

SITE PLAN FOR

# HIGHWAY 12 & LITTLE MARROWBONE TOWNHOMES

HIGHWAY 12 SOUTH  
ASHLAND CITY, TN  
CHEATHAM COUNTY

### SHEET INDEX

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Vicinity Map  
Not to Scale



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3556 TOM AUSTIN HWY, SUITE 1, SPRINGFIELD, TN 37172  
PHONE: (615) 382-2000 FAX: (888) 373-4485  
www.klobereng.com



JOSHUA M. LYON, P.E. TN#112231

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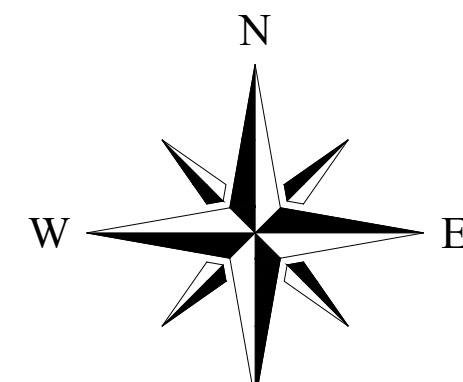
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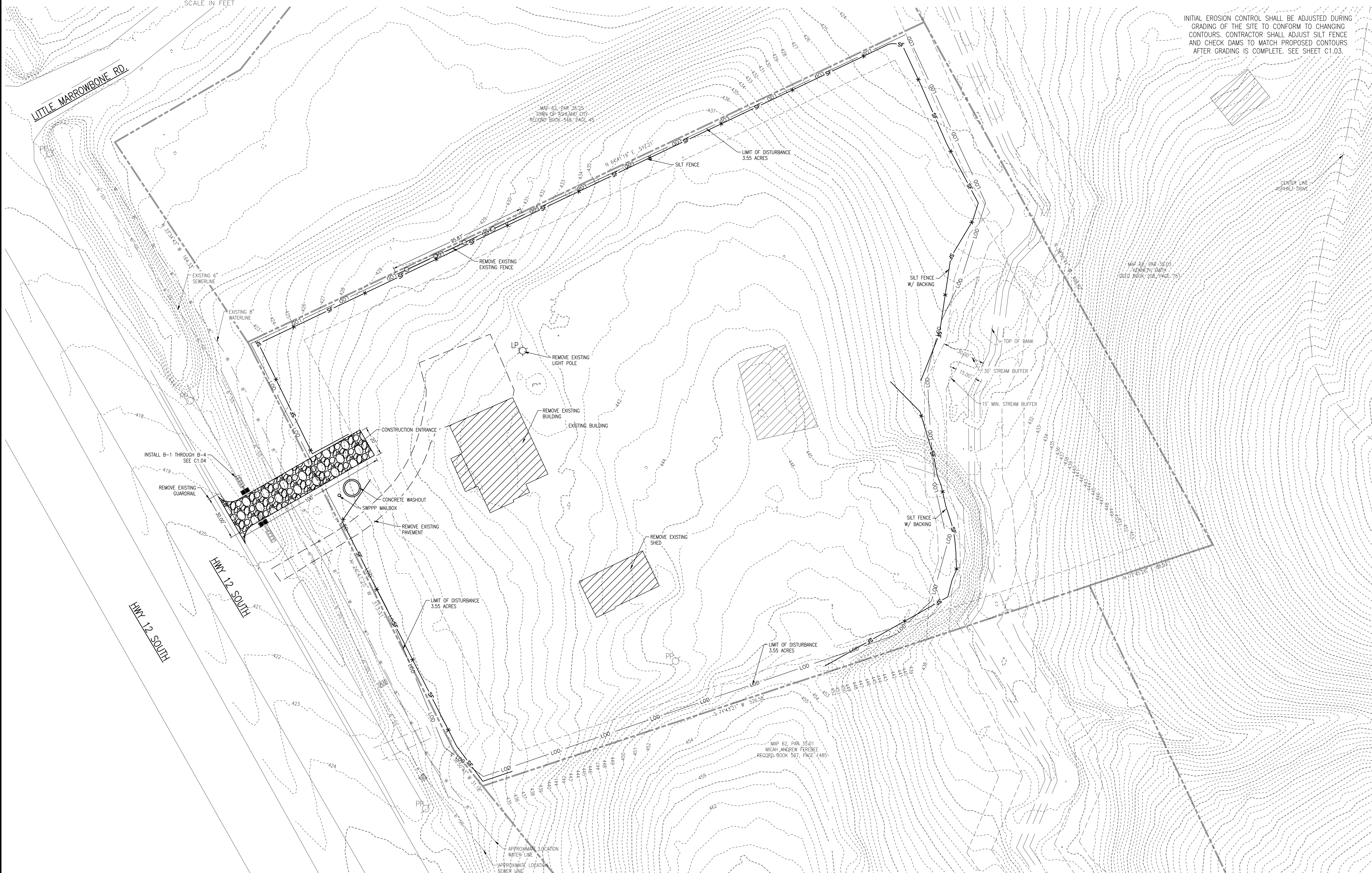
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SCALE IN FEET

LEGEND:

- PROPERTY LINE
- EXISTING WATER LINE
- EXISTING SEWER LINE
- OVERHEAD ELECTRIC LINE
- FENCE
- NEW CURB
- SILT FENCE
- EXISTING 3" CONTOUR
- EXISTING 1" CONTOUR
- NEW 1" CONTOUR
- DEMO LINE
- MANHOLE
- C/O CLEAN OUT
- PP/P POWER POLE
- WATER METER
- FIRE HYDRANT
- IRON ROD OLD
- IRON ROD NEW
- PIPE INVERT
- SPOT ELEVATION
- SLOPE DIRECTION



INITIAL EROSION CONTROL SHALL BE ADJUSTED DURING GRADING OF THE SITE TO CONFORM TO CHANGING CONTOURS. CONTRACTOR SHALL ADJUST SILT FENCE AND CHECK DAMS TO MATCH PROPOSED CONTOURS AFTER GRADING IS COMPLETE. SEE SHEET C1.03.

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**HIGHWAY 12 & LITTLE MARROWBONE TOWNHOMES**

1807 HIGHWAY 12 SOUTH  
ASHLAND CITY, TN  
CHEATHAM COUNTY

DRAWN BY: JML  
CHECKED BY: JML  
PROJECT NO.: C01821

DEMO AND INITIAL EP&SC

SHEET NUMBER  
**C1.01**

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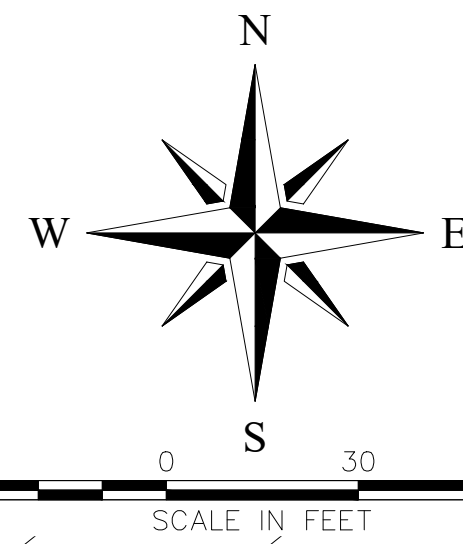
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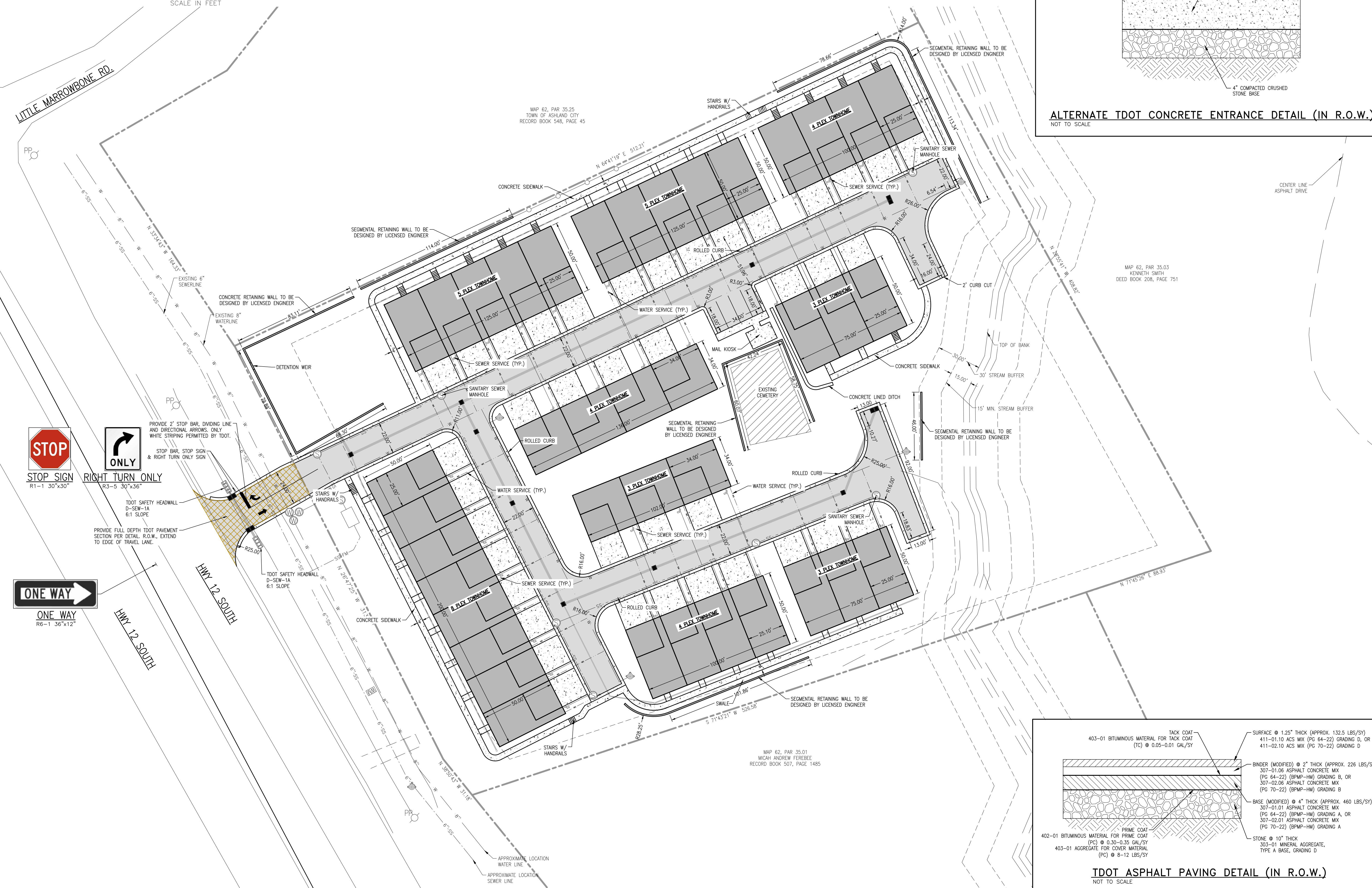
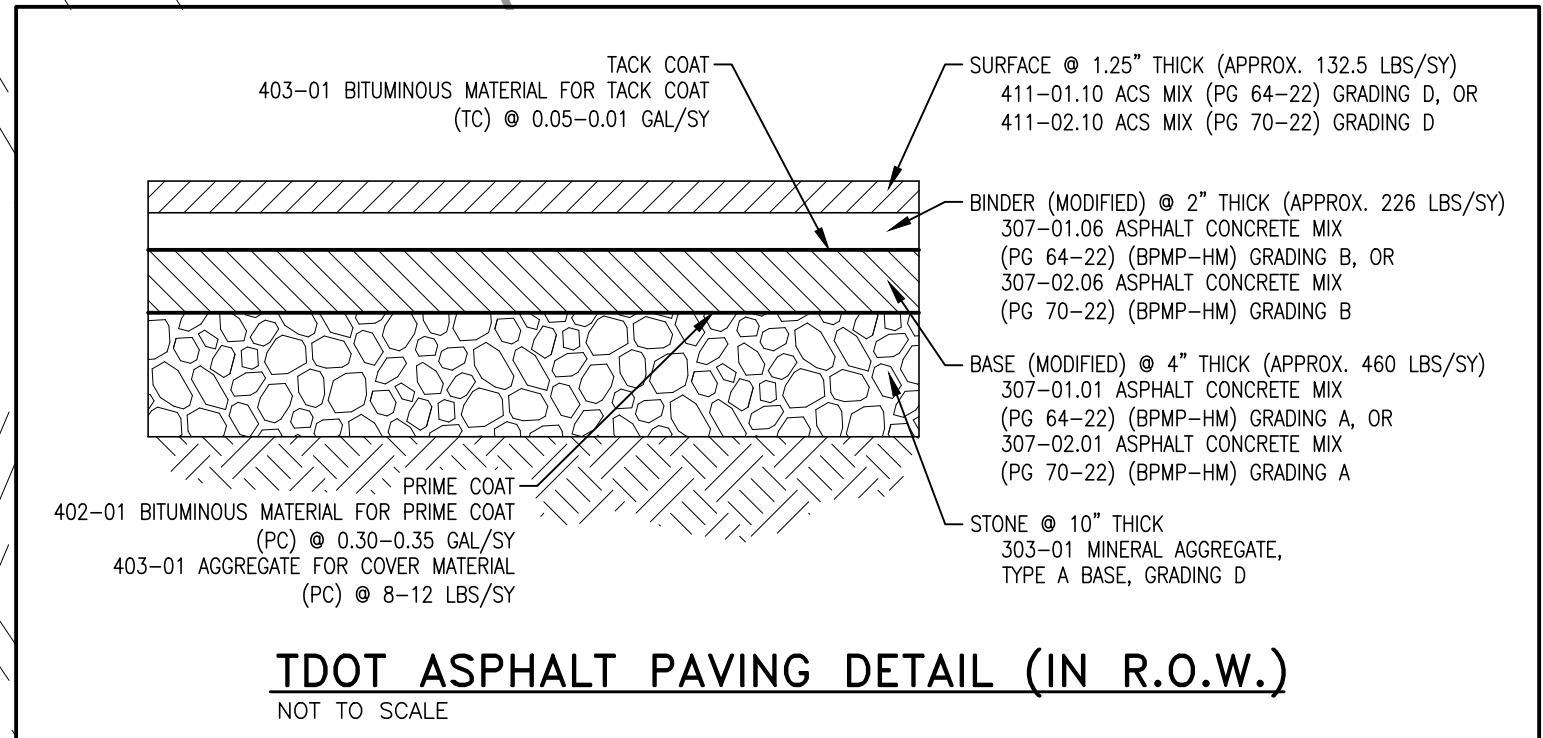
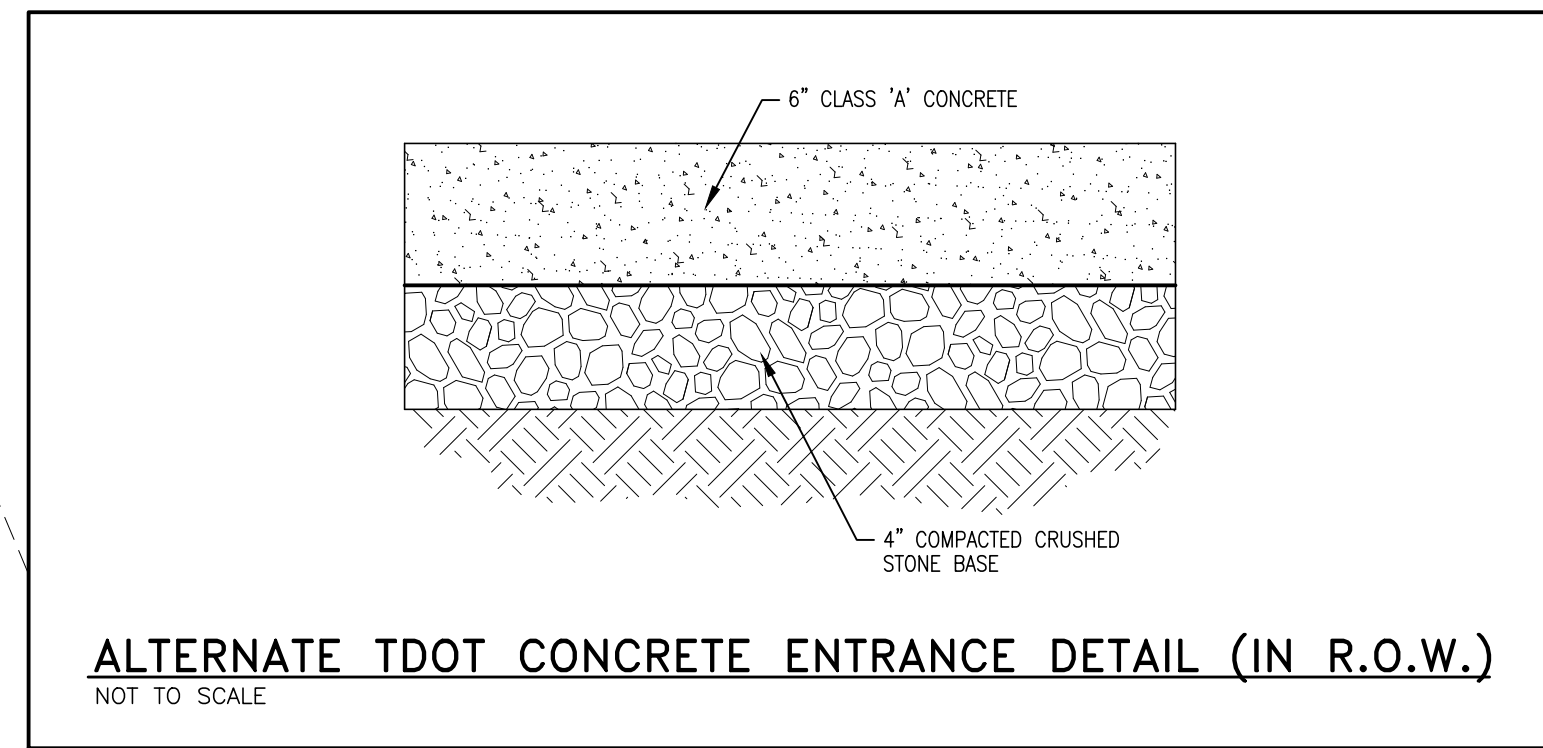
TDOT DRAINAGE NOTE:

THIS DEVELOPMENT WILL NOT INCREASE STORMWATER RUNOFF OF THE EXISTING DITCH WITHIN THE STATE'S RIGHT OF WAY.

050 PRE: 9.83 CFS  
050 POST: 8.67 CFS  
0100 PRE: 11.57 CFS  
0100 POST: 11.43 CFS

SIGHT DISTANCE NOTE:

THIS SITE COMPLIES WITH THE ASHTO GREENBOOK INTERSECTION SITE DISTANCE.



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CHEATHAM COUNTY

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CHECKED BY: JML  
PROJECT NO.: C01821

**SITE LAYOUT**

SHEET NUMBER **C1.02**

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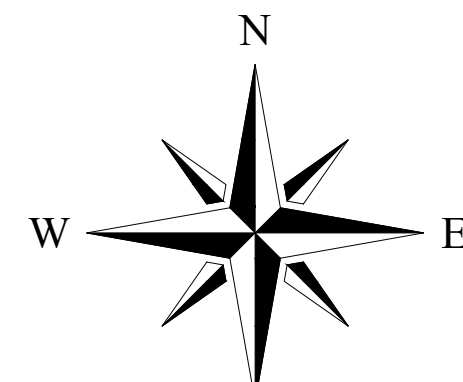
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30 0 30 60  
SCALE IN FEET

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- PIPE ELEVATION
- 28.14
- SPOT ELEVATION
- SLOPE DIRECTION

LITTLE MARROWBONE RD.

EXISTING 6" SEWERLINE

EXISTING 8" WATERLINE

HWY 12 SOUTH

HWY 12 SOUTH

MAP 62, PAR 35.25  
TOWN OF ASHLAND CITY  
RECORD BOOK 548, PAGE 45

MAP 62, PAR 35.05  
KENNETH SMITH  
DEED BOOK 208, PAGE 781



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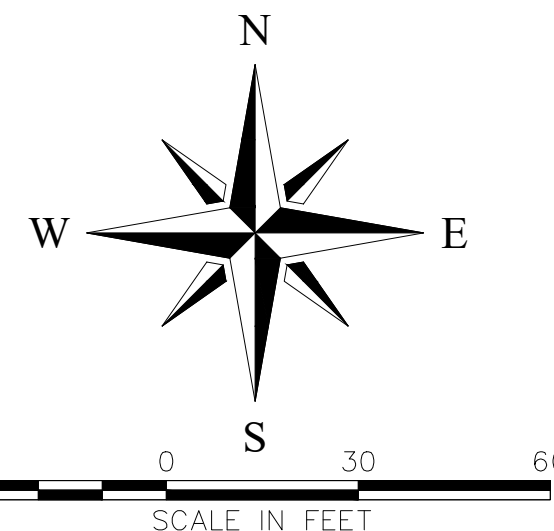
## GRADING PLAN

SHEET NUMBER  
**C1.03**

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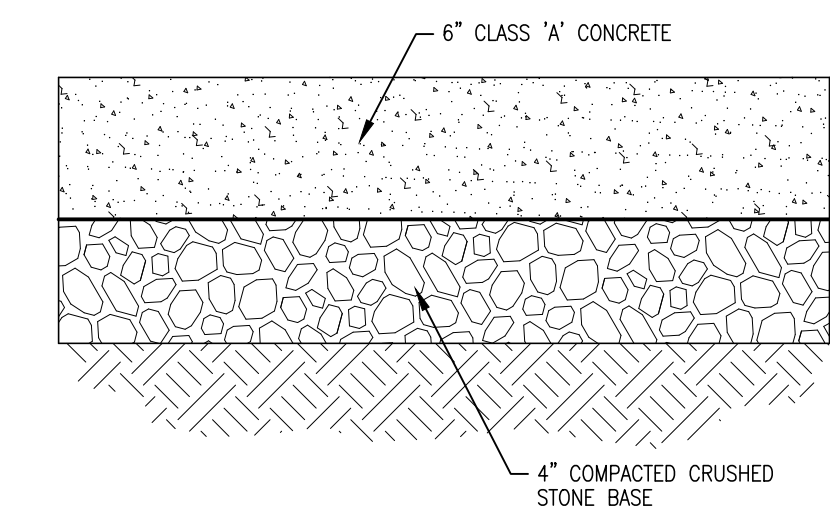
**LEGEND:**

|                        |                 |                 |
|------------------------|-----------------|-----------------|
| PROPERTY LINE          | MANHOLE         | PIPE INVERT     |
| EXISTING WATER LINE    | C/O CLEAN OUT   | INV. -23.42     |
| EXISTING SEWER LINE    | PP/P POWER POLE | 28.14           |
| OVERHEAD ELECTRIC LINE | WATER METER     | SPOT ELEVATION  |
| FENCE                  | FIRE HYDRANT    | SLOPE DIRECTION |
| NEW CURB               | IRON ROD OLD    |                 |
| SET FENCE              | IRON ROD NEW    |                 |
| EXISTING 5' CONTOUR    |                 |                 |
| EXISTING 1' CONTOUR    |                 |                 |
| NEW 1' CONTOUR         |                 |                 |
| DEMO LINE              |                 |                 |



**TDOT DRAINAGE NOTE:**  
THIS DEVELOPMENT WILL NOT INCREASE STORMWATER RUNOFF OF THE EXISTING DITCH WITHIN THE STATE'S RIGHT OF WAY.  
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**SIGHT DISTANCE NOTE:**  
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**ALTERNATE TDOT CONCRETE ENTRANCE DETAIL (IN R.O.W.)**  
NOT TO SCALE

**DRAIN PIPE DATA**  
**DESIGN INFORMATION**

| PIPE NUMBER | FROM STRUCTURE | INVERT | TO STRUCTURE | INVERT | PIPE LENGTH (FEET) | PIPE DIAMETER (INCHES) | PIPE MATERIAL | SLOPE (%) |
|-------------|----------------|--------|--------------|--------|--------------------|------------------------|---------------|-----------|
| 1           | A-11           | 437.80 | A-10         | 436.70 | 60                 | 15                     | HDPE          | 1.83%     |
| 2           | A-10           | 436.70 | A-9          | 435.35 | 135                | 18                     | HDPE          | 1.00%     |
| 3           | A-9            | 435.35 | A-8          | 434.70 | 65                 | 18                     | HDPE          | 1.00%     |
| 4           | A-8            | 434.70 | A-7          | 433.30 | 74                 | 18                     | HDPE          | 1.89%     |
| 5           | A-7            | 433.30 | A-6          | 432.00 | 52                 | 18                     | HDPE          | 2.50%     |
| 6           | A-6            | 432.00 | A-3          | 431.40 | 20                 | 18                     | HDPE          | 3.00%     |
| 7           | A-5            | 430.00 | A-4          | 429.50 | 100                | 15                     | HDPE          | 0.50%     |
| 8           | A-4            | 429.50 | A-3          | 428.40 | 215                | 18                     | HDPE          | 0.51%     |
| 9           | A-3            | 428.40 | A-2          | 425.20 | 80                 | 18                     | HDPE          | 4.00%     |
| 10          | A-2            | 425.20 | A-1          | 425.00 | 19                 | 24                     | HDPE          | 1.05%     |
| 25          | B-4            | 416.80 | B-3          | 416.75 | 5                  | 24                     | RCP           | 1.00%     |
| 26          | B-3            | 416.75 | B-2          | 416.55 | 20                 | 24                     | RCP           | 1.00%     |
| 27          | B-2            | 416.55 | B-1          | 416.50 | 5                  | 24                     | RCP           | 1.00%     |

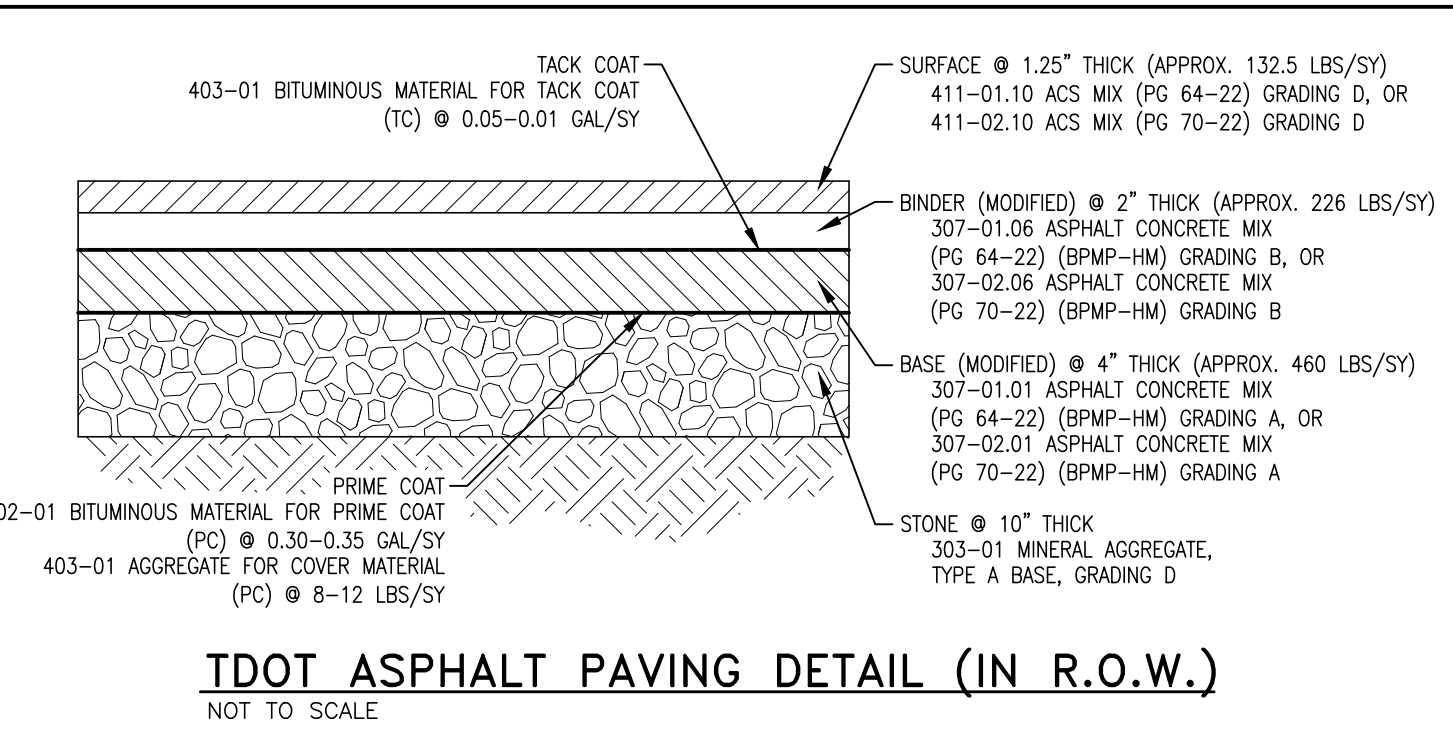
Flow= 0.012

**Table 1: Drainage Pipe Table**

**DRAINAGE STRUCTURE DATA**  
**DESIGN INFORMATION**

| STRUCTURE NUMBER | STRUCTURE TYPE     | GRATE  | RIM ELEV. | INVERT | PIPE COVERAGE (IN.) |
|------------------|--------------------|--------|-----------|--------|---------------------|
| A-11             | DOUBLE CATCH BASIN | 4315   | 441.30    | 437.80 | 24.75               |
| A-10             | SINGLE CATCH BASIN | 4315   | 444.00    | 436.70 | 67.10               |
| A-9              | SINGLE CATCH BASIN | 4315   | 443.00    | 435.35 | 71.30               |
| A-8              | SINGLE CATCH BASIN | 4315   | 444.00    | 434.70 | 91.10               |
| A-7              | SINGLE CATCH BASIN | 4315   | 437.63    | 433.30 | 31.46               |
| A-6              | SINGLE CATCH BASIN | 4315   | 435.70    | 432.00 | 23.90               |
| A-5              | SINGLE CATCH BASIN | 4315   | 433.00    | 431.40 | 18.75               |
| A-4              | SINGLE CATCH BASIN | 4315   | 436.51    | 429.50 | 63.62               |
| A-3              | SINGLE CATCH BASIN | 4315   | 435.46    | 428.40 | 64.22               |
| A-2              | SINGLE CATCH BASIN | 4315   | 429.00    | 425.20 | 18.60               |
| A-1              | 6' HEADWALL W/ ED  | -      | -         | 425.00 | -                   |
| B-4              | TDOT HW - DPE24A   | DSEW1A | -         | 416.80 | -                   |
| B-3              | DOUBLE CURB INLET  | 3305   | 421.20    | 416.75 | 26.40               |
| B-2              | DOUBLE CURB INLET  | 3305   | 421.20    | 416.55 | 28.80               |
| B-1              | TDOT HW - DPE24A   | DSEW1A | -         | 416.50 | -                   |

**Table 2: Drainage Structure Table**



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1807 HIGHWAY 12 SOUTH  
ASHLAND CITY, TN  
CHEATHAM COUNTY

DRAWN BY: JML  
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**DRAINAGE PLAN**  
SHEET NUMBER  
**C1.04**

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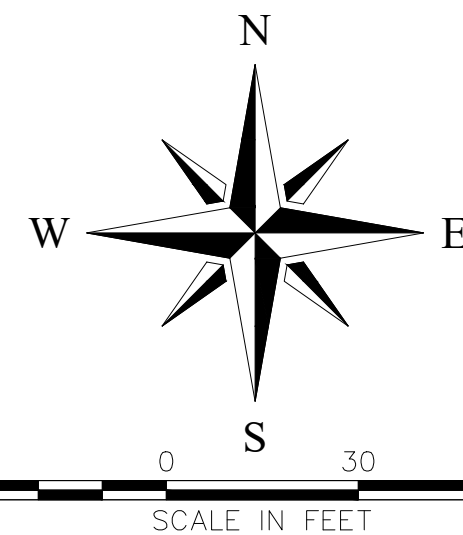
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LITTLE MARROWBONE RD.

HWY 12 SOUTH

HWY 12 SOUTH



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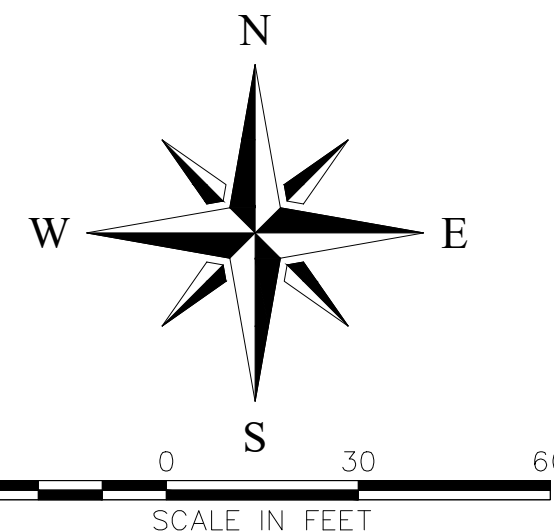
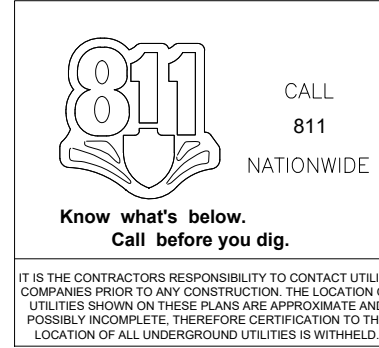
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INTERMEDIATE EP&SC

SHEET NUMBER C1.05

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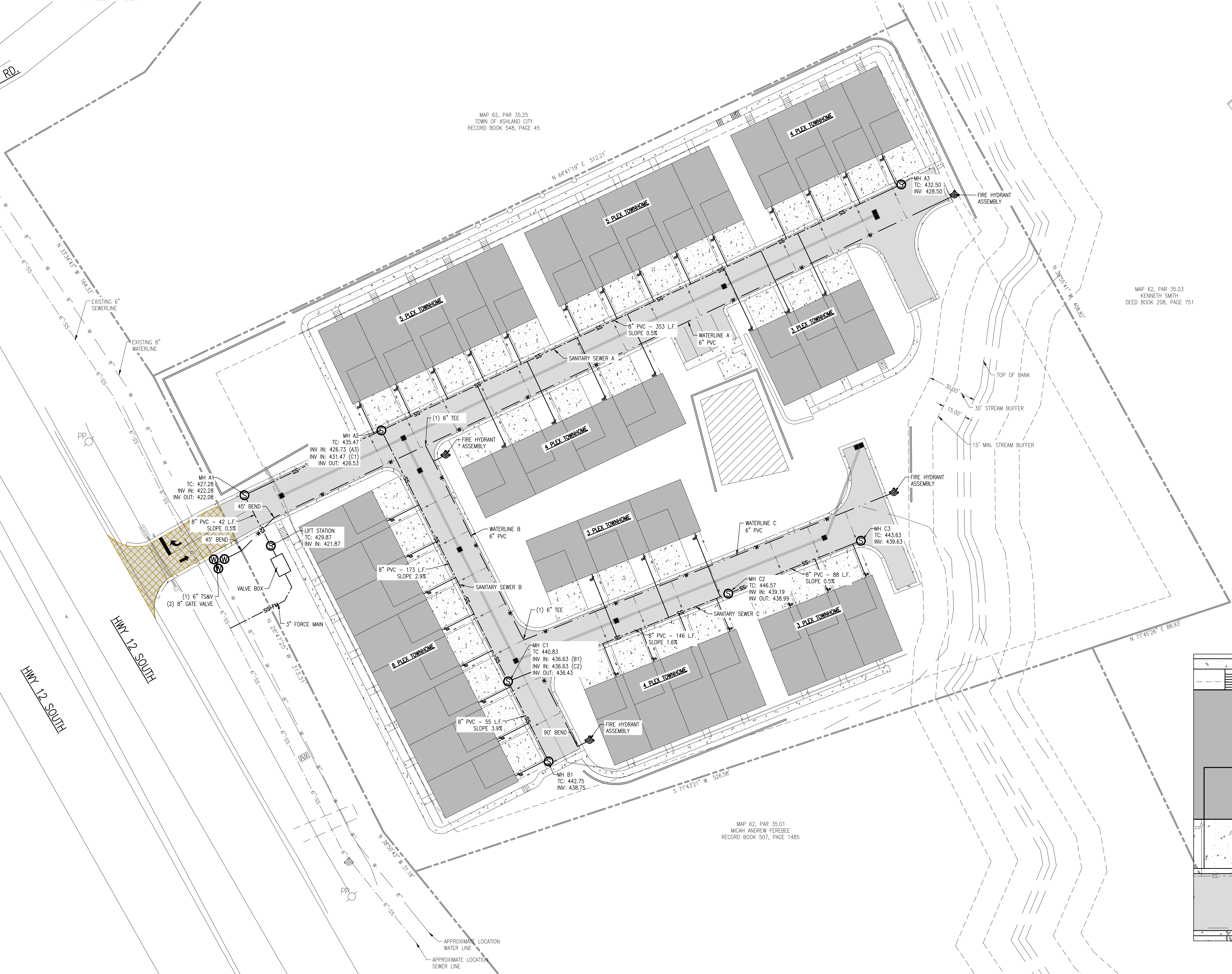
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|  | PROPERTY LINE          |  | MANHOLE      |  | PIPE INVERT     |
|  | EXISTING WATER LINE    |  | CLEAN OUT    |  | SPOT ELEVATION  |
|  | EXISTING SEWER LINE    |  | POWER POLE   |  | SLOPE DIRECTION |
|  | OVERHEAD ELECTRIC LINE |  | WATER METER  |  |                 |
|  | FENCE                  |  | FIRE HYDRANT |  |                 |
|  | NEW CURB               |  | IRON ROD OLD |  |                 |
|  | SILT FENCE             |  | IRON ROD NEW |  |                 |
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LITTLE MARROWBONE RD.

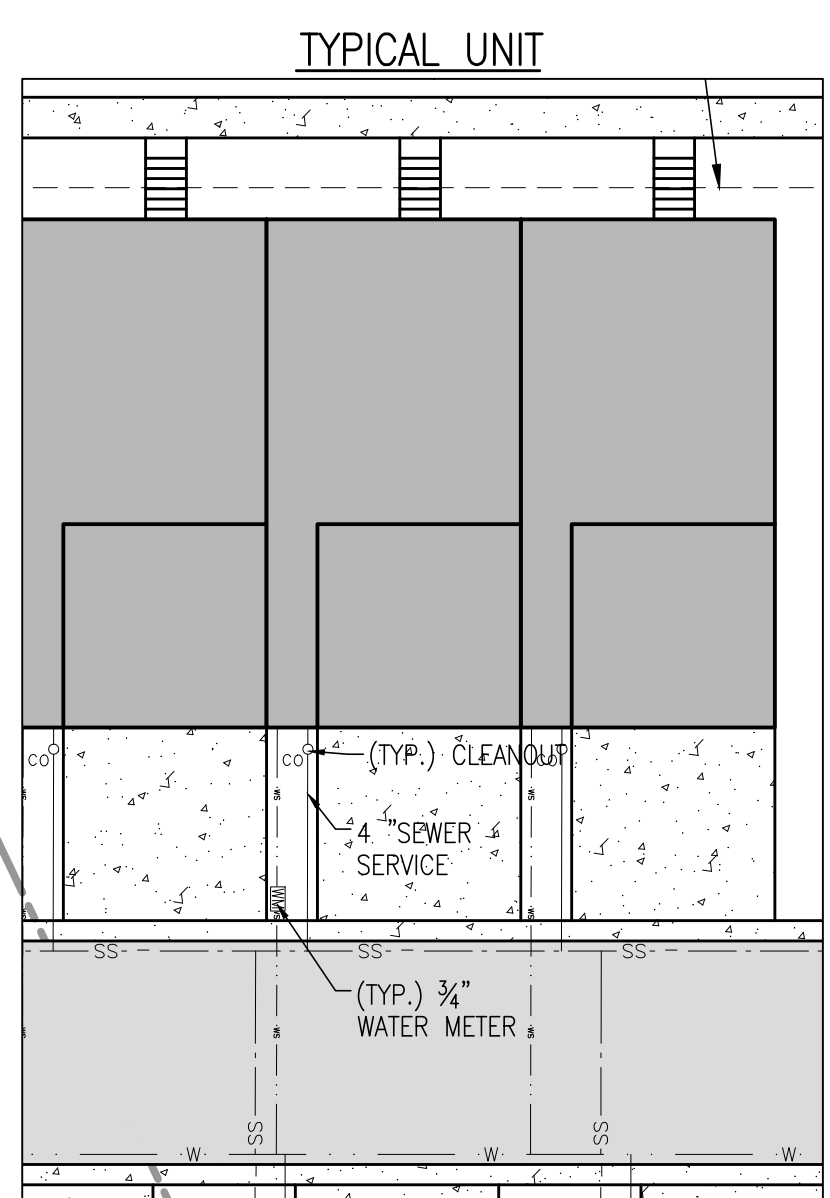
MAP 62, PAR. 35.25  
TOWN OF ASHLAND CITY  
RECORD BOOK 548, PAGE 45

MAP 62, PAR. 35.03  
KENNETH SMITH  
DEED BOOK 208, PAGE 751

MAP 62, PAR. 35.01  
MICHAEL ANDREW FERREBEE  
RECORD BOOK 507, PAGE 1485



\* WATER AND SEWER PROFILES WILL BE PROVIDED TO THE CITY ONCE THE LAYOUT IS CONFIRMED FROM AN INITIAL REVIEW BY THE CITY

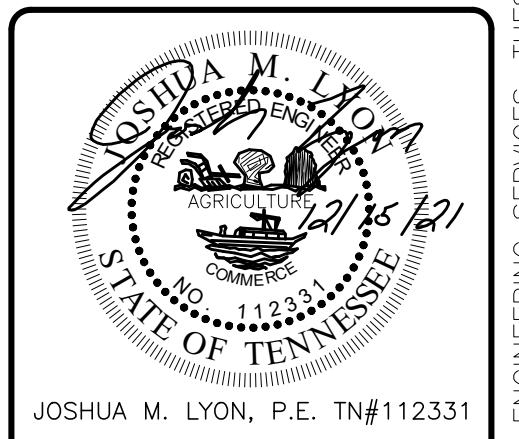


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**UTILITY LAYOUT**  
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**C1.06**

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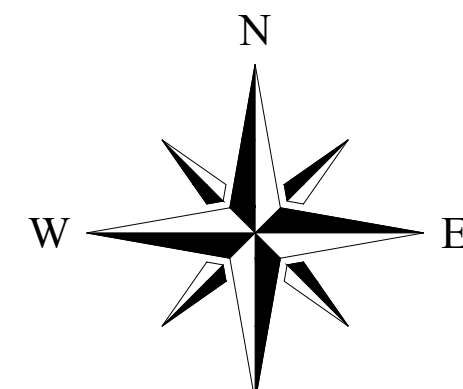
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- SLOPE DIRECTION

STABILIZATION LEGEND:

- SOD
- MATTING
- SEED & STRAW
- RIP RAP
- MULCH



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JOSHUA M. LYON, P.E. TN#112331  
**NOT FOR CONSTRUCTION**

**HIGHWAY 12 & LITTLE MARROWBONE TOWNHOMES**

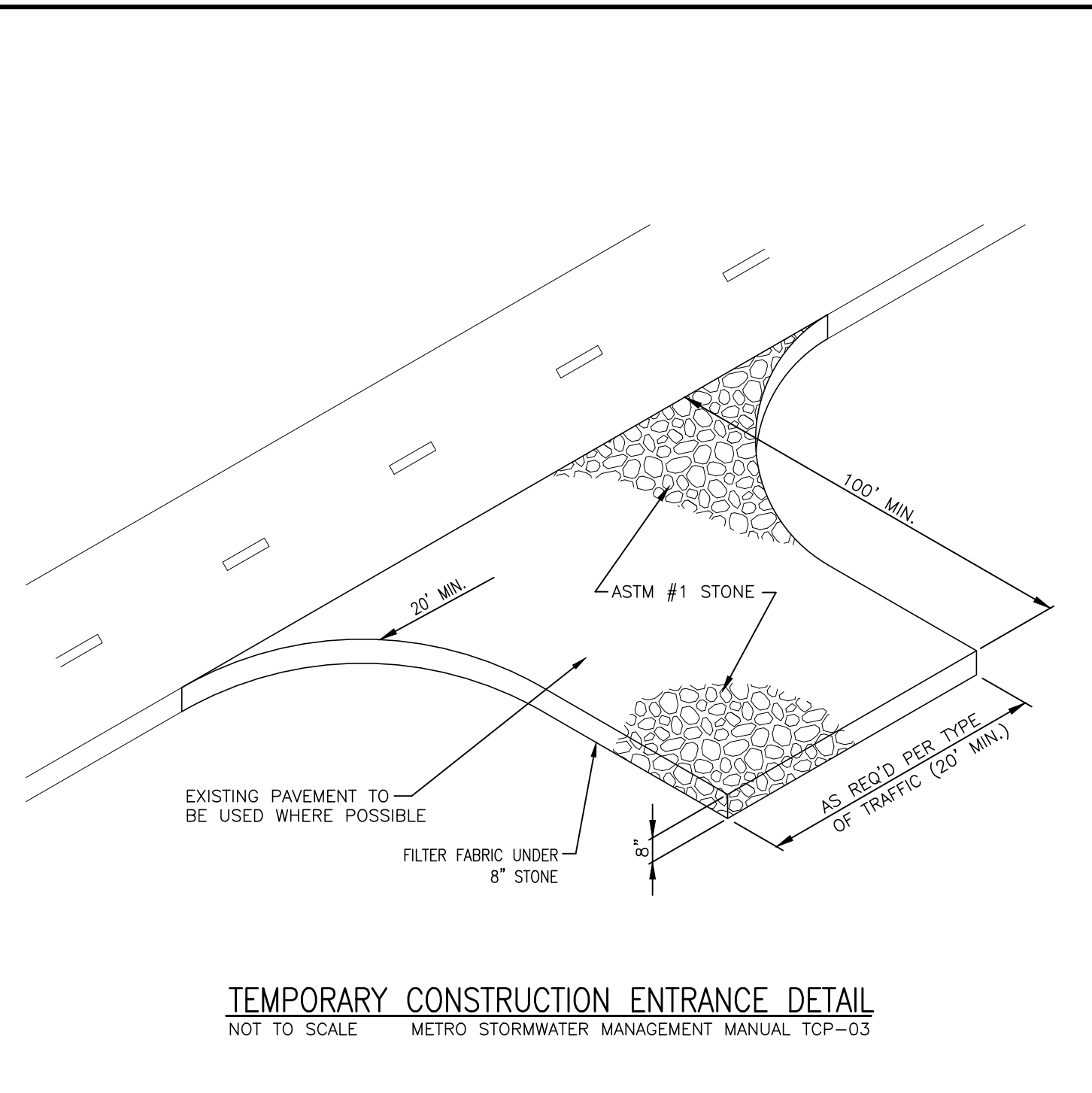
1807 HIGHWAY 12 SOUTH  
ASHLAND CITY, TN  
CHEATHAM COUNTY

DRAWN BY: JML  
CHECKED BY: JML  
PROJECT NO.: C01821

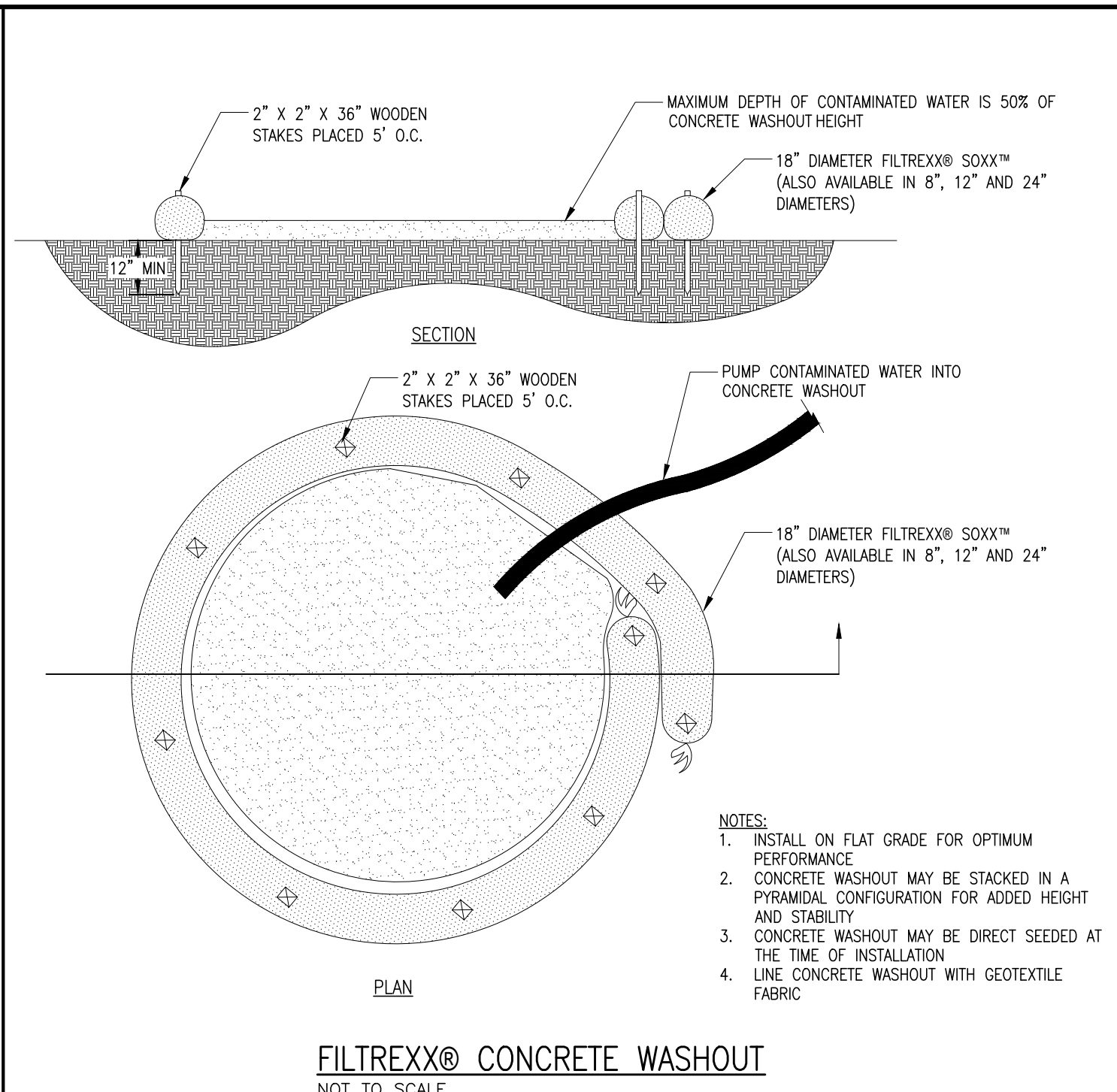
**FINAL STABILIZATION**

SHEET NUMBER  
**C1.07**

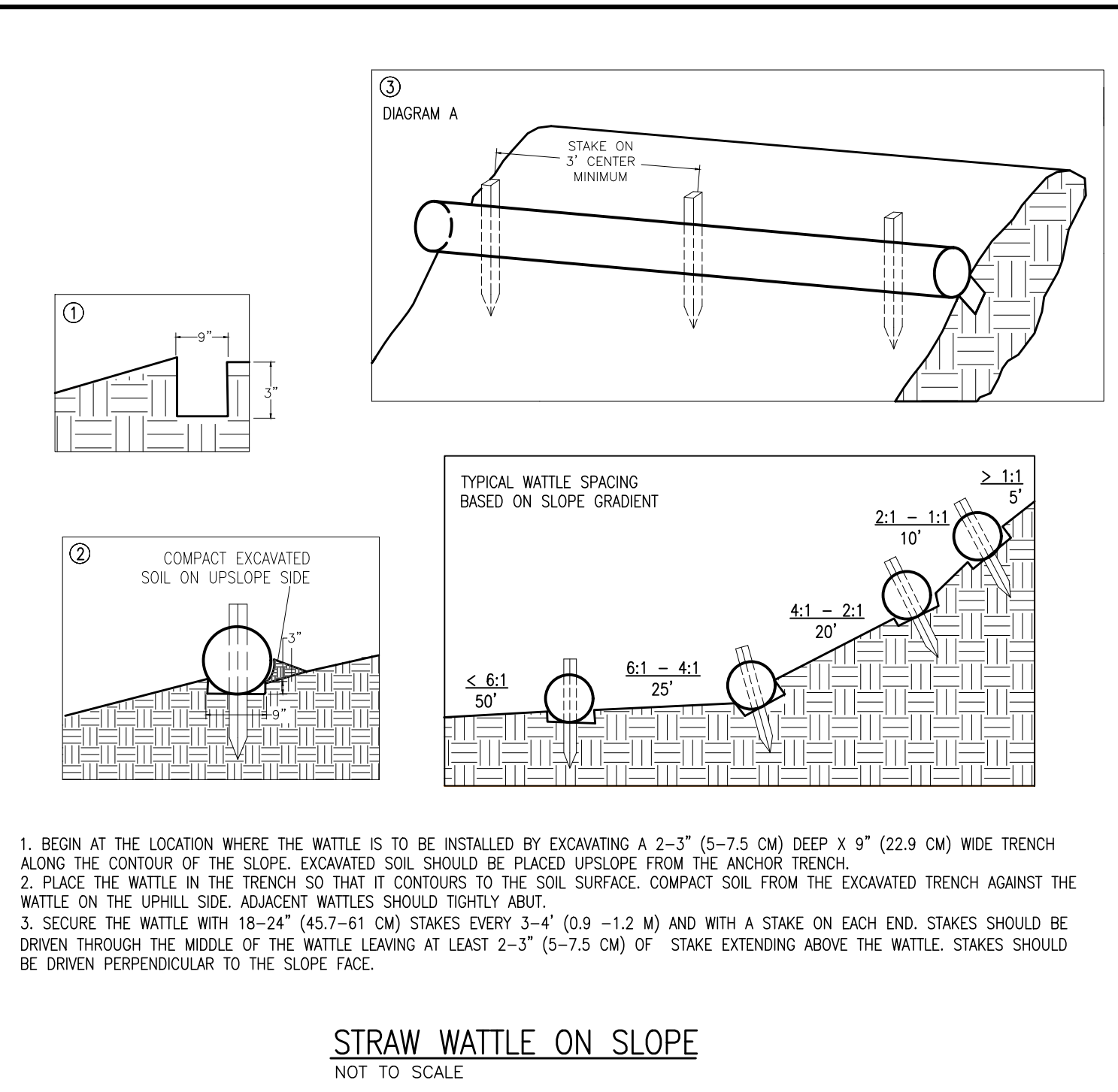
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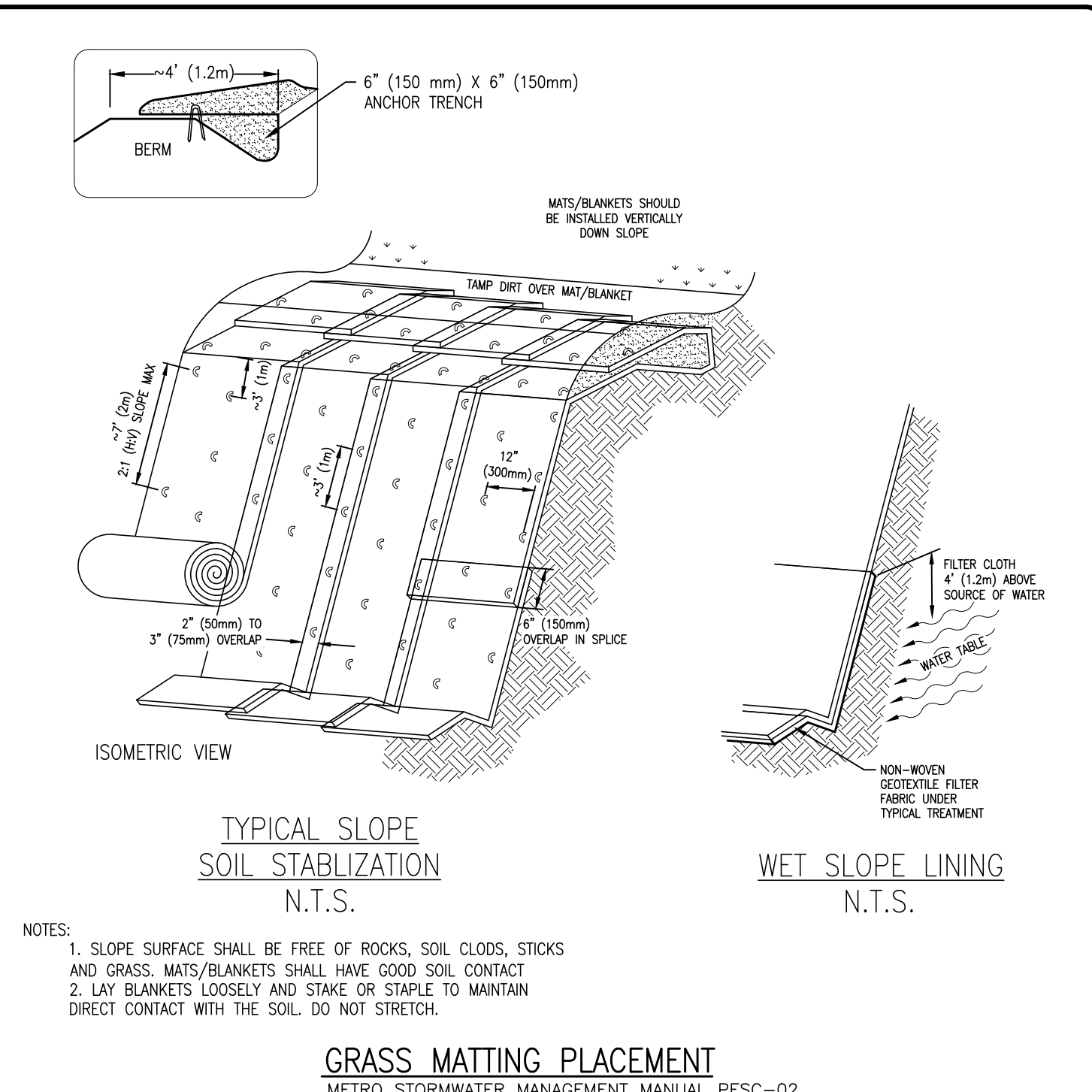
**TEMPORARY CONSTRUCTION ENTRANCE DETAIL**  
NOT TO SCALE METRO STORMWATER MANAGEMENT MANUAL TCP-03



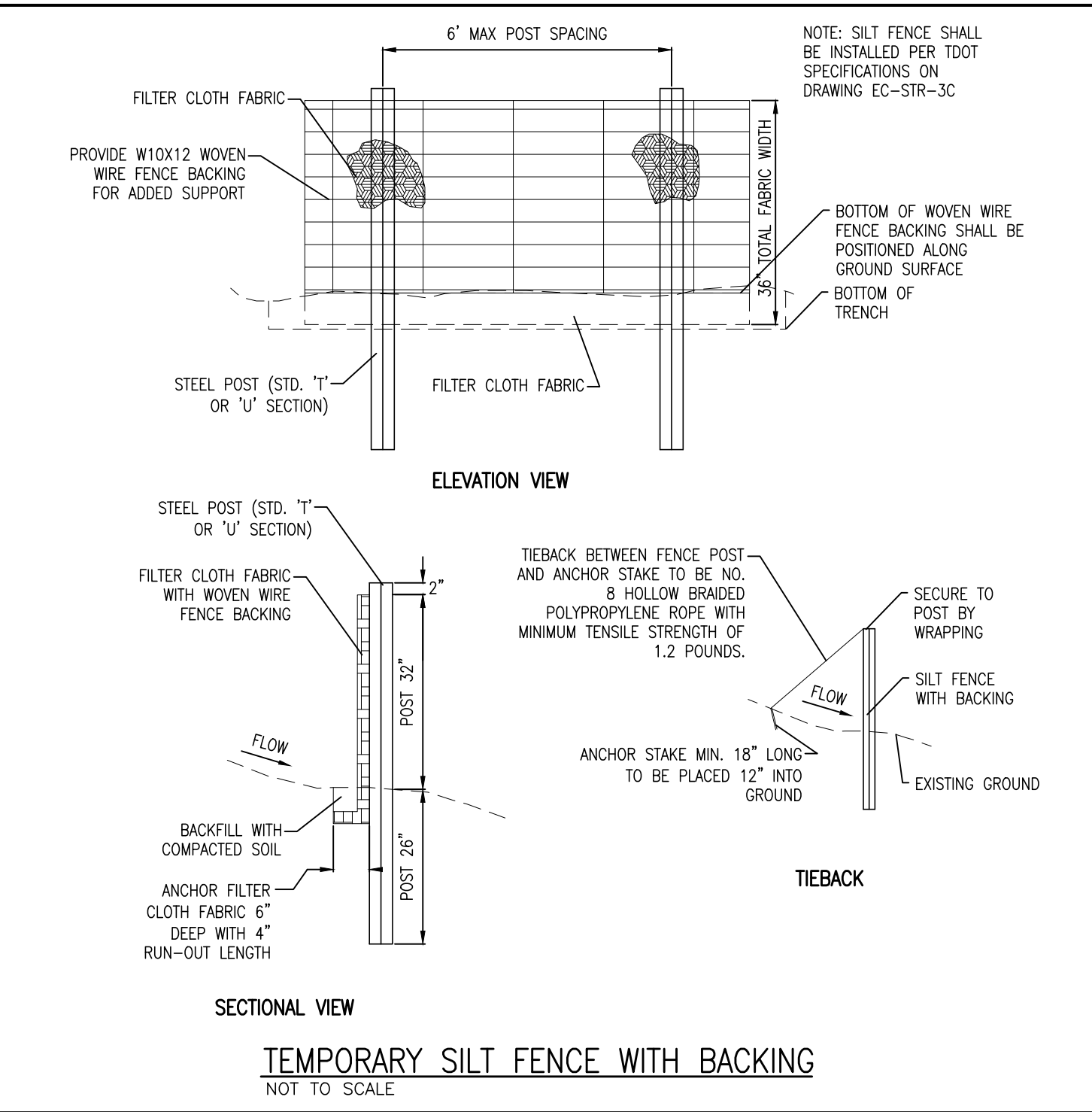
**FILTREXX® CONCRETE WASHOUT**  
NOT TO SCALE



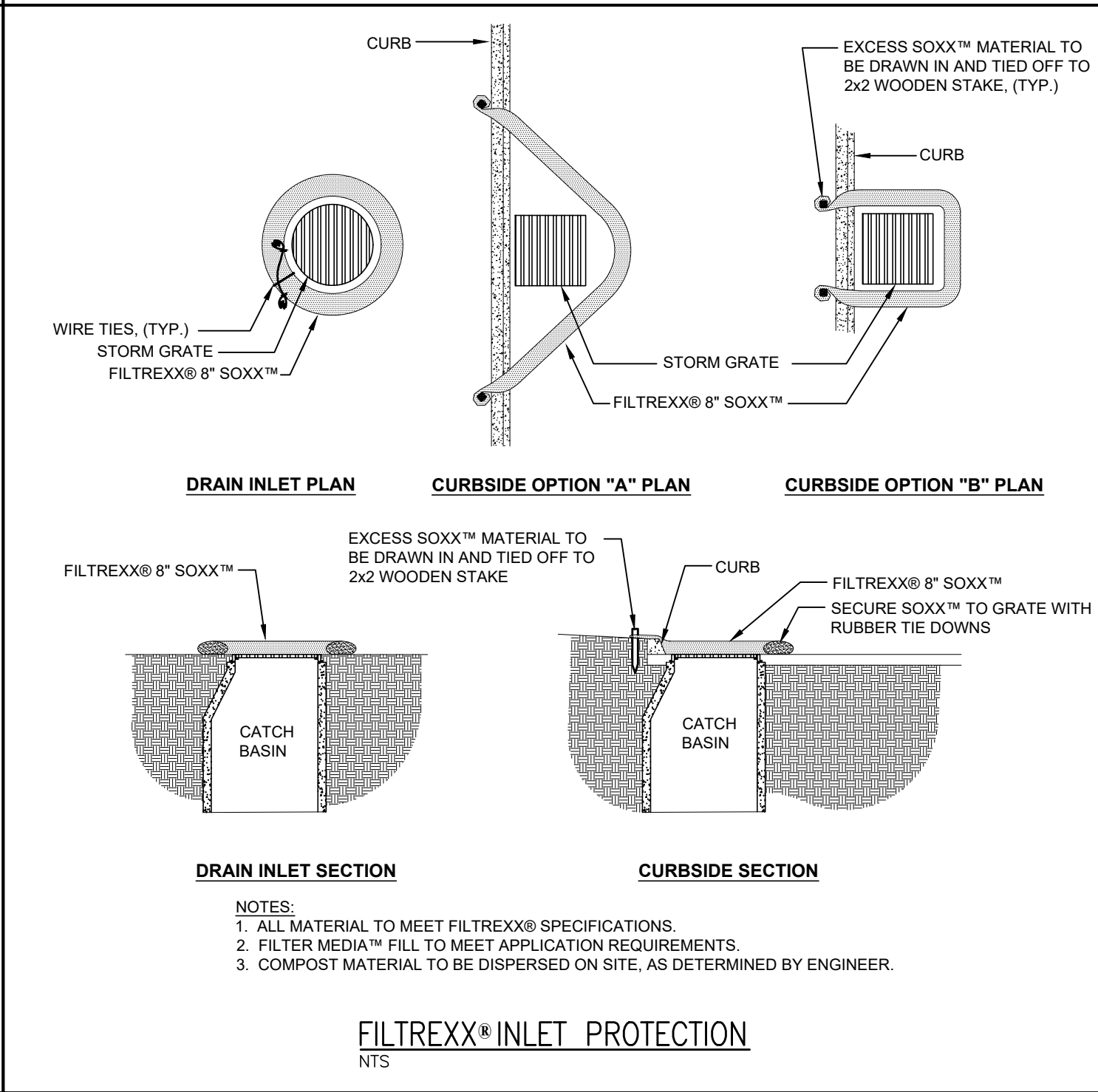
**STRAW WATTLE ON SLOPE**  
NOT TO SCALE



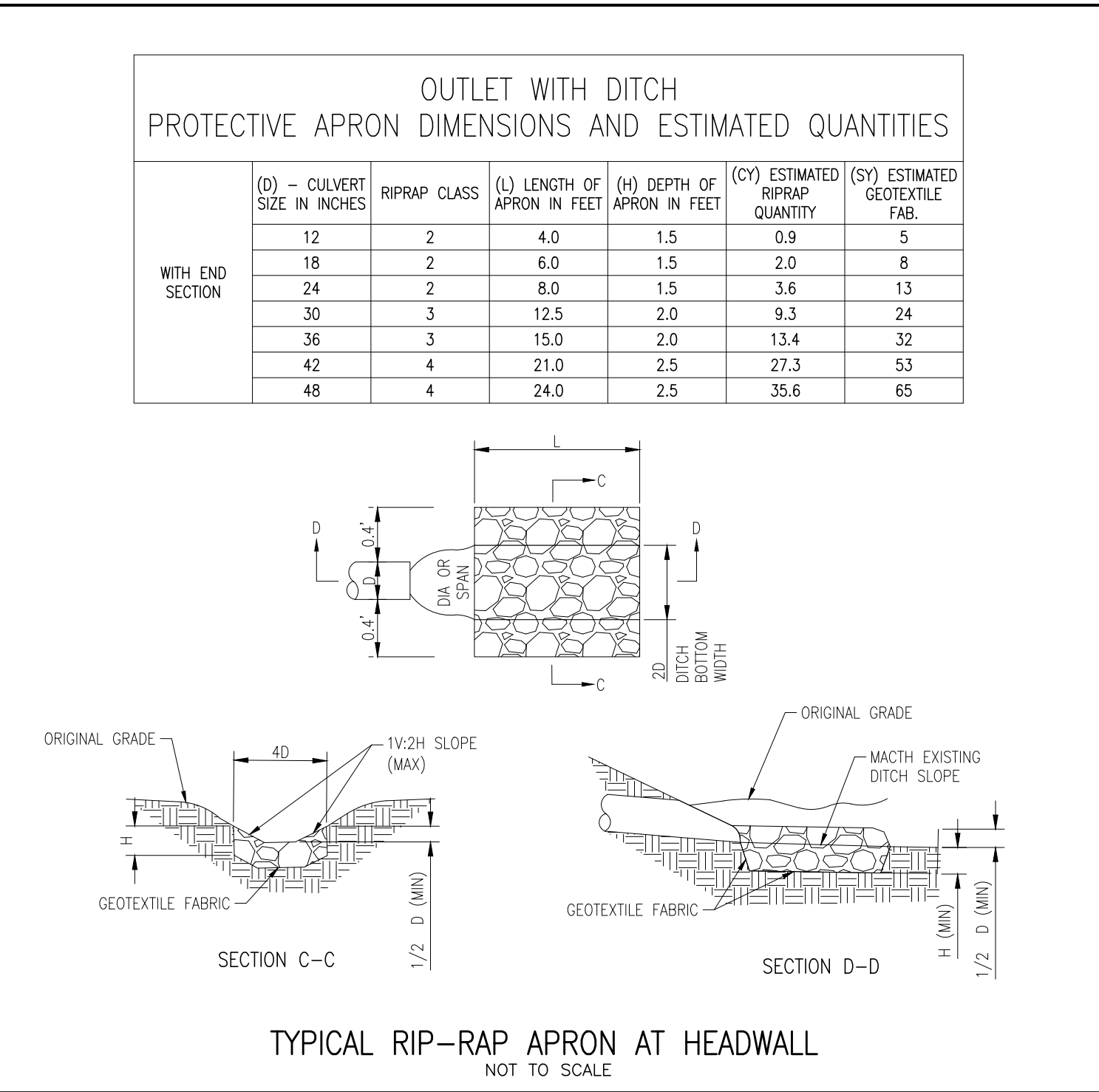
**GRASS MATTING PLACEMENT**  
METRO STORMWATER MANAGEMENT MANUAL PESC-02



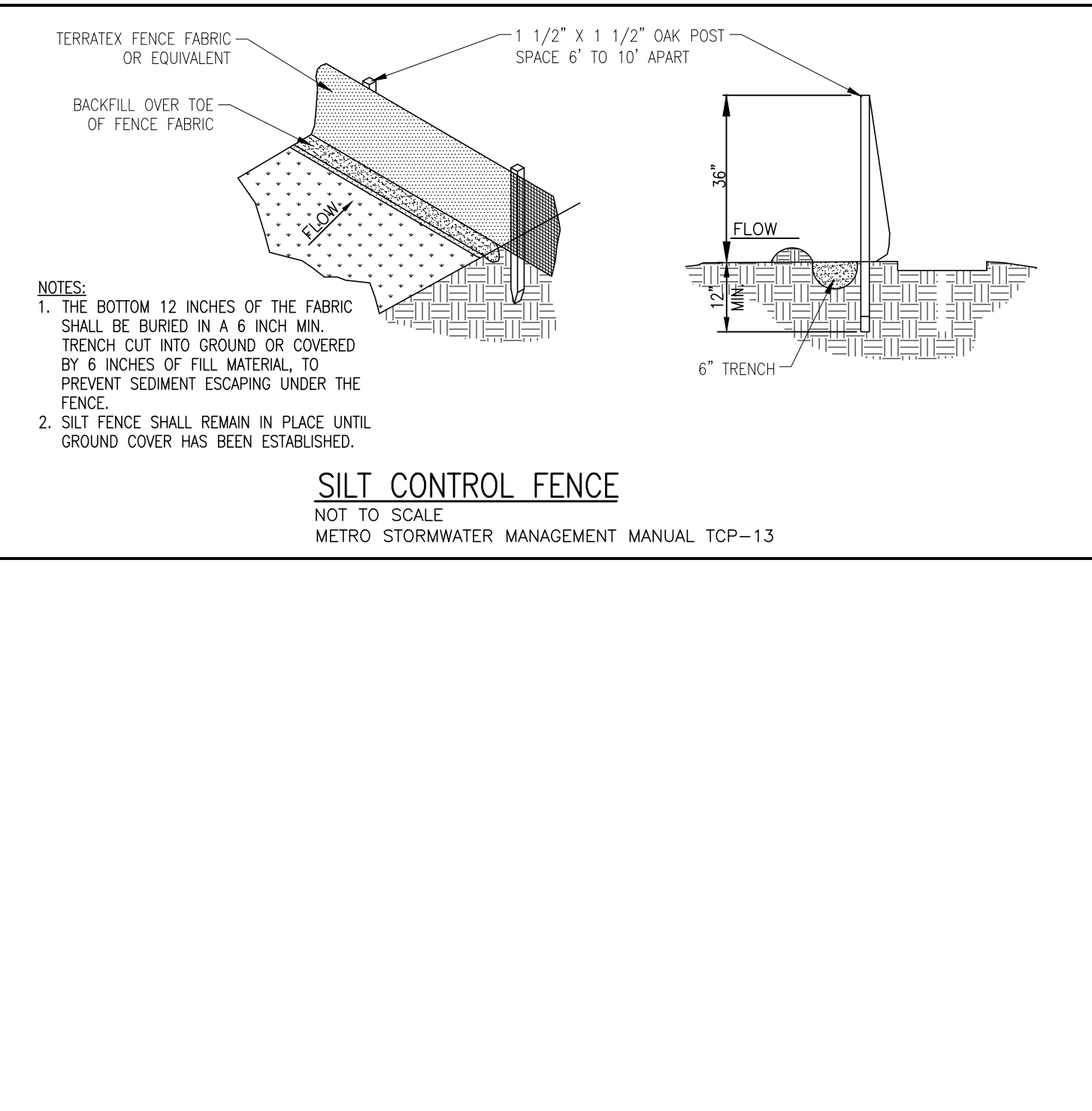
**TEMPORARY SILT FENCE WITH BACKING**  
NOT TO SCALE



**FILTREXX® INLET PROTECTION**  
NTS



**TYPICAL RIP-RAP APRON AT HEADWALL**  
NOT TO SCALE



**SILT CONTROL FENCE**  
NOT TO SCALE METRO STORMWATER MANAGEMENT MANUAL TCP-13

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**JOSHUA M. LYON**  
REGISTERED PROFESSIONAL ENGINEER  
STATE OF TENNESSEE  
112331  
JOSHUA M. LYON, P.E. TN#112331  
**NOT FOR CONSTRUCTION**

**HIGHWAY 12 & LITTLE MARROWBONE TOWNHOMES**  
1807 HIGHWAY 12 SOUTH  
ASHLAND CITY, TN  
CHEATHAM COUNTY

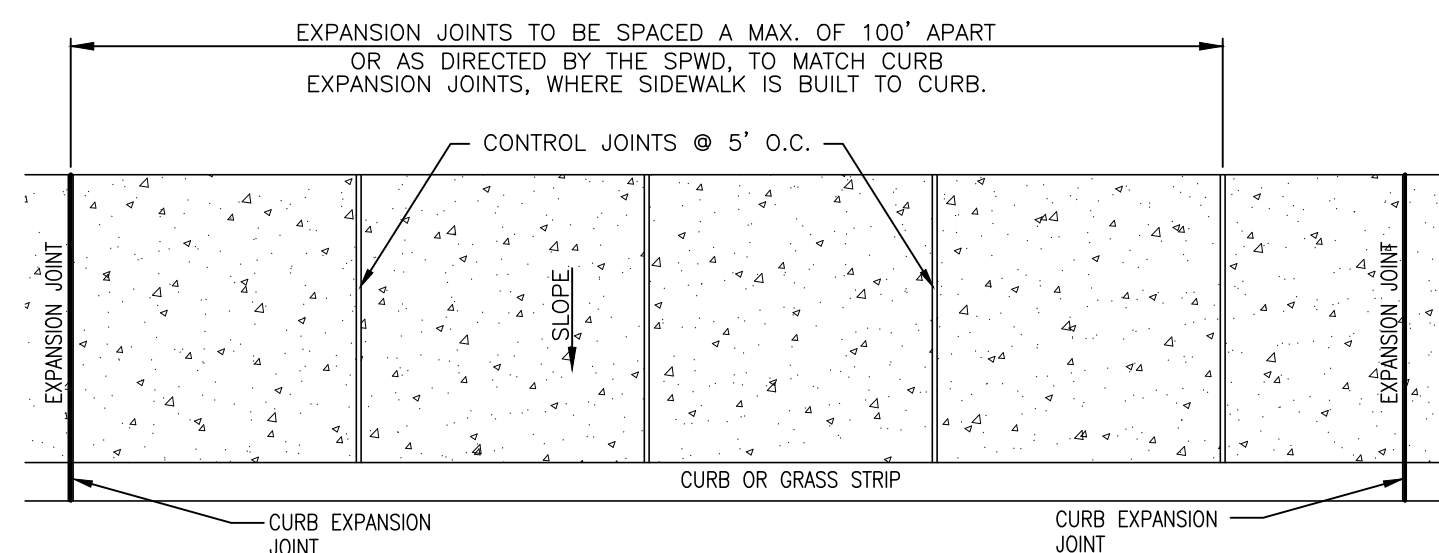
DRAWN BY: JML  
CHECKED BY: JML  
PROJECT NO.: C01821

**CONSTRUCTION DETAILS**

SHEET NUMBER  
**C2.01**

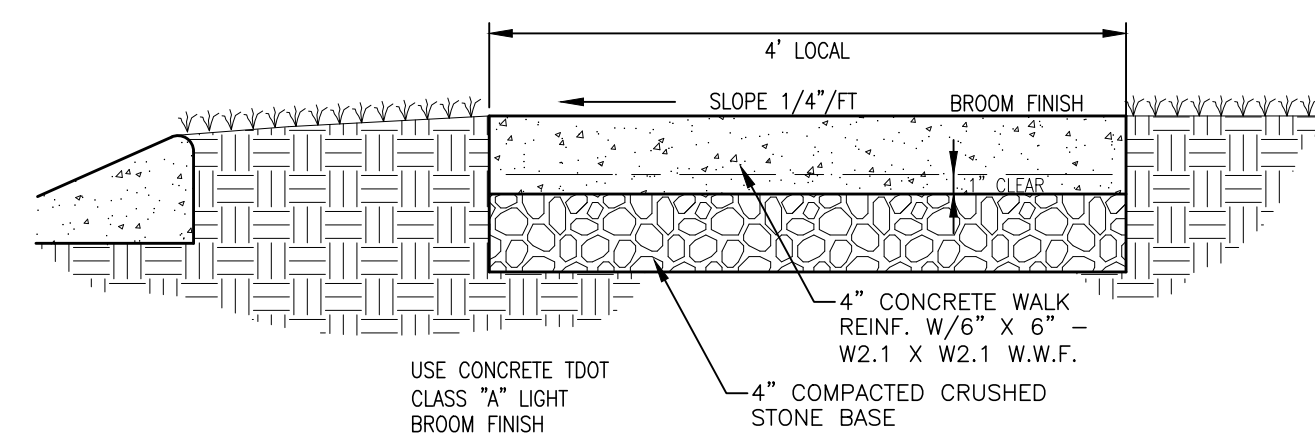
2/23/2021 10:51:00 AM C:\Users\jml\OneDrive\Documents\CAD\Drawings\2021\12\12021-0202-01.dwg 12/23/2021 10:51:00 AM

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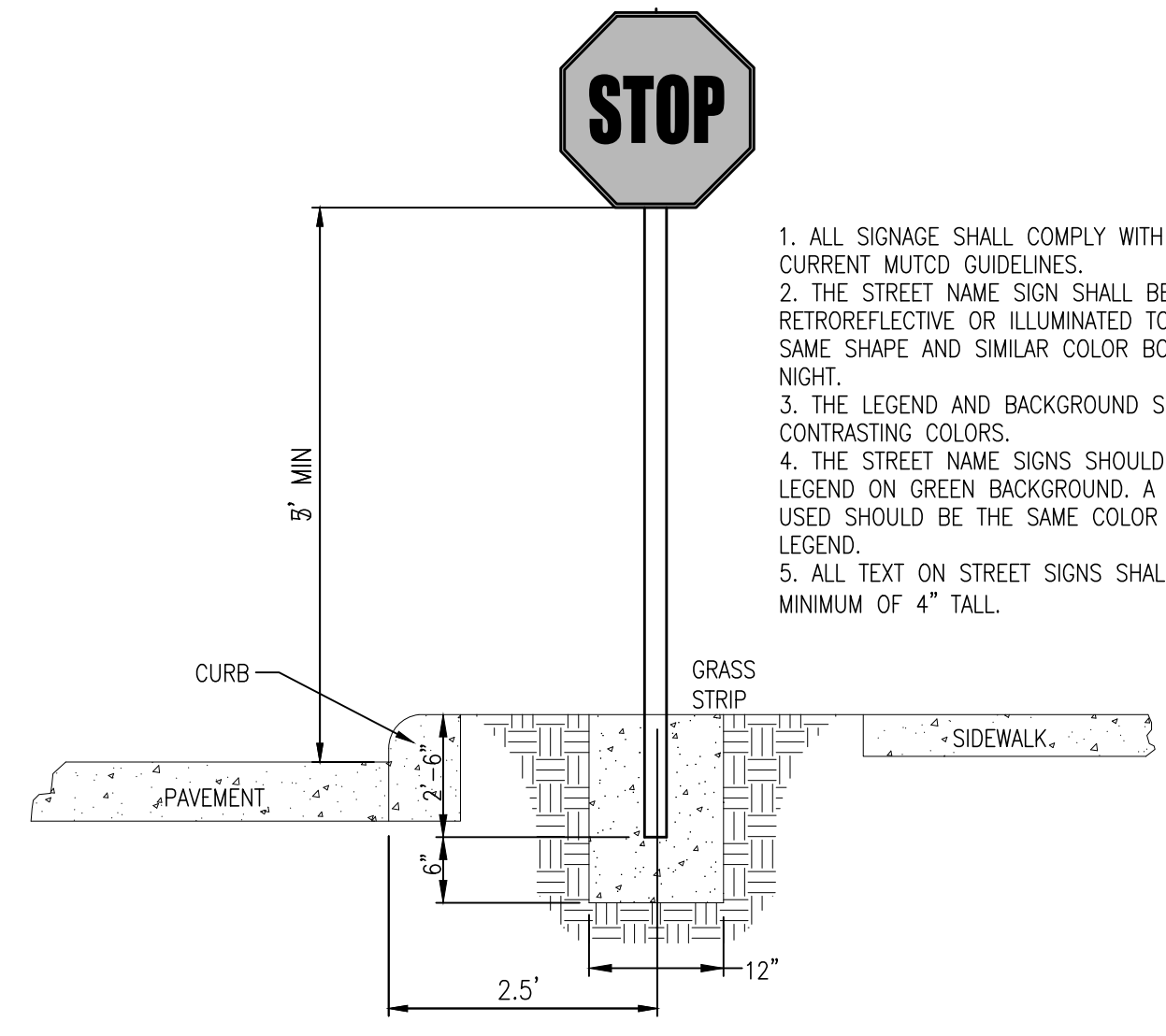


GENERAL NOTES:  
 1. SIDEWALKS SHALL BE A MIN. OF 4" IN THICKNESS AND MAINTAIN A MIN. OF 3" CLEARANCE THROUGH THE PATH OF TRAVEL.  
 2. MAXIMUM CROSS SLOPE FOR SIDEWALKS SHALL BE 1:48 (VERTICAL-HORIZONTAL).  
 3. MANHOLES SHALL BE PLACED TO MAINTAIN A 42" MINIMUM CLEAR SIDEWALK WALKING WIDTH.

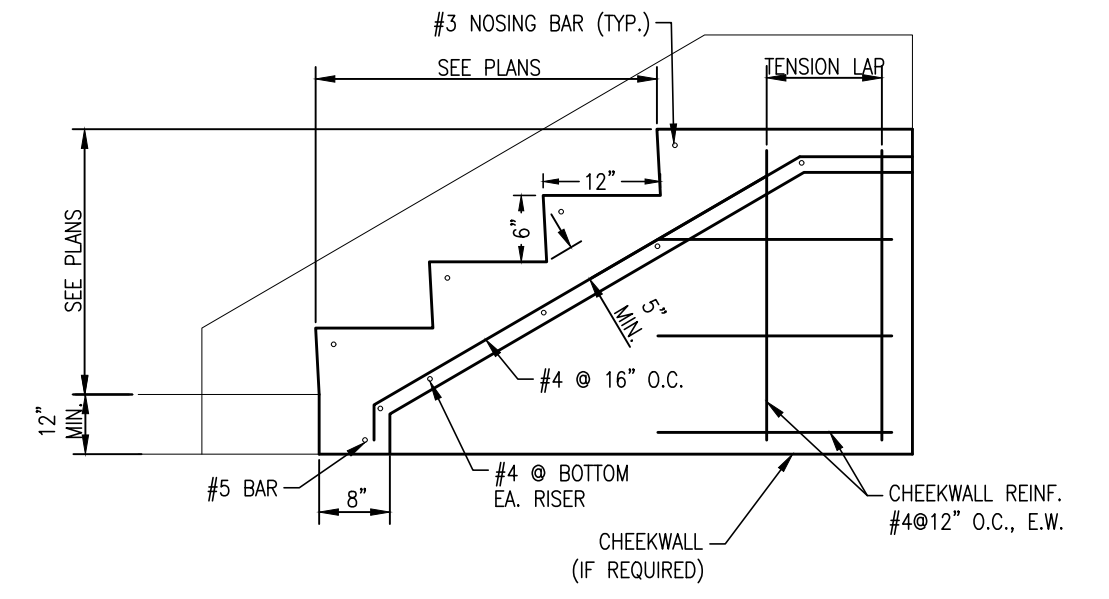
**TYPICAL SIDEWALK**  
NOT TO SCALE



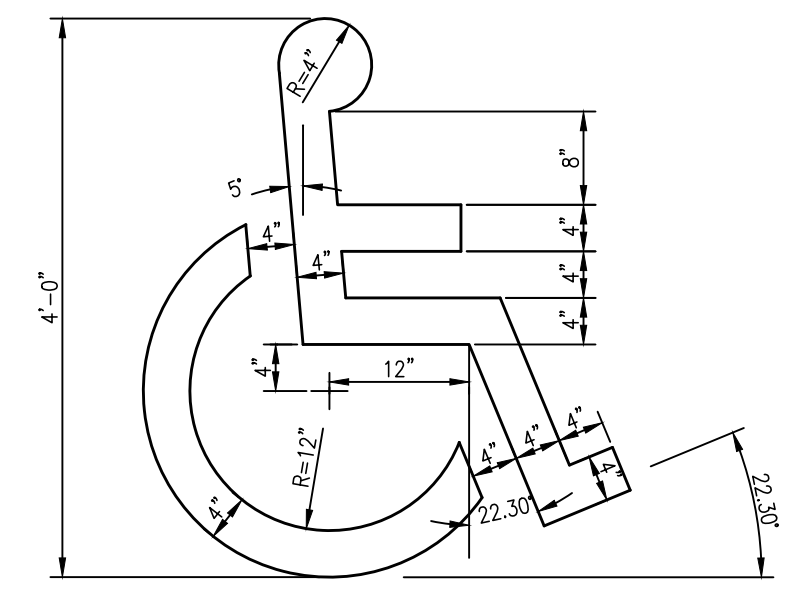
**TYPICAL SIDEWALK CROSS-SECTION**  
NOT TO SCALE



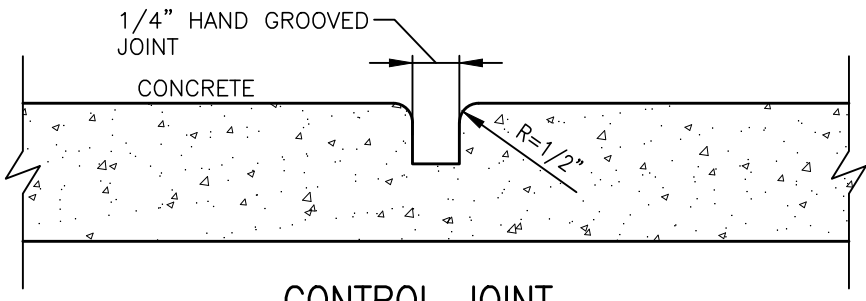
**STOP AND STREET SIGN PLACEMENT**  
NOT TO SCALE



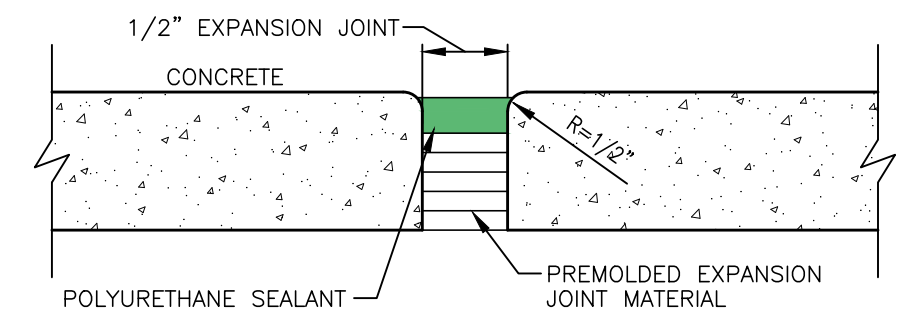
**TYPICAL STAIR DETAIL**  
NOT TO SCALE



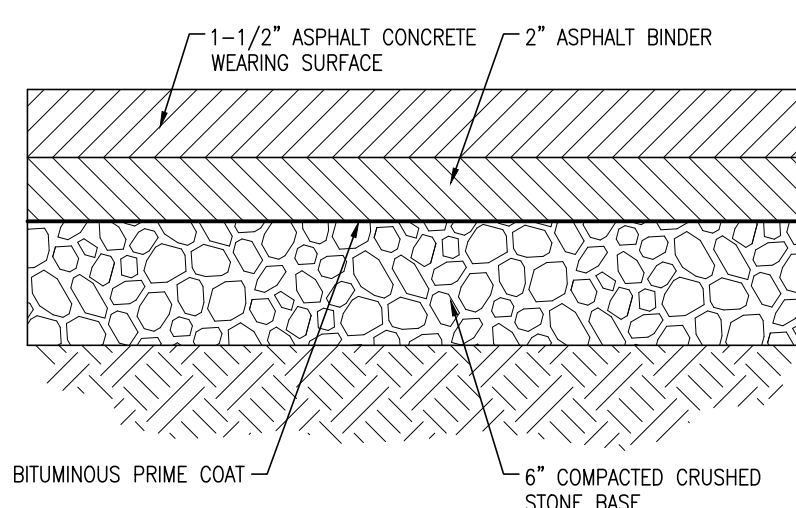
**HANDICAP SYMBOL**  
NOT TO SCALE



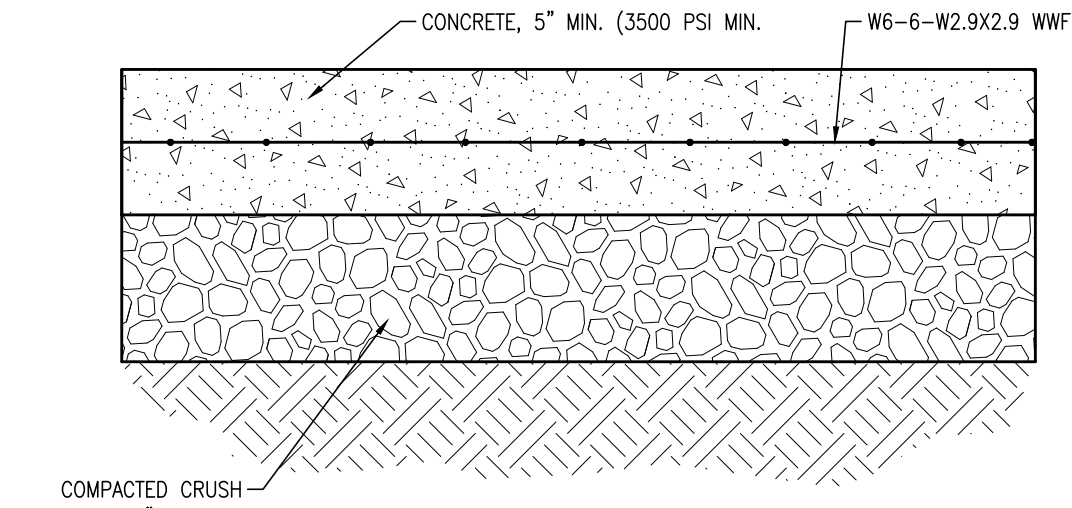
**CONTROL JOINT**  
NOT TO SCALE



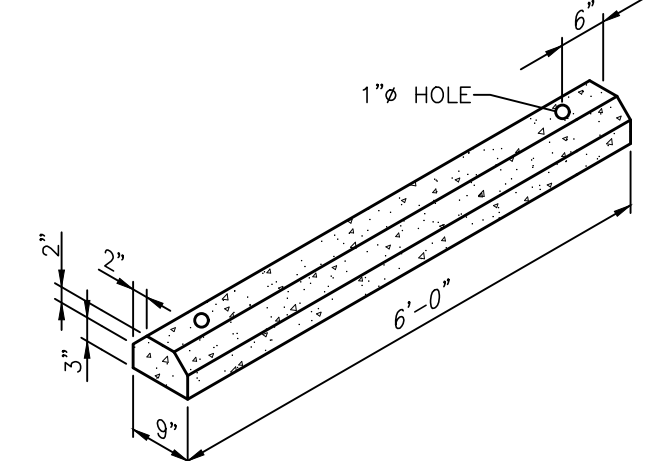
**EXPANSION JOINT**  
NOT TO SCALE



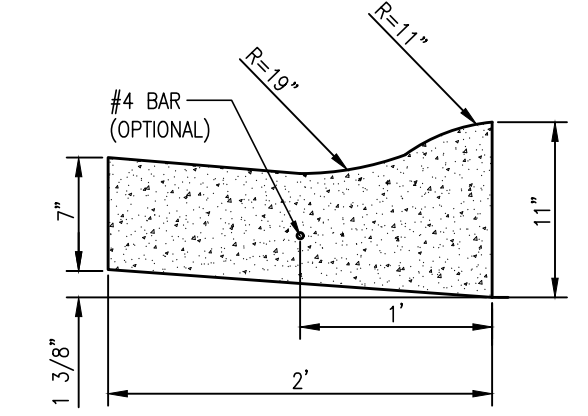
**ASPHALT PAVING DETAIL**  
NOT TO SCALE



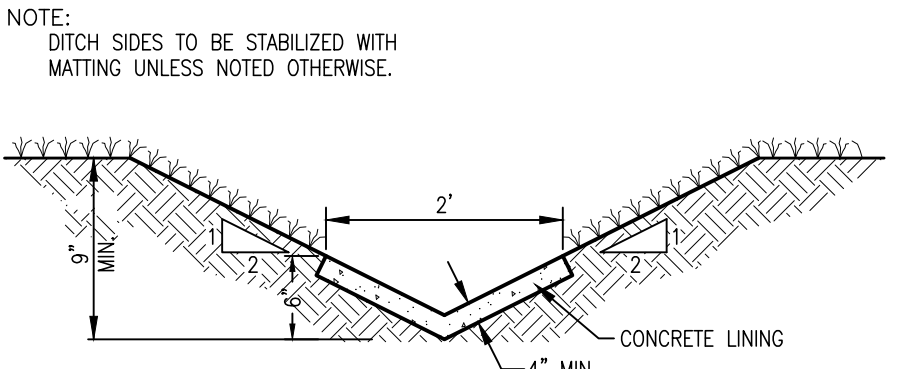
**CONCRETE PAVING DETAIL**  
NOT TO SCALE



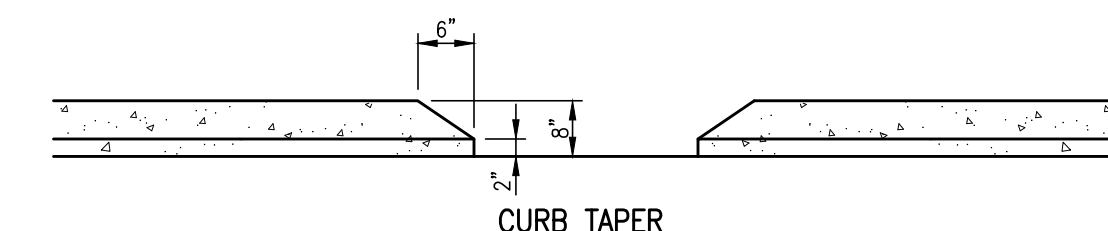
**TYPICAL PARKING CURB**  
NOT TO SCALE



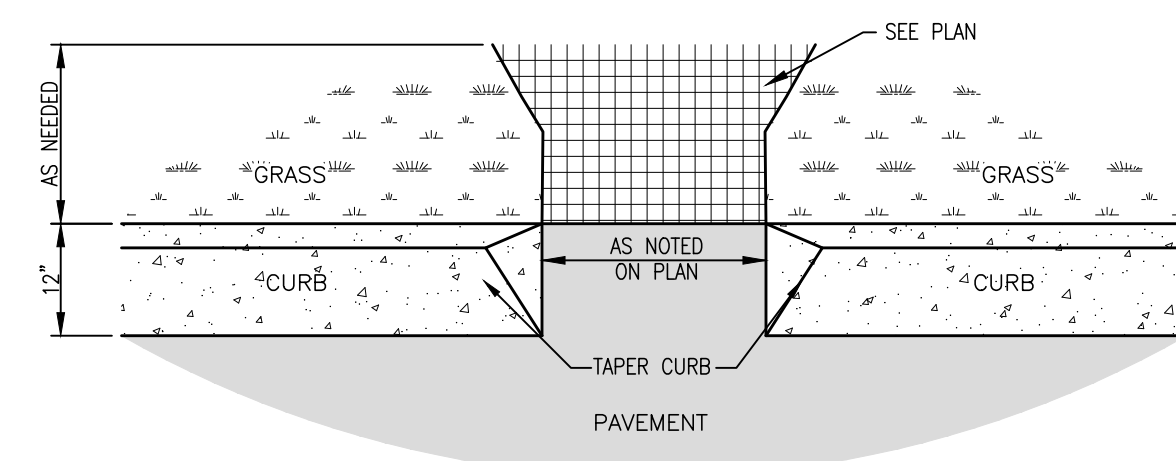
**ROLLED CURB DETAIL**  
NOTE TOP SCALE



**CONCRETE LINED DITCH DETAIL**  
NOT TO SCALE



**CURB TAPER**



**TYPICAL CURB CUT**  
NOT TO SCALE

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JOSHUA M. LYON, P.E. TN#112331

**NOT FOR CONSTRUCTION**

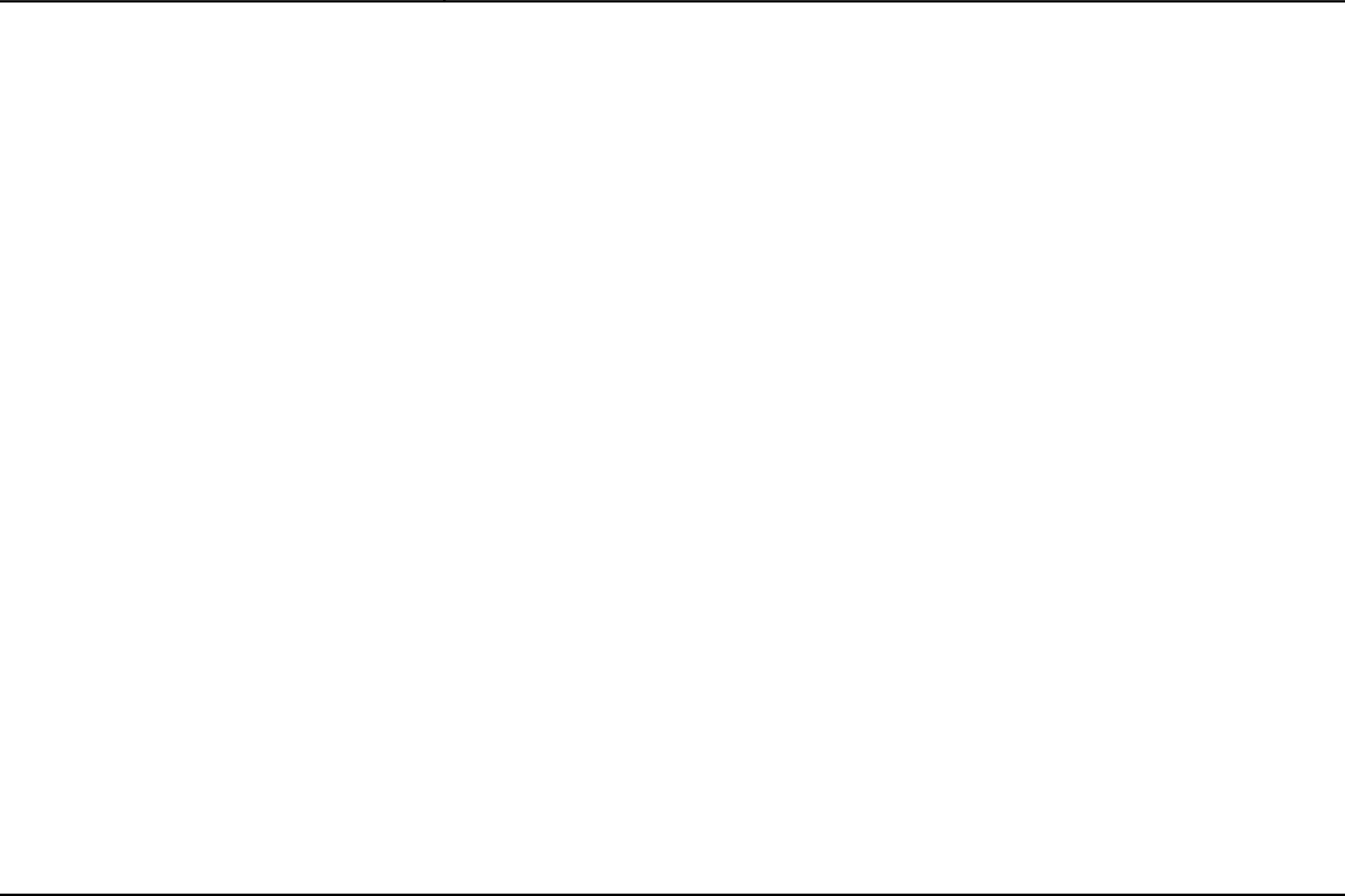
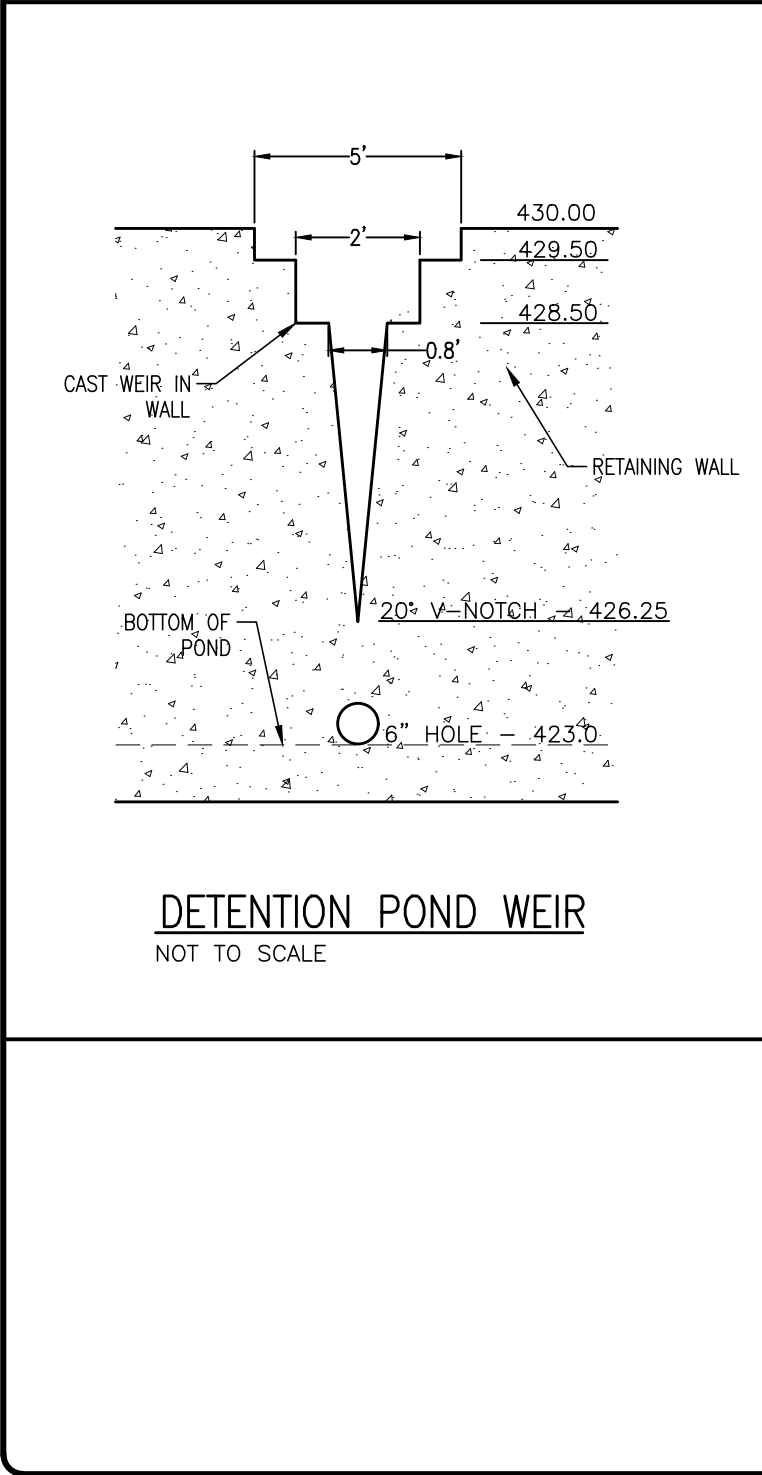
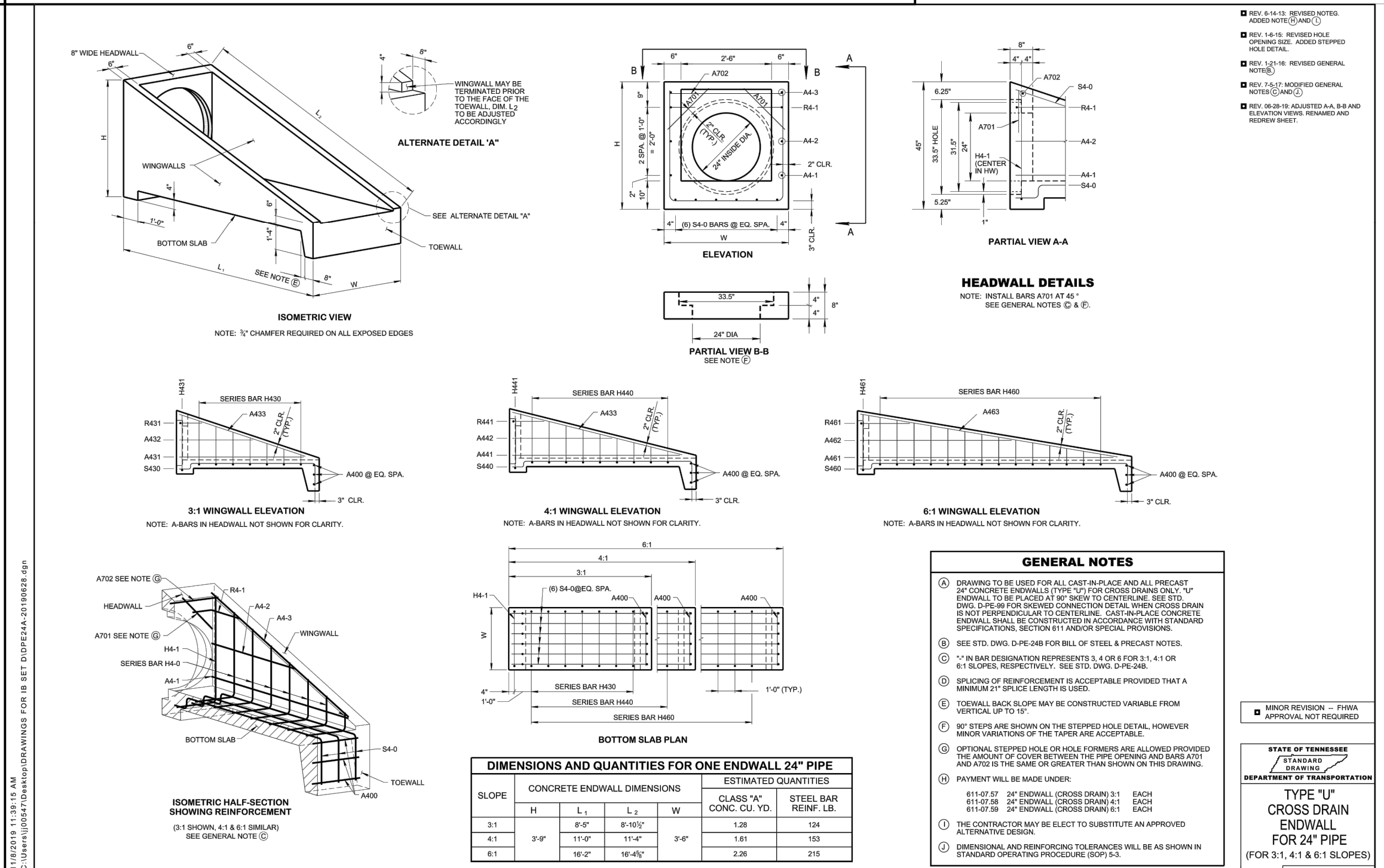
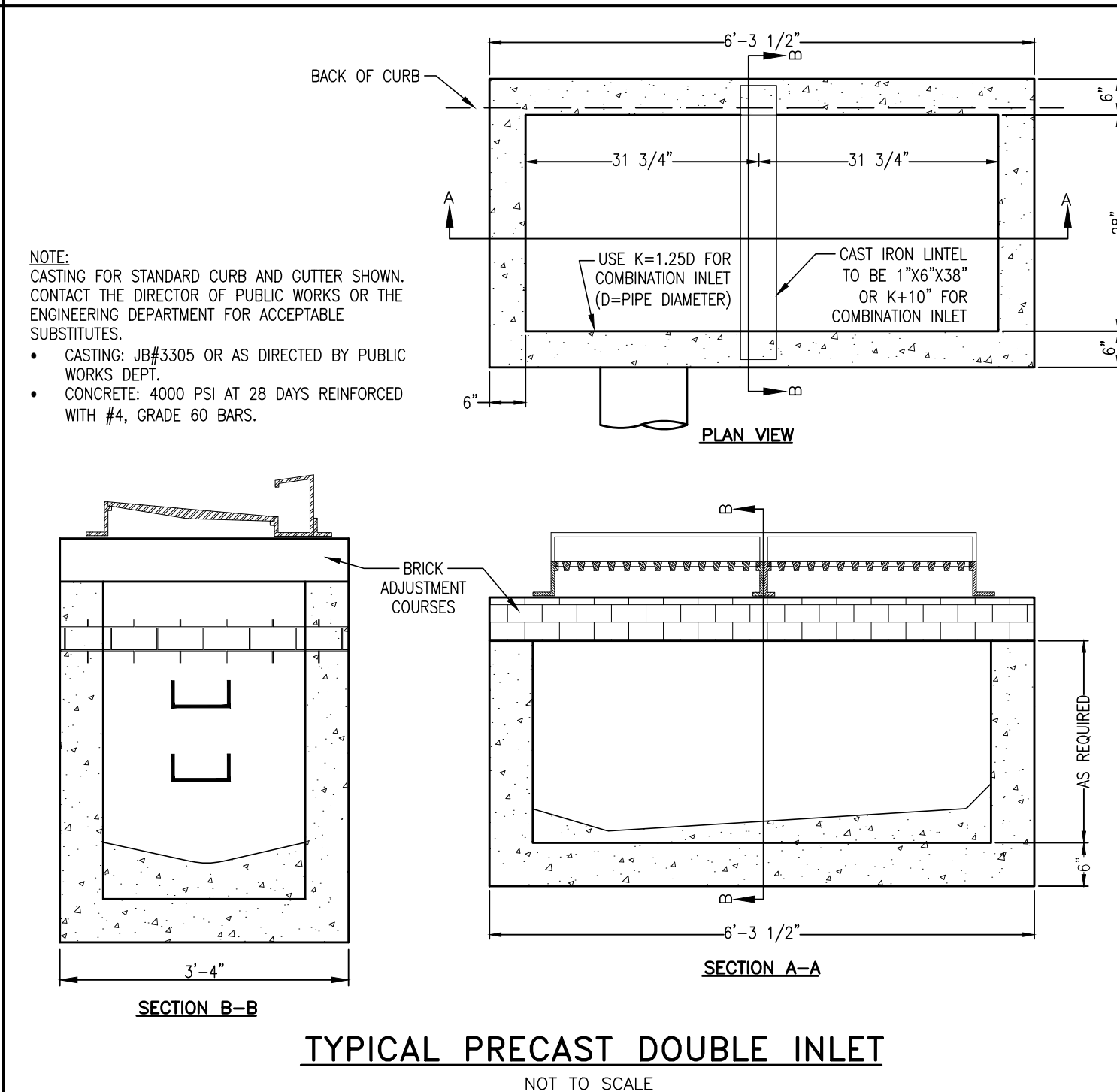
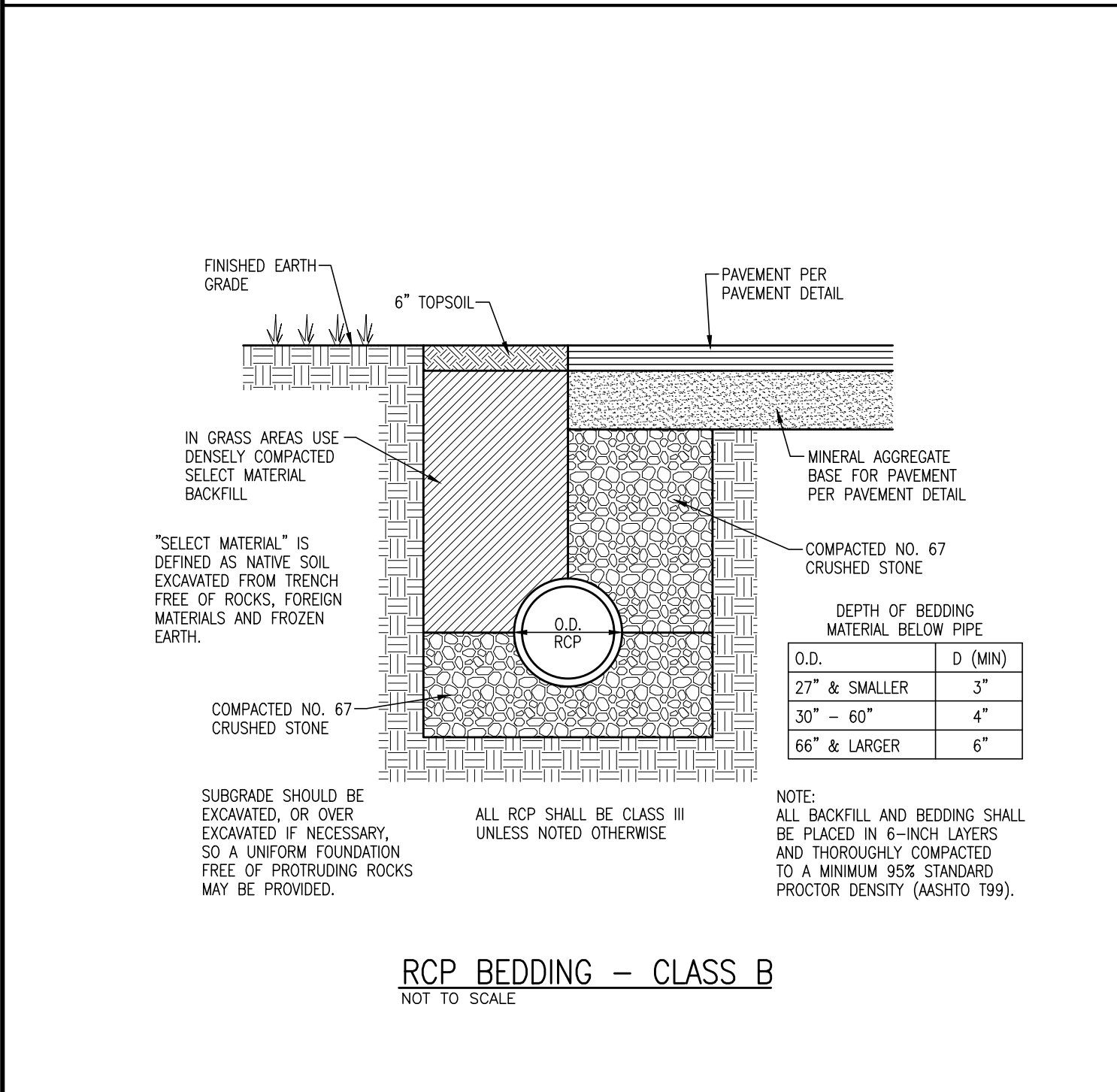
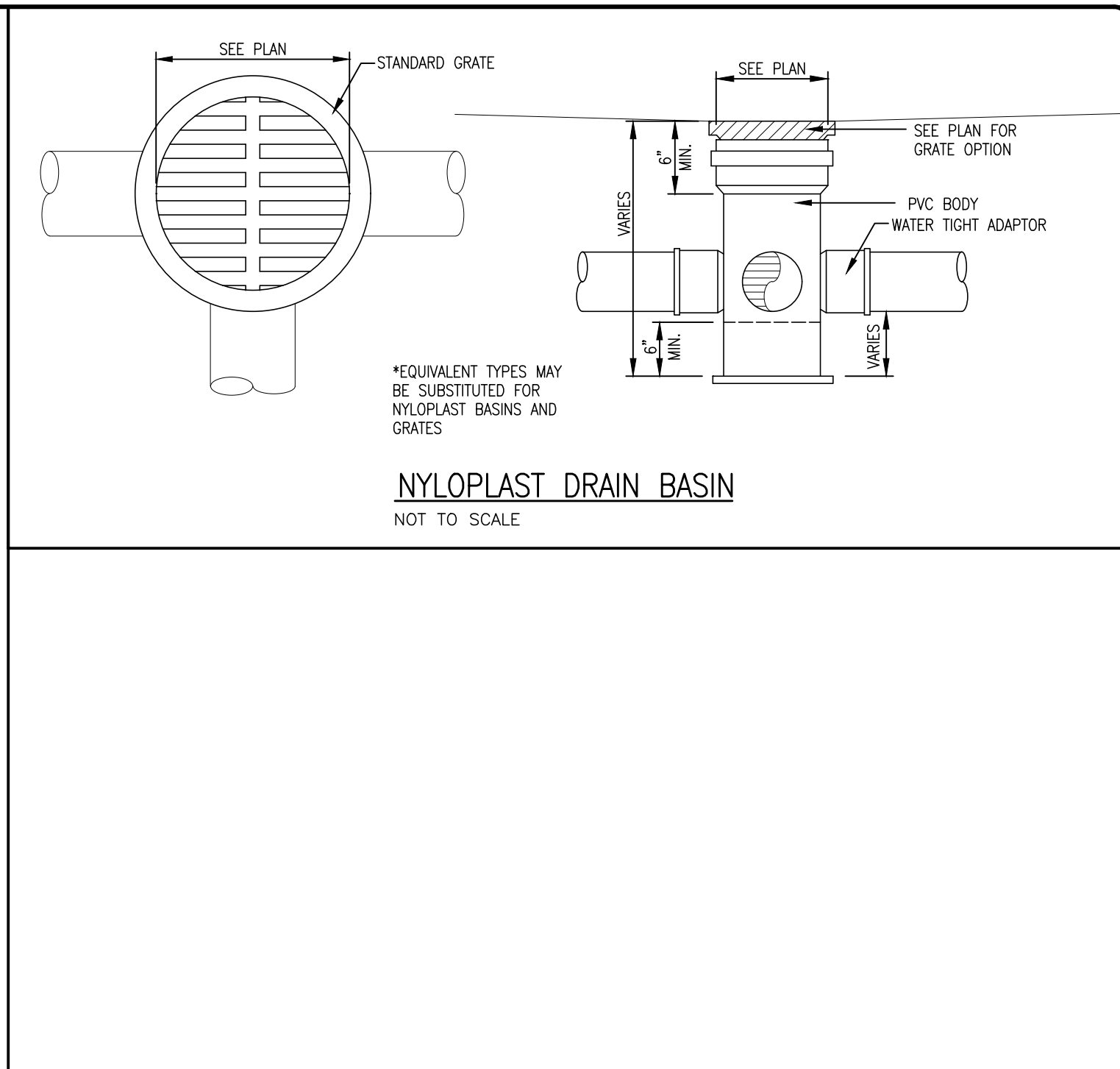
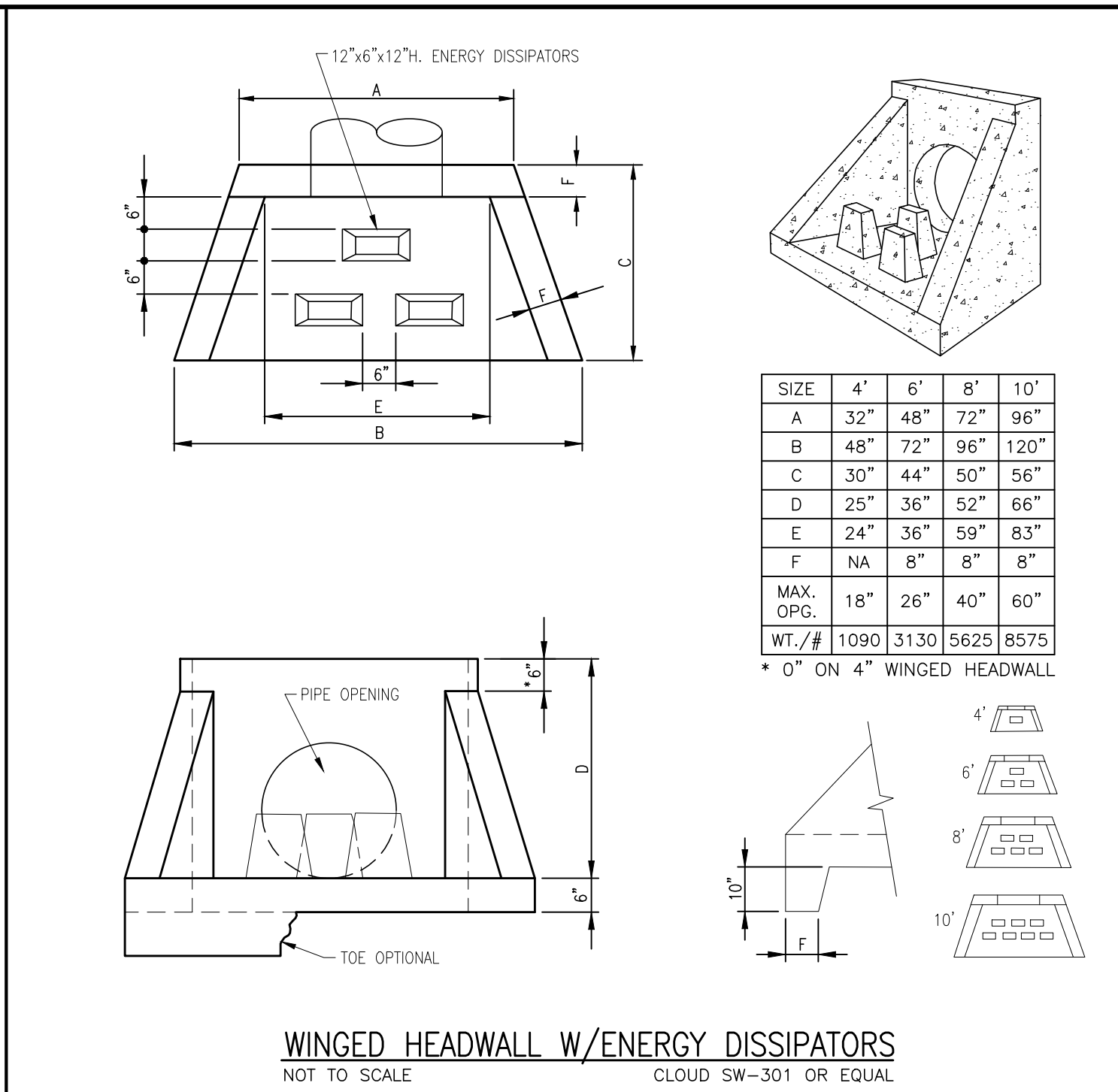
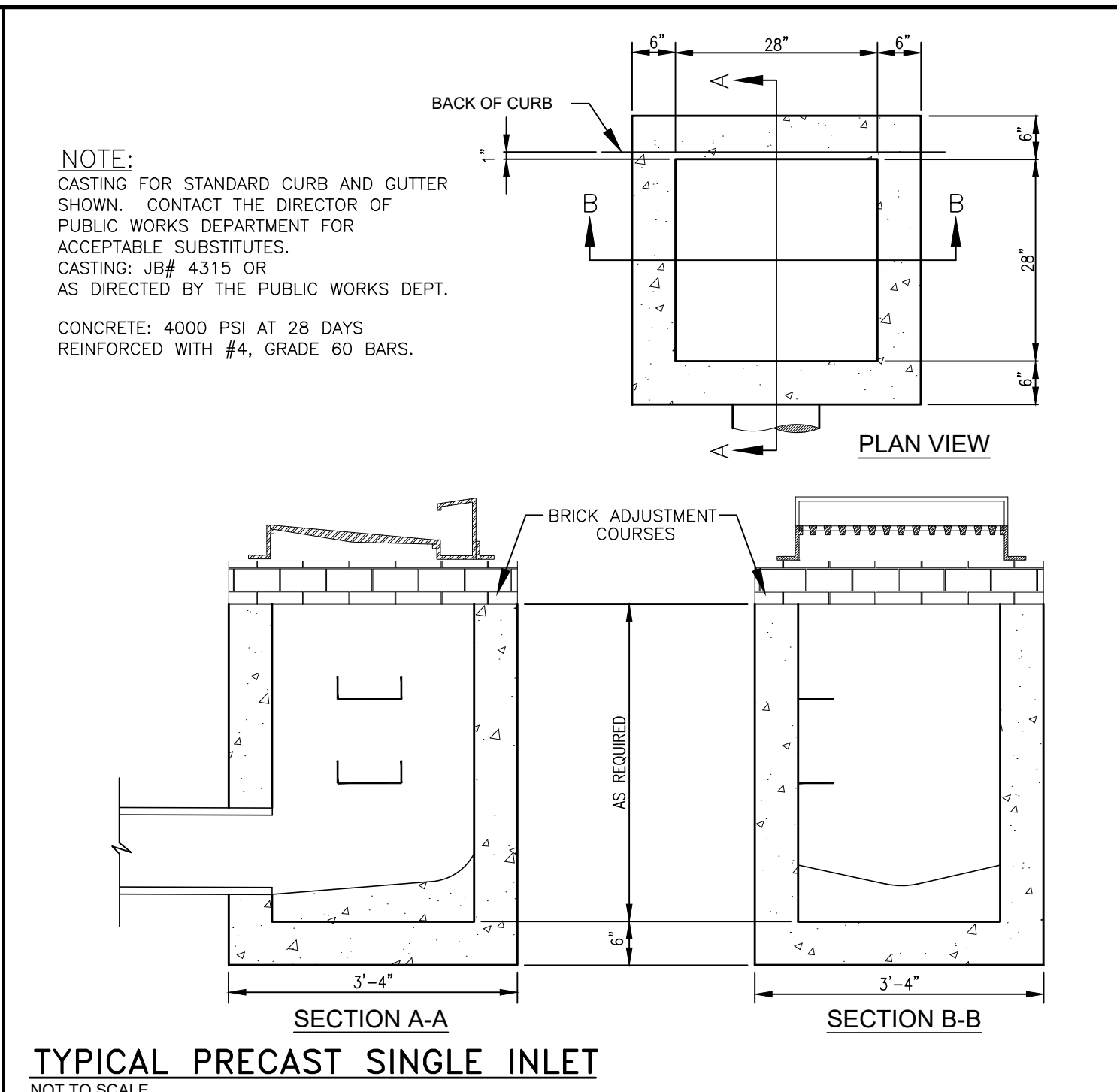
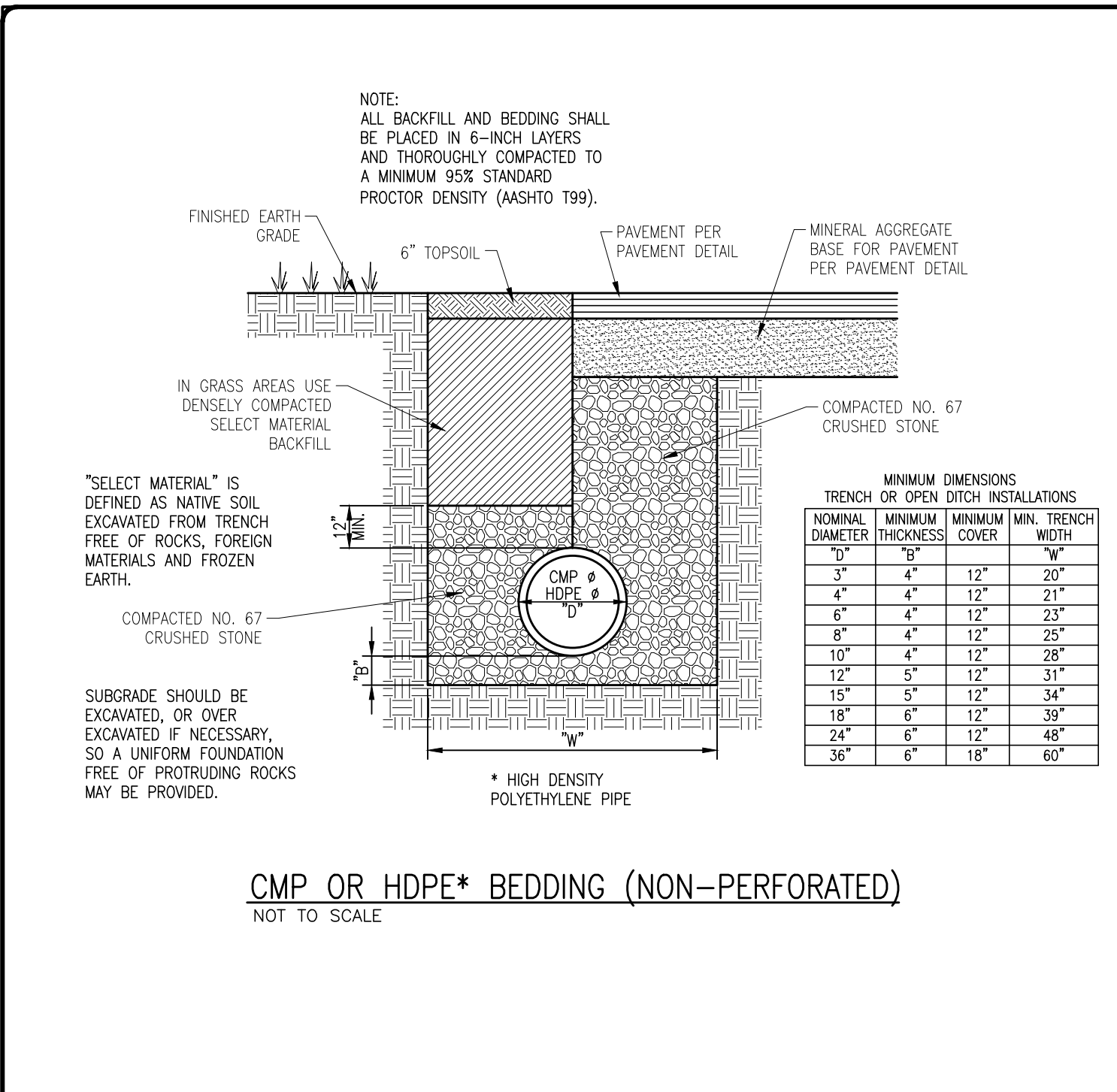
**HIGHWAY 12 & LITTLE MARROWBONE TOWNHOMES**  
 1807 HIGHWAY 12 SOUTH  
 ASHLAND CITY, TN  
 CHEATHAM COUNTY

DRAWN BY: JML  
 CHECKED BY: JML  
 PROJECT NO.: C01821

**CONSTRUCTION DETAILS**

SHEET NUMBER  
**C2.02**

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JOSHUA M. LYON, P.E. TN#112331

**NOT FOR CONSTRUCTION**

**HIGHWAY 12 & LITTLE MARROWBONE TOWNHOMES**

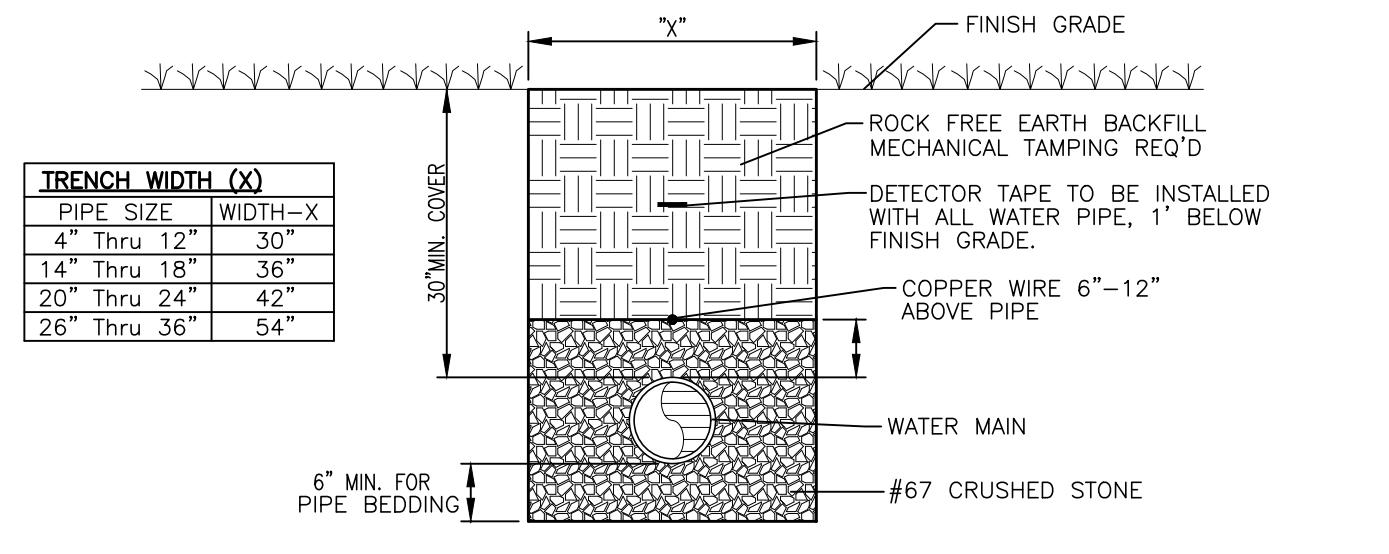
1807 HIGHWAY 12 SOUTH  
ASHLAND CITY, TN  
CHEATHAM COUNTY

DRAWN BY: JML  
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PROJECT NO.: C01821

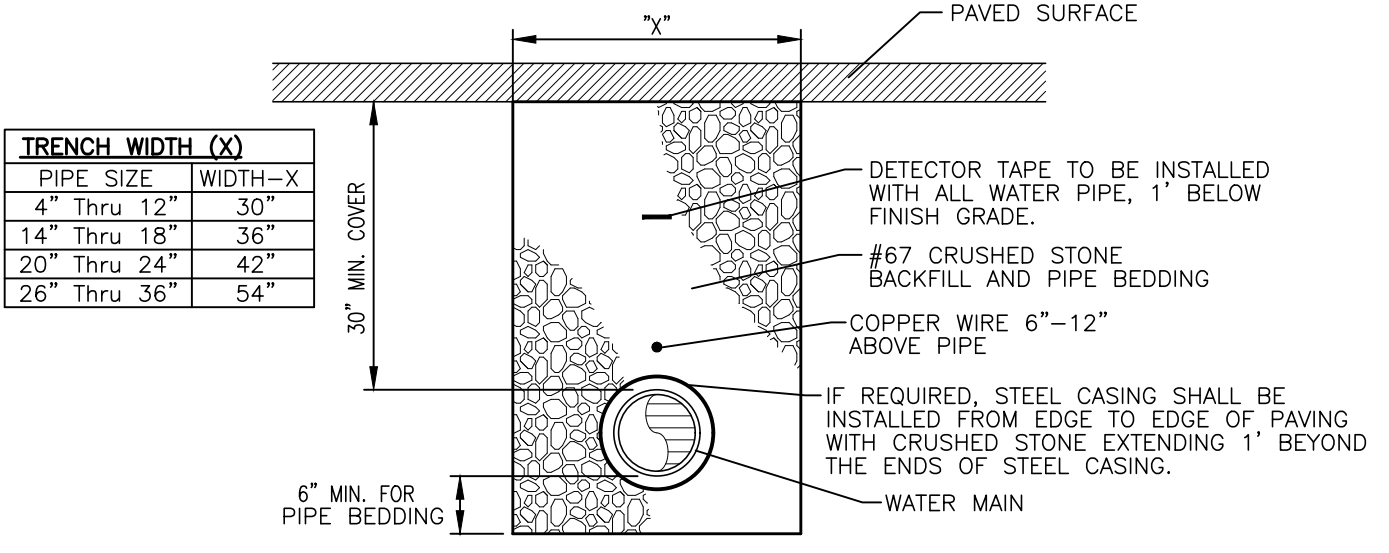
**CONSTRUCTION DETAILS**

SHEET NUMBER  
**C2.03**

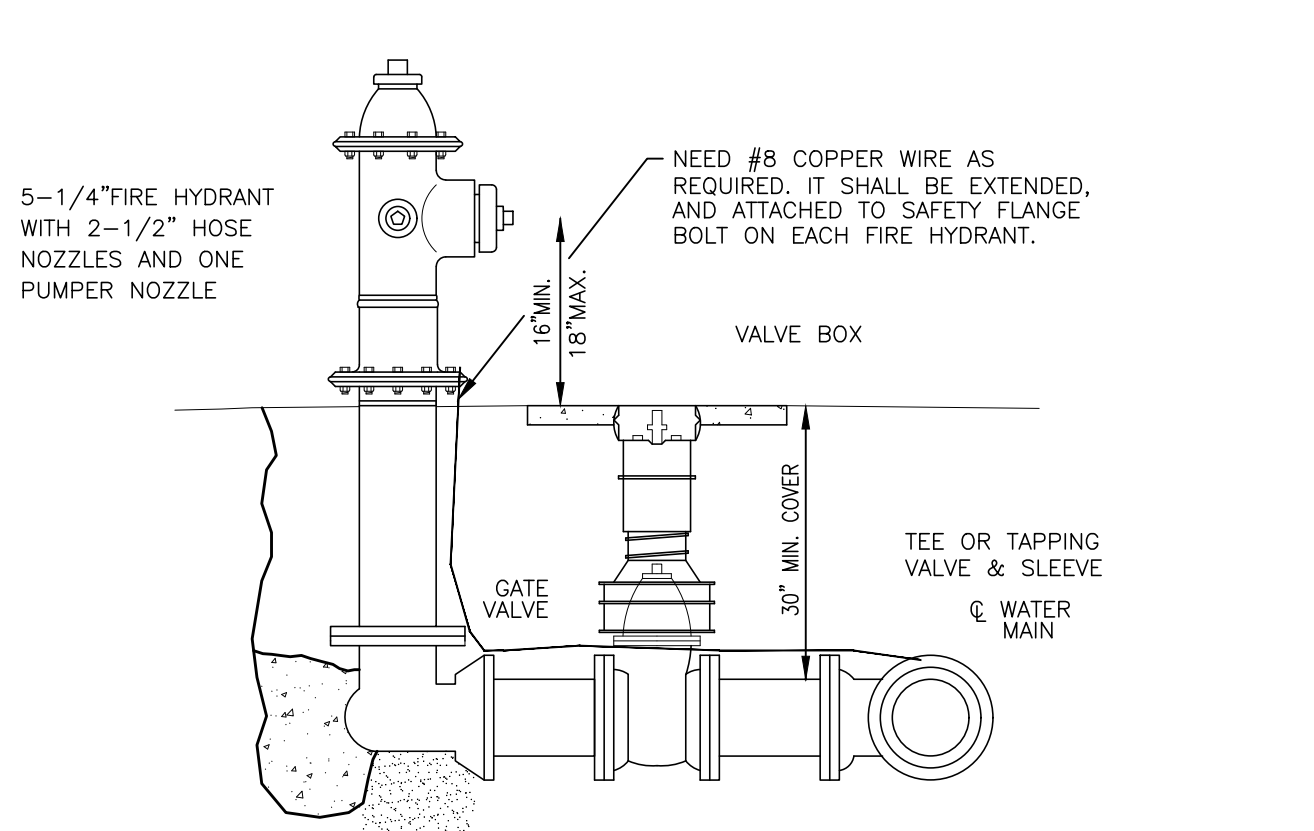
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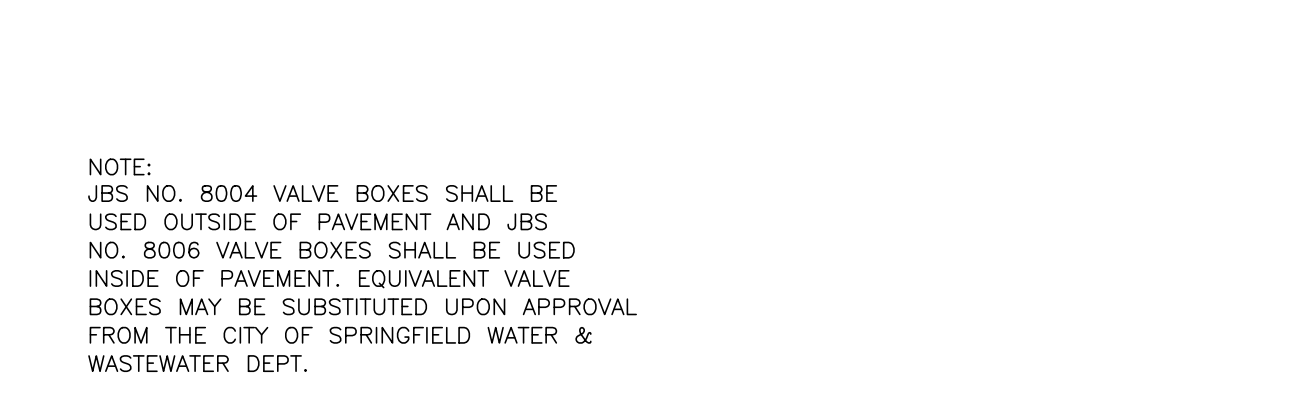
**TYPICAL BEDDING & BACKFILL OUTSIDE ROADWAY**  
NOT TO SCALE



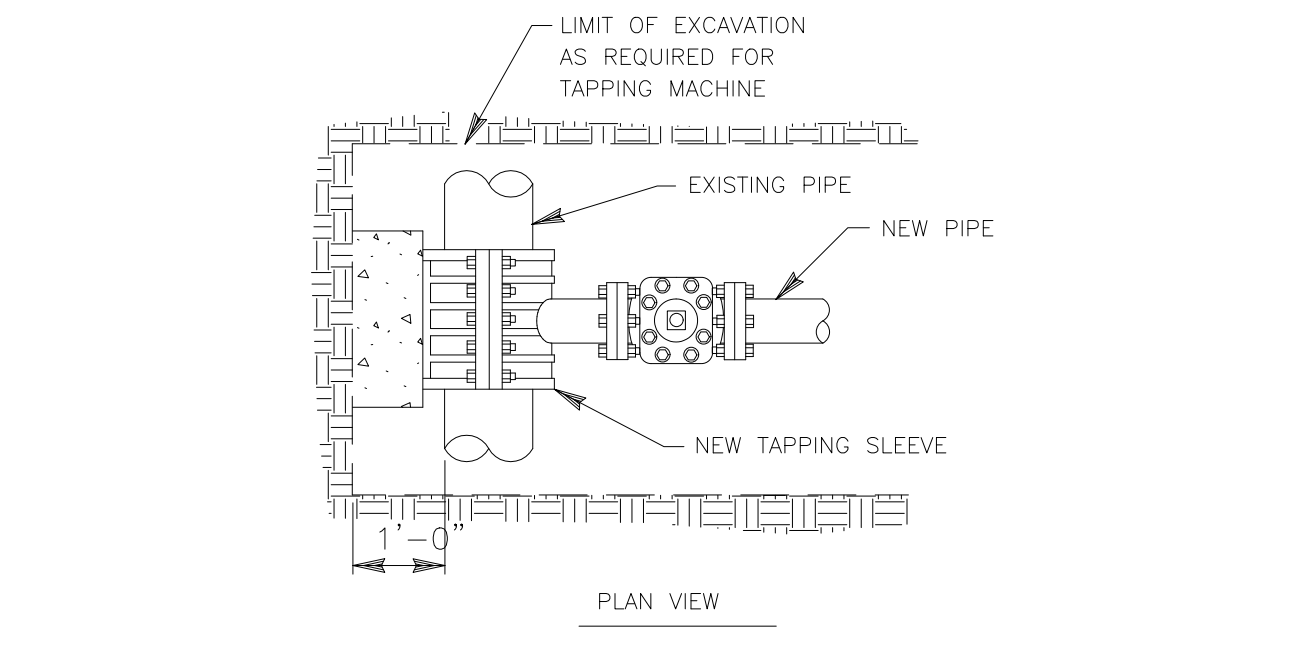
**TYPICAL BEDDING & BACKFILL IN ROADWAY**  
NOT TO SCALE



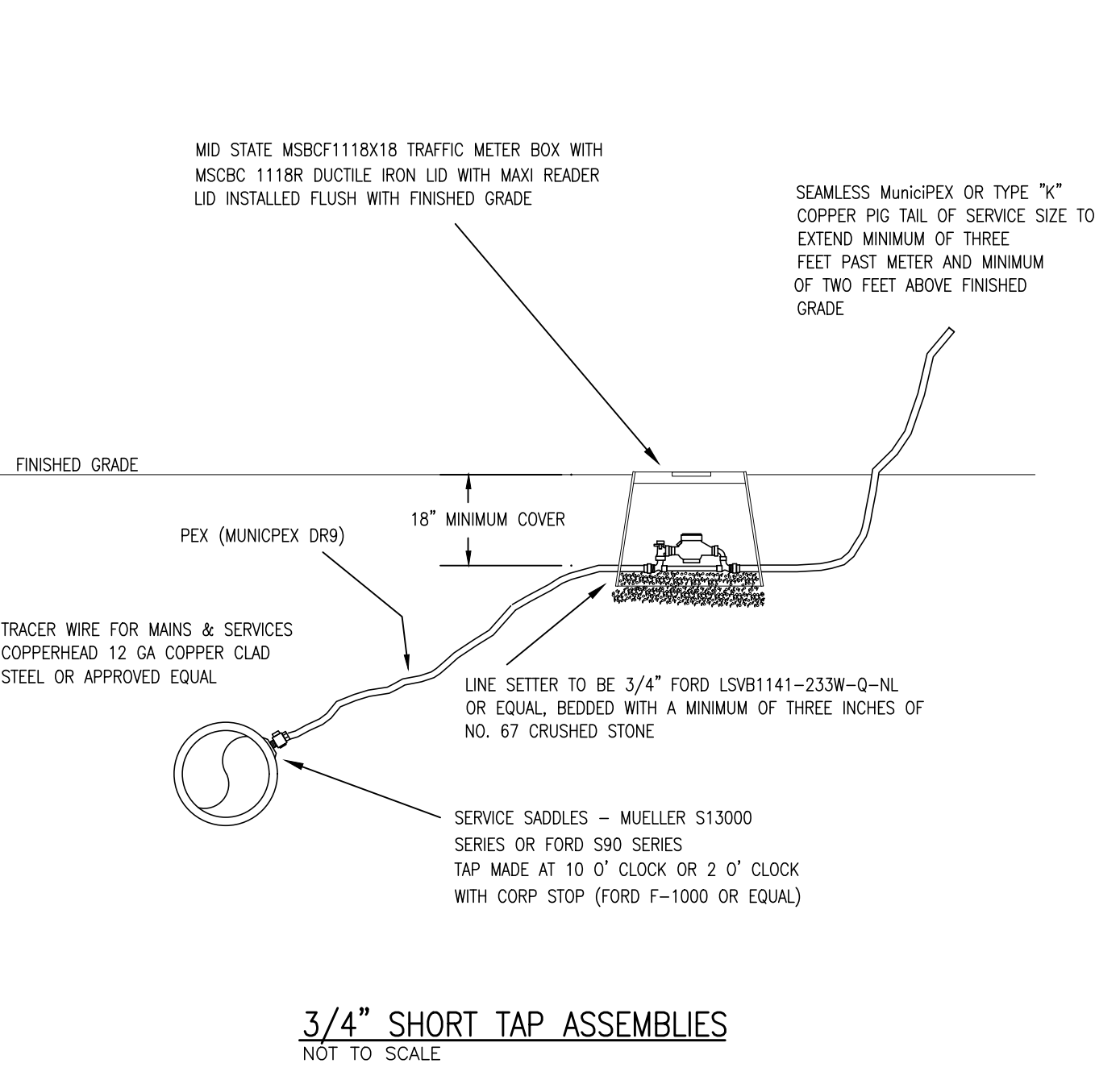
**TYPICAL FIRE HYDRANT**  
NOT TO SCALE



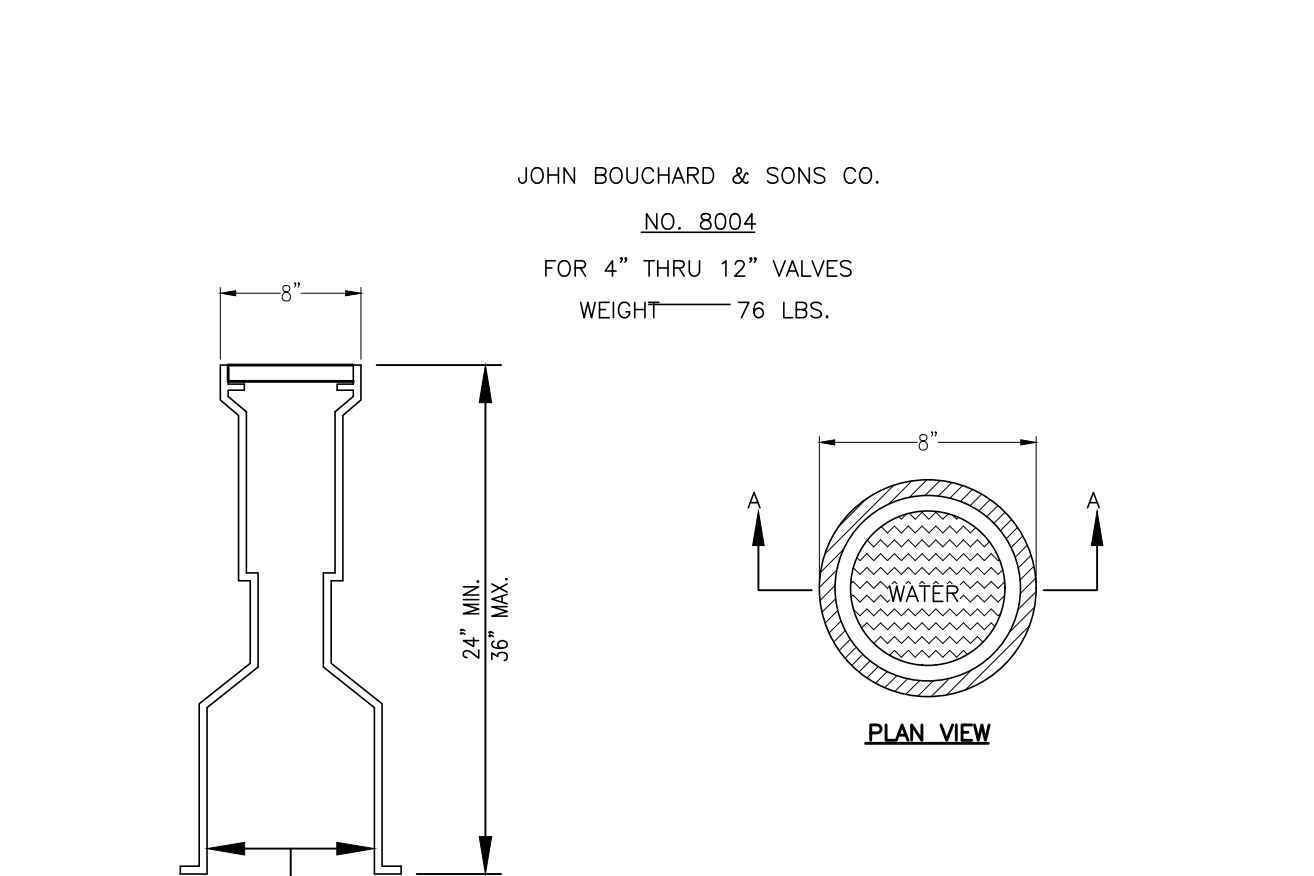
**TYPICAL GATE VALVE DETAIL**  
NOT TO SCALE



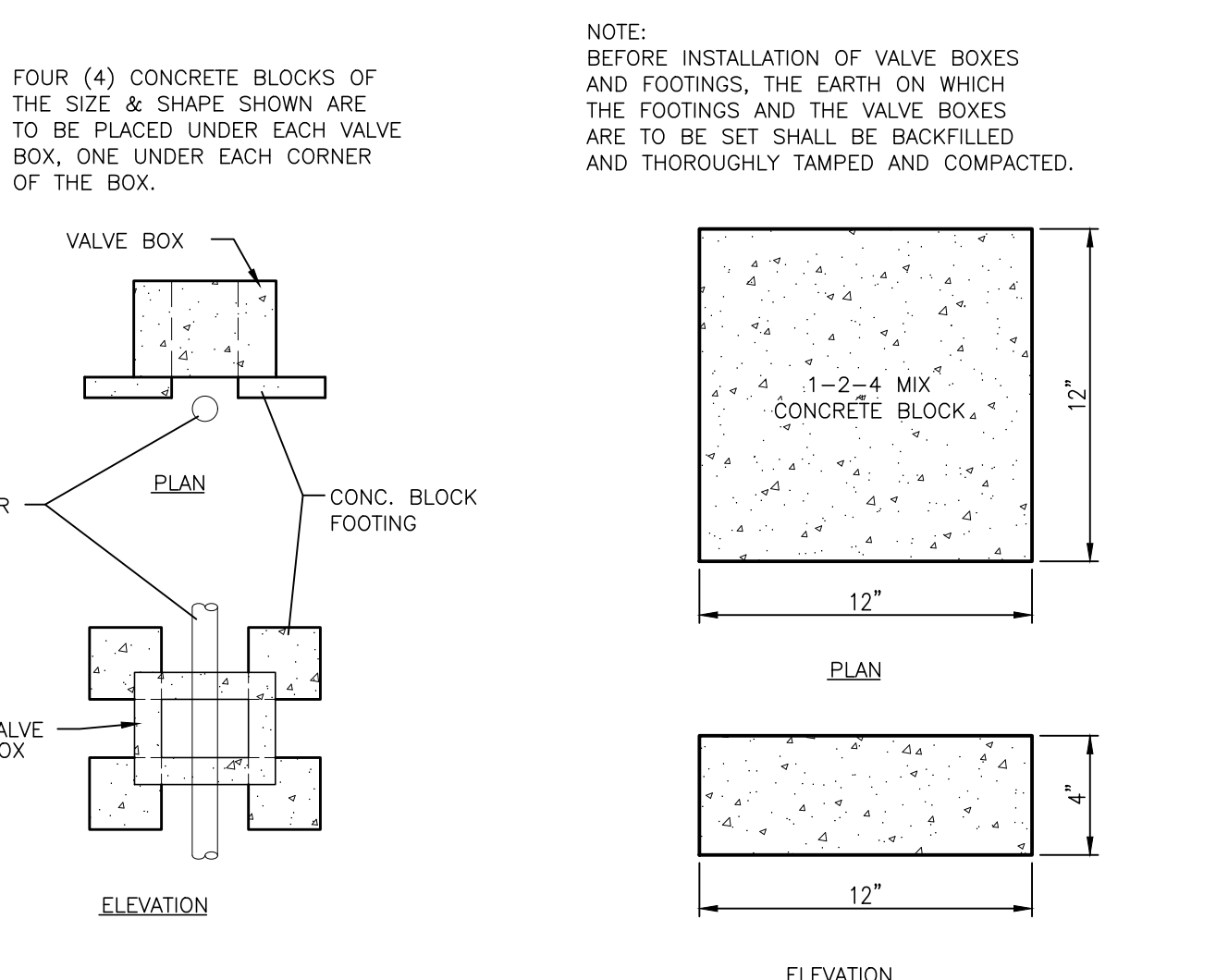
**TAPPING SLEEVE AND VALVE**  
NOT TO SCALE



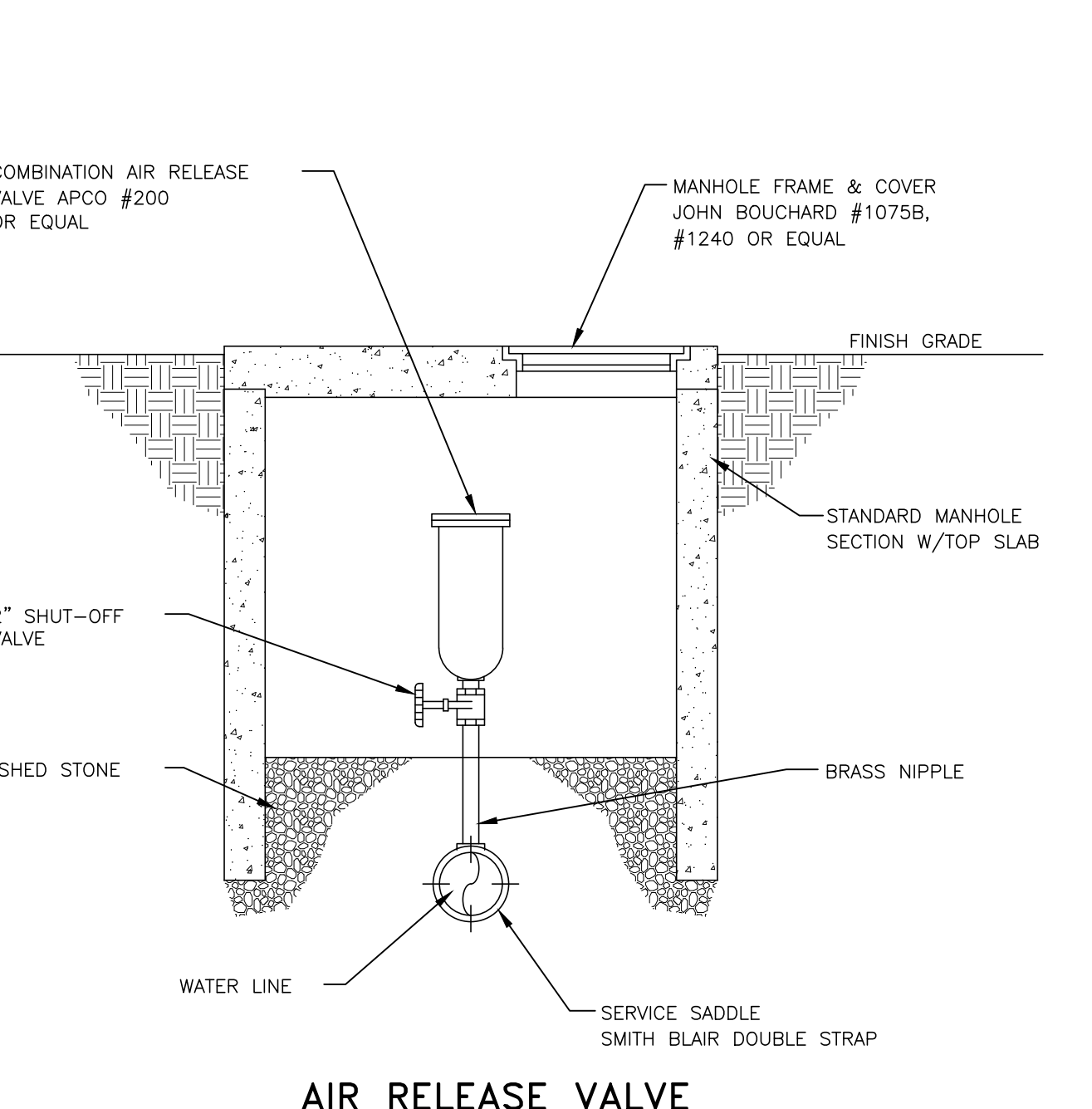
**3/4" SHORT TAP ASSEMBLIES**  
NOT TO SCALE



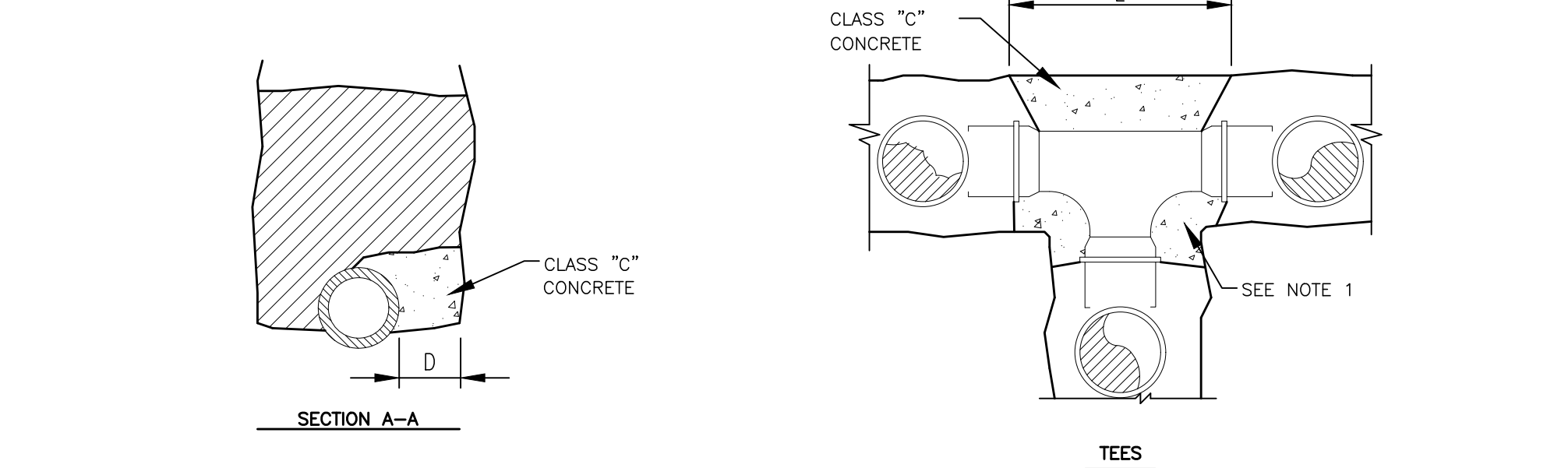
**TYPICAL VALVE BOX**  
NOT TO SCALE



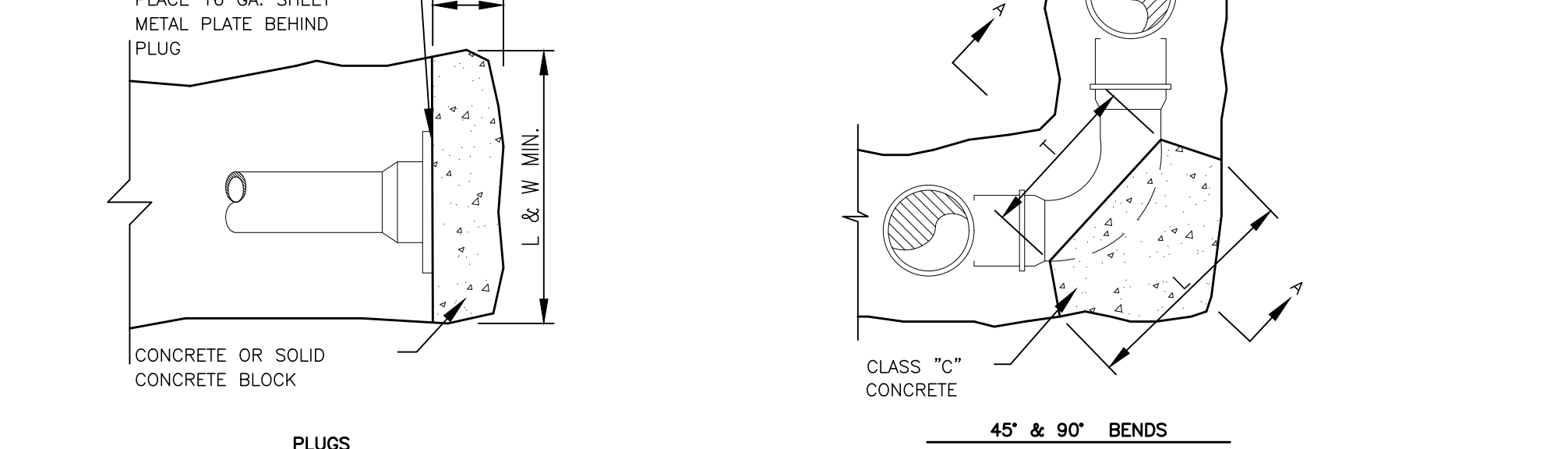
**CONCRETE VALVE BOX FOOTING FOR**  
NOT TO SCALE



**AIR RELEASE VALVE**  
NOT TO SCALE



**PLUGS & TEES**



**45° & 90° BENDS**

**NOTE 1:**  
RESTRAINED JOINTS REQUIRED: CONCRETE THRUST BLOCKS MAY BE USED IN ADDITION TO RESTRAINED JOINTS, PER 3.3.1 AND 3.3.2.

**NOTE 2:**  
FELT PAPER OR PLASTIC SHEET SHALL BE INSTALLED AROUND TEE BEFORE KICKER IS POURED TO PROTECT HARDWARE.

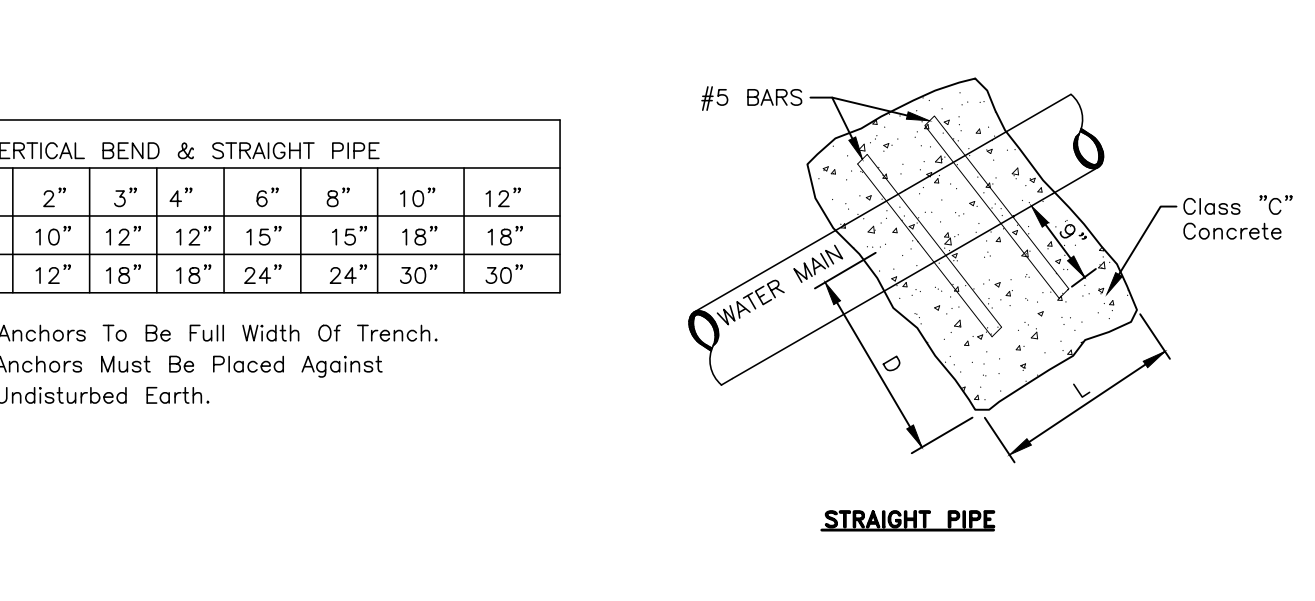
| PLUGS & TEES |     |     |     |     |     |     |     |
|--------------|-----|-----|-----|-----|-----|-----|-----|
| SIZE         | 2"  | 3"  | 4"  | 6"  | 8"  | 10" | 12" |
| D            | 6"  | 6"  | 6"  | 6"  | 6"  | 6"  | 6"  |
| L&W          | 14" | 16" | 18" | 20" | 22" | 24" | 24" |

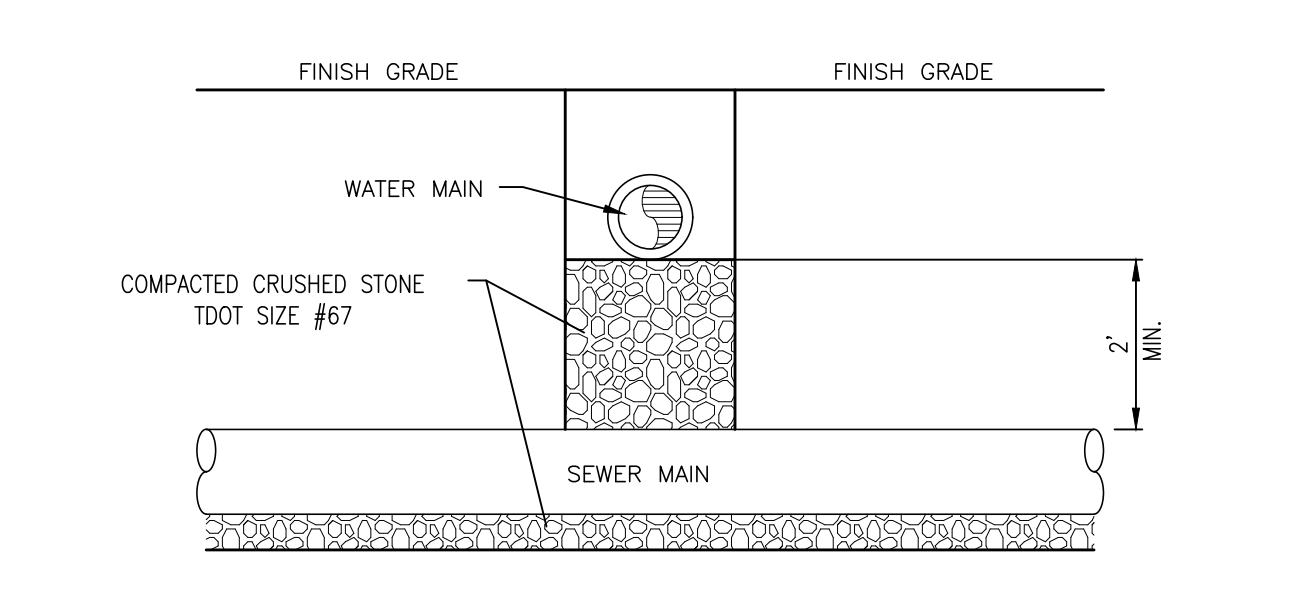
| °(45) EIGHTH BENDS |     |     |     |     |     |     |     |
|--------------------|-----|-----|-----|-----|-----|-----|-----|
| SIZE               | 2"  | 3"  | 4"  | 6"  | 8"  | 10" | 12" |
| D                  | 6"  | 6"  | 6"  | 6"  | 6"  | 6"  | 6"  |
| L                  | 12" | 14" | 16" | 18" | 20" | 22" | 24" |
| T                  | 10" | 12" | 14" | 16" | 16" | 18" | 18" |

| °(90) QUARTER BENDS |     |     |     |     |     |     |     |
|---------------------|-----|-----|-----|-----|-----|-----|-----|
| SIZE                | 2"  | 3"  | 4"  | 6"  | 8"  | 10" | 12" |
| D                   | 6"  | 6"  | 6"  | 6"  | 6"  | 6"  | 6"  |
| L                   | 15" | 18" | 21" | 24" | 27" | 30" | 34" |
| T                   | 10" | 12" | 14" | 16" | 18" | 20" | 22" |



**TYPICAL CONCRETE ANCHOR BLOCK**  
NOT TO SCALE



**TYPICAL UTILITY CROSSING**  
NOT TO SCALE

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**JOSHUA M. LYON, P.E.**  
Tennessee State Engineer  
No. 112331  
JOSHUA M. LYON, P.E. TN#112331

**NOT FOR CONSTRUCTION**

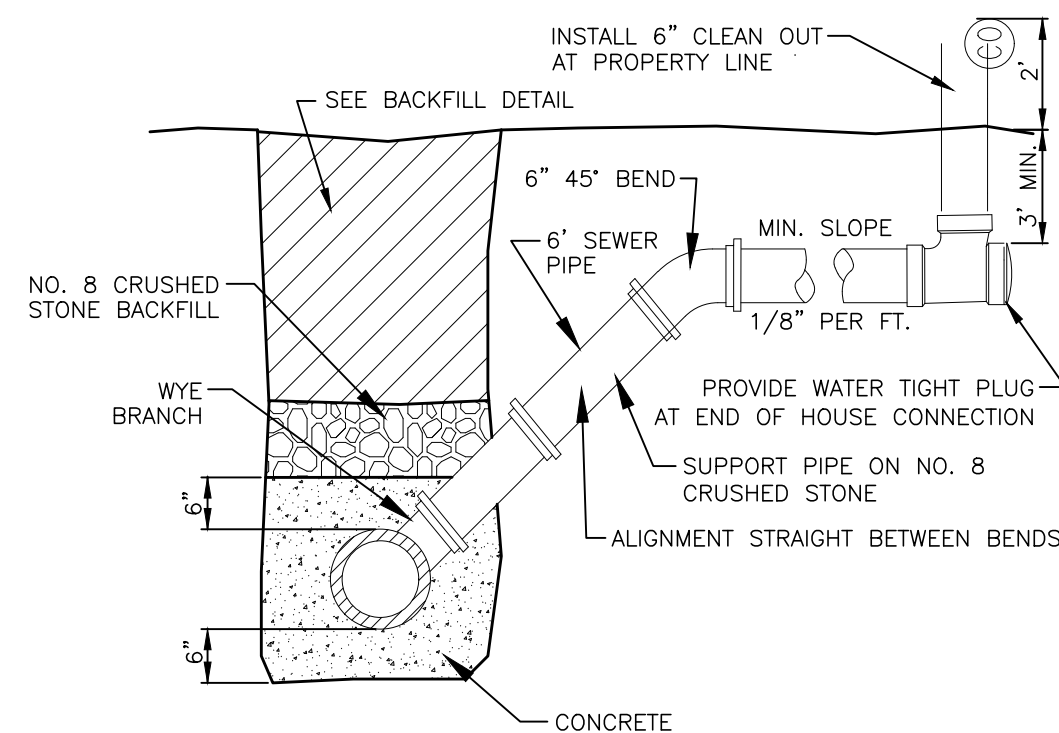
**HIGHWAY 12 & LITTLE MARROWBONE TOWNHOMES**

1807 HIGHWAY 12 SOUTH  
ASHLAND CITY, TN  
CHEATHAM COUNTY

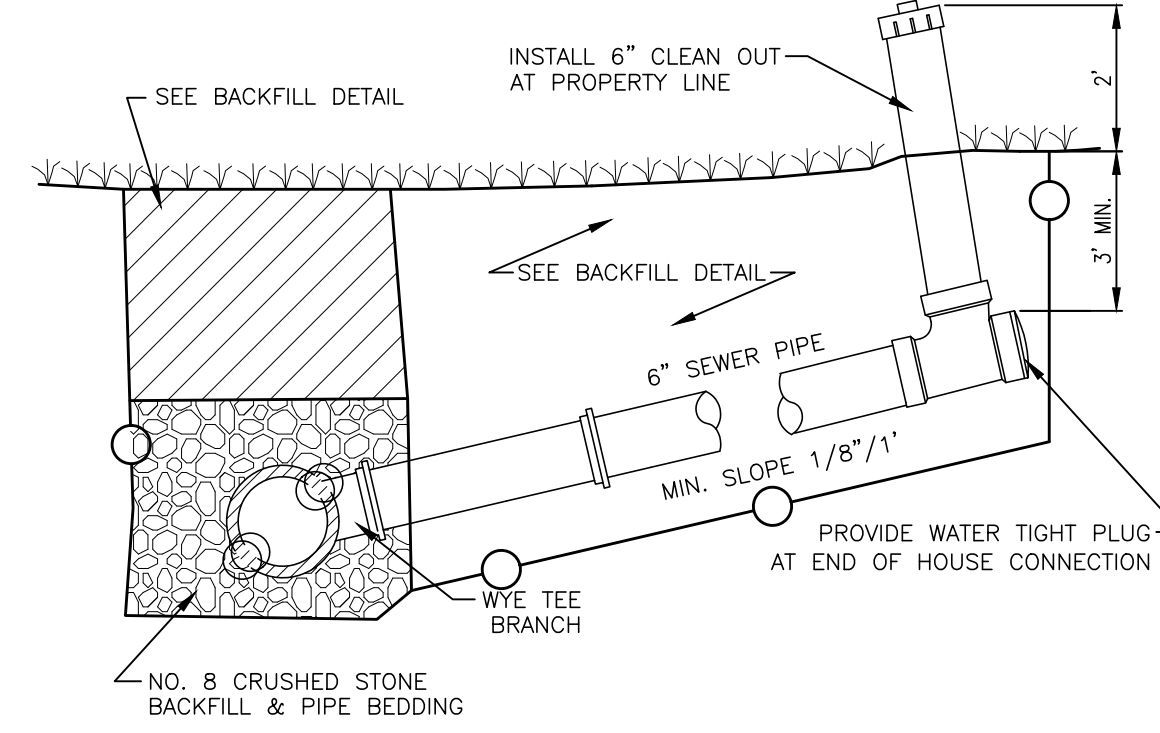
**CONSTRUCTION DETAILS**

SHEET NUMBER  
**C2.04**

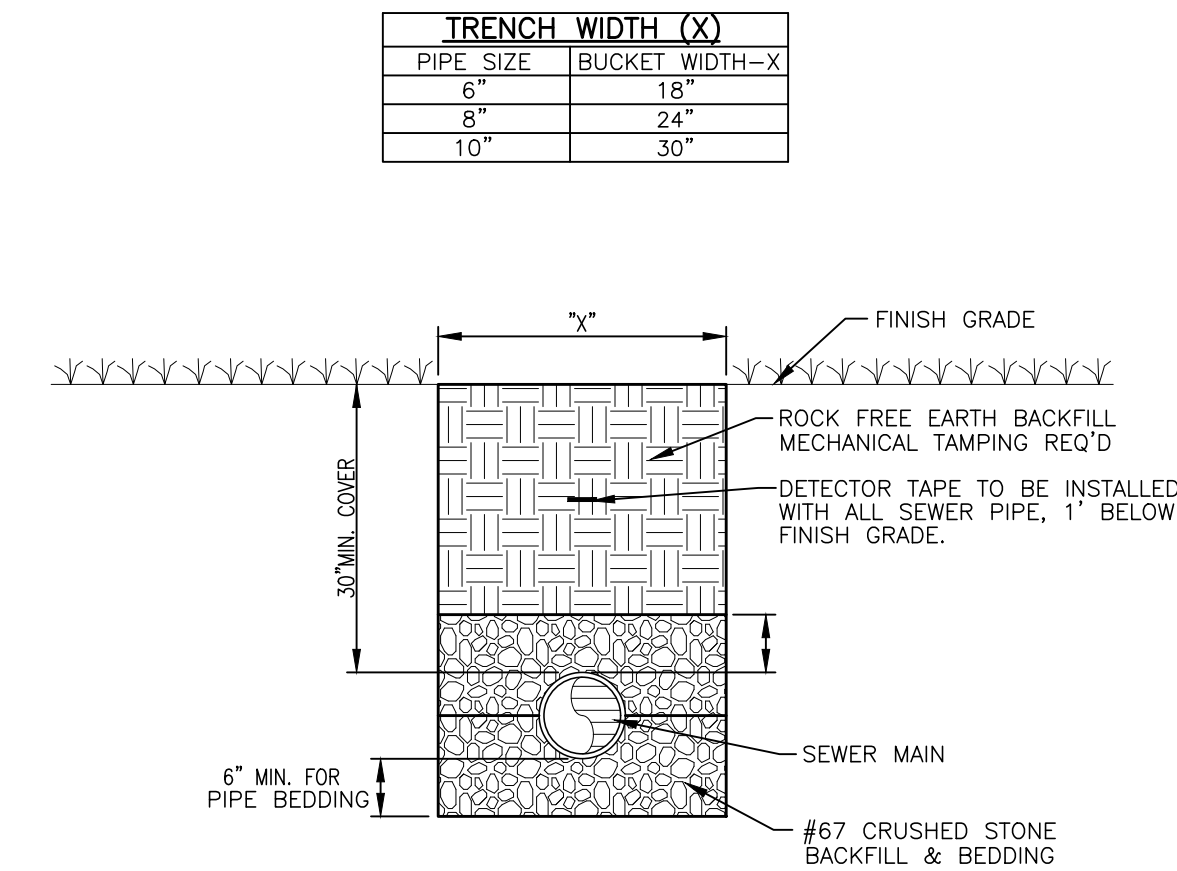
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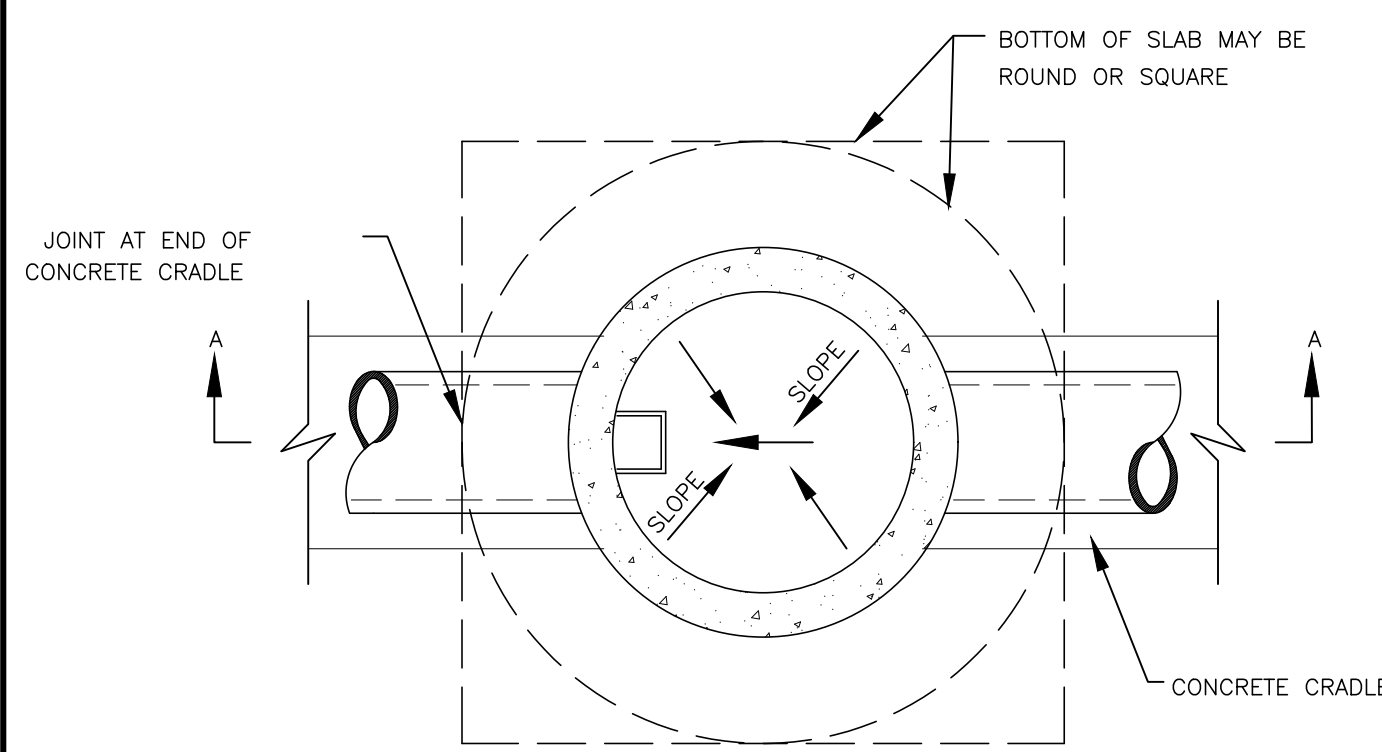
**TYPICAL SERVICE CONNECTION FOR DEEP SEWER CONNECTION**  
NOT TO SCALE



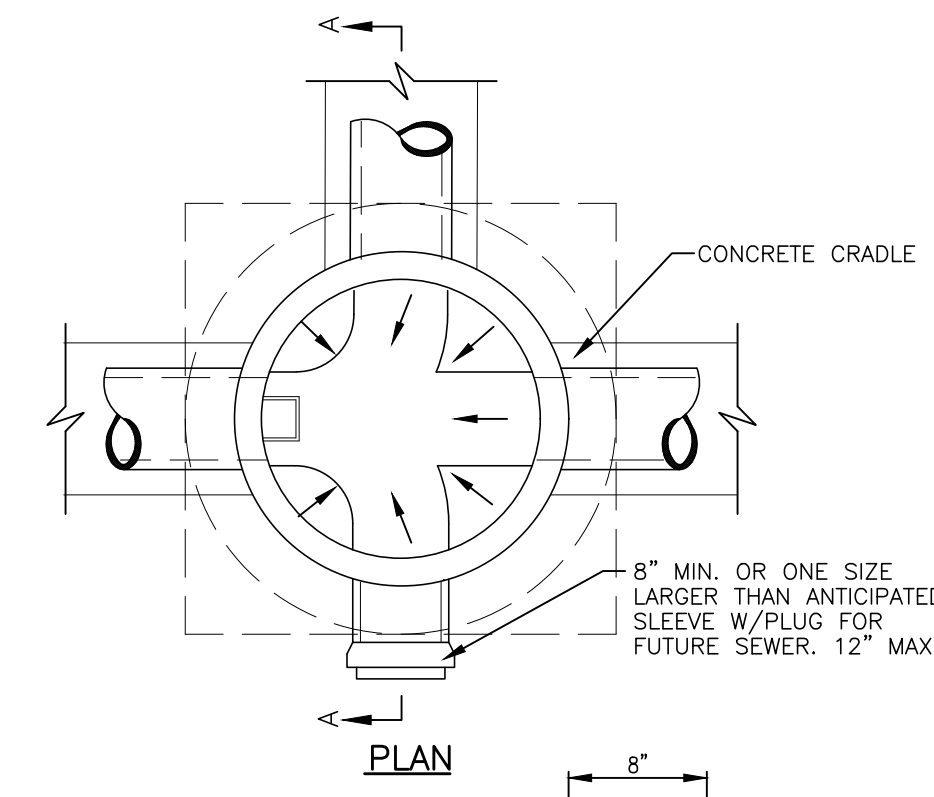
**TYPICAL SERVICE CONNECTION**  
NOT TO SCALE



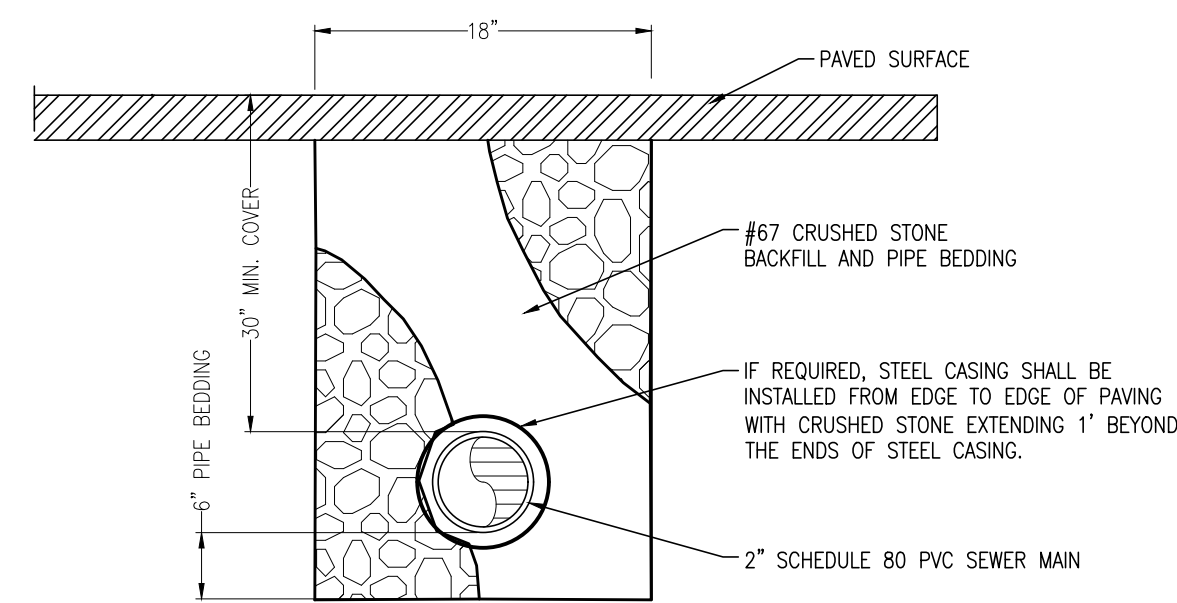
**TYPICAL BEDDING & BACKFILL OUTSIDE ROADWAY**  
NOT TO SCALE



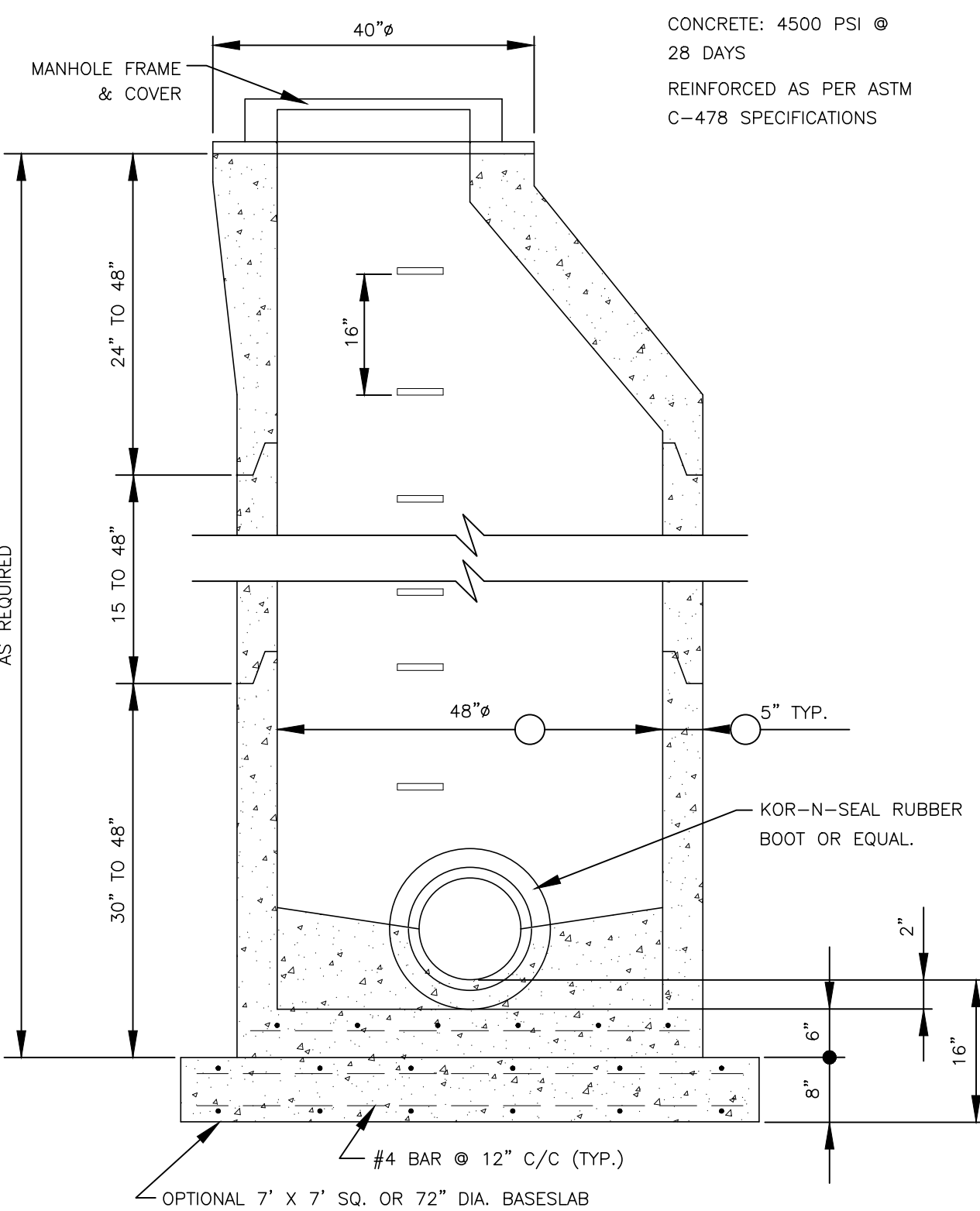
**PLAN VIEW**



**PLAN**

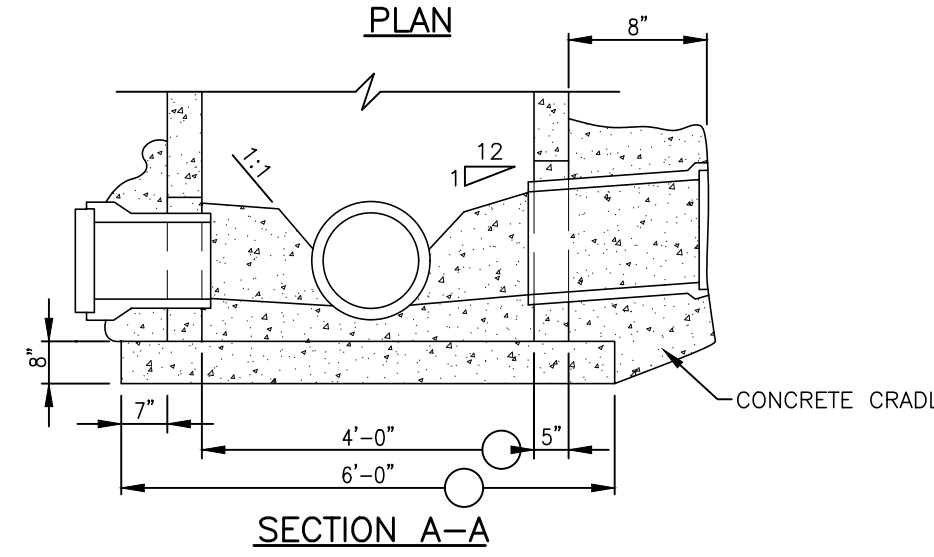


**TYPICAL BEDDING & BACKFILL IN ROADWAY**  
NOT TO SCALE



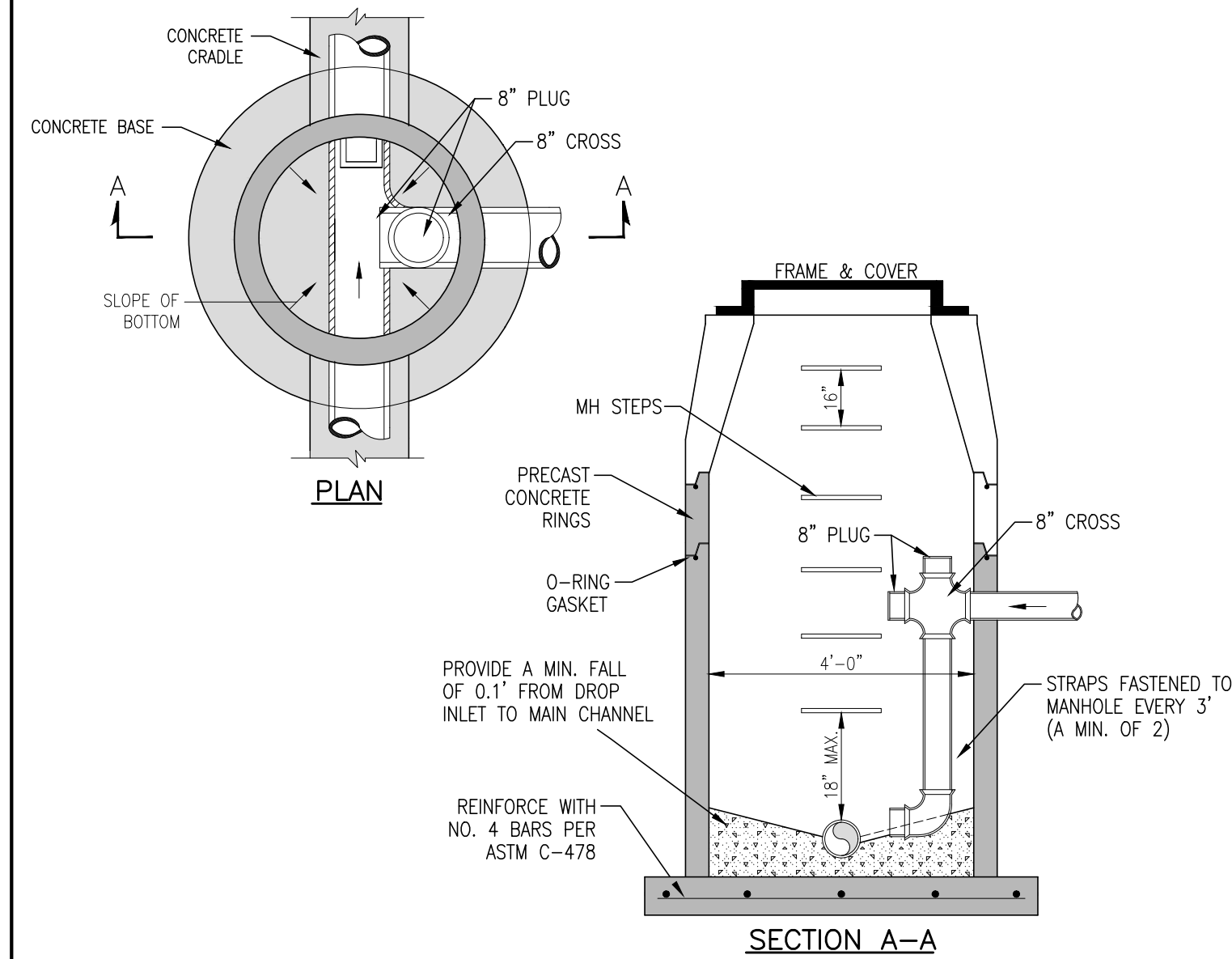
**SECTION A-A**

**TYPICAL 4' FLANGED BASE MANHOLE**  
NOT TO SCALE



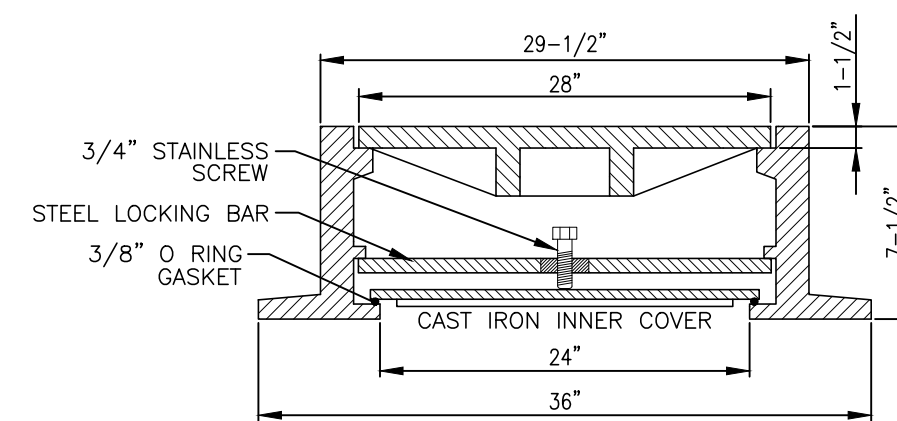
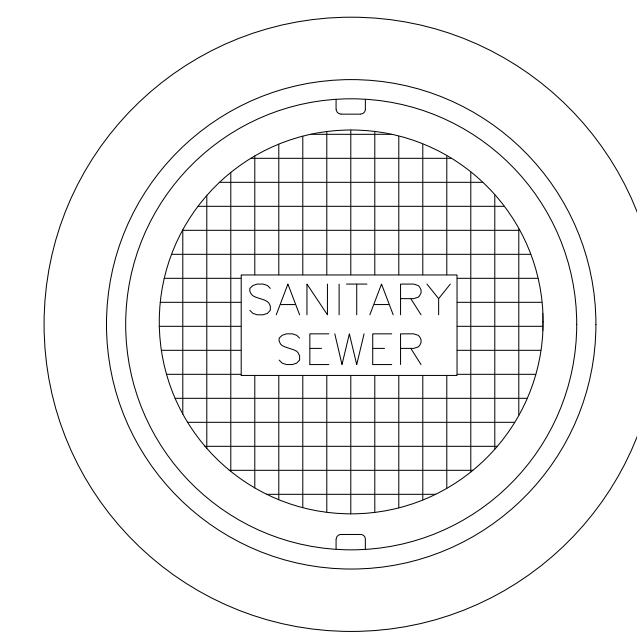
**SECTION A-A**

**STANDARD MANHOLE JUNCTION**  
NOT TO SCALE



**SECTION A-A**

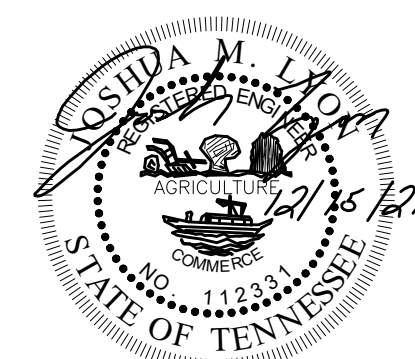
**TYPICAL INTERNAL DROP MANHOLE**  
NOT TO SCALE



**JOHN BOUCHARD NO. 1123**  
WATER TIGHT MANHOLE COVER  
WEIGHT - 535 LBS.

**MANHOLE COVER & FRAME**  
NOT TO SCALE

| NO. | BY | DATE | DESCRIPTION |
|-----|----|------|-------------|
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JOSHUA M. LYON, P.E. TN#112331

**NOT FOR CONSTRUCTION**

**HIGHWAY 12 & LITTLE MARROWBONE TOWNHOMES**  
1807 HIGHWAY 12 SOUTH  
ASHLAND CITY, TN  
CHEATHAM COUNTY

DRAWN BY: JML  
CHECKED BY: JML  
PROJECT NO.: C01821

**CONSTRUCTION DETAILS**

SHEET NUMBER  
**C2.05**

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