

Appendix G

Basis of Cost Estimate

NFRC Realigned Channel Project

Class 4 Cost Estimate

Preliminary Final DBR Basis of Estimate

PREPARED FOR: Government of Yukon

PREPARED BY: CH2M

DATE: April 8, 2016

Purpose of Estimate

This Draft Technical Memorandum (TM) provides the Government of Yukon (YG) with a cost opinion for completion of the design and construction of the North Fork Rose Creek (NFRC) Realigned Channel Project (NFRC Project). CH2M Hill Canada Limited (CH2M) prepared this cost estimate based on the Draft Conceptual Design presented in the Preliminary Final NFRC Design Basis Report (DBR), submitted to YG on March 31, 2016. This Draft TM is included as Appendix G in the DBR.

General Project Description

The NFRC Project is intended to: (1) Move the NFRC away from existing and future mine-impacted water discharging from the Faro Mine Waste Rock Dumps by construction of a realigned channel; and (2) Collect the mine-impacted water in a Seepage Collection Pond and convey the water for treatment to the Interim Works Treatment System (IWTS) or to the Faro Pit for temporary storage. The NFRC is divided into four segments, starting at the north end of the valley near the confluence with the Faro Creek Diversion and ending at the confluence with the South Fork of Rose Creek. The project includes the following major design components:

- Segment 1 near the confluence with the Faro Creek Diversion and extends approximately 850 metres downstream. It includes a seepage collection trench and groundwater cutoff wall on the west side of the valley.
- Segment 2 consists of the NFRC Realigned Channel from the junction with Segment 1 to the Haul Road. It includes the realigned lined channel, a temporary NFRC diversion, a permanent seepage collection trench, and a cutoff Wall at the confluence of Segment 1 and 2
- Haul Road Crossing of the NFRC Realigned Channel. The design includes excavation of the Haul Road, construction of a twin reinforced concrete box culvert, and reconstruction of the Haul Road.
- Segment 3 includes the NFRC Realigned Channel from the Haul Road to the Mine Access Road.
- Mine Access Road Crossing of the NFRC Realigned Channel includes a bridge across the realigned channel.
- Segment 4 includes the NFRC Realigned Channel from the Mine Access Road to the confluence with the South Fork of Rose Creek and the Rose Creek Diversion. Segment 4 also includes modifications to the Pump House Pond to outlet to the Rose Creek Diversion.
- NFRC Seepage Collection Pond Alternative s 1 and Alternative 2.

The Alternative 1 pond is formed by construction of a dam located just upstream from the Mine Access Road on the NFRC. Major work elements include a cofferdam and pipelines to protect the work under construction, an earthfill dam and spillway, pump station, emergency generator, new

overhead powerlines, and a pipeline to convey contaminated water to the Faro pit for storage or to the Interim Water Treatment System for treatment. The Alternative 1 pond has a storage volume equal to approximately 300,000 m³.

The Alternative 2 pond is formed by construction of an embankment located upstream of the Rose Creek Tailing Area. Major work elements include a cofferdam, a cutoff wall to convey contaminated seepage and runoff from the old NFRC into a lined channel, a lined conveyance channel from upstream of the Mine Access Road to the pond, a lined pond, a pump station, ARD conveyance pipelines to the IWTS and to Faro Pit, and an emergency generator. Because of the larger catchment area, the Alternative 2 pond has a storage volume of approximately 350,000 m³.

Estimate Classification

This cost estimate has been prepared based on the Conceptual Design, included as Appendix F in the DBR. The estimate is considered a Class 4 rough order of magnitude (ROM) estimate, as defined by the American Association of Cost Engineering (AACE), and the *Northern Contaminated Sites Program, Major Project Standards & Guidance Manual* (AANDC, 2013). Figure 1 summarizes the classes of cost estimates in accordance with the AACE and the major projects manual. The expected accuracy range runs from a low range of -30% to -15% and a high range of +20% to +50%.

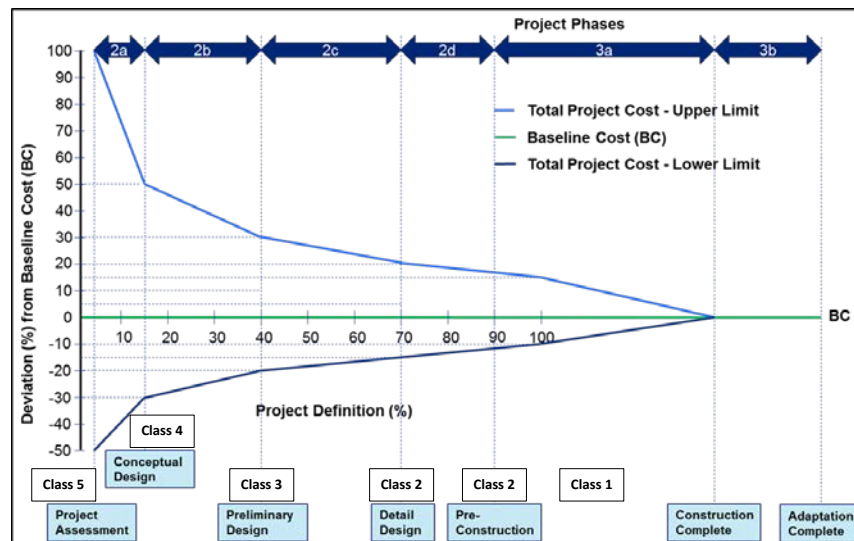


Figure 1. Construction Cost Estimate Accuracy Ranges
Faro Mine Remediation Project

The estimate is reported in 2016 Canadian dollars. The estimate is not escalated for potential out-year increase cost of labor, material, services and/or cost of money.

The estimate uses Canadian labor and material rates and is considered a unit price-type estimate based on bottoms-up pricing and experience with local contractor pricing. The estimate may include cost allowances and costs per unit (for example, square metre) for certain components of the estimate. Specific prices for labor and equipment and materials have been used where available, in addition to provisional pricing being used where noted within the detailed estimate.

The following cost resources were used in the development of the cost estimate:

- R.S. Means
- Blue Book Rental Rates for Canada – Central Yukon region
- CH2M Historical Data

- Estimator Judgment
- Bid prices from similar work at the project site in recent years

Schedule

The cost estimate is based on the preliminary schedule provided in Appendix H of the DBR. In accordance with direction from the Technical Review Committee (TRC), the estimate and the schedule does not include requirements for submitting to, or obtaining approval from, regulatory authorities. The Conceptual Design does not include structures or facilities required for fish passage or fish habitat.

Major design and procurement sequencing includes the following:

- Preliminary Design, 2016 Field Work, and Detailed Design by June 2017
- Preconstruction (procurement) and award of construction contract by November 2017 Major construction sequencing is as follows:
 - Year 1 Construction (2018):
 - Construct NFRC Temporary Diversion
 - Divert NFRC into NFRC Temporary Diversion
 - Segment 2: Begin excavation of NFRC Realigned Channel 2 in winter
 - Segment 2: Place thermal barrier and groundwater collection layer in winter
 - Begin excavation of Haul Road Culvert in winter
 - Construct NFRC Realigned Channel embankment in summer direct from Haul Road Excavation
 - Construct NFRC Realigned Channel liner and protective cover in summer/fall
 - Excavate and construct Haul Road culvert waste slab and bottom slab in summer/ fall
 - Excavate NFRC Realigned Channel in Segment 3 in summer
 - Construct Mine Access Road bridge in summer/fall
 - Year 2 Construction (2019):
 - Place riprap in Segment 2
 - Divert NFRC into NFRC Realigned Channel
 - Construct remaining Haul Road culvert
 - Place riprap in Segment 3
 - Construct Segment 4
 - Place cutoff wall and embankment at Segment 1/Segment 2 junction
 - Connect NFRC to Realigned Channel: fall
 - Year 3 Construction (2020):
 - Construct Segment 1 cutoff wall and trench
 - Construct Segment 2 NFRC Permanent Seepage Collection Trench
 - Complete Haul Road culvert backfill
- NFRC Seepage Collection Pond Alternative 1 and Conveyance Pipeline
 - Year 2 (2019): clear and grub dam, construct access roads, clear reservoir, initial dam foundation preparation (above creek), process borrow materials, ARD pipelines to IWTS and Faro Pit.
 - Year 3 (2020): construct cofferdam, complete foundation preparation, construct dam, pump station and intake pipelines, electrical and instrumentation and control (I&C). Startup and shakedown fall/winter 2020.

- NFRC Seepage Collection Pond Alternative 2 Conveyance Pipeline:
 - Year 1 (2018): Construct access roads, clear and grub, fill surge ponds, construct diversion around pond, powerlines, pond excavation and embankment, initial portion of diversion channel between Mine Access Road and Pond, ARD pipeline to IWTS and Faro Pit.
 - Year 2 (2019): Install pond lining, pump station and pipelines, spillway, electrical and I&C.
 - Year 3 (2020): Construct cofferdam, cutoff wall; complete diversion channel from cutoff wall to pond, remove cofferdam, startup summer 2020.

Total Cost Estimate Summary

The cost estimate consists of six separate estimates for the project elements listed below. Cost summary tables are presented in Attachment 1 and cost detail reports are presented in Attachment 2:

1. NFRC Realigned Channel (Segments 1, 2, 3 and 4) – Capital cost estimate
2. Haul Road crossing — Capital cost estimate
3. Mine Access Road: Bridge – Capital cost estimate
4. NFRC Seepage Collection Pond Alternative 1 – Capital cost estimate
5. NFRC Seepage Collection Pond Alternative 2 – Capital cost estimate
6. Indirect Costs – Professional services cost estimate; these include the services to support construction including Project Management, Engineering Design (from acceptance of Conceptual Design through Final Design, Procurement, Construction Management and Environmental Monitoring.

Table 1 summarizes the individual and total cost estimates based on the 30% design.

Table 1. Summary of Cost Estimate
Faro Mine Remediation Project

Project Component	Cost^a
NFRC Realigned Channel/All Segments	\$ 40,249,000
Haul Road crossing - Open Cut Twin RCB Boxes	\$ 27,600,000
Mine Access Road Alternative 1- Bridge	\$ 1,215,000
NFRC Seepage Collection Pond Alternative 1 & Conveyance Pipeline	\$ 15,640,000
NFRC Seepage Collection Pond Alternative 2 & Conveyance Pipeline	\$ 21,879,000
<i>Project Total Capital Cost with Pond Alt 1</i>	<i>\$ 84,702,000</i>
<i>Project Total Capital Cost with Pond Alt 2</i>	<i>\$ 90,941,000</i>
<i>Project Indirect Cost with Pond Alt 1^b</i>	<i>\$ 21,091,000</i>
<i>Project Indirect Cost with Pond Alt 2^b</i>	<i>\$ 22,645,000</i>
Total Project Cost (Capital + Indirect) with Pond Alt 1	\$105,793,000
Total Project Cost (Capital + Indirect) with Pond Alt 2	\$113,586,000

Notes:

^a Rounded up to nearest one-thousand dollars.

^b See Attachment 1 for breakdown of Indirect Costs.

Assumptions

The NFRC cost estimate is contingent upon significant assumptions because of the conceptual level of project definition. As such, assumptions contained within the NFRC design apply to this estimate, in particular those assumptions listed in Section 1 of the DBR. Additionally, this estimate is subject to the following assumptions:

1. The estimate is based on a 10-hour per day, 6-day per week field schedule. The estimate assumes a 9- to 10-month construction season per year but will require some double shift work and some winter work (clearing and initial excavation is required for the construction of the NFRC Realigned Channel during winter season year 1). Placement of fill will take place during warm (non-frozen) conditions.
2. The estimate is based on the NFRC construction procured and executed under competitive bidding conditions in that all contractors are equal with a reasonable project schedule, limited overtime, and constructed under a single contract per construction package.
3. It is assumed the contractor will mobilize and set up a ready-mix plant and a rock plant to produce the materials needed from suitable aggregates onsite. The cost of the plant operations for the ready-mix plant and rock plant are included in the estimate unit rates for concrete and rock products.
4. The plants and offices will remain onsite until all the work is completed.
5. It is assumed that adequate housing is available in the Town of Faro. The cost for a person camp is not considered in the estimates.
6. Equipment types and rates vary with individual contractors; therefore, the equipment rates in the estimate are based on 80 percent of the Blue Book Rental Rates for Canada – Central Yukon region. The types of equipment and production used in the estimate are based on estimator's experience.
7. The estimates carry a 6 percent of total estimate for General Conditions and Overhead.
8. Estimates are prepared as contractor direct cost and include a 12 percent markup for contractor's profit.
9. A 20 percent construction subcontractor contingency is carried within all estimates for weather impacts, production delays, contractor-direct cost over-runs of materials and other cost impacts.
10. Estimates were developed as independent standalone estimates. Certain estimate cost, such as mobilization and demobilization, are included within each estimate. Efficiencies gained through consolidation of multiple work packages are not factored into the estimate.
11. No additional markups for a General Contractor/ CM at Risk are included.
12. Stormwater and erosion control is incorporated into the estimates.
13. For the Haul Road culvert, the contractor would start excavation for the RCB culvert as early as possible, including construction of temporary ramps as required to complete the scope of work. It is assumed that this excavation will double shift from May to late September while the best available light is available and to support night work continuing through the winter as weather permits.
14. Project Management cost are equal to 4 percent of the capital costs estimate (includes managing the design and construction oversight).
15. Design Costs are equal to 8 percent of the capital cost estimate (includes preparing Advanced Design, Final Design and Tender documents). This is based on estimates prepared and included in the Medium Term Plan by the Faro Mine Execution Team (2014).

16. Procurement costs are equal to approximately 0.04 percent of capital cost estimate. This is based on an estimate of hours required for multiple procurements.
17. Construction Management oversight costs are equal to 12 percent of the capital cost estimate (includes engineer's onsite oversight, responsible engineer's support, requests for information, submittal reviews, as-builts, and construction closeout)
18. Environmental Monitoring cost are equal to 0.5 percent of the capital cost estimate. This is based on an estimate of labor hours and an allowance for laboratory testing.

Limitations

This engineer's estimate is an estimate of construction costs for budgeting purposes only, limited to conditions current at its issuance. It is not a guaranty of actual price or cost. The final cost of the project will depend upon the actual labor and material costs, competitive and market conditions, construction scope, implementation schedule and other variable factors. As a result, the final project costs will vary from the estimate presented herein. Because of this, project feasibility and funding needs must be carefully reviewed before making specific financial decisions to help ensure proper project evaluation and adequate funding. This estimate is based on material, equipment, and labor pricing as of March 2016.

Reference Documents

BNI Building News. 2016. *Blue Book Rental Rates for Canada – Central Yukon Region*

Faro Mine Execution Team 2014. *Faro Mine Remediation Project. Medium Term Plan Work Plan FY2014-2017*. March

Indigenous and Northern Affairs Canada (INAC) (2013). Formerly Aboriginal Affairs and Northern Development Canada (AANDC) 2013. *Contaminated Sites Plan Major project Office Standards and Guidelines Manual*. Final, r01. October.

RSMMeans Company 2015. 2015 Facilities Construction Cost Data Book.

Attachment 1

Cost Estimate Summary

CLASS 4 COST ESTIMATE - COST SUMMARY TABLES
 NORTH FORK OF ROSE CREEK REALIGNMENT PROJECT

NFRC REALIGNED CHANNEL

ITEM	DESCRIPTION	QUANTITY	UNITS	UNIT PRICE	TOTAL
10	P&P BONDS & INSURANCE	1	LS	\$ 851,381	\$ 851,381
20	MOBILIZATION	1	LS	\$ 661,251	\$ 661,251
30	COMPACTION QC	1	LS	\$ 75,900	\$ 75,900
40	SURVEY	1	LS	\$ 496,800	\$ 496,800
100	TEMPORARY DIVERSION DITCH	428	M	\$ 994	\$ 425,199
110	PERMANENT SEEPAGE COLLECTION TRENCH	798	M	\$ 1,199	\$ 956,793
120	SEGMENT #1 CUTOFF WALL	6,200	M2	\$ 174	\$ 1,077,230
130	PERMANENT SEEPAGE TRENCH & ROADS	4,788	M	\$ 245	\$ 1,174,253
140	DEWATER PONDS&FILL INFILTRATION PONDS	40,000	M3	\$ 13	\$ 513,059
150	FILL POND SEG #1/SEG#2 CONFLUENCE	2,560	M3	\$ 108	\$ 276,913
200	SEG#1 CLEAR & GRUB	8,397	M2	\$ 1	\$ 9,698
210	SEG#1 EXCV SEDIMENT POND	1,215	M3	\$ 15	\$ 17,977
220	SEG#1 EARTHFILL	23,112	M3	\$ 13	\$ 305,160
230	SEG#1 CUTOFF WALL	830	M2	\$ 176	\$ 146,405
240	SEG#1 TRENCH - DRAIN ROCK	104	M3	\$ 121	\$ 12,541
250	SEG#1 PERFORATED PVC 150mm	104	M	\$ 45	\$ 4,701
260	SEG#1RIPRAP	315	M3	\$ 82	\$ 25,791
270	SEG#1 RIPRAP BEDDING	158	M3	\$ 62	\$ 9,746
300	SEG#2 CLEAR & GRUB	103,707	M2	\$ 1	\$ 98,929
305	SEG#2 EXCAVATION	128,541	M3	\$ 15	\$ 1,977,185
310	SEG#2 THERMAL BARRIER	90,966	M3	\$ 26	\$ 2,370,218
315	SEG#2 NON WOVEN GEOTEXTILE	56,261	M2	\$ 6	\$ 328,686
320	SEG#2 LOW PERMEABILITY-TILL	54,261	M3	\$ 14	\$ 768,819
325	SEG#2 60 MIL LLDPE GEOMEMBRANE (SECONDARY)	56,261	M2	\$ 32	\$ 1,785,724
330	SEG#2 COMPOSITE DRAINAGE NET 7mm	56,261	M2	\$ 18	\$ 1,009,322
335	SEG#2 60 MIL LLDPE GEOMEMBRANE (PRIMARY)	56,261	M2	\$ 32	\$ 1,785,724
340	SEG#2 16oz NON-WOVEN GEOTEXTILE	56,261	M2	\$ 6	\$ 316,652
345	SEG#2 ARTICULATING CONC BLOCK	56,261	M2	\$ 163	\$ 9,191,778
350	SEG#2 RIPRAP	33,757	M3	\$ 71	\$ 2,402,377
355	SEG#2 HDPE PIPE (100mm)	721	M	\$ 46	\$ 32,845
360	SEG#2 CLSM BACKFILL HDPE PIPE	20	M3	\$ 711	\$ 14,225
365	SEG#2 GRAVEL ROAD SURFACING	2,096	M3	\$ 36	\$ 76,126
370	SEG#2 GRANULAR BORROW	68,644	M3	\$ 22	\$ 1,515,071
375	SEG#2 STRUCTURAL EMBANKMENT	188,247	M3	\$ 14	\$ 2,590,239
400	SEG#3 CLEAR & GRUB	30,421	M2	\$ 1	\$ 24,244
410	SEG#3 EXCAVATION	236,796	M3	\$ 14	\$ 3,233,321
420	SEG#3 EARTHFILL	385	M3	\$ 18	\$ 6,830
430	SEG#3 RIPRAP	9,339	M3	\$ 83	\$ 771,299
440	SEG#3 RIPRAP BEDDING	5,603	M3	\$ 74	\$ 412,363
450	SEG#3 GRAVEL ROAD SURFACING	816	M3	\$ 27	\$ 22,217
500	SEG#4 CLEARING & GRUB	4,576	M2	\$ 1	\$ 6,465
510	SEG#4 EXCAVATION	4,406	M3	\$ 13	\$ 59,152
520	SEG#4 EARTHFILL	13,899	M3	\$ 13	\$ 187,036
530	RIPRAP	1,800	M3	\$ 86	\$ 154,260
540	RIPRAP BEDDING	1,080	M3	\$ 81	\$ 87,508
550	GRAVEL ROAD SURFACING	128	M3	\$ 32	\$ 4,152
650	DEMOBILIZATION	1	LS	\$ 445,290	\$ 445,290
700	PER DIEM	1	LS	\$ 1,529,261	\$ 1,529,261
				SUBTOTAL	\$ 40,248,116

CLASS 4 COST ESTIMATE - COST SUMMARY TABLES
 NORTH FORK OF ROSE CREEK REALIGNMENT PROJECT

HAUL ROAD CULVERT

ITEM	DESCRIPTION	QUANTITY	UNITS	UNIT PRICE	TOTAL
645	BONDS & INSURANCE	1	LS	\$ 587,002	\$ 587,002
646	CONCRETE QC	1	LS	\$ 158,700	\$ 158,700
647	COMPACTION QC	1	LS	\$ 124,200	\$ 124,200
648	SURVEY	1	LS	\$ 345,000	\$ 345,000
650	MOBILIZATION EQUIPMENT,LABOR & YARD	1	LS	\$ 521,083	\$ 521,083
655	MOB , GRADE SET UP CONCRETE PLANT	1	LS	\$ 244,669	\$ 244,669
660	DEVELOP SET UP CLEAN WATER SOURCE	1	LS	\$ 189,482	\$ 189,482
665	TEMPORARY RELOCATE OH POWER LINE	1	LS	\$ 358,800	\$ 358,800
667	HAUL ROAD DETOUR ROAD	10,560	M2	\$ 24	\$ 253,006
670	ACCESS FOR CONSTRUCTION BOTH SIDES	1	LS	\$ 24,394	\$ 24,394
675	TEMPORARY RAMPS FOR EXCAVATION	1	LS	\$ 122,553	\$ 122,553
680	EXCAVATE FOR BOX CULVERT	460,000	M3	\$ 10	\$ 4,782,978
685	SET UP TEMP DEWATER SYSTEM FOUNDATION	1	LS	\$ 15,248	\$ 15,248
690	EXCAVATE UNSUITABLE FOUNDATION MATERIAL	6,300	M3	\$ 11	\$ 68,483
695	PLACE AND COMPACTINVERT FOUNDATION	5,060	M3	\$ 14	\$ 68,544
696	FORM & STRIP INVERT & WASTE SLAB	499	M2	\$ 166	\$ 82,668
697	CONCRETE WASTE SLAB	1,240	M3	\$ 422	\$ 522,751
700	PLACE INVERT REBAR	357,750	KG	\$ 5	\$ 1,629,194
705	PLACE CONCRETE SLAB	2,862	M3	\$ 422	\$ 1,208,972
710	,FINISH,CURE INVERT	2,979	M2	\$ 1	\$ 4,384
715	PRE-FAB WALL FORMS	1,638	M2	\$ 200	\$ 327,764
720	SET,STRIP AND MOVE WALL FORMS	8,605	M2	\$ 186	\$ 1,602,173
725	PLACE WALL REBAR	508,200	KG	\$ 5	\$ 2,314,343
730	PLAC,CURE FINISH WALL CONCRETE	3,630	M3	\$ 456	\$ 1,654,517
735	SET,STRIP,MOVE DECK FALSE WORK	23,940	M3	\$ 8	\$ 188,970
740	FORM AND STRIP DECK	2,993	M2	\$ 97	\$ 291,728
745	PLACE DECK REBAR	461,590	KG	\$ 5	\$ 2,102,081
750	PLACE,FINISH AND CURE DECK CONCRETE	2,978	M3	\$ 441	\$ 1,312,464
755	EXCAVATE WING WALL FOOTINGS	290	M3	\$ 18	\$ 5,254
760	GRADE COMPACT FOOTINGS	290	M2	\$ 6	\$ 1,869
765	FORM AND STRIP WALL FOOTINGS	110	M2	\$ 163	\$ 17,875
770	PLACE FOOTINGS REBAR	23,200	KG	\$ 5	\$ 105,653
775	PLACE,FINISH,CURE FOOTING CONCRETE	290	M3	\$ 432	\$ 125,230
780	FAB,SET AND STRIP WING WALLS	911	M2	\$ 86	\$ 77,956
785	PLACE WING WALLS REBAR	27,000	KG	\$ 5	\$ 122,958
790	PLACE WING WALL CONCRETE	276	M3	\$ 478	\$ 131,848
795	FINISH AND CURE WING WALLS	460	M2	\$ 9	\$ 4,113
800	FINE GRADE AND COMACT APRON FOUNDATION	540	M2	\$ 8	\$ 4,123
805	FORM AND STRIP APRON	80	M2	\$ 54	\$ 4,328
810	PLACE REBAR APRON	48,600	KG	\$ 5	\$ 221,324
815	PLACW,FINISH,CURE APRON CONCRETE	540	M3	\$ 436	\$ 235,631
820	BACKFILL CULVERT AND WING WALLS-SELCT	46,000	M3	\$ 21	\$ 977,085
825	COMPLETE HAUL ROAD EMBANKMENT-COMMON	291,930	M3	\$ 10	\$ 2,868,805
830	REMOVE TEMPORARY RAMPS	12,000	M3	\$ 8	\$ 91,476
850	DEMOB EQUIPMENT ,YARD & OFFICE	1	LS	\$ 278,564	\$ 278,564
860	DEMOB CONCRETE PLANT	1	LS	\$ 159,550	\$ 159,550
890	PER DIEM	1	LS	\$ 1,059,354	\$ 1,059,354
				SUBTOTAL	\$ 27,599,145

CLASS 4 COST ESTIMATE - COST SUMMARY TABLES
 NORTH FORK OF ROSE CREEK REALIGNMENT PROJECT

MINE ACCESS ROAD - BRIDGE

ITEM	DESCRIPTION	QUANTITY	UNITS	UNIT PRICE	TOTAL
645	BONDS & INSURANCE	1	LS	\$ 25,837	\$ 25,837
650	MOBILIZATION	1	LS	\$ 13,008	\$ 13,008
654	CONCRETE QC	1	LS	\$ 6,900	\$ 6,900
655	COMPACTION QC	1	LS	\$ 6,900	\$ 6,900
656	SURVEY	1	LS	\$ 55,200	\$ 55,200
665	CLEAR & GRUB	12,410	M2	\$ 1	\$ 9,170
667	MINE ACCESS ROAD DETOUR ROAD	2,250	M2	\$ 32	\$ 70,911
675	TEMPORARY RAMPS FOR EXCAVATION	3,000	M3	\$ 12	\$ 35,275
680	CHANNEL EXCAVATION	6,170	M3	\$ 13	\$ 79,127
690	EXCAVATE TEMPORARY FOUNDATIONS	1,000	M3	\$ 8	\$ 8,449
696	DRILLED SHAFTS 22 EA 0.4M 268.4M	268	M	\$ 524	\$ 140,749
697	FORMED PILES .4M 14 EA 60.2M	60	M	\$ 462	\$ 27,830
705	SET UP FALSEWORK	2,520	M3	\$ 13	\$ 33,095
710	FORM AND STRIP CONCRETE DECK	526	M2	\$ 108	\$ 56,915
745	PLACE DECK REBAR	31,136	KG	\$ 5	\$ 141,793
750	PLACE,FINISH AND CURE DECK CONCRETE	278	M3	\$ 425	\$ 118,231
755	EXCAVATE WING WALL FOOTINGS	40	M3	\$ 88	\$ 3,503
760	GRADE COMPACT FOOTINGS	80	M2	\$ 12	\$ 935
765	FORM AND STRIP WALL FOOTINGS	88	M2	\$ 88	\$ 7,728
770	PLACE FOOTINGS REBAR	1,344	KG	\$ 5	\$ 6,121
775	PLACE,FINISH,CURE FOOTING CONCRETE	12	M3	\$ 477	\$ 5,726
780	FAB,SET AND STRIP WING WALLS	32	M2	\$ 248	\$ 7,925
785	PLACE WING WALLS REBAR	1,792	KG	\$ 5	\$ 8,161
790	PLACE WING WALL CONCRETE	16	M3	\$ 649	\$ 10,383
795	FINISH AND CURE WING WALLS	32	M2	\$ 14	\$ 435
800	FINE GRADE AND COMPACT APROACH SLAB	60	M2	\$ 34	\$ 2,061
805	FORM AND STRIP APROACH SLAB	40	M2	\$ 81	\$ 3,224
810	PLACE REBAR	11,200	KG	\$ 5	\$ 51,005
815	PLACW,FINISH,CURE APRON CONCRETE	100	M3	\$ 422	\$ 42,246
820	BACKFILL WING WALLS-SELCT	80	M3	\$ 174	\$ 13,890
830	CONCRETE BARRIER	104	M	\$ 355	\$ 36,915
840	APPROACH GUARD RAIL	45	M	\$ 166	\$ 7,452
850	RIPRAP BEDDING	706	M3	\$ 60	\$ 42,643
855	RIPRAP	1,177	M3	\$ 78	\$ 92,117
890	PER DIEM	1	LS	\$ 42,804	\$ 42,804
				SUBTOTAL	\$ 1,214,664

CLASS 4 COST ESTIMATE - COST SUMMARY TABLES
 NORTH FORK OF ROSE CREEK REALIGNMENT PROJECT

NFRC SEEPAGE COLLECTION POND ALTERNATIVE 1

ITEM	DESCRIPTION	QUANTITY	UNITS	UNIT PRICE	TOTAL
10	P&P BONDS AND INSURANCE	1	LS	\$ 292,077	\$ 292,077
20	PREMOBILIZATION PROJECT SUBMITTALS	1	LS	\$ 20,561	\$ 20,561
30	PROJECT MOBILIZATION	1	LS	\$ 333,919	\$ 333,919
40	ENVIRONMENTAL MONITORING	1	LS	\$ 13,800	\$ 13,800
50	SURVEY	1	LS	\$ 149,040	\$ 149,040
60	QUALITY CONTROL	1	LS	\$ 66,240	\$ 66,240
70	WEEKLY BASELINE SCHEDULE&UPDATES	1	LS	\$ 65,238	\$ 65,238
80	PROVIDE & MAINTAIN EROSION&SEDIMENT	1	LS	\$ 74,520	\$ 74,520
90	CONSTRUCT ACCESS AND HAUL ROADS	1	LS	\$ 89,290	\$ 89,290
100	SETUP & MAINTAIN TRAFFIC CONTROL	1	LS	\$ 91,178	\$ 91,178
110	DEVELOP CONSTRUCTION WATER	1	LS	\$ 13,710	\$ 13,710
120	CLEAR&GRUB SITE AND ROADS	100,644	M2	\$ 1	\$ 106,942
130	DEWATER FOUNDATION	1	LS	\$ 99,196	\$ 99,196
140	EXCAVATION TO TOP OF ROCK	28,720	M3	\$ 12	\$ 335,194
150	KEY FOUNDATION AND SEAL	810	M3	\$ 39	\$ 31,503
160	PLACE & COMPACT ZONE 1 CORE	18,043	M3	\$ 19	\$ 347,988
170	PLACE & COMPACT ZONE 1 DOWN STRN	8,418	M3	\$ 18	\$ 149,138
180	PLACE & COMPACT FILTER SAND 4A	6,686	M3	\$ 65	\$ 432,101
190	PLACE & COMPACT DRAIN GRAVEL 4B	2,276	M3	\$ 65	\$ 147,238
200	PLACE & COMPACT RANDOM FILL ZONE 2	35,385	M3	\$ 16	\$ 563,271
210	PLACE & COMPACT RR BEDDING ZONE 3B	1,090	M3	\$ 77	\$ 83,531
220	PLACE RIP RAP ZONE 3A	2,180	M3	\$ 79	\$ 171,979
230	PLACE RIPRAP SPILLWAY ZONE 3A	2,100	M3	\$ 92	\$ 193,337
235	DRAIN OUTLET PIPES DS	210	M	\$ 132	\$ 27,746
240	GRAVEL ON DAM CREST	287	M3	\$ 55	\$ 15,660
245	GROUTED RIPRAP ROAD SPILLWAY	125	M3	\$ 143	\$ 17,887
250	TOPSOIL D/S EMBANKMENT SLOPE	2,045	M3	\$ 16	\$ 32,725
255	MOB DEMOB DRILLING SUB	1	LS	\$ 41,400	\$ 41,400
260	CASE AND DRILL FOR GROUT CURTAIN HOLES	132	EA	\$ 1,822	\$ 240,451
265	HOOK UP (2 PER HOLE)	264	EA	\$ 552	\$ 145,728
270	PRESSURE GROUT HOLES	132	EA	\$ 404	\$ 53,282
275	PULL CASINGS AND HOOK UPS(5 EA)	660	EA	\$ 138	\$ 91,080
280	WATER PRESSURE TESTING	300	HR	\$ 221	\$ 66,240
285	VERIFICATION BORINGS (5EAX15M)	75	M	\$ 248	\$ 18,630
300	TRENCH EXCAVATION	59,018	M3	\$ 19	\$ 1,127,247
310	INSTALL 450 mm DR 9 HDPE	2,386	M	\$ 475	\$ 1,133,050
320	INSTALL 450 mm DR 11 HDPE	1,931	M	\$ 525	\$ 1,014,481
330	PLACE AND COMPACT PIPE ZONE	5,175	M3	\$ 71	\$ 365,016
340	PLACE INSULATION	21,887	M2	\$ 28	\$ 619,483
345	PLACE SAND COVER FOR INSULATION	7,780	M3	\$ 51	\$ 400,415
350	PLACE COMMON BACKFILL	40,422	M3	\$ 10	\$ 418,636
355	TRENCH PLUGS	13	EA	\$ 1,333	\$ 17,330
360	SERVICE ROAD EXCAVATION	19,202	M3	\$ 14	\$ 271,181
370	SAND & GRAVEL ROAD SURFACING	2,037	M3	\$ 27	\$ 54,347
400	SCP PUMP STATION BUILDING	1	LS	\$ 235,773	\$ 235,773
410	DRILL & INSTALL WELLS	3	EA	\$ 126,201	\$ 378,603
420	HIGH LEVEL INTAKE 600 HDPE DR 11	30	M	\$ 1,031	\$ 30,943
430	LOW LEVEL INTAKR 600 HDPE DR 11	70	M	\$ 808	\$ 56,533
440	MISCL PIPING & VALVES	1	LS	\$ 268,772	\$ 268,772
450	SCP PUMP STA I&C COMPONENTS	1	LS	\$ 114,161	\$ 114,161
460	SCP PUMP STA STANDBY GENERATOR	1	LS	\$ 348,815	\$ 348,815
470	SCP PUMP STA ELECTRICAL WORK	1	LS	\$ 20,700	\$ 20,700
480	SCP VALVE AND METER STA BLDG	1	LS	\$ 186,203	\$ 186,203
485	SCP V & M MISCLANEOUS PIPING	1	LS	\$ 331,248	\$ 331,248
490	SCP V & M ELECTRICAL	1	LS	\$ 13,800	\$ 13,800
600	PER DIEM	1	LS	\$ 613,105	\$ 613,105
				SUBTOTAL	\$ 15,639,869

CLASS 4 COST ESTIMATE - COST SUMMARY TABLES
NORTH FORK OF ROSE CREEK REALIGNMENT PROJECT

NFRC SEEPAGE COLLECTION POND ALTERNATIVE 2

ITEM	DESCRIPTION	QUANTITY	UNITS	UNIT PRICE	TOTAL
10	P&P BONDS AND INSURANCE	LS	1	\$ 449,925	\$ 449,925
20	PREMOBILIZATION PROJECT SUBMITTALS	LS	1	\$ 20,561	\$ 20,561
30	PROJECT MOBILIZATION	LS	1	\$ 333,919	\$ 333,919
40	ENVIRONMENTAL MONITORING	LS	1	\$ 13,800	\$ 13,800
50	SURVEY	LS	1	\$ 149,040	\$ 149,040
60	QUALITY CONTROL	LS	1	\$ 66,240	\$ 66,240
70	WEEKLY BASELINE SCHEDULE&UPDATES	LS	1	\$ 65,238	\$ 65,238
80	PROVIDE & MAINTAIN EROSION&SEDIMENT	LS	1	\$ 93,362	\$ 93,362
90	CONSTRUCT ACCESS AND HAUL ROADS	LS	1	\$ 106,618	\$ 106,618
100	SETUP & MAINTAIN TRAFFIC CONTROL	LS	1	\$ 126,188	\$ 126,188
110	DEVELOP CONSTRUCTION WATER	LS	1	\$ 13,710	\$ 13,710
120	CLEAR&GRUB SITE AND ROADS	M2	142588	\$ 1	\$ 155,736
130	DEWATER FOUNDATION	LS	1	\$ 83,130	\$ 83,130
140	EXCAVATION UNDER RESERVOIR	M3	262297	\$ 8	\$ 2,169,300
145	PLACE ZONE 2 DIKE EMBANKMENT	M3	115405	\$ 15	\$ 1,765,864
150	PLACE SELECT FILL	M3	70542	\$ 22	\$ 1,580,041
155	PLACE DOUBLE LINER	M2	91574	\$ 32	\$ 2,966,831
157	LEAK PROTECTION SYSTEM	LS	1	\$ 31,593	\$ 31,593
160	BOTTOM PROTECTION	M3	21163	\$ 19	\$ 408,453
165	RIPRAP BEDDING	M3	6370	\$ 32	\$ 202,825
170	PLACE RIPRAP	M3	11392	\$ 38	\$ 427,719
175	CONSTRUCT RAMPS	M3	12392	\$ 14	\$ 170,784
180	EROSION PROTECT SPILWAY OUTLET	M2	1400	\$ 21	\$ 28,975
240	SAND & GRAVEL ON DAM CREST	M3	1790	\$ 28	\$ 50,844
250	TOPSOIL D/S EMBANKMENT SLOPE	M3	7521	\$ 16	\$ 117,478
260	DIVERSION CHANNEL	M	350	\$ 313	\$ 109,432
265	CUTOFF WALL	M2	38	\$ 572	\$ 21,721
270	EROSION PROTECT CHANNEL OUTLET	M2	400	\$ 26	\$ 10,486
275	STORM WATER CHANNEL	M	200	\$ 559	\$ 111,829
280	CONCRETE BOX CULVERT 1M X 4M	M	15	\$ 3,220	\$ 48,300
285	SERVICE SPILLWAY OUTLET (750 DIAM)	M	94	\$ 978	\$ 91,927
290	ROADWAY CULVERT (1 M DIA)	M	25	\$ 581	\$ 14,518
300	TRENCH EXCAVATION	M3	52403	\$ 19	\$ 990,392
310	INSTALL 450 mm DR 9 HDPE	M	1799	\$ 475	\$ 854,831
320	INSTALL 450 mm DR 11 HDPE	M	1931	\$ 524	\$ 1,011,629
330	PLACE COMPACT PIPE ZONE & BEDDING	M3	4471	\$ 70	\$ 315,194
340	PLACE INSULATION	M2	18912	\$ 28	\$ 535,121
345	PLACE SAND COVER FOR INSULATION	M3	6722	\$ 51	\$ 346,002
350	PLACE COMMON BACKFILL	M3	36166	\$ 10	\$ 374,560
355	TRENCH PLUGS	EA	9	\$ 1,333	\$ 11,998
360	SERVICE ROAD EXCAVATION	M3	6645	\$ 20	\$ 135,591
370	SAND & GRAVEL ROAD SURFACING	M3	480	\$ 38	\$ 18,256
400	SCP PUMP STATION BUILDING	LS	1	\$ 235,773	\$ 235,773
410	DRILL & INSTALL WELLS	EA	3	\$ 110,021	\$ 330,062
420	HIGH LEVEL INTAKE 600 HDPE DR 11	M	25	\$ 1,179	\$ 29,471
430	LOW LEVEL INTAKR 600 HDPE DR 11	M	50	\$ 856	\$ 42,786
440	MISCL PIPING & VALVES	LS	1	\$ 268,772	\$ 268,772
450	SCP PUMP STA I&C COMPONENTS	LS	1	\$ 114,161	\$ 114,161
460	SCP PUMP STA STANDBY GENERATOR	LS	1	\$ 348,815	\$ 348,815
470	SCP PUMP STA ELECTRICAL WORK	LS	1	\$ 20,700	\$ 20,700
480	SCP VALVE AND METER STA BLDG	LS	1	\$ 186,203	\$ 186,203
485	SCP V & M MISCLANEOUS PIPING	LS	1	\$ 331,248	\$ 331,248
495	SCP V & M I & C	LS	1	\$ 58,807	\$ 58,807
600	PER DIEM	LS	1	\$ 988,222	\$ 988,222
				SUBTOTAL	\$ 21,878,901

CLASS 4 COST ESTIMATE - COST SUMMARY TABLES
 NORTH FORK OF ROSE CREEK REALIGNMENT PROJECT

COST SUMMARY AND ESTIMATED INDIRECT COSTS

TOTAL CAPITAL COST (WITH SEEPAGE COLLECTION POND ALTERNATIVE 1)					\$	84,701,794
TOTAL CAPITAL COST (WITH SEEPAGE COLLECTION POND ALTERNATIVE 2)					\$	90,940,826
TOTAL INDIRECT COSTS (WITH SEEPAGE COLLECTION POND ALTERNATIVE 1)						
	DESCRIPTION	UNITS	QUANTITY	UNIT PRICE		TOTAL
	PROJECT MANAGEMENT (4%)	LS	1	\$ 3,388,072	\$	3,388,072
	DESIGN (8%)	LS	1	\$ 6,776,144	\$	6,776,144
	PROCUREMENT (0.4%)	LS	1	\$ 338,807	\$	338,807
	CONSTRUCTION MANAGEMENT (12%)	LS	1	\$ 10,164,215	\$	10,164,215
	ENVIRONMENTAL MONITORING (0.5%)	LS	1	\$ 423,509	\$	423,509
				INDIRECT COST SUBTOTAL	\$	21,090,747
TOTAL INDIRECT COSTS (WITH SEEPAGE COLLECTION POND ALTERNATIVE 2)						
	DESCRIPTION	UNITS	QUANTITY	UNIT PRICE		TOTAL
	PROJECT MANAGEMENT (4%)	LS	1	\$ 3,637,633	\$	3,637,633
	DESIGN (8%)	LS	1	\$ 7,275,266	\$	7,275,266
	PROCUREMENT (0.4%)	LS	1	\$ 363,763	\$	363,763
	CONSTRUCTION MANAGEMENT (12%)	LS	1	\$ 10,912,899	\$	10,912,899
	ENVIRONMENTAL MONITORING (0.5%)	LS	1	\$ 454,704	\$	454,704
				INDIRECT COST SUBTOTAL	\$	22,644,266
TOTAL PROJECT COSTS (WITH SEEPAGE COLLECTION POND ALTERNATIVE 1)					\$	105,792,541
TOTAL PROJECT COSTS (WITH SEEPAGE COLLECTION POND ALTERNATIVE 2)					\$	113,585,091

Attachment 2
Cost Estimate Detail Reports

CLASS 4 COST ESTIMATE - COST DETAIL
NORTH FORK ROSE CREEK CHANNEL REALIGNMENT PROJECT
REALIGNED CHANNEL

Biditem	Description	Qty	Units	Labor	Burden	Permanent Material	Construction Material	Company Equipment	Outside Equipment	Eqp Oper Expenses	Subcontractors	Direct Total	Addon/Bond	Markup	Unit Price	Total
10	P&P BONDS & INSURANCE	1	LS	\$ -	\$ -	\$ -	\$ 851,381	\$ -	\$ -	\$ -	\$ -	\$ 851,381	\$ -	\$ -	\$ 851,381	\$ 851,381
20	MOBILIZATION	1	LS	\$ 171,783	\$ 36,403	\$ -	\$ 46,920	\$ 131,354	\$ -	\$ 92,708	\$ -	\$ 479,168	\$ 124,584	\$ 57,500	\$ 661,251	\$ 661,251
30	COMPACTION QC	1	LS	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 55,000	\$ 55,000	\$ 14,300	\$ 6,600	\$ 75,900	\$ 75,900
40	SURVEY	1	LS	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 360,000	\$ 360,000	\$ 93,600	\$ 43,200	\$ 496,800	\$ 496,800
100	TEMPORARY DIVERSION DITCH	428	M	\$ 106,349	\$ 22,537	\$ 14,121	\$ 8,890	\$ 108,211	\$ -	\$ 48,006	\$ -	\$ 308,115	\$ 80,110	\$ 36,974	\$ 994	\$ 425,199
110	PERMANENT SEEPAGE COLLECTION TRENCH	798	M	\$ 129,183	\$ 27,388	\$ 349,689	\$ 10,962	\$ 119,978	\$ -	\$ 56,129	\$ -	\$ 693,328	\$ 180,265	\$ 83,199	\$ 1,199	\$ 956,793
120	SEGMENT #1 CUTOFF WALL	6,200	M2	\$ 14,380	\$ 3,051	\$ -	\$ 1,760	\$ 11,131	\$ -	\$ 6,280	\$ 744,000	\$ 780,601	\$ 202,956	\$ 93,672	\$ 174	\$ 1,077,230
130	PERMANENT SEEPAGE TRENCH & ROADS	4,788	M	\$ 222,682	\$ 47,260	\$ 338,287	\$ 19,148	\$ 137,440	\$ -	\$ 86,090	\$ -	\$ 850,908	\$ 221,236	\$ 102,109	\$ 245	\$ 1,174,253
140	DEWATER PONDS&FILL INFILTRATION PONDS	40,000	M3	\$ 126,077	\$ 26,751	\$ -	\$ 38,792	\$ 123,237	\$ -	\$ 56,924	\$ -	\$ 371,782	\$ 96,663	\$ 44,614	\$ 13	\$ 513,059
150	FILL POND SEG #1/SEG#2 CONFLUENCE	2,560	M3	\$ 44,781	\$ 9,483	\$ 87,300	\$ 3,196	\$ 38,188	\$ -	\$ 17,714	\$ -	\$ 200,662	\$ 52,172	\$ 24,079	\$ 108	\$ 276,913
200	SEG#1 CLEAR & GRUB	8,397	M2	\$ 3,251	\$ 692	\$ -	\$ 240	\$ 1,782	\$ -	\$ 1,062	\$ -	\$ 7,027	\$ 1,827	\$ 843	\$ 1	\$ 9,698
210	SEG#1 EXCV SEDIMENT POND	1,215	M3	\$ 4,478	\$ 948	\$ -	\$ 320	\$ 5,073	\$ -	\$ 2,207	\$ -	\$ 13,027	\$ 3,387	\$ 1,563	\$ 15	\$ 17,977
220	SEG#1 EARTHFILL	23,112	M3	\$ 67,365	\$ 14,262	\$ -	\$ 4,800	\$ 91,769	\$ -	\$ 42,935	\$ -	\$ 221,131	\$ 57,494	\$ 26,536	\$ 13	\$ 305,160
230	SEG#1 CUTOFF WALL	830	M2	\$ 2,227	\$ 472	\$ -	\$ 160	\$ 2,335	\$ -	\$ 1,297	\$ 99,600	\$ 106,090	\$ 27,584	\$ 12,731	\$ 176	\$ 146,405
240	SEG#1 TRENCH - DRAIN ROCK	104	M3	\$ 2,687	\$ 569	\$ 1,740	\$ 192	\$ 2,699	\$ -	\$ 1,201	\$ -	\$ 9,087	\$ 2,363	\$ 1,090	\$ 121	\$ 12,541
250	SEG#1 PERFORATED PVC 150mm	104	M	\$ 797	\$ 170	\$ 2,127	\$ 78	\$ 120	\$ -	\$ 114	\$ -	\$ 3,406	\$ 886	\$ 409	\$ 45	\$ 4,701
260	SEG#1RIPRAP	315	M3	\$ 4,923	\$ 1,048	\$ 7,790	\$ 364	\$ 2,566	\$ -	\$ 1,998	\$ -	\$ 18,689	\$ 4,859	\$ 2,243	\$ 82	\$ 25,791
270	SEG#1 RIPRAP BEDDING	158	M3	\$ 1,894	\$ 403	\$ 2,870	\$ 140	\$ 987	\$ -	\$ 768	\$ -	\$ 7,062	\$ 1,836	\$ 847	\$ 62	\$ 9,746
300	SEG#2 CLEAR & GRUB	103,707	M2	\$ 32,462	\$ 6,911	\$ -	\$ 2,400	\$ 17,218	\$ -	\$ 12,696	\$ -	\$ 71,688	\$ 18,639	\$ 8,603	\$ 1	\$ 98,929
305	SEG#2 EXCAVATION	128,541	M3	\$ 405,659	\$ 86,030	\$ -	\$ 30,960	\$ 624,633	\$ -	\$ 285,460	\$ -	\$ 1,432,743	\$ 372,513	\$ 171,929	\$ 15	\$ 1,977,185
310	SEG#2 THERMAL BARRIER	90,966	M3	\$ 646,242	\$ 137,185	\$ 22,742	\$ 46,470	\$ 582,619	\$ -	\$ 282,291	\$ -	\$ 1,717,549	\$ 446,563	\$ 206,106	\$ 26	\$ 2,370,218
315	SEG#2 NON WOVEN GEOTEXTILE	56,261	M2	\$ 36,611	\$ 7,836	\$ 183,130	\$ 2,800	\$ 3,998	\$ -	\$ 3,804	\$ -	\$ 238,178	\$ 61,926	\$ 28,581	\$ 6	\$ 328,686
320	SEG#2 LOW PERMEABILITY-TILL	54,261	M3	\$ 201,699	\$ 42,714	\$ -	\$ -	\$ 217,542	\$ -	\$ 95,161	\$ -	\$ 557,115	\$ 144,850	\$ 66,854	\$ 14	\$ 768,819
325	SEG#2 60 MIL LLDPE GEOMEMBRANE (SECONDARY)	56,261	M2	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,294,003	\$ 1,294,003	\$ 336,441	\$ 155,280	\$ 32	\$ 1,785,724
330	SEG#2 COMPOSITE DRAINAGE NET 7mm	56,261	M2	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 731,393	\$ 731,393	\$ 190,162	\$ 87,767	\$ 18	\$ 1,009,322
335	SEG#2 60 MIL LLDPE GEOMEMBRANE (PRIMARY)	56,261	M2	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,294,003	\$ 1,294,003	\$ 336,441	\$ 155,280	\$ 32	\$ 1,785,724
340	SEG#2 16oz NON-WOVEN GEOTEXTILE	56,261	M2	\$ 36,611	\$ 7,836	\$ 174,409	\$ 2,800	\$ 3,998	\$ -	\$ 3,804	\$ -	\$ 229,458	\$ 59,659	\$ 27,535	\$ 6	\$ 316,652
345	SEG#2 ARTICULATING CONC BLOCK	56,261	M2	\$ 214,845	\$ 45,792	\$ 6,188,710	\$ 16,000	\$ 119,780	\$ -	\$ 75,582	\$ -	\$ 6,660,709	\$ 1,731,784	\$ 799,285	\$ 163	\$ 9,191,778
350	SEG#2 RIPRAP	33,757	M3	\$ 267,580	\$ 56,708	\$ 866,020	\$ 19,200	\$ 370,662	\$ -	\$ 160,682	\$ -	\$ 1,740,853	\$ 452,622	\$ 208,902	\$ 71	\$ 2,402,377
355	SEG#2 HDPE PIPE (100mm)	721	M	\$ 8,252	\$ 1,763	\$ 10,815	\$ 624	\$ 1,331	\$ -	\$ 1,015	\$ -	\$ 23,800	\$ 6,188	\$ 2,856	\$ 46	\$ 32,845
360	SEG#2 CLSM BACKFILL HDPE PIPE	20	M3	\$ 3,987	\$ 851	\$ 4,000	\$ 300	\$ 600	\$ -	\$ 571	\$ -	\$ 10,308	\$ 2,680	\$ 1,237	\$ 711	\$ 14,225
365	SEG#2 GRAVEL ROAD SURFACING	2,096	M3	\$ 19,630	\$ 4,156	\$ 17,820	\$ 1,400	\$ 7,510	\$ -	\$ 4,648	\$ -	\$ 55,164	\$ 14,343	\$ 6,620	\$ 36	\$ 76,126
370	SEG#2 GRANULAR BORROW	68,644	M3	\$ 251,709	\$ 53,282	\$ 205,932	\$ 19,200	\$ 385,912	\$ -	\$ 181,842	\$ -	\$ 1,097,877	\$ 285,448	\$ 131,745	\$ 22	\$ 1,515,071
375	SEG#2 STRUCTURAL EMBANKMENT	188,247	M3	\$ 500,133	\$ 105,875	\$ -	\$ 38,360	\$ 839,639	\$ -	\$ 392,978	\$ -	\$ 1,876,985	\$ 488,016	\$ 225,238	\$ 14	\$ 2,590,239
400	SEG#3 CLEAR & GRUB	30,421	M2	\$ 8,127	\$ 1,730	\$ -	\$ 600	\$ 4,456	\$ -	\$ 2,655	\$ -	\$ 17,568	\$ 4,568	\$ 2,108	\$ 1	\$ 24,244
410	SEG#3 EXCAVATION	236,796	M3	\$ 629,271	\$ 133,205	\$ -	\$ 48,000	\$ 1,049,840	\$ -	\$ 482,670	\$ -	\$ 2,342,987	\$ 609,176	\$ 281,158	\$ 14	\$ 3,233,321
420	SEG#3 EARTHFILL	385	M3	\$ 1,682	\$ 356	\$ -	\$ 120	\$ 1,926	\$ -	\$ 865	\$ -	\$ 4,949	\$ 1,287	\$ 594	\$ 18	\$ 6,830
430	SEG#3 RIPRAP	9,339	M3	\$ 100,343	\$ 21,266	\$ 230,850	\$ 7,200	\$ 138,998	\$ -	\$ 60,256	\$ -	\$ 558,912	\$ 145,317	\$ 67,069	\$ 83	\$ 771,299
440	SEG#3 RIPRAP BEDDING	5,603	M3	\$ 60,206	\$ 12,759	\$ 101,976	\$ 4,320	\$ 83,399	\$ -	\$ 36,153	\$ -	\$ 298,813	\$ 77,691	\$ 35,858	\$ 74	\$ 412,363
450	SEG#3 GRAVEL ROAD SURFACING	816	M3	\$ 5,889	\$ 1,247	\$ 4,896	\$ 420	\$ 2,253	\$ -	\$ 1,395	\$ -	\$ 16,099	\$ 4,186	\$ 1,932	\$ 27	\$ 22,217
500	SEG#4 CLEARING & GRUB	4,576	M2	\$ 2,167	\$ 461	\$ -	\$ 160	\$ 1,188	\$ -	\$ 708	\$ -	\$ 4,685	\$ 1,218	\$ 562	\$ 1	\$ 6,465
510	SEG#4 EXCAVATION	4,406	M3	\$ 15,127	\$ 3,204	\$ -	\$ 1,080	\$ 16,316	\$ -	\$ 7,137	\$ -	\$ 42,864	\$ 11,145	\$ 5,144	\$ 13	\$ 59,152
520	SEG#4 EARTHFILL	13,899	M3	\$ 43,884	\$ 9,288	\$ -	\$ 3,120	\$ 53,649	\$ -	\$ 25,593	\$ -	\$ 135,533	\$ 35,239	\$ 16,264	\$ 13	\$ 187,036
530	RIPRAP	1,800	M3	\$ 20,069	\$ 4,253	\$ 46,170	\$ 1,440	\$ 27,800	\$ -	\$ 12,051	\$ -	\$ 111,782	\$ 29,063	\$ 13,414	\$ 86	\$ 154,260
540	RIPRAP BEDDING	1,080	M3	\$ 13,379	\$ 2,835	\$ 19,670	\$ 960	\$ 18,533	\$ -	\$ 8,034	\$ -	\$ 63,412	\$ 16,487	\$ 7,609	\$ 81	\$ 87,508
550	GRAVEL ROAD SURFACING	128	M3	\$ 1,178	\$ 249	\$ 768	\$ 84	\$ 451	\$ -	\$ 279	\$ -	\$ 3,009	\$ 782	\$ 361	\$ 32	\$ 4,152
650	DEMobilIZATION	1	LS	\$ 125,532	\$ 26,601	\$ -	\$ 6,200	\$ 96,179	\$ -	\$ 68,162	\$ -	\$ 322,674	\$ 83,895	\$ 38,721	\$ 445,290	\$ 445,290
700	PER DIEM	1	LS	\$ -	\$ -	\$ -	\$ 1,529,261	\$ -	\$ -	\$ -	\$ -	\$ 1,529,261	\$ -	\$ -	\$ 1,529,261	\$ 1,529,261
																\$ 40,248,116

CLASS 4 COST ESTIMATE - COST DETAIL
 NORTH FORK ROSE CREEK CHANNEL REALIGNMENT PROJECT
 HAUL ROAD CULVERT

Biditem	Description	Qty	Units	Labor	Burden	Permanent Material	Construction Material	Company Equipment	Eqp Oper Expenses	Subcontractors	Direct Total	Addon/Bond	Markup	Unit Price	Total
645	BONDS & INSURANCE	1	LS	\$ -	\$ -	\$ -	\$ 587,002	\$ -	\$ -	\$ -	\$ 587,002	\$ -	\$ -	\$ 587,002	\$ 587,002
646	CONCRETE QC	1	LS	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 115,000	\$ 115,000	\$ 29,900	\$ 13,800	\$ 158,700	\$ 158,700
647	COMPACTION QC	1	LS	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 90,000	\$ 90,000	\$ 23,400	\$ 10,800	\$ 124,200	\$ 124,200
648	SURVEY	1	LS	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 250,000	\$ 250,000	\$ 65,000	\$ 30,000	\$ 345,000	\$ 345,000
650	MOBILIZATION EQUIPMENT,LABOR & YARD	1	LS	\$ 93,466	\$ 19,814	\$ -	\$ 121,820	\$ 73,257	\$ 54,239	\$ 15,000	\$ 377,596	\$ 98,175	\$ 45,312	\$ 521,083	\$ 521,083
655	MOB , GRADE SET UP CONCRETE PLANT	1	LS	\$ 65,788	\$ 13,951	\$ -	\$ 18,925	\$ 48,317	\$ 30,316	\$ -	\$ 177,296	\$ 46,097	\$ 21,276	\$ 244,669	\$ 244,669
660	DEVELOP SET UP CLEAN WATER SOURCE	1	LS	\$ 21,444	\$ 4,572	\$ -	\$ 65,600	\$ 10,353	\$ 7,836	\$ 27,500	\$ 137,305	\$ 35,699	\$ 16,477	\$ 189,482	\$ 189,482
665	TEMPORARY RELOCATE OH POWER LINE	1	LS	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 260,000	\$ 260,000	\$ 67,600	\$ 31,200	\$ 358,800	\$ 358,800
667	HAUL ROAD DETOUR ROAD	10,560	M2	\$ 64,319	\$ 13,624	\$ 18,000	\$ 4,600	\$ 47,552	\$ 35,243	\$ -	\$ 183,338	\$ 47,668	\$ 22,001	\$ 24	\$ 253,006
670	ACCESS FOR CONSTRUCTION BOTH SIDES	1	LS	\$ 6,261	\$ 1,326	\$ -	\$ 448	\$ 6,238	\$ 3,403	\$ -	\$ 17,677	\$ 4,596	\$ 2,121	\$ 24,394	\$ 24,394
675	TEMPORARY RAMPS FOR EXCAVATION	1	LS	\$ 21,493	\$ 4,552	\$ -	\$ 1,536	\$ 41,634	\$ 19,591	\$ -	\$ 88,807	\$ 23,090	\$ 10,657	\$ 122,553	\$ 122,553
680	EXCAVATE FOR BOX CULVERT	460,000	M3	\$ 865,248	\$ 183,157	\$ -	\$ 61,600	\$ 1,610,156	\$ 745,766	\$ -	\$ 3,465,926	\$ 901,141	\$ 415,911	\$ 10	\$ 4,782,978
685	SET UP TEMP DEWATER SYSTEM FOUNDATION	1	LS	\$ 4,186	\$ 896	\$ -	\$ 1,320	\$ 2,953	\$ 1,694	\$ -	\$ 11,049	\$ 2,873	\$ 1,326	\$ 15,248	\$ 15,248
690	EXCAVATE UNSUITABLE FOUNDATION MATERIAL	6,300	M3	\$ 19,218	\$ 4,079	\$ -	\$ 1,393	\$ 17,314	\$ 7,622	\$ -	\$ 49,625	\$ 12,903	\$ 5,955	\$ 11	\$ 68,483
695	PLACE AND COMPACTINVERT FOUNDATION	5,060	M3	\$ 19,449	\$ 4,124	\$ -	\$ 1,400	\$ 16,728	\$ 7,968	\$ -	\$ 49,670	\$ 12,914	\$ 5,960	\$ 14	\$ 68,544
696	FORM & STRIP INVERT & WASTE SLAB	499	M2	\$ 31,363	\$ 6,687	\$ -	\$ 13,490	\$ 4,449	\$ 3,915	\$ -	\$ 59,904	\$ 15,575	\$ 7,189	\$ 166	\$ 82,668
697	CONCRETE WASTE SLAB	1,240	M3	\$ 14,511	\$ 3,093	\$ 347,200	\$ 8,770	\$ 2,894	\$ 2,338	\$ -	\$ 378,805	\$ 98,489	\$ 45,457	\$ 422	\$ 522,751
700	PLACE INVERT REBAR	357,750	KG	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,180,575	\$ 1,180,575	\$ 306,950	\$ 141,669	\$ 5	\$ 1,629,194
705	PLACE CONCRETE SLAB	2,862	M3	\$ 26,437	\$ 5,649	\$ 801,360	\$ 13,750	\$ 19,144	\$ 9,727	\$ -	\$ 876,067	\$ 227,777	\$ 105,128	\$ 422	\$ 1,208,972
710	,FINISH,CURE INVERT	2,979	M2	\$ 1,528	\$ 329	\$ -	\$ 970	\$ 160	\$ 190	\$ -	\$ 3,177	\$ 826	\$ 381	\$ 1	\$ 4,384
715	PRE-FAB WALL FORMS	1,638	M2	\$ -	\$ -	\$ -	\$ 237,510	\$ -	\$ -	\$ -	\$ 237,510	\$ 61,753	\$ 28,501	\$ 200	\$ 327,764
720	SET,STRIP AND MOVE WALL FORMS	8,605	M2	\$ 577,485	\$ 123,171	\$ -	\$ 77,708	\$ 237,537	\$ 145,094	\$ -	\$ 1,160,995	\$ 301,859	\$ 139,319	\$ 186	\$ 1,602,173
725	PLACE WALL REBAR	508,200	KG	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,677,060	\$ 1,677,060	\$ 436,036	\$ 201,247	\$ 5	\$ 2,314,343
730	PLAC,CURE FINISH WALL CONCRETE	3,630	M3	\$ 75,668	\$ 16,166	\$ 1,016,400	\$ 23,766	\$ 45,301	\$ 21,625	\$ -	\$ 1,198,926	\$ 311,721	\$ 143,871	\$ 456	\$ 1,654,517
735	SET,STRIP,MOVE DECK FALSE WORK	23,940	M3	\$ 51,145	\$ 10,915	\$ -	\$ 41,670	\$ 20,779	\$ 12,425	\$ -	\$ 136,935	\$ 35,603	\$ 16,432	\$ 8	\$ 188,970
740	FORM AND STRIP DECK	2,993	M2	\$ 76,718	\$ 16,372	\$ -	\$ 68,500	\$ 31,169	\$ 18,637	\$ -	\$ 211,397	\$ 54,963	\$ 25,368	\$ 97	\$ 291,728
745	PLACE DECK REBAR	461,590	KG	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,523,247	\$ 1,523,247	\$ 396,044	\$ 182,790	\$ 5	\$ 2,102,081
750	PLACE,FINISH AND CURE DECK CONCRETE	2,978	M3	\$ 47,587	\$ 10,168	\$ 833,840	\$ 7,498	\$ 34,459	\$ 17,508	\$ -	\$ 951,061	\$ 247,276	\$ 114,127	\$ 441	\$ 1,312,464
755	EXCAVATE WING WALL FOOTINGS	290	M3	\$ 1,670	\$ 354	\$ -	\$ 120	\$ 1,002	\$ 661	\$ -	\$ 3,808	\$ 990	\$ 457	\$ 18	\$ 5,254
760	GRADE COMPACT FOOTINGS	290	M2	\$ 837	\$ 179	\$ -	\$ 64	\$ 172	\$ 102	\$ -	\$ 1,355	\$ 352	\$ 163	\$ 6	\$ 1,869
765	FORM AND STRIP WALL FOOTINGS	110	M2	\$ 6,755	\$ 1,440	\$ -	\$ 2,956	\$ 958	\$ 843	\$ -	\$ 12,953	\$ 3,368	\$ 1,554	\$ 163	\$ 17,875
770	PLACE FOOTINGS REBAR	23,200	KG	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 76,560	\$ 76,560	\$ 19,906	\$ 9,187	\$ 5	\$ 105,653
775	PLACE,FINISH,CURE FOOTING CONCRETE	290	M3	\$ 4,511	\$ 961	\$ 81,200	\$ 775	\$ 1,854	\$ 1,445	\$ -	\$ 90,746	\$ 23,594	\$ 10,890	\$ 432	\$ 125,230
780	FAB,SET AND STRIP WING WALLS	911	M2	\$ 19,250	\$ 4,106	\$ -	\$ 20,380	\$ 7,918	\$ 4,836	\$ -	\$ 56,490	\$ 14,687	\$ 6,779	\$ 86	\$ 77,956
785	PLACE WING WALLS REBAR	27,000	KG	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 89,100	\$ 89,100	\$ 23,166	\$ 10,692	\$ 5	\$ 122,958
790	PLACE WING WALL CONCRETE	276	M3	\$ 8,255	\$ 1,764	\$ 77,280	\$ 1,170	\$ 4,762	\$ 2,312	\$ -	\$ 95,542	\$ 24,841	\$ 11,465	\$ 478	\$ 131,848
795	FINISH AND CURE WING WALLS	460	M2	\$ 1,223	\$ 263	\$ -	\$ 1,215	\$ 128	\$ 152	\$ -	\$ 2,980	\$ 775	\$ 358	\$ 9	\$ 4,113
800	FINE GRADE AND COMACT APRON FOUNDATION	540	M2	\$ 1,570	\$ 333	\$ -	\$ 112	\$ 601	\$ 372	\$ -	\$ 2,988	\$ 777	\$ 359	\$ 8	\$ 4,123
805	FORM AND STRIP APRON	80	M2	\$ 965	\$ 206	\$ -	\$ 1,708	\$ 137	\$ 120	\$ -	\$ 3,136	\$ 815	\$ 376	\$ 54	\$ 4,328
810	PLACE REBAR APRON	48,600	KG	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 160,380	\$ 160,380	\$ 41,699	\$ 19,246	\$ 5	\$ 221,324
815	PLACW,FINISH,CURE APRON CONCRETE	540	M3	\$ 7,931	\$ 1,695	\$ 151,200	\$ 1,260	\$ 5,743	\$ 2,918	\$ -	\$ 170,747	\$ 44,394	\$ 20,490	\$ 436	\$ 235,631
820	BACKFILL CULVERT AND WING WALLS-SELCT	46,000	M3	\$ 228,111	\$ 48,287	\$ -	\$ 22,040	\$ 283,288	\$ 126,307	\$ -	\$ 708,032	\$ 184,088	\$ 84,964	\$ 21	\$ 977,085
825	COMPLETE HAUL ROAD EMBANKMENT-COMMON	291,930	M3	\$ 632,293	\$ 133,838	\$ -	\$ 45,000	\$ 857,064	\$ 410,649	\$ -	\$ 2,078,844	\$ 540,499	\$ 249,461	\$ 10	\$ 2,868,805
830	REMOVE TEMPORARY RAMPS	12,000	M3	\$ 23,479	\$ 4,974	\$ -	\$ 1,680	\$ 23,394	\$ 12,761	\$ -	\$ 66,287	\$ 17,235	\$ 7,954	\$ 8	\$ 91,476
850	DEMOB EQUIPMENT ,YARD & OFFICE	1	LS	\$ 76,186	\$ 16,149	\$ -	\$ 5,420	\$ 60,182	\$ 43,921	\$ -	\$ 201,858	\$ 52,483	\$ 24,223	\$ 278,564	\$ 278,564
860	DEMOB CONCRETE PLANT	1	LS	\$ 43,602	\$ 9,237	\$ -	\$ 4,450	\$ 33,800	\$ 24,527	\$ -	\$ 115,616	\$ 30,060	\$ 13,874	\$ 159,550	\$ 159,550
890	PER DIEM	1	LS	\$ -	\$ -	\$ -	\$ 1,059,354	\$ -	\$ -	\$ -	\$ 1,059,354	\$ -	\$ -	\$ 1,059,354	\$ 1,059,354
															\$ 27,599,145

CLASS 4 COST ESTIMATE - COST DETAIL
 NORTH FORK ROSE CREEK CHANNEL REALIGNMENT PROJECT
 MINE ACCESS ROAD BRIDGE

Biditem	Description	Qty	Units	Labor	Burden	Permanent Material	Construction Material	Company Equipment	Eqp Oper Expenses	Subcontractors	Direct Total	Addon/Bond	Markup	Unit Price	Total
645	BONDS & INSURANCE	1	LS	\$ -	\$ -	\$ -	\$ 25,837	\$ -	\$ -	\$ -	\$ 25,837	\$ -	\$ -	\$ 25,837	\$ 25,837
650	MOBILIZATION	1	LS	\$ 3,634	\$ 770	\$ -	\$ 163	\$ 2,817	\$ 2,044	\$ -	\$ 9,426	\$ 2,451	\$ 1,131	\$ 13,008	\$ 13,008
654	CONCRETE QC	1	LS	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 5,000	\$ 5,000	\$ 1,300	\$ 600	\$ 6,900	\$ 6,900
655	COMPACTION QC	1	LS	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 5,000	\$ 5,000	\$ 1,300	\$ 600	\$ 6,900	\$ 6,900
656	SURVEY	1	LS	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 40,000	\$ 40,000	\$ 10,400	\$ 4,800	\$ 55,200	\$ 55,200
665	CLEAR & GRUB	12,410	M2	\$ 3,481	\$ 741	\$ -	\$ 256	\$ 1,226	\$ 942	\$ -	\$ 6,645	\$ 1,728	\$ 797	\$ 1	\$ 9,170
667	MINE ACCESS ROAD DETOUR ROAD	2,250	M2	\$ 17,785	\$ 3,766	\$ 3,870	\$ 1,268	\$ 14,295	\$ 10,401	\$ -	\$ 51,385	\$ 13,360	\$ 6,166	\$ 32	\$ 70,911
675	TEMPORARY RAMPS FOR EXCAVATION	3,000	M3	\$ 7,367	\$ 1,561	\$ -	\$ 528	\$ 10,998	\$ 5,108	\$ -	\$ 25,562	\$ 6,646	\$ 3,067	\$ 12	\$ 35,275
680	CHANNEL EXCAVATION	6,170	M3	\$ 17,911	\$ 3,794	\$ -	\$ 1,280	\$ 23,370	\$ 10,984	\$ -	\$ 57,339	\$ 14,908	\$ 6,881	\$ 13	\$ 79,127
690	EXCAVATE TEMPORARY FOUNDATIONS	1,000	M3	\$ 2,348	\$ 497	\$ -	\$ 168	\$ 2,134	\$ 975	\$ -	\$ 6,122	\$ 1,592	\$ 735	\$ 8	\$ 8,449
696	DRILLED SHAFTS 22 EA 0.4M 268.4M	268	M	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 101,992	\$ 101,992	\$ 26,518	\$ 12,239	\$ 524	\$ 140,749
697	FORMED PILES .4M 14 EA 60.2M	60	M	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 20,167	\$ 20,167	\$ 5,243	\$ 2,420	\$ 462	\$ 27,830
705	SET UP FALSEWORK	2,520	M3	\$ 9,590	\$ 2,047	\$ -	\$ 6,120	\$ 3,896	\$ 2,330	\$ -	\$ 23,982	\$ 6,235	\$ 2,878	\$ 13	\$ 33,095
710	FORM AND STRIP CONCRETE DECK	526	M2	\$ 19,300	\$ 4,115	\$ -	\$ 12,680	\$ 2,738	\$ 2,409	\$ -	\$ 41,243	\$ 10,723	\$ 4,949	\$ 108	\$ 56,915
745	PLACE DECK REBAR	31,136	KG	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 102,749	\$ 102,749	\$ 26,715	\$ 12,330	\$ 5	\$ 141,793
750	PLACE,FINISH AND CURE DECK CONCRETE	278	M3	\$ 3,172	\$ 678	\$ 77,840	\$ 520	\$ 2,297	\$ 1,167	\$ -	\$ 85,674	\$ 22,275	\$ 10,281	\$ 425	\$ 118,231
755	EXCAVATE WING WALL FOOTINGS	40	M3	\$ 1,113	\$ 236	\$ -	\$ 80	\$ 668	\$ 441	\$ -	\$ 2,538	\$ 660	\$ 305	\$ 88	\$ 3,503
760	GRADE COMPACT FOOTINGS	80	M2	\$ 419	\$ 90	\$ -	\$ 32	\$ 86	\$ 51	\$ -	\$ 677	\$ 176	\$ 81	\$ 12	\$ 935
765	FORM AND STRIP WALL FOOTINGS	88	M2	\$ 2,413	\$ 514	\$ -	\$ 2,030	\$ 342	\$ 301	\$ -	\$ 5,600	\$ 1,456	\$ 672	\$ 88	\$ 7,728
770	PLACE FOOTINGS REBAR	1,344	KG	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 4,435	\$ 4,435	\$ 1,153	\$ 532	\$ 5	\$ 6,121
775	PLACE,FINISH,CURE FOOTING CONCRETE	12	M3	\$ 376	\$ 80	\$ 3,360	\$ 59	\$ 155	\$ 120	\$ -	\$ 4,149	\$ 1,079	\$ 498	\$ 477	\$ 5,726
780	FAB,SET AND STRIP WING WALLS	32	M2	\$ 2,567	\$ 547	\$ -	\$ 928	\$ 1,056	\$ 645	\$ -	\$ 5,743	\$ 1,493	\$ 689	\$ 248	\$ 7,925
785	PLACE WING WALLS REBAR	1,792	KG	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 5,914	\$ 5,914	\$ 1,538	\$ 710	\$ 5	\$ 8,161
790	PLACE WING WALL CONCRETE	16	M3	\$ 1,376	\$ 294	\$ 4,480	\$ 195	\$ 794	\$ 385	\$ -	\$ 7,524	\$ 1,956	\$ 903	\$ 649	\$ 10,383
795	FINISH AND CURE WING WALLS	32	M2	\$ 153	\$ 33	\$ -	\$ 95	\$ 16	\$ 19	\$ -	\$ 315	\$ 82	\$ 38	\$ 14	\$ 435
800	FINE GRADE AND COMPACT APROACH SLAB	60	M2	\$ 785	\$ 166	\$ -	\$ 56	\$ 300	\$ 186	\$ -	\$ 1,494	\$ 388	\$ 179	\$ 34	\$ 2,061
805	FORM AND STRIP APROACH SLAB	40	M2	\$ 965	\$ 206	\$ -	\$ 908	\$ 137	\$ 120	\$ -	\$ 2,336	\$ 607	\$ 280	\$ 81	\$ 3,224
810	PLACE REBAR	11,200	KG	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 36,960	\$ 36,960	\$ 9,610	\$ 4,435	\$ 5	\$ 51,005
815	PLACW,FINISH,CURE APRON CONCRETE	100	M3	\$ 1,058	\$ 226	\$ 28,000	\$ 175	\$ 766	\$ 389	\$ -	\$ 30,613	\$ 7,959	\$ 3,674	\$ 422	\$ 42,246
820	BACKFILL WING WALLS-SELCT	80	M3	\$ 3,368	\$ 713	\$ -	\$ 240	\$ 3,943	\$ 1,801	\$ -	\$ 10,065	\$ 2,617	\$ 1,208	\$ 174	\$ 13,890
830	CONCRETE BARRIER	104	M	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 26,750	\$ 26,750	\$ 6,955	\$ 3,210	\$ 355	\$ 36,915
840	APPROACH GUARD RAIL	45	M	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 5,400	\$ 5,400	\$ 1,404	\$ 648	\$ 166	\$ 7,452
850	RIPRAP BEDDING	706	M3	\$ 9,833	\$ 2,090	\$ 9,900	\$ 720	\$ 4,828	\$ 3,529	\$ -	\$ 30,901	\$ 8,034	\$ 3,708	\$ 60	\$ 42,643
855	RIPRAP	1,177	M3	\$ 19,666	\$ 4,181	\$ 24,750	\$ 1,440	\$ 9,656	\$ 7,059	\$ -	\$ 66,751	\$ 17,355	\$ 8,010	\$ 78	\$ 92,117
890	PER DIEM	1	LS	\$ -	\$ -	\$ -	\$ 42,804	\$ -	\$ -	\$ -	\$ 42,804	\$ -	\$ -	\$ 42,804	\$ 42,804
															\$ 1,214,664

CLASS 4 COST ESTIMATE - COST DETAIL
 NORTH FORK ROSE CREEK CHANNEL REALIGNMENT PROJECT
 SEEPAGE COLLECTION POND ALTERNATIVE 1

Biditem	Description	Qty	Units	Labor	Burden	Permanent Material	Construction Material	Company Equipment	Eqp Oper Expenses	Subcontractors	Direct Total	Addon/Bond	Markup	Unit Price	Total
10	P&P BONDS AND INSURANCE	1	LS	\$ -	\$ -	\$ -	\$ 292,077	\$ -	\$ -	\$ -	\$ 292,077	\$ -	\$ -	\$ 292,077	\$ 292,077
20	PREMOBILIZATION PROJECT SUBMITTALS	1	LS	\$ 9,782	\$ 3,717	\$ -	\$ 1,400	\$ -	\$ -	\$ -	\$ 14,899	\$ 3,874	\$ 1,788	\$ 20,561	\$ 20,561
30	PROJECT MOBILIZATION	1	LS	\$ 97,115	\$ 20,791	\$ -	\$ 18,545	\$ 58,253	\$ 47,266	\$ -	\$ 241,970	\$ 62,912	\$ 29,036	\$ 333,919	\$ 333,919
40	ENVIRONMENTAL MONITORING	1	LS	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 10,000	\$ 10,000	\$ 2,600	\$ 1,200	\$ 13,800	\$ 13,800
50	SURVEY	1	LS	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 108,000	\$ 108,000	\$ 28,080	\$ 12,960	\$ 149,040	\$ 149,040
60	QUALITY CONTROL	1	LS	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 48,000	\$ 48,000	\$ 12,480	\$ 5,760	\$ 66,240	\$ 66,240
70	WEEKLY BASELINE SCHEDULE&UPDATES	1	LS	\$ 33,532	\$ 12,742	\$ -	\$ 1,000	\$ -	\$ -	\$ -	\$ 47,274	\$ 12,291	\$ 5,673	\$ 65,238	\$ 65,238
80	PROVIDE & MAINTAIN EROSION&SEDIMENT	1	LS	\$ 19,734	\$ 4,264	\$ -	\$ 22,200	\$ 3,998	\$ 3,804	\$ -	\$ 54,000	\$ 14,040	\$ 6,480	\$ 74,520	\$ 74,520
90	CONSTRUCT ACCESS AND HAUL ROADS	1	LS	\$ 22,136	\$ 4,732	\$ -	\$ 1,680	\$ 23,394	\$ 12,761	\$ -	\$ 64,703	\$ 16,823	\$ 7,764	\$ 89,290	\$ 89,290
100	SETUP & MAINTAIN TRAFFIC CONTROL	1	LS	\$ 30,492	\$ 6,557	\$ -	\$ 23,000	\$ 2,611	\$ 3,412	\$ -	\$ 66,071	\$ 17,179	\$ 7,929	\$ 91,178	\$ 91,178
110	DEVELOP CONSTRUCTION WATER	1	LS	\$ 4,186	\$ 896	\$ -	\$ 2,900	\$ 1,040	\$ 913	\$ -	\$ 9,935	\$ 2,583	\$ 1,192	\$ 13,710	\$ 13,710
120	CLEAR&GRUB SITE AND ROADS	100,644	M2	\$ 32,906	\$ 7,000	\$ -	\$ 7,452	\$ 18,009	\$ 12,128	\$ -	\$ 77,495	\$ 20,149	\$ 9,299	\$ 1	\$ 106,942
130	DEWATER FOUNDATION	1	LS	\$ 35,618	\$ 7,622	\$ -	\$ 8,120	\$ 11,338	\$ 9,184	\$ -	\$ 71,881	\$ 18,689	\$ 8,626	\$ 99,196	\$ 99,196
140	EXCAVATION TO TOP OF ROCK	28,720	M3	\$ 85,722	\$ 18,153	\$ -	\$ 6,120	\$ 92,455	\$ 40,443	\$ -	\$ 242,894	\$ 63,152	\$ 29,147	\$ 12	\$ 335,194
150	KEY FOUNDATION AND SEAL	810	M3	\$ 10,126	\$ 2,157	\$ 700	\$ 1,230	\$ 5,712	\$ 2,903	\$ -	\$ 22,828	\$ 5,935	\$ 2,739	\$ 39	\$ 31,503
160	PLACE & COMPACT ZONE 1 CORE	18,043	M3	\$ 92,547	\$ 19,649	\$ -	\$ 6,720	\$ 91,145	\$ 42,104	\$ -	\$ 252,165	\$ 65,563	\$ 30,260	\$ 19	\$ 347,988
170	PLACE & COMPACT ZONE 1 DOWN STRN	8,418	M3	\$ 39,663	\$ 8,421	\$ -	\$ 2,880	\$ 39,062	\$ 18,045	\$ -	\$ 108,071	\$ 28,098	\$ 12,969	\$ 18	\$ 149,138
180	PLACE & COMPACT FILTER SAND 4A	6,686	M3	\$ 121,399	\$ 25,761	\$ -	\$ 8,784	\$ 104,056	\$ 53,117	\$ -	\$ 313,116	\$ 81,410	\$ 37,574	\$ 65	\$ 432,101
190	PLACE & COMPACT DRAIN GRAVEL 4B	2,276	M3	\$ 41,130	\$ 8,729	\$ -	\$ 2,980	\$ 35,837	\$ 18,017	\$ -	\$ 106,694	\$ 27,740	\$ 12,803	\$ 65	\$ 147,238
200	PLACE & COMPACT RANDOM FILL ZONE 2	35,385	M3	\$ 155,264	\$ 32,967	\$ -	\$ 11,280	\$ 142,134	\$ 66,522	\$ -	\$ 408,167	\$ 106,124	\$ 48,980	\$ 16	\$ 563,271
210	PLACE & COMPACT RR BEDDING ZONE 3B	1,090	M3	\$ 23,206	\$ 4,925	\$ -	\$ 1,680	\$ 20,505	\$ 10,215	\$ -	\$ 60,530	\$ 15,738	\$ 7,264	\$ 77	\$ 83,531
220	PLACE RIP RAP ZONE 3A	2,180	M3	\$ 49,145	\$ 10,430	\$ -	\$ 3,560	\$ 40,862	\$ 20,625	\$ -	\$ 124,623	\$ 32,402	\$ 14,955	\$ 79	\$ 171,979
230	PLACE RIPRAP SPILLWAY ZONE 3A	2,100	M3	\$ 55,191	\$ 11,714	\$ -	\$ 4,000	\$ 46,163	\$ 23,031	\$ -	\$ 140,099	\$ 36,426	\$ 16,812	\$ 92	\$ 193,337
235	DRAIN OUTLET PIPES DS	210	M	\$ 2,093	\$ 448	\$ 15,890	\$ 418	\$ 823	\$ 435	\$ -	\$ 20,106	\$ 5,228	\$ 2,413	\$ 132	\$ 27,746
240	GRAVEL ON DAM CREST	287	M3	\$ 1,570	\$ 333	\$ 8,360	\$ 112	\$ 601	\$ 372	\$ -	\$ 11,348	\$ 2,950	\$ 1,362	\$ 55	\$ 15,660
245	GROUTED RIPRAP ROAD SPILLWAY	125	M3	\$ 2,679	\$ 568	\$ 6,715	\$ 192	\$ 1,579	\$ 1,230	\$ -	\$ 12,962	\$ 3,370	\$ 1,555	\$ 143	\$ 17,887
250	TOPSOIL D/S EMBANKMENT SLOPE	2,045	M3	\$ 11,240	\$ 2,379	\$ -	\$ 800	\$ 4,827	\$ 4,468	\$ -	\$ 23,714	\$ 6,166	\$ 2,846	\$ 16	\$ 32,725
255	MOB DEMOB DRILLING SUB	1	LS	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 30,000	\$ 30,000	\$ 7,800	\$ 3,600	\$ 41,400	\$ 41,400
260	CASE AND DRILL FOR GROUT CURTAIN HOLES	132	EA	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 174,240	\$ 174,240	\$ 45,302	\$ 20,909	\$ 1,822	\$ 240,451
265	HOOK UP (2 PER HOLE)	264	EA	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 105,600	\$ 105,600	\$ 27,456	\$ 12,672	\$ 552	\$ 145,728
270	PRESSURE GROUT HOLES	132	EA	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 38,610	\$ 38,610	\$ 10,039	\$ 4,633	\$ 404	\$ 53,282
275	PULL CASINGS AND HOOK UPS(5 EA)	660	EA	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 66,000	\$ 66,000	\$ 17,160	\$ 7,920	\$ 138	\$ 91,080
280	WATER PRESSURE TESTING	300	HR	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 48,000	\$ 48,000	\$ 12,480	\$ 5,760	\$ 221	\$ 66,240
285	VERIFICATION BORINGS (5EAX15M)	75	M	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 13,500	\$ 13,500	\$ 3,510	\$ 1,620	\$ 248	\$ 18,630
300	TRENCH EXCAVATION	59,018	M3	\$ 280,310	\$ 59,370	\$ -	\$ 39,438	\$ 305,331	\$ 132,396	\$ -	\$ 816,845	\$ 212,380	\$ 98,021	\$ 19	\$ 1,127,247
310	INSTALL 450 mm DR 9 HDPE	2,386	M	\$ 80,520	\$ 17,164	\$ 646,020	\$ 15,329	\$ 42,086	\$ 19,933	\$ -	\$ 821,051	\$ 213,473	\$ 98,526	\$ 475	\$ 1,133,050
320	INSTALL 450 mm DR 11 HDPE	1,931	M	\$ 67,100	\$ 14,303	\$ 589,405	\$ 12,642	\$ 35,071	\$ 16,610	\$ -	\$ 735,131	\$ 191,134	\$ 88,216	\$ 525	\$ 1,014,481
330	PLACE AND COMPACT PIPE ZONE	5,175	M3	\$ 75,054	\$ 16,002	\$ 125,105	\$ 9,100	\$ 23,924	\$ 15,320	\$ -	\$ 264,504	\$ 68,771	\$ 31,741	\$ 71	\$ 365,016
340	PLACE INSULATION	21,887	M2	\$ 10,976	\$ 2,350	\$ 432,439	\$ 1,365	\$ 712	\$ 1,059	\$ -	\$ 448,900	\$ 116,714	\$ 53,868	\$ 28	\$ 619,483
345	PLACE SAND COVER FOR INSULATION	7,780	M3	\$ 60,043	\$ 12,801	\$ 178,637	\$ 7,280	\$ 19,139	\$ 12,256	\$ -	\$ 290,156	\$ 75,441	\$ 34,819	\$ 51	\$ 400,415
350	PLACE COMMON BACKFILL	40,422	M3	\$ 132,549	\$ 28,220	\$ -	\$ 15,925	\$ 81,487	\$ 45,179	\$ -	\$ 303,360	\$ 78,874	\$ 36,403	\$ 10	\$ 418,636
355	TRENCH PLUGS	13	EA	\$ 5,575	\$ 1,189	\$ 2,600	\$ 676	\$ 1,456	\$ 1,062	\$ -	\$ 12,558	\$ 3,265	\$ 1,507	\$ 1,333	\$ 17,330
360	SERVICE ROAD EXCAVATION	19,202	M3	\$ 67,365	\$ 14,262	\$ -	\$ 4,800	\$ 75,037	\$ 35,044	\$ -	\$ 196,508	\$ 51,092	\$ 23,581	\$ 14	\$ 271,181
370	SAND & GRAVEL ROAD SURFACING	2,037	M3	\$ 7,852	\$ 1,663	\$ 24,444	\$ 560	\$ 3,004	\$ 1,859	\$ -	\$ 39,382	\$ 10,239	\$ 4,726	\$ 27	\$ 54,347
400	SCP PUMP STATION BUILDING	1	LS	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 170,850	\$ 170,850	\$ 44,421	\$ 20,502	\$ 235,773	\$ 235,773
410	DRILL & INSTALL WELLS	3	EA	\$ -	\$ -	\$ 223,950	\$ -	\$ -	\$ -	\$ 50,400	\$ 274,350	\$ 71,331	\$ 32,922	\$ 126,201	\$ 378,603
420	HIGH LEVEL INTAKE 600 HDPE DR 11	30	M	\$ 3,418	\$ 729	\$ 15,644	\$ 479	\$ 1,276	\$ 877	\$ -	\$ 22,423	\$ 5,830	\$ 2,691	\$ 1,031	\$ 30,943
430	LOW LEVEL INTAKR 600 HDPE DR 11	70	M	\$ 4,309	\$ 918	\$ 31,630	\$ 770	\$ 2,158	\$ 1,181	\$ -	\$ 40,966	\$ 10,651	\$ 4,916	\$ 808	\$ 56,533
440	MISCL PIPING & VALVES	1	LS	\$ 23,451	\$ 4,969	\$ 151,277	\$ 3,630	\$ 6,828	\$ 4,607	\$ -	\$ 194,762	\$ 50,638	\$ 23,371	\$ 268,772	\$ 268,772
450	SCP PUMP STA I&C COMPONENTS	1	LS	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 82,725	\$ 82,725	\$ 21,509	\$ 9,927	\$ 114,161	\$ 114,161
460	SCP PUMP STA STANDBY GENERATOR	1	LS	\$ 7,184	\$ 1,528	\$ 237,540	\$ 2,370	\$ 2,427	\$ 1,716	\$ -	\$ 252,764	\$ 65,719	\$ 30,332	\$ 348,815	\$ 348,815
470	SCP PUMP STA ELECTRICAL WORK	1	LS	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 15,000	\$ 15,000	\$ 3,900	\$ 1,800	\$ 20,700	\$ 20,700
480	SCP VALVE AND METER STA BLDG	1	LS	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 134,930	\$ 134,930	\$ 35,082	\$ 16,192	\$ 186,203	\$ 186,203
485	SCP V & M MISCLANEOUS PIPING	1	LS	\$ 23,451	\$ 4,969	\$ 196,050	\$ 4,130	\$ 6,828	\$ 4,607	\$ -	\$ 240,035	\$ 62,409	\$ 28,804	\$ 331,248	\$ 331,248
490	SCP V & M ELECTRICAL	1	LS	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 10,000	\$ 10,000	\$ 2,600	\$ 1,200	\$ 13,800	\$ 13,800
495	SCP V & M I & C	1	LS	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 42,614	\$ 42,614	\$ 11,080	\$ 5,114	\$ 58,807	\$ 58,807
500	OPTN#1 PADMOUNT&69KV STEP TRANSFORMER	1	LS	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
510	OPTN#1 4.16kV O/H POWER LINE TO HAUL ROAD	570	M	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
530	OPTN#2 4.16kV O/H POWER LINE TO MILL SITE	3,550	M	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,130,000	\$ 2,130,000	\$ 553,800	\$ 255,600	\$ 828	\$ 2,939,400
600	PER DIEM	1	LS	\$ -	\$ -	\$ -	\$ 613,105	\$ -	\$ -	\$ -	\$ 613,105	\$ -	\$ -	\$ 613,105	\$ 613,105
															\$ 15,639,869

CLASS 4 COST ESTIMATE - COST DETAIL
 NORTH FORK ROSE CREEK CHANNEL REALIGNMENT PROJECT
 SEEPAGE COLLECTION POND ALTERNATIVE 2

Biditem	Description	Qty	Units	Labor	Burden	Permanent Material	Construction Material	Company Equipment	Eqp Oper Expenses	Subcontractors	Direct Total	Addon/Bond	Markup	Unit Price	Total
10	P&P BONDS AND INSURANCE	LS	1	\$ -	\$ -	\$ -	\$ 449,925	\$ -	\$ -	\$ -	\$ 449,925	\$ -	\$ -	\$ 449,925	\$ 449,925
20	PREMOBILIZATION PROJECT SUBMITTALS	LS	1	\$ 9,782	\$ 3,717	\$ -	\$ 1,400	\$ -	\$ -	\$ -	\$ 14,899	\$ 3,874	\$ 1,788	\$ 20,561	\$ 20,561
30	PROJECT MOBILIZATION	LS	1	\$ 97,115	\$ 20,791	\$ -	\$ 18,545	\$ 58,253	\$ 47,266	\$ -	\$ 241,970	\$ 62,912	\$ 29,036	\$ 333,919	\$ 333,919
40	ENVIRONMENTAL MONITORING	LS	1	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 10,000	\$ 10,000	\$ 2,600	\$ 1,200	\$ 13,800	\$ 13,800
50	SURVEY	LS	1	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 108,000	\$ 108,000	\$ 28,080	\$ 12,960	\$ 149,040	\$ 149,040
60	QUALITY CONTROL	LS	1	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 48,000	\$ 48,000	\$ 12,480	\$ 5,760	\$ 66,240	\$ 66,240
70	WEEKLY BASELINE SCHEDULE&UPDATES	LS	1	\$ 33,532	\$ 12,742	\$ -	\$ 1,000	\$ -	\$ -	\$ -	\$ 47,274	\$ 12,291	\$ 5,673	\$ 65,238	\$ 65,238
80	PROVIDE & MAINTAIN EROSION&SEDIMENT	LS	1	\$ 25,217	\$ 5,397	\$ -	\$ 27,640	\$ 4,816	\$ 4,583	\$ -	\$ 67,654	\$ 17,590	\$ 8,118	\$ 93,362	\$ 93,362
90	CONSTRUCT ACCESS AND HAUL ROADS	LS	1	\$ 27,364	\$ 5,797	\$ -	\$ 1,960	\$ 27,265	\$ 14,873	\$ -	\$ 77,260	\$ 20,088	\$ 9,271	\$ 106,618	\$ 106,618
100	SETUP & MAINTAIN TRAFFIC CONTROL	LS	1	\$ 47,912	\$ 10,206	\$ -	\$ 24,400	\$ 3,868	\$ 5,055	\$ -	\$ 91,441	\$ 23,775	\$ 10,973	\$ 126,188	\$ 126,188
110	DEVELOP CONSTRUCTION WATER	LS	1	\$ 4,186	\$ 896	\$ -	\$ 2,900	\$ 1,040	\$ 913	\$ -	\$ 9,935	\$ 2,583	\$ 1,192	\$ 13,710	\$ 13,710
120	CLEAR&GRUB SITE AND ROADS	M2	142,588	\$ 47,520	\$ 10,108	\$ -	\$ 10,621	\$ 26,661	\$ 17,942	\$ -	\$ 112,852	\$ 29,342	\$ 13,542	\$ 1	\$ 155,736
130	DEWATER FOUNDATION	LS	1	\$ 31,396	\$ 6,719	\$ -	\$ 7,800	\$ 7,628	\$ 6,696	\$ -	\$ 60,239	\$ 15,662	\$ 7,229	\$ 83,130	\$ 83,130
140	EXCAVATION UNDER RESERVOIR	M3	262,297	\$ 424,359	\$ 89,841	\$ -	\$ 28,800	\$ 691,371	\$ 337,586	\$ -	\$ 1,571,957	\$ 408,709	\$ 188,635	\$ 8	\$ 2,169,300
145	PLACE ZONE 2 DIKE EMBANKMENT	M3	115,405	\$ 481,657	\$ 103,679	\$ -	\$ 38,160	\$ 426,855	\$ 229,260	\$ -	\$ 1,279,612	\$ 332,699	\$ 153,553	\$ 15	\$ 1,765,864
150	PLACE SELECT FILL	M3	70,542	\$ 454,980	\$ 96,510	\$ -	\$ 32,840	\$ 364,748	\$ 195,879	\$ -	\$ 1,144,958	\$ 297,689	\$ 137,395	\$ 22	\$ 1,580,041
155	PLACE DOUBLE LINER	M2	91,574	\$ 25,117	\$ 5,375	\$ -	\$ 1,920	\$ 6,390	\$ 4,873	\$ 2,106,202	\$ 2,149,878	\$ 558,968	\$ 257,985	\$ 32	\$ 2,966,831
157	LEAK PROTECTION SYSTEM	LS	1	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 22,894	\$ 22,894	\$ 5,952	\$ 2,747	\$ 31,593	\$ 31,593
160	BOTTOM PROTECTION	M3	21,163	\$ 117,762	\$ 24,989	\$ -	\$ 8,520	\$ 95,385	\$ 49,325	\$ -	\$ 295,980	\$ 76,955	\$ 35,518	\$ 19	\$ 408,453
165	RIPRAP BEDDING	M3	6,370	\$ 57,944	\$ 12,299	\$ -	\$ 4,200	\$ 47,742	\$ 24,789	\$ -	\$ 146,974	\$ 38,213	\$ 17,637	\$ 32	\$ 202,825
170	PLACE RIPRAP	M3	11,392	\$ 122,459	\$ 25,994	\$ -	\$ 8,880	\$ 100,554	\$ 52,054	\$ -	\$ 309,941	\$ 80,585	\$ 37,193	\$ 38	\$ 427,719
175	CONSTRUCT RAMPS	M3	12,392	\$ 44,960	\$ 9,517	\$ -	\$ 3,200	\$ 44,752	\$ 21,328	\$ -	\$ 123,757	\$ 32,177	\$ 14,851	\$ 14	\$ 170,784
180	EROSION PROTECT SPILWAY OUTLET	M2	1,400	\$ 8,278	\$ 1,757	\$ -	\$ 600	\$ 6,820	\$ 3,541	\$ -	\$ 20,996	\$ 5,459	\$ 2,520	\$ 21	\$ 28,975
240	SAND & GRAVEL ON DAM CREST	M3	1,790	\$ 16,053	\$ 3,402	\$ -	\$ 1,152	\$ 10,417	\$ 5,820	\$ -	\$ 36,844	\$ 9,579	\$ 4,421	\$ 28	\$ 50,844
250	TOPSOIL D/S EMBANKMENT SLOPE	M3	7,521	\$ 33,265	\$ 7,056	\$ -	\$ 2,400	\$ 24,865	\$ 17,543	\$ -	\$ 85,129	\$ 22,133	\$ 10,215	\$ 16	\$ 117,478
260	DIVERSION CHANNEL	M	350	\$ 36,042	\$ 7,636	\$ -	\$ 2,580	\$ 19,370	\$ 13,671	\$ -	\$ 79,298	\$ 20,618	\$ 9,516	\$ 313	\$ 109,432
265	CUTOFF WALL	M2	38	\$ 1,256	\$ 269	\$ -	\$ 156	\$ 451	\$ 308	\$ 13,300	\$ 15,740	\$ 4,092	\$ 1,889	\$ 572	\$ 21,721
270	EROSION PROTECT CHANNEL OUTLET	M2	400	\$ 2,983	\$ 633	\$ -	\$ 216	\$ 2,475	\$ 1,293	\$ -	\$ 7,599	\$ 1,976	\$ 912	\$ 26	\$ 10,486
275	STORM WATER CHANNEL	M	200	\$ 33,298	\$ 7,062	\$ -	\$ 2,400	\$ 23,509	\$ 14,767	\$ -	\$ 81,035	\$ 21,069	\$ 9,724	\$ 559	\$ 111,829
280	CONCRETE BOX CULVERT 1M X 4M	M	15	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 35,000	\$ 35,000	\$ 9,100	\$ 4,200	\$ 3,220	\$ 48,300
285	SERVICE SPILLWAY OUTLET (750 DIAM)	M	94	\$ 7,787	\$ 1,660	\$ 50,810	\$ 1,203	\$ 3,387	\$ 1,768	\$ -	\$ 66,614	\$ 17,320	\$ 7,994	\$ 978	\$ 91,927
290	ROADWAY CULVERT (1 M DIA)	M	25	\$ 2,427	\$ 517	\$ 5,375	\$ 293	\$ 1,209	\$ 700	\$ -	\$ 10,520	\$ 2,735	\$ 1,262	\$ 581	\$ 14,518
300	TRENCH EXCAVATION	M3	52,403	\$ 246,279	\$ 52,162	\$ -	\$ 34,650	\$ 268,262	\$ 116,323	\$ -	\$ 717,676	\$ 186,596	\$ 86,121	\$ 19	\$ 990,392
310	INSTALL 450 mm DR 9 HDPE	M	1,799	\$ 61,732	\$ 13,159	\$ 487,530	\$ 9,475	\$ 32,266	\$ 15,282	\$ -	\$ 619,443	\$ 161,055	\$ 74,333	\$ 475	\$ 854,831
320	INSTALL 450 mm DR 11 HDPE	M	1,931	\$ 67,100	\$ 14,303	\$ 589,855	\$ 10,125	\$ 35,071	\$ 16,610	\$ -	\$ 733,065	\$ 190,597	\$ 87,968	\$ 524	\$ 1,011,629
330	PLACE COMPACT PIPE ZONE & BEDDING	M3	4,471	\$ 64,761	\$ 13,807	\$ 108,120	\$ 7,852	\$ 20,643	\$ 13,219	\$ -	\$ 228,402	\$ 59,384	\$ 27,408	\$ 70	\$ 315,194
340	PLACE INSULATION	M2	18,912	\$ 9,408	\$ 2,014	\$ 373,659	\$ 1,170	\$ 610	\$ 908	\$ -	\$ 387,769	\$ 100,820	\$ 46,532	\$ 28	\$ 535,121
345	PLACE SAND COVER FOR INSULATION	M3	6,722	\$ 51,894	\$ 11,064	\$ 154,341	\$ 6,292	\$ 16,542	\$ 10,593	\$ -	\$ 250,726	\$ 65,189	\$ 30,087	\$ 51	\$ 346,002
350	PLACE COMMON BACKFILL	M3	36,166	\$ 118,593	\$ 25,249	\$ -	\$ 14,248	\$ 72,907	\$ 40,423	\$ -	\$ 271,420	\$ 70,569	\$ 32,570	\$ 10	\$ 374,560
355	TRENCH PLUGS	EA	9	\$ 3,860	\$ 823	\$ 1,800	\$ 468	\$ 1,008	\$ 735	\$ -	\$ 8,694	\$ 2,260	\$ 1,043	\$ 1,333	\$ 11,998
360	SERVICE ROAD EXCAVATION	M3	6,645	\$ 33,683	\$ 7,131	\$ -	\$ 2,400	\$ 37,519	\$ 17,522	\$ -	\$ 98,254	\$ 25,546	\$ 11,790	\$ 20	\$ 135,591
370	SAND & GRAVEL ROAD SURFACING	M3	480	\$ 3,926	\$ 831	\$ 5,760	\$ 280	\$ 1,502	\$ 930	\$ -	\$ 13,229	\$ 3,439	\$ 1,587	\$ 38	\$ 18,256
400	SCP PUMP STATION BUILDING	LS	1	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 170,850	\$ 170,850	\$ 44,421	\$ 20,502	\$ 235,773	\$ 235,773
410	DRILL & INSTALL WELLS	EA	3	\$ -	\$ -	\$ 209,475	\$ -	\$ -	\$ -	\$ 29,700	\$ 239,175	\$ 62,186	\$ 28,701	\$ 110,021	\$ 330,062
420	HIGH LEVEL INTAKE 600 HDPE DR 11	M	25	\$ 3,955	\$ 844	\$ 13,440	\$ 551	\$ 1,556	\$ 1,010	\$ -	\$ 21,356	\$ 5,552	\$ 2,563	\$ 1,179	\$ 29,471
430	LOW LEVEL INTAKR 600 HDPE DR 11	M	50	\$ 3,772	\$ 804	\$ 22,878	\$ 625	\$ 1,878	\$ 1,048	\$ -	\$ 31,004	\$ 8,061	\$ 3,721	\$ 856	\$ 42,786
440	MISCL PIPING & VALVES	LS	1	\$ 23,451	\$ 4,969	\$ 151,277	\$ 3,630	\$ 6,828	\$ 4,607	\$ -	\$ 194,762	\$ 50,638	\$ 23,371	\$ 268,772	\$ 268,772
450	SCP PUMP STA I&C COMPONENTS	LS	1	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 82,725	\$ 82,725	\$ 21,509	\$ 9,927	\$ 114,161	\$ 114,161
460	SCP PUMP STA STANDBY GENERATOR	LS	1	\$ 7,184	\$ 1,528	\$ 237,540	\$ 2,370	\$ 2,427	\$ 1,716	\$ -	\$ 252,764	\$ 65,719	\$ 30,332	\$ 348,815	\$ 348,815
470	SCP PUMP STA ELECTRICAL WORK	LS	1	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 15,000	\$ 15,000	\$ 3,900	\$ 1,800	\$ 20,700	\$ 20,700
480	SCP VALVE AND METER STA BLDG	LS	1	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 134,930	\$ 134,930	\$ 35,082	\$ 16,192	\$ 186,203	\$ 186,203
485	SCP V & M MISCLANEOUS PIPING	LS	1	\$ 23,451	\$ 4,969	\$ 196,050	\$ 4,130	\$ 6,828	\$ 4,607	\$ -	\$ 240,035	\$ 62,409	\$ 28,804	\$ 331,248	\$ 331,248
490	SCP V & M ELECTRICAL	LS	1	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 10,000	\$ 10,000	\$ 2,600	\$ 1,200	\$ 13,800	\$ 13,800
495	SCP V & M I & C	LS	1	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 42,614	\$ 42,614	\$ 11,080	\$ 5,114	\$ 58,807	\$ 58,807
500	OPTN#1 PADMOUNT&69kV STEP TRANSFORMER	LS	1	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
510	OPTN#1 4.16kV O/H POWER LINE	M	1,360	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
530	OPTN#2 4.16kV O/H POWER LINE	M	2,790	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,674,000	\$ 1,674,000	\$ 435,240	\$ 200,880	\$ 828	\$ 2,310,120
600	PER DIEM	LS	1	\$ -	\$ -	\$ -	\$ 988,222	\$ -	\$ -	\$ -	\$ 988,222	\$ -	\$ -	\$ 988,222	\$ 988,222
															\$ 21,878,901