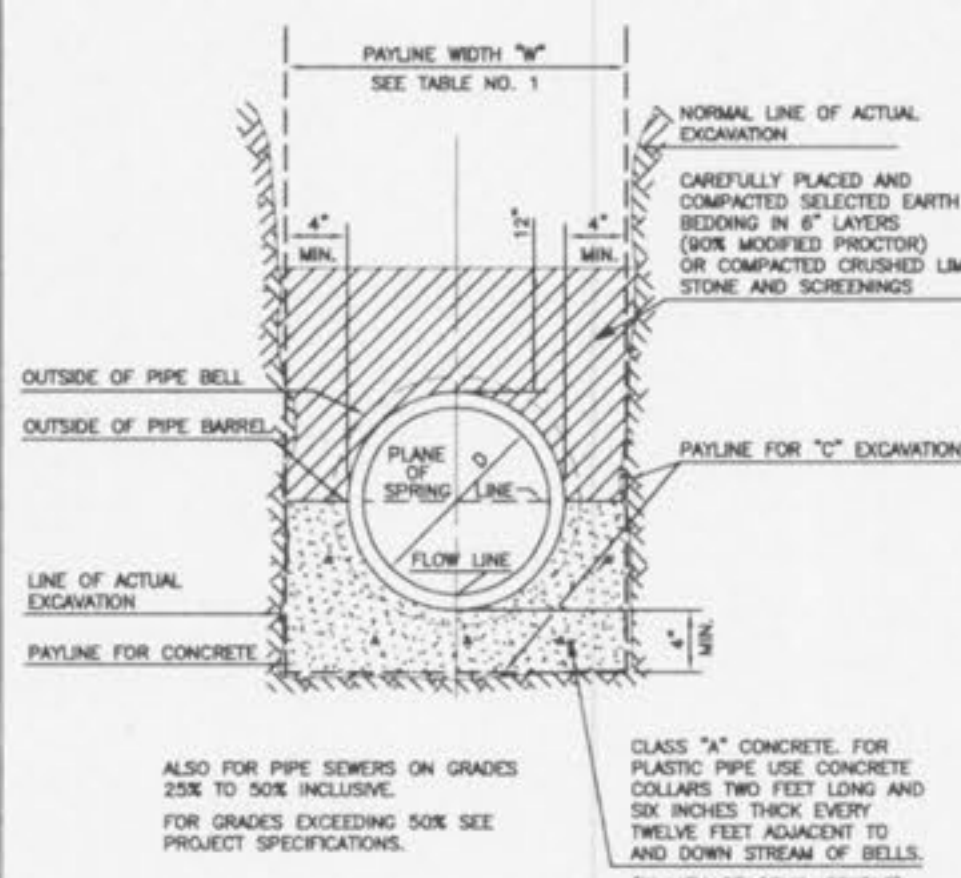
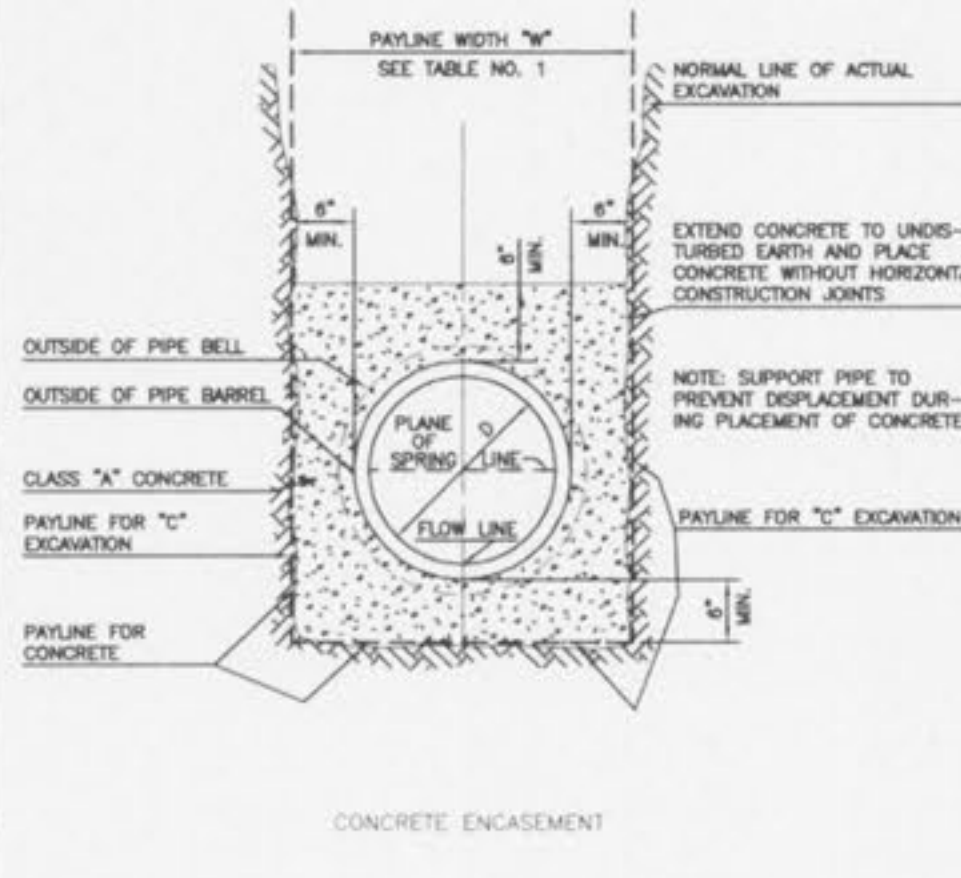
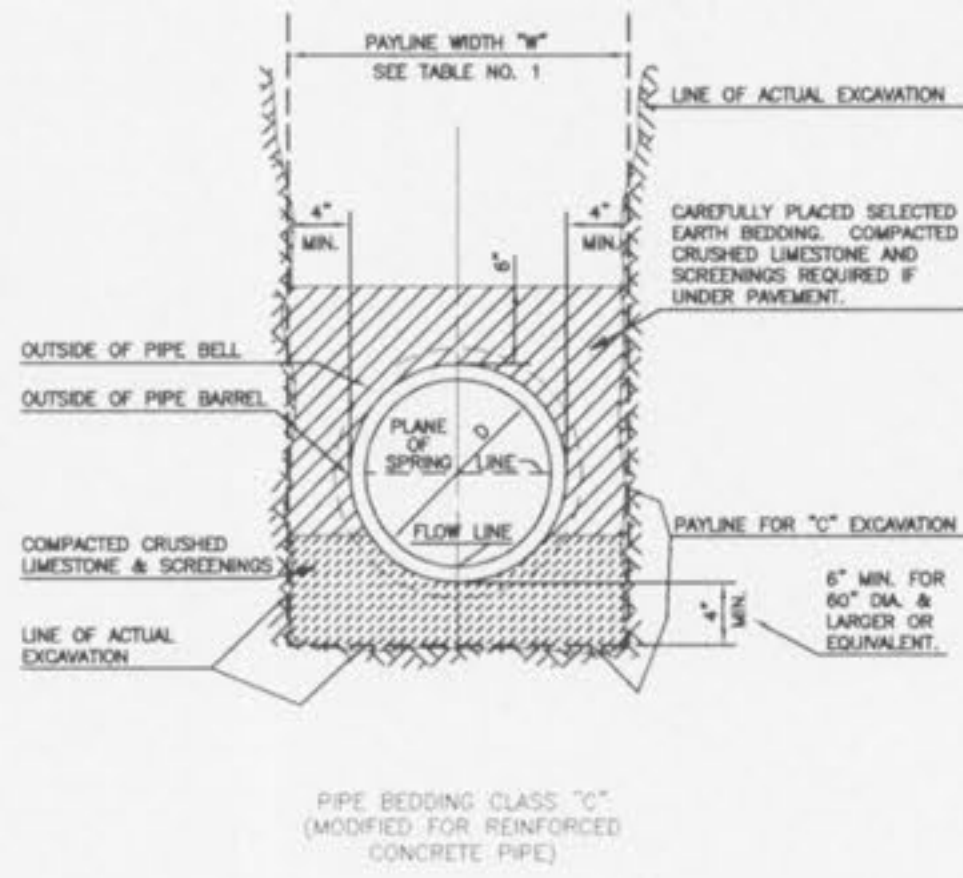
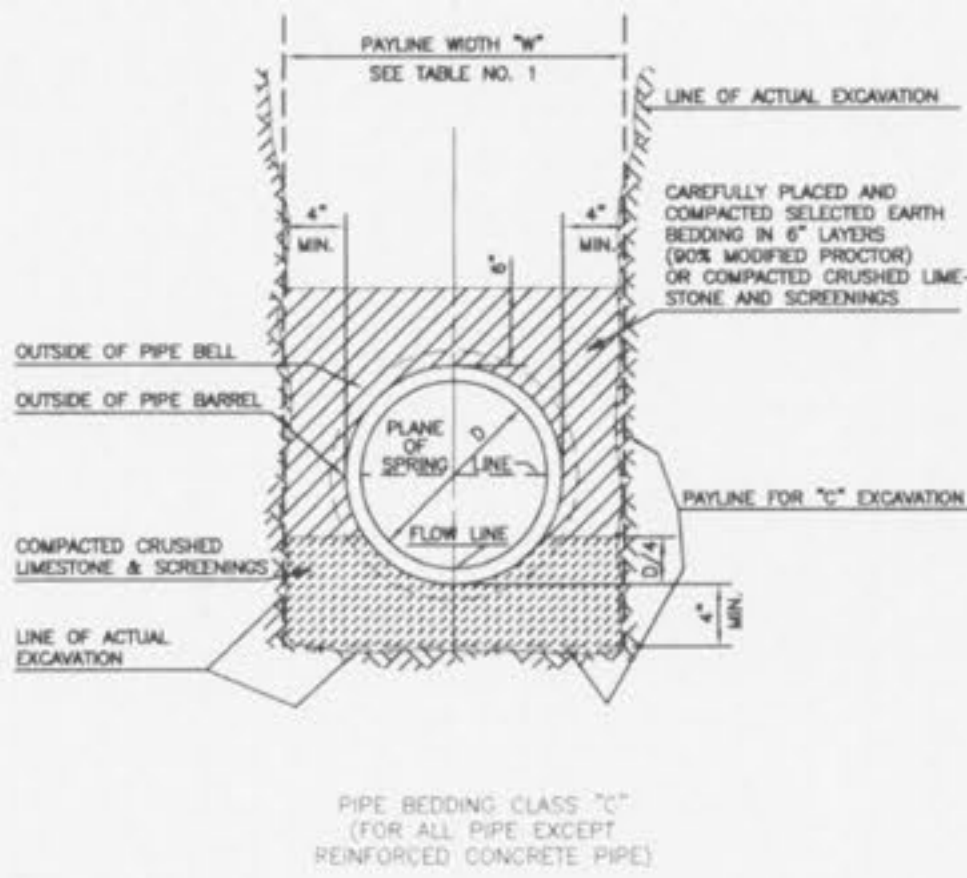
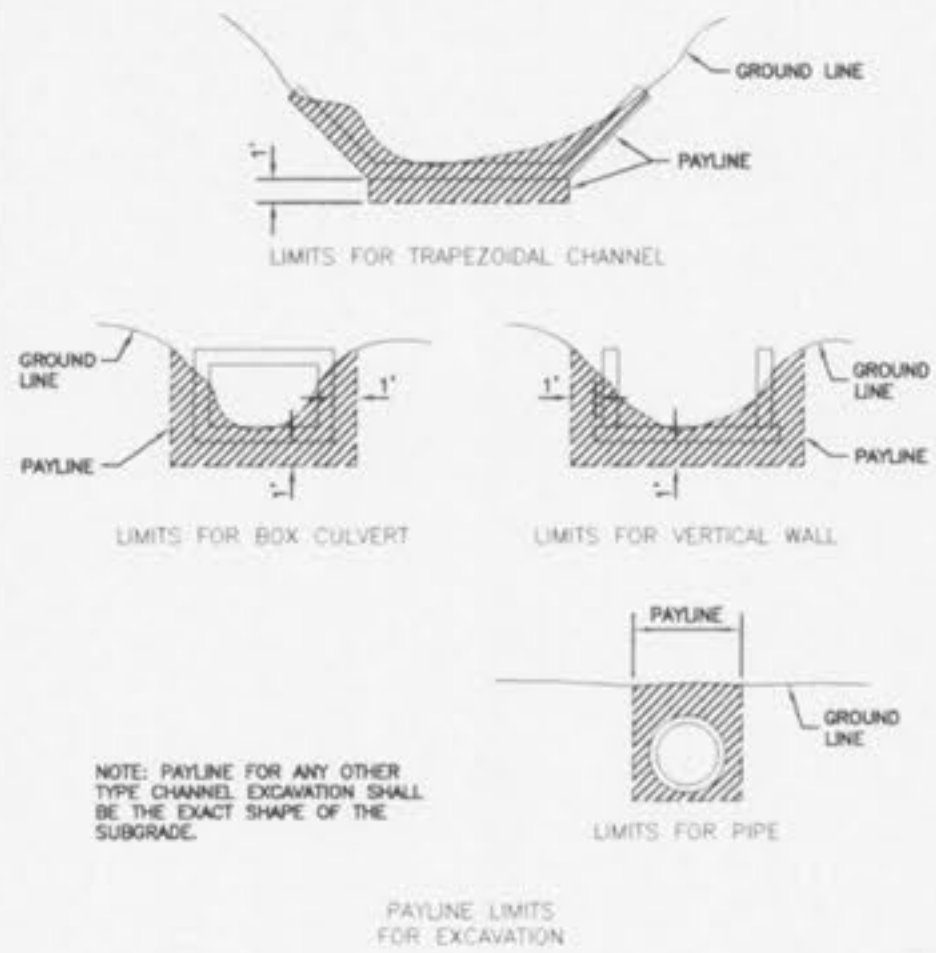


| ROUND PIPE                       |                                  |                              |                                               | HORIZONTAL ELLIPTICAL PIPE       |                                  |                              |                                               |
|----------------------------------|----------------------------------|------------------------------|-----------------------------------------------|----------------------------------|----------------------------------|------------------------------|-----------------------------------------------|
| Inside Diameter of Pipe (Inches) | Payline Width of Trench (Inches) | Payline Width of Foot (Feet) | Payline Width of Concrete Encasement (Inches) | Inside Diameter of Pipe (Inches) | Payline Width of Trench (Inches) | Payline Width of Foot (Feet) | Payline Width of Concrete Encasement (Inches) |
| 4                                | 30                               | 2.50                         | 3.25                                          |                                  |                                  |                              |                                               |
| 6                                | 30                               | 2.50                         | 2.50                                          |                                  |                                  |                              |                                               |
| 8                                | 30                               | 2.50                         | 3.87                                          |                                  |                                  |                              |                                               |
| 10                               | 30                               | 2.50                         | 4.08                                          |                                  |                                  |                              |                                               |
| 12                               | 30                               | 2.50                         | 4.25                                          |                                  |                                  |                              |                                               |
| 15                               | 36                               | 3.00                         | 5.55                                          |                                  |                                  |                              |                                               |
| 18                               | 36                               | 3.00                         | 5.77                                          | 14 X 23                          | 41                               | 3.42                         | 5.94                                          |
| 21                               | 36                               | 3.25                         | 6.81                                          |                                  |                                  |                              |                                               |
| 24                               | 42                               | 3.50                         | 7.38                                          | 19 X 30                          | 49                               | 4.08                         | 7.88                                          |
| 27                               | 45                               | 3.75                         | 8.18                                          | 22 X 34                          | 53                               | 4.42                         | 8.61                                          |
| 30                               | 48                               | 4.08                         | 9.30                                          | 24 X 38                          | 58                               | 4.83                         | 9.70                                          |
| 33                               | 53                               | 4.42                         | 10.53                                         | 27 X 42                          | 62                               | 5.17                         | 10.71                                         |
| 36                               | 56                               | 4.87                         | 11.43                                         | 28 X 45                          | 66                               | 5.50                         | 11.72                                         |
| 39                               | DISCONTINUED                     |                              |                                               | 32 X 49                          | 71                               | 5.92                         | 13.14                                         |
| 42                               | 63                               | 5.25                         | 13.38                                         | 34 X 53                          | 75                               | 6.25                         | 14.05                                         |
| 48                               | 70                               | 5.83                         | 15.87                                         | 36 X 60                          | 83                               | 6.92                         | 16.18                                         |
| 54                               | 77                               | 6.42                         | 18.15                                         | 43 X 68                          | 92                               | 7.87                         | 18.81                                         |
| 60                               | 84                               | 7.00                         | 20.73                                         | 48 X 76                          | 101                              | 8.42                         | 21.56                                         |
| 66                               | 91                               | 7.58                         | 23.45                                         | 53 X 83                          | 109                              | 9.06                         | 24.30                                         |
| 72                               | 98                               | 8.17                         | 26.37                                         | 58 X 91                          | 118                              | 9.83                         | 27.45                                         |
| 78                               | 106                              | 8.75                         | 29.39                                         | 63 X 98                          | 128                              | 10.50                        | 30.50                                         |
| 84                               | 112                              | 9.33                         | 32.57                                         | 68 X 106                         | 136                              | 11.25                        | 33.91                                         |
| 90                               | 119                              | 9.92                         | 35.90                                         | 72 X 113                         | 143                              | 11.92                        | 36.99                                         |
| 96                               | 126                              | 10.50                        | 39.37                                         | 77 X 121                         | 152                              | 12.67                        | 40.89                                         |
| 102                              | 133                              | 11.08                        | 42.96                                         | 82 X 128                         | 160                              | 13.33                        | 44.45                                         |
| 108                              | 140                              | 11.67                        | 46.75                                         | 87 X 136                         | 168                              | 14.00                        | 47.79                                         |
| 114                              | 147                              | 12.25                        | 50.66                                         | 92 X 143                         | 176                              | 14.67                        | 51.70                                         |
| 120                              | 154                              | 12.83                        | 54.72                                         | 97 X 151                         | 185                              | 15.42                        | 56.01                                         |
| 126                              | 161                              | 13.42                        | 58.92                                         |                                  |                                  |                              |                                               |
| 132                              | 168                              | 14.00                        | 63.27                                         | 106 X 166                        | 202                              | 16.83                        | 64.48                                         |
| 144                              | 182                              | 15.17                        | 72.40                                         | 118 X 180                        | 218                              | 18.17                        | 73.58                                         |

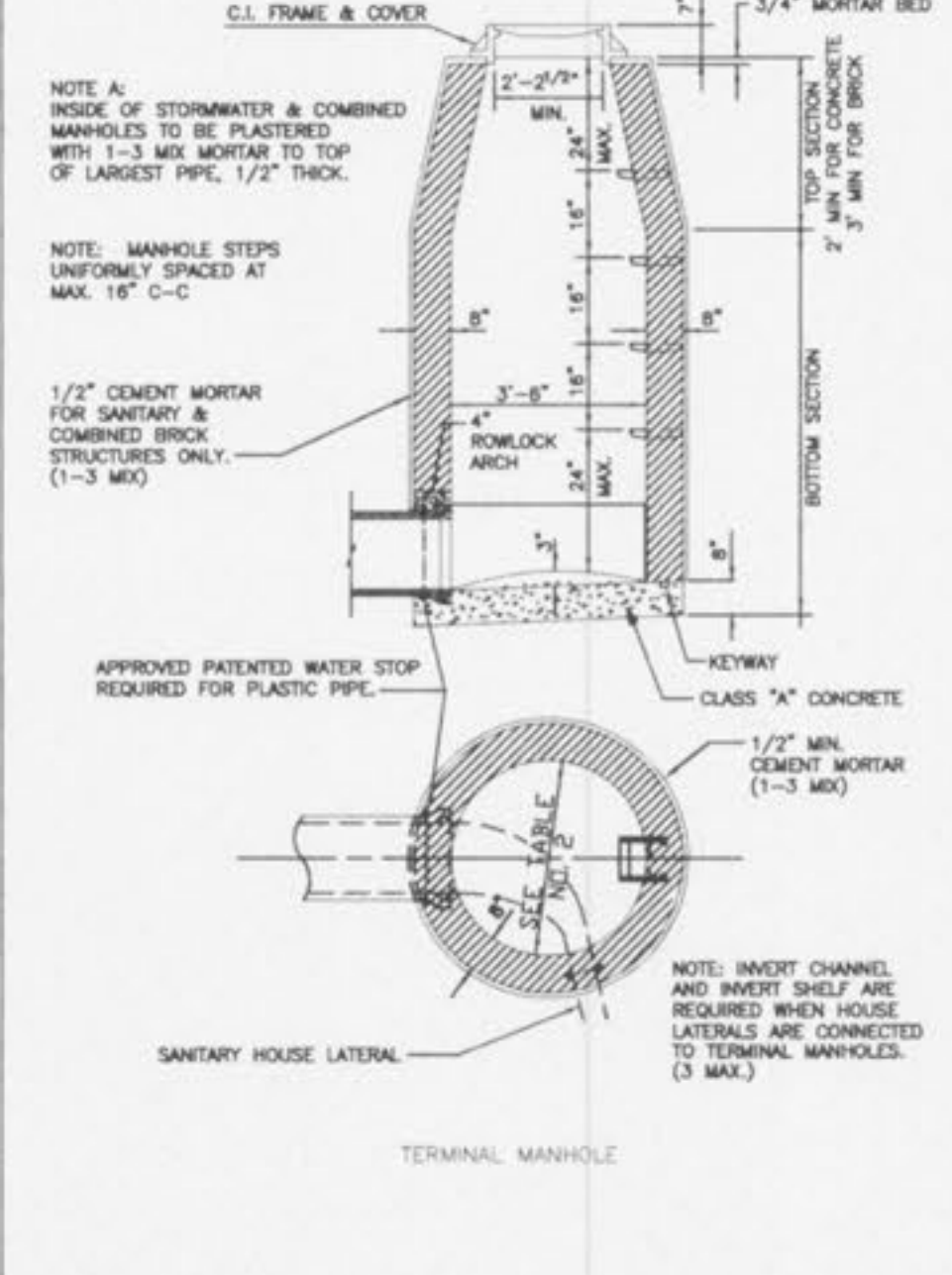
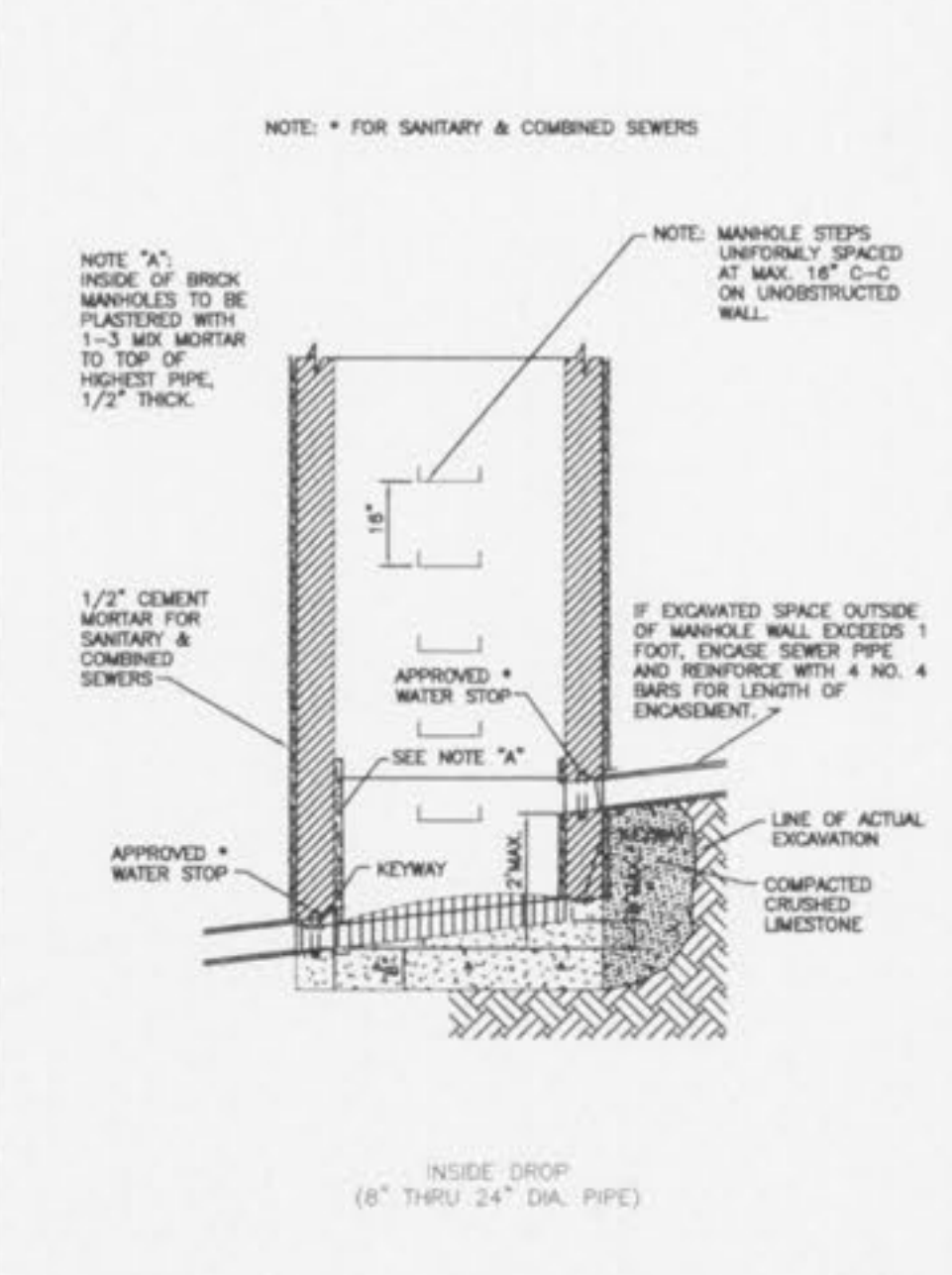
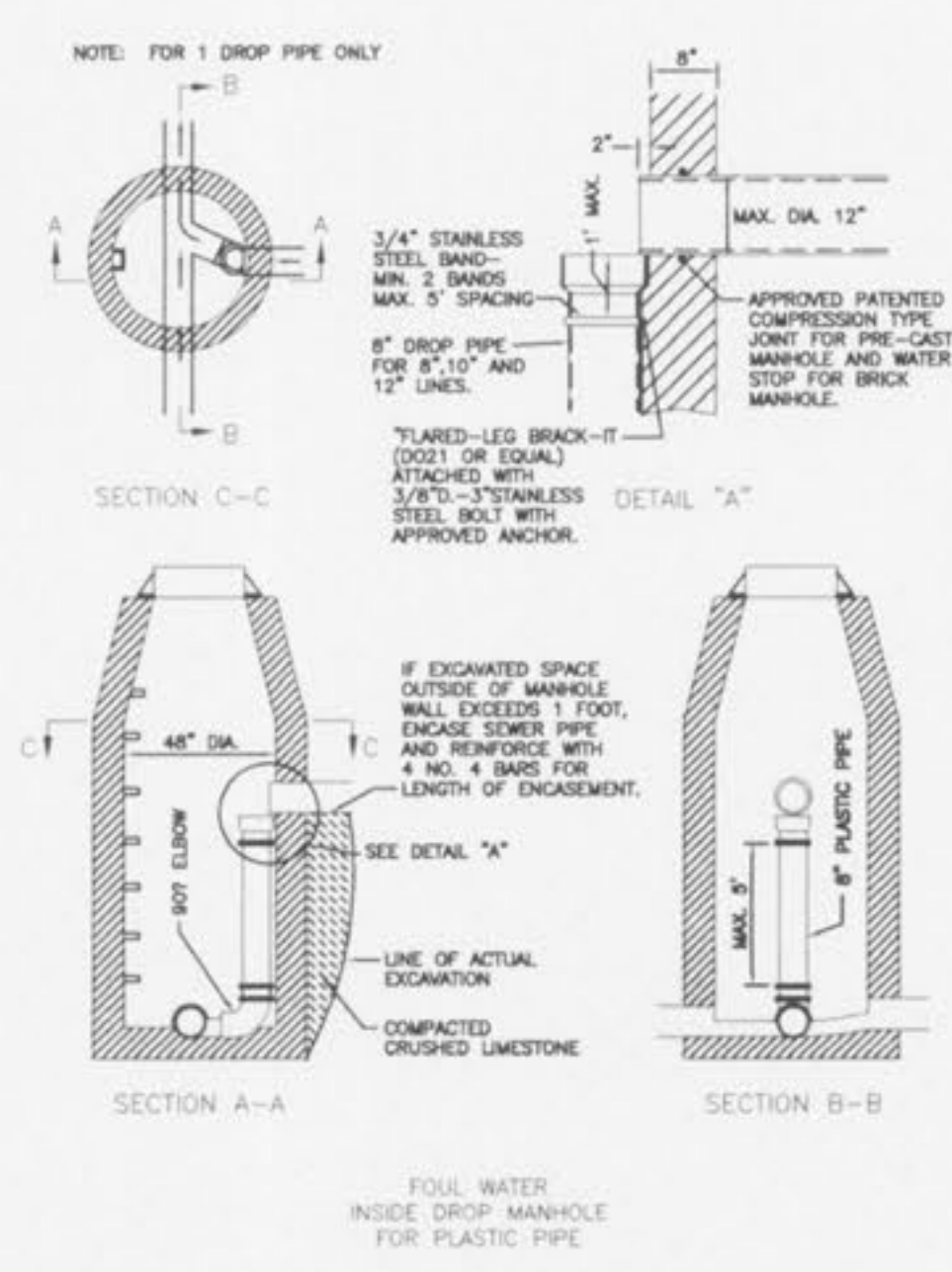
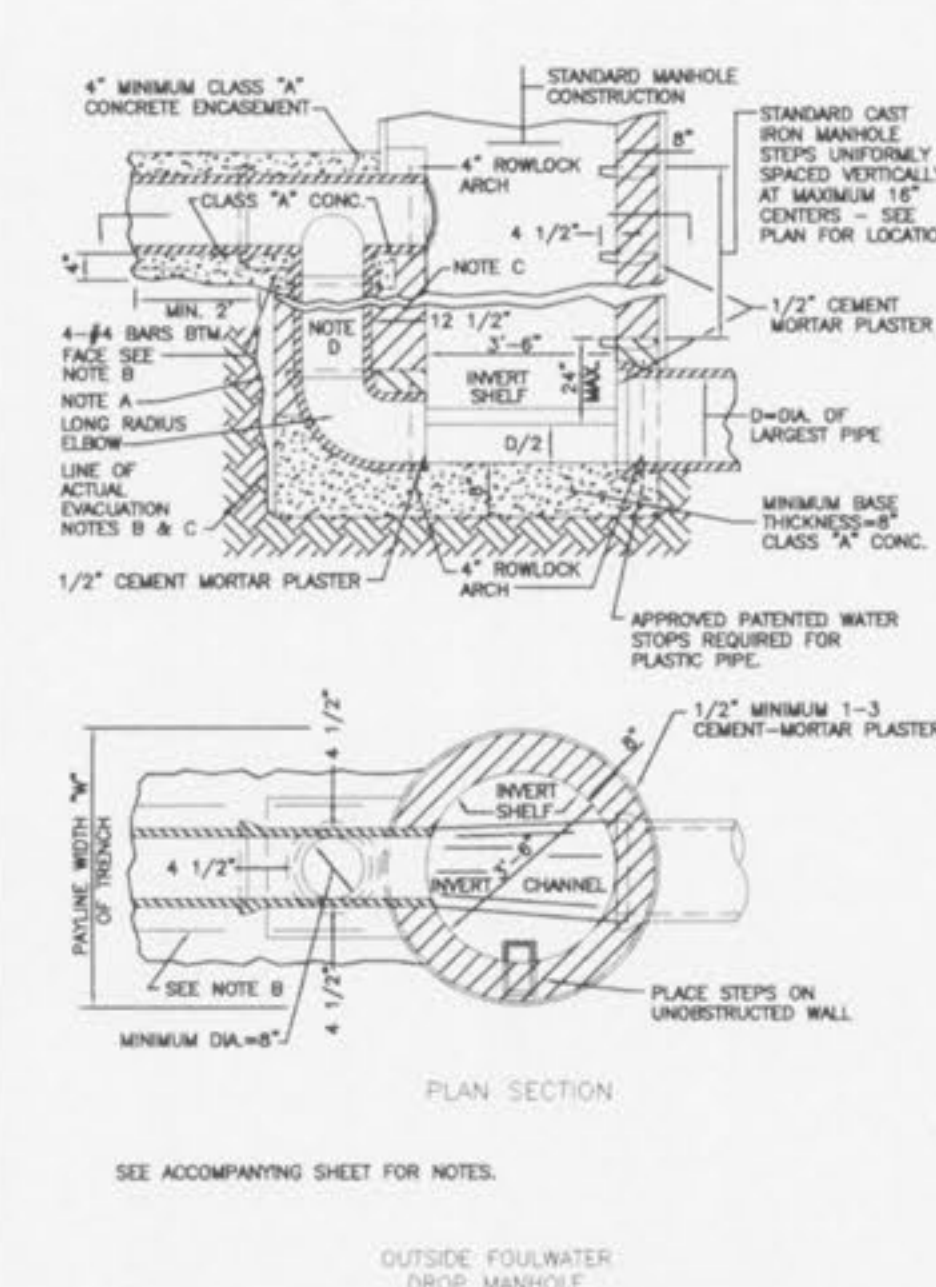
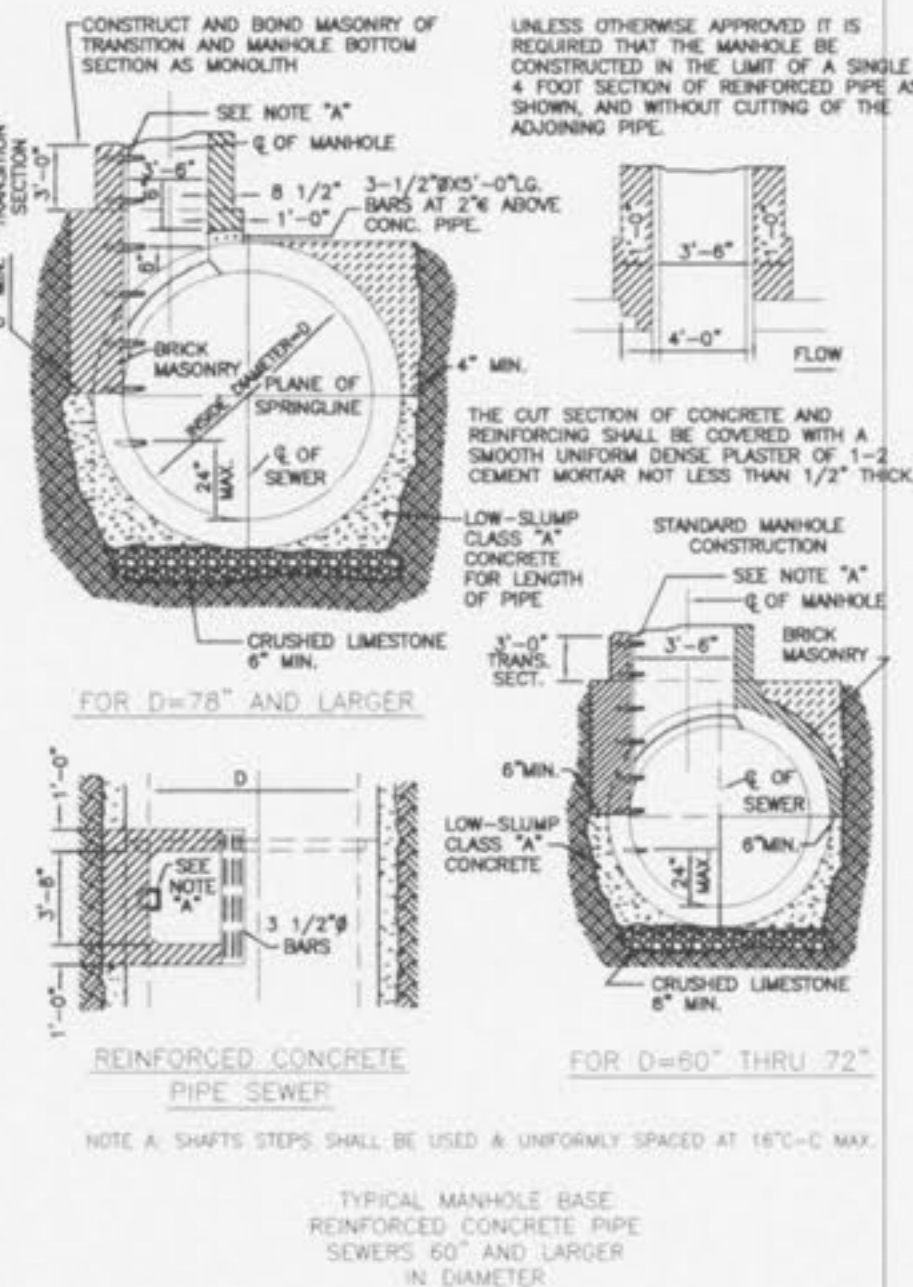
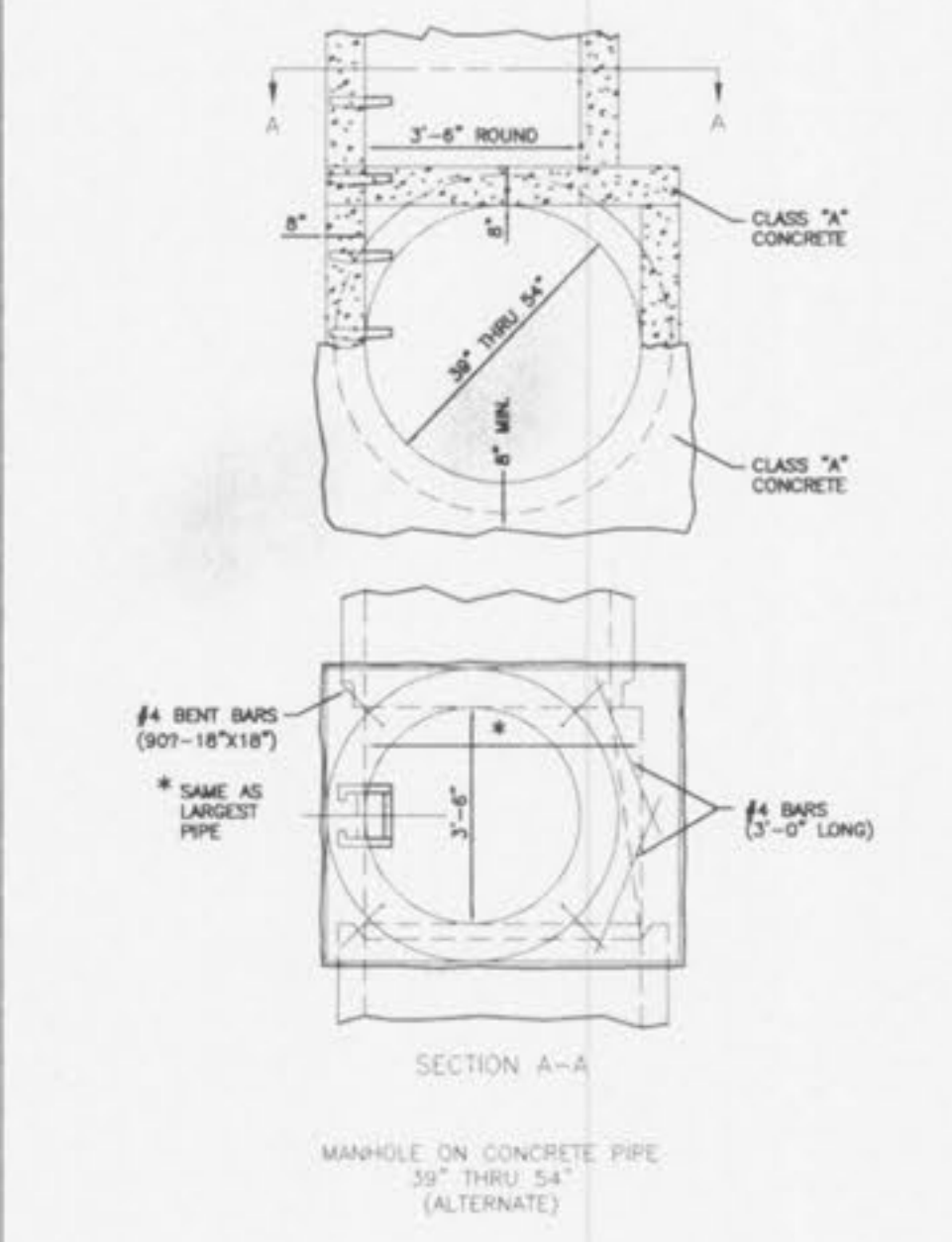
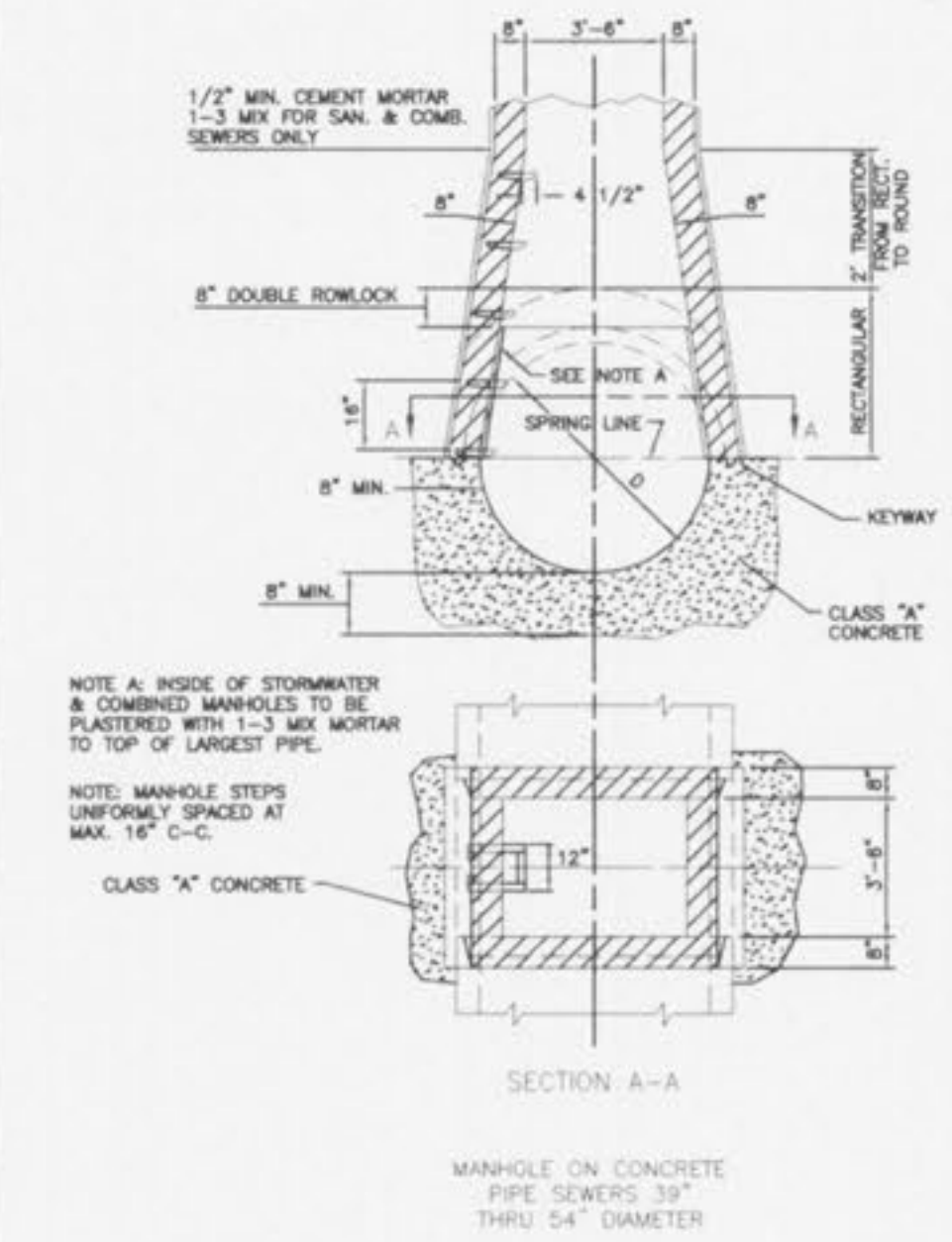
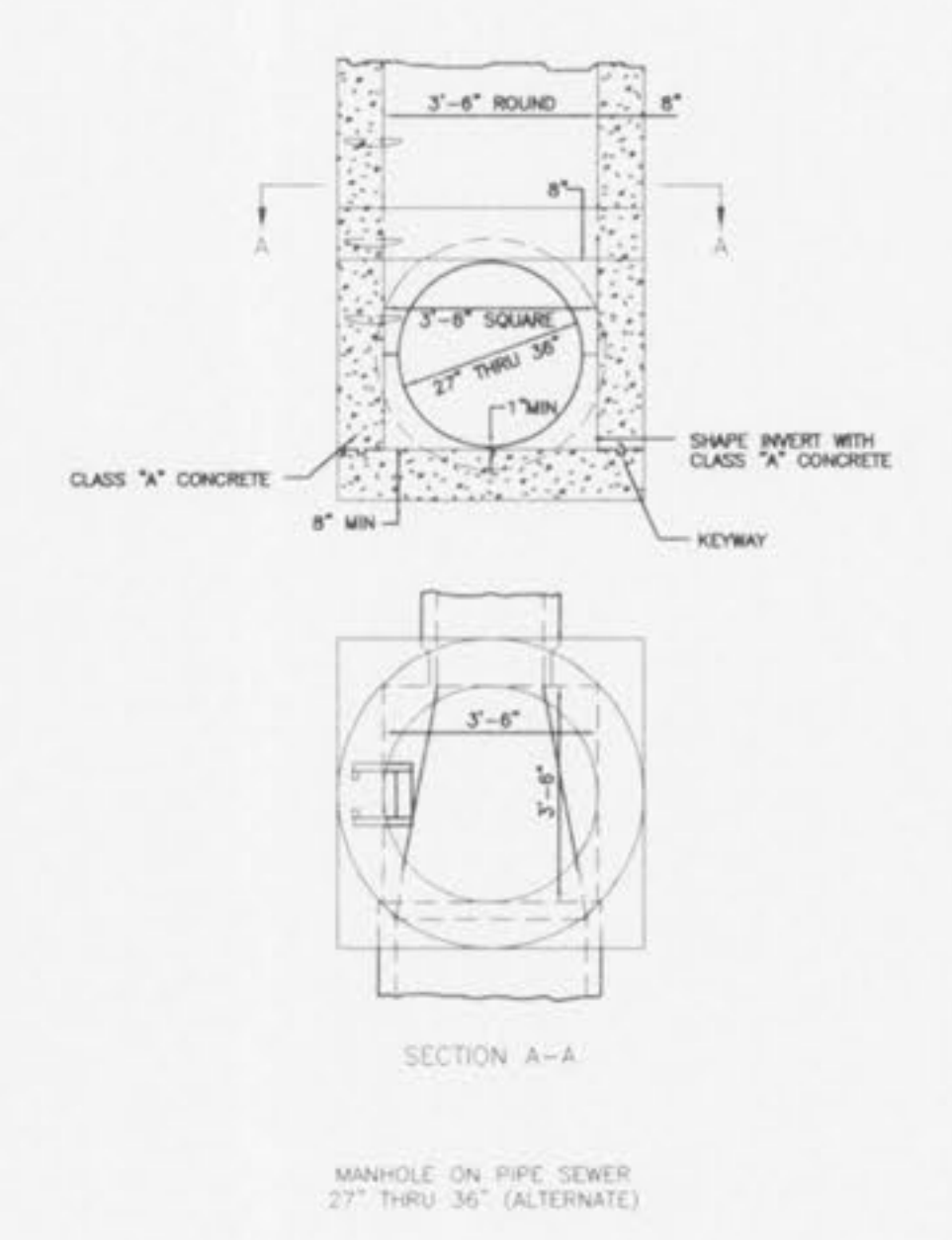
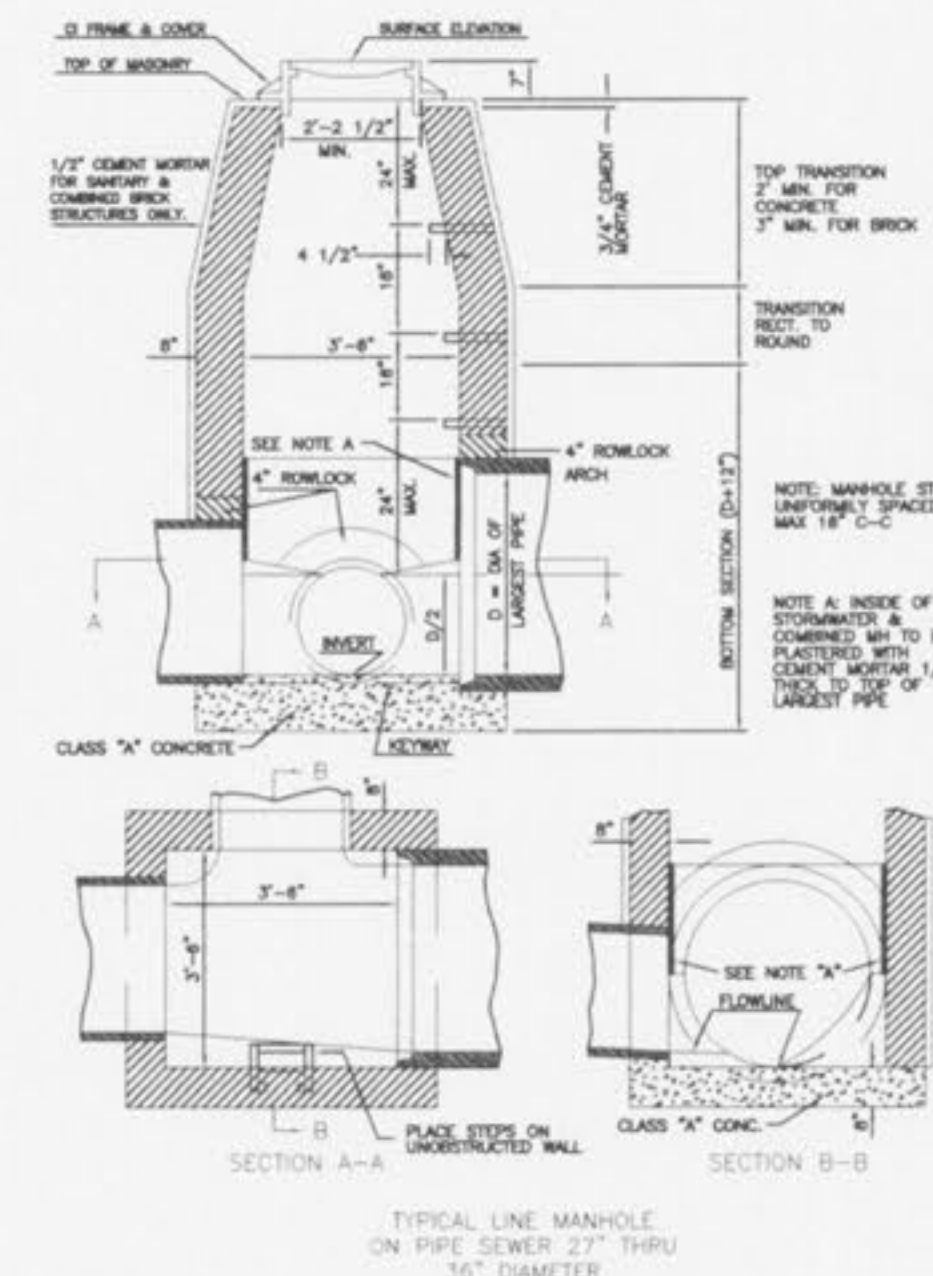
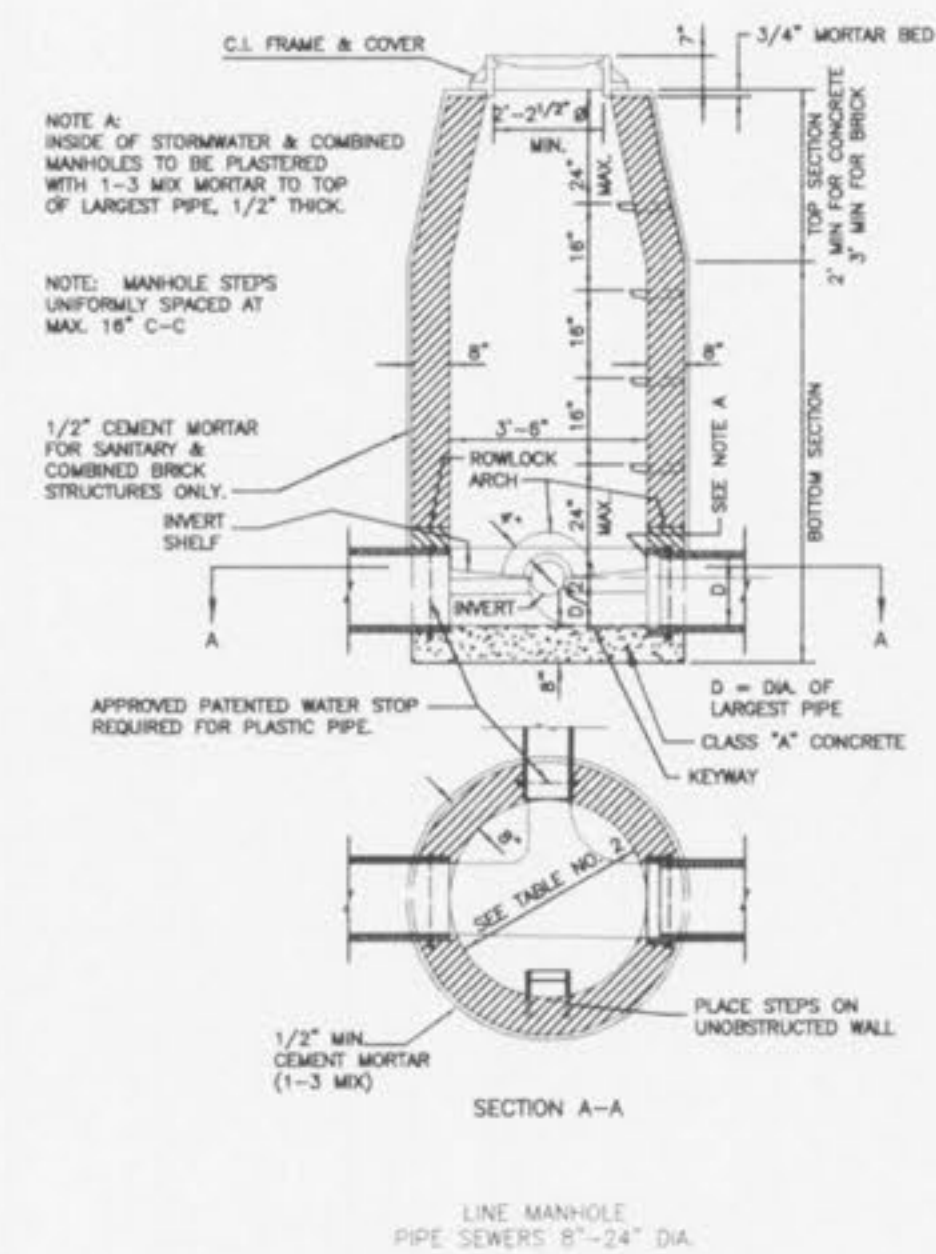
TABLE NO. 1  
PAYLINE WIDTHS OF TRENCH AND  
PAY-QUANTITIES OF CONCRETE



(CLASS "A" BEDDING)

| SECTION OF MANHOLE | TRANSITION | UPPER | 2'-2" DIA. |
|--------------------|------------|-------|------------|
| SECTION OF MANHOLE | TRANSITION | LOWER | 3'-6" DIA. |
| SECTION OF MANHOLE | TRANSITION | UPPER | 2'-2" DIA. |
| SECTION OF MANHOLE | TRANSITION | LOWER | 3'-6" DIA. |
| SECTION OF MANHOLE | TRANSITION | UPPER | 2'-2" DIA. |
| SECTION OF MANHOLE | TRANSITION | LOWER | 3'-6" DIA. |

TABLE NO. 2  
STANDARD MANHOLE DIMENSIONS



**PICKETT RAY & SILVER**

CIVIL ENGINEERS  
PLANNERS  
LAND SURVEYORS

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**WHITEGATE VILLAS**

ADDITION  
CONSTRUCTION DETAILS

Prepared For:  
SUMMIT POINTE L.C.

239 FOX HILL ROAD  
ST. CHARLES, MO 63301  
636-940-9300

REVISIONS

| NO. | DATE     | BY   | REV.               | PER CITY OF FALLON |
|-----|----------|------|--------------------|--------------------|
| 1   | 09-06-02 | REV. | PER CITY OF FALLON |                    |
| 2   | 09-23-02 | REV. | PER CITY OF FALLON |                    |

ENGINEERS AUTHENTICATION

The responsibility for professional engineering liability on this project is hereby limited to the set of plans authenticated by the seal, signature, and date hereunder attached. Responsibility is disclaimed for all other engineering plans involved in this project and specifically excludes revisions after this date unless reauthenticated.

PICKETT, RAY & SILVER, INC.

HAROLD J. BARTCH  
REGISTERED PROFESSIONAL ENGINEER  
E-17751

DRAWN: ABK DATE: 07-15-02  
CHECKED: DWD DATE: 07-15-02  
PROJECT # 02041.SUP.01R  
TASK # 2 FIELD BOOK

WHITEGATE VILLAS  
CONSTRUCTION DETAILS  
SHEET 15 OF 22  
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