



**VIA EMAIL**

March 23, 2016

File No. 16-01155T

Jason Bobst, Township Manager  
West Norriton Township  
1630 West Marshall Street  
Jeffersonville, PA 19403

Reference:	Project Name:	Markley Farm Property
	Plan Review:	No. 1
	Owner/Applicant:	Doris Y & Ronald W Markley Revocable Trust / MikeLen, LLC
	Engineer:	Woodrow & Associates, Inc.

Dear Mr. Bobst:

Gilmore & Associates, Inc. has reviewed the above project with respect to the West Norriton Township Standards and Specifications. The following has been submitted for review:

- Preliminary Land Development Plan set entitled "Markley Farm Property" for MikeLen, LLC as prepared by Woodrow & Associates, Inc, consisting of sheets 1 to 26 and 29 to 36 of 36, dated November 6, 2015, last revised February 16, 2016.

The project proposes to develop T.M.P. 63-00-01108-008, Block 001, Unit 007, located at 2325 Chestnut Avenue in the Townships R2 - Residence District. The plan proposes construct a total of 79 units on either side of the existing pond on the 55.5618 acre property. Development Area A, located with access along Chestnut Avenue will contain 40 units. Development Area B, located with access along Oakland Drive, will contain 39 units. Sanitary sewer service will be provided by West Norriton Township. The project is located in the Townships Whitehall Pump Station service area.

Based on our review of the plans, we offer the following comments:

**General Comments**

1. Plan sheets 27 and 28 of 36 shall be submitted for review.
2. All existing sanitary sewer manholes shall be labeled according to West Norriton Township. A sanitary sewer map is enclosed for your use. Several existing manholes are labeled as proposed and should be corrected.
3. The applicant shall acquire planning approval. All necessary approvals, including but not limited to PA DEP shall be provided.

**Sheet 2**

4. The existing pump station parcel should be noted as "West Norriton Township – Chestnut Avenue Pump Station". West Norriton Township Sewer Authority was acquired by West Norriton Township and all facilities and properties were transferred as well.
5. General Note #10 should specifically reference sanitary sewer easements as well.

BUILDING ON A FOUNDATION OF EXCELLENCE

6. General Note #19 shall note that the public sanitary sewer service shall be provided by West Norriton Township.
7. The ownership of the proposed sanitary sewers and manholes shall be indicated on the Plans. If the intention is to offer the sanitary sewers for dedication to West Norriton Township, a note shall be added to the Plans. Similarly, if the sanitary sewer easement is to be offered to West Norriton Township, it shall be indicated on the Plans. A legal description and 11" x 17" plot plan shall be submitted for sanitary sewer easements to be dedicated to West Norriton Township.
8. Numerous easements are shown on the Plans. It shall be indicated if those easements are existing or proposed.
9. A note shall be added to the plans indicating that the sewer work is to be in accordance with the West Norriton Township Specifications for Construction of Sanitary Sewers.
10. A note shall be added to the plans stating that all utilities shall be kept ten (10) feet apart (parallel) or when crossing, at eighteen (18) inches vertical clearance (outside edge of pipe to outside edge of pipe). A minimum of 18 inches shall be maintained between sanitary sewer lines and storm lines or water lines. If the minimum clearance cannot be maintained, a concrete encasement shall be provided on the non-sanitary sewer utility.
11. A note shall be added to the plans stating sanitary sewer mains and laterals shall have a minimum of 4'-0" cover.

#### **Sheet 8**

12. It appears a proposed fence may be crossing the sanitary sewer easement between proposed manholes SA-114 and SA-115. Per general note #10 on sheet 2, "Nothing shall be permitted to be set on, place or planted within, the area of any utility or storm water easement except lawns or suitable low ground cover." If that is a proposed fence, the fence shall be relocated as to not intersect the sanitary sewer easement.
13. The sanitary sewer between proposed manholes SA-114 to SA-117 should be relocated to not be within the steep slopes of the storm water basin. Especially at the base of the slope.

#### **Sheet 11 & 12**

14. Several of the proposed street trees are within very close proximity to the sanitary sewer laterals and should be relocated so the trunk is a minimum of 10' from the lateral.

#### **Sheet 17**

15. All applicable details shall be added to the drawing, including, but not limited to the following:
  - Precast Concrete Manhole Section – (enclosed)
  - Precast Concrete Manhole Plan - enclosed
  - Precast Concrete Inside Drop Manhole (For 8" & 10" Pipe) - (enclosed)
  - Shallow Manhole Detail - (enclosed)
  - Manhole Step Detail- (enclosed)
  - Standard Frame and Cover - (enclosed)
  - Watertight Frame and Cover- (enclosed)
  - Shallow Sewer Service - (enclosed)
  - Deep Sewer Service Connection Detail (12' & Deeper) - (enclosed)
  - Sanitary Sewer House Connection - (enclosed)
  - Typical Building Sewer - (enclosed)
  - Typical Trench Detail - (enclosed)
  - Typical Trench Backfill - (enclosed)
  - Lawn Restoration Detail - (enclosed)
  - Paved Driveway Restoration - (enclosed)
  - Temporary Township Roadway and Shoulder Restoration - (enclosed)
  - Permanent Township Roadway and Shoulder Restoration - (enclosed)

- Concrete Encasement Detail - (enclosed)
- Connection to Existing Manhole.

16. A two way cleanout shall be used at all cleanout locations. The "One Way Clean-Out" detail should be removed from the Plans.
17. Sanitary Sewer Pump Station plan shall note the parcel is owned by West Norriton Township.

**Sheets 18 to 26**

18. All utilities shall be shown on all profiles, including, but not limited to storm, sewer, water, gas, electric and communications. This includes all crossings.
19. Structure #760 should show two (2) inverts in.
20. All cleanout locations shall be shown on the laterals.
21. Terminal sewer runs shall be a minimum of 2.00 % slope.
22. The sanitary pipe between SA-112 to SA-113 is within very close proximity to storm inlet ST-43. This should be arranged to maintain more separation.
23. The water service and sewer lateral cross for lot #36. Vertical clearance separation should be verified.
24. In several instances, the water main is within 10' from the sanitary sewer. The utilities shall be arranged to have 10' horizontal separation or 18" vertical separation minimum.
25. Manhole labels shall coordinate between plan and profile sheets. In particular SA-215/115 on sheet 25 and 26.
26. A profile of the sanitary sewer shall be shown from proposed manhole SA-114 to SA-119.
27. Proposed Manhole SA-119 is shown within the proposed trail. This manhole should be located off of the trail in a grassed area.
28. Watertight frames and covers shall be used for all manholes located within easement areas. These shall be noted on the plans.

These items must be addressed prior to approval and acceptance by Gilmore & Associates, Inc. and West Norriton Township. Please be advised that this review is restricted to the sanitary sewer and associated appurtenances as shown on the above referenced plans. This review does not constitute an overall compliance review.

Should you have any questions, please do not hesitate to contact our office.

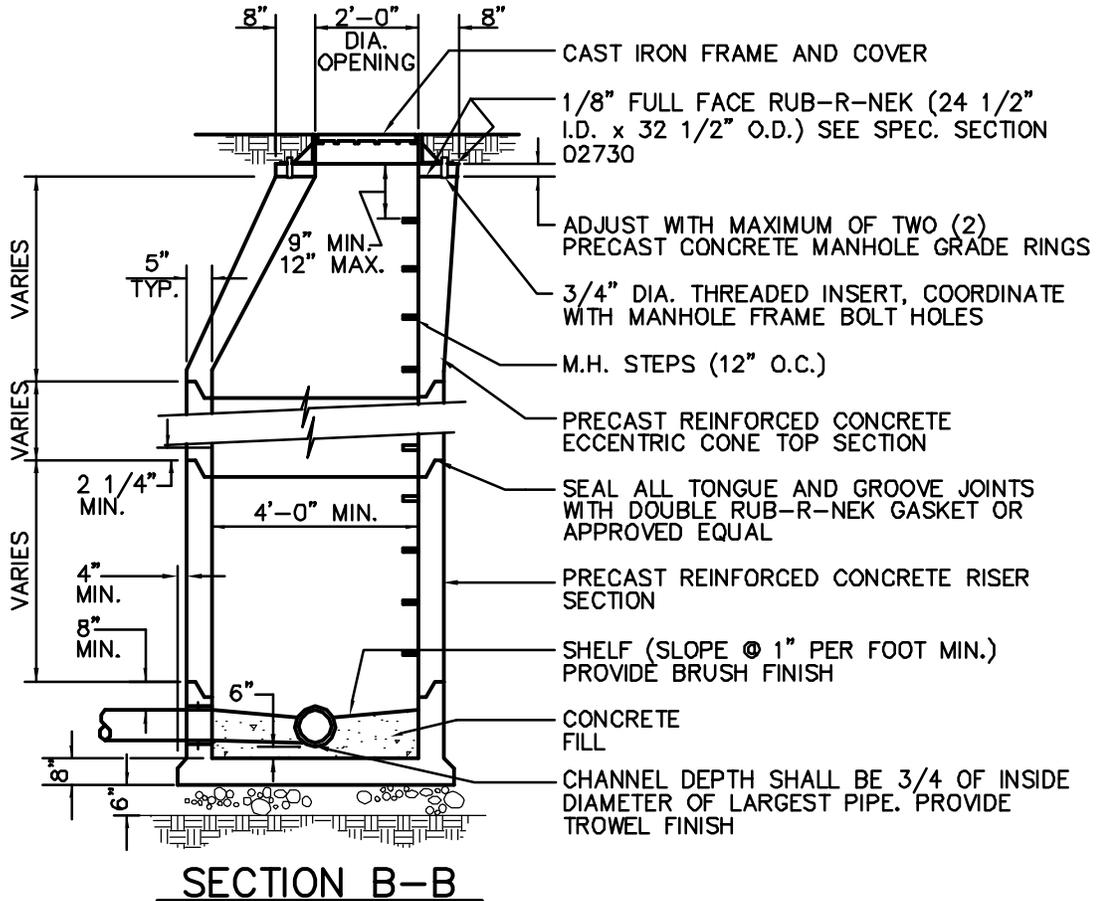
Sincerely,

*Thomas J. Figaniak*

Thomas J. Figaniak, P.E.  
Project Engineer, Water/Wastewater  
Gilmore & Associates, Inc.

TJF/tjf

cc: Michael Valyo, Director of Public Works & Planning – West Norriton Township (via email, w/encl.)  
Christen G. Pionzio, Township Solicitor – HRMML (via email, w/encl.)  
Joseph M. Estock, P.E., P.L.S., Township Engineer (via email, w/encl.)  
Leonard DelGrippe, Applicant – MikeLen, LLC. (via email, w/encl.)  
Timothy P. Woodrow, P.E, Applicants Engineer. – Woodrow & Assoc., Inc. (via email, w/encl.)  
William K. Dingman, P.E. – Gilmore & Associates, Inc. (via email, w/encl.)



# PRECAST CONCRETE MANHOLE SECTION

NOT TO SCALE  
SS\SS001

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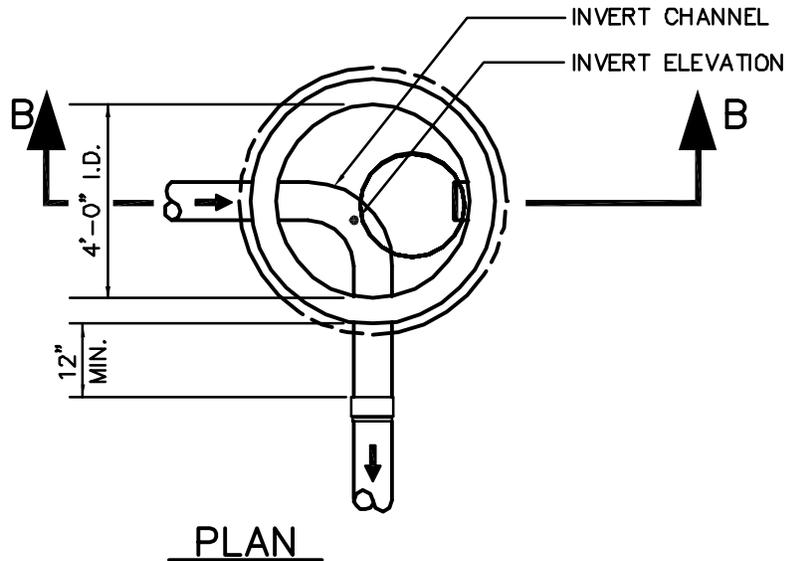
DEVELOPER SPECIFICATIONS  
FOR  
**WEST NORRITON TOWNSHIP**

WEST NORRITON TOWNSHIP MONTGOMERY COUNTY, PA

**RETTEW**  
ASSOCIATES, INC.

3020 Columbia Ave., Lancaster, PA 17603  
TEL (717) 394-3721 - FAX (717) 394-1063

DRAWN BY: TMO  
DATE: FEBRUARY 2004  
SCALE: NOT TO SCALE  
DWG. NO. 04-05770-007



NOTES:

1. MECHANICALLY VIBRATED PRECAST CONCRETE, RISER AND TOP SHALL CONFORM TO A.S.T.M. SPEC. C-478.
2. MANHOLE SHALL HAVE BITUMASTIC COATING ON EXTERIOR WALLS
3. MAINTAIN POSITIVE GRADE THROUGH MANHOLE
4. ALL OPENINGS AROUND PIPES SHALL BE FINISHED WITH NON-SHRINK GROUT
5. CONTRACTOR MAY USE PRECAST INVERT BASES.
6. FOR MANHOLES WITH SEWER LINES ENTERING AT GREATER THAN 10% SLOPES, INDIVIDUAL SHOP DRAWINGS MUST BE SUBMITTED BY THE CONTRACTOR AND REVIEWED BY THE ENGINEER.
7. INTERIOR OF MANHOLE SHALL HAVE PROTECTIVE PVC COATING IN ACCORDANCE WITH SPECIFICATIONS. SEE PLAN VIEW OF SANITARY SEWER LAYOUT FOR LOCATION OF PVC COATED MANHOLES.
8. MANHOLE CHANNELS, BENCH, AND ALL INTERIOR SURFACES SUBJECT TO CORROSION SHALL RECEIVE FACTORY APPLIED CORROSION RESISTANT COATING. SHOP DRAWINGS SHALL BE SUBMITTED FOR COATING (FOR PVC COATED MANHOLES ONLY).

## PRECAST CONCRETE MANHOLE PLAN

NOT TO SCALE  
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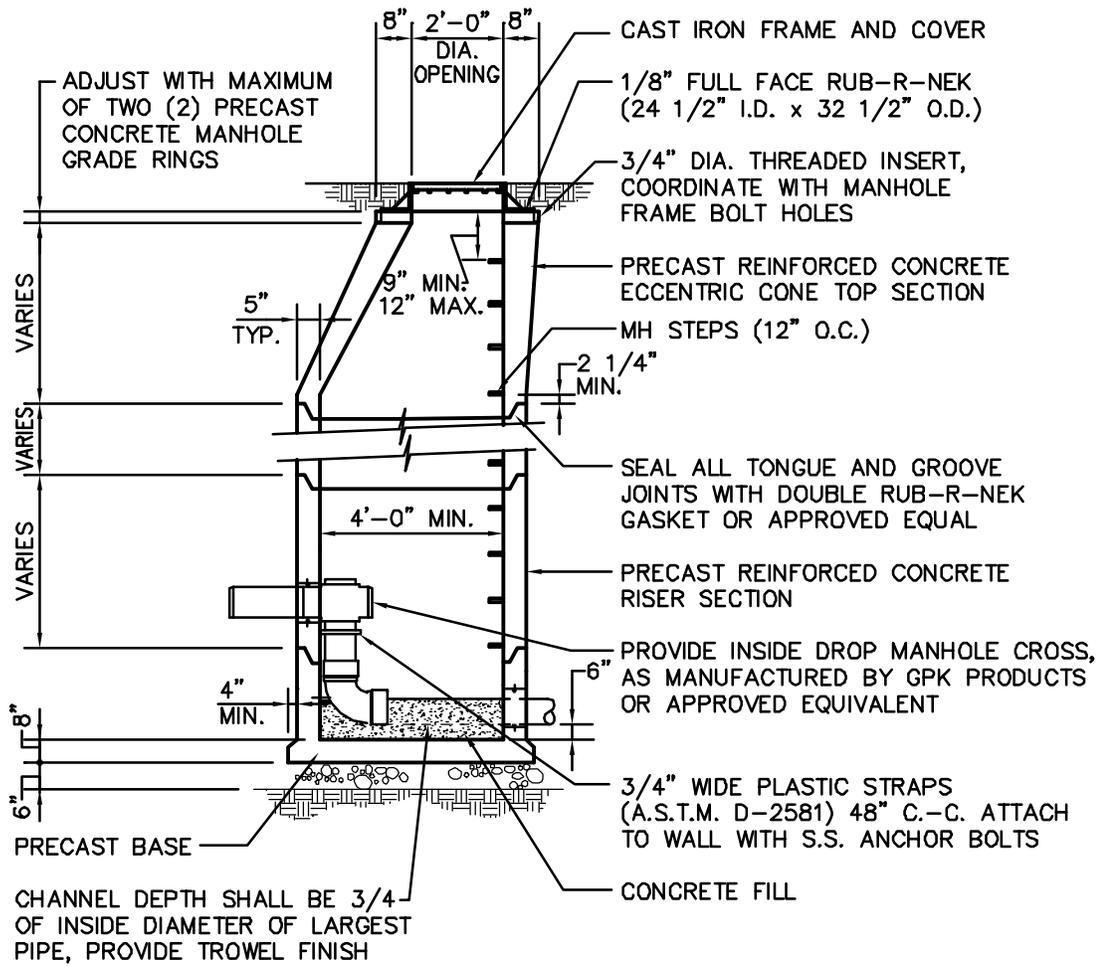
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## PRECAST CONCRETE INSIDE DROP MANHOLE (FOR 8" AND 10" PIPE)

NOT TO SCALE  
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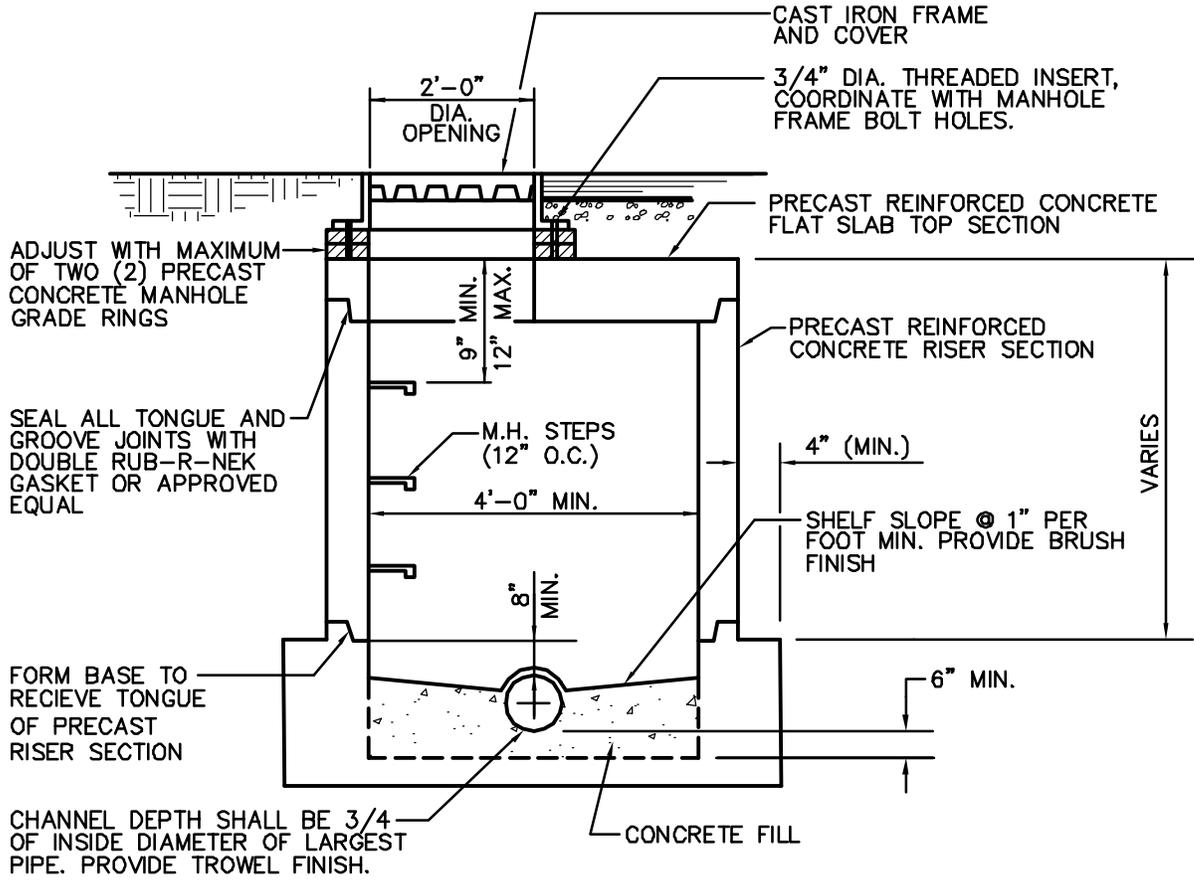
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## SHALLOW MANHOLE DETAIL

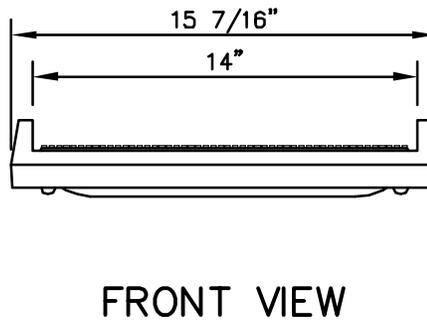
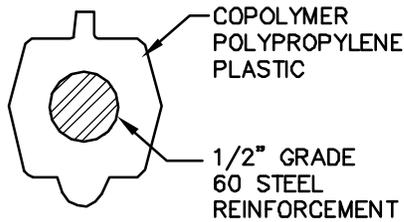
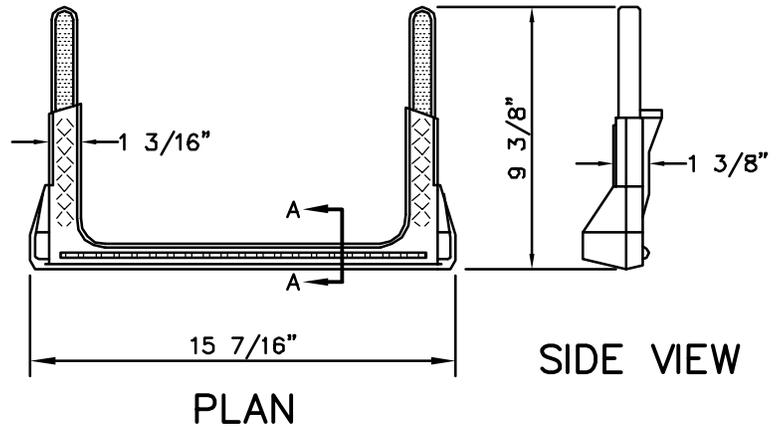
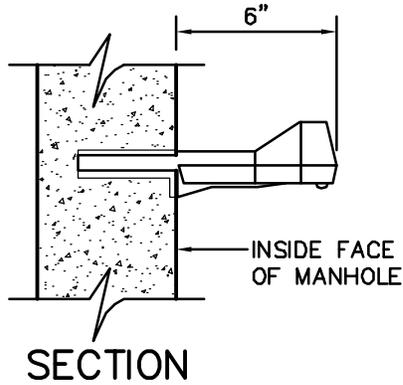
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# MANHOLE STEP DETAIL

NOT TO SCALE  
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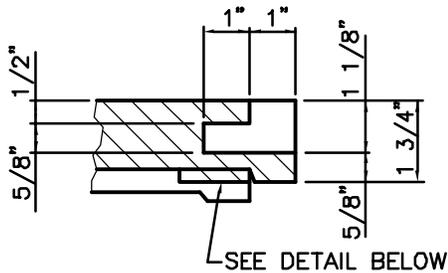


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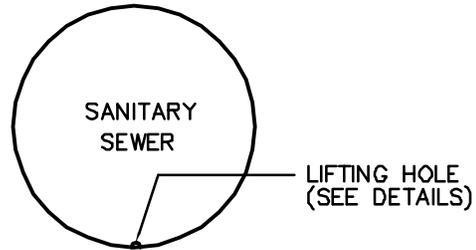
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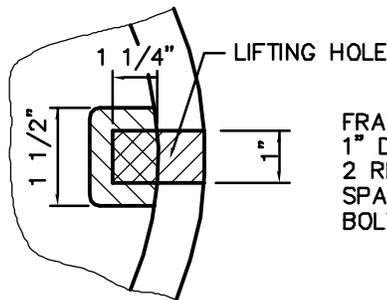
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2. ALL MANHOLE FRAMES AND COVERS SHALL BE FOR HEAVY DUTY TRAFFIC.
3. ALL COVERS SHALL BE SELF SEALING.



LIFTING HOLE DETAILS

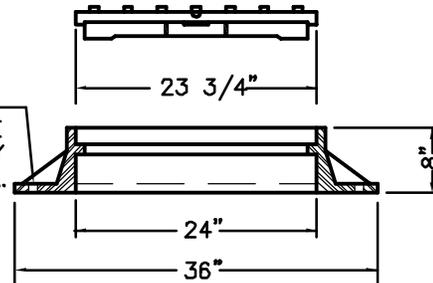


PLAN



BOTTOM VIEW

FRAME BOLT HOLE  
1" DIA. CORED HOLE  
2 REQ'D - EQUALLY  
SPACED ON 32" DIA.  
BOLT CIRCLE



SECTION

**STANDARD FRAME AND COVER**

NOT TO SCALE  
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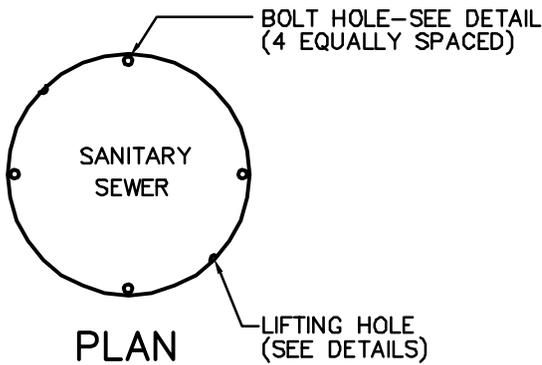
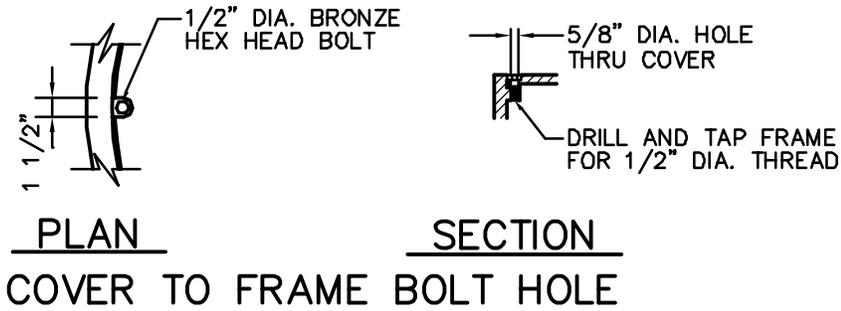
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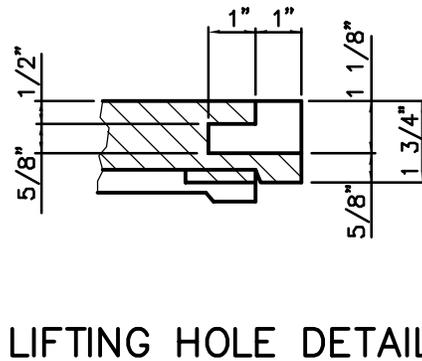
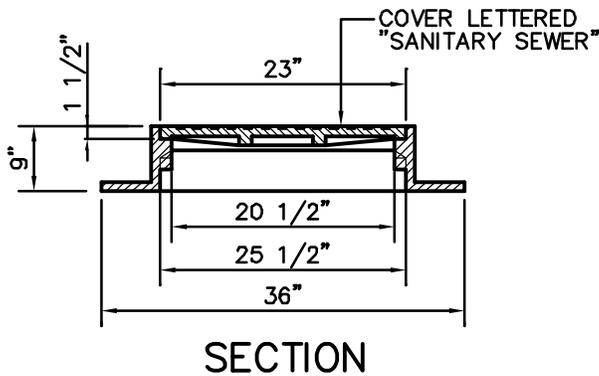
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- NOTES
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  2. ALL MANHOLE FRAMES AND COVERS SHALL BE FOR HEAVY DUTY TRAFFIC
  3. ALL COVERS SHALL BE SELF SEALING



**WATERTIGHT  
FRAME AND COVER**

NOT TO SCALE  
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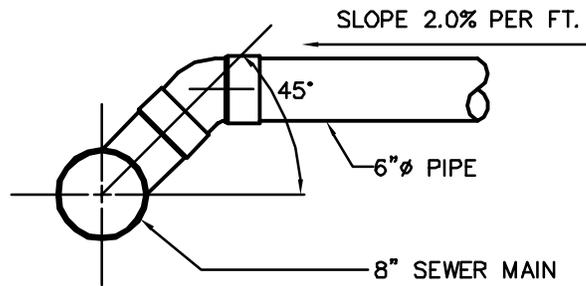
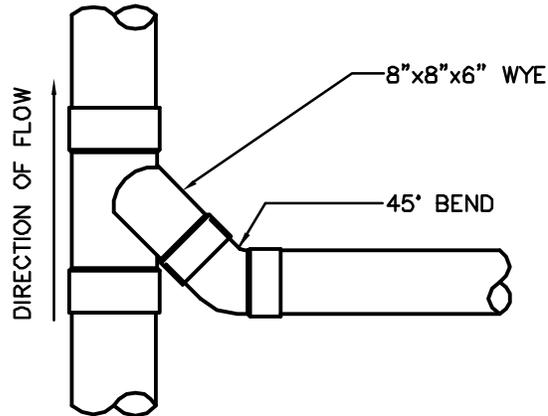
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# SHALLOW SEWER SERVICE CONNECTION

NOT TO SCALE  
SS\SS032

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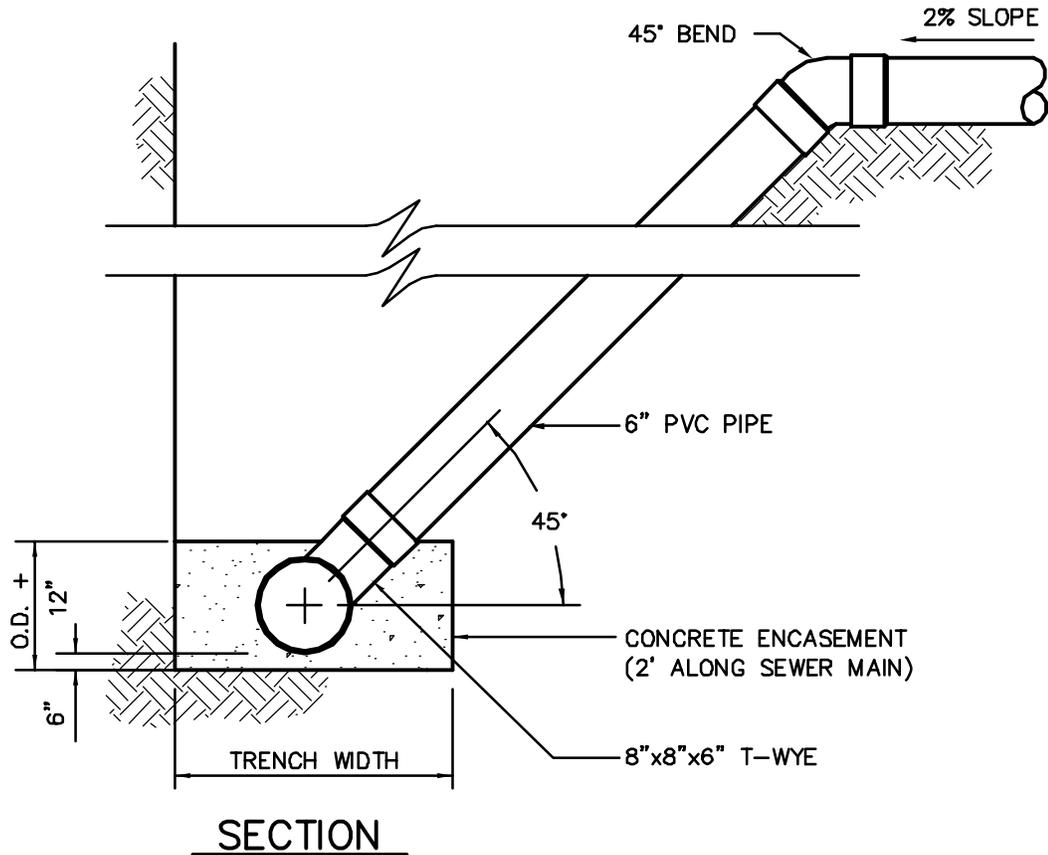
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**DEEP SEWER SERVICE  
CONNECTION DETAIL(12' AND DEEPER)**

NOT TO SCALE  
SS\SS050

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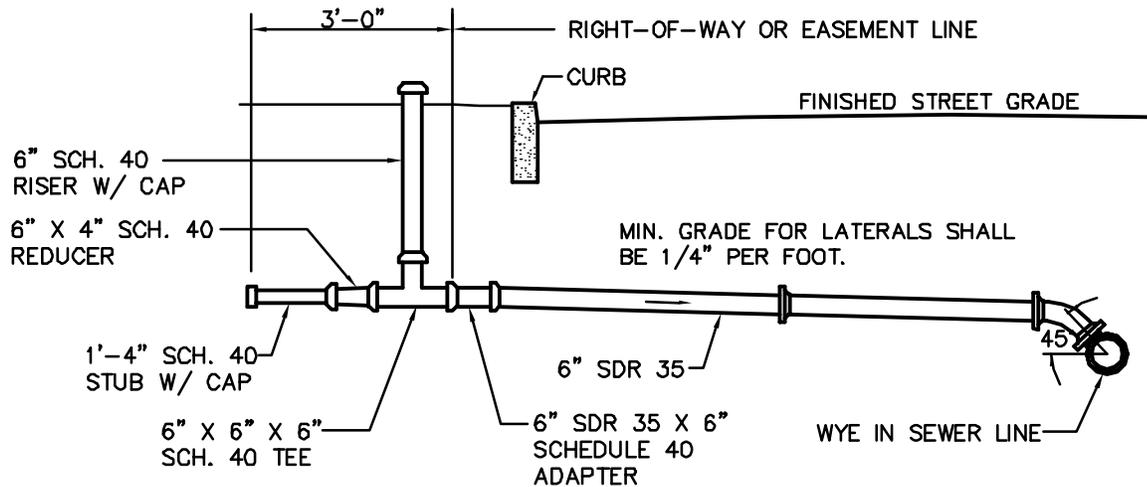
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**NOTE:**  
 STUB WITH CAP SHALL EXTEND  
 3'-0" BEYOND RIGHT-OF-WAY  
 LINE, EASEMENT LINE, OR EXIST.  
 UTILITY, WHICHEVER IS FARTHEST.

## SANITARY SEWER HOUSE CONNECTION

NOT TO SCALE  
 SS\SS034

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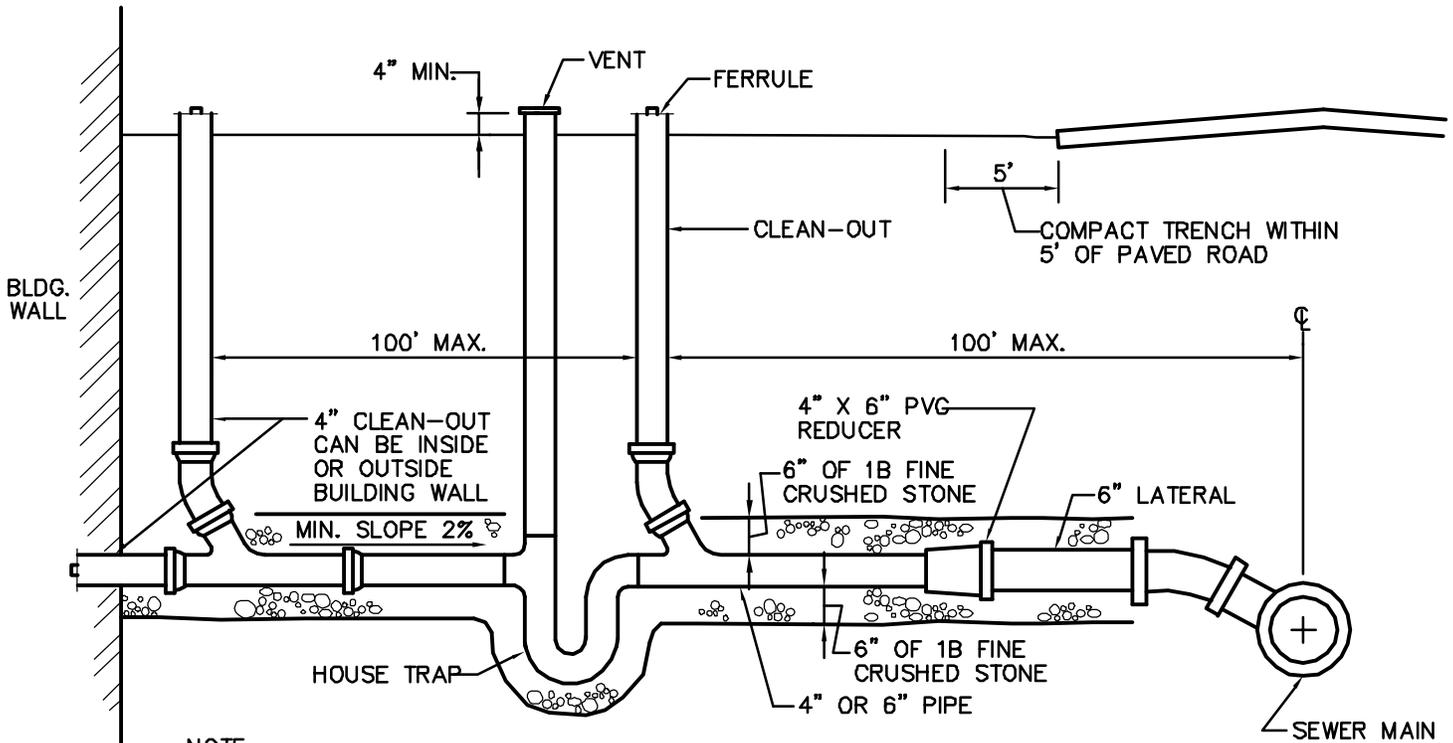
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NOTE:

1. ALL BUILDING SEWER MUST BE INSTALLED IN ACCORDANCE WITH TOWNSHIP SPECIFICATIONS.
2. MAXIMUM SPACING BETWEEN CLEAN-OUTS IS 100 FEET.
3. ALL TRENCHES MUST BE COMPACTED WITHIN 5 FEET OF PAVED ROAD.

## TYPICAL BUILDING SEWER CONNECTION

NOT TO SCALE  
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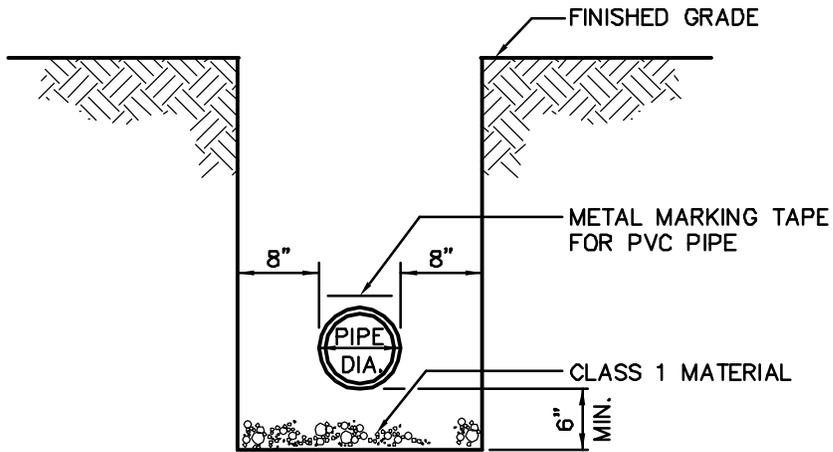
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# TYPICAL TRENCH DETAIL

NOT TO SCALE  
c1\c1006

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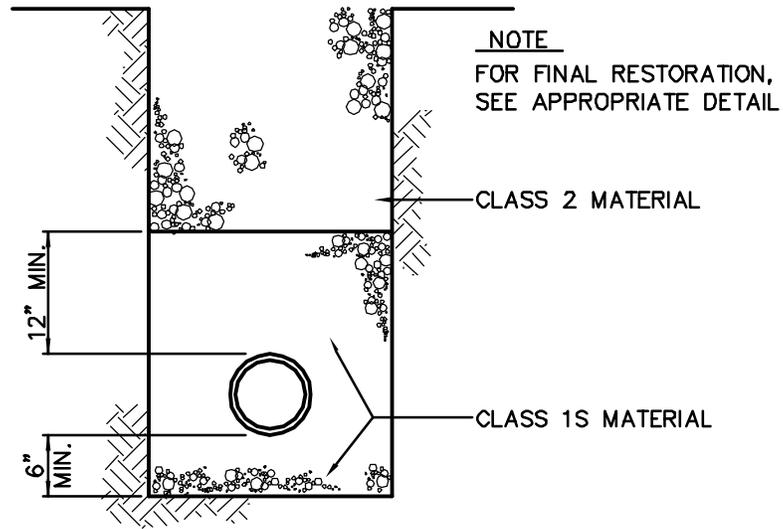
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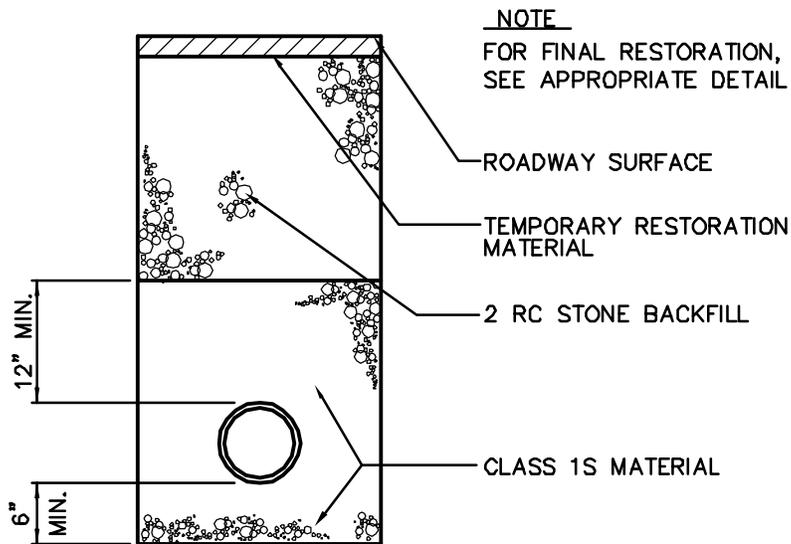
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**TYPICAL BACKFILL  
(OTHER THAN PAVED AREAS)**



**TYPICAL BACKFILL  
(ALL PAVED AREAS)**

**TYPICAL TRENCH BACKFILL**

NOT TO SCALE  
C/C1005

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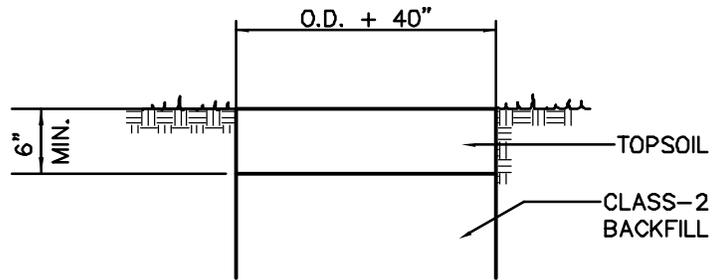
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SCALE: NOT TO SCALE  
DWG. NO. 04-05770-007



# LAWN RESTORATION DETAIL

NOT TO SCALE  
C\C1008

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DEVELOPER SPECIFICATIONS  
FOR  
**WEST NORRITON TOWNSHIP**

WEST NORRITON TOWNSHIP      MONTGOMERY COUNTY, PA

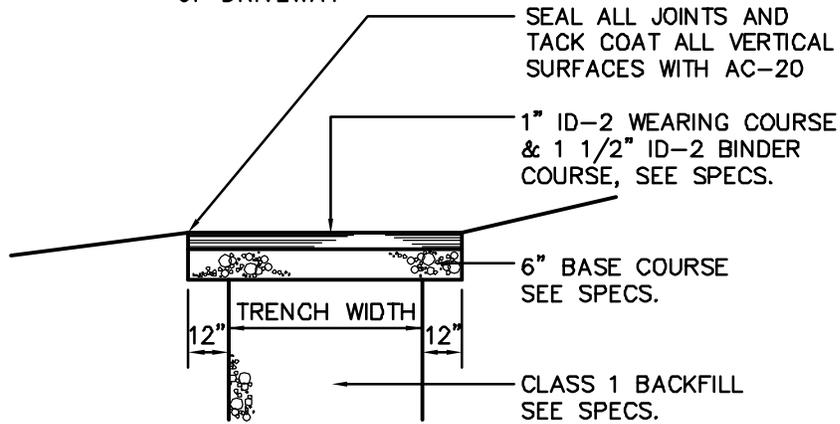
**RETTEW**  
ASSOCIATES, INC.

3020 Columbia Ave., Lancaster, PA 17603  
TEL (717) 394-3721 - FAX (717) 394-1063

DRAWN BY: TMO  
DATE: FEBRUARY 2004  
SCALE: NOT TO SCALE  
DWG. NO. 04-05770-007

NOTE:

MATCH EXISTING WIDTH  
OF DRIVEWAY



# PAVED DRIVEWAY RESTORATION

NOT TO SCALE  
C\C1051

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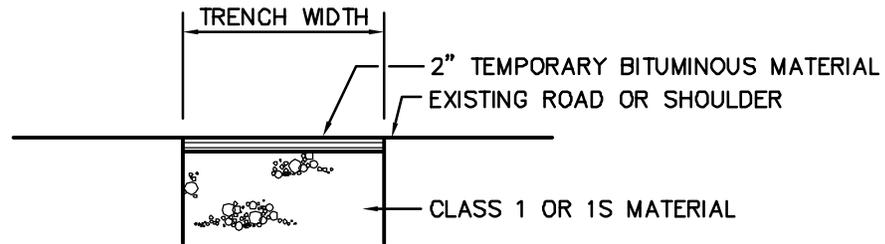
DEVELOPER SPECIFICATIONS  
FOR  
**WEST NORRITON TOWNSHIP**

WEST NORRITON TOWNSHIP      MONTGOMERY COUNTY, PA



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TEL (717) 394-3721 • FAX (717) 394-1063

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DWG. NO.     04-05770-007



# TEMPORARY TOWNSHIP ROADWAY AND SHOULDER RESTORATION

NOT TO SCALE  
CI\C1002

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DEVELOPER SPECIFICATIONS  
FOR  
**WEST NORRITON TOWNSHIP**

WEST NORRITON TOWNSHIP      MONTGOMERY COUNTY, PA

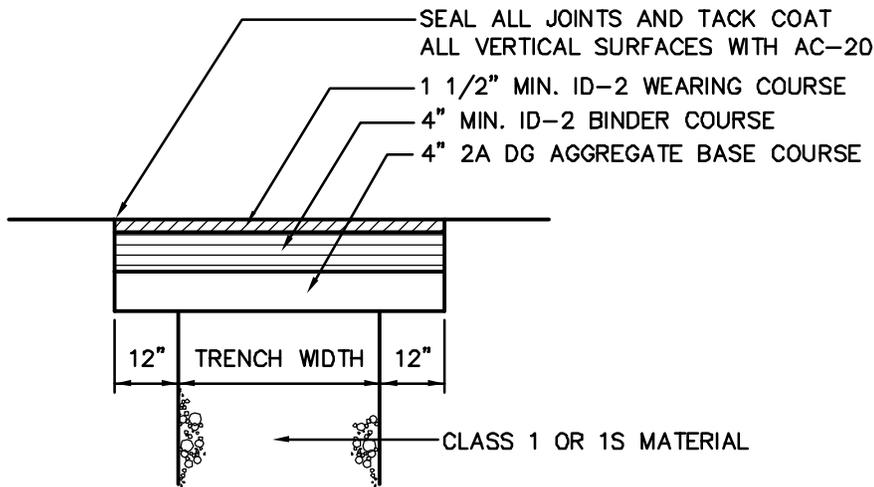
**RETTEW**  
ASSOCIATES, INC.

3020 Columbia Ave., Lancaster, PA 17603  
TEL (717) 394-3721 • FAX (717) 394-1063

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DATE:     FEBRUARY 2004      
SCALE:     NOT TO SCALE      
DWG. NO.     04-05770-007

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 TOWNSHIP ROADWAY AND SHOULDER RESTORATION**

NOT TO SCALE  
C:\G1041

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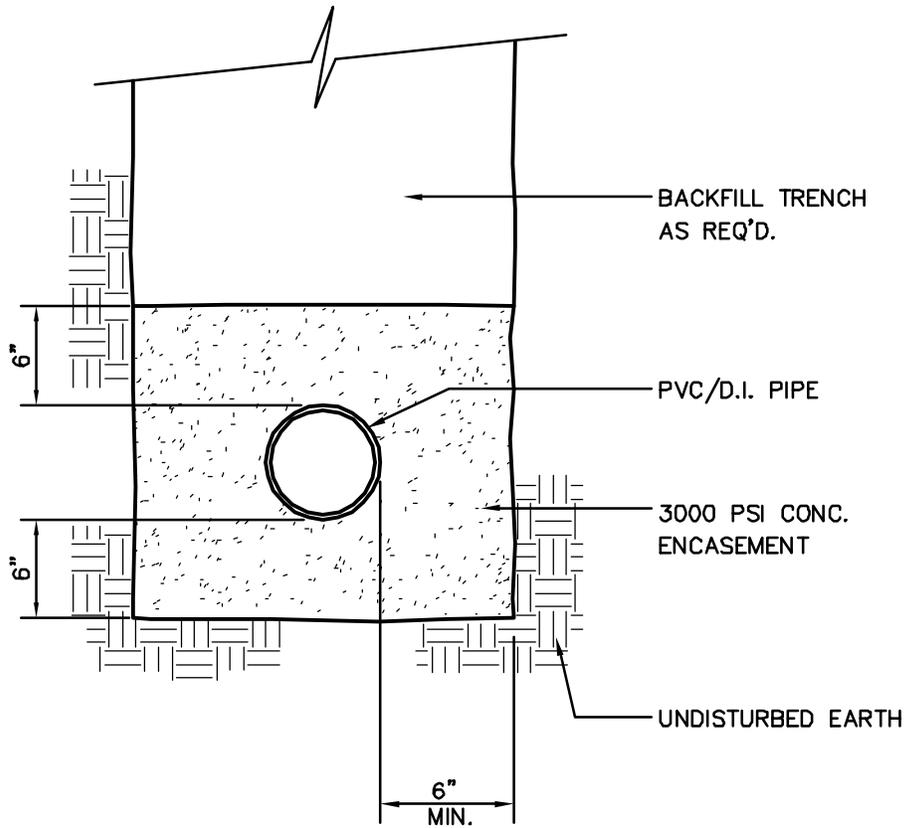
DEVELOPER SPECIFICATIONS  
FOR  
**WEST NORRITON TOWNSHIP**

WEST NORRITON TOWNSHIP MONTGOMERY COUNTY, PA



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DWG. NO. 04-05770-007



# CONCRETE ENCASEMENT DETAIL

NOT TO SCALE  
CI\C1042

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DEVELOPER SPECIFICATIONS  
FOR  
**WEST NORRITON TOWNSHIP**

WEST NORRITON TOWNSHIP      MONTGOMERY COUNTY, PA

**RETTEW**  
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