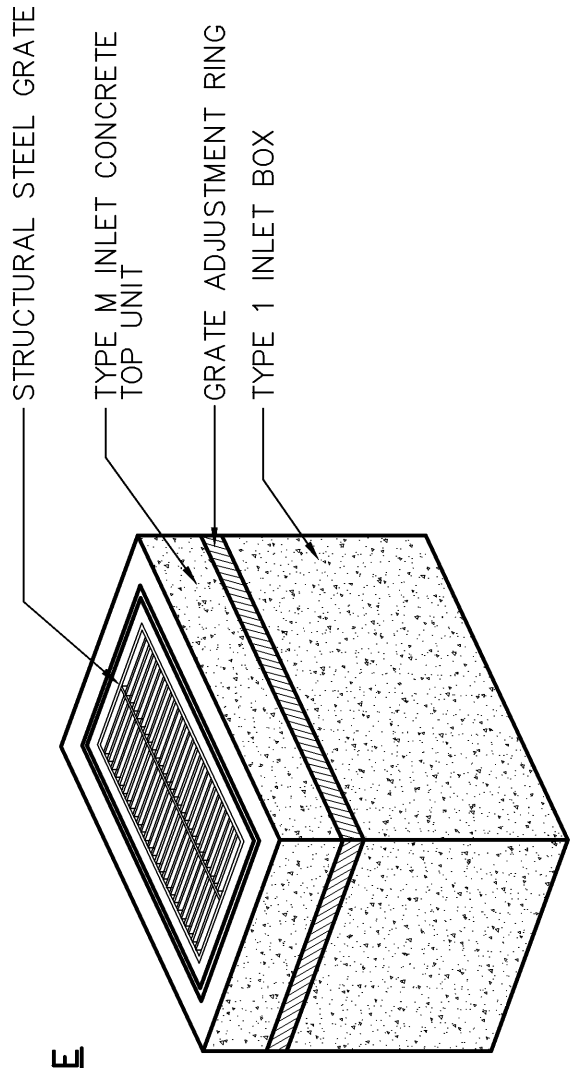
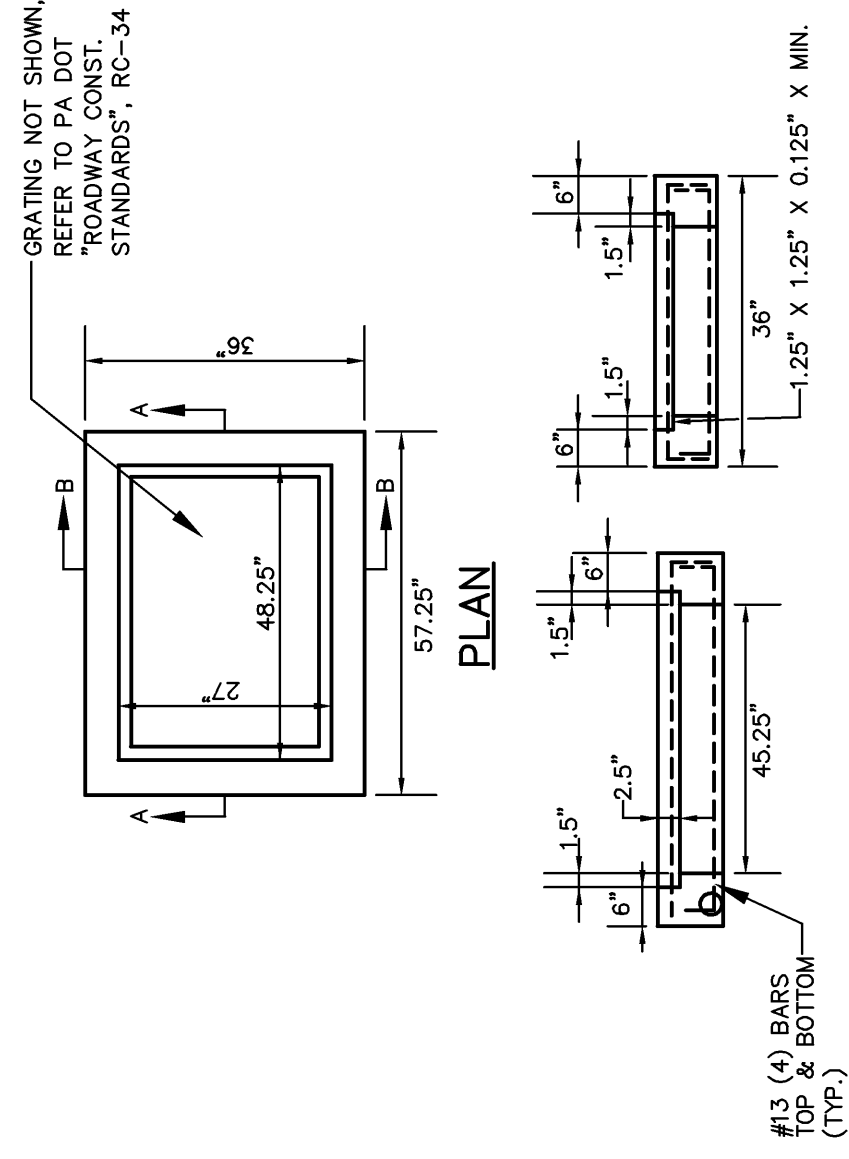


**BICYCLE SAFE GRATE**



**PENNDOT TYPE M INLET**

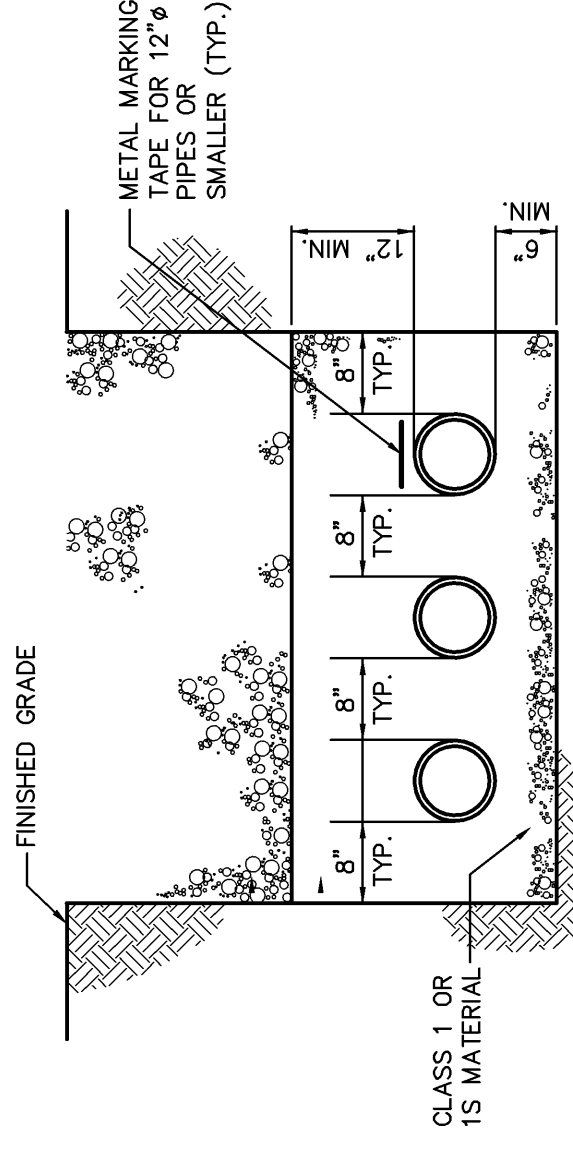
NOT TO SCALE



**SECTION A-A**

**PENNDOT TYPE M INLET TOP**

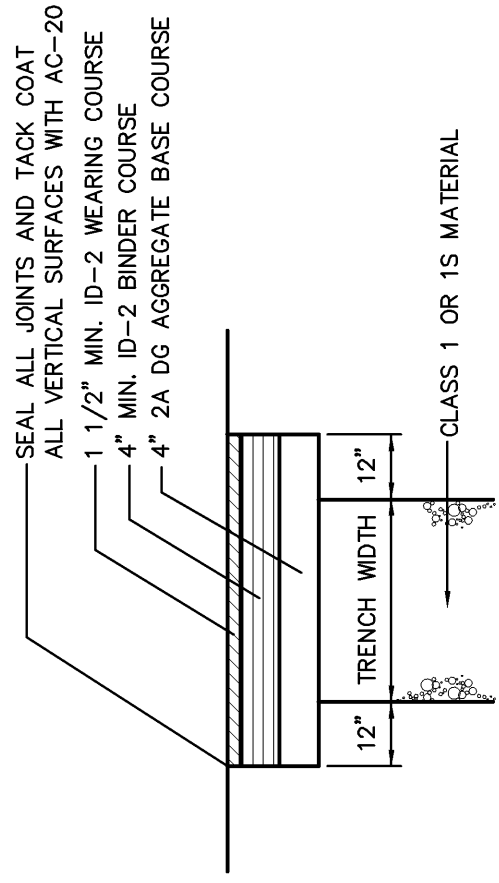
NOT TO SCALE



NOTE:  
THIS DETAIL APPLIES TO TRENCHES  
CONTAINING TWO, THREE, OR FOUR PIPES.

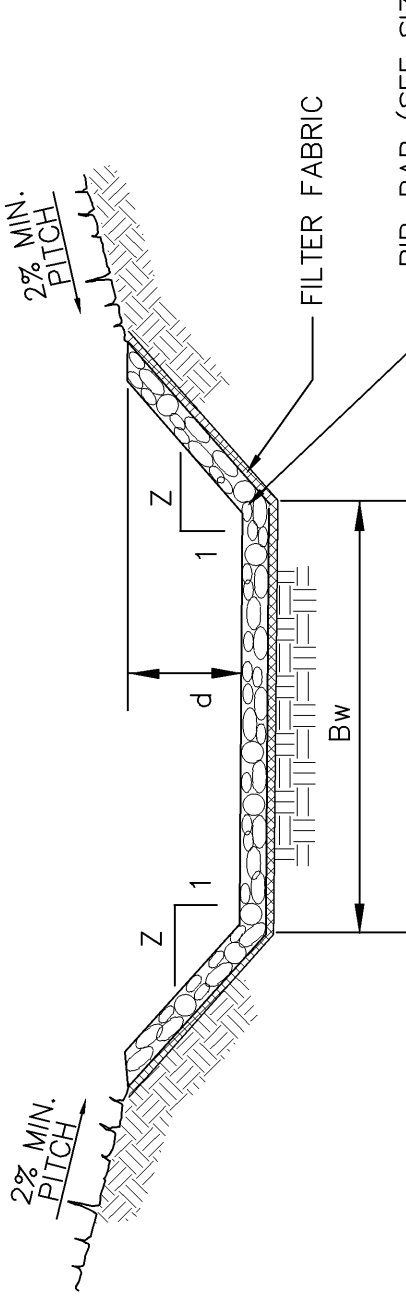
**TYPICAL TRENCH DETAIL  
FOR MULTIPLE PIPES IN SINGLE TRENCH**

- NOTES:
- ALL VERTICAL CUTS SHALL BE SAWCUT ONLY
  - MATERIAL AND PLACEMENT FOR COARSE AND FINE AGGREGATES SHALL BE IN ACCORDANCE WITH PENNDOT SPECIFICATIONS PUBLICATIONS 408, LATEST EDITION.



**PERMANENT PENNDOT AND  
TWP./BORO. ROAD RESTORATION**

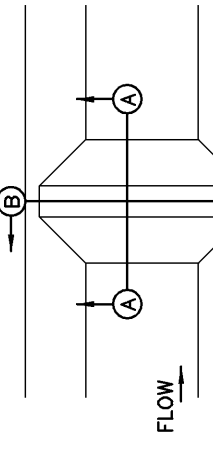
NOT TO SCALE



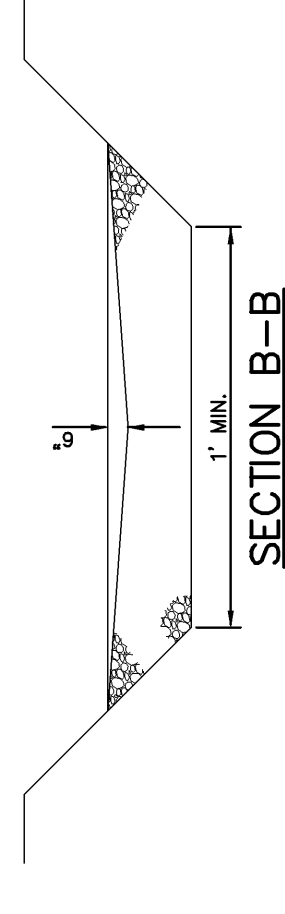
**RIP-RAP SWALE DETAIL**

NOT TO SCALE

SWALE	Bw	d	Z	MIN. SLOPE	MAX. SLOPE	EROSION PROTECTION
SWALE #1	2'	3"	2	1.30%	1.30%	R-3 RIP RAP, 12" THICK
SWALE #2	3'	3"	3	4.95%	4.95%	R-4 RIP RAP, 18" THICK
SWALE #3	0'	3"	2.5	2.00%	2.00%	R-3 RIP RAP, 12" THICK



**SECTION A-A**



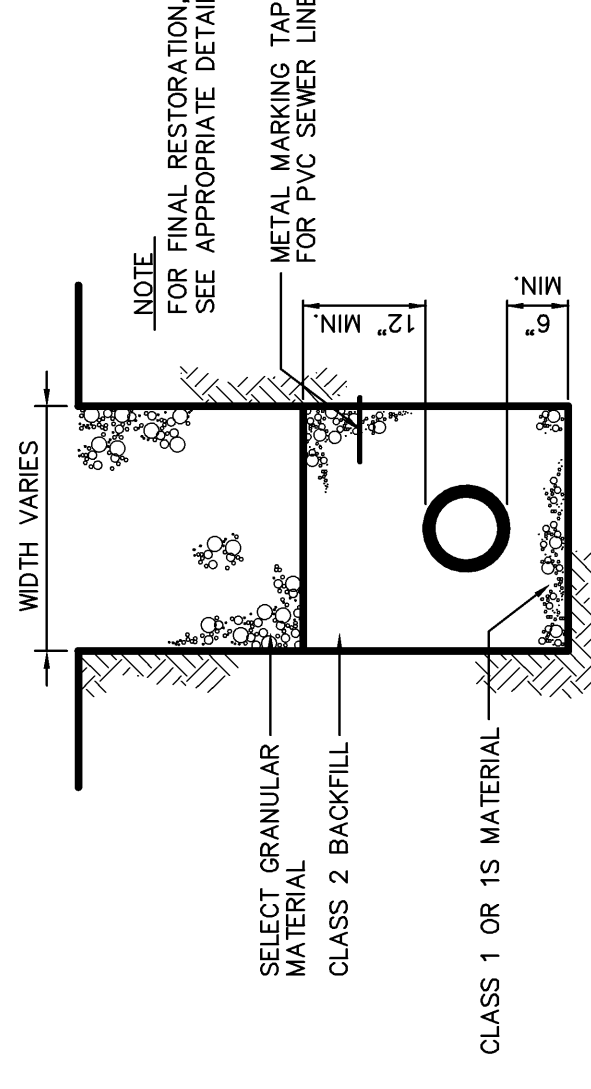
**SECTION B-B**

ROCK FILTER NO.	LOCATION	MAXIMUM DRAINAGE AREA
1	WEST SIDE RESTORATION EXISTING RIPRAP CHANNEL	0.34 AC.
2	BELOW RIPRAP APRON AND EMBANKMENT CONSTRUCTION	0.33 AC.
3	DOWNSTREAM END OF SWALE #1	0.06 AC.

SEDIMENT MUST BE REMOVED WHEN ACCUMULATIONS REACH 1/2 THE HEIGHT OF THE FILTERS. IMMEDIATELY UPON STABILIZATION OF EACH CHANNEL, REMOVE ACCUMULATED SEDIMENT, REMOVE ROCK FILTER, AND STABILIZE DISTURBED AREAS.

**ROCK FILTERS**

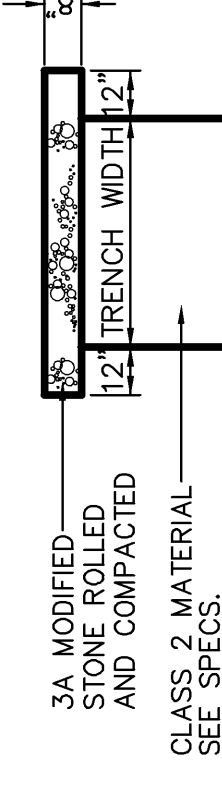
NOT TO SCALE



**TYPICAL BACKFILL  
(NON-PAVED AREAS)**

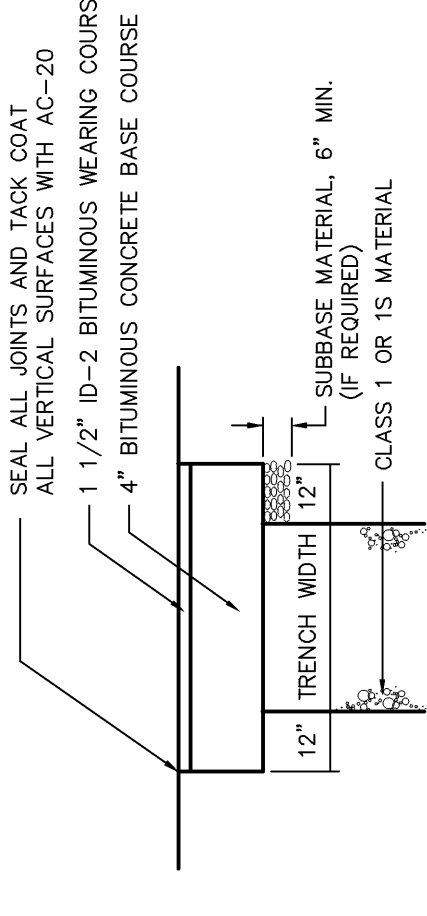
NO SCALE

NOTE:  
MATCH EXISTING WIDTH  
OF DRIVEWAY



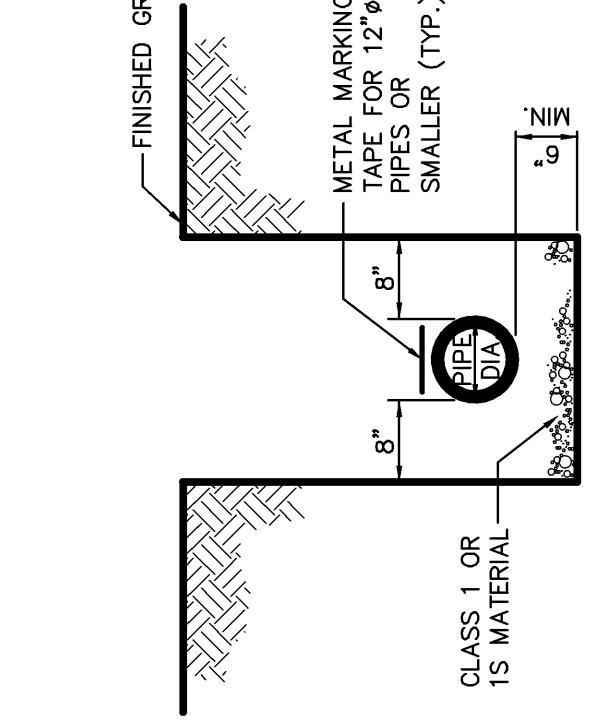
**STONE DRIVE RESTORATION**

NO SCALE



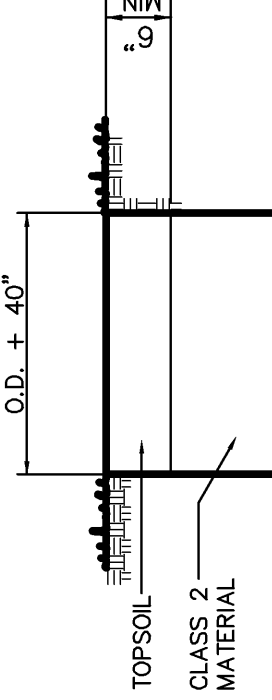
**PERMANENT PENNDOT & TWP./  
BORO. SHOULDER RESTORATION**

NOT TO SCALE



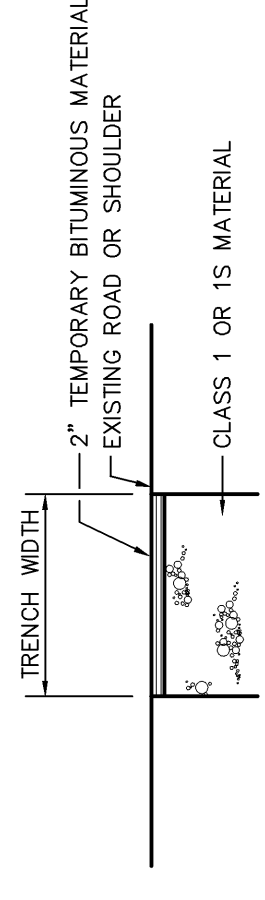
**TYPICAL TRENCH DETAIL**

NO SCALE



**LAWN/FIELD RESTORATION**

NO SCALE



**TEMPORARY RESTORATION FOR  
PENNDOT & TOWNSHIP ROADWAYS,  
ALLEYS OR SHOULDERS**

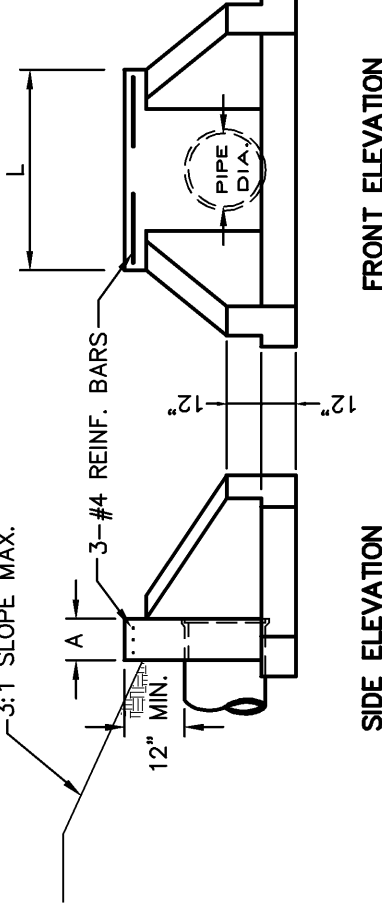
NOT TO SCALE

**CLASSIFICATION OF MATERIALS:**

- CLASS 1 - THIS MATERIAL SHALL CONSIST OF 2A COARSE AGGREGATE OR 2 RC STONE FREE OF SLAG EXCEPT IN WET OR UNSTABLE AREAS WHERE THE BEDDING MAY BE NO. 8 OR NO. 57 COARSE AGGREGATE. ALL MATERIALS SHALL CONFORM TO Penndot PUBLICATION 408, SECTION 703.3.
- CLASS 1S - THIS MATERIAL SHALL CONSIST OF NO. 8 COARSE AGGREGATE FREE OF SLAG, EXCEPT IN WET OR UNSTABLE AREAS WHERE THE BEDDING MAY BE NO. 8 OR NO. 57 COARSE AGGREGATE. ALL MATERIALS SHALL CONFORM TO Penndot PUBLICATION 408, SECTION 703.3.
- CLASS 2 - THIS MATERIAL SHALL CONSIST OF EXCAVATED MATERIAL FREE FROM CINDERS, ASHES, REFUSE, VEGETABLE OR ORGANIC MATERIAL, BOULDERS, ROCKS NO LARGER THAN FOUR (4) INCHES IN DIMENSION, STONE OR OTHER MATERIAL WHICH IN THE OPINION OF THE ENGINEER IS UNSUITABLE.

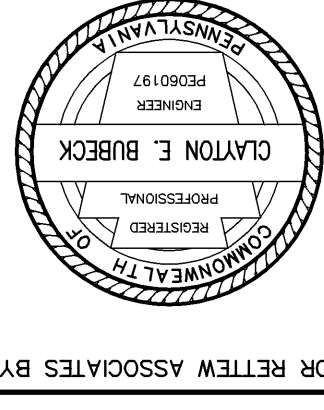
DRAINAGE	L	W	A
15' x 18"	4.0'	4.0'	12"
24"	4.6'	4.25'	12"
30"	5.2'	4.4'	12"
36"	5.6'	4.6'	12"
42"	6.3'	5.8'	12"
48"	6.9'	6.9'	12"
54"	7.5'	8.0'	12"
60"	8.1'	9.2'	15"
72"	8.2'	11.5'	15"

3:1 SLOPE MAX.



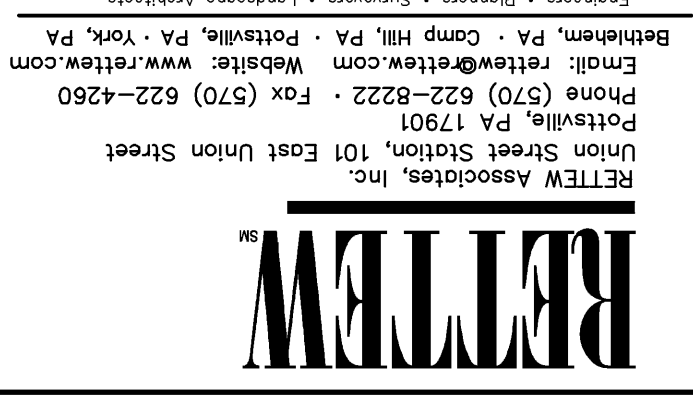
**TYPE D-W ENDWALL**

NOT TO SCALE



MANAGER: CLAYTON BIBECK, P.E.  
DESIGN BY: CHK BY: CH  
DRAWN BY: CHD BY: CEB  
SURV. CHIEF: DATA COLLECTOR  
FIELDBOOK NO.:  
DRAWING REFERENCE:  
H:\05-05-04234-001\C04\EF\05-05-04234-001-D041.dwg  
XREFS:

CLIENT: SCHUYLKILL HEADWATERS ASSOCIATION, INC. P.O. BOX 1385 POTTSVILLE, PA 17901 (570) 385-2122  
SCALE: NO SCALE  
NO SCALE



ABANDONED MINE DRAINAGE REMEDIATION FOR THE MACKESBURG RESTORATION PROJECT SCHUYLKILL HEADWATERS ASSOCIATION, INC. DETAIL SHEET  
CASS TOWNSHIP SCHUYLKILL COUNTY, PA  
DATE: NOV. 29, 2005  
SHEET NO. 6 OF 6  
DWG. NO. 05-04234-001