

## CIVIC FORETHOUGHT

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Before the advent of our modern city, human life and habits were considerably less complex than they are today. The family was a unit unto itself, dependent upon outside assistance only in cases of dire necessity. This condition tended therefore to make existence intensely individualistic and extremely simple.

How contrary is our present day mode of living, wherein we now find the individual citizen somewhat lost within the mass, constantly striving to compete by a greater specialization of endeavor. Consequently we behold the city as a vast collection of individuals, functioning according to the primitive laws of nature, in so far as the preservation of life and the pursuit of happiness is concerned, yet depending altogether upon their neighbors for the very things which somewhat guarantee this preservation of life and make possible the realization of happiness.

Formerly it was in the home that the fulfillment of the major activities occurred, but changing conditions have caused a separation of these, setting apart each in its place by definitely separate areas suitable for their pursuit.

Consequently, we now see busy mills and factories for the manufacture of clothing and various articles of use. We see also large and small warehouses for their storage and numerous shops and stores for their sale at retail. Separate buildings are erected for amusement and for the various trades and professions. These all exist now in addition to the homes of the people. Each classification requires certain conveniences and environment in order to function economically and orderly.

### City Streets

In the proper plan of a city, the streets and pavements naturally act as the arteries and veins through which transportation ebbs and flows. Like the veins of the human body, some must be larger than others, depending upon the volume of work to be accomplished. It seems then just as absurd to have too wide a roadway in a purely residential district, which would automatically attract commercial traffic and endanger the play of children, as it is to have streets too narrow in the congested business areas.

In the plan, there should be the main arterial highways and the minor ones which feed the traffic from the local centers

along its length. Arterial highways should be so located that the traffic flow, both from the county and state routes as well as from the local areas, may reach its destination safely in as short a time as possible. The width will naturally depend upon the importance and the size of the community. Detroit and other large centers see a need for super-highways of a width of 220 feet while the average city will be adequately served by widths from 80 to 100 feet.

When cities were smaller, many of the better residences were built along what later developed into through traffic routes, with a constant stream of transportation, both freight and passenger cars, bringing their noises, odors and speed which prove so hazardous to the lives of children. We see a gradual desertion of many fine homes along these streets in preference for places more removed from this confusion.

### Need of City Plan Commissions

There is a distinct atmosphere about cities, similar to that of individual homes. When you go into them, either you feel a welcome and a desire to stay or you wish to hurry off at your earliest convenience. We officials should seek to give that feeling of comfort and joy of living to our citizens by the proper arrangement of utilities.

The one thing which makes some cities progress above others, is unselfish cooperation on the part of its citizens. Pity the city in which no dissatisfaction regarding its welfare exists, for there you have an end to improvement.

It is possible to secure an excellent city if the citizens and officials exercise sufficient forethought in its development and administration. It is comparatively simple to plan and build a new city but the reshaping of an old one to fit changed conditions presents many knotty problems.

To bring the supervision of city planning to an issue and centralize the responsibility, many cities have created city plan commissions, whose purpose is to look into the future and arrange for the needs of a future larger city without unnecessary disturbance of the present one.

It is the aim of the commission members to assist and, by suggestions as to ways and means, to bring about the development of undeveloped property. They desire, in the plats presented to them, that the streets be arranged in such manner that they lend themselves to the use proposed and that they be as nearly coterminous as possible. They do not encourage as wide a roadway for purely local residential sections as on main highways leading into the city or on main cross streets designed to carry a large volume of heavy traffic.

Wide easements, (meaning total width of roadway, sidewalks and grass plot,) are desirable in residential as well as commercial sections for the better beautification of the street

by means of plantings. These wide easements surely lend a sense of freedom which is universally felt. One of the most important things to be accomplished is to get these wide easements while the land is vacant and unimproved. Richmond just completed the widening of a street along an addition laid out before their plan commission was in existence. The addition abutted against a section line road only two rods wide. The most economical method to widen was to take a 40 foot strip off one side of the street, but even then it caused the removal of three houses and cost over \$12,000. How much easier it would have been to have planned for the future when the plat was laid out.

There is, however, an idea on the part of some, that a city plan commission is a panacea for all city ills. Few appreciate how limited is the authority given this body.

Great saving can be accomplished in securing wider easements in business areas by the establishment of building set-back lines. This allows the desired widening to be accomplished over a period of time and at the least inconvenience and cost to the city and abutting owners.

A law was passed in Indiana in 1925 regarding set-back lines, but it does not apply to cities lower than second class. The time to establish set-back lines is in the early stages of a city's growth, therefore it is the small city which has greatest need for such a law.

In Richmond, in order to prevent loss of an opportunity to widen streets where new buildings are contemplated, the building commissioner is instructed to issue no permits on corner lots without first bringing the matter to the attention of the board of works and the city engineer.

If it is found that the street is included in plans for future widening, the board of works and city engineer invite the owner into a conference on the matter. The purpose of the city in asking for a wider pavement is frankly stated to the owner. The city officials state their case in the most friendly manner, explaining problems of traffic brought about by the ever increasing number of motor vehicles and the need for increased parking space. An appeal is made to his sense of civic pride, yet all the while the owner's position and his side of the question are kept in mind. In this friendly yet business-like way the matter is discussed until the question of damages to the owner is reached.

At first some owners have an exaggerated idea of the amount of damages due them for a few feet of their property. It is, of course, perfectly human to desire as much as possible, especially from a corporation which is erroneously supposed to be heartless.

Two methods of determining damages and benefits are explained to the owner; one which may be termed the legal way and the other which is the friendly or amicable way.

The legal way varies according to statutory procedure. It is the customary method employed to widen and secure easements but it has such a harsh and impersonal touch that, afterward, there seldom exists a friendly feeling between the parties concerned. Each one imagines the other has taken an unfair advantage.

In contrast to this legal method is the amicable one where the interested parties discuss the problem and come to an agreement without condemnation proceedings.

The proposition is made to the owner that in consideration of the dedication to the city of a strip of land varying in width from 5 to 10 feet, the city will bear all expense for reconstructing the walks, curbs and pavement. The work of reconstructing the pavement is done by the city forces under the street commissioner, thereby saving all unnecessary expense to the city.

### Annexation

There is divided opinion regarding the advisability of adding to the city by annexation. I firmly believe in the idea of a city protecting itself by having a wide strip of open land about its developed territory so that it may exercise the necessary control upon its future growth. Notwithstanding the control of platting by the city plan commissions within a radius of 5 miles, the proper and complete control cannot be had when the land lies outside the city limits.

If we are to develop a high standard of living all territory to be used for city purposes should at once receive the improvements to the land necessary for the use designed.

In every growing city there are promoters ready to encourage the owners of open land to subdivide for speculative purposes. Many acres of good productive farm land each year are uselessly divided into lots. Many of these lie vacant for years, yielding only an abundant crop of rank, obnoxious weeds.

Subdivisions laid out without improvements are naturally of lower value and consequently attract a lower class of structures than would come with the natural growth of the city. It also permits a scattered development, requiring a large amount of pavement, street lights and public utilities to serve a limited population.

If the promoters were required to put up the necessary funds for the improvements to each lot, there would be less inclination to subdivide unless there existed a real demand for the lots. It is just and proper for a city to expand but it should be done compactly and uniformly.

If boundaries are not laid along water sheds, it hinders the construction of drainage and sewer systems along economical lines. Under existing Indiana laws, sewer assessments

are made on a square foot basis to benefitted property. Trunk lines should be designed to care for the ultimate contributing territory, whether it be within or without the city limits. If only one-half of this benefitted area is within the city when the sewer is constructed it is penalized by having to pay the entire cost. The half lying outside the city may come in later and connect with the trunk lines without paying its share of the cost.

It is of interest to see what cost is added to the city for the services paid the general fund. To arrive at this I have taken a typical section in Richmond, one mile long and one-half mile wide and noted the items for which the city pays. These are listed below:

UTILITIES IN ONE SQUARE MILE OF RICHMOND.

16½ miles 6 inch water main	} at 1 cent per inch \$7,233.00.	
1 mile 10 inch water main		
1 mile 12 inch water main		
1 mile 16 inch water main		
108 fire hydrants at \$12.50.....		\$1,350.00
164 arc lights at \$43.00.....		7,052.00
Collection and disposal of garbage.....		2,151.00
Collection and disposal of rubbish.....		5,126.00
Total .....		<u>\$22,912.00</u>

**Improving Vacant Plats**

In most cities, there are subdivisions scattered here and there, where the major portion of the lots remain vacant. Often these plats occur in outlying districts where the present value of the lots is comparatively low. These unimproved spots which attract inferior structures are a detriment to adjacent property. In Richmond we make an effort to encourage some type of pavement construction for these plats.

We realize that these lots cannot stand assessments for high type pavements at once, so we have evolved a type of pavement which has proved successful yet inexpensive. This type includes the use of 2 inches of cinders spread and rolled into the subgrade, which acts as a stabilizer to the clay prevailing in our district. On top of this is spread a layer of local gravel to a depth of 5 inches. To expedite the compaction of this gravel, 2 inches of crushed stone dust is spread and harrowed into the gravel and after being thoroughly wet, it is dragged and rolled alternately until hard and smooth. For a surface, 4 inches of number 1 crushed stone is spread and waterbound. To protect it against dusting, we apply one gallon of tar per square yard, in two applications, and cover each application with number 6 stone chips. After the final spread of chips, the surface is rolled. The cost of this pavement is \$1.60 per square yard.

This pavement presents a very nice appearance and gives

excellent service. After the street becomes built up and a higher type pavement is desired, it is an easy matter to lay a bituminous top over the temporary pavement. The total cost both of the initial pavement and the resurfacing, will not exceed the cost of some modern type pavements.

On streets receiving heavier traffic, Richmond is laying reinforced concrete pavements. These are 8 inches in thickness and reinforced with 52 pounds of metal. A center joint is constructed with transverse joints every 50 feet. Richmond is a pioneer in using concrete for roadways, having laid their first pavement in 1896, which is still giving service.

### Planting of Shade Trees

Three years ago the board of works realized that if the beauty of its new streets was to match up with those of the old city, they must take some action to have shade trees planted. Consequently, with each new street improvement, the item of shade trees is included. These trees are planted approximately 35 feet apart and are of the same variety throughout the improvement. A three-year guarantee is required.

After shade trees are planted it is the responsibility of the city to care for them. Many cities have recognized this and have inaugurated the necessary rules and organization for city forestry work.

It requires many years for the maturity of shade trees even when they are properly cared for. Why should cities then defer the creation of forestry departments when they are of such benefit to the city?

Three years ago, the city plan commission secured options on all but one piece of land bordering a small creek just west of the corporation line. This land was low and mostly unsuitable for residences, but would make excellent park property. They knew it was but a year or so before the city would extend its boundaries and this creek would act as the natural water-course for the storm water from that district. The land was purchased for \$100 per acre, one piece having to be condemned at \$150 per acre.

Since then the city has annexed territory  $\frac{1}{2}$  mile west of this park land and we are now ready to receive bids on a sanitary sewer 8 miles long over the entire district. Many buildings are being erected and soon it will be a flourishing part of the city.

If the city had not bought the low land where the creek flows, it would have been required to construct a storm sewer  $\frac{3}{4}$  of a mile long and approximately  $6\frac{1}{2}$  feet in diameter through this new addition to care for the drainage. In other words, the city secured 35 acres for a park which lies in the center of a new residence district, for approximately \$3,500 and saved \$40,000 on a storm drain.

A recent street widening, finally consummated, cost 15 per cent more as a result of three years' delay during which a factory located in the district and values increased. The needed improvement had been foreseen and proposed early while values remained low but was retarded by objections.

Civic progress is like a relay race, the work of one administration starts where a preceding one leaves off. If their programs can become coordinated, real results will follow.

Knowing as we do, that environment will determine to an extent, the conduct and well being of the people; it is our duty, as public servants, to raise the standard as high as we can, and though we cannot see the consummation of our plans, it may prove an incentive to those who follow after us.

## ENGINEERING PROVISIONS FOR A CITY'S GROWTH

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With your kind indulgence I wish to discuss briefly my subject of "Engineering Provisions for a City's Growth" in its relation to

1. Planning and zoning.
2. Sanitary facilities and advantages.
3. Public improvement of streets and highways.
4. Railroad grade separation.

It is my judgment that one of the most important, if not *the* most important, engineering provision for a city's growth is that of the application of sound principles of planning and zoning. A city properly planned develops a well balanced and usually a permanent growth. Careful supervision can be exercised in a city's subdivision activities to insure a provision for streets and thoroughfares that will conveniently connect both urban and suburban districts. Major streets, and convenient traveling encourage segregation which will develop expansion and growth.

Municipal growth may be traced in many instances to industrial and commercial prosperity. The lack of manufacturing sites having available shipping facilities, often due to inadequate or improper industrial zoning, is, I believe, an important consideration in the matter of a city's growth. A periodical check on the supply and demand of industrially zoned territory within a city, would, I think, stimulate a city's industrial progress. Many large employers of industrial labor seeking new factory sites, invariably give careful consideration to the