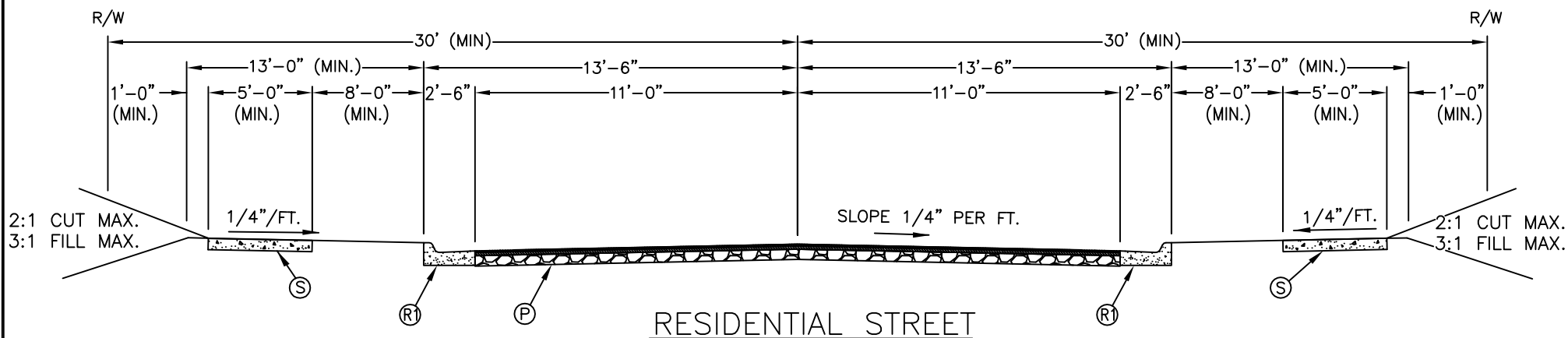


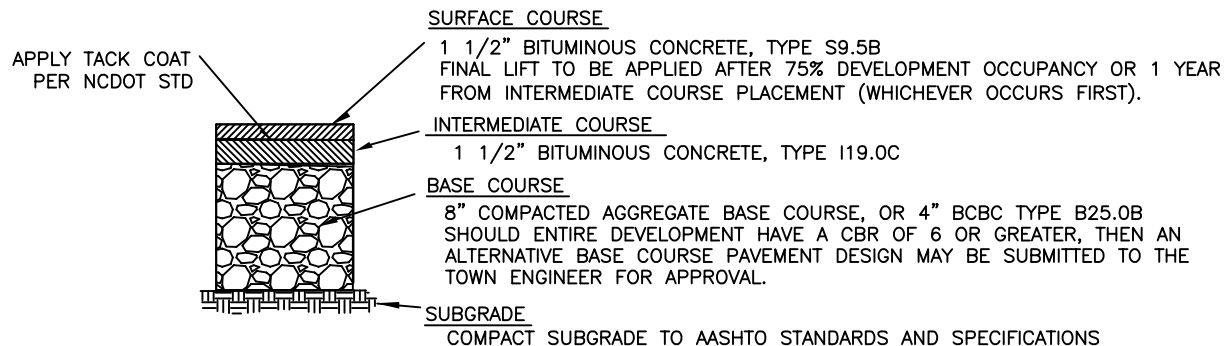
TOWN OF GRANITE QUARRY

TECHNICAL STANDARDS AND SPECIFICATIONS MANUAL



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 TOWN OF GRANITE QUARRY DEVELOPMENT ORDINANCE.



KEY

- (R1) 2'-6" CURB AND GUTTER
- (S) 4" CONCRETE SIDEWALK
- (P) TYPICAL PAVEMENT SECTION

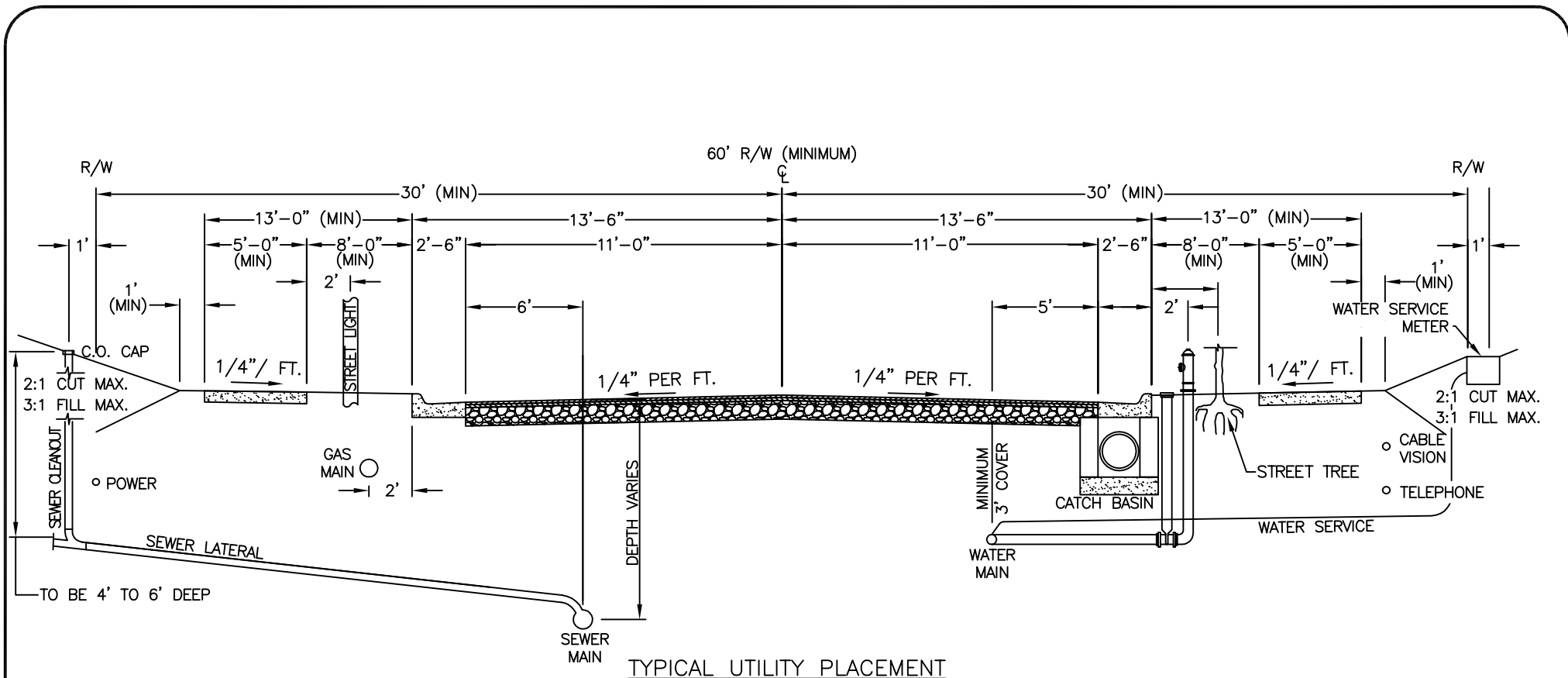
NOT TO SCALE

TOWN OF
GRANITE QUARRY, NC

STREET SECTION
60' (MIN.) RIGHT-OF-WAY

STD.
1.01

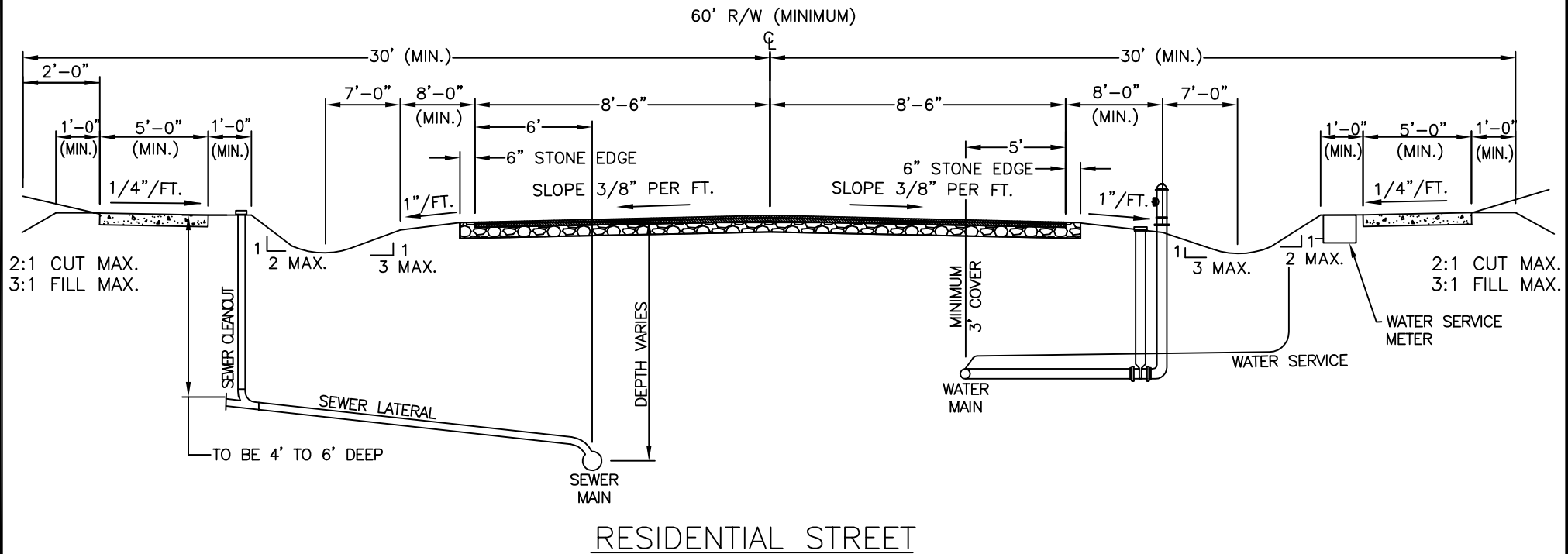
REVISIONS			
NO	DATE	BY	COMMENT
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NOTES:

1. ALL DIMENSIONS NOTED AS MINIMUM ARE SUBJECT TO APPLICABLE STANDARDS.
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 PAVEMENT TO MINIMIZE DISRUPTION TO PRIVATE PROPERTY DURING MAINTENANCE ACTIVITIES.
5. TELEPHONE, CABLE TV, AND POWER SHALL BE LOCATED JUST INSIDE THE STREET RIGHT-OF-WAY (COLOCATION IS REQUIRED).

TOWN OF GRANITE QUARRY, NC	STREET SECTION WITH UTILITIES 60' (MIN.) RIGHT-OF-WAY	STD. 1.02	REVISIONS			
			NO	DATE	BY	COMMENT



NOTES:

1. ALL DIMENSIONS NOTED AS MINIMUM ARE SUBJECT TO APPLICABLE STANDARDS.
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 PAVEMENT TO MINIMIZE DISRUPTION TO PRIVATE PROPERTY DURING MAINTENANCE ACTIVITIES.
5. TELEPHONE, CABLE TV, AND POWER SHALL BE LOCATED JUST INSIDE THE STREET RIGHT-OF-WAY (COLOCATION IS REQUIRED).

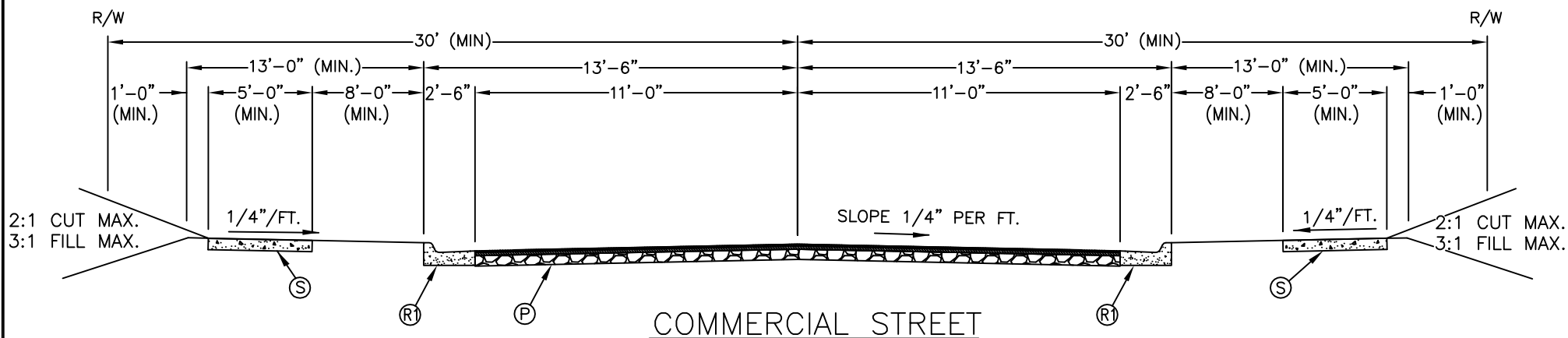
TOWN OF
GRANITE QUARRY, NC

RESIDENTIAL STREET WITH UTILITIES
DITCH TYPE STREET TYPICAL SECTION

STD.
1.04

REVISIONS

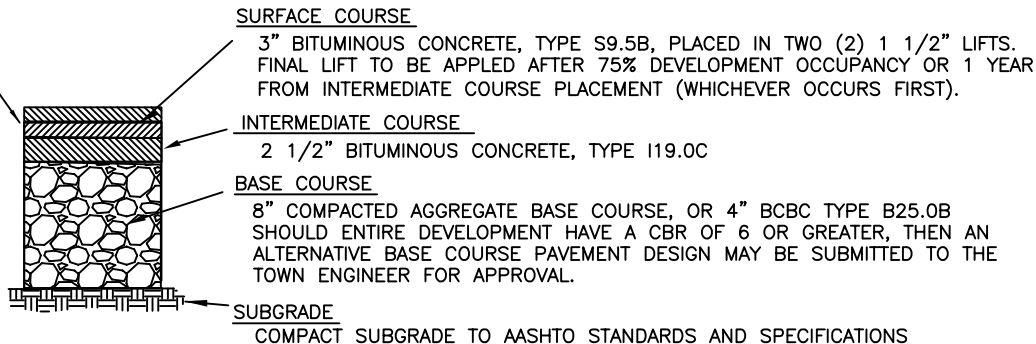
NO	DATE	BY	COMMENT



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 TOWN OF GRANITE QUARRY DEVELOPMENT ORDINANCE.

APPLY TACK COAT
PER NCDOT STD



TYPICAL MINIMUM PAVEMENT SECTION (MINIMUM)

KEY

- (R1) 2'-6" CURB AND GUTTER
- (S) 4" CONCRETE SIDEWALK
- (P) TYPICAL PAVEMENT SECTION

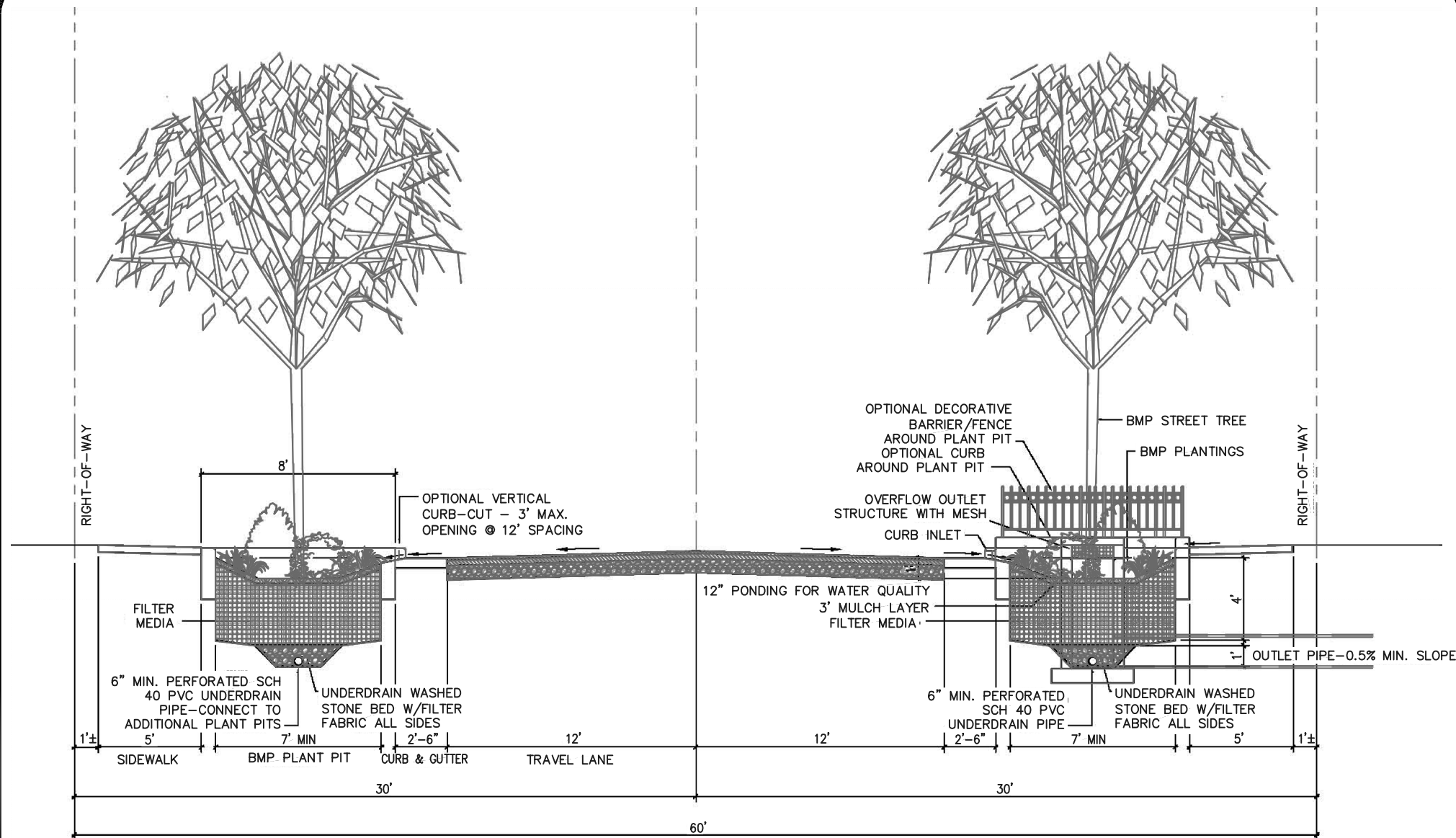
NOT TO SCALE

TOWN OF
GRANITE QUARRY, NC

COMMERCIAL STREET SECTION
60' (MIN.) RIGHT-OF-WAY

STD.
1.05

REVISIONS			
NO	DATE	BY	COMMENT
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TOWN OF
GRANITE QUARRY, NC

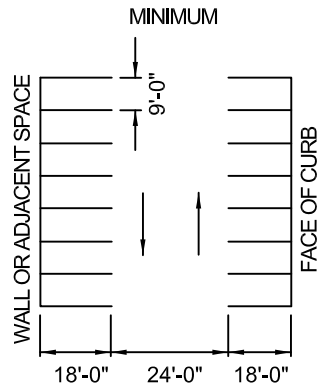
URBAN/NEIGHBORHOOD STREET SECTION WITH STORM BMP

STD.
1.21

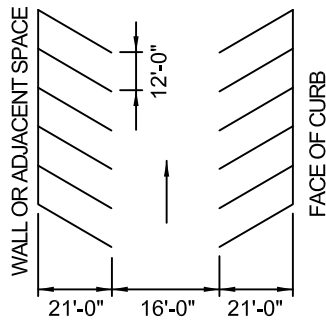
REVISIONS			
NO	DATE	BY	COMMENT



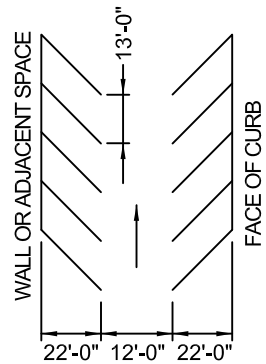
PARKING ANGLE 90°
(TWO WAY OPERATION ONLY)



PARKING ANGLE 60°
(ONE WAY OPERATION ONLY)



PARKING ANGLE 45°
(ONE WAY OPERATION ONLY)



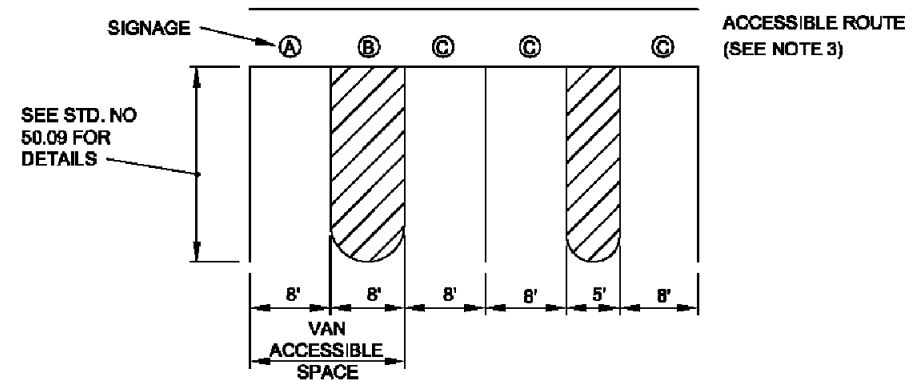
- NOTES:**
1. FOR ACCESSIBLE PARKING STANDARDS/SIGNAGE SEE ADDITIONAL STANDARDS.
 2. PAVEMENT MARKINGS SHALL BE 4" WHITE PAINT.
 3. ALTERNATIVE PARKING ANGLES, AISLE WIDTHS, AND OPERATION (TWO-WAY ANGLED PARKING OR REVERSE-ANGLE PARKING) WILL BE CONSIDERED ON A CASE-BY-CASE BASIS.

ACCESSIBLE PARKING REQUIREMENTS

TOTAL PARKING SPACES PROVIDED	MINIMUM NUMBER OF ACCESSIBLE SPACES 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		

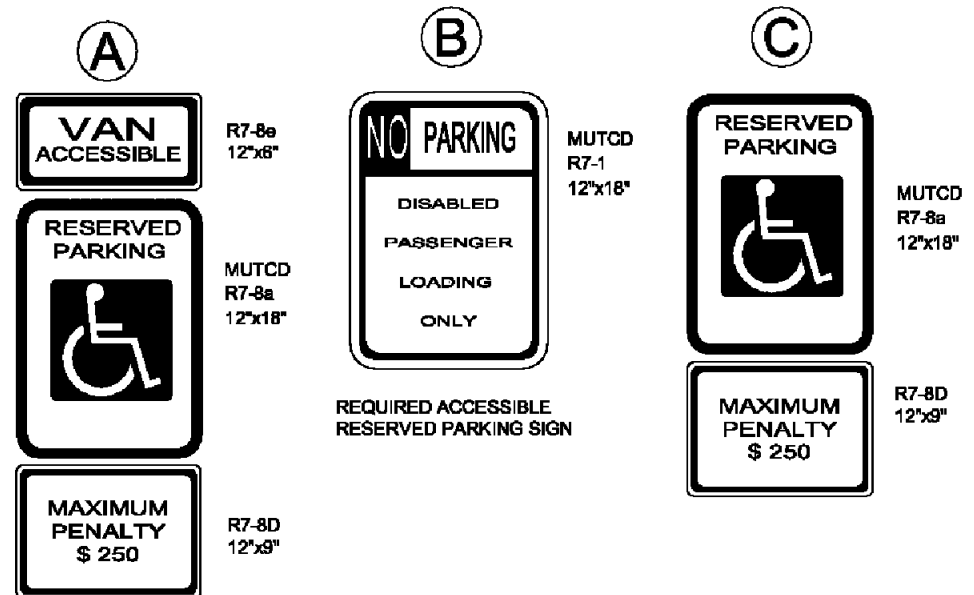
NOTES:

- 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.
- REFER TO MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, (MUTCD) U.S. DEPARTMENT OF TRANSPORTATION AND NORTH CAROLINA DEPARTMENT OF TRANSPORTATION SUPPLEMENT.
- 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

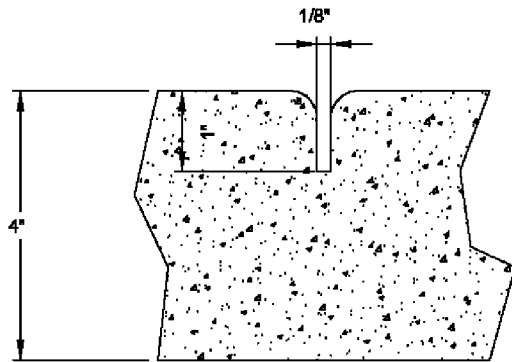


TOWN OF
GRANITE QUARRY, NC

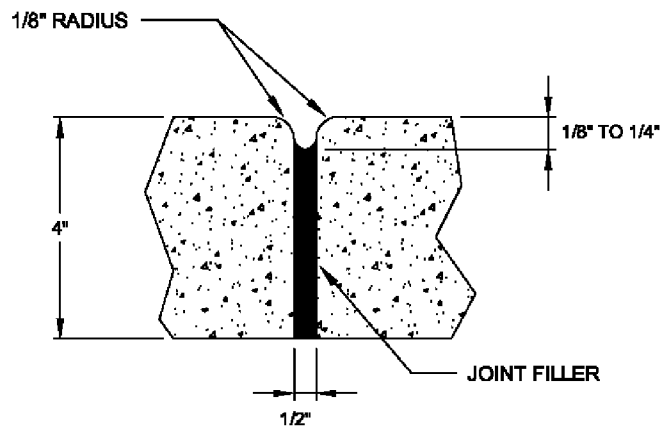
ACCESSIBLE PARKING
AND SIGNAGE

STD.
2.11

REVISIONS			
NO	DATE	BY	COMMENT



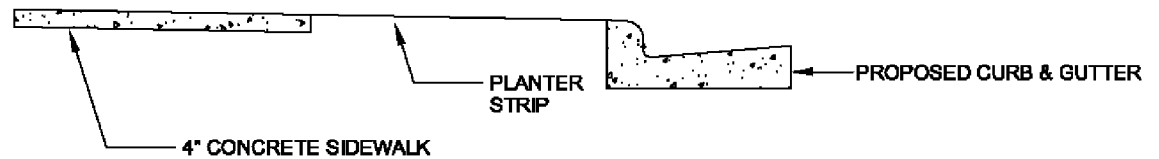
GROOVE JOINT IN SIDEWALK



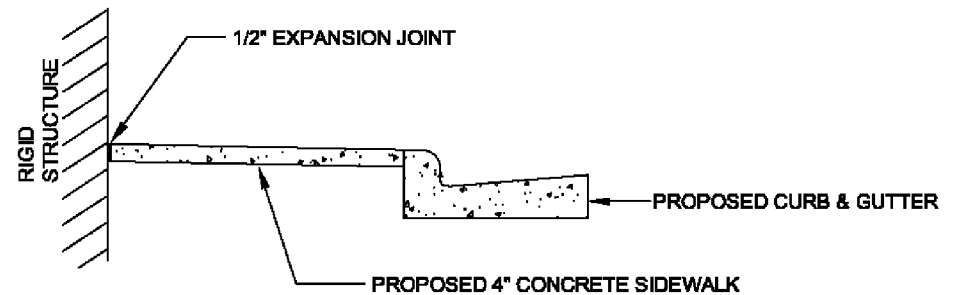
**TRANSVERSE EXPANSION
JOINT IN SIDEWALK**

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



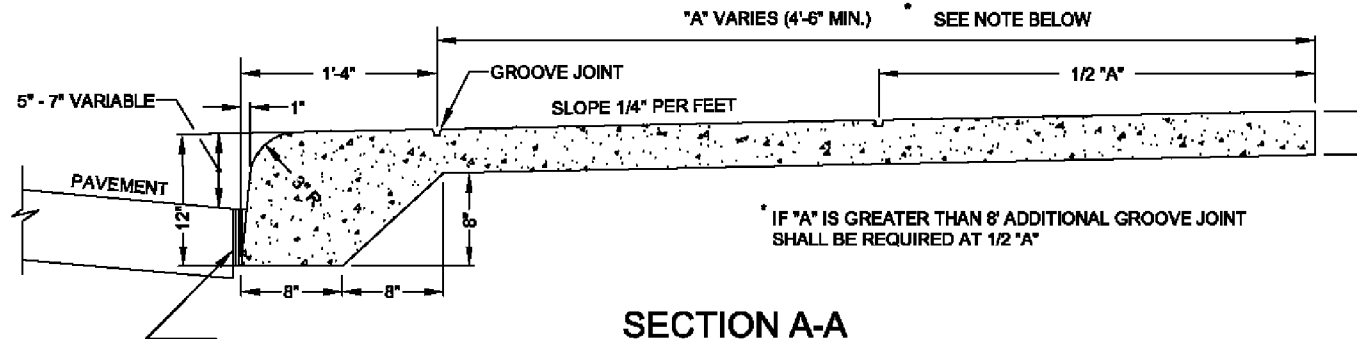
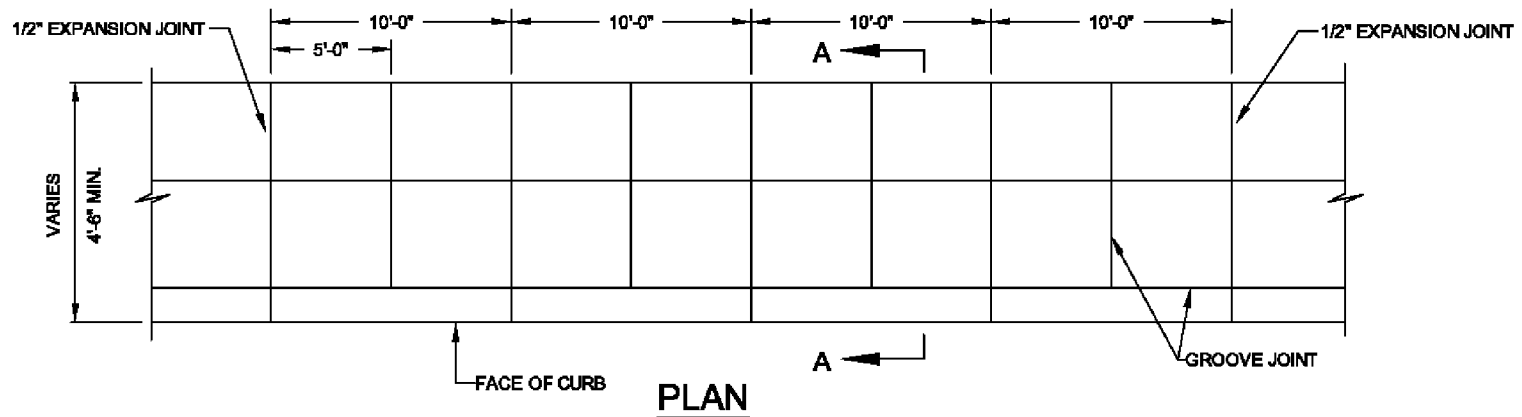
**DETAILS SHOWING EXPANSION JOINTS
FOR CONCRETE SIDEWALK**

TOWN OF
GRANITE QUARRY, NC

CONCRETE SIDEWALK

STD.
3.01

REVISIONS			
NO	DATE	BY	COMMENT



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

GENERAL NOTES:

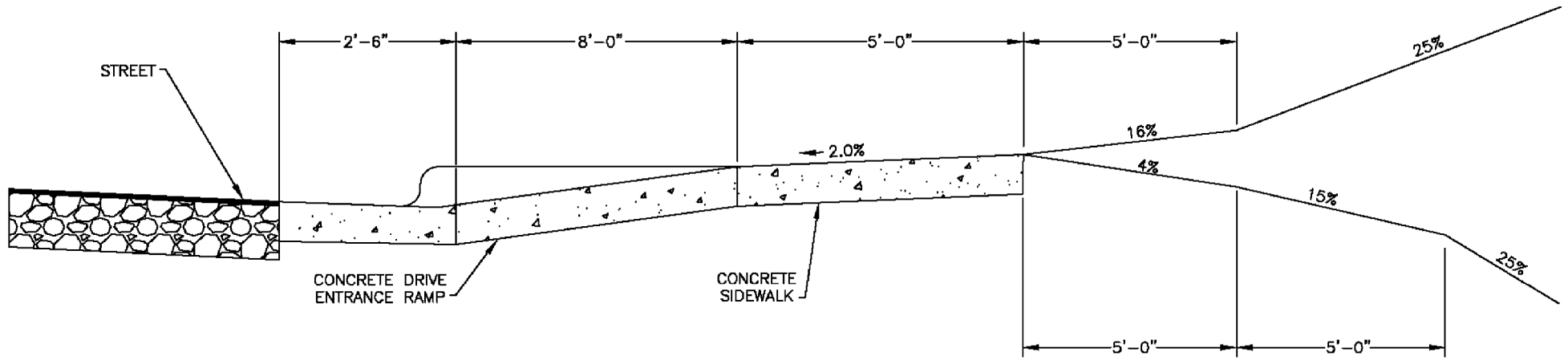
1. A GROOVE JOINT 1" DEEP WITH 1/3" RADII SHALL BE REQUIRED IN THE CONCRETE SIDEWALK AT 5' INTERVALS. ONE 1/2" EXPANSION JOINT WILL BE REQUIRED AT 40' INTERVALS. A 1/2" EXPANSION JOINT WILL BE REQUIRED WHERE THE SIDEWALK JOINS ANY RIGID STRUCTURE.
2. ALL CONCRETE TO BE 3600 P.S.I. COMPRESSIVE STRENGTH.
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.

TOWN OF
GRANITE QUARRY, 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.

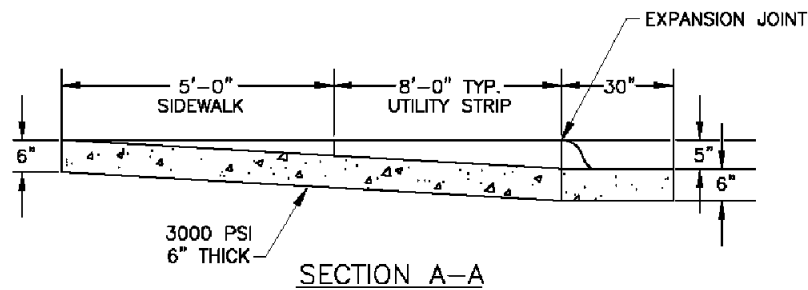
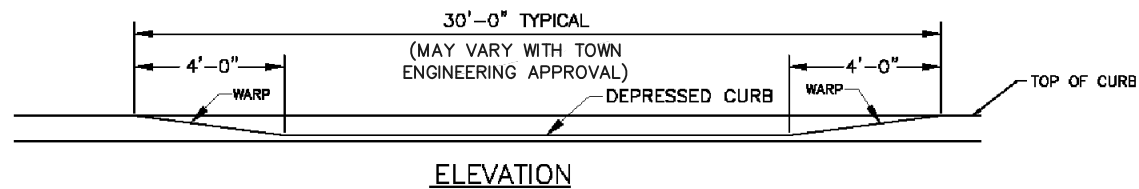
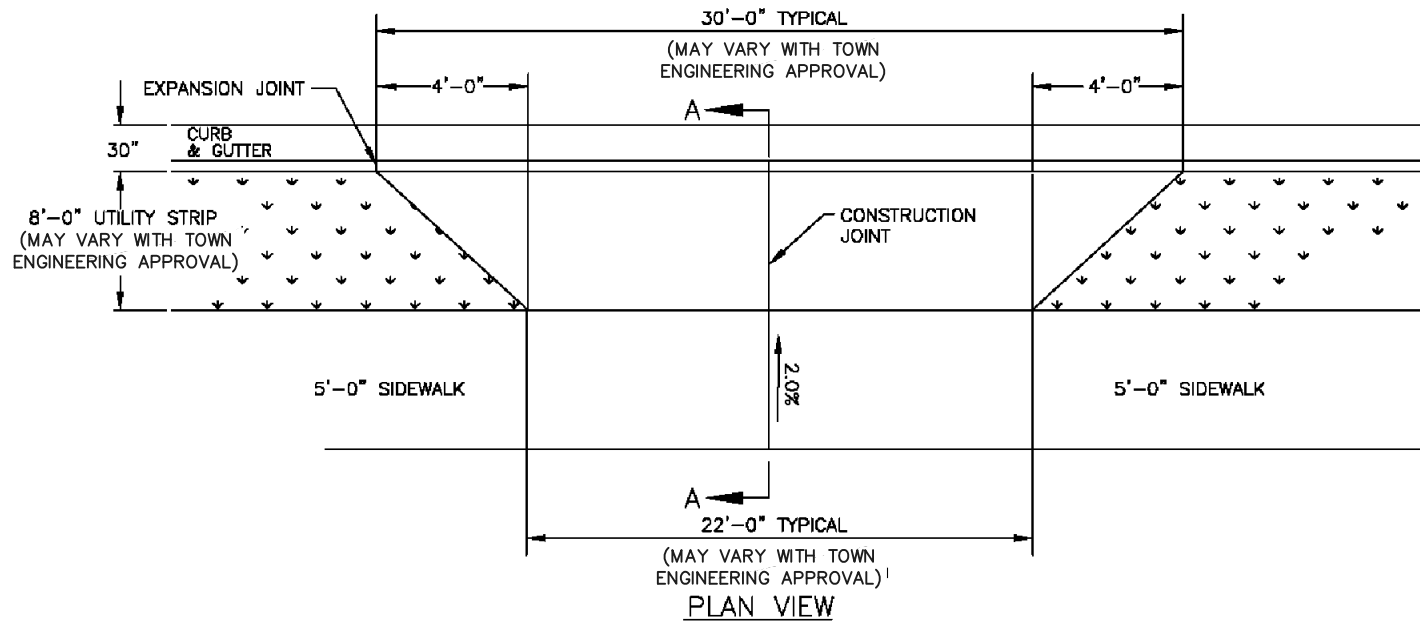
NOT TO SCALE

TOWN OF
 GRANITE QUARRY, NC

DRIVEWAY GRADES

STD.
 4.01

REVISIONS			
NO	DATE	BY	COMMENT

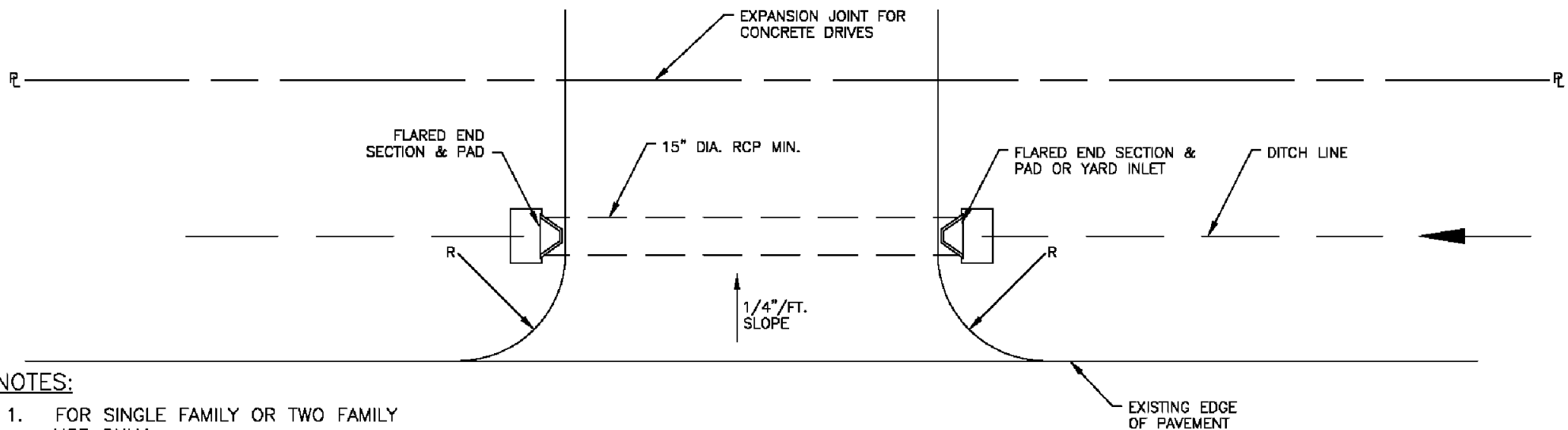


TOWN OF
GRANITE QUARRY, NC

FAN TYPE DRIVEWAY ENTRANCE

STD.
4.02

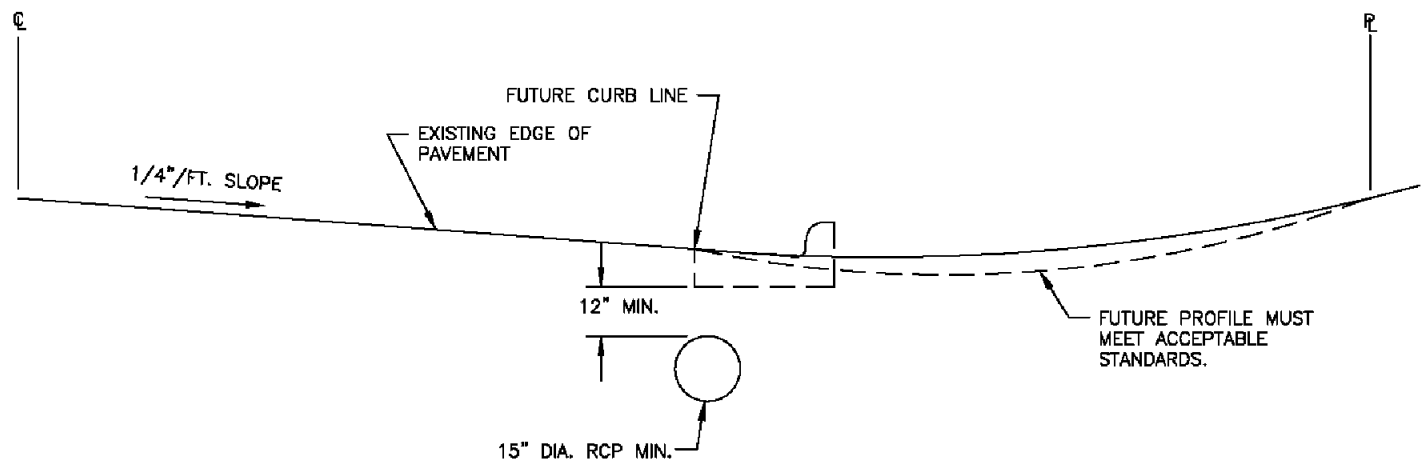
REVISIONS			
NO	DATE	BY	COMMENT



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 CL OF ROADSIDE DITCH. PIPE SHALL BE PLACED TO HAVE 12" OF CLEARANCE BELOW FINISHED PAVEMENT AT THIS POINT.

PLAN
NO CURB & GUTTER ON STREET



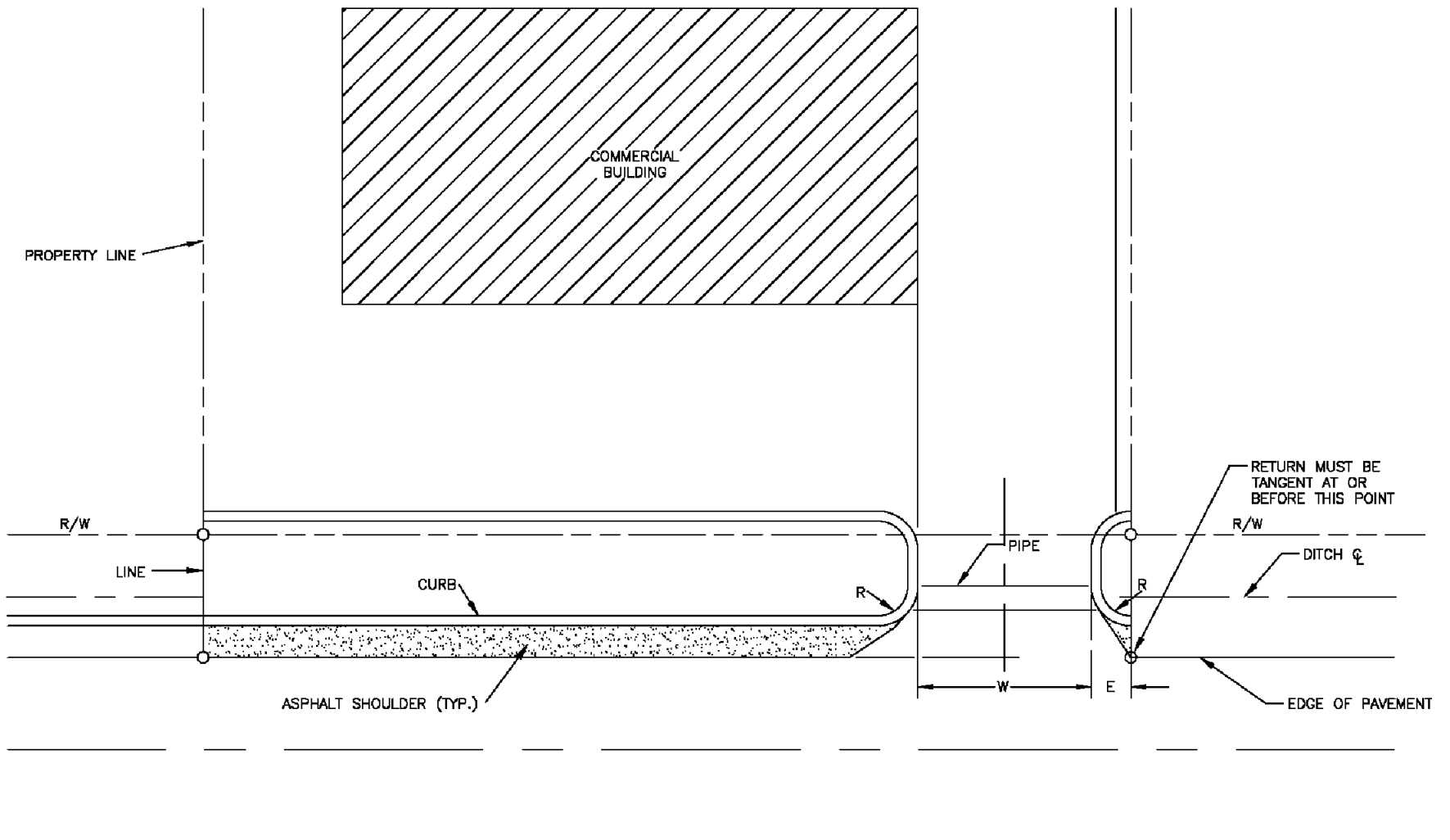
SECTION
NO SCALE

TOWN OF
GRANITE QUARRY, 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.

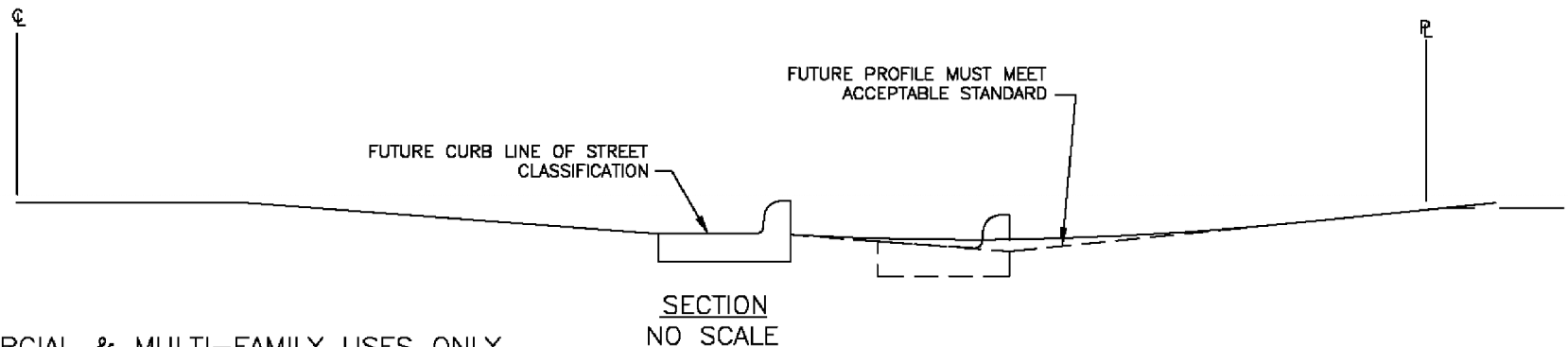
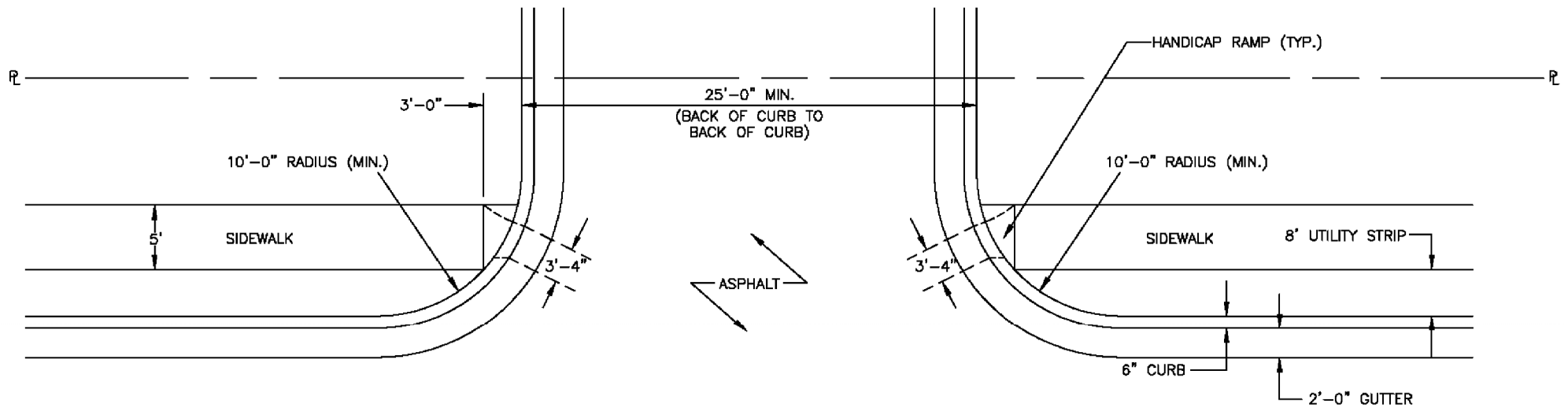
NOT TO SCALE

TOWN OF
GRANITE QUARRY, NC

COMMERCIAL SINGLE DRIVEWAY
DITCH SECTION

STD.
4.04

REVISIONS			
NO	DATE	BY	COMMENT



NOTES:

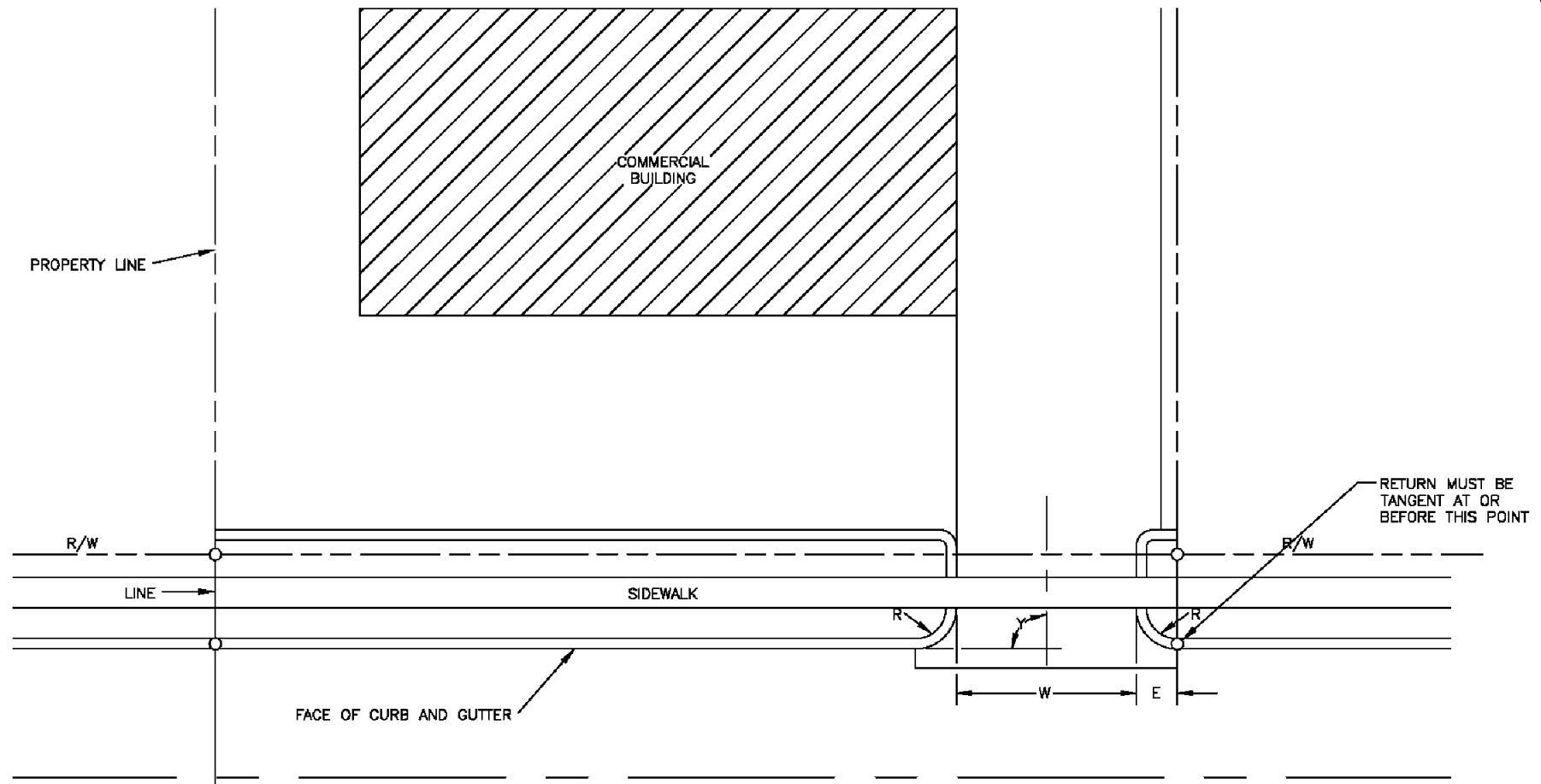
1. FOR COMMERCIAL & MULTI-FAMILY USES ONLY.
2. DRIVES TO BE GRADED TO DRAIN TOWARD STREET FROM PROPERTY LINE & AWAY FROM STREET FROM PROPERTY LINE UNLESS STORM DRAINAGE STRUCTURES ARE PROVIDED TO INTERCEPT STORM FLOWS.
3. DRIVE GRADE PROFILE SHALL BE DESIGNED TO TIE IN WITH ULTIMATE WIDENING OF STREET.

TOWN OF
GRANITE QUARRY, NC

DRIVEWAY – STREET TYPE,
CURB & GUTTER SECTION

STD.
4.05

REVISIONS			
NO	DATE	BY	COMMENT



1. R - 3' (TOWN 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 TOWN ENGINEERING APPROVAL
2. ALL RADII ARE TO BACK OF CURB.

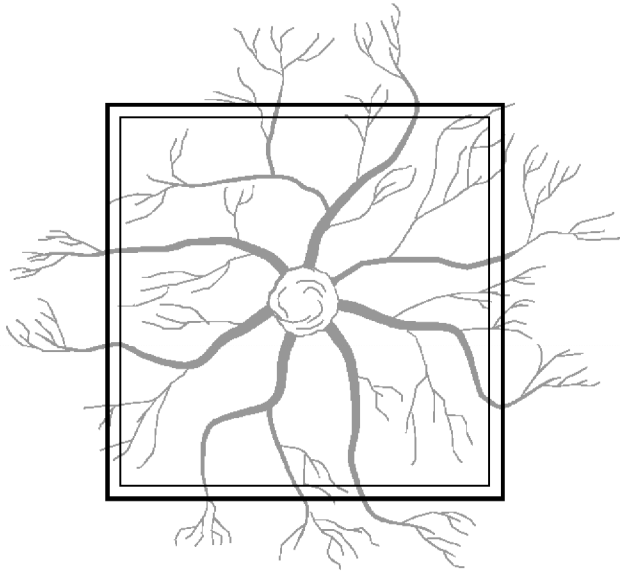
NOT TO SCALE

TOWN OF
GRANITE QUARRY, NC

COMMERCIAL SINGLE DRIVEWAY
CURB AND GUTTER

STD.
4.06

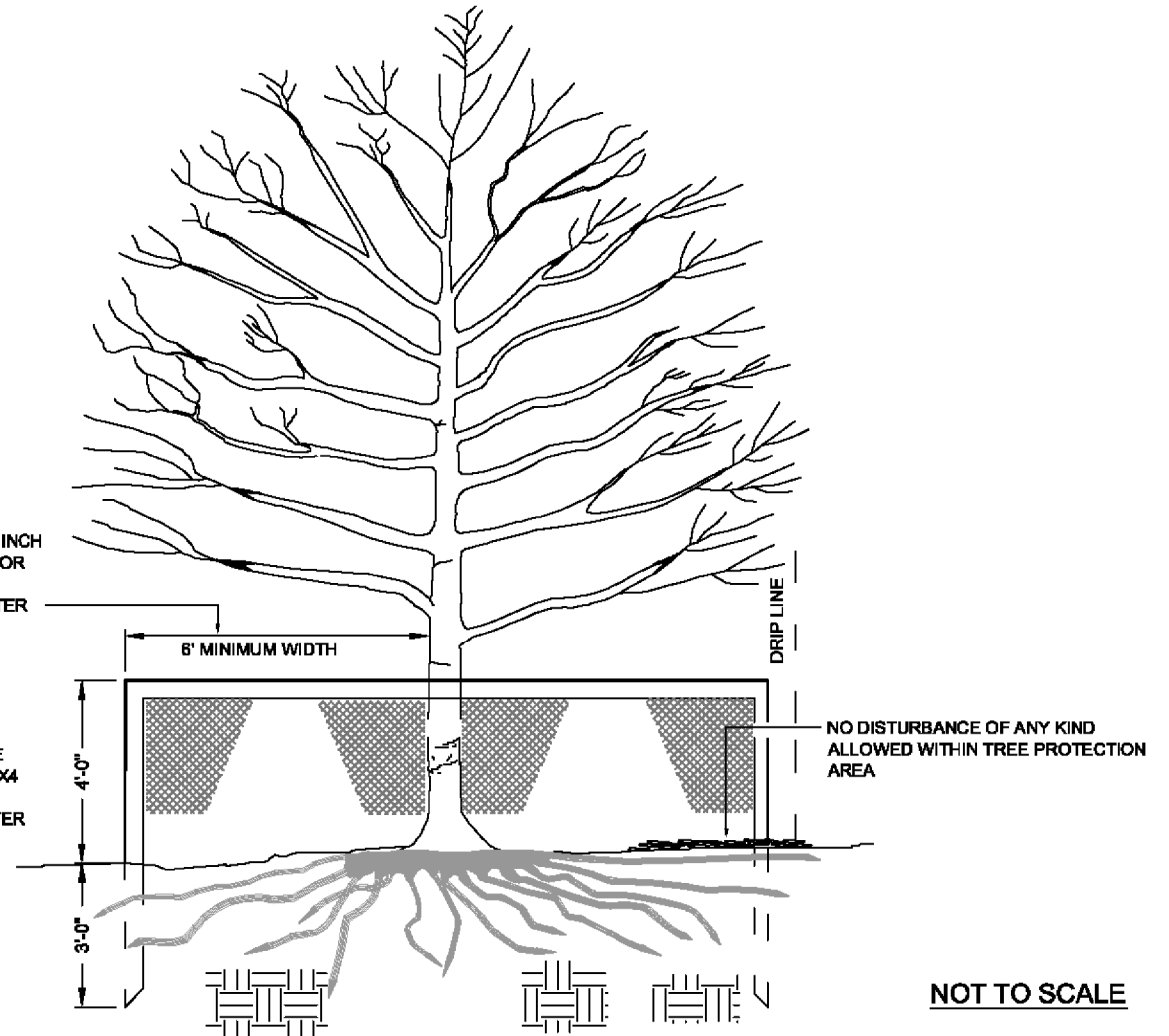
REVISIONS			
NO	DATE	BY	COMMENT



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



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.

TOWN OF
GRANITE QUARRY, NC

TREE PROTECTION BARRIER

STD.
5.01

REVISIONS			
NO	DATE	BY	COMMENT