



**NOTES:**

- ALL JOINTS ENCOUNTERED WITHIN THE SPECIFIED RESTRAINING LENGTH (L) SHALL BE RESTRAINED FROM THE FIRST JOINT ON FITTING.
- REFER TO STANDARD DWG. A2730 FOR JOINT RESTRAINING DETAIL AND TYPE.
- GRANULAR 'A' THRUST BLOCKS SHALL BE FULLY EXTENDED AND COMPACTED TO 100% PROCTOR DENSITY AGAINST TRENCH WALLS. IF TRENCH WALL ARE SATURATED OR DISTURBED, SPECIAL DESIGN DETAILS OF THRUST RESTRAINT SHALL BE PROVIDED BY THE ENGINEER FOR REVIEW BY THE COMMISSION.
- GRANULAR THRUST BLOCKS SHALL BE ENCLOSED WITH FILTER FABRIC IF GROUND WATER TABLE IS ABOVE THE TRENCH BED OR IF GROUND WATER IS SEEPING THROUGH TRENCH WALLS.
- WHEN FITTINGS ARE PARTIALLY OR FULLY EXPOSED UNDER PRESSURE, ALL JOINTS MUST BE RESTRAINED.
- ALL PIPE AND FITTING JOINTS SHALL BE RESTRAINED IN EARTH FILL APPLICATIONS.
- ALL METALLIC FITTINGS AND RESTRAINERS TO BE CATHODICALLY PROTECTED AS PER DRAWING A2732 & A2733
- ALL SIDES TO BE RESTRAINED FOR IN LINE TEES.

| PIPE DIA. | "L" MIN. RESTRAINING LENGTH (m) |
|-----------|---------------------------------|
| 100&150   | 15.2                            |
| 200       | 19.6                            |
| 300       | 27.7                            |

# PETERBOROUGH UTILITIES COMMISSION

## STANDARD WATERWORKS DRAWING

|  |                       |   |       |                                     |            |
|--|-----------------------|---|-------|-------------------------------------|------------|
| <p><b>UTILITIES<br/>PETERBOROUGH<br/>COMMISSION</b><br/>WATER<br/>RIVERVIEW PARK AND ZOO</p> | TITLE                 | RESTRAINED JOINTS FOR PVC WATERMAINS, TEES, CROSSES AND DEAD ENDS IN COMBINATION WITH GRANULAR THRUST BLOCK | No.   | REVISION                            | DATE       |
|  | DRAWN BY: S. BILLINGS | APPROVED: G. CRAIG  | 1.    | UPDATED TITLE BLOCK                 | 2023-11-03 |
|  | DESIGNED: S. BILLINGS | DATE: 07-28-2008  | 2.    | GRANULAR 'A' COMPACTION REQUIREMENT | 2023-11-03 |
|  |                       |   | A2734 |                                     |            |