tion, and makes it inevitable that much of the progress in technical knowledge and skill on which successful city planning depends will arise from the activities of innumerable specialized organizations, most of which concern themselves little with city planning as a whole, and that on the other hand it is necessary for any organization which deliberately addresses itself to city planning as a whole to concentrate as far as possible upon those aspects of the field which cannot be, or are not, effectively dealt with upon any narrower basis.

In theory there are no limitations to the extent of co-ordination desirable among the diverse planning activities which shape the physical growth of a community or to the extent to which it is desirable to estimate future contingencies and take account of them in planning; but practically there are very decided limitations upon the amount of time and effort which can be withdrawn from the vital business of getting things done for the sake of study and planning what to do and how best to do it.

The Most Fundamental Consideration

The most fundamental consideration of all in city planning, therefore, is to apply sound, clear penetrating common sense to the problem of how far it will pay to go, under any conditions, in forecasting the future and adapting present plans to future contingencies, and in suspending plans for meeting definite limited objectives of a local or specialized sort and modifying them for the sake of community purposes with which they are not directly concerned.

The classes in specific city planning problems which are most distinctively matters of city planning are:—

(a) Those in which the permanent interests of a community justify the modification of plans so as not merely to secure the immediate objects of a contemplated improvement, but also to fit the probable contingencies of a remoter future or to fit community needs which are only indirectly connected with the objects immediately in view.

(b) Those in which a close co-ordination of planning in two or more fields of technical work ordinarily segregated from each other in practice is likely, through avoidance of conflict and fuller utilization of joint opportunities, to secure advantages commensurate with the effort of obtaining the necessary co-ordination.

(c) Those which lie so much outside of the fields which are effectively covered by any specialized planning agencies that the community is likely to suffer from their neglect.

Merely to recognize problems of the above classes as they arise in the routine of community growth and to consider them from the broad standpoint of the community's general interests is city planning in a conservative or defensive sense. But constructive city planning requires also that many such problems, long before they become acute, shall be anticipated and considered under the impulse of imagination applied toward the attainment of the larger social objectives of the community.

Limited in Three Ways

Any one discussion of city planning must be limited in one or more of these ways: (1) It may be general and superficial; or (2) it may be confined to the problems of planning a limited area in a more or less complete and co-ordinated way, as for example, the planning of a residential subdivision, or of an industrial terminal district; or (3) it may deal with a limited class of problems in wider application as considered from the city planning standpoint, as for example, the planning of main thoroughfares or the distribution of schools and playgronds.

Almost any limited subject of discussion in city planning might be, so far as mere title is concerned, as appropriate for discussion in some other technical society as in the City Planning Institute, but such subjects will be discussed here always in their bearing on all the rest of city planning rather than in their bearing on the rest of highway engineering or of the educational system or other special technical field in which they happen to fall.

COST OF UTILITIES AND STREET IMPROVEMENTS AS AFFECTED BY THE SIZE OF RESIDENCE LOTS

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At the outset it should be understood that there are other factors affecting the size at which lots should be designed, in addition to street improvements and utilities. It will be advantageous therefore to present a brief statement of these other various factors, in order that phases which are considered in this paper may be co-ordinated with them. Such factors are:—

1. Cost of land.
2. Size and arrangement of rooms in house.
3. Certain improvements that lie within the boundaries of the lot, such as grading (which is affected by topography), planting, fences, hedges and house walks.
4. Desirability of a front yard to properly set off house and to establish privacy from passers on street.
5. Desirability of a side yard to ensure sunshine, proper ventilation, adequate fire protection and suitable approach to rear.
6. Desirability of a rear yard to provide space for clothes line, house garden, garage perhaps, and playground for the children.

Elements Not Related

There are elements, even of street improvements and utilities, that in no way are related to size of lot. For example:—

(a) Those divisions of utilities that lie outside townsite boundaries, as water supply plant, both pumping station and filtration units; sewage treatment and disposal plants; power plant to generate electricity; steam plant, in event houses are to be heated from a central heating station; and in some cases a gas plant, though it may be doubtful whether such a plant would be erected.

(b) Various trunk supply lines which lead from the respective supply plants to townsite. These include water supply trunk line; gas and steam trunk lines; electrical transmission line; and sewer outfall line.

(c) There are certain portions of street improvements and utilities lying even within boundaries of townsite which are not directly and immediately affected by size of lot. For example, those street improvements and utilities that lie directly in front of house and that parallel the depth of house. These portions of utilities and street improvements are more affected by size and arrangement of house than by dimensions of lot. Likewise, there are certain elements of house connections which are not affected by size of lot; for example, conections to mains, curb-boxes, stop cocks, meters and the portions of house services that lie within the street.

The foregoing elements bear an important relation to the cost of utilities, in so far as they affect cost per capita or cost per house, but they are not in any way related to size of lot.

A well defined statement regarding those portions of utilities and street improvements which directly relate to size of lots can now be made.

(a) They include street improvements and utilities located directly in front of the space lying between houses.

(b) Street improvements and utilities located on minor streets that lie parallel to space occupied by front yards and by rear yards.

(c) Lengths of house service connections which are located in front yards and in rear yards.

Assumed Townsite

In order to estimate relative costs, it will be necessary to assume a town layout. Following are the factors:—

An industrial town with 1,000 houses. Houses are 22 ft. wide and 30 ft. deep. Lots are 42 ft. front by 80 ft. deep. Houses are located on center line of lots and are placed 15 ft. back from front property line. Main streets are 50 ft. wide; minor streets 40 ft. wide. Main streets have 24-ft.

(Concluded on page 409)