

**Providence City Corporation  
Department of Public Works**

**STANDARD  
CONSTRUCTION  
DRAWINGS**



15 South Main Street  
Providence, Utah

Document No. 09-145 prepared by  
**SKYLINE A/E/S, INC.**  
95 West Golf Course Road, Suite 101  
Logan, Utah 84321 - (435) 752-8501

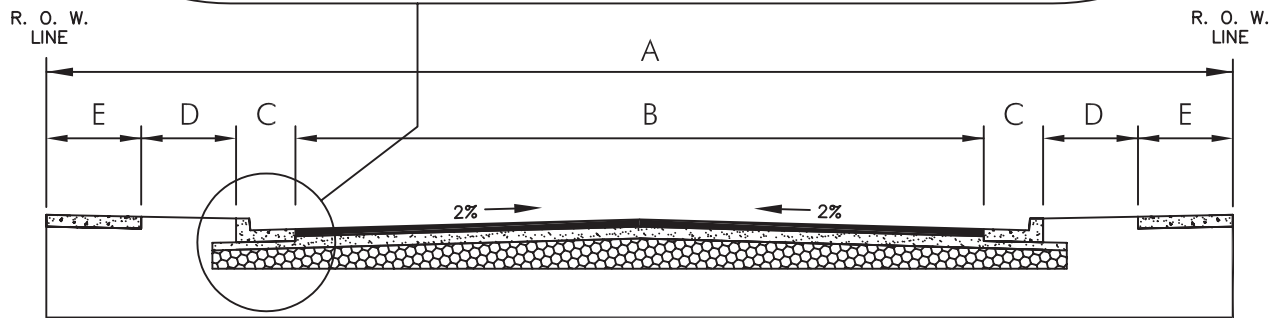
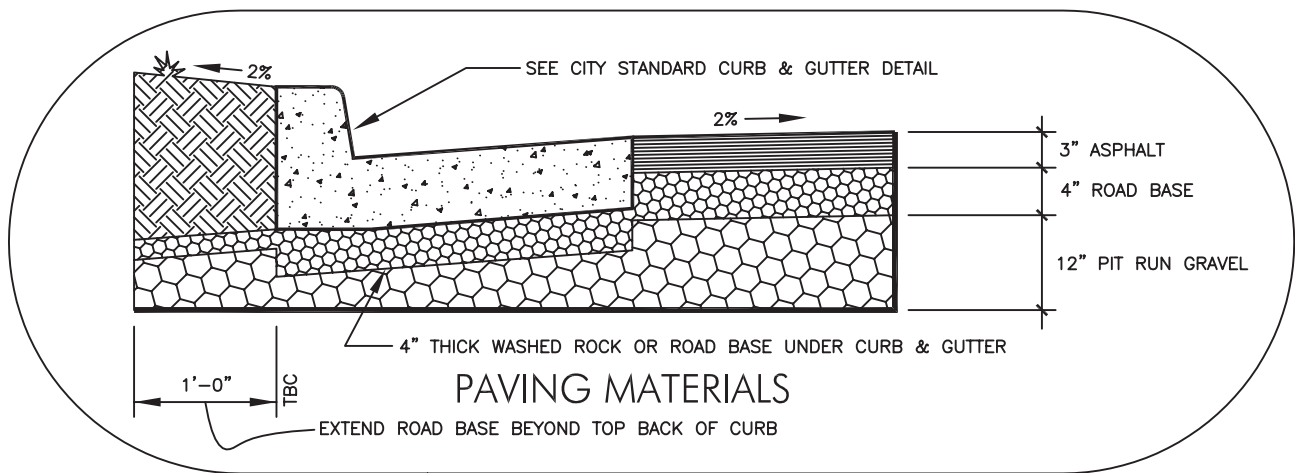
This manual is the official standard for all construction and development projects within Providence City. Any variance from these drawings must be approved in writing by the City Engineer prior to construction.

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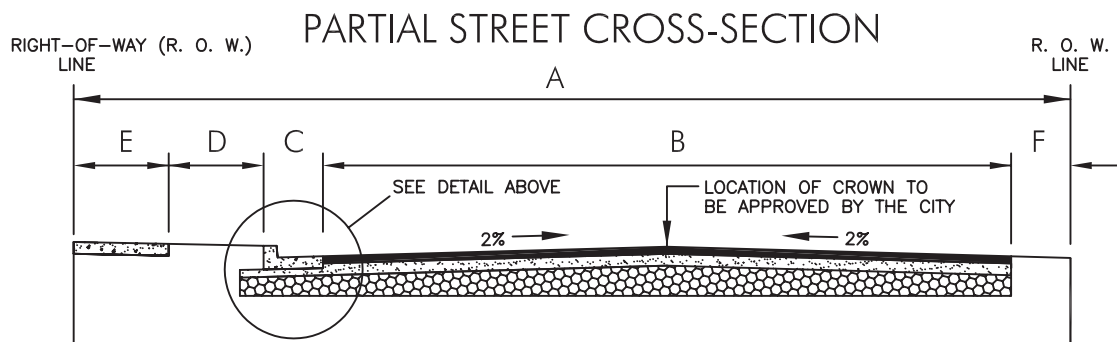
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TYPICAL STREET CROSS-SECTIONS

TYPE of STREET	WIDTHS				
	A RIGHT-OF-WAY	B ASPHALT	C CURB & GUTTER	D PARK STRIP	E SIDEWALK
FEEDER STREET	56'	29'	2.5'	6.0'	5.0'
COLLECTOR STREET	66'	39'	2.5'	6.0'	5.0'
MAJOR STREET	80'	53'	2.5'	6.0'	5.0'



WIDTHS					
A RIGHT-OF-WAY	B ASPHALT	C CURB & GUTTER	D PARK STRIP	E SIDEWALK	F SHOULDER
See note	24' MIN.	2.5'	6.0'	5.0'	See note

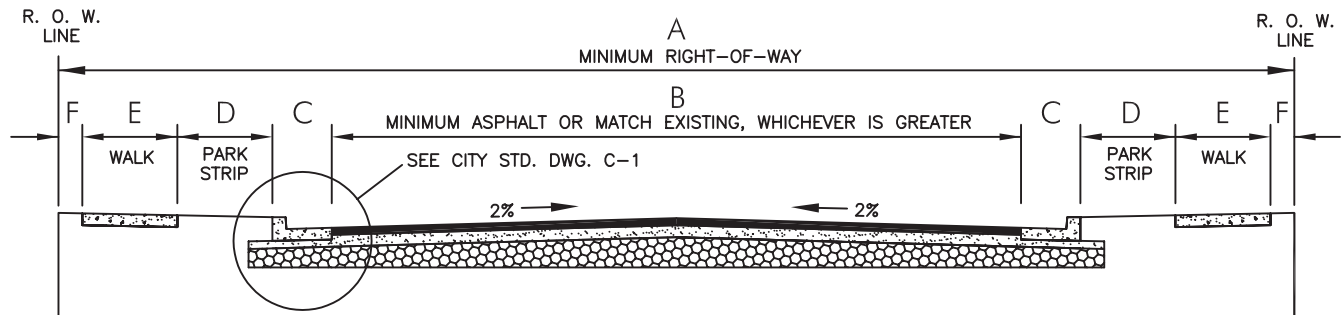
NOTE:  
WIDTHS "A" & "F" MUST BE APPROVED BY THE CITY PRIOR TO CONSTRUCTION.

Providence City Public Works Department

Street Cross-Sections

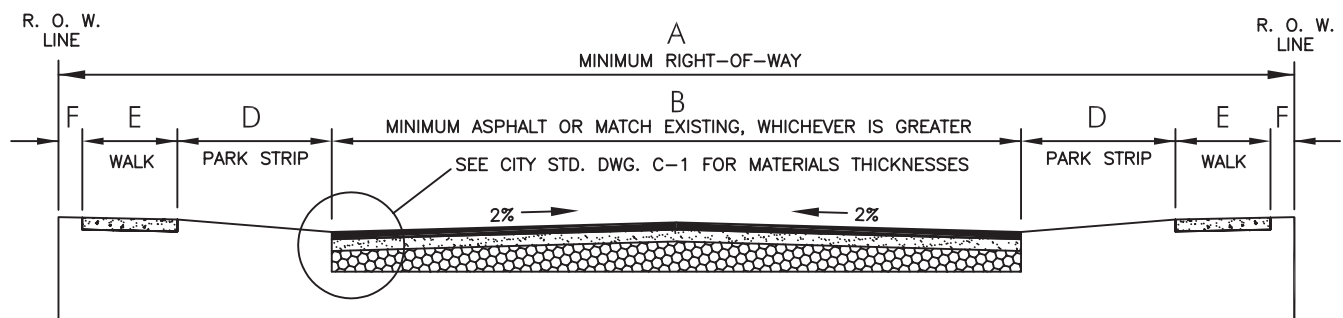
DRAWING NO. C-1  
REVISED 07-06-07

# FOR THE CONSTRUCTION OF DOWNTOWN STREET IMPROVEMENTS AFTER DECEMBER 16, 2009



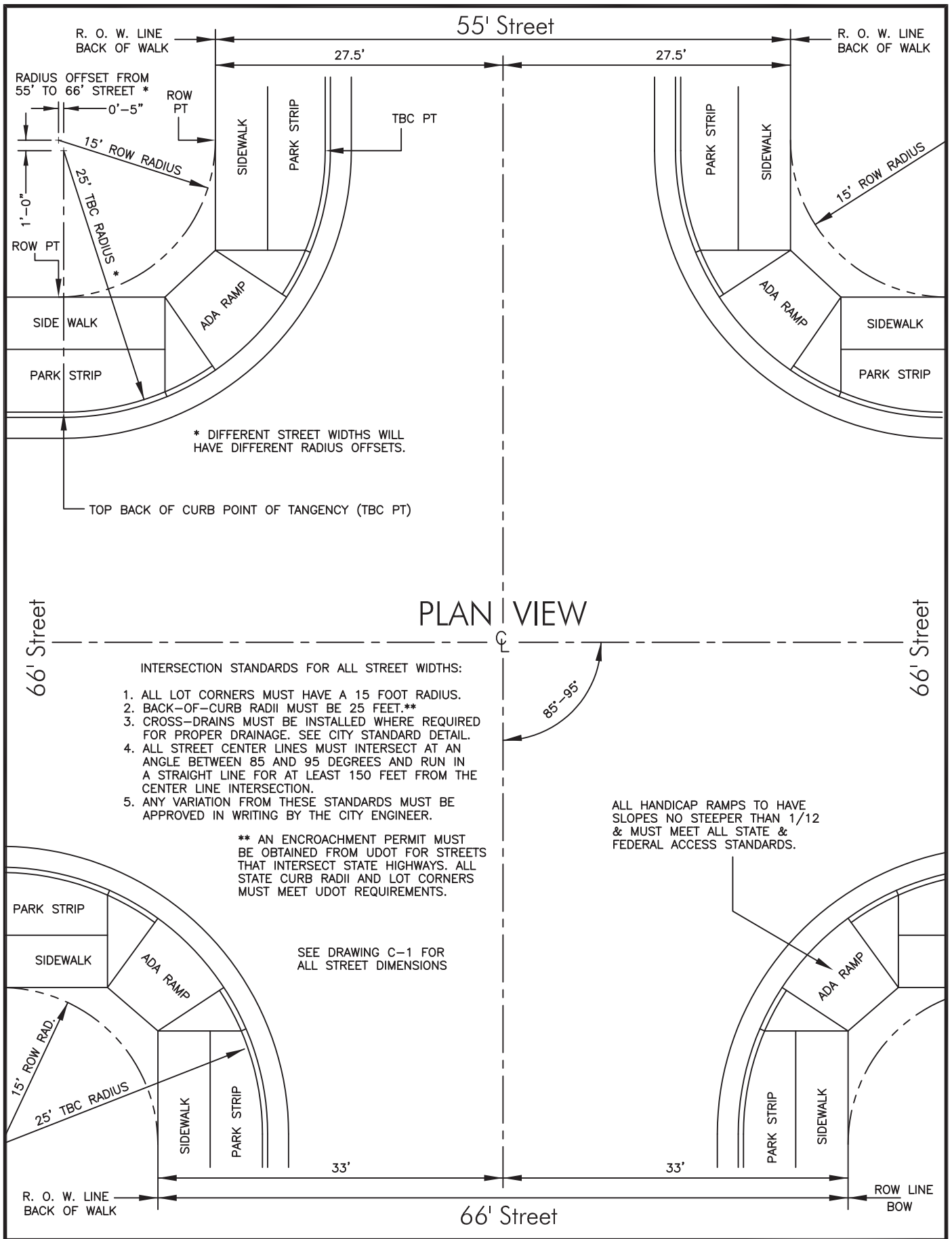
## STREETS REQUIRING NEW CURB & GUTTER

STREET	EXTENT		WIDTHS					
	FROM	TO	A R. O. W.	B ASPHALT	C CURB & GUTTER	D PARK STRIP	E SIDEWALK	F BOW to ROW
200 NORTH	100 W.	400 E.	66'	39'	2.5'	VARIES	5.0'	VARIES
100 NORTH	200 W.	400 E.	66'	39'	2.5'	VARIES	5.0'	VARIES
CENTER ST.	200 W.	400 E.	66'	39'	2.5'	VARIES	5.0'	VARIES
300 SOUTH	200 W.	100 E.	66'	39'	2.5'	VARIES	5.0'	VARIES
400 SOUTH	200 W.	100 E.	66'	39'	2.5'	VARIES	5.0'	VARIES
BAUR AVE.	MAIN	S. END	56'	29'	2.5'	VARIES	5.0'	VARIES
MAIN ST.	500 S.	200 N.	66'	39'	2.5'	VARIES	5.0'	VARIES
100 EAST	400 S.	200 N.	66'	39'	2.5'	VARIES	5.0'	VARIES



## STREETS REQUIRING NO NEW CURB & GUTTER

STREET	EXTENT		WIDTHS					
	FROM	TO	A R. O. W.	B ASPHALT	C CURB & GUTTER	D PARK STRIP	E SIDEWALK	F BOW to ROW
100 SOUTH	200 W.	300 E.	56'	29'	NONE	VARIES	5.0'	VARIES
200 SOUTH	200 W.	200 E.	56'	29'	NONE	VARIES	5.0'	VARIES
500 SOUTH	200 W.	100 E.*	56'	29'	NONE	VARIES	5.0'	VARIES
100 WEST	500 S.	100 N.	66'	39'	NONE	VARIES	5.0'	VARIES
200 EAST	200 S.	200 N.	66'	39'	NONE	VARIES	5.0'	VARIES
300 EAST	100 S.	200 N.	66'	39'	NONE	VARIES	5.0'	VARIES

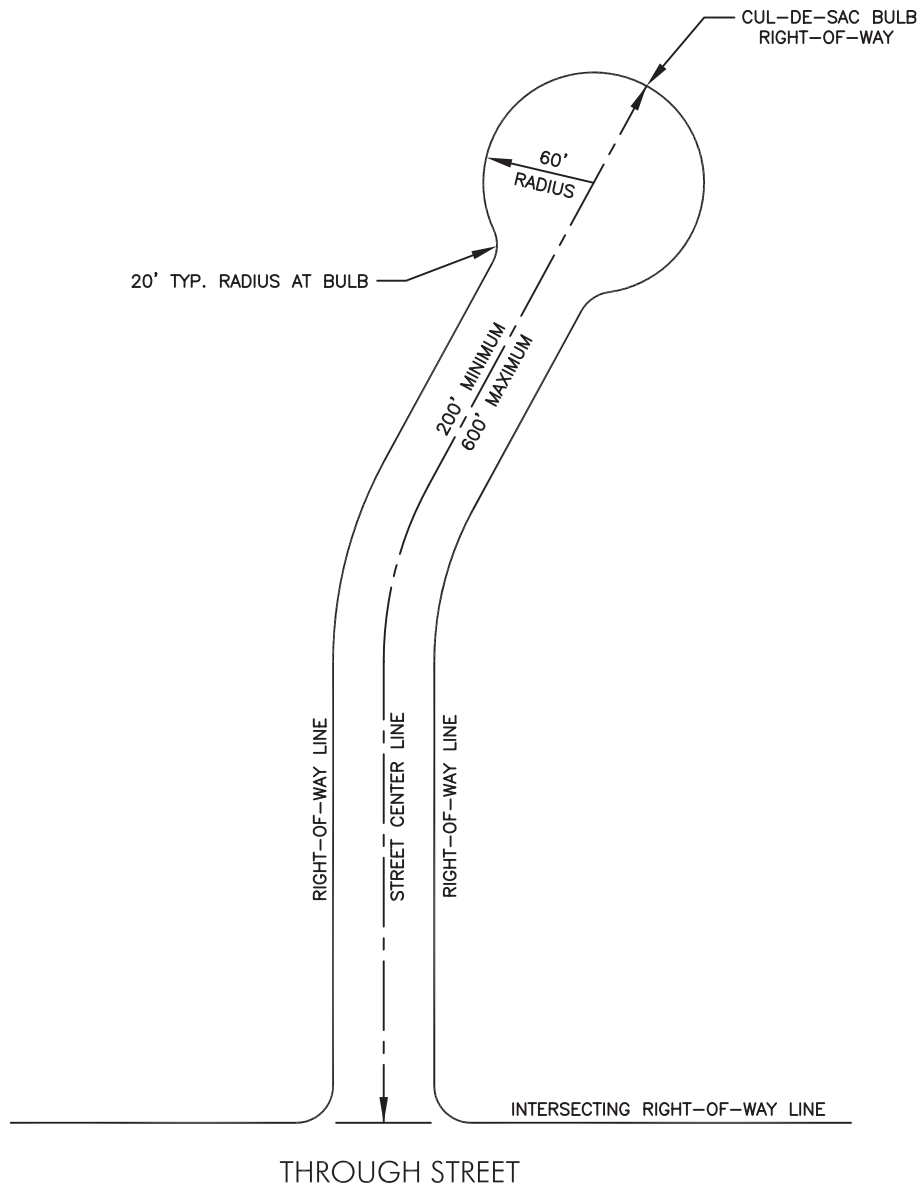


**Providence City Public Works Department**

**Street Intersection**

**DRAWING NO. C-2**

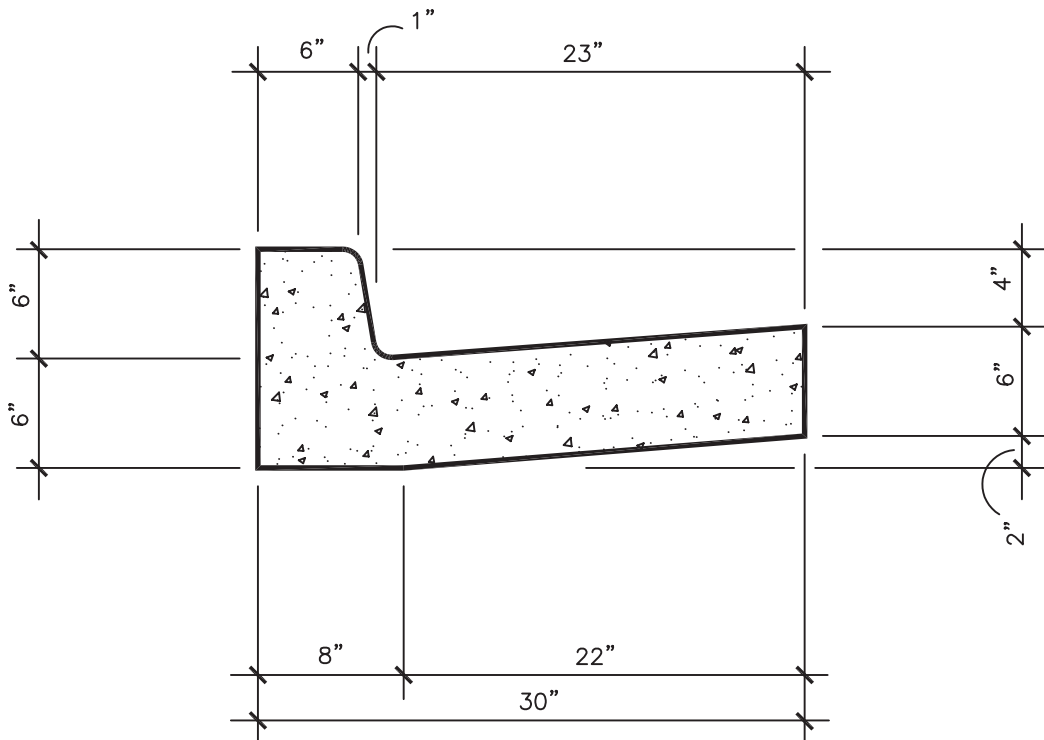
**REVISED 05-07-07**



MINIMUM & MAXIMUM CUL-DE-SAC LENGTHS

# STANDARD 6" VERTICAL BACK

- NOTES: 1. OTHER CURB & GUTTER DESIGNS MUST BE APPROVED IN WRITING BY THE CITY ENGINEER.
2. CURVED SECTIONS OF CURB & GUTTER MUST BE FORMED IN ONE CONTINUOUS ARC WITH NO ANGLES.



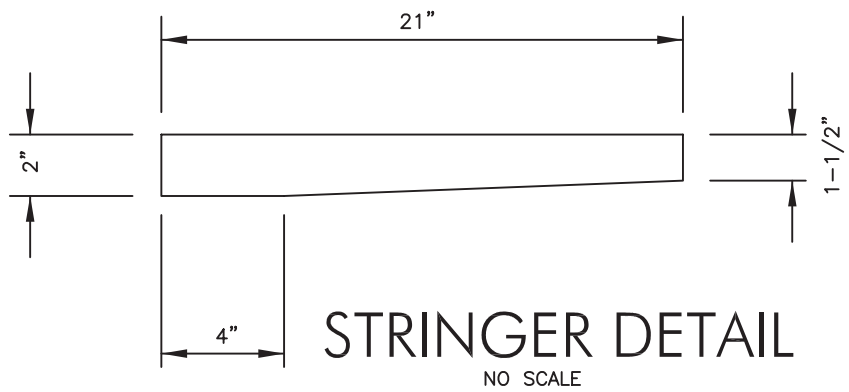
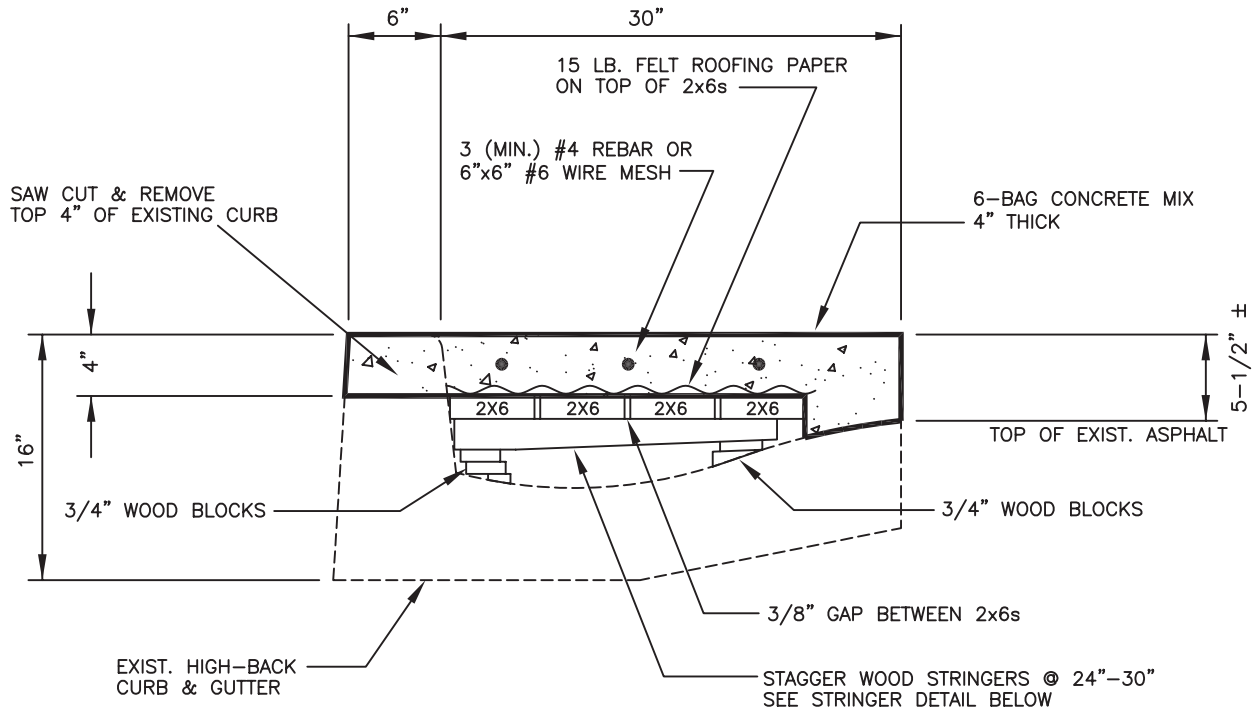
Providence City Public  
Works Department

**Curb & Gutter**

**DRAWING NO. C-3**

**REVISED 12-29-06**

# DRIVEWAY COVER for EXISTING 16" HIGH-BACK CURB & GUTTER



**Providence City Public  
Works Department**

**High Back  
Gutter Cover**

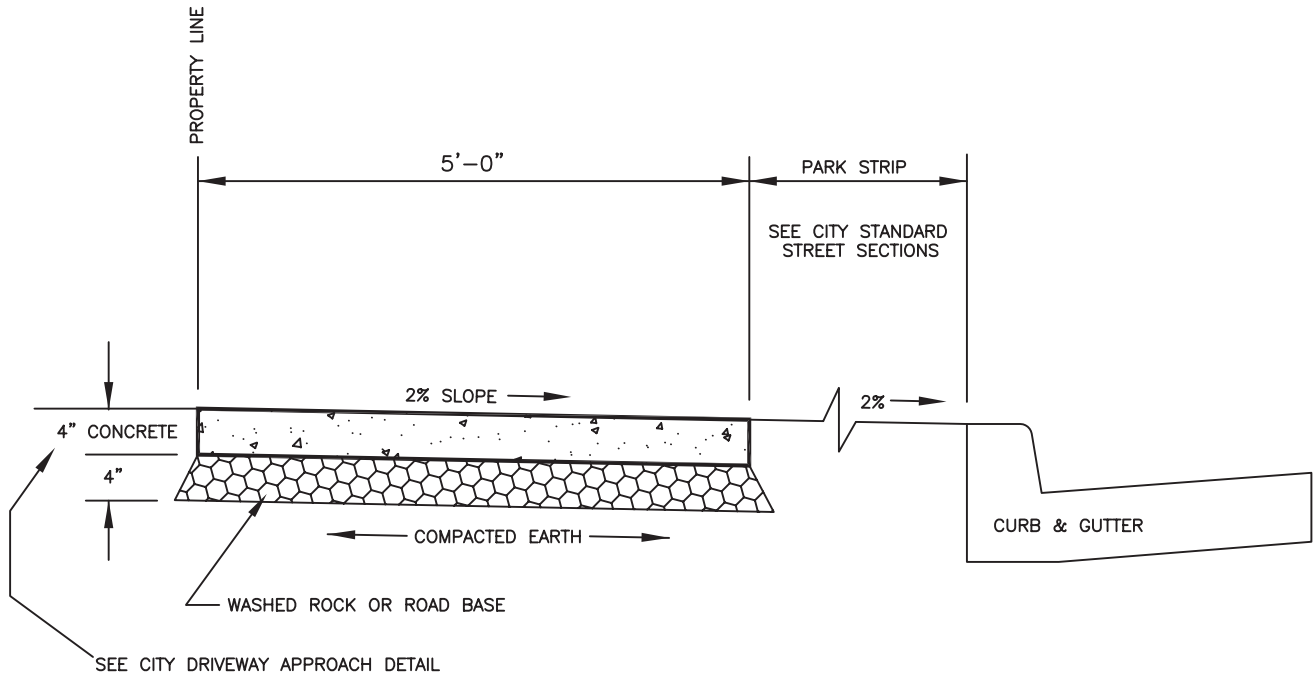
**DRAWING NO. C-3A**  
**REVISED 05-07-07**

# STANDARD SIDEWALK

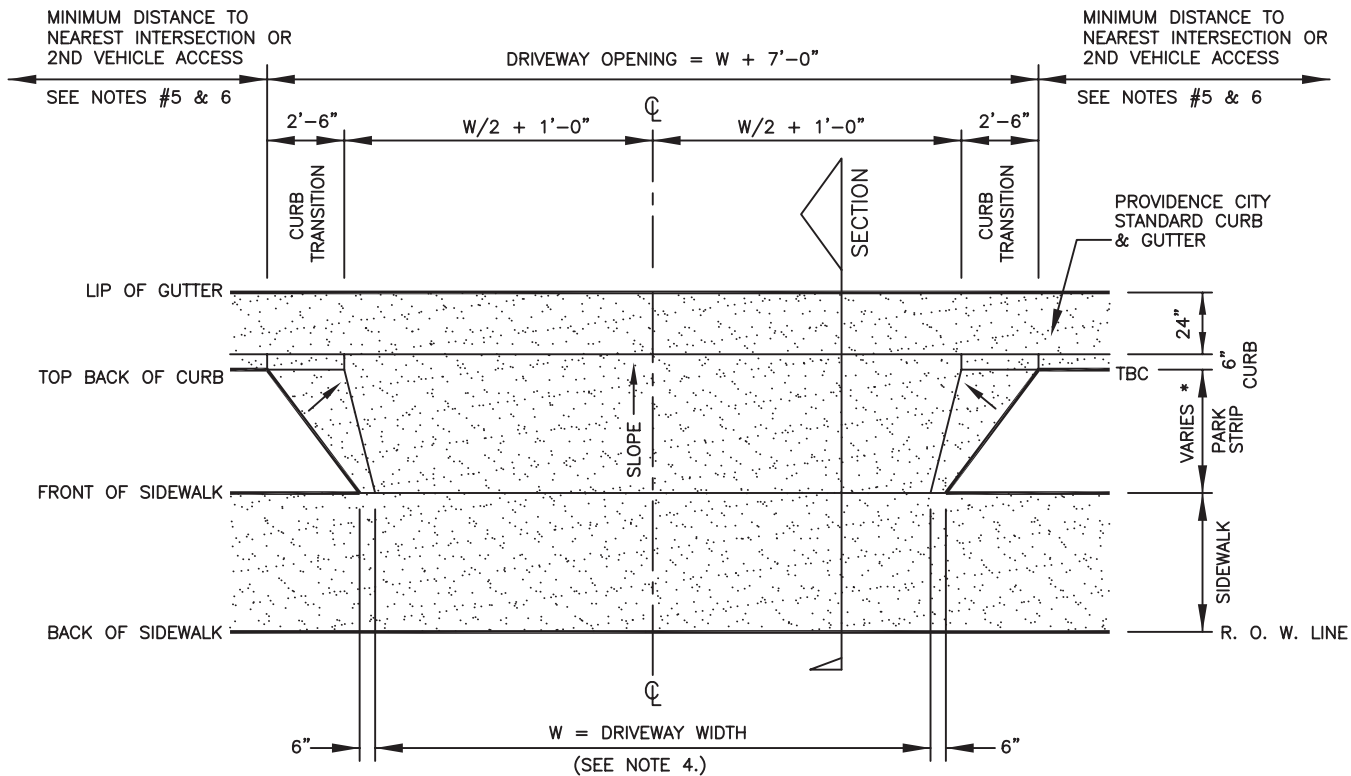
SEE ALSO CITY STANDARD DRIVEWAY APPROACH DETAIL

NOTES:

- 1. SCORE MARKS 1/2" DEEP EVERY 5 FEET.
- 2. ALL HORIZONTAL SURFACES TO BE FINISHED SMOOTH WITH A LIGHT BROOM FINISH.



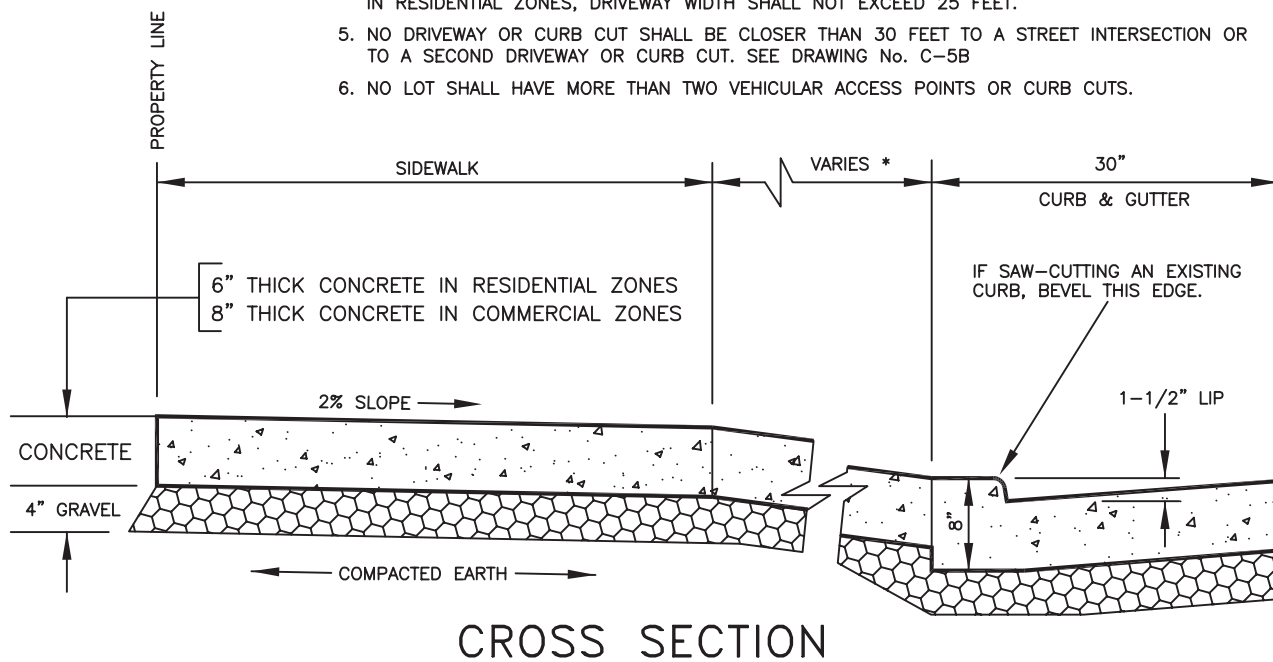
# PLAN VIEW



**NOTES:**

1. SIDEWALK SCORE MARKS 1/2" DEEP EVERY 5 FEET.
2. ALL HORIZONTAL SURFACES TO BE STEEL TROWELED FOLLOWED BY A LIGHT BROOM FINISH.
3. EXISTING CURB & GUTTER MUST BE SAW CUT & BEVELED TO MATCH THIS DETAIL WITH NO BREAKS OR CRACKS. OTHERWISE, THE ENTIRE SECTION MUST BE REPLACED.
4. IN COMMERCIAL ZONES, DRIVEWAY WIDTH SHALL NOT EXCEED 50 FEET. IN RESIDENTIAL ZONES, DRIVEWAY WIDTH SHALL NOT EXCEED 25 FEET.
5. NO DRIVEWAY OR CURB CUT SHALL BE CLOSER THAN 30 FEET TO A STREET INTERSECTION OR TO A SECOND DRIVEWAY OR CURB CUT. SEE DRAWING No. C-5B
6. NO LOT SHALL HAVE MORE THAN TWO VEHICULAR ACCESS POINTS OR CURB CUTS.

\* SEE PROVIDENCE CITY'S STANDARD STREET SECTIONS



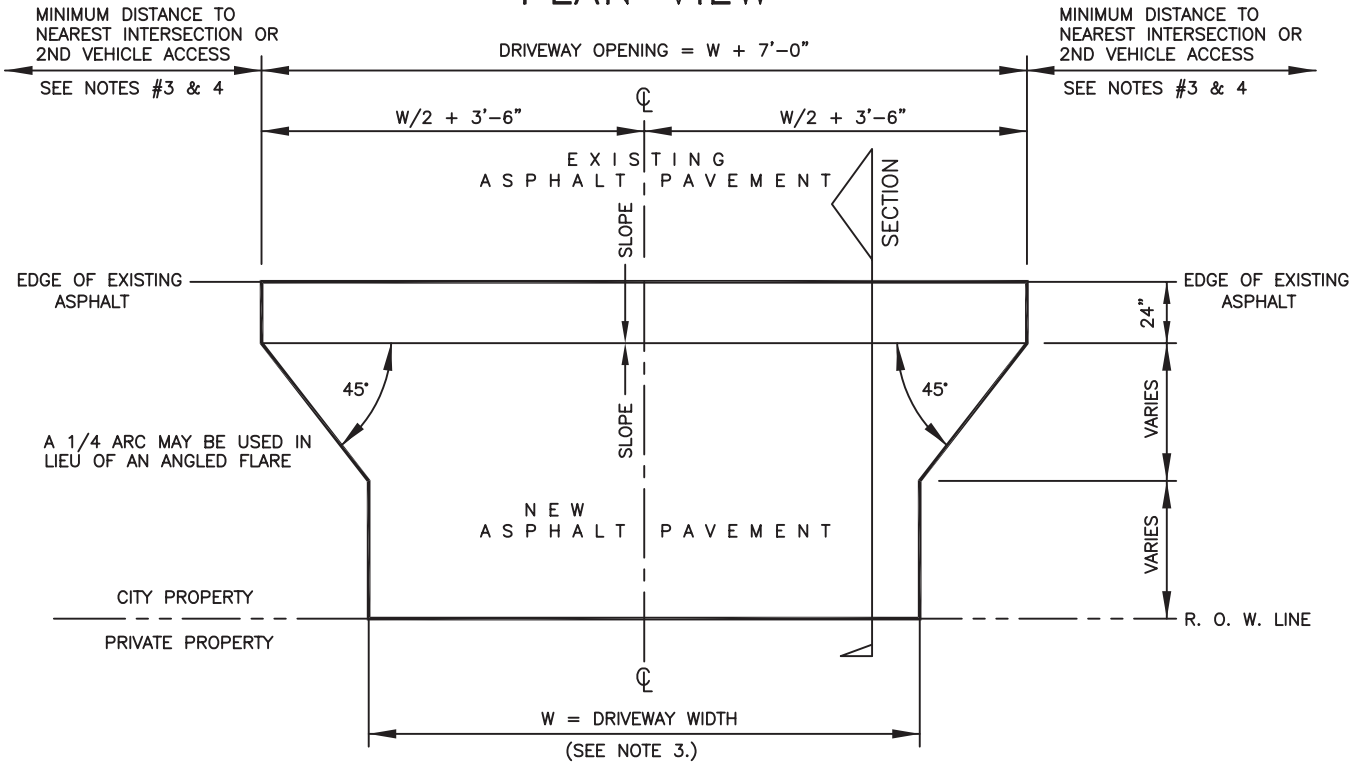
# CROSS SECTION

**Providence City Public Works Department**

**Driveway Approach**

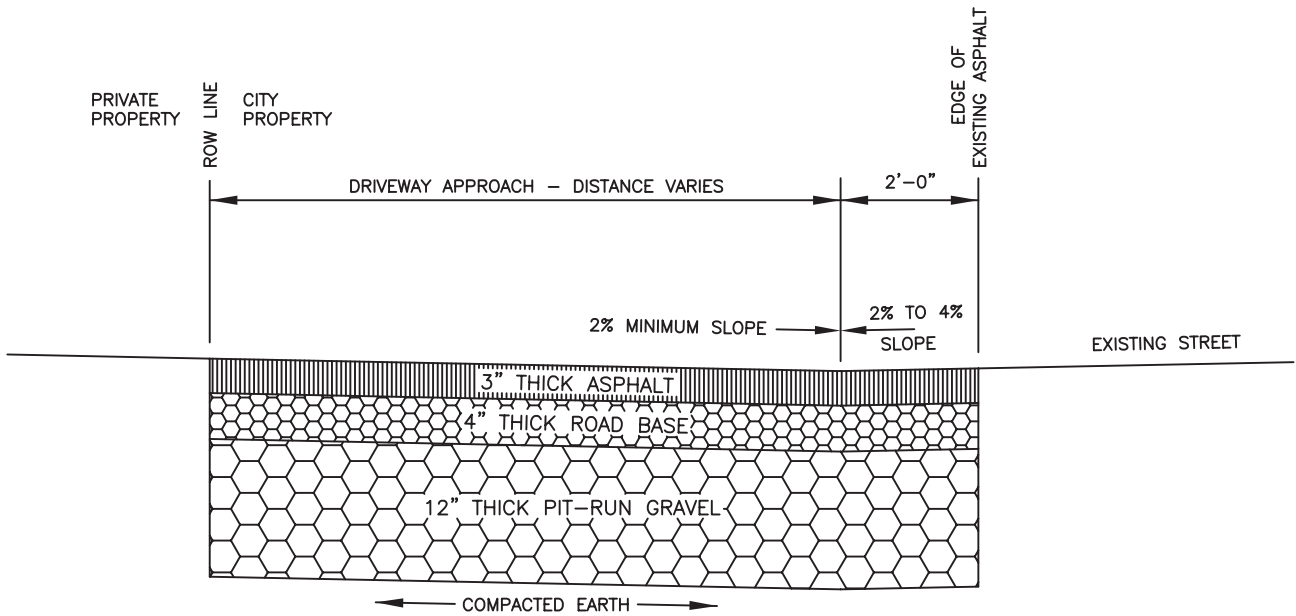
**DRAWING NO. C-5**  
**REVISED 05-07-07**

# PLAN VIEW



**NOTES:**

1. ALL NEW ASPHALT WITHIN THE CITY RIGHT-OF-WAY SHALL BE 3" THICK OVER A 4" THICK ROAD BASE AND 12" THICK PIT RUN GRAVEL.
2. IN COMMERCIAL ZONES, DRIVEWAY WIDTH SHALL NOT EXCEED 50 FEET. IN RESIDENTIAL ZONES, DRIVEWAY WIDTH SHALL NOT EXCEED 25 FEET.
3. NO DRIVEWAY SHALL BE CLOSER THAN 30 FEET TO A STREET INTERSECTION OR TO A SECOND DRIVEWAY OR CURB CUT. SEE DRAWING No. C-5B.
4. NO LOT SHALL HAVE MORE THAN TWO VEHICULAR ACCESS POINTS OR CURB CUTS.



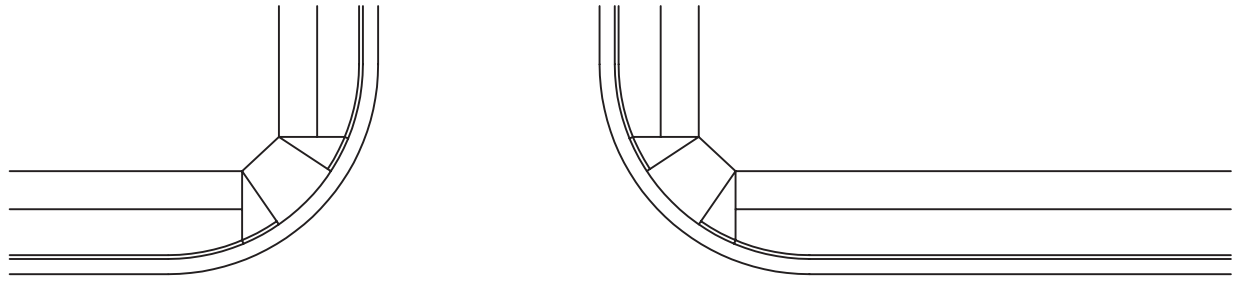
# CROSS SECTION

**Providence City Public  
Works Department**

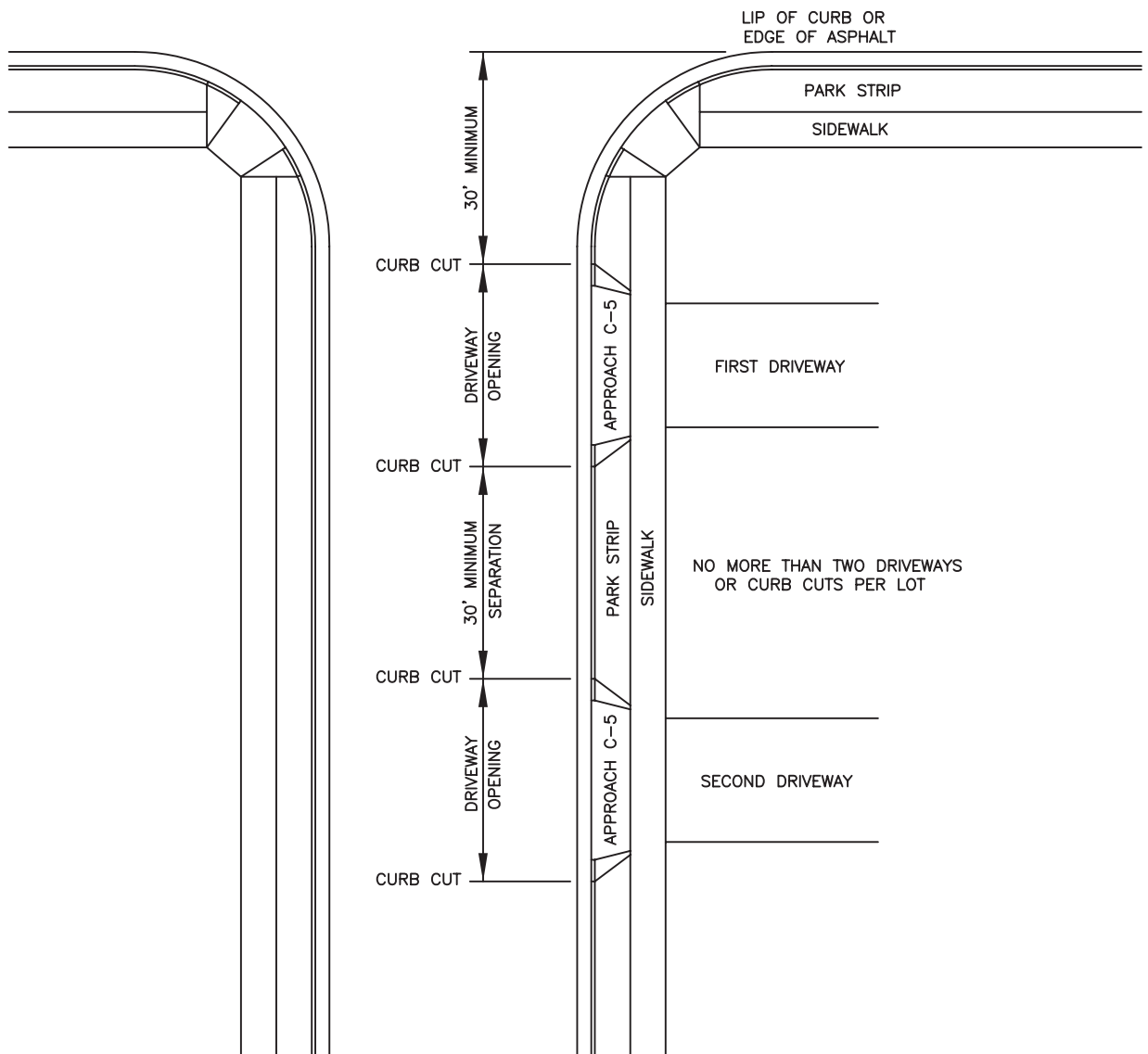
**Driveway without  
Curb & Gutter**

**DRAWING NO. C-5A**

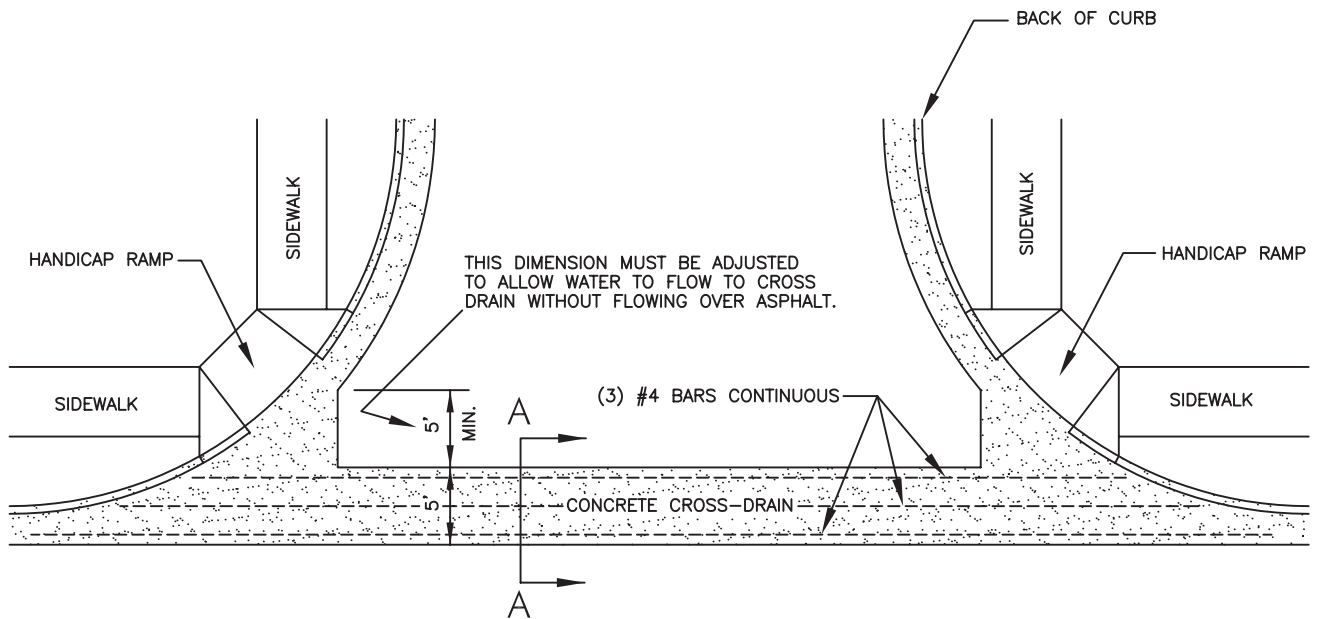
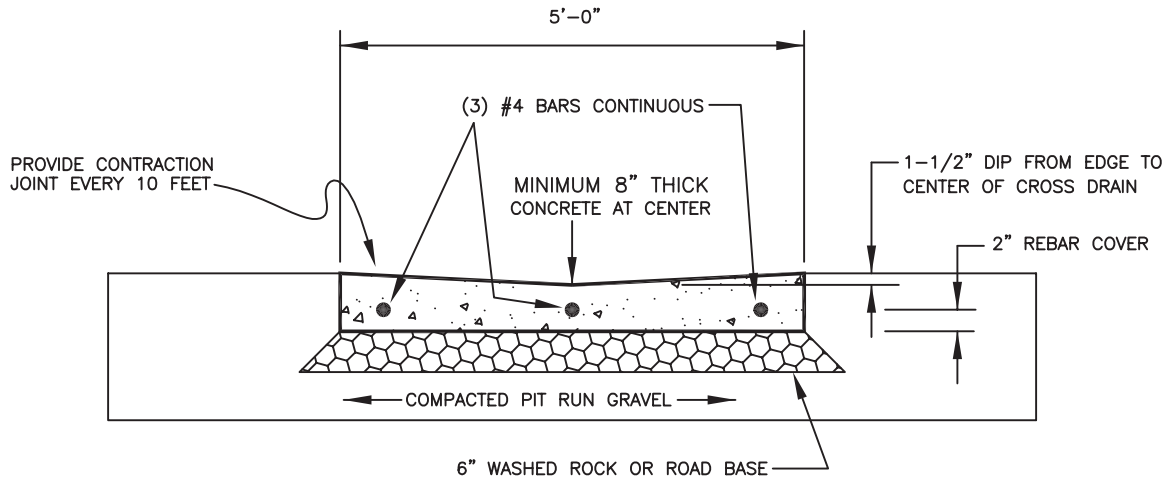
**REVISED 05-07-07**



## STREET INTERSECTION

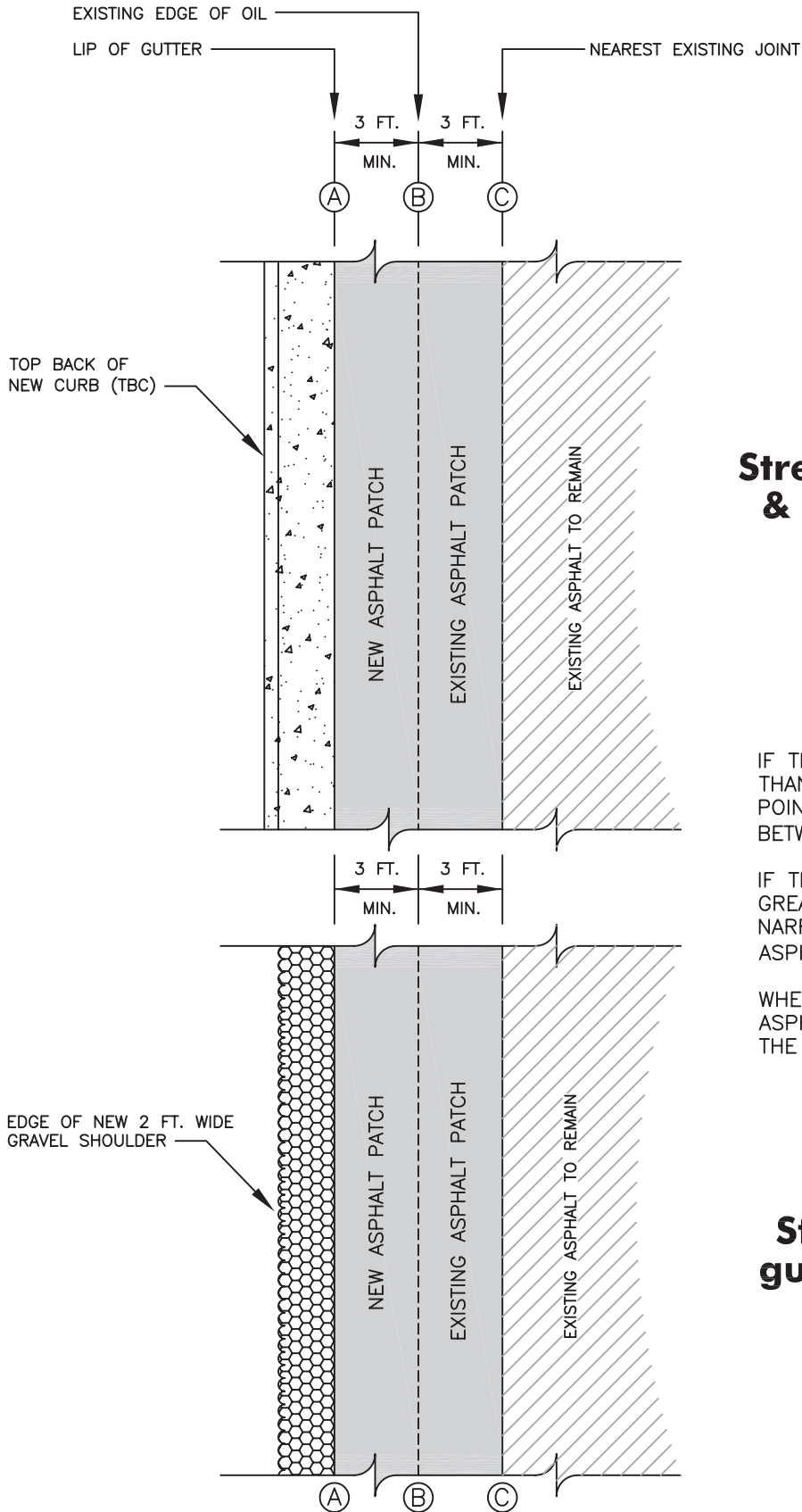


# SECTION A-A



PLAN VIEW

# PLAN VIEW OF STREET



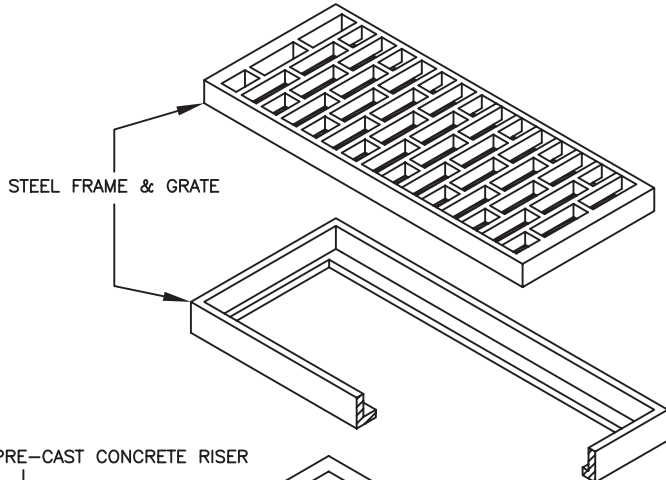
## Streets where new curb & gutter is required

IF THE EXISTING ASPHALT PATCH IS LESS THAN 3 FEET WIDE AT ITS NARROWEST POINT, THEN INSTALL NEW ASPHALT BETWEEN LINES (A) AND (C).

IF THE EXISTING ASPHALT PATCH IS GREATER THAN 3 FEET WIDE AT ITS NARROWEST POINT, THEN INSTALL NEW ASPHALT BETWEEN LINES (A) AND (B).

WHERE NEW ASPHALT ADJOINS EXISTING ASPHALT, PRIME AND SEAL THE EDGE OF THE SAW CUT WITH TACK OIL.

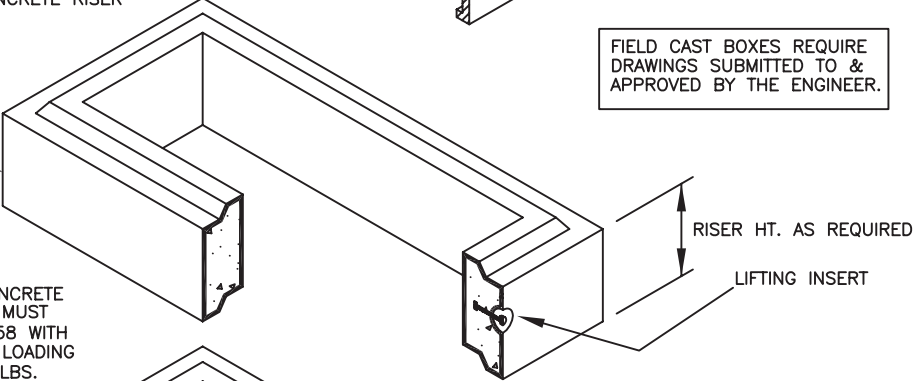
## Streets where curb & gutter is NOT required



STEEL FRAME & GRATE

PRE-CAST CONCRETE RISER

FIELD CAST BOXES REQUIRE DRAWINGS SUBMITTED TO & APPROVED BY THE ENGINEER.

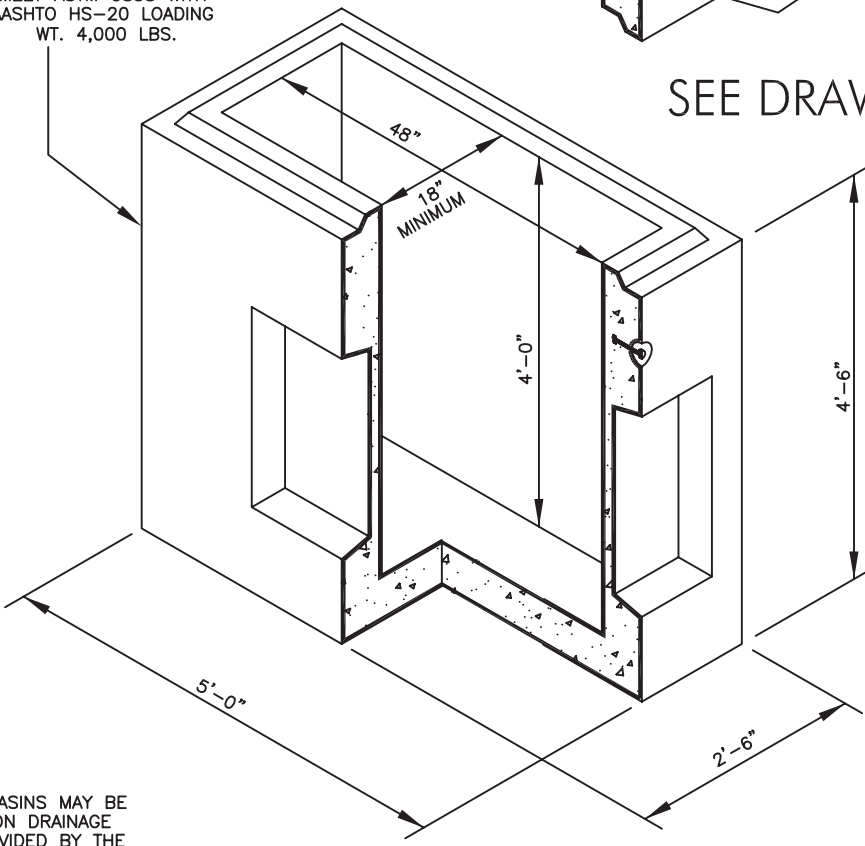


RISER HT. AS REQUIRED

LIFTING INSERT

PRE-CAST CONCRETE CATCH BASIN MUST MEET ASTM C858 WITH AASHTO HS-20 LOADING WT. 4,000 LBS.

SEE DRAWING D-1A



NOTE:  
MULTIPLE CATCH BASINS MAY BE REQUIRED BASED ON DRAINAGE CALCULATIONS PROVIDED BY THE DEVELOPER'S ENGINEER

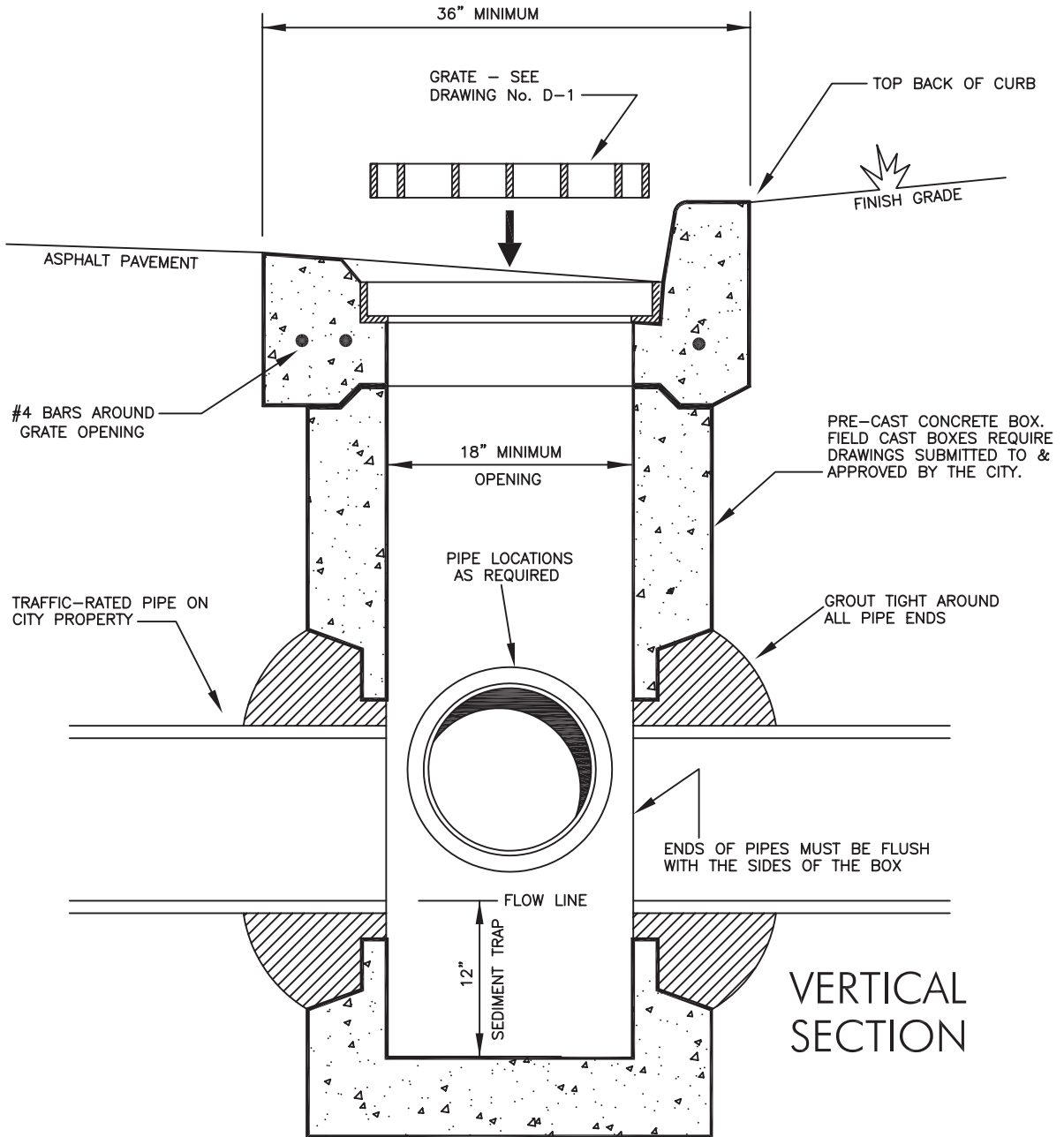
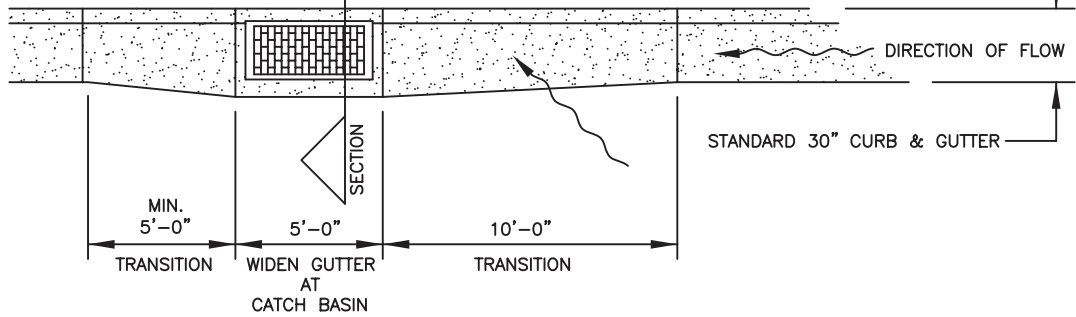
**Providence City Public Works Department**

**Catch Basin  
18" x 48" (I.D.)**

**DRAWING NO. D-1  
REVISED 05-07-07**

# PLAN VIEW

PROVIDE MULTIPLE CATCH BASINS ON STEEP GRADES. CATCH BASIN(S) MUST COLLECT 100% OF FLOW FROM GUTTER & STREET.



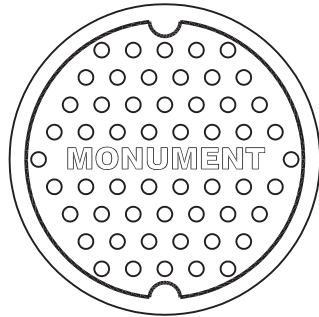
# VERTICAL SECTION

**Providence City Public  
Works Department**

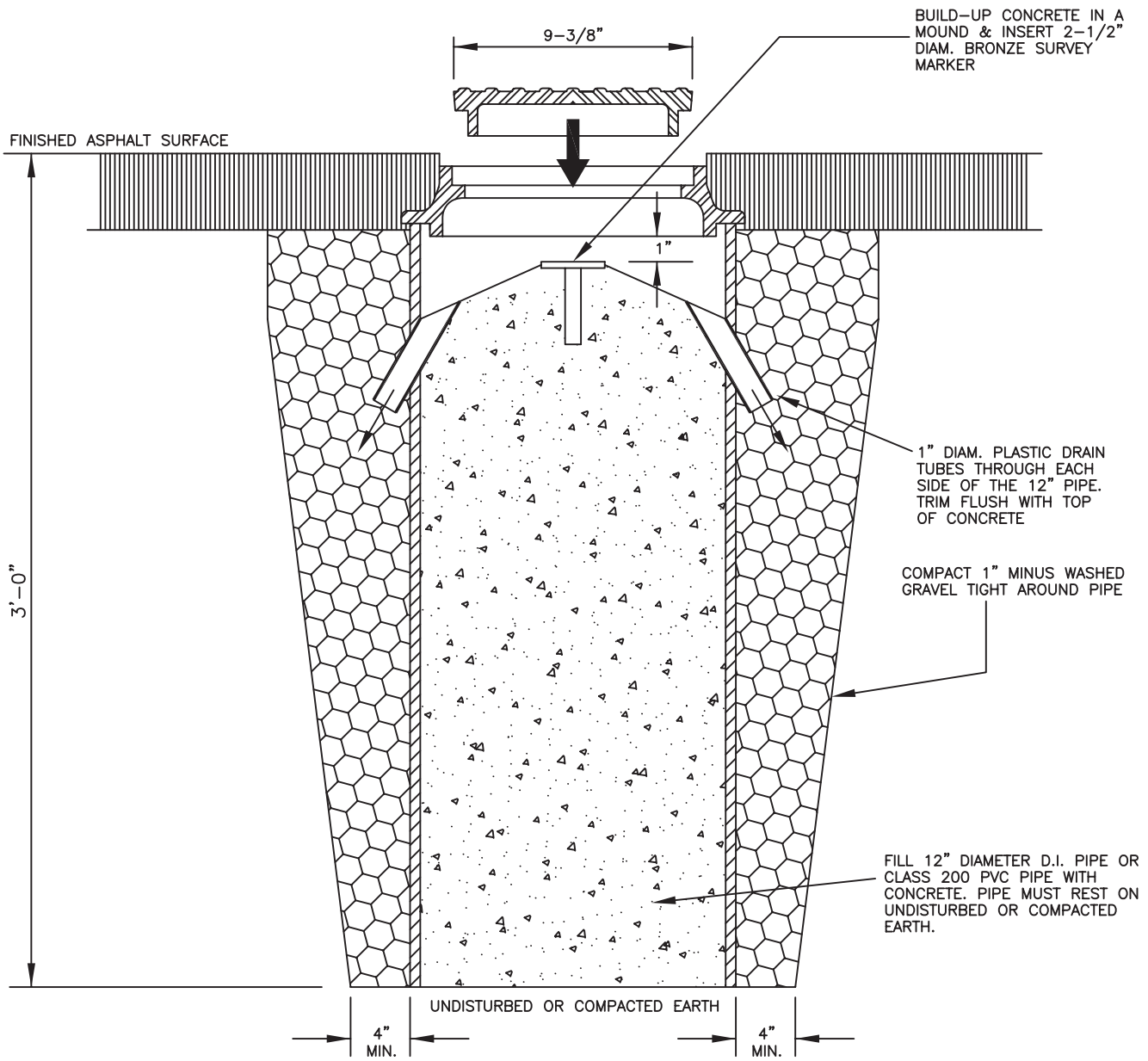
# Catch Basin Details

**DRAWING NO. D-1A**

**REVISED 05-07-07**



D & L #K-6313 STREET  
MONUMENT RING & COVER  
OR APPROVED EQUAL  
LABELED "MONUMENT"



**Providence City Public  
Works Department**

**Street Monument**

**DRAWING NO. M-1**

**REVISED 08-01-05**

THE TOPS OF MANHOLE LIDS SHALL BE FLUSH WITH THE TOP OF ASPHALT (OR FINISH GRADE) IN ALL DIRECTIONS. CONCRETE OR STEEL SHIMS MUST BE USED ON STEEP GRADES & ALL VOIDS FILLED WITH NON-SHRINK GROUT.

TOP OF COVER MUST BE FLUSH WITH TOP OF ASPHALT

RING & COVER LABELED "SEWER" WITH VENT HOLES. PROVIDE HEIGHT-ADJUSTABLE RINGS.

MULTIPLE GRADE RINGS MAY NOT EXCEED 12" IN HEIGHT

PRE-CAST CONCRETE ECCENTRIC CONE

STEP HOLES

STEP HOLES

PRE-CAST CONCRETE RISER AS REQUIRED

5" AT 48" DIAM.  
6" AT 60" DIAM.

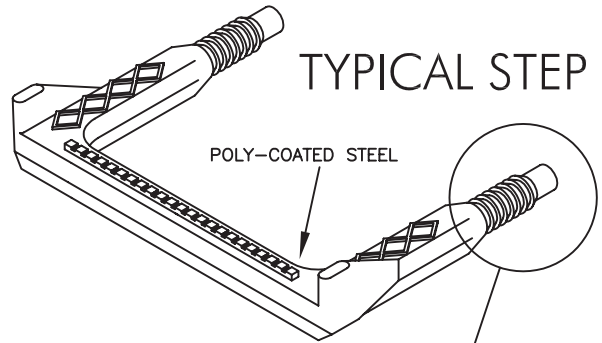
STEP HOLES

PLASTIC LIFTING INSERT

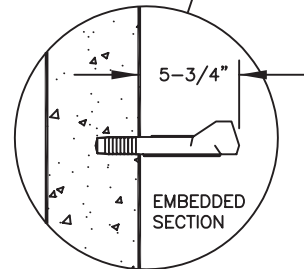
PRE-CAST CONCRETE BASE WITH SINGLE INVERT

MANHOLE SECTIONS MUST MEET ASTM C478.

### TYPICAL STEP

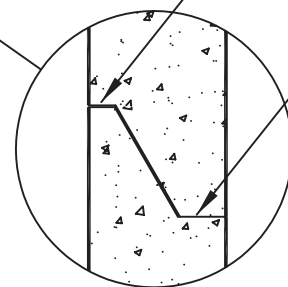


POLY-COATED STEEL



EMBEDDED SECTION

INSTALL MASTIC ON THE WIDER OUTSIDE LIP OF THE JOINT. IF GROUND WATER IS PRESENT OR ANTICIPATED, THEN INSTALL MASTIC ON BOTH INSIDE & OUTSIDE LIPS.



### TYPICAL JOINT

SINGLE INVERT MANHOLES MAY BE 48" IN DIAMETER OR GREATER. MULTIPLE INVERT & DROP MANHOLES MUST BE 60" IN DIAMETER OR GREATER.

**Providence City Public  
Works Department**

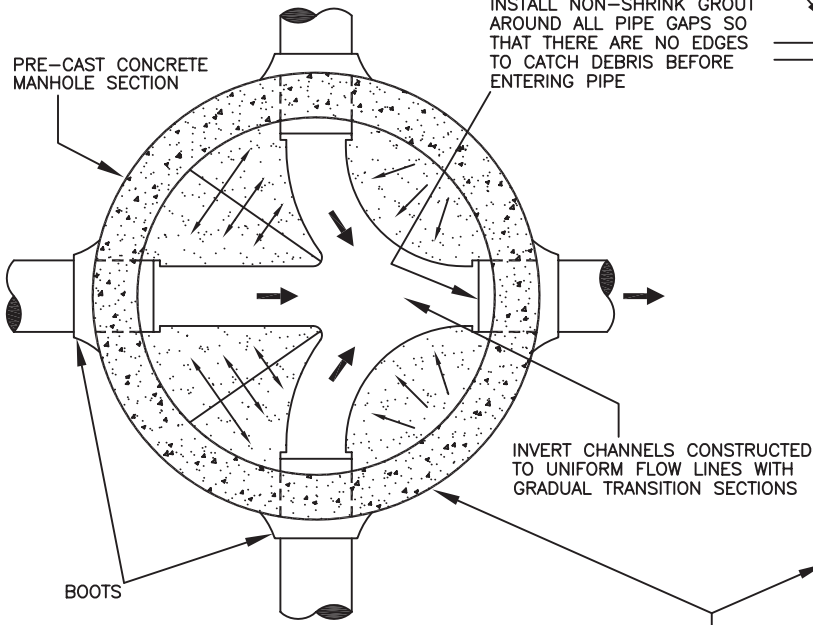
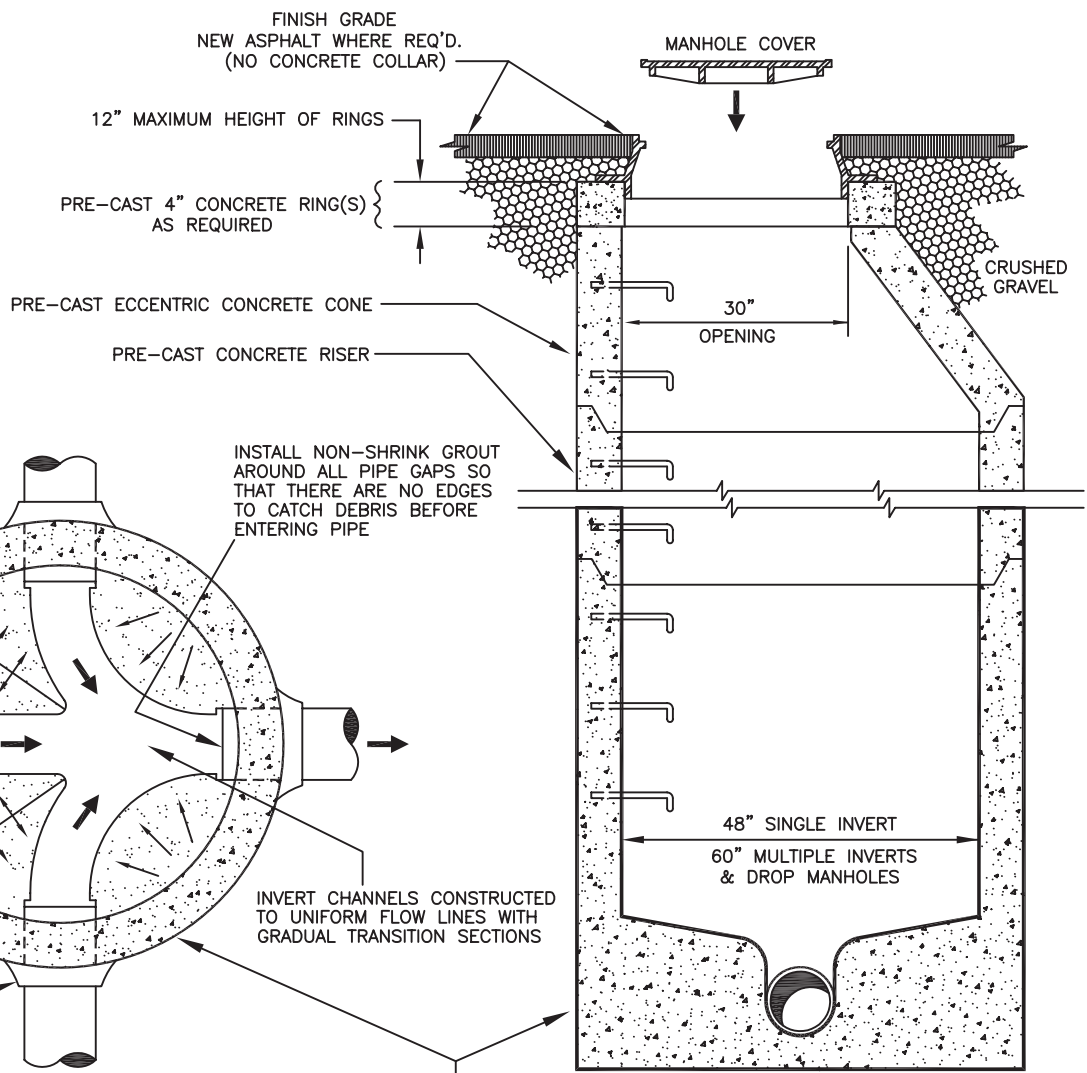
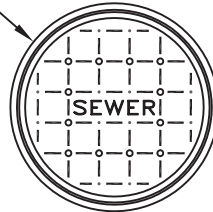
**Sewer Manhole  
ISOMETRIC VIEW**

**DRAWING NO. S-1**

**REVISED 05-07-07**

# MANHOLE COVER PLAN VIEW

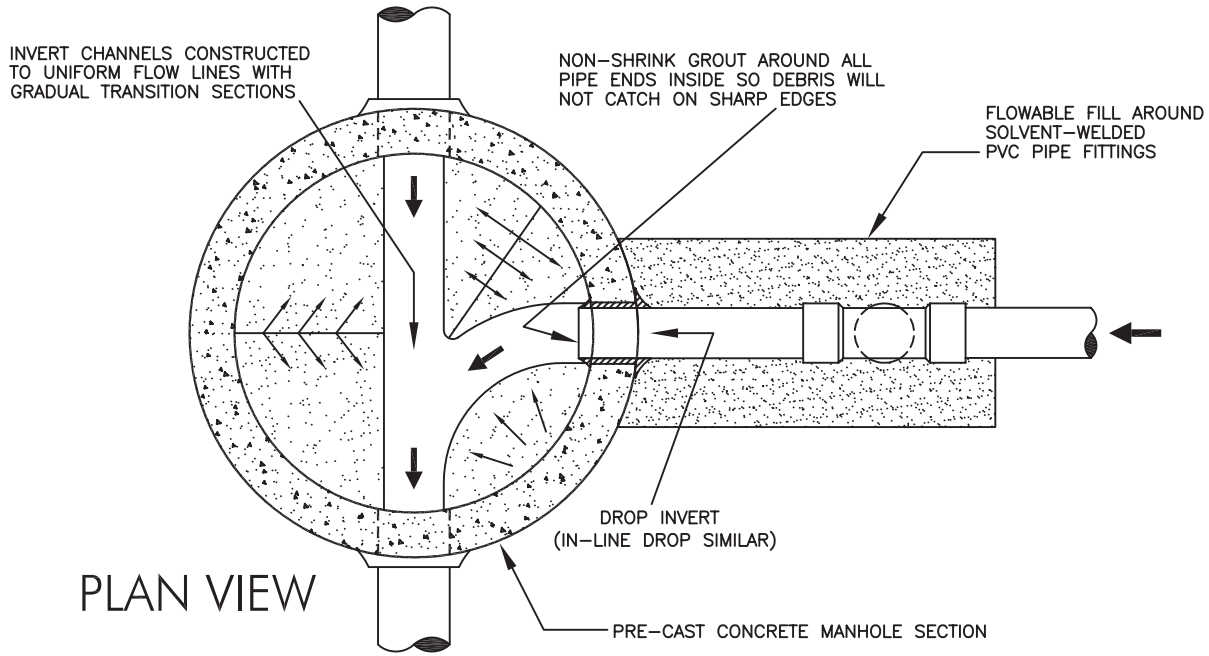
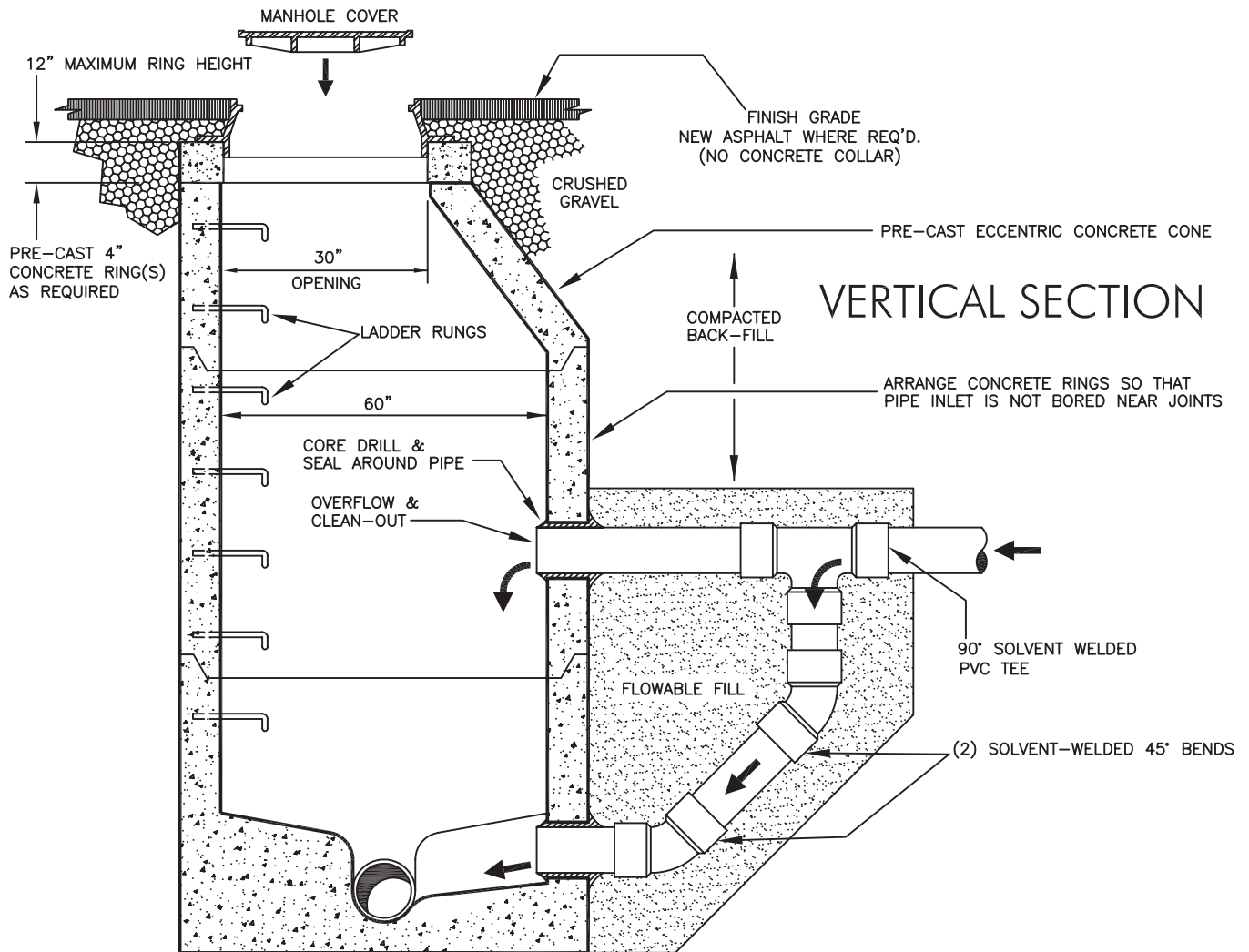
STANDARD MANHOLE COVER LABELED  
"SEWER" WITH VENT HOLES.  
MINIMUM COVER WEIGHT = 120#  
MINIMUM FRAME WEIGHT = 155#



MULTIPLE INVERTS  
PLAN VIEW

VERTICAL SECTION

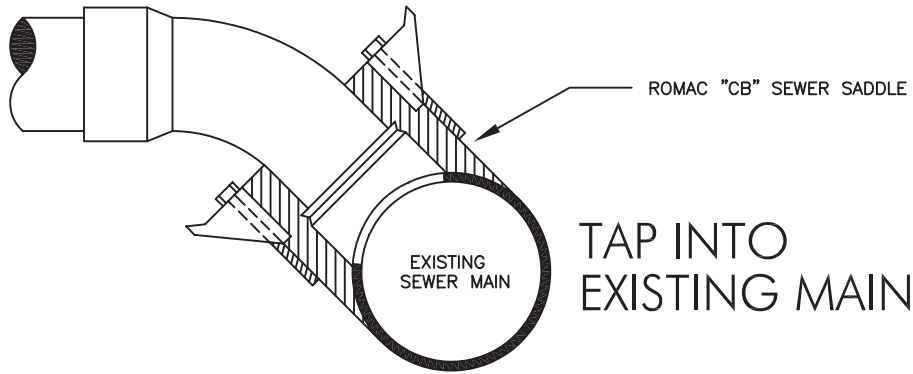
PRE-CAST CONCRETE BASE  
ON COMPACTED EARTH



**Providence City Public  
Works Department**

**Drop Manhole**

**DRAWING NO. S-2  
REVISED 05-07-07**

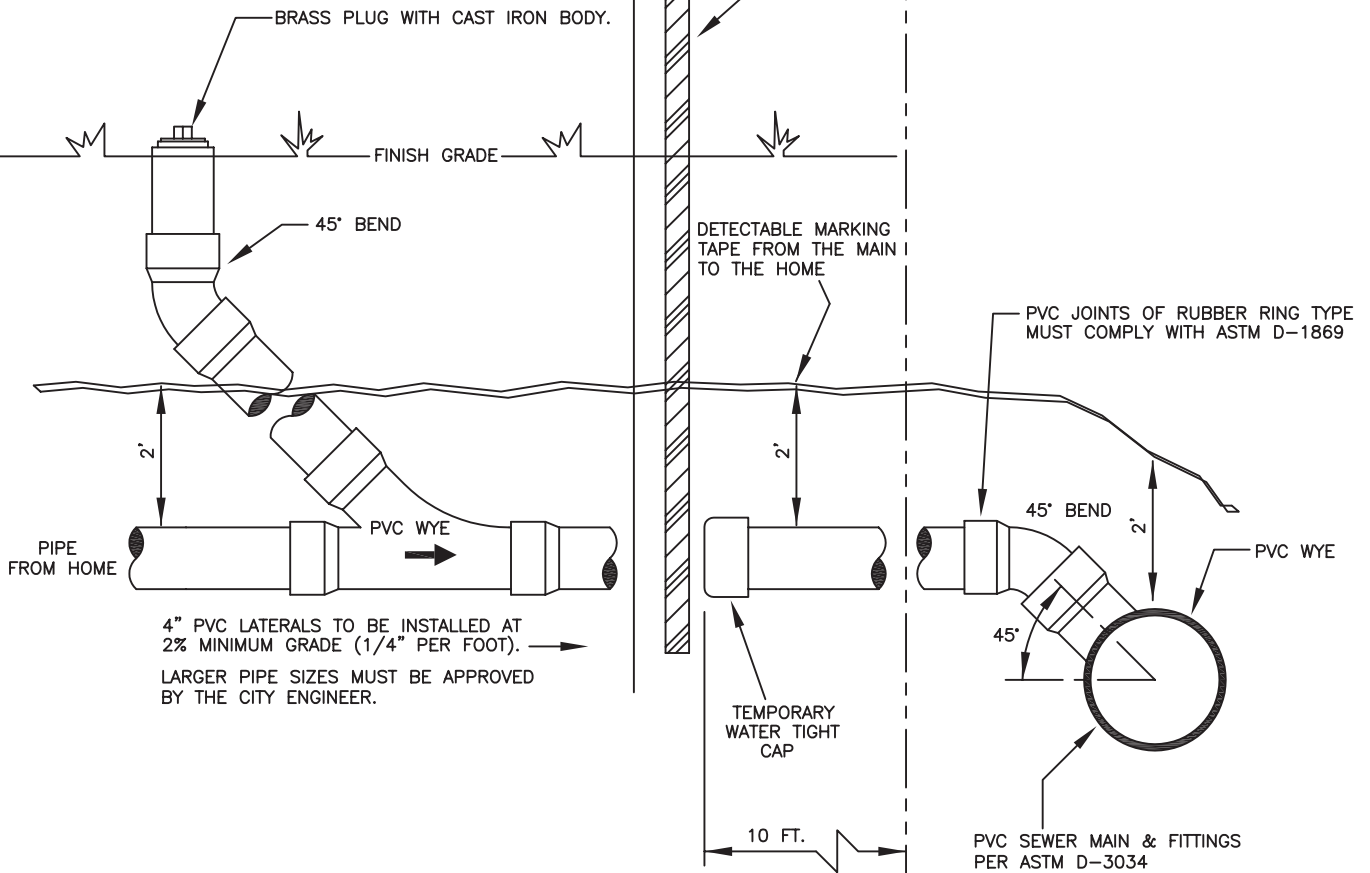


THE ENDS OF SERVICE LATERALS SHALL BE MARKED WITH A TREATED 2x4 PAINTED GREEN. DETECTABLE MARKING TAPE SHALL BE INSTALLED FROM THE SEWER MAIN TO THE HOME.

R. O. W. LINE

BY HOMEOWNER ← | → BY DEVELOPER

CLEAN-OUTS ARE REQUIRED AT EVERY BEND GREATER THAN 45°, & AT EVERY 100 FEET OF PIPE LENGTH.

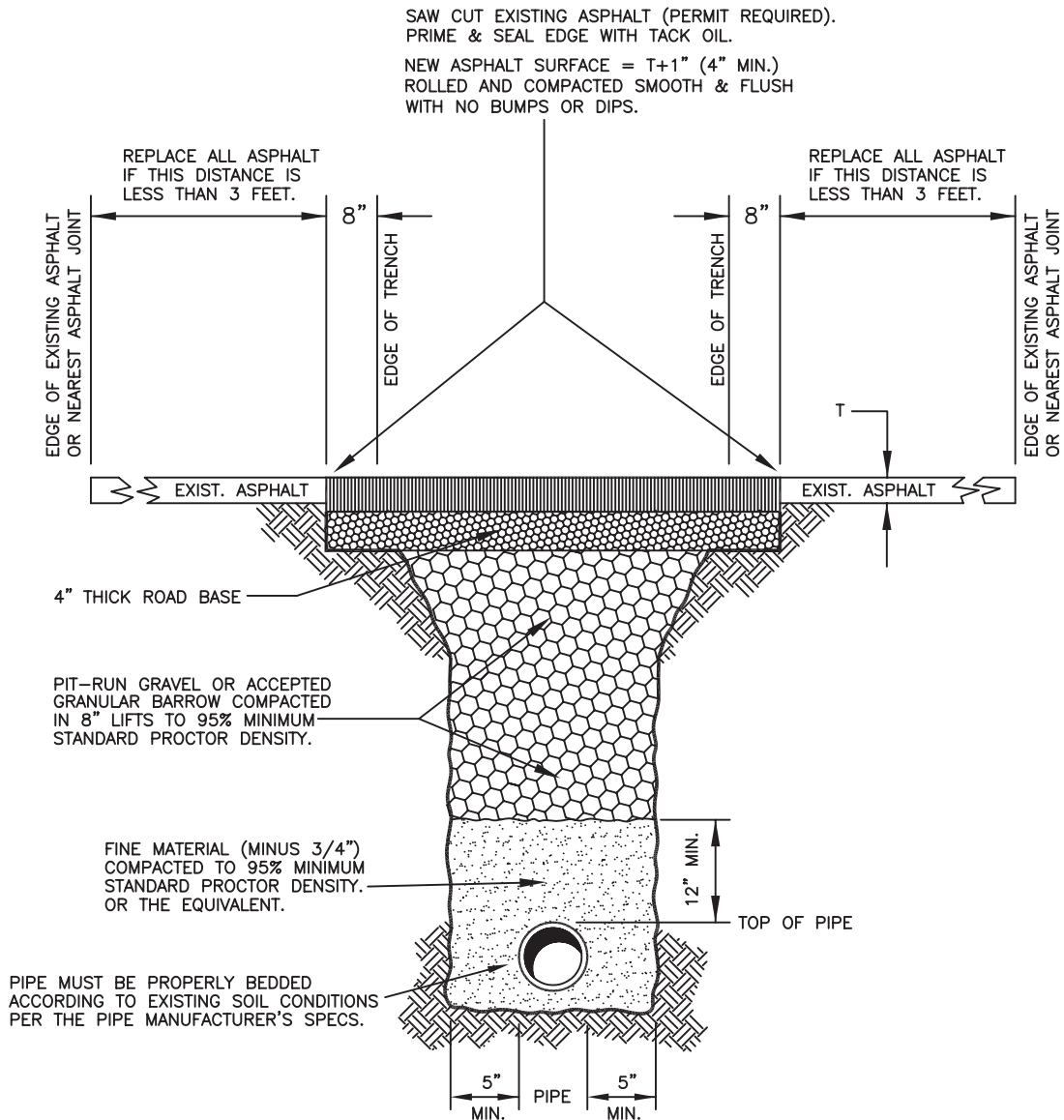


**Providence City Public  
Works Department**

**Sewer Lateral**

**DRAWING NO. S-4**

**REVISED 05-07-07**



## NOTES

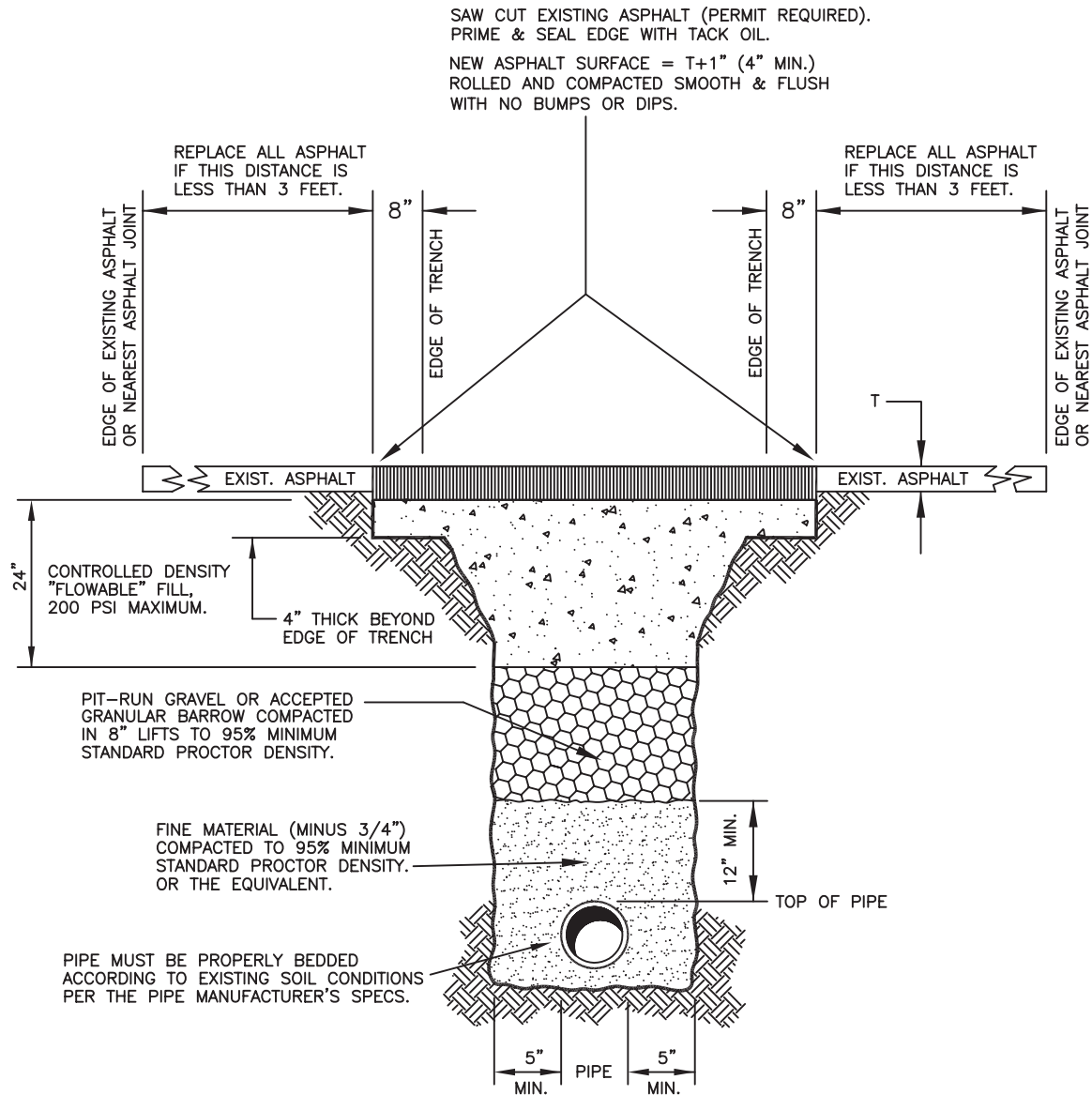
1. ALL NEW ASPHALT SHALL BE INSTALLED FLUSH WITH THE EXISTING ASPHALT SURFACE WITH NO MORE THAN 1/2" VARIANCE FROM A STRAIGHT EDGE LAID ACROSS THE TRENCH CUT. IF THE NEW ASPHALT BULGES OR SETTLES MORE THAN THIS TOLERANCE ONE YEAR AFTER INSTALLATION, THE DEVELOPER WILL REMOVE THE ASPHALT AND RE-PAVE THE CUT AREA TO THE ABOVE TOLERANCE. IF THE ASPHALT PLANTS ARE CLOSED FOR THE SEASON, USE "COLD MIX" ASPHALT OR FLOWABLE FILL, AND REPLACE IT WITH "HOT MIX" WITHIN 30 DAYS AFTER THE PLANTS REOPEN.
2. TYPE "T-A" TRENCHES REQUIRE COMPACTION TESTS APPROVED BY THE CITY ENGINEER. THIS APPROVAL DOES NOT RELIEVE THE CONTRACTOR FROM THE REQUIREMENTS IN NOTE 1. CONTRACTOR WILL GIVE THE CITY ENGINEER WRITTEN CERTIFICATION OF PROPER COMPACTION FROM A LICENSED SOILS TESTING ENGINEER.
3. ALL SPOIL MATERIAL EXCAVATED FROM TRENCHES SHOULD BE EXPORTED FROM CITY PROPERTY. ALL TRENCHING MUST COMPLY WITH FEDERAL OSHA REQUIREMENTS.

**Providence City Public  
Works Department**

**Type "A" Trench  
PARALLEL TO TRAFFIC FLOW**

**DRAWING NO. T-A**

**REVISED 05-07-07**



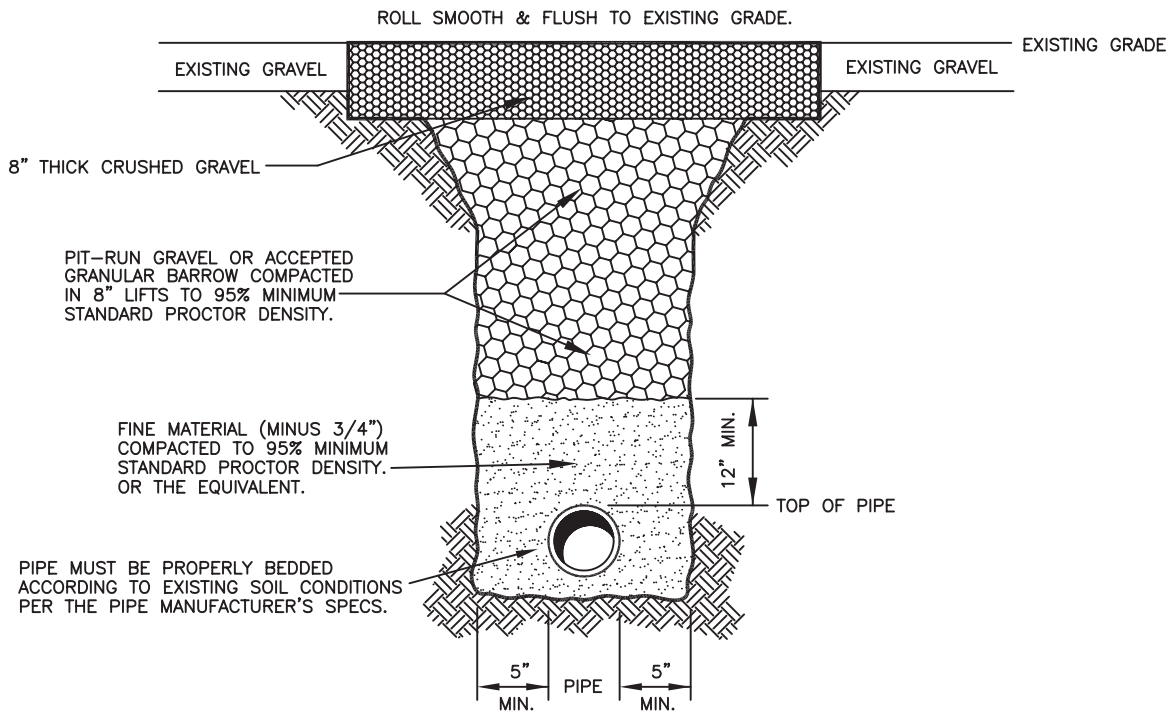
## NOTES

1. ALL NEW ASPHALT SHALL BE INSTALLED FLUSH WITH THE EXISTING ASPHALT SURFACE WITH NO MORE THAN 1/2" VARIANCE FROM A STRAIGHT EDGE LAID ACROSS THE TRENCH CUT. IF THE NEW ASPHALT BULGES OR SETTLES MORE THAN THIS TOLERANCE ONE YEAR AFTER INSTALLATION, THE DEVELOPER WILL REMOVE THE ASPHALT AND RE-PAVE THE CUT AREA TO THE ABOVE TOLERANCE. IF THE ASPHALT PLANTS ARE CLOSED FOR THE SEASON, USE "COLD MIX" ASPHALT OR FLOWABLE FILL, AND REPLACE IT WITH "HOT MIX" WITHIN 30 DAYS AFTER THE PLANTS REOPEN.
2. FLOWABLE FILL MUST BE INSTALLED IN ALL ASPHALT TRENCHES THAT CROSS THE FLOW OF TRAFFIC AT A RIGHT ANGLE AND ALSO AT ALL CANAL CROSSINGS. THE FLOWABLE FILL MUST MEET ASTM STANDARDS AND HAVE THE CORRECT DENSITY, AGGREGATE, ENTRAINED AIR, AND WATER CONTENT REQUIRED FOR UTILITY TRENCHING UNDER EXISTING ASPHALT ROADWAYS. THE DENSITY SHALL BE SUCH AS TO PERMIT HAND EXCAVATION AND SHOULD NOT EXCEED 200 PSI. THE FIRST POUR SHOULD BE OVER AND AROUND PIPE JOINTS WITH ANCHOR DEVICES, IF NECESSARY, TO AVOID PIPE FLOTATION. TEMPORARY BULKHEADS SHOULD BE USED AT EACH END OF THE TRENCH TO CONTAIN THE FLOWABLE FILL. THE TOP SURFACE OF THE FLOWABLE FILL MUST MATCH THE SLOPE OF THE EXISTING ASPHALT SURFACE. STEEL TRAFFIC PLATES SPANNING THE TRENCH MUST BE PROVIDED TO PREVENT CONTACT WITH THE FLOWABLE FILL UNTIL IT HAS CURED. WARNING SIGNS MUST BE PLACED UNTIL THE FINAL ASPHALT PAVING IS COMPLETED.
3. ALL SPOIL MATERIAL EXCAVATED FROM TRENCHES SHOULD BE EXPORTED FROM CITY PROPERTY. ALL TRENCHING MUST COMPLY WITH FEDERAL OSHA REQUIREMENTS.

**Providence City Public  
Works Department**

**Type "F" Trench**  
**90° CROSSING TRAFFIC FLOW**

**DRAWING NO. T-F**  
**REVISED 05-07-07**



## NOTES

1. INSTALL 8" THICK CRUSHED GRAVEL AT THE TRENCH SURFACE. COMPACT THE GRAVEL AND ROLL IT SMOOTH AND FLUSH WITH THE EXISTING GRADE.
2. RESTORE THE FINISH SURFACE OF ALL TRENCHES ON CITY PROPERTY TO THEIR ORIGINAL OR BETTER CONDITION.
3. ALL SPOIL MATERIAL EXCAVATED FROM TRENCHES SHOULD BE EXPORTED FROM CITY PROPERTY. ALL TRENCHING MUST COMPLY WITH FEDERAL OSHA REQUIREMENTS.

**Providence City Public  
Works Department**

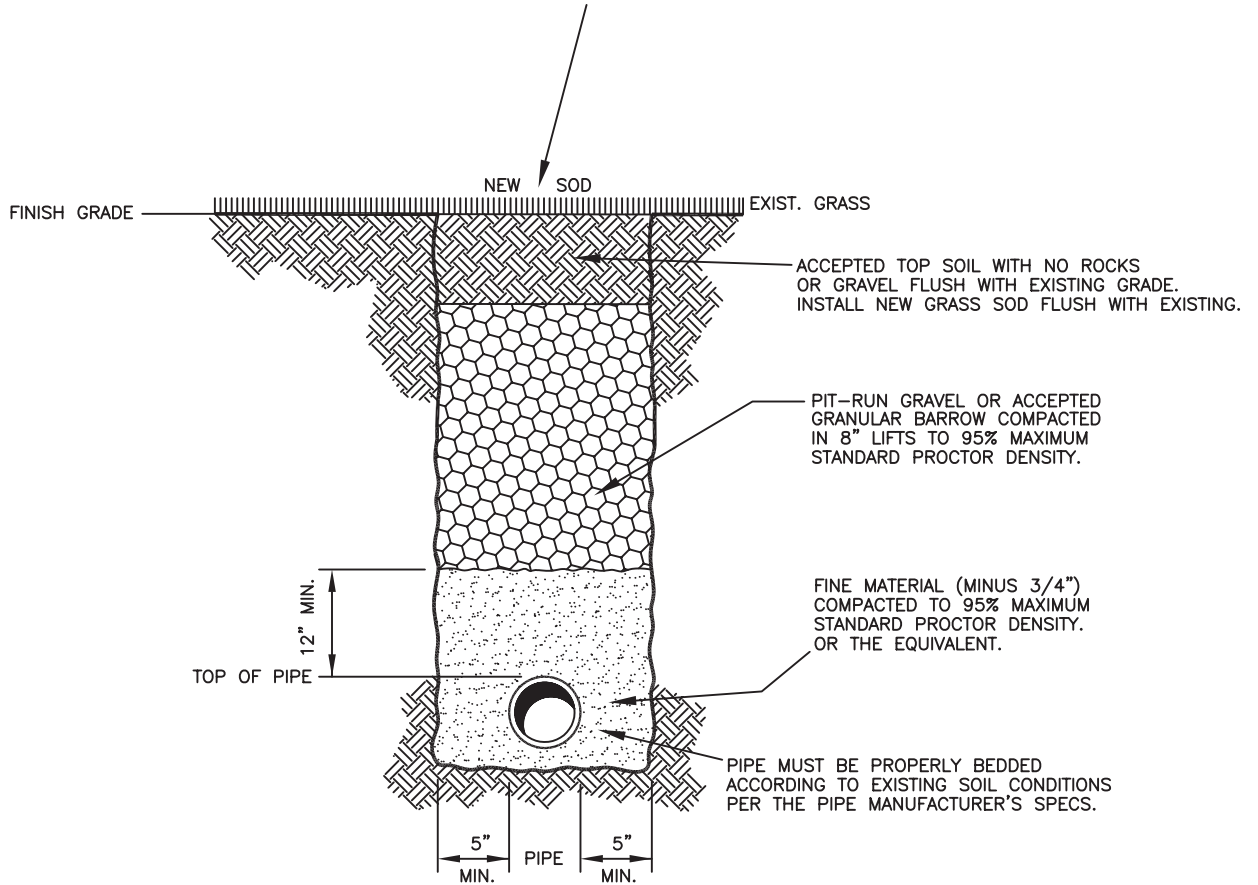
**Type "G" Trench  
IN EXISTING GRAVEL**

**DRAWING NO. T-G**

**REVISED 12-29-06**

ALL SPOIL MATERIAL EXCAVATED FROM TRENCHES SHOULD BE EXPORTED FROM CITY PROPERTY. ALL TRENCHING MUST COMPLY WITH FEDERAL OSHA REQUIREMENTS.

RESTORE FINISH SURFACE OF ALL TRENCHES ON CITY PROPERTY TO ORIGINAL OR BETTER CONDITION.



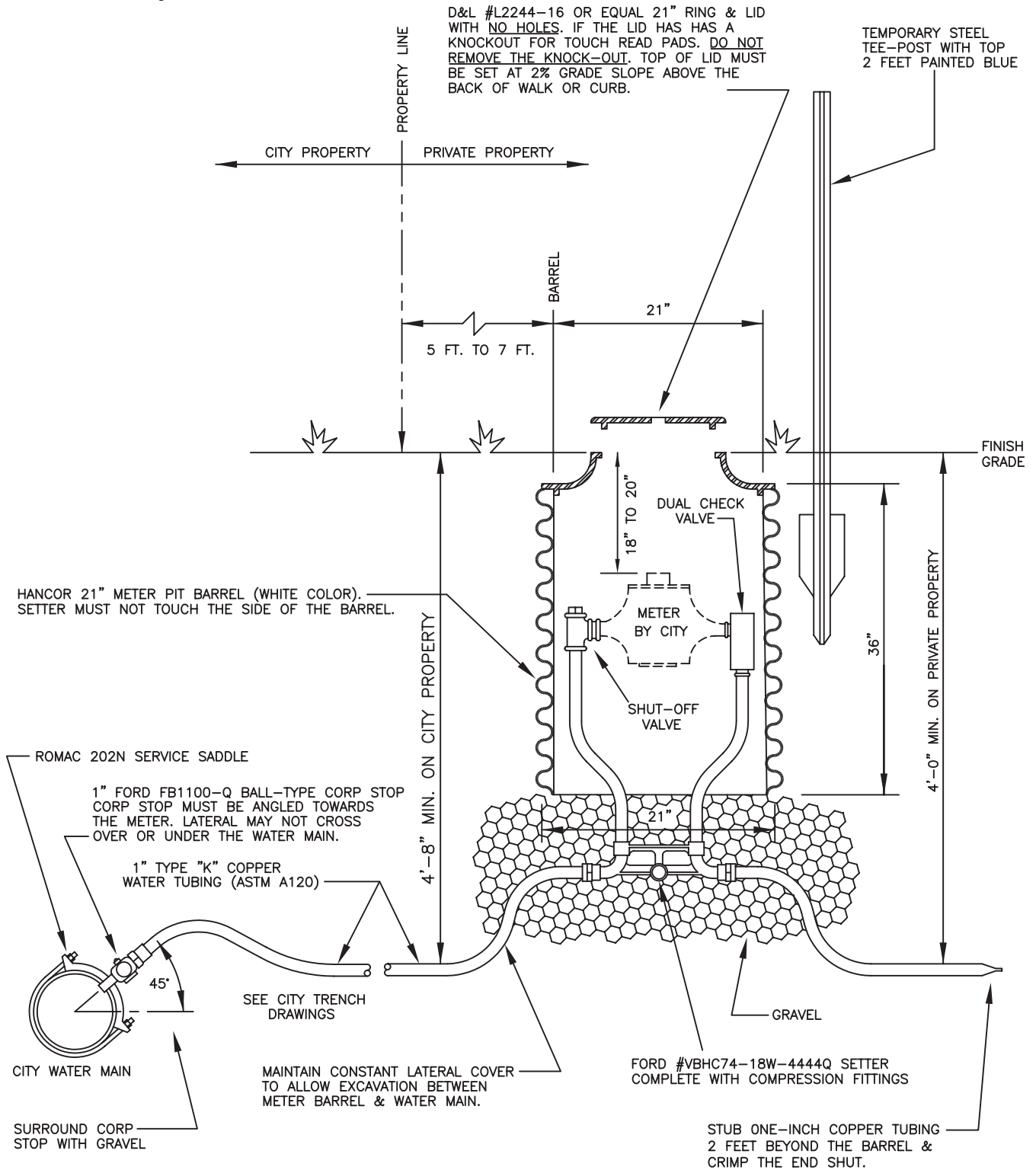
Providence City Public  
Works Department

**Type "S" Trench**  
IN EXISTING GRASS SOD

**DRAWING NO. T-S**

**REVISED 12-29-06**

All laterals are to be one continuous length of Type "K" one-inch copper tubing. No spliced joints will be allowed between the ball valve at the water main and the meter setter. The lateral is to be connected to the main with a Romac #202N service saddle and a Ford FB1100 ball valve and corp stop. The developer supplies and installs all materials from the city main to the meter, including the saddle, corp stop and ball valve, one-inch copper lateral, meter setter, shut-off valve, dual check valves, meter barrel, ring and lid.

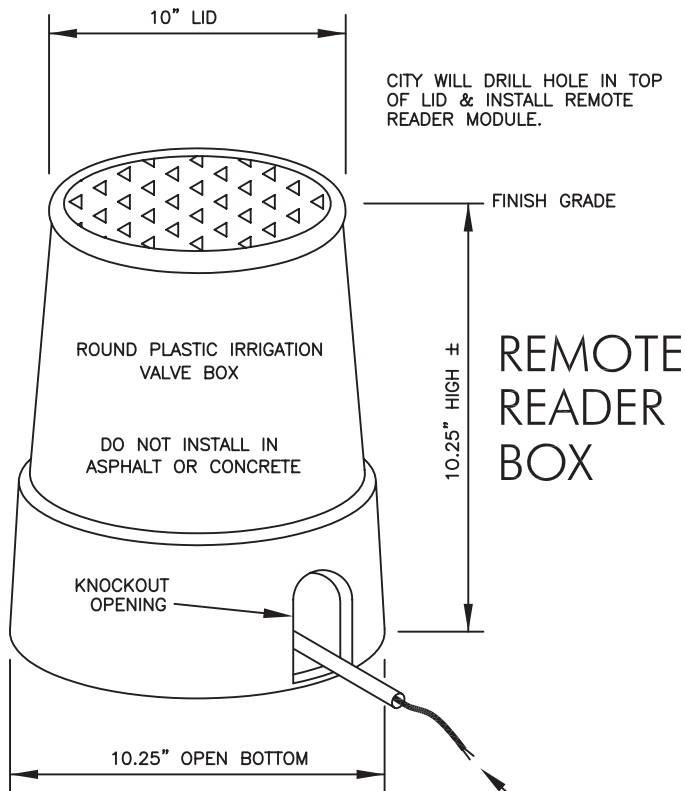


**Providence City Public  
Works Department**

**1" Water Meter**

**DRAWING NO. W-1A  
REVISED 02-26-10**

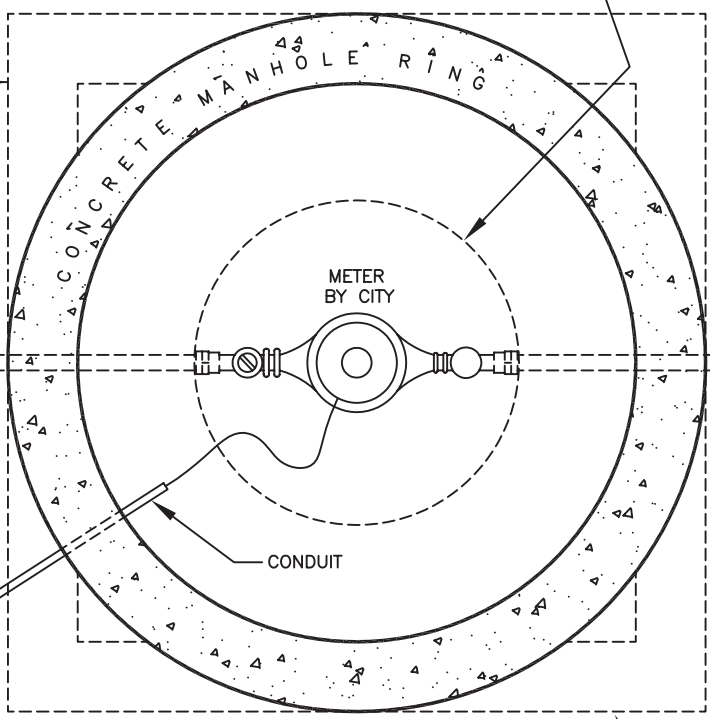




REMOTE READER BOX

MANHOLE COVER

D&L MANHOLE COVER & RING LABELED "WATER" WITH NO HOLES.



PLAN VIEW

OPTIONAL 4x4 VAULT

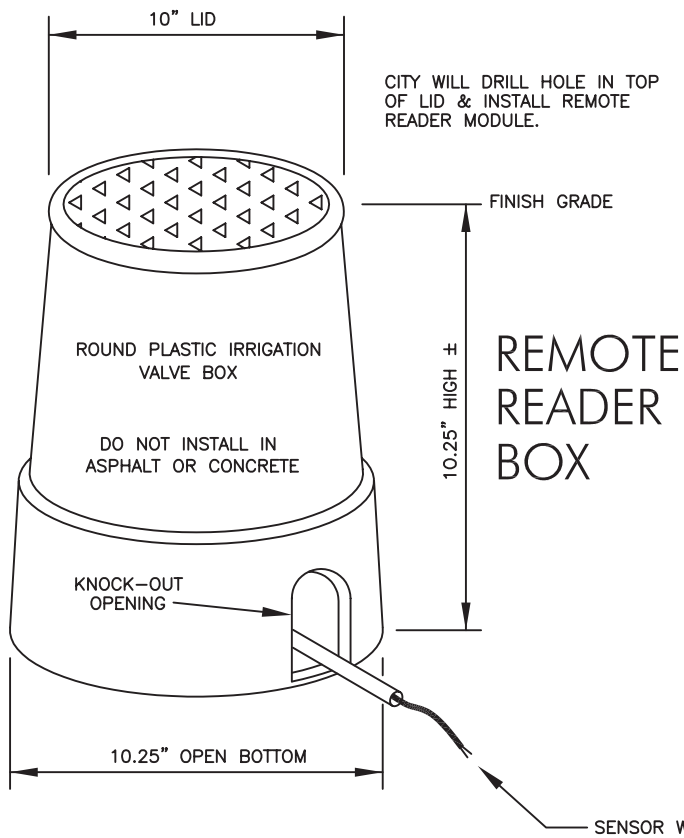
REMOTE READER BOX TO BE INSTALLED IN DIRT ONLY. VERIFY ACTUAL LOCATION WITH CITY BEFORE INSTALLATION. SEE DETAIL ABOVE.

Providence City Public Works Department

1-1/2 Inch Meter Details

DRAWING NO. W-1B.1  
REVISED 02-26-10





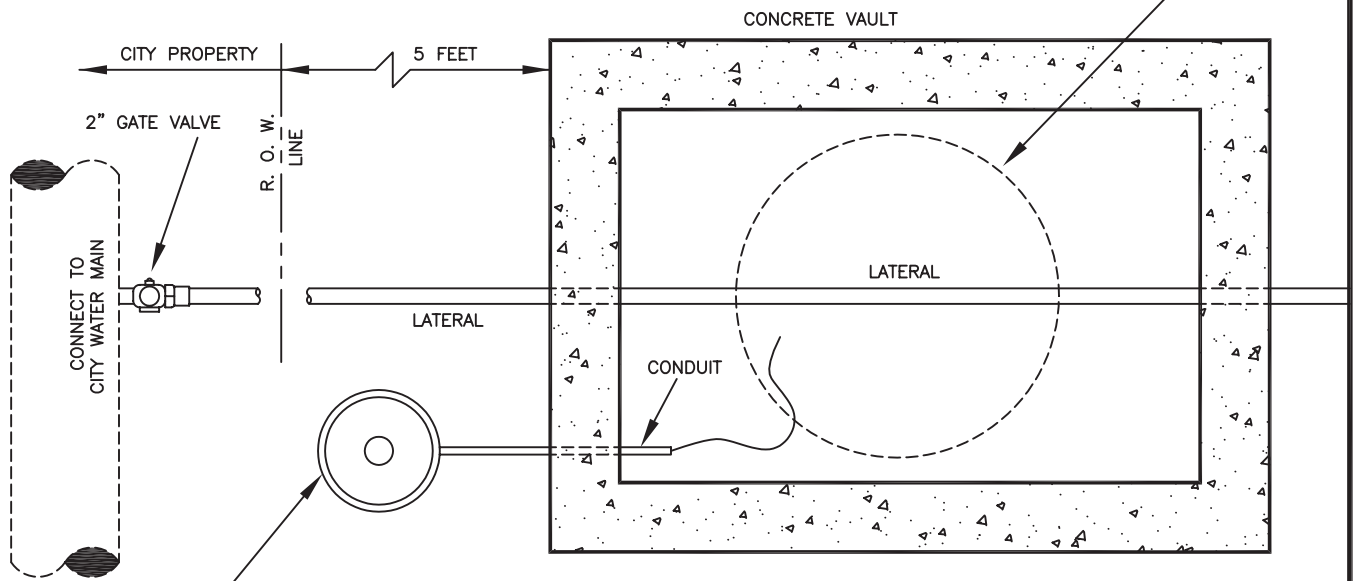
### MANHOLE COVER

D&L MANHOLE COVER & RING  
 LABELED "WATER" WITH NO HOLES.



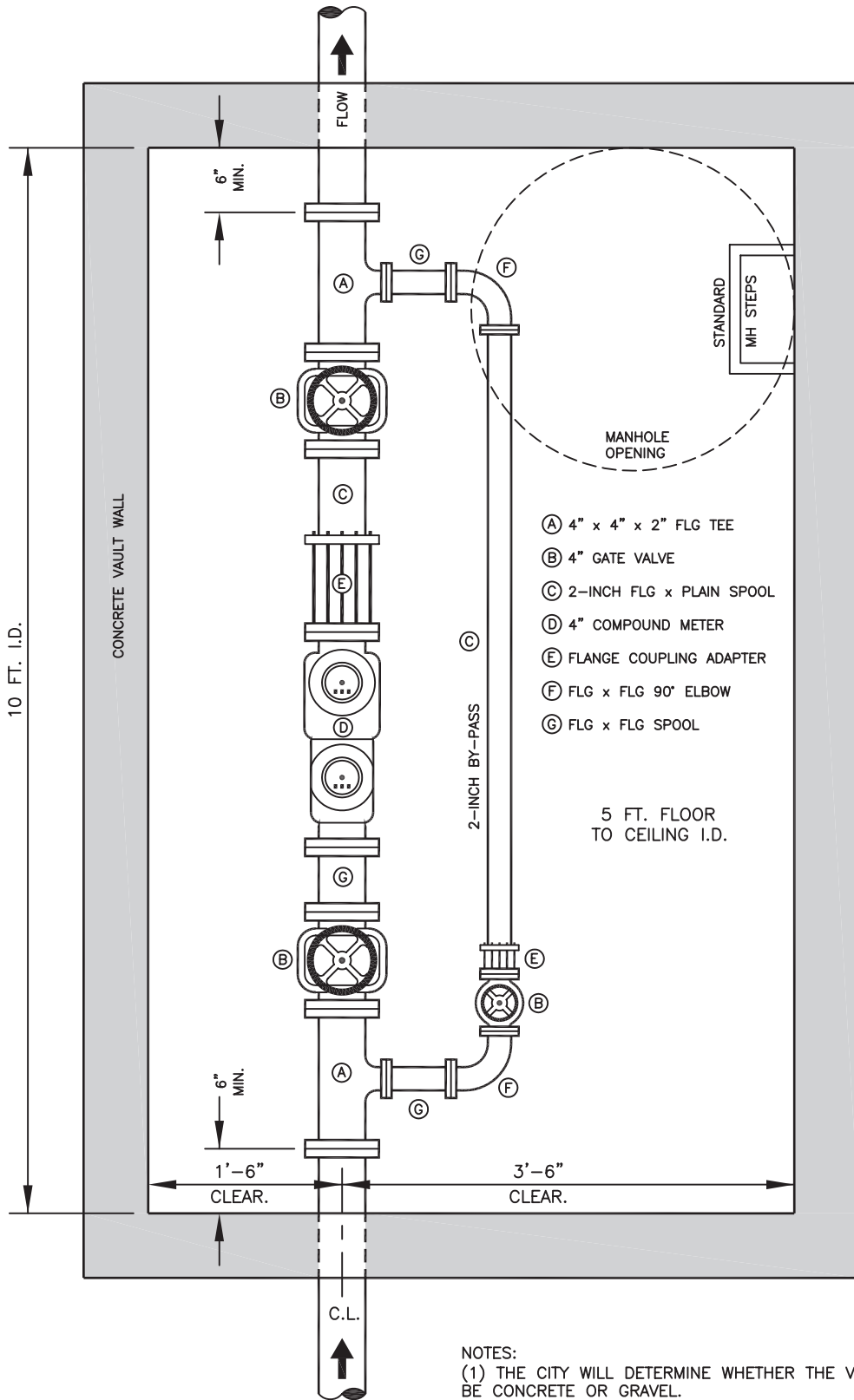
### REMOTE READER BOX

SENSOR WIRE TO METER



INSTALL REMOTE READER BOX ONLY IF IT CAN BE  
 INSTALLED IN DIRT. VERIFY ACTUAL LOCATION WITH  
 CITY BEFORE INSTALLATION. SEE DETAIL ABOVE

### PLAN VIEW

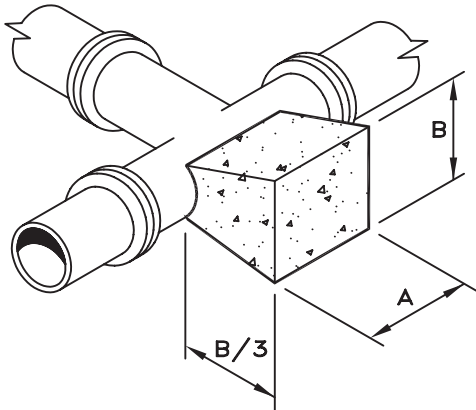


- (A) 4" x 4" x 2" FLG TEE
- (B) 4" GATE VALVE
- (C) 2-INCH FLG x PLAIN SPOOL
- (D) 4" COMPOUND METER
- (E) FLANGE COUPLING ADAPTER
- (F) FLG x FLG 90° ELBOW
- (G) FLG x FLG SPOOL

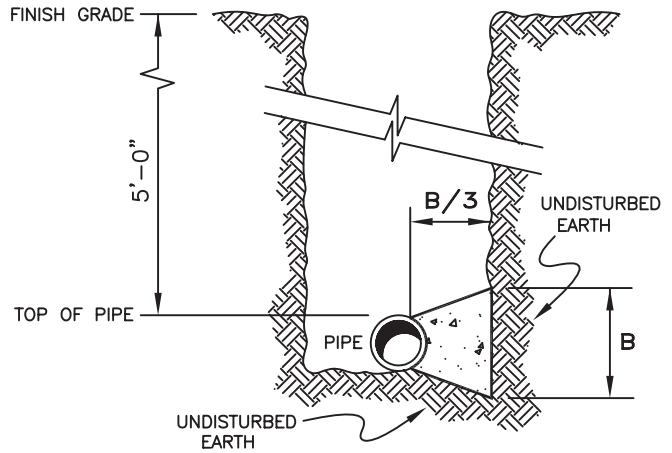
5 FT. FLOOR TO CEILING I.D.

- NOTES:
- (1) THE CITY WILL DETERMINE WHETHER THE VAULT FLOOR SHALL BE CONCRETE OR GRAVEL.
  - (2) THE CITY WILL SPECIFY THE MAKE & MODEL OF THE METER TO BE PURCHASED & INSTALLED BY THE DEVELOPER.
  - (3) THE CITY WILL SPECIFY THE NUMBER, TYPE & LOCATION OF PIPE SUPPORTS BASED ON THE FLOOR MATERIAL. NO WOOD OR BRICK STANDS WILL BE ALLOWED.
  - (4) THE DEVELOPER SHALL SUPPLY & INSTALL A CITY-STANDARD GATE VALVE AT THE CONNECTION TO THE CITY'S WATER MAIN UPSTREAM OF THE VAULT.

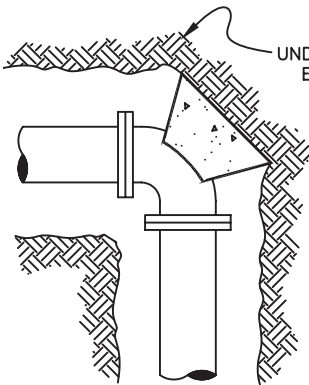
1. ALL THRUST BLOCKING MUST BE INSPECTED BY THE CITY PRIOR TO BACKFILLING THE TRENCH.
2. ALL CONCRETE SHALL BE 4,000 P.S.I. 28-DAY STRENGTH.
3. ALL THRUST BLOCKS SHALL BE FORMED.



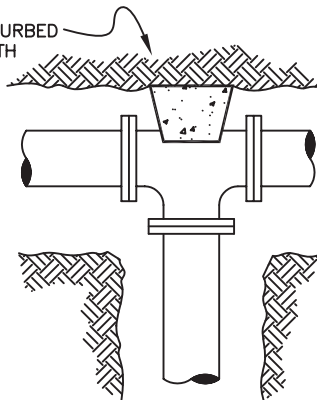
BLOCK DIMENSIONS  
ISOMETRIC VIEW



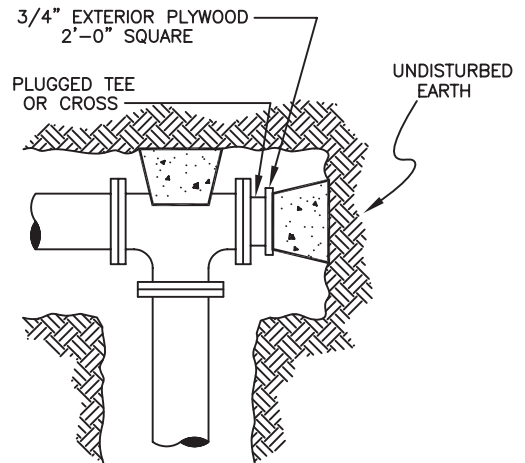
VERTICAL SECTION



BEND PLAN



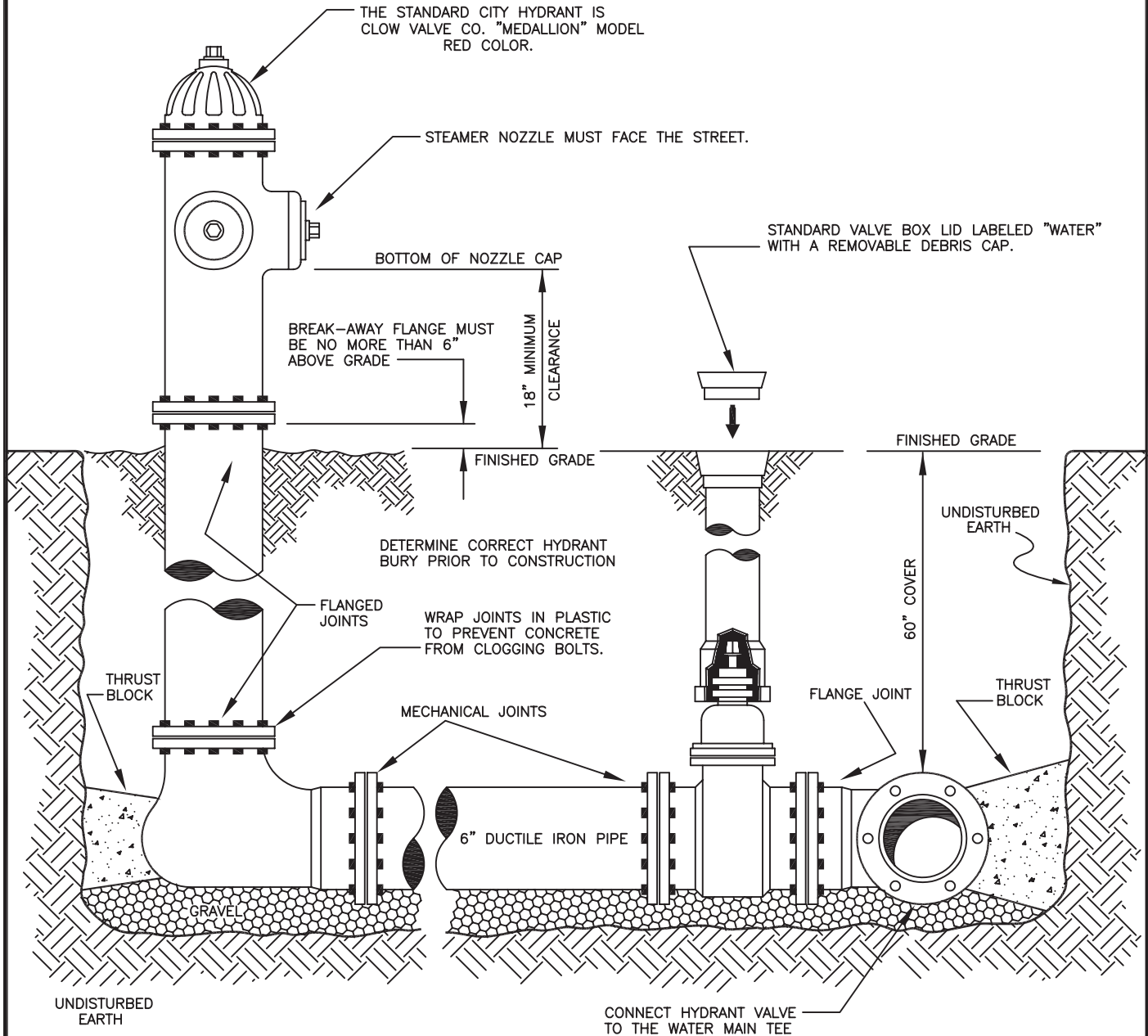
TEE & HOT  
TAP PLAN



CAPPED  
TEE PLAN

THRUST BLOCKING DIMENSIONS								
FITTING SIZES	TEES & PLUGS		90° BENDS		45° BENDS & "Y"s		22-1/2° BENDS	
	A	B	A	B	A	B	A	B
6"	2'-0"	0'-9"	2'-0"	1'-0"	1'-3"	0'-9"	1'-0"	0'-9"
8"	2'-0"	1'-0"	2'-0"	1'-3"	1'-6"	1'-0"	1'-0"	1'-0"
10"	2'-6"	1'-3"	2'-9"	1'-6"	1'-9"	1'-3"	1'-3"	1'-0"
12"	2'-3"	1'-9"	3'-3"	1'-9"	2'-0"	1'-6"	1'-6"	1'-3"
16"	3'-6"	2'-0"	4'-3"	2'-3"	3'-0"	1'-9"	1'-9"	1'-6"

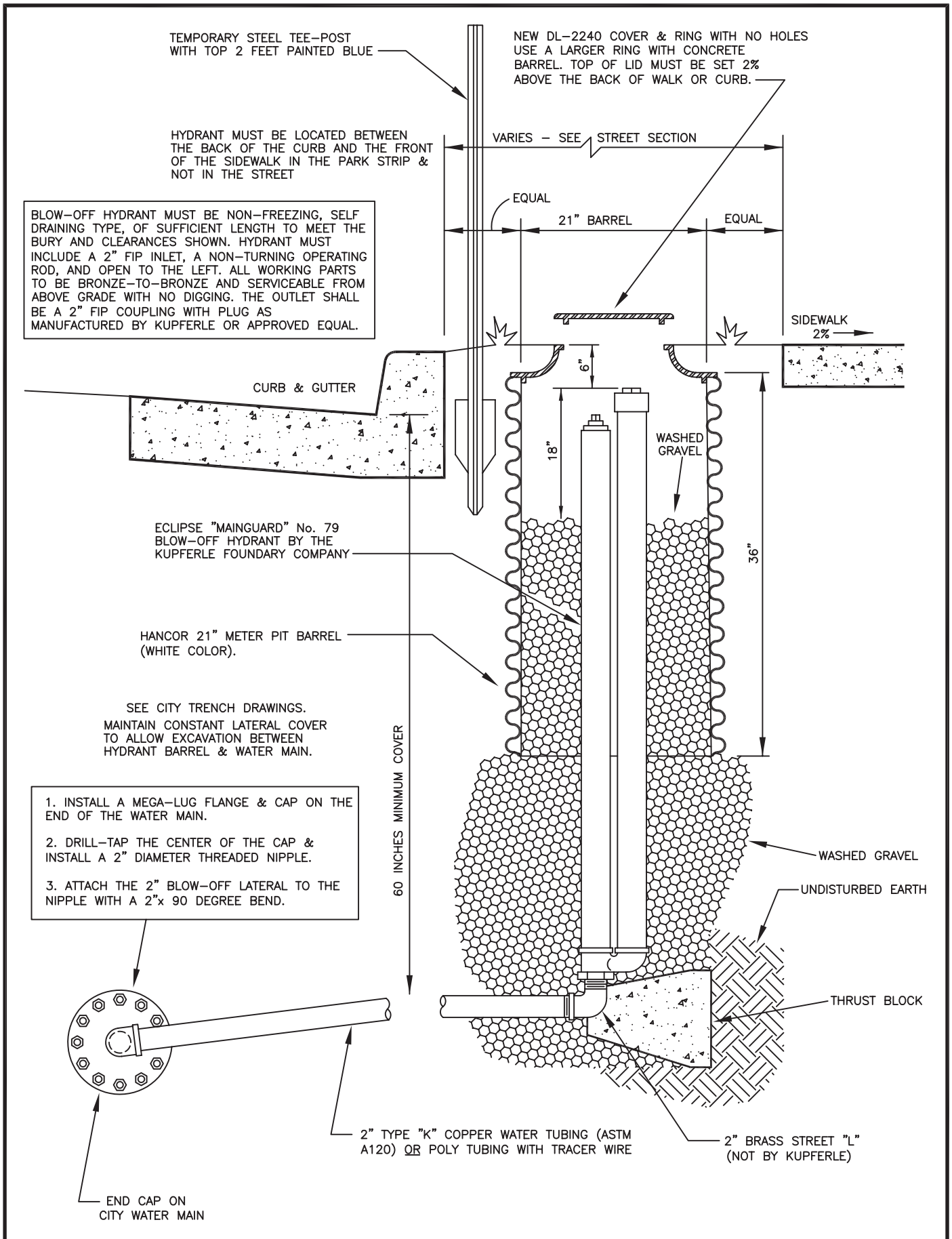
LOCATE THE HYDRANT BETWEEN THE BACK OF THE CURB & THE FRONT OF THE SIDEWALK.  
 INSTALL PLUMB WITH THE NOZZLES FACING THE STREET.



**Providence City Public  
 Works Department**

**Fire Hydrant  
 ASSEMBLY**

**DRAWING NO. W-3  
 REVISED 02-26-10**



TEMPORARY STEEL TEE-POST WITH TOP 2 FEET PAINTED BLUE

NEW DL-2240 COVER & RING WITH NO HOLES USE A LARGER RING WITH CONCRETE BARREL. TOP OF LID MUST BE SET 2" ABOVE THE BACK OF WALK OR CURB.

HYDRANT MUST BE LOCATED BETWEEN THE BACK OF THE CURB AND THE FRONT OF THE SIDEWALK IN THE PARK STRIP & NOT IN THE STREET

VARIES - SEE STREET SECTION

BLOW-OFF HYDRANT MUST BE NON-FREEZING, SELF DRAINING TYPE, OF SUFFICIENT LENGTH TO MEET THE BURY AND CLEARANCES SHOWN. HYDRANT MUST INCLUDE A 2" FIP INLET, A NON-TURNING OPERATING ROD, AND OPEN TO THE LEFT. ALL WORKING PARTS TO BE BRONZE-TO-BRONZE AND SERVICEABLE FROM ABOVE GRADE WITH NO DIGGING. THE OUTLET SHALL BE A 2" FIP COUPLING WITH PLUG AS MANUFACTURED BY KUPFERLE OR APPROVED EQUAL.

EQUAL

21" BARREL

EQUAL

SIDEWALK 2%

CURB & GUTTER

WASHED GRAVEL

ECLIPSE "MAINGUARD" No. 79 BLOW-OFF HYDRANT BY THE KUPFERLE FOUNDRY COMPANY

HANCOR 21" METER PIT BARREL (WHITE COLOR).

SEE CITY TRENCH DRAWINGS. MAINTAIN CONSTANT LATERAL COVER TO ALLOW EXCAVATION BETWEEN HYDRANT BARREL & WATER MAIN.

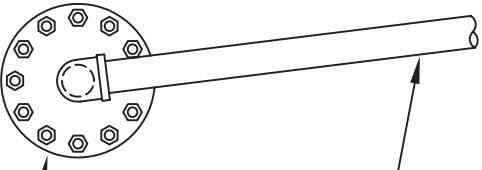
60 INCHES MINIMUM COVER

1. INSTALL A MEGA-LUG FLANGE & CAP ON THE END OF THE WATER MAIN.
2. DRILL-TAP THE CENTER OF THE CAP & INSTALL A 2" DIAMETER THREADED NIPPLE.
3. ATTACH THE 2" BLOW-OFF LATERAL TO THE NIPPLE WITH A 2"x 90 DEGREE BEND.

WASHED GRAVEL

UNDISTURBED EARTH

THRUST BLOCK



END CAP ON CITY WATER MAIN

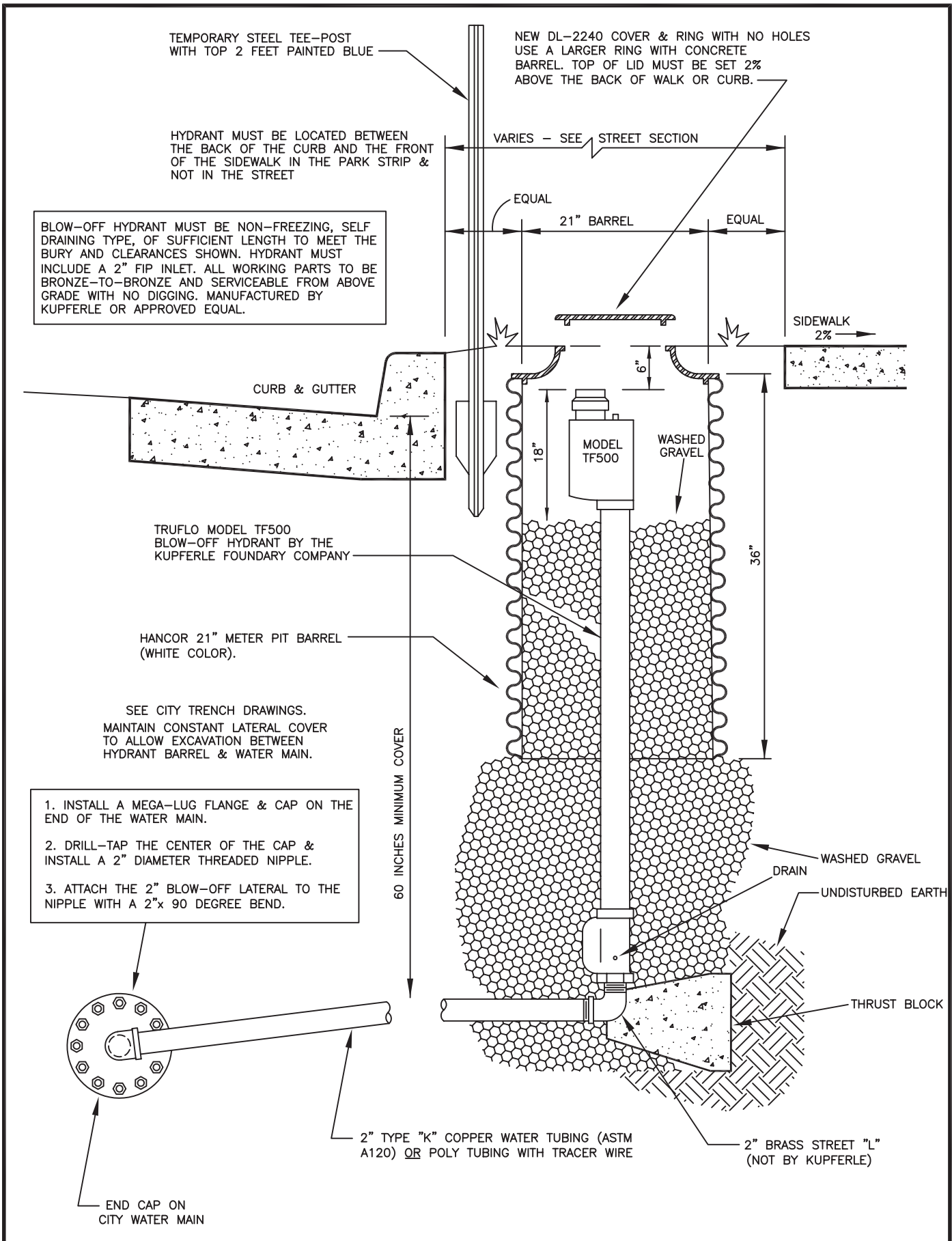
2" TYPE "K" COPPER WATER TUBING (ASTM A120) OR POLY TUBING WITH TRACER WIRE

2" BRASS STREET "L" (NOT BY KUPFERLE)

**Providence City Public Works Department**

**No. 79 Blow-off Hydrant**

**DRAWING NO. W-4A**  
**REVISED 06-02-08**

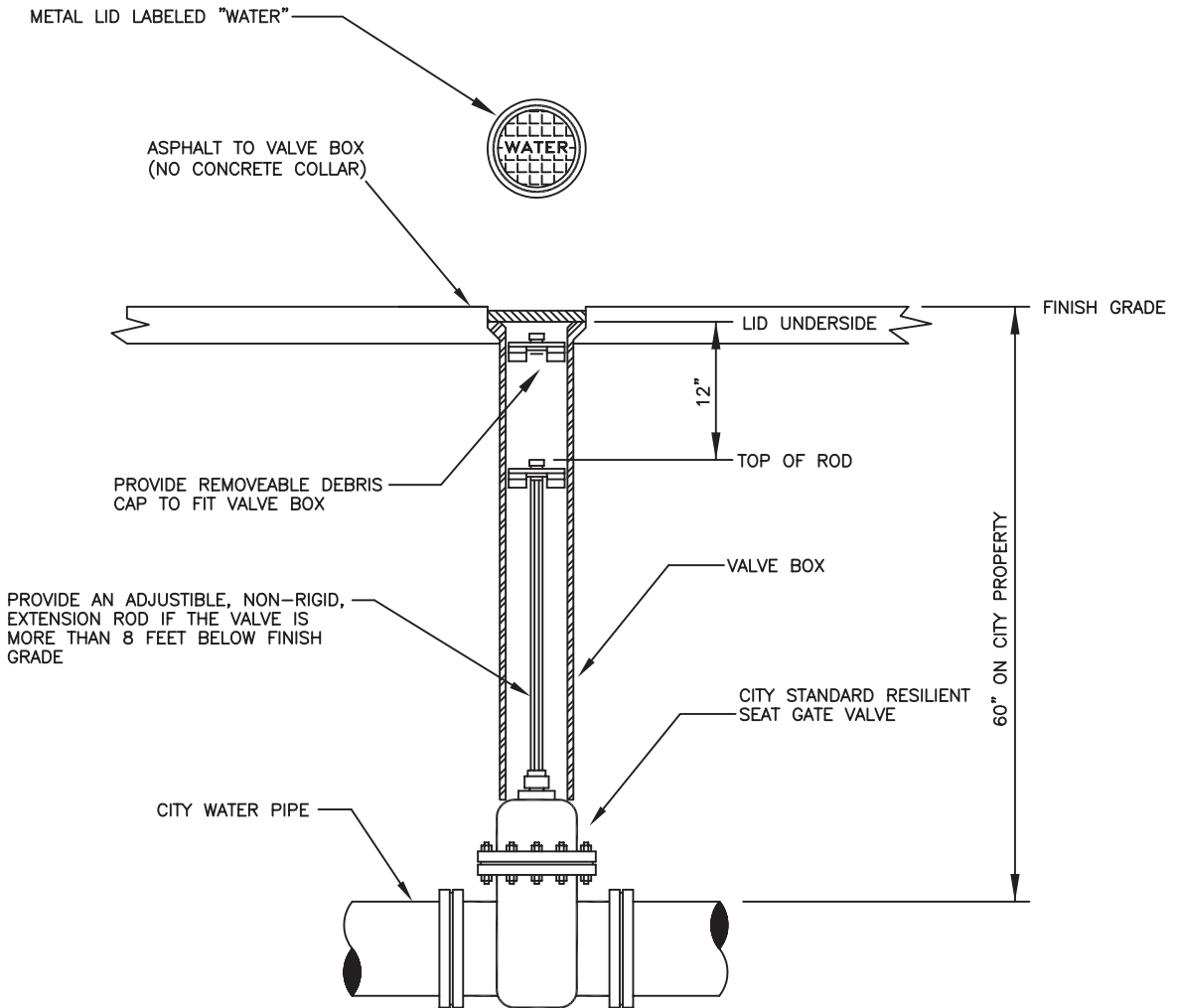


**Providence City Public  
Works Department**

**TF500  
Blow-off Hydrant**

**DRAWING NO. W-4B**

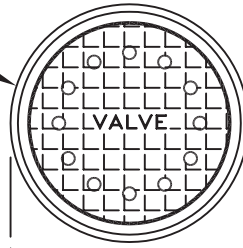
**REVISED 06-02-08**



GATE VALVE & VALVE BOX

PLAN VIEW OF LID

NEW DL-2240 COVER WITH (12) 1/2" HOLES COVERED WITH #14 GALVANIZED MESH WELDED TO THE INSIDE



FINISH GRADE

HANCOR 21" METER PIT BARREL (WHITE COLOR). VALVE MUST NOT TOUCH THE SIDE OF THE BARREL. LOCATE BETWEEN THE CURB & SIDEWALK.

"U" SHAPE BLOW-OFF PIPE

RING

24" MINIMUM

#14 MESH NON-CORRODING SCREEN (14 DIVISIONS PER INCH) PER R309-211-6(6) OF UTAH ADMINISTRATIVE CODE.

COMBINATION AIR VAC/AIR RELEASE VALVE. APCO BRAND OR APPROVED EQUAL.

NIPPLE

CONNECT VALVE TO LATERAL

BALL VALVE

ANCHOR PIPE TO STAKE WITH STAINLESS STEEL SUPPORT BAND

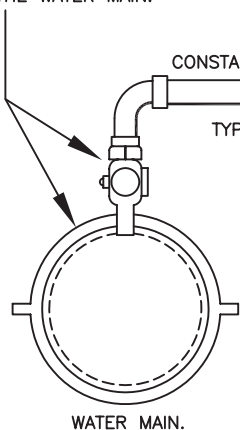
ROMAC 202N SERVICE SADDLE WITH A BALL-TYPE CORP. STOP. TO AVOID TRAPPED AIR POCKETS, THE CORP STOP MUST BE ANGLED VERTICALLY WITH AN UP-SLOPED LATERAL TO THE AIR VALVE. INSTALL AT HIGH POINT IN THE WATER MAIN.

CONSTANT POSITIVE PIPE SLOPE

TYPE "K" COPPER WATER TUBING (ASTM A120)

1" MINUS WASHED GRAVEL BEDDING

STEEL STAKE DRIVEN FIRMLY INTO UNDISTURBED SOIL



WATER MAIN.

# COMBINATION AIR-VACUUM AIR RELEASE VALVE

VALVE, PIPE & FITTINGS TO BE SIZED BY ENGINEER.

**Providence City Public Works Department**

**Air-Vac Valve**

**DRAWING NO. W-6**

**REVISED 06-02-08**