

City of Valdosta Land Development Regulations

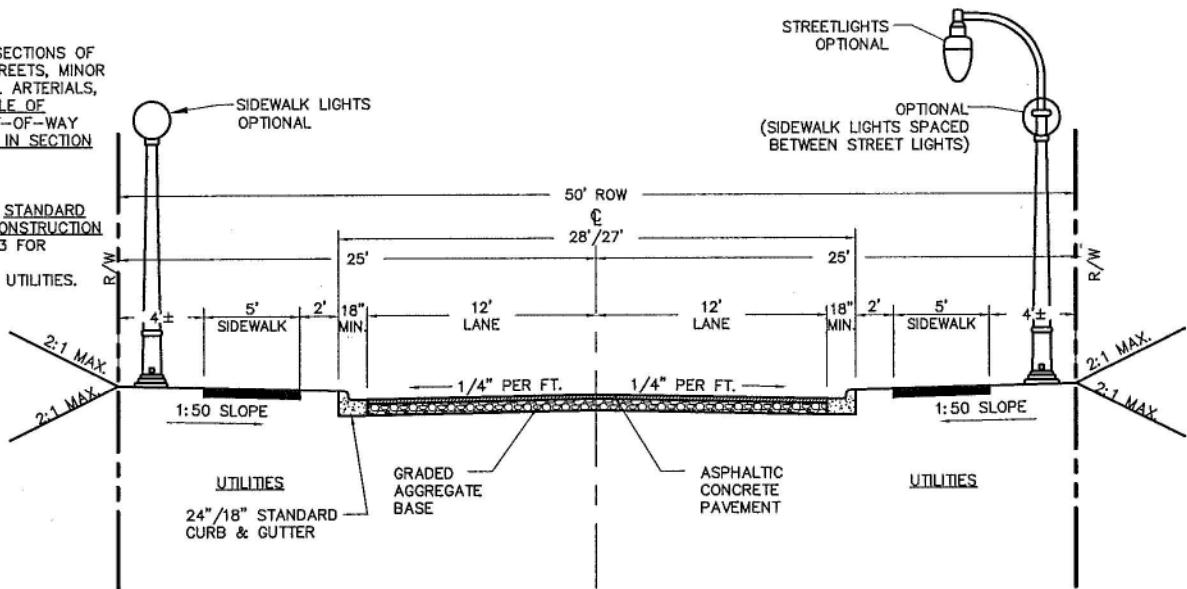
Appendix H – Standard Design and Construction Details

**LOCAL STREET 50' R/W WITH SIDEWALKS
(2-12' LANES)**

NOTE: SIDEWALK IS MANDATORY
ON BOTH SIDES OF THE STREET.

FOR TYPICAL SECTIONS OF
COLLECTOR STREETS, MINOR
AND PRINCIPAL ARTERIALS,
REFER TO TABLE OF
MINIMUM RIGHT-OF-WAY
LANES WIDTHS IN SECTION
332-1.

UTILITIES: SEE STANDARD
DESIGN AND CONSTRUCTION
DETAILS - 1.03 FOR
LOCATION OF
UNDERGROUND UTILITIES.

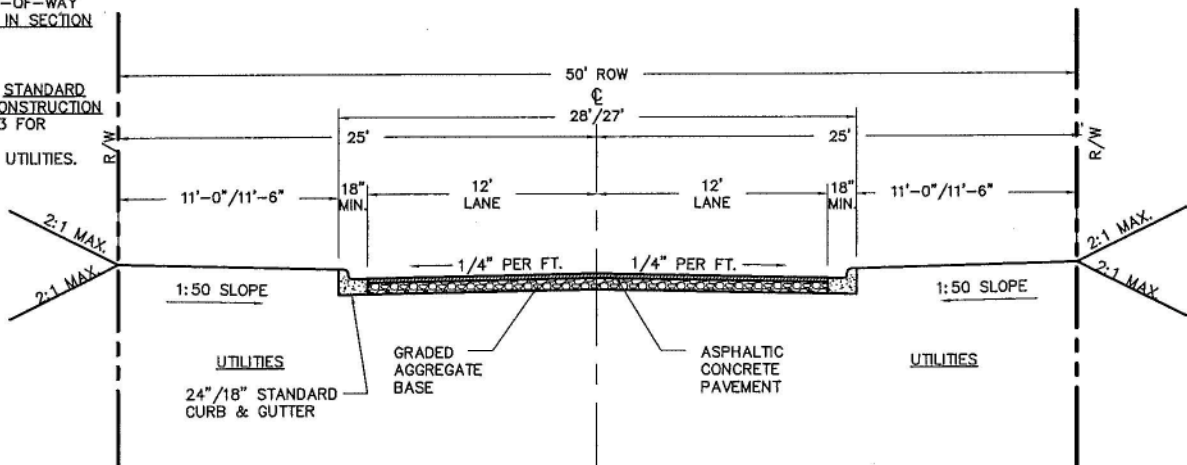


SCALE: 1" = 10'

**LOCAL STREET 50' R/W NO SIDEWALK
(2-12' LANES)**

FOR TYPICAL SECTIONS OF
COLLECTOR STREETS, MINOR
AND PRINCIPAL ARTERIALS,
REFER TO TABLE OF
MINIMUM RIGHT-OF-WAY
LANES WIDTHS IN SECTION
332-1.

UTILITIES: SEE STANDARD
DESIGN AND CONSTRUCTION
DETAILS - 1.03 FOR
LOCATION OF
UNDERGROUND UTILITIES.



SCALE: 1" = 10'



**CITY OF
VALDOSTA**

**STANDARD DESIGN AND
CONSTRUCTION DETAILS**

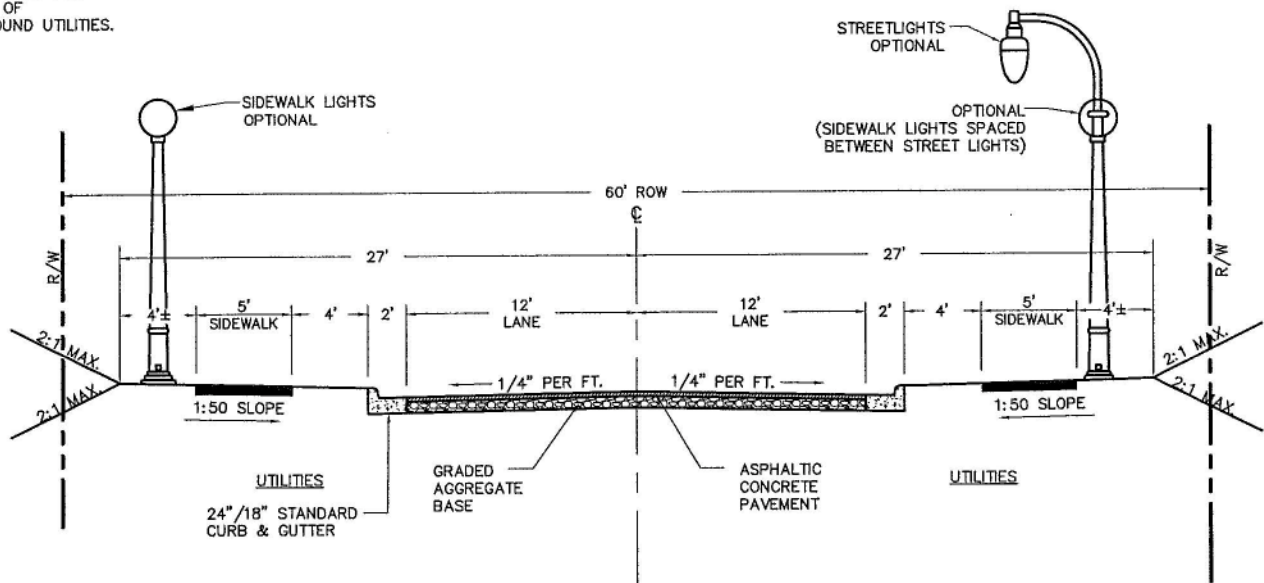
**LOCAL STREETS -
50 FT ROW**

101

FOR TYPICAL SECTIONS OF
COLLECTOR STREETS, MINOR
AND PRINCIPAL ARTERIALS,
REFER TO TABLE OF
MINIMUM RIGHT-OF-WAY
LANES WIDTHS IN SECTION
332-1.

UTILITIES: SEE STANDARD
DESIGN AND CONSTRUCTION
DETAILS - 1.03 FOR
LOCATION OF
UNDERGROUND UTILITIES.

LOCAL STREET 50' R/W (NON-CRS) COMMERCIAL/INDUSTRIAL/OTHER WITH 60' R/W
(STANDARD: 2-12' LANES)

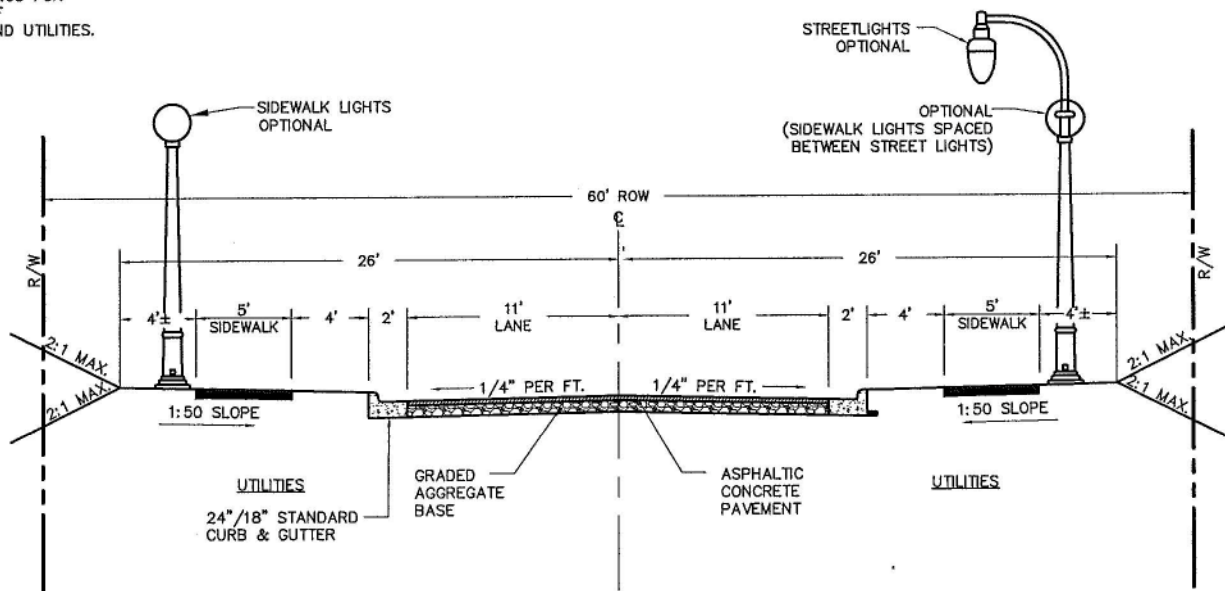


SCALE: 1" = 10'

FOR TYPICAL SECTIONS OF
COLLECTOR STREETS, MINOR
AND PRINCIPAL ARTERIALS,
REFER TO TABLE OF
MINIMUM RIGHT-OF-WAY
LANES WIDTHS IN SECTION
332-1.

UTILITIES: SEE STANDARD
DESIGN AND CONSTRUCTION
DETAILS - 1.03 FOR
LOCATION OF
UNDERGROUND UTILITIES.

LOCAL STREET 50' R/W (NON-CRS) COMMERCIAL/INDUSTRIAL/OTHER WITH 60' R/W
(MINIMUM: 2-11' LANES)



SCALE: 1" = 10'

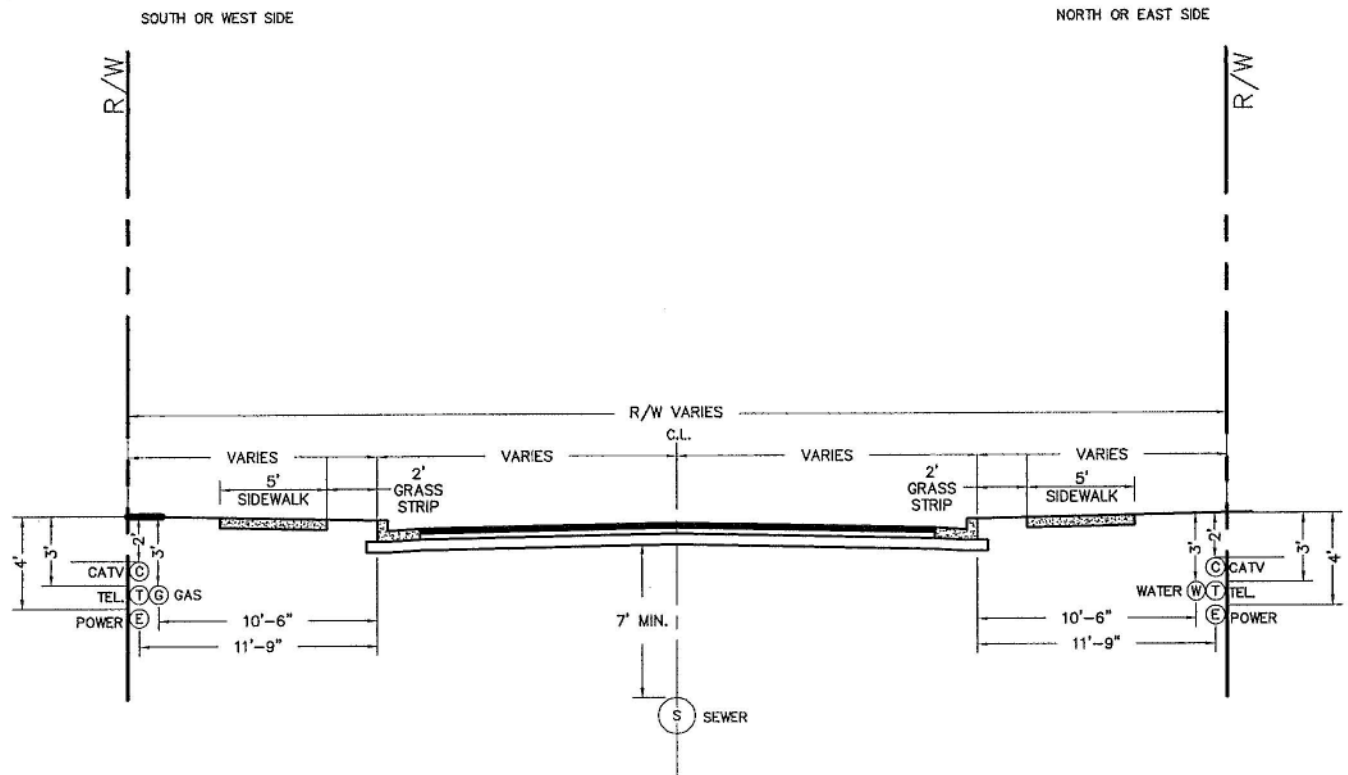


**CITY OF
VALDOSTA**

**STANDARD DESIGN AND
CONSTRUCTION DETAILS**

**LOCAL STREETS - COMMERCIAL
INDUSTRIAL/OTHER - 60 FT ROW**

102



NOTES:

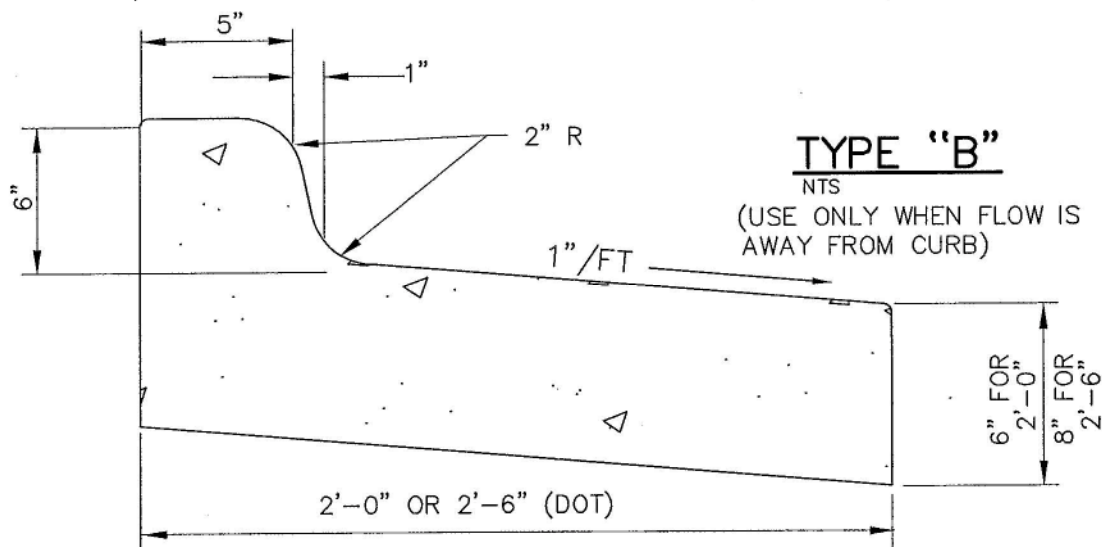
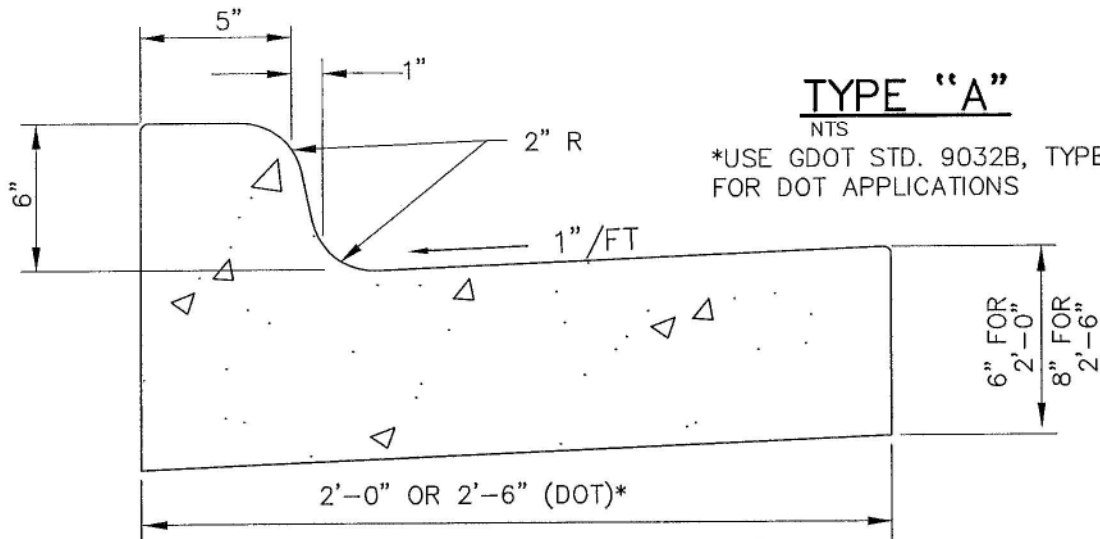
- ① THIS STANDARD DETAIL IS TO BE USED FOR UTILITY LOCATIONS WITHIN RIGHT-OF-WAY.
- ② BEFORE ANY UTILITY IS INSTALLED, THE ENTIRE WIDTH OF THE RIGHT-OF-WAY SHALL BE ROUGH GRADED. SEE DEVELOPMENT REGULATIONS FOR TIMING OF WATER SYSTEM INSTALLATION
- ③ IN GENERAL, THE DEEPEST UTILITIES SHOULD BE INSTALLED FIRST TO MINIMIZE ANY POSSIBLE INTERFERENCE WITH LATERALS OR SERVICE LINES
- ④ IN CUL-DE-SAC OR EYEBROW TURNAROUNDS, THE DIMENSIONS FROM THE CURB SHALL VARY. HOWEVER, THE STANDARD UTILITY SPACING SHALL BE MAINTAINED.
- ⑤ BACKFILL OF ALL UTILITY TRENCHES CONSTRUCTED IN THE ROADWAY SHOULDER SHALL BE RETURNED TO 95% (MIN.) OF MAXIMUM DENSITY.
- ⑥ EACH UTILITY SHALL BE RESPONSIBLE FOR REPAIR OF ANY DAMAGE THEY CREATE TO OTHER UTILITY LINES, OR TO THE STREET IMPROVEMENTS WITHIN THE RIGHT-OF-WAY. NO UTILITY SHALL BE RESPONSIBLE FOR DAMAGES TO ANOTHER UTILITY WHICH IS LOCATED OUTSIDE THEIR ASSIGNED SPACE.
- ⑦ CALL THE UTILITIES PROTECTION CENTER AT 811 AT LEAST 72 HOURS (3 BUSINESS DAYS) PRIOR TO CONSTRUCTION TO VERIFY THE LOCATION OF EXISTING UTILITIES.
- ⑧ ONCE THE ROAD BASE HAS BEEN PLACED, ALL FURTHER INSTALLATION OF UTILITIES UNDER THE ROADWAY SHALL BE BORED OR OTHERWISE COMPLY WITH THE STREET CUT REQUIREMENTS OF CITY OF CONYERS.
- ⑨ ANY DEVIATIONS OF THE ABOVE SET OF STANDARDS SHALL BE APPROVED BY THE DIRECTOR OR ONE OF HIS APPOINTEES.



CITY OF VALDOSTA

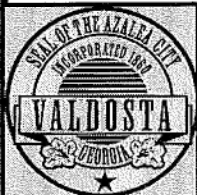
STANDARD DESIGN AND CONSTRUCTION DETAILS

TYPICAL SECTION OF UTILITY PLACEMENT STANDARDS



NOTE:

CONSTRUCTION SHALL CONFORM TO GDOT STANDARDS AND SPECIFICATION IN ALL RESPECTS, EXCEPT THAT A 2' CURB AND GUTTER SHALL BE PERMITTED ON CITY STREETS.

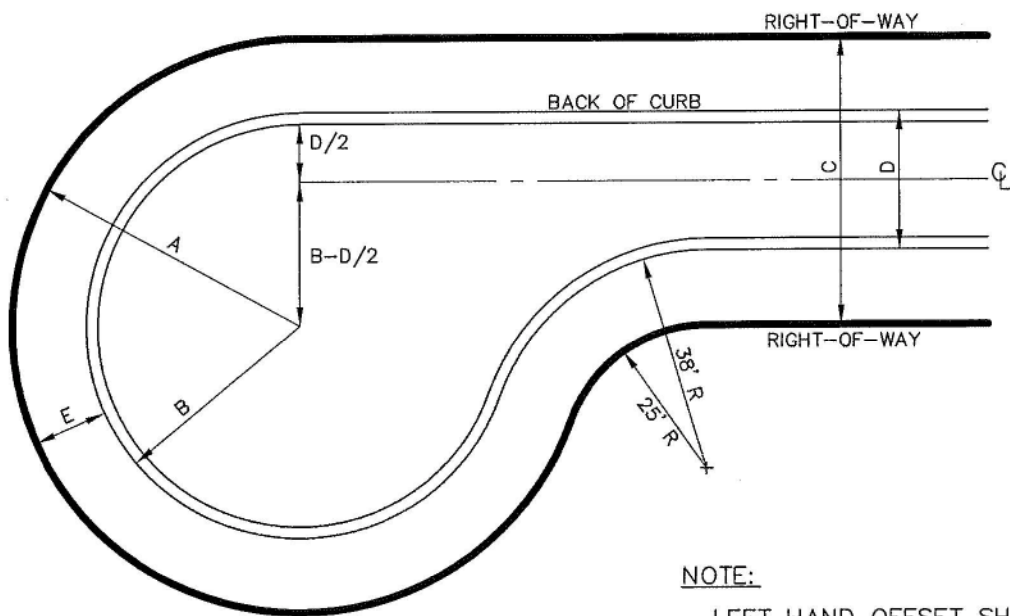
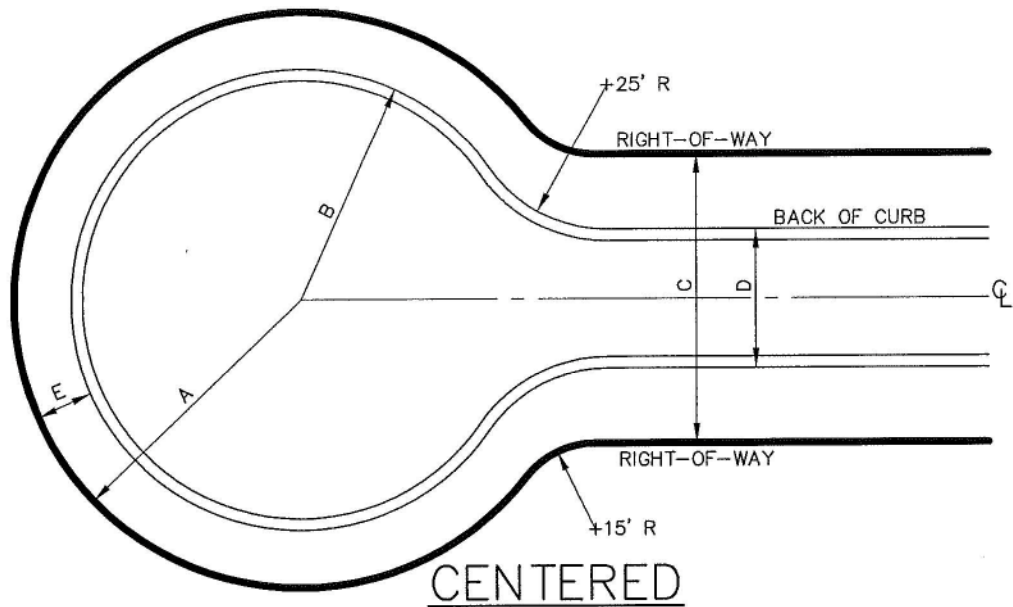


**CITY OF
VALDOSTA**

**STANDARD DESIGN AND
CONSTRUCTION DETAILS**

CURB AND GUTTER

104

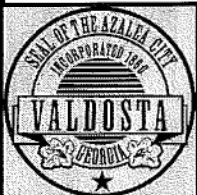


NOTE:

LEFT HAND OFFSET SHOWN
RIGHT HAND OFFSET OPPOSITE

OFFSET

MINIMUM WIDTHS/RADII	A	B	C	D	E
RESIDENTIAL STREETS	50'	40'	50'	24'	10'
COMMERCIAL/INDUSTRIAL STREETS	65'	50'	60'	30'	15'

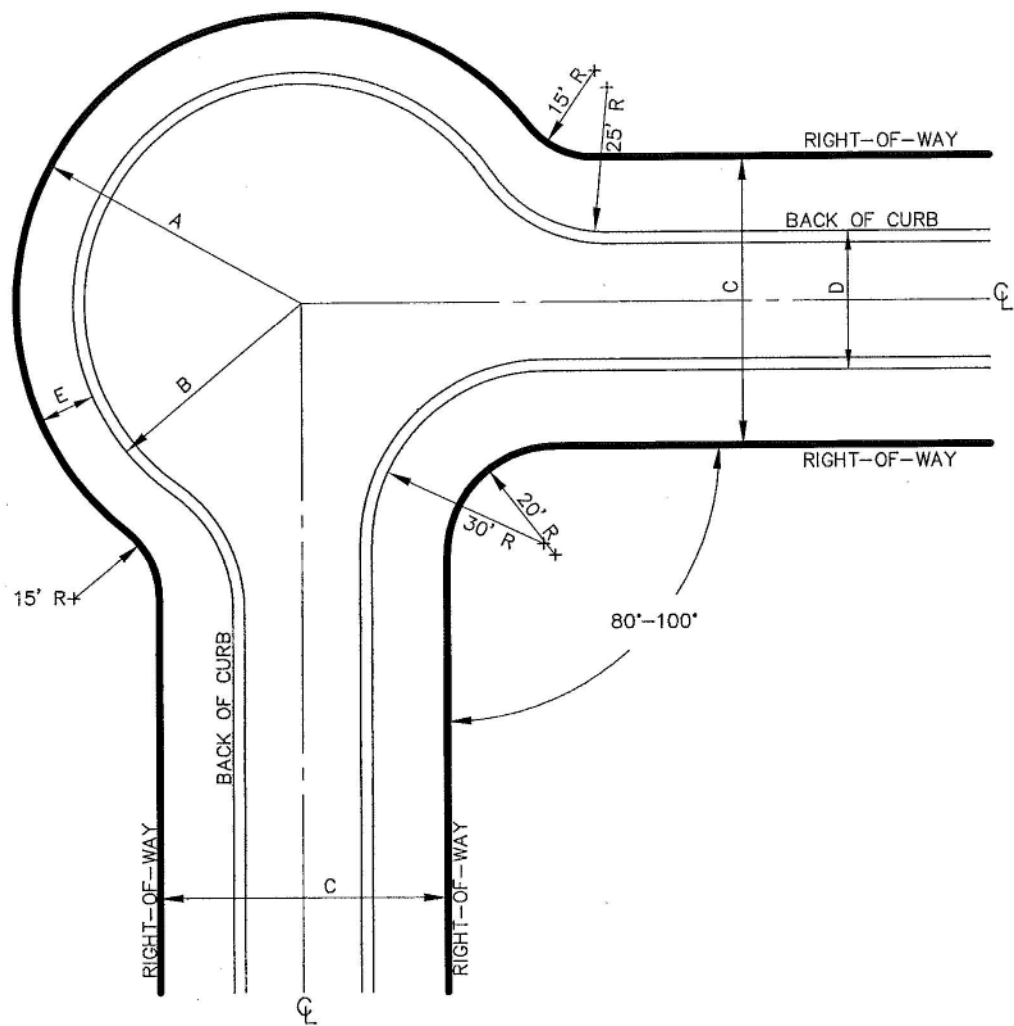


**CITY OF
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**STANDARD DESIGN AND
CONSTRUCTION DETAILS**

**STANDARD RESIDENTIAL/
COMMERCIAL CUL-DE-SAC**

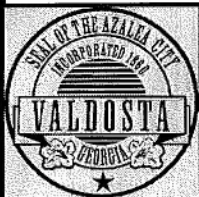
105



EYEBROW

LOCAL STREETS ONLY

MINIMUM WIDTHS/RADII	A	B	C	D	E
LOCAL URBAN STREETS	50'	40'	50'	24'	10'
COMMERCIAL/INDUSTRIAL STREETS	65'	50'	60'	30'	15'



**CITY OF
VALDOSTA**

**STANDARD DESIGN AND
CONSTRUCTION DETAILS**

**STANDARD EYEBROW
CUL-DE-SAC**

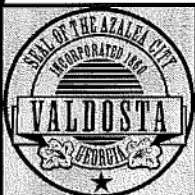
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ARTERIAL SPEED, MIN.	SIGHT DISTANCE, Ft.				
	2 LANE SDL=SDR	3 AND 4 LANE SDL	SDR	5 AND 6 LANE SDL	SDR
25	280	290	315	335	350
30	335	350	375	400	420
35	390	410	440	465	490
40	445	470	500	530	560
45	500	530	560	595	630
50	555	590	625	660	700
55	610	650	685	730	770
60	665	705	750	795	840
65	720	765	810	860	910

TABLE OF INTERSECTION SIGHT DISTANCE REQUIREMENTS

NOTES:

1. INTERSECTION SIGHT DISTANCE SHALL BE CALCULATED USING THE METHOD DESCRIBED IN AASHTO. THE SIGHT DISTANCE CRITERIA ARE BASED ON THE TIME REQUIRED FOR A VEHICLE TO MAKE A LEFT TURN FROM A STOP CONTROLLED APPROACH TO THE STATE HIGHWAY (AASHTO CASE B1). THE TIME TO EXECUTE THE MANEUVER IS BASED ON RECOMMENDATIONS CONTAINED IN NCHRP REPORT 383, INTERSECTION SIGHT DISTANCE. THE SIGHT DISTANCES, FOR A TWO-LANE ROAD, ARE THE DISTANCES TRAVELED AT THE ARTERIAL SPEED DURING 7.5 SECONDS. THE TIME IS INCREASED BY 0.5 SECONDS FOR EACH ADDITIONAL LANE TO BE CROSSED.
2. IF THE CALCULATED LINE OF SIGHT IS NOT ENTIRELY WITHIN THE RIGHT-OF-WAY, A SIGHT DISTANCE EASEMENT SHALL BE DEDICATED TO THE CITY OF VALDOSTA. THIS EASEMENT SHALL PRECLUDE THE CONSTRUCTION OF ANY SIGN, BUILDING, WALL, OR OTHER STRUCTURE THAT WILL OBSTRUCT VISION. IN ADDITION, LANDSCAPING SHALL BE LIMITED TO LOW GROWING SPECIES THAT WILL NOT IMPACT THE REQUIRED LINE OF SIGHT.
3. DRIVEWAYS SHOULD BE LOCATED TO PROVIDE ADEQUATE SIGHT DISTANCE. MINIMUM INTERSECTION SIGHT CRITERIA ARE PROVIDED IN "TABLE OF INTERSECTION SIGHT DISTANCE REQUIREMENTS." THE LINE OF SIGHT ESTABLISHES THE BOUNDARY OF A SIGHT TRIANGLE, WITHIN WHICH THERE SHOULD BE NO SIGHT OBSTRUCTION.
4. THE SIGHT DISTANCES GIVEN IN THE TABLE ARE FOR UNDIVIDED HIGHWAYS. IF THE HIGHWAY IS DIVIDED, THE EFFECT OF THE MEDIAN SHOULD BE CONSIDERED IN DETERMINING THE REQUIRED SIGHT DISTANCE. BASED ON THE CONDITIONS, IT MAY BE FEASIBLE FOR THE CROSSING MANEUVER TO BE DONE IN TWO STAGES WITH A STOP IN THE MEDIAN. HOWEVER, THE INTERSECTION SHOULD ONLY BE TREATED IN THIS MANNER IF THE SIGNING AND MARKING IS ACCORDINGLY PROVIDED. OTHERWISE, THE SIGHT DISTANCE REQUIREMENTS SHOULD BE INCREASED TO ACCOUNT FOR THE ADDITIONAL WIDTH THAT MUST BE CROSSED. SEE AASHTO GREEN BOOK, CHAPTER 9 INTERSECTIONS, FOR ADJUSTMENTS DUE TO GRADES GREATER THAN 3% AND DESIGN VEHICLES OTHER THAN PASSENGER CARS.

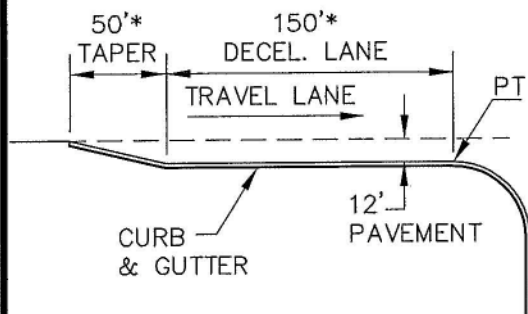


CITY OF VALDOSTA

STANDARD DESIGN AND CONSTRUCTION DETAILS

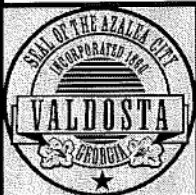
INTERSECTION SIGHT DISTANCE

SERVICE STATIONS
COMMERCIAL SITES (OVER 80,000 SQ. FT.)
OFFICE INSTITUTIONAL COMPLEXES (OVER 100,000 SQ. FT.)
APARTMENT/CONDO COMPLEXES (OVER 200 UNITS)
MOBILE HOME COMPLEXES (OVER 200 LOTS)



1. 28 FT. OF PAVEMENT WIDTH.
2. 3000 PSI CURB AND GUTTER. SEE DETAIL 1.04.
3. 35 FOOT RADII ON CURBS, 75 FOOT RADII ON CURBS FOR TRACTOR TRAILER.
4. CONCRETE PAVEMENT - 8" THICK, 3000 PSI. OVER COMPACTED SUBGRADE

ISLANDS AT INTERSECTIONS ARE AT THE OPTION OF THE CITY ENGINEER, EXCEPT FOR GEORGIA D.O.T. CONTROLLED ROUTE



**CITY OF
VALDOSTA**

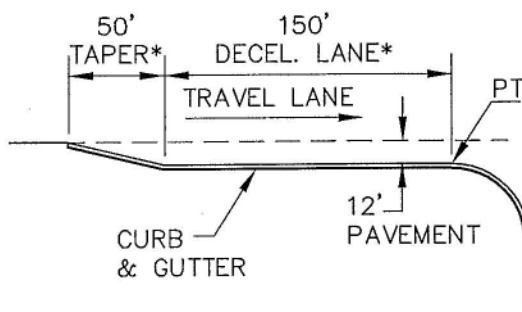
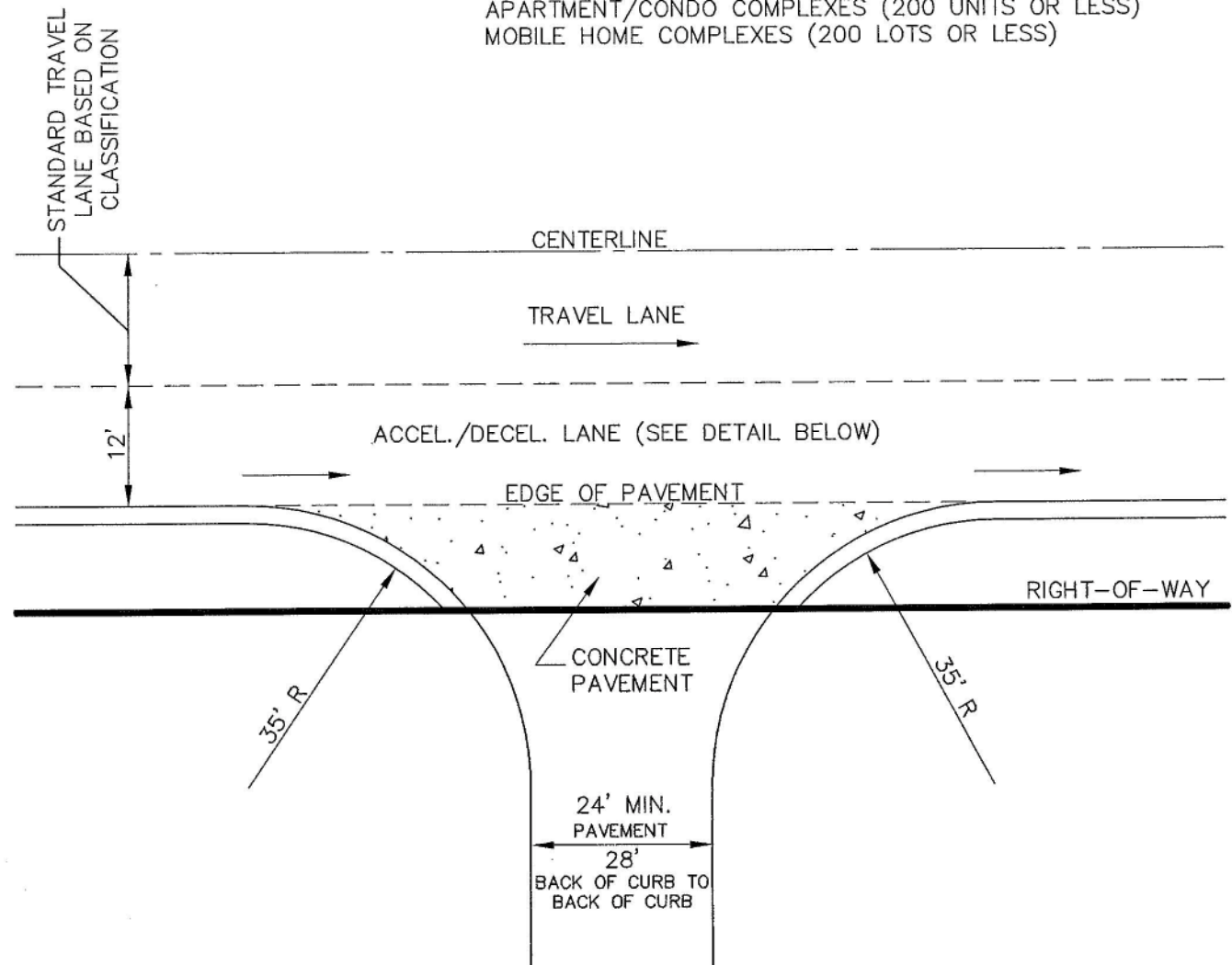
STANDARD DESIGN AND CONSTRUCTION DETAILS

INDUSTRIAL DRIVEWAY

1.08

DRIVEWAY FOR:

COMMERCIAL SITES (80,000 SQ. FT. OR LESS)
OFFICE INSTITUTIONAL COMPLEXES (100,000 SQ.FT. OR LESS)
APARTMENT/CONDO COMPLEXES (200 UNITS OR LESS)
MOBILE HOME COMPLEXES (200 LOTS OR LESS)



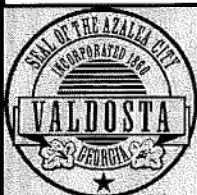
DECELERATION LANE

DRIVEWAY NOTES:

1. 24 FT. OF PAVEMENT WIDTH.
2. 3000 PSI CURB AND GUTTER.
3. 35 FOOT RADII ON CURBS, 75 FOOT RADII. ON CURBS FOR TRACTOR TRAILER.
4. CONCRETE PAVEMENT - 8" THICK, 3500 PSI. OVER COMPACTED SUBGRADE

* ADDITIONAL LENGTH MAY BE REQUIRED.

ISLANDS AT INTERSECTIONS ARE AT THE OPTION OF THE CITY ENGINEER EXCEPT FOR GEORGIA D.O.T. CONTROLLED ROUTES. SEE SECTION 332-3.

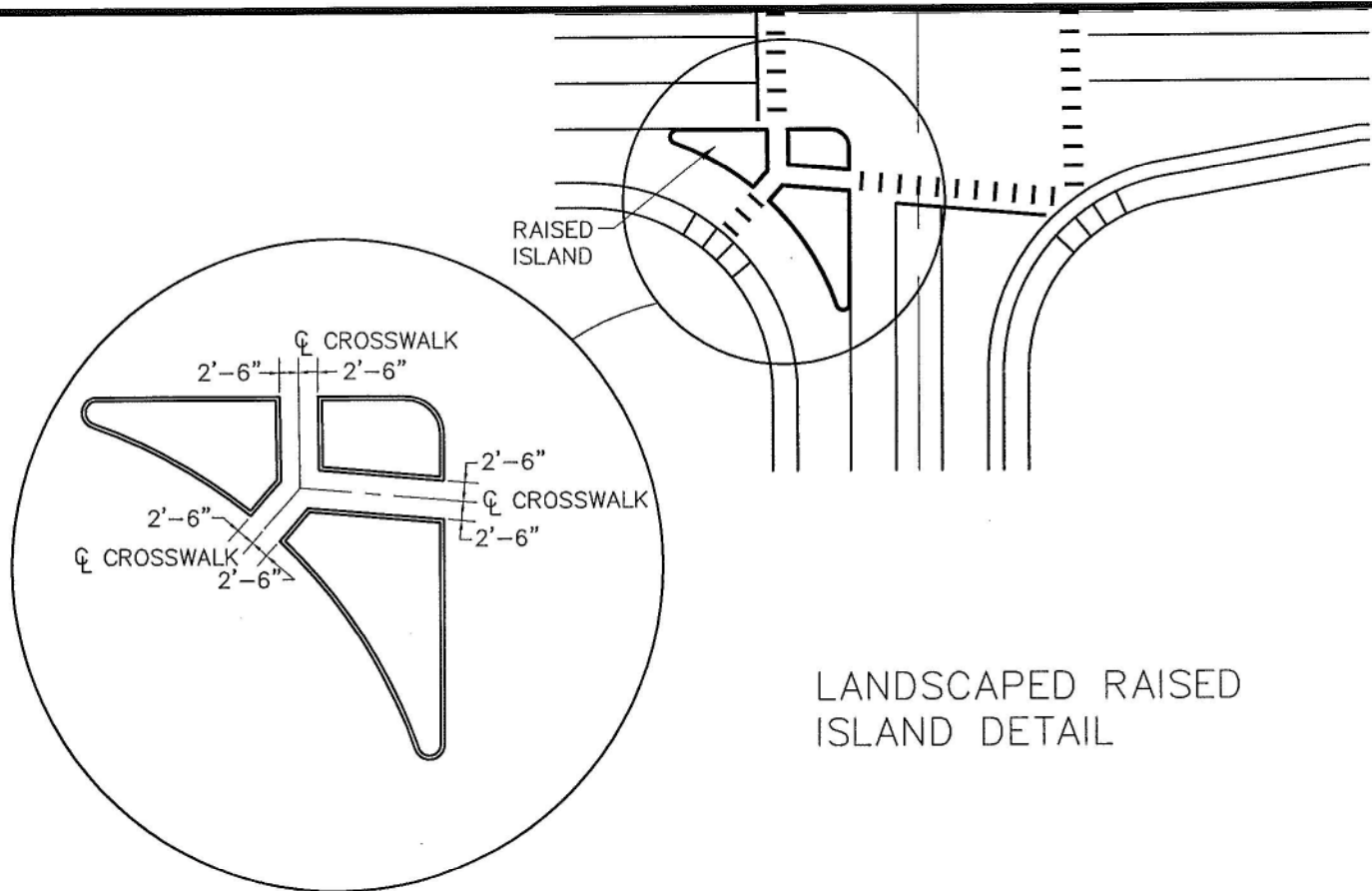


**CITY OF
VALDOSTA**

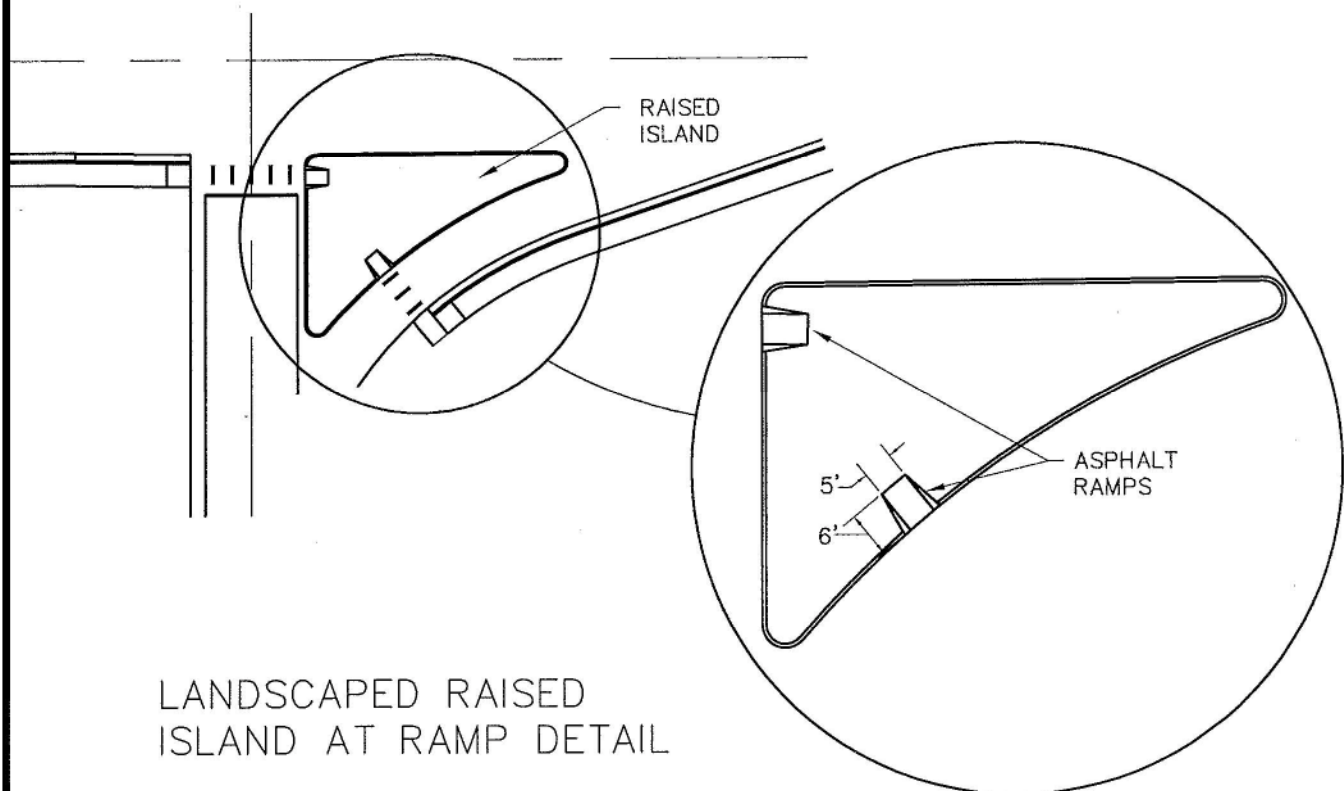
**STANDARD DESIGN AND
CONSTRUCTION DETAILS**

COMMERCIAL DRIVEWAY

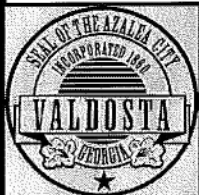
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LANDSCAPED RAISED
ISLAND DETAIL



LANDSCAPED RAISED
ISLAND AT RAMP DETAIL



**CITY OF
VALDOSTA**

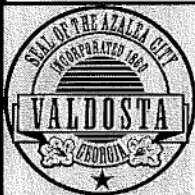
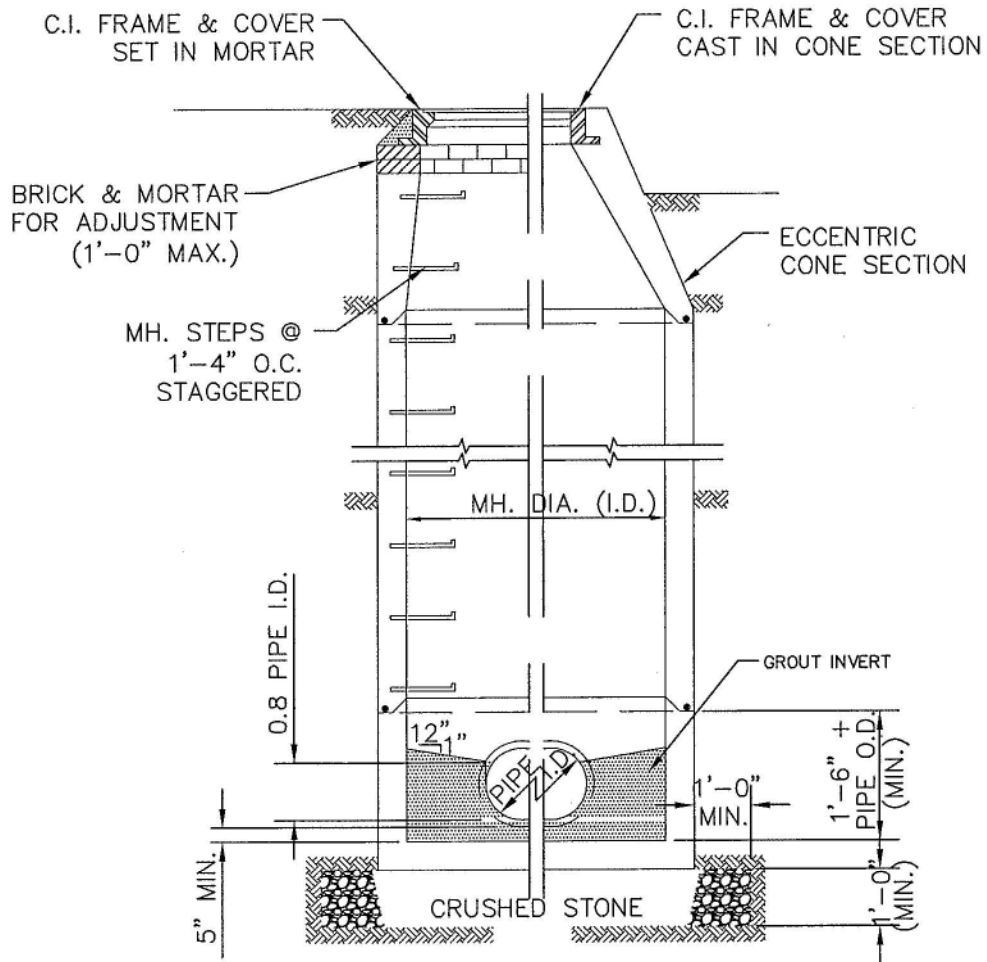
**STANDARD DESIGN AND
CONSTRUCTION DETAILS**

ISLANDS AT INTERSECTIONS

1.11

TOP AT GRADE

TOP ABOVE GRADE

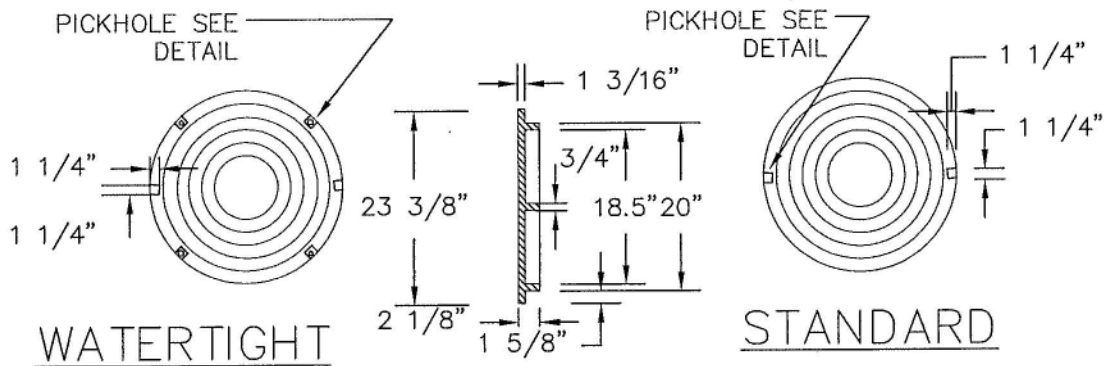


**CITY OF
VALDOSTA**

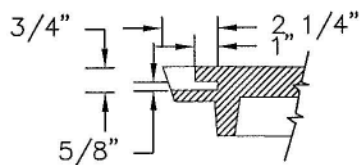
**STANDARD DESIGN AND
CONSTRUCTION DETAILS**

**STANDARD
MANHOLE**

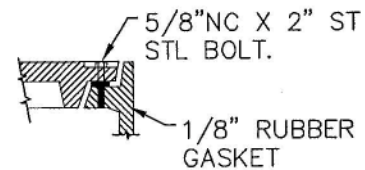
113



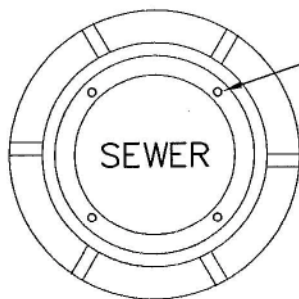
COVERS — EST. WT. 130 LBS EACH.



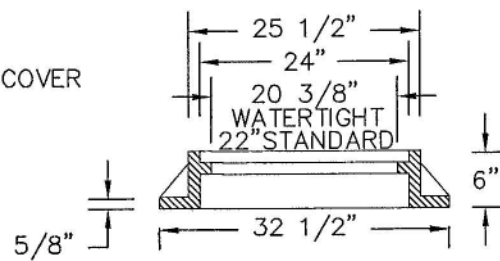
PICKHOLE DETAIL



WATERTIGHT DETAIL



ONLY FOR
WATERTIGHT COVER



FRAMES — EST. WT. 220 LBS EACH.

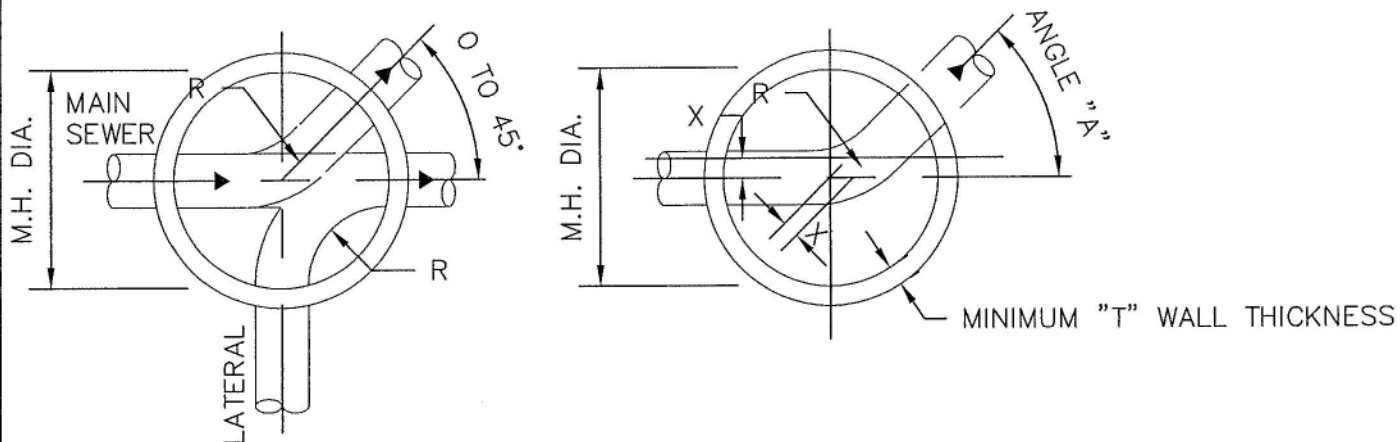


**CITY OF
VALDOSTA**

**STANDARD DESIGN AND
CONSTRUCTION DETAILS**

**MANHOLE FRAME
AND COVER**

114



STANDARD MANHOLE SCHEDULE OF GOVERNING DIMENSIONS				
PIPE SIZE	ANGLE "A"	MH. DIA.	"T"	"X"
8" TO 15"	0° TO 90°	4'-0"	5"	0"
18" TO 24"	0° TO 60°	4'-0"	5"	0"
18" TO 24"	60° TO 90°	5'-0"	6"	6"
27" TO 30"	0° TO 30°	5'-0"	6"	0"
27" TO 30"	30° TO 60°	5'-0"	6"	6"
27" TO 30"	60° TO 90°	6'-0"	7"	8"
36"	0° TO 90°	6'-0"	7"	0"
42"	0° TO 60°	7'-0"	8"	8"
42"	60° TO 90°	8'-0"	9"	6"
48"	0° TO 45°	8'-0"	9"	6"

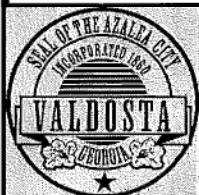
NOTE:

MINIMUM \odot RADIUS (R) OF M.H.
INVERT = 1.5 x PIPE DIAMETER

TYPICAL PLANS

NOTE TO USER:

THIS DETAIL IS TO BE USED WITH
RUBBER BOOT.

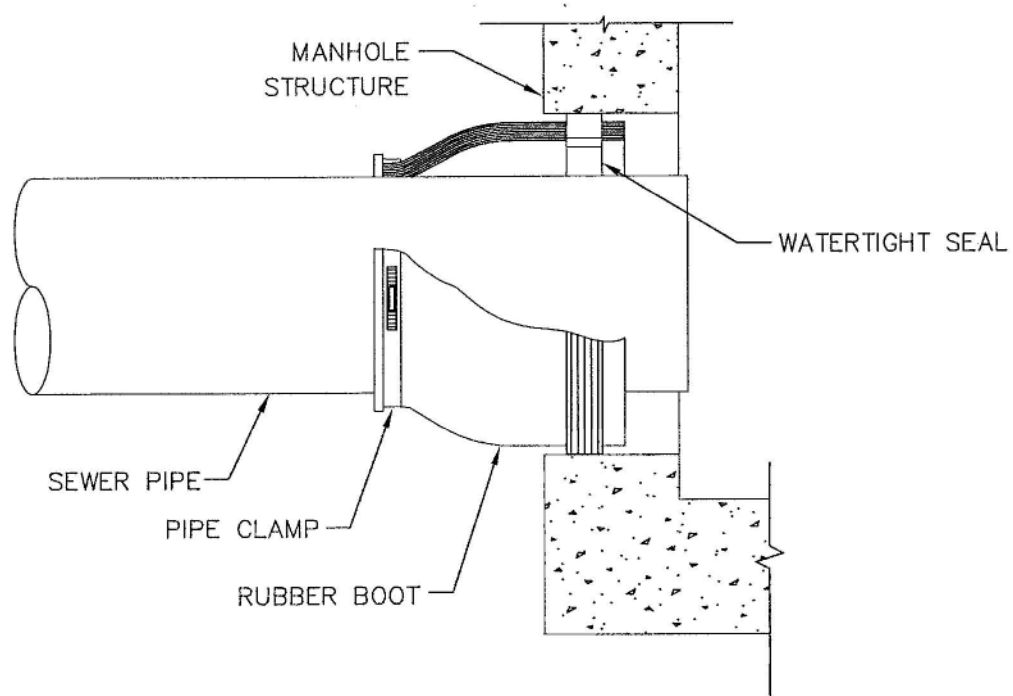


**CITY OF
VALDOSTA**

**STANDARD DESIGN AND
CONSTRUCTION DETAILS**

**MANHOLES
SCHEDULE OF DIMENSIONS**

115



CONNECTION/TIE-IN TO EXISTING MANHOLES.
ALL CONNECTIONS WILL BE CORED & BOOTED

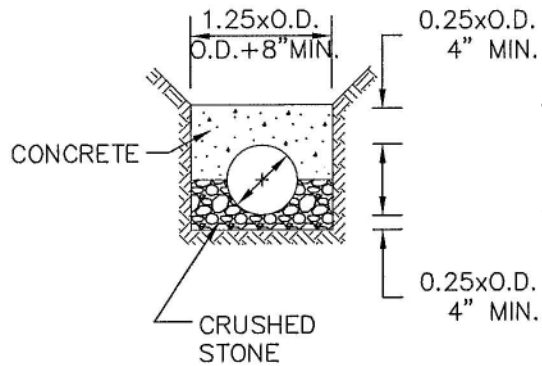


**CITY OF
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**STANDARD DESIGN AND
CONSTRUCTION DETAILS**

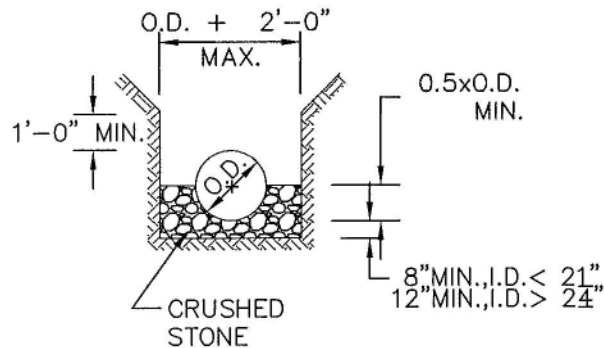
**RUBBER
BOOT**

1.16



CONCRETE ARCH.

CLASS "A"



CLASS "B"

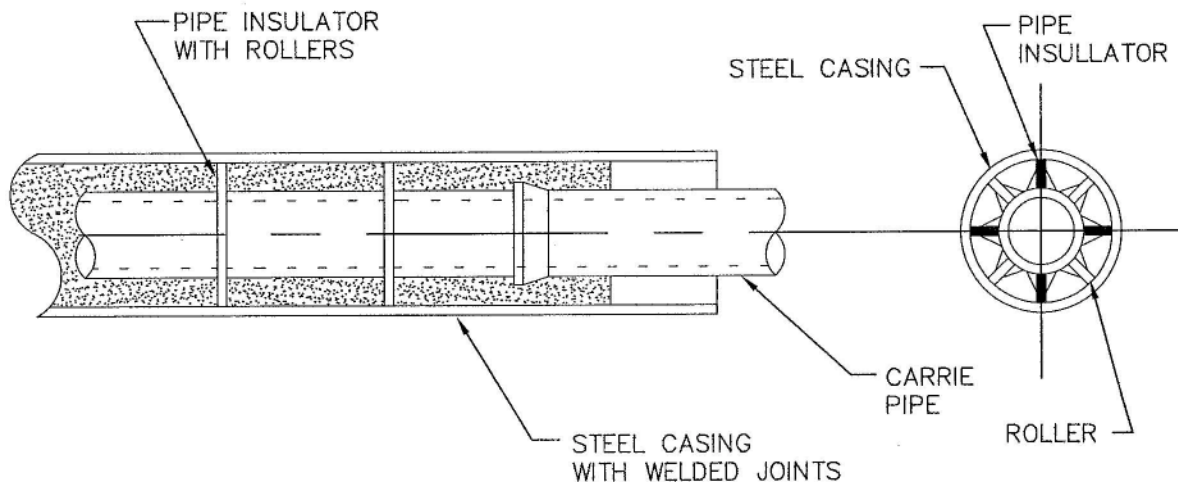


**CITY OF
VALDOSTA**

**STANDARD DESIGN AND
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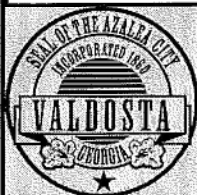
**SANITARY SEWER
PIPE BEDDING**

1.17



NOTES

1. STEEL CASING SHALL HAVE AN INSIDE DIAMETER LARGE ENOUGH TO FACILITATE CARRIER PIPE TYPE, BELLS AND PIPE INSULATORS. STEEL CASING SHALL EXTEND 5' MINIMUM DISTANCE PAST EDGE OF PAVEMENT ALONG ROADWAY. THE INSTALLATION METHODS FOR BORING OPERATIONS AND MATERIALS SHALL BE DETERMINED BY THE CITY ENGINEER.
2. FOR PIPE INSULATOR AND ROLLERS SHALL BE IN ACCORDANCE WITH CARRIER PIPE MANUFACTURER'S RECOMMENDATIONS. CASING SPACERS WILL BE STAINLESS STEEL.
3. EACH END OF CASING WILL BE SEALED WITH CONCRETE.
4. MINIMUM 3 SPACERS/JOINT OF PIPE.

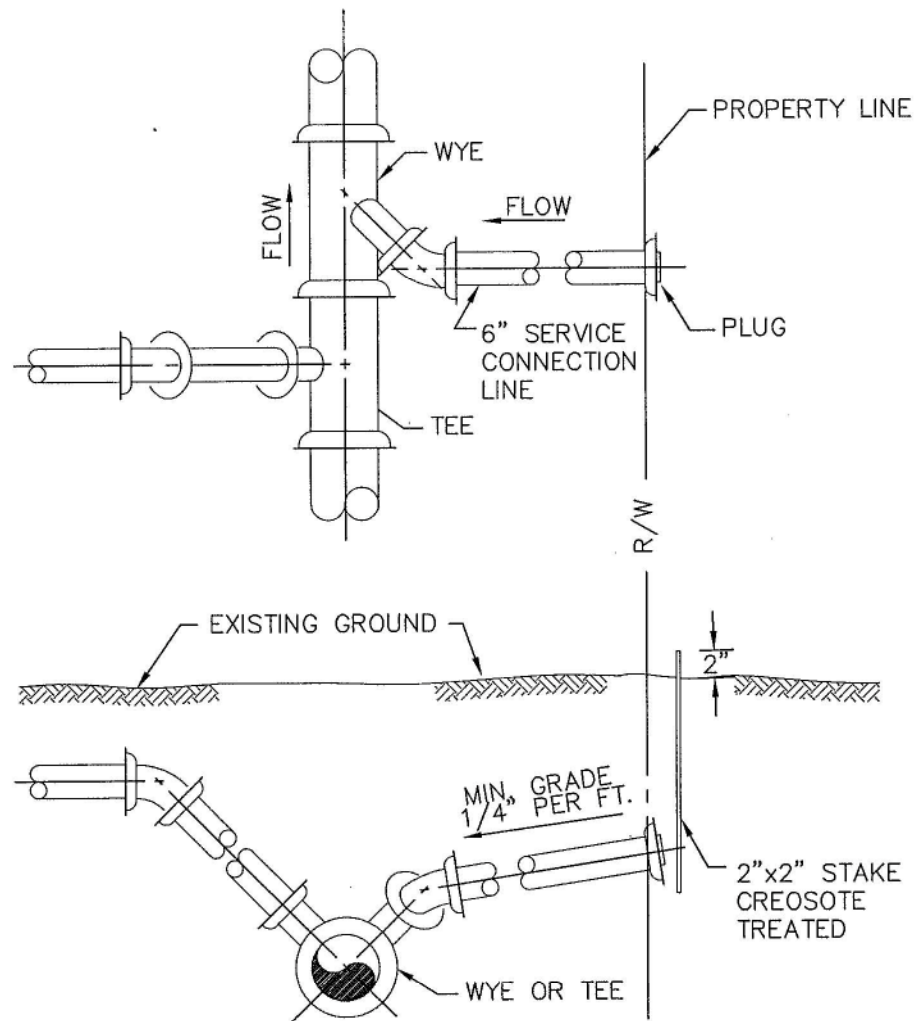


**CITY OF
VALDOSTA**

**STANDARD DESIGN AND
CONSTRUCTION DETAILS**

**BORED CASING AND
CARRIER PIPE**

118

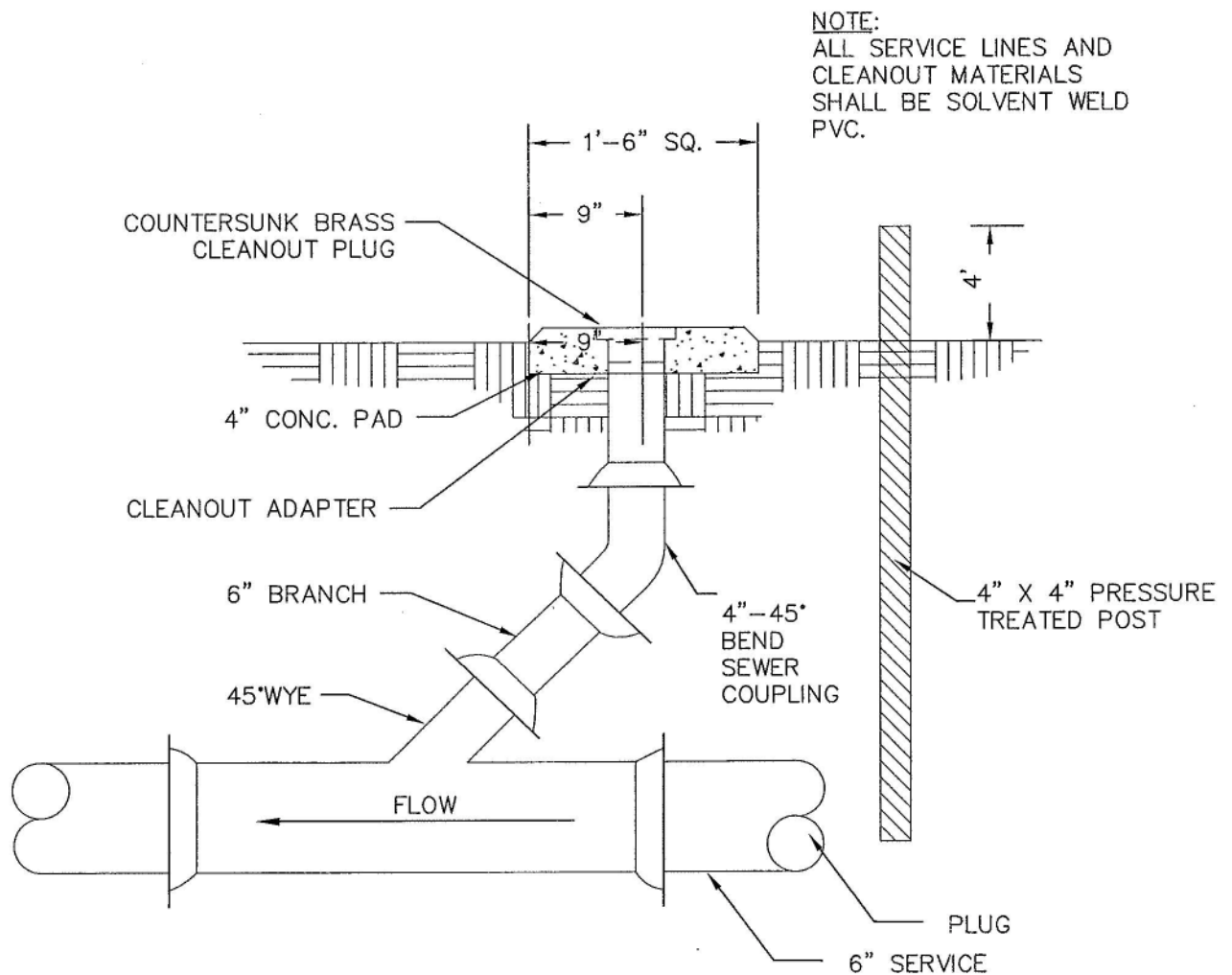


**CITY OF
VALDOSTA**

**STANDARD DESIGN AND
CONSTRUCTION DETAILS**

**SANITARY SEWER
SERVICE CONNECTION**

1.19

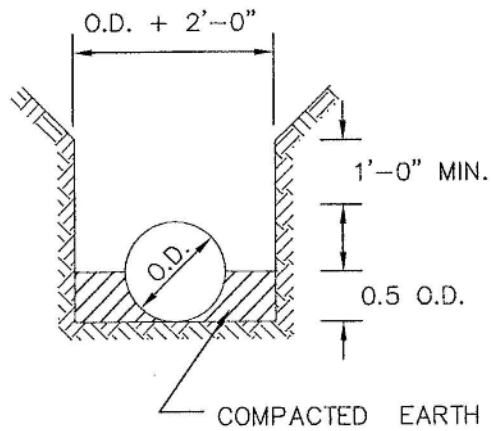


**CITY OF
VALDOSTA**

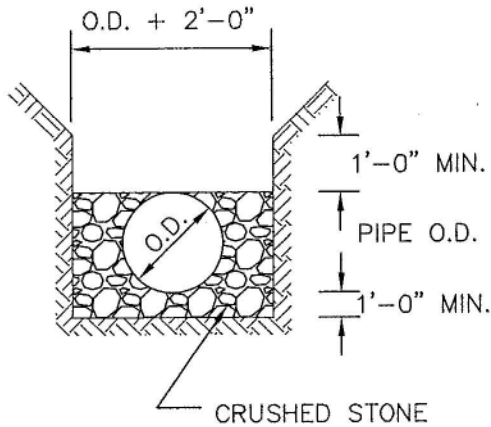
**STANDARD DESIGN AND
CONSTRUCTION DETAILS**

**SANITARY SEWER
CLEANOUT**

1.20



TYPE 2



TYPE 5

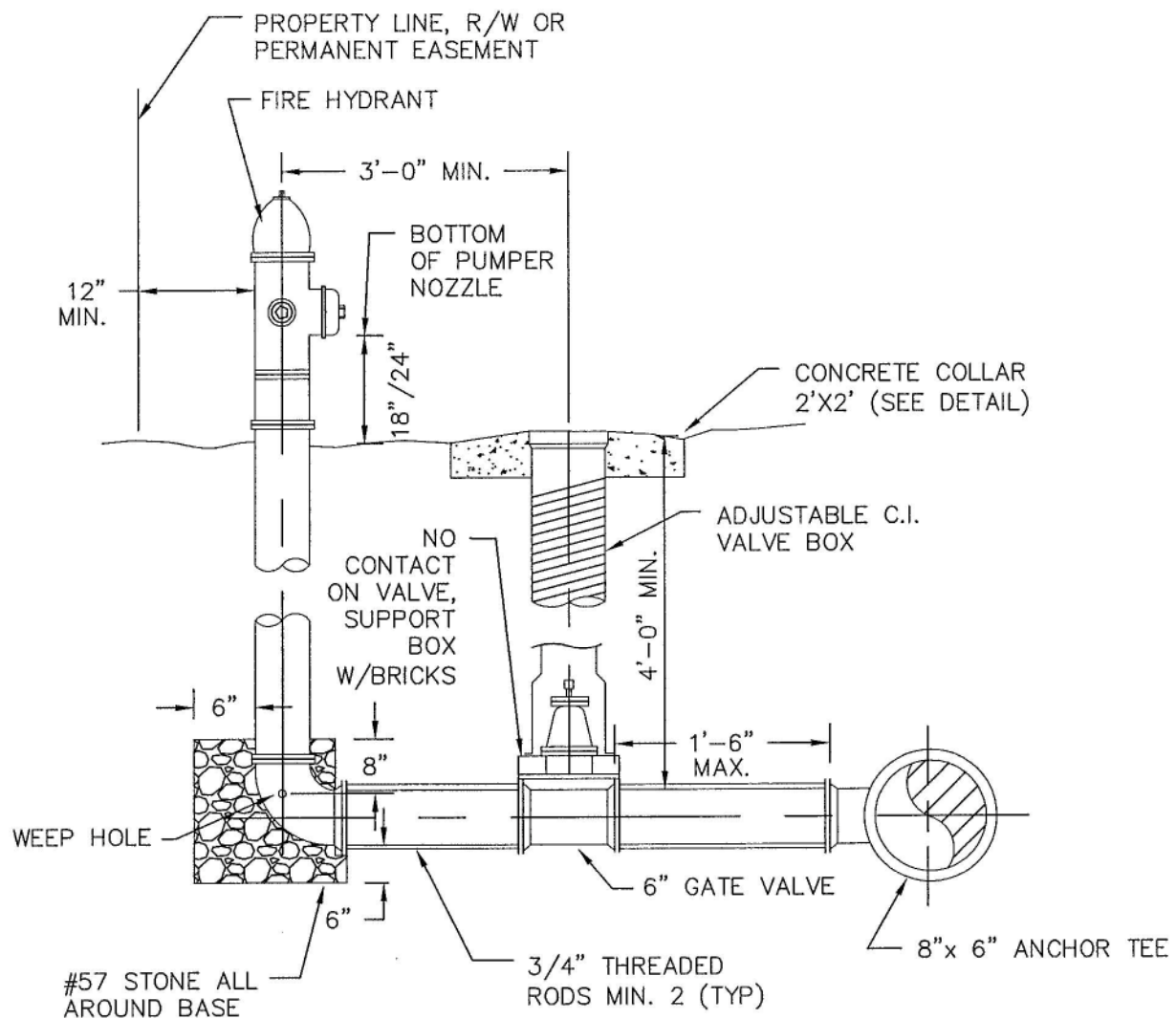


**CITY OF
VALDOSTA**

**STANDARD DESIGN AND
CONSTRUCTION DETAILS**

**WATER MAIN
PIPE BEDDING**

1.21

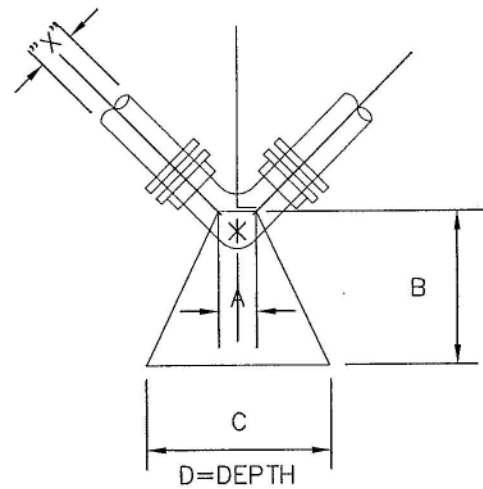
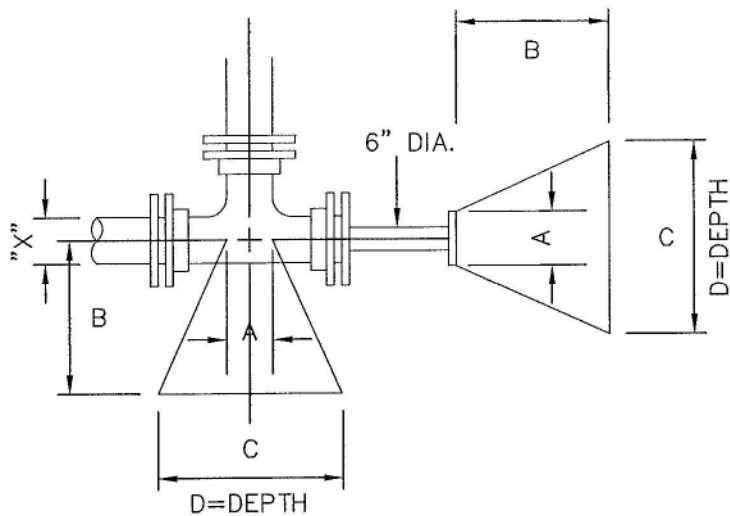


CITY OF VALDOSTA

STANDARD DESIGN AND CONSTRUCTION DETAILS

**FIRE
HYDRANT**

1.22



200 PSI TEST PRESSURE
2000 PSF SOIL BEARING

BLOCKING DIMENSIONS						
DEAD END & TEES		X*	A	B	C	D
		10"	1'-0"	2'-6"	4'-0"	2'-6"
		8"	0'-10"	2'-3"	3'-3"	2'-0"
		6"	0'-8"	1'-6"	2'-6"	1'-6"
BENDS	90°	10"	1'-0"	3'-6"	5'-0"	2'-9"
		8"	0'-10"	2'-9"	4'-0"	2'-3"
		6"	0'-8"	2'-0"	3'-0"	1'-9"
	45°	10"	1'-0"	1'-9"	3'-0"	2'-6"
		8"	0'-10"	1'-6"	2'-6"	2'-0"
		6"	0'-8"	1'-3"	2'-0"	1'-6"
	22 1/2°	10"	1'-0"	1'-4"	2'-6"	1'-6"
		8"	0'-10"	1'-0"	2'-0"	1'-3"
		6"	0'-8"	0'-9"	1'-6"	1'-0"
	11 1/4°	10"	1'-0"	0'-6"	1'-6"	1'-3"
		8"	0'-10"	0'-6"	1'-4"	1'-0"
		6"	0'-8"	0'-6"	1'-0"	0'-9"

X* = DIAMETER OF PIPE TO BE BLOCKED

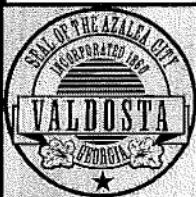
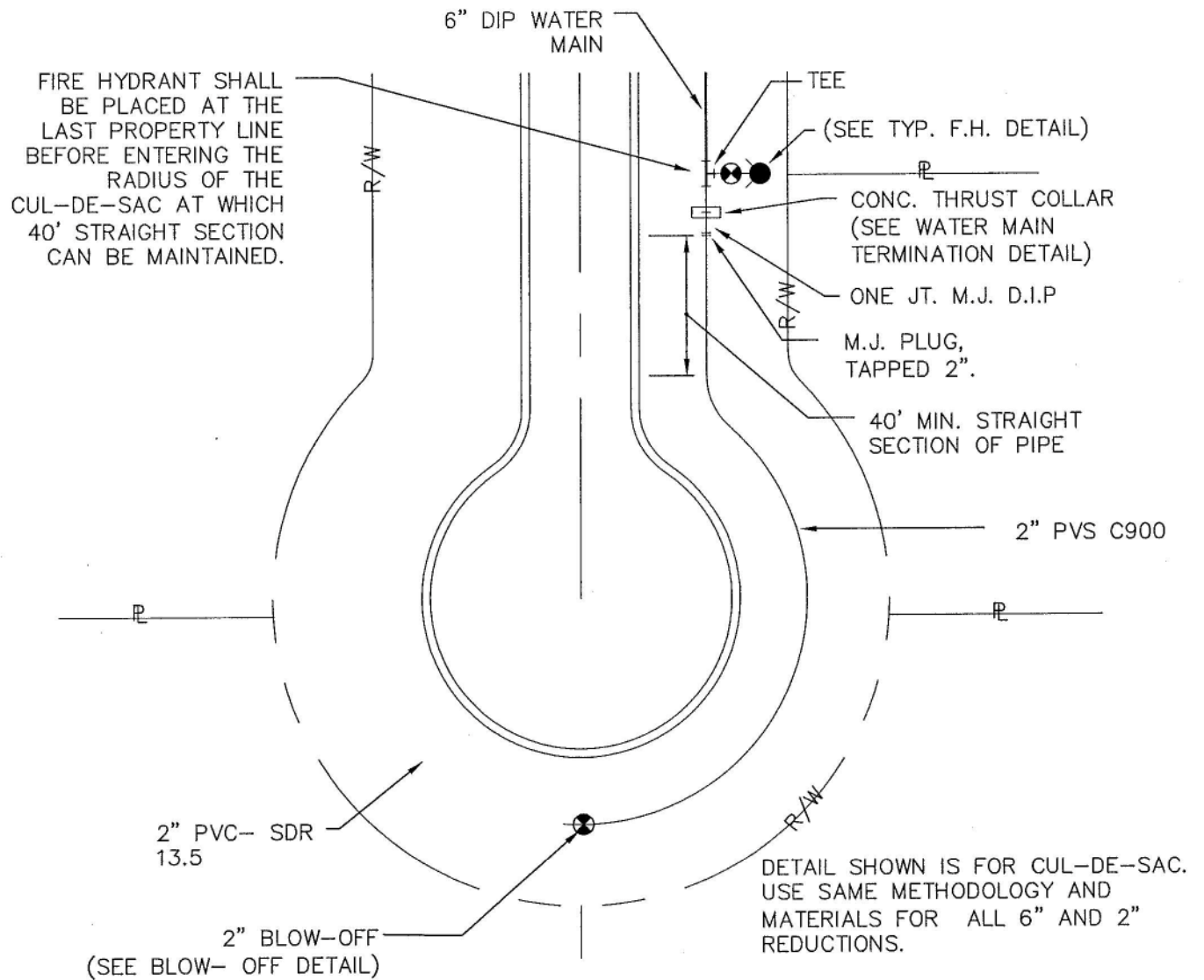


**CITY OF
VALDOSTA**

**STANDARD DESIGN AND
CONSTRUCTION DETAILS**

**THRUST
BLOCK**

1.23

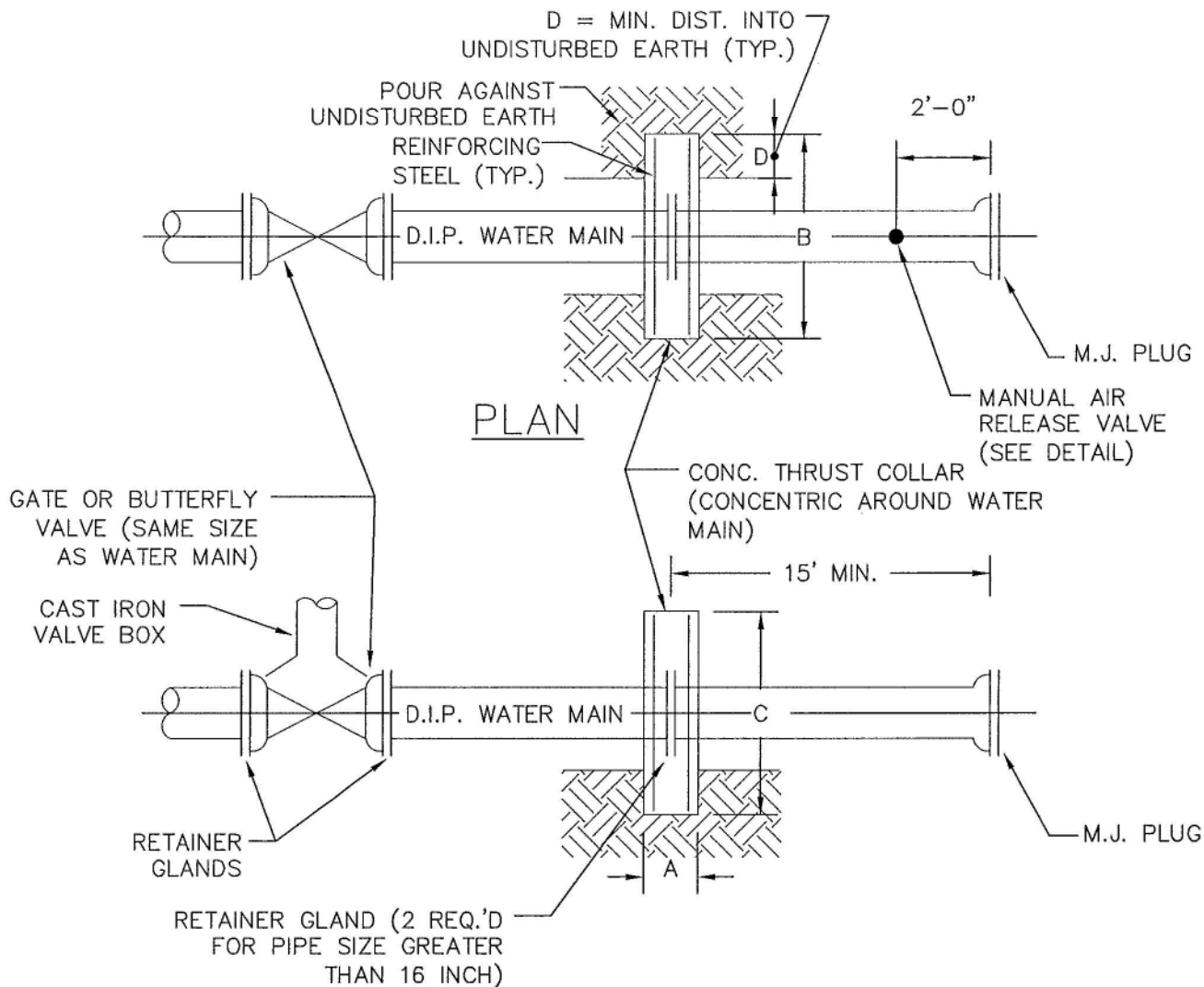


**CITY OF
VALDOSTA**

**STANDARD DESIGN AND
CONSTRUCTION DETAILS**

**CUL-DE-SAC
WATER MAIN TERMINATION**

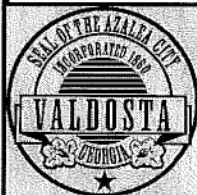
124



SECTION

MAIN DIA	CONCRETE COLLAR DIM.				STEEL REINFORCING
	A	B	C	D	
24"	1'-9"	9'-0"	9'-0"	2'-6"	#9 @ 8" O.C. E.W.E.F.
20"	1'-6"	7'-8"	7'-8"	2'-0"	#9 @ 12" O.C. E.W.E.F.
16"	1'-3"	6'-6"	6'-6"	1'-6"	#8 @ 12" O.C. E.W.E.F.
12"	1'-2"	5'-3"	5'-3"	1'-0"	#7 @ 12" O.C. E.W.E.F.
6" or 8"	1'-0"	4'-0"	4'-0"	0'-8"	#6 @ 12" O.C. E.W.E.F.

BASED ON:
TEST PRESSURE: 250 P.S.I. SOIL
BEARING PRESSURE: 3000 P.S.F.

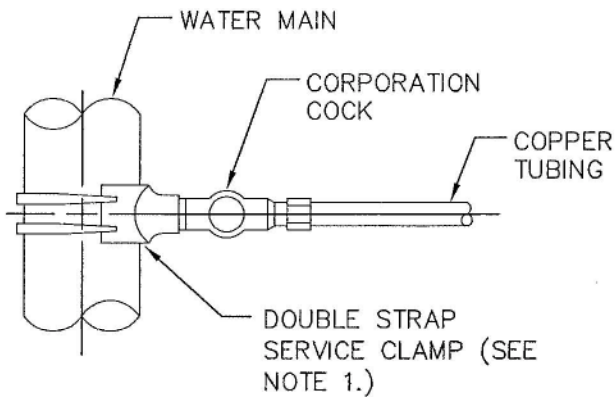


**CITY OF
VALDOSTA**

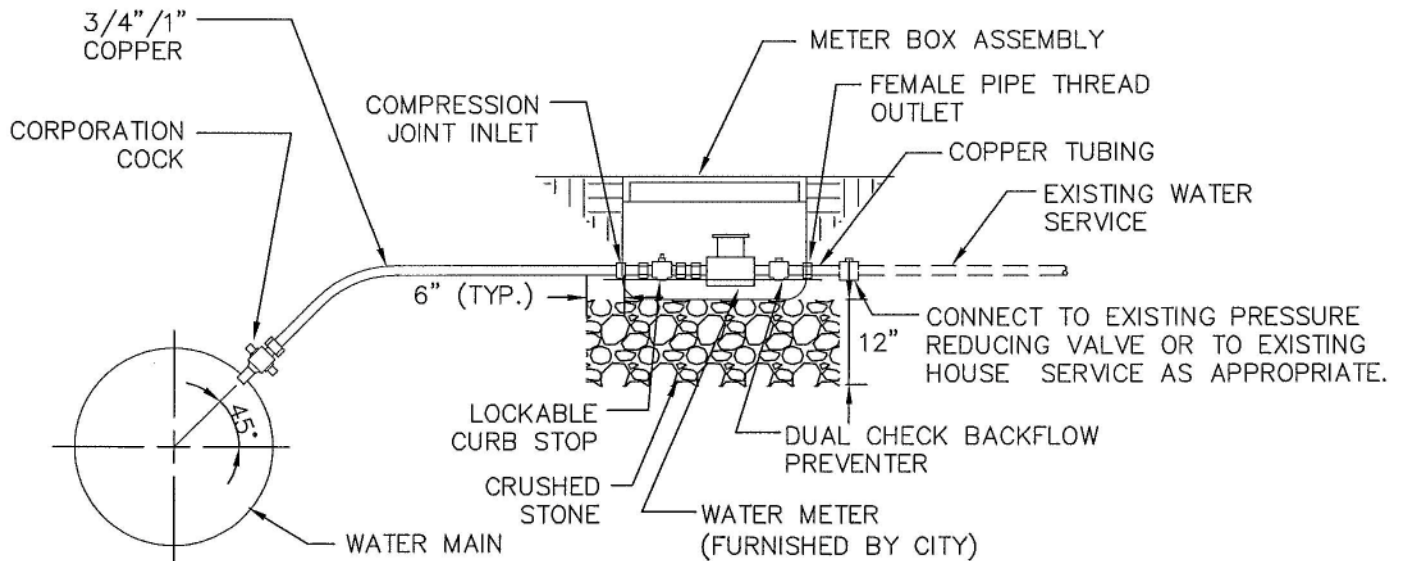
**STANDARD DESIGN AND
CONSTRUCTION DETAILS**

**WATER MAIN
TERMINATION**

125



PLAN



ELEVATION

NOTES:

1. SERVICE CLAMP REQUIRED ON ALL CONNECTIONS TO PVC WATER MAIN AND ON CONNECTIONS LARGER THAN 1" DIAM. TO DIP WATER MAIN.
2. DETAIL SHOWN IS FOR 3/4-INCH SERVICES. LARGER THAN 3/4-INCH SERVICES REQUIRE CONNECTION TO EXISTING WATER METER AND PROVIDING DUAL CHECK BACKFLOW PREVENTER, AS SPECIFIED.
3. USE 3/4" DIAMETER COPPER ON SHORT SIDE, 1" DIAMETER COPPER ON LONG SIDE.

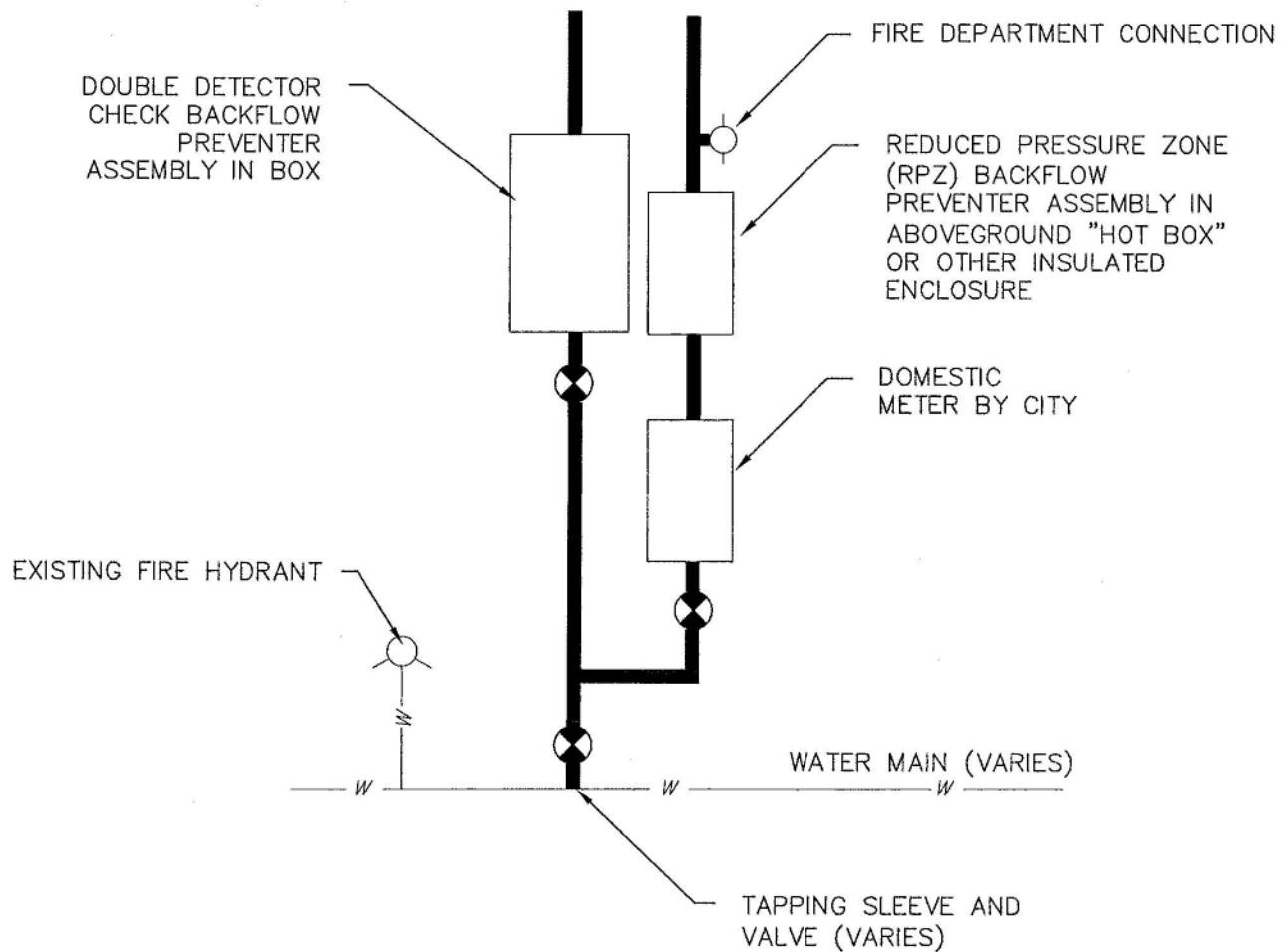


**CITY OF
VALDOSTA**

**STANDARD DESIGN AND
CONSTRUCTION DETAILS**

**WATER
METER**

126



**CITY OF
VALDOSTA**

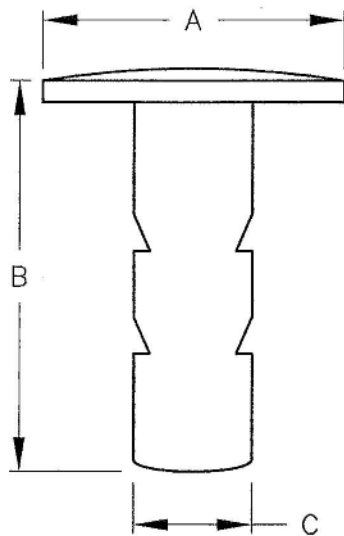
**STANDARD DESIGN AND
CONSTRUCTION DETAILS**

**WATER
SERVICE**

1.27

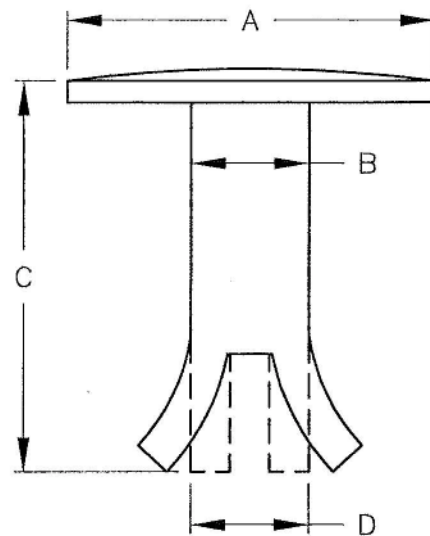
ORBITAL FORGED ALUMINUM CONCRETE MARKERS

RC1

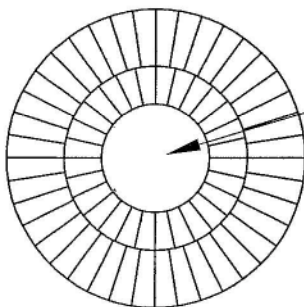


A = 2" (51 mm)
B = 2" (51 mm)
C = 3/4" (19 mm)

RC02



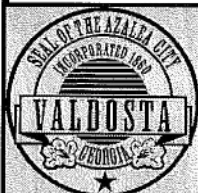
A = 3-1/4" (83 mm)
OR 4" (102 mm)
B = 3/4" (19 mm)
C = 3" (76 mm)
D = 5/8" (16 mm)
BEFORE FLARING



IMPRINT MARKER WITH EITHER:
"W" FOR WATER SERVICE OR
"S" FOR DANITARY SEWER SERVICE
(MINIMUM 3/4" LETTER)

2" USE ALL 1/8" LETTERS

PLACE MARKER IN CURB OR BACK OF VALLEY GUTTER
AT EACH WATER OR SANITARY SEWER SERVICE,
PROPERLY MARKED ACCORDINGLY.

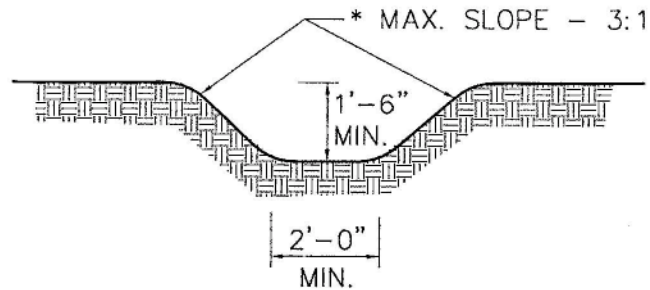


**CITY OF
VALDOSTA**

**STANDARD DESIGN AND
CONSTRUCTION DETAILS**

**WATER & SEWER
SERVICE MARKER**

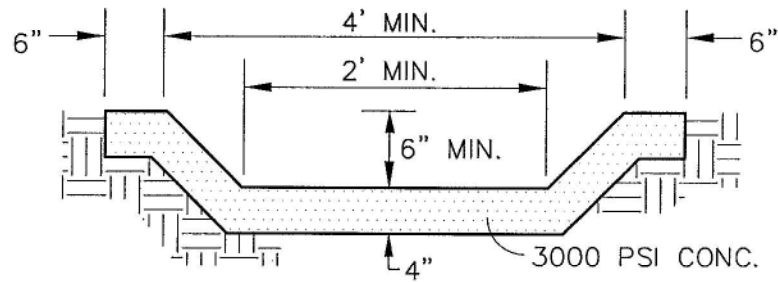
1.28



* STEEPER SLOPE TO BE REVIEWED AND APPROVED BY THE CITY ENGINEER.

GRASSED CHANNEL

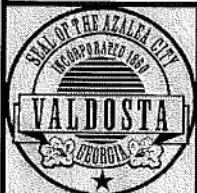
NTS



CONCRETE FLUME DETAIL

NTS

DEVELOPMENT PLANS TO INCLUDE DESIGN COMPUTATIONS AS REQUIRED IN SECTION 332-22.



**CITY OF
VALDOSTA**

**STANDARD DESIGN AND
CONSTRUCTION DETAILS**

**DRAINAGE CHANNELS
AND FLUMES**

2.01