DIGEST of
DOT MAINTENANCE BUILDINGS

In response to a legislative request, we have reviewed the Utah Department of Transportation's (UDOT) prototypical highway maintenance building for appropriateness of size, cost, and configuration. UDOT has built prototype facilities in Randolph and Kanab, and , according to the most recent five-year plan, would construct 23 more facilities at an estimated cost of $20,378,000 over the next five years.

We found the size of both prototype buildings to be unneces- sarily large for the number of trucks actually housed at those locations. ALso, the prototype provides more space per truck than buildings in other states. Further, cost reductions of over $127,000 are possible through a reconfigured building design, or alternately, reductions of $51,000 per building are possible if features are modified in the prototype design. UDOT has accepted $41,000 in cost reductions. We believe that a full programmatic review of the features needed in a maintenance building should be conducted by DFCM. Finally, this report suggests that the Legislature make a policy decision from three provided alternatives regarding the prototype.

The following summaries describe the most significant findings of the audit:

Prototype Size at Two Sites Is Unnecessarily Large. The maintenance buildings at Randolph and Kanab have been built unnecessarily large for the equipment assigned to them, with two trucks at Randolph which has a five-truck capacity, and four at Kanab which has a seven-truck capacity. UDOT adminis- tration has acknowledged that a better needs assessment should be developed to ensure that the future buildings will be built at the needed size and no larger. An analysis of the trucks used for snow plowing rather than crew size should be the basis for setting the size of the buildings.

Prototype Has More Space per Truck Than Buildings in Other States. Not only are Utah's two prototype buildings larger than necessary to accommodate the assigned trucks, but the square footage per truck is large when compared to maintenance buildings in other western states. All six states contacted provide less space per truck than Utah does; Utah averages 1,558 square feet per truck while other states average 1,051. One of the other six states, Wyoming, uses drive-through buildings, but even so the majority of maintenance buildings there are the traditional style with pull-in, back-out bays. The drive-through styles of UDOT's prototype contains more total area because of an enclosed drive lane and a separate work area. As a result, less space is devoted specifically to vehicle storage. The prototype designates about 43 percent of its area to vehicle storage, while buildings in other states average 67 percent.

Cost Reductions Are Possible to the Prototype Design. The results of a Value Engineering (VE) review of the prototype design show that cost reductions are

possible in two ways. FIrst, a reconfiguration of the design was estimated to cost $127,000 less than the prototype at Kanab. Second, without redesigning the buildings, cost reductions of $51,000 were estimated if features were modified or eliminated; UDOT has agreed to incorporate $41,000 in cost reductions into the prototype. We reviewed a few specific prototype features such as high interior clearance, a separate work area, and decorative split face masonry block and cannot verify their need. Because an architectural program has never been done to consider the needs in a maintenance building, DFCM should conduct a full architectural or program review of the prototype.

Legislature Needs to Make A Policy Decision on the Prototype. The Legislature needs to consider what direction UDOT should take with the prototype maintenance building. First, the Legislature can set aside funding for the requested maintenance facilities for fiscal year 1993 with the intent that the funds will not be used until a full programmatic review is conducted by DFCM. The intent language could specify that funding be made available only for cost-beneficial features necessary to the maintenance function, and be tied to the concerns in this report and the VE review recommendations. DFCM would report the results of the programmatic review to the Legislature during the 1993 session.

Second, the Legislature could choose to ask for a programmatic review without providing any funding this year. DFCM would then report back to the Legislature and decisions would be made on funding next session. However, this decision would prevent any facilities from being built this year.

Finally, the prototype design can be approved and funded as modified by the cost reductions already discussed. If the six facilities in UDOT's request are built, the cost will average $886,000 for each building plus fencing, paving, storage shed, fuel tanks, and other site improvements. However, building the modified prototype does not address programmatic concerns outlined earlier in this report.