



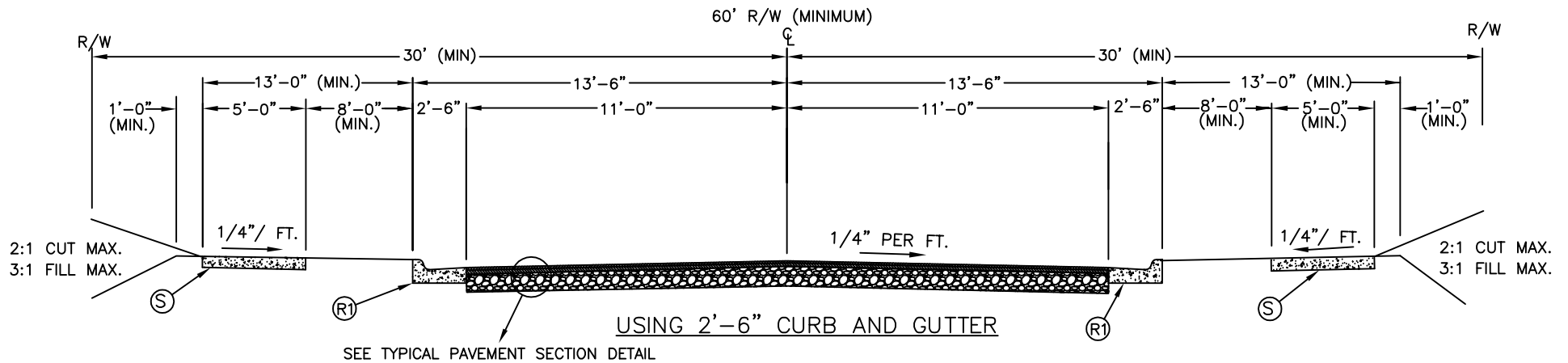
TECHNICAL STANDARDS AND SPECIFICATIONS MANUAL

Creedmoor, North Carolina

Effective: July 1, 2012

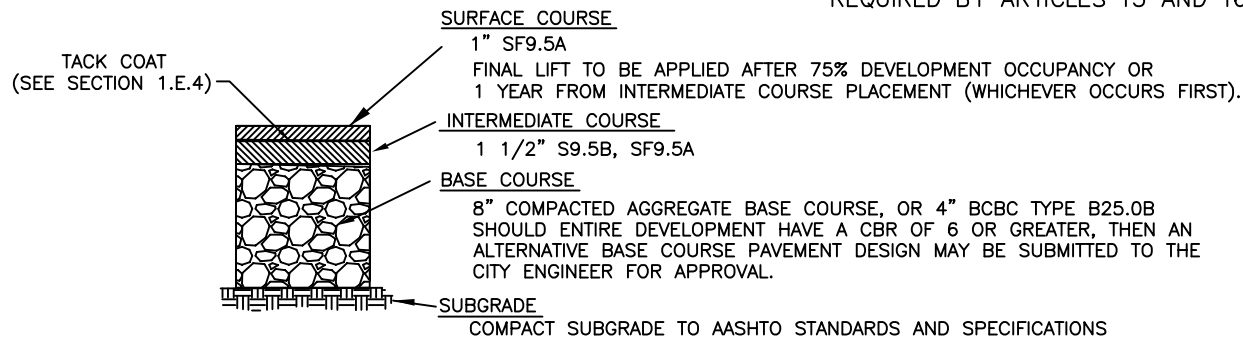
F. Richard Flowe, AICP – Planning, Zoning, & Subdivision Administrator

Brian M. Wilson, PE – Public Works Engineer



NOTES:

1. AN ALTERNATIVE PAVEMENT DESIGN MAY BE REQUIRED BASED ON SPECIFIC TRAFFIC PARAMETERS.
2. ALL DIMENSIONS NOTED AS MINIMUMS ARE SUBJECT TO STANDARDS REQUIRED BY ARTICLES 13 AND 16 OF THE MIDLAND DEVELOPMENT ORDINANCE.



TYPICAL PAVEMENT SECTION (MINIMUM)

KEY

- (R1) 2'-6" CURB AND GUTTER
- (S) 4" CONCRETE SIDEWALK

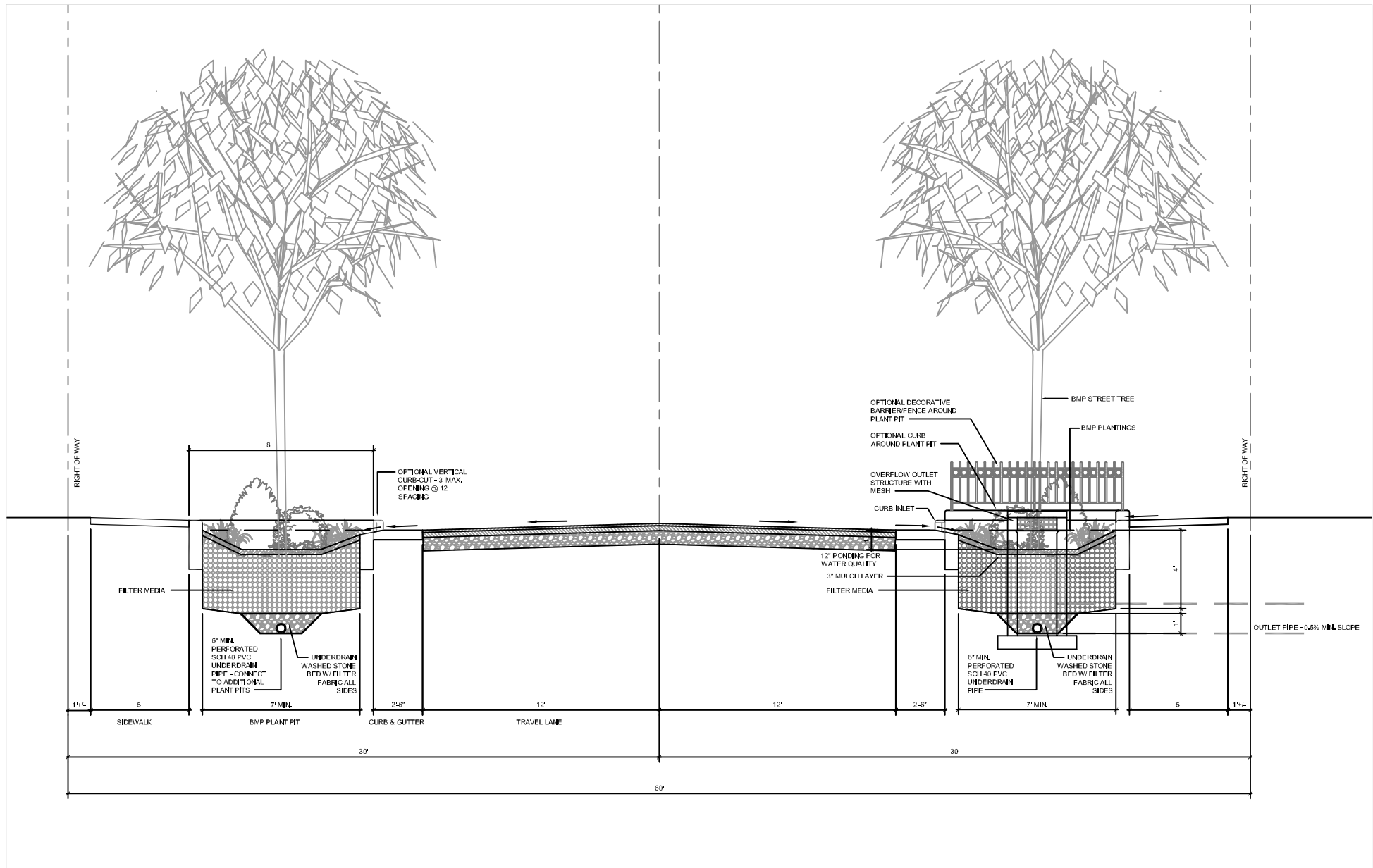
CITY OF
CREEDMOOR, NC

STREET SECTION
60' RIGHT-OF-WAY

STD
1.01

REVISIONS

NO	DATE	BY	COMMENT

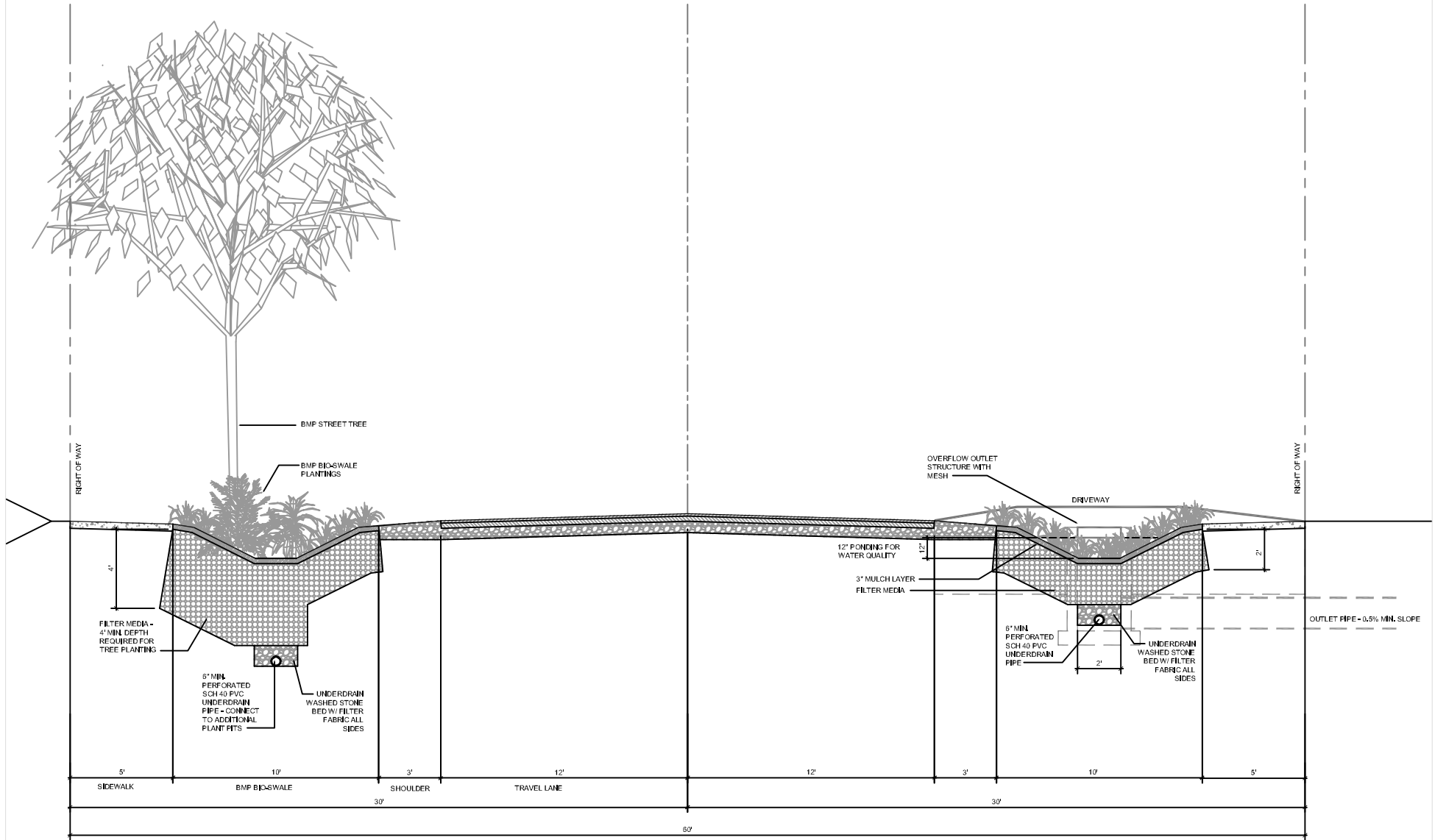


CITY OF CREEDMOOR, NC

URBAN/NEIGHBORHOOD STREET SECTION WITH STORM BMP

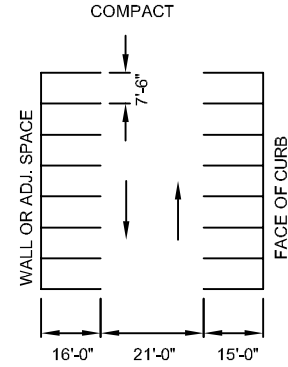
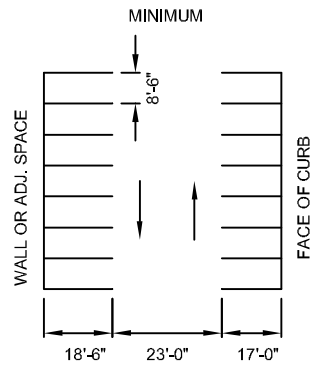
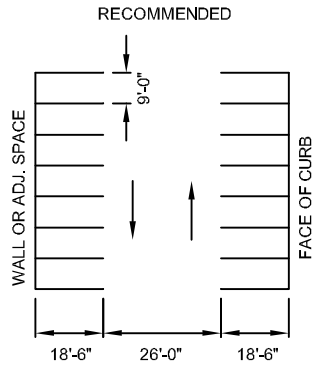
STD 1.21

REVISIONS			
NO	DATE	BY	COMMENT

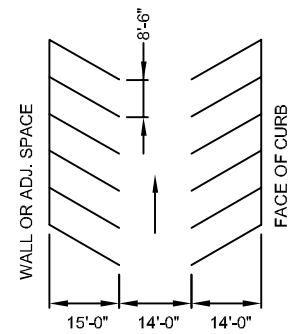
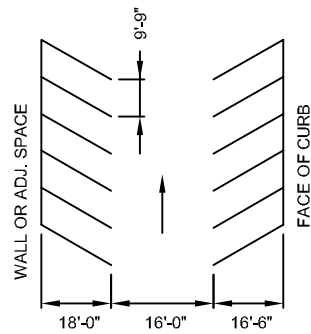
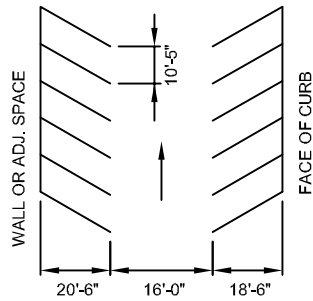


CITY OF CREEDMOOR, NC	RURAL STREET SECTION WITH STORM BMP	STD 1.22	REVISIONS			
			NO	DATE	BY	COMMENT

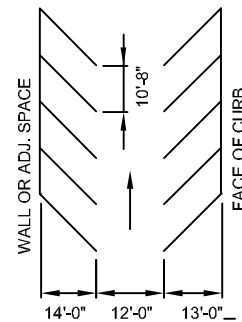
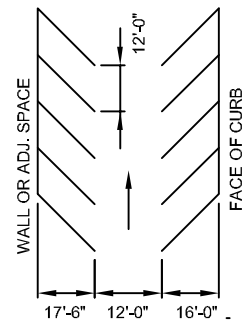
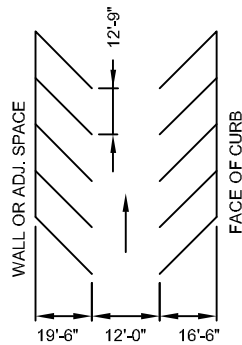
PARKING ANGLE 90°
(TWO WAY OPERATION ONLY)



PARKING ANGLE 60°
(ONE WAY OPERATION ONLY)



PARKING ANGLE 45°
(ONE WAY OPERATION ONLY)

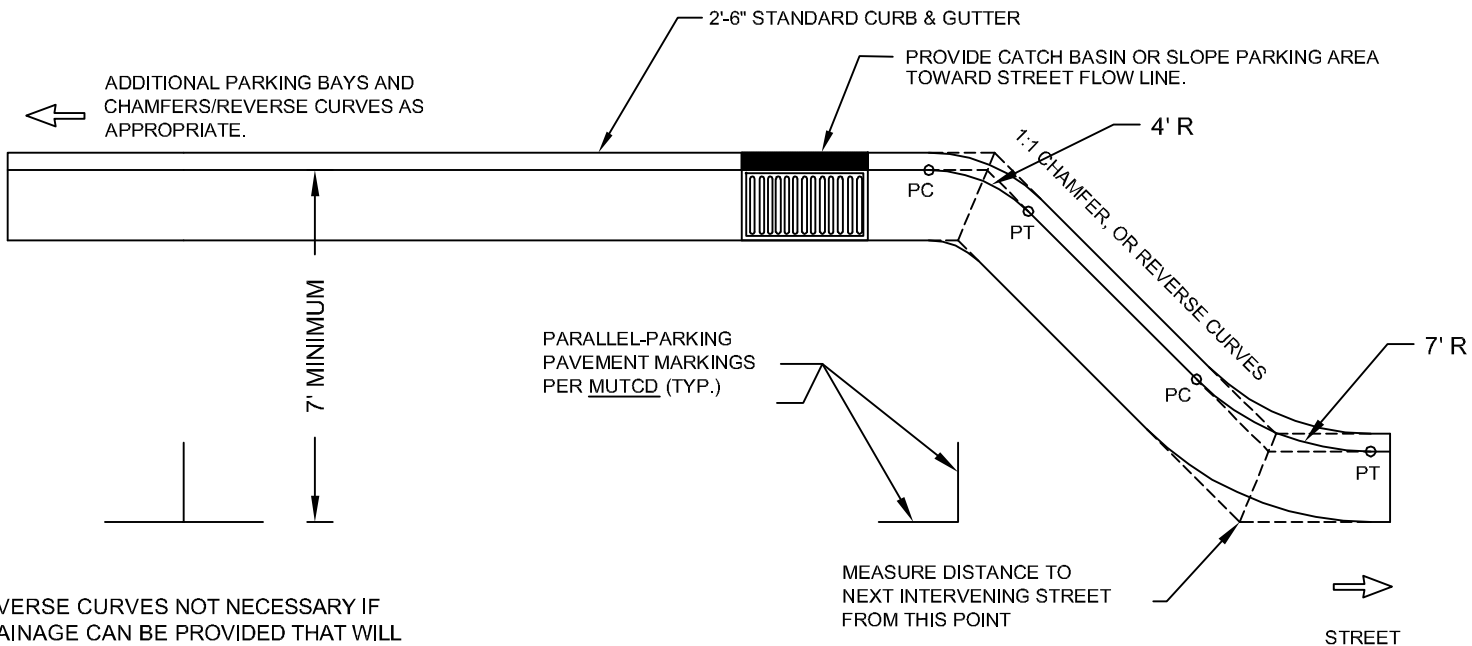


NOTES:

1. FOR ACCESSIBLE PARKING STANDARDS/SIGNAGE SEE ADDITIONAL STANDARDS.
2. PAVEMENT MARKINGS SHALL BE 4" WHITE PAINT.
3. ALTERNATIVE PARKING ANGLES, AISLE WIDTHS, AND OPERATION (TWO-WAY ANGLED PARKING OR REVERSE-ANGLE PARKING) WILL BE CONSIDERED ON A CASE-BY-CASE BASIS.

REVISIONS

NO	DATE	BY	COMMENT



NOTES:

1. CHAMFERS/REVERSE CURVES NOT NECESSARY IF ADEQUATE DRAINAGE CAN BE PROVIDED THAT WILL ENSURE THAT SEDIMENT, WATER, DEBRIS, ETC., DOES NOT COLLECT IN 90-DEGREE CORNERS.
2. PARALLEL ACCESSIBLE SPACES AND LOADING ZONES TO BE REVIEWED ON A CASE-BY-CASE BASIS.
3. FOR PARKING BAYS THAT ARE 8 FEET IN WIDTH OR GREATER, THE PAVEMENT MARKINGS SHALL BE SET AT ONE (1) FOOT LESS THAN THE STALL WIDTH.
4. SEPARATION FROM INTERVENING STREET DISTANCES SHALL BE REVIEWED AND APPROVED BY THE CITY.
5. POSITIVE DRAINAGE SHALL BE PROVIDED EITHER BY INSTALLATION OF APPROPRIATE DRAINAGE STRUCTURES OR SLOPE PARKING AREA TO STREET FLOW LINE.

CITY OF
CREEDMOOR, NC

PARALLEL PARKING STANDARDS

**STD
2.02**

REVISIONS			
NO	DATE	BY	COMMENT

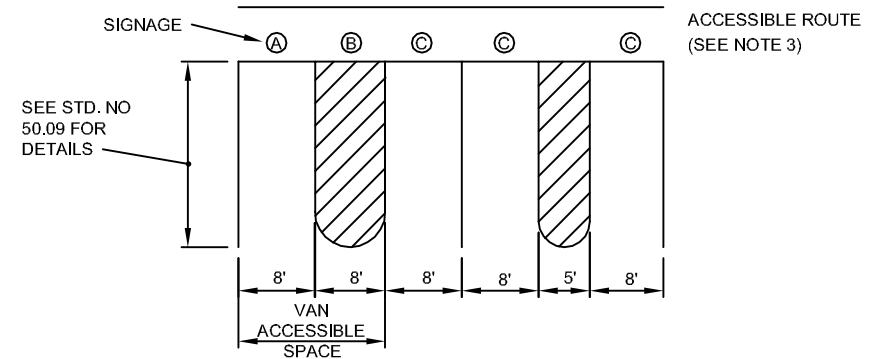
ACCESSIBLE PARKING REQUIREMENTS

TOTAL PARKING SPACES PROVIDED	MINIMUM NUMBER OF ACCESSIBLE SPACES REQUIRED	MINIMUM NUMBER OF ACCESSIBLE SPACES REQUIRED TO BE VAN ACCESSIBLE
1 TO 25	1	1
26 TO 50	2	1
51 TO 75	3	1
76 TO 100	4	1
101 TO 150	5	1
151 TO 200	6	1
201 TO 300	7	1
301 TO 400	8	1
401 TO 500	9	2
501 TO 1000	2% OF TOTAL	1 IN EVERY 8 ACCESSIBLE SPACES
1001 AND OVER	20 PLUS 1 FOR EACH 100 OVER 1000	1 IN EVERY 8 ACCESSIBLE SPACES

SECTION 4.1.2 (5) OF THE AMERICANS WITH DISABILITIES ACT (ADA).
SEE 4.1.2,(5) (d) FOR MEDICAL CARE FACILITIES

NOTES:

1. ALL 12"x18" ACCESSIBLE SIGNS (R7-8a & R7-1) SHALL BE MOUNTED AT 7 FEET FROM GRADE TO BOTTOM EDGE OF SIGN FACE (MUTCD). MOUNTING HEIGHT CAN BE REDUCED TO 5 FEET IF PLACED IN AN AREA BETWEEN SIDEWALK AND BUILDING FACE IN WHICH PEDESTRIANS ARE NOT EXPECTED TO USE.
2. REFER TO MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, (MUTCD) U.S. DEPARTMENT OF TRANSPORTATION AND NORTH CAROLINA DEPARTMENT OF TRANSPORTATION SUPPLEMENT.
3. IF ACCESSIBLE ROUTE IS A RAISED SIDEWALK AREA, THEN RAMPS ARE REQUIRED AT LOADING ZONE AREA.



ONE OUT OF EVERY EIGHT (8) ACCESSIBLE SPACES, BUT NOT LESS THAN ONE, IS REQUIRED TO BE VAN ACCESSIBLE.

PARKING SPACE PAVEMENT MARKINGS

(A)

R7-8e
12"x6"

MUTCD
R7-8a
12"x18"

R7-8D
12"x9"

(B)

MUTCD
R7-1
12"x18"

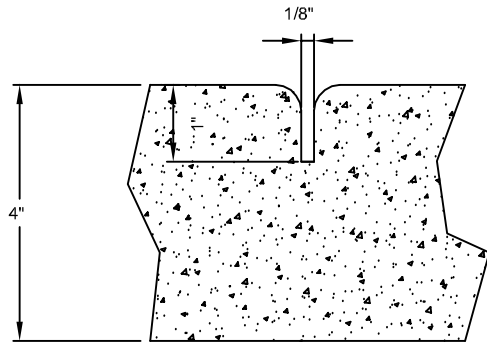
REQUIRED ACCESSIBLE
RESERVED PARKING SIGN

(C)

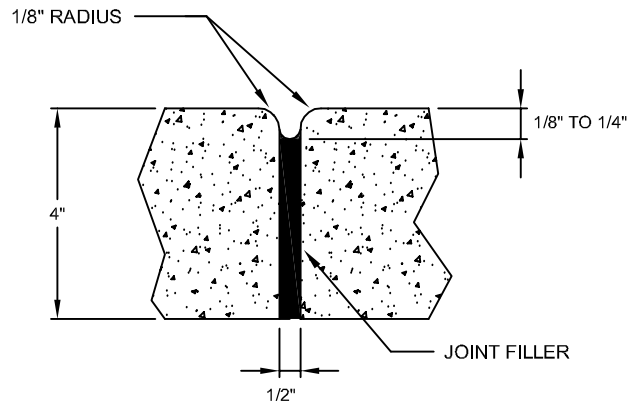
MUTCD
R7-8a
12"x18"

R7-8D
12"x9"

REVISIONS			
NO	DATE	BY	COMMENT



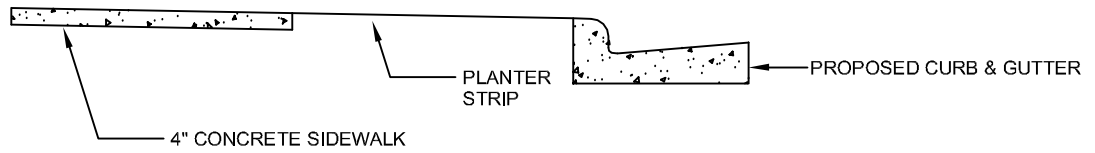
GROOVE JOINT IN SIDEWALK



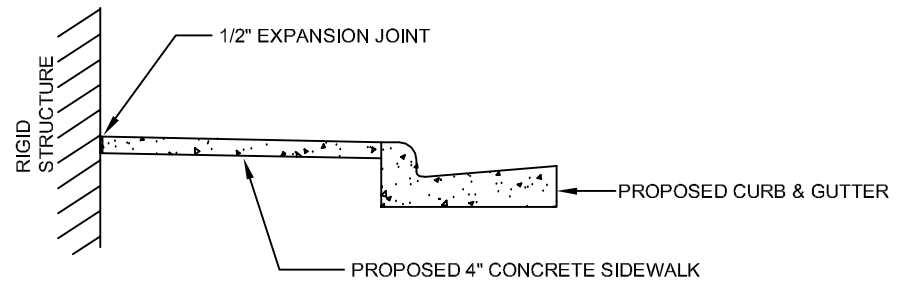
TRANSVERSE EXPANSION JOINT IN SIDEWALK

GENERAL NOTES:

1. A GROOVE JOINT 1" DEEP WITH 1/8" RADII SHALL BE REQUIRED IN THE CONCRETE SIDEWALK AT 5' INTERVALS. ONE 1/2" EXPANSION JOINT WILL BE REQUIRED AT 45' INTERVALS NOT TO EXCEED 50' AND MATCHING EXPANSION/CONSTRUCTION JOINT IN ADJACENT CURB. A SEALED 1/2" EXPANSION JOINT WILL BE REQUIRED WHERE THE SIDEWALK JOINS ANY RIGID STRUCTURE.
2. SIDEWALK AT DRIVEWAY ENTRANCES TO BE 6" THICK.
3. WIDTH OF SIDEWALK ON ALL STREETS SHALL BE A MINIMUM OF 5'.
4. CONCRETE COMPRESSIVE STRENGTH SHALL BE 3600 PSI. IN 28 DAYS.
5. ZONING CONDITIONS MAY REQUIRE ADDITIONAL WIDTH SIDEWALKS WHICH SHALL SUPERSEDE THESE STANDARD DIMENSIONS SHOWN.

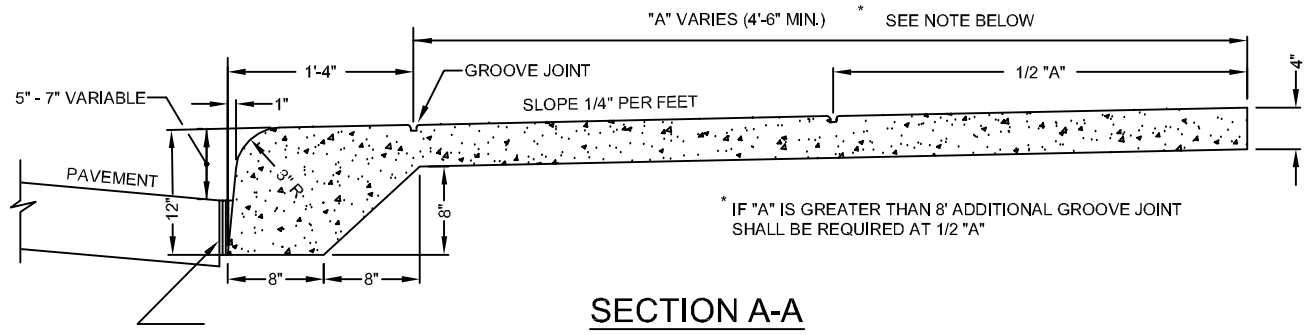
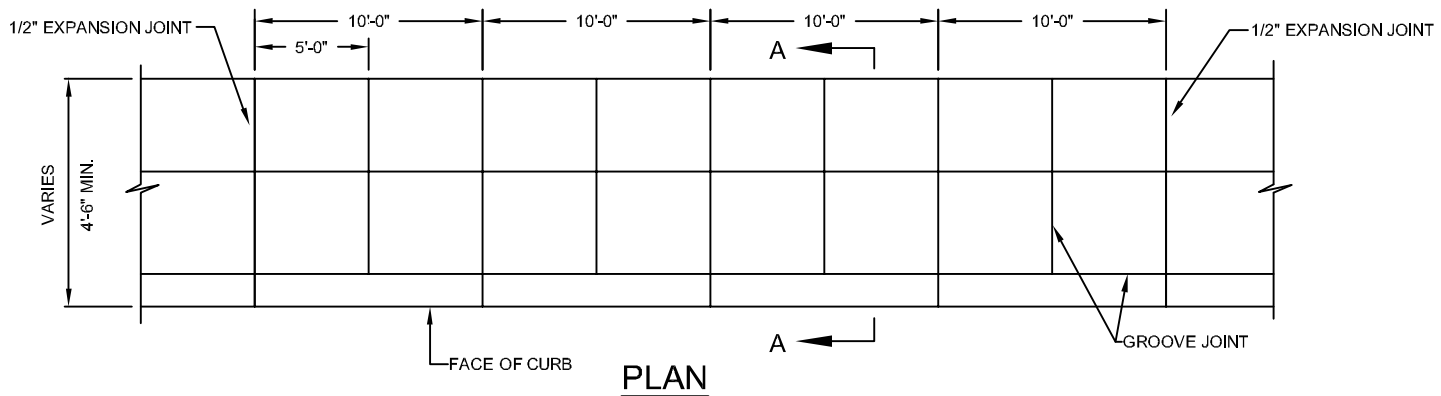


CONCRETE SIDEWALK WITH PLANTER STRIP



DETAILS SHOWING EXPANSION JOINTS FOR CONCRETE SIDEWALK

REVISIONS			
NO	DATE	BY	COMMENT



TWO 1/2" THICK PIECES BITUMINOUS FIBER REQUIRED IF SUBBASE IS CONCRETE. MUST BE SEALED WITH APPROVED JOINT SEALER.

SECTION A-A

GENERAL NOTES:

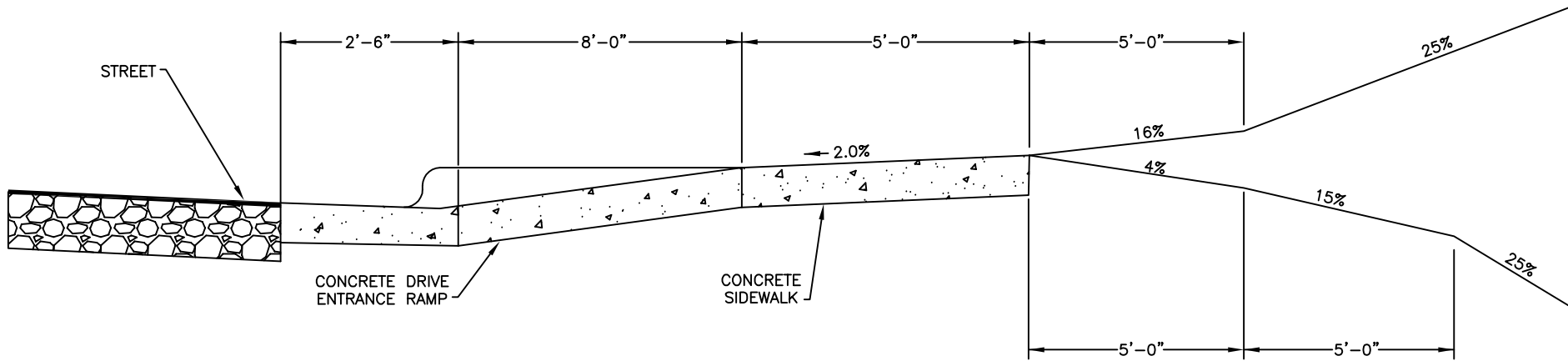
1. A GROOVE JOINT 1" DEEP WITH 1/3" RADII SHALL BE REQUIRED IN THE CONCRETE SIDEWALK AT 5' INTERVALS. ONE 1/2" EXPANSION JOINT WILL BE REQUIRED AT 40' INTERVALS. A 1/2" EXPANSION JOINT WILL BE REQUIRED WHERE THE SIDEWALK JOINS ANY RIGID STRUCTURE.
2. ALL CONCRETE TO BE 3600 P.S.I. COMPRESSIVE STRENGTH.
3. SEE STANDARD FOR DETAIL OF EXPANSION JOINT AND GROOVE JOINT.
4. SEE STANDARD FOR DETAIL OF DRIVEWAY.
5. MONOLITHIC CURB AND SIDEWALK TO BE CONSTRUCTED ONLY WHEN APPROVED BY THE APPROPRIATE PUBLIC WORKS ENGINEER.

CITY OF CREEDMOOR, NC

MONOLITHIC CURB AND SIDEWALK

STD 3.02

REVISIONS			
NO	DATE	BY	COMMENT



NOTE:

GRADES ARE SHOWN FOR SINGLE FAMILY & TWO FAMILY LOTS ONLY. COMMERCIAL TYPE USES MUST FLATTEN GRADES ACCORDINGLY FOR HIGHER VOLUMES OF TRAFFIC, ACCORDING TO THE TOWN ENGINEER'S DIRECTION.

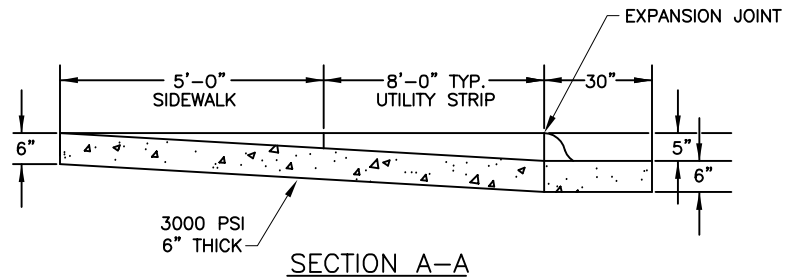
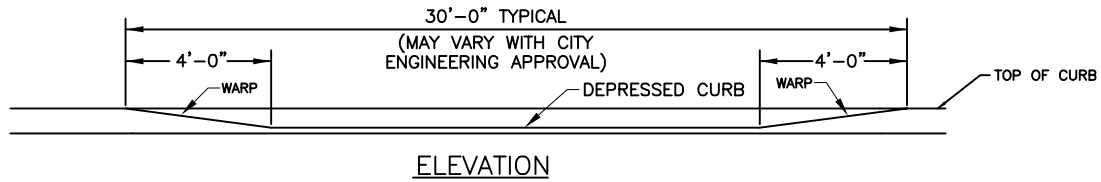
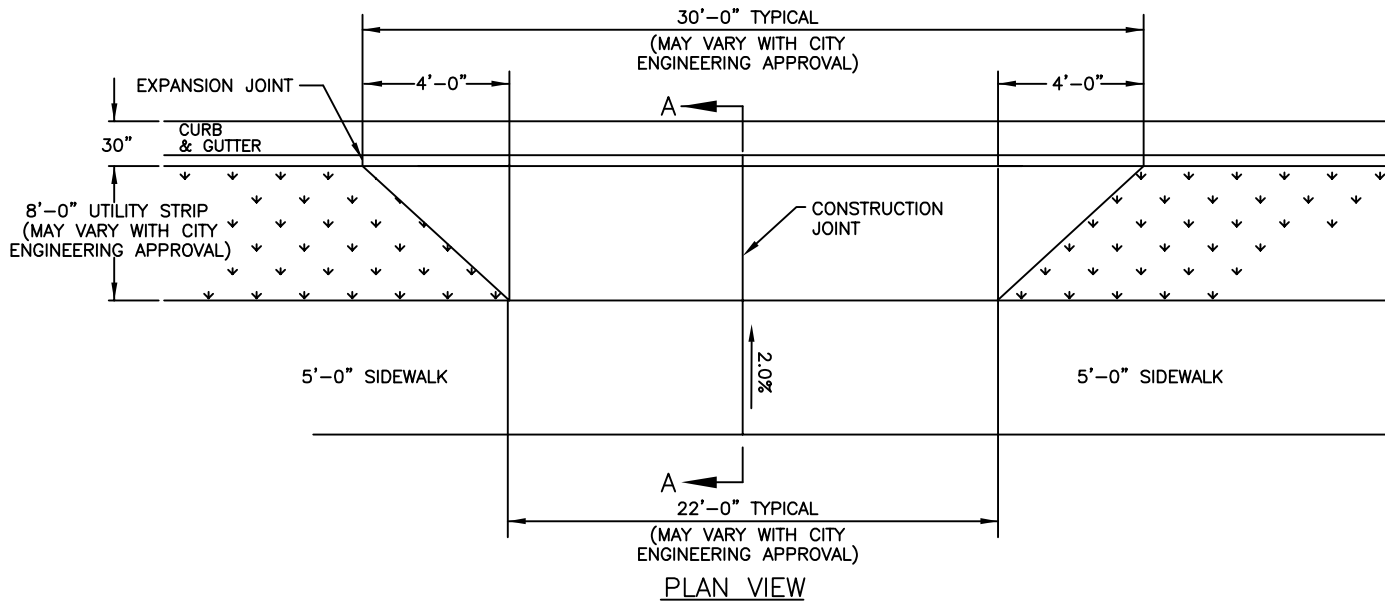
NOT TO SCALE

CITY OF
CREEDMOOR, NC

DRIVEWAY GRADES

STD
4.01

REVISIONS			
NO	DATE	BY	COMMENT



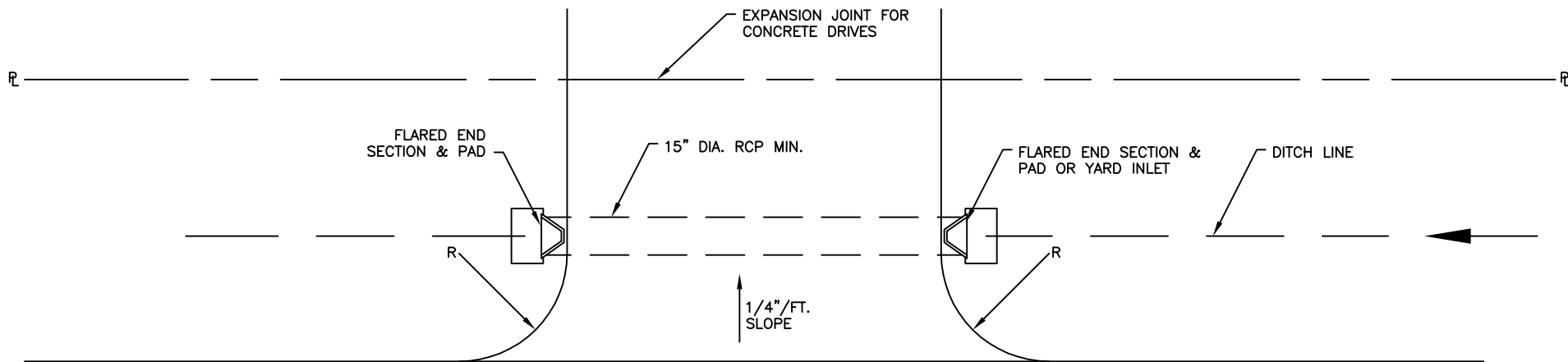
CITY OF
CREEDMOOR, NC

FAN TYPE DRIVEWAY ENTRANCE

STD
4.02

REVISIONS

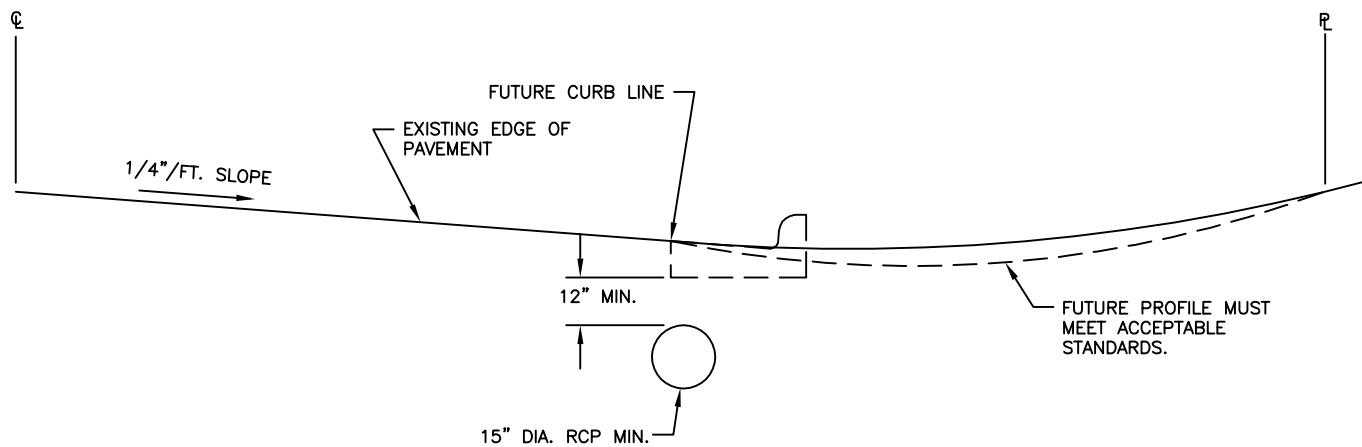
NO	DATE	BY	COMMENT



NOTES:

1. FOR SINGLE FAMILY OR TWO FAMILY USE ONLY.
2. ASPHALT DRIVES ARE PREFERRED, CONCRETE WILL BE ALLOWED. IF CONCRETE DRIVE IS USED, AN EXPANSION JOINT SHALL BE PROVIDED AT THE PROPERTY LINE OR BACK OF FUTURE SIDEWALK LINE - WHICHEVER IS FURTHER FROM THE STREET.
3. GRADE PROFILE SHALL BE DESIGNED TO PROPERLY TIE IN WITH THE ULTIMATE WIDENING OF THE STREET.
4. DRIVEWAY PROFILE SHALL FALL @ 1/4" PER FOOT FROM EDGE OF PAVEMENT TO ϕ OF ROADSIDE DITCH. PIPE SHALL BE PLACED TO HAVE 12" OF CLEARANCE BELOW FINISHED PAVEMENT AT THIS POINT.

PLAN
NO CURB & GUTTER ON STREET



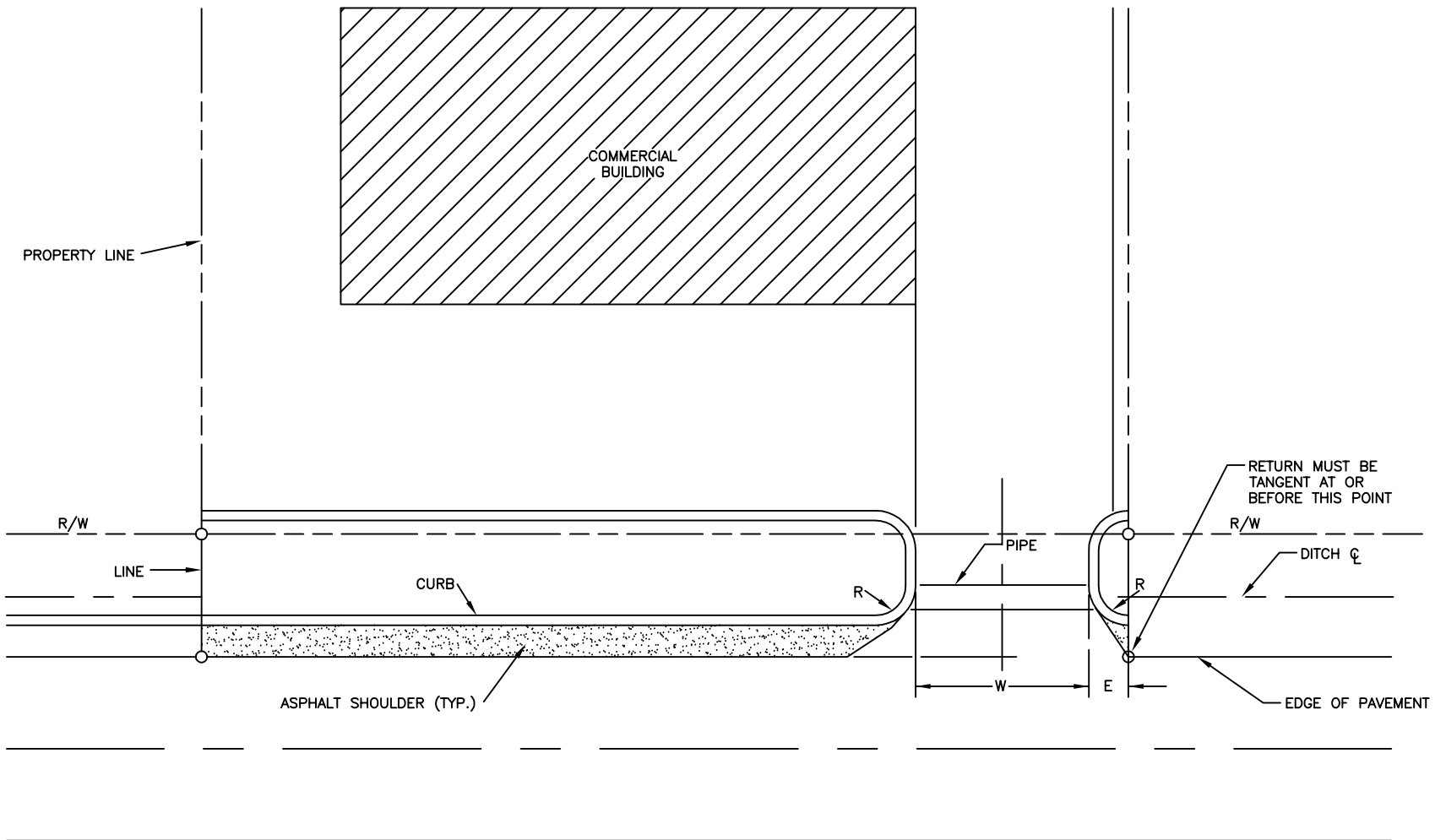
SECTION
NO SCALE

CITY OF
CREEDMOOR, NC

DRIVEWAY
DITCH SECTION STREET

STD
4.03

REVISIONS			
NO	DATE	BY	COMMENT



1. R - 10' MIN., 30' MAX.
 E - 10' MIN.
 W - ONE WAY: 12' MIN., 20' MAX.
 - TWO WAY: 20' MIN., 36' MAX.
2. ALL RADII ARE TO BACK OF CURB.

NOT TO SCALE

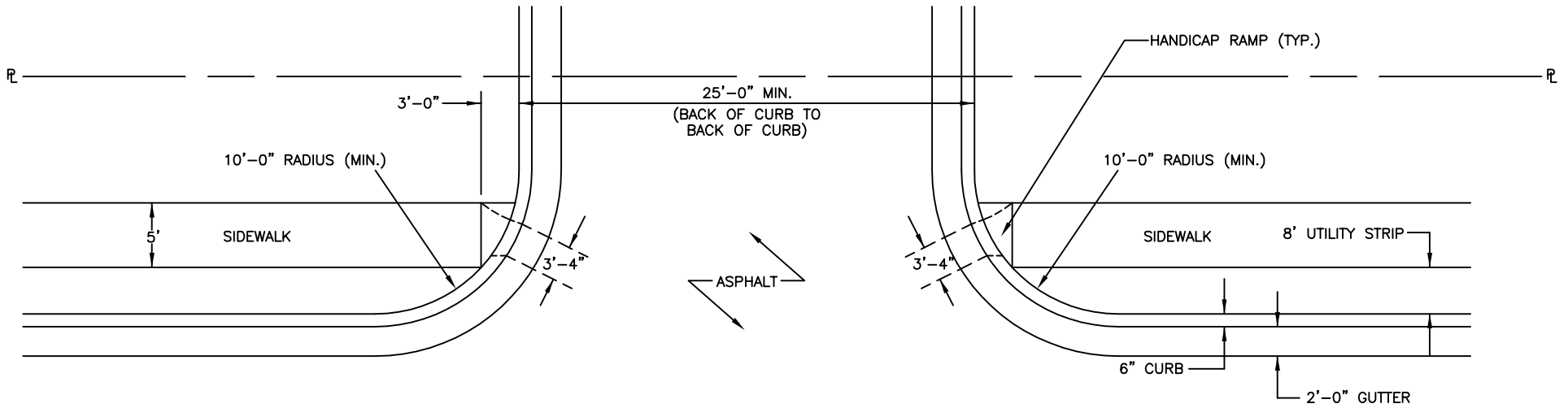
CITY OF
CREEDMOOR, NC

COMMERCIAL SINGLE DRIVEWAY
DITCH SECTION

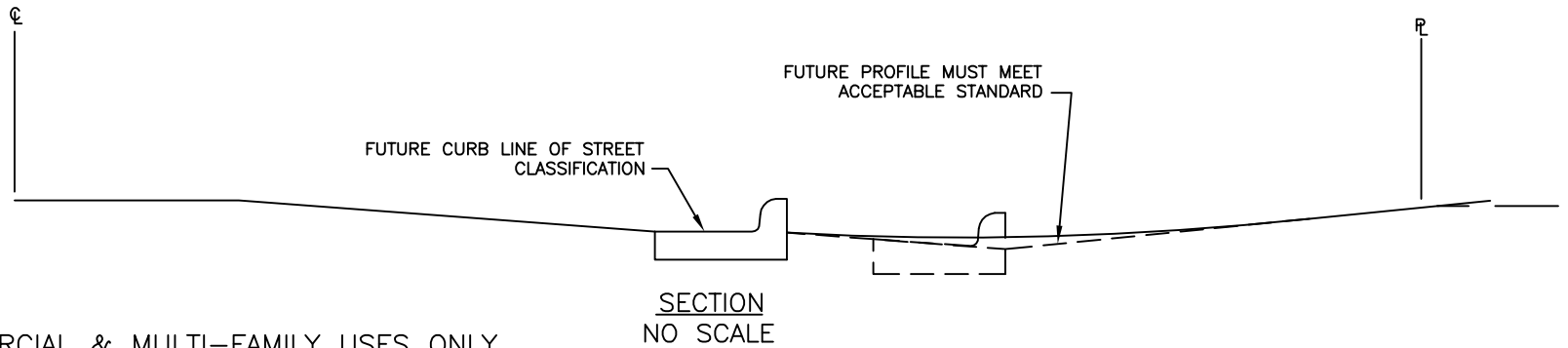
STD
4.04

REVISIONS

NO	DATE	BY	COMMENT



PLAN
WITH CURB & GUTTER



NOTES:

1. FOR COMMERCIAL & MULTI-FAMILY USES ONLY.
2. DRIVES TO BE GRADED TO DRAIN TOWARD STREET FROM PROPERTY LINE & AWAY FROM STREET FROM PROPERTY LINE UNLESS STORM DRAINAGE STRUCTURES ARE PROVIDED TO INTERCEPT STORM FLOWS.
3. DRIVE GRADE PROFILE SHALL BE DESIGNED TO TIE IN WITH ULTIMATE WIDENING OF STREET.

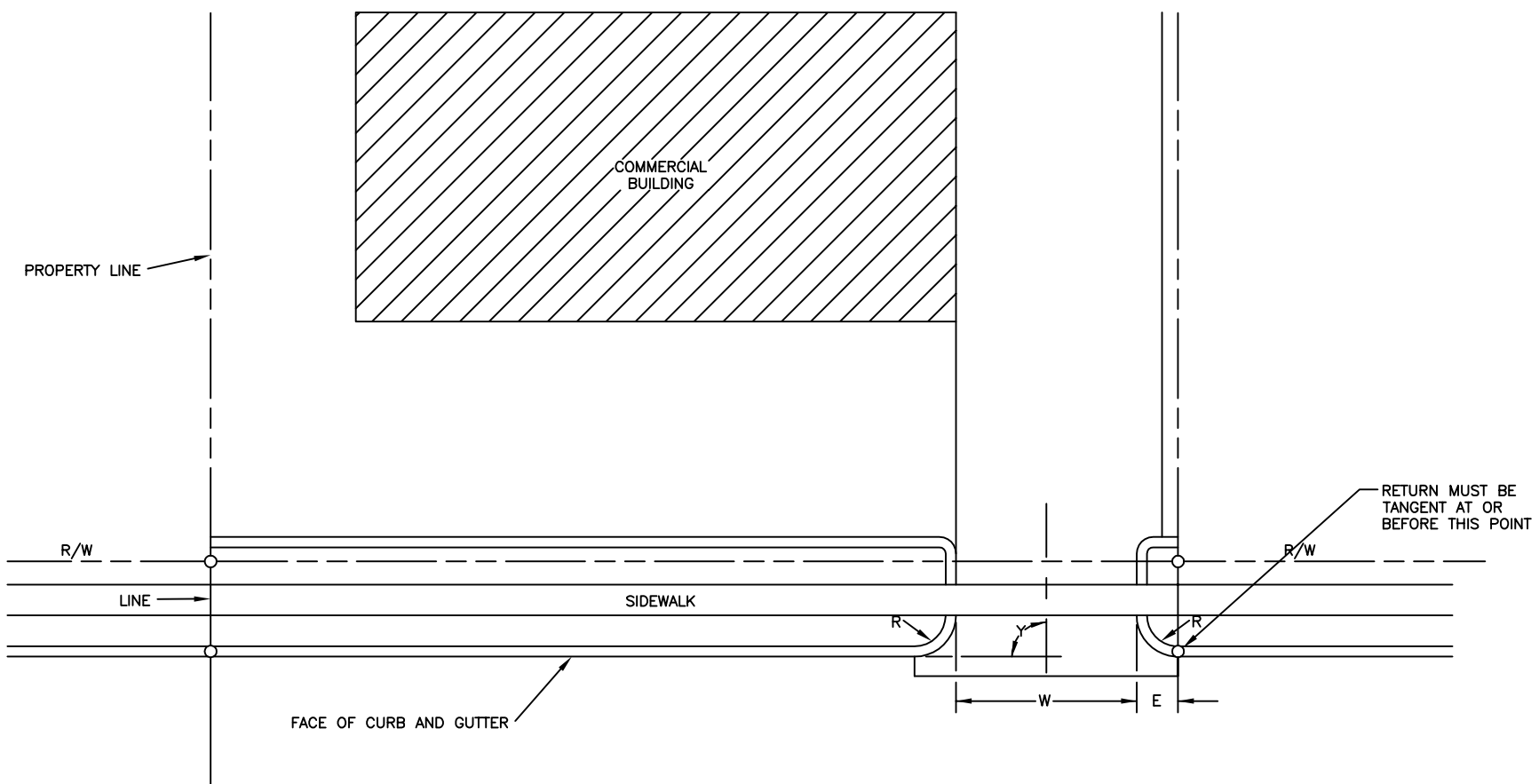
CITY OF
CREEDMOOR, NC

DRIVEWAY – STREET TYPE,
CURB & GUTTER SECTION

STD
4.05

REVISIONS

NO	DATE	BY	COMMENT



1. R - 3' (CITY STD. RAMP)
 - 10' MIN., 20' MAX. (STREET TYPE)
- W - (STREET TYPE)
 - ONE WAY: 12' MIN., 20' MAX.
 - TWO WAY: 20' MIN., 36' MAX.
- E - 3' MIN.
- Y - 90° PREFERRED
 - 75°-90° WITH CITY ENGINEERING APPROVAL
2. ALL RADII ARE TO BACK OF CURB.

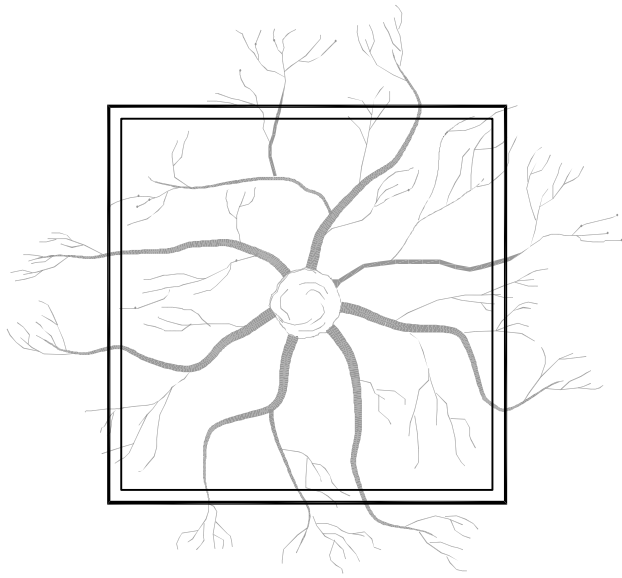
NOT TO SCALE

CITY OF
CREEDMOOR, NC

COMMERCIAL SINGLE DRIVEWAY
CURB AND GUTTER

STD
4.06

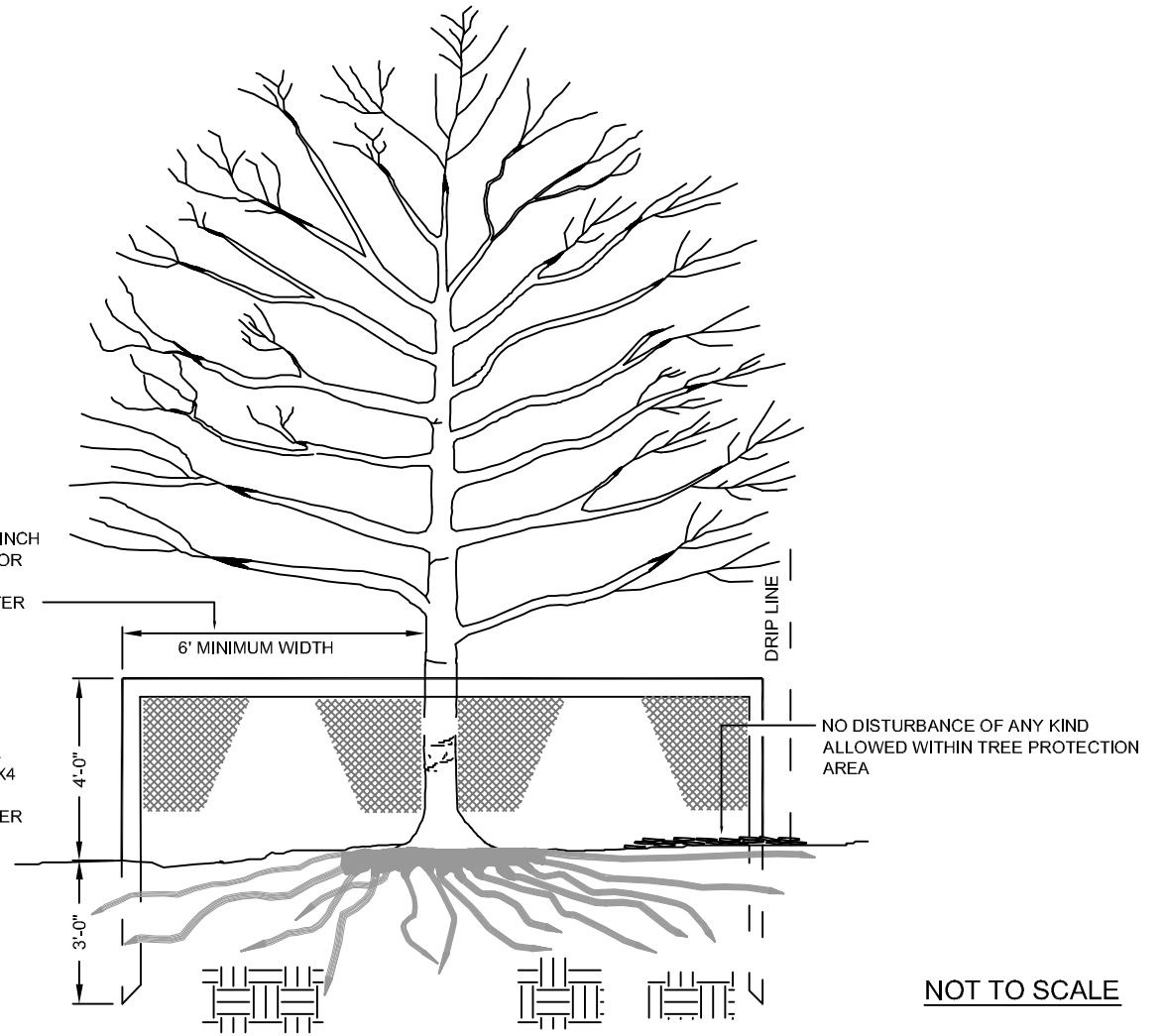
REVISIONS			
NO	DATE	BY	COMMENT



PLAN VIEW OF TREE PROTECTION

ONE FOOT FOR EACH INCH
OF TRUNK DIAMETER OR
1/2 HEIGHT OF TREE -
WHICHEVER IS GREATER

TREE PROTECTION BARRIERS TO BE
2X4 MIN. STANDARDS AND EITHER 1X4
RAILS (3 PER SIDE) OR ORANGE
SAFETY FENCING AROUND PERIMETER



NOT TO SCALE

NOTES:

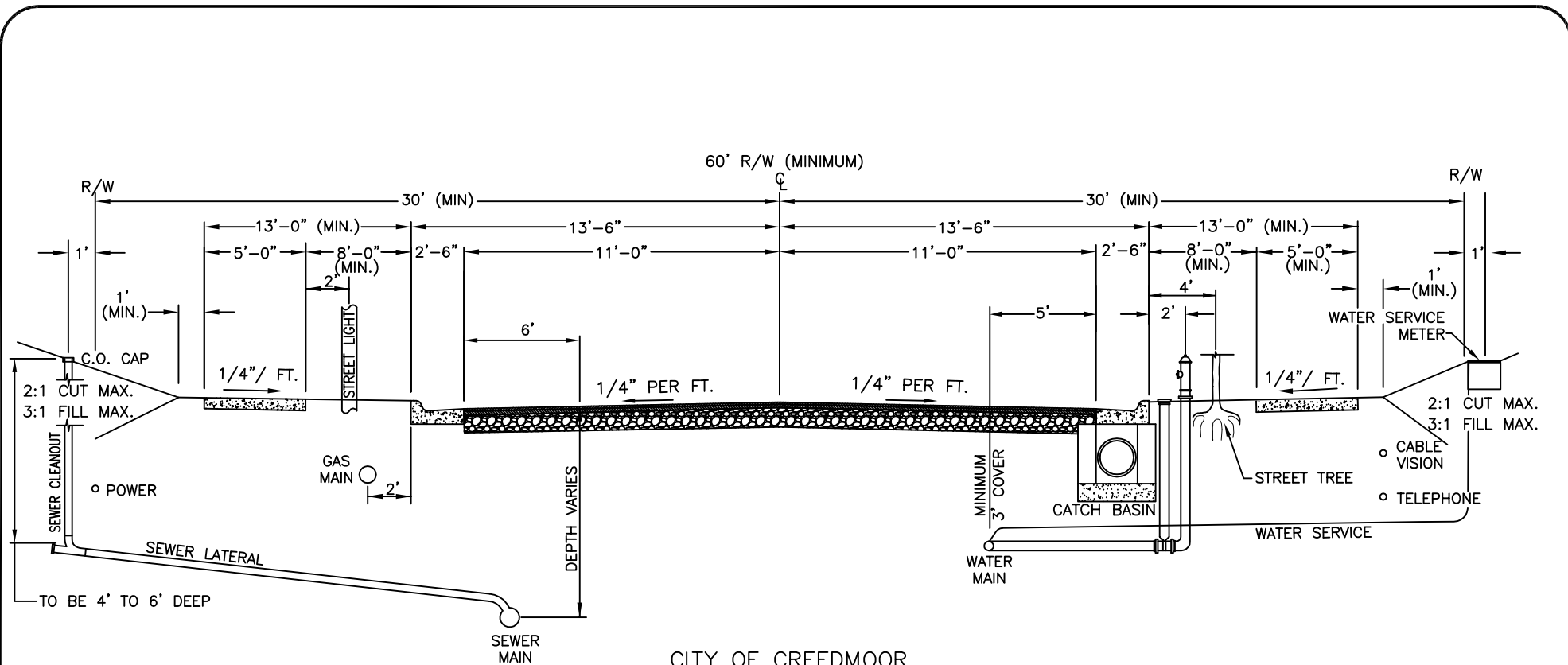
1. REMOVE ALL TREE PROTECTION BARRIERS UPON COMPLETION OF PROJECT.
2. PLANTING PLANS OR GRADING PLANS SHALL INDICATE LOCATIONS OF ALL TREE PROTECTION FOR INDIVIDUAL AND/OR CLUSTERS OF TREES TO BE PROTECTED.

CITY OF
CREEDMOOR, NC

TREE PROTECTION BARRIER

STD
5.01

REVISIONS			
NO	DATE	BY	COMMENT



CITY OF CREEDMOOR
TYPICAL UTILITY PLACEMENT

NOTES:

1. ALL DIMENSIONS NOTED AS MINIMUMS ARE SUBJECT TO STANDARDS REQUIRED BY ARTICLES 13 AND 16 OF THE CREEDMOOR DEVELOPMENT ORDINANCE.
2. WATER AND SEWER MAY BE REVERSED FROM LOCATION SHOWN ABOVE.
3. WATER AND SEWER SEPARATION SHALL BE IN ACCORDANCE WITH SECTION .0900 OF THE RULES GOVERNING PUBLIC WATER SYSTEMS.
4. WATER AND SEWER SHALL BE INSTALLED UNDER THE PAVEMENT TO ELIMINATE PROBLEMS WITH PROPERTY OWNER COMPLAINTS CONCERNING DAMAGE WHEN MAINTENANCE IS REQUIRED ON THE LINES.
5. TELEPHONE, CABLE TV AND POWER SHALL BE LOCATED JUST INSIDE THE STREET RIGHT-OF-WAY (COLOCATION IS ENCOURAGED).

CITY OF CREEDMOOR, NC	STREET SECTION WITH UTILITIES 60' RIGHT-OF-WAY	STD 6.01	REVISIONS			
			NO	DATE	BY	COMMENT