

## **9. STANDARD DETAILS**

### **SECTION III STANDARD DRAWINGS**

### **ROYSE CITY GENERAL CONSTRUCTION NOTES & DETAILS**

**City of Royse City Special Provisions to Section II**  
**Standard Drawings of the Standard Specifications for Public Works Constructing**  
**North Central Texas, 4<sup>th</sup> Edition, dated October 2004**  
**(City's Revisions - March 2012)**

**DIVISION 2000 - PAVEMENT SYSTEMS**

**Standard Drawing No. 2030** (Reinforced Concrete Pavement — 2- and 4-Lane Undivided Thoroughfare). Drawing shall be modified as follows:

1. Street crown height for forty-four (44) foot street is six (6) inches.

**Standard Drawing No. 2040** (Reinforced Concrete Pavement — Alleys). Drawing shall be modified as follows:

1. Royse City's alley width (W) is twelve (12) feet.
2. Alley right-of-way is seventeen (17) foot (C).
3. B = two and one half (2.5) feet.
4. Concrete to be 4000 psi concrete.
5. Alley invert is minimum of five (5) inches.
6. Alley thickness is 8" minimum for commercial areas & 6" minimum for residential areas.
7. Reinforcing steel is to be Grade 60.
8. Alley parkway is to be 2% maximum slope.

**Standard Drawing No. 2050** (Reinforced Concrete Pavement — Joints). Drawing shall be modified as follows:

1. Construction joint dowel bars to be twelve (12) inches on center.
2. Delete note re: Alternate reinforcement - No. 4 bars on 30" centers both ways.

**Standard Drawing No. 2070** (Reinforced Concrete Pavement — Joints). Drawing shall be modified as follows:

1. The railroad header is to have a two (2) inch notch into the concrete pavement for the installation of a HMAC overlay. The concrete under the HMAC is to be the full street thickness. The notch should start at the end of the pavement and go twenty (20) feet up the road away from the crossing.

**Standard Drawing No. 2090** (Hot Mix Asphaltic Concrete Pavement — Six Lane Divided Thoroughfare)

1. Delete this detail.

**Standard Drawing No. 2100** (Hot Mix Asphaltic Concrete Pavement — Four Lane Divided Thoroughfare)

1. Delete this detail.

**Standard Drawing No. 2110** (Hot Mix Asphaltic Concrete Pavement — 2 and 4 Lane Undivided Thoroughfare)

1. Delete this detail.

**Standard Drawing No. 2125A & 2125B** (Curb Ramps)

1. Curb Ramps Shall be provided at all street intersections and sidewalk alley crossings.
2. Curb ramps shall meet current ADA and Texas Accessibility Standards for slope and detectable surfaces.

**Standard Drawing No. 2130** (Median Island Pavement- Nose and Left Turn Lane)

1. Left turn lanes shall have mower access ramp.
2. Median nose to have payers installed over four (4) inch 3600 psi monolithic reinforced concrete base with a maximum of one (1) inch bedding sand.
3. Street light pole bases in median are to have a thirty-six (36) inch by thirty-six (36) inch, four (4) inch thick 3000 psi reinforced concrete mow strip.

**Standard Drawing Nos. 2150A and 2150B** (Driveway Approach)

1. Maximum slope of Driveway through sidewalk crossing shall not exceed 2.0%

**Standard Drawing No. 2160** (Alley Approach). Drawing shall be modified as follows:

1. Royse City's alley width (W) is twelve (12) feet.
2. Alley right-of-way is seventeen (17) feet (C).
3. Transition length is ten (10) feet instead of twenty (20) feet.
4. B = two and one half (2.5) feet.

**Standard Drawing No. 2170** (Reinforced Concrete Sidewalk). Drawing shall be modified as follows:

1. Minimum 1½" compacted sand cushion.
2. No sidewalk adjacent to curb without City approval. Sidewalk against curb is five (5) feet wide.

**Standard Drawing No. 2190** (Pavement Systems). Drawing shall be modified as follows:

1. Number 2, Subgrade - replace A with revised A. Revise A. to read: Subgrade under all pavements shall be stabilized to a minimum depth of six inches (6") with hydrated lime or cement. Laboratory tests shall be performed to determine the amount of lime or cement to be used.
2. Number 2, Subgrade, delete B.
3. Delete Number 3.

**Standard Drawing Nos. 2220, 2230, 2240, 2250** (Alley Geometries). Drawing shall be modified as follows:

1. Royse City's alley width ( $W$ ) is twelve (12) feet.
2. Alley right-of-way is seventeen (17) feet ( $C$ ).
3.  $A$  = six (6) feet.
4.  $B$  = two and one half (2.5) feet.

## **DIVISION 3000 GENERAL UNDERGROUND CONDUIT**

**Standard Drawing No. 3010** (Embedment — Class “A” and “A-1”). Drawing shall be modified as follows:

1. Material to be compacted to 95% of Standard Proctor.
2. Class “A-1” Embedment - crushed stone  $\frac{3}{4}$  Bc.
3. Material above crushed stone is to be non-granular compacted material.

**Standard Drawing No. 3020** (Embedment — Class “B”, “B+”, “B-1 “). Drawing shall be modified as follows:

1. No granular material above rock or stone embedment.
2. Class “B” Embedment to be used for RCP storm sewer pipe.
3. Class “B” and “B-1” — Select non-granular material to be compacted to 95% Standard Proctor. Select non-granular material above embedment.
4. Class “B+” — Non-granular material to be compacted to 95% Std. Proctor.

**Standard Drawing No. 3030** (Embedment — Class “B-2”, “B-3” and “B-4”). Drawing shall be modified as follows:

1. No granular material above rock or stone embedment.
2. Class “B-3” Embedment to be used for PVC water pipe.
3. Class “B-2” — Delete compacted select or granular material above crushed stone and replace with crushed stone - fine gradation.
4. Modified Class “B-2” Embedment to be used for PVC sanitary sewer pipe.
5. Class “B-3” and “B-4” — Compact sand to 95% Std. Proctor.

**Standard Drawing No. 3040** (Embedment — Class “C”, “C+”, and “C-1 “). Drawing shall be modified as follows:

1. No granular material above rock or stone embedment.
2. Class “C” and “C+” — Compact select non-granular material to 95% Std. Proctor.
3. Class “C-1” — Compact granular material to 95% Std. Proctor.

**Standard Drawing No. 3050** (Embedment — Class “C-2” and “D+”). Drawing shall be modified as follows:

1. Compact sand and select material to 95% Std. Proctor.

**Standard Drawing No. 3080** (Embedment — Class “C-2” and “D+”). Drawing shall be modified as follows:

1. Delete this detail.

## **DIVISION 4000 WATER DISTRIBUTION**

**Standard Drawing No. 4050** (Gate Valve 4" to 12" - Box and Extension Stem). Drawing shall be modified as follows:

1. Extension Stem to be two (2) feet below pavement surface, instead of one (1) foot.

**Standard Drawing No. 4060A, 4060B, 4070A and 4070B** (Vault Construction – Gate Valve 16" or Greater). Drawing shall be modified as follows:

1. Delete these details.
2. No gate valves on water lines sixteen (16) inches and larger, only butterfly valves.

**Standard Drawing No. 4090** (Air Release Valve - Type "1"). Drawing shall be modified as follows:

1. Use SDR 9, no copper.
2. One (1) inch pipe, use CC thread.
3. Greater than one (1) inch pipe, use iron pipe thread.

**Standard Drawing No. 4110** (Flush Point Installation - Type "1"). Drawing shall be modified as follows:

1. Service pipe to be SDR 9 (no copper).

**Standard Drawing No. 4120** (Fire Hydrant Installation). Drawing shall be modified as follows:

1. All joints are to be restrained. Mega-lug or approved equal.

**Standard Drawing No. 4130** (Water Service Installation  $\frac{3}{4}$ " or 1" Line). Drawing shall be modified as follows:

1. Service line shall be 1" I.D. C.T.S. Poly Tube SDR-9.
2. Tapping saddle shall be Clow F-6350 or approved equal.
3. Corporation stop shall be 1" Mueller Corporation Stop No. H-15008 or Hays equal.
4. 1" angle meter stop (meter nut x compression) shall be Mueller No. H-14253 with Mueller H-10889 or Hays equal.
5. Meter box shall be two (2) feet from back of curb or as directed by the City.
6. Meter boxes to be minimum Carson 1220, 12" x 20" Heavy Duty Plastic, with Meter lid or equivalent.
7. Blue EMS disk shall be set at main line.
8. No C.F. Corporation stops.
9. See City detail for Service Meter Tail Connection.

**Standard Drawing No. 4140** (Water Service Installation 1½" or 2" line). Drawing shall be modified as follows:

1. Service line shall be 2" I.D. C.T.S. poly tube SDR-9. No 1½" services.
2. Tapping saddle shall be Clow F-6350 or approved equal.
3. Corporation stop shall be 2" Mueller Corporation Stop No. H-15008 or Hays equal.
4. Angle stop (compression x 2 bolt meter flange).
5. Meter box shall be two feet, six-inches (2' - 6") from back of curb or as directed by the City.
6. Meter boxes to be minimum Carson 1220, 12" x 20" Heavy Duty Plastic, with Meter lid or equivalent. (Note: May be required to be larger as determined by Water Department to allow full service access to meter.)
7. Blue EMS disk shall be set at main line.
8. See City detail for Service Meter Tail Connection.

**Standard Drawing No. 4150** (4" Combined Service with 4" Meter). Drawing shall be modified as follows:

1. Install strainer between coupling adapter and meter.
2. Install testable double check valve after four (4) inch blind flange.

**Standard Drawing No. 4160** (8" Detector Check — Service with 8" Meter). Drawing shall be modified as follows:

1. Install gate valves each side of check valve.
2. Install double check valve after 8" x 12" nipple.
3. Install strainer between coupling adapter and meter.

**Standard Drawing No. 4170** (8" Fire Line Standpipe — Service with 8" Meter). Drawing shall be modified as follows:

1. Install gate valve before eight (8) inch coupling adapter.
2. Install double check valve after eight (8) inch blind flange.

**Standard Drawing No. 4180** (4" Domestic Service with 3" Meter). Drawing shall be modified as follows:

1. Strainer shall be installed after reducer coupling adapter.
2. Double check valve shall be installed after 4" x 3" reducer.
3. Ductile iron should be used for all material.

**Standard Drawing No. 4190A** (Large Service Meter Vault Installation). Drawing shall be modified as follows:

1. Gate valves shall be installed on each side of meter.
2. Strainer shall be installed before meter.
3. Double check valve shall be installed after meter.
4. Install by-pass line with valve.

**Standard Drawing No. 4200** (Water Main Lowering Below Wastewater Main). Drawing shall be modified as follows:

1. The concrete encasement shall encase entire wastewater main.
2. Deflect water line when possible.

## **DIVISION 5000 WASTEWATER COLLECTION**

**Standard Drawing No. 5010** (Wastewater Main Tie-In at Cleanout or M.H. Stubout). Drawing shall be modified as follows:

1. "C — T" pipe adapter shall be non-shear.

**Standard Drawing Nos. 5020, 5030, 5050, 5060 and 5080** (Wastewater Manholes). Drawing shall be modified as follows:

1. Install green EMS disks at all manholes.

**Standard Drawing No. 5020** (Wastewater Manhole — Pre-cast). Drawing shall be modified as follows:

1. Lip to be pre-cast.

**Standard Drawing No. 5040** (Wastewater Manhole — Fiberglass). Drawing shall be modified as follows:

1. Delete this detail.

**Standard Drawing No. 5070** (Wastewater Manhole — Outside Drop Connection). Drawing shall be modified as follows:

1. Delete this detail.

**Standard Drawing No. 5110** (Wastewater Main- Cleanout). Drawing shall be modified as follows:

1. PVC pipe only. No clay pipe.

**Standard Drawing No. 5120** (Wastewater Laterals With and Without Cleanout). Drawing shall be modified as follows:

1. Replace with City Detail.
2. Green EMS disk shall be installed at cleanout or end of lateral.
3. Cleanout shall be cast iron sewer cleanout, Type Trinity Valley, Pattern 1684 or approved equal.
4. If cleanout is installed in roadway or parking area then traffic cleanout shall be designed to handle traffic loads.

**Standard Drawing No. 5130** (Wastewater Laterals- In Earth and In Rock). Drawing shall be modified as follows:

1. Delete this detail.

**Standard Drawing No. 5150** (Wastewater Lateral Stub Out in Advance of Paving). Drawing shall be modified as follows:

1. Install green EMS disk at end of lateral.

**Standard Drawing No. 5160** (Wastewater Lateral Replacement in Advance of Paving). Drawing shall be modified as follows:

1. Install green EMS disk at property line.
2. Wyes only, no tees.

## **DIVISION 6000 STORMWATER DRAINAGE**

**Note:** Storm sewer headwalls, wingwalls, box culverts and safety pipe runners shall be per Texas Department of Transportation Standard Details and made part of the City of Royse City Standard Details.

**Standard Drawing Nos. 6010A through 6070.** Drawings shall be modified as follows:

1. All concrete for structures shall be Class F (4200 psi, minimum 6.5 sack cement).
2. No fly ash is allowed in concrete for structures.

**Standard Drawing No. 6020B** (Curb Inlet- Cross Section and Inlet Throat). Drawing shall be modified as follows:

1. Throat to be two and one-half (2½) feet from back of curb.
2. Gutter depression to be six (6) inches.

**Standard Drawing No. 6020C** (Curb Inlet- Rebar and M.H. Frame and Cover). Drawing shall be modified as follows:

1. Inlet lid to be locking.

**Standard Drawing No. 6030C** (Curb Inlet Recessed — Inlet Throat and M.H. Frame and Cover). Drawing shall be modified as follows:

1. Recessed inlet back of curb distance to be three (3) feet from street back of curb (not two (2) feet).
2. Gutter depression to be six (6) inches.
3. Inlet lid to be locking.

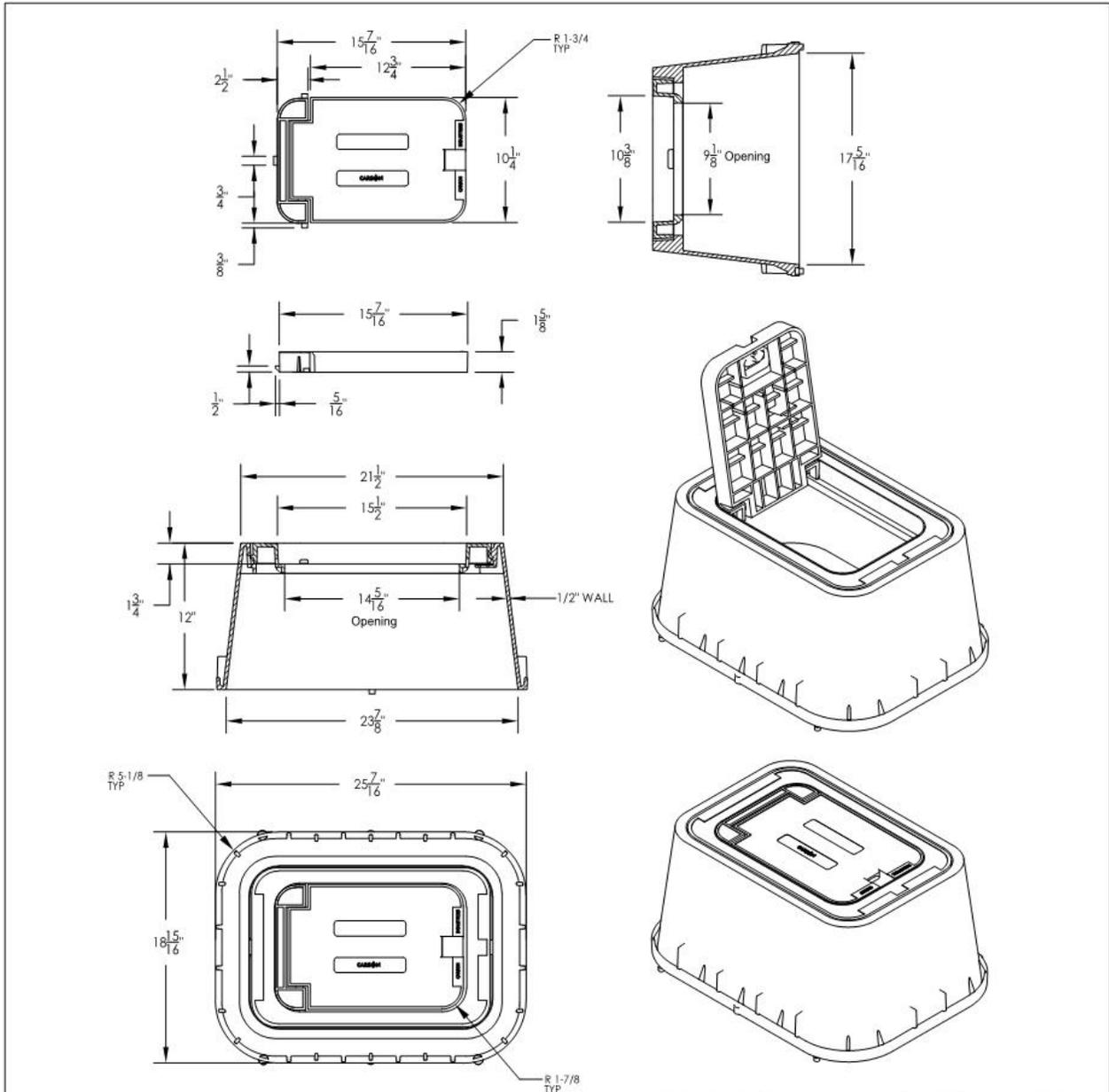
**Standard Drawing No. 6030D** (Curb Inlet Recessed - General Notes). Drawing shall be modified as follows:

1. All backfill shall be compacted to 95% Standard Proctor density.

**City of Royse City Special Provisions to Section II  
Standard Drawings of the Standard Specifications for Public Works Constructing  
North Central Texas, Third Edition, dated 1998  
(City's Revisions- August 2003)**

# **CITY OF ROYSE CITY DETAILS**

City of Royse City Standard Drawings 8-08-2003

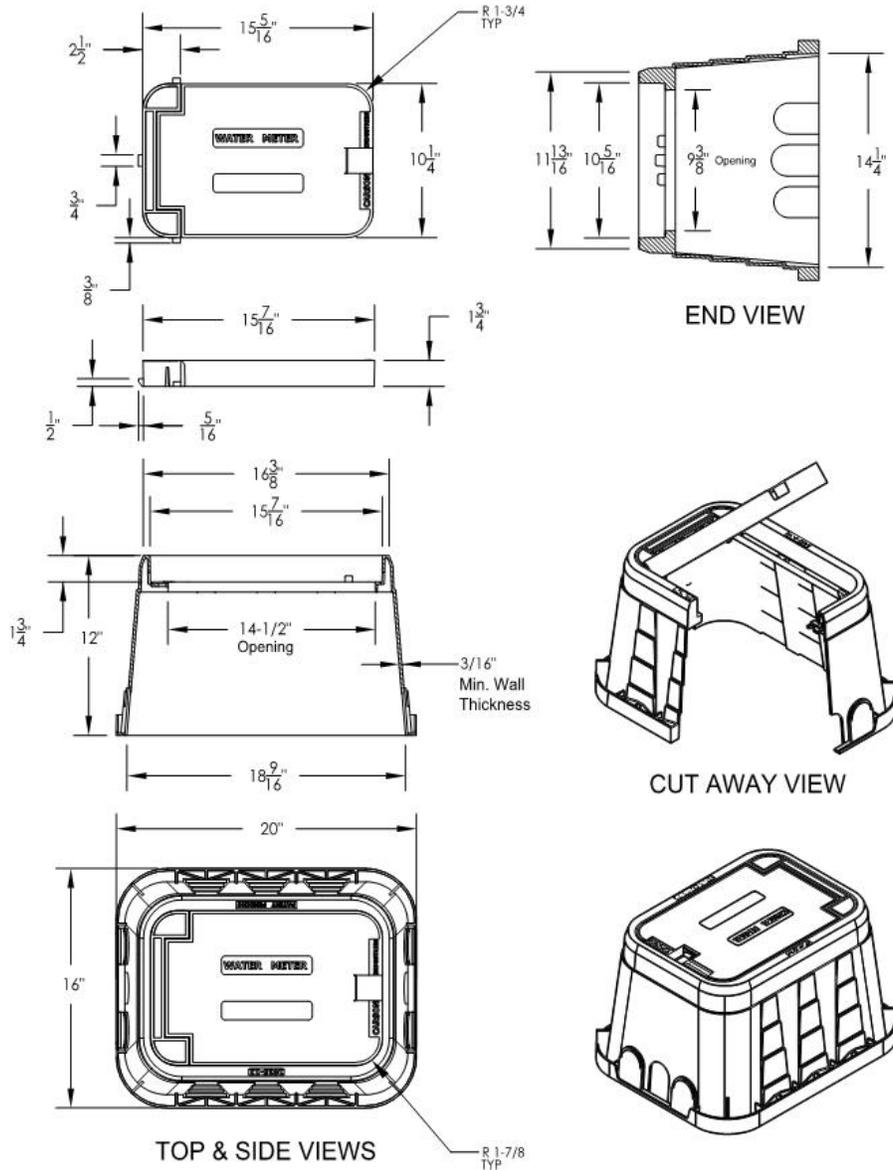


Lids are available in your choice of color

NOT RECOMMENDED FOR USE IN TRAFFIC

 <p><b>Grand Prairie, Texas</b>  TOLL FREE: 1-800-258-2278  DFW METRO: 972-263-1360  LOCAL: 972-262-1012 FAX: 972-263-0091  sales@basshays.com www.basshays.com</p>	<p>PATTERN NUMBER:</p> <p style="text-align: center;"><b>BH® PMC 1220-12</b></p>	<p>ENCLOSURE WEIGHT- 9.3 LBS.  COVER WEIGHT- 2.6 LBS.  SET WEIGHT- 11.9 LBS.</p>
	<p>DESCRIPTION: CARSON BOX / ADAPTER  HINGE LID SET 12 X 20 X 12  HIGH DENSITY POLYETHYLENE  Made In USA</p>	<p>DRAWN BY: E LONG / T DANG 6-13  REVISED BY: MH 5-17</p>

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END VIEW

CUT AWAY VIEW

TOP & SIDE VIEWS

NOT RECCOMENDED FOR USE IN TRAFFIC



*Grand Prairie, Texas*  
 TOLL FREE: 1-800-258-2278  
 DFW METRO: 972-263-1360  
 LOCAL: 972-262-1012 FAX: 972-263-0091  
 sales@basshays.com www.basshays.com

PATTERN NUMBER:  
**BH<sup>®</sup> PMC 1015-12**

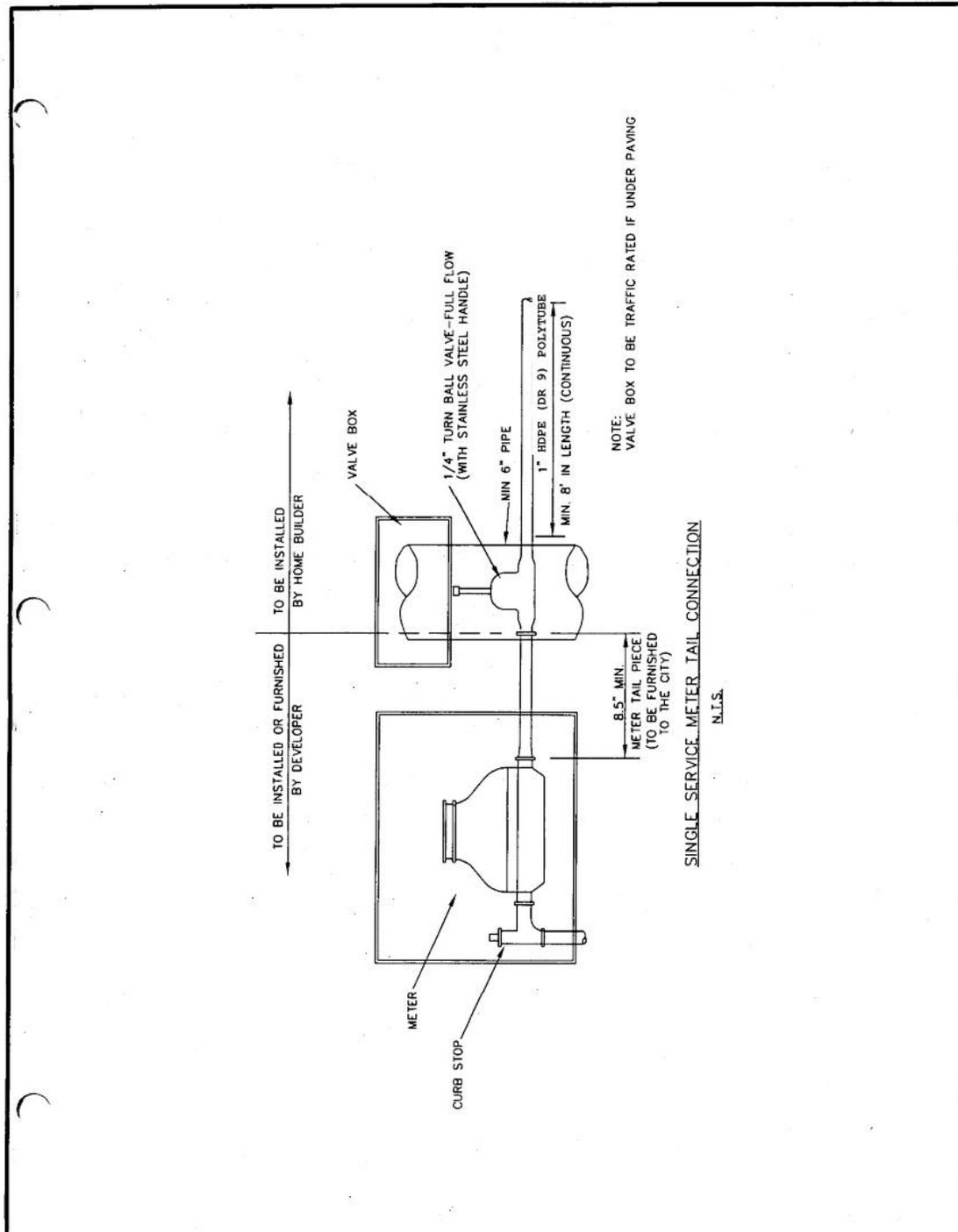
DESCRIPTION: **CARSON BOX  
 HINGE LID SET 10 X 15 X 12  
 HIGH DENSITY POLYETHYLENE  
 Made In USA**

ENCLOSURE WEIGHT- 5.5 LBS.  
 COVER WEIGHT- 2.6 LBS.  
 SET WEIGHT- 8.1 LBS.

DRAWN BY: E LONG / T DANG 6-13

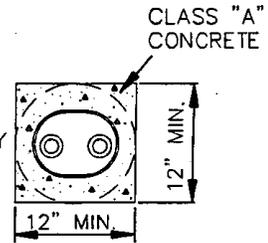
REVISED BY: MH 5-17

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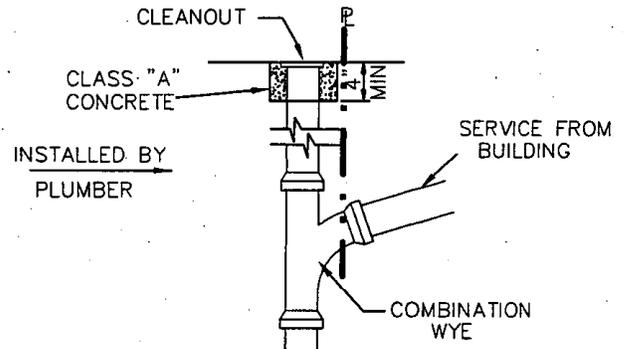
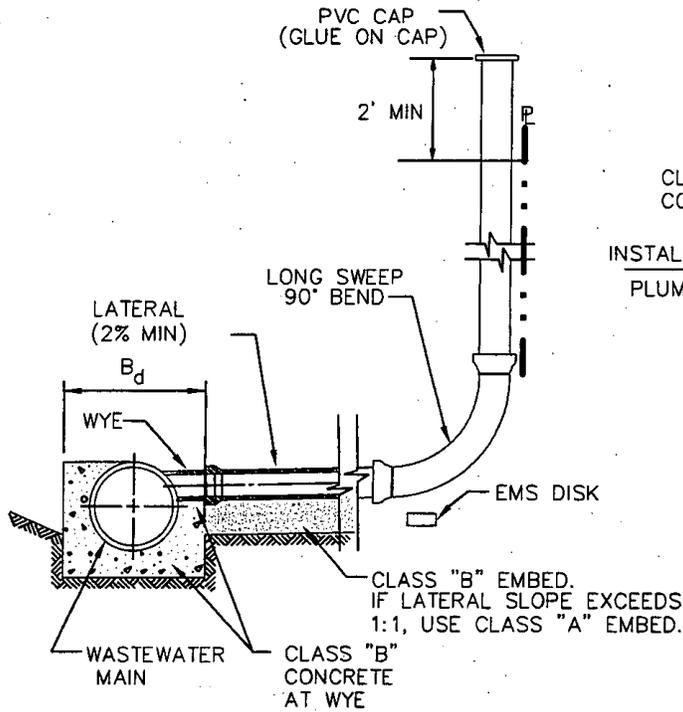


CLASS CONCRETE	BAGS CEMENT PER C.Y.	MIN. STRENGTH 28-DAY PSI
A	5	3000
B	4	2000

THE CLEANOUT MAY BE PLACED IN THE PARKWAY OR SIDEWALK, IF NECESSARY.



TOP VIEW OF CLEANOUT



PLUMBER TO CUT CLEANOUT RISER TO INSTALL COMBINATION WYE TO CORRESPOND W/ GRADE OF THE PIPE LEADING FROM BUILDING. AFTER INSTALLATION OF THE WYE, INSERT CLEANOUT INTO THE TOP OF THE RISOR.

## WASTEWATER LATERAL CONNECTIONS

N.T.S.

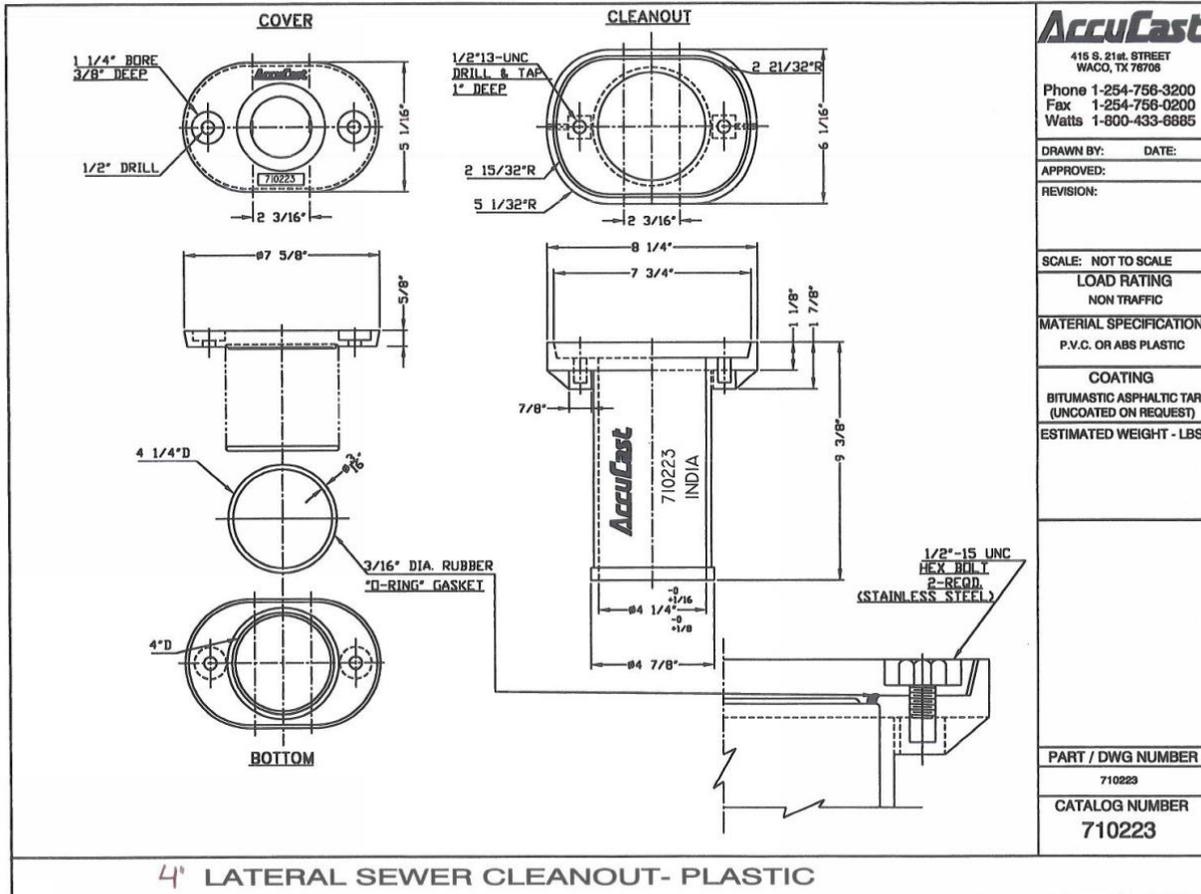
LATERAL CONNECTIONS



CITY OF ROYSE CITY

DATE  
MAY '03

DRAWING NAME  
SEWER SERVICE



**AccuCast**

416 S. 21st. STREET  
WACO, TX 76706  
Phone 1-254-756-3200  
Fax 1-254-756-0200  
Watts 1-800-433-6885

DRAWN BY: DATE:  
APPROVED:  
REVISION:

SCALE: NOT TO SCALE

LOAD RATING  
NON TRAFFIC

MATERIAL SPECIFICATION  
P.V.C. OR ABS PLASTIC

COATING  
BITUMASTIC ASPHALTIC TAR  
(UNCOATED ON REQUEST)

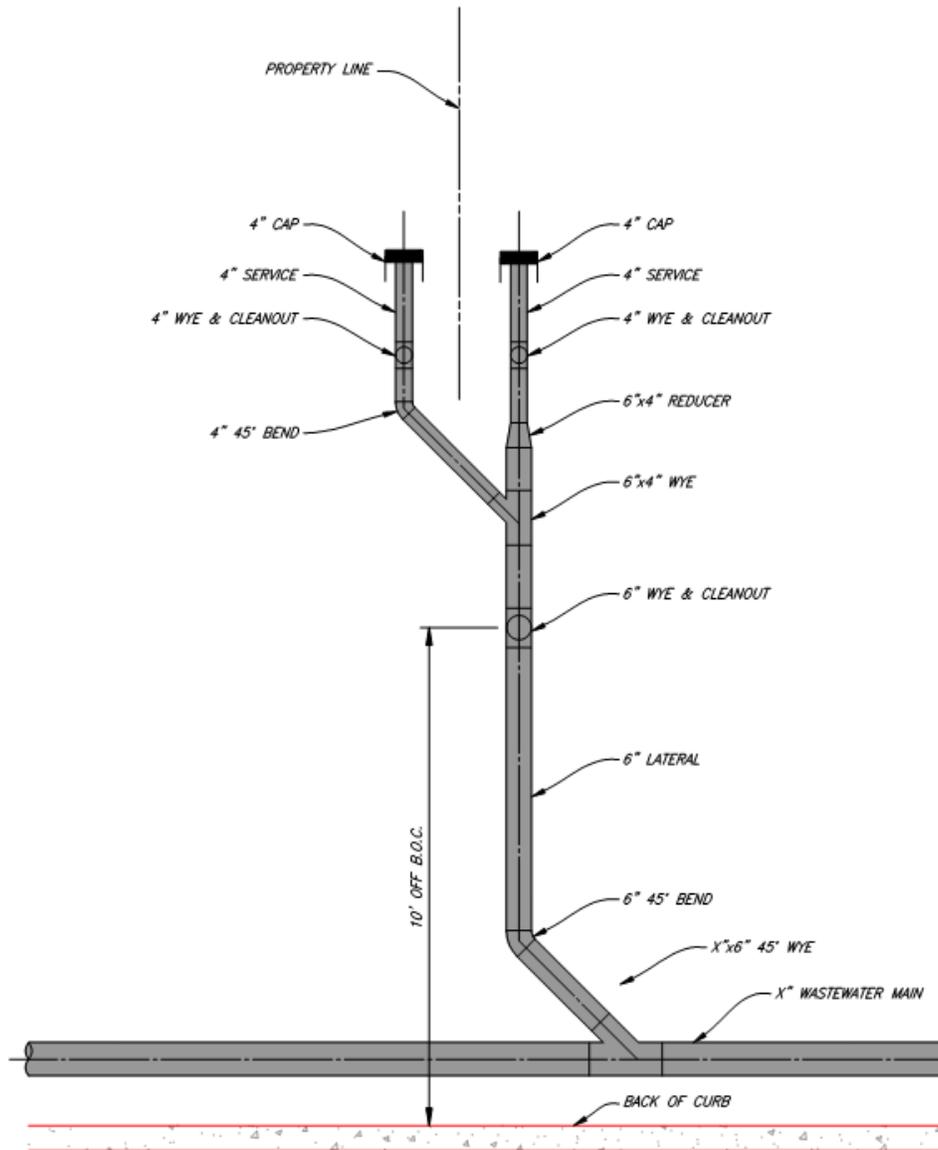
ESTIMATED WEIGHT - LBS.

PART / DWG NUMBER

710223

CATALOG NUMBER

710223



**BULL HEAD WASTEWATER SERVICE**

NOT TO SCALE

