

cc:

- Anda Ray, TVA
- Paul Schmierbach, TDEC
- Brenda Brickhouse, TVA
- Brian Fowler, TVA
- Craig Zeller, EPA
- Dennis Yankee, TVA
- Kathryn Nash, TVA
- Cynthia Anderson, TVA
- EDM
- Jack Howard, Jacobs
- Michelle Cagley, TVA
- Greg Signer, TVA
- KIF Incident Document Control
- Michael Clemmons, TVA
- Amanda Miolen, EPA
- Robert Pullen, Jacobs
- Document Control, Jacobs (Terry Crabtree-Hagemann)

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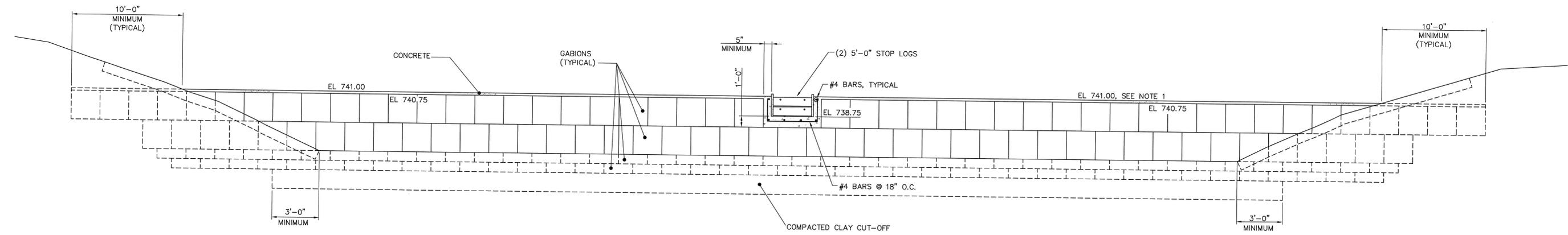
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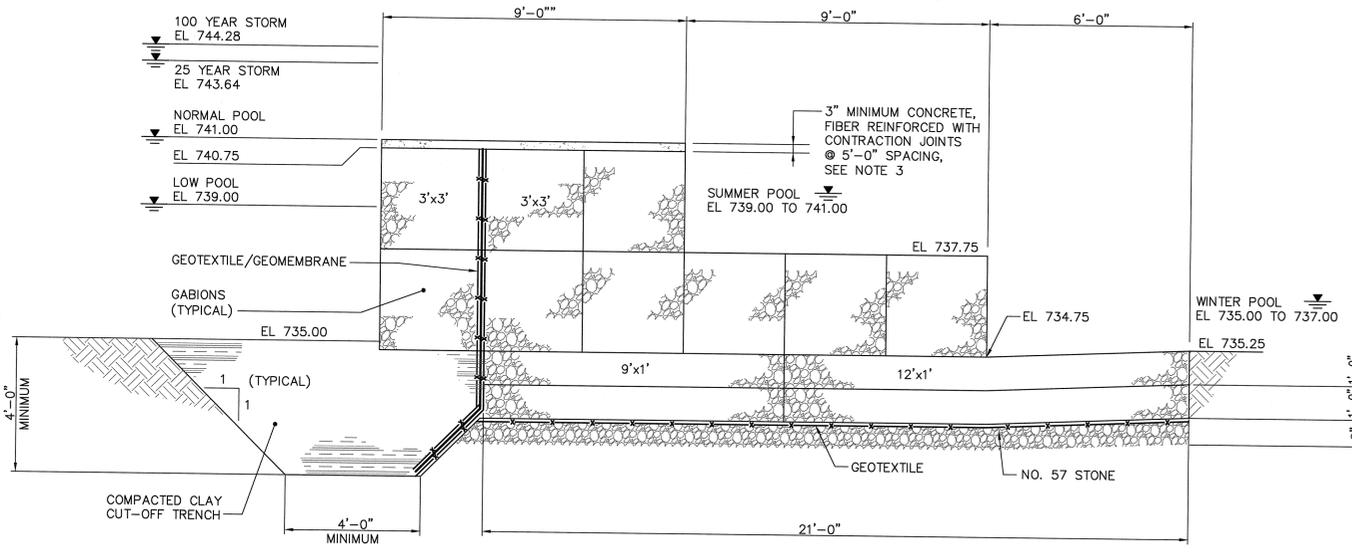
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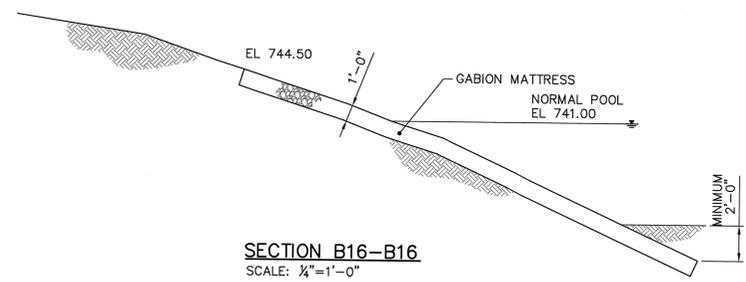
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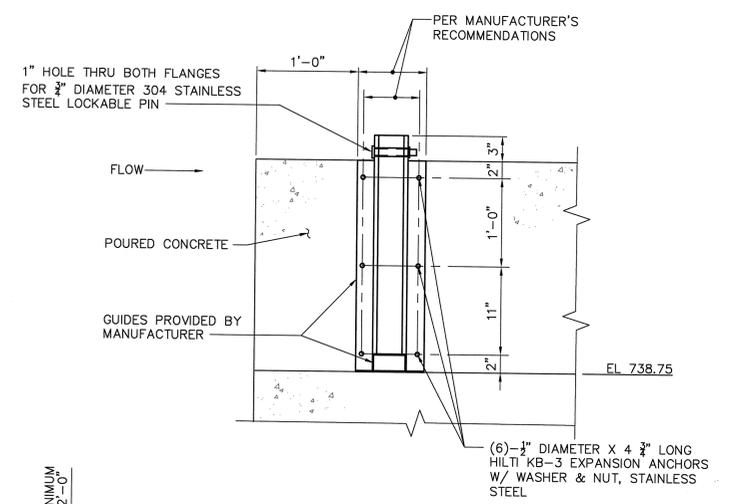
ELEVATION
SCALE: 1/4"=1'-0"



SECTION A16-A16
SCALE: 1/2"=1'-0"



SECTION B16-B16
SCALE: 1/4"=1'-0"

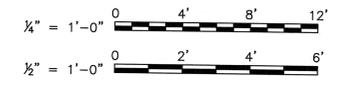


SECTION C16-C16
SCALE: 1 1/2"=1'-0"

- NOTES:**
1. ENSURE TOP OF FINAL GABION CONCRETE SURFACE IS NO HIGHER THAN 6'-0" ABOVE TOE OF GABION STRUCTURE, AND ENSURE TOP OF STOP LOG IS 1" LOWER THAN TOP OF CONCRETE.
 2. ANY VERTICAL MODIFICATIONS TO THE WEIR SHOULD BE COORDINATED WITH THE DAM SAFETY GOVERNANCE STAFF.
 3. PRIOR TO PLACING CONCRETE AGAINST GABION, PLACE LAYERS OF PEA GRAVEL AND SAND TO FILL-IN VOIDS TO WITHIN 1" OF BEING FLUSH WITH THE TOP GABION SURFACE.

ISSUED FOR CONSTRUCTION

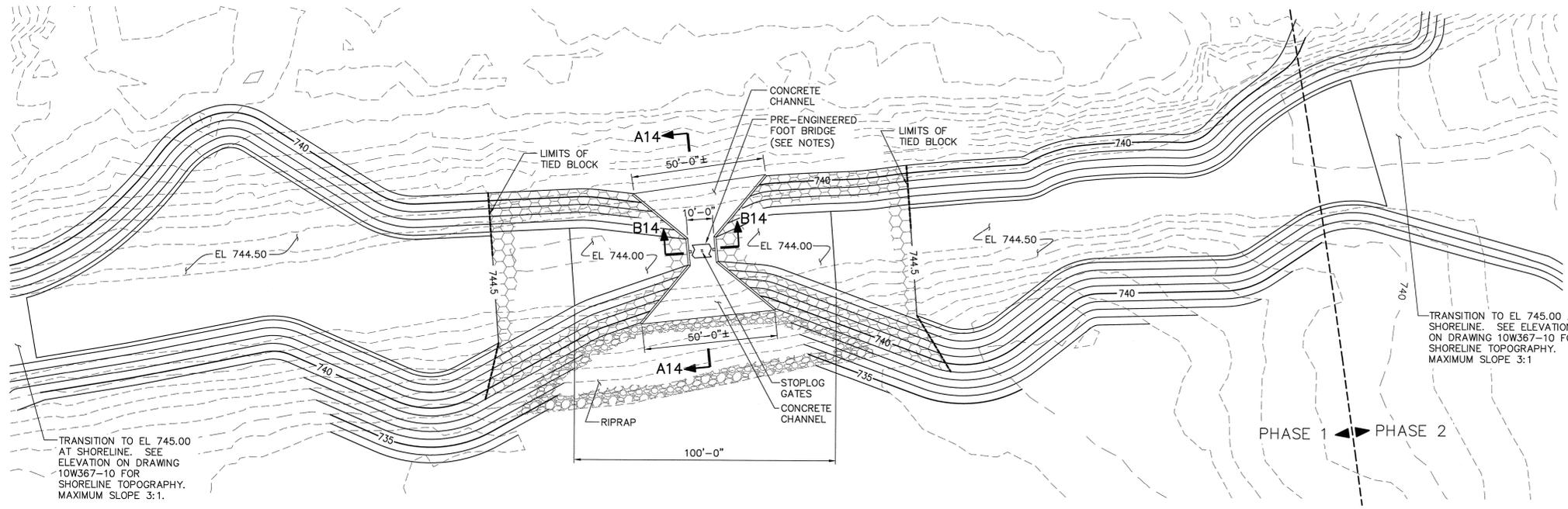
FOR SUPPORTING DESIGN CALCULATIONS SEE FPGKIFFSCDX0003002012000001 AND FPGKIFFSCDX0003002012000002		R 0 10/26/12 CRB LLE WCP KN-B MSC KN		DISCIPLINE INTERFACE	
ISSUED FOR CONSTRUCTION		SCALE: AS SHOWN EXCEPT AS NOTED		DATE	
		SWAN POND EMBAYMENT ECOSYSTEM RESTORATION RDP-0112-D WEIR #3 ELEVATION AND SECTIONS C-16		DESIGNED BY: C.R. BIRKS DRAWN BY: L.L. ENGLAND CHECKED BY: W.C. PARKS SUPERVISED BY: K. OFFICER-BELL REVIEWED BY: M. CLEMMONS APPROVED BY: K. NASH ISSUED BY:	
 125 Broadway Ave. Oak Ridge, TN 37830 865.220.4800		TENNESSEE VALLEY AUTHORITY FOSSIL AND HYDRO ENGINEERING		AUTOCAD R 2007 DATE 10/26/12 36 C 10W367-16 R 0	



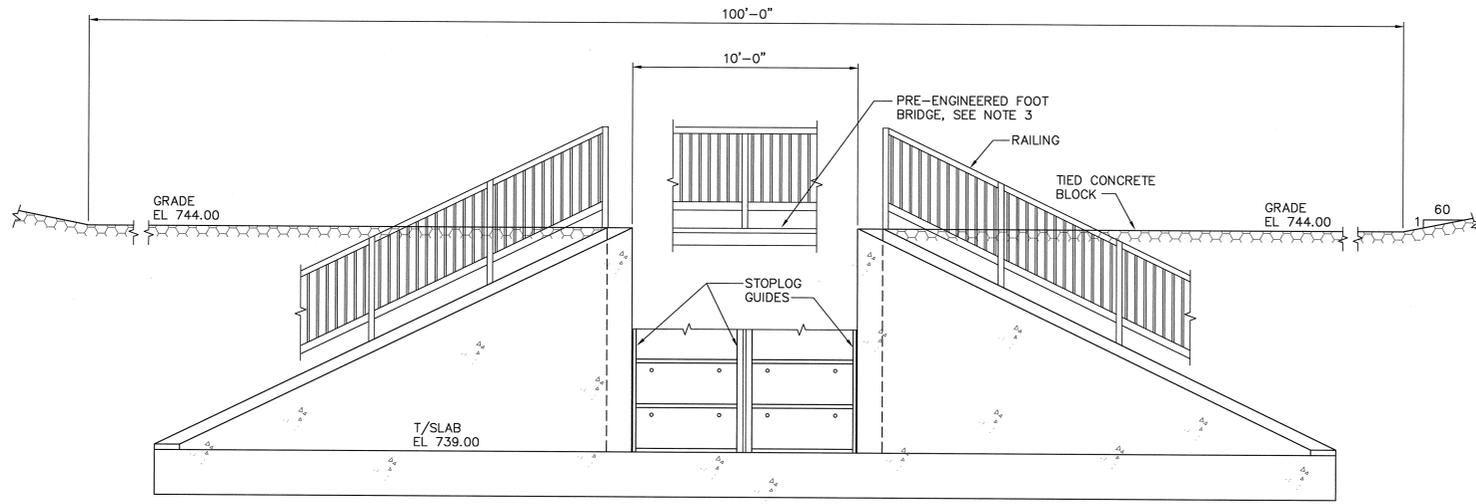
JACOBS 0
TASK COMPLETED BY: REV. NO.

PLOT FACTOR: 48
W TVA C.A.D. DRAWING
DO NOT ALTER MANUALLY

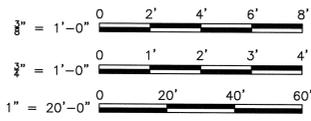
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PLAN - WEIR #2 (MIDDLE WEIR)
SCALE: 1"=20'-0"



ELEVATION (LOOKING NORTH)
SCALE: 3/8"=1'-0" (HORIZ)
3/4"=1'-0" (VERT)



NOTES:

1. FOR WEIR EMBANKMENT CONSTRUCTION, REFER TO SPECIFICATION 31 20 00.
2. ANY VERTICAL MODIFICATIONS OF THE WEIR SHOULD BE COORDINATED WITH THE DAM SAFETY GOVERNANCE STAFF.
3. FOR PEDESTRIAN BRIDGE, REFER TO SPECIFICATION 32 34 13.
4. MATERIAL SPECIFICATIONS:

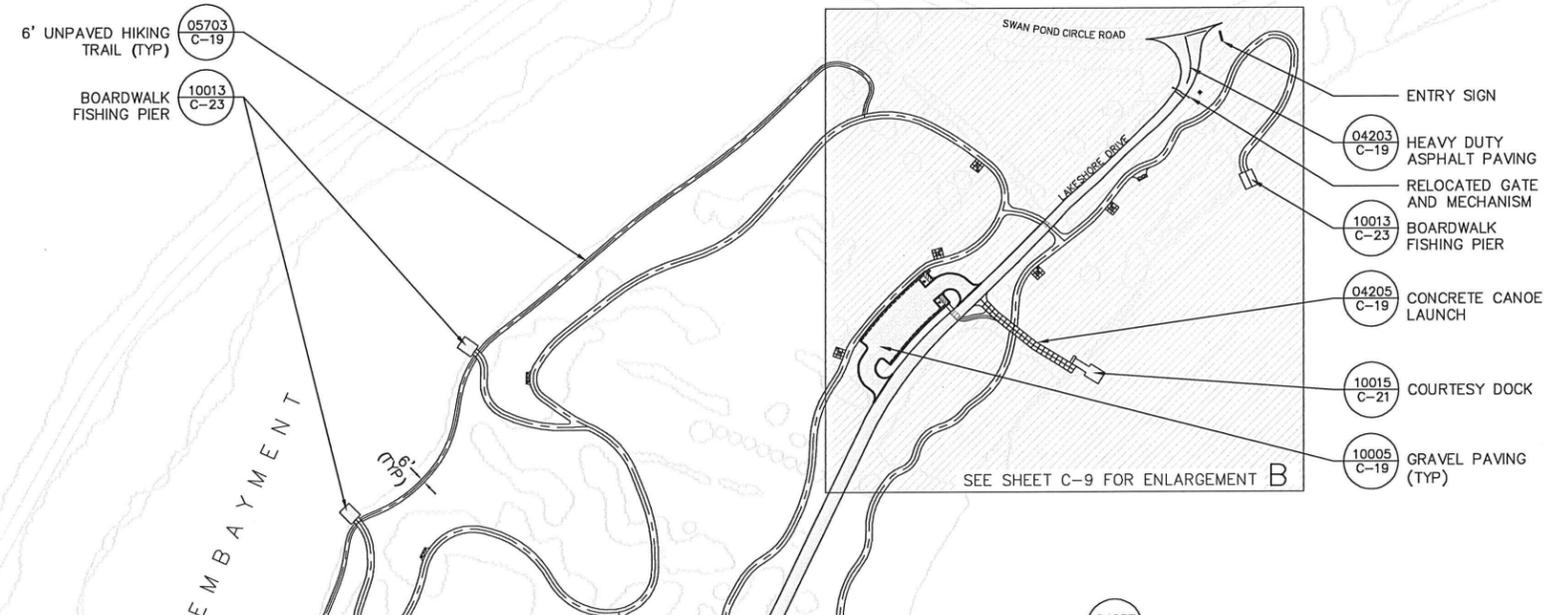
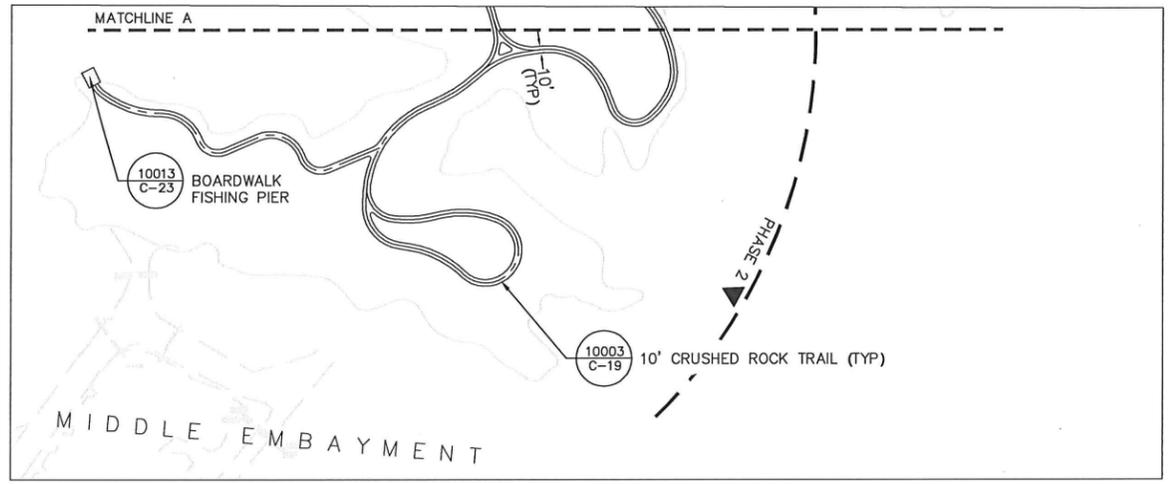
- A. LOGS: BY PLASTI-FAB (OR EQUAL)
- ALL STOP LOGS SHALL BE INSTALLED BY SKILLED WORKERS IN ACCORDANCE WITH THE WRITTEN PLANS AND IN FULL CONFORMITY WITH THE INSTRUCTIONS AND RECOMMENDATIONS OF THE MANUFACTURER.
 - ACCURATELY POSITION GUIDES WITHIN CHANNEL OPENING AND GROUT WITH 1/2" CEMENTITIOUS GROUT.
 - DO NOT HAMMER THE GUIDE ONTO THE BOLTS, THIS MAY DAMAGE THE GUIDE FRAME.
 - BEFORE INSTALLING STOP LOGS, CHECK THE GROOVES TO ASSURE THEY ARE CLEAN AND FREE OF GRIT AND DEBRIS, PARTICULARLY THE BOTTOM CORNERS. GROUT, ROCKS AND EXCESS GRIT IN THE GUIDE MAY DAMAGE THE SEALS AND REDUCE THE SEALING CAPABILITIES OF THE STOP LOGS.
 - GUIDES SHALL BE 316 STAINLESS STEEL.
- B. ANCHOR BOLTS: HILTI KB-3, AISI 304
- C. GROUT: CEMENTITIOUS, ASTM C476
- D. STEEL PIN: 304 STAINLESS STEEL, ASTM A276
- E. TIED CONCRETE BLOCK:
- FURNISH AND INSTALL TIED CONCRETE BLOCK LINING FOR SPILLWAY AT THE LOCATIONS SHOWN ON THE DRAWING AND IN ACCORDANCE WITH APPROVED WRITTEN MANUFACTURER'S INSTALLATION GUIDELINES.
 - LINING MATERIAL SHALL BE FLEX-A-MAT OR APPROVED EQUIVALENT. THE MAT SHALL BE TIED CONCRETE BLOCK MAT DELIVERED IN ROLLS. THE BLOCKS WILL BE CAST AROUND AND HELD TOGETHER WITH HIGH STRENGTH POLYPROPYLENE GEOGRID. THE MINIMUM 28 DAY COMPRESSIVE STRENGTH OF THE CONCRETE BLOCKS MUST BE 4,000 PSI.
 - MATS SHALL BE MANUFACTURED WITH AN ATTACHED EROSION CONTROL LAYER ON THE BOTTOM OF THE MAT CONSISTING OF DOUBLE-NETTED STRAW MATTING.
 - PRIOR TO PLACING THE MATS, PREPARE THE SUBGRADE AS REQUIRED. THE AREA MUST BE CLEARED OF ROCKS AND DEBRIS 3" OR LARGER. APPLY SEED (PER THE PROJECT SPECIFICATIONS) DIRECTLY TO THE PREPARED SOIL PRIOR TO INSTALLATION OF THE FLEX-A-MAT.
- F. CONCRETE
- f'c 4000 PSI AT 28 DAYS
 - WATER CONTENT RATIO 0.40
 - SLUMP 4" (MAXIMUM) W/O ADDITIVES, 8" (MAXIMUM) W/ADDITIVES
 - REINFORCING ASTM A615, GRADE 60
 - AIR ENTRAINMENT 4% TO 6%
- G. RIPRAP TDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, CLASS A-1, 1.5' THICK
- H. GEOTEXTILE 8 OZ PER SQ YD, NONWOVEN

ISSUED FOR CONSTRUCTION

FOR SUPPORTING DESIGN CALCULATIONS SEE FPGKIFFESCDX0003002012000001		<table border="1"> <tr> <td>REV.</td> <td>DATE</td> <td>ISSN</td> <td>DRWN</td> <td>CHKD</td> <td>SUPV</td> <td>RWD</td> <td>APPR</td> <td>ISSD</td> <td>PROJECT</td> <td>AS CONST</td> <td>REV</td> </tr> <tr> <td>R 0</td> <td>10/26/12</td> <td>CRB</td> <td>LLE</td> <td>WCP</td> <td>KO-B</td> <td>MSC</td> <td>KN</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> </tr> </table>										REV.	DATE	ISSN	DRWN	CHKD	SUPV	RWD	APPR	ISSD	PROJECT	AS CONST	REV	R 0	10/26/12	CRB	LLE	WCP	KO-B	MSC	KN	-	-	-	-
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SWAN POND EMBAYMENT ECOSYSTEM RESTORATION RDP-0112-D																																			
WEIR #2																																			
PLAN AND ELEVATIONS																																			
C-13																																			
DESIGNED BY:	DRWN BY:	CHECKED BY:	SUPERVISED BY:	REVIEWED BY:	APPROVED BY:	ISSUED BY:																													
C.R. BIRKS	L.L. ENGLAND	W.C. PARKS	K. OFFICER-BELL	M.CLEMMONS	K. NASH																														
KINGSTON FOSSIL PLANT TENNESSEE VALLEY AUTHORITY FOSSIL AND HYDRO ENGINEERING																																			
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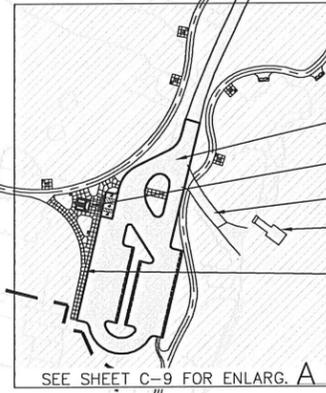
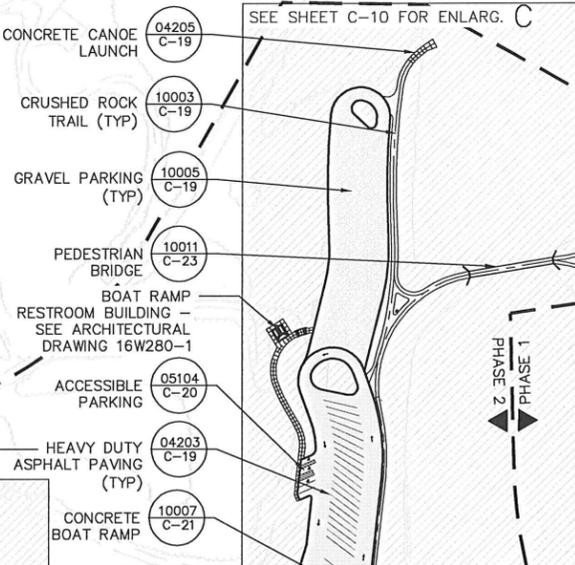


NOTES:

1. ADD ALTERNATE #1: IN LIEU OF ALL SPECIFIED CRUSHED ROCK TRAILS, PROVIDE ALTERNATE PRICE FOR ASPHALT TRAILS, INCLUDING ALL ASPHALT, BASE MATERIAL AND ASSOCIATED WORK AS INDICATED IN DETAIL 90047, SHEET C-19.
2. ALL PHASE 2 WORK TO BE SCHEDULED AFTER REMOVAL OF CLEAN WATER DITCH IN MIDDLE EMBAYMENT IS APPROVED (2015) AND AIR MONITORING STATION IS REMOVED BY OTHERS (2015). ALL OTHER WORK NOT ANTICIPATED TO INTERFERE WITH ASH RECOVERY OPERATIONS IS CONSIDERED PHASE 1 AND MAY COMMENCE UPON NOTICE TO PROCEED.
3. CONTRACTOR SHALL COORDINATE WITH EMBAYMENT RESTORATION CONTRACTOR AS NECESSARY.

LEGEND

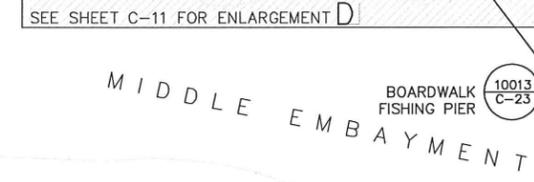
[Symbol]	GRAVEL PAVING	
[Symbol]	ASPHALT PAVING	
[Symbol]	ASPHALT OVERLAY PAVING	
[Symbol]	CRUSHED ROCK TRAIL (ADD-ALTERNATE, ASPHALT)	
[Symbol]	UNPAVED HIKING TRAIL	
[Symbol]	CONCRETE SIDEWALK	
[Symbol]	PICNIC PAD	QUANTITY 20
[Symbol]	OVERLOOK WITH BOULDERS	9
[Symbol]	BOARDWALK FISHING PIER	8
[Symbol]	TRASH RECEPTACLES	6



- 04203 C-19 HEAVY DUTY ASPHALT PAVING
- 10013 C-23 BOARDWALK FISHING PIER
- 04205 C-19 CONCRETE CANOE LAUNCH
- 10015 C-21 COURTESY DOCK
- 10005 C-19 GRAVEL PAVING (TYP)
- 04237 C-19 ASPHALT OVERLAY
- 10001 C-19 CROSSWALK (TYP)
- 10003 C-19 10' CRUSHED ROCK TRAIL (TYP)
- 10009 C-20 OVERLOOK WITH BOULDERS (TYP)
- 10012 C-23 PICNIC PAD (TYP)
- 10005 C-19 GRAVEL PARKING (TYP)
- LAKESHORE RESTROOM BUILDING - SEE ARCHITECTURAL DRAWING 16W280-1
- EXISTING BOAT RAMP TO REMAIN FOR USE AS CANOE LAUNCH
- 10015 C-21 COURTESY DOCK
- 10002 C-19 CONCRETE SIDEWALK

ISSUED FOR CONSTRUCTION

<p>JACOBS 125 Broadway Ave. Oak Ridge, TN 37830 865.220.4800</p>									
DESIGNED BY:	DRAWN BY:	CHECKED BY:	SUPERSEDED BY:	REVIEWED BY:	APPROVED BY:	ISSUED BY:	<p>KINGSTON FOSSIL PLANT TENNESSEE VALLEY AUTHORITY FOSSIL AND HYDRO ENGINEERING</p>		
R.B. JONES	E. TARR/A. ABELLA	P. PURCELL	K. OFFICER-BELL	M. GLEAMONS	K. NASH		<p>AUTOCAD R 2012 DATE 09/17/2012 36 C 10W365-7 R 0</p>		



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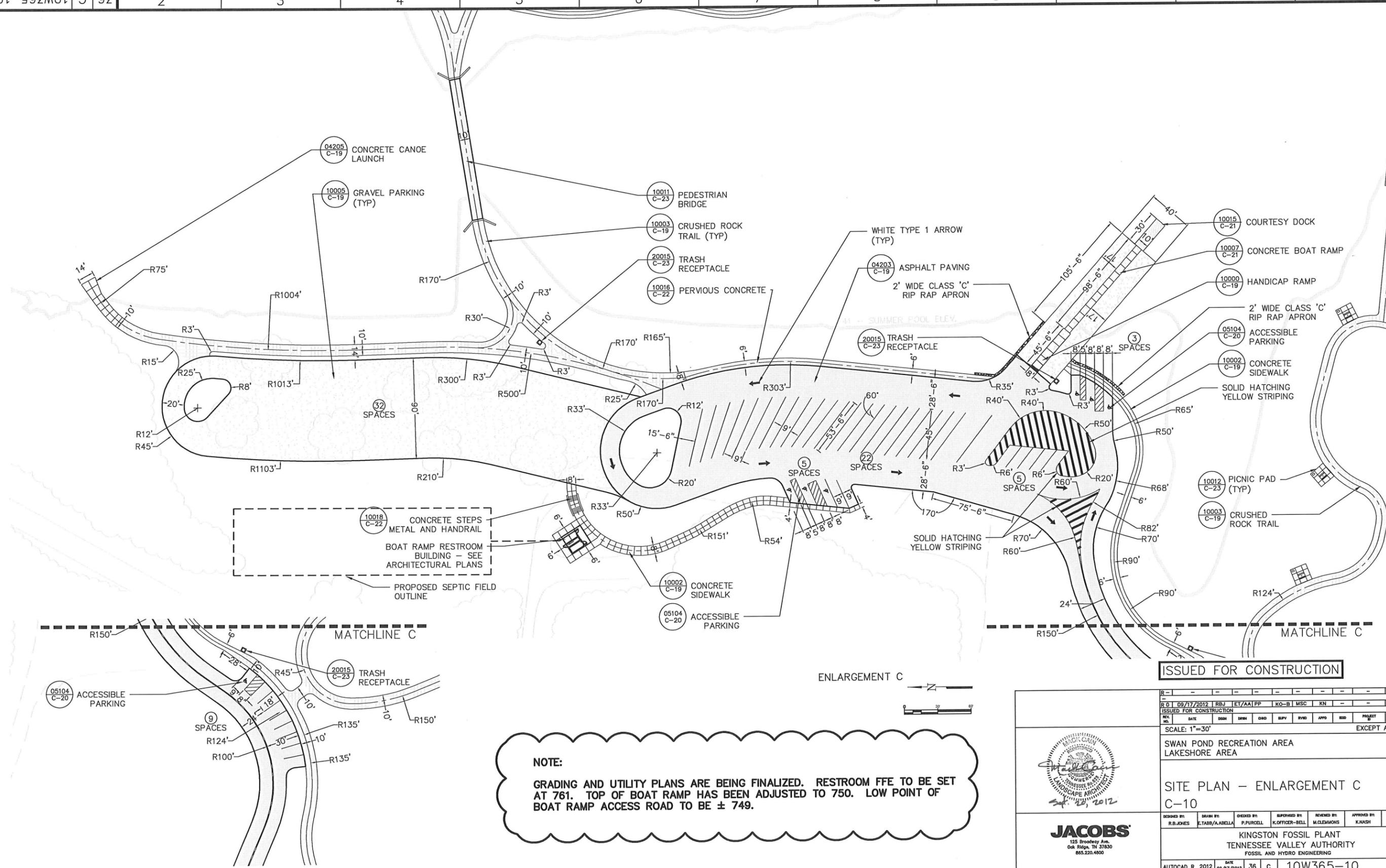
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10018 C-22 CONCRETE STEPS METAL AND HANDRAIL
 BOAT RAMP RESTROOM BUILDING - SEE ARCHITECTURAL PLANS
 PROPOSED SEPTIC FIELD OUTLINE

NOTE:
 GRADING AND UTILITY PLANS ARE BEING FINALIZED. RESTROOM FFE TO BE SET AT 761. TOP OF BOAT RAMP HAS BEEN ADJUSTED TO 750. LOW POINT OF BOAT RAMP ACCESS ROAD TO BE ± 749.

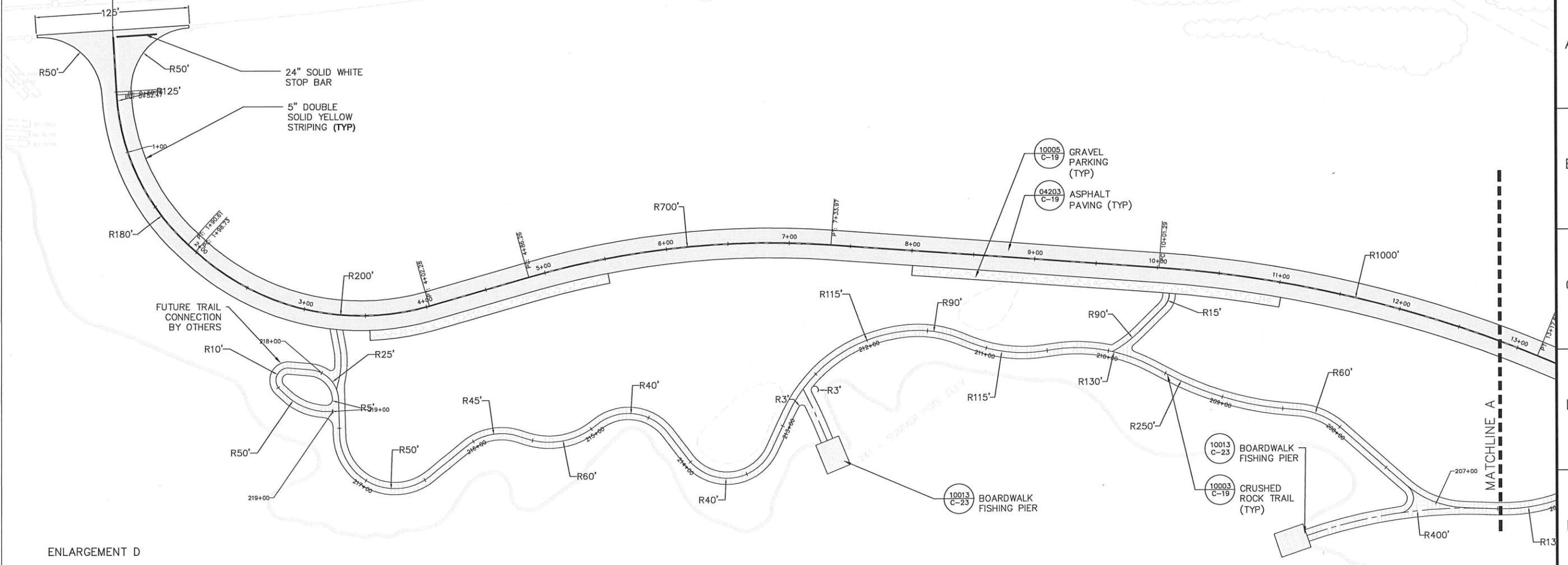
ISSUED FOR CONSTRUCTION

<p>JACOBS 125 Broadway Ave. Oak Ridge, TN 37830 865.220.4600</p>											
<p>SWAN POND RECREATION AREA LAKESHORE AREA</p>											
<p>SITE PLAN - ENLARGEMENT C C-10</p>											
DESIGNED BY:	DRAWN BY:	CHECKED BY:	REVIEWED BY:	APPROVED BY:	ISSUED BY:						
R.B. JONES	E. TABB/A. ABELLA	P. PURCELL	K. OFFICER-BELL	M. CLEMENS	K. NASH						
<p>KINGSTON FOSSIL PLANT TENNESSEE VALLEY AUTHORITY FOSSIL AND HYDRO ENGINEERING</p>											
<p>AUTOCAD R 2012 DATE 09/17/2012 36 c 10W365-10 R 0</p>											

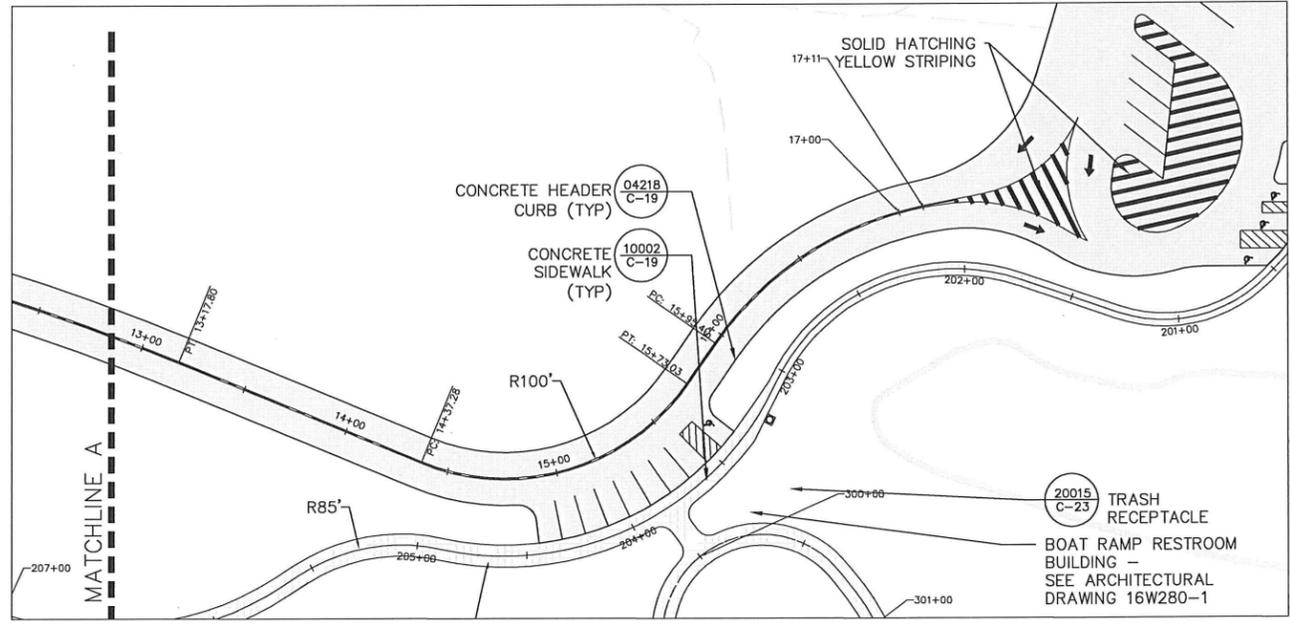
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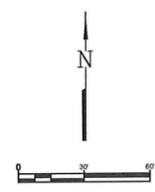


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ISSUED FOR CONSTRUCTION

<p>JACOBS 125 Broadway Ave. Oak Ridge, TN 37830 888.220.4800</p>									
DESIGNED BY:	DRAWN BY:	CHECKED BY:	SUPERVISED BY:	REVIEWED BY:	APPROVED BY:	ISSUED BY:			
R.B. JONES	E. TABB/A. ABELLA	P. PURCELL	K. OFFICER-BELL	M. CLEMMONS	K. NASH				
<p>KINGSTON FOSSIL PLANT TENNESSEE VALLEY AUTHORITY FOSSIL AND HYDRO ENGINEERING</p>									
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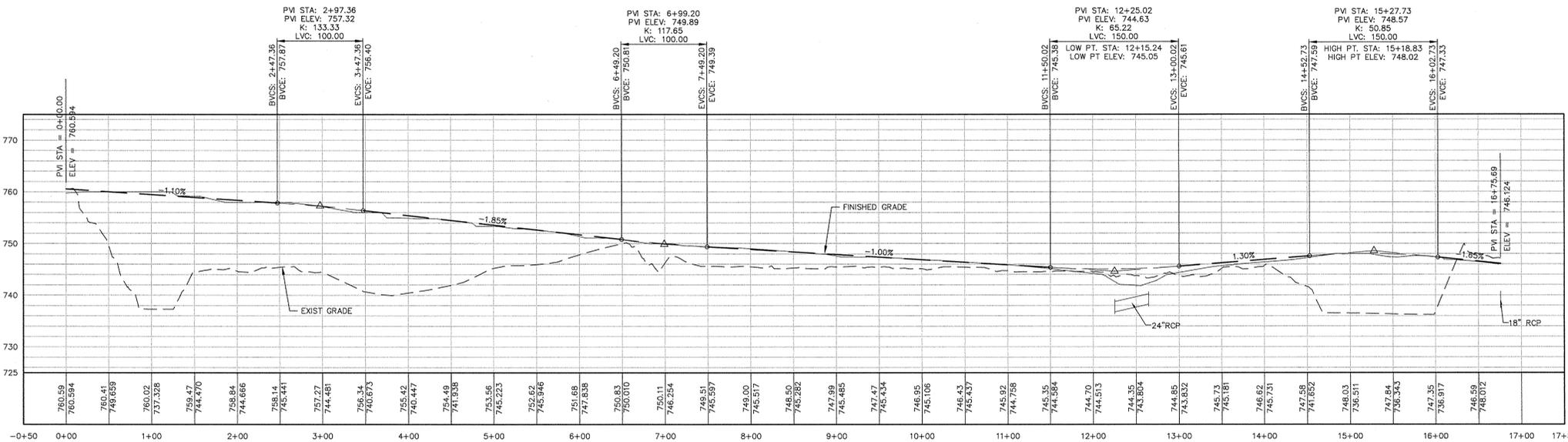
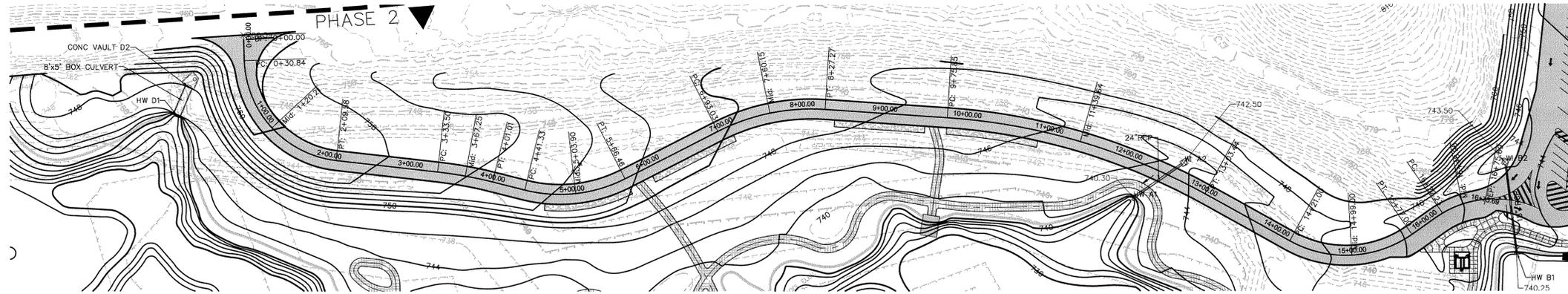
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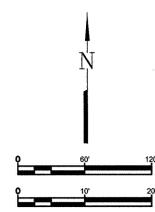


BOAT RAMP ACCESS ROAD PROFILE

HORIZONTAL SCALE: 1"=60'
VERTICAL SCALE: 1"=10'

ISSUED FOR CONSTRUCTION

<p>JACOBS</p> <p>125 Broadway Ave Oak Ridge, TN 37830 865.220.4800</p>									
<p>SWAN POND RECREATION AREA LAKESHORE AREA</p>									
<p>ROAD PLAN AND PROFILE C-16</p>									
DESIGNED BY:	DRWN BY:	CHECKED BY:	SUPERVISED BY:	REVIEWED BY:	APPROVED BY:	ISSUED BY:			
R.B. JONES	E. TABB/A. BELLA	P. PURCELL	K. OFFICER-BELL	M. CLEMMONS	K. NASHI				
<p>KINGSTON FOSSIL PLANT TENNESSEE VALLEY AUTHORITY FOSSIL AND HYDRO ENGINEERING</p>									
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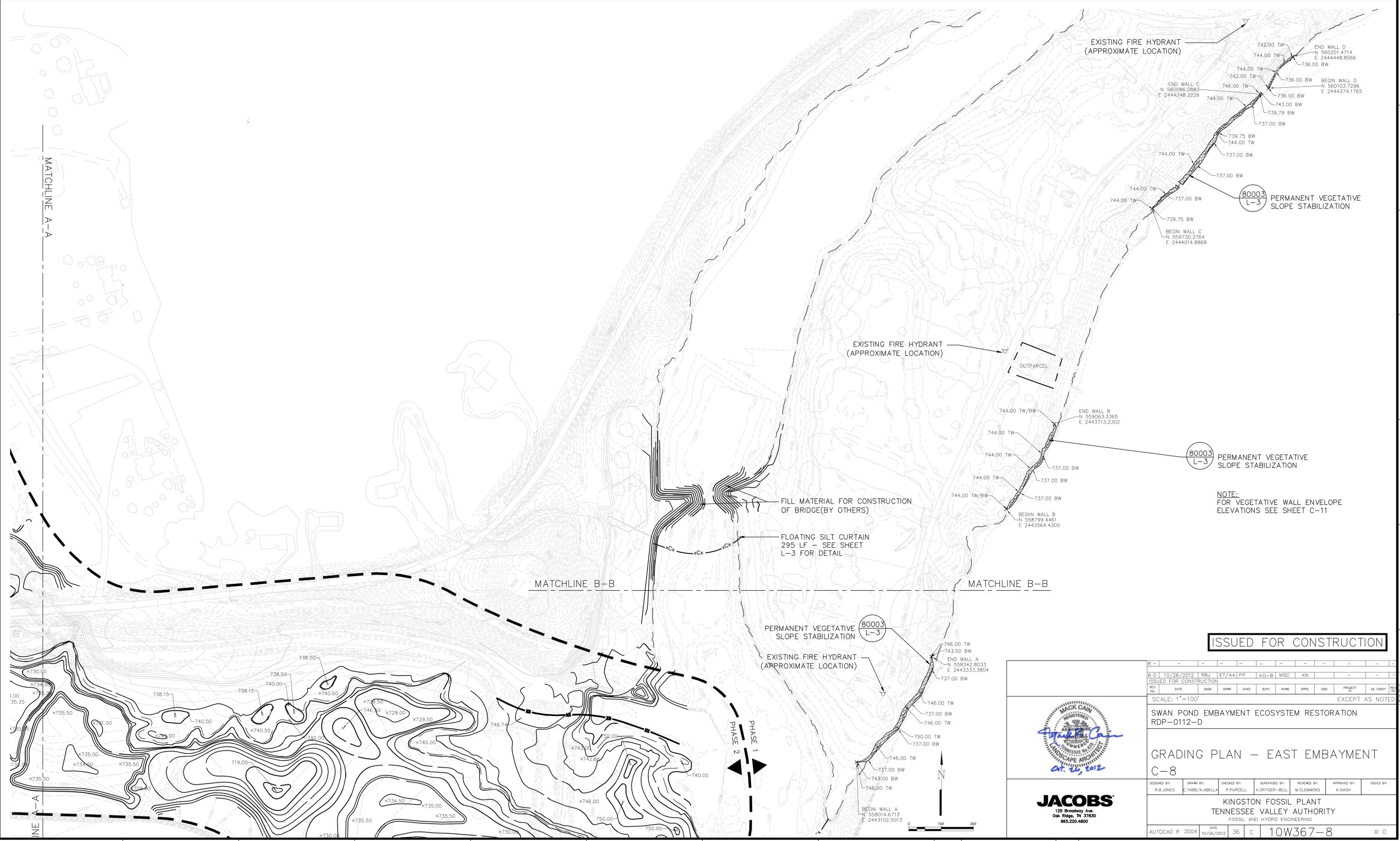


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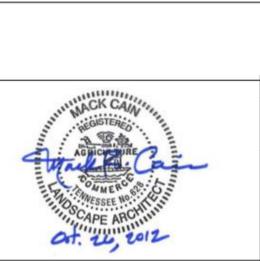
PLOT FACTOR: 1
W.TVA

C.A.D. DRAWING
DO NOT ALTER MANUALLY

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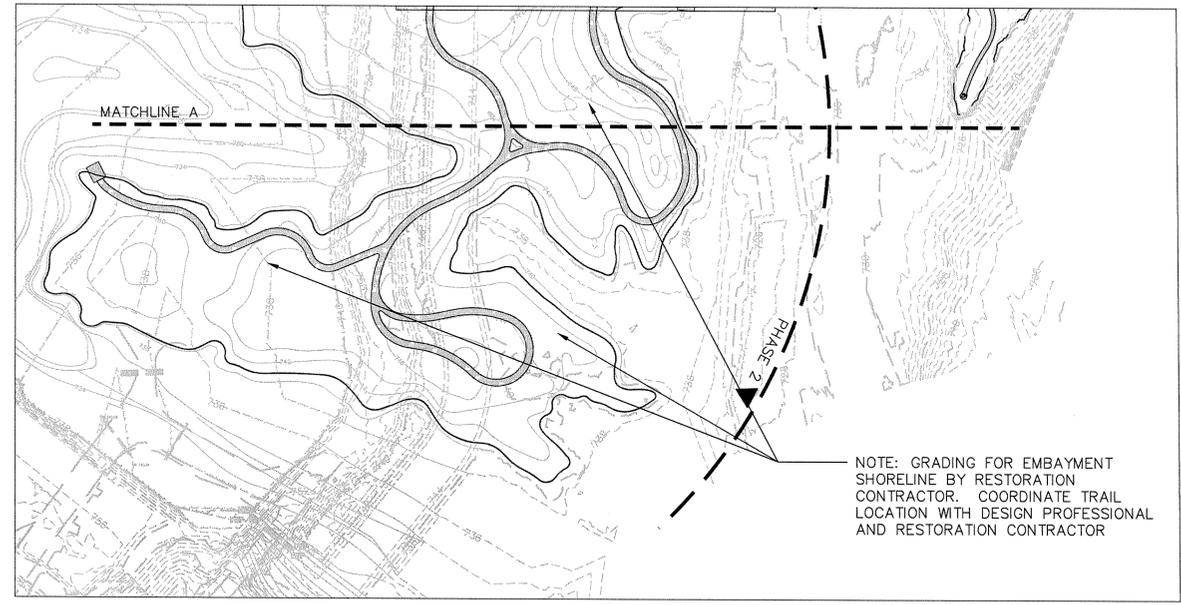


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 125 Broadway Ave.
 Oak Ridge, TN 37830
 865.220.4800

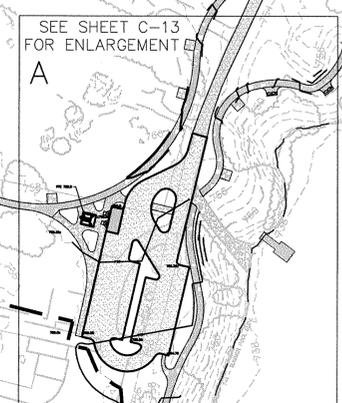
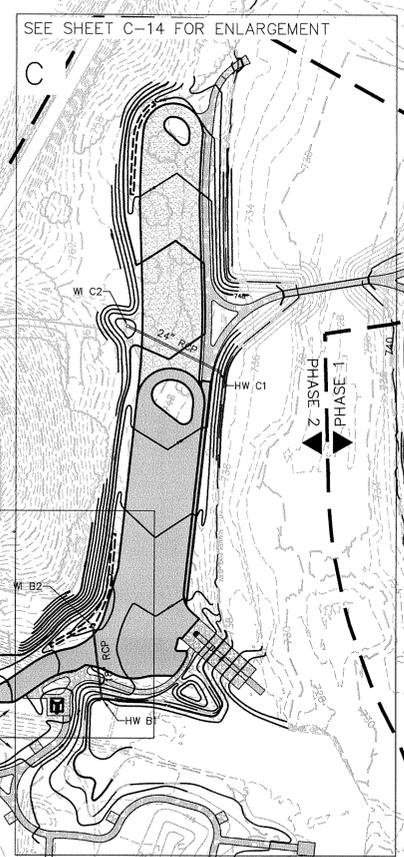
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SCALE: 1"=100'												
EXCEPT AS NOTED												
SWAN POND EMBAYMENT ECOSYSTEM RESTORATION RDP-0112-D												
GRADING PLAN - EAST EMBAYMENT C-8												
DESIGNED BY:	DRAWN BY:	CHECKED BY:	SUPERVISED BY:	REVIEWED BY:	APPROVED BY:	ISSUED BY:						
R.B. JONES	E. TABB/A. ABELLA	P. PURCELL	K. OFFICER-BELL	M. CLEMMONS	K. NASH							
KINGSTON FOSSIL PLANT TENNESSEE VALLEY AUTHORITY FOSSIL AND HYDRO ENGINEERING												
AUTOCAD R 2004	DATE	36	C	10W367-8	R 0							
PLOT FACTOR: 1												
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JACOBS 0
 TASK COMPLETED BY: REV NO.

C.A.D. DRAWING
 DO NOT ALTER MANUALLY

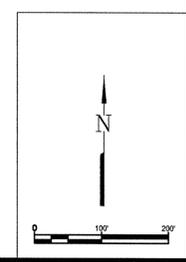


NOTE: GRADING FOR EMBAYMENT SHORELINE BY RESTORATION CONTRACTOR. COORDINATE TRAIL LOCATION WITH DESIGN PROFESSIONAL AND RESTORATION CONTRACTOR

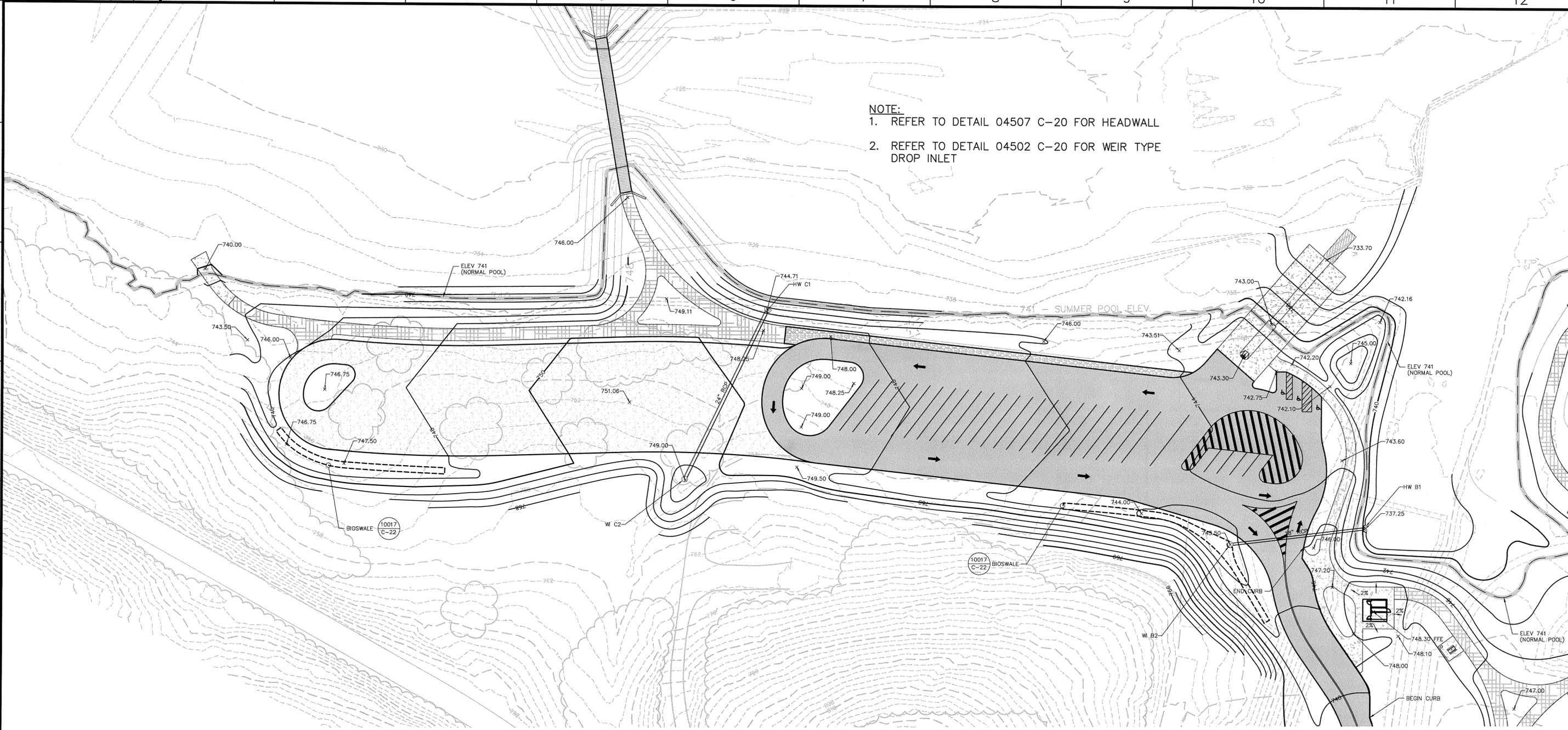


ISSUED FOR CONSTRUCTION

<p>JACOBS 125 Broadway Ave. Oak Ridge, TN 37830 865.220.4800</p>									
<p>SCALE: 1"=100' EXCEPT AS NOTED</p>									
<p>SWAN POND RECREATION AREA LAKESHORE AREA GRADING AND DRAINAGE PLAN - OVERALL AREA C-12</p>									
DESIGNED BY	DRAWN BY	CHECKED BY	SPONSORED BY	REVIEWED BY	APPROVED BY	ISSUED BY			
R.B. JONES	E. TABB/A. BELLA	P. PURCELL	K. OFFICER-BELL	M. CLEMONS	K. NASH				
<p>KINGSTON FOSSIL PLANT TENNESSEE VALLEY AUTHORITY FOSSIL AND HYDRO ENGINEERING</p>									
AUTOCAD R	DATE	36	C	10W365-12	R 0				
JACOBS		0		PLOT FACTOR: 1		C.A.D. DRAWING			
TASK COMPLETED BY:		REV NO.		W_L TVA		DO NOT ALTER MANUALLY			

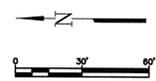


NOTE:
 1. REFER TO DETAIL 04507 C-20 FOR HEADWALL
 2. REFER TO DETAIL 04502 C-20 FOR WEIR TYPE DROP INLET



ENLARGEMENT C

ISSUED FOR CONSTRUCTION



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SCALE: 1"=30' EXCEPT AS NOTED																																																																				
SWAN POND RECREATION AREA LAKESHORE AREA GRADING AND DRAINAGE PLAN ENLARGEMENT C C-14																																																																				
DESIGNED BY: R.B. JONES		DRAWN BY: E. TABB/A. ABELLA		CHECKED BY: P. PURCELL		SUPERVISED BY: K. OFFICER-BELL		REVIEWED BY: M. CLEMONS		APPROVED BY: K. NASH		ISSUED BY:																																																								
KINGSTON FOSSIL PLANT TENNESSEE VALLEY AUTHORITY FOSSIL AND HYDRO ENGINEERING																																																																				
AUTOCAD R 2012 DATE 09/17/2012 36 C 10W365-14 R 0																																																																				

JACOBS 0
 TASK COMPLETED BY: REV NO.

PLOT FACTOR: 1
 W_TVA
 C.A.D. DRAWING
 DO NOT ALTER MANUALLY

A

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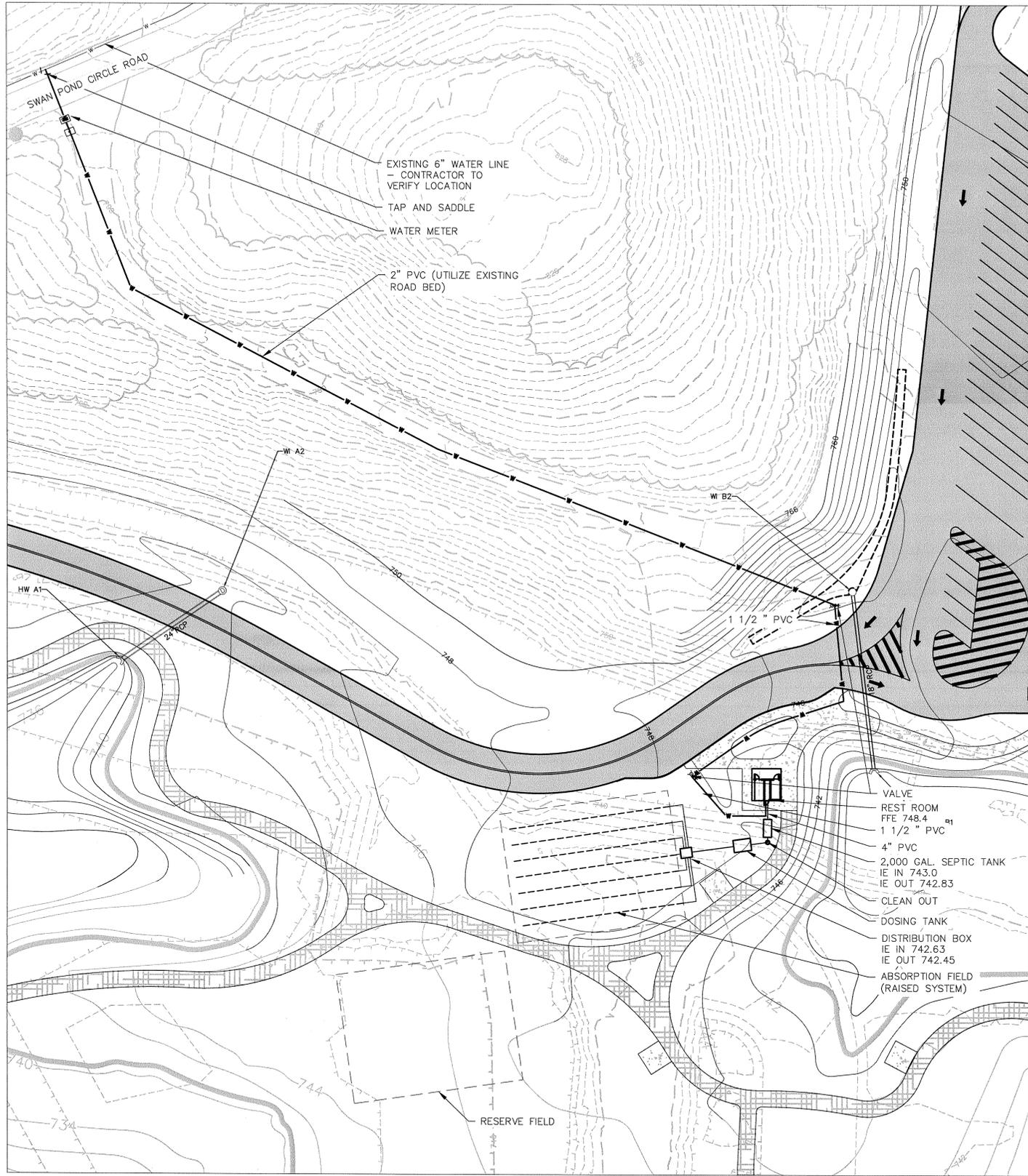
D

E

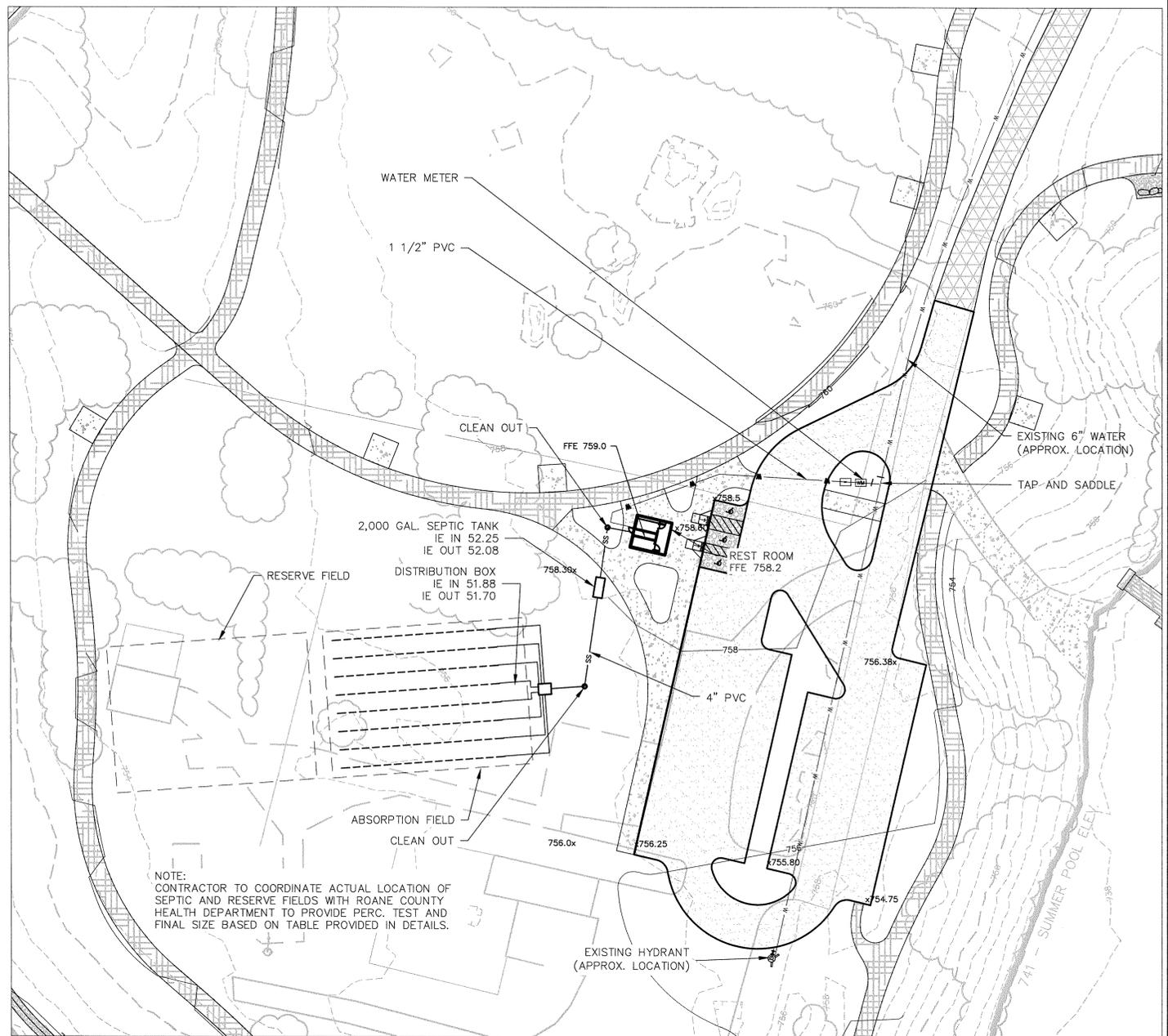
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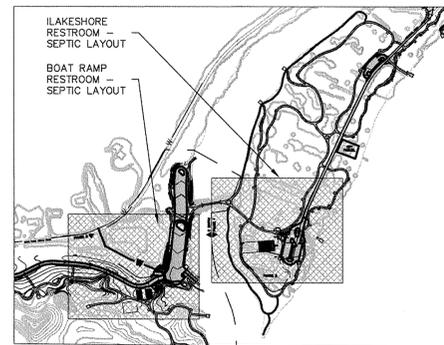
H



BOAT RAMP RESTROOM - SEPTIC LAYOUT



LAKESHORE RESTROOM - SEPTIC LAYOUT



ENLARGEMENT KEY
NOT TO SCALE

ISSUED FOR CONSTRUCTION

										R - - - - - R 0 09/17/2012 RBJ ET/AA PP KO-B MSC KN - - - - - ISSUED FOR CONSTRUCTION R01 DATE DSN DWN OHD SUPV RVD APPV ISS PROJECT AS CONF SCALE: 1"=30' SWAN POND RECREATION AREA LAKESHORE AREA SITE UTILITY PLAN - BOAT RAMP AREA AND LAKESHORE AREA C-17 DESIGNED BY: R.B. JONES DRAWN BY: E.TABB/A.BELLA CHECKED BY: P. PURCELL SUPERVISED BY: K. OFFICER-BELL REVIEWED BY: M. CLEMMONS APPROVED BY: K. NASH ISSUED BY: KINGSTON FOSSIL PLANT TENNESSEE VALLEY AUTHORITY FOSSIL AND HYDRO ENGINEERING AUTOCAD R 2012 DATE 09/17/2012 36 C 10W365-17 R 0	
JACOBS TASK COMPLETED BY:		0 REV NO.		PLOT FACTOR: 1 W_TVA		C.A.D. DRAWING DO NOT ALTER MANUALLY					

