3.2.1.2 Facilities Construction Dates

The following is a list of facilities and approximate dates on which construction was begun and completed on each:

Facility	Construction Begun	Construction Completed
Preparation Plant	10/77	12/78
Conveyors	10/77	4/78
Silo/Loadout	10/77	4/78
Shop/Lab/Warehouse	3/80	6/80
Power Line/Substation	10/77	4/78
Pumphouse	8/78	10/78
Scales/Scalehouse	2/78	4/78
Refuse Pile	12/78	On-Going
Railroad Loop	10/77	4/78
Roads/Parking Areas	10/77	4/78
Water System	10/77	10/78
Culinary Water	8/84	9/84
Sewage System	3/80	5/80
Diversion Ditches	6/78	6/79
Sedimentation Ponds	6/78	6/79
New Shop/Oil Storage	10/05	4/06
New Reclaim Conveyor	10/05	6/06
New Stacking Tube	04/06	-
New Plant Feed Conveyor	07/06 est.	-
New Stacking Conveyor	07/06 est.	-
New Raw Coal Conveyor	07/06 est.	-
Settling Ponds	07/06 est.	-

3.2.3.3 Coal Processing Waste Disposal (continued)

Coal processing waste at C.V. Spur was truck hauled from the preparation plant to the designated disposal site within the permit area. The design, construction and maintenance of the waste bank is under the supervision of a registered professional engineer.

The coal processing waste was the reject from the washing cycle used to clean and upgrade the coal from the Beaver Creek Coal Company mines in the Carbon-Emery County area. Coal was washed from the Gordon Creek #2 Mine (Castle Gate "A" Seam), Gordon Creek #3 Mine (Hiawatha Seam), and Huntington Canyon #4 Mine (Blind Canyon Seam). All of the seams producing coal for this plant were low-sulfur (0.5% to 0.8%). The reject was also low-sulfur, non-acid, and non-toxic. The attached analyses show the typical quality of the coal and the refuse product (Figure 3-1 and 3-2).

The wash plant has been idle since 1984; however, it is scheduled to be restarted during the summer of 2006. Equipment will be replaced or upgraded within the plant as required. The washing cycle will generate refuse as it did previously; however, under the new scenario, the refuse will be stored only temporarily on the east and/or west side of the refuse pile in an area where refuse has been removed. The coal to be washed under this restart plan is owned by another company, and the refuse generated by the washing cycle will be disposed of in their refuse pile which is presently under application for approval. This refuse will only be stored at Savage Coal Terminal until such time as the permanent refuse site for this company is approved. At that time, all of the refuse generated by the restart of the washing cycle will be taken to the company's refuse site for permanent disposal.

At the present time, no coal processing waste is being deposited on the refuse pile from the plant. Materials from ditch and pond cleaning are periodically placed on the refuse pile.

The texture of the refuse material has been classified as "coarse", as indicated by the following typical screen analysis:

+4"	-	5%
4" x 2"	-	5%
2" x 3/4"	-	15%
3/4" x 1/4"	-	20%
1/4" x 28m	-	25%
28m x 0	-	30%

Based on the analyses, there is no apparent reason that the toxicity of the refuse product should change; however, if water analysis in the area should indicate a change in pH or other possible toxic levels after the refuse has weathered, additional sampling will be performed to check for acid-toxic levels in the refuse.

If the tests show an acid or toxic forming potential, the disposed material will be covered with 4 feet of non-acid, non-toxic material.

The line will undoubtedly remain in service after closure of the C.V. Spur.

The railroad loop within the C.V. Spur is owned by Beaver Creek Coal Company. It consists of a single sit of tracks slightly elevated (3') above natural ground. This rail serves as a loop for the unit trains to travel head-first into the silo, eliminating the need for engine switching. The loop is 8,340 feet long. This rail line will be used and maintained throughout the C.V. Spur operational life.

Grades and typical cross-section of the rail loop are shown on Plate 3-5, "Railroad Facilities".

3.2.5.3 Conveyors

There are sixteen (16) separate, permanent conveyor runs at the C.V. Spur (see Figure 3-7). In addition, there are temporary, portable conveyors used on the site. The number and location of the temporary conveyors varies according to need.

Conveyor #1 - 36" x 250' long stacking conveyor from the truck dump to the raw coal stacking tube.

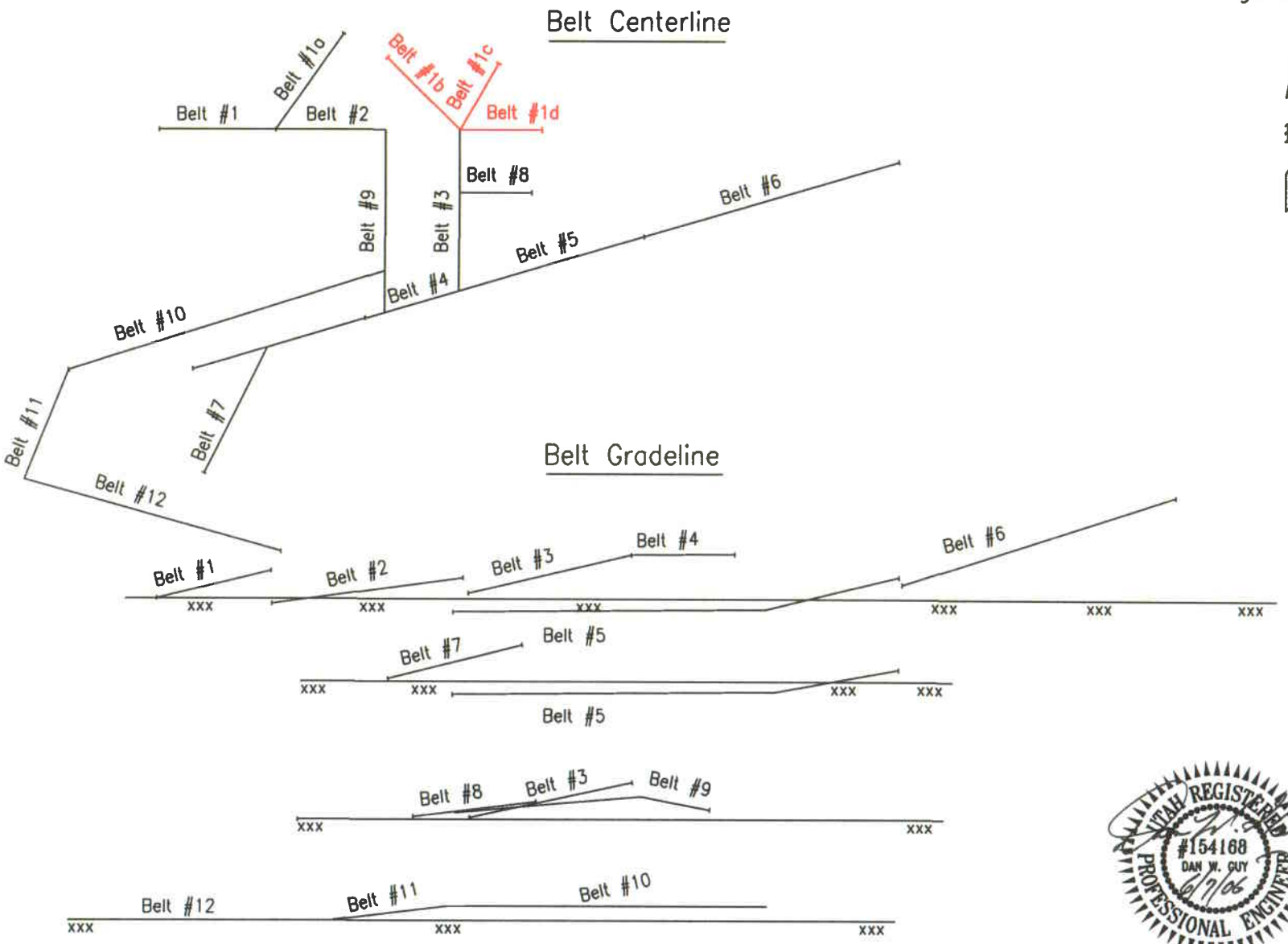
Conveyor #1a - 36" x 250' long stacking tube conveyor from the above raw coal stacking tube to a new steel stacking tube.

Conveyor #1b - 36" x 233' conveyor from new stacking tube area to wash plant.

Conveyor #1c - 36" x 130' stacking conveyor from wash plant to clean coal pile on north side.

Conveyor #1d - 36" x 200' conveyor for -1/4" coal from wash plant to raw coal pile to west.

Figure 3-7



UTAH REGISTERED #154168 DAN W. GUY 6/7/06 PROFESSIONAL ENGINEER

Savage Coal Terminal

Centerline and Grade of Belts

3-28 C.V. Spur 1"=300' April 2006

Conveyor #2 - 36' x 300' reclaim conveyor from raw coal pile to conveyor #9.

Conveyor(s)# 3-(2) 36" x 365' clean fine and coarse coal conveyors from the plant to the clean coal stacking tube.

Conveyor #4 - 36" x 225' clean fine coal transfer conveyor from coarse coal stacking tube to fine coal stacking tube.

Conveyor #5 - 48" x 600' clean coal reclaim conveyor from clean coal piles to transfer in loadout sample building.

Conveyor #6 - 48" x 660' loading conveyor from transfer point in sample building to 10,000 ton silo.

Conveyor #7 - This conveyor is 36" x approximately 350' and runs from the new truck dump to a crushed coal stacking tube.

Conveyor #8 - 42" x 150' conveyor from the new truck dump to the twin 36" conveyors described in #3 above.

Conveyor #9 - 48" x 440' conveyor from the plant feed belt to the clean coal stacking tube area.

Conveyor #10 - 48" x 728' elevated conveyor from truck loop storage area to conveyor #9.

Conveyor #11 - 48" x 246' feed conveyor from the truck loop storage area to conveyor #10.

Conveyor #12 - 48" x 564' future surface transfer system to move coal from the track loop storage area to conveyors #10 and #11.

Grade of all conveyors are shown on Figure 3-7, "Conveyors - Loadout & Grades". All surface conveyors are covered and equipped with walkways. All conveyors will be used throughout the C.V. Spur operational life.

3.2.6.3 Storm Runoff and Sedimentation Ponds (continued)

Sedimentation Ponds (continued)

by the EPA and Utah Health Department has established the CMP Spillway of pond No. 6 as UPDES Outfall No. 001.

Operational Procedures

Because all sedimentation ponds at the site are incised, it will be necessary to pump discharge all impounded runoff to reestablish the 10 year, 24 hour storm detention volume. The importance of water resources in the Price area is reflected by the installation of return capability from ponds to the prep plant as described in the previous section. A one hundred gallon per minute return flow would require approximately 35 working days to draw down the 10 year, 24 hour storm volume. This would be an extreme case and normal drawdown returns would be 15 working days. Even though delayed reestablishment of necessary storm runoff detention volumes increases the risk of violating effluent limitations should a storm reoccur, the EPA and Utah Health Department have concurred (verbal communication, June 9-10, 1981) that a longer drawdown period resulting in beneficial use of the water resource would be preferred to immediate off-site discharge. Savage Services Corporation will constantly assess operational procedures in order to optimize the use of water resources while maintaining compliance with applicable effluent discharge limitations.

Savage Services Corporation will commit to re-establishing the 10 year, 24 hour storm runoff detention volumes in all sediment ponds within 30 days after any storm event which generates enough surface flow to occupy 50% of the design volume.

3.3.4 Loadout System (continued)

Coal Handling

The Savage Coal Terminal has the capability of handling and shipping up to 12 million tons per year. Present projections are for the handling and shipping of 7.0 to 8.0 million tons per year.

3.3.5 Major Equipment

The following list will itemize the equipment presently used at the Savage Coal Terminal.

1- 5 truck dumps with receiving hoppers
2- 2 coal crushers with screens
3- 1 screen plant
4- 3 radial stackers
5- 2 underpile reclaim systems
6- 4 stacking tubes
7- Preparation plant with associated screens, crushers, and conveyors (enclosed)
8- 2 - 48" reclaim conveyors
9- 7 - 36" conveyors
10- 2 - 36" mobile conveyors
11- 1 - 10,000 ton silo/unit train loadout
12- 3 front-end loaders
13- 3 dozers
14- 1 water truck
15- Miscellaneous gas-powered vehicles
16- Fuel storage facility (surface)

3.4.5.3 Fish and Wildlife Monitoring

Beaver Creek Coal Company will conduct a wildlife monitoring program as needed throughout the operational life of C.V. Spur. The monitoring program will utilize the services of an environmental specialist and, as necessary, professional consultants to evaluate the ongoing success of operational mitigation measures, ensure that threatened or endangered species and sensitive or critical use areas remain undisturbed by future activities, deal with any unforeseen difficulties which might arise and participate in reclamation efforts upon completion of the project. The Company will promptly report to the regulatory authority the discovery of the presence of any threatened or endangered species or any bald or golden eagle that has not been previously reported.

3.4.6 Protection of Air Quality

The air quality at C.V. Spur will be protected through implementation of control devices such as covered conveyors, water sprays to minimize wind erosion from coal piles and dust in reclaim tunnels, water trucks and chemical dust suppressants to control emissions from unpaved roads and coal piles, silo enclosures, and vibrating feeders for the pile load-in area.

It should be noted that a new Notice of Intention has been filed with the Division of Air Quality, which includes new equipment and structures for the restart of the wash plant at Savage Coal Terminal.

3.4.6.1 Projected Impacts of Mining Operations on Air Quality

Impacts from dust emissions at C.V. Spur will be localized close to the source of emission. Most of the emissions are anticipated to be composed of large-sized particles greater than 10 micrometers. which settle out within a half mile of the emission source. The large particles do not produce any heath effects since thy are not inhalable or respirable. Since most light scattering is caused by micron-sized particles, little impact on visibility is anticipated from dust emissions from the C.V. Spur processing facilities. Most of the air quality impact from facility emissions, if any, will be generally confined to the plant site.

APPENDIX 3-8

New Preparation Plant Conveyors

Appendix 3-8
New Preparation Plant
Conveyors

1. Introduction:

This appendix will provide design details and reclamation cost conveyors associated with the restart of the wash plant.

The new conveyors are: Plant Feed Conveyor, Fine Raw Coal Conveyor and Clean Coal Stacking Conveyor. The Refuse Conveyor is simply a relocation of an existing conveyor. The other new system associated with the plant restart is the new stacking tube and conveyor. These have been approved, and details are given in Appendix 3-7.

2. Specifications:

a. Plant Feed Conveyor - This is a 36" wide x 233' long conveyor which will feed raw coal into the plant wash box. The conveyor is fed by a chain feeder as shown on Drawing # 0604-2-103. The conveyor structure is supported by bents and 3 concrete footers. Footer details are shown on Drawing # 0604-4-103.

b. Fine Raw Coal Conveyor - This is a 36" x 200' conveyor which will take the -1/4" x 0 raw coal product from the plant to the main 2" x 0 raw coal site. The -1/4" x 0 size fraction will not be washed in the new system. This conveyor is supported by bents and concrete footers, as shown on Drawing # 0604-2-103. Footer details are shown on Drawing # 0604-4-104.

c. Refuse Conveyor -This is a relocated existing 36" conveyor. The relocated conveyor will be 101' in length and supported by 1 bent, pier and footer, as shown on Drawing # 0604-2-105. The conveyor discharges into the same, existing bin, as shown. Footer and pier details are shown on Drawing # 0604-4-105.

d. Clean Coal Stacking Conveyor - This is a portable 36" x 130' radial stacking conveyor. This conveyor will take the washed coal from the plant and place it in a clean coal stockpile located directly north of the plant, as shown on Drawing # 0604-2-100. A new concrete pad and pivot foundation will be constructed for the stacker. Location and foundation specifications are shown on Drawing # 0604-4-100.

3. Reclamation Cost Estimate for New Preparation Plant Conveyors:

A. Introduction :

Reclamation cost estimates for the New Preparation Plant Conveyors are based on those used in Appendix 3-5 - "Reclamation Cost Estimate" dated December 2004. Demolition and Labor costs are based on the latest figures provided by the Division. No additional costs are estimated for earthwork or revegetation for this area, since these costs are included with the overall reclamation estimate in Appendix 3-5.

B. Procedure :

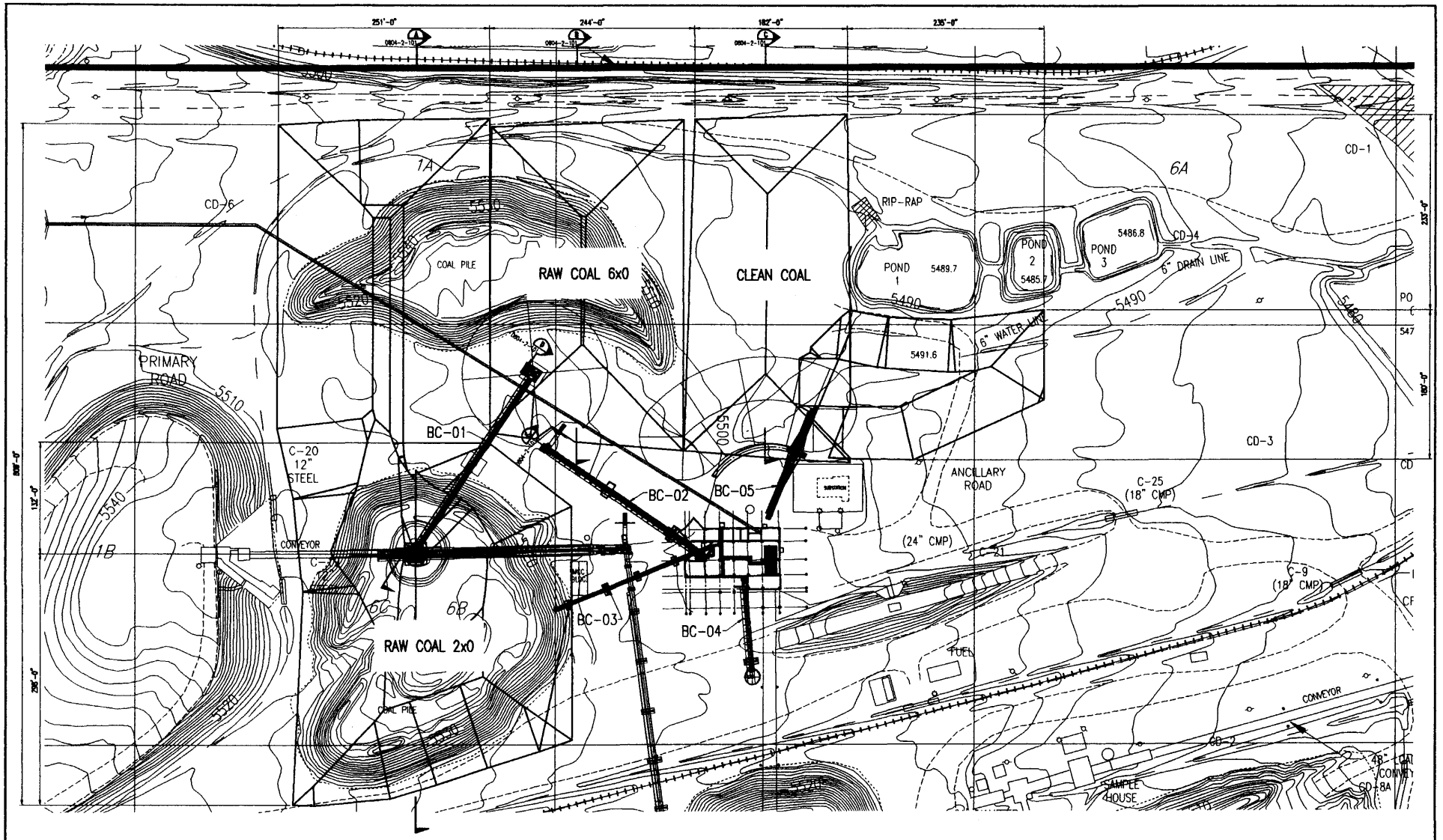
The only additional reclamation costs included on these areas will be the removal of the conveyors and demolition/disposal of the concrete. The proposed reclamation will include removal and transport of steel structures. Concrete will be broken up and placed in the Sediment Pond No. 1, 2 or 3 during final reclamation. The radial stacker is portable, and will simply be hauled off when no longer needed.

C. Calculations :

Structure	Item	Size	Disposal	Cost/Unit	Cost
Plant Feed Conveyor	Steel Concrete	233'x4'x4' 42.6 CY	Haul On-site	$ 0.25/CF $21.05/CY	$ 932.00 $ 896.73
Fine Raw Coal Conveyor	Steel Concrete	200'x4'x4' 33.1 CY	Haul On-site	$ 0.25/CF $21.05/CY	$ 800.00 $ 696.76
Refuse Conveyor	Steel Concrete	100'x4'x4' 15.3 CY	Haul On-site	$ 0.25/CF $21.05/CY	$ 400.00 $ 322.07
Stacking Conveyor	Concrete Foreman	85.1 CY 48 Hours	Haul On-site	$21.05/CY $55.45/MN	$1,791.36 $2,661.60
					$8,500.52

D. Summary :

The total projected reclamation cost for the New Preparation Plant Conveyors is $8,500.52. The Savage Coal Terminal is presently bonded for a total of $2,525,000 in 2007 dollars. The required bond for reclamation is $2,155,000. This proposed addition, along with the stacking tube and settling ponds, would raise the required bond amount to $2,213,549, which is still $311,451 less than the bond posted for the site.



C	RDM	05-08-08	ADDED CONVEYOR NUMBERS				
B	DJC	02-18-08	REVISED PER CLIENT COMMENTS				
A	DJC	02-01-08	ISSUED FOR REVIEW				
No.	BY	CHK'D	DATE	REVISIONS	No.	BY	CHK'D	DATE	REVISIONS

APPROVED FOR CONSTRUCTION
BY:
DATE:

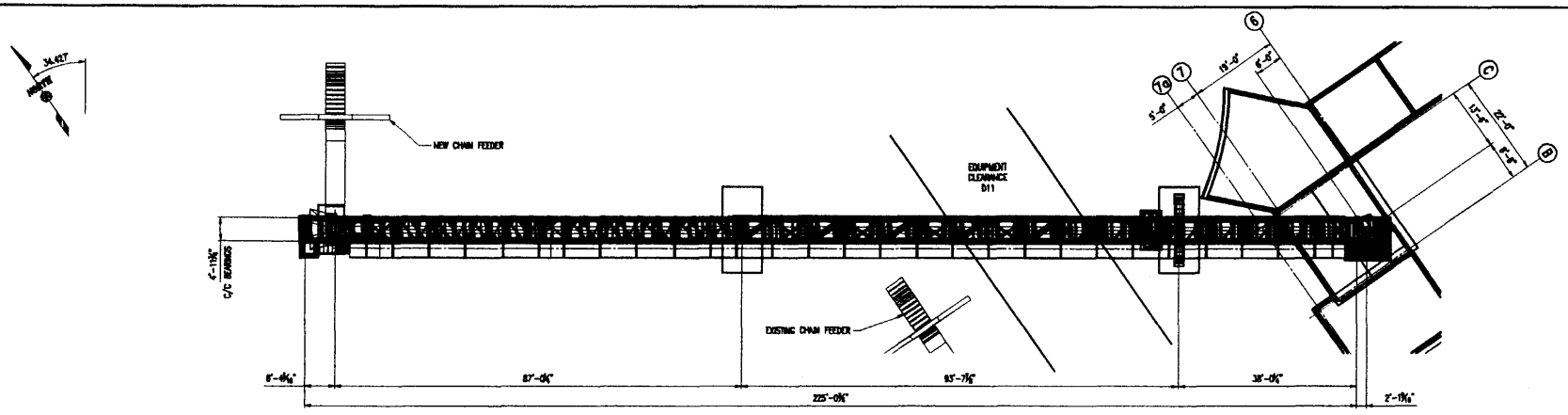
DRAWN BY:	DC	02-01-08
DESIGNED BY:	DC	02-01-08
CHECKED BY:		
APPROVED:		
APPROVED:		

SAVAGE SERVICES CORPORATION
PRICE COAL TERMINAL
PRICE UTAH

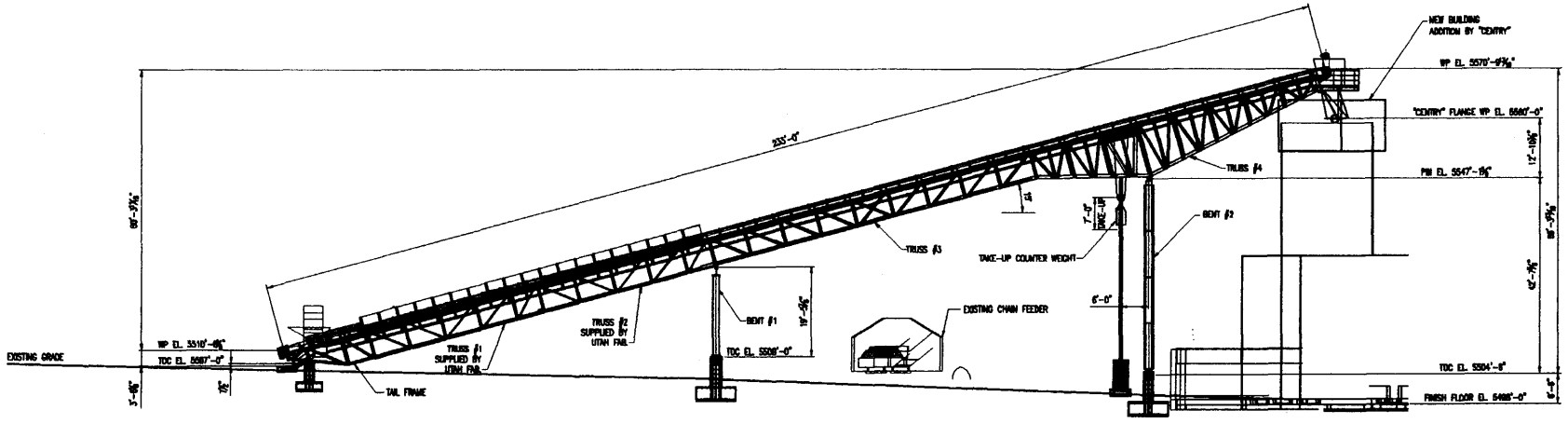
Mine & Mill Engineering Inc.
Salt Lake City

ARCH COAL STOCKPILE ARRANGEMENT PLAN

SCALE:	1"=50'-0"
REV.	C
PROJECT NO:	0604
CADFILE:	PLANTFEEDCONV1
DRAWING NO.	0604-2-100



PLAN



ELEVATION

REVISIONS							
No.	BY	DATE	REVISIONS	No.	BY	DATE	REVISIONS
B	LW	05-06-08	ISSUED FOR APPROVAL				
A	DC	04-11-08	ISSUED FOR REVIEW				

APPROVED FOR CONSTRUCTION
BY:
DATE:

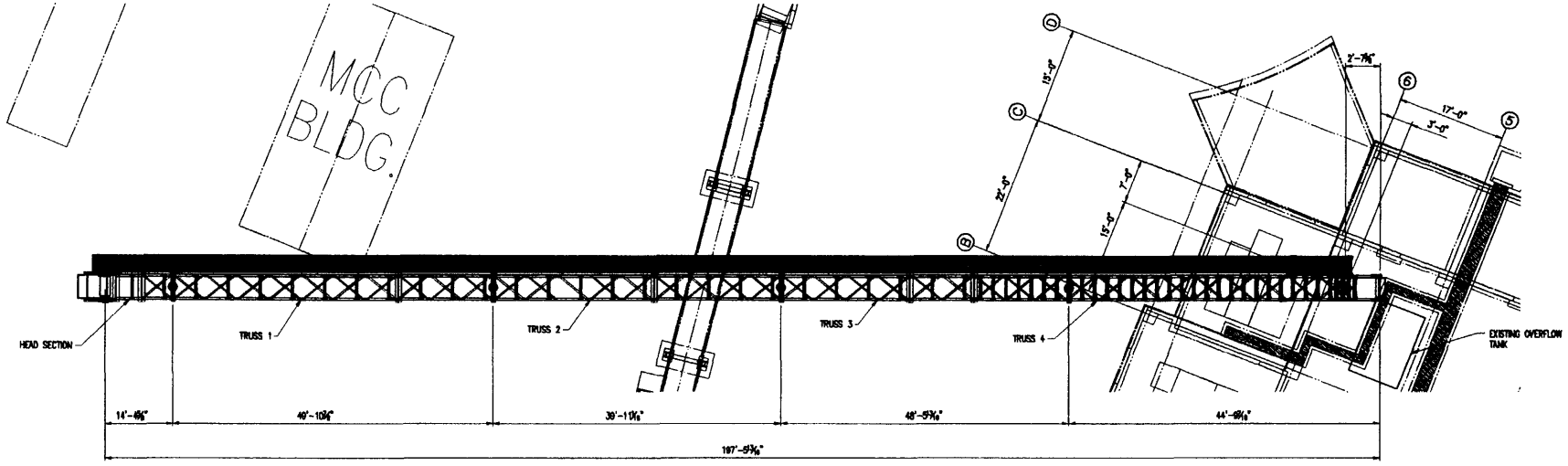
DRAWN BY:	DC	04-11-08
DESIGNED BY:	DC	04-11-08
CHECKED BY:		
APPROVED:		
APPROVED:		

SAVAGE SERVICES CORPORATION
PRICE COAL TERMINAL
PRICE UTAH

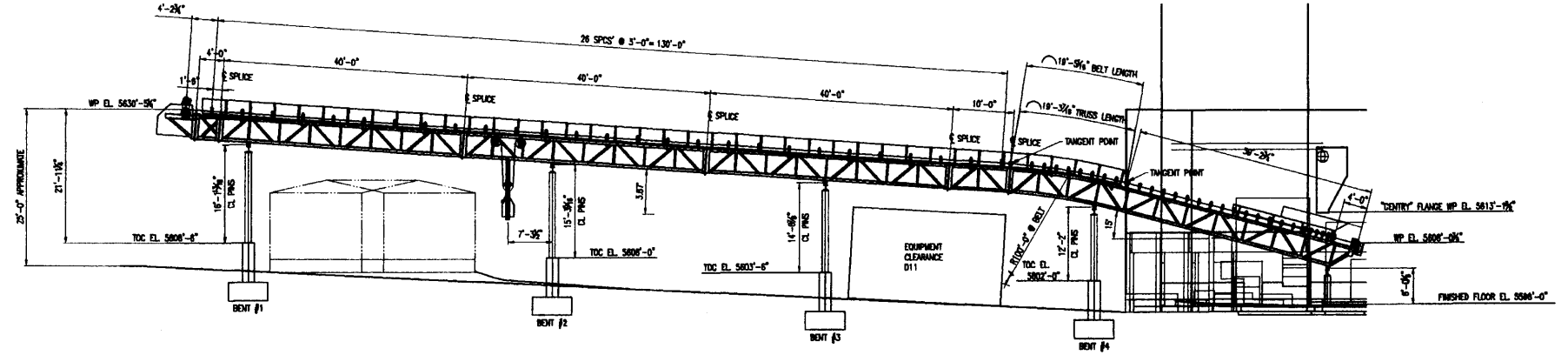
Mine & Mill Engineering Inc.
Salt Lake City

ARCH COAL
CONVEYOR BC-02
PLAN AND ELEVATION

SCALE:	3/32"=1'-0"
REV.	0
PROJECT NO:	0604
CADFILE:	PLANTFEEDCONVEY
DRAWING NO.	0604-2-103



PLAN



ELEVATION

NOTE:
HEAD SECTION, TRUSS 1,
TRUSS 2, AND TRUSS 3 ARE EXISTING

NO.	BY	CHK'D	DATE	REVISIONS
C	RDM		05.26.06	REVISED BENT LOCATIONS
B	RDM		05.08.06	ISSUED FOR APPROVAL
A	DC		04.11.06	ISSUED FOR REVIEW

APPROVED FOR CONSTRUCTION
BY:
DATE:

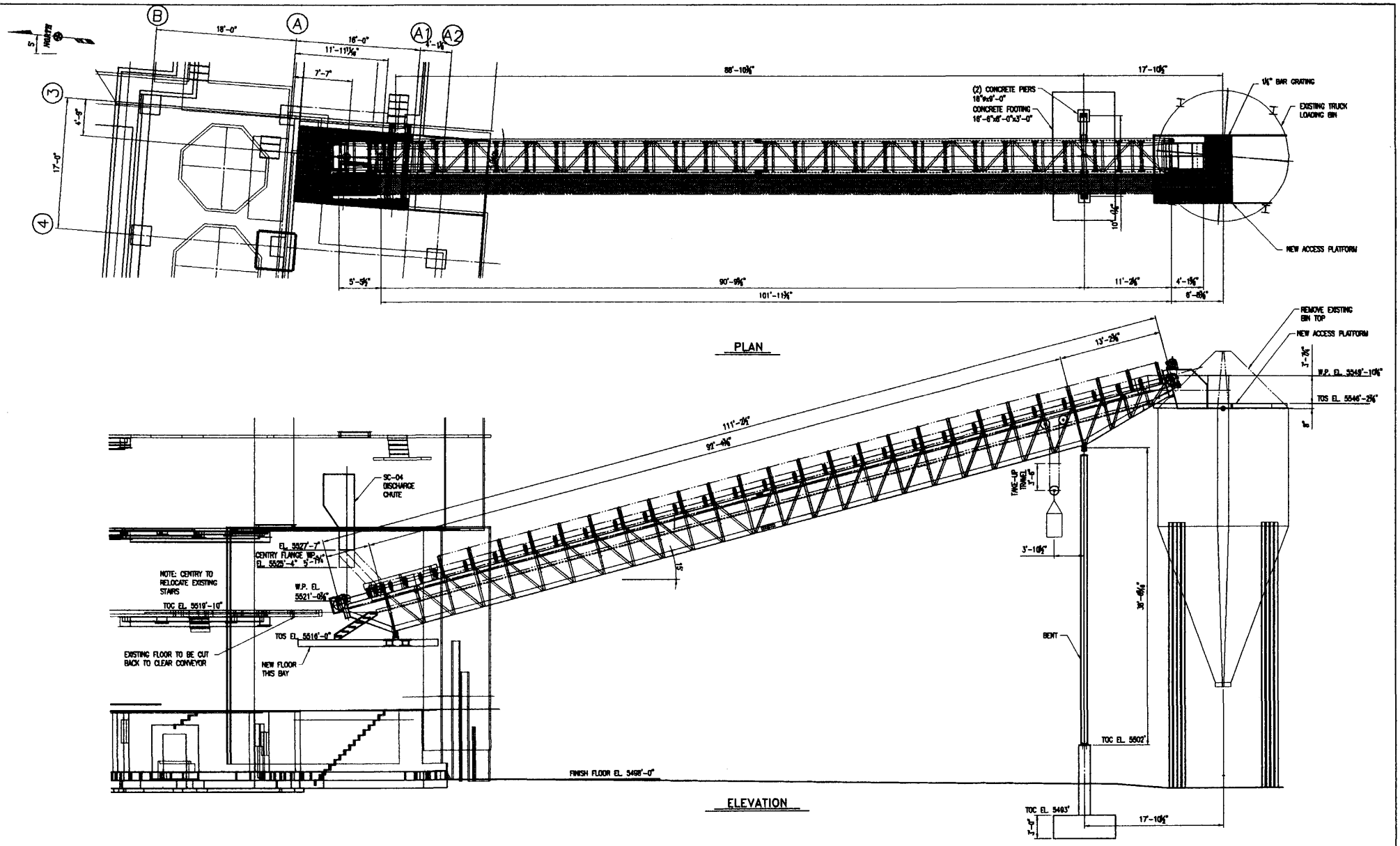
DRAWN BY:	DC	04.11.06
DESIGNED BY:	DC	04.11.06
CHECKED BY:		
APPROVED:		
APPROVED:		

SAVAGE SERVICES CORPORATION
PRICE COAL TERMINAL
PRICE, UTAH

Mine & Mill Engineering Inc.
Salt Lake City

ARCH COAL
CONVEYOR BC-03
PLAN AND ELEVATION

SCALE: 1/8"=1'-0"
REV. C
PROJECT NO: 0604
CADFILE: 0604-BC-03
DRAWING NO.
0604-2-104



B DWB - 05-01-06 ISSUED FOR APPROVAL A DC - 04-11-06 ISSUED FOR REVIEW No. BY CHK DATE REVISIONS	APPROVED FOR CONSTRUCTION BY: DATE:	DRAWN BY: DC 04-11-06 DESIGNED BY: DC 04-11-06 CHECKED BY: APPROVED: APPROVED:	SAVAGE SERVICES CORPORATION PRICE COAL TERMINAL PRICE UTAH Mine & Mill Engineering Inc. Salt Lake City	ARCH COAL CONVEYOR BC-04 PLAN AND ELEVATION	SCALE: 3/16"=1'-0" PROJECT NO: 0604 CADFILE: BC-04 CONVEYOR DRAWING NO. 0604-2-105 REV. B

GENERAL NOTES – REINFORCED CONCRETE AND FOUNDATIONS

1. SPECIFICATIONS / CODES
A. CONCRETE DESIGN, MATERIALS AND CONSTRUCTION METHODS SHALL CONFORM TO ACI 318–99 OR LATER EDITIONS.
B. DESIGN LOADS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE UNIFORM BUILDING CODE (UBC) AND, OR IN CONJUNCTION WITH CRITERIA ESTABLISHED FOR THIS PROJECT AND SITE CONDITIONS.
2. MATERIALS
A. ALL REINFORCING STEEL SHALL BE DEFORMED BARS CONFORMING TO ASTM A–615, GRADE 60.
B. WELDED WIRE FABRIC SHALL CONFORM TO ASTM–185.
C. CONCRETE COMPRESSIVE STRENGTH @ 28 DAYS (f'c) SHALL NOT BE LESS THAN:
   * ALL STRUCTURAL MEMBERS AND SLABS ON GRADE: 4000 psi
   * LEAN CONCRETE OR BACKFILL: 1500 TO 2000 psi
D. ANCHOR BOLTS: SEE DESIGN DRAWINGS FOR SCHEDULE
E. MISCELLANEOUS EMBEDDED REINFORCING STEEL: A36.
3. CONSTRUCTION
A. LAP–SPLICES FOR REINFORCING STEEL

BAR TYPE	#3	#4	#5	#6	#7	#8	#9	#10
TOP BARS	21	28	35	42	49	56	74	84
OTHERS	16	22	27	32	38	45	57	73

WELDED WIRE FABRIC SHALL BE SUCH THAT THE OVERLAP IS AT LEAST THE CROSS–WIRE SPACING PLUS 4".

B. FLOOR SLABS AND CURBS INSIDE BUILDINGS SHALL HAVE A NON–SLIP WOOD TROWEL OR FLOAT FINISH. APRON WAYS OR WALKWAYS SHALL HAVE A COARSE BROOM FINISH.
C. EXPOSED CONCRETE SHALL HAVE THE EDGES OR CORNERS CHAMFERED ¾".
4. FOUNDATIONS
A. CLASS I STRUCTURAL FILL

SIEVE SIZE SQUARE OPENINGS	PERCENT BY DRY WEIGHT
2"	100
¼"	30–85
No. 40	5–40
No. 200	0–10

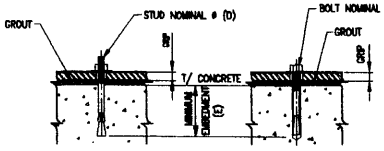
THE PLASTICITY INDEX SHOULD BE 5 OR LESS WHEN TESTED IN ACCORDANCE WITH ASTM D4318.

B. CLASS II STRUCTURAL FILL SHOULD BE FREE OF ORGANIC, DEBRIS AND OTHER DELETERIOUS MATERIAL AND CONFORM TO THE GRADATION REQUIREMENTS IN THE TABLE BELOW.
CLASS II STRUCTURAL FILL

SIEVE SIZE SQUARE OPENINGS	PERCENT BY DRY WEIGHT
100	100
NO. 4	30–100
NO. 200	0–15

THE PLASTICITY INDEX, WHEN TESTED IN ACCORDANCE WITH ASTM D4318, SHOULD BE 10 OR LESS.

C. CLASS I STRUCTURAL FILL SHOULD BE PLACED IN MAXIMUM 8" LIFTS. WHILE CLASS II STRUCTURAL FILL CAN BE PLACED IN MAXIMUM 12" LIFTS. ALL STRUCTURAL FILLS SHOULD BE DENSIFIED TO A MINIMUM 95 PERCENT RELATIVE COMPACTION IN ACCORDANCE WITH ASTM D1557.
D. FLOOR SLABS: HEAVILY LOADED STRUCTURAL SLABS SHOULD BE UNDERLAIN BY AT LEAST A 8" LAYER OF CLASS I STRUCTURAL FILL.
E. LIGHTLY LOADED SLABS SHOULD BE UNDERLAIN BY A 8" LAYER OF CLASS I STRUCTURAL FILL.
F. CLASS II STRUCTURAL FILL IS FOR GENERAL PURPOSE USE AND THE INSTALLATION IN SITE SPECIFIC AREAS SHALL BE AS DIRECTED.
5. ALL FOUNDATIONS HAVE BEEN DESIGNED FOR AN ALLOWABLE SOIL BEARING PRESSURE OF 3000psf IN ACCORDANCE WITH THE GEOTECHNICAL STUDY SUPPLIED TO MINE & MILL ENGINEERING, INC.

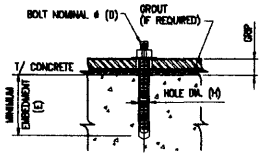


STUD ANCHOR SHIELD ANCHOR

EXPANSION ANCHORS
DESCRIPTION AND ALLOWABLE DESIGN CAPACITY

BOLT TYPE	DIMENSIONS (INCHES) D	E	CAPACITY (k) f'c 3000 PSI SHEAR	TENSION
STUD ANCHOR	1/2"	2 1/4"	1.4	.09
	5/8"	2 1/2"	2.2	1.7
	3/4"	3 1/4"	3.4	2.4
	7/8"	3 3/4"	4.3	3.4
	1"	4 1/2"	5.2	4.5
SHIELD ANCHOR	5/8"	2"	2.2	1.0
	3/4"	2 1/4"	2.7	1.7
	7/8"	3 1/2"	3.1	2.4
	1"	4"	3.5	2.6

NOTES:
1. STUD ANCHORS TO BE WEJ–IT STANDARD, RED HEAD WEDGE ANCHOR MOLLY PARABOLT OR APPROVED EQUAL.
2. SHIELD ANCHORS TO BE RED HEAD SELF DRILLING ANCHOR, RAMSEY DYNA BOLT OR APPROVED EQUAL.

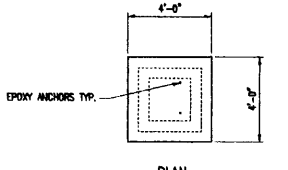


EPOXY GROUTED ANCHOR

EPOXY GROUTED ANCHORS
DESCRIPTION AND ALLOWABLE DESIGN CAPACITY

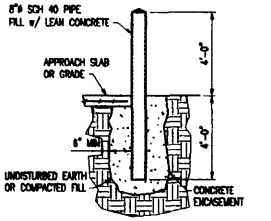
BOLT TYPE	DIMENSIONS (INCHES) D	E	H	CAPACITY (k) f'c 3000 PSI SHEAR	TENSION
EPOXY GROUTED ANCHOR	1/2	4 1/4	3/4	1.0	1.7
	5/8	5	7/8	1.7	2.8
	3/4	6 5/8	1	2.5	3.8
	7/8	7	1 1/8	3.4	4.8
	1	8 1/4	1 1/4	4.3	5.8

NOTES:
1. STUD SHALL BE THREADED OVER THE ENTIRE LENGTH.
2. DRILLED HOLE DIAMETER TOLERANCE –1/16"+1/2"
   USE A HIGH STRENGTH EPOXY BINDER, ADHESIVE ENG. COMPANY "CONCRESIVE 1463" OR APPROVED EQUAL.



PLAN
SECTION

TYPICAL STAIR PAD DETAIL
NTS

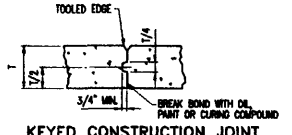


TYPICAL BOLLARD DETAIL
NTS

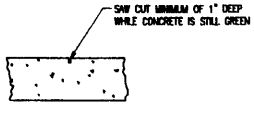
NOTE:
PAINT BOLLARDS SAFETY YELLOW AFTER THEY ARE FILLED WITH CONCRETE

DRILLED AND/OR BOLTED ANCHORS

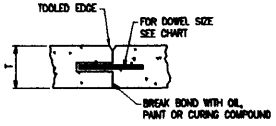
1. CARBON STEEL MATERIALS
   - BOLTS: Fy- 36 ksi (MINIMUM) NUTS: ASTM A563 GRADE A
   - WASHERS - ASTM C1010-1020
   - NUTS - ANSI B18.2.2 HEAVY HEX
   - THREADS - ANSI B1.1 UNC, CLASS 2 FIT
   - WASHERS - CIRCULAR, ONE PER BOLT
2. STAINLESS STEEL (SS) MATERIALS
   - BOLTS (SS316) - ASTM A193, GRADE B8M - Fy - 30 ksi (MINIMUM)
   - NUTS (SS316) - ASTM A194, GRADE B8M - Fy - 30 ksi (MINIMUM)
   - WASHERS: SS316 OR SS316LI - STANDARD WASHERS
3. WELDING TO THE EXPANSION ANCHORS IS NOT ALLOWED, INCLUDING TACK WELDING.
4. INSTALLATION OF ANCHORS SHALL BE ACCORDING TO MANUFACTURER'S WRITTEN INSTRUCTIONS, AND AS INDICATED HEREAFTER. THE MAXIMUM ALLOWABLE INSTALLED TOLERANCE SHALL BE IN ACCORDANCE WITH SECTION 7.0, PARAGRAPH 7.5, PAGE 5 208, CODE OF STANDARD PRACTICE FOR BUILDINGS & BRIDGES, AISC MANUAL OF STEEL CONSTRUCTION, 9TH EDITION.
5. HOLES SHALL BE DRILLED AS CLOSE TO PERPENDICULAR AS POSSIBLE TO THE SURFACE BEING DRILLED AND SHALL IN NO CASE HAVE A DEVIATION GREATER THAN 5 DEGREES.
6. HOLES SHALL BE DRILLED TO THE CORRECT DEPTH AND DIAMETER USING TOOLS AND EQUIPMENT SUITABLE FOR THE JOB. THE HOLE SHALL BE CLEAN AND CLEAR OF DRILLING RESIDUE PRIOR TO ANCHOR BOLT INSTALLATION.
7. CENTER TO CENTER ANCHOR SPACING SHALL NOT BE LESS THAN 12 TIMES THE NOMINAL DIAMETER OF THE ANCHOR, UNLESS NOTED OTHERWISE ON DESIGN DRAWINGS. THE SPACING IS REQUIRED TO DEVELOP THE ALLOWABLE DESIGN TENSILE AND SHEAR CAPACITIES OF THE ANCHOR BOLT. SMALLER SPACING REQUIRE APPROVAL FROM ENGINEERING.
8. CENTER OF ANCHOR TO EDGE OR CONCRETE SHALL NOT BE LESS THAN 10 TIMES THE NOMINAL DIAMETER OF THE ANCHOR, UNLESS NOTED OTHERWISE ON DESIGN DRAWINGS. THE SPACING IS REQUIRED TO DEVELOP THE ALLOWABLE DESIGN TENSILE AND SHEAR CAPACITIES OF THE ANCHOR BOLT. SMALLER EDGE DISTANCES REQUIRE APPROVAL FROM ENGINEERING.
9. EXPANSION AND IORS SHALL ONLY BE INSTALLED IN 28 DAYS OR OLDER CONCRETE WHICH HAS ATTAINED AT LEAST 80% OF THE SPECIFIED COMPRESSIVE STRENGTH, f'c.
10. THESE ANCHOR BOLTS ARE NOT RECOMMENDED FOR DYNAMIC LOADING WITHOUT FURTHER DESIGN INVESTIGATION.
11. THESE ANCHORS ARE NOT RECOMMENDED TO RESIST ITEMS OR FORCES IN OVERHEAD OR VERTICAL INSTALLATIONS.
12. ALLOWABLE LOADS FOR ANCHORS SUBJECTED TO COMBINED SHEAR AND TENSION FORCES MUST BE DETERMINED BY THE RATIO OF THE ACTUAL SHEAR TO THE ALLOWABLE SHEAR PLUS THE RATIO OF THE ACTUAL TENSION TO THE ALLOWABLE TENSION IN ACCORDANCE WITH THE UBC



KEYED CONSTRUCTION JOINT
NTS



CONTROL JOINT
NTS



CONSTRUCTION JOINT
DOWEL SIZE AND SPACING

SLAB DEPTH T	DOWEL DIAMETER	TOTAL DOWEL LENGTH	DOWEL SPACING CENTER TO CENTER
0"–6"	3/4" (#6)	16"	12"
7"–8"	1" (#8)	16"	12"
9"–12"	1 1/4"(#10)	18"	12"

DOWELED CONSTRUCTION JOINT
NTS

No.	BY	DATE	REVISION
A	LW	05.26.06	ISSUED FOR REVIEW
		10.04.05	

APPROVED FOR CONSTRUCTION
BY:
DATE:

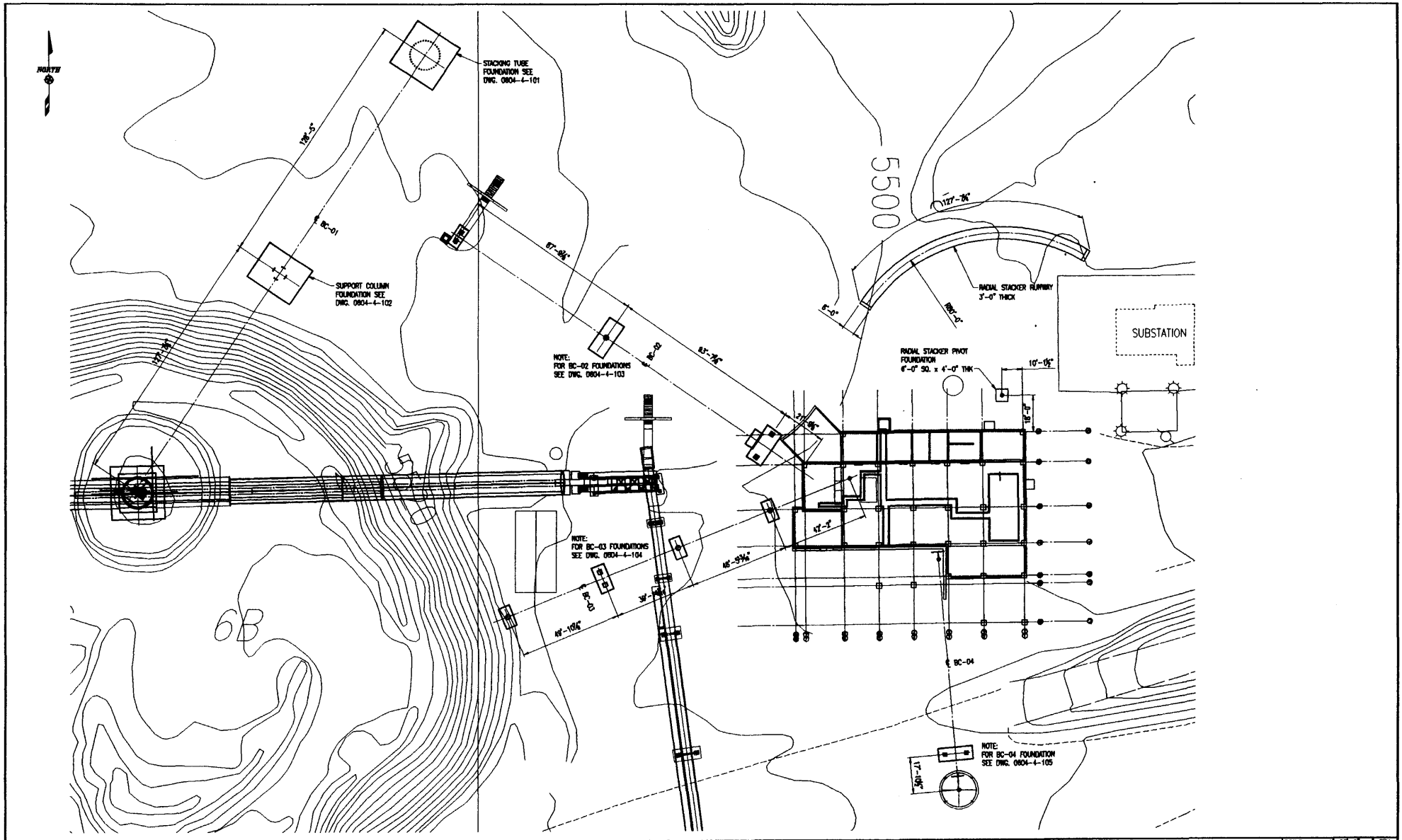
DRAWN BY:	LW	05.26.06
DESIGNED BY:	MMME	05.26.06
CHECKED BY:		
APPROVED:		
APPROVED:		

SAVAGE SERVICES CORPORATION
PRICE COAL TERMINAL
PRICE UTAH

Mine & Mill Engineering Inc.
Salt Lake City

ARCH COAL
FOUNDATION
GENERAL NOTES

SCALE: NONE
PROJECT NO: 0604
CADFILE: Concrete Standards
DRAWING NO.
0604–4–001
REV. A



REVISIONS					
No.	BY	CHK'D	DATE		
A	TGM		05-26-06	ISSUED FOR REVIEW	

APPROVED FOR CONSTRUCTION
BY:
DATE:

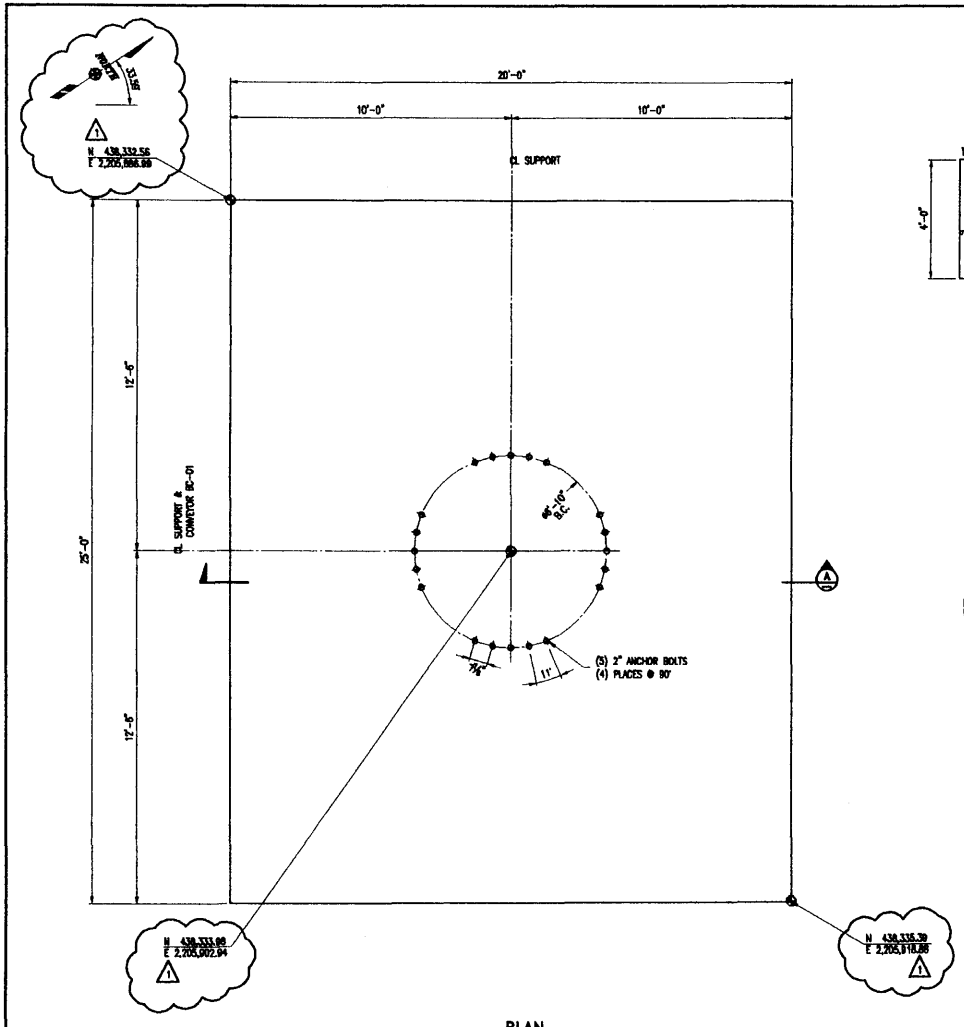
DRAWN BY:	TGM	05-26-06
DESIGNED BY:	TGM	05-26-06
CHECKED BY:		
APPROVED:		
APPROVED:		

SAVAGE SERVICES CORPORATION
PRICE COAL TERMINAL
PRICE UTAH

Mine & Mill Engineering Inc.
Salt Lake City

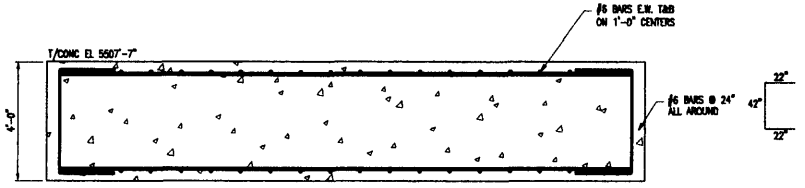
ARCH COAL
CONVEYOR FOUNDATION
PLAN

SCALE:	1"=20'-0"
REV.	A
PROJECT NO:	0604
CADFILE:	PLANTFEEDCONVEY
DRAWING NO.	0604-4-100

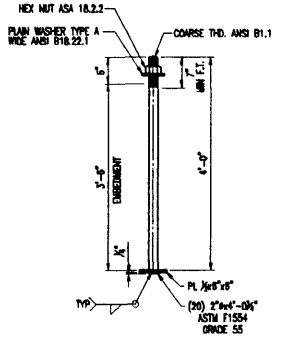


PLAN

FOR SUPPORT COLUMN
SEE DRAWING 0604-5-110



SECTION A



ANCHOR BOLT

1½"=1'-0" (20) REQ'D

No.	BY	DATE	REVISIONS
1	TDM/KH	08.18.06	REVISED COORDINATES PER NEW SURVEY
0	TDM/KH	04.24.06	ISSUED FOR CONSTRUCTION
B	DHB/SM	4/14/06	ANCHOR REVISION
A	DHB/AP	3/17/06	ISSUED FOR REVIEW

APPROVED FOR CONSTRUCTION
BY: AP
DATE 4.24.06

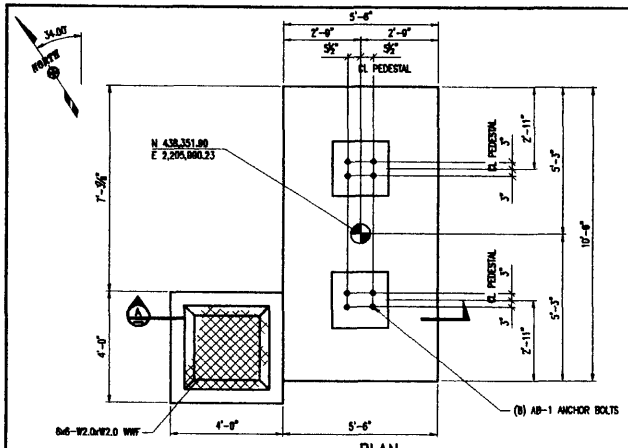
DRAWN BY:	DHB	3/17/06
DESIGNED BY:	AP	3/17/06
CHECKED BY:	AP	3/17/06
APPROVED:	AP	3/17/06
APPROVED:		

SAVAGE SERVICES CORPORATION
PRICE COAL TERMINAL
PRICE UTAH

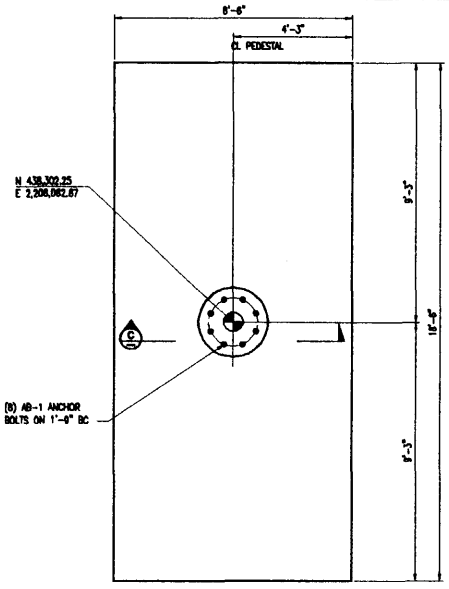
Mine & Mill Engineering Inc.
Salt Lake City

ARCH COAL PLANT FEED CIRCUIT
SUPPORT COLUMN
CONCRETE

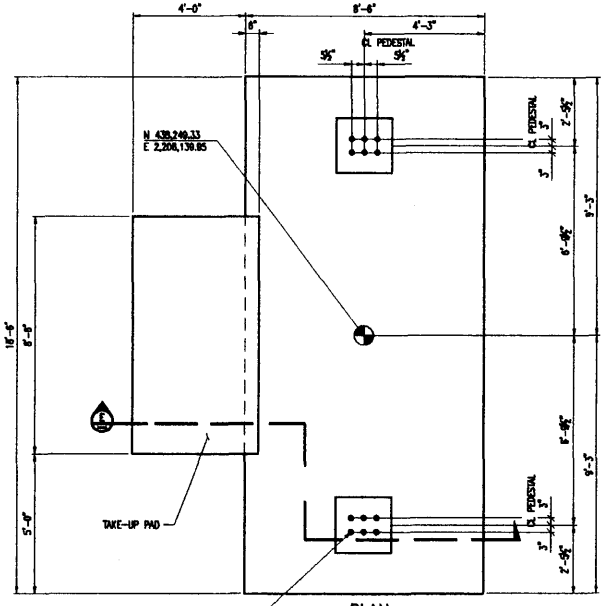
SCALE:	1/4"=1'-0"
PROJECT NO:	0604
CADFILE:	110 CON COL
DRAWING NO:	0604-4-102
REV.	1



PLAN
TAIL FRAME CONCRETE



PLAN
BENT 1 CONCRETE



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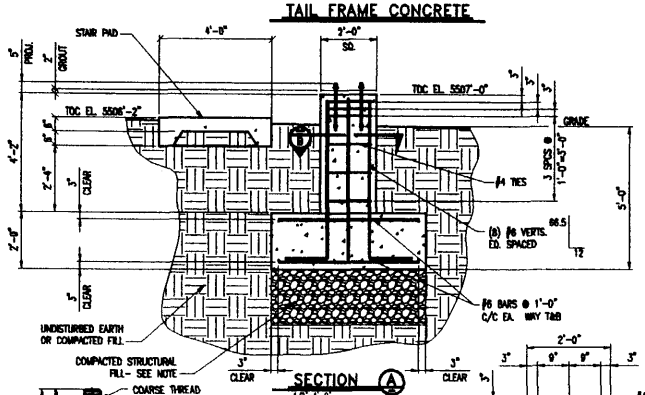
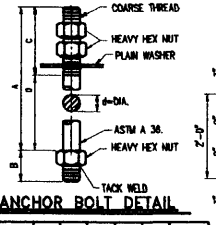
BENT 2 CONCRETE



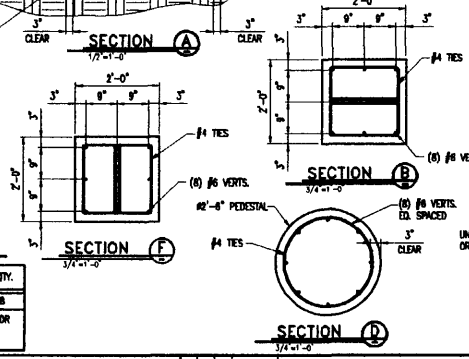
SECTION (A)



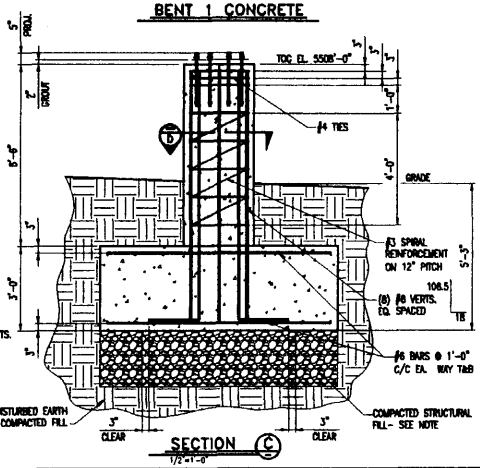
ANCHOR BOLT DETAIL

MARK	d	A	B	C	D	QTY.
AB-1	1¼	18	2	5	13	28

¾"Øx10" EXPANSION ANCHORS TO BE USED FOR STAIRS AND TAKE-UP GUIDES, 4" PROJECTION REQUIRED



SECTION (B)
SECTION (F)
SECTION (D)



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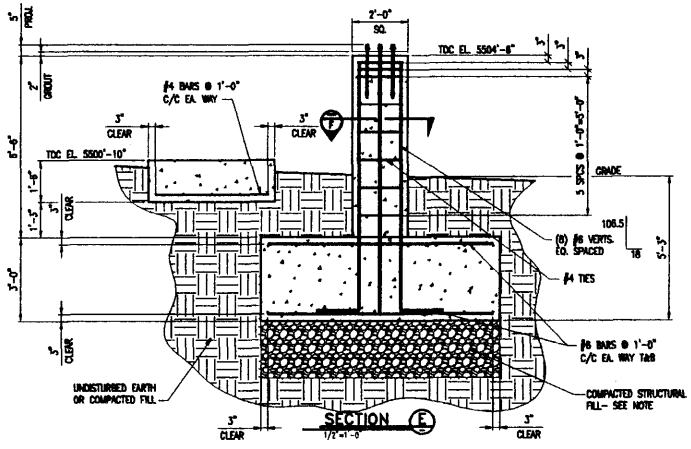


SECTION (E)

NOTE:
ALL FOOTINGS/ FOUNDATIONS TO BE PLACED ON A MINIMUM OF 2 FEET OF COMPACTED STRUCTURAL FILL PLACED ON UNDISTURBED NATIVE SOILS. ALL FILL SHALL BE ENGINEERED CLASS 1 MATERIAL PLACED AND COMPACTED TO NO LESS THAN 98% OF OPTIMUM MOISTURE CONTENT AS DETERMINED BY ASTM D-1557.

REVISIONS					
No.	BY	CHK'D	DATE	REVISIONS	
A	LW		5-18-06	ISSUED FOR APPROVAL	

APPROVED FOR CONSTRUCTION
BY:
DATE:

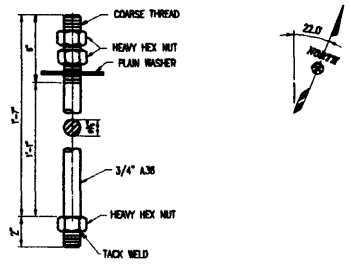
DRAWN BY: LW	5-18-06	
DESIGNED BY: MAME	5-18-06	
CHECKED BY:		
APPROVED:		
APPROVED:		

SAVAGE SERVICES CORPORATION
PRICE COAL TERMINAL
PRICE UTAH

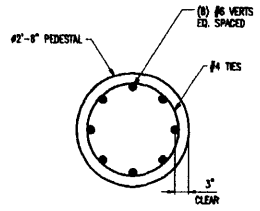
Mine & Mill Engineering Inc.
Salt Lake City

ARCH COAL
CONVEYOR BC-02
FOUNDATIONS

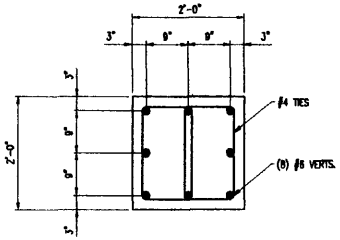
SCALE:
PROJECT NO: 0604
CADFILE: BC-02 CONCRETE
DRAWING NO.
0604-4-103
REV. A



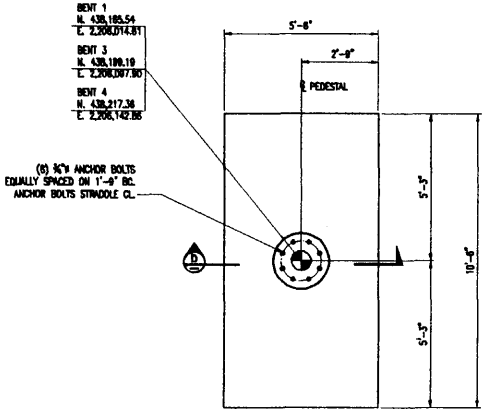
ANCHOR BOLT DETAIL
32 REQUIRED



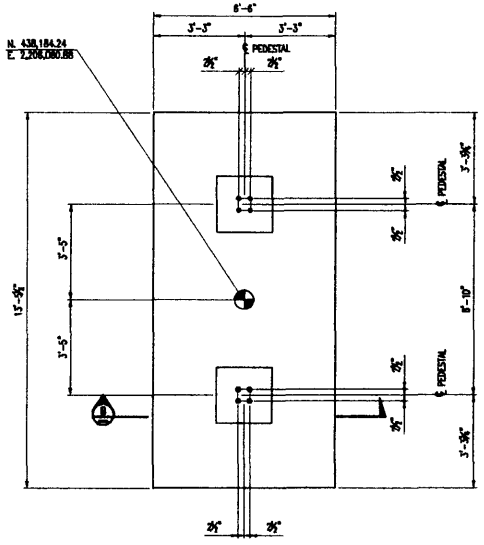
SECTION C



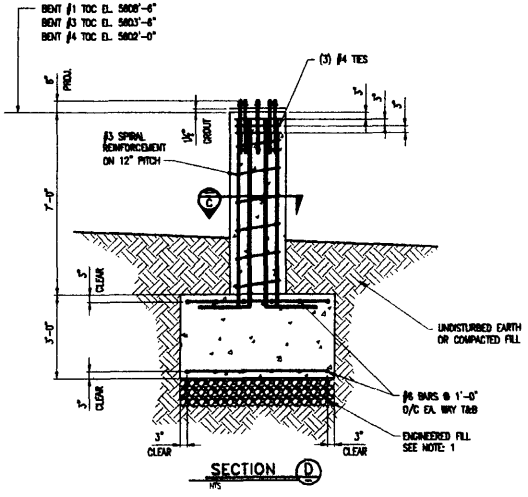
SECTION A



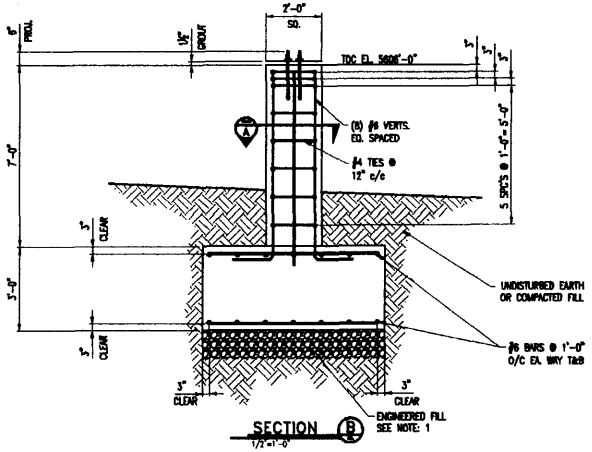
PLAN
BENTS #1, #3 & #4



PLAN
BENTS #2



SECTION D



SECTION B

NOTES:
1. ALL FOOTINGS/FOUNDATIONS TO BE PLACED ON AT LEAST 2 FT. OF COMPACTED STRUCTURAL FILL PLACED ON UNDISTURBED NATIVE SOILS. ALL FILL SHALL BE ENGINEERED CLASS 1 MATERIAL PLACED AND COMPACTED TO NO LESS THAN 98% OF OPTIMUM MOISTURE CONTENT AS DETERMINED BY ASTM D-1557

No.	BY	CHK'D	DATE	REVISIONS
A	WE	AP	5-25-06	ISSUED FOR REVIEW

APPROVED FOR CONSTRUCTION
BY:
DATE:

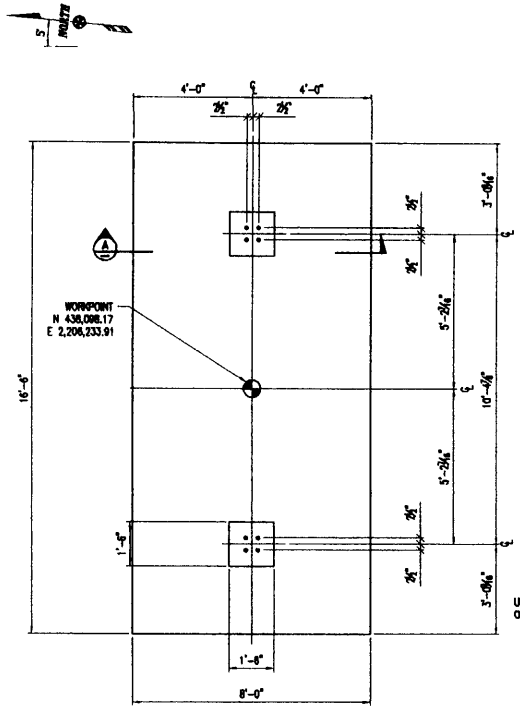
DRAWN BY:	PKM	03.30.06
DESIGNED BY:	DC	03.30.06
CHECKED BY:		
APPROVED:		
APPROVED:		

SAVAGE SERVICES CORPORATION
PRICE COAL TERMINAL
PRICE UTAH

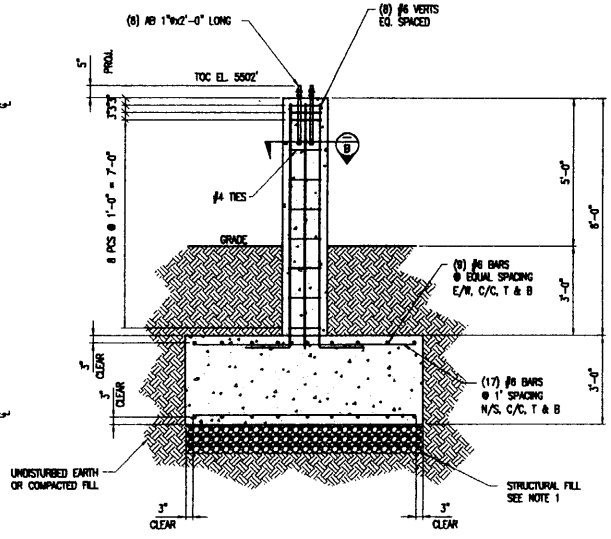
Mine & Mill Engineering Inc.
Salt Lake City

ARCH COAL PLANT FEED
CONVEYOR BC-03
CONCRETE

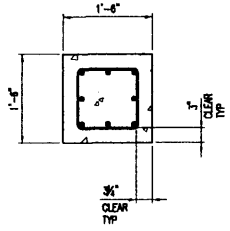
SCALE:	AS NOTED
PROJECT NO:	0604
CADFILE:	BC-03 CONVEYOR
DRAWING NO.	0604-4-104
REV.	A



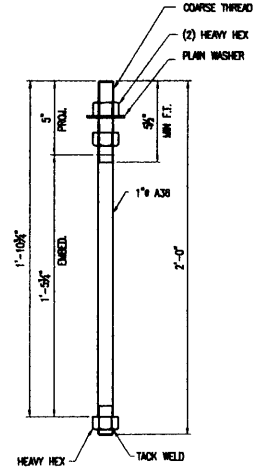
PLAN



SECTION (A)



SECTION (B)
1"=1'-0"



ANCHOR BOLT
3"=1'-0"

NOTES:
1 ALL FOOTINGS / FOUNDATIONS TO BE PLACED ON AT LEAST 2 FT. OF COMPACTED STRUCTURAL FILL PLACED ON UNDISTURBED NATIVE SOILS. ALL FILL SHALL BE ENGINEERED CLASS 1 MATERIAL PLACED AND COMPACTED TO NO LESS THAN 98% OF OPTIMUM MOISTURE CONTENT AS DETERMINED BY ASTM D-1557.

No.	BY	CHK'D	DATE	REVISIONS
0	DHB	AP	05-25-06	ISSUED FOR CONSTRUCTION
A	DHB		05-17-06	ISSUED FOR REVIEW

APPROVED FOR CONSTRUCTION
BY: AP
DATE: 05-25-06

DRAWN BY:	DHB	05-17-06
DESIGNED BY:	MAHAE	05-17-06
CHECKED BY:	AP	05-25-06
APPROVED:	AP	05-25-06
APPROVED:		

SAVAGE SERVICES CORPORATION
PRICE COAL TERMINAL
PRICE UTAH

Mine & Mill Engineering Inc.
Salt Lake City

ARCH COAL
CONVEYOR BC-04
BENT FOUNDATION

SCALE: 1/2"=1'-0"
REV. A
PROJECT NO: 0604
CADFILE: BC-04-CONCRETE
DRAWING NO.
0604-4-105