

Tin Pan Canyon Gob Reclamation Project

May 5, 2020

Invitation to Bid

- Energy, Minerals and Natural Resources Department | Mining and Minerals Division | Abandoned Mine Land Program
- ITB #00-52100-20-06011
- EMNRD-MMD-2020-02



Sign-in

Please use the “CHAT” option in the Zoom app to send the following:

- NAME & TITLE
- COMPANY NAME
- ADDRESS
- PHONE NUMBER
- EMAIL ADDRESS

This is how we will keep track of who attended the Mandatory Pre-Bid Meeting.

Anyone calling in by phone, please send an email to Yeny.Maestas@state.nm.us to record your attendance.



Introductions/Contact Information

Project Engineers:

Mike Tompson P.E.
Program Manager
(505) 690-8063

Mike.Tompson@state.nm.us

Yeny Maestas
Staff Engineer
(505) 469-6678

Yeny.Maestas@state.nm.us

Project Managers:

Joe Vinson
Project Manager/Soil Scientist
(505) 690-8070

Joe.Vinson@state.nm.us

Laurence D'Alessandro
Project Manager
(505) 476-3425

Laurence.DAlessandro@state.nm.us

Procurement Specialist:

Mark Lujan
Procurement Specialist
(505) 827-0564

Mark.Lujan@state.nm.us

Designer of Rock Rundown :

Natural Channel Design, Inc.
(928) 774-2336

Allen@naturalchanneldesign.com



New Mexico Abandoned Mine Land Program

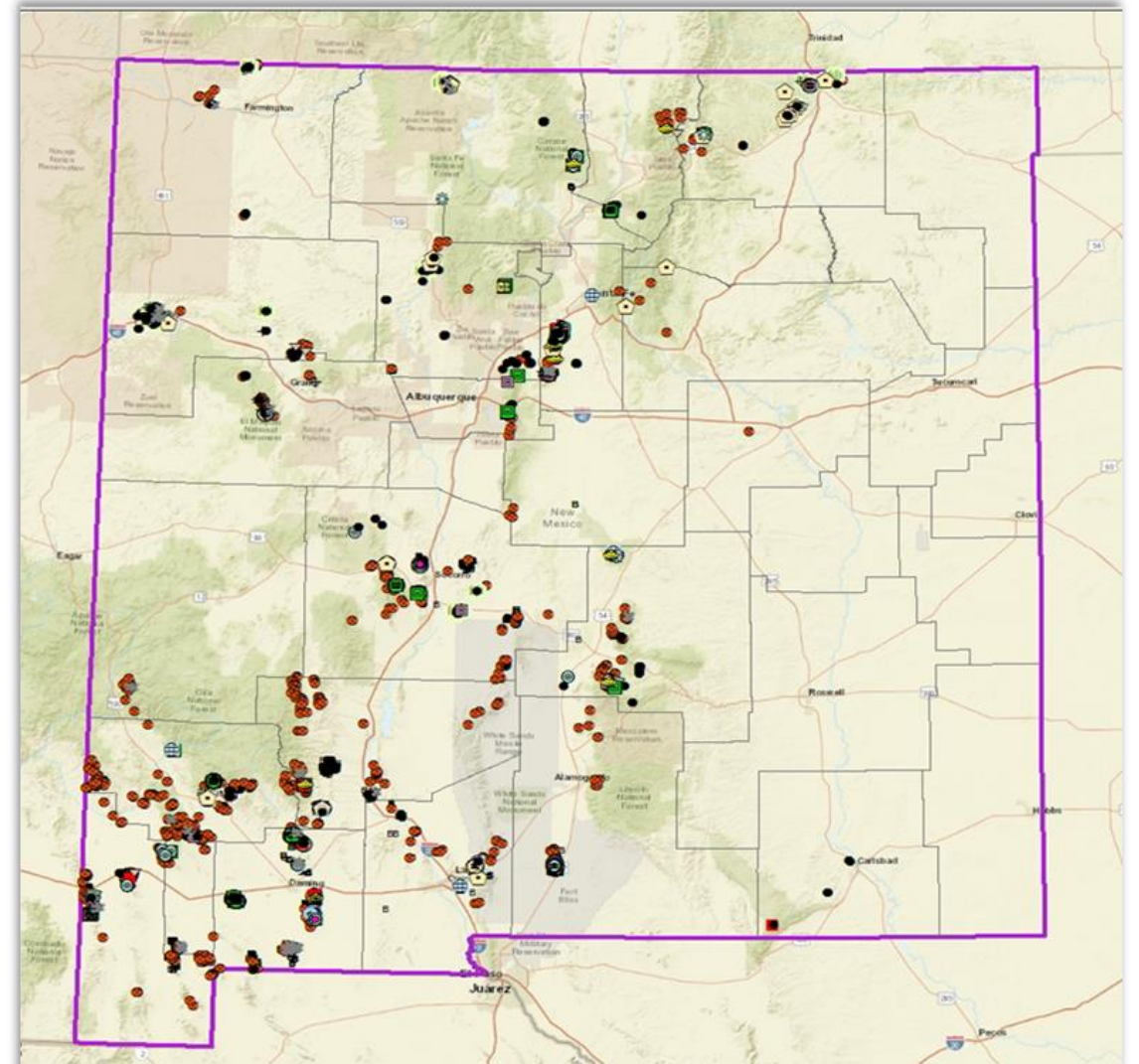
Funded by OSMRE using a fee on coal production

10 employees based in Santa Fe, NM

Safeguarding and reclaiming abandoned mine lands in NM since 1981

Over 15,000 abandoned mine features in the State of New Mexico

3,000+ Mine Openings Safeguarded to Date



AML Program's reclamation priorities

Protection of public health, safety, and property from immediate hazards, resulting from historic mining practices

Protection of public health, safety and general welfare from adverse effects of past mineral mining and processing practices, which do not constitute an extreme danger

Restoration of lands and waters degraded by adverse effects of past mining practices.



Questions?

- Verbal responses to questions will not be binding. We would request all questions also be submitted in writing to the Procurement Specialist by email. Responses to questions will be provided in a forthcoming Amendment posted on the State Purchasing Division website and where bid documents can be obtained. Questions must be submitted no later than 5:00 PM on **May 6, 2020**, to the Procurement Specialist at the email address listed below. Questions with the corresponding Answers will be posted no later than **May 7, 2020**.
- All questions regarding this ITB MUST be submitted in writing to:

Mark.Lujan@state.nm.us

Summary of Bid

Bids Due:

**May 19, 2020
by 2:00 P.M.
MDT**

Summary of Bid

- To view technical specifications and drawings for Tin Pan Gob Reclamation Project (ITB #00-52100-20-06011):

<http://www.emnrd.state.nm.us/MMD/AML/TinPanCanyon.html>

- To submit your bid package for ITB #00-52100-20-06011:

<https://bids.sciquest.com/apps/Router/PublicEvent?CustomerOrg=StateOfNewMexico>

ELECTRONIC SUBMISSIONS ONLY!!!

If you find that you need assistance uploading your Bid into our online system or if you need help registering as a supplier in our system please call Support Desk at 505-827-0467.

Summary of Bid

- Questions Due: May 6, 2020
- Answer Due: May 7, 2020
- Last Amendment Deadline: May 8, 2020
- Bid Form: Review and complete the entire bid form, plus required attachments.
- Bid Bond: In the amount of five percent (5%) of the total Base Bid amount.
- Amendments: There have been no amendments released. The last Amendment date is May 8, 2020.

Summary of Bid

- Subcontractor Listing form
 - Public Works Wage Rate Determination – found in Section 00830 in Manual
 - Bid Valid for a minimum of 120 days
 - Sample Contract included in Bid package
- * Bidders **must** acknowledge amendments or else submittal will be deemed UNRESPONSIVE*

Prices

- **Lump Sum Prices Include:**

- 1) Mobilization
- 2) Rock Rundown installation

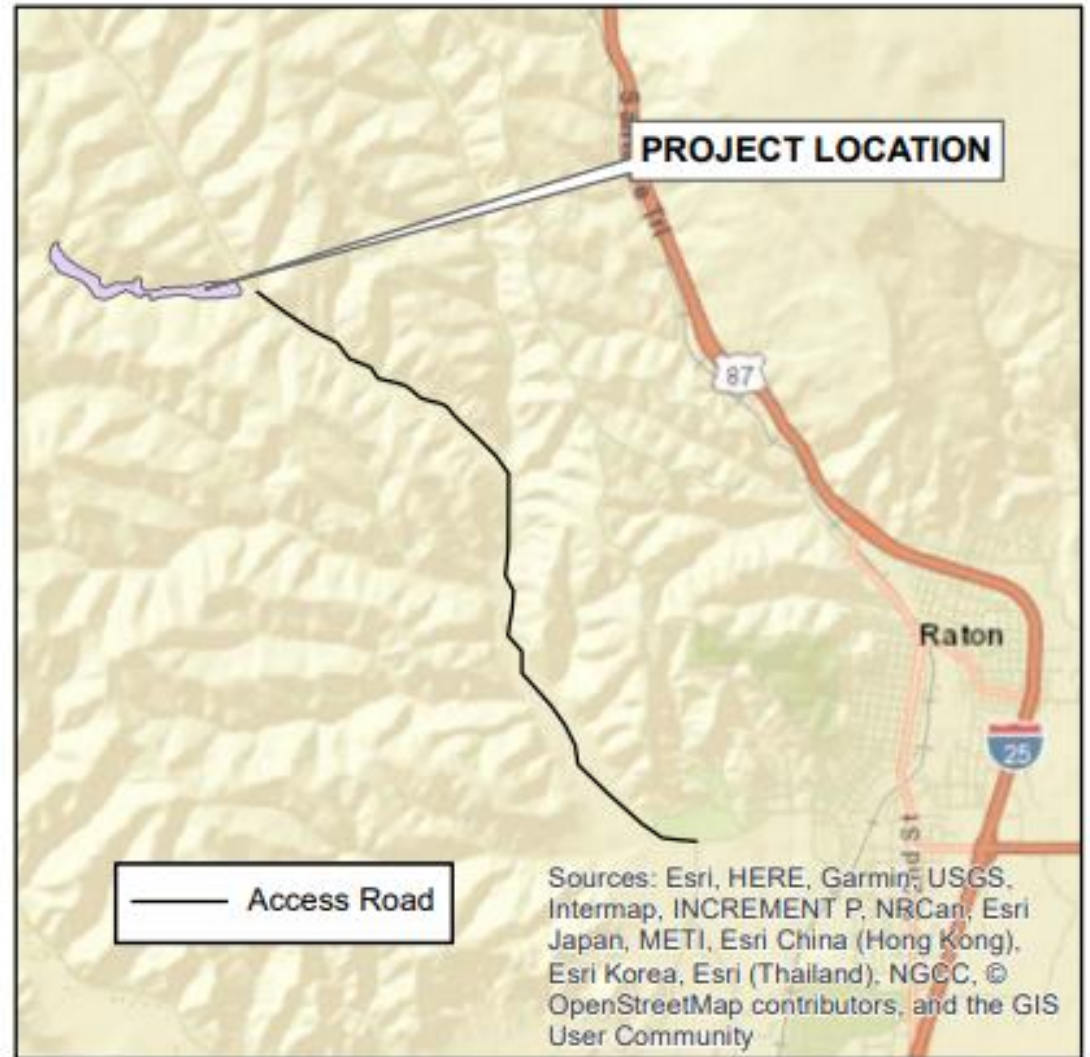
- **Unit Prices Include:**

- 1) Straw Bale Terraces and installation (LF)
- 2) Erosion Control Wattle Terraces and Installation (LF)
- 3) Sediment Barrier Dams (LF)
- 4) Seedling Planting (EA)
- 5) Seedling Protection Tubes (EA)
- 6) Fertilizers and Amendments (Acre)
- 7) Seeding (Acre)

- **Allowance for Plan Survival Bonus (up to \$16,000)**

Tin Pan Canyon Gob Reclamation Project Summary of Work

The Tin Pan Canyon Gob Reclamation Project area is located about eight miles northwest of Raton in Colfax County, New Mexico. The project area is on private land within the Vermejo Park Ranch.



Tin Pan Canyon Gob Reclamation Project Summary of Work

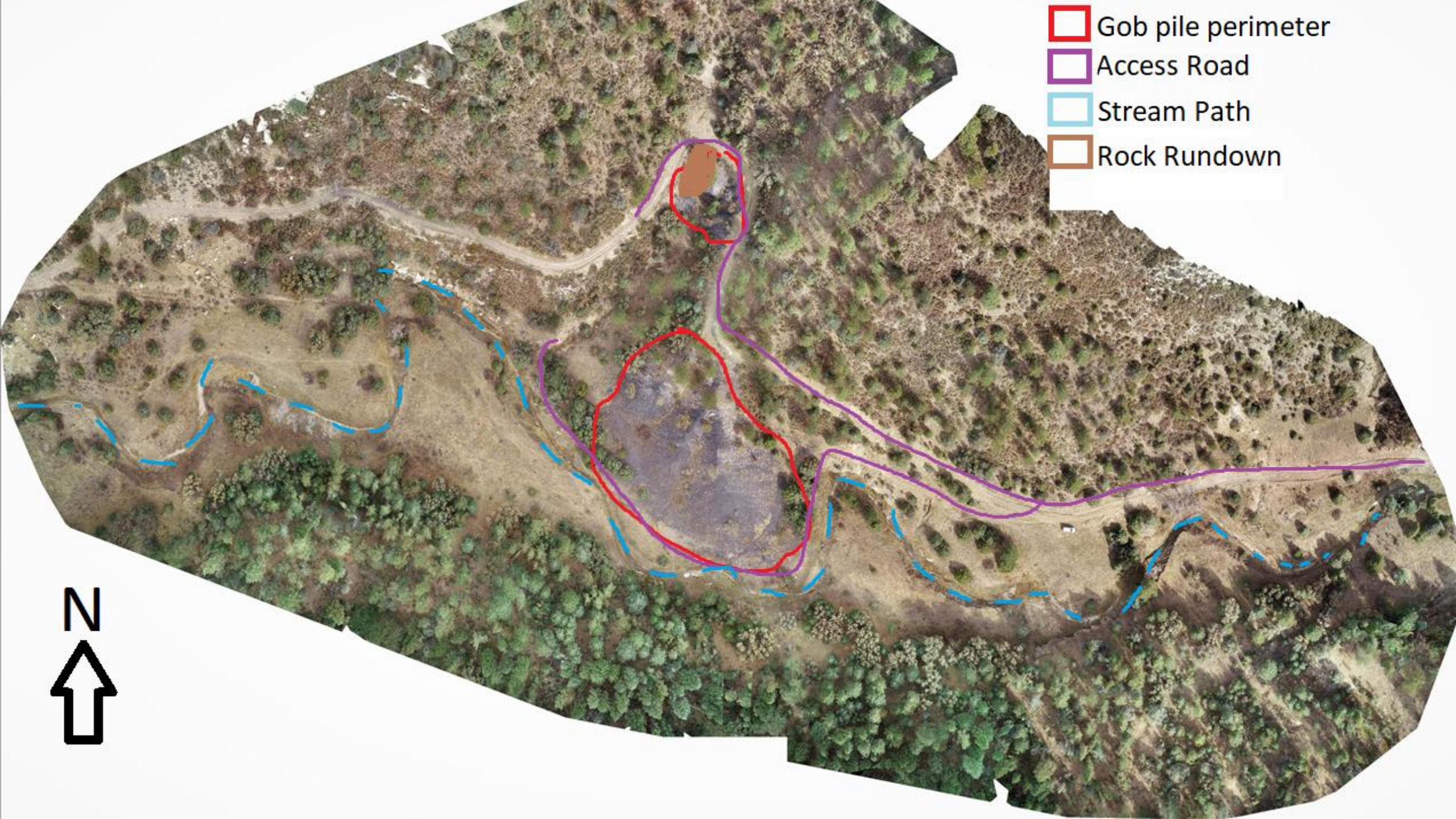
The Tin Pan Gob Reclamation Project involves stabilization of steep slopes on two coal gob piles approximately two acres in size that have been contributing mine waste to an adjacent ephemeral channel. Work includes establishment of vegetation and installation of various erosion control structures necessary to facilitate effective stormwater management.







Tin Pan Canyon Gob Reclamation Project Summary of Work

- Installation of a rock rundown to further prevent headcuts at the downstream edge of the access road from moving into the road. The rock rundown has been designed by Natural Channel Design;
- installation of erosion control wattles and straw bale terraces on contour on the gob piles and sediment logs in small gob drainages as erosion and sediment control measures (Vermejo Park Ranch will furnish the erosion control wattles to be used for this project);
- installation of several low sediment barrier dams along the secondary drainage adjacent to the small north gob pile and at one small drainage below the larger south gob pile for sediment control; and
- seedling planting, fertilization, amendment, and hydroseeding in coal gob piles to stabilize the coal waste and prevent future erosion.





-  Gob pile perimeter
-  Access Road
-  Stream Path
-  Rock Rundown







Rock Rundown Construction

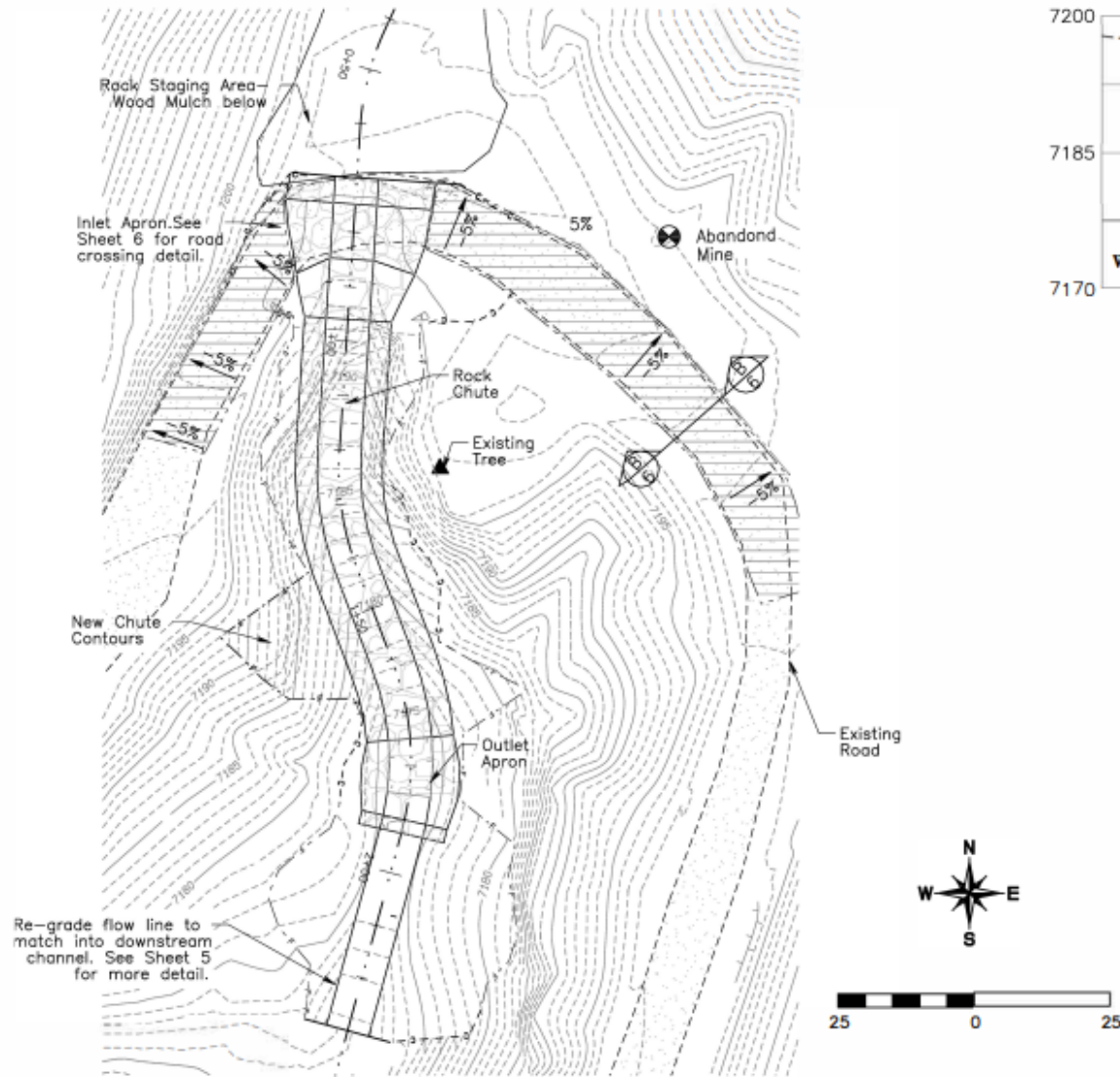
- Rock to be supplied by the Vermejo Park Ranch
- Designed by Natural Channel Design, INC.



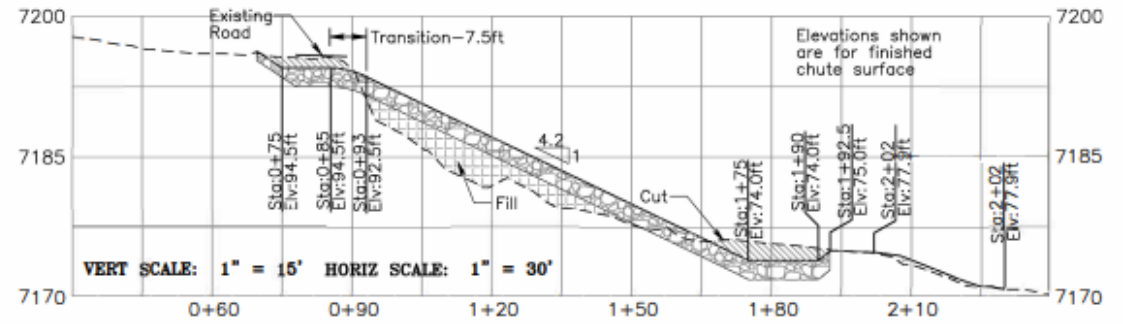




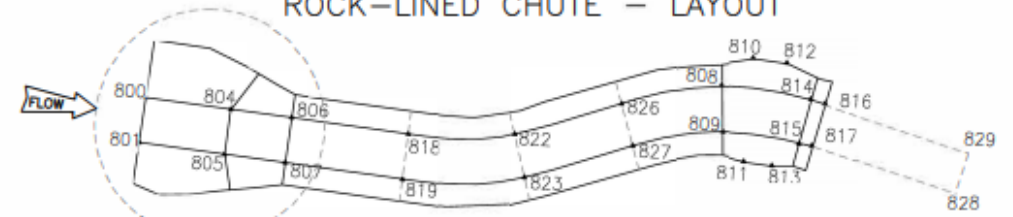
ROCK-LINED CHUTE - PLAN



ROCK-LINED CHUTE - Q_c PROFILE



ROCK-LINED CHUTE - LAYOUT



Pt #	Northing	Eastng	Elevation	Descriptor
800	2162702.1	481525.0	7196.2	Start Inlet
801	2162702.6	481517.0	7196.2	Start Inlet
804	2162687.1	481524.0	7194.5	Start Transition
805	2162687.6	481516.1	7194.5	Start Transition
806	2162676.2	481523.3	7192.5	Start 2:1 Side Slopes
807	2162676.7	481515.4	7192.5	Start 2:1 Side Slopes
808	2162599.8	481534.8	7174.0	Begin Outlet Apron
809	2162599.2	481526.8	7174.0	Begin Outlet Apron
810	2162594.3	481539.9	7176.5	Outlet apron top rock
811	2162594.7	481521.9	7176.5	Outlet apron top rock
812	2162588.5	481539.5	7176.5	Outlet apron top rock
813	2162590.6	481521.6	7176.5	Outlet apron top rock
814	2162583.7	481533.6	7174.0	End Outlet Apron
815	2162585.5	481525.8	7174.0	End Outlet Apron
816	2162581.3	481533.0	7175.0	End/Top Chute Anchor
817	2162583.0	481525.2	7175.0	End/Top Chute Anchor
818	2162657.2	481522.1	7188.0	Rock Chute
819	2162657.7	481514.1	7188.0	Rock Chute
822	2162638.5	481522.8	7183.3	Rock Chute
823	2162636.7	481515.0	7183.3	Rock Chute
826	2162620.1	481529.3	7178.6	Rock Chute
827	2162617.3	481521.9	7178.6	Rock Chute
828	2162547.0	481515.4	7175.0	End Grading
829	2162544.9	481523.2	7175.0	End Grading

Natural Channel Design, Inc

2900 N. West St. Suite #5
Flagstaff, Arizona 86004
(928) 774-2336

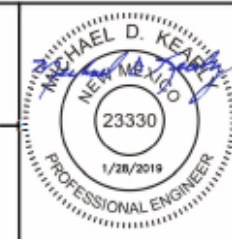
DRAWN BY: D. HALLORAN & J. FLEISHMAN

DESIGNED BY: M. KEARLY

REV	DATE	BY	REVISION

Rock Chute Overview & Layout

Tin Pan Canyon Headcut Stabilization Project



UNAUTHORIZED CHANGES & USES THE ENGINEER PREPARING THESE PLANS WILL NOT BE RESPONSIBLE FOR OR LIABLE FOR UNAUTHORIZED CHANGES TO OR USES OF THESE PLANS. ALL CHANGES MUST BE IN WRITING AND MUST BE APPROVED BY THE PREPARER OF THESE PLANS.

FILE NAME: Tin Pan

PROJECT NO: 18-306NM

DATE: 01-28-2019

SHEET: 4A of 7



Erosion Control Measures

- Erosion control wattles will be supplied by Vermejo Park Ranch from Silver Dollar Wood Products in Maxwell, NM.





Vegetation to leave undisturbed





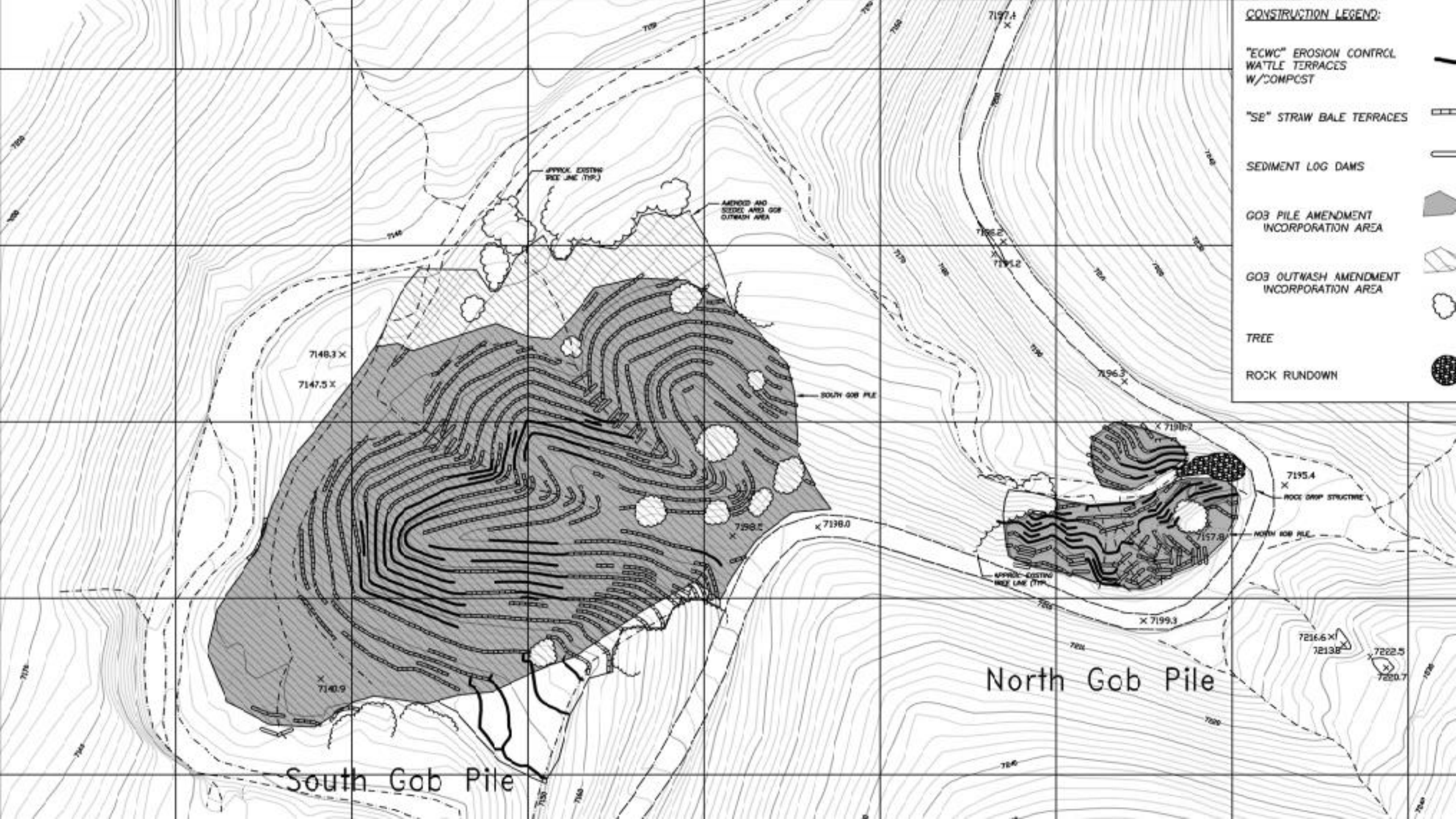


Made in the U.S.A.



Erosion Control Wattles





CONSTRUCTION LEGEND:

"ECWC" EROSION CONTROL
WATTLE TERRACES
W/COMPST

"SE" STRAW BALE TERRACES

SEDIMENT LOG DAMS

GOB PILE AMENDMENT
INCORPORATION AREA

GOB OUTWASH AMENDMENT
INCORPORATION AREA

TREE

ROCK RUNDOWN

APPROX. EXISTING
PILE LINE (TYP.)

AMEND AND
SEED AND GOB
OUTWASH AREA

SOUTH GOB PILE

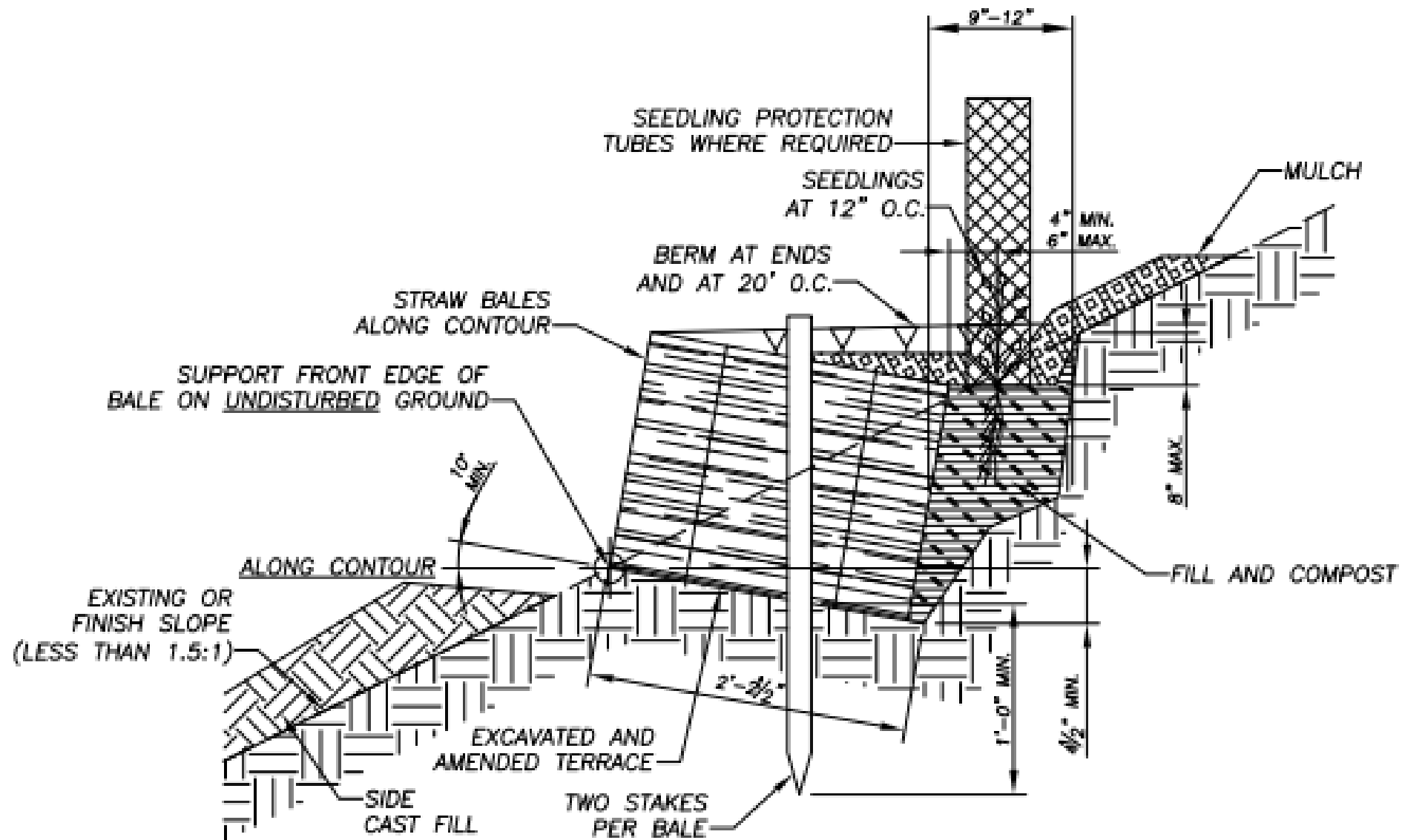
ROCK DROP STRUCTURE

NORTH GOB PILE

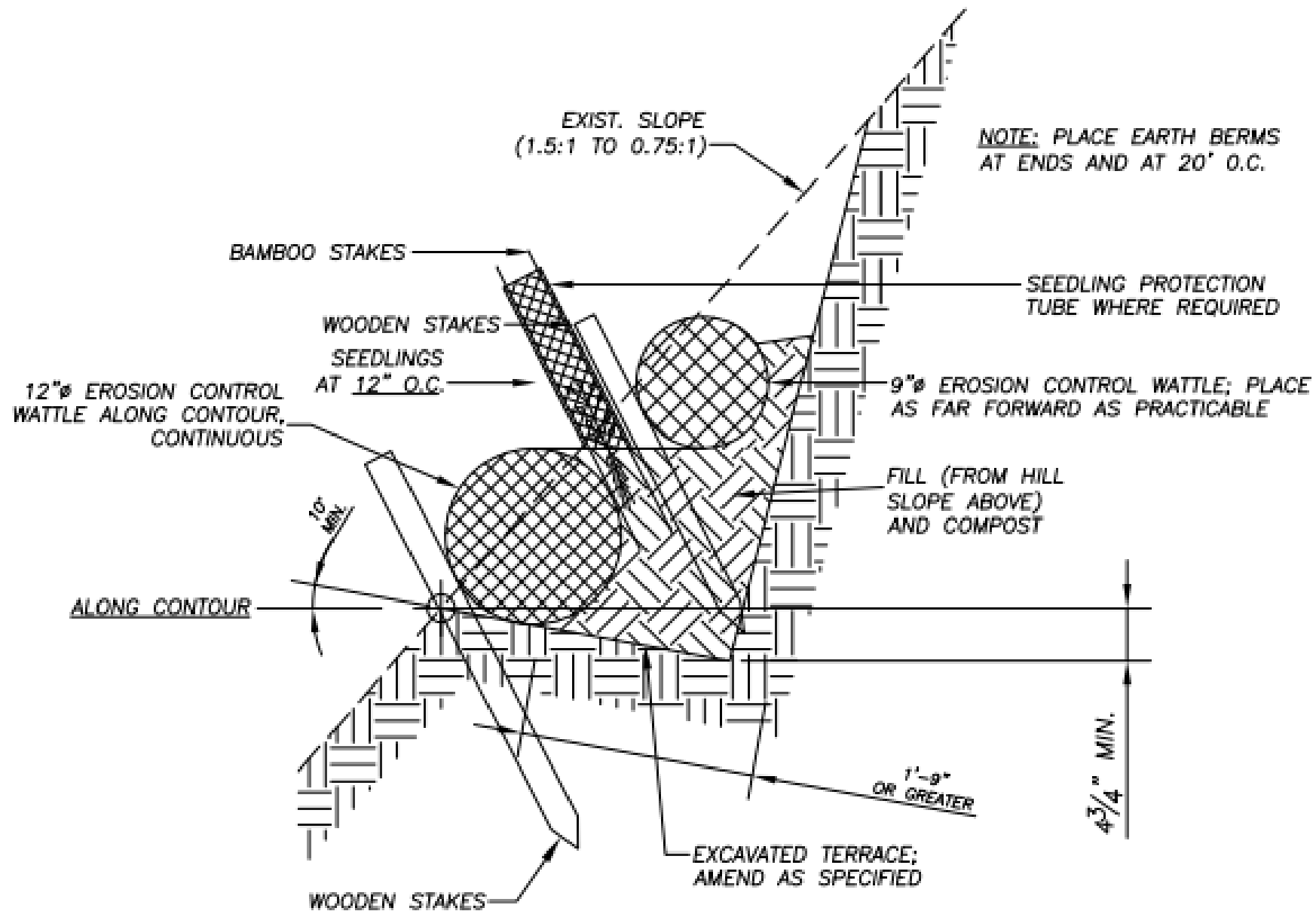
North Gob Pile

South Gob Pile

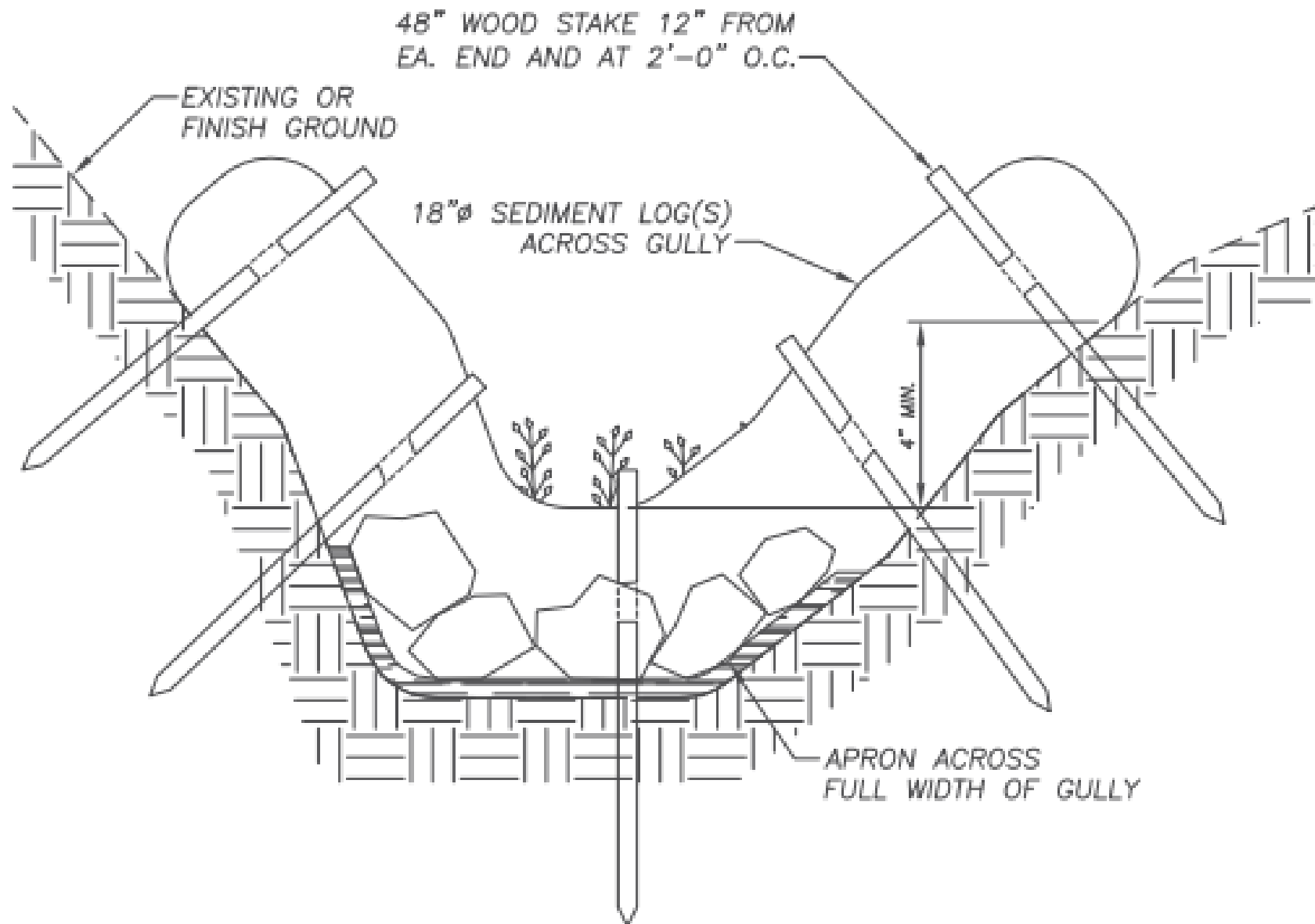
APPROX. EXISTING
WATTLE LINE (TYP.)



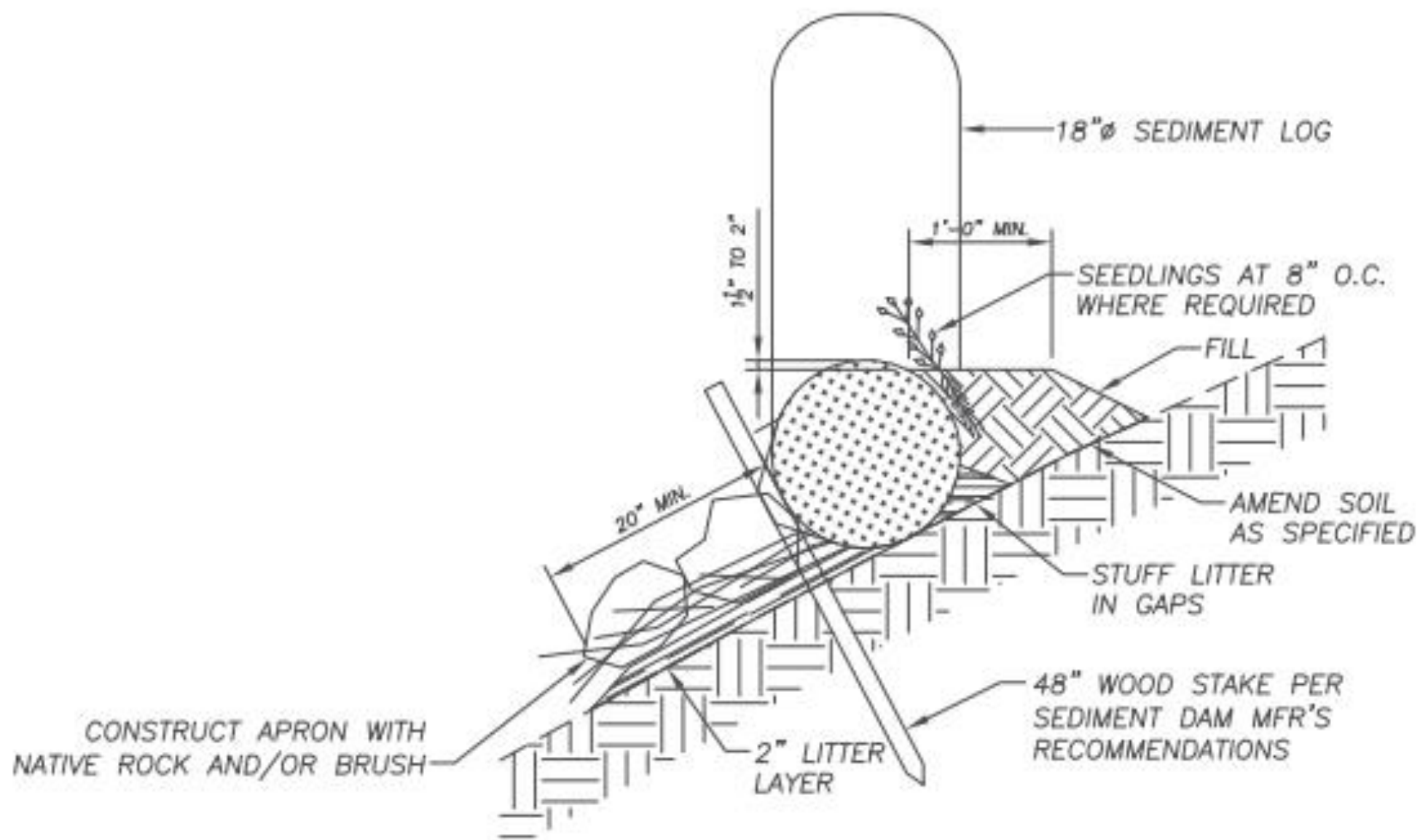
TYPICAL SECTION - TYPE "SB"
 STRAW BALE TERRACE
 (ON SLOPES LESS STEEP THAN 1.5:1)



TYPICAL SECTION – EROSION CONTROL WATTLE
TERRACE



ELEVATION



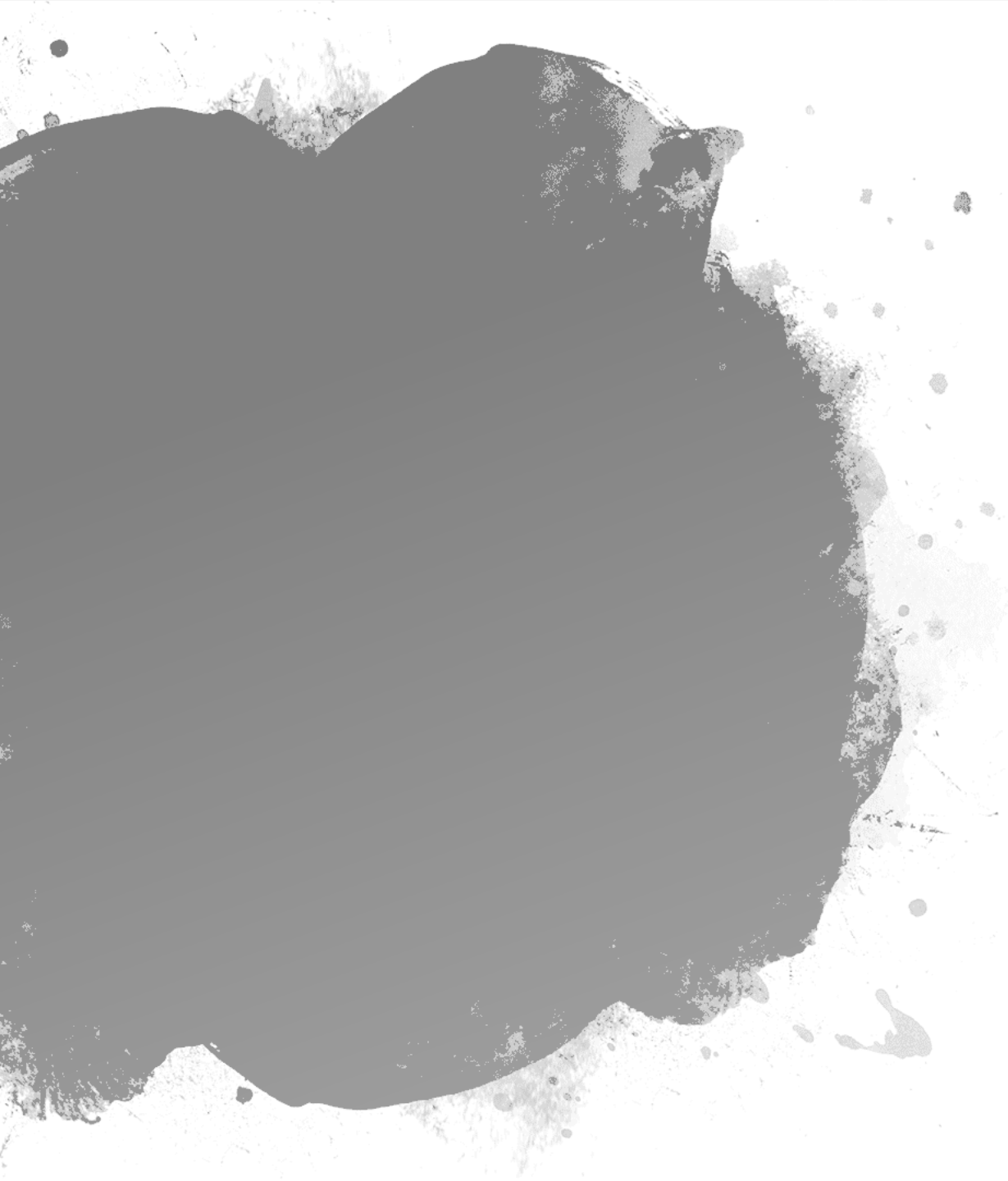
SECTION



Staging and Avoidance Areas

Avoidance Area
 Project Area
 Staging Area

Tin Pan Canyon Gob Reclamation Project
 EMNRD-MD-2020-02
 Figure 8: Rock Staging Area
 New Mexico Abandoned Mine Land Program



**Amendment
incorporation,
seedling planting,
fertilization, and
hydroseeding**

Planting & Seeding

- Planting
 - Containerized seedlings
 - Behind erosion control structures
 - 1-foot spacing
 - Plants provided by AML Program
- Seeding
 - Hydraulically-applied seed mix of grasses, forbs and shrubs
- Contractor provides hydraulically-applied seed mix
- Maintenance and protection
- Possible Bonus
- Formula based on plant survival rate

Table II. Plant Materials: Containerized Seedlings⁴¹

Shrub/Tree Species		Flats	Seedlings	Notes
box elder	<i>Acer negundo</i>	4	196	plant in protected drainage only
kinnikinnik	<i>Arctostaphylos uva-ursi</i>	12	588	
mountain mahogany	<i>Cercocarpus montanus</i>	13	637	seed + seedling
Rocky Mountain juniper	<i>Juniperus scopulorum</i>	12	588	
winterfat	<i>Krascheninnikovia lanata</i>	12	588	seed + seedling
ponderosa pine	<i>Pinus ponderosa</i>	5	245	
chokecherry	<i>Prunus virginiana</i>	4	196	plant in protected drainage only
Gambel oak	<i>Quercus gambelii</i>	12	588	
skunkbush sumac	<i>Rhus trilobata</i>	13	637	
wax current	<i>Ribes cereum</i>	12	588	seed + seedling
Wood's rose	<i>Rosa woodsii</i>	12	588	seed + seedling, about 1/2 of seedlings in protected drainage
mountain snowberry	<i>Symphoricarpos oreophilus</i>	12	588	seed + seedling
		123	6027	

Fertilizers and Amendments

- Compost
- Wood Waste Chips
- Gypsum
- Biosol
- Biotic Soil Media
- Provided by Contractor

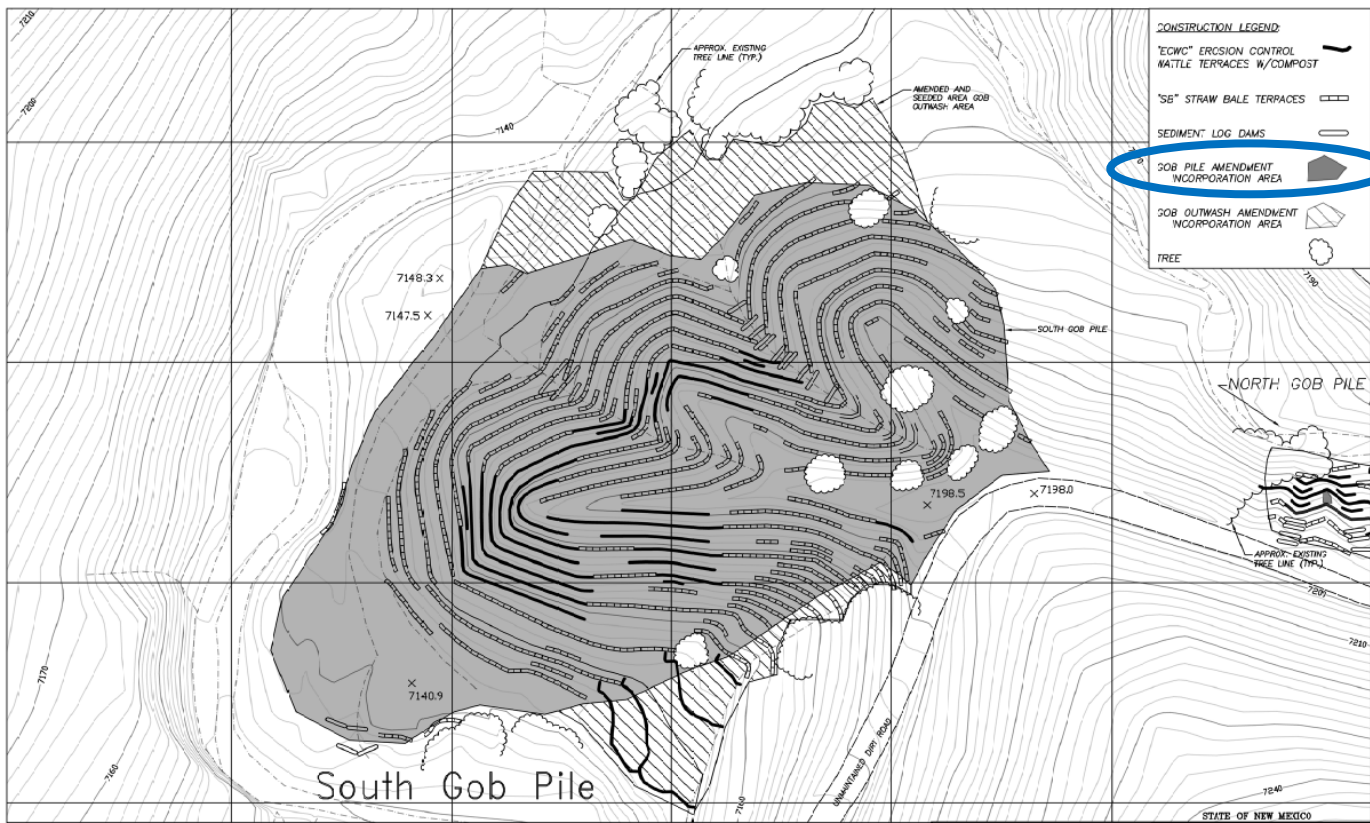
Table III. Product Use Distribution Across Planting Processes

Amendment or Additive	Section 02900		
	Gob Amendment	Seeding	Mulching
Compost	X		
Wood Chips	X		
Gypsum	X		
Biosol	X		
Protein Crumbles		X	
Terra Pro		X	
MycoApply Ultrafine Endo/Ecto		X	
Biotic Soil Media (BSM)		X	
Flexible Growth Media (HP-FGM)			X

Table VI. Amendment Treatment Regime for Tin Pan Canyon Gob Reclamation Project

Amendment	Application Rate ¹			Total Amount Required ²
	Per Acre	Open Gob & Outwash	Terraces	
Compost	269 cyd	2-inch depth, 6.2 cyd/1,000 square feet	2-inch depth, 1.7 cft/ 10 linear feet	77 cyd
Wood Chips	269 cyd	2-inch depth, 6.2 cyd/1000 square feet	2-inch depth, 1.7 cft/ 10 linear feet	77 cyd
Gypsum	4,000 lbs	92 lbs /1,000 square feet	1 lbs/10 linear feet	1150 lbs
BioSol® (6-1-1)	2,000 lbs	46 lbs/1,000 square feet	0.5 lbs/10 linear feet	600 lbs

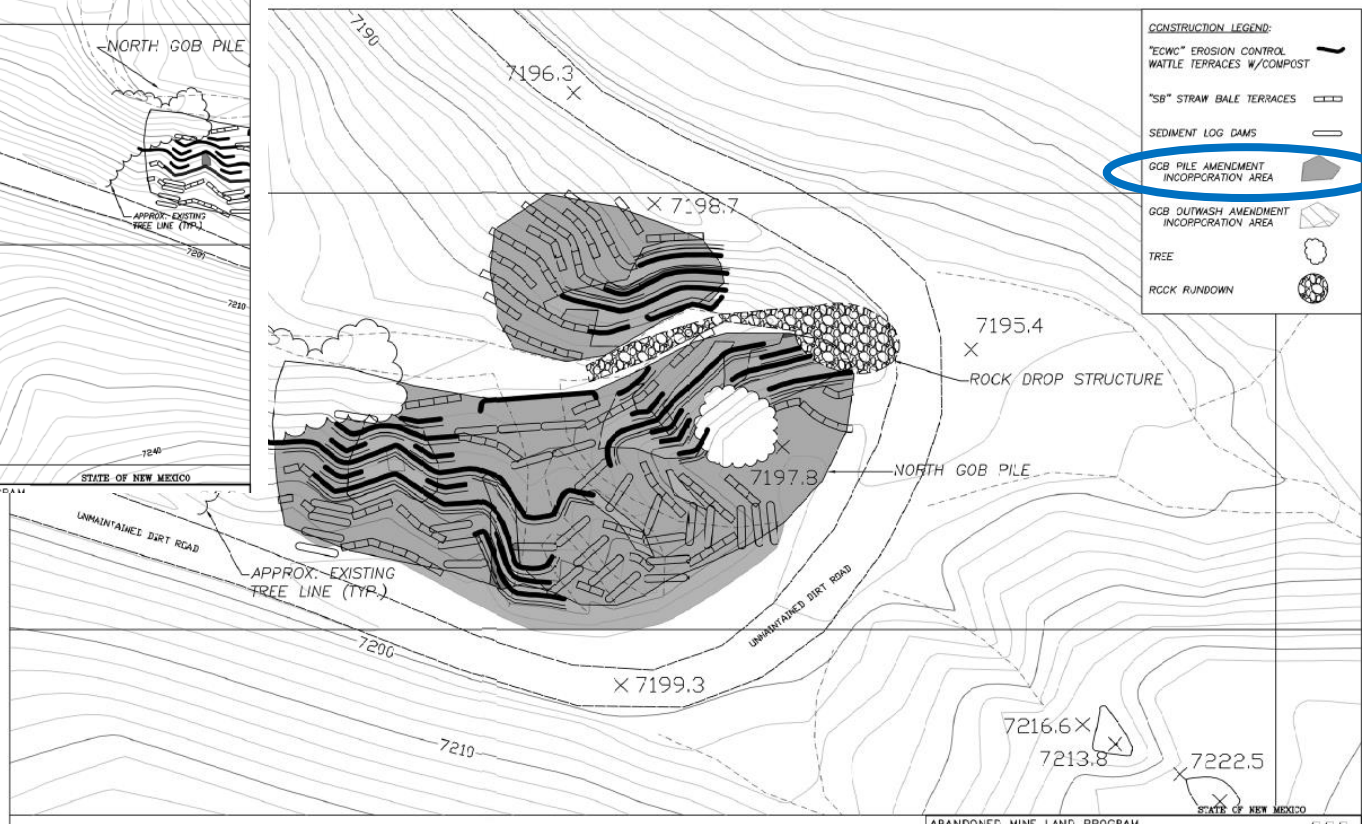
Amended Area

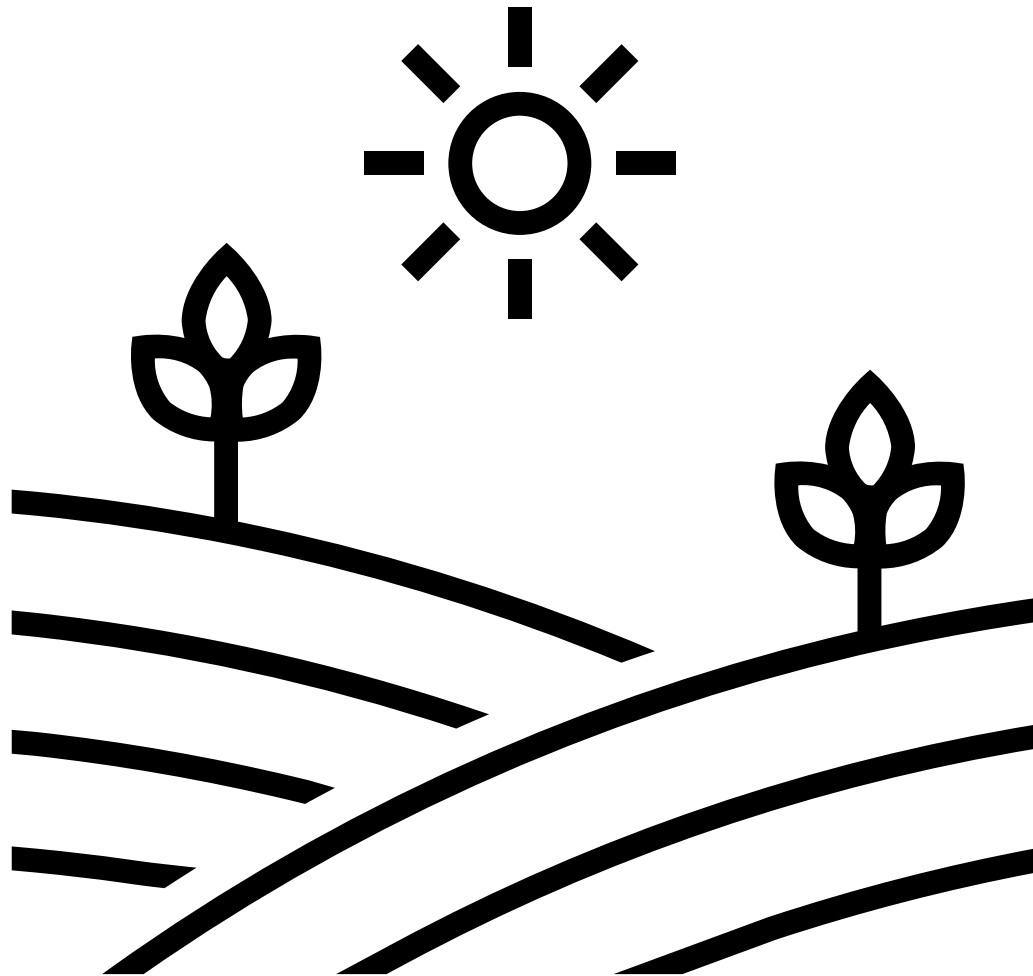


South Gob Pile

Gob Pile Amendment Incorporation Area

North Gob Pile





Allowance for Plan Survival Bonus

If plant material survival rate is more than 40 percent, the contractor shall receive a monetary bonus of up to \$16,000.00, to be calculated by the following formula:

$B = S * 0.0433 - 1.7333$, where
B is the bonus in dollars per plant planted,
S is the survival in percentage.

The calculated bonus in dollars per plant planted, B, rounded to the nearest cent, will then be multiplied by the total number of plants planted to calculate the total monetary bonus paid to the Contractor. For example, if 6,200 seedlings were planted and 90 percent of those survived the bonus would amount to about \$13,415.

$$B = 90 * .0433 - 1.7333 = 2.1637 * 6200 = \$13,415$$



**Example: AML
Sugarite Gob
Reclamation Project –
BEFORE**



Example: AML Sugarite Gob Reclamation Project - BEFORE



**Example: AML Sugarite
Gob Reclamation
Project - AFTER**

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Remember

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Thank you!