

KIF - UTILITY RESTORATION HARRIMAN UTILITY BOARD - WATER

DRAWING INDEX

ALL-HW001	TITLE SHEET
ALL-HW002	GENERAL PLAN
765-HW003	PLAN SHEET 1 OF 12
765-HW004	PLAN SHEET 2 OF 12
765-HW005	PLAN SHEET 3 OF 12
765-HW006	PLAN SHEET 4 OF 12
766-HW007	PLAN SHEET 5 OF 12
766-HW008	PLAN SHEET 6 OF 12
766-HW009	PLAN SHEET 7 OF 12
767-HW010	PLAN SHEET 8 OF 12
767-HW011	PLAN SHEET 9 OF 12
767-HW012	PLAN SHEET 10 OF 12
767-HW013	PLAN SHEET 11 OF 12
767-HW014	PLAN SHEET 12 OF 12
ALL-HW015	DETAIL SHEET
ALL-HW016	EROSION CONTROL DETAIL SHEET

PREPARED BY:



CTI ENGINEERS, INC.
112 DUNWOOD ROAD SUITE A
KNOXVILLE, TN 37922
955-246-2760

JOHN L. KING, PE
TENNESSEE LICENSE NO. 103702

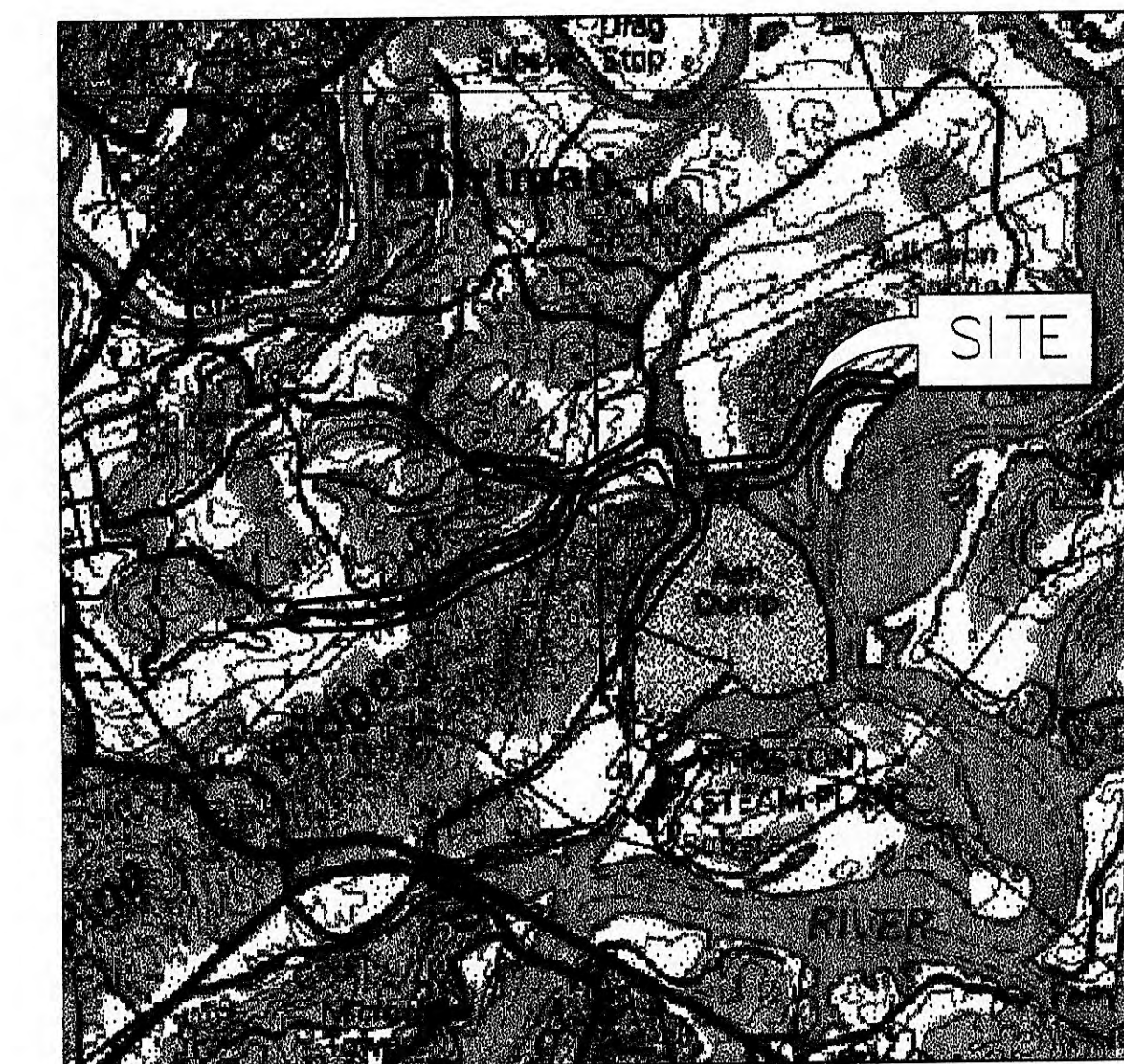
7/31/09
DATE

NOTE:
THESE RECORD DRAWINGS PREPARED BY CTI ARE BASED UPON THE REPRESENTATIONS OF OTHERS (MAYSE CONSTRUCTION COMPANY, OF CHATTANOOGA, TENNESSEE) AND ARE NOT FOR BIDDING, PERMIT OR CONSTRUCTION PURPOSES. THESE DRAWINGS HAVE BEEN REVIEWED BY CTI AND ARE BELIEVED TO REFLECT, TO THE BEST OF OUR KNOWLEDGE, AN ACCURATE RECORD OF THE WORK AS CONSTRUCTED. THE INFORMATION CONTAINED HEREIN SHOULD BE FIELD-VERIFIED PRIOR TO BEING USED FOR FUTURE DESIGN AND/OR CONSTRUCTION.

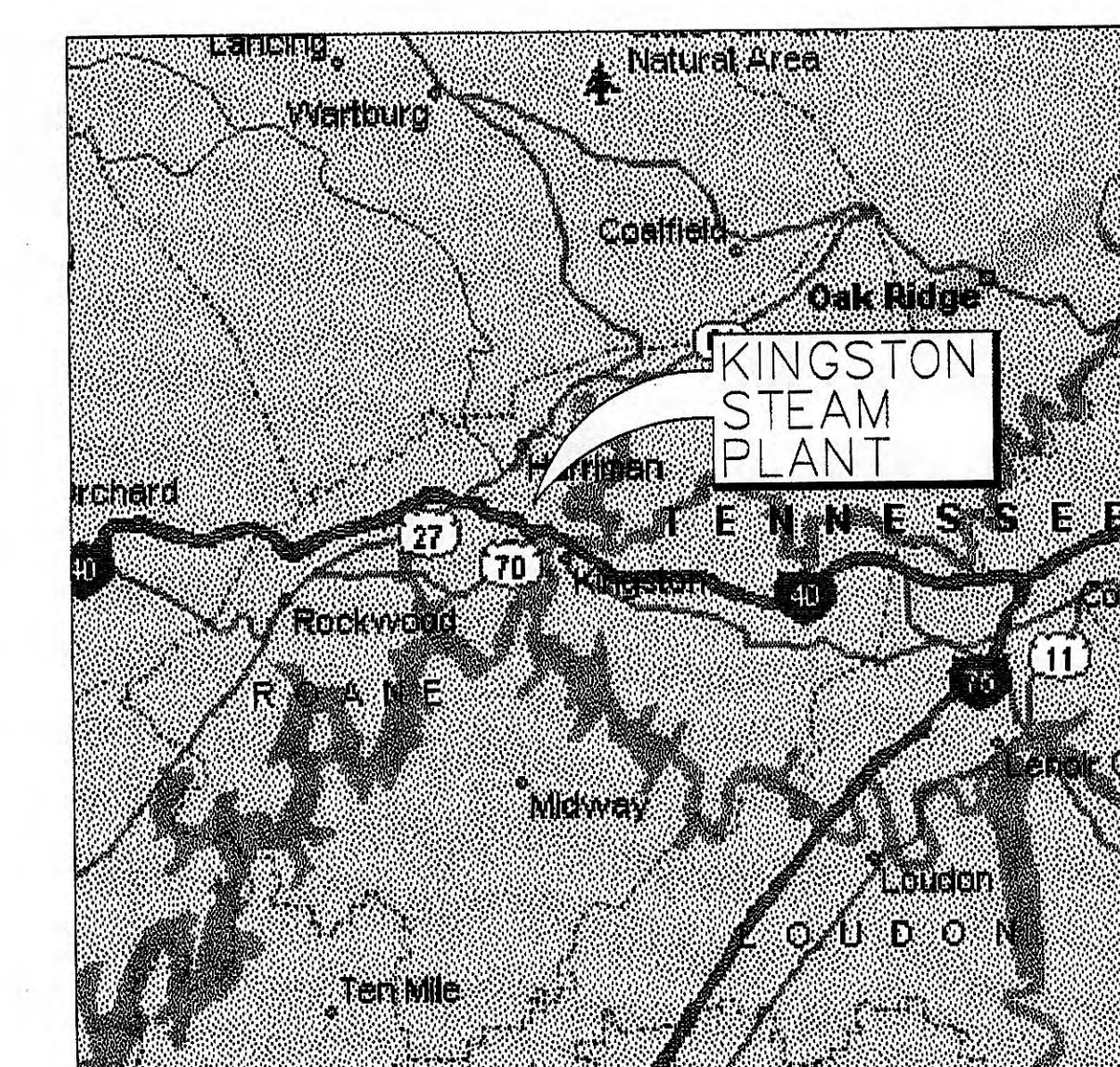
RECORD DRAWING
12-14-2010

I CERTIFY THAT THESE PLANS HAVE BEEN REVIEWED
AND APPROVED BY THE HARRIMAN UTILITY BOARD

CHUCK FLORA, GENERAL MANAGER DATE



SITE MAP



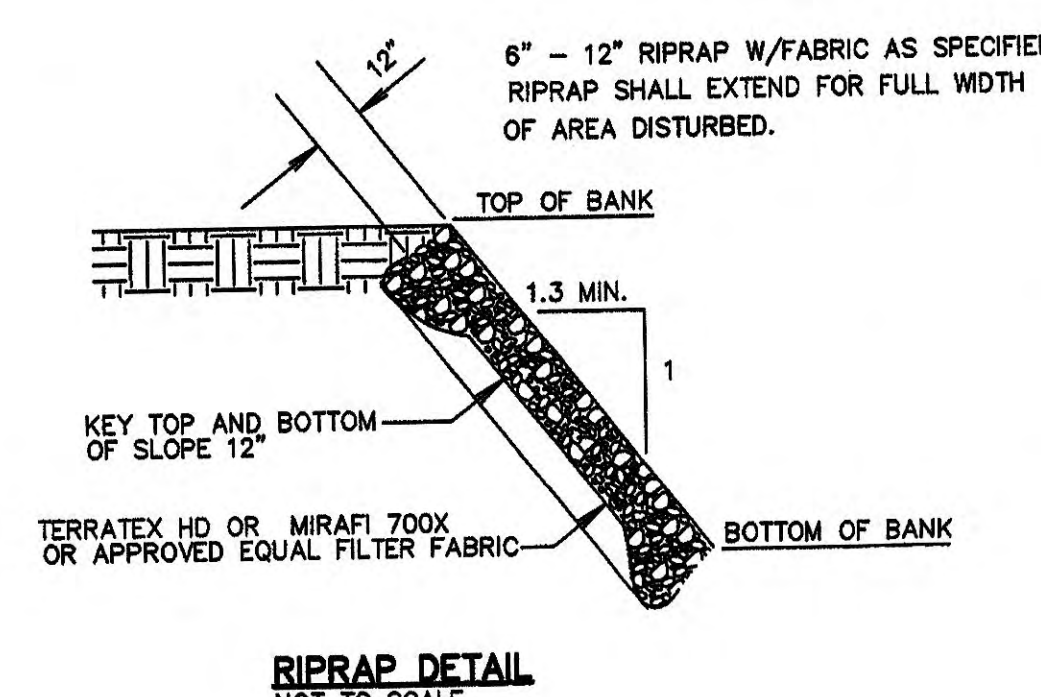
VICINITY MAP

Revised Drawings
from TVA
Coal Ash Spill
Very Important
Need to Turn in!!

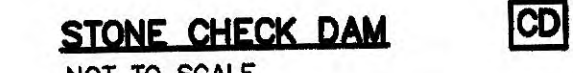
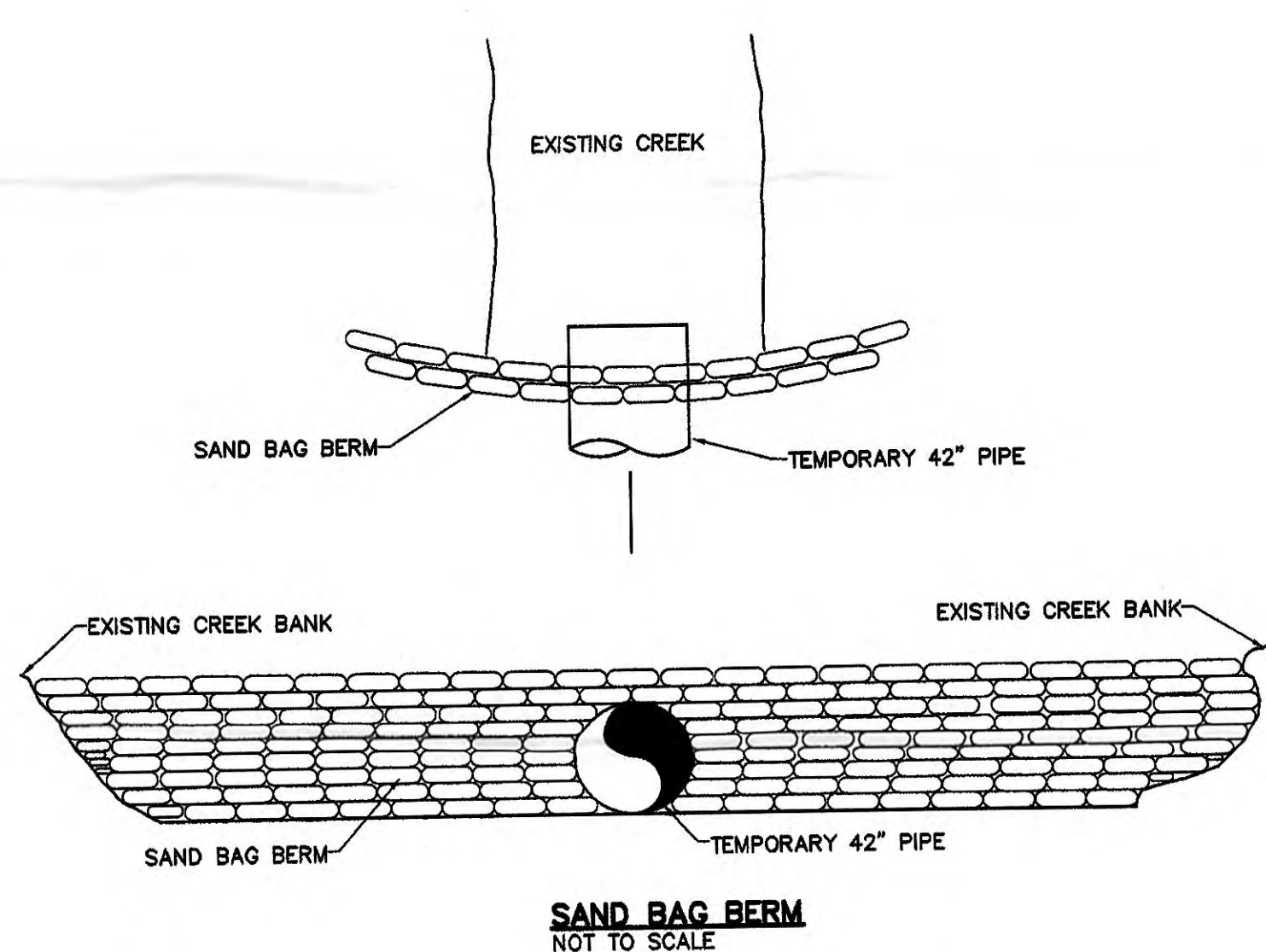
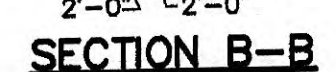
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REV	DATE	DESIGN	DRAWN	CHECK	SUPV	REVIEW	APPROV	ISSD	PROJECT	AS CONST	BY			
SCALE: NOT TO SCALE EXCEPT AS NOTED														
YARD CIVIL														
KIF - UTILITY EXTENSIONS HARRIMAN UTILITY BOARD - WATER TITLE SHEET														
DESIGNED BY	DRAWN BY	CHECKED BY	SUPERVISED BY	REVIEWED BY	APPROVED BY	ISSUED BY								
JLK	JMG	D.L.J.												
KINGSTON FOSSIL PLANT TENNESSEE VALLEY AUTHORITY FOSSIL AND HYDRO ENGINEERING														
AUTOCAD R07	DATE	3/17/09	36	C	ALL-HW001.1				R 1					

CTI ENGINEERS, INC.
TASK COMPLETED BY: REV NO.

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



6) DETAILS FOR STRUCTURAL PRACTICES SHOWN IN: "TENNESSEE EROSION AND SEDIMENT CONTROL HANDBOOK", DATED MARCH 2002.

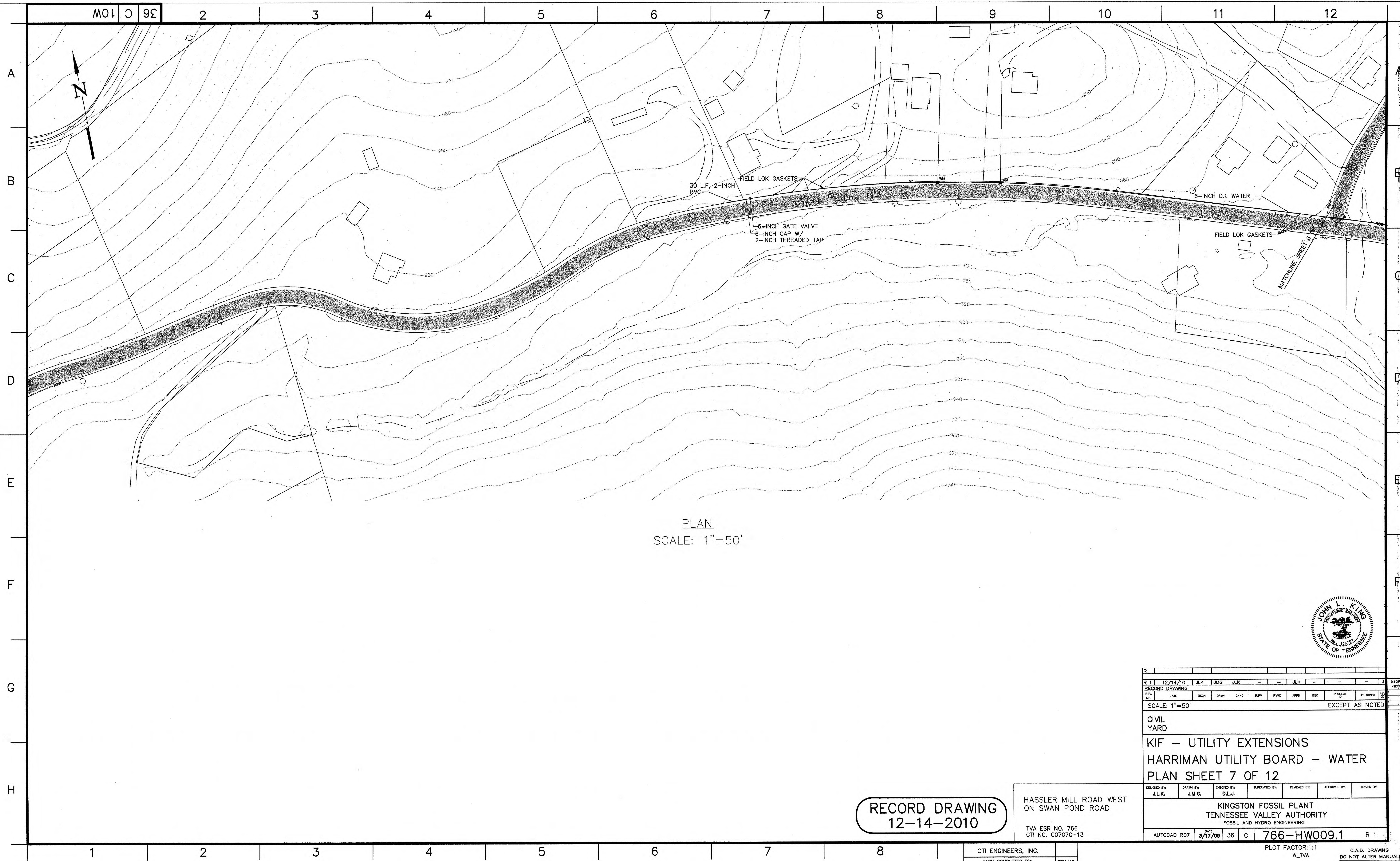


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KIF - UTILITY EXTENSIONS																										
HARRIMAN UTILITY BOARD - WATER																										
EROSION CONTROL DETAIL SHEET																										
DESIGNED BY:				DRAWN BY:				CHECKED BY:				SUPERVISED BY:				REVIEWED BY:				APPROVED BY:				ISSUED BY:		
J.L.K.				J.M.G.				D.L.W.																		
KINGSTON FOSSIL PLANT																										
TENNESSEE VALLEY AUTHORITY																										
FOSSIL AND HYDRO ENGINEERING																										
AUTOCAD R07				DATE		36		C		ALL-HW016.1										R 1						

RECORD DRAWING
12-14-2010

CTI ENGINEERS, INC.

PLOT FACTOR:1:1
W TVA



PLAN
SCALE: 1"=50'



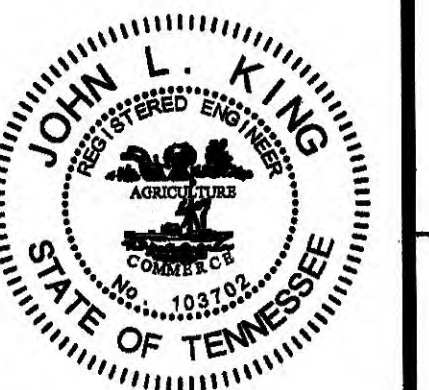
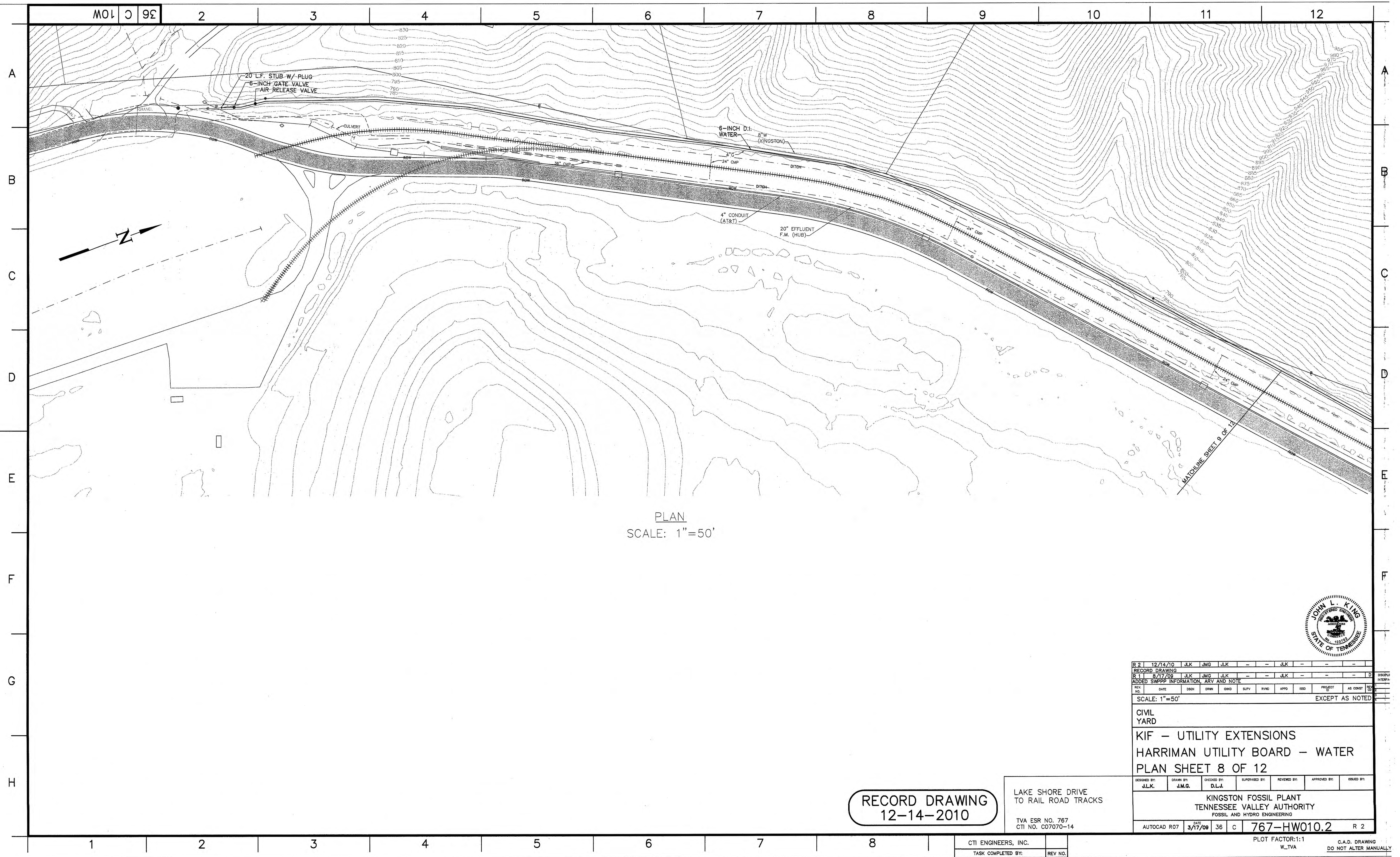
RECORD DRAWING
12-14-2010

HASSLER MILL ROAD WEST
ON SWAN POND ROAD
TVA ESR NO. 766
CTI NO. C07070-13

CTI ENGINEERS, INC.
TASK COMPLETED BY: REV NO.

R 1																											
R 1		12/14/10		J.L.K.		J.M.G.		J.L.K.		--		--		J.L.K.		--		--		1							
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KIF - UTILITY EXTENSIONS HARRIMAN UTILITY BOARD - WATER PLAN SHEET 7 OF 12																											
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J.L.K.				J.M.G.				D.L.J.																			
KINGSTON FOSSIL PLANT TENNESSEE VALLEY AUTHORITY FOSSIL AND HYDRO ENGINEERING																											
AUTOCAD R07				DATE 3/17/09		36		C		766-HW009.1				R 1													

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



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3/17/09										COPY
ADDED SWEEP INFORMATION, ARV AND NOTE										
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SCALE: 1"=50'									EXCEPT AS NOTED	
CIVIL										
YARD										
KIF - UTILITY EXTENSIONS										
HARRIMAN UTILITY BOARD - WATER										
PLAN SHEET 8 OF 12										
DESIGNED BY: J.L.K.	DRAWN BY: J.M.G.	CHECKED BY: D.L.J.	SUPERVISOR BY:		REVIEWED BY:		APPROVED BY:		ISSUED BY:	
KINGSTON FOSSIL PLANT										
TENNESSEE VALLEY AUTHORITY										
FOSSIL AND HYDRO ENGINEERING										
AUTOCAD R07	DATE 3/17/09	36	C	767-HW010.2				R 2		

LAKE SHORE DRIVE
TO RAIL ROAD TRACKS

TVA ESR NO. 767
CTI NO. C07070-14

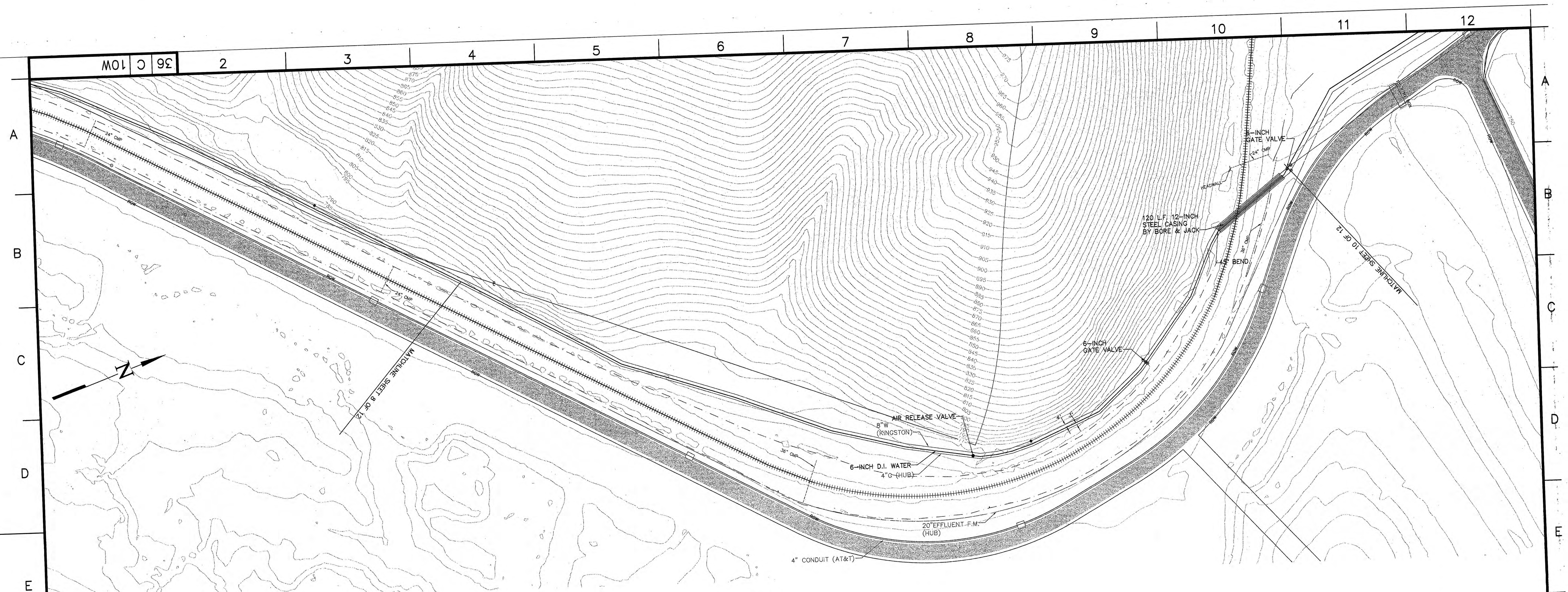
CTI ENGINEERS, INC.

TASK COMPLETED BY:

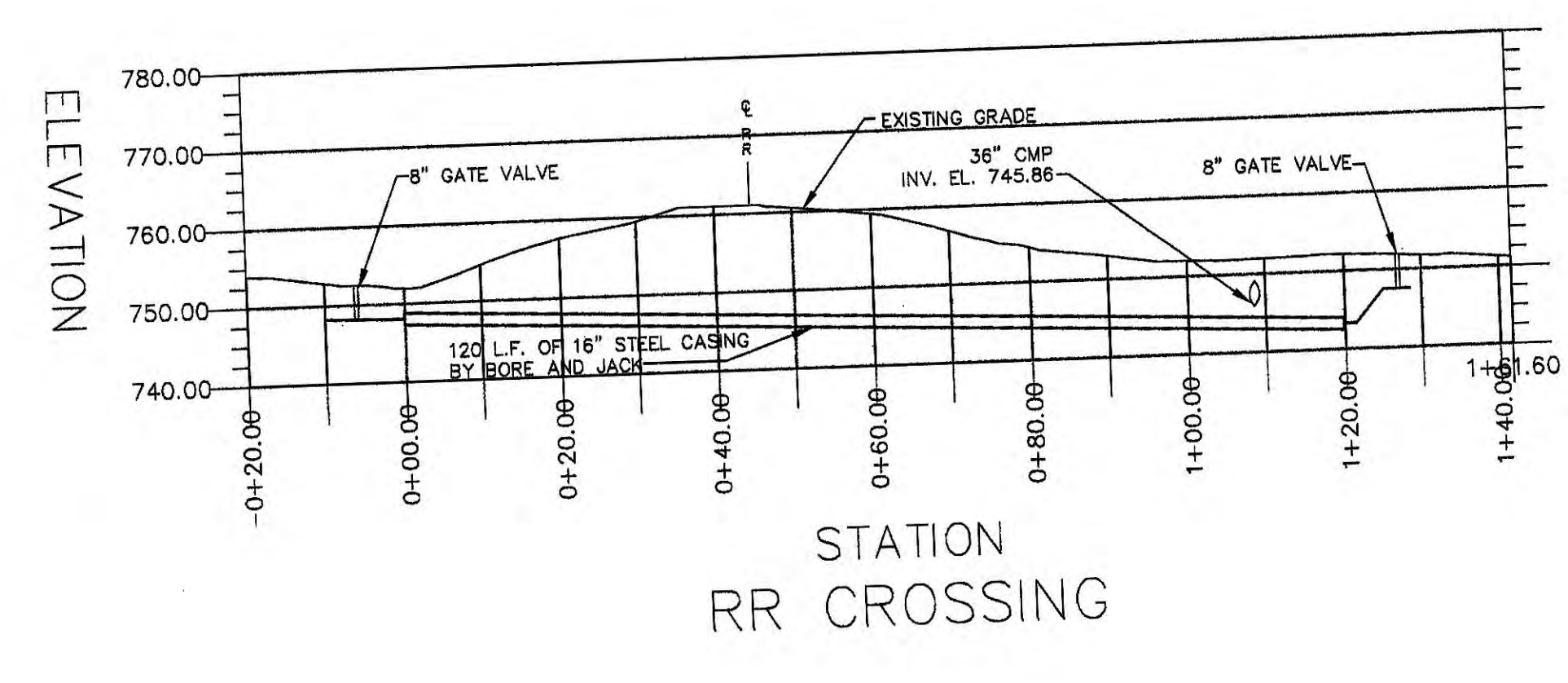
PLOT FACTOR:1:1

W_TVA

C.A.D. DRAWING
NOT ALTER MANUALLY



PLAN
SCALE: 1"=50'



SECTION
SCALE: 1"=20'



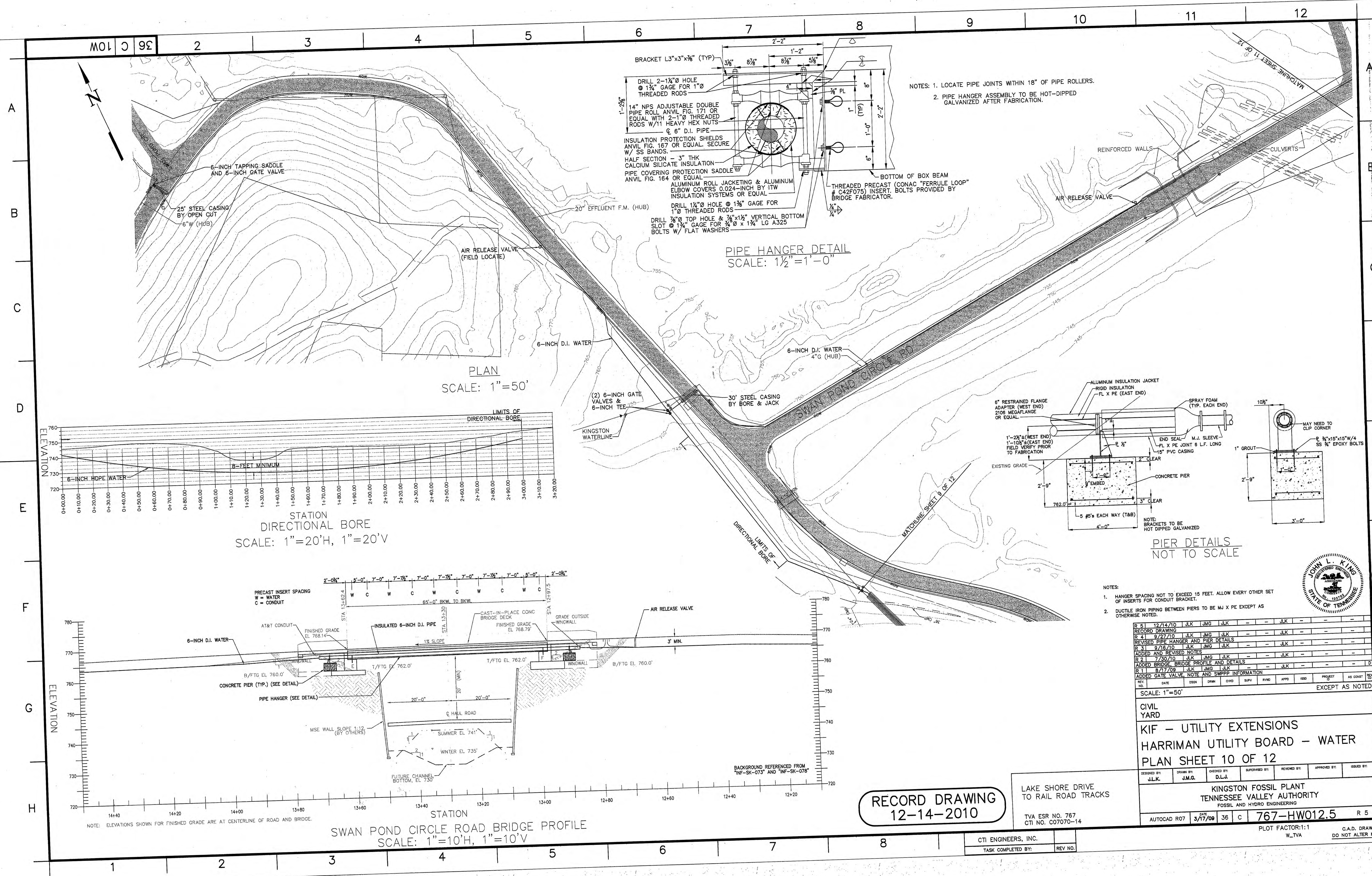
RECORD DRAWING	DESIGNED BY: J.L.K.	DRAWN BY: J.M.G.	CHECKED BY: D.L.L.	SUPERVISED BY:	REMOVED BY:	APPROVED BY:	ISSUED BY:
REVISED WATER LINE, ADDED CROSS SECTIONS AND SWPPP INFORMATION							
DATE: 8/17/09	DATE: 8/17/09	DATE: 8/17/09	DATE: 8/17/09	DATE: 8/17/09	DATE: 8/17/09	DATE: 8/17/09	DATE: 8/17/09
SCALE: 1"=50'							
CIVIL YARD							
KIF - UTILITY EXTENSIONS							
HARRIMAN UTILITY BOARD - WATER							
PLAN SHEET 9 OF 12							
KINGSTON FOSSIL PLANT							
TENNESSEE VALLEY AUTHORITY							
FOSSIL AND HYDRO ENGINEERING							
AUTOCAD R07	DATE: 3/17/09	36	C	767-HW011.2	R 2		
PLOT FACTOR: 1:1							
C.A.D. DRAWING DO NOT ALTER MANUALLY							

RECORD DRAWING
12-14-2010

LAKE SHORE DRIVE
TO RAIL ROAD TRACKS

CTI ENGINEERS, INC.
TASK COMPLETED BY: REV NO.

TVA ESR NO. 767
CTI NO. C07070-14



NOTES: 1. LOCATE PIPE JOINTS WITHIN 18" OF PIPE ROLLERS.
2. PIPE HANGER ASSEMBLY TO BE HOT-DIPPED GALVANIZED AFTER FABRICATION.

PIPE HANGER DETAIL
SCALE: 1/2"=1'-0"

PLAN
SCALE: 1"=50'

DIRECTIONAL BORE
SCALE: 1"=20'H, 1"=20'V

PIER DETAILS
NOT TO SCALE

NOTES:
1. HANGER SPACING NOT TO EXCEED 15 FEET. ALLOW EVERY OTHER SET OF INSERTS FOR CONDUIT BRACKET.
2. DUCTILE IRON PIPING BETWEEN PIERS TO BE M.J. X PE EXCEPT AS OTHERWISE NOTED.

REV	DATE	BY	CHKD	APPD	DESCRIPTION
1	12/14/10	JLK	JMG	JLK	RECORD DRAWING
2	9/27/10	JLK	JMG	JLK	REVISED PIPE HANGER AND PIER DETAILS
3	8/18/10	JLK	JMG	JLK	ADDED AND REVISED NOTES
4	7/20/10	JLK	JMG	JLK	ADDED BRIDGE PROFILE AND DETAILS
5	8/17/09	JLK	JMG	JLK	ADDED GATE VALVE, NOTE AND SWPPP INFORMATION

SCALE: 1"=50'
CIVIL
YARD
KIF - UTILITY EXTENSIONS
HARRIMAN UTILITY BOARD - WATER
PLAN SHEET 10 OF 12

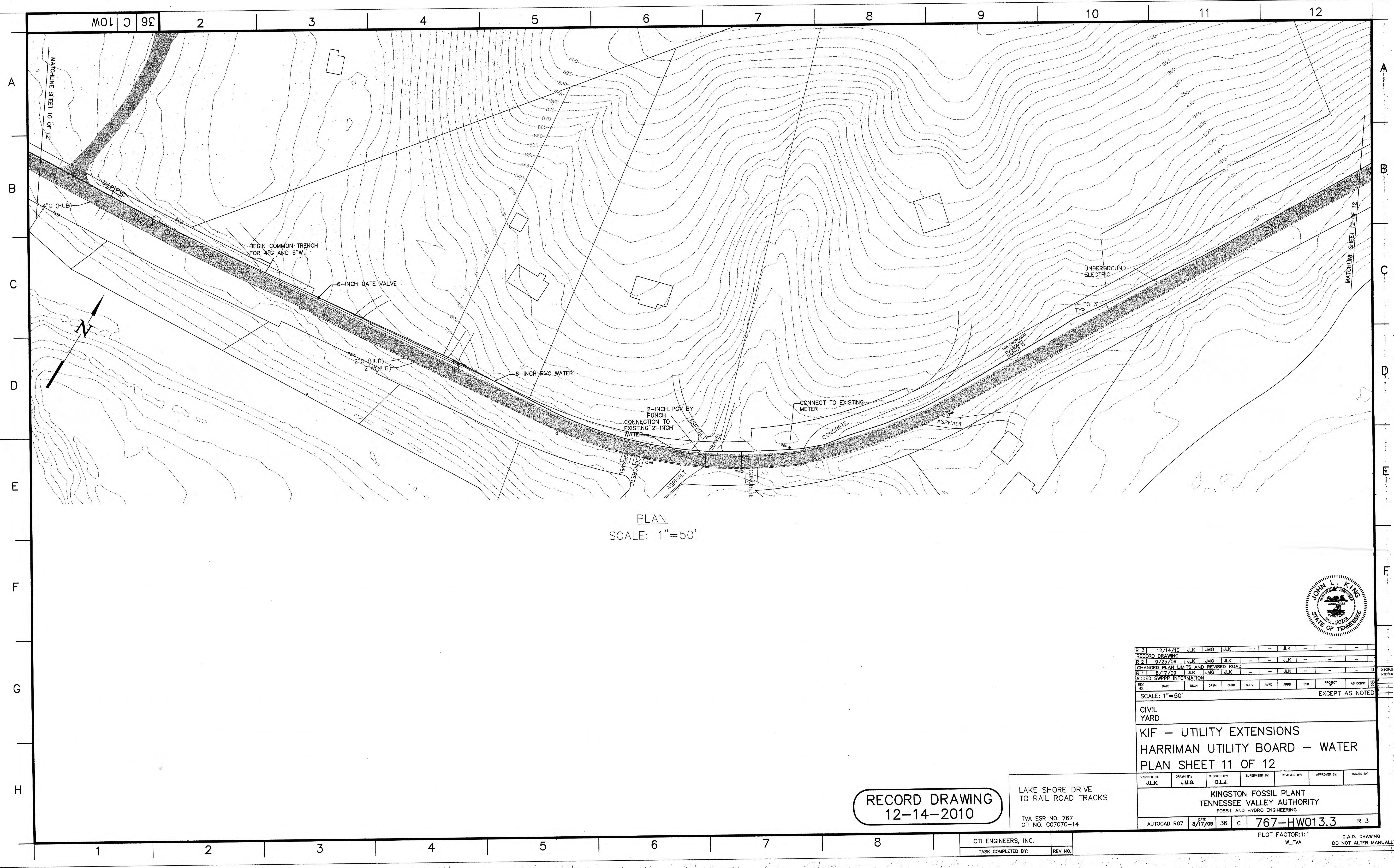
DESIGNED BY: J.L.K.
DRAWN BY: J.M.G.
CHECKED BY: D.L.J.
SUPERVISED BY: J.L.K.
REVIEWED BY: J.L.K.
APPROVED BY: J.L.K.
ISSUED BY: J.L.K.
KINGSTON FOSSIL PLANT
TENNESSEE VALLEY AUTHORITY
FOSSIL AND HYDRO ENGINEERING

RECORD DRAWING
12-14-2010

LAKE SHORE DRIVE
TO RAIL ROAD TRACKS
TVA ESR NO. 767
CTI NO. C07070-14

CTI ENGINEERS, INC.
TASK COMPLETED BY: REV NO.

PLOT FACTOR: 1:1
W.TVA
C.A.D. DRAWING
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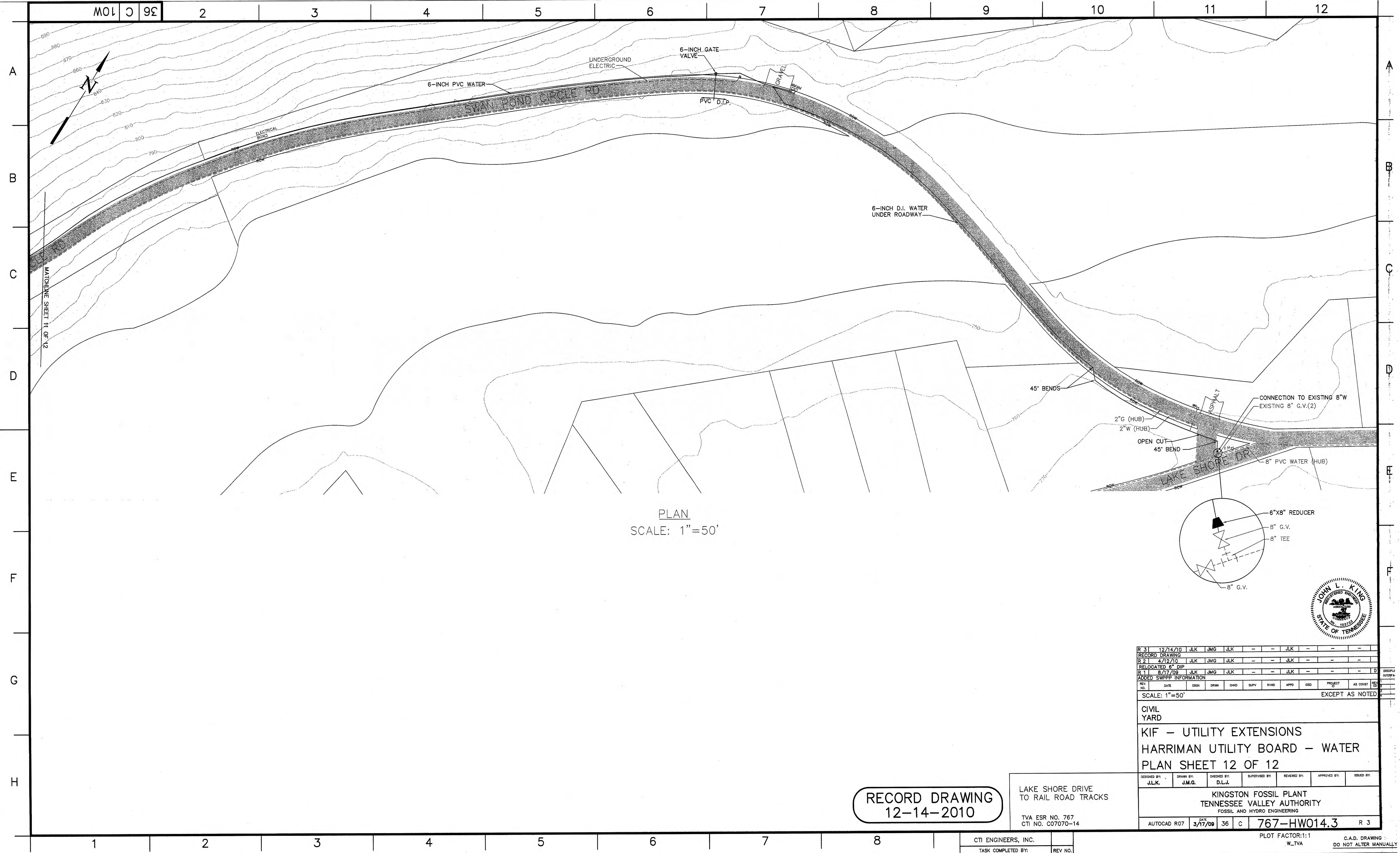
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RECORD DRAWING										
R 21	9/25/09	JLK	JMG	JLK	-	-	JLK	-	-	-
CHANGED PLAN LIMITS AND REVISED ROAD										
R 11	8/17/09	JLK	JMG	JLK	-	-	JLK	-	-	D
ADDED SWPPP INFORMATION										
REV	NO	DATE	DSGN	DRWN	CHGD	SUPV	INVD	APPR	ISSD	PROJECT
										AS CONST
SCALE: 1"=50'										EXCEPT AS NOTED
CIVIL YARD										
KIF - UTILITY EXTENSIONS										
HARRIMAN UTILITY BOARD - WATER										
PLAN SHEET 11 OF 12										
DESIGNED BY:	DRAWN BY:	CHECKED BY:	SUPERVISED BY:	REVIEWED BY:	APPROVED BY:	ISSUED BY:				
J.L.K.	J.M.G.	D.L.W.								
KINGSTON FOSSIL PLANT										
TENNESSEE VALLEY AUTHORITY										
FOSSIL AND HYDRO ENGINEERING										
AUTOCAD R07	3/17/09	36	C	767-HW013.3	R 3					

RECORD DRAWING
12-14-2010

LAKE SHORE DRIVE
TO RAIL ROAD TRACKS

CTI ENGINEERS, INC.
TASK COMPLETED BY: REV NO.

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



RECORD DRAWING
12-14-2010

LAKE SHORE DRIVE
TO RAIL ROAD TRACKS

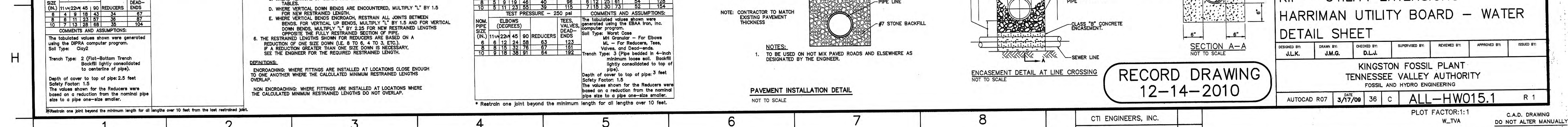
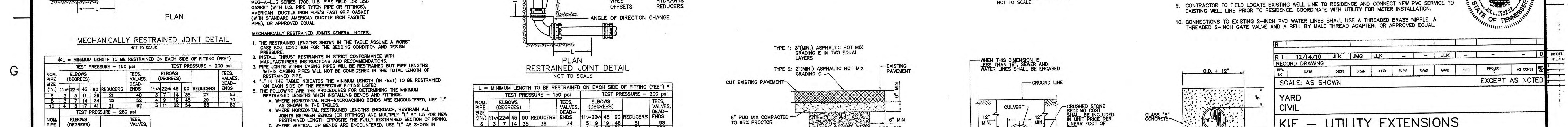
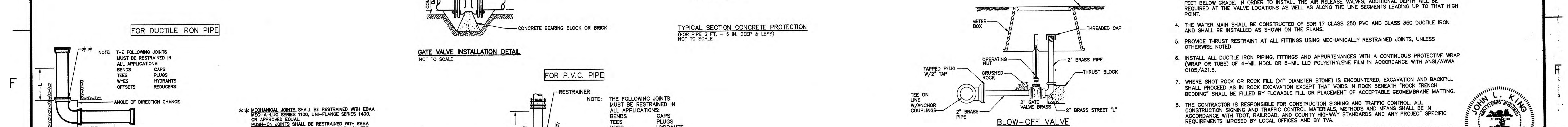
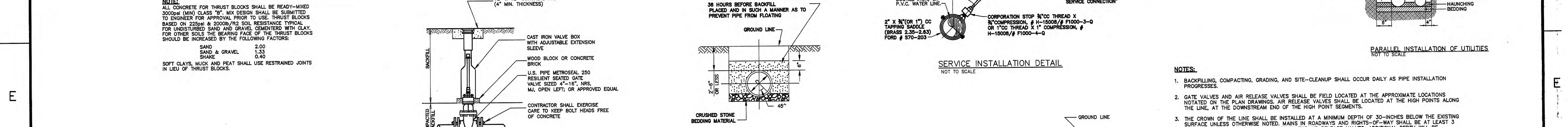
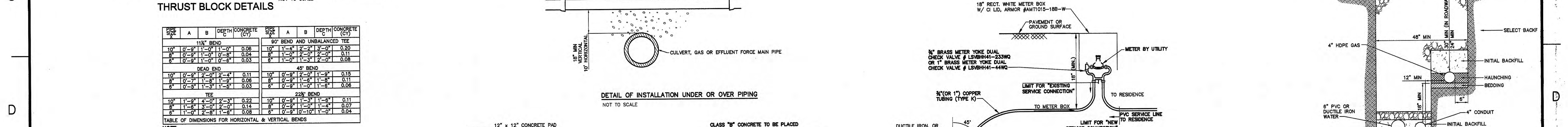
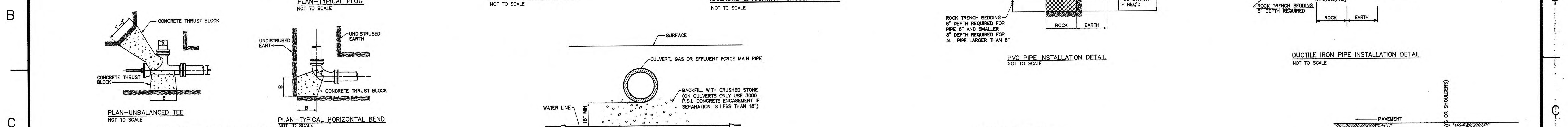
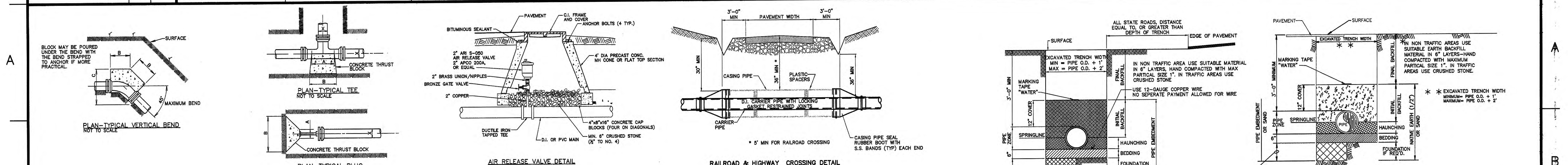
TVA ESR NO. 767
CTI NO. C07070-14

CTI ENGINEERS, INC.
TASK COMPLETED BY: REV NO.

REV	DATE	ISSN	OPEN	CHG	SUPV	RVND	APPD	ESD	PROJECT	AS CORRT	BY
R 3	12/12/10	JLK	JMG	JLK			JLK				
R 2	4/12/10	JLK	JMG	JLK			JLK				
R 1	8/17/09	JLK	JMG	JLK			JLK				
ADDED SWPPP INFORMATION											
SCALE: 1"=50'											
EXCEPT AS NOTED											
CIVIL YARD											
KIF - UTILITY EXTENSIONS HARRIMAN UTILITY BOARD - WATER PLAN SHEET 12 OF 12											
DESIGNED BY:	DRAWN BY:	CHECKED BY:	SUPERVISED BY:	REVIEWED BY:	APPROVED BY:	ISSUED BY:					
JLK.	J.M.G.	D.L.J.									
KINGSTON FOSSIL PLANT TENNESSEE VALLEY AUTHORITY FOSSIL AND HYDRO ENGINEERING											
AUTOCAD R07	DATE	3/17/09	36	C	767-HW014.3	R 3					



PLOT FACTOR: 1:1
W_TVA
C.A.D. DRAWING
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RECORD DRAWING
12-14-2010

CTI ENGINEERS, INC.
TASK COMPLETED BY: REV NO.

NOTES:

- BACKFILLING, COMPACTING, GRADING, AND SITE-CLEANUP SHALL OCCUR DAILY AS PIPE INSTALLATION PROGRESSES.
- GATE VALVES AND AIR RELEASE VALVES SHALL BE FIELD LOCATED AT THE APPROXIMATE LOCATIONS NOTATED ON THE PLAN DRAWINGS. AIR RELEASE VALVES SHALL BE LOCATED AT THE HIGH POINTS ALONG THE LINE, AT THE DOWNSTREAM END OF THE HIGH POINT SEGMENTS.
- THE CROWN OF THE LINE SHALL BE INSTALLED AT A MINIMUM DEPTH OF 30-INCHES BELOW THE EXISTING SURFACE UNLESS OTHERWISE NOTED. MAINS IN ROADWAYS AND RIGHTS-OF-WAY SHALL BE AT LEAST 3 FEET BELOW GRADE, IN ORDER TO INSTALL THE AIR RELEASE VALVES, ADDITIONAL DEPTH WILL BE REQUIRED AT THE VALVE LOCATIONS AS WELL AS ALONG THE LINE SEGMENTS LEADING UP TO THAT HIGH POINT.
- THE WATER MAIN SHALL BE CONSTRUCTED OF SDR 17 CLASS 250 PVC AND CLASS 350 DUCTILE IRON AND SHALL BE INSTALLED AS SHOWN ON THE PLANS.
- PROVIDE THRUST RESTRAINT AT ALL FITTINGS USING MECHANICALLY RESTRAINED JOINTS, UNLESS OTHERWISE NOTED.
- INSTALL ALL DUCTILE IRON PIPING, FITTINGS AND APPURTENANCES WITH A CONTINUOUS PROTECTIVE WRAP (WRAP OR TUBE) OF 4-MIL HDPE OR 8-MIL LLD POLYETHYLENE FILM IN ACCORDANCE WITH ANSI/AWWA C105/A21.5.
- WHERE SHOT ROCK OR ROCK FILL (>1" DIAMETER STONE) IS ENCOUNTERED, EXCAVATION AND BACKFILL SHALL PROCEED AS IN ROCK EXCAVATION EXCEPT THAT Voids IN ROCK BENEATH "ROCK TRENCH BEDDING" SHALL BE FILLED BY FLOWABLE FILL OR PLACEMENT OF ACCEPTABLE GEOMEMBRANE MATTING.
- THE CONTRACTOR IS RESPONSIBLE FOR CONSTRUCTION SIGNING AND TRAFFIC CONTROL. ALL CONSTRUCTION SIGNING AND TRAFFIC CONTROL MATERIALS, METHODS AND MEANS SHALL BE IN ACCORDANCE WITH TDD, RAILROAD, AND COUNTY HIGHWAY STANDARDS AND ANY PROJECT SPECIFIC REQUIREMENTS IMPOSED BY LOCAL OFFICES AND BY TVA.
- CONTRACTOR TO FIELD LOCATE EXISTING WELL LINE TO RESIDENCE AND CONNECT NEW PVC SERVICE TO EXISTING WELL LINE PRIOR TO RESIDENCE. COORDINATE WITH UTILITY FOR METER INSTALLATION.
- CONNECTIONS TO EXISTING 2-INCH PVC WATER LINES SHALL USE A THREADED BRASS NIPPLE, A THREADED 2-INCH GATE VALVE AND A BELL BY 1/2" MALE THREAD ADAPTER, OR APPROVED EQUIV.

MECHANICALLY RESTRAINED JOINT DETAIL

TEST PRESSURE - 150 psi

PIPE SIZE (IN)	ELBOWS (DEGREES)	TEES, VALVES, DEAD-ENDS	REDUCERS
11/4	224	45	90
1 1/2	224	45	90
2	224	45	90
2 1/2	224	45	90
3	224	45	90
3 1/2	224	45	90
4	224	45	90
4 1/2	224	45	90
5	224	45	90
5 1/2	224	45	90
6	224	45	90
6 1/2	224	45	90
7	224	45	90
7 1/2	224	45	90
8	224	45	90
8 1/2	224	45	90
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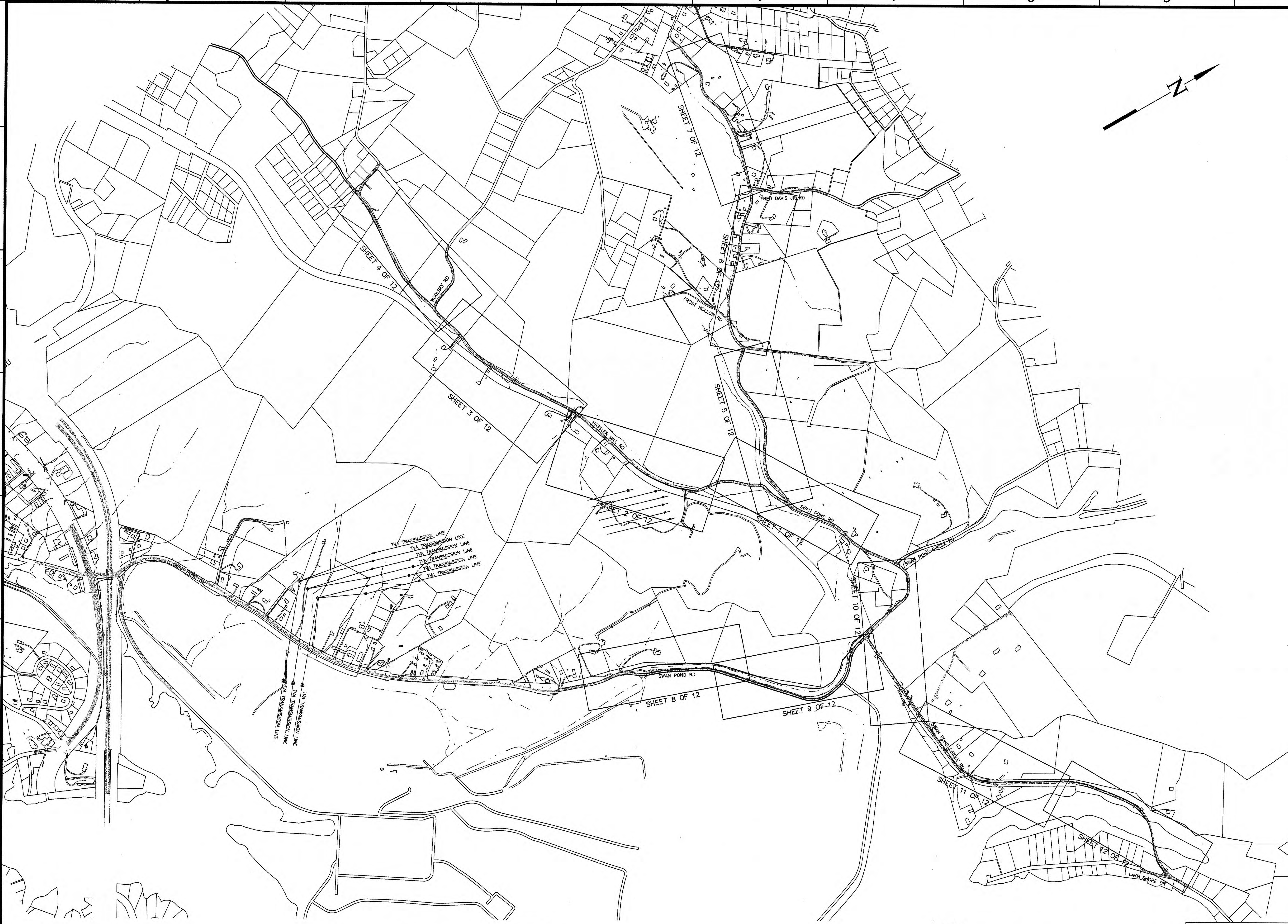
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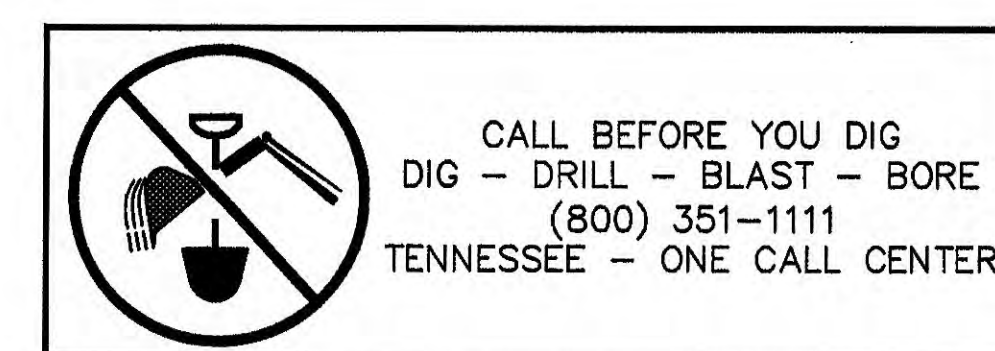
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GENERAL NOTES:

1. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING "N ONE-CALL" AND ALL NON-MEMBER UTILITY OWNERS IN THE PROJECT AREA AT LEAST 72 HOURS PRIOR TO ANY CONSTRUCTION ACTIVITY. ALL EXISTING UTILITIES ARE NOT SHOWN ON THESE PLANS AND LOCATIONS SHOWN HAVE BEEN APPROXIMATED. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT LOCATIONS OF ALL EXISTING UTILITIES AND PROTECT ALL EXISTING UTILITIES AND STRUCTURES FROM DAMAGE. ANY DAMAGE TO EXISTING UTILITIES, WHETHER SHOWN ON THESE PLANS, INCORRECTLY SHOWN ON THESE PLANS OR NOT SHOWN ON THESE PLANS, SHALL BE REPAIRED BY THE CONTRACTOR, AT HIS EXPENSE, TO THE SATISFACTION OF THE UTILITY OWNER.
2. THE CONTRACTOR SHALL PERFORM ALL WORK IN A LOGICAL CONSTRUCTION SEQUENCE AS REQUIRED TO STREAMLINE AND EXPEDITE THE COMPLETION OF THE PROJECT AS MUCH AS POSSIBLE. HOWEVER, IN CONSTRUCTING THE UTILITIES, PIPING INSTALLATION SHALL COMMENCE AT ONE LOCATION AND BE CONTINUOUS WITHOUT SKIPS TO AVOID ROCK OR OTHER OBSTACLES AND CONTINUE UNTIL COMPLETE. INSTALLATION OF SLEEVES IN NEW PIPING SHALL NOT BE PERMITTED.
3. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL CONSTRUCTION AND SCHEDULING WITH OTHER CONTRACTORS, UTILITIES AND ALL OTHER PARTIES WORKING WITHIN, UTILIZING, RESIDING OR OTHERWISE ACCESSING THE PROJECT AREA AS NEEDED TO EXPEDITE AND SUCCESSFULLY COMPLETE THE UTILITIES INSTALLATIONS. THE CONTRACTOR SHALL ALLOW TIME FOR COORDINATION AND DELAYS CAUSED BY OTHERS USING, WORKING WITHIN OR OTHERWISE ACCESSING THE PROJECT AREA.
4. THE CONTRACTOR IS RESPONSIBLE FOR ENGAGING THE SERVICES OF A TENNESSEE PROFESSIONAL LAND SURVEYOR, TO STAKE OUT ALL WORK RELATED TO THE PROJECT AND VERIFY ALL DIMENSIONS AND GRADES PRIOR TO COMMENCING CONSTRUCTION. SHOULD ANY CONFLICTS OR OTHER DISCREPANCIES EXIST, IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE ENGINEER AND AWAIT FURTHER INSTRUCTION PRIOR TO COMMENCING CONSTRUCTION ON THE PROJECT.
5. THE CONTRACTOR IS RESPONSIBLE FOR ANY DEMOLITION, CLEARING, GRUBBING AND DISPOSAL OF ALL WASTE MATERIALS AS NECESSARY TO SATISFACTORILY COMPLETE ALL CONSTRUCTION. ALL WASTE MATERIALS SHALL BE REMOVED AND DISPOSED OF THE PROJECT PROPERTY BY THE CONTRACTOR IN ACCORDANCE WITH ALL APPLICABLE LAWS AND REGULATIONS.
6. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ACCEPTABLE ACCESS TO ALL PARTIES THROUGHOUT THE PROJECT AREA AND OTHER AFFECTED PROPERTIES THROUGHOUT CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE AND INSTALL MAINTENANCE STONE AND OTHER MEASURES AS MAY BE NECESSARY TO MAINTAIN PEDESTRIAN AND VEHICLE ACCESS IN A CONDITION ACCEPTABLE TO THE ENGINEER, TVA, TDOT, COUNTY ROAD DEPARTMENT, RAILROAD, AND OTHER PARTIES AFFECTED BY CONSTRUCTION ACTIVITIES.
7. SHOULD GROUNDWATER BE ENCOUNTERED DURING CONSTRUCTION, IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE AND MAINTAIN AN ADEQUATE DEWATERING SYSTEM. DEWATERING EQUIPMENT SHALL BE USED IN A MANNER WHICH PREVENTS CONTAMINATION OF STREAMS OR DAMAGE TO ANY PUBLIC PROPERTIES, PRIVATE PROPERTIES, INCLUDING UTILITIES.
8. THE CONTRACTOR IS RESPONSIBLE FOR CONSTRUCTION SIGNING AND TRAFFIC CONTROL. ALL CONSTRUCTION SIGNING AND TRAFFIC CONTROL MATERIALS, METHODS AND MEANS SHALL BE IN ACCORDANCE WITH TDOT, RAILROAD, AND COUNTY HIGHWAY STANDARDS AND ANY PROJECT SPECIFIC REQUIREMENTS IMPOSED BY LOCAL OFFICES AND BY TVA.
9. THE CONTRACTOR IS RESPONSIBLE FOR ALL SECURITY AND SAFETY RELATED TO THIS PROJECT.
10. THE CONTRACTOR IS RESPONSIBLE FOR PROTECTING PUBLIC AND PRIVATE PROPERTIES FROM DAMAGE RELATED TO CONSTRUCTION ACTIVITIES. ANY DAMAGE AS A RESULT OF CONSTRUCTION SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE ENGINEER.
11. THE CONTRACTOR IS RESPONSIBLE FOR DEVELOPING AN ACCURATE SET OF AS-BUILT DRAWINGS. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING THE ENGINEER WITH AN ACCURATE AS-BUILT SURVEY, COMPLETED BY A QUALIFIED TENNESSEE PROFESSIONAL LAND SURVEYOR. THE SURVEY SHALL BE PROVIDED IN BOTH SEALED HARDCOPY AND DIGITAL (AUTOCAD COMPATIBLE WITH ALL RAW SURVEY DATA POINTS) FORMATS. THE AS-BUILT SURVEY SHALL INCLUDE ALL AREAS AFFECTED BY CONSTRUCTION AND SHALL BE PREPARED ON PLAN HORIZONTAL AND VERTICAL DATUMS PROVIDED AND SHALL PROVIDE HORIZONTAL LOCATIONS OF ALL UTILITIES INSTALLATIONS AND OF EXISTING UNDERGROUND UTILITIES ENCOUNTERED AND INCLUDE VERTICAL LOCATIONS OF KINGSTON'S WATER LINE AND HUBS EFFLUENT FORCE MAIN.
12. THE CONTRACTOR IS RESPONSIBLE FOR CONTROLLING AND PREVENTING PROBLEMS DUE TO DUST OR MUD TO THE SATISFACTION OF THE ENGINEER, TDOT, TVA, AND COUNTY HIGHWAY DEPARTMENT.
13. THE CONTRACTOR IS RESPONSIBLE FOR LIMITING ALL CONSTRUCTION ACTIVITIES TO AREAS WITHIN DESIGNATED EASEMENT OR RIGHT OF WAY AREAS. THE CONTRACTOR IS RESPONSIBLE FOR SECURING THE USE OF OFF-SITE STORAGE AND STAGING AREA(S) AS NECESSARY TO COMPLETE THE PROJECT.
14. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL UTILITY TIE-INS/CONNECTIONS WITH THE ENGINEER AND APPROPRIATE UTILITY OWNER.
15. WHERE NECESSARY TO PREVENT EXTENDED DISRUPTION OF WATER, GAS, AND/OR COMMUNICATIONS SERVICE TO EXISTING CUSTOMERS, THE CONTRACTOR SHALL INSTALL, PROTECT AND MAINTAIN TEMPORARY SERVICES AS NEEDED.
16. THE CONTRACTOR IS RESPONSIBLE FOR PERFORMING WORK IN ACCORDANCE WITH THE TERMS AND CONDITIONS SET FORTH IN THE ENVIRONMENTAL PERMITS FOR THE PROJECT.



REV	DATE	BY	CHKD	APPD	QCD	PRJCT	AS COMET	NO
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SCALE: 1"=500'
EXCEPT AS NOTED

CIVIL
YARD

KIF - UTILITY EXTENSIONS
HARRIMAN UTILITY BOARD - WATER
GENERAL PLAN

DESIGNED BY: J.L.K.	DRAWN BY: J.M.G.	CHECKED BY: D.L.J.	SUPERVISED BY:	REVIEWED BY:	APPROVED BY:	ISSUED BY:
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KINGSTON FOSSIL PLANT
TENNESSEE VALLEY AUTHORITY
FOSSIL AND HYDRO ENGINEERING

AUTOCAD R07 3/17/08 36 C ALL-HW002.1 R 1

RECORD DRAWING
12-14-2010

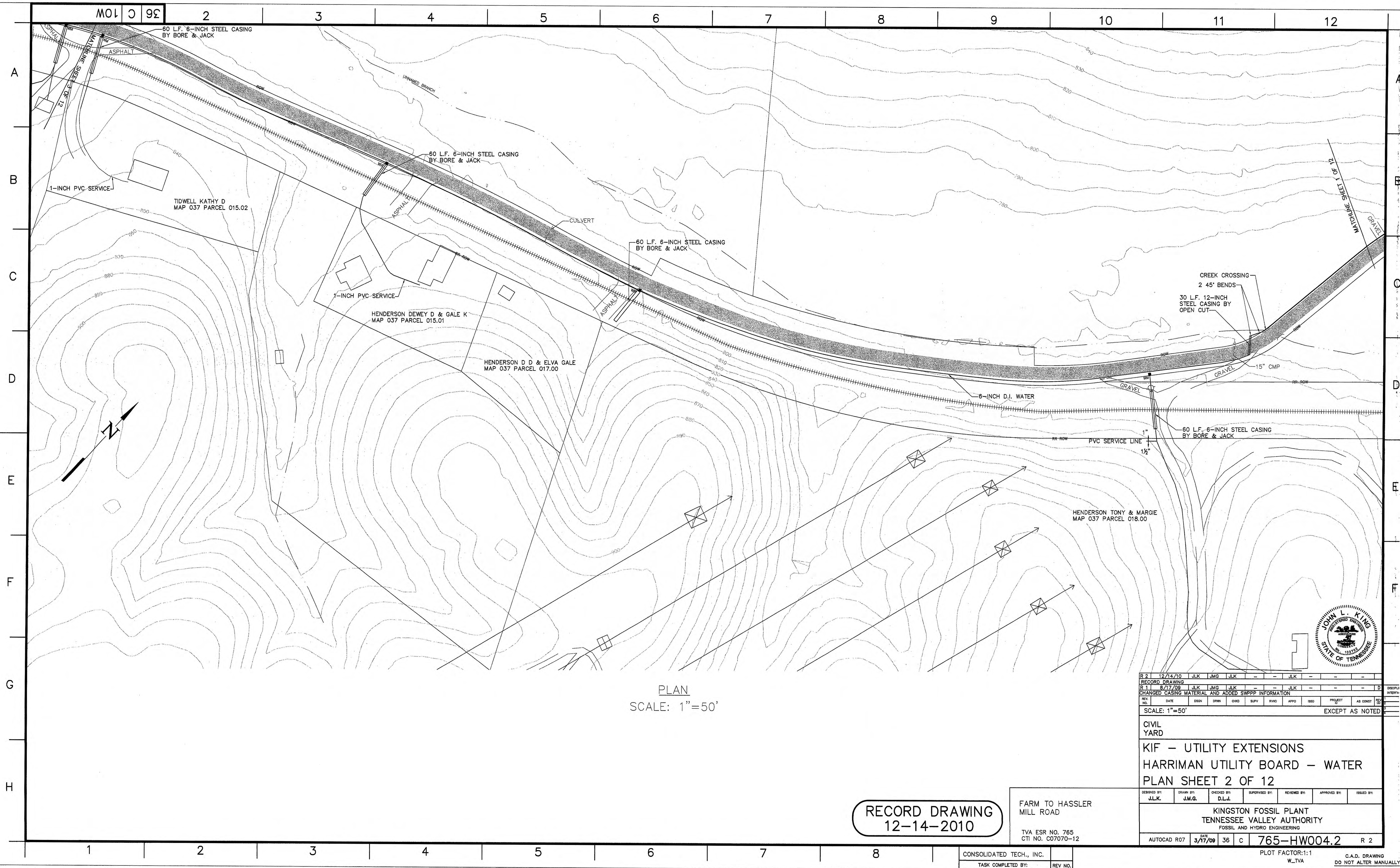
PLAN
SCALE: 1"=500'

LEGEND
— PROPOSED UTILITY
— PROPOSED UTILITY
--- EXISTING UTILITY OR OTHER

TVA ESR NO. 765, 766, 767
CTI NO. C07070-12, 13, 14

CTI ENGINEERS, INC.
TASK COMPLETED BY: REV NO.

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



RECORD DRAWING
12-14-2010

FARM TO HASSLER
MILL ROAD

TVA ESR NO. 765
CTI NO. C07070-12

CONSOLIDATED TECH., INC.	
TASK COMPLETED BY:	REV NO.

PLOT FACTOR:1:1
W_TVA

C.A.D. DRAWING
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CROSSING BY PUNCH METHOD

6-INCH D.I. WATER

60 L.F. 12-INCH STEEL CASING BY OPEN CUT

CREEK CROSSING

6-INCH D.I. WATER

60 L.F. 6-INCH STEEL CASING BY BORE & JACK

APPROX 173'

APPROX 340'

CONCRETE POSTS WITH STEEL CABLE

APPROXIMATE LOCATION PREVIOUS DRIVEWAY

60 L.F. 6-INCH STEEL CASING BY BORE & JACK

1-INCH PVC SERVICE

1-INCH PVC SERVICE

HEMBREE VIOLET S C/O HEMBREE JAMES HENLEY & MARY KAT MAP 036 PARCEL 117.00

HEMBREE G WAYNE MAP 037 PARCEL 012.00

ASHKEY PAUL T & LOUISE MAP 036 PARCEL 094.00

SAMS SYDNEY KATHRYN MAP 037 PARCEL 011.02

METCALF DARRELL S MAP 037 PARCEL 014.00

PLAN
SCALE: 1"=50'



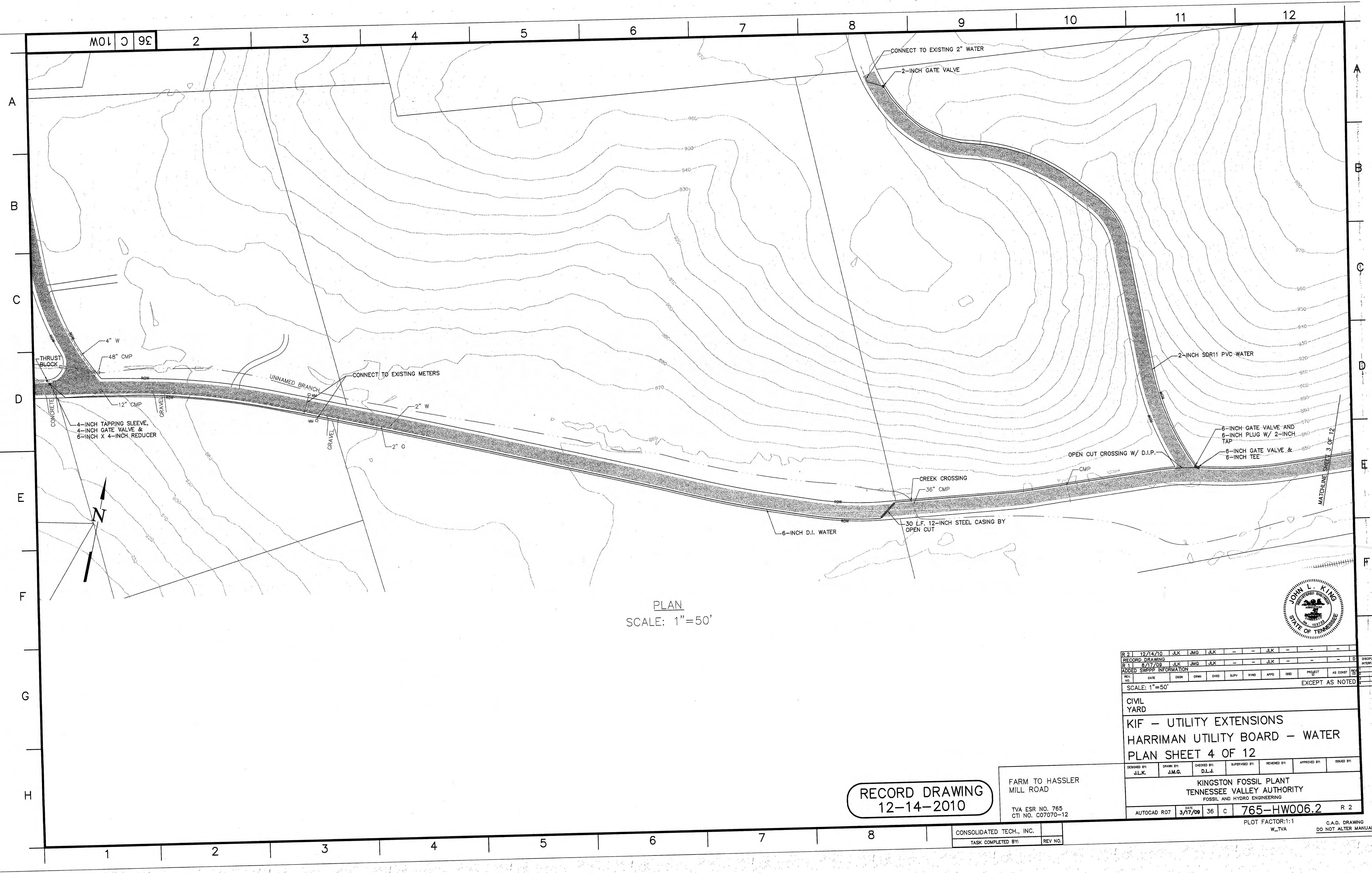
RECORD DRAWING
12-14-2010

FARM TO HASSLER
MILL ROAD
TVA ESR NO. 765
CTI NO. C07070-12

CONSOLIDATED TECH., INC.
TASK COMPLETED BY: REV NO.

DESIGNED BY	DATE	DESIGN	DRWN	CHKD	SUPV	REVD	APPR	ISSD	PROJECT	AS CONST	ISSD
J.L.K.	3/17/09	J.M.G.	D.L.L.						765-HW005.2		
KINGSTON FOSSIL PLANT TENNESSEE VALLEY AUTHORITY FOSSIL AND HYDRO ENGINEERING											
AUTOCAD R07 3/17/09 36 C 765-HW005.2 R 2											

PLOT FACTOR: 1:1
W.TVA
C.A.D. DRAWING
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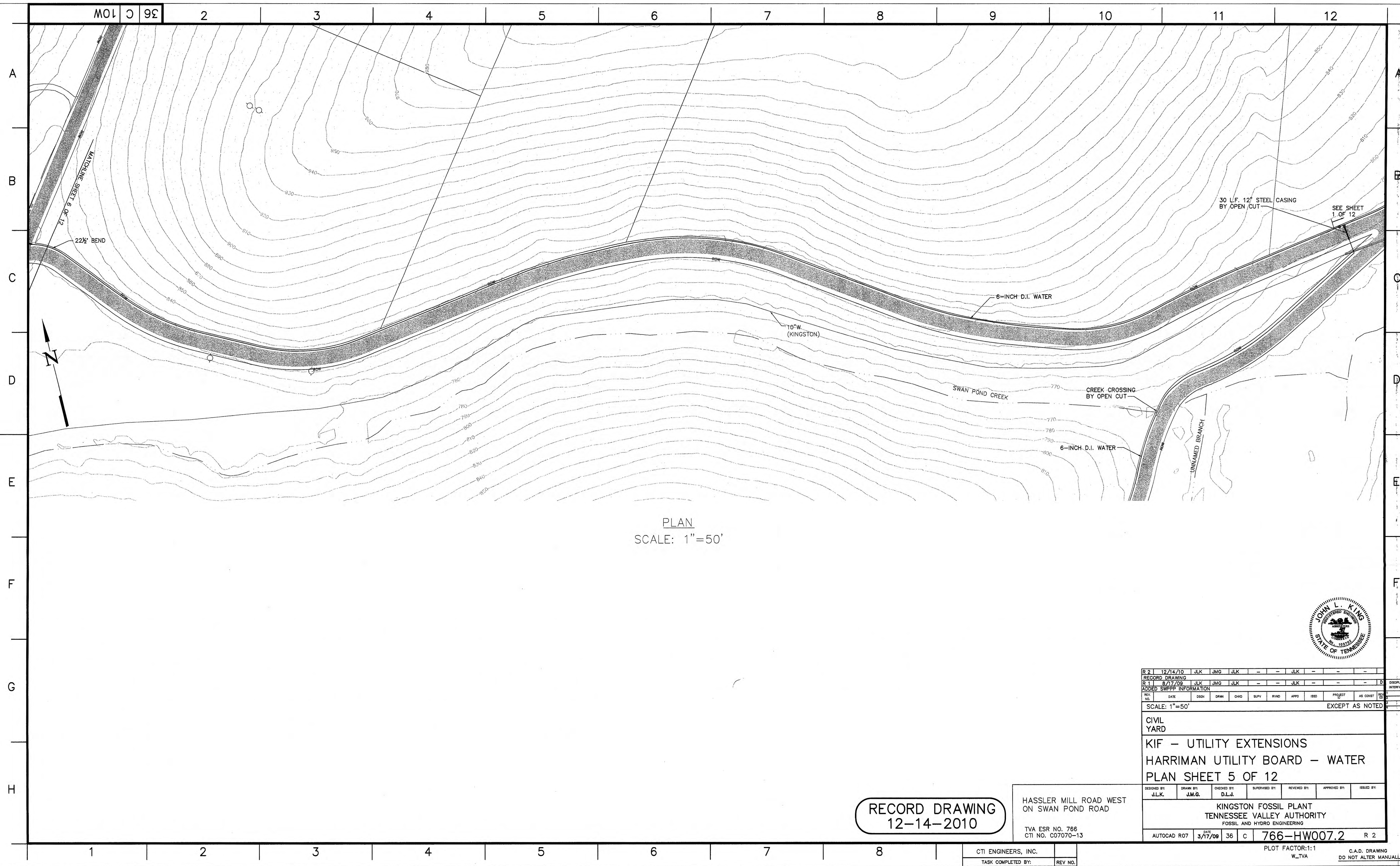
RECORD DRAWING
12-14-2010

FARM TO HASSLER
MILL ROAD
TVA ESR NO. 785
CTI NO. C07076-12

CONSOLIDATED TECH., INC.
TASK COMPLETED BY: REV NO.

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C.A.D. DRAWING
DO NOT ALTER MANUALLY



PLAN
SCALE: 1"=50'



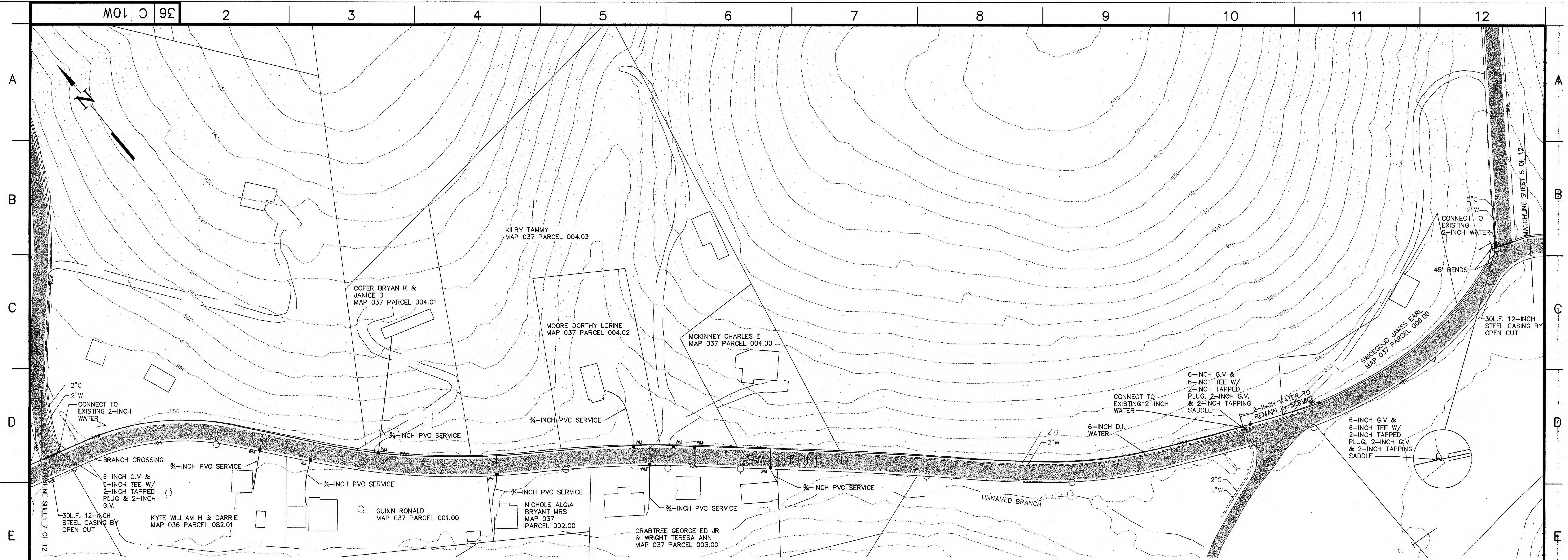
RECORD DRAWING
12-14-2010

HASSLER MILL ROAD WEST
ON SWAN POND ROAD
TVA ESR NO. 766
CTI NO. C07070-13

CTI ENGINEERS, INC.
TASK COMPLETED BY: REV NO.

R 2 12/14/10 JLK JMG JLK -- -- JLK -- -- --										D	
RECORD DRAWING											
R 1 8/17/09 JLK JMG JLK -- -- JLK -- -- --										D	
ADDED SWPPP INFORMATION											
REV	DATE	DSGN	DRWN	CHKD	SUPV	RVD	APPD	ISSD	PROJECT	AS CONVET	BY
1	8/17/09	JLK	JMG	JLK	--	--	--	--	--	--	--
SCALE: 1"=50'										EXCEPT AS NOTED	
CIVIL YARD											
KIF - UTILITY EXTENSIONS											
HARRIMAN UTILITY BOARD - WATER											
PLAN SHEET 5 OF 12											
DESIGNED BY:	DRWN BY:	CHECKED BY:	SUPERVISED BY:	REVIEWED BY:	APPROVED BY:	ISSUED BY:					
J.L.K.	J.M.G.	D.L.J.									
KINGSTON FOSSIL PLANT											
TENNESSEE VALLEY AUTHORITY											
FOSSIL AND HYDRO ENGINEERING											
AUTOCAD R07		DATE	3/17/09	36	C	766-HW007.2				R 2	

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



PLAN
SCALE: 1"=50'



R 3 12/14/10 JLK JMG JLK - - - - -												REVISION	
RECORD DRAWING													
R 2 9/25/09 JLK JMG JLK - - - - -													
ADDED SERVICES													
R 1 8/17/09 JLK JMG JLK - - - - -												DISPOS	
ADDED SWPPP INFORMATION AND NOTE												INSTR	
REV	DATE	DESIGN	DRAWN	CHECK	SUPV	REVIEW	APPRO	ISSG	PROJECT	AS CORRE	DATE		
NO.													
SCALE: 1"=50'										EXCEPT AS NOTED			
CIVIL YARD													
KIF - UTILITY EXTENSIONS													
HARRIMAN UTILITY BOARD - WATER													
PLAN SHEET 6 OF 12													
DESIGNED BY:	J.L.K.	DRAWN BY:	J.M.G.	CHECKED BY:	D.L.J.	SUPERVISED BY:	REVIEWED BY:	APPROVED BY:	ISSUED BY:				
KINGSTON FOSSIL PLANT													
TENNESSEE VALLEY AUTHORITY													
FOSSIL AND HYDRO ENGINEERING													
AUTOCAD R07		DATE	3/17/09	36	C	766-HW008.3				R 3			

RECORD DRAWING
12-14-2010

HASSLER MILL ROAD WEST
ON SWAN POND ROAD
TVA ESR NO. 766
CTI NO. C07070-13

CTI ENGINEERS, INC.
TASK COMPLETED BY: REV NO.

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