should show transverse sections of the proposed roadway at intervals of not less than 100 feet, from which there should be computed and shown on the plans, the quantities of materials to be moved as a part of the contract. There should also be shown a profile of the grade line of the finished road, on which should be shown the elevation and station number of each break in the grade, as well as the per cent of grade, either positive or negative, between the breaks in grade. It is also necessary to show the length of vertical curves at such breaks in grade. The state highway commission will send to you on request, without any charges, blue prints of a table showing the details of such vertical curves, in accordance with the standards of the state highway commission, as approved by the U. S. Bureau of Public Roads.

We will be glad to send to any county engineer on request sample sheets of road plans, which have been prepared in accordance with our standards. I hope that we may have a multitude of opportunities throughout the ensuing year to demonstrate the sincerity of our desire to co-operate with county engineers and other officials in their and our road work.

**PROCURING HIGHWAY RIGHTS-OF-WAY**

By Connor D. Ross,
Assistant Attorney General of Indiana.

The laying out and establishment of highways from ancient times has been an important governmental function. The old Roman saw the necessity of the development of a system of improved highways and that system is one of the marvels of history. Paul, in recording the events of one of his missionary journeys, said:

“And we came to Rome and the brethren came to meet us as far as the market of Appius.”

Why the brethren came no farther than the market of Appius is not recorded, but even in this late day, after years of highway development, I assume that you who are aiding in the great present day movement for the establishment of modern highways know the difference between no road or a mud road and an Appian way and perhaps could hazard a guess.

Under the old English system the establishment and construction of highways was deemed so important that it became a fundamental principle of the common law that “all highways belong to the king and no one shall disturb the king’s highway without his consent.” This principle has been adopted in a
limited sense in the law of our country and state. It is the
law of our state that all highways belong to the state, and are
under its control, and, of course, they may not be disturbed
except by consent of the state, through its legislature.

If then the establishment of highways is important enough
for governmental regulation and control, there is nothing in
the movement that is more important than the location. If
a system of hard surfaced highways is to be established—and
this seems to be the goal of the national and state movement—
then the location of the roads of that system is perhaps the
most important consideration. The citizens of the state before
the advent of the hard surface types of construction, have
spent millions in locating highways and millions again to re­
locate in part the same highways. If the present movement
is to build permanent highways, we should not forget that,
after all, there is nothing more permanent, or, at least, nothing
that can be made more permanent—than the location. The
procuring of the right of way for highways is therefore the
first, an essential and an important step in the establishment
or the relocation of a highway.

Methods of Establishing Highways

There are several methods for the establishment of high­
ways. They may be established by prescription, by use or
recognition, by dedication to the public by the landowner with
the sanction of public authorities, or by statutory proceedings
in the exercise of the right of eminent domain. Since the first
two methods recognize the existence of a right of way and,
in the case of a dedication, the right of way is granted with­
out contest on the part of the landowner, my discussion will
be with reference to the procuring of rights of way under the
principle of eminent domain.

Under the common law, the king had power to appropriate
land for highways without compensation. Under our system,
the state has power to appropriate the land of its citizens for
a public use, but with the constitutional limitation that “no
man’s property shall be taken for a public use without just
compensation, nor except, in the case of the state, without
first being assessed and tendered.” This is known as the
power of eminent domain. It is under and by virtue of this
provision that most of the highway legislation authorizing
the appropriation of land for highway purposes is enacted,
and my discussion will deal largely with this principle.

Power of the State to Control Highways

The state, through its legislature, has in the past delegated
to its subdivisions—the counties and the townships—and also
to cities and towns, the power to lay out and construct high­
ways.
However, these subdivisions and municipalities, in exercising this function of government, act only as agents of the state and their action is limited by the language of the statutes conferring the power. Since the county, the township and the municipality act only as the agents of the state in this respect, it has been held by our Supreme Court that the state, in its sovereign capacity, has the right to regulate the use of highways, to modify or even to recall the power delegated, or to assume direct control over them.

It was by the application of this principle that the state took over direct control of the highways constituting what has been designated as the “state system” under the State Highway Act of 1917, which was later superseded by the Duffy-Buller Act of 1919.

Direct Control by The State

Under this legislation, the state, through the State Highway Commission has undertaken the direct supervision and control of a system of highways reaching each county seat of the state and every city or town of over 5,000 inhabitants, and connecting with improved trunk highways of adjoining states.

Section 23 of the act of 1919 confers the power upon the State Highway Commission to change the location of a state highway or to deviate from the location of a highway taken over as a part of the state system, in order to shorten distance, to eliminate steep grades or sharp turns, to widen narrow portions or otherwise to promote public convenience and safety. To make effective this grant of power, section 24 of the act confers power upon the commission, in the name of the state, to acquire lands and rights by purchase or by voluntary grants and donations for any of these purposes and also for the clearing and removal of obstructions at highway crossings.

This section also confers directly the power of eminent domain. This provision, like all legislation on the subject of eminent domain, requires as a condition precedent to litigation an attempt to agree on the part of the commission with the landowner either as to the purchase price for the land, or as to the damages sustained by the landowner by reason of the appropriation.

Proceeding Under Power of Eminent Domain

While there are several methods of laying out county highways, most of which involve to some degree the power of eminent domain, the counties and the municipalities of the state are expressly given the power of eminent domain. The county unit act expressly confers the power of eminent domain on the boards of county commissioners, which power is exercised in all essential particulars in the same manner as prescribed in the state highway act, except that the boards of commissioners act instead of the commission.
In case the state highway commission is unable to agree with the landowner, the commission may pass a resolution setting out such fact with a description of the land and refer it to the attorney general. It then becomes the duty of that official to bring condemnation proceedings to appropriate the land required.

The legal department of the state, however, has no express power or duty as to the selection of the route of a state highway. This power is to be exercised within the discretion of the commission. Whether the designation of a particular route is wise or unwise, the legal department is glad to leave the decision of that question where the law places it.

The exercise of the power by the commission has entailed much litigation, and various questions, some with little or no merit, have been presented in proceedings instituted for the procuring of rights of way.

These questions in my judgment, when analyzed, present no new principles, but demonstrate merely an attempt to make new principles out of the rearrangement of the same facts without change of substance.

**Nature of Proceedings—Procedure**

The proceedings to appropriate land for a public use are summary in character and the statute prescribing the procedure is designed to enable the public officials having charge of a proposed public improvement to obtain possession with precision and dispatch. Hence the statute provides for a proceeding for the appointment of appraisers, and, in view of the spirit of the statute requiring speedy action, it has been held that a change of venue from the county at this stage of the proceeding is not contemplated. The statute requires only that the complaint shall set out the name of the body desiring to condemn; the name or names of the parties having or claiming an interest in the property; the intended use of the property; the location, width and termini of the right of way; and that the plaintiff has been unable to agree with the owner or owners for the property as to the purchase price or upon the amount of damages.

These elements of the procedure would not be of interest to those engaged in the actual construction work upon highways, except that concerning the description of the property to be appropriated. To avoid any question as to the description, it is always advisable to describe fully the property to be condemned, since parties desirous of hindering the progress of construction often seize upon the slightest pretext to accomplish a delay. However, the courts have held that a description is sufficient that will enable a skilled engineer to locate the land to be condemned.

The requirement as to the failure to agree is also a favorite
point of attack. This requirement is designated merely to avoid litigation, but sometimes an attempt is made to magnify its purpose by reading into its meaning niceties that the law makers never intended. The courts have held that the condemnor is not compelled to go further in an attempt to agree than to disclose the fact that an agreement is impossible; but in making the offer the landowner should be apprised of the amount and description of the land to be condemned and the purpose for which it is to be used. There are instances, however, in which an attempt to agree is not even required. If the landowner denies the power of the condemning party to appropriate the land, the law treats the matter of negotiation as a useless ceremony and an attempt to agree is unnecessary. Or if the landowner refuses to sell at any price, a specific offer is not required. It has even been held that the sending of a letter making an offer to a landowner, to which no reply is made is sufficient to satisfy the requirement as to an attempt to agree.

Upon formal proof of these facts required by statute, the court is warranted in appointing appraisers, and there is rarely a failure to make the appointment after the hearing of the usual objections. In the experience of the state legal department, no court has as yet refused to appoint appraisers and in several instances the proceedings have been bitterly fought.

The appointment of appraisers amounts to a finding that the condemnor is entitled to appropriate the land and, upon payment of the award to the clerk of the court, the condemnor may take possession of the land condemned and proceed with the construction work.

It is doubtful whether the state is even required to pay to the clerk the amount of the award before taking possession in view of the constitutional provision that makes an exception in favor of the state as to the assessment and tender of the amount of the compensation. The purpose of the constitutional provision requiring payment of the compensation in advance is to protect the landowner against corporations of doubtful solvency, but since it is a presumption in law that the state will always deal justly with its citizens, and in view of its unlimited power to raise money to discharge its obligations, the courts have held, under this provision of the constitution, that a state may take possession of the property before the amount of the compensation is actually determined by the court. The practice, however, has been to pay to the clerk the amount of the award before the taking of possession; but, in many cases, the clerk upon motion is ordered by the court to retain custody of the fund pending an appeal from the award.

Since the proceeding for the appraisement of the damages is merely summary in character and designed merely to effect
a settlement of the controversy without extended litigation, the statute provides for an appeal from the award of appraisers by either party, but, in case of appeal to the court appointing appraisers, there is but one question to determine—the amount of damages sustained by the landowner. The question as to the right to condemn and kindred questions are settled in the preliminary hearing.

**Trial on Appeal From Award**

The proceeding before the court on appeal from an award is more formal in character and is what it purports to be—a trial before the court in which a jury may be demanded. The trial before the court is de novo or a trial anew, and not merely a review of the preliminary proceeding. The manner of determining the damages is similar to other actions for damages to property and the measure of the recovery is determined by the difference between the fair market value of the entire tract of land involved immediately before the appropriation and the fair market value of the remainder immediately thereafter, assuming the highway to have been constructed as of the date of the appropriation.

**The Necessity of the Appropriation**

One of the questions that has frequently been raised is that of the necessity of the appropriation. This question is usually inspired by a dissatisfaction with the route selected by the highway officials and the litigation based thereon has at times been fostered by persons not parties to the proceedings. The lawyers who seriously assert the proposition that a landowner has a right to raise the question of the necessity for the taking of the land confuse, as I see it, the principle of eminent domain with the act governing the laying out of highways by subdivisions of the state in which the question of the public utility of the proposed highway is involved. The reason why the question of the public utility of the highway may be raised under such acts is that the establishment and control of highways is a legislative function, and, the legislature has expressly conferred the right. The reason why the fact is, however, that the right exists by grant from the state, through its legislature, the source of all rights and duties for the control of highways.

In the laying out of highways under the power of eminent domain as prescribed in the State Highway Act and similar
acts, there is no right of a hearing on the question of the necessity of the taking of the land. This is a question solely within the discretion of the highway officials. The decisions of our Supreme Court, involving purely the application of the power of eminent domain, have repeatedly held that courts cannot undertake to determine what improvements are necessary or upon what particular plan they shall be made. In one of the leading cases on the subject, our supreme court used this language:

"Where the use is public in its nature, the question as to the necessity for taking private property in a particular instance by virtue of the power of eminent domain is, in its essence, a legislative question * * *. The taking of land for a public highway affords one of the clearest illustrations of an appropriation for a public use. * * * The test is, not how many people do actually use them, but how many have a free and unrestricted right in common to use them."

Another source perhaps for the confusion of laymen and lawyers upon the subject is the old laws governing the laying out of highways on the assessment plan. This plan, however, it should be borne in mind, is a combination of the state's power of taxation through special assessment with the power of eminent domain. The method of establishing public improvements under this plan is based on the theory that the total land affected is benefited to the extent of the total damages incurred. The total benefits therefore must at least equal the total damages or the improvement may not be constructed; otherwise there would be no means of paying for the improvement. In such cases the landowner, of course, has a right to a hearing as to the utility of the enterprise, because, if the improvement is to cost more than the resulting benefit, it is not of such public utility, under such acts, as to warrant the expense. But in relocating and constructing highways under provisions such as contained in the state highway and county unit acts, the state acts in its capacity as a sovereign and the right to appropriate turns upon another theory, in the application of which the public utility of the enterprise is determined without a hearing on the part of the landowners. Since in the establishment of highways under this theory, the landowner is to be paid for the land taken and the incidental damages, without assessment, he may not raise the question of public utility, so long as the property to be condemned is for a public use.

**Just Compensation—Elements**

What constitutes just compensation within the meaning of the constitutional provision prohibiting the taking of private property for a public use? Must the public, in the laying
out and construction of highways under the power of eminent domain, pay *in money* for the land actually taken, for the incidental damages for the building of fence to enclose the remaining land and any other expense occasioned the landowner? If the public must pay in money for the property taken and for the incidental damages and expense, then the benefits, resulting from the construction of the road, if any, such as the transportation facilities afforded by an improved highway, the increase in value of the land or in its rental value, the making of the land adaptable for purposes other than that for which it had formerly been used, or the making of it salable in parcels, is clear gain on the part of the landowner.

The courts of this state, however, have consistently held that benefits may be considered in fixing the amounts of compensation in all highway cases brought under the eminent domain act.

The principle that benefits may be taken into consideration had received the approval of the supreme Court before the enactment of the eminent domain act of 1905, which is now in force. In an early case on the subject, the supreme court, speaking through Judge Elliott, who was an authority on highway law, said: "It may possibly be correct to hold that where benefits cannot be taken into consideration, as in the case of appropriations for railroad purposes, the question cannot be asked a witness as to the value of land without the railroad and what it would be with it. * * * A careful examination of the books and cases have satisfied us that where there is no law excluding benefits * * * or where the question is one affecting the right to assess benefits, a witness may state his opinion of the value of the land without the proposed highway and its value with the proposed highway."

**Measure of Damages**

Therefore, before the enactment of the act of 1905, the measure of damages for the land taken for highway purposes was the difference in market value before the taking and the value after the taking. This being the rule, it would be impossible for a court to successfully hold that benefits may not be taken into consideration in considering the amount of damages resulting to the landowner by reason of the appropriation of land for highway purposes in the exercise of the right of eminent domain.

The principle announced by Judge Elliott was consistently adhered to by the courts in construing the constitutional provision relative to the taking of private property for public use and in construing county highway acts that involve the principle of eminent domain, prior to the passage of the eminent domain act of 1905.
The supreme court in proceedings brought under the act of 1905 has also adhered to the principle announced in the opinion written by Judge Elliott. In an opinion involving the laying out of a highway under the county highway act of 1905, the supreme court approved an instruction given by the trial court which was in part as follows:

"The constitution of this state provides that no man's property shall be taken by law without just compensation, but it is the law of this state, as applied to the location of public highways, that benefits, derived by reason of the laying out of a road, may suffice to constitute just compensation for land taken and appropriated for a road, within the meaning of the constitutional provision requiring such compensation to be made."

The confusion that arises as to whether benefits shall or shall not be considered in such cases often arises from a failure to distinguish between railroad or similar corporations and political organizations, such as a state, a county or a township.

The reason is clear why benefits are not taken into consideration in the appropriation of land for railroad or similar purposes, since one whose land is taken for railroad purposes is not benefited to any greater extent than other persons in the community. A highway may be a special benefit to the landowner for the reason that it may furnish him peculiar benefits that attach to the land in the way of transportation facilities or an opportunity for the sale of land in parcels. This is not true in case of the taking of land for railroad purposes.

The fact that other persons living along a proposed highway will be benefited by its construction affords no reason why benefits should not be deducted in a particular case. Judge Elliott in his valuable and exhaustive treatise on the subjects of "Roads and Streets" used this language:

"Although other persons upon the line of the highway may also be benefited by its opening or by its being widened or improved, the benefit which the adjoining owner of one or more parcels of land receives from the opening of the highway is considered peculiar to him and not one enjoyed by him in common with the general public."

There is no merit in the argument that benefits should not be considered in laying out and constructing state highways for the further reason that the same argument could as well be made against the consideration of benefits in the laying out of county or township highways or city streets.

Indeed, the legislature has gone so far as to authorize an assessment against abutting property in proceedings for the laying out of county and township highways and city streets.
This legislation is on the theory that the adjoining property is peculiarly benefited by reason of the construction of the highway. If adjoining lands may be assessed under such statutes for this purpose, it follows that no sound argument could be made against the consideration of benefits against the landowner who is not to be taxed by the method of special assessment, nor could it be argued with any degree of confidence that the legislature intended that one thus favored should be further favored by withdrawing the principle announced by the courts as shown in the opinion to which I have referred.

The reasons which authorize the consideration of benefits are conclusive when construed in connection with the rule announced by the courts for the fixing of damages to which I referred. It has been repeatedly held by the courts that the measure of damages in cases of this character as held in the opinion written by Judge Elliott, is the difference in market value of the land affected before and after the appropriation. If the land affected has been increased in value by reason of the laying out and construction of the highway, there is no escape from the conclusion that the landowner has been specially benefited. The supreme court in a later opinion written by Judge Elliott used this language: “The conclusion to which the authorities lead is, that benefits are special when they increase the value of the land, relieve it from a burden, or make it especially adapted to a purpose which enhances its value.”

Another conclusive reason why the fifth clause of section 6 of the eminent domain act of 1905, which authorizes deduction for benefits, applies to the taking of land by the state in highway cases is that the state highway act itself provides for the taking over by the state of roads formerly controlled by the counties; and, as I have stated, the decisions hold that benefits may be considered in county highways proceedings under this provision of the eminent domain act. If the state through its commission may take over a county highway for construction and maintenance and may thereafter re-locate it, it necessarily follows that the same principle as to the consideration of benefits should be applied to both the state and its subdivisions. Otherwise a result could be accomplished by indirectness that may not be accomplished directly. If, in the laying out and construction of a county highway, the county may have the advantage of applying the principle that allows deduction for benefits, then the state through its commission could effect an agreement with a county, as authorized by the State Highway Act, under which the county could re-locate a highway prior to its being taken over by the commission. In that event the benefits could be taken into consideration in fixing the compensation due a landowner. The commission
could then take over the highway and accomplish the purpose of having benefits considered. This would mean that merely the time at which the land is taken for highway purposes determines the question of whether benefits may or may not be considered.

Every rule of reason or construction is in favor of the principle that benefits may be taken into consideration in fixing compensation under the eminent domain act in the establishment and construction of highways.

The landowner is entitled to just compensation for the land taken and for the actual incidental damages to his remaining land. The elements of damages, however, must be actual and susceptible of proof and not such as are merely speculative or conjectural.

Prospective annoyance from the use of a highway in a lawful manner may not be considered as an element of damage. No allowance may be made for injuries that are not peculiar to the estate of the owner and all losses, if any, that are suffered in common with the public generally are deemed strictly consequential for which no compensation may be awarded. It has even been held that, where the laying out of a new highway necessitates the building of additional fence to enclose the remaining land, if it appears that the building of the fence increases the value of the land to the extent of the cost of the fence, the court or jury would not be warranted in considering this expense as an element of damages.

The great majority of landowners recognize the value of an improved road, and, while the legal department of the state during the past four years has brought perhaps 500 condemnation proceedings, an exceedingly small number of these have proceeded further than the report filed by appraisers; and a greater number have perhaps been settled by the highway officials by negotiation.

The landowner sometimes has a real grievance. But whether he does or does not, there is no escape from the fact that his land may be appropriated only in the manner prescribed by law. No one can deprive him of his day in court and counsel for the public cannot always control the progress of the proceedings. For this reason, although it has been held that in view of the public's right to the exercise of eminent domain, contracts may be let before the procuring of the right of way, it is advisable that, to prevent delay in construction, officials and engineers in laying out highways take into consideration the legal phase of the procedure.

The questions that I have discussed are those that usually arise in case of contest, in the procuring of the right of way, and in the assessment of resulting damages. There are other questions, however, that often arise involving the right of control and regulation of highways that are equally important.
The rights of a railroad or interurban company to occupy a highway with its tracks and the duties of such companies as to grade separations and highway crossings are of this character.

Each of these questions is controlled by the principle to which I have referred—the right of the state to regulate and control its highways. It is fundamental that the state never surrenders or contracts away its right to legislate in the interest of the safety and convenience of its citizens. Therefore, when a railroad or other public utility company constructs its tracks or equipment upon or across a highway, it subjects itself to the state's right, through its officials or political subdivisions, to cause the tracks or equipment to be moved at its own expense from the side to the center or from the center to the side, of the highway in the interest of the safety or convenience of the public. It was formerly the law that such companies were also required when necessary for the public safety, to construct and maintain grade separations at the crossings of railroad and highways. This law has been modified to an extent, and under the present statutes the public has assumed a portion of the cost of grade separations. These companies also construct and operate their railways subject to the state's right to extend highways across them, and the law casts the burden upon such companies to construct and maintain the crossings at their own expense in such manner as to insure the safety of the traveling public.

In the early history of our state, the fathers, in laying out roads, followed the rule that "a straight line is the shortest distance between two points," and some of our main trunk roads were established under that principle. The railroads then came along, relieving the highways of the "long haul" or the long "drive," and consequently there was a change in the manner of laying out highways. The old National Road, which had been constructed through Indiana from Cumberland and which was to end at St. Louis, became lost in the swamps of Illinois. Railroad development had overtaken it, introducing the "long haul" by rail and only the "short haul" was left for the highways. Highways, following the advent of the railroad, were then located and relocated upon section lines and in such manner as to prevent the cutting of farms.

The hard surface type of construction of highways and the advent of the automobile and tractable truck have again wrought a change. The tendency in the construction of highways is to swing back to the old idea of the fathers. This tendency has entailed a heavy work upon both state and county officials engaged in highway construction and upon their legal representatives. The co-operation between the federal, state and county officials has been efficient and helpful. In the continuance of this co-operation lies the hope of the greatest
highway system of the world. It will mean the passing of the “mud” and rough road tax and, if the poet’s version of the Bible is correct, will insure our eternal bliss, although it will kill the inspiration that caused him to sing his “Epigram on Rough Roads”:

I’m now arrived—thanks to the gods,
Through pathways rough and muddy,
A certain sign that makin’ roads
Is no’ these people’s study;
Although I’m not wi’ scripture cram’d,
I’m sure the Bible says
That heedless sinners shall be dam’d,
Unless they mend their ways.

SNOW REMOVAL ON COUNTY ROADS

By W. M. Tonkel,
Allen County Highway Superintendent.

Years ago, before many roads were paved and before automobile and truck traffic, we hoped that snow would fall on our roads and fill the ruts, that had been cut during periods of thawing, and smooth the road over so that the old fashioned bob-sled and cutter could be used.

However, changes come with time and now it is very important that snow be removed from the road as quickly as possible. There are not many bob-sleds and cutters any more but in their place we have the large freight trucks and passenger automobiles that must have a clear right of way to their destination.

There are various problems to the removal of snow and one of the most serious, in my opinion, is the snow drift. To solve this problem it is necessary to study the experiences of preceding winters. For instance, snow drifts deeper in some places than it does in others. There is a reason for this variation and it is necessary to locate the cause of this condition so that preventative methods can be applied.

A snow drift will usually form where the wind is checked by some obstruction. The snow is deeper in drifts for the same reason that sand bars are formed in streams where the water current is not strong enough to carry the sand and silt, thus permitting it to settle to the bottom.

We usually find snow drifts more frequent on our north and south roads. This is due to the prevailing direction of our winds which are generally from the west, together with the fact that obstructions such as fences, hedges, etc., are usually found paralleling the road. Therefore, an obstruction on the west side of the road is much more objectionable than one