City of Loganville

*where people matter*

# STANDARD DRAWINGS

## CITY OF LOGANVILLE, GEORGIA

THESE STANDARD DRAWINGS ILLUSTRATE MINIMUM ACCEPTABLE STANDARDS FOR LAND DEVELOPMENT ACTIVITIES AUTHORIZED UNDER THE DEVELOPMENT REGULATIONS OF THE CITY OF LOGANVILLE. HOWEVER, THESE STANDARDS SHALL NOT SUPERSEDE MORE RESTRICTIVE PRUDENT DESIGN REQUIREMENTS OR GOOD ENGINEERING PRACTICE AS APPLIED TO SPECIFIC SITUATIONS ON A CASE-BY-CASE BASIS. UNLESS OTHERWISE SPECIFIED ON THESE STANDARD DRAWINGS OR IN THE DEVELOPMENT REGULATIONS, ALL CONSTRUCTION SHALL MEET OR EXCEED THE MINIMUM STANDARDS ESTABLISHED BY THE GEORGIA DEPARTMENT OF TRANSPORTATION (GDOT).

WHENEVER THERE IS A DISCREPANCY BETWEEN THESE STANDARD DRAWINGS AND OTHER PROVISIONS OF THE CITY CODE, THE MOST RESTRICTIVE SHALL APPLY.

| SERIES | |
|---|---|
| 100 | SITE GRADING |
| 200 | STORM WATER DETENTION & EROSION CONTROL |
| 300 | STREETS – DESIGN |
| 400 | STREETS – CONSTRUCTION |
| 500 | STREETS – UTILITIES |
| 600 | DRAINAGE STRUCTURES |
| 700 | DRAINAGE PIPES & DITCHES |
| 800 | LANDSCAPING & TREE PROTECTION |
| 900 | MISCELLANEOUS |
| 1000 | SANITARY SEWER |
| 1100 | POTABLE WATER |

EFFECTIVE: JUNE 21, 2019

REVISED:

| NO. | DESCRIPTION | REVISION DATE |
|---|---|---|
| | 100 SITE GRADING | |
| 101 | STREET GRADING: LOCAL OR MINOR COLLECTOR STREET | |
| 102 | EXAMPLES OF GEOTEXTILES USED IN DRAINAGE APPLICATIONS | |
| 103 | MORTAR RUBBLE-GRANITE RETAINING WALL, LEVEL BACKFILL | |
| 104 | CONCRETE GRAVITY RETAINING WALL | |
| 105 | CONCRETE CANTILEVER RETAINING WALL | |
| 106 | CROSS-TIE RETAINING WALL | |
| 107 | DIMENSIONS AND STRUCTURAL REINFORCEMENT FOR WALL HEIGHTS ≤ 10' | |
| 108 | CONCRETE CANTILEVER DETENTION POND RETAINING WALL, HEIGHT > 10' | |
| | | |
| | 200 STORM WATER DETENTION & EROSION CONTROL | |
| 201 | TEMPORARY EROSION CONTROL-SILT GATES TYPES 1, 2, 3, AND 4 | |
| 202 | STONE PAD CONSTRUCTION EXIT AND FILTER BERM | |
| 203 | CONSTRUCTION OF A SILT FENCE-TYPE SENSITIVE | |
| 204 | CONSTRUCTION OF A SILT FENCE-TYPE NON-SENSITIVE | |
| 205 | CONSTRUCTION OF A CURB INLET FILTER | |
| 206 | CONSTRUCTION OF A STRAW BALE CHECK DAM | |
| 207 | CONSTRUCTION OF A TEMPORARY SEDIMENT POND | |
| | | |
| | 300 STREETS - DESIGN | |
| 301 | STANDARD RESIDENTIAL CUL-DE-SAC | |
| 302 | CUL-DE-SAC MINIMUM LENGTHS | |
| 303 | TEMPORARY VEHICULAR TURNAROUND | |
| 304 | VERTICAL ALIGNMENT AT INTERSECTION WITH LOCAL OR MINOR COLLECTOR STREETS | |
| 305 | INTERSECTION DETAIL NO. 1: T-INTERSECTION ONLY: MINOR OR MAJOR COLLECTOR STREET | |
| 306 | INTERSECTION DETAIL NO. 2: T-INTERSECTION ONLY: ARTERIAL OR MAJOR COLLECTOR STREET CLASSIFICATION | |
| 307 | INTERSECTION DETAIL NO. 3: ARTERIAL OR MAJOR COLLECTOR STREET CLASSIFICATION | |
| 308 | DRIVEWAY DETAIL NO. 1 | |
| 309 | DRIVEWAY DETAIL NO. 2 | |
| 310 | DRIVEWAY DETAIL NO. 3 | |
| 311 | DRIVEWAY DETAIL NO. 4 | |
| 312 | RESIDENTIAL DRIVEWAY ENTRANCE WITH SIDEWALK | |
| 313 | COMMERCIAL AND INDUSTRIAL DRIVEWAYS | |
| 314 | DRIVEWAYS WITH TAPERED ENTRANCES, CONCRETE VALLEY GUTTERS | |
| 315 | TYPICAL SIDEWALK SECTION | |
| 316 | WHEELCHAIR RAMP | |
| 317 | HANDICAP RAMP DETAILS WITH 5' SIDEWALK | |
| | | |
| | 400 STREETS-CONSTRUCTION | |
| 401 | ROADWAY WIDENING SECTION | |
| 402 | RESIDENTIAL SUBDIVISION STREETS | |
| | | |
| | 500 STREETS-UTILITIES | |
| 501 | UTILITY PLACEMENT IN RIGHT-OF-WAY | |
| 502 | UTILITY STREET CUTS AND STRUCTURE ADJUSTMENT | |
| 503 | UTILITY PLACEMENT IN RIGHT-OF-WAY OF CONSERVATION SUBDIVISION; OVERLAY DISTRICT STREETS | |
| | | |
| | 600 DRAINAGE STRUCTURES | |
| 601 | LOCATION OF CATCH BASINS: 28 FOOT WIDE RESIDENTIAL STREETS | |
| 602 | STANDARD CATCH BASIN NO. 1 | |
| 603 | STANDARD CATCH BASIN NO. 2 | |
| 604 | STANDARD CATCH BASIN NO. 3 | |
| 605 | STANDARD CATCH BASIN NO. 4 | |
| 606 | ROUND PRECAST CONCRETE CATCH BASIN | |

City of Loganville
where people matter

STANDARD DRAWING

**Standard Drawings Index (Page 1 of 4)**

DATE: JUNE 21, 2019 SHEET: INDEX 1

| NO. | DESCRIPTION | REVISION DATE |
|---|---|---|
| | 600 DRAINAGE STRUCTURES | |
| 607 | GUTTER STANDARD TYPE CURB AND GUTTER AT A CATCH BASIN | |
| 608 | STANDARD PRECAST ROUND CATCH BASIN | |
| 609 | STANDARD DROP INLET | |
| 610 | STANDARD PRECAST ROUND DROP INLET | |
| 611 | MANHOLE CASTINGS-NON TRAFFIC AREAS | |
| 612 | OUTLET STRUCTURE DAM HEIGHT = 5' MAX WITH 1/2 ROUND STONE FILTER | |
| 613 | OUTLET STRUCTURE DAM HEIGHT = 5' MAX WITH GABION FILTER | |
| 614 | OUTLET STRUCTURE DAM HEIGHT = 5' MAX WITH MICROPOOL OR WET POND | |
| 615 | OUTLET CONTROL STRUCTURE WITH 1/2" ROUND STONE FILTER | |
| 616 | OUTLET CONTROL STRUCTURE WITH GABION FILTER | |
| 617 | OUTLET CONTROL STRUCTURE WITH MICROPOOL OR WET POND | |
| 618 | OUTLET CONTROL RETAINING WALL WITH 1/2" ROUND STONE FILTER | |
| 619 | OUTLET CONTROL RETAINING WALL | |
| 620 | OUTLET CONTROL RETAINING WALL WITH MICROPOOL | |
| 621 | OUTLET CONTROL STRUCTURE WITH STANDPIPE WITH STONE FILTER | |
| 622 | X-SECTION, DRY, EXTENDED DETENTION | |
| 623 | X-SECTION, WET, EXTENDED DETENTION | |
| 624 | EARTHFILL DAMS, MAX HEIGHT = 25' | |
| 625 | FOREBAY | |
| 626 | TYPICAL DETENTION POND WALL TIE-IN | |
| 627 | FLOWSPLITTER-MANHOLE | |
| 628 | TRASHRACK FOR OUTLET CONTROL STRUCTURES | |
| 629 | ORIFICE END-CAP DETAILS | |
| | | |
| | 700 DRAINAGE PIPES & DITCHES | |
| 701 | STANDARD PIPE CULVERTS-DETAIL NO. 1 | |
| 702 | STANDARD PIPE CULVERTS-DETAIL NO. 2 | |
| 703 | STANDARD PIPE CULVERTS-CONCRETE PIPE | |
| 704 | PRECAST CONCRETE HEADWALL SYSTEM | |
| 705 | CAST CONCRETE HEADWALL | |
| 706 | STANDARD RUBBLE HEADWALL | |
| 707 | STANDARD RUBBLE HEADWALL WITH WINGS | |
| 708 | STANDARD FLARED END SECTIONS FOR PIPES | |
| 709 | DRAINAGE DITCH DETAILS | |
| | | |
| | 800 LANDSCAPING & TREE PROTECTION | |
| 801 | MULTI-TRUNK TREE PLANTING | |
| 802 | EVERGREEN TREE PLANTING | |
| 803 | DECIDUOUS TREE PLANTING | |
| 804 | SHRUB AND GROUNDCOVER PLANTING | |
| | | |
| | 900 MISCELLANEOUS | |
| 901 | BEAM TYPE GUARDRAIL | |
| 902 | EARTHFILL DAMS FOR WET DETENTION PONDS | |
| 903 | EARTHFILL DAMS FOR NORMALLY DRY DETENTION PONDS | |
| 904 | GUIDELINES FOR DUMPSTER ENCLOSURE (FOOD SERVICE) | |
| 905 | GUIDELINES FOR DUMPSTER ENCLOSURE (NON-FOOD SERVICE) | |
| | | |

City of Loganville
where people matter

STANDARD DRAWING

**Standard Drawings Index (Page 2 of 4)**

DATE: JUNE 21, 2019 SHEET: INDEX 2

| NO. | DESCRIPTION | REVISION DATE |
|---|---|---|
| | 1000 SANITARY SEWER | |
| 1001 | SANITARY SEWER MANHOLE | |
| 1002 | OUTSIDE MANHOLE DROP CONNECTIONS | |
| 1003 | MANHOLE PLACED ON EXISTING LINE (DOGHOUSE) | |
| 1004 | MANHOLE OVER EXISTING SEWER | |
| 1005 | PRECAST MANHOLE INVERT | |
| 1006 | INSIDE DROP MANHOLE | |
| 1007 | BOLT DOWN MANHOLE FRAME AND COVER | |
| 1008 | TRAFFIC FRAME AND COVER | |
| 1009 | CONNECTION TO EXISTING MANHOLE | |
| 1010 | MANHOLE ABANDONMENT DETAIL | |
| 1011 | ANTI-SEEP COLLAR | |
| 1012 | CONCRETE PIER | |
| 1013 | TRANSITION COLLAR | |
| 1014 | SEWER SERVICE CLEANOUT | |
| 1015 | SEWER SERVICE CONNECTION TAP TO EXISTING SEWER MAIN | |
| 1016 | 4" LATERAL TO 6" SERVICE CONNECTION INSTALLATION | |
| 1017 | NEW SANITARY SEWER MAIN CONNECTION | |
| 1018 | PIER PLACEMENT FOR D.I.P. AERIAL LINES | |
| 1019 | AERIAL FLANGED D.I.P. PIPE CROSSING | |
| 1020 | NON-PIER AERIAL D.I.P. SEWER LINE | |
| 1021 | TYPICAL JACK AND BORE INSTALLATION | |
| 1022 | OIL WATER SEPARATOR WITH BAFFLE WALLS | |
| 1023 | GREASE TRAP | |
| 1024 | UTILITY SHROUD FOR SEWER CLEANOUT ASSEMBLY | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | 1100 POTABLE WATER | |
| 1101 | TYPICAL WATER SERVICE CONNECTIONS | |
| 1102 | TYPICAL CONNECTION TO EXISTING MAIN | |
| 1103 | TYPICAL WATER MAIN AT INTERSECTION | |
| 1104 | TYPICAL BRANCH CONNECTION AT INTERSECTION | |
| 1105 | TYPICAL DEAD END STREET TERMINATION | |
| 1106 | SERVICE CONNECTION DETAIL | |
| 1107 | WATER METER BOX | |
| 1108 | TYPICAL GATE VALVE AND VALVE BOX INSTALLATION | |
| 1109 | TYPICAL WATER VALVE MARKER | |
| 1110 | TYPICAL SERVICE LINE CASING INSTALLATION | |
| 1111 | TYPICAL COUPLING | |
| 1112 | STEEL CASING | |
| 1113 | TUNNEL LINER | |
| 1114 | DUCTILE IRON PIPE BEDDING | |
| 1115 | D.I.P. TO H.D.P.E. TRANSITION DETAIL | |
| 1116 | FIRE MAIN AND WATER VAULT DETAILS | |
| 1117 | TYPICAL HYDRANT INSTALLATION | |
| 1118 | ALTERNATE HYDRANT INSTALLATION | |
| 1119 | FIRE HYDRANT INSTALLATION DETAILS | |
| 1120 | TYPICAL TAPPING SLEEVE AND VALVE INSTALLATION | |
| 1121 | TYPICAL STUB-OUT INSTALLATION | |
| 1122 | TYPICAL DEAD MAN THRUST RESTRAINT INSTALLATION FOR A.C. PIPE | |
| 1123 | CONCRETE THRUST RESTRAINT | |

City of Loganville
where people matter

STANDARD DRAWING

**Standard Drawings Index (Page 3 of 4)**

DATE: JUNE 21, 2019 SHEET: INDEX 3

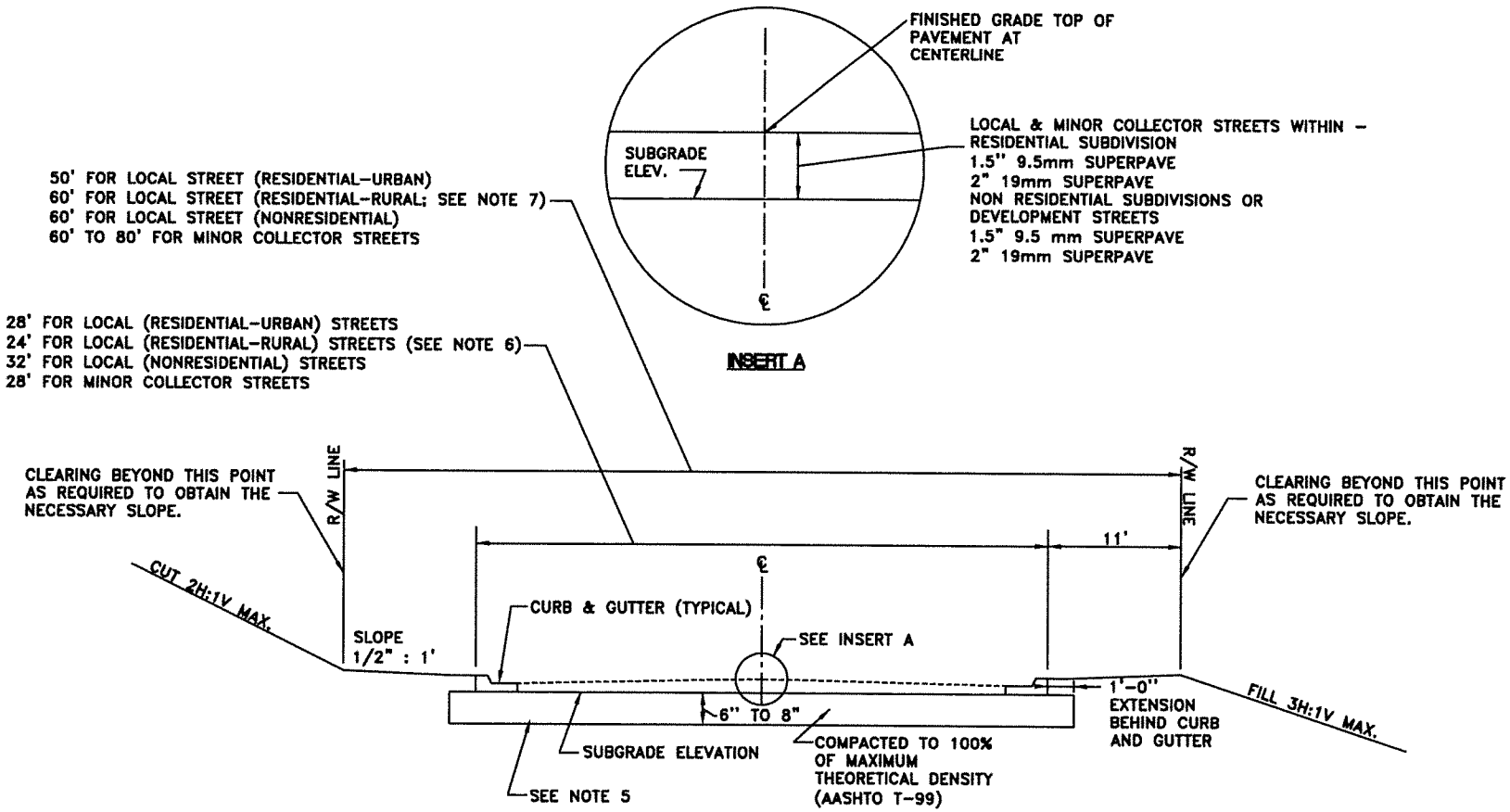
| NO. | DESCRIPTION | REVISION DATE |
|---|---|---|
| | 1100 POTABLE WATER | |
| 1124 | TYPICAL HORIZONTAL THRUST BLOCK | |
| 1125 | TYPICAL HORIZONTAL THRUST RESTRAINT | |
| 1126 | THRUST RESTRAINT COLLAR | |
| 1127 | TYPICAL TIE ROD RESTRAINT INSTALLATION | |
| 1128 | FIRE HYDRANT IDENTIFICATION TAG DETAIL | |
| | | |
| | | |
| | | |
| | | |
| | | |

City of Loganville
where people matter

STANDARD DRAWING

**Standard Drawings Index (Page 4 of 4)**

DATE: JUNE 21, 2019 SHEET: INDEX 4




**NOTES:**

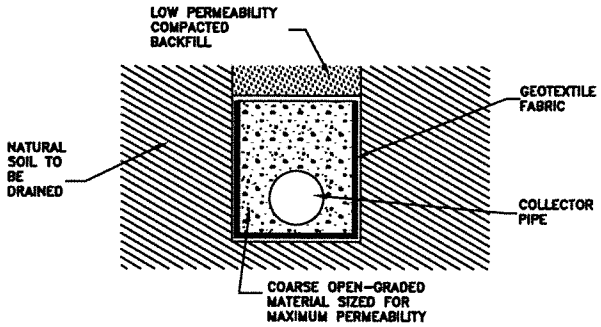
1. TOP OF SHOULDER TO BE GRADED HIGH TO FURNISH MATERIAL TO BACKFILL BEHIND CURB.
2. FOR UTILITY LOCATIONS SEE SHEET 501
3. MAXIMUM CUT SLOPES 2H:1V
4. MAXIMUM FILL SLOPES 3H:1V
5. 6" GAB UNDER PAVEMENT – LOCAL RESIDENTIAL AND MINOR COLLECTOR STREETS WITHIN RESIDENTIAL SUBDIVISION
   7" GAB UNDER PAVEMENT – LOCAL AND MINOR COLLECTOR STREETS (NONRESIDENTIAL SUBDIVISION OR COLLECTOR STREETS)
   8" GAB UNDER PAVEMENT – MINOR COLLECTOR
6. MEASUREMENT EXCLUDES CURB AND GUTTER SINCE IT IS NOT REQUIRED FOR SUBDIVISIONS ZONED R-44.
7. MAY BE REDUCED TO 50 FEET IF CURB, GUTTER, AND PIPED DRAINAGE SYSTEM IS PROVIDED.
8. USE 6" x 24" x 12" CURB AND GUTTER ON LOCAL AND MINOR COLLECTOR RESIDENTIAL STREETS AND 8" x 24" x 14" ON LOCAL AND MINOR COLLECTOR NONRESIDENTIAL STREETS

City of Loganville
where people matter

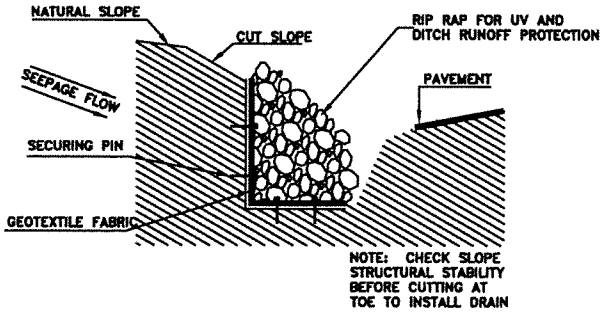
STANDARD DRAWING

**Street Grading: Local or Minor Collector Street**

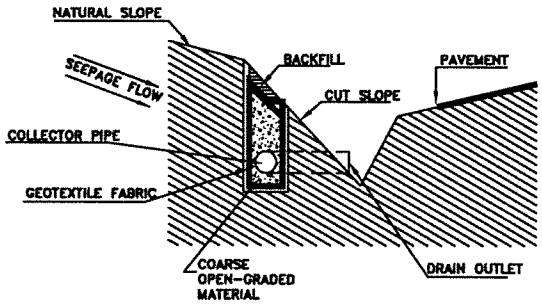
DATE: JUNE 21, 2019 SHEET: 101



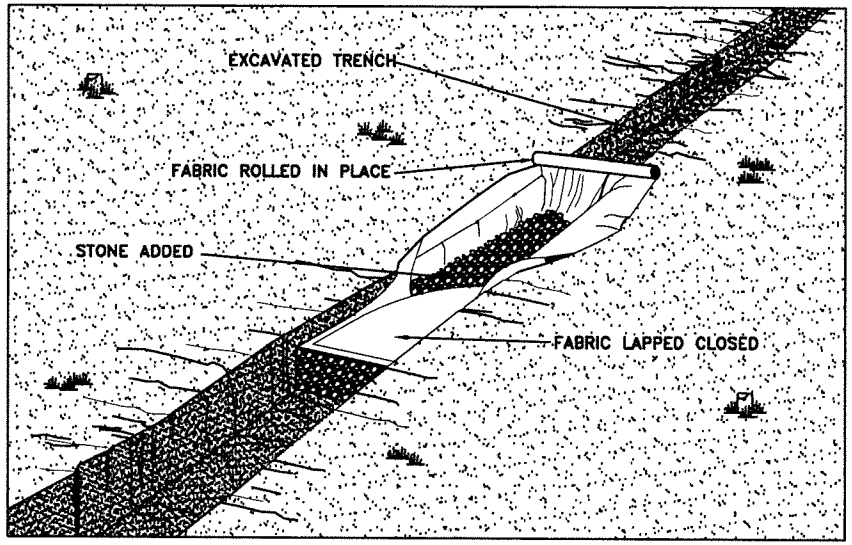

FABRIC-LINED DITCH UNDERDRAIN




ROCK TOE INTERCEPTOR DRAIN FOR CUT SLOPE SEEPAGE




TRENCH INTERCEPTOR DRAIN FOR CUT SLOPE SEEPAGE




City of Loganville
where people matter

STANDARD DRAWING

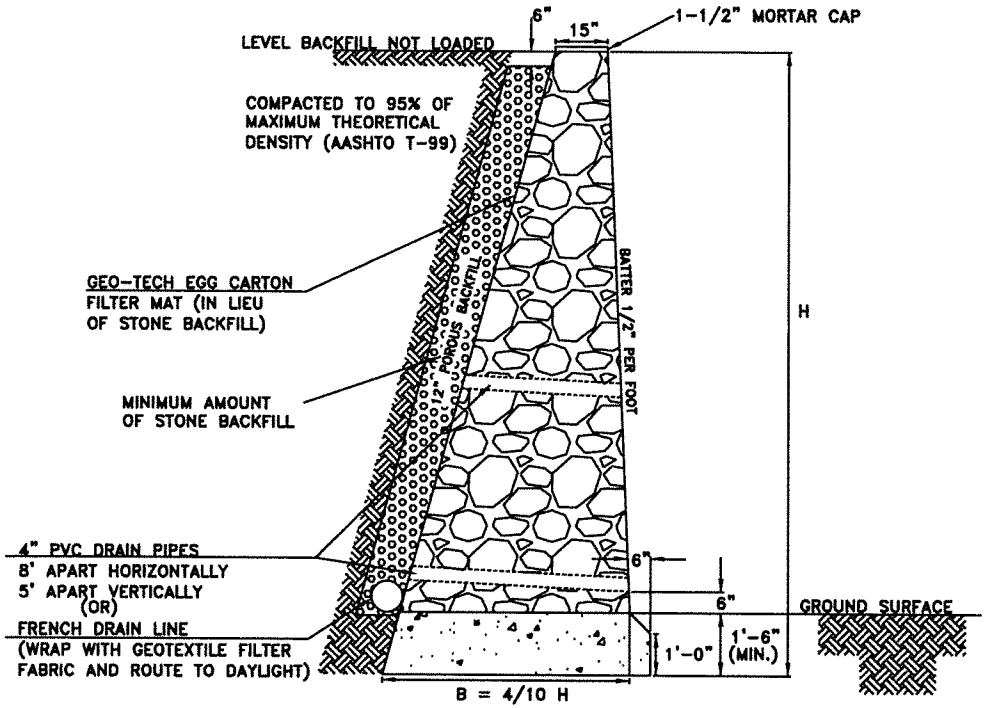
**Examples of Geotextiles Used in Drainage Applications**

DATE: JUNE 21, 2019 SHEET: 102

## DESIGN PARAMETERS

H = HEIGHT IN FEET
BASE = 4/10 H
WEIGHT CU. FT. OF EARTH = 100 LBS
WEIGHT CU. FT. OF RUBBLE OR GRANITE = 150 LBS

| HEIGHT OF WALL "H" IN FT. | THICKNESS AT BASE B = 0.4H | MIN. REQUIRED SOIL BEARING CAPACITY (PSF) | AREA OF WALL (SQ.FT.) | AREA OF FOOTING (SQ.FT.) |
|---|---|---|---|---|
| 2 | 1'-6" | 1500 | 0.75 | 2.875 |
| 3 | 1'-6" | | 2.25 | 2.875 |
| 4 | 1'-7 1/4" | | 3.828 | 2.997 |
| 5 | 2'-0" | 2000 | 5.862 | 3.513 |
| 6 | 2'-4 3/4" | | 8.212 | 4.113 |
| 7 | 2'-9 1/2" | 2500 | 12.060 | 4.615 |
| 8 | 3'-2 1/2" | 3000 | 14.240 | 5.186 |
| 9 | 3'-7 1/4" | | 17.813 | 5.762 |
| 10 | 4'-0" | 3500 | 21.781 | 6.344 |
| 11 | 4'-4 3/4" | 4000 | 26.148 | 6.927 |
| 12 | 4'-9 1/2" | | 30.909 | 7.516 |
| 13 | 5'-2 1/2" | 4500 | 36.070 | 8.105 |
| 14 | 5'-7 1/4" | 5000 | 41.629 | 8.696 |
| 15 | 6'-0" | | 47.587 | 9.288 |




SECTION

## NOTES:

1. STONE LAID IN PORTLAND CEMENT (3 PARTS SAND TO ONE PART CEMENT).
2. DRAIN PIPES ARE TO BE ONE CONTINUOUS LENGTH OR BELL AND SPIGOT WITH MORTAR JOINTS.
3. CONCRETE: MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 3000 PSI.
4. FOR CONDITIONS IN WHICH THE ACTUAL SOIL BEARING CAPACITY IS LESS THAN THE REQUIRED MINIMUM, A SPECIAL FOOTING DESIGNED BY A GEORGIA REGISTERED PROFESSIONAL ENGINEER IS REQUIRED.
5. DEPTH OF FOUNDATION TO BE DETERMINED BY SOIL CONDITIONS (1'-6" MINIMUM)
6. THIS WALL IS DESIGNED FOR LEVEL BACKFILL CONDITIONS ONLY WITHOUT SURCHARGE LOADING. WALLS FOR APPLICATIONS WHICH INCLUDE SLOPED BACKFILL CONDITIONS, SURCHARGE LOADS, FLUID DETENTION, ETC. SHALL BE DESIGNED BY A GEORGIA REGISTERED PROFESSIONAL ENGINEER.
7. REQUIRED SOIL BEARING CAPACITY SHALL BE VERIFIED AT THE TIME OF EXCAVATION.

City of Loganville
where people matter

STANDARD DRAWING

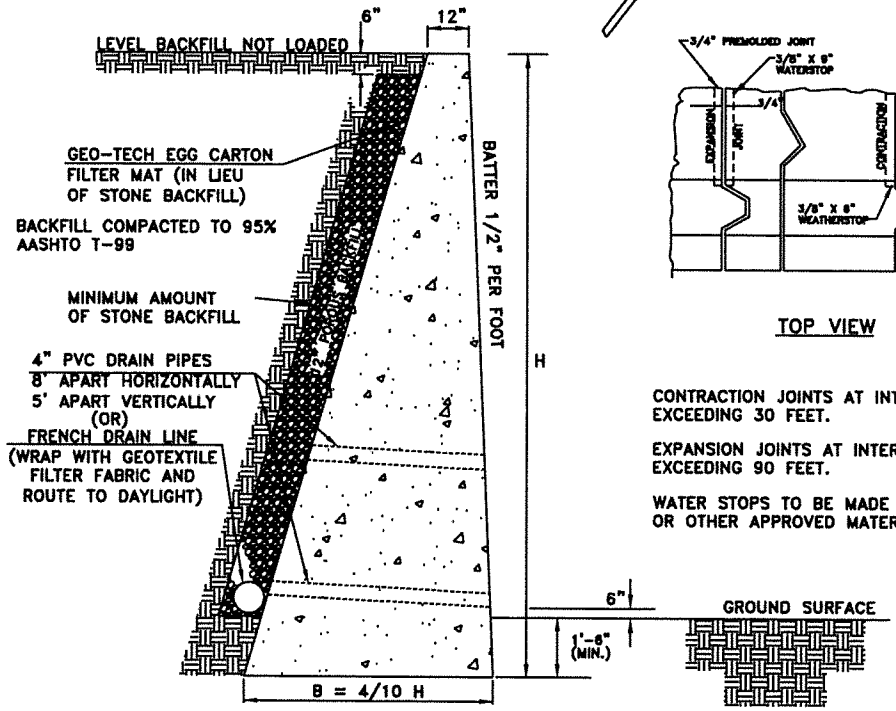
**Mortar Rubble - Granite Retaining Wall, Level Backfill**

DATE: JUNE 21, 2019 SHEET: 103

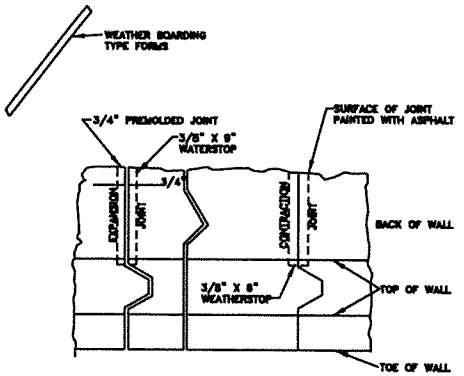
## DESIGN PARAMETERS

H = HEIGHT IN FEET
BASE = 4/10 H
WEIGHT CU. FT. OF EARTH = 100 LBS.
WEIGHT CU. FT. OF CONCRETE = 150 LBS

| HEIGHT OF WALL "H" (IN FEET) | THICKNESS AT BASE "B" | MIN. REQUIRED SOIL BEARING CAPACITY (PSF) | AREA OF SECTION (SQ.FT.) |
|---|---|---|---|
| 2 | 1'-6" | 1500 | 2.63 |
| 3 | 1'-6" | | 3.93 |
| 4 | 1'-7 1/4" | | 5.83 |
| 5 | 2'-0" | 2000 | 8.13 |
| 6 | 2'-4 3/4" | | 10.83 |
| 7 | 2'-9 1/2" | 2500 | 13.93 |
| 8 | 3'-2 1/2" | 3000 | 17.43 |
| 9 | 3'-7 1/4" | | 21.33 |
| 10 | 4'-0" | 3500 | 25.63 |
| 11 | 4'-4 3/4" | 4000 | 30.33 |
| 12 | 4'-9 1/2" | | 35.43 |
| 13 | 5'-2 1/2" | 4500 | 40.93 |
| 14 | 5'-7 1/4" | 5000 | 46.83 |
| 15 | 6'-0" | | 53.13 |




SECTION




TOP VIEW

CONTRACTION JOINTS AT INTERVALS NOT EXCEEDING 30 FEET.

EXPANSION JOINTS AT INTERVALS NOT EXCEEDING 90 FEET.

WATER STOPS TO BE MADE OF RUBBER OR OTHER APPROVED MATERIAL.

NOTES:

1. CONCRETE: MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 3000 PSI.
2. FOR CONDITIONS IN WHICH THE ACTUAL SOIL BEARING CAPACITY IS LESS THAN THE REQUIRED MINIMUM, A SPECIAL FOOTING DESIGNED BY A GEORGIA REGISTERED PROFESSIONAL ENGINEER IS REQUIRED.
3. THIS WALL IS DESIGNED FOR LEVEL BACKFILL CONDITIONS ONLY WITHOUT SURCHARGE LOADING. WALLS FOR APPLICATIONS WHICH INCLUDE SLOPED BACKFILL CONDITIONS, SURCHARGE LOADS, FLUID DETENTION, ETC. SHALL BE DESIGNED BY A GEORGIA REGISTERED PROFESSIONAL ENGINEER.
4. REQUIRED SOIL BEARING CAPACITY SHALL BE VERIFIED AT THE TIME OF EXCAVATION.

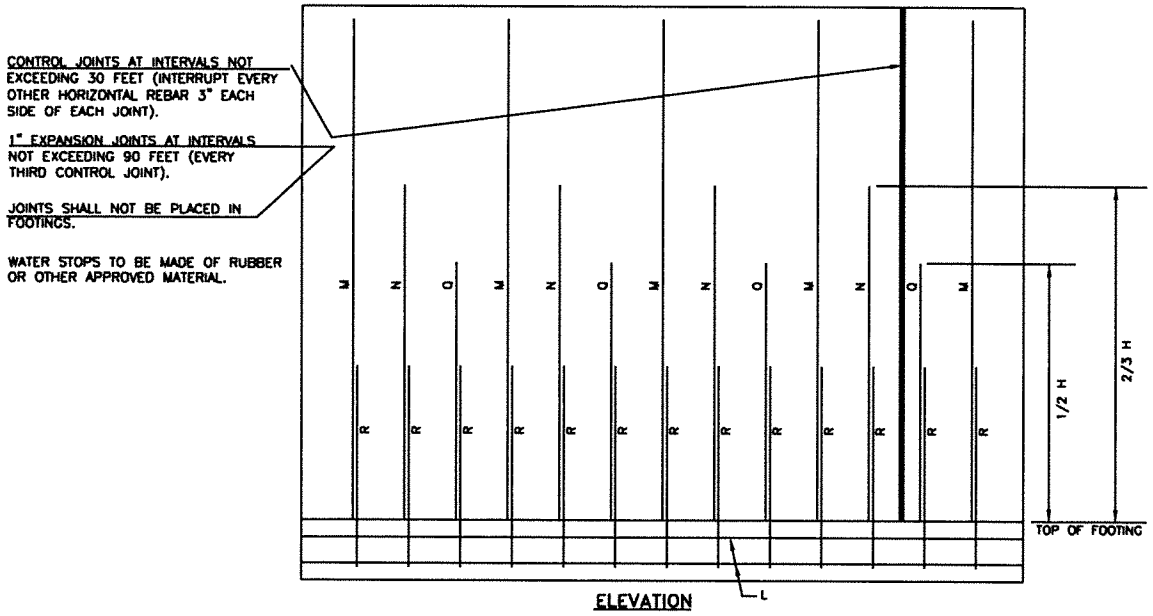
City of Loganville
where people matter

STANDARD DRAWING

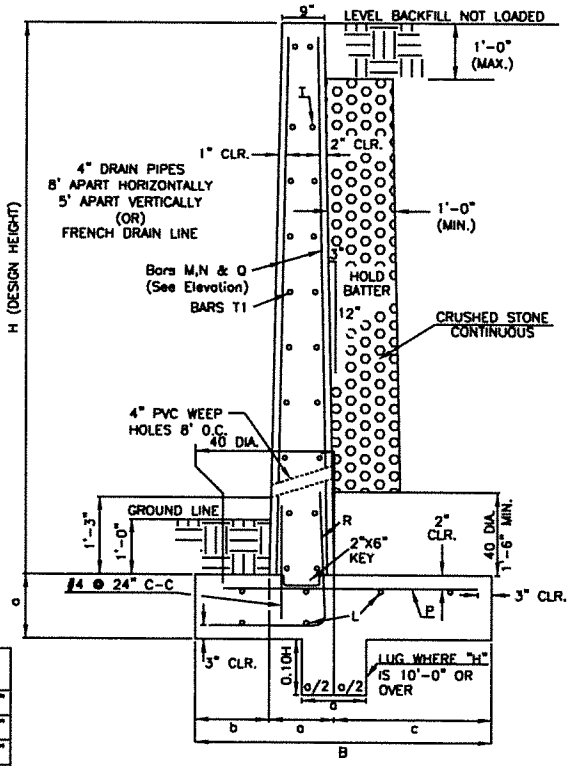
**Concrete Gravity Retaining Wall**

DATE: JUNE 21, 2019

SHEET: 104




ELEVATION




BACKFILL COMPACTED TO 95% of AASHTO T-99 (Min.)

SECTION

| H | a | b | c | B | M BARS | N BARS | Q BARS | P BARS | T BARS | T1 BARS | L BARS | R BARS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3'-0" | 0'-10 1/2" | 0'-4" | 0'-7" | 1'-9 1/2" | #3 @ 12" | – | – | #3 @ 18" | #3 @ 12" | #4 @ 12" | #3 @ 12" | #3 @ 12" |
| 4'-0" | 0'-11" | 0'-6" | 0'-10" | 2'-3" | #3 @ 12" | – | – | #3 @ 18" | #3 @ 12" | #4 @ 12" | #3 @ 12" | #3 @ 12" |
| 5'-0" | 0'-11 1/2" | 0'-8" | 1'-4" | 2'-11 1/2" | #3 @ 12" | – | – | #3 @ 18" | #3 @ 12" | #4 @ 12" | #3 @ 12" | #3 @ 12" |
| 6'-0" | 1'-0" | 0'-10" | 1'-7" | 3'-5" | #3 @ 12" | – | – | #3 @ 16" | #3 @ 12" | #4 @ 12" | #3 @ 12" | #3 @ 12" |
| 7'-0" | 1'-0 1/2" | 1'-0" | 1'-10" | 3'-10 1/2" | #4 @ 24" | #4 @ 24" | – | #3 @ 10" | #3 @ 12" | #4 @ 12" | #3 @ 12" | #4 @ 12" |
| 8'-0" | 1'-1" | 1'-1" | 2'-1" | 4'-3" | #4 @ 20" | #4 @ 20" | – | #4 @ 15" | #3 @ 12" | #4 @ 12" | #3 @ 12" | #4 @ 10" |
| 9'-0" | 1'-1 1/2" | 1'-2" | 2'-9" | 5'-0 1/2" | #4 @ 21" | #4 @ 21" | #4 @ 21" | #4 @ 11" | #3 @ 10" | #4 @ 10" | #3 @ 12" | #4 @ 7" |
| 10'-0" | 1'-2" | 1'-4" | 2'-10" | 5'-4" | #5 @ 27" | #5 @ 27" | #5 @ 27" | #5 @ 16" | #3 @ 10" | #4 @ 10" | #3 @ 12" | #5 @ 9" |
| 11'-0" | 1'-2 1/2" | 1'-6" | 3'-2" | 5'-10 1/2" | #5 @ 21" | #5 @ 21" | #5 @ 21" | #5 @ 12" | #3 @ 10" | #4 @ 10" | #4 @ 12" | #5 @ 7" |
| 12'-0" | 1'-3" | 1'-8" | 3'-7" | 6'-6" | #6 @ 27" | #6 @ 27" | #6 @ 27" | #5 @ 10" | #3 @ 10" | #4 @ 10" | #4 @ 12" | #6 @ 9" |
| 13'-0" | 1'-3 1/2" | 1'-8" | 4'-0" | 6'-11 1/2" | #6 @ 21" | #6 @ 21" | #6 @ 21" | #4 @ 6" | #3 @ 10" | #4 @ 10" | #4 @ 12" | #6 @ 7" |
| 14'-0" | 1'-4" | 2'-1" | 4'-3" | 7'-8" | #6 @ 18" | #6 @ 18" | #6 @ 18" | #4 @ 5" | #4 @ 16" | #5 @ 16" | #4 @ 12" | #6 @ 6" |
| 15'-0" | 1'-4 1/2" | 2'-1" | 4'-7" | 8'-0 1/2" | #7 @ 21" | #7 @ 21" | #7 @ 21" | #5 @ 6" | #4 @ 16" | #5 @ 16" | #4 @ 12" | #7 @ 7" |
| 16'-0" | 1'-5" | 2'-2" | 4'-11" | 8'-6" | #7 @ 18" | #7 @ 18" | #7 @ 18" | #5 @ 5" | #4 @ 16" | #5 @ 16" | #4 @ 12" | #7 @ 6" |
| 17'-0" | 1'-5 1/2" | 2'-3" | 5'-3" | 8'-11 1/2" | #7 @ 15" | #7 @ 15" | #7 @ 15" | #6 @ 6" | #4 @ 16" | #5 @ 16" | #4 @ 12" | #7 @ 5" |
| 18'-0" | 1'-6" | 2'-4" | 5'-7" | 9'-5" | #8 @ 18" | #8 @ 18" | #8 @ 18" | #6 @ 5 1/2" | #4 @ 16" | #5 @ 16" | #4 @ 12" | #8 @ 6" |
| 19'-0" | 1'-6 1/2" | 2'-6" | 6'-1" | 10'-1 1/2" | #8 @ 15" | #8 @ 15" | #8 @ 15" | #7 @ 6 1/2" | #4 @ 12" | #5 @ 12" | #4 @ 12" | #8 @ 5" |
| 20'-0" | 1'-7" | 2'-8" | 6'-6" | 10'-9" | #9 @ 18" | #9 @ 18" | #9 @ 18" | #7 @ 6" | #4 @ 12" | #5 @ 12" | #4 @ 12" | #9 @ 6" |

NOTES:

1. CONCRETE: MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 3000 PSI.
2. REINFORCING STEEL: GRADE 60.
3. MINIMUM REQUIRED SOIL BEARING CAPACITY IS 3000 PSF.
4. THIS WALL IS DESIGNED FOR LEVEL BACKFILL CONDITIONS ONLY WITHOUT SURCHARGE LOADING. WALLS FOR APPLICATIONS WHICH INCLUDE SLOPED BACKFILL CONDITIONS, SURCHARGE LOADS, FLUID DETENTION, ETC. SHALL BE DESIGNED BY A GEORGIA REGISTERED PROFESSIONAL ENGINEER.
5. REQUIRED SOIL BEARING CAPACITY SHALL BE VERIFIED AT THE TIME OF EXCAVATION.

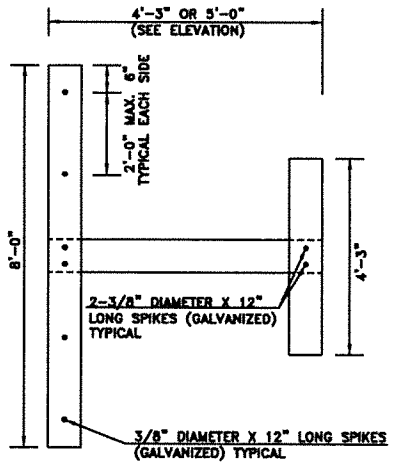
City of Loganville
where people matter

STANDARD DRAWING

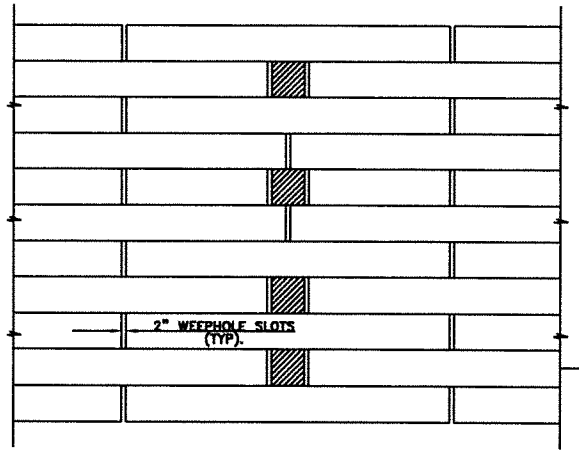
# Concrete Cantilever Retaining Wall

DATE: JUNE 21, 2019

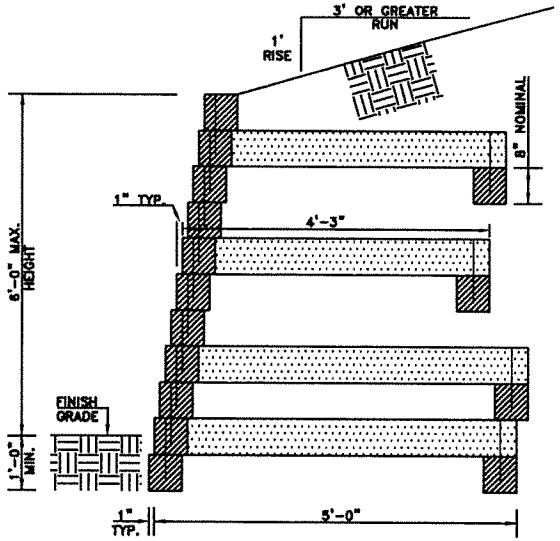
SHEET: 105




PLAN VIEW




ELEVATION




SECTION ELEVATION

**NOTES:**

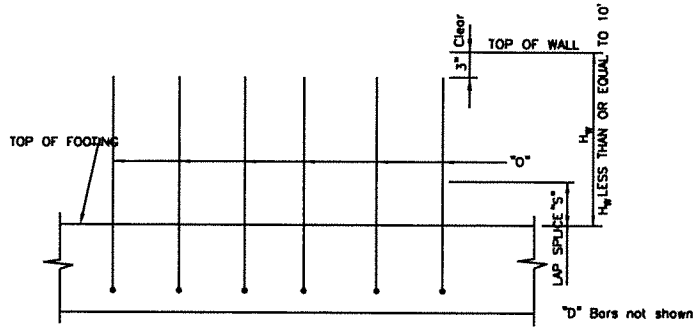
1. THIS DESIGN IS FOR WALLS FROM 4'-0" HEIGHT TO 6'-0" MAXIMUM HEIGHT. A BUILDING PERMIT IS REQUIRED FOR WALLS WHICH EXCEED 4'-0" IN HEIGHT.
2. SOIL BEARING CAPACITY TO BE 2000 PSF MINIMUM.
3. LEVEL BACKFILL WITH SOIL TYPE B. (ASSUMED ACTIVE PRESSURE 45h PCF/L.F.)
4. NOMINAL TIE SIZE TO BE 8" X 8".
5. PROVIDE 2" WEEPHOLE SLOTS AT EVERY 8'-0" LENGTH IN THIRD COURSE OF WALL HEIGHT.
6. SPIKE TIES AS INDICATED ON PLAN WITH GALVANIZED 3/8" DIAMETER X 12" LONG SPIKES. ACCEPTABLE OPTION IS NO. 3 REBARS.
7. ANY VARIATION FROM THIS DETAIL REQUIRES SUBMISSION OF ENGINEERED DESIGN PREPARED BY GEORGIA REGISTERED ENGINEER TO THE CITY FOR A BUILDING PERMIT.
8. BACKFILL SLOPE NOT TO EXCEED A RISE TO RUN RATIO OF 1 IN 3.
9. MINIMUM DISTANCE BETWEEN ADJACENT WALLS NOT TO BE LESS THAN MAXIMUM HEIGHT ABOVE GRADE OF DOWNGRADE WALL.

City of Loganville
where people matter

STANDARD DRAWING

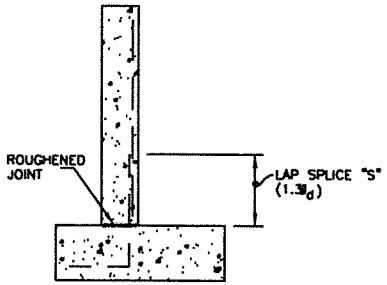
**Cross-Tie Retaining Wall**

DATE: JUNE 21, 2019 SHEET: 106

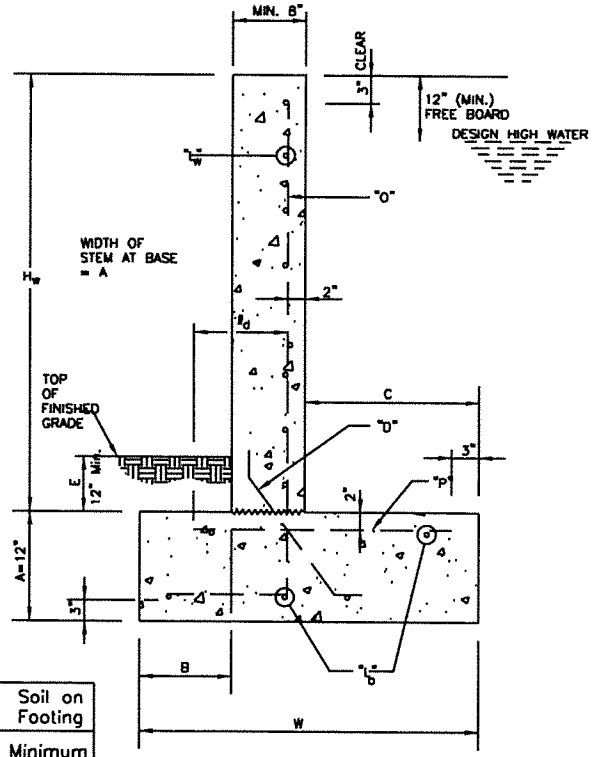



ELEVATION–VERTICAL WALL REINFORCEMENT

| Rebar Development Length $\ell_d$ (in.) | Rebar Size |
|---|---|
| 22" | #4 |
| 27" | #5 |
| 32" | #6 |
| 39" | #7 |
| 51" | #8 |
| 64" | #9 |




OPTIONAL SPLICE




## GENERAL NOTES:

1. CONCRETE: MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 3000 PSI. REINFORCING STEEL: GRADE 60.
2. MINIMUM REQUIRED SOIL BEARING CAPACITY OF 3000 PSF MUST BE VERIFIED AT THE TIME OF EXCAVATION.
3. THIS WALL IS DESIGNED FOR HYDROSTATIC PRESSURE (62.4 PCF) DUE TO WATER DETENTION.
4. WEIR REQUIREMENTS FOR DETENTION POND WALL ARE BEYOND THE SCOPE OF THESE DETAILS, AND MUST BE DESIGNED BY A GEORGIA REGISTERED PROFESSIONAL ENGINEER.
5. REFER TO TABLES ON THIS SHEET FOR ADDITIONAL INFORMATION NOT INDICATED IN THE DETAILS.

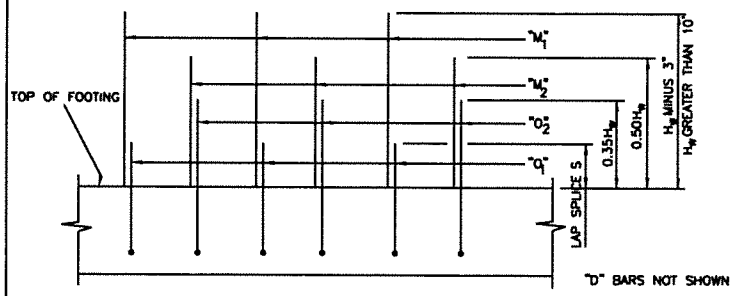
| CONCRETE DIMENSIONS | | | | Height above Base | Base Depth | BASE REINFORCEMENT | | | | | STEM | | Lap Splice | Soil on Footing |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Height above Base $H_w$ | Width of Wall A | Heel C | Width of Base W | $H_w$ | A ≥12" | "O" Bar Dowels into Stem | | "D" Bars Diagonal Corner Bars | "$\ell_b$" Bars Long. | "P" Bars Top Bars | "M" Bars Straight Lengths | "$\ell_w$" Bars Long. | | Minimum Soil Depth |
| ft. | in. | ft.–in. | ft.–in. | ft. | in. | Size–Spacing | Short Dowel | Size–Spacing | Number–Size | Size–Spacing | Size–Spacing | Size–Spacing | S | E |
| 3 | 8 | 1'–2" | 2'–6" | 3 | 12 | #4@18" | None | #4@18" | 5–#4 | #6@18" | None | #4@12" | 22" | 12" |
| 4 | 8 | 1'–7" | 3'–1" | 4 | 12 | #4@18" | None | #4@18" | 5–#4 | #6@18" | None | #4@12" | 22" | 12" |
| 5 | 8 | 2'–7" | 4'–3" | 5 | 12 | #4@18" | None | #4@18" | 5–#5 | #6@18" | None | #4@12" | 22" | 12" |
| 6 | 8 | 3'–6" | 5'–5" | 6 | 12 | #4@15" | None | #4@15" | 5–#5 | #6@15" | None | #4@12" | 22" | 12" |
| 7 | 8 | 4'–5" | 6'–6" | 7 | 12 | #4@9" | None | #4@9" | 6–#5 | #4@9" | None | #4@12" | 22" | 12" |
| 8 | 12 | 4'–11" | 7'–7" | 8 | 12 | #4@11" | None | #4@11" | 6–#6 | #5@11" | None | #5@12" | 22" | 12" |
| 9 | 12 | 5'–10" | 8'–8" | 9 | 12 | #5@12" | None | #4@12" | 6–#6 | #5@12" | None | #5@12" | 22" | 12" |
| 10 | 12 | 6'–8" | 9'–8" | 10 | 12 | #6@12" | None | #4@12" | 6–#6 | #5@12" | None | #5@12" | 22" | 12" |

City of Loganville
*where people matter*

STANDARD DRAWING

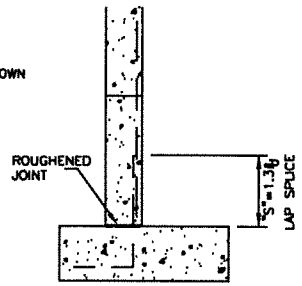
**Dimensions and Structural Reinforcement for Wall Heights ≤ 10'**

DATE: JUNE 21, 2019 SHEET: 107

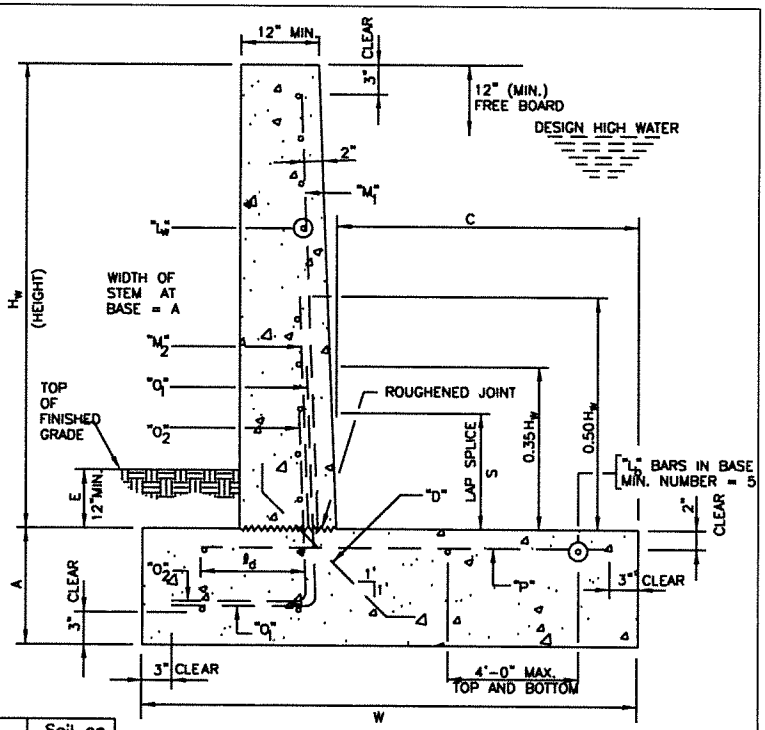



ELEVATION–VERTICAL WALL REINFORCEMENT

| Rebar Development Length $\ell_d$ (in.) | Rebar Size |
|---|---|
| 22" | #4 |
| 27" | #5 |
| 32" | #6 |
| 39" | #7 |
| 51" | #8 |
| 64" | #9 |




OPTIONAL SPLICE




DIMENSIONS AND STRUCTURAL REINFORCEMENT FOR WALL HEIGHTS GREATER THAN 10'

## GENERAL NOTES:

1. CONCRETE: MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 3000 PSI. REINFORCING STEEL: GRADE 60.
2. MINIMUM REQUIRED SOIL BEARING CAPACITY OF 3000 PSF MUST BE VERIFIED AT THE TIME OF EXCAVATION.
3. THIS WALL IS DESIGNED FOR HYDROSTATIC PRESSURE (62.4 PCF) DUE TO WATER DETENTION.
4. WEIR REQUIREMENTS FOR DETENTION POND WALL ARE BEYOND THE SCOPE OF THESE DETAILS, AND MUST BE DESIGNED BY A GEORGIA REGISTERED PROFESSIONAL ENGINEER.
5. REFER TO TABLES ON THIS SHEET FOR ADDITIONAL INFORMATION NOT INDICATED IN THE DETAILS.

| CONCRETE DIMENSIONS | | | | Height above Base | Base Depth | BASE REINFORCEMENT | | | | | STEM | | Lap Splice | Soil on Footing |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Height above Base $H_w$ | Width of Wall A | Heel C | Width of Base W | $H_w$ | A ≥12" | "O" Bar Dowels into Stem | | "D" Bars Diagonal Corner Bars | "b" Bars Long. | "P" Bars Top Bars | "M" Bars Straight Lengths | "L$_w$" Bars Long. | | Mininmum Soil Depth |
| ft. | in. | ft.–in. | ft.–in. | ft. | in. | Size–Spacing | Short Dowel | Size–Spacing | Number–Size | Size–Spacing | Size–Spacing | Size–Spacing | S | E |
| 11 | 13 | 7'–5" | 10'–9" | 11 | 13 | #6@9" | 2'–1" | #4@9" | 7–#6 | #5@9" | #4@9" | #6@12" | 25" | 12" |
| 12 | 14 | 8'–1" | 11'–8" | 12 | 14 | #7@9" | 2'–5" | #4@9" | 7–#7 | #6@9" | #5@9" | #6@12" | 30" | 12" |
| 13 | 15 | 8'–10" | 12'–9" | 13 | 15 | #7@9" | 2'–5" | #4@9" | 7–#7 | #6@9" | #5@9" | #6@11" | 30" | 16" |
| 14 | 16 | 9'–7" | 13'–9" | 14 | 16 | #8@9" | 2'–11" | #5@9" | 7–#8 | #7@9" | #5@9" | #7@15" | 39" | 16" |
| 15 | 18 | 10'–2" | 14'–8" | 15 | 18 | #8@9" | 2'–11" | #5@9" | 8–#8 | #7@9" | #6@9" | #8@17" | 39" | 16" |
| 16 | 19 | 10'–11" | 15'–9" | 16 | 19 | #8@9" | 2'–11" | #5@9" | 8–#9 | #7@9" | #6@9" | #8@16" | 39" | 16" |
| 17 | 20 | 11'–7" | 16'–8" | 17 | 21 | #9@9" | 3'–8" | #6@9" | 8–#9 | #8@9" | #6@9" | #8@15" | 49" | 20" |
| 18 | 21 | 12'–4" | 17'–9" | 18 | 23 | #9@9" | 3'–8" | #6@9" | 8–#10 | #8@9" | #7@9" | #8@15" | 49" | 20" |
| 19 | 22 | 13'–1" | 18'–9" | 19 | 24 | #10@9" | 4'–8" | #6@9" | 9–#9 | #9@9" | #7@9" | #8@14" | 63" | 20" |
| 20 | 23 | 13'–10" | 19'–9" | 20 | 26 | #10@9" | 4'–8" | #7@9" | 9–#10 | #9@9" | #8@9" | #8@17" | 63" | 20" |

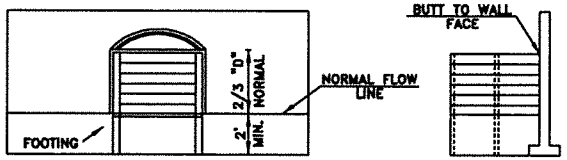
City of Loganville
where people matter

STANDARD DRAWING

**Concrete Cantilever Detention Pond Retaining Wall, Heights > 10'**

DATE: JUNE 21, 2019 SHEET: 108

## TYPE 2, FOR STRAIGHT HEADWALLS TO BE PLACED AT INLET



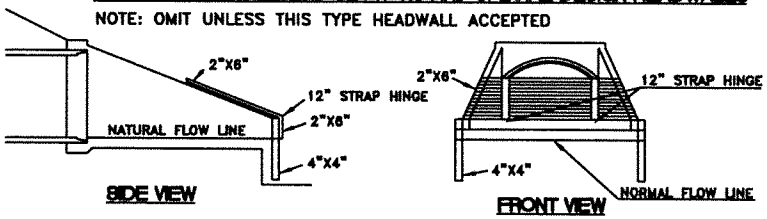

FRONT VIEW

SIDE VIEW

**NOTES:**
1. ALL TIMBER TO BE TREATED.
2. NO SPACE TO BE ALLOWED BETWEEN BOARDS.

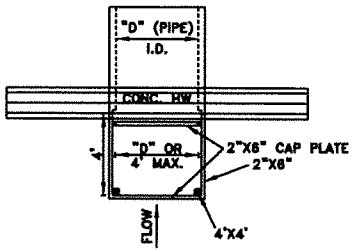
## TYPE 4, FOR FLARED END SECTIONS AND SPECIAL DESIGN HEADWALLS

NOTE: OMIT UNLESS THIS TYPE HEADWALL ACCEPTED

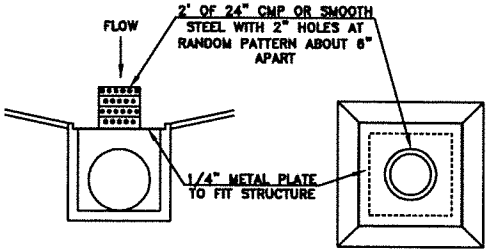



SIDE VIEW

FRONT VIEW



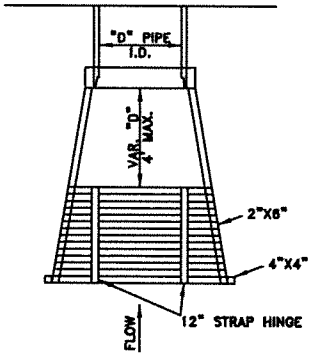

TOP VIEW



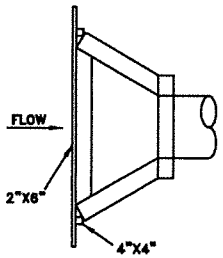

SIDE VIEW

TOP VIEW

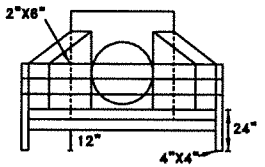
## TYPE 3 FOR DROP INLETS AND CATCH BASINS



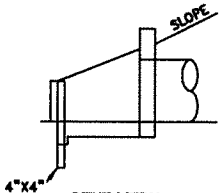

TOP VIEW




TOP VIEW




FRONT VIEW




SIDE VIEW

## TYPE 1, TO BE PLACED ON INLET OF PRECAST HEADWALLS

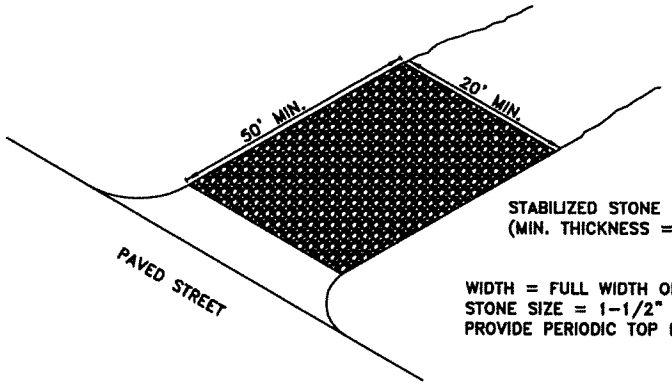
REFER TO S.C.S. "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA" LATEST EDITION FOR OTHER DETAILS CONCERNING BEST MANAGEMENT PRACTICES.

City of Loganville
where people matter

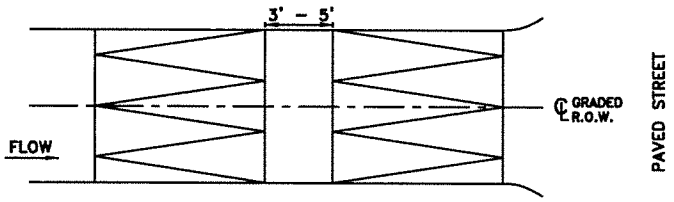
STANDARD DRAWING

**Temporary Erosion Control - Silt Gates Types 1, 2, 3, and 4**

DATE: JUNE 21, 2019 SHEET: 201



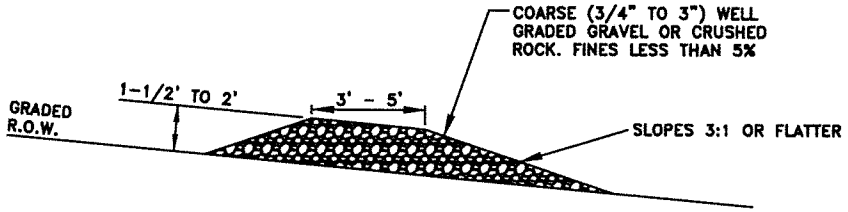

**STONE PAD CONSTRUCTION EXIT**




**PLAN**

**NOTES:**

1. CONSTRUCTION PADS ARE REQUIRED. THE LENGTH AND WIDTH OF THE PAD WILL DEPEND ON THE TYPE OF ACTIVITY AND SITE CONDITIONS. PAD SIZE WILL BE DETERMINED BY THE DESIGNER OF RECORD IN THE FIELD.
2. A WOVEN GEO-TEXTILE SHALL BE PLACED UNDER THE 6" STONE PAD.
3. REMOVE TRAPPED SEDIMENT AFTER EACH STORM. CLEAN OR REPLACE FILTER MATERIAL AS NEEDED.




**FILTER BERM**

City of Loganville
where people matter

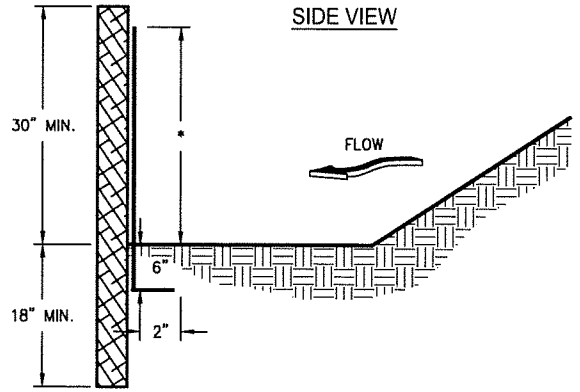
S T A N D A R D  D R A W I N G

**Stone Pad Construction Exit and Filter Berm**

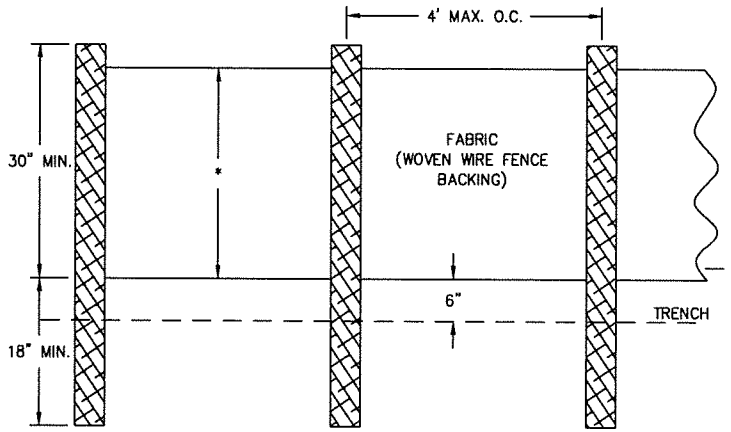
D A T E: JUNE 21, 2019  S H E E T: 202

# SILT FENCE - TYPE SENSITIVE

SIDE VIEW




FRONT VIEW




NOTES:
1. USE STEEL OR WOOD POSTS OR AS SPECIFIED BY THE EROSION, SEDIMENTATION, AND POLLUTION CONTROL PLAN.
2. HEIGHT (*) IS TO BE SHOWN ON THE EROSION, SEDIMENTATION, AND POLLUTION CONTROL PLAN.

| POST SIZE | | | |
|---|---|---|---|
| TYPE | MIN. LENGTH | TYPE OF POST | SIZE OF POST |
| NS | 4' | SOFT WOOD OAK STEEL | 3" DIA. OR 2 X 4 1.5" X 1.5" 1.3 LB./FT. MIN. |
| S | 4' | STEEL OAK | 1.3 LB./FT. MIN. 2" X 2" |

| LAND SLOPE | MAXIMUM SLOPE LENGTH ABOVE FENCE |
|---|---|
| PERCENT | FEET |
| < 2 | 100 |
| 2 TO 5 | 75 |
| 5 TO 10 | 50 |
| 10 TO 20 | 25 |
| > 20* | 15 |

* IN AREAS WHERE THE SLOPE IS GREATER THAN 20%, A FLAT AREA LENGTH OF 10 FEET BETWEEN THE TOE OF SLOPE TO THE BARRIER SHOULD BE PROVIDED.

City of Loganville
where people matter

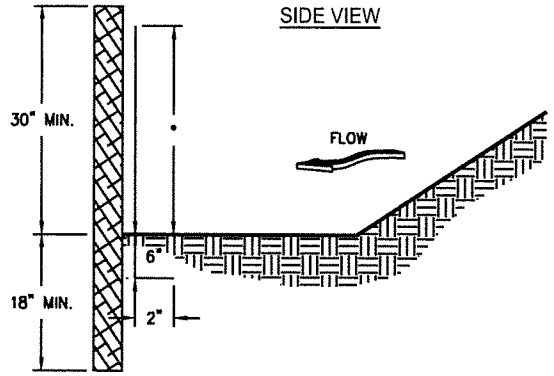
STANDARD DRAWING

**Construction of a Silt Fence - Type Sensitive**

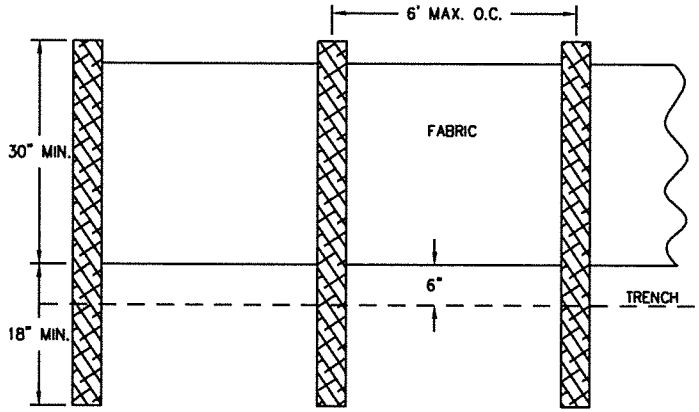
DATE: JUNE 21, 2019 SHEET: 203

# SILT FENCE - TYPE NON-SENSITIVE

SIDE VIEW




FRONT VIEW




NOTES:
1. USE STEEL OR WOOD POSTS OR AS SPECIFIED BY THE EROSION, SEDIMENTATION, AND POLLUTION CONTROL PLAN.
2. HEIGHT (*) IS TO BE SHOWN ON THE EROSION, SEDIMENTATION, AND POLLUTION CONTROL PLAN.

| POST SIZE | | | |
|---|---|---|---|
| TYPE | MIN. LENGTH | TYPE OF POST | SIZE OF POST |
| NS | 4' | SOFT WOOD OAK STEEL | 3" DIA. OR 2 X 4 1.5" X 1.5" 1.3 LB./FT. MIN. |
| S | 4' | STEEL OAK | 1.3 LB./FT. MIN. 2" X 2" |

| LAND SLOPE | MAXIMUM SLOPE LENGTH ABOVE FENCE |
|---|---|
| PERCENT | FEET |
| < 2 | 100 |
| 2 TO 5 | 75 |
| 5 TO 10 | 50 |
| 10 TO 20 | 25 |
| > 20* | 15 |

* IN AREAS WHERE THE SLOPE IS GREATER THAN 20%, A FLAT AREA LENGTH OF 10 FEET BETWEEN THE TOE OF SLOPE TO THE BARRIER SHOULD BE PROVIDED.

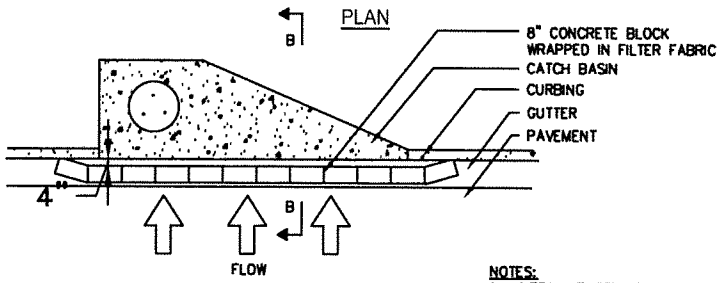
City of Loganville
where people matter

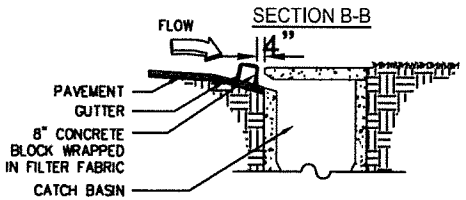
STANDARD DRAWING

**Construction of a Silt Fence - Type Non-Sensitive**

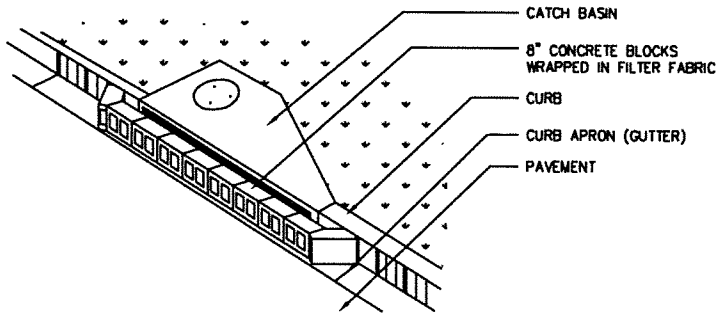
DATE: JUNE 21, 2019 SHEET: 204

# CURB INLET FILTER "PIGS IN BLANKET"




NOTES:
1. INSTALL FILTER AFTER ANY ASPHALT PAVEMENT INSTALLATION.
2. WRAP 8" CONCRETE BLOCKS IN FILTER FABRIC AND SPAN ACROSS CATCH BASIN INLET.
3. FACE OPENINGS IN BLOCKS OUTWARD.
4. LEAVE A GAP OF APPROXIMATELY 4 INCHES BETWEEN THE CURB AND THE FILTERS TO ALLOW FOR OVERFLOW TO PREVENT HAZARDOUS PONDING.
5. INSTALL OUTLET PROTECTION BELOW STORM DRAIN OUTLETS.




City of Loganville
where people matter

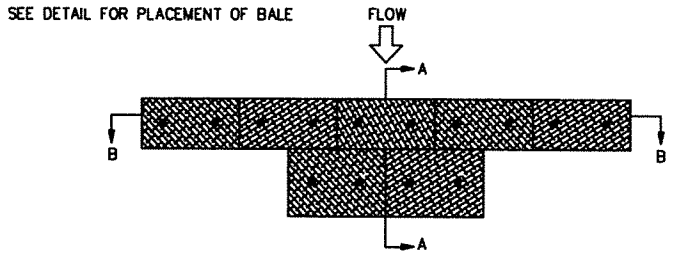
STANDARD DRAWING

**Construction of a Curb Inlet Filter**

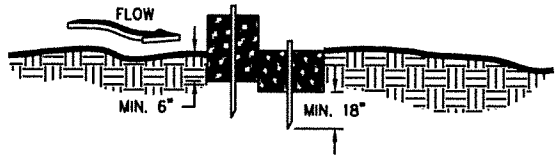
DATE: JUNE 21, 2019 SHEET: 205

# TYPICAL STRAW BALE CHECK DAM

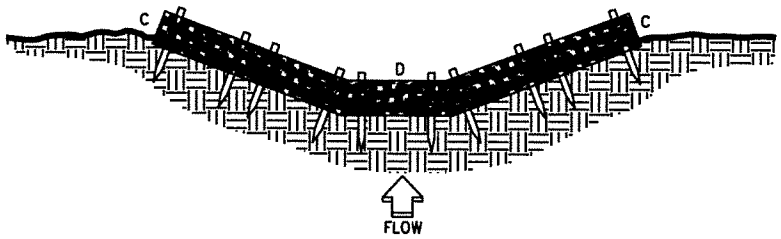
PLAN




SECTION A-A




SECTION B-B




NOTES:
1. BALES SHOULD BE BOUND WITH WIRE OR NYLON STRING AND SHOULD BE PLACED IN ROWS WITH BALE ENDS TIGHTLY ABUTTING THE ADJACENT BALES.
2. REMOVE #4 REBAR AFTER STRAW BALES ARE NO LONGER IN PLACE.
3. POINT C OF SECTION B-B SHOULD ALWAYS BE HIGHER THAN POINT D.

City of Loganville
where people matter

STANDARD DRAWING

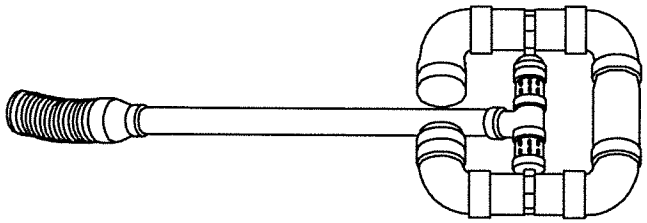
**Construction of a Straw Bale Check Dam**

DATE: JUNE 21, 2019 SHEET: 206

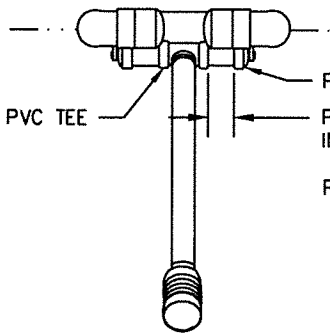
# TEMPORARY SEDIMENT POND

NOTE:
SKIMMER CONFIGURATION SHOWN IS TYPICAL. THE DESIGNER/ENGINEER MAY SUBMIT AN ALTERNATE SKIMMER DETAIL FOR REVIEW.

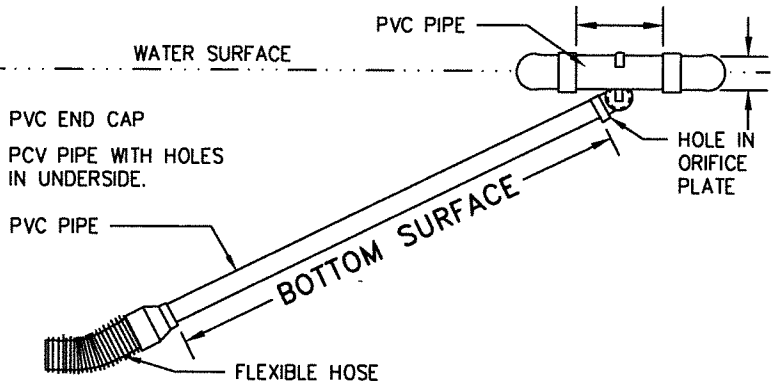
SKIMMER PERSPECTIVE



SKIMMER FRONTAL SECTION VIEW




SKIMMER SIDE SECTION VIEW

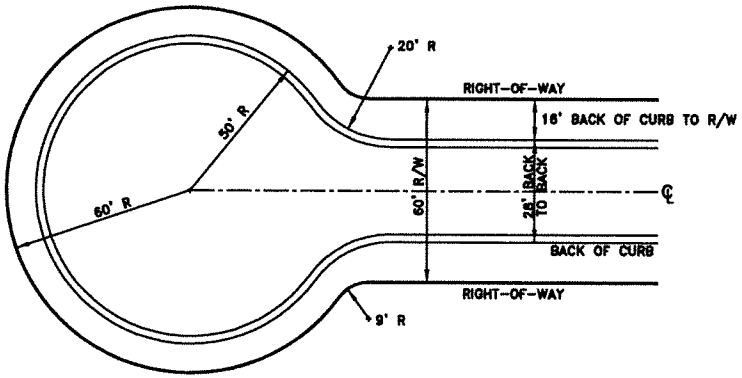



City of Loganville
where people matter

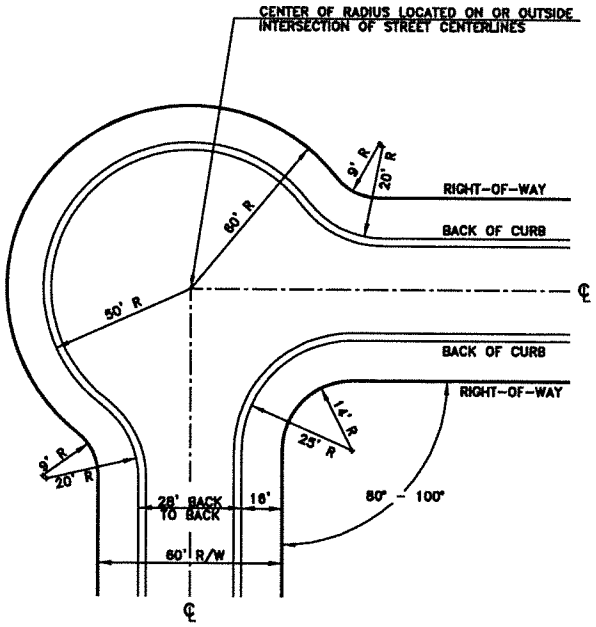
STANDARD DRAWING

**Construction of a Temporary Sediment Pond**

DATE: JUNE 21, 2019 SHEET: 207



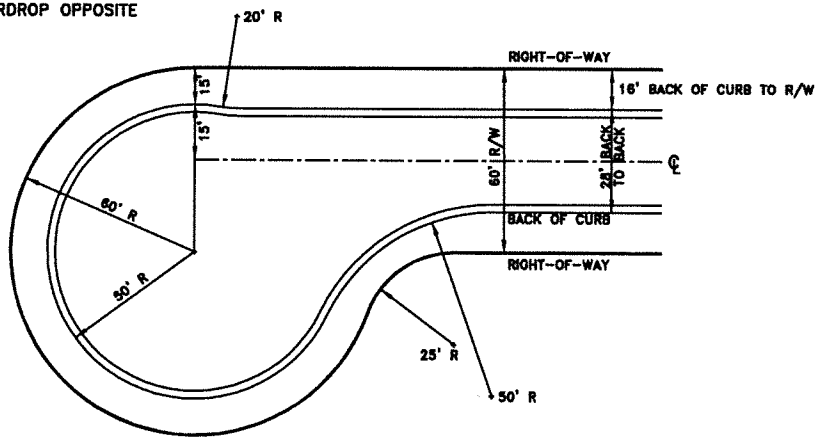

CENTERED




"EYEBROW"

LOCAL RESIDENTIAL STREETS ONLY

NOTE:
LEFT HAND TEARDROP SHOWN
RIGHT HAND TEARDROP OPPOSITE




TEARDROP

City of Loganville
where people matter

STANDARD DRAWING

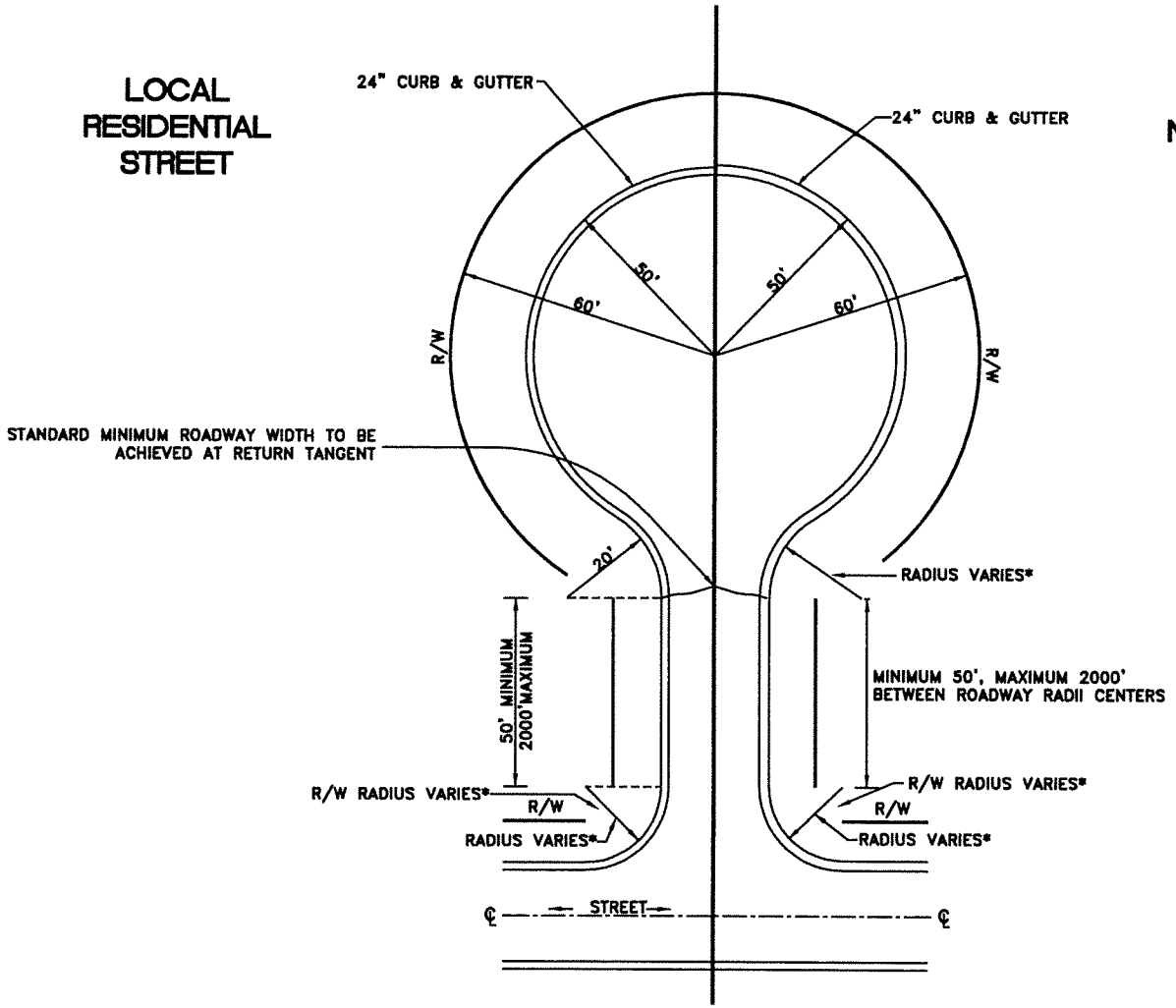
**Standard Residential Cul-de-Sac**

DATE: JUNE 21, 2019

SHEET: 301

LOCAL RESIDENTIAL STREET

LOCAL NONRESIDENTIAL STREET




* SEE MINIMUM INTERSECTION RADII REQUIREMENTS IN ROADWAY DESIGN & CONSTRUCTION STANDARD SPECIFICATIONS.

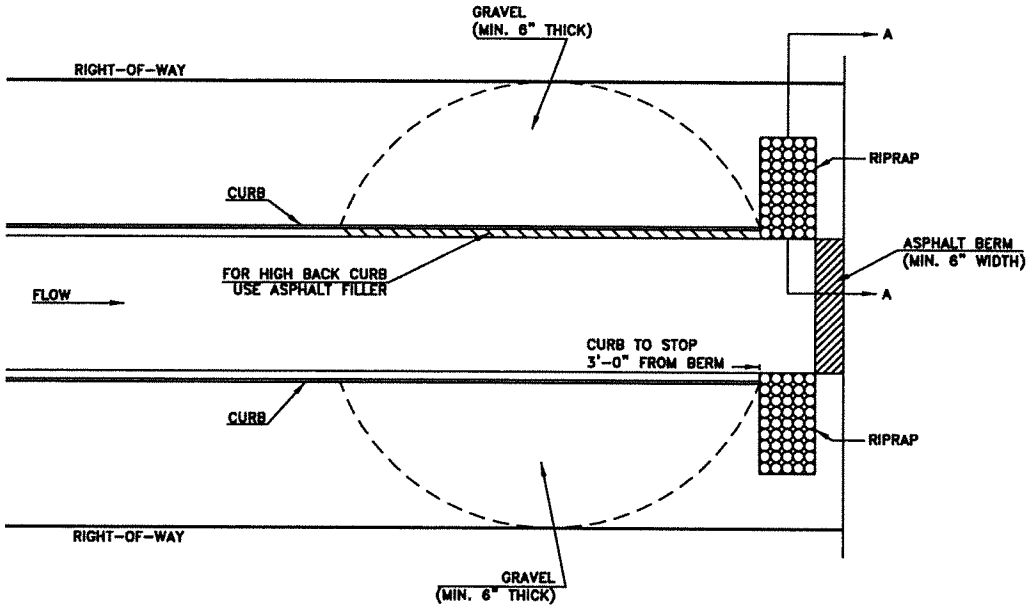
City of Loganville
where people matter

STANDARD DRAWING

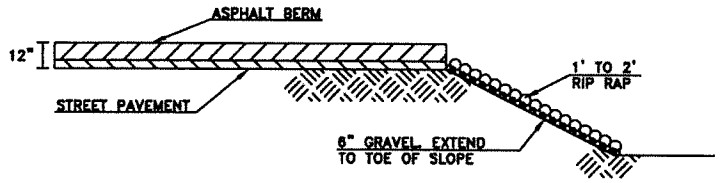
**Cul-de-Sac Minimum Lengths**

DATE: JUNE 21, 2019

SHEET: 302




PLAN




SECTION A-A

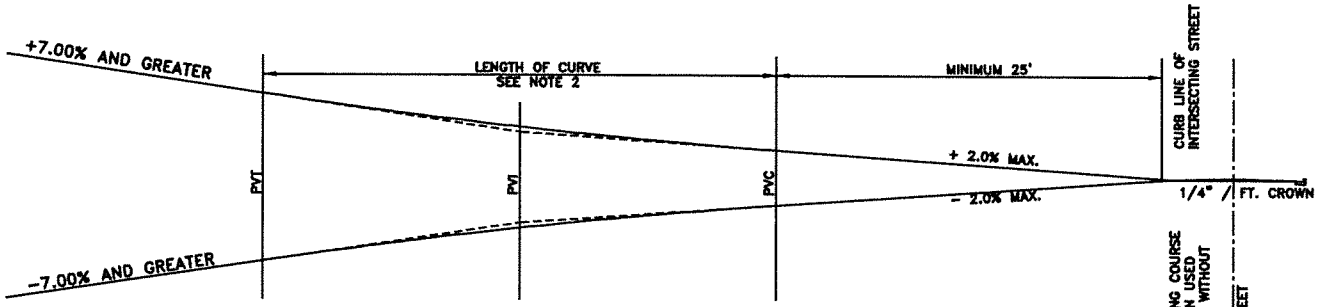
City of Loganville
where people matter

STANDARD DRAWING

**Temporary Vehicular Turnaround**

DATE: JUNE 21, 2019 SHEET: 303

# INTERSECTION OF LOCAL OR MINOR COLLECTOR STREETS

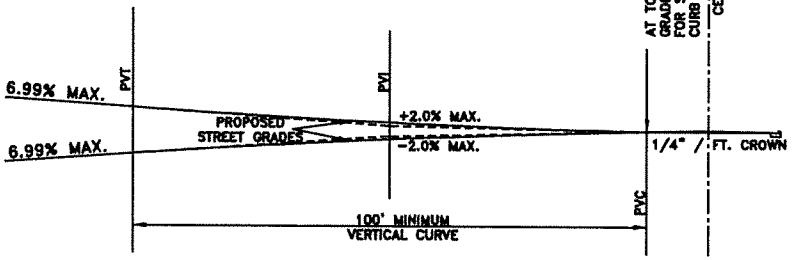



GRADES 7.00% AND GREATER

**NOTES:**

1) THIS STANDARD IS INTENDED TO BE A MINIMUM DESIGN STANDARD FOR CONTROL OF GRADES OF STREETS APPROACHING AN INTERSECTION WITH A LOCAL OR MINOR COLLECTOR STREET. FOR INTERSECTIONS WITH MAJOR THOROUGHFARES, SEE ROADWAY DESIGN & CONSTRUCTION STANDARD SPECIFICATIONS.

2) REFER TO ROADWAY DESIGN & CONSTRUCTION STANDARD SPECIFICATIONS, TABLE 2 FOR "K" VALUES FOR VERTICAL CURVES.




GRADES LESS THAN 7.00%

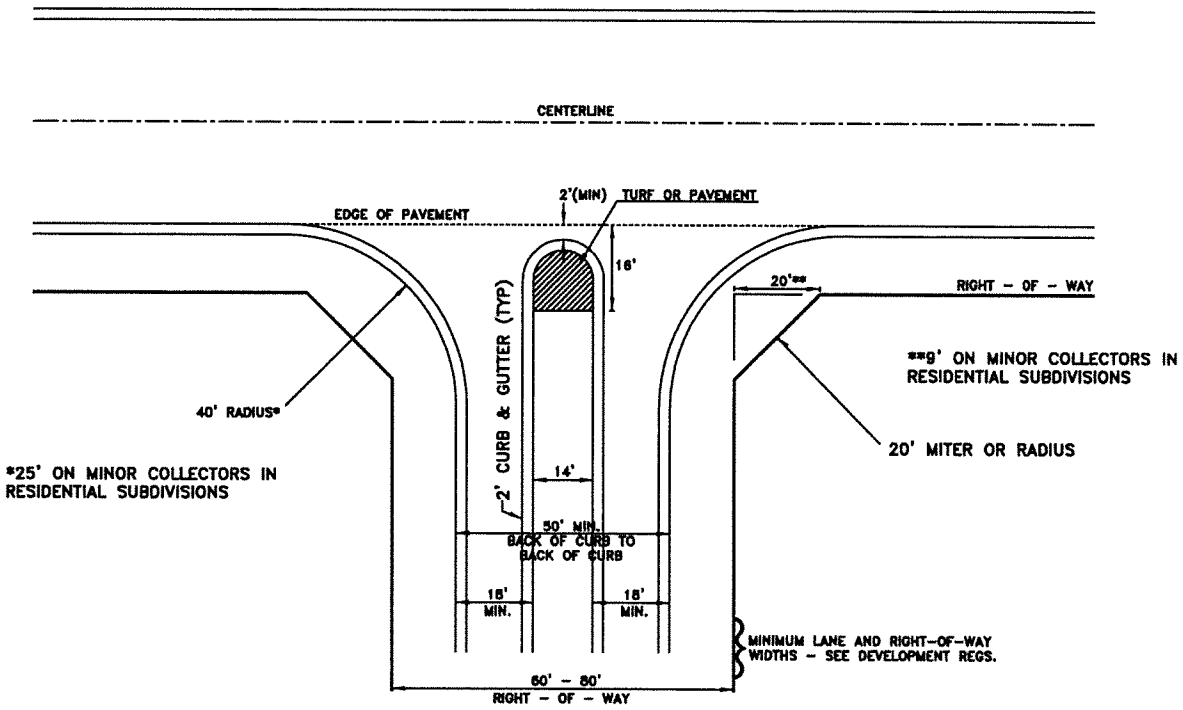
City of Loganville
where people matter

STANDARD DRAWING

**Vertical Alignment at Intersection with Local or Minor Collector Streets**

DATE: JUNE 21, 2019 SHEET: 304

## INTERSECTION DETAIL NO. 1




NOTES:

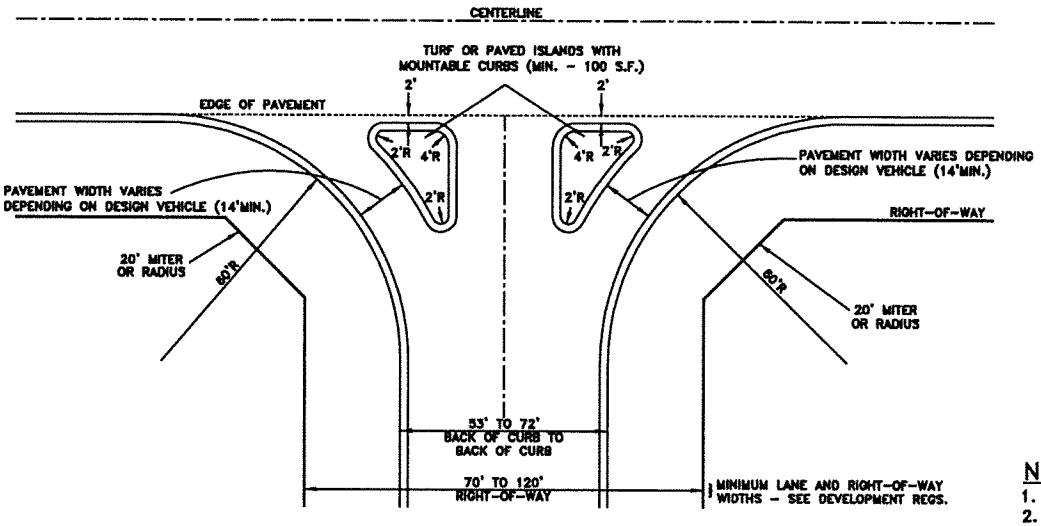
1. INSIDE OF ISLANDS ARE TO BE BACKFILLED WITH PORTLAND CEMENT CONCRETE, OR GRASSED, OR PLANTED WITH VEGETATION NOT EXCEEDING TWENTY-FOUR INCHES IN HEIGHT.
2. DEVELOPER TO MAINTAIN GRASSED OR PLANTED ISLAND.
3. LARGER RADII FOR RIGHT-OF-WAY OR ROADWAY CONNECTIONS MAY BE REQUIRED FOR STREETS INTERSECTING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

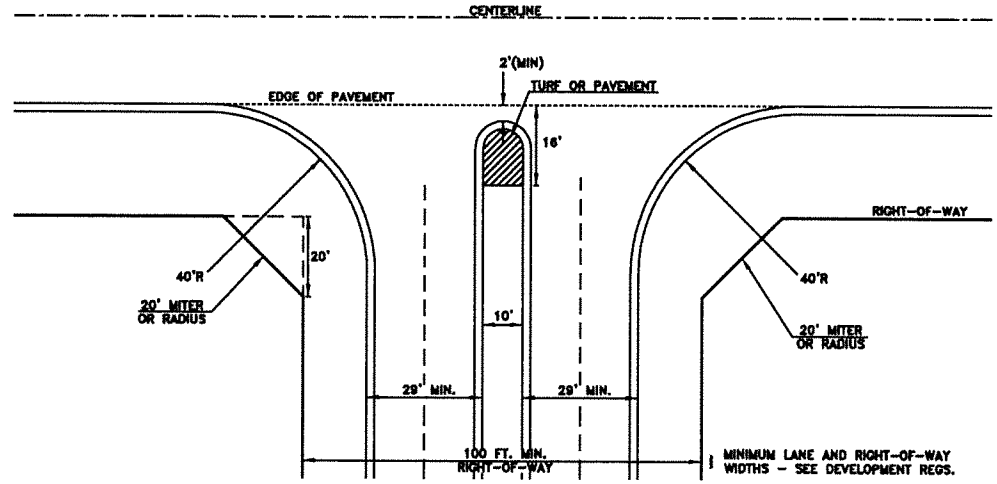
City of Loganville
where people matter

STANDARD DRAWING

**Intersection Detail No. 1: T-Intersection Only**
**Minor or Major Collector Street**

DATE: JUNE 21, 2019 SHEET: 305




## INTERSECTION DETAIL NO. 2

### NOTES:

1. A COMBINATION OF THESE TWO DESIGNS MAY BE USED.
2. INSIDE OF ISLANDS IS TO BE BACKFILLED WITH PORTLAND CEMENT CONCRETE, OR GRASSED, OR PLANTED WITH VEGETATION NOT EXCEEDING 24" IN HEIGHT.
3. DEVELOPER TO MAINTAIN GRASSED OR PLANTED ISLAND.
4. LARGER RADII FOR RIGHT-OF-WAY OR ROADWAY CONNECTIONS MAY BE REQUIRED FOR STREETS INTERSECTING AT ANGLES LESS THAN 90 DEGREES.
5. ISLANDS AT INTERSECTIONS ARE AT THE OPTION OF THE DEVELOPER, EXCEPT FOR GDOT CONTROLLED ROUTES.

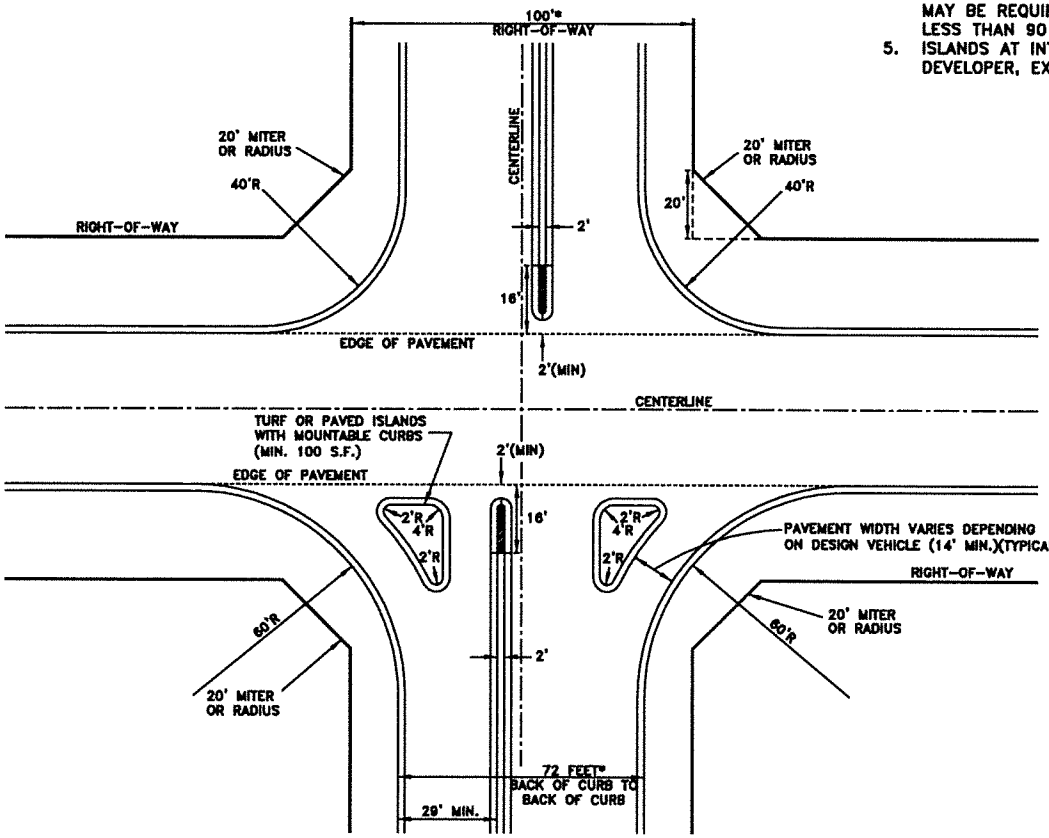
City of Loganville
where people matter

S T A N D A R D  D R A W I N G

**Intersection Detail No. 2: T-Intersection Only**
**Arterial or Major Collector Street Classification**

D A T E: JUNE 21, 2019  S H E E T: 306

## INTERSECTION DETAIL NO. 3




**NOTES:**

1. A COMBINATION OF THESE TWO DESIGNS MAY BE USED.
2. INSIDE OF ISLANDS IS TO BE BACKFILLED WITH PORTLAND CEMENT CONCRETE, OR GRASSED, OR PLANTED WITH VEGETATION NOT EXCEEDING 24" IN HEIGHT.
3. DEVELOPER TO MAINTAIN GRASSED OR PLANTED ISLAND.
4. LARGER RADII FOR RIGHT-OF-WAY OR ROADWAY CONNECTIONS MAY BE REQUIRED FOR STREETS INTERSECTING AT ANGLES LESS THAN 90 DEGREES.
5. ISLANDS AT INTERSECTIONS ARE AT THE OPTION OF THE DEVELOPER, EXCEPT FOR GEORGIA D.O.T. CONTROLLED ROUTES.

**UNDIVIDED**

80' – 120' RIGHT-OF-WAY*
52' – 67' ROADWAY*

* MINIMUM LANE AND RIGHT-OF-WAY WIDTHS–SEE DEVELOPMENT REGULATIONS

City of Loganville
where people matter

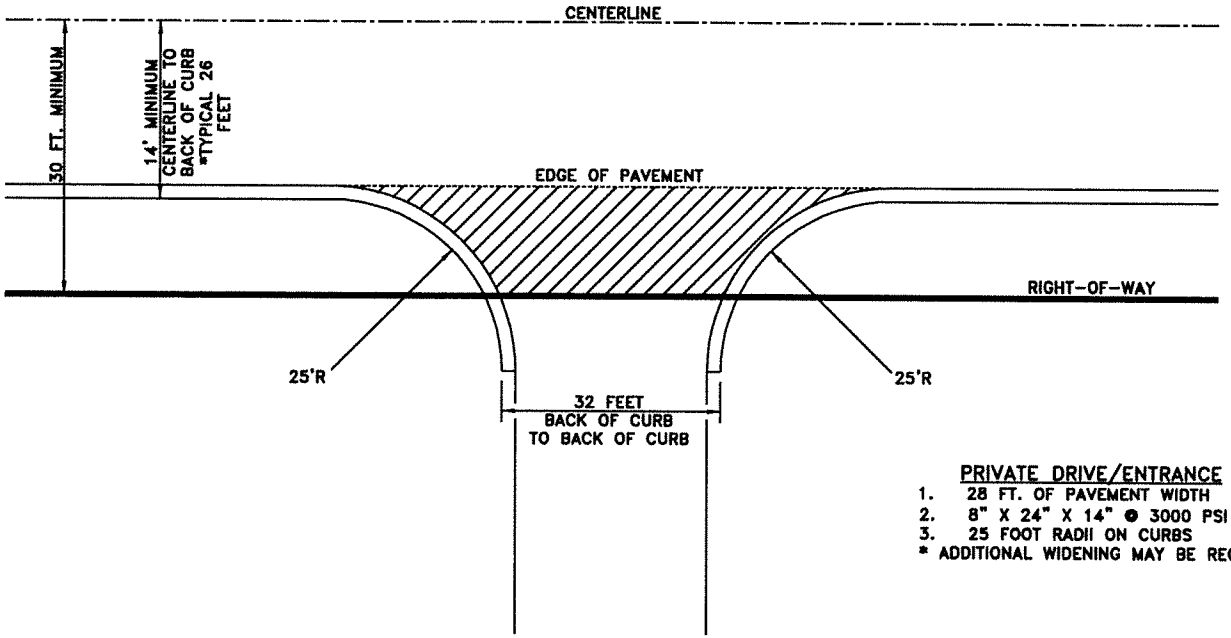
S T A N D A R D  D R A W I N G

**Intersection Detail No. 3:**
**Arterial or Major Collector Street Classification**

D A T E: JUNE 21, 2019  S H E E T: 307

## DRIVEWAY DETAIL 1 – 32 FT. WIDTH, 25 FT. RADIUS

AUTOMOBILE SERVICE STATIONS/GASOLINE CONVENIENCE STORES
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)




### PRIVATE DRIVE/ENTRANCE

1. 28 FT. OF PAVEMENT WIDTH
2. 8" X 24" X 14" @ 3000 PSI CURB AND GUTTER
3. 25 FOOT RADII ON CURBS

* ADDITIONAL WIDENING MAY BE REQUIRED

City of Loganville
where people matter

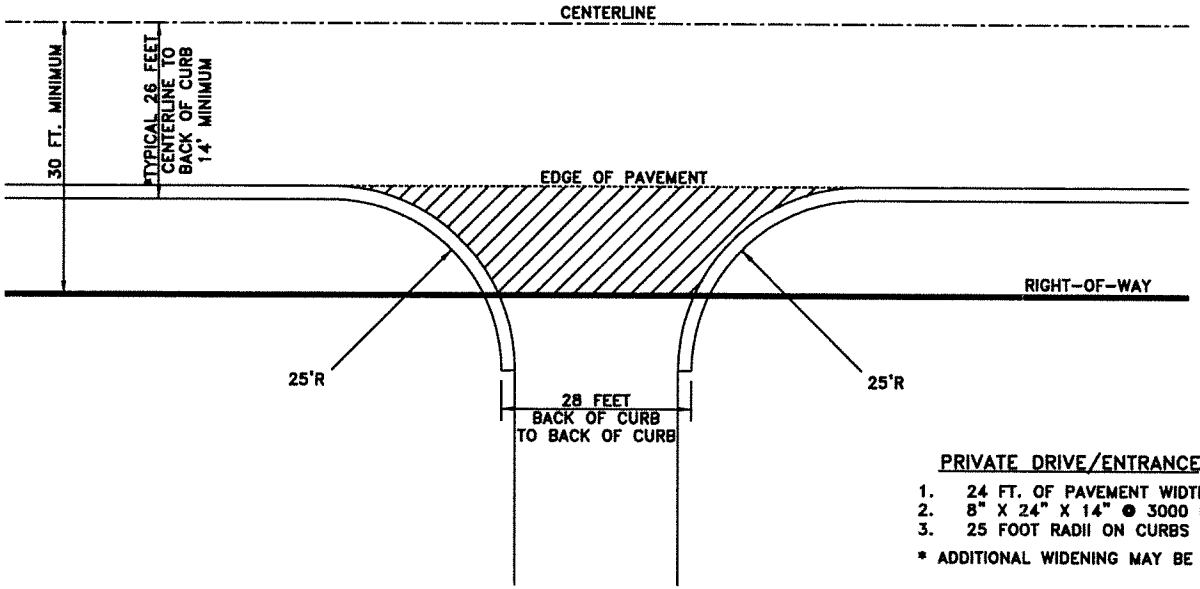
S T A N D A R D  D R A W I N G

**Driveway Detail No. 1**

D A T E: JUNE 21, 2019  S H E E T: 308

## DRIVEWAY DETAIL 2 – 28 FT. WIDTH, 25 FT. RADIUS

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




### PRIVATE DRIVE/ENTRANCE

1. 24 FT. OF PAVEMENT WIDTH
2. 8" X 24" X 14" @ 3000 PSI CURB AND GUTTER
3. 25 FOOT RADII ON CURBS

* ADDITIONAL WIDENING MAY BE REQUIRED

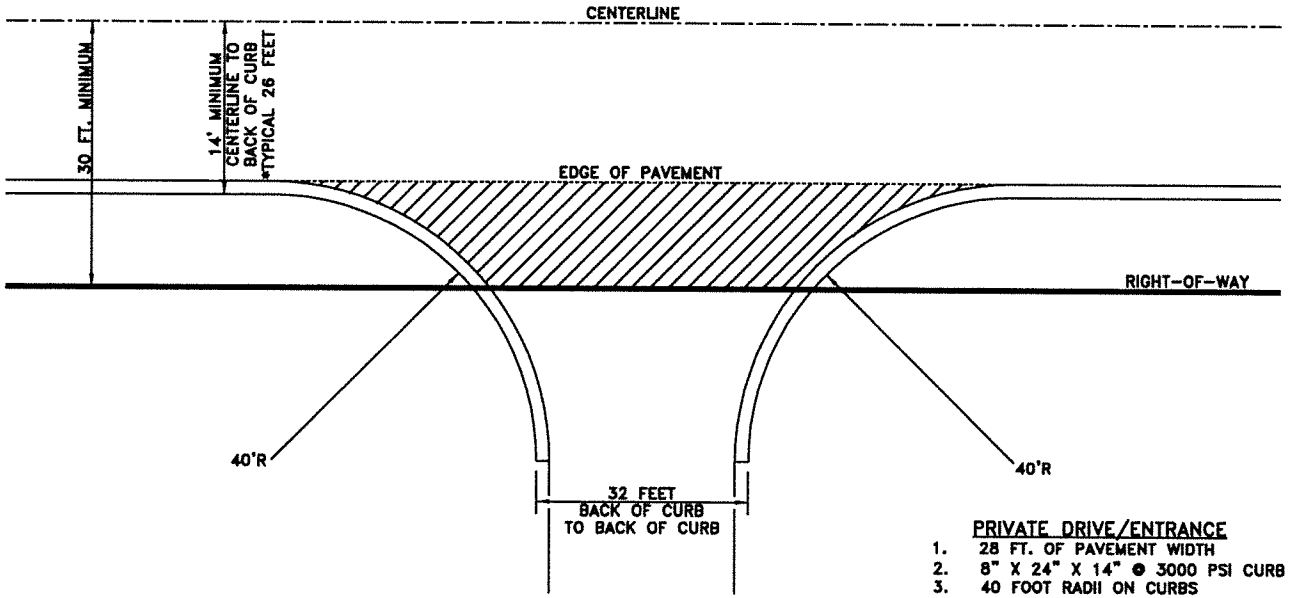
City of Loganville
where people matter

STANDARD DRAWING

**Driveway Detail No. 2**

DATE: JUNE 21, 2019 SHEET: 309

DRIVEWAY DETAIL 3 – 32 FT. WIDTH, 40 FT. RADIUS
INDUSTRIAL SITES




PRIVATE DRIVE/ENTRANCE

1. 28 FT. OF PAVEMENT WIDTH
2. 8" X 24" X 14" @ 3000 PSI CURB AND GUTTER
3. 40 FOOT RADII ON CURBS

* ADDITIONAL WIDENING MAY BE REQUIRED

INDUSTRIAL SITES

City of Loganville
where people matter

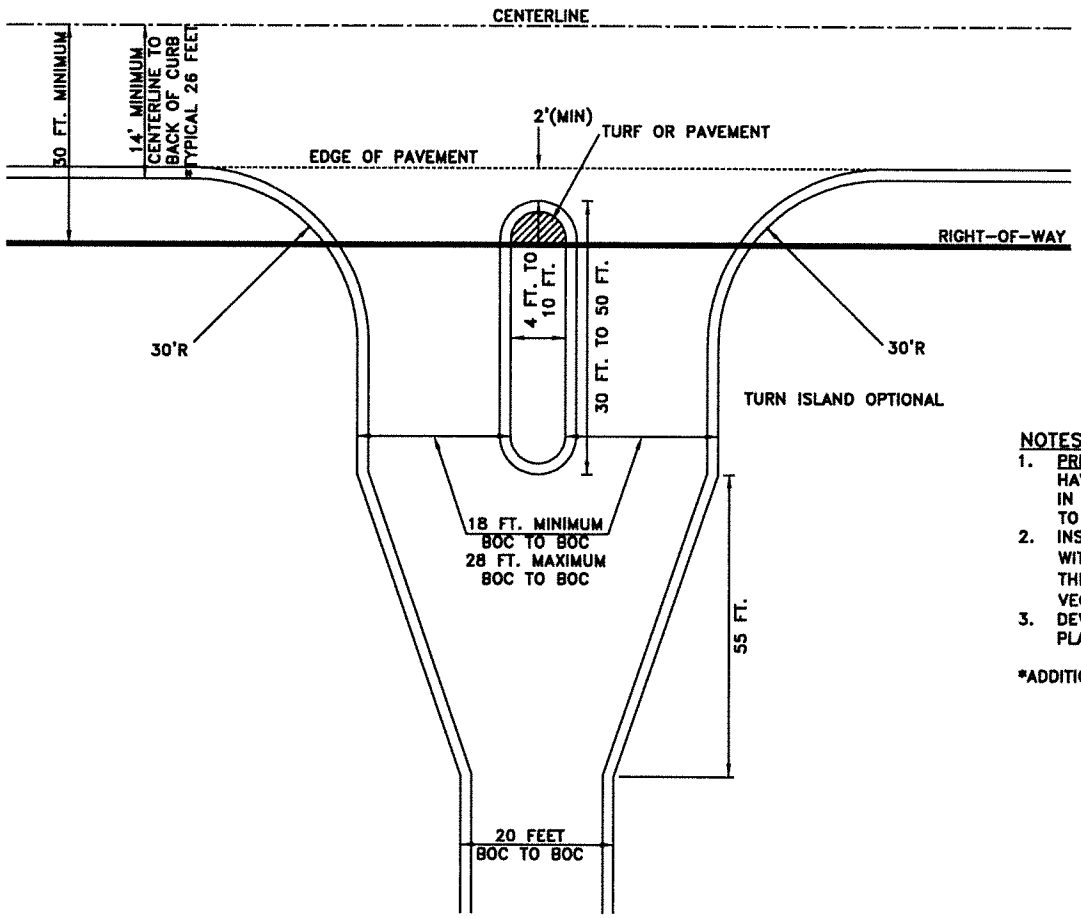
STANDARD DRAWING

**Driveway Detail No. 3**

DATE: JUNE 21, 2019 SHEET: 310

## DRIVEWAY DETAIL 4 – (OPTIONAL)

PRIVATE, COMMERCIAL, OR OFFICE STREET ENTRANCES
APARTMENT/CONDO COMPLEXES (OVER 200 UNITS)
MOBILE HOME COMPLEXES (OVER 200 LOTS)




**NOTES:**

1. PRIVATE COMMERCIAL STREET MUST HAVE A MINIMUM LENGTH OF 300 FEET IN ORDER FOR THIS DRIVEWAY DETAIL TO BE APPLICABLE
2. INSIDE OF ISLAND TO BE BACKFILLED WITH PORTLAND CEMENT CONCRETE (4" THICK), OR GRASSED, OR PLANTED WITH VEGETATION NOT EXCEEDING 24" IN HEIGHT.
3. DEVELOPER TO MAINTAIN THE GRASSED OR PLANTED ISLANDS.

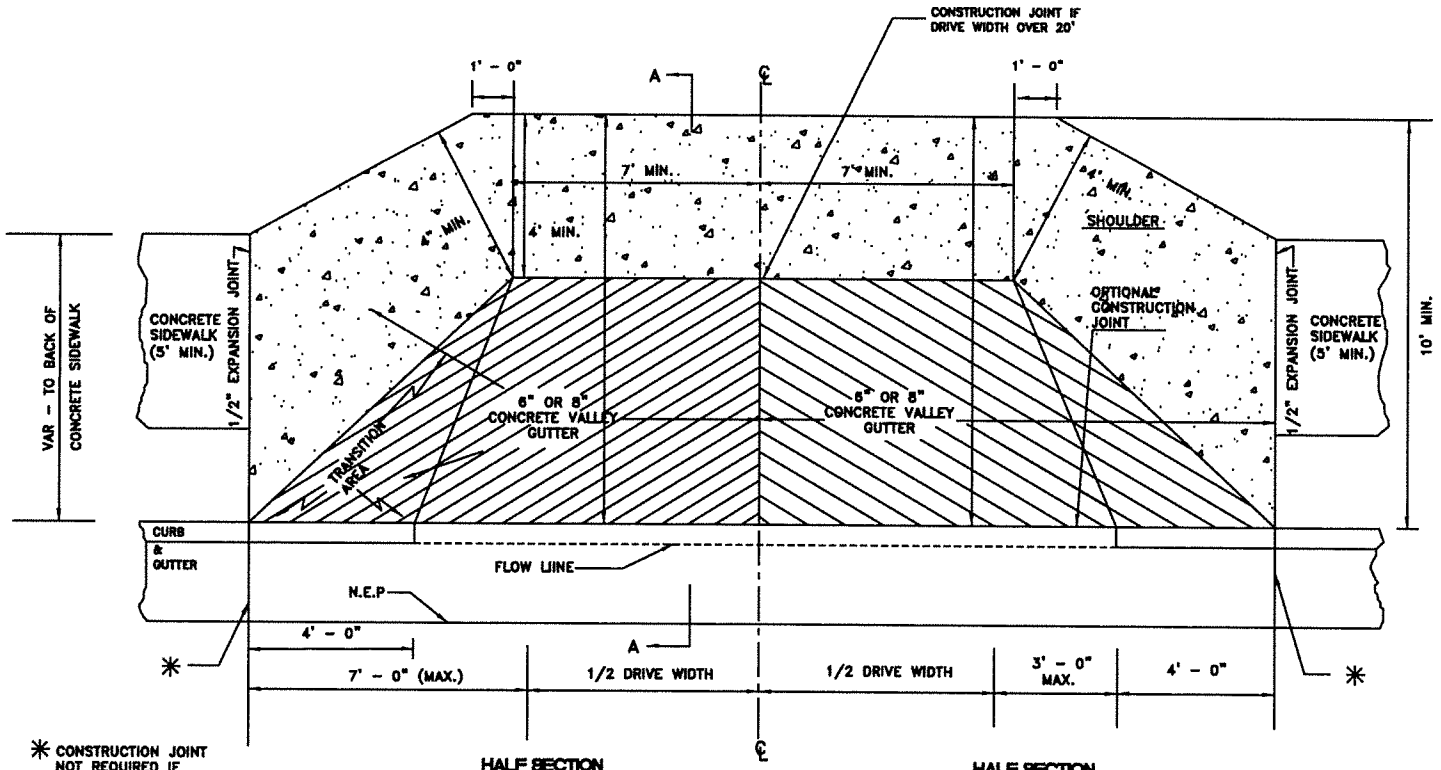
*ADDITIONAL WIDENING MAY BE REQUIRED

City of Loganville
where people matter

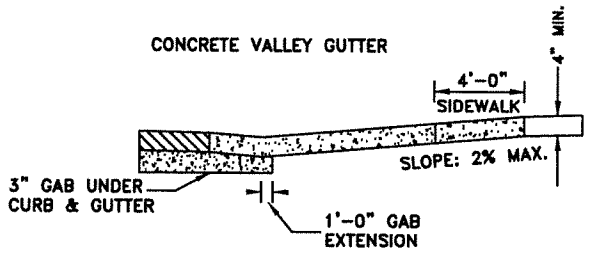
STANDARD DRAWING

**Driveway Detail No. 4**

DATE: JUNE 21, 2019 SHEET: 311




**CONCRETE: MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 3000 PSI.**



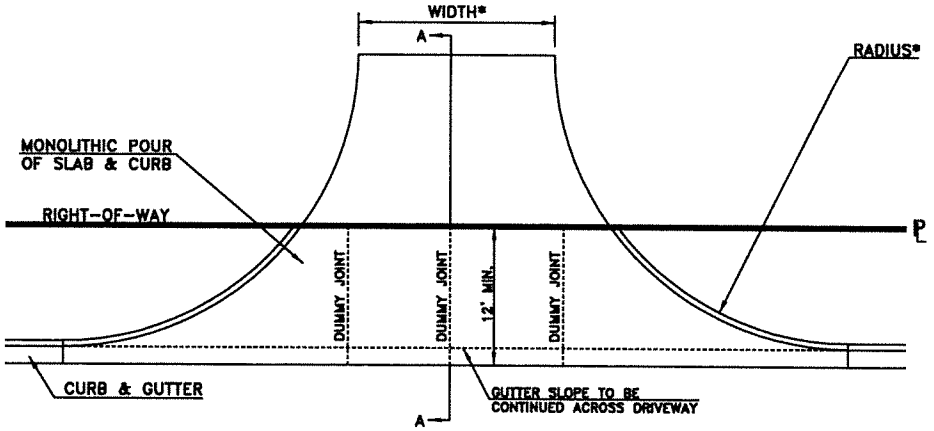

SECTION A-A

City of Loganville
*where people matter*

STANDARD DRAWING

**Residential Driveway Entrance with Sidewalk**

DATE: JUNE 21, 2019 SHEET: 312

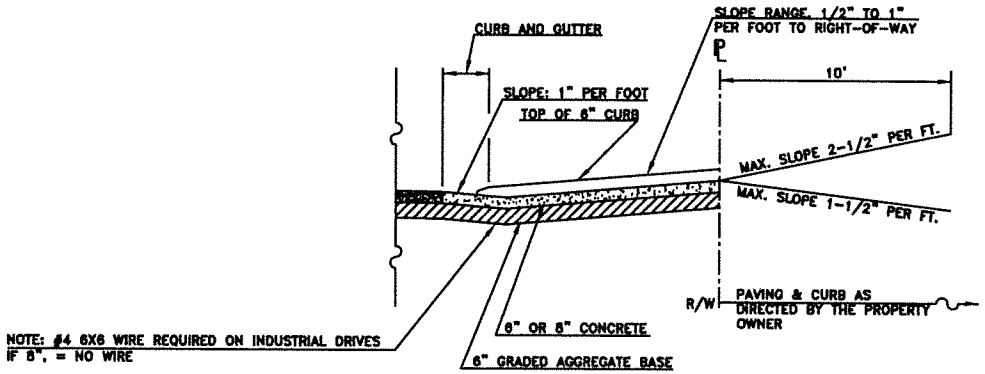



* SEE DRIVEWAY DETAILS FOR WIDTH AND RADIUS

ORIGINAL CURB AND GUTTER TO BE REMOVED. ASPHALT TO BE PATCHED AS REQUIRED.

CONCRETE: MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 3000 PSI.

**PLAN**



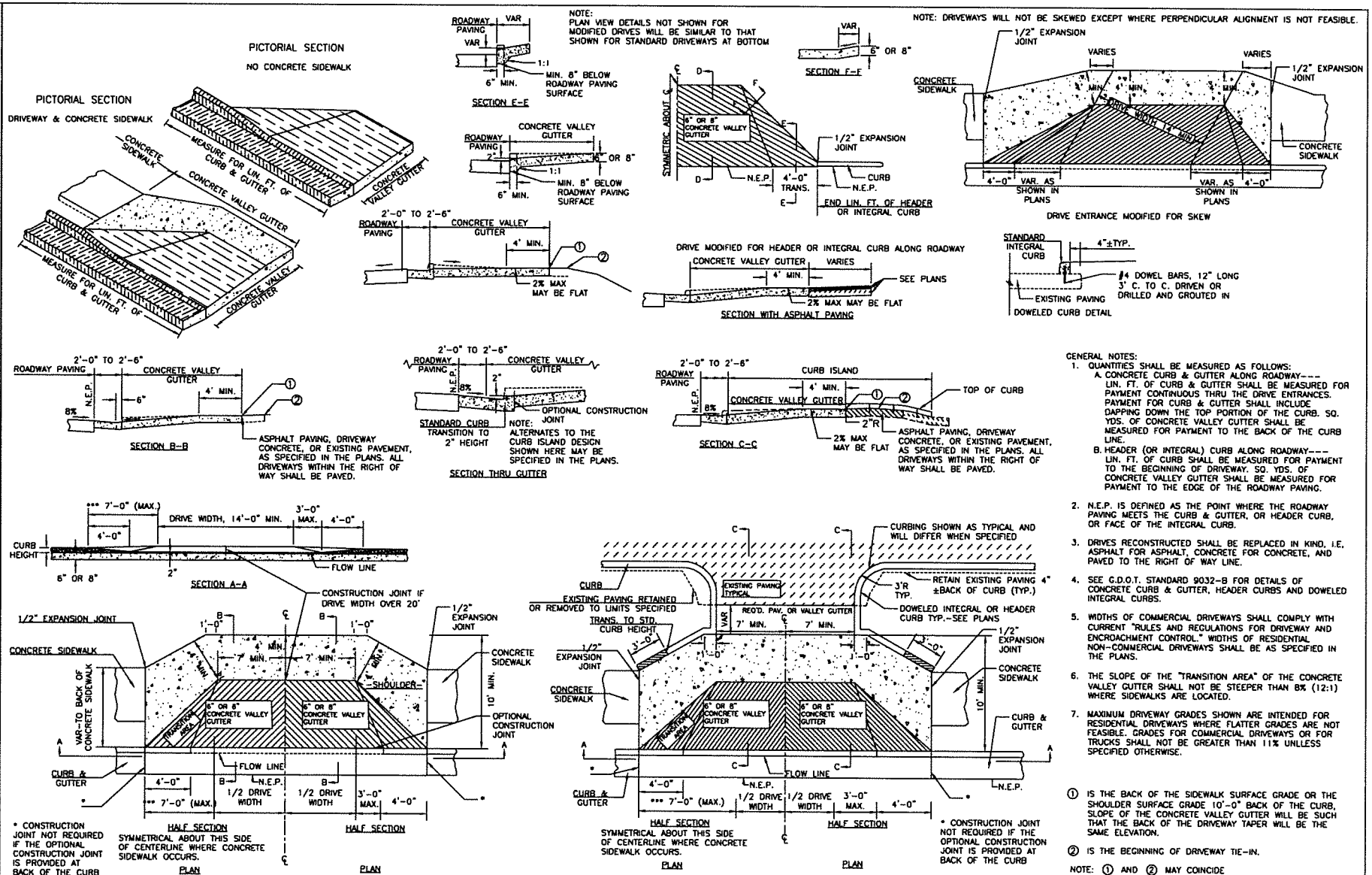

**SECTION A-A**

City of Loganville
*where people matter*

S T A N D A R D  D R A W I N G

**Commercial and Industrial Driveways**

D A T E: JUNE 21, 2019  S H E E T: 313




GENERAL NOTES:

1. QUANTITIES SHALL BE MEASURED AS FOLLOWS:
   A. CONCRETE CURB & GUTTER ALONG ROADWAY--- LIN. FT. OF CURB & GUTTER SHALL BE MEASURED FOR PAYMENT CONTINUOUS THRU THE DRIVE ENTRANCES. PAYMENT FOR CURB & GUTTER SHALL INCLUDE DAPPING DOWN THE TOP PORTION OF THE CURB. SQ. YDS. OF CONCRETE VALLEY GUTTER SHALL BE MEASURED FOR PAYMENT TO THE BACK OF THE CURB LINE.
   B. HEADER (OR INTEGRAL) CURB ALONG ROADWAY--- LIN. FT. OF CURB SHALL BE MEASURED FOR PAYMENT TO THE BEGINNING OF DRIVEWAY. SQ. YDS. OF CONCRETE VALLEY GUTTER SHALL BE MEASURED FOR PAYMENT TO THE EDGE OF THE ROADWAY PAVING.
2. N.E.P. IS DEFINED AS THE POINT WHERE THE ROADWAY PAVING MEETS THE CURB & GUTTER, OR HEADER CURB, OR FACE OF THE INTEGRAL CURB.
3. DRIVES RECONSTRUCTED SHALL BE REPLACED IN KIND, I.E. ASPHALT FOR ASPHALT, CONCRETE FOR CONCRETE, AND PAVED TO THE RIGHT OF WAY LINE.
4. SEE G.D.O.T. STANDARD 9032-B FOR DETAILS OF CONCRETE CURB & GUTTER, HEADER CURBS AND DOWELED INTEGRAL CURBS.
5. WIDTHS OF COMMERCIAL DRIVEWAYS SHALL COMPLY WITH CURRENT "RULES AND REGULATIONS FOR DRIVEWAY AND ENCROACHMENT CONTROL." WIDTHS OF RESIDENTIAL NON-COMMERCIAL DRIVEWAYS SHALL BE AS SPECIFIED IN THE PLANS.
6. THE SLOPE OF THE "TRANSITION AREA" OF THE CONCRETE VALLEY GUTTER SHALL NOT BE STEEPER THAN 8% (12:1) WHERE SIDEWALKS ARE LOCATED.
7. MAXIMUM DRIVEWAY GRADES SHOWN ARE INTENDED FOR RESIDENTIAL DRIVEWAYS WHERE FLATTER GRADES ARE NOT FEASIBLE. GRADES FOR COMMERCIAL DRIVEWAYS OR FOR TRUCKS SHALL NOT BE GREATER THAN 11% UNLESS SPECIFIED OTHERWISE.

① IS THE BACK OF THE SIDEWALK SURFACE GRADE OR THE SHOULDER SURFACE GRADE 10'-0" BACK OF THE CURB, SLOPE OF THE CONCRETE VALLEY GUTTER WILL BE SUCH THAT THE BACK OF THE DRIVEWAY TAPER WILL BE THE SAME ELEVATION.

② IS THE BEGINNING OF DRIVEWAY TIE-IN.

NOTE: ① AND ② MAY COINCIDE

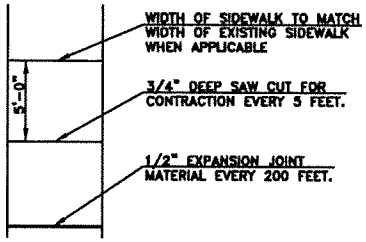
City of Loganville
where people matter

STANDARD DRAWING

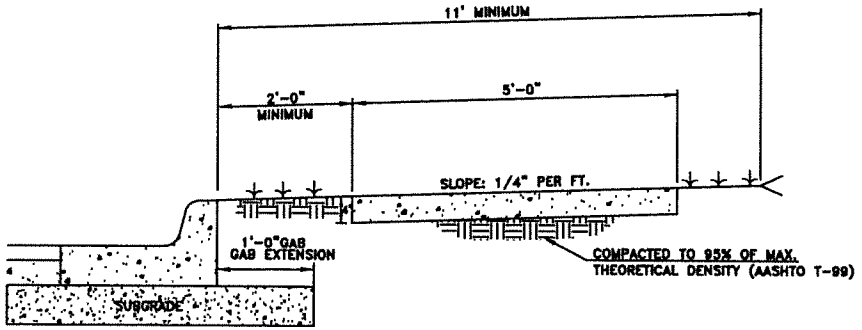
# Driveways with Tapered Entrances, Concrete Valley Gutters

DATE: JUNE 21, 2019

SHEET: 314




PLAN




TYPICAL SECTION OF 5' - 0" SIDEWALK

NOTES:

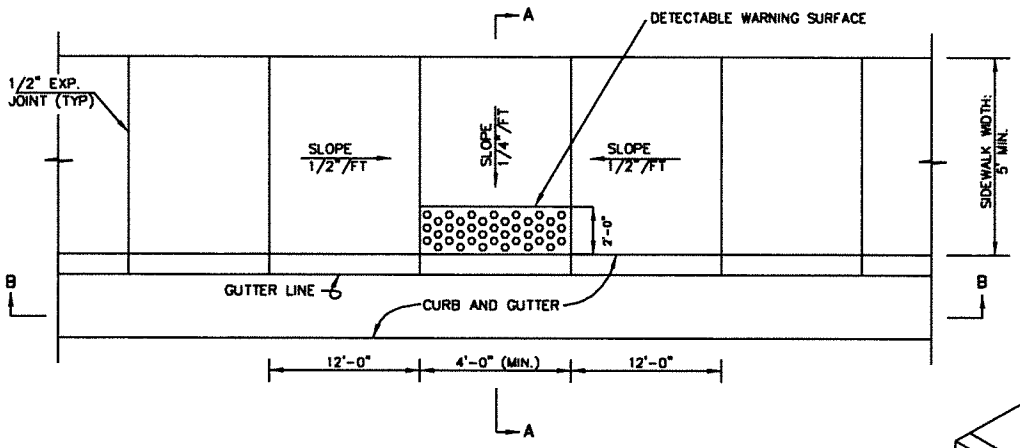
1. SIDEWALK CONCRETE: MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 3000 PSI.
2. SIDEWALK TO BE 4 INCHES (4") THICK.
3. 1/2" PREMOULDED EXPANSION JOINT REQUIRED AT ALL DRIVEWAYS, CURBS, ETC.
4. REFER TO LOGANVILLE STANDARD DRAWING 314 FOR SIDEWALK SECTION AT DRIVEWAY SPECIFICATIONS

City of Loganville
where people matter

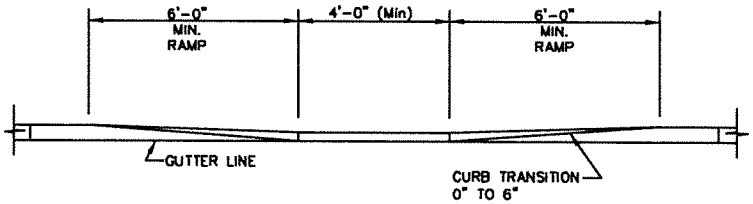
STANDARD DRAWING

**Typical Sidewalk Section**

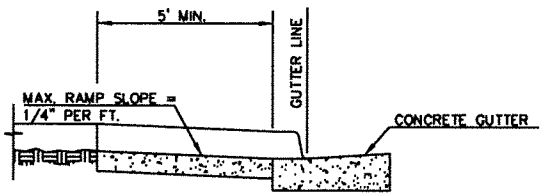
DATE: JUNE 21, 2019 SHEET: 315



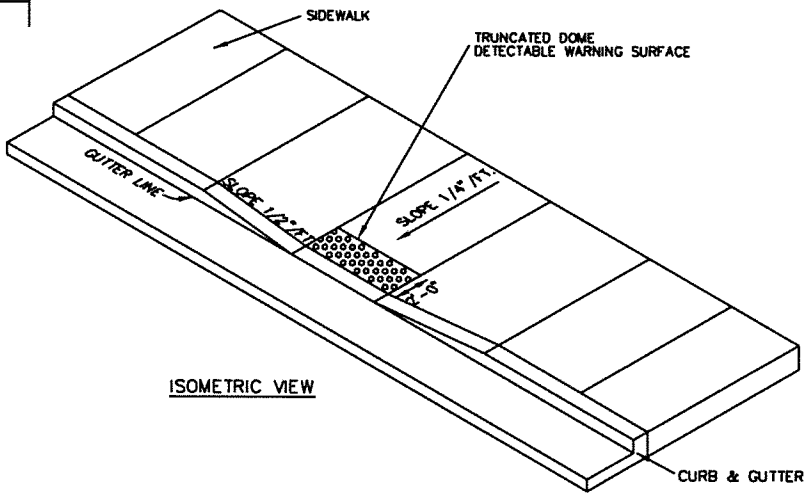

PLAN VIEW




VIEW B-B




SECTION A-A




ISOMETRIC VIEW

NOTES:

1. THE LOCATION OF CROSS WALK LINES & STOP BARS, WHEN REQUIRED, WILL BE COORDINATED WITH THE LOCATION OF THE RAMPS.
2. RAMP CONCRETE: MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 3000 PSI. SPECIFICATIONS FOR RAMP WILL BE THE SAME AS FOR CONCRETE SIDEWALK.
3. REFER TO GEORGIA D.O.T. DETAIL A-4 FOR DETECTABLE WARNING SURFACE SPECIFICATIONS.

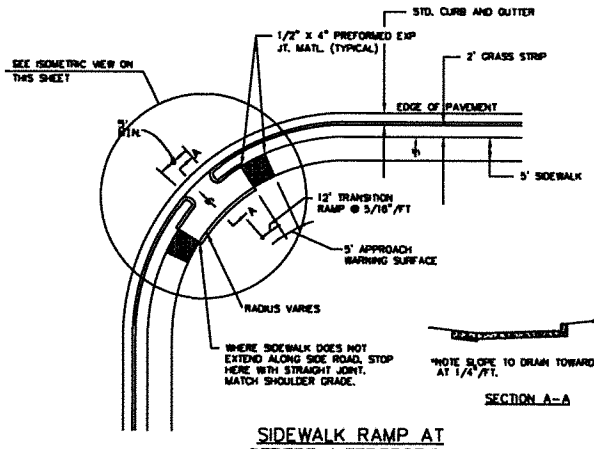
City of Loganville
where people matter

STANDARD DRAWING

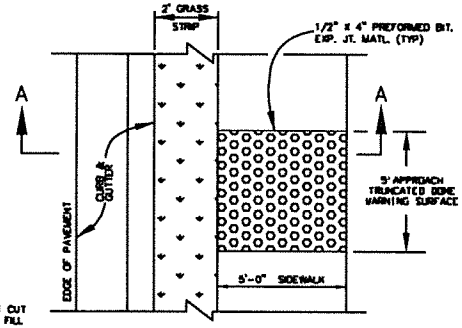
**Wheelchair Ramp**

DATE: JUNE 21, 2019

SHEET: 316

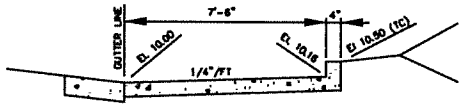


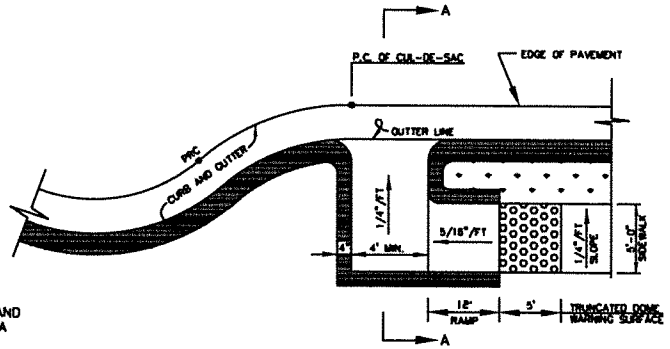

SIDEWALK RAMP AT STREET INTERSECTION



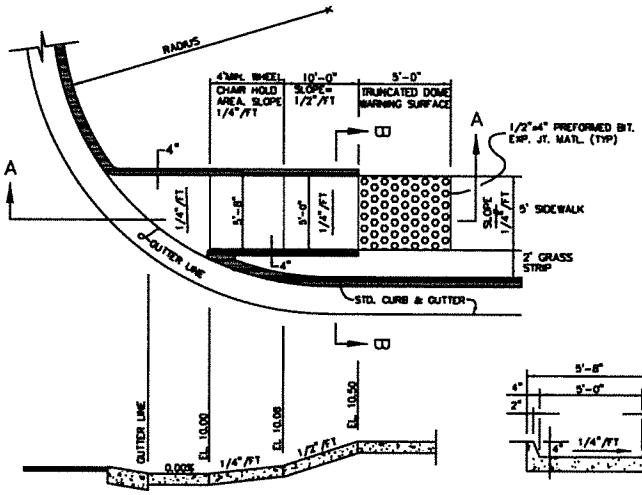

TRUNCATED DOME WARNING SURFACE

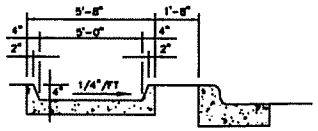
FOR SPECIFICATIONS ON WARNING SURFACE SEE STATE OF GEORGIA, DEPARTMENT OF TRANSPORTATION SPECIAL DETAIL A4, "DETECTABLE WARNING SURFACE TRUNCATED DOME SIZE SPACING AND ALIGNMENT REQUIREMENTS".

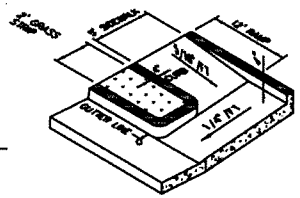



"L SHAPED" MID-BLOCK SIDEWALK RAMP




ISOMETRIC VIEW

STRAIGHT SIDEWALK RAMP
5'-0" WIDTH SIDEWALK WITH 1'-8" GRASS STRIP

## GENERAL NOTES

1. SIDEWALK INSTALLATION SHALL MEET THE REQUIREMENTS OF THE "UNIFORM FEDERAL ACCESSIBILITY STANDARDS"(UFAS), AND THE "AMERICAN DISABILITY ACT OF 1991", AND THE "GEORGIA ACCESSIBILITY CODE" LATEST EDITION.
2. ALL SIDEWALK AND WHEEL CHAIR RAMP LANDINGS SHALL BE A MINIMUM OF 5'-0" IN WIDTH.
3. CONSTRUCTION JOINTS, WITH 1/2" PREMOULDED JOINT MATERIAL, ARE REQUIRED AT ALL BREAKS IN GRADE ON ALL RAMPS.

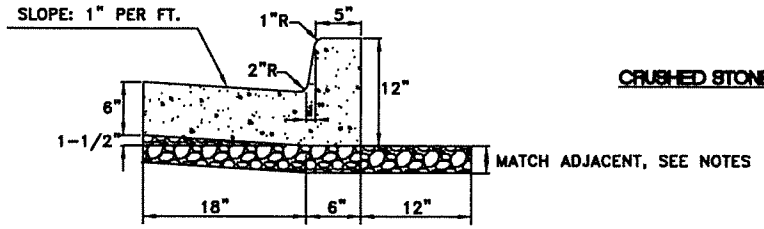
NOTE: CONSTRUCTION JOINT WITH 1/2" PREMOLDED JOINT MATERIAL REQUIRED AT ALL BREAKS IN GRADE ON RAMP.

City of Loganville
where people matter

STANDARD DRAWING

**Handicap Ramp Details with 5' Sidewalk**

DATE: JUNE 21, 2019 SHEET: 317




TYPICAL CURB SECTION

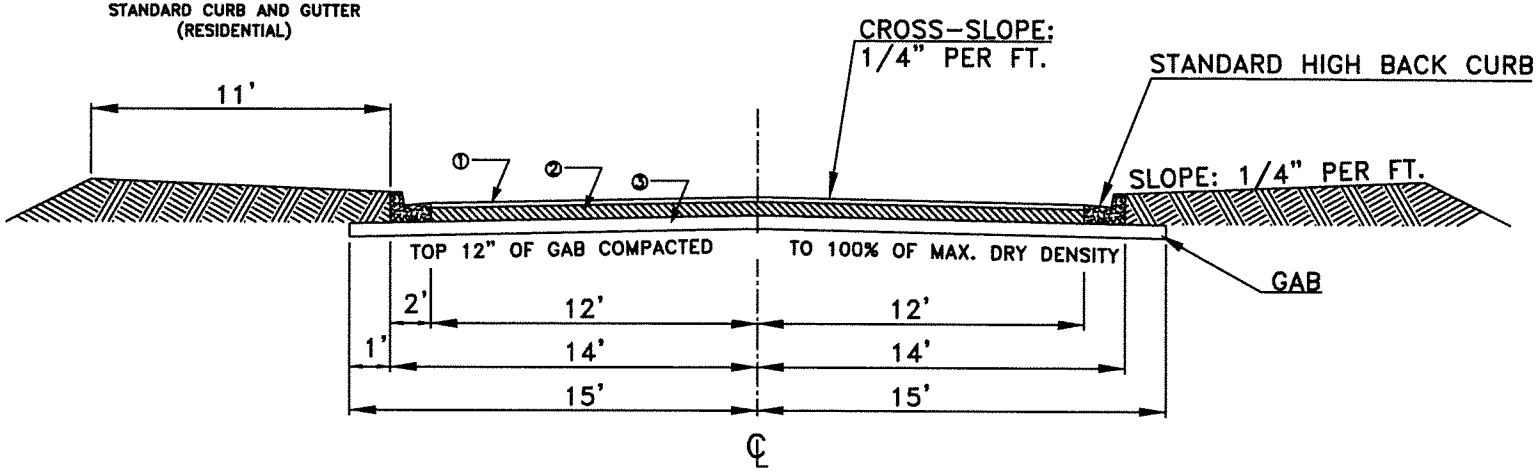
STANDARD CURB AND GUTTER
(RESIDENTIAL)

CRUSHED STONE BASE MATERIAL

MATCH ADJACENT, SEE NOTES

PAVEMENT COMPOSITION -- TWO-PASS

① 1.5" 9.5MM SUPERPAVE WEARING SURFACE
② 2" 19MM SUPERPAVE BINDER
③ 6" GRADED AGGREGATE BASE




## LOCAL OR MINOR COLLECTOR STREETS IN RESIDENTIAL SUBDIVISIONS

NOTES:

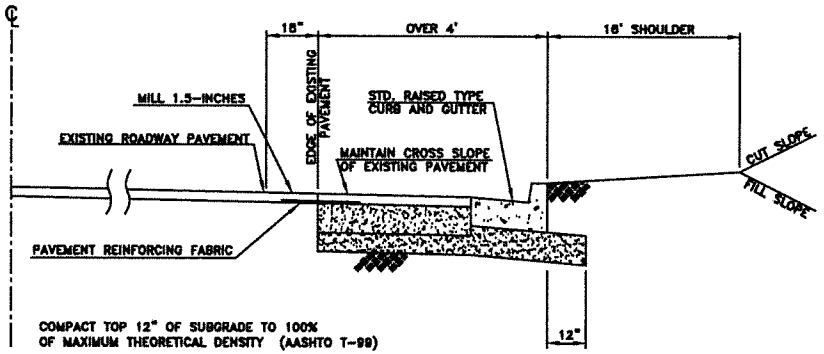
1. ANY AREAS OF INADEQUATELY COMPACTED FILL OR UNSUITABLE MATERIAL OF ANY NATURE MUST BE REMOVED AND REPLACED WITH SUITABLE FILL IN WELL COMPACTED LAYERS TO AT LEAST 100% OF MAXIMUM DENSITY (AASHTO T-99), BEFORE ANY TYPE OF PAVING IS APPLIED.
2. DO NOT BEGIN TO APPLY PAVING WITHOUT A RELEASE FROM THE CITY. THE CONTRACTOR WILL BE HELD RESPONSIBLE FOR REPLACING ANY PAVING, BASE, AND SUBGRADE WHICH MAY FAIL BECAUSE OF INADEQUATE SUBGRADE CONDITIONS, AS WELL AS FOR ORDINARY PAVING DEFICIENCIES.
3. GAB THICKNESS UNDER CURB & GUTTER TO MATCH GAB THICKNESS OF ADJACENT PAVEMENT SECTION

City of Loganville
where people matter

S T A N D A R D  D R A W I N G

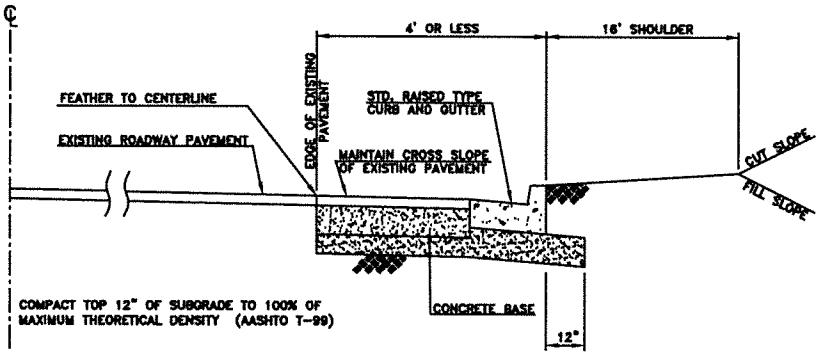
**Residential Subdivision Streets**

D A T E: JUNE 21, 2019  S H E E T: 402




## PAVEMENT COMPOSITION

1. ROADWAY WIDENING SECTIONS OVER 4 FEET ARE TO COMPLY WITH THE CONSTRUCTION STANDARDS FOR NEW STREETS IN ACCORDANCE WITH THE STREET'S CATEGORY. SEE ROADWAY DESIGN & CONSTRUCTION STANDARD SPECIFICATIONS.
2. CENTER PAVEMENT REINFORCING FABRIC ON TRANSITION LINE. MINIMUM 125-POUND TENSILE STRENGTH FABRIC.




## PAVEMENT COMPOSITION

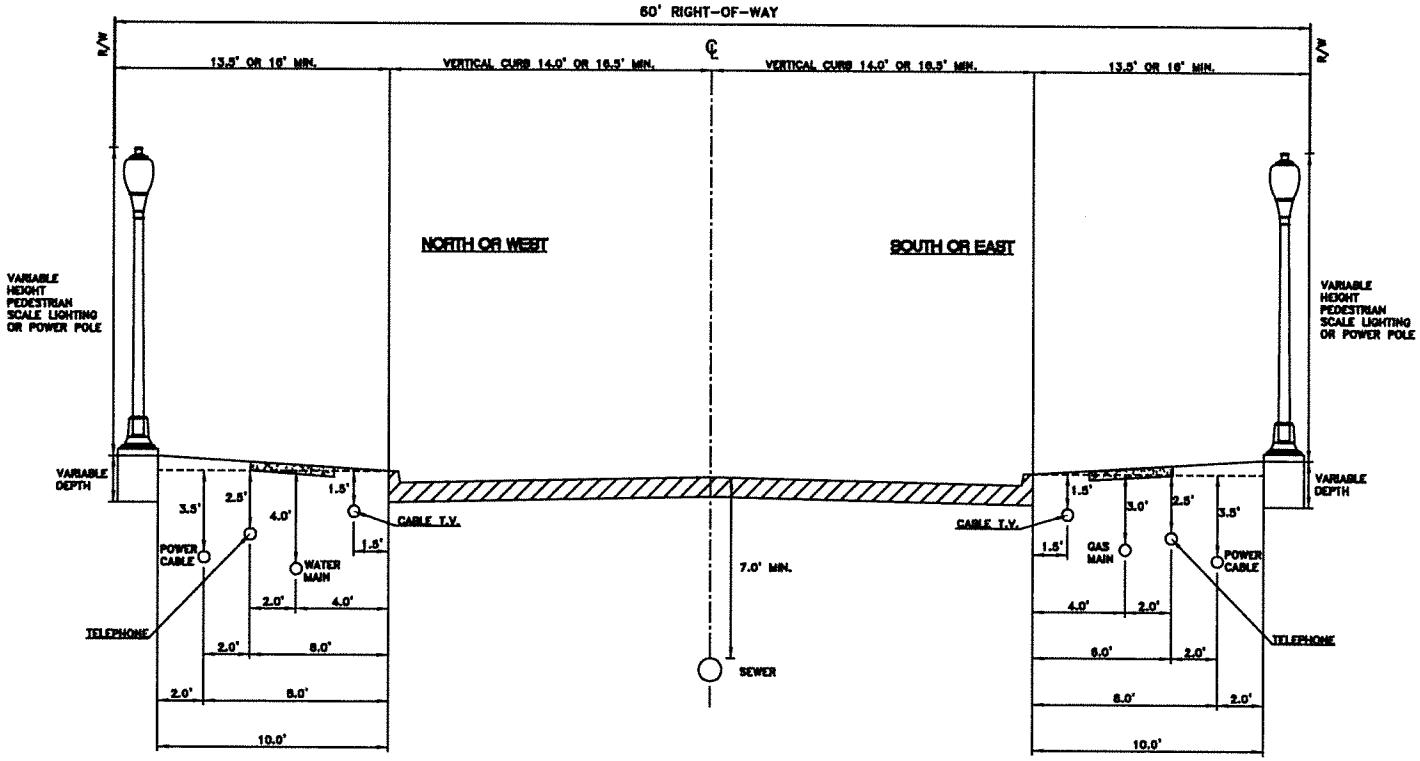
1. 1 1/2" 9.5MM SUPERPAVE WEARING COURSE FOR LOCAL AND MINOR COLLECTOR STREETS
2. 1 1/2" 12.5MM SUPERPAVE WEARING COURSE FOR MAJOR COLLECTOR AND ARTERIAL STREETS
3. 5" 3000 PSI CONCRETE BASE (LOCAL STREETS AND MINOR COLLECTORS) OR
4. 7" 3000 PSI CONCRETE BASE (MAJOR COLLECTORS AND ARTERIALS)

City of Loganville
where people matter

STANDARD DRAWING

**Roadway Widening Section**

DATE: JUNE 21, 2019 SHEET: 401




**NOTES:**

1. THIS STANDARD DETAIL IS TO BE USED FOR UTILITY LOCATIONS WITHIN RIGHT-OF-WAY OF SUBDIVISIONS ONLY.
2. BEFORE ANY UTILITY IS INSTALLED, THE ENTIRE WIDTH OF THE RIGHT-OF-WAY IS TO 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 WILL VARY. HOWEVER, THE STANDARD UTILITY SPACING IS TO BE MAINTAINED.
5. BACKFILL OF ALL UTILITY TRENCHES CONSTRUCTED IN THE ROADWAY SHOULDER IS TO BE COMPACTED TO 95% OF STANDARD PROCTOR (AASHTO T-99).
6. EACH UTILITY WILL 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 WILL BE RESPONSIBLE FOR DAMAGES TO ANOTHER UTILITY WHICH IS LOCATED OUTSIDE THEIR ASSIGNED SPACE.
7. ANYONE DIGGING IN THE RIGHT-OF-WAY MUST CALL THE UTILITIES PROTECTION CENTER OF GEORGIA AT 1-800-282-7411 (METRO-ATLANTA AREA: 770-623-4332) TO HAVE EXISTING UTILITIES LOCATED PRIOR TO EXCAVATION.
8. ONCE THE ROAD BASE HAS BEEN PLACED, ALL FURTHER INSTALLATION OF UTILITIES UNDER THE ROADWAY MUST BE BORED OR OTHERWISE COMPLY WITH THE STREET CUT REQUIREMENTS OF SECTION 7.5 OF THE DEVELOPMENT REGULATIONS.

City of Loganville
where people matter

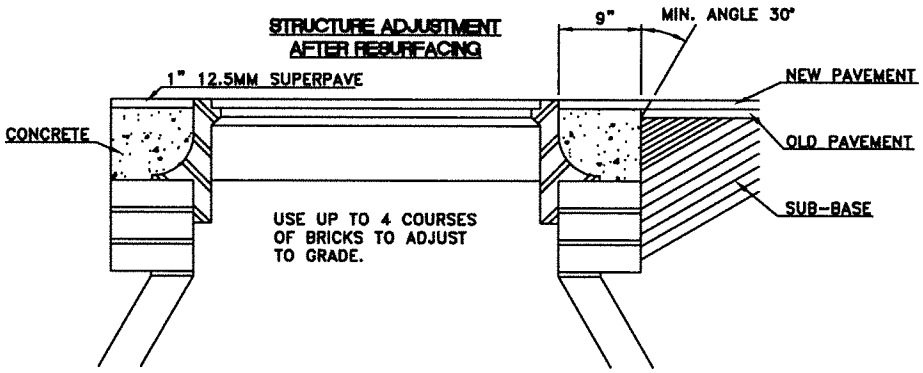
STANDARD DRAWING

**Utility Placement in Right-of-Way**

DATE: JUNE 21, 2019

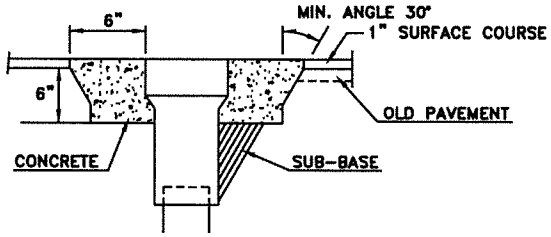
SHEET: 501

## STRUCTURE ADJUSTMENT AFTER RESURFACING




NOTE: IF GREATER THAN (3) BRICK USE 1' RISER SECTION

## MANHOLE

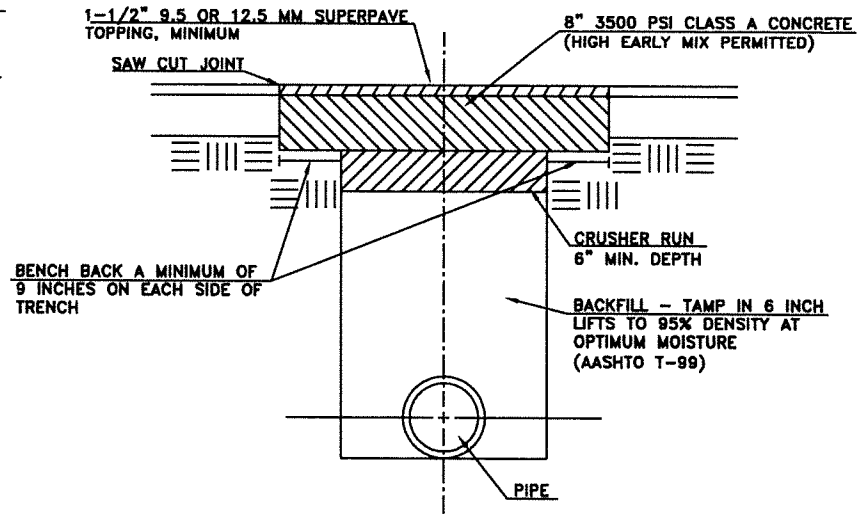



## VALVE

**NOTES:**

1. STRUCTURES WILL NOT BE ADJUSTED FOR A PERIOD OF AT LEAST 24 HOURS AFTER RESURFACING IS COMPLETED IN THAT AREA.
2. ASPHALT WILL BE SAW CUT SO AS TO MAKE A SMOOTH, EVEN EDGE.
3. STRUCTURE COVER WILL BE ADJUSTED TO FIT FLUSH WITH STREET SURFACE.
4. CONCRETE: MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 3000 PSI, UNLESS NOTED OTHERWISE.
5. CONCRETE WILL BE USED TO BACKFILL THE ENTIRE WORKING AREA.
6. PERFORM CONCRETE FINISHING WITH A TROWEL OR FLOAT.
7. SANITARY SEWER MANHOLES MUST BE VENTED IMMEDIATELY AFTER BEING PAVED OVER, THEREFORE WHEN MORE THAN ONE LIFT OF ASPHALT IS TO BE PLACED THE CONTRACTOR MUST ADJUST STRUCTURE PRIOR TO PAVING.

## BACKFILLING UTILITY CUTS AND REPLACING PAVEMENT




**NOTES:**

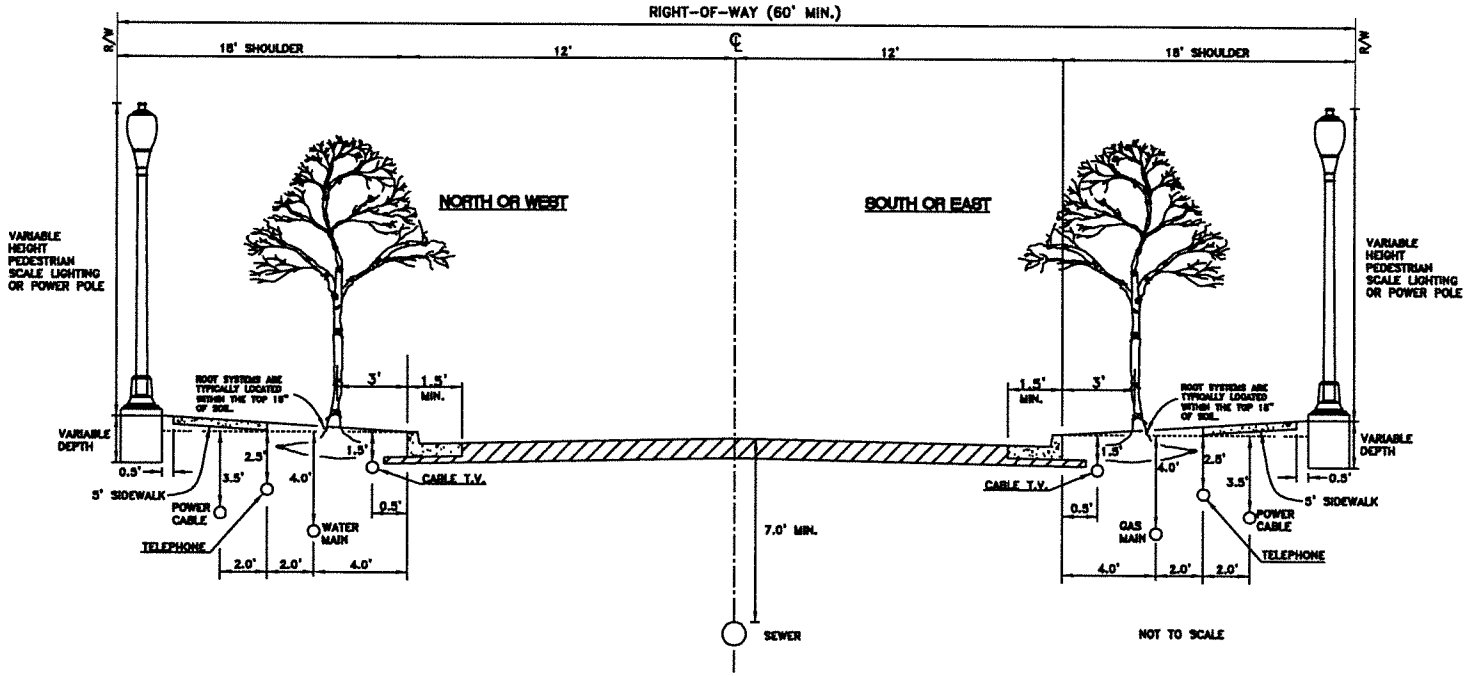
1. ALL LATERAL STREET CUTS MUST BE COVERED WITH STEEL PLATES OF SUFFICIENT THICKNESS TO SPAN THE CUT WITHOUT NOTICEABLE DEFLECTION. PLATES TO REMAIN IN PLACE UNTIL THE CONCRETE BASE HAS GAINED SUFFICIENT STRENGTH TO WITHSTAND TRAFFIC LOADS (24 HOUR MINIMUM).
2. ON LONGITUDINAL CUTS EXCEEDING 50 FEET IN LENGTH AND AT THE DIRECTION OF THE CITY, CONCRETE IN THE TRENCH WILL BE BROUGHT FLUSH WITH THE EXISTING PAVEMENT AND THE ENTIRE WIDTH OF THE ROADWAY RESURFACED WITH A MINIMUM OF 1-1/2" OF 12.5MM SUPERPAVE ASPHALT SURFACE COURSE.
3. SEE TABLE 6B UNDER SECTION 6.10 OF THE CITY OF LOGANVILLE DEVELOPMENT REGULATIONS FOR DETERMINATION OF THE PAVEMENT SURFACE TYPE.

City of Loganville
where people matter

STANDARD DRAWING

**Utility Street Cuts and Structure Adjustment**

DATE: JUNE 21, 2019 SHEET: 502




**NOTES:**

1. THIS STANDARD DETAIL IS TO BE USED FOR UTILITY LOCATIONS WITHIN RIGHT-OF-WAY OF CONSERVATION SUBDIVISION OVERLAY DISTRICT STREETS ONLY.
2. BEFORE ANY UTILITY IS INSTALLED, THE ENTIRE WIDTH OF THE RIGHT-OF-WAY WILL 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 WILL VARY. HOWEVER, THE STANDARD UTILITY SPACING MUST BE MAINTAINED.
5. BACKFILL OF ALL UTILITY TRENCHES CONSTRUCTED IN THE ROADWAY SHOULDER SHALL BE COMPACTED TO 95% (MIN.) OF MAXIMUM DENSITY.
6. EACH UTILITY WILL 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 WILL BE RESPONSIBLE FOR DAMAGES TO ANOTHER UTILITY WHICH IS LOCATED OUTSIDE THEIR ASSIGNED SPACE.
7. ANYONE DIGGING IN THE RIGHT-OF-WAY MUST CALL THE UTILITIES PROTECTION CENTER OF GEORGIA AT 1-800-282-7411 (METRO-ATLANTA AREA: 770-623-4332) TO HAVE EXISTING UTILITIES LOCATED PRIOR TO EXCAVATION.
8. ONCE THE ROAD BASE HAS BEEN PLACED, ALL FURTHER INSTALLATION OF UTILITIES UNDER THE ROADWAY MUST BE BORED OR OTHERWISE COMPLY WITH THE STREET CUT REQUIREMENTS OF SECTION 7.5 OF THE DEVELOPMENT REGULATIONS.

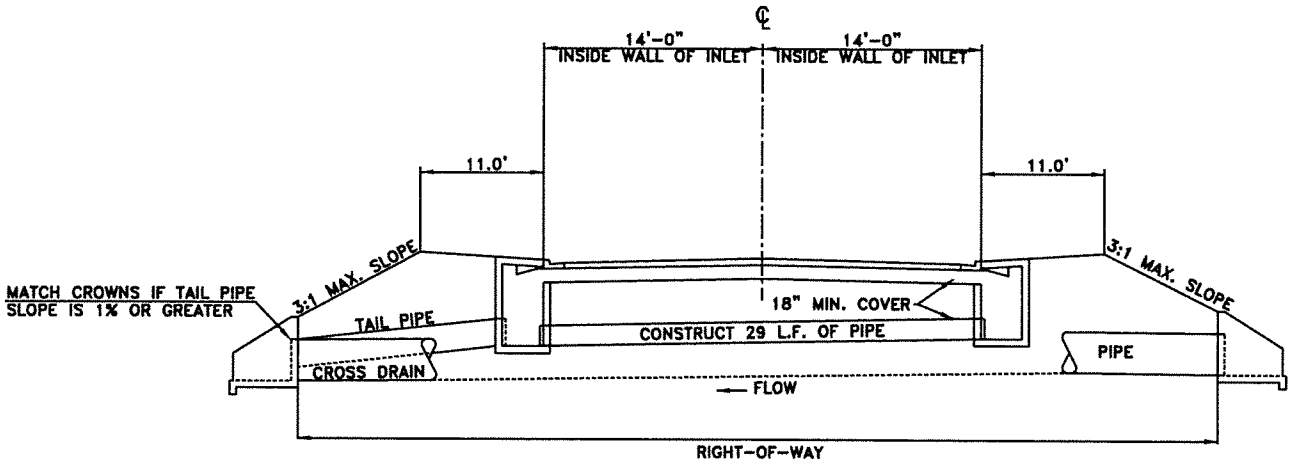
City of Loganville
*where people matter*

S T A N D A R D  D R A W I N G

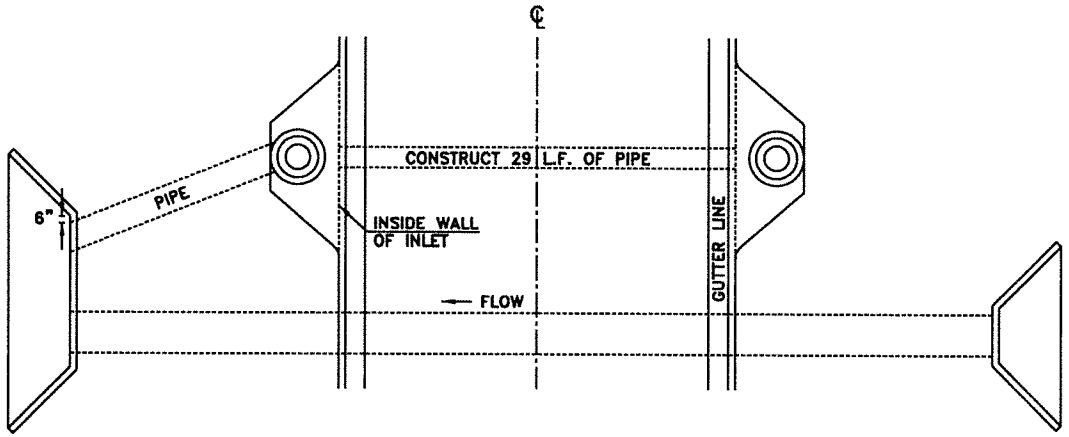
**Utility Placement and Right-of-Way of Conservation Subdivision Overlay District Streets**

D A T E: JUNE 21, 2019

S H E E T: 503




**SECTION**



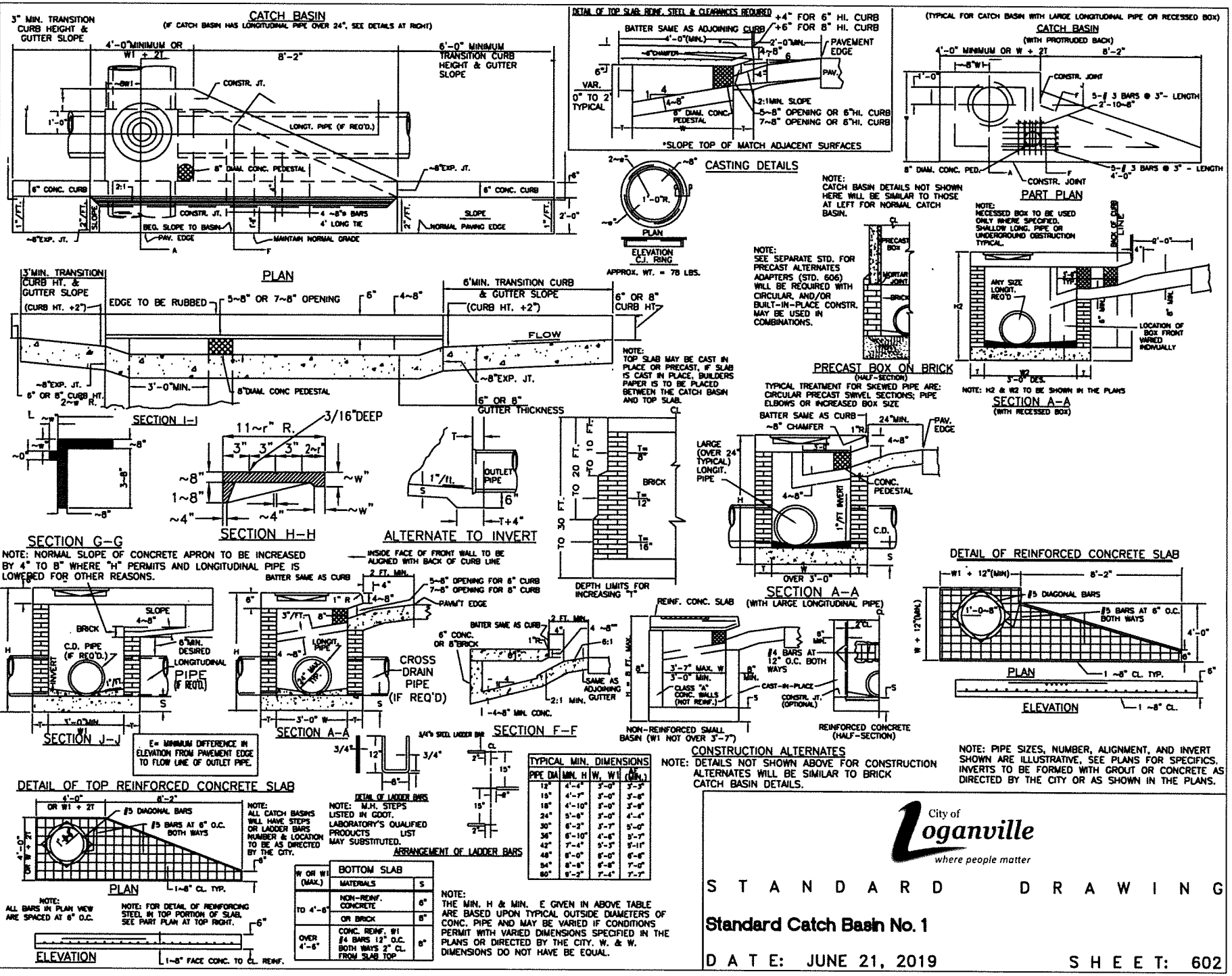

**PLAN**

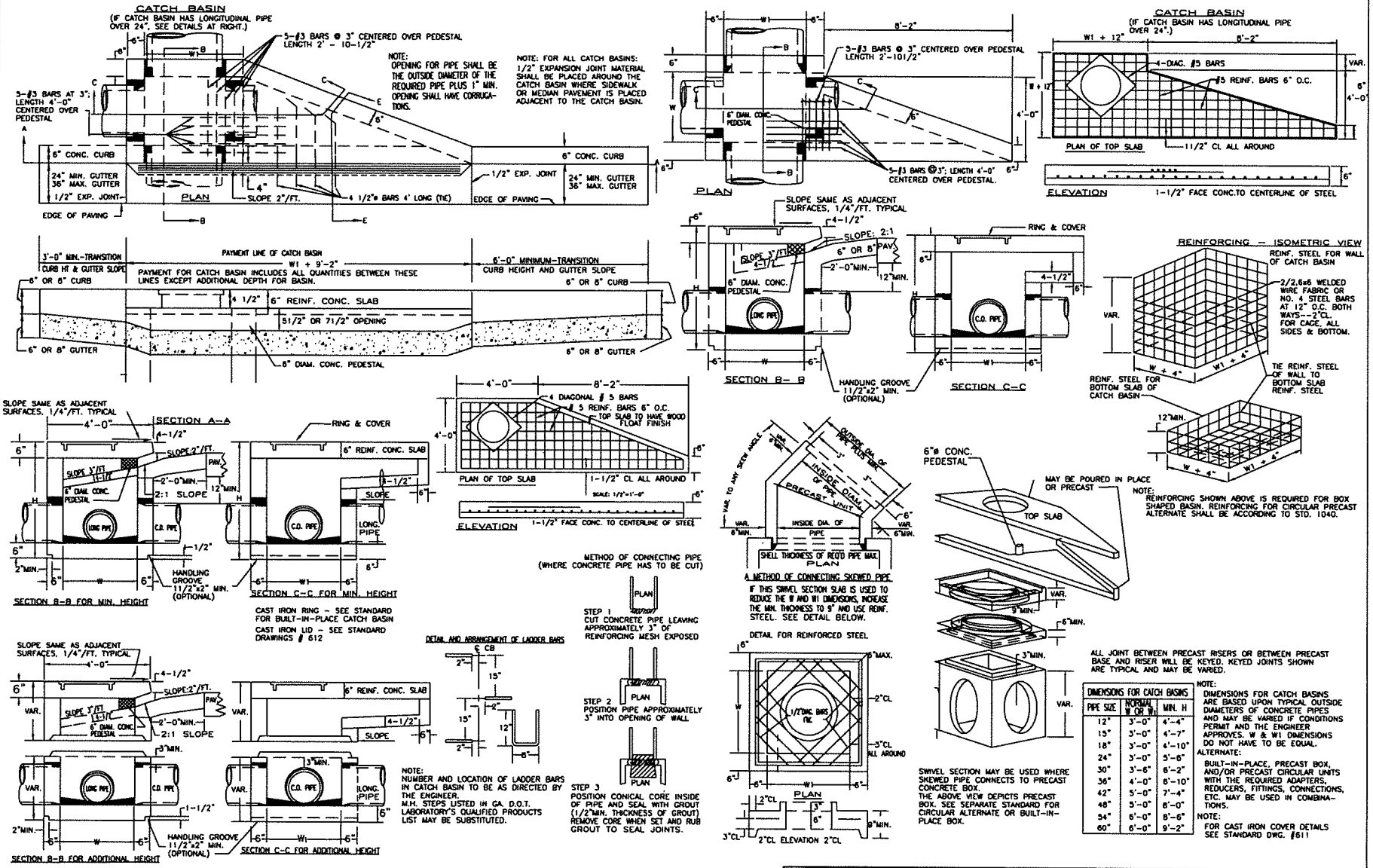
City of Loganville
where people matter

STANDARD DRAWING

**Location of Catch Basins: 28 Foot Wide Residential Streets**

DATE: JUNE 21, 2019 SHEET: 601


CATCH BASIN
(IF CATCH BASIN HAS LONGITUDINAL PIPE OVER 24", SEE DETAILS AT RIGHT)
3" MIN. TRANSITION CURB HEIGHT & GUTTER SLOPE
4'-0" MINIMUM OR W1 + 2T
8'-2"
6'-0" MINIMUM TRANSITION CURB HEIGHT & GUTTER SLOPE
CONSTR. JT.
LONGT. PIPE (IF REQ'D.)
8" DIAM. CONC. PEDESTAL
6" CONC. CURB
2:1
CONSTR. JT.
4 -#9 BARS 4' LONG TIE
BEG. SLOPE TO BASIN
PAV. EDGE
MAINTAIN NORMAL GRADE
NORMAL PAVING EDGE
SLOPE
2'-0"
DETAIL OF TOP SLAB REINF. STEEL & CLEARANCES REQUIRED
BATTER SAME AS ADJOINING CURB
+4" FOR 6" HI. CURB
+6" FOR 8" HI. CURB
4'-0"(MIN.)
2'-0"MIN.
PAVEMENT EDGE
~8" CHAMFER
6"
VAR. 0" TO 2' TYPICAL
8" DIAM. CONC. PEDESTAL
2:1MIN. SLOPE
5~#8 OPENING OR 6"HI. CURB
7~#8 OPENING OR 8"HI. CURB
*SLOPE TOP OF MATCH ADJACENT SURFACES
(TYPICAL FOR CATCH BASIN WITH LARGE LONGITUDINAL PIPE OR RECESSED BOX)
CATCH BASIN
(WITH PROTRUDED BACK)
4'-0" MINIMUM OR W + 2T
8'-2"
~8"W1
CONSTR. JOINT
5-#3 BARS @ 3"- LENGTH
2'-10-6"
1'-0"
8" DIAM. CONC. PED.
CONSTR. JOINT
5-#3 BARS @ 3" - LENGTH
4'-0"
CASTING DETAILS
2~#8
~#8
1'-0"R.
PLAN
ELEVATION
C.I. RING
APPROX. WT. = 78 LBS.
NOTE:
CATCH BASIN DETAILS NOT SHOWN HERE WILL BE SIMILAR TO THOSE AT LEFT FOR NORMAL CATCH BASIN.
PART PLAN
NOTE:
RECESSED BOX TO BE USED ONLY WHERE SPECIFIED. SHALLOW LONG. PIPE OR UNDERGROUND OBSTRUCTION TYPICAL.
BACK OF CURB LINE
2'-0"
4"
ANY SIZE LONGIT. REQ'D
TYP.
H2
6" MIN.
LOCATION OF BOX FRONT VARIED INDIVIDUALLY
3'-0" DES.
W2
NOTE: H2 & W2 TO BE SHOWN IN THE PLANS
SECTION A-A
(WITH RECESSED BOX)
NOTE:
SEE SEPARATE STD. FOR PRECAST ALTERNATES ADAPTERS (STD. 606) WILL BE REQUIRED WITH CIRCULAR, AND/OR BUILT-IN-PLACE CONSTR. MAY BE USED IN COMBINATIONS.
PRECAST BOX
MORTAR JOINT
BRICK
PRECAST BOX ON BRICK
(HALF-SECTION)
PLAN
3'MIN. TRANSITION CURB HT. & GUTTER SLOPE
(CURB HT. +2")
EDGE TO BE RUBBED
5~8" OR 7~8" OPENING
6"
4~8"
6'MIN. TRANSITION CURB & GUTTER SLOPE
(CURB HT. +2")
6" OR 8" CURB HT.
FLOW
~8"EXP. JT.
3'-0"MIN.
8"DIAM. CONC PEDESTAL
6" OR 8" CURB HT.
2~#8 R.
6" OR 8" GUTTER THICKNESS
NOTE:
TOP SLAB MAY BE CAST IN PLACE OR PRECAST, IF SLAB IS CAST IN PLACE, BUILDERS PAPER IS TO BE PLACED BETWEEN THE CATCH BASIN AND TOP SLAB.
TYPICAL TREATMENT FOR SKEWED PIPE ARE: CIRCULAR PRECAST SWIVEL SECTIONS; PIPE ELBOWS OR INCREASED BOX SIZE
SECTION A-A
(WITH RECESSED BOX)
SECTION I-I
11~r" R.
3/16"DEEP
3" 3" 3" 2~r"
~8"
1~8"
~4"
~w"
SECTION H-H
T
1"/ft.
OUTLET PIPE
6"
T+4"
ALTERNATE TO INVERT
CL
10 FT. TO 20 FT.
20 FT. TO 30 FT.
BRICK
T=8"
T=12"
T=16"
DEPTH LIMITS FOR INCREASING "T"
BATTER SAME AS CURB
~8" CHAMFER
1"R.
24"MIN.
PAV. EDGE
4~8"
LARGE (OVER 24" TYPICAL) LONGIT. PIPE
CONC. PEDESTAL
1"/FT INVERT
C.D.
OVER 3'-0"
SECTION A-A
(WITH LARGE LONGITUDINAL PIPE)
SECTION G-G
NOTE: NORMAL SLOPE OF CONCRETE APRON TO BE INCREASED BY 4" TO 8" WHERE "H" PERMITS AND LONGITUDINAL PIPE IS LOWERED FOR OTHER REASONS.
SLOPE
4~8"
BRICK
C.D. PIPE (IF REQ'D.)
INVERT
1"/ft.
6"MIN. DESIRED LONGITUDINAL PIPE (IF REQ'D)
CROSS DRAIN PIPE (IF REQ'D)
SECTION J-J
E= MINIMUM DIFFERENCE IN ELEVATION FROM PAVEMENT EDGE TO FLOW LINE OF OUTLET PIPE.
INSIDE FACE OF FRONT WALL TO BE ALIGNED WITH BACK OF CURB LINE
BATTER SAME AS CURB
2 FT. MIN.
4"
5~8" OPENING FOR 6" CURB
7~8" OPENING FOR 8" CURB
1" R
4~8"
PAVMT EDGE
3"/FT.
8"
LONGIT. PIPE
4 -#8"
3'-0" W
SECTION A-A
SECTION F-F
BATTER SAME AS CURB
2 FT. MIN.
4"
4 -#8"
6" CONC. OR 8"BRICK
1"R.
6:1
2:1 MIN. GUTTER
4-#8" MIN. CONC.
REINF. CONC. SLAB
NON-REINFORCED SMALL BASIN (W1 NOT OVER 3'-7")
3'-7" MAX. W
3'-0" MIN.
CLASS "A" CONC. WALLS (NOT REINF.)
#4 BARS AT 12" O.C. BOTH WAYS
8" MIN.
CAST-IN-PLACE
CONSTR. JT. (OPTIONAL)
2"CL.
REINFORCED CONCRETE (HALF-SECTION)
DETAIL OF REINFORCED CONCRETE SLAB
W1 + 12"(MIN)
8'-2"
#5 DIAGONAL BARS
#5 BARS AT 6" O.C. BOTH WAYS
1'-0"
4'-0"
PLAN
1 -#8" CL. TYP.
ELEVATION
1 -#8" CL.
CONSTRUCTION ALTERNATES
NOTE: DETAILS NOT SHOWN ABOVE FOR CONSTRUCTION ALTERNATES WILL BE SIMILAR TO BRICK CATCH BASIN DETAILS.
NOTE: PIPE SIZES, NUMBER, ALIGNMENT, AND INVERT SHOWN ARE ILLUSTRATIVE, SEE PLANS FOR SPECIFICS. INVERTS TO BE FORMED WITH GROUT OR CONCRETE AS DIRECTED BY THE CITY OR AS SHOWN IN THE PLANS.
DETAIL OF TOP REINFORCED CONCRETE SLAB
4'-0" OR W1 + 2T
8'-2"
#5 DIAGONAL BARS
#5 BARS AT 6" O.C. BOTH WAYS
4'-0" OR W + 2T
PLAN
1 -#8" CL. TYP.
NOTE:
ALL BARS IN PLAN VIEW ARE SPACED AT 6" O.C.
NOTE: FOR DETAIL OF REINFORCING STEEL IN TOP PORTION OF SLAB, SEE PART PLAN AT TOP RIGHT.
6"
ELEVATION
1~8" FACE CONC. TO CL. REINF.
NOTE:
ALL CATCH BASINS WILL HAVE STEPS OR LADDER BARS NUMBER & LOCATION TO BE AS DIRECTED BY THE CITY.
3/4"ø STEEL LADDER BAR
3/4"
12"
6"
DETAIL OF LADDER BARS
NOTE: M.H. STEPS LISTED IN GDOT. LABORATORY'S QUALIFIED PRODUCTS LIST MAY SUBSTITUTED.
CL
2"
15"
8"
ARRANGEMENT OF LADDER BARS
TYPICAL MIN. DIMENSIONS
PIPE DIA | MIN. H | W, W1 | E (MIN.)
12" | 4'-4" | 3'-0" | 3'-5"
15" | 4'-7" | 3'-0" | 3'-6"
18" | 4'-10" | 3'-0" | 3'-9"
24" | 5'-6" | 3'-0" | 4'-4"
30" | 6'-2" | 3'-7" | 5'-0"
36" | 6'-10" | 4'-6" | 5'-7"
42" | 7'-4" | 5'-3" | 5'-11"
48" | 8'-0" | 5'-0" | 6'-6"
54" | 8'-8" | 6'-8" | 7'-0"
60" | 9'-2" | 7'-4" | 7'-7"
W OR W1 (MAX.) | BOTTOM SLAB MATERIALS | S
TO 4'-6" | NON-REINF. CONCRETE | 6"
TO 4'-6" | OR BRICK | 8"
OVER 4'-6" | CONC. REINF. W1 #4 BARS 12" O.C. BOTH WAYS 2" CL. FROM SLAB TOP | 8"
NOTE:
THE MIN. H & MIN. E GIVEN IN ABOVE TABLE ARE BASED UPON TYPICAL OUTSIDE DIAMETERS OF CONC. PIPE AND MAY BE VARIED IF CONDITIONS PERMIT WITH VARIED DIMENSIONS SPECIFIED IN THE PLANS OR DIRECTED BY THE CITY. W. & W. DIMENSIONS DO NOT HAVE BE EQUAL.
City of Loganville
where people matter
STANDARD DRAWING
Standard Catch Basin No. 1
DATE: JUNE 21, 2019
SHEET: 602



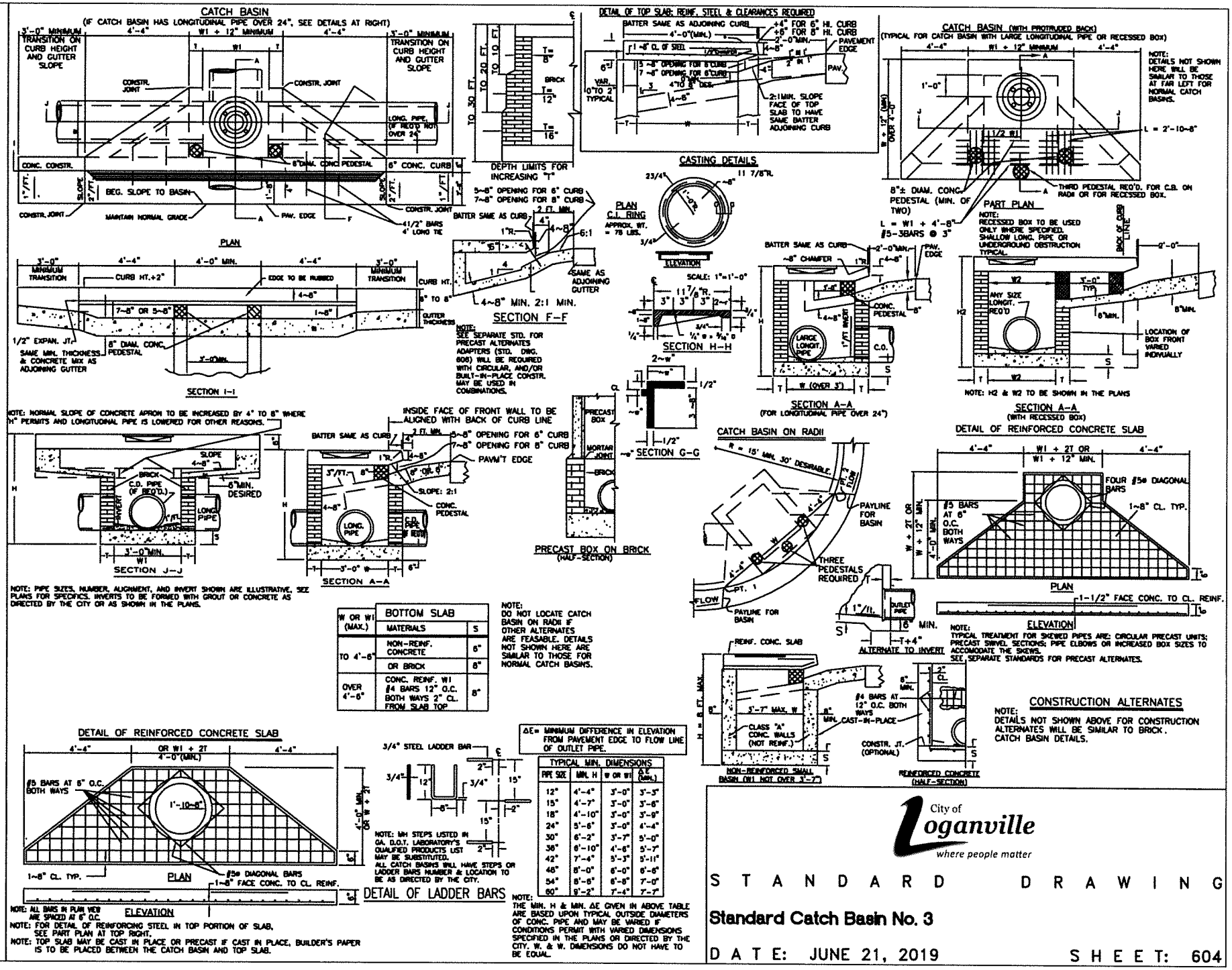

City of Loganville
where people matter

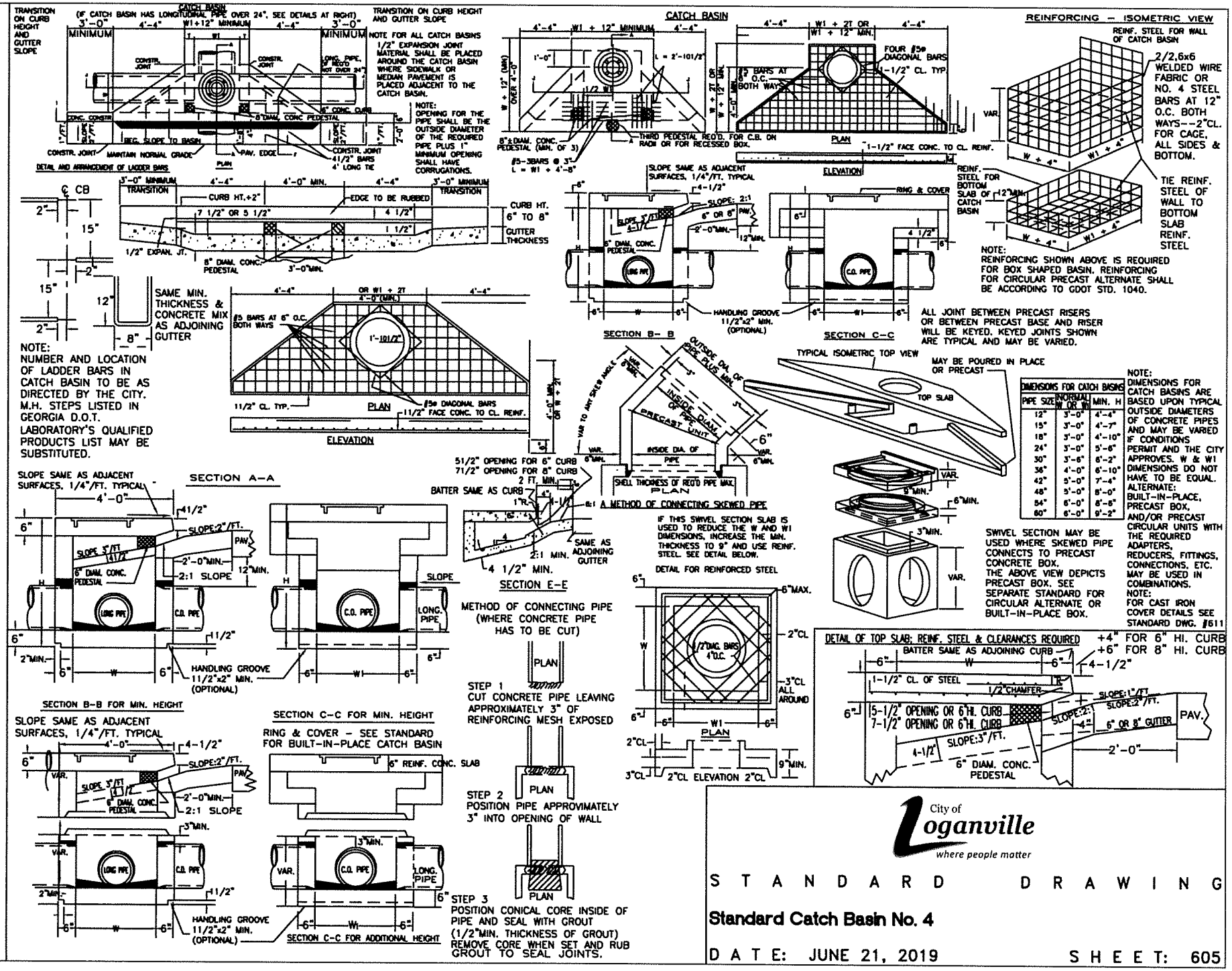
STANDARD DRAWING

**Standard Catch Basin No. 2**

DATE: JUNE 21, 2019

SHEET: 603


CATCH BASIN
(IF CATCH BASIN HAS LONGITUDINAL PIPE OVER 24", SEE DETAILS AT RIGHT)
3'-0" MINIMUM TRANSITION ON CURB HEIGHT AND GUTTER SLOPE
4'-4"
W1 + 12" MINIMUM
4'-4"
3'-0" MINIMUM TRANSITION ON CURB HEIGHT AND GUTTER SLOPE
CONSTR. JOINT
CONSTR. JOINT
LONG. PIPE, (IF REQ'D NOT OVER 24")
8"DIAM. CONC PEDESTAL
6" CONC. CURB
CONC. CONSTR.
BEG. SLOPE TO BASIN
MAINTAIN NORMAL GRADE
PAV. EDGE
CONSTR. JOINT
4 1/2" BARS 4' LONG TIE
PLAN
3'-0" MINIMUM TRANSITION
4'-4"
4'-0" MIN.
4'-4"
3'-0" MINIMUM TRANSITION
CURB HT.+2"
EDGE TO BE RUBBED
CURB HT.
7~8" OR 5~8"
4~8"
1~8"
8" TO 8"
GUTTER THICKNESS
1/2" EXPAN. JT.
SAME MIN. THICKNESS & CONCRETE MIX AS ADJOINING GUTTER
8" DIAM. CONC. PEDESTAL
3'-0"MIN.
SECTION 1-1
TO 20 FT.
TO 30 FT.
T= 8"
BRICK
T= 12"
T= 16"
DEPTH LIMITS FOR INCREASING "T"
5~8" OPENING FOR 6" CURB
7~8" OPENING FOR 8" CURB
BATTER SAME AS CURB
2 FT. MIN.
4"
4~8"
1"R.
6:1
15"
4
SAME AS ADJOINING GUTTER
4~8" MIN. 2:1 MIN.
SECTION F-F
NOTE: SEE SEPARATE STD. FOR PRECAST ALTERNATES ADAPTERS (STD. DWG. 606) WILL BE REQUIRED WITH CIRCULAR, AND/OR BUILT-IN-PLACE CONSTR. MAY BE USED IN COMBINATIONS.
DETAIL OF TOP SLAB; REINF. STEEL & CLEARANCES REQUIRED
BATTER SAME AS ADJOINING CURB
4'-0"(MIN.)
+4" FOR 6" HI. CURB
+6" FOR 8" HI. CURB
2'-0"MIN.
PAVEMENT EDGE
1~8" CL OF STEEL
1/2"CHAMFER
4~8"
5~8" OPENING FOR 6"CURB
7~8" OPENING FOR 8"CURB
6"
VAR. 0"TO 2" TYPICAL
4"TO 8" DEP.
PAV.
2" IN 1'
2:1MIN. SLOPE FACE OF TOP SLAB TO HAVE SAME BATTER ADJOINING CURB
T
W
T
CASTING DETAILS
11 7/8"R.
23/4"
~8"
PLAN
C.I. RING
APPROX. WT. = 78 LBS.
3/4"
ELEVATION
SCALE: 1"=1'-0"
11 7/8"R.
3"
3"
3"
2~
3/4"
1/4"
1/2" ø - 3/16" ø
SECTION H-H
2~W"
~W"
1/2"
~8"
1/2"
SECTION G-G
CL
PRECAST BOX
MORTAR JOINT
BRICK
PRECAST BOX ON BRICK (HALF-SECTION)
CATCH BASIN (WITH PROTRUDED BACK)
(TYPICAL FOR CATCH BASIN WITH LARGE LONGITUDINAL PIPE OR RECESSED BOX)
4'-4"
W1 + 12" MINIMUM
4'-4"
1'-0"
W + 12" (MIN.) OVER 4'-0"
1/2 W1
L = 2'-10~8"
8"± DIAM. CONC. PEDESTAL (MIN. OF TWO)
THIRD PEDESTAL REQ'D. FOR C.B. ON RADII OR FOR RECESSED BOX.
L = W1 + 4'-8"
#5-3BARS @ 3"
NOTE: DETAILS NOT SHOWN HERE WILL BE SIMILAR TO THOSE AT FAR LEFT FOR NORMAL CATCH BASINS.
PART PLAN
NOTE: RECESSED BOX TO BE USED ONLY WHERE SPECIFIED. SHALLOW LONG. PIPE OR UNDERGROUND OBSTRUCTION TYPICAL.
BACK OF CURB LINE
2'-0"
W2
3'-0" TYP.
ANY SIZE LONGIT. REQ'D
8"MIN.
8"MIN.
H2
LOCATION OF BOX FRONT VARIED INDIVIDUALLY
S
T
W2
T
NOTE: H2 & W2 TO BE SHOWN IN THE PLANS
SECTION A-A
(WITH RECESSED BOX)
BATTER SAME AS CURB
~8" CHAMFER
1"R.
2'-0"MIN.
PAV. EDGE
4~8"
CONC. PEDESTAL
8"
1'-7" MIN. HEIGHT
LARGE LONGIT. PIPE
C.O.
H
S
T
W (OVER 3')
T
SECTION A-A
(FOR LONGITUDINAL PIPE OVER 24")
NOTE: NORMAL SLOPE OF CONCRETE APRON TO BE INCREASED BY 4" TO 8" WHERE 'H' PERMITS AND LONGITUDINAL PIPE IS LOWERED FOR OTHER REASONS.
SLOPE
4~8"
BRICK
C.O. PIPE (IF REQ'D.)
6"MIN. DESIRED
H
APRON
1"/FT.
LONG. PIPE
S
T
3'-0"MIN.
W1
T
SECTION J-J
INSIDE FACE OF FRONT WALL TO BE ALIGNED WITH BACK OF CURB LINE
BATTER SAME AS CURB
2 FT. MIN.
5~8" OPENING FOR 6" CURB
7~8" OPENING FOR 8" CURB
1"R.
4~8"
PAVM'T EDGE
3"/FT.
8"
6" OR 8"
SLOPE: 2:1
H
CONC. PEDESTAL
4~8"
LONG. PIPE
C.O. PIPE (IF REQ'D)
T
3'-0" W
T
6"
SECTION A-A
NOTE: PIPE SIZES, NUMBER, ALIGNMENT, AND INVERT SHOWN ARE ILLUSTRATIVE. SEE PLANS FOR SPECIFICS. INVERTS TO BE FORMED WITH GROUT OR CONCRETE AS DIRECTED BY THE CITY OR AS SHOWN IN THE PLANS.
CATCH BASIN ON RADII
R = 15' MIN. 30' DESIRABLE.
PAYLINE FOR BASIN
THREE PEDESTALS REQUIRED
PT. 1
FLOW
PAYLINE FOR BASIN
1"/ft.
OUTLET PIPE
6" MIN.
S
T+4"
ALTERNATE TO INVERT
NOTE: DO NOT LOCATE CATCH BASIN ON RADII IF OTHER ALTERNATES ARE FEASABLE. DETAILS NOT SHOWN HERE ARE SIMILAR TO THOSE FOR NORMAL CATCH BASINS.
DETAIL OF REINFORCED CONCRETE SLAB
4'-4"
W1 + 2T OR W1 + 12" MIN.
4'-4"
FOUR #5ø DIAGONAL BARS
#5 BARS AT 6" O.C. BOTH WAYS
1~8" CL. TYP.
W + 2T OR W + 12" MIN.
4'-0" MIN.
PLAN
1-1/2" FACE CONC. TO CL. REINF.
ELEVATION
NOTE: TYPICAL TREATMENT FOR SKEWED PIPES ARE: CIRCULAR PRECAST UNITS; PRECAST SWIVEL SECTIONS; PIPE ELBOWS OR INCREASED BOX SIZES TO ACCOMODATE THE SKEWS. SEE SEPARATE STANDARDS FOR PRECAST ALTERNATES.
W OR W1 (MAX.)
BOTTOM SLAB
MATERIALS
S
TO 4'-6"
NON-REINF. CONCRETE
6"
OR BRICK
8"
OVER 4'-6"
CONC. REINF. W1 #4 BARS 12" O.C. BOTH WAYS 2" CL. FROM SLAB TOP
8"
REINF. CONC. SLAB
H = 8 FT. MAX.
8"
3'-7" MAX. W
CLASS "A" CONC. WALLS (NOT REINF.)
8" MIN. CAST-IN-PLACE
#4 BARS AT 12" O.C. BOTH WAYS
2" CL.
8" MIN.
CONSTR. JT. (OPTIONAL)
S
NON-REINFORCED SMALL BASIN (W1 NOT OVER 3'-7")
REINFORCED CONCRETE (HALF-SECTION)
CONSTRUCTION ALTERNATES
NOTE: DETAILS NOT SHOWN ABOVE FOR CONSTRUCTION ALTERNATES WILL BE SIMILAR TO BRICK CATCH BASIN DETAILS.
DETAIL OF REINFORCED CONCRETE SLAB
4'-4"
OR W1 + 2T
4'-0"(MIN.)
4'-4"
#5 BARS AT 6" O.C. BOTH WAYS
1'-10~8"
4'-0" MIN. OR W + 2T
1~8" CL. TYP.
PLAN
#5ø DIAGONAL BARS
1~8" FACE CONC. TO CL. REINF.
ELEVATION
NOTE: ALL BARS IN PLAN VIEW ARE SPACED AT 6" O.C.
NOTE: FOR DETAIL OF REINFORCING STEEL IN TOP PORTION OF SLAB, SEE PART PLAN AT TOP RIGHT.
NOTE: TOP SLAB MAY BE CAST IN PLACE OR PRECAST IF CAST IN PLACE, BUILDER'S PAPER IS TO BE PLACED BETWEEN THE CATCH BASIN AND TOP SLAB.
3/4" STEEL LADDER BAR
3/4"
12"
6"
3/4"
15"
2"
15"
2"
NOTE: MH STEPS LISTED IN GA. D.O.T. LABORATORY'S QUALIFIED PRODUCTS LIST MAY BE SUBSTITUTED. ALL CATCH BASINS WILL HAVE STEPS OR LADDER BARS NUMBER & LOCATION TO BE AS DIRECTED BY THE CITY.
DETAIL OF LADDER BARS
ΔE= MINIMUM DIFFERENCE IN ELEVATION FROM PAVEMENT EDGE TO FLOW LINE OF OUTLET PIPE.
TYPICAL MIN. DIMENSIONS
PIPE SIZE
MIN. H
W OR W1
ΔE (MIN.)
12" 4'-4" 3'-0" 3'-3"
15" 4'-7" 3'-0" 3'-6"
18" 4'-10" 3'-0" 3'-9"
24" 5'-6" 3'-0" 4'-4"
30" 6'-2" 3'-7" 5'-0"
36" 6'-10" 4'-6" 5'-7"
42" 7'-4" 5'-3" 5'-11"
48" 8'-0" 6'-0" 6'-6"
54" 8'-6" 6'-8" 7'-0"
60" 9'-2" 7'-4" 7'-7"
NOTE: THE MIN. H & MIN. ΔE GIVEN IN ABOVE TABLE ARE BASED UPON TYPICAL OUTSIDE DIAMETERS OF CONC. PIPE AND MAY BE VARIED IF CONDITIONS PERMIT WITH VARIED DIMENSIONS SPECIFIED IN THE PLANS OR DIRECTED BY THE CITY. W. & W. DIMENSIONS DO NOT HAVE TO BE EQUAL.
City of Loganville
where people matter
STANDARD DRAWING
Standard Catch Basin No. 3
DATE: JUNE 21, 2019
SHEET: 604

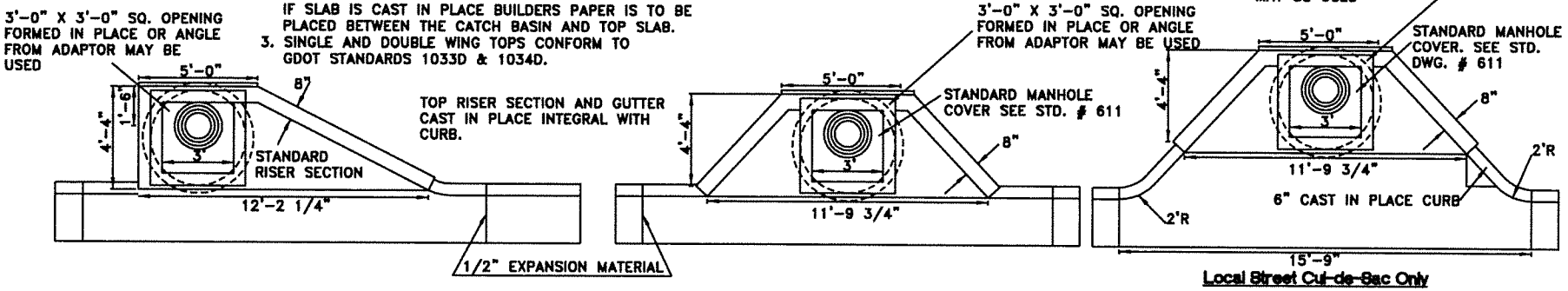

TRANSITION ON CURB HEIGHT AND GUTTER SLOPE
CATCH BASIN
(IF CATCH BASIN HAS LONGITUDINAL PIPE OVER 24", SEE DETAILS AT RIGHT)
3'-0" MINIMUM
4'-4"
W1+12" MINIMUM
4'-4"
3'-0" MINIMUM
CONSTR. JOINT
CONC. PIPE, IF REQ'D NOT OVER 24"
6" CONC. CURB
6" DIAM. CONC. PEDESTAL
CONC. CONSTR.
1'-0"
2'-0"
REQ. SLOPE TO BASIN
CONSTR. JOINT
MAINTAIN NORMAL GRADE
PAV. EDGE
#3 BARS @ 12" O.C. 4'-0" LONG
CONSTR. JOINT 4 1/2" BARS 4' LONG TIE
DETAIL AND ARRANGEMENT OF LADDER BARS
PLAN
TRANSITION ON CURB HEIGHT AND GUTTER SLOPE
NOTE FOR ALL CATCH BASINS 1/2" EXPANSION JOINT MATERIAL SHALL BE PLACED AROUND THE CATCH BASIN WHERE SIDEWALK OR MEDIAN PAVEMENT IS PLACED ADJACENT TO THE CATCH BASIN.
NOTE: OPENING FOR THE PIPE SHALL BE THE OUTSIDE DIAMETER OF THE REQUIRED PIPE PLUS 1" MINIMUM OPENING SHALL HAVE CORRUGATIONS.
CATCH BASIN
4'-4"
W1 + 12" MINIMUM
4'-4"
1'-0"
L = 2'-10 1/2"
W + 12" (MIN.) OVER 4'-0"
1/2 W1
8" ± DIAM. CONC. PEDESTAL (MIN. OF 3)
#5-3BARS @ 3" L = W1 + 4'-8"
THIRD PEDESTAL REQ'D. FOR C.B. ON RADII OR FOR RECESSED BOX.
4'-4"
W1 + 2T OR W1 + 12" MIN.
4'-4"
FOUR #5a DIAGONAL BARS 1-1/2" CL. TYP.
#5 BARS AT 6" O.C. BOTH WAYS
W1 + 4'-8"
PLAN
1-1/2" FACE CONC. TO CL. REINF.
ELEVATION
REINFORCING — ISOMETRIC VIEW
REINF. STEEL FOR WALL OF CATCH BASIN
2/2,6x6 WELDED WIRE FABRIC OR NO. 4 STEEL BARS AT 12" O.C. BOTH WAYS--2"CL. FOR CAGE, ALL SIDES & BOTTOM.
VAR.
W + 4"
W1 + 4"
TIE REINF. STEEL OF WALL TO BOTTOM SLAB REINF. STEEL
REINF. STEEL FOR BOTTOM SLAB OF CATCH BASIN
12" MIN.
NOTE: REINFORCING SHOWN ABOVE IS REQUIRED FOR BOX SHAPED BASIN. REINFORCING FOR CIRCULAR PRECAST ALTERNATE SHALL BE ACCORDING TO GDOT STD. 1040.
℄ CB
2"
15"
2"
15"
12"
2"
8"
SAME MIN. THICKNESS & CONCRETE MIX AS ADJOINING GUTTER
NOTE: NUMBER AND LOCATION OF LADDER BARS IN CATCH BASIN TO BE AS DIRECTED BY THE CITY. M.H. STEPS LISTED IN GEORGIA D.O.T. LABORATORY'S QUALIFIED PRODUCTS LIST MAY BE SUBSTITUTED.
3'-0" MINIMUM TRANSITION
4'-4"
4'-0" MIN.
4'-4"
3'-0" MINIMUM TRANSITION
CURB HT.+2"
EDGE TO BE RUBBED
7 1/2" OR 5 1/2"
4 1/2"
1 1/2"
1/2" EXPAN. JT.
8" DIAM. CONC. PEDESTAL
3'-0"MIN.
CURB HT. 6" TO 8"
GUTTER THICKNESS
4'-4"
OR W1 + 2T
4'-0"(MIN.)
4'-4"
#5 BARS AT 6" O.C. BOTH WAYS
1'-10 1/2"
11/2" CL. TYP.
PLAN
#5a DIAGONAL BARS
11/2" FACE CONC. TO CL. REINF.
ELEVATION
4'-0" MIN. OR W + 2T
SLOPE SAME AS ADJACENT SURFACES, 1/4"/FT. TYPICAL
6"
4-1/2"
SLOPE: 2:1
6" OR 8" PAV.
2'-0"MIN.
12"MIN.
8" DIAM. CONC. PEDESTAL
LONG PIPE
6"
W
6"
HANDLING GROOVE 11/2"x2" MIN. (OPTIONAL)
RING & COVER
6"
4 1/2"
C.O. PIPE
6"
W1
6"
SECTION C-C
ALL JOINT BETWEEN PRECAST RISERS OR BETWEEN PRECAST BASE AND RISER WILL BE KEYED. KEYED JOINTS SHOWN ARE TYPICAL AND MAY BE VARIED.
SECTION B- B
OUTSIDE DIA. OF PIPE PLUS MIN. 3"
INSIDE DIAM. OF PRECAST UNIT
INSIDE DIA. OF PIPE
SHELL THICKNESS OF REQ'D PIPE MAX.
VAR. TO ANY SKEW ANGLE
VAR. 6" MIN.
6"
VAR. 6" MIN.
PLAN
A METHOD OF CONNECTING SKEWED PIPE
TYPICAL ISOMETRIC TOP VIEW
MAY BE POURED IN PLACE OR PRECAST
TOP SLAB
VAR.
9" MIN.
6" MIN.
3" MIN.
VAR.
DIMENSIONS FOR CATCH BASINS

| PIPE SIZE | NORMAL W OR W1 | MIN. H |
|---|---|---|
| 12" | 3'-0" | 4'-4" |
| 15" | 3'-0" | 4'-7" |
| 18" | 3'-0" | 4'-10" |
| 24" | 3'-0" | 5'-6" |
| 30" | 3'-6" | 6'-2" |
| 36" | 4'-0" | 6'-10" |
| 42" | 5'-0" | 7'-4" |
| 48" | 5'-0" | 8'-0" |
| 54" | 6'-0" | 8'-8" |
| 60" | 6'-0" | 9'-2" |

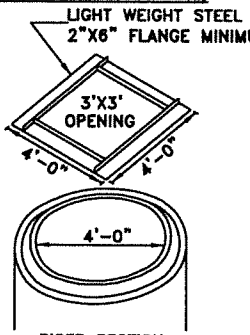
NOTE: DIMENSIONS FOR CATCH BASINS ARE BASED UPON TYPICAL OUTSIDE DIAMETERS OF CONCRETE PIPES AND MAY BE VARIED IF CONDITIONS PERMIT AND THE CITY APPROVES. W & W1 DIMENSIONS DO NOT HAVE TO BE EQUAL. ALTERNATE: BUILT-IN-PLACE, PRECAST BOX, AND/OR PRECAST CIRCULAR UNITS WITH THE REQUIRED ADAPTERS, REDUCERS, FITTINGS, CONNECTIONS, ETC. MAY BE USED IN COMBINATIONS.
NOTE: FOR CAST IRON COVER DETAILS SEE STANDARD DWG. #611
SWIVEL SECTION MAY BE USED WHERE SKEWED PIPE CONNECTS TO PRECAST CONCRETE BOX. THE ABOVE VIEW DEPICTS PRECAST BOX. SEE SEPARATE STANDARD FOR CIRCULAR ALTERNATE OR BUILT-IN-PLACE BOX.
SLOPE SAME AS ADJACENT SURFACES, 1/4"/FT. TYPICAL
SECTION A-A
4'-0"
4 1/2"
6"
SLOPE:2"/FT.
PAV.
SLOPE 3"/FT
4 1/2"
2'-0"MIN.
6" DIAM. CONC. PEDESTAL
2:1 SLOPE
12"MIN.
H
LONG PIPE
C.O. PIPE
SLOPE
LONG. PIPE
6"
2"MIN.
6"
W
6"
11/2"
HANDLING GROOVE 11/2"x2" MIN. (OPTIONAL)
6"
W1
6"
6"
51/2" OPENING FOR 6" CURB
71/2" OPENING FOR 8" CURB
2 FT. MIN.
BATTER SAME AS CURB
4"
1"R
1-1/2"
6:1
SAME AS ADJOINING GUTTER
2:1 MIN.
4 1/2" MIN.
SECTION E-E
METHOD OF CONNECTING PIPE (WHERE CONCRETE PIPE HAS TO BE CUT)
PLAN
STEP 1
CUT CONCRETE PIPE LEAVING APPROXIMATELY 3" OF REINFORCING MESH EXPOSED
PLAN
STEP 2
POSITION PIPE APPROXIMATELY 3" INTO OPENING OF WALL
PLAN
STEP 3
POSITION CONICAL CORE INSIDE OF PIPE AND SEAL WITH GROUT (1/2"MIN. THICKNESS OF GROUT) REMOVE CORE WHEN SET AND RUB GROUT TO SEAL JOINTS.
IF THIS SWIVEL SECTION SLAB IS USED TO REDUCE THE W AND W1 DIMENSIONS, INCREASE THE MIN. THICKNESS TO 9" AND USE REINF. STEEL. SEE DETAIL BELOW.
DETAIL FOR REINFORCED STEEL
6"
6"MAX.
W
#5 BARS 4" O.C.
2"CL
3"CL ALL AROUND
6"
6"
W1
6"
PLAN
2"CL
3"CL
2"CL ELEVATION 2"CL
9"MIN.
DETAIL OF TOP SLAB; REINF. STEEL & CLEARANCES REQUIRED
+4" FOR 6" HI. CURB
+6" FOR 8" HI. CURB
BATTER SAME AS ADJOINING CURB
6"
W
6"
4-1/2"
1-1/2" CL. OF STEEL
1/2"CHAMFER
5-1/2" OPENING OR 6"HI. CURB
7-1/2" OPENING OR 8"HI. CURB
SLOPE:1"/FT
SLOPE:2"/FT.
SLOPE:2"
PAV.
6"
4-1/2"
SLOPE:3"/FT.
6" OR 8" GUTTER
2'-0"
6" DIAM. CONC. PEDESTAL
SECTION B-B FOR MIN. HEIGHT
SLOPE SAME AS ADJACENT SURFACES, 1/4"/FT. TYPICAL
4'-0"
4-1/2"
6"
VAR.
SLOPE:2"/FT.
PAV.
SLOPE 3"/FT
4 1/2"
6" DIAM. CONC. PEDESTAL
2'-0"MIN.
2:1 SLOPE
3"MIN.
VAR.
LONG PIPE
C.O. PIPE
2"MIN.
11/2"
6"
W
6"
HANDLING GROOVE 11/2"x2" MIN. (OPTIONAL)
SECTION C-C FOR MIN. HEIGHT
RING & COVER - SEE STANDARD FOR BUILT-IN-PLACE CATCH BASIN
6" REINF. CONC. SLAB
3"MIN.
VAR.
C.O. PIPE
LONG. PIPE
6"
6"
W1
6"
SECTION C-C FOR ADDITIONAL HEIGHT
City of Loganville
where people matter
STANDARD DRAWING
Standard Catch Basin No. 4
DATE: JUNE 21, 2019
SHEET: 605

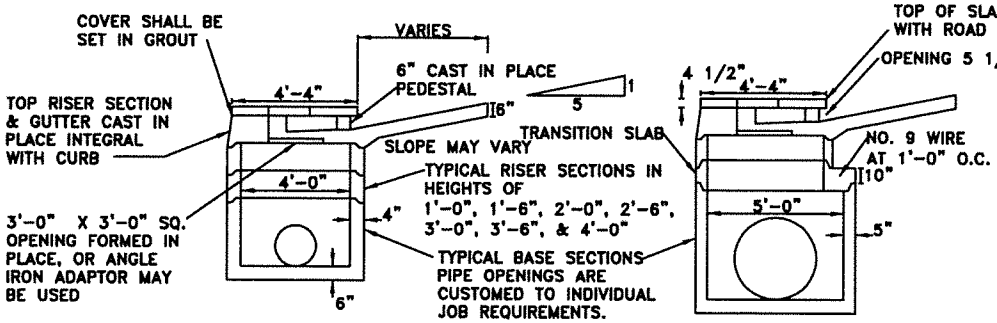
**NOTES:**

1. 1/2" EXPANSION MATERIAL SHALL BE PLACED AROUND COVER WHERE SIDEWALK IS PLACED ADJACENT TO C.B.
2. TOP SLAB MAY BE CAST IN PLACE OR PRECAST. IF SLAB IS CAST IN PLACE BUILDERS PAPER IS TO BE PLACED BETWEEN THE CATCH BASIN AND TOP SLAB.
3. SINGLE AND DOUBLE WING TOPS CONFORM TO GDOT STANDARDS 1033D & 1034D.




**Local Street Cul-de-Sac Only**



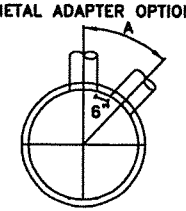




(WHERE PIPE DIA. REQUIRES 5' DIA. BASE)

**METHOD OF PIPE LAYOUT**

| ANGLE A | | | | | |
|---|---|---|---|---|---|
| 4'-0" BASE | | 5'-0" BASE | | 6'-0" BASE | |
| PIPE SIZE | A | PIPE SIZE | A | PIPE SIZE | A |
| 12 | 45° | 12 | 40° | | |
| 15 | 52° | 15 | 47° | | |
| 18 | 60° | 18 | 55° | | |
| 21 | 67° | 21 | 69° | | |
| 24 | 75° | 24 | 70° | | |
| | | 27 | 78° | | |
| | | 30 | 86° | | |
| | | 36 | 115° | | |
| | | 42 | 140° | 42 | 90° |
| | | | | 48 | 115° |

METAL ADAPTER OPTIONAL




**NOTES:**

1. SUBGRADE TO BE COMPACTED TO 95% STANDARD PROCTOR (AASHTO T-99).
2. REINFORCEMENT STEEL TO BE PLACED TO ALLOW A MINIMUM OF 2" CLEARANCE, EXCEPT WHERE NOTED.
3. REINFORCEMENT STEEL TO BE GRADE 60 AND TO BE 0.12 SQ. IN. PER FT. IN BOTH DIRECTIONS IN ACCORDANCE WITH ASTM C 476 MANHOLE SPECIFICATIONS.
4. CONCRETE: MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 4500 PSI UNLESS NOTED OTHERWISE.
5. CHAMFER ALL EXPOSED EDGES 3/4".

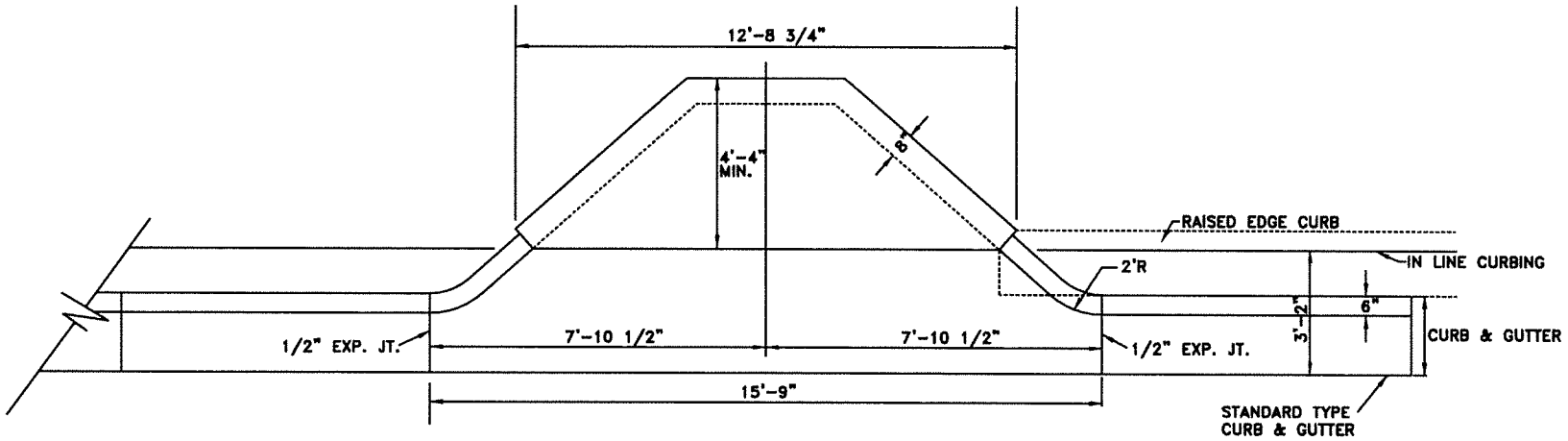
City of Loganville
where people matter

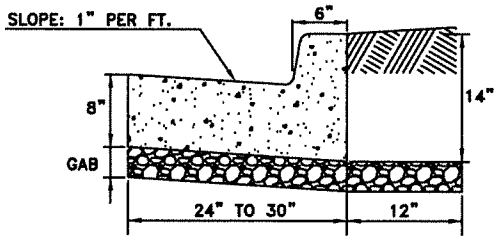
STANDARD DRAWING

**Round Precast Concrete Catch Basin**

DATE: JUNE 21, 2019

SHEET: 606



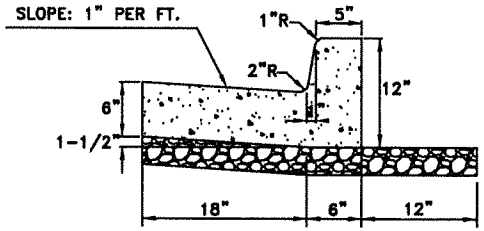




TYPICAL CURB SECTION

HIGH BACK CURB AND GUTTER
(COMMERCIAL AND INDUSTRIAL)

NOTES:

1. EXPANSION JOINTS REQUIRED AT ALL STRUCTURES AND CURB RETURNS.
2. MAXIMUM DISTANCE BETWEEN EXPANSION JOINTS = 250'
3. CONCRETE: MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 3000 PSI.




TYPICAL CURB SECTION

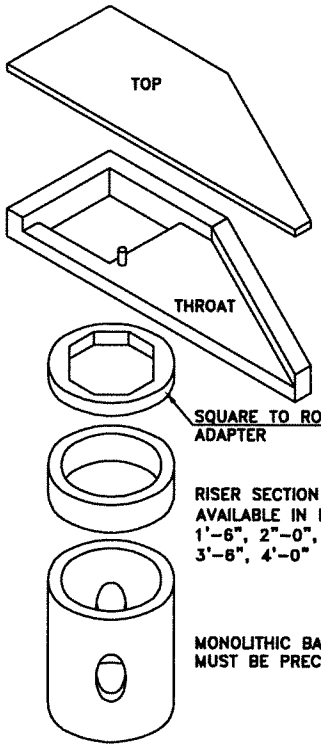
STANDARD CURB AND GUTTER
(RESIDENTIAL)

City of Loganville
where people matter

STANDARD DRAWING

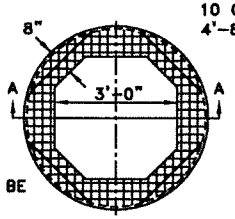
**Gutter Standard Type Curb and Gutter at a Catch Basin**

DATE: JUNE 21, 2019 SHEET: 607

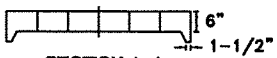



TOP & THROAT WILL NOT BE PRECAST.

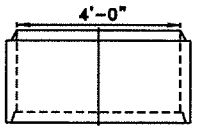
GROUT ALL JOINTS




ROUND TO SQUARE ADAPTER



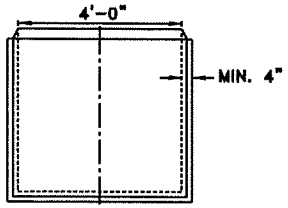

SECTION A-A



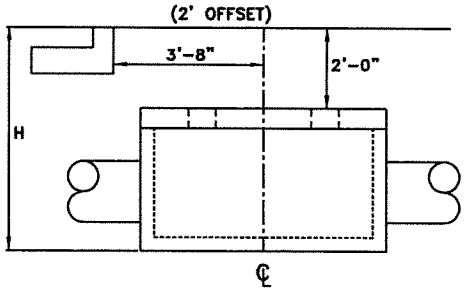

REINFORCING TO BE 2/2 6X6 WELDED WIRE FABRIC

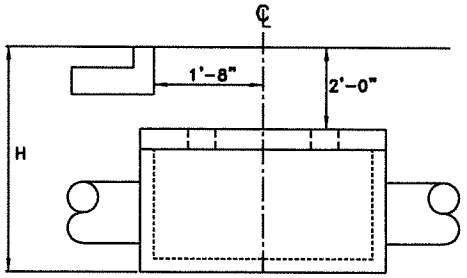
RISER

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




REINFORCING TO BE 3/3 6X8 WELDED WIRE FABRIC




CENTERLINE OF CATCH BASINS

ON-LINE

**NOTE:**

1. STEPS TO BE INSTALLED ON 15" VERTICAL SPACING. SEE PRECAST MANHOLE STANDARD FOR SPECIFICATION.

| BASE HEIGHT | METAL PIPE | CONC PIPE | H(MIN) |
|---|---|---|---|
| 4' DIA – 2'-6" | 18" | 12" | 5'-0" |
| 3'-0" | 24" | 18" | 5'-6" |
| 3'-6" | 30" | 24" | 6'-0" |
| 4'-0" | | 30" | 6'-6" |

**NOTES:**

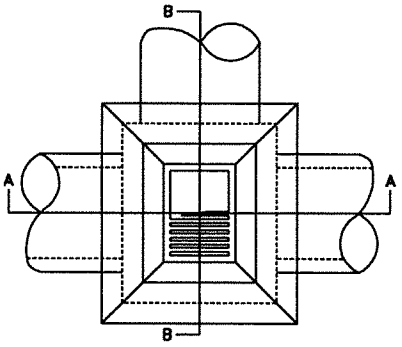
1. CATCH BASIN TO BE INSTALLED WITH PIPE OPENING AS SPECIFIED.
2. CONCRETE: MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 4500 PSI.

City of Loganville
where people matter

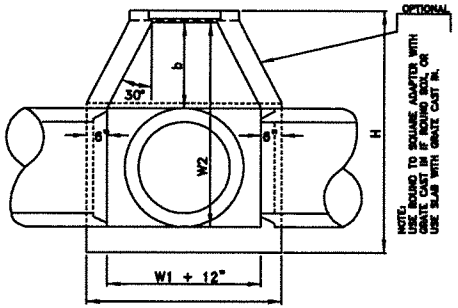
STANDARD DRAWING

**Standard Precast Round Catch Basin**

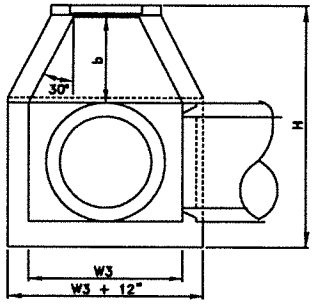
DATE: JUNE 21, 2019 SHEET: 608



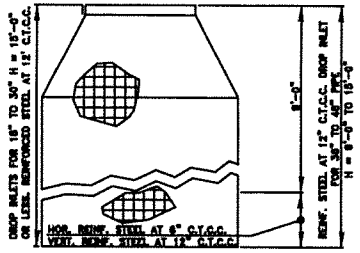

CAN BE BRICK OR PRECAST BOX.




SECTION A-A




SECTION B-B

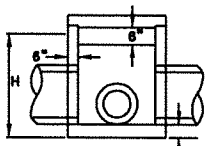



IN ALL DROP INLETS 1/2" Ø BAR REINFORCING STEEL TO BE PLACED NOT MORE THAN 12" C TO C AND COVERED NOT LESS THAN 2".

TYPE A

**NOTES:**

1. BRICK INVERTS REQUIRED AT ALL JUNCTION BOXES & DROP INLETS RAISE BOTTOM OF BOX TO OUTFLOW PIPE INVERT. MATCH DIFFERENT SIZE PIPES AT CROWNS.
2. MAXIMUM VERTICAL DEPTH FOR DROP INLET H = 15'-0"




1/2" Ø BARS AT 12" CENTER TO CENTER

TYPE B

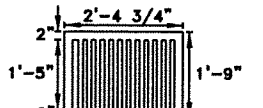
| TYPE A | | | | | | | TYPE B | | |
|---|---|---|---|---|---|---|---|---|---|
| D | W1 | MIN.-W2 | W3 | a | b | MIN.-H | NORMAL W OR W1 | MIN. b | MIN. H |
| 15" | 2'-0" | 2'-6 1/2" | 2'-7" | 0'-3 1/2" | 0'-6" | 3'-3" | 2'-0" | 2'-7 1/2" | 3'-9 1/2" |
| 18" | 2'-0" | 2'-8 1/2" | 2'-7" | 0'-3 1/2" | 0'-6" | 3'-6" | 2'-3" | 2'-10" | 4'-0" |
| 24" | 2'-6" | 4'-1/2" | 3'-3" | 0'-7 1/2" | 1'-1" | 4'-6" | 3'-0" | 3'-6" | 4'-10" |
| 30" | 3'-4" | 5'-1 1/2" | 3'-11" | 0'-11 1/2" | 1'-6" | 5'-10" | 3'-6 1/2" | 4'-2 1/2" | 5'-4 1/2" |
| 36" | 3'-10" | 6'-1 1/2" | 4'-5" | 1'-2 1/2" | 2'-1 1/4" | 6'-10" | 4'-2" | 4'-10" | 6'-0" |
| 42" | 4'-6" | 7'-2 1/2" | 5'-0" | 1'-6" | 2'-7 1/2" | 7'-11" | 4'-6 1/2" | 5'-4 1/2" | 6'-6 1/2" |
| 48" | 5'-0" | 8'-3 1/2" | 5'-7" | 1'-9 1/2" | 3'- 1 1/4" | 9'-0" | 5'-3 1/2" | 5'-11 1/2" | 7'-1 1/2" |
| 54" | 5'-7" | 9'-4 1/2" | 6'-2" | 2'-1" | 3'-7 1/4" | 10'-1" | 5'-10" | 6'-6" | 7'-6" |
| 60" | 6'-2" | 10'-6 1/2" | 6'-9" | 2'-4 1/2" | 4'-1 1/2" | 11'-2" | 6'-4 1/2" | 7'-0 1/2" | 8'-2 1/2" |
| 66" | 6'-9" | 11'-8 1/2" | 7'-4" | 2'-8" | 4'-7 1/2" | 12'-3" | 6'-11" | 7'-7" | 8'-9" |
| 72" | 7'-4" | 12'-7 1/2" | 7'-11" | 2'-11 1/2" | 5'-1 1/4" | 13'-4" | 7'-6 1/2" | 8'-1 1/2" | 9'-3" |

CONCRETE DI

| TYPE A | | | | | | | TYPE B | | |
|---|---|---|---|---|---|---|---|---|---|
| D | W1 | MIN.-W2 | W3 | a | b | MIN.-H | NORMAL W OR W1 | MIN. b | MIN. H |
| 15" | 2'-2" | 2'-11" | 2'-6" | 0'-4 1/2" | 0'-6" | 3'-9 1/2" | 2'-0" | 2'-7 1/2" | 3'-7 1/2" |
| 18" | 2'-2" | 3'-2 1/2" | 2'-6" | 0'-4 1/2" | 0'-6" | 4'-1" | 2'-0" | 2'-10" | 3'-10" |
| 24" | 2'-6" | 3'-8" | 3'-3" | 0'-7 1/2" | 1'-1 1/4" | 4'-6" | 3'-0" | 3'-6" | 4'-6" |
| 30" | 3'-7 1/4" | 4'-0" | 3'-10" | 1'-0" | 1'-6" | 5'-10" | 3'-6 1/2" | 4'-2 1/2" | 5'-10" |
| 36" | 4'-2" | 6'-0 1/2" | 4'-5" | 1'-4 1/2" | 2'-1 1/4" | 6'-11" | 4'-2" | 4'-10" | 5'-10" |
| 42" | 4'-6" | 7'-1 3/4" | 5'-0" | 1'-6" | 2'-7 1/4" | 8'-0 1/4" | 4'-6 1/2" | 5'-4 1/2" | 6'-11 1/2" |
| 48" | 5'-0" | 8'-2 3/4" | 5'-7" | 1'-9 1/2" | 3'- 1 1/4" | 9'-1 1/4" | 5'-3 1/2" | 5'-11 1/2" | 6'-11 1/2" |
| 54" | 5'-7" | 9'-4" | 6'-2" | 2'-1" | 3'-7 1/2" | 10'-2 1/2" | 5'-10" | 6'-6" | 7'-6" |
| 60" | 6'-2" | 10'-6" | 6'-9" | 2'-4 1/2" | 4'-1 1/2" | 11'-3 1/4" | 6'-4 1/2" | 7'-0 1/2" | 8'-0 1/2" |
| 66" | 6'-9" | 11'-6" | 7'-4" | 2'-8" | 4'-7 1/2" | 12'-4 1/2" | 6'-11" | 7'-7" | 8'-7" |
| 72" | 7'-4" | 12'-7" | 7'-11" | 2'-11 1/2" | 5'-2" | 13'-6 1/2" | 7'-6 1/2" | 8'-1 1/2" | 9'-1 1/2" |

BRICK DI

APPROX. WT. 200 LB.
DETAIL OF CAST IRON GRATING



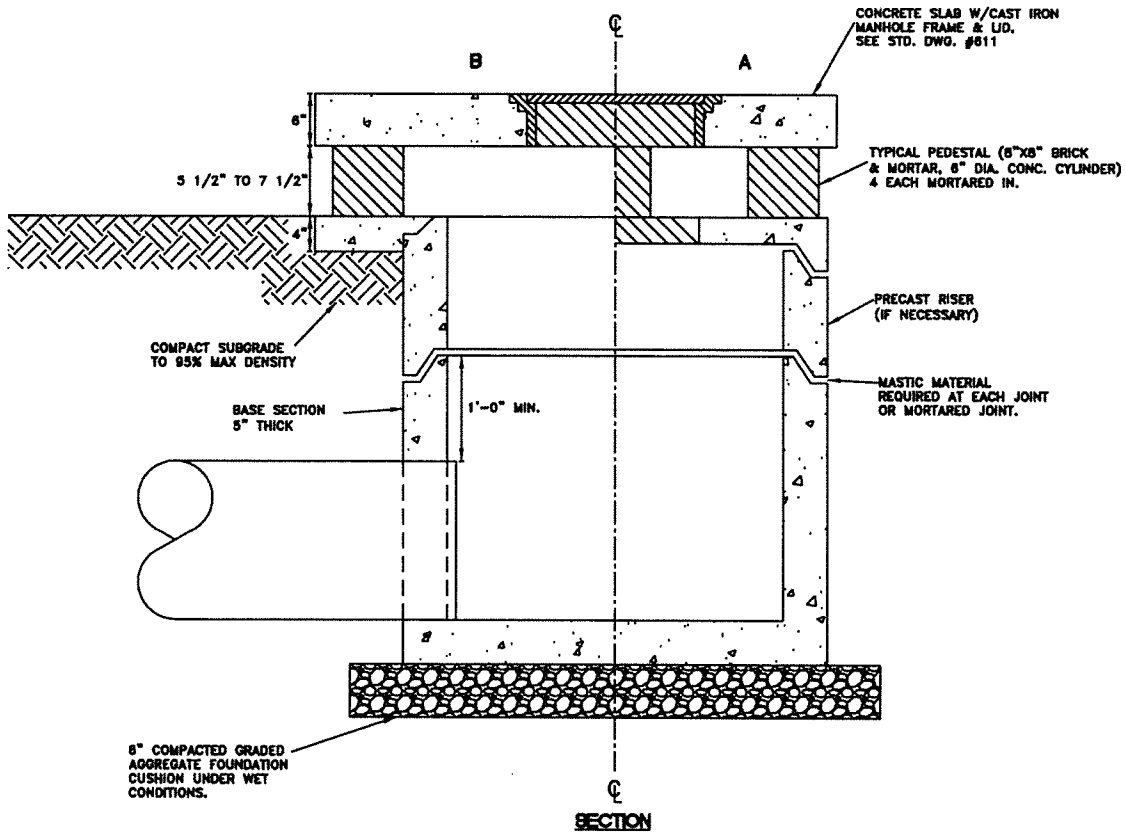

City of Loganville
where people matter

STANDARD DRAWING

**Standard Drop Inlet**

DATE: JUNE 21, 2019

SHEET: 609




**SECTION**

**NOTES:**

1. SUBGRADE TO BE COMPACTED TO 95% MAX. DRY DENSITY PER STANDARD PROCTOR.
2. PLACE REINFORCEMENT STEEL TO ALLOW A MIN. OF 1 1/2" COVER, EXCEPT WHERE NOTED.
3. REINFORCEMENT STEEL TO BE GRADE 60 AND TO CONSIST OF NO. 4 @ 6" O.C. E.W.
4. CONCRETE: MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 4500 PSI.
5. WHEN 60" & 72" BASE SECTIONS ARE REQUIRED, USE AN ADAPTER SECTION IN CONJUNCTION WITH THE STANDARD CONE.
6. CONCRETE TOP COVER THICKNESS: 8" – VEHICULAR TRAFFIC AREAS.

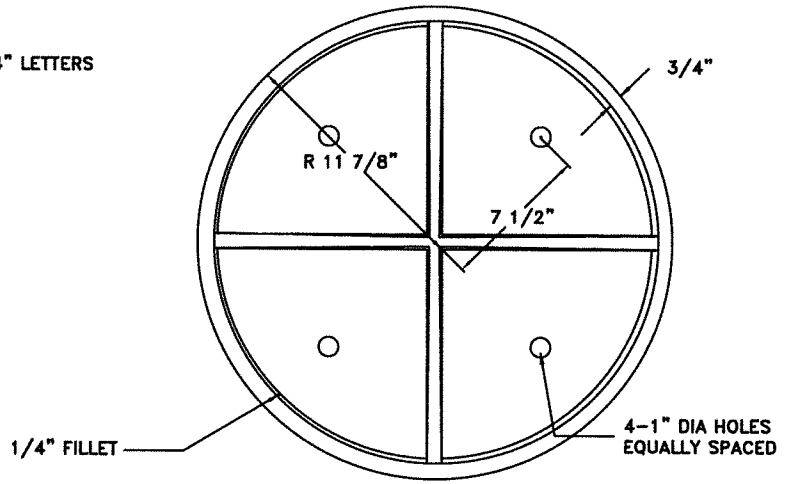
City of Loganville
*where people matter*

S T A N D A R D  D R A W I N G

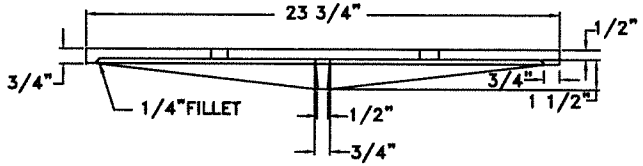
**Standard Precast Round Drop Inlet**

D A T E: JUNE 21, 2019  S H E E T: 610

TOP VIEW




BOTTOM VIEW




COVER SECTION

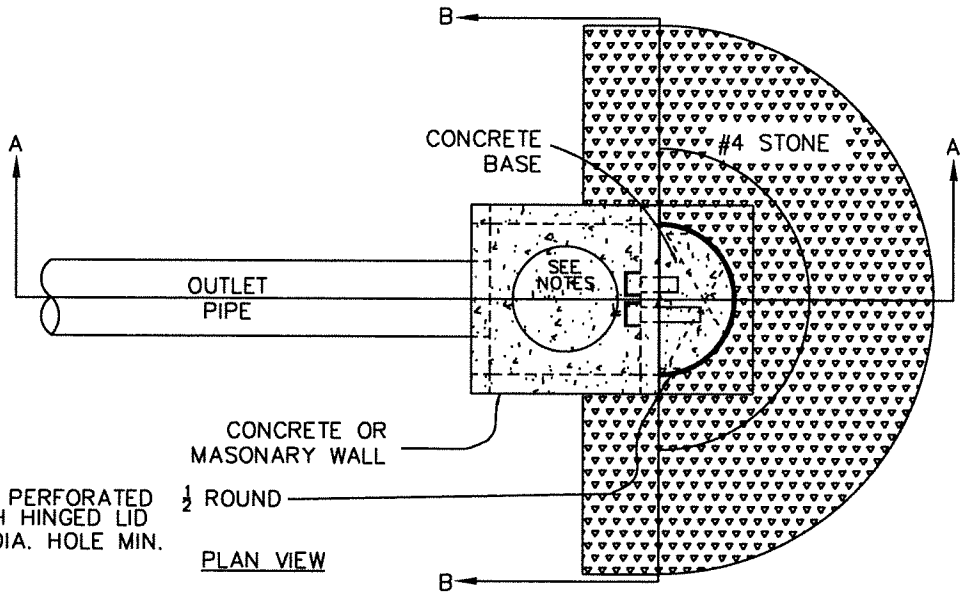
NOTES:
1. APPROXIMATE WEIGHT: C.I. COVER 63 LBS.
2. LOAD RATING: NON-TRAFFIC
3. ENGRAVING DEPTH MAX.: 3/16"

City of Loganville
where people matter

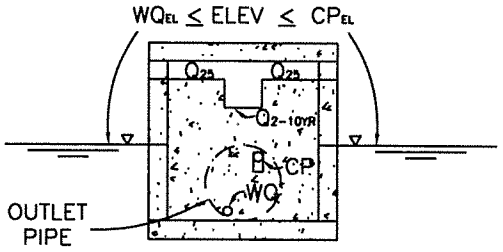
STANDARD DRAWING

**Manhole Castings - Non-Traffic Areas**

DATE: JUNE 21, 2019 SHEET: 611

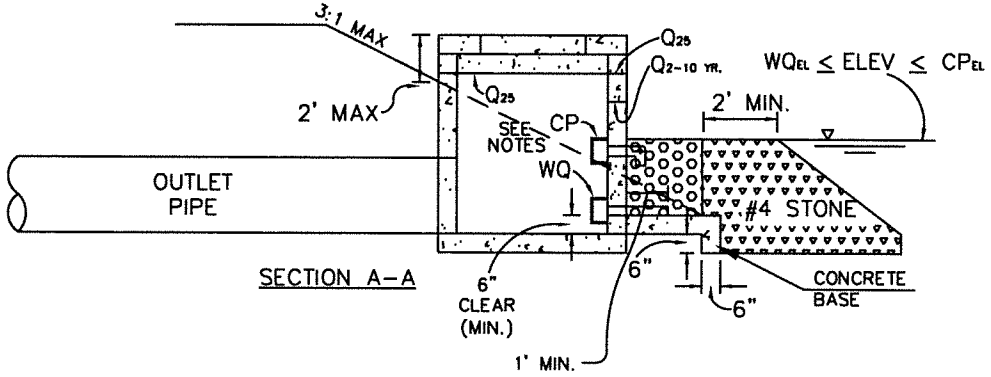



PLAN VIEW




SECTION B–B

NOTES:
1. WEIR CONFIGURATION SHOWN FOR CONCEPTUAL PURPOSES ONLY
2. THREADED END CAP WITH ORIFICE REQ'D FOR ORIFICE DIA. < 4".
3. REFER TO LOGANVILLE STD. DRAWING 629 FOR ORIFICE END-CAPS.
4. REFER TO LOGANVILLE STD. DRAWING 611 FOR MANHOLE LID.
5. STONE FILTER SHALL BE #4 STONE OR SMALLER.
6. FOR ROUND STRUCTURES PROVIDE 48" PERFORATED ¾ ROUND WITH HINGED LID AND ½" DIA. HOLE MIN.




SECTION A–A

TOP OF DAM = _____FT

EMER. SPILLWAY = _____FT

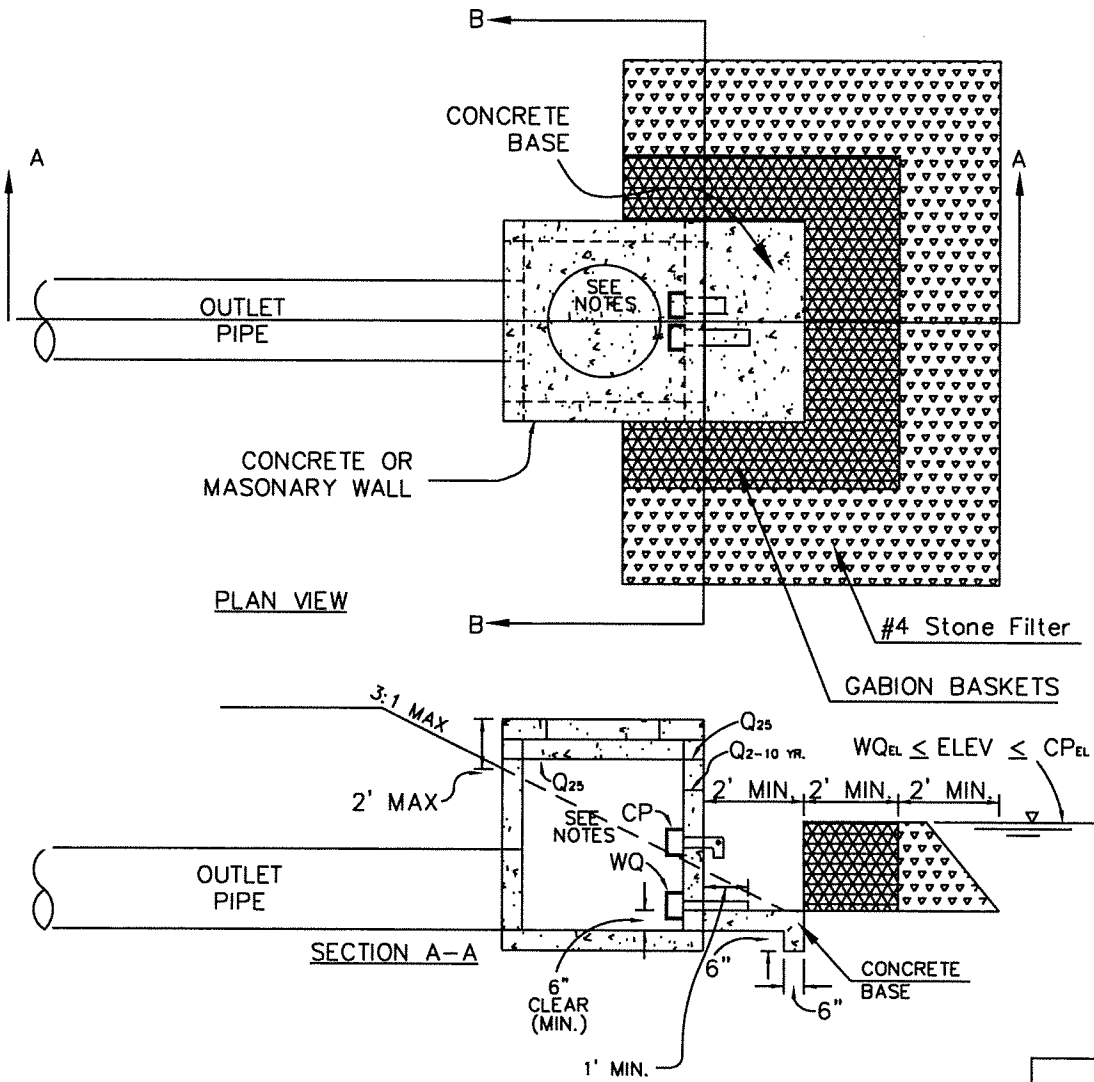
| EVENT | ORIFICE/WEIR INV ELEV. | ORIFICE DIA. (IN) | WEIR LEN. (FT) | VOL. (CF) | WSEL |
|---|---|---|---|---|---|
| WQ | | | | | |
| CP | | | | | |
| 2 | | | | | |
| 5 | | | | | |
| 10 | | | | | |
| 25 | | | | | |
| 100 | | | | | |

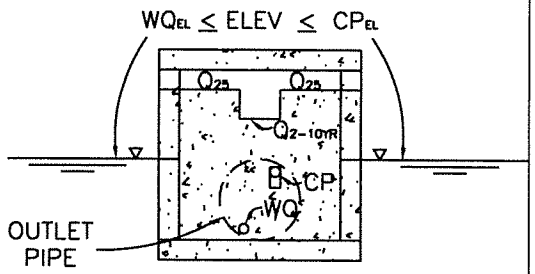
City of Loganville
where people matter

STANDARD DRAWING

**Outlet Structure Dam Height-5' Max with 1/2" Round Stone Filter**

DATE: JUNE 21, 2019 SHEET: 612




SECTION B-B

NOTES:
1. WEIR CONFIGURATION SHOWN FOR CONCEPTUAL PURPOSES ONLY
2. THREADED END CAP WITH ORIFICE REQ'D FOR ORIFICE DIA. < 4".
3. REFER TO LOGANVILLE STD. DRAWING 629 FOR ORIFICE END-CAPS.
4. REFER TO LOGANVILLE STD. DRAWING 611 FOR MANHOLE LID.
5. STONE FILTER SHALL BE #4 STONE OR SMALLER.

TOP OF DAM = _____FT

EMER. SPILLWAY = _____FT

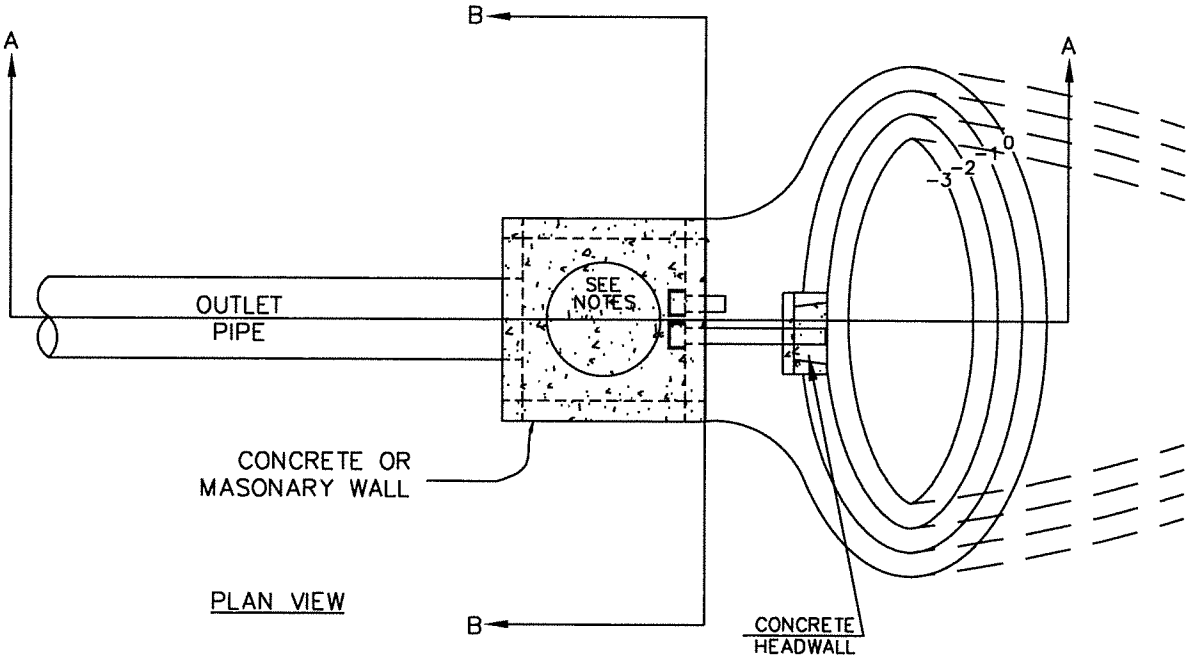
| EVENT | ORIFICE/WEIR INV ELEV. | ORIFICE DIA. (IN) | WEIR LEN. (FT) | VOL. (CF) | WSEL |
|---|---|---|---|---|---|
| WQ | | | | | |
| CP | | | | | |
| 2 | | | | | |
| 5 | | | | | |
| 10 | | | | | |
| 25 | | | | | |
| 100 | | | | | |

City of Loganville
where people matter

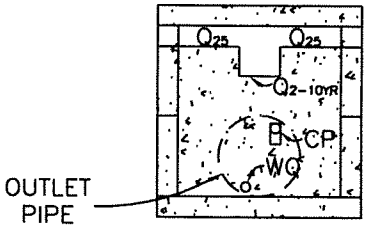
STANDARD DRAWING

**Outlet Structure Dam Height-5' Max with Gabion Filter**

DATE: JUNE 21, 2019 SHEET: 613

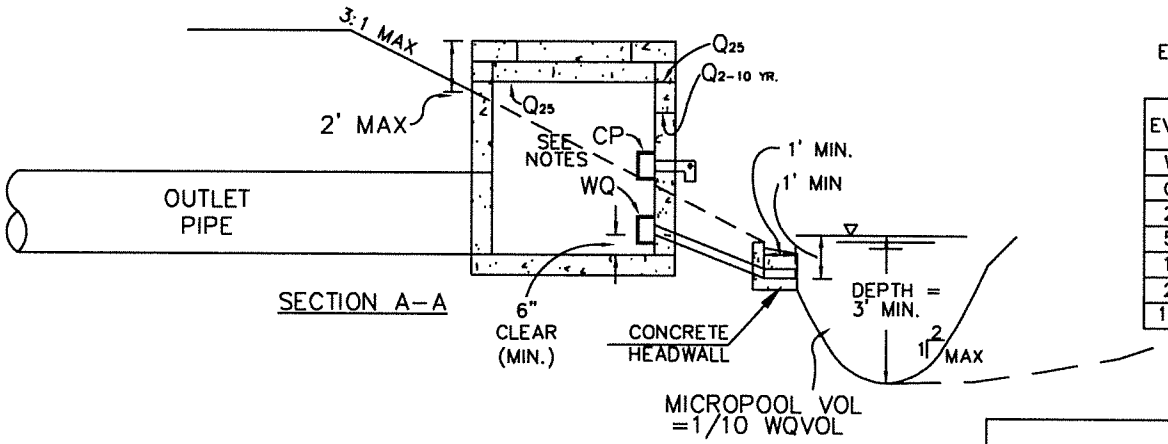



PLAN VIEW




SECTION B–B

NOTES:
1. WEIR CONFIGURATION SHOWN FOR CONCEPTUAL PURPOSES ONLY
2. THREADED END CAP WITH ORIFICE REQ'D FOR ORIFICE DIA. < 4".
3. REFER TO LOGANVILLE STD. DRAWING 629 FOR ORIFICE END-CAPS.
4. REFER TO LOGANVILLE STD. DRAWING 611 FOR MANHOLE LID.




SECTION A–A

TOP OF DAM = _____FT

EMER. SPILLWAY = _____FT

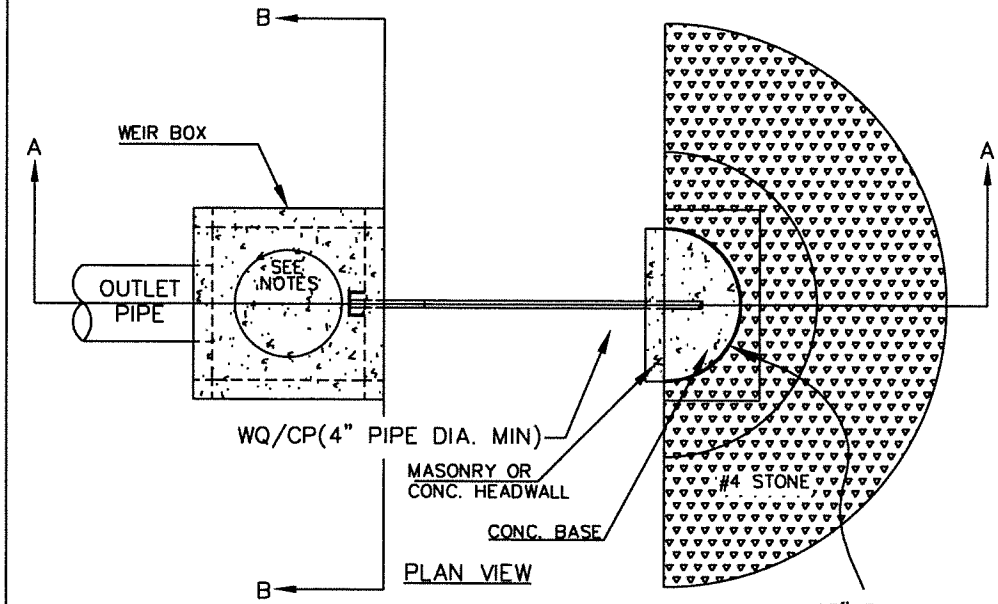
| EVENT | ORIFICE/WEIR INV ELEV. | ORIFICE DIA. (IN) | WEIR LEN. (FT) | VOL. (CF) | WSEL |
|---|---|---|---|---|---|
| WQ | | | | | |
| CP | | | | | |
| 2 | | | | | |
| 5 | | | | | |
| 10 | | | | | |
| 25 | | | | | |
| 100 | | | | | |

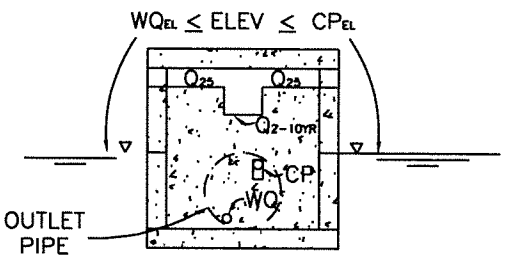
City of Loganville
where people matter

STANDARD DRAWING

**Outlet Structure Dam Height=5' Max with Micropool or Wet Pond**

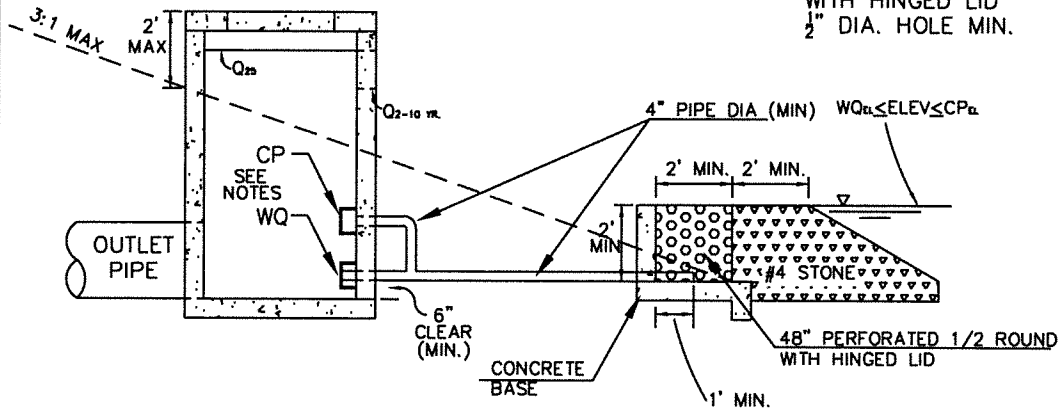
DATE: JUNE 21, 2019 SHEET: 614




SECTION B–B

NOTES:
1. WEIR CONFIGURATION SHOWN FOR CONCEPTUAL PURPOSES ONLY
2. THREADED END CAP WITH ORIFICE REQ'D FOR ORIFICE DIA. < 4".
3. REFER TO LOGANVILLE STD. DRAWING 629 FOR ORIFICE END–CAPS.
4. REFER TO LOGANVILLE STD. DRAWING 611 FOR MANHOLE LID.
5. STONE FILTER SHALL BE #4 STONE OR SMALLER.
6. FOR ROUND STRUCTURES PROVIDE 48" PERFORATED ¾ ROUND WITH HINGED LID AND ½" DIA. HOLE MIN.




SECTION A–A

TOP OF DAM = _____FT

EMER. SPILLWAY = _____FT

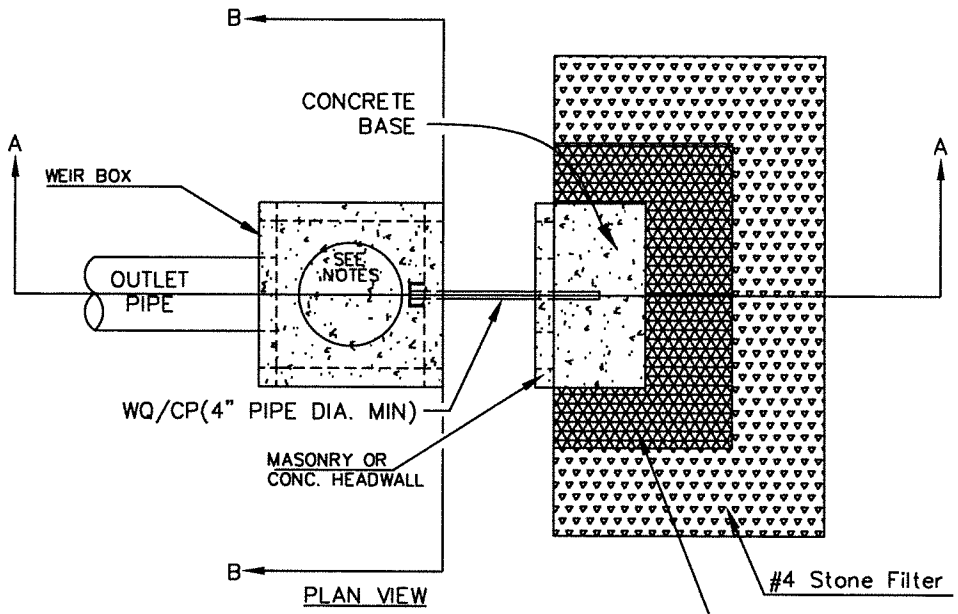
| EVENT | ORIFICE/WEIR INV ELEV. | ORIFICE DIA. (IN) | WEIR LEN. (FT) | VOL. (CF) | WSEL |
|---|---|---|---|---|---|
| WQ | | | | | |
| CP | | | | | |
| 2 | | | | | |
| 5 | | | | | |
| 10 | | | | | |
| 25 | | | | | |
| 100 | | | | | |

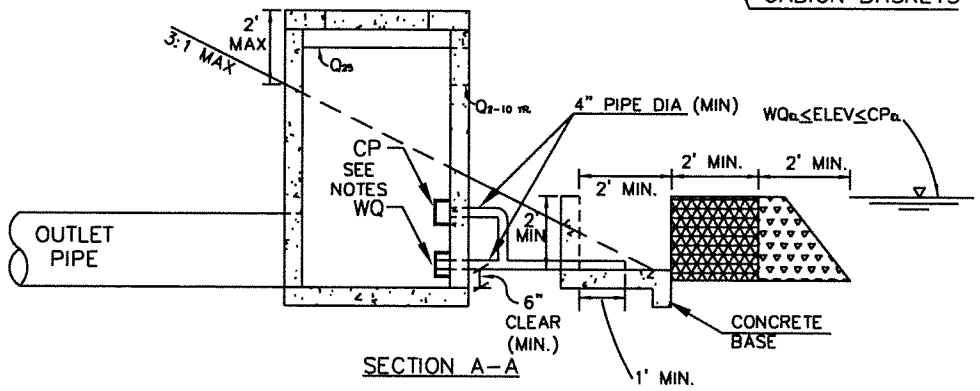
City of Loganville
where people matter

S T A N D A R D  D R A W I N G

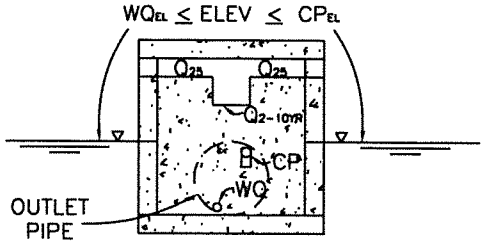
**Outlet Control Structure with 1/2" Round Stone Filter**

D A T E: JUNE 21, 2019  S H E E T: 615




SECTION A–A




SECTION B–B

NOTES:
1. WEIR CONFIGURATION SHOWN FOR CONCEPTUAL PURPOSES ONLY
2. THREADED END CAP WITH ORIFICE REQ'D FOR ORIFICE DIA. < 4".
3. REFER TO LOGANVILLE STD. DRAWING 629 FOR ORIFICE END-CAPS.
4. REFER TO LOGANVILLE STD. DRAWING 611 FOR MANHOLE LID.
5. STONE FILTER SHALL BE #4 STONE OR SMALLER.

TOP OF DAM = _____ FT

EMER. SPILLWAY = _____ FT

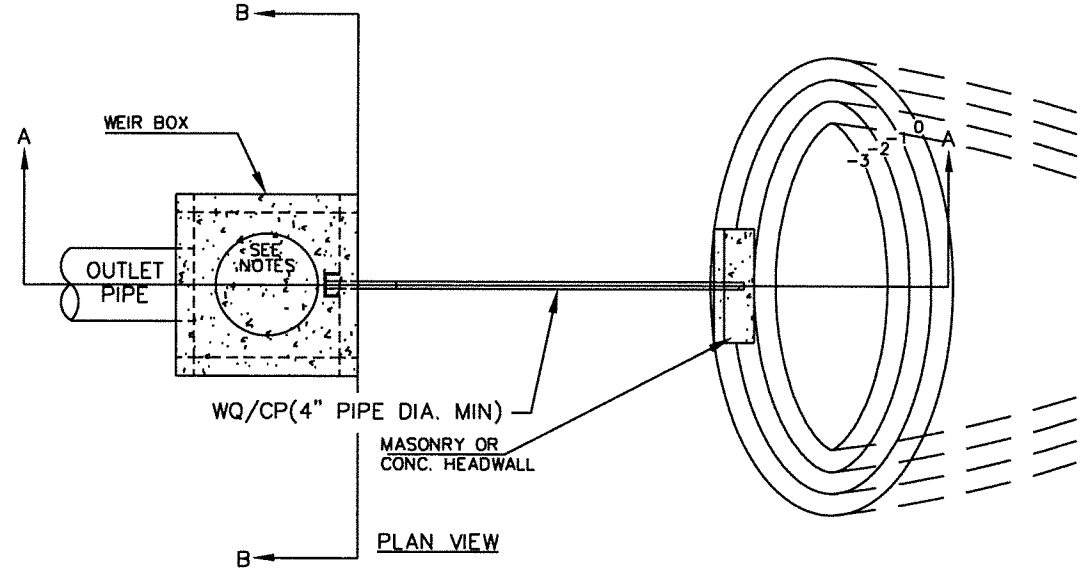
| EVENT | ORIFICE/WEIR INV ELEV. | ORIFICE DIA. (IN) | WEIR LEN. (FT) | VOL. (CF) | WSEL |
|---|---|---|---|---|---|
| WQ | | | | | |
| CP | | | | | |
| 2 | | | | | |
| 5 | | | | | |
| 10 | | | | | |
| 25 | | | | | |
| 100 | | | | | |

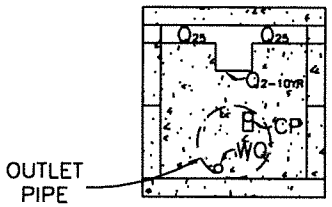
City of Loganville
where people matter

STANDARD DRAWING

**Outlet Control Structure with Gabion Filter**

DATE: JUNE 21, 2019 SHEET: 616



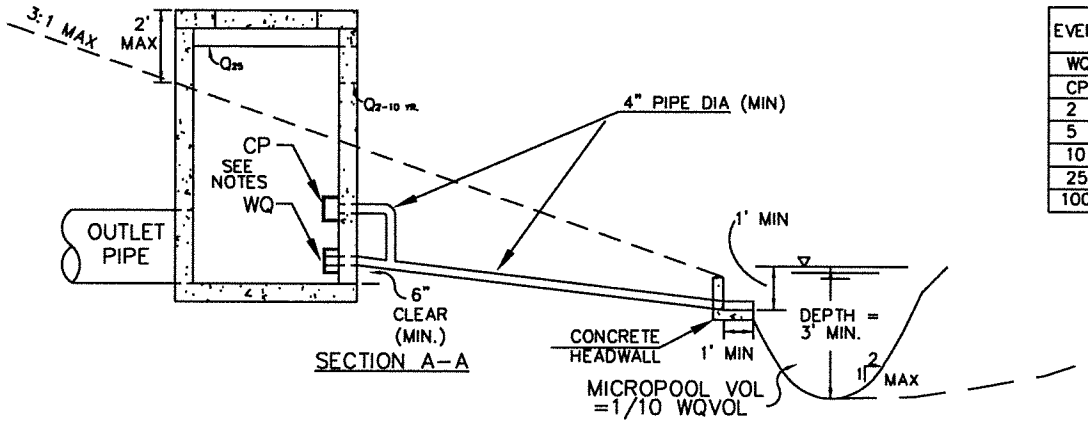

SECTION B-B

NOTES:
1. WEIR CONFIGURATION SHOWN FOR CONCEPTUAL PURPOSES ONLY
2. THREADED END CAP WITH ORIFICE REQ'D FOR ORIFICE DIA. < 4".
3. REFER TO LOGANVILLE STD. DRAWING 629 FOR ORIFICE END-CAPS.
4. REFER TO LOGANVILLE STD. DRAWING 611 FOR MANHOLE LID.

TOP OF DAM = _____FT

EMER. SPILLWAY = _____FT

| EVENT | ORIFICE/WEIR INV ELEV. | ORIFICE DIA. (IN) | WEIR LEN. (FT) | VOL. (CF) | WSEL |
|---|---|---|---|---|---|
| WQ | | | | | |
| CP | | | | | |
| 2 | | | | | |
| 5 | | | | | |
| 10 | | | | | |
| 25 | | | | | |
| 100 | | | | | |

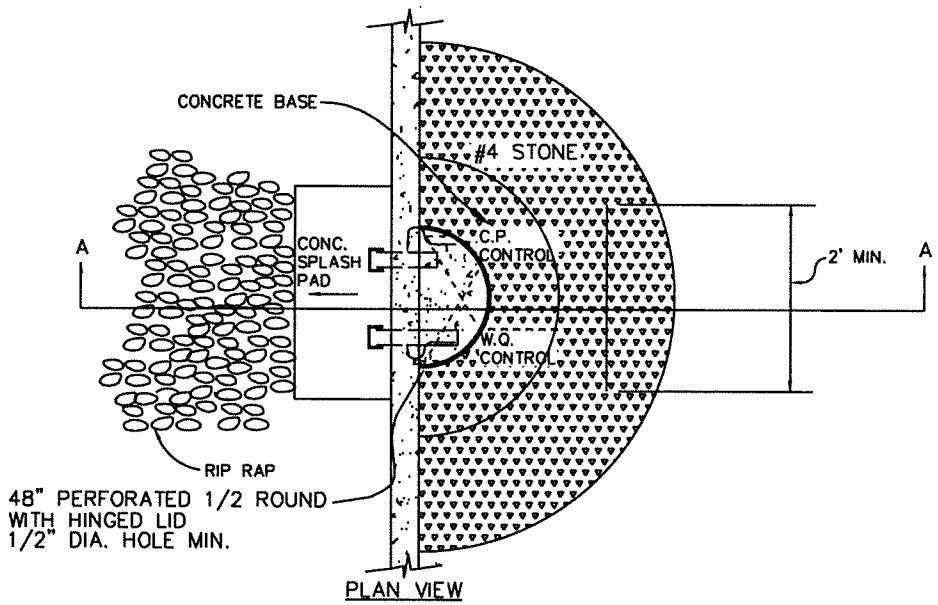



City of Loganville
where people matter

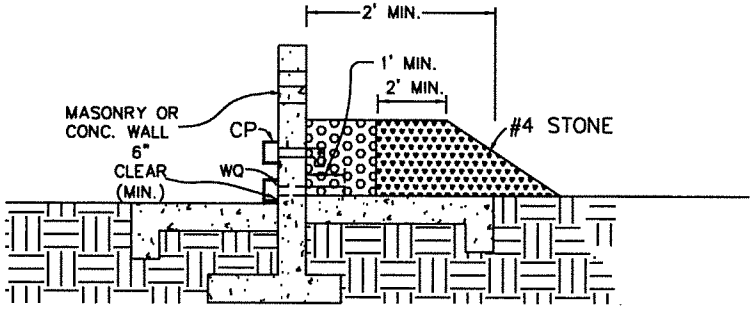
STANDARD DRAWING

**Outlet Control Structure with Micropool or Wet Pond**

DATE: JUNE 21, 2019 SHEET: 617

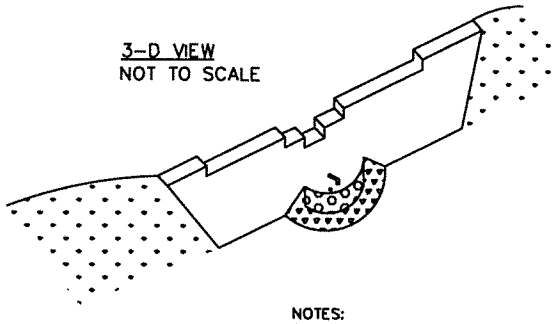



PLAN VIEW




CROSS SECTION A–A

3–D VIEW
NOT TO SCALE



NOTES:
1. WEIR CONFIGURATION SHOWN FOR CONCEPTUAL PURPOSES ONLY
2. THREADED END CAP WITH ORIFICE REQ'D FOR ORIFICE DIA. < 4".
3. REFER TO LOGANVILLE STD. DRAWING 629 FOR ORIFICE END-CAPS.
4. REFER TO LOGANVILLE STD. DWG. 626 FOR TYPICAL DETENTION POND WALL TIE IN.
5. STONE FILTER SHALL BE #4 STONE OR SMALLER.
6. FOR ROUND STRUCTURES PROVIDE 48" PERFORATED ¼ ROUND WITH HINGED LID AND ½" DIA. HOLE MIN.

TOP OF WALL = _____ FT

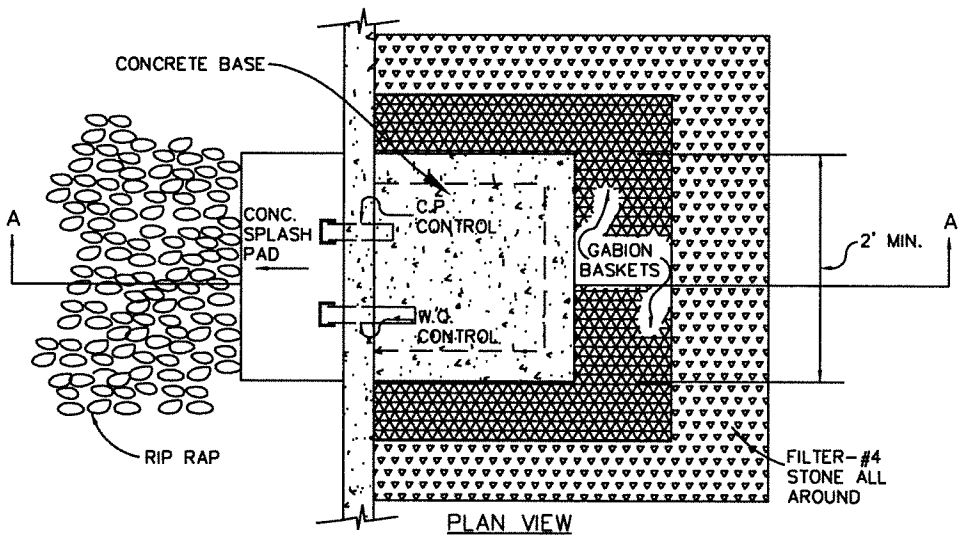
| EVENT | ORIFICE/WEIR INV ELEV. | ORIFICE DIA. (IN) | WEIR LEN. (FT) | VOL. (CF) | WSEL |
|---|---|---|---|---|---|
| WQ | | | | | |
| CP | | | | | |
| 2 | | | | | |
| 5 | | | | | |
| 10 | | | | | |
| 25 | | | | | |
| 100 | | | | | |

City of Loganville
where people matter

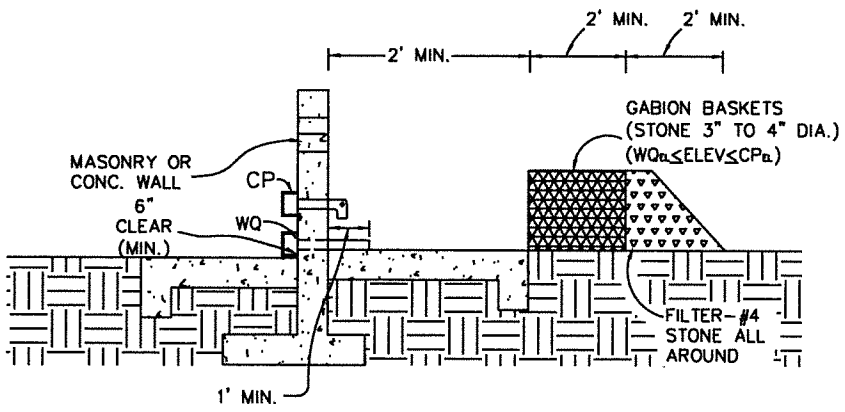
S T A N D A R D  D R A W I N G

**Outlet Control Retaining Wall with 1/2" Round Stone Filter**

D A T E: JUNE 21, 2019  S H E E T: 618

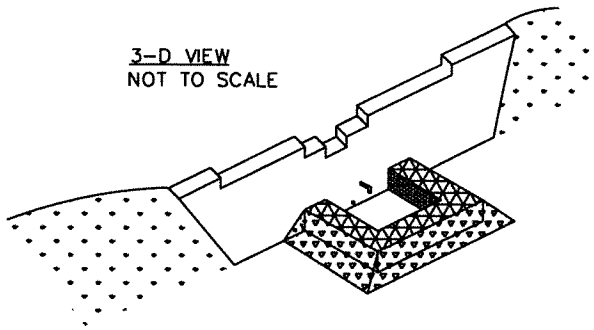



PLAN VIEW




CROSS SECTION A-A

3-D VIEW
NOT TO SCALE



NOTES:
1. WEIR CONFIGURATION SHOWN FOR CONCEPTUAL PURPOSES ONLY
2. THREADED END CAP WITH ORIFICE REQ'D FOR ORIFICE DIA. < 4".
3. REFER TO LOGANVILLE STD. DRAWING 629 FOR ORIFICE END-CAPS.
4. REFER TO LOGANVILLE STD. DWG. 626 FOR TYPICAL DETENTION POND WALL TIE IN.
5. STONE FILTER SHALL BE #4 STONE OR SMALLER.

TOP OF WALL =_____ FT

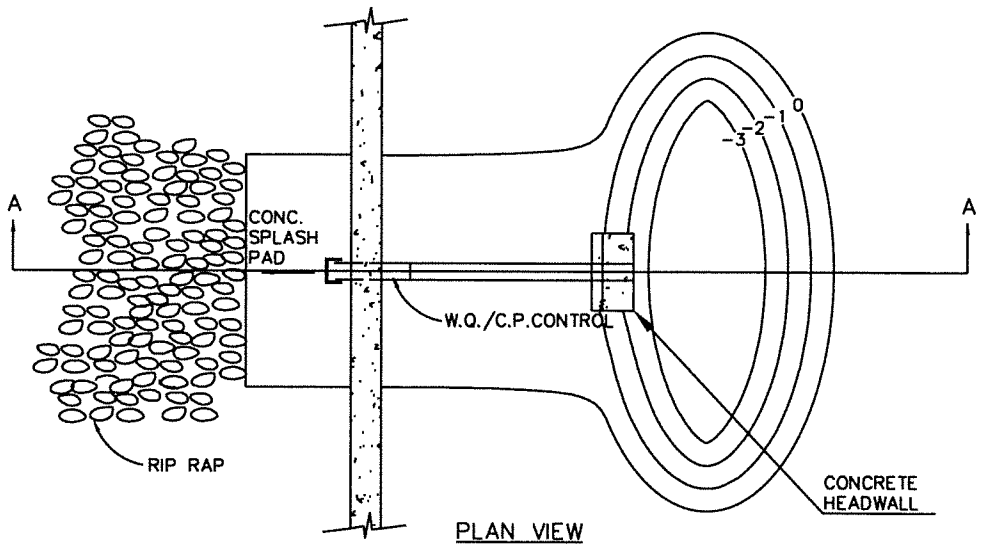
| EVENT | ORIFICE/WEIR INV ELEV. | ORIFICE DIA. (IN) | WEIR LEN. (FT) | VOL. (CF) | WSEL |
|---|---|---|---|---|---|
| WQ | | | | | |
| CP | | | | | |
| 2 | | | | | |
| 5 | | | | | |
| 10 | | | | | |
| 25 | | | | | |
| 100 | | | | | |

City of Loganville
where people matter

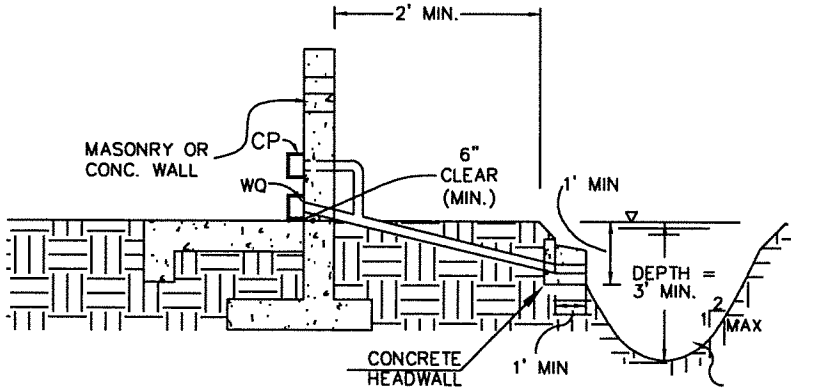
STANDARD DRAWING

**Outlet Control Retaining Wall**

DATE: JUNE 21, 2019 SHEET: 619




PLAN VIEW




CROSS SECTION A–A

NOTES:
1. WEIR CONFIGURATION SHOWN FOR CONCEPTUAL PURPOSES ONLY
2. THREADED END CAP WITH ORIFICE REQ'D FOR ORIFICE DIA. < 4".
3. REFER TO LOGANVILLE STD. DRAWING 629 FOR ORIFICE END-CAPS.
4. REFER TO LOGANVILLE STD. DWG. 626 FOR TYPICAL DETENTION POND WALL TIE IN.

TOP OF WALL =_____ FT

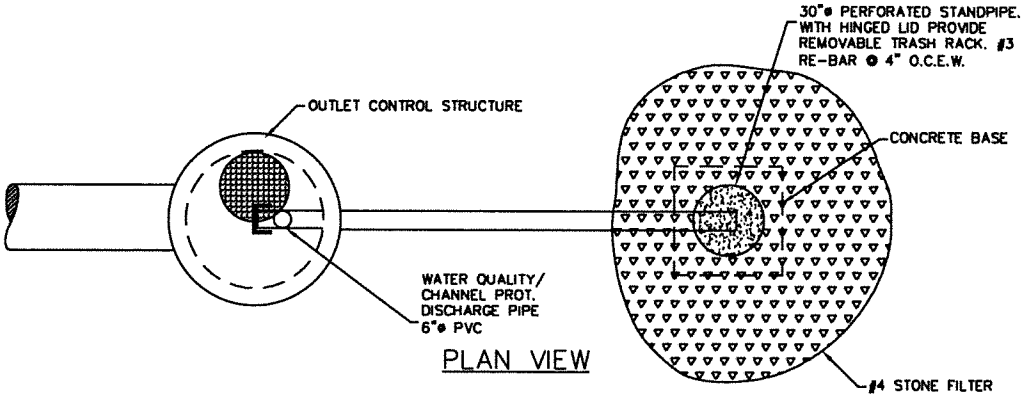
| EVENT | ORIFICE/WEIR INV ELEV. | ORIFICE DIA. (IN) | WEIR LEN. (FT) | VOL. (CF) | WSEL |
|---|---|---|---|---|---|
| WQ | | | | | |
| CP | | | | | |
| 2 | | | | | |
| 5 | | | | | |
| 10 | | | | | |
| 25 | | | | | |
| 100 | | | | | |

City of Loganville
where people matter

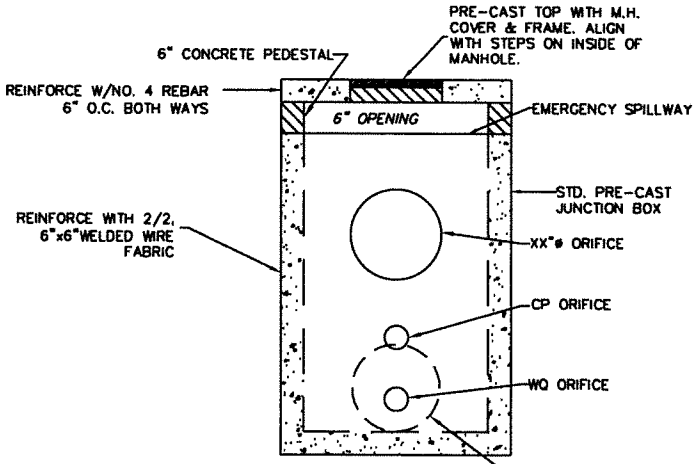
STANDARD DRAWING

**Outlet Control Retaining Wall with Micropool**

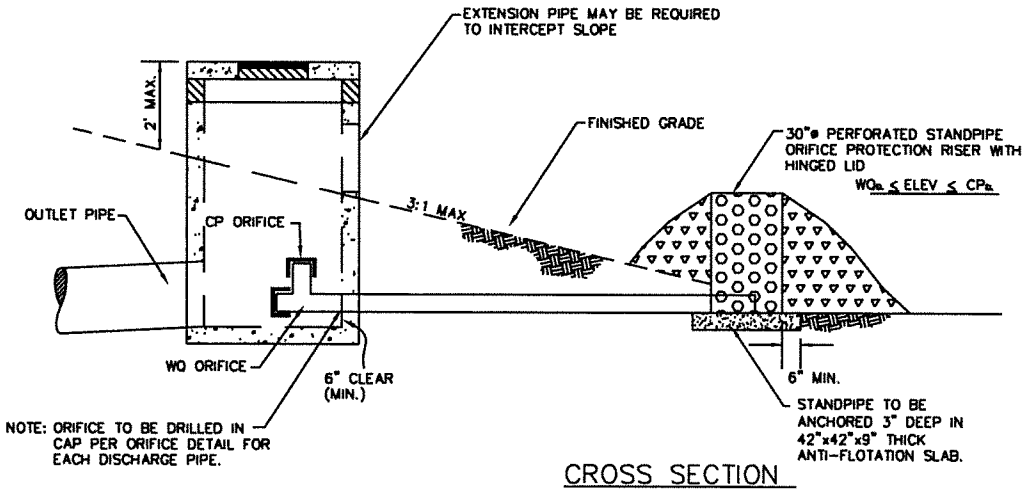
DATE: JUNE 21, 2019 SHEET: 620




PLAN VIEW




FRONT VIEW




CROSS SECTION

| EVENT | ORIFICE/WEIR INV ELEV. | ORIFICE DIA. (IN) | WEIR LEN. (FT) | VOL. (CF) | WSEL |
|---|---|---|---|---|---|
| WQ | | | | | |
| CP | | | | | |
| 2 | | | | | |
| 5 | | | | | |
| 10 | | | | | |
| 25 | | | | | |
| 100 | | | | | |

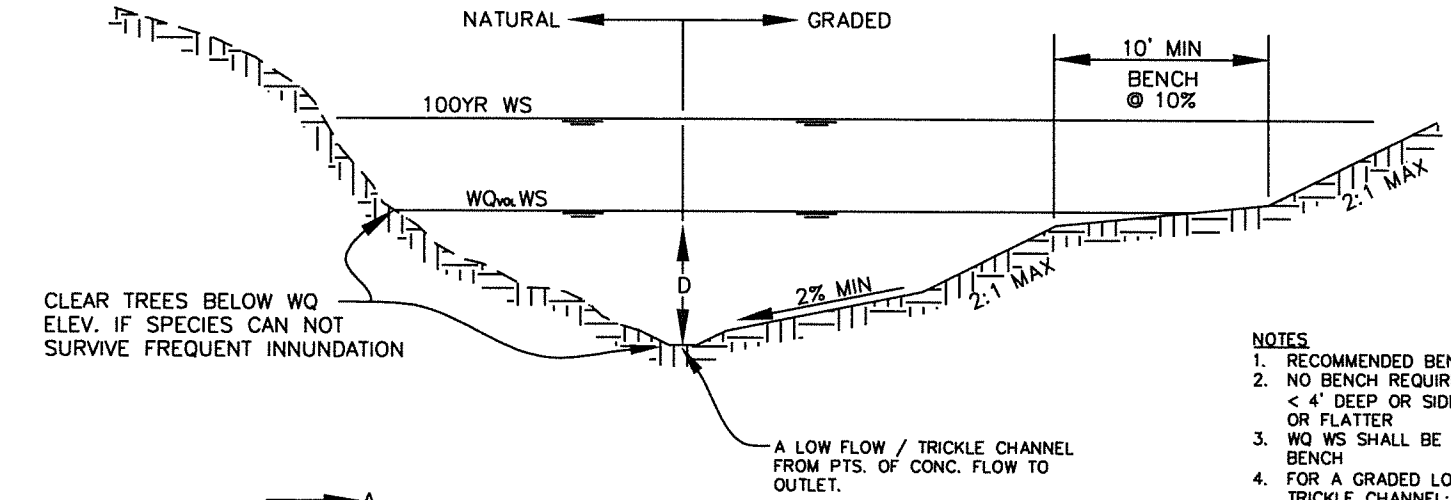
NOTES:
1. WEIR CONFIGURATION SHOWN FOR CONCEPTUAL PURPOSES ONLY
2. THREADED END CAP WITH ORIFICE REQ'D FOR ORIFICE DIA. < 4".
3. REFER TO LOGANVILLE STD. DRAWING 629 FOR ORIFICE END-CAPS.
4. REFER TO LOGANVILLE STD. DRAWING 611 FOR MANHOLE LID.
5. STONE FILTER SHALL BE #4 STONE OR SMALLER.

City of Loganville
where people matter

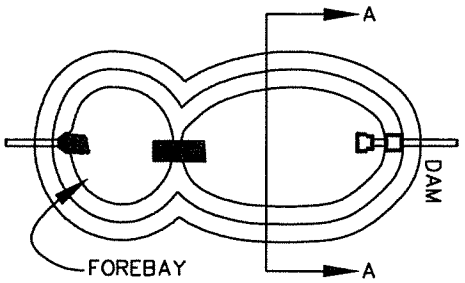
S T A N D A R D  D R A W I N G

**Outlet Control Structure with Standpipe with Stone Filter**

D A T E: JUNE 21, 2019  S H E E T: 621




SECTION A–A




NOTES

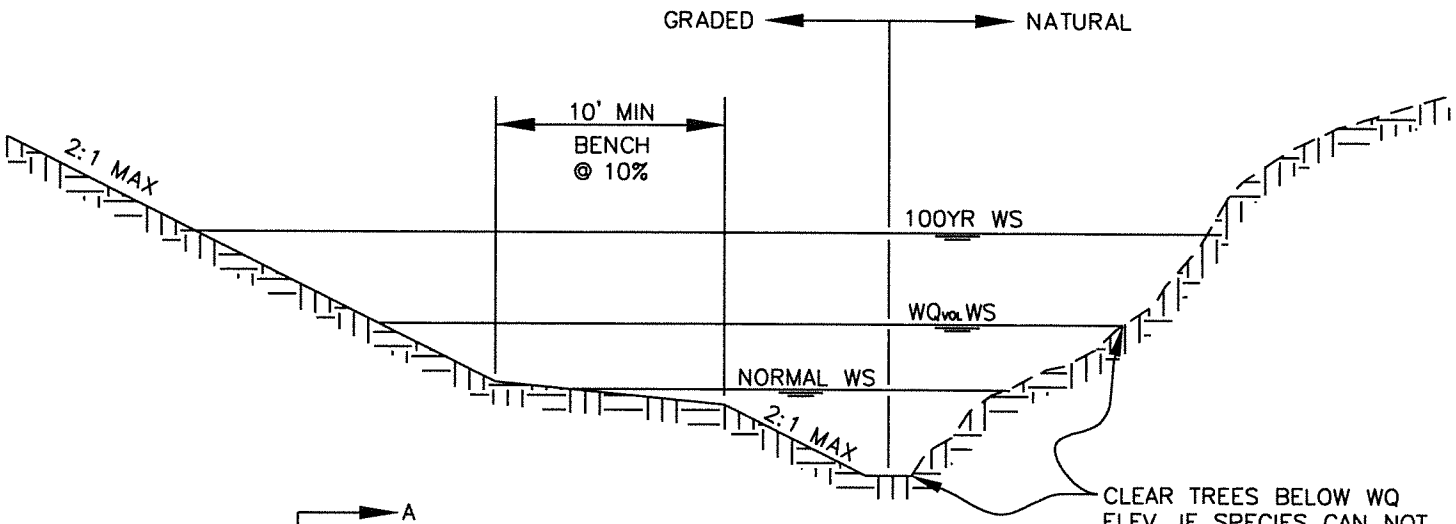
1. RECOMMENDED BENCH WIDTH = 15'
2. NO BENCH REQUIRED IF POOL IS < 4' DEEP OR SIDE SLOPES = 4:1 OR FLATTER
3. WQ WS SHALL BE WITHIN LIMITS OF BENCH
4. FOR A GRADED LOW FLOW / TRICKLE CHANNEL:
   - LONGITUDINAL SLOPE = 1% MIN.
   - RECOMMEND ROCK OR GRASS WITH GEOTECHNICAL FABRIC FOR STABILIZATION
5. REFER TO LOGANVILLE STD. DRAWING 625 FOR FOREBAY

City of Loganville
where people matter

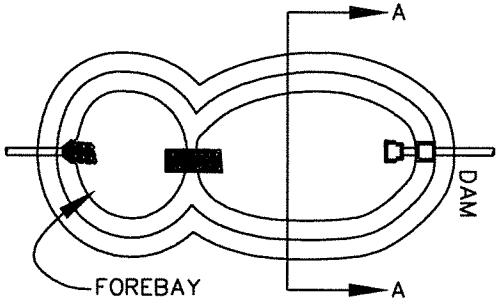
STANDARD DRAWING

**X-Section, Dry, Extended Detention**

DATE: JUNE 21, 2019 SHEET: 622




SECTION A–A




NOTES

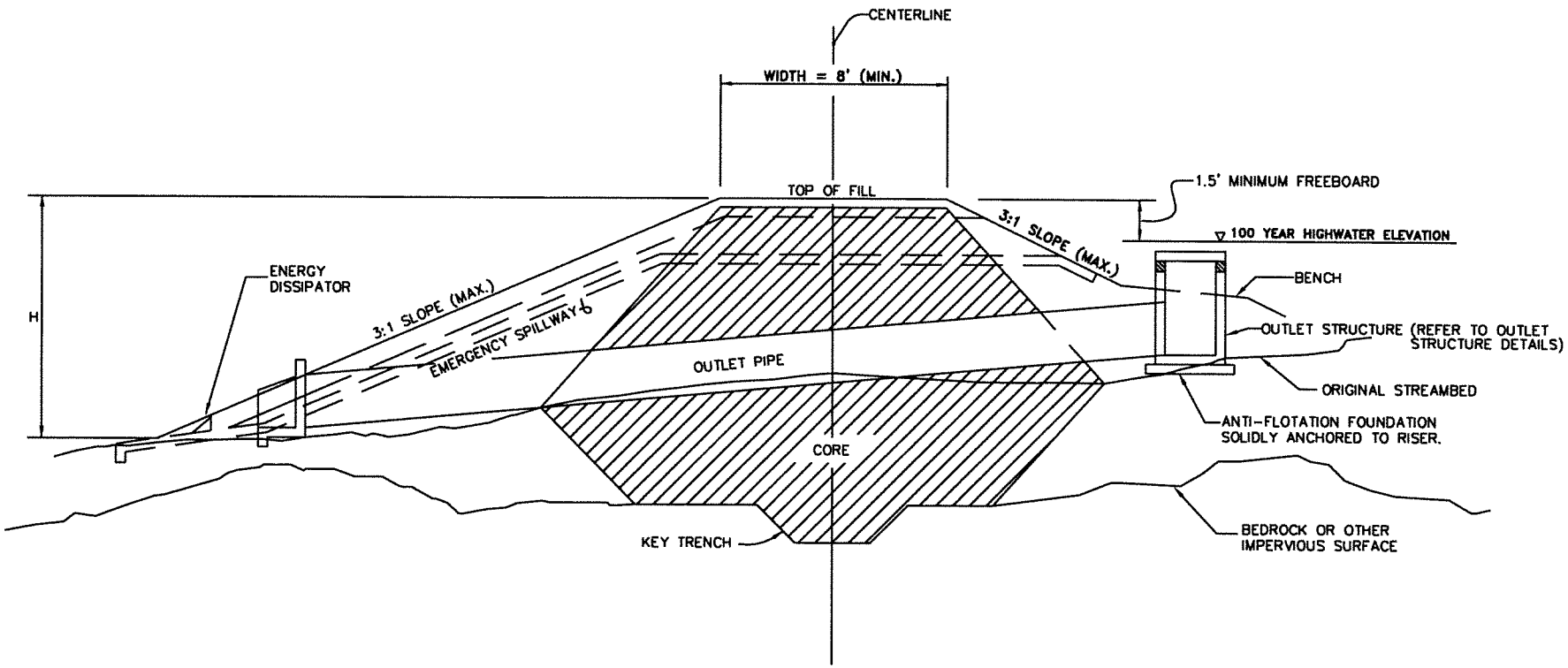
1. RECOMMENDED BENCH WIDTH = 15'
2. NO BENCH REQUIRED IF POOL IS < 4' DEEP OR SIDE SLOPES = 4:1 OR FLATTER
3. NORMAL WS SHALL BE WITHIN LIMITS OF BENCH
4. REFER TO LOGANVILLE STD. DRAWING 625 FOR FOREBAY

City of Loganville
where people matter

S T A N D A R D  D R A W I N G

**X-Section, Wet, Extended Detention**

D A T E: JUNE 21, 2019  S H E E T: 623




NOTES

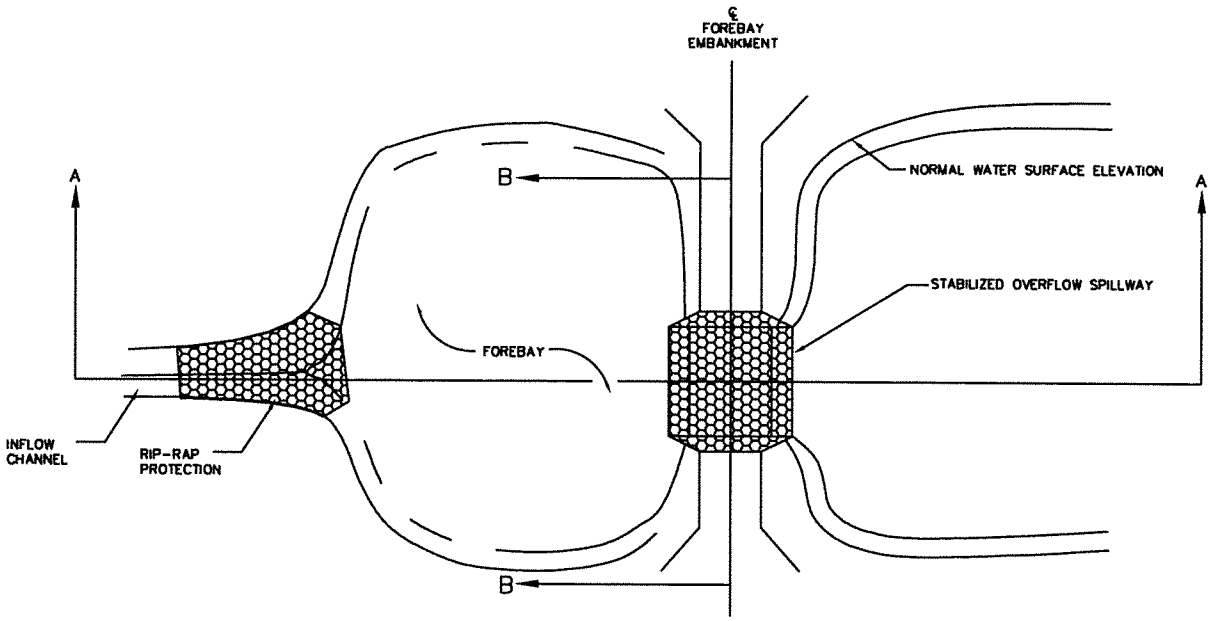
1. DAM EMBANKMENTS SHALL BE CONSTRUCTED PER GEOTECHNICAL ENGINEER'S RECOMMENDATIONS. EMBANKMENTS, AT A MINIMUM, SHALL BE CONSTRUCTED IN SIX INCH (6") MAXIMUM LIFTS AND COMPACTED TO 95% MAXIMUM DRY DENSITY PER AASHTO T-99.
2. IMPERVIOUS CORE SHALL BE PROVIDED IN DAM. CORE SHALL BE CONSTRUCTED AS PER GEOTECHNICAL ENGINEER'S RECOMMENDATIONS.
3. EMERGENCY SPILLWAY SHALL BE CONSTRUCTED OF STABLE, NON-ERODIBLE MATERIAL PER GEOTECHNICAL ENGINEER'S RECOMMENDATION.
4. OUTLET PIPE SHALL BE REINFORCED CONCRETE PIPE IF H ≥ 9' AND STORAGE VOLUME ≥ 20 AC-FT. REFER TO SECTION 8.3 OF LOGANVILLE DEVELOPMENT REGULATIONS FOR APPROVED PIPE MATERIALS.
5. BENCH SHALL BE A MINIMUM OF 10' AND SHOULD AVERAGE 15'. NO BENCH IS REQUIRED IF DAM SIDE SLOPE IS 4:1 OR FLATTER OR POOL < 4' DEEP.
6. REFER TO LOGANVILLE STD. DRAWING 628 FOR TRASHRACK DETAIL.

City of Loganville
where people matter

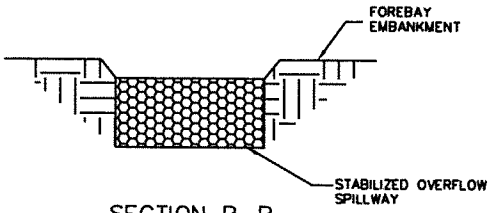
STANDARD DRAWING

**Earthfill Dams, Max Height = 25'**

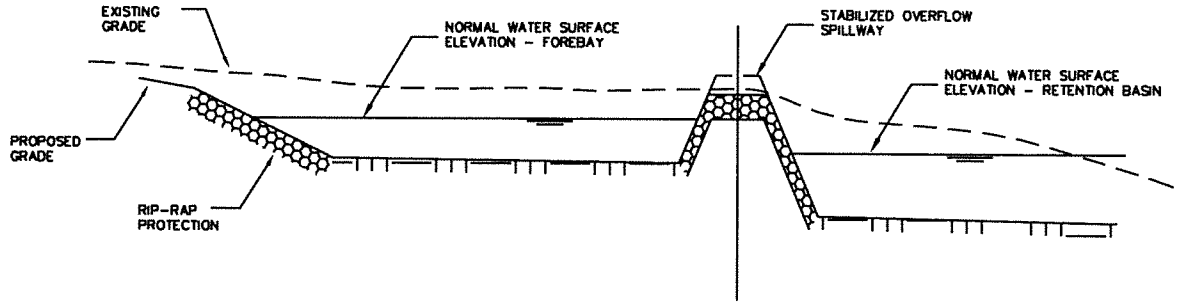
DATE: JUNE 21, 2019 SHEET: 624




PLAN




SECTION B–B




SECTION A–A

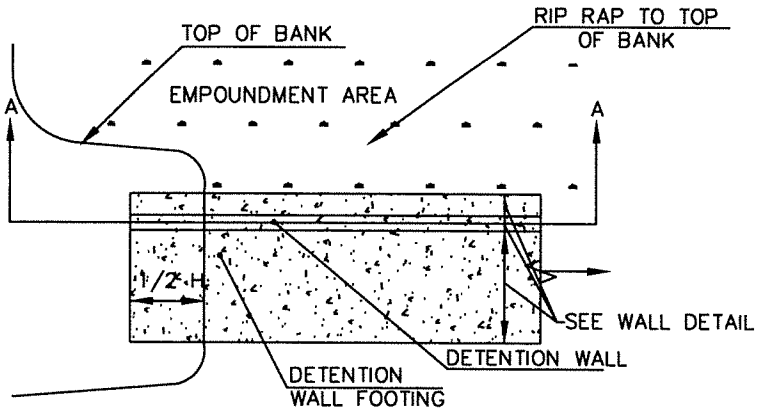
NOTES:
1. STABILIZED OVERFLOW SPILLWAY SHOWN AS RIPRAP. CONCRETE, GABION BASKETS, OR OTHER TYPES OF ARMOR MAY BE USED WITH APPROVAL OF THE CITY.
2. IF PIPE USED INSTEAD OF IN-FLOW CHANNEL, PIPE INVERT SHALL DISCHARGE ABOVE NORMAL POOL.

City of Loganville
*where people matter*

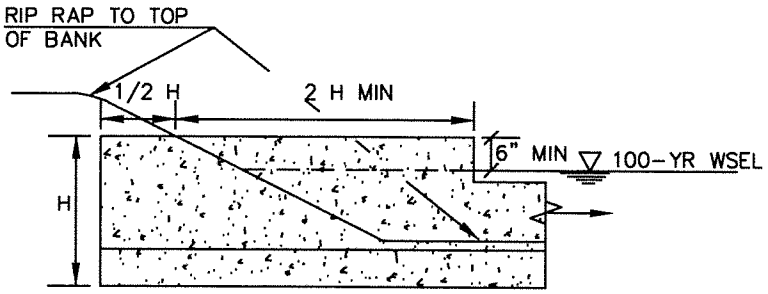
STANDARD DRAWING

**Forebay**

DATE: JUNE 21, 2019 SHEET: 625




PLAN VIEW



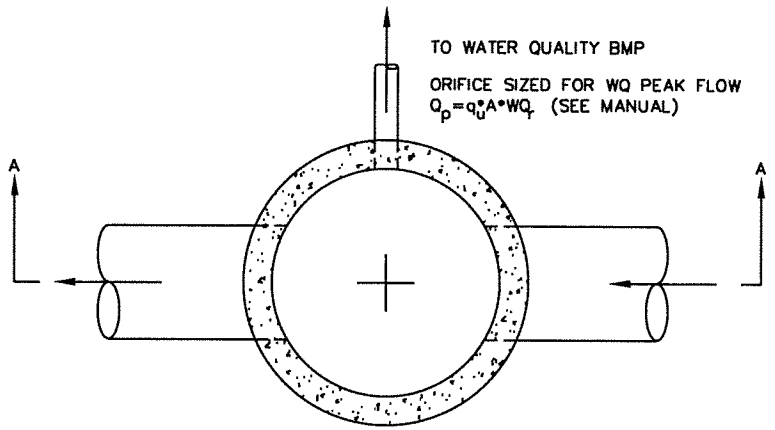

SIDE VIEW
SECTION A-A

City of Loganville
where people matter

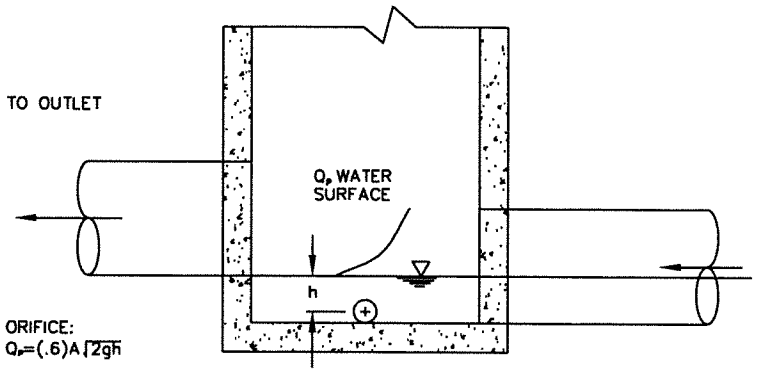
STANDARD DRAWING

**Typical Detention Pond Wall Tie-In**

DATE: JUNE 21, 2019 SHEET: 626




PLAN VIEW




SECTION A–A

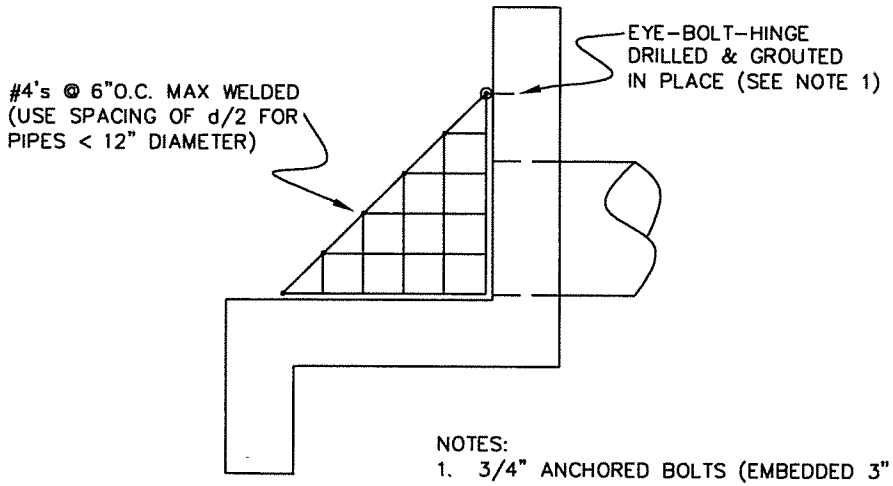
City of Loganville
where people matter

STANDARD DRAWING

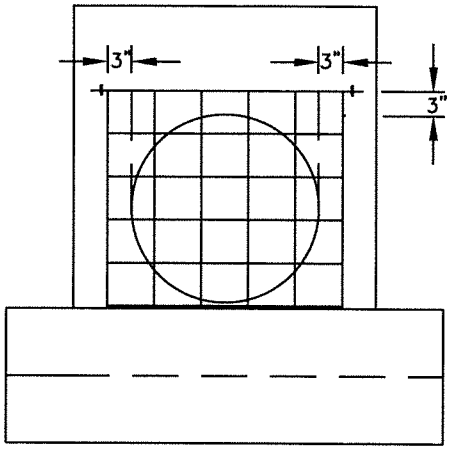
**Flowsplitter - Manhole**

DATE: JUNE 21, 2019

SHEET: 627




NOTES:
1. 3/4" ANCHORED BOLTS (EMBEDDED 3" MIN.)

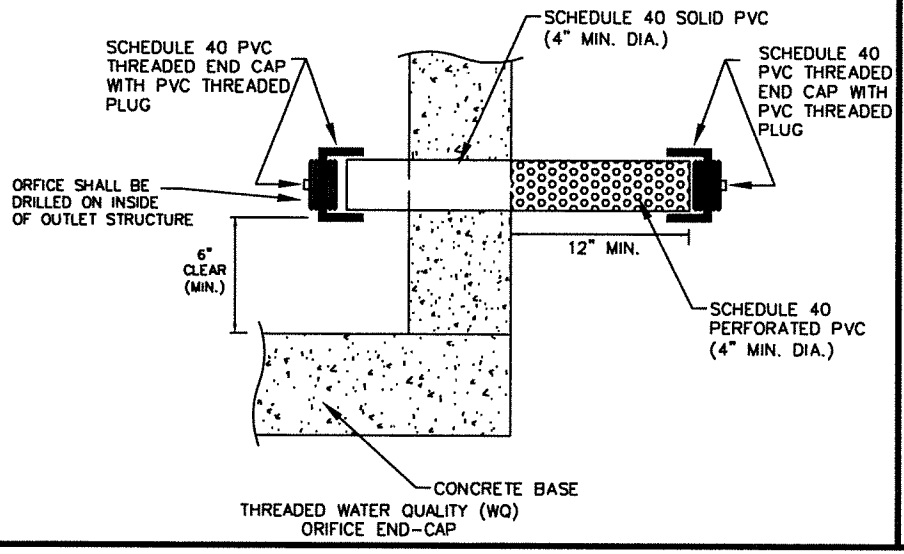



City of Loganville
where people matter

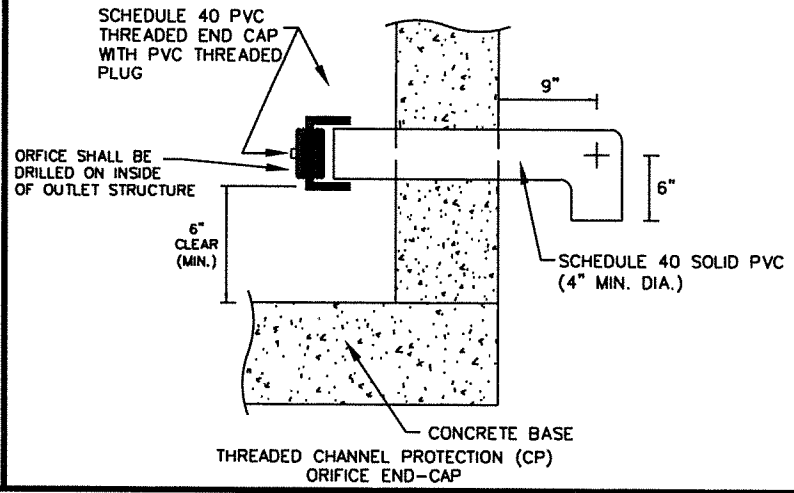
STANDARD DRAWING

**Trashrack for Outlet Control Structures**

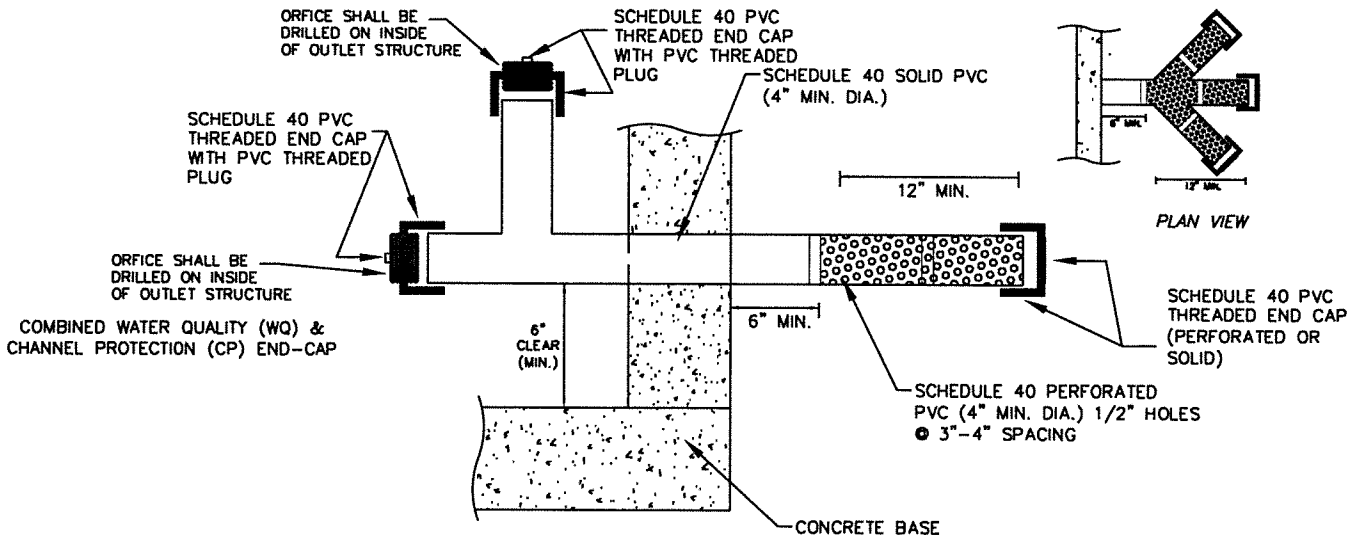
DATE: JUNE 21, 2019 SHEET: 628




THREADED WATER QUALITY (WQ) ORIFICE END-CAP




THREADED CHANNEL PROTECTION (CP) ORIFICE END-CAP




COMBINED WATER QUALITY (WQ) & CHANNEL PROTECTION (CP) END-CAP



*PLAN VIEW*

NOTES (TO APPLY TO ALL):
1. FILL GAP BETWEEN STRUCTURE & PVC WITH MORTAR OR INSTALL A FERNCO ADAPTER.
2. SIZE ORIFICE AS REQUIRED
3. FASTEN END CAP TO SYSTEM WITH PVC CEMENT.
4. PIPE SIZES SHALL BE CONSISTENT.

City of Loganville
*where people matter*

S T A N D A R D  D R A W I N G

**Orifice End-Cap Details**

D A T E: JUNE 21, 2019  S H E E T: 629

**ROUND PIPE - 2-2/3" X 1/2" CORRUGATION**

| D (IN) | AREA (SQ. FT.) | MAXIMUM HEIGHT OF COVER (FT.) SHEET THICKNESS IN INCHES (GAGE) 0.064 (16) | 0.079 (14) | 0.109 (12) | 0.138 (10) | 0.168 (8) | MIN. HEIGHT OF COVER (FT.) |
|---|---|---|---|---|---|---|---|
| 12 | .79 | 100+ | 100+ | NA | NA | NA | SEE DWG 703 |
| 15 | 1.23 | 100+ | 100+ | NA | NA | NA | |
| 18 | 1.77 | 100+ | 100+ | 100+ | NA | NA | |
| 21 | 2.40 | 100+ | 100+ | 100+ | NA | NA | |
| 24 | 3.14 | 100+ | 100+ | 100+ | NA | NA | |
| 30 | 4.91 | 85 | 100+ | 100+ | NA | NA | |
| 36 | 7.1 | 71+ | 88 | 100+ | 100+ | NA | |
| 42 | 9.6 | NS | 76 | 100+ | 100+ | NA | |
| 48 | 12.6 | NS | 66 | 93 | 100+ | 100+* | |
| 54 | 16.0 | NS | NS | 82 | 100+ | 100+* | |
| 60 | 19.6 | NS | NS | 74 | 95 | 100+* | |
| 66 | 23.8 | NS | NS | NS | 87 | 100+* | |
| 72 | 28.3 | NS | NS | NS | 79 | 97* | |
| 78 | 33.2 | NS | NS | NS | NS | 90* | |
| 84 | 38.5 | NS | NS | NS | NS | 83* | |

**ROUND PIPE - 3" X 1" CORRUGATION**

| D (IN) | AREA (SQ. FT.) | MAXIMUM HEIGHT OF COVER (FT.) SHEET THICKNESS IN INCHES (GAGE) 0.064 (16) | 0.079 (14) | 0.109 (12) | 0.138 (10) | 0.168 (8) | MIN. HEIGHT OF COVER (FT.) |
|---|---|---|---|---|---|---|---|
| 36 | 7.1 | 81 | 100+ | 100+ | NA | NA | SEE DWG 703 |
| 42 | 9.6 | 70 | 87 | 100+ | NA | NA | |
| 48 | 12.6 | 61 | 76 | 100+ | 100+ | NA | |
| 54 | 16.0 | 54 | 68 | 95 | 100+ | NA | |
| 60 | 19.6 | 48 | 61 | 85 | 100+ | NA | |
| 66 | 23.8 | 44 | 55 | 78 | 100+ | 100+* | |
| 72 | 28.3 | NS | 51 | 71 | 91 | 100+* | |
| 78 | 33.2 | NS | 47 | 66 | 84 | 100+* | |
| 84 | 38.5 | NS | 43 | 61 | 78 | 100+* | |
| 90 | 44.2 | NS | 40 | 57 | 73 | 90* | |
| 96 | 50.3 | NS | NS | 53 | 68 | 84* | |
| 102 | 56.7 | NS | NS | 50 | 64 | 79* | |
| 108 | 63.6 | NS | NS | 47 | 61 | 75* | |
| 114 | 70.9 | NS | NS | NS | 58 | 71* | |
| 120 | 78.5 | NS | NS | NS | 55 | 67* | |
| 132 | 95.0 | NS | NS | NS | 50 | 61* | |

**ROUND PIPE - 5" X 1" CORRUGATION**

| D (IN) | AREA (SQ. FT.) | MAXIMUM HEIGHT OF COVER (FT.) SHEET THICKNESS IN INCHES (GAGE) 0.064 (16) | 0.079 (14) | 0.109 (12) | 0.138 (10) | 0.168 (8) | MIN. HEIGHT OF COVER (FT.) |
|---|---|---|---|---|---|---|---|
| 36 | 7.1 | 72 | 90 | 100+ | NA | NA | SEE DWG 703 |
| 42 | 9.6 | 62 | 77 | 100+ | NA | NA | |
| 48 | 12.6 | 54 | 68 | 95 | 100+ | NA | |
| 54 | 16.0 | 48 | 60 | 84 | 100+ | NA | |
| 60 | 19.6 | 43 | 54 | 76 | 98 | NA | |
| 66 | 23.8 | 39 | 49 | 69 | 89 | 100+* | |
| 72 | 28.3 | NS | 45 | 63 | 81 | 100+* | |
| 78 | 33.2 | NS | 41 | 58 | 75 | 92* | |
| 84 | 38.5 | NS | 38 | 54 | 70 | 85* | |
| 90 | 44.2 | NS | 36 | 50 | 65 | 80* | |
| 96 | 50.3 | NS | NS | 47 | 61 | 75* | |
| 102 | 56.7 | NS | NS | 44 | 57 | 70* | |
| 108 | 63.6 | NS | NS | 42 | 54 | 66* | |
| 114 | 70.9 | NS | NS | NS | 51 | 63* | |
| 120 | 78.5 | NS | NS | NS | 49 | 60* | |
| 132 | 95.0 | NS | NS | NS | 44 | 54* | |

**PIPE ARCH - 2-2/3" X 1/2" CORRUGATION**

| SPAN (IN) | RISE (IN) | EQUIV. ROUND PIPE (IN) | AREA (SQ. FT.) | MINIMUM SHEET THICKNESS REQUIRED (IN) (GA) | MAXIMUM HEIGHT OF COVER (FT) MAXIMUM CORNER PRESSURE-LBS/SQ.FT 4000 | 6000 | MIN. HEIGHT OF COVER (FT.) |
|---|---|---|---|---|---|---|---|
| 17 | 13 | 15 | 1.1 | .064 (16) | 12 | 14 | SEE DWG 703 |
| 21 | 15 | 18 | 1.6 | .064 (16) | 10 | 14 | |
| 24 | 18 | 21 | 2.2 | .064 (16) | 7 | 13 | |
| 28 | 20 | 24 | 2.9 | .064 (16) | 5 | 11 | |
| 35 | 24 | 30 | 4.5 | .064 (16) | NS | 7 | |
| 42 | 29 | 36 | 6.5 | .079 (14) | NS | 7 | |
| 49 | 33 | 42 | 8.9 | .079 (14) | NS | 6 | |
| 57 | 38 | 48 | 11.6 | .109 (12) | NS | 8 | |
| 64 | 43 | 54 | 14.7 | .109 (12) | NS | 9 | |
| 71 | 47 | 60 | 18.1 | .138 (10) | NS | 10 | |
| 77 | 52 | 66 | 21.9 | .168 (8)* | 5 | 10 | |
| 83 | 57 | 72 | 26.0 | .168 (8)* | 5 | 10 | |

**PIPE ARCH - 3" X1" AND 5" X 1" CORRUGATION**

| SPAN (IN) | RISE (IN) | EQUIV. ROUND PIPE (IN) | AREA (SQ. FT.) | MINIMUM SHEET THICKNESS REQUIRED (IN) (GA) | MAXIMUM HEIGHT OF COVER (FT) MAXIMUM CORNER PRESSURE-LBS/SQ.FT 4000 | 6000 | MIN. HEIGHT OF COVER (FT.) |
|---|---|---|---|---|---|---|---|
| 40 | 31 | 36 | 7.0 | .079 (14) | 8 | 12 | SEE DWG 703 |
| 46 | 36 | 42 | 9.4 | .079 (14) | 8 | 13 | |
| 53 | 41 | 48 | 12.3 | .079 (14) | 8 | 13 | |
| 60 | 46 | 54 | 15.6 | .079 (14) | 8 | 13 | |
| 66 | 51 | 60 | 19.3 | .079 (14) | 9 | 13 | |
| 73 | 55 | 66 | 23.2 | .079 (14) | 11 | 16 | |
| 81 | 59 | 72 | 27.4 | .079 (14) | 11 | 17 | |
| 87 | 63 | 78 | 32.1 | .109 (12) | 10 | 16 | |
| 95 | 67 | 84 | 37.0 | .109 (12) | 11 | 17 | |
| 103 | 71 | 90 | 42.4 | .109 (12) | 10 | 15 | |
| 112 | 75 | 96 | 48.0 | .109 (12) | 10 | 16 | |
| 117 | 79 | 102 | 54.2 | .109 (12) | 10 | 15 | |
| 128 | 83 | 108 | 60.5 | .138 (10) | 9 | 14 | |
| 137 | 87 | 114 | 67.4 | .138 (10) | 8 | 13 | |
| 142 | 91 | 120 | 74.5 | .168 (8)* | 7 | 12 | |

* AVAILABILITY SHOULD BE QUALIFIED BEFORE SPECIFYING

NA - NOT AVAILABLE

NS - NOT APPROVED (FOR HIGHWAY H-20 LOADINGS)

**NOTE:**
REINFORCED CONCRETE PIPE (RCP) IS THE ONLY ALLOWABLE PIPE MATERIAL FOR ALL APPLICATIONS WITHIN DRAINADE EASEMENTS, PUBLIC RIGHTS OF WAY, AND INSIDE OF STREAM BUFFERS. PLEASE REFER TO CITY OF LOGANVILLE STORM SEWER STANDARD SPECIFICATIONS.

City of Loganville
where people matter

STANDARD DRAWING

**Standard Pipe Culverts - Detail No. 1**

DATE: JUNE 21, 2019 SHEET: 701

**ROUND PIPE - 2-2/3" X 1/2" CORRUGATION**

| D (IN) | AREA (SQ. FT.) | MAXIMUM HEIGHT OF COVER (FT.) SHEET THICKNESS IN INCHES (GAGE) 0.060 (16) | 0.075 (14) | 0.105 (12) | 0.135 (10) | 0.164 (8) | MIN. HEIGHT OF COVER (FT.) |
|---|---|---|---|---|---|---|---|
| 12 | 0.8 | 90 | 100+ | NA | NA | NA | SEE DWG 703 |
| 15 | 1.2 | 72 | 90 | NA | NA | NA | |
| 18 | 1.8 | 59 | 75 | 100+ | NA | NA | |
| 21 | 2.4 | 52 | 65 | 92 | NA | NA | |
| 24 | 3.1 | 44 | 56 | 79 | NA | NA | |
| 30 | 4.9 | NS | 44 | 63 | NA | NA | |
| 36 | 7.1 | NS | NS | 52 | 68 | NA | |
| 42 | 9.6 | NS | NS | NS | 58 | NA | |
| 48 | 12.6 | NS | NS | NS | NS | 61 | |
| 54 | 15.9 | NS | NS | NS | NS | NS | |
| 60 | 19.6 | NS | NS | NS | NS | NS | |
| 66 | 23.8 | NS | NS | NS | NS | NS | |
| 72 | 28.3 | NS | NS | NS | NS | NS | |

**ROUND PIPE - 3" X 1" CORRUGATION**

| D (IN) | AREA (SQ. FT.) | MAXIMUM HEIGHT OF COVER (FT.) SHEET THICKNESS IN INCHES (GAGE) 0.060 (16) | 0.075 (14) | 0.105 (12) | 0.135 (10) | 0.164 (8) | MIN. HEIGHT OF COVER (FT.) |
|---|---|---|---|---|---|---|---|
| 36 | 7.1 | 33 | 42 | 60 | NA | NA | SEE DWG 703 |
| 42 | 9.6 | 28 | 36 | 51 | NA | NA | |
| 48 | 12.6 | 24 | 31 | 45 | 58 | NA | |
| 54 | 15.9 | NS | 28 | 39 | 51 | NA | |
| 60 | 19.6 | NS | 24 | 35 | 46 | NA | |
| 66 | 23.8 | NS | NS | 32 | 42 | 51 | |
| 72 | 28.3 | NS | NS | 29 | 38 | 47 | |
| 78 | 33.2 | NS | NS | NS | 35 | 43 | |
| 84 | 38.5 | NS | NS | NS | 32 | 40 | |
| 90 | 44.2 | NS | NS | NS | 30 | 37 | |
| 96 | 50.3 | NS | NS | NS | NS | 34 | |
| 102 | 56.7 | NS | NS | NS | NS | 32 | |
| 108 | 63.6 | NS | NS | NS | NS | NS | |
| 114 | 70.9 | NS | NS | NS | NS | NS | |
| 120 | 78.5 | NS | NS | NS | NS | NS | |

**PIPE ARCH - 2-2/3" X 1/2" CORRUGATION**

| SPAN (IN) | RISE (IN) | EQUIV. ROUND PIPE (IN) | AREA (SQ. FT.) | MINIMUM SHEET THICKNESS REQUIRED (IN) (GA) | MAXIMUM HEIGHT OF COVER (FT) MAXIMUM CORNER PRESSURE-LBS/SQ.FT 4000 | 6000 | MIN. HEIGHT OF COVER (FT.) |
|---|---|---|---|---|---|---|---|
| 17 | 13 | 15 | 1.1 | .060 (16) | 12 | 15 | SEE DWG 703 |
| 21 | 15 | 18 | 1.6 | .060 (16) | 10 | 14 | |
| 24 | 18 | 21 | 2.2 | .060 (16) | 7 | 13 | |
| 28 | 20 | 24 | 2.9 | .075 (14) | 5 | 11 | |
| 35 | 24 | 30 | 4.5 | .105 (12) | NS | 7 | |
| 42 | 29 | 36 | 6.5 | .105 (12) | NS | 7 | |
| 49 | 33 | 42 | 8.9 | .135 (10) | NS | 6 | |
| 57 | 38 | 48 | 11.6 | .164 (8) | NS | 8 | |
| 64 | 43 | 54 | 14.7 | .164 (8) | NS | 9 | |
| 71 | 47 | 60 | 18.1 | .164 (8) | NS | 10 | |
| 77 | 52 | 66 | 21.9 | .164 (8) | NS | 10 | |
| 83 | 57 | 72 | 26.0 | .164 (8) | NS | 10 | |

**PIPE ARCH - 3" X 1" AND 5" X 1" CORRUGATION**

| SPAN (IN) | RISE (IN) | EQUIV. ROUND PIPE (IN) | AREA (SQ. FT.) | MINIMUM SHEET THICKNESS REQUIRED (IN) (GA) | MAXIMUM HEIGHT OF COVER (FT) MAXIMUM CORNER PRESSURE-LBS/SQ.FT 4000 | 6000 | MIN. HEIGHT OF COVER (FT.) |
|---|---|---|---|---|---|---|---|
| 40 | 31 | 36 | 7.0 | .075 (14) | 8 | 12 | SEE DWG 703 |
| 46 | 36 | 42 | 9.4 | .075 (14) | 8 | 13 | |
| 53 | 41 | 48 | 12.3 | .075 (14) | 8 | 13 | |
| 60 | 46 | 54 | 15.6 | .075 (14) | 8 | 13 | |
| 66 | 51 | 60 | 19.3 | .075 (14) | 8 | 13 | |
| 73 | 55 | 66 | 23.2 | .105 (12) | 11 | 16 | |
| 81 | 59 | 72 | 27.4 | .105 (12) | 11 | 17 | |
| 87 | 63 | 78 | 32.1 | .135 (10) | 10 | 16 | |
| 95 | 67 | 84 | 37.0 | .135 (10) | 11 | 17 | |
| 103 | 71 | 90 | 42.4 | .135 (10) | 10 | 15 | |
| 112 | 75 | 96 | 48.0 | .164 (8) | 10 | 16 | |
| 117 | 79 | 102 | 54.2 | .164 (8) | 10 | 15 | |

NA - NOT AVAILABLE

LA - LIMITED AVAILABILITY

NS - NOT APPROVED (FOR HIGHWAY H-20 LOADINGS)

NOTE:
REINFORCED CONCRETE PIPE (RCP) IS THE ONLY ALLOWABLE PIPE MATERIAL FOR ALL APPLICATIONS WITHIN DRAINADE EASEMENTS, PUBLIC RIGHTS OF WAY, AND INSIDE OF STREAM BUFFERS. PLEASE REFER TO CITY OF LOGANVILLE STORM SEWER STANDARD SPECIFICATIONS.

City of Loganville
where people matter

STANDARD DRAWING

**Standard Pipe Culverts - Detail No. 2**

DATE: JUNE 21, 2019 SHEET: 702

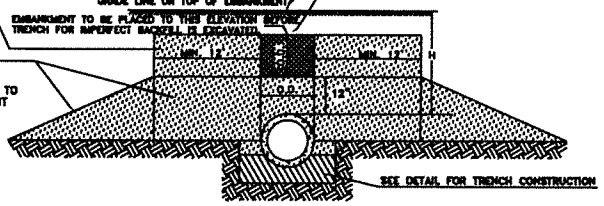
## NORMAL BACKFILL

BACKFILL, AS SHOWN BY THE BROKEN LINE SECTIONS, SHALL CONSIST OF PLACING COMPACTABLE SOIL IN 6"(LOOSE) LAYERS AND COMPACTING EACH LAYER (ACCORDING TO GDOT STANDARD SPECIFICATIONS) ON BOTH SIDES OF PIPE FOR ITS FULL LENGTH. MEASUREMENT AND PAYMENT WILL BE MADE UNDER ROADWAY EXCAVATION ITEMS FOR FORMATION OF EMBANKMENTS.

NORMAL EMBANKMENT SHALL BE PLACED A MINIMUM OF 12' WIDE ON EACH SIDE OF THE PIPE AND AT LEAST THE MINIMUM COVER OVER THE PIPE AND COMPACTED TO THE REQUIRED DENSITY BEFORE EQUIPMENT IS ALLOWED TO CROSS.

AFTER BACKFILL HAS BEEN COMPACTED, THE BALANCE OF THE FILL UP TO GRADE LINE SHALL BE CONSTRUCTED IN ACCORDANCE WITH EMBANKMENT SPECIFICATIONS.

## LONGITUDINAL SECTION OF IMPERFECT TRENCH BACKFILL AND BACKFILL METHODS




## IMPERFECT BACKFILL

IMPERFECT BACKFILL WILL BE USED WITH CONCRETE PIPE IF AN EXTRAPOLATION OF FILL HEIGHT AND PIPE DIAMETER IN TABLE NO. 1 FALLS ON THE RIGHT SIDE OF THE HEAVY LINE. CROSS HATCHED AREA SHOWS LIMITS OF STRUCTURE EXCAVATION AND IMPERFECT BACKFILL MATERIAL TYPE III IN THIS VIEW.

## TABLE NO. 1

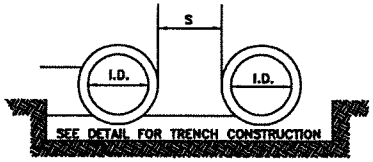
TABLE SHOWING THE MINIMUM CLASSES OF CONCRETE PIPE FOR VARIOUS HEIGHTS OF FILL ABOVE TOP OF PIPE

| PIPE DIAMETER (INCHES) | HEIGHT OF FILL IN FEET ABOVE TOP OF PIPE | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1-10 | 10-15 | 15-20 | 20-25 | 25-30 | 30-35 | 35-40 | 40-50 | 50-60 | 60-70 | 70-80 | 80-90 |
| 12 | III | III | IV | V | V | IV | IV | IV | V | V | V | |
| 15 | III | III | IV | V | V | IV | IV | IV | V | V | V | |
| 18 | III | III | IV | V | V | IV | IV | IV | V | V | V | |
| 24 | III | III | IV | V | V | IV | IV | IV | V | V | V | |
| 30 | III | III | IV | V | V | IV | IV | IV | V | V | V | |
| 36 | III | III | IV | V | V | IV | IV | IV | V | V | V | |
| 42 | III | III | IV | V | V | IV | IV | IV | V | V | V | |
| 48 | III | III | IV | V | V | IV | IV | IV | V | V | V | |
| 54 | III | III | IV | V | V | IV | IV | IV | V | V | V | |
| 60 | III | III | IV | V | V | IV | IV | IV | V | V | V | |
| 66 | III | III | IV | V | V | IV | IV | IV | V | V | | |
| 72 | III | III | IV | V | V | IV | IV | IV | V | V | | |
| 78 | III | III | IV | IV | IV | IV | IV | IV | V | | | |
| 84 | III | III | IV | IV | IV | IV | IV | IV | V | | | |
| 90 | III | III | | | | | | | | | | |
| 96 | III | III | | | | | | | | | | |
| 102 | III | III | | | | | | | | | | |
| 108 | III | III | | | | | | | | | | |

FOR CONDITIONS BETWEEN THE HEAVY LINE & DOUBLE LINE CLASS IV CONCRETE PIPE REQUIRES IMPERFECT BACKFILL ACCORDING TO DETAIL "A".

FOR CONDITIONS TO THE RIGHT OF THE DOUBLE LINE CLASS V CONCRETE PIPE REQUIRES IMPERFECT BACKFILL ACCORDING TO DETAIL "B".

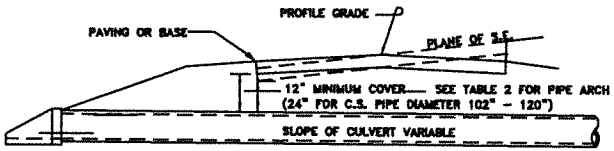
## MULTIPLE PIPE CULVERT SPACING



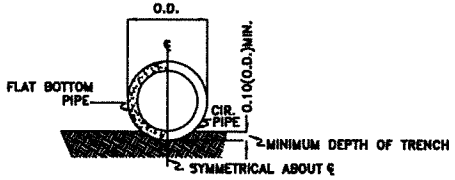

S= ONE INSIDE DIAMETER OF PIPE OR 3 FEET, WHICHEVER IS SMALLER.
FOR PIPE ARCH CULVERTS, SUBSTITUTE SPAN FOR INSIDE DIAMETER.

NOTE:
FOR MULTIPLE LINES OF C.M. PIPE WITH METAL FLARED END SECTIONS, S MAY BE INCREASED ENOUGH TO AVOID OVERLAP OF END SECTION WINGTIPS. LOCATION OF METAL END SECTION SHOULD BE DETERMINED BEFORE PLACEMENT OF PIPE.

## DETAIL SHOWING MINIMUM COVER FOR PIPE CULVERTS




## TRENCH CONSTRUCTION FOR SIDE DRAIN

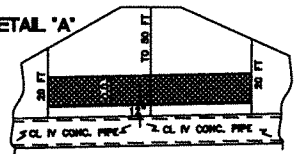



NOTE:
THE PIPE SHALL BE BEDDED TO LINE AND GRADE IN A FIRM FOUDATION SHAPED TO FIT THE LOWER PART OF THE PIPE EXTERIOR. WHERE ROCK EXISTS, EXCAVATE AND BACKFILL WITH COMPRESSIBLE MATERIAL(UNCLASSIFIED EXCAVATION) A MINIMUM OF 6" BELOW THE PIPE.

## CROSS SECTIONS OF IMPERFECT TRENCH BACKFILL

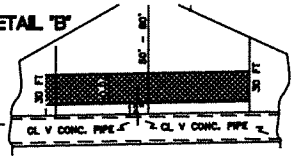
CROSS HATCHED AREAS SHOW LIMITS OF CONSTRUCTION FOR STRUCTURE EXCAVATION & IMPERFECT TRENCH BACKFILL MATERIAL, TYPE III

DETAIL "A"



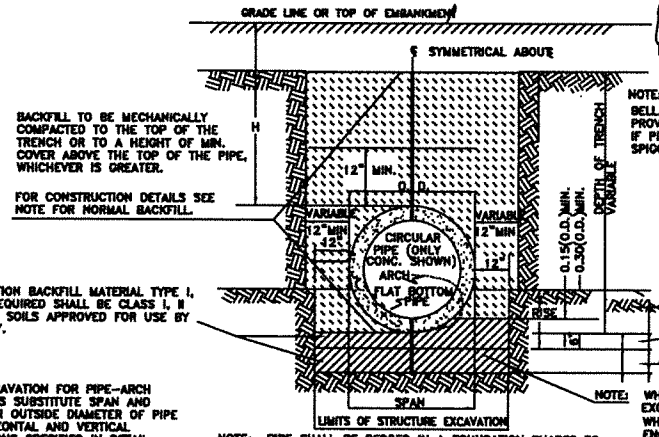

(FOR CONDITIONS BETWEEN HEAVY LINE & & DOUBLE LINE, TABLE NO.1)

DETAIL "B"




(FOR CONDITIONS ON RIGHT SIDE OF DOUBLE LINE, TABLE NO.1)

## TRENCH CONSTRUCTION FOR STORM DRAIN




NOTE: PIPE SHALL BE BEDDED IN A FOUNDATION SHAPED TO FIT THE LOWER PART OF PIPE EXTERIOR.

NOTE:
BELL HOLES SHALL BE PROVIDED IN BEDDING IF PIPE HAS BELL AND SPIGOT JOINTS.

NOTE: WHERE AN INCOMPRESSIBLE FOUNDATION EXISTS, EXCAVATE AN ADDITIONAL 6". WHERE AN UNSTABLE FOUNDATION MATERIAL IS ENCOUNTERED, EXCAVATE AN ADDITIONAL DEPTH AS SHOWN ON PLANS OR AS DIRECTED BY THE CITY.

## TABLE NO. 2 (PIPE-ARCH)

TABLE SHOWING MINIMUM THICKNESS IN INCHES OF CORRUGATED STEEL AND MAXIMUM HEIGHTS OF FILL ABOVE THE TOP OF THE PIPE-ARCH.

| DIAMETER OF PIPE OF EQUAL PERIPHERY INCH | SPAN INCH | RISE INCH | MIN. THICKNESS (Inches) COR. STEEL ① | COR. STEEL ② | | MINIMUM COVER INCHES | MAX. HT. FILL FEET |
|---|---|---|---|---|---|---|---|
| 15 | 17 | 13 | .064 | | | 18 | 13 |
| 18 | 21 | 15 | .064 | | | 18 | 15 |
| | | | | | | 18 | 12 |
| 21 | 24 | 18 | .064 | | | 18 | 14 |
| | | | | | | 18 | 10 |
| 24 | 28 | 20 | .064 | | | 18 | 13 |
| | | | | | | 18 | 9 |
| 30 | 35 | 24 | .064 | | | 18 | 11 |
| | | | | | | 18 | 8 |
| 36 | 42 | 29 | .064 | | | 18 | 7 |
| | | | | | | 18 | 7 |
| | 40 | 31 | | .079 | | 18 | 12 |
| 42 | 49 | 33 | .079 | | | 18 | 7 |
| | | | | | | 18 | 7 |
| | 46 | 36 | .079 | .079 | | 18 | 12 |
| 48 | 57 | 38 | .109 | | | 18 | 7 |
| | | | | | | 18 | 7 |
| | 53 | 41 | | .079 | | 18 | 12 |
| 54 | 64 | 43 | .109 | | | 18 | 7 |
| | | | | | | 18 | 7 |
| | 60 | 46 | | .079 | | 18 | 12 |
| 60 | 71 | 47 | .138 | | | 18 | 7 |
| | | | | | | 18 | 7 |
| | 66 | 51 | | .079 | | 18 | 12 |
| 66 | 77 | 52 | .168 | | | 18 | 7 |
| | 73 | 55 | | .079 | | 18 | 15 |
| 72 | 83 | 57 | .168 | | | 18 | 8 |
| | 81 | 59 | | .079 | | 18 | 15 |
| 78 | 87 | 63 | | .079 | | 18 | 14 |
| 84 | 95 | 67 | | .109 | | 18 | 12 |
| 90 | 103 | 71 | | .109 | | 24 | 11 |

TABLE NO. 3 - (INFORMATION ONLY)

| | COR. METAL THICKNESS | EQUIVALENT GAGE |
|---|---|---|
| STEEL | 0.064 | 16 |
| | 0.079 | 14 |
| | 0.109 | 12 |
| | 0.138 | 10 |
| | 0.168 | 8 |
| ALUMINUM | 0.060 | 16 |
| | 0.075 | 14 |
| | 0.105 | 12 |
| | 0.135 | 10 |
| | 0.164 | 8 |

① DENOTES 2-2/3"X1/2" CORRUGATION.
② DENOTES 3"X1" CORRUGATION.

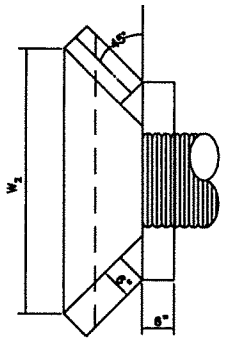
City of Loganville
where people matter

STANDARD DRAWING

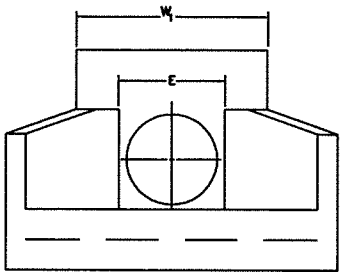
# Standard Pipe Culverts - Concrete Pipe

DATE: JUNE 21, 2019

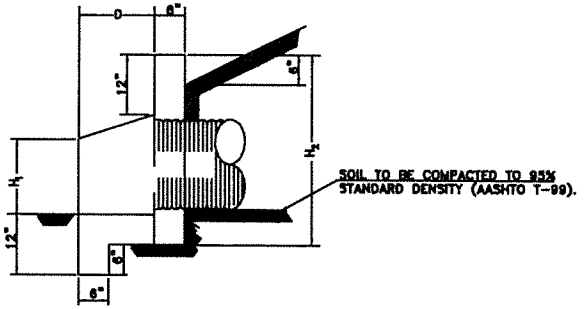
SHEET: 703



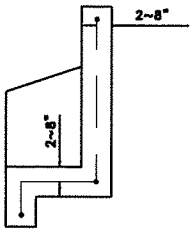

PLAN



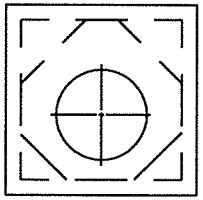

FRONT ELEVATION



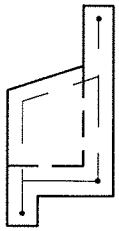

SIDE



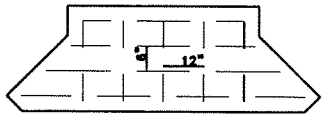

BASE AND WALL SECTION



WALL SECTION



WING SECTION




BASE SECTION

| TABLE 1 | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| HEADWALL DIMENSIONS FOR METAL PIPE* | | | | | | | | |
| INSIDE DIA. OF PIPE | $W_1$ | $W_2$ | $H_1$ | $H_2$ | D | E | WT. | BASE AREA (SQ.FT.) |
| 18" | 3'-2" | 4'-10" | 1'-3" | 3'-2" | 1'-3" | 1'-9" | 1,550 | 7.34 |
| 21",24" | 3'-8" | 6'-1" | 1'-9" | 3'-8" | 1'-6" | 2'-3" | 2,100 | 9.90 |
| 30" | 4'-2" | 7'-2" | 2'-0" | 4'-2" | 1'-10" | 2'-9" | 2,850 | 13.50 |
| 36" | 4'-8" | 8'-4" | 2'-4" | 4'-8" | 2'-2" | 3'-3" | 3,700 | 17.65 |
| 42",48",54" | 5'-8" | 10'-10" | 3'-3" | 5'-8" | 2'-11" | 4'-3" | 5,600 | 28.60 |

*USE NEXT LARGER SIZE FOR CONCRETE PIPE

NOTES:

1. CONCRETE: MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 4500 PSI.
2. REINFORCEMENT STEEL TO BE 1/2"ø, GRADE 60.
3. CHAMFER ALL EXPOSED EDGES 3/4".

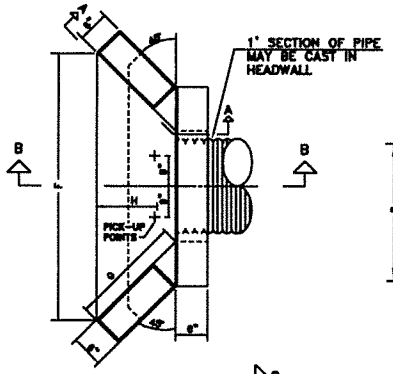
City of Loganville
where people matter

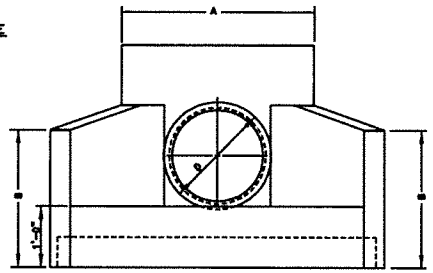
STANDARD DRAWING

**Precast Concrete Headwall System**

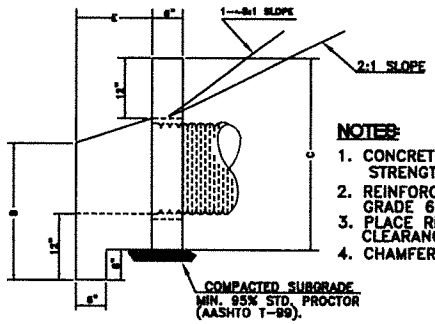
DATE: JUNE 21, 2019

SHEET: 704




FRONT ELEVATION

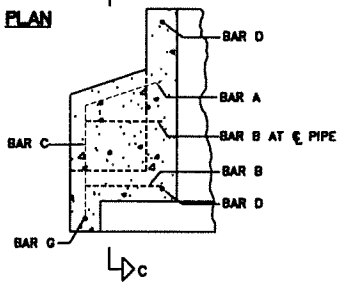



SIDE ELEVATION

**NOTES:**

1. CONCRETE: MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 3000 PSI.
2. REINFORCEMENT STEEL TO BE 1/2"ø, GRADE 60.
3. PLACE REINFORCEMENT 2" MINIMUM CLEARANCE.
4. CHAMFER ALL EXPOSED EDGES 3/4".

PLAN



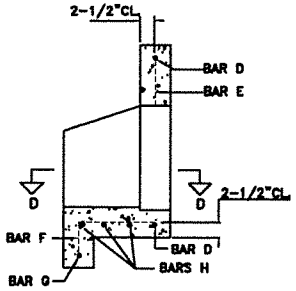

TYPE 1
BARS C,D,E,G,J,L

TYPE 2
BARS A,B

TYPE 3
BAR H

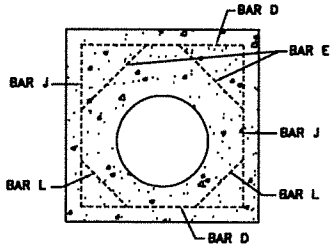
TYPE 4
BAR F

TYPE 5
BAR K




SECTION B-B

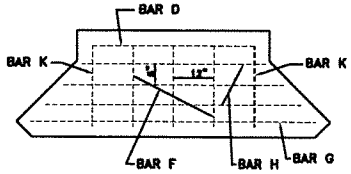
SECTION A-A




SECTION C-C

BAR REINF. DETAILS

REINF. STEEL TO BE 1/2"ø BARS.




SECTION D-D

**VARIABLE DIMENSIONS(CONCRETE PIPE)**

| CU YDS CONC | INSIDE DIA PIPE | AREA DIA PIPE | A | B | C | D | E | F | G | H | WT | BASE AREA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.43 | 18" | 1.76 | 3'-3" | 2'-4" | 3'-4-6" | 2'-0" | 1'-6" | 4'-10" | 2'-0" | 1'-0-4" | 1,763 | 8.30 |
| 0.60 | 21" | 2.40 | 3'-9-6" | 2'-6" | 3'-6" | 2'-3-6" | 1'-6" | 5'-3-6" | 2'-1-6" | 1'-0-7" | 2,020 | 9.40 |
| 0.81 | 24" | 3.14 | 4'-0" | 2'-6" | 3'-11" | 3'-1" | 1'-6" | 5'-11" | 2'-4-6" | 1'-1-10" | 2,066 | 11.80 |
| 0.79 | 30" | 4.91 | 4'-9-6" | 3'-1" | 4'-3-6" | 3'-1-6" | 2'-0" | 7'-1-6" | 2'-10" | 1'-3-7" | 3,182 | 15.10 |
| 1.00 | 36" | 7.07 | 5'-1" | 3'-6" | 6'-0" | 3'-6" | 2'-4" | 8'-0" | 3'-3-6" | 1'-6" | 4,068 | 18.60 |

**VARIABLE DIMENSIONS (METAL PIPE)**

| CU YDS CONC | INSIDE DIA PIPE | AREA DIA PIPE | A | B | C | D | E | F | G | H | WT | BASE AREA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.38 | 18" | 1.76 | 3'-2" | 2'-3" | 3'-2" | 1'-6" | 1'-4" | 4'-6" | 1'-10-6" | 0'-11-6" | 1,846 | 7.34 |
| 0.44 | 21" | 2.40 | 3'-6" | 2'-5" | 3'-5" | 2'-0" | 1'-6" | 4'-10" | 2'-0" | 1'-0-4" | 1,779 | 8.32 |
| 0.52 | 24" | 3.14 | 3'-6" | 2'-7" | 3'-5" | 2'-3" | 1'-7" | 6'-6" | 2'-3" | 1'-1-4" | 2,108 | 9.90 |
| 0.70 | 30" | 4.91 | 4'-2" | 2'-11" | 4'-2" | 2'-6" | 1'-11" | 6'-7" | 2'-6-6" | 1'-3-4" | 3,834 | 13.30 |
| 0.81 | 36" | 7.07 | 4'-6" | 3'-3" | 4'-6" | 3'-3" | 2'-3" | 7'-0" | 3'-2-4" | 1'-3-6" | 3,876 | 17.65 |

City of Loganville
where people matter

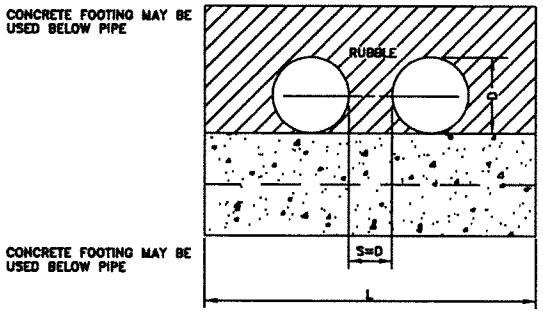
STANDARD DRAWING

**Cast Concrete Headwall**

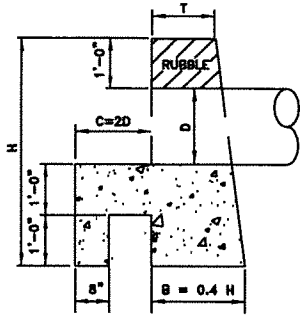
DATE: JUNE 21, 2019

SHEET: 705

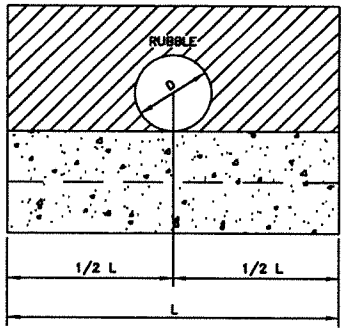
**NOTE:**
TO BE USED WHERE SPILLING OF MATERIAL AROUND THE END OF WALL WILL NOT IMPEDE FLOW. USE ONLY WHEN AUTHORIZED BY THE CITY.




DOUBLE LINE OF PIPE




SECTION




SINGLE LINE OF PIPE

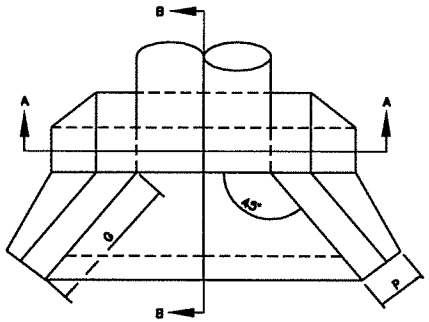
| DIMENSIONS AND QUANTITIES FOR ONE END WALL – SINGLE LINE OF PIPE | | | | | | |
|---|---|---|---|---|---|---|
| D | H | L | T | B | BATTER | CY |
| 12" | 4'–0" | 4'–6" | 15" | 1'–7" | 1:1 | 0.91 |
| 15" | 4'–3" | 5'–6" | 15" | 1'–8" | 1–1/4:1 | 1.22 |
| 18" | 4'–6" | 6'–6" | 15" | 1'–10" | 1–5/8:1 | 1.58 |
| 21" | 4'–9" | 7'–6" | 15" | 1'–11" | 1–3/4:1 | 2.03 |
| 24" | 5'–0" | 8'–6" | 15" | 2'–0" | 1–3/4:1 | 2.37 |
| 30" | 5'–6" | 10'–6" | 15" | 2'–2" | 2–1/8:1 | 3.40 |
| 36" | 6'–0" | 12'–6" | 15" | 2'–5" | 2–3/8:1 | 4.68 |
| 42" | 6'–6" | 14'–6" | 15" | 2'–7" | 2–1/2:1 | 5.30 |
| 48" | 7'–0" | 16'–6" | 15" | 2'–10" | 2–3/4:1 | 6.12 |
| 54" | 7'–6" | 18'–6" | 15" | 3'–0" | 2–7/8:1 | 6.99 |
| 60" | 8'–0" | 20'–6" | 15" | 3'–3" | 3:1 | 7.92 |
| 66" | 8'–6" | 22'–6" | 15" | 3'–5" | 3:1 | 8.93 |
| 72" | 9'–0" | 24'–6" | 15" | 3'–7" | 3–1/8:1 | 9.99 |

City of Loganville
where people matter

STANDARD DRAWING

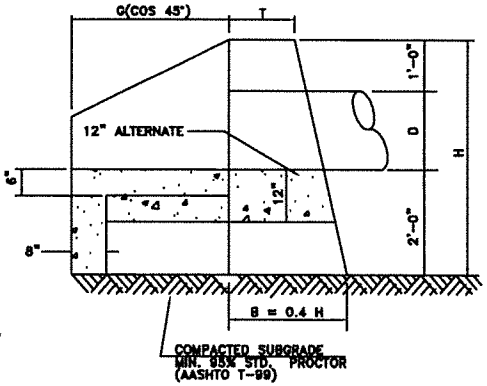
**Standard Rubble Headwall**

DATE: JUNE 21, 2019 SHEET: 706

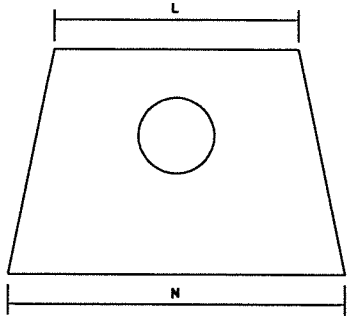



CONCRETE FOR APRON: MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 3000 PSI.

PLAN



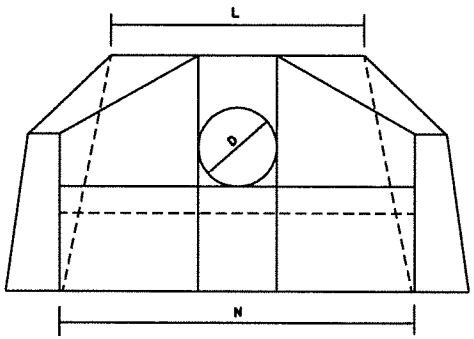

SECTION B-B



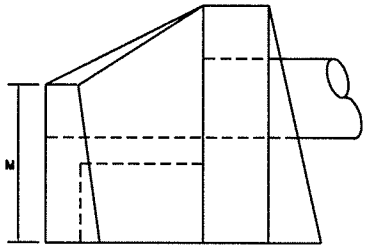

SECTION A-A

**NOTE:**

HEADWALLS TO BE BUILT ACCORDING TO GDOT STANDARD SPECIFICATIONS FOR CEMENT RUBBLE MASONRY. STONE TO BE BEDDED IN 1/3 PORTLAND CEMENT MORTAR. HEADERS TO BE DISTRIBUTED THROUGH WALLS SO AS TO FORM ABOUT ONE SIXTH OF FACE OF WALL, AND TO EXTEND ENTIRELY THROUGH THE WALL. WALLS TO BE NEATLY TOPPED WITH A LAYER OF 1-1 MORTAR, AT LEAST 1" THICK, TROWELED SMOOTH, AND BEVELED AT EDGES. DEPTH OF WALL BELOW PIPE TO BE VARIED TO SUIT LOCAL CONDITIONS.
WHERE DEPTH OF WALL IS INCREASED BY MORE THAN 2'-0", USE 0.4 OF HEIGHT FOR WIDTH OF BASE INSTEAD OF CONTINUING BATTER.
12" ALTERNATE FOOTING MAY BE USED.




FRONT ELEVATION




SIDE ELEVATION

**VARIABLE DIMENSIONS**

| D | B | G | H | L | M | N | P | T |
|---|---|---|---|---|---|---|---|---|
| 18 | 1'-10" | 3'-4" | 4'-6" | 5'-0" | 3'-4" | 6'-4" | 1'-4" | 15" |
| 21 | 1'-11" | 3'-6" | 4'-9" | 5'-3" | 3'-6" | 6'-11" | 1'-5" | 15" |
| 24 | 2'-0" | 3'-9" | 5'-0" | 5'-6" | 3'-9" | 7'-4" | 1'-6" | 15" |
| 30 | 2'-2" | 4'-0" | 5'-6" | 6'-0" | 4'-1" | 8'-4" | 1'-8" | 15" |
| 36 | 2'-5" | 4'-6" | 6'-0" | 6'-6" | 4'-5" | 9'-4" | 1'-10" | 15" |
| 42 | 2'-7" | 4'-11" | 6'-6" | 7'-0" | 4'-9" | 10'-2" | 1'-11" | 15" |
| 48 | 2'-10" | 5'-5" | 7'-0" | 7'-6" | 5'-1" | 11'-4" | 2'-1" | 15" |
| 54 | 3'-0" | 5'-11" | 7'-6" | 8'-0" | 5'-5" | 12'-2" | 2'-2" | 15" |
| 60 | 3'-3" | 6'-4" | 8'-0" | 8'-6" | 5'-9" | 13'-4" | 2'-5" | 15" |
| 66 | 3'-5" | 6'-10" | 8'-6" | 9'-0" | 6'-1" | 14'-6" | 2'-6" | 15" |
| 72 | 3'-7" | 7'-4" | 9'-0" | 9'-6" | 6'-5" | 15'-2" | 2'-7" | 15" |

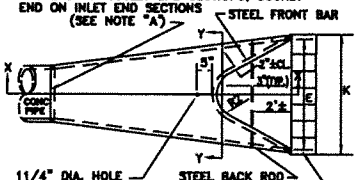
City of Loganville
where people matter

STANDARD DRAWING

**Standard Rubble Headwall with Wings**

DATE: JUNE 21, 2019 SHEET: 707

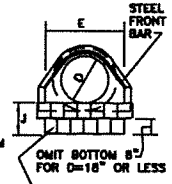
END SECTION TO PIPE JOINT SHOWN AS TYPICAL: HUB END ON OUTLET END SECTIONS; SOCKET END ON INLET END SECTIONS (SEE NOTE "A")




PLAN

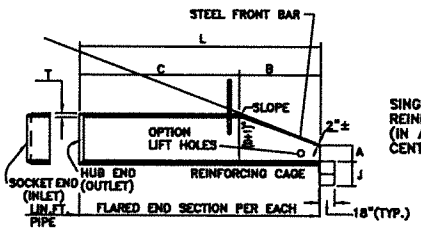
CONCRETE FLARED END SECTION

INSTALLATION: (D OVER 30") CABLE, CHAIN, OR LIFTING PIN WILL EXTEND THRU 1-1/4" HOLE WITH A PLATE OR REBAR CONNECTED INSIDE THE CONC. SECTION TO PROVIDE ADEQUATE BEARING AREA OR A LIFTING ASSEMBLY DEVICE MAY BE USED TO GIVE 3 LIFT POINTS. HOOKS CONNECTED DIRECTLY TO CONCRETE IS NOT PERMITTED. DAMAGE FROM IMPROPER HANDLING SHALL BE CAUSE FOR REJECTION.

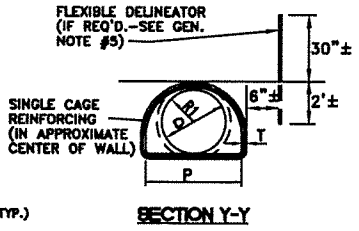



FRONT

NOTE:
DO NOT CUT CONCRETE PIPE. USE FULL LENGTH SECTIONS ONLY. WARP SLOPE TO CONFORM WITH PIPE LENGTH AND END SECTION.




SECTION X-X




SECTION Y-Y

REINFORCING CAGE:
(1) WIRE FABRIC HAVING SAME STEEL AREA AS INNER CAGE FOR CL. III PIPE, AASHTO M-170, BUT PLACED IN CENTER OF WALL.
(2) ALTERNATE: #3 BARS SPACED 12"± LONGITUDINALLY WITH #2 BARS TRANSVERSELY AT 6" O.C. MAX. SPACING, SPOT WELDED OR TIED TO FORM CAGE. (BACK RODS MAY BE OMITTED.)

NOTE "A":
CONTRACTOR WILL INFORM PRODUCER IF CONCRETE FLARED END SECTION IS FOR INLET OR FOR OUTLET END. SOCKET (TONGUE OR SPIGOT) END IS REQUIRED FOR INLETS. HUB (GROOVE OR BELL) END IS REQUIRED FOR OUTLETS. SOCKET TO SOCKET OR HUB TO HUB JOINT WILL NOT BE ACCEPTED UNLESS A REINFORCED CONCRETE COLLAR IS BUILT AROUND THE JOINT WITH NO PAYMENT BEING MADE FOR THE COLLAR. FLARED END SECTIONS TO BE JOINTED TO PIPE WITH ALL SPACE IN THE JOINT FILLED WITH EITHER BITUMINOUS PLASTIC CEMENT OR PRE-FORMED PLASTIC GASKET (GDOT SEC. 848).

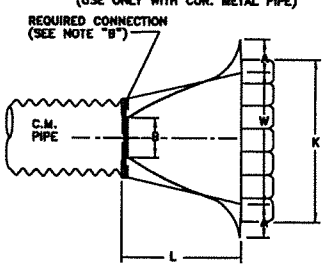
WALL THICKNESS (T) IS SHOWN AS NOMINAL AND MAY BE INCREASED AT PRODUCER'S OPTION FOR DESIRED JOINT DESIGN OR TO ALLOW A FLAT OUTSIDE BOTTOM ON THE FLARE, WITH INSIDE DIMENSIONS OF FLARE RETAINED AS SHOWN. T=PIPE WALL THICKNESS (0.08330+t" TYPICAL)

DIMENSIONS AND REINFORCING FOR CONCRETE FLARED END SECTIONS ( ± 1" TOLERANCE )

| PIPE DIA. | FRONT BAR | BACK RODS | SLOPE | A | B | C | L | E | P | R1 | R2 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 12" | 3#3@4" | NOT REQ'D | 2.2:1 | 4" | 2'0" | 4'1" | 8'1" | 2'0" | 1'8" | 10" | 8" |
| 15" | 3#3@6" | NOT REQ'D | 2.2:1 | 6" | 2'3" | 3'10" | 8'1" | 2'6" | 2'0" | 1'0" | 11" |
| 18" | 3#3@8" | NOT REQ'D | 2.2:1 | 8" | 2'3" | 3'10" | 8'1" | 3'0" | 2'5" | 1'4" | 1'0" |
| 24" | 3#3@10" | NOT REQ'D | 2.2:1 | 10" | 3'8" | 2'8" | 8'2" | 4'0" | 2'8" | 1'5" | 1'2" |
| 30" | 4#3@11" | NOT REQ'D | 2.4:1 | 12" | 4'8" | 1'8" | 8'2" | 5'0" | 3'1" | 1'8" | 1'3" |
| 36" | 4#3@10" | 2-#4@3" | 2.4:1 | 15" | 5'3" | 2'11" | 8'2" | 6'0" | 4'0" | 2'0" | 1'6" |
| 42" | 4#3@10" | 4-#4@3" | 2.4:1 | 21" | 5'3" | 2'11" | 8'2" | 6'8" | 4'8" | 2'4" | 1'9" |

NOTE:
SPECIFIED REINFORCING IS MINIMAL AND MAY BE INCREASED AT PRODUCER'S OPTION TO AID CASTING & HANDLING. ALTERNATE REINFORCEMENT PERMITTED IF APPROVED.

METAL FLARED END SECTION
(USE ONLY WITH COR. METAL PIPE)




PLAN

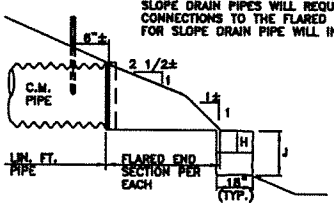
NOTE:
GALVANIZED STEEL FLARED END SECTIONS ARE TO BE USED ONLY WITH CORRUGATED STEEL PIPE AND ALUMINUM FLARED END SECTIONS ARE TO BE USED ONLY WITH CORRUGATED ALUMINUM PIPE UNLESS OTHERWISE APPROVED BY O.D.O.T. OFFICE OF MATERIALS AND TESTS.

FLARED END SECTION DIMENSIONS

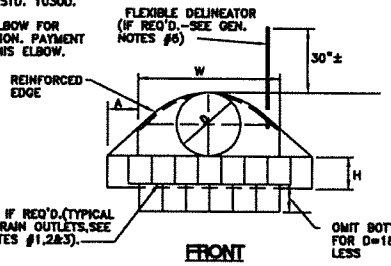
| PIPE SIZE "D" | THICKNESS GALV. STEEL | THICKNESS ALUM. | A A=0.4D ± 1" | B B=0.5D ± 1" | H H=0.25D ±1"(MIN6" | L L=1.67D ± 11\2" | W W=2.0D ± 2" |
|---|---|---|---|---|---|---|---|
| 12" | .064" | .060" | 5" | 6" | 6" | 1'8" | 2'0" |
| 15" | .064" | .060" | 6" | 7" | 6" | 2'3" | 2'6" |
| 18" | .064" | .060" | 7" | 9" | 6" | 2'6" | 3'0" |
| 24" | .064" | .060" | 9" | 1'0" | 6" | 3'4" | 4'0" |
| 30" | .079" | .105" | 1'0" | 1'3" | 7" | 4'2" | 5'0" |
| 36" | .079" | .105" | 1'2" | 1'6" | 9" | 5'0" | 6'0" |
| 42" | .109" | .184" | 1'8" | 1'9" | 10" | 5'10" | 7'0" |

NOTE:
WHERE METAL FLARED END SECTIONS ARE USED WITH MULTIPLE PIPE LINES, THE STANDARD SPACING BETWEEN PIPES. (S=D OR 3 FT.) MAY HAVE TO BE INCREASED (S=1.75D TYPICAL). TO PREVENT OVERLAP OF END SECTION WINGTIPS, SEE ALSO GDOT STD. 10300.

NOTE:
SLOPE DRAIN PIPES WILL REQUIRE AN ELBOW FOR CONNECTIONS TO THE FLARED END SECTION. PAYMENT FOR SLOPE DRAIN PIPE WILL INCLUDE THIS ELBOW.




SIDE




FRONT

TOEWALL DIMENSIONS AND QUANTITIES

| D | J | K | ALTERNATE MATERIAL QUANTITIES: SAND CEMENT BAG RIP RAP 8" THICK NO. BARS | SAND CEMENT BAG RIP RAP 8" THICK SQ.YDS. | CONCRETE (CL. A OR B) OR MORTAR RUBBLE MASONRY CU.FT.@ | CONCRETE (CL. A OR B) OR MORTAR RUBBLE MASONRY CU.YDS.@ | STONE GROUT RIP RAP OR STONE SLOPE PAVING THICKNESS@ | STONE GROUT RIP RAP OR STONE SLOPE PAVING SQ.YDS.@ |
|---|---|---|---|---|---|---|---|---|
| 12" | 8" | 3' | 3 | 0.500 | 3 | 0.111 | 8" | 0.500 |
| 15" | 8" | 3' | 3 | 0.500 | 3 | 0.111 | 8" | 0.500 |
| 18" | 8" | 4' | 4 | 0.667 | 4 | 0.148 | 8" | 0.667 |
| 24" | 16" | 5' | 9 | 1.500 | 10 | 0.370 | 16" | 0.833 |
| 30" | 16" | 6' | 11 | 1.833 | 12 | 0.444 | 16" | 1.000 |
| 36" | 16" | 7' | 13 | 2.167 | 14 | 0.518 | 16" | 1.168 |
| 42" | 16" | 8' | 19 | 2.500 | 19 | 0.592 | 16" | 1.333 |

NOTE "B":
THE CONNECTION BETWEEN METAL FLARED END SECTION AND C.M. PIPE WILL BE ONE OF THE FOLLOWING:
(a) A STRAP BAND OR THREADED ROD PROVIDED BY THE MANUFACTURER WILL LOCK END SECTION ONTO PIPE. A CORRUGATION AT THE PIPE END WILL BE NON-SPIRALED (PERPENDICULAR TO CENTERLINE OF PIPE).
(b) A DIMPLE BAND COLLAR WILL BE SHOP BOLTED TO END SECTION. PIPE WILL BE INSERTED INTO THE BAND COLLAR TO MEET THE END SECTION.
(c) A STUB PIPE WILL BE RIVETED TO THE END SECTION AND THE MAIN PIPE CONNECTED TO THE STUB WITH A NORMAL CONNECTING BAND.
(d) OTHER TYPE CONNECTION IF RECOMMENTED BY MANUFACTURER AND APPROVED BY THE GDOT.

GENERAL NOTES:
1. TOEWALLS ARE FOR OUTLETS OF STORM DRAINS, EXCEPT WHERE CONCRETE DITCH PAVING OR OTHER EROSION PROTECTION IS PROVIDED OR WHERE THE OUTLET VELOCITY IS LESS THAN 8 FT./SEC. TOEWALLS ARE NOT REQUIRED FOR SIDE DRAINS, SLOPE DRAINS OR INLETS OF STORM DRAINS. THIS CRITERIA MAY BE VARIED WHERE SPECIFIED BY THE DESIGNER OR ENGINEER.
2. TOEWALLS WHICH ARE CONSTRUCTED WILL BE PAID FOR AS SQ. YDS. OF SAND CEMENT BAG RIPRAP 8" THICK, CONTRACTOR MAY ELECT TO USE ALTERNATE MATERIALS WITH NO ADJUSTMENTS TO BE MADE FOR PAYMENT.
3. TOEWALL DIMENSIONS ARE NOMINAL. TOEWALLS CONSTRUCTED WITH ALTERNATE MATERIALS TO HAVE APPROXIMATELY THE SAME DIMENSIONS AS INDICATED FOR RIP RAP. TOEWALLS CONSTRUCTED WITH CONCRETE MAY BE TRENCH FORMED, PLACEMENT OF RIP RAP MAY DIFFER FROM DETAILS SHOWN IF SO APPROVED BY THE ENGINEER.
4. CENTERLINE OF FLARED END SECTION WILL ALIGN WITH CENTERLINE OF PIPE. IF PIPE IS SKEWED, THE EMBANKMENT SLOPE WILL BE WARPED TO CONFORM WITH END SECTION.
5. FLEXIBLE DELINEATORS SHALL BE REQUIRED AT CROSS DRAIN FLARED END SECTIONS BOTH INLET AND OUTLET. PAYMENT FOR FLARED END SECTION WILL INCLUDE DELINEATORS. SEE DETAIL AND NOTES BELOW. DELINEATORS NOT REQ'D. FOR SIDE DRAIN, SLOPE DRAIN, OR LONG. PIPE.

NOTE:
DELINEATOR POST TO CONFORM TO GDOT SEC. 811 FOR FLEXIBLE DELINEATOR POST, EXCEPT REFLECTIVE SHEETING IS NOT REQUIRED AND LENGTH IS 4'-6" FROM TOP TO BOTTOM POINT. ALTERNATES PERMITTED IF APPROVED BY GDOT LABORATORY.

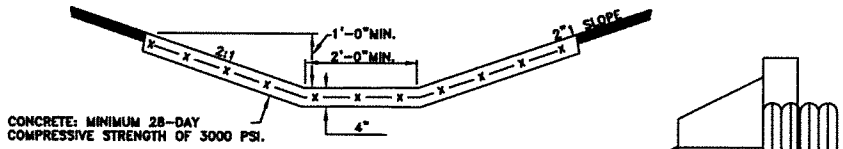
City of Loganville
where people matter

STANDARD DRAWING

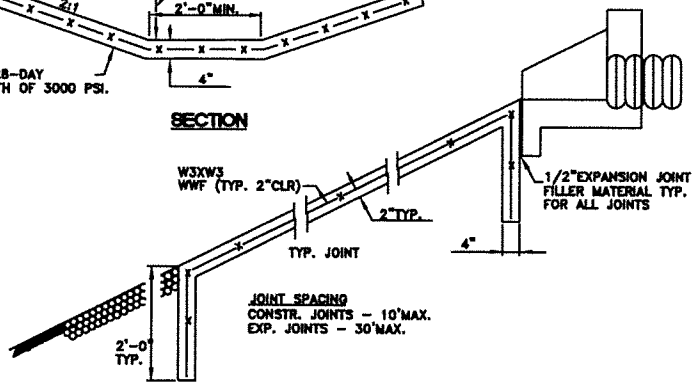
# Standard Flared End Sections for Pipes

DATE: JUNE 21, 2019

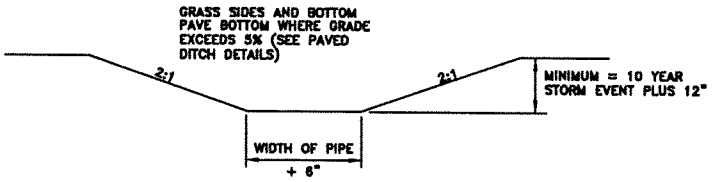
SHEET: 708



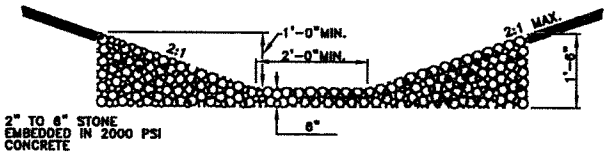

SECTION



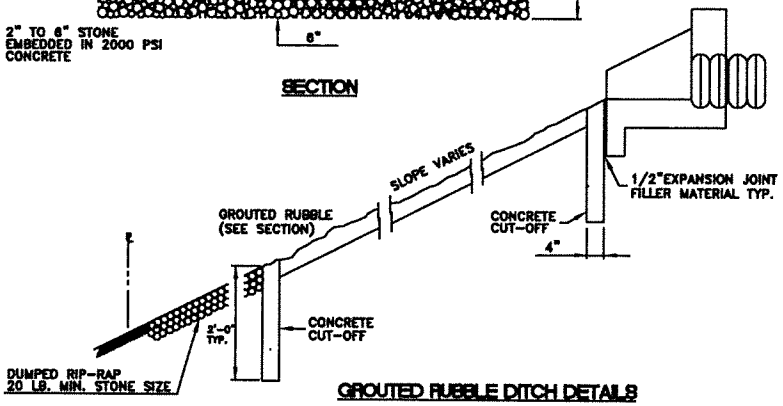

PAVED DITCH DETAILS




TYPICAL DRAINAGE DITCH CROSS SECTION




SECTION



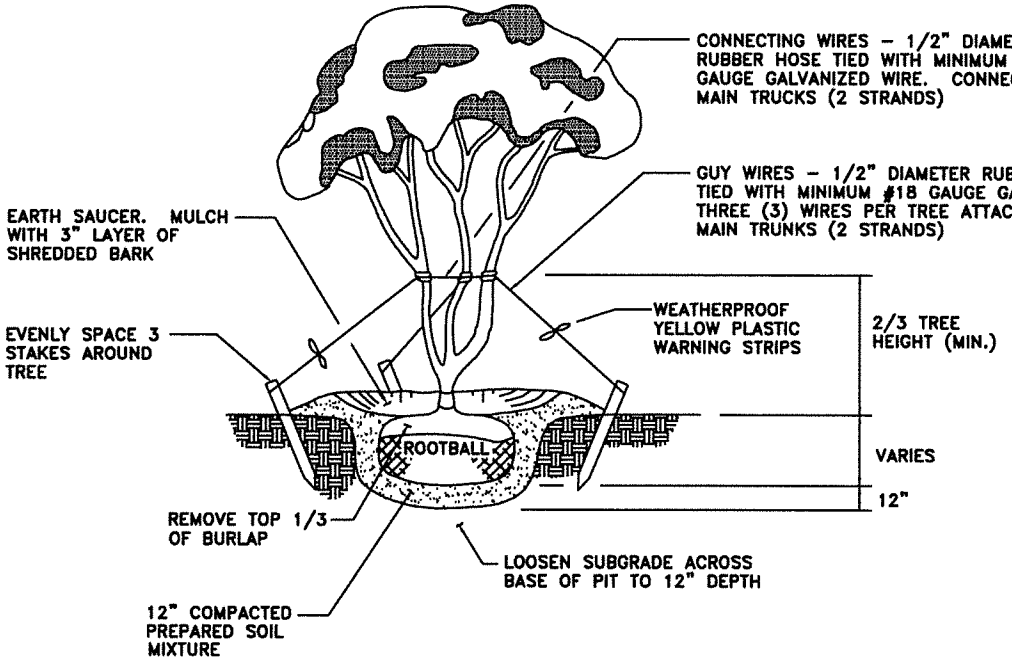

GROUTED RUBBLE DITCH DETAILS

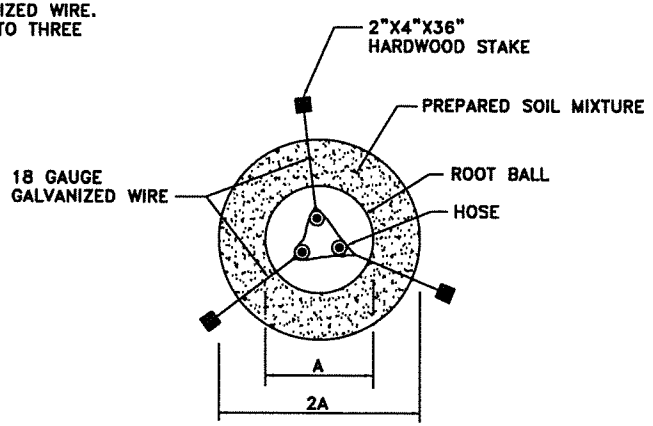
City of Loganville
where people matter

STANDARD DRAWING

**Drainage Ditch Details**

DATE: JUNE 21, 2019 SHEET: 709



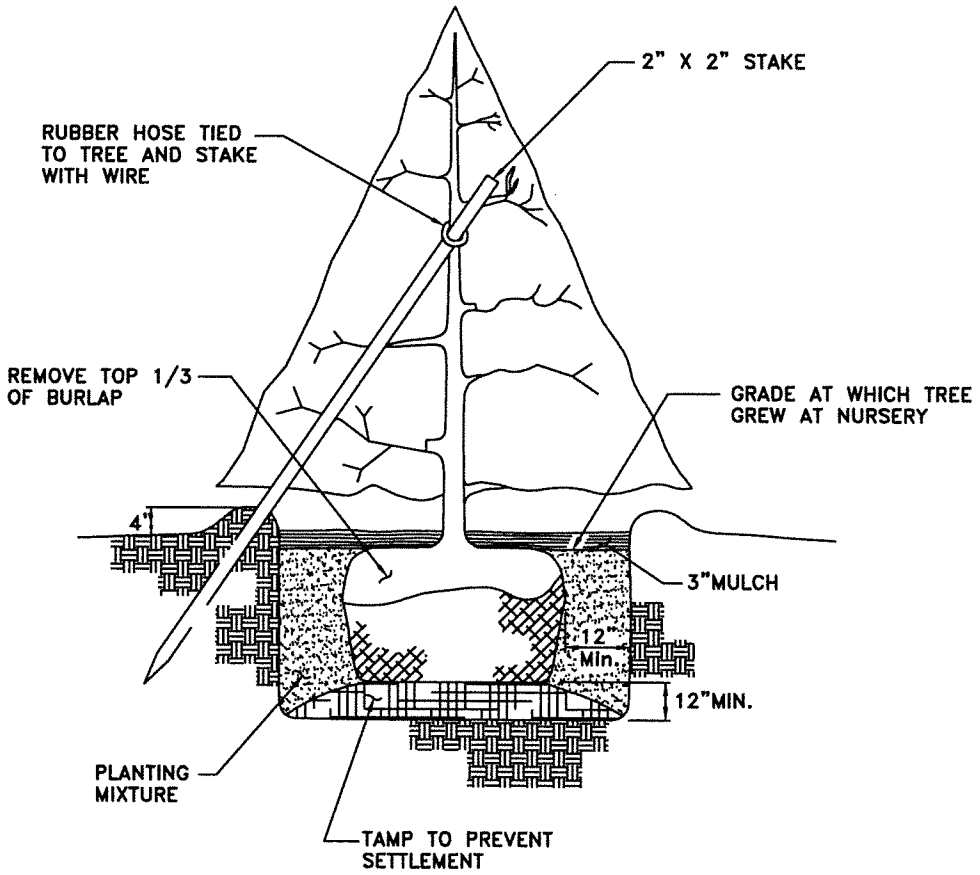

A = DIAMETER OF ROOT BALL
2A = DIAMETER OF PIT

City of Loganville
where people matter

S T A N D A R D  D R A W I N G

**Multi-Trunk Tree Planting**

D A T E: JUNE 21, 2019  S H E E T: 801

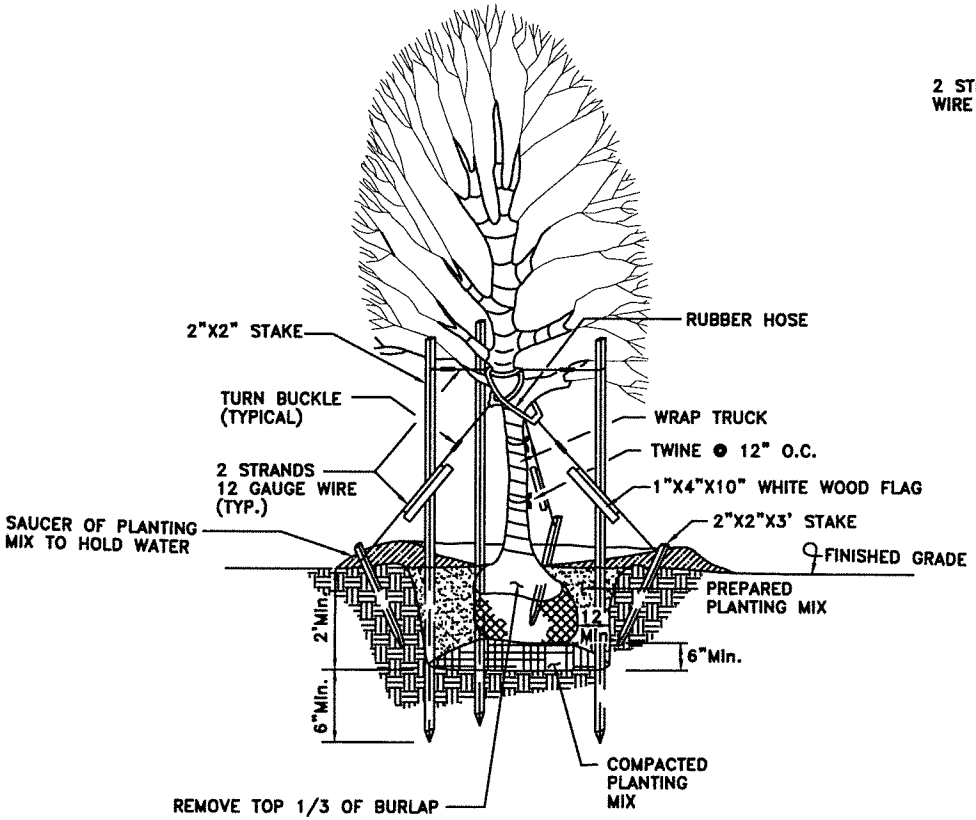


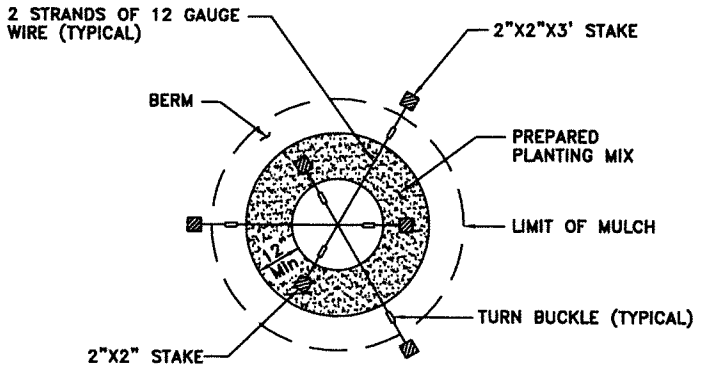

City of Loganville
where people matter

STANDARD DRAWING

**Evergreen Tree Planting**

DATE: JUNE 21, 2019 SHEET: 802




## NOTES

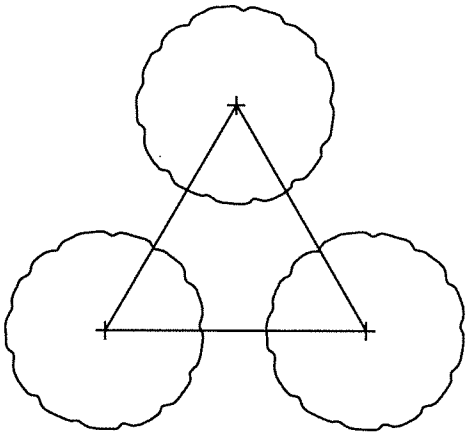
1. MULCH WITH 3" OF CLEAN PINE STRAW.
2. TREES EIGHT FEET HIGH (8') OR LESS TO BE STAKED.
3. TREES TALLER THAN EIGHT FEET (8') TO BE GUYED.

City of Loganville
where people matter

S T A N D A R D  D R A W I N G

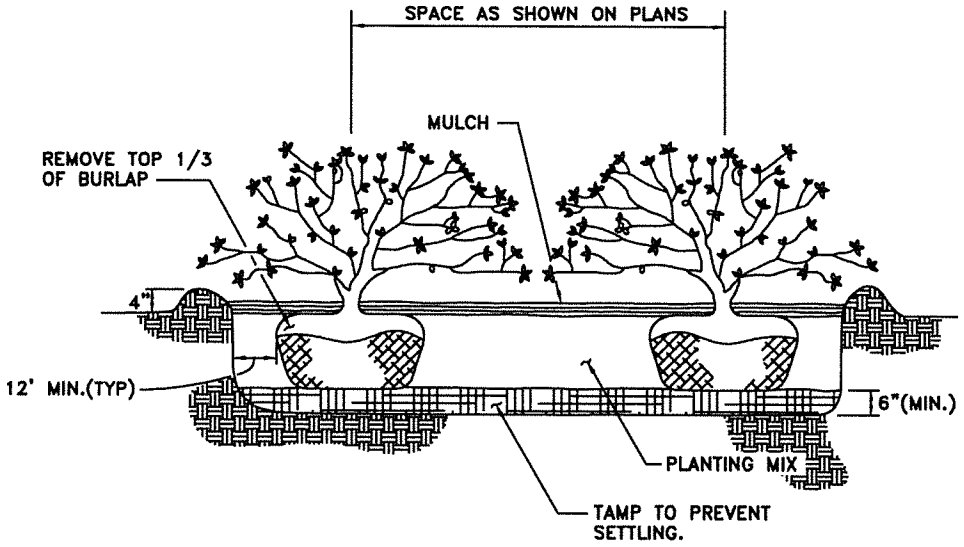
**Deciduous Tree Planting**

D A T E: JUNE 21, 2019  S H E E T: 803



PLAN

1. LAYOUT PERIMETER PLANTING AS PER SPACING SHOWN ON PLANS.
2. FILL IN PLANTING BED WITH STAGGERED SPACED PLANTING.



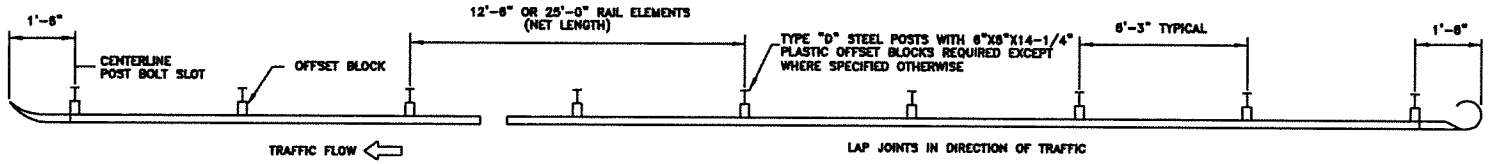

SECTION

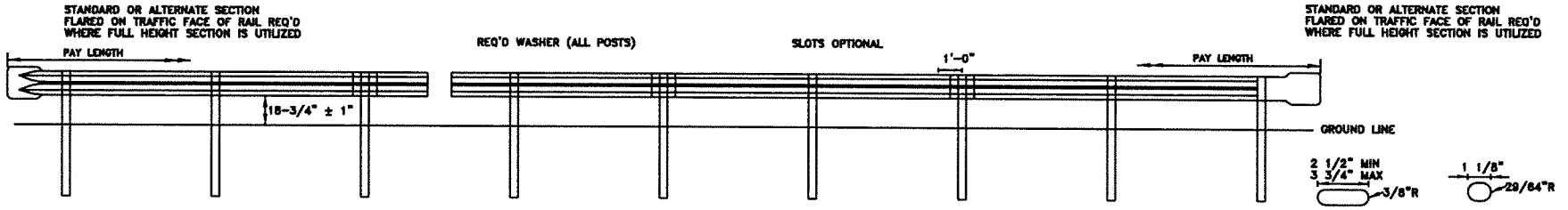
City of Loganville
where people matter

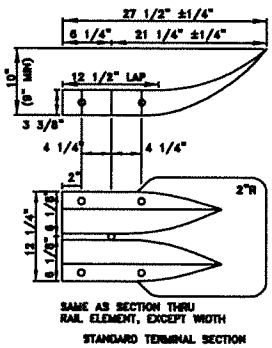
STANDARD DRAWING

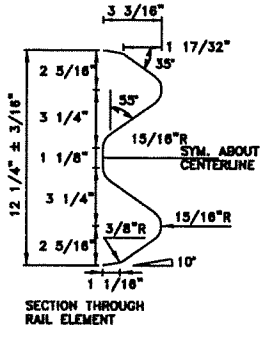
**Shrub and Groundcover Planting**

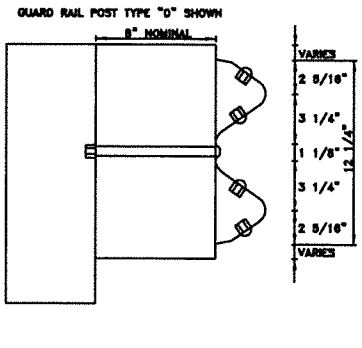
DATE: JUNE 21, 2019 SHEET: 804

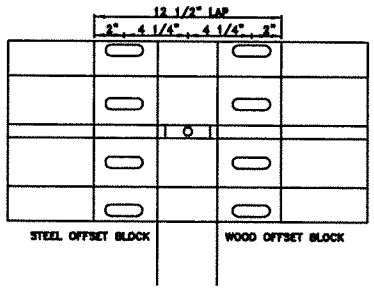


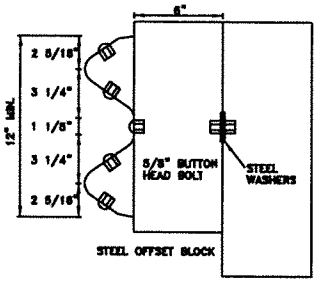



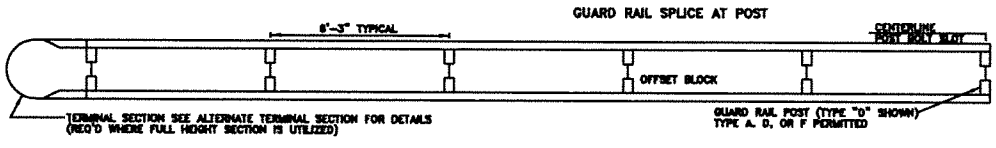


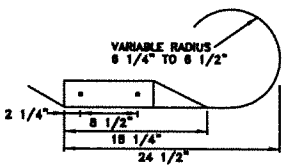



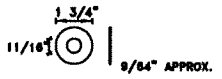



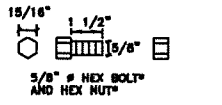



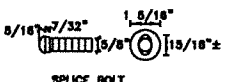



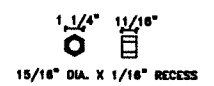



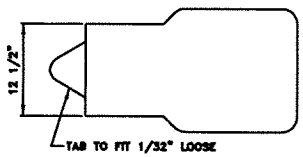



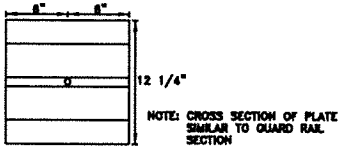



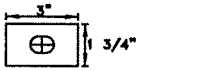




TYPE 2 OR 4 GUARD RAIL ANCHORAGE IF REQUIRED

GENERAL NOTES

1. GUARD RAIL, ITS FITTINGS, PARTS, ETC. ARE TO BE IN ACCORDANCE WITH ODOT STANDARD SPECIFICATIONS AND/OR SPECIAL PROVISIONS.
2. FOR DETAILS OF POSTS AND OFFSET BLOCKS SEE ODOT STANDARD DWGS.
3. FOR DETAILS OF GUARD RAIL ANCHORAGES SEE ODOT STANDARD DWGS.
4. FOR LOCATION OF GUARD RAIL SEE ODOT STANDARD DWGS.
5. ON PROJECTS WHERE GUARD RAIL CONNECTIONS AT BRIDGE ENDS HAVE BEEN PLACED ON PREVIOUS CONTRACTS THE END PANEL MAY BE SHORTENED BY CUTTING OR SHEARING TO FIT EXISTING STRUCTURE.
6. WHEN GUARD RAIL IS REQUIRED ON CURVES WITH RADII LESS THAN 150' PRECURVED RAIL WILL BE REQUIRED.
7. ALL DIMENSIONS ARE SUBJECT TO MANUFACTURING TOLERANCES.
8. STANDARD NET LENGTH OF RAIL ELEMENTS MAY BE EITHER 12'-6" OR 25'-0" THESE LENGTHS ARE TO BE ARRANGED TO PROVIDE AS NEARLY AS POSSIBLE THE OVERALL LENGTH INDICATED ON THE PLANS.

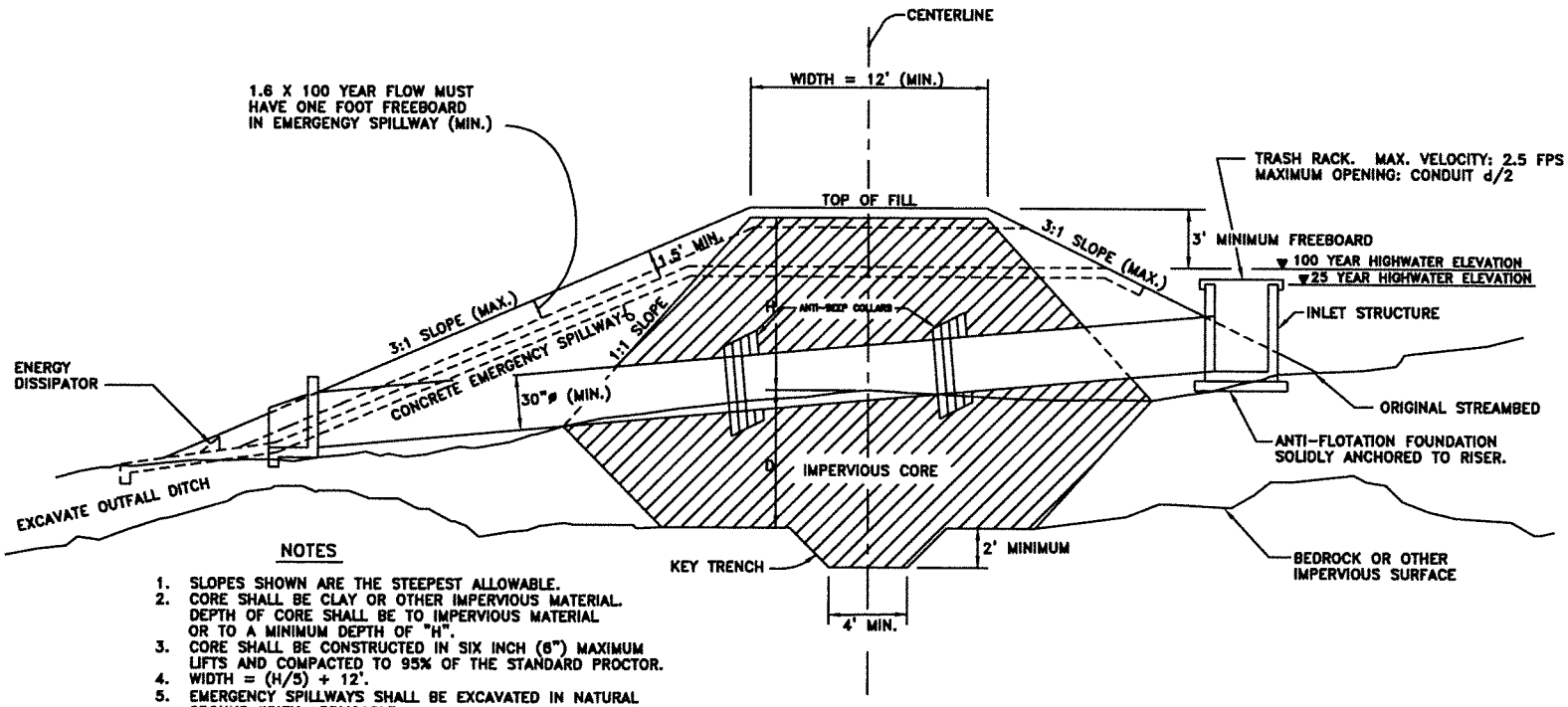
City of Loganville
where people matter

S T A N D A R D  D R A W I N G

# Beam Type Guardrail

D A T E: JUNE 21, 2019

S H E E T: 901




NOTES

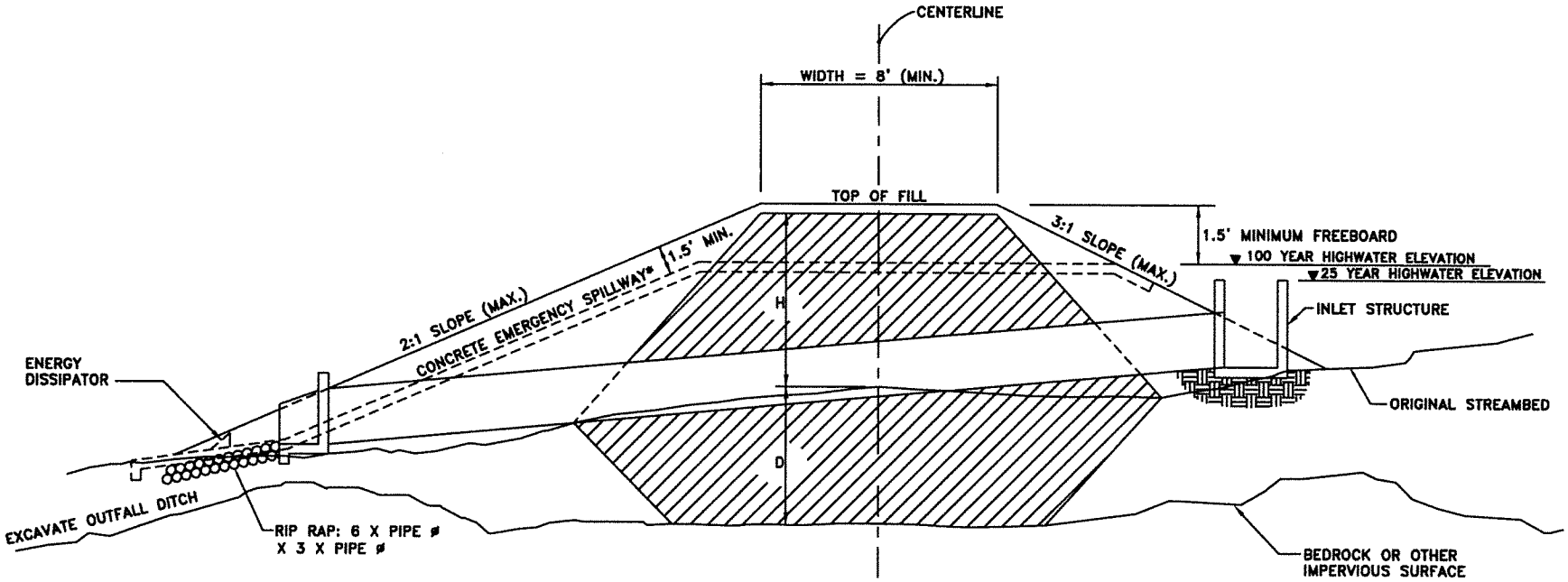
1. SLOPES SHOWN ARE THE STEEPEST ALLOWABLE.
2. CORE SHALL BE CLAY OR OTHER IMPERVIOUS MATERIAL. DEPTH OF CORE SHALL BE TO IMPERVIOUS MATERIAL OR TO A MINIMUM DEPTH OF "H".
3. CORE SHALL BE CONSTRUCTED IN SIX INCH (6") MAXIMUM LIFTS AND COMPACTED TO 95% OF THE STANDARD PROCTOR.
4. WIDTH = (H/5) + 12'.
5. EMERGENCY SPILLWAYS SHALL BE EXCAVATED IN NATURAL GROUND WHEN APPLICABLE.
6. ANTI-SEEP COLLARS ARE REQUIRED.
7. INLET OPENING SHALL BE NINE TIMES THE CROSS SECTIONAL AREA OF THE OUTLET CONDUIT.
8. PROVIDE BUOYANCY CALCULATIONS WITH SUBMITTAL.
9. PROVIDE HEC 1 RUN WITH PLAN SUBMITTAL.
10. ALL JOINTS SHALL BE WATER TIGHT UNDER MAXIMUM HYDROSTATIC LOAD AND JOINT EXTENTION.
11. CONDUIT SHALL BE CLASS V CONCRETE WITH GASKETS, ETC.
12. THESE GUIDELINES ARE A MINIMUM. USDA TR 60 SHALL APPLY IN ALL CASES WHERE TR 60 REQUIREMENTS ARE STRICTER.

City of Loganville
where people matter

STANDARD DRAWING

**Earthfill Dams for Wet Detention Ponds**

DATE: JUNE 21, 2019 SHEET: 902




## NOTES

1. SLOPES SHOWN ARE THE STEEPEST ALLOWABLE.
2. CORE SHALL BE CLAY.
3. DAM SHALL BE CONSTRUCTED IN SIX INCH (6") MAXIMUM LIFTS AND COMPACTED TO 95% OF THE STANDARD PROCTOR.
4. EMERGENCY SPILLWAYS SHALL BE EXCAVATED IN NATURAL GROUND WHEN APPLICABLE.
5. PROVIDE BUOYANCY CALCULATIONS WITH PLAN SUBMITTAL.
6. METAL PIPE SHALL BE FULLY COATED, WITH A PAVED INVERT.**
7. A SEPARATE OUTLET PIPE MAY BE UTILIZED FOR EXTENDED DETENTION.

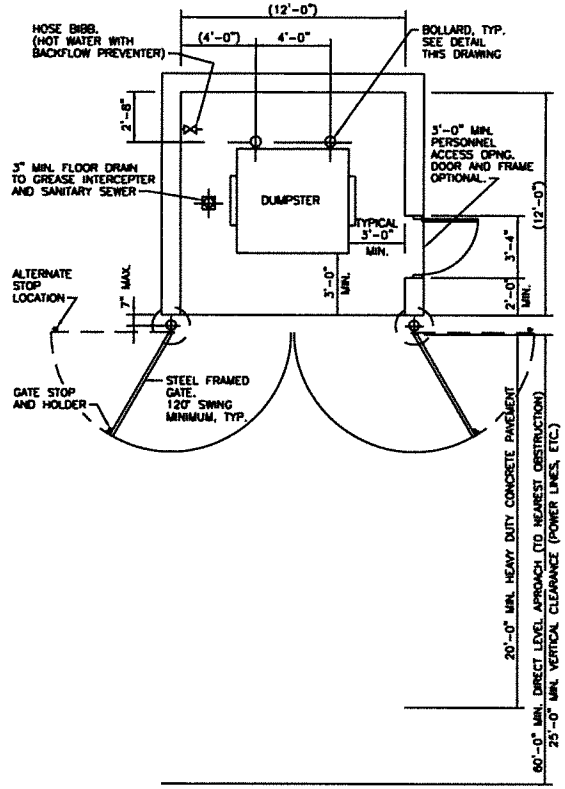
* ALL SWALES EXCEEDING 5% SHALL BE PAVED.
** PAVED INVERT FOR FLOWING STREAMS ONLY.

City of Loganville
*where people matter*

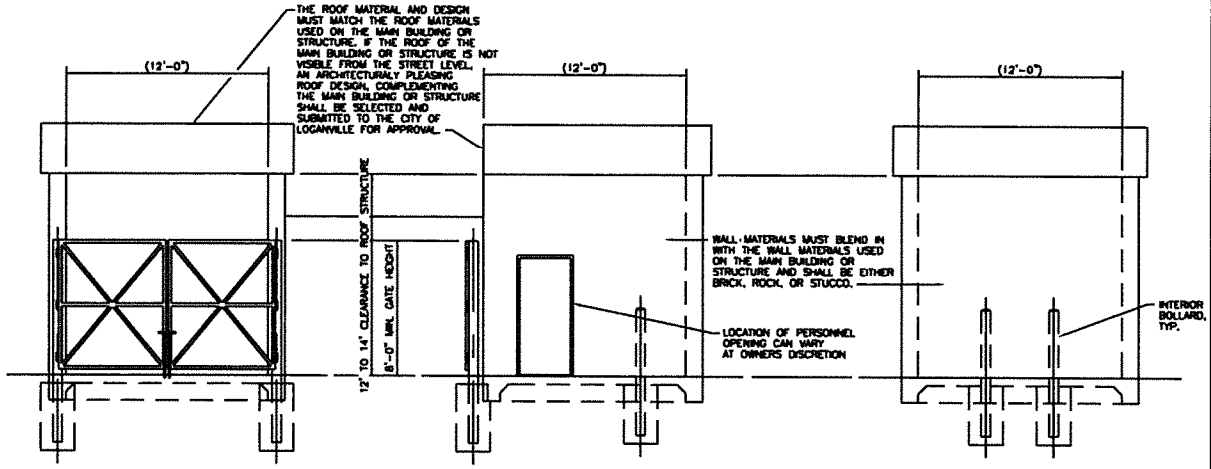
STANDARD DRAWING

**Earthfill Dams for Normally Dry Detention Ponds**

DATE: JUNE 21, 2019 SHEET: 903




PLAN

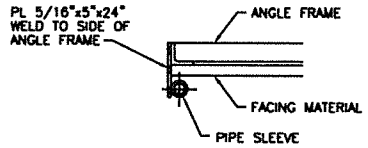



FRONT ELEVATION

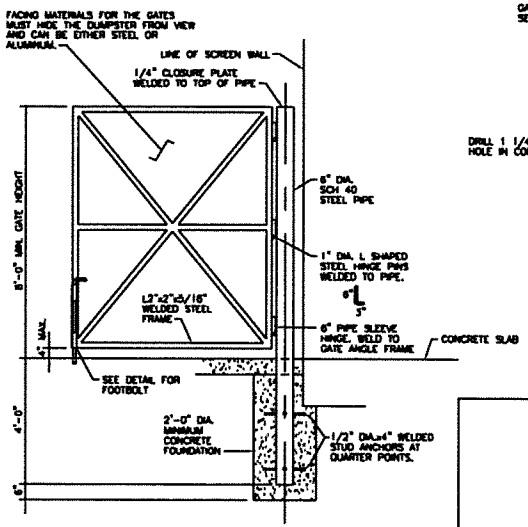
RIGHT SIDE ELEVATION

REAR ELEVATION

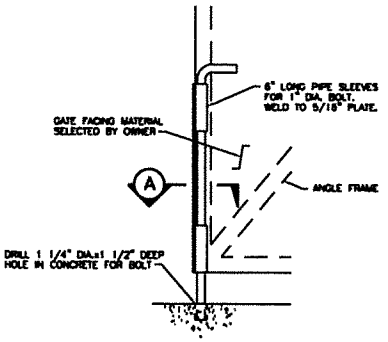
LEFT SIDE ELEVATION OPP. HAND



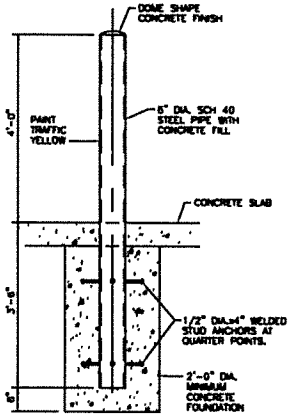

SECTION (A)




GATE FRAME DETAIL




FOOTBOLT DETAIL




PIPE BOLLARD DETAIL

## NOTES:

1. DESIGNERS ARE ENCOURAGED TO INCLUDE DUMPSTER ENCLOSURE AS A PART OF THE MAIN BUILDING OR STRUCTURE.
2. DIMENSIONS SHOWN IN PARENTHESIS ( ) MAY BE ADJUSTED TO REFLECT THE DUMPSTER SIZE SELECTED. CLEARANCE DIMENSIONS SHOWN IN PLAN MUST BE ADHERED TO AT ALL TIMES.
3. ROOF OVER DUMPSTER ENCLOSURE IS MANDATORY.
4. SLOPE CONCRETE FLOOR INSIDE ENCLOSURE TO FLOOR DRAIN.

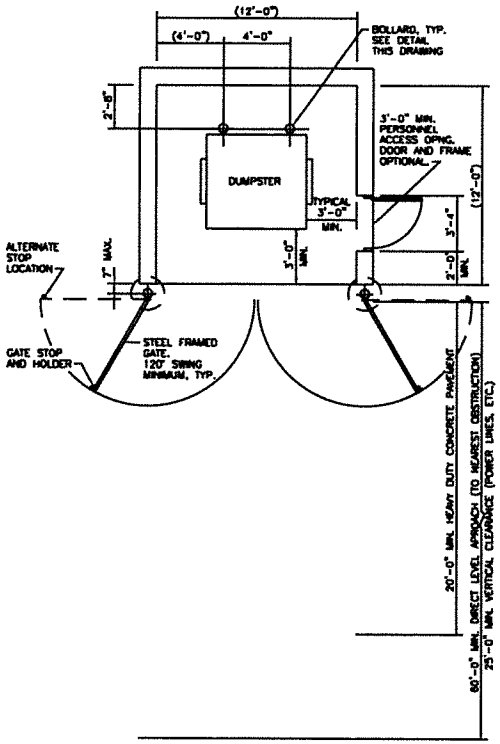
City of Loganville
where people matter

STANDARD DRAWING

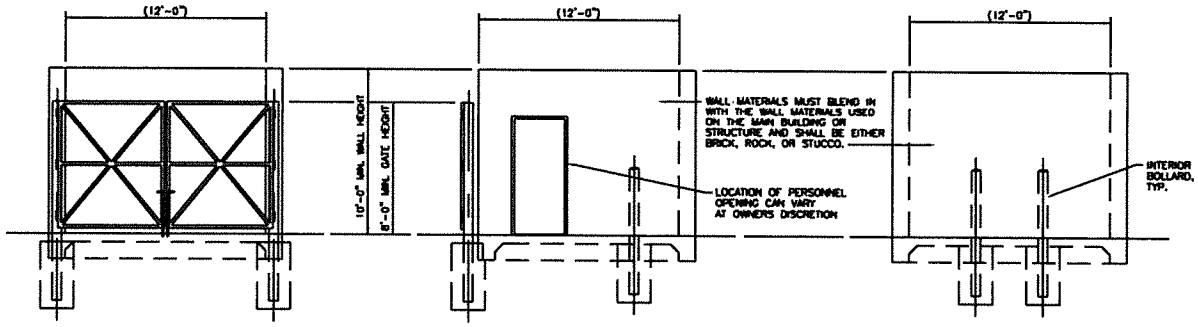
# Guidelines for Dumpster Enclosure (Food Service)

DATE: JUNE 21, 2019

SHEET: 904




PLAN

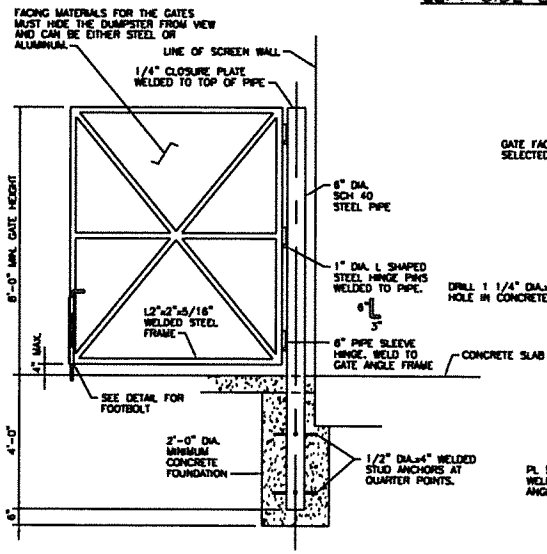



FRONT ELEVATION

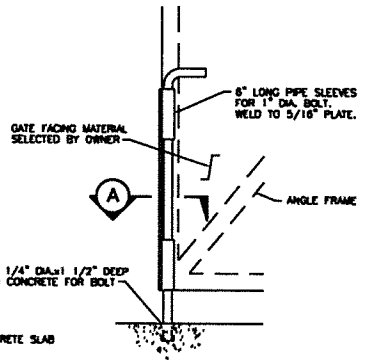
RIGHT SIDE ELEVATION

REAR ELEVATION

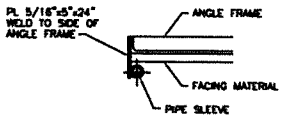
LEFT SIDE ELEVATION OPP. HAND



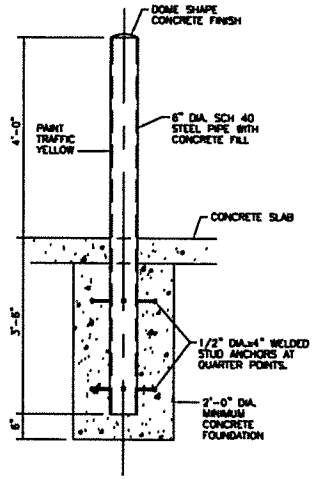

GATE FRAME DETAIL




FOOTBOLT DETAIL




SECTION (A)




PIPE BOLLARD DETAIL

## NOTES:

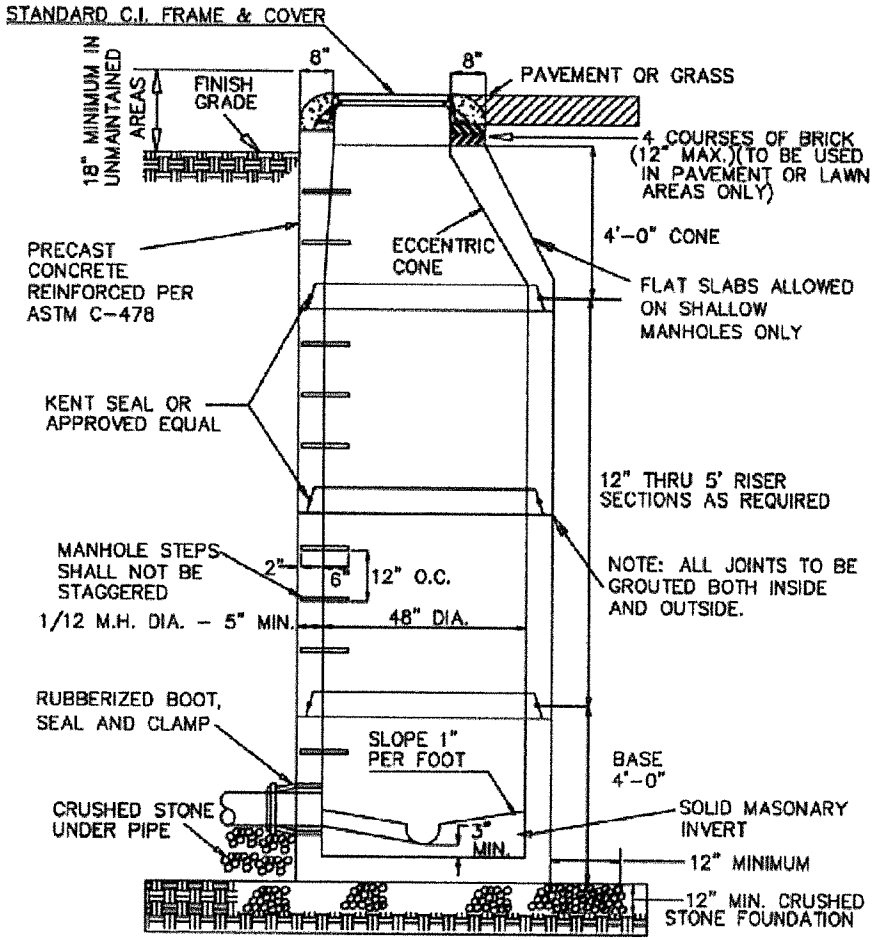
1. DESIGNERS ARE ENCOURAGED TO INCLUDE DUMPSTER ENCLOSURE AS A PART OF THE MAIN BUILDING OR STRUCTURE.
2. DIMENSIONS SHOWN IN PARENTHESIS ( ) MAY BE ADJUSTED TO REFLECT THE DUMPSTER SIZE SELECTED. CLEARANCE DIMENSIONS SHOWN IN PLAN MUST BE ADHERED TO AT ALL TIMES.

City of Loganville
where people matter

STANDARD DRAWING

**Guidelines for Dumpster Enclosure (Non-Food Service)**

DATE: JUNE 21, 2019 SHEET: 905




NOTES:

1. TABLES ARE TO BE GENTLY SLOPED AND TROWELED SMOOTH FROM M.H. WALL TO INVERT WALL AND CONSTRUCTED OF SOLID MASONARY.
2. BASES LARGER THAN 48" (INCH) MUST USE TRANSITION SLAB AND 48" (INCH) RISER SECTIONS.
3. CONES WITH CAST IN PLACE FRAMES ARE REQUIRED ON OUTFALL SEWERS IN UNMAINTAINED AREAS.
4. BOLT DOWN RING & COVER REQUIRED OUTSIDE OF PAVEMENT.
5. ALL MANHOLES RECEIVING A FORCE MAIN DISCHARGE SHALL BE POLYMER CONCRETE MANHOLES AS MANUFACTURED BY US COMPOSITE PIPE, INC. OR CITY OF LOGANVILLE APPROVED EQUAL.

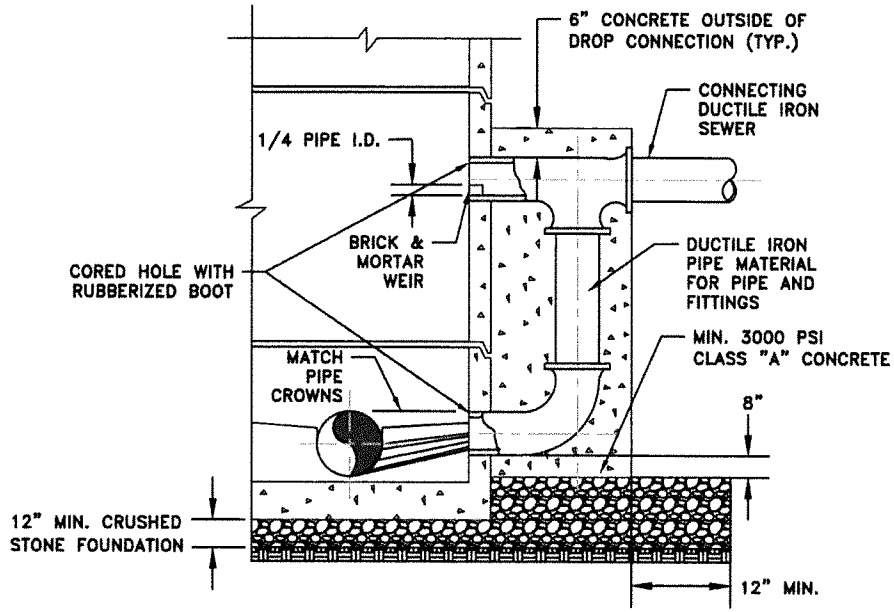
City of Loganville
where people matter

STANDARD DRAWING

**Sanitary Sewer Manhole**

DATE: JUNE 21, 2019

SHEET: 1001




NOT TO SCALE

PARTIAL SECTION

OUTSIDE DROP CONNECTION

NOTES:
1. MANHOLE SHALL BE INSTALLED LIKE STANDARD PRECAST MANHOLE, EXCEPT FOR DROP.
2. MAXIMUM ALLOWABLE DROP FOR LOWER INLET ON OUTSIDE DROP MANHOLES SHALL BE 8" (INCHES)

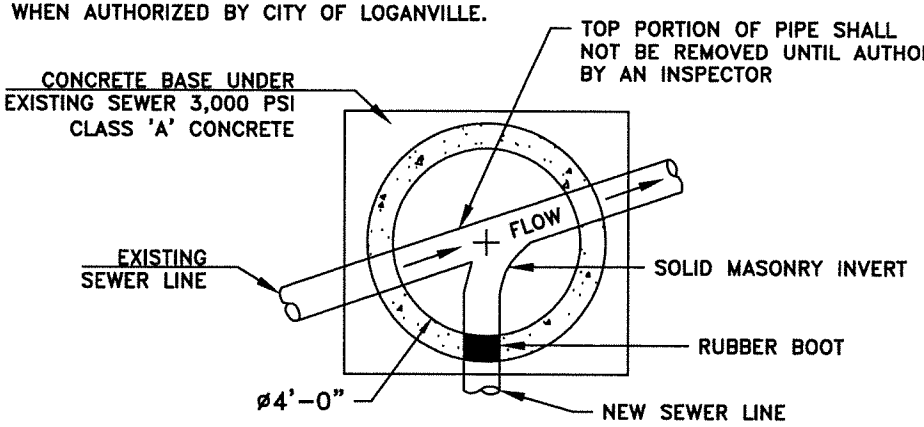
City of Loganville
where people matter

S T A N D A R D  D R A W I N G

**Outside Manhole Drop Connections**

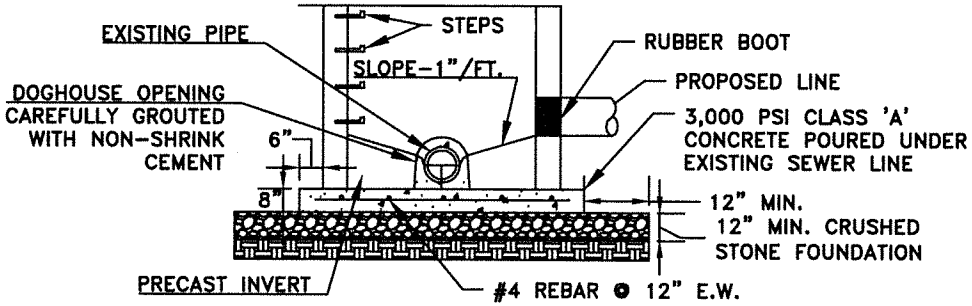
D A T E: JUNE 21, 2019  S H E E T: 1002

NOTE:
DOGHOUSE MANHOLES TO BE INSTALLED ONLY WHEN AUTHORIZED BY CITY OF LOGANVILLE.




PROVIDE PRECAST MANHOLE RISER COMPLETE WITH UP-SIDE DOWN U-SHAPED OPENING TO SUIT EXISTING LINES.

CORED AND BOOTED OPENING TO SUIT PROPOSED PIPELINES.




NOTE:
TABLES ARE TO BE GENTLY SLOPED AND TROWELED SMOOTH FROM MANHOLE WALL TO INVERT WALL HEIGHT AND CONSTRUCTED OF SOLID MASONRY.

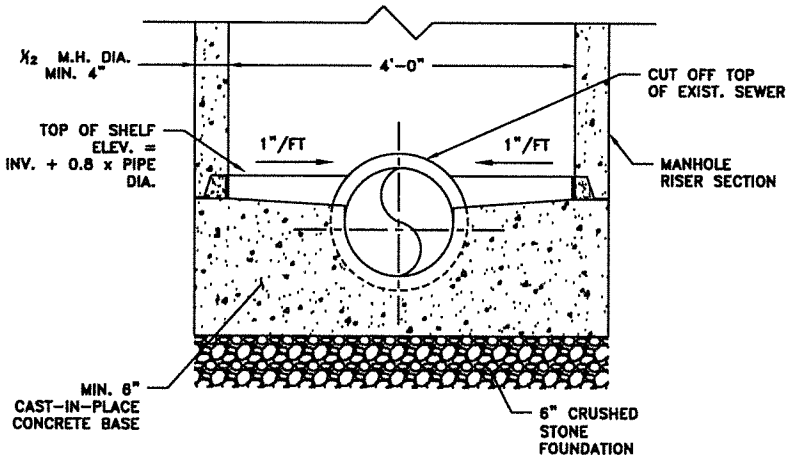
NEW PIPE SHALL HAVE A MINIMUM 8" DROP INTO MANHOLE WHENEVER POSSIBLE

City of Loganville
where people matter

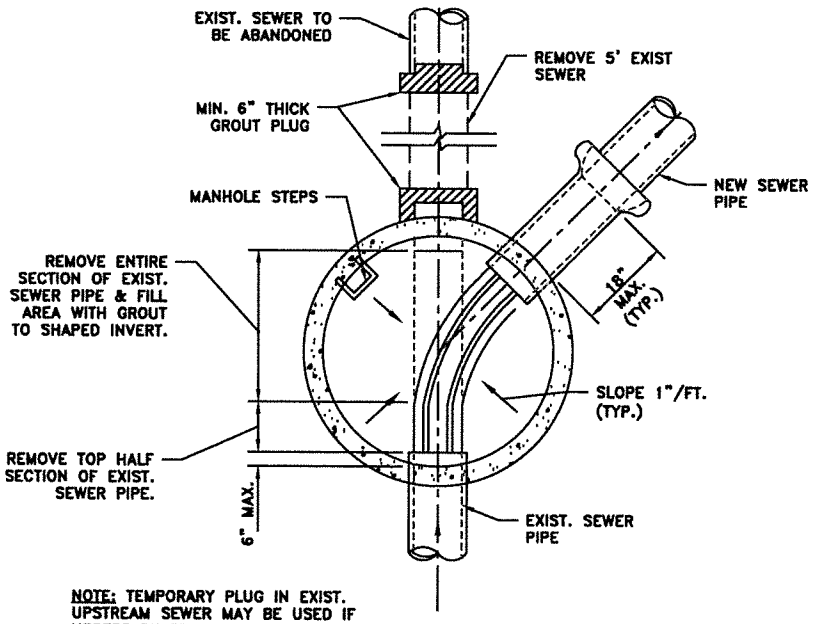
STANDARD DRAWING

**Manhole Placed on Existing Line (Doghouse)**

DATE: JUNE 21, 2019 SHEET: 1003



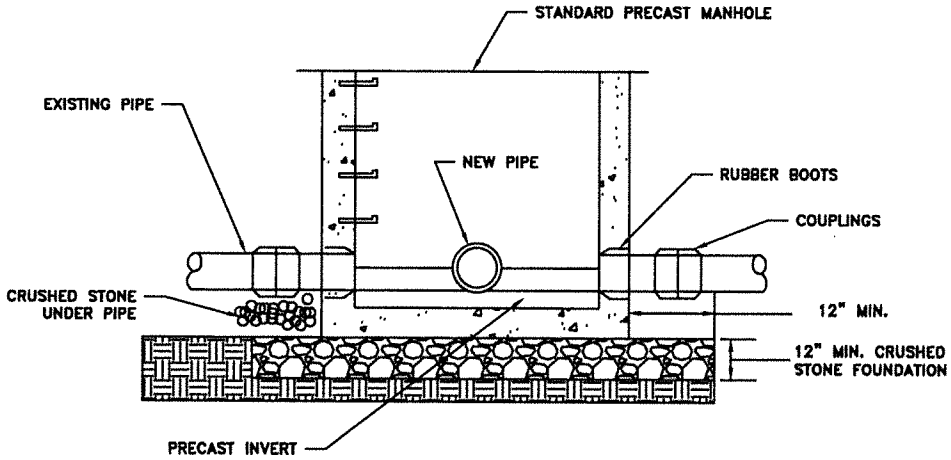

MANHOLE OVER EXISTING SEWER




NOTE: TEMPORARY PLUG IN EXIST. UPSTREAM SEWER MAY BE USED IF NECESSARY TO ACCOMPLISH INVERT WORK. HOWEVER, CONTRACTOR SHALL MONITOR SEWAGE BACKUP UPSTREAM & BE RESPONSIBLE FOR ANY DAMAGE TO SEWER CUSTOMERS' PROPERTY.

MANHOLE OVER EXISTING SEWER PLAN

N.T.S



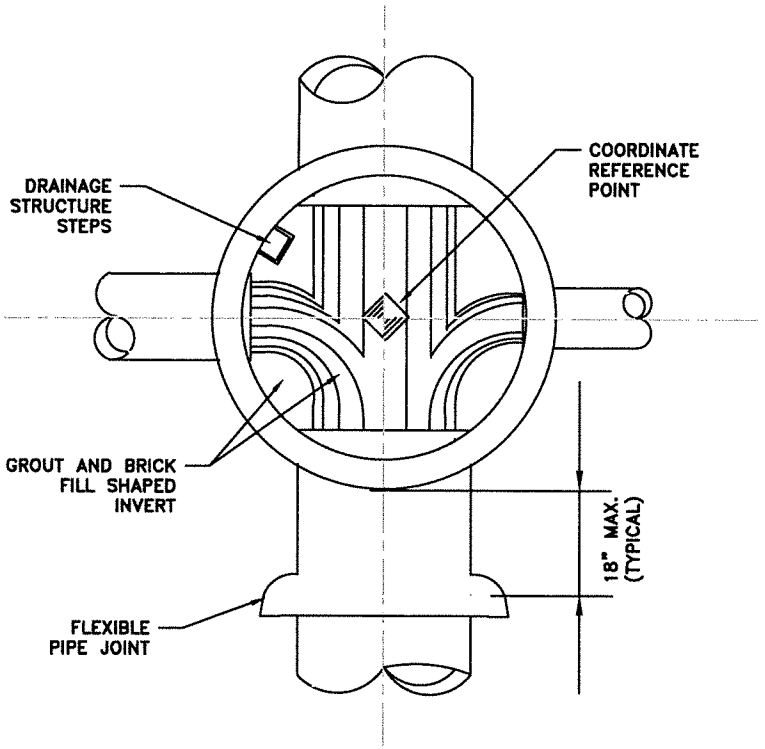

PRECAST MANHOLE OVER EXISTING SEWER

City of Loganville
where people matter

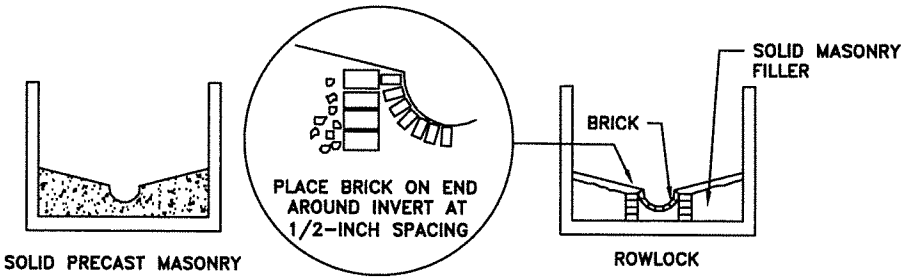
STANDARD DRAWING

**Manhole Over Existing Sewer**

DATE: JUNE 21, 2019 SHEET: 1004




PRE CAST MANHOLE INVERT PLAN




NOTE:
1. PRECAST INVERTS ARE ACCEPTABLE (NO FIELD MODIFICATIONS ALLOWED).
2. ENSURE A 0.2 FOOT DROP ACROSS INVERT.
3. FIELD INSTALLED INVERTS MUST BE ROWLOCK.
4. NO FIELD-MODIFICATION OF PRE-CAST INVERTS ALLOWED.
5. MAXIMUM GROUT SPACING BETWEEN BRICK SHALL BE 3/8".

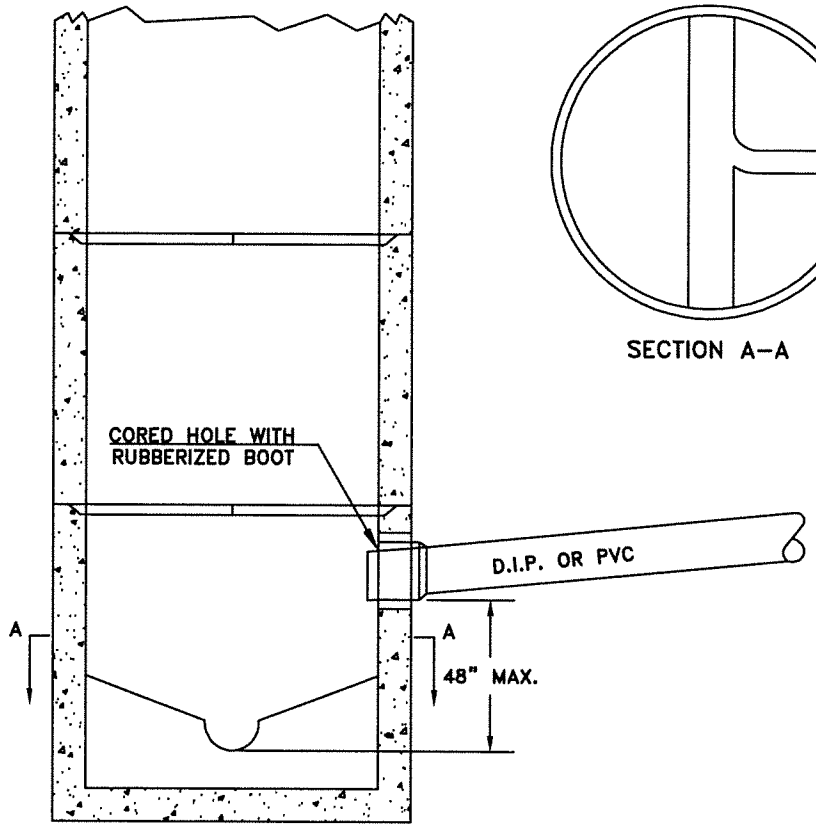
| PIPE SIZE | DEFLECTION | MIN. MH DIA. |
|---|---|---|
| 8" & 15" | 0° - 90° | 4'-0" |
| 18" | 0° - 60° | 4'-0" |
| 18" | 60° - 90° | 5'-0" |
| 21" & 24" | 0° - 60° | 5'-0" |
| 21" & 24" | 60° - 90° | 6'-0" |

City of Loganville
where people matter

STANDARD DRAWING

**Precast Manhole Invert**

DATE: JUNE 21, 2019 SHEET: 1005



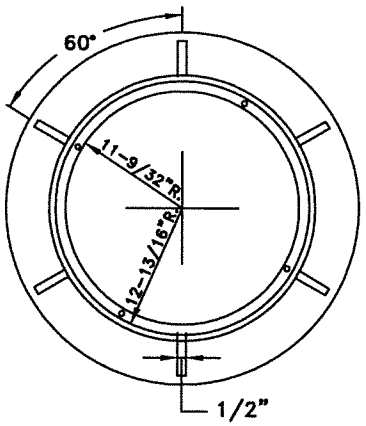

NOTES:
1. CORES SHALL BE AWAY FROM BARREL JOINTS
2. MAXIMUM ALLOWABLE INSIDE DROP MANHOLES SHALL BE 4' (FEET)

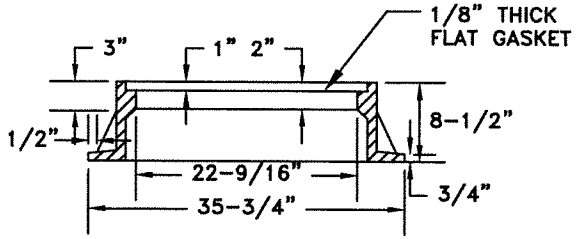
City of Loganville
where people matter

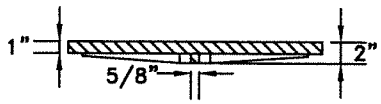
STANDARD DRAWING

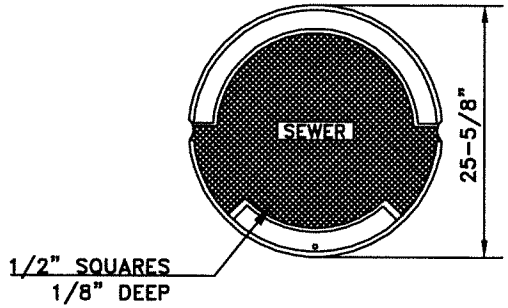
**Inside Drop Manhole**

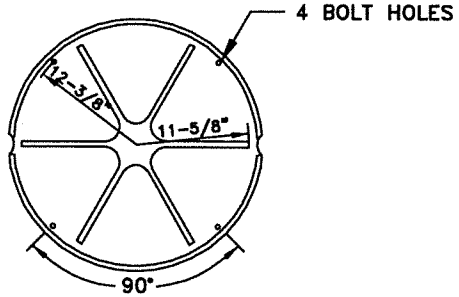
DATE: JUNE 21, 2019 SHEET: 1006



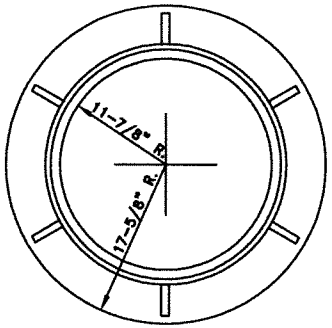
NOTE:
1. EAST JORDAN IRON WORKS V-2358 OR INTERCHANGEABLE.

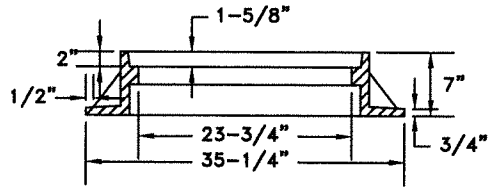
City of Loganville
where people matter

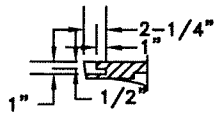
STANDARD DRAWING

**Bolt Down Manhole Frame and Cover**

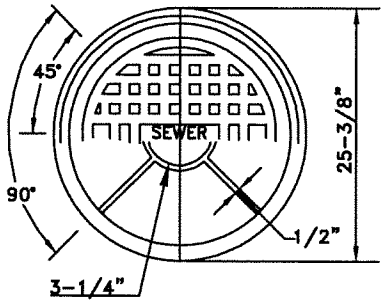
DATE: JUNE 21, 2019 SHEET: 1007

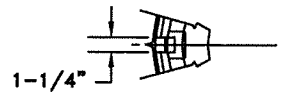


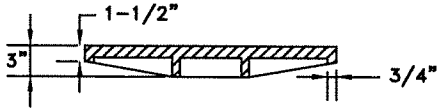




WATERTIGHT PICKHOLE



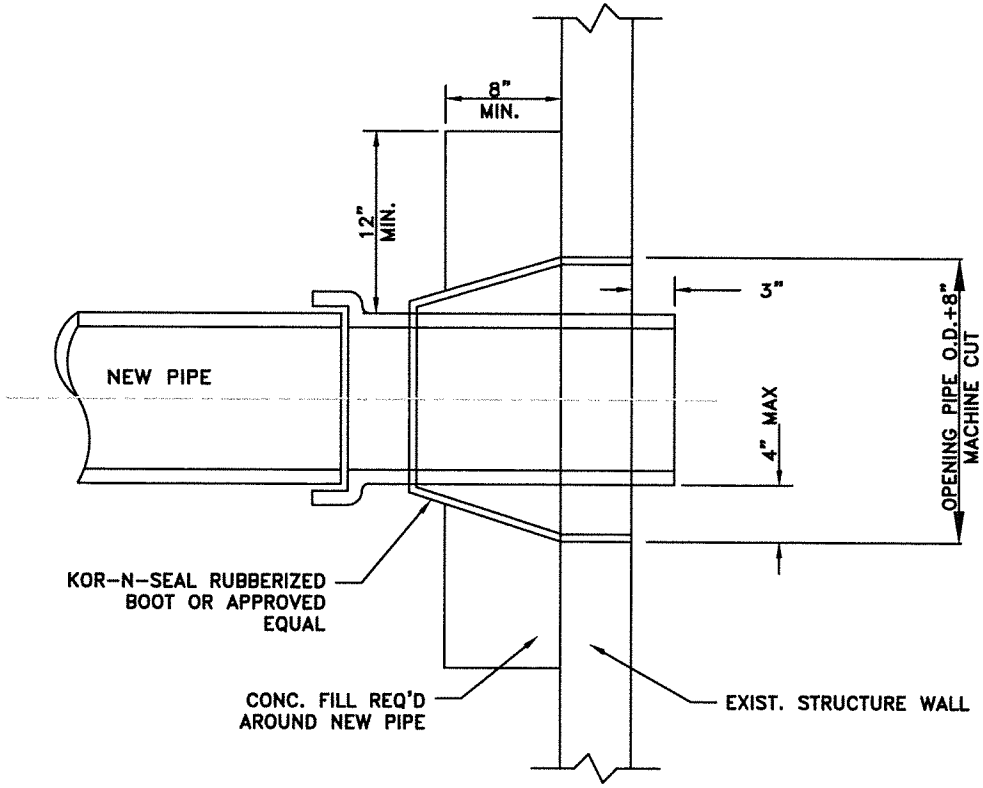

NOTE:
1. EAST JORDAN IRON WORKS V-1357 OR INTERCHANGEABLE.

City of Loganville
where people matter

STANDARD DRAWING

**Traffic Frame and Cover**

DATE: JUNE 21, 2019 SHEET: 1008



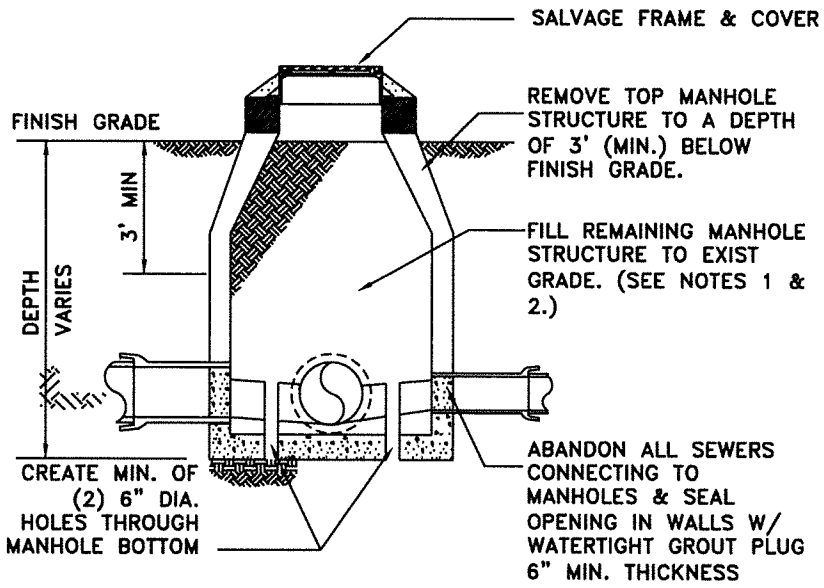

## CONNECTION TO EXISTING MANHOLE

City of Loganville
where people matter

STANDARD DRAWING

**Connection to Existing Manhole**

DATE: JUNE 21, 2019 SHEET: 1009




NOTES:

1. MANHOLES UNDER PAVEMENT – PLUG LINES AS SHOWN, FILL MANHOLE WITH COARSE GRANULAR MATERIAL. PATCH PAVEMENT IN ACCORDANCE WITH THE PAVEMENT PATCH DETAIL.
2. MANHOLES OUTSIDE PAVEMENT – PLUG LINES AS SHOWN, FILL MANHOLE WITH RUBBLE AND COMPACTED EARTH. RESTORE AREA AS REQUIRED IN SPECIFICATIONS.

## MANHOLE ABANDONMENT DETAIL

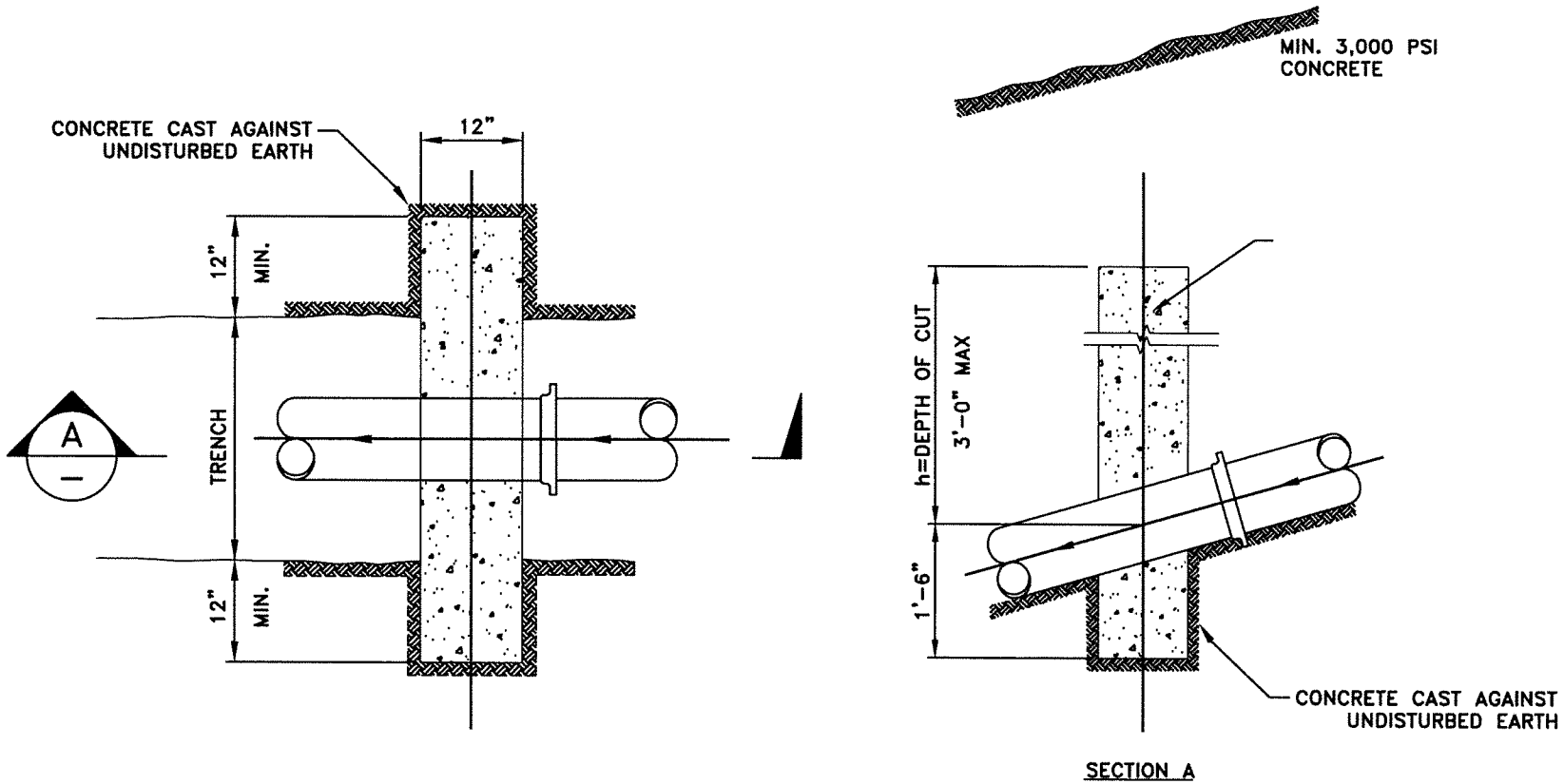
N.T.S.

City of Loganville
where people matter

STANDARD DRAWING

**Manhole Abandonment Detail**

DATE: JUNE 21, 2019 SHEET: 1010




# ANTI-SEEP COLLAR

City of Loganville
where people matter

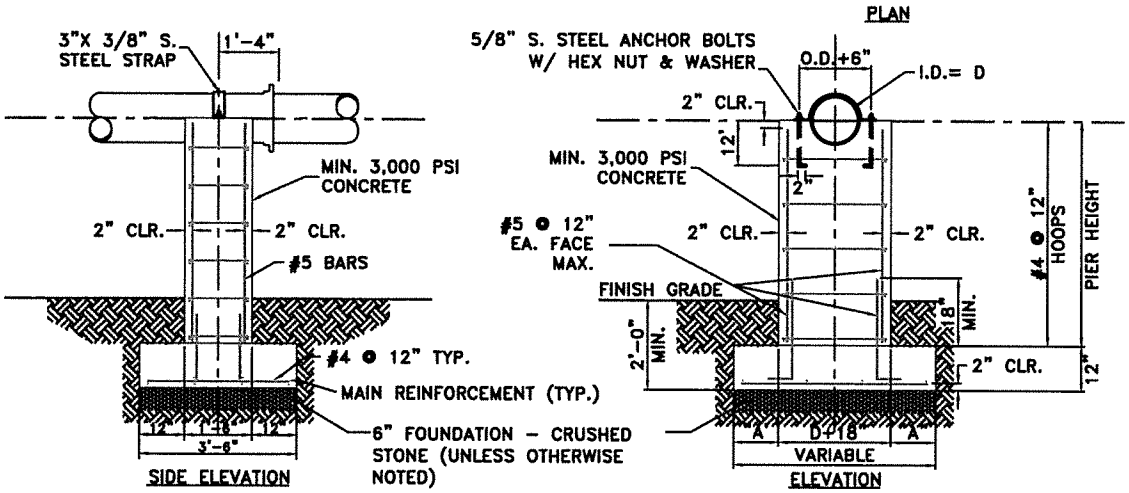
STANDARD DRAWING

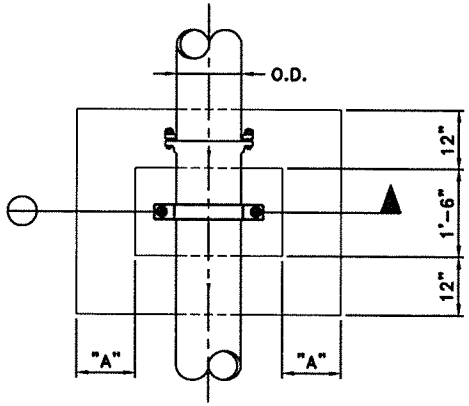
**Anti-Seep Collar**

DATE: JUNE 21, 2019 SHEET: 1011

| SCHEDULE OF DIMENSION "A" | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| PIPE SIZE | PIER HEIGHT | | | | | | | | | |
| | 0'–3' | 3'–5' | 5'–7' | 7'–9' | 9'–11' | 11'–13' | 13'–15' | 15'–17' | 17'–19' | 19'–21' |
| 8" | 12" | 12" | 12" | 12" | 12" | 12" | 24" | 24" | 24" | 24" |
| 10" | 12" | 12" | 12" | 12" | 12" | 12" | 24" | 24" | 24" | 24" |
| 12" | 12" | 12" | 12" | 12" | 12" | 24" | 24" | 24" | 24" | 24" |
| 14" | 12" | 12" | 12" | 12" | 24" | 24" | 24" | 24" | 24" | 36" |
| 16" | 12" | 12" | 12" | 12" | 24" | 24" | 24" | 24" | 36" | 36" |
| 18" | 12" | 12" | 12" | 12" | 24" | 24" | 24" | 24" | 36" | 36" |
| 20" | 12" | 12" | 12" | 12" | 24" | 24" | 24" | 36" | 36" | 36" |
| 24" | 12" | 12" | 12" | 24" | 24" | 24" | 36" | 36" | 36" | 36" |

| SCHEDULE – FOOTING MAIN REINF. | | | |
|---|---|---|---|
| DIM "A" | NO. & SIZE | DIM "A" | NO. & SIZE |
| 12" | 4 – #4 | 48" | 5 – #6 |
| 24" | 4 – #4 | 60" | 7 – #6 |
| 36" | 7 – #4 | 72" | 10 – #6 |




NOTE:
INSTALL 2 PLIES ROOFING FELT BETWEEN PIPE AND PIER.

## CONCRETE PIER

NOTES:
1. ABOVE DETAIL IS THE MINIMUM ACCEPTABLE. SITE CONDITIONS MAY DICTATE MORE STRINGENT REQUIREMENTS.
2. ALTERNATE DESIGNS MAY BE SUBMITTED.

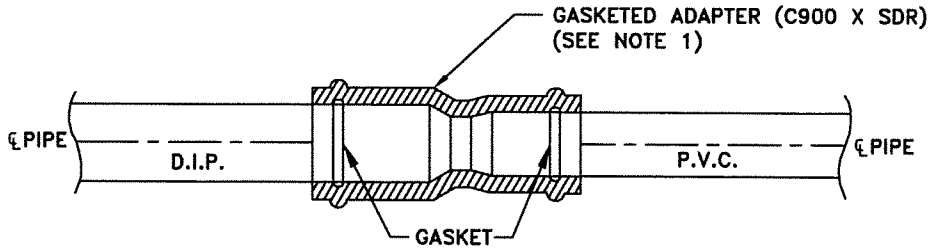
City of Loganville
where people matter

STANDARD DRAWING

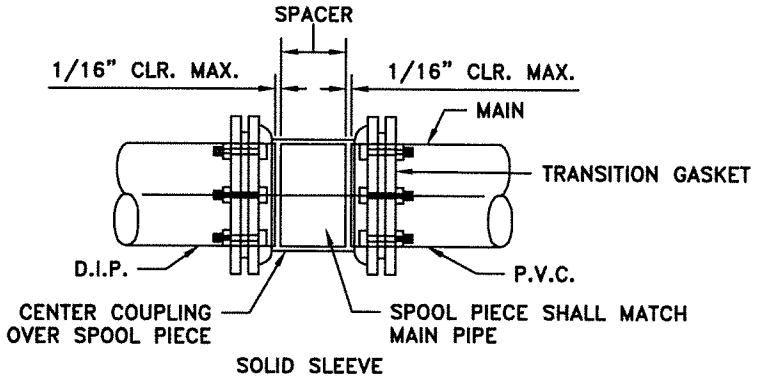
**Concrete Pier**

DATE: JUNE 21, 2019

SHEET: 1012




OR




TRANSITION JOINT NOTES:
ONE OF THE FOLLOWING TRANSITION METHODS SHALL BE UTILIZED WHEN TRANSITIONING FROM DUCTILE IRON TO PVC PIPE:

1. GASKETED ADAPTER SHALL BE TYPE C900 X SDR (Harco OR EQUAL), AND MEET THE FOLLOWING STANDARDS:
   MATERIAL: ASTM 1784
   JOINTS: ASTM D3212
   GASKETS: ASTM F477
   FITTINGS: ASTM D3034 AND F1336
2. SOLID SLEEVE ADAPTER SHALL BE STEEL AND PROPERLY COATED BEFORE BACKFILL.

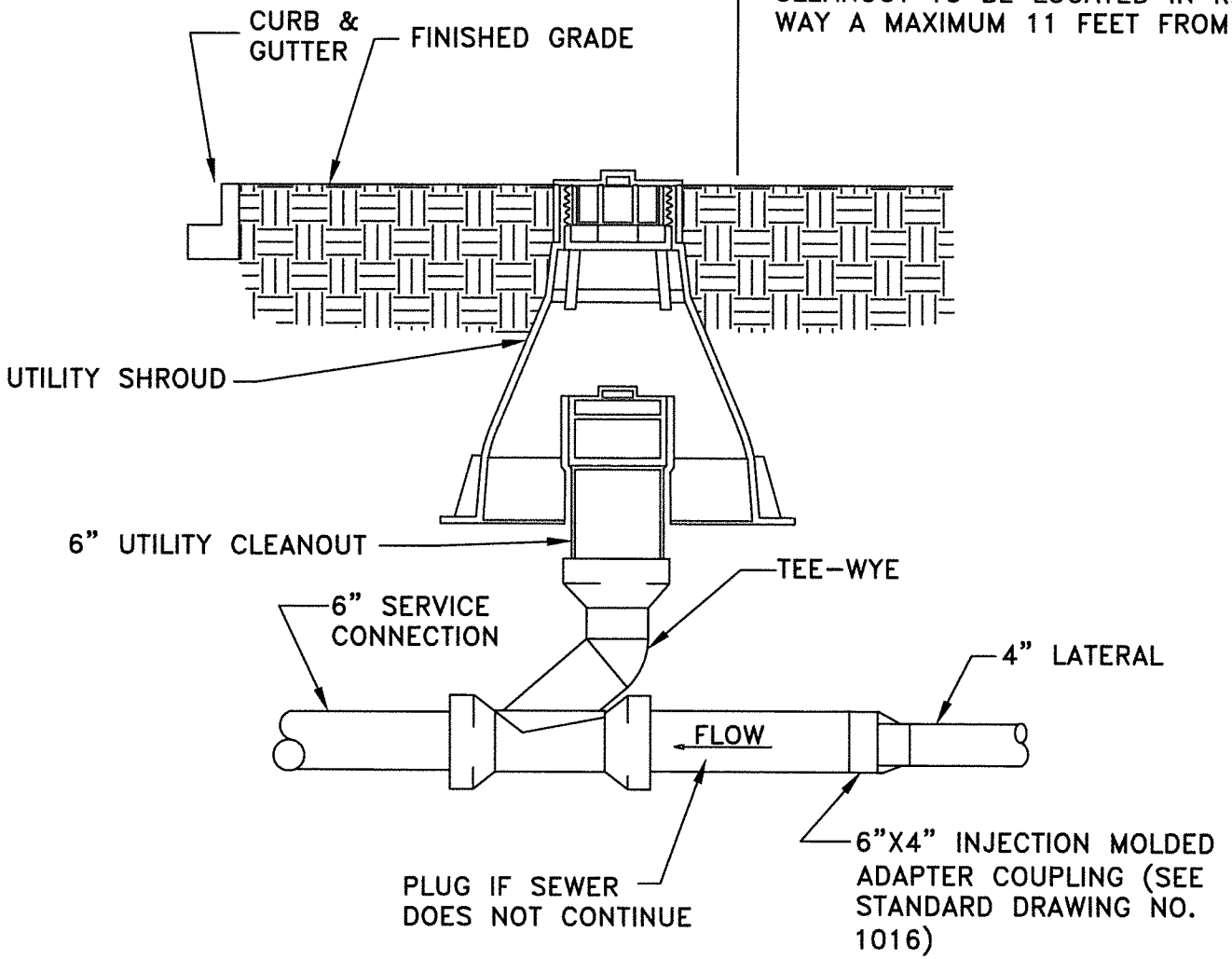
City of Loganville
where people matter

S T A N D A R D  D R A W I N G

**Transition Collar**

D A T E: JUNE 21, 2019  S H E E T: 1013

CLEANOUT TO BE LOCATED IN RIGHT OF WAY A MAXIMUM 11 FEET FROM CURB



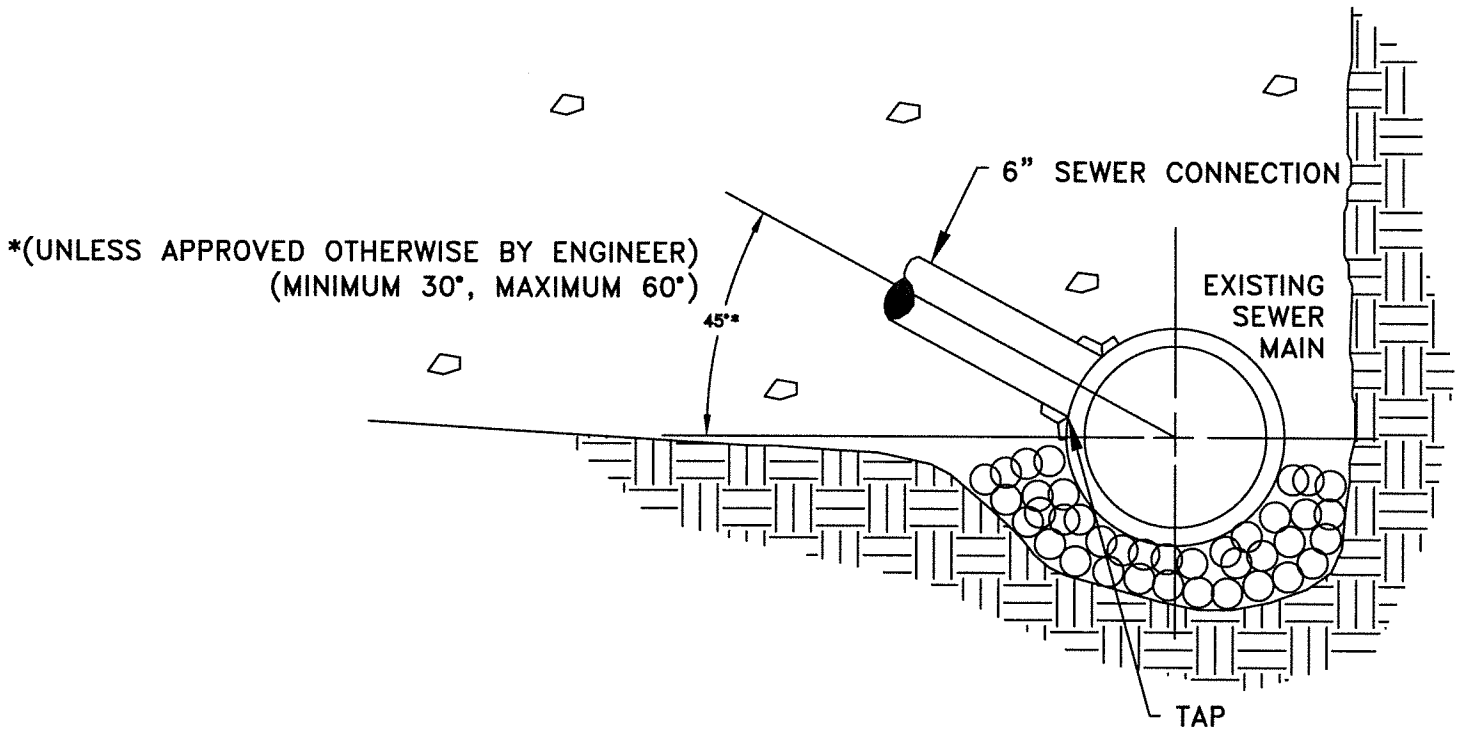

NOTE: PLEASE REFER TO STANDARD DRAWING NO. 1024 FOR UTILITY SHROUD SPECIFICATIONS

City of Loganville
where people matter

STANDARD DRAWING

**Sewer Service Cleanout**

DATE: JUNE 21, 2019 SHEET: 1014




NOTE:

1. ALL TAPS TO BE MADE OR APPROVED BY THE CITY OF LOGANVILLE

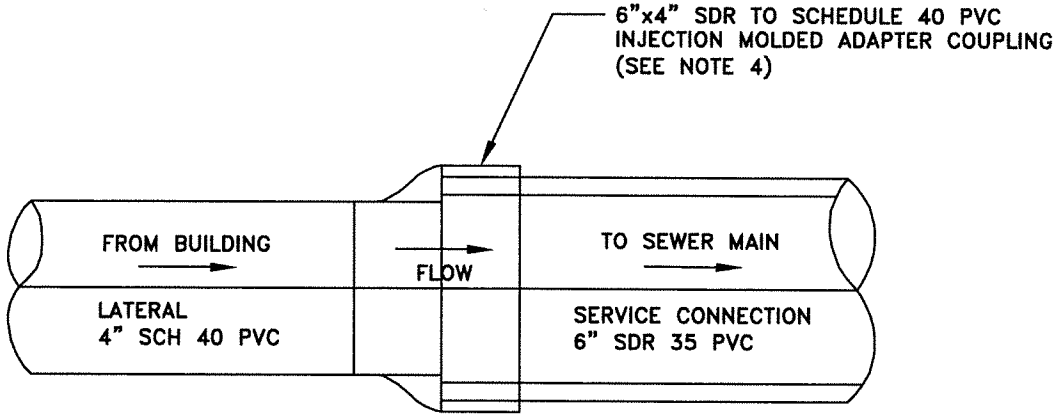
# CONNECTION TO EXISTING SEWER MAIN

City of Loganville
where people matter

STANDARD DRAWING

**Service Connection Tap to Existing Sewer Main**

DATE: JUNE 21, 2019 SHEET: 1015




NOTES:

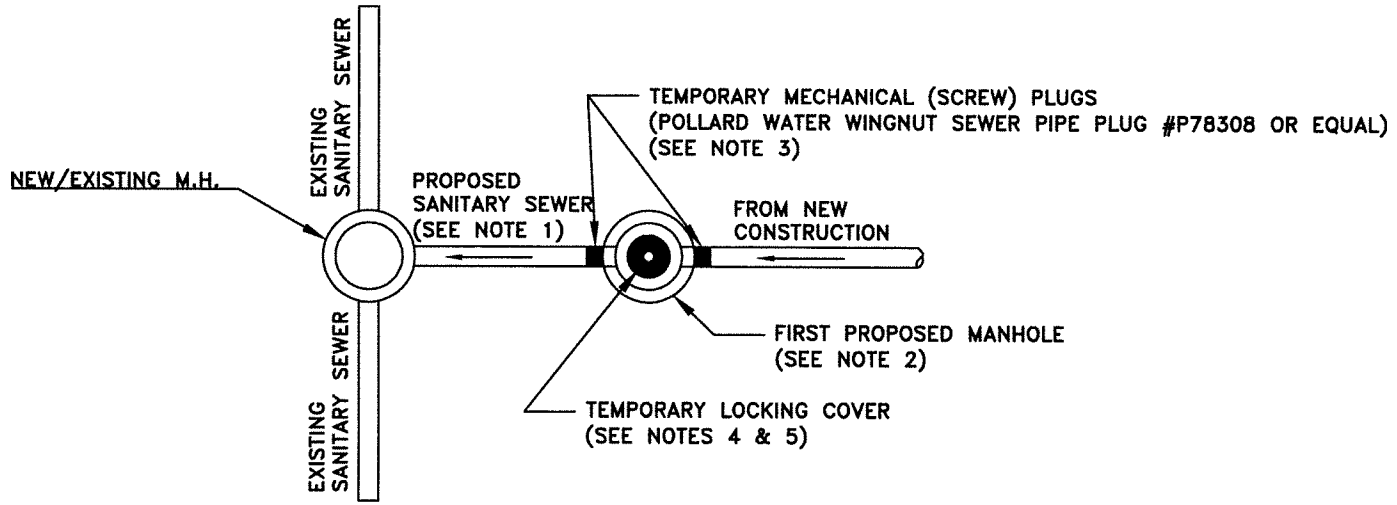
1. CONCRETE GROUT WILL NOT BE PERMITTED.
2. BELL MUST BE REMOVED FROM 6" SERVICE CONNECTION.
3. DAMAGED END OF 6" SERVICE CONNECTION PIPE SHALL BE CUT STRAIGHT.
4. EACH INSTALLATION MUST UTILIZE INJECTION MOLDED 6"x4" SDR TO SCH 40 ADAPTER COUPLING (Multi Fittings OR EQUAL).

City of Loganville
where people matter

S T A N D A R D  D R A W I N G

**4" Lateral to 6" Service Connection Installation**

D A T E: JUNE 21, 2019  S H E E T: 1016




NOTES:

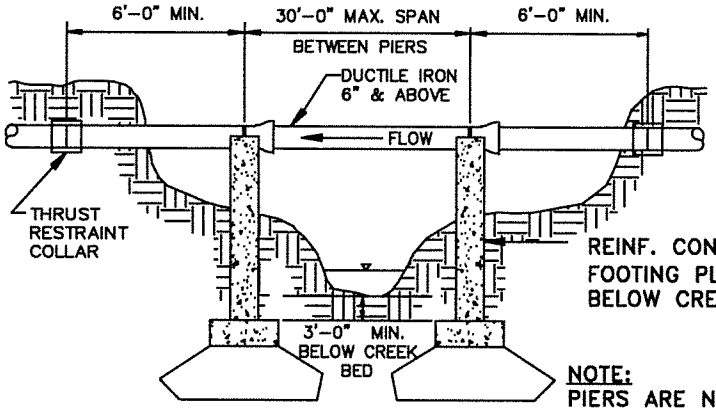
1. FIRST SECTION OF NEW SEWER LINE SHALL BE ISOLATED FROM THE REST OF THE PROPOSED SYSTEM.
2. THE FIRST MANHOLE OF THE PROPOSED SYSTEM SHALL BE USED TO FLUSH AND PUMP OUT THE PROPOSED SANITARY SEWER.
3. TEMPORARY MECHANICAL (SCREW) PLUGS TO BE INSTALLED AS PART OF THE NEW SEWER INSTALLATION. PLUGS TO BE TIED TO MANHOLE STEP WITH A CABLE AND PADLOCKED TO PREVENT TAMPERING. PLUGS TO REMAIN IN PLACE UNTIL PASSING FINAL INSPECTION.
4. AFTER INSTALLATION OF NEW MANHOLE BY CONTRACTOR(INCLUDING INSTALLING TEMPORARY MECHANICAL PLUGS). INSTALL LOCKING MANHOLE COVER. LOCKING MANHOLE COVER TO REMAIN IN PLACE UNTIL PASSING FINAL INSPECTION.
5. UPON PASSING FINAL INSPECTION, THE CITY OF LOGANVILLE WILL BE ON SITE AND INSTRUCT CONTRACTOR TO REMOVE TEMPORARY MECHANICAL PLUGS.

City of Loganville
where people matter

S T A N D A R D  D R A W I N G

**New Sanitary Sewer Main Connection**

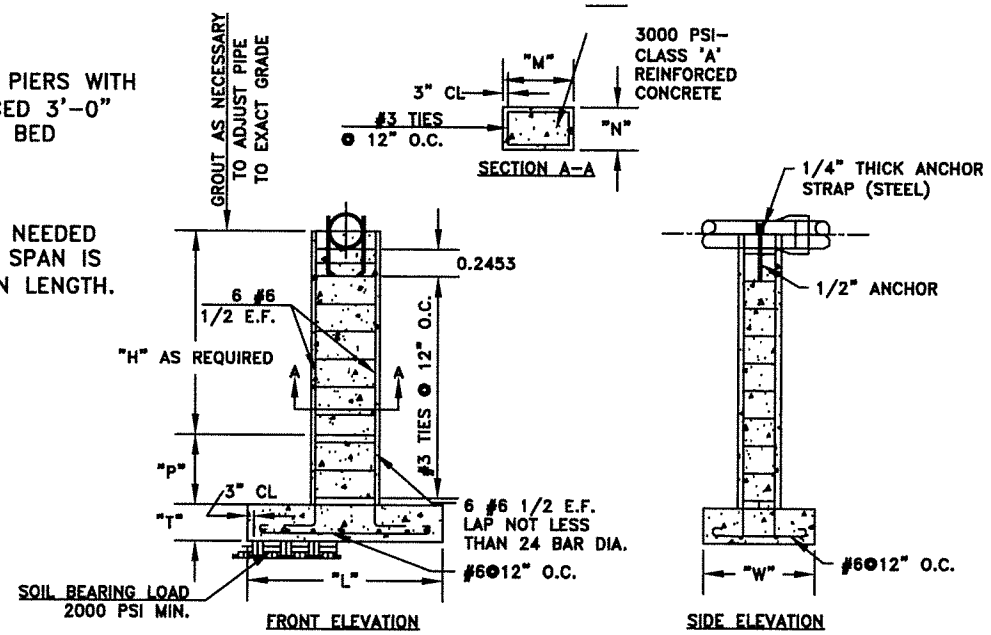
D A T E: JUNE 21, 2019  S H E E T: 1017




REINF. CONC. PIERS WITH FOOTING PLACED 3'-0" BELOW CREEK BED

NOTE:
PIERS ARE NOT NEEDED UNLESS AERIAL SPAN IS OVER 20'-0" IN LENGTH.

| "H"= | 0-5 | 5-10 | 10-15 | 15-20 |
|---|---|---|---|---|
| "W"= | 3 | 4 | 5 | 6 |
| "L"= | 4 | 5 | 7 | 10 |
| "T"= | 1 | 1 | 1.5 | 2 |
| "N"= | 1 | 1 | 1.5 | 1.5 |
| "M"= | 2 | 3 | 4 | 5 |
| "P"= | 2 | 3 | 4 | 5 |




GENERAL NOTES:

1. WHENEVER POSSIBLE NO PIERS SHALL BE PLACED IN NORMAL FLOW OF CREEK.
2. ANY AERIAL CROSSINGS MUST BE APPROVED BY CITY OF LOGANVILLE.
3. ANY SPAN EXCEEDING 30 FEET REQUIRES SUBMITTAL OF DESIGN CALCULATIONS.
4. ALL AERIAL CROSSINGS AT MINIMUM MUST HAVE STEEL CASING PIPE.
5. ALL PIER FOUNDATIONS SHALL CONFORM TO THE RECOMMENDATIONS OF A LICENSED GEOTECHNICAL ENGINEER.
6. PIERS MUST BE INSTALLED 5 FEET BEHIND 2 YEAR FLOOD STORM LEVEL.
7. DISTURBED AREA SHALL BE RIP-RAPPED AS REQUIRED

DETAIL NOTES:

1. ABOVE DETAIL IS THE MINIMUM ACCEPTABLE. SITE CONDITIONS MAY DICTATE MORE STRINGENT REQUIREMENTS.
2. ALTERNATE DESIGNS MAY BE SUBMITTED.

## PIER PLACEMENT FOR D.I.P. AERIAL LINES

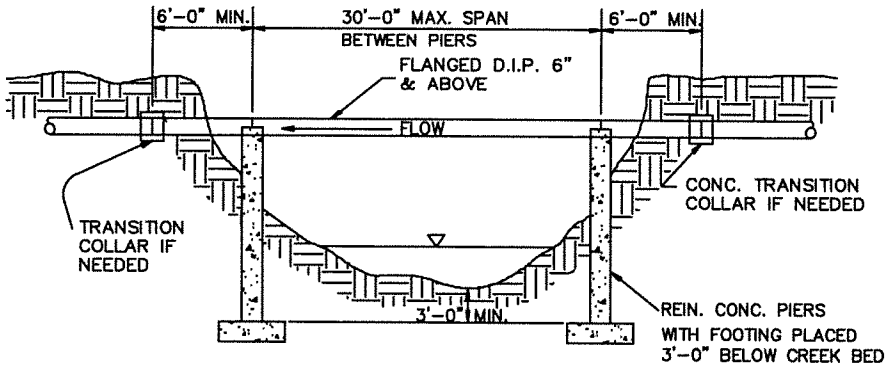
N.T.S.

City of Loganville
where people matter

STANDARD DRAWING

**Pier Placement for D.I.P. Aerial Lines**

DATE: JUNE 21, 2019 SHEET: 1018




NOTE: PIERS ARE NOT NEEDED
UNLESS AERIAL SPAN IS
OVER 20'-0" IN LENGTH.

NOTES:
1. WHENEVER POSSIBLE NO PIERS SHALL BE PLACED IN NORMAL FLOW OF CREEK.
2. ALL AERIAL CROSSINGS MUST BE APPROVED BY THE CITY OF LOGANVILLE.
3. SPANS EXCEEDING 30 FEET REQUIRES SUBMITTAL OF DESIGN CALCULATIONS.
4. DISTURBED AREA SHALL BE RIP-RAPPED AS REQUIRED.

## AERIAL FLANGED D.I.P. PIPE CROSSING

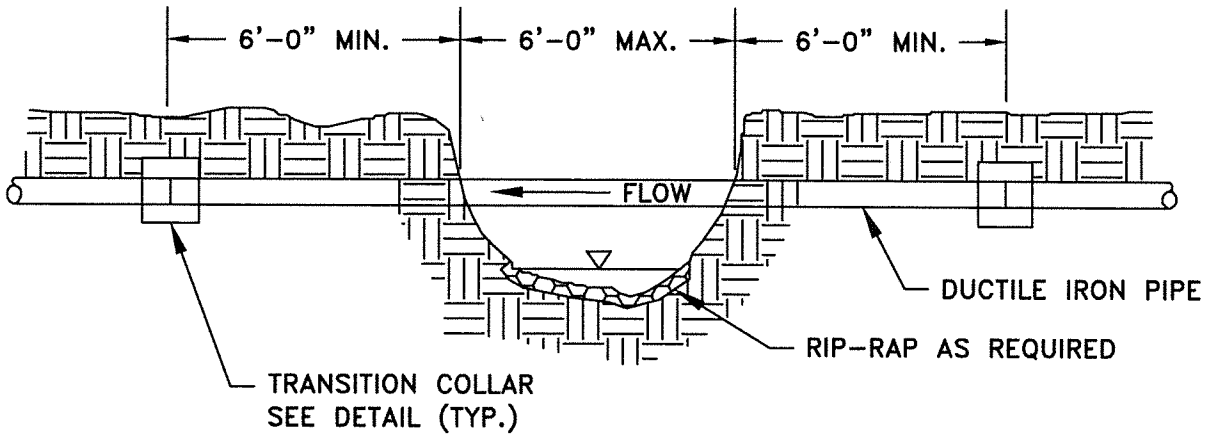
N.T.S.

City of Loganville
where people matter

STANDARD DRAWING

**Aerial Flanged D.I.P. Pipe Crossing**

DATE: JUNE 21, 2019 SHEET: 1019

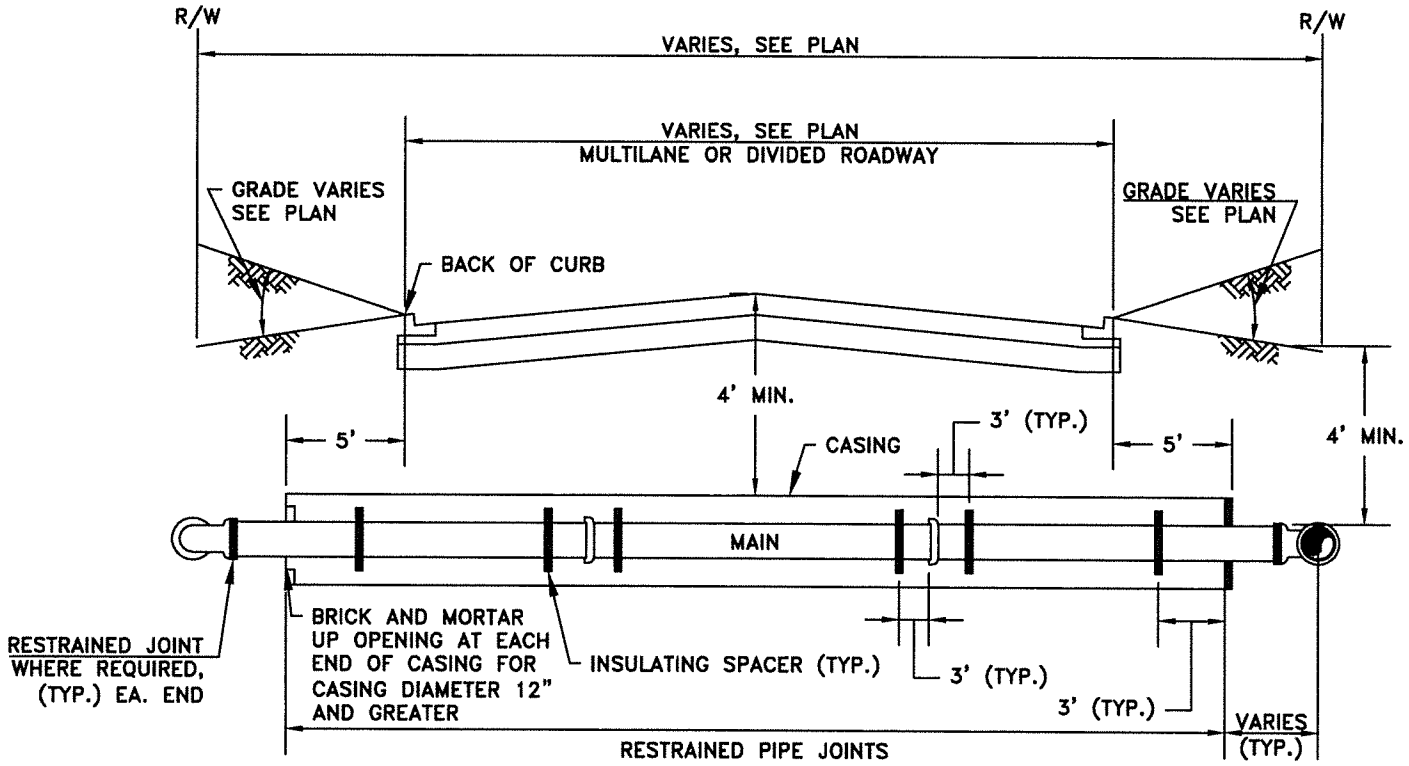



City of Loganville
where people matter

S T A N D A R D  D R A W I N G

**Non-Pier Aerial D.I.P. Sewer Line**

D A T E: JUNE 21, 2019  S H E E T: 1020




PROFILE

NOT TO SCALE

| MAIN DIAMETER (*INCHES) | 4 | 6 | 8 | 10 | 12 | 14 | 16 | 20 | 24 |
|---|---|---|---|---|---|---|---|---|---|
| CASING DIAMETER (*INCHES) | 8 | 12 | 16 | 20 | 24 | 30 | 36 | 40 | 48 |

*NOMINAL SIZE

NOTES:

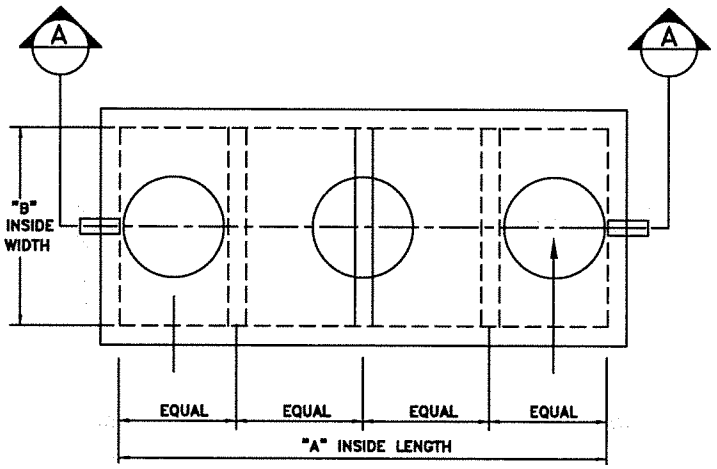
1. MAIN SIZES OF 6 INCH OR GREATER SHALL INSTALL INSULATING SPACERS IN CASING, AS INDICATED.
2. CASING SPACERS MUST BE ATTACHED AT BELL END AT EACH JOINT OF MAIN, AND ENDS OF CASING, AS INDICATED.
3. CASING SPACERS MUST BE SECURED AS PER MANUFACTURER'S SPECIFICATIONS.
4. CASING PIPE UP TO 20" DIAMETER, SHALL HAVE A THICKNESS OF 0.375".
5. CASING PIPE OVER 20" DIAMETER, SHALL HAVE A THICKNESS OF 0.50".
6. CASING, PIPING, AND APPURTENANCES UNDER RAILROAD SHALL MEET THE LATEST REQUIREMENTS OF THE RAILROAD OWNER. WHERE THIS DETAIL DIFFERS FROM THE REQUIREMENTS OF THE RAILROAD OWNER, THE MORE STRINGENT REQUIREMENTS SHALL GOVERN.

City of Loganville
where people matter

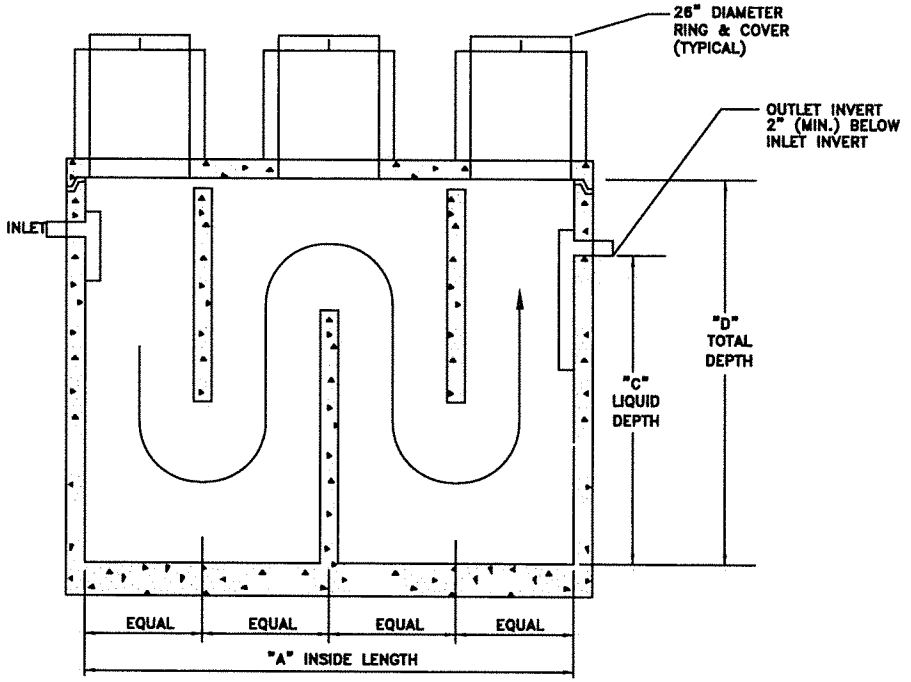
STANDARD DRAWING

**Typical Jack and Bore Installation**

DATE: JUNE 21, 2019 SHEET: 1021




PLAN
N.T.S.



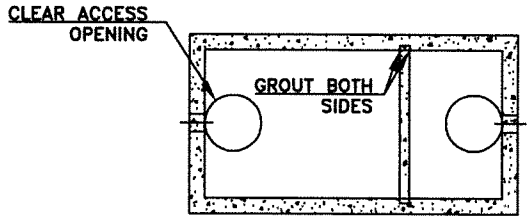

SECTION A–A
N.T.S.

City of Loganville
where people matter

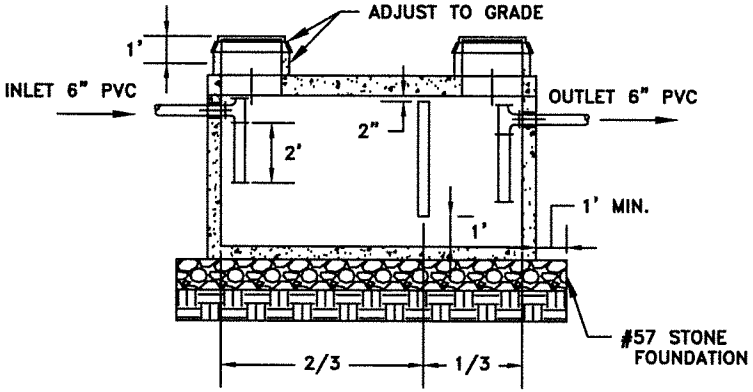
STANDARD DRAWING

**Oil Water Separator with Baffle Walls**

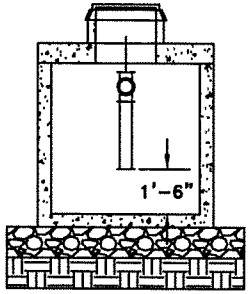
DATE: JUNE 21, 2019 SHEET: 1022




PLAN VIEW




ELEVATION




END VIEW

NOTES:

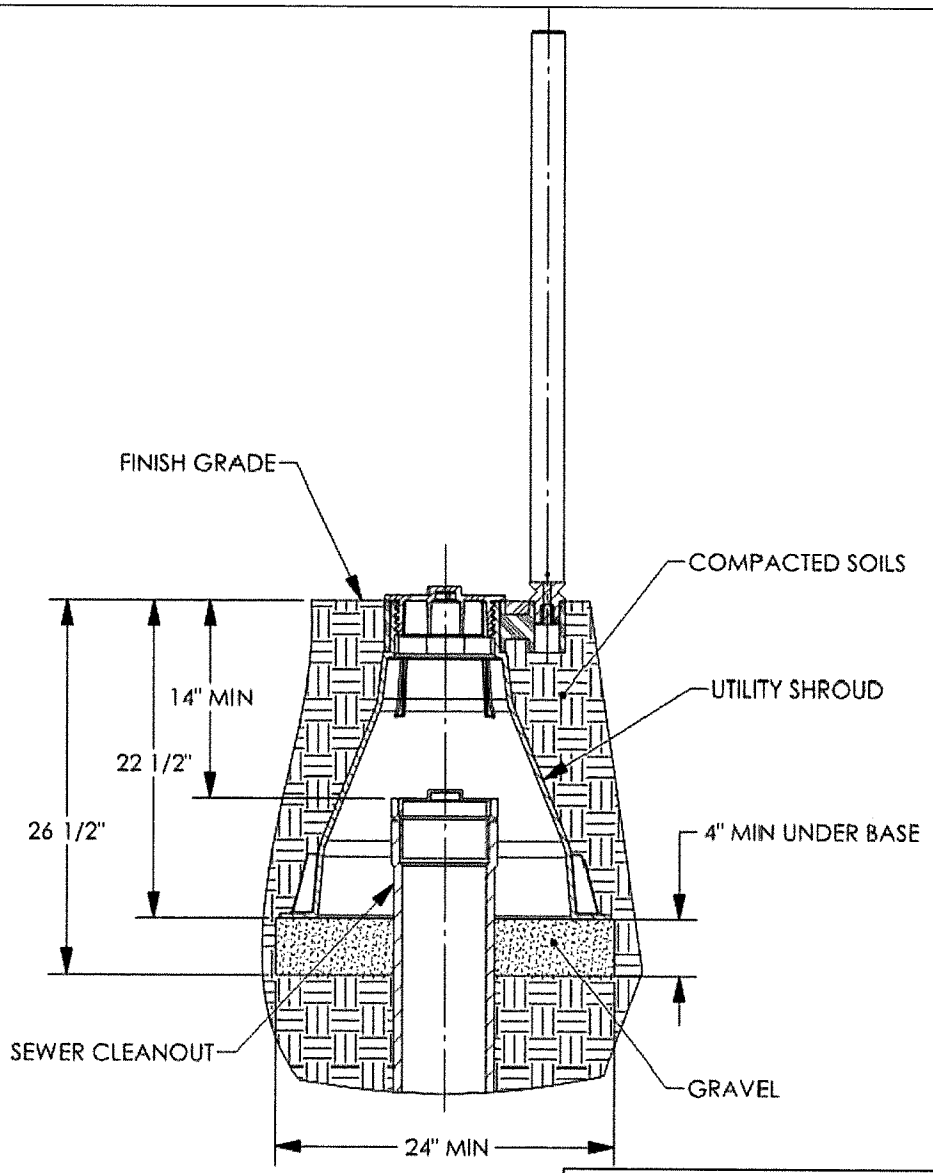
1. MUST MEET ASTM C-1613 STANDARD SPECIFICATIONS FOR PRECAST CONCRETE GREASE INTERCEPTOR TANKS.
2. TANK LENGTH TO BE GREATER THAN WIDTH. MINIMUM LIQUID DEPTH OF 30" AND MAXIMUM OF 72".
3. MINIMUM GREASE INTERCEPTOR CAPACITY – 1500 GALLONS.
4. WHEN A LARGE CAPACITY GREASE INTERCEPTOR IS REQUIRED, SHOW 1500 GALLON CAPACITY GREASE INTERCEPTORS IN A SERIES.
5. GRADE ADJUSTMENTS GREATER THAN ONE FOOT REQUIRE FOUR FOOT DIAMETER MANHOLE RISERS.
6. GRADE RISERS SHALL BE STACKABLE AND WATERTIGHT.
7. EJ 1357 OR APPROVED EQUAL TRAFFIC MANHOLE FRAME AND COVER.
8. BEDDING SHALL BE A MINIMUM OF 12" THICK #57 STONE.
9. TWO WAY CLEANOUTS ARE REQUIRED AT INLET AND OUTLET OF TRAP.

City of Loganville
where people matter

STANDARD DRAWING

**Grease Trap**

DATE: JUNE 21, 2019 SHEET: 1023

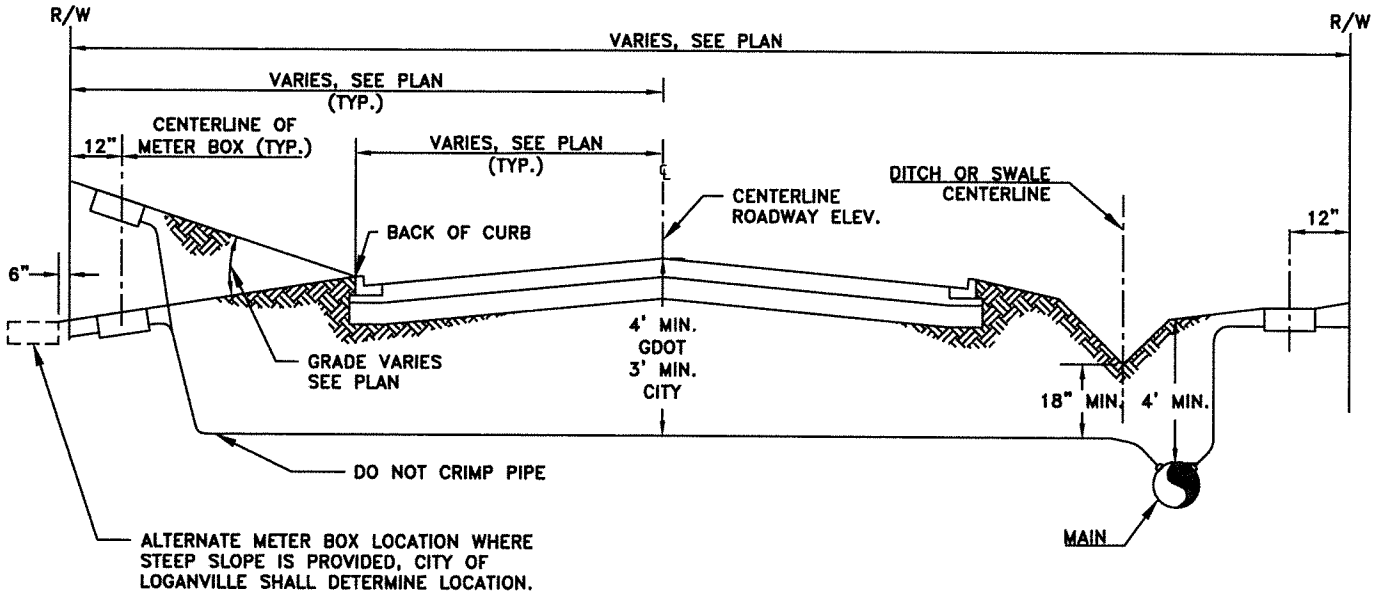



City of Loganville
where people matter

STANDARD DRAWING

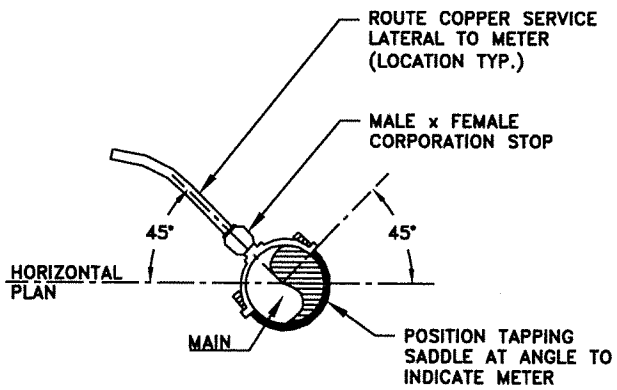
**Utility Shroud For Sewer Cleanout Assembly**

DATE: JUNE 21, 2019 SHEET: 1024




NOT TO SCALE

PROFILE



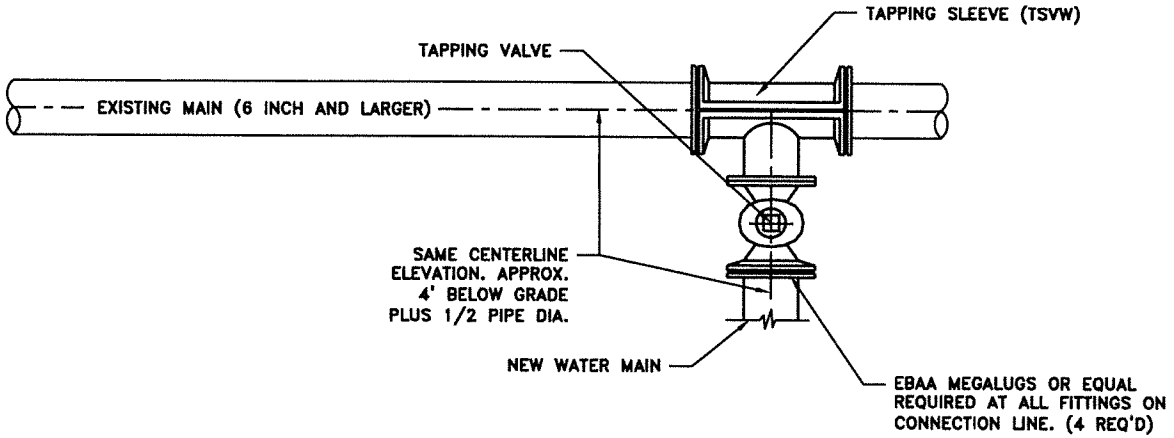

NOTES:
1. INSTALL SERVICE LINE CONNECTIONS SHOWN ON EXISTING AND NEW WATER MAINS FOR THE WORK SPECIFIED.
2. SERVICE LINE CONNECTION TAPS TO BE INSTALLED AS PIPE IS INSTALLED.
3. TAP AND SERVICE LINES MUST BE DIRECTLY IN LINE WITH THE METER.

City of Loganville
where people matter

S T A N D A R D  D R A W I N G

**Typical Water Service Connections**

D A T E: JUNE 21, 2019  S H E E T: 1101




## TYPICAL CONNECTION TO EXISTING MAIN

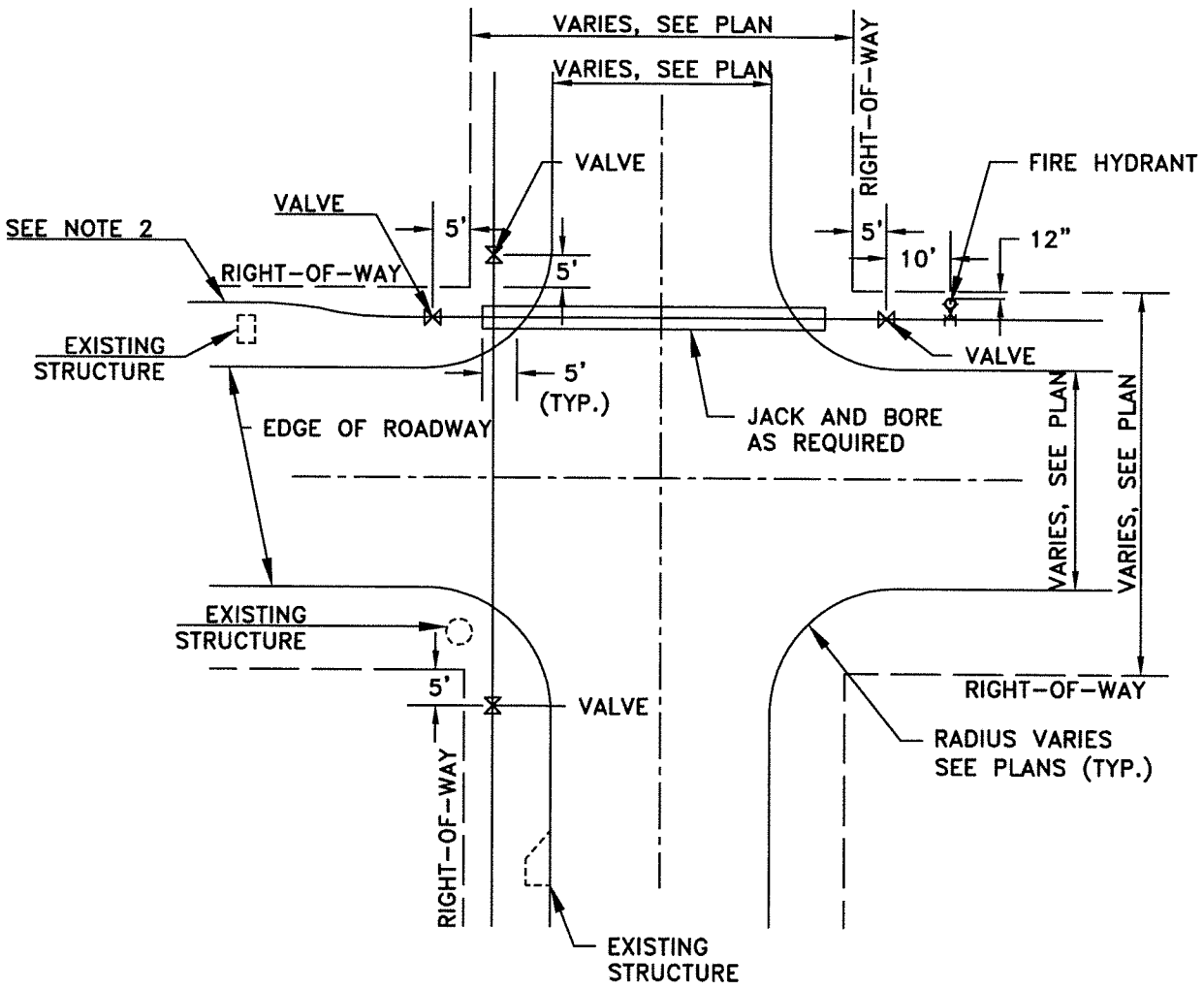
NOTES:
1. MJ TEE AND SLEEVE MAY BE USED IN LIEU OF TAPPING SLEEVE AND VALVE IF APPROVED BY THE ENGINEER AND OWNER AND IF THERE ARE A SUFFICIENT AMOUNT OF EXISTING LINE VALVES.
2. SEE SPECS FOR TYPE OF TAPPING SLEEVE REQUIRED FOR DIFFERENT PIPE MATERIALS.

City of Loganville
where people matter

S T A N D A R D  D R A W I N G

**Typical Connection to Existing Main**

D A T E: JUNE 21, 2019  S H E E T: 1102




PLAN

NOTES:

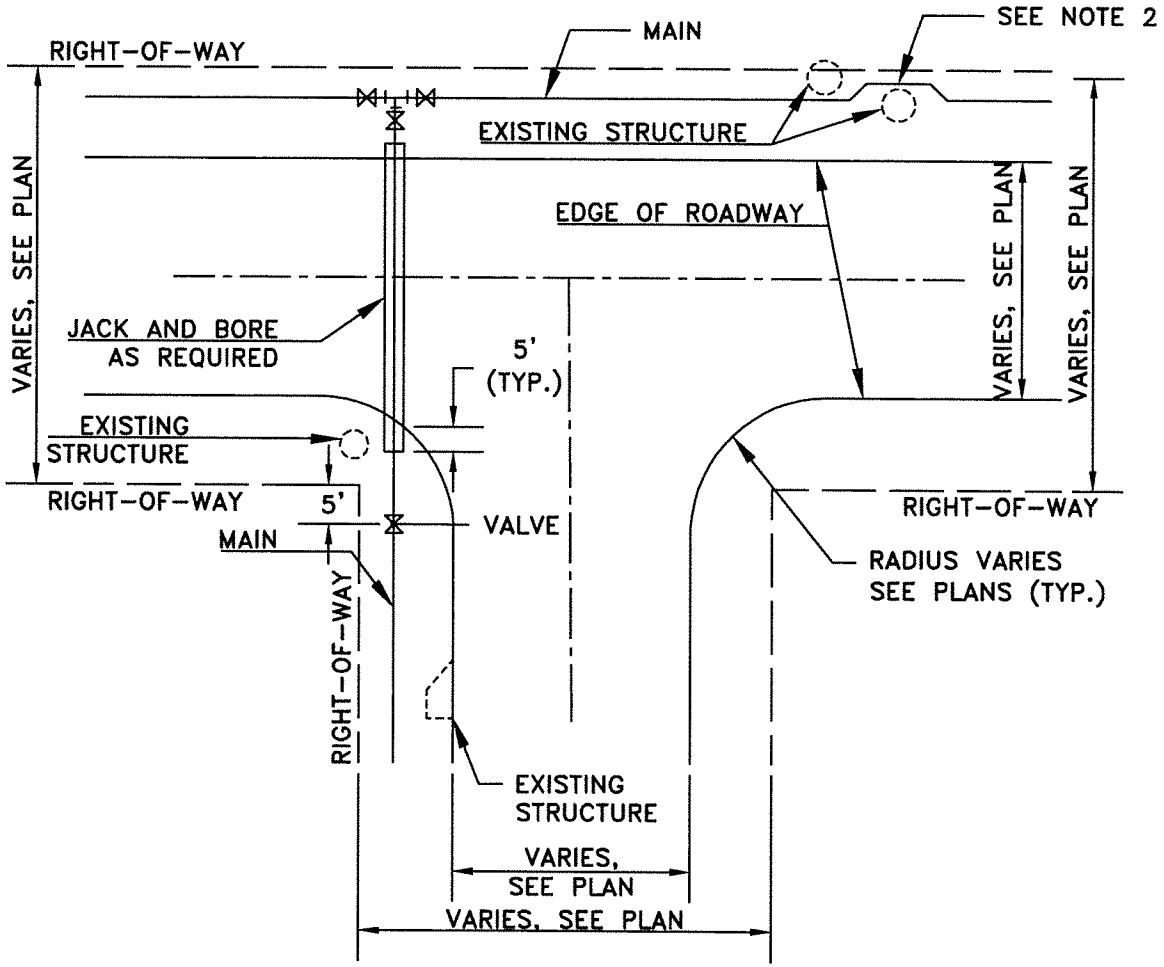
1. DEPTH OF COVER OVER WATER MAINS SHALL BE 4'.
2. WHEN GOING AROUND STRUCTURES, ROUTE WATER MAIN AROUND STRUCTURES BY PIPE JOINT DEFLECTION, AND WHERE NECESSARY, INSTALL 45° BENDS OR LESS.
3. VALVES SHALL BE MARKED IN THE CURB WITH A SAW CUT "V" AND PAINT.

City of Loganville
where people matter

STANDARD DRAWING

**Typical Water Main at Intersection**

DATE: JUNE 21, 2019 SHEET: 1103




PLAN

NOTES:

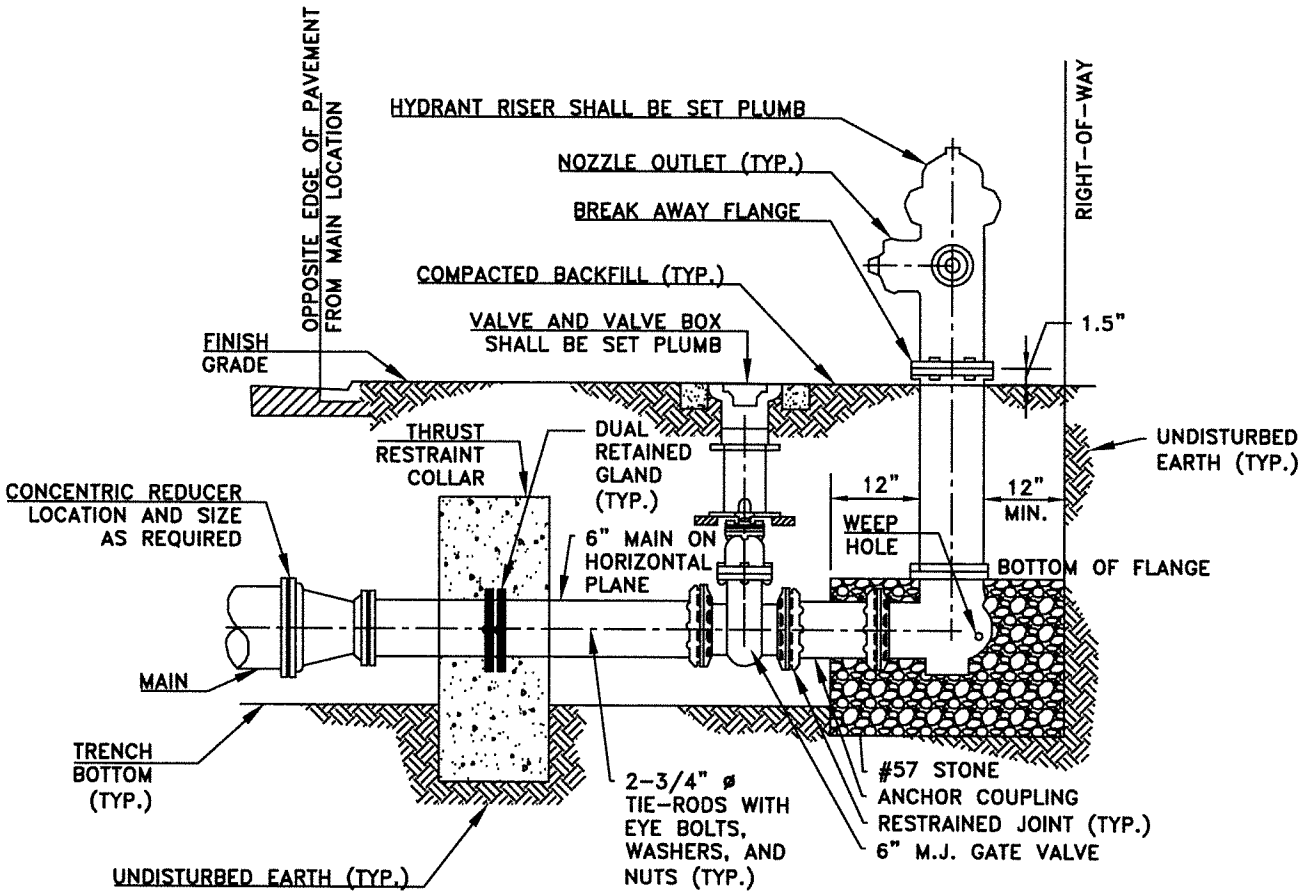
1. DEPTH OF COVER OVER WATER MAINS SHALL BE 4'.
2. WHEN GOING AROUND STRUCTURES, ROUTE WATER MAIN AROUND STRUCTURES BY PIPE DEFLECTION, AND WHERE NECESSARY, INSTALL 45° OR LESS BENDS.

City of Loganville
where people matter

STANDARD DRAWING

**Typical Branch Connection at Intersection**

DATE: JUNE 21, 2019 SHEET: 1104




SECTION

NOTES:

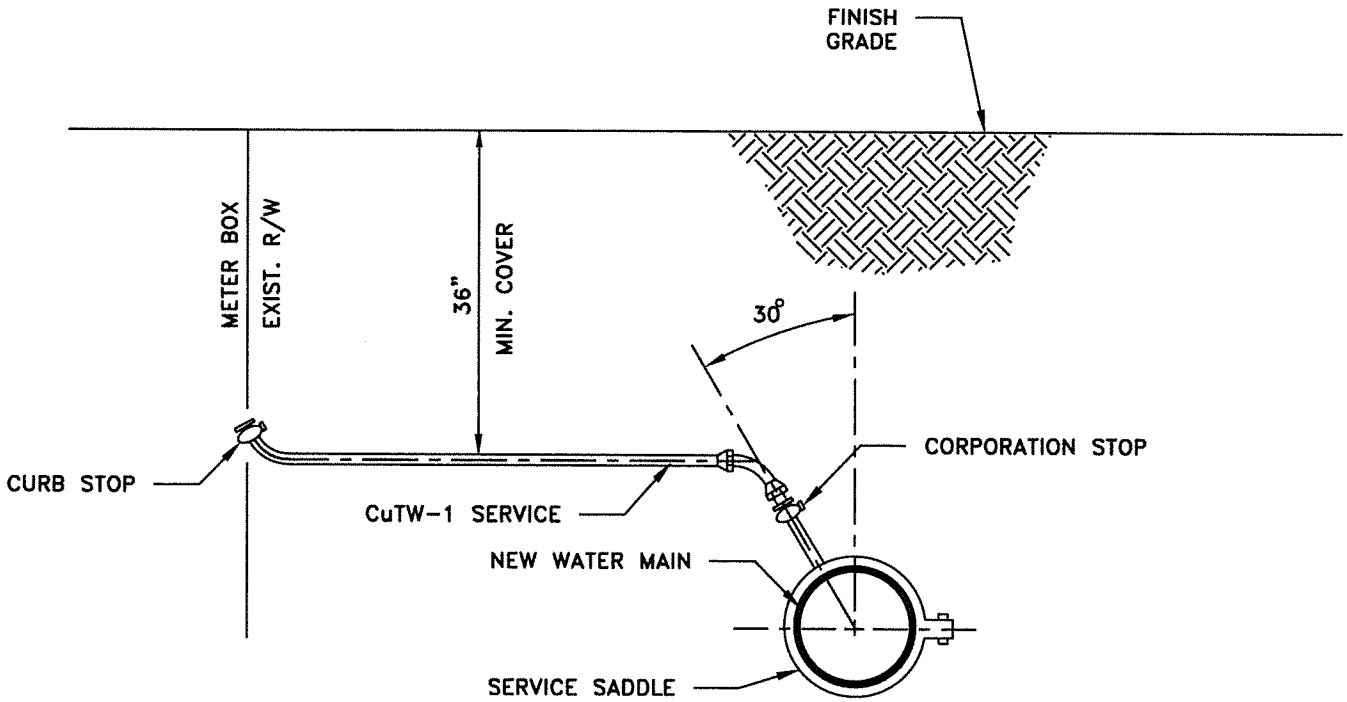
1. REFER TO TYPICAL TIE-ROD THRUST RESTRAINT DRAWING 1127 FOR ADDITIONAL DETAILS.
2. REFER TO TYPICAL THRUST RESTRAINT COLLAR DRAWING 1126 FOR ADDITIONAL DETAILS.
3. REFER TO TYPICAL VALVE BOX DRAWING 1108 FOR ADDITIONAL DETAILS.

City of Loganville
where people matter

STANDARD DRAWING

**Typical Dead End Street Termination**

DATE: JUNE 21, 2019 SHEET: 1105



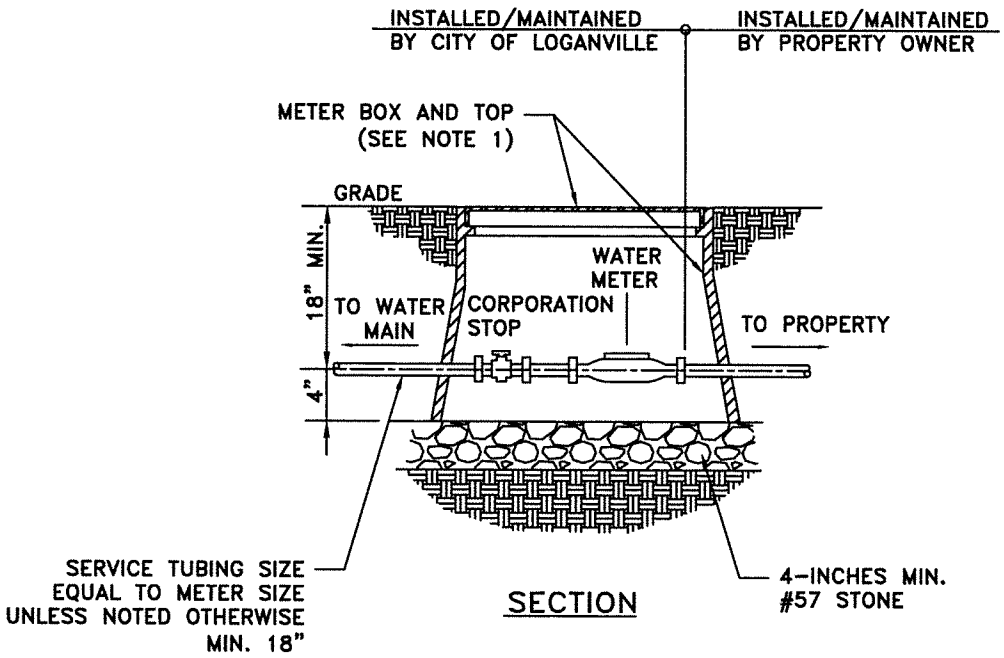

# SERVICE CONNECTION DETAIL

City of Loganville
where people matter

STANDARD DRAWING

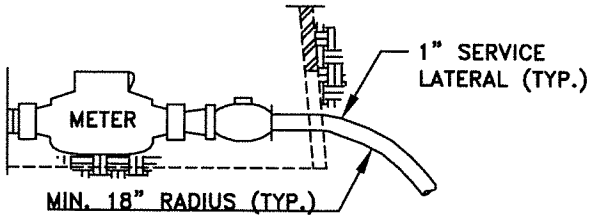
**Service Connection Detail**

DATE: JUNE 21, 2019 SHEET: 1106




SECTION

WATER METER BOX




ALTERNATE SECTION

NOTE:

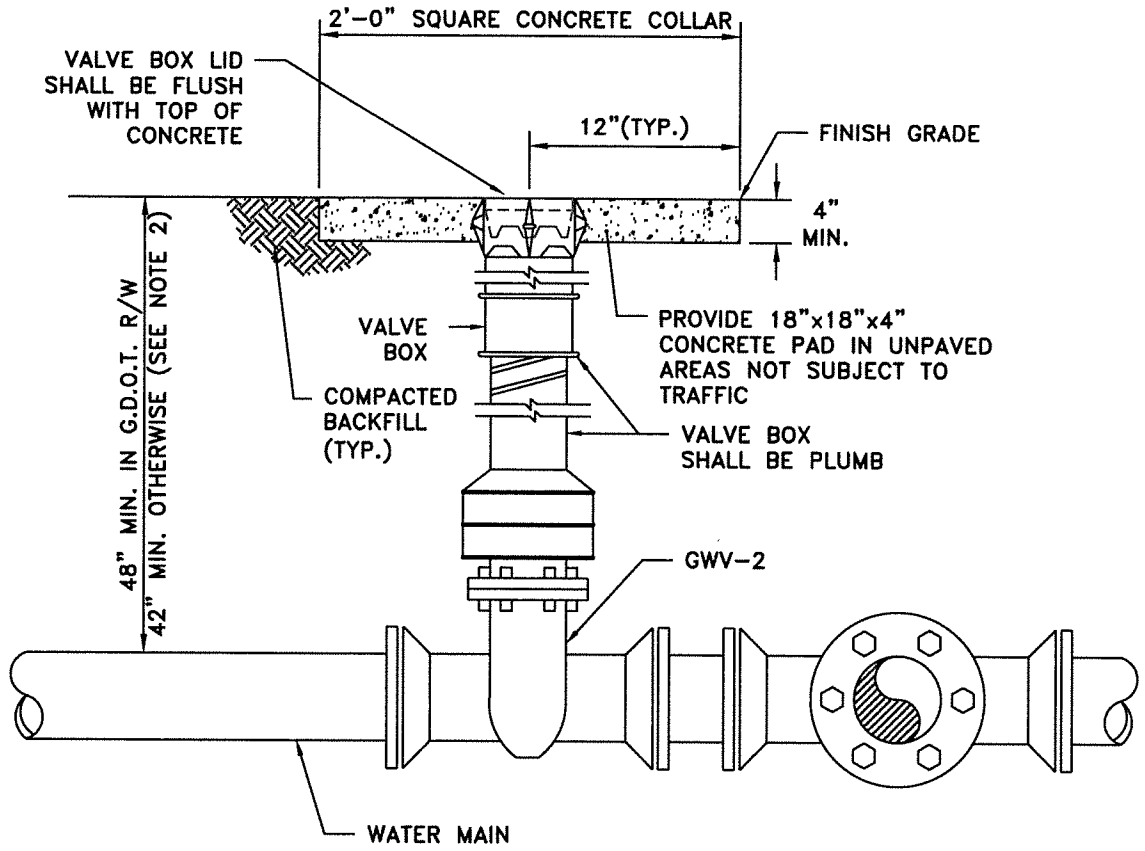
1. INSTALLATION OF METER BOX BY CITY OF LOGANVILLE WATER DEPARTMENT.
2. METER BOX TO BE LOCATED IN THE LAST BACK FOOT OF RIGHT OF WAY
3. CURB STOP MUST MATCH METER, 3/4" CURB STOP FOR 3/4" METER; 1" CURB STOP FOR 1" METER.
4. CENTER WATER METER IN METER BOX.
5. WATER METER BOX LID TO BE INSTALLED IS TO BE COMPATIBLE WITH AUTOMATIC METER READING (AMR) EQUIPMENT.

City of Loganville
where people matter

STANDARD DRAWING

**Water Meter Box**

DATE: JUNE 21, 2019 SHEET: 1107




## TYPICAL GATE VALVE INSTALLATION

NOTES:

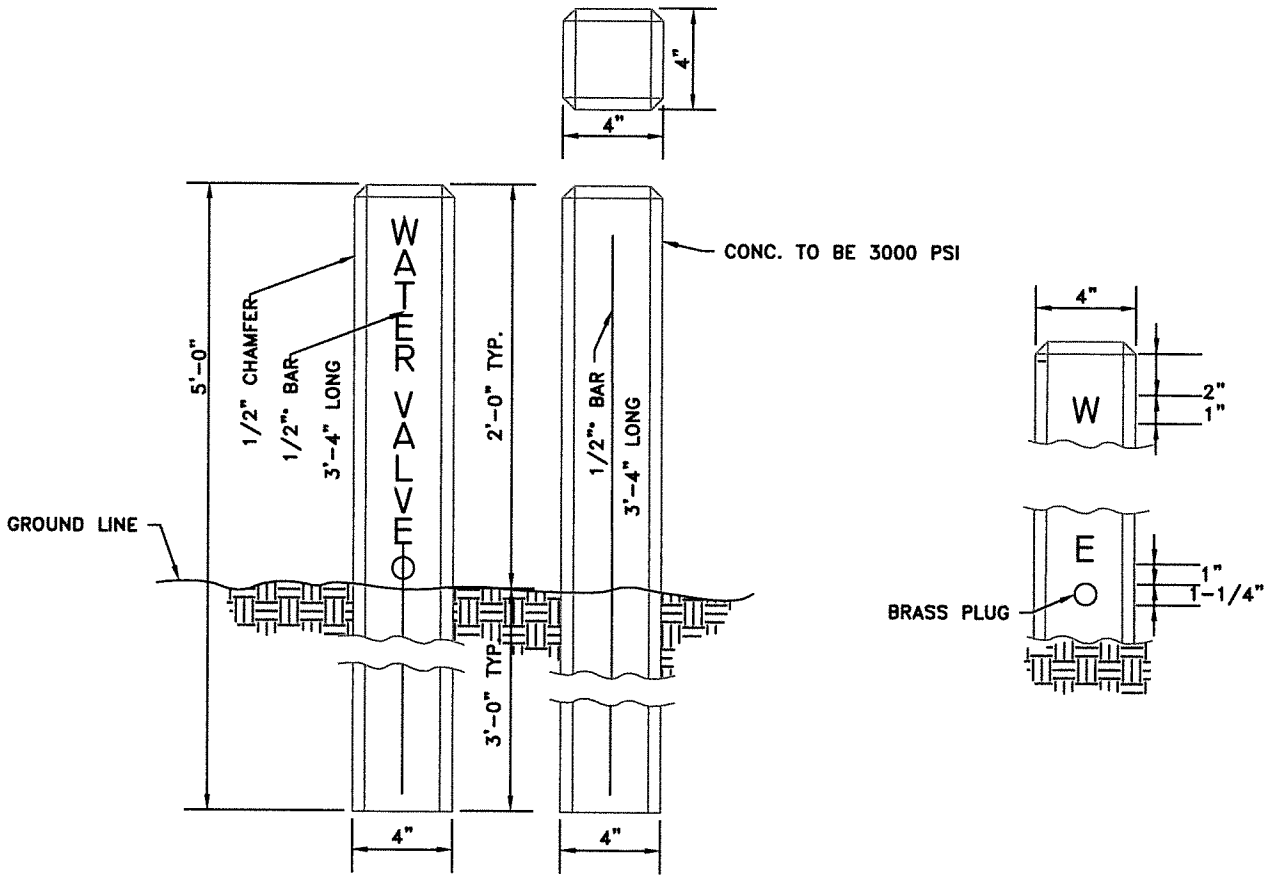
1. SLIP-TYPE VALVE BOXES ONLY (NO EXCEPTIONS).
2. WHERE DEPTH OF COVER IS MORE THAN 5 FEET, CONTRACTOR SHALL PROVIDE SUITABLE, PERMANENTLY INSTALLED VALVE STEM EXTENSION AND GUIDE AT NO EXTRA COST TO THE CITY OF LOGANVILLE.
3. USE 6" SOR 35 PVC PIPE FOR DEEP EXTENSIONS
4. CONTRACTOR MUST PROVIDE CLEARANCE BETWEEN VALVE AND VALVE BOX.
5. VALVE OPERATING NUT TO BE PLACED INSIDE AND ABOVE BOTTOM OF VALVE BOX

City of Loganville
where people matter

STANDARD DRAWING

**Typical Gate Valve and Valve Box Installation**

DATE: JUNE 21, 2019 SHEET: 1108



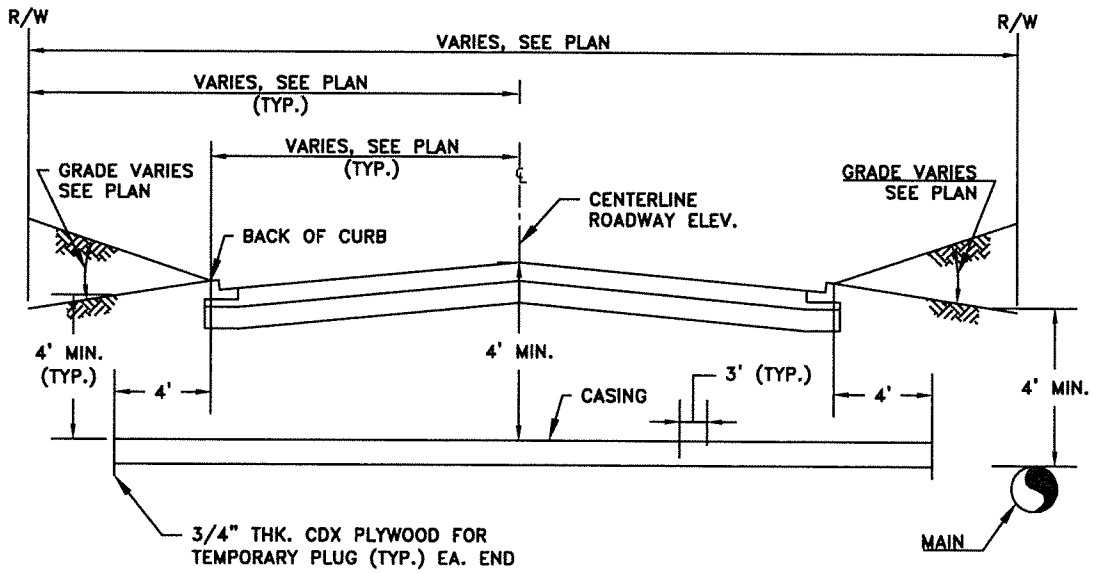

TYPICAL WATER VALVE MARKER

City of Loganville
where people matter

STANDARD DRAWING

**Typical Water Valve Marker**

DATE: JUNE 21, 2019 SHEET: 1109




NOT TO SCALE

PROFILE

| LONG SERVICE LATERAL (*INCHES) | 3/4 | 1 | 1-1/2 | 2 | 2-1/2 |
|---|---|---|---|---|---|
| CASING DIAMETER (*INCHES) | 1-1/2 | 1-1/2 | 2 | 3 | 3 |

*NOMINAL SIZE

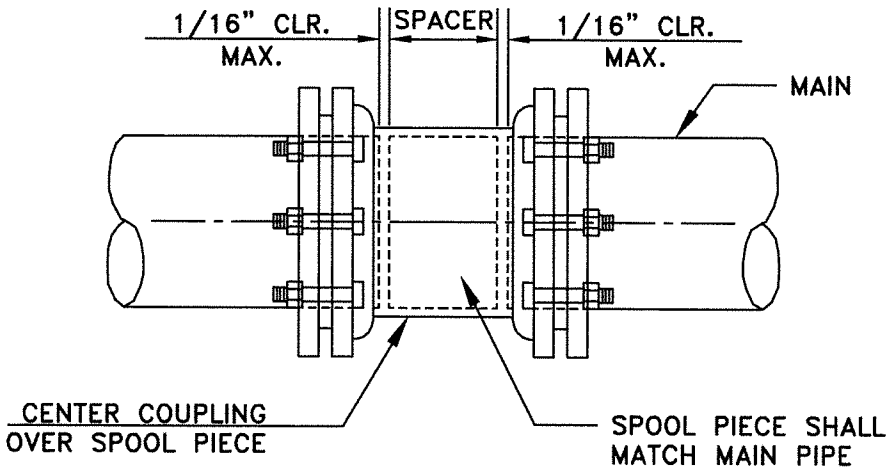
NOTE:
1. CASING SHALL BE INSTALLED AT CENTER OF EACH LONG SIDE LOT, UNLESS OTHERWISE DIRECTED BY CITY OF LOGANVILLE.

City of Loganville
where people matter

STANDARD DRAWING

**Typical Service Line Casing Installation**

DATE: JUNE 21, 2019 SHEET: 1110




SOLID SLEEVE

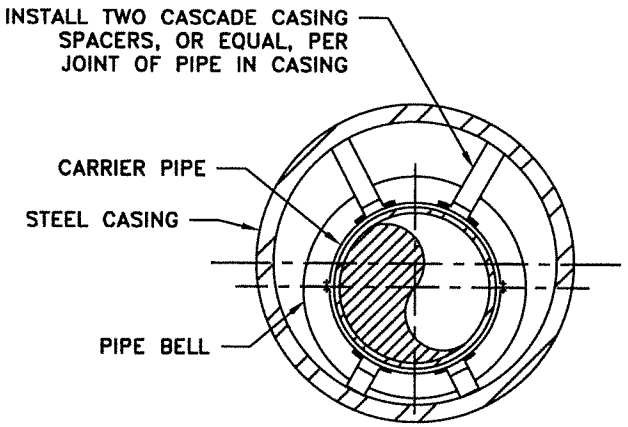
NOTE:
1. SOLID SLEEVE SHALL BE STEEL AND PROPERLY COATED BEFORE BACKFILL.

City of Loganville
where people matter

STANDARD DRAWING

**Typical Coupling**

DATE: JUNE 21, 2019 SHEET: 1111




# STEEL CASING

NOTES:

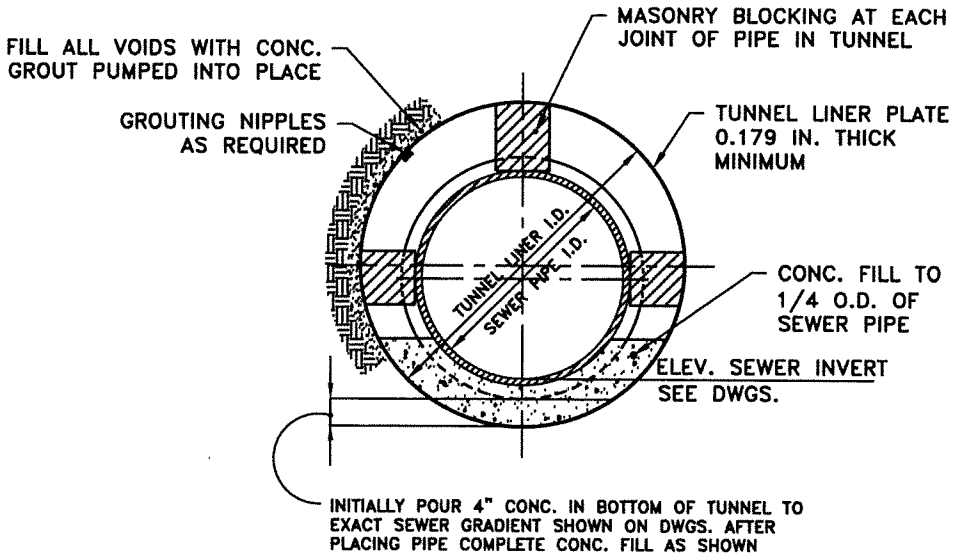
1. SEAL ENDS OF TUNNEL LINER TO PREVENT DEBRIS AND MOISTURE FROM ENTERING THE ANNULAR SPACE BETWEEN THE CARRIER PIPE AND TUNNEL LINER.
2. FOR PIPE TUNNEL LINER, PROVIDE END SEAL CONSISTING OF FLEXIBLE SYNTHETIC RUBBER BOOT CONFORMING TO ASTM C-923 OR LINK SEAL PENETRATION SEAL WITH INSULATING PLASTIC PLATE, GALVANIZED BOLTS AND NUTS, AND EPDM RUBBER ELEMENT MANUFACTURED BY THUNDERLINE CORPORATION.

City of Loganville
where people matter

STANDARD DRAWING

**Steel Casing**

DATE: JUNE 21, 2019 SHEET: 1112




# TUNNEL LINER

NOTES:

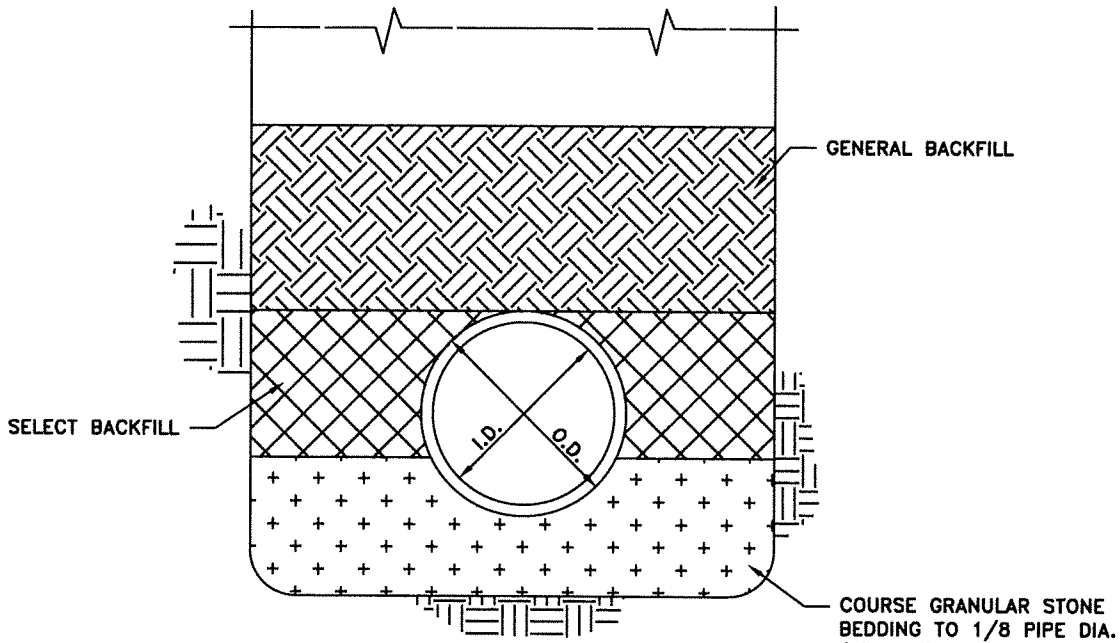
1. PROVIDE 12" THICK MASONRY WALL SEAL AT EA. END OF TUNNEL.
2. AT LOW END OF TUNNEL PROVIDE 6" SQ. WEEPHOLE IN BOTTOM OF WALL.
3. AT WEEPHOLE PROVIDE A 2' SQ. X 18" DEEP POCKET OF CRUSHED STONE.

City of Loganville
where people matter

STANDARD DRAWING

**Tunnel Liner**

DATE: JUNE 21, 2019 SHEET: 1113




TYPE 4

PIPE BEDDED IN COURSE GRANULAR STONE
TO DEPTH OF 1/8 PIPE DIA. (4" MIN.) WITH
BACKFILL COMPACTED PER SPECIFICATION

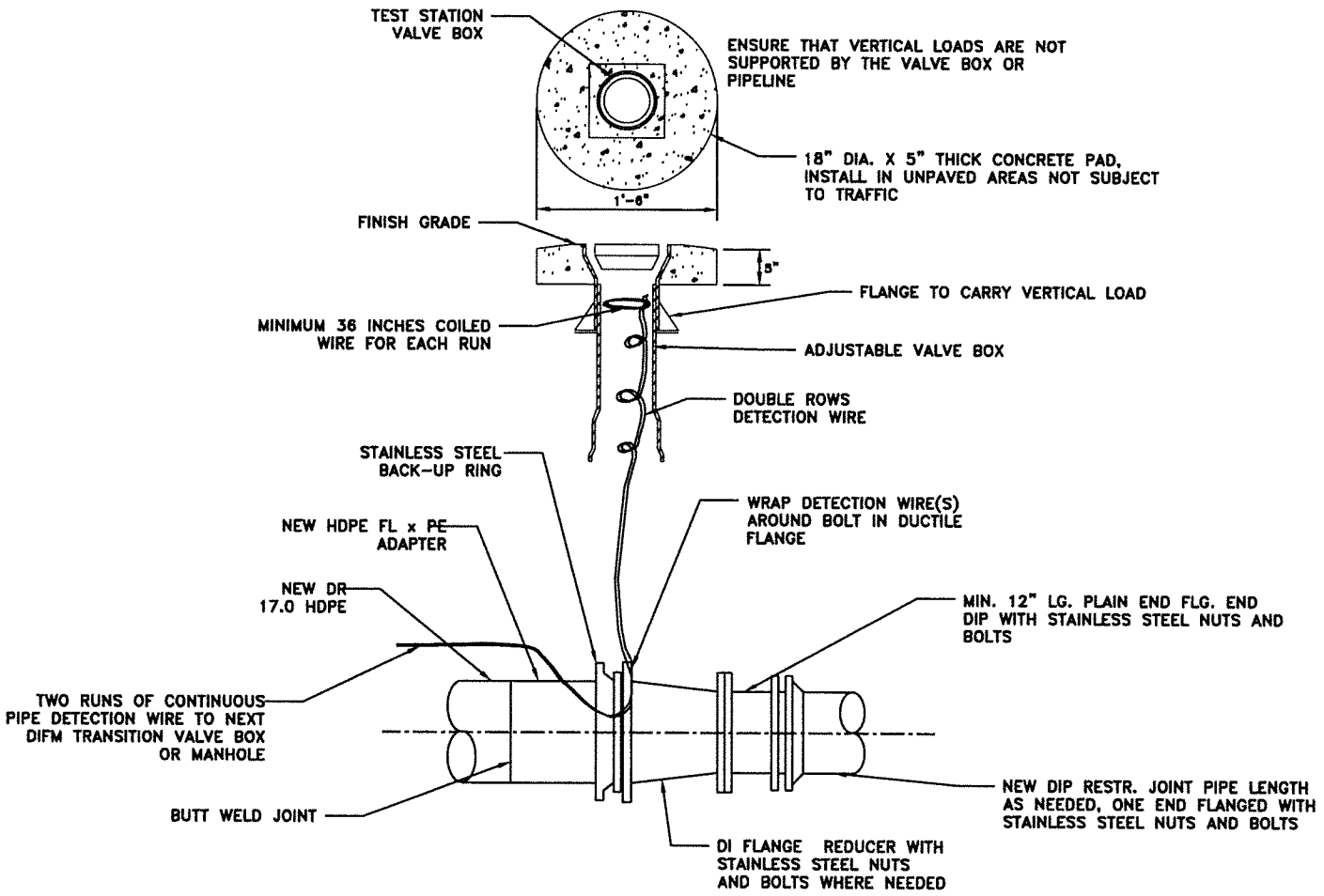
# DUCTILE IRON PIPE BEDDING

City of Loganville
where people matter

S T A N D A R D  D R A W I N G

**Ductile Iron Pipe Bedding**

D A T E: JUNE 21, 2019  S H E E T: 1114




## DIP TO HDPE TRANSITION DETAIL

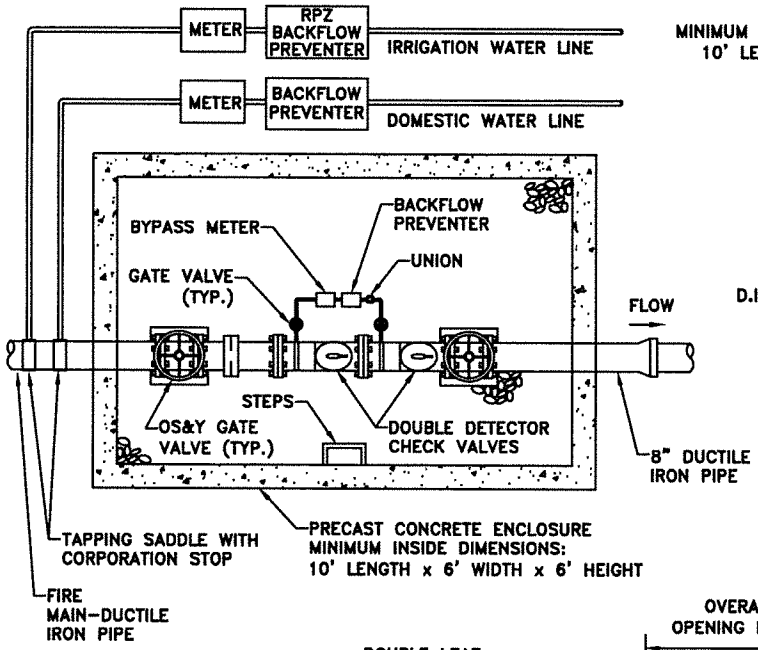
NOTES:
1. PROVIDE STAINLESS STEEL BOLTS & NUTS FOR ALL BURIED FLANGED JOINTS.

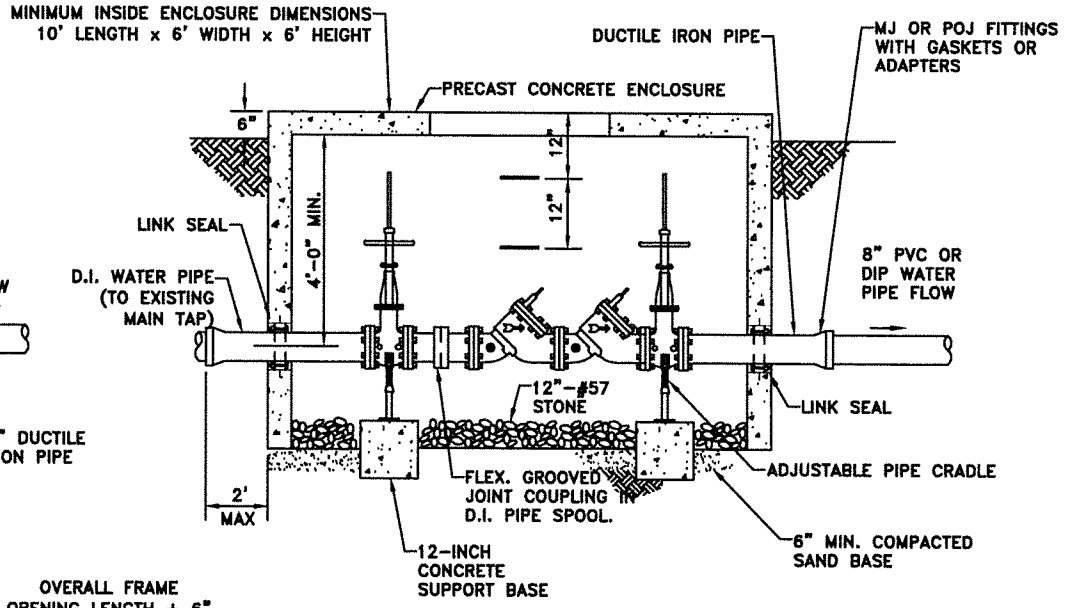
City of Loganville
where people matter

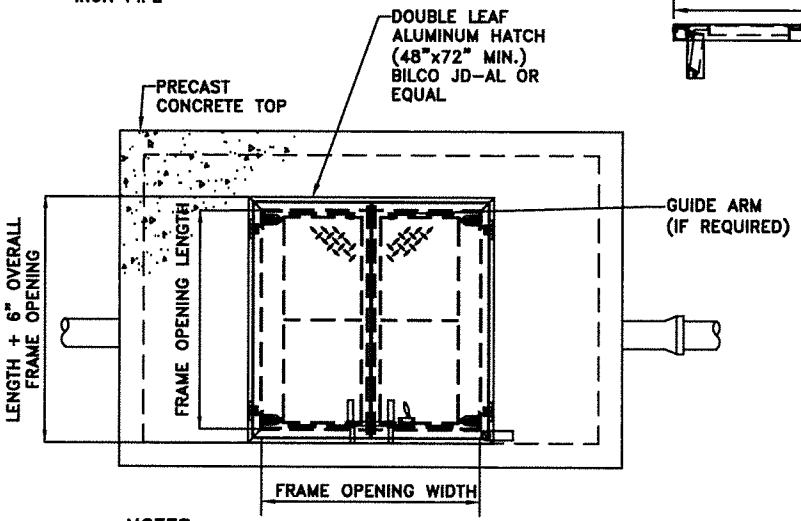
STANDARD DRAWING

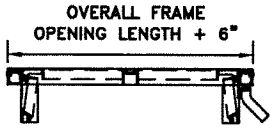
**D.I.P. to H.D.P.E. Transition Detail**

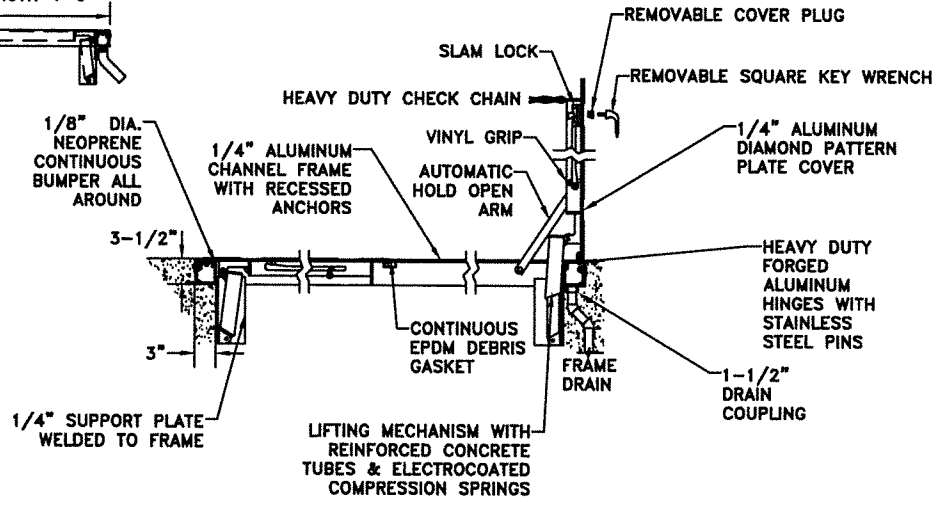
DATE: JUNE 21, 2019 SHEET: 1115




NOTES:

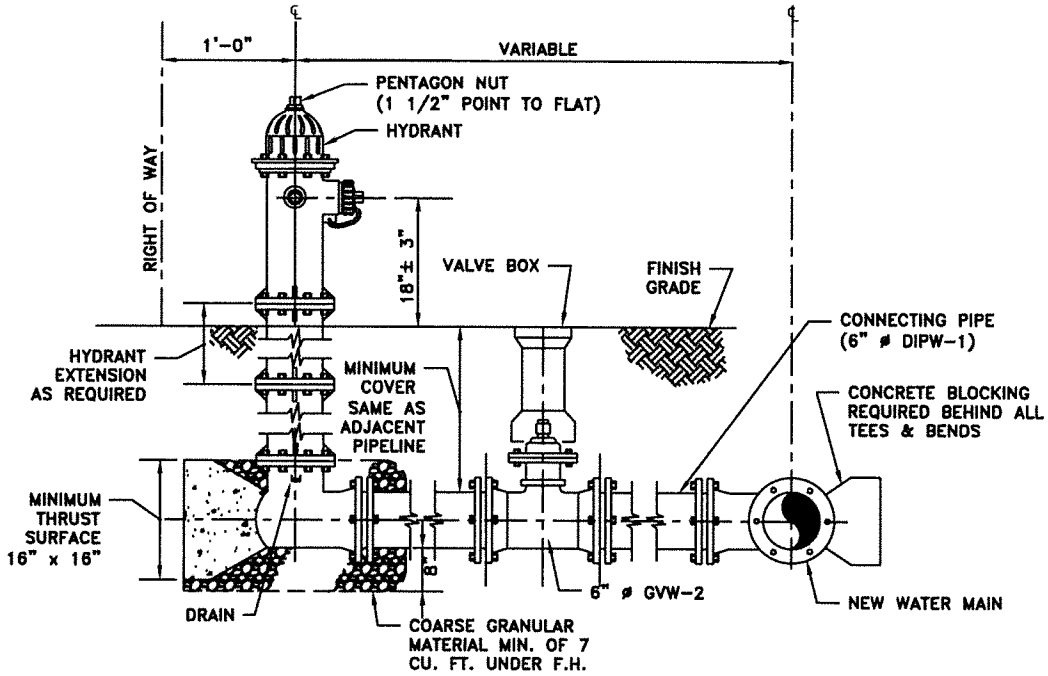
1. FOR BACKFLOW PREVENTION DEVICE, PROVIDE 8" INTERNALLY LOADED DOUBLE CHECK ASSEMBLY COMPLETE WITH OS&Y GATE VALVES AND BRONZE BODY BALL VALVE TEST COCKS FITTED WITH BRONZE PLUGS AND CONFORMING WITH AWWA C510 AND ASSE STD. 1048.
2. PROVIDE CONCRETE SUPPORTS FOR PIPE & ASSEMBLY TO ELIMINATE ANY STRAIN ON ALL PIPE JOINTS PER MFG. RECOMMENDATIONS.
3. THE CITY OF LOGANVILLE INSTALLS BACKFLOW PREVENTION DEVICES FOR RESIDENTIAL PROPERTIES ONLY.

City of Loganville
where people matter

S T A N D A R D  D R A W I N G

**Fire Main and Water Vault Details**

D A T E: JUNE 21, 2019  S H E E T: 1116




## TYPICAL HYDRANT INSTALLATION

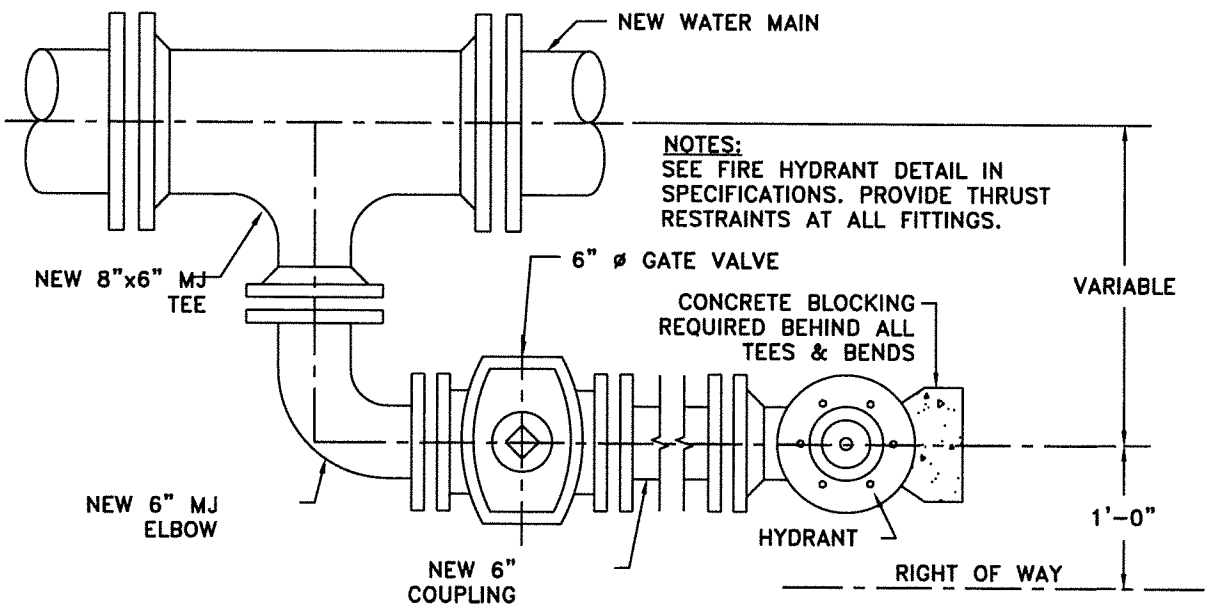
NOTES:
1. HYDRANT LUGS AND TIE RODS MAY BE USED IN LIEU OF CONCRETE REACTION BRACING AT CONTRACTOR'S OPTION.
2. PAINT HYDRANT IN ACCORDANCE W/AWWA C502 COLOR TO BE APPROVED BY OWNER.
3. EXACT LOCATION OF HYDRANTS TO BE DETERMINED IN FIELD BY ENGINEER & CITY.

City of Loganville
where people matter

STANDARD DRAWING

**Typical Hydrant Installation**

DATE: JUNE 21, 2019 SHEET: 1117




# ALTERNATE HYDRANT INSTALLATION

NOTES:

1. HYDRANT LUGS AND TIE RODS MAY BE USED IN LIEU OF CONCRETE REACTION BRACING AT CONTRACTOR'S OPTION.
2. PAINT HYDRANT IN ACCORDANCE W/AWWA C502 COLOR TO BE APPROVED BY CITY.
3. EXACT LOCATION OF HYDRANTS TO BE DETERMINED IN FIELD BY ENGINEER & CITY.

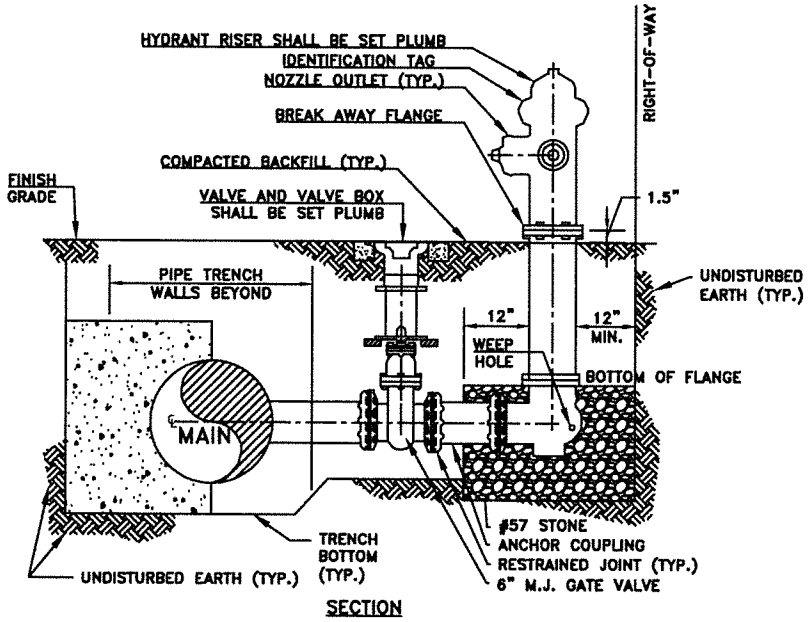
City of Loganville
where people matter

STANDARD DRAWING

**Alternate Hydrant Installation**

DATE: JUNE 21, 2019 SHEET: 1118

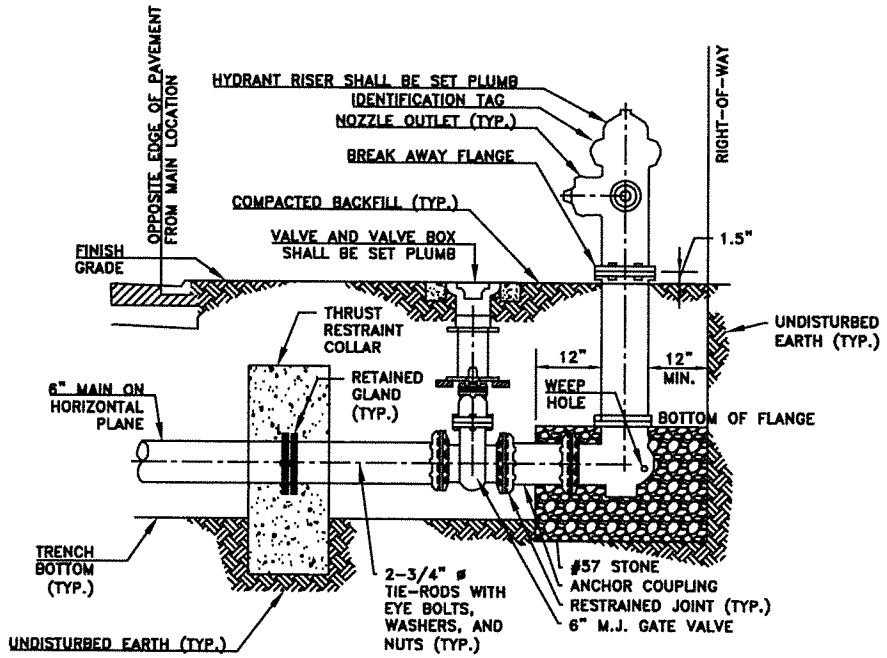
## TYPE 'A' FIRE HYDRANT INSTALLATION




SECTION

NOTES:
1. REFER TO TYPICAL TIE-ROD RESTRAINT DRAWING 1127 FOR ADDITIONAL DETAILS.
2. REFER TO TYPICAL HORIZONTAL THRUST BLOCK DRAWING 1124 FOR ADDITIONAL DETAILS.
3. REFER TO TYPICAL VALVE BOX DRAWING 1108 FOR ADDITIONAL DETAILS.
4. REFER TO FIRE HYDRANT IDENTIFICATION DETAIL DRAWING 1128 FOR ADDITIONAL DETAILS.

## TYPE 'B' FIRE HYDRANT INSTALLATION




SECTION

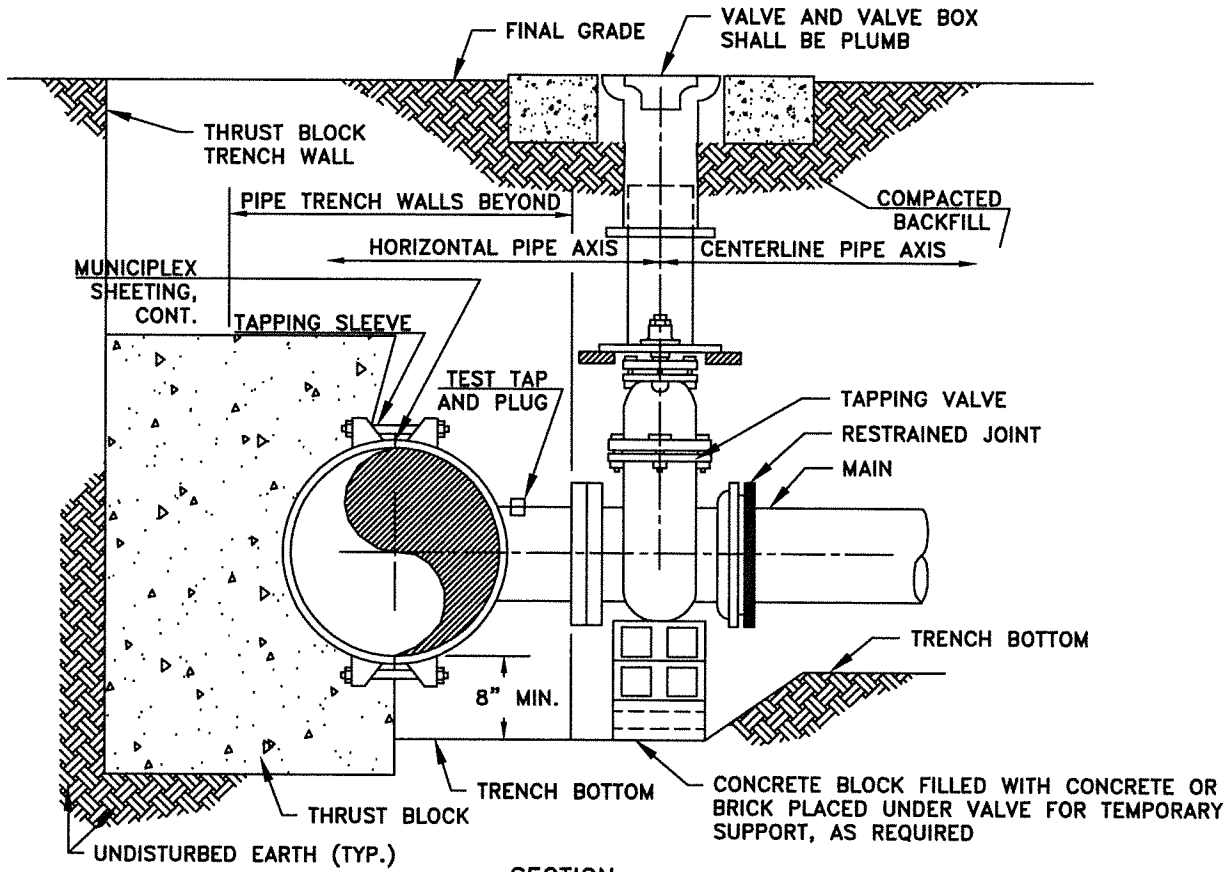
NOTES:
1. REFER TO TYPICAL TIE-ROD RESTRAINT DRAWING 1127 FOR ADDITIONAL DETAILS.
2. REFER TO TYPICAL THRUST RESTRAINT COLLAR DRAWING 1126 FOR ADDITIONAL DETAILS.
3. REFER TO TYPICAL VALVE BOX DRAWING 1108 FOR ADDITIONAL DETAILS.
4. REFER TO FIRE HYDRANT IDENTIFICATION DETAIL DRAWING 1128 FOR ADDITIONAL DETAILS.

City of Loganville
where people matter

STANDARD DRAWING

**Fire Hydrant Installation Details**

DATE: JUNE 21, 2019 SHEET: 1119




SECTION

NOTES:

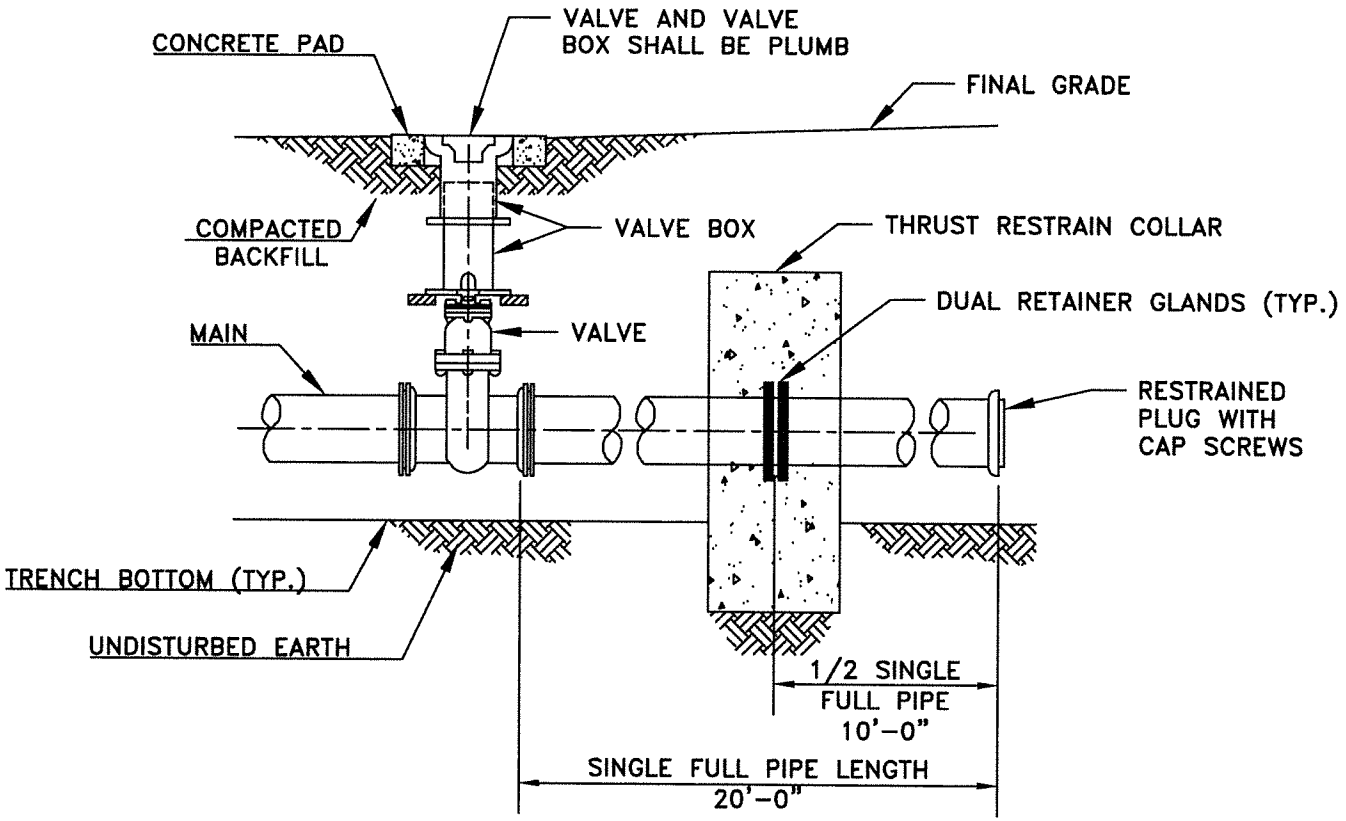
1. TEMPORARILY SUPPORT TAPPING SLEEVE AND VALVE PRIOR TO HYDROSTATIC TESTING AND UPON ACCEPTANCE OF TEST WHEN CONCRETE MAY BE INSTALLED AS SHOWN.
2. REFER TO TYPICAL HORIZONTAL THRUST BLOCK DRAWING FOR ADDITIONAL DETAILS.
3. REFER TO TYPICAL VALVE BOX INSTALLATION DRAWING FOR ADDITIONAL DETAILS.

City of Loganville
where people matter

STANDARD DRAWING

**Typical Tapping Sleeve and Valve Installation**

DATE: JUNE 21, 2019 SHEET: 1120




SECTION

NOTES:

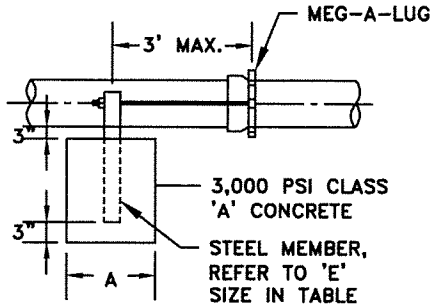
1. STUB-OUT SHALL BE TESTED WITH THE WATER MAIN.
2. REFER TO TYPICAL THRUST RESTRAINT COLLAR DRAWING 1126 FOR ADDITIONAL DETAILS.
3. REFER TO TYPICAL VALVE BOX INSTALLATION DRAWING FOR ADDITIONAL DETAILS.

City of Loganville
where people matter

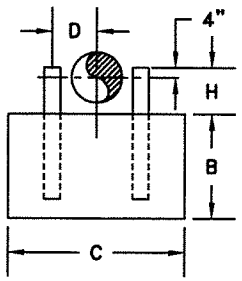
STANDARD DRAWING

**Typical Stub-Out Installation**

DATE: JUNE 21, 2019 SHEET: 1121




ELEVATION




SECTION

| BEND | SIZE | A | B | C | D | VOL. ($YD^3$) | H | T | ROD DIA. | E (IN) |
|---|---|---|---|---|---|---|---|---|---|---|
| TEES PLUGS AND VALVES | 6" | 2'-0" | 3'-0" | 3'-0" | 1'-0" | 0.67 | 10" | 5,700 | 3/4" | 6x6x3/8 |
| | 8" | 3'-0" | 3'-0" | 5'-0" | 1'-1" | 1.67 | 11" | 10,000 | 3/4" | 6x6x3/8 |
| | 10" | 4'-0" | 3'-0" | 5'-0" | 1'-2" | 2.67 | 1'-0" | 16,000 | 3/4" | 6x6x3/8 |
| | 12" | 5'-0" | 4'-0" | 6'-0" | 1'-5" | 4.44 | 1'-1" | 22,650 | 3/4" | 10x10x1/2 |
| | 14" | 6'-0" | 4'-0" | 7'-0" | 1'-6" | 6.22 | 1'-2" | 31,000 | 3/4" | 10x10x1/2 |
| | 16" | 7'-0" | 4'-0" | 8'-0" | 1'-8" | 8.30 | 1'-3" | 40,250 | 3/4" | 10x10x1/2 |
| | 20" | 9'-0" | 4'-8" | 9'-0" | 1'-11" | 13.50 | 1'-5" | 62,850 | 3/4" | W12x190 |
| 11-1/4° | 6" | 2'-0" | 3'-0" | 3'-0" | 1'-0" | 0.67 | 10" | 1,110 | 3/4" | 6x6x3/8 |
| | 8" | 2'-0" | 3'-0" | 3'-0" | 1'-1" | 0.67 | 11" | 2,000 | 3/4" | 6x6x3/8 |
| | 10" | 2'-0" | 3'-0" | 3'-0" | 1'-2" | 0.67 | 1'-0" | 3,100 | 3/4" | 6x6x3/8 |
| | 12" | 2'-0" | 3'-0" | 3'-6" | 1'-5" | 0.78 | 1'-1" | 4,450 | 3/4" | 10x10x1/2 |
| | 14" | 2'-0" | 3'-0" | 3'-6" | 1'-6" | 0.78 | 1'-2" | 6,050 | 3/4" | 10x10x1/2 |
| | 16" | 3'-6" | 3'-0" | 4'-0" | 1'-8" | 1.56 | 1'-3" | 7,900 | 3/4" | 10x10x1/2 |
| | 20" | 4'-0" | 3'-0" | 5'-6" | 1'-11" | 2.44 | 1'-5" | 12,350 | 3/4" | W12x190 |
| 22-1/2° | 6" | 2'-0" | 3'-0" | 3'-0" | 1'-0" | 0.67 | 10" | 2,250 | 3/4" | 6x6x3/8 |
| | 8" | 2'-0" | 3'-0" | 3'-0" | 1'-1" | 0.67 | 11" | 4,000 | 3/4" | 6x6x3/8 |
| | 10" | 2'-0" | 3'-0" | 3'-6" | 1'-2" | 0.78 | 1'-0" | 6,150 | 3/4" | 6x6x3/8 |
| | 12" | 3'-6" | 3'-0" | 4'-0" | 1'-5" | 1.56 | 1'-1" | 8,850 | 3/4" | 10x10x1/2 |
| | 14" | 4'-0" | 3'-0" | 5'-0" | 1'-6" | 2.22 | 1'-2" | 12,050 | 3/4" | 10x10x1/2 |
| | 16" | 4'-0" | 3'-6" | 6'-0" | 1'-8" | 3.11 | 1'-3" | 15,700 | 3/4" | 10x10x1/2 |
| | 20" | 5'-0" | 4'-0" | 7'-0" | 1'-11" | 5.19 | 1'-5" | 24,550 | 3/4" | W12x190 |
| 45° | 6" | 2'-0" | 3'-0" | 3'-0" | 1'-0" | 0.67 | 10" | 4,350 | 3/4" | 6x6x3/8 |
| | 8" | 2'-0" | 3'-0" | 4'-0" | 1'-1" | 0.89 | 11" | 7,700 | 3/4" | 6x6x3/8 |
| | 10" | 4'-0" | 3'-0" | 5'-0" | 1'-2" | 2.22 | 1'-0" | 12,050 | 3/4" | 6x6x3/8 |
| | 12" | 4'-0" | 4'-0" | 5'-6" | 1'-5" | 3.26 | 1'-1" | 17,350 | 3/4" | 10x10x1/2 |
| | 14" | 5'-6" | 4'-0" | 6'-0" | 1'-6" | 4.89 | 1'-2" | 23,600 | 3/4" | 10x10x1/2 |
| | 16" | 6'-0" | 4'-0" | 7'-6" | 1'-8" | 6.67 | 1'-3" | 30,000 | 3/4" | 10x10x1/2 |
| | 20" | 7'-0" | 4'-6" | 9'-0" | 1'-11" | 10.50 | 1'-5" | 48,100 | 3/4" | W12x190 |
| 90° | 6" | 2'-6" | 3'-0" | 4'-0" | 1'-0" | 1.11 | 10" | 8,000 | 3/4" | 6x6x3/8 |
| | 8" | 4'-0" | 3'-0" | 5'-6" | 1'-1" | 2.44 | 11" | 14,250 | 3/4" | 6x6x3/8 |
| | 10" | 5'-0" | 3'-0" | 7'-6" | 1'-2" | 4.17 | 1'-0" | 22,250 | 3/4" | 6x6x3/8 |
| | 12" | 6'-0" | 3'-0" | 8'-0" | 1'-5" | 5.33 | 1'-1" | 32,000 | 3/4" | 10x10x1/2 |
| | 14" | 7'-6" | 3'-0" | 9'-0" | 1'-6" | 7.50 | 1'-2" | 43,550 | 3/4" | 10x10x1/2 |
| | 16" | 9'-0" | 3'-6" | 9'-0" | 1'-8" | 10.50 | 1'-3" | 56,900 | 3/4" | 10x10x1/2 |
| | 20" | 12'-0" | 3'-6" | 9'-0" | 1'-11" | 14.00 | 1'-5" | 88,900 | 3/4" | W12x190 |

NOTES:
1. REFER TO TYPICAL TIE ROD RESTRAINT FOR FURTHER DETAILS AND COAT ALL STEEL WITH APPROVED COATING.
2. FOR PIPE SIZES OF 20 INCHES OR LESS, OTHER SIZES SHALL REQUIRE CITY OF LOGANVILLE RESTRAINT DESIGN.CONCRETE MUST BE POURED AGAINST UNDISTURBED EARTH, NO FORM WORK SHALL BE ALLOWED.
3. FOR EXISTING A.C. OR PVC PIPE, INSTALL ONE JOINT OF D.I.P.

DESIGN CRITERIA:
1. FOR WATER MAINS AT A RATED TEST PRESSURE OF 250 PSI.

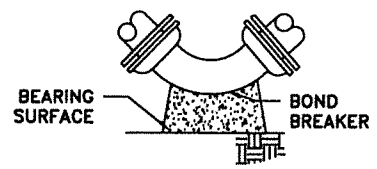
City of Loganville
where people matter

STANDARD DRAWING

**Typical Dead Man Thrust Restraint Installation for A.C. Pipe**

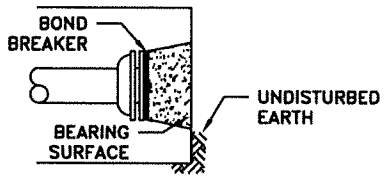
DATE: JUNE 21, 2019 SHEET: 1122

# CONCRETE THRUST RESTRAINT

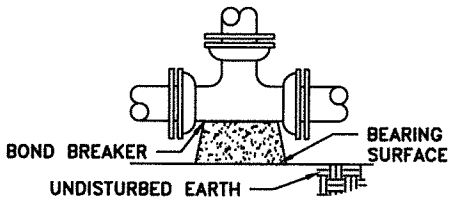



22 1/2°, 45° AND 90° BENDS

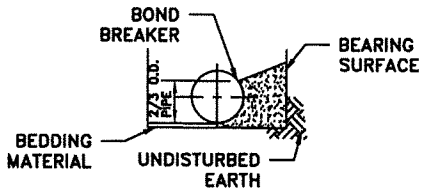
| MINIMUM BEARING SURFACE AREA (SQ. FT.) | | | | |
|---|---|---|---|---|
| PIPE SIZE | BENDS | | | TEE OR DEAD END |
| | 22.5° | 45° | 90° | |
| 4" | 1.00 | 1.00 | 2.00 | 1.50 |
| 6" | 1.25 | 2.25 | 4.75 | 3.00 |
| 8" | 2.00 | 4.00 | 8.20 | 5.25 |
| 12" | 4.25 | 8.25 | 16.75 | 11.00 |
| 16" | 6.50 | 12.50 | 23.00 | 16.50 |
| 20" | 10.00 | 19.50 | 35.50 | 25.00 |




DEAD END




TEE




TYPICAL CROSS SECTION

NOTES:

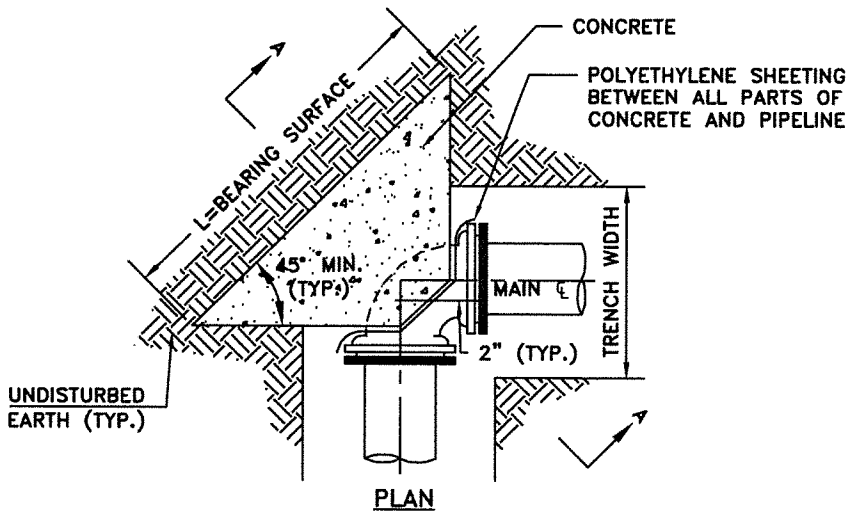
1. BEARING SURFACES IN CHART ARE MINIMUM REQUIRED AREAS BASED ON THE FOLLOWING:
   A. SOIL BEARING CAPACITY = 3000 PSF
   B. INTERNAL PIPE PRESURE = 150 PSI + WATERHAMMER OF 120 PSI FOR 4"– 8" SIZE, 110 PSI FOR 12" SIZE, AND 70 PSI FOR 16" AND 20" SIZES.
2. ACTUAL SOIL AND INSTALLATION CONDITIONS VARY AND MAY REQUIRE ADDITIONAL ANCHORAGE. IT IS THE CONTRACTORS RESPONSIBILITY TO RECOGNIZE SUCH VARIANCES AND ADDITIONAL REQUIREMENTS AND TO PROVIDE APPROPRIATE ADDITIONAL ANCHORAGE.
3. PROVIDE CONCRETE REACTION OR THRUST BACKING OF A MIX NOT LEANER THAN 1 CEMENT, 2 – 1/2 SAND, 5 STONE, HAVING COMPRESSIVE STRENGTH OF NOT LESS THAN 2,000 PSI. PLACE BACKING BETWEEN SOLID GROUND AND THE FITTING TO BE ANCHORED. LOCATE THE BACKING SO THAT THE PIPE AND THE FITTING JOINT WILL BE ACCESSIBLE FOR REPAIRS. MECHANICAL JOINT RETAINER GLANDS OF ADEQUATE STRENGTH TO PREVENT MOVEMENT OR OTHER SUITABLE MEANS MAY BE USED INSTEAD OF CONCRETE BACKING.

City of Loganville
where people matter

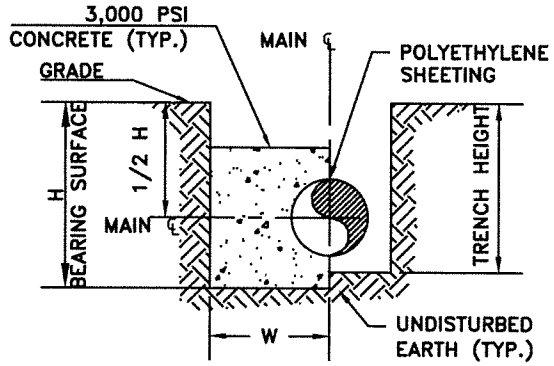
STANDARD DRAWING

**Concrete Thrust Restraint**

DATE: JUNE 21, 2019 SHEET: 1123




PLAN




SECTION A–A

| BEND | SIZE | DIMENSION (FT.) H | L | W | CONC. VOL. (CY) | THRUST (LBS.) |
|---|---|---|---|---|---|---|
| 11-1/4° | 4" | 1.00 | 1.00 | 1.67 | 0.05 | 887 |
| | 6" | 1.00 | 1.00 | 1.67 | 0.05 | 1,577 |
| | 8" | 1.00 | 1.50 | 1.67 | 0.07 | 2,814 |
| | 10" | 1.25 | 1.75 | 1.67 | 0.11 | 4,309 |
| | 12" | 1.67 | 2.00 | 1.67 | 0.17 | 6,150 |
| | 16" | 2.00 | 2.75 | 1.67 | 0.28 | 10,761 |
| 22-1/2° | 4" | 1.00 | 1.00 | 1.67 | 0.05 | 1,765 |
| | 6" | 1.33 | 1.50 | 1.67 | 0.10 | 3,647 |
| | 8" | 1.67 | 2.00 | 1.67 | 0.15 | 6,275 |
| | 10" | 2.00 | 2.50 | 1.67 | 0.22 | 9,439 |
| | 12" | 2.50 | 2.75 | 1.67 | 0.37 | 13,349 |
| | 16" | 3.00 | 4.00 | 1.67 | 0.59 | 23,195 |
| 45° | 4" | 1.00 | 1.75 | 1.67 | 0.07 | 3,462 |
| | 6" | 1.67 | 2.33 | 1.67 | 0.16 | 7,155 |
| | 8" | 2.50 | 2.50 | 1.67 | 0.26 | 12,308 |
| | 10" | 2.67 | 3.50 | 1.67 | 0.37 | 18,516 |
| | 12" | 3.33 | 4.00 | 1.67 | 0.64 | 26,185 |
| | 16" | 4.00 | 5.75 | 1.67 | 1.29 | 45,499 |
| 90° | 4" | 1.67 | 2.00 | 1.67 | 0.14 | 6,398 |
| | 6" | 2.25 | 3.00 | 1.67 | 0.27 | 13,220 |
| | 8" | 3.25 | 3.50 | 1.67 | 0.46 | 22,743 |
| | 10" | 3.33 | 5.25 | 1.67 | 0.81 | 34,213 |
| | 12" | 3.67 | 6.67 | 1.67 | 1.51 | 48,383 |
| | 16" | 4.50 | 9.50 | 1.67 | 3.76 | 84,070 |
| TEE & PLUG | 4" | 1.33 | 1.75 | 1.67 | 0.12 | 4,524 |
| | 6" | 2.00 | 2.50 | 1.67 | 0.24 | 9,348 |
| | 8" | 2.33 | 3.50 | 1.67 | 0.36 | 16,082 |
| | 10" | 2.67 | 4.67 | 1.67 | 0.54 | 24,192 |
| | 12" | 3.00 | 5.75 | 1.67 | 0.86 | 34,212 |
| | 16" | 4.00 | 7.50 | 1.67 | 1.85 | 59,447 |

NOTE: SIZES IN TABLE DENOTE NOMINAL PIPE SIZE IN INCHES

NOTES:
1. SOIL PREPARATION SHALL BE APPROVED BY CITY OF LOGANVILLE WATER DEPARTMENT PRIOR TO POURING CONCRETE.
2. REFER TO TYPICAL HORIZONTAL THRUST RESTRAINT DRAWING 1125 FOR ADDITIONAL DETAILS.

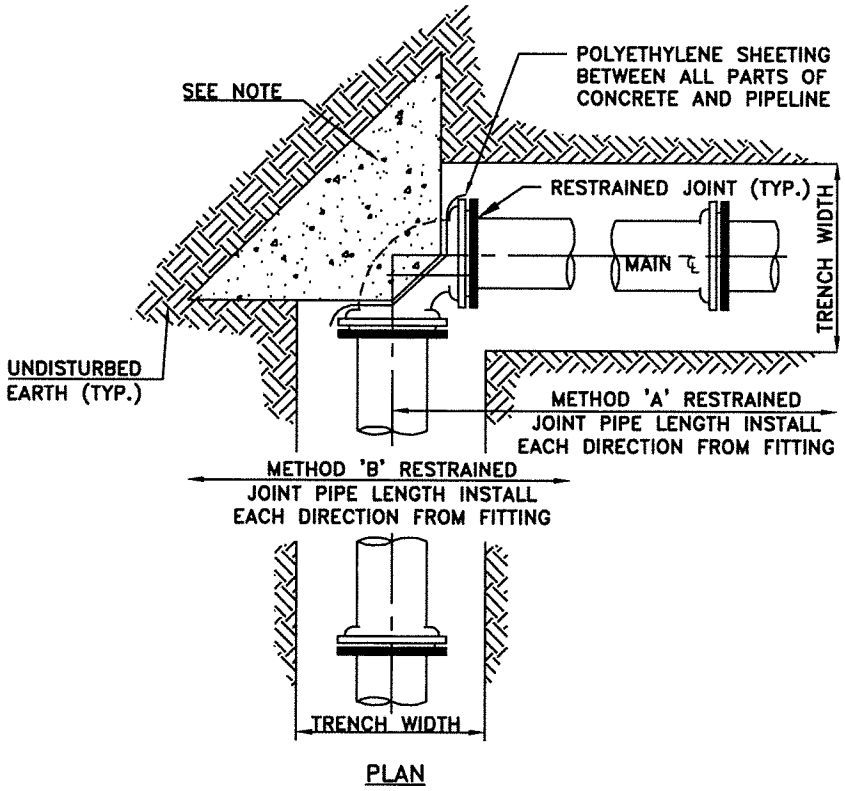
DESIGN CRITERIA:
1. THRUST RESTRAINT DIMENSIONS ARE BASED ON PRESSURE CLASS DUCTILE IRON PIPE WITH BITUMASTIC EXTERIOR COATING, MINIMUM SOIL BEARING PRESSURE OF 2,000 PSF, A COHESIVE GRANULAR SOIL, TEST PRESSURE OF 250 PSI, WITH A SAFETY FACTOR OF 1.0.

City of Loganville
where people matter

STANDARD DRAWING

**Typical Horizontal Thrust Block**

DATE: JUNE 21, 2019 SHEET: 1124




PLAN

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| REDUCER | | | | | | | |
| RESTRAINED LENGTH (FT) | | 6x4 | 8x6 | 10x8 | 12x10 | 14x12 | 16x14 |
| NOMINAL PIPE SIZE (IN) | | 42 | 44 | 42 | 44 | 44 | 44 |
| RESTRAINED LENGTH (FT) | | | 8x4 | 10x6 | 12x8 | 14x10 | 16x12 |
| NOMINAL PIPE SIZE (IN) | | | 76 | 80 | 78 | 80 | 82 |
| RESTRAINED LENGTH (FT) | | | | 10x4 | 12x8 | 14x8 | 16x10 |
| NOMINAL PIPE SIZE (IN) | | | | 104 | 110 | 112 | 116 |
| TEE | | | | | | | |
| RESTRAINED LENGTH (FT) | 4 | 6 | 8 | 10 | 12 | 14 | 16 |
| NOMINAL PIPE SIZE (IN) | 54 | 76 | 100 | 120 | 140 | 160 | 180 |
| DEAD END OR CLOSED VALVE | | | | | | | |
| RESTRAINED LENGTH (FT) | 4 | 6 | 8 | 10 | 12 | 14 | 16 |
| NOMINAL PIPE SIZE (IN) | 54 | 76 | 100 | 120 | 140 | 160 | 180 |
| 90° BEND | | | | | | | |
| RESTRAINED LENGTH (FT) | 4 | 6 | 8 | 10 | 12 | 14 | 16 |
| NOMINAL PIPE SIZE (IN) | 54 | 76 | 99 | 120 | 140 | 160 | 180 |
| 45° BEND | | | | | | | |
| RESTRAINED LENGTH (FT) | 4 | 6 | 8 | 10 | 12 | 14 | 16 |
| NOMINAL PIPE SIZE (IN) | 23 | 32 | 41 | 50 | 58 | 67 | 75 |
| 22-1/2° BEND | | | | | | | |
| RESTRAINED LENGTH (FT) | 4 | 6 | 8 | 10 | 12 | 14 | 16 |
| NOMINAL PIPE SIZE (IN) | 11 | 15 | 20 | 24 | 28 | 32 | 36 |

NOTES:
1. REFER TO TYPICAL HORIZONTAL THRUST BLOCK DRAWING 1124 FOR DETAILS. INSTALL THRUST BLOCK ONLY WHEN METHOD "B" PIPE RESTRAINT IS UTILIZED.
2. FOR PIPE SIZES LARGER THAN 16" THE DESIGN ENGINEER SHALL PROVIDE CALCULATIONS FOR RESTRAINED JOINT LENGTHS TO CITY OF LOGANVILLE FOR REVIEW PRIOR TO INSTALLATION.
   RESTRAINED JOINT METHOD A: RESTRAINT JOINT PIPE AND FITTINGS
   RESTRAINED JOINT METHOD B: ONE (1) OF THE FOLLOWING DUAL (2) INDEPENDENT RESTRAINTS:
   I) MEG-A-LUGS PLUS THRUST BLOCKING
   II) MEG-A-LUGS PLUS RODDING

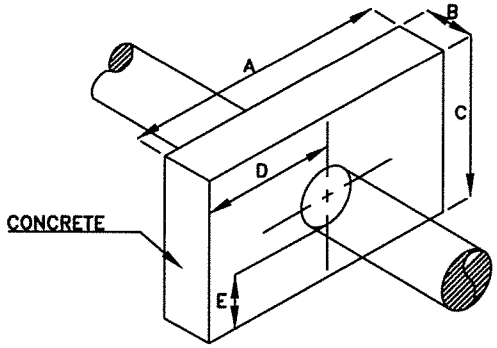
DESIGN CRITERIA:
1. THRUST RESTRAINT DIMENSIONS ARE BASED ON PRESSURE CLASS DUCTILE IRON PIPE WITH BITUMASTIC EXTERIOR COATING (WITHOUT POLYWRAP), MINIMUM SOIL BEARING PRESSURE OF 2,000 PSF, SILTY SAND SOIL, TEST PRESSURE OF 250 PSI, 4.0 FEET OF UNSATURATED SOIL COVER, CLASS "D" PIPE BENDING CONDITION, WITH A SAFETY FACTOR OF 1.5.

City of Loganville
where people matter

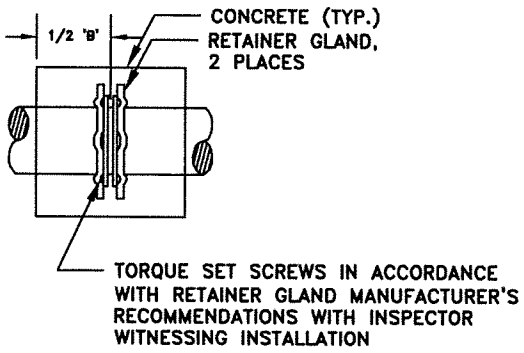
STANDARD DRAWING

**Typical Horizontal Thrust Restraint**

DATE: JUNE 21, 2019 SHEET: 1125




ISOMETRIC




ELEVATION

| PIPE SIZE | A | B | C | D | E | VOLUME CU.YDS. | CONC. WT. (LB) | THRUST (LB) |
|---|---|---|---|---|---|---|---|---|
| 4" | 2'-6" | 12" | 2'-6" | 1'-3" | 1'-0" | 0.23 | 919 | 4,524 |
| 6" | 2'-9" | 12" | 2'-9" | 1'-4 1/2" | 1'-1" | 0.27 | 1,095 | 9,348 |
| 8" | 3'-0" | 18" | 3'-0" | 1'-6" | 1'-2" | 0.47 | 1,924 | 16,082 |
| 10" | 4'-0" | 18" | 3'-6" | 2'-0" | 1'-4" | 0.74 | 2,999 | 24,192 |
| 12" | 4'-6" | 24" | 4'-6" | 2'-3" | 1'-9" | 1.43 | 5,790 | 34,212 |
| 14" | 5'-6" | 24" | 4'-6" | 2'-9" | 1'-8" | 1.74 | 7,042 | 45,963 |
| 16" | 6'-6" | 24" | 5'-0" | 3'-3" | 1'-10" | 2.29 | 9,255 | 59,447 |

NOTES:
1. CONCRETE SHALL BE POURED AGAINST UNDISTURBED EARTH EXCEPT WHERE FORMWORK IS A MUST. AFTER CONCRETE IS CURED THE FORMWORK SHALL BE REMOVED.
2. MAINS GREATER THAN 16" DIAMETER SHALL BE INDIVIDUALLY CALCULATED.
3. SOIL CONDITIONS SHALL BE VERIFIED BEFORE THRUST RESTRAINT DESIGN IS IMPLEMENTED.
4. PIPE MUST BE DUCTILE IRON.

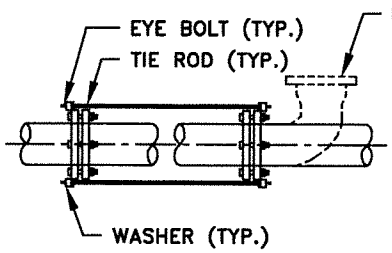
DESIGN CRITERIA:
1. COLLAR DIMENSIONS ARE BASED ON A SOIL BEARING CAPACITY OF 2000 PSF, A RATED TEST PRESSURE OF 250 PSI, AND 3000 CLASS 'A' CONCRETE.
2. UNDER ADVERSE CONSTRUCTION CONDITIONS, CONCRETE SHALL BE "HIGH EARLY" TYPE.

City of Loganville
where people matter

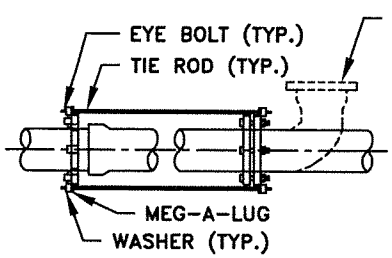
STANDARD DRAWING

**Thrust Restraint Collar**

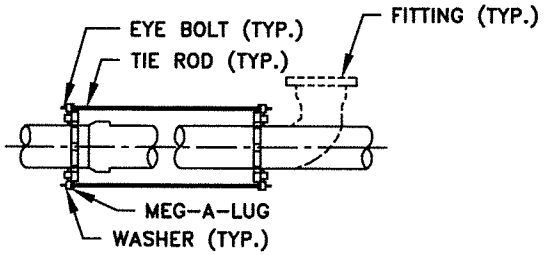
DATE: JUNE 21, 2019 SHEET: 1126




EYE BOLT TO EYE BOLT
TYPE 1 FITTING RESTRAINT




EYE BOLT TO MEG-A-LUG
TYPE 2 FITTING RESTRAINT




MEG-A-LUG TO MEG-A-LUG
TYPE 3 FITTING RESTRAINT

| PIPE SIZE (IN.) | ROD SIZE (IN.) | NO.OF RODS (TEES,PLUGS, AND VALVES) | NO.OF RODS (11-1/4° TO 22-1/2° BENDS) | NO.OF RODS (45°-90° BENDS) |
|---|---|---|---|---|
| 6 | 3/4 | 3 | 2 | 3 |
| 8 | 3/4 | 3 | 3 | 3 |
| 10 | 3/4 | 4 | 4 | 4 |
| 12 | 3/4 | 4 | 4 | 6 |
| 14 | 3/4 | 6 | 4 | 6 |
| 16 | 3/4 | 6 | 6 | 6 |
| 20 | 3/4 | 6 | 6 | 6 |
| 24 | 3/4 | 8 | 8 | 8 |
| 30 | 1 | 6 | 6 | 6 |
| 36 | 1 | 6 | 6 | 6 |

NOTES:
1. RODS SHALL BE A MINIMUM 304 S.S. ALL THREAD RODS WITH A MINIMUM YIELD STRENGTH OF 50,000 PSI.
2. USE LISTED NUMBER OF RODS AS SHOWN ON TIE ROD CHART (MINIMUM NUMBER SHOWN).
3. RODS MUST HAVE A MINIMUM 6" OF THREAD ON EACH END.
4. ALL STEEL MUST BE CLEANED AND COATED WITH ROYSTON ROSKOTE, KOPPERS SUPER SERVICE BLACK, OR APPROVED EQUAL.
5. ALL NUTS USED ON TIE RODS MUST HAVE A WASHER.

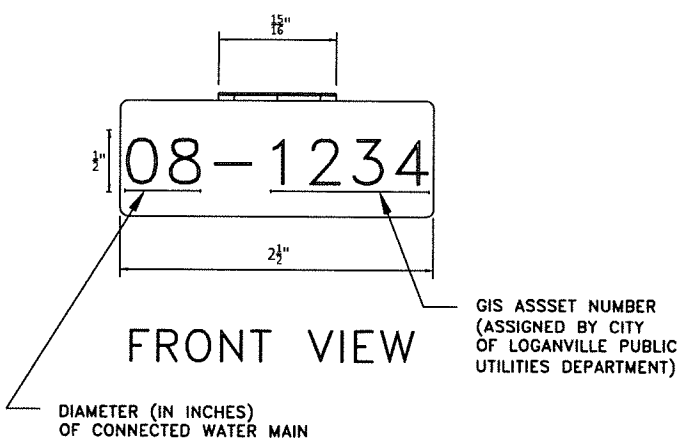
DESIGN CRITERIA:
1. FITTING SHOWN IS REPRESENTATIVE FOR ALL FITTINGS, VALVES, DEAD ENDS, AND PLUGS.
2. FOR WATER MAINS AT A RATED TEST PRESSURE OF 250 PSI.

City of Loganville
where people matter

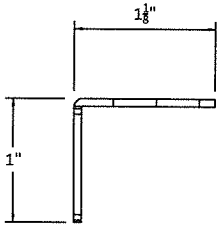
STANDARD DRAWING

**Typical Tie Rod Restraint Installation**

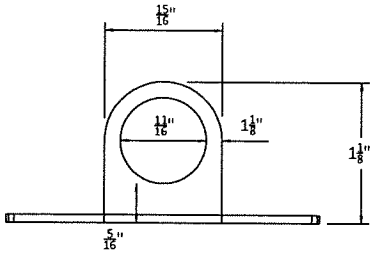
DATE: JUNE 21, 2019 SHEET: 1127



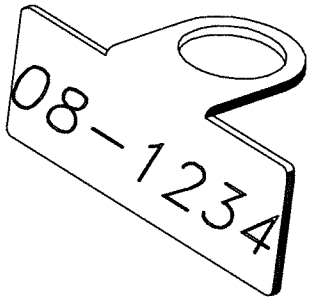

FRONT VIEW




SIDE VIEW




TOP VIEW




ISOMETRIC VIEW

NOTES:

1. DEVELOPER SHALL COORDINATE WITH THE LOGANVILLE PUBLIC UTILITIES DEPARTMENT TO DETERMINE THE GIS ASSET NUMBER TO BE ASSIGNED TO THE FIRE HYDRANT.
2. THE IDENTIFICATION TAG SHALL NOTE THE DIAMETER OF THE ATTACHED WATER LINE, FOLLOWED BY THE GIS ASSET NUMBER ASSIGNED BY THE CITY OF LOGANVILLE.
3. UPON DETERMINATION OF THE GIS ASSET NUMBER, THE IDENTIFICATION TAG SHALL BE AFFIXED TO THE FACE OF THE HYDRANT, LINING UP WITH THE OUTLET NOZZLE.
4. THE IDENTIFICATION TAG WILL BE THREADED ON THE BOLT CONNECTING THE HYDRANT BONNET TO THE BARREL (OUTLET NOZZLE SIDE).

DESIGN CRITERIA:

1. IDENTIFICATION TAG SHALL BE FABRICATED FROM BRASS.

City of Loganville
where people matter

STANDARD DRAWING

**Fire Hydrant Identification Tag Detail**

DATE: JUNE 21, 2019 SHEET: 1128