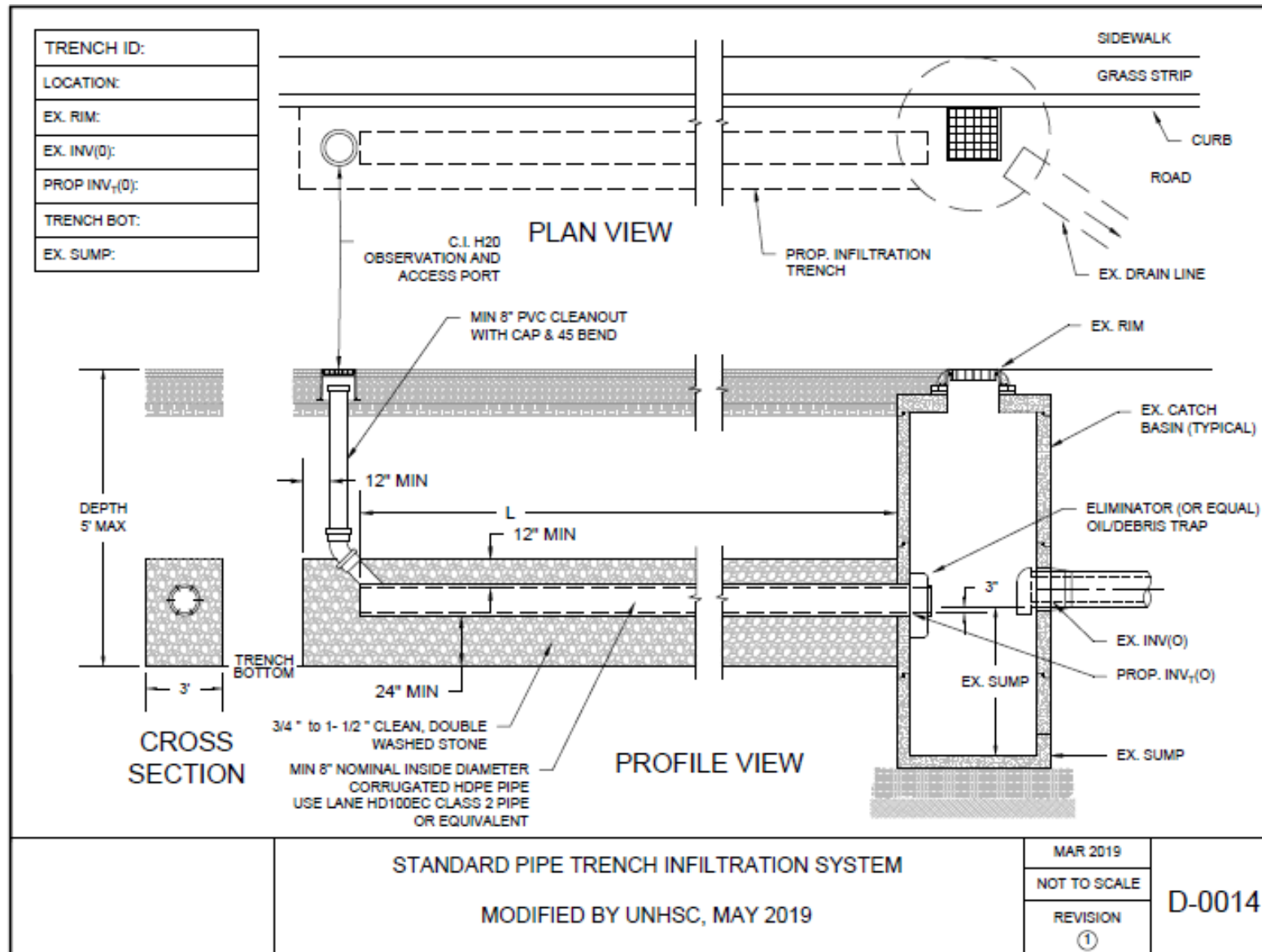


# Appendix A: Arlington Infiltration Trench Concept Design



Arlington Results:

| Location                                              | ABV  | Units | 1    | 2    | 3    | 4    | 5    | 6    | 7    | 8    | 9    | AVE  | Total        |
|-------------------------------------------------------|------|-------|------|------|------|------|------|------|------|------|------|------|--------------|
| Drainage Area (estimated)                             | DCIA | Acres | 0.12 | 0.12 | 0.12 | 0.12 | 0.1  | 0.11 | 0.12 | 0.12 | 0.12 | 0.12 | <b>1.05</b>  |
| Water Quality Volume (Philly)                         | WQVP | cf    | 327  | 436  | 436  | 436  | 363  | 399  | 436  | 436  | 436  | 411  | <b>3703</b>  |
| Design Storage Volume                                 | DSV  | cf    | 42   | 47   | 45   | 44   | 37   | 41   | 44   | 44   | 44   | 43   | <b>386.0</b> |
| Infiltration Rate                                     | Inf  | in/hr | 2.41 | 2.41 | 2.41 | 2.41 | 2.41 | 2.41 | 2.41 | 2.41 | 2.41 | 2.41 | <b>NA</b>    |
| BMP Capacity: Depth of<br>Runoff from Impervious Area | PSC  | in    | 0.13 | 0.11 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | <b>NA</b>    |
| TP Reduction                                          |      | lb/yr | 0.08 | 0.10 | 0.09 | 0.09 | 0.08 | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | <b>0.8</b>   |
| TN Reduction                                          |      | lb/yr | 0.51 | 0.60 | 0.59 | 0.58 | 0.48 | 0.53 | 0.58 | 0.58 | 0.58 | 0.56 | <b>5.0</b>   |
| TSS Reduction                                         |      | lb/yr | 23   | 28   | 27   | 26   | 22   | 24   | 26   | 26   | 26   | 26   | <b>230</b>   |
| Volume Reduction                                      |      | cf    | 132  | 155  | 152  | 149  | 124  | 137  | 149  | 149  | 149  | 144  | <b>1296</b>  |

|                  | Units                          | US dollars         |
|------------------|--------------------------------|--------------------|
| Cost (estimated) | System                         | <b>\$ 2,200.00</b> |
| Cost (estimated) | per acre IC treated            | <b>\$18,857.14</b> |
| Cost (estimated) | per lb of TP                   | <b>\$24,750.00</b> |
| Cost (estimated) | per lb of TN                   | <b>\$ 4,920.48</b> |
| Cost (estimated) | per lb of TSS                  | <b>\$ 21.44</b>    |
| Cost (estimated) | per cf of volume<br>eliminated | <b>\$ 0.02</b>     |