

National Engineers' Week February 21 - 27, 1965

*"Talk file"*  
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Article for Newspaper.

CONSULTING ENGINEER

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THE ENGINEER - A PUBLIC SERVANT

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By public proclamation government officials throughout the United States have declared February 21 through 27, 1965 as Engineers' Week. The significance of this week in February lies in its illustrious relationship with George Washington's birthday.

The theme of Engineers' Week - Engineering for Human Needs - sharpens the focus on the engineer's true purpose. As did George Washington, today's engineer bears heavy responsibility for protection of our nation's public health, welfare, and safety.

The engineer is many things - public servant, industrialist, researcher, teacher and advisor. He bridges the gap between those who seek to resolve their public and private interests with natural physical laws governing our environment. In fact, engineering is defined as the profession in which a knowledge of mathematical and natural sciences is applied with judgment to economically utilize the materials and forces of nature for the benefit of mankind.

Engineering for human needs goes back to the time of Tubal Cain, an instructor of workers in brass and iron. He lived, according to the book of Genesis, seven generations after

National Engineers' Week

Article for Newspaper

-2-

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Adam. Since Cain, engineers have participated in a multitude of discoveries for public good, including the lever, the wheel, the screw, the column, the arch, the beam, the dome, canals, roads, bridges, rocketry and space travel. All attest to his prowess in molding imagination, abstract ideas and natural resources into practical projects.

Engineers' Week serves to inform those who are not engineers what engineers do, but even more importantly, to remind the engineer of his heavy public obligation. A quick glance at the various operations maintained for public benefit by the citizens of Detroit and their government shows the depth of penetration and broadness of responsibility for public good which rests on the Detroit area engineer. Functions that require an engineering approach in their daily task of public service in Detroit include:

- Water treatment
- Sewage treatment
- Street & highway design
- Smoke control
- Traffic safety
- Garbage and trash disposal
- Building inspection
- Civil defense
- Public transportation
- Health facilities
- Industrial safety & hygiene

Urban planning

Public lighting

Parks and recreation

Storm water control

The rewards of good engineering not only accrue to the public. The engineer himself experiences professional enjoyment of the life around him, often denied those in other businesses. The learning and use of engineering techniques exposes his mind to a vast variety of knowledge. Consider for a moment, the design of a sewage treatment plant, certainly not a romantic institution in the minds of the public. The engineer who designs such a plant works, however, with experts in bacteriology, hydraulics, structures, machinery design, power supply, heat exchange and chemistry. Design of a recreational facility brings the engineer in close touch with land planners, foresters, entomologists, statisticians, and sociologists.

Nor is intellectual stimulation the only reward the engineer gains in the practice of his profession. His projects are usually physically evident. He can watch a skyscraper, a highway, or a complex piece of machinery grow and become a useful tool to serve the public good.

The engineer is also repaid in his work by the challenge to his decision making mind. He often takes a quiet position of leadership through honest and forthright expression of ideas demanded by engineering tradition. Yes, the practice of engineering is a two way street, serving the public, while bringing vocational satisfaction to those who practice well.

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-4- CONSULTING ENGINEER

The heritage of the engineer gives high value to pride of achievement and fortunately, today the opportunity for true service in the engineering profession is unlimited. A boy or girl who wants to become an engineer can fill a need in our society to truly and honestly interpret the natural sciences for the beneficial use of man.

Our technology has come a long way from the book of Genesis but the tradition of achievement for public good is still very much a part of the professional engineering fabric. Engineering for human needs is a calling that ranks high among the dedicated activities of professional men and women.