

Muir Beach Community Services District  
Roads Committee Preliminary Report  
March 21, 1984

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The Roads Committee has met 3 times since the last CSD Board meeting to review the condition of Muir Beach community roads and develop a preliminary plan for their repair & maintenance. The review included a 5 hour, foot by foot walking inspection of all the roads. The Committee has developed the following recommendations for the CSD and community to consider.

The Committee found that due to the last two years of severe winters and many years of inadequate funds for maintenance, many portions of the community roads have suffered major deterioration. If work is not done prior to the next winter, major failures of the road bed itself is possible. The Committee found that in many sections of the roads the existing (or non-existing) drainage fails to carry water away from the roads, protect the subsurface from saturation (and subsequent softening or settling) and doesn't protect the outside shoulder from erosion. While the Committee considered other aspects of the roads (such as quality of surface, width, space for parking & turning, etc.), the limited availability of CSD funds required that we focus on improving of the drainage system. In any case, this would be the first step in any renovation of the road system that the CSD might undertake.

As the Committee examined the drainage problems it developed the following minimum standards of work that must be done to our community roads in order to protect them from serious damage next winter.

Existing paved roads:

Clear all ditches of debris and vegetation, deepening and widening as necessary to accommodate normal runoff, cutting sluffing back to existing banks and clearing existing dirt berm between road and ditch.

Open all collapsed driveway culvert ends and flush culverts. Provide adequate structure to protect entrance to culvert and allow easy cleaning. Where bottom end of culvert is lower than ditch or swale, deepen it to provide clear path for flow.

Where there is evidence of major ground waterflows causing year-round softening of subsurface, install french drains to carry water off and into paved ditch.

Where swale is appropriate (as indicated by Committee) fill ditch with AB gravel, compact and pave with 2" of asphalt, continuing 6" up bank.

Correct up to 2" of incorrect outward slope by paving with asphalt. Where incorrect slope exceeds this, place berm on outside of road shoulder to provide swale for water to run on the outside edge and to protect the shoulder from erosion and parking breakage.

Where water runs along the road or outside edge, provide diagonal berms at intervals to carry the water to the inward side.

Where patterned cracking of pavement allows water to penetrate road but surface is relatively smooth, seal heavily with chip seal.

Patch potholes & major cracking with individual asphalt patches wherever possible. When large potholes, settling and cracks form a continuous pattern, pave whole road with 2" of asphalt, leveling up to an additional 2" as needed.

#### Armor Coated Roads (gravel saturated with asphalt/oil binders)

Treat as paved roads but use armor coat rather than asphalt.

#### Dirt & Gravel Roads

Grade road to reestablish proper inward slope to the road, remove high center, reposition existing gravel and reestablish ditch.

Clear all existing ditches of debris and vegetation, deepening and widening as necessary to accommodate normal runoff, cutting sluffing back to existing banks.

Open all culvert ends and flush culverts. Provide adequate structure to protect entrance to culvert and allow easy cleaning. Where bottom end of culvert is lower than ditch, deepen it to provide clear path for flow.

Place, level and compact 2" of AB gravel on road to establish even drainage surface.

Where outside shoulder is subject to erosion place asphalt berm to protect it.

#### Lateral drainage ditch below Ahab Drive flowing to the Little Beach drainage

Place sandbag or other protective works at beginning outlet of ditch and fully widen and deepen ditch to allow for the major water runoff that it must carry.

As we completed our survey of road conditions, applying the standards above and compiling a list of work that needed to be done, we were quickly impressed with the amount of road surface the CSD must deal with: more than 8,300 lineal feet of road or more than two acres of road surface. We were also alarmed by the extent of the degradation that has resulted from the last two years of storms and CSD's inability to allocate anymore than token funds to maintenance since Proposition 13's cut in tax revenues.

As we began to put together a plan to repair the drainage system, it became clear that the scope and quantity of work would require a full time person to coordinate the work during the three month period that we estimate it would

take to complete the project. Because the CSD Manager must continue to be responsible for the water system and all his other duties and is only a part-time employee, coordination and completion of such a major renovation, before October of 1984, would be impossible for him to also perform. The Committee therefore feels that a separate Project Foreman is needed to administer the project. The CSD Manager would act as a consultant to advise the Foreman of possible maintenance problems, water pipe locations, historical drainage, etc. and assist when not working on other projects of the CSD.

The Foreman would be responsible to plan the whole project, hiring labor and recruiting volunteers as necessary, contracting for and scheduling equipment and delivery of materials, supervising both paid & volunteer labor, insuring that all work is done to standards set by the Board & the Committee and that the Project is completed on schedule and within budget.

Only about \$10,000 is available for this project from a combination of Federal Emergency Management Agency funds and money budgeted for roads this year & next. With our best estimate of costs, this will probably only cover funds for materials and equipment rental, but not for hand-labor and salary for a project Foreman. Thus the Board must seek other sources of revenue, such foundation funding, formation of improvement zones for each road, or raising of the special general tax to \$150 per parcel. In any case volunteer labor will probably be necessary to complete the work.

If the Board approves our preliminary plan, we recommend that they schedule a public meeting prior to the next Board meeting, to review road by road each of the problems, the proposed solutions to them and get specific input from residents on their concerns.

Funding can then be sought for the Foreman, work start by mid-June and the project be completed by the end of September.

The Committee will then focus on developing a long range plan for keeping the roads maintained, with regularly scheduled cycles of upkeep for each road. They will also develop a proposal to install a major new drainage system as recommended by the county to divert the excess of water coming off of Ahab and Seacape into the Little Beach drainage and seek major funding for it over the next two years.