

STANDARD DESIGN AND CONSTRUCTION DETAILS



OCTOBER 2002

Section - Revised 9-13-19
2.02 3.15
3.03 3.16a
3.13 3.19

DIVISION 1 - EROSION AND SEDIMENTATION CONTROL

- 1.01 Construction Exit
- 1.02 Silt Fence Type "A"
- 1.03 Silt Fence Type "C"
- 1.04 Haybale Barrier
- 1.05 Stone Check Dam
- 1.06 Storm Drain Outlet Protection
- 1.07 Rip Rap
- 1.08 Channel Stabilization
- 1.09 Rock Filter Dam
- 1.10 Silt Gates
- 1.11 Grassing Schedule - Temporary
- 1.12 Grassing Schedule - Permanent
- 1.13 Inlet Sediment Trap

DIVISION 2 - DRAINAGE SYSTEM IMPROVEMENTS

- 2.01 Precast Concrete Catch Basins
- 2.02 Standard Catch Basin Inlets
- 2.03 Precast Concrete Headwalls
- 2.04 Headwall Dimensions
- 2.05 Standard Flared End Sections
- 2.06 Drainage Channels and Flumes
- 2.07 Stormwater Management Facilities - Security Fencing
- 2.08 Standard Precast Concrete Manhole
- 2.09 Manhole Ring and Cover - Junction Box
- 2.10 Selection Guidelines for Storm Sewer Piping



WALTON COUNTY

**STANDARD DESIGN AND
CONSTRUCTION DETAILS**

INDEX

N 1

DIVISION 3 - ROADWAY IMPROVEMENTS

- 3.01 Typical Roadway Cross Sections - Urban**
- 3.02 Typical Roadway Cross Sections - Rural**
- 3.03 Roadway Design Parameters**
- 3.04 Curb and Gutter**
- 3.05 Minimum Length of Crest - Vertical Curves**
- 3.06 Minimum Length of Sag - Vertical Curves**
- 3.07 Landing Requirements for Local Residential Streets**
- 3.08 Standard Residential Cul-De-Sacs**
- 3.09 Standard Residential Cul-De-Sacs**
- 3.10 Temporary Vehicular Turnaround**
- 3.11 Obstructing Visibility at Intersections**
- 3.12 Intersection Sight Distance**
- 3.13 "T" Intersection - Collector / Arterial**
- 3.14 Industrial Driveway**
- 3.15 Commercial Driveway**
- 3.16 Residential Driveway**
- 3.17 Typical Concrete Sidewalk**
- 3.18 Wheelchair Ramp**
- 3.19 Location of Street Utilities**
- 3.20 Standard Road Barricade**
- 3.21 Concrete Joints**
- 3.22 Street Signs**
- 3.23 Jack and Bore - Casing Pipe (Utilities)**

DIVISION 4 - LANDSCAPING

- 4.01 Groundcover Planting**
- 4.02 Shrub Planting**
- 4.03 Deciduous Tree Planting**
- 4.04 Deciduous Tree Planting**
- 4.05 Evergreen Tree Planting**
- 4.06 Multi-Trunk Tree Planting**
- 4.07 Tree Protection**
- 4.08 Dumpster Screen**



WALTON COUNTY

**STANDARD DESIGN AND
CONSTRUCTION DETAILS**

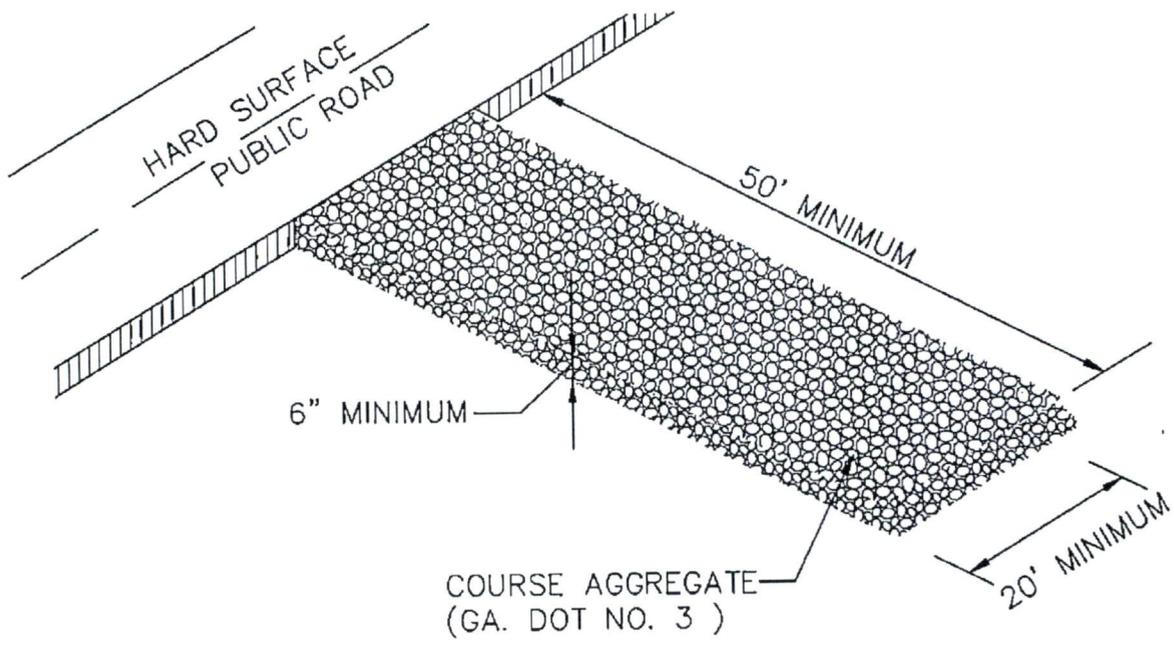
INDEX

N 2

DIVISION 1

EROSION AND SEDIMENTATION CONTROL





Co

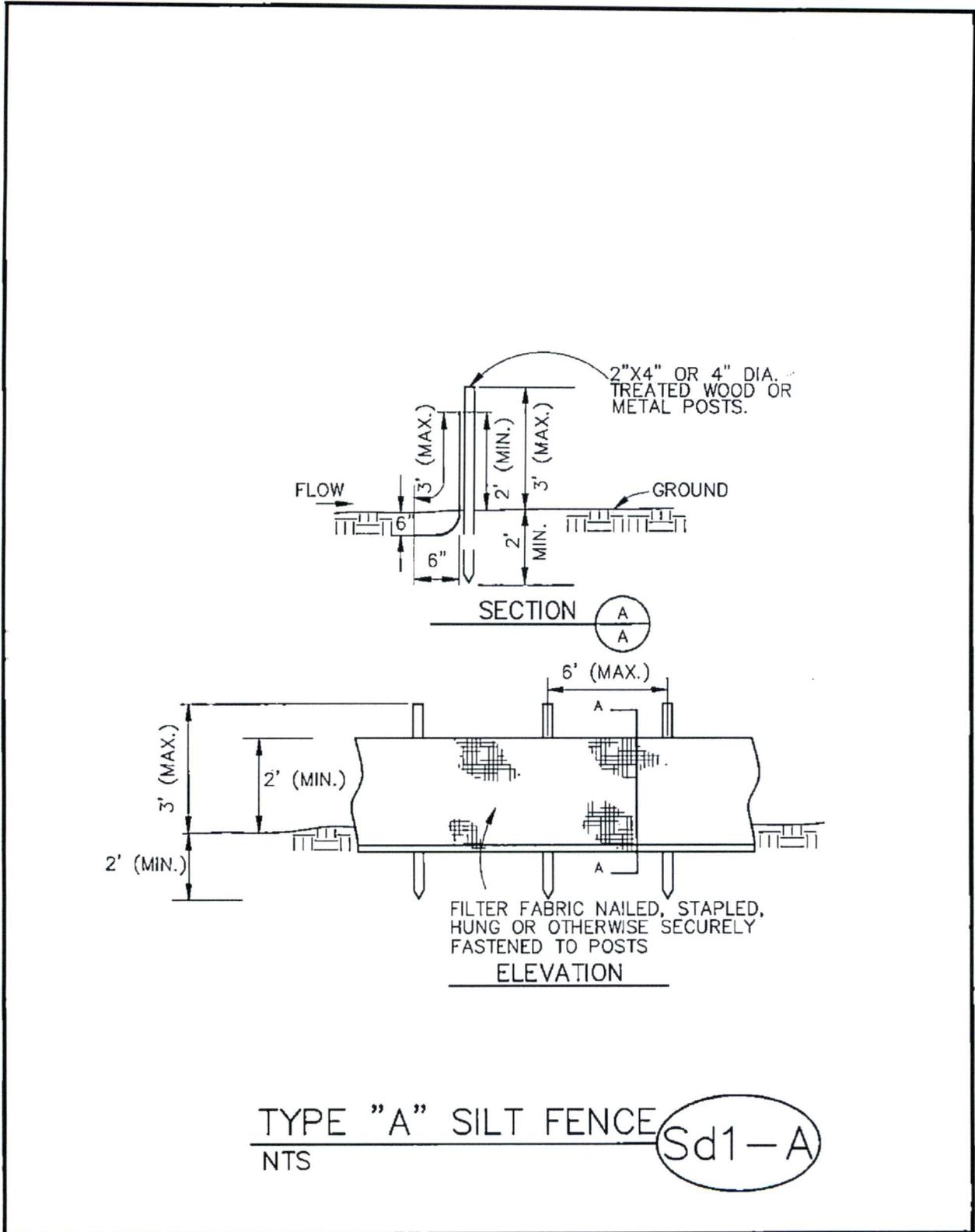


WALTON COUNTY

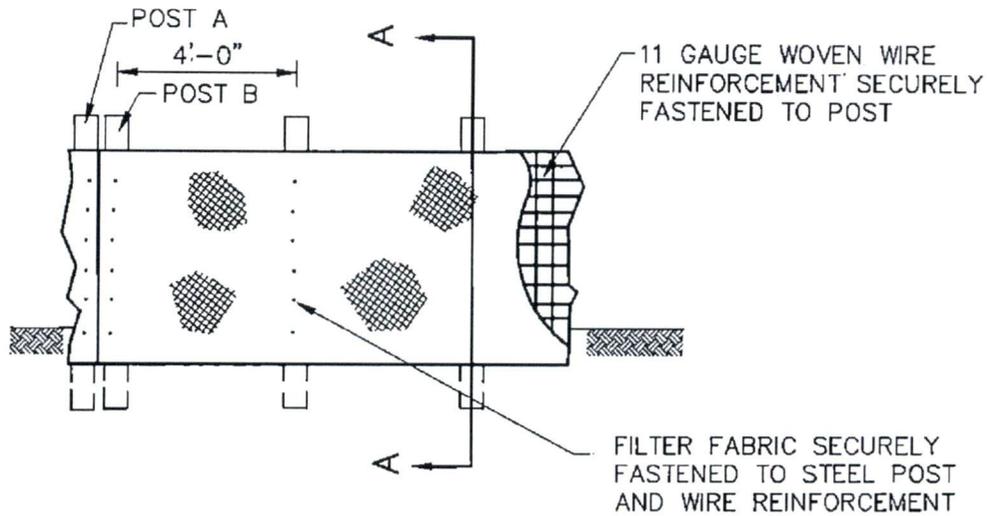
**STANDARD DESIGN AND
CONSTRUCTION DETAILS**

**CONSTRUCTION
EXIT**

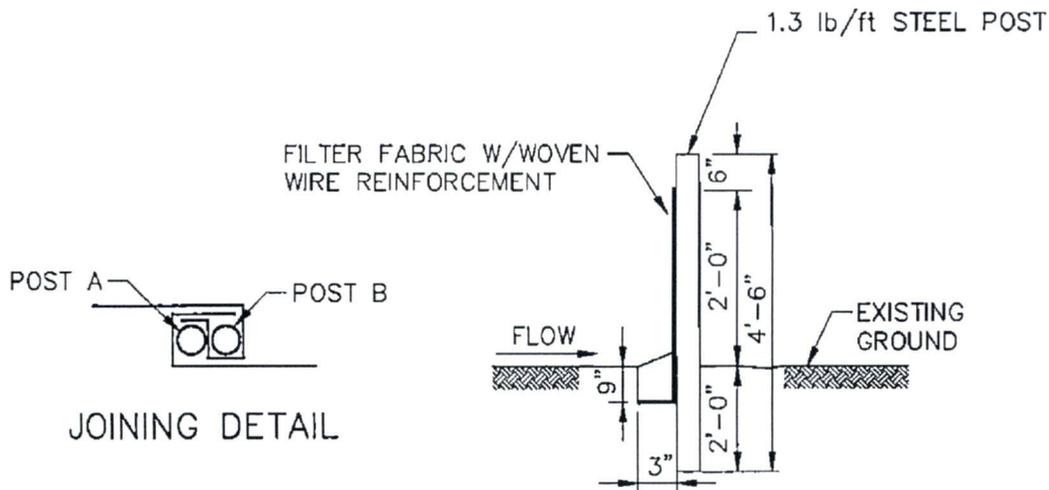
101



	WALTON COUNTY	STANDARD DESIGN AND CONSTRUCTION DETAILS	
		SILT FENCE TYPE "A"	102



ELEVATION



JOINING DETAIL

SECTION A-A

TYPE "C" REINFORCED SILT FENCE
NTS

Sd1-C

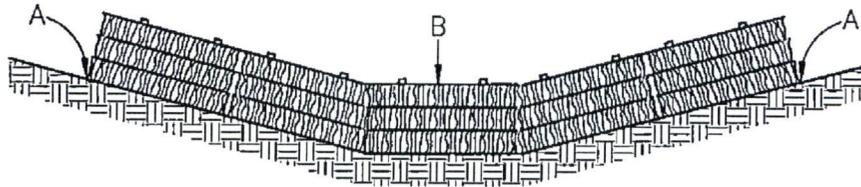


WALTON COUNTY

STANDARD DESIGN AND
CONSTRUCTION DETAILS

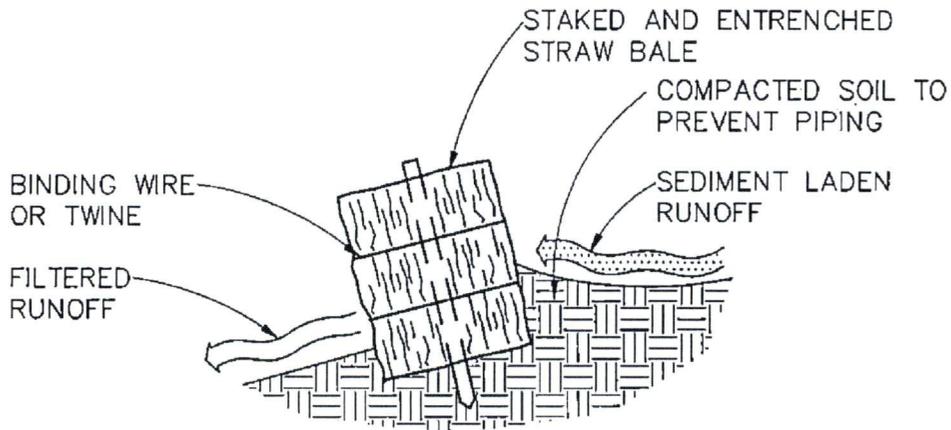
SILT FENCE
TYPE "C"

103



POINTS "A" SHOULD BE HIGHER THAN POINT "B".

PROPER PLACEMENT OF HAYBALE BARRIER IN DRAINAGE WAY



NOTE: EMBED HAYBALES A MINIMUM OF 4 INCHES.

CROSS-SECTION OF A PROPERLY INSTALLED HAYBALE

Sd1-Hb

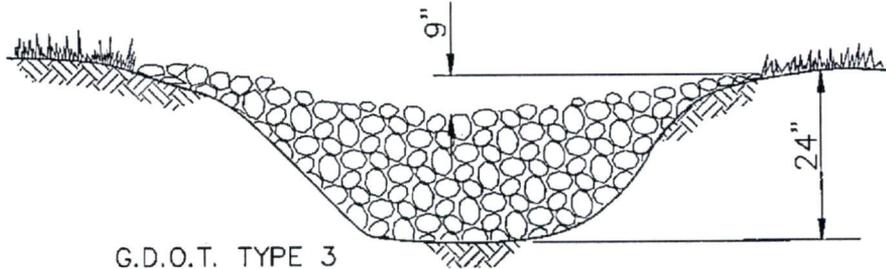


WALTON COUNTY

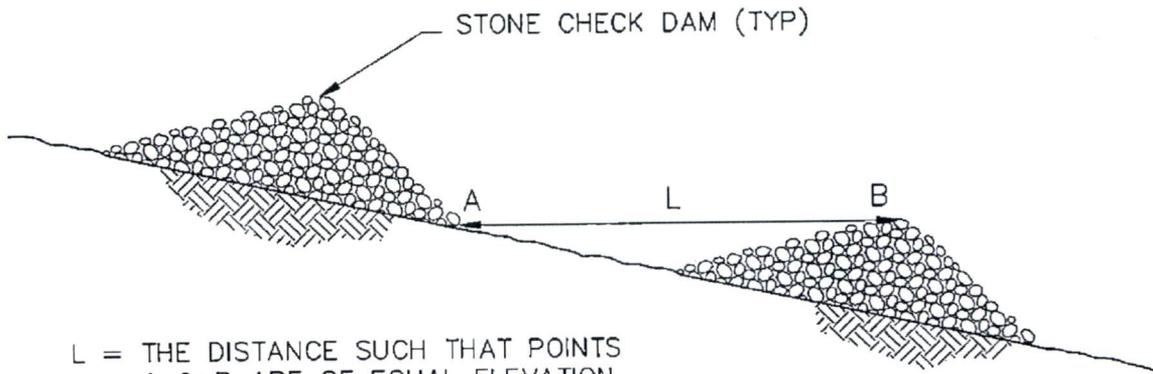
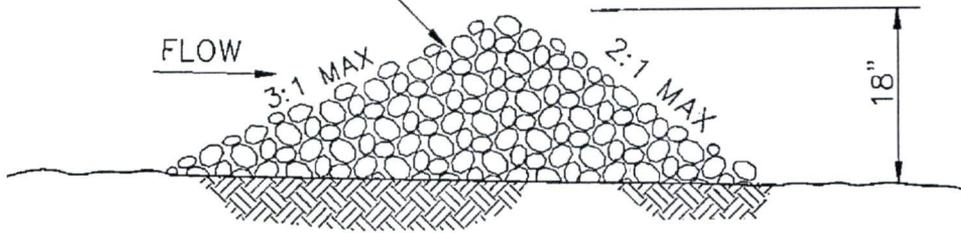
**STANDARD DESIGN AND
CONSTRUCTION DETAILS**

HAYBALE BARRIER

104



G.D.O.T. TYPE 3
STONE DUMPED
RIP RAP.



STONE CHECK DAM (TYP)

L = THE DISTANCE SUCH THAT POINTS
A & B ARE OF EQUAL ELEVATION

Cd-S

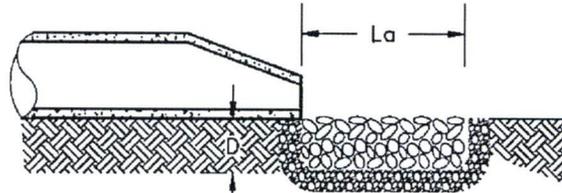
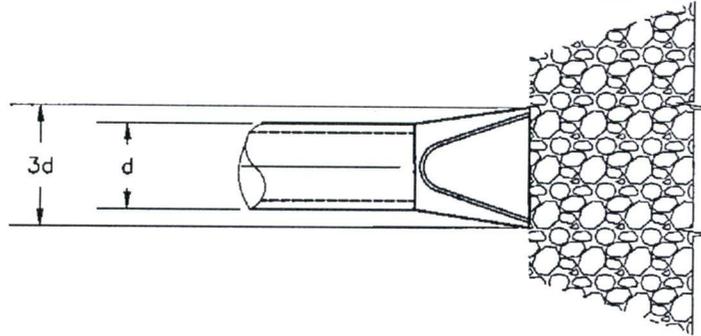


WALTON COUNTY

**STANDARD DESIGN AND
CONSTRUCTION DETAILS**

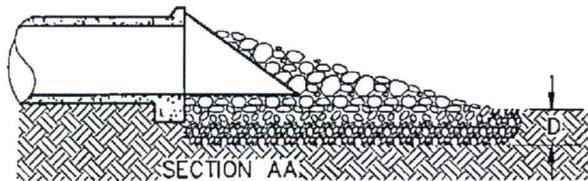
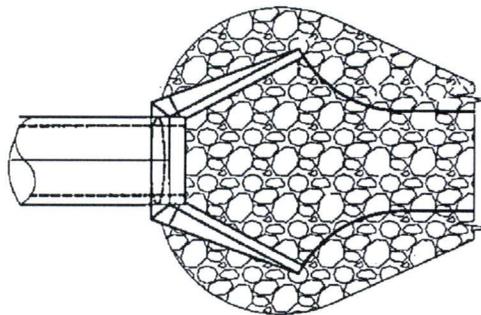
STONE CHECK DAM

105



SECTION AA

PIPE OUTLET TO FLAT AREA --
NO WELL-DEFINED CHANNEL



SECTION AA

PIPE OUTLET TO A
WELL-DEFINED CHANNEL

NOTES:

1. L_a IS THE LENGTH OF THE RIP-RAP APRON.
2. $D = 1.5$ TIMES THE MAXIMUM STONE DIAMETER BUT NOT LESS THAN 6".
3. IN A WELL-DEFINED CHANNEL, EXTEND THE APRON UP THE CHANNEL BANKS TO AN ELEVATION OF 6" ABOVE THE MAXIMUM TAILWATER DEPTH OR TO TOP OF THE BANK, WHICHEVER IS LESS.
4. A FILTER BLANKET OF FILTER FABRIC SHOULD BE INSTALLED BETWEEN THE RIP-RAP AND SOIL FOUNDATION.



NOTES TO BE SHOWN ON PLANS INCLUDE:

THE FLOW CHARACTERISTICS OF THE PIPE AT FULL FLOW INCLUDING PIPE DIAMETER, FLOW RATE (cfs), VELOCITY (fps) AND TAILWATER CONDITION.

THE DIMENSIONS OF THE APRON INCLUDING LENGTH (L_a), WIDTH AT THE HEADWALL (W_1), DOWNSTREAM WIDTH (W_2), AVERAGE STONE DIAMETER (d_{50}), AND STONE DEPTH (D) DESIGNED IN ACCORDANCE WITH THE GEORGIA SOIL AND WATER CONSERVATION SERVICE "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA", LATEST EDITION.

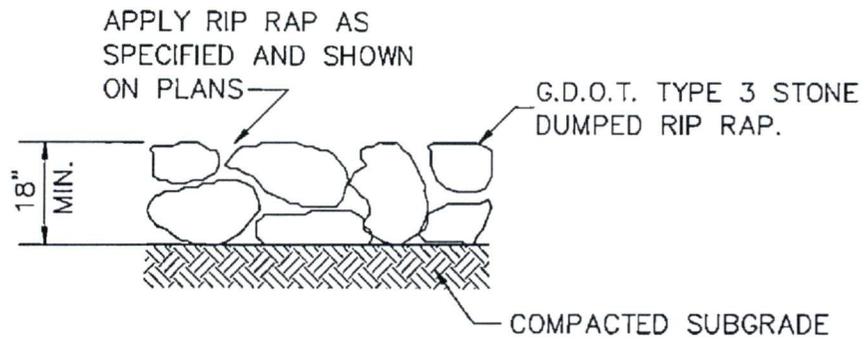


WALTON COUNTY

**STANDARD DESIGN AND
CONSTRUCTION DETAILS**

**STORM DRAIN
OUTLET PROTECTION**

106



NOTE: DITCH SLOPES MUST BE LINED WITH RIP RAP MINIMUM OF 75% OF DITCH HEIGHT.

SECTION



	WALTON COUNTY	STANDARD DESIGN AND CONSTRUCTION DETAILS	
		RIP RAP	107

THIS PAGE RESERVED FOR
CHANNEL STABILIZATION DETAIL

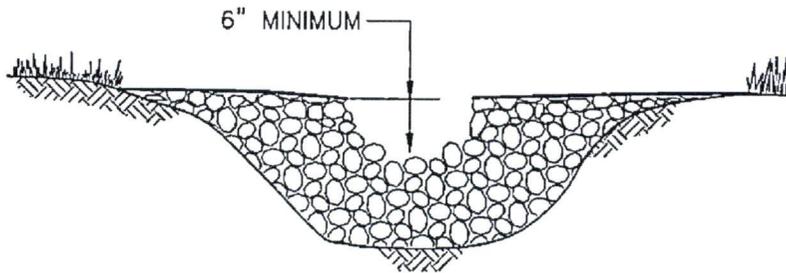


WALTON COUNTY

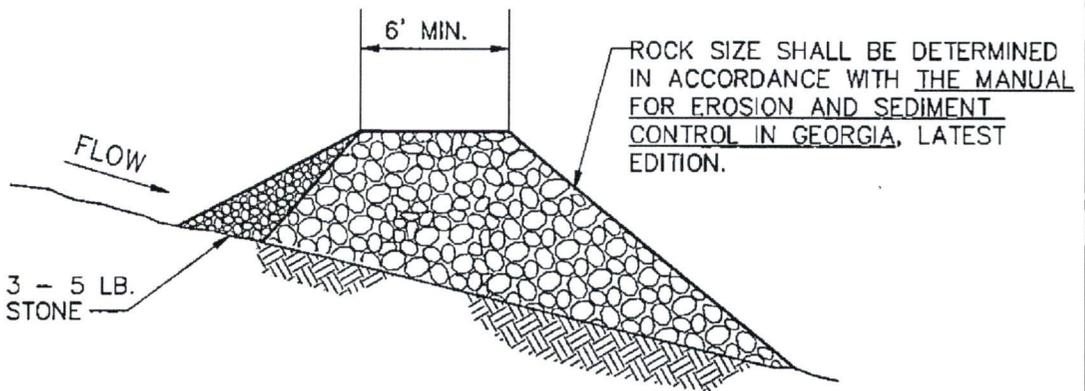
**STANDARD DESIGN AND
CONSTRUCTION DETAILS**

CHANNEL STABILIZATION

108



NOTE: SEDIMENT TRAP IS TO BE CLEANED OUT
WHEN VOLUME BECOMES HALF FULL.



ROCK FILTER DAM

N.T.S.

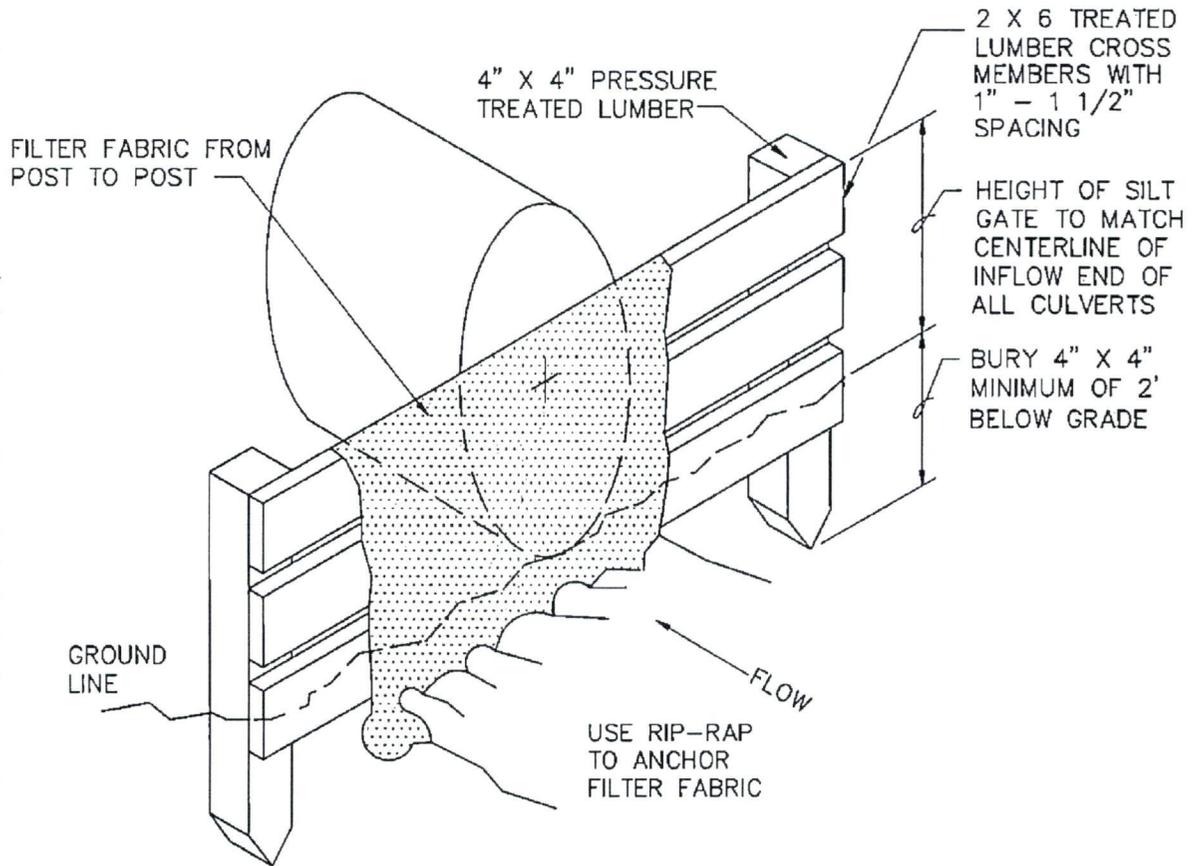


WALTON COUNTY

**STANDARD DESIGN AND
CONSTRUCTION DETAILS**

ROCK FILTER DAM

109



NOTE: SILT GATES SHALL BE PLACED AT THE INLET END OF STORM PIPES OR DOWN DRAINS.



WALTON COUNTY

STANDARD DESIGN AND CONSTRUCTION DETAILS

SILT GATES

110

PLANTING RATES IN LBS. PER ACRE

CONDITION 1 - FLAT TO MODERATE SLOPES 0% - 3%

<u>GRASS</u>	<u>SPRING</u>	<u>SUMMER</u>	<u>FALL</u>	<u>WINTER</u>
RYEGRASS			40	40
RYE			170	170
WHEAT			180	180
WEeping LOVEGRASS	4	4		
BROWNTOP MILLET	40	40		
FESCUE	50		50	

CONDITION 2 - MODERATE TO STEEP SLOPE 3% - 25%

<u>GRASS</u>	<u>SPRING</u>	<u>SUMMER</u>	<u>FALL</u>	<u>WINTER</u>
RYEGRASS			40	40
RYE			170	170
WHEAT			180	180
LESPEDEZA ANNUAL	40			
WEeping LOVEGRASS	4	4		
BROWNTOP MILLET	40	40		
SUDANGRASS	60	60		
FESCUE	50		50	

CONDITION 3 - CONCENTRATED WATER AREAS

<u>GRASS</u>	<u>SPRING</u>	<u>SUMMER</u>	<u>FALL</u>	<u>WINTER</u>
RYEGRASS			40	40
RYE			170	170
WHEAT			180	180
LESPEDEZA ANNUAL	40			
BROWNTOP MILLET	40	40		
SUDANGRASS	60	60		
PEARL MILLET	50	50		
FESCUE	50		50	

NOTE: ALL SEEDING RATES FOR SINGLE SPECIES, MIXTURES CAN RESULT IN LOWER RATES, CONSULT MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA FOR MIXING RATES.

NOTE: ON LOW FERTILITY SOILS USE 500 LBS/ACRE OF 10-10-10 OR 12 LBS/1000 S.F.. APPLY BEFORE LAND PREPARATION.

Ds2



WALTON COUNTY

**STANDARD DESIGN AND
CONSTRUCTION DETAILS**

**GRASSING SCHEDULE
TEMPORARY**

111

JAN 1 TO FEB 31

SERICEA LESPEDEZA (UNSCARIFIED) – 75 LBS/ACRE
COMMON BERMUDA (UNHULLED) – 10 LBS/ACRE

MAR 1 TO JUNE 31

SERICEA LESPEDEZA (SCARIFIED) – 60 LBS/ACRE
COMMON BERMUDA (HULLED) – 10 LBS/ACRE
WEEPING LOVEGRASS – 4 LBS/ACRE
BAHIA, PENSACOLA – 60 LBS/ACRE
BAHIA, WILMINGTON – 60 LBS/ACRE
BERMUDA SPRIGS – 40 CU. FT.

JULY 1 TO AUG 15

BERMUDA SPRIGS
COASTAL, COMMON OR TIFT 44 – 32 BUSHELS/ACRE

AUG 15 TO DEC 31

TALL FESCUE – (WITH COMMON BERMUDA – UNHULLED & RYE)
(FESCUE–30 LBS/ACRE, BERMUDA–6 LBS/ACRE, RYE–1/2 BU/ACRE)
SERICEA LESPEDEZA (UNSCARIFIED) – 75 LBS/ACRE

FERTILIZER RATE

NITROGEN	5–10%	90	LBS/ACRE
PHOSPHORUS	10–15%	180	LBS/ACRE
POTASSIUM	10–15%	180	LBS/ACRE
MULCH		2.5	TONS/ACRE
N TOP DRESS		50–100	LBS/ACRE
LIME		2	TONS/ACRE

Ds3

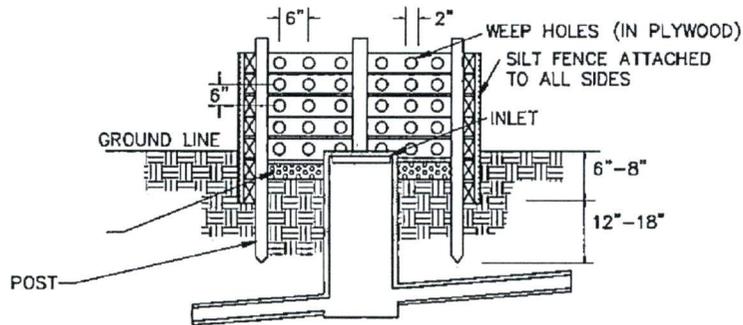
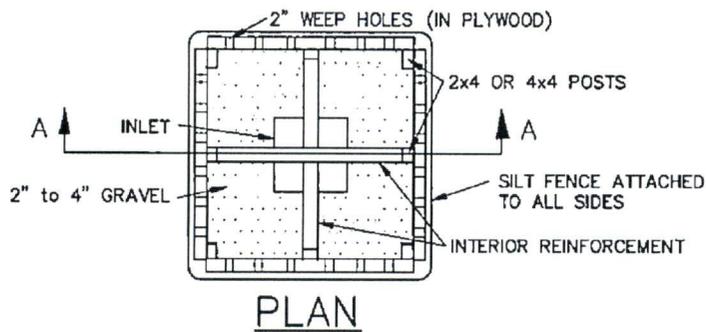


WALTON COUNTY

**STANDARD DESIGN AND
CONSTRUCTION DETAILS**

**GRASSING SCHEDULE
PERMANENT**

112



SECTION A-A

BOX TO BE MADE OF BOARDS SPACED 1" TO 2" APART, OR MADE OF PLYWOOD WITH 2" WEEP HOLES SPACED APPROX. 6" VERTICAL - 6" HORIZONTAL
 SILT FENCE TO BE ATTACHED TO ALL SIDES OF THE SEDIMENT BOX
 2" TO 4" OF GRAVEL ON THE INSIDE AROUND THE INLET (IN PLYWOOD BOX)
 DIMENSIONS OF THE BOX WILL VARY ACCORDING TO THE SIZE OF THE INLET AND DEPTH OF BASIN
 EXCAVATE 1' BELOW TOP OF INLET IN 10' RADIUS AROUND BOX FOR SILT CONTROL DURING CONSTRUCTION.

INLET SEDIMENT TRAP
 NTS

Sd2-B



WALTON COUNTY

**STANDARD DESIGN AND
 CONSTRUCTION DETAILS**

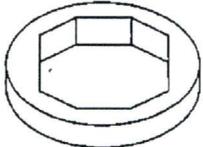
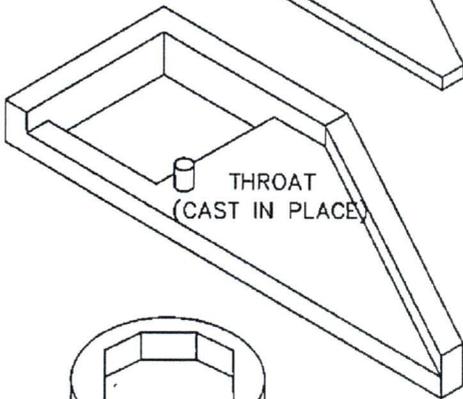
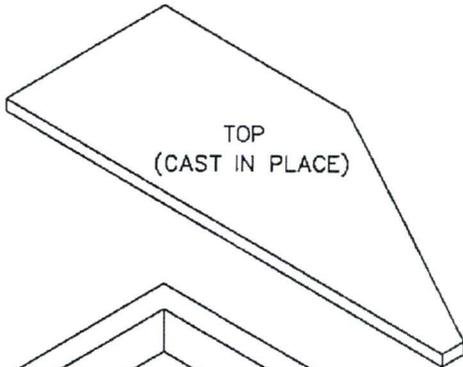
INLET SEDIMENT TRAP

113

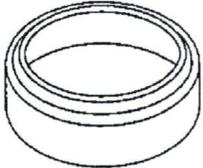
DIVISION 2

DRAINAGE SYSTEM IMPROVEMENTS

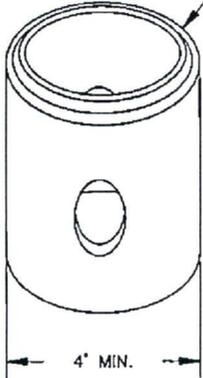




ROUND TO SQUARE ADAPTER



RISER SECTION (IF REQ'D.)
(GROUT ALL JOINTS)

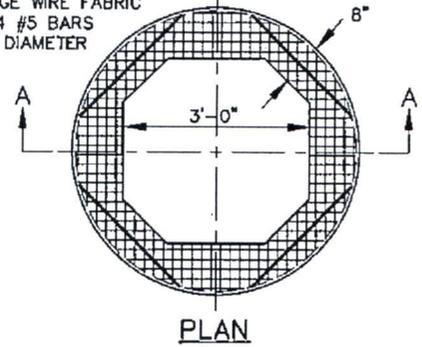


PROVIDE STEPS IF DEPTH > 3 FEET

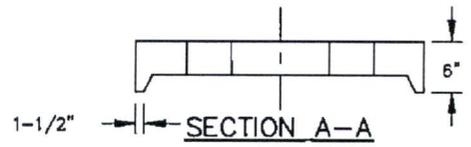
MONOLITHIC BASE - HOLES MUST BE PRECAST

4" MIN.

REINFORCING TO BE
2/2 6X6 WELDED
10 GAGE WIRE FABRIC
WITH 4 #5 BARS
4'-8" DIAMETER



PLAN



SECTION A-A

ROUND TO SQUARE ADAPTER



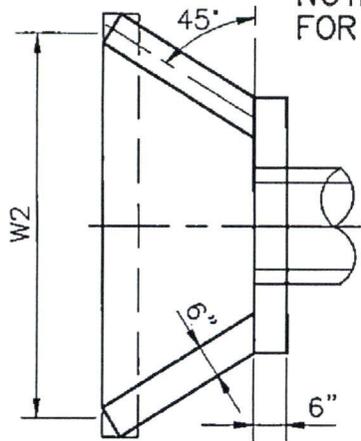
WALTON COUNTY

STANDARD DESIGN AND CONSTRUCTION DETAILS

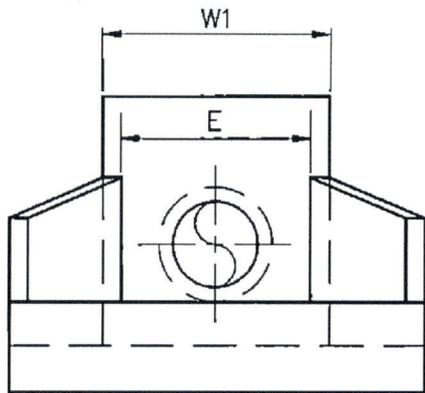
PRECAST CONCRETE CATCH BASINS

2.01

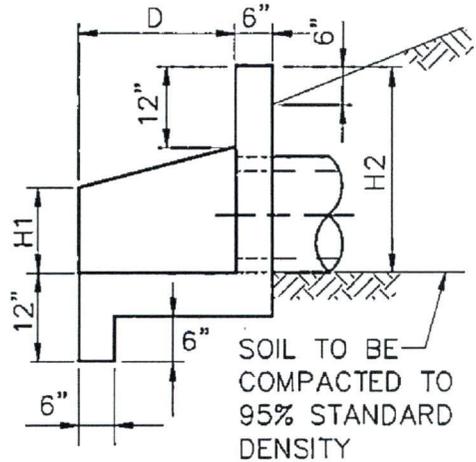
NOTE: SEE 2.04 FOR DIMENSIONS.



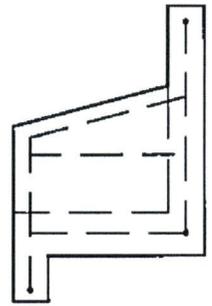
PLAN



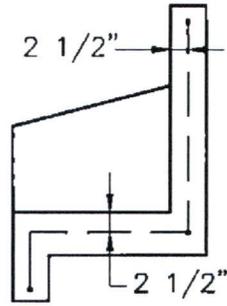
FRONT ELEVATION



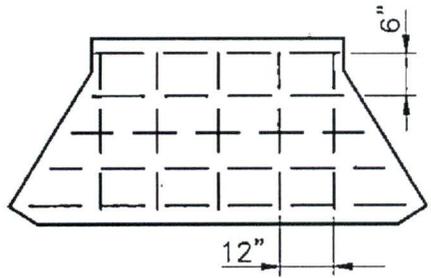
SIDE



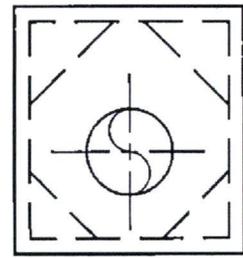
WING SECTION



BASE & WALL SECTION



BASE SECTION



WALL SECTION



WALTON COUNTY

STANDARD DESIGN AND CONSTRUCTION DETAILS

PRECAST CONCRETE HEADWALLS

2.03

HEADWALL DIMENSIONS (METAL PIPE)

USE NEXT LARGEST SIZE FOR CONCRETE PIPE

PIPE INSIDE DIA.	W1	W2	H1	H2	D	E	WT.	SQ. FT. BASE AREA
12", 15", 18"	3'-2"	4'-10"	1'-3"	3'-2"	1'-3"	1'-9"	1550	7.34
21", 24"	3'-8"	6'-1"	1'-9"	3'-8"	1'-6"	2'-3"	2100	9.90
30"	4'-2"	7'-2"	2'-0"	4'-2"	1'-10"	2'-9"	2850	13.50
36"	4'-8"	8'-4"	2'-4"	4'-8"	2'-2"	3'-3"	3700	17.65
42", 48"	5'-8"	10'-10"	3'-3"	5'-8"	2'-11"	4'-3"	5600	28.60
54", 60"	6'-8"	11'-11"	3'-8"	6'-8"	3'-4"	5'-3"	7500	35.60

NOTES:

1. ALL CONCRETE SHALL BE CLASS A
2. REINFORCEMENT STEEL SHALL BE 1/2" DIA. OF INTERMEDIATE GRADE.
3. CHAMFER ALL EXPOSED EDGES 3/4".

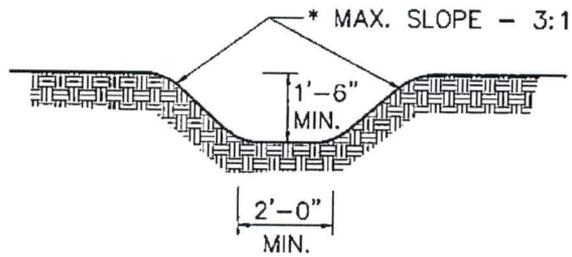


WALTON COUNTY

**STANDARD DESIGN AND
CONSTRUCTION DETAILS**

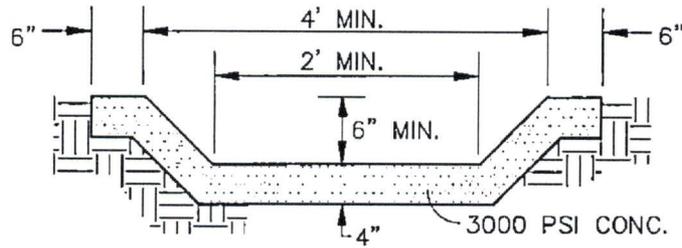
**HEADWALL
DIMENSIONS**

204



- STEEPER SLOPE TO BE REVIEWED AND APPROVED BY COUNTY ROAD SUPERINTENDENT

GRASSED CHANNEL



CONCRETE FLUME DETAIL

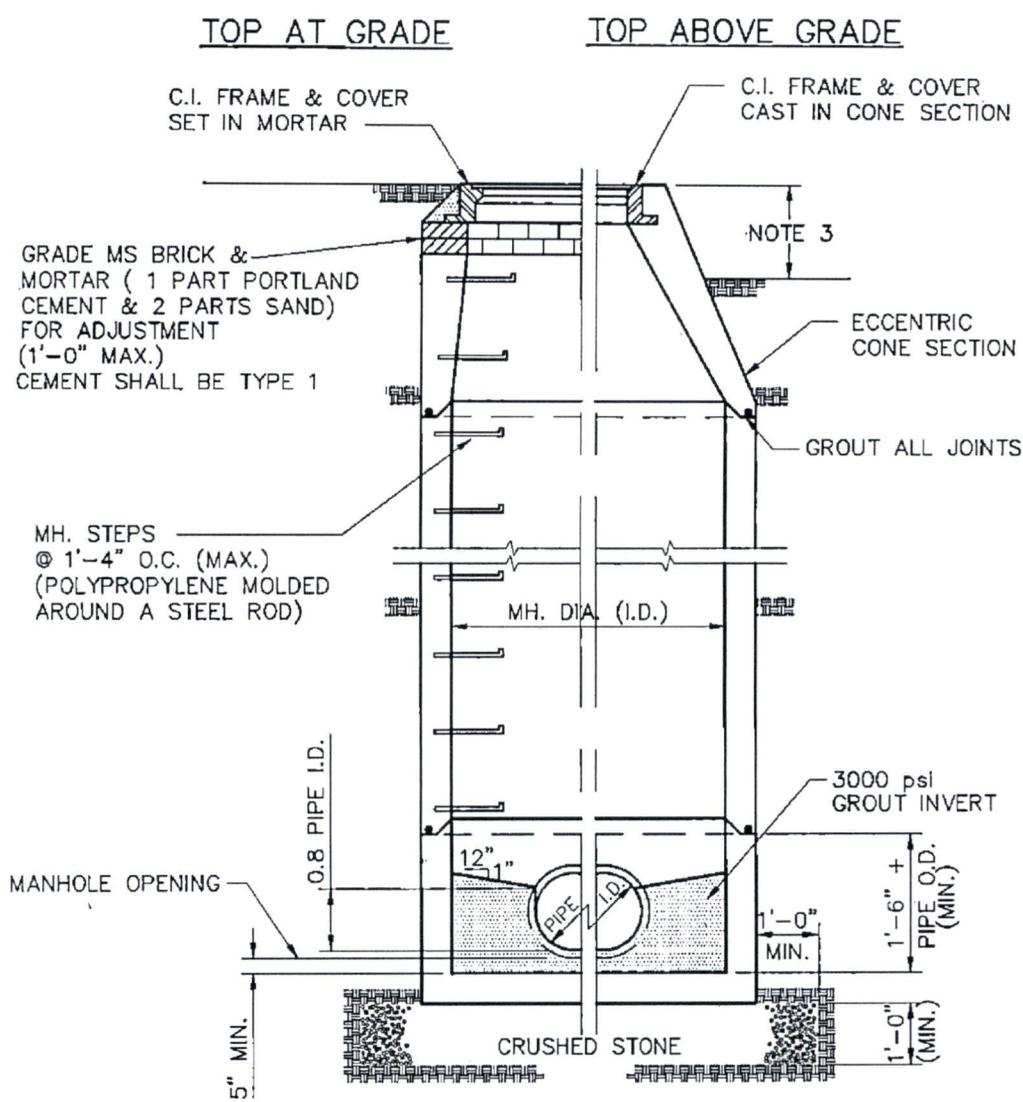


WALTON COUNTY

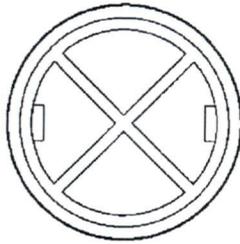
**STANDARD DESIGN AND
CONSTRUCTION DETAILS**

**DRAINAGE CHANNELS
AND FLUMES**

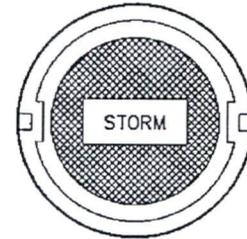
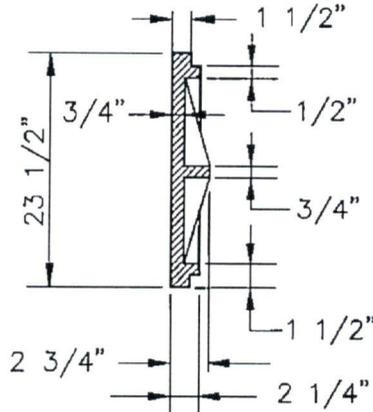
2.06



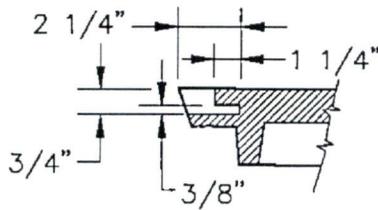
- NOTES:
1. CONSTRUCT MANHOLES AS SHOWN ON DRAWINGS.
 2. PRECAST CONCRETE SECTIONS SHALL MEET THE REQUIREMENTS OF ASTM C 478. MINIMUM COMPRESSIVE STRENGTH OF THE CONCRETE IN PRECAST SECTIONS SHALL BE 4000 PSI.
 3. BUILD MANHOLES OUTSIDE OF PAVED AREAS TO 18" ABOVE GRADE UNLESS OTHERWISE SHOWN ON THE DRAWINGS OR DIRECTED BY THE COUNTY.
 4. SEAL ALL JOINTS AND LIFT HOLES, BOTH INSIDE AND OUT, WITH GROUT. THIS IS IN ADDITION TO JOINT SEALANT BETWEEN SECTIONS.
 5. PROVIDE UNIFORM BEDDING OF THE BOTTOM TO PREVENT UNEVEN LOADING.



COVER BACK

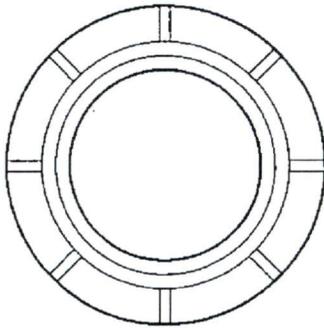


COVER FACE

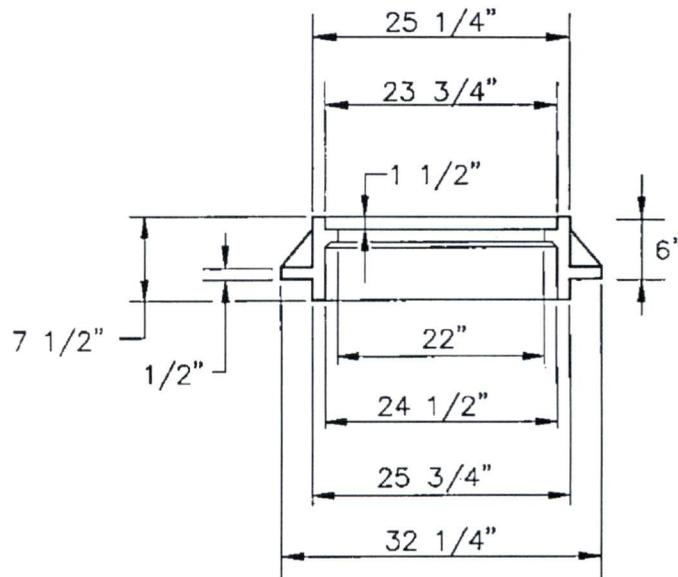


(2) TYPE TWO NON-PENETRATING PICKHOLES

PICKHOLE DETAIL



FRAME PLAN



FRAME SECTION

NOTE:

COVER SHALL BE VULCAN V-1349, NEENAH R-1642,
OR APPROVED EQUAL.



WALTON COUNTY

**STANDARD DESIGN AND
CONSTRUCTION DETAILS**

**MANHOLE FRAME AND
COVER - JUNCTION BOX**

209

**WALTON COUNTY
SELECTION GUIDELINES FOR STORM SEWER PIPING**

TYPE OF PIPE INSTALLATION	REINFORCED CONCRETE PIPE (RCP)	CORRUGATED STEEL AASHTO M-36		CORRUGATED ALUMINUM AASHTO M-196	PLASTIC AASHTO M-294	REINFORCED CONCRETE BOX CULVERT
		ALUMINIZED TYPE II CMP	BITUMINOUS COATED CMP	ALUMINUM ALLOY CMP	CORR. HIGH DENSITY POLY-ETHYLENE SMOOTH LINED	PER GA. DOT STANDARDS
LONGITUDINAL GRADE LESS THAN 10%	YES	YES	YES	YES	YES	
LONGITUDINAL GRADE OVER 10%	NO	YES	YES	YES	YES	
CROSS DRAIN LESS THAN 250 ADT	YES	YES	YES	YES	(1)	
CROSS DRAIN GREATER THAN 250 ADT	YES	NO	NO	NO	NO	
CROSS DRAIN FLOWING STREAM APPL.	YES	(3)	NO	YES	(1)	
CROSS DRAIN 25 YR FLOW > 200 CFS FILL DEPTH > 18 FEET	(2)	(2),(3)	NO	(2)	NO	YES

CONDITIONAL USES:

1. Corrugated high density polyethylene pipe, smooth line type "S", must be manufactured and installed in strict compliance with Georgia DOT Standard 1030-P. HDPE applications shall not exceed 36" diameter.
2. Reinforced concrete box culverts are required under excessive flow and/or fill depth conditions. Approved pipe materials may be utilized in some instances, based on the County's assessment of existing conditions and future maintenance requirements.
3. The addition of Type "A" full bituminous coating, with paved invert, is required for this application. (AASHTO M-190)



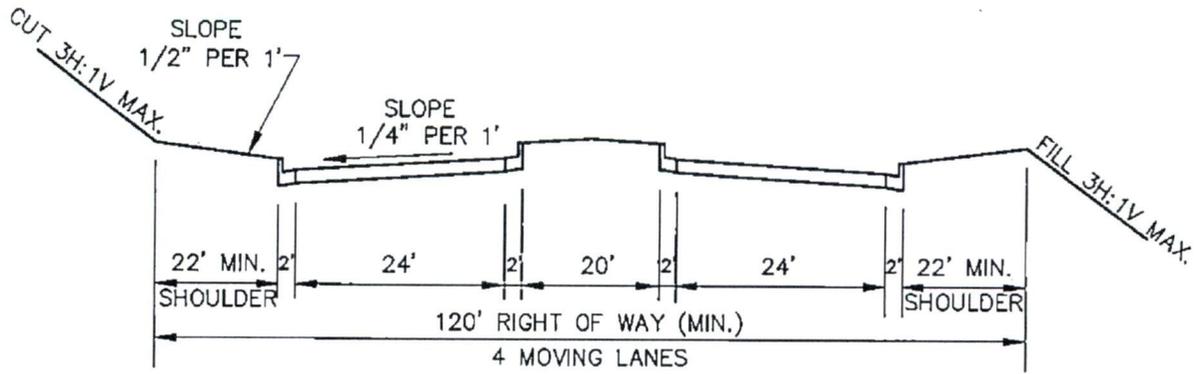
WALTON COUNTY

**STANDARD DESIGN AND
CONSTRUCTION DETAILS
SELECTION GUIDELINES FOR
STORM SEWER PIPING**

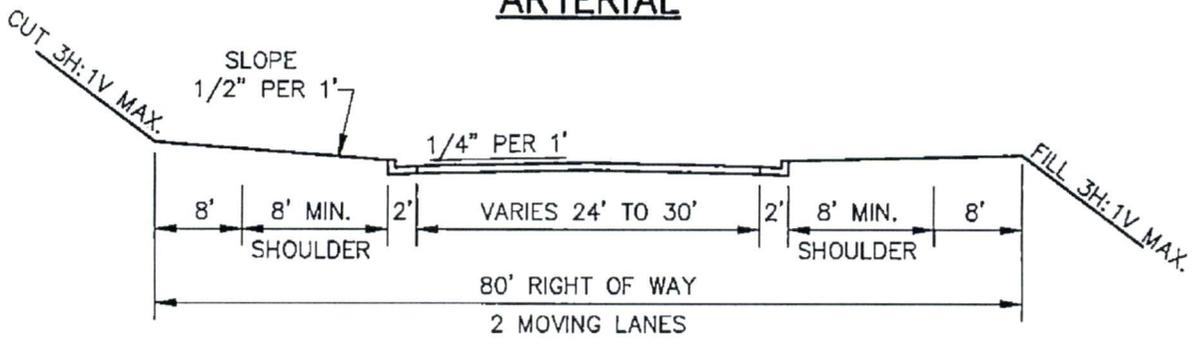
DIVISION 3

ROADWAY IMPROVEMENTS

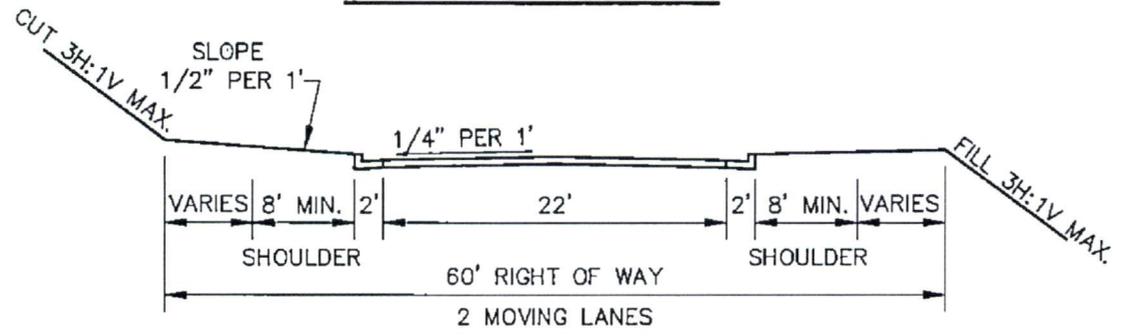




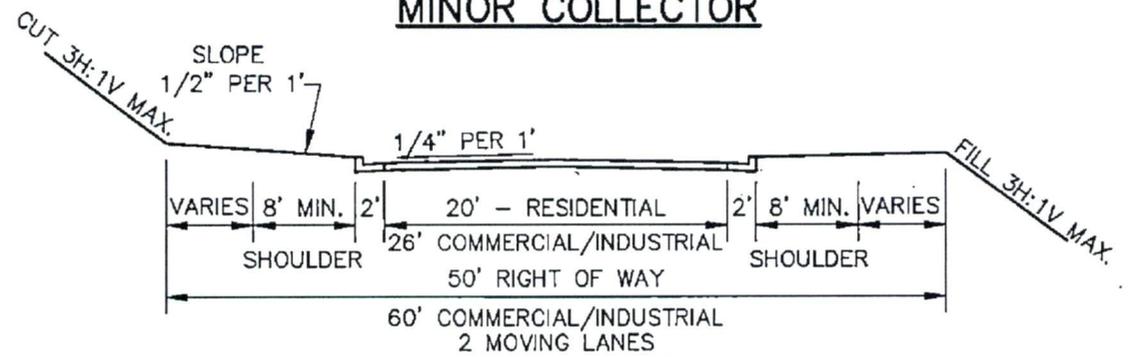
ARTERIAL



MAJOR COLLECTOR



MINOR COLLECTOR



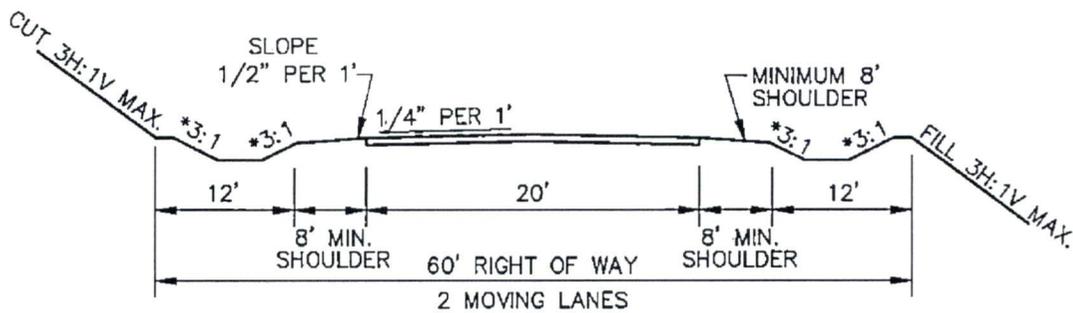
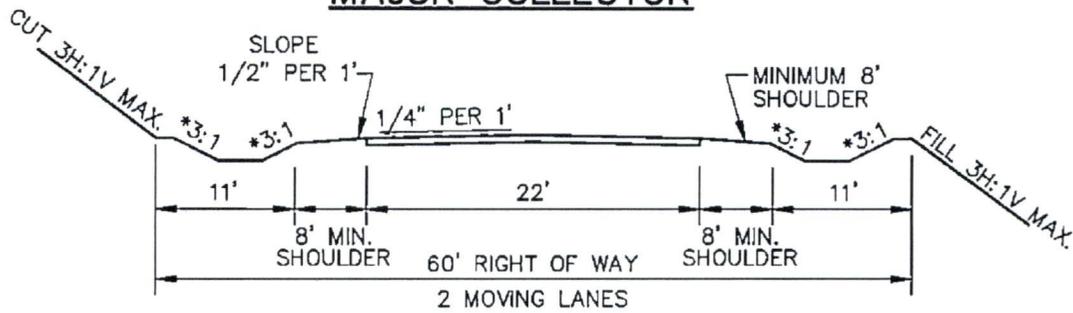
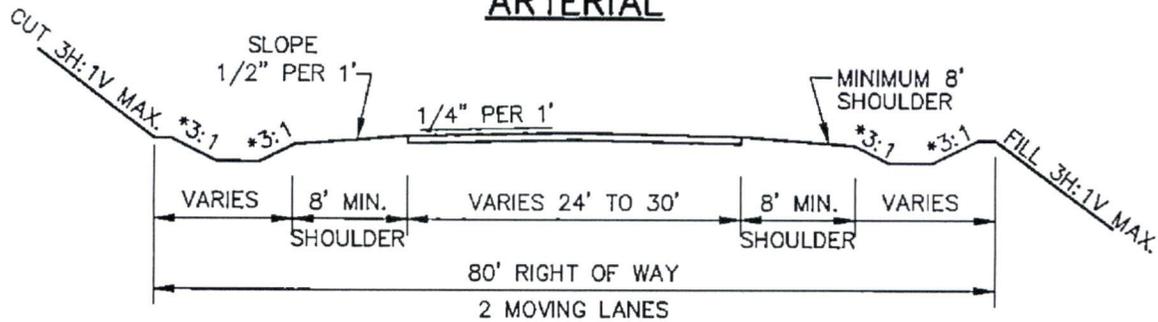
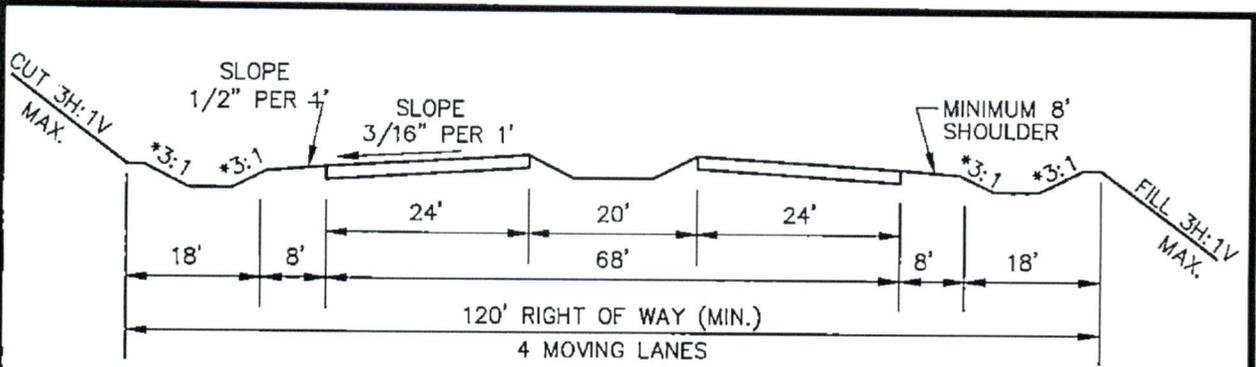
LOCAL STREET



WALTON COUNTY

**STANDARD DESIGN AND
CONSTRUCTION DETAILS**
**TYPICAL ROADWAY
CROSS SECTIONS - URBAN**

3.01



* STEEPER SLOPE TO BE REVIEWED AND APPROVED BY COUNTY ROAD SUPERINTENDENT



WALTON COUNTY

STANDARD DESIGN AND CONSTRUCTION DETAILS

TYPICAL ROADWAY CROSS SECTIONS - RURAL

3.02

MINIMUM STREET DESIGN STANDARDS:

	ARTERIAL ¹	MAJOR COLLECTOR	MINOR COLLECTOR	LOCAL STREET	COMMERCIAL/ INDUSTRIAL
AVERAGE DAILY TRIPS	10,000 OR MORE	2,501 TO 9,999	251 TO 2,500	250 OR LESS	2,500 OR LESS ⁵
MINIMUM RIGHT-OF-WAY, IN FEET	120	80	70 ³	50 ² 60 ³	60
MINIMUM PAVEMENT WIDTH, IN FEET ⁴	48	24/30	22	20	26
MAXIMUM GRADE	6%	10%	12%	12%	12%
MINIMUM STOPPING SIGHT DISTANCE, IN FEET	550	450	200	150	200
DESIGN SPEED, IN MPH	55	45	30	25	30
MINIMUM CENTERLINE RADIUS, IN FEET	885	500	300	250	300
MINIMUM LENGTH OF TANGENT, BETWEEN REVERSE CURVES, IN FEET	300	200	100	100	150
PAVEMENT RADIUS AT INTERSECTIONS, IN FEET	30	30	25	25	25
MINIMUM FINISHED GRADE	1.5%	1.5%	1.5%	1.5%	1.5%

FOOTNOTES:

- 1 GEOMETRICAL DESIGN STANDARDS OF THE GEORGIA DEPARTMENT OF TRANSPORTATION SHALL REPRESENT MINIMUM REQUIREMENTS FOR ARTERIAL STREET DESIGN AND CONSTRUCTION. ALL OTHER STREET CLASSIFICATIONS SHALL ADHERE TO CURRENT AASHTO STANDARDS RELATING TO DESIGN SPEED, STOPPING SIGHT DISTANCE, VERTICAL AND HORIZONTAL CONTROLS.
- 2 ALL CURB AND GUTTER STREETS = 50' MINIMUM.
- 3 ALL UN-CURBED STREETS = 60' OR MORE.
- 4 PAVEMENT WIDTH DOES NOT INCLUDE CURB AND GUTTER.
- 5 COMMERCIAL/INDUSTRIAL STREETS OVER 2,500 ADT SHALL COMPLY WITH APPLICABLE STANDARDS FOR MAJOR COLLECTOR OR ARTERIAL STREETS.

REQUIRED BASE AND PAVEMENT THICKNESSES:

	ARTERIAL	MAJOR COLLECTOR	MINOR COLLECTOR	LOCAL STREET	COMMERCIAL/ INDUSTRIAL	ROAD WIDENING/ DECEL LANES
GRADED AGGREGATE BASE	10"	8"	6"	6"	8" 1" back of curb	8" 1" back of curb
BLACK BASE	4"	3"				
BINDER	3" TYPE B	2" TYPE B	3" TYPE B	2" TYPE B	3" TYPE B	3" TYPE B
SURFACE	1 1/2" TYPE F	1 1/2" TYPE F	1-1/2" TYPE E	1-1/2" TYPE E	1-1/2" TYPE E	1-1/2" TYPE E

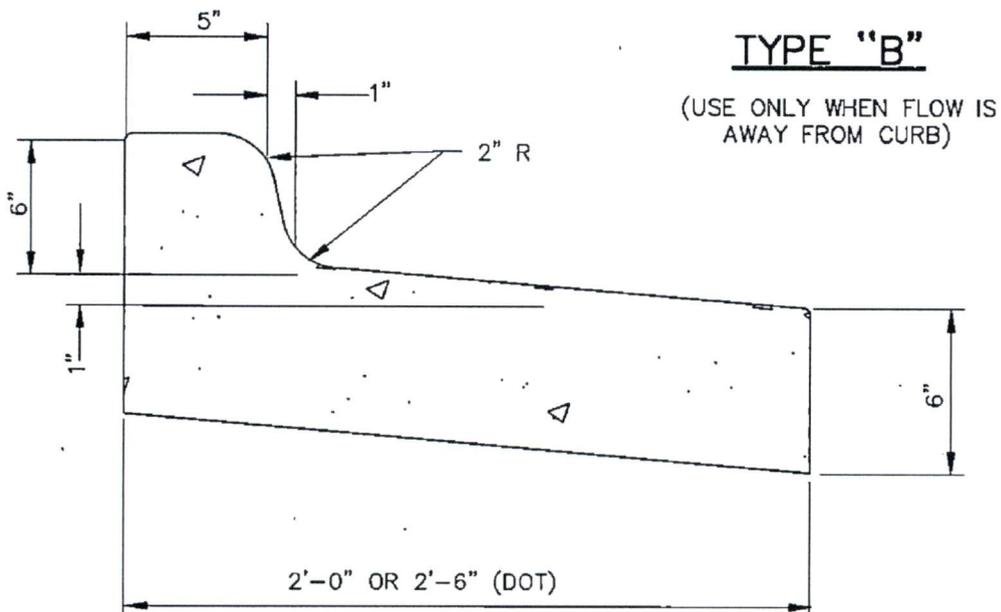
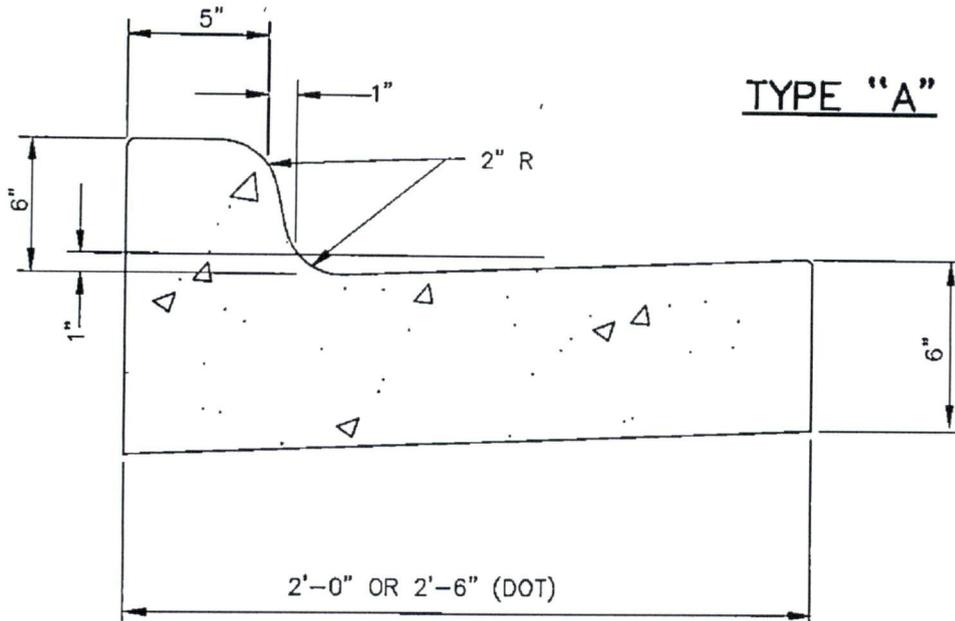


WALTON COUNTY

**STANDARD DESIGN AND
CONSTRUCTION DETAILS**

**ROADWAY DESIGN
PARAMETERS**

3.03



STANDARD

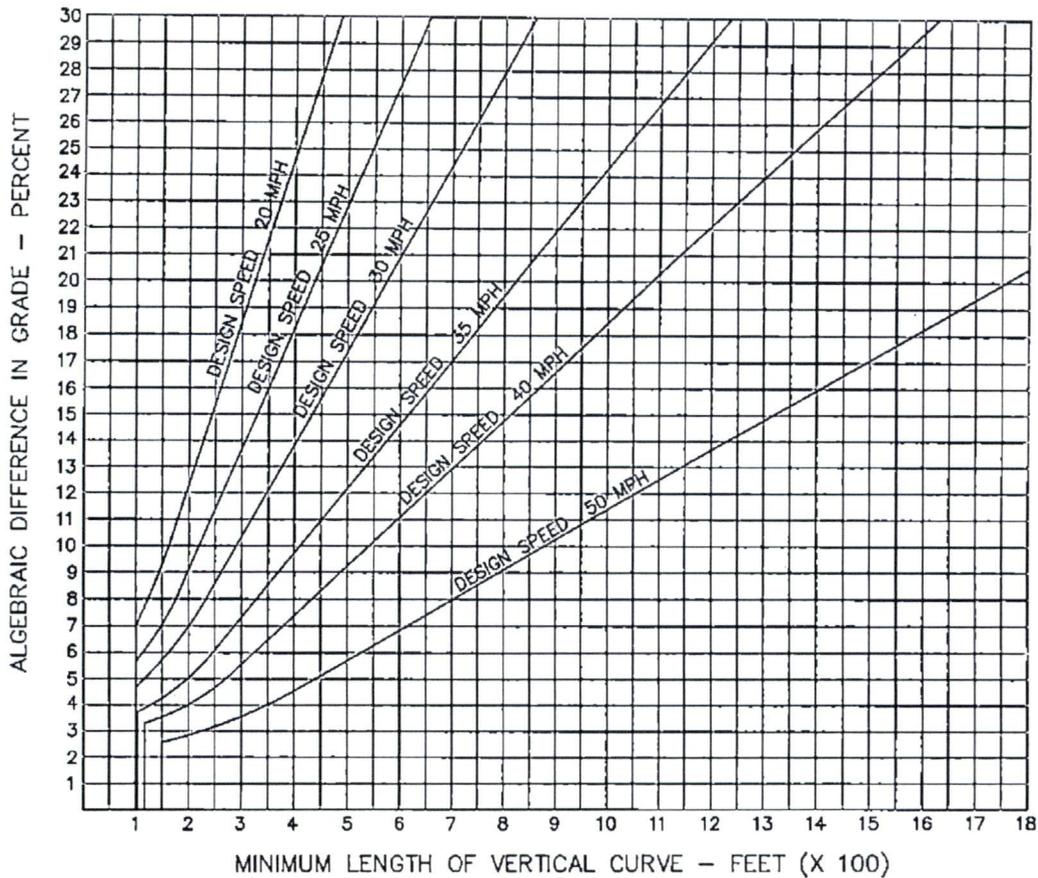


WALTON COUNTY

**STANDARD DESIGN AND
CONSTRUCTION DETAILS**

CURB AND GUTTER

3.04



BASIC FORMULAS FOR LENGTH OF A PARABOLIC CURVE IN TERMS OF ALGEBRAIC DIFFERENCE IN GRADE AND SIGHT DISTANCE ARE;

WHEN S LESS THAN L

$$L = \frac{AS^2}{1398}$$

WHEN S GREATER THAN L

$$L = \frac{25-1398}{A}$$

WHERE L = LENGTH OF VERTICAL CURVE, FT.
 S = SIGHT DISTANCE, FT.
 A = ALGEBRAIC DIFFERENCE IN GRADE, %

CONSTANT FACTORS USED ARE:

HEIGHT OF EYE : 3.75 FT.
 HEIGHT OF OBJECT: 6 IN.
 20 MPH DESIGN= 150 FT. SIGHT DISTANCE
 25 MPH DESIGN= 175 FT. SIGHT DISTANCE
 30 MPH DESIGN= 200 FT. SIGHT DISTANCE
 35 MPH DESIGN= 240 FT. SIGHT DISTANCE
 40 MPH DESIGN= 275 FT. SIGHT DISTANCE
 50 MPH DESIGN= 350 FT. SIGHT DISTANCE

MINIMUM ALLOWABLE VERTICAL CURVE = 3V
 BUT NOT LESS THAN 100 FT.

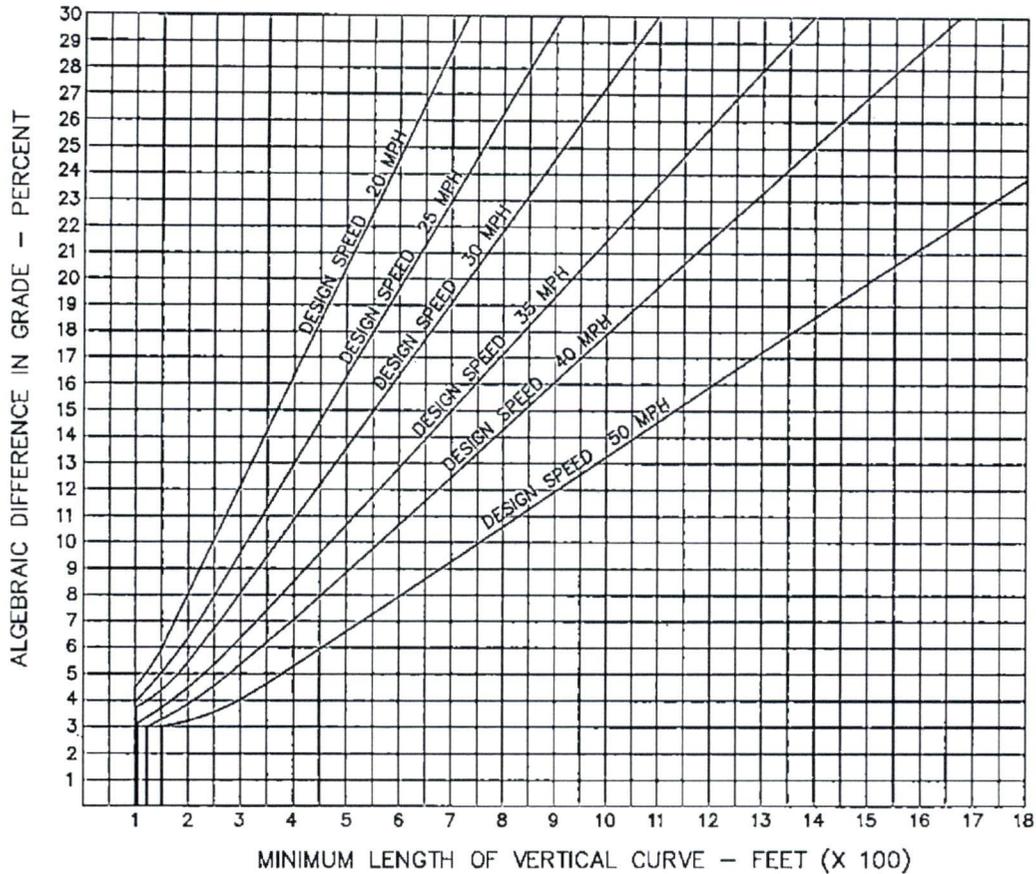


WALTON COUNTY

**STANDARD DESIGN AND
 CONSTRUCTION DETAILS**

**MINIMUM LENGTH OF CREST
 VERTICAL CURVE**

3.05



BASIC FORMULAS FOR LENGTH OF A PARABOLIC CURVE IN TERMS OF ALGEBRAIC DIFFERENCE GRADE AND SIGHT DISTANCE ARE;

WHEN S LESS THAN L

$$L = \frac{AS^2}{400 + 3.5S}$$

WHEN S GREATER THAN L

$$L = \frac{2S - 400 + 3.5S}{A}$$

WHERE L = LENGTH OF VERTICAL CURVE, FT.

S = SIGHT DISTANCE, FT.

A = ALGEBRAIC DIFFERENCE IN GRADE, %

CONSTANT FACTORS USED ARE:

HEIGHT OF EYE : 4.5 FT.

HEIGHT OF OBJECT: 4 IN.

20 MPH DESIGN= 150 FT. SIGHT DISTANCE

25 MPH DESIGN= 175 FT. SIGHT DISTANCE

30 MPH DESIGN= 200 FT. SIGHT DISTANCE

35 MPH DESIGN= 240 FT. SIGHT DISTANCE

40 MPH DESIGN= 275 FT. SIGHT DISTANCE

50 MPH DESIGN= 350 FT. SIGHT DISTANCE

MINIMUM ALLOWABLE VERTICAL CURVE = 3V
BUT NOT LESS THAN 100 FT.

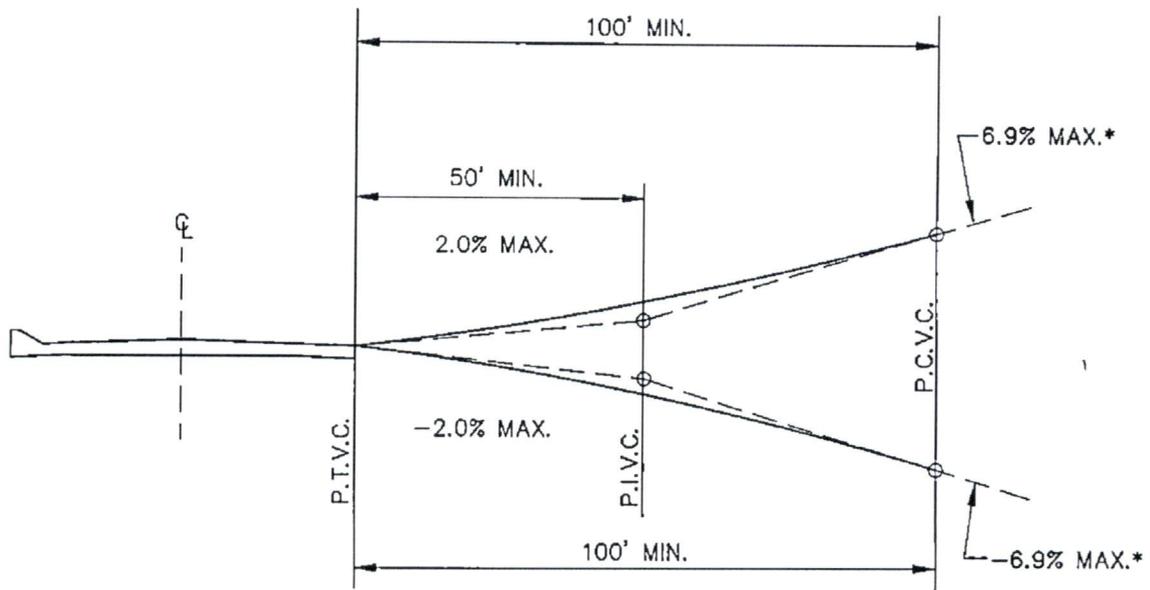


WALTON COUNTY

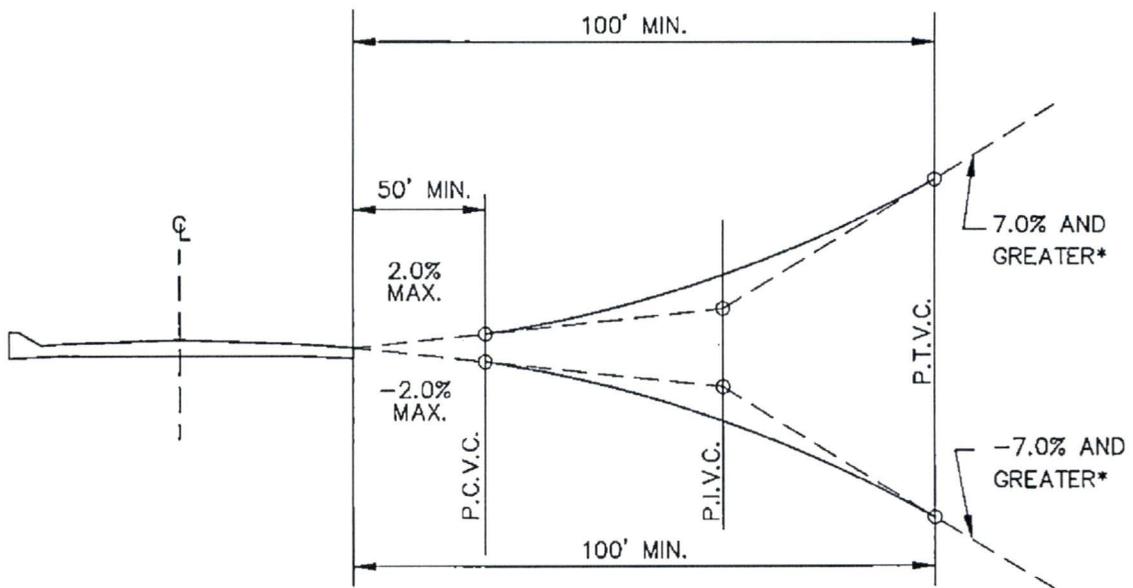
**STANDARD DESIGN AND
CONSTRUCTION DETAILS**

**MINIMUM LENGTH OF SAG
VERTICAL CURVE**

3.06



LANDING REQUIREMENTS FOR GRADES 7.0% OR LESS



LANDING REQUIREMENTS FOR GRADES 7.0% OR LARGER

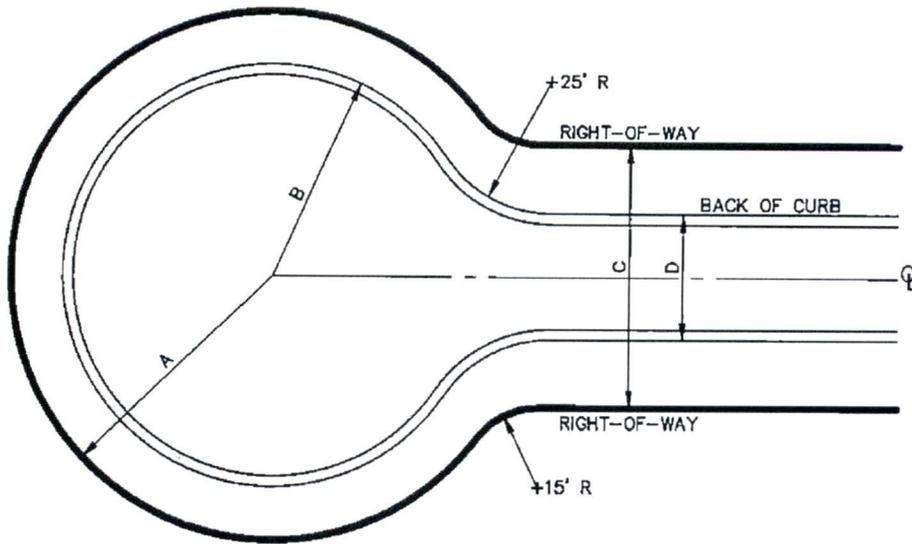


WALTON COUNTY

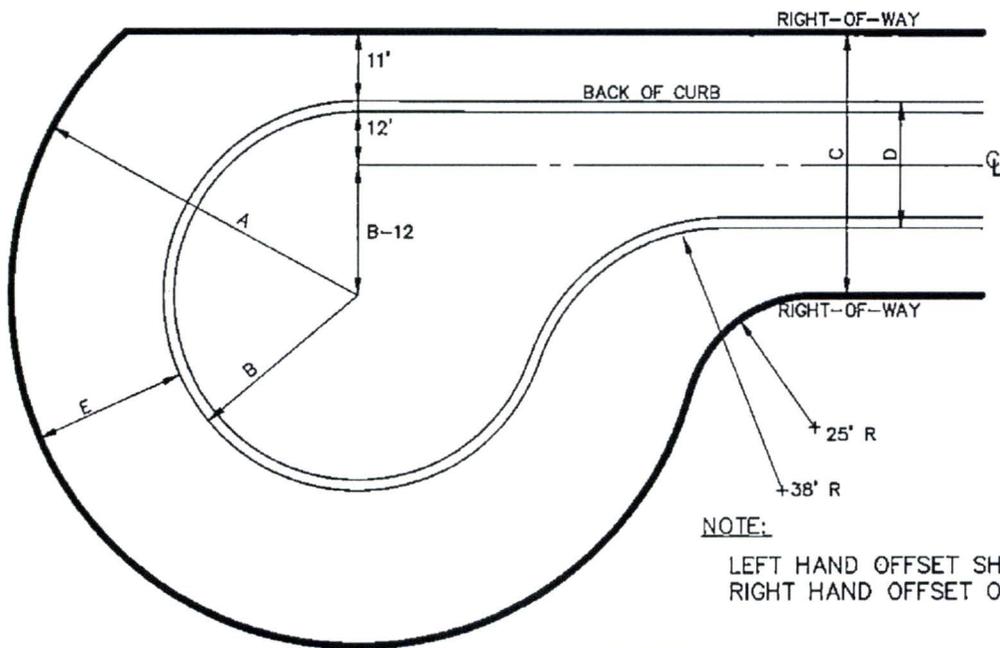
**STANDARD DESIGN AND
CONSTRUCTION DETAILS**

**LANDING REQUIREMENTS FOR
LOCAL RESIDENTIAL STREETS**

3.07



CENTERED



NOTE:
LEFT HAND OFFSET SHOWN
RIGHT HAND OFFSET OPPOSITE

OFFSET

MINIMUM WIDTHS/RADII	A	B	C	D	E
LOCAL RURAL STREETS (NO CURB)	60'	40'	60'	20'	20'
LOCAL URBAN STREETS	50'	40'	50'	24'	10'
COMMERCIAL/INDUSTRIAL STREETS	65'	50'	60'	30'	15'

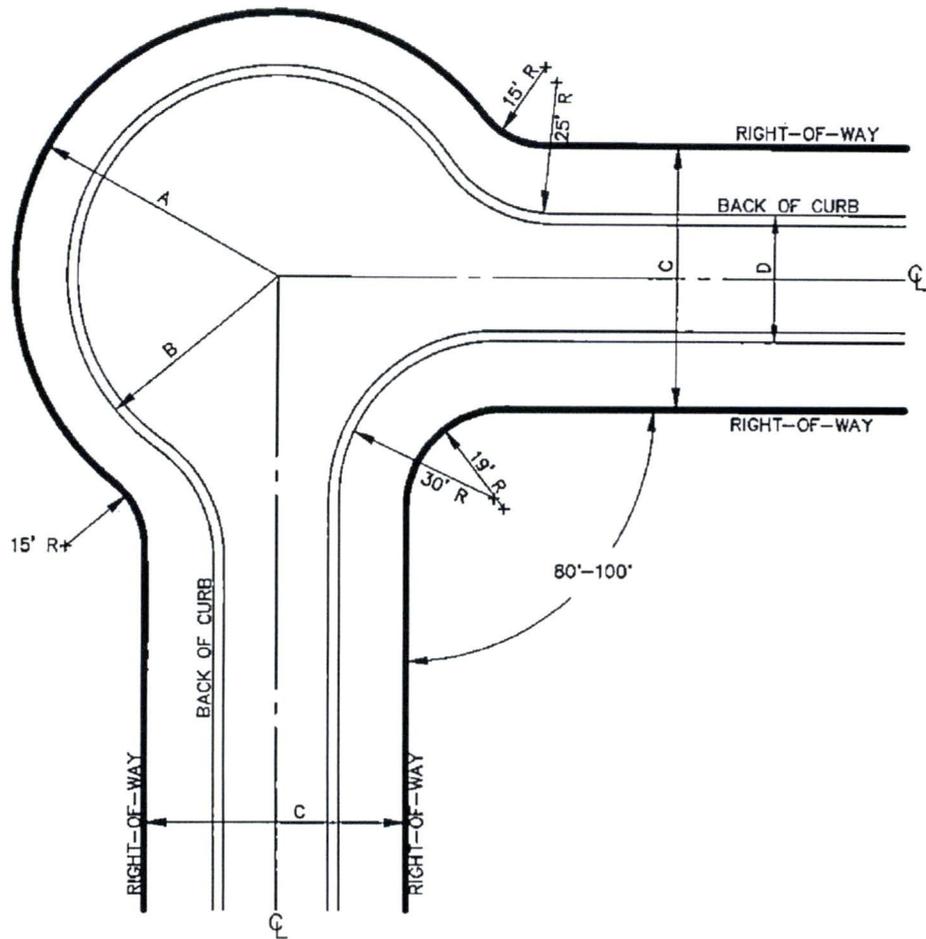


WALTON COUNTY

**STANDARD DESIGN AND
CONSTRUCTION DETAILS**

**STANDARD
CUL-DE-SACS**

3.08



EYEBROW
LOCAL STREETS ONLY

MINIMUM WIDTHS/RADII	A	B	C	D
LOCAL RURAL STREETS	60'	40'	60'	20'
LOCAL URBAN STREETS	60'	45'	50'	24'
COMMERCIAL/INDUSTRIAL STREETS	65'	50'	60'	30'

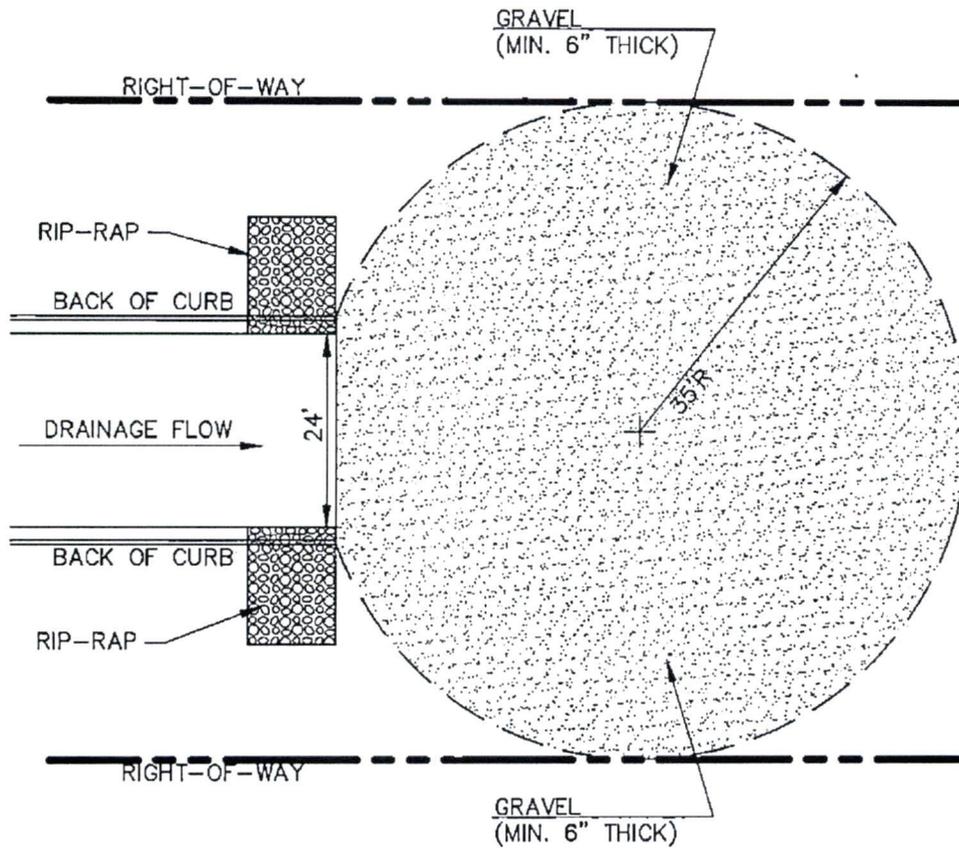


WALTON COUNTY

**STANDARD DESIGN AND
CONSTRUCTION DETAILS**

**STANDARD EYEBROW
CUL-DE-SAC**

3.09



PLAN



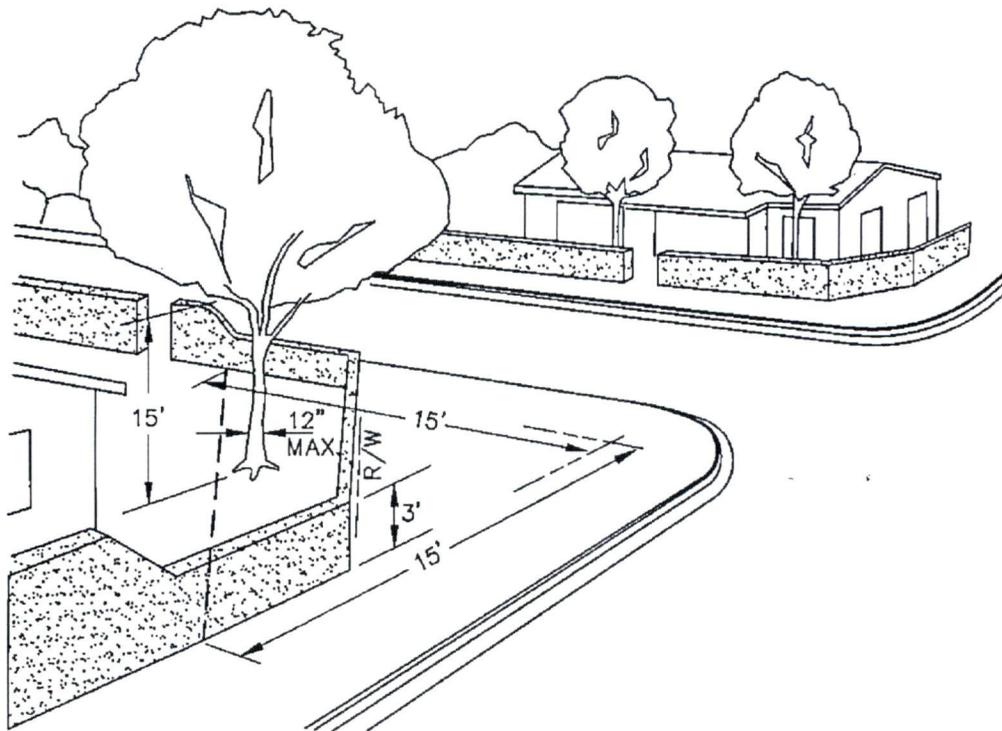
WALTON COUNTY

**STANDARD DESIGN AND
CONSTRUCTION DETAILS**

**TEMPORARY VEHICULAR
TURNAROUND**

3.10

ON A CORNER LOT THERE SHALL BE NO FENCE OR WALL OR HEDGE HIGHER THAN 3 FEET, NOR ANY OBSTRUCTION TO VISION OTHER THAN A POST OR COLUMN OR TREE NOT EXCEEDING ONE FOOT IN GREATEST CROSS-SECTIONAL DIMENSION BETWEEN A HEIGHT OF 3 FEET AND A HEIGHT OF 15 FEET ABOVE THE ESTABLISHED GRADE OF EITHER STREET WITHIN AN AREA FORMED BY THE LOT LINES ON THE STREET SIDES OF SUCH LOT AND A LINE JOINING THE POINTS ON SUCH LOT LINES LOCATED AT A DISTANCE OF 15 FEET FROM THE POINT OF THEIR INTERSECTION.



NOTE: MINIMUM INTERSECTION SIGHT DISTANCE REQUIREMENTS SHALL BE MET REGARDLESS OF BLOCK OUT ZONE.

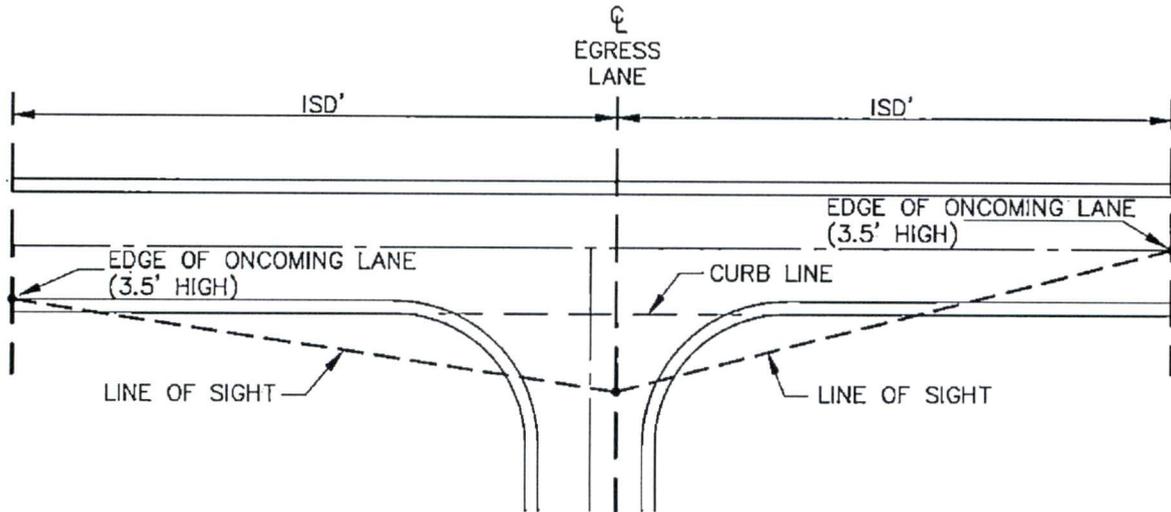


WALTON COUNTY

**STANDARD DESIGN AND
CONSTRUCTION DETAILS**

**OBSTRUCTING VISIBILITY
AT INTERSECTIONS**

3.11



INTERSECTION SIGHT DISTANCE SHALL BE MEASURED FROM A POINT OF BEGINNING ESTABLISHED 10 FEET BEHIND THE BACK OF CURB LINE ON THE CENTERLINE OF THE EGRESS LANE, AT A HEIGHT OF 3.5 FEET ABOVE FINISH GRADE ELEVATION. THE LINE OF SIGHT IS THEN EXTENDED THE MINIMUM REQUIRED DISTANCE TO EITHER SIDE OF THE ABUTTING STREET ALONG THOROUGHFARE TO THE EDGE OF THE ONCOMING TRAFFIC LANE (LANE OF THREAT), TERMINATING AT A POINT 3.5 FEET ABOVE FINISH GRADE ELEVATION. MAINTAIN 0.5 FEET OF CLEARANCE FROM LINE OF SIGHT AND OBSTRUCTION.

STREET TYPE (THOROUGHFARE)	ISD - SIGHT DISTANCE (EACH WAY)
ARTERIAL	550.0'
MAJOR COLLECTOR	450.0'
MINOR COLLECTOR	350.0'
LOCAL	300.0'

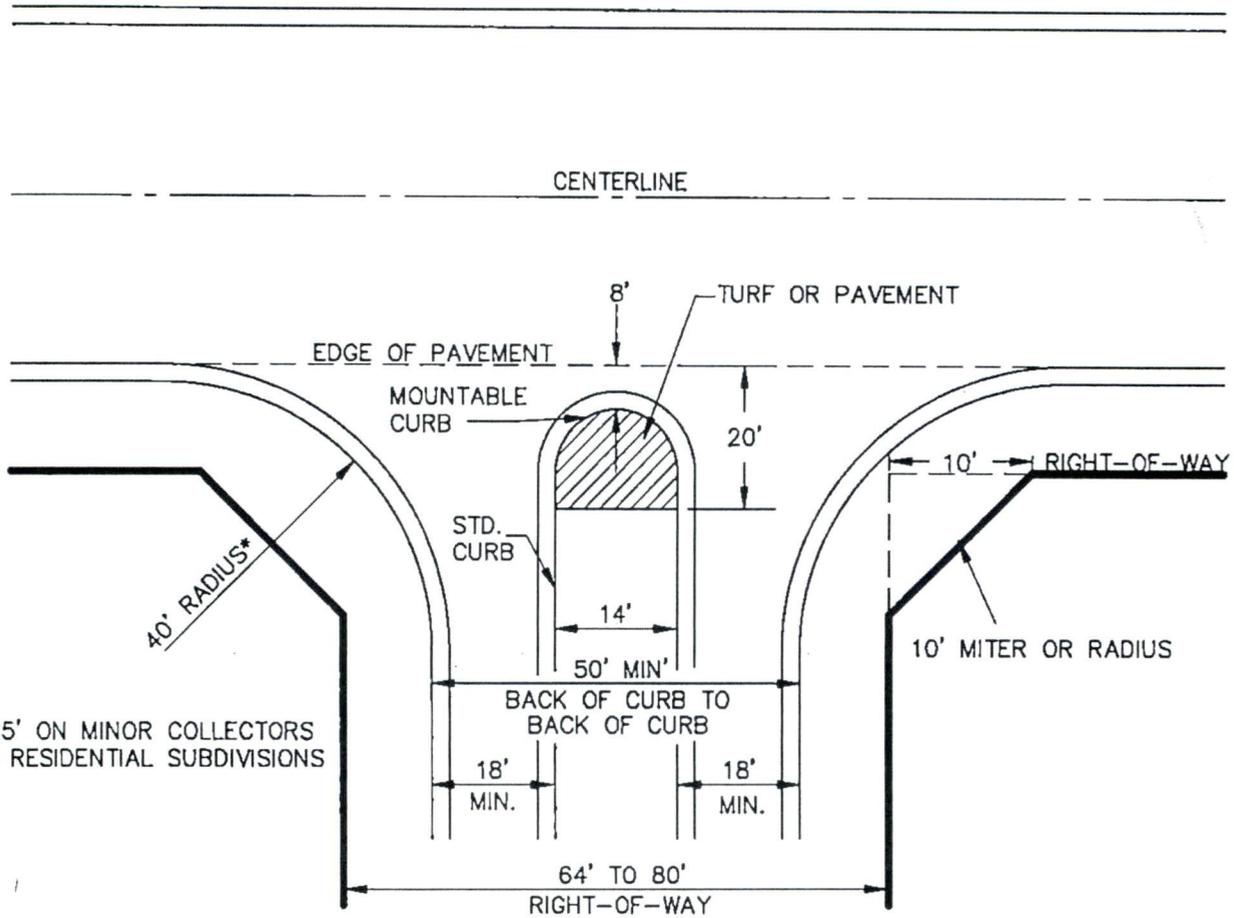


WALTON COUNTY

**STANDARD DESIGN AND
CONSTRUCTION DETAILS**

**INTERSECTION SIGHT
DISTANCE**

3.12



*25' ON MINOR COLLECTORS
IN RESIDENTIAL SUBDIVISIONS

NOTE: NO MEDIAN WITH 60' R/W.

NOTES:

1. INSIDE OF ISLANDS ARE TO BE BACKFILLED WITH PORTLAND CEMENT CONCRETE, OR GRASSED, OR PLANTED WITH VEGETATION NOT EXCEEDING TWENTY-FOUR INCHES IN HEIGHT.
2. DEVELOPER TO MAINTAIN GRASSED OR PLANTED ISLAND
3. LARGER RADII FOR RIGHT-OF-WAY OR ROADWAY CONNECTIONS MAY BE REQUIRED FOR STREETS INTERSECTING AT ANGLES LESS THAN 90 DEGREES.
4. ISLANDS AT INTERSECTIONS ARE THE OPTION OF THE DEVELOPER, EXCEPT FOR GEORGIA D.O.T. CONTROLLED ROUTES.



WALTON COUNTY

**STANDARD DESIGN AND
CONSTRUCTION DETAILS**

"T" INTERSECTION -
ARTERIAL

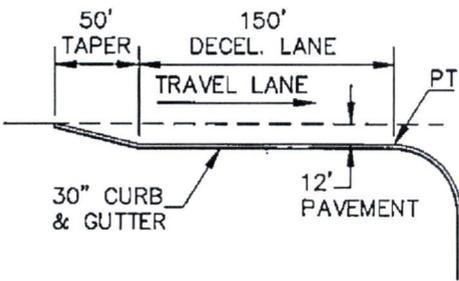
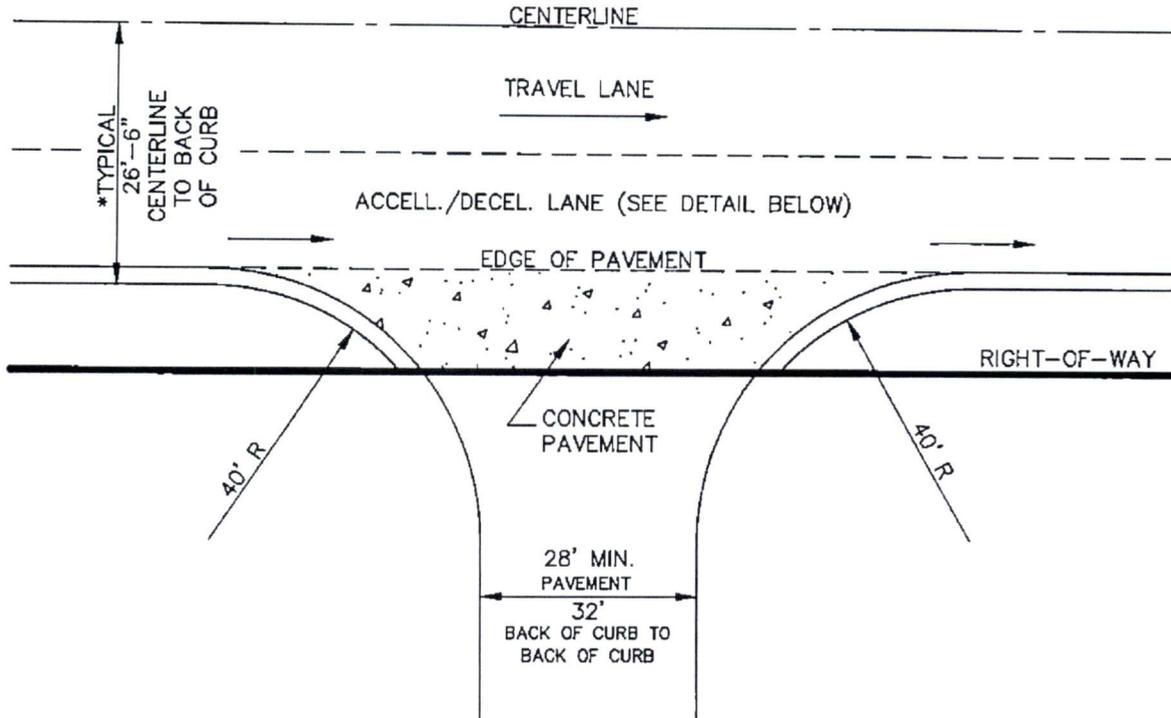
3.13

See Article 9.140E

WCD02GDR.dwg 03.27.03

DRIVEWAY FOR:

- 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)



DECELERATION LANE

DRIVEWAY NOTES:

1. 28 FT. OF PAVEMENT WIDTH.
2. 3000 PSI CURB AND GUTTER.
3. 40 FOOT RADII ON CURBS.
4. CONCRETE PAVEMENT - 8" THICK, 3500 PSI. OVER COMPACTED SUBGRADE

* ADDITIONAL WIDENING MAY BE REQUIRED.

ISLANDS AT INTERSECTIONS ARE AT THE OPTION OF THE DEVELOPER, EXCEPT FOR GEORGIA D.O.T. CONTROLLED ROUTES.

CMORRIS



WALTON COUNTY

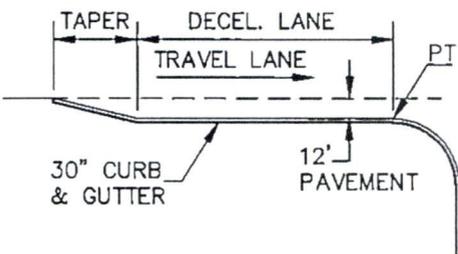
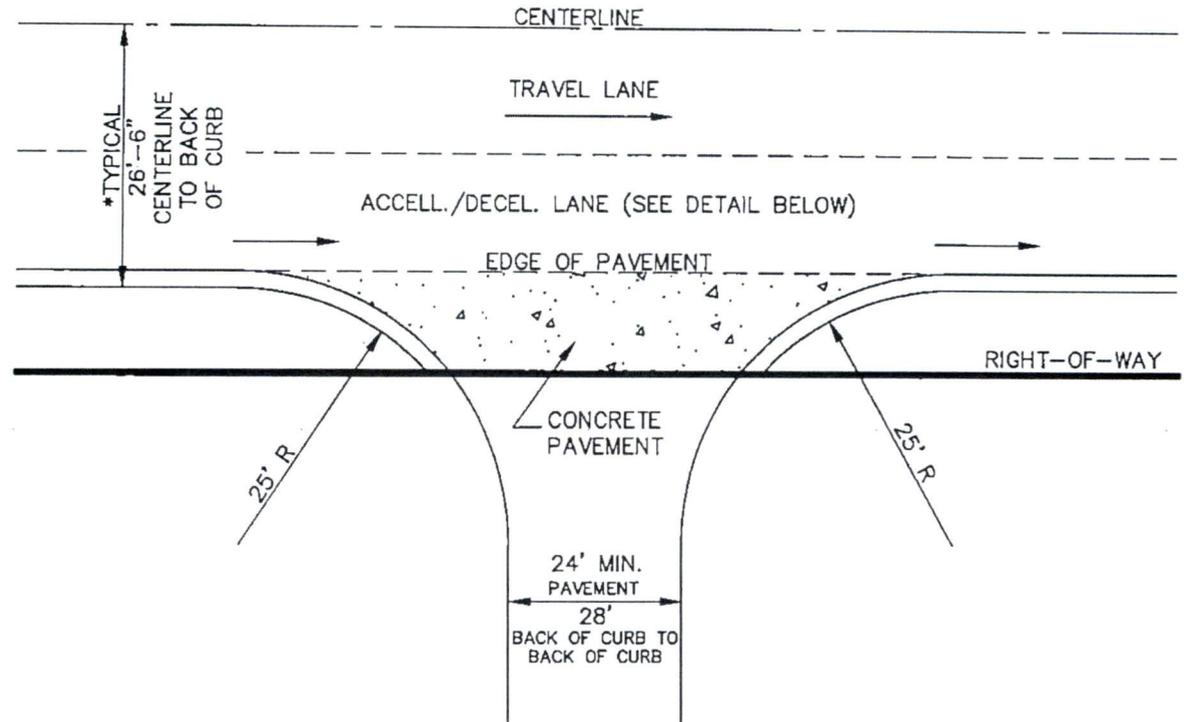
STANDARD DESIGN AND CONSTRUCTION DETAILS

INDUSTRIAL DRIVEWAY

3.14

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. 25 ft. radii on monolithic curb & concrete Pavement – 8" thick, 3500 PSI over Compacted subgrade.

*Additional widening may be required.

Islands at intersections are at the option of the Developer, except for GDOT controlled routes. See Standard 3.13

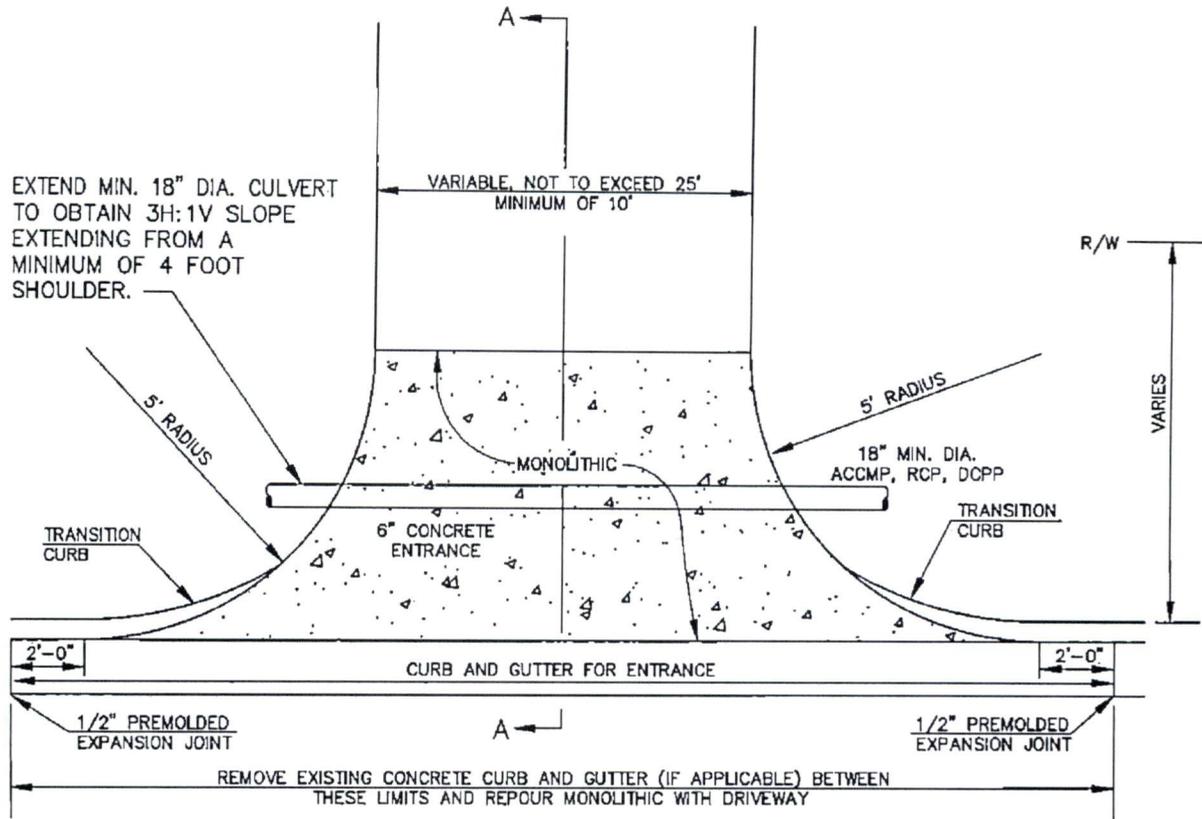


WALTON COUNTY

STANDARD DESIGN AND CONSTRUCTION DETAILS

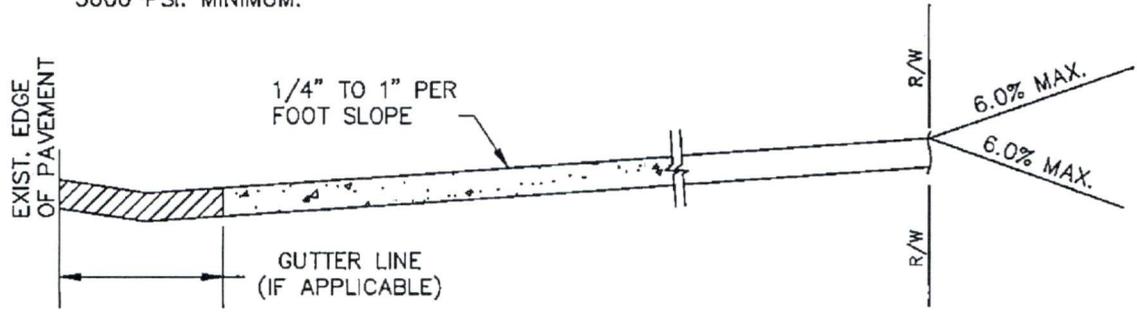
COMMERCIAL DRIVEWAY

3.15



PLAN

NOTE: ALL CONCRETE TO BE 3000 PSI. MINIMUM.



SECTION A-A

NOTE: INSTALL MIN. 18" DIAMETER CULVERT AT LOW POINT OF DRIVEWAY, AS REQUIRED BY WALTON COUNTY.

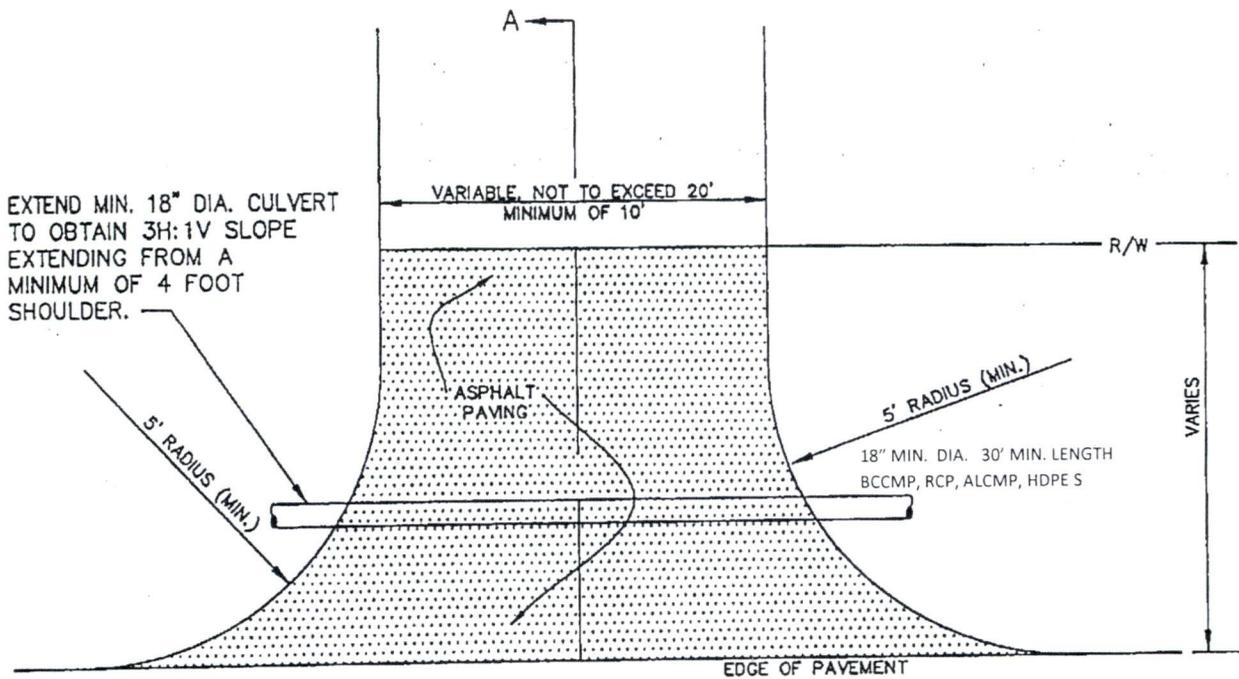


WALTON COUNTY

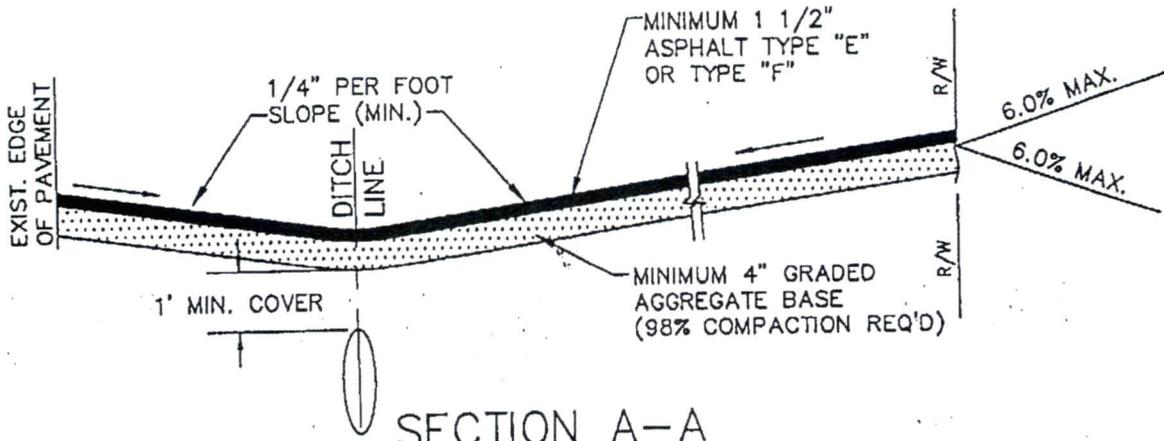
STANDARD DESIGN AND CONSTRUCTION DETAILS

RESIDENTIAL DRIVEWAY

3.16



PLAN



SECTION A-A

- Notes:
1. Install Min. 18" diameter culvert at low point of driveway, as required by Walton County
 2. Where no ditch exists, the driveway grade shall rise or drop 1/4" per foot for a minimum distance of 12 feet from the edge of pavement.

CMORRIS

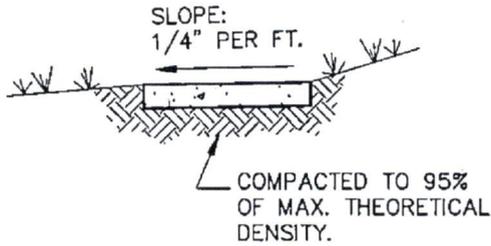
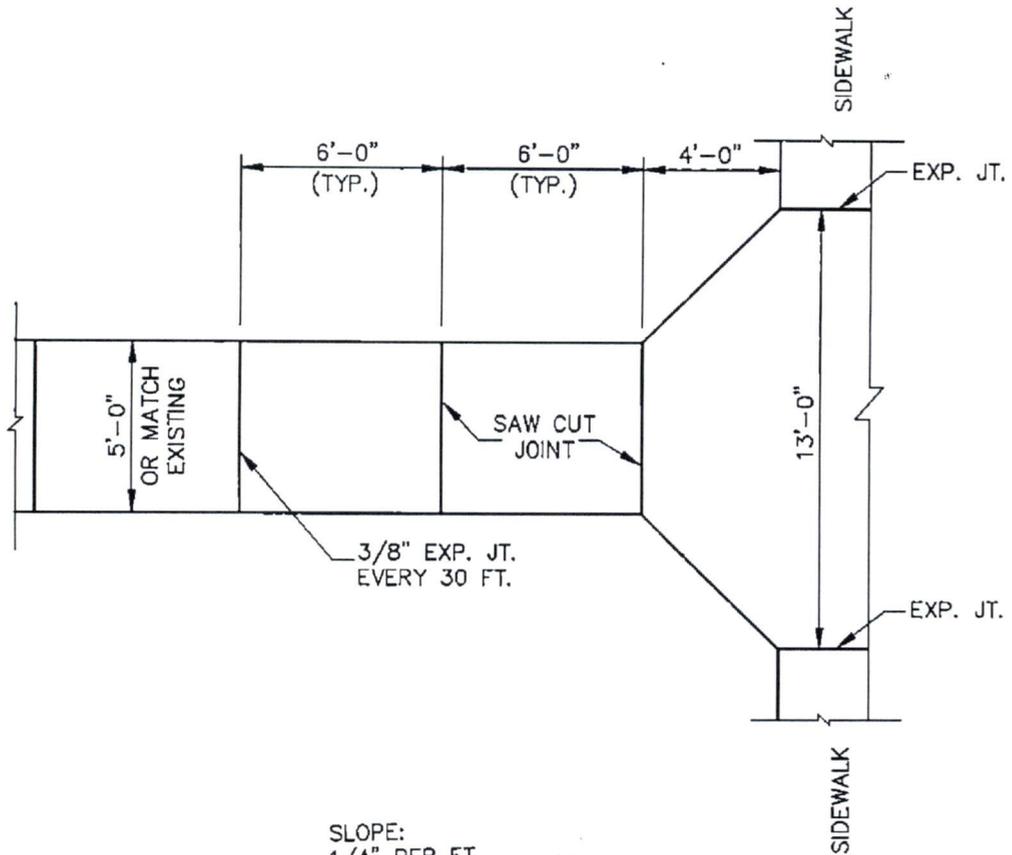


WALTON COUNTY

STANDARD DESIGN AND CONSTRUCTION DETAILS

RESIDENTIAL DRIVEWAY - RURAL

3.16a



NOTES:

1. MIN. SLAB THICKNESS = 4".
2. PROVIDE 1/2" EXPANSION JOINT AT THE INTERSECTION OF SIDEWALK W/STRUCTURES UNLESS OTHERWISE NOTED.
3. SIDEWALK TO BE CONSTRUCTED OF 3000 PSI MIN.
© 28 DAYS.

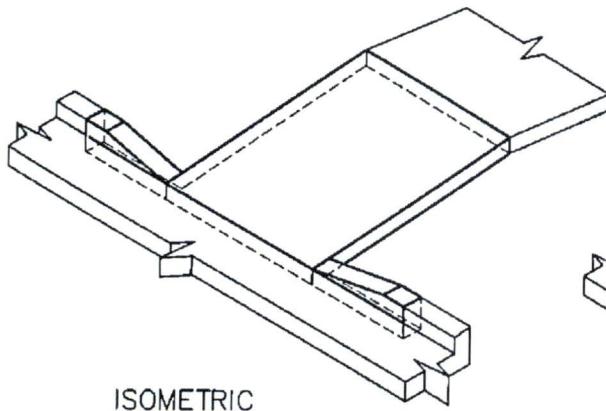


WALTON COUNTY

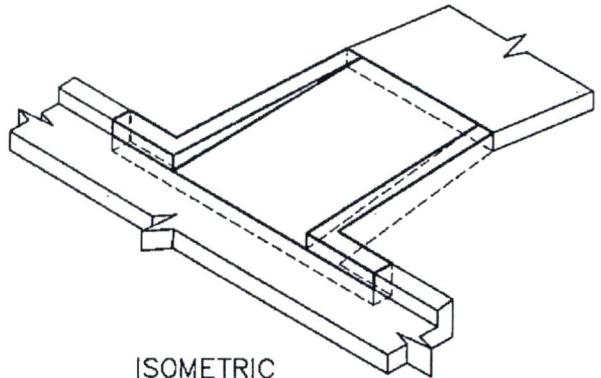
**STANDARD DESIGN AND
CONSTRUCTION DETAILS**

**TYPICAL CONCRETE
SIDEWALK**

3.17

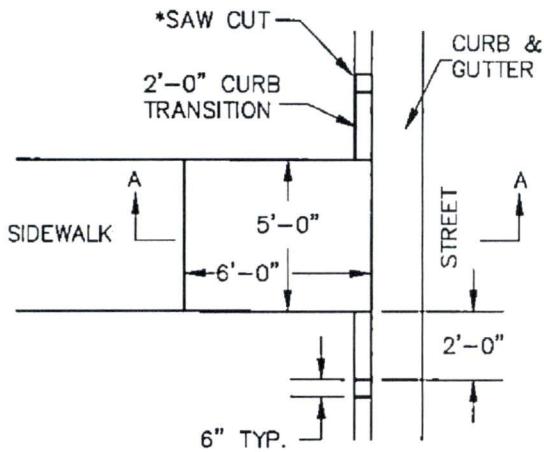


ISOMETRIC

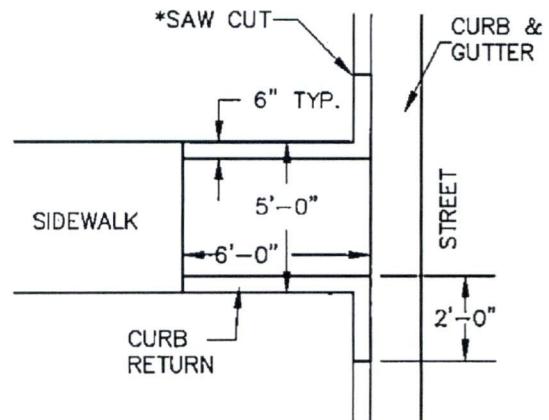


ISOMETRIC

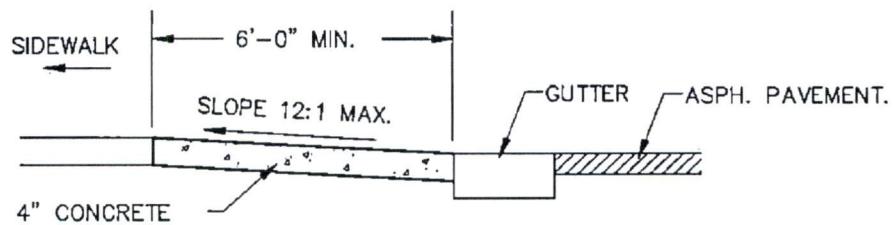
* SAW CUT EXISTING CURB & GUTTER WHEN CONNECTING NEW RAMP TO EXISTING CURB & GUTTER.



TYPE "A" - PLAN



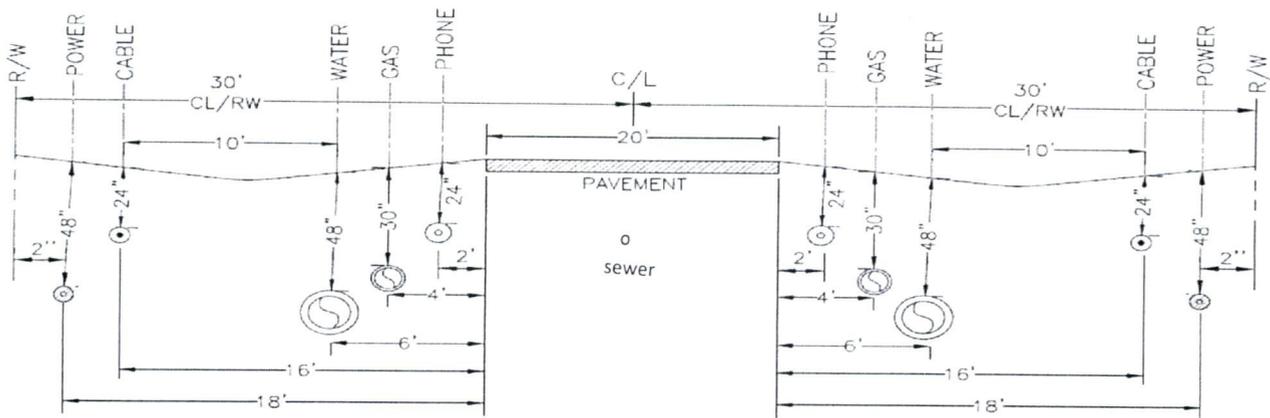
TYPE "B" - PLAN



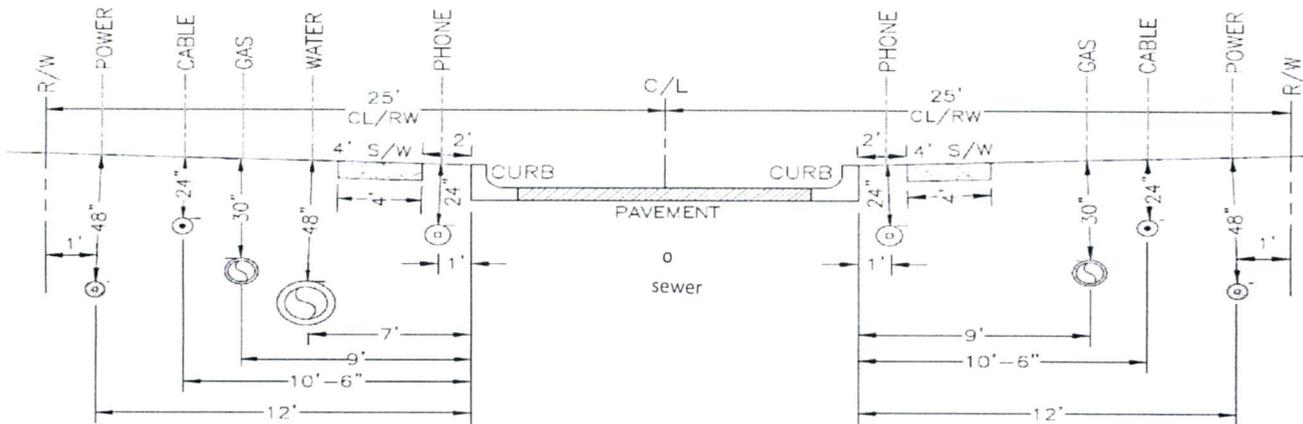
SECTION A-A



NOTE:
REFERENCE PLANS FOR
LOCATION OF WATER LINE



SUBDIVISION UTILITY LOCATION DETAIL
N.T.S. STREET WITH OPEN DITCH - 60' R/W



SUBDIVISION UTILITY LOCATION DETAIL
N.T.S. CURB & GUTTER W/ SIDEWALK - 50' R/W



Walton County

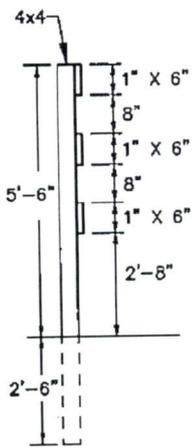
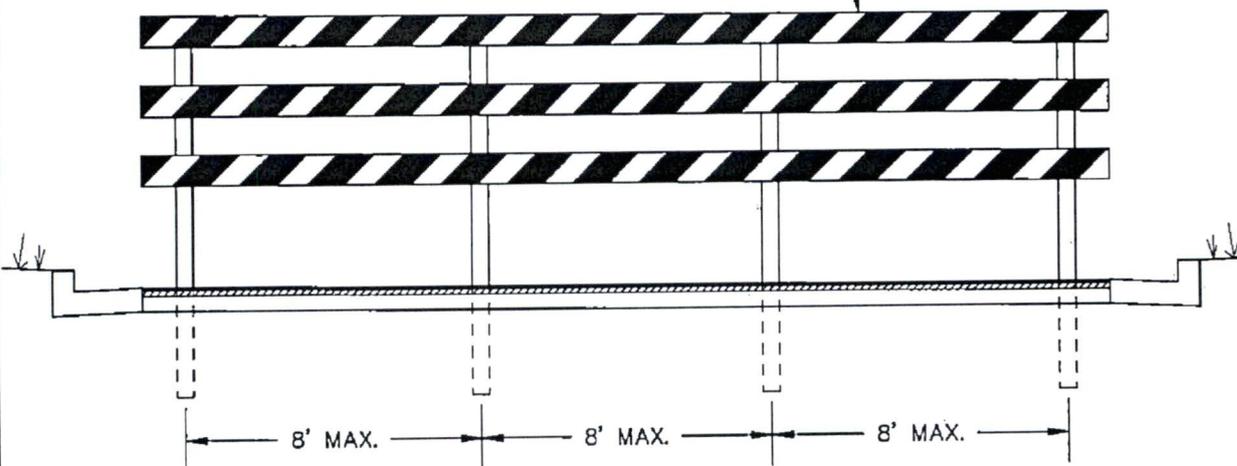
Standard Design and Construction Details

Location of Street Utilities

3.19

POSTS AND PLANKS SHALL BE OF SOUTHERN YELLOW PINE, FREE OF KNOTS AND SHAKES.

FOR BOARD SPACING SEE ILLUSTRATION BELOW



NOTE:

BARRICADES MAY BE OF VARIABLE LENGTH AS DETERMINED BY STREET WIDTH. THE CLASS "A" BARRICADE IS THE TYPE NORMALLY REQUIRED FOR MAJOR OPERATIONS, WHERE THE BARRICADE MUST REMAIN IN PLACE FOR EXTENDED PERIODS. HOWEVER, IN ANY LENGTH BARRICADE 10 FEET OR LONGER, VERTICAL UP-RIGHTS SHOULD NOT EXCEED A CENTER TO CENTER DIMENSION OF 8 FEET WITH ONE FOOT OVERHANG ON EACH END. THE DIRECTION OF STRIPES CANNOT ALWAYS SLANT DOWNWARD TOWARD THE SIDE ON WHICH THE TRAFFIC IS TO PASS, AS MANY BARRICADES MUST NOT BE PASSED ON EITHER SIDE. WHERE A BARRICADE EXTENDS ENTIRELY ACROSS A ROADWAY, IT IS SUGGESTED THAT THE STRIPING SLOPE DOWNWARD IN THE DIRECTION TOWARD WHICH TRAFFIC MUST TURN IN DETOURING. WHERE BOTH RIGHT AND LEFT TURNS ARE PROVIDED FOR, THE STRIPING SHOULD SLOPE DOWNWARD IN BOTH DIRECTIONS FROM THE CENTER. SLOPE ANGLE FOR THE STRIPES SHOULD ALWAYS BE 45°. ALL BARRICADES USED AT NIGHT SHALL BE EFFECTIVELY REFLECTORIZED.

COLORS TO BE BLACK ON WHITE OR WHITE ON BLACK.

FOR OTHER TRAFFIC CONTROL DEVICES, REFER TO THE LATEST VERSION OF "THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES".

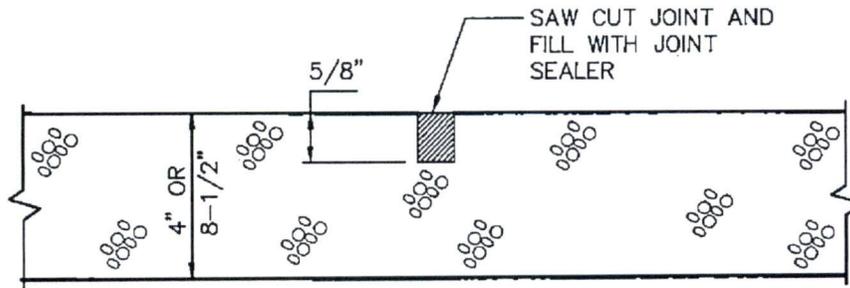
NOTE:

REFLECTING ELEMENTS OR MATERIAL PLACED ON 4' SPACING ACROSS BARRICADE.

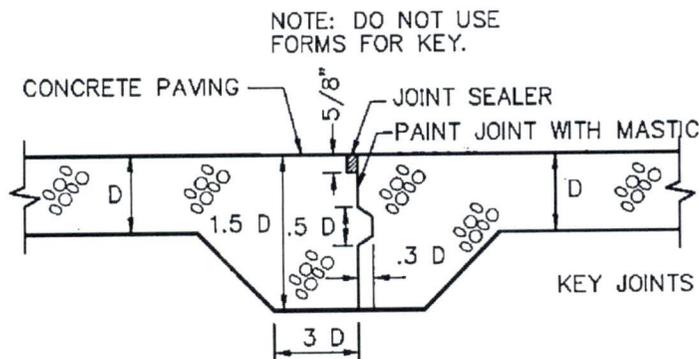
NOTE:

ALL LUMBER (PLANKS AND BOARDS) TO BE OF TREATED MATERIAL, I.E. CHROMATED ZINC CHLORIDE (C.Z.C.) OR WOLMAN SALTS. "TREATED MATERIAL" TO BE CONSTRUED AS "PRESSURE TREATED".

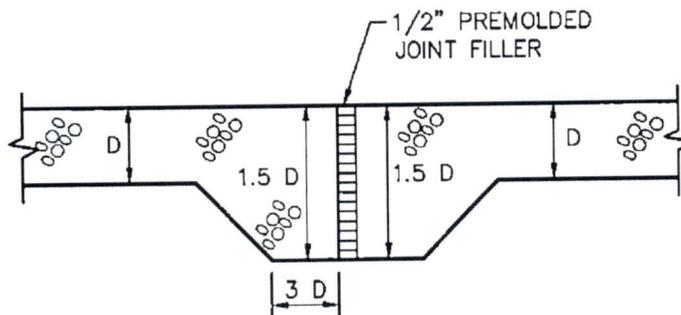
	<p>WALTON COUNTY</p>	<p>STANDARD DESIGN AND CONSTRUCTION DETAILS</p>	
		<p>STANDARD ROAD BARRICADE</p>	<p>3.20</p>



TYPICAL CONTRACTION JOINT



TYPICAL CONSTRUCTION JOINT



NOTE: EXPANSION JOINTS SHALL BE USED WHEN CONCRETE POUR ABUTTS ANOTHER POUR, CURB, SIDEWALK OR OTHER RIGID STRUCTURE.

TYPICAL EXPANSION JOINT



WALTON COUNTY

**STANDARD DESIGN AND
CONSTRUCTION DETAILS**

CONCRETE JOINTS

3.21



R2-1
24" X 30"



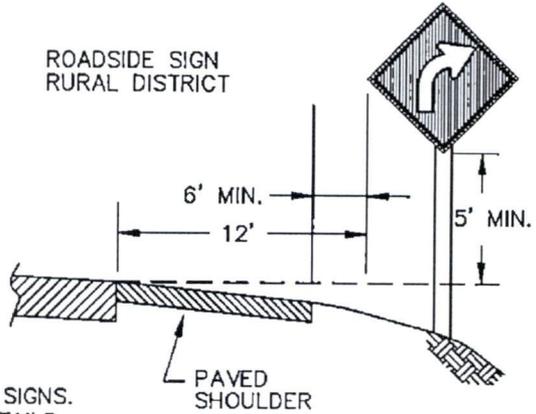
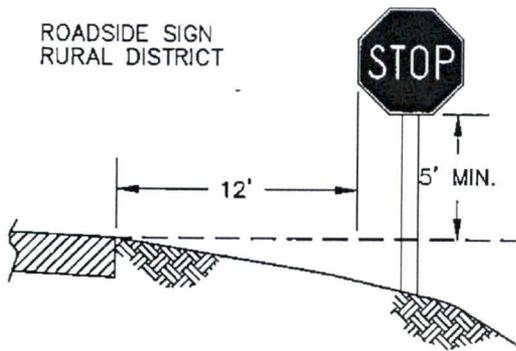
W14-1
30" X 30"



R1-2
36" X 36" X 36"



R1-1
30" X 30"



NOTE: THE ABOVE DETAILS REPRESENT A SAMPLE OF SIGNS.
 THE DEVELOPER/APPLICANT SHALL PROVIDE DETAILS
 FOR ALL REQUIRED SIGNS FOR REVIEW & APPROVAL.
 ALL SIGNS TO CONFORM TO THE MANUAL ON UNIFORM
 TRAFFIC CONTROL DEVICES (MUTCD), LATEST EDITION
 GEORGIA DEPARTMENT OF TRANSPORTATION STANDARDS.

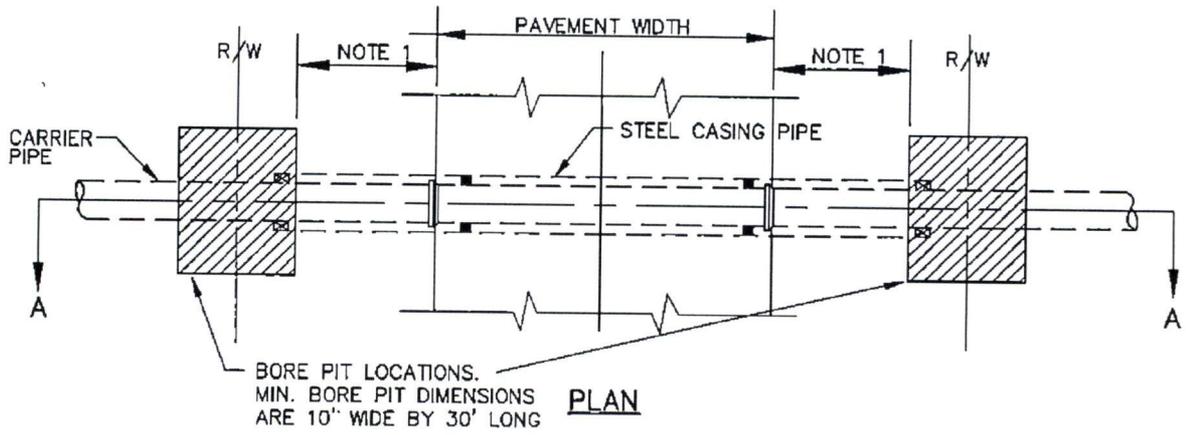


WALTON COUNTY

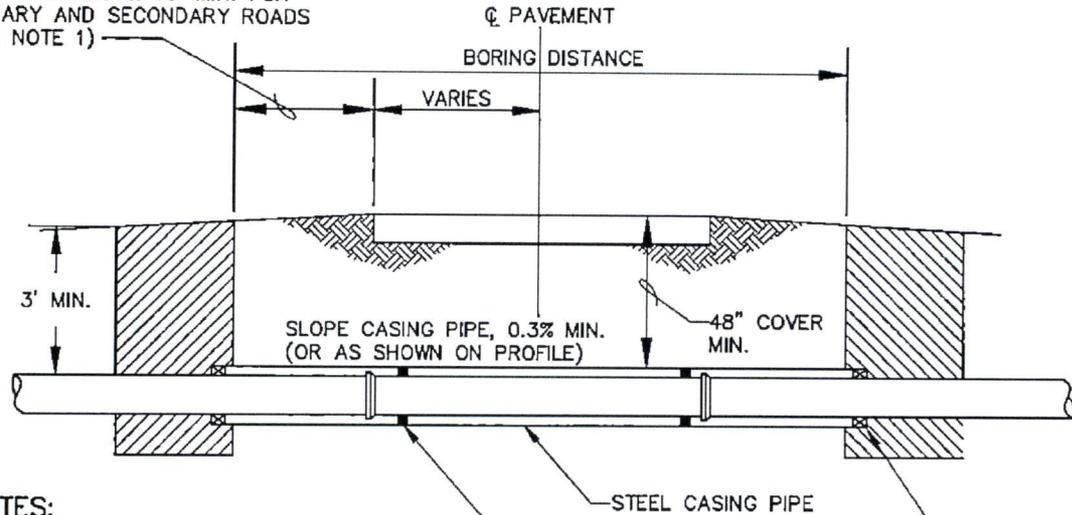
**STANDARD DESIGN AND
CONSTRUCTION DETAILS**

STREET SIGNS

3.22



30' MIN. FOR CONTROLLED ACCESS ROADS & 10' MIN. FOR PRIMARY AND SECONDARY ROADS (SEE NOTE 1)



NOTES:

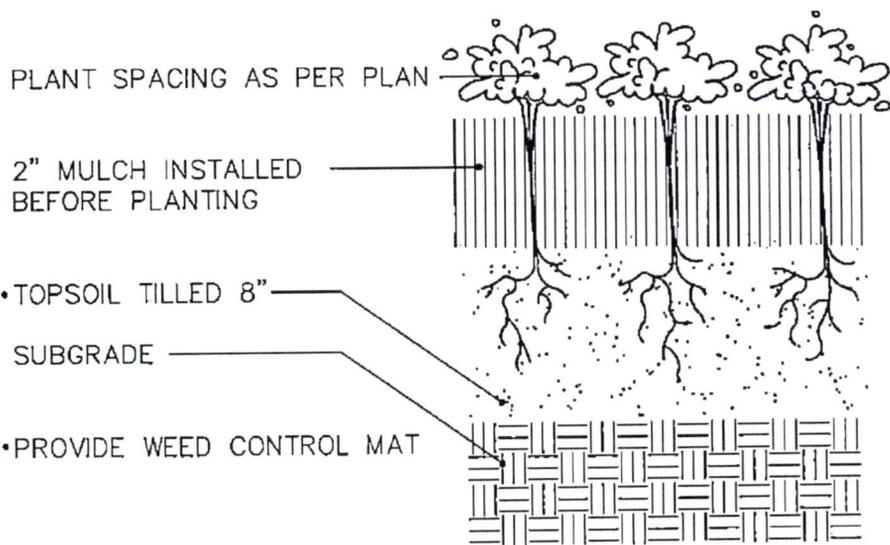
1. THE NEAR EDGE OF THE PIT CAN BE NO CLOSER TO THE EDGE OF THE PAVEMENT THAN ITS DEPTH BELOW THE SURFACE OF THE PAVEMENT UNLESS BULKHEADED.
2. ALL ROAD CROSSINGS MUST BE APPROVED AND PERMITTED BY WALTON COUNTY.

SECTION A-A



DIVISION 4
LANDSCAPING



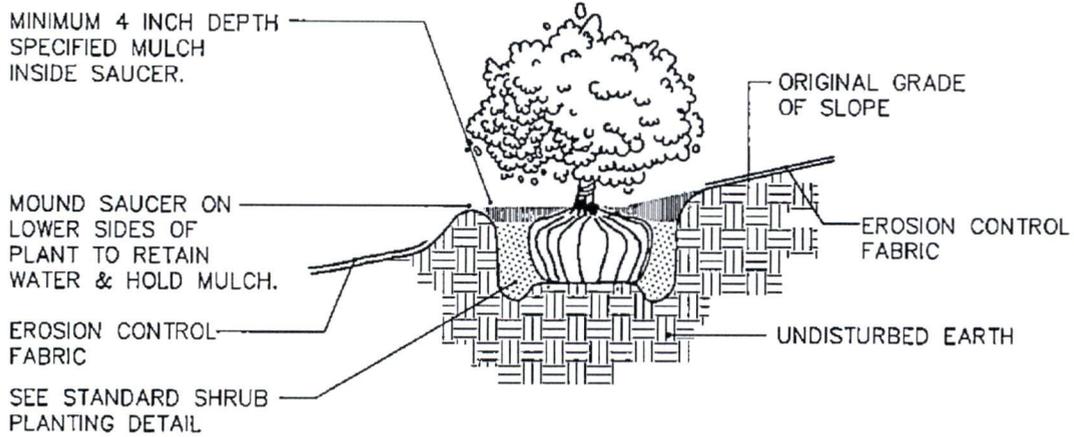


WALTON COUNTY

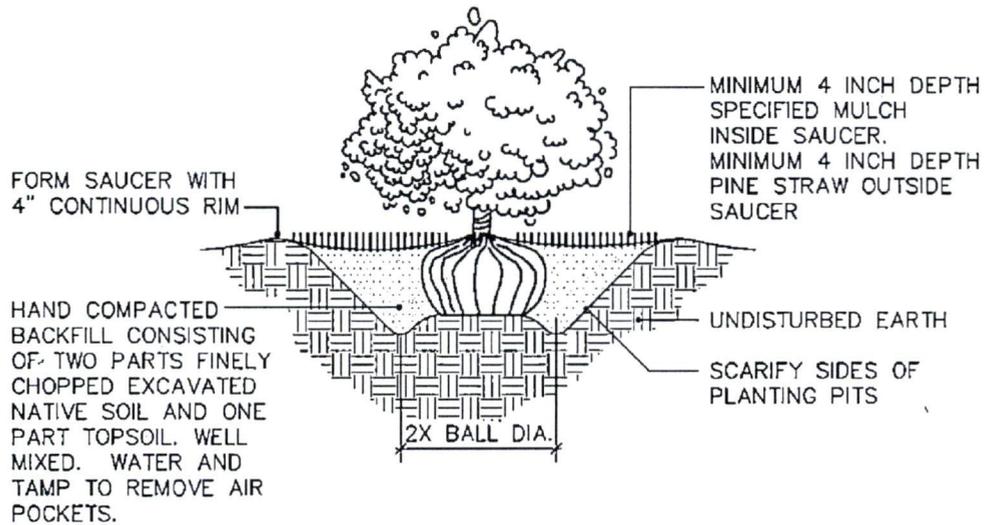
**STANDARD DESIGN AND
CONSTRUCTION DETAILS**

**GROUND COVER
PLANTING**

4.01



ON SLOPES



STANDARD SHRUB PLANTING

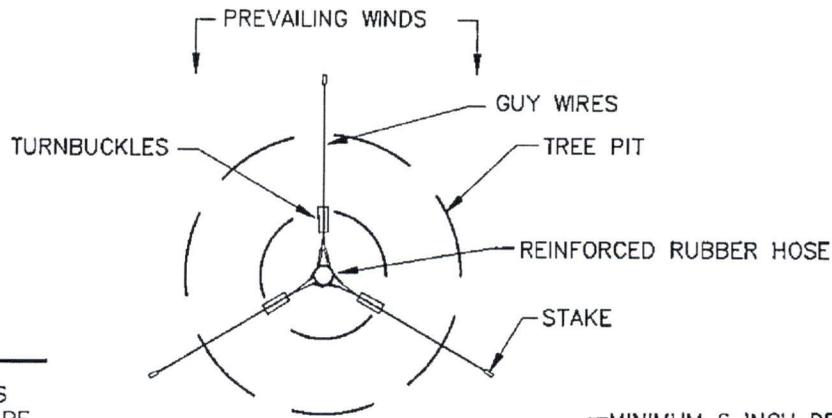


WALTON COUNTY

STANDARD DESIGN AND CONSTRUCTION DETAILS

SHRUB PLANTING

4.02



PLAN

NOTES:

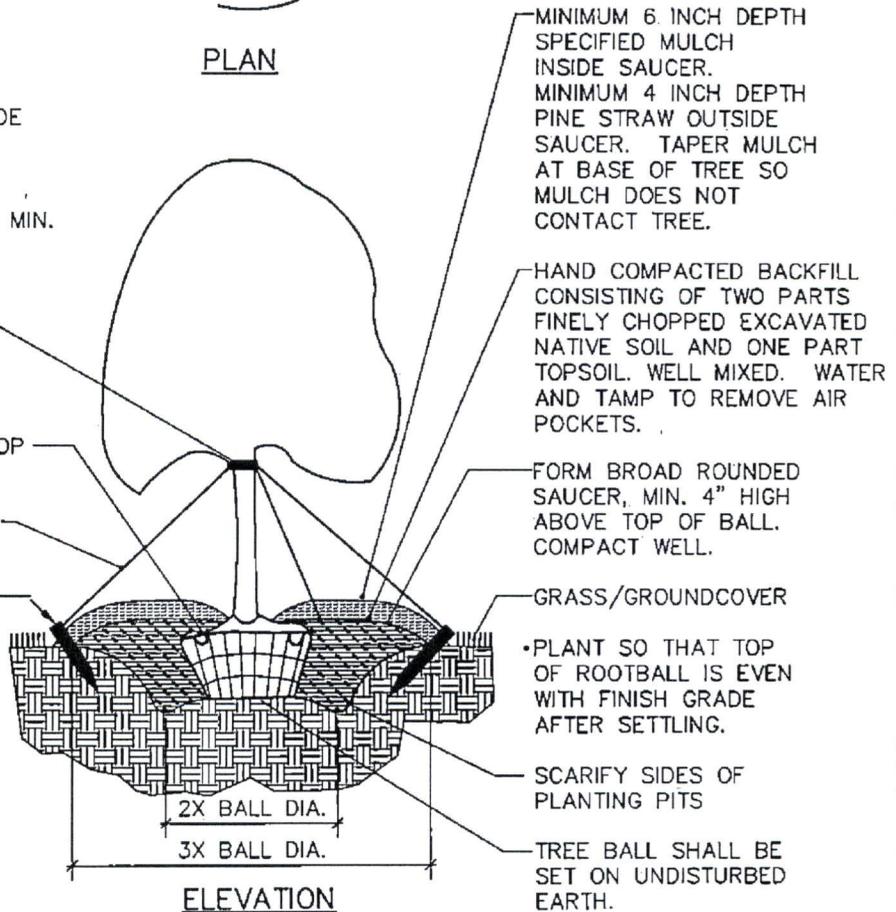
- FLAG GUYING WIRES WITH SURVEYOR TAPE WAIST HIGH.
- TREE SHALL BEAR SAME RELATION TO FINISH GRADE AS NECESSARY.
- MULCHED AREA SHALL BE A UNIFORM CIRCLE 5' MIN. IN DIAMETER TO INCLUDE ALL DISTURBED SOIL.

RUBBER HOSE 1" DIA. REMOVE STRAPS, BEND WIRE LOOPS DOWN AND CUT OFF.

REMOVE BURLAP FROM TOP THIRD OF ROOT BALL.

GUYING WIRES 2 STRAND TWIST 18 GAUGE WIRE

MIN. THREE 2"X4"X24" PRESSURE TREATED STAKES DRIVEN INTO UNDISTURBED EARTH WITH 6 INCHES OF STAKE EXPOSED ABOVE EXISTING GRADE.



ELEVATION

TREE PLANTING – GUY WIRES – 2"+ CAL.
FOR TREES OVER 14'-0" IN HEIGHT

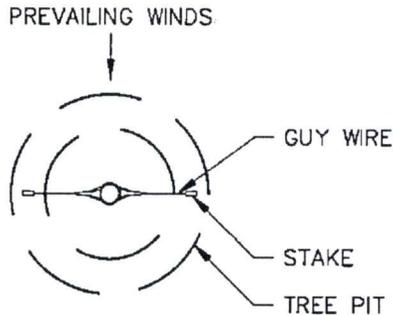


WALTON COUNTY

**STANDARD DESIGN AND
CONSTRUCTION DETAILS**

**DECIDUOUS TREE
PLANTING**

4.03



PLAN

NOTES:

• WIRE SHALL NOT TOUCH OR RUB ADJACENT TRUNKS OR BRANCHES

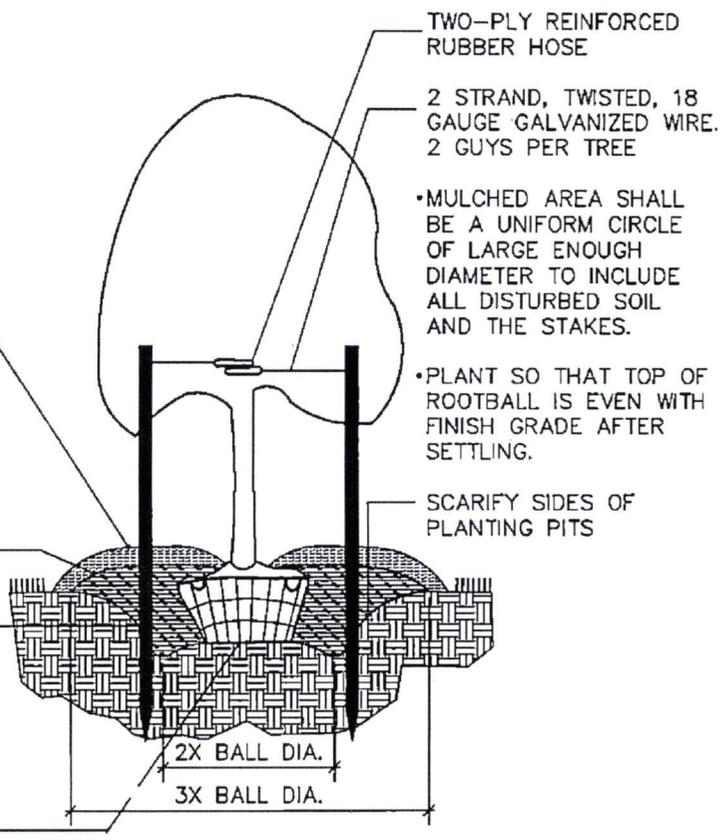
• SINGLE STAKING OF TREES IS NOT PERMITTED. STAKE ABOVE FIRST BRANCHES OR AS NECESSARY FOR FIRM SUPPORT

MINIMUM 6 INCH DEPTH SPECIFIED MULCH INSIDE SAUCER. MINIMUM 4 INCH DEPTH PINE STRAW OUTSIDE SAUCER. TAPER MULCH AT BASE OF TREE SO MULCH DOES NOT CONTACT TREE.

FORM BROAD ROUNDED SAUCER, COMPACT WELL.

HAND COMPACTED BACKFILL CONSISTING OF TWO PARTS FINELY CHOPPED EXCAVATED NATIVE SOIL AND ONE PART TOPSOIL. WELL MIXED. WATER AND TAMP TO REMOVE AIR POCKETS.

TREE BALL SHALL BE SET ON UNDISTURBED EARTH.



ELEVATION

TREE PLANTING – VERTICAL STAKES FOR TREES UNDER 14'-0" IN HEIGHT



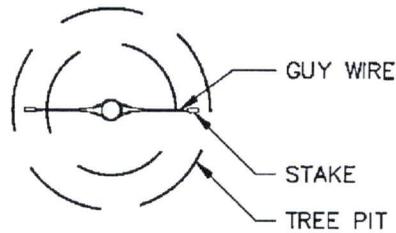
WALTON COUNTY

STANDARD DESIGN AND CONSTRUCTION DETAILS

DECIDUOUS TREE PLANTING

4.04

PREVAILING WINDS →



PLAN

NOTES:

• WIRE SHALL NOT TOUCH OR RUB ADJACENT TRUNKS OR BRANCHES

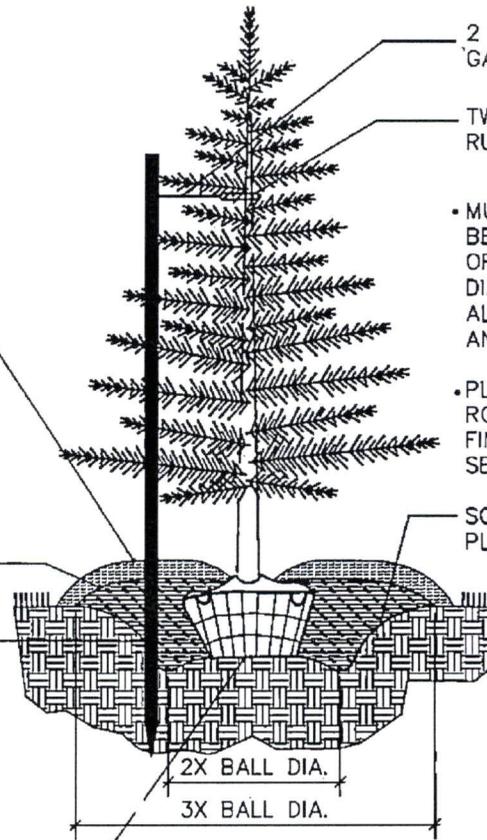
STAKE ABOVE FIRST BRANCHES OR AS NECESSARY FOR FIRM SUPPORT

MINIMUM 6 INCH DEPTH SPECIFIED MULCH INSIDE SAUCER. MINIMUM 4 INCH DEPTH PINE STRAW OUTSIDE SAUCER. TAPER MULCH AT BASE OF TREE SO MULCH DOES NOT CONTACT TREE.

FORM BROAD ROUNDED SAUCER, COMPACT WELL.

HAND COMPACTED BACKFILL CONSISTING OF TWO PARTS FINELY CHOPPED EXCAVATED NATIVE SOIL AND ONE PART TOPSOIL. WELL MIXED. WATER AND TAMP TO REMOVE AIR POCKETS.

TREE BALL SHALL BE SET ON UNDISTURBED EARTH.



2 STRAND, TWISTED, 18 GAUGE GALVANIZED WIRE.

TWO-PLY REINFORCED RUBBER HOSE

• MULCHED AREA SHALL BE A UNIFORM CIRCLE OF LARGE ENOUGH DIAMETER TO INCLUDE ALL DISTURBED SOIL AND THE STAKES.

• PLANT SO THAT TOP OF ROOTBALL IS EVEN WITH FINISH GRADE AFTER SETTLING.

SCARIFY SIDES OF PLANTING PITS

ELEVATION

FOR TREES UNDER 14'-0" IN HEIGHT

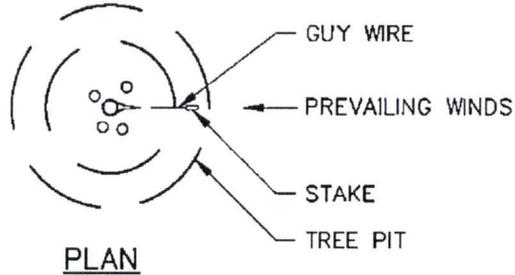


WALTON COUNTY

STANDARD DESIGN AND CONSTRUCTION DETAILS

EVERGREEN TREE PLANTING

4.05



NOTES:

• STAKE TO FIRST BRANCHES AS NECESSARY FOR FIRM SUPPORT

• WIRE SHALL NOT TOUCH OR RUB ADJACENT TRUNKS OR BRANCHES

MINIMUM 6 INCH DEPTH SPECIFIED MULCH INSIDE SAUCER. MINIMUM 4 INCH DEPTH PINE STRAW OUTSIDE SAUCER. TAPER MULCH AT BASE OF TREE SO MULCH DOES NOT CONTACT TREE.

FORM BROAD ROUNDED SAUCER, COMPACT WELL.

HAND COMPACTED BACKFILL CONSISTING OF TWO PARTS FINELY CHOPPED EXCAVATED NATIVE SOIL AND ONE PART TOPSOIL. WELL MIXED. WATER AND TAMP TO REMOVE AIR POCKETS.

TREE BALL SHALL BE SET ON UNDISTURBED EARTH.

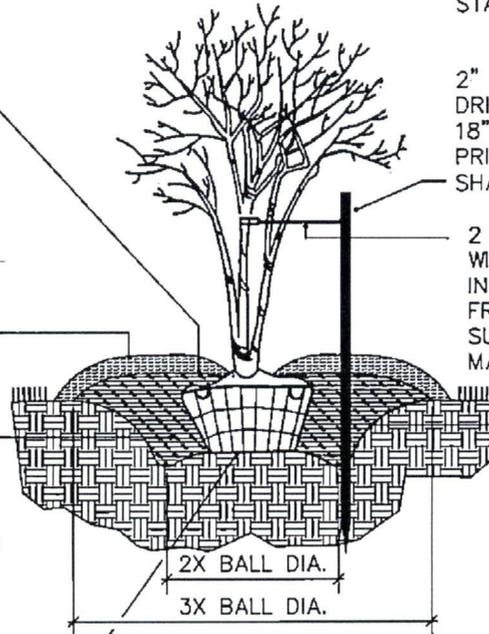
• MULCHED AREA SHALL BE A UNIFORM CIRCLE OF LARGE ENOUGH DIAMETER TO INCLUDE ALL DISTURBED SOIL AND THE STAKES. TUCK IN MULCH AT EDGE.

2" x 2" STAKES DRIVEN FIRMLY A MINIMUM OF 18" INTO THE SUBGRADE PRIOR TO BACKFILLING. STAKES SHALL NOT DISTURB ROOTBALL.

2 STRAND 18 GAUGE GALV. WIRE TWISTED AND ENCASED IN RUBBER HOSE 6 - 9" FROM TOP OF STAKE 2 WIRE SUPPORTS SHALL BE USED ON MAIN STRUCTURAL BRANCHES.

SCARIFY SIDES OF PLANTING PITS

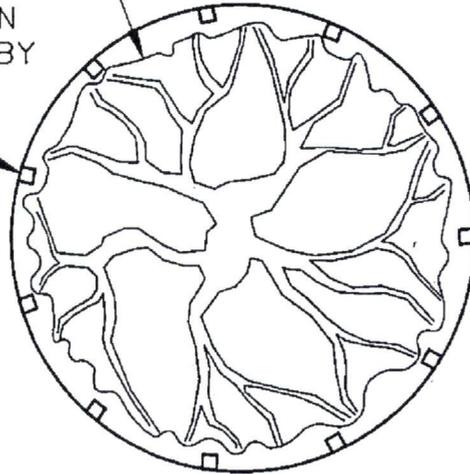
• PLANT SO THAT TOP OF ROOTBALL IS EVEN WITH FINISH GRADE AFTER SETTLING.



	WALTON COUNTY	STANDARD DESIGN AND CONSTRUCTION DETAILS	
		MULTI-TRUNK TREE PLANTING	4.06

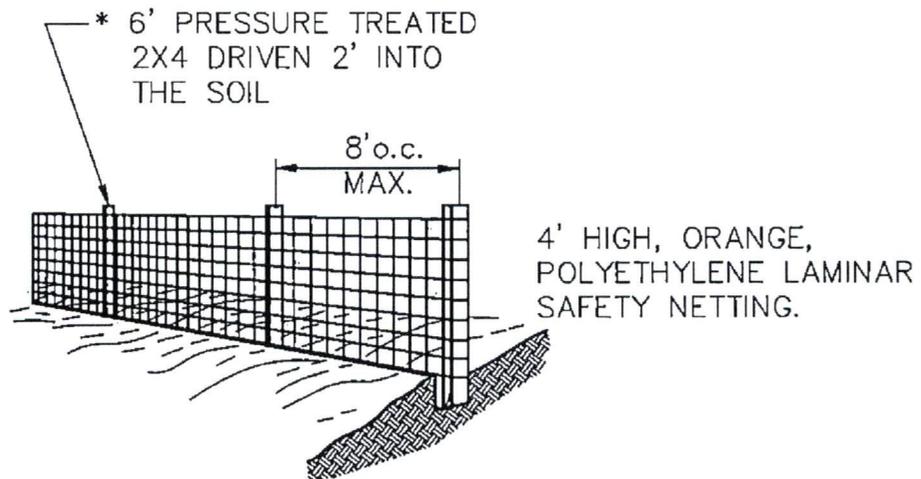
INSTALL FENCE NO CLOSER THAN THE DRIPLINE OR AS DIRECTED BY THE ENGINEER:

DRIPLINE — EXTENT OF OVERHEAD VEGETATION



* PRESSURE TREATED 2X4 SUBSTITUTED WITH 6' LONG #5 REBAR DRIVEN 2' INTO GROUND AND SECURED BY WEAVING INTO FENCING FABRIC, SPACE 8' TO 10' APART MAX.

PLAN



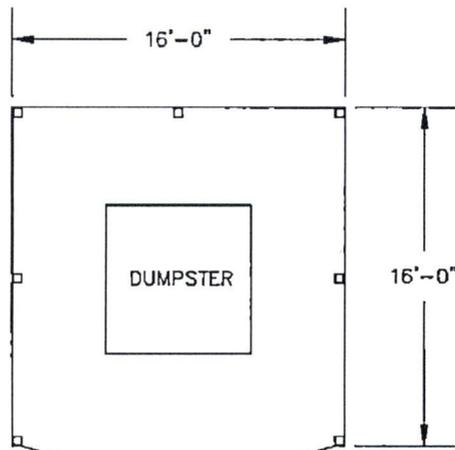
WALTON COUNTY

**STANDARD DESIGN AND
CONSTRUCTION DETAILS**

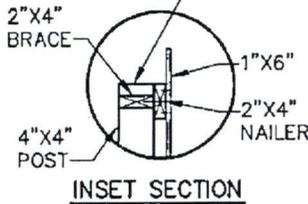
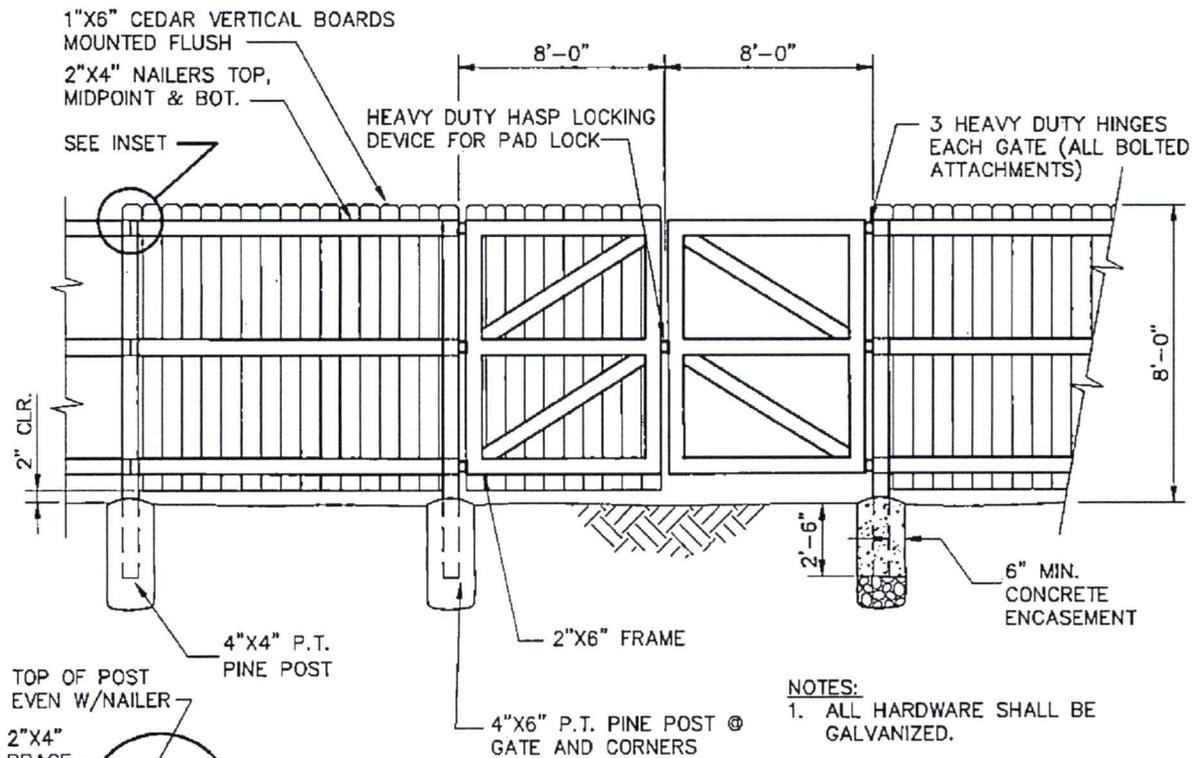
TREE PROTECTION

4.07

NOTE:
DETAIL SHOWN FOR
SINGLE 8 C.Y. CONTAINER.



PLAN



INSET SECTION

- NOTES:**
1. ALL HARDWARE SHALL BE GALVANIZED.
 2. HINGES & HASP MAY HAVE OPTIONAL FLAT BLACK FINISH.
 3. ALL PINE SHALL BE MIN. #2 SOUTHERN YELLOW PINE PRESSURE TREATED FOR IN GROUND USE.



WALTON COUNTY

**STANDARD DESIGN AND
CONSTRUCTION DETAILS**

DUMPSTER SCREEN

4.08