

FACPAC Contract Change Order Supplemental Information Form (Ref# 55427)

Form Status: Saved

Tier 1 Project: New Jefferson Elementary School

BG Number: 19-068

Status: Active

District: Henderson County (251)

Phase: Project Initiation (View Checklist)

Contract: KOBERSTEIN CONTRACTING, 0021, COMBINATION OF BP #1-SITEWORK
AND BP#2-PAVING

Type: CM Bid Package

Proposed

Change Order Number 21-9
Time Extension Required No
Date Of Change Order 8/19/2021
Change Order Amount To Date

Construction Contingency

Calculations below are project wide. Remaining negative Construction Contingency may require the submission of a revised BG1.

Current Approved Amount	\$918,017.47
Net Approved COs	\$536,371.81
Remaining After Approved COs	\$381,645.66
Net All COs	\$603,624.81
Remaining After All COs	\$314,392.66

This Requested Change Order Amount \$97,778.00

+/-

Change In A/E Fee This Change Order \$5,328.90

+/-

Change In CM Fee This Change Order \$1,906.67

+/-

Remaining Construction Contingency
Balance

Contract Change Requested By Architect/Engineer; Construction Manager

Contract Change Reason Code Expansion of Scope; Found Condition

Change Order Description And Justification

Per the direction of the special inspections agency, additional cost to provide and install rip rap and geotextile fabric as well as drain pipe within Basin #3 to prevent erosion of the steep banks. Approximate area of 12,410 SF was affected.

Cost Benefit To Owner

Contract unit prices have been utilized Yes

to support the cost associated with this change order.

Detailed Cost Breakdown

Contract unit prices have not been utilized, provide a detailed cost breakdown which separates labor, material, profit and overhead.

Detail Item	Amount	Percent of Total
Labor	\$19,200.00	19.64%
Materials	\$65,824.60	67.32%
Profit and Overhead	\$12,753.40	13.04%
Bond Insurance		0.00%
Cost Breakdown Total:	\$97,778.00	
Cost for this Change Order supported by an alternate bid or competitive price quote	No	
Explain Why		

**Change Order Supplemental Information Form Signature
Page (Online Form Ref# 55427)**

_____ Architect	_____ Date
_____ Construction Manager	_____ Date
_____ Finance Officer	_____ Date
_____ Local Board of Education Designee	_____ Date



AIA[®] Document G701/CMa[™] – 1992

Change Order - Construction Manager-Adviser Edition

OWNER ☒
 CONSTRUCTION MANAGER ☐
 ARCHITECT ☐
 CONTRACTOR ☐
 FIELD ☐
 OTHER ☐

PROJECT (Name and address):
 JEFFERSON ELEMENTARY SCHOOL
 800 SOUTH ALVES STREET
 HENDERSON KY 42420

CHANGE ORDER NUMBER: 21-9
INITIATION DATE: 8/19/2021

TO CONTRACTOR (Name and address):
 KOBERSTEIN CONTRACTING
 12600 WARRICK COUNTY LINE ROAD
 EVANSVILLE IN 47725

PROJECT NUMBERS: CMA-KDE-000707 / 19-068
CONTRACT DATE: 5/4/2020
CONTRACT FOR: BP#021 COMBO OF BP#1-SITEWORK & BP#2-PAVING

THE CONTRACT IS CHANGED AS FOLLOWS:

PER THE DIRECTION OF THE SPECIAL INSPECTIONS AGENCY, ADDITIONAL COST TO PROVIDE AND INSTALL RIP RAP AND GEOTEXTILE FABRIC AS WELL AS DRAIN PIPE WITHIN BASIN #3 TO PREVENT EROSION OF THE STEEP BANKS. APPROXIMATE AREA OF 12,410 SF WAS AFFECTED.

The original Contract Sum was	\$2,326,115.00
Net change by previously authorized Change Orders	\$500,323.33
The Contract Sum prior to this Change Order was	\$2,826,438.33
The Contract Sum will be increased by this Change Order in the amount of	\$97,778.00
The new Contract Sum including this Change Order will be	\$2,924,216.33

The Contract Time will not be affected.

The date of Substantial Completion as of the date of this Change Order therefore is 11/26/2021

NOT VALID UNTIL SIGNED BY THE CONTRACTOR AND CONSTRUCTION MANAGER.

Codell Construction

CONSTRUCTION MANAGER (Firm Name)

4475 Rockwell Rd., Winchester, KY 40392

ADDRESS

BY (Signature)

(Typed Name)

DATE:

KOBERSTEIN CONTRACTING

CONTRACTOR (Firm Name)

12600 WARRICK COUNTY LINE ROAD EVANSVILLE, IN 47725

ADDRESS

BY (Signature)

(Typed Name)

DATE:

HAFER DESIGN

ARCHITECT (Firm Name)

21 SE THIRD STREET, SUITE 800 EVANSVILLE, IN 47708

ADDRESS

BY (Signature)

(Typed Name)

DATE:

HENDERSON COUNTY BOARD OF EDUCATION

OWNER (Firm Name)

1805 SECOND STREET HENDERSON, KY 42420

ADDRESS

BY (Signature)

(Typed Name)

DATE:

PROPOSAL REQUEST

Project:	Jefferson Elem School 800 S Alves Ave Henderson KY	PR No.:	009
		Date:	May 10, 2021
Owner:	Henderson County Schools 1805 2nd Street Henderson KY	Project Number:	1807-244
		Contract for:	Discipline
To:	John Hagan Codell 4475 Rockwell Rd Winchester KY		
RE:	Basin #3 – Slope Remediation		

Please submit an itemized quotation for changes in the Contract Sum and/or Time incidental to proposed modifications to the Contract Documents described herein.
THIS IS NOT A CHANGE ORDER NOR A DIRECTION TO PROCEED WITH THE WORK DESCRIBED HEREIN.

Description:

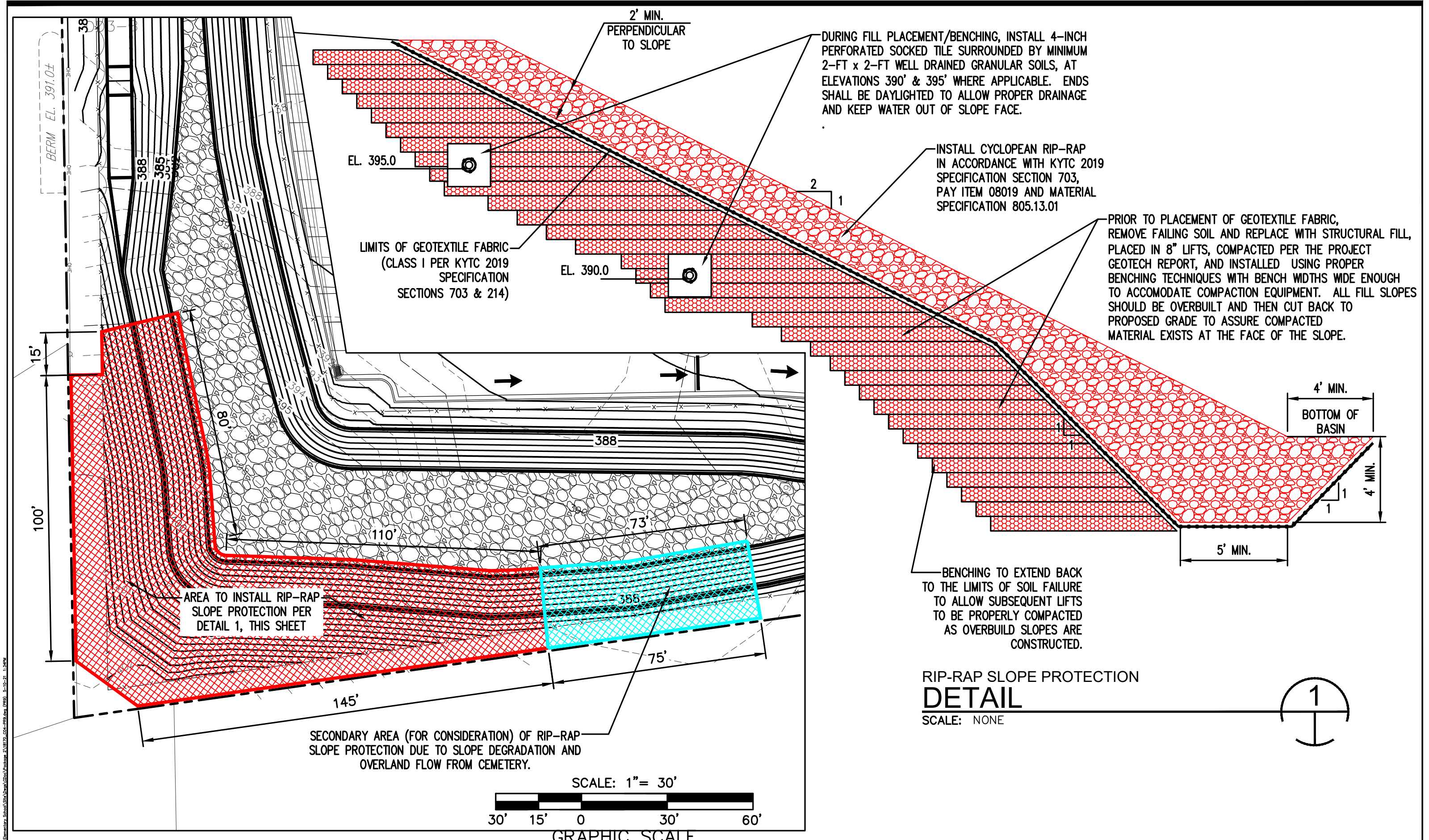
Provide the following:

Cost to install slope remediation per attached sketch 'PR9 - Basin #3 – Slope Protection' dated 5-10-2021 & per recommendations as noted in Slope Remediation Investigation Report by Alt Witzig dated 05-06-2021.

Attachments: Sheet PR9, Slope Remediation Investigation Report

By: Eric Rang, HAFER

CC: David Welker, CODELL; Mike Vickers, QK4; Donald Thacker, HCS





Alt & Witzig Engineering, Inc.

6200 E. Maxwell Ave., Suite C • Evansville, IN 47715
(812) 422-4446 • Fax (800) 875-6028

Inspection Date: May 6th, 2021

Tested For:

Mr. David Welker
Codell Construction
4475 Rockwell Road
Winchester, KY40391

Project:

Jefferson Elementary
Henderson, KY
A&W Project:TE20046

Slope Remediation Investigation

In compliance with your recent request, the following report is submitted for the investigation and slope analysis for the failing slope area located around the detention basin at the newly constructed Jefferson Elementary School in Owensboro, Kentucky. The purpose of our investigation is to explore remedial measures that could be considered for stabilizing the movement. However, actual design of the chosen measures to implement is not included in the report.

A cross section of the embankment was taken prior to failure of the failing slope area, for a slope stability analysis. A grading plan prepared by QK4, Inc. dated October 2019 was used for modeling of our analysis. The analysis assumed that the elevations provided on the grading plan were as built. The analysis assumes that the slope will be reconstructed at or near the elevations outlined in the grading plan. A slope stability analysis was performed using Stedwin, a computer-modeling program created for the analysis of slopes and slope failures.

Soil properties were determined from a visual inspection of the face of the failing slope, the previous Alt & Witzig subsurface investigation (18EV0070), and our experience with soils in this area. Bishop Circular Search method and sliding-block analysis was used to generate various possible surface failures. The slope was first modeled with a factor of safety of 1.0 to imitate the existing failing conditions. Several options were considered to remediate and protect the slope, including rip-rap and a reinforced slope. The results for the slope stability analyses are attached to this report. In a slope stability analysis, a factor of safety of 1.0 is considered unstable and in a mode of failure. The slopes were modeled until a factor of safety of 1.3 was achieved.



A summary and construction considerations for the remediation options are outlined below.

Rip-Rap: Riprap could be used to protect the slope. A 4' deep key, 5' wide at the base would be needed with riprap coming up to halfway up the slope at 2:1 as designed. At this point the riprap just becomes around 2' thick. The geometry can be seen on the attached *Rip-Rap Cross Section*. Drainage needs to be included during reconstruction of the slope to keep water out of the slope face. Drains will be required along benches assuming to near elevation 390' and 395'. The drains should consist of a 4-inch perforated socked tile covered surrounded by a minimum of 2 feet wide and 2 feet deep of well-draining granular soils.

Reinforced Soil Slope: Our analysis indicated that a reinforced soil slope with 12ft long grids could be used to protect the slope. Anything below 12' was indicated a factory of safety less than 1.3. The grids/fabric should need to be wicking to drain the slope as well. All reinforced slopes should be designed by a registered engineer and must include their own separate internal and global stability analyzes. Depending upon the results of the global stability analysis, additional grid length could be required to obtain minimum factors of safety.

For either option we recommend complete removal and replacement of failing soils/fills. We recommend that permanent slopes no steeper than 2.5:1 (H:V) be constructed without protection. The structural fill will require proper benching techniques performed in accordance with project plans and specifications. All benches should be of sufficient width to accommodate the required compaction equipment. All fill-slopes should be overbuilt and then cut back to the proposed grade to assure that compacted material exists at the face of the slope.

If you have any questions concerning this report, please do not hesitate to give our office a call.

Sincerely,

Alt & Witzig Engineering, Inc.

A handwritten signature in black ink, appearing to read 'Logan Folz'.

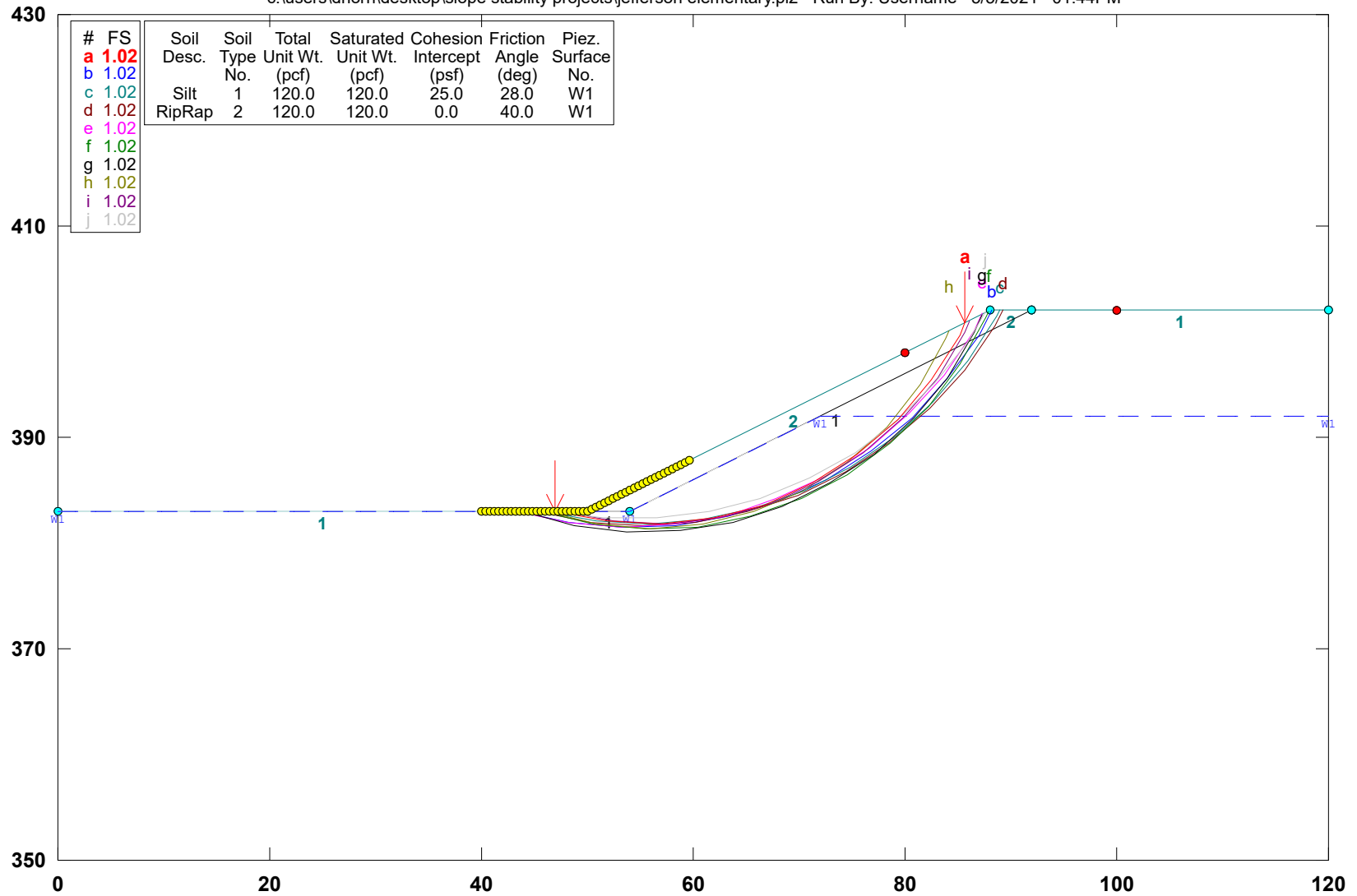
Logan Folz, E.I.
Project Engineer

A handwritten signature in black ink, appearing to read 'Patrick A. Knoll'.

Patrick A. Knoll, P.E.
Principal Engineer

Jefferson Elementary Detention Pond

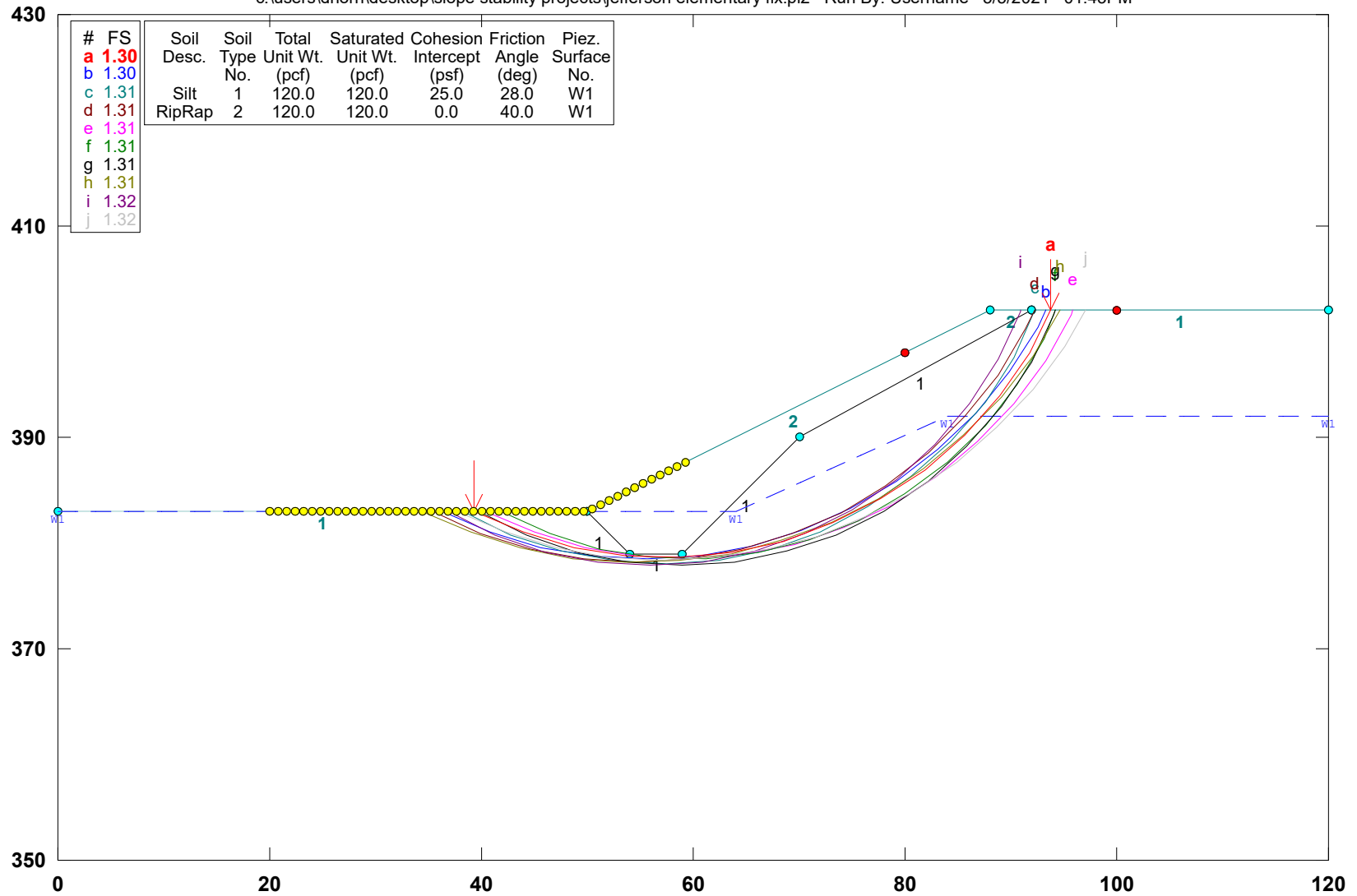
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Safety Factors Are Calculated By The Modified Bishop Method

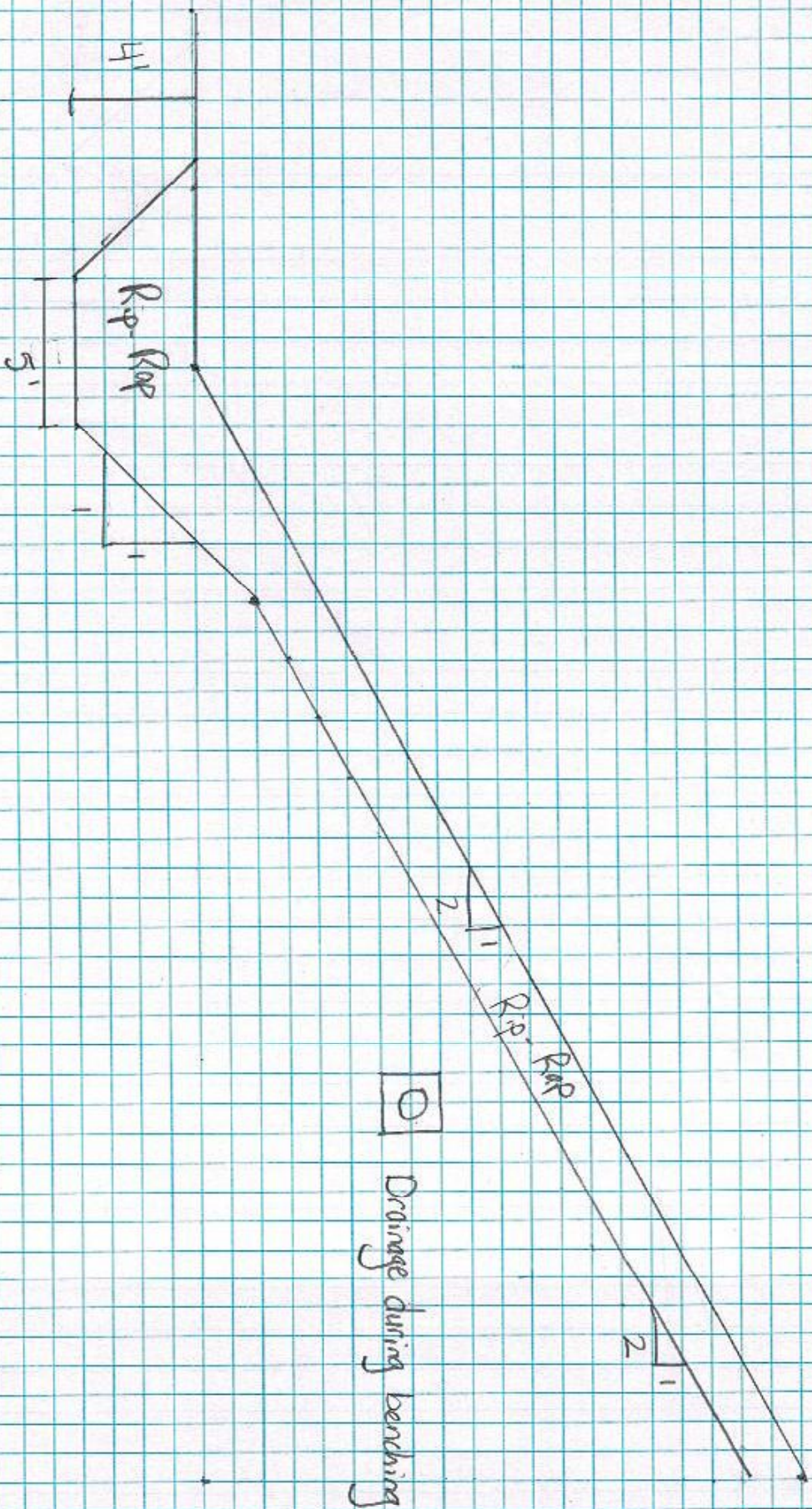
Jefferson Elementary Detention Pond

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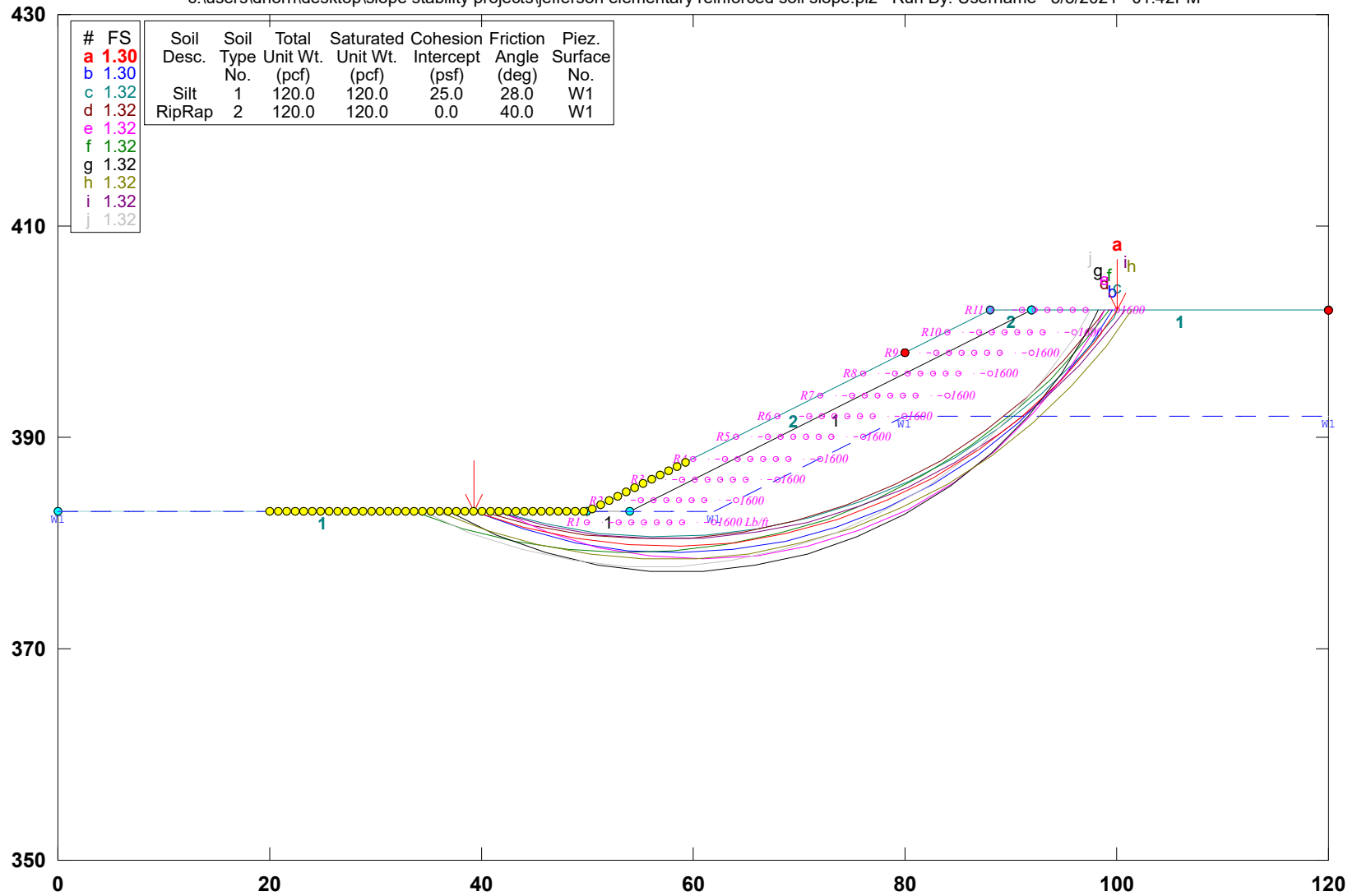
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Safety Factors Are Calculated By The Modified Bishop Method

Rip-Rap Cross Section



Jefferson Elementary Detention Pond

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Safety Factors Are Calculated By The Modified Bishop Method

KCI CHANGE ORDER / EXTRA WORK COSTS

Project: Jefferson Elementary School

ORDER NO. S: PR #9

Submit To: Codell Construction

Change Order: TBD

Date: 6/10/2021

PR #9: DB-3 Slope Protection

Haul off unsuitable soil per PR #9 Drawing and replace with suitable fill

4" perforated sock and granular backfill

Geotextile fabric on face of slopes

Rip rap per PR #9 detail. Rip rap to be class II channel lining rip rap (5-9" size) **not** cyclopean (12-24")

Red Area (10,300 SF): Install Drain Pipes, Geotextile, and Rip Rap

Operator	80	HR	\$	65.00	\$	5,200.00
Laborer	40	HR	\$	55.00	\$	2,200.00
EX16	40	HR	\$	130.00	\$	5,200.00
Loader	40	HR	\$	85.00	\$	3,400.00
Pipe Material	6	RL	\$	72.00	\$	432.00
#9 Stone	155	TN	\$	19.75	\$	3,061.25
Geotextile	3	RL	\$	792.35	\$	2,377.05
Rip Rap (3.5' average depth)	2000	TN	\$	24.12	\$	48,240.00
				15%	\$	10,516.55
					\$	80,627 *

Note: this does not include removal and replacement of unsuitable soils. This shall be tracked using UP #1 of \$100/CY and will be added to Red Area Amount of \$80,627

Blue Area (2,110 SF): Install Drain Pipes, Geotextile, and Rip Rap

Operator	16	HR	\$	65.00	\$	1,040.00
Laborer	8	HR	\$	55.00	\$	440.00
EX16	8	HR	\$	130.00	\$	1,040.00
Loader	8	HR	\$	85.00	\$	680.00
Pipe Material	2	RL	\$	72.00	\$	144.00
#9 Stone	45	TN	\$	19.75	\$	888.75
Geotextile	1	RL	\$	792.35	\$	792.35
Rip Rap (3.5' average depth)	410	TN	\$	24.12	\$	9,889.20
				15%	\$	2,237.15
					\$	17,151 *

Note: this does not include removal and replacement of unsuitable soils. This shall be tracked using UP #1 of \$100/CY and will be added to Blue Area Amount of \$17,151

Haul Out Spoils/Dress Up Bottom of Basin

Operator	10	HR	\$	65.00	\$	650.00
Operator	10	HR	\$	65.00	\$	650.00
Excavator	10	HR	\$	130.00	\$	1,300.00
Loader	10	HR	\$	85.00	\$	850.00
#23 Stone	300	TN	\$	21.00	\$	6,300.00
Lease Trucks	68.25	HR	\$	95.00	\$	6,483.75
				15%	\$	2,435.06
					\$	18,669

Total \$ 116,447