

County of Santa Cruz

DEPARTMENT OF PUBLIC WORKS

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AGENDA: JANUARY 15,2002

January 3,2002

SANTA CRUZ COUNTY BOARD OF SUPERVISORS 701 Ocean Street Santa Cruz, California 95060

SUBJECT: REVISION TO THE OPEN TRENCH BACKFILL REQUIREMENT

Members of the Board:

On December 11,2001, your Board directed the Department of Public Works to report back on or before January 15,2001, with a proposed revision to the County Design Criteria standards for open trench backfill and asphalt cap requirements.

Attached for your consideration and approval are the proposed revisions to the longitudinal and cross trench details in the County Design Criteria. These changes include a minimum trench cap of eight feet and an increased minimum "T" section of **36** inches for cross trenches and 24 inches for longitudinal trenches. These changes are intended to encourage utilities to combine their facilities in a joint trench. It will also reduce the "speed bump" effect from multiple narrow cross trenches.

Our department is continuing to work with County Counsel to develop a trench cut fee ordinance. Public Works and County Counsel are proposing to use the services of a specialized pavement engineering consultant that will assist us in reviewing and summarizing pertinent studies conducted by other agencies on utility trench cut impacts. In order to avoid Proposition 218 conflicts, it is important that the proposed trench cut fees be substantiated through engineering studies that correlate the fee to the actual damage done by trenching. The consultant will help us in this review and determine if an engineering study should be conducted using the County's construction cost database for local roadway conditions. In addition, the consultant may assist us in further defining the longitudinal and cross trench details as they relate to the trench cut fee ordinance.

It is therefore recommended that your Board take the following action:

- 1. Approve the trench details for the County Design Criteria.
- 2. Direct Public Works to return on or before May 7,2002, with a proposed trench cut fee ordinance.

Yours truly,

THOMAS L. BOLICH Director of Public Works

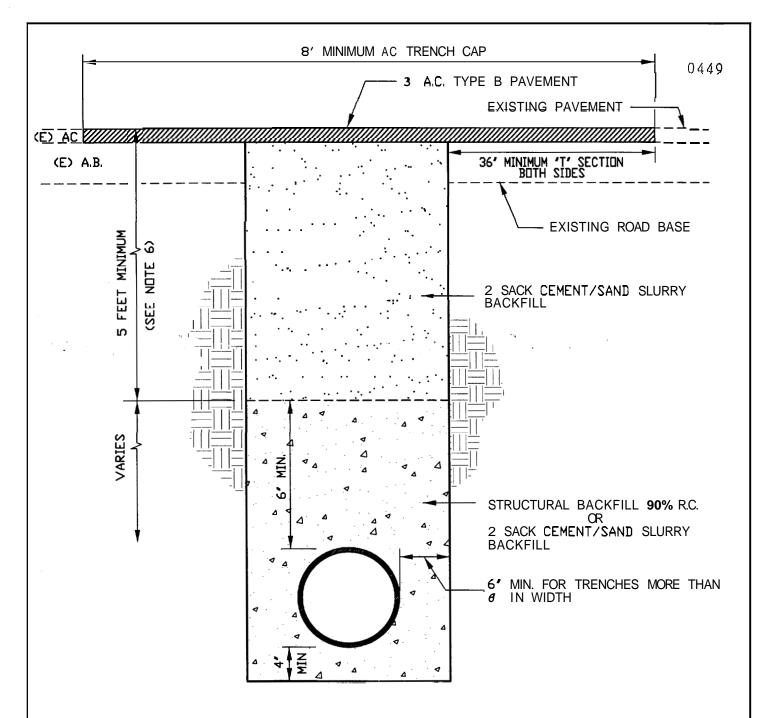
JES:bbs

Attachments

RECOMMENDED FOR APPROVAL:

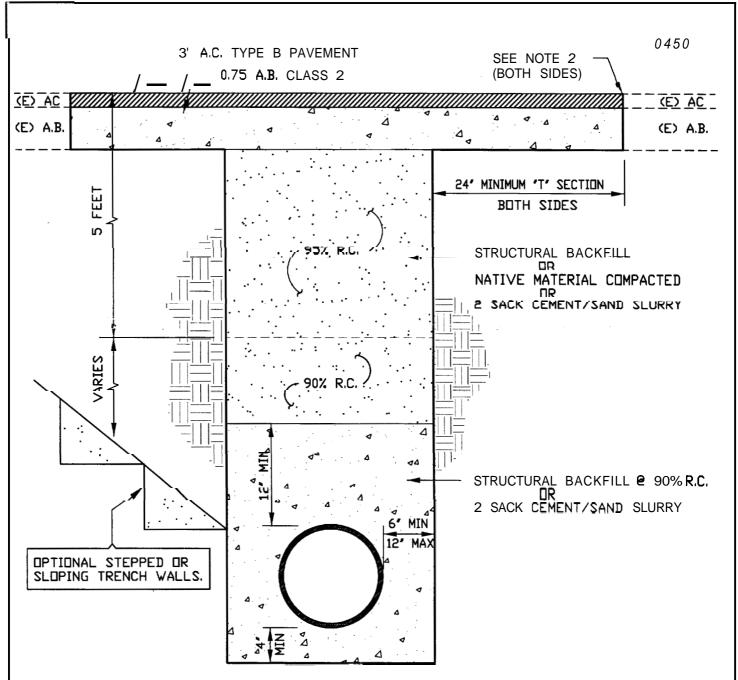
County Administrative Officer

Copy to: Public Works Department



- 1. OTHER METHODS OF TRENCH BACKFILL MAY BE USED ONLY WITH WRITTEN PERMISSION FROM THE DIRECTOR OF PUBLIC WORKS.
- 2. TRENCH SHALL BE CAPPED WITH 3' A.C. TYPE B MINIMUM, WHERE THE EXISTING PAVEMENT IS GREATER THAN 3' THICK, IT SHALL BE REPLACED IN KIND.
- 3. CEMENT/SAND SLURRY SHALL BE MIXED IN A TRANSIT MIXER (CERTIFICATION TAGS REQUIRED), SHALL CONSIST OF 188 LBS. OF CEMENT FUR EACH CUBIC YARD OF MATERIAL, AND SHALL HAVE A 7-9 INCH SLUMP.
- 4, PRECAUTION SHALL BE TAKEN TO AVOID FLOATING CONDUITS.
- 5. OPTIONAL1 SHAPED BEDDING OR SAND CRADLE TO 6' ABOVE PIPE,
- 6, FOR TRENCHES LESS THAN FIVE FEET DEEP, SLURRY BACKFILL SHALL EXTEND FROM ${\it 6}'$ above top of pipe to bottom of ac pavement,

CROSS TRENCH DETAIL



- 1. PAVEMENT SHALL BE REPLACED IN KIND, HOWEVER, MINIMUM STANDARDS ARE AS FÜLLÜWS:

 A PAVED ROADS 3' AC TYPE B OVER 0.75' PRIME COATED AB CLASS 2
 - A, PAVED ROADS 3' A.C. TYPE B OVER **0.75'** PRIME COATED A.B. CLASS 2.

 B. NUN-PAVED ROADS SINGLE SEAL COAT OVER 0.50' A.B. CLASS 2 IN TRENCH AREA, THEN SINGLE SEAL COAT ENTIRE ROAD SECTION.
- 2. CUT EXISTING PAVEMENT TO PRODUCE A STRAIGHT VERTICAL FACE AGAINST WHICH TO BUTT THE TRENCH PAVEMENT.
- 3, LONGITUDINAL TRENCHES WITHIN A PAVED AREA OR A ROAD RIGHT-OF-WAY SHALL BE BACK FILLED AS SHOWN ABOVE.
- 4. TRENCHES DUTSIDE A PAVED AREA OR A ROAD RIGHT-OF-WAY SHALL HAVE BACKFILL COMPACTED TO NOT LESS THAN 90% RELATIVE COMPACTION,
- 5, AN INSPECTOR, QUALIFIED BY THE DIRECTOR OF PUBLIC WORKS, SHALL BE ON SITE DURING ALL COMPACTION WORK TO OBSERVE UNIFORM COMPACTION METHODS AND MATERIALS,
- 6. IF THE EDGE OF THE LONGITUDINAL TRENCH IS WITHIN 2 FEET OF THE EXISTING EDGE OF PAVEMENT, THE SHOULDER PAVEMENT SHALL BE REMOVED AND PAVED ALONG WITH THE TRENCH PAVING.

LONGITUDINAL TRENCH DETAIL