

TRIM BROW OF  
LOOSE, UNSTABLE  
MATERIAL

1.5  
1

H

2H  
(5' MINIMUM)

ADIT  
DIMENSIONS  
VARY

BACKFILL

HAND and/or MACHINE PLACED RANDOM FILL

2 MIN.  
1

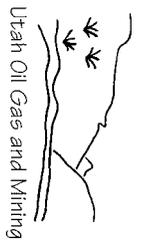
**ADIT BACKFILL CLOSURE**

Scale: as noted

Design: LAA Drafting: JCR

Refer to Spec Section 0200's

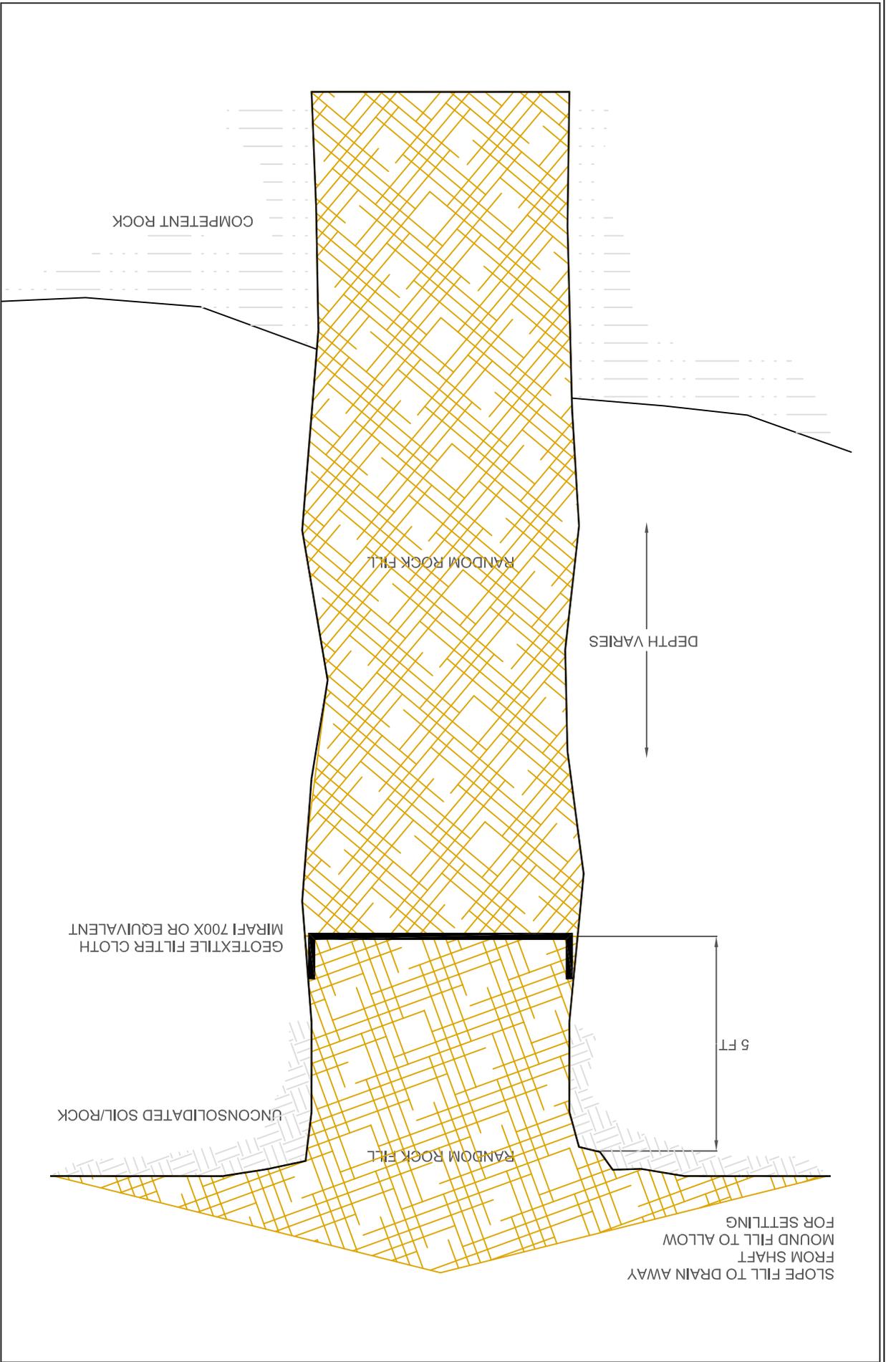
Sheet E1 of E19



**UTAH  
NATURAL RESOURCES**  
Oil, Gas and Mining  
Abandoned Mine Reclamation Program

**MINE RECLAMATION  
PROJECT**

SLOPE FILL TO DRAIN AWAY  
FROM SHAFT  
MOUND FILL TO ALLOW  
FOR SETTLING



**UTAH  
NATURAL RESOURCES**  
Oil, Gas and Mining  
Abandoned Mine Reclamation Program

**MINE RECLAMATION  
PROJECT**

**SHAFT BACKFILL CLOSURE**

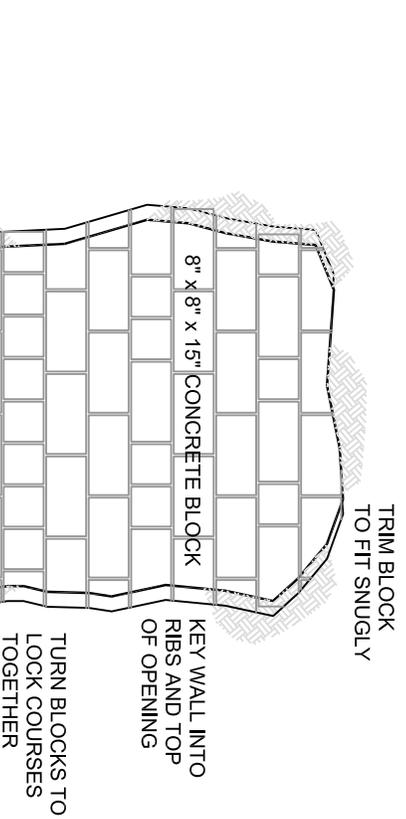
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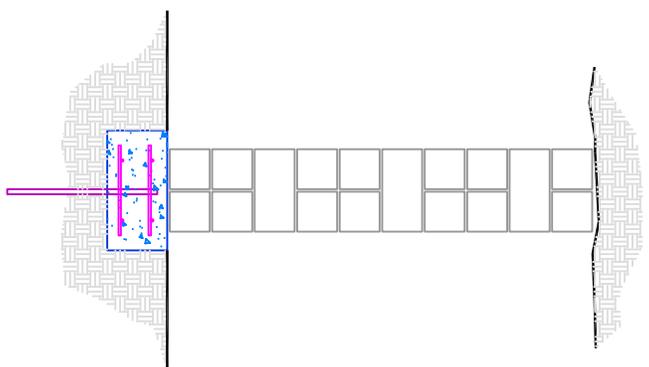
Refer to Spec Section 0200's

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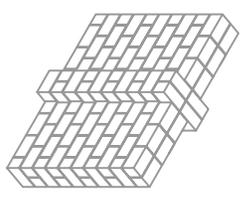
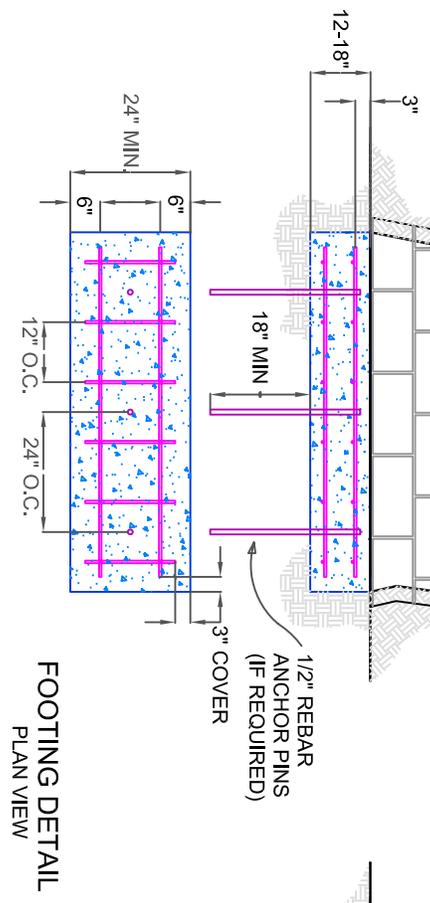
TYPICAL ELEVATION



TYPICAL SECTION



CONCRETE FOOTER AND REBAR ANCHOR PINS MAY BE OMITTED WITH OWNERS APPROVAL WHERE THE SILL IS COMPETENT ROCK



PLASTER DETAIL

TYPICAL ELEVATION

TYPICAL SECTION

FOOTING DETAIL PLAN VIEW

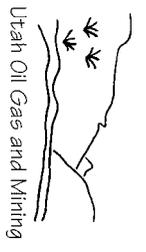
BLOCK WALL CLOSURE

Scale: as noted

Design: LAA Drafting: JCR

Refer to Spec Section 02000's

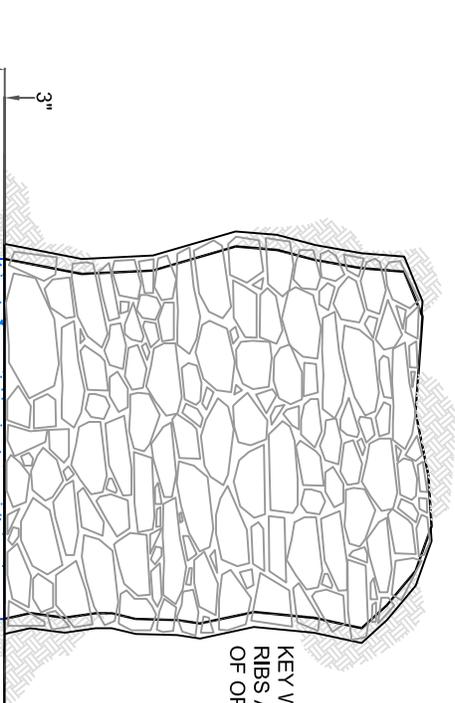
Sheet E3 of E19



UTAH  
NATURAL RESOURCES  
Oil, Gas and Mining  
Abandoned Mine Reclamation Program

MINE RECLAMATION  
PROJECT

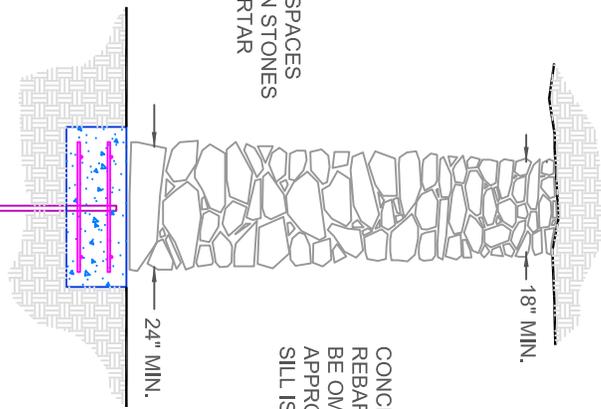
TYPICAL ELEVATION



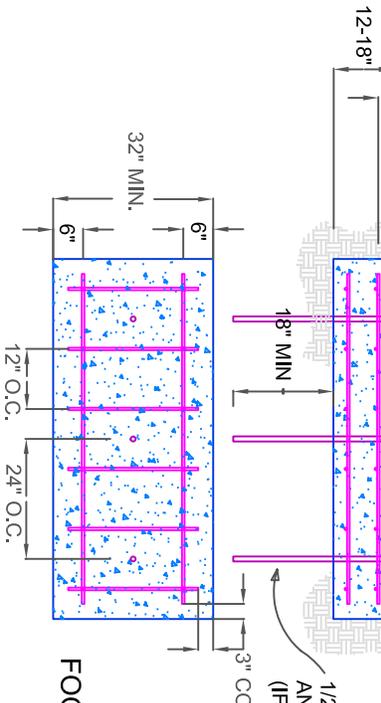
KEY WALL INTO  
RIBS AND TOP  
OF OPENING

FILL ALL SPACES  
BETWEEN STONES  
WITH MORTAR

TYPICAL SECTION



CONCRETE FOOTER AND  
REBAR ANCHOR PINS MAY  
BE OMITTED WITH OWNERS'  
APPROVAL WHERE THE  
SILL IS COMPETENT ROCK



FOOTING DETAIL  
PLAN VIEW



Utah Oil Gas and Mining

**UTAH  
NATURAL RESOURCES**  
Oil, Gas and Mining  
Abandoned Mine Reclamation Program

**MINE RECLAMATION  
PROJECT**

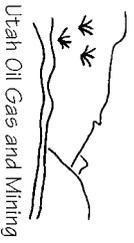
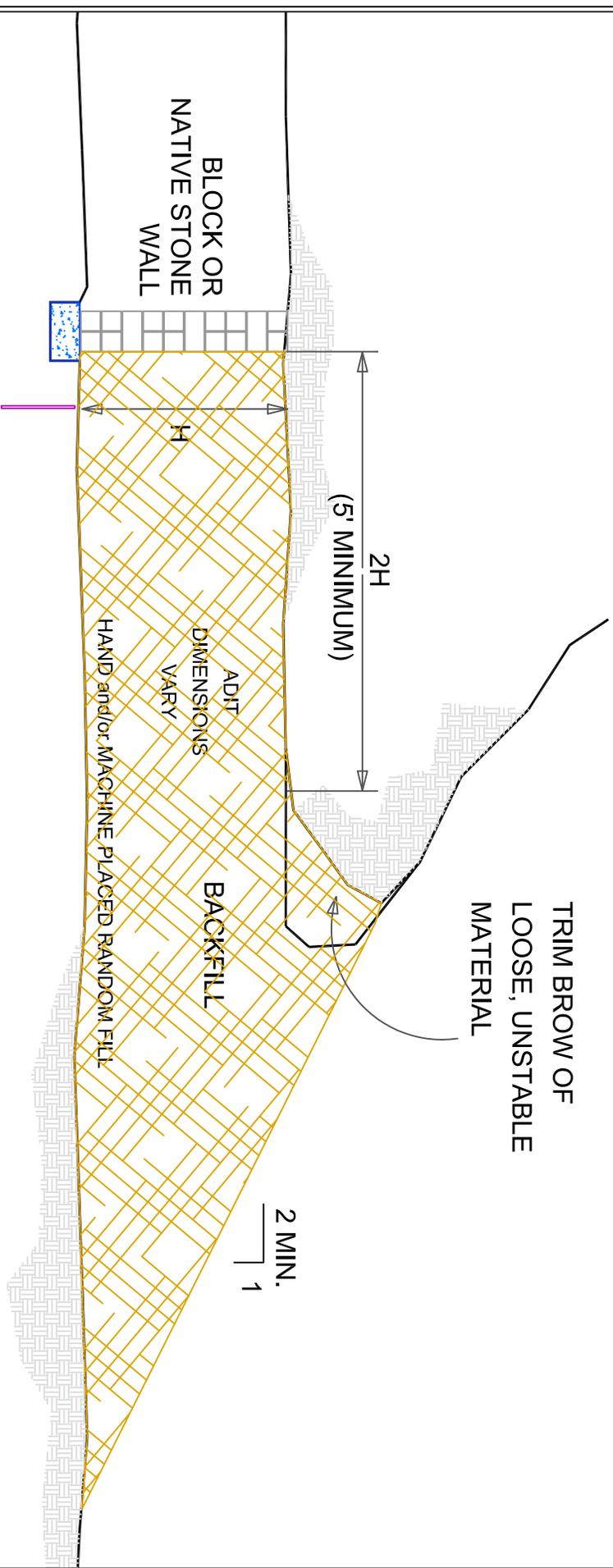
**NATIVE STONE WALL CLOSURE**

Scale: as noted

Design: LAA Drafting: JCR

Refer to Spec Section 0200's

Sheet E4 of E19



**UTAH**  
**NATURAL RESOURCES**  
**Oil, Gas and Mining**  
Abandoned Mine Reclamation Program

**MINE RECLAMATION  
PROJECT**

**WALL AND BACKFILL CLOSURE**

Scale: as noted

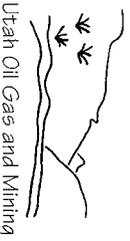
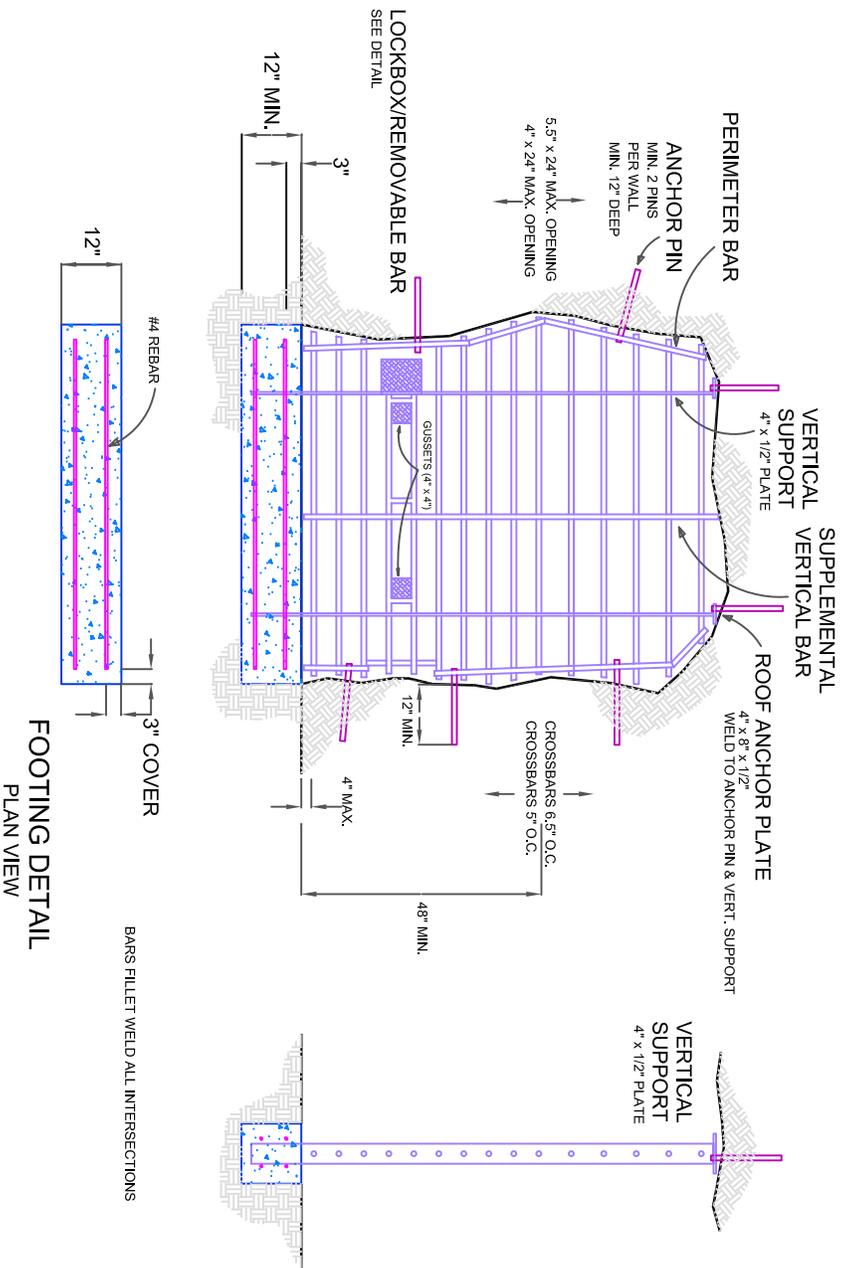
Design: LAA Drafting: JCR

Refer to Spec Section 0200's

Sheet E5 of E19

TYPICAL ELEVATION

TYPICAL SECTION



**UTAH**  
**NATURAL RESOURCES**  
 Oil, Gas and Mining  
 Abandoned Mine Reclamation Program

**MINE RECLAMATION**  
**PROJECT**

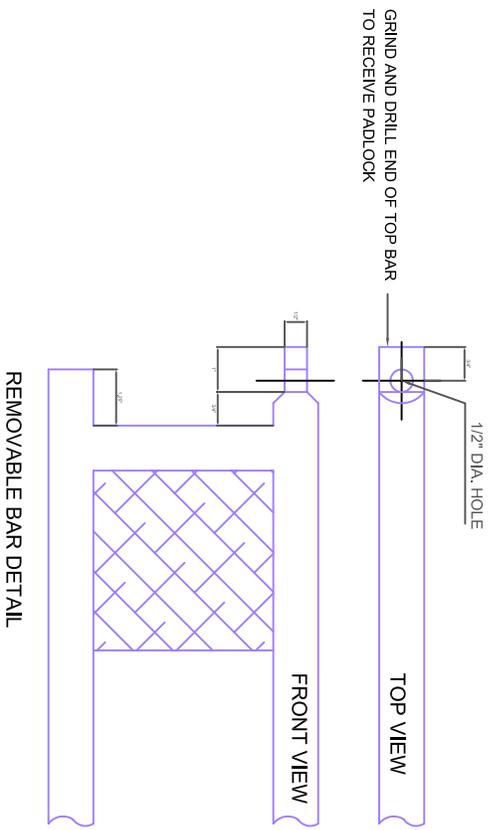
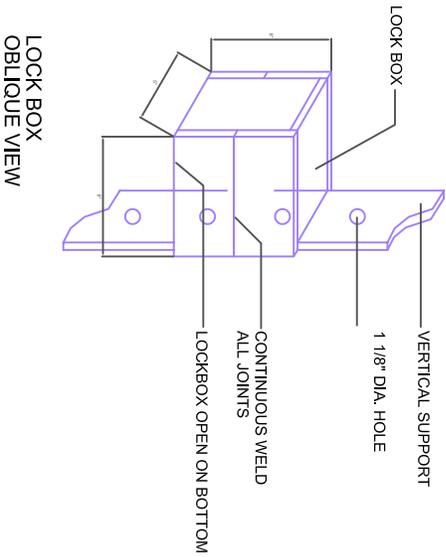
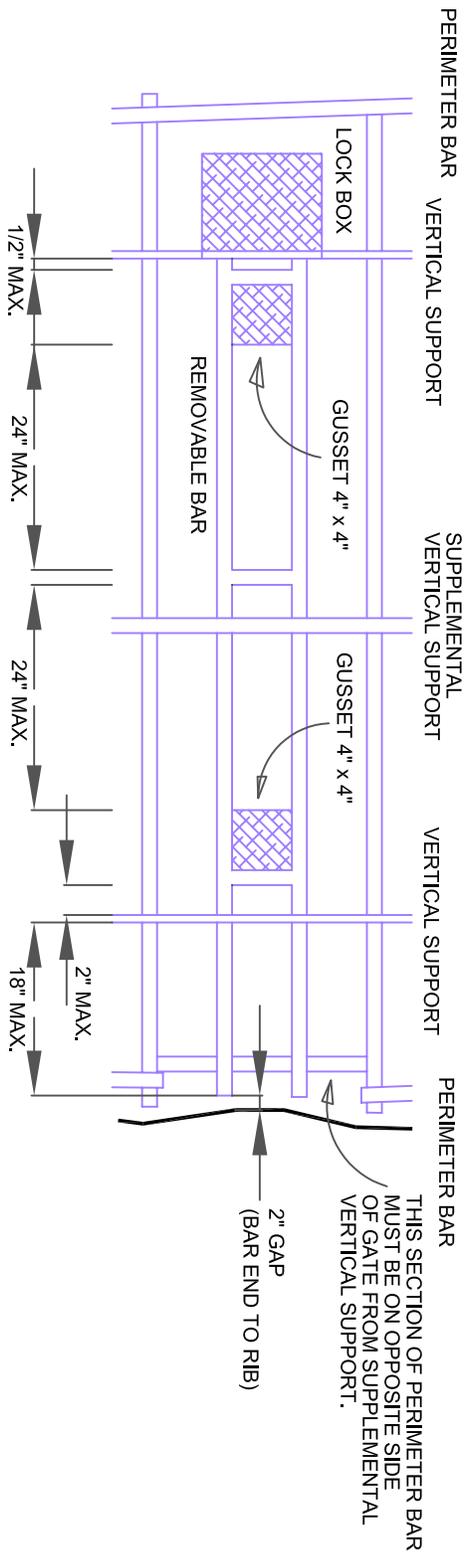
**BAT GATE CLOSURE**

Scale: as noted

Design: LAA Drafting: JCR

Refer to Spec Section 0200's

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**BAT GATE CLOSURE DETAILS**

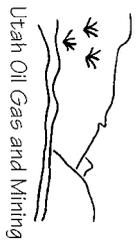
Scale: as noted

Design: LAA Drafting: JCR

Refer to Spec Section 0200's

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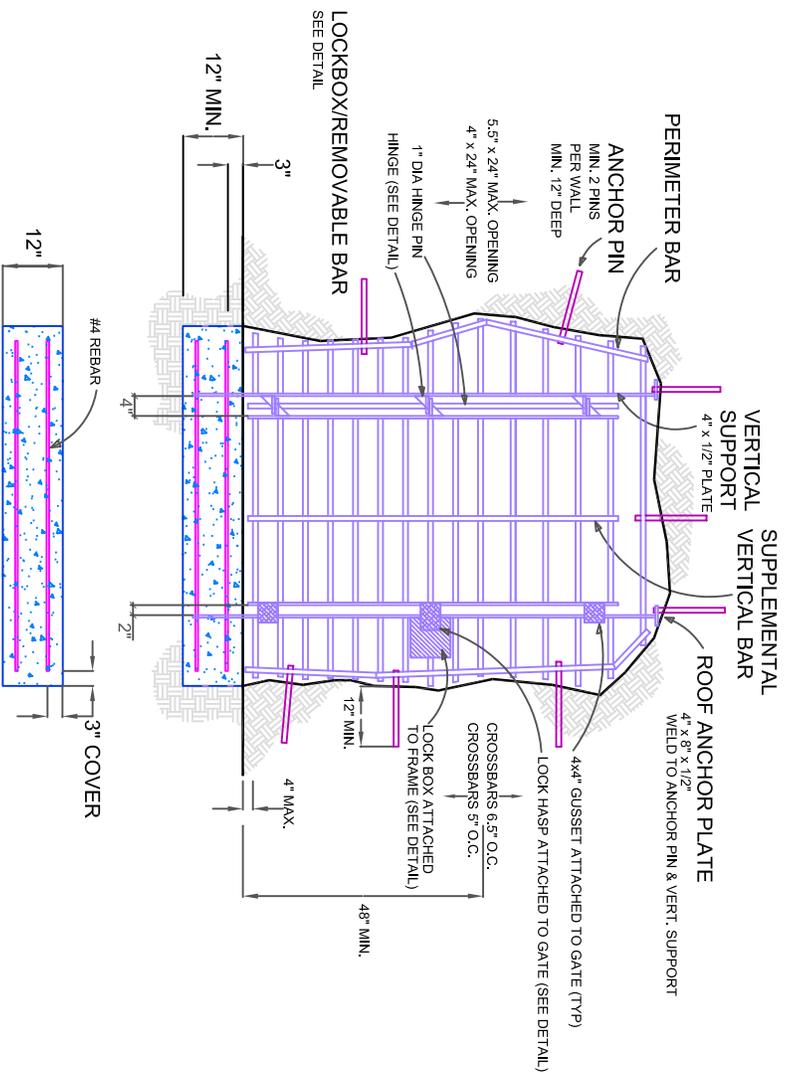
**MINE RECLAMATION PROJECT**



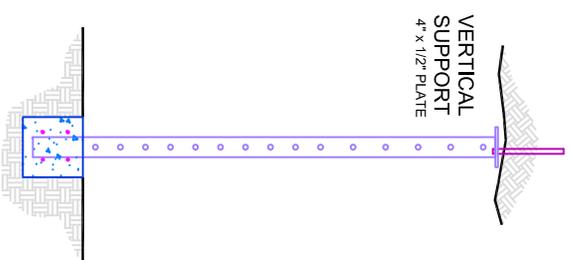
**UTAH NATURAL RESOURCES**  
Oil, Gas and Mining  
Abandoned Mine Reclamation Program

Utah Oil Gas and Mining

TYPICAL ELEVATION

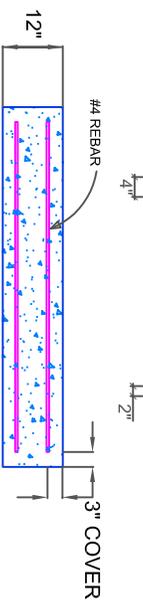


TYPICAL SECTION



NOTE: ALL GATE STEEL TO BE 12-14% MANGANESE STEEL (MANGANAL OR EQUIV.)

FOOTING DETAIL  
PLAN VIEW



BARS FILLET WELD ALL INTERSECTIONS



Utah Oil Gas and Mining

**UTAH**  
**NATURAL RESOURCES**  
**Oil, Gas and Mining**  
Abandoned Mine Reclamation Program

**MINE RECLAMATION**  
**PROJECT**

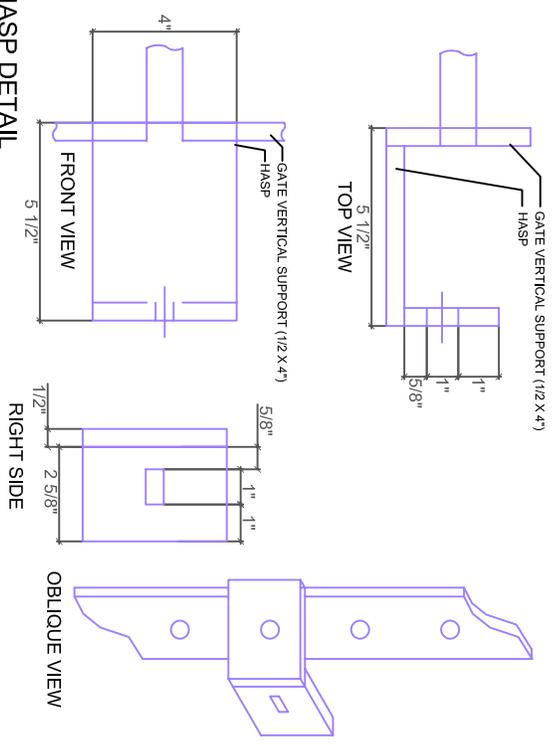
**BAT GATE WITH DOOR CLOSURE**

Scale: as noted

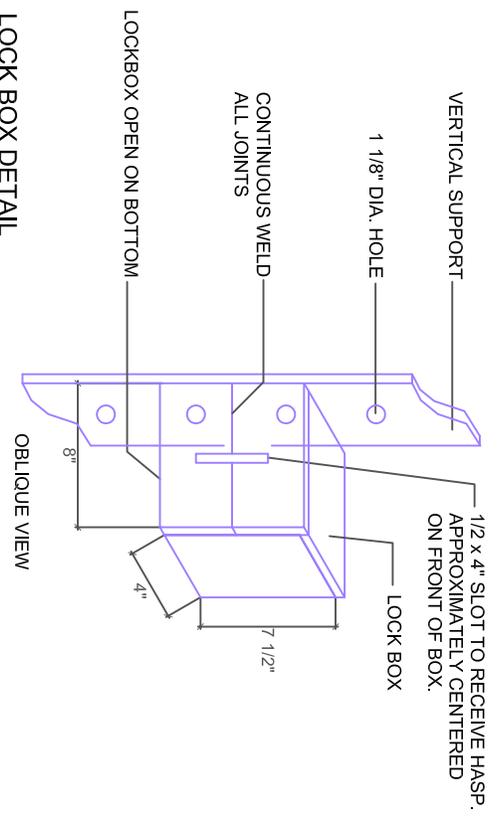
Design: LAA Drafting: DR

Refer to Spec Section 0200's

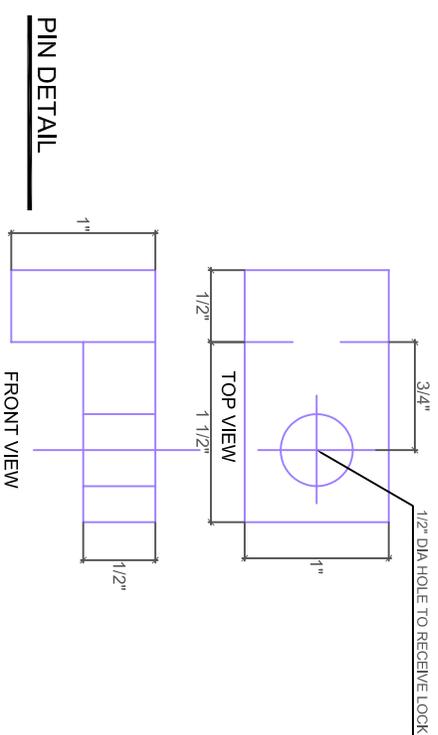
Sheet E8 of E19



**HASP DETAIL**

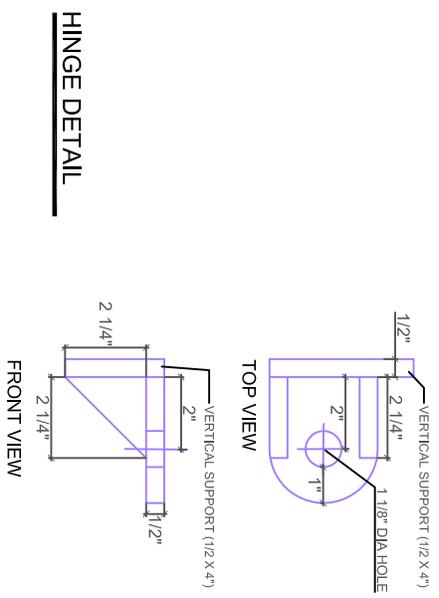


**LOCK BOX DETAIL**



**PIN DETAIL**

NOTE: ALL GATE STEEL TO BE 12-14% MANGANESE STEEL (MANGANAL OR EQUIV.)



**HINGE DETAIL**



Utah Oil Gas and Mining

**UTAH  
NATURAL RESOURCES  
Oil, Gas and Mining  
Abandoned Mine Reclamation Program**

**MINE RECLAMATION  
PROJECT**

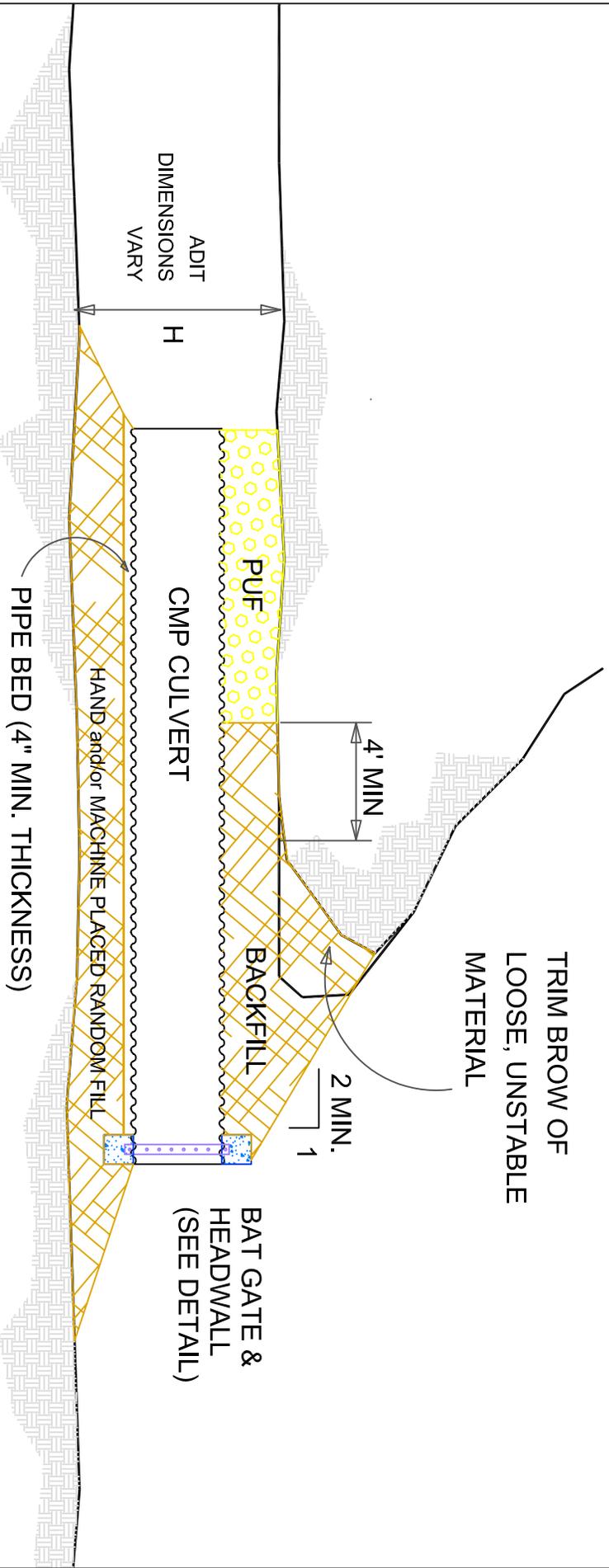
**BAT GATE WITH DOOR CLOSURE DETAILS**

Scale: as noted

Design: LAA Drafting: DR

Refer to Spec Section 0200's

Sheet E9 of E19



**UTAH**  
**NATURAL RESOURCES**  
**Oil, Gas and Mining**  
 Abandoned Mine Reclamation Program

**MINE RECLAMATION PROJECT**

**CMP BAT GATE CLOSURE**

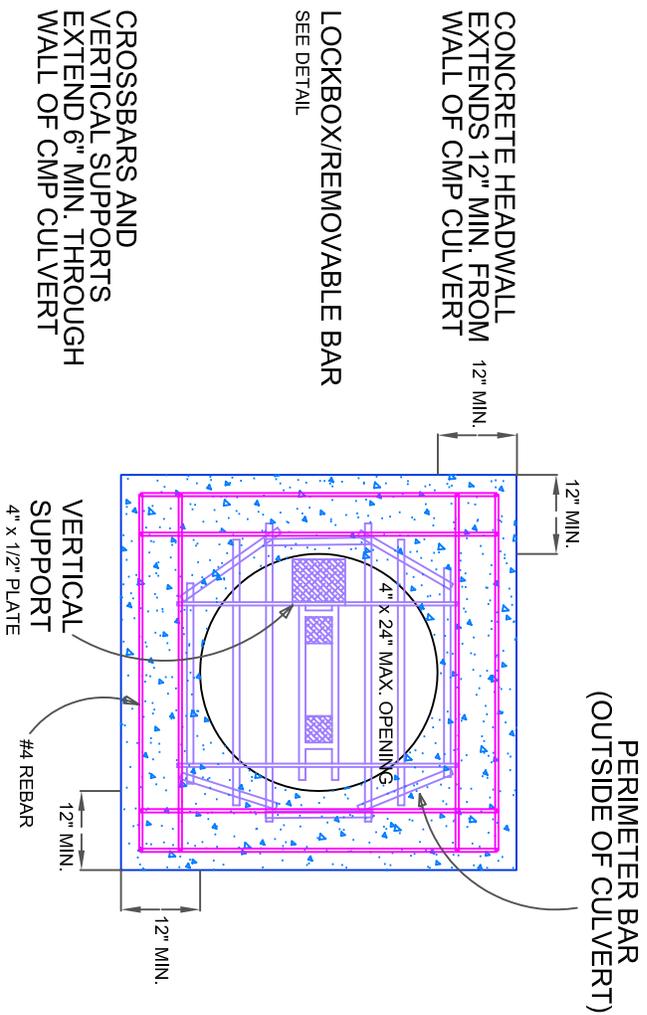
Scale: as noted

Design: LAA Drafting: JCR

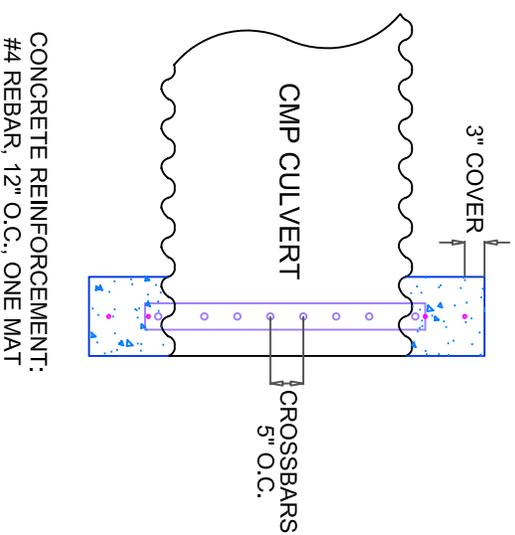
Refer to Spec Section 0200's

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TYPICAL ELEVATION

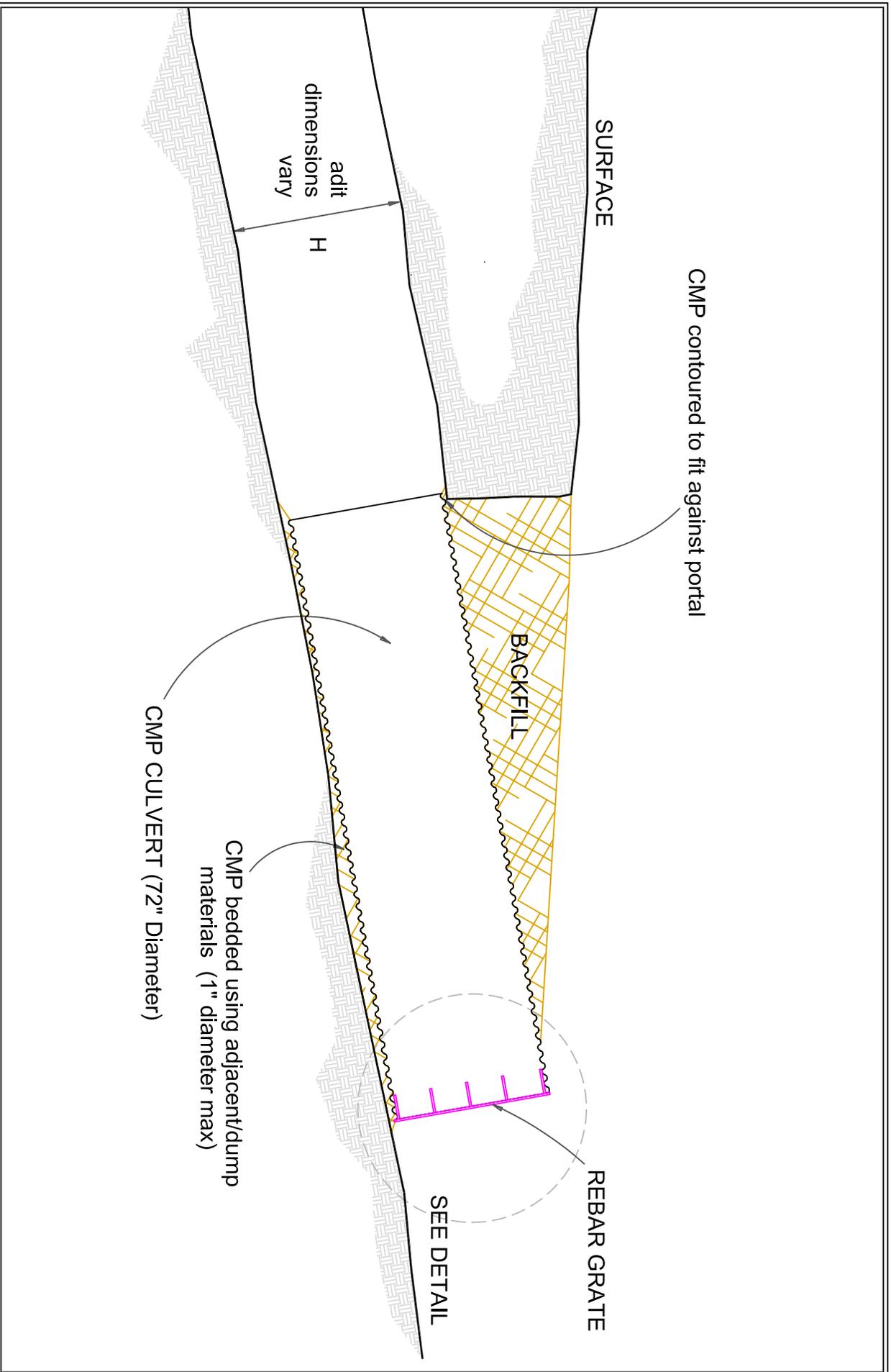


TYPICAL SECTION



NOTE: ALL GATE STEEL TO BE 12-14% MANGANESE STEEL (MANGANAL OR EQUIV.)

 <p>UTAH NATURAL RESOURCES Oil, Gas and Mining Abandoned Mine Reclamation Program</p>	<p>MINE RECLAMATION PROJECT</p>	<p>CMP BAT GATE CLOSURE DETAILS</p>	
		<p>Scale: as noted</p>	<p>Design: LAA Drafting: JCR</p>
<p>Refer to Spec Section 0200's</p>		<p>Sheet E11 of E19</p>	



**UTAH**  
**NATURAL RESOURCES**  
**Oil, Gas and Mining**  
 Abandoned Mine Reclamation Program

**MINE RECLAMATION**  
**PROJECT**

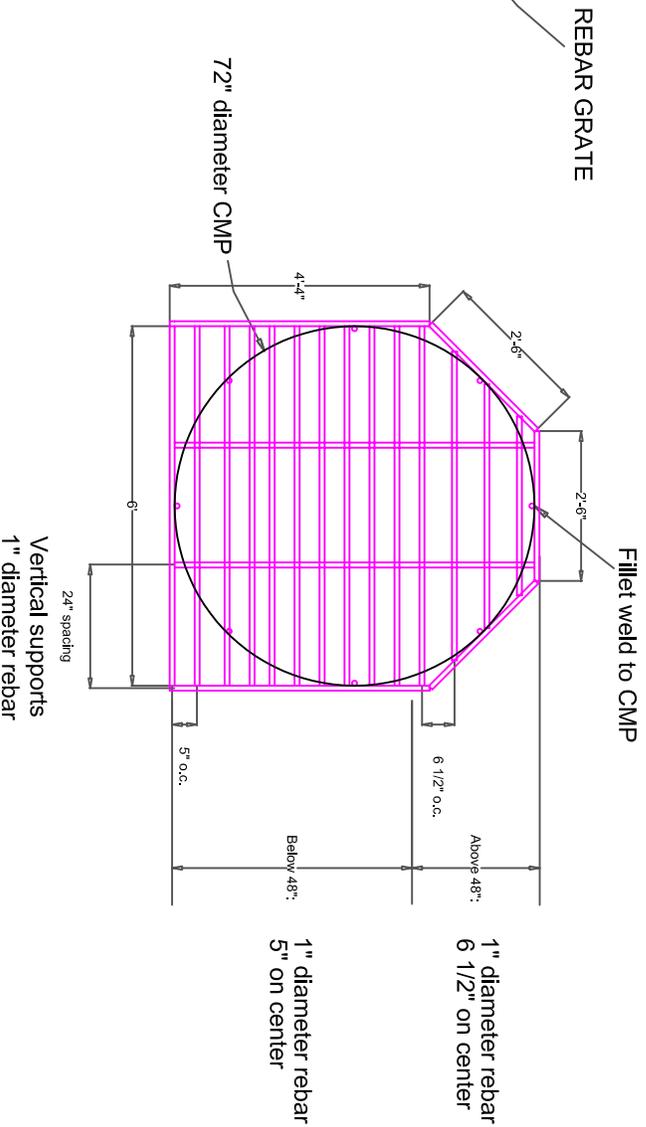
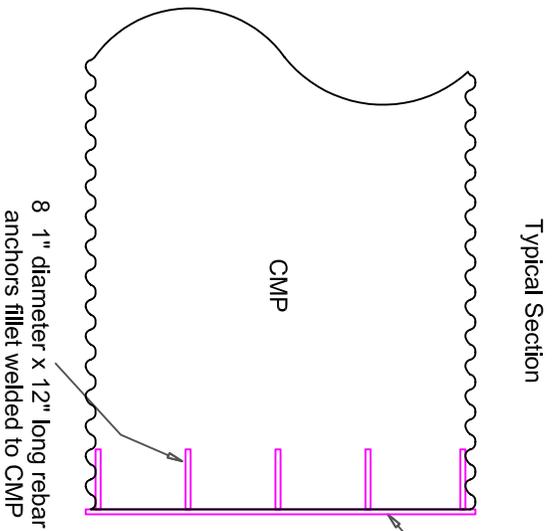
**CMP/REBAR CLOSURE**

Scale: as noted

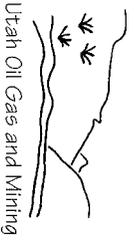
Design: LAA Drafting: MEM

Refer to Spec Section 0200's

Sheet E12 of E19



Note: Field dimensions may vary slightly



**UTAH**  
**NATURAL RESOURCES**  
**Oil, Gas and Mining**  
Abandoned Mine Reclamation Program

**MINE RECLAMATION**  
**PROJECT**

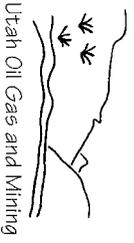
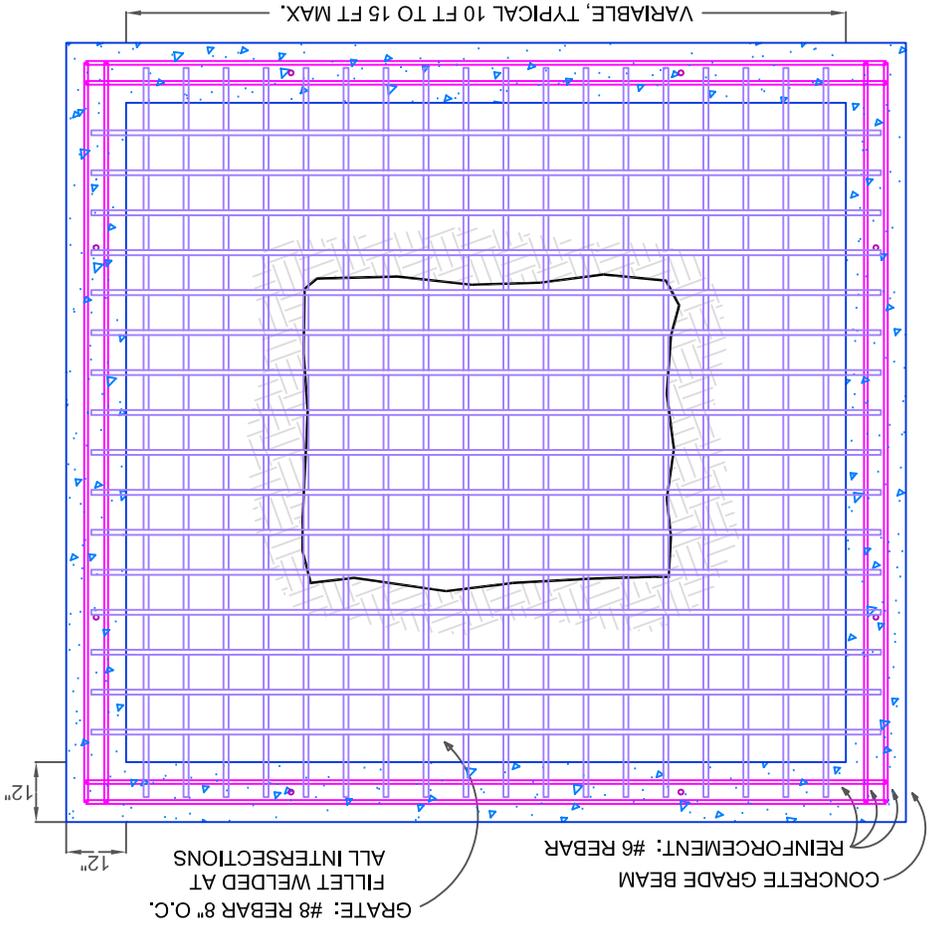
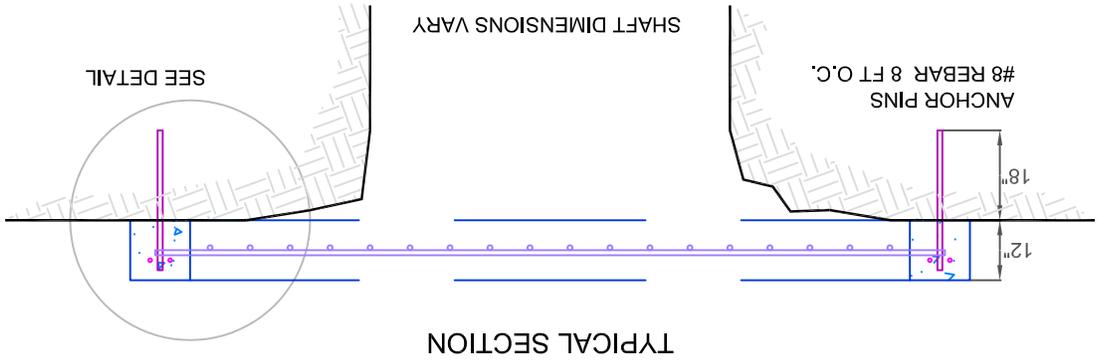
**CMP/REBAR CLOSURE DETAILS**

Scale: as noted

Design: LAA Drafting: MEM

Refer to Spec Section 0200's

Sheet E13 of E19



UTAH  
NATURAL RESOURCES  
Oil, Gas and Mining  
Abandoned Mine Reclamation Program

MINE RECLAMATION  
PROJECT

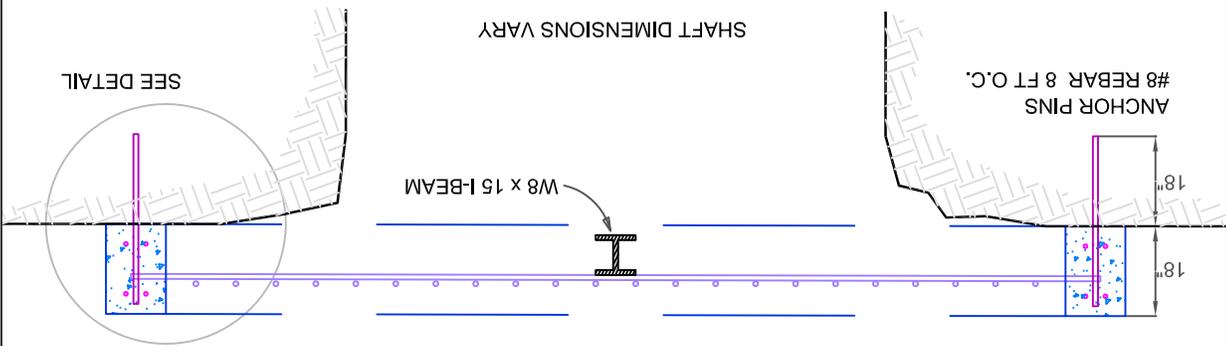
REBAR SHAFT GRATE CLOSURE

Scale: as noted

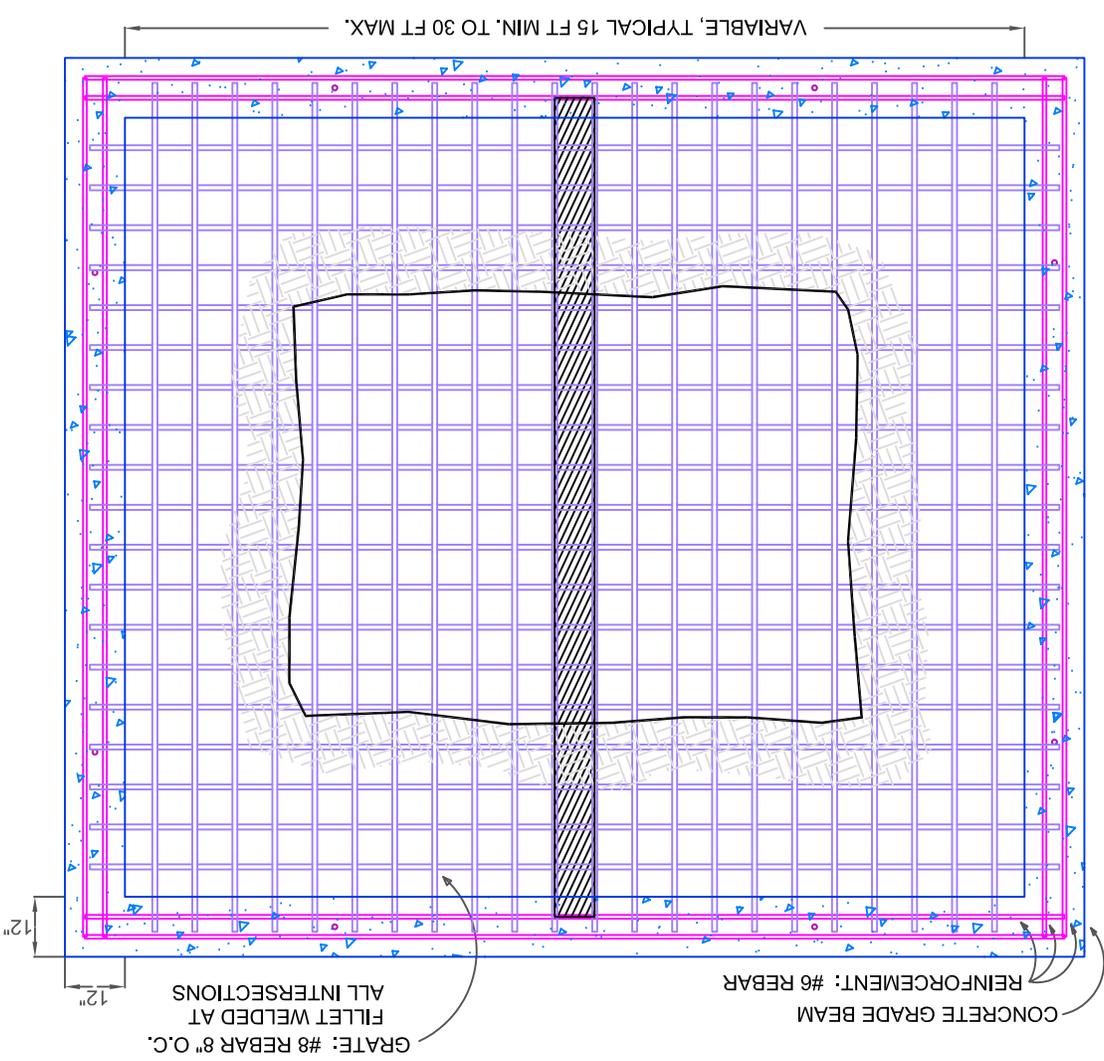
Design: LAA Drafting: JCR

Refer to Spec Section 0200's

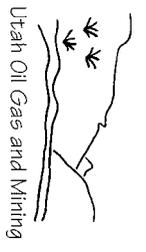
Sheet E14 of E19



TYPICAL SECTION



TYPICAL PLAN



**UTAH**  
**NATURAL RESOURCES**  
Oil, Gas and Mining  
Abandoned Mine Reclamation Program

**MINE RECLAMATION**  
**PROJECT**

**REBAR SHAFT GRATE (WITH I-BEAM)**

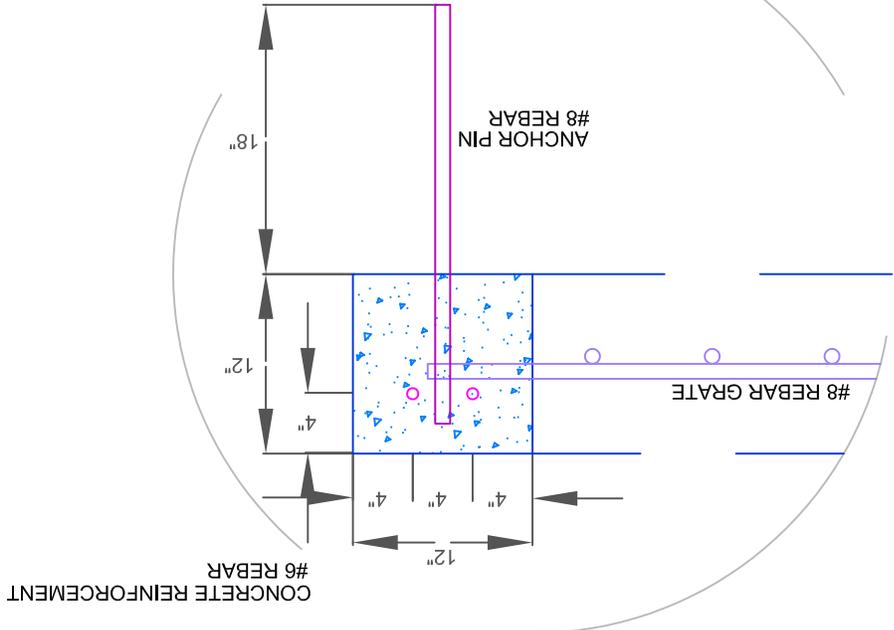
Scale: as noted

Design: LAA Drafting: JCR

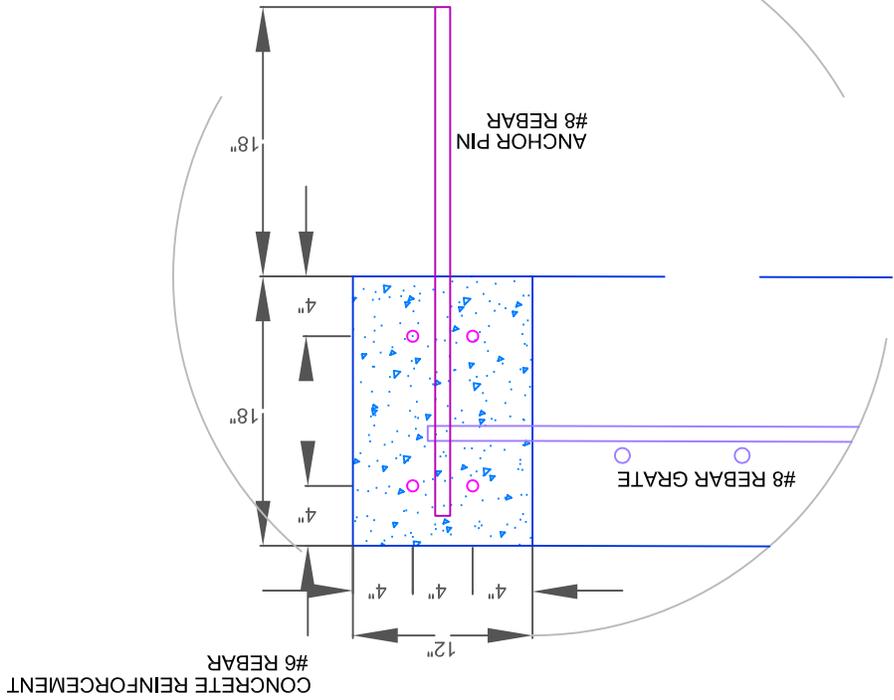
Refer to Spec Section 0200's

Sheet E15 of E19

**CROSS-SECTION  
12" x 12" GRADE BEAM**



**CROSS-SECTION  
12" x 18" GRADE BEAM**



**REBAR SHAFT GRATE GRADE BEAM DETAILS**

Scale: as noted

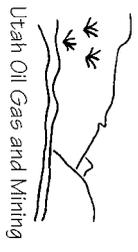
Design: LAA Drafting: JCR

Refer to Spec Section 0200's

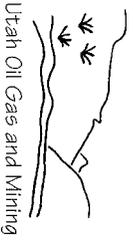
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**MINE RECLAMATION  
PROJECT**

**UTAH  
NATURAL RESOURCES**  
Oil, Gas and Mining  
Abandoned Mine Reclamation Program



Utah Oil Gas and Mining



UTAH  
 NATURAL RESOURCES  
 Oil, Gas and Mining  
 Abandoned Mine Reclamation Program

MINE RECLAMATION  
 PROJECT

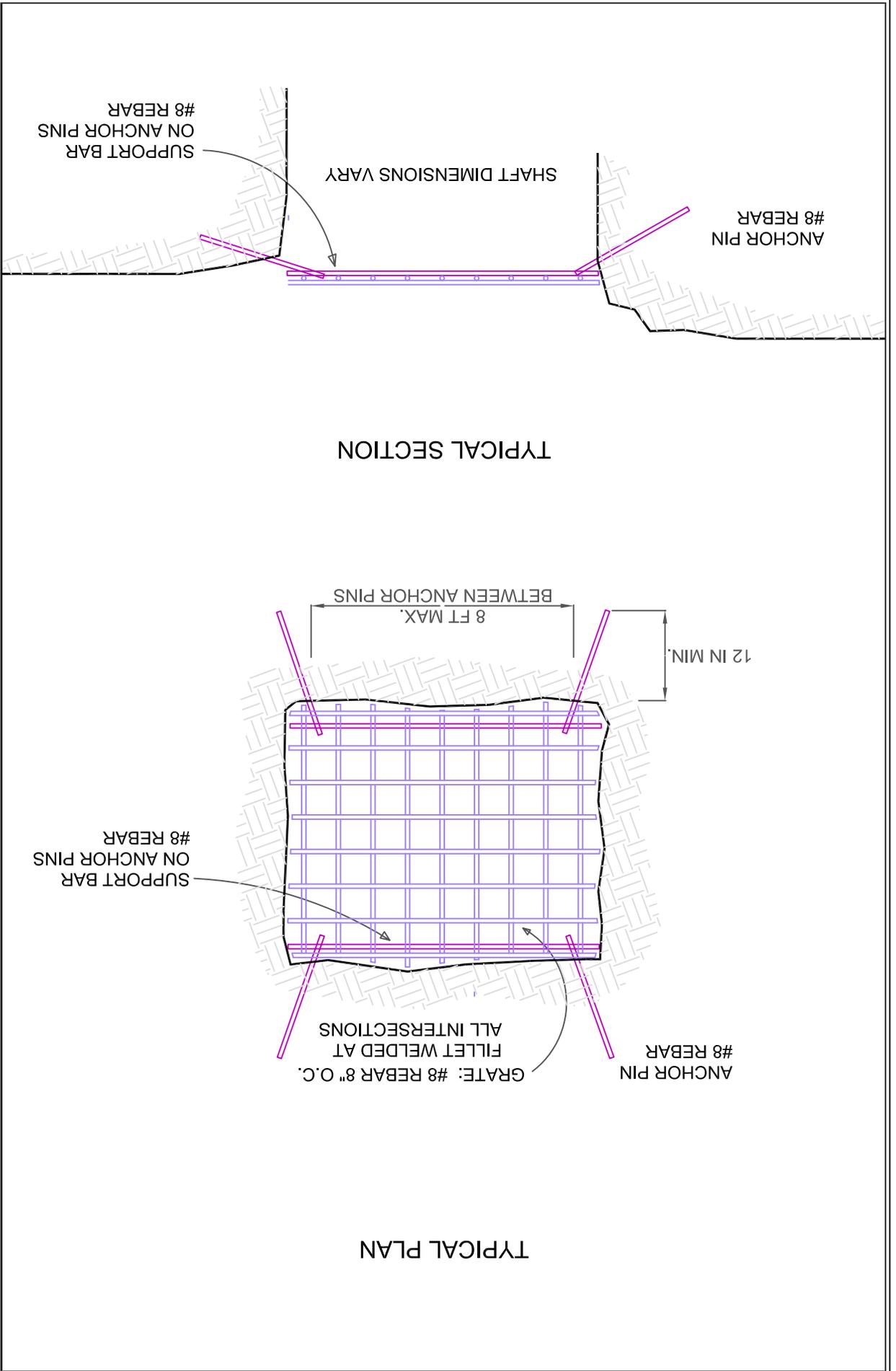
REBAR SHAFT GRATE (PINNED)

Scale: as noted

Design: LAA Drafting: JCR

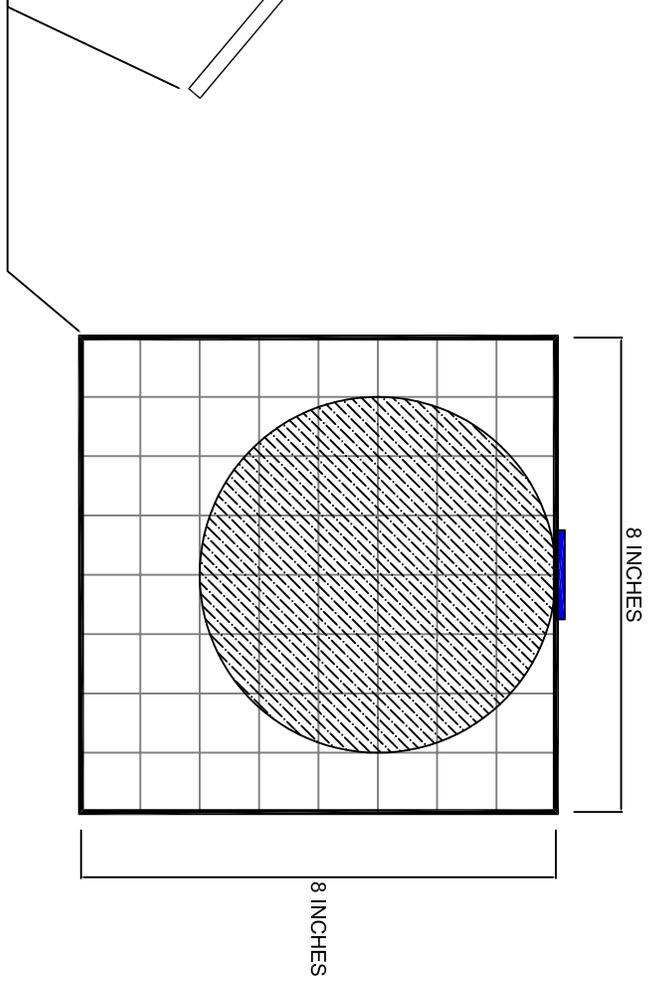
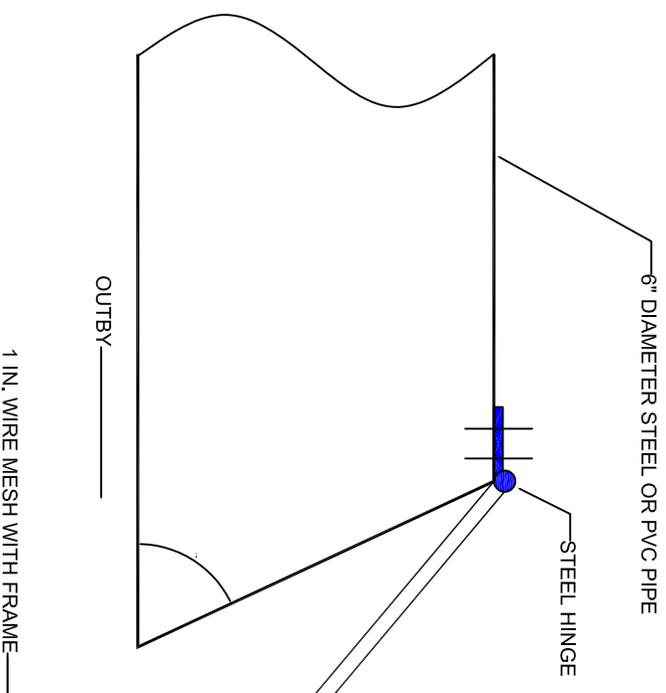
Refer to Spec Section 0200's

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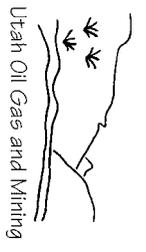


TYPICAL SECTION

TYPICAL PLAN



NOTE: STEEL OR PVC PIPE TO EXTENT 12 INCHES  
INBY AND OUTBY WALL OR FILL MATERIAL



**UTAH  
NATURAL RESOURCES**  
Oil, Gas and Mining  
Abandoned Mine Reclamation Program

**MINE RECLAMATION  
PROJECT**

**ONE-WAY TRAP DOOR CLOSURE DETAILS**

Scale: as noted

Design: LAA Drafting: DR

Refer to Spec Section 0200's

Sheet E18 of E19



**UTAH**  
**NATURAL RESOURCES**  
**Oil, Gas and Mining**  
 Abandoned Mine Reclamation Program

**MINE RECLAMATION**  
**PROJECT**

**SHAFT PUF CLOSURE (PolyUrethane Foam)**

Scale: as noted

Refer to Spec Section 0200's

Design: LAA Drafting: JCR

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