

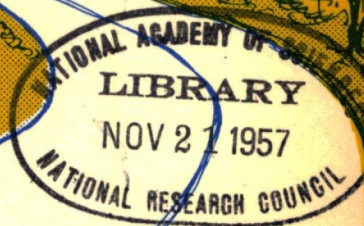
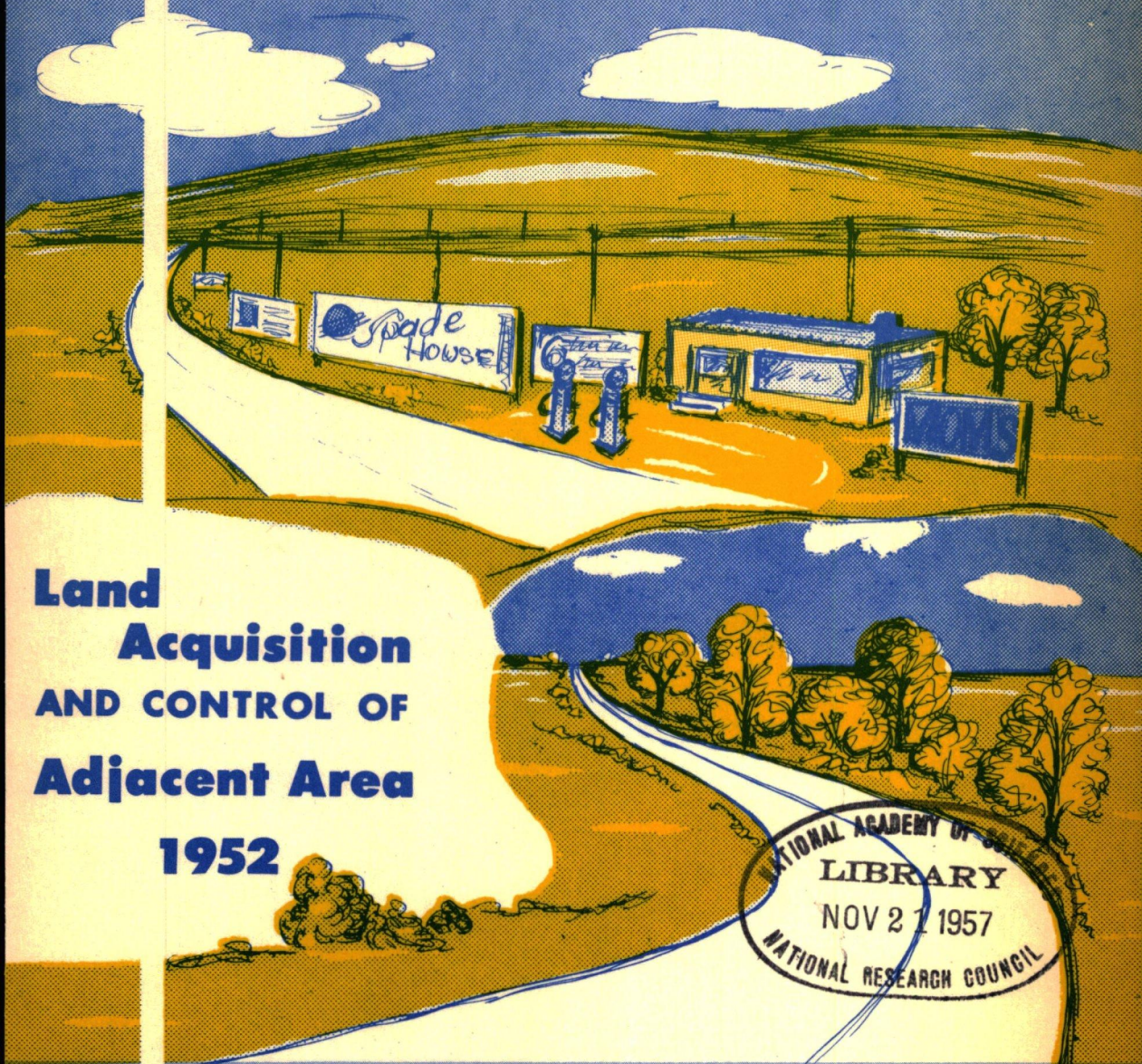
HIGHWAY RESEARCH BOARD

Bulletin 55

Land Acquisition AND CONTROL OF Adjacent Area 1952

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publication 233



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1952

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The opinions and conclusions expressed in this publication are those of the authors
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HIGHWAY RESEARCH BOARD

Bulletin 55

Land Acquisition and control of ***Adjacent Area***

Presented at the
THIRTY-FIRST ANNUAL MEETING
January 1952

1952

Washington, D.C.

DEPARTMENT OF ECONOMICS, FINANCE AND ADMINISTRATION

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Foreword

The Committee on Land Acquisition and Control of Highway Access and Adjacent Areas continues, with this bulletin, the publication of yearly reports of significant events in the fields with which it concerns itself: highway land acquisition, control of access, roadside betterment, legal and administrative aspects of parking, and related matters. In addition, papers presented at the open session of the committee during the annual meeting of the Board in January 1952, are reproduced in full.

The committee hopes that the publication in bulletin form of information pertaining to the fields of its interest may be helpful as a source book of materials which might not otherwise be available in printed form.

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Report of Committee on

Land Acquisition and Control of Highway Access and Adjacent Areas

DAVID R. LEVIN, Chairman

Chief, Land Studies Section, Financial and Administrative Research Branch,
Bureau of Public Roads

● PROGRESS in 1951, although not spectacular, does indicate an increasing awareness by responsible officials of the importance of the committee's activities in relation to the overall highway problem.

Thus, a number of laws were enacted and administrative regulations promulgated during 1951, which indicate the desirability of good land-acquisition practices, the benefits to be derived from the controlled-access highway, adequate safeguards for the roadside, and sound legal sanctions for solving the parking problem. Court decisions in general reflected these progressive trends in land acquisition and the control of highway access and adjacent areas.

The death during this past year of two committee members, J. M. Devers, chief counsel of the Oregon State Highway Commission, and Robert Kingery, general manager of the Chicago Regional Planning Association, was a severe blow. Both gave unsparingly of their time and extensive knowledge to forward the work of the committee.

The 1950 annual report of the committee and special papers were published in August 1951 as Bulletin 38, "Land Acquisition and Control of Adjacent Areas."

LAND ACQUISITION

Reservation of Highway Right-of-Way Prior to Acquisition

The committee's study of ways and means of reserving land for highway right-of-way prior to acquisition¹ was advanced during the year and an informal

preliminary report was submitted at a business meeting of the committee during the annual meeting of the Board in January 1952. During the year a questionnaire was formulated, covering the various mechanisms which have been used by local units for reserving land for street and highway improvements, i. e., the establishment of setbacks under zoning ordinances, of street widths under subdivision control, of building lines by ordinance for street widenings, protection of the bed of mapped streets, and street and highway reservations acquired under eminent domain. Copies of the questionnaire were forwarded to planning agencies in some 60 cities and counties throughout the country. Additionally, news items were included in "The American City" magazine and "The American Society of Planning Officials News Letter," outlining the project and requesting those familiar with the techniques under study to forward information to the committee chairman. Numerically the response was gratifying. After tabulation of information received pertinent to use of the various devices, however, preliminary analysis indicated that these methods had been used sparingly in most jurisdictions, with the possible exception of zoning regulations and subdivision controls. In any event, no one method so far examined can be said, at this stage of the analysis, to be the exclusive answer to the problem. The committee decided to proceed with the study of these methods during 1952, and in addition, to make a study of existing legal or administrative measures authorizing reservations of land at the state level, after which an attempt will be made to evaluate such measures on the basis of factual informa-

¹See "Land Acquisition and Control of Adjacent Areas," Highway Research Board Bulletin 38, 1951, p. 13 for an outline of this project

tion to be obtained from the states as to how much has actually been accomplished by their use. It is hoped that a formal report will be ready for the Thirty-First Annual Meeting of the Board.

In connection with this project, a decision handed down by the Pennsylvania State Supreme Court during the past year is of interest. Although the case concerned an attempt to reserve land for park and playground rather than highway purposes, the court's decision, holding unconstitutional the local ordinance providing therefor, and its comments relative to the accepted practice in Pennsylvania of reserving land for street and highway purposes, are pertinent.

Pursuant to an act of June 23, 1931, known as the "Third Class City Law," (Art. XXXVII, Secs. 3701, 3702, 52 P.S. Secs. 12198-3701, 3702,) the City of Beaver Falls enacted an ordinance dated April 10, 1950, adopting a general plan for parks and playgrounds. The enabling act provided that "no person shall hereafter be entitled to recover any damages for the taking for public use of any building or improvements of any kind which may be placed or constructed upon or within the lines of any located park or playground, after the same shall have been located or ordained by council." A limitation of three years was placed on such reservation, by the act.

On April 8, 1950, James N. Miller and Rose M. Miller, his wife, purchased 16 acres of ground in Beaver Falls. Either their predecessor in title or the holder of a mortgage on the property notified the city on November 23, 1949, that the property had been purchased for immediate development; that the purchasers intended to erect 72 dwellings thereon; and requested the city council to install sewers in accordance with a plan and to connect the sewers with a public sewer. The property was on a recorded plan of lots, with streets and alleys laid out. They knew that the ordinance above described had been introduced in the council and had passed first reading when they actually settled for the property. Several months prior to this time appellants' predecessor had begun the construction of 12 houses on a portion of the 16 acres of their land, but had not commenced the

erection of any dwellings on approximately 4 1/2 acres of land covered by the ordinance.

The property owners requested a decree declaring the ordinance an encumbrance on their property and a cloud upon their title, and that it was unconstitutional. The lower court dismissed the bill on the ground that parks and playgrounds were not only desirable but had become a modern necessity, and that the establishment of a park and playground on the property here involved was desirable and necessary to the development, growth, and expansion of the city.

The supreme court, however, held that although parks had a beneficial effect on public health and public welfare and their establishment and maintenance was certainly desirable, and furthermore that the public interest should be favored over private interests whenever reasonably possible, nevertheless no matter how desirable the act or how worthy the objective it could not be sustained if it was interdicted by the constitution. (*Miller et ux v. City of Beaver Falls*, 82A (2d) 34, June 27, 1951) The court went on to say that the procedure authorized by the act and by the ordinance was in conflict with provisions of both the state and the United States constitutions, inasmuch as they permitted the taking of private property without prior payment of just compensation.

The court stated that it was a well-settled principle that the mere plotting of a street upon a city plan without anything more did not constitute a taking of land in a constitutional sense so as to give an abutting owner the right to have damages assessed. However, it questioned whether this principle relating to streets, which are narrow, well-defined, and absolutely necessary, should be extended to parks and playgrounds which may be very large and very desirable but not necessary.

The action of the City of Beaver Falls in plotting this ground for a park or playground and freezing it for three years was, in reality, a taking of property by possibility, contingency, blockage, and subterfuge, in violation of the clear mandate of the state constitution that property could not be taken or injured or applied to

public use without just compensation having been first made and secured.

In short, the supreme court was of the opinion that although the law with respect to streets was too firmly established in Pennsylvania to be changed, there was no reason or justification for extending it. A principle of questionable constitutionality should not be extended beyond its present application or limitation, especially if such extension would violate either the letter or the spirit of the constitution.

If the City of Beaver Falls considered the land involved desirable or necessary for its future progress, it could readily and lawfully obtain this land under its power of eminent domain by the payment of just compensation.

The judgment of the lower court was reversed, the higher court declaring both the act giving councils in third-class cities a three-year locus penitentie in taking private property for a park and the ordinance of the City of Beaver Falls unconstitutional.²

Offset of Benefits

State practices relative to benefits which may be offset against damages suffered by owners of property, a portion of which is taken for highway purposes, vary from one state to another, to the point where no generalization can be made. In some states, special benefits may be offset against the value of land actually taken, while in others such benefits may be considered only in connection with loss of value to the portion of the owner's property which is not actually taken, i. e., severance damages. In many states, so-called general benefits to property not taken may not be considered in an award of damages.

In at least two recent decisions handed down by the courts these matters were considered. In Missouri the courts held that special benefits might be set off against the value of land actually taken for highway purposes, and in Wisconsin, it was held that general benefits might

be considered in awarding damages for the taking of land for highway purposes.

1. Missouri. The case here in question (*State ex rel. State Highway Commission v. Powell et al*, 226 S. W. (2d) 106, January 9, 1950) came before the court of appeals after the sum of \$5,000 was awarded by a trial court to the owners of a tract of land located on Highway 166 west of Sarcoxie in Jasper County, when a portion of the tract was taken in connection with a highway improvement. The state highway department appealed to the higher court, alleging that the lower court's instruction to the jury was in error, since it assumed that there was a net damage above the value of the land taken plus damage to the remainder, after special benefits, if any, accruing to the remainder had been taken into consideration.

The instruction to which the highway department took exception was to the effect that if the jury found that the landowner's property was damaged, the award for such damages should include the fair, reasonable market value of the strip of land actually taken, plus any damages to the remainder of the land and improvements thereon caused by the taking of the land, less any special benefits, if any. The lower court went on to say, "And you will allow the defendants one lump sum which will in your opinion reasonably compensate them for both of the elements of damages above set out." The appeals court held that this charge to the jury was in error since it virtually told the jury, without any qualifying words requiring them to so find, that the damage to the remainder exceeded the special benefits, if any, and that there was a net damage when all the evidence was considered.

Additionally, the higher court took exception to the charge because the court should have instructed the jury that special benefits, if any, should be considered and set off against both the value of the land taken and damage to the remainder. The court stated that in condemnation proceedings of this character, the measure of damages was the difference between the value of the entire tract before the appropriation of part of it and the value of the remainder after the ap-

²See Memorandum 51, December 1951, Committee on Land Acquisition and Control of Highway Access and Adjacent Areas, Highway Research Board Correlation Service, Circular 152

propriation, citing previous decisions as authority. The trial court should have so instructed the jury. Instead that body was told, as noted above, that special benefits, if any, were to be credited to the remainder only.

The judgment of the trial court was reversed and the case returned for rehearing.³

2. Wisconsin. This case (*Townsend et al. v. State*, 43 N.W. (2d) 458 (June 30, 1950)) came to the state supreme court on appeal from a decision of a lower court, awarding damages to the owners of a farm, a portion of which was taken by the state for highway purposes, in the amount of \$6,500. This amount ostensibly represented the difference between the fair market value of the farm immediately before the taking and the fair market value after the taking. The owners of the farm contested the award, contending, among other things, that the lower court erred in instructing the jury that the value of such general benefits as accrued to the community in common could be offset against the damages sustained by them.

In its charge to the jury, the lower court said: "In fixing (these) damages . . . any benefits that may accrue to the owners of this land by having the farm bordering on a trunk highway, by placing the highway adjacent to the farm so the produce of the farm may be more economically and more easily brought to market, and any benefit that you find might accrue to the plaintiffs must be considered and may properly be considered and deducted from the damages that you find have been sustained by the owners of the property."

In objecting to this portion of the charge, the complainants relied on a previous decision in which it was stated that "generally in condemnation proceedings the amount of recovery is the difference between the value of the property before and after taking. This consists of the value of the property taken, severance damage to the remaining property, and any benefits which are peculiar to the owner and not enjoyed in common by the community." (*Schildknecht v. City of*

Milwaukee, 13 N.W. (2d) 577, 578.)

However, the state supreme court stated, in thus limiting in this last clause the benefits to such as are "not enjoyed in common by the community," the statement was erroneous insofar as it was contrary to conclusions stated in a previous case, *Nowaczyk v. Marathon County*, 238 N.W. 383, 384, in which the court held that the proceedings were subject to the general provisions of Chapter 32 of Wisconsin's statutes governing acquisition of land by the exercise of the right of eminent domain. Section 32.10 (1) of the statutes provided that in exercising eminent domain, "except in the case of streets or highways," no deduction might be made because of any benefit which the parties might derive from the improvement other than "special benefits."

In the case of streets and highways, Paragraph 2 of the same section provided that both damages and benefits were to be assessed or allowed and the excess of one over the other must be stated. Thus, the kind of benefits was not limited to special benefits, and apparently the benefits referred to in the case of streets and highways must be something more than mere "special benefits", else there would be no occasion for the exception in Paragraph 1. If so, they must include such benefits as accrue to the general public as well as the benefits resulting specially to the land taken. The items of nearness to market and the nature of the road to market were elements of considerable importance in fixing the value of farms. The witness might properly consider the benefit that accrued to the plaintiff's property, although the general public received like benefit.

In the *Schildknecht* case, the action was not a condemnation case. It was an action brought by property owners to have special assessments assessed against the property declared null and void, and the statements made in passing with respect to special benefits had no direct bearing on the case. There was no occasion or intent to overrule the *Nowaczyk* case in relation to either such general or special benefits as were involved in the present case.

The judgment of the lower court in the

³See Memorandum 44, May 1951, Committee on Land Acquisition and Control of Highway Access and Adjacent Areas, Highway Research Correlation Service, Circular 133

Schildknecht case was thus affirmed.⁴

Right of Immediate Possession

In order to avoid excessive delays in obtaining land for highway purposes, when agreement cannot be reached between the highway department and the landowner a number of states have been given authority to take possession of such land at some stage prior to the completion of condemnation proceedings. Such was the case in Illinois. However, the state supreme court, in a decision handed down during the past year, held that the state's law providing for the taking of immediate possession was unconstitutional in that it authorized the taking of land for public use without just compensation. (*Department of Public Works and Buildings v. Gorbe et al.*, 98 N.W. (2d) 730, March 22, 1951.)

The Illinois law in question (Illinois Revised Statutes 1947, Ch. 47, par. 2a) was passed by the 1947 session of the legislature, and provided for the filing of a declaration of taking, signed by the governor or his duly authorized agent, at any time subsequent to the institution of condemnation proceedings. Modeled after the Federal Declaration of Taking Act, which became a law in 1931 and which, incidentally, has been consistently upheld by the courts, such a declaration of taking was to include a description and plan of the property taken, a statement of the public use involved, the estate or interest taken for public use, and the amount of money estimated to be just compensation.

Upon the filing of such a declaration and the deposit of the estimated compensation with the clerk of the court, title vested in the state. Right of entry was postponed for five days in all cases, and a maximum of six months in cases of undue hardship. The landowner might receive the amount paid into court at any time thereafter upon application therefor. Compensation must then be determined in the regular manner. If the amount decided upon in condemnation proceedings exceeded the amount of the deposit, the landowner was entitled to interest on the

difference at the rate of 6 percent per annum.

The Illinois constitutional provision which the court believed this law violated provides that "private property shall not be taken or damaged for public use without just compensation. Such compensation, when not made by the state, shall be ascertained by a jury, as shall be prescribed by law." (Section 13, Article II, Illinois Constitution)

Although the state in its brief recited a list of states having similar constitutional provisions, wherein procedures comparable to that described above had been upheld by the courts, the present court held that in Illinois it was firmly settled that the constitutional guaranty against the taking of private property for public use without just compensation prohibited the possession and use of private property until just compensation had been fixed and paid. A list of decisions substantiating this opinion was cited by the court, including *People ex rel. O'Meara v. Smith*, 374 Ill. 286, 29 N.E. (2d) 275, 276, (1940) in which the court observed that "it has been our uniform holding that payment in advance of physical invasion of private property sought to be taken for public use has been required since the 1870 constitution was adopted."

The state further argued that every case cited by the defendants involved a statute which either expressly, or by construction, provided for the payment of compensation contemporaneously with the taking of the property condemned. However, the court stated that the rule pronounced in the cases cited was founded upon constitutional guaranties rather than upon statutory provisions. The constitutional guaranty requiring payment of compensation for property taken or damaged for the public use was self-executing, requiring no legislation for its enforcement. It could not be impaired by legislative enactment.

Finally, the court stated that the payment of estimated compensation as provided for in the state's declaration of taking act fell short of payment in full of the amount of just compensation determined by a court or jury. It followed, the court said, that the law authorized the

⁴See Memorandum 46, July 1951, Committee on Land Acquisition and Control of Highway Access and Adjacent Areas, Highway Research Correlation Service, Circular 138

taking of private property before compensation was determined and paid and, consequently, was unconstitutional and void.⁵

Under Kansas state statutes, the highway commission may acquire land for highway purposes by condemnation (G.S. 1949, Ch. 68-413). Under the provisions of G.S. 1949, Ch. 26, Art. 1, the procedure followed consists of the filing of petition, appointment of appraisers, notification of landowners and the making and filing of the appraisal in the office of the district court. The law states that "if the petitioner desires to acquire the land at the appraised price, it shall within thirty days deposit with the clerk of the district court the total amount of such appraisement, shall pay the court's costs and the fees of the appraisers, to be fixed by the court or the judge thereof, and the title to all such lots and parcels of ground thereupon shall immediately vest in the said petitioner, and the said petitioner shall be entitled to immediate possession thereof. . . . If the petitioner shall not within thirty days comply with all of the terms of such condemnation or appeal therefrom, judgment for the costs of such proceedings, including appraisers' fees, shall be entered against the petitioner as in other cases."

In a decision handed down by the Supreme Court of Kansas on March 6, 1951, (*Lowrey et al. v. State Highway Commission*, 228 P. (2d) 210) the right of the state highway commission to appeal the award of appraisers in a condemnation case after depositing the amount set thereby, was denied.

In the instant case, the state highway commission paid the amounts of the several appraisements involved to the clerk of the district court, but on the same day filed notices directed to the owners of the several tracts of land that it was dissatisfied with the appraisement made in each particular case and that it appealed to the district court for a trial *de novo* on the question of damages. The commission also complied with other provisions specified in the law as to appeals. After the commission had taken possession of the land involved, the landowners peti-

tioned the court to order the clerk of court to pay the award to them. It was their contention that the commission had by its action acquiesced in the appraisement and had no right to appeal therefrom.

The highway commission contended that the award or appraisement made in a condemnation proceeding was not a judgment. Deposit of the amount of the appraisement was merely a compliance with the constitutional provision providing that no right-of-way should be appropriated to the use of any corporation until full compensation therefor was first made in money or secured by a deposit of money to the owner, (Art. 12, Sec. 4) and the statute mentioned, which enabled it to become entitled to possession of the land condemned. Mere payment of the amount of the appraisement into court in order that it complete its right to possession did not preclude its right to appeal. The commission further contended that for the court to decide that it could not pay the amount of the appraisement and thus take possession of the land condemned, and at the same time appeal would be tantamount to a denial of the right of appeal and would cause delay in public improvements pending litigation over the amount of the appraisement. If speed was required the highway commission would be at the mercy of the appraisers. Undue hardship would result.

The court stated, however, in denying the highway commission the right to appeal, that in their opinion the legislative intent of the statute involved was clear. It was expressly stated that if the petitioner desired to acquire the land at the appraised price, it was to pay the amount of the appraisal and the costs as specified to the clerk of the court, whereupon it would be entitled to the immediate possession of the land. The statute further provided that if the petitioner did not, within 30 days, comply with all the terms of such condemnation, that is, pay the amount of the appraisement and costs, "or appeal therefrom" judgment would be entered against it for costs. To sustain the commission's contention, one must read "or appeal therefrom" as though it read "and appeal therefrom" for at no place in the section was there any other provision with reference to its

⁵See Memorandum 47, August 1951, Committee on Land Acquisition and Control of Highway Access and Adjacent Areas, Highway Research Correlation Service, Circular 140.

right to appeal. The only provision for appeal by the commission was in the event it did not comply with the first provision. This conclusion was fortified by the succeeding section of the statute providing that if the petitioner was dissatisfied with the appraisal he might do certain things to perfect his appeal. The statute did not give the petitioner an added right of appeal but only an alternative one. The action of the commission in paying the amount of the award and the costs, and taking possession could only be construed as a satisfaction with the appraisalment.⁶

A report and policy statement on Immediate Possession of Highway Right-of-Way has been prepared by the Committee on Right-of-Way of the American Association of State Highway Officials. This report, based on replies to the Committee's questionnaire on State Right-of-Way Practices and other sources, has been approved by the committees and will shortly be distributed to member departments of the Association.

Compensation for Damages Resulting from Highway Improvements

Differences of opinion as to what constitutes proper testimony relative to the value of land taken for highway purposes have frequently been the cause of protracted court proceedings, resulting in serious delays in highway construction programs.

In a proceeding by the City of Dallas, Texas, to condemn a portion of a tract of land, in connection with the widening of a 20-ft. graveled roadway into a 40-ft. concrete road, the Court of Civil Appeals held on October 13, 1950, that evidence of gross sales, net operation costs and value of the grocery and liquor store being conducted on the part of the tract not taken, before and after taking of the land condemned, should have been admitted by the trial court as material, in passing on the ultimate issue of market value. (*Priolo et ux. v. City of Dallas*, 234 S.W. (2d) 1014.)

The portion of land which the city sought to condemn consisted of a strip

in front of the building used by the owners for their grocery and liquor business. The trial court awarded damages which included the market value of the part taken and the difference in value of the part not taken, before and after the taking, but found that the owners would not suffer loss of profits in the future by reason of the taking of the strip of land condemned. The owners appealed from this award, claiming that the profitable grocery and liquor business was "property," and that the court's charge, limiting damages incurred by the remaining property, because of condemnation of a portion, to the damage to the land itself was improper and failed to fully compensate them for damage to the business, as required by the State constitution.

The City of Dallas, on the other hand, claimed that the grocery and liquor business was not "property" within the meaning of the eminent domain statutes, and that the trial court had been correct in instructing the jury to award damages on the basis of the market value of the remainder of the land only, immediately before and after the taking of a portion thereof.

Witnesses for the Priolos testified that the reduction in number of parking spaces available in front of the building from seven to two because of the taking of the strip in question caused a much greater loss in value of the portion of the property not taken than was awarded by the trial court. Such estimates were based on the loss of business which would result from the reduction in parking space. However, the lower court ruled that evidence as to the value of the business was not an element to be considered. The city was correct in objecting to such testimony on the ground that the city was not condemning the business and was not liable for the value of the property as such.

The court of civil appeals held that the lower court erred in excluding such testimony. A going business was property. The state constitution provided that "no person's property shall be taken." The state legislature could not and did not limit compensation in this case to the land alone, either by statute or in the city charter, to less than the con-

⁶See Memorandum 51, December 1951, Committee on Land Acquisition and Control of Highway Access and Adjacent Areas, Highway Research Correlation Service, Circular 152

stitution provided for. Evidence of gross sales, net operating costs, the value of the grocery and liquor store before and after the taking of the land condemned were not ultimate facts in themselves, but were elements to be considered by the seller or the purchaser of the property. Market value of property was the price a seller of property, who desired to sell but who did not have to sell, would take and a buyer of the property, who desired to buy but did not have to buy, would pay. Naturally both parties in arriving at the sales price as between themselves would consider such elements. These facts constituted material evidence for the jury in passing on the ultimate issue of market value.

The judgment of the trial court was reversed and the cause remanded for another trial. A rehearing by the court was subsequently denied.

A dissenting opinion was filed in this case, in which it was stated that state statutes, in prescribing the rule for damages applicable in condemnation cases, did not authorize recovery of damages outside the realm of value of the land taken and damage to the remaining land not taken. It was only proper to offer evidence bearing upon the value of the land in condemnation, taking into consideration any and all uses which might be made of the property, its suitability, adaptability, surroundings, and all other conditions existing before and after the condemnation that tended to increase or diminish the present value of the land. The evidence must be direct as to the effect of the condemnation on the value of and damage to the real estate, not as to any particular business presently conducted thereon, which value might change at any time.

According to this dissenting opinion, the majority holding that this business was property to be considered as part of the ultimate issue on market value of the real estate, was in conflict with the holding of the court in a previous case (*Reeves v. City of Dallas*, 195 S.W. (2d) 575, 583,) in which opinion the court quoted with approval from Orgel on Valuation Under Eminent Domain, to the effect that "Loss of business, profits, good will, fixtures, and costs of removal and the like

suffered by the tenants are obviously not lands or real estate, or rights or interest therein in the legal sense and not within the criterion fixed by the statute."

The dissent considered the proffered testimony as to loss of profits because the action of the city in condemning this strip of land reduced the amount of parking space available was too speculative, uncertain and remote to be considered as a basis for computing and ascertaining the market value or damage to the land. To have permitted the owner to introduce such evidence would have permitted the condemner under a like criterion to introduce evidence showing that the street improvement for which the land was taken would enhance the value or increase the profits of the business rather than result in a detriment thereto.⁷

In another decision handed down during the past year, the Appellate Division of the New York State Supreme Court reversed a decision of a lower court because the award of damages was based on factors which should not have been considered in evaluating the property.

In January 1950, the Court of Claims of New York held that although a landowner could not obtain damages because of relocation of a highway resulting in isolation of buildings from a new road, loss of value of the land not taken, incident to construction of the highway, could be considered. (*McHale v. State*, 94 N.Y.S. (2d) 684, see Highway Research Correlation Service Memorandum No. 45 of the Committee on Land Acquisition and Control of Highway Access and Adjacent Areas, June 1951.)

The lower court awarded \$6,000 and interest for 0.268 of an acre of land taken by the state for highway purposes from the extreme eastern end of claimant's property, which was originally a rectangular parcel approximately 600 ft. in length from east to west and 100 ft. in depth. The buildings were at the westerly end of the premises. The main building, which was used by claimant as a roadside tavern, was situated at the westerly end of the premises, being 375 ft. from the near boundary of the portion taken.

⁷See Memorandum 50, November 1951, Committee on Land Acquisition and Control of Highway Access and Adjacent Areas, Highway Research Correlation Service. Circular 149

The new highway, swinging in a slow curve to the south over the preempted parcel, was banked away from the remainder of the premises, leaving a 4 1/2-ft. grade between the highway and claimant's abutting land. The highway over the land appropriated was part of a larger traffic control improvement which diverted through traffic from former Route 28 along which claimant's property lay.

The appellate division of the supreme court, which heard the case on appeal (104 N. Y. S. (2d) 981) reversed the decision of the court of claims on May 2, 1951, on the grounds that the award of the lower court was based on factors which should not have been considered in the evaluation of the damage to claimant's property as a result of the appropriation, i. e., diminution in the market value of the remaining portion as a result of the whole improvement and consequent diversion of traffic. For this reason the award was excessive, it asserted.

According to the appeals court, the value of the portion of land appropriated was \$200; by reason of the appropriation and the use of the portion taken, the remaining land had been damaged in the amount of \$550; and by reason of the appropriation and the use of the portion taken the buildings located on the remaining land had suffered no consequential damage. On this basis the court ordered the judgment modified to award judgment in the amount of \$750 plus interest.⁸

Dedication

An interesting decision was handed down by the California State Supreme Court during the year involving the matter of whether or not certain actions on the part of landowners abutting on a highway which the state planned to widen constituted a dedication of the strip of land needed for the widening. Also under consideration in this case was the question of impairment of access caused by construction of a divided highway.

In this case, (*People v. Sayig et al.*, 226 P. (2d) 702, January 26, 1951) the State of California instituted proceedings to condemn for highway purposes a strip

of land fronting the properties of five landowners on El Camino Real in Sunnyvale between San Francisco and San Jose. Plans provided for widening of a three-lane highway into a divided highway.

Originally the lots now owned by the five landowners, plus the 15 ft. shoulder in question were a part of an orchard which abutted the then-existing highway of two lanes with shoulder. Subsequently the highway was widened to three lanes. In 1925, the orchard was subdivided and the trees removed, and in 1926, the subdivider constructed a 6-in. -high cement curb and a gutter between the lots and the strip in question. Subsequently a sidewalk was constructed in front of several of the lots behind the curb line. Still later the subdivider graveled the 15-ft. strip which thereafter was simply a continuation of the surfaced shoulder and indistinguishable from the shoulder. The lots involved were gradually improved with various types of commercial buildings, and whereas before this new development took place, there was evidence that a substantial amount of traffic traveled up and down the 15-ft. strip to avoid the heavy travel on the main highway and its adjacent shoulder, as the area developed commercially the strip more and more came to be used for parking purposes. There was substantial evidence that the parking was public in nature and unrestricted.

The state contended that a public easement for highway purposes, i. e., a dedication by the owners and an acceptance by the public, attached long before the properties were fully improved, and produced substantial evidence that prior to the building of the present improvements on the lots the witnesses could, did, and saw others drive over the 15-ft. strip. Additional evidence was presented to support the conclusion that the property owners, or some of them, recognized that the state controlled the strip in question. For instance, two of the owners had at different times applied to the state to improve the strips in front of their respective parcels. One of the landowners had been requested by a state highway engineer to remove vehicles displayed for sale on the strip in front of his property and had complied with the request. The same

⁸See Memorandum 47, August 1951, Committee on Land Acquisition and Control of Highway Access and Adjacent Areas, Highway Research Correlation Service, Circular 140

owner had requested permission to install a water-drainage pipe in the gutter. The court stated that all of these instances supported the inference that these landowners recognized an interest of the state in the strip of land in question.

The state supreme court held that if the public did acquire any right to the use of the strip for highway purposes, such right was acquired under the doctrine of implied dedication and not by prescription. A public easement arises only by dedication. But adverse user by the state for the prescriptive period, 5 yr., might be evidence of a dedication. In a previous case cited, *Venice v. Short Line Beach Land Co.*, 181 P. 658, the court stated: "In order to constitute such dedication, or such abandonment, by the owner, his intention to that effect must appear. Such intent need not be manifested by any contract, writing, or express declaration of the owner. It may be implied from his conduct" In another case, *Barnes v. Daveck*, 94 P. 779, 781, it was said: "Where prescriptive title to land is claimed, it has been said that the hostile possession must be open and notorious, and with intent to usurp the place of the true owner and put him out of possession . . . but the rule as to highways requires only such adverse use and occupation as is inconsistent with the owner's right to claim the exclusive use of the land, i.e., such adverse use as carries with it the assertion of an equal right by the public to use the highway."

Tested by these standards, the court thought the evidence supported the finding that a public easement over the strip attached. The landowners argued that any use of the strip made by the public after the buildings were constructed on the lots was permissive and not adverse, urging that the evidence showed that the owners used the strip for their own convenience. Great emphasis was placed on the admitted fact that a Texaco sign was erected and the abutment constructed across half or more of the strip in front of one of the lots. But this sign was not erected until 1938 and the public easement had been acquired long before that date, having commenced about 1926. The portion of the strip in front of another

lot was used as a taxi stand and bus stop, but this was not inconsistent with that parcel being part of the highway. The landowners' argument, that even if there was public unrestricted parking, that would not create a public easement for highway purposes because the parked cars prohibited public travel over the strip, was erroneous in that the portion of a street or highway used for public parking was as much devoted to a highway or street use as the portion over which vehicles travel. The court concluded that a public easement existed over the strip of land in question.

The second major contention of the landowners claimed compensable damages because access rights to the lots in question had been materially impaired by the improvement. Prior to the present improvement the old highway had three lanes. Traffic traveling in either direction on this highway, as it then existed, could turn directly from the highway proper to any of the commercial establishments involved. As a result of the improvement, traffic proceeding toward San Francisco had direct access to three of the establishments, and this was substantially true of the other two properties, although some slight circuitry of travel was required to reach these latter two lots. None of the lots had direct access to the traffic lane leading south towards San Jose. Because of the center dividing strip, any vehicle traveling south toward San Jose must travel past the properties 500 to 1,000 ft. to where there was a cross-over to the San Francisco traffic lane and proceed back to the properties.

In answer to the property owners' contention that this constituted impairment of their rights of ingress and egress, the court cited a previous case, *Holman et al. v. State et al.*, 217 P. (2d) 448,⁹ where a similar situation existed because of a highway improvement, and the court held that plaintiffs were not legally damaged, since they had access from every point on their property to the highway. In that case the state concluded that plaintiffs' property was open to the highway, and that "once on the highway to which they have free access, (plaintiffs)

⁹See Memorandum 41, December 1950, Committee on Land Acquisition and Control of Highway Access and Adjacent Areas, Highway Research Correlation Service, Circular 123.

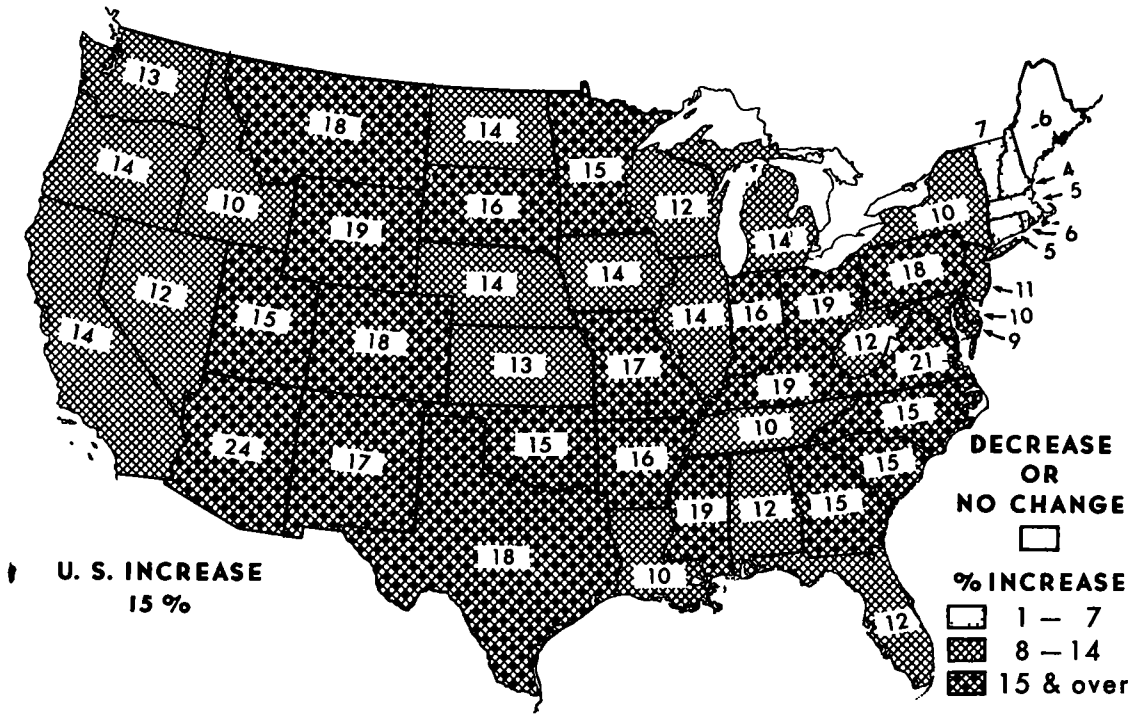


Figure 1. Changes in dollar value of farm land based on index numbers of value per acre, including improvements. Percentages, November 1950 to November 1951.

are in the same position and subject to the same police power regulations as every other member of the traveling public They are liable to some circuity of travel in going from their property in a northerly direction. They are not inconvenienced whatever when traveling in a southerly direction from their property. The rerouting or diversion of traffic is a police power regulation and the incidental result of a lawful act and not the taking or damaging of a property right The damage of which plaintiffs complain would be the same if no division strip had been constructed on the highway in question but that double white lines had been painted on the highway and a 'no left turn' sign had been erected, or if the entire highway had been designated as a one-way street."

The court held that the present case fell within the rule of the Holman case and the owners of the lots in question

were not legally damaged by the construction of the divided highway.¹⁰

Right-of-Way Costs and Land Values

Sales prices of farm lands continued to rise during the year as indicated by Figure 1. As of November 1, 1951, according to the latest release of the Bureau of Agricultural Economics of the U. S. Department of Agriculture, the national index reached 206 (1912-14 = 100) 15 percent above the index for November 1, 1950. The increase for the four months ending November 1, 1951, (2 percent) was, however, somewhat smaller than for previous periods, and some slight decrease in the number of farm sales was indicated during this period. This slight falling off in sales volume was attributed at least in part to

¹⁰See Memorandum 48, September 1951, Committee on Land Acquisition and Control of Highway Access and Adjacent Areas, Highway Research Correlation Service, Circular 141

the high rate of return enjoyed by present owners and their desire to keep their investment in real estate.

The cost of acquiring farm lands for right-of-way purposes has undoubtedly reflected this rising trend in farm real estate values, and although the lower rate of increase during the last period noted might indicate a leveling off of these values, it is impossible to make a prediction with any degree of certainty.

CONTROL OF HIGHWAY ACCESS

Authority to Establish Controlled-Access Highways

In the majority of states having controlled-access-highway legislation, provision is made for conversion of existing roads to this type of facility as well as new highways. The law enacted by Washington in 1947 did not include such authority. Efforts of the state to construct controlled-access facilities resulted in unfavorable court decisions on two separate occasions.

In 1949, the state's director of highways attempted to establish an existing portion of Primary State Highway No. 1 as a controlled-access highway, under the provisions of the general law providing for acquisition of right-of-way, which the state believed authorized acquisition not only of land but also of all estates, rights, interests and easements in or appurtenant to said land. This the court refused to sanction in a decision (State ex rel. Veys et ux. v. Superior Court, 206 P. (2d) 1028, June 2, 1949) declaring that the state legislature had deliberately specified in the controlled-access highway law enacted in 1947, that only highways on "new location" could be designated as controlled-access facilities. In that act, a new location was described as "a new highway or new street and for the purpose of this act shall not apply to existing highways and streets." The court also pointed out that since the 1949 session of the legislature had turned down an amendment to the controlled-access highway law which would have permitted the state to acquire access rights on existing highways, the legislative intent was obviously to confine such authority to

"new highways." ¹¹

In a case which came before the Washington courts in 1950 (State ex rel. Troy, Attorney General v. Superior Court of Cowlitz County et al., 225 P. (2d) 890 December 22, 1950,) the state planned to construct a controlled-access facility on a relocation of Primary State Highway No. 1 in Cowlitz County. The state supreme court, however, held that a relocation of an existing highway was not in effect a "new highway", and therefore could not be declared a controlled-access highway.

The state argued that the portion of the road in question was a new location, based upon the fact that it was entirely removed from the existing highway. There was no actual connection between the new and old highway, since they were situated some 250 ft. apart. The existing highway would be left for local traffic, and there would be a continuity of flow over the old highway after the new one was completed. There would be no physical connection between the new and existing highways, but there would be overcrossings and undercrossings where the old and new highways crossed.

The supreme court, however, stated that although no legal definition of "existing highways" could be found, Section 2 of the controlled-access law stated "that whenever said highway authorities designate and establish a limited access highway and such highway connects with an existing highway, then such existing highway under no consideration shall be determined a new location." Testimony showed that the portions sought to be taken for controlled-access facilities were upon new constructions, which would be from 200 to 250 ft. between the center lines of the new and old constructions. However, the testimony also clearly showed that the portions sought to be taken were to be a part of Highway 1.

The state, in its brief, contended that this provision of Section 2 should be given its ordinary meaning and import. The words "connects with" should not be construed as including the location where the old highway would intersect with the new. To so construe it would render the statute inoperative and absurd. If

¹¹See Memorandum 30, October 1949, Committee on Land Acquisition and Control of Highway Access and Adjacent Areas, Highway Research Correlation Service, Circular 88.

the proviso were read so as to make a nullity of the whole act, then the proviso should be stricken as void, being inconsistent with the enacting clause, the various provisions of the statute and the general intent of the legislature.

The court stressed the point that with the exception of New York, statutes of all states having controlled-access highway laws provided for designation of either new highways or existing highways (or portions thereof) as controlled-access highways. Washington and New York thus stood alone in not permitting the establishment of limited access facilities on existing highways or portions thereof. The court also quoted from its decision in *State ex rel. Veys v. Superior Court*, mentioned above, to the effect that it was obvious from the legislative history of enactment of the 1947 law that the net result of the action of both the Senate and House of Representatives was, by striking certain words from the original bill and adding other words, to limit the power to condemn rights of access to what was defined to be "new locations" and plainly to indicate that the time had not yet arrived in this state when the valuable right of access possessed by the abutting land owner on existing highways should be taken from him by condemnation proceedings, and that such a right might be so taken only when a controlled-access highway might at some future time be established and constructed on a new location.¹²

As a result of these unfavorable decisions, the Washington legislature amended the state's controlled-access law in the 1951 session, extending its application to include certain types of highways excluded under the original act.

Under the provisions of the act as amended by the 1951 legislature, an existing highway includes any highway, road, or street duly established, constructed, and in use. It does not include new or relocated highways, roads, or streets, or portions of existing highways, roads, or streets which are relocated. Additionally, the amended law provides that existing highways may be established as controlled-access facilities

after a hearing at which owners of abutting land may be heard and the necessity for establishment of this type of highway determined. Any party to such hearing may petition the superior court of the county for review of such findings and may appeal from that court to the state's supreme court.

A new section in the law provides that in cases involving existing highways, if the abutting property is used for business at the time notice of the hearing is given, the owner shall be entitled to compensation for the loss of adequate ingress to or egress from such property as business property in its existing condition.¹³

Access Rights on New Highways

The matter of whether or not the right of access inheres in the owner of property abutting on a controlled-access highway constructed on a new location remains a perplexing problem and probably will be so until the question has been settled by the courts in each individual state. Additionally, there is a question as to whether denial of access rights in such cases is one for statutory enactment or for judicial determination. Both methods of approach are illustrated by events which transpired in California and Oregon during the past year. In California, a court decision gave support to the state's contention that a property owner does not automatically acquire a vested right of access when the state acquires intervening private property between an existing highway and his property. In Oregon, on the other hand, an attempt was made to settle the matter by enactment of a law under the provisions of which the state, in locating a new controlled-access highway situated between two tracts of land separately owned, may acquire all of the necessary land, plus access rights from one owner, and the owner from whom no property is taken acquires no rights of access to the new highway.

1. California. In 1945, Olympic Boulevard, a section of State Highway 173, in the City of Santa Monica, was declared a "limited freeway" by the

¹²See Memorandum 43, April 1951, Committee on Land Acquisition and Control of Highway Access and Adjacent Areas, Highway Research Correlation Service, Circular 130.

¹³See Memorandum 47, August 1951, Committee on Land Acquisition and Control of Highway Access and Adjacent Areas, Highway Research Correlation Service, Circular 140.

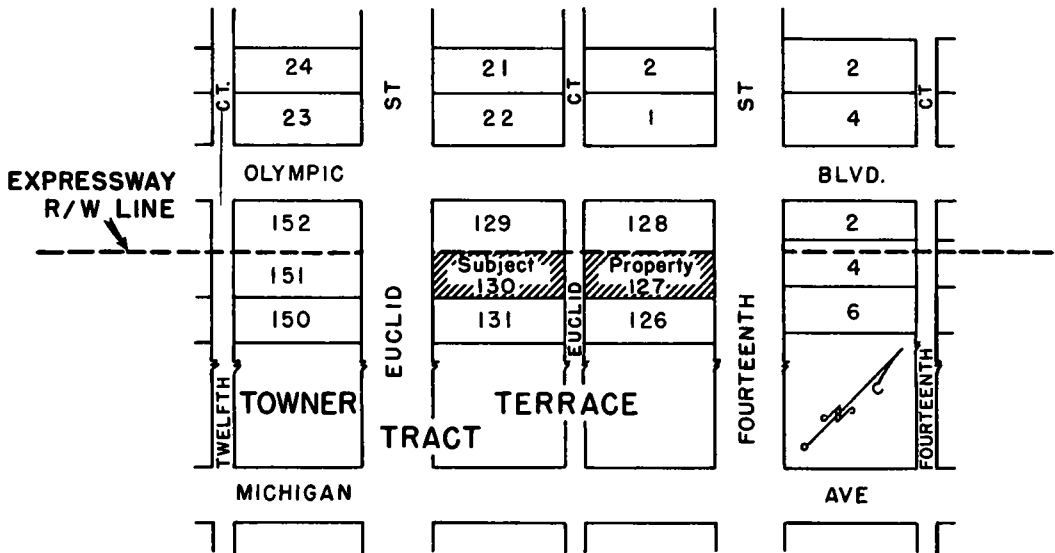


Figure 2. California - *Schnider v. State of California*, 229 P. (2d) 847, 1951.

California Highway Commission. At the same time the commission adopted a resolution by which it selected a location for the expressway, the southerly boundary of which corresponded with the southerly boundary of lots No. 128 and 129 (see Fig. 2). On January 10, 1947, appellants purchased two inside lots, No. 127 and 130, separated along their northerly boundaries from Olympic Boulevard by Lots 128 and 129, then owned by the State of California. Appellant's property, therefore, had access at that time and thereafter only to the side streets on which they fronted and abutted. Widening of Olympic Boulevard and its construction as a limited freeway commenced on or about March 1, 1948, and was completed November 19, 1948. Upon completion of the project, a fence was constructed along the southerly boundary of the expressway, corresponding with the northerly boundary of Lots 127 and 130.

A trial court held as a matter of law, or mixed question of fact and law, that appellants' properties being two separate inside lots, that is, never having fronted on Olympic Boulevard, had never enjoyed or acquired a right or easement of access to Olympic Boulevard, either as a conventional state highway or as an expressway. Accordingly, appellants were not

entitled to damages for deprivation of a right which their property never enjoyed. (*Louis Schnider et ux. v. State of California*, 2d Civil, No. 18133.)¹⁴

2. Oregon. Prior to enactment of the new law mentioned above, the State followed the practice in locating new highways of controlled-access design across a tract, the ownership of which was equally divided between two parties, of taking the entire right-of-way from one owner. In so doing the state acquired fee title to the property taken and access rights to the remainder. Under this procedure, since no highway existed and nothing was taken from the other owner, no access rights existed and the state had nothing to purchase from the other owner. However, as soon as the highway was built, he, as an abutting owner, acquired access to that highway.

Under the provisions of the new law, (Chapter 587, Laws of 1951) the owner from whom no property is acquired is denied any right of access to the new highway. The act reads as follows:

¹⁴See Memorandum 43, April 1951, Committee on Land Acquisition and Control of Highway Access and Adjacent Areas, Highway Research Correlation Service, Circular 130. This decision was later upheld by the state supreme court in a decision to be reported in a subsequent memorandum of this series.

Section 1. No rights in or to any state highway, including what is known as right of access, shall accrue to any real property abutting upon any portion of any state highway hereafter constructed, relocated or reconstructed upon right-of-way, no part of the width of which has heretofore been acquired for public use as a highway by reason of the real property abutting upon the state highway.

Section 2. In connection with any acquisition of real property for right-of-way of any state highway, the state highway commission shall prescribe and define the location, width, nature and extent of any right of access that may be permitted by the state highway commission to pertain to real property described in section 1 of this Act.

Section 3. The state highway commission may commence and prosecute to final determination any suit, action or proceeding in the name of the State of Oregon, by and through its state highway commission, which in its judgment is necessary to enjoin and prevent any person, whether acting individually or by agent, from entering upon or departing from any state highway hereafter constructed, relocated or reconstructed upon right-of-way, no part of the width of which has heretofore been acquired for public use as a highway, at any location, or for any use, or in any manner not authorized by any grant of a right of access, as provided in this act.

Section 4. It hereby is adjudged and declared that existing conditions are such that this act is necessary for the immediate preservation of the public peace, health and safety, and an emergency is declared to exist, and this Act shall take effect upon its passage.¹⁵

Effect of Expressways on Adjoining Lands

Further progress was made during the year on the committee's study of the effect of the Shirley Memorial Highway in Virginia on land use and land values. Analysis of data previously obtained was begun, and techniques developed in the study of the original sections were refined for use in the analysis of additional areas adjoining the highway.

The California Division of Highways added to its impressive list of studies showing the beneficial effects of expressways on adjacent property, publishing the reports of seven new studies during the year, in "California Highways and Public Works." A complete list of titles under which the studies so far

carried on by the division have been published in "California Highways and Public Works" follows:

- "Outer Highways," A Study in Successful Planning for Major Business Development, Frank F. Marshall - May-June 1948, p. 1.
- "Outer Highway," Increased Business for Roadside Restaurant, E. P. Jones - January-February 1949, p. 38.
- "Here's Proof," Outer Highway Increases Both Business and Property Values, Harry N. Cook - July-August 1949, p. 13.
- "Service Town, U.S.A.," Outer Highways Enhance Small Town Development, J. F. Powell - September-October 1949, p. 1.
- "Boost for Freeways," Factual Study Shows They Increase Property Values, Robert L. Bangs - November-December 1949, p. 29.
- "Freeway Ups Business," North Sacramento Shows Profit, Stanley Young - January-February 1950, p. 3.
- "Auburn Study," Economic Survey of Placer County Freeway Shows Business Benefits, Stanley Young - May-June 1950, p. 1.
- "Fairfield Study," About 75 Percent of Business Bettered by Highway Realignment, Stanley Young - January-February 1951, p. 1.
- "Venture Success," Safeway Stores Finds That Freeway Benefits its New Vallejo Business, Wayne Hubbard - May-June 1951, p. 7.
- "By-Pass Effects," Consistent Pattern Developed by Division of Highways Studies, Stanley Young - May-June 1951, p. 27.
- "Temecula Study," What Happens to the Small Highway Town when By-Passed, Fred O. Gibbons - July-August 1951, p. 6.
- "Escondido Study," City Benefits Materially After Being By-Passed by Freeway, Stanley Young - July-August 1951, p. 11.
- "Freeway Values," Abutting Properties Show Exceptional Gains, Stanley Young - September-October 1951, p. 5.
- "Shell Beach Study," Expressway Spurs Subdivision Growth, Theodore A. Reinhart - November-December 1951, p. 39.

Similar studies of the effect of cul-de-sac streets on real estate values have proved beneficial to the California Division of Highways. When it became apparent in 1940 that the proposed expressway construction program would require the creation of cul-de-sac streets, the California Division of Highways instigated a factual study of the effects of this type of street design on real estate values as compared to similar property on through streets.

Some 200 cul-de-sac streets in and around Los Angeles became the base of this study. The streets used were in no

¹⁵See Memorandum 46, July 1951, Committee on Land Acquisition and Control of Highway Access and Adjacent Areas, Highway Research Correlation Service, Circular 138

way peculiar to the specific location, but were average streets which could readily be compared with similar streets in San Francisco, San Diego, or any other California city.

It was upon the conclusions arrived at after this study that the department's negotiation policy was established with respect to properties so affected. The results indicated that for single and multiple residential uses, no diminution in value occurred by the development of the cul-de-sac and in numerous cases benefits were enjoyed.

Since the completion of this study, sales throughout the state of residential

properties situated on cul-de-sac streets have verified this condition.

Four recent inverse condemnation cases terminating in zero awards are indicative of the average jury's determination of the effects of cul-de-sac street design on residential properties, and clearly indicate that the advantages of the freeway to the community, in addition to the better light, air and view of the specific property, more than offset any possible decrease in value. These cases are as follows and are illustrated in Figures 3 and 4.¹⁸

¹⁸See Memorandum 45, June 1951, Committee on Land Acquisition and Control of Highway Access and Adjacent Areas, Highway Research Correlation Service, Circular 135.

1. Alexander vs. State of California, an inverse condemnation. S. C. C. 575409, as to Defendant John Alexander.

Witness for Defendant or Plaintiff	Value land taken	Severance damage	Benefits	Total	Value per acre sq. ft.
Richard Ingraham - Pltf.	-	\$1,200	-	\$1,200	-
Marian C. Alexander - Pltf.	-	3,000	-	3,000	-
John Freeman - Pltf.	-	1,000	-	1,000	-
Claude Simpson - Dft.	-	0	-	0	-
J. Mann - Dft.	-	0	-	0	-
AWARD		0		0	

2. John Alexander vs. State of California as to O. C. Pocklington.

Richard Ingraham - Pltf.	-	\$4,300	-	\$4,300	-
O. C. Pocklington - Pltf.	-	8,000	-	8,000	-
John Freeman - Pltf.	-	3,750	-	3,750	-
Claude Simpson - Dft.	-	-	\$1,000	0	-
J. Mann - Dft.	-	-	1,200	0	-
AWARD		0		0	

3. John Alexander vs. State of California as to Wm. A. Cobleigh

Richard Ingraham - Pltf.	-	\$2,750	-	\$2,750	-
Wm. A. Cobleigh - Pltf.	-	4,000	-	4,000	-
John Freeman - Pltf.	-	2,500	-	2,500	-
Claude Simpson - Dft.	-	0	-	0	-
J. Mann - Dft.	-	0	-	0	-
AWARD		0		0	

4. Roy A. Taylor vs. State of California, inverse condemnation. S. C. C. 575347, as to Roy A. Taylor.

Richard Ingraham - Pltf.	-	\$4,000	-	\$4,000	-
John Freeman - Pltf.	-	3,500	-	3,500	-
Claude V. Simpson - Dft.	-	-	\$4,000	0	-
J. Mann - Dft.	-	-	5,000	0	-
AWARD		0		0	

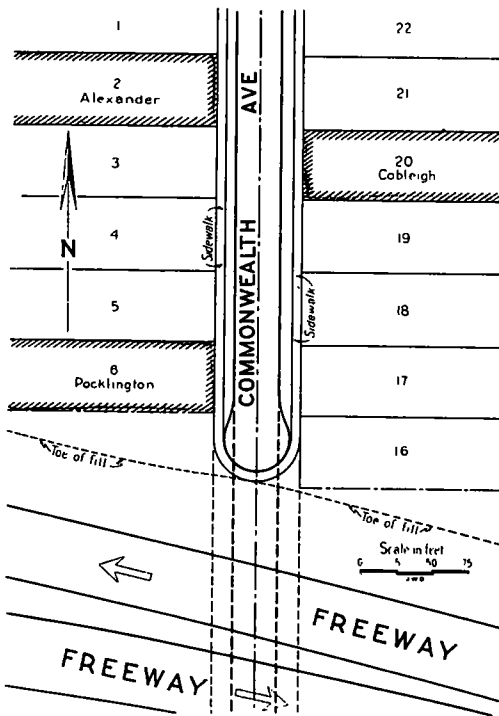


Figure 3.

A detailed study of the effect of the Gulf Freeway in Houston, Texas, on land values, was completed during the year by Texas' Highway Department, and should be available for review sometime during the spring of 1952. The facts brought out in this study are well worth studying and should provide excellent ammunition to Texas and other states in efforts to establish expressway programs.

Financing of Expressways by Special Assessments

The Oklahoma law governing the establishment of controlled-access facilities (Title 69, Okla. Stat. Cum. Supp., 1949, Secs. 11.1-11.32; 69 O. S. A. 11.1-11.32) provides that the governing body of a city or county may designate and establish such facilities, and that when established they may determine the amount of the cost to be paid by special assessment against benefited property. After approval and adoption of plans for the contemplated facility by resolution by the city or county and publication, if the owners of more

than one half of the area of the land liable to assessment file a protest against the improvement within 15 days after the last publication, the governing body may not advertise the same again for six months. Two cases questioning the authority of local governing bodies under the provisions of this act were recently decided by the state's supreme court.

In the case of *Holt et al. v. Board of Commissioners of Oklahoma County et al.*, 236 P. (2d) 476, Oct. 1951, the county adopted a resolution creating a controlled-access highway district which contemplated the paving and improving of a portion of North Tabor Avenue. The county engineer prepared plans and specifications and estimate of costs for paving, and the county commissioners adopted a resolution purporting to adopt the plans, specifications, and estimate of costs and declaring the necessity of the paving of the public way. The plaintiffs, H. A. Holt and Mary Irene Holt, subsequently took action to enjoin the establishing of the proposed improvement. The trial court sustained a general demurrer to the petition.

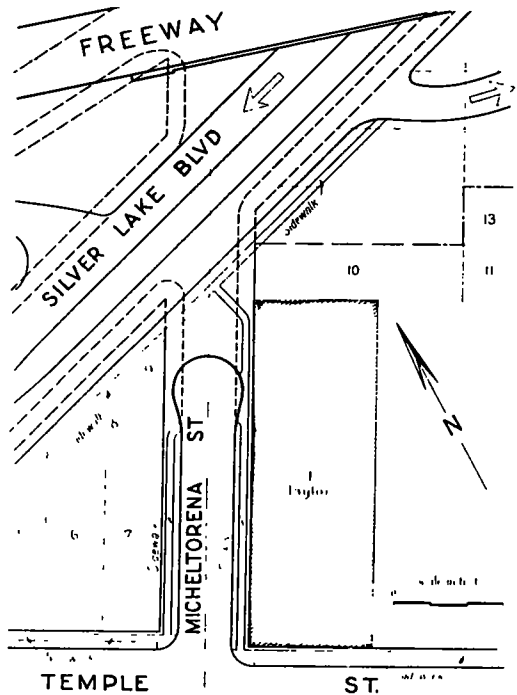


Figure 4.

Plaintiffs' petition alleged, among other things, that the creating of a controlled-access highway improvement district, by resolution, violated the constitutions of the United States and of the State of Oklahoma and deprived the property owners of their property without due process. The petition further alleged that Tabor Avenue was a residential street, did not connect with any other terminus, was not designed, platted, or laid out for through traffic, served only the property immediately abutting thereon, could not because of its physical location and characteristics ever be used by arterial traffic and consequently could be in no sense considered as a controlled-access facility.

The court considered that Article 10, Sec. 7 of the state constitution, providing that the legislature might authorize county and municipal corporations to levy and collect assessments for local improvements upon property benefited thereby, was sufficient to permit the legislature to grant authority to the county commissioners to establish improvement districts.

However, the court was of the opinion that plaintiffs were within their rights in contesting the action of the county in adopting and approving plans for the proposed facility. A previous case was cited to the effect that the authority of the governing body to tax abutting property for the cost of an improvement was dependent upon two characteristics: first, that it was a local improvement within the meaning of the constitutional provision, and second, that there was a public necessity therefor as required by statutory enactment. (*Baldwin v. City of Lawton*, 185 P. (2d) 699 April 15, 1947.) The allegations in the present petition to the effect that the street to be improved was a residential street, serving only property immediately abutting, and that it could never be used by arterial traffic, in the absence of any motion to make more definite and certain, were sufficient to question the necessity of the creating and establishing of the improvement district and its designation as a local improvement which would warrant the assessing of other than abutting property. The court thus found that the trial court erred in

denying plaintiffs' petition.

In the second case, *Starner et al. v. Oklahoma City et al.*, 236 P. (2d) 479, Oct. 1951, a similar petition by Roy W. Starner and Mollie Starner against the city council of Oklahoma City and Harlon E. Chose, city engineer, the state supreme court sustained the trial court in its action sustaining a general demurrer to the petition, because it failed to state facts sufficient to constitute a cause of action, in the absence of allegations that a resolution of necessity had been adopted.

In this case, the petition attacked the resolution of the city council purporting to establish a controlled-access facility on East or Eastern Avenue in Oklahoma City on the following grounds: (a) the designation of that portion of Eastern Avenue from its intersection with Northeast Fourth Street to its intersection with Northeast Twenty-third Street as a controlled-access facility was arbitrary and capricious, and that the city council might not designate only a part of the street as a facility of this type; (b) the project contemplated the acquisition of private property as a site for the improvement, the cost of which would be paid by the special assessments levied on the improvement district, which would constitute an unlawful, unauthorized and improper levy of assessments; (c) the levying of assessments for local benefits, on all property within 1/2 mi. east and west of the improvement was arbitrary and capricious and unconstitutional and void, and (d) the creation of such a district by resolution was unconstitutional.

The court again pointed out that an attack upon the necessity for the improvement, and whether it was of local benefit to the property included in the improvement district, could only be made after the necessity resolution had been adopted. The statutes providing for the adoption of such a resolution after the plans and specifications had been prepared and filed, provided that the filing of a written protest against the improvement by the owners of more than one half in area of the land liable for assessment would stay further action by the governing body for a period of six months. If in the instant case such protest should be filed, further action on the improvement would

be stayed for the next six months and it might be abandoned by the city authorities, so that the determination of questions as to its necessity, feasibility and benefit to the property owners would be rendered unnecessary. Since the petition did not allege that the resolution of necessity had been adopted it failed to state facts sufficient to constitute a cause of action.

The court concluded that the objectives urged by the plaintiffs could only become material in case no protest was filed when the resolution of necessity was published, or, if a protest was filed, that the same should be denied. Thus the trial court did not err in sustaining the general demurrer to the petition.¹⁷

CONTROL OF THE ROADSIDE

Legislative and Administrative Controls

Progress in achieving adequate control of the roadside sometimes seems appallingly slow, considering the importance of such controls in maintaining an efficient and safe highway system. However, in view of the opposition generated in some quarters by any effort to regulate the areas abutting public highways such progress as is made can be looked upon with gratification. During 1951, several states were successful in obtaining enactment of laws or administrative regulations providing for or authorizing control or regulation of entrances to and exits from state highways, and for the regulation of outdoor advertising devices in areas abutting highways. Substantial progress was made on the committee study of existing legislation pertaining to the control of outdoor advertising.

An outstanding accomplishment of the year in this field was the virtual completion of the Michigan and Minnesota roadside surveys, through the mechanism of the state-wide highway planning surveys. These studies are of particular interest to those concerned with proper control of the areas adjacent to the roadside, since they provide factual information which may be used to point up the need for such control. Final reports on both

studies were presented to the committee at the annual meeting of the Board. O. L. Kipp, assistant commissioner and chief engineer of the Minnesota Department of Highways, presented the Minnesota report, "Final Report on the Minnesota Roadside Survey," and J. Carl McMonagle, director, Planning and Traffic Division, Michigan State Highway Department, gave a report on the Michigan study, entitled "Traffic Accidents and Roadside Features." Both reports are reproduced in full in this bulletin.

Control of Outdoor Advertising

During the year the New Mexico State Highway Commission adopted new regulations providing for the control of billboards on lands adjacent to public highways, under authority of Chapter 123 of the Laws of 1929.

Under the new system permits are required for the placing, erection and maintenance of advertising signs, signboards, or other advertising devices, such permits to be issued by the state highway commission, which body is also charged with the removal of any advertising signs erected or maintained in violation of the law. Pertinent provisions of the new regulations are:

Prohibitions. No advertising sign, signboard or device of any character shall be placed, erected, or maintained upon any land adjacent to a public highway outside of any incorporated city, town, or village except under the following conditions:

(a) That such sign, signboard or device shall advertise a business carried on on the premises. (Premises shall mean the building or buildings wherein the business is being carried on and within an area not to exceed 250 ft. on each side of such building or buildings, or not to exceed 250 ft. on each side of the entrance or approach road to any business establishment.)

(b) That such sign shall be placed at a distance greater than 300 ft. from an intersecting road or highway.

(c) That such sign shall be placed at a greater distance than 300 ft. from a corner.

(d) That such sign shall be placed at a

¹⁷See Memorandum 51, Committee on Land Acquisition and Control of Highway Access and Adjacent Areas, Highway Research Correlation Service, Circular 152, December 1951

distance greater than 500 ft. from any intersection of a railroad and a road or highway.

(e) That such sign shall be placed outside the highway right of way and not attached to the highway right-of-way fence.

(f) That such sign shall be located at a distance greater than 100 ft. from the edge of the highway right of way, unless a permit shall have been issued by the state highway engineer permitting the placing of such sign at a lesser distance from the edge of such right of way.

Conditions under which Permits will not be issued. No permit will be granted for the location or maintenance of any advertising sign or other advertising device under the following conditions:

(a) In or near any stream or arroyo where such sign may be deluged by freshet and swept under the roadway, spillway, or highway structure crossing the stream, or against the support of any highway structure;

(b) If placed in such manner as to cause a "dead area," thus allowing sand or snow to drift upon the highway;

(c) If placed so as to cast a shadow on the highway; thus constituting a menace to highway safety;

(d) If placed upon a hill or a back slope, or continuing slope, above a highway in such a manner that it might fall or be blown upon the highway;

(e) If such sign is to carry a directional, warning, or other information, legend of a type which is carried by a standard highway marker system;

(f) If such sign is to be in the general shape of a railroad crossing sign or is to be an imitation of a warning or danger sign;

(g) If such sign for any other reason is or may be a menace to public welfare or safety;

(h) If one owner (either an individual, organization, or corporation) proposes to place, erect, or maintain two or more such advertising signs, signboards, or devices displaying similar advertising located closer than 1000 ft. from each other, nor to permit any such sign to be located closer than 500 ft. in any direction from any other advertising sign, signboard or device.

(i) If such advertising sign, signboard or device is to be located within 50 ft. from the outer edge of the right of way of a road or highway.

(j) If such advertising sign, signboard, or device shall have a poster area size of more than 25 ft. in length, or more than 12 ft. in height;

(k) If such advertising sign shall obstruct sight distance not otherwise limited (inside curves, or on S curves), where it will reduce the sight distance to less than 1500 ft.; shall have red or green lights or red or green reflectors; shall have flashing or intermittent illumination; or shall display the form of an arrow.

Removal of Unlawful Signs. (a) All owners of advertising signs, signboards, or devices placed, erected or maintained in violation of the provisions of Chapter 123, Session Laws of the 1929 New Mexico Legislature and of the rules of the state highway commission governing such signs as hereinabove set forth, shall be notified by the state highway engineer or his authorized representatives that such signs are unlawful and that the owner thereof must, within 60 days from the date of such notice comply with the law and these rules with respect thereto.

(b) That if the owner of such advertising sign, after being so duly notified, shall fail to comply with the provisions of said Chapter 123, Laws of the 1929 Session of the New Mexico Legislature and of these rules and shall continue to maintain such sign in violation thereof, the state highway engineer or his authorized representative or representatives shall forthwith cause the same to be summarily removed by the state highway department employees.¹⁸

Some of the regulations promulgated by the New Mexico State Highway Commission were subsequently challenged by interested parties and the resulting litigation is expected to come up for trial during the spring of 1952. The results of this litigation will be awaited with interest.

The State of Washington has been successful in at least one instance in connection with the acquisition of land for controlled-access highways, in including

¹⁸See Memorandum 48, September 1951, Committee on Land Acquisition and Control of Highway Access and Adjacent Areas, Highway Research Correlation Service, Circular 141

the following provisions in a warranty deed form which it expects to use, however, only in a few instances, where feasible:

"Also, as a part of the consideration herein, it is understood and agreed that no part of the grantors' remaining, abutting, and adjoining property, within a distance of 500 ft. of the lands herein conveyed, shall ever be used for the planning or maintenance of advertising signs, bills or posters."

The department of highways also reports that it has been successful in obtaining the right to restrict the posting of signs, bills, or posters within a distance of 500 ft. of a recently constructed improvement on a secondary state highway. This project was located on Bainbridge Island, and had the support of many residents of the island, particularly the island's garden club.¹⁹

As a result of a series of unfortunate incidents involving the disfigurement or mutilation of vegetation which obstructed the view of outdoor advertising signs located along metropolitan expressways in California, the highway department during the past year, adopted the following resolution:

(a) As to metropolitan freeways, landscaped or to be landscaped:

(1) All leases for billboards located on state-owned property adjacent to constructed metropolitan freeways where provision has been made for landscaping should be canceled.

(2) State highways which are to be designated metropolitan landscaped freeways will be so designated with the termini of the sections to be landscaped.

(3) Landscaping on metropolitan freeways other than erosion control and bank protection is not to be undertaken until and unless proper ordinances are in effect by the city or county involved prohibiting the location of billboards on property adjacent to such freeways.

(b) As to all state highways and freeways, billboards located not in violation of law on state-owned property on freeways or other state highways may be allowed to remain in position under state lease agreements until it is necessary to

remove the billboards on account of impending construction activity.

In conforming with this resolution, the director of public works issued the following order:

Whereas, it appears desirable and in the public interest that a definite policy with respect to advertising displays on, or adjacent to, state highways and property under the jurisdiction of the department of public works be adopted; and the same having been considered by the director of public works, it is

ORDERED, that the following statement of policy be, and the same is, hereby adopted as the policy of the department of public works respecting advertising displays (as that term is defined in the Outdoor Advertising Act) on, or adjacent to, state highways and property under the jurisdiction or control of the department of public works, both within and without incorporated areas of the State of California:

1. No advertising display shall be placed or permitted, whether under lease or otherwise, in violation of the Outdoor Advertising Act or any other law or local ordinance applicable thereto, or within the established right of way of any highway.

2. As respects freeways, when landscaped or to be landscaped, in metropolitan areas, whether or not such areas are incorporated:

(a) No lease or other arrangement authorizing or permitting the placing or maintenance of any advertising display on any excess parcel outside of the established right of way of the state highway, as shown on the approved plans on file, shall be entered into, and any existing lease covering such a display at any such location shall be canceled in accordance with the terms thereof.

(b) No recommendation shall hereafter be made to the California Highway Commission for an allocation of funds and no funds shall be expended for landscaping of any freeway in a metropolitan area (other than erosion control and bank protection) unless or until the local governing body having jurisdiction in the premises has adopted proper ordinances prohibiting the location of advertising displays within view of such freeway.

¹⁹See Memorandum 50, November 1951, Committee on Land Acquisition and Control of Highway Access and Adjacent Areas, Highway Research Correlation Service, Circular 149

3. As to state highways and freeways generally:

(a) Advertising displays adjacent to nonlandscaped freeways or other state highways, so located as not to be in violation of state law or local ordinances, may be permitted to be placed, or to remain in place, on state-owned property, under lease or other arrangement, subject to the right of the department to require their removal whenever necessary to permit construction or maintenance of the state highway and provision for removal of such displays shall be provided for in any such lease.

4. The state highway engineer shall determine what sections of the state highway, indicating the termini thereof, are presently landscaped as that term is currently in use in the division of highways, and shall similarly recommend to the director and the commission sections proposed for landscaping with the termini thereof, and, upon approval, shall make such information available to the public.

5. This statement of policy shall be effective as of the date hereof and all officers and employees of the department of public works, and in particular the officers and employees of the California Division of Highways, are directed to conform thereto.²⁰

As a result of this new order, it is reported that a number of cities in the state, as well as many of the counties which have not already done so, are considering the adoption of ordinances prohibiting the installation of billboards along expressways, from the standpoint of both safety and aesthetics.

Regulation of Drive-In Theaters

An argument for appropriate zoning, or at least for some form of control over the location of drive-in theaters, may be found in a recent decision of the Court of Appeals of Kentucky, denying a motion to enjoin officials of the City of Somerset from issuing a permit for a drive-in theater in a residential area of the city. (*City of Somerset et al. v. Sears et al.*, 233 S. W. (2d) 530, October 1950).

Residents of the neighborhood, in seeking to enjoin the operation of a drive-in theater, on the ground that it would constitute a nuisance, based their contention on the following facts: The site chosen was located in a quiet residential subdivision, somewhere near a hospital; the lights, crowds, congestion and noises would constitute a nuisance and would result in a depreciation in value of surrounding property, would be injurious to the health of those residing in the community, and would destroy the quiet and peaceful use and enjoyment of their homes.

A lower court rendered a judgment for the group of residents seeking to have the permit denied, but when the case was appealed to the Court of Appeals, that court found that the operation of an outdoor theater did not constitute a nuisance. The high court stated that the essential elements of a nuisance were the unreasonable use of property which caused material annoyance, inconvenience or discomfort. Courts are generally reticent about enjoining the use of property for a legitimate purpose on the ground that it might become a nuisance because ordinary business could be carried on in such a manner as not to unreasonably interfere with the substantial rights of neighboring property owners. It is not enough that the activity might result in inconvenience or annoyance, or that it might make the protesting residents' homes less desirable places in which to live. The facts in the petition must show clearly that a material invasion of the petitioners' rights would necessarily result from the operation of the proposed drive-in theater.

Examining the facts in this particular case, it was found that the proposed drive-in theater was to have "in-the-car" loud speakers, a concession stand, and rest rooms. There was nothing to indicate that the structure itself - the screen, buildings, and enclosure, would create any particular offense. The main objection appeared to be that up to 400 automobiles for each show would go in and out of the theater entrance, thereby creating noises, lights and congestion on the street in front of the theater. The court was not aware of any case which had gone so far as to hold that the use of property for business purposes, which

²⁰See Memorandum 49, October 1951, Committee on Land Acquisition and Control of Highway Access and Adjacent Areas, Highway Research Correlation Service, Circular 147

increased traffic on the public streets in the vicinity, constituted a nuisance. No zoning or other regulations existed which would restrict the use of the company's property.

The sum and substance of the petitioners' complaint appeared, therefore, to be that they would be annoyed by the operation of a substantial business enterprise in a residential district. The business was legitimate and no proof of the fact that its operation would of necessity constitute such material annoyance, inconvenience or discomfort as to constitute an invasion of petitioners' rights had been presented. The court therefore reversed the decision of the lower court and ordered the petition dismissed.²¹

Roadside Zoning

Although roadside zoning, if effectively administered, offers an excellent means of controlling the areas adjacent to streets and highways, little has been accomplished through this mechanism, particularly in rural areas. What has been done in the past and what may be expected in the future in this field of endeavor is the subject of a paper entitled "Roadside Zoning," presented at a session of the committee at the 1951 annual meeting of the Board. This paper is reproduced in full in this bulletin.

A recent effort of the Town of Avondale, Arizona, to establish a setback of 10 feet from the front property line abutting US 80, by enactment of a zoning ordinance was nullified by a decision of the state's supreme court holding that the zoning ordinance in question was unconstitutional because it was enacted under a statutory provision giving the town authority to exercise exclusive control over its streets, rather than under the police power. (*Wood et ux, v. Town of Avondale*, 232 P. (2d) 963, June 18, 1951.)

Subsequent to adoption of the ordinance, owners of property adjoining the highway, although aware of the ordinance in question, improved their property with a business establishment, disregarding the 10-

ft. setback. Thereupon the Town of Avondale requested an injunction requiring the owners to remove their structure from the prohibited zone. The trial court granted the injunction and the property owners appealed.

The state supreme court dissolved the injunction and dismissed the complaint on the ground that the provision of the ordinance in question was unconstitutional. The town had authority, under statutory provisions, to enact a zoning ordinance, including the establishment of setback lines, under the police power, in which case the necessary procedure would include notice of public hearing, published in a newspaper; action by the common council on protest of 20 percent of the property owners involved; creation of a zoning commission to study and recommend to council (which body might not take action until it had received a final report from the commission); and the setting up of a board of adjustment.

However, the ordinance was not adopted under the police power but under a section of the statutes which authorized the town to exercise exclusive control over its streets, alleys, avenues, and sidewalks and to give and change their names to prevent and punish for the encumbering thereof; to abate and remove all encumbrances and obstructions; to widen, extend, straighten, regulate, grade, clean or otherwise improve them; to open, lay out and improve new streets, avenues and alleys, to vacate any street, avenue, alley or sidewalk and to abolish the same; and to protect them from encroachment and injury. This section, said the court, did not grant any control over the private property of the citizens of the town except to prevent, abate, and remove encumbrances upon its streets and alleys and to provide penalty for violation.

The court held that property owners were entitled to notice before enactment of a zoning ordinance which would limit the use of their property. The ordinance in question was unconstitutional in that it deprived the property owners of their property without due process of law.²²

²¹See Memorandum 42, March 1951, Committee on Land Acquisition and Control of Highway Access and Adjacent Areas, Highway Research Correlation Service, Circular 129

²²See Memorandum 49, October 1951, Committee on Land Acquisition and Control of Highway Access and Adjacent Areas, Highway Research Correlation Service, Circular 147.

PARKING

Provision of Off-Street Parking Facilities as a Public Function

Several significant developments have taken place during the year, concerning the provision of off-street parking facilities as an ordinary function of government.

1. **Missouri.** Another state, Missouri, has now joined the list of States wherein the provision of off-street parking facilities by public authorities has been declared by the courts to constitute a public purpose.

In a decision handed down on October 9, 1950, (*Bowman et al. v. Kansas City et al.*, 233 S. W. (2d) 26) the state supreme court held that an ordinance adopted under statutory and charter authority, providing for acquisition of realty for off-street parking areas was for a public use and the ordinance was valid. The court made the further point that if it is in the public interest and for a public purpose, a city may be authorized by the State to engage in a business commonly carried on by a private enterprise.

The case came before the supreme court as a result of an appeal from a decision of the Circuit Court of Jackson County, denying the request of certain resident taxpayers of Kansas City for an injunction to prevent the city from carrying out the provisions of an ordinance providing for the acquisition of real estate for the purpose of providing public off-street parking facilities.

The ordinance which the taxpayers took exception to was adopted in 1949 and provided for use of land already in the possession of the city, and the acquisition of additional land, all in the vicinity of the municipal auditorium, for the purpose of relieving traffic congestion by the provision of off-street parking facilities, to be operated by the city or leased for private operation. The taxpayers bringing the suit were engaged in the business of parking automobiles in the immediate vicinity of the auditorium.

One of the points raised by the taxpayers was to the effect that the land already in possession of the city had been acquired from the proceeds of a bond issue authorized in 1931 "to pay the city's share of the

cost of acquisition of the necessary lands for the opening, widening, and establishing of trafficways and boulevards in the city and the improvement... for travel including the necessary bridges and viaducts." The taxpayers charged that this property could not legally be used for purposes other than those submitted to the voters at the time. The court, however, thought the record clearly showed that the proposed use of the property already owned by the city was directly connected with trafficway improvement, and that no facts were shown which prevented such use of the property.

Those bringing the suit contended that the ordinance in question permitted taxation for a private instead of a public purpose and permitted the city to engage in a business nonpublic in nature, in competition with them and others similarly situated. The garage and parking station business could not be considered public in nature because it did not contemplate business of a type "which had traditionally been regarded as a public utility."

As to the argument that the provision of off-street parking facilities was not public in nature, the court answered that no hard and fast rule could be laid down for the purpose of determining whether specific uses and purposes, such as those here under consideration, were public or private. The term was elastic and kept pace with changing conditions. The court cited a previous case in which it had declared that modern conditions and the increasing interdependence of the different human factors in the progressive complexity of a community made it necessary for the government to touch upon and limit individual activities at more points than formerly. (*Kansas City v. Liebi*, 252 S. W. 404) As stated in another decision, (*Laret Inv. Co. v. Dickmann*, 134 S. W. (2d) 65) to be guided solely by whether a given activity had, at some previous time, been recognized as a public purpose would make the law static. Such a standard would compel us to retain in the law, as appropriate for public expenditure, activities which have ceased to be of public concern; and would prevent us from adopting new public functions regardless of how essential to the public welfare they may have become by reason of changed conditions. Nor can we be

governed alone by the fact that only a portion of the public will be directly benefited, or benefited in a greater degree than the public generally."

The court considered that the matter of control of motor vehicles when entering or leaving public highways, their movement on the highways, the parking of such vehicles on the highway or on public areas provided off the highway and the regulation and control of motor vehicle traffic generally was referable to the police power, as being directly connected with public safety and welfare. Further, the acquisition and operation by municipalities of off-street parking areas for motor vehicles was, the court believed, closely related to and governed by the same principles of law as governed the acquisition and control of municipal airports, which were for a public purpose. The court therefore held that the purposes proposed to be carried into effect by the ordinance in question were public purposes.

Since the acquisition of land for and the establishment and operation of public off-street parking stations or garages by the defendant city were for a public use and for public purposes, the fact that such stations would compete with private enterprises was not material or decisive. The court found it a well-settled principle that if it was in the public interest and for a public purpose, a city might be authorized by the state to engage in a business commonly carried on by a private enterprise; and in such case the city might levy a tax to support such business and compete with private interests engaged in a like activity.

The decision of the lower court was affirmed. It is interesting to note that all members of the court, sitting en banc, concurred in the decision.²³

2. New York. The City of New York has authority, under the provisions of the New York General Municipal Law (Section 72-j), to acquire real property by condemnation for the construction or operation of parking garages or parking spaces for the relief of traffic congestion, and may lease the property for this purpose to any

person, firm or corporation.

Recently the city's action in a particular transaction, under this authority, was challenged by a landowner on the ground that the proposed condemnation and contract were not for a public purpose but were for the benefit of the lessee, (*Denihan Enterprises v. O'Dwyer, Mayor, et al.*, 100 N.Y.S. (2d) 512, November 14, 1950.)

The Appellate Division of the Supreme Court of New York State reversed the decision of a lower court denying an injunction against the City of New York to restrain the city from performing the provisions of a contract made with the New York Life Insurance Company for lease of land acquired by the city for the purpose of erecting parking garages. In so doing, the higher court held that the matter of whether or not performance of the contract would result in excessive benefits to private interests, was a proper matter for adjudication by the courts.

The land to be acquired by the city was located in the block between 64th and 65th streets and Second and Third avenues in the Borough of Manhattan. Simultaneously, the New York Life Insurance Company had under construction a large apartment house in the block between 65th and 66th streets and Second and Third avenues.

In this particular case, the City of New York entered into a contract with the New York Life Insurance Company providing that the city would condemn the property in question and offer it for lease at public auction on terms specified in the contract. The insurance company was to bid for the lease for a term of 50 years, offering an amount equal to the total condemnation costs plus annual rent of \$25,000 a year, and if it was the successful bidder, it would construct a garage in accordance with the specifications of the contract and proposed lease.

The request for an injunction against the city in the present case came from an owner of a parcel of land to be condemned for the above purpose, whose contention was that the proposed condemnation and contract were not for a public purpose but were for the benefit of the insurance company, enabling it to get control and use of the block opposite its apartment building to

²³See Memorandum 44, May 1951, Committee on Land Acquisition and Control of Highway Access and Adjacent Areas, Highway Research Correlation Service, Circular 133

serve the tenants and its interest as landlord and to provide an attractive outlook for the apartment house. The owner also argued that specifications for the garage building and other work were such that no one but the New York Life Insurance Company would be interested in the undertaking and that the specifications were rigged to meet the requirements and desires of the insurance company.

Included in the specifications was the provision that the garage building be only two stories in height above the surface, the entire roof to be covered with at least four feet of earth and improved with lawn, shrubs, trees, walks and landscaped areas. The southerly half would be developed as a public park. The northerly half, opposite the apartment building, was thus reserved as a private park for the pleasant vista of the tenants of the apartment house. The contract also permitted the lessee to rent 30 percent of the ground floor and first basement space for commercial purposes not connected with garaging or parking.

The court felt that there was a triable issue in these and other respects as to whether the proposed lease was designed to attract bidders or provide the public parking facilities that would be expected from the use of the property for that purpose, or whether it reflected a compromise and a pooling of the interests of the city and the insurance company to provide only a modicum of public parking facilities and otherwise give the insurance company use and control of the property for the benefit of the apartment development.

The court recognized the fact that a condemnation project was not necessarily illegal because it benefited a private interest if the public good was at the same time enhanced. However, this was a relative matter and one of proper proportions and purposes. No purpose identifiable with a public park or a public garage appeared to be served by requiring that half of the roof be reserved and landscaped. The court also felt that there was a question as to whether or not more of the building was to be reserved for non-garage and nonpublic purposes than was contemplated by the statute. A trial of the action might dissipate any doubts as to the legality of the arrangement, but it

might also reveal that the project on the whole was not authorized by sound condemnation principles and was so imbued with a private purpose and private use of the land to be condemned as to render the proposed condemnation and contract arrangements invalid.

The lower court's order denying the landowner's motion for an injunction was therefore denied in order that the legality of the contract between the city and the insurance company might be tested.²⁴

3. Pennsylvania. An effort of the Pittsburgh Public Parking Authority to enter into a single contract for plumbing, heating, ventilating and electrical work in connection with one of its projects was turned down by the Pennsylvania State Supreme Court on November 20, 1950 (in re Public Parking Authority of Pittsburgh, 76A. (2d) 620.) In so doing, the court upheld a decree of a lower court, stating that the parking authority could not avoid compliance with the 1913 act merely because it was an agency of the state; that requirements for separate bids under a 1913 act of the legislature were not repealed by the Parking Authorities Act of 1947; and that buildings to be constructed by the parking authority were public buildings within the meaning of the 1913 act.

In its petition for a declaratory judgment seeking a judicial determination that the Act of 1913 was inapplicable, the parking authority contended that it was state agency and the act did not apply to the state or its agencies. It was urged that a statute enacted by the legislature is not applicable to the state, and since an agency of the sovereign is in reality the sovereign itself, the act did not apply. With this the court could not agree since this rule applied only when dealing with possible derogation of the state prerogatives or property of the rights, which were not here in question. Obviously, the legislature, by the Act of 1913, was setting forth a declaration of public policy. It was unrealistic to suppose that the legislature would pass an act declaring a public policy but not intend the act to apply to its own agencies. If such were the intent, it would necessarily have been set forth clearly and

²⁴See Memorandum 43, April 1951, Committee on Land Acquisition and Control of Highway Access and Adjacent Areas, Highway Research Correlation Service, Circular 130

unequivocally.

The parking authority further contended that even if the Act of 1913 were applicable to a state agency, it did not apply to the authority because it was inconsistent with the Parking Authority Law and was repealed by it. The court, however, found no merit in this contention. The two acts were not irreconcilable. Their terms considered in the light of the stated underlying public policy were consistent and harmonious.

The Parking Authority Act provided that "all acts or parts of acts inconsistent with the provisions of this act are hereby repealed." The court stated, however, that a later law might not be construed to repeal an earlier law unless the two laws were irreconcilable. Repeal was wholly a question of legislative intent, and no clear legislative intent to repeal the Act of 1913 could be found in the Parking Authorities Act.

The power given parking authorities to make contracts of every name and nature did not prohibit the Pittsburgh authority from entering into contracts "of every name and nature" with any of the four contractors named in the 1913 act. To say that the authority was granted the power to enter into any contract with any individual or person was to place undue importance upon the words "of every name and nature." Such words must be read in the light of the Act of 1913 requiring separate bids. The authorities act did not state that the petitioner had authority to enter into any contract with any individual. The words "of every name and nature" defined the type or kind of contract which could be entered into, whereas the Act of 1913 limited the category or type of bidder with whom the authority might contract.

The fact that the authority might, under the 1947 act, enter into and carry out such contracts or establish or comply with such rules and regulations concerning labor and materials and other related matters in connection with any project or portion thereof as the authority might deem desirable, did not mean that despite the terms of the Act of 1913, the authority might, nevertheless, enter into a general contract for the entire work. Contracts were specifically limited by the Parking Authorities Act to those entered into "upon

proper terms."

Lastly, the petitioner maintained that because any buildings constructed would be financed by private funds they could not be public buildings. The legislature, however, had declared the provision of public parking facilities a public purpose for which public money might be spent and private property to be acquired by the exercise of eminent domain. A general tax exemption was conferred upon property acquired or used by the authority because such authorities were presumed to be performing essential governmental functions in effectuating such purposes. The public nature of the function of the parking authority had been upheld by the court in *McSorley v. Fitzgerald*, 59 A (2d) 142.) There was no merit in petitioner's contention.²⁵

Provision of Parking Facilities Under the Zoning Mechanism

In view of present wide-spread interest in the use of the zoning mechanism as an aid in the solution of the parking problem, court decisions relating to the enforcement of provisions included in local zoning ordinances, requiring that parking space be provided in connection with the construction of new buildings, are significant. At least four court decisions have been handed down recently in which the provision of such facilities was at issue.

1. Florida. The state's supreme court held in state ex. rel. Tampa, Florida, Company of Jehova's Witnesses, North Unit, Inc. v. City of Tampa et al., 48 So. (2d) 78, October 6, 1950, that the denial of a permit for construction of a church in Tampa, Florida, on the ground that sufficient space for off-street parking was not provided in accordance with a local ordinance, was arbitrary and capricious, and reversed the decision of a lower court which had upheld the city's action.

Ordinance 1206-A of the City of Tampa requires that "all places of assembly" have space for off-street parking as a condition precedent to construction. The city

²⁵See Memorandum 46, July 1951, Committee on Land Acquisition and Control of Highway Access and Adjacent Areas, Highway Research Correlation Service, Circular 138.

claimed that the present application did not meet that requirement, on the ground that the space shown to be available for off-street parking was inadequate. The requirement of space for off-street parking was imposed on the theory that Tampa was a fast growing city, that traffic congestion was getting more serious, that traffic hazards were increased by parking along the streets and that such a requirement was essential to the peace, welfare and safety of the people.

Plans for the church included provision for off-street parking space to accommodate 213 persons (based on an ordinance requirement of 100 sq. ft. for every three persons), while the maximum seating capacity of the church was 182 persons. Church attendance was indicated as ranging from 115 to 182 persons, not more than three fourths of whom owned automobiles and required parking space.

The court stated that it found very little of substance to support the contention that people congregating for religious purposes caused such congestion as to create a traffic hazard. Religious services were normally for brief periods two or three days in the week and at hours when traffic was lightest. The churches themselves were often located in residential areas where traffic was not heavy and there were side streets and other facilities for parking. This was a small church and was shown to have ample off-street parking space for all ordinary purposes. It would rarely if ever require parking space on the street in front of the church. Even if rare occasions should require parking a few cars on the streets it did not appear that a traffic hazard would be created.

Furthermore, the court stated that in our economy, churches, schools, playgrounds, and other community institutions occupy a very different status in the regulating aspect from purely business enterprises where people gather in companies. They have always been thought to be important assets to our cultural, social, and moral needs. Many of them are marked by "slow," "silent," "caution," or similar warnings. The public tends to recognize these warnings, and when the zoning ordinance purports to

enforce them in such a way as to impose undue hardship on a church, they have usually been stricken down. When the church enters the picture, different considerations actuate any and all spheres of regulation.

The court concluded that the proposed plan for the church showed reasonable compliance with the ordinance. The denial of the permit was arbitrary and unreasonable, not only because provisions of the ordinance were substantially complied with, but there was no showing that the ordinance had any relation to the public health, morals, safety, or welfare.²⁶

2. Maryland. In an appeal from a decision of the Baltimore City Court, upholding the issuance of a permit for construction of a garden type apartment development, the Maryland Court of Appeals held that parking space provided for occupants of such developments may be regarded as open or unoccupied space in computing area, yard spaces, and density under the existing zoning ordinance; also that parking space provided on the lot of one building in such a development for use of families of such building and an adjoining building, if within 300 ft. of the adjoining building, does not violate an ordinance requiring parking space not over 300 ft. from the proposed dwelling unit structure. (*Windsor Hills Improvement Association, Inc. v. Mayor and City Council*, 73A (2d) 531, May 12, 1950).

The decision of the Baltimore City Court was contested by the Windsor Hills Improvement Association, Inc., which objected to issuance of a permit for construction of the proposed development, alleging that the project violated the provisions of City Ordinance 305 which required that in such districts, one parking space for each family was to be provided "in the building or buildings, or on land not over 300 ft. from the proposed dwelling unit structure." No off-street parking space was provided on one of the three lots comprising the proposed development, although such space was provided on an adjoining lot, sufficient for both buildings. The

²⁶See Memorandum 45, June 1951, Committee on Land Acquisition and Control of Highway Access and Adjacent Areas, Highway Research Correlation Service, Circular 135.

association also contended that the parking space thus provided could not be regarded as "open" or "unoccupied" space in computing area, yard spaces, and density under the zoning ordinance.

In answer to the first objection, that the permit should not be granted because parking space was not provided on the same lot as the building, the court stated that nothing in the parking ordinance required that parking space be provided on the same lot as the building, or on any "lot." The intended singleness in use and operation of the buildings comprising the apartment development was clear. The requirements of the parking ordinance were thus met.

As to the contention that parking space could not be regarded as open or unoccupied space in computing area, yard spaces, and density under the zoning ordinance, the court referred to a previous decision, *Akers v. Mayor and City Council of Baltimore*, 20 A (2d), 181 in which it had been held that under a zoning ordinance restricting a certain area for residential purposes and prescribing what part of each lot should be devoted to "yard," there was nothing to prevent use of yards for parking spaces for automobiles since the restriction was not intended to eliminate a use of yard space temporarily.

Although appellants attempted to distinguish between the present case and the *Akers* case because provision of off-street parking space was not required by law at the time the former case was heard, the court stated that whether or not parking space was "open" space did not depend upon whether such space was provided by choice or by legal requirement.

The appeal of the Improvement Association was dismissed.²⁷

3. New York. The ordinance in question in this case (*Mirschel et al. v. Weissenberger*, 100 N. Y. S. (2d) 452, November 1950), that of the village of Malverne, contains a provision to the effect that a particular use is permissible upon the furnishing of suitable automobile parking facilities, the extent of which is to be determined by the board of ap-

peals upon application and upon due consideration of public interest in respect of traffic congestion.

The appellate division of the State supreme court, however, reversed the decision of the lower court, holding that a village zoning ordinance providing that a particular use is permissible upon the furnishing of suitable automobile parking facilities, the extent of which is to be determined by the board of appeals upon application and upon due consideration of public interest in respect of traffic congestion, was not a delegation of legislative authority to an administrative agency without provision for suitable standards to control the exercise of authority and was not beyond the power of the local legislature to adopt. The intent of this section of the ordinance was clear, the court ruled, and there was no showing that confiscation of or unlawful discrimination against the applicants' property would result from application of the ordinance.²⁸

In another New York case, *Pagnotta v. Roberts et al.*, 101 N. Y. S. (2d) 836, November 17, 1950, the owner of a tract of land in the Village of Flower Hill was granted a building permit to alter and enlarge his existing building and to use it as a restaurant. After the proposed alterations and addition were completed, the owner applied for a certificate of occupancy, which was denied by the same village clerk who had issued the building permit on the ground that the property did not conform to the village zoning ordinance with respect to parking facilities. The ordinance in question provided, in effect, that no building permit was to be issued unless parking space for one automobile was provided for each five seats in the restaurant. Although this property had an open area of 1400 sq. ft., 1300 sq. ft. of it lay behind the building and was inaccessible to automobiles because the building extended across the entire width of the lot.

Prior to denial of the certificate of occupancy the owner of the property had leased the premises to a tenant at a rental averaging more than \$3,000 a year for a 10-yr. period. Upon application to the

²⁷See Memorandum 44, May 1951, Committee on Land Acquisition and Control of Highway Access and Adjacent Areas, Highway Research Correlation Service, Circular 133.

²⁸See Memorandum 42, March 1951, Committee on Land Acquisition and Control of Highway Access and Adjacent Areas, Highway Research Correlation Service, Circular 129

appeal board, a variance for 1 yr. was granted. However, because neither a certificate of occupancy nor a variance for longer than 1 yr. could be obtained, the tenant terminated the lease.

The property owner claimed that he was totally unaware of the fact that his plans did not comply with the provisions of the zoning ordinance and had proceeded with his alteration in perfect good faith. He had expended \$10,000 in making the alterations and now had his life savings invested in a building which he could neither sell, mortgage, lease, or use. The court found this an unfortunate situation and one which might well have persuaded the board to be more lenient in view of the unique hardship which had befallen the petitioner. However, the court stated that it had no power to substitute its judgment for that of the board.

Under the law, the fact that petitioner proceeded in good faith under a permit which had been issued upon plans which had been approved was of no avail. The court cited previous opinions to the effect that permits erroneously issued were not valid. Under the circumstances, the owner of the property must content himself with whatever relief he might be able to obtain from the board of appeals.²⁹

Parking Lots as Traffic Hazards

The Court of Appeals of Kentucky recently held that city officials of Lexington were without authority to deny a permit for construction of a parking lot on the grounds that a traffic hazard would be created, if no violation of any ordinances or regulations of the city, or statutes of the state, was involved. (*Parkrite Auto Park, Inc. v. Shea et al.*, 235 S.W. (2d) 986, December 15, 1950; rehearing denied February 16, 1951.)

In this case, the lessee of a small parkway in front of Union Station on Main Street in Lexington had applied for a permit to construct a parking lot thereon. Under the provisions of the city's zoning ordinance such use was permissible on the property involved. However, the application was turned down on the ground

that the location of the parking lot would constitute a traffic hazard.

A lower court upheld the action of the city officials, holding that the proposed use of the property would create a traffic hazard and constitute a nuisance. The lower court's findings and conclusions were based almost entirely upon personal knowledge of physical conditions and traffic problems in the area. The court of appeals acknowledged that the area involved was a congested one, but felt some doubt as to whether the operation of the new parking lot would increase congestion. Even if it would materially do so, the higher court felt that the lower court went rather far in determining that this factor branded the applicant's business a prospective nuisance which should be enjoined. The legislative body of the city, acting under its police power and considering the public health, safety and welfare, had ordained that this area might properly be used for parking lot purposes. The provisions of the ordinance in other respects had been complied with. Thus, the applicant proposed to engage in a lawful activity. The court considered that city officials were in effect arbitrarily denying the applicant the permit to which it was entitled under the provisions of the ordinance.

The lower court's action could only be upheld if appellant's prospective enterprise must necessarily constitute a common law nuisance. The operation of the parking lot was a perfectly legitimate business. Possibly it might become a nuisance. However, courts must be most careful in condemning a business on this ground because to do so was taking a man's property without compensation.

The court cited one of its own recent decisions (*City of Somerset v. Sears*, 233 S.W. (2d) 530, 1950) in which it had denied the right of a court to enjoin the erection of a drive-in theater. Even though one of the objections was that traffic congestion would be increased, the rule laid down there was that "a property owner has the right lawfully to use his premises as he sees fit, unless such use will necessarily constitute an unreasonable invasion of his neighbor's rights." The court found nothing in the present case which would justify a finding that

²⁹See Memorandum 48, September 1951, Committee on Land Acquisition and Control of Highway Access and Adjacent Areas, Highway Research Correlation Service, Circular 141

the proposed parking lot would necessarily constitute a nuisance. It might be that traffic congestion or hazards would be somewhat increased in the area. To a certain extent this would be true upon the opening of almost any type of business on a main thoroughfare. Such a possibility alone could not justify a court in depriving one of a use of his property which the legislative body of the city, in the exercise of its police power, had seen fit to authorize. The motives which moved the lower court to try to protect the public from what it considered an objectionable enterprise were not sufficient in law or equity to deny the present application.³⁰

Truck Loading and Unloading Investigation

A preliminary report, "Zoning for Truck Loading Facilities," was prepared during the year. Copies of the report were distributed to members of the Land Acquisition and Parking Committees of the Highway Research Board and to others interested in the truck terminal problem and comments and criticisms were solicited. Suggestions have been received and a final revision of the study has been made. The difficult problem of appropriate legislation at the local level to require the provision of off-street truck loading and unloading facilities was finally resolved, and a suggested model for use as a basis for such legislation, to be included in zoning or other local ordinances, was drafted. The final report will be published during 1952.

Parking Legislation Study

Research into state enabling legislation dealing with the provision of off-street automobile-parking facilities for all years through 1950 was completed (exclusive of a few extra sessions of legislatures for which the laws were not readily available). A paper, "Trends in Legislation for Off-Street Parking Facilities," summarizing some of the most significant developments in parking legislation, was prepared. This paper was presented at an open session of the

Department of Economics, Finance, and Administration at the annual meeting of the Highway Research Board in January 1952. A detailed report on the provisions contained in the laws, including a basic table in which a detailed analysis has been made of the 266 laws dealing with parking, will be made during 1952. This report will include a revision of two previous Highway Research Board bulletins; No. 2, entitled "An Analysis of State Enabling Legislation Dealing with Automobile Parking Facilities," 1947, and No. 7, entitled "An Analysis of State Enabling Legislation of Special and Local Character Dealing with Automobile Parking Facilities," 1947.

Parking Agencies

The study of parking agencies has progressed during the year. Questionnaires designed to develop information concerning the adequacy of powers granted to agencies and their accomplishments under such powers were sent to 20 municipalities in addition to the original 50 to whom questionnaires were sent during 1950. Replies have been received from 52 municipalities, some of which reported that they did not have any parking agency other than the legislative body of the municipality. A preliminary report was made in a paper, "The Effectiveness of Parking Agencies," which was presented at an open session of the Committee on Parking of the Department of Traffic and Operations at the annual meeting of the Board in January 1952. Additional returns have been received since the preparation of the preliminary report. It is contemplated that a final report will be made during 1952.

INFORMATION INTERCHANGE

The committee issued 10 monthly memoranda during the year 1951, through the Correlation Service, reporting on significant court decisions, new laws, administrative practices and other items of timely interest as follows:

³⁰See Memorandum 47, August 1951, Committee on Land Acquisition and Control of Highway Access and Adjacent Areas, Highway Research Correlation Service, Circular 140.

<u>Memorandum No.</u>	<u>1951</u>
42	March
43	April
44	May
45	June
46	July
47	August
48	September
49	October
50	November
51	December

The committee feels that the issuance of these monthly memoranda facilitates the dissemination of information to those

who might not otherwise have access thereto. This activity of the committee will be continued during 1952.

Final Report on the Minnesota Roadside Study

O. L. KIPP, Assistant Commissioner and Chief Engineer,
Minnesota Department of Highways

● MANY of the findings of the Highway Accident, Access Point, and Advertising Sign Study conducted by Minnesota in 1947 and 1948 were previously presented at the Thirtieth Annual Meeting of the Highway Research Board. The findings presented at that time were, for the most part, summaries of information produced from the preliminary tabulations of the data recorded for the 420 mi. of rural two-lane roadway. Since that time, further investigations of the recorded information have been made to determine the relationship or association that exists between accident occurrence and certain of the roadway characteristics and roadside features. This report will deal with the results of these investigations and summarize the study findings.

As mentioned in the last report, the study originally called for an analysis of accidents which occurred during 1948, but preliminary tabulations revealed that in some instances accident occurrence was insufficient to permit a complete analysis. It was, therefore, decided to include accidents which occurred in 1949 and to compute accident rates on the basis of an annual average for the two-year period.

When adding these 1949 accidents to the study route, it was noted that most of them occurred at locations that were free of accidents in 1948. This observation pointed out the possibility that accidents, at one time or another, may have occurred on every road section included for study. It also accentuated the fact that many of the accidents were not caused by the presence of certain roadway characteristics but were caused by driver behavior, poor mechanical condition of the vehicle, or weather conditions. As a result, every accident rate presented in this report has a component that is not related to roadway characteristics. Since

this component was not eliminated, the influence of each roadway characteristic on accident occurrence must be measured by means of the difference between accident rates which include, to a greater or lesser degree, the influence of this component.

Since the most complete information was on the two-lane highways which constituted 82 percent of the study mileage, investigations of this information produced most of the significant relations found to exist between accidents and roadway elements or roadside features.

One of these investigations dealt with accidents on tangent roadways. It seemed a reasonable assumption that short tangent sections, interrupted by curves and intersections, should tend to keep vehicle operators alert and to restrain their speed so that their vehicles are under reasonable control. If this assumption were true, the longer tangent sections, where greater speeds are likely to occur, should have the higher accident rates.

The accident rates for tangent sections of various lengths, together with other pertinent information, are shown in Table 1.

Although accident rates are somewhat lower for the shorter tangents, the rates for the longer tangents are not significantly high enough to validate the original assumption.

Because the assumed effect of long tangents could not be definitely substantiated, the investigation was extended to include curves occurring at the end of these tangents. Of all the curves included, 98 percent were simple curves and the remaining 2 percent were compound curves or reverse curves. For curves adjacent to tangents less than 3 mi. in length, the accident rate was 2.1 accidents per million vehicle miles, while the rate for curves adjacent to tangents more than 3 mi. in length was

TABLE 1

ACCIDENT RATES FOR TANGENT SECTIONS OF SPECIFIED LENGTHS

Section Lengths mi.	Total Mileage	Percent of Mileage	Average Daily Traffic	Accident Rate	Accidents per Mile
Less than 0.5	71	20.9	1,996	1.3	0.97
0.5 to 0.9	57	16.5	2,041	1.4	1.06
1.0 to 1.9	66	19.2	2,085	1.6	1.25
2.0 to 2.9	44	12.7	2,043	1.5	1.12
3.0 or more	1105	30.7	2,237	1.5	1.25

2.5 accidents per million vehicle miles. This difference in rates suggests that driver relaxation or inattention, while not emphatically reflected in the rates for long tangents, seems to be reflected in the rate for curves that terminate these sections.

ACCIDENTS RELATED TO SPEED

Accidents as related to speeds at which motorists travel our rural highways are usually mentioned in every discussion on highway safety. To evaluate the effect of speed upon accidents, sections of tangent roadway were grouped according to the speed of travel. The speed of travel used in these computations is referred to as the 85 percentile speed; that is, the rate of speed exceeded by only 15 percent of all motorists using a particular road section. This rate of speed is influenced by posted speed limits as well as design features and other conditions of hazard created by business establishments which populate the rural road margin. The grouping of road sections according to speed of travel is shown in Table 2.

This table shows that, contrary to the popular notion, those sections on which the highest speeds were recorded had the lowest accident rate; and conversely, the sections of lower speed had the highest accident rate. In search of an explanation, a detailed check was made of each section of road, and it was found that the low-speed sections were usually adjacent to urban areas and the high-speed sections were in strictly rural areas.

This investigation also revealed that the 101 mi. in the high-speed group had

comparatively few intersections, access points, and advertising signs; they also had low traffic volumes. In fact, this mileage seemed to have the ideal conditions necessary for an accident-free record. From these ideal conditions it appears that the 1.0 accident rate is perhaps the minimum rate that can be expected when accidents of all types are considered and the traffic volumes on the road range from 1,500 to 2,000 vehicles per day.

The sections on which the low speeds occurred were most often found to be adjacent to urban areas, and the low speeds recorded are believed to be a result of deceleration on the part of motorists approaching the urban area and by other motorists who, on leaving the urban section, had not, as yet, attained cruising speeds usually associated with rural highways. These deceleration and acceleration actions undoubtedly tend to maximize the difference in speeds between successive vehicles and thus create friction which usually increases the accident potential on any road section.

Since most of the sections having a low 85 percentile speed were adjacent to urban areas and the sections having a high 85 percentile speed were, for the most part, strictly rural, an investigation was made of the number of access points located on each section.

The number of access points per mile and the accident rates for the various speed groups are presented in Table 3.

This apparent relationship between access points per mile and accident rates casts another element of doubt on the assumption that speed in itself is a major cause of accidents.

TABLE 2

ACCIDENT RATES FOR TANGENT SECTIONS IN SPECIFIED SPEED GROUPS

Speed Groups mph.	Mileage	Percent of Mileage	Average Daily Traffic	Accident Rate
30 to 34	4	1.0	2,437	2.4
35 to 39	6	1.6	2,149	2.5
40 to 44	14	4.2	2,553	1.4
45 to 49	35	10.1	2,229	2.0
50 to 54	183	53.6	2,264	1.6
55 to 59	101	29.5	1,681	1.0

Time does not permit a detailed review of more of the findings that resulted from other investigations of information obtained on the curve and tangent sections of the study routes, and therefore, accident occurrence as related to intersections, another roadway element selected for study, will now be discussed.

ACCIDENTS AT INTERSECTIONS

The assigning of an accident to an intersection was determined by the location where the initial cause of the accident occurred. For example, an intersection accident would be created if a motorist lost control of his car when avoiding another vehicle in the intersection, and in so doing, collided with a third vehicle, perhaps at a point well removed from the intersection.

In classifying intersections, it was found that a few had no provision for traffic control, a few had more than 10 percent cross traffic and some had intersectional volumes in excess of 5,000 vehicles per day. A summary of the many possible groupings showed that 96 percent of the intersections had volumes less than 5,000 vehicles per day, less than 10 percent cross traffic and were provided with standard "Stop" signs for traffic controls. Further comment regarding intersections will be confined to these 593 intersections.

In this investigation, intersections were first segregated as to type and then further classified as to intersectional volume. When this grouping was completed, the average accident rate for intersections in each grouping was computed. A comparison of these rates is made in Table 4.

TABLE 3
ACCIDENT RATES AND FREQUENCY OF ACCESS
POINTS FOR TANGENT SECTIONS IN
SPECIFIED SPEED GROUPS

Speed Group mph.	Mileage	Percent of Mileage	Average Daily Traffic	Access Points per Mile	Acci- dent Rate
30 to 39	10	2.6	2,256	27.4	2.5
40 to 49	49	14.3	2,324	13.8	1.8
50 to 59	284	83.1	2,057	8.8	1.4

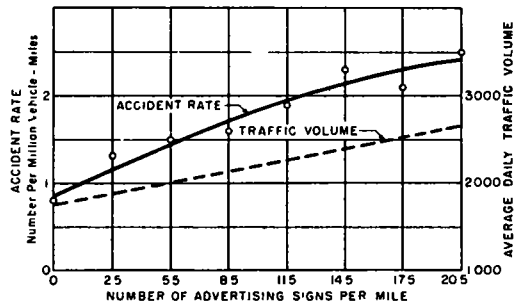


Figure 1. Accident Rates for Various Frequencies of Advertising Signs.

It is apparent that traffic volumes have the greatest effect on accident frequency at the four-way intersections. Of particular interest is the difference in accident rates for the two types of intersections in corresponding traffic volume groups. When the traffic volumes at the two types of intersections are between 1,000 and 1,500 vehicles, there is no difference in the accident rates but, as the volumes increase, the accident rates at four-way intersections increase progressively until volumes of 3,000 to 3,500 vehicles are reached; and for this volume group the rate for four-way intersections is approximately 3.3 times the rate for three-way intersections having the same intersectional volumes.

This suggests that it is decidedly more dangerous to cross both directional lanes of traffic in a single maneuver than to merge with the two traffic streams as is done at three-way intersections.

The two types of intersections were grouped according to their location on curve and tangent sections of roadway and the computed accident rates again were higher for four-way intersections. Higher accident potential at intersections on curves was also indicated.

Considerable information regarding frequency, location, size, and shape of advertising signs was presented in the previous paper and will not be repeated. Other investigations have been made, however, of accidents and advertising signs.

In order to establish and attempt to measure the relation that might exist between signs and motor vehicle accidents, all road sections were grouped according to the frequency of signs per mile of road, and average accident rates for the road sections in each sign group were computed. The trend of accident rates thus obtained is shown on Figure 1.

This shows that as the number of signs per mile of road increases, there is a corresponding increase in accident rate. When a second trend line was computed to show the average traffic volume for road sections in each of the same sign groups, it was found that the sections with the greatest frequency of signs also had the highest traffic volume.

To obtain a measure of the association between accident rate and sign frequency, two statistical tests were applied to the data. The first produced a correlation coefficient of 0.97 and the second produced a standard error of estimate of 0.13. The results of these two tests practically eliminates the probability that this association is due to chance. It may be assumed that an increase in the number of signs per mile will be accompanied by a corresponding increase in accident rate.

While other investigations were made and results of lesser significance obtained, time does not permit a recital of these activities.

MAJOR FINDINGS

The four-lane, divided highways had the lowest accident rate of all types of highway studied and are therefore presumed to be the safest. Conversely, the three-lane highways, which had the highest accident rate, may be presumed to be the most dangerous.

The disproportionately lower accident rates for low traffic volume roads and intersections make apparent the fact that traffic volumes influence accident rates.

Other conditions being equal, two-lane highways with 18-ft. pavement were found to be more dangerous than two-lane highways having surface widths of 20 ft. or more.

Short tangent sections, interrupted by curves and intersections, had accident

TABLE 4
COMPARISON OF ACCIDENT RATES AT THREE-WAY
AND FOUR-WAY INTERSECTIONS BY SPECIFIED
TRAFFIC VOLUME GROUPS

Intersectional Volume	Three-way Intersections (Acc. Rate ^a)	Four-way Intersections (Acc. Rate ^a)	Ratio
1,000 to 1,499	2.6	2.6	1.0
1,500 to 1,999	2.2	3.6	1.6
2,000 to 2,499	1.9	4.5	2.4
2,500 to 2,999	2.1	5.4	2.6
3,000 to 3,499	2.1	7.0	3.3

^a10 Million vehicles per year.

rates that were not appreciably different than those for long tangent sections.

Curve sections at the ends of long tangents had higher accident rates than were found on curves at the ends of short tangent sections.

Tangent sections of two-lane highways in strictly rural areas had relatively low accident rates, even though these were the high-speed sections of the study route. These low rates may be attributed to the low frequency of intersections and access points as well as the low traffic volumes occurring on these rural roads.

Restrictive sight distances caused by vertical curves on tangent roadways having traffic volumes of less than 5,000 vehicles per day are not particularly dangerous when they are properly identified by signs and striping.

Curves with restrictive sight distances produced an average accident rate twice the rate for tangent sections with restrictive sight distances. This average was also twice as great as that for curves with adequate sight distances.

The accident rate for curves of 7 deg. and over was found to be nearly four times the rate for curves of less than 3 deg.

Four-way intersections had consistently higher accident rates than three-way intersections when taken either as a group or by comparable intersectional volumes or by percent of cross traffic. When the cross traffic was more than 10 percent, the accident rate was six times the rate at three-way intersections and eight times the rate at four-way intersections at which there was less than 10 percent cross traffic.

When segregated by intersectional volumes, three-way intersections showed no significant variation in accident rates. The rates at four-way intersections increased substantially with increased intersectional volumes, being over three times as great as for three-way intersections with volumes from 3,000 to 3,500 vehicles per day.

With respect to access points, it was found that there was no significant difference in accident rates for road sections having no access points and those having access points serving noncommercial purposes. This would seem to indicate that access points which are relatively infrequently used do not make a major contribution to the accident potential of a road section. The rate for sections with access points serving commercial activities, however, was twice as great as those in the other two categories.

When road sections were segregated by traffic volume groups, a good degree of correlation was apparent between the number of access points per mile and the accident rate.

Road sections whose margins were populated with commercial activities had relatively high accident rates. The rate for these sections was between two and three times the rate found on sections having no commercial development and nearly four times as great as the rate for strictly rural sections with few intersections. It was also found that intersections influenced by these marginal

developments had higher accident rates than other intersections.

The location of a substantial majority of the 4,069 advertising signs less than 60 ft. from the centerline of the roadway suggests the probable elimination of many small signs by the present practice of acquiring wide rights-of-way.

The frequency of advertising signs per mile on curves was nearly half again as great as that found on tangent sections.

Highway sections having low traffic volumes had a low frequency per mile of advertising signs.

Highway sections having a high frequency of advertising signs had high accident rates.

Intersections at which four or more signs were located had an average accident rate approximately three times that for intersections having no signs.

CONCLUSIONS

This study has proved that due to numerous immeasurable factors the occurrence of motor-vehicle accidents can not be predicted on the basis of roadway elements and roadside features. It is evident, however, that these various elements and features, alone or in combination, make varying degrees of contribution to accident occurrence.

In general, it may be concluded that the magnitude or frequency of these characteristics governs the extent to which accident potential is generated.

Traffic Accidents and Roadside Features

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● MICHIGAN and the nation at large are experiencing a tremendous expansion of motor-vehicle traffic. In 1950, traffic in Michigan exceeded by 8 percent the state highway department's long-range estimate for that year. In 1951, actual travel was 16 percent above estimated. Currently we are producing more than 24 billion vehicle miles per annum, or at about the rate our statisticians had forecast for 1964.

No one is able to predict with any certainty how long this expansion will continue at its present rate, but everyone knows that it is putting all highway agencies under heavy pressure. Construction forces, already faced by accumulated deficiencies, are straining to meet the most urgent of the mounting demands. Many states have expanded their maintenance operations to take up the slack left by their inability to replace old or inadequate facilities.

No group is more conscious of the critical conditions which are developing than the traffic engineers. Having the responsibility to operate traffic in whatever volumes it occurs over existing pavements and structures regardless of their adequacy, they are keenly aware that hazards are increasing. In general, they are missing no opportunities to learn more about the basic facts of accident causation on which safety measures must be based.

Certain aspects of the highway safety picture are not too discouraging. The fatality rate has declined steadily during the past 10 years and the trend has been downward for 14 years. In Michigan the 1937 rate was over 15 per 100 million vehicle miles and was less than seven per 100 million vehicle miles in 1951. I believe that this is more or less representative of the experience in most of the country.

We should hesitate to assign too much credit for this condition to any particular measures or factors. Undoubtedly safety education and traffic engineering operations have contributed, but probably of greater importance are the lessons of care and conservation which home-front restrictions taught motorists during the war years. And in this connection, one should not forget the progress of medical science, especially in the use of blood transfusion, which saved so many war wounded from death and which undoubtedly has benefitted many traffic casualties similarly. However, in Michigan at least, any such influence is not reflected in a higher rate for traffic injuries; indeed, this rate has declined slightly but consistently during the last decade.

All the comfort these rates give is the assurance that, so far, highway casualties are not going up at the same rate as highway traffic (See Fig. 1). Both fatalities and personal injuries have increased numerically, and although the data are far from complete, there is little doubt that the dollar damage resulting from all accidents has risen faster than traffic. The outstanding message of these figures and conditions is a warning to highway authorities that they cannot for a moment relax their efforts to find and control the hazard factors which are constant components of moving traffic. Should the present traffic be permitted to develop the frictions and conflicts of 15 years ago, current accident tolls would be doubled.

In Michigan we have been on the alert for opportunities to study and analyze accident data. We started early with material that was frequently meager and unreliable and, in consequence, landed in our share of the blind alleys and came up with several wrong answers. As elsewhere, however, methods of collecting and analyzing accident data have been im-

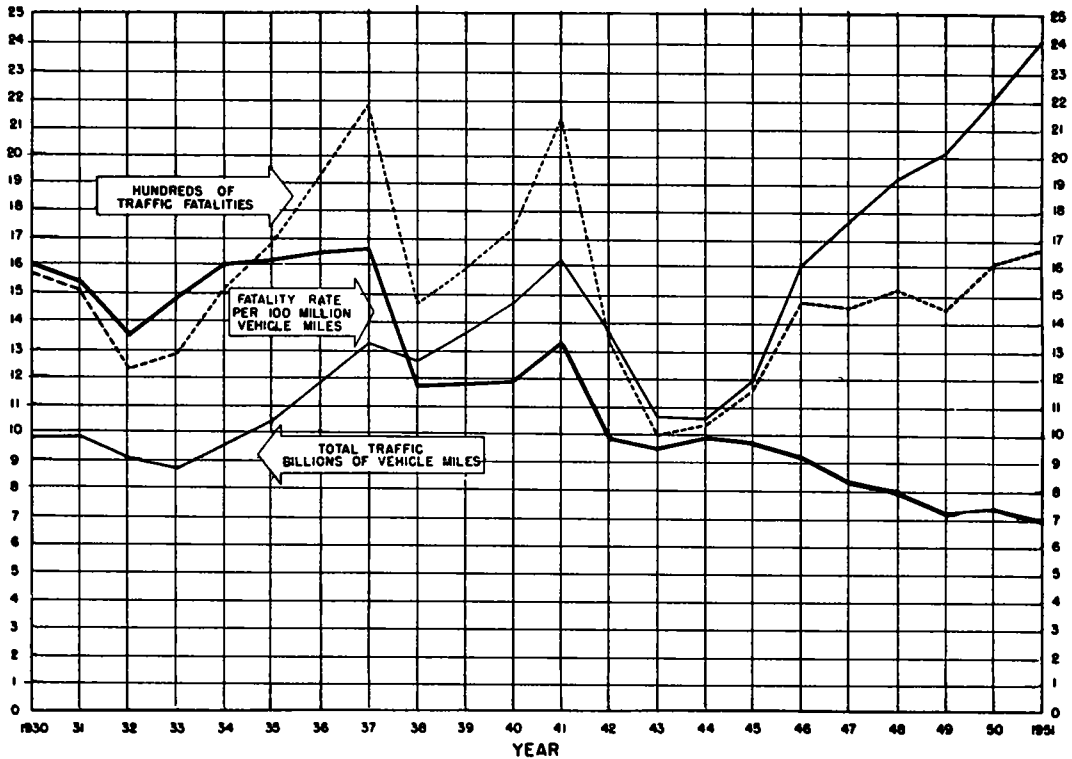


Figure 1. Traffic and traffic deaths in Michigan, 1930 to 1951: The long-term trend of travel rising faster than traffic fatalities results in a declining fatality rate.

proved, and in recent years we were able to undertake several projects which produced some usable results. One of the more valuable of these results was the knowledge that the findings of such projects are strictly limited as to scope and application by the method of investigation.

There are two ways of approaching the problems of highway accidents. The first of these is to make an intensive study of the characteristics of an individual accident or of a series of accidents in an individual location in relation to attendant circumstances or features. This is the approach of the enforcement officer investigating a crash for the purpose of setting up an official record and assessing responsibility. It is also the approach of the traffic engineer studying a high-accident location to find causes and devising remedial measures.

It is an accepted fact that even such intensive investigations fall far short of getting all the elements of the accident situation under study; deep psychological fac-

tors are seldom touched and factors closer to the observable surface are frequently missed. Nevertheless, such studies produce answers that are usually sufficient for their immediate purposes. The results of a series of such studies may provide the material for analyses which will give solutions of wider scope. However, the greater the number of such individual studies, the more general are the conclusions which can be drawn from their accumulated findings.

The second way of approaching the accident problems is much more objective. It consists of taking as large a collection of accident data as possible, and of then analyzing them in their entirety in relation to selected conditions or features whose relationship to accident occurrence is to be investigated. The validity of the method rests on the belief that the distribution of a large number of instances will create an informative pattern.

The findings of studies of this kind are

usually of a very general character. This is bound to be the case, because although a large number of accidents are used in the analysis, by the nature of the study only those characteristics become significant which are more than ordinarily prevalent.

THE MICHIGAN STUDY

The Michigan Study has resulted in some general findings about certain basic elements of the accident situations which have developed on highways which traverse suburban areas. In most cases these findings are really substantiations of conclusions which previously had been reached tentatively on the basis of rather casual observations of conditions.

Background and Purpose of Study

The Michigan study of roadside features as elements in the accident picture, grew out of a program which the National Safety Council, with the support of the Bureau of Public Roads, initiated in 1945. The council asked the cooperation of the state highway agencies in making a comparative analysis of the accidents which occurred in 1941 on interstate highways. The accidents were to be analyzed in relation to highway types and certain design features.

Michigan cooperated in this program although the State highway officials were pretty firmly convinced that the accident data then available lacked the detail and accuracy to make such a study success-

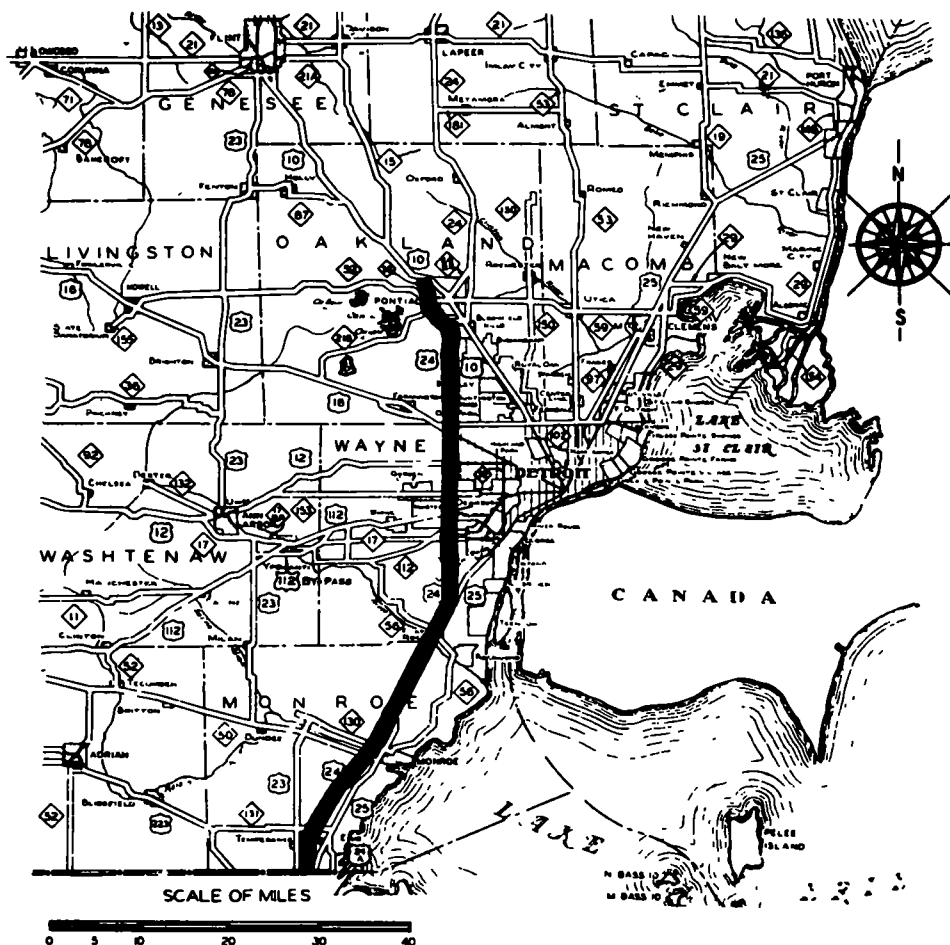


Figure 2. Accident analysis study road, US 24 and M 58. The 70-mi. road is a heavily traveled route traversing the edge of the Detroit metropolitan area.

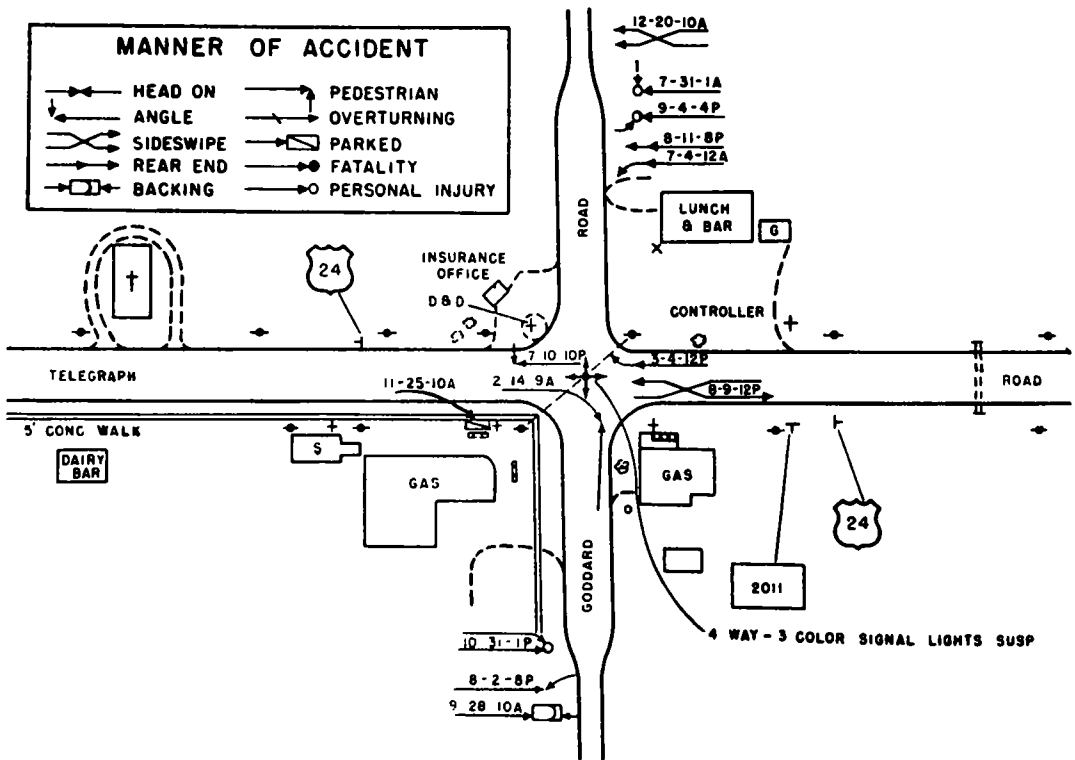


Figure 3. Sample section of study road record map. Data regarding features and accidents were recorded on a strip map with reference to the 1,000-ft. section markers.

ful. A program for studying accidents in relation to roadside as well as roadway features was instituted, and methods were devised for obtaining data which would be sufficiently accurate to permit detailed analysis.

The purpose of this study was to record and study a limited number of the conditions under which accidents took place and to determine, if possible, the relative importance of individual types of features in creating hazards for traffic. Aside from the findings, the most interesting phases of the project are the means that were adopted to secure sound, detailed data, and the statistical methods that were employed to analyze these data.

Of primary importance were the plans devised to make certain that all the data should be accurate and particularly that the location of both accidents and features should be precisely established. These plans provided for the selection of a study road and for the provision of improved accident reporting measures.

Study Road and Reporting Methods

A 70-mi. stretch of highway on US 24 from the Ohio state line to M 58 just south of Pontiac, and on M 58 to its intersection with US 10, was selected as the study road (See Fig. 2). This route includes a considerable mileage of purely rural highway, but since it skirts the west edge of the Detroit metropolitan area, it is principally a suburban highway with much roadside development, some of it extremely dense. For the purposes of this study, the portions of the route in urban territory, were deleted.

To facilitate the exact location of features and accidents, the route was divided into 1000-ft. sections each designated by a numbered marker. All road and roadside features were then inventoried and their location described with reference to these markers (See Fig. 3). Agreements were reached with police agencies under which state troopers, local policemen, and sheriffs'

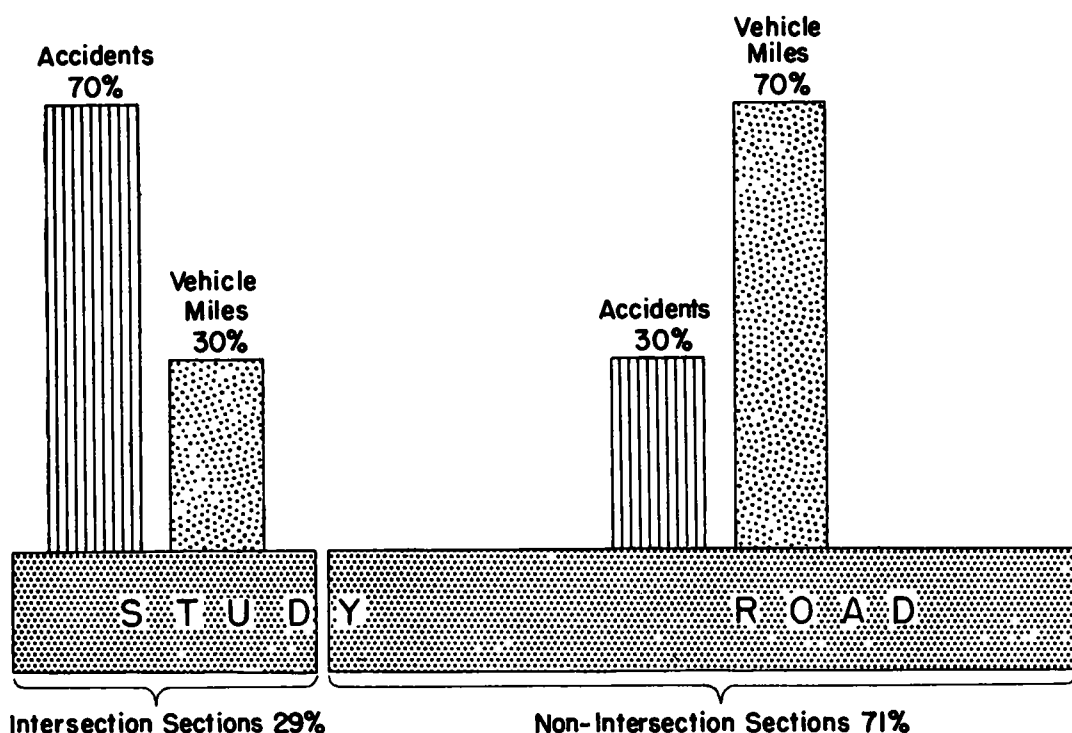


Figure 4. Travel and accidents on intersection and nonintersection sections. Although sections having intersections accounted for less than a third of the road mileage and travel, they produced 70 percent of the accidents.

officers would include in the report of every accident the precise place of its occurrence as indicated by the distance from the nearest of these markers.

These arrangements were completed during 1946, and the reporting of accidents by the prescribed methods began on the first day of 1947 and is still in progress. By the end of 1949, 3,025 accidents had been reported. These are the accidents used in most of the analyses in this study, although in earlier phases of the study only the 1,968 accidents which occurred in 1947 and 1948 were used.

Methods of Analysis

All data (design and roadside features and accidents) were first inscribed on a strip map of the study road for recording purposes. For analysis, accident data were punched onto two different tabulating card forms. Of the first form, one card was punched for each accident and carried items regarding its distance

in hundreds of feet from various features, 1948 average daily traffic, etc. Of the second card form, one was punched for each section and included the section number, the number of accidents, the number of features of each kind, the daily traffic, and the section length.

Two statistical methods were used in analyzing the data. The first method consisted of tabulating frequency distributions of accidents according to their distance from each specified type of feature. Accumulative percentages of the accidents within various distances were computed for each feature, and rate curves were drawn.

The second method consisted of calculating correlation coefficients between the number of accidents and the number of various design and roadside features as they occurred in the several sections into which the study road was divided for analysis.

It should be noted that the 1000-ft. road sections were used only for locating features and accidents; initial

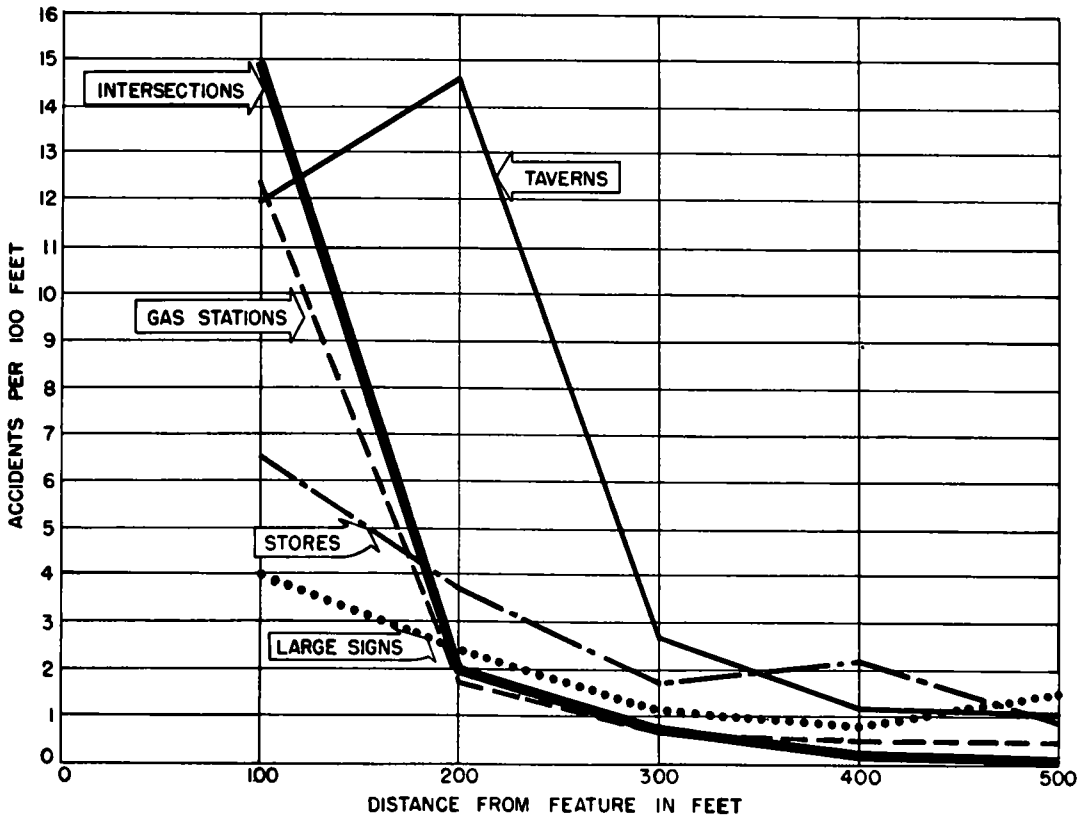


Figure 5. Number of accidents at various distances from features. Accidents occur with greatest frequency at or close to intersections and nearby roadside features.

phases of the study demonstrated that these sections were unsuitable bases for analyzing the data. For the latter purpose, the road was divided into two kinds of sections: intersection sections, which include one or more major intersections, and nonintersection sections, which include no intersections. This was done to permit a clearer discrimination between the influence on accident occurrence of intersections and of nearby roadside

features.

RESULTS OF THE STUDY

Analysis of the data by the method of frequency distribution turned up some interesting relationships. One of the most striking of these is revealed by a comparison of the results of separate computations of the data for intersection and nonintersection sections. It shows

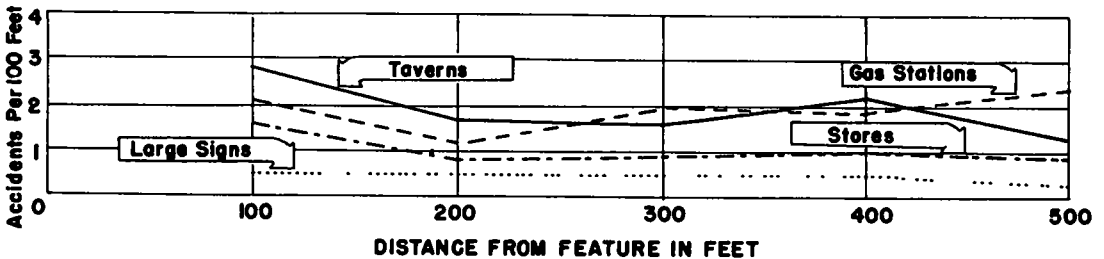


Figure 6. Number of accidents at various distances from features: Where there are no intersections accident density is low.

that while the intersection sections account for less than one third of the study road and its traffic, they produce 70 percent of total accidents (See Fig. 4). Their accident rate is 8.88 per million vehicle miles while the rate on the non-intersection sections is only 1.6 accidents per million vehicle miles, or just about the rate on Michigan's rural trunk-line system.

This wide difference in the accident experience in these two kinds of sections undoubtedly reflects the distribution of features between them. The nonintersection sections have only two intersections. By contrast the intersection sections have all the major intersections while the density of roadside features is 3.6 times that in the nonintersection sections. These distributions are due to the marked preference of roadside business for locations at or near principal intersections.

Another type of frequency distribution groups the accidents by density at successive distances from several types of features. Association of a feature with accident occurrence is indicated by the degree of accident density found in its immediate vicinity. In all cases where a feature appears to have real significance, accident density tapers off rapidly at a distance of 100 or 200 ft. (See Fig. 5).

In the intersection sections, this and subsequent analyses pointed to the importance of one road feature and two roadside features. These are the intersections themselves, gas and service stations, and taverns. On the accompanying graph, one group of signs is also shown, not because it appears to be important but because it was the group of signs showing the highest association with accidents.

In the nonintersection sections, this distribution reveals no important peaks of

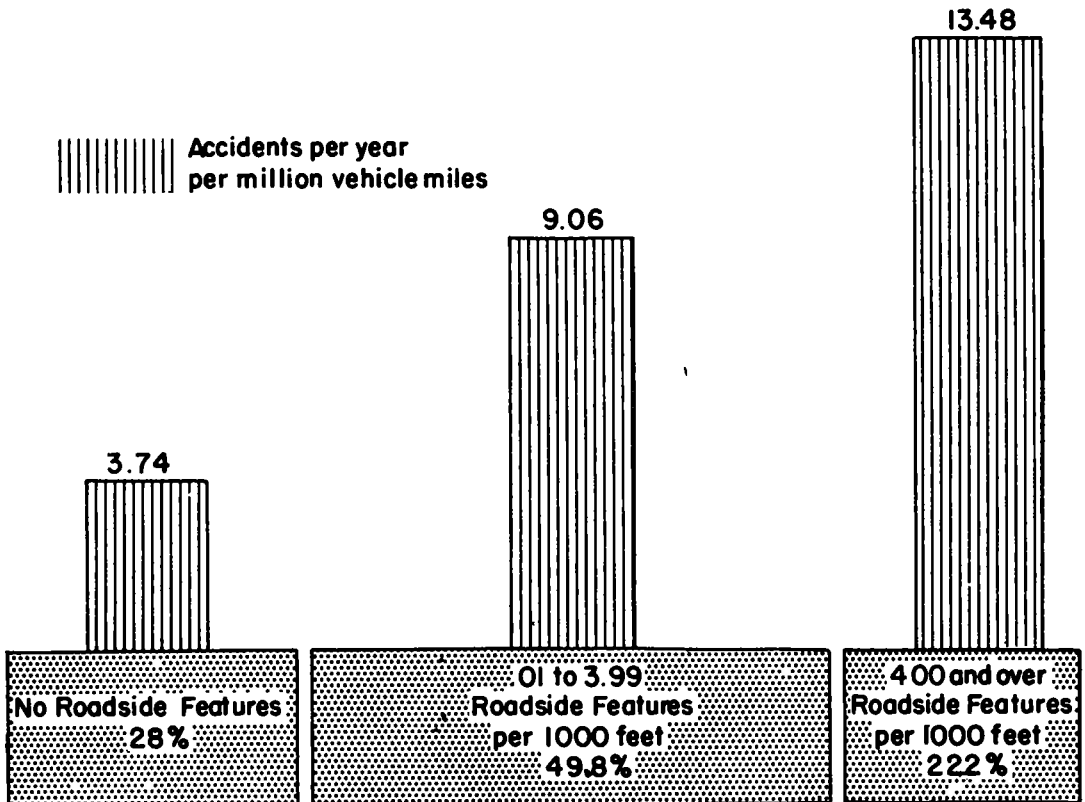


Figure 7. Intersections, features, and accident occurrence: Intersections are dangerous, but the concentration of roadside features near them increase the hazard.

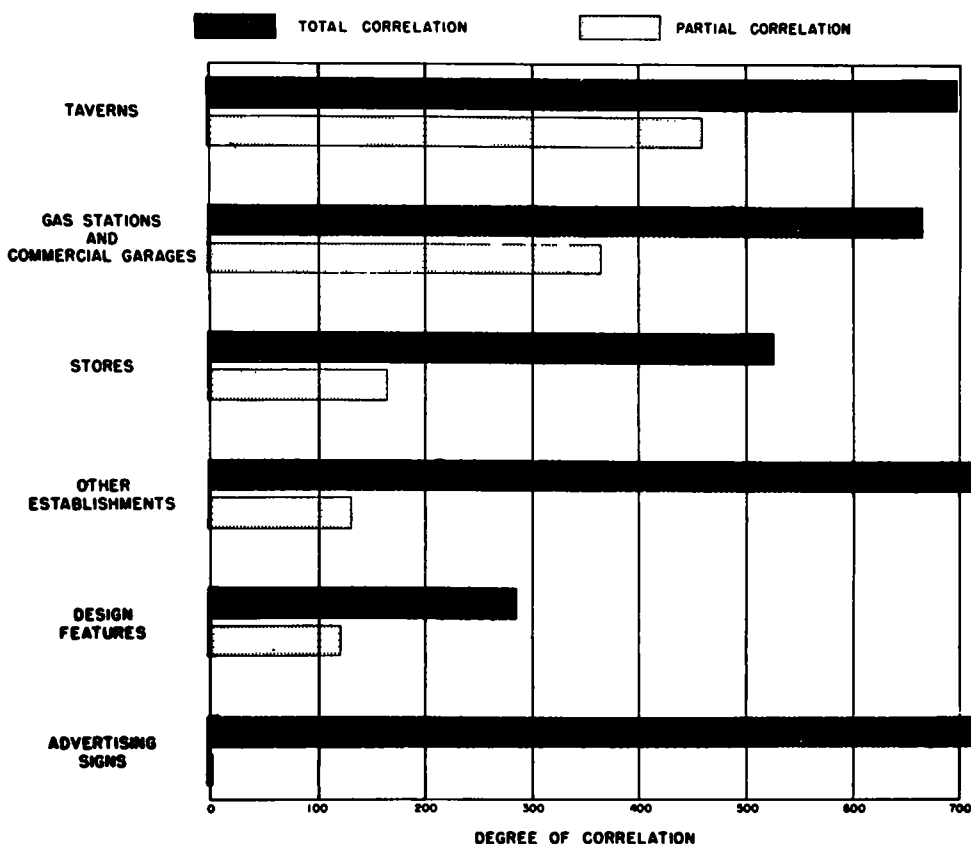


Figure 8. Coefficients of total and partial correlation for various features with accidents (intersection sections): Total correlation shows the cumulative effects of features, partial correlation reveals their individual relationship to accidents.

accident density; accidents are distributed through these sections rather evenly and without much reference to roadside features or signs (See Fig. 6).

These distributions underscore the importance of intersections among the various features associated with accident occurrence. They also raise the question as to the extent to which the apparent association of some other features is dependent on the location of these features relative to the intersections.

This difficulty of discriminating between the effects of intersecting traffic and of such features as gas stations which are usually located at intersections, was a serious problem in early phases of the study. The study road was divided into intersection and nonintersection sections as a means of partially solving it.

The next distribution was made to determine something of the relative im-

portance of intersections and other features. The pertinent data for intersection sections were tabulated with the sections grouped according to the density of roadside features. The results go a long way to providing an answer.

On 28 percent of the mileage in these sections there were 46 intersections but no roadside features. On this mileage the accident rate was 3.74 per million vehicle miles.

Fifty percent of the road length had up to 4 roadside features per 1000 ft.; it had an accident rate of 9.06.

On 22 percent of the mileage, roadside features averaged more than 4 features per 1000 ft. and the accident rate was 13.48 accidents per million vehicle miles (See Fig. 7).

These figures show that intersections are hazardous in themselves, since the rate of 3.74 in the group with no road-

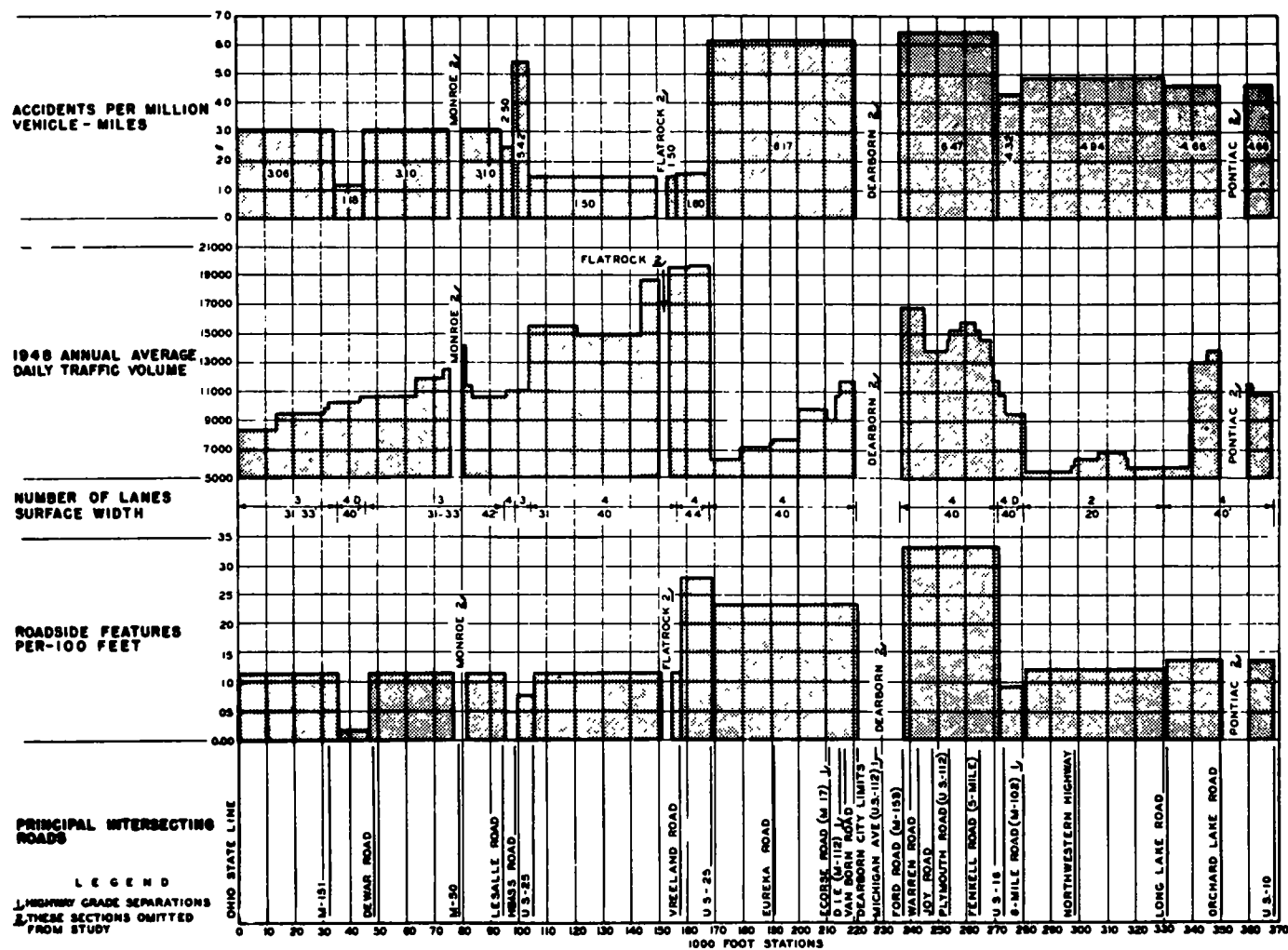


Figure 9. Accident rates, traffic volumes, number of lanes, surface width, and roadside features (Telegraph Road, 1947 to 1948)
 Closely spaced intersections and greater densities of roadside features coincide with higher accident rates.

side features is more than double the rate for nonintersection sections. But the rising accident rates in the other two groups indicate that intersections become much more hazardous as roadside features are built around them.

The second method of analyzing the data in this study was by determining the degree of correlation between accidents and various design and roadside features and was accomplished by computing correlation coefficients. These are measures of the amount of association between one variable and one or more other variables. The degree of association is registered on a scale running from -1 to +1. If two variables are perfectly associated, that is, if one varies directly and proportionately as the other, their correlation will be exactly +1, or if one varies inversely as the other, their correlation will be exactly -1. If there is association between two variables, it is measured by how close their coefficient approaches +1.

This method was used to determine the association of accidents with features in both intersection and nonintersection sections, but since significant degrees of correlation were found only in the intersection sections, these are shown on the accompanying chart (See Fig. 9). It will be noted that other establishments, advertising signs, taverns, and gas stations all produce coefficients above 0.600.

It was recognized that in many of these cases, the indicated degree of association of a feature with accidents might be, in reality, a reflection of the degrees of association among the features themselves. In other words, certain of these correlation coefficients may well include not only the association of an individual feature with accidents but the association with accidents of other nearby features. For this reason it was desirable and necessary to segregate the association of each individual feature from the influence of other features.

This was accomplished by what the statisticians call partial correlation. That is a process by which the correlation of two variables is computed with the effect of other associated variables eliminated or held constant. To put it another way, partial correlation meas-

ures the effect of one variable in its own right upon a second variable independently of the effect of third or fourth variables which may be present in the field of study.

As the chart indicates (see Fig. 8), when partial correlation was applied to the features in the intersection sections, radical changes were made in the association indicated by the total correlation coefficients. The coefficient of other establishments was reduced to a trifling figure; advertising signs went down to practically zero; and the gas-station coefficient was cut in half. Only the coefficient for taverns remains a significant index of association with accident occurrence.

This finding is borne out by results when partial correlation was applied to the nonintersection sections. There, it was found that the coefficient for taverns was actually increased. The findings indicate that in all sections of the study route, taverns are more closely associated with accidents than are any other of the features studied.

An overall view of the various factors in the accident experience analyzed, is afforded by the strip map of the study road (see Fig. 9). It shows the principal intersections, the density of roadside features, the pavement widths, the average traffic, and the accident rate per million vehicle miles on each 1000-ft. section.

Particularly interesting is the coincidence of peak quantities of roadside features and the higher accident rates at several points along the route. The striking coincidence of low traffic volumes and high accident rate on the northern part of the road is probably due to the fact that this is a two-lane section badly overloaded.

CONCLUSION

As was emphasized earlier, the results of a study must be of a very general nature. They indicate that intersections are themselves centers of traffic hazard and that the hazards increase when the complexities of traffic movement at these points are further complicated by roadside commercial developments.

These are findings which have importance in basic problems of highway planning and traffic operation. They point to the fact that every effort should be made to provide highways in suburban areas which will protect the main streams of traffic from interference from the roadside. They indicate that intersections in particular require protection.

The studies point with some precision

to the relative importance of various features as factors in creating conditions in which accidents occur with greater than what we believe is normal frequency.

As has been pointed out, most of these findings substantiate conclusions which had been reached but which hitherto lacked clear statistical support. The validity of these conclusions is now soundly established by these studies.

Roadside Zoning

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● PROBLEMS stemming from the absence of restriction on the uses made of the roadside are almost too well known to need review. Unrestricted commercial exploitation has often resulted, after only a few years, in cluttering the margins of new arterials with scattered and ribbon business and residential developments and with the inevitable billboards. Failure to restrict and regulate roadside development has often meant traffic congestion and reduction in the efficiency of highways, increase in traffic hazards, and spoliation of the countryside.

Roadside protection is the concern of all highway users. The motorist, who largely foots the bill for new roads, is concerned with preserving their traffic-carrying capacity, safety, and appearance. The suburbanite who wants to live in the country is concerned about travel time to his employment, which increases progressively as the approaches to the city become congested. The farmer who uses the highways to move his products to market is concerned about spoilage and increased hauling costs resulting from slowed traffic. The businessman whose merchandise moves to and from his establishment over public highways sees his costs increased by poorer transportation services.

Furthermore, the roadside businessman is concerned about highway protection. Too often, in recent years, his investment has been lost when it became necessary to build new arterials to carry traffic diverted from roadways that became functionally obsolescent from congestion. Finally, businessmen in tourist country which has beauty to sell are concerned about keeping their country easily accessible and attractive.

TECHNIQUES FOR PROTECTING THE ROADSIDE

What are the remedies for checking the

spread of the "marginal disease" of highways? Techniques that have been suggested and used fall into two main classes (1) control through acquisition by purchase or condemnation of rights essential to roadside development and (2) control by regulations and restrictions imposed under the police power.

Under the first technique, use of the roadside may be controlled by the taking of a strip of land along the highway in addition to that needed for the roadway. Private use of the margin of the road and access to the road itself is prevented by public ownership of such roadside strips. Sometimes instead of purchasing these strips of land on the road margin outright, easements in the strips are acquired. These public easements permit restriction on the use made of the land.

The second class of techniques mentioned is exemplified by zoning regulations and restrictions, platting and subdivision control, billboard regulations, and other devices.

SOURCE OF ZONING AUTHORITY

Authority to zone comes from the state. Zoning powers usually are conferred by means of enabling laws upon cities, counties, townships, and other units or agencies of government.

Incorporated municipalities, i. e., cities, towns, and villages, are authorized to zone in all but five states. These latter states extend zoning powers only to cities or special classes of cities (1). The coverage is not as complete for rural areas (outside incorporated limits), but much progress has been made in recent years. At present, all counties may zone in 16 states, and certain counties may zone in 15 others. In 12 northeastern and lake states, any or designated classes of towns or townships may adopt zoning Ordinances. In addition, in six states certain miscellaneous units of government

are authorized to zone. However, 10 states remain that do not authorize zoning outside of incorporated limits (2).

Areas that may be Zoned

Enabling laws, besides specifying the units of local government that may pass zoning ordinances, designate the areas that may be zoned and the scope of the regulatory powers that may be exercised. Urban governments are usually authorized to zone the municipality; counties, towns, or townships may zone the unincorporated portions of the territory within their respective jurisdictions. However, some rural zoning enabling laws limit zoning to areas on the periphery of cities, sometimes for stated distances of 1 to 5 mi., or to towns or townships having the higher densities of population.

Another group of enabling laws authorize only roadside zoning. Under these statutes, certain counties in Georgia and Florida are empowered to zone strips ranging from 200 ft. to 1,000 yds. from the centerline of public roads, state highways, or specified roads (3). Several acts authorize both urban fringe and highway strip zoning (4). And a few empower the county to zone "all lands abutting highways and thoroughfares" (5) or "bordering upon, adjacent to and adjoining state and county roads" (6).

Scope of Regulatory Powers Granted

The usual rural zoning enabling law grants the community comprehensive zoning powers. Four related types of controls are authorized. The first of these, use-regulatory powers, permits the establishment of various types of zoning districts: residential, commercial, industrial, agricultural, forestry, recreational, and the designation of permitted or prohibited uses within each district. Under the second, the Community may restrict the height, number of stories, size, and bulk of buildings and structures. The third authorizes the prescribing of minimum-sized lots or tracts, the percentage of a lot that may be occupied by buildings, the size of side and rear yards, and the setback of buildings from roads. Regulation of density of population, the fourth type of

control, is achieved by limitations on the number of families permitted per lot or tract, or per minimum area of ground or floor space, and necessarily may be materially affected by the other three types of controls. Additional grants of power are sometimes conferred, or authority may be more limited. Examples of additional grants of power are those permitting communities to impose building design and color regulations, which are appearing in some enabling laws and zoning ordinances. No doubt the future will bring a material expansion of the constitutionally recognized field of zoning regulations.

Four of the nine urban-fringe or roadside enabling laws examined grant comprehensive zoning powers. Two of these are in Georgia, and two in Florida (7). Two others, an Illinois and an Oklahoma law, limit roadside zoning regulations to the establishment of setback lines (8). Another roadside-protection enabling law pertains only to outdoor advertising structures (9); and the eighth authorizes only limited use regulations (10).

The ninth, another Florida law (11), is one of those innovations that come along occasionally. Under this act, the Duval County Planning Council is "directed, authorized and empowered" to establish highway protective areas, 1,500 ft. in depth, along a specified road. The Council is directed to divide the protective areas into five classes of districts--commercial, industrial, residential, recreational, and agricultural--and to establish setback lines not exceeding 25 ft. from the edge of the right-of-way. The statute makes it unlawful for any landowner "to locate, lay out, construct, or maintain, any access road" within the protective area, without first obtaining a permit. In the interest of highway safety, the planning council may impose reasonable limitations upon the number of access roads. Also, it may impose reasonable specific conditions and limitations as to their location, grade, and design. Permits to display advertising within the protective areas are also required by this enabling law, and except in commercial zones, only signs of limited size pertaining to uses of the property where displayed are permitted.

These enabling laws, fall into two classes: (1) those granting authority to zone the community as a whole and (2) those limiting zoning to the roadside.

RURAL ZONING ORDINANCES

The statutes reviewed constitute the framework within which zoning ordinances may be cast. Enabling legislation, however, is not enough. Ordinances must be adopted that give adequate roadside protection, and then these ordinances must be properly administered.

Area Zoned

The nation contains more than 3,000 counties; of these 1,165 are empowered to zone all or a part of their respective unincorporated areas. However, by 1949 only 173 counties in 23 states have adopted zoning ordinances. Although this is a small proportion, rural areas have also been zoned by many town and township ordinances.

Powers Exercised

Under many of these county ordinances, zoning of the roadside is achieved as part of the larger zoning plan. Slightly more than 50 percent of those ordinances examined impose comprehensive zoning regulations. Under these ordinances, various types of use districts are established, building heights are limited, setback lines are imposed, minimum-sized lots are designated, and density of population regulations are prescribed. Regulations determining use of land and allowed densities of population in areas beyond the roadside corridor have a bearing, though indirect, on traffic problems on the main road.

Of the remaining community-wide county zoning ordinances, only use regulations are imposed by most of one group: the forest-recreational ordinances in the cutover region of the northern lake states; and use regulations plus a sprinkling of setback controls are effected by another group of ordinances passed by a number of predominantly rural counties (12). Many of the county zoning ordinances also prohibit or restrict outdoor advertising,

a growing number require owners or occupants to provide offstreet parking space, and a few in Georgia, Florida, and California, include design control regulations.

Roadside Districts

Roadside-zoning districts have been established in some counties. These districts, which embrace only road-bordering lands, have been created both under special roadside enabling laws and under statutes that authorize county-wide zoning.

Roadside-zoning districts may be grouped into three classes, based primarily on limitations placed on commercial activities. The first is typified by the roadside zones created by a Richmond County, Georgia, ordinance which excludes any and all types of commercial establishments in an area extending 1,000 ft. on both sides of certain highways.

The second type is the roadside-service district. Commercial activities in these zones are restricted primarily to business that is necessary for servicing the traffic. Among these are motels and auto courts, service stations, restaurants and refreshment stands, and some kinds of retail stores.

The third type, the general roadside commercial districts, is designed to serve both the highway traffic and the adjacent population. In addition to highway service activities, these districts usually permit stores for retail business, commercial recreation, and light manufacturing.

Regulations pertaining to each of these three types of districts usually include setback and offstreet parking requirements, limitations on outdoor advertising, and sometimes a measure of control over the design of roadside business buildings.

Considering the scope of the problem, only a beginning has been made in roadside zoning, in terms both of total miles of roadside zoned and of type and stability of regulations imposed. Merely empowering local units of government to pass roadside-zoning regulations (more than one half of the counties still lack such authority) does not assure the adoption or enforcement of adequate controls. The community, or its neighbor, may pass

inadequate regulations or none at all. Even in areas in which roadsides have been zoned, examples are legion wherein local pressure causes a gradual breakdown of locally imposed and administered regulations. Good roadside zoning frequently ends at a political boundary, but the road passes through.

EFFECTING BETTER ROADSIDE ZONING

So much for the past. How can roadside zoning be made more effective in the future? The problem, and challenge, is one of adapting and revising traditionally local zoning ordinances and techniques, i. e., the general community ordinance and the special roadside ordinance, so as to attain a workable compromise between local and state-wide interests. Ways need to be found to make roadside-zoning regulations and administration more responsive to the structure and incidence of existing and realizable benefits. Also, ways need to be found for expanding the use of roadside zoning.

Ways Suggested by Enabling Laws

Suggestions are offered by the various means used by the state for influencing local zoning regulations in unincorporated communities. Six methods were observed in existing rural zoning enabling laws.

The first, and by far the most frequent means employed, is exemplified by the permissive enabling law. Under such laws, the state authorizes designated classes of its rural governments to pass certain types of zoning regulations and expressly or impliedly prohibits other types. The communities empowered may exercise some or all of the authority conferred, or they may decline to zone. Most of the roadside-zoning regulations previously discussed resulted from permissive enabling authority.

The second group of enabling laws are also permissive, like the first, but these laws provide that a state or regional agency shall assist local governments with their planning and zoning problems. The agency selected to furnish such technical guidance can materially influence local zoning regulations, including those that affect the roadside. An interesting example of this

type of law is found in Nebraska (13).

In a few enabling laws a third technique is used. These laws affirmatively limit the community's field of choice of zoning regulations. Certain regulations are required if an ordinance is adopted. One example of these statutes is a Florida law that requires a 30-ft. setback along named roads (14). Another, an Oklahoma act, prescribes the types of zoning districts that must be created, if the county zones. (15).

A fourth method is illustrated by county zoning enabling laws in Michigan and Missouri. These states reserve the right to review and veto. Before a county zoning ordinance becomes effective in Michigan, it must be approved by the state's department of economic development (16). Similar approval is required in Missouri from the state planning board, the commissioner of health, and the chief engineer of the highway commission (17).

A roadside-zoning enabling law mentioned earlier illustrates a fifth approach. This law orders the Duval County Planning Council to zone the roadside along certain highways. Unlike the previous four types discussed, this law is not permissive but mandatory (18).

Under the sixth type of law, local zoning regulations are directly imposed by the state. One example, a Florida law, imposes detailed zoning regulations in a subdivision near Tampa (19).

The laws just described illustrate the means that the states have used in influencing local zoning regulations. These means range from permissive enabling laws to local zoning ordinances adopted by the state.

State Aids to Local Zoning Agencies

New roads have upset long-established land-use patterns in many rural communities. Farm lands have suddenly become valuable for residential, commercial, or industrial uses. These changes in land use, prompted by new roads and the automobile, have brought new problems for officials of highway departments and of rural communities affected. Of major concern to highway officials is the growth of roadside ribbon developments, bringing with it numerous

points of access, slowed traffic, and increased hazard. Communities on today's expanded urban fringe may be faced with all the problems stemming from rapid suburbanization. Farther away from the city, the impact is less serious, but the urban populace continues to spread outward.

Highway officials and rural people are seeking solutions to problems stemming from the same cause. Among rural people, the impact of change has caused renewed interest in zoning. New problems and goals have stimulated a search for and an experimentation with new types of zoning regulations and techniques at both state and local levels.

As a means of stimulating roadside zoning at local levels, an appropriate agency, which in some states could be the state highway commission¹ might well be authorized to make periodic financial grants to local governments to help defray the costs of their zoning agencies. Such aids should be payable whether zoning of the roadside was achieved under community-wide ordinances or under roadside ordinances.

Payment of aids by the state agency necessarily should be predicated upon the local government's compliance with designated minimum standards both as to zoning regulations adopted and as to administration. Minimum regulations required should naturally be varied according to need and class of road. On some classes of roads, desirable regulations might include use regulations restricting commercial and industrial activities to compact areas, setback and offstreet parking requirements, access control, and limitations on outdoor advertising. On other classes of roads, only some of these regulations may be needed, or none may be needed at all. Although detailed zoning regulations are appearing in zoning enabling laws, a better practice in this situation is to grant reasonable discretion in establishing minimum standards to the state agency selected to administer the law and disburse the aids.

Enforcement of zoning regulations in rural areas is often haphazard. Success-

ful enforcement is invariably based on a system of permits and the employment of at least a part-time zoning administrator. Both are essential to the success of the proposed plan. Moreover, if local zoning administrators were required to provide their respective state highway departments or other appropriate agencies with duplicate copies of permits issued that pertain to properties along zoned highways, a current check on local enforcement would be facilitated.

Zoning aids payable to a local government might be based on numbers of miles of road zoned but graduated by class of road and by adequacy of regulations imposed. Failure to enforce regulations would justify the withdrawal of all zoning aids.

State aids in furtherance of roadside zoning may be justified by the incidence of the resulting benefits. These benefits accrue in large measure to the general public. Investments in roads are protected and safety is enhanced. Roadside landowners, on the other hand, may receive little or no benefits. In fact, their interests may be served by preventing zoning. An exception mentioned earlier is the roadside businessman whose investment may be lost when traffic congestion necessitates diversion of traffic to new roads. In contrast, urban merchants may benefit by zoning of the rural roadside.

Roadside zoning will be furthered by an appreciation of the possibilities of that technique for furthering the interests of farmers and other off-the-roadside landowners. Good arterial roads have brought them benefits in the form of easier and quicker access to town and an enhancement of land values. As traffic slows because of increased congestion, travel time increases and values of country residential properties in particular may depreciate.

Much farm land embraced by today's expanded urban fringe may not be ripe for suburbanization for decades. Arterial roads have brought the owners of such lands many benefits but also new problems. Ribbon developments, plus the spreading of an urban populace over the countryside, increase the need for costly public services. Special assessments may

¹Approximately one half of the states have legal limitations that prohibit the diversion of road funds for nonhighway purposes. Presumably, aids disbursed for roadside zoning would be allotted for a highway purpose.

be voted by nonfarm landowners for schools, water supply, sewers, or other improvements, and development costs thereby shifted to farm land. Taxes often reflect speculative land values that may never be realized.

Roadside zoning, particularly if combined with adequate rural zoning, can be used by rural communities to restrain these injurious developments. The communities' growth can be guided. Roadside business can be concentrated in villages or in strategic areas. Premature and scattered residential building can be discouraged by limitations on access and by large lot or tract requirements. At the same time, residential growth can be directed toward desirable zoning districts where needed public services are available or can be provided at a lower cost to the communities and their property owners. Arterial roads are an asset to every rural community. Liabilities, when they occur, are often a result of local inaction.

Roadside Zoning by the State

There are those who are impatient with waiting for local units of governments to zone their roadsides, who doubt that the problem can await local recognition of the need. They point out that the need for zoning throughout a community is not geographically uniform, that critical areas most often are found along main highways (particularly on the borders of our cities and towns). These people would like to see the various state highway commissions authorized to zone the roadside, at least along main roads under their respective jurisdictions. The state, they contend, should have ample authority to protect its investment.

Zoning by the state is not entirely new. Mention has been made of a Florida ordinance under which the state imposed detailed zoning regulations in a subdivision near Tampa. More than two decades ago, Wisconsin, by state law, limited the height of buildings in certain classes of cities (20). Various drafts of suggested laws authorizing zoning of the roadside by state agencies have been prepared and submitted for legislative approval. Perhaps the best known of these is the one sponsored by the American Automobile Association

(21), in which broad grant of regulatory power is proposed.

In 1949, the Wisconsin Legislature considered several bills pertaining to roadside protection. Among those passed is a law authorizing the state highway commission to establish not more than 500 mi. of controlled-access highways (22) and another requiring approval by that commission of the number and design of entrances to new subdivisions along state trunk roads (23). A third bill, proposing roadside zoning by the state highway commission, failed to pass (24).

The initial Wisconsin roadside-zoning bill would have authorized the state highway commission to establish commercial or industrial zoning districts on land abutting state trunk highways outside cities and villages, and to specify the kind of trade, commerce, or industry permitted in such districts. Establishment of setback lines was also proposed. In deference to local zoning, the bill provided that existing boundaries within roadside corridors of commercial or industrial districts, established under county or town zoning ordinances, should be accepted as the boundaries of similar state roadside districts. In such coterminous districts the most restrictive regulations would prevail (25).

The bill ran into trouble. A substitute was introduced which limited authority conferred to the establishment of setback lines. Setbacks of 60 ft. from the center line or 20 ft. from the nearest right-of-way line, whichever is the farther from the highway, were prescribed. However, wider setback lines not exceeding 120 ft. from the centerline might be established after public hearing (26). The substitute amendment also failed.

That ended the latest effort in Wisconsin to achieve roadside zoning by the state. After the session was over, a Wisconsin official wondered whether the error lay in asking for too big a package. The bill might have passed, he observed, if initially only authority to establish setback lines had been requested or only limited authority had been asked to zone the most heavily traveled roads. He saw two advantages in that procedure: By dispersing legislation, one disperses op-

position; and by getting a start in the right direction, an opportunity is offered to build upon it as the public sees its advantages. It has been said, that zoning, in the last analysis, is not the regulation of land, buildings, and structures but, the regulation of people.

CONCLUSION

Zoning developed in the horse and buggy days and was urban-created. Initial zoning regulations were designed to serve yesterday's urban communities. Later these legal devices were reshaped and adapted to meet new ends, and zoning spread to suburban areas outside city limits and then to the open country. Today's new problems and goals call for the development of new types of regulations and techniques.

One of today's new problems is found on the roadside. Its condition in many places is no longer a matter of only local concern. The interests of the traveling public, taxpayers, farmers, suburban homeowners, and the state itself are all affected.

Roadside chaos can be prevented by adequate zoning. However, because the benefits from roadside zoning are sometimes largely nonlocal, local action may lag. In such areas, new zoning techniques and agencies may have to be provided to achieve the desired goals.

In some states, financial support of local zoning agencies may be most effective. In others, roadside zoning by the state may be necessary. Or a combination of state and local zoning may be desirable. In devising new roadside zoning techniques, a number of leads may be found in the means used by state legislatures for influencing zoning regulations in unincorporated areas. These means range from permissive enabling legislation to zoning regulations imposed by the state.

Finally, to be effective, any roadside zoning plan, whether under state or local ordinance, must be understood and be accepted by the general public. The public must be convinced of its desirability and advantage: first, in order to get the initial plan adopted, and secondly, to secure support for its enforcement.

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25. Bill 43 S (Wis. 1949).

26. Substitute Amendment 1 S to Bill 43 S (Wis. 1949).

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