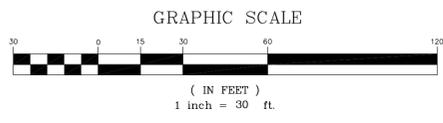


**LEGEND**

- EXISTING CONTOUR
- - - - - APPROXIMATE PROPERTY LINE
- - - - - SETBACK
- o IRON PIN
- - - - - UE/T UNDERGROUND ELECTRIC/TELEPHONE
- - - - - OE OVERHEAD ELECTRIC
- o DECIDUOUS TREE
- \* CONIFEROUS TREE
- EDGE OF BRUSH/WOODS
- W WATER LINE
- UC UNDERGROUND COAXIAL
- FM FORCE MAIN
- SS GRAVITY SEWER
- C.O. o CLEANOUT
- o POWER POLE

**NOTES**

1. Utilities shown do not purport to constitute or represent all utilities located upon or adjacent to the surveyed premises. Existing utility locations are approximate only. The Contractor shall field verify all utility conflicts. All discrepancies shall be reported to the Engineer. The Contractor shall contact Dig Safe (888-344-7233) prior to any construction.
2. Elevations are based on GPS observations performed during topographic survey and are NAVD 88 (GEOID 03)
3. This plan is not a boundary survey and is not intended to be used as one. Approximate property lines shown are based on plats of survey abstracted from the Town of Charlotte land records. Existing monumentation recovered was consistent with the recorded plans.



SITE ENGINEER:  
  
 CIVIL ENGINEERING ASSOCIATES, INC.  
 10 MANSFIELD VIEW LANE, S. BURLINGTON, VT 05403  
 802-864-2323 FAX: 802-864-2271 web: www.cca-vt.com  
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DRAWN  
 MJW  
 CHECKED  
 SAV  
 APPROVED  
 SAV

CLIENT:  
**JACK and NANCY BARNES**  
 1508 ETHAN ALLEN HIGHWAY  
 CHARLOTTE, VT 05445

PROJECT:  
**PROPOSED RESIDENCE**  
 210 HOLMES ROAD  
 CHARLOTTE VERMONT



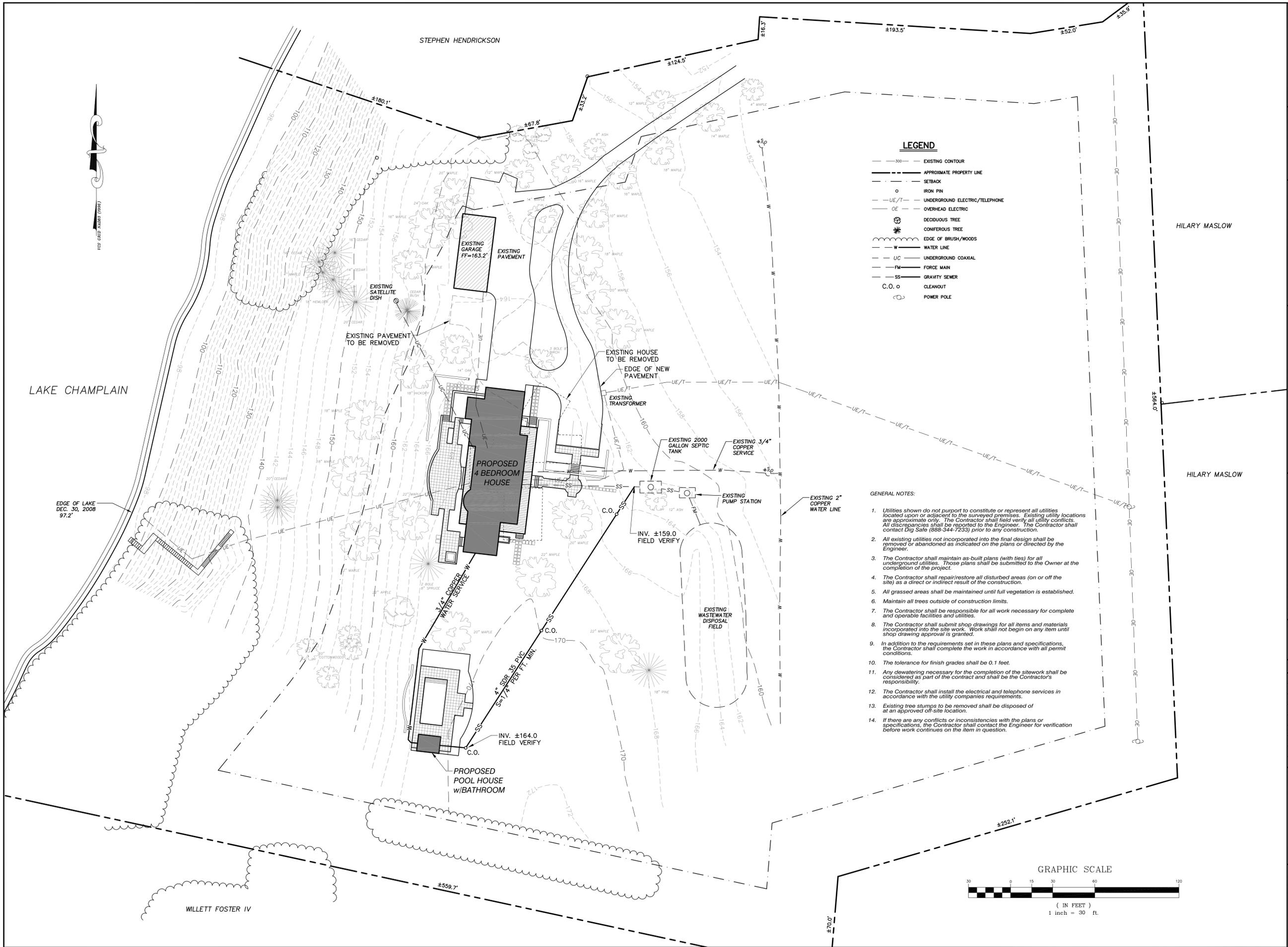
**LOCATION MAP**  
 1" = 4000'

DATE	CHECKED	REVISION

**EXISTING CONDITIONS SITE PLAN**

DATE  
 Oct., 2009  
 SCALE  
 1" = 30'  
 PROJ. NO.  
 08252.01

DRAWING NUMBER  
**C1**

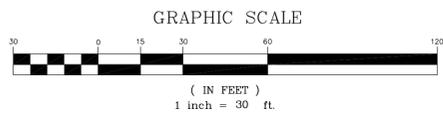


**LEGEND**

- EXISTING CONTOUR
- - - APPROXIMATE PROPERTY LINE
- - - SETBACK
- o IRON PIN
- UE/T- UNDERGROUND ELECTRIC/TELEPHONE
- OE- OVERHEAD ELECTRIC
- o DECIDUOUS TREE
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- W WATER LINE
- UC UNDERGROUND COAXIAL
- FM FORCE MAIN
- SS GRAVITY SEWER
- C.O. CLEANOUT
- o POWER POLE

**GENERAL NOTES:**

1. Utilities shown do not purport to constitute or represent all utilities located upon or adjacent to the surveyed premises. Existing utility locations are approximate only. The Contractor shall field verify all utility conflicts. All discrepancies shall be reported to the Engineer. The Contractor shall contact Dig Safe (800-844-7233) prior to any construction.
2. All existing utilities not incorporated into the final design shall be removed or abandoned as indicated on the plans or directed by the Engineer.
3. The Contractor shall maintain as-built plans (with ties) for all underground utilities. Those plans shall be submitted to the Owner at the completion of the project.
4. The Contractor shall repair/restore all disturbed areas (on or off the site) as a direct or indirect result of the construction.
5. All grassed areas shall be maintained until full vegetation is established.
6. Maintain all trees outside of construction limits.
7. The Contractor shall be responsible for all work necessary for complete and operable facilities and utilities.
8. The Contractor shall submit shop drawings for all items and materials incorporated into the site work. Work shall not begin on any item until shop drawing approval is granted.
9. In addition to the requirements set in these plans and specifications, the Contractor shall complete the work in accordance with all permit conditions.
10. The tolerance for finish grades shall be 0.1 feet.
11. Any dewatering necessary for the completion of the sitework shall be considered as part of the contract and shall be the Contractor's responsibility.
12. The Contractor shall install the electrical and telephone services in accordance with the utility companies requirements.
13. Existing tree stumps to be removed shall be disposed of at an approved off-site location.
14. If there are any conflicts or inconsistencies with the plans or specifications, the Contractor shall contact the Engineer for verification before work continues on the item in question.



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CLIENT:  
**JACK and NANCY BARNES**  
 1508 ETHAN ALLEN HIGHWAY  
 CHARLOTTE, VT 05445

PROJECT:  
**PROPOSED RESIDENCE**  
 210 HOLMES ROAD  
 CHARLOTTE VERMONT



DATE	CHECKED	REVISION

**PROPOSED CONDITIONS SITE PLAN**

DATE  
 Oct., 2009  
 SCALE  
 1" = 30'  
 PROJ. NO.  
 08252.01  
 DRAWING NUMBER  
**C2**

SITE ENGINEER:



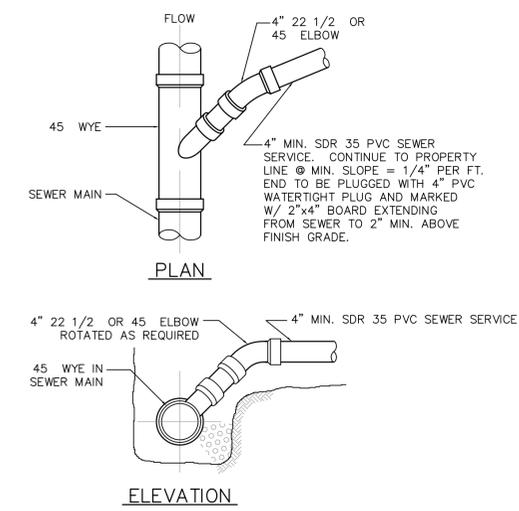
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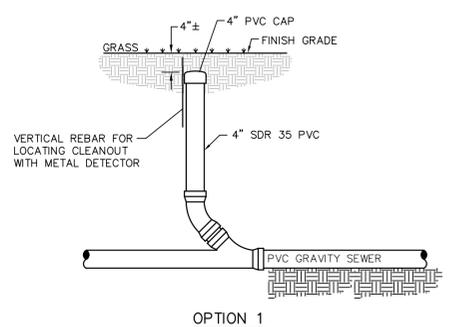
CLIENT:  
**JACK and NANCY BARNES**  
1508 ETHAN ALLEN HIGHWAY  
CHARLOTTE, VT 05445

PROJECT:  
**PROPOSED RESIDENCE**  
210 HOLMES ROAD  
CHARLOTTE VERMONT

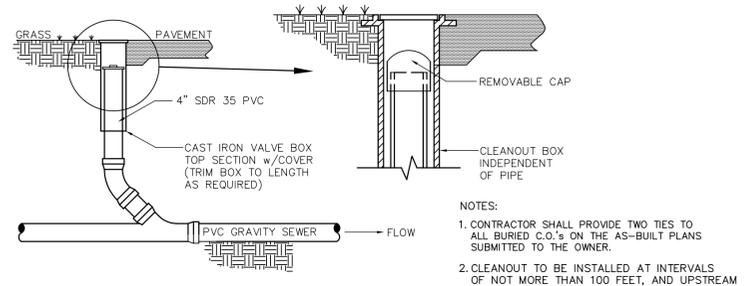


**SEWER SERVICE CONNECTION**  
NTS

- CONTRACTOR TO PROVIDE 3 LOCATION TIES TO END OF LATERAL TO BE INCLUDED ON "AS-BUILT" DRAWINGS.
- SEE TYPICAL TRENCH FOR BEDDING AND BACKFILL REQUIREMENTS.



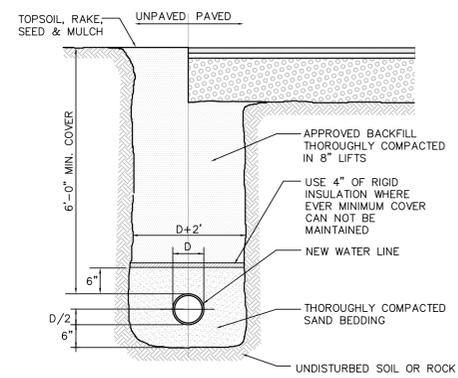
OPTION 1



OPTION 2

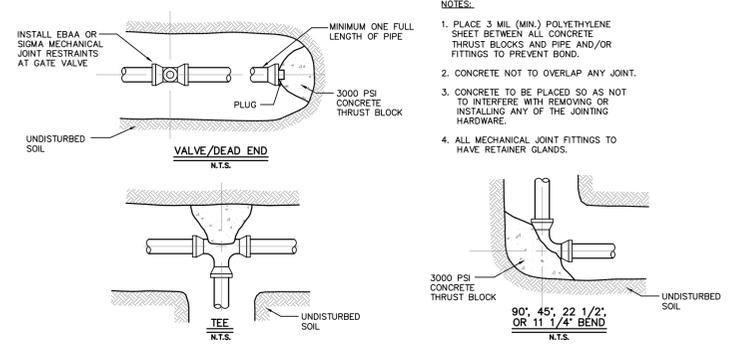
**TYPICAL CLEANOUT DETAIL**  
N.T.S.

- NOTES:
1. CONTRACTOR SHALL PROVIDE TWO TIES TO ALL BURIED C.O.'S ON THE AS-BUILT PLANS SUBMITTED TO THE OWNER.
  2. CLEANOUT TO BE INSTALLED AT INTERVALS OF NOT MORE THAN 100 FEET, AND UPSTREAM OF BEND(S) IN BUILDING SEWER(S) WHEN CHANGE IN PIPE DIRECTION EXCEEDS 45° (USE LONG SWEEP FITTINGS WHEN EXCEEDING 45°)



**TYPICAL WATER TRENCH DETAIL**  
N.T.S.

- NOTES:
1. Compaction of backfill and bedding shall be a minimum of 90% (95% under roadway surfaces) of maximum dry density determined in the standard proctor test (ASTM D698).
  2. Bedding material shall not be placed on frozen subgrade.
  3. Approved backfill shall not contain any stones more than 12" in largest dimension (6" in roadways, 2" maximum diameter within 2' of the outside of the pipe), or contain any frozen, wet, or organic material.
  4. Trenches shall be completely dewatered prior to placing of pipe bedding material and kept dewatered during installation of pipe and backfill.
  5. In trenches with unstable materials, trench bottom shall first be stabilized by placement of filter fabric then crushed stone (3/4" maximum).
  6. The sides of trenches 4' or more in depth entered by personnel shall be sheeted or sloped to the angle of repose as defined by O.S.H.A. standards.

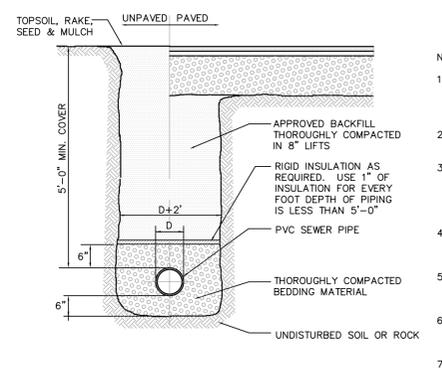


- NOTES:
1. PLACE 3 MIL. (MIN.) POLYETHYLENE SHEET BETWEEN ALL CONCRETE THRUST BLOCKS AND PIPE AND/OR FITTINGS TO PREVENT BOND.
  2. CONCRETE NOT TO OVERLAP ANY JOINT.
  3. CONCRETE TO BE PLACED SO AS NOT TO INTERFERE WITH REMOVING OR INSTALLING ANY OF THE JOINTING HARDWARE.
  4. ALL MECHANICAL JOINT FITTINGS TO HAVE RETAINER GLANDS.

**MINIMUM AREA OF BEARING SURFACE OF CONC. THRUST BLOCKS**  
(IN SQUARE FEET)

ENDS	3"		4"		6"		8"		12"		16"		SOIL CONDITION	SAFE BEARING LOAD (PSF)
	90°	45°	90°	45°	90°	45°	90°	45°	90°	45°	90°	45°		
4"	0.5	0.5	0.5	0.5	1.0	1.0	1.5	1.5	1.0	4.0	5.5	3.0	1.5	10,000
6"	1.0	1.0	1.0	1.5	2.0	1.0	3.0	4.0	2.0	10.0	14.0	7.5	2.0	4,000
8"	1.0	1.5	1.0	2.0	2.5	1.5	3.5	5.0	3.0	13.0	18.0	10.0	5.0	3,000
10"	1.5	2.5	1.5	3.5	4.0	2.0	5.5	7.5	4.0	20.0	27.5	15.0	8.0	2,000
12"	3.0	4.5	2.5	5.0	7.0	4.0	10.0	15.0	8.0	39.0	55.0	30.0	15.0	1,000

**THRUST BLOCK DETAILS**  
N.T.S.



**TYPICAL SEWER TRENCH DETAIL**  
N.T.S.

- NOTES:
1. Compaction of backfill and bedding shall be a minimum of 90% (95% under roadway surfaces) of maximum dry density determined in the standard proctor test (ASTM D698).
  2. Bedding material shall not be placed on frozen subgrade.
  3. Approved backfill shall not contain any stones more than 12" in largest dimension (6" in roadways, 2" maximum diameter within 2' of the outside of the pipe), or contain any frozen, wet, or organic material.
  4. Trenches shall be completely dewatered prior to placing of pipe bedding material and kept dewatered during installation of pipe and backfill.
  5. In trenches with unstable materials, trench bottom shall first be stabilized by placement of filter fabric then crushed stone (3/4" maximum).
  6. The sides of trenches 4' or more in depth entered by personnel shall be sheeted or sloped to the angle of repose as defined by O.S.H.A. standards.
  7. Bedding material shall consist of crushed stone, gravel or sand with a maximum size of 3/4". Submit a sample to the Engineer for approval.

DATE	CHECKED	REVISION

**SITE DETAILS**

DATE  
Oct., 2009  
SCALE  
AS NOTED  
PROJ. NO.  
08252.01

DRAWING NUMBER  
**C3**