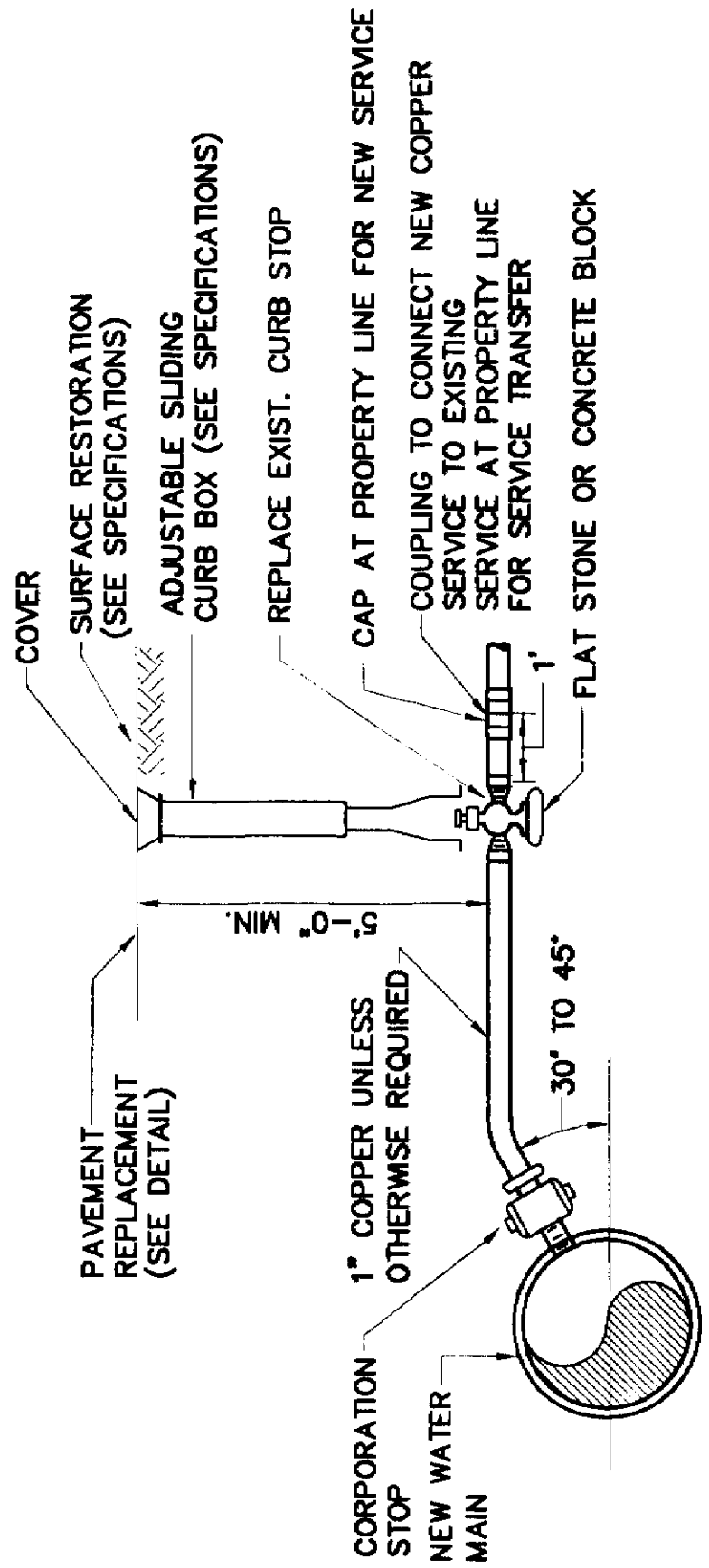
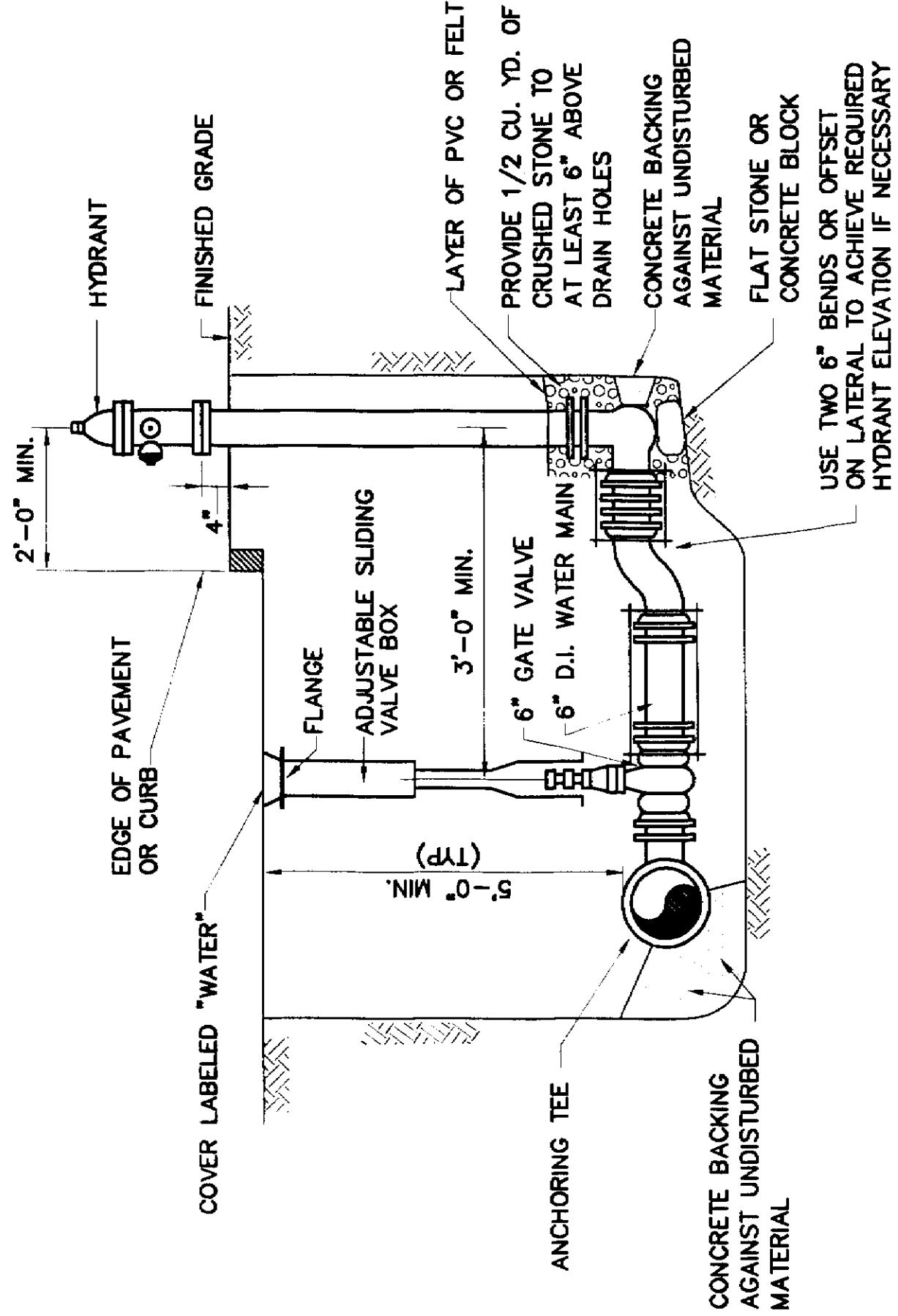


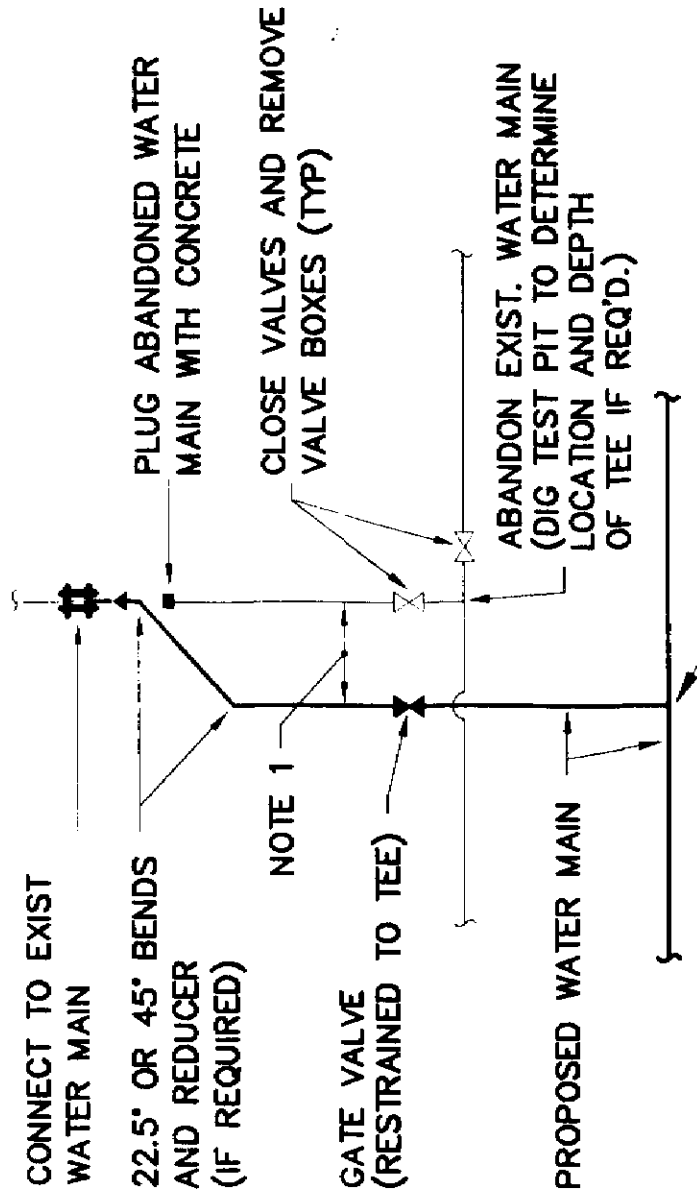


**WATER SERVICE DETAIL**  
N.T.S.

NOTE: PROVIDE SADDLE FOR ALL AC AND PVC MAINS AND ALL 2" OR LARGER STOPS

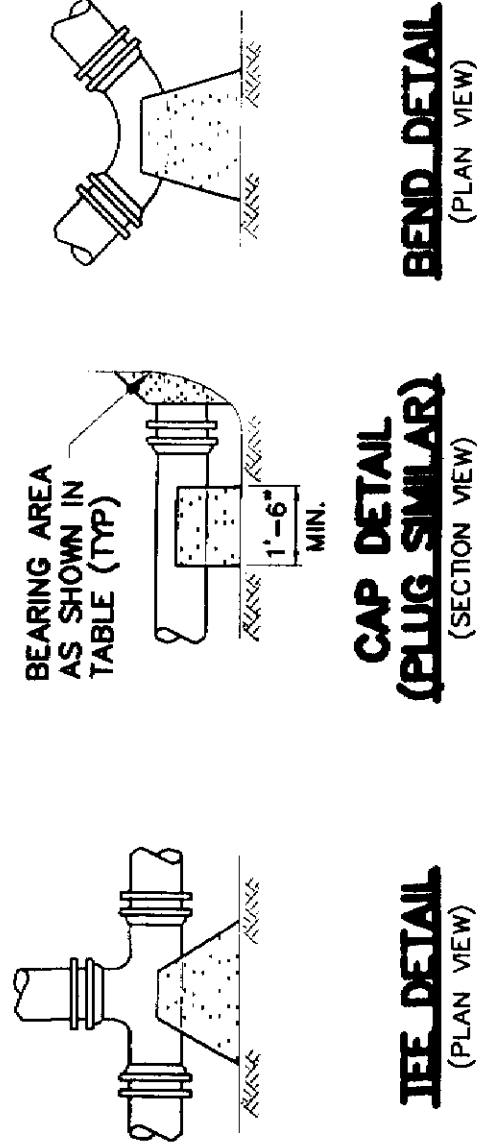


**HYDRANT AND VALVE DETAIL**  
N.T.S.



**WATER MAIN LATERAL CONNECTION**  
N.T.S.

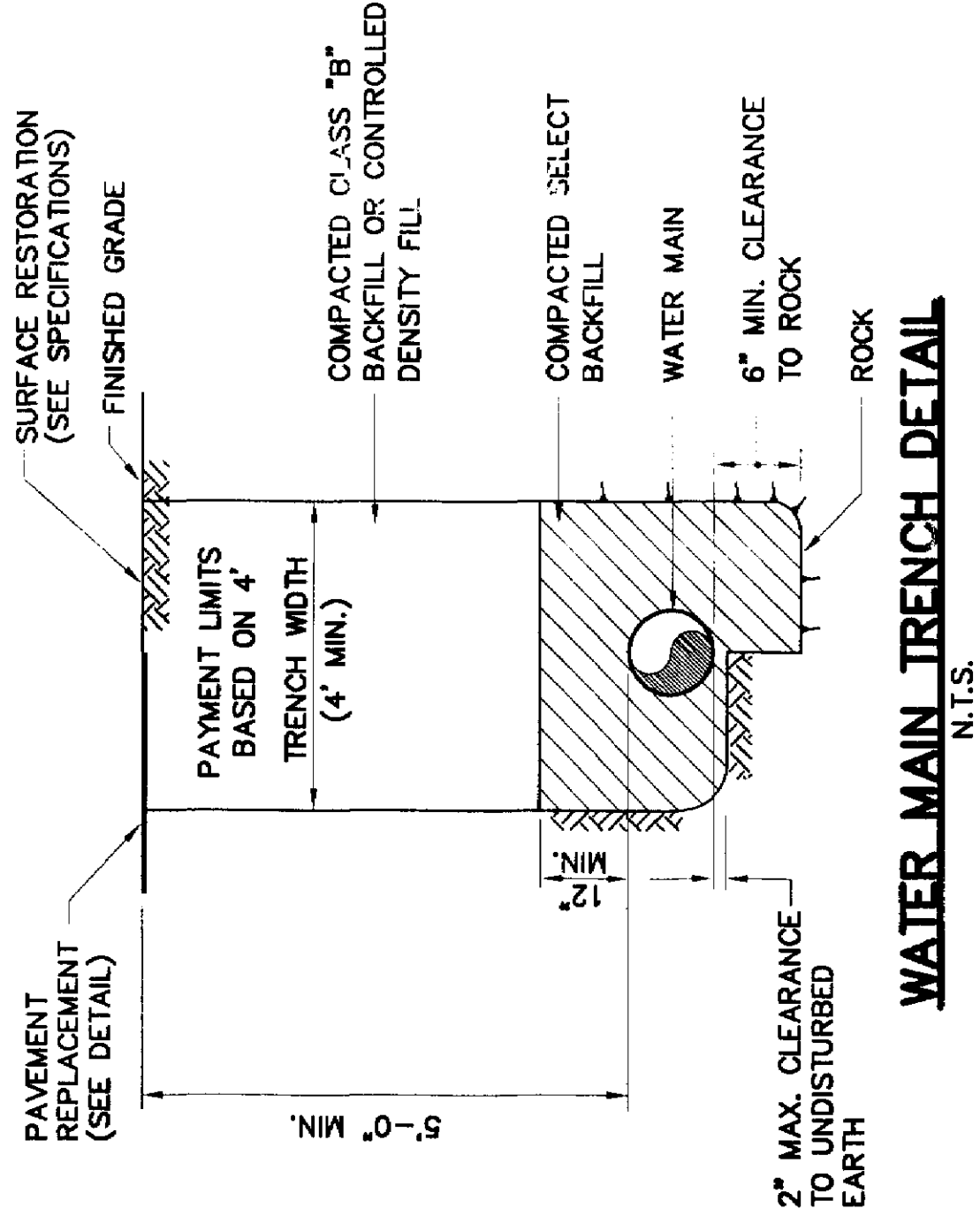
NOTE 1: MINIMUM PRACTICAL DISTANCE - GENERALLY NO MORE THAN 5 FT.



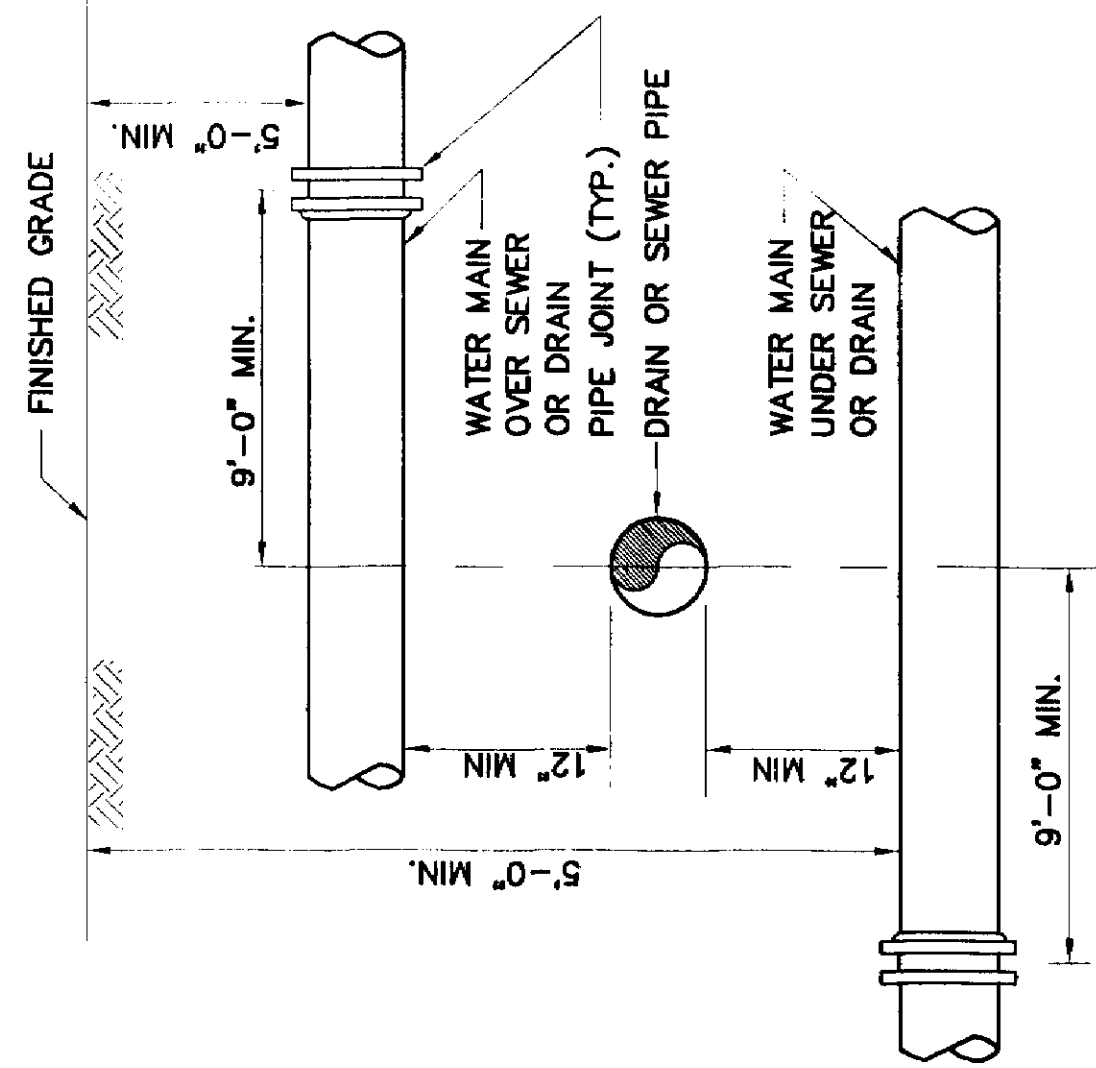
| TABLE OF CONCRETE THRUST RESTRAINT MINIMUM BEARING AREAS IN SQUARE FEET AGAINST UNDISTURBED MATERIAL FOR WATER MAIN FITTINGS |                                 |           |               |               |  |
|------------------------------------------------------------------------------------------------------------------------------|---------------------------------|-----------|---------------|---------------|--|
| SIZE OF MAIN                                                                                                                 | 90° BENDS, TEES, CAPS AND PLUGS | 45° BENDS | 22-1/2° BENDS | 11-1/4° BENDS |  |
| 6", 8"                                                                                                                       | 5                               | 4         | 2             | 2             |  |
| 10", 12"                                                                                                                     | 12                              | 9         | 5             | 2             |  |
| 16"                                                                                                                          | 20                              | 15        | 8             | 4             |  |
| 20"                                                                                                                          | 36                              | 24        | 13            | 7             |  |

NOTES: 1. ALL WATER MAIN FITTINGS SHALL HAVE CONCRETE BACKING FOR THRUST RESTRAINT UNLESS OTHERWISE SPECIFIED.  
2. CONCRETE BACKING SHALL BE PLACED TO AVOID PLACEMENT OF CONCRETE ON THE FITTING JOINTS

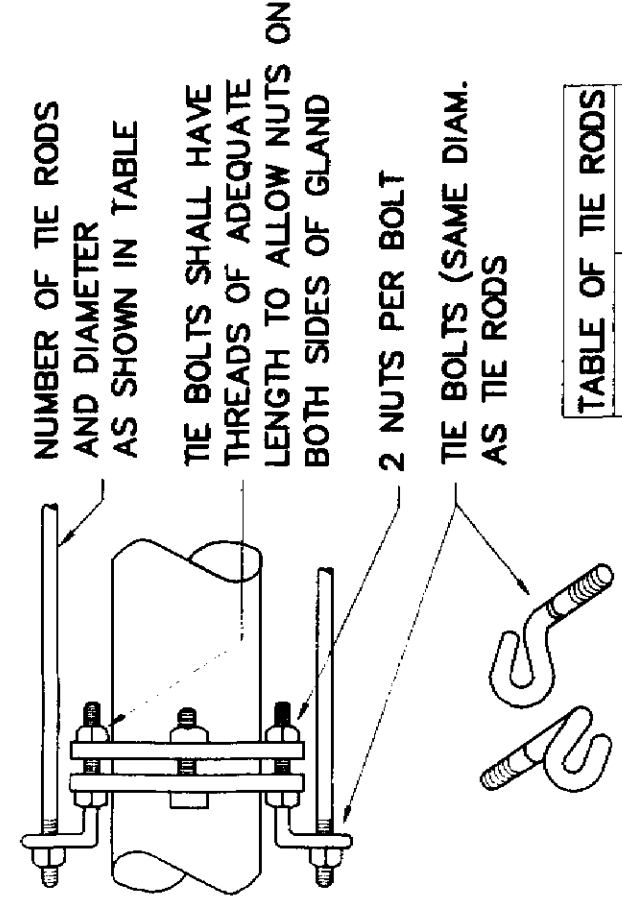
**CONCRETE THRUST RESTRAINT FOR FITTINGS**  
N.T.S.



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

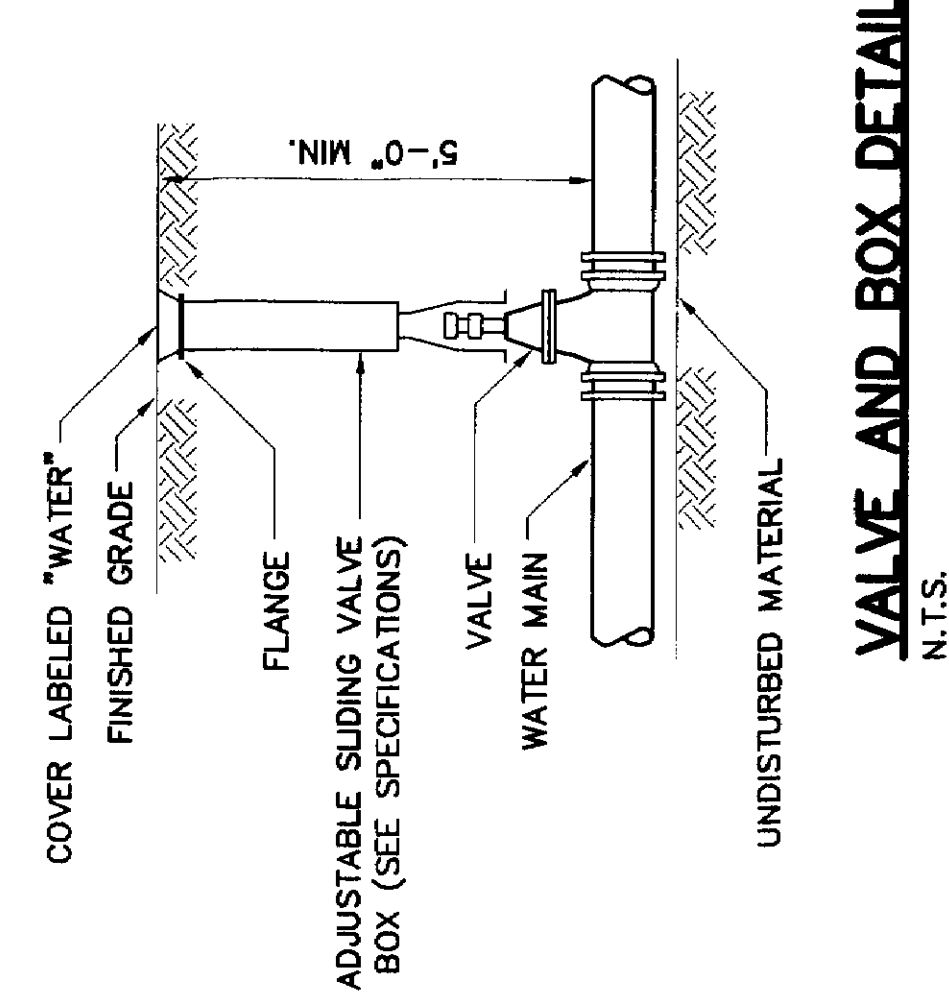


**SEWER OR DRAIN CROSSING DETAIL**  
N.T.S.

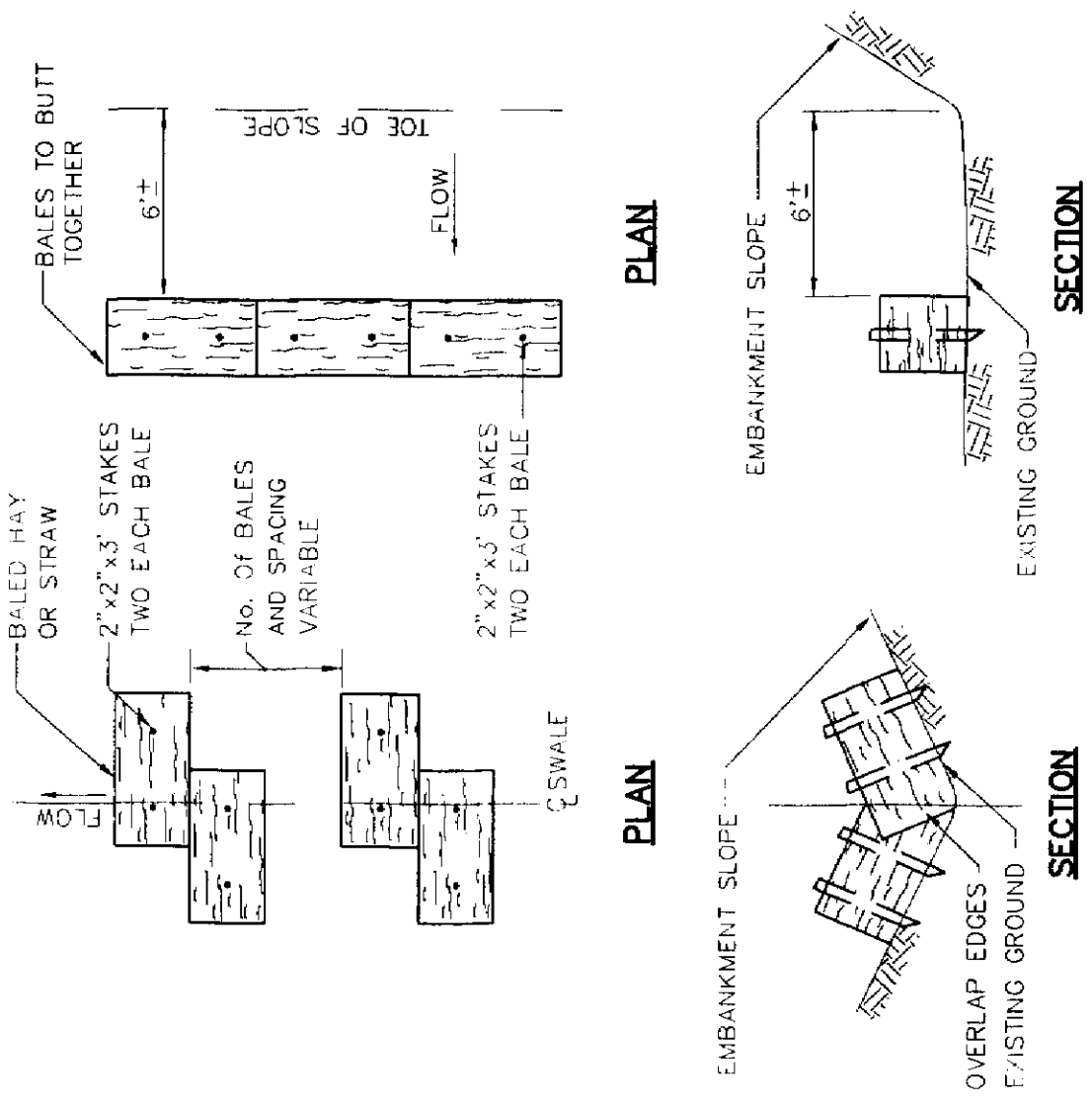


| TABLE OF TIE RODS |             |      |
|-------------------|-------------|------|
| PIPE SIZE         | TIE ROD NO. | DIA. |
| 6"                | 2           | 1/2" |
| 8"                | 2           | 5/8" |
| 10"               | 2           | 3/4" |
| 12"               | 4           | 3/4" |
| 16"               | 6           | 3/4" |
| 20"               | 10          | 3/4" |

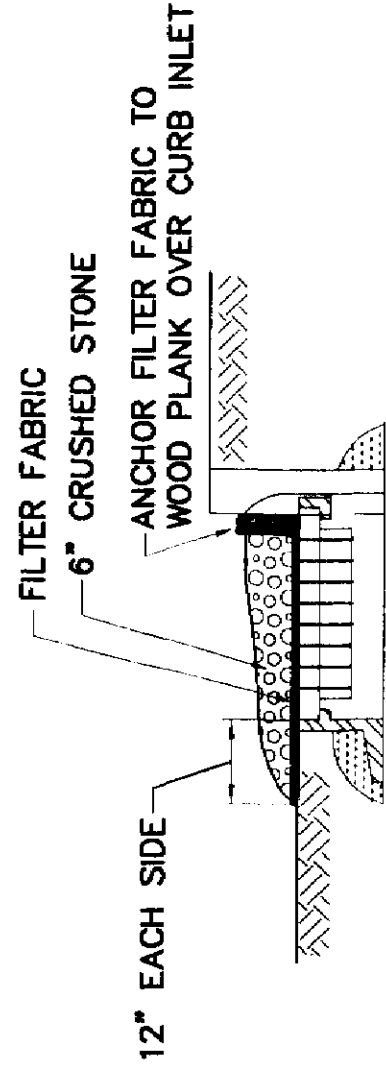
**JOINT RESTRAINT DETAIL**  
N.T.S.



**VALVE AND BOX DETAIL**  
N.T.S.



**HAY BALES DETAIL**  
N.T.S.



**CATCH BASIN INLET PROTECTION DETAIL**  
N.T.S.

**RECORD DRAWING**

| No. | Date  | Dr. By | WCS | App. By | Description    |
|-----|-------|--------|-----|---------|----------------|
| 1   | 02/04 | WCS    | DRL |         | RECORD DRAWING |
|     |       | Dr. By | WCS | App. By |                |
|     |       | Dr. By | WCS | App. By |                |
|     |       | Dr. By | WCS | App. By |                |

| FILE NO.  | 141-11   |
|-----------|----------|
| SCALE:    | AS NOTED |
| CONTRACT: |          |
| JOB NO.   | 202038   |
| DR. BY    | WCS      |
| DSN. BY   | WCS      |
| CHK. BY   | DRL      |
| APP. BY   | PJC      |

| TOWN OF EAST LONGMEADOW, MASSACHUSETTS<br>BOARD OF PUBLIC WORKS<br>WATER MAIN IMPROVEMENTS PROJECT |          |
|----------------------------------------------------------------------------------------------------|----------|
| DETAILS                                                                                            |          |
| CADD NO.                                                                                           | RDE1-1   |
| SCALE:                                                                                             | AS NOTED |
| CONTRACT:                                                                                          |          |
| JOB NO.                                                                                            | 202038   |
| DR. BY                                                                                             | WCS      |
| DSN. BY                                                                                            | WCS      |
| CHK. BY                                                                                            | DRL      |
| APP. BY                                                                                            | PJC      |