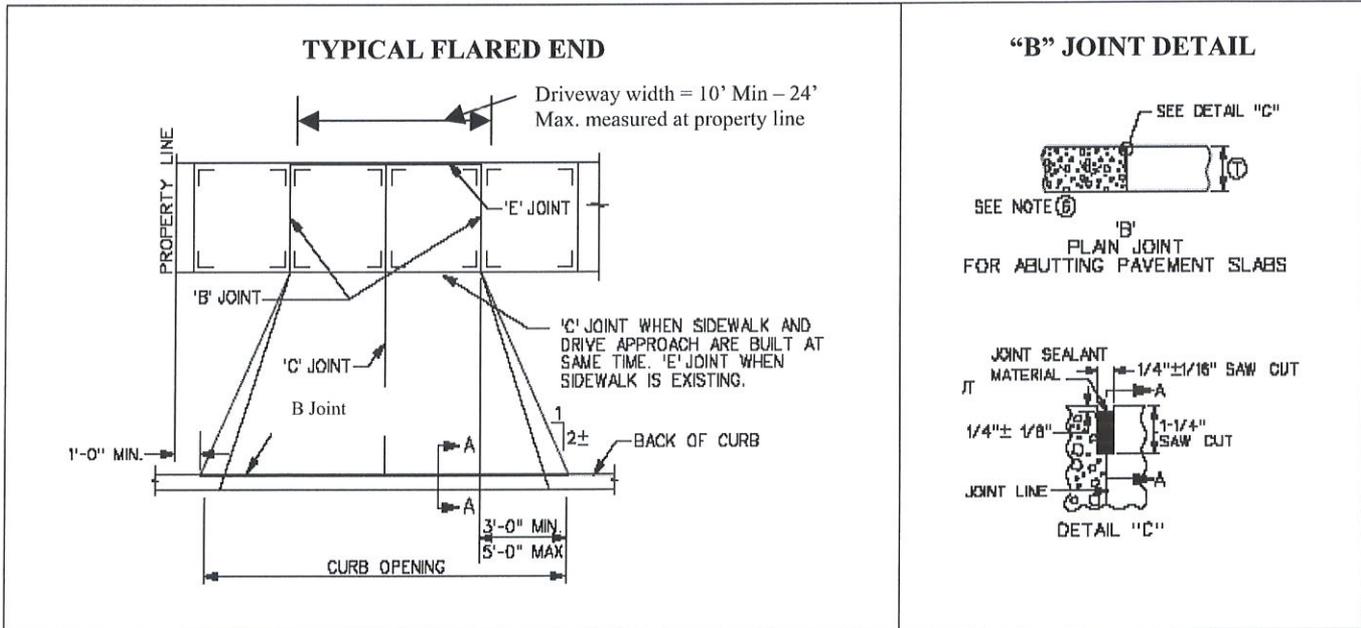




## Department of Building and Zoning Approaches and Sidewalks for ONE AND TWO FAMILY CONSTRUCTION

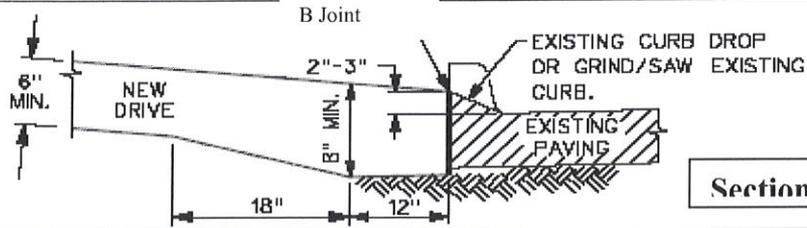
<p><b>GENERAL ITEMS</b></p> <p><b>SUBGRADE</b> – Prior to pouring concrete all sub-grades must be wetted and compacted. All formwork must be in place and ready</p> <p>All sub-grade materials must be of the granular type. Sand and loose dirt is NOT ALLOWED.</p> <p><b>CONCRETE</b> – Must use minimum of 4,000 psi, Class C concrete, air entrained (between 6% to 8.5%) mix. Slump must be between 1 ½” to 4” max.</p> <p><b>EXPANSION MATERIAL</b> – All Expansion Joint material must be ½” in thickness and FULL DEPTH.</p>	<p><b>UTILITIES</b> – Any adjustments made to utility poles, street light standards, fire hydrants, catch basins or intakes, traffic signs and signals, or other public improvements or installations, which are necessary as the result of any construction shall be accomplished without any cost to the Jurisdictions.</p> <p>All manholes, stop boxes (water shutoff valves), valve boxes must be up to grade and approved prior to approval of formwork.</p> <p>All stop boxes in concrete must be sleeved. Installing either a 4” x 2” PVC reducer coupling or cast iron sleeve from local plumbing supply company will meet this requirement.</p>	<p><b>PERMITS</b> - Permits must be obtained prior to construction of any approach and sidewalk whether new construction, additions to existing or replacing existing. Permit applications can be obtained online @ <a href="http://www.altoona-iowa.com/departments/building.asp">http://www.altoona-iowa.com/departments/building.asp</a> and must be submitted to the Building and Zoning Department.</p> <p>Fee for a sidewalk permit or approach permit is \$10.00 each.</p> <p><b>BEFORE YOU DIG</b> – Please call 1-800-292-8989 (Iowa One Call) for locates. Typically it takes 24 to 48 hours to be completed. Required by State Law.</p> <p><u>Inspections are required by Staff prior to placement of concrete</u></p>
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### APPROACHES

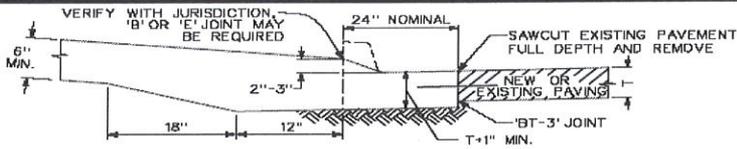


**For Inspections in Altoona/Bondurant/Mitchellville Please contact 967-5138, staff will direct your call to the appropriate inspector for your area. 24-hour notice is required for inspection scheduling.**

**TYPICAL CROSS SECTION AND JOINT DETAILS**

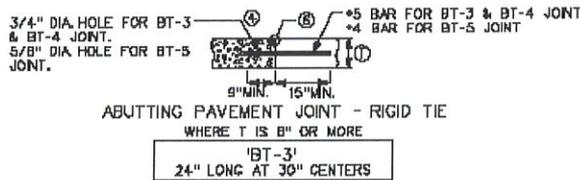


**REQUIREMENT TO CUT OUT PORTION OF STREET**  
**\*REQUIRES APPROVAL OF DEPARTMENT PRIOR TO WORK\***

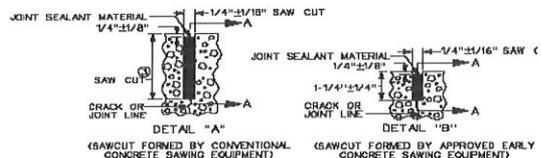
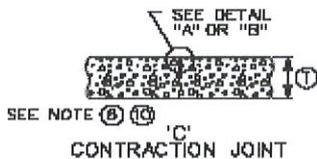


SECTION A-A  
 (OPTIONAL METHOD FOR EXISTING PAVEMENT IF CURB GRINDING/SAWING IS NOT ALLOWED BY JURISDICTIONAL ENGINEER)  
 NOTE: IF A LONGITUDINAL JOINT LINE IS LOCATED 36" OR LESS FROM THE BACK OF CURB, EXTEND BOXOUT TO JOINTLINE. FULL DEPTH SAWCUT SHALL STILL BE REQUIRED.

**"BT-3" JOINT DETAIL**

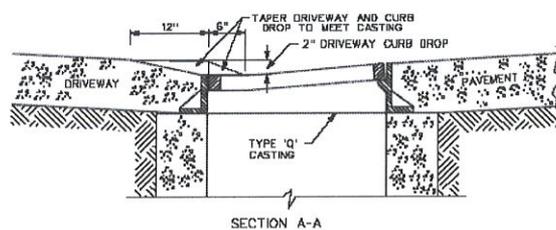
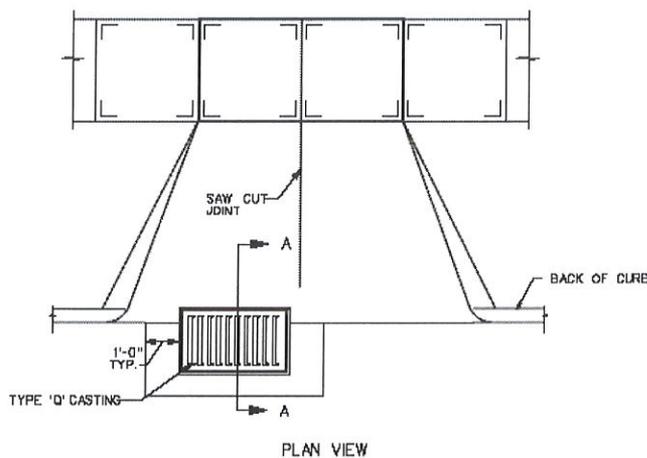


**JOINT BETWEEN APPROACH AND "THROUGH" SIDEWALK IF POURED TOGETHER**



**EXAMPLE**

**INTAKE LOCATED IN DRIVEWAY**

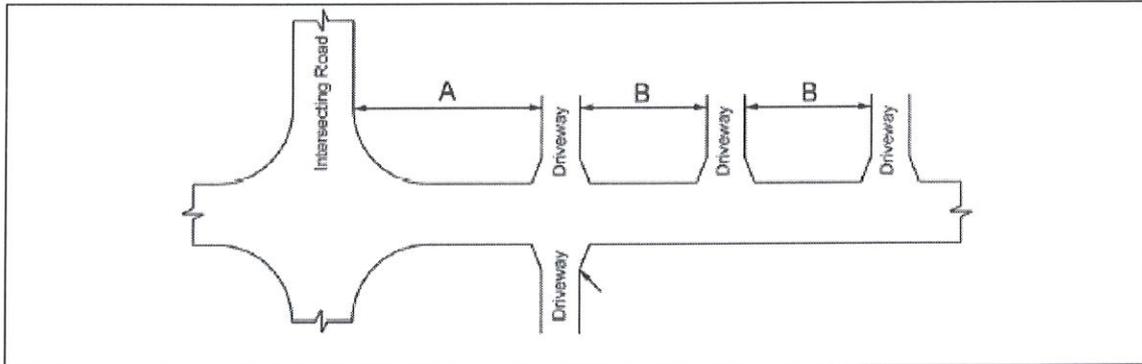


**\*ALTOONA ONLY\***  
**IF YOU ENCOUNTER AN**  
**INTAKE/MANHOLE/WATER**  
**MAIN VALVE/ETC PLEASE**  
**CONTACT PUBLIC WORKS**  
**INSPECTORS AT 515-967-6704,**  
**EXT. 123 OR 124**

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**ANY STREET PATCHING, CUTTING INTO THE STREET, AND  
BLOCKING/BARRICADING/AND/OR CLOSING OF A STREET MUST BE APPROVED BY  
THE PUBLIC WORKS DEPARTMENT AT THE NUMBERS LOCATED ABOVE FOR THE  
CITY OF ALTOONA- ALL OTHER COMMUNITIES MUST CONTACT THEIR LOCAL CITY  
HALL. MITCHELLVILLE IS 515-967-2935. BONDURANT IS 515-967-2418.**

**MINIMUM SPACINGS BETWEEN DRIVEWAYS OR INTERSECTING STREETS**



	Minor Arterial			Collector			Local		
	Residential Area	Comm / Ind Area	Ag Area	Residential Area <sup>3</sup>	Comm / Ind Area	Ag Area	Residential Area <sup>3</sup>	Comm / Ind Area	Ag Area
<b>A. Minimum intersection clearance<sup>1</sup></b>	145'	170'	300'	100'	100'	300'	75'	75'	150'
<b>B. Minimum driveway spacing<sup>2</sup></b>	100'	200'	300'	75'	100'	300'	--- <sup>4</sup>	--- <sup>4</sup>	150'

1. Values are measured from the back of curb, intersecting road to the adjacent driveway near edge.
2. Values are measured between driveway edges.
3. One access drive allowed per lot.
4. See Jurisdictional Engineer for local requirements.

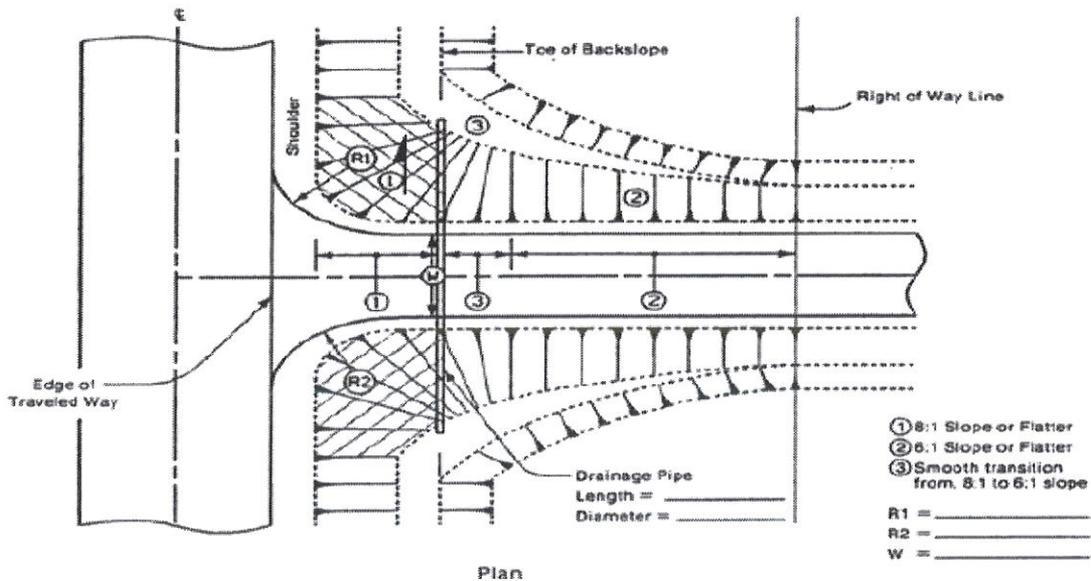
**REQUIREMENT FOR NO CURB AND GUTTER DRIVEWAYS**

The width of an entrance that connects to a rural roadway (no curb and gutter) shall be measured across the top of the entrance at the culvert line or at the location where a culvert would normally be placed. The pavement shall be extended to the proposed pavement width, if known, or 15.5 feet from the centerline, if not known.

A culvert properly sized for the ditch flow should be installed at the established roadside ditch flowline beneath the private drive access. Minimum size for the culvert shall be 15 inches and 18 inches desirable. The culvert shall be either corrugated metal or reinforced concrete pipe with minimum of 1 foot of cover over the pipe.

**CITY MUST APPROVE OF SIZE OF CULVERT PRIOR TO PLACEMENT**

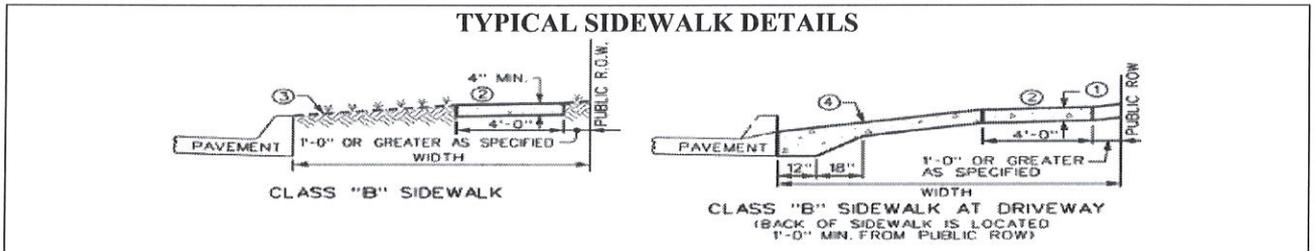
**For Inspections in Altoona/Bondurant/Mitchellville Please contact 967-5138, staff will direct your call to the appropriate inspector for your area. 24-hour notice is required for inspection scheduling.**



### APPROACH ONLY ITEMS

1. Tracer wires accompanying the water shut off valves (if located within approach) must be accessible and visible for inspection prior to the placement of concrete.
2. All curbs are required to be "ground down", no cutting into the street is allowed unless approved by this Department prior to work.
3. The width of an entrance with a radius return or with a flared taper that connects to a curb and gutter roadway shall be measured at a point 10 feet back from the roadway curb. The curb opening may exceed the maximum allowable width of the entrance to accommodate the allowable radius or taper. Flared/Radius is not allowed to extend beyond a property line.
4. Only one access per lot allowed unless approved by jurisdictional engineer. However, where houses are located on corner lots, have extra wide frontage, or on heavy traveled roadway more than one access point may be permitted to eliminate backing out on the heavy traveled roadway.
5. Abandoned driveways. Any curb opening or driveway which has been abandoned shall be restored by the property owner. **CONTACT PUBLIC WORKS INSPECTORS**
6. Approaches shall be constructed of poured concrete, not asphalt. (asphalt overlay on top of concrete approach is acceptable).

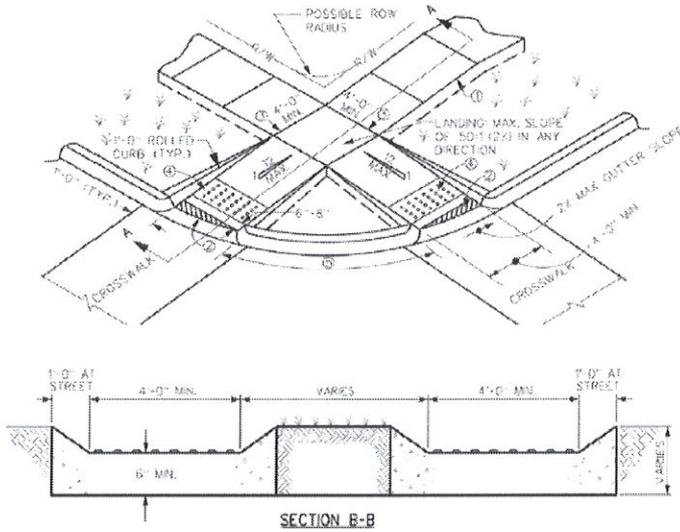
**SIDEWALKS** (Unless noted otherwise all residential sidewalks are considered "Class B" sidewalks).



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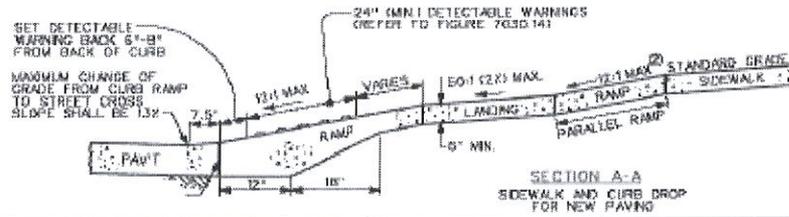
## SIDEWALK RAMP METHOD

**FIGURE 3.6 - OPTIONAL RAMP (ALTERNATE 1) WITHIN INTERSECTION RADIUS FOR CLASS "B" OR "C" SIDEWALK**  
(Corresponds to Figure 7030.13A in Urban Standard Specifications manual)



### NOTES:

1. Sidewalk thickness at driveway shall be 6" minimum or the thickness of the driveway whichever is greater.
2. Maximum cross slope of sidewalk through driveway is 50:1 (2%)
3. If area is less than 5' along the street curb between ramps then full ramp as shown below must be used.
4. See table for parking slope
5. See table for driveway slope
6. Two #4 (1/2") rebar 20 feet long must be placed across/centered over any utility trenches on chairs at time of inspection.
7. Contraction joints are to be 4 feet on center. Expansion joints are required every 100 linear feet and on a property line.
8. All fire hydrants, light poles, etc; must be at least 1 foot from the edge of any sidewalk.
9. All curbs are required to be "ground down", no cutting into the street is allowed unless approved prior by this Department.
10. **DETECTABLE WARNING DEVICES – Must be Yellow in color.**
11. Tracer wires accompanying the water shut off valves must be accessible and visible for inspection prior to the placement of concrete.



### NOTES:

1. Combination Ramp may be required if normal sidewalk elevation cannot be achieved between street and landing due to limited ramp length. Length may vary but is not required to exceed 15'.
2. Unless curb ramp is aligned w/street and area of special shaping must be provided at bottom. A smooth transition to gutter line must be achieved for wheelchair access. No curb lip allowed in this area. Max cross slope is 2%.
3. A BT-3 Joint shall be placed between the sidewalk ramp and street and a 1/2" expansion joint is to be installed at top of ramp. **SEE BT-3 JOINT DETAIL IN PREVIOUS PAGES.**
4. Detectable warning device shall be installed across full width of ramp for a depth of at least 2 feet. Device to be installed 6 to 8" from bottom of ramp.

**Parking Slopes/Grades (parking is measured from back of curb to property line – based on this dimension the applicable slope is determined as shown below)**

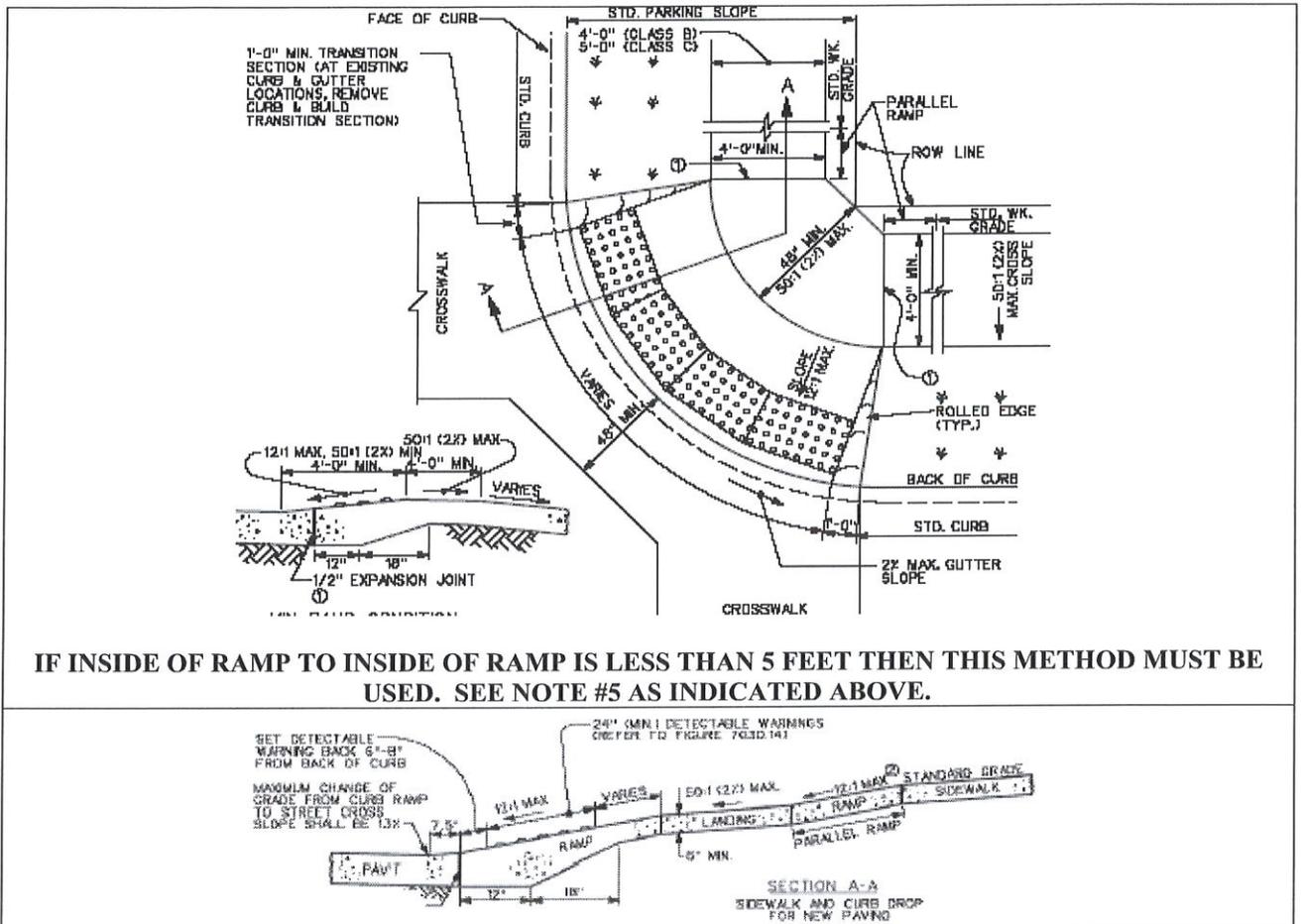
> 10'	1/4" per ft.	2% max
< 10'	1/2" per ft.	4% max

### Approach Entrance Slope

Measured from gutter line to street front of sidewalk.

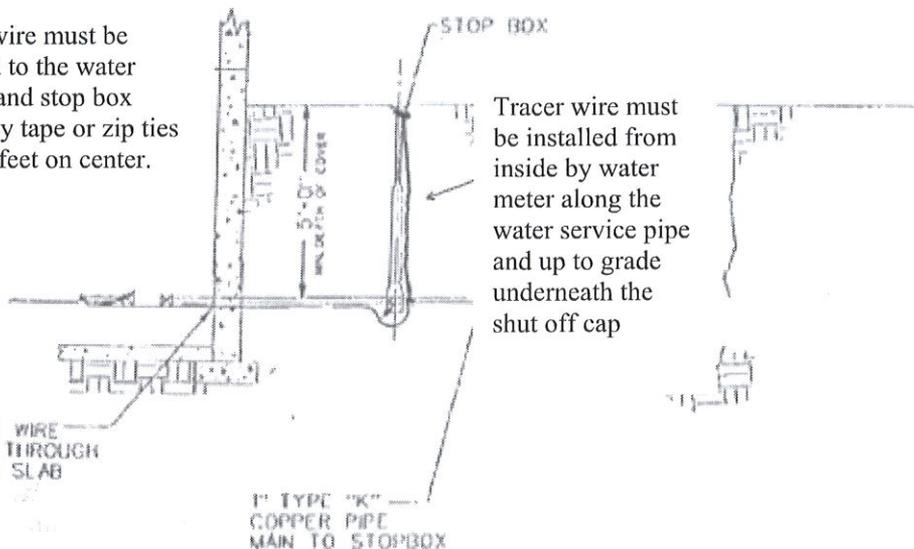
Residential | 10% Max

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**Tracer Wire Detail**

Tracer wire must be attached to the water service and stop box casing by tape or zip ties every 5 feet on center.



Tracer wire must be installed from inside by water meter along the water service pipe and up to grade underneath the shut off cap

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