

April 7, 1994

TO: All Holders of the City of Salem Design Standards

EFFECTIVE DATE: April 15, 1994

SUBJECT: **DEVELOPMENT BULLETIN #12**

The following information is distributed as a public service to the Salem development community of engineers, architects, contractors, builders, and developers to make them aware of any changes in the City permit and plan approval process, design standards, or construction standards which may have an impact on their operations:

## **PAVEMENT WIDENING DETAILS**

### **PURPOSE: NOTICE OF CHANGE TO STREET DESIGN STANDARDS**

A significant pavement maintenance problem has become apparent on streets that have been widened in past years. The problem is particularly predominant when the joint between old pavement and new pavement is close to the wheel track of vehicles using the roadway. In many of these locations the original seal was lost and separation of the new and old pavements has occurred. This typically invites excessive moisture to the base rock and subgrade, and under traffic load, ultimately the pavement at the joint breaks down.

It is because of this problem that we have developed the following new design standards. We believe this standard will meet our objective of significantly lessening joint deterioration that results in premature street failure and corresponding maintenance expense. We appreciate the effort of those engineers who have cooperated in applying these standards informally prior to publishing this standard. **These standards will be applied consistently for all plans submitted for approval after April 15, 1994.**

### **STREET DESIGN STANDARDS**

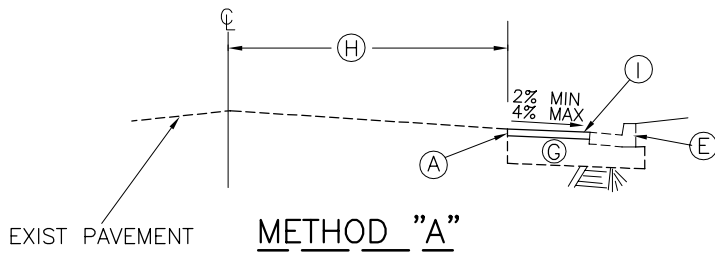
Add the following to the Street Design Standards, page 15, Section 2.10 Grades:

When adding asphalt pavement width to an existing street such as in the placement of pedestrian path, bicycle path, or widening the street, a number of factors must be considered during the design including the position of the joint connecting new and old pavements, the existing and resulting street cross-slope, when the street was last overlaid, and when the street is planned to be overlaid in the future. The appropriate pavement widening detail can then be selected from the attached drawing entitled "Pavement Widening Detail" and shall be specifically shown on the project plans.

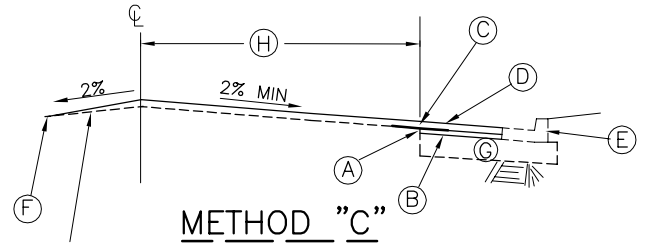
For more information, please contact the Public Works Department Permit Application Center, at (503) 588-6211.

Tim Gerling, P.E.  
Chief Development Services Engineer

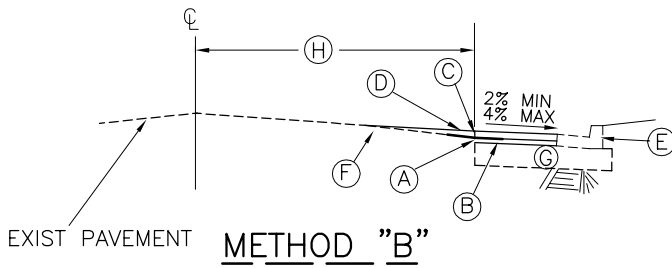
RWL:lek p:\...bulletin\devbul12  
Attachment: (Pavement Widening Details)



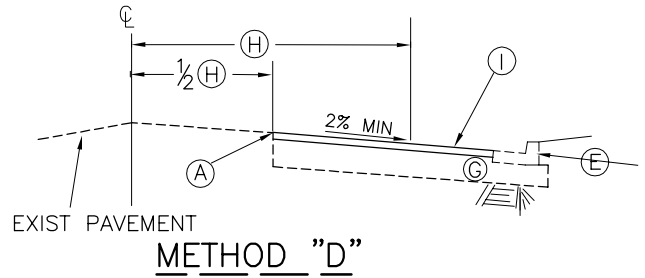
METHOD "A" MAY ONLY BE USED IF:  
 - AN ENTIRE OVERLAY IS FUNDED BY CITY WITHIN 18 MONTHS OF COMPLETING THIS WIDENING.



METHOD "C" SHALL BE USED IF:  
 - NECESSARY TO MAINTAIN 2% MINIMUM CROSS-SLOPE AND 1 1/2" MINIMUM THICKNESS A.C. OVER MEMBRANE.



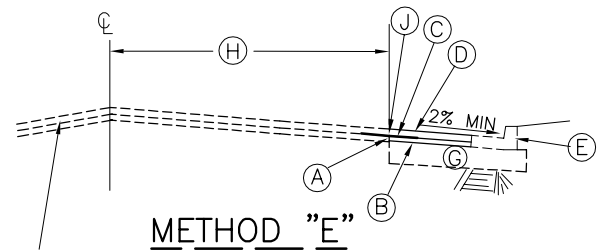
METHOD "B" MAY BE USED IF:  
 - A 2% MINIMUM STREET CROSS-SLOPE CAN BE MAINTAINED AND 1 1/2" MINIMUM THICKNESS A.C. OVER MEMBRANE CAN BE MAINTAINED.



METHOD "D" MAY BE USED:  
 - AS AN OPTION TO METHODS A, B, OR C..

## LEGEND

- (A) CLEAN & STRAIGHT SAW CUT OF EXISTING PAVEMENT
- (B) 2 1/2" MIN. BASE COURSE CLASS "B" AC
- (C) 3' STRIP GEOTEXTILE MEMBRANE
- (D) 1.5" MIN. THICKNESS CLASS "C" A.C.
- (E) CURB IF PART OF PROJECT
- (F) FEATHER A.C. TO 0 - 1/4" DEPTH
- (G) DESIGNED BASE COURSE SEE STD. DRAWING #312 FOR DEPTH
- (H) TRAVEL LANE WIDTH
  - JOINT IN THE SURFACE PAVING LIFT SHALL BE WITHIN 6" OF LANE LINE FOR ALL METHODS EXCEPT METHODS "A" & "D".
  - SUBSURFACE COURSES SHALL BE STAGGERED A MINIMUM OF 6".
  - RESIDENTIAL H = 10'
  - COLLECTOR H = 11'
  - ARTERIAL H = 12'
- (I) 2.5" CLASS "B" A.C.
- (J) GRIND EXISTING A.C. 1.5" MIN. DEPTH 1.5 FEET MIN. WIDTH AS METHOD OF STAGGERING COURSES.



EXIST PAVEMENT WITH OVERLAY

METHOD "E" MAY BE USED:  
 - IF STREET HAD BEEN OVER LAYED WITHIN 5 YEARS OF BEGINNING THIS WIDENING.

Approval by \_\_\_\_\_ City Engineer \_\_\_\_\_ Date \_\_\_\_\_

CITY OF SALEM  
 DEPARTMENT OF PUBLIC WORKS

## PAVEMENT WIDENING DETAILS

DRAWN BY: *Garry Seely*

DATE: APRIL 1994

APPROVED BY:

NO.: