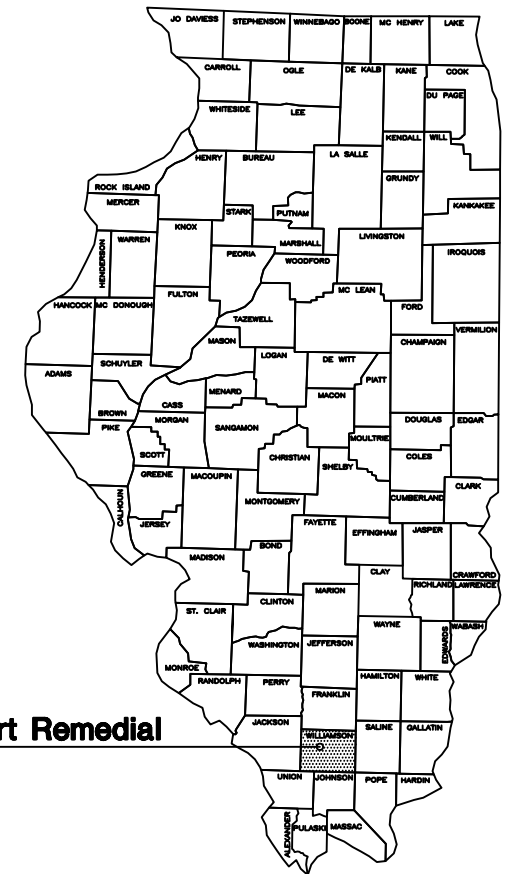


State of Illinois
Department of Natural Resources
Office of Mines and Minerals
Division of Abandoned Mined Lands

Funded by the
 United States Department of Interior
 Federal Office of Surface Mining

**Crenshaw Road Culvert
 Remedial Reclamation Project
 AML-GWmE-1102
 Williamson County
 1LR**




**Crenshaw Road Culvert Remedial
 Williamson County**


Certified Copy


SCHEDULE OF DRAWINGS:


1. Cover Sheet
2. Summary of Quantities / General Notes / Location Map
3. Site Information
4. Existing Conditions
5. Proposed Conditions
6. Details

Prepared By IDNR Staff

Approved for Bidding:

 Joseph R. Angleton, Director
 Office of Mines and Minerals

Approved By:

 Greg Pinto, Acting Manager
 AML Division

Approved By:

 Lawrence L. Lewis, P.E.
 IL Licensed Professional Engineer
 No. 0062-038880



Summary of Quantities					
#	Item	Section	Quantity	Unit	Rates/Remarks
1	Riprap Excavation	202	299	C.Y.	
2	Furnished Excavation	204	21	C.Y.	Compaction Per Section 205
3	Seeding	250	2.1	ACRE	
4	Nitrogen Fertilizer Nutrient	250	210	POUND	100 LB / ACRE
5	Phosphorus Fertilizer Nutrient	250	315	POUND	150 LB / ACRE
6	Potassium Fertilizer Nutrient	250	735	POUND	350 LB / ACRE
7	Agricultural Ground Limestone	250	10.5	TON	5 TON / ACRE
8	Mulch, Method 2, Procedure 1	IDOT 251	2.1	ACRE	2 TON / ACRE
9	Stone Dumped Riprap, A-5	IDOT 281	86.6	TON	
10	Aggregate Base Course, Type B, CA-6	IDOT 351	4.7	TON	Culvert Foundation
11	Concrete Structures	503	12.7	C.Y.	
12	Reinforcement Bars, Epoxy Coated	508	1,029	POUND	
13	Precast Concrete Box Culvert, 6' x 4'	IDOT 540	12	FOOT	
14	Cofferdams	616	1	EACH	
15	Mobilization (Max. 6% of Bid)	671	1	L.S.	

GENERAL NOTES

Unless otherwise noted on the plans, all disturbed areas within the construction limits will be amended with agricultural ground limestone, fertilizer nutrients, seeded and mulched at the required rates specified in the plans.

The contractor is responsible for visiting the site and familiarizing himself with the existing conditions and the proposed reclamation work prior to submitting a bid.

The contractor shall provide and pay for all field engineering services to execute the project as specified in the Field Engineering section of the Special Provisions.

The contractor is responsible for locating and protecting all existing utility lines pertaining to the work.

Unless noted on the plans, all onsite access roads may be used for construction and must be maintained during construction. Access roads to the site as designated on the plans are to be maintained to the satisfaction of the engineer.

The construction limits will be staked by the contractor prior to construction. The contractor is responsible for the repair and or restitution at his own expense for all damages done to any area outside the construction limits.

Application rates specified in the plans are shown in the Summary of Quantities-Rates/Remarks column.

CONSTRUCTION NOTES

BURIAL/REMOVAL OF MATERIAL-Concrete and masonry debris designated for burial by the engineer shall be buried at least three foot below proposed final grade. Onsite organic debris and trash shall be disposed of in an engineer approved offsite landfill in accordance with Sections 201 and 501 of the Special Provisions.

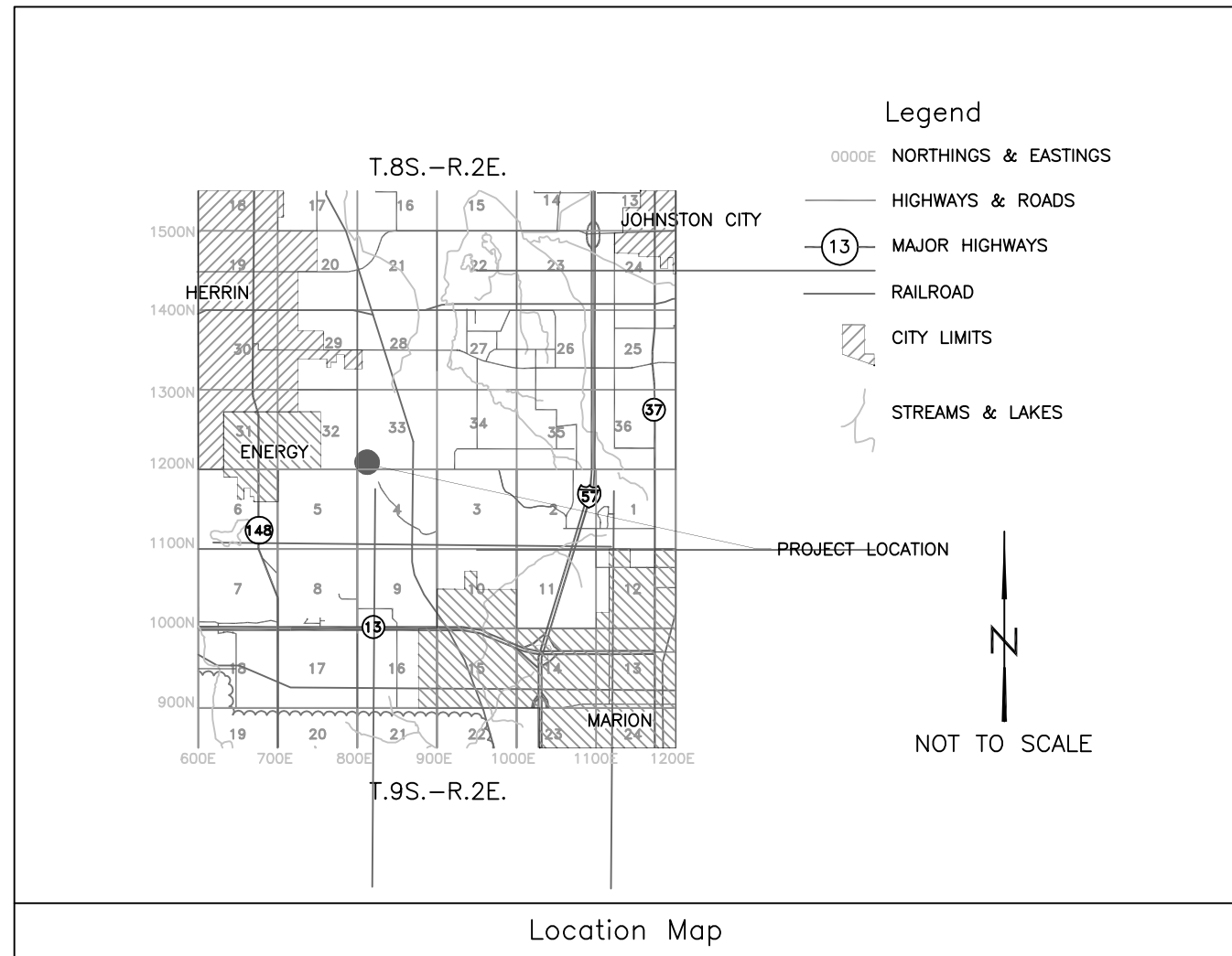
TREE REMOVAL-Trees removed shall be disposed of onsite per Section 201 of the Special Provisions.

ACID WATER TREATMENT-Acid mine drainage treatment shall be in accordance with Section 614 of the Special Provisions.

EROSION CONTROL-The contractor shall schedule his operations and take such precautions that may be necessary to prevent or minimize erosion. Failure to comply with this requirement shall cause the contractor to be fully responsible for repairing any eroded areas and cleaning up areas or drainage structures that have become silted in or damaged.

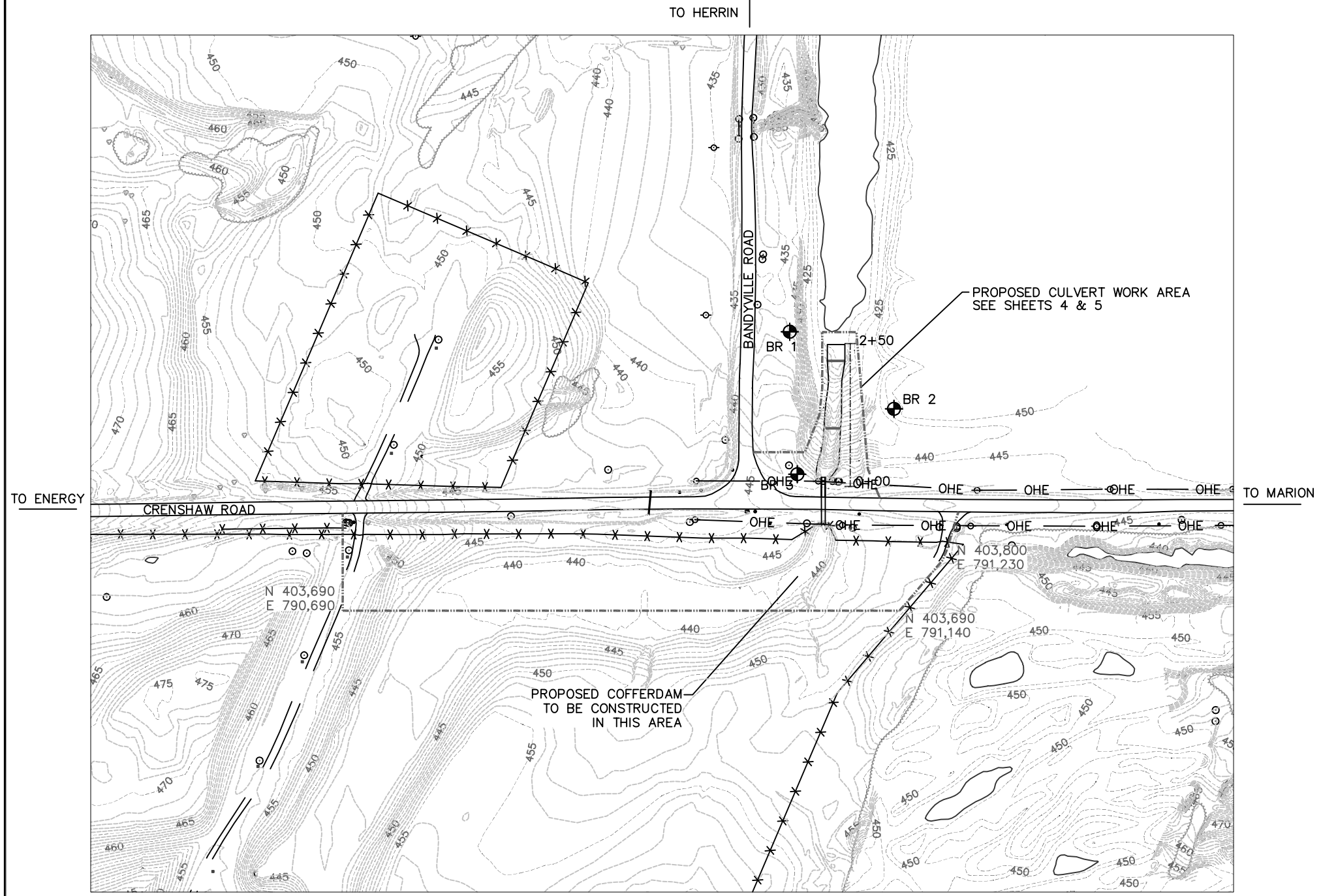
AGRICULTURAL GROUND LIMESTONE-Immediately prior to seed bed preparation, fertilizer nutrients and agricultural ground limestone shall be uniformly spread at the rates specified in the plans.

MULCHING-Within 24 hours from the time seeding has been performed, the seeded area shall be given a covering of mulch at the rates specified in the plans. The mulch is to be anchored into the soil in accordance with the requirements for method 2, procedure 1 of Article 251.03 of the Standard Specifications. If Excelsior or Special Excelsior Blanket is to be used, the blanket shall be placed the same day that the areas are seeded.



Schedule of Seeding, Fertilizer Nutrients and Mulch	
ITEM (unit)	BETWEEN AUG. 20 - NOV. 30, 2011
SEEDING (acres)	2.1
NITROGEN FERTILIZER NUTRIENT (pounds)	210
PHOSPHORUS FERTILIZER NUTRIENT (pounds)	315
POTASSIUM FERTILIZER NUTRIENT (pounds)	735
AGRICULTURAL GROUND LIMESTONE (tons)	10.5
MULCH, METHOD 2, PROCEDURE 1 (acres)	2.1

Drawn By : Date : 8/10/11
Checked By :



- ### Notes
1. ADDITIONAL CONTROL POINT INFORMATION, INCLUDING NORTHINGS, EASTINGS, ELEVATIONS AND DESCRIPTIONS, WILL BE PROVIDED TO THE CONTRACTOR BY AMLRD PRIOR TO THE PRE-CONSTRUCTION MEETING.
 2. ALL AREAS WITHIN THE CONSTRUCTION LIMITS NORTH OF CRENSHAW ROAD ARE TO BE SEEDED. ONLY THE DISTURBED AREAS SOUTH OF CRENSHAW ROAD ARE TO BE SEEDED. THE CONSTRUCTION LIMITS SOUTH OF THE ROAD ARE SIZED TO ALLOW FOR ACCESS TO ADDITIONAL CULVERTS IF PUMPING IS NECESSARY.
 3. ALL WORK COMPLETED SOUTH OF CRENSHAW ROAD SHALL BE COORDINATED WITH THE WILLIAMSON COUNTY REGIONAL AIRPORT AUTHORITY, WHICH WILL REQUIRE AND PROVIDE SAFETY FLAGGING FOR ALL CONSTRUCTION VEHICLES.
 4. THE PROPOSED COFFERDAM SHALL BE CONSTRUCTED AND REMOVED ACCORDING TO SECTION 616 OF THE SPECIAL PROVISIONS. THE WATER SURFACE ELEVATION ON THE UPSTREAM SIDE OF THE COFFEDAM SHALL BE MAINTAINED AT OR BELOW ELEVATION 443.0. EXISTING CULVERTS UNDER CRENSHAW ROAD MAY BE UTILIZED IF PUMPING IS REQUIRED.

Legend

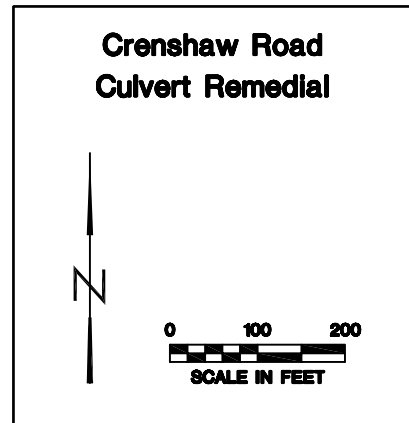
--- 440 ---	EXISTING CONTOUR
~~~~~	TREE LINE
-----	BASELINE FOR PROFILE
-x-x-	EXISTING FENCE
-----	CONSTRUCTION LIMITS
— OHE —	OVERHEAD ELECTRIC LINE
⊕	CONTROL POINT
○	EXISTING UTILITY
⊙	EXISTING POWER POLE

### Baseline Stationing

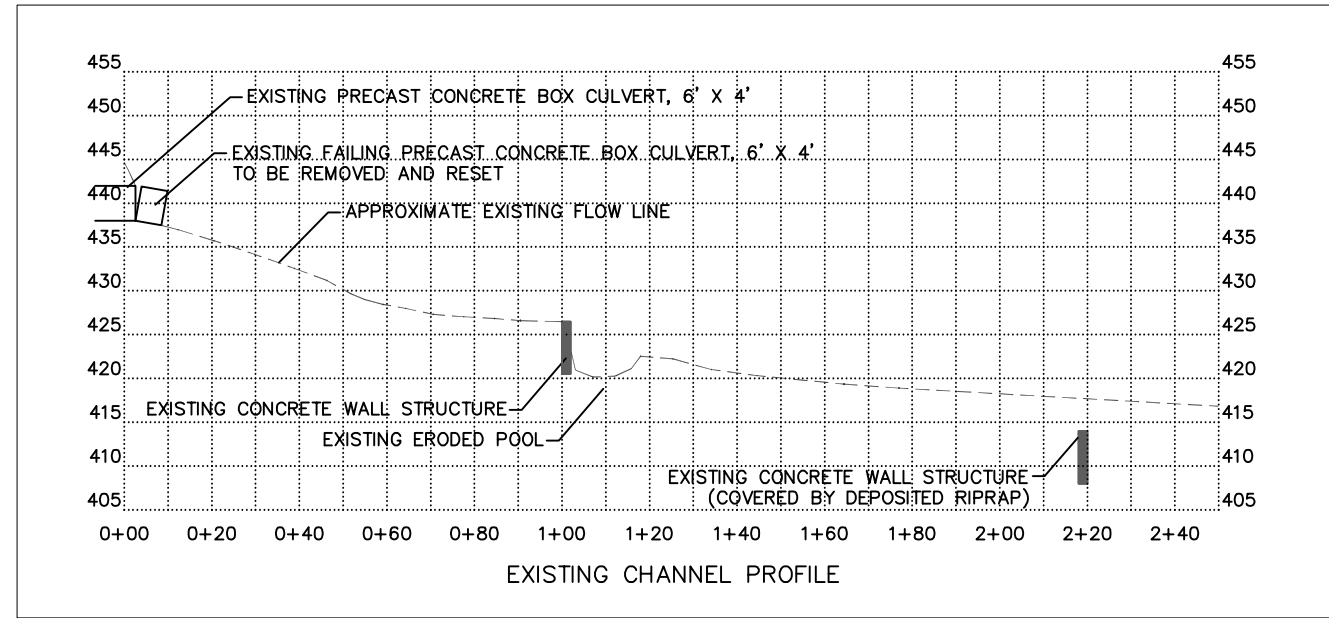
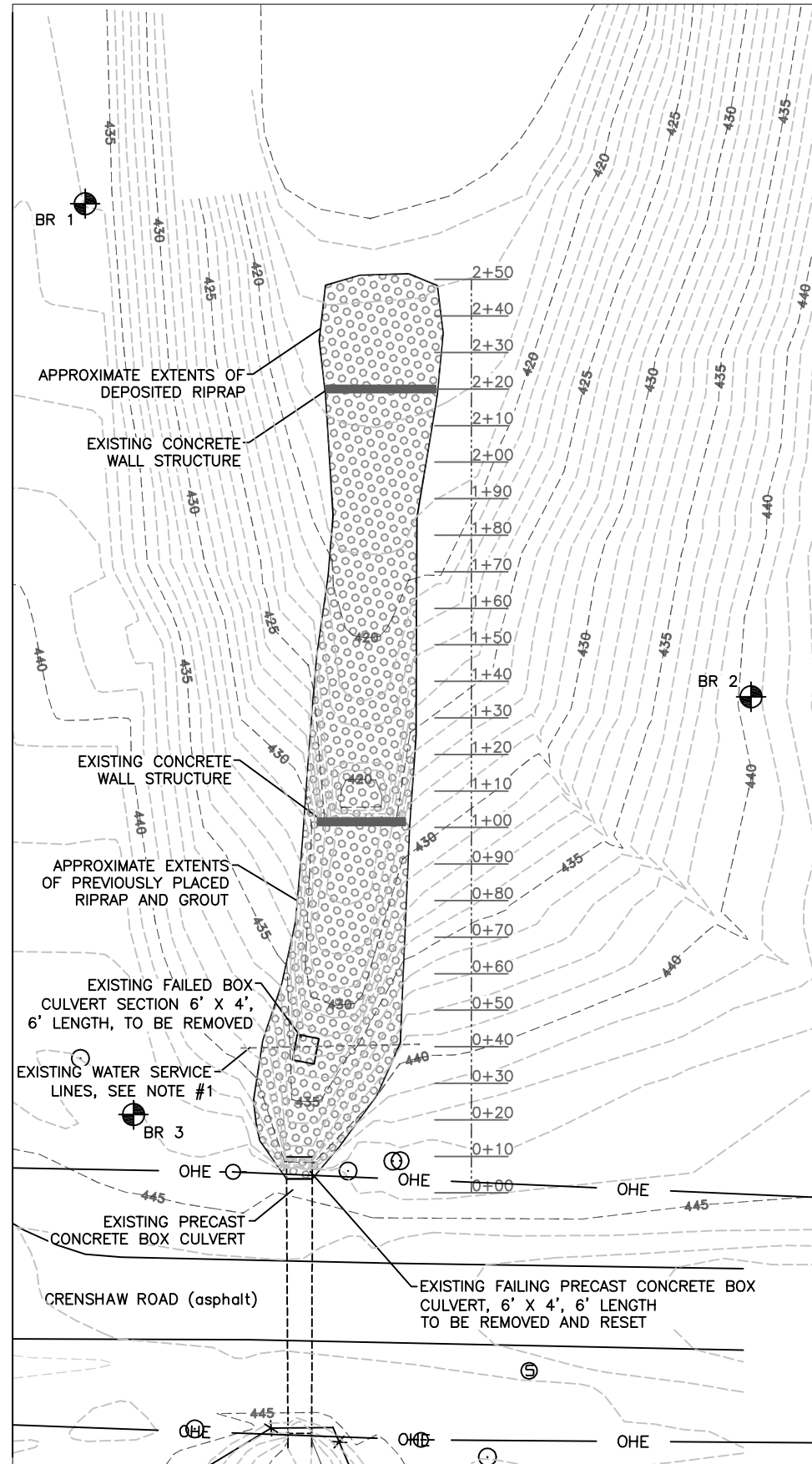
	NORTHING	EASTING
STA 0+00	403,910.0	791,079.0
STA 1+00	404,010.0	791,079.0
STA 2+50	404,160.0	791,079.0

### Control Point Data

	NORTHING	EASTING	ELEVATION	DESCRIPTION
BR 1	404,180.73	790,973.30	435.97	STEEL PIN
BR 2	404,045.76	791,155.55	440.58	STEEL PIN
BR 3	403,931.42	790,986.52	444.14	STEEL PIN



Drawn By: JLU Date: 8/9/11  
Checked By: _____

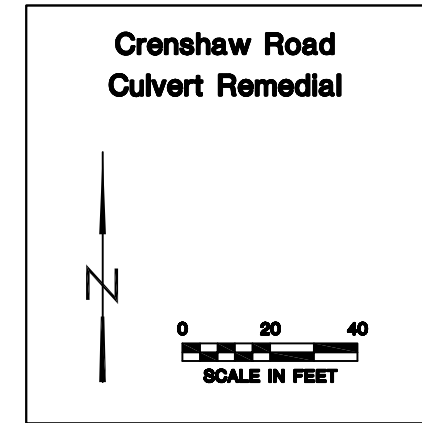


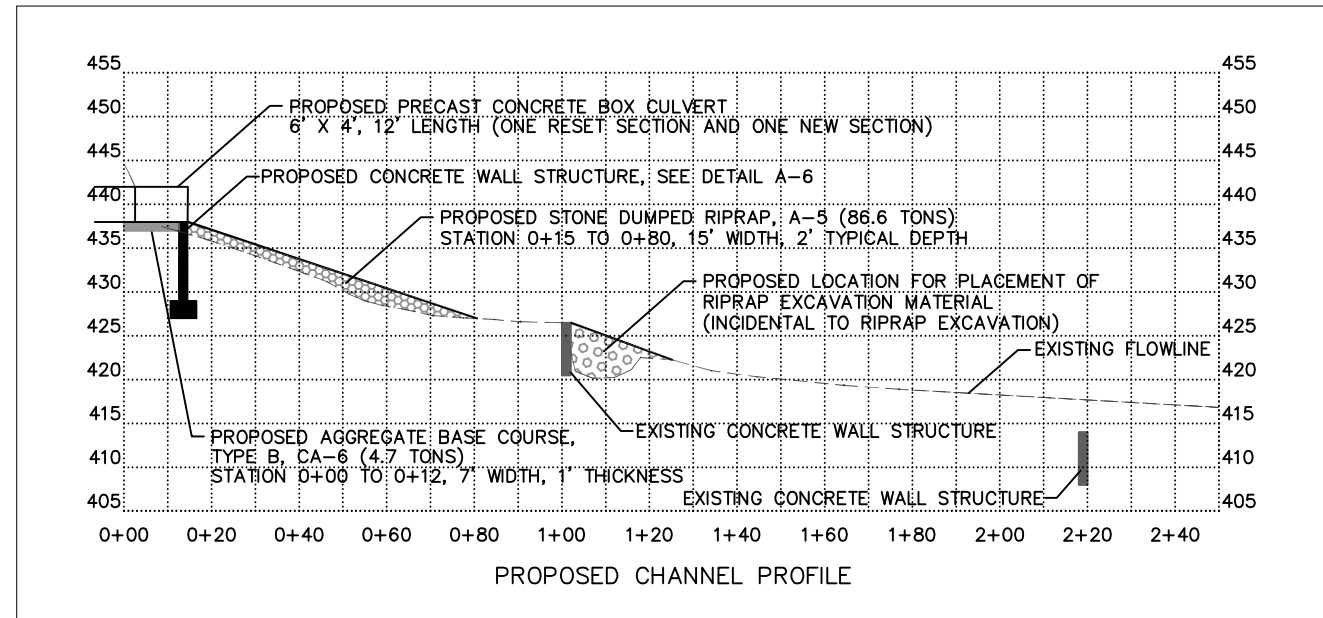
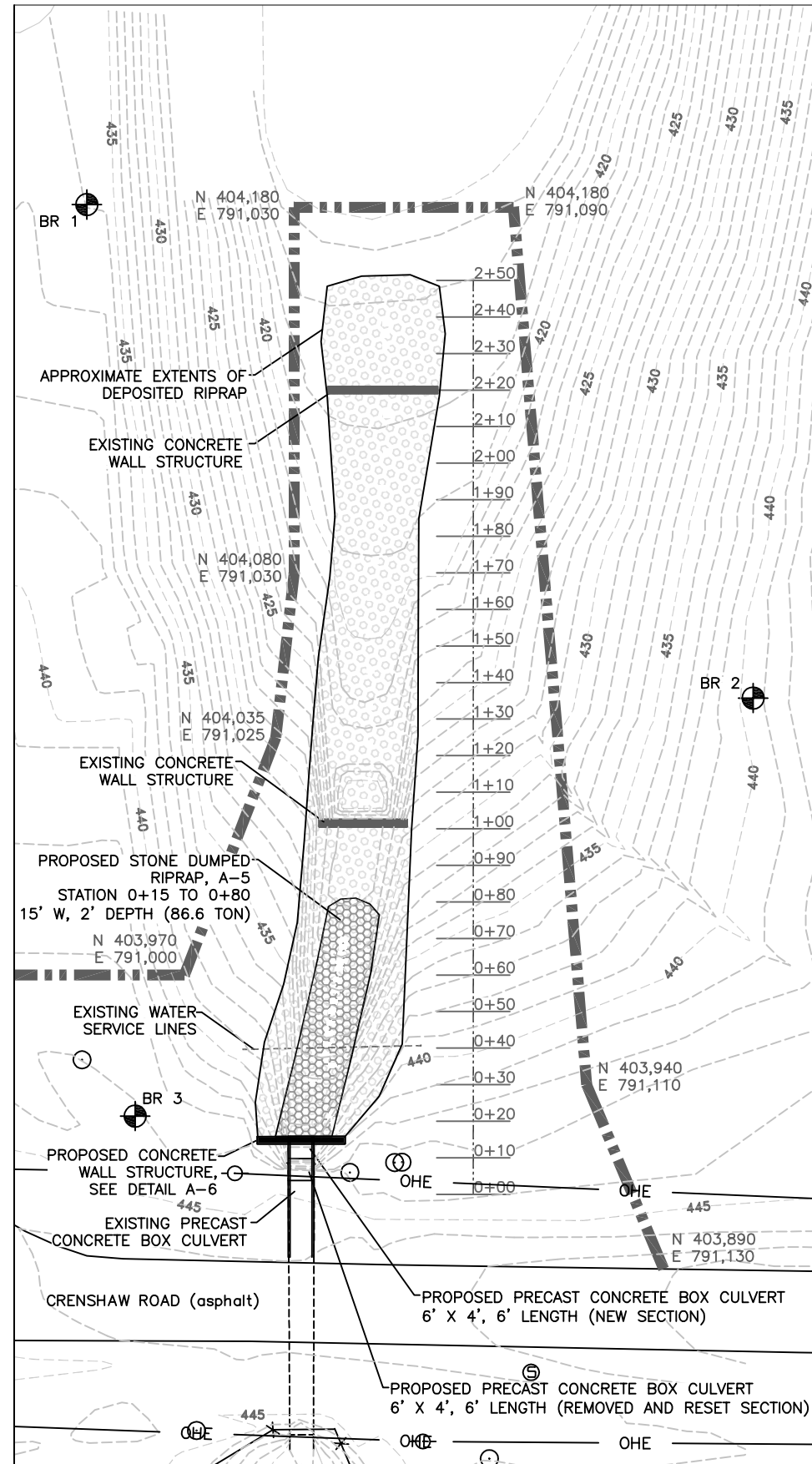
**Notes**

1. THE LOCATIONS OF THE EXISTING WATER SERVICE LINES ARE ONLY APPROXIMATED. ADDITIONAL WATER SERVICE LINES, AS WELL AS OTHER UTILITIES, ARE LOCATED WITHIN THE WORK AREA.
2. DIMENSIONS SHOWN ON THE EXISTING CHANNEL PROFILE ARE ACCORDING TO MEASUREMENTS COMPLETED JULY 2011. ADDITIONAL CHANNEL DEGRADATION IS LIKELY BEFORE THE CONTRACT IS AWARDED. THE ENGINEER RESERVES THE RIGHT TO INCREASE OR DECREASE THE VOLUME OF CONSTRUCTION MATERIALS BASED UPON CONDITIONS ENCOUNTERED DURING CONSTRUCTION.
3. THE EXISTING FAILED BOX CULVERT SECTION NEAR STATION 0+40 IN THE CHANNEL SHALL BE REMOVED FROM THE SITE. THIS WORK SHALL BE INCIDENTAL TO THE PRECAST CONCRETE BOX CULVERTS.

	440	EXISTING CONTOUR
		BASELINE FOR PROFILE
		WATER SERVICE LINE
		OHE — OVERHEAD ELECTRIC LINE
		EXISTING RIPRAP
		CONTROL POINT
		EXISTING UTILITY
		EXISTING POWER POLE

**Legend**





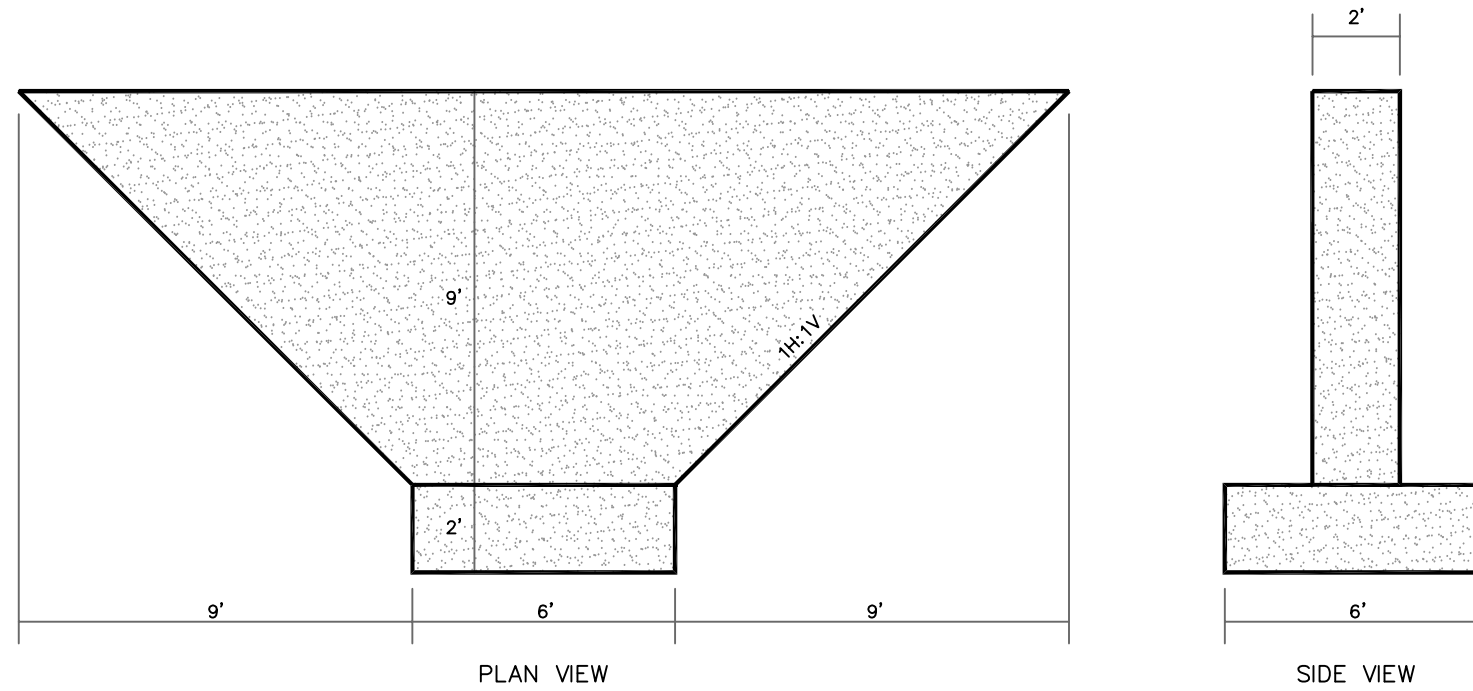
- ### Notes
1. THE PROPOSED CHANNEL PROFILE ABOVE IS FOR GENERAL INFORMATION ONLY. SEE DETAILS FOR ACTUAL STRUCTURE DIMENSIONS.
  2. RIPRAP EXCAVATION SHALL INCLUDE ALL MATERIALS EXCAVATED TO FACILITATE CONSTRUCTION OF THE PROPOSED CONCRETE WALL STRUCTURE. THIS AMOUNT IS ESTIMATED AT 28' LENGTH, 24' WIDTH AND 12' DEPTH FOR 299 C.Y.
  3. PRIOR TO PLACEMENT OF THE AGGREGATE BASE COURSE, THE FOUNDATION OF THE PROPOSED PRECAST CONCRETE BOX CULVERT SECTIONS SHALL BE EXCAVATED TO STABLE MATERIAL AND BACKFILLED WITH COMPACTED EARTH. THIS WORK SHALL BE INCIDENTAL TO THE AGGREGATE BASE COURSE.
  4. EXCAVATED RIPRAP MATERIAL SHALL BE USED TO FILL THE DOWNSTREAM ERODED POOL BETWEEN STATIONS 1+00 AND 1+20. EXCESS MATERIAL SHALL BE PLACED ALONG THE CHANNEL BANKS BETWEEN STATIONS 1+20 AND 1+50 AS DIRECTED BY THE ENGINEER.
  5. FURNISHED EXCAVATION SHALL BE PROVIDED TO COVER THE TOP AND SIDES OF THE PRECAST CONCRETE BOX CULVERT. THE VOLUME OF FURNISHED EXCAVATION IS ESTIMATED AT 12' LENGTH, 24' WIDTH AND 2' AVERAGE DEPTH FOR 21 C.Y. FURNISHED EXCAVATION COMPACTION SHALL BE IN ACCORDANCE WITH SECTION 205 OF THE SPECIAL PROVISIONS.
  6. THE ELEVATION OF THE TOP OF THE PROPOSED CONCRETE WALL STRUCTURE SHALL BE SET SUCH THAT THE DOWNSTREAM EDGE OF THE PROPOSED PRECAST CONCRETE BOX CULVERT MAY BE SET UPON IT.

	440	EXISTING CONTOUR
		BASELINE FOR PROFILE
		WATER SERVICE LINE
		CONSTRUCTION LIMITS
		OHE — OVERHEAD ELECTRIC LINE
		EXISTING RIPRAP
		PROPOSED RIPRAP
		CONTROL POINT
		EXISTING UTILITY
		EXISTING POWER POLE

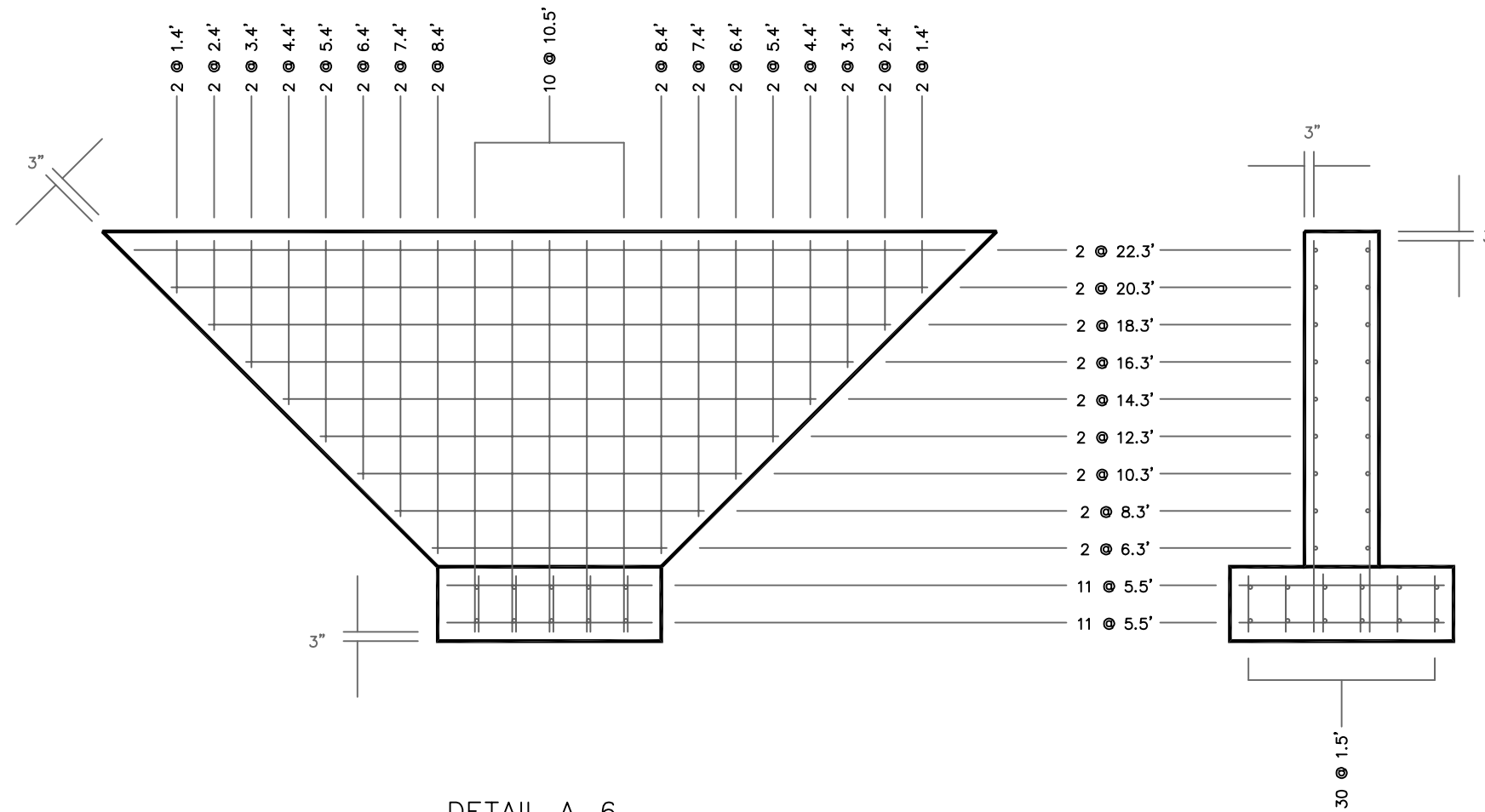
Legend

**Crenshaw Road  
Culvert Remedial**

SCALE IN FEET



REINFORCEMENT BAR PLAN  
#6 BARS @ 12" O.C.  
1,029 POUNDS



NOTE:  
DRAINAGE OPENINGS SHALL BE CONSTRUCTED  
IN THE PROPOSED CONCRETE WALL  
STRUCTURE IN ACCORDANCE WITH SECTION  
503.09 OF THE SPECIAL PROVISIONS.