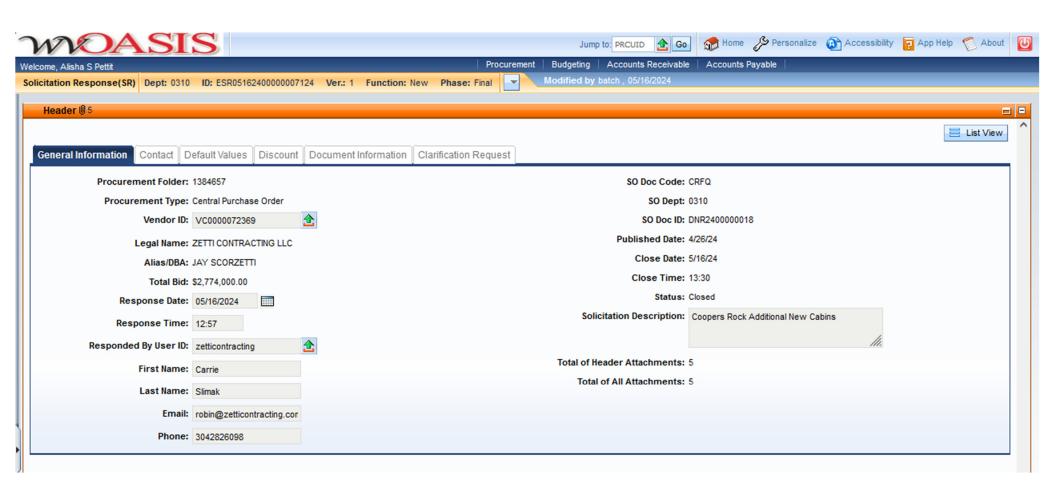
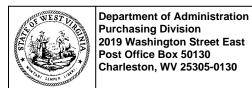


2019 Washington Street, East Charleston, WV 25305 Telephone: 304-558-2306 General Fax: 304-558-6026

Bid Fax: 304-558-3970

The following documentation is an electronically-submitted vendor response to an advertised solicitation from the *West Virginia Purchasing Bulletin* within the Vendor Self-Service portal at *wvOASIS.gov*. As part of the State of West Virginia's procurement process, and to maintain the transparency of the bid-opening process, this documentation submitted online is publicly posted by the West Virginia Purchasing Division at *WVPurchasing.gov* with any other vendor responses to this solicitation submitted to the Purchasing Division in hard copy format.





State of West Virginia Solicitation Response

Proc Folder:

1384657

Solicitation Description:

Coopers Rock Additional New Cabins

Proc Type:

Central Purchase Order

Solicitation Closes

Solicitation Response Version

2024-05-16 13:30 SR 0310 ESR05162400000007124

1

VENDOR

VC0000072369

ZETTI CONTRACTING LLC

Solicitation Number: CRFQ 0310 DNR2400000018

Total Bid: 2774000 **Response Date:** 2024-05-16 **Response Time:** 12:57:38

Comments:

FOR INFORMATION CONTACT THE BUYER

Joseph E Hager III (304) 558-2306 joseph.e.hageriii@wv.gov

Vendor Signature X FEIN# DATE

All offers subject to all terms and conditions contained in this solicitation

 Date Printed:
 May 17, 2024
 Page: 1
 FORM ID: WV-PRC-SR-001 2020/05

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
1	Cabins Construction				2774000.00

Comm Code	Manufacturer	Specification	Model #	
72000000				

Commodity Line Comments: This is our lump sum bid for the project. Jay Scorzetti

Zetti Contracting LLC

Extended Description: Cabins Construction

FORM ID: WV-PRC-SR-001 2020/05 Date Printed: May 17, 2024 Page: 2



State of West Virginia DRUG FREE WORKPLACE CONFORMANCE AFFIDAVIT West Virginia Code §21-1D-5

I, Todak Bales, after being first duly sworn, depose and state as follows:
, area being hise daily sworm, depose and state as follows:
1. I am an employee of Zetti Contractud LiCand, (Company Name)
2. I do hereby attest that Zetti Contracting LLC (Company Name)
maintains a written plan for a drug-free workplace policy and that such plan and policy are in compliance with West Virginia Code §21-1D.
The above statements are sworn to under the penalty of perjury.
Printed Name: Rober Valus Signature: Rober Valus
(Property) I Mamme
Title: Ti
Company Name: Contractuo Luc
Date: May 15, 2002
CTATE OF WEST VIDGINIA
STATE OF WEST VIRGINIA,
COUNTY OF Monongalia, TO-WIT:
Taken, subscribed and sworn to before me this 15th day of May, 2024.
By Commission expires April 20, 2025
(Seal) Cauir Mimah
OFFICIAL SEAL STATE OF WEST VIRGINIA NOTARY PUBLIC Carrie Slimak 1024 Olivia Way, Morgantown, WV 26508
My Commission Expires April 20, 2025 Rev. July 7, 2017

Rev. July 7, 2017

BID BOND

KNO	W ALL MEN BY THESE PRES	SENTS, That we, th	e undersigned, Zetti Contracting LLC
of	Morgantown	,WV	, as Principal, and FCCI Insurance Company
of_	Sarasota,	FL	, a corporation organized and existing under the laws of the State of
FL	with its principal office in t	the City ofS	Sarasota, as Surety, are held and firmly bound unto the State
of West Virgin	nia, as Obligee, in the penal su	m of Five Percent	of Amount Bid (\$ 5%) for the payment of which,
well and truly	to be made, we jointly and sev	erally bind ourselve	s, our heirs, administrators, executors, successors and assigns.
The	Condition of the above obliga	ation is such that v	whereas the Principal has submitted to the Purchasing Section of the
Department o	f Administration a certain bid o	r proposal, attached	d hereto and made a part hereof, to enter into a contract in writing for
Coopers Ro	ck Additional Cabins, 61 C	ounty Line Drive,	Bruceton Mills, WV 26525
NOV	V THEREFORE,		
(a)	If said bid shall be rejected		
(b)	If said bid shall be accepted and shall furnish any other	oted and the Princi	pal shall enter into a contract in accordance with the bid or proposal ce required by the bid or proposal, and shall in all other respects perform
the agreemen	nt created by the acceptance of	f said bid, then this	obligation shall be null and void, otherwise this obligation shall remain in
full force and	effect. It is expressly underst	ood and agreed that	at the liability of the Surety for any and all claims hereunder shall, in no
event, exceed	the penal amount of this oblig	ation as herein stat	ed.
The	Surety, for the value received.	hereby stipulates a	and agrees that the obligations of said Surety and its bond shall be in no
way impaired	or affected by any extension	of the time within	which the Obligee may accept such bid, and said Surety does hereby
waive notice of	of any such extension.		
WITI	NESS, the following signatures	and seals of Princi	ipal and Surety, executed and sealed by a proper officer of Principal and
	Principal individually if Principa		
Principal Sea	I		Zetti Contracting LLC
			(Name of Principal)
			By Only
			(Must be President, Vice President, or
			Duly Authorized Agent)
			President
	ANCE TO		(Title)
	CAPORA		FCCI Insurance Company
Surety Seal	SFAI		(Name of Surety)
Į.	1994		
3	ZORIDA.		By: Mandy A TSINIT
	"		Wendy A. Bright Attomey-in-Fact

IMPORTANT – Surety executing bonds must be licensed in West Virginia to transact surety insurance, must affix its seal, and must attach a power of attorney with its seal affixed.



GENERAL POWER OF ATTORNEY

Know all men by these presents: That the FCCI Insurance Company, a Corporation organized and existing under the laws of the State of Florida (the "Corporation") does make, constitute and appoint:

Wendy A. Bright

Ea	ch, its true a	nd lawful	Attorney-In-Fact,	to make,	execute,	seal a	nd deliver,	for and	on its l	behalf as	surety,	and
as its act a	nd deed in a	Il bonds a	and undertakings	provided	that no bo	ond or	undertakin	g or co	ntract of	suretysh	ip exec	uted
under this	authority sha	Il exceed	the sum of (not to	exceed S	\$20,000,0	(00.00)): \$	20,000	,000.00			

Surety Bond No.: Bid Bond Principal: Zetti Contracting LLC Obligee: State of West Virginia

This Power of Attorney is made and executed by authority of a Resolution adopted by the Board of Directors. That resolution also authorized any further action by the officers of the Company necessary to effect such transaction.

The signatures below and the seal of the Corporation may be affixed by facsimile, and any such facsimile signatures or facsimile seal shall be binding upon the Corporation when so affixed and in the future with regard to any bond, undertaking or contract of surety to which it is attached.

bond, undertaking or contract of surety to v		and an are ratare with regard to any
In witness whereof, the FCCI Insura officers and its corporate Seal to be hereur Attest: Multiple D. Welch, Presider FCCI Insurance Company	nto affixed, this 23rd da	characteristic be signed by its duly authorized and of July
Before me this day personally app the foregoing document for the purposes e		ho is personally known to me and who executed
My commission expires: 2/27/2027	PEGGY SNOW Commission # HH 326535 Expires February 27, 2027	Reggy Sinow Notary Public
State of Florida County of Sarasota		
Before me this day personally app the foregoing document for the purposes e		who is personally known to me and who executed
My commission expires: 2/27/2027	PEGGY SNOW Commission # HH 326535 Expires February 27, 2027	Reggo Snow
	CERTIFICATE	
I, the undersigned Secretary of FC		orida Corporation, DO HEREBY CERTIFY that the

I, the undersigned Secretary of FCCI Insurance Company, a Florida Corporation, DO HEREBY CERTIFY that the foregoing Power of Attorney remains in full force and has not been revoked; and furthermore that the February 27, 2020 Resolution of the Board of Directors, referenced in said Power of Attorney, is now in force.

Dated this	25th	day of April Ducair, EVP, CFO, Treasurer, Sec	, 2024	
		Ou	-	
Christo		cair, EVP, CF		ecretary



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

State of West Virginia **Centralized Request for Quote** Construction

Proc Folder:

1384657

Reason for Modification:

Doc Description: Coopers Rock Additional New Cabins

Addendum #1 issued to publish pre-bid sign in sheet and extend

bid close date until 5/16/2024.

Version

Proc Type:

Central Purchase Order

Date Issued

Solicitation Closes Solicitation No

CRFQ 2 2024-04-22 2024-05-16 13:30 0310 DNR2400000018

BID RECEIVING LOCATION

BID CLERK

DEPARTMENT OF ADMINISTRATION

PURCHASING DIVISION

2019 WASHINGTON ST E

CHARLESTON

WV 25305

US

VENDOR

Vendor Customer Code: VC0000072369

Vendor Name: Zetti Contracting LLC

Address: 761

Street :Tyrone Rd #A

City: Morgantown

State: West Virginia

Country:

Zip: 26508

Principal Contact: Jay Scorzetti

Vendor Contact Phone: 660-955-4840

Extension:

USA

FOR INFORMATION CONTACT THE BUYER

Joseph E Hager III (304) 558-2306

joseph.e.hageriii@wv.gov

Vendor

Signature X

82-3252848 FEIN#

DATE 5/16/24

All offers subject to all terms and conditions contained in this solicitation

Date Printed: Apr 22, 2024 Page: 1 FORM ID: WV-PRC-CRFQ-002 2020/05

ADDITIONAL INFORMATION

The West Virginia Purchasing Division is soliciting bids on behalf of The West Virginia Division of Natural Resources to establish a contract for the construction of seven additional cabins at Coopers Rock State Forest near Bruceton Mills, WV in Mononglia County per the attached specifications and terms and conditions.

INVOICE TO		SHIP TO	
DIVISION OF NATURAL RESOURCES		DIVISION OF NATURAL RESOURCES	
PARKS & RECREATION-PEM SECTION		COOPERS ROCK STATE FOREST	
324 4TH AVE		61 COUNTY LINE DR	
SOUTH CHARLESTON	WV	BRUCETON MILLS	WV
US		US	

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
1	Cabins Construction				

Comm Code	Manufacturer	Specification	Model #	
72000000				

Extended Description:

Cabins Construction

SCHEDULE OF EVENTS

<u>Line</u> <u>Event Date</u>

SOLICITATION NUMBER: CRFQ 0310 DNR2400000018 Addendum Number: No.01

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
l I	Other

Description of Modification to Solicitation:

Addendum issued to publish and distribute the attached documentation to the vendor community.

- 1. To publish pre-bid sign in sheet
- 2. To extend bid close date until 5/16/2024 @ 1:30 PM ET
- There will be another addendum forthcoming containing agency responses to all vendor submitted questions.

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

Pre-Bid Sign-In Sheet

Solicitation Number: CRFQ DNR 2400000018

Date of Pre-Bid Meeting: April 4, 2024

Location of Prebid Meeting: Sheet / of 3

Please Note:

Vendors must sign-in on this sheet to verify attendance at the Pre-Bid meeting. Failure to legibly sign in may be grounds for declaring a vendor ineligible to bid. For further verification, please also provide a business card if possible.

Firm Represented:*	Rep Name (Printed):	Firm Address:	Telephone #:	Fax #:	Email:	
Start to Finish	Steve Know	6982 Charleston	(304)535-6653		32 feonstruction	
Construction		16/1/20 WV 2520	(304)741-8069		Dyahoo, com	
MAXIM	14ENFILOTEI	235 LINDA CARRELLA CANONSBURGER PA	412-901-8887		KFILOTEIR	
CONSTRUCTION	7 1- 5/72	15317			MAKINCONSTRUTION	
Fairchance Construction			724-970-8480		munjaceka Foirchance Const	nation.c
CALIBER ING CONTRACTING SERVICOS	J. PONAHUE		417-634		D. DOUNHUE OCALIMERTING SERVICE COM	
Lakecrest	Matt	mperking @ Lakecrest	304-657		mperkins Q Lake crest	. LLC
Construction	Perkins		0141			•
All American Electric	Curt David	777 Mccellandton Rel Uniontown PA	8901 Ceil		All American Edect agnacl. com	sic 7.6

^{*}One Vendor Per Representative - No one individual is permitted to represent more than one vendor at the pre-bid meeting. Any individual that does attempt to represent two or more vendors will be required to select one vendor to which the individual's attendance will be attributed. The vendors not selected will be deemed to have not attended the pre-bid meeting unless another individual attended on their behalf.

Pre-Bid Sign-In Sheet

Solicitation Number: CRFQ DNR 2400000018

Date of Pre-Bid Meeting: April 4, 2024

Location of Prebid Meeting: Sheet 2 of 3

Please Note:

Vendors must sign-in on this sheet to verify attendance at the Pre-Bid meeting. Failure to legibly sign in may be grounds for declaring a vendor ineligible to bid. For further verification, please also provide a business card if possible.

Firm Represented:*	Rep Name (Printed):	Firm Address:	Telephone #:	Fax #:	Email:
Pella Windows;	Christie Contraguerro	230 Thornhill RD Warrendale, PH	412-969-5114		christie_Contruguerro gunton.
Stonerile Spagel Veritzs	Steve Riffe Steve Spiker	CONORSTURG Pa 1513 246 Business Pholo. Friemont WV.	724-825-9776 7 304-598- 2285		Steve R. C. Stonen ilega corp. com bid Quer, tasmu. com
Zetti Contracting	Jay Scorzetti	761 Tyrone Rd Morgantonn WV d 650 8	610-955-4840		Jay Ezetticontracting.com
Lytle	Ro-Lytle	102 Bierer Lane Murgantum 26508			rlyHeelyHeconstruction conf. com
ZMM ARCH. 4 ENL.	BARROW HUSLOS MY	CHATTLES TON, WY 20302	304 767 3184		BKOSLOS W/P

^{*}One Vendor Per Representative - No one individual is permitted to represent more than one vendor at the pre-bid meeting. Any individual that does attempt to represent two or more vendors will be required to select one vendor to which the individual's attendance will be attributed. The vendors not selected will be deemed to have not attended the pre-bid meeting unless another individual attended on their behalf.

Pre-Bid Sign-In Sheet

Solicitation Number: CRF	Q DNR 2	400	000	018	
Date of Pre-Bid Meeting:					
Location of Prebid Meetin	g: Sheet	3	of	3	

Please Note:

Vendors must sign-in on this sheet to verify attendance at the Pre-Bid meeting. Failure to legibly sign in may be grounds for declaring a vendor ineligible to bid. For further verification, please also provide a business card if possible.

Firm Represented:*	Rep Name (Printed):	Firm Address:	Telephone #:	<u>Fax #:</u>	Email:
WY DOR FEM	David Pruit	324 46 AVENUES S. Charleston, WV	304.268.5500		david. ¿. praite wugo
WV DNR PEM	Deborah Demyan	324 4th Avenue 5. Sharlestm, WV	304-550-4892		Debue, D. Demya- @wv.goy
CEC	JOSEPH D. ROBINSIA	BLIOGEROLT, WV 26330	443-366-2606		irobinson@cecinc.

^{*}One Vendor Per Representative - No one individual is permitted to represent more than one vendor at the pre-bid meeting. Any individual that does attempt to represent two or more vendors will be required to select one vendor to which the individual's attendance will be attributed. The vendors not selected will be deemed to have not attended the pre-bid meeting unless another individual attended on their behalf.

ADDENDUM ACKNOWLEDGEMENT FORM SOLICITATION NO.: CRFQ DNR24*18

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 recei	ived	l)		
[/]	Addendum No. 1	[]	Addendum No. 6	
[~]	Addendum No. 2]]	Addendum No. 7	
]]	Addendum No. 3	[]	Addendum No. 8	
[]	Addendum No. 4	[]	Addendum No. 9	
[]	Addendum No. 5	[]	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 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	
			_		5/16/24	
					Date	

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



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

State of West Virginia Centralized Request for Quote Construction

Proc Folder:	1384657	1384657			
Doc Description:	Coopers Rock Additional Ne				
Proc Type:	Central Purchase Order				
Date Issued	Solicitation Closes	Solicitation No	Version		
2024-03-06	2024-04-25 13:30	CRFQ 0310 DNR2400000018	1		

BID RECEIVING LOCATION

BID CLERK

DEPARTMENT OF ADMINISTRATION

PURCHASING DIVISION 2019 WASHINGTON ST E

CHARLESTON WV 25305

US

VENDOR

Vendor Customer Code:

Vendor Name: Zetti Contracting LLC

Address: 761

Street: Tyrone Rd

City: Morgantown

Country: USA Zip: 26508 State: West Virginia

Principal Contact: Jay Scorzetti

Vendor Contact Phone: Extension:

FOR INFORMATION CONTACT THE BUYER

Joseph E Hager III (304) 558-2306

joseph.e.hageriii@wv.gov

Vendor

Signature X

Page: 1

FEIN# 82 · 3252848 DATE 5/16/24

All offers subject to all terms and conditions contained in this solicitation

FORM ID: WV-PRC-CRFQ-002 2020/05

ADDITIONAL INFORMATION

The West Virginia Purchasing Division is soliciting bids on behalf of The West Virginia Division of Natural Resources to establish a contract for the construction of seven additional cabins at Coopers Rock State Forest near Bruceton Mills, WV in Mononglia County per the attached specifications and terms and conditions.

INVOICE TO		SHIP TO	
DIVISION OF NATURAL RESOURCES		DIVISION OF NATURAL RESOURCES	
PARKS & RECREATION-PEM SECTION		COOPERS ROCK STATE FOREST	
324 4TH AVE		61 COUNTY LINE DR	
SOUTH CHARLESTON	WV	BRUCETON MILLS	WV
us		US	

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
1	Cabins Construction				

lanufacturer S	Specification	Model #
		ь

Extended Description:

Cabins Construction

SCHEDULE OF EVENTS

<u>Line</u> <u>Event Date</u>

Date Printed: Mar 6, 2024 FORM ID: WV-PRC-CRFQ-002 2020/05



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

State of West Virginia Centralized Request for Quote Construction

Proc Folder: 1384657

Doc Description: Coopers Rock Additional New Cabins

13:30

Reason for Modification:

Addendum #2 is issued to publish agency reponses to all vendor submitted questions and revised docum..... See Page 2 for

complete info

Proc Type:

Central Purchase Order

Date Issued 2024-04-26

Solicitation Closes

2024-05-16

CRFQ

Solicitation No.

0310

DNR2400000018

Version

3

BID RECEIVING LOCATION

BID CLERK

DEPARTMENT OF ADMINISTRATION

PURCHASING DIVISION 2019 WASHINGTON ST E

CHARLESTON

WV 25305

US

VENDOR

Vendor Customer Code: VC0000072369

Vendor Name: Zetti Contracting LLC

Address: 761

Street: Tyrone Rd #A

City: Morgantown

State: West Virginia

Country: USA

26508 Zip:

Principal Contact: Jay Scorzetti

Vendor Contact Phone: 660-955-4840

Extension:

FOR INFORMATION CONTACT THE BUYER

Joseph E Hager III (304) 558-2306

joseph.e.hageriii@wv.gov

Vendor

Signature X

FEIN# 82-3252848

DATE

5/16/2024

All offers subject to all terms and conditions contained in this solicitation

FORM ID: WV-PRC-CRFQ-002 2020/05 Date Printed: Apr 26, 2024 Page: 1

Reason for Modification:

Addendum #2 is issued to publish agency reponses to all vendor submitted questions and revised documentation per attached.

ADDITIONAL INFORMATION

The West Virginia Purchasing Division is soliciting bids on behalf of The West Virginia Division of Natural Resources to establish a contract for the construction of seven additional cabins at Coopers Rock State Forest near Bruceton Mills, WV in Mononglia County per the attached specifications and terms and conditions.

INVOICE TO		SHIP TO	
DIVISION OF NATURAL RESOURCES		DIVISION OF NATURAL RESOURCES	
PARKS & RECREATION-PEM SECTION		COOPERS ROCK STATE FOREST	
324 4TH AVE		61 COUNTY LINE DR	
SOUTH CHARLESTON	WV	BRUCETON MILLS	WV
US		US	

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Total Price
1	Cabins Construction				

Comm Code	Manufacturer	Specification	Model #	
72000000				

Extended Description:

Cabins Construction

SCHEDULE OF EVENTS

<u>Line</u> <u>Event Date</u>

Date Printed: Apr 26, 2024 Page: 2 FORM ID: WV-PRC-CRFQ-002 2020/05

	Document Phase	Document Description	Page 3
DNR2400000018	Final	Coopers Rock Additional New Cabins	

ADDITIONAL TERMS AND CONDITIONS

See attached document(s) for additional Terms and Conditions

ATTACHMENT A

RFI: Vendor Questions for CRFQ DNR 24*18 Coopers Rock Additional Rock

- **Q.1.** Is there a Subsurface Geotechnical Report available for this project? If there is no subsurface report and rock is encountered or poor soils where over-excavations are needed, will the contractor be compensated for the additional work?
- **A**. Yes, the original site project geotechnical report has been included. The contractor needs to include rock or poor soils in the bid price for line-item C7.
- **Q.2.** Please provide an existing conditions or site demolition plan to confirm the extent of demolition, clearing, grubbing, and grading required.
- **A.** Contractor needs to acquire plan set "316361-COOPERS ROCK STATE FOREST-CIVIL SITE IFB PLAN SET.pdf" as outlined in WVDNR Request for Quotation section 11. See plansheets C100 and C206 & C207 for existing conditions and site grading design completed by current contractor contract.
- Q.3. Please confirm the extent of grading for the new cabins.
- **A.** Extent of grading for cabins includes excavation and respread for crawl space and final grading for sidewalk, steps and railing installation.
- Q.4. Please provide details for the new utilities coming into the site.
- **A.** Contractor needs to acquire plan set "316361-COOPERS ROCK STATE FOREST-CIVIL SITE IFB PLAN SET.pdf" and "316361-COOPERS ROCK STATE FOREST-BIDDING EXHIBIT.pdf" as outlined in WVDNR Request for Quotation section 11. See plan sheets C511 & 512, details on sheets C518 to C522 and the Bidding exhibit that highlights current contract utility responsibilities.
- Q.5. Are there more specific plots for the roof trusses for the cabins? If so, please provide.
- **A.** Refer to specification sections 2.1 & 2.2 for delegated design and approved manufacturers/substitutions.
- **Q.6.** Please confirm if the driveways and sidewalks leading up to the new cabins are new. If so, please provide details.
- **A.** Contractor needs to acquire plan set "316361-COOPERS ROCK STATE FOREST-CIVIL SITE IFB PLAN SET.pdf" and "316361-COOPERS ROCK STATE FOREST-BIDDING EXHIBIT.pdf" as outlined in WVDNR Request for Quotation section 11. See Bidding exhibit for highlighted features to be installed. Main access road and parking areas to cabins are completed by previous contract.

- Q.7. Please confirm if handrails are required at the stairs leading to the cabins. If so, please provide details.
- **A.** Contractor needs to acquire plan set "316361-COOPERS ROCK STATE FOREST-CIVIL SITE IFB PLAN SET.pdf" and "316361-COOPERS ROCK STATE FOREST-BIDDING EXHIBIT" as outlined in WVDNR Request for Quotation section 11. See plan sheet C804 for details.
- **Q.8.** Please confirm if the stormwater detailed on "Bidding Exhibit" is to be included with our proposal. If so, please provide details.
- **A.** Contractor needs to acquire plan set "316361-COOPERS ROCK STATE FOREST-CIVIL SITE IFB PLAN SET.pdf" and "316361-COOPERS ROCK STATE FOREST-BIDDING EXHIBIT.pdf" as outlined in WVDNR Request for Quotation section 11. See plan sheets C800 & C801 for temporary E&S details and specification sections 312500 and 329200 for outlined seeding and E&S on Bidding Exhibit.
- **Q.9.** Please confirm if the driveway between cabin 12 and cabin 11 is included in our scope of work. If so, please provide details.
- A. Access road between Cabins 11 & 12 is included in previous contract.
- **Q.10.** Please confirm that any work associated with cabins 1-8 and cabins 16-20 are not included with our scope of work.
- **A.** Cabins 9-15 as outlined in base bid unit items A1 and A2 are the planned areas for this contract, see Bidding Exhibit highlighting planned project work. No additional work is associated with cabins 1-8 and 16-20.
- Q.11. Please confirm if there are allowances associated with unit prices.
- **A.** Unit quantities are based on planned design as shown on 316361-COOPERS ROCK STATE FOREST-CIVIL SITE IFB PLAN SET.pdf and "316361-COOPERS ROCK STATE FOREST-BIDDING EXHIBIT.pdf" plans.

Clarifications:

- 1. To include updated pricing page that includes cabin numbers adjusted with base cabins item A1 to be 11-15 and alternate item A2 to be 9 & 10.
- To include updated bidding exhibit for site features includes adjustment to the highlighted electrical installation to clearly show connection from transformer with conduit to the cabin including wire pulls and schematic adjusted avoiding installed parking gravel areas.
- 3. To include the updated skylight detail.

4. To clarify acceptable model numbers for revised lighting:

Type 'A' Metalux HC6

Type 'B' WAC Lighting DS-PD0622-F35-BK

Type 'B' (ACCY) WAC Lighting DS-PDX24

Type 'C' WAC Lighting WS-41137-AL

Type 'D' WAC Lighting PD-25314-BK

Type 'F' WAC Lighting F-001L-MB

Type 'G' WAC Lighting WS-30907-BK

Type 'L' 1000 Bulbs 51 LED Rope Light - Warm White - Clear

Type 'UC' ABL - Lithonia Lighting UCES 12" SWW6 90CRI WH M6

February 3, 2022

Mr. Stephen McDaniel Director West Virginia Division of Natural Resources- (WVDNR) 324 4th Avenue South Charleston, West Virginia 25303

Dear Mr. McDaniel:

Subject:

Geotechnical Subsurface Investigation- Letter Report

Coopers Rock New Cabins and RV Sites Monongalia County, West Virginia

CEC Project 316-361

Civil & Environmental Consultants, Inc. (CEC) presents our subsurface investigation report for the proposed Cabin and Recreational Vehicle (RV) sites near Morgantown, West Virginia. The subsurface investigation was performed, and this report was prepared in general accordance with CEC's Proposal for Geotechnical Engineering Services dated October 6, 2021, and subsequent email authorization from you.

This report presents CEC's opinions on the subsurface soil, and groundwater conditions at the site, and our geotechnical recommendations for site development, earthwork, and construction phase services. Appendices to this letter include "Important Information about Your Geotechnical Report", Drawings, Test Boring Logs, and Laboratory Test Results.

1.0 BACKGROUND INFORMATION

The proposed constructions will be located within Coopers Rock State Park approximately 2 miles southwest of Interstate 68 in Monongalia County, West Virginia. At the intersection of Coopers Rock State Park Road (73/12) and the entrance to the McCollum Camping Area, a new Campground and Rental building is proposed for construction. Past the existing camping area, approximately 25 RV sites are to be constructed. Access is anticipated to be a gravel roadway. A new wastewater treatment plant is proposed near the existing McCollum Camping Area playground. The plant design is not currently part of CEC's scope. Off the existing Raven Rock Trail, an asphalt roadway is planned to access a new cabin area. Twenty cabins are proposed for construction in this area.

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It is anticipated that cut and fill operations will be required to construct the sites to design grades. Excavations and fills are anticipated up to 10 feet to achieve design elevations. Cut slopes will be excavated no steeper than 3H:1V, and fill embankments will be constructed no steeper than 2H:1V. If the site development changes from what is described herein, CEC should review and, if necessary, revise the conclusions and recommendations presented herein.

2.0 SOILS AND GEOLOGIC RESEARCH

<u>Soils</u>: According to the United States Department of Agriculture soil survey for Marion and Monongalia Counties, West Virginia, the site soil belongs to the Buchannan and Ernest very stony soils (BeD), Dekalb very stony loam (DdC, DdE), Gilpin silt loam (GaB, GaC, GaD) and Tilsit silt loam (TIB, TIC). The Dekalb very stony loam is a gravelly residuum weathered from sandstone. The Gilpin silt loam is an acid fine loamy residuum weathered from shale and siltstone and/or fine-grained sandstone. The Tilsit silt loam is residuum weathered from shale and siltstone. The Buchannan and Ernest very stony soils are loamy colluvium derived from sandstone and shale.

<u>Bedrock Geology</u>: According to United States Geological Survey (USGS) geologic map of West Virginia, the site bedrock is Pennsylvanian aged, belonging to the Pottsville Group. The Pottsville Group consists mainly of sandstones, some of which are conglomeratic, with thin shales and coals. Undivided in Northern West Virginia, the Pottsville Group includes the Kanawha, New River and Pocahontas Formations.

<u>Coal Mining</u>: The West Virginia Geological and Economic Survey (WVGES) online coal mapping resource for historical mining and coal resource information indicates that there is no known mining occurred within the vicinity of the site.

3.0 SUBSURFACE EXPLORATION

<u>Test Drilling</u>: CEC subcontracted a local drilling company to drill 19 test borings totaling 240.8 linear feet (222feet of soil and 18.8 feet of highly weathered bedrock) at the project site from December 21 through December 23, 2021.

The test boring depths ranged from 3.7 to 16.5 feet below ground surface (ft. bgs.). The test boring locations are shown on the drawings attached in Appendix B. A summary of the test boring depths and conditions is presented in Table 1.

The test borings were performed using a track-mounted drill rig equipped with an automatic hammer. The soil zone was sampled at intervals not exceeding 2.5 feet using hollow-stem auger

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drilling methods and split-spoon sampling methods in accordance with the standard penetration test (SPT), as described in ASTM D1586. A split-spoon sampler is a 2-inch outside-diameter (OD) tube, which is driven into the soil. The soil is captured in the sampler, then removed and identified. The SPT consists of driving the 2-inch OD sampling spoon using a 140-pound hammer freely falling 30 inches. The number of blows required to drive the spoon through three (3) successive 6-inch increments is recorded. The sum of the number of blows required to drive the sampler through the second and third increments is the N-value of the soil, which is used to estimate soil density, compressibility, and shear strength. The test borings were extended to split-spoon refusal or auger refusal on bedrock. CEC defines split-spoon refusal as the depth at which 50 blows or more are required to drive the sampling spoon 6 inches or less. Bag samples were obtained from select borings for possible laboratory testing.

CEC's project representative described the soil color, texture, origin, and moisture content of the soil samples obtained during the subsurface investigation. CEC's representative also performed pocket penetrometer (PP) tests on cohesive soil samples to estimate soil unconfined compressive strength. Bedrock color, type, brokenness, hardness, and weathering were also described. Detailed soil and bedrock descriptions, N-values, PP results, and other applicable information are shown on the test boring logs in Appendix C. A summary of the definitions of standard terms and symbols used in this report and on the test boring logs are also presented in Appendix C.

<u>Laboratory Testing:</u> Mechanical sieve (ASTM D422), Atterberg limits (ASTM D4318), and moisture content testing was performed on five residual soil samples obtained from the test borings. The laboratory test results, including Unified Soil Classification System (USCS) group symbols are presented in Appendix D, and are summarized on Table 2.

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TABLE 1
TEST BORING SUMMARY

Test Boring	Approximate Existing Ground Elevation (ft.)	Approximate Thickness of Topsoil (ft.)	Approximate Thickness of Residuum (ft)	Approximate Thickness of drilled Bedrock (ft)	Total Depth (ft.)	Approximate Top of Bedrock Elevation (ft.)	Water Level At Soil Sampling Completion (ft. bgs.)	Water Level After at Least 24 Hours (ft. bgs.)
B-1	2173.0	0.3	10.7	3.0	14.0	2162.0	Dry	
B-2	2162.2	0.3	16.2		16.5	2145.7	Dry	
B-3	2145.8	0.3	8.2	1.9	10.4	2137.3	Dry	
B-4	2134.3	0.4	8.1	4.8	13.3	2125.8	Dry	
B-5	2162.0	0.3	13.2	2.8	16.3	2148.5	Dry	
B-6	2146.0	0.4	12.1	0.4	12.9	2133.5	Dry	
B-7	2153.1	0.4	15.1	0.3	15.8	2130.3	Dry	
B-8	2128.7	0.3	10.2	0.3	10.8	2118.2	Dry	-
B-9	2155.5	0.3	12.2	0.3	12.8	2143.0	Dry	-
B-10	2190.0	0.3	5.7	0.4	6.4	2184.0	Dry	
B-11	2162.1	0.5	15.5	0.3	16.3	2146.1	Dry	
B-12	2143.9	0.6	15.4	0.2	16.2	2127.9	4.0	6.2
B-13	2128.1	0.4	6.6		7.0	2121.1	Dry	
B-14	2112.1	0.3	2.2	1.2	3.7	2109.6	Dry	
B-15	2112.0	0.4	13.1	0.4	13.9	2098.5	Dry	
B-16	2085.4	0.4	14.6	0.5	15.5	2070.4	Dry	
B-17	2064.7	0.4	5.6	0.5	6.5	2058.7	Dry	
B-18	2056.4	0.3	10.7	0.5	11.5	2045.4	Dry	2 2

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Test Boring	Approximate Existing Ground Elevation (ft.)	Approximate Thickness of Topsoil (ft.)	Approximate Thickness of Residuum (ft)	Approximate Thickness of drilled Bedrock (ft)	Total Depth (ft.)	Approximate Top of Bedrock Elevation (ft.)	Water Level At Soil Sampling Completion (ft. bgs.)	Water Level After at Least 24 Hours (ft. bgs.)	
B-19	2108.8	0.3	4.7	0.5	5.5	2103.8	Dry		
Totals:		7.3	214.7	18.8	240.8				

Notes:

Ground surface elevations were field surveyed by CEC.

-- Not Applicable

^{*} Relocated at the time of the drilling operations - elevation is approximate and interpolated from the boring location plan.

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TABLE 2 LABORATORY TESTING SUMMARY

Test Boring	Sample Depth (ft. bgs.)	Sample Origin	USCS/ (Visual Classification)	USCS Group Symbol	Moisture Content (%)	% Passing No. 200 Sieve	Liquid Limit ⁽¹⁾ (%)	Plastic Limit ⁽¹⁾ (%)	Plasticity Index ⁽¹⁾ (%)
B-5	0.0-4.0	Residual	Lean Clay with Sand	CL	15.5	75.2	28	20	8
B-12	2.5-4.0	Residual	Sandy Lean Clay	CL	14.1	67.5	27	19	8
B-13	2.5-6.5	Residual	Lean Clay with Gravel	CL	12.4	75.8	29	20	9
B-17	2.5-4.0	Residual	Silty Clayey Gravel with Sand	GC-GM	11.1	41.9	22	18	4
B-18	0.0-4.0	Residual	Sandy Silt	ML	22	55	22	19	3
Notes:						'			
(1)	Test performed on sample portion passing #40 sieve.								

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4.0 CONCLUSIONS

CEC presents the following conclusions based on the data obtained, our observations, analyses performed, and our past experience on similar projects. The test borings performed at this site represent the subsurface conditions at the location of the test borings only. Soil conditions at other locations on the site may differ. If the subsurface conditions during construction differ from those indicated herein, CEC must review the new information, determine if our conclusions and recommendations are applicable, and provide any required revisions and adjustments.

4.1 Topsoil

Up to approximately 0.6 feet of topsoil was observed at the test boring locations. However, topsoil thicknesses may vary at other locations not sampled. Topsoil is generally compressible and contains organic materials that decompose over time. The topsoil and underlying clay with organics is not suitable to reuse as new fill. The topsoil may be suitable for reuse in re-vegetation applications. Testing the topsoil for fertility or landscaping suitability was not included as part of this investigation. The thickness of the topsoil encountered in test borings was based on the amount of topsoil recovered in the split-spoon sampler and visual observations performed by CEC personnel at the time of exploration. This may be interpreted differently by others.

The topsoil thickness recorded should not be the only consideration when developing a volume (cubic yards) to be stripped by an earthwork contractor. It is generally not possible for a contractor to remove less than about 8 to 12 inches of material during stripping operations. Other factors can also impact the actual amount of material removed during stripping operations. CEC cannot be responsible for the final amount of material removed by the contractor.

4.2 Residual Soil Conditions

Residual soils were noted in each of the test borings. Residual soil is defined as soil which has weathered in place from the underlying parent bedrock. The sampled residuum consisted of lean clay, sandy lean clay, silty clayey gravel, sand, and sandy silt. The fine-grained soils had consistencies ranging from very soft to very stiff. The relative density of the coarse-grained soils that was encountered at the site was very loose to very dense. The residual soils were in a dry to moist condition at the time of sampling.

Laboratory testing was conducted on five (5) samples of residual soil obtained from borings advanced at the site. According to the United Soil Classification System, residual soil samples classified as CL (lean clay with sand, lean clay with gravel, and sandy lean clay), GC-GM (silty clayey gravel with sand), and ML (sandy silt). Moisture contents of the tested samples ranged from

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11.1 to 22.0 percent. The liquid limits for the samples ranged from 22 to 29 percent, and the plastic limits ranged from 18 to 20 percent.

Residual soil will be encountered during excavations performed at the site. Very stiff to hard, and dense to very dense residual soils and bedrock are suitable to support new fill embankments. Very loose to medium dense and very soft to medium stiff residual soil and/or fat clay residual soils are not suitable to support fill or structures.

The residual soil is suitable for re-use as new fill, provided it is placed in accordance with the recommendations presented in this report. CEC does not anticipate that significant blending, drying, or other stabilization measures will be required to reduce the moisture content of some of the residual soil prior to placing it as new fill. However, the moisture content of the residual soil could differ at the time of construction from what was sampled, observed, and tested during the subsurface investigation. Should wet soils be encountered, the contractor may need to dry, mix, or use amendments such as lime to properly place these soils.

4.3 Bedrock Conditions

The top of bedrock is defined as the depth at which 50 blows or more are required to drive the sampling barrel 6 inches or less. The top of bedrock encountered in the test borings ranged from 2.5 to 16.3 ft. bgs. Test borings B-11 and B-16 were terminated at split spoon refusal in highly weathered bedrock while B-2 was terminated at a depth of 16.5 feet in residuum. The remaining test borings were terminated due to auger refusal at depths which varied from 3.7 to 16.3 ft. bgs. Bedrock sampled consisted primarily of sandstone. Bedrock descriptions are shown on the test boring logs in Appendix C.

Based on the proposed grading shown on the figures in Appendix B, bedrock will be encountered in excavations to construct the sites to design grade. The excavations to grade the site will encounter very soft sandstone. The very soft to soft bedrock encountered can be excavated using heavy earth moving equipment. It is not anticipated that bedrock will be encountered in foundation excavations at the site.

4.4 Groundwater Conditions

Water was encountered at the completion of soil sampling in the test boring B-12. The water level reading for the test boring at soil sampling completion was 4.0 ft. bgs.; therefore, the test boring was left open for a twenty-four hour reading which was 6.2 ft. bgs. Based on the water level measurements and geologic conditions, CEC anticipates that groundwater may be encountered during excavations for the Campground and Rental Office which is proposed in the general

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location of test borings B-11 and B-12. However, groundwater elevations can fluctuate due to precipitation, season, temperature, and other factors.

4.5 Seismic Site Class

Based on Chapter 16 of the 2015 International Building Code (IBC), an evaluation of the upper 100 feet of the material below the ground surface and its characteristics is required to determine the site classification for the proposed building. The seismic site class for the site was determined from SPT "N" values from the test borings, our knowledge of bedrock in this region. The subsurface conditions under the site appear consistent with a Site Class of "C" as defined by the current IBC. However, any actual structural design will be based on the Occupancy Category and the spectral acceleration values provided below.

The USGS Earthquake Hazards website and the IBC spectral response mapping were referenced to determine the design spectral acceleration values at short (S_{DS}), and 1-second (S_{D1}) periods. For Site Class "C" based on a risk category of IV, as defined in Chapter 16 of the IBC, the calculated S_{DS} and S_{D1} accelerations are 0.087 and 0.062, respectively.

5.0 RECOMMENDATIONS

CEC presents the following recommendations for site earthwork, foundations, and construction phase services. The test borings performed at this site represent the subsurface conditions at the location of the test borings only. Subsurface conditions may vary in other locations that require additional treatments not specifically recommended herein. Consequently, CEC stresses the need to continue our involvement with the project during both the design and construction phases.

5.1 Foundations

It is CEC's opinion that the planned cabins and office building can be supported by shallow spread foundations or individual pier footings that are designed and constructed to bear on the natural soils (medium dense to dense sand or medium stiff to very stiff lean clay) anticipated at frost depth. For foundations bearing on natural soils, it is our opinion that the foundations can be proportioned utilizing a maximum allowable bearing pressure of 2,000 pounds per square foot (psf).

At the location of the planned waste plant (Boring B-14), very soft bedrock was present at a depth of 2.5 ft. bgs. A maximum allowable bearing pressure of 3,500 psf can be utilized for foundations bearing in the very soft bedrock. Auger refusal was realized at a depth of 3.7 ft. bgs. at this location. If planned structures will bear below this depth, hard rock excavation may become necessary.

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Minimum dimensions of 2 feet for rectangular or continuous footings, and 3 feet for individual or square footings should be considered in design to reduce the potential for a localized shear or punching type failure of the foundation materials. Exterior footings should bear at a depth of at least 3.0 feet below final outside grade for protection from damage due to frost. Interior foundations in heated areas can be founded a nominal distance below the slab, provided that appropriate bearing material is present at this depth.

Foundation excavations should be compacted following excavation to densify loose or otherwise disturbed materials present in the base of the excavations. The excavations should be observed by a qualified geotechnical engineer, or his/her representative, prior to concrete placement to verify that materials capable of providing the recommended bearing capacity are present. The materials exposed in the foundation excavations will be susceptible to softening and/or degradation if exposed to precipitation or surface water runoff. Consequently, foundation concrete should be placed in the excavations as soon as possible once the excavations have been observed.

5.2 <u>Site Development And Earthwork</u>

5.2.1 Subgrade Preparation

Topsoil should be stripped and stockpiled prior to fill placement and construction. Roots, root balls, brush, grass, and other deleterious materials below the topsoil should also be removed. After removing topsoil and other deleterious materials, exposed subgrades in new fill areas should be proofrolled at existing moisture contents using a fully-loaded triaxle or off-road dump truck. If the subgrade displays elasticity or deformation during the proof roll, the deflecting material should be overexcavated and replaced with suitable fill material. Excavate to a depth where suitable material is encountered, or to a maximum depth of 3 feet, and backfill to grade with suitable soil so that the final subgrade shows no elasticity or deformation under the final proof roll. Fat clay or organic soil, if encountered at subgrades, should be excavated, and backfilled with suitable fill material.

5.2.2 Cut Slope Configuration

Cut slopes are currently proposed at 3H:1V or flatter. Based on the test borings, it is anticipated that the excavations at the sites will be performed in residual soils consisting of lean clays or sand with sandstone fragments. Surface drainage in the form of drainage ditches and berms located above the top, around the sides of the cut, and the base of the cut should be employed to divert surface water from the slope face.

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5.2.3 New Fill Materials and Placement

<u>Soil Fill Materials</u>: Soil fill consists of onsite soils that do not contain rock pieces larger than 6 inches in dimensional size. Soil fill should classify as GW, GP, GM, GC, SW, SP, SM, SC, ML, or CL according to the USCS. Fat clay (USCS classification CH) soil, if encountered, should not be used as site fill unless blended with lime, or other stabilizing agents prior to reuse as new fill. Fat clays should be blended at a rate where it can be suitably placed in accordance with the recommendations herein.

<u>Soil Key</u>: CEC recommends excavating a soil key at the toe of all proposed fill slopes exceeding 5 feet in height. Soil keys should be excavated a minimum 3 feet deep and 10 feet wide. The final depth for the toe key will be dependent on existing field conditions. The temporary excavation sidewalls should be sloped back at a minimum of 1H:1V.

Soil Fill Placement: Fill embankment slopes should be constructed no steeper than 2H:1V. All soil fills should be placed in a controlled manner in maximum 12-inch thick loose lifts. Each layer of fill should be compacted to visible non-movement with at least five (5) passes with "heavy" compaction equipment. Soil fill material containing more than 10% fines should be compacted to at least 98% of the maximum dry density and within 3% of optimum moisture content as estimated by the standard Proctor (ASTM D698) compaction test. Adjustments to the soil moisture by wetting or drying should be made as needed. Segmented pad-type compactors should be used to compact fine-grained fill material (silts and clays). Clean coarse-grained cohesionless soil containing less than 10% fines should be compacted to non-movement using smooth-drum vibratory compaction equipment. At the end of each workday, new fill should be sloped back toward the existing hillside and compacted with a smooth-drum roller to reduce the potential for finished slope face erosion.

<u>Compaction Keys</u>: Compaction keys or dozer notches, should be excavated into the existing ground surface during new fill placement to adequately bond the new fill into the existing ground surface.

<u>Earthwork Balance and Shrink/Swell</u>: For earthwork quantity estimating, CEC recommends using a swell factor of 5% for excavated soil. Utilize a shrinkage factor of 10% for excavated soil placed as new fill. These factors are estimates, and actual conditions could vary. Adjust site grades as necessary during construction to balance earthwork quantities.

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5.2.4 Quality Assurance and Testing

Perform grain size analysis (ASTM D422), Atterberg limits (ASTM D4318), natural moisture content (ASTM D2216), and standard Proctor (ASTM D698) testing on new fill material to verify its suitability. Testing should be performed periodically during fill placement for each type of material used. Density testing, in accordance with ASTM D6938, should be performed on all new fill material placed at the site. Perform density testing for every 20,000 square feet of fill placed at the site, with a minimum of two (2) tests per lift. Density testing should also be performed every 100 linear feet along utility trenches (if applicable), with a minimum of one (1) test per lift.

5.2.5 Weather Considerations

Fine-grained clay soils are present at the site. These materials will be reused as new fill. Wet clay cannot be properly placed as new fill. If earthwork is performed during winter or spring months, or during inclement weather, fill placement will be difficult and the contractor should expect a reduction in productivity. Earthwork operations can be significantly affected by inclement weather and/or precipitation. CEC recommends performing earthwork during summer or early fall to reduce the impact of weather.

5.3 Access Roads Subgrade Improvement

The test borings for the cabin area access road (Borings B-1 through B-4) indicate areas of soft near surface soils. Furthermore, the test borings (B-15 through B-19) for the planned access roadway for the RV area indicate very loose and very soft near surface soils. The access road subgrades should be prepared in accordance with Section 5.2.1. by proofrolling the prepared pavement subgrade prior to pavement construction using a fully loaded triaxle dump truck. Remove soft or deflecting subgrade material delineated by the proofrolling to a depth at which the subgrade displays minimal elasticity, or to a maximum depth of 3 feet. Backfill overexcavations with suitable fill material placed and compacted in accordance with Section 5.2. Depths of overexcavation of approximately 2 to 3 feet are anticipated.

5.4 Asphalt / Aggregate Surfaced Roadways

Drains should be installed in the road subgrades. The subgrades should be sloped toward catch basins or away from paved / granular surfaced areas to properly drain the pavement and prevent undrained water from freezing or softening of the pavement subgrade. Failure to provide adequate drainage may result in damage to the pavement due to freezing of undrained water. The Federal Highway Administration (FHWA) recommends ½ inch of crown per foot (approximately 4 percent) to drain water from road surfaces.

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5.4.1 Asphalt Pavement

The procedure outlined in The Asphalt Institute, Information Series No. 181, November 1981, Asphalt Pavement Thickness Design Guide, was used for the pavement design for the cabin access roadway. One (1) flexible (asphalt) pavement section has been developed for the project. The pavement section was designed based on assumed traffic loading conditions and our experience with similar projects and subsurface conditions. Based on the USCS classification of CL, as provided in the laboratory testing section of this report, as assumed conservative California Bearing Ratio (CBR) value of approximately three (3) was considered in pavement design. This range of CBR values indicates a poor subgrade class. Furthermore, a Traffic Class 1 was assumed. Class 1 is recommended for parking lots, driveways, and light traffic residential streets. Heavy truck traffic during the design period is expected to be ≤ 7,000 trucks. A resilient modulus of about 3,500 pounds per square inch was considered.

Based on the results of our design, the recommended standard duty flexible pavement section includes the following:

- 1. 1.0" Hot Mix Asphalt wearing course
- 2. 2.0" Hot Mix Asphalt base course
- 3. 6.0" Crushed Stone Aggregate Base

Hot-mix asphalt pavement should be designed, mixed, and constructed in accordance with West Virginia Department of Transportation, Division of Highways (WVDOT DOH), Standard Specification, Roads and Bridges, Adopted 2017.

5.4.2 Aggregate Surfaced Roadways

CEC understands that an aggregate surfaced roadway is desired for the RV area. If aggregate surfaced roadways are selected, they will require routine maintenance, particularly in turning areas with repeated load application. Prior to crushed aggregate placement, a stabilization/reinforcement geosynthetic such a Mirafi[®] 570 or approved equal should be placed on the prepared subgrade.

CEC recommends that the aggregate consist of 8-inches total of crushed aggregate.

- 1. 2" 1.5-inch crusher run
- 2. 6" AASHTO #3 Stone

CEC recommends protecting the subgrade from precipitation by scheduling and performing the paving during dry weather. Paving during spring or winter months, or during inclement weather, could be difficult.

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6.0 STANDARD OF CARE

The services performed by CEC were conducted in a manner consistent with the level of care and skill ordinarily exercised by members of the geotechnical engineering profession practicing contemporaneously under similar conditions in the locality of the project. No warranty, express or implied, is made. Appendix A contains a document entitled "Important Information About Your Geotechnical Engineering Report." This document further explains the realities of geotechnical engineering and the limitations that exist in evaluating geotechnical issues.

This report was prepared for the purpose of design development. Reliance on this report by any party other than WVDNR is expressly forbidden. CEC assumes no liability for the use of this report or information contained herein for any other purpose. Contractors should not rely on this report to develop bids or construction methodologies.

7.0 CLOSING REMARKS

CEC appreciates this opportunity to be of service to WVDNR. We look forward to working with you toward the successful completion of this project.

Very truly yours,

CIVIL & ENVIRONMENTAL CONSULTANTS, INC.

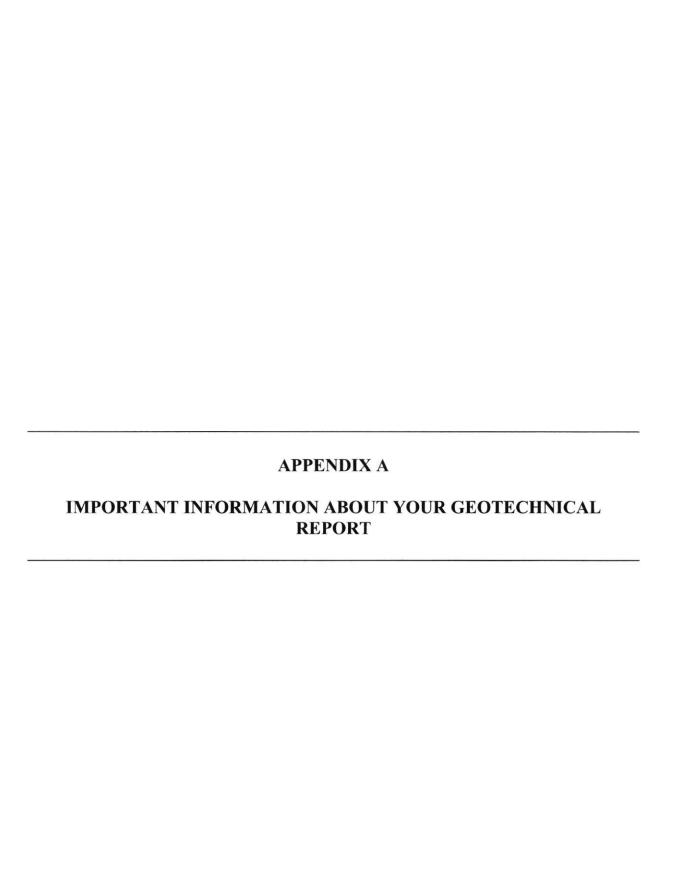
L. Jane Hicks

Senior Project Manager

Kow O. Eshun, P.E.

02/03/2022

Principal



Important Information about Your

Geotechnical Engineering Report

Subsurface problems are a principal cause of construction delays, cost overruns, claims, and disputes.

While you cannot eliminate all such risks, you can manage them. The following information is provided to help.

Geotechnical Services Are Performed for Specific Purposes, Persons, and Projects

Geotechnical engineers structure their services to meet the specific needs of their clients. A geotechnical engineering study conducted for a civil engineer may not fulfill the needs of a construction contractor or even another civil engineer. Because each geotechnical engineering study is unique, each geotechnical engineering report is unique, prepared *solely* for the client. No one except you should rely on your geotechnical engineering report without first conferring with the geotechnical engineer who prepared it. *And no one — not even you —* should apply the report for any purpose or project except the one originally contemplated.

Read the Full Report

Serious problems have occurred because those relying on a geotechnical engineering report did not read it all. Do not rely on an executive summary. Do not read selected elements only.

A Geotechnical Engineering Report Is Based on A Unique Set of Project-Specific Factors

Geotechnical engineers consider a number of unique, project-specific factors when establishing the scope of a study. Typical factors include: the client's goals, objectives, and risk management preferences; the general nature of the structure involved, its size, and configuration; the location of the structure on the site; and other planned or existing site improvements, such as access roads, parking lots, and underground utilities. Unless the geotechnical engineer who conducted the study specifically indicates otherwise, do not rely on a geotechnical engineering report that was:

- not prepared for you,
- not prepared for your project,
- not prepared for the specific site explored, or
- completed before important project changes were made.

Typical changes that can erode the reliability of an existing geotechnical engineering report include those that affect:

 the function of the proposed structure, as when it's changed from a parking garage to an office building, or from a light industrial plant to a refrigerated warehouse,

- elevation, configuration, location, orientation, or weight of the proposed structure.
- composition of the design team, or
- project ownership.

As a general rule, a/ways inform your geotechnical engineer of project changes—even minor ones—and request an assessment of their impact. Geotechnical engineers cannot accept responsibility or liability for problems that occur because their reports do not consider developments of which they were not informed.

Subsurface Conditions Can Change

A geotechnical engineering report is based on conditions that existed at the time the study was performed. *Do not rely on a geotechnical engineering report* whose adequacy may have been affected by: the passage of time; by man-made events, such as construction on or adjacent to the site; or by natural events, such as floods, earthquakes, or groundwater fluctuations. *Always* contact the geotechnical engineer before applying the report to determine if it is still reliable. A minor amount of additional testing or analysis could prevent major problems.

Most Geotechnical Findings Are Professional Opinions

Site exploration identifies subsurface conditions only at those points where subsurface tests are conducted or samples are taken. Geotechnical engineers review field and laboratory data and then apply their professional judgment to render an opinion about subsurface conditions throughout the site. Actual subsurface conditions may differ—sometimes significantly—from those indicated in your report. Retaining the geotechnical engineer who developed your report to provide construction observation is the most effective method of managing the risks associated with unanticipated conditions.

A Report's Recommendations Are *Not* Final

Do not overrely on the construction recommendations included in your report. *Those recommendations are not final*, because geotechnical engineers develop them principally from judgment and opinion. Geotechnical engineers can finalize their recommendations only by observing actual

subsurface conditions revealed during construction. The geotechnical engineer who developed your report cannot assume responsibility or liability for the report's recommendations if that engineer does not perform construction observation.

A Geotechnical Engineering Report Is Subject to Misinterpretation

Other design team members' misinterpretation of geotechnical engineering reports has resulted in costly problems. Lower that risk by having your geotechnical engineer confer with appropriate members of the design team after submitting the report. Also retain your geotechnical engineer to review pertinent elements of the design team's plans and specifications. Contractors can also misinterpret a geotechnical engineering report. Reduce that risk by having your geotechnical engineer participate in prebid and preconstruction conferences, and by providing construction observation.

Do Not Redraw the Engineer's Logs

Geotechnical engineers prepare final boring and testing logs based upon their interpretation of field logs and laboratory data. To prevent errors or omissions, the logs included in a geotechnical engineering report should *never* be redrawn for inclusion in architectural or other design drawings. Only photographic or electronic reproduction is acceptable, *but recognize* that separating logs from the report can elevate risk.

Give Contractors a Complete Report and Guidance

Some owners and design professionals mistakenly believe they can make contractors liable for unanticipated subsurface conditions by limiting what they provide for bid preparation. To help prevent costly problems, give contractors the complete geotechnical engineering report, but preface it with a clearly written letter of transmittal. In that letter, advise contractors that the report was not prepared for purposes of bid development and that the report's accuracy is limited; encourage them to confer with the geotechnical engineer who prepared the report (a modest fee may be required) and/or to conduct additional study to obtain the specific types of information they need or prefer. A prebid conference can also be valuable. Be sure contractors have sufficient time to perform additional study. Only then might you be in a position to give contractors the best information available to you, while requiring them to at least share some of the financial responsibilities stemming from unanticipated conditions.

Read Responsibility Provisions Closely

Some clients, design professionals, and contractors do not recognize that geotechnical engineering is far less exact than other engineering disciplines. This lack of understanding has created unrealistic expectations that

have led to disappointments, claims, and disputes. To help reduce the risk of such outcomes, geotechnical engineers commonly include a variety of explanatory provisions in their reports. Sometimes labeled "limitations" many of these provisions indicate where geotechnical engineers' responsibilities begin and end, to help others recognize their own responsibilities and risks. *Read these provisions closely.* Ask questions. Your geotechnical engineer should respond fully and frankly.

Geoenvironmental Concerns Are Not Covered

The equipment, techniques, and personnel used to perform a *geoenviron-mental* study differ significantly from those used to perform a *geotechnical* study. For that reason, a geotechnical engineering report does not usually relate any geoenvironmental findings, conclusions, or recommendations; e.g., about the likelihood of encountering underground storage tanks or regulated contaminants. *Unanticipated environmental problems have led to numerous project failures*. If you have not yet obtained your own geoenvironmental information, ask your geotechnical consultant for risk management guidance. *Do not rely on an environmental report prepared for someone else*.

Obtain Professional Assistance To Deal with Mold

Diverse strategies can be applied during building design, construction, operation, and maintenance to prevent significant amounts of mold from growing on indoor surfaces. To be effective, all such strategies should be devised for the express purpose of mold prevention, integrated into a comprehensive plan, and executed with diligent oversight by a professional mold prevention consultant. Because just a small amount of water or moisture can lead to the development of severe mold infestations, a number of mold prevention strategies focus on keeping building surfaces dry. While groundwater, water infiltration, and similar issues may have been addressed as part of the geotechnical engineering study whose findings are conveyed in this report, the geotechnical engineer in charge of this project is not a mold prevention consultant; none of the services performed in connection with the geotechnical engineer's study were designed or conducted for the purpose of mold prevention. Proper implementation of the recommendations conveyed in this report will not of itself be sufficient to prevent mold from growing in or on the structure involved.

Rely, on Your ASFE-Member Geotechncial Engineer for Additional Assistance

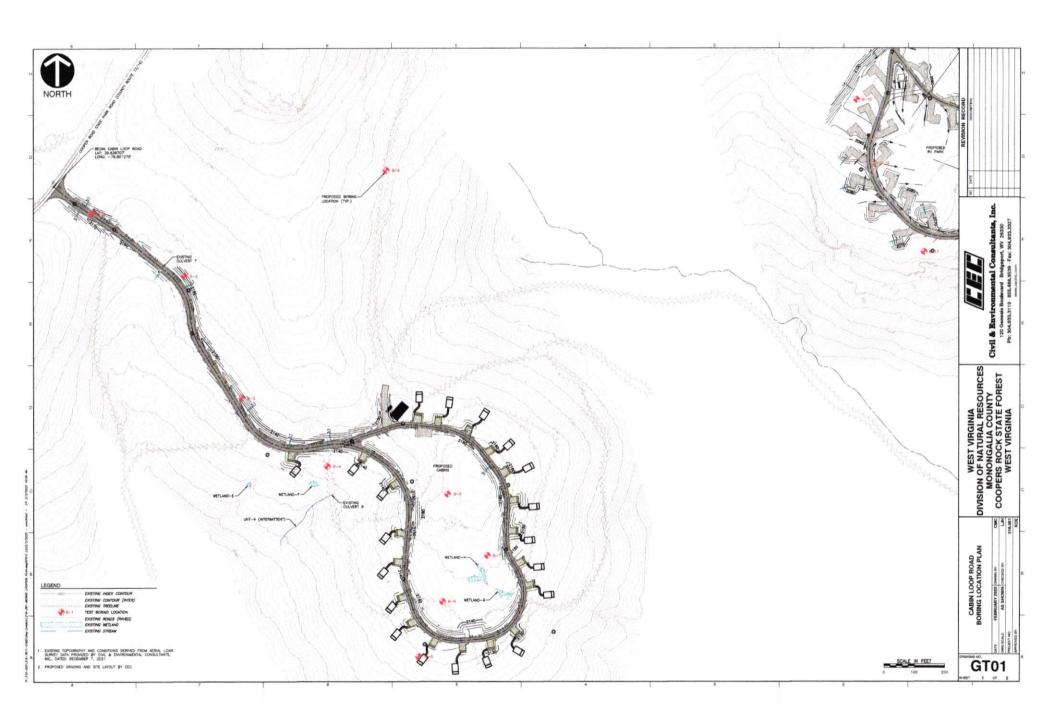
Membership in ASFE/THE BEST PEOPLE ON EARTH exposes geotechnical engineers to a wide array of risk management techniques that can be of genuine benefit for everyone involved with a construction project. Confer with your ASFE-member geotechnical engineer for more information.

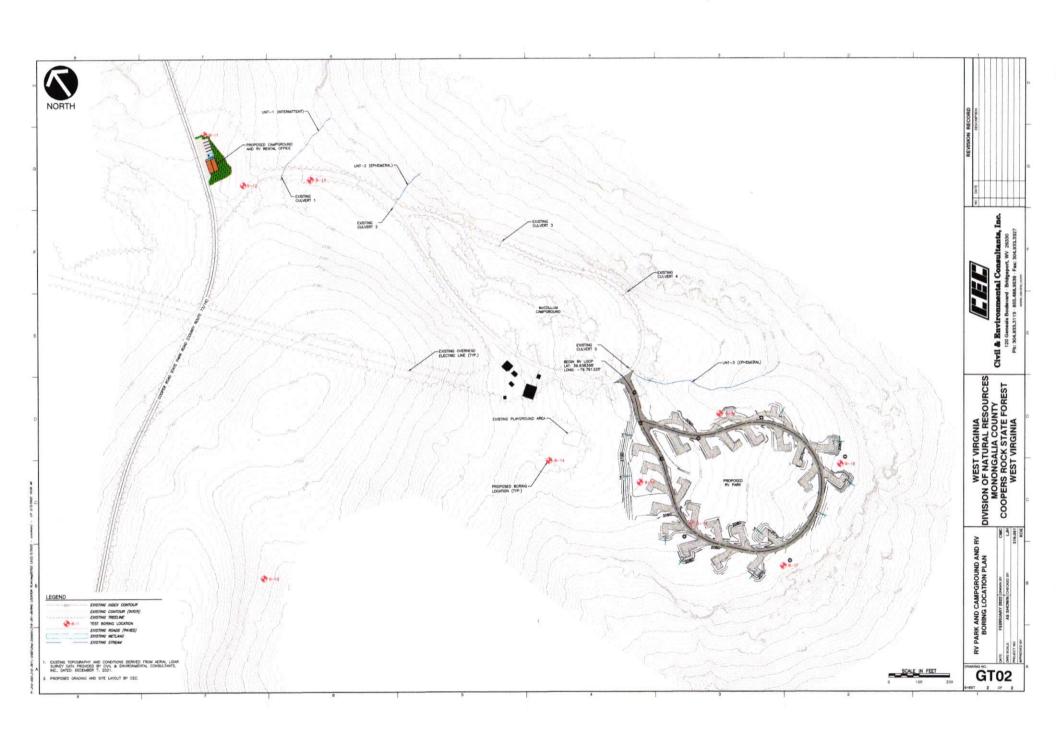


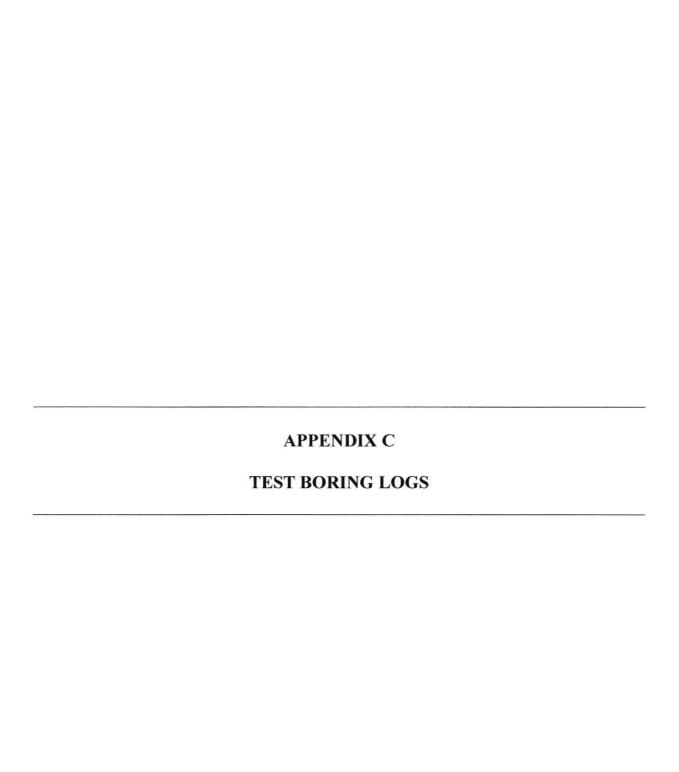
8811 Colesville Road/Suite G106, Silver Spring, MD 20910 Telephone: 301/565-2733 Facsimile: 301/589-2017 e-mail: info@asfe.org www.asfe.org

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Rock Types Symbol Rock Name Characteristics Clay sized particles, shale has fissility which Shale is a horizontal sheet-like or laminated feature. Claystone Clay sized particles that are consolidated, lacking fissility. Composed of silt, normally breaks as Siltstone irregular chunks Sandstone Primarily sand sized particles modified w/ the descriptor fine, medium, or coarse, Gravel sized grains and larger held together by Conglomerate finer material, called a breccia if clasts are angular. Effervesses w/ diluted HCI, can be composed of Limestone clay up to gravel particles (fossils). Black and shiny, can break into cubes or Coal conchoidally.

Rock Quality Descriptions

Weathering

Completely Weathered: All rock material is decomposed and/or disintegrated. The original rock structure may still be intact.

Highly Weathered: More than half of the rock material is decomposed. Fresh rock is present only as a discontinuous framework or as corestones.

Moderately Weathered: Less than half of the rock material is decomposed. Fresh rock is present at a discontinuous framework or as corestones

Slightly Weathered: Discoloration or staining indicates weathering of rock material on discontinuity surfaces. Rock may be discolored and softened.

Fresh: No visible signs of rock material weathering.



<25
25-50
50-75
75-90
>90

Brokenness

<u>Descriptor</u>	Fracture Spacing (in & ft
Very Broken	< 1 (<0.08)
Broken	1-3 (0,08-0,25)
Moderately Broken	3-6 (0.25-0.5)
CV 14 D 1	-0 (-0 5)

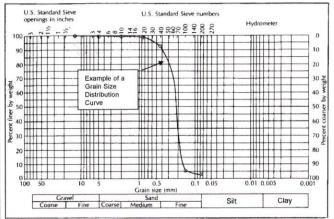
Rock Hardness

Descriptor Field Criterion Relative Unconfined Compressive Strength

Very Hard Difficult to break w/ Hammer Hand-held sample breaks w/ Hammer Hard Medium Hard Cannot scrape surface w/ knife Soft Cutting or scraping w/ knife difficult Very Soft Can be cut w/ knife

> 30,000 psi 8,000 to 30,000 psi 2,000 to 8,000 psi 500 to 2,000 psi

Grain Size Distribution Curve



UNIFIED SOIL	CLASS	FICATION AND SYMBOL CHART	LABORATORY CLASSIFICATION CRITERIA
(more than 5		SE-GRAINED SOILS rial is larger than No. 200 sleve size.)	
	Clean	Grevels (Less than 5% fines)	0 0
GRAVELS	gw	Well-graded gravels, gravel-sand mixtures, little or no fines	GW $C_u = \frac{D_{80}}{D_{10}}$ greater than 4; $C_c = \frac{D_{30}}{D_{10} \times D_{80}}$ between 1 and 3
More than 50% of coarse	GP	Poorly-graded gravels, gravel-sand mixtures, little or no fines	GP Not meeting all gradation requirements for GW
fraction larger than No. 4	Gravel	with fines (More than 12% fines)	
sleve size	GM	Silty gravels, gravel-sand-silt mixtures	GM Atterborg limits below "A" Above "A" line with P.I. between 4 and 7 are borderine cases
	GC	Clayey gravels, gravel-sand-clay mixtures	GC Atterberg limits above "A" requiring use of dual symbols line with P.I. greater than 7
	Clean	Sands (Less than 5% fines)	_ D ₆₀ _ D ₃₀
SANDS	sw	Well-graded sands, gravelly sands, little or no fines	$C_u = \frac{D_{60}}{D_{10}}$ greater than 4; $C_c = \frac{D_{30}}{D_{10} \times D_{60}}$ between 1 and 3
60% or more of coarse	SP	Poorly graded sands, gravelly sands, little or no fines	SP Not meeting all gradation requirements for GW
fraction smaller than No. 4	Sands	with fines (More than 12% fines)	
sieve size	SM	Silty sands, sand-silt mixtures	SM Alterberg limits below "A" Limits plotting in shaded zone with P.I. between 4 and 7 are
	sc	Clayey sands, sand-clay mixtures	SC Afterberg limits above "A" borderline cases requiring use of dual symbols.
-	FINE-	GRAINED SOILS	
(50% or mor	e of meter	al is smaller than No. 200 sieve size.)	Determine percentages of sand and gravel from grain-size curve. Depending
SILTS	ML	Inorganic sits and very fine sands, rock flour, sifty of clayey fine sands or clayey sits with slight plasticity	on percentage of fines (fraction smaller than No. 200 slave size), interse-grained solls are classified as follows: Less than 5 percent
CLAYS Liquid limit	CL	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, alty clays, tean clays	6 to 12 percent Borderline cases requiring dual symbols PLASTICITY CHART
50%	OL.	Organic sits and organic sity clays of low plasticity	00
SILTS	мн	Inorganic silts, micaceous or distomaceous fine sandy or silty soils, elastic silts	6 00 CH ALFWIT P 0 7 3 (L-20)
CLAYS Liquid limit 50%	СН	Inorganic clays of high plasticity, fat clays	20 CL MH&OH
or greater	он	Organic clays of medium to high plasticity, organic slits	
HIGHLY	PT	Peat and other highly organic soils	0 10 20 30 40 50 60 70 80 90 100 LIQUID LIMIT (LL) (%)

Glossarv

Alluvial Soil: Soil deposited by water in a river, stream, floodplain, or delta.

Bedrock: General term describing solid rock underlying soil or other unconsolidated surficial materials.

Colluvial Soil: Incoherent soil on or at the base of a slope deposited by gravity or slope movement.

Fill: Soil derived from natural soil, rock, or processed materials that was placed by artificial methods, such as construction, waste disposal, or dumping.

Glacial Outwash: Soil, typically sand and gravel, deposited by glacial streams or meltwater in a preexisting valley

Glacial Till: Soil deposited by and underneath a glacier, generally consisting of a heterogeneous, unstratified mixture of clay, sand, gravel, and boulders.

N-Value: The blow count representation of the penetration resistance of the soil determined by the Standard Penetration Test (SPT). It is the sum of the number of blows required to drive the sampler the second and third 6inch increments (sample depth interval of 6 to 18 inches) and is recorded in blows per foot (bpf). The N-value is considered to be an indication of the relative density of coarse-grained soils (sand and gravel) or consistency of finegrained soils (silt and clay).

Pocket Pen: Field penetration test performed using a hand-held penetrometer that estimates unconfined compressive strength of cohesive soil in tons per square foot (tsf).

Recovery %: Total length of rock core or soil sample retrieved divided by the total length of the core run or sample

Residual Soil: Soil derived from the physical or chemical weathering of the underlying parent bedrock, but is soft

Refusal: The depth at which 50 SPT hammer blows or more are required to drive the sampling spoon 6 inches or amples that encounter refusal are assigned an N-value of 100 bpf.

Rock Quality Designation (RQD): The sum of the length of intact rock core pieces longer than 4 inches (excluding mechanical breaks) divided by the total length of the core run, expressed as a percentage

Shelby Tube: A 2' to 3" thin walled sampling tube that is pushed into the soil to obtain a relatively undisturbed soil sample for geotechnical laboratory tests.

Split Spoon Sampler: A soil sampling tube which is driven, retrieved, and split-open lengthwise for removal and visual inspection, and testing of the soil obtained.

Standard Penetration Test (SPT) ASTM D1586 : Field penetration test consisting of driving a 2-inch outside diameter split-spoon sampler 18 inches using a 140-pound hammer free falling a distance of 30 inches. The number of blows required to advance the spoon through successive 6-inch increments is recorded to determine the

N-Value Rating

Fine-Grained Soils

Soft Medium Stiff Stiff Very Stiff	Blows/ft			
Very Soft	0-2			
Soft	3-4			
Medium Stiff	5-8			
Stiff	9-15			
Very Stiff	16-30			
Hard	>30			

Coarse-Grained Soils

Blows/ft
0-4
5-10
11-30
31-50
>50

Unconsolidated Material

<u>Term</u>	Grain Size (mm)	Example Size
Clay	<1/250	can't see grains
Silt	1/250 - 1/16	grains seen w/ naked eye
Fine Sand	1/16 - 1/4	table salt to sugar
Med. Sand	1/4 - 2.0	openings in a window scree
Course Sand	2.0 - 4.75	sidewalk salt
Gravel	4.75 - 75	pea to tennis ball
Cobble	75 - 300	orange to tennis ball
Boulder	>300	larger than a basketball

Modifiers for Soils with Two Grain Sizes

Term		%	<u>Term</u>	%
Trace		< 12	Some	12-30
Adjective	(i.e. silty)	30-45	And	45-55

Moisture Content

<u>Dry</u>: Sample is dusty or very obviously very dry.

<u>Moist</u>: Anything that does not fit the definition of dry or wet. Wet: Sample contains free water.



Definitions of Standard Terms and Symbols



BORING NUMBER B-1

CLIEN	IT _W\	/DNR	PROJE	CT NAI	ME Coo	pers R	ock State F	Park N	ew Cabins	and RV S	Sites
PROJECT NUMBER 316-361				PROJECT LOCATION Monongalia County, WV							
DATE	STAR	TED 12/23/21 COMPLETED 12/23/21	GROUN	ID ELE	VATION	2173	ft	BACK	FILL Aug	ger Cutting	gs
SOIL	SAMPL	ING CONTRACTOR Triad Engineering, Inc	WATER	LEVE	LS:						
SOIL	SAMPL	ING METHOD Hollow Stem Auger	Α	T END	OF SOIL	SAMP	LING [Dry			
		KH CHECKED BY LJH	Α	T END	OF CORI	NG	-				
NOTE	s		Α	FTER I	DRILLING	·					
TION (SHIC G			H_	TYPE	ERY % D)	WW VTS LUE)	r PEN.	▲ SF 20 PL	PT N VAL 40 60 MC	
(#)	GRAF	MATERIAL DESCRIPTION		o DEPTH	SAMPLE TYPE NUMBER	RECOVERY (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	20 FINES	40 60 CONTE	NT (%) 🗆
2175	314:3	TOPSOIL		-	1				= 20	40 60	<u>80</u> :
_		Brown LEAN CLAY, trace sand, trace sandstone fragmen moist, medium stiff, (RESIDUAL SOIL)	ts,		SS 1	67	1-3-3 (6)	2.5	1		
_		Dark gray to light gray SAND, and sandstone fragments, clay, moist to dry, medium dense to dense, (RESIDUAL S	trace	-	SS 2	100	5-11-12 (23)				
2168		sidy, moist to dry, modalii dense to dense, (Neorboxe o	OIL)	5	/ \						
					SS 3	100	7-11-9 (20)				
					SS 4	100	13-15-19 (34)				
2163				10	√ ss	71	34-24-				
		Light gray SANDSTONE, dry, very soft, completely weath (BEDROCK)	ered,		5	71	50/0.4	-			50/0.4
					SS 6	100	17-50/0.5				50/0.5
		Auger Refusal at 14.0 feet. Bottom of boring at 14.0 feet.		-							



BORING NUMBER B-2 PAGE 1 OF 1

CLIENT WVDNR			PROJECT NAME Coopers Rock State Park New Cabins and RV Sites							
PROJ	PROJECT NUMBER 316-361 DATE STARTED 12/23/21 COMPLETED 12/23/21			CT LOC	CATION	Monor	ngalia Cou	nty, W	V	
DATE	STAR	TED 12/23/21 COMPLETED 12/23/21	GROUND ELEVATION 2162.2 ft BACKFILL Auger Cuttings							er Cuttings
SOIL	SAMP	LING CONTRACTOR Triad Engineering, Inc								
SOIL	SAMP	LING METHOD Hollow Stem Auger	Α	T END	OF SOIL	SAMP	LING	Dry		
CEC F	REP _F	RKH CHECKED BY LJH	Α	T END	OF CORI	NG	-			
NOTE	s		Α	FTER [RILLING					
					ш	,0			▲ SP	Γ N VALUE ▲
핍	GRAPHIC LOG	MATERIAL DESCRIPTION		DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	20 4 PL 1 20 4	40 60 80 MC LL 40 60 80 CONTENT (%) □
2162	1. 1. 12	TOPSOIL		0	1			-	20 4	40 60 80
		Brown LEAN CLAY, some sand, trace sandstone fragmer moist, soft, (RESIDUAL SOIL)	nts,	-	SS 1	53	2-1-2 (3)	2		
		Brown to light gray SAND, and sandstone fragments, moi	st to		≥ SS 2	100	50/0.2			50/0.2
_		dry, medium dense to very dense, (RESIDUAL SOIL)								
2157				5	SS 3	20	13-13-11 (24)		_	
					/// 3		(24)			
-		Brown LEAN CLAY, some sand, trace sandstone fragmer moist, stiff, (RESIDUAL SOIL)	nts,		SS 4	100	5-6-6 (12)	2.5	1	
2152				10						
-				-	SS 5	100	7-5-6 (11)	3	 	
				-	V ss	100	5-6-6	3		
- 1					6	100	(12)	,		
2147				15	V ss	100	6-5-6	,		
-		Bottom of boring at 16.5 feet.			7	100	(11)	3		



BORING NUMBER B-3

CLIENT WVDNR			PROJECT NAME Coopers Rock State Park New Cabins and RV Sites								
PROJ	ECT N	UMBER 316-361	PROJE	CT LO	CATION	Monor	ngalia Cou	nty, W	V		
		TED 12/23/21 COMPLETED 12/23/21									
SOIL	SAMP	LING CONTRACTOR Triad Engineering, Inc	WATER	LEVE	LS:						
SOIL	SAMP	LING METHOD Hollow Stem Auger	Α	T END	OF SOIL	SAMP	LING	Dry			
CEC F	REP_F	RKH CHECKED BY LJH	Α	T END	OF CORI	NG	-				
NOTE	s		Α	FTER [ORILLING						
NO O	<u>0</u>			_	R Y PE	% X	Ę S.	SEN.	▲ 3	SPT N VAL 40 60	
ш	GRAPHIC LOG	MATERIAL DESCRIPTION		DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	1000000000	40 60	NT (%) 🗆
2146	3.34.3	TOPSOIL Brown LEAN CLAY, some sand, trace sandstone fragmer moist, soft to very stiff, (RESIDUAL SOIL)	nts,	0	ss 1	67	1-1-3 (4)	2.5	20	40 60	0 80
		mood, controlled, call, (i. Lordon Local)			-						
-				-	SS 2	47	5-5-11 (16)	3			
2141		Proum CAND, some play trace conditions frogments, may	iot	5							
		Brown SAND, some clay, trace sandstone fragments, mo medium dense to very dense, (RESIDUAL SOIL)	ist,		SS 3	100	8-13-9 (22)				
					√ ss	100	36-38-				
_		Light brown to tan SANDSTONE, dry, very soft, complete weathered, (BEDROCK)	ly		4	100	50/0.4				50/0.4
2136				10	⊠ ss	100	50/0.4	-	- :	- ! !	
		Auger Refusal at 10.4 feet.			5	100	30/0.4	1	:		50/0.4
		Bottom of boring at 10.4 feet.									



BORING NUMBER B-4

CLIENT WYDNR			PROJECT NAME Coopers Rock State Park New Cabins and RV Sites								
PROJE	CT N	JMBER <u>316-361</u>	PROJE	CT LO	CATION	Mono	ngalia Cou	nty, W	V		
			GROUN	ID ELE	VATION	2134.	3 ft	BACK	KFILL A	uger Cutting:	S
SOIL S	AMPL	ING CONTRACTOR Triad Engineering, Inc	WATER	LEVE	LS:						
SOIL S	AMPL	ING METHOD Hollow Stem Auger	Α	T END	OF SOIL	SAMP	LING I	Dry			
CEC RE	EP R	KH CHECKED BY LJH									
	T			Π	I			T		DT NIVALLI	
(#)	GRAPHIC	MATERIAL DESCRIPTION		O DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	20 PL F 20		80 LL -1 80
	114.71	TOPSOIL			1				:	: :	:
		Brown LEAN CLAY, some sand, trace sandstone fragmen moist, soft, (RESIDUAL SOIL)	ts,		SS 1	80	2-2-2 (4)	2.5			
		Brown to gray SAND, some clay, some sandstone fragmer moist, medium dense to very dense, (RESIDUAL SOIL)	nts,		SS 2	67	7-11-7 (18)				
2129				5	SS 3	53	6-10-18 (28)				
		Light gray SANDSTONE, dry, very soft, completely weather (BEDROCK)	ered,		SS 4	100	21-40- 50/0.3				50/0.
2124				10	SS 5	100	32-45-50 (95)	-			
		Auger Refusal at 13.3 feet.			SS 6	100	34-50/0.3				50/0.
		Bottom of boring at 13.3 feet.									

BORING NUMBER B-5

PAGE 1 OF 1

Civil & Environmental Consultants, Inc. 600 Marketplace Avenue, Suite 200 Bridgeport, WV 26330

CEC CUSTOM LOG 313-361 BORING LOGS.GPJ CEC.GDT 2/3/22

					PROJECT NAME Coopers Rock State Park New Cabins and RV Sites PROJECT LOCATION Monongalia County, WV								
DATE	STAR	TED 12/22/21 COMPLETED 12/22/21	GROUN	D ELE	ATION	2162	ft	BACK	FILL Auger	Cuttings			
SOIL	SAMP	LING CONTRACTOR Triad Engineering, Inc	WATER	LEVEL	S:								
SOIL	SAMP	LING METHOD Hollow Stem Auger	A	F END	OF SOIL	SAMP	LING[Ory					
CEC R	EP _	RKH CHECKED BY LJH	AT END OF CORING										
NOTE	s		AF	FTER D	RILLING								
ELEVATION (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION		DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	20 40 PL 20 40 DFINES CO	60 ONTENT	80 L 80 (%) □		
	717.1	TOPSOIL		0	1				20 40	60	80		
-		Light brown and gray LEAN CLAY, some sand, trace grave moist, medium stiff to very stiff, CL, (RESIDUAL SOIL)	I,		SS 1	67	2-3-4 (7)	3	•	С			
-					SS 2	100	7-9-12 (21)	4					
2157		Light brown SAND, some sandstone fragments, trace clay,		5				-	<u> </u>		-		
		moist to dry, dense, (RESIDUAL SOIL)			SS 3	87	12-16-21 (37)						
_					SS 4	100	14-23-24 (47)						
2152				10	1								
		Light gray SAND, and sandstone fragments, dry, dense to dense, (RESIDUAL SOIL)	very		SS 5	100	13-20-23 (43)						
		Light gray SANDSTONE, dry, very soft, completely weathe	red.	-	SS 6	100	22-30- 50/0.4				50/0.4		
		(BEDROCK)		-				1					
2147				15	SS 7	100	45-30- 50/0.3				50/0.3		
-		Auger Refusal at 16.3 feet.			/ V			-					
		Bottom of boring at 16.3 feet.											



BORING NUMBER B-6

				OI NA	WIL	JCIS IN	ock State F	aik iv	ew Cabi	is and ix	V Oiles
				_			ngalia Cou				
DATE	STAR	TED 12/22/21 COMPLETED 12/22/21	GROUN	D ELE	VATION	2146	ft	BACK	FILL A	uger Cut	tings
SOIL	SAMPI	LING CONTRACTOR Triad Engineering, Inc	WATER	LEVE	LS:						
SOIL	SAMPI	LING METHOD Hollow Stem Auger	Α	T END	OF SOIL	SAMP	LING [Ory			
CEC F	REP_F	RKH CHECKED BY LJH					_				
					T			Г	1		
ELEVATION 97 (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION		O DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	20	40 ES CONT	60 80 LL 60 80 FENT (%)
2140	71 14 15	TOPSOIL		0	1				:	:	60 80
		Light brown LEAN CLAY, some sand, some sandstone fragments, moist, medium stiff to very stiff, (RESIDUAL SO	IL)		ss 1	100	1-3- 4 (7)	3			
					SS 2	100	5-9-11 (20)	3.5	\.		
2141				5						:	
		Light brown SAND, some clay, trace sandstone fragments, moist, medium dense, (RESIDUAL SOIL)			SS 3	100	7-7-11 (18)		A		
-					SS 4	100	11-7-9 (16)				
2136				10							
		Light brown SAND, and sandstone fragments, dry, very det (RESIDUAL SOIL)	nse,		SS 5	100	14-42-37 (79)				1
				-	-					÷	
		Light brown to gray SANDSTONE, dry, very soft, complete weathered, (BEDROCK) Auger Refusal at 12.9 feet.	ly		⊠ ss 6	100	50/0.4				50/
		Bottom of boring at 12.9 feet.									

BORING NUMBER B-7

CLIEN	T_W\	/DNR	PROJE	CT NAM	ME Coop	ers R	ock State F	ark N	ew Cabins	and RV S	Sites
PROJE	ECT N	UMBER 316-361	PROJE	CT LOC	ATION	Monor	ngalia Cour	nty, W	V		
DATE	STAR	TED 12/22/21 COMPLETED 12/22/21	GROUN	D ELE	VATION	2153.	1 ft	BACK	FILL Au	ger Cutting	gs
SOILS	SAMPL	ING CONTRACTOR Triad Engineering, Inc	WATER	LEVEL	.S:						
SOILS	SAMPL	LING METHOD Hollow Stem Auger	A	T END	OF SOIL	SAMP	LING[Ory			
CEC R	EP F	RKH CHECKED BY LJH	A	T END	OF CORI	NG	_				
NOTES	s		Α	FTER D	RILLING						
ELEVATION (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION		DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	20	PT N VAL 40 60 MC 40 60	B0 LL
					SAN	RE	ر کی	P		CONTE	15/11/15/1
2153	74 1× . 14	TOPSOIL		0	1			-	20	40 60	: 80
		Light brown LEAN CLAY, some sand, trace sandstone fragments, moist, medium stiff to stiff, (RESIDUAL SOIL)			SS 1	67	1-2-3 (5)	3			
-		Light brown to light gray SAND, some sandstone fragmen	ts,	_	SS 2	100	3-7-12 (19)				
2148		trace clay, moist to dry, medium dense to very dense, (RESIDUAL SOIL)		5	√ ss		8-8-11				
					3	87	(19)				
					SS 4	87	9-5-6 (11)				
2143				10	√ ss		11-16-20				
					5	87	(36)				
					SS 6	100	33-30-40 (70)	-		À	\
2138		Light gray SANDSTONE, dry, very soft, completely weath	ered,	15	SS 7	100	31-50/0.3				50/0.3
		(BEDROCK) Auger refusal at 15.8 feet. Bottom of boring at 15.8 feet.									



BORING NUMBER B-8

CLIEN	IT W	VDNR	PROJE	CT NAM	ME Coo	pers R	ock State F	ark N	ew Cabir	s and RV	Sites
PROJ	ECT N	UMBER 316-361					ngalia Cou				
		TED 12/22/21 COMPLETED 12/22/21	GROUN	ID ELE	VATION	2128.	7 ft	BACK	KFILL A	uger Cuttin	gs
SOIL	SAMPI	LING CONTRACTOR Triad Engineering, Inc	WATER	LEVE	LS:						
SOIL	SAMPI	LING METHOD Hollow Stem Auger	Α	T END	OF SOIL	SAMP	LING [Ory			
CEC F	REP_F	RKH CHECKED BY LJH	Α	T END	OF CORI	NG	_				
NOTE	s										
Щ	GRAPHIC LOG	MATERIAL DESCRIPTION		DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	20 Pl H 20	40 60 ES CONTE	80 LL 80 NT (%) 🗆
2129	3.1/- 3.	TOPSOIL Brown LEAN CLAY, some sand, some sandstone fragmen moist, soft, (RESIDUAL SOIL)	nts,		ss 1	80	1-2-2 (4)	3	20	40 60	80
_		Brown SAND, some clay, trace sandstone fragments, moi medium dense, (RESIDUAL SOIL)	st,		SS 2	100	7-11-15 (26)				
		Light gray SAND, and sandstone fragments, trace clay, dr medium dense, (RESIDUAL SOIL)	у,	5	SS 3	80	9-11-11 (22)		•		
					SS 4	87	6-9-13 (22)				
2119				10	V ss			1			
		Light gray SANDSTONE, dry, very soft, completely weather (BEDROCK) Auger Refusal at 10.8 feet. Bottom of boring at 10.8 feet.	ered,		55	100	25-50/0.3				50/0.3



BORING NUMBER B-9

CLIENT WV		_ PROJECT NA						and RV	Sites
	MBER _316-361	PROJECT LO							
	ED12/22/21 COMPLETED12/22/21 NG CONTRACTORTriad Engineering, Inc			N _2155.	.5 ft	BACK	KFILL Aug	ger Cuttin	igs
	NG METHOD Hollow Stem Auger			NI SAMP	ING	Dry			
	KH CHECKED BY LJH					Diy			-
	STEGRED DT EST			NG —					
			T						
ELEVATION (ft) GRAPHIC LOG	MATERIAL DESCRIPTION		DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	20 PL I— 20	40 60 MC 40 60 S CONTE	80 LL
2156	TOPSOIL		0	1	_		20	40 60	0 80
	Light brown SAND, some sandstone fragments, some of medium dense to very dense, (RESIDUAL SOIL)	lay, moist,		SS 1	80	3-8-8 (16)	•		
- - - -				SS 2	67	5-8-17 (25)			
2151			5	SS 3	100	12-33-50 (83)			
				SS 4	80	13-21-30 (51)		1	
2146			10	√ ss	100	21-27-27			
				5		(54)			
	Light gray SANDSTONE, dry, very soft, completely weat (BEDROCK) Auger Refusal at 12.8 feet. Bottom of boring at 12.8 feet.	thered,		⊠ SS 6	100	50/0.3			50/0.



BORING NUMBER B-10

CLIEN	IT W	VDNR	PROJE	CT NAI	ME Coo	pers R	ock State F	ark N	ew Cabins a	nd RV Sit	es
PROJ	ECT N	UMBER 316-361	PROJE	CT LO	CATION	Mono	ngalia Cou	nty, W	V		
DATE	STAR	TED 12/22/21 COMPLETED 12/22/21	GROUN	ID ELE	VATION	2190	ft	BACK	KFILL Auge	r Cuttings	3
SOIL	SAMP	LING CONTRACTOR _Triad Engineering, Inc	WATER	R LEVE	LS:						
SOIL	SAMP	LING METHOD Hollow Stem Auger	A	T END	OF SOIL	SAMP	LING [Ory			
CEC F	REP _	RKH CHECKED BY LJH	A	T END	OF CORI	NG	_				
NOTE	S Re	elocated to 39.638878, -79.796447	A	FTER [DRILLING						
00 (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION		O DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	20 4 PL 20 4	60	80 LL -1 80
	31/2.5	TOPSOIL Brown LEAN CLAY, some sand, some sandstone fragme moist, medium stiff, (RESIDUAL SOIL)	nts,		ss 1	60	3- 4-4 (8)	3	↑		
		Light brown SAND, some sandstone fragments, trace clay medium dense to very dense, (RESIDUAL SOIL)	y, dry,		SS 2	100	6-7-11 (18)	3.5			
2185		Light brown SANDSTONE, dry, very soft, completely weathered, (BEDROCK)		5	SS 3	80	13-38-50/0	-			50/0
		Auger Refusal at 6.4 feet. Bottom of boring at 6.4 feet.									

BORING NUMBER B-11

41 _VV	VDNR I	PROJECT	NAM	E Coop	ers R	ock State F	Park No	ew Cabins a	ind RV Sites	
ECT N	UMBER 316-361	PROJECT	LOC	ATION _	Monor	ngalia Cou	nty, W	V		
STAR	TED 12/21/21 COMPLETED 12/21/21	GROUND	ELEV	ATION	2162.	1 ft	BACK	KFILL Auge	er Cuttings	
SAMPL	ING CONTRACTOR Triad Engineering, Inc	WATER L	EVEL	S:						
SAMPL	LING METHOD Hollow Stem Auger	AT E	END (OF SOIL	SAMP	LING	Dry			
REP_F	RKH CHECKED BY LJH	AT E	END (OF CORI	NG	-				
			Т				T	A 0.D.	ENLYALLIE A	
GRAPHIC LOG	MATERIAL DESCRIPTION	T. C.	(#)	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	20 4 PL 20 4	MC LL 40 60 80 CONTENT (%	0 0 %) □
717 7	TOPSOIL, (TOPSOIL)			\		5 765 5				
	Brown LEAN CLAY, some sand, moist, soft, (RESIDUAL SO	OIL)	-	SS 1	53	2-2-2 (4)	1			
	Light brown and orange SAND, trace sandstone fragments, trace clay, moist, dense, (RESIDUAL SOIL)	-	5	SS 2	87	5-11-25 (36)				
	Light brown, gray, and orange SAND, some sandstone fragments, moist to dry, medium dense, (RESIDUAL SOIL)	-		SS 3	100	10-13-14 (27)		A		
	Light gray to tan SAND, some sandstone fragments, dry, medium dense to very dense, (RESIDUAL SOIL)	-	10	SS 4	100	12-11-11 (22)				
		-	-	SS 5	100	7-7-9 (16)				
		-	15							\
	Light gray SANDSTONE, dry, very soft, completely weather (BEDROCK) Bottom of boring at 16.3 feet.	red,		SS 6	100	31-21- 50/0.3				50/0.3
	STAR SAMPIC SAMP	STARTED 12/21/21 COMPLETED 12/21/21 SAMPLING CONTRACTOR Triad Engineering, Inc SAMPLING METHOD Hollow Stem Auger REP RKH CHECKED BY LJH SS MATERIAL DESCRIPTION Brown LEAN CLAY, some sand, moist, soft, (RESIDUAL SOIL) Light brown and orange SAND, trace sandstone fragments, trace clay, moist, dense, (RESIDUAL SOIL) Light brown, gray, and orange SAND, some sandstone fragments, moist to dry, medium dense, (RESIDUAL SOIL) Light gray to tan SAND, some sandstone fragments, dry, medium dense to very dense, (RESIDUAL SOIL) Light gray to tan SAND, some sandstone fragments, dry, medium dense to very dense, (RESIDUAL SOIL)	ECT NUMBER 316-361 STARTED 12/21/21 COMPLETED 12/21/21 GROUND SAMPLING CONTRACTOR Triad Engineering, Inc SAMPLING METHOD Hollow Stem Auger REP RKH CHECKED BY LJH SS AFT MATERIAL DESCRIPTION TOPSOIL, (TOPSOIL) Brown LEAN CLAY, some sand, moist, soft, (RESIDUAL SOIL) Light brown and orange SAND, trace sandstone fragments, trace clay, moist, dense, (RESIDUAL SOIL) Light brown, gray, and orange SAND, some sandstone fragments, moist to dry, medium dense, (RESIDUAL SOIL) Light gray to tan SAND, some sandstone fragments, dry, medium dense to very dense, (RESIDUAL SOIL) Light gray to tan SAND, some sandstone fragments, dry, medium dense to very dense, (RESIDUAL SOIL)	ECT NUMBER 316-361 STARTED 12/21/21 COMPLETED 12/21/21 GROUND ELEV SAMPLING CONTRACTOR Triad Engineering, Inc SAMPLING METHOD Hollow Stem Auger REP RKH CHECKED BY LJH AT END OF AFTER D MATERIAL DESCRIPTION TOPSOIL, (TOPSOIL) Brown LEAN CLAY, some sand, moist, soft, (RESIDUAL SOIL) Light brown and orange SAND, trace sandstone fragments, trace clay, moist, dense, (RESIDUAL SOIL) Light brown, gray, and orange SAND, some sandstone fragments, moist to dry, medium dense, (RESIDUAL SOIL) Light gray to tan SAND, some sandstone fragments, dry, medium dense to very dense, (RESIDUAL SOIL) Light gray to tan SAND, some sandstone fragments, dry, medium dense to very dense, (RESIDUAL SOIL)	STARTED 12/21/21 COMPLETED 12/21/21 GROUND ELEVATION STARTED 12/21/21 COMPLETED 12/21/21 GROUND ELEVATION SAMPLING CONTRACTOR Triad Engineering, Inc SAMPLING METHOD Hollow Stem Auger AT END OF SOIL AT	PROJECT LOCATION Monor STARTED 12/21/21 COMPLETED 12/21/21 GROUND ELEVATION 2162. SAMPLING CONTRACTOR Triad Engineering, Inc SAMPLING METHOD Hollow Stem Auger SAMPLING METHOD Hollow Stem Auger CHECKED BY LJH AT END OF SOIL SAMP AT END OF CORING — AFTER DRILLING — AFTER DRI	### PROJECT LOCATION Monongalia Course STARTED 12/21/21 COMPLETED 12/21/21 GROUND ELEVATION 2162.1 ft WATER LEVELS: ### SAMPLING CONTRACTOR	ECT NUMBER 316-361 STARTED 12/21/21 COMPLETED 12/21/21 GROUND ELEVATION Monongalia County, W WATER LEVELS: SAMPLING CONTRACTOR Triad Engineering, Inc SAMPLING METHOD Hollow Stem Auger REP RKH CHECKED BY LJH AT END OF SOIL SAMPLING Dry AT END OF SOIL SAMPLING AT EN	ECT NUMBER 316-361 PROJECT LOCATION Monongalia County, WV STARTED 122/121 COMPLETED 12/21/21 GROUND ELEVATION 2/162.1 ft BACKFILL Auge SAMPLING CONTRACTOR Triad Engineering, Inc SAMPLING METHOD Hollow Stem Auger REP RKH CHECKED BY LJH AT END OF SOIL SAMPLING Dry AT END OF SOIL SAMPLING AT END OF CORING AFTER DRILLING AFTER DRILLING AFTER DRILLING MATERIAL DESCRIPTION MATERIAL DESCRIPTION Brown LEAN GLAY, some sand, moist, soft, (RESIDUAL SOIL) Light brown and orange SAND, trace sandstone fragments, trace dlay, moist, dense, (RESIDUAL SOIL) Light gray to tan SAND, some sandstone fragments, moist to dry, medium dense, (RESIDUAL SOIL) Light gray to tan SAND, some sandstone fragments, which is a sandstone fragments, moist to dry, medium dense to very dense, (RESIDUAL SOIL) Light gray SANDSTONE, dry, very soft, completely weathered, (BEDROCK)	PROJECT LOCATION Monongalia County, WV STARTED 12/21/21 COMPLETED 12/21/21 GROUND ELEVATION 2.162.1 ft BACKFILL Auger Cuttings MATERIAL DESCRIPTION MA

BORING NUMBER B-12

CLIEN	IT W	VDNR		PROJE	CT NAM	ME Coop	ers R	ock State F	ark N	ew Cabins	and RV Sit	es
PROJ	ECT N	UMBER _316-361		PROJE	CT LO	CATION	Monor	ngalia Cour	nty, W	V		
DATE	STAR	TED 12/22/21	COMPLETED 12/22/21	GROUN	ID ELE	VATION	2143.	9 ft	BACK	KFILL Aug	er Cuttings	
SOIL	SAMPI	LING CONTRACTOR	Triad Engineering, Inc	WATER	LEVE	LS:						
SOIL	SAMPI	LING METHOD Hollow	Stem Auger	_ \(\sqrt{\sq}}}}}}}\signtifien\signtifta}\signtifta}\signtifta}\signtifta}\signtifta}\signtifta}\signtifta}\signtifta}\signtifta}\signtifta\signtifta}\signtifta}\signtifta\sintiin}\signtifta}\signtifta\siniinii}\signtifta}\signtifta\sintiin}\signtifta\sintiin}\signtifta\sintiiniin}\signtifta\sintiin}\signtifta\sintiiniin}\signtifta\sintiiniiniiniiniiniii\siniiiniiii}\signtifta\siniiiiii}\signtifta\sintiiniiiiniiiii}\signtifta\sintiiniiiiiiiiiiiii}\signtiii	T END	OF SOIL	SAMP	LING _4.0	ft / Ele	ev 2139.9 ft		
CEC F	REP F	RKH	CHECKED BY LJH	_		OF CORI						
NOTE	s				4hrs AF	TER DRI	LLING	6.2 ft / E	lev 21	37.7 ft		
(f)	GRAPHIC LOG	М	ATERIAL DESCRIPTION		o DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	20 PL 20 20	T N VALUE 40 60 MC 40 60 CONTENT 40 60	80 LL -1 80
	11/2	TOPSOIL Brown LEAN CLAY stiff to stiff, CL, (RE	, some sand, trace gravel, moist, me SIDUAL SOIL)	edium		SS 1	53	1- 4 -1 (5)	2	1		
		Ā				SS 2	100	2-5-8 (13)	3	P IH		1
2139		Light brown to gray clay, moist to dry, n	SAND, some sandstone fragments, nedium dense, (RESIDUAL SOIL)	trace	5	SS 3	7	5-12-13 (25)				
						SS 4	100	8-8-10 (18)				
2134					10	SS 5	80	7-12-13 (25)				
		Light gray SANDS dense, (RESIDUAL	ONE FRAGMENTS, and sand, dry, SOIL)	very	-	SS 6	87	17-40-41 (81)				
2129		Light gray SANDST	ONE, dry, very soft, completely wea	athered,	15	SS 7	83	17-41- 50/0.2				50/0.2
		E	Auger Refusal at 16.2 feet. Bottom of boring at 16.2 feet.									



BORING NUMBER B-13 PAGE 1 OF 1

JEILI		VDNR	PROJE	CT NAM	ME Coo	pers R	ock State F	Park N	ew Cabins	s and RV Si	ites
PROJ	ECT N	UMBER 316-361	PROJE	CT LOC	CATION	Monor	ngalia Cou	nty, W	V		
DATE	STAR	TED 12/22/21 COMPLETED 12/22/21	GROUN	D ELE	VATION	2128.	1 ft	BACK	KFILL Au	ger Cutting	S
SOIL	SAMPI	LING CONTRACTOR Triad Engineering, Inc	WATER	LEVE	LS:						
SOIL	SAMPI	LING METHOD Hollow Stem Auger	A	T END	OF SOIL	SAMP	LING [Ory			
CEC F	REP_F	RKH CHECKED BY LJH	A	T END	OF CORI	NG	-				
NOTE	s		Α	FTER D	RILLING						
								Ι.	A S	PT N VALU	IF A
ELEVATION (ft)	0			_	SAMPLE TYPE NUMBER	% ≻	ωû	POCKET PEN. (tsf)	20	40 60	80
¥ €	GRAPHIC LOG	MATERIAL DESCRIPTION		DEPTH (ft)	.E.T	RECOVERY (RQD)	BLOW COUNTS (N VALUE)	Sf. F	PL	MC	LL H
) V	3RA			DE)	를 들	S.E.	₽ S S B	S =	20	40 60	80
					SAI	R	ے ت	8	□FINE	S CONTEN	
128	71 14. 14	TOPSOIL		0	1			-	20	40 60	80
		Brown LEAN CLAY, some sand, trace sandstone fragmen	nts,		V ss	67	4-3-3	2			:
		moist, medium stiff, (RESIDUAL SOIL)		-	1	0.	(6)	-	: 7		
								1	\		:
-				-					\		:
				_	M		7040		\ <u>:</u>		:
		Light brown LEAN CLAY, some gravel, trace sand, moist to very stiff, CL, (RESIDUAL SOIL)	to dry,		SS 2	87	7-9-10 (19)		•4		
_		very still, et, (NESIDONE SOL)			/ \		10201	-	1		:
											:
23				5	1			1			
					V ss	100	10-13-13				:
-				-	3	100	(26)		· ·		
					<u> </u>			1	:	: :	:
_	7777	Auger Refusal at 7.0 feet.		-							
		Bottom of boring at 7.0 feet.									:
											:
											:
											:
											:
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BORING NUMBER B-14

	PROJECT NA	ME Coo	pers R	ock State	Park N	lew Cabins and RV Sites
ROJECT NUMBER 316-361	PROJECT LO					
ATE STARTED 12/22/21 COMPLETED 12/2	21 GROUND ELI	VATION	2112.	1 ft	BACK	KFILL Auger Cuttings
OIL SAMPLING CONTRACTOR Triad Engineering, Inc						
OIL SAMPLING METHOD Hollow Stem Auger						
EC REP RKH CHECKED BY LJH						
OTES	AFTER	DRILLING	-			T
MATERIAL DESCRIPTION 112	O DEPTH	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	A SPT N VALUE A 20 40 60 80 PL MC LL 20 40 60 80 FINES CONTENT (%) [20 40 60 80
TOPSOIL Brown LEAN CLAY, some sand, trace sand moist, medium stiff, (RESIDUAL SOIL)	one fragments,	SS 1	67	1-2-3 (5)	1.5	•
Light brown SANDSTONE, dry, very soft, c	npletely	X ss	100	50/0.4	+	
weathered, (BEDROCK)		2			1	50/0
Auger Refusal at 3.7 fe						

BORING NUMBER B-15 PAGE 1 OF 1

CLIEN	IT _W\	/DNR	PROJEC	CT NAI	ME Coo	pers R	ock State F	Park N	ew Cabins a	nd RV Sit	es
PROJ	ECT N	UMBER _316-361	PROJEC	CT LO	CATION	Monor	ngalia Cou	nty, W	V		
DATE	STAR	TED 12/21/21 COMPLETED 12/21/21	GROUN	D ELE	VATION	2112	ft	BACK	KFILL Auge	r Cuttings	
SOIL	SAMPL	ING CONTRACTOR Triad Engineering, Inc	WATER	LEVE	LS:						
SOIL	SAMPL	LING METHOD Hollow Stem Auger	A	T END	OF SOIL	SAMP	LING	Dry			
CEC F	REP_F	RKH CHECKED BY LJH	A.	T END	OF COR	NG	_				
NOTE	s				DRILLING						
ELEVATION (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION		O DEPTH	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	20 4 PL 20 4	0 60	80 LL -1 80
	71 14 1	TOPSOIL, (TOPSOIL)			1			1	:	:	:
-		Brown LEAN CLAY, some sand, trace sandstone fragmen moist, soft, (RESIDUAL SOIL)	its,		SS 1	67	1-1-2 (3)	2			
		Brown to tan SAND, some sandstone fragments, trace cla dry, medium dense to very dense, (RESIDUAL SOIL)	y,		SS 2	100	25-15-11 (26)				
2107				5	ss 3	100	10-10-10 (20)				
					SS 4	100	50/0.3				50/0.3
2102				10	SS 5	80	4-3-18 (21)				
		Brown SANDSTONE, dry, very soft, completely weathered	1		SS 6	100	32-18- 50/0.4				50/0.4
_		(BEDROCK) Auger Refusal at 13.9 feet. Bottom of boring at 13.9 feet.									

BORING NUMBER B-16 PAGE 1 OF 1

CLIEN	T_W	VUNR	PROJE	CT NA	ME Coo	pers R	ock State I	Park N	ew Cab	ins and RV	Sites
			PROJE	CT LO	CATION	Mono	ngalia Cou	nty, W	V		
DATE	STAR	TED 12/21/21 COMPLETED 12/21/21	GROUN	ND ELE	VATION	2085.	4 ft	BACK	KFILL _	Auger Cuttin	gs
SOIL	SAMPL	ING CONTRACTOR Triad Engineering, Inc	WATER	R LEVE	LS:						
SOIL	SAMPL	LING METHOD Hollow Stem Auger	A	T END	OF SOIL	SAMP	LING	Dry			
CEC F	REP_F	RKH CHECKED BY LJH	A	T END	OF COR	NG	_				
NOTE	s										
				T		Τ.		Τ.		SPT N VAL	LIE A
ELEVATION (ft)	೨			-	SAMPLE TYPE NUMBER	% ≻	_ ω ເ ı	POCKET PEN. (tsf)	20		80
E (#)	GRAPHIC LOG	MATERIAL DESCRIPTION		DEPTH (ft)	ABE T	RECOVERY (RQD)	BLOW COUNTS (N VALUE)	Sf)	F	PL MC	LL
LE	GR/				MPI	SE	M S S M	S =	20		
2085				0	SA	R		PO	□ FIN	NES CONTE	
2003	71 14	TOPSOIL, (TOPSOIL)		0	1	_			20	9 40 60	80
		Brown LEAN CLAY, some sand, trace sandstone fragmen	ts,		V ss	67	0-1-1	1.5			:
		moist, very soft, (RESIDUAL SOIL)		-	1		(2)				
				L .				1	1		:
											:
		B 04WB		╽.	\bigvee ss		9-23-21		1	/:	:
		Brown SAND, some sandstone fragments, some clay, moi dry, dense, (RESIDUAL SOIL)	st to		\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	87	(44)		:	*	:
		,,		-	/ V	-		-	:		
2000				_					:		:
2080				5	1	-		+			<u> </u>
					ss	87	10-28-14		:		:
		Tan SAND, and sandstone fragments, dry, medium dense	to	† -	3		(42)		:		:
		very dense, (RESIDUAL SOIL)						1		:\:	:
										. \.	
				L .	1		29-48-16			. /	:
					SS 4	100	(64)		:)	\
				-	/ V			-			
0075										/	
2075				10	1	-		1	- :	/ : :	- :
					\ ss	80	6-8-12		i k		
				-	5		(20)				
								1	:	1	:
											:
				L .	M .cc		46 DE 40				. :
					SS 6	100	16-25-43 (68)				*
				-	/ \			-			
0070											: \
2070		Light brown SANDSTONE, dry, very soft, completely		15	X ss	100	50/0.5	1	- :		-
		weathered, (BEDROCK)		1	7	1.50	30/0.5		:		50/0.5
		Bottom of boring at 15.5 feet.									
									:		i
									:		:
									:		:
											:
											:
									:		:
									. :		:



BORING NUMBER B-17

C	LIEN	T_W	VDNR	PROJE	CT NAI	ME Coor	oers R	ock State F	ark N	ew Cabi	ns and F	RV Site	es
P	ROJE	ECT N	UMBER 316-361					ngalia Cou					
D	ATE	STAR	TED 12/21/21 COMPLETED 12/21/21	GROUN	D ELE	VATION	2064.	.7 ft	BACK	KFILL A	Auger Cu	ıttings	
S	OIL S	SAMPL	LING CONTRACTOR Triad Engineering, Inc	WATER	LEVE	LS:							
S	OIL S	SAMPL	LING METHOD Hollow Stem Auger	Α	T END	OF SOIL	SAMP	LING[Ory				
С	EC R	EP_F	RKH CHECKED BY LJH	Α	T END	OF CORI	NG _	_					
N	OTES	s		Α	FTER [DRILLING	-						
20	5	O				YPE	% \	w iii	EN.	20	SPT N \		
	- 1	GRAPHIC LOG	MATERIAL DESCRIPTION		DEPTH (ft)	SAMPLE TYPE NUMBER	RECOVERY (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	P 20 □ FIN	L MO	60	LL - I 80
2	065	71 14. VI	TOPSOIL, (TOPSOIL)		0	1				20	40	60	80
-		0000	Brown SILTY CLAYEY GRAVEL, some sand, trace organ moist, very loose to medium dense, GC-GM, (RESIDUAL SOIL)	ics,		SS 1	53	1-1-2 (3)	1.5	†			
_	į	0.5				V ss		5-6-10	-				
- 1	-					2	100	(16)	2.5	₩			
2	060				5	√ ss							
_	1	000			L .	3	83	5-6-50/0.2					50/0.2
	-	:::::	Light brown SANDSTONE, dry, very soft, completely weathered, (BEDROCK)	_		_			1				
			Auger Refusal at 6.5 feet.							:			:
			Bottom of boring at 6.5 feet.								:	i	:
													:
													:
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1					1		1	1	1		8.20	50	:



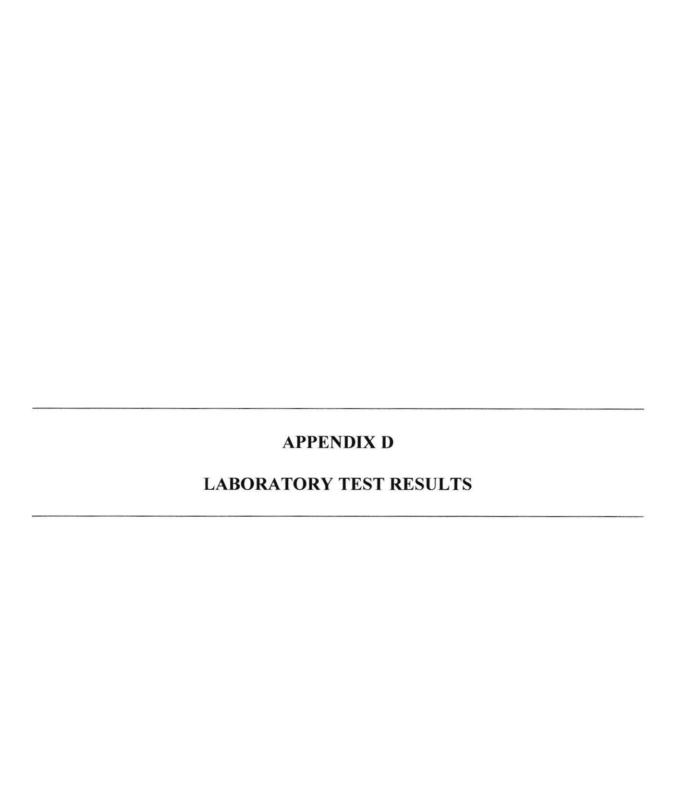
BORING NUMBER B-18 PAGE 1 OF 1

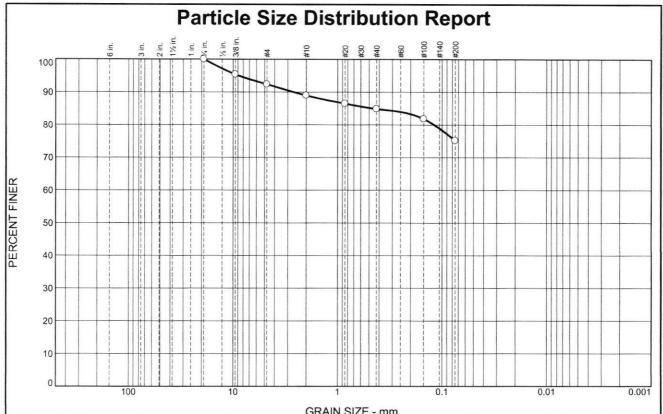
CLIENT W	VDNR	PROJECT N	AME Coo	pers R	ock State I	Park N	ew Cabins	and RV Site	es
PROJECT N	NUMBER 316-361	DD0 (F0T)							-
DATE STAF	RTED 12/21/21 COMPLETED 12/21/21		EVATION	2056	.4 ft	BACK	KFILL Aug	er Cuttings	
	LING CONTRACTOR Triad Engineering, Inc								
SOIL SAMP	LING METHOD Hollow Stem Auger	AT EN	OF SOIL	SAMP	LING	Dry			
CEC REP _	RKH CHECKED BY LJH								
			DRILLING						
			1			T	A CE	T N VALUE	
GRAPHIC LOG	MATERIAL DESCRIPTION	O DEPTH	SAMPLE TYPE NUMBER	RECOVERY % (RQD)	BLOW COUNTS (N VALUE)	POCKET PEN. (tsf)	20 PL 20 20 FINES	40 60	80 L 1 80
37 1× 17	TOT SOIL, (TOP SOIL)		M .cc		4.0.4				:
-	Brown sandy SILT, some gravel, moist, very loose to loo ML, (RESIDUAL SOIL)	se,	ss 1	47	1-0-1 (1)	1.25			
		-	SS 2	80	3-2-3 (5)	1.5			
2051	Light brown to tan SAND, and sandstone fragments, dry, to very dense, (RESIDUAL SOIL)	dense	SS 3	67	11-20-23 (43)			\	
1		-	SS 4	100	20-30-34 (64)				
2046		10	1,						
			SS 5	38	6-18- 50/0.3				50/
	Light gray SANDSTONE FRAGMENTS, dry, very soft, completely weathered, (BEDROCK) Auger Refusal at 11.5 feet. Bottom of boring at 11.5 feet.								

BORING NUMBER B-19 PAGE 1 OF 1

HHH	7 Civil & Environmental Consultants, Inc 600 Marketplace Avenue, Suite 200 Bridgeport. WV 26330
	Bridgeport, WV 26330

CLIEN	MT_W	VDNR	PROJECT NAME Coopers Rock State Park New Cabins and RV		and RV Sites					
PROJ	ECT N	UMBER 316-361	PROJE	CT LOC	CATION	Monor	ngalia Cour	nty, W	V	
DATE	STAR	TED 12/22/21 COMPLETED 12/22/21	GROUN	D ELE	VATION	2108.	8 ft	BACK	FILL Aug	er Cuttings
SOIL	SAMPI	ING CONTRACTOR Triad Engineering, Inc	WATER	LEVE	_S:					
SOIL	SAMPI	LING METHOD Hollow Stem Auger	A	T END	OF SOIL	SAMP	LING [Ory		
CEC	REP_F	RKH CHECKED BY LJH								
1					RILLING					
	$\overline{\Box}$			Г	T			Т	4.00	T \$13/4111F .4
Z	0				SAMPLE TYPE NUMBER	% >	∞	POCKET PEN. (tsf)	20	T N VALUE ▲ 40 60 80
ELEVATION (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION		DEPTH (ft)	E H	RECOVERY (RQD)	BLOW COUNTS (N VALUE)	F €	PL	MC LL
N. F.	LC	MATERIAL DESCRIPTION		DEF (f	IPL MU	SE SE	NOUS A	X st	20	40 60 80
					SAN	REC	02	Po	□FINES	CONTENT (%)
2109	11 4 1	TORON		0	-				20	40 60 80
		TOPSOIL Brown LEAN CLAY, some sand, trace sandstone fragme	nts		V ss		1-2-2	١.		
	Y	moist, soft, (RESIDUAL SOIL)	ino,	-	1	60	(4)	1	1	
	} ////				V V			1	\.	
	* ////			-	-					
	Y ////				1			1	:\	
-	Y////	Light brown SAND, some sandstone fragments, trace cla	y, dry,	-	\ ss	100	28-18-24			
		dense, (RESIDUAL SOIL)			2		(42)			
								1		
2104				5						
,		Light brown SANDSTONE, dry, very soft, completely weathered, (BEDROCK)			≥ SS 3	50	50/0.2	1		50/
		Auger Refusal at 5.5 feet.								
		Bottom of boring at 5.5 feet.								
									:	





OVAIN SIZE - IIIII.							
% +3"	% Gr	ravel		% Sand		% Fines	
76 T 3	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	7.6	3.4	4.1	9.7	75.2	

SIEVE	PERCENT	SPEC.*	PASS?
SIZE	FINER	PERCENT	(X=NO)
.75	100.0		
.375	95.4		
#4	92.4		
#10	89.0		
#20	86.5		
#40	84.9		
#100	81.8		
#200	75.2		

light brown lean o	Material Description	on
PL= 20	Atterberg Limits LL= 28	PI= 8
D ₉₀ = 2.6448 D ₅₀ = D ₁₀ =	Coefficients D ₈₅ = 0.4566 D ₃₀ = C _u =	D ₆₀ = D ₁₅ = C _c =
USCS= CL	Classification AASHT	O= A-4(4)
	Remarks	

(no specification provided)

Source of Sample: B-5 Sample Number: SS-1/SS-2

Depth: 0.0'-4.0'

Date: 1/3/2022

Triad Engineering, Inc.

Client: Civil & Environmental Consultants

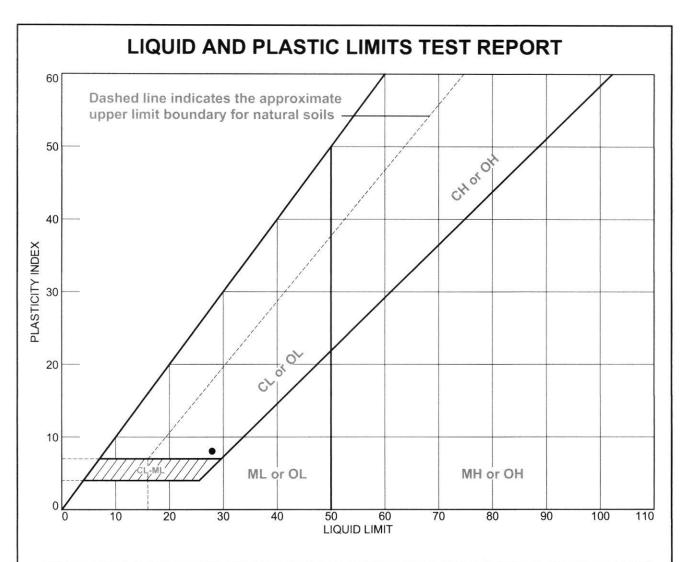
Project: Coopers Rock State Park (316-361)

Morgantown, WV

Project No: 01-21-0015

Figure

Tested By: DTB Checked By: ADK



				SOIL DATA				
SYMBOL	SOURCE	SAMPLE NO.	DEPTH	NATURAL WATER CONTENT (%)	PLASTIC LIMIT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	uscs
•	B-5	SS-1/SS-2	0.0'-4.0'	15.5	20	28	8	CL

Triad Engineering, Inc.

Client: Civil & Environmental Consultants **Project:** Coopers Rock State Park (316-361)

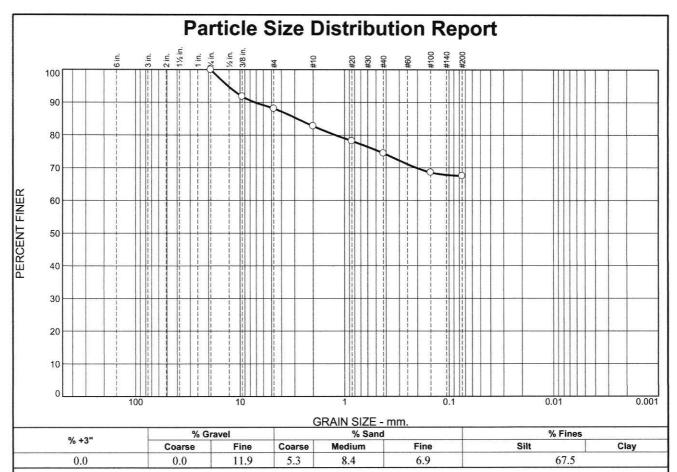
Morgantown, WV

Project No.: 01-21-0015

Figure

Tested By: LMC

Checked By: DTB



SIEVE	PERCENT	SPEC.*	PASS?
SIZE	FINER	PERCENT	(X=NO
.75	100.0		
.375	91.8		
#4	88.1		
#10	82.8		
#20	78.2		
#40	74.4		
#100	68.6		
#200	67.5		

	Material Description	<u>n</u>
dark brown sandy	lean clay	
PL= 19	Atterberg Limits LL= 27	PI= 8
D ₉₀ = 7.2154 D ₅₀ = D ₁₀ =	<u>Coefficients</u> D ₈₅ = 2.8250 D ₃₀ = C _u =	D ₆₀ = D ₁₅ = C _c =
USCS= CL	Classification AASHT	O= A-4(3)
	Remarks	

38 70 (20)

Source of Sample: B-12 Sample Number: SS-2

Depth: 2.5'-4.0'

Date: 1/3/2022

Triad Engineering, Inc.

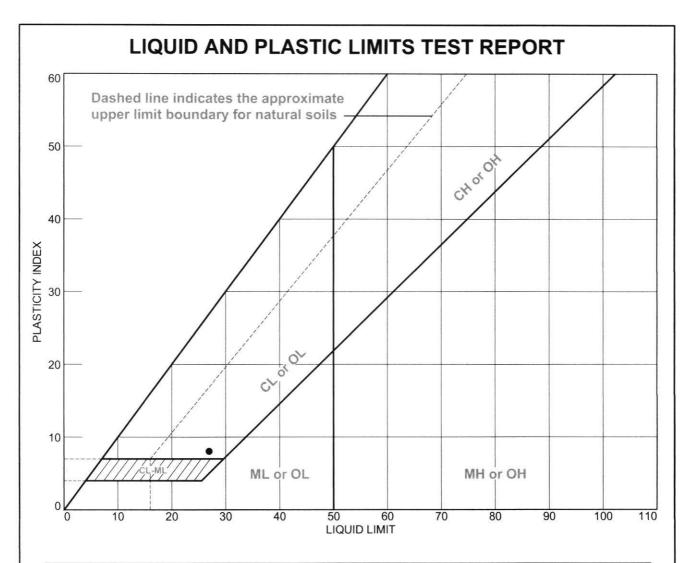
Client: Civil & Environmental Consultants **Project:** Coopers Rock State Park (316-361)

Morgantown, WV

Project No: 01-21-0015

Figure

Tested By: DTB Checked By: ADK



SOIL DATA								
SYMBOL	SOURCE	SAMPLE NO.	DEPTH	NATURAL WATER CONTENT (%)	PLASTIC LIMIT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	uscs
•	B-12	SS-2	2.5'-4.0'	14.1	19	27	8	CL

Triad Engineering, Inc.

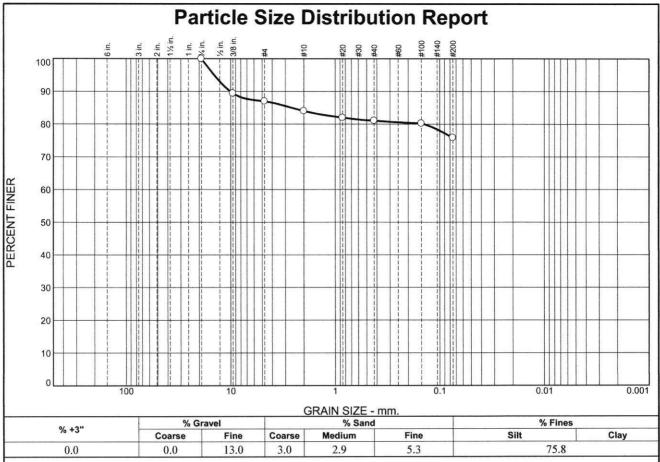
Client: Civil & Environmental Consultants **Project:** Coopers Rock State Park (316-361)

Morgantown, WV

Project No.: 01-21-0015

Figure

Tested By: LMC Checked By: DTB



SIEVE	PERCENT	SPEC.*	PASS?
SIZE	FINER	PERCENT	(X=NO)
.75	100.0		
.375	89.4		
#4	87.0		
#10	84.0		
#20	82.0		
#40	81.1		
#100	80.2		
#200	75.8		

light brown lean c	Material Description lay with gravel	<u>n</u>
PL= 20	Atterberg Limits LL= 29	PI= 9
D ₉₀ = 10.0962 D ₅₀ = D ₁₀ =	Coefficients D ₈₅ = 2.6086 D ₃₀ = C _u =	D ₆₀ = D ₁₅ = C _c =
USCS= CL	Classification AASHT	O= A-4(5)
	Remarks	

* (no specification provided)

Source of Sample: B-13 Sample Number: SS-2/SS-3 Depth: 2.5'-6.5'

Client: Civil & Environmental Consultants

Project: Coopers Rock State Park (316-361)

Morgantown, WV

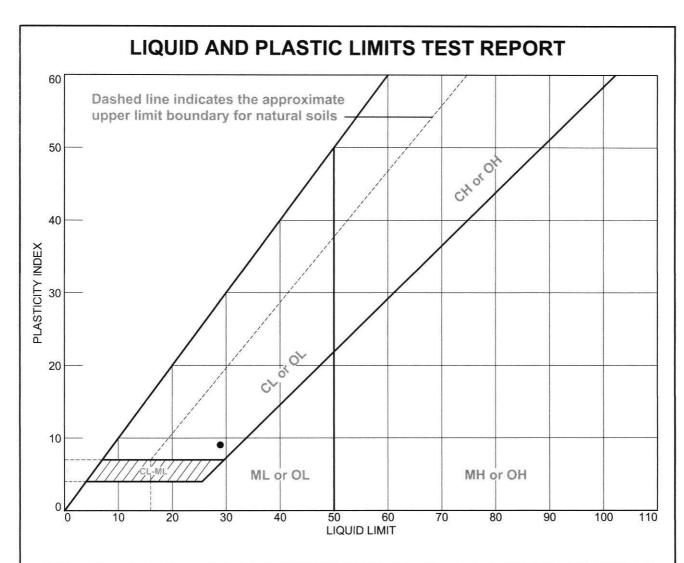
Triad Engineering, Inc.

Project No: 01-21-0015

Figure

Date: 1/3/2022

Tested By: DTB Checked By: ADK



				SOIL DATA				
SYMBOL	SOURCE	SAMPLE NO.	DEPTH	NATURAL WATER CONTENT (%)	PLASTIC LIMIT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	uscs
•	B-13	SS-2/SS-3	2.5'-6.5'	12.4	20	29	9	CL

Triad Engineering, Inc.

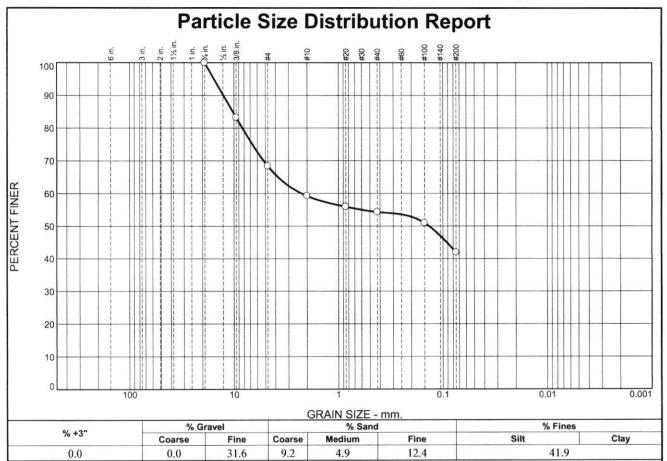
Client: Civil & Environmental Consultants **Project:** Coopers Rock State Park (316-361)

Morgantown, WV

Project No.: 01-21-0015

Figure

Tested By: LMC Checked By: DTB



SIEVE	PERCENT	SPEC.*	PASS?
SIZE	FINER	PERCENT	(X=NO)
.75	100.0		
.375	83.3		
#4	68.4		
#10	59.2		
#20	55.9		
#40	54.3		
#100	51.0		
#200	41.9		

	Material Description of clayey gravel with sa	
PL= 18	Atterberg Limits LL= 22	PI= 4
D ₉₀ = 12.6152 D ₅₀ = 0.1358 D ₁₀ =	Coefficients D ₈₅ = 10.2475 D ₃₀ = C _u =	D ₆₀ = 2.2621 D ₁₅ = C _c =
USCS= GC-GM	Classification AASHTO	O= A-4(0)
	Remarks	

Source of Sample: B-17 Sample Number: SS-2

Depth: 2.5'-4.0'

Date: 1/3/2022

Triad Engineering, Inc.

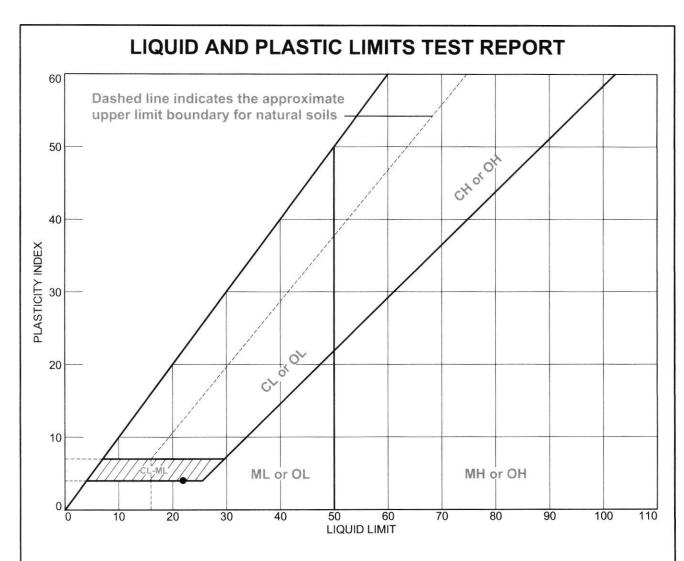
Client: Civil & Environmental Consultants Project: Coopers Rock State Park (316-361)

Morgantown, WV

Project No: 01-21-0015

Figure

Checked By: ADK Tested By: DTB



SOIL DATA								
SYMBOL	SOURCE	SAMPLE NO.	DEPTH	NATURAL WATER CONTENT (%)	PLASTIC LIMIT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	uscs
•	B-17	SS-2	2.5'-4.0'	11.1	18	22	4	GC-GM

Triad Engineering, Inc.

Client: Civil & Environmental Consultants

Project: Coopers Rock State Park (316-361)

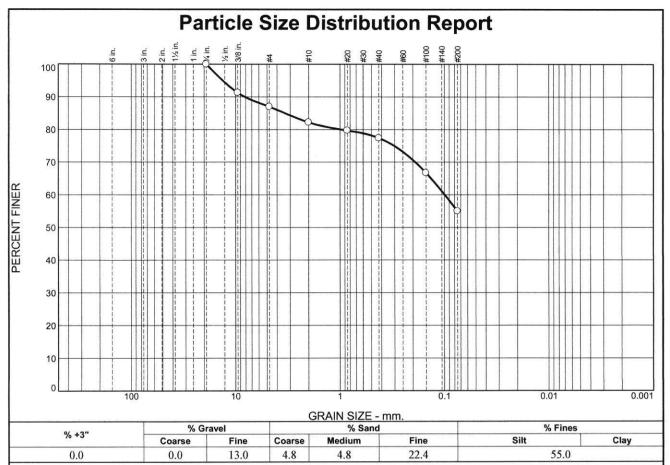
Morgantown, WV

Project No.: 01-21-0015

Figure

Tested By: LMC C

Checked By: DTB



SIEVE	PERCENT	SPEC.*	PASS?
SIZE	FINER	PERCENT	(X=NO
.75	100.0		
.375	91.3		
#4	87.0		
#10	82.2		
#20	79.7		
#40	77.4		
#100	66.7		
#200	55.0		
	00.700,000		
	8 19 5		

medium brown sa	Material Description andy silt	<u>n</u>
PL= 19	Atterberg Limits LL= 22	PI= 3
D ₉₀ = 8.1392 D ₅₀ = D ₁₀ =	Coefficients D85= 3.3532 D30= Cu=	D ₆₀ = 0.0995 D ₁₅ = C _c =
USCS= ML	Classification AASHT	O= A-4(0)
	Remarks	

* (no specification provided)

Source of Sample: B-18 Sample Number: SS-1/SS-2 **Depth:** 0.0'-4.0'

Client: Civil & Environmental Consultants **Project:** Coopers Rock State Park (316-361)

Morgantown, WV

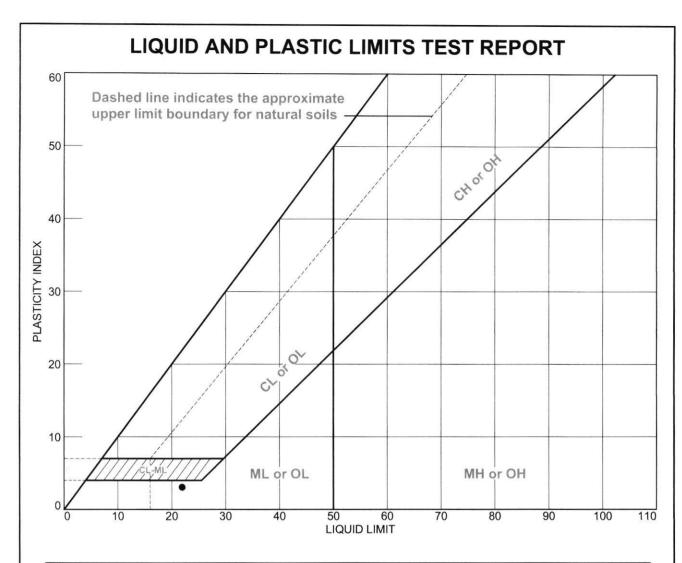
Triad Engineering, Inc.

Project No: 01-21-0015

Figure

Date: 1/3/2022

Tested By: DTB Checked By: ADK



				SOIL DATA				
SYMBOL	SOURCE	SAMPLE NO.	DEPTH	NATURAL WATER CONTENT (%)	PLASTIC LIMIT (%)	LIQUID LIMIT (%)	PLASTICITY INDEX (%)	uscs
•	B-18	SS-1/SS-2	0.0'-4.0'	22.0	19	22	3	ML

Triad Engineering, Inc.

Client: Civil & Environmental Consultants **Project:** Coopers Rock State Park (316-361)

Morgantown, WV

Project No.: 01-21-0015

Figure

Tested By: LMC Checked By: DTB

EXHIBIT A - PRICING PAGE

Coopers Rock State Forest – Cabin Improvements REVISED 4-26-2024

Name of Bidder:

Zetti Contracting LLC

Address of Bidder:

761 Tyrone Rd Suite A Morgantown WV 26508

Phone Number of Bidder:

610-955-4840

WV Contractors License No.

W V056815

We, the undersigned, having examined the site and being familiar with the local conditions affecting the cost of the work and also being familiar with the general conditions to bidders, drawings, and specifications, hereby proposes to furnish all materials, equipment, and labor to complete all work in a workmanlike manner, as described in the Bidding documents.

Base Bid

The Base Bid shall consist of construction of the facilities and related work described in the drawings and specifications. **Total Base Bid** shall be indicated in the space below.

Total Base Bid: Lump sum for all labor, materials, and equipment as stipulated in the Bidding Documents, *written in figures*.

\$2,774,000.00

Total Base Bid: Lump sum for all labor, materials, and equipment as stipulated in the Bidding Documents, <u>written in</u> words.

Two million Seven hundred seventyfour thousand dollars

EXHIBIT A – PRICING PAGE Coopers Rock State Forest – Cabin Improvements REVISED 4/26/2024

Additive Alternate 1:

The Base Bid shall consist of construction of the facilities and related work described in the drawings and specifications. Total Additive Alternate 1. Add the following cabins: Cabin #9, and Cabin #10 shall be indicated in the space below.

Total Additive Alternate 1:

Lump sum for all labor, materials, and equipment as stipulated in the Bidding Documents, *written in figures*.

Total Additive Alternate 1:

Lump sum for all labor, materials, and equipment as stipulated in the Bidding Documents, written in words.

\$1,109,600.00

One million One hundred nine thousand Six hundred dollars

EXHIBIT A – PRICING PAGE Coopers Rock State Forest – Cabin Improvements REVISED 4/26/2024

Base Bid Unit Prices

The following Unit Price Items are to be included in the Base Bid.

No.	Description	Quantity	Unit Price	Extended Price
	Mobilization/Demobilization, per LS	1 LS	35,000.00	35,000.00
C2	Construction Stakeout, per LS	1 LS	1,600.00	1,600.00
C4	Erosion and Sediment Control Best Management Practices, per LS	1 LS	8,140.00	8,140.00
	Cabin Foundation (Rework), per CY	1050 CY	10.00	10,500.00
	Topsoil Stripping & Grubbing/Stockpiling/ Respread, per LS	1 LS	1,815.00	1,815.00
C16	Concrete Sidewalk, per SY	251 SY	90.00	22,590.00
C17	Concrete Steps, per LF	123 LF	65.00	7, 995.00
C18	Powder Coated Aluminum Handrail, per LF	285 LF	35.60	10,146.00
C29	Seed and Mulch – Including Hydroseeding, per LS	1 LS	3,500.00	3,500.00
	4" PVC SDR-35 Service Lateral Pipe, per LS	1 LS	1,750.00	1,750.00
U18	34" DR-11 Polyethylene, Service Tubing (Open Cut), per LF (Includes 34" Curb Stop)	1 LS	7,040.00	7,040.00
U28	Site Electric, per LS	1 LS	5,910.00	5, 910.00
U29	Site Propane, per LS	1 LS	19,000.00	19,000.00
A1	Cabin #11, Cabin #12, Cabin #13, Cabin #14, and Cabin #15	1 LS	2,639,014.00	2,639,014.00

ADDENDUM ACKNOWLEDGEMENT FORM SOLICITATION NO.: CRFQ DNR24*18

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.

(Chec	k the	e bo	x next to each addendum re	ceive	d)	
	[1	1	Addendum No. 1]]	Addendum No. 6
	[]	1	Addendum No. 2	[]	Addendum No. 7
]]	Addendum No. 3	[]	Addendum No. 8
	[]	Addendum No. 4]]	Addendum No. 9
	ſ	1	Addendum No. 5	ſ	1	Addendum No. 10

Addendum Numbers Received:

I understand that failure to confirm the receipt of addenda may be cause for rejection of this bid. I further understand 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.

Zetti Contracting LLC
Company

Authorized Signature

5/16/24

Date

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