL-DE-SAC W/ MEDIAN) A 10 FOOT PUBLIC UTILITY EASEMENT SHALL BE LOCATED IN THE FRONT OF THE LOTS, ADJACENT TO THE R/W.

**IRRIGATION SYSTEM**

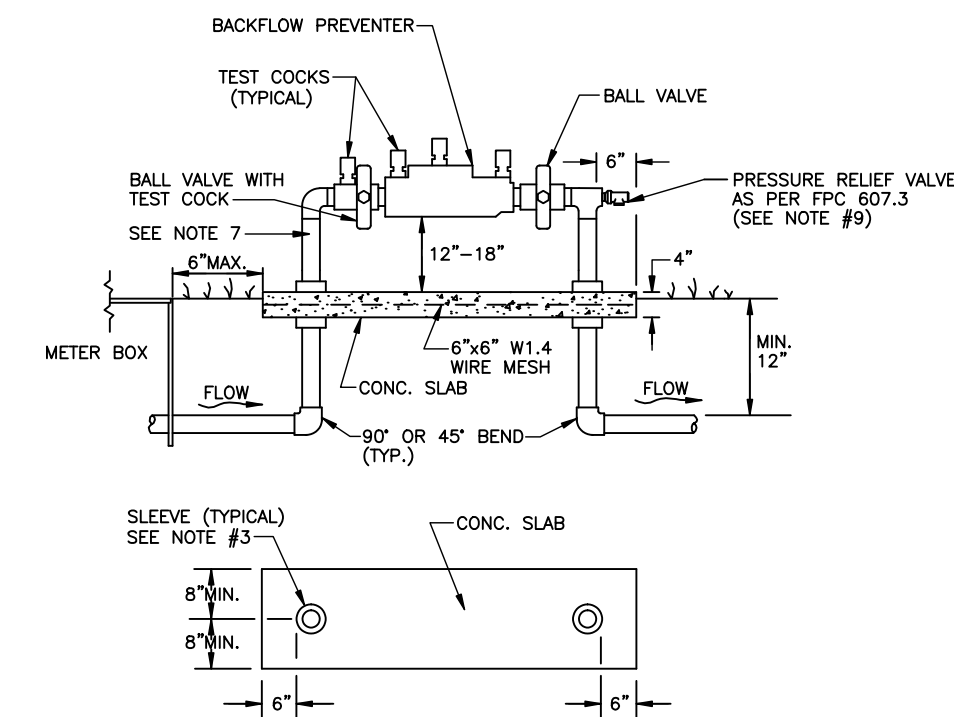
**1 WATER SERVICE CONNECTION**  
SCALE : NONE



- NOTES:**
1. FORD 40 SERIES RESETTERS VB43 AND VB44 OR EQUAL FOR 3/4" OR 1" METERS ALSO ALLOWED.
  2. METER BOX AND RESETTER ARE TO BE INSTALLED BY THE INFRASTRUCTURE CONTRACTOR AND SHALL NOT BE SET IN DRAINAGE SWALES, SIDEWALKS OR DRIVEWAYS.
  3. SEE TYPICAL SERVICE CONNECTION STANDARD DETAIL UW-19.
  4. RESETTER IS NOT REQUIRED ON EXISTING SERVICE LINE REPLACEMENT THAT INITIALLY DID NOT HAVE A RESETTER, UNLESS THE EXISTING SERVICE LINE IS TO BE RELOCATED.
  5. WHEN THE DISTANCE BETWEEN THE EDGE OF THE SIDEWALK AND THE R/W IS ONE FOOT (CUL-DE-SAC W/ MEDIAN) A 10 FOOT PUBLIC UTILITY EASEMENT SHALL BE LOCATED IN THE FRONT OF THE LOTS, ADJACENT TO THE R/W.

**IRRIGATION SYSTEM**

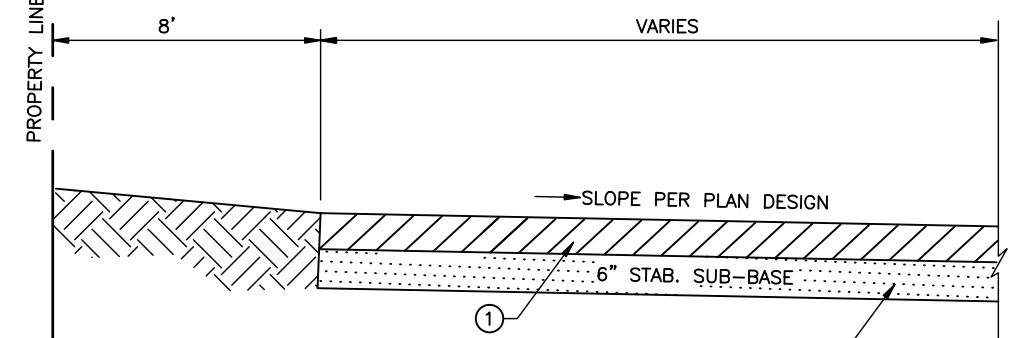
**2 METER BOX ASSEMBLY**  
5/8"x3/4", 3/4" & 1" METERS  
SCALE : NONE



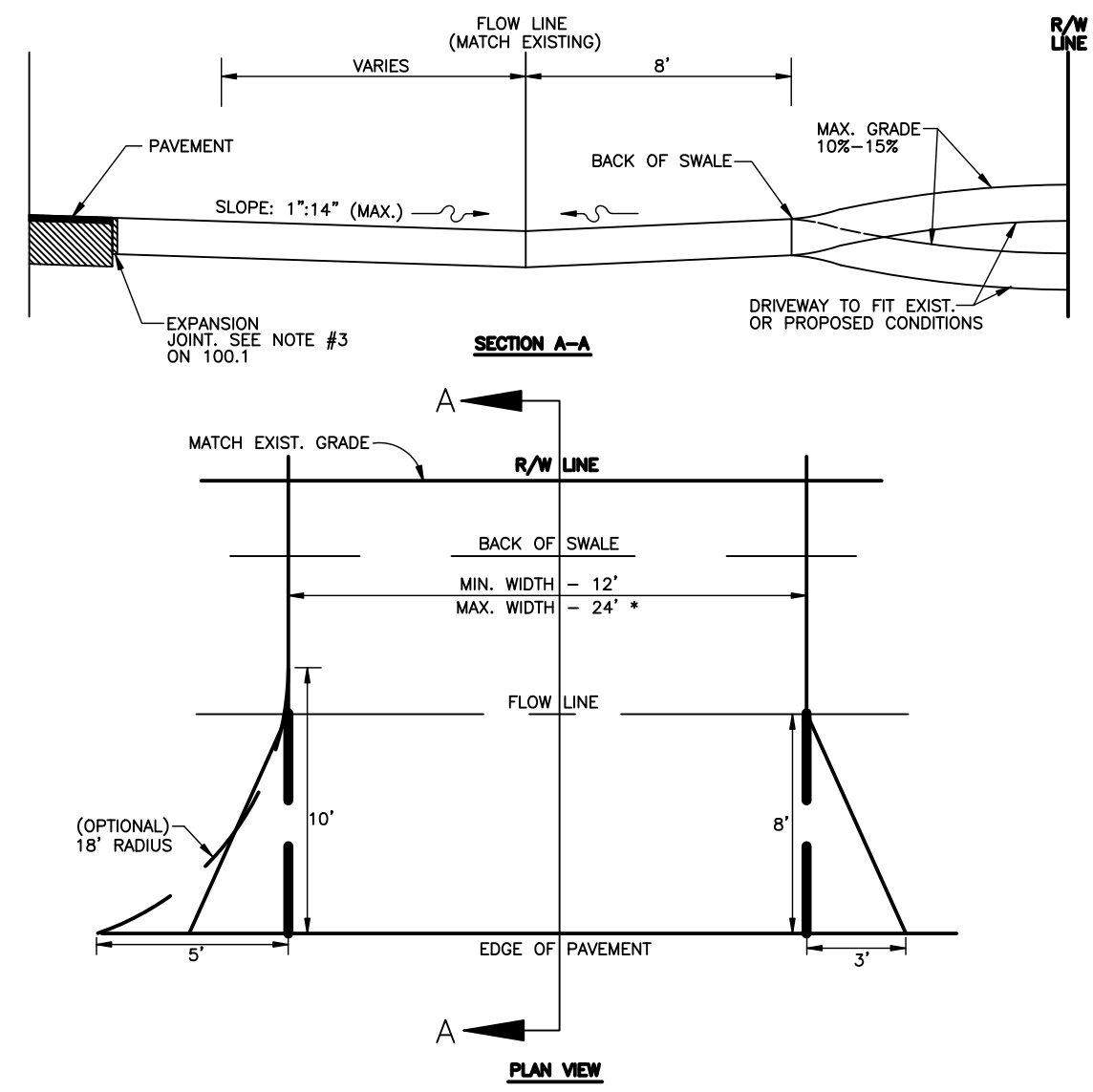
- NOTES:**
1. BACKFLOW DEVICE MUST BE INSTALLED IMMEDIATELY DOWNSTREAM OF METER, AS SHOWN ABOVE.
  2. COPPER PIPE TYPE "K" OR BRASS PIPE MINIMUM SCHEDULE 40 SHALL BE USED TO A MINIMUM DEPTH OF 12" BELOW GRADE.
  3. PIPES PASSING THROUGH OR ENCASED IN CONCRETE MUST BE PROPERLY PROTECTED AND SLEEVED.
  4. THE SYSTEM MUST MEET ALL REQUIREMENTS OF THE FLORIDA PLUMBING CODE (LATEST EDITION) AND THE MANATEE COUNTY BACKFLOW PREVENTION ORDINANCE (LATEST EDITION).
  5. ALL EXPOSED EDGES OF CONCRETE SHALL BE CHAMFERED 1/2".
  6. BACKFLOW PREVENTER SHALL BE TESTED AT THE TIME OF INSTALLATION.
  7. PRESSURE REDUCING VALVE REQUIRED UPSTREAM OF BACKFLOW IF SYSTEM PRESSURE EXCEEDS 80 PSI.
  8. 3" MINIMUM CLEARANCE FROM LANDSCAPING PLANTS TO EDGE OF CONCRETE SLAB AND CLEAR OPENING FOR ACCESS FROM STREET.
  9. IN ADDITION TO THE PRIV, THE BUILDING DEPT. MAY REQUIRE AN APPROVED DEVICE FOR THERMAL EXPANSION CONTROL.
  10. REFER TO STANDARD DETAIL US-15 FOR LIFT STATIONS.

**IRRIGATION SYSTEM**

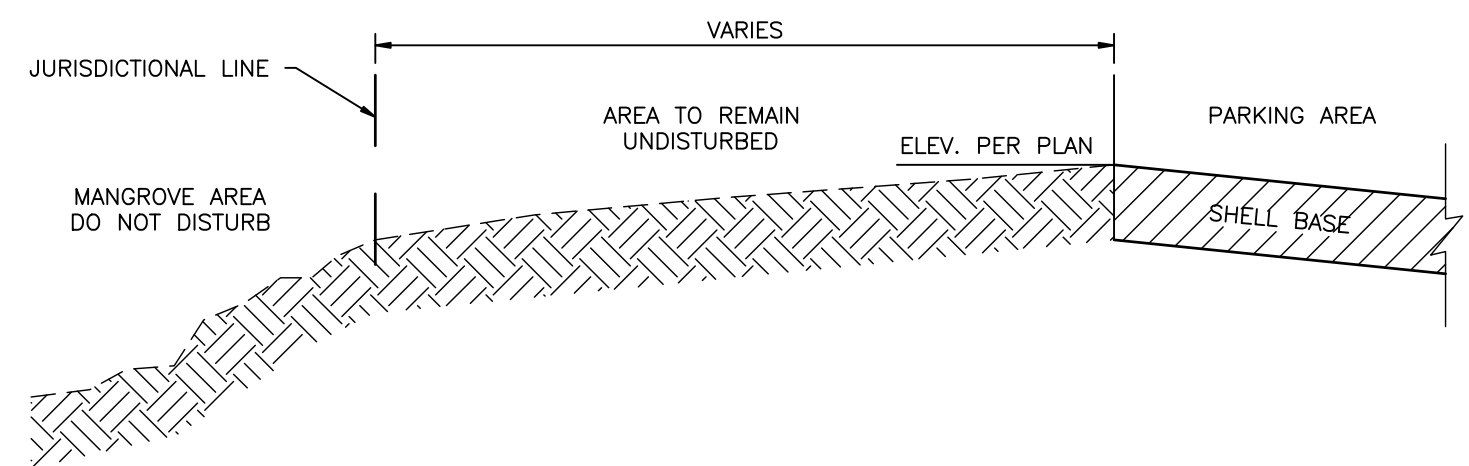
**3 BACKFLOW PREVENTOR DETAIL**  
FOR 3/4" & 1" METERS  
SCALE : NONE



**5 10" WOOD BOLLARD**  
SCALE: NONE



**6 RURAL RESIDENTIAL DRIVE**  
SCALE: NONE



**8 CROSS SECTION**  
SCALE: NONE

**4 PARKING AREA SECTION**  
SCALE: NONE

- PARKING AREA COMPOSITION:**
1. 6" CALLOSATHATCHEE SHELL COMPACTED TO 98% AASHTO T-180 DENSITY LBR 100 OR 6" SOL CEMENT, 300 PSI MAXIMUM.
  2. 6" STABILIZED SUB-BASE SHELL MARL BLENDED WITH SANDY SUB-GRADE MINIMUM LBR 40, 98% T-180 AASHTO.

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 Layout Name: C-501 - Plotted by: Boyle, Raymond Date: 10/23/2009 - 9:47 AM  
 XREFS: C-501

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05-14-09		REVISE WATER METER DETAIL	MJB
01-27-09		REVISED PER MANATEE COUNTY REVIEW COMMENTS	MJB
10-21-08		REVISED PER OWNER COMMENTS	MJB

<b>VERIFY SCALES</b> BAR IS ONE INCH ON ORIGINAL DRAWING	DESIGNED BY MJB	PROJECT ENGINEER A.H. EZAZI, P.E.
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY	DRAWN BY MJB	REG NUMBER 40109
	CHECKED BY GIF	PROJECT NUMBER 22180.01
	DATE 10/2008	CADD STANDARDS BOYLE

BOYLE

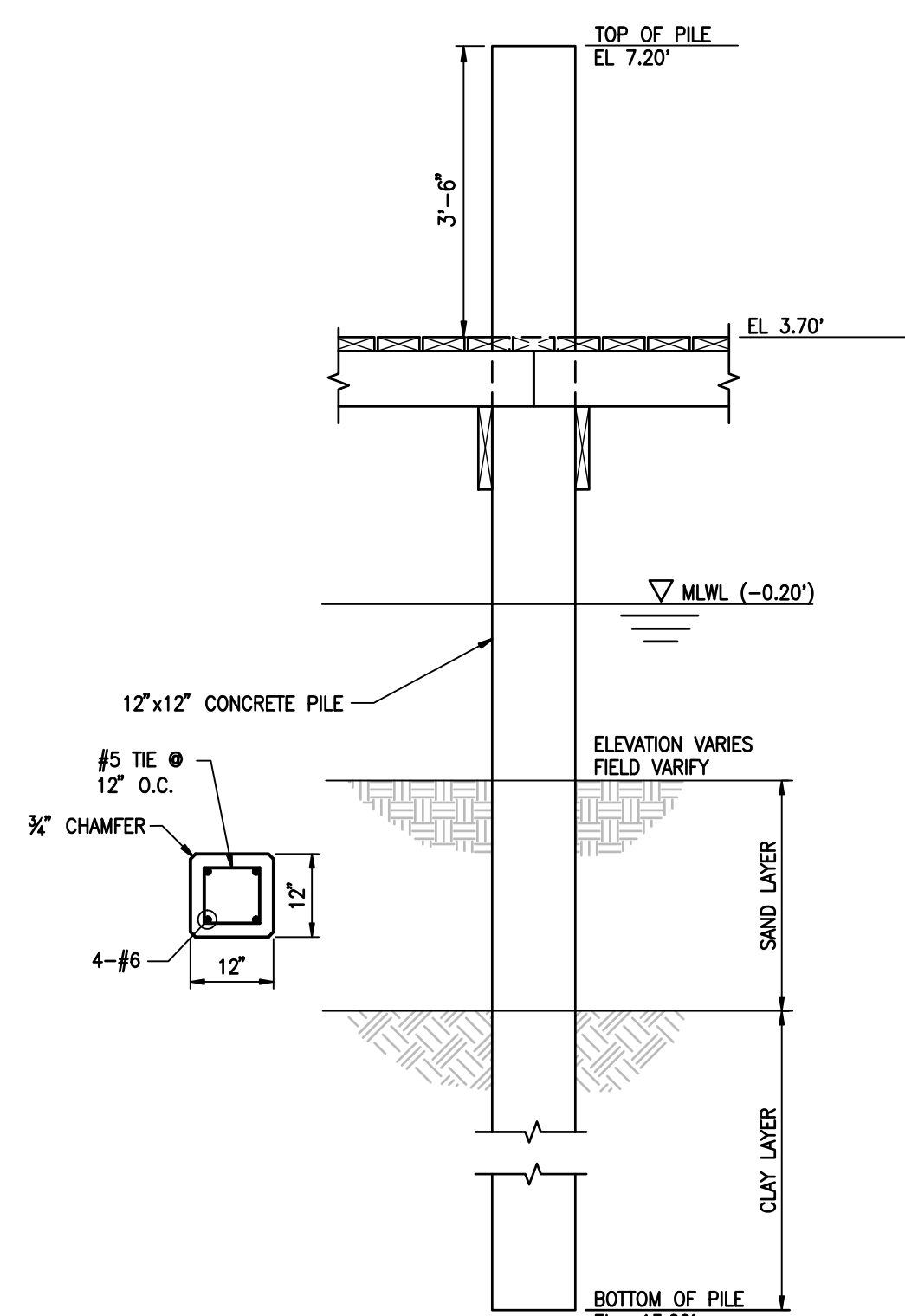
ENGINEERING CORPORATION

5971 Cattleridge Boulevard, suite 200  
Sarasota, FL 34232  
Tel: 941-371-8858 Fax: 941-371-2569  
FLORIDA ENGINEERING NUMBER EB2005  
WWW.BOYLEENGINEERING.COM

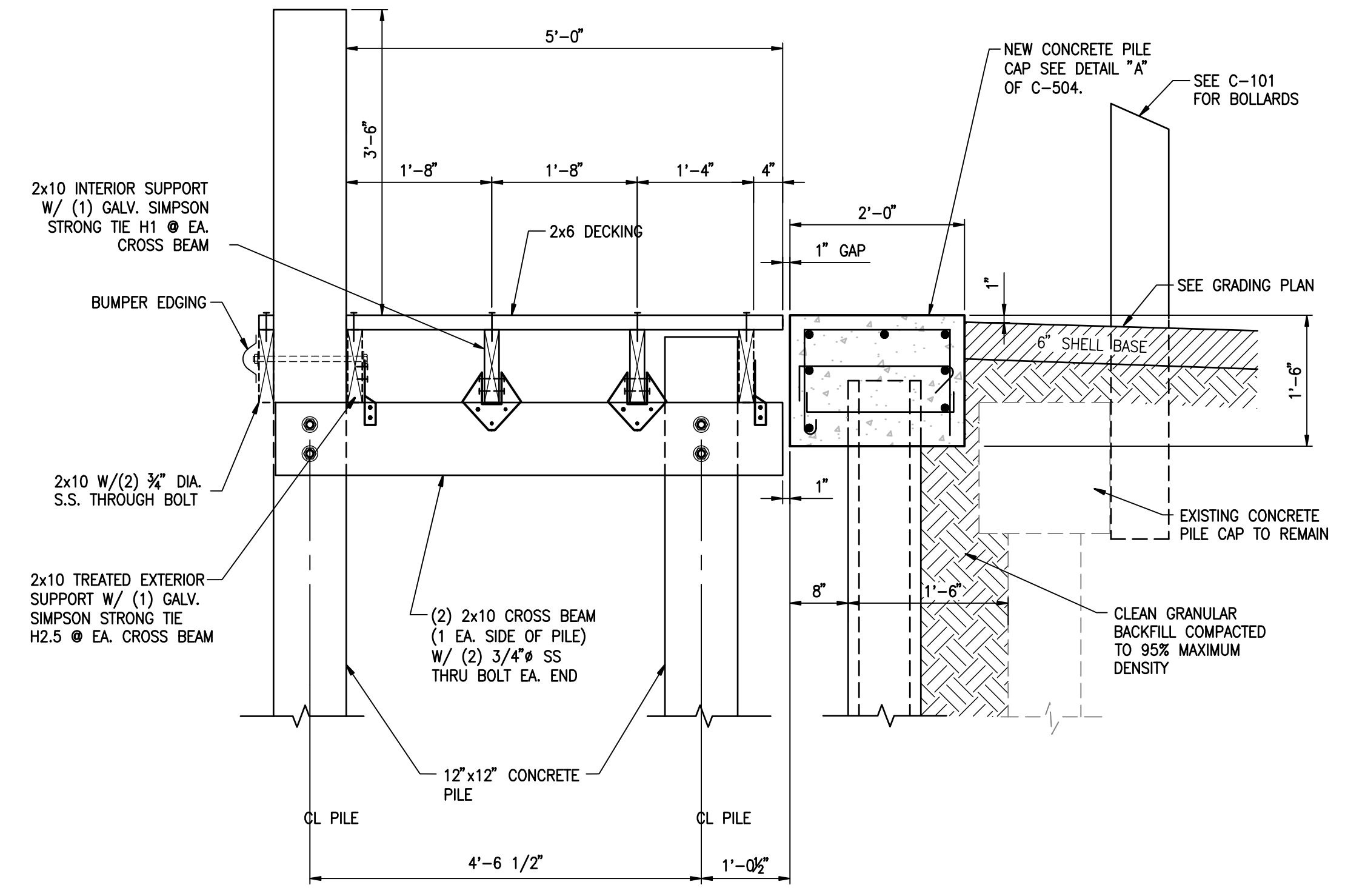
MANATEE COUNTY HIGHLAND SHORES  
BOAT RAMP IMPROVEMENTS

MISCELLANEOUS DETAILS

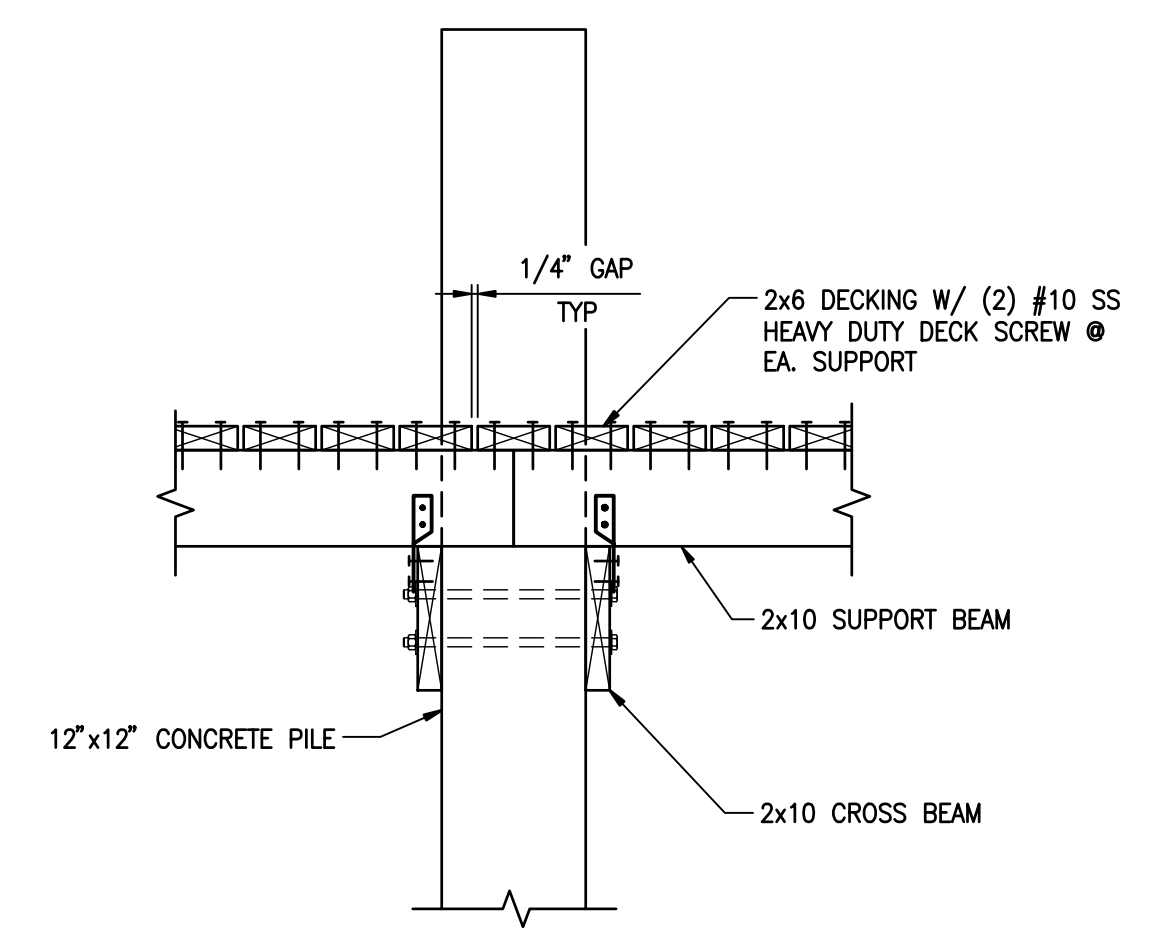
DRAWING  
**C-501**  
SHEET  
**6**  
OF 14 SHEETS



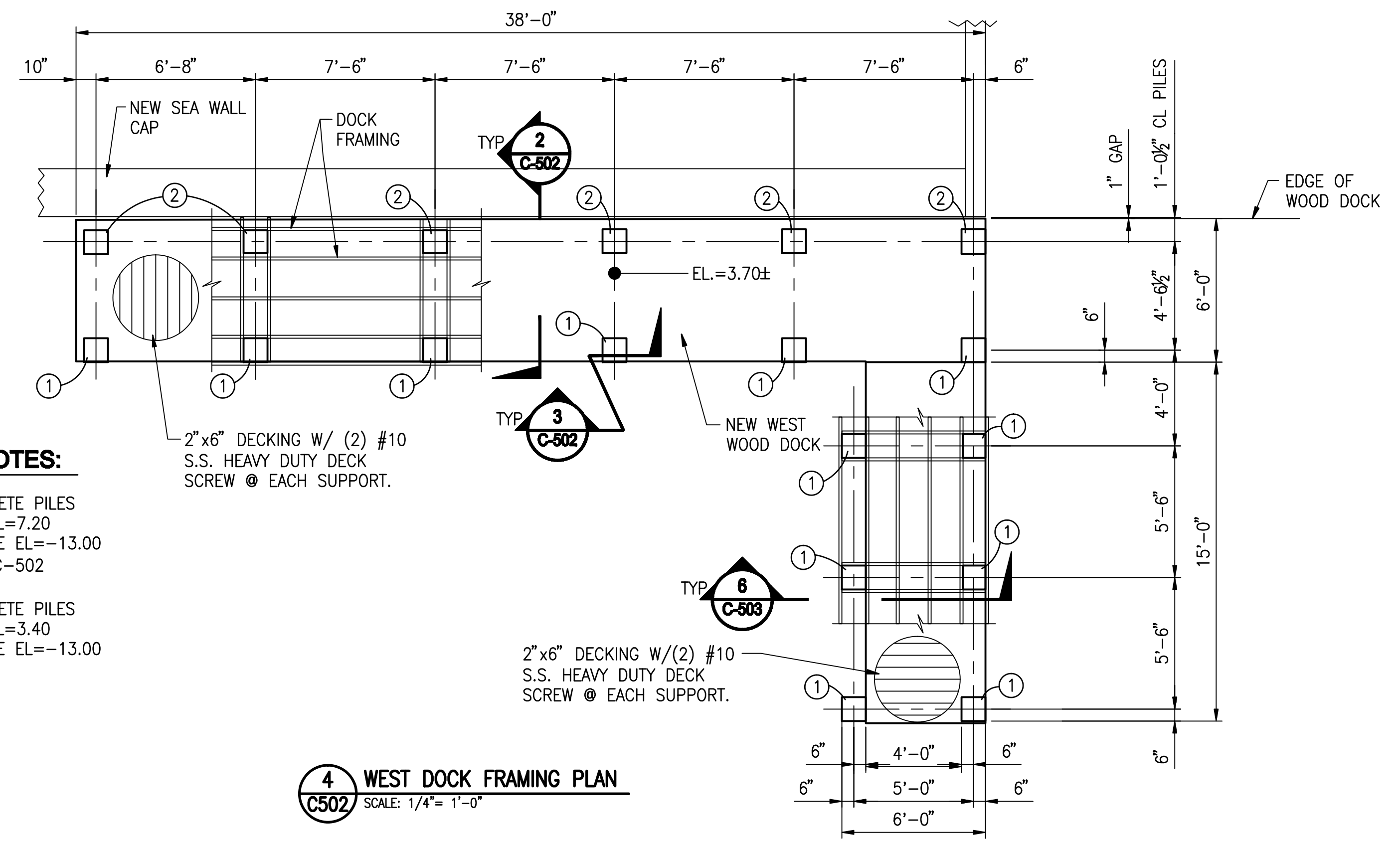
**1 PILING DETAIL**  
**C502** SCALE: 1/2" = 1'-0"



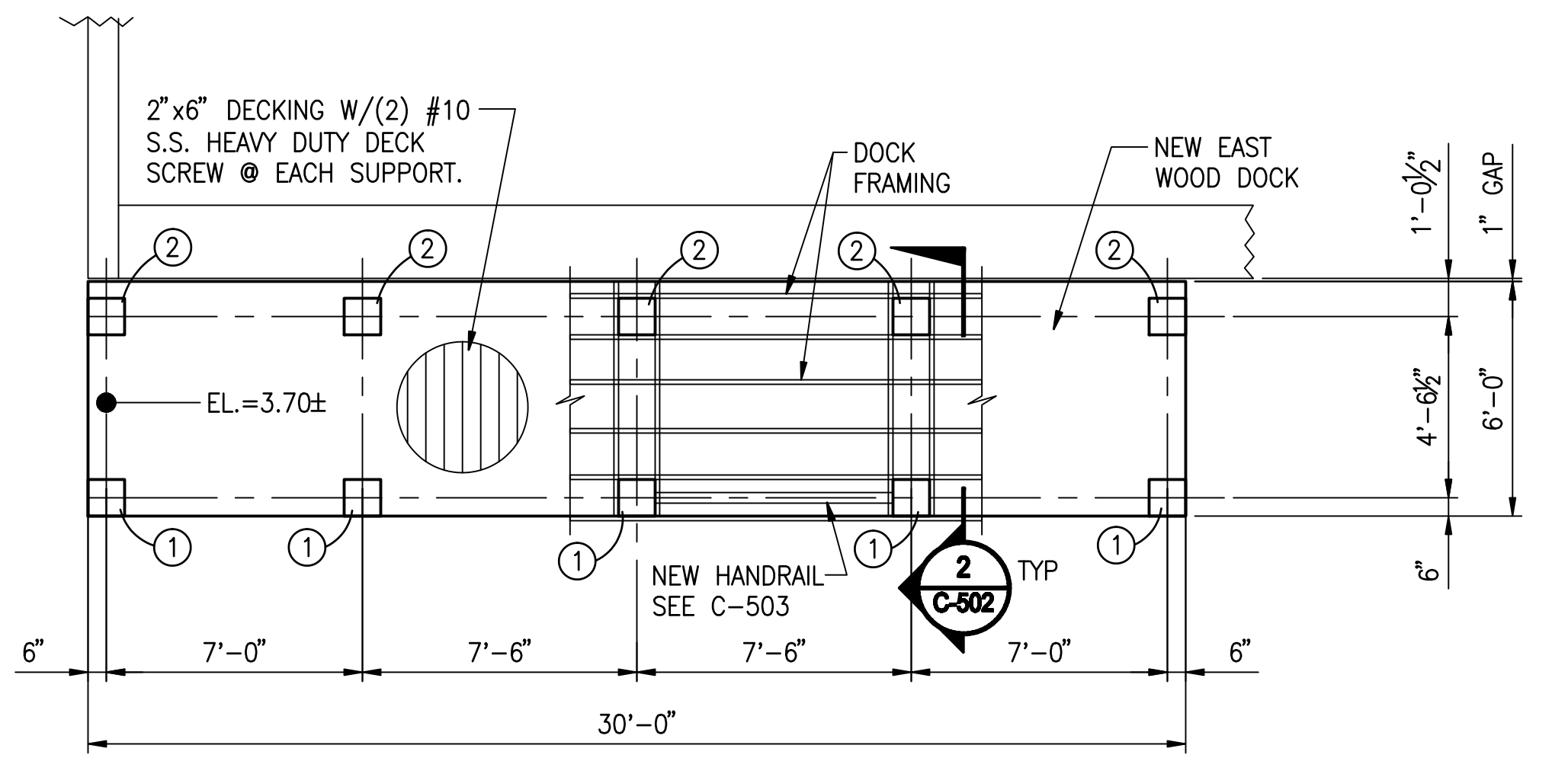
**2 CROSS-BEAM AND INTERIOR SUPPORT DETAIL**  
**C502** SCALE: 3/4" = 1'-0"



**3 DECKING ATTACHMENT DETAIL**  
**C502** SCALE: 3/4" = 1'-0"



**4 WEST DOCK FRAMING PLAN**  
**C502** SCALE: 1/4" = 1'-0"



**5 EAST DOCK FRAMING PLAN**  
**C502** SCALE: 1/4" = 1'-0"

- KEYED NOTES:**
- ① 12"x12" CONCRETE PILES  
 TOP OF PILE EL=7.20  
 BOTTOM OF PILE EL=-13.00  
 SEE DETAIL 1/C-502
  - ② 12"x12" CONCRETE PILES  
 TOP OF PILE EL=3.40  
 BOTTOM OF PILE EL=-13.00

DWG: A:\Projects\Manatee\_County\22180.00 (Highland Shores Boat Ramp) (REV)\CADD\Plan\C-502.dwg Layout Name: C-502 - Plotted by: Boyce, Raymond Date: 7/20/2009 8:15 AM XREFS: C-101

REV	DATE	DESCRIPTION	APPR

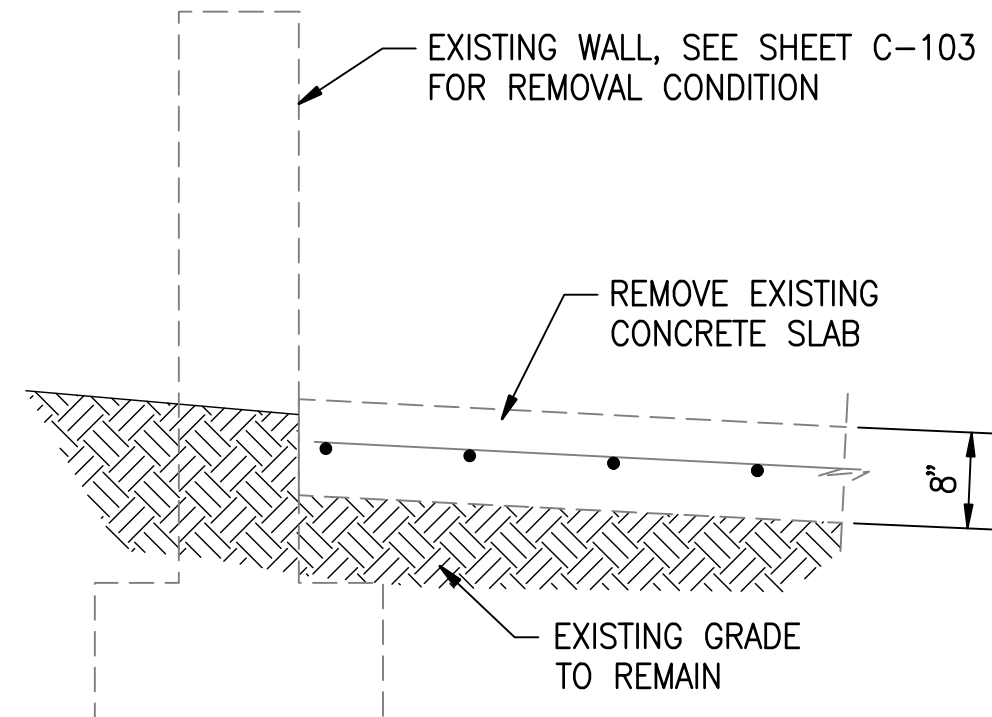
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PROJECT ENGINEER A.H. EZAZI, P.E.	REG. NUMBER 40109	EXP. DATE	PROJECT NUMBER 22180.00	CADD STANDARDS BOYLE

**BOYLE**  
 ENGINEERING CORPORATION  
 5971 Catteridge Boulevard, suite 200  
 Sarasota, FL 34232  
 Tel: 941-377-8868 Fax: 941-371-2569  
 FLORIDA ENGINEERING NUMBER EB2005  
 WWW.BOYLEENGINEERING.COM

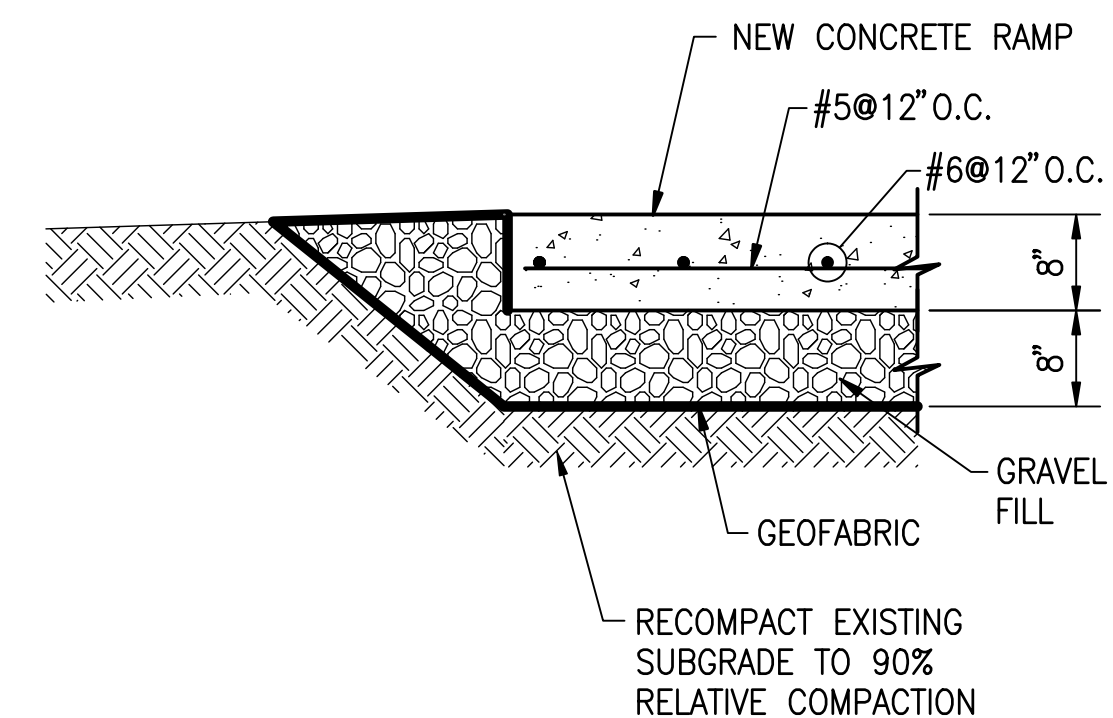
**MANATEE COUNTY HIGHLAND SHORES  
 BOAT RAMP IMPROVEMENTS**

**DOCK FRAMING DETAILS**

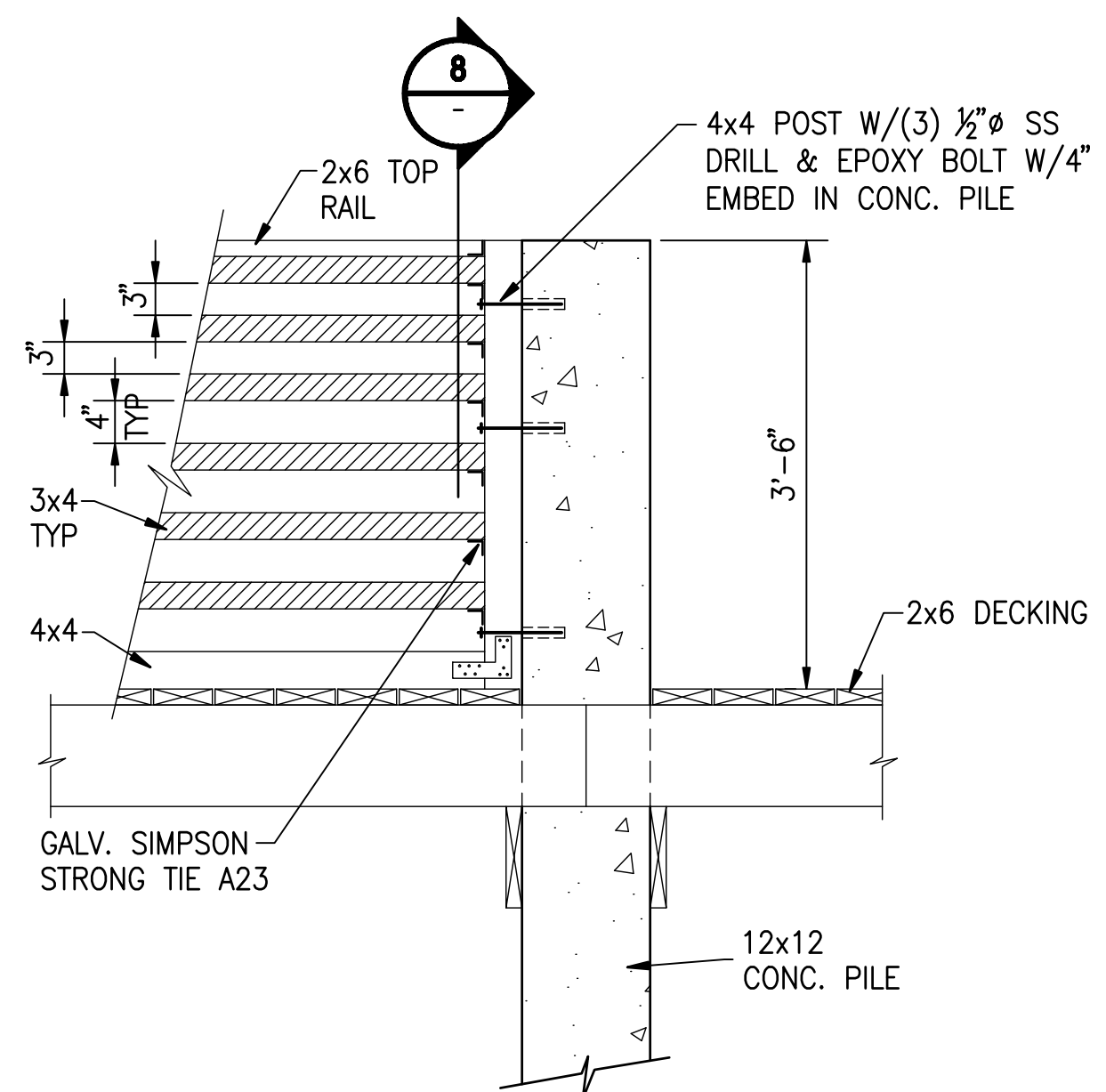
DRAWING  
**C-502**  
 SHEET  
**7**  
 OF 14 SHEETS



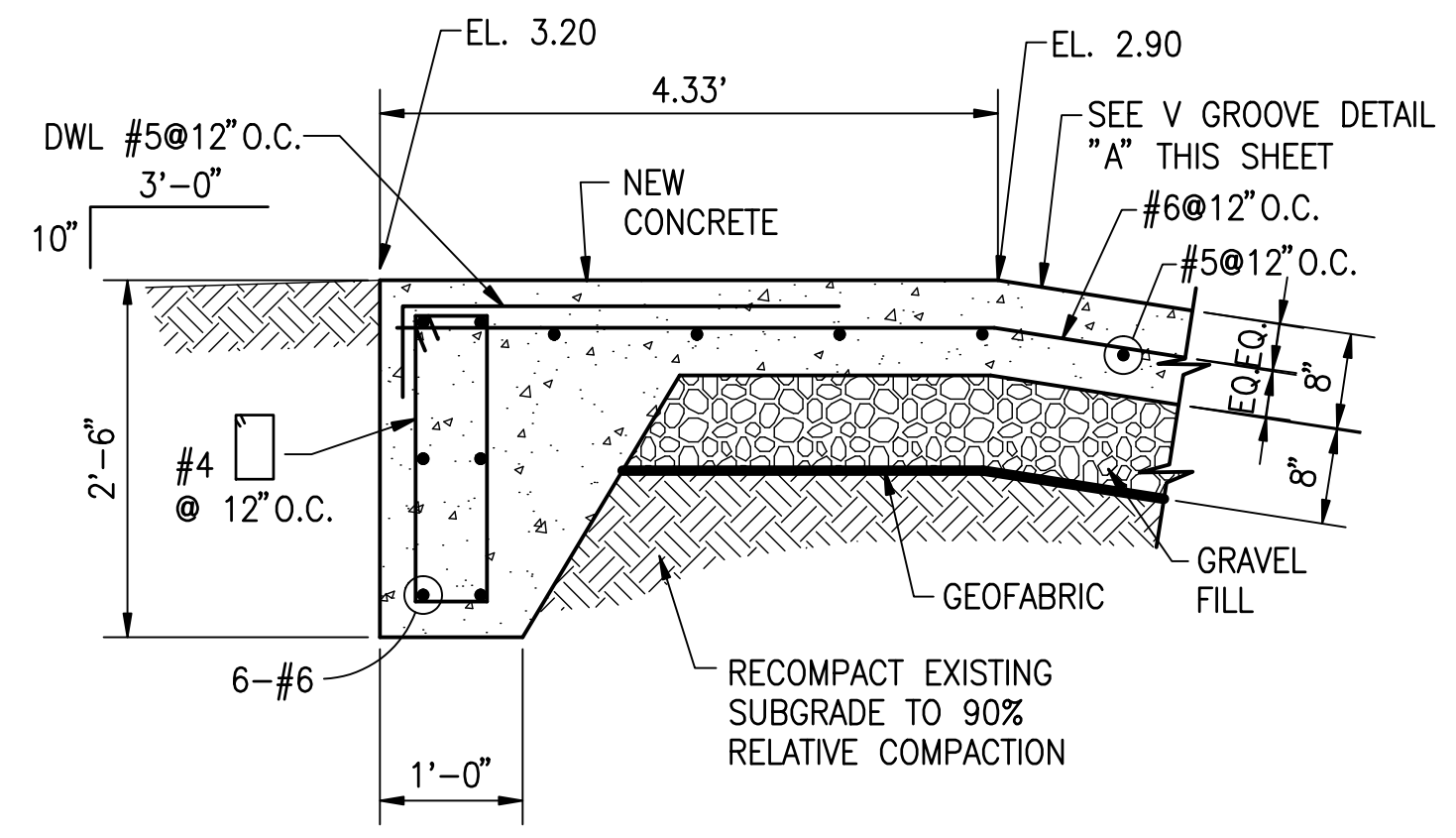
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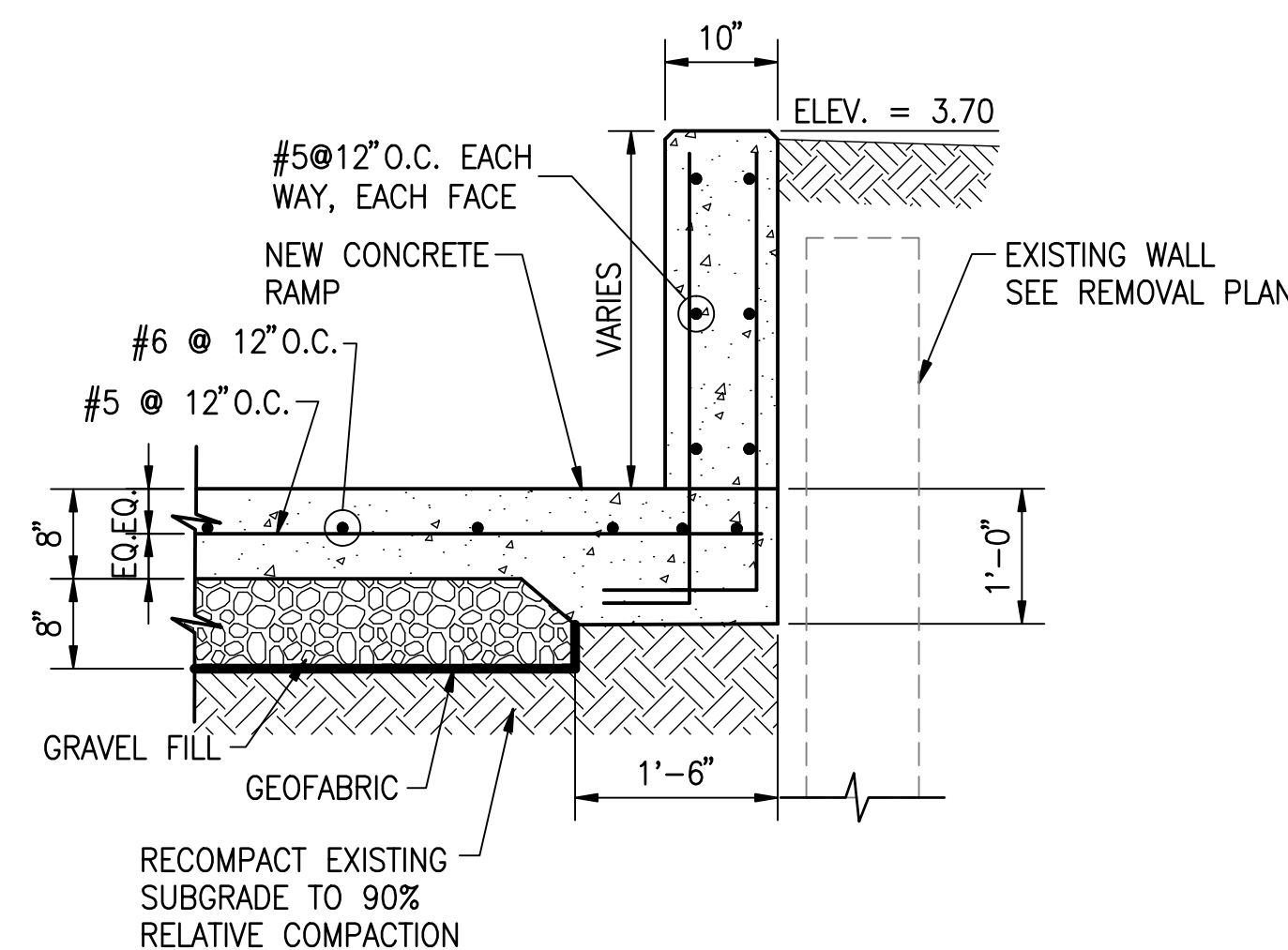
**SECTION 4**  
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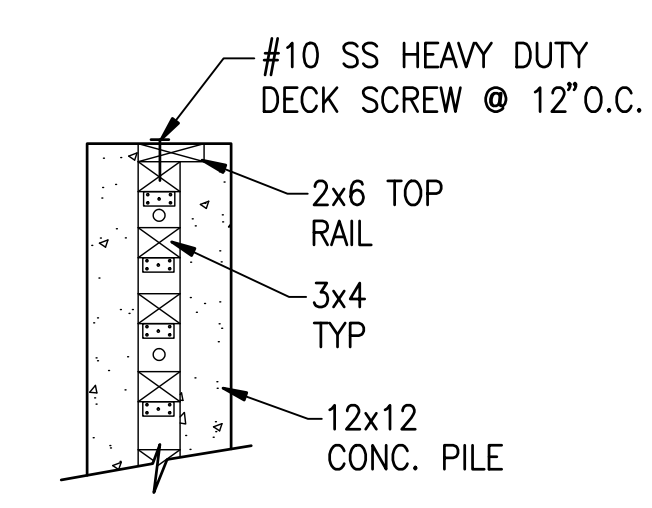
**SECTION 7**  
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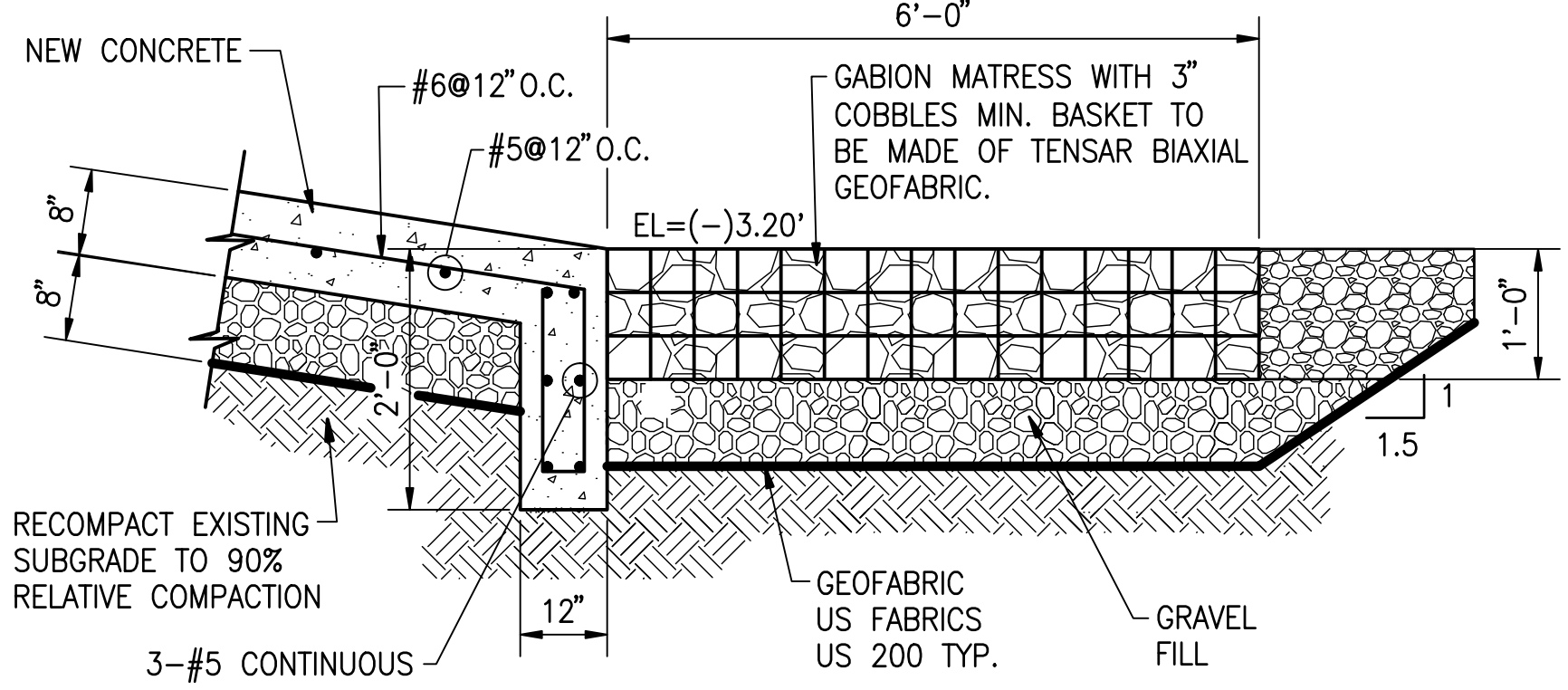
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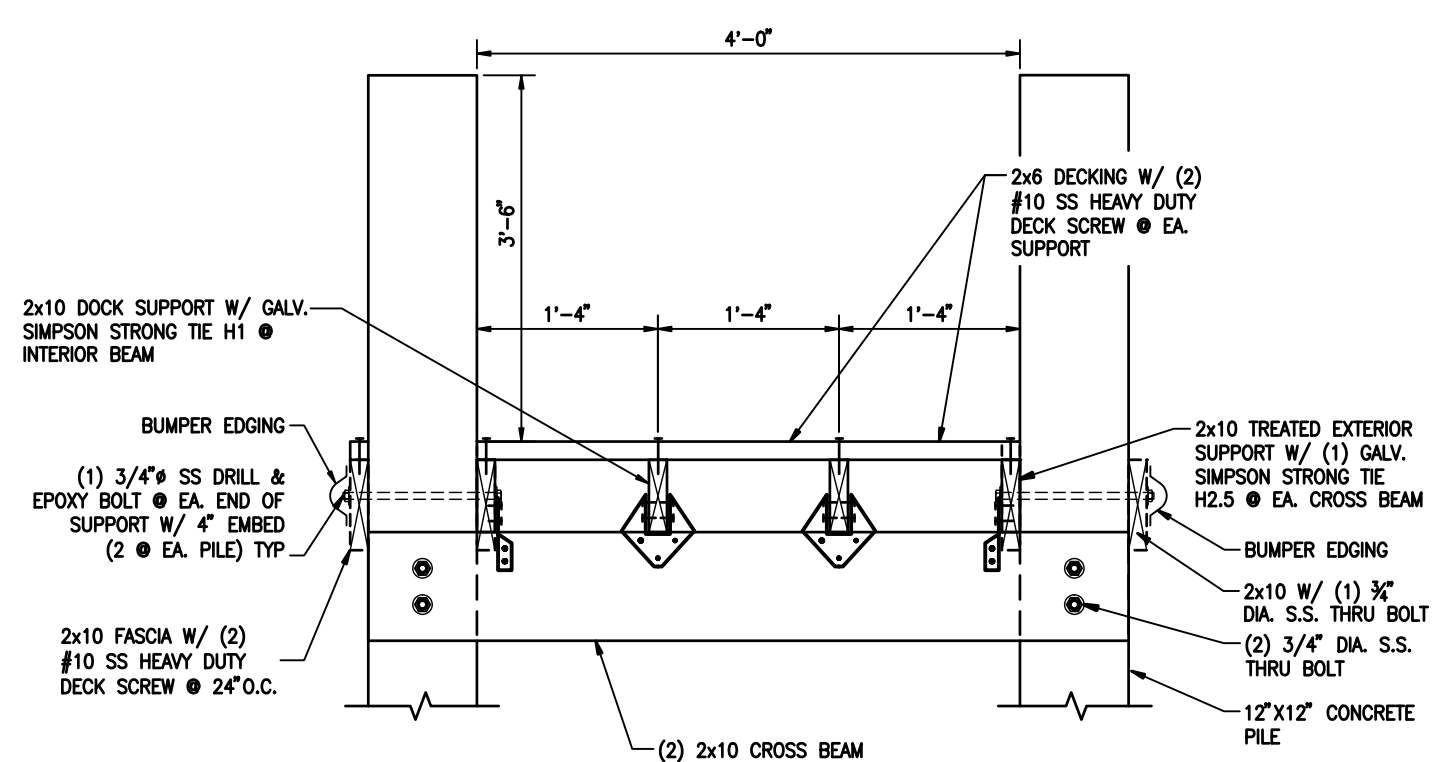
**SECTION (TYP.) 5**  
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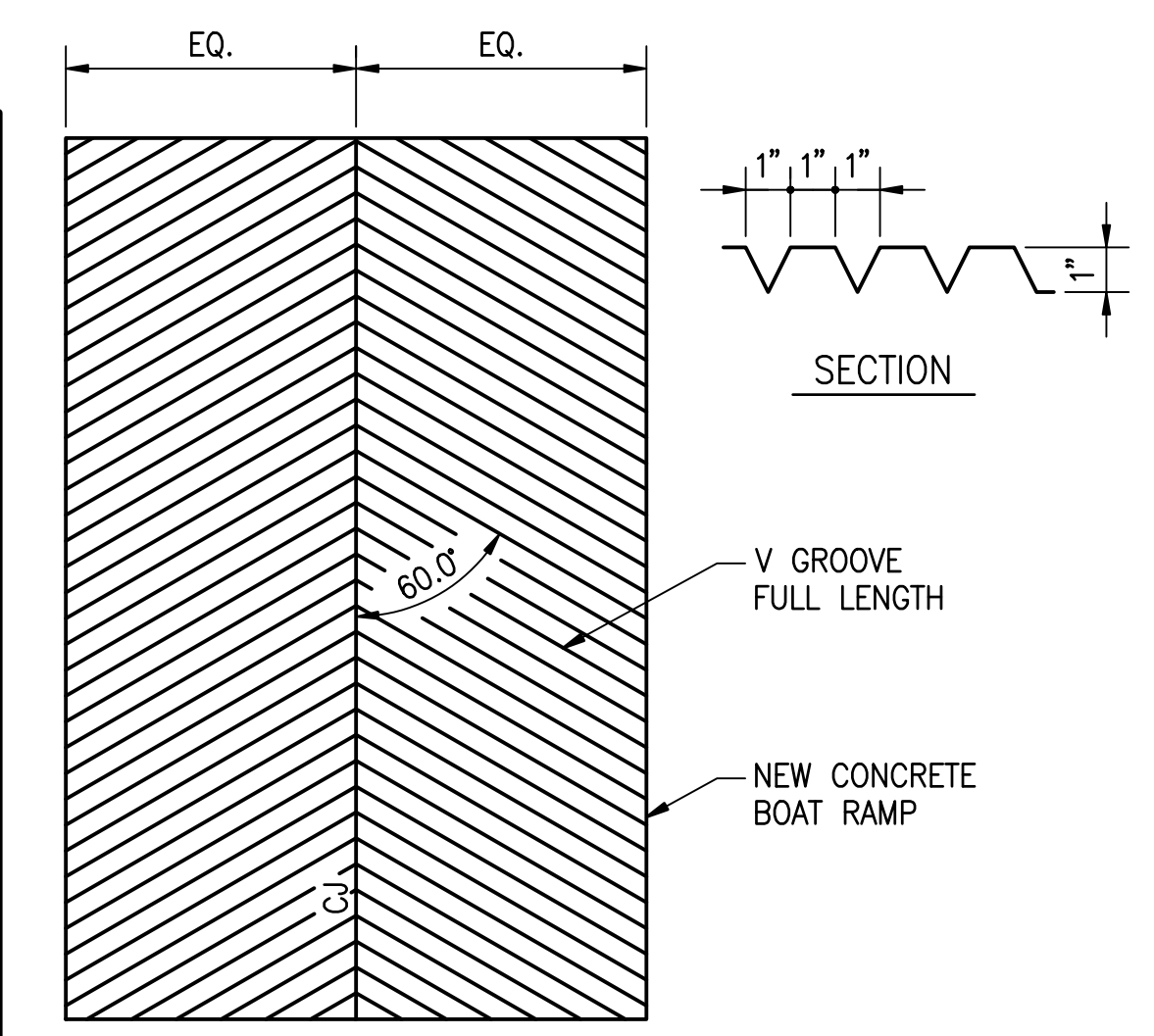
**SECTION 8**  
SCALE: N.T.S. **503**



**SECTION 3**  
SCALE: N.T.S. **503**



**SECTION 6**  
SCALE: N.T.S. **503**



**PLAN TYP. V GROOVE DETAIL A**  
SCALE: NTS

**STRUCTURAL NOTES**

**A. DESIGN CRITERIA**

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

**B. LOADINGS**

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

**C. GENERAL REQUIREMENTS**

- ALL DETAILS ARE TYPICAL. INCORPORATE INTO PROJECT AT APPROPRIATE LOCATIONS WHERE CONDITIONS ARE SIMILAR WHETHER SPECIFICALLY INDICATED OR NOT.
- SHORING REQUIRED FOR THE STABILITY OF THE UNCOMPLETED STRUCTURE OR FOR INSTALLATION OR MODIFICATION OF STRUCTURAL MEMBERS SHALL BE THE CONTRACTOR'S RESPONSIBILITY.
- CONTRACTOR TO SUBMIT DOCUMENTS SHOWING METHOD OF SHORING TO THE ENGINEER FOR REVIEW.
- 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.
- THE ENGINEER OF RECORD PERMITS NO OPENINGS OR ALTERATIONS THROUGH BEAMS OR COLUMNS UNLESS DETAILED ON THE STRUCTURAL DRAWINGS OR APPROVED IN WRITING.
- 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**

- REFERENCE GEOTECHNICAL REPORT, BY PROFESSIONAL SERVICE INDUSTRIES INC. PROJECT NO. 787-6522 DATED SEPT. 1, 2006 FOR SITE, EXCAVATION, FILL, AND BACKFILL RECOMMENDATIONS.
- REFER TO SPECIFICATIONS FOR ADDITIONAL SITE PREPARATION AND FOUNDATION SUPPORT REQUIREMENTS.
- 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**

- 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)
- ALL REINFORCING STEEL SHALL CONFORM TO ASTM A615 GRADE 60--WELDED REINF. PER A706 ALL SPLICES SHALL BE TENSION LAPS 37" FOR #6, 31" FOR #5, 25" FOR #4 UNLESS NOTED ON PLANS.
- DO NOT WELD OR TACK WELD REINFORCING STEEL.
- REINFORCING BARS SHALL HAVE MATCHING CORNER BARS.
- CONDUITS AND PIPES MAY BE EMBEDDED WITHIN A SLAB, WALL, OR BEAM ONLY IF CONSTRUCTED TO COMPLY WITH THE RECS OF SECTION 6.3 OF ACI 318-05, BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE, PUBLISHED BY ACI.
- CONST JTS SHOWN ON THE DWGS HAVE BEEN LAID OUT TO ENSURE PROPER STRUCT PERFORMANCE AND STRUCTURAL SERVICEABILITY. THE CONTACTOR 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.
- PRECAST CONCRETE PILE SHALL BE IN ACCORDANCE WITH FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, SECTION 450 PRESTRESSED CONSTRUCTION. PRE-CAST CONCRETE SHALL BE CLASS III, TYPE II CEMENT  $f_c = 5,000$  PSI AT 28 DAYS.

**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**

- ALLOWABLE STRESS DESIGN VALUES SHALL CONFORM TO ANSI NFPA NDS-1997, "NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION"
- EACH PIECE OF LUMBER SHALL BEAR THE GRADE STAMP OF A GRADING RULES AGENCY APPROVED BY THE AMERICAN LUMBER STANDARDS COMMITTEE.
- ALL SAWN LUMBER SHOWN SHALL BE AS FOLLOWS:
  - DECK AND BEAMS = SOUTHERN PINE NUMBER 1 OR BETTER
  - NO SPLIT IS ALLOWED IN BEAMS.
  - MOISTURE CONTENT 15% TO 19%.
- NAILING TO BE IN ACCORDANCE WITH TABLE 2304.9.1 OF THE BUILDING CODE UNLESS NOTED OTHERWISE.
- WOOD SHALL BE MARINE GRADE PRESSURE TREATED WITH A MINIMUM 2.5 MARINE GRADE TREATMENT.
- 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.
- ALL SCREWS SHALL BE STAINLESS STEEL.

DWG: A:\Projects\Manatee\_County\22180.00 (Highland Shores Boat Ramp REV) (CAD) (P) (Sheet) (Site Plan) (C-503.dwg) Layout Name: C-503 (SECTION DETAILS) - Plotted by: Boyle, Raymond Date: 10/23/2008 - 9:49 AM  
 XREFS: C-103

REV	DATE	DESCRIPTION	APPR
10-21-08		REVISED PER OWNER COMMENTS	MBJ

<b>VERIFY SCALES</b> BAR IS ONE INCH ON ORIGINAL DRAWING	DESIGNED BY HM	PROJECT ENGINEER A.H. EZAZI, P.E.
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY	DRAWN BY CAM	REG. NUMBER 40109
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	DATE 10/2008	CADD STANDARDS BOYLE

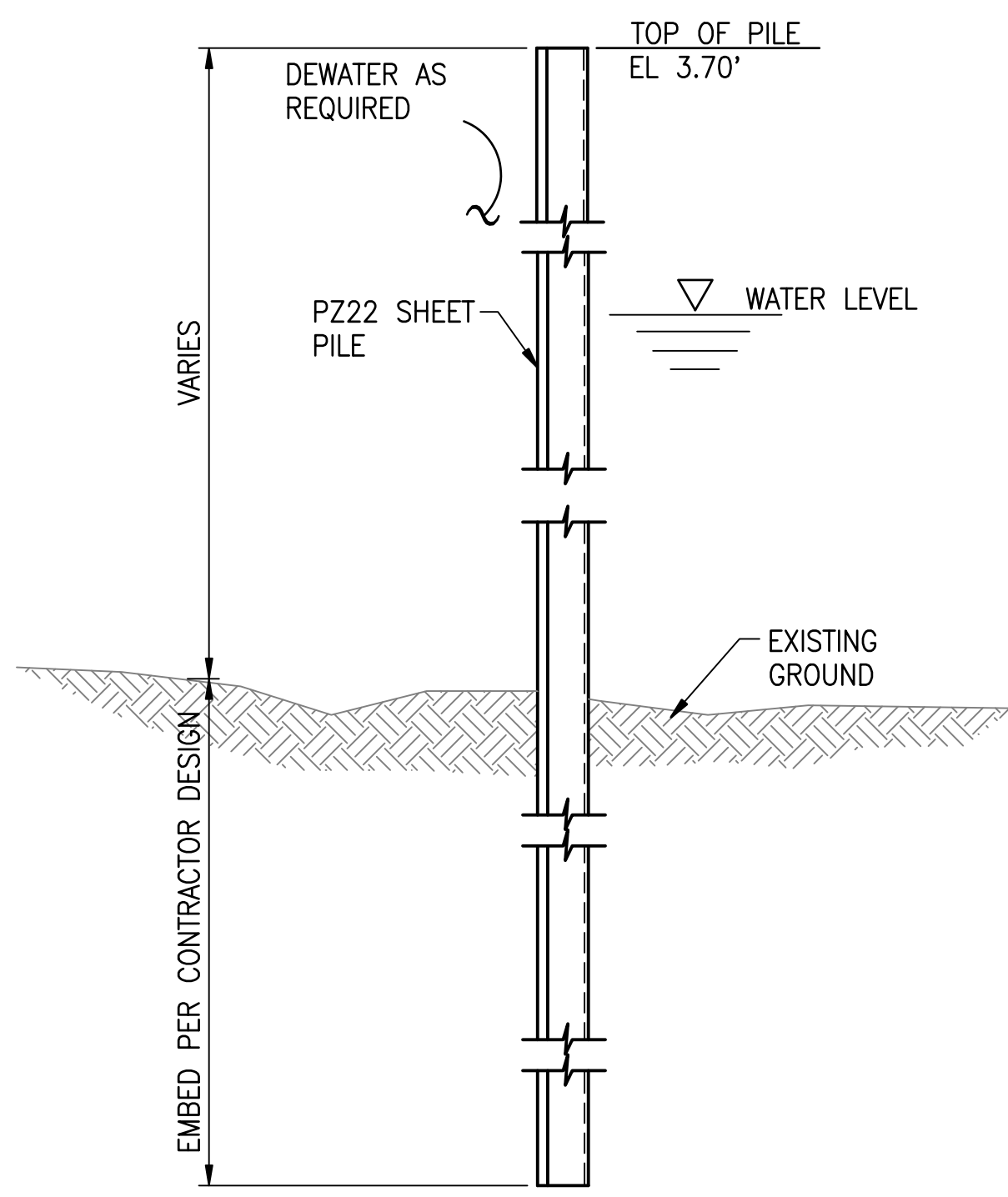
**BOYLE ENGINEERING CORPORATION**  
 5971 Catteridge Boulevard, suite 200  
 Sarasota, FL 34232  
 Tel: 941-377-8858 Fax: 941-371-2569  
 FLORIDA ENGINEERING NUMBER EB2005  
 WWW.BOYLEENGINEERING.COM

**MANATEE COUNTY HIGHLAND SHORES  
BOAT RAMP IMPROVEMENTS**

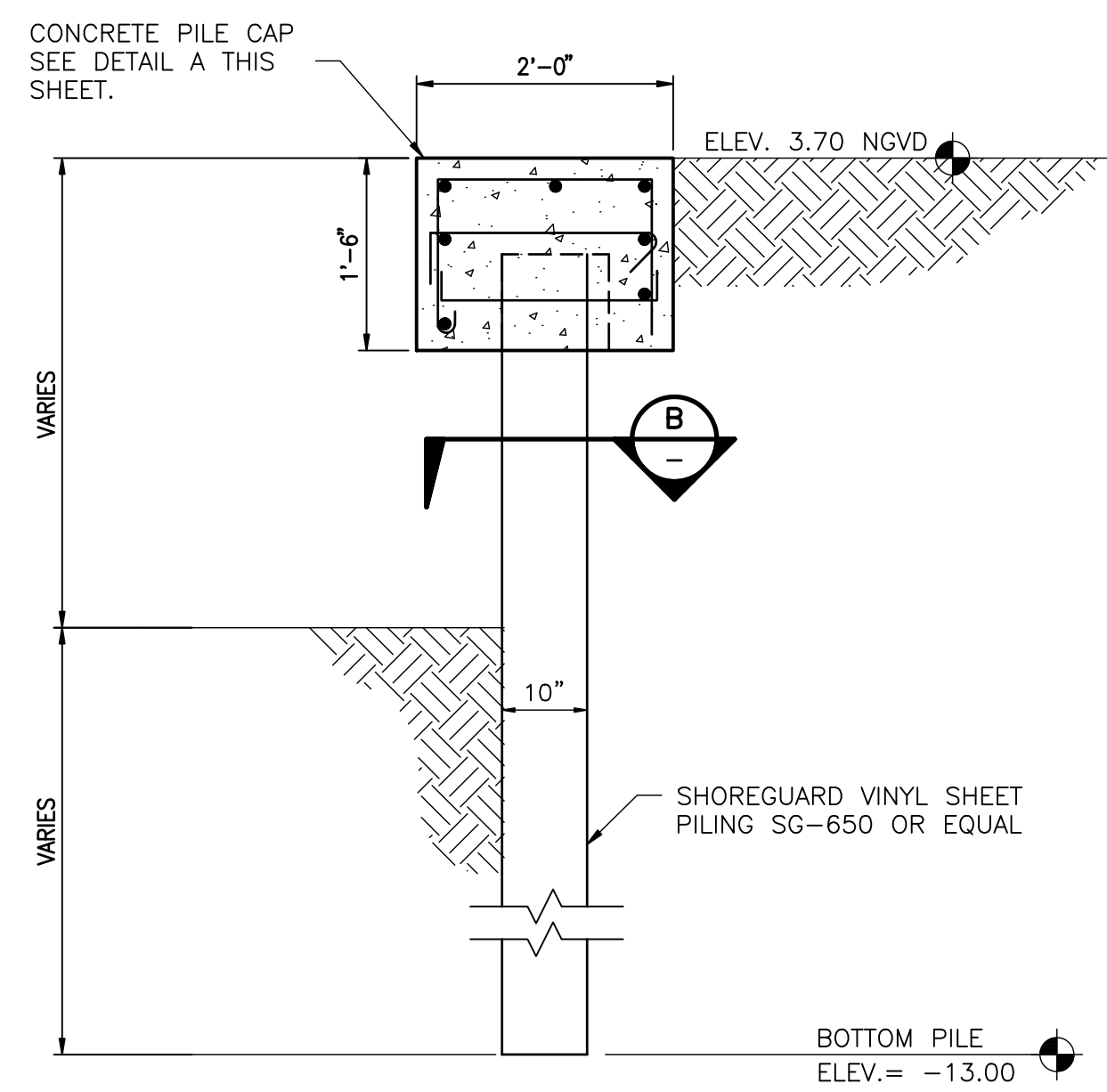
**BOAT RAMP SECTIONS AND DECKING DETAILS**

DRAWING  
**C-503**  
SHEET  
**8**  
OF 14 SHEETS

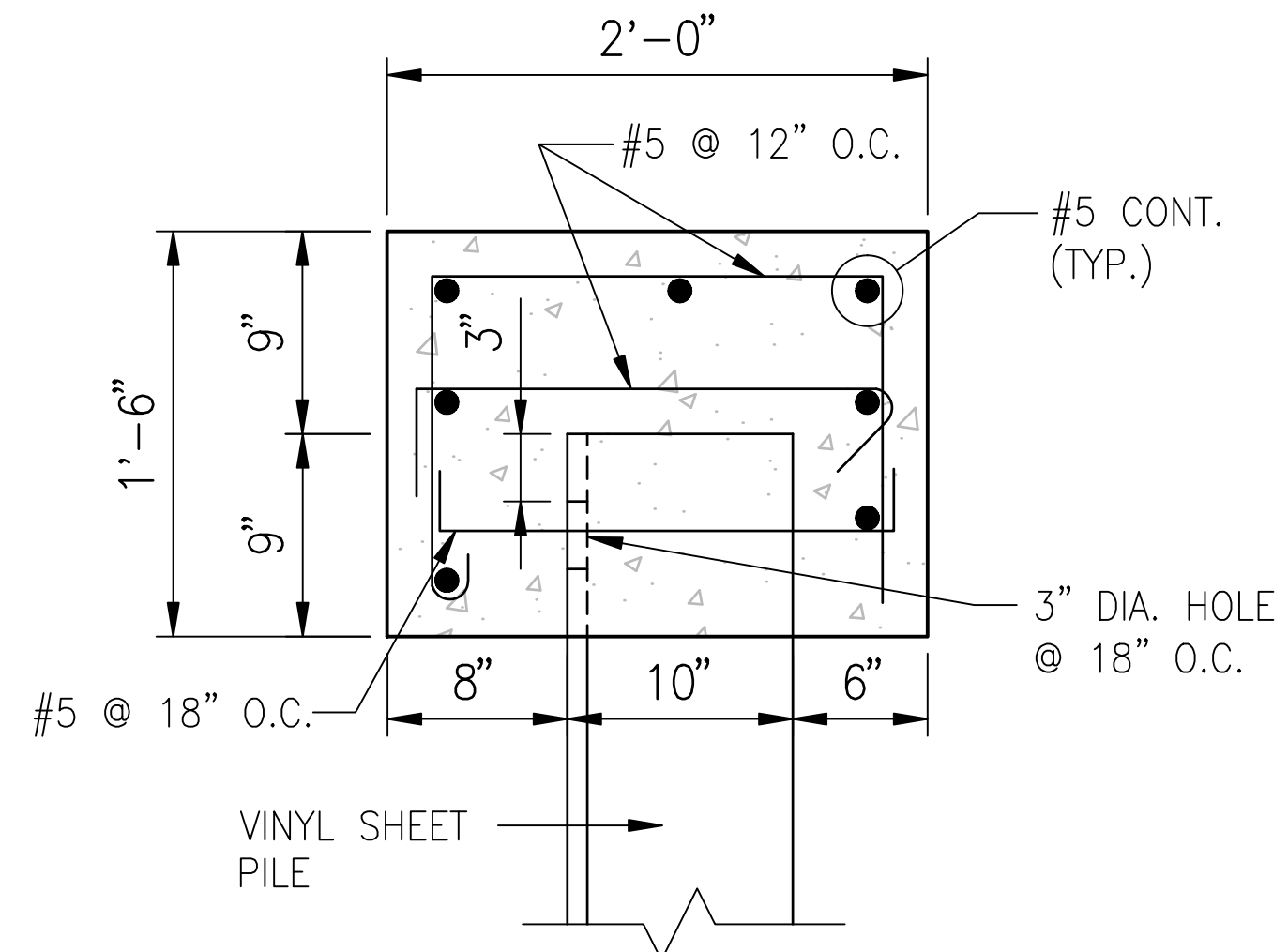




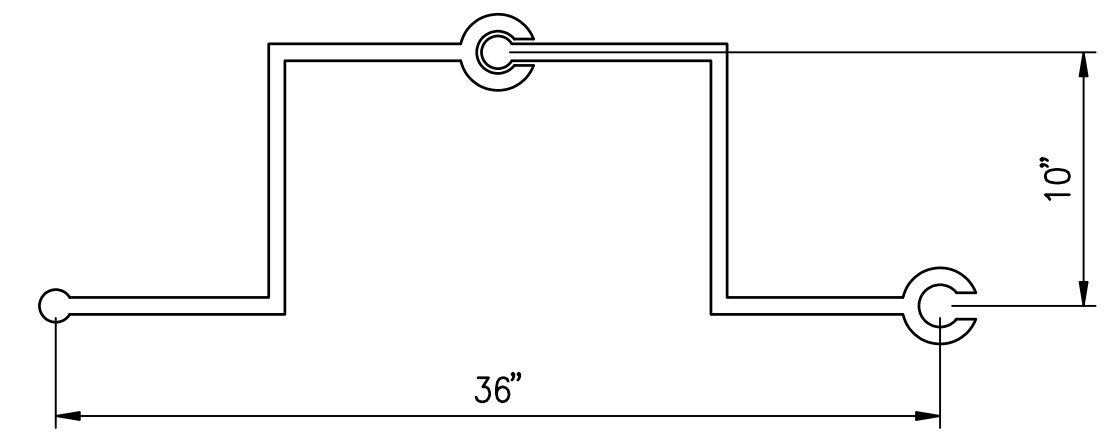
**1** TEMPORARY COFFER DAM  
C504 SCALE: N.T.S



**2** SECTION THROUGH WALL  
C504 SCALE: N.T.S

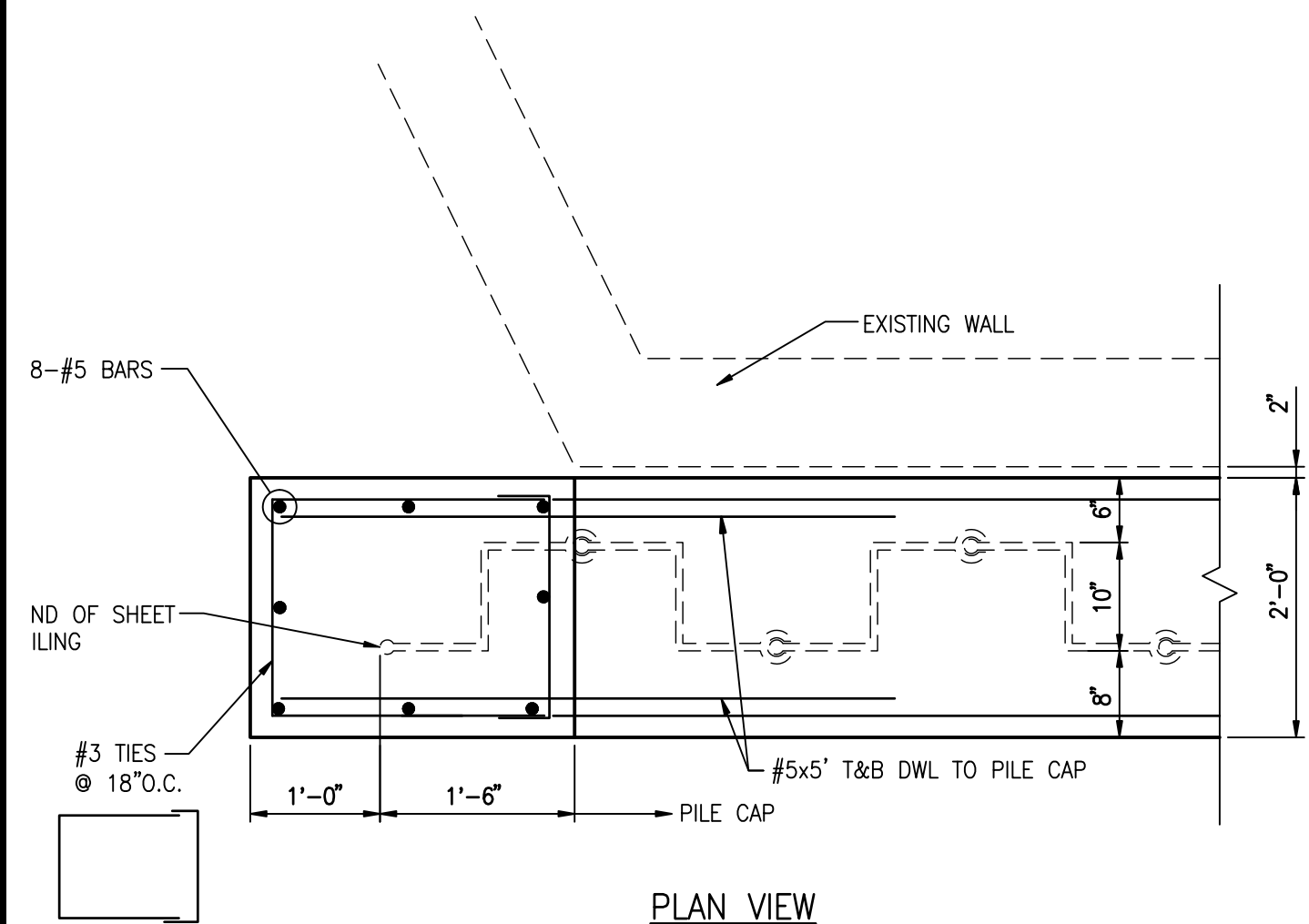


**A** PILING CAP DETAIL  
C504 SCALE: N.T.S

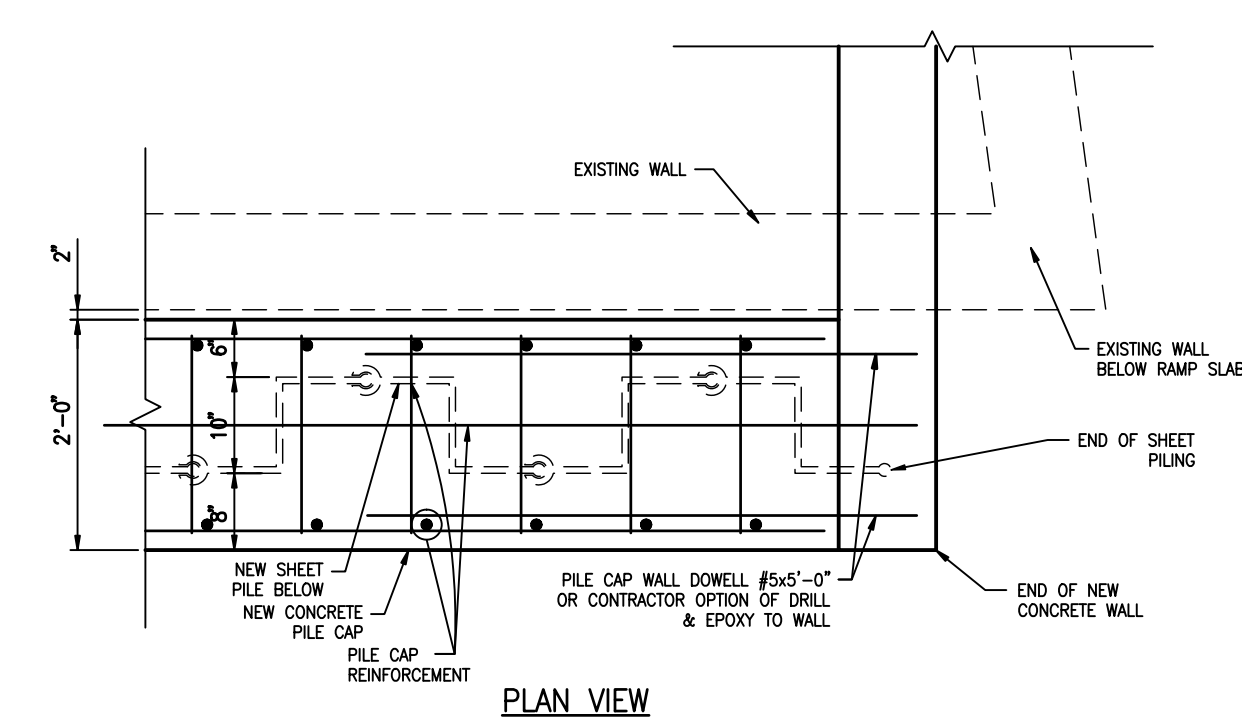


NOTE:  
THE SHEET PILES MAY BE SUBSTITUTED FOR EQUIVALENT OR GREATER SECTION MODULUS PER THE FOLLOWING:  
SG 650, Z= 30 CU. IN./FT.

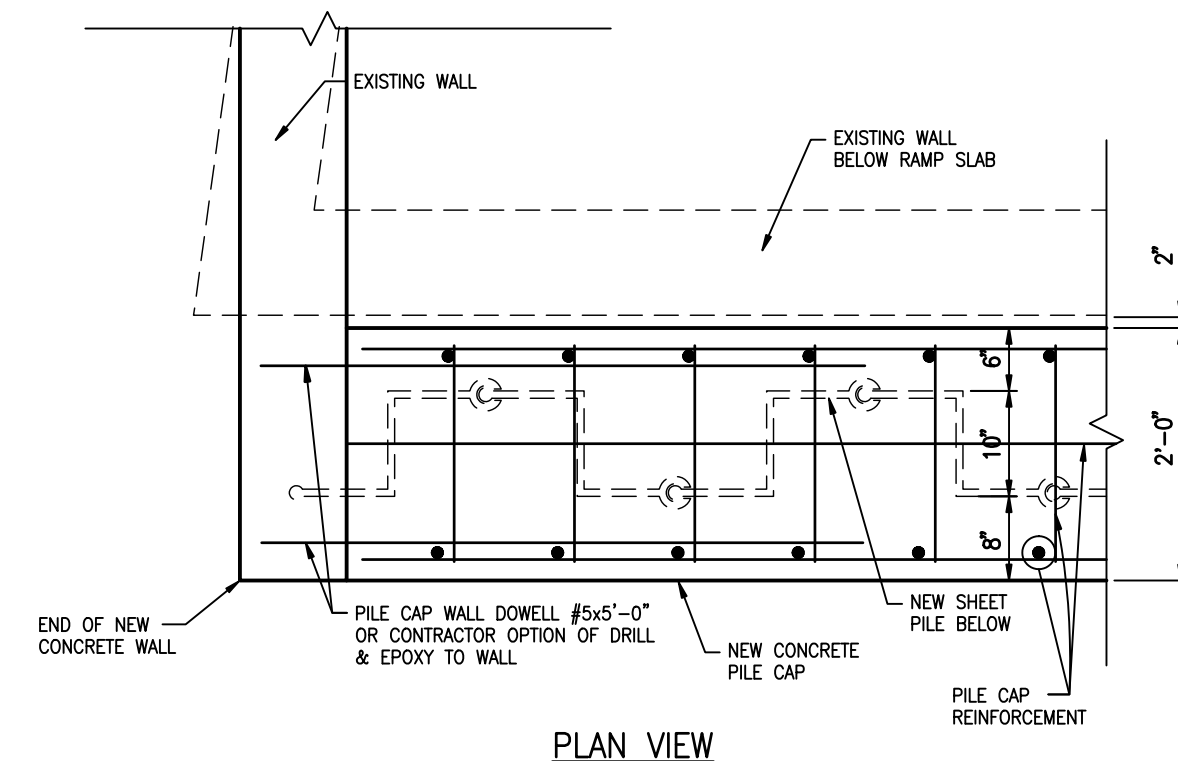
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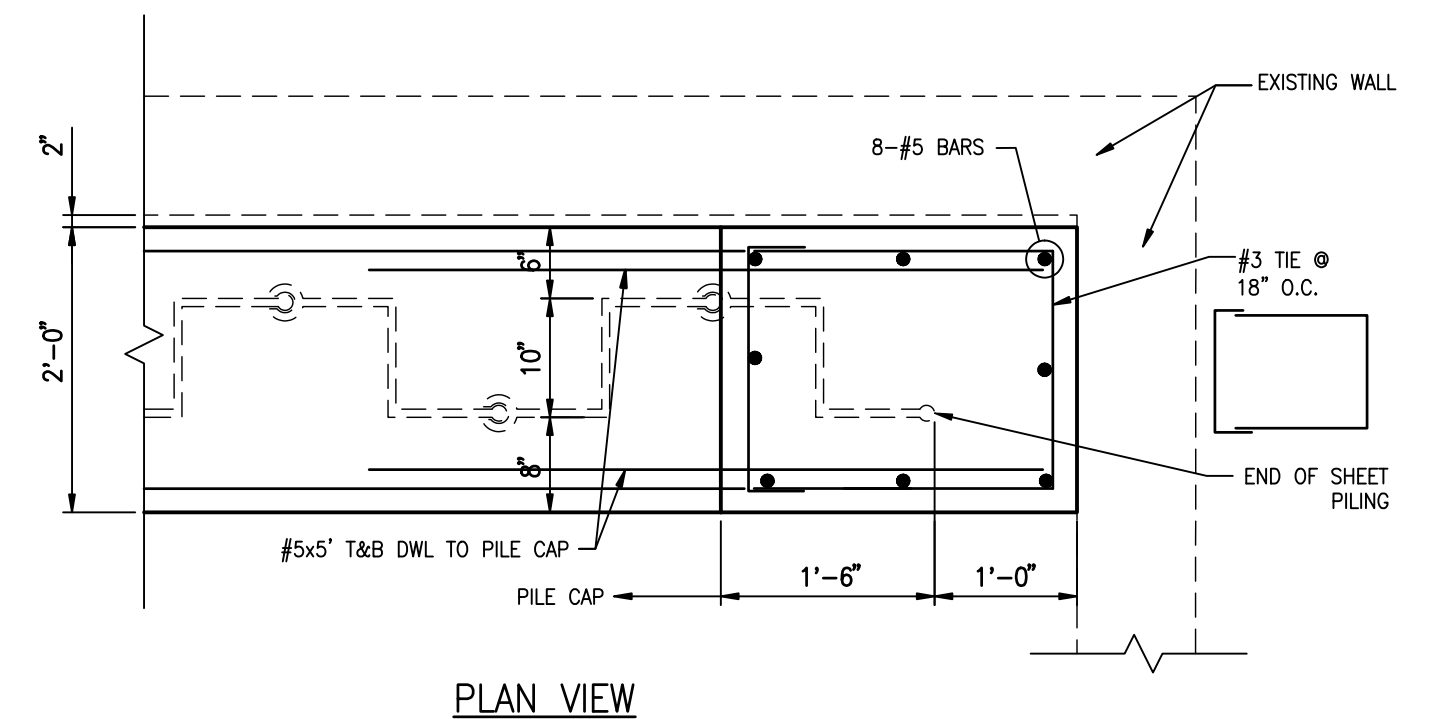
**3** WEST END OF SHEET PILE  
C504 SCALE: N.T.S



**4** SHEET PILE AT BOAT RAMP  
C504 SCALE: N.T.S



**5** SHEET PILE AT BOAT RAMP  
C504 SCALE: N.T.S



**6** EAST END OF SHEET PILE  
C504 SCALE: N.T.S

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10-21-08		REVISED PER OWNER COMMENTS	MJB

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	DATE 10/2008	CADD STANDARDS BOYLE

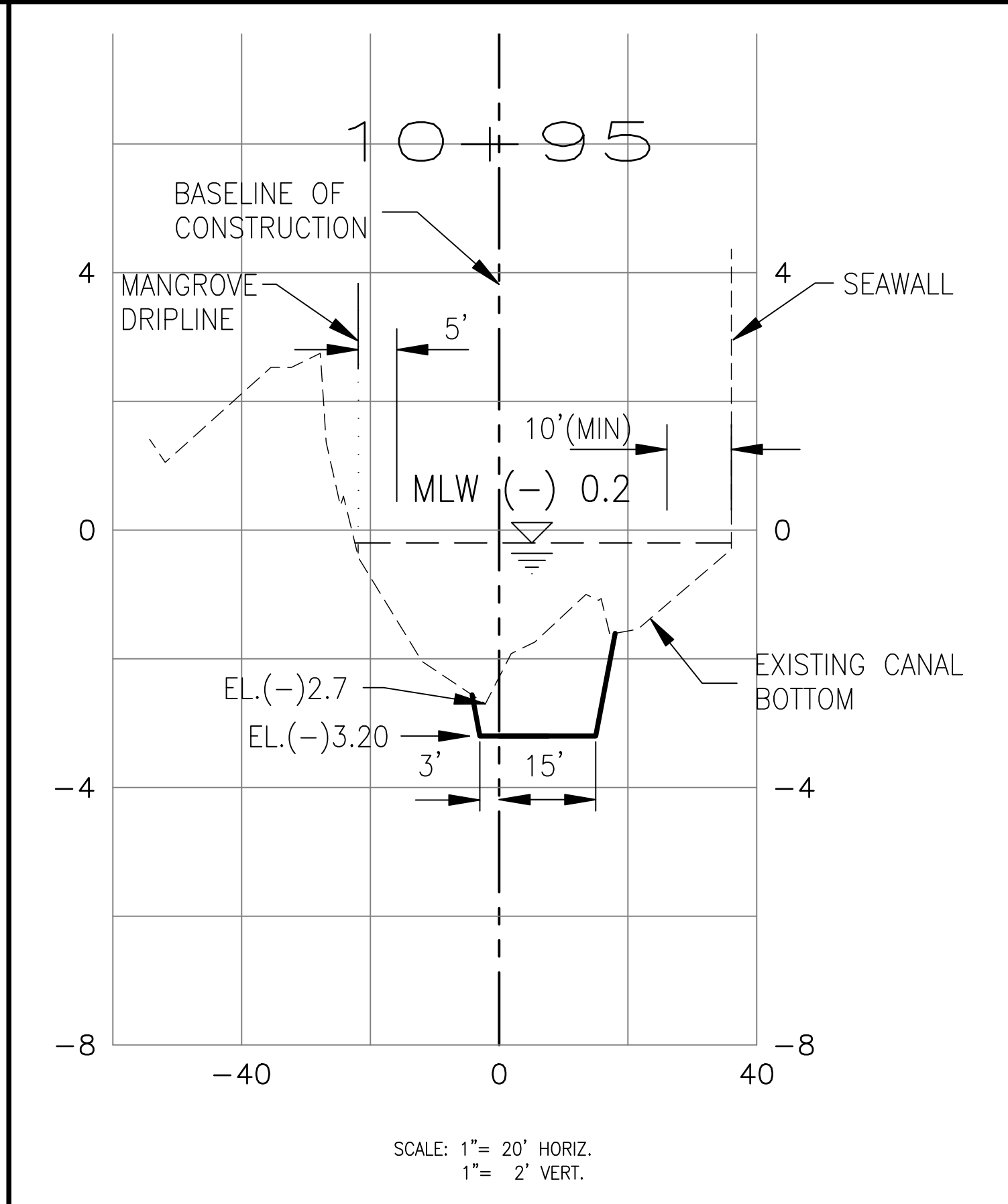
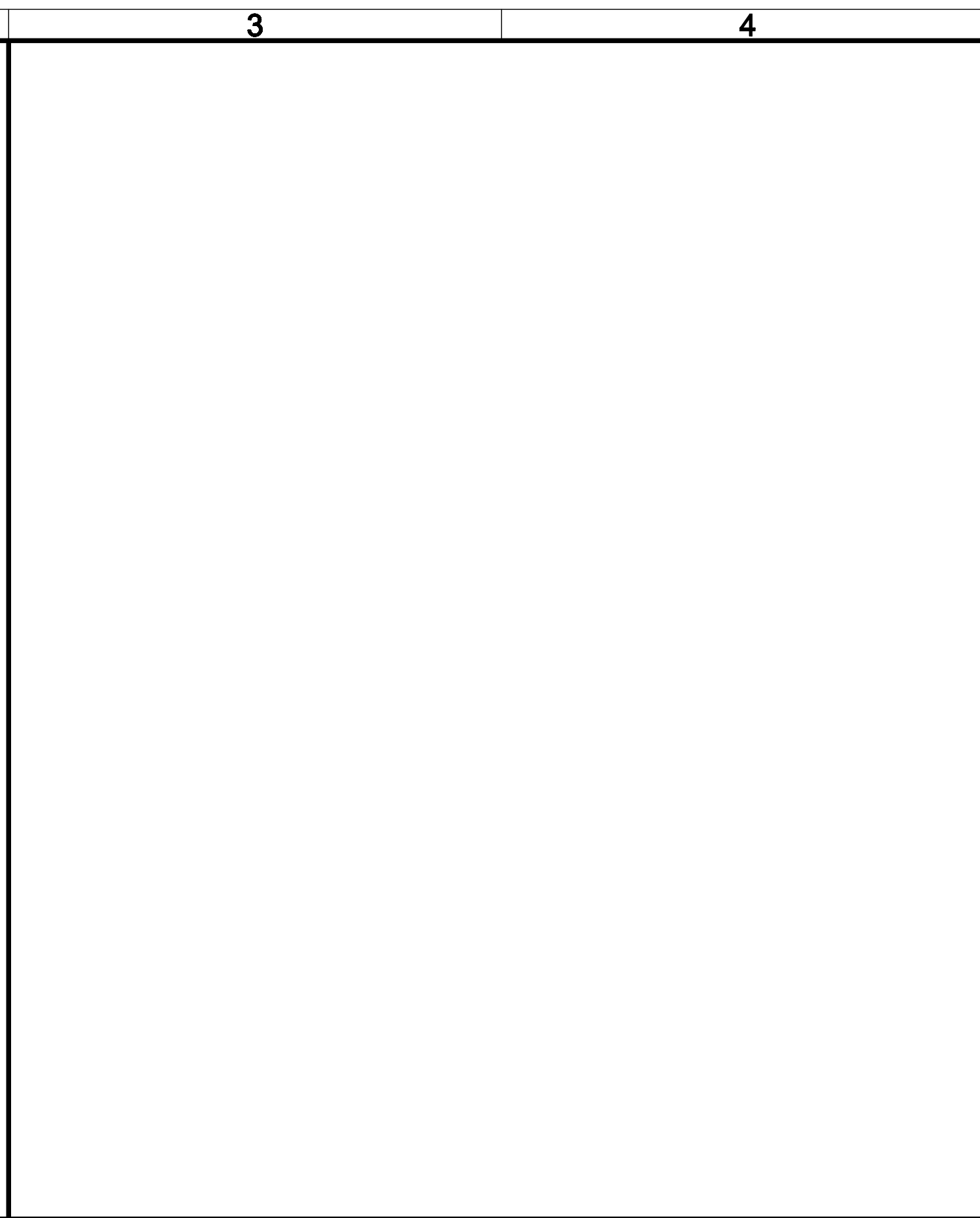
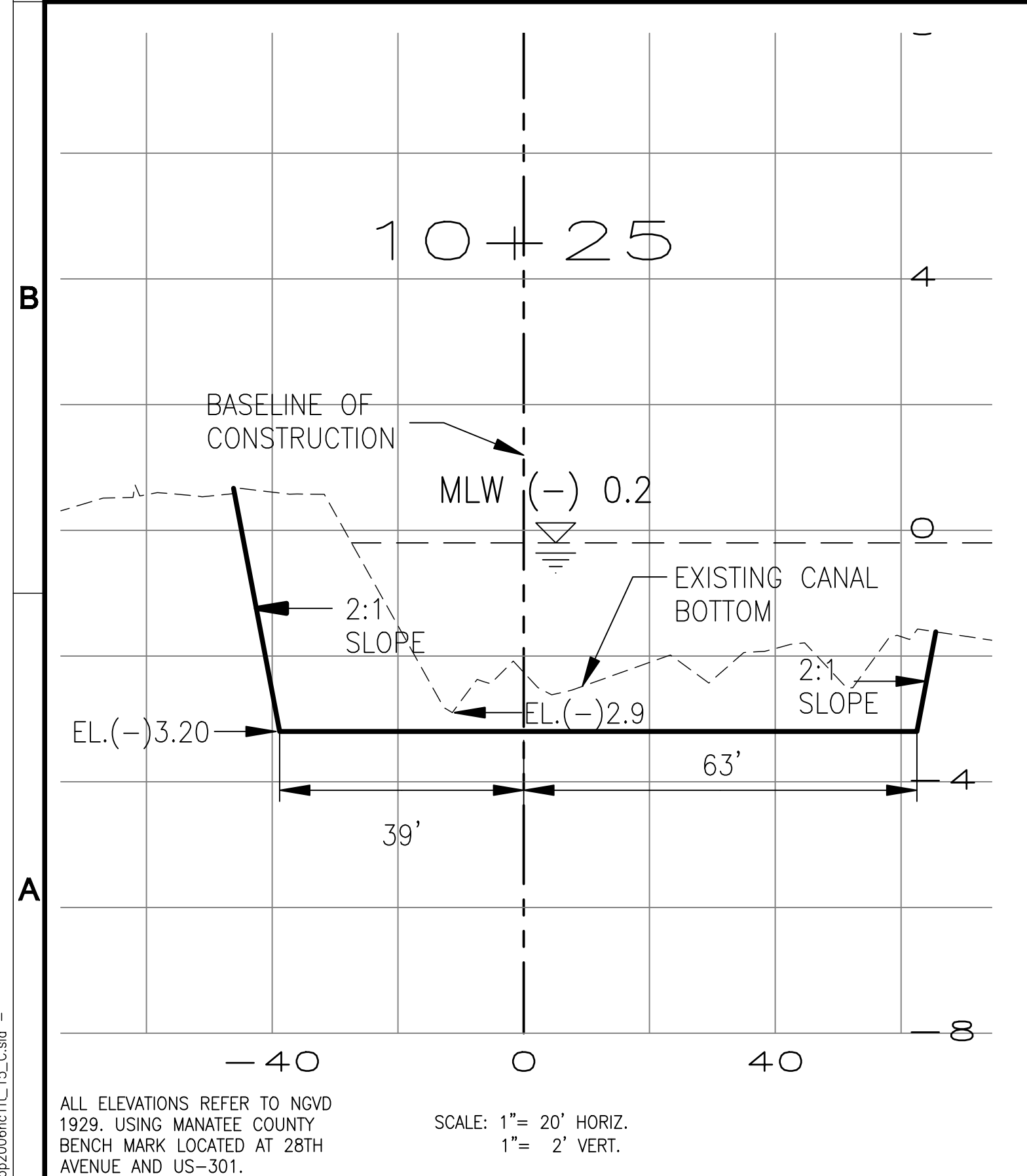
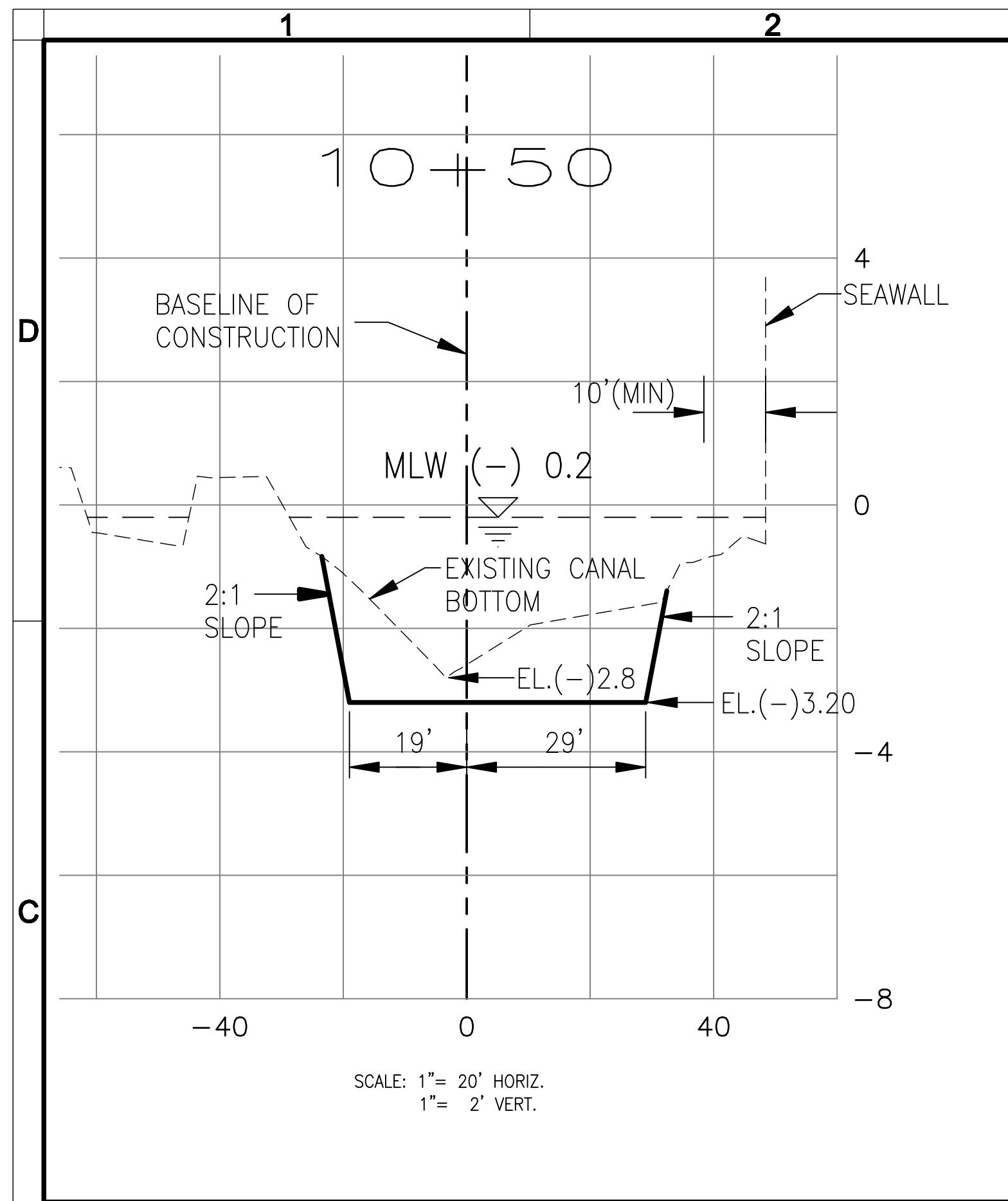
**BOYLE**  
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MANATEE COUNTY HIGHLAND SHORES  
BOAT RAMP IMPROVEMENTS

SEAWALL AND CAP DETAILS

DRAWING  
**C-504**  
SHEET  
**9**  
OF 14 SHEETS

DWG: A:\Projects\Manatee County\22180.00 - Highland Shores Boat Ramp PRE\CD\Plan\Site Plan\C-505.dwg Layout Name: C-505 - Plotted by: Boyle, Raymond Date: 10/23/2009 - 9:51 AM  
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04-09-09		REVISED PER DEP COMMENTS	MJB
01-26-09		REVISED PER OWNER COMMENTS	MJB
10-21-08		REVISED PER OWNER COMMENTS	MJB

DESIGNED BY	PROJECT ENGINEER
MJB	A.H. EZAZI, P.E.
DRAWN BY	REG. NUMBER
MJB	40109
CHECKED BY	EXP. DATE
GIF	
DATE	PROJECT NUMBER
10/2008	22180.01
	CADD STANDARDS
	BOYLE

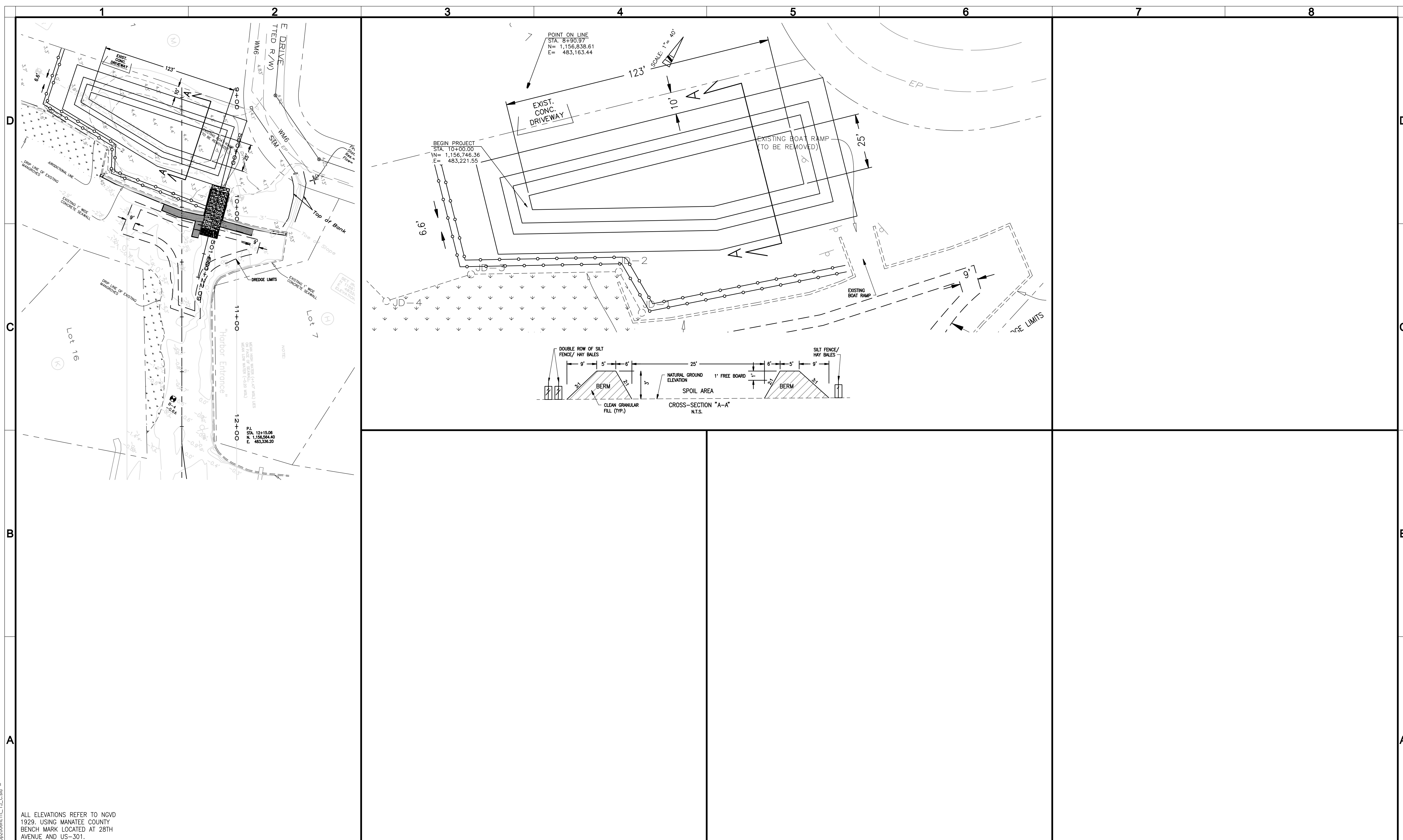
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 5971 Cattle Ridge Boulevard, suite 200  
 Sarasota, FL 34232  
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 FLORIDA ENGINEERING NUMBER EB2005  
 WWW.BOYLEENGINEERING.COM

<b>MANATEE COUNTY HIGHLAND SHORES          BOAT RAMP IMPROVEMENTS</b>	
<b>DREDGING CROSS SECTIONS</b>	

DRAWING <b>C-505</b> SHEET <b>10</b> OF 14 SHEETS
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DWS: \\Projects\Manatee County\22180.00 - Highland Shores Boat Ramp\REV\CAD\Plan\Site Plan\C-506.dwg Layout Name: C-506 - Plotted by: Boyce, Myron Date: 10/23/2009 - 9:53 AM  
 XREFS: G-B01 - C-SP IMAGES: pp2008rct\_HL\_15\_C.dwg



ALL ELEVATIONS REFER TO NGVD 1929. USING MANATEE COUNTY BENCH MARK LOCATED AT 28TH AVENUE AND US-301.

REV	DATE	DESCRIPTION	APPR
04-09-09		REVISED PER DEP COMMENTS	MJB
01-27-09		REVISED PER MANATEE COUNTY REVIEW COMMENTS	MJB
10-21-08		REVISED PER OWNER COMMENTS	MJB

VERIFY SCALES	
DESIGNED BY	MJB
DRAWN BY	MJB
CHECKED BY	GIF
DATE	10/2008

PROJECT ENGINEER	A.H. EZAZI, P.E.
REG. NUMBER	40109
EXP. DATE	
PROJECT NUMBER	22180.01
CADD STANDARDS	BOYLE

BOYLE

ENGINEERING CORPORATION

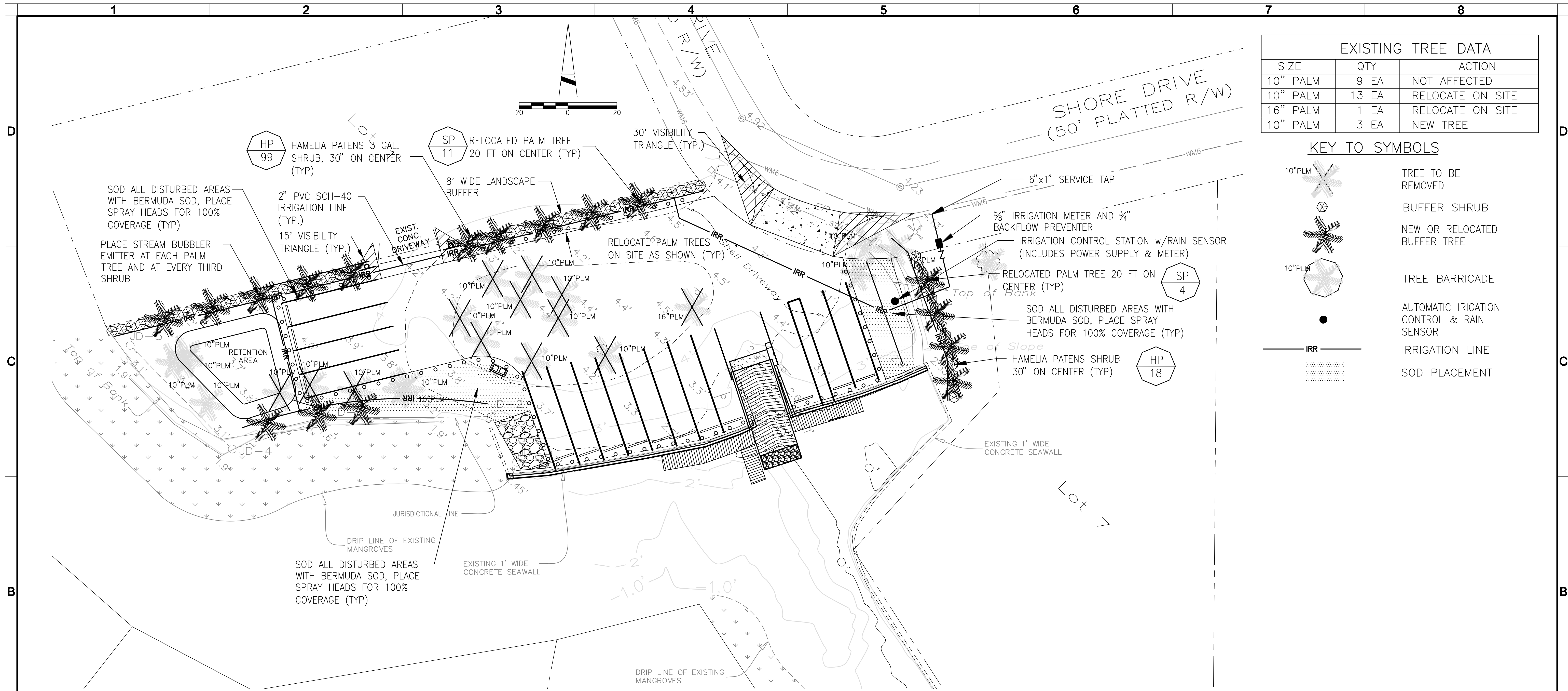
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Sarasota, FL 34232  
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MANATEE COUNTY HIGHLAND SHORES  
 BOAT RAMP IMPROVEMENTS

DREDGING CROSS SECTIONS AND PLAN VIEW

DRAWING  
**C-506**  
 SHEET  
**11**  
 OF 14 SHEETS

DWG: A:\Projects\Manatee County\22180.00 - Highland Shores Boat Ramp REV(CAD)Boyle\Site Plan\01.dwg  
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 Layout Name: L-001 - Plotted by: Boyle, Myron Date: 10/23/2009 - 9:55 AM



EXISTING TREE DATA		
SIZE	QTY	ACTION
10" PALM	9 EA	NOT AFFECTED
10" PALM	13 EA	RELOCATE ON SITE
16" PALM	1 EA	RELOCATE ON SITE
10" PALM	3 EA	NEW TREE

KEY TO SYMBOLS	
	TREE TO BE REMOVED
	BUFFER SHRUB
	NEW OR RELOCATED BUFFER TREE
	TREE BARRICADE
	AUTOMATIC IRRIGATION CONTROL & RAIN SENSOR
	IRRIGATION LINE
	SOD PLACEMENT

KEY	QTY.	MATERIALS:
SP	14	SABAL PALMETTO (CABAGE PALM) TRANSPLANT FROM ON SITE
HP	117	HAMELIA PATENS (FIREBUSH) 12" X 12" SPR., 3 GALLON CONTAINER
TBD		CYNODON DACTYLON (COMMON BERMUDA)
APPROXIMATELY 2,200 SQUARE FEET MULCH. (SURFACE AREA)		
APPROXIMATELY 2,200 SQUARE FEET APPROVED FILTER CLOTH		
<b>PLANTING BEDS:</b>		
MULCH TO BE INSTALLED. MULCH TO MATCH IN COLOR AND IN SIZE THE EXISTING MULCH. MULCH TO BE INSTALLED AT A DEPTH OF 3" OVER APPROVED FILTER CLOTH.		
<b>UNIT PRICES SHALL BE BID:</b>		
UNIT PRICES INCLUDE COST OF FURNISHING MATERIALS, LABOR, PLANTS, EXCAVATION OF PLANTING BEDS, PITS, PLANTING, STAKING, PRUNING, CLIPPING, WATERING, INSPECTION, MAINTAINING OR OTHER WORK INCIDENTAL THERETO, AS PER DRAWINGS AND SPECIFICATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SUPPLYING ALL MATERIALS AS SHOWN ON SITE DEVELOPMENT PLANS AND SHALL DETERMINE QUANTITIES ACCORDING TO SAID PLANS. ALL CONTRACTORS ARE RESPONSIBLE FOR DETERMINING QUANTITIES AND SUPPLY ALL MATERIALS, LABOR, AND PERMITS AS NECESSARY FOR THE SCOPE OF WORK.		

REV	DATE	DESCRIPTION	APPR
07-20-09		REVISED CONTROLLER NOTE	MJB
06-09-09		REVISED PER PARKS & RECREATION COMMENTS	MJB
01-27-09		REVISED PER MANATEE COUNTY REVIEW COMMENTS	MJB
10-21-08		REVISED PER OWNER COMMENTS	MJB

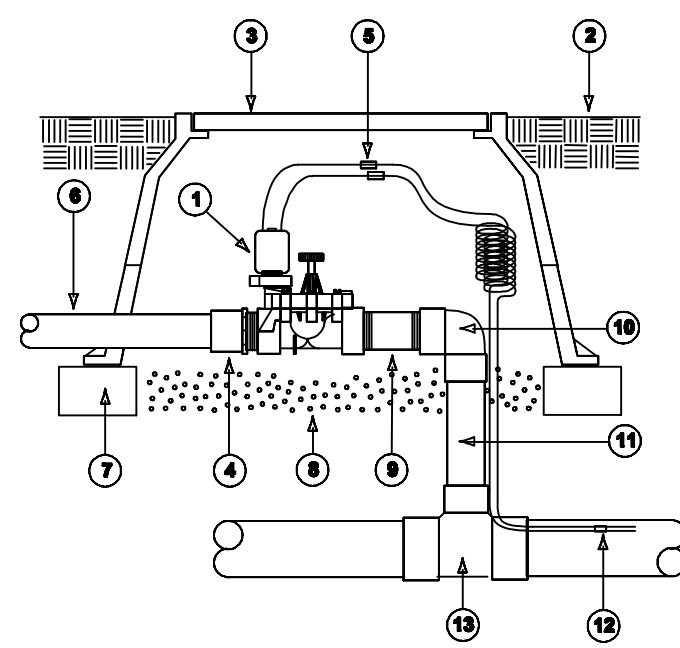
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IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY	CHECKED BY GIF	REG. NUMBER 40109
	DATE 10/2008	PROJECT NUMBER 22180.00
		CADD STANDARDS BOYLE

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<b>MANATEE COUNTY HIGHLAND SHORES BOAT RAMP IMPROVEMENTS</b>		DRAWING <b>L-001</b>
<b>LANDSCAPE AND IRRIGATION PLAN</b>		SHEET <b>12</b> OF 14 SHEETS

**LANDSCAPE IRRIGATION INSALLATION NOTES**

- CONTRACTOR IS ADVISED TO VISIT THE SITE TO BECOME FAMILIAR WITH EXISTING CONDITIONS AND TO STUDY THE PLANS FOR ADDITIONAL INFORMATION BEFORE COMMENCEMENT OF WORK.
- IRRIGATION SYSTEM WILL SUPPLIED BY CONNECTION TO EXISTING POTABLE WATER MAIN. (MCPWD) AT INDICATED LOCATION.
- PIPE ROUTING IS SCHEMATIC ONLY AND SHALL BE ADJUSTED FOR ON SITE CONDITIONS.
- PIPE SHALL BE INSTALLED IN ACCORDANCE WITH LOCAL CODES AND PIPE MANUFACTURE'S INSRTUCTIONS.
- PIPE ROUTED UNDER SHELL PARKING ARE SHALL BE SLEEVED.
- ALL LATERAL PIPE SHALL BE CLASS 160 PVC, MAINLINE PIPE SCHEDULE 40 (OR 80).
- BACK FILL SHALL BE SUITABLE MATERIAL FREE OF ROCKS, STONES OR OTHER DEBRIS THAT WOULD DAMAGE COMPONENTS OF THE IRRIGATION SYSTEM.
- SPRINKLER HEAD LOCATIONS ARE SCHEMATIC ONLY AND SHALL BE ADJUSTED FOR LANDSCAPING, CONTOURS SIDEWALKS, ETC. TO INSURE 100% COVERAGE.
- IN SOME LANDSCAPED AREAS SHRUB HEADS WILL NEED TO INSTALLED ON SCHEDULE 40 (or 80) PVC RISERS TO A UNIFORM HEIGHT OF 6" ABOVE PLANTS. SHRUB SPRAYS SHALL BE LOCATED WITHIN PLANT MASSES TO BE CONCEALED FROM VIEW.
- ADJUSTMENT FEATURES OF THE SPRINKLERS SPECIFIED SHALL BE USED TO INSURE COVERAGE WHILE MINIMIZING UNDESIRABLE OVER THROW. LOW ANGLE AND FLAT SPRAY NOZZLES SHALL BE USED WHERE NECESSARY.
- CONTROLLER SHALL BE INSTALLED IN ACCORDANCE WITH LOCAL CODES AND MANUFACTURER'S INSTRUCTIONS, SEE PLAN FOR SPECIFIED LOCATION. ELECTRICAL POWER SUPPLY WITH METER AND PROPER GROUNDING, SHALL BE INCLUDED UNDER THIS PAY ITEM.
- ALL PIPING ABOVE GROUND AT PUMP STATION SHALL BE GALVANIZED PIPE.
- IRRIGATION CONTRACTOR TO INSURE 100% COVERAGE AND TO SUPPLY OWNER WITH AS-BUILT DRAWINGS IF THERE ARE ANY DEVIATIONS FROM THIS PLAN DURING INSTALLATION.
- CONTRACTOR RESPONSIBLE FOR SECURING ANY WATER USE PERMIT(S) REQUIRED PREVIOUS TO THE INSTALLATION OF THE IRRIGATION SYSTEM.

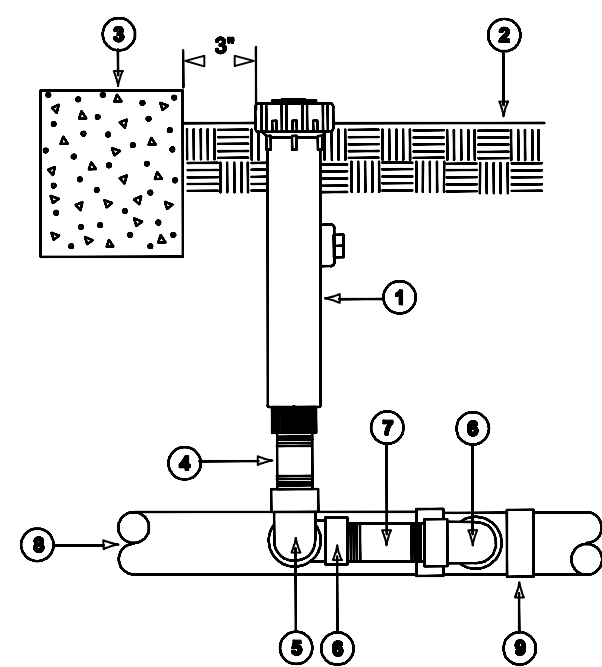


- ① TORO 252 Series Globe Valve (Electric)
- ② Finish Grade
- ③ Valve Bx (height above grade as required)
- ④ PVC Male Adapter
- ⑤ Waterproof wire connectors
- ⑥ PVC lateral line—angle to proper depth with 450 oils
- ⑦ Common red brick (4 required)
- ⑧ Pea Gravel—12" deep
- ⑨ PVC Schedule 80 (or 40) nipple (6" long)
- ⑩ PVC Schedule 40 (or 80) S x T ell
- ⑪ PVC Schedule 80 (or 40) pipe
- ⑫ Common and control wires to controller location
- ⑬ Pressure main line piping with main line fitting (depth as required)

NOTE: Refer to product literature for additional installation and adjustment information.

This drawing is provided for reference only. Individual project requirements and local codes may dictate differences in installation procedure that are not identified here.

**TORO GLOBE VALVE**  
252 SERIES, 1"-2" (25mm - 50mm) ELECTRIC  
N.T.S.

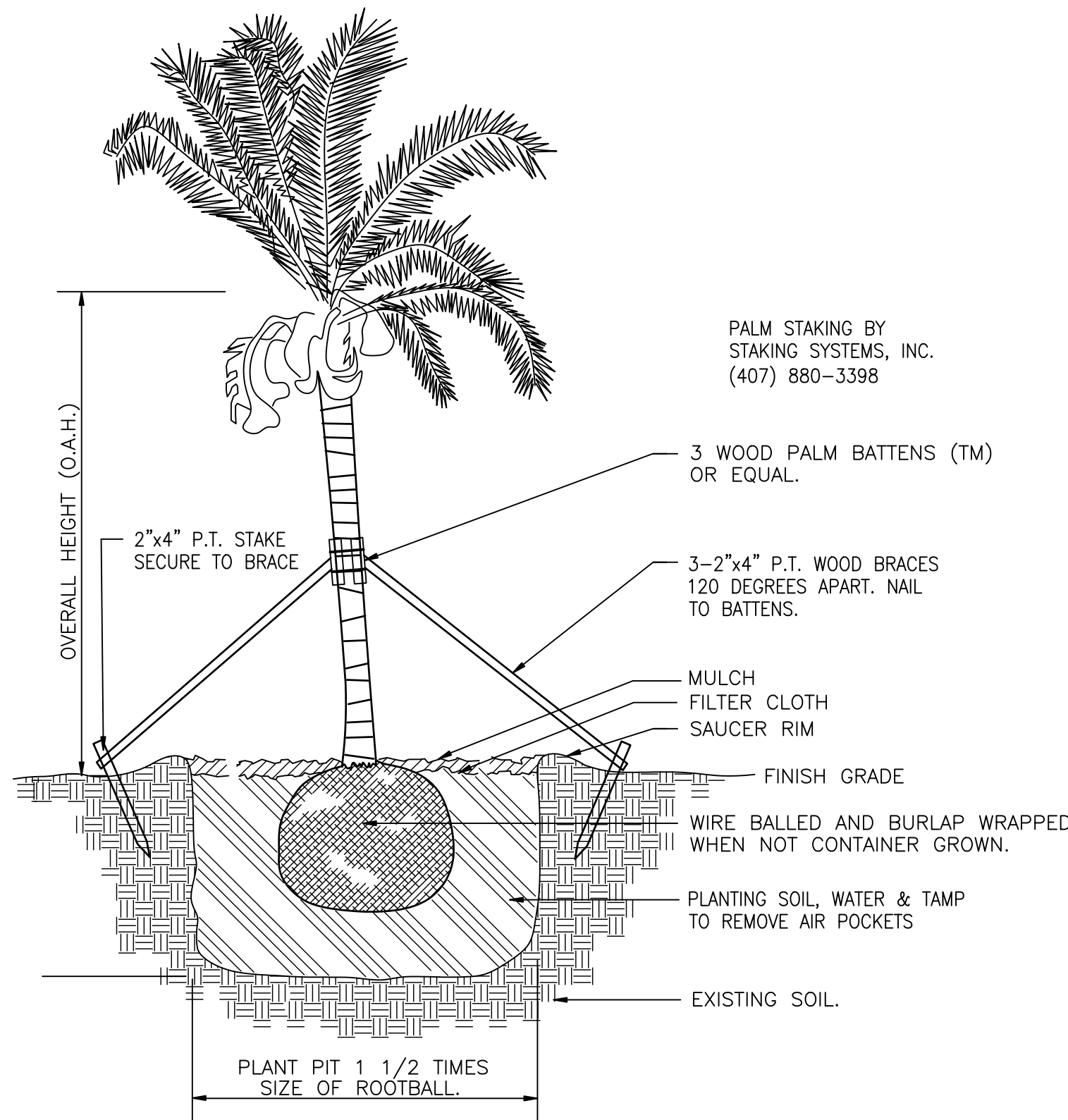


- ① TORO 570Z Series pop-up spray sprinkler w/nozzel
- ② Finish Grade
- ③ Curb, sidewalk or foundation
- ④ PVC schedule 80 nipple (2" min. length)
- ⑤ PVC T x T 900 ell
- ⑥ Marlex street ell
- ⑦ PVC schedule 80 nipple (4" min. length)
- ⑧ Lateral line piping
- ⑨ Lateral Line pipe fitting

NOTE: Teflon tape all threaded joints

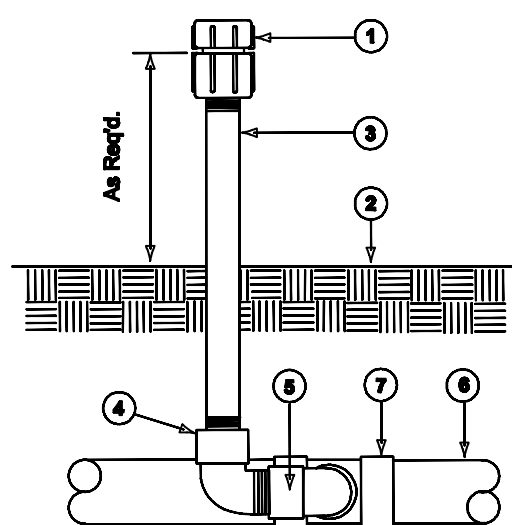
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**TORO 570Z SERIES**  
6" POP-UP SPRAY HEAD  
N.T.S.



PALM STAKING BY STAKING SYSTEMS, INC. (407) 880-3398

**TREE PLANTING DETAIL**  
NO SCALE

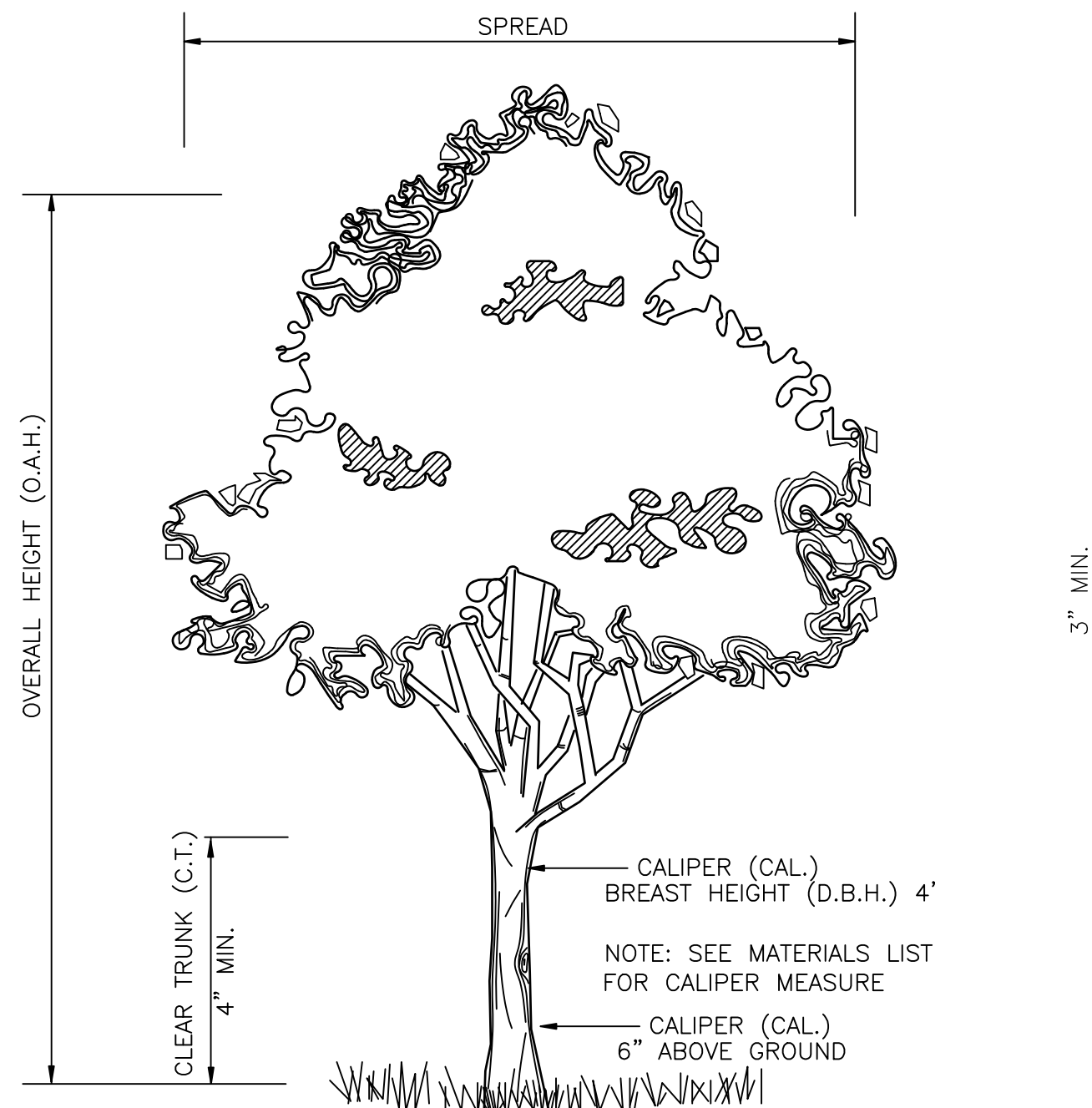


- ① TORO 500 SERIES BUBBLER
- ② FINISH GRADE
- ③ PVC SCHEDULE 80 NIPPLE (LENGTH AS REQUIRED)
- ④ PVC SCHEDULE 40 STREET ELL
- ⑤ MARLEX (OR PVC) STREET ELL
- ⑥ LATERAL LINE PIPE FITTING
- ⑦ LATERAL LINE PIPE FITTING

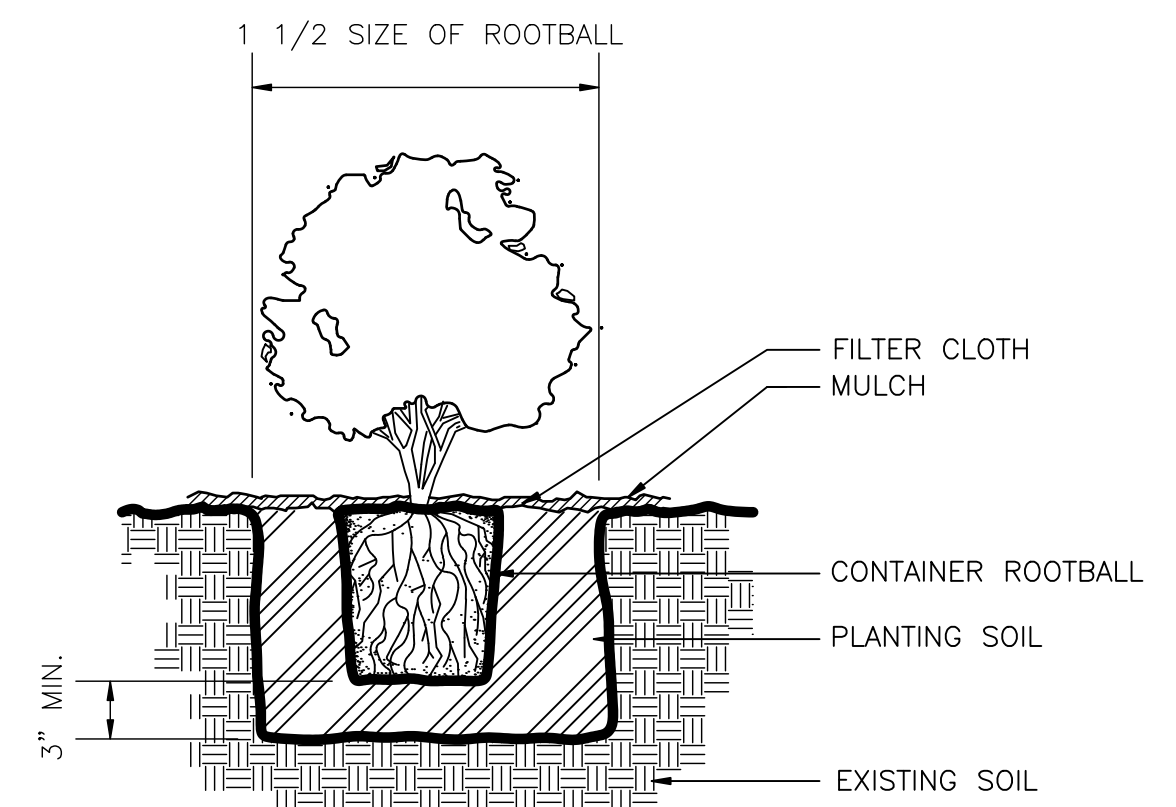
NOTE: Teflon tape all threaded joints

This drawing is provided for reference only. Individual project requirements and local codes may dictate differences in installation procedure that are not identified here.

**TORO STREAM BUBBLER**  
500 SERIES NOZZEL  
N.T.S.

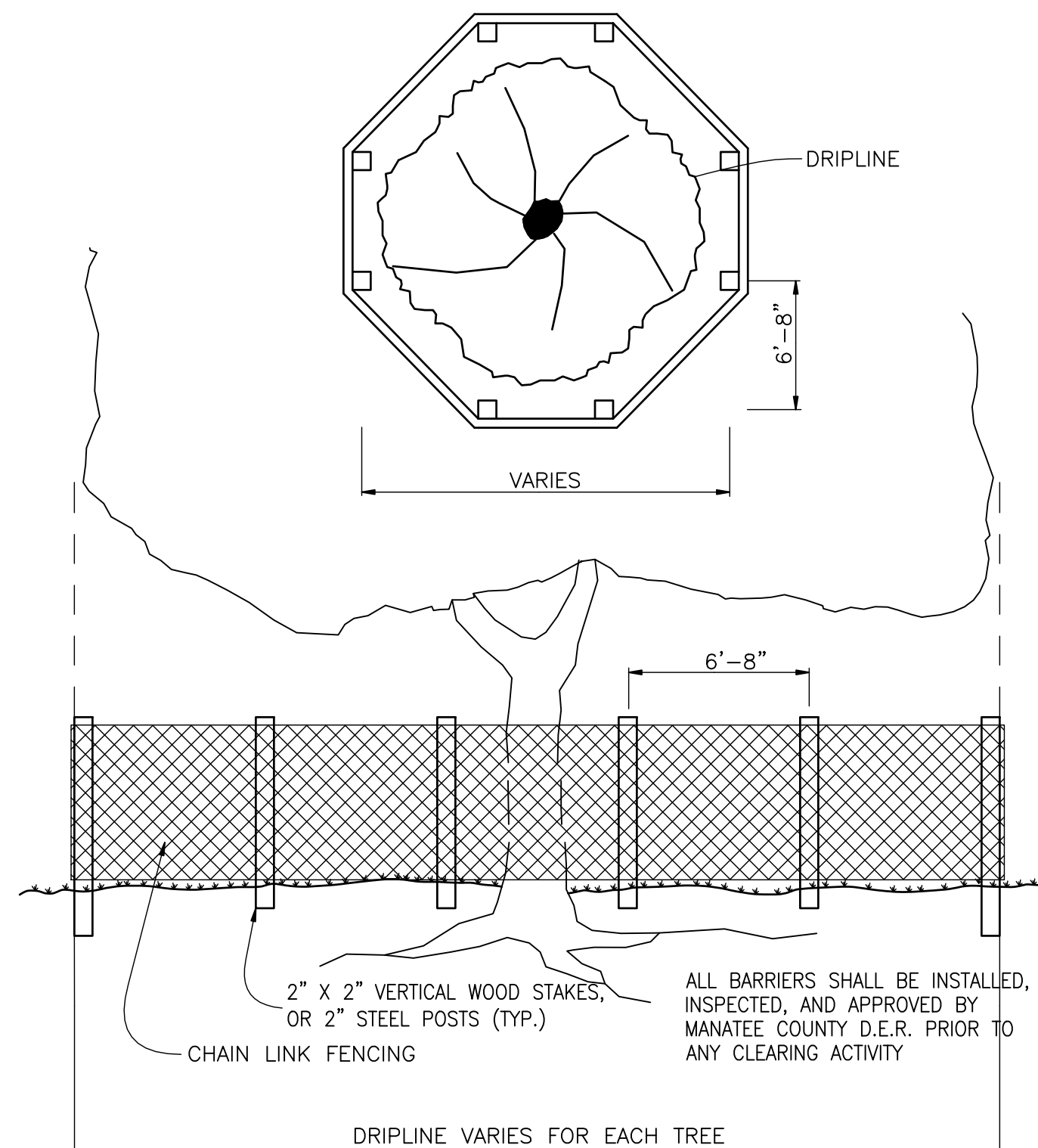


**TREE SPECIFICATION MEASUREMENT**  
NO SCALE



**SHRUB PLANTING DETAIL**  
NO SCALE

"CALL SUNSHINE STATE ONE-CALL CENTER"  
1-800-432-4770  
FLORIDA STATUTE 553.851 REQUIRES MIN. OF 2 DAYS AND MAX OF 5 DAYS NOTICE BEFORE YOU EXCAVATE



**TREE BARRICADE DETAIL**  
(AS REQUIRED) NO SCALE

**GENERAL NOTES**

- ALL PLANTS FURNISHED BY THE CONTRACTOR SHALL BE FLORIDA NO. 1 (ONE) OR BETTER IN ACCORDANCE WITH GRADES & STANDARDS FOR NURSERY PLANTS, STATE OF FLORIDA. THE OWNER AND/OR LANDSCAPE ARCHITECT RESERVES ALL RIGHTS TO DETERMINE ACCEPTABILITY OF PLANT MATERIAL SUBMITTED FOR PLANTING.
- ALL PLANT MATERIALS SHALL BE GUARANTEED TO BE ALIVE AND IN SATISFACTORY GROWTH FOR A PERIOD OF TWELVE MONTHS. THE LANDSCAPE CONTRACTOR WILL NOT BE HELD RESPONSIBLE FOR THEFT, NEGLIGENCE, VANDALISM, ABUSE, OR UNUSUAL ACTS OF GOD. HOWEVER, MATERIALS STORED ON SITE AND NOT YET PLANTED SHALL BE THE RESPONSIBILITY OF THE LANDSCAPE CONTRACTOR. RELOCATED MATERIALS AND MATERIALS SUPPLIED BY THE OWNER ARE EXEMPT. STAKE ALL TREES AS PER DETAIL.
- PRUNING SHALL BE LIMITED TO THE MINIMUM NECESSARY TO REMOVE DEAD OR INJURED TWIGS OR BRANCHES AND TO COMPENSATE FOR ROOT LOSS RESULTING FROM TRANSPLANTING OPERATIONS. PRUNING SHALL BE DONE IN SUCH A MANNER AS TO NOT CHANGE THE NATURAL HABIT OR SHAPE OF THE PLANT. ALL TREES SHALL BE TRIMMED FOR CLEAR TRUNK.
- ALL PLANTS SHALL BE SET AND APPROVED BY THE L.A. PRIOR TO INSTALLATION. CONTRACTOR SHALL CONTACT L.A. 4 WORK DAYS PRIOR TO INSTALLATION TO ARRANGE REVIEW.
- LANDSCAPE CONTRACTOR SHALL COORDINATE WITH IRRIGATION CONTRACTOR AND GENERAL CONTRACTOR.
- LANDSCAPE CONTRACTOR IS ADVISED TO USE DUE CARE AND CAUTION IN LOCATING AND AVOIDING EXISTING UTILITY LINES. ALL PLANTING AREAS TO RECEIVE MULCH.
- MULCH TO BE 3" IN DEPTH AND INSTALLED OVER APPROVED FILTER CLOTH.
- IT IS THE LANDSCAPE CONTRACTORS RESPONSIBILITY TO VERIFY AVAILABILITY OF SPECIFIED MATERIALS PRIOR TO BID SUBMITTAL. ANY ITEMS FOUND NOT AVAILABLE SHALL BE REPORTED IMMEDIATELY TO THE L.A.
- ALL PLANTINGS SHALL BE FERTILIZED WITH OSMOCOTE 15-4-11 SLOW RELEASE PLANT FOOD APPLIED AS TO MANUFACTURERS RECOMMENDATIONS. APPLIED AROUND CROWN OF PLANT PRIOR TO PLANT FOOD TO BE INSTALLATION OF MULCH.
- ANY CONDITIONS CONTRARY TO THESE PLANS SHALL BE REPORTED TO THE LANDSCAPE ARCHITECT PRIOR TO ANY RESOLUTION ATTEMPTS.
- ALL LANDSCAPE PLANTING SHALL MEET THE REQUIREMENT OF LOCAL LANDSCAPE ORDINANCE REGARDING SPECIES, SIZE, AND SPACING OF MATERIAL.
- SEE CONSTRUCTION DOCUMENTS AND/OR SPECIFICATIONS FOR FURTHER INFORMATION ON PREPARATION AND INSTALLATION OF MATERIALS.

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07-20-09	REVISED CONTROLLER NOTE	MJB
01-27-09	REVISED PER MANATEE COUNTY REVIEW COMMENTS	MJB
REV	DATE	DESCRIPTION

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IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY	DRAWN BY MJB	REG NUMBER 40109
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	DATE 10/2008	CADD STANDARDS BOYLE

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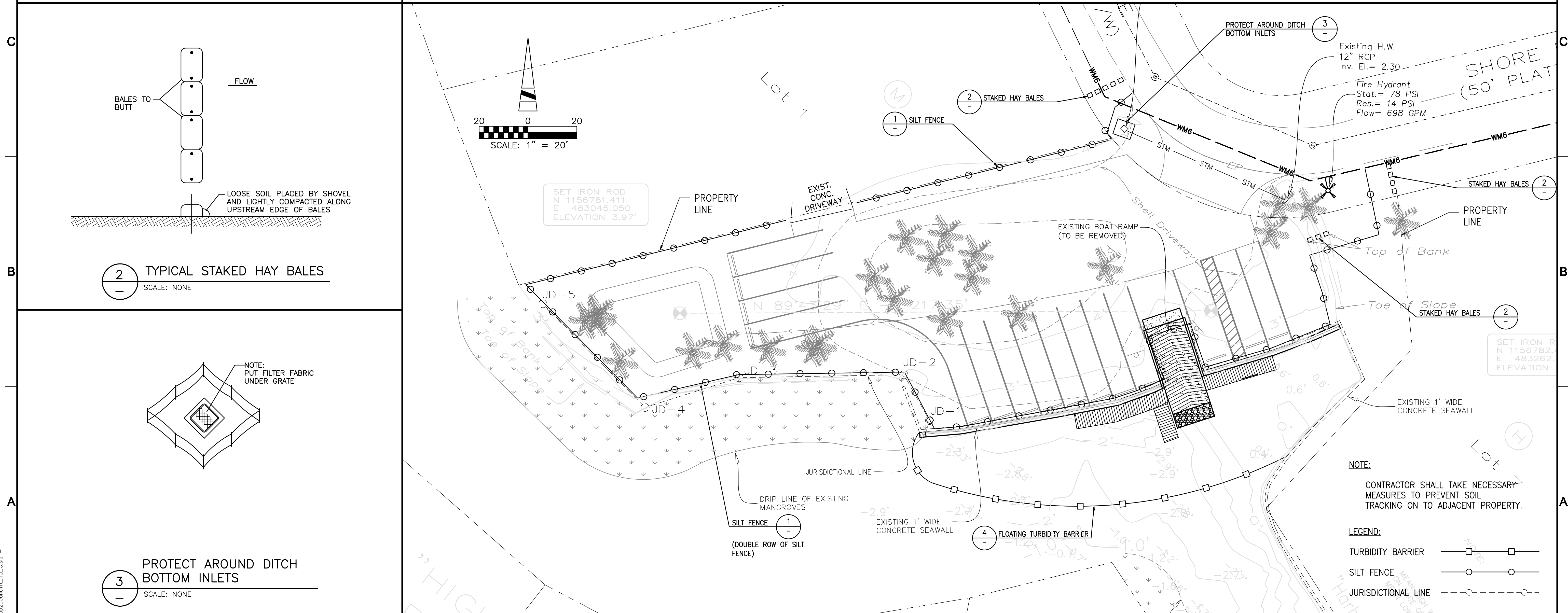
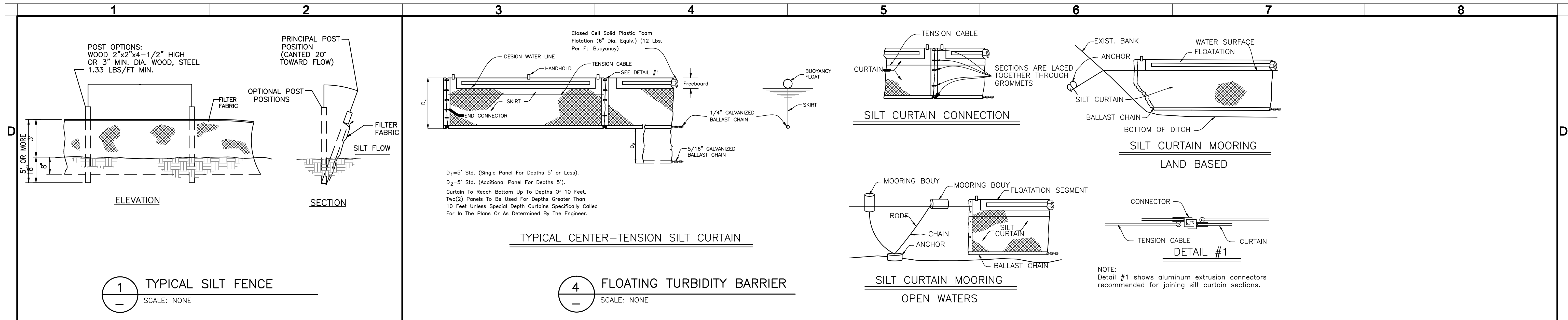
**MANATEE COUNTY HIGHLAND SHORES  
BOAT RAMP IMPROVEMENTS**

**LANDSCAPE AND IRRIGATION DETAILS**

DRAWING  
**L-002**

SHEET  
**13**

OF 14 SHEETS



DWG: A:\Projects\Manatee County\22180.00 - Highland Shores Boat Ramp PRE\CAD\Sheet\Site Plan\BM-001.dwg Layout Name: BM-001 - Plotted by: Boyle, Maynard Date: 10/23/2009 - 9:57 AM  
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CHECKED BY <b>DFG</b>	REG. NUMBER <b>40109</b>	EXP. DATE
DATE <b>10/2008</b>	PROJECT NUMBER <b>22180.00</b>	CADD STANDARDS
	<b>BOYLE</b>	

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OWNER SIGNATURE \_\_\_\_\_

**MANATEE COUNTY HIGHLAND SHORES BOAT RAMP IMPROVEMENTS**

**BEST MANAGEMENT PRACTICES**

DRAWING  
**BM-001**  
SHEET  
**14**  
OF 14 SHEETS