



State of West Virginia
 Department of Administration
 Purchasing Division
 2019 Washington Street East
 Post Office Box 50130
 Charleston, WV 25305-0130

Solicitation

NUMBER
DEP15860

PAGE
1

ADDRESS CORRESPONDENCE TO ATTENTION OF:
GUY NISBET 304-558-8802

VENDOR

RFQ COPY
 TYPE NAME/ADDRESS HERE

SHIP TO

ENVIRONMENTAL PROTECTION
 DEPARTMENT OF
 OFFICE OF AML&R
 601 57TH STREET SE
 CHARLESTON, WV
 25304 304-926-0499

DATE PRINTED
07/11/2012

BID OPENING DATE: 07/26/2012 BID OPENING TIME 1:30PM

LINE	QUANTITY	UOP	CAT. NO.	ITEM NUMBER	UNIT PRICE	AMOUNT
ADDENDUM NO.2						
ADDENDUM FOR THE "CHEROKEE COMPLEX PROJECT" TO PROVIDE AND PUBLISH THE ATTACHED INFORMATION AND BID OPENING CHANGE PER THE ATTACHMENTS.						
BID OPENING CHANGED FROM: 07/17/2012 AT 1:30PM TO: 07/26/2012 AT 1:30PM						
0001	1	JB		962-73		
RECLAMATION: RESTORATION OF LAND & OTHER PROPERTIES						
***** THIS IS THE END OF RFQ DEP15860 ***** TOTAL:						

SIGNATURE	TELEPHONE	DATE
TITLE	FEIN	ADDRESS CHANGES TO BE NOTED ABOVE

WHEN RESPONDING TO SOLICITATION, INSERT NAME AND ADDRESS IN SPACE ABOVE LABELED 'VENDOR'

SOLICITATION NUMBER: DEP15860

Addendum Number: 02

The purpose of this addendum is to modify the solicitation identified as ("Solicitation") to reflect the change(s) identified and described below.

Applicable Addendum Category:

- Modify bid opening date and time
- Modify specifications of product or service being sought
- Attachment of vendor questions and responses
- Attachment of pre-bid sign-in sheet
- Correction of error
- Other

Description of Modification to Solicitation: 1. Q & A's fro Pre-Bid meeting, 2. Specification and map changes, 3. Bid Opening date changed from: 07/17/2012 at 1:30 PM to: 07/26/2012 at 1:30 PM.

Additional Documentation: Documentation related to this Addendum (if any) has been included herewith as Attachment A and is specifically incorporated herein by reference.

Terms and Conditions:

1. All provisions of the Solicitation and other addenda not modified herein shall remain in full force and effect.
2. Vendor should acknowledge receipt of all addenda issued for this Solicitation by completing an Addendum Acknowledgment, a copy of which is included herewith. Failure to acknowledge addenda may result in bid disqualification. The addendum acknowledgement should be submitted with the bid to expedite document processing.

ATTACHMENT A

DEP15860
Cherokee Complex
Addendum #, 2

Item 1: The contractor will have 120 days from the date of the Notice to Proceed to complete construction activities on the project. The \$250 per day liquidated damage clause will be in effect after the 120 days. However, the total performance period will be 365 days from the date of the Notice to Proceed for invoicing purposes.

Item 2: The location of the proposed diversion ditch above the potential soil borrow area may be field adjusted with prior approval from the Engineer. However, field adjustments must comply with the scope and intent of the approved storm water permit.

Item 3: A temporary sandbag dike/pumping system is proposed in the project plans to facilitate the natural stream restoration work. Alternate methods of water diversion may be used with prior approval from the Engineer. However, alternate methods must comply with the scope and intent of the approved storm water permit. The existing corrugated metal pipe shall be removed and properly disposed of, regardless of diversion method.

Item 4: Grout to be used in the grouted riprap ditches shall consist of a cubic yard (CY) mixture as follows:

Cement – 470 lbs.

Fly Ash – 220 lbs.

Water – 316 lbs.

Air entrainment 6% +/- 2%

Sand – 2676 lbs.

Rheobuild 1000 (as needed to achieve the required slump and strength).

The minimum required compressive strength of the grout shall be 2000 psi @ 28 days. All testing shall be the responsibility of the contractor as part of the specifications. Two sets (4 cylinders) of test cylinders per day shall serve as a minimum.

Item 5: Contractor should be aware that no provisions have been made to obtain rock on site. All rock riprap used throughout the project site shall consist of locally available, commercially purchased, calcareous stone (except as noted otherwise) meeting the following requirements: the rock riprap required for drainage channels shall have a calcium carbonate equivalency of 70% or greater. The rock riprap shall have a maximum weighted loss of 30% when subjected to 5 cycles of Sodium Sulfate Soundness Test, ASTM C 88 as modified by AASHTO T-104. A certification on calcium carbonate equivalency and sodium sulfate soundness shall be submitted to the Engineer for approval prior to delivery. Stone shall meet the sizing requirements as identified on the drawings.

Item 6: The contractor is to coordinate work/travel along the access road with the Hatfield & McCoy Trail Coordinator. The contact information is: John Fekete @ 304-687-9875 (cell) and 1-800-592-2217 (office).

Item 7: Revised Sheets E15-E20 have been included to show the cross sections for Baseline A and Baseline B, and their match lines, in relation to each other.

Item 8: Trash racks will be installed on both ends of the 42-inch diameter pipes. Payment will be incidental to Pay Item 7.3. A trash rack detail is included on Revised Sheet E-11.

Item 9: The rip rap lining thickness for ditches has been modified to 18-inches. A revised channel chart is included on Sheet E-10.

Item 10: Revised Sheet E-13 is included to show the placement of the stick wattles and coir logs. Additional details for the stick wattles and coir logs have been added to Sheet E-13. Sheet E-13 also includes Table S-1, which provides further details on plant materials for riparian vegetation. The percentage of each seed is shown on the table – to be applied at two pounds per 1000 sf. The plantings are to be placed at 10-foot spacing in all directions. A variety of the plants should be utilized, based on their availability. An approximate equal percentage of each variety should be utilized. The Contractor shall submit the proposed mixture to the Engineer for review and approval.

Item 11: Revised Sheet E-11 is included to show a rip-rapped backfill around culvert inlets, as opposed to an earthen backfill.

Item 12: Revised Sheet E-10 is included to show a grout anchor detail and a bench crossing detail.

Item 13: Revised Specification 7.2.1 is included to clarify the type of stone that is acceptable on the project. All riprap used throughout the project site shall consist of locally available, commercially purchased, calcareous stone (except as noted otherwise) meeting the requirements identified in the Specifications.

Item 14: Revised Sheet E-13 is included to show the placement of the stick wattles and coir logs. Additional details for the stick wattles and coir logs have been added to Sheet E-13.

Item 15: Revised Specification 7.3.3 is included to clarify grouting methods.

Item 16: Revised Specification 8.8 is included to clarify the intent of the borrow areas. Borrow areas will be used as a source of soil material. Rock (rip-rap) for ditches will be commercially purchased stone, as referenced in Revised Specification 7.2.1.

Item 17: In Specification 10.2.2, the second paragraph reads, “Stone for seep collectors shall consist of 3-inch to 6-inch non-calcareous stone....” This paragraph should read, “Stone for **underdrains...**”

6.6 Basis of Payment

Payment will be made at the Contract unit prices bid for this item, which price and payment shall be full compensation for doing all the work herein described in a workmanlike and acceptable manner; including the furnishing of all labor, materials, tools, equipment, supplies and incidentals as necessary to complete the work. Payment for seeding includes all seeding (i.e. first and second seeding). Payment for seeding is on a one-time basis only. No additional payment will be made for second or subsequent seedings. Temporary seeding is considered incidental to construction and no separate payment will be made.

6.7 Pay Items

Item 6.1, "Revegetation," per plan acre.

Item 6.2, "Riparian Planting," per plan acre.

7.0 DRAINAGE STRUCTURES

7.1 Description

Work in this Section shall be performed in accordance with the Drawings and as specified herein. The work shall include, but is not necessarily limited to, the following:

- a. Installation of temporary site drainage, at the discretion of the Contractor or as approved by the Engineer: during construction, site drainage shall be handled in accordance with Section 8.7, "Water Handling," unless otherwise noted.
- b. Installation of permanent subsurface and surface drainage. Permanent drainage items include the riprap lined channels, grout-filled riprap lined channels, streambank protection, culverts and natural stream restoration.

7.2 Materials

Drainage systems shall be constructed of materials discussed in the following sections.

7.2.1 Stone

The Contractor should be aware that no provisions have been made to obtain rock on site. All rock riprap used throughout the project site shall consist of locally available, commercially purchased, calcareous stone (except as noted otherwise) meeting the following requirements. The rock riprap required for drainage channels shall have a calcium carbonate equivalency of 70% or greater. The rock riprap shall have a maximum weighted loss of 30% when subjected to 5 cycles of Sodium Sulfate Soundness Test, ASTM C 88 as modified by AASHTO T-104. A certification on calcium carbonate equivalency and sodium sulfate soundness shall be submitted to the Engineer for approval prior to delivery. Stone shall meet the sizing requirements as identified on the Drawings.

Riprap stone required shall have a minimum diameter of 6 inches and a maximum diameter of 18 inches. Pieces smaller than the above minimum sizes shall not exceed 15% by weight. Any stone considered for use must first be visually approved by the Engineer. Riprap stone shall be as nearly rectangular in section as is practicable. All stone shall be well-graded and obtained from an Engineer approved source.

Stone for stream restoration structures shall be a minimum of 15 inches in diameter. The stone shall be sandstone.

7.2.2 Geotextile

Geotextile shall be GTF 130EX as supplied by Thrace-Linq or an Engineer approved equal.

7.2.3 Grout

Grout to be used in the grouted riprap channels shall consist of a mixture of one part Type II sulfate resistant Portland Cement and three parts sand, using water to produce a working consistency. The water shall be as approved by the Engineer.

The minimum required compressive strength of the grout shall be 2,000 psi @ 28 days. All testing shall be the responsibility of the Contractor as part of Section 3.0 of the Specifications.

7.2.4 Logs

Logs used for stream restoration structures shall be hemlock or other coniferous logs and shall be the diameter and length indicated by the Drawings. The bark shall not be removed from the logs.

7.2.5 Wattles

Wattles are bundles of live willow or dogwood branches and cuttings which are tightly packed and tied in approximately six inch diameter by six foot lengths. They are installed along the contour as shown on the Drawings and will develop shoots and roots if kept continually moist.

7.2.6 Coir (Coconut) Fiber Blankets

Fiber blankets shall be Belton Industries, Inc. Geocoil(D/Dekowe® 700 coin mat, or Bon TerraO CF 7 coin mat, or Creative Habitat Corporation Fiber Blanket™ FB 80 coir mat, or approved equivalent. The fiber blankets shall be made of 100 percent coir twine, have one half inch woven mesh (approximately 50 percent open area), and have a minimum width of six (6) feet.

7.2.7 Coir (Coconut) Fiber Logs

Fiber logs shall be Bon Terra® Biologs™, or Creative Habitat Corporation Fiber Shine™ FS 100, or approved equivalent. The fiber logs shall be made of 100 percent mattress grade coir fiber compressed and stuffed into a cylinder of two inch mesh, 100 percent

coir twine. The fiber logs shall have a 12-inch diameter, a minimum length of 10 feet, and a minimum dry weight of five pounds per linear foot.

7.2.8 Stakes, Spikes, and Other Anchoring Devices

1. Fiber blankets shall be anchored with triangular oak stakes at least 1.5 feet long. Two anchor stakes can be made from one-inch by four-inch by 1.5-foot stock, cut diagonally length-wise on the four-inch-wide face.
2. Fiber logs shall be anchored using oak stakes measuring two inches by two inches by three feet. Alternatively, where hard material or rock in the stream channel prevents effective use of wood stakes, rebar stakes measuring three-quarter-inch in diameter by three feet shall be used. Coir twine will be used to secure fiber logs to stakes and to splice together abutting fiber logs.
3. Rebar pins (#5) and stakes will be used to anchor hemlock logs used in stream bank stabilization and habitat improvement structures.
4. Common, galvanized 20d nails and galvanized 10-inch spikes will be used to anchor oak boards and hemlock planking to log structures as shown on the Drawings.

7.2.9 Culvert Pipe

HDPE pipe shall be corrugated high density polyethylene pipe as manufactured by Hancor, Inc. of Findlay, Ohio, or an Engineer approved equal. The pipe shall be Hi-Q Sure-Lok 10.8 pipe. The pipes shall have the diameters noted on the Drawings.

7.3 Construction Methods

Drainage systems shall be constructed as discussed in the following sections. All excavation and fill placement shall be in accordance with Section 8.0, "UNCLASSIFIED EXCAVATION."

7.3.1 Drainage Channels in Refuse

Drainage channels constructed in coal refuse shall be excavated one-foot below planned grade and soil material shall be placed and compacted to 95% of standard maximum dry density to a thickness of one-foot over the refuse prior to placement of the channel lining material. This shall be considered incidental to the channel.

7.3.2 Riprap Placement

Riprap shall be placed at locations shown on the Drawings or as approved by the Engineer. Riprap shall be required for the Channels and Streambank Protection. Riprap placement shall include preparing the subgrade to receive riprap. The riprap stone shall be firmly bedded on the slopes in such a manner that the individual pieces abut each other to form a layer. Riprap shall be placed in accordance with WVDOH Specification 218.3.2. The riprap shall extend around the culverts and payment incidental to the channel. Conveyance Channels are utilized for mine seal drainage.

7.3.3 Grouting for Channels

The Contractor shall grout the riprap lined channels at locations shown on the Drawings. A grout key shall be placed as shown on the Drawings and shall be considered incidental to the grouted channel.

Grouting, where required to be placed on riprap, shall be applied as soon as possible after placement of riprap. The stone shall be thoroughly wet immediately before grout is applied. As soon as grout is deposited on the surface, it shall be thoroughly worked into the joints to achieve 100 percent penetration. The stones shall then be brushed so that their top surfaces are exposed. The grout shall be protected from running water to prevent damage until sufficiently cured. Water shall not be allowed to run under the channel while grouting.

Curing shall be accomplished by one of two means:

- a. A liquid membrane-forming compound for curing concrete may be sprayed on the brushed grouted surface. Curing compounds shall conform to the requirements of WVDOH Specification 707.9.
- b. Alternately, the grouted surface may be covered with white polyethylene sheeting (film) for curing concrete immediately after the stones have been brushed. The sheeting shall conform to WVDOH specification 707.10.

Grouting of riprap shall not be initiated unless adequate materials for curing the grouted channels are available on-site. Curing shall be left in place a minimum of 72 hours prior to introduction of water.

The Contractor shall prepare one set of test cylinders for every 20 cubic yards of grout applied to ditches for compressive strength testing in accordance with these Specifications. For ditches that receive less than 20 cubic yards of grout, a minimum of one set of test cylinders shall be prepared per ditch. A set shall be comprised of three (3) cylinders sampled and made in accordance with ASTM C 31 and C 39.

7.3.4 Natural Stream Restoration

The Contractor shall place the natural stream restoration in the areas to the lines indicated by and to the intent of the Drawings. The natural stream restoration structures shall be placed as indicated and are considered incidental.

The natural stream restoration work includes a method for bypassing stream flow through the construction work area and is shown on the Drawings as Stream Activity Dewatering. This method has been approved by the WVDEP NPDES Storm Water Construction Permit and shall be followed.

The system shall consist of installing a temporary pump around and supporting measures to divert flow around in-stream construction activities. Sandbag dikes or equivalent shall be situated at the upstream and downstream ends of the work area and stream flow shall be pumped around the work area. The pump shall discharge onto a stable velocity dissipater made of sandbags or riprap. Water from the work area shall be

The Contractor shall handle all surface and/or ground water so as not to damage adjacent property, or pollute streams and/or waterways. The Contractor's plan for diversion of ground water and/or surface water during construction shall be subject to approval by the Engineer. The plan may be placed in operation upon approval. Nothing in this Section shall relieve the Contractor from full responsibility for the adequacy of the diversion and protective works.

Excavation areas shall be maintained so that they will drain properly at all times. The Contractor shall construct and maintain any and all necessary channels, flumes, pipes, sumps and/or other temporary diversion and protective works; shall furnish all materials required therefore; and shall furnish, install, maintain, and operate all necessary pumps and other equipment for removal of ground water and/or surface water from the work area. After having served their purpose, all of the above shall be removed from the work area. Temporary water handling/diversions shall be considered incidental to the project.

8.8 Borrow Excavation

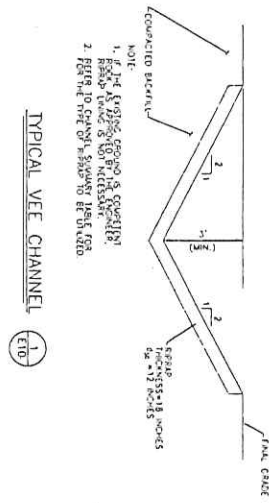
This work shall consist of using borrow areas as a source for soil material. Topsoil shall be segregated during regrading operations for utilization as cover material since no specific borrow areas have been identified. On-site and off-site borrow areas must be approved by the Engineer. Clearing and grubbing shall be in accordance with Section 4.3.1, "Clearing and Grubbing." Soil material used for cover over coal refuse is subject to the approval of the Engineer. The use of reddog as a soil substitute shall be prohibited. Should sufficient soil not exist in the potential borrow areas, the Contractor is required to locate and obtain additional borrow areas; if not inside the limit of construction, obtain right of entry agreements from the property owner and/or lessee to include the Owner with right of inspection and with the property owner and/or lessee indemnifying and holding the Owner harmless from any injury or damage whatsoever resulting from the Contractor's use of the property. The Contractor is also responsible for obtaining NEPA compliance and a NPDES stormwater permit (if required) for all off-site borrow areas. Requirements for soil cover are included in Section 8.10, "Soil Cover." The Contractor shall be reimbursed for revegetating on-site borrow areas as part of Pay Item 6.1, "Revegetation."

There will be no additional compensation for accessing, furnishing, clearing, grubbing, grading, restoring, fertilizing, seeding, and mulching of off-site borrow areas. The Contractor shall submit a site grading and operations plan to the Engineer for review and approval which is compatible to the reclamation project for borrow areas and related disturbance. Highwalls shall not be allowed within on-site or off-site borrow areas for soil and/or rock whether created by the Contractor during borrow operations or pre-existing. The Contractor's borrow area grading plan shall include the reclamation of highwalls. Reclamation and revegetation of the borrow sites shall be considered incidental to the borrow operations and shall be included in the unit price bid for earthwork.

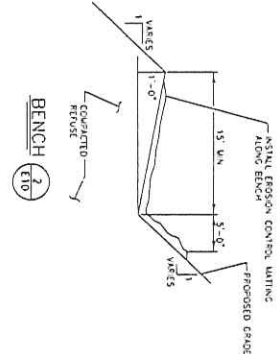
Material shall not be moved from one landowner to another landowner without right-of-entry agreements as outlined.

8.9 Final Shaping and Contouring

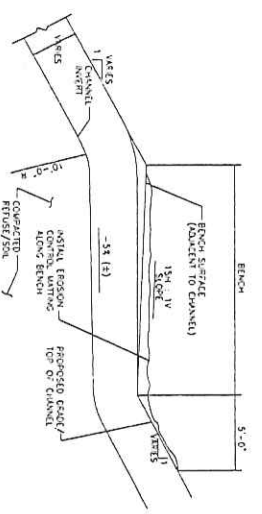
Except at locations where excavation of unsuitable material is required, care shall be taken not to excavate below the depths specified. Over-excavation will be backfilled and



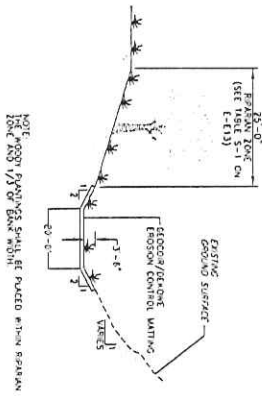
TYPICAL VEE CHANNEL (1) E10



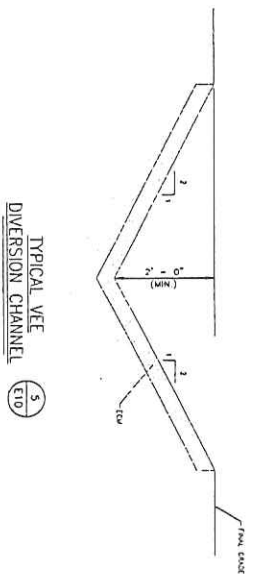
BENCH (2) E10



BENCH CROSSING (3) E10

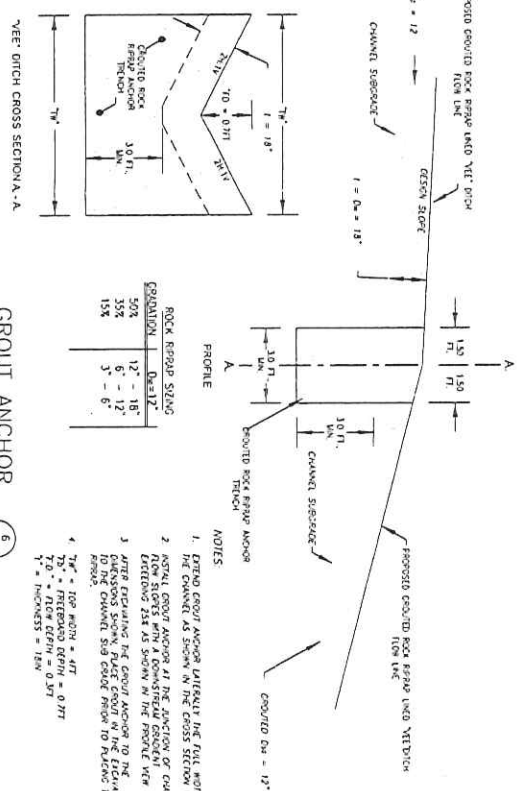


STREAM RELOCATION (4) E10



TYPICAL VEE DIVERSION CHANNEL (5) E10

CHANNEL SUMMARY									
CHANNEL	TYPE	STATION	DEPTH (FT. MIN.)	SIDE SLOPES	AVG. SLOPE (%)	LINING	LINING THICKNESS	TOP WIDTH (FT. MIN.)	BOTTOM WIDTH (FT.)
1	VEE	100+00.0 - 101+75.0	3	2:1	0.5	GRADED	18	12	0
	VEE	101+75.0 - 102+55.0	3	2:1	3.4	GRADED	18	12	0
	VEE	102+55.0 - 103+20.0	3	2:1	11.2	GRADED	18	12	0
	VEE	103+20.0 - 103+75.0	3	2:1	7.2	GRADED	18	12	0
	VEE	103+75.0 - 104+50.0	3	2:1	15.0	GRADED	18	12	0
	VEE	104+50.0 - 105+15.0	3	2:1	30.0	GRADED	18	12	0
	VEE	105+15.0 - 106+48.6	3	2:1	3.0	GRADED	18	12	0
2	PIPE	200+00.0 - 200+26.1	3	2:1	67.0	42" PIPE	18	12	0
	VEE	201+02.8 - 201+20.5	3	2:1	2.0	GRADED	18	12	0
	VEE	201+20.5 - 202+31.1	3	2:1	40.0	GRADED	18	12	0
	VEE	202+31.1 - 203+35.9	3	2:1	0.8	GRADED	18	12	0
3	VEE	300+00.0 - 304+25.0	3	2:1	6.5	RIPRAP	18	12	0
	VEE	304+25.0 - 308+20.0	3	2:1	2.5	RIPRAP	18	12	0
	VEE	308+20.0 - 309+80.0	3	2:1	3.5	RIPRAP	18	12	0
	VEE	309+80.0 - 311+60.0	3	2:1	5.5	RIPRAP	18	12	0
	VEE	311+60.0 - 312+80.0	3	2:1	7.0	RIPRAP	18	12	0
	VEE	312+80.0 - 313+60.8	3	2:1	4.4	RIPRAP	18	12	0
4	VEE	400+00.0 - 401+53.5	3	2:1	1.0	RIPRAP	18	12	0
	VEE	401+53.5 - 402+13.5	3	2:1	13.0	RIPRAP	18	12	0
	VEE	402+13.5 - 402+80.4	3	2:1	5.2	RIPRAP	18	12	0
5	NSR	500+00.0 - 500+40.0	VARIES	2:1	5.0	NSR	VARIES	20	20
	NSR	500+40.0 - 508+45.0	VARIES	2:1	0.7	NSR	VARIES	20	20
	NSR	508+45.0 - 508+72.0	VARIES	2:1	40.0	NSR	VARIES	20	20
	NSR	508+72.0 - 509+00.0	VARIES	2:1	3.0	NSR	VARIES	20	20
	NSR	509+00.0 - 509+29.8	VARIES	2:1	16.9	NSR	VARIES	20	20
6	PIPE	600+00.0 - 601+21.2	3	2:1	45.0	42" PIPE	18	12	0
	VEE	601+21.2 - 601+31.4	3	2:1	2.7	RIPRAP	18	12	0
	VEE	601+31.4 - 601+45.8	3	2:1	2.7	RIPRAP	18	12	0



VEE DITCH CROSS SECTION A-A (6) E10

- NOTES
1. EXTEND GROUT ANCHOR UNLESS THE FULL WIDTH OF THE CHANNEL AS SHOWN IN THE CROSS SECTION VIEWS
 2. INSTALL GROUT ANCHOR AT THE JUNCTION OF CHANNEL
 3. AFTER EXCAVATING THE GROUT ANCHOR TO THE DIMENSIONS SHOWN, PLACE GROUT IN THE EXCAVATION
 4. 7" - TOP WIDTH - 4 FT
 5. 7" - NEW GROUT - 0.3 FT
 6. 7" - NEW GROUT - 0.3 FT
 7. * - THICKNESS = 18" IN

DATE	4/27/12
SCALE	AS SHOWN
PROJECT NUMBER	E-E10

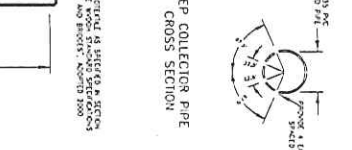
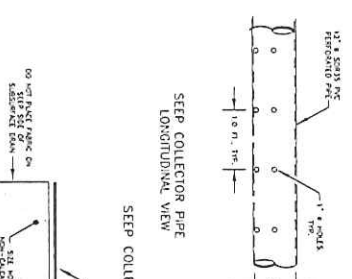
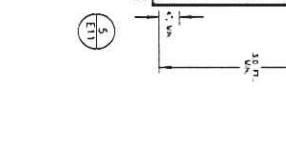
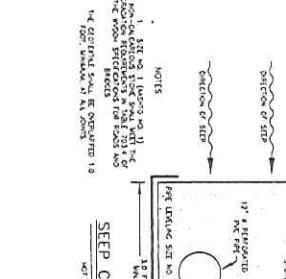
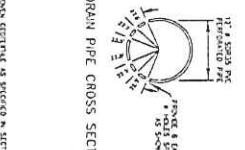
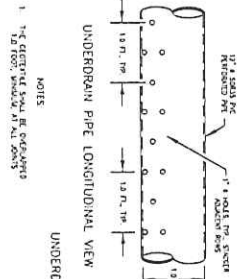
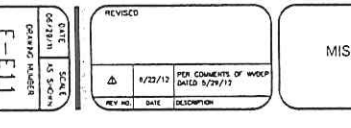
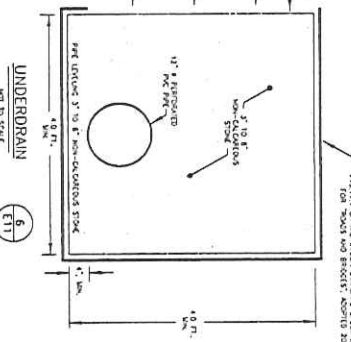
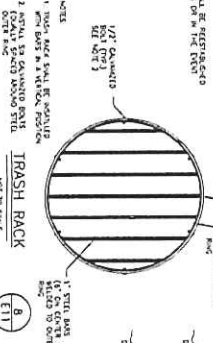
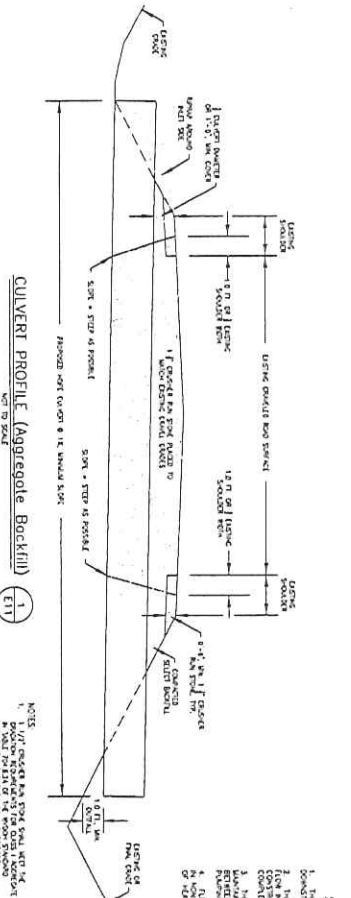
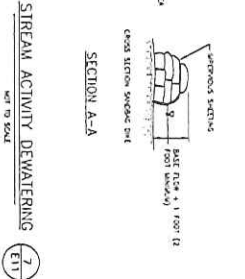
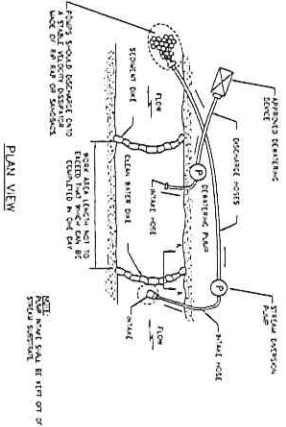
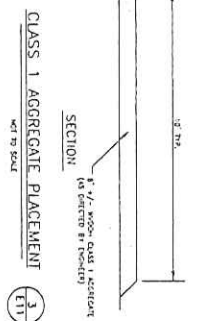
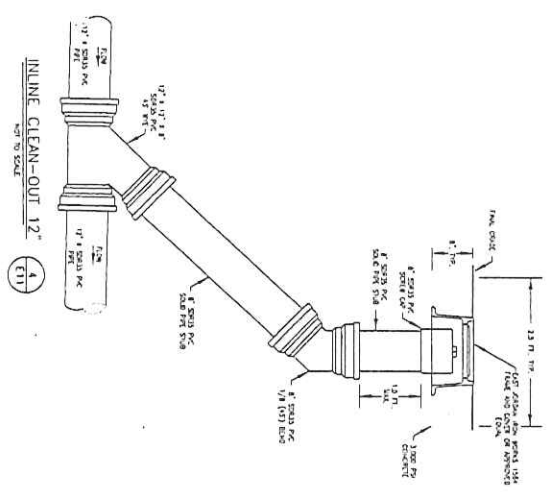
CHANNEL DETAILS

CHEROKEE COMPLEX
McDOWELL COUNTY, WV

GAI CONSULTANTS, INC.
500 BRAMMERS STREET, 3RD FLOOR
CHARLESTON, WEST VIRGINIA 25301
P. 304. 926. 8100 F. 304. 926. 8180



GAI CONSULTANTS, INC.



REVISED	DATE	DESCRIPTION
1	8/23/12	PER COMMENTS OF WOP
2	10/15/12	REVISED FOR WOP

MISCELLANEOUS DETAILS

CHEROKEE COMPLEX
McDOWELL COUNTY, WV

GAI CONSULTANTS, INC.
500 DAMMERS STREET, 3RD FLOOR
CHARLESTON, WEST VIRGINIA 25301
P. 304. 926. 8700 F. 304. 926. 9180

DATE: 8/23/12
SCALE: AS SHOWN
DRAWING NUMBER: E-E11

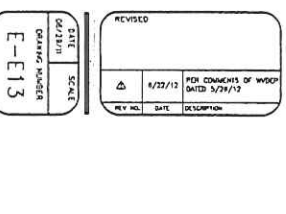
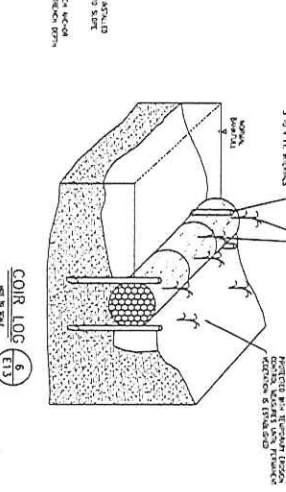
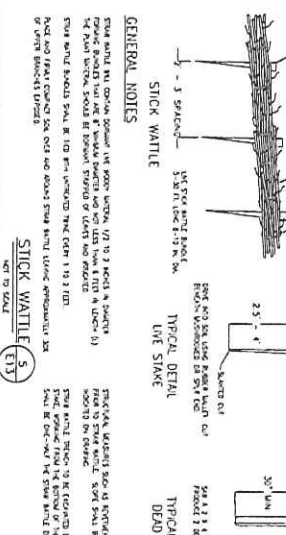
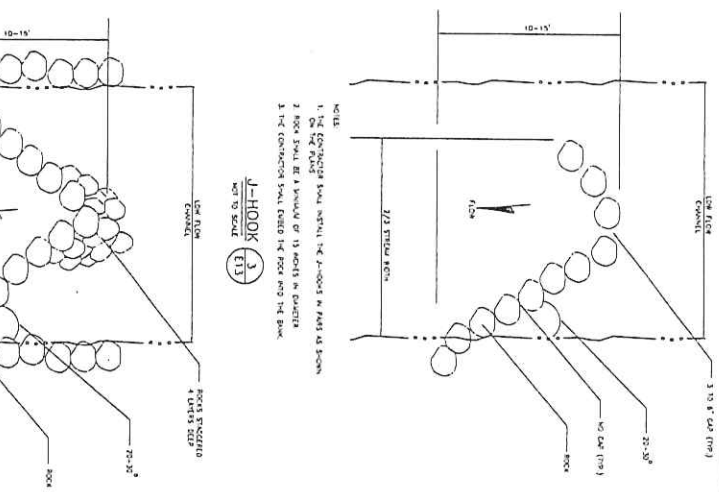
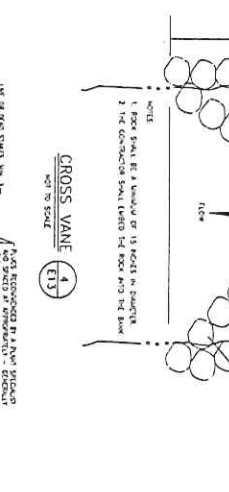
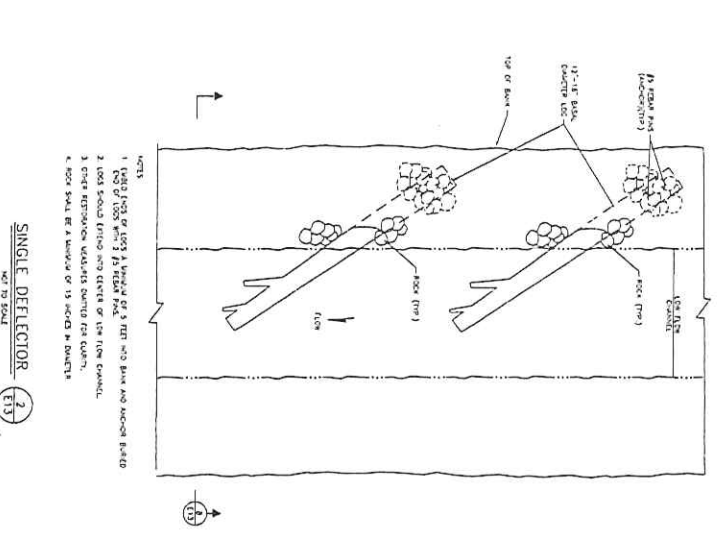
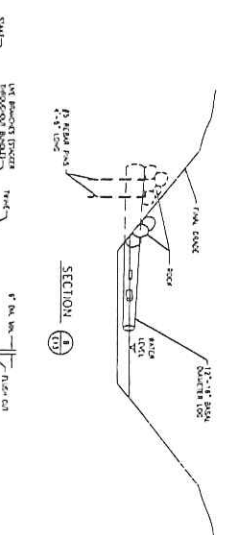
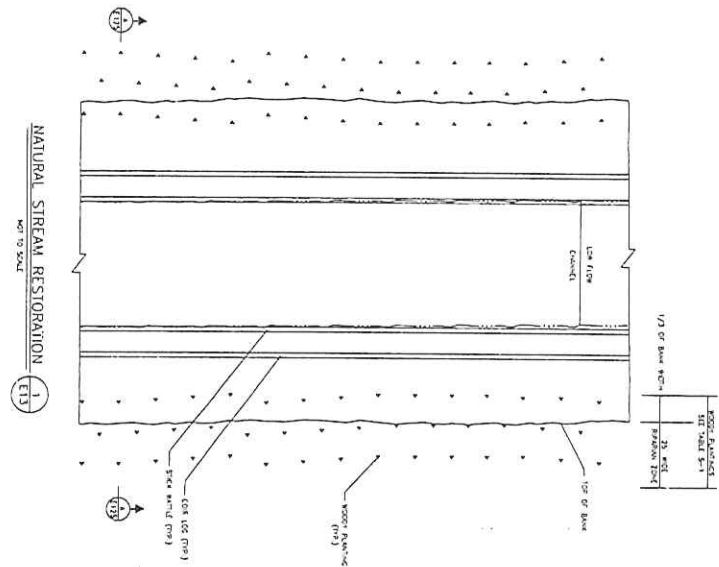
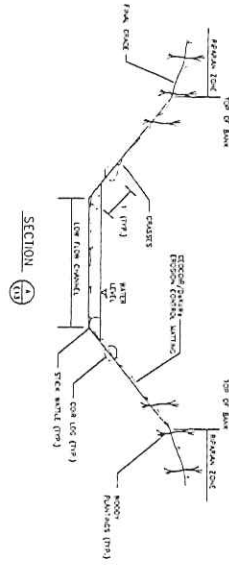
PROJECT: CHEROKEE COMPLEX
DRAWN BY: [Name]
CHECKED BY: [Name]

PROJECT: CHEROKEE COMPLEX
DRAWN BY: [Name]
CHECKED BY: [Name]

PROJECT: CHEROKEE COMPLEX
DRAWN BY: [Name]
CHECKED BY: [Name]

**TABLE S-1
SPECIFICATIONS FOR PLANT MATERIALS FOR STREAM RESTORATION**

Planting Scheme	Species Name	Common Name	Type	Quantity/Height (feet)	Root System	Planting Spacing
Wedge Protection (S-1)	Scrublive Hawthorn	Scrublive Hawthorn	Root root	12-18	Root	10 feet
	Cornus alternifolia	Bay dogwood	Root root	12-18	Root	10 feet
	Cornus rugosa	Red-leaf dogwood	Root root	12-18	Root	10 feet
	Lonicera fragrantissima	Sweet honeysuckle	Root root	12-18	Root	10 feet
	Aster rugosus	Starwort	Root root	12-24	Root	10 feet
	Quercus prinus	Pin oak	Root root	12-24	Root	10 feet
	Podocarpus virginiana	Eastern white cedar	Root root	12-24	Root	10 feet
	Quercus macrocarpa	White oak	Root root	12-24	Root	10 feet
	Ulmus americana	American elm	Root root	12-24	Root	10 feet
	Populus nigra	Black poplar	Root root	12-24	Root	10 feet
Bank Protection	Phragmites communis	Common reed	Stem root	10-15	Stem	2 ft x 10 ft
	Phragmites communis	Common reed	Stem root	10-15	Stem	2 ft x 10 ft
	Phragmites communis	Common reed	Stem root	10-15	Stem	2 ft x 10 ft
Channel Protection	Phragmites communis	Common reed	Stem root	10-15	Stem	2 ft x 10 ft
	Phragmites communis	Common reed	Stem root	10-15	Stem	2 ft x 10 ft



GENERAL NOTES

1. ALL PLANTING SHALL BE DONE IN ACCORDANCE WITH THE FOLLOWING SPECIFICATIONS:

2. ALL PLANTING SHALL BE DONE IN ACCORDANCE WITH THE FOLLOWING SPECIFICATIONS:

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9. ALL PLANTING SHALL BE DONE IN ACCORDANCE WITH THE FOLLOWING SPECIFICATIONS:

STICK WATTLE

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COIR LOG

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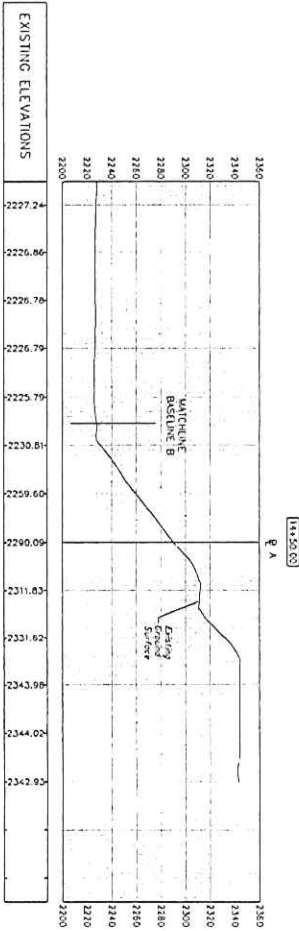
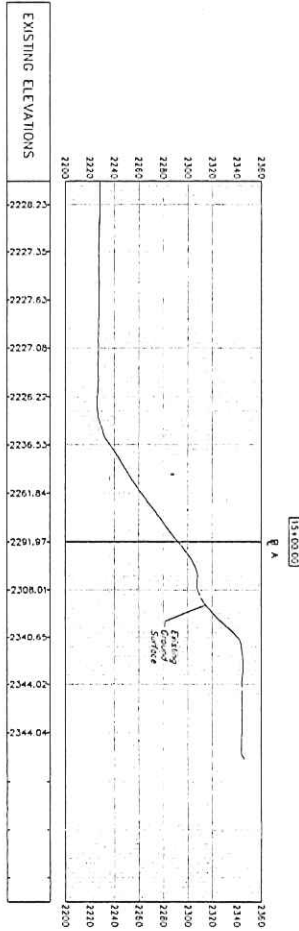
9. ALL PLANTING SHALL BE DONE IN ACCORDANCE WITH THE FOLLOWING SPECIFICATIONS:

MISCELLANEOUS DETAILS

CHEROKEE COMPLEX
McDOWELL COUNTY, WV

GAI CONSULTANTS, INC.

500 BARRERS STREET, 3RD FLOOR
CHARLESTON, WEST VIRGINIA 25301
P. 304. 626. 8100 F. 304. 626. 8180



PLAN VIEW OF ROAD - ROAD LAYOUT - STREET LIGHTS - SIDEWALKS - DRIVEWAYS - UTILITIES - EROSION CONTROL - FENCE LINE & SIGNAGE

E-118	DATE	SCALE
	04/13/11	1"=50'
DRAWING NUMBER		
REVISED	DATE	DESCRIPTION
Δ	6/22/12	PER COMMENTS OF WOOD DATED 3/29/12

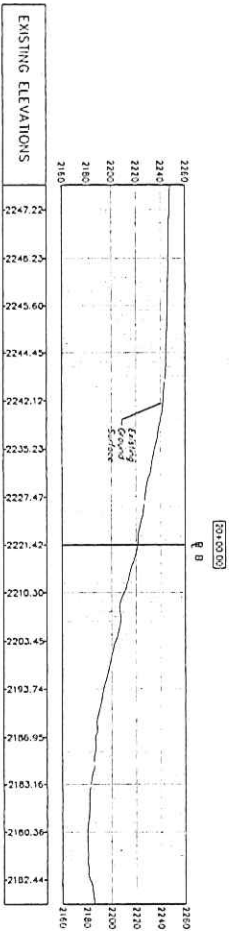
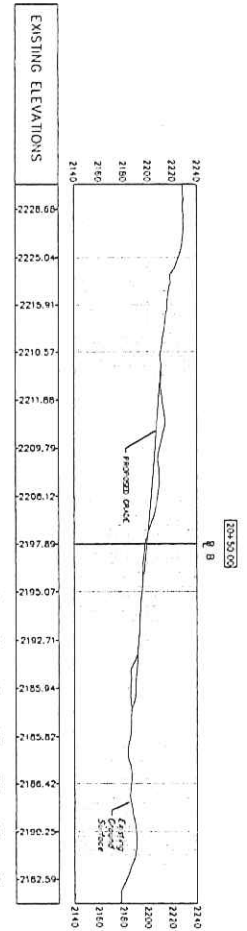
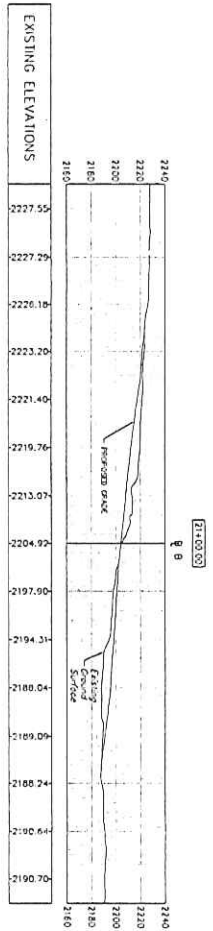
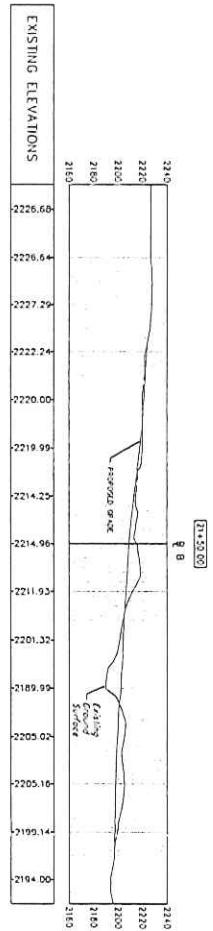
BASELINE "A"
CROSS SECTIONS



CHEROKEE COMPLEX
McDOWELL COUNTY, WV

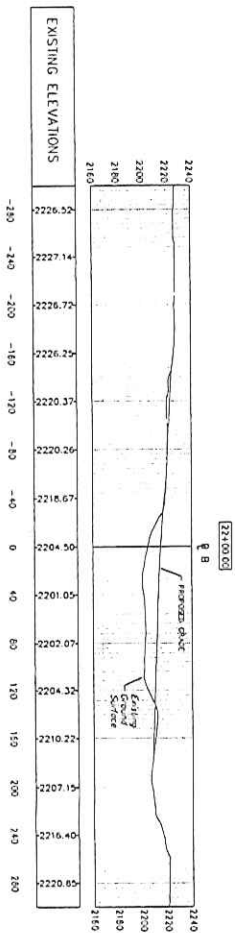
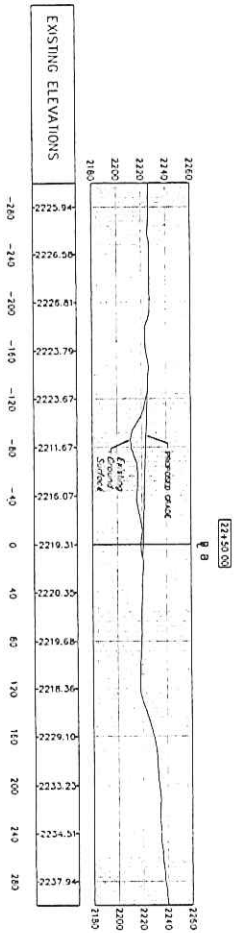
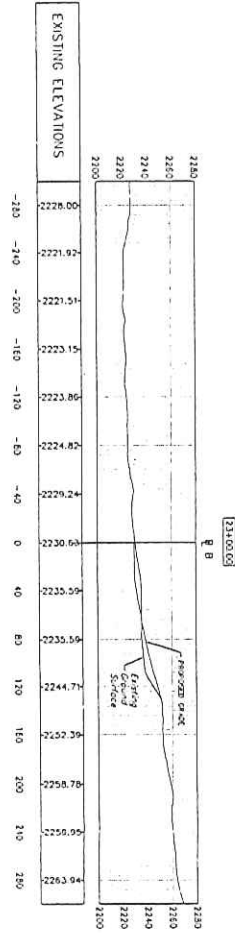
GAI CONSULTANTS, INC.

500 SUMMERS STREET, 3RD FLOOR
CHARLESTON, WEST VIRGINIA 25301
P: 304.926.8200 F: 304.926.8980



<p>DATE: 12/20/11</p> <p>DESIGNER: F-107</p> <p>DRAWING NUMBER: E-119</p>	<p>REVISED</p>	<p>BASELINE "B" CROSS SECTIONS</p>	<p>CHEROKEE COMPLEX McDOWELL COUNTY, WV</p>	<p>GAI CONSULTANTS, INC. 600 BLANKENBUSH STREET, 3RD FLOOR CHARLESTON, WEST VIRGINIA 25301 P: 304.626.8700 F: 304.626.8700</p>
	<p>REVISED</p>			

P:\WORK\CHEROKEE - WVD - 11 - CIVIL\DWG\CHEROKEE CIVIL\BASELINE\CHEROKEE - 11/27/11 11:50 AM



PROJECT: CHEROKEE COMPLEX - WVDOT - ROADWAY IMPROVEMENT PROJECT - STATION: 07+00 TO 12+00

REV	NO.	DATE	DESCRIPTION

**BASELINE "B"
CROSS SECTIONS**



CHEROKEE COMPLEX
 McDOWELL COUNTY, WV



GAI CONSULTANTS, INC.
 500 BLANKENBERRY STREET, 2ND FLOOR
 CHARLESTON, WEST VIRGINIA 25301
 P. 304.626.5100 F. 304.626.5180

DATE: 11/15/10
 SCALE: F-50
 DRAWING NUMBER: E-E20

ADDENDUM ACKNOWLEDGEMENT FORM
SOLICITATION NO.: DEP15860

Instructions: Please acknowledge receipt of all addenda issued with this solicitation by completing this addendum acknowledgment form. Check the box next to each addendum received and sign below. Failure to acknowledge addenda may result in bid disqualification.

Acknowledgment: I hereby acknowledge receipt of the following addenda and have made the necessary revisions to my proposal, plans and/or specification, etc.

Addendum Numbers Received:

(Check the box next to each addendum received)

- | | |
|---|--|
| <input type="checkbox"/> Addendum No. 1 | <input type="checkbox"/> Addendum No. 6 |
| <input type="checkbox"/> Addendum No. 2 | <input type="checkbox"/> Addendum No. 7 |
| <input type="checkbox"/> Addendum No. 3 | <input type="checkbox"/> Addendum No. 8 |
| <input type="checkbox"/> Addendum No. 4 | <input type="checkbox"/> Addendum No. 9 |
| <input type="checkbox"/> Addendum No. 5 | <input type="checkbox"/> Addendum No. 10 |

I understand that failure to confirm the receipt of addenda may be cause for rejection of this bid. I further understand that that any verbal representation made or assumed to be made during any oral discussion held between Vendor's representatives and any state personnel is not binding. Only the information issued in writing and added to the specifications by an official addendum is binding.

Company

Authorized Signature

Date

NOTE: This addendum acknowledgement should be submitted with the bid to expedite document processing.
Revised 6/8/2012