



County of Santa Cruz

PLANNING DEPARTMENT

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ALVIN D. JAMES, DIRECTOR

February 14, 2001

AGENDA: February 27, 2001

Board of Supervisors
County of Santa Cruz
701 Ocean Street
Santa Cruz, California 95060

SUBJECT: REVISED RURAL ROAD STANDARDS

Members of the Board:

On December 14, 1999, your Board adopted a number of policy and ordinance amendments, including revisions to the rural road standards, for privately maintained roadways. These revised road standards required a drain rock surface for all roads with grades between 0 and 10%, instead of the currently required baserock surfacing. Following adoption by your Board, this package of amendments was forwarded to the Coastal Commission for its review. In May 2000, the Coastal Commission adopted the revised road standards as a minor amendment.

On June 20, 2000, your Board directed Planning staff to present a report outlining the efforts the Department was undertaking to educate the public and facilitate the implementation of the recently adopted standards. Planning staff began the outreach process by first discussing the new road standards with the Fire Chiefs Association of Santa Cruz County. As a result of these discussions, Planning staff reported back in September and December 2000 (Attachments 7 and 8) that the Fire Chiefs Association had a number of concerns with the adopted road standard as well as the existing road standards in the Grading Ordinance. Planning staff requested and your Board granted additional time to allow the Planning Department and the Fire Chiefs Association to complete the review of the road standards and to develop any necessary revisions prior to any additional outreach.

Background

Section 16.20.180 (Design Standards for Private Roads, Driveways and Bridges) of the County Code, a part of the County Grading Ordinance, establishes standards for the construction of all private roads, driveways and bridges where a Grading Permit is required (Attachment 1). This section, adopted as a part of the original Grading Ordinance in 1977, had not been amended since 1984, until your Board adopted the amendment to the road surfacing standard as a part of the timber regulations (Attachment 2). As mentioned above, this amendment would require that all new private roads and driveways with grades between 0 and 10% be surfaced with 2 inches of drain rock compacted into a 4 inch sub-grade of Class II baserock. This new

surfacing requirement was intended to reduce the deterioration of private roads and the resultant erosion problems.

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Soon after the adoption of the new road standard by your Board, as a part of the Planning Department's initial outreach, the Fire Chiefs Association expressed a concern with the new standards. They also raised concerns about the existing standards, which had not been revised even though significant changes to the **County's** Fire Code and General Plan Fire Safety Element were made in 1998 and 1994, respectively. Specifically, the Fire Chiefs Association had concerns about the ability of their vehicles to negotiate roads with the proposed drain rock surfacing. In addition, they also were concerned that the current private road, driveway and bridge standards in the Grading Ordinance were not consistent with the County Fire Code or the **County** General Plan/Local Coastal Program Land Use Plan (GP/LCP). Planning staff and the Fire Chiefs Association have been meeting on a monthly basis to address these issues and have crafted amendments to the Grading Ordinance which are consistent with the **County** Fire Code and the **County** GP/LCP.

Road Standards

The proposed amendments to Section 16.20.180 (Attachment 3) modify the wording of the section for clarity and conformity with the current Fire Code and General Plan. The following table summarizes these changes:

STANDARD	CURRENT GRADING ORDINANCE	PROPOSED GRADING ORDINANCE
all-weather surface	5 inches of baserock, Class II or certain Class IV; if grade exceeds 15%, 1 ½ inches of asphaltic concrete (or 4 inches of concrete, with no sub-base); if grade exceeds 10% and there are high erosion hazards, oil and screenings can be required	6 inches of compacted Class II baserock; 95% compaction required; if grade exceeds 15%, 2 inches of asphaltic concrete (or 4 inches of concrete, with no sub-base); oil and screen required for all other roads with grades up to 15%; all secondary access roads require 2 inches asphaltic concrete
road dimensions - width	16-feet wide for roadway, 12-feet wide for driveway (the 16-foot wide road may be reduced to 12-feet if there are environmental constraints, if turnouts (12' x 30') are provided every 500-feet and approved by Fire Chief)	18-feet wide for roadways serving more than 2 habitable structures; 12-feet wide for driveways serving 2 or fewer habitable structures (the 18-foot wide road may be reduced to 12-feet if there are environmental constraints, if turnouts (12' x 35', with approach and departure areas) are provided every 500-feet and approved by Fire Chief);
bridges - width	16-feet	20-feet; may be reduced by fire chief consistent with Fire Code and GP/LCP
bridges - vertical clearance	n/a	14-feet
bridges - design	H-20 loading	HS-20-44 (25 ton); posted at both ends of bridge

STANDARD	CURRENT GRADING ORDINANCE	PROPOSED GRADING ORDINANCE
maintenance	n/a	requires all roads, driveways and bridges to be maintained as originally constructed

The proposed road, driveway and bridge standards were based on the Policy 6.5.5 of the 1994 County GP/LCP (Attachment 4) and the requirements of the County Fire Prevention Code (Chapter 7.92 - Attachment 5).

As indicated in the table above, the major areas of the amendment deal with the width and surfacing of roads and driveways. The roadway widths specified in the proposed Grading Ordinance have been increased to be consistent with the **minimum** widths established by the GP/LCP and the Fire Prevention Code. These widths (18-feet for more than two habitable structures and 12-feet for two or fewer habitable structures) will allow fire apparatus to gain access to the structures in the event of an emergency while allowing residents to exit the area. The exception clause, which allows for the reduction of the 18-foot wide roadway to 12-feet (with approved turn-outs) in cases where there would be significant environmental impacts resulting from meeting the full width standard, is retained with minor modifications.

The surfacing requirement has been upgraded to require oil and screened surfacing for **all** roads with grades between 0 and 10%. This standard is consistent with the Fire Prevention Code definition of 'all-weather' road surfacing and the intent of the 1999 amendment to reduce the amount of erosion from new roads. While this will increase the construction cost of new roads (and all road improvements where a grading permit is required), the property owner and the community will benefit from the savings in long-term maintenance of the roads, the reduction in sedimentation in area streams and the improvement in fire apparatus access.

Other minor changes to the Grading Ordinance standards include changes to the standards for bridge construction, a requirement for permanent maintenance of the roadways and bridges constructed under the Grading Permit and a number of wording changes that have been added for clarity. The standards for new and replacement bridges include minimum requirements, consistent with the Fire Prevention Code, for width, weight limit and posting. These standards will insure that bridges are capable of supporting fire apparatus and allow adequate vehicular access. The maintenance requirement is a new provision to insure that property owners maintain their roads as they were constructed, thereby maintaining adequate fire, vehicular access and proper drainage.

Discussion and Recommendation

The road surfacing standards approved by your Board in 1999 were originally proposed to be applied to new private roads as well as to new timber harvest roads. However, the road surfacing standards that were a **part** of the 1999 and 2000 packages of amendments to the Forest Practice Rules were not approved by the California Board of Forestry. Your Board, however, approved the amended standards for use on private roads and subsequently directed

the Planning Department to prepare a public information and implementation program for the new standards.

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Regrettably, during the preparation of the revised road standards, staff only focused on the road surfacing standards and did not examine the entire section for consistency with the General Plan/Local Coastal Program Land Use Plan. In discussions with the Fire Chiefs Association regarding the new road surfacing standard, it became apparent that additional changes had to be made to Section 16.20.180 (Design Standards for Private Roads, Driveways and Bridges) to bring the section into consistency with not only the GP/LCP but the Fire Prevention Code as well. The proposed amendments to Section 16.20.180 are consistent with the GP/LCP and are consistent with the County Fire Prevention Code.

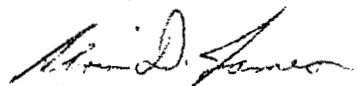
Over the past year, Planning staff, Public Works and the Fire Chiefs Association has worked together to identify and resolve a number of issues related to road access and fire safety. The proposed amendments to the Grading Ordinance are a product of this collaboration. We are continuing to meet monthly to work towards resolving other fire safety issues (Attachment 6).

Staff recommends that your Board direct the Planning Department to process the proposed amendments to the Grading Ordinance (Attachment 3), including the required review under CEQA and public hearings before the Planning Commission and your Board. When this matter is brought to your Board for the public hearing, staff intends to include a program for the implementation of the ordinance following certification by the California Coastal Commission. This program will include educational outreach, including meetings with neighborhood groups and road associations, and other actions to inform the public and the road builders of the County about the new standards.

It is, therefore, RECOMMENDED that your Board:

1. Accept and file the report on amendments to County Code Section 16.20.180 (Design Standards for Private Roads, Driveways and Bridges); and
2. Direct the Planning Department to process the suggested ordinance amendments as a part of the current year's work program (Attachment 3); and
3. Direct the Planning Department to include an implementation program for the new road standards as a part of the materials for the public hearing before your Board.

Sincerely,


Alvin D. James
Planning Director

Recommended: _____
Susan A. Mauriello, CAO

- Attachments:
1. Section 16.20.180 (Design Standards for Private Roads, Driveways and Bridges)
 2. Subsection (h) of Section 16.20.180 (Design Standards for Private Roads, Driveways and Bridges), revised December 1999
 3. Proposed Amendments to Section 16.20.180 (Design Standards for Private Roads, Driveways and Bridges)
 4. Section 6.5, Santa **Cruz** County General Plan/Local Coastal Program Land Use Plan
 5. County Code Chapter 7.92 - Fire Prevention Code
 6. Letter of Ron Rickabaugh, President, Fire Chiefs Association of Santa Cruz County, dated February 1, 2001
 7. Letter of *Alvin* D. James, Planning Director, dated September 19, 2000
 8. Letter of *Alvin* D. James, Planning Director, dated November 15, 2000

cc: Fire Chiefs Association of Santa **Cruz** County
Public Works

ly), shall have down drains. (Ord. 2500, 11/8/77; 3321, 0476 11/23/82)

16.20.180 DESIGN STANDARDS FOR PRIVATE ROADS, DRIVEWAYS

 AND BRIDGES.

(a) All private road and driveway construction requiring a grading approval shall conform to the provisions of this section. These requirements may be modified for emergency access, temporary roads, or roads leading to an agricultural building or well site if approved in writing by the Planning Director.

(b) Width of roadbed for a roadway shall be 16 feet minimum; width of a driveway shall be 12 feet minimum. Where it is environmentally infeasible to meet these criteria (due to excessive grading or tree removal), a 12-foot wide all-weather road with 12-foot wide by 30-foot long turnouts located approximately every 500 feet may be approved with the approval of the fire department. The distance between turnouts may be adjusted at the discretion of the Planning Director if deemed appropriate for reasons of topography, environment or emergency access.

(c) Minimum centerline radius shall be 35 feet. (EXCEPTION: Driveways which serve as access to any habitable structure and which are 150 feet or less from the main road.)

(d) The maximum grade of the road or driveway shall not exceed 15 percent; however, grades of up to 20 percent are permitted for up to 200 feet at a time.

(e) The structural section shall consist of a minimum 5 inches of baserock, Class II or Class IV. Class IV aggregate base should have a minimum R value of 50, and not more than 10 percent of the aggregate shall pass the number 200 sieve.

(f) Where the subgrade is designated as an expansive clayey soil, the structural section should be determined using the California Design Procedure.

(g) The aggregate base required by these design standards can be omitted if the Planning Director determines that the native material provides sufficient bearing capacity for all weather use.

(h) In all cases, where road gradients exceed 15 percent, 1-1/2 inches of asphaltic concrete shall be provided. (EXCEPTION: aggregate base and asphaltic concrete may be omitted if a structural section of 4 inch concrete is used.) Where road gradients exceed 10 percent and a high erosion hazard has been identified by field review, oil and screen may be required at the discretion of the Planning Director.