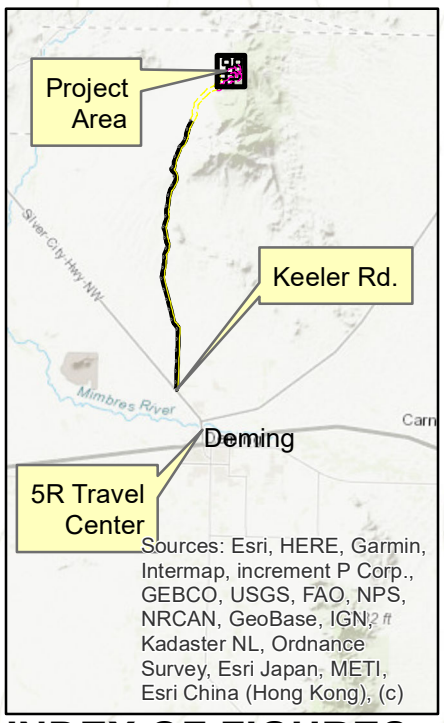
Cookes Peak West, Phase IIIB

FIGURE 1: TITLE SHEET

NEW MEXICO ABANDONED MINE LAND PROGRAM
MINING AND MINERALS DIVISION
ENERGY, MINERALS & NAT. RESOURCES DEPT.
SANTA FE, NEW MEXICO
PROJECT NO. EMNRD-MMD-2020-01



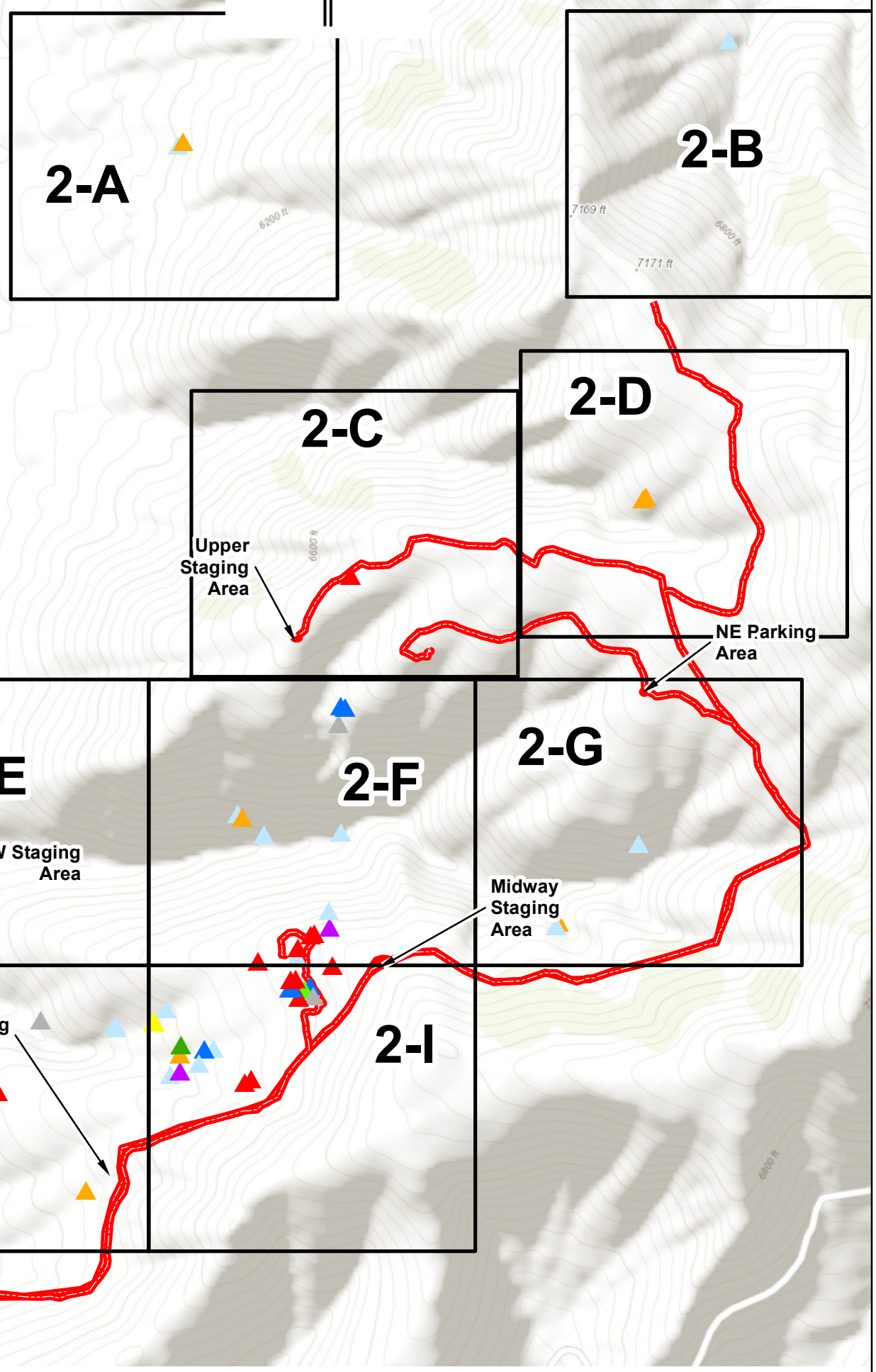
INDEX OF FIGURES

Legend

- Figure No.

WORK

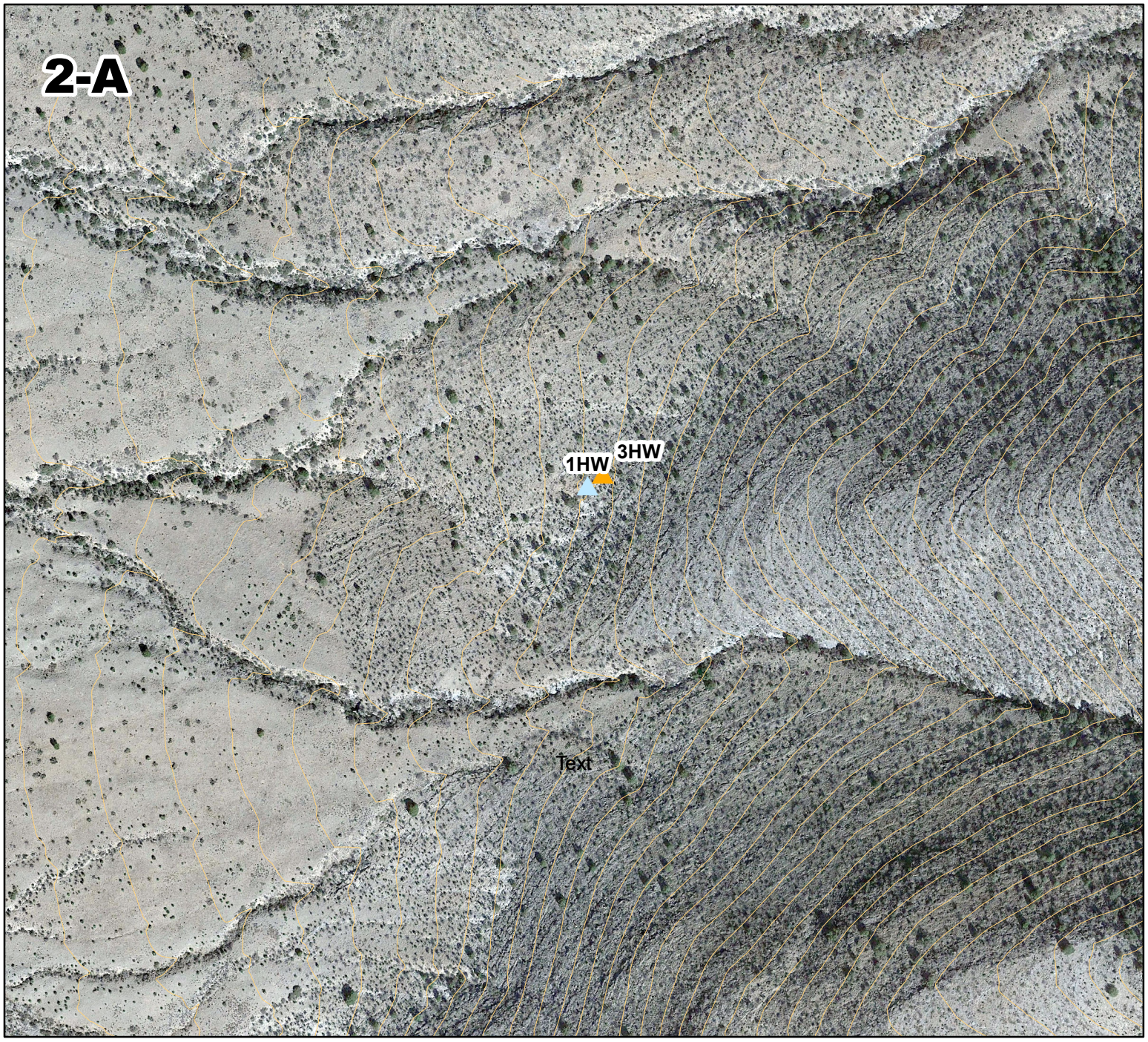
- Backfill
- Hand Backfill
- Hand Backfill + PUF
- Standard Steel Gate
- Lightweight Steel Gate
- Custom Steel Gate
- Culvert with Standard Steel Gate
- Steel Fence & Lightweight Steel Gate
- Steel Fence & Standard Steel Gate
- Rock Wall
- Staging Area
- 4-WD Feature Access



SAFEGUARD FEATURE DATA

AML_ID	FIGURE	FNAME	WORK	UTM NAD 83 Z13 EASTING	UTM NAD 83 Z13 NORTHING	ELEV
1HW	2-B	Shaft	Lightweight Steel Gate	242244	3608016	6001
1LC	2-A	Adit	Lightweight Steel Gate	243272	3608213	6436
3HW	2-B	Shaft	Hand Backfill	242253	3608023	6014
14.006a	2-G	2 Adits	Hand Backfill	242954	3606567	6495
14.006b	2-G	Shaft	Lightweight Steel Gate	242950	3606560	6450
14.016	2-I	Shaft	Lightweight Steel Gate	242222	3606405	6290
27	2-H	Adit	Lightweight Steel Gate	241795	3605964	5825
61	2-H	Adit	Hand Backfill	242072	3606067	6051
136	2-H	Adit	Backfill	241907	3606251	6031
167	2-I	Shaft	Backfill	242368	3606268	6276
167.04	2-I	Shaft	Backfill	242380	3606275	6282
174	2-I	Shaft	Lightweight Steel Gate	242229	3606282	6129
178	2-I	Shaft	Custom Steel Gate	242247	3606289	6138
186	2-I	Shaft	Lightweight Steel Gate	242310	3606331	6206
187	2-I	Adit	Standard Steel Gate	242293	3606331	6194
190	2-I	Shaft	Backfill	242247	3606321	6157
191	2-I	Shaft	Steel Fence & Lightweight Steel Gate	242249	3606338	6175
193	2-I	Shaft	Steel Gate	242282	3606303	6178
195	2-I	Adit	Rock Wall	242199	3606381	6134
196	2-I	Adit	Rock Wall	242199	3606380	6135
199	2-H	Decline Adit	Lightweight Steel Gate	242128	3606370	6080
199.01	2-H	Decline Adit/Shaft	Lightweight Steel Gate	242127	3606375	6080
205	2-H	Adit	Custom Steel Gate	241987	3606384	5940
219	2-I	Shaft	Standard Steel Gate	242490	3606448	6388
220.01	2-I	Adit	Steel Fence & Standard Steel Gate	242479	3606441	6380
220.03	2-I	Shaft	Culvert Gate	242496	3606430	6381
221	2-I	Shaft	Backfill	242469	3606426	6364
222	2-I	Shaft	Standard Steel Gate	242452	3606444	6370
223	2-I	Shaft	Standard Steel Gate	242456	3606445	6370
224	2-I	Shaft	Backfill	242463	3606461	6382
225	2-I	Shaft	Backfill	242454	3606460	6374
235	2-F	Shaft	Backfill	242393	3606494	6354
243	2-F	Shaft	Lightweight Steel Gate	242466	3606502	6402
246	2-F	Shaft	Backfill	242532	3606486	6449
247	2-F	Shaft	Backfill	242467	3606519	6403
250	2-F	Shaft	Backfill	242491	3606543	6422
251	2-F	Shaft	Backfill	242498	3606546	6424
255	2-F	Shaft	Custom Steel Gate	242527	3606558	6422
256	2-F	Adit	Lightweight Steel Gate	242525	3606587	6355
292	2-F	Adit	Lightweight Steel Gate	242404	3606731	6020
294	2-F	Adit	Lightweight Steel Gate	242548	3606735	6099
275	2-E	Shaft	Hand Backfill + PUF	241859	3606541	5930
297	2-F	Shaft	Lightweight Steel Gate	242355	3606770	6140
298	2-F	Shaft	Hand Backfill	242363	3606762	6088
323	2-F	Tunnel	Custom Steel Gate	242544	3606937	6450
325	2-F	Shaft	Standard Steel Gate	242556	3606968	6518
326	2-F	Shaft	Standard Steel Gate	242547	3606971	6514
382	2-C	Shaft	Backfill	242566	3607213	6723
394	2-G	Adit	Lightweight Steel Gate	243103	3606714	6569
408.02	2-D	Adit	Hand Backfill	243117	3607360	6917
408.03	2-D	Adit	Hand Backfill	243112	3607357	6906

Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community



Legend

WORK

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- Custom Steel Gate
- Culvert with Steel Gate
- Steel Fence & Lightweight Steel Gate
- Steel Fence & Standard Steel Gate
- Rock Wall

Staging Area

Access Road Class

===: Not Maint-4WD

N

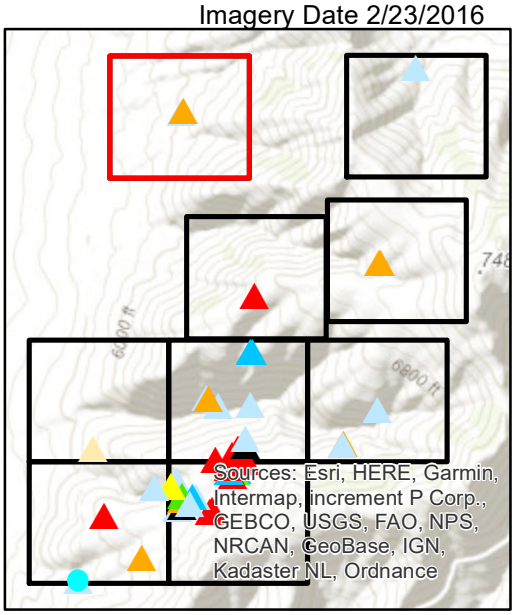
Feet
0 40 80 160 240 320 400

0 40 80 160
Meters

Contour Interval = 20 feet

Cookes Peak
West Phase IIIB
FIGURE
2-A

Imagery Date 2/23/2016



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SANTA FE, NEW MEXICO
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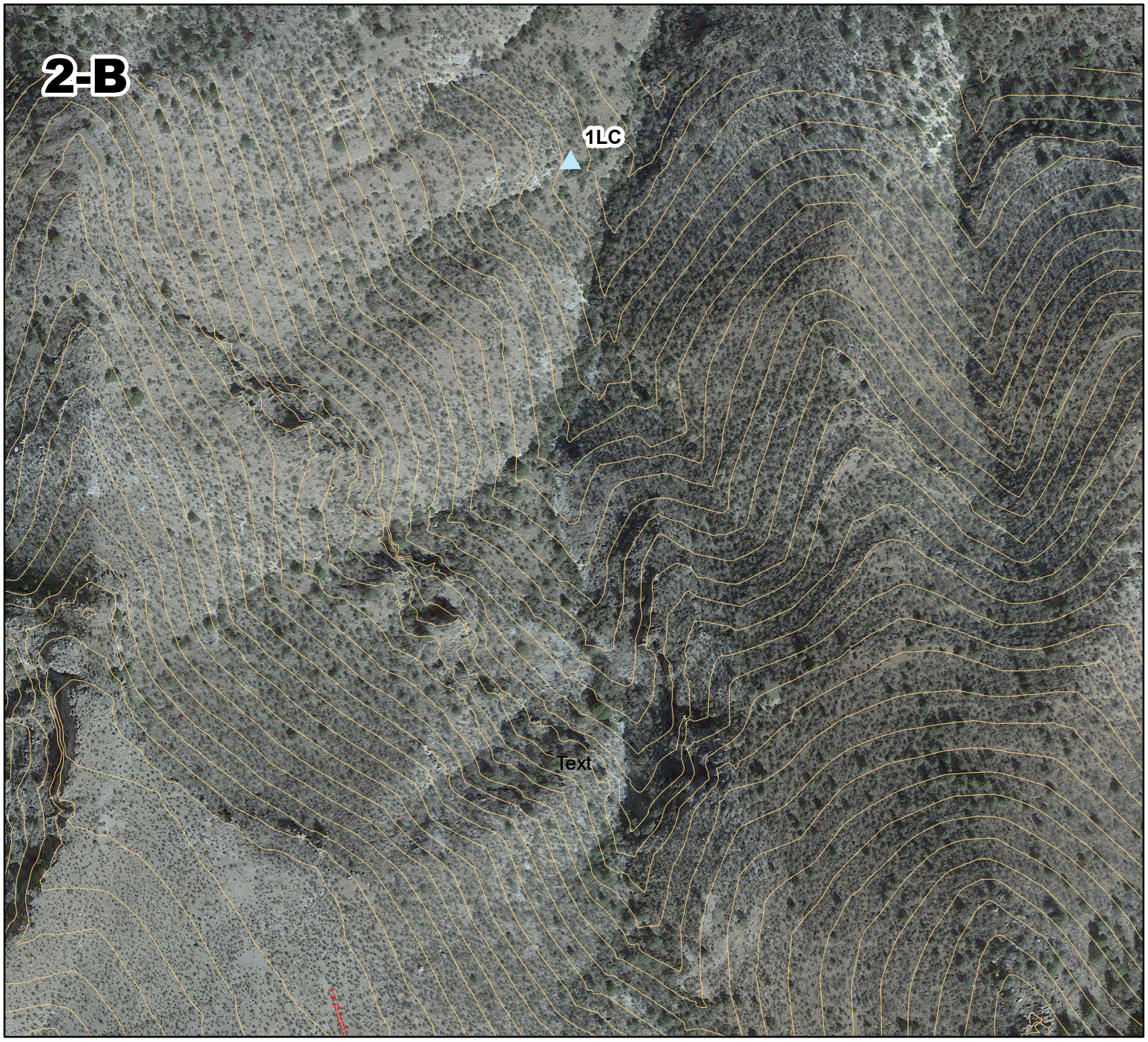

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Staging Area

Access Road Class

Not Maint-4WD

N

Feet
0 40 80 160 240 320 400

0 40 80 160
Meters

Contour Interval = 20 feet

Cookes Peak West Phase IIIB

FIGURE

2-B

NEW MEXICO ABANDONED MINE LAND PROGRAM
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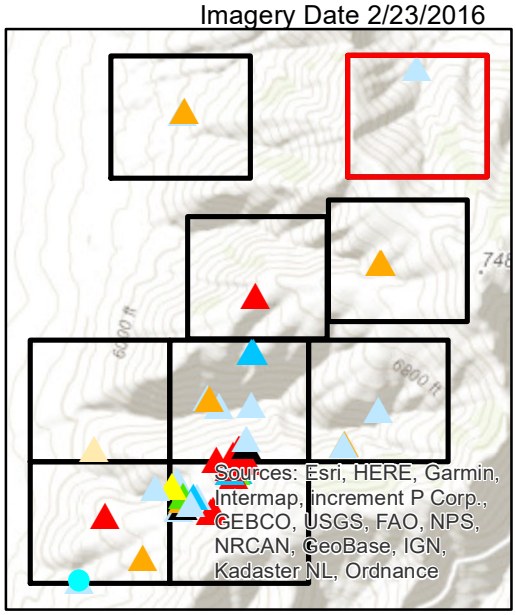

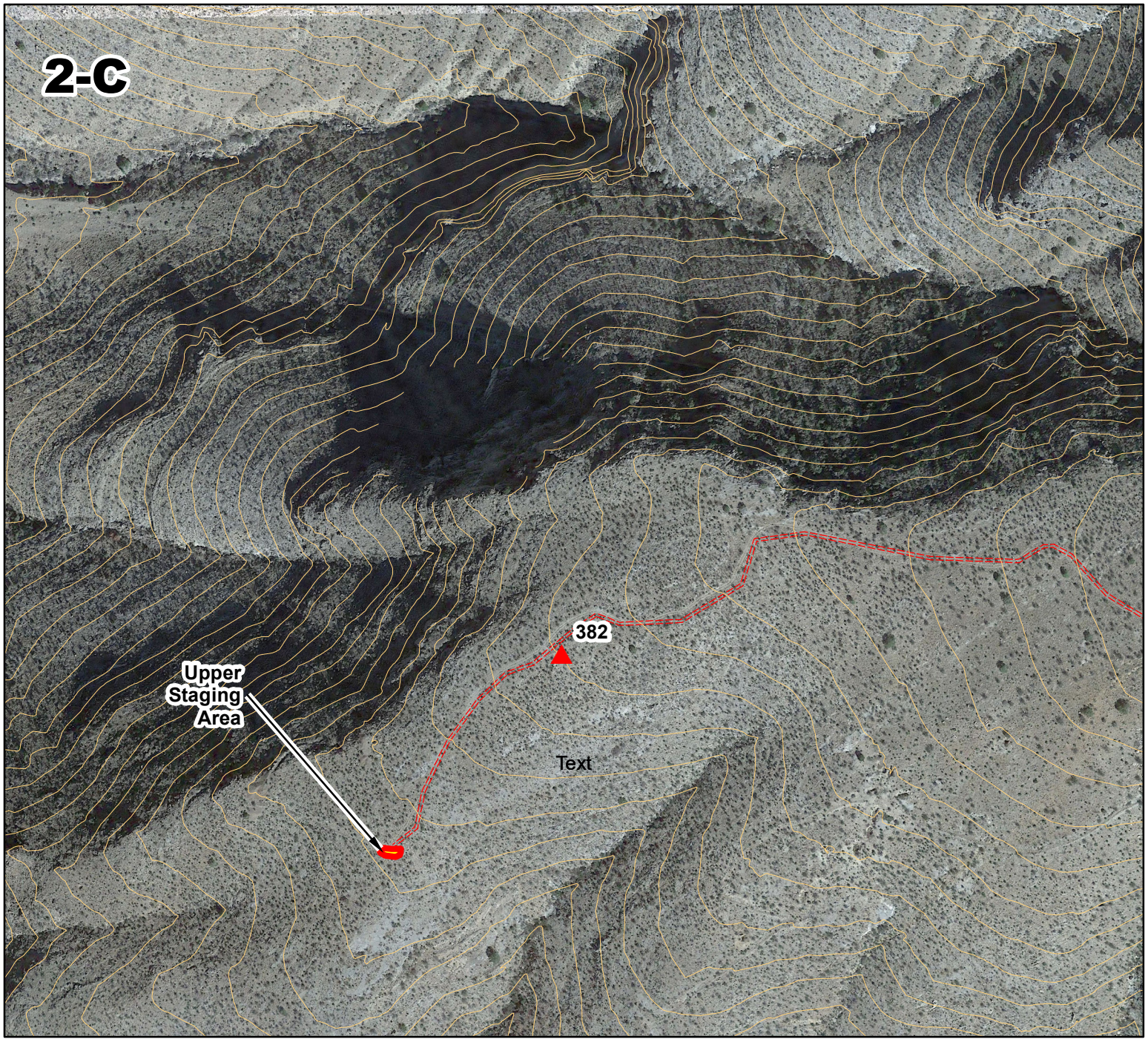

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Staging Area

Access Road Class

Not Maint-4WD

N

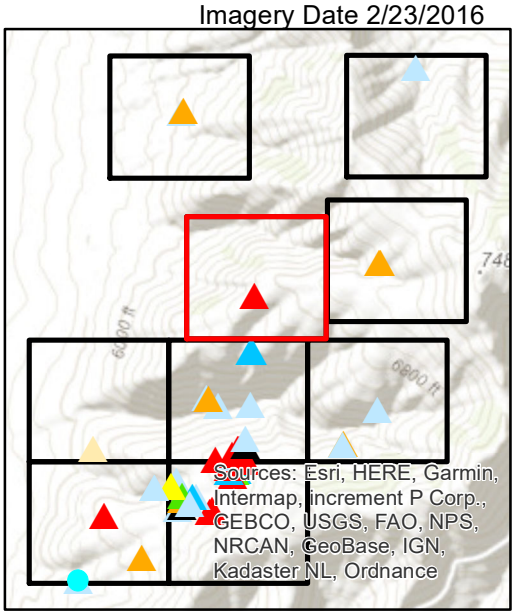
Feet
0 40 80 160 240 320 400

0 40 80 160
Meters

Contour Interval = 20 feet

Cookes Peak
West Phase IIIB
FIGURE
2-C

Imagery Date 2/23/2016



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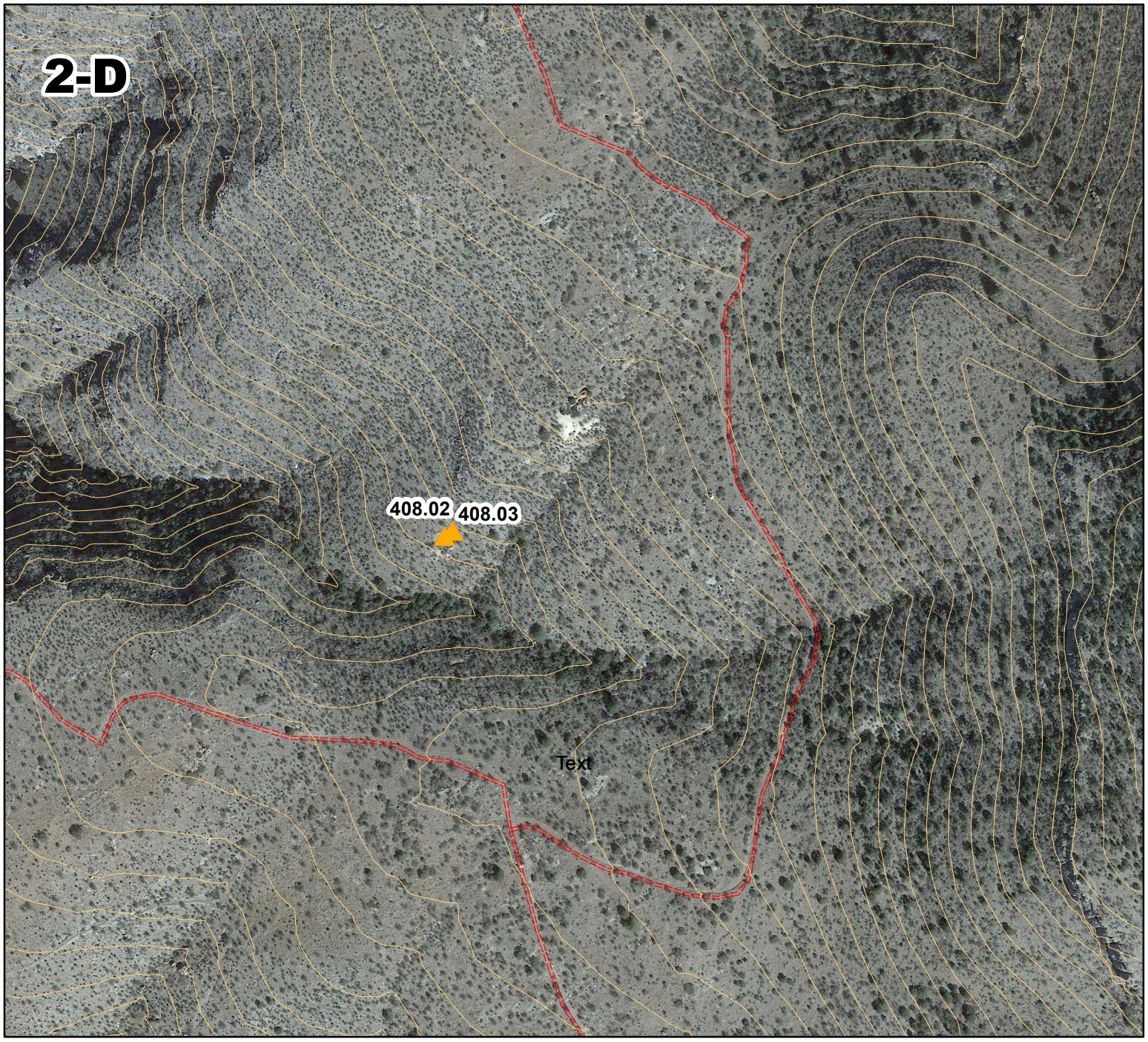

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Staging Area

Access Road Class

Not Maint-4WD

N

Feet
0 40 80 160 240 320 400

0 40 80 160
Meters

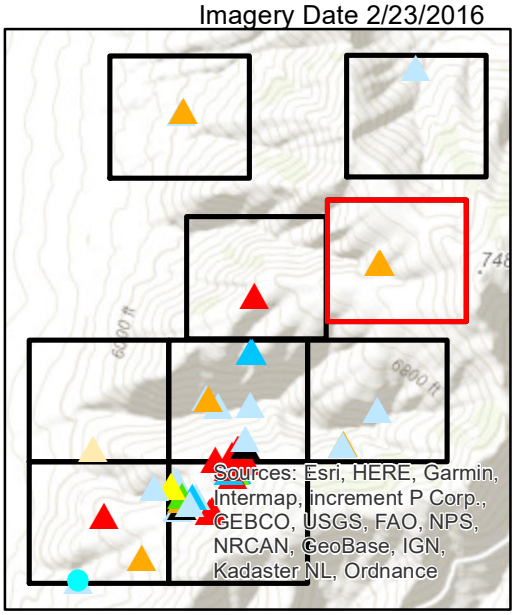
Contour Interval = 20 feet

Cookes Peak West Phase IIIB

FIGURE

2-D

Imagery Date 2/23/2016



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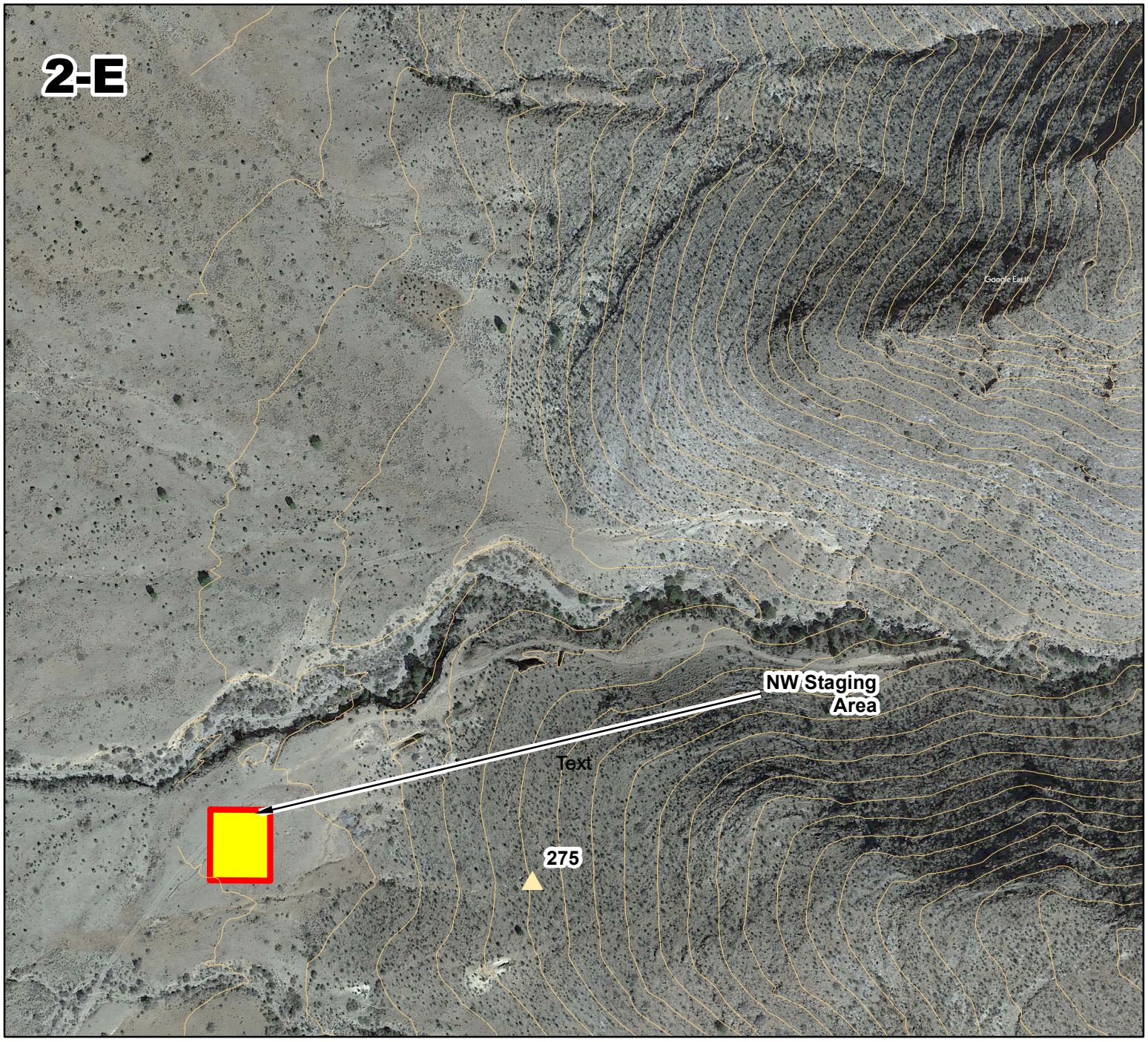

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Staging Area

Access Road Class

=== Not Maint-4WD

N

Feet
0 40 80 160 240 320 400

0 40 80 160
Meters

Contour Interval = 20 feet

Cookes Peak West Phase IIIB

FIGURE 2-E

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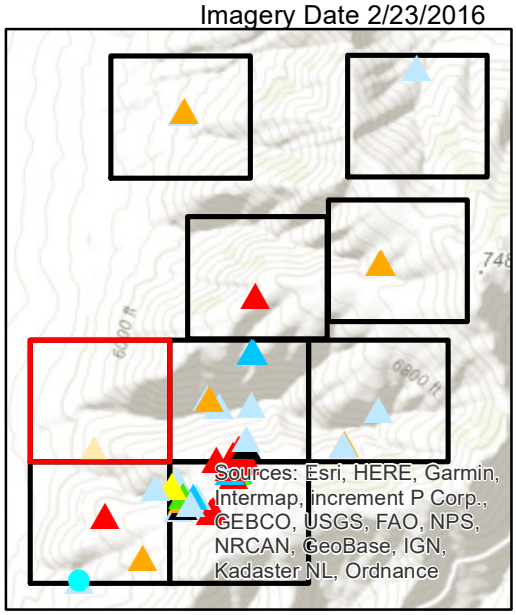

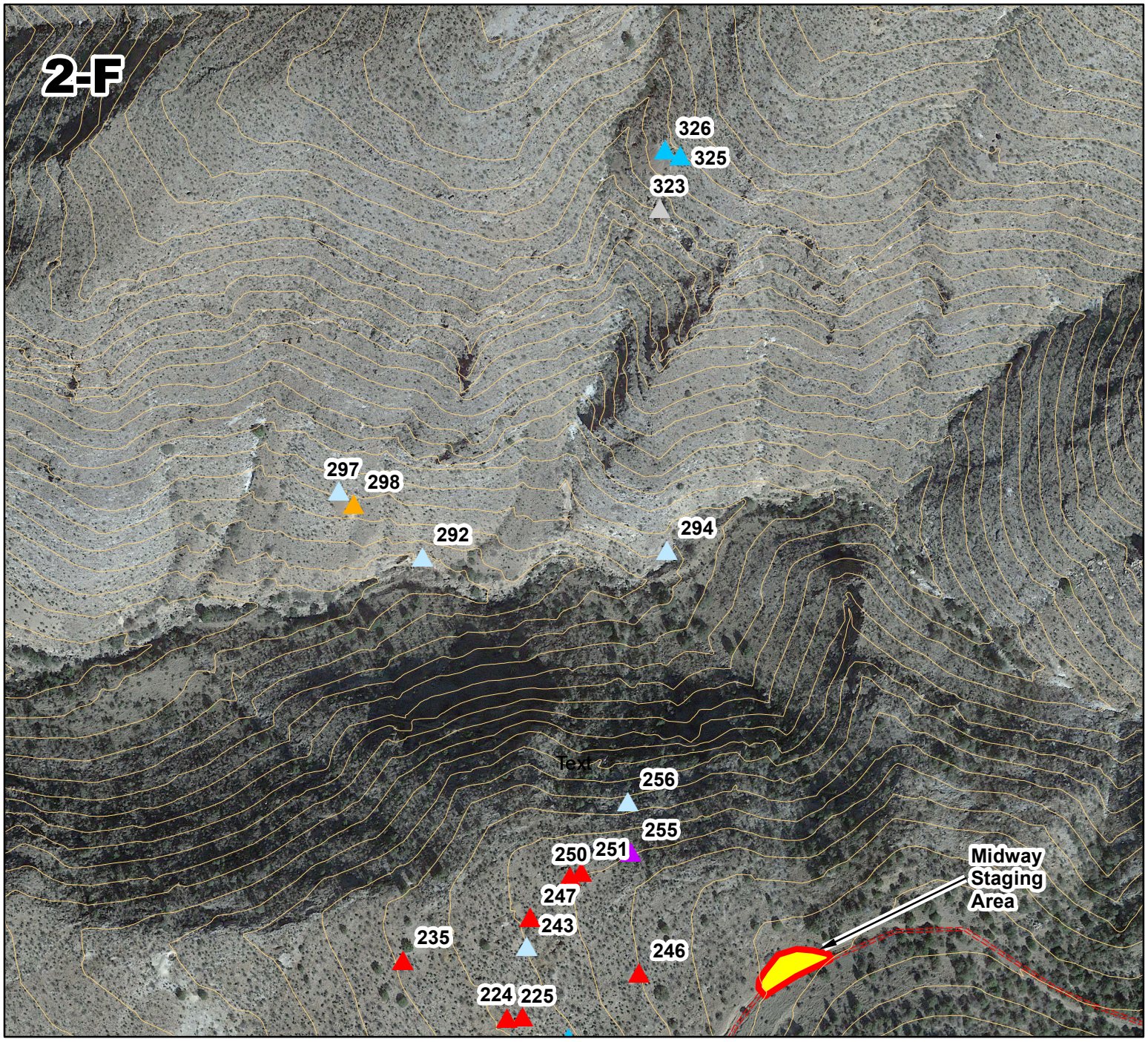

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Staging Area

Access Road Class

Not Maint-4WD

N

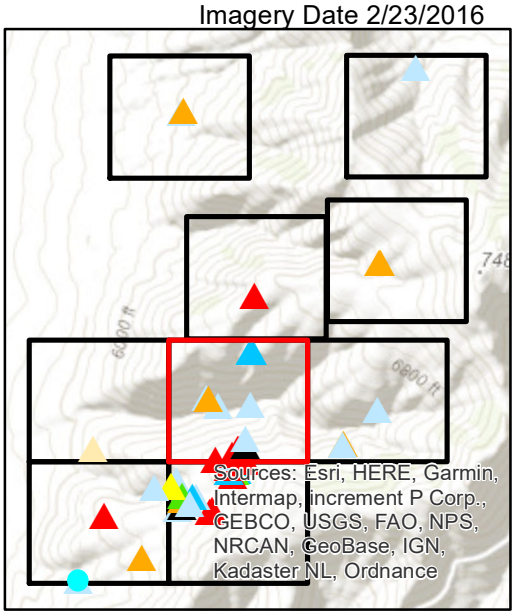
Countour Interval = 20 feet

Cookes Peak West Phase IIIB

FIGURE

2-F

Imagery Date 2/23/2016



Feet
0 40 80 160 240 320 400
0 40 80 160
Meters

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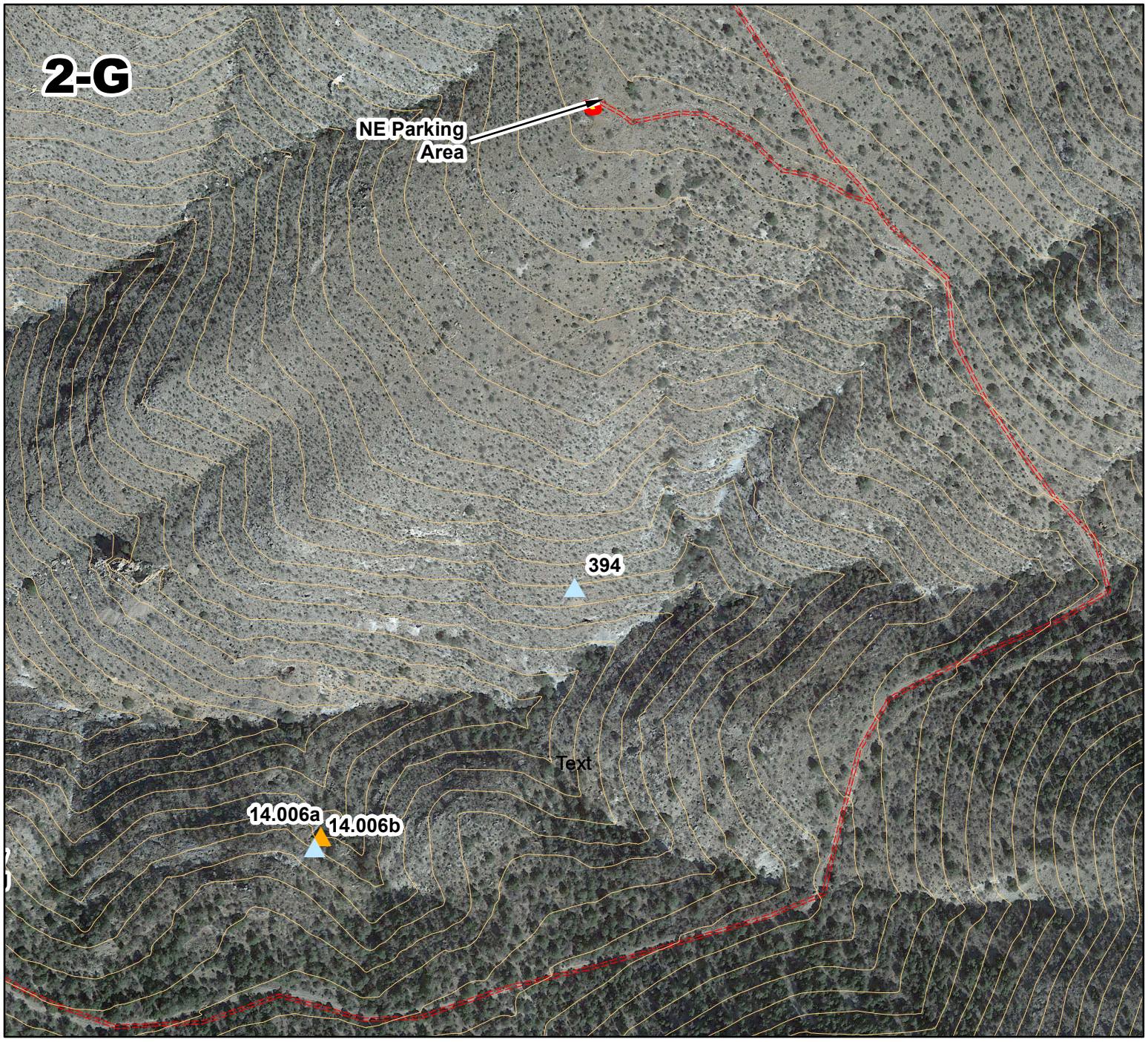

Legend

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Staging Area

Access Road Class

===: Not Maint-4WD

N

Feet
0 40 80 160 240 320 400

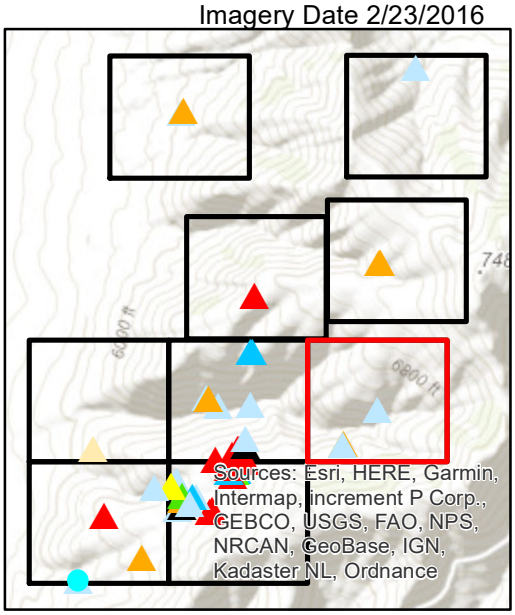
0 40 80 160
Meters

Contour Interval = 20 feet

Cookes Peak West Phase IIIB

FIGURE 2-G

Imagery Date 2/23/2016



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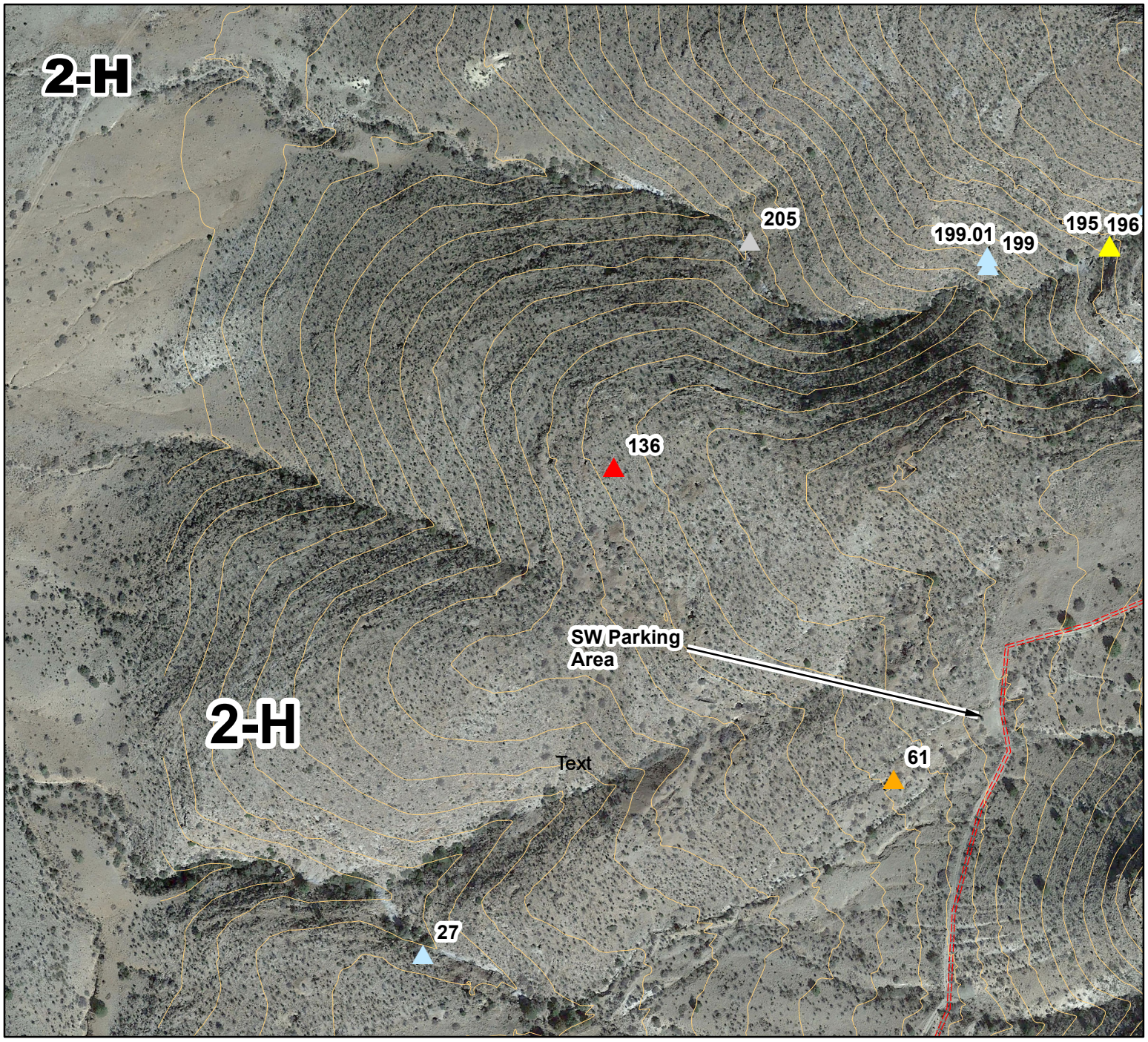

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Staging Area

Access Road Class

Not Maint-4WD

N

Feet
0 40 80 160 240 320 400

0 40 80 160
Meters

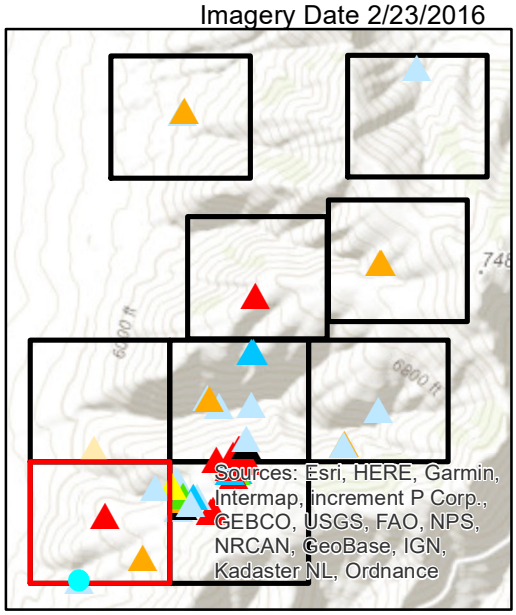
Contour Interval = 20 feet

Cookes Peak West Phase IIIB

FIGURE

2-H

Imagery Date 2/23/2016



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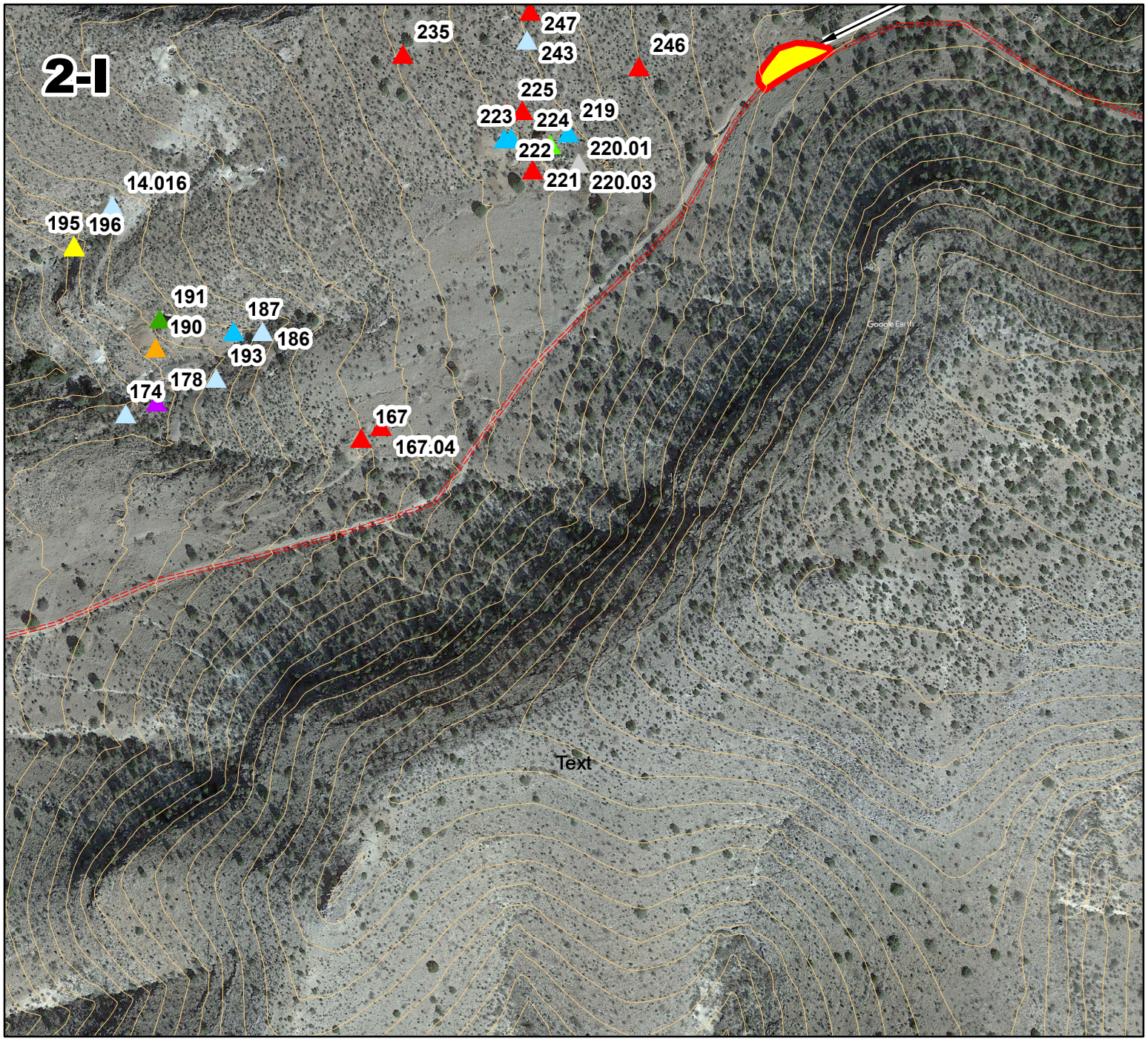

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Staging Area

Access Road Class

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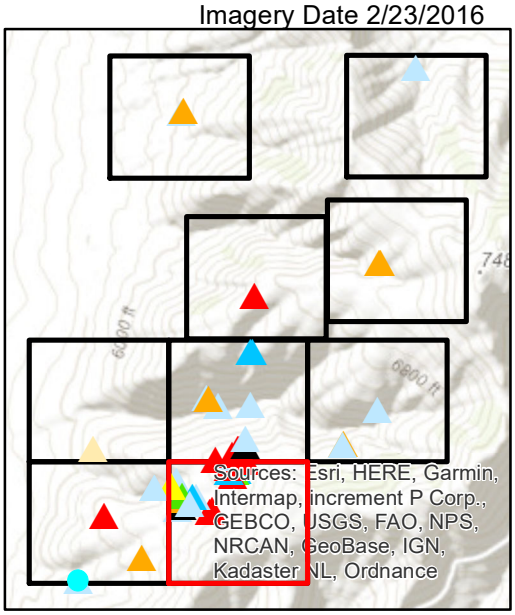
N

Feet
0 40 80 160 240 320 400
0 40 80 160
Meters

Contour Interval = 20 feet

Cookes Peak
West Phase IIIB
FIGURE
2-I

Imagery Date 2/23/2016



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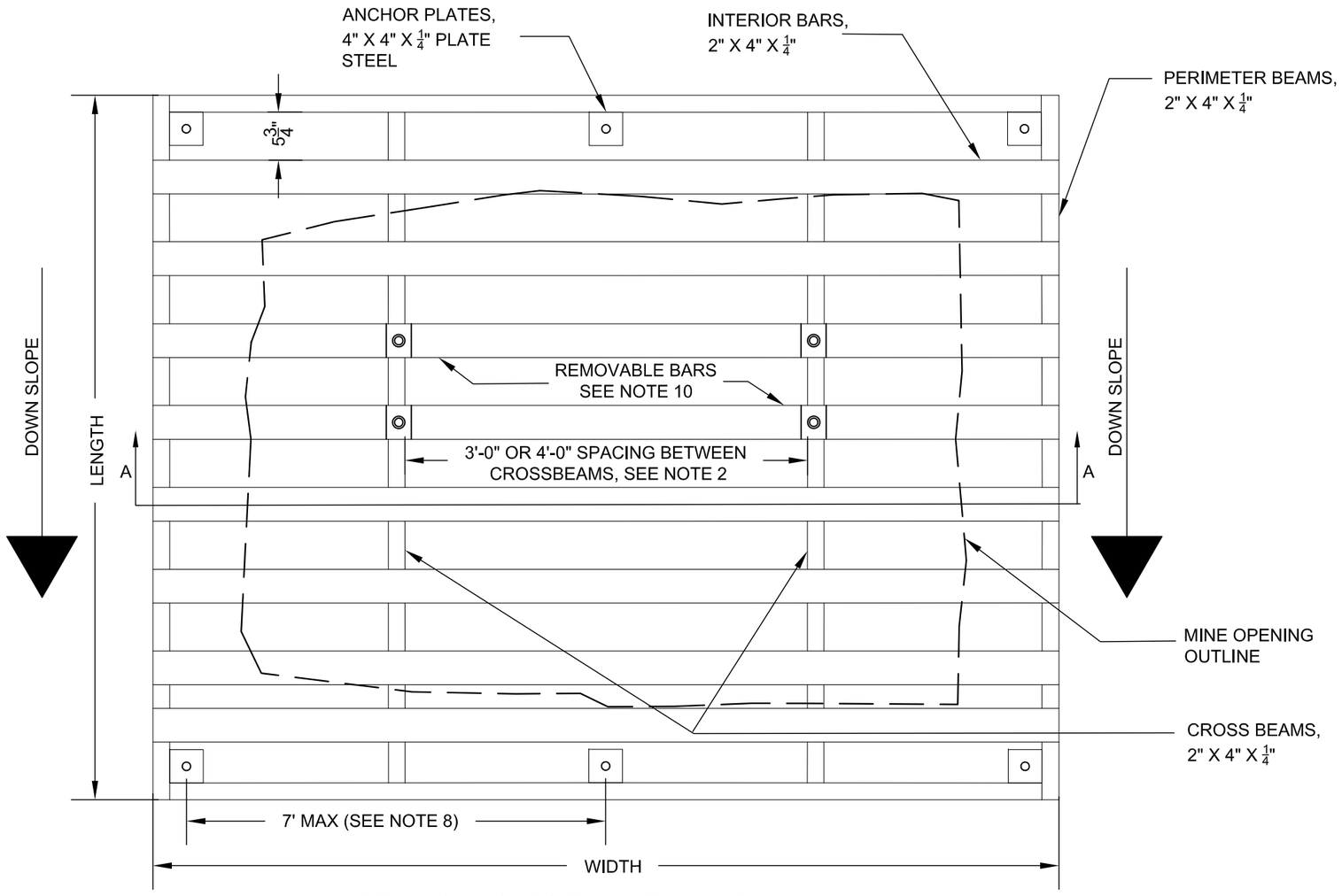
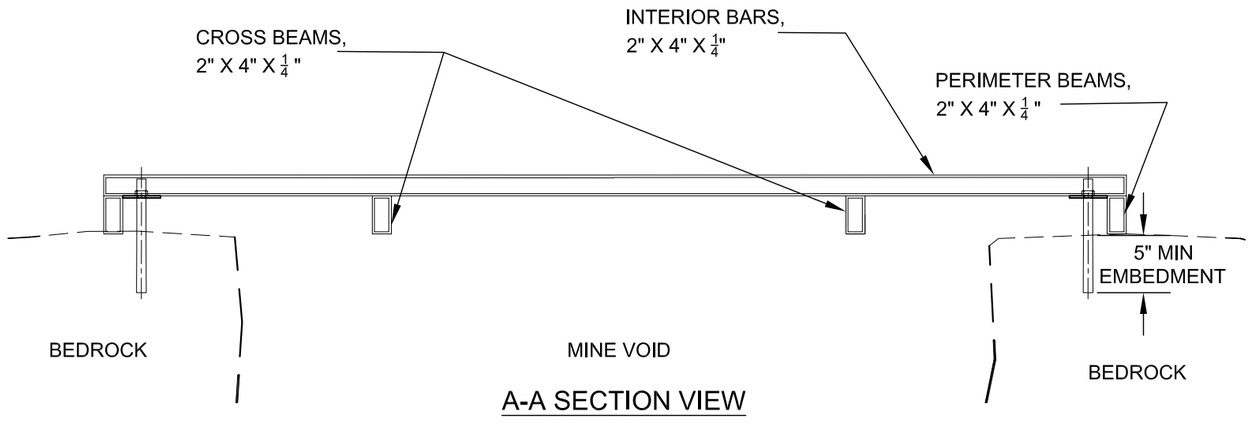


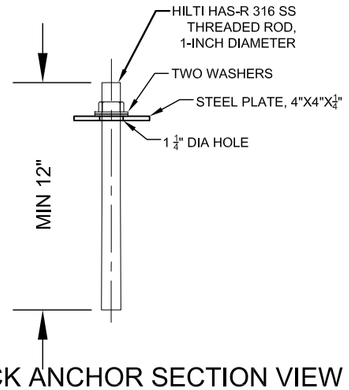
TYPICAL STANDARD STEEL GATE - PLAN VIEW

SCALE: 3/4" = 1'-0"



A-A SECTION VIEW

SCALE: 3/4" = 1'-0"



ROCK ANCHOR SECTION VIEW

SCALE: 1 1/2" = 1'-0"

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 SURFACE MATERIALS OR ROCK. THE CONSTRUCTOR SHALL BE RESPONSIBLE FOR THOROUGHLY INVESTIGATING THE SITE CONDITIONS AND SCHEDULING EQUIPMENT, EQUIPMENT OPERATIONS, PERSONNEL AND SAFETY PROCEDURES TO PREVENT ACCIDENTS AND INJURIES.

FEATURES REQUIRING STANDARD STEEL GATES

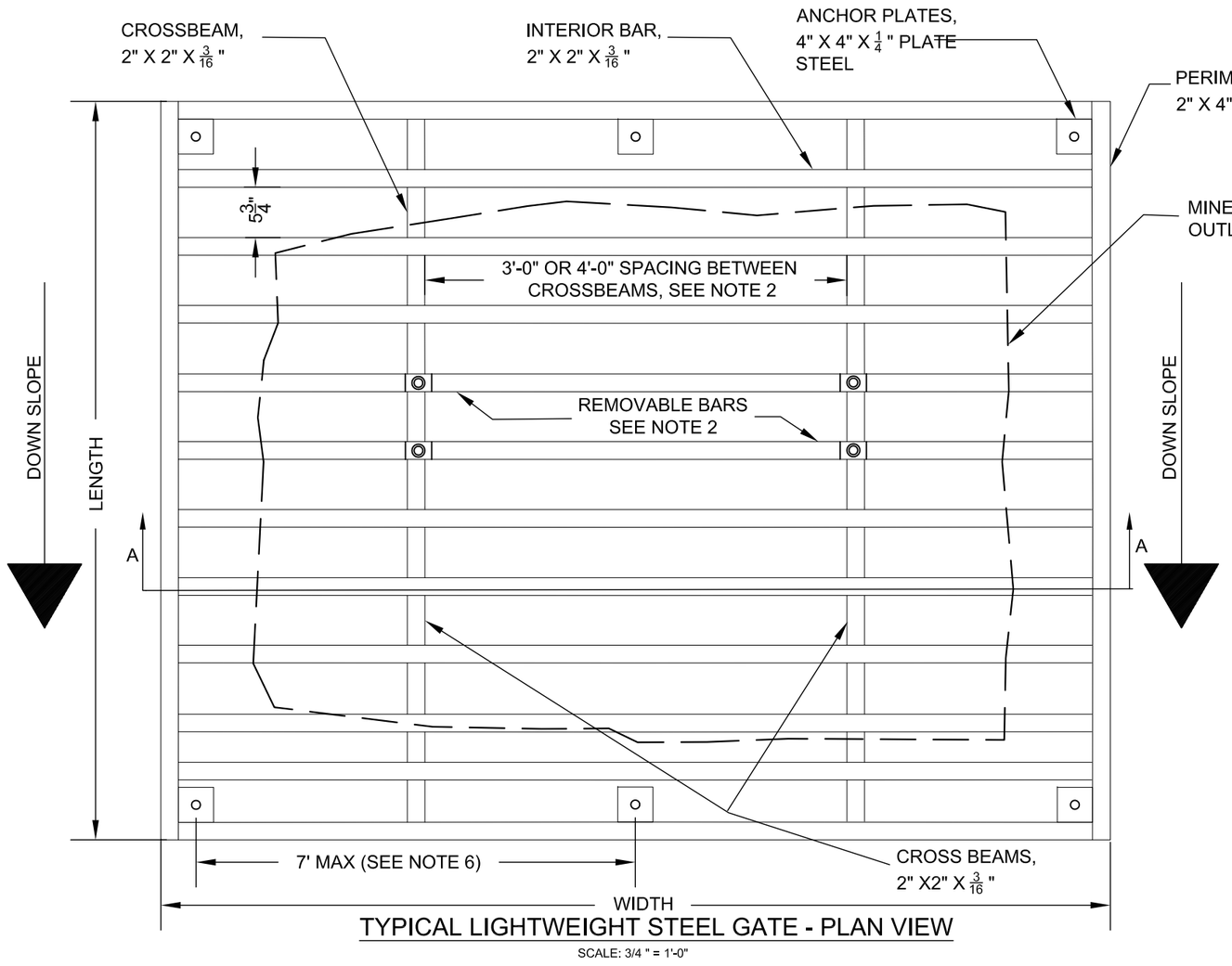
FEATURE #	GATE DIMENSIONS (LXW)	REMOVABLE BARS?	APPROX. LINEAL FEET OF STEEL	MINIMUM # OF ANCHORS NEEDED
187	5 1/2'x6'	YES	65	4
219	5'x8'	NO	75	6
220.01	6'x6', 5'x10'	YES x 2	155	6
222	5'x7'	NO	70	4
223	5 1/2'x7 1/2'	NO	80	4
325	7'x9'	YES	120	6
326	16'x6'	YES	170	8
	TOTAL	**YES - 5 SETS**	735	38

GENERAL NOTES:

1. THE LINEAL FEET AND DIMENSIONS INDICATED FOR THE STEEL GATES ARE APPROXIMATE. ADJUST THE SIZE AFTER OBTAINING FIELD MEASUREMENTS AND WITH APPROVAL OF PROJECT ENGINEER.
2. A MINIMUM OF TWO CROSS BEAMS SHALL BE INSTALLED WITH 4'-0" SPACING BETWEEN CROSS BEAMS, OR IF GATE WIDTH IS 6 FEET OR LESS, THEN 3'-0" SPACING BETWEEN CROSS BEAMS. SPACING BETWEEN PERIMETER BEAM AND CROSS BEAM SHALL BE EQUAL ON EACH SIDE OF GATE. INTERIOR BARS SHALL BE ORIENTED PERPENDICULAR TO THE DIRECTION OF THE SLOPE, OR ACROSS THE WIDTH OF THE GATE.
3. PULL BACK WASTE PILES AND LOOSE ROCK FROM THE MINE OPENING PERIMETER AS NEEDED TO ALLOW FOR THE PROPER INSTALLATION OF THE GATE. GATES MUST BE INSTALLED ON SOLID ROCK AS DETERMINED BY THE PROJECT ENGINEER OR PROJECT MANAGER. INSTALLATION ON LOOSE ROCK OR WASTE ROCK PILES WILL BE REJECTED. REGRADE THE MOVED MATERIAL AS DIRECTED BY THE PROJECT MANAGER TO BLEND IN WITH THE EXISTING WASTE PILES. MINIMIZE THE AMOUNT OF MATERIAL THAT FALLS INTO THE MINE OPENING AND THE AREA OF DISTURBED GROUND AROUND THE MINE FEATURE.
4. THE GATE INSTALLATION POSITION SHALL BE LAID OUT, MARKED WITH TEMPORARY MARKINGS (MARKING CHALK, FOR EXAMPLE), AND APPROVED BY THE PROJECT MANAGER OR PROJECT ENGINEER AT LEAST 24 HOURS PRIOR TO MOVING THE GATE MATERIALS AND CONSTRUCTION EQUIPMENT TO THE SITE OF THE MINE FEATURE. FAILURE TO MEET THIS DEADLINE WILL RESULT IN A REQUIRED RESCHEDULING OF GATE CONSTRUCTION FOR THE MINE FEATURES AFFECTED. THE CONTRACTOR SHALL TAKE PHOTOGRAPHS OF THE MARKED GATE INSTALLATION POSITION PRIOR TO DELIVERY OF THE GATE.
5. THE STEEL GATE SHALL BE SUPPORTED BY DIRECT CONTACT WITH BEDROCK AND THE SUPPORT LOCATIONS APPROVED BY THE PROJECT ENGINEER, WITH NO GAPS BENEATH THE STEEL STRUCTURE OF MORE THAN 5 ¾ INCHES. SOME AMOUNT OF ROCK CHIPPING BY HAND OR POWER EQUIPMENT MAY BE NECESSARY TO ACHIEVE ADEQUATE SUPPORT OF THE GATE ON THE BEDROCK. ANY EXCESSIVE GAPS BETWEEN BEDROCK AND THE STEEL GATE MUST BE FILLED IN BY CUSTOM FITTED PIECES (2"X4"X1/4") APPROVED BY THE PROJECT ENGINEER AT NO ADDITIONAL COST TO EMNRD.
6. STEEL SHAPES, PLATES, AND BARS SHALL BE WEATHERING STEEL OR STAINLESS STEEL AS DESCRIBED IN DIVISION 5 OF THE PROJECT MANUAL.
7. THE ROCK ANCHOR LOCATIONS INDICATED ARE PRELIMINARY. ADJUSTMENTS TO LOCATIONS AND NUMBER OF ANCHORS MAY BE NECESSARY TO FIT FIELD CONDITIONS. ANCHORS SHALL BE SPACED NO MORE THAN SEVEN FEET FROM THE NEAREST ANCHOR UNLESS APPROVED BY THE PROJECT ENGINEER. LOCATE ANCHORS TO AVOID THIN, WEAK, OR FRACTURED ROCK. ROCK ANCHOR LOCATIONS SHALL BE APPROVED BY THE PROJECT ENGINEER PRIOR TO INSTALLATION.
8. THE ANCHOR BOLTS SHALL BE ONE-INCH DIAMETER HILTI HAS-R 316 SS STAINLESS STEEL THREADED ROD, OR APPROVED EQUIVALENT. HOLES SHALL BE DRILLED WITH A 1 1/8-INCH DRILL BIT TO A MINIMUM DEPTH OF 5 INCHES. ADDITIONAL EMBEDMENT DEPTH MAY BE REQUIRED DUE TO UNSATISFACTORY ROCK CONDITIONS. DRILL HOLES SHALL BE CLEANED OUT WITH COMPRESSED AIR AND BRUSH PER THE MANUFACTURER'S INSTRUCTIONS. A HILTI BLOW OUT PUMP MAY BE USED IN PLACE OF A COMPRESSED AIR GUN. ALL DRILL HOLES MUST BE APPROVED BY THE PROJECT MANAGER OR PROJECT ENGINEER PRIOR TO INSTALLATION OF ANCHOR.
9. ANCHORS SHALL BE SECURED INTO SOLID BEDROCK WITH HILTI HIT-RE 500 V3 ADHESIVE, OR APPROVED EQUIVALENT, PER THE MANUFACTURER'S INSTRUCTIONS. AFTER FULLY CURED, INSTALL TWO WASHERS, INSTALL NUT AND TORQUE TO 150 FOOT-POUNDS. WELD FULL PERIMETER OF NUT ONTO THREADED ROD. CUT OFF ANCHOR BOLT 1/2 INCH ABOVE NUT OR FLUSH WITH TOP OF GATE.
10. INSTALL TWO REMOVABLE BARS NEAR THE CENTER OF THE GATE ON THE GATES AT THE FEATURE NUMBERS SHOWN IN ABOVE TABLE AND PER THE DETAILS IN FIGURE 8.
11. INSTALL SURVEY CAP IN ACCORDANCE WITH SECTION 02890.

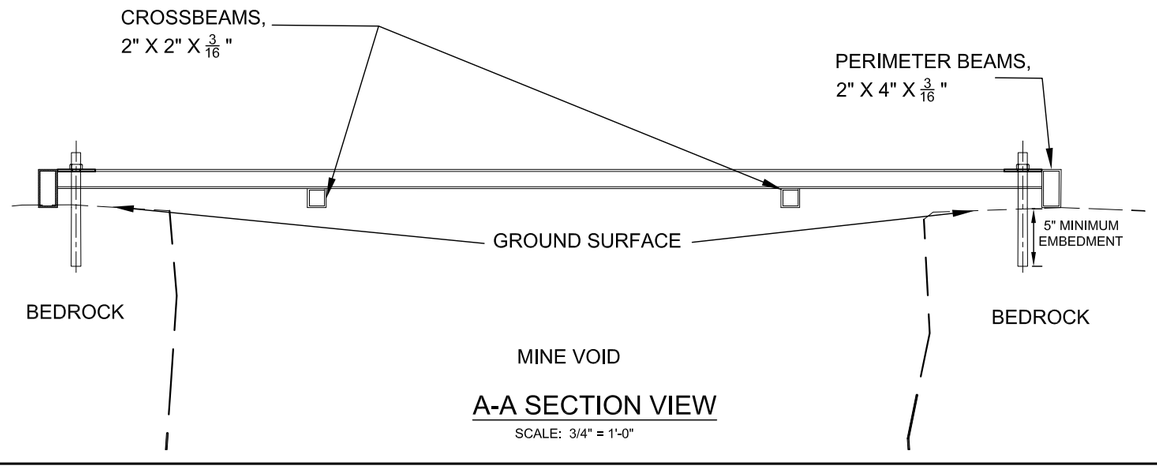
ABANDONED MINE LAND PROGRAM
MINING AND MINERALS DIVISION
NEW MEXICO ENERGY, MINERALS, AND NATURAL RESOURCES DEPARTMENT

SCALE: AS SHOWN	VARIOUS LOCATIONS	DRAWN BY: SEN
DATE: 12/18/19		REVISED BY:
STANDARD STEEL GATES		
FILE:	COOKES PEAK WEST, PHASE IIIB	FIGURE: 3



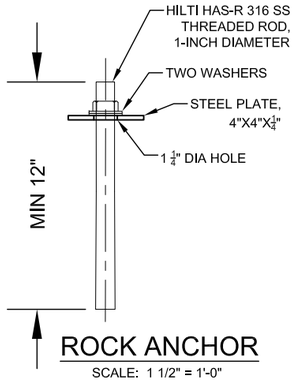
TYPICAL LIGHTWEIGHT STEEL GATE - PLAN VIEW

SCALE: 3/4 " = 1'-0"



A-A SECTION VIEW

SCALE: 3/4" = 1'-0"



ROCK ANCHOR

SCALE: 1 1/2" = 1'-0"

FEATURES REQUIRING LIGHTWEIGHT STEEL GATES

FEATURE #	GATE DIMENSIONS (LXW)	REMOVABLE BARS?	APPROX. LINEAL FEET OF STEEL	APPROX. NO. OF ANCHORS NEEDED
1HW	2'x2', 14'x8', 12'x13'	NO	510	20
1LC	9' x 7'	YES	135	6
14.006b	4'x4'	NO	40	4
14.016	12'x18'	NO	430	10
27	5'x8'	NO	90	6
174	10'x6 1/2'	NO	130	6
186	5 1/2 'x8 1/2 '	NO	95	6
191	8'x10'	YES	165	8
193	6'x11 1/2'	NO	140	6
199	10'x8 1/2'	NO	165	8
199.01	6'x6'	NO	80	4
243	11 1/2x4'	NO	95	6
256	6'x4'	NO	55	4
292	5 1/2'x10', 8'x9'	YES (1 GATE)	270	14
294	5'x7'	YES	80	4
297	6'x10'	YES	125	6
394	9'x5'	NO	105	6
	TOTAL	**YES - 5 SETS**	**2,710**	**124**

GENERAL NOTES:

1. THE LINEAL FEET AND DIMENSIONS INDICATED FOR THE STEEL GATES ARE APPROXIMATE. IF NEEDED ADJUST THE SIZE AFTER OBTAINING FIELD MEASUREMENTS AND WITH APPROVAL OF PROJECT ENGINEER. STEEL SHAPES, PLATES, AND BARS SHALL BE WEATHERING STEEL OR STAINLESS STEEL.

2. A MINIMUM OF TWO CROSS BEAMS SHALL BE INSTALLED WITH 4'-0" SPACING BETWEEN CROSS BEAMS, OR IF GATE WIDTH IS 6 FEET OR LESS, THEN 3'-0" SPACING BETWEEN CROSS BEAMS. SPACING BETWEEN PERIMETER BEAM AND CROSS BEAM SHALL BE EQUAL ON EACH SIDE OF GATE. INTERIOR BARS SHALL BE ORIENTED PERPENDICULAR TO THE DIRECTION OF THE SLOPE, OR ACROSS THE WIDTH OF THE GATE. INSTALL TWO REMOVABLE BARS NEAR THE CENTER OF THE GATE FOR THE FEATURE #S SHOWN IN ABOVE TABLE AND PER THE DETAILS IN FIGURE 8.

3. PULL BACK WASTE PILES AND LOOSE ROCK FROM THE MINE OPENING PERIMETER AS NEEDED TO ALLOW FOR THE PROPER INSTALLATION OF THE GATE. GATES MUST BE INSTALLED ON SOLID ROCK AS DETERMINED BY THE PROJECT ENGINEER OR PROJECT MANAGER. INSTALLATION ON LOOSE ROCK OR WASTE ROCK PILES WILL BE REJECTED. RE-GRADE THE MOVED MATERIAL AS DIRECTED BY THE PROJECT MANAGER TO BLEND IN WITH THE EXISTING WASTE PILES. MINIMIZE THE AMOUNT OF MATERIAL THAT FALLS INTO THE MINE OPENING AND THE AREA OF DISTURBED GROUND AROUND THE MINE FEATURE.

4. THE GATE INSTALLATION POSITION SHALL BE LAID OUT, MARKED WITH TEMPORARY MARKINGS (IE MARKING CHALK) AND APPROVED BY THE PROJECT MANAGER OR PROJECT ENGINEER AT LEAST 24 HOURS PRIOR TO MOVING THE GATE TO THE SITE OF THE MINE FEATURE. FAILURE TO MEET THIS DEADLINE WILL RESULT IN A REQUIRED RESCHEDULING OF HELICOPTER DELIVERIES FOR THE MINE FEATURES AFFECTED. THE CONTRACTOR SHALL TAKE PHOTOGRAPHS OF THE MARKED GATE INSTALLATION POSITION PRIOR TO DELIVERY OF THE GATE.

5. THE STEEL GATE SHALL BE SUPPORTED BY DIRECT CONTACT WITH BEDROCK AND THE SUPPORT LOCATIONS APPROVED BY THE PROJECT ENGINEER, WITH NO GAPS BENEATH THE STEEL STRUCTURE OF MORE THAN 5 ¾ INCHES. SOME AMOUNT OF ROCK CHIPPING BY HAND OR POWER EQUIPMENT MAY BE NECESSARY TO ACHIEVE ADEQUATE SUPPORT OF THE GATE ON THE BEDROCK. ANY EXCESSIVE GAPS BETWEEN BEDROCK AND THE STEEL GATE MUST BE FILLED IN BY CUSTOM FITTED PIECES (2"X2"X3/16") APPROVED BY THE PROJECT ENGINEER AT NO ADDITIONAL COST TO EMNRD.

6. THE ROCK ANCHOR LOCATIONS INDICATED ARE FOR EXAMPLE PURPOSES. ADJUSTMENTS TO LOCATIONS AND NUMBER OF ANCHORS MAY BE NECESSARY TO FIT FIELD CONDITIONS. ANCHORS SHALL BE SPACED NO MORE THAN SEVEN FEET FROM THE NEAREST ANCHOR UNLESS APPROVED BY THE PROJECT ENGINEER. LOCATE ALL ANCHORS IN SOLID ROCK FOR THE FULL EMBEDMENT DEPTH, AND AVOID THIN, WEAK, OR FRACTURED ROCK. ROCK ANCHOR LOCATIONS SHALL BE APPROVED BY THE PROJECT ENGINEER PRIOR TO INSTALLATION.

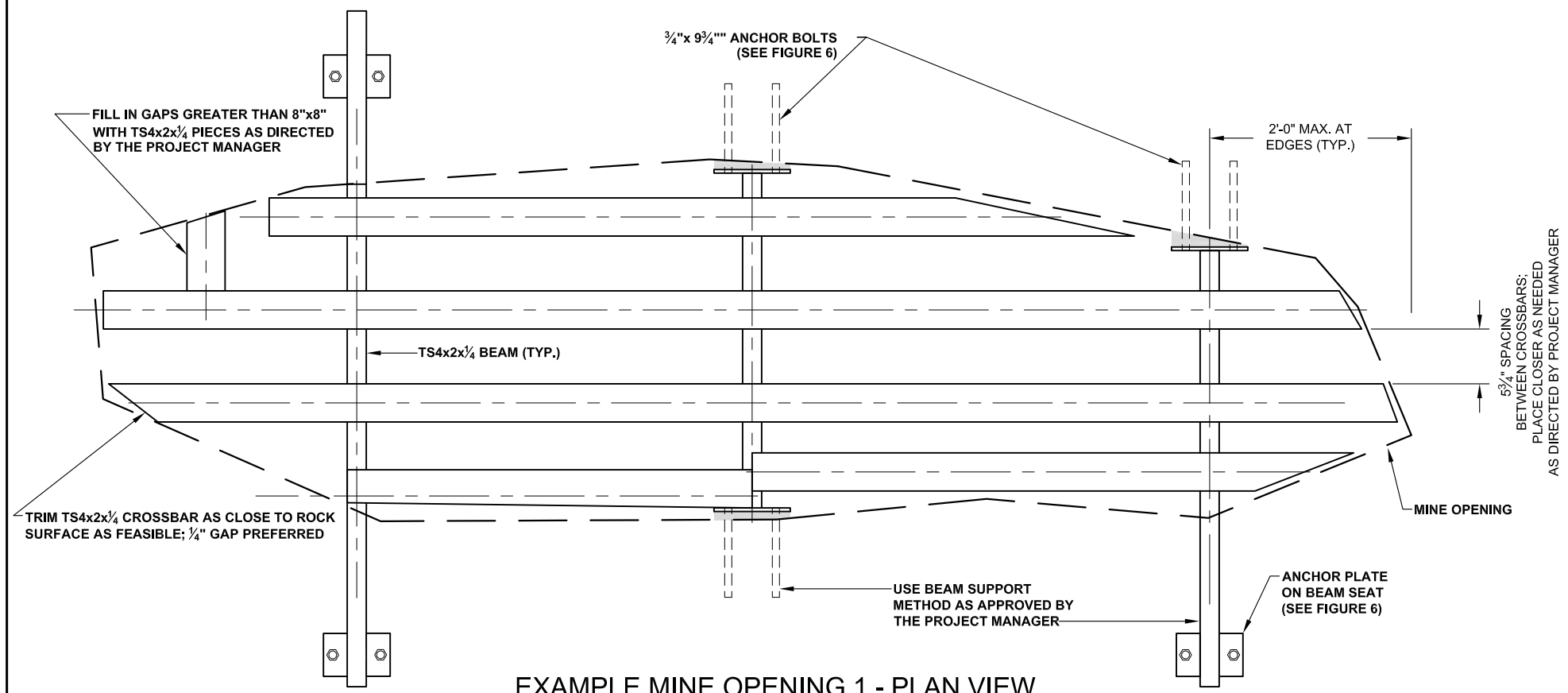
7. THE ANCHOR BOLTS SHALL BE ONE-INCH DIAMETER HILTI HAS-R 316 SS STAINLESS STEEL THREADED ROD, OR APPROVED EQUIVALENT. HOLES SHALL BE DRILLED WITH A 1 1/8-INCH DRILL BIT TO A MINIMUM DEPTH OF 5 INCHES. ADDITIONAL EMBEDMENT DEPTH MAY BE REQUIRED DUE TO UNSATISFACTORY ROCK CONDITIONS AS DETERMINED BY THE PROJECT MANAGER. DRILL HOLES SHALL BE CLEANED OUT WITH COMPRESSED AIR AND BRUSH PER THE MANUFACTURER'S INSTRUCTIONS. A HILTI BLOW OUT PUMP MAY BE USED IN PLACE OF A COMPRESSED AIR GUN. ALL DRILL HOLES MUST BE APPROVED BY THE PROJECT MANAGER OR PROJECT ENGINEER PRIOR TO INSTALLATION OF ANCHOR. ANCHORS SHALL BE SECURED INTO THE ROCK WITH HILTI HIT-RE 500 V3 ADHESIVE, OR APPROVED EQUIVALENT, PER THE MANUFACTURER'S INSTRUCTIONS. AFTER FULLY CURED, INSTALL TWO WASHERS, INSTALL NUT AND TORQUE TO 150 FOOT-POUNDS. WELD FULL PERIMETER OF NUT ONTO THREADED ROD. CUT OFF ANCHOR BOLT NO MORE THAN ½ INCH ABOVE NUT.

8. INSTALL SURVEY CAP IN ACCORDANCE WITH SECTION 02890.

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 SURFACE MATERIALS OR ROCK. THE CONSTRUCTOR SHALL BE RESPONSIBLE FOR THOROUGHLY INVESTIGATING THE SITE CONDITIONS AND SCHEDULING EQUIPMENT, EQUIPMENT OPERATIONS, PERSONNEL AND SAFETY PROCEDURES TO PREVENT ACCIDENTS AND INJURIES.

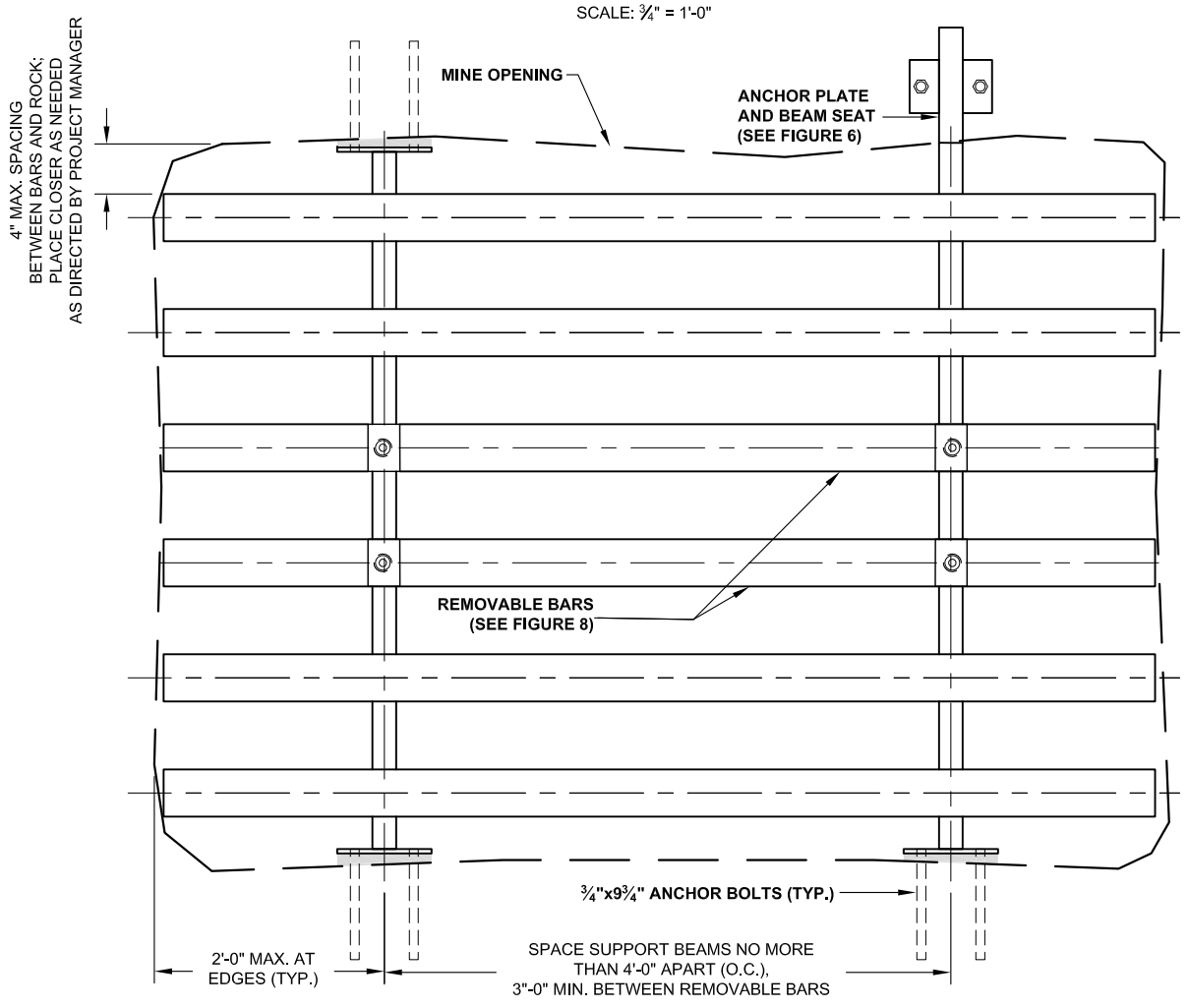
ABANDONED MINE LAND PROGRAM
MINING AND MINERALS DIVISION
NEW MEXICO ENERGY, MINERALS, AND NATURAL RESOURCES DEPARTMENT

SCALE: AS SHOWN	VARIOUS LOCATIONS	DRAWN BY: SEN
DATE: 11/18/19		REVISED BY:
LIGHTWEIGHT STEEL GATES		
FILE:	COOKES PEAK WEST, PHASE IIIB	FIGURE: 4



EXAMPLE MINE OPENING 1 - PLAN VIEW

SCALE: ¾" = 1'-0"



EXAMPLE MINE OPENING 2 - PLAN VIEW

SCALE: ¾" = 1'-0"

FEATURES REQUIRING CUSTOM STEEL GATES				
FEATURE #	**GATE DIMENSIONS (LXW)**	**REMOVABLE BARS?**	**APPROX. LINEAL FEET OF STEEL**	**MINIMUM # OF SUPPORTS/SEATS NEEDED**
178	12'x8'	YES	250	6
255	7'x3 ½'	NO	50	4
	TOTAL	**1-YES**	**300**	**10**

GENERAL NOTES:

1. THIS DRAWING SHOWS TWO EXAMPLE MINE OPENINGS AND THE CORRESPONDING LAYOUTS OF THE STEEL CLOSURE. THE DRAWING SHALL BE USED AS A GUIDE FOR FIELD LAYOUT. DETERMINE THE ACTUAL LAYOUTS AND DIMENSIONS OF THE CLOSURES IN THE FIELD PRIOR TO FABRICATION.

2. INSTALL HORIZONTAL BAT GATES AS CLOSE TO THE TOP OF THE SHAFT OPENINGS AS POSSIBLE, WHERE THE ROCK AT THE GATE LOCATIONS IS FULLY COMPETENT AND THE ANCHORS ARE PLACED AT LEAST 10" BELOW THE TOP OF THE ROCK.

3. REMOVE LOOSE ROCK AT CLOSURES PRIOR TO FABRICATION AND FIELD ERECTION OF THE CLOSURES. MINIMIZE THE AMOUNT OF ROCK AND OTHER DEBRIS THAT FALL INTO THE MINE OPENINGS DURING CONSTRUCTION. PULL LOOSE MATERIAL UP AND AWAY FROM THE MINE AREA.

4. USE BEAM SUPPORTS OR BEAM SEATS, AT CONTRACTOR'S DISCRETION AND APPROVAL FROM THE PROJECT ENGINEER, TO FASTEN BEAM ENDS TO COMPETENT ROCK. SEE FIGURE 6 FOR DETAILS ON BEAM SEATS, BEAM SUPPORTS, AND ANCHOR BOLTS.

5. UNLESS OTHERWISE ACCEPTED BY THE PROJECT ENGINEER, PLACE TS BEAMS ACROSS THE SPAN (WIDTH) OF THE SHAFT OPENING.

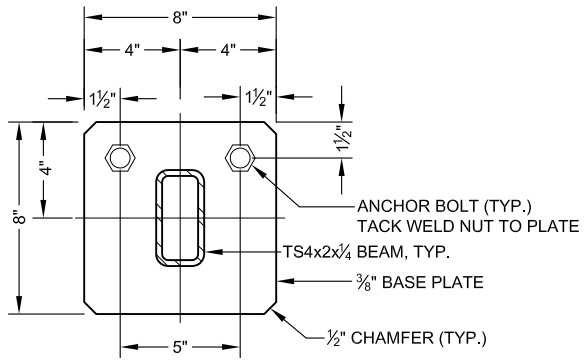
6. INSTALL SURVEY MARKER (SUPPLIED BY AML PROGRAM) INTO CONCRETE OR ADJACENT COMPETENT ROCK AS DIRECTED BY THE PROJECT MANAGER.

7. SEE DETAILS FOR REMOVABLE BARS ON FIGURE 8.

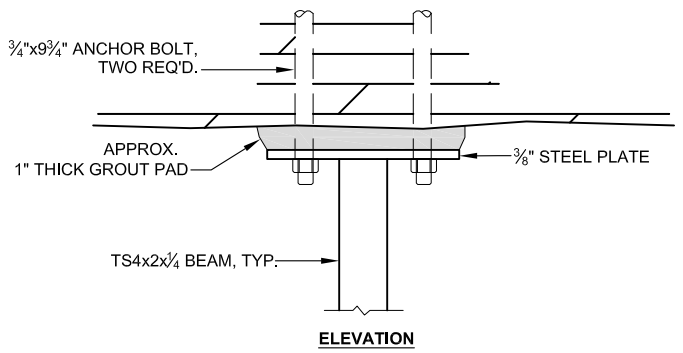
CAUTION – THIS PROJECT REQUIRES CONSTRUCTION WORK IN, AROUND, AND OVER HAZARDOUS AND UNPROTECTED MINE SHAFTS, STOPES, ADITS, AND OTHER OPENINGS WHICH MAY BE OPEN TO THE SURFACE OR HIDDEN FROM VIEW BY TRASH, DEBRIS, OR THIN AND UNSTABLE LAYERS OF SURFACE MATERIALS OR ROCK. THE CONSTRUCTOR SHALL BE RESPONSIBLE FOR THOROUGHLY INVESTIGATING THE SITE CONDITIONS AND SCHEDULING EQUIPMENT, EQUIPMENT OPERATIONS, PERSONNEL AND SAFETY PROCEDURES TO PREVENT ACCIDENTS AND INJURIES.

ABANDONED MINE LAND PROGRAM
MINING AND MINERALS DIVISION
NEW MEXICO ENERGY, MINERALS, AND NATURAL RESOURCES DEPARTMENT

SCALE: AS SHOWN	FEATURES 178 AND 255	DRAWN BY: MWT
DATE: 11/13/2019		REVISED BY: SEN
CUSTOM STEEL GATES		
FILE:	COOKES PEAK WEST, PHASE IIIB	FIGURE: 5



PLAN

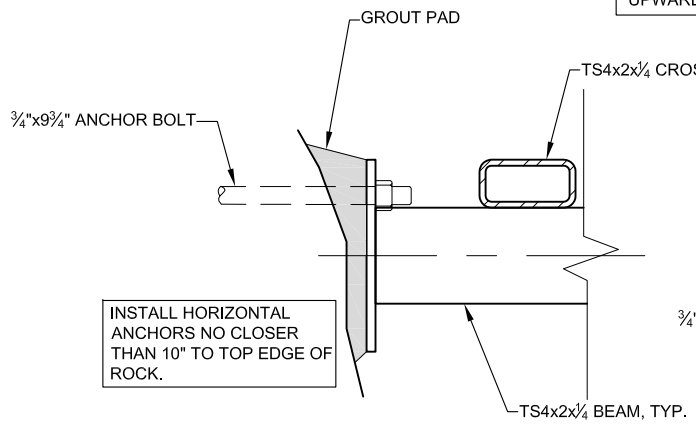


ELEVATION

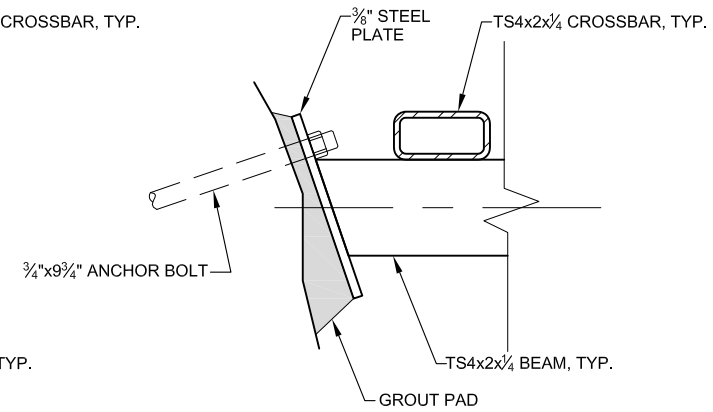
BEAM SUPPORT DETAIL

SCALE: 1½" = 1'-0"

CONTRACTOR HAS THE OPTION OF ANGLING BEAM SUPPORT WITH THE ROCK FACE UPWARD OR VERTICALLY.



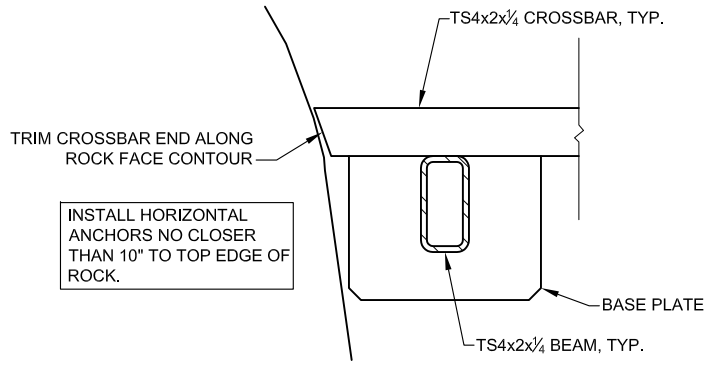
SECTION - BEAM SUPPORT AT 90°



SECTION - BEAM SUPPORT AT ANGLE

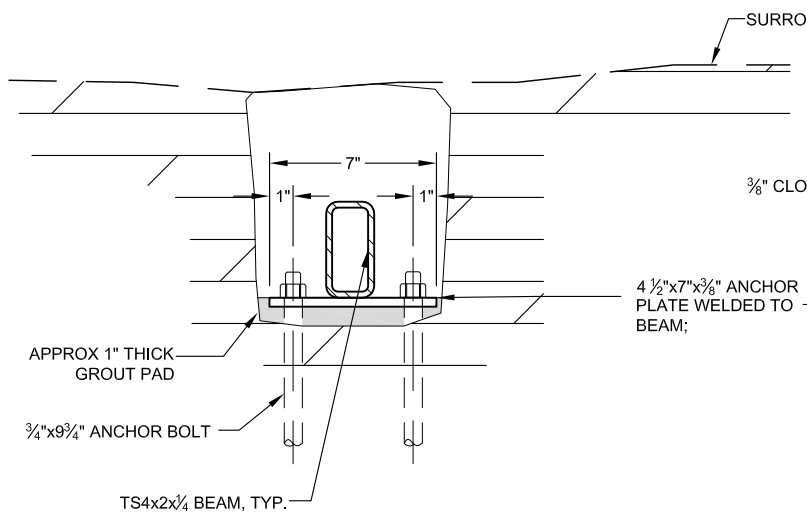
BEAM SUPPORT SIDE SECTION

SCALE: ½" = 1'-0"

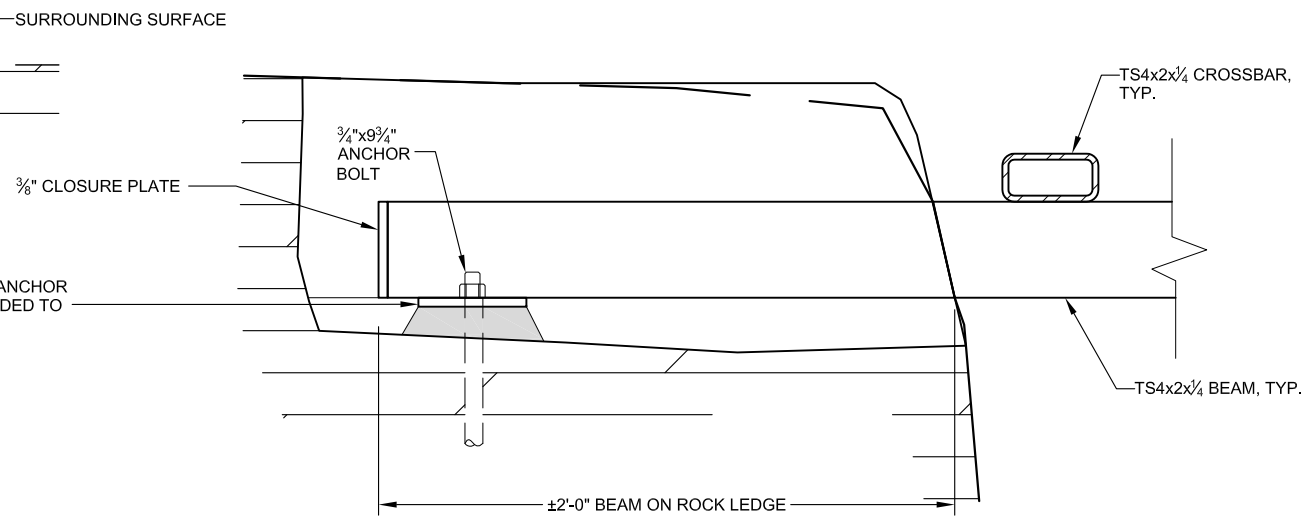


BEAM-CROSSBAR SECTION VIEW

SCALE: ¾" = 1'-0"



CROSS SECTION



LONGITUDINAL SECTION

BEAM SEAT DETAILS

SCALE: ½" = 1'-0"

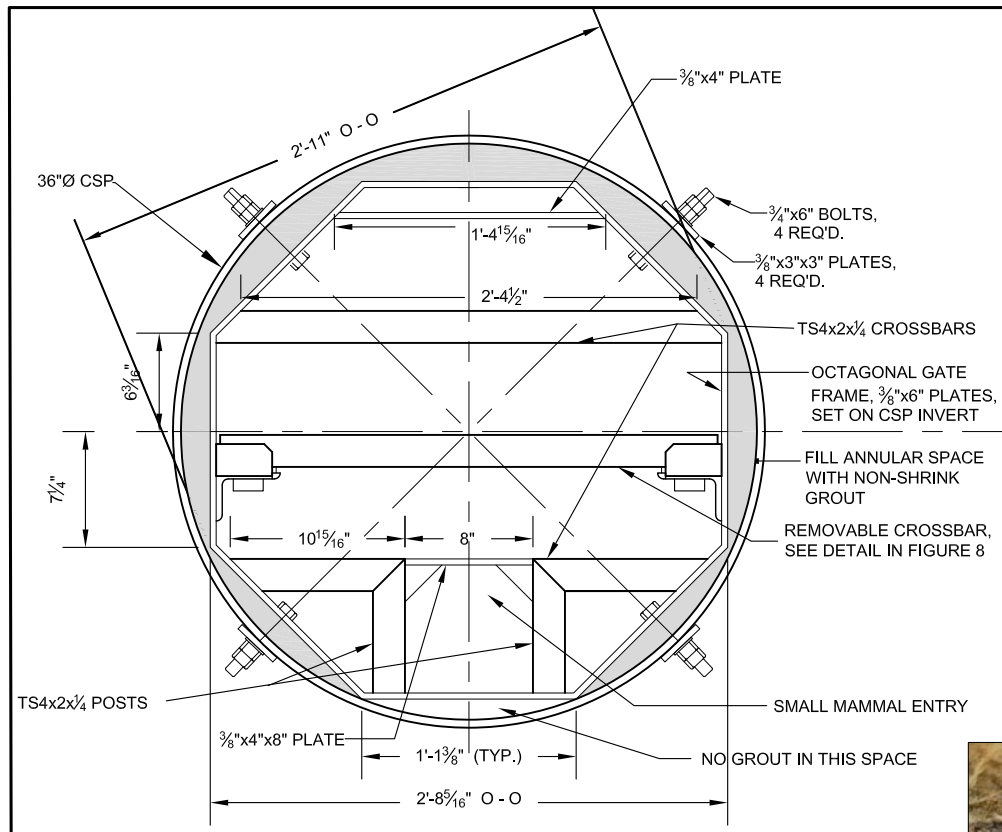
GENERAL NOTES:

1. POSITION CLOSURE AT THE TOP OF THE SHAFT AT A STABLE LOCATION AS DIRECTED BY THE PROJECT MANAGER. IF THERE IS POTENTIAL FOR ROCK ACCUMULATION FROM ABOVE, STRUCTURE SHOULD BE ANGLED DOWNHILL IF POSSIBLE TO ALLOW THE ROCKS TO SLIDE OFF.
2. MINIMIZE THE AMOUNT OF ROCK AND OTHER DEBRIS THAT FALL INTO THE MINE OPENINGS DURING CONSTRUCTION. PULL LOOSE MATERIAL UP AND AWAY FROM THE MINE AREA.
3. USE BEAM SUPPORTS OR BEAM SEATS, AT CONTRACTOR'S OPTION WITH CONCURRENCE FROM THE PROJECT ENGINEER, TO FASTEN BEAM ENDS TO COMPETENT ROCK. WELD CLOSURE PLATES ONTO ENDS OF CROSS BEAMS INSTALLED ON BEAM SEATS.
4. IF USING A BEAM SUPPORT, THE BEAM END SHALL BE CUT SO THAT THE FULL CROSS SECTION OF THE BEAM IS WELDED TO THE SUPPORT PLATE. IF USING A BEAM SEAT, THE BEAM SHALL BE WELDED FLUSH TO THE BEAM.
5. STEEL SHAPES, PLATES AND BARS SHALL BE WEATHER OR STAINLESS STEEL.
6. PUT ¾" CHAMFER ON ANY CONCRETE EDGES.
7. THE ANCHOR BOLT SYSTEM SHALL BE 9 ¾" X ¾" STAINLESS STEEL HILTI HIT-Z-R 316SS ANCHOR BOLTS WITH HILTI HIT-HY 200 EPOXY ADHESIVE, OR APPROVED EQUIVALENT. HOLES SHALL BE DRILLED WITH A ⅞" BIT. ANCHORS SHALL BE INSTALLED WITH A MINIMUM EMBEDMENT OF 6 ¾ INCHES. TORQUE NUTS TO 110 FT-LB. FOLLOW MANUFACTURER'S RECOMMENDATIONS REGARDING INSTALLATION.
8. DO NOT FILL BEAMS WITH CONCRETE OR GROUT.
9. INSTALL SURVEY MARKER (SUPPLIED BY AML PROGRAM) INTO ADJACENT COMPETENT ROCK AS DIRECTED BY THE PROJECT MANAGER.

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 SURFACE MATERIALS OR ROCK. THE CONSTRUCTOR SHALL BE RESPONSIBLE FOR THOROUGHLY INVESTIGATING THE SITE CONDITIONS AND SCHEDULING EQUIPMENT, EQUIPMENT OPERATIONS, PERSONNEL AND SAFETY PROCEDURES TO PREVENT ACCIDENTS AND INJURIES.

ABANDONED MINE LAND PROGRAM
MINING AND MINERALS DIVISION
NEW MEXICO ENERGY, MINERALS, AND NATURAL RESOURCES DEPARTMENT

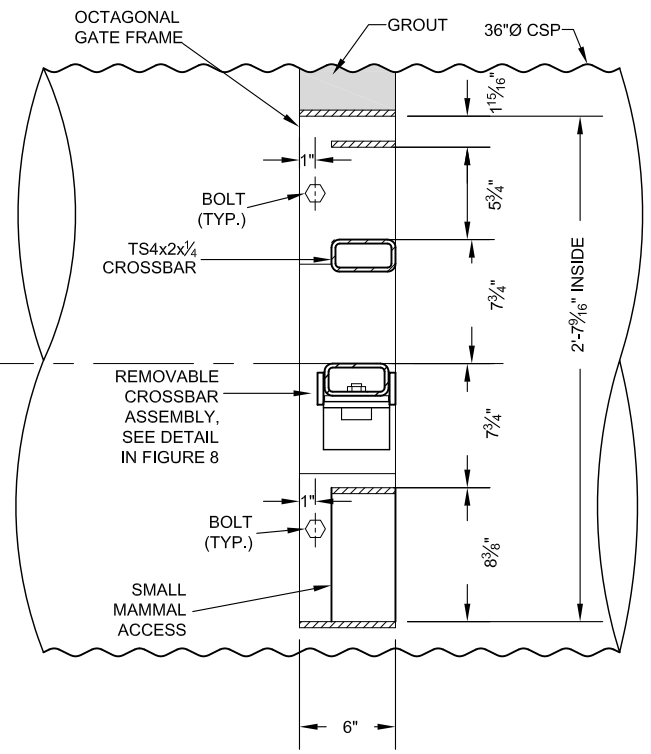
SCALE: AS SHOWN	FEATURES 178 AND 255	DRAWN BY: MWT
DATE: 11/13/19		REVISED BY: SEN
CUSTOM STEEL GATE DETAILS		
FILE:	COOKES PEAK WEST, PHASE IIIB	FIGURE: 6



BAT GATE ELEVATION

SCALE: 1" = 1'-0"

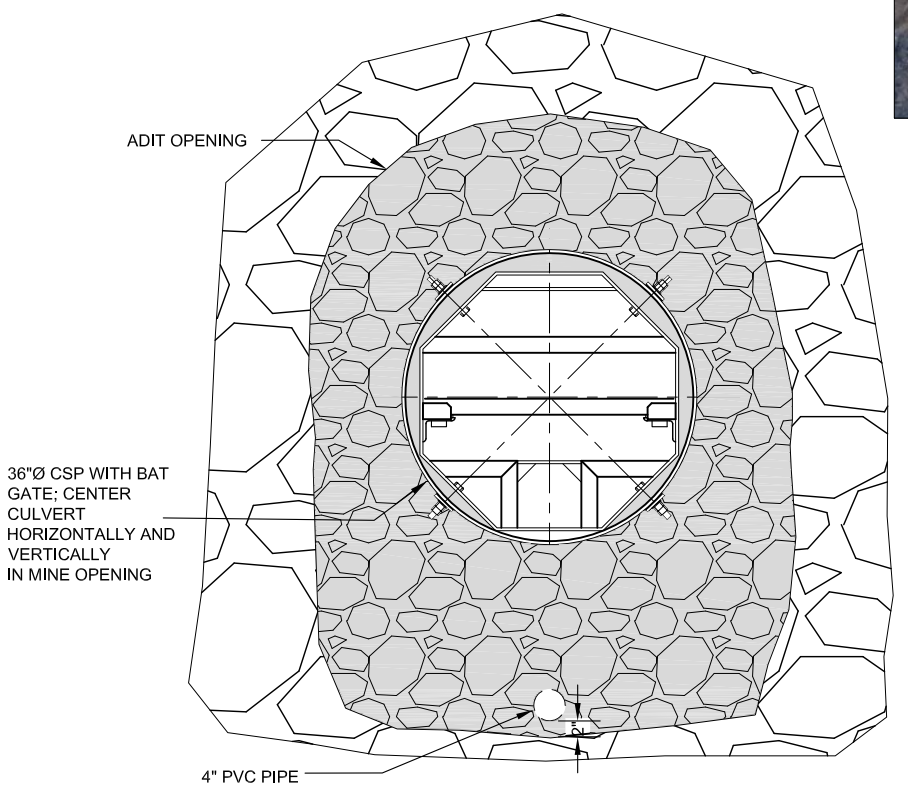
Feature F205 Adit



BAT GATE SECTION

SCALE: 1" = 1'-0"

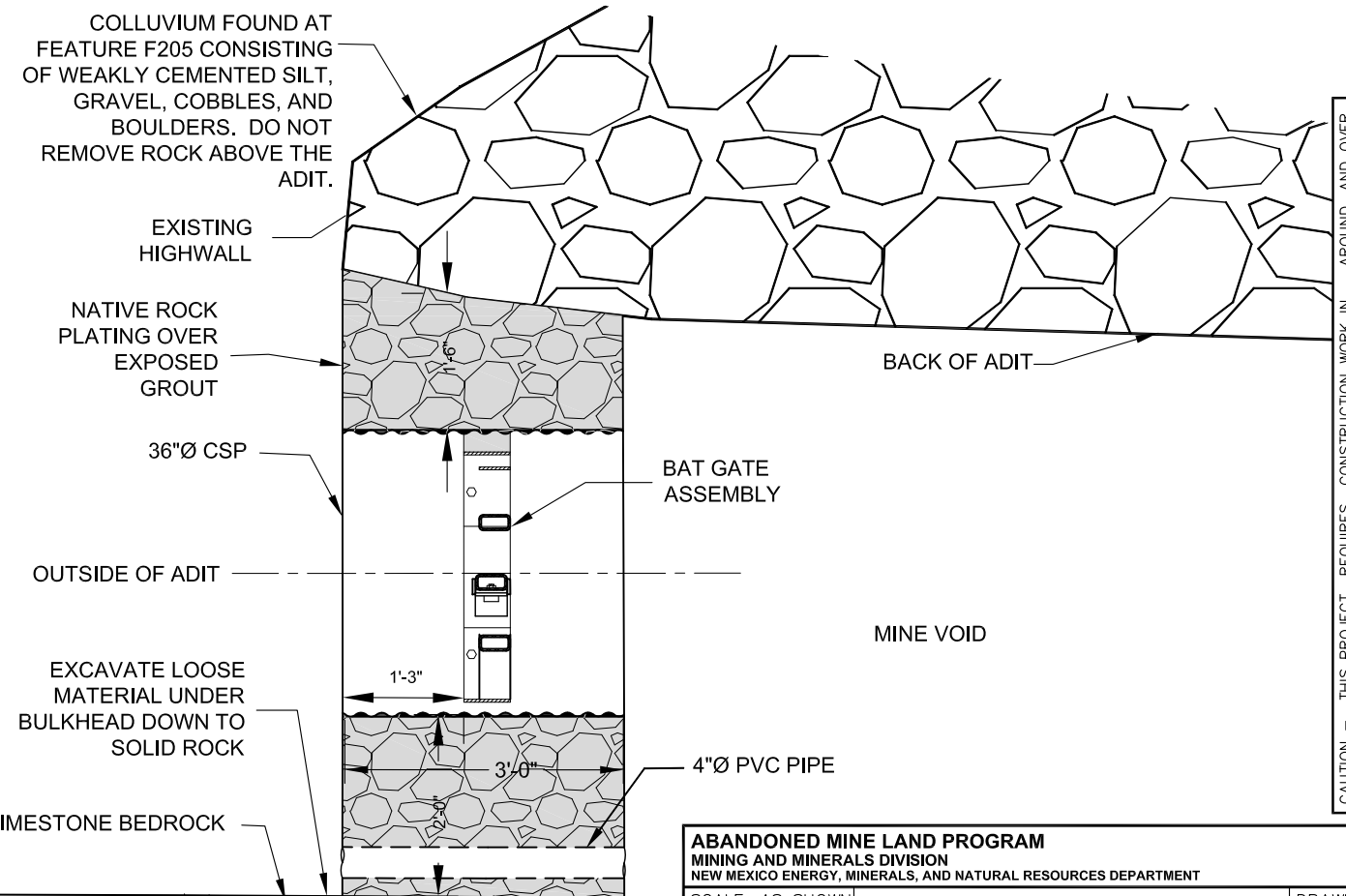
Feature F220.03 Adit



FRONT VIEW

SCALE: 1/2" = 1'-0"

Feature F323 Adit



SECTION

SCALE: 1/2" = 1'-0"

GENERAL NOTES:

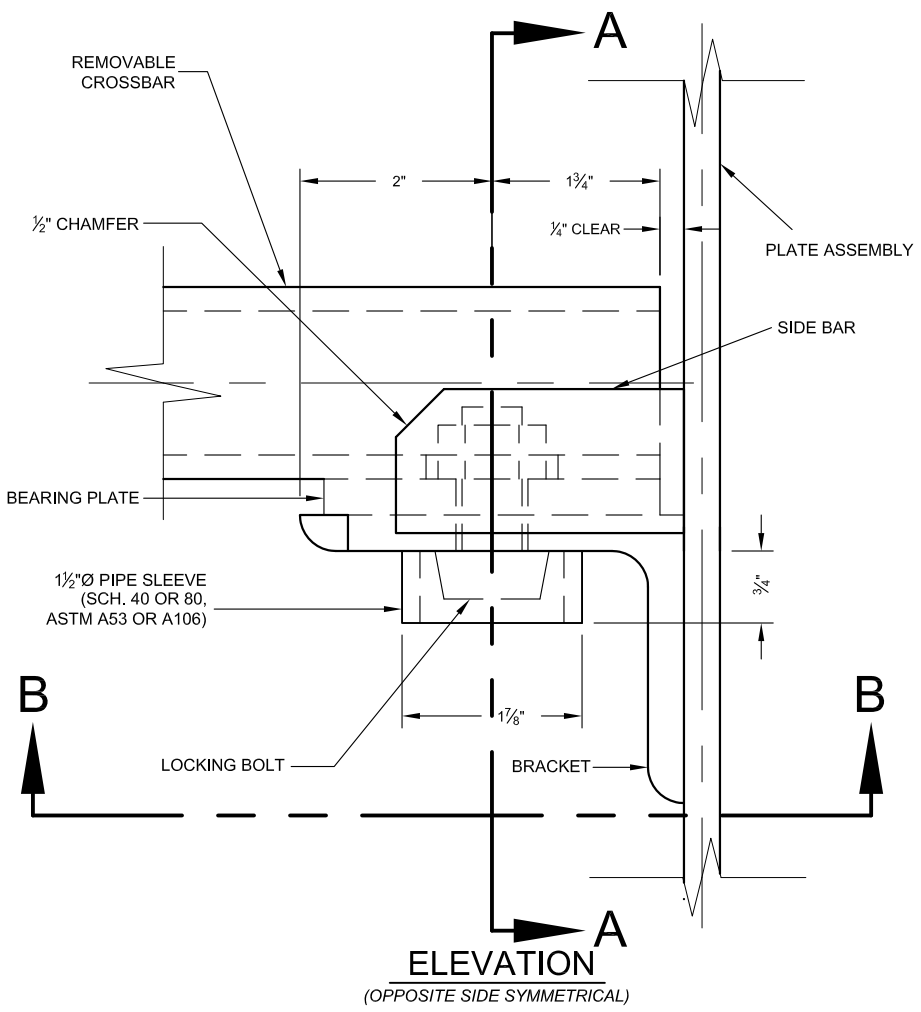
1. THE SHAPE AND DIMENSIONS SHOWN FOR THE ADIT OPENING ARE APPROXIMATE, AND ARE SHOWN FOR FEATURE F205 SPECIFICALLY. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS BEFORE FABRICATION. APPROXIMATE DIMENSIONS OF THE ADIT FOR FEATURE F323 ARE 4' WIDE X 6 ' TALL, AND FOR F220.03 ARE 10 ½ ' WIDE X 5 ½ ' TALL. CULVERT SHALL BE CENTERED IN OPENING.
2. WEAKLY CEMENTED COLLUVIUM CONSISTING OF SILT, GRAVEL, COBBLES, AND BOULDERS FORMS THE BACK OF THE ADIT IN THE FIRST 18 FEET OF THE ADIT ON FEATURE F205. FRACTURED BEDROCK AND BOULDERS EXIST ABOVE THE ADIT FOR FEATURE F323. USE CAUTION TO NOT DISTURB THE BACK OR RIBS OF THE ADIT. DO NOT REMOVE ROCK FROM THE GROUND SURFACE ABOVE THE ADIT OR FROM THE BACK OR RIBS INSIDE OF THE ADIT UNLESS APPROVED BY THE PROJECT MANAGER OR PROJECT ENGINEER.
3. STEEL PLATES AND SHAPES FOR THE BAT GATE ASSEMBLY SHALL BE WEATHERING STEEL AS SPECIFIED. WELD ALL JOINTS. PLATES FOR BOLTS, BOLTS AND NUTS SHALL BE WEATHERING OR STAINLESS STEEL. DOUBLE-NUT ALL BOLTS. ROUND OR CHAMFER ALL EXPOSED EDGES AND CORNERS. CONSTRUCT THE BAT GATE TO ELIMINATE SURFACES ON WHICH MOISTURE OR DEBRIS CAN BE TRAPPED.
4. GROUTED ROCK BULKHEAD SHALL BE CONSTRUCTED FROM NON-SHRINK GROUT AND SOUND, DURABLE NATIVE ROCK FROM THE VICINITY OF THE FEATURE AS LARGE AS PRACTICABLE AND NO SMALLER THAN 6" IN LEAST DIMENSION. PLACE ROCK BULKHEAD AS SHOWN AND ACROSS FULL HEIGHT AND WIDTH OF ADIT OPENING. DO NOT BLOCK THE CSP OPENING.
5. GROUT SHALL BE QUIKRETE NON-SHRINK GROUT, OR APPROVED EQUIVALENT. GROUT SHALL BE MIXED TO FLOWABLE CONSISTENCY FOR FILLING IN OUTER GAPS OF BAT GATE, AND TO PLASTIC CONSISTENCY FOR CONSTRUCTION OF BULKHEAD. GROUT SHALL BE MIXED ACCORDING TO MANUFACTURER'S INSTRUCTIONS.
6. PAINT VISIBLE PORTIONS OF CSP (INSIDE AND OUTSIDE) WITH NATINA STAIN OR APPROVED EQUIVALENT FOR CAMOUFLAGE. COLOR SHOULD BLEND IN WITH THE BULKHEAD AS DIRECTED BY THE PROJECT MANAGER.
7. INSTALL SURVEY MARKER INTO GROUT OR ADJACENT COMPETENT ROCK AS DIRECTED BY THE PROJECT MANAGER.

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 SURFACE MATERIALS OR ROCK. THE CONSTRUCTOR SHALL BE RESPONSIBLE FOR THOROUGHLY INVESTIGATING THE SITE CONDITIONS AND SCHEDULING EQUIPMENT, EQUIPMENT OPERATIONS, PERSONNEL AND SAFETY PROCEDURES TO PREVENT ACCIDENTS AND INJURIES.

ABANDONED MINE LAND PROGRAM
MINING AND MINERALS DIVISION
NEW MEXICO ENERGY, MINERALS, AND NATURAL RESOURCES DEPARTMENT

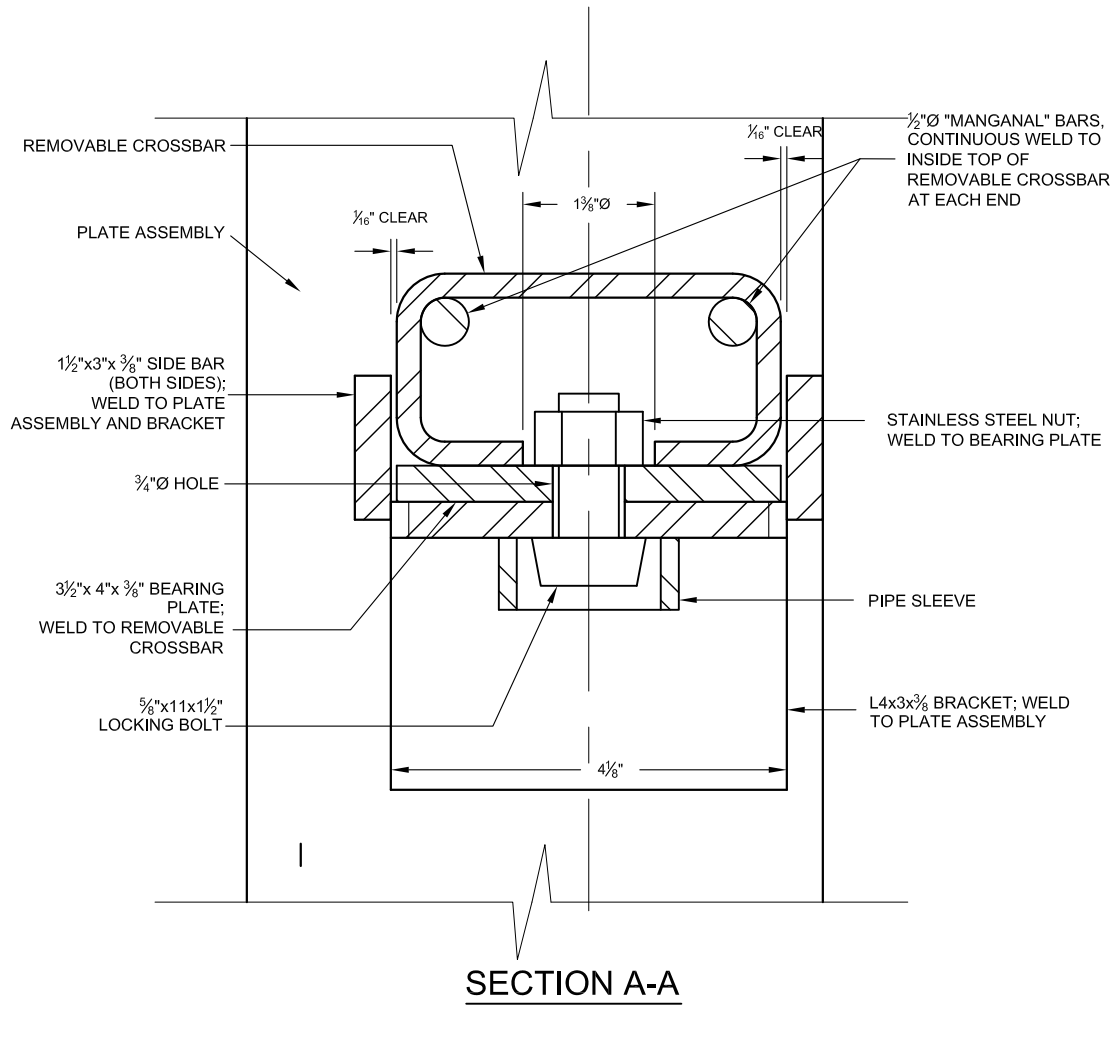
SCALE: AS SHOWN	FEA 205, 220.03 AND 323	DRAWN BY: MWT
DATE: 11/13/2019		REVISED BY: SEN
CULVERT WITH BAT GATE IN GROUTED BULKHEAD		
FILE:	COOKES PEAK WEST, PHASE IIIB	FIGURE: 7

REMOVABLE BAR DETAIL FOR CULVERT BAT GATE

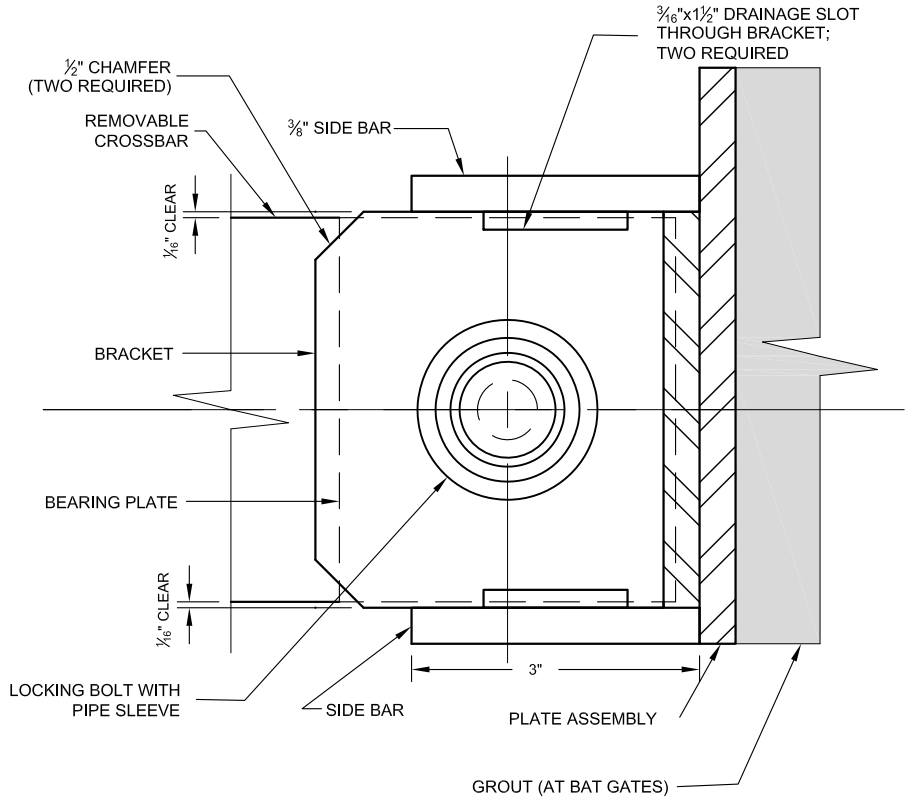


ELEVATION

(OPPOSITE SIDE SYMMETRICAL)



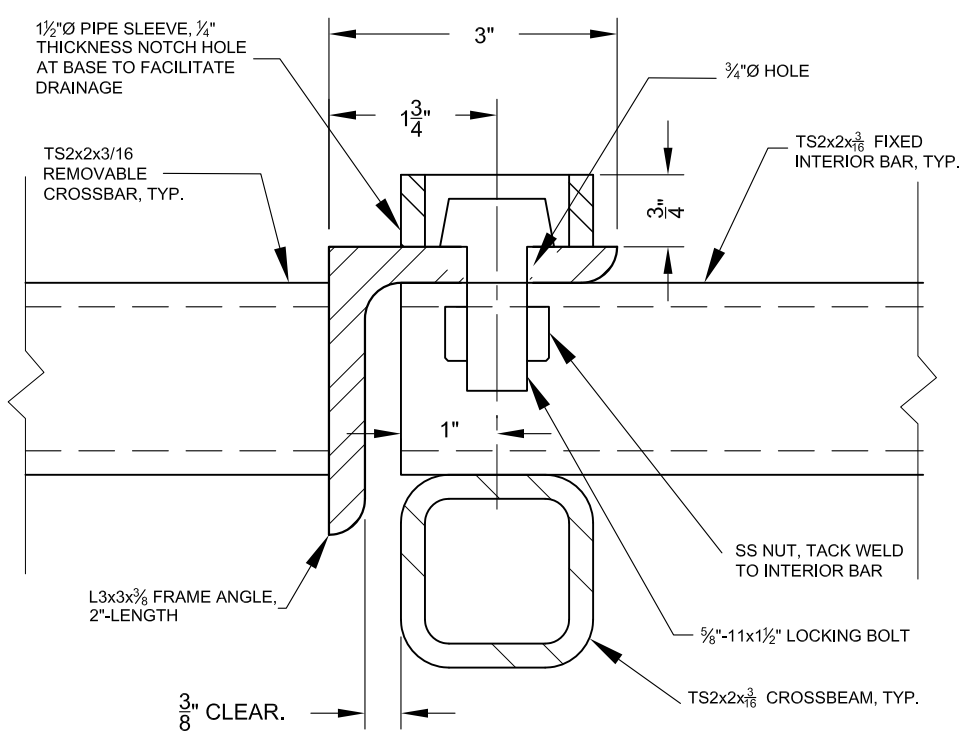
SECTION A-A



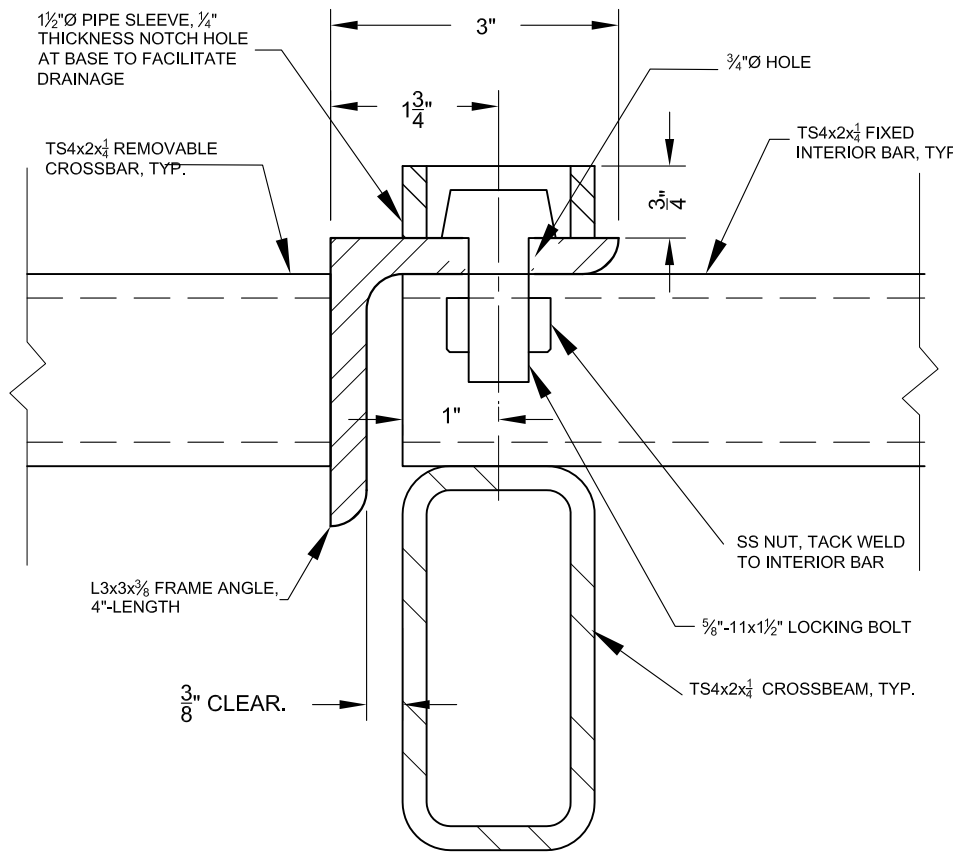
SECTION B-B

(BOTTOM VIEW)

REMOVABLE BAR DETAIL FOR LIGHTWEIGHT, STANDARD, AND CUSTOM BAT GATE



ELEVATION - FOR LIGHTWEIGHT GATE



ELEVATION - FOR STANDARD AND CUSTOM GATE

GENERAL NOTES:

1. STEEL PLATES AND SHAPES SHALL BE WEATHERING STEEL. WELD ALL JOINTS, EXCEPT AS OTHERWISE INDICATED. CONSTRUCT THE LOCK TO ELIMINATE SURFACES ON WHICH MOISTURE OR DEBRIS CAN BE TRAPPED. JOINTS SHALL BE TIGHT SO THAT MOISTURE CANNOT ENTER BETWEEN THE PLIES OF MATERIAL. ROUND OR CHAMFER ALL EXPOSED SHARP CORNERS AND EDGES.

2. "MANGANAL" BARS SHALL BE HIGH MANGANESE STEEL WITH 12% TO 14% MANGANESE. EACH BAR SHALL EXTEND THE FULL LENGTH OF EACH REMOVABLE CROSSBAR.

3. ALONG THE BOTTOM OF EACH REMOVABLE CROSSBAR, DRILL ½" DIAMETER HOLES AT 1'-0" O.C.

4. THE CONTRACTOR SHALL PROVIDE THE NUTS (⅝"Ø - 11 UNC CLASS 2A THREAD). THE PROJECT MANAGER WILL SUPPLY THE LOCKING BOLTS.

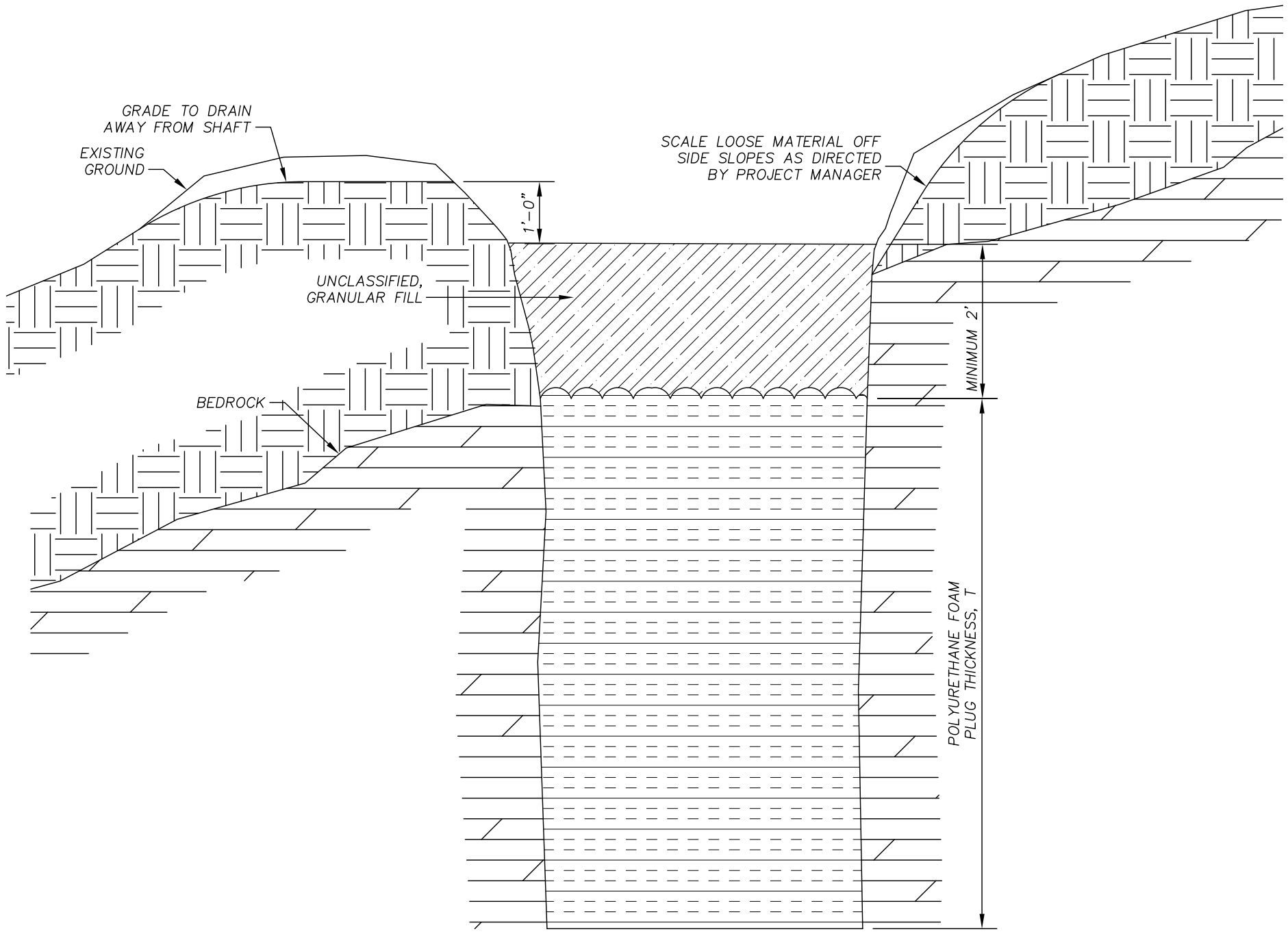
5. COAT THE THREADS OF THE LOCKING BOLTS WITH LPS1 LUBRICANT AND INSTALL FIRMLY WITH 50 TO 75 POUNDS OF TORQUE.

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 SURFACE MATERIALS OR ROCK. THE CONSTRUCTOR SHALL BE RESPONSIBLE FOR THOROUGHLY INVESTIGATING THE SITE CONDITIONS AND SCHEDULING EQUIPMENT, EQUIPMENT OPERATIONS, PERSONNEL AND SAFETY PROCEDURES TO PREVENT ACCIDENTS AND INJURIES.

ABANDONED MINE LAND PROGRAM
MINING AND MINERALS DIVISION
NEW MEXICO ENERGY, MINERALS, AND NATURAL RESOURCES DEPARTMENT

SCALE: 6"=1'-0"	VARIOUS LOCATIONS	DRAWN BY: MWT
DATE: 11/8/2019		REVISED BY: SEN
REMOVABLE CROSSBAR LOCK DETAIL		
FILE:	COOKES PEAK WEST – PHASE IIIB	FIGURE: 8

TYPICAL



TYPICAL SECTION

NOTE:

1. PRIOR TO PLACING THE PUF PLUG, INFORM THE PROJECT ENGINEER OF ANY PROPOSED CHANGES TO THE THICKNESS, T, OF THE PUF PLUG FOR HIS REVIEW AND APPROVAL.

GENERAL NOTES:

1. INSTALL POLYURETHANE FOAM (PUF) AS SPECIFIED. REMOVE DIRT AND LOOSE ROCK FROM SURFACES AGAINST WHICH PUF WILL BE PLACED. PLACE PUF AGAINST CLEAN, DRY SURFACES.
2. AS PRACTICABLE, SHAPE THE REMAINING MINE WASTE MATERIAL TO RESEMBLE AN UNDISTURBED MINE WASTE PILE.
3. INSTALL SURVEY CAP IN ACCORDANCE WITH SECTION 02890.

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 SURFACE MATERIALS OR ROCK. THE CONSTRUCTOR SHALL BE RESPONSIBLE FOR THOROUGHLY INVESTIGATING THE SITE CONDITIONS AND SCHEDULING EQUIPMENT, EQUIPMENT OPERATIONS, PERSONNEL AND SAFETY PROCEDURES TO PREVENT ACCIDENTS AND INJURIES.

ABANDONED MINE LAND PROGRAM
MINING AND MINERALS DIVISION
NEW MEXICO ENERGY, MINERALS, AND NATURAL RESOURCES DEPARTMENT

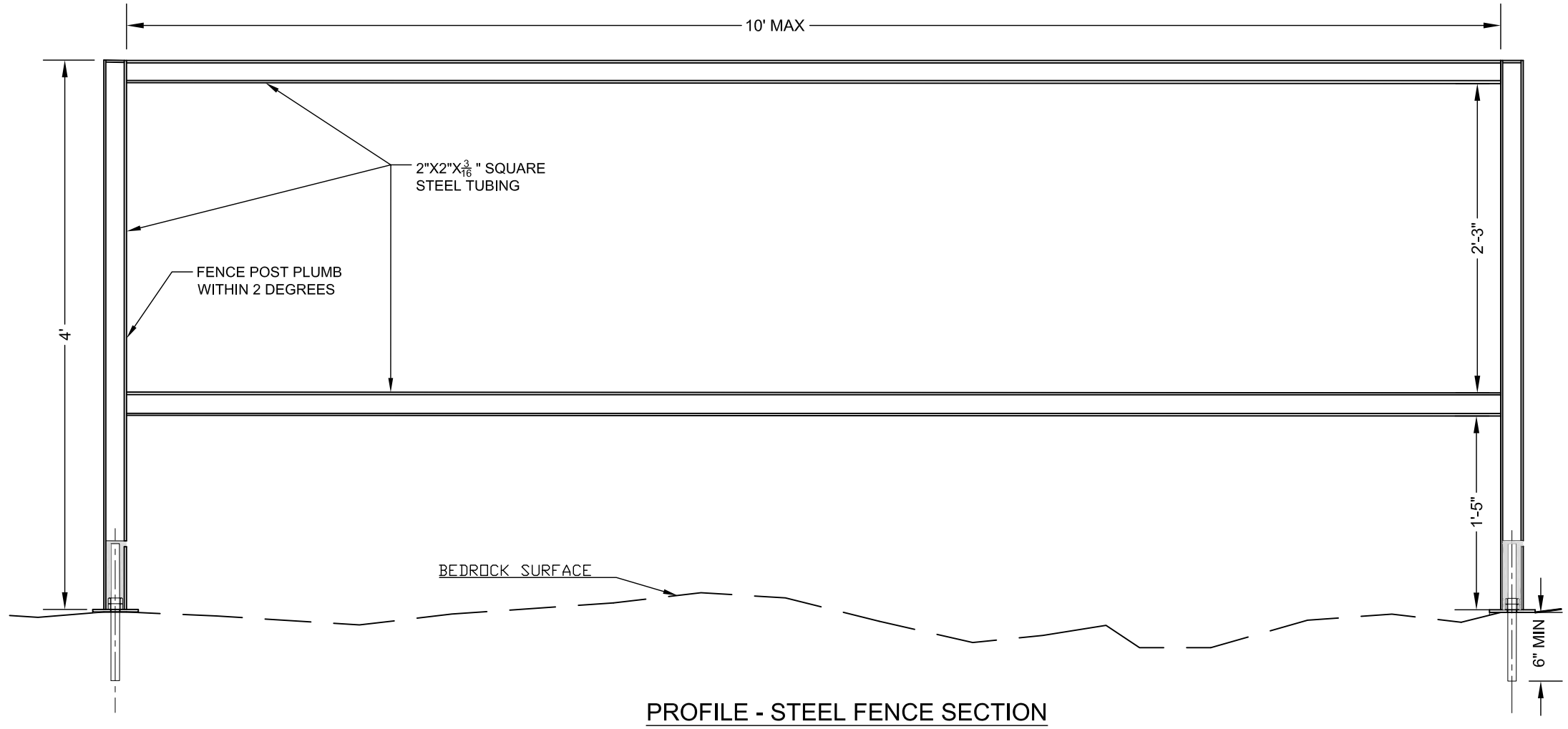
SCALE: NOT TO SCALE	FEATURE 275	DRAWN BY: MWT
DATE: 11/8/2019		REVISED BY: SEN
POLYURETHANE FOAM PLUG CLOSURE		
FILE:	COOKES PEAK WEST MINE SAFEGUARD PROJECT, PHASE IIIB	FIGURE: 9

FEATURE 191
170 FT LONG FENCE

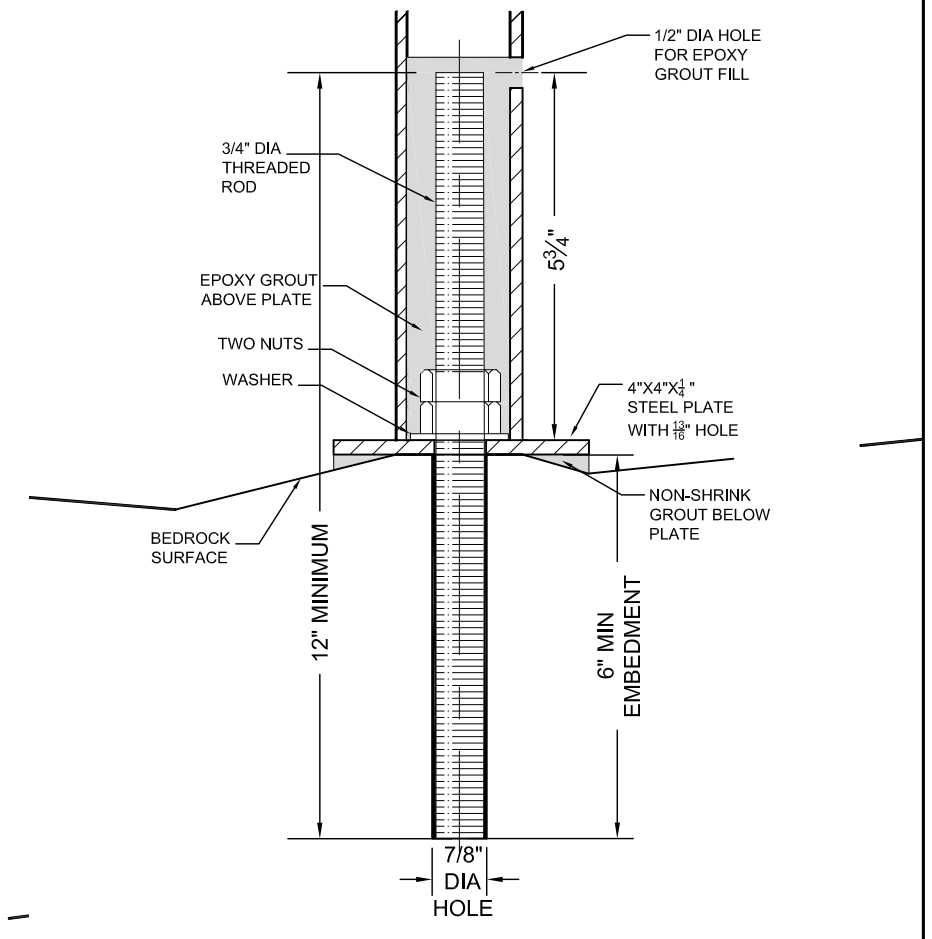
FEATURE 220.01
120 FT LONG FENCE

GENERAL NOTES:

1. THE SHAPE AND DIMENSIONS SHOWN FOR THE EXISTING STOPE OPENING AND FENCE LOCATIONS ARE APPROXIMATE. FIELD VERIFY ALL LOCATIONS AND DIMENSIONS BEFORE FABRICATION. WE ESTIMATE THAT FEATURE 191 WILL REQUIRE 170 FEET OF FENCE, AND FEATURE 220.01 WILL REQUIRE 110 FEET OF FENCE.
2. FENCE SHALL BE LOCATED APPROXIMATELY THREE FEET FROM EDGE OF HIGHWALL. THE FENCE POST INSTALLATION LOCATIONS SHALL BE LAID OUT, MARKED WITH TEMPORARY MARKINGS (MARKING CHALK, FOR EXAMPLE), AND APPROVED BY THE PROJECT MANAGER OR PROJECT ENGINEER PRIOR TO INSTALLATION. FAILURE TO OBTAIN APPROVAL PRIOR TO INSTALLATION MAY RESULT IN REJECTION OF INSTALLATION. THE CONTRACTOR SHALL TAKE PHOTOGRAPHS OF THE MARKED FENCE POST INSTALLATION LOCATIONS.
3. STEEL PLATES AND SHAPES SHALL BE WEATHERING STEEL. WELD ALL JOINTS. CONSTRUCT THE FENCE TO ELIMINATE SURFACES ON WHICH MOISTURE OR DEBRIS CAN BE TRAPPED. ALL TUBULAR MEMBERS SHALL BE HERMETICALLY SEALED TO PREVENT THE INCURSION OF MOISTURE, EXCEPT AS OTHERWISE NOTED. ROUND OR CHAMFER ALL EXPOSED SHARP CORNERS AND EDGES.
4. THE ANCHOR BOLTS SHALL BE 3/4-INCH DIAMETER HILTI HAS-R 316 SS STAINLESS STEEL THREADED ROD, OR APPROVED EQUIVALENT. HOLES SHALL BE DRILLED WITH A 7/8-INCH DRILL BIT TO A MINIMUM DEPTH OF 6 INCHES. ADDITIONAL EMBEDMENT DEPTH MAY BE REQUIRED DUE TO UNSATISFACTORY ROCK CONDITIONS. DRILL HOLES SHALL BE CLEANED OUT WITH COMPRESSED AIR AND BRUSH PER THE MANUFACTURER'S INSTRUCTIONS. A HILTI BLOW OUT PUMP MAY BE USED IN PLACE OF A COMPRESSED AIR GUN. ALL DRILL HOLES MUST BE APPROVED BY THE PROJECT MANAGER OR PROJECT ENGINEER PRIOR TO INSTALLATION OF ANCHOR.
5. INJECT THE HILTI HIT-RE 500 V3 EPOXY ADHESIVE, OR APPROVED EQUIVALENT, AND INSTALL THE THREADED ROD INTO THE DRILL HOLE FOLLOWING THE MANUFACTURER'S INSTRUCTIONS. AFTER EPOXY GROUT HAS FULLY CURED, INSTALL 4"X4" PLATE OVER THREADED ROD ONTO BEDROCK. USE NON-SHRINK GROUT MIXED TO PLASTIC CONSISTENCY TO INSTALL THE PLATE LEVEL ON THE BEDROCK.
6. AFTER THE NON-SHRINK GROUT HAS DAMP CURED FOR 24 HOURS, THE ALL THREAD BAR SHALL HAVE A WASHER AND DOUBLE-NUT INSTALLED OVER THE 4"X4" PLATE. TORQUE NUTS TO APPROXIMATELY 85 FOOT-POUNDS. THE FENCE POST SHALL BE WELDED ONTO THE PLATE PLUMB WITHIN 2.0 DEGREES.
7. USING THE EPOXY ADHESIVE, FILL THE POST THROUGH THE 1/2-INCH DIAMETER FILL HOLE UNTIL THE EPOXY LEVEL IS OVER THE TOP OF THE FILL HOLE. SEAL THE FILL HOLE TEMPORARILY WITH A PLUG OR TAPE TO PREVENT EPOXY LEAKAGE. WHEN THE EPOXY HAS CURED THE FILL HOLE SHOULD BE SEALED COMPLETELY CLOSED WITH THE EPOXY ADHESIVE.



PROFILE - STEEL FENCE SECTION
SCALE: 1" = 1'-0"

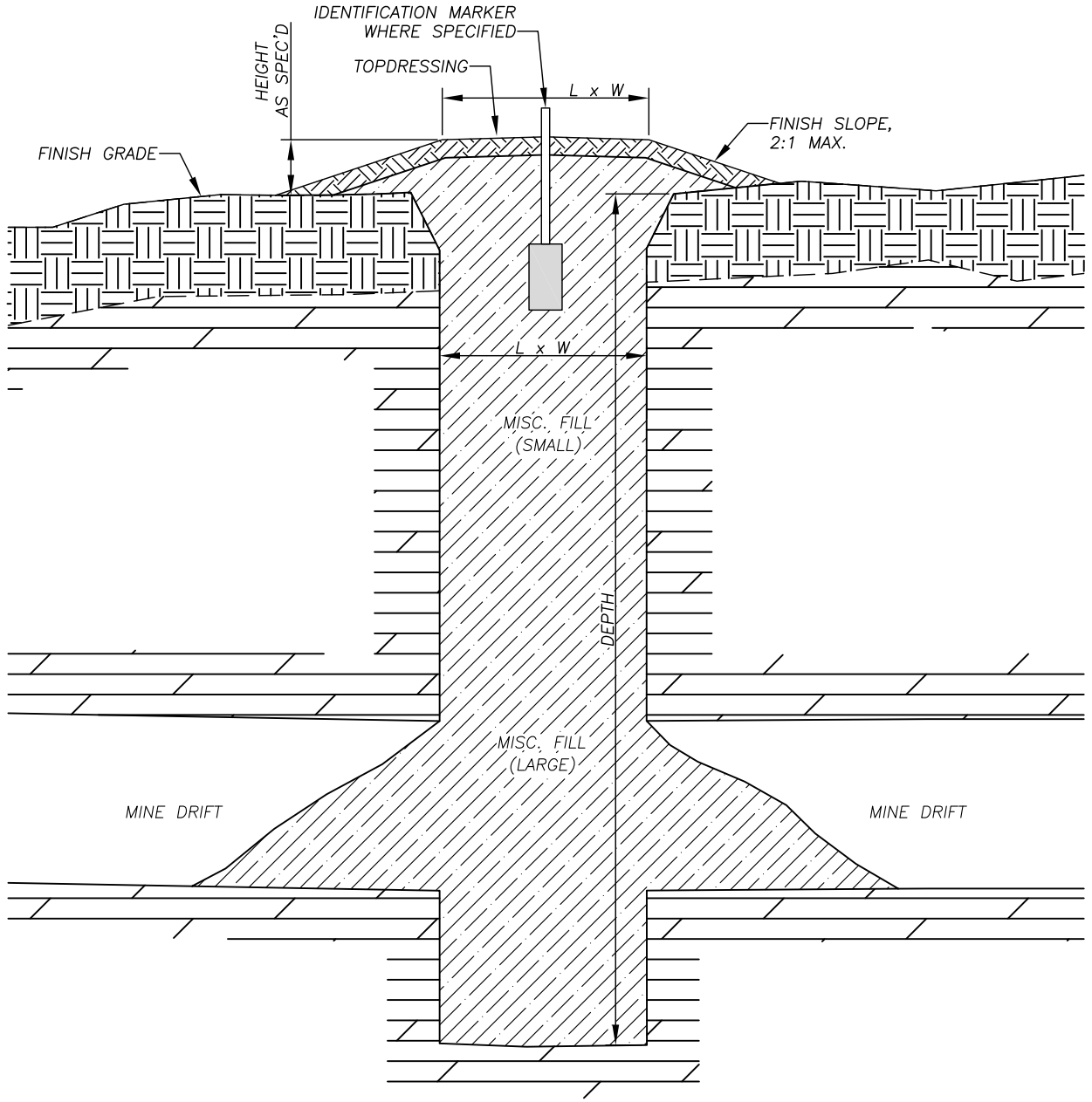


ANCHOR BOLT AND PLATE DETAIL
SCALE: 4" = 1'-0"

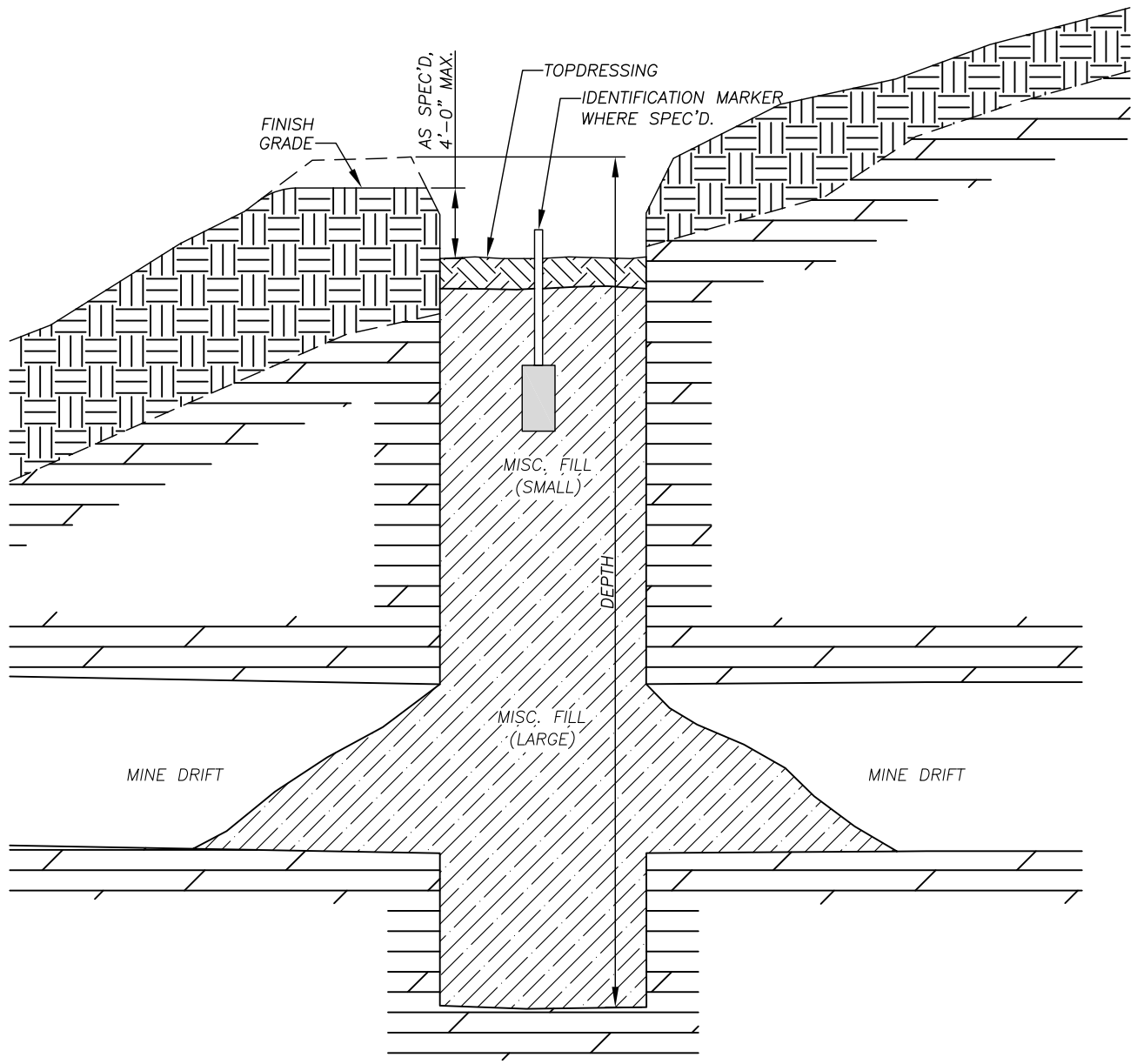
CAUTION – THIS PROJECT REQUIRES CONSTRUCTION WORK IN, AROUND, AND OVER HAZARDOUS AND UNPROTECTED MINE SHAFTS, STOPES, ADITS, AND OTHER OPENINGS WHICH MAY BE OPEN TO THE SURFACE OR HIDDEN FROM VIEW BY TRASH, DEBRIS, OR THIN AND UNSTABLE LAYERS OF SURFACE MATERIALS OR ROCK. THE CONSTRUCTOR SHALL BE RESPONSIBLE FOR THOROUGHLY INVESTIGATING THE SITE CONDITIONS AND SCHEDULING EQUIPMENT, EQUIPMENT OPERATIONS, PERSONNEL AND SAFETY PROCEDURES TO PREVENT ACCIDENTS AND INJURIES.

ABANDONED MINE LAND PROGRAM
MINING AND MINERALS DIVISION
NEW MEXICO ENERGY, MINERALS, AND NATURAL RESOURCES DEPARTMENT

SCALE: AS SHOWN	FEATURES 191 AND 220.01	DRAWN BY: SEN
DATE: 11/12/2019		REVISED BY: SEN
STEEL FENCE AROUND OPEN STOPES		
FILE:	COOKES PEAK WEST, PHASE IIIB	FIGURE: 11



MOUNDED BACKFILL DESIGN
(TYPICAL SECTION)



DEPRESSED BACKFILL DESIGN
(TYPICAL SECTION)

GENERAL NOTES:

1. THE FILL AT AND ABOVE DRIFT LEVELS SHALL CONSIST OF THE COARSEST MATERIAL AVAILABLE. SMALLER MATERIAL MAY BE USED ELSEWHERE. SEE THE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

2. AS PRACTICABLE, SHAPE THE REMAINING MINE WASTE MATERIAL TO RESEMBLE AN UNDISTURBED MINE WASTE PILE.

3. THE LENGTH AND WIDTH OF THE TOP OF THE MOUND SHALL BE EQUAL TO OR GREATER THAN THE INTERNAL SHAFT LENGTH AND WIDTH RESPECTIVELY.

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 SURFACE MATERIALS OR ROCK. THE CONSTRUCTOR SHALL BE RESPONSIBLE FOR THOROUGHLY INVESTIGATING THE SITE CONDITIONS AND SCHEDULING EQUIPMENT, EQUIPMENT OPERATIONS, PERSONNEL AND SAFETY PROCEDURES TO PREVENT ACCIDENTS AND INJURIES.

ABANDONED MINE LAND PROGRAM
MINING AND MINERALS DIVISION
NEW MEXICO ENERGY, MINERALS, AND NATURAL RESOURCES DEPARTMENT

SCALE: NOT TO SCALE	VARIOUS LOCATIONS	DRAWN BY: JAK
DATE: 11/8/19		REVISED BY: SEN
SHAFT BACKFILL DESIGNS		
FILE:	COOKES PEAK WEST, PHASE IIIB	FIGURE: 10