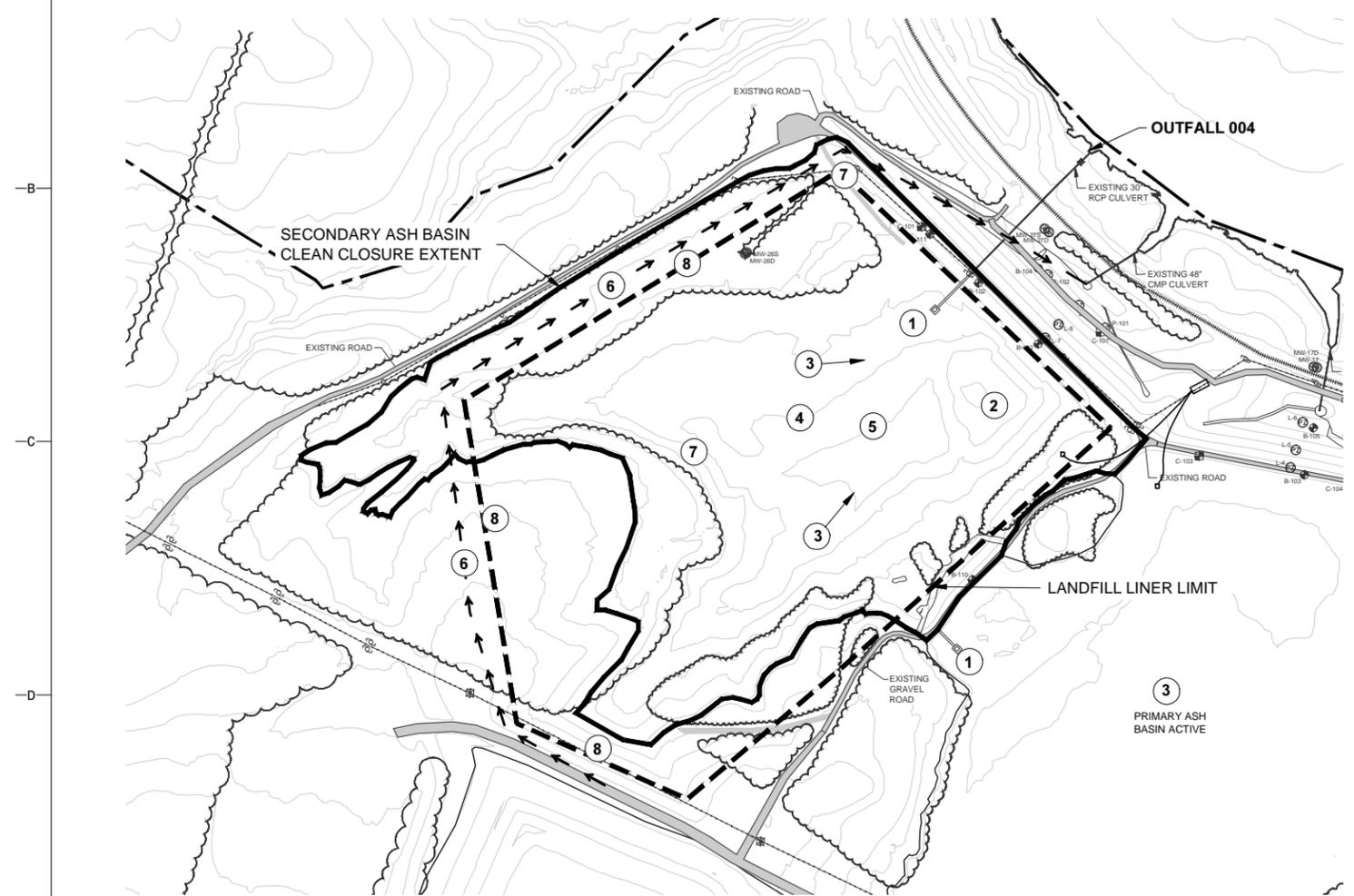


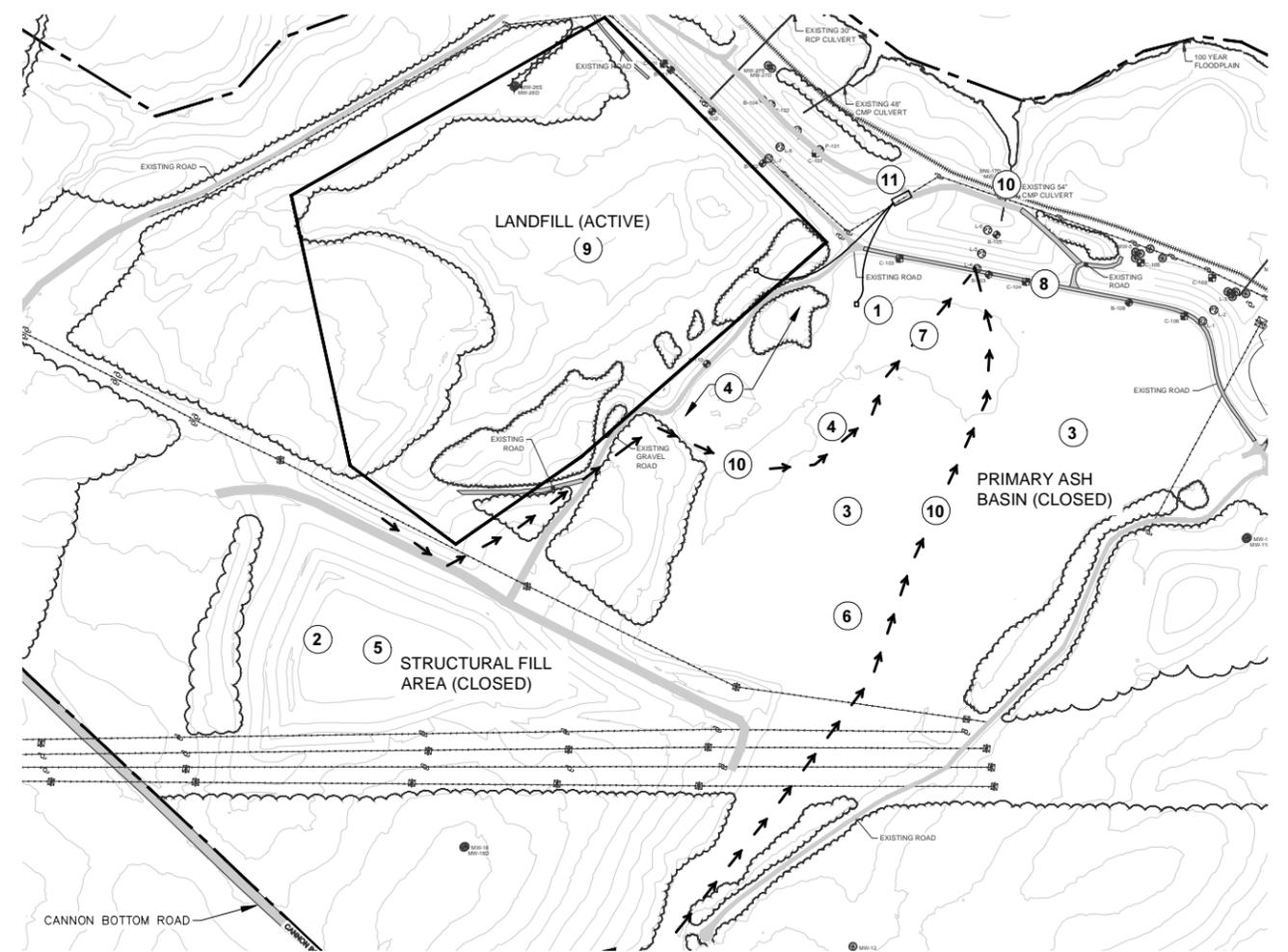
**LEGEND**

	EXISTING TRANSMISSION TOWER		EXISTING TREE LINE
	EXISTING TRANSMISSION POLE		EXISTING WETLAND
	EXISTING TRANSMISSION LINE		EXISTING RAIL TRACKS
	EXISTING ROAD		EXISTING PROPERTY BOUNDARY
	EXISTING RIP RAP		EXISTING ASH MANAGEMENT AREA BOUNDARY
	EXISTING VEGETATION		PROPOSED LANDFILL LINER LIMITS
	EXISTING SLUICE AND PROCESS PIPE		PROPOSED STORMWATER MANAGEMENT DITCH
	EXISTING MONITORING WELL		100-YR FLOODPLAIN
	EXISTING PIEZOMETER		



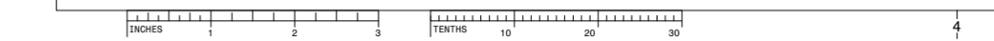
**PHASE 2 - SECONDARY ASH BASIN CLOSURE AND LANDFILL BASE CONSTRUCTION - PLAN VIEW**  
NTS

- PHASE 2 - SECONDARY ASH BASIN CLOSURE AND LANDFILL CONSTRUCTION**
1. REMOVE PRIMARY AND SECONDARY ASH BASIN OUTLET STRUCTURES AND PLUG/GROUT EXISTING PRIMARY AND SECONDARY OUTLET PIPES (STRUCTURE DECOMMISSIONING)
  2. DEWATER REMAINING FREE STANDING WATER FROM SECONDARY ASH BASIN
  3. EXCAVATE SECONDARY ASH BASIN AND STAGE MATERIALS
  4. VERIFY ASH REMOVAL WITHIN SECONDARY ASH BASIN
  5. BEGIN EXCAVATION AND REGRADING FOR LANDFILL BASE CONSTRUCTION
  6. COMPLETE CONSTRUCTION OF STORMWATER MANAGEMENT CONTROLS AROUND LANDFILL EXTERIOR
  7. OBTAIN SECONDARY ASH BASIN DAM BREACH PERMIT
  8. CONSTRUCT LANDFILL BASE PERIMETER BERM
  9. COMPLETE LANDFILL CONSTRUCTION



**PHASE 3 - PRIMARY ASH BASIN AND STRUCTURAL FILL AREA CLOSURE AND SITE RESTORATION - PLAN VIEW**  
NTS

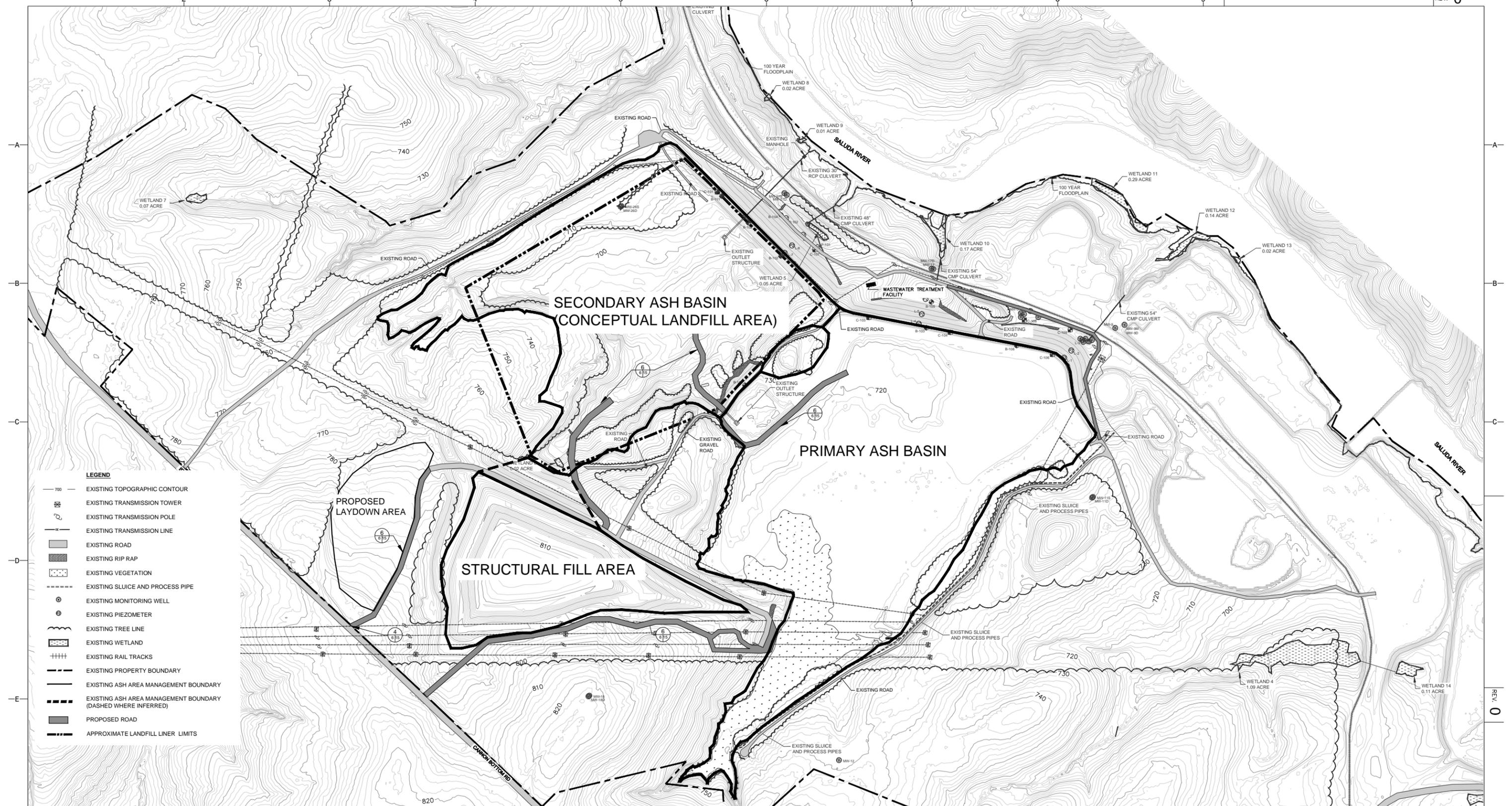
- PHASE 3 - PRIMARY ASH BASIN AND STRUCTURAL FILL AREA CLOSURE SITE RESTORATION**
1. REMOVE CONTACT WATER FROM PRIMARY ASH BASIN TO FACILITATE ASH REMOVAL
  2. BEGIN EXCAVATION OF STRUCTURAL FILL AREA MATERIALS AND HAUL TO LANDFILL
  3. BEGIN PRIMARY ASH BASIN EXCAVATION, CONDITIONING, PLACEMENT AND COMPACTION IN LANDFILL
  4. IMPROVE / BUTTRESS DIVIDER DIKE AS NEEDED DURING LANDFILL CONSTRUCTION
  5. EXCAVATE REMAINING ASH IN STRUCTURAL FILL AREA
  6. EXCAVATE REMAINING ASH IN PRIMARY ASH BASIN
  7. REGRADE THE AREA OF THE PRIMARY ASH BASIN AND INSTALL POST-CONSTRUCTION STORMWATER CONTROLS
  8. LOWER PRIMARY ASH BASIN DAM TO 690-FT EL., AND USE SOILS FOR LANDFILL FINAL COVER CONSTRUCTION
  9. CONSTRUCT CAP LINER SYSTEM OVER LANDFILL AREA
  10. COMPLETE CONSTRUCTION OF POST-CLOSURE STORMWATER MANAGEMENT SYSTEM IN THE FORMER PRIMARY ASH BASIN
  11. REMOVE WASTEWATER TREATMENT SYSTEM



TOPOGRAPHY DEPICTED ON THIS DRAWING BASED ON PUBLICLY AVAILABLE 2011 LIDAR, BATHYMETRIC DATA BASED ON DATA COLLECTED BY WSP GROUP ON DECEMBER 11, 2014

**CONCEPTUAL PLANS**

TITLE CONCEPTUAL CLOSURE PLAN – PRIMARY ASH BASIN, SECONDARY ASH BASIN AND STRUCTURAL FILL AREA <b>CONSTRUCTION SEQUENCE (CONT.)</b>		
FOR W.S. LEE STEAM STATION		
	SCALE:	DES: KRA
	DWG TYPE:	DFTR: MLS
	JOB NO: 60432646	CHKD: ARS
	DATE: 12-15-2015	ENGR: FM
FILENAME:	APPD: JDP	
DWG SIZE ARCH D 24.0"x36.0"	DRAWING NO. <b>05B</b>	REVISION <b>0</b>

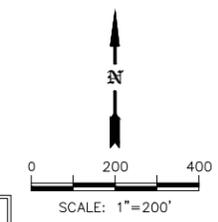


**LEGEND**

- 700 — EXISTING TOPOGRAPHIC CONTOUR
- ⊕ EXISTING TRANSMISSION TOWER
- EXISTING TRANSMISSION POLE
- EXISTING TRANSMISSION LINE
- EXISTING ROAD
- ▨ EXISTING RIP RAP
- ▨ EXISTING VEGETATION
- - - EXISTING SLUICE AND PROCESS PIPE
- ⊙ EXISTING MONITORING WELL
- ⊙ EXISTING PIEZOMETER
- EXISTING TREE LINE
- ▨ EXISTING WETLAND
- EXISTING RAIL TRACKS
- - - EXISTING PROPERTY BOUNDARY
- - - EXISTING ASH AREA MANAGEMENT BOUNDARY
- - - EXISTING ASH AREA MANAGEMENT BOUNDARY (DASHED WHERE INFERRED)
- PROPOSED ROAD
- - - APPROXIMATE LANDFILL LINER LIMITS

**NOTES:**

1. THIS DRAWING DETAILS THE OVERALL SITE INTENT FOR THIS PROJECT INCLUDING RELOCATION OF ASH INTO THE PROPOSED LANDFILL AND CLOSURE BY REMOVAL OF FORMER ASH MANAGEMENT UNITS.
2. CONTRACTOR TO CONSTRUCT WASTEWATER TREATMENT FACILITY IN ACCORDANCE WITH TREATMENT REQUIREMENTS OF CLOSURE PLAN DOCUMENTS AND ASSOCIATED PERMIT REQUIREMENTS.
3. THE PRIMARY ASH BASIN, SECONDARY ASH BASIN AND STRUCTURAL FILL AREA WILL BE CLOSED BY REMOVAL.
4. ROAD LOCATIONS SHOWN ARE APPROXIMATE AND EXACT LOCATIONS CAN CHANGE DUE TO FIELD CONDITIONS.



**CONCEPTUAL PLANS**

TOPOGRAPHY DEPICTED ON THIS DRAWING BASED ON PUBLICLY AVAILABLE 2011 LIDAR, BATHYMETRIC DATA BASED ON DATA COLLECTED BY WSP GROUP ON DECEMBER 11, 2014

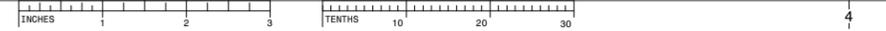
TITLE  
CONCEPTUAL CLOSURE PLAN – PRIMARY ASH BASIN,  
SECONDARY ASH BASIN AND STRUCTURAL FILL AREA

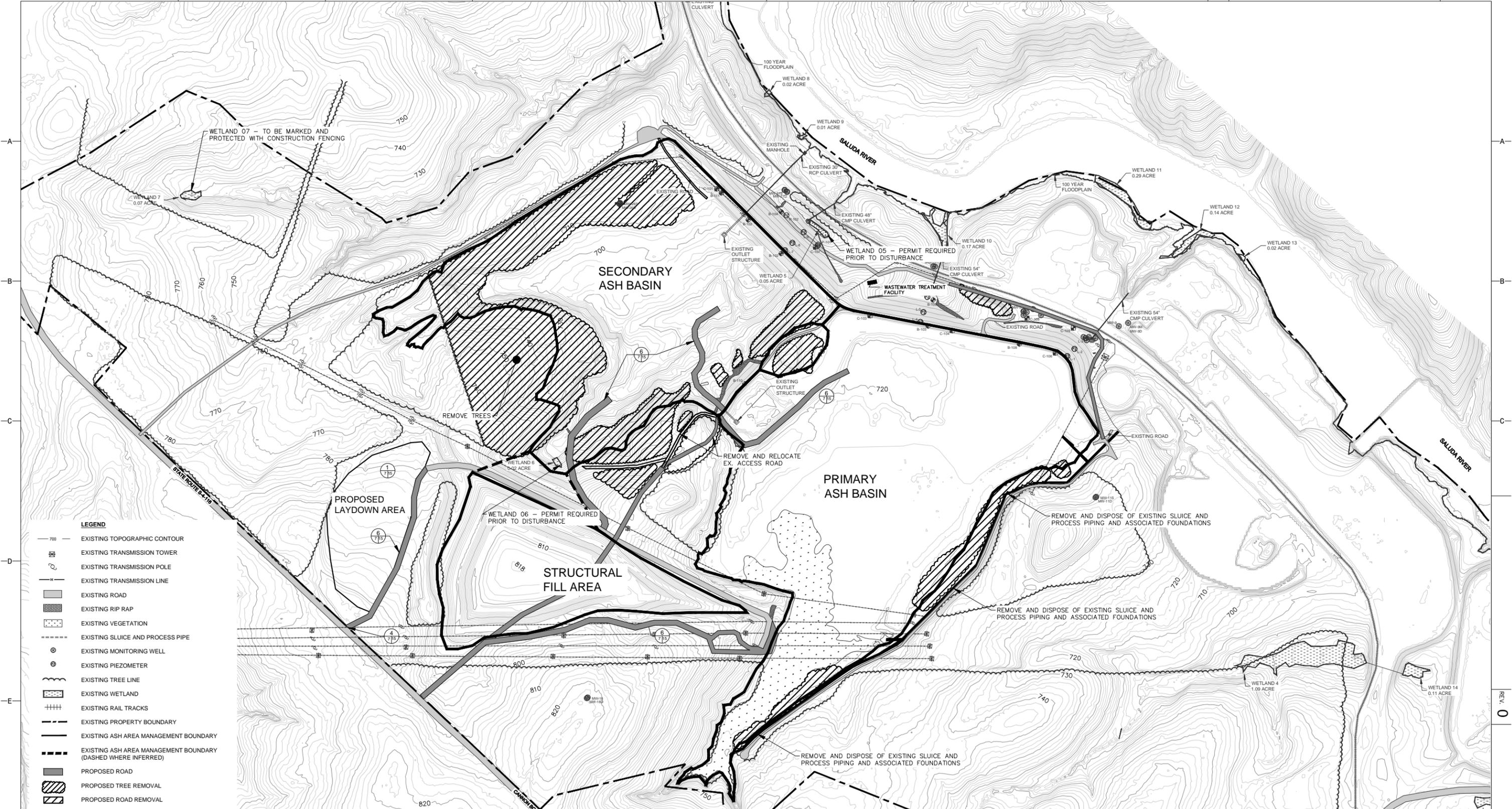
**SITE PLAN**

FOR  
**W.S. LEE STEAM STATION**

	SCALE: AS SHOWN	DES: KRA
	DWG TYPE:	DFTR: MLS
	JOB NO: 60432646	CHKD: ARS
	DATE: 12-15-2015	ENGR: FM
FILENAME:		APPD: JDP

DWG SIZE ARCH D 24.0"x36.0"	DRAWING NO. <b>06</b>	REVISION <b>0</b>
-----------------------------------	--------------------------	----------------------



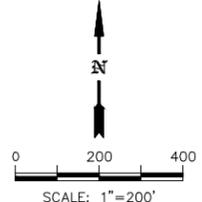


**LEGEND**

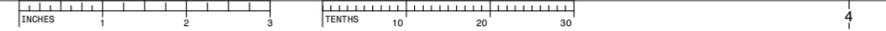
- 700 — EXISTING TOPOGRAPHIC CONTOUR
- ⊗ EXISTING TRANSMISSION TOWER
- ⊙ EXISTING TRANSMISSION POLE
- EXISTING TRANSMISSION LINE
- EXISTING ROAD
- ▨ EXISTING RIP RAP
- ⊘ EXISTING VEGETATION
- - - - EXISTING SLUICE AND PROCESS PIPE
- ⊙ EXISTING MONITORING WELL
- ⊙ EXISTING PIEZOMETER
- ⊘ EXISTING TREE LINE
- ⊘ EXISTING WETLAND
- ++++ EXISTING RAIL TRACKS
- - - - EXISTING PROPERTY BOUNDARY
- - - - EXISTING ASH AREA MANAGEMENT BOUNDARY
- - - - EXISTING ASH AREA MANAGEMENT BOUNDARY (DASHED WHERE INFERRED)
- PROPOSED ROAD
- ▨ PROPOSED TREE REMOVAL
- ▨ PROPOSED ROAD REMOVAL

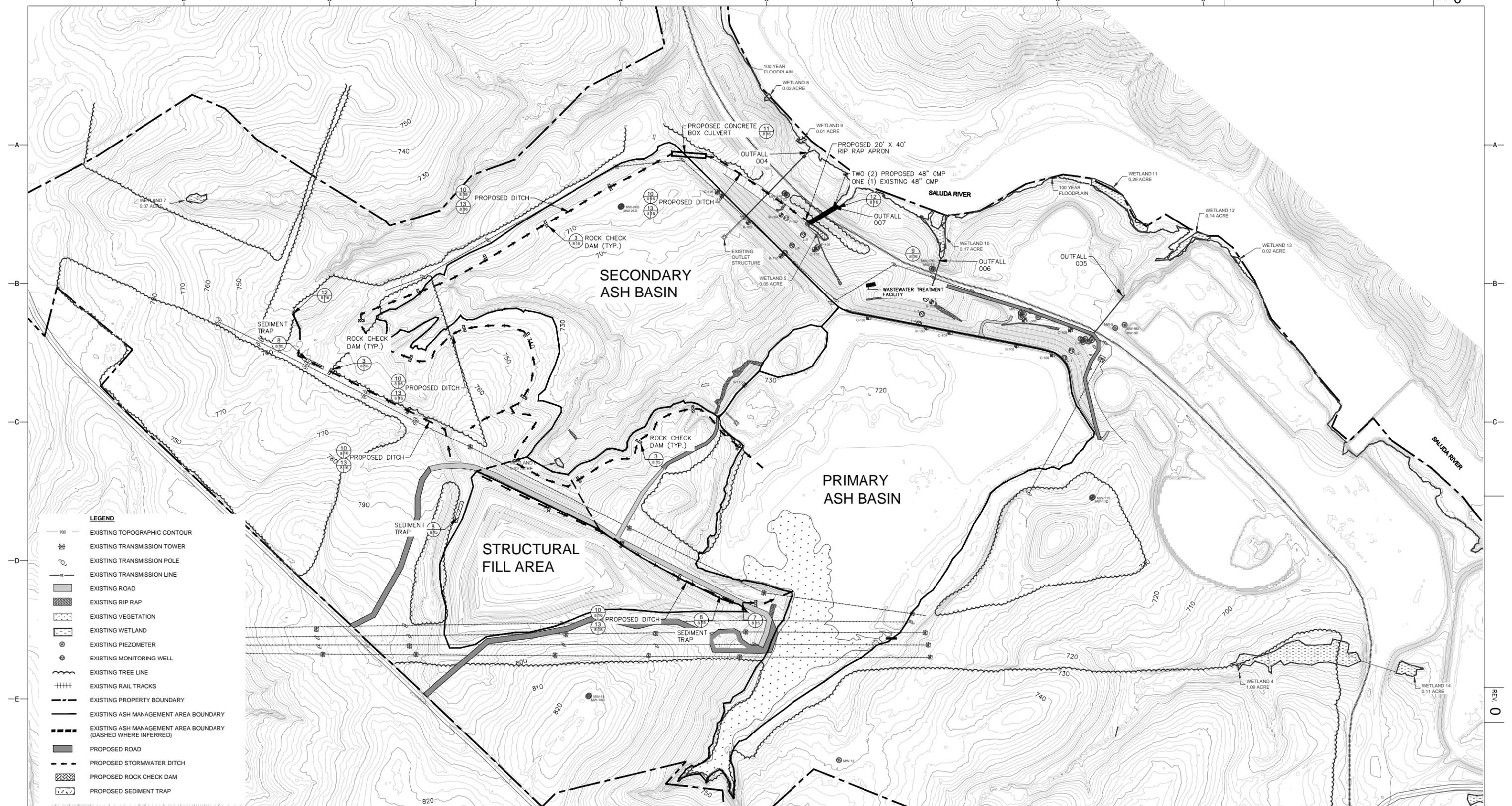
- NOTES:**
1. REFER TO EROSION AND SEDIMENT CONTROL DETAILS SHEET FOR FURTHER INFORMATION ON EROSION AND SEDIMENT CONTROL FOR SITE USE.
  2. WETLANDS TO BE MARKED WITH ORANGE CONSTRUCTION FENCING.
  3. REMOVED TREES TO BE CHIPPED AND STOCKPILED AT OWNER APPROVED LOCATION.
  4. REMOVED SLUICE AND PROCESS PIPING TO BE RECYCLED AT OWNER APPROVED LOCATION.
  5. ASSOCIATED CONCRETE FOUNDATIONS AND OTHER UNUSABLE DEMOLITION REMAINS TO BE DISPOSED OF AT OWNER APPROVED LOCATION.
  6. CONTRACTOR TO IMPROVE ACCESS ROADS AS NECESSARY FOR CONSTRUCTION EQUIPMENT.
  7. PRIMARY AND SECONDARY OUTLET STRUCTURES WILL REMAIN IN OPERATION UNTIL WATER LEVEL ELEVATIONS REACH DESIRED LEVEL. SEE PRIMARY AND SECONDARY ASH BASIN EXCAVATION AND DEWATERING PLANS FOR FURTHER INFORMATION.

**CONCEPTUAL PLANS**



<b>TITLE</b>			
CONCEPTUAL CLOSURE PLAN – PRIMARY ASH BASIN, SECONDARY ASH BASIN AND STRUCTURAL FILL AREA			
<b>SITE PREPARATION PLAN</b>			
<b>FOR</b>			
W.S. LEE STEAM STATION			
		SCALE: 1" = 200'	DES: KRA
		DWG TYPE:	DFTR: MLS
		JOB NO: 60432646	CHKD: ARS
		DATE: 12-15-2015	ENGR: FM
			APPD: JDP
<b>FILENAME:</b>			
DWG SIZE	DRAWING NO.		REVISION
ARCH D 24.0"x36.0"	<b>07</b>		<b>0</b>



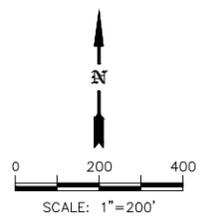


**LEGEND**

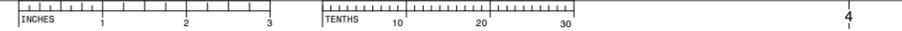
- 700 — EXISTING TOPOGRAPHIC CONTOUR
- ⊠ EXISTING TRANSMISSION TOWER
- ⊡ EXISTING TRANSMISSION POLE
- EXISTING TRANSMISSION LINE
- ▬ EXISTING ROAD
- ▨ EXISTING RIP RAP
- ▩ EXISTING VEGETATION
- ▭ EXISTING WETLAND
- ⊙ EXISTING PIEZOMETER
- ⊕ EXISTING MONITORING WELL
- ⌒ EXISTING TREE LINE
- ⊢⊢⊢ EXISTING RAIL TRACKS
- - - EXISTING PROPERTY BOUNDARY
- ▬ EXISTING ASH MANAGEMENT AREA BOUNDARY
- - - EXISTING ASH MANAGEMENT AREA BOUNDARY (DASHED WHERE INFERRED)
- ▬ PROPOSED ROAD
- - - PROPOSED STORMWATER DITCH
- ▨ PROPOSED ROCK CHECK DAM
- ▩ PROPOSED SEDIMENT TRAP

- NOTES:**
1. CONTRACTOR TO CONSTRUCT DITCHES IN ACCORDANCE WITH DITCH CONSTRUCTION DETAIL ON CONCEPTUAL STORMWATER MANAGEMENT CONTROLS SHEET.
  2. CONTRACTOR TO CONSTRUCT ROCK CHECK DAMS IN ACCORDANCE WITH SCDHEC BMP SC-04. REFER TO EROSION AND SEDIMENT CONTROLS DETAIL SHEET FOR FURTHER INFORMATION. ROCK CHECK DAMS SHALL BE CONSTRUCTED AT APPROXIMATELY EVERY 300' ALONG PROPOSED DITCHES.
  3. CONTRACTOR TO CONSTRUCT SEDIMENT TRAPS IN ACCORDANCE WITH SCDHEC BMP SC-02. REFER TO EROSION AND SEDIMENT CONTROLS DETAILS SHEET FOR FURTHER INFORMATION.
  4. ALL CONSTRUCTION AREAS WITH THE POTENTIAL FOR SEDIMENT-LADEN RUN-OFF SHALL USE SILT FENCES AS NECESSARY TO CONTROL STORMWATER RUN-OFF. REFER TO THE EROSION AND SEDIMENT CONTROL DETAILS SHEET FOR FURTHER INFORMATION ON SILT FENCES.

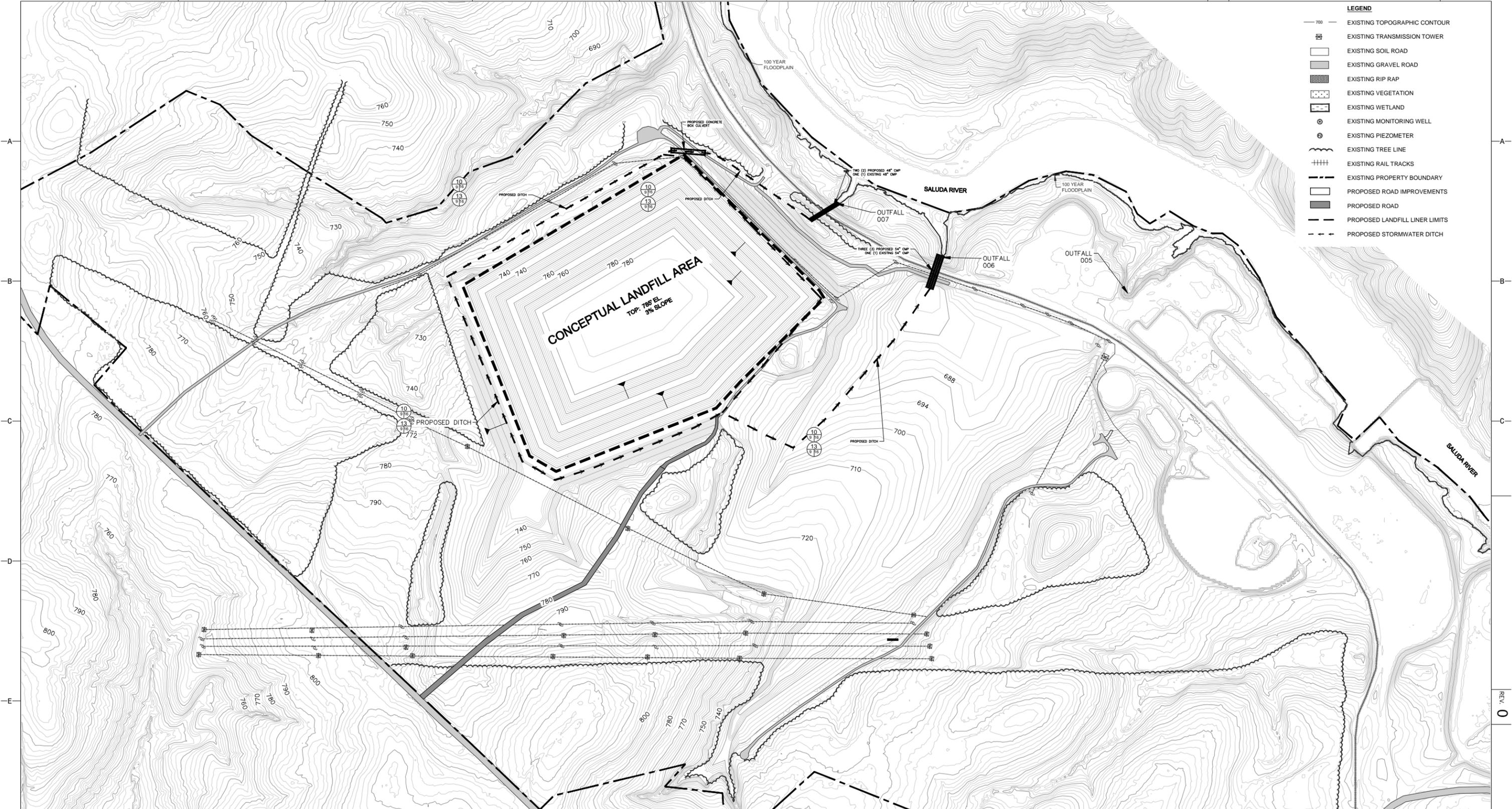
# CONCEPTUAL PLANS



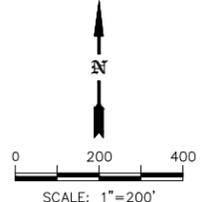
<b>TITLE</b>			
CONCEPTUAL CLOSURE PLAN – PRIMARY ASH BASIN, SECONDARY ASH BASIN AND STRUCTURAL FILL AREA			
<b>PRE-CONSTRUCTION STORMWATER MANAGEMENT PLAN</b>			
FOR <b>W.S. LEE STEAM STATION</b>			
	SCALE: AS SHOWN	DES: KRA	
	DWG TYPE:	DFTR: MLS	
	JOB NO: 60432646	CHKD: ARS	
	DATE: 12-15-2015	ENGR: FM	
FILENAME:		APPD: JDP	
DWG SIZE: ARCH D 24.0"x36.0"	DRAWING NO. <b>08</b>	REVISION <b>0</b>	



- LEGEND**
- 700 — EXISTING TOPOGRAPHIC CONTOUR
  - ⊠ EXISTING TRANSMISSION TOWER
  - ▭ EXISTING SOIL ROAD
  - ▨ EXISTING GRAVEL ROAD
  - ▩ EXISTING RIP RAP
  - ▧ EXISTING VEGETATION
  - ▦ EXISTING WETLAND
  - ⊙ EXISTING MONITORING WELL
  - ⊕ EXISTING PIEZOMETER
  - ⋈ EXISTING TREE LINE
  - ⋈⋈ EXISTING RAIL TRACKS
  - - - EXISTING PROPERTY BOUNDARY
  - ▭ EXISTING ROAD IMPROVEMENTS
  - ▨ PROPOSED ROAD
  - - - PROPOSED LANDFILL LINER LIMITS
  - - - PROPOSED STORMWATER DITCH



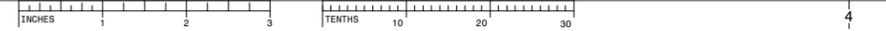
- NOTES:**
1. THIS DRAWING REFLECTS CONCEPTUAL STORMWATER MANAGEMENT AT POST-CLOSURE CONDITIONS.
  2. THE POST-CONSTRUCTION STORMWATER MANAGEMENT CONTROLS ARE CONCEPTUAL AND BASED ON PRELIMINARY CALCULATIONS. THESE CONTROLS ARE SUBJECT TO REVISION AS THE DESIGN DEVELOPS.

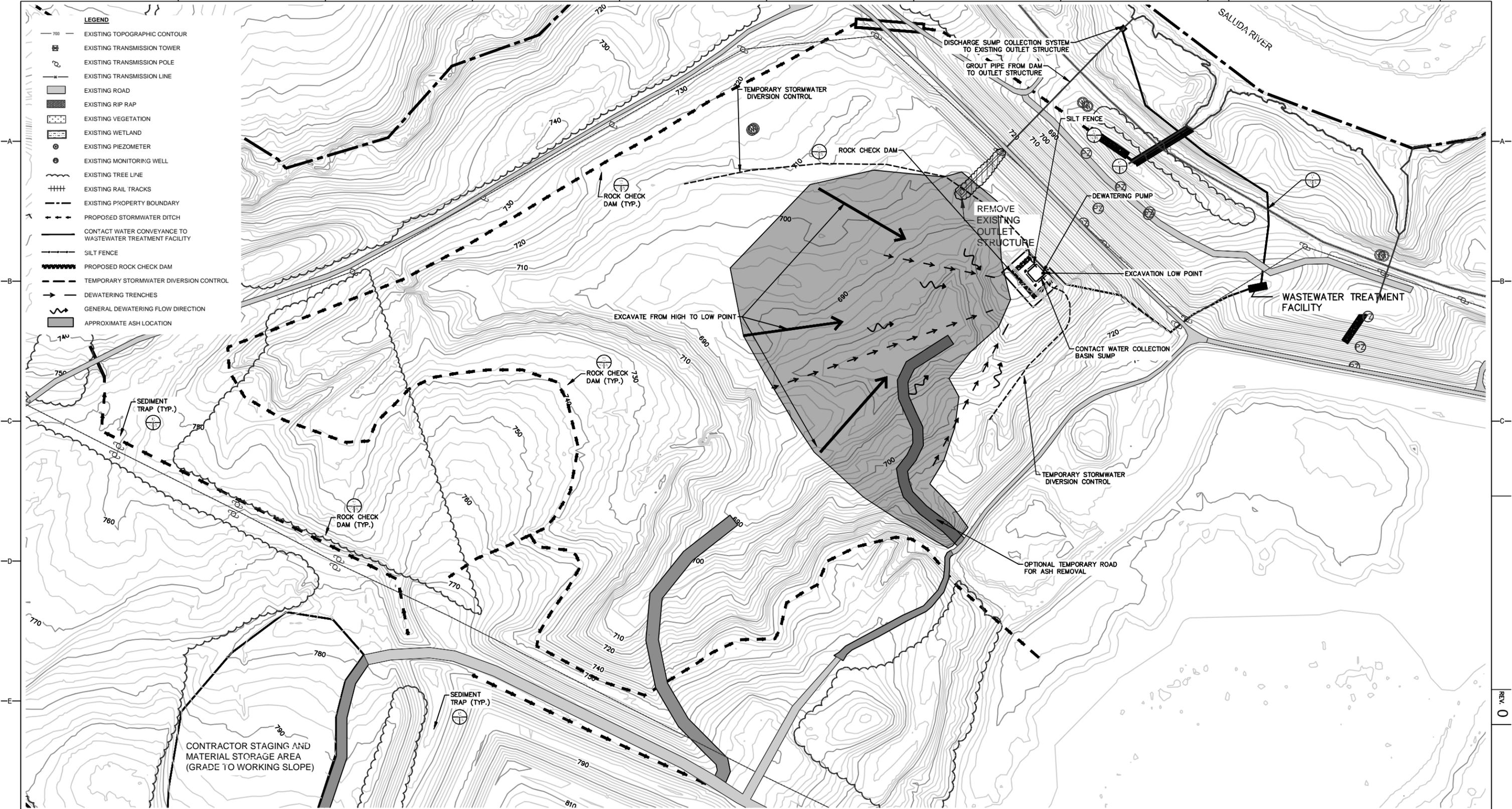


**CONCEPTUAL PLANS**

TOPOGRAPHY DEPICTED ON THIS DRAWING BASED ON PUBLICLY AVAILABLE 2011 LIDAR, BATHYMETRIC DATA BASED ON DATA COLLECTED BY WSP GROUP ON DECEMBER 11, 2014

<b>TITLE</b>		
CONCEPTUAL CLOSURE PLAN – PRIMARY ASH BASIN, SECONDARY ASH BASIN AND STRUCTURAL FILL AREA <b>POST-CLOSURE STORMWATER MANAGEMENT PLAN</b>		
<b>FOR</b>		
W.S. LEE STEAM STATION		
		SCALE: AS SHOWN
DES: KRA		DES: KRA
DWG TYPE:		DFTR: MLS
JOB NO: 60432646		CHKD: ARS
DATE: 12-15-2015		ENGR: FM
APPD: JDP		APPD: JDP
<b>FILENAME:</b>		
DWG SIZE:	DRAWING NO.	REVISION
ARCH D 24.0"x36.0"	<b>09</b>	<b>0</b>

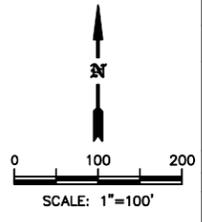




NOTES:

1. NO ASH EXCAVATION SHALL BEGIN UNTIL THE SAFETY AND DEWATERING PLANS ARE SUBMITTED BY THE CONTRACTOR, APPROVED BY DUKE ENERGY AND A THOROUGH READINESS REVIEW IS CONDUCTED. ASH EXCAVATION SHALL ONLY OCCUR UNDER CONDITIONS WHERE SAFETY OF CONSTRUCTION PERSONNEL CAN BE ASSURED.
2. DEWATERING PLAN IS CONCEPTUAL AND FIELD CONDITIONS MAY REQUIRE CHANGES TO THE PLAN AS SHOWN. CONTRACTOR TO REMOVE ASH AS NECESSARY TO ATTAIN CLOSURE BY REMOVAL. CLOSURE BY REMOVAL SHALL BE DEFINED AS EXCAVATION UNTIL VISUAL CONFIRMATION THAT ALL ASH AND COMINGLED ASH/SOIL HAS BEEN REMOVED.
3. CONTRACTOR TO EXCAVATE AND MAINTAIN A PERIMETER DITCH AROUND THE EDGE OF THE SECONDARY ASH BASIN. MAXIMUM ALLOWABLE DEPTH OF 10'. PERIMETER DITCH SHALL BE MAINTAINED TO ALLOW FOR DRAINAGE TO THE EXCAVATION LOW POINT. ADDITIONAL DITCHES SHALL BE INSTALLED AS NECESSARY TO FACILITATE DRAINAGE TO PERIMETER RIM DITCH.
4. CONTRACTOR TO INSTALL TEMPORARY STORMWATER AND DIVERSION CONTROLS AS NECESSARY TO DIRECT WATER TO THE EXCAVATION LOW POINT AND AROUND EXCAVATION AREA.
5. GENERAL PROGRESSION OF ASH EXCAVATION IS FROM HIGHER ELEVATIONS AND ASH BASIN PERIMETER TOWARDS SUMP AREA AS SHOWN. PROGRESSION MAY VARY BASED ON FIELD CONDITIONS.
6. ASH LOCATIONS AND ASH THICKNESS WITHIN THE SECONDARY ASH BASIN ARE UNKNOWN. ASH LOCATION SHOWN ON THIS DRAWING IS APPROXIMATE BASED ON SECONDARY ASH BASIN BOTTOM SLOPE AND OUTLET LOCATION. CONTRACTOR SHALL ASSESS ASH LOCATION AND THICKNESS PRIOR TO REMOVAL. CONTRACTOR TO CONDITION DRY ASH AS NECESSARY FOR ULTIMATE PLACEMENT IN THE LANDFILL.
7. CONTRACTOR TO MANAGE CONTACT WATER IN THE ASH BASIN THROUGHOUT CONSTRUCTION AND TREAT (AS NECESSARY) TO THE STANDARDS AS DESCRIBED IN THE CLOSURE PLAN, TECHNICAL SPECIFICATIONS AND APPLICABLE NPDES PERMIT LIMITS.
8. ASH EXCAVATION SHALL PROCEED INCREMENTALLY IN NOMINAL 10-FT MAXIMUM INCREMENTS OR DEPTHS REQUIRED TO MAINTAIN SAFETY AND STABILITY OF ASH.
9. CONTRACTOR TO REMOVE AND DISPOSE OF SECONDARY OUTLET STRUCTURES UPON COMPLETION OF STORMWATER REMOVAL.

# CONCEPTUAL PLANS



TITLE CONCEPTUAL CLOSURE PLAN - PRIMARY ASH BASIN, SECONDARY ASH BASIN AND STRUCTURAL FILL AREA SECONDARY ASH BASIN EXCAVATION AND CONCEPTUAL DEWATERING PLAN			
FOR W.S. LEE STEAM STATION			
DUKE ENERGY		SCALE: AS SHOWN	DES: KRA
		DWG TYPE:	DFTR: MLS
		JOB NO: 60432646	CHKD: ARS
		DATE: 12-15-2015	ENGR: FM
			APPD: JDP
FILENAME:	DRAWING NO.	REVISION	
ARCH D 24.0"x36.0"	10	0	

