RELATION OF THE ENGINEER TO CONTRACTOR AND PUBLIC ON COUNTY WORK

By Wm. E. Morthland, Porter County Surveyor

The engineer is given by the public a great amount of authority in the management of its affairs, and with that authority he takes on a great responsibility. He should have the good of the public close to his heart. He should be working for it with an honesty of purpose to secure work of a quality in keeping with the amount of money it is advisable to spend. In the planning of his work his whole energy and ingenuity should be devoted to his public with no other consideration than securing for it a class of workmanship in its structures which, when properly viewed in the light of modern economics, most nearly fills the wants of the community. In his zeal for fine workmanship, in his appreciation of beauty, and in his ideals of technique, all his plans are inclined to be executed with the idea of perfection. Sometimes perfection must give way to practical consideration. Two miles of road of lesser design may serve the needs of the community better than one mile of road of the highest design.

In frankly designing a structure supplying this demand for cheapness, care should be used in not sacrificing those things which make for permanency and economy of maintenance. But when once the structure is under contract, it is a poor time for the engineer to have a change of heart and demand of the contractor those things which originally were never a part of his plan. He who will, through cowardice under public criticism, demand of the contractor things never contemplated in his original design is not playing the part of a real man with the contractor. Such action on his part will eventually make the contracting fraternity wary of work under his jurisdiction and bids on his work will reflect this distrust by being higher than they otherwise would be. On work where his ideals may justly be given full vent his plans and specifications should so clearly express his intention of demanding perfection of detail that there is no chance of misunderstanding. Here in his relations to the public, perfection should be demanded.

The public has a right to expect in its engineer a reasoning power correctly to interpret its needs and an ability technically to express those needs clearly in plans and specifications. The public has a right to demand of its engineer that once its needs are expressed in plans and specifications those needs shall be fully delivered by the party contracting to deliver. I believe the public is entitled to courtesy and respect
when it has suggestions to make. I believe the public is entitled to open, frank expression by its engineer on matters pertaining to its welfare, entrusted to him. I believe the public is entitled to have for its engineer a man with backbone, unafraid to champion the cause of right as he sees it, whether it favors the contractor or the public. My confidence in public fair-mindedness leads me to believe that such an engineer will hold public respect and support.

**Relation to Contractor**

What may the contractor have a right to expect from the engineer? The contractor may first of all expect courtesy and a friendly and helpful attitude. The contractor should feel that nothing short of that specified will be allowed on his job, knowing full well that the same honesty of work is being demanded of his competitor. The contractor has a right, after having delivered a job according to plans and specifications, to be protected by the engineer against unjust demands and criticism.

The engineer by interpreting the needs of the community makes the laws by which some contractor constructs the structures filling those needs. Comparing his functions to the functions of government—legislative, executive, and judicial—his field may truly be considered legislative when he plans his project. It is somewhat executive when he lays out line and grade for the work. It is very much judicial when he must judge whether his laws of construction are being truly lived up to, and whether demands by certain influences helping to pay the bills are just and a part of the contractor's obligation. Yes, the engineer needs some fundamentals of conduct if he is to hold the respect of his community when acting in such a varied capacity. The legislator is flattered, cajoled, and sometimes even bribed by those seeking special legislation. The executive receives his special attention from those seeking favors. We hate to think of judges being approached by anyone with any but the highest of motives, but judges we know are banqueted, are courtesied, and even flattered by people with selfish intent. I am inclined to believe that the successful legislators, executives, and judges must each have some code of ethics, some creed or exceedingly good sense, or how else could they from year to year under such pressure maintain their independence, their self-esteem, and public confidence?

As engineers, we know that we are sometimes more popular, more banqueted, more sought after than our own personalities of themselves would warrant. We know that from contractors' and materialmen's viewpoint, when their motives are the most honest, a close friendship with the engineer is desirable. Such friendships are often proper and make for bet-
ter relations and understandings. Contractors know that friendships are cemented in play. We should know that play is sometimes costly and that few engineers can afford a great outlay along these lines. The contractor or materialman, being usually the more prosperous, is inclined to foot the bill. All this can be with the best of motives. We can any of us see that since the contractor is more prosperous, it is perfectly natural for him, with his more expensive tastes, to take his young friend along with him and foot the bill, which in moderation may be perfectly proper. Nevertheless, for the young engineer to throw aside all restraint and allow himself pastimes he can not afford, and at the expense of others, soon places him under obligation. This predicament can be most destructive to his good intentions of conducting himself in his official capacities in an unbiased and aboveboard manner. Such a predicament can and often has defeated the young engineer in meeting his obligations, both to the public and to the contractor. Such a predicament can haze his mind and otherwise unfit him for his duties.

As a useful creed for the engineer I have copied one which applies to him equally well in his relations to contractor and public; one which I found in the “Monad” when I was a young fellow in the army. I keep it handy to freshen my memory.

“The honesty which is unswerving,
The truthfulness which abhors a lie,
The helpfulness which lightens the burdens of life,
The human sympathy which gladdens aching hearts,
The honor which scorns to take a mean advantage,
The courage which always dares to do right, and
The courtesy of kindliness.”

WHAT CONSTITUTES AN ADEQUATE RIGHT OF WAY WIDTH FOR COUNTY ROADS?

By George R. Harvey,
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I do not believe that it is possible properly to construct a county road on 30 feet of right of way. Of course I realize that certain laws have been passed by the legislature and are now in force which have influenced the adoption of the 30-foot right of way by some of the counties. The road supervisors' law permits counties to take over township roads of a minimum width of 30 feet. In some counties the county commissioners are opposed to the idea of requiring the owners of abutting land to set their fences beyond this limit. In fact,