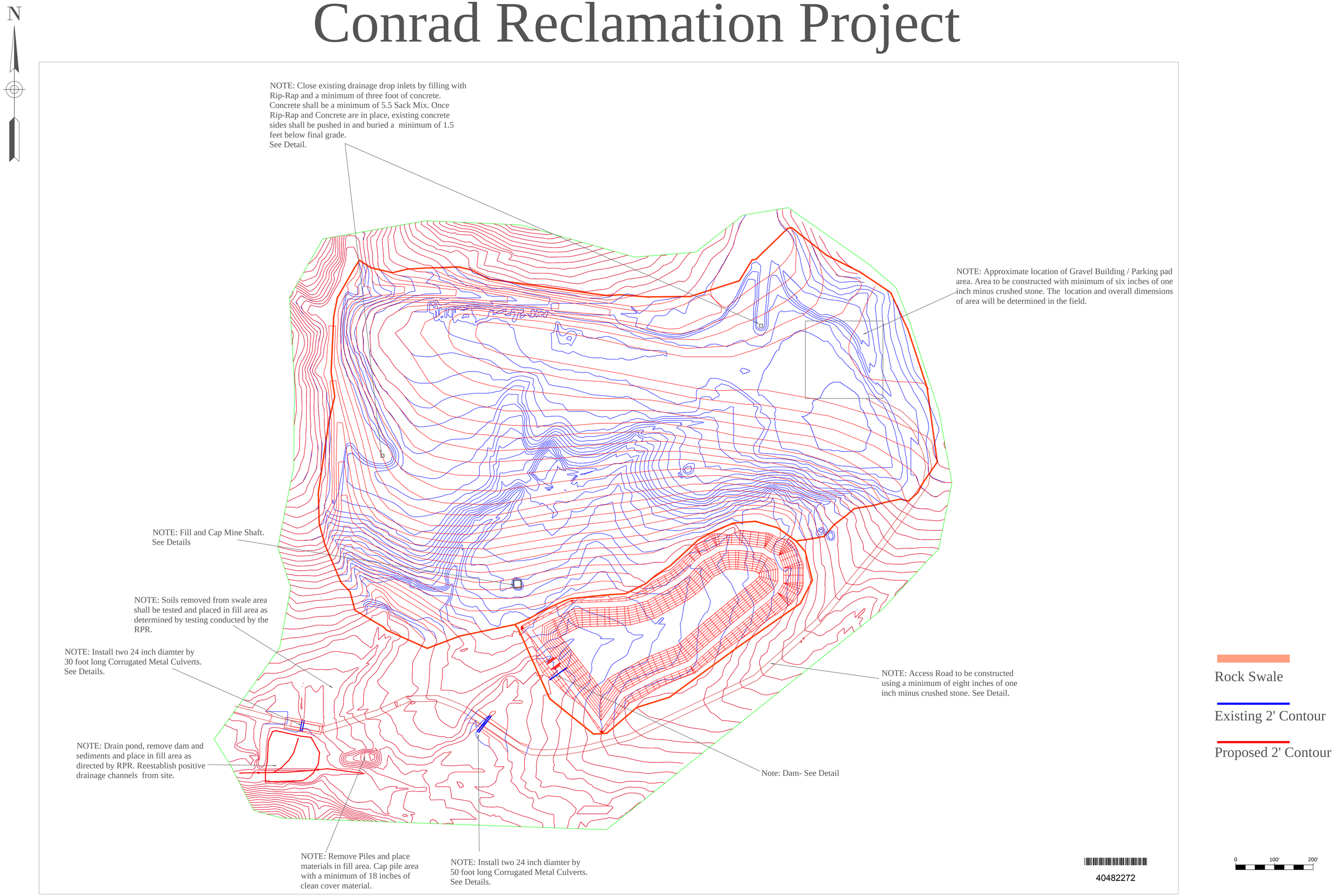
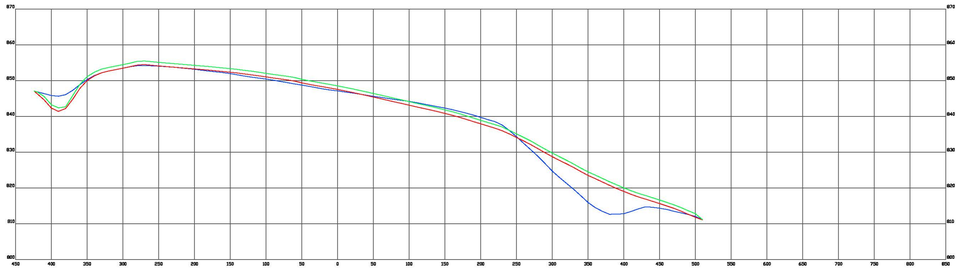
Conrad Reclamation Project





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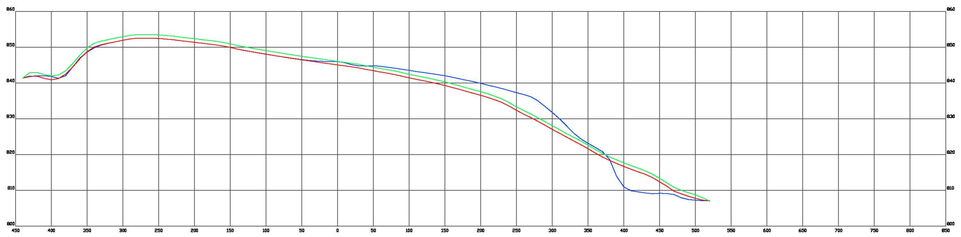

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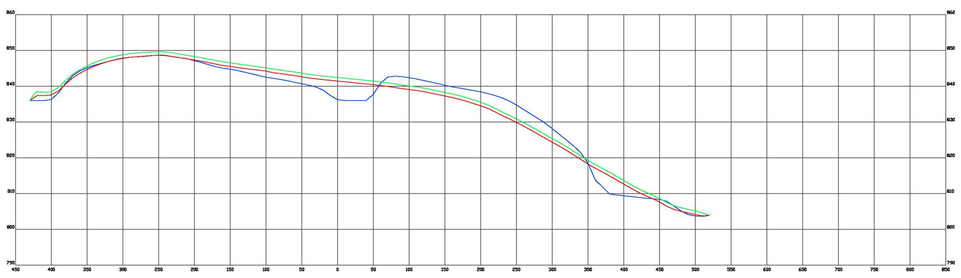

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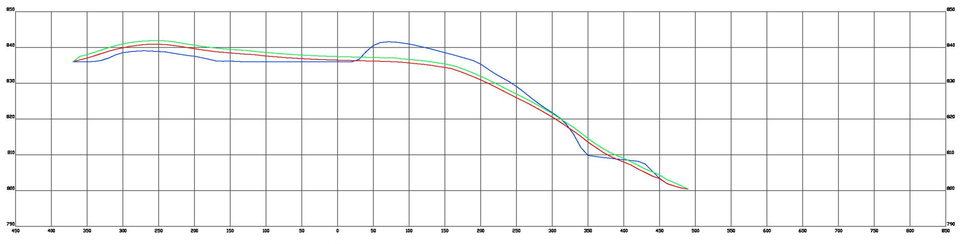

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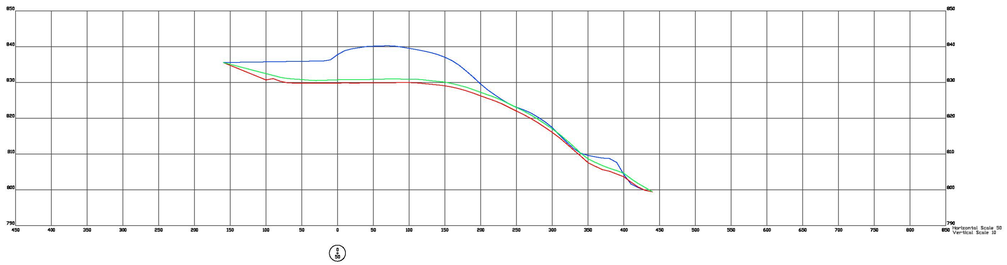

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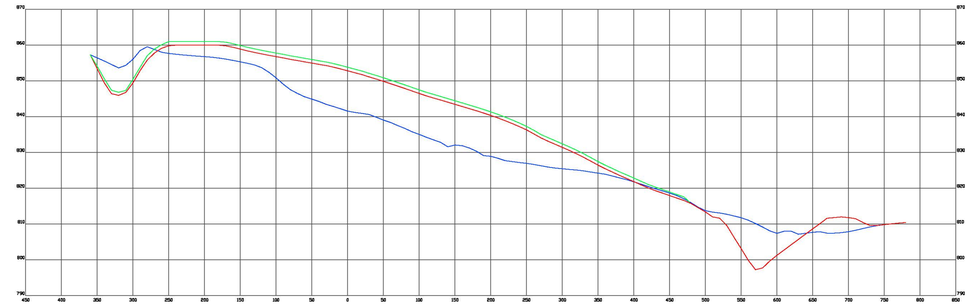
Final Grades - Cover Soil
Sub- Grades
Existing Grades



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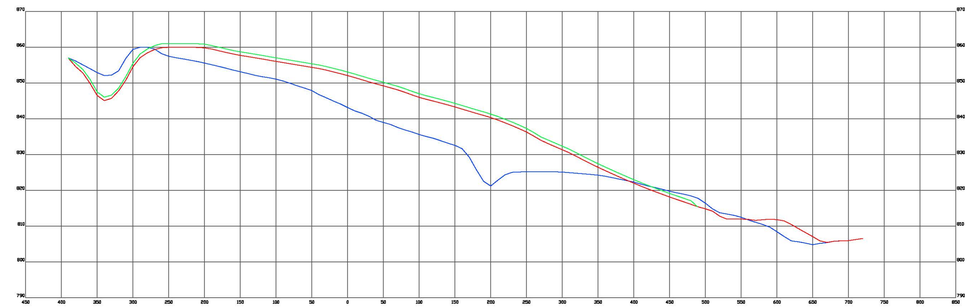

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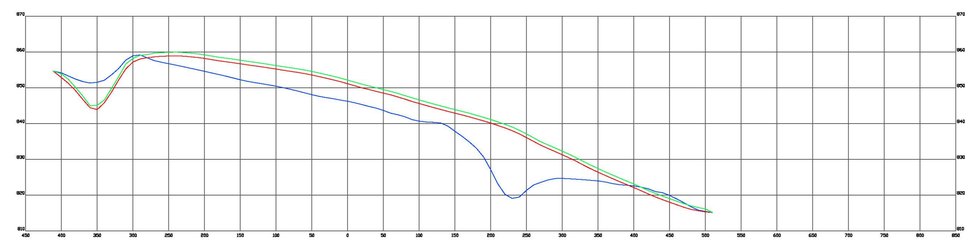

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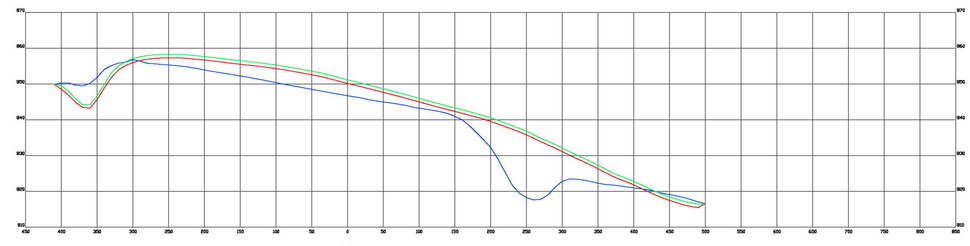

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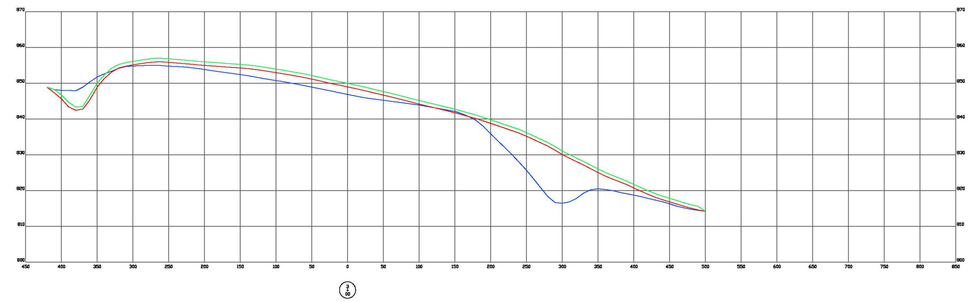

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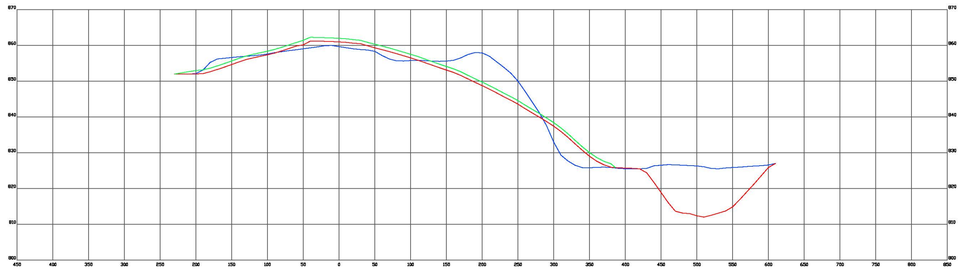
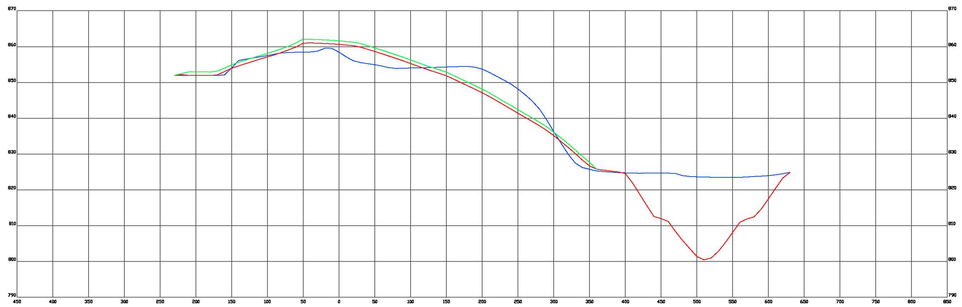
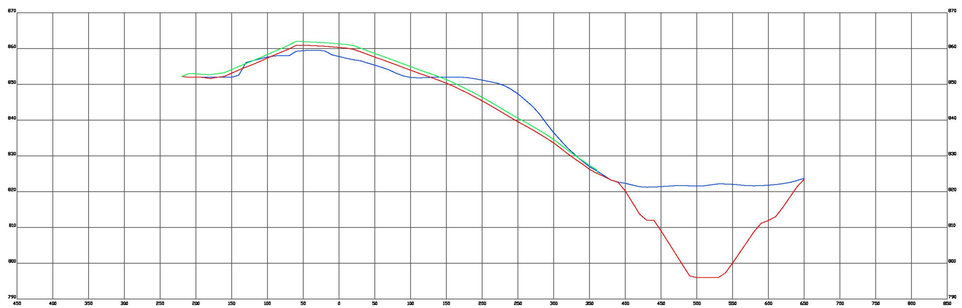
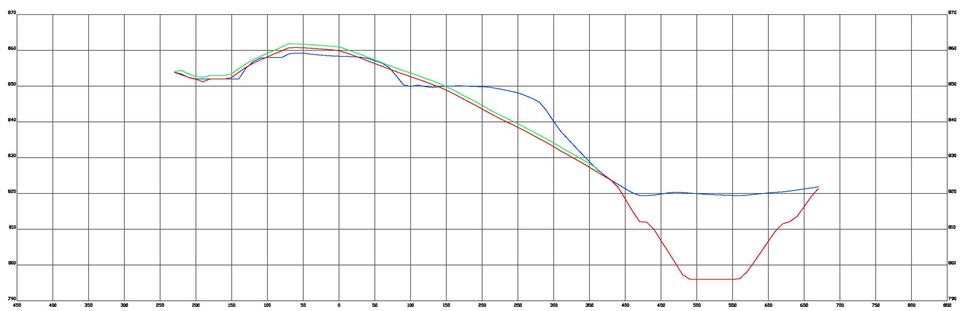
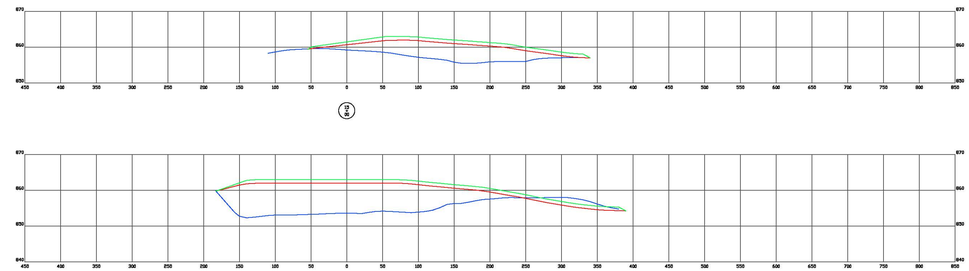
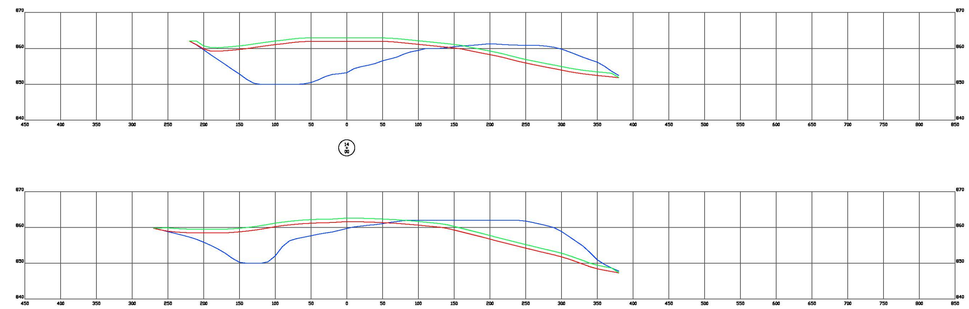


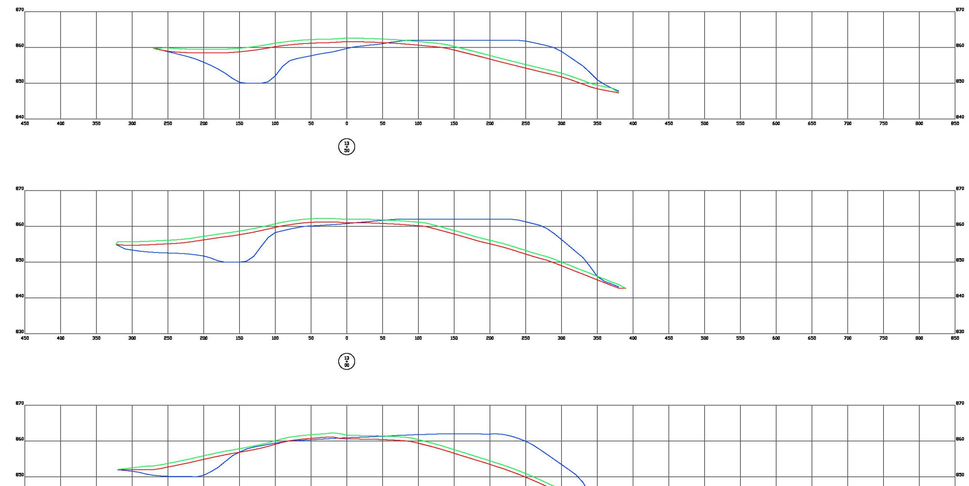


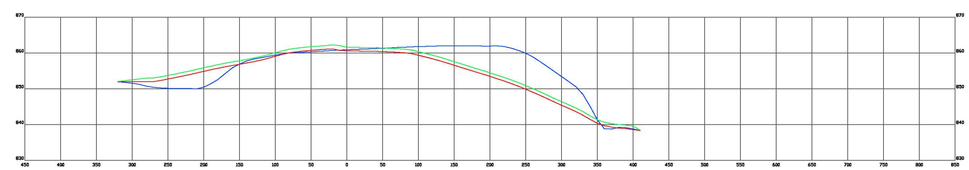


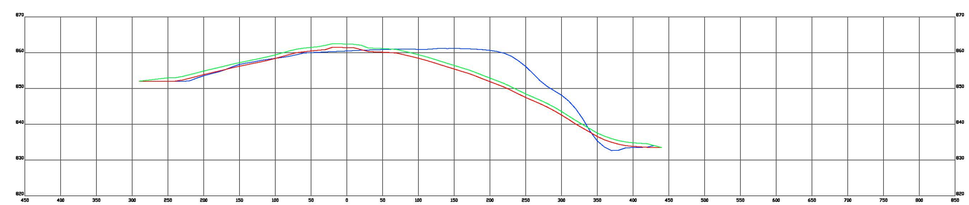


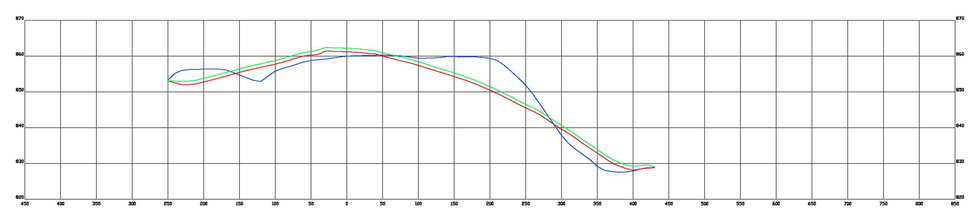




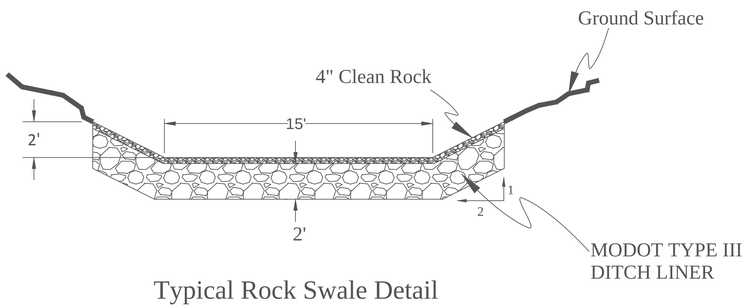




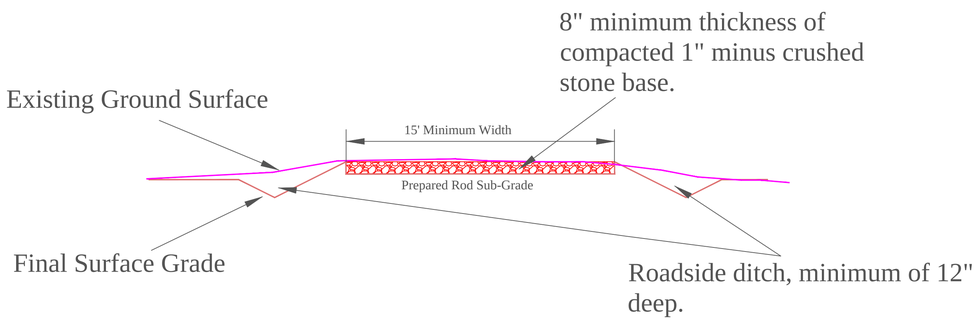




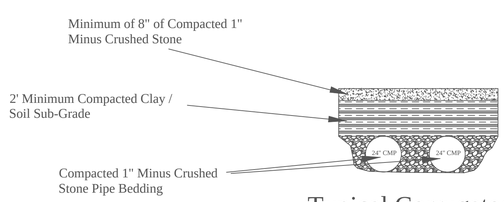
Final Grades - Cover Soil
Sub- Grades
Existing Grades



Typical Rock Swale Detail



Road Details

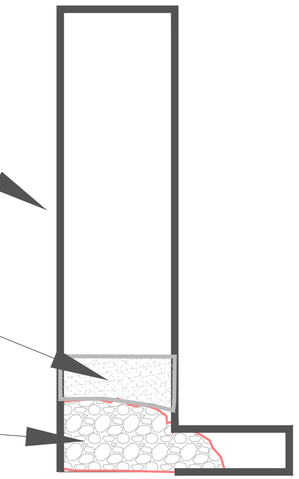


Typical Corrugated Metal
Culvert Details

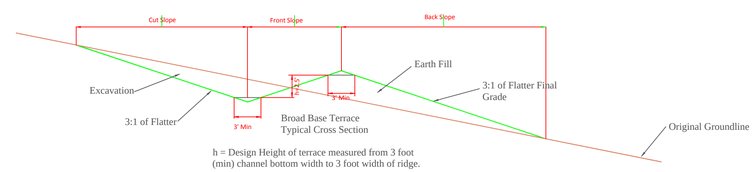
3. Collapse existing concrete structure and bury a minimum of 18" below final grade.

2. Cover Riprap with a minimum of 3' thickness of Concrete.

1. Plug Pipe with Rip Rap



Existing Drainage Drop Inlets
Typical Detail



TERRACE NOTES:

1. MAXIMUM TERRACE SLOPE (CHANNEL GRADE) SHALL BE 3 FEET IN 100 FEET.

2. LOCATIONS OF TERRACES AS SHOWN ON THE PLAN VIEW CAN BE MOVED UP OR DOWN THE GRADED SLOPE TO INSURE THE MAXIMUM TERRACE SLOPE (CHANNEL GRADE) IS 3%.

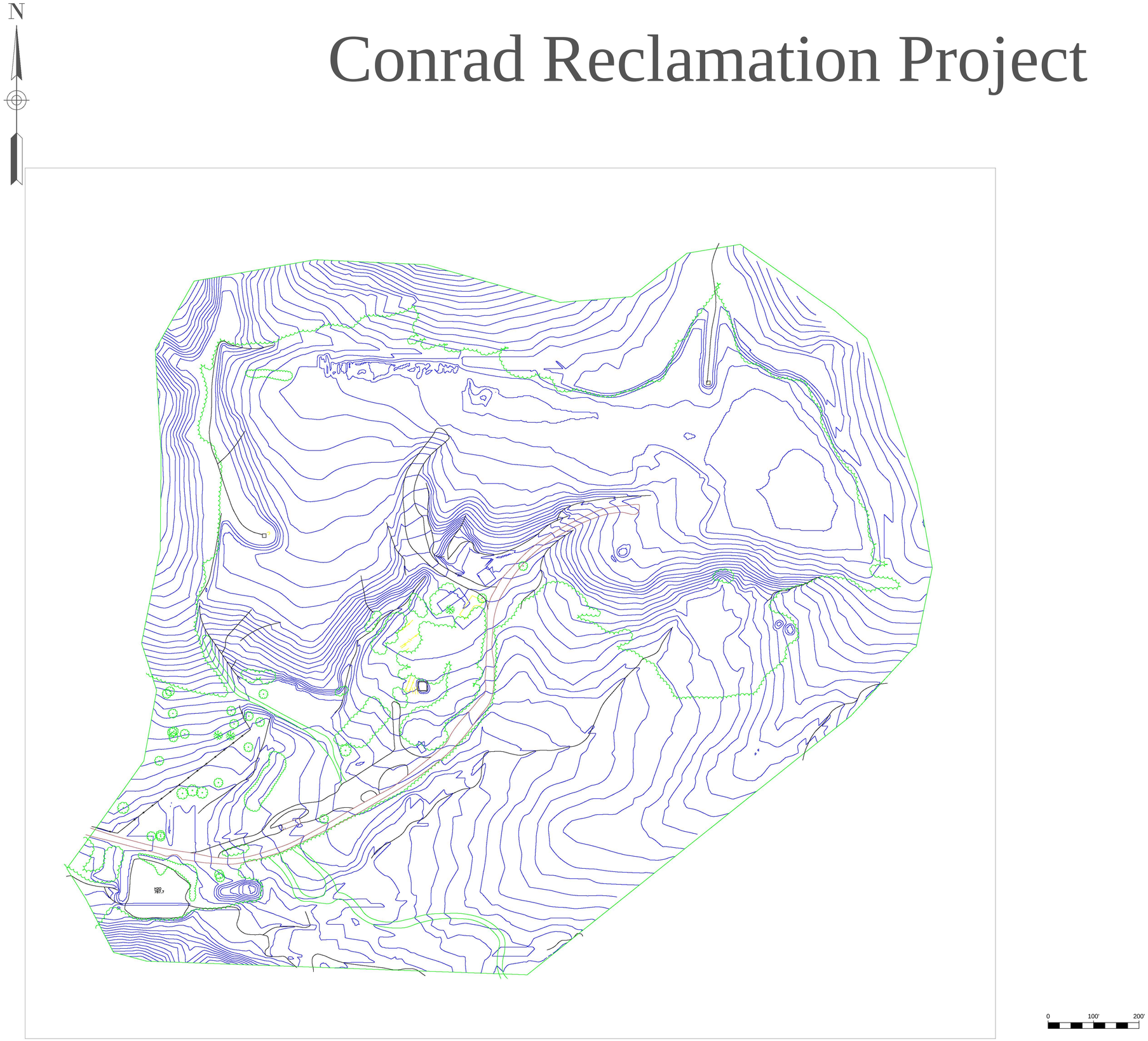
3. TERRACES SHALL BE CONSTRUCTED WITH COHESIVE, COMPACTABLE MATERIALS. NO ROCK OR POROUS MATERIALS SHALL BE USED.

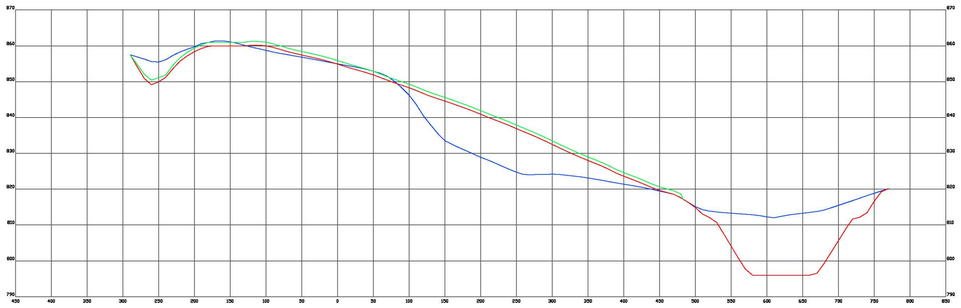
4. TERRACES SHALL BE CONSTRUCTED TO DRAIN WITH NO PONDING.

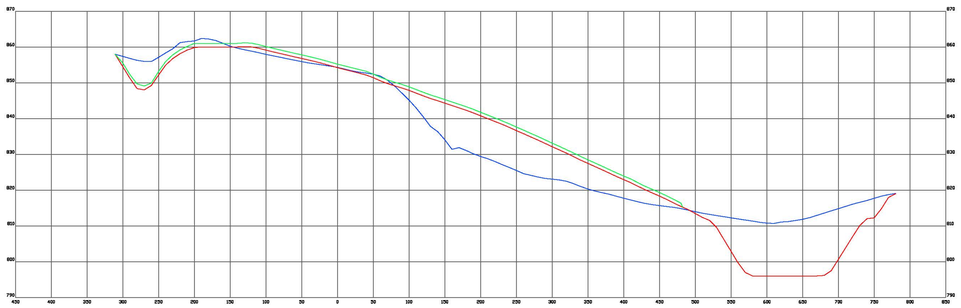
5. RIP-RAP SHALL BE PROVIDED AT THE DISCHARGE POINT TO A SWALE FROM A TERRACE, TO THE WIDTH OF THE SWALE EXTENDING 15 FEET DOWNSTREAM OF FLOW ENTRANCE.

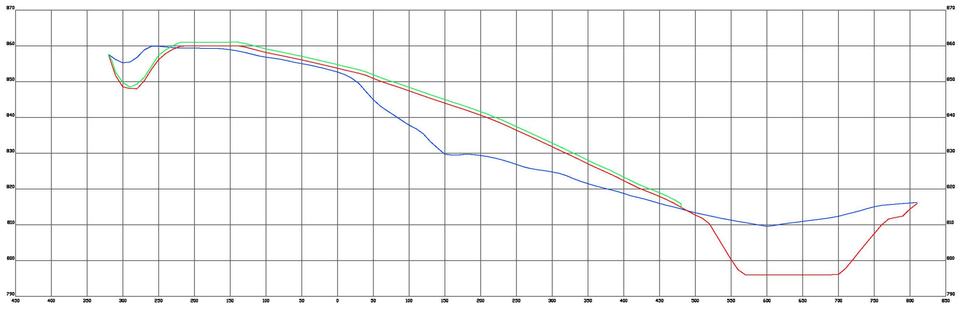
TERRACE DETAILS
NOT TO SCALE

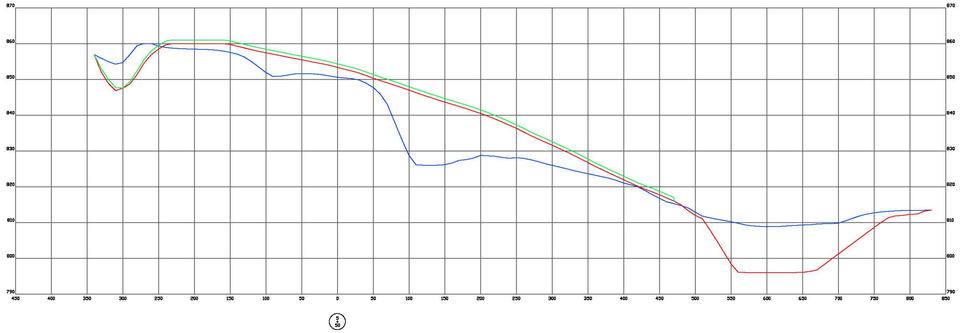
Conrad Reclamation Project

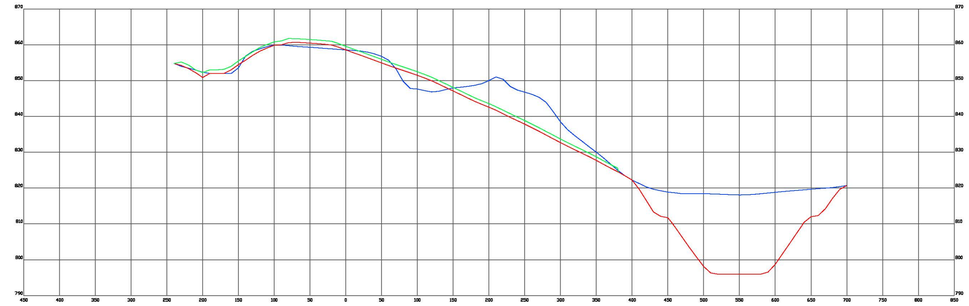


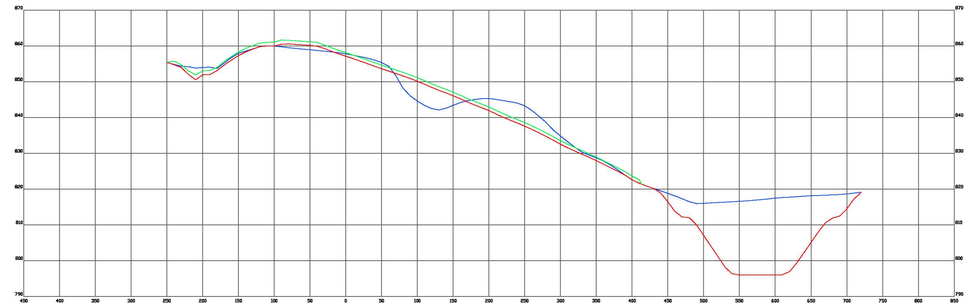


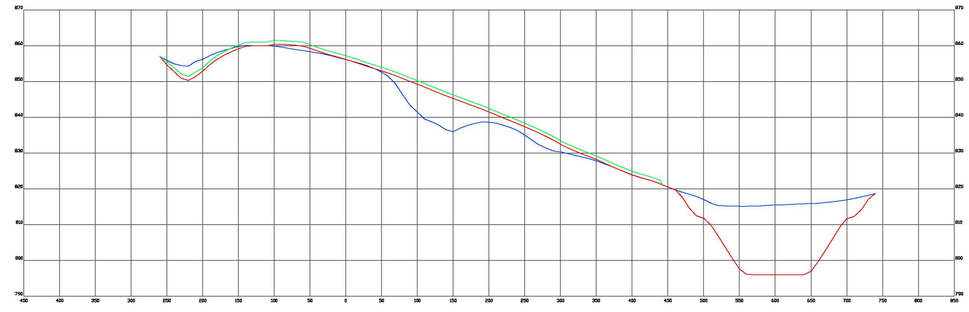


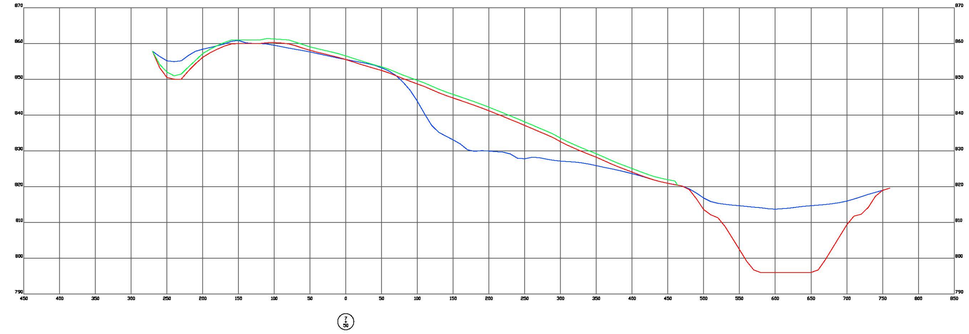








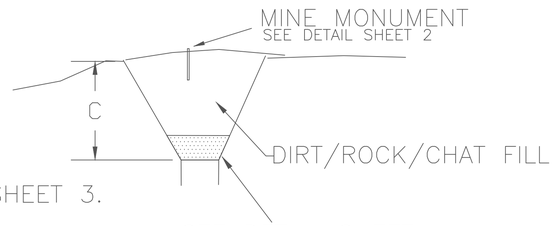




Final Grades - Cover Soil
Sub- Grades
Existing Grades

DIMENSION TABLE

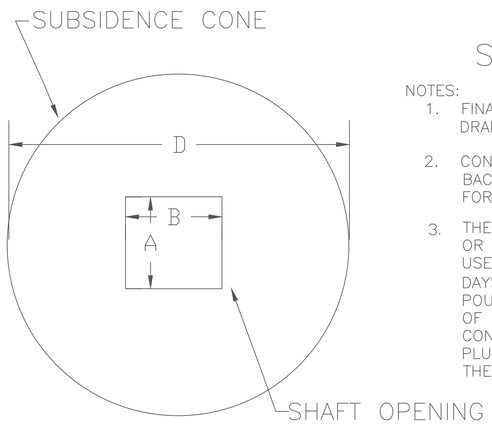
SHAFT NUMBER	EXCAVATION REQUIRED?	SHAFT WIDTH FT (A)	SHAFT LENGTH FT (B)	CONE DEPTH FT (C)	CONE DIAMETER FT (D)
NOTE: ALL DIMENSIONS ASSUMED					



SEE ADDITIONAL NOTES ON SHEET 3.

SEE DETAIL SHEET

SECTION VIEW



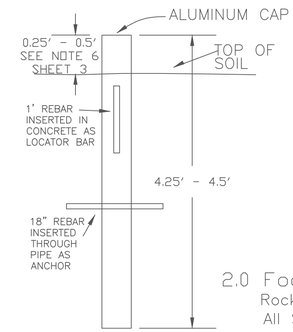
PLAN VIEW

NOTES:

1. FINAL SURFACE GRADING SHALL ENSURE THAT SURFACE DRAINAGE WILL BE DIRECTED AWAY FROM THE SHAFT AREA.
2. CONCRETE MUST CURE FOR SEVEN DAYS PRIOR TO BACKFILLING. HIGH-EARLY CONCRETE MUST CURE FOR FOR 3 DAYS.
3. THE CONCRETE PLUG MAY BE POURED IN MULTIPLE POURS OR IN ONE CONTINUOUS POUR. IF MULTIPLE POURS ARE USED, EACH POUR MUST BE ALLOWED TO CURE FOR 7 DAYS (HIGH-EARLY 3 DAYS) BEFORE PLACING THE NEXT POUR, THE CONTRACTOR SHALL DETERMINE THE METHOD OF SUPPORT FOR THE CONCRETE PLUG. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO REPLACE THE CONCRETE PLUG AT NO ADDITIONAL COST TO THE OWNER SHOULD THE SUPPORT FAIL.

SHAFT CLOSURE TYPE 3 CONCRETE PLUG

NOT TO SCALE

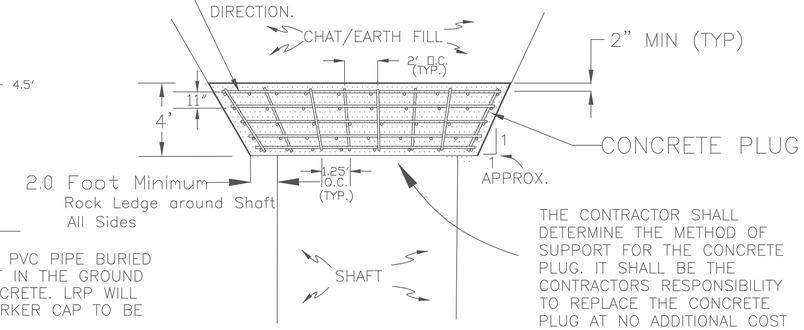


3 INCH SCHEDULE 40 PVC PIPE BURIED A MINIMUM OF 4 FEET IN THE GROUND AND FILLED WITH CONCRETE. LRP WILL SUPPLY ALUMINUM MARKER CAP TO BE INSERTED IN PIPE.

MINE MONUMENT DETAIL

ALL REBAR IS No. 6. HORIZONTAL REBAR TO BE PLACED 1'-0" OC EACH HORIZONTAL DIRECTION. VERTICAL SPACING OF HORIZONTAL LAYERS IS 11 INCHES ON CENTER.

VERTICAL REBAR SPACED AS SHOWN IN EACH DIRECTION.



THE CONTRACTOR SHALL DETERMINE THE METHOD OF SUPPORT FOR THE CONCRETE PLUG. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO REPLACE THE CONCRETE PLUG AT NO ADDITIONAL COST TO THE OWNER SHOULD THE SUPPORT FAIL.

CONCRETE PLUG DETAIL

CAUTION- This project requires construction work in, around and over hazardous and unprotected mine shafts, stopes, adits and other openings which may be open to the surface or hidden from view by trash, debris, or thin and unstable layers of surficial materials or rock. The Contractor shall be responsible for thoroughly investigating the site conditions and scheduling his equipment, equipment operations, personnel and safety procedures to prevent accidents and injuries.

SEE ADDITIONAL NOTES ON SHEET 3.

SHAFT CLOSURE TYPE 3 CONCRETE PLUG

NOT TO SCALE

NOTES

1. SEE SECTION 2100 OF THE SPECIFICATIONS FOR MORE DETAILED SHAFT DESCRIPTIONS.

2. SHAFT TO BE PLUGGED WITH A CONCRETE PLUG. THE CONTRACTOR SHALL DETERMINE THE METHOD OF SUPPORT FOR THE CONCRETE PLUG. IF POLYURETHANE FOAM IS USED AS THE CONCRETE SUPPORT, IT SHALL COMPLY WITH SECTION 2350 OF THE SPECIFICATIONS AND BE A MINUMUM OF 4 FEET THICK.

3. ALL DIMENSIONS ARE APPROXIMATE. THE SUBSIDENCE CONE IS ACTIVELY SLOUGHING AND MAY BE IRREGULARLY SHAPED. ACCESS TO SHAFT MAY REQUIRE TREE REMOVAL.

4. ACCESS MAY REQUIRE CONCRETE STRUCTURE REMOVAL. CONCRETE MAY BE LEFT ON SITE.

5. EXCAVATION IS REQUIRED. CONTRACTOR SHOULD EXPECT TO EXCAVATE A CONE WITH MINIMUM DIMENSIONS OF70' IN DIAMETER AND 30' DEEP.

6. DISPOSE OF EXISTING CONCRETE STRUCTURES LOCATED ADJACENT TO SHAFTS PRIOR TO INSTALLATION OF CONCRETE PLUG.

SHAFT CLOSURE TYPE 3
CONCRETE PLUG NOTES