

Henderson County Schools

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To: Lisa Baird
Jennifer Keach
Bradley Staton
Sally Sugg
Tracey Williams

From: Marganna Stanley

Date: December 19, 2016

Re: Soil Issues for Spottsville Elementary School Project

Attached you will find an email thread originated by Clintyn Weimer, Geotechnical Engineer for American Engineers, Inc. regarding the soil issues at the Spottsville Elementary School Project. Page 30 of the contract referenced in John Hagan Codell's comment is attached, along with the page of the Geotechnical Report that did indicate this was the case and stated to expect remediation to be required. Approval was given to Codell to move forward.

Newton, Robin - BOE, Executive Assistant to the Superintendent

From: Stanley, Marganna - BOE, Superintendent
Sent: Friday, December 9, 2016 10:08 AM
To: Newton, Robin - BOE, Executive Assistant to the Superintendent
Subject: FW: Spottsville Elem. Soft Soil Remediation
Attachments: executed contract.pdf

Importance: High

Marganna Stanley
Superintendent, Henderson County Schools
1805 Second Street
Henderson, Ky. 42420
270-831-5000

From: John Hagan Codell [mailto:JHCodell@codellconstruction.com]
Sent: Wednesday, November 30, 2016 11:50 AM
To: Craig Thomas <craig@rbsdesigngroup.com>; Kyle Abney <kyle@rbsdesigngroup.com>; Stanley, Marganna - BOE, Superintendent <marganna.stanley@henderson.kyschools.us>; Thacker, Donald - MNT, Maintenance Manager-General <donald.thacker@henderson.kyschools.us>
Cc: Michael Alverson <MALverson@codellconstruction.com>
Subject: FW: Spottsville Elem. Soft Soil Remediation
Importance: High

All:
Please see the email below from AEI, the civil engineer and special inspection services provider with their direction to remove and replace the area of unsuitable soils at the rear of the site. As we have discussed, there are unit prices in the contract (page 30 of attached) that will be used to determine final cost of this remediation. AEI and Codell will document and verify quantities. Please advise if this work is acceptable to proceed at this time or if we need to wait for formal BOE direction. As a reminder, the final cost will not be known until work is completed on the unit price basis. Obviously weather is a factor. Please give me a call if you have any questions/concerns. Thanks

John Hagan Codell

jhcodell@codellconstruction.com
Office: 859.744.2222
Cell: 859.576.7625
Like Us on Facebook



From: Michael Alverson
Sent: Wednesday, November 30, 2016 12:20 PM
To: John Hagan Codell
Subject: Fwd: Spottsville Elem. Soft Soil Remediation

FYI

Sent via the Samsung GALAXY S®4 Active™, an AT&T 4G LTE smartphone

----- Original message -----

From: Clintyn Weimer <cweimer@aei.cc>
Date: 11/30/2016 11:17 AM (GMT-06:00)
To: Michael Alverson <MAlverson@codellconstruction.com>
Cc: Dennis Mitchell <dmitchell@aei.cc>, Brad High <bhigh@aei.cc>
Subject: Spottsville Elem. Soft Soil Remediation

Mr. Alverson,

Like we discussed over the phone, due to the soil conditions AEI recommends that the soft soils be undercut 2 to 3 feet depending on condition of the soil and backfilled with No. 2 stone. AEI will be present on the site to verify the total area of soft soils to be undercut so that a tonnage of the stone can be calculated. A new proof roll will need to be conducted in order to accurately measure the areas due to the previously painted outlines being washed away by rain.

Have a Great Day!

Clintyn Weimer, EIT

Geotechnical Engineer



AMERICAN ENGINEERS, INC.

308 East 25th Street

Owensboro, KY 42303

Phone 270-478-4610

Cell 812-746-1615



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Please do not print this e-mail unless necessary

UNIT PRICES:

Indicate on the lines below those unit prices to determine any adjustment to the contract price due to changes in work or extra work performed under this contract. The unit prices shall include the furnishing of all labor and materials, cost of all items, and overhead and profit for the Contractor, as well as any subcontractor involved. These unit prices shall be listed in units of work.

A maximum of 40 unit prices will be acceptable with each bid. Do not add supplemental sheets for unit pricing to this document.

The bidder shall submit the list of unit prices within one (1) hour of the bid.

	WORK (to be filled out by the Architect)	PRICE / UNIT (to be filled out by the Contractor)	UNIT (to be filled out by the Contractor)
1.	Mass Excavation (Earth) (dispose off site) (C.Y.)	8.00	CY
2.	Backfill and Compaction (off site borrow) (C.Y.)	10.5	CY
3.	Rock Excavation (dispose off site) (C.Y.)	75.00	CY
4.	Stone (placed and compacted) (ton)	24.75	TON
5.	Undercut Unsuitable Fill and Replace with Properly Place and Compacted Soil Fill (C.Y.)	18.50	CY
6.	Concrete Pavement (6") (C.Y.)	N/A	N/A
7.	Asphalt Paving and Base (S.Y.)	41.66	SY
8.	Interior Concrete Slab- On-Grade including Sub-Base, Prep and Reinforcing (S.F.)	N/A	N/A
9.	Concrete Footings (with reinforcement) (C.Y.)	N/A	N/A
10.	Structural Steel Beams/Columns Installed (LB.)	N/A	N/A
11.	Miscellaneous Structural Steel Installed (angles, channels, etc.) (LB.)	N/A	N/A
12.	8" CMU (complete with reinforcement) (SF)	N/A	N/A
13.	12" CMU (complete with reinforcement) (SF)	N/A	N/A
14.	Face Brick (S.F.)	N/A	N/A
15.	Membrane Roofing System (complete) (S.F.)	N/A	N/A
16.	Asphalt Shingle Roofing System (complete) (S.F.)	N/A	N/A
17.	3070 Hollow Metal Door Frame with Flush Wood Door (EA)	N/A	N/A
18.	Suspended Acoustical Ceiling (S.F.)	N/A	N/A
19.	Latex Paint Per Coat (S.F.)	N/A	N/A

Subgrade soils that are considered unstable after proof-rolling should be stabilized by additional compaction or by one or more of the following methods; in-place stabilization using chemical methods (lime/soil cement), removal and replacement with engineered fill, partial depth removal and replacement with a crushed (angular) aggregate layer, or partial depth removal and replacement with a geogrid and a crushed aggregate layer. The specific method of treatment will be based on the conditions present at the time the proof-rolling is performed and local availability of materials and economic factors. The selection of the appropriate method to mitigate degrading subgrade soils is dependent on the time of year site work is anticipated, cost, anticipated effectiveness, and scheduling impacts. AEI can assist in selecting this method considering all factors. **It is recommended that the Owner have a contingency budget for stabilization of the soils at the site based upon the results of the geotechnical investigation.**

Once the subgrade is judged to be relatively uniform and suitable for support of engineered fill, fill areas should be brought to design elevations with on site soil and/or suitable off-site borrow material placed and compacted as specified in Section 5.1.5 Fill Placement.

5.1.5 Fill Placement

Suitable fill material placed under structural areas should be placed in maximum eight inch (loose thickness) horizontal lifts, with each lift being compacted to a minimum of 98 percent of the standard Proctor maximum dry density, at a moisture content within two percent of optimum. The compaction requirement may be reduced to 95 percent in proposed roadway and paved areas and to 92 percent in proposed field and landscape areas. At this site, wetting or drying of the soils will typically be necessary to achieve a moisture content suitable for compaction. Representative and adequate field density testing should be performed by AEI to verify that compaction requirements have been met.

5.1.6 Soil Movement

Site grading should be maintained during construction so that positive drainage is promoted at all times. Final site grading should be accomplished in such a manner as to divert surface runoff and roof drains away from the foundation elements and paved areas. Precipitation runoff should be collected in storm sewers as quickly as possible. Maintenance should be performed regularly on paved areas to seal pavement cracks and reduce surface water infiltration into the pavement subgrade.

The prevalent soils throughout the project are low to moderate plasticity clays with USCS classifications of CL with a sizable fraction of silt. Compaction of these soils will be difficult due to the significant amount of silt size particles in the soil. Placement and compaction of these soils will require that moisture contents near optimum be