

HIGHWAYS AND ADJUSTMENTS IN FARMS

ONE estimate is that 1.5 million acres of land will be acquired for 41 thousand miles of interstate highways authorized by the Federal-Aid Highway Act of 1956. Almost 1 million acres will be in farms at the time of acquisition. Only a small acreage of needed right-of-way will come from land in urban areas. Approximately 75 thousand farms will give up some of their acreage for rights-of-way.

Requirements for rights-of-way for new State primary roads of a design similar to interstate highways will affect additional thousands of farms.

Most interstate roads will be four-lane divided highways and six and eight lanes in and near large cities. Two-lane roads built in sparsely settled areas will be expanded to four lanes when traffic requires it.

Most interstate highways will be on strips of new, fairly straight rights-of-way. Frequently they will run on the bias, instead of paralleling existing property boundaries or roads. Strips will average 250 to 300 feet in width. Some will be twice as wide.

A 300-foot right-of-way takes 37 acres a mile. To that must be added other land for interchanges—sometimes as much as 40 acres—and land for overpasses, underpasses, and feeder roads. Together, these requirements

will probably approach 50 acres a mile in many rural areas. For example, a segment of Interstate 35 in Minnesota took 47 acres a mile. Another segment in Iowa required 55 acres a mile. A section of Interstate 70 in Kansas took 57 acres.

Access to the highways will be strictly controlled. Users can enter and leave them only at interchange points. Grade crossings will be eliminated by interchanges, overpasses, and underpasses. Those structures, 1, 2, and 3 miles apart, are the only points at which landowners and farm operators and others can cross the highways.

Benefits from the new high-speed roads will be numerous and large. The Bureau of Public Roads expects that their safety factor will save 4 thousand lives a year. Traveltime and costs of operation of vehicles will be reduced greatly. Studies of freeways similar to

the interstate highways show that their cost is balanced out by savings in vehicle operating expenses in less than 10 years.

The high-speed roads can reduce producers' transportation costs to distant markets for farm supplies and products. They can make city jobs more accessible to farmers and other rural residents. They can open regions for development. They can bring recreation areas closer to rural and city people.

Some of these benefits will be reflected in rises in land values. Even greater rises in value will accrue to lands so situated that they can be used for residential, commercial, or industrial development.

SUBSTANTIAL immediate effects on farms and other properties result from design features, which are a boon to through travelers.

The broad, straight, or gently curving highways with their access control reduce the size of some rural properties and occasionally take entire farms. They impose erratic shapes on farms. They leave some lands inaccessible to their owners and operators or accessible only by several miles of travel.

Highways also can disrupt school routes, milk routes, and mail routes. They can isolate one part of a community from certain services, such as fire protection, that are provided in another part. They can change the kind, rate, and direction of urban and commercial development in a rural community.

In short, the superhighways require substantial adjustments by the rural property owners, farmers, and rural communities through which they pass.

HOW EASY and satisfactory those adjustments will be depends on at least two conditions: How great they are and how well highway agencies assist owners and operators in making them.

A common ground for both conditions are the procedures employed by highway agencies.

The magnitude of the adjustments is affected by the procedures used in routing the highway, holding public hearings, obtaining information useful to engineers, and designing and locating interchanges, overpasses, underpasses, drainage facilities, and service roads.

The ease of adjustments is affected by the procedures used in informing property owners and operators about the land a highway will take, appraising properties, purchasing and condemning rights-of-way, purchasing land remnants, paying owners, and taking possession.

The procedures have been a source of dissatisfaction in some States, as expressed at public hearings, at meetings of landowners, and also in letters to newspapers.

Concern regarding the adequacy of eminent domain procedures and laws for all public projects led to the creation of a Select Subcommittee on Real Property Acquisition by the Public Works Committee of the United States House of Representatives.

The subcommittee has begun to evaluate both procedures and compensation techniques used in acquiring lands for Federal programs and federally assisted State programs. It has solicited information from Government agencies, professional groups, and landowners and tenants regarding adequacy of eminent domain procedures and law. Land acquisition for highway rights-of-way has been one part of the broad field to be analyzed.

States also have started to review their laws of eminent domain and procedures and have suggested changes in both.

A detailed analysis was made in Wisconsin. Representatives of State agencies, property owners, attorneys, judges, appraisers, and researchers worked cooperatively in a yearlong study. They developed recommendations for modifying the law. A new law based on the recommendations was passed by the legislature. The new law and the procedures adopted by State

agencies to implement it I discuss later.

Other States are making broader use of powers authorized under existing laws.

In Iowa, for example, the purchase and resale of excess land has aided farmers in reorganizing units crossed by a highway.

It will be helpful to review some of the immediate effects of a superhighway in Iowa in detail and then consider adjustments farm owners and operators made and how they were assisted by highway agencies.

AN ANALYSIS was made of changes over a 3-year period in 80 farms crossed by a 33-mile segment of Interstate Route 35 south of Des Moines.

The segment disrupted all or part of six sets of farm buildings. The right-of-way requirements averaged 19 acres a farm, just under 7 percent of the farmland in the farms the highway crosses.

Had no adjustments been made, 40 farms would have been left with an average of 66 acres separated from the farmstead. They would have had 43 separated parcels, of which 27 would have been accessible to the operator by road; the other tracts would have been landlocked by the highway. Because access to the highway is limited, the parcels that could be reached were actually separated from the farmstead by an additional road distance that ranged from one-half mile to more than 5 miles.

These adverse effects would have been even greater if engineers had not mapped the new highway to follow property lines and avoid farm buildings.

At the time right-of-way was acquired for Interstate 35, the Iowa Highway Commission was authorized to buy and sell property in addition to land needed for rights-of-way and to rent out property acquired but not needed.

The commission purchased buildings in the right-of-way or allowed farmers to move them. It purchased small separated parcels and remnants and

entire units or large parcels from owners whose farms were badly cut up or who wanted to dispose of their lands and retire. Most of these excess lands were purchased along with the right-of-way. They were voluntary transactions between the commission and property owners. Amounts offered for the excess were based on the commission's appraisals of the property. Owners who sold excess land to the commission transferred to it the risk, time, and expense involved in selling isolated or landlocked parcels to the one or few persons who could use them.

The commission sold or rented most of the excess parcels to other farmers, some of whom were operators who had lost land and wished to reorganize their operating units. The transactions were made both during the period in which rights-of-way were being acquired and later. Owners of property adjacent to the parcels being sold were given first opportunity to buy or rent the land.

Five farms near an interchange would have been cut up badly if the Iowa Highway Commission had purchased only the needed right-of-way.

The commission arranged a number of almost simultaneous transactions. They made possible the reorganization of four of the units and the voluntary sale and reapportionment of the fifth. More than 500 acres of land worth nearly 200 thousand dollars changed hands. The transfers saved the commission more than 9 thousand dollars in construction costs.

The benefits of the procedure in facilitating adjustment of ownership and operating units are apparent, but negotiating such a series of trades takes time, and the commission assumed the risk and expense of holding excess land.

It may be required to prepare elaborate documentation to explain its involvement in the land market. Factors like those may keep authorities from such negotiations, even though fully authorized to do so.

As one measure of the actual change in the 80 farms crossed by Interstate

35, the purchase of right-of-way and the simultaneous purchase and disposition of excess land caused an immediate average reduction in farm size of about 10 percent.

Not all of the 80 farms remained in existence, however. From 1956, the crop year preceding the acquisition of right-of-way, until 1959, 11 of the 80 farms went out of existence—that is, the farm buildings had ceased to serve as headquarters of the farm operating unit, and the land had been absorbed by other units. Most had one of two distinguishing features: The farms were operated by persons nearing retirement, or taking the right-of-way caused serious interference with farm operations. Both features occurred on a few farms.

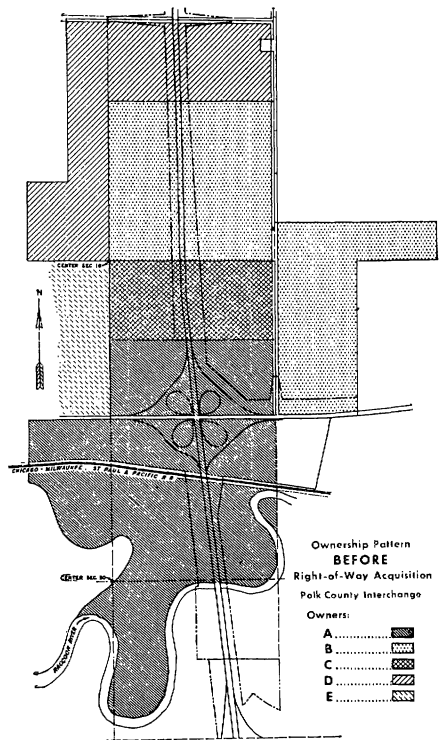
Five of the farmers whose units went out of existence took advantage of the opportunity to sell excess land to the highway commission. Three of them sold their units to the commission.

The farmers confronted with the loss of some or all of their buildings moved part of them from the right-of-way and sold the rest to the commission, or sold all buildings in the right-of-way and constructed additional buildings on their land to replace those lost, or sold the buildings to the commission but did not replace them.

Of the 69 farms that remained in existence in 1959, 41 had made a total of 83 real estate transactions since 1956—more than twice as many as other farms in the area that were not crossed by the highway. The commission was a party to 32 transactions—other than purchase of needed right-of-way—and involved one-third of the farms that remained in existence.

The commission bought 1,121 acres of excess lands along the 33 miles so as to transfer them back to farms that lost land and to others in the area. It bought separated parcels from approximately one-half of the owners who had tracts separated from the farmstead by the highway and mostly inaccessible by road.

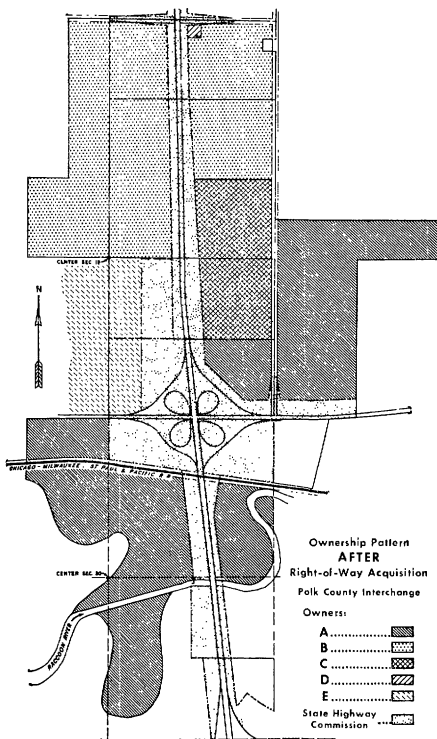
Despite efforts of the commission to



facilitate farm adjustment, the impact of the highway on some farms was large and persistent.

Seven-tenths of the farms crossed were smaller in 1959 than in 1956, the year before land was acquired. Most of them were operating with a reduction in acreage of 10 percent or more. Half of the farms with separate parcels did not dispose of them. The continued use of the separated parcels presented difficulties in many instances.

The farms crossed by the highway showed a greater dispersion in their tracts in 1959 than did other farms in the area. They operated more noncontiguous tracts, they had more acres separated from the farmstead and land adjoining it, and they had a larger percent of land located one or more miles from the farmstead. Operators of farms crossed by the highway reported other effects, such as problems of drainage and erosion.



PLANNING EXPERIENCES in Iowa, Wisconsin, and other States furnish other examples of ways to reduce the initial disruptive effects and make farm adjustment an integral part of the highway program.

Two reasons why planners should try to reduce the magnitude of disruptive effects when they plan highways are that a reduction in expenditures by a highway department may result and some of the adverse effects for which no compensation is made may be minimized.

Planning engineers in Iowa and Wisconsin carefully consider factors necessary in making an accurate comparison of benefits to road users with project costs. They determine the cost of right-of-way, construction, maintenance, and operation. They consider economic benefits to road users through reduced vehicle operating costs and savings in time.

An analysis of costs of the project and benefits to the users is not intended to give complete consideration to all possible beneficial and disruptive effects of the highway. For example, little consideration may be given to the cost of providing community services because of the location of the highway or to the cost of adjustment by farmers or by the community. Even if the engineers attempt to analyze effects well beyond those estimated in costs of rights-of-way, the data necessary for the analyses may not be available.

If the engineers are to reduce the adverse effects, they should have additional facts about farms and the possible effects on them of alternative highway locations.

The details needed for each possible location include the amount and kind of agricultural land and buildings taken, value of properties, number of farmownership tracts and operating units bisected, and number and acreage of properties landlocked. Also needed are details of severance damages to farms that can be reduced by adjustments in the routing of the alternate highways and in the placement of related structures.

Facts about communities that would be helpful to planning engineers include details about the amount of farm-to-market travel and other rural traffic disrupted by each alternate location and its overpasses and interchanges; school, milk, mail, or other routes that may be disrupted; the extent of rerouting in passenger-miles or in cost of rerouting; soil conservation, irrigation, drainage, fire protection, and other districts that will be severed; and the extent to which any serious effects of such severance can be overcome by adjustments in the routing of the alternate highways and in placement of related structures.

Planning engineers should try also to determine whether the routing they choose and the position and design of related structures are consistent with county or town plans. If development is likely to occur at an interchange or

in a nearby town, they should determine if the county or town government is equipped to plan and guide orderly changes in land use in that area.

If the county or town has neither the planning staff nor the necessary ordinances to guide orderly changes in land use, highway workers may need to assist local communities in formulating and implementing plans. Such cooperation benefits the community and provides some measure of control over the traffic generated by the urban or commercial development.

THE IDEA that engineers can reduce disruptive effects of highways by considering additional farm and community effects is not new. A thesis for a doctor's degree at Cornell University in 1951 on "The Severance of Farms by Limited Access Highways" showed how disruptive effects can be minimized. The author, R. B. Costello, who was trained in civil engineering and economics, analyzed actual farm situations along the New York State Thruway.

Severance damages to farms were large. The land made inaccessible entailed the greatest damage and the greatest resentment among farmers, rather than the few acres actually taken for limited-access highways.

The highway agency had no agricultural consultants to aid highway engineers in determining where the less productive lands were located. Property maps were not available to indicate the location of property lines. The engineers therefore had difficulty in routing highways through subnormal areas or along property lines—two stated planning policies of their agency.

Dr. Costello recommended that engineers use data on soil productivity and property boundaries to minimize highway severance damages, obtain the assistance of county agricultural agents and county highway officials, and ask farmers and property owners for information about their farms. He demonstrated that sometimes a shift in

highway location of a few hundred feet may bypass most of the productive soils in a particular group of farms being crossed.

He also described experiences by a second highway agency, a parkway commission. The commission adjusted its plans for highway location to avoid better land. It also acquired needed rights-of-way well in advance of construction, thereby allowing farmers more time to adjust their units.

A STUDY at the University of Minnesota in 1960 of farm adjustments along Interstate 35 in southeastern Minnesota disclosed the highway acquired 9 percent of the total acreage of 28 farms along one segment. Award payments, however, equaled 52 percent of the estimated market value of the land and buildings. One of the larger costs in the total was payment for buildings condemned and taken to make way for the highway.

Farms also were damaged by loss of nonbuilding improvements, such as fences, wells, and windbreaks; lower efficiency in scale of operation; changes in the crop and livestock systems; changes in the size or shape of fields; and loss of direct access to surrounding areas.

To reduce total payments to property owners, the Minnesota study recommended that economic and geographical data be included with more standard considerations of engineering and design. The Minnesota Highway Department has added workers trained in economics and geography to its staff to assist in making necessary studies of land use.

County conservation and agricultural specialists and other local officials can be helpful in the work of planning and designing highways. Employees of the Soil Conservation Service, Agricultural Extension Service, and Agricultural Stabilization and Conservation Service can provide information on the location and productivity of different soils; boundaries of farmownerships and operating units; irrigation, con-

servation, and drainage arrangements and problems; existing and proposed structures, facilities, and land treatments on individual farms; and boundaries of special-purpose districts.

Other local officials and groups can provide information helpful to highway planners. School officials have information on school routes and the location and composition of school districts. Postal officials can supply information on mail routes. County and town officials can give information on plans for police and fire protection. County agents and other agricultural officials can assist in delineating farm-to-market traffic patterns and otherwise supplement studies of origin and destination of traffic. County and town engineers and planners, local governing boards, and the county attorney can furnish data on community plans and the laws and procedures available to execute those plans. Owners and operators of land abutting proposed highways also can be important sources of helpful information.

Highway engineers in Iowa proved the value of such information. In planning and designing the segment of Interstate 35 south of Des Moines in 1956 and 1957, Iowa highway planners consulted school and postal officials in an effort to keep disruption of cross-traffic patterns to a minimum. The planners found the information helpful in spacing crossing points. In the same project, however, there was little contact between highway planners and owners of abutting land or local conservation and agricultural technicians.

A short time later, the Iowa Highway Commission made an effort to coordinate more completely the location, elevation, and design of highway drainage structures and conservation and drainage on abutting lands. Commission engineers enlisted the help of a Soil Conservation Service technician for one project.

They visited owners and operators of abutting lands and located tile systems and planned ways to preserve them. They also considered changes in the

design and height of culverts to be placed under the highway and other related structures to insure proper drainage and control of erosion. The result was substantial control of erosion, better drainage, and savings in construction costs.

Engineers of the Wisconsin Highway Commission also have received helpful information from farmers.

In northeastern Wisconsin, a district engineer met with farmers who had or expected to have drainage problems because of a new highway. Each situation was explored, and adjustments accordingly were made later in existing structures.

A district engineer in western Wisconsin gave the residents information about the proposed location of an overpass near their small town. Farmers and businessmen suggested changes in its location on the basis of their knowledge of marketing, school transportation, and fire protection. The suggestions were made before the highway plans were final, and the suggested changes were reviewed and adopted by the Wisconsin commission.

Highway engineers in central Wisconsin found most helpful the facts and recommendations presented by local farmers for routing a new section of Highway 51 near Westfield. The farmers had used questionnaires to gather information on two possible routings. They determined probable loss of property, inefficiency imposed on farm operations, reduction in farm income, and loss of tax revenues from the alternate routings. They got the help of agricultural leaders in the county and members of the College of Agriculture and Extension Service in obtaining and analyzing the information.

The engineers analyzed the facts and the recommendations for routing made by farmers and decided that the recommended routing could be included advantageously within their overall proposals for relocating the highway.

For many farm and nonfarm people, local public hearings are the chief source of information about the loca-

tion of new highways and a way in which people can express their views to the highway departments.

In some States, engineers do not present the alternative routes they consider, but limit discussion to approval or disapproval of the route the highway department has decided on. Other States disclose alternative routes for a proposed highway so as to get as much useful information as possible at a public hearing.

Hearings that are designed to provide information to the public and to elicit information and facts, as recommended by the Bureau of Public Roads, put engineers in touch with groups that have useful information and dispel the uncertainty by many people regarding new highways.

A STUDY in Wisconsin in 1959, "Property Owners' Problems and Legal Information They Need in Land Acquisition for Highways," disclosed that owners and operators can avoid difficult and costly problems if they are fully informed about acquisition of land. It recommended that a bulletin be prepared for owners and operators to explain rights of property owners, rights and procedures of the highway department, possibilities of adjustments available to owners and operators under procedures of the highway department, tax requirements on funds received, and the latitude of reinvestment permitted under the laws.

The Wisconsin study pointed out that State bar associations, university extension divisions, and highway departments might cooperate in preparing and distributing comprehensive informational bulletins. It suggested that bulletins be available to those attending public hearings and given to owners when they are informed that their lands will be acquired.

Plat maps, which show the exact amount and location of property needed from an owner, help owners and operators to determine the effects the right-of-way may have and to

plan adjustments before the actual taking. In Wisconsin, where the highway commission provided plat maps to owners who requested them, maps also indicated such details as access control on side and main roads near the property and limited highway easements to be acquired from abutting owners that would influence the adjustments they could make.

APPRAISAL PROCEDURES also can be carried out in a way that will assist farm adjustments.

Careful appraisals insure full compensation without overpayment to property owners. The appraisals should take into account all facts that influence values before and after the right-of-way is taken—the location of tile fields and mains, waterlines, sewage systems, and springs that may be affected; farm lanes that will need to be moved; new in-farm travel patterns required; and crop rotations and grazing arrangements that no longer will be possible. Such details could be overlooked or not fully considered.

If owners and operators are to be of help to appraisers, they must have prior notice of the appraisal. Appraisers often overlook this step, to the detriment of themselves and the landowners. Even worse, they may not call back to review facts with the owner or operator.

Wisconsin in 1960 revised its statutes on eminent domain to require that appraisers for highway agencies confer with an owner or his representative if reasonably possible. To be of help, obviously, the owners need advance information about the right-of-way and the acreage required.

The buyer's review of the appraisal with the owner provides a check on the completeness and the accuracy of the appraisal. To achieve a thorough review, the buyer may disclose the individual items in the appraisals and the importance the appraiser placed on each.

An inquiry by the highway-laws project at the Law School of the Uni-

versity of Wisconsin in 1958 found that some States disclosed appraisals on which offers were based, some disclosed only part of the appraisal data, and some disclosed none to the owner. The 1960 statutes in Wisconsin provided that the owner be allowed to inspect the appraisal or one of the appraisals of the property—if more than one is made—on which the offer of the highway commission is based.

Even though property owners may be offered alternative ways to make a settlement, such as the right to retain and move or dispose of buildings, sell some excess land, or sell all land and buildings, they may have difficulty in deciding among the alternatives. To facilitate their adjustment, owners need to be informed not only of the alternatives but also of the legal advantages and responsibilities that go with each settlement.

THE TIME of taking possession and payment are important factors.

If owners and operators are to adjust without costly interruptions in farm operations or elimination of entire enterprises, they need a reasonable time and enough money to finance their adjustment. The interval between the beginning of negotiations by the highway department and taking possession of the property sometimes is 3 months or less.

That may not be enough time. A city person may be able to find a new home in 2 or 3 months, but a farmer may need much more time to locate another farm or a set of farm buildings to rent or buy; move buildings, feed, machinery, livestock, and fences; construct new improvements back from the right-of-way; or harvest crops growing in the right-of-way.

To help overcome adjustment difficulties, some highway departments allow 6 months between notification to the property owner of the date of the taking and the actual taking.

A few use a technique called advanced acquisition, by which land is purchased a year or more in advance

of construction. Highway departments thereby reduce their costs, especially in developing areas where buildings may otherwise be built on land to be used for highways. Advanced acquisition gives property owners more time for negotiating and for planning and making adjustments.

Owners and operators need adequate funds with which to finance adjustments. A bad situation may arise when property owners do not get paid until about the time they vacate—some cannot vacate until they acquire other suitable property and cannot acquire other property until they are paid for their present property.

Some States have provisions for making a partial payment before title is taken to provide early financial assistance to property owners. Some of the States limit the partial payment to the amount needed for moving buildings and fences or for other expenses incurred by owners before conveyance.

Some others, including Wisconsin, make payments promptly so that compensation is in the hands of owners before they are required to give up possession of the property.

Another procedure would be to allow property owners to sell their property to the highway agency and receive payment for it but continue to occupy the property, subject to certain leasing requirements, while they are trying to acquire other suitable property.

Payment for additional costs not covered by compensation for property acquired also would aid property owners and operators to adjust their units. It seems only fair to reimburse the owner for such costs as those of rearranging or moving personal property and refinancing the replacement property. Payment of these costs, however, probably would require permissive State legislation.

Wisconsin amended its eminent domain law in 1961 to expand the items for which highway agencies could make compensation. It divided compensable items into those that could be

determined by appraisers before the acquisition of rights-of-way and those that could best be determined later.

In the appraisal before acquisition, the highway agency appraisers have included as compensable the land, improvements, and fixtures actually taken; existing access taken or restricted (this does not restrict the highway commission's police powers to regulate access); loss of air rights; loss of legal nonconforming use; damage resulting from severance of improvements or fixtures and proximity damage to remaining property from the location of the improvement; damages to property abutting on a highway right-of-way because of change of grade when there is a taking of land; and the cost of fencing reasonably necessary to separate land taken from the remainder of owner's land when the improvement does not include fencing of the right-of-way.

The 1961 Wisconsin law also authorized special claim procedures and payment for items of damage that can best be determined after the acquisition of land: Rearrangement of personal property on the same site; removal of the personal property to some other site; refinancing costs for the purchase of replacement property under certain conditions; net rental loss resulting from vacancies during the year preceding the taking of the property; and the expense of plans that are made unusable. The owner must show that damages exist, and he must apply to the highway agency for payment. Owners or tenants have a right to contest in court claims that are denied by a highway agency.

The Federal-Aid Highway Act of 1962 provided for relocation assistance to families and businesses. The Secretary of Commerce can approve as a part of the cost of construction on any of the Federal-aid highway systems relocation payments made by a State highway department to eligible persons. Payments may not exceed 200 dollars in the case of an individual or family, or 3 thousand dollars in the

case of a business concern (including the operation of a farm) or a nonprofit organization. Expenses for transportation for distances less than 50 miles are allowed. The Secretary cannot require a State to make relocation payments if the payment is not authorized by State law.

One final point needs to be reemphasized. New superhighways have a substantial impact on farms and rural communities in their path. The amount of farm disruption can be reduced, the required adjustments by farmers can be eased, and some savings can accrue to farmers and other taxpayers by modifications in procedures used by highway departments in planning highways and acquiring lands. In certain instances adjustments in procedures are possible only by passing new State laws.

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For further reading:

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