

MINUTES OF THE FIFTY-SIXTH MEETING
JANUARY 24, 1953

Pursuant to call of the Chairman the Ohio Turnpike Commission met in special open session at the Seneca Hotel in Columbus, Ohio, at 11:12 A. M. on January 24, 1953, with the key members of its staff, representatives of the Consulting Engineer, of the Trustee, Mr. Dennis E. Murphy of The Ohio Company, Mr. Harrison W. Smith, an attorney of Columbus representing the Railroads whose lines are to be crossed by the Turnpike, Mr. Charles E. McKee of the Ohio Contractors Association, and others in attendance.

The meeting was called to order by the Chairman, the roll was called, and the attendance was reported to be as follows:

Present: Allen, Linzell, Shocknessy.

Absent: McKay, Teagarden.

The Chairman stated that under the law a quorum is constituted by three members and, therefore, three members being present the business of the Commission might proceed. He noted that this was the first meeting of the Commission that had ever been convened without the press being present, but that the meeting of the Commission on January 16, 1953 which had convened at 11:30 A. M. and recessed at 12:30 P. M. until after the conference with the contracting engineers had reconvened pursuant to the recess at 6:30 P. M. in the main ballroom of the Seneca Hotel, had been concluded without any press representation.

The Chairman referred to a motion made by Mr. Allen at the meeting of January 6, 1953 for the reference of resolutions proposed by Mr. McKay to the appropriate staff section of the Commission, and asked Mr. Allen to which staff section he had intended the resolutions be referred. Mr. Allen stated that implied in his motion was the intent that the resolutions of Mr. McKay be referred to the Legal Department for consideration. The Chairman advised the General Counsel that the resolutions would be referred to him and so requested the Assistant Secretary to do.

The Chairman stated that the Fourth Annual Report of the Commission had been submitted to the members in draft

form and requested that the comments of the several members be submitted not later than January 27, 1953 in order that the Report might be submitted to the General Assembly on January 30, 1953.

The Chairman advised the Commission that the General Counsel, the Chief Engineer, and Mr. Donnelly of the Greiner Company, were going to present a panel to the downtown Kiwanis Club in Cleveland at luncheon on February 5, 1953. He said that if any members of the Commission would be willing to attend he had no doubt the Kiwanis Club would be glad to have them on the panel. Dr. McKay then indicated he would endeavor to arrange his schedule so as to accommodate the engagement.

The General Counsel reported with respect to developments on the acquisition of those rights which the Commission has been seeking so as to prohibit the erection of billboards on land adjacent to the Turnpike which is the residue of land acquired by the Commission for right-of-way purposes saying that the deeds which had been taken by the Commission during about the preceding two months had contained a provision running with the land which precluded the erection of billboards on the residue of parcels. He said also that condemnation cases which had been instituted by action of the Commission seek to condemn a similar restriction upon the use of the remaining portion of land, a part of which was to be taken by appropriation. He referred to a suggestion which had been made by a representative of an association of landscape architects that there be incorporated in the deeds of the Commission a provision which would authorize the Commission at any time to enter upon lands protected by such a restriction and forcibly remove any billboard that should be erected. He said that it was his opinion, as well as that of the Chief Right-of-way Attorney, the Chief of the Right-of-way Section, and the two firms of appraisers and negotiators, that the inclusion of such a provision would be unwise. He stated his belief, with which the Chairman concurred, that the Commission should rely on the regular processes of the law.

The General Counsel then presented two recommended forms of resolutions by which the Commission would declare the necessity for appropriating two designated parcels of property. He stated that in each of the two cases the Commission's negotiators had endeavored, without success, to agree with the owners of the land as to the compensation to be paid therefor. He presented to the Commission written recommendations

signed by himself, by the Chief Engineer, and by the Chief of the Right-of-way Section, with respect to each of the two cases.

Resolution No. 31-1953 declaring the necessity of appropriating Parcel No. 165-E in Portage County, and directing that proceedings to effect such appropriation be begun and prosecuted, was moved for adoption by Mr. Allen and seconded by Mr. Linzell, as follows:

RESOLUTION NO. 31-1953

"RESOLVED that the Commission has endeavored for a reasonable time to agree with the owner or owners of the property described herein as to the compensation to be paid therefor, but has been unable to agree with said owner or owners, and said property is needed for the construction and efficient operation of the Ohio Turnpike Project No. 1, and

"BE IT FURTHER RESOLVED that proceedings be begun and prosecuted to effect the appropriation in fee simple of the following-described property, and the easements, rights, and restrictions hereinafter described, from the following-named owner or owners and persons having interests therein, to-wit:

<u>"Owner(s)</u>	<u>Place of Residence</u>
Anna Kessler	567 E. Highland Avenue Ravenna, Ohio
Charles Kessler	567 E. Highland Avenue Ravenna, Ohio
John Kessler	R. D. Freedom, Ohio
Petroleum Development Syndicate	Address Unknown
County Auditor of Portage County	Portage County Court House Ravenna, Ohio

<u>"Owner(s)</u>	<u>Place of Residence</u>
County Treasurer of Portage County	Portage County Court House Ravenna, Ohio

"The aforementioned property to be appropriated in fee simple is described as follows:

"Parcel No. 165-E

"Situated in the Township of Freedom, County of Portage and State of Ohio, and known as being part of Original Freedom Township Lot No. 55, and being all that part of the lands described in the deed to Anna Kessler dated February 11, 1915, and recorded in Volume 224, Page 38 of Portage County Deed Records, lying Northerly of a line drawn parallel to and distant 150 feet Southerly, measured on a line normal to the centerline of Ohio Turnpike Project No. 1, as shown by plat recorded in Volume 8, Page 23 of Portage County Map Records.

"The aforementioned easements, rights, and restrictions to be appropriated are as follows:

"First: Any and all abutters' rights, including access rights, appurtenant to any remaining portion of the lands of said owner or owners of which the above-described real estate, shall have formed a part prior hereto, in, over, or to the above-described real estate, including such rights to any turnpike constructed thereon.

"Second: All rights to erect on any of the aforesaid remaining lands any billboard, sign, notice, poster, or other advertising device which would be visible from the travelway of Ohio Turnpike Project No. 1 and which is not now upon said lands."

A vote by ayes and nays was taken and all members present responded to roll call. The vote was as follows:

Ayes, Allen, Linzell, Shocknessy.

Nays, None.

The Chairman declared the resolution adopted since three members were in the affirmative.

Resolution No. 32-1953 declaring the necessity of appropriating Parcel No. 52-F in Wood County, and directing that proceedings to effect such appropriation be begun and prosecuted, was moved for adoption by Mr. Linzell and seconded by Mr. Allen, as follows:

RESOLUTION NO. 32 -1953

"RESOLVED that the Commission has endeavored for a reasonable time to agree with the owner or owners of the property described herein as to the compensation to be paid therefor, but has been unable to agree with said owner or owners, and said property is needed for the construction and efficient operation of the Ohio Turnpike Project No. 1, and

"BE IT FURTHER RESOLVED that proceedings be begun and prosecuted to effect the appropriation of the following-described property, and the easements, rights, and restrictions hereinafter described, from the following-named owner or owners and persons having interests therein, to-wit:

<u>"Owner(s)</u>	<u>Place of Residence</u>
The Toledo Trust Company	Toledo, Ohio
County Auditor of Wood County	Wood County Court House Bowling Green, Ohio
County Treasurer of Wood County	Wood County Court House Bowling Green, Ohio

"The aforementioned property to be appropriated is described as follows:

"Parcel No. 52-F - Fee Simple

"Situated in the Township of Perrysburg, County of Wood and State of Ohio, and known as being part of Subdivision Nos. 1, 2, 3 and 4 of River Tract No. 70, Town 3 of the U. S. Reserve and being bounded and described as follows:

"Beginning on the centerline of Perrysburg Road (formerly River Road) (U.S. Routes 23 and 68) at its intersection with the Northeasterly line of Parcel No. 2, lands conveyed to the Toledo Trust Company by deed dated May 22, 1947 and recorded in Volume 284, Page 526 of Wood County Deed Records; thence Southwesterly along the centerline of Perrysburg Road to its intersection with a line parallel to and

and distant 135 feet Southwesterly of, measured on a line normal to the centerline of Ohio Turnpike Project No. 1 as shown by plats recorded in Volume 10, Pages 64 and 70 of Wood County Map Records; thence Northwesterly along said parallel line to its intersection with a line drawn Southwesterly normal to said turnpike centerline from Station 15 + 25; thence Northeasterly along said normal line 5 feet; thence Northwesterly parallel to said turnpike centerline to the Easterly waters edge of the Maumee River; thence Northeasterly along the waters edge, down the Maumee River to its intersection with a line parallel to and distant 130 feet Northeasterly of, measured on a line normal to, said turnpike centerline; thence Southeasterly along said parallel line to its intersection with a line drawn Northeasterly normal to said turnpike centerline from Station 8 + 90; thence Southwesterly along said normal line 20 feet; thence Southeasterly parallel to said turnpike centerline 70 feet; thence Northeasterly to a line normal to said turnpike centerline 20 feet; thence Southeasterly parallel to said turnpike centerline to the intersection with the Northeasterly line of land conveyed to the Toledo Trust Co. as aforesaid; thence Southeasterly along the Northeasterly line of land so conveyed to the Toledo Trust Co. to the point of beginning.

"Parcel No. 52-F(1) - Temporary Easement for
Construction Purposes

"Situated in the Township of Perrysburg, County of Wood and State of Ohio, and known as being part of Subdivision Nos. 2, 3, and 4 of River Tract No. 70, Town 3 of the U. S. Reserve and bounded and described as follows:

"Northeasterly by a line parallel to and distant 130 feet Southwesterly of, measured on a line normal to, the center line of Ohio Turnpike Project No. 1, as shown by plats recorded in Volume 10, Pages 64 and 70 of Wood County Map Records; Southwesterly by a line parallel to and distant 180 feet Southwesterly of, measured on a line normal to said turnpike centerline; Southeasterly by a line drawn Southwesterly and normal to said turnpike centerline from Station 12 + 00 and Northwesterly by the Easterly waters edge of the Maumee River.

"The aforementioned easements, rights, and restrictions to be appropriated are as follows:

"First: Any and all abutters' rights, including access rights, appurtenant to any remaining portion of the lands of said owner or owners of which the above-described real estate shall have formed a part prior hereto, in, over, or to the above-described real estate, including such rights to any turnpike constructed thereon.

"Second: All rights to erect on any of the aforesaid remaining lands any billboard, sign, notice, poster, or other advertising device which would be visible from the travelway of Ohio Turnpike Project No. 1, and which is not now upon said lands."

A vote by ayes and nays was taken and all members present responded to roll call. The vote was as follows:

Ayes, Linzell, Allen, Shocknessy.

Nays, None.

The Chairman declared the resolution adopted since three members were in the affirmative.

Mr. McKay arrived at the meeting and answered to roll call and was present for the remainder of the meeting. Pursuant to instruction of the Chairman, the Executive Assistant reviewed for Mr. McKay the events of the meeting prior to his arrival.

The General Counsel reported that he had made a distribution to all public utility companies known to have facilities affected by the Turnpike of the Rules and Regulations which were adopted by the Commission at its meeting on January 6, 1953. He said that General Counsel had completed working out contracts with virtually all of the telephone, electric, gas and oil pipe line companies with respect to the work of relocating and changing their facilities made necessary by the construction of the Turnpike. He stated his opinion that all such contracts would probably be concluded in the very near future.

General Counsel reminded the Commission that on January 6 it had adopted a resolution declaring the necessity of appropriating, and directing the initiation of proceedings to appropriate, certain interests in a parcel of land claimed by The Baltimore & Ohio Railroad at the point of crossing thereof by the Cuyahoga River bridges of the turnpike. He said that immediately following that meeting he received an indication from counsel for The Baltimore & Ohio Railroad that the railroad probably would be prepared to grant a right of entry almost forthwith and that, therefore, he had taken the liberty of not filing condemnation proceedings in court. He explained that the right of entry was one sufficient for the purposes of constructing Pier No. 4 of the aforesaid bridges, which was the thing that was immediately required by the Commission, but he added that this right would not extend to an aerial crossing over the tracks. He said that the right of entry was furnished upon the terms which he had out-

lined to the Commission at a previous meeting and that, therefore, he was still holding in abeyance the matter of the appropriation of The Baltimore & Ohio Railroad property.

General Counsel next made an extended and detailed report to the Commission with respect to insurance against liability arising in connection with the construction of railroad grade-separation structures. There follows a summary of his report on the subject:

At the previous meeting of the Commission, General Counsel had informed it that at a meeting last month with representatives of all but one of the railroads, agreement was reached with them as to all the provisions of a form of contract to cover the work and other problems in connection with crossings by the turnpike over railroads, with the exception of one paragraph of such a contract, that paragraph being the one relating to insurance.

Following that conference the railroad companies undertook to ascertain what insurance, within the limits of what they thought they should have, could be acquired and, pursuant to general counsel's request that they do so, to ascertain what would be the cost of that insurance. Recently, Mr. Harrison Smith of the Columbus, Ohio, bar, as spokesman for the railroad companies, reported to general counsel that the railroad companies had, after a month of work on the matter, developed a concrete program which he said would be satisfactory to the railroads and was the only one that they had been able to develop. He said that some of the railroad companies could not, acting alone, buy insurance of the type which they thought they should have to cover their possible liability in connection with the turnpike crossings because of the bad records of those railroads of wrecks in somewhat similar circumstances in other places. He said, however, that with all of the companies going together in one plan, they had finally found a group of insurance companies which would be willing to write the insurance for all of the companies involved, but not for less than all of them. Mr. Smith had reported that under this plan a manuscript policy would be furnished to each of the railroad companies with respect to each crossing. General counsel had previously told the representatives of the railroad companies that he thought that it made little difference, from the standpoint of the commission, what insurance they might procure; that the one thing that would be important to the commission was how much the insurance would cost, for the reason that the insurance companies, and general counsel also, expected that the commission should reimburse them for the cost of such insurance. Under the applicable statute, the reasonable cost of reasonable insurance should be treated as part of the costs for which the railroad companies are entitled to reimbursement in connection with any turnpike

crossings, at least in any cases in which the commission requires any changes in their facilities or takes any of their property. In connection with 37 out of the 40 crossings involved, there will be no physical changes in the existing tracks of the railroad companies but there will be in most cases changes in some of their wire facilities and in all cases there will be involved a taking, in some degree, of property of the railroad company, because of the infringement of the turnpike upon their rights-of-way.

The premiums for the proposed insurance would be on a per-crossing basis; they would not be annual premiums. The insurance would endure for the fixed premium until all construction work should be completed. The premium would be worked out specially for each crossing. The amount in each case would depend upon several factors, among which would be the estimated cost of the construction work, the character of the railroad traffic, and the volume of the railroad traffic. Mr. Smith has reported that while the exact premium cost is not yet known, it has been estimated to be approximately \$9,000 per crossing, or a total for 40 crossings estimated at approximately \$360,000. Mr. Smith further said that while the exact amount of the premium cost is not yet known, the railroads would be willing to agree that the total cost would not exceed, in any event \$400,000, and before any contracts with the railroad companies would be signed, general counsel would expect to have in hand precise information as to what the total premium cost would be.

General counsel, because of the large amount of cost involved, immediately communicated to the commission's chief engineer and its consulting engineer the information regarding premiums and coverage which had been submitted by the railroads. He did so because the commission is endeavoring to build Ohio Turnpike Project No. 1 within the estimates of costs which have been prepared in advance and because the commission has no money, but only a power, limited and conditioned, to draw requisitions upon the trustee to pay the bills which are incurred in constructing the turnpike, and under the trust agreement no requisition for the expenditure of funds can be ordered unless the consulting engineer approves it. For these reasons and in order that the consulting engineer might be in a position to advise general counsel and the commission whether it would be prepared ultimately to approve requisitions for payments of insurance premiums as outlined and in order that the consulting engineer might render any other advice which it might see fit to give in the premises, general counsel had furnished the cost and other information to the consulting engineer.

The commission has heretofore conferred authority upon each of its chairman and chief engineer to enter into contracts with railroads with respect to crossings of and

changes in their facilities. However, general counsel would not be willing to advise the chairman and chief engineer on a matter of the import which he considers this matter has, without first presenting the subject and the aforesaid data to all of the members of the commission so that they might have an opportunity to express their opinions.

Under the form of contract which has been agreed upon between general counsel and the representatives of the railroad companies, it would be the obligation of the insurance companies to take out and pay for insurance for their protection, and it would be the obligation of the commission to reimburse the railroad companies for the premiums on such insurance. Such contracts would constitute as complete a resolution as seems possible and practicable of all problems and obligations which might arise between the railroad companies and the commission under Sec. 1206 and 1208 of the General Code of Ohio, which are the two sections which impose the obligation upon the commission to bear the costs incurred by railroad companies in connection with the separation of grades at intersections of the turnpike with railroad tracks.

The Chairman inquired whether the proposed insurance constitutes purely casualty coverage. General counsel said that it did and that it was of three types. The first is a rather general public-liability and property-damage coverage. The second a "marine coverage" protecting against damage to the property of the railroad company and cargo carried by it. The third type is insurance to protect the railroad companies against liability on account of injuries to their employees.

General counsel explained that he had been informed by Mr. Smith that even with all of the railroad companies working through their respective insurance departments and brokers, the plan and program which he had outlined was the only one which they had been able to evolve which would afford to the railroad companies the protection which they considered they were entitled to. In particular, the Baltimore & Ohio Railroad Company had endeavored to evolve a plan for such insurance through its broker, but without success.

The chairman inquired of general counsel what had been the reaction of the commission's consulting engineer to the insurance plan suggested by the railroad companies. General counsel stated that whereas the immediate reaction of the J. E. Greiner Company had been one of amazement at the high costs involved, they had, after understanding that the insurance premiums would be not on an annual basis, but on a per-crossing basis,

determined to recommend that the commission enter into contracts with the railroad companies, wherein would be incorporated provisions for insurance on the basis which general counsel had described.

There ensued an extensive discussion between the chairman, general counsel, and Mr. Harrison Smith on behalf of the railroad companies, regarding the possible or probable legal right of the insurance company or companies to subrogation against the commission. They were in agreement that under some circumstances such a right might exist. General counsel explained that he had, immediately before the commission's meeting, mentioned to Mr. Smith the possibility that at small or no additional cost the coverage under the proposed insurance might be expanded to protect the commission as well as the railroad companies, and said that the existence of the possibility that the commission might incur tort liabilities in connection with the grade-separation construction work was one of the reasons why he would not wish to reach an immediate conclusion on the matter or to recommend the execution of any contract between the commission and a railroad company until he should be satisfied that there would be adequate protection against the commission's liability. He said that he suspected that it might be the most economical way of handling the commission's problem to cause it to be insured by the same insurance carriers writing the railroads' insurance, under which arrangement some of the contingent-liability and subrogation questions would be eliminated.

Mr. Harrison Smith (attorney for the Chesapeake and Ohio Railroad Company, who Mr. Dunbar said had been designated by the attorneys for the other railroads as the spokesman for all of them with respect to the matter of insurance) was then presented to the members of the commission and to the members of the commission's staff in attendance at the meeting. He stated his concurrence in the facts as stated by the commission's general counsel and said that he wanted to emphasize the fact that the railroad companies had conducted an exhaustive search in an effort to obtain the required insurance coverage. He said that they had searched from one coast to the other and across the seas to London and had finally wound up with the only combination of insurers able and willing to write the required insurance -- the Standard Accident Group of Detroit, Michigan, and the Lloyds group of London, England. He said that the Standard Accident Group would write the entire coverage as the primary insurer and that the excess would be carried by the other group. He said that the commitment of these insurers was with respect to all the railroad companies with which the commission would have to deal with the exception of one small railroad -- the Youngstown and Southern Railroad which, because

of its being equally owned by two larger railroad companies, acts for itself.

Mr. Smith further said that while the question was new to him, he saw no reason why coverage for the Commission could not be provided in connection with the railroads' coverage; that it seemed to him the most practical thing to do.

There next ensued some discussion between the chairman and Mr. Smith with regard to the very large verdicts which have been rendered recently in negligence cases against railroad companies, following which the chairman pointed out that the ultimate question presented to the members of the commission was a relatively simple one; namely, whether the commission should pay for insurance to protect itself against direct and indirect liabilities, up to specified policy limits, which it might under the law incur in connection with the construction of railroad grade-separation structures or whether it should simply incur and sustain those risks as a self-insurer.

Mr. John Jenkins, speaking on behalf of the J. E. Greiner Company, the commission's consulting engineer, stated that the consulting engineer is in agreement with the plan for insurance as outlined by general counsel.

The chairman inquired what had happened in connection with the recent catastrophe in New Jersey. Mr. Smith replied that thus far claims paid have exceeded 22 million dollars; that those claims have been paid by the Pennsylvania Railroad Company; and that it is still an open question whether the New Jersey Turnpike Authority will have to reimburse the Pennsylvania Railroad on account of those payments. General Counsel commented that that one wreck alone had contributed to making it more difficult to work out arrangements for insurance in connection with Ohio Turnpike Project No. 1.

There was a discussion between the chairman, general counsel, and Mr. Jenkins on the question whether the consulting engineer's estimates of construction costs had included a component for the cost of the insurance being discussed, and whether, if so, it was adequate in amount to cover the indicated cost of such insurance. From this discussion it developed that it was impossible to determine to what extent the estimates might include such cost, but that such a component was included in some amount. Mr. Jenkins explained that the estimates had been predicated upon unit prices for comparable work in Ohio and general counsel pointed out that the unit prices customarily bid by contractors in Ohio for highway work normally include or would be expected to include a component of cost to cover railroad protective insurance, where railroad crossings are

involved. He further pointed out that one difference between the practice in some cases and the arrangement that the commission was considering is that in some other cases the contractor is required to buy and pay for the insurance and that the public agency pays this insurance cost in the form of price which it pays to the construction contractor, whereas in this instance, under the general specifications promulgated by the commission with respect to the construction of Ohio Turnpike Project No. 1, the contractors have been put on notice that no such element of cost would have to be taken into account in fixing their unit prices; that, rather, under the arrangement now under consideration, the commission would make reimbursement for this element of cost to the railroad companies rather than to the contractors.

General counsel restated what he considered the nature of the problem before the commission to be; he said that, as the commission's lawyer, he wanted to seek the advice of the members of the commission before he should make a recommendation. He said that formal action of the commission would not be essential unless the members of the commission should desire to take such action. He said that if either now or in the future the members of the commission should be prepared to say that, subject to what would seem to be a satisfactory working out of the additional problem of the protection of the commission itself, as distinguished from the protection of the railroads, the proposed arrangement would seem satisfactory to them, then he would be prepared to approve a contract to be executed on behalf of the commission by the officers whom it has heretofore designated to enter into such contracts with railroads on behalf of the commission.

Mr. Allen stated that he thought that the commission should buy insurance against its possible liabilities.

Mr. Linzell indicated his concurrence in Mr. Allen's view that it would be unwise for the commission to be a self-insurer.

Mr. McKay stated that he thought that the principle enunciated by Messrs. Allen and Linzell was sound; that he didn't like self-insurance; and that it has never worked out safely on a big risk.

Thereupon, the chairman stated it to be the consensus of the members of the commission that the principle of seeking insurance is agreeable to them; that they recognize the commission's obligation to indemnify the railroad companies according to law; and that they suggest that there be effected a combination of the coverage of the railroads and of the commission. He stated that the commission does instruct general counsel to proceed accordingly, and added that

the chairman would not take final action and suggested that the chief engineer not take any final action with respect to the matter until it should have been presented to the members of the commission in final form. The chief engineer stated that he agreed with the chairman.

The chairman then polled the other members of the commission, all of whom stated that they concurred in the chairman's statement of the consensus of the members of the commission.

The General Counsel concluded the matter of the railroads by reporting that a conference had been held in Youngstown on January 22, 1953 with the attorney and responsible officials of the Youngstown & Southern Railway, attended on behalf of the Commission by its Consulting Engineer, the Assistant General Counsel, the Chief of the Right-of-way Section, and a representative of the Chief Engineer. He said that this was the railroad referred to earlier as not apparently considering itself bound by the understandings reached with the other railroads but that ultimately agreement had been reached as to the inclusion of provisions which did not appear to be inimical to the Commission's interests. He stated that the problem with the Youngstown & Southern Railway had been pretty well worked out with the exception of the insurance matter. He said that he had encountered constantly the problem of the extent of the Commission's obligation to furnish substitutes of some kind to the railroads for what the Commission expects to take away, and said that in the particular case of the Youngstown & Southern Railway, which is a single-track road, the railroad owned right of way wide enough for more than one track and wanted the Commission to obligate itself to construct whatever additional may be required at the Commission's cost in the future in the event that something more than the present single track should be required. The General Counsel said that the contract which was proposed with the Youngstown & Southern Railway was on that basis. There was discussion by the several members as to the relative probability that the Commission might in the future be obligated to provide an additional facility at the Youngstown & Southern Railway crossing. There was no objection to the contract as proposed by General Counsel.

The General Counsel next mentioned a problem in connection with the acquisition of temporary easements and licenses necessary during the construction of the Turnpike for such cases as temporary roads or detours to carry the traffic around the site of a bridge while the bridge would be under construction. He referred to the limitations upon the authority delegated by the Commission to the Chief of the Right-of-Way Section in Resolutions Nos. 71-1952 and 98-1952. He suggested that since

the need for temporary easements is based upon construction plans and often did not develop until construction plans were completed, substantial delays might be avoided if the Chief of the Right-of-Way Section were authorized to fix prices to be paid for temporary easements. There was general discussion of the matter by the members of the Commission. Mr. Linzell explained the procedures of the Department of Highways in such matters and stated his opinion that additional latitude should be given to the Chief of the Right-of-way Section.

Resolution No. 33-1953 was moved for adoption by Mr. Allen and seconded by Mr. McKay as follows:

"RESOLVED that the Chief of the Right-of-way Section be and he hereby is authorized to fix the prices to be paid by the Commission for temporary easements and licenses for the use of land required for the construction of Ohio Turnpike Project No. 1, provided, however, that there shall first have been obtained an approval of such price by the Consulting Engineer."

A vote by ayes and nays was taken and all members present responded to roll call. The vote was as follows:

Ayes, Allen, McKay, Linzell, Shocknessy.

Nays, None.

The Chairman declared the resolution adopted.

The General Counsel then presented and described to the Commission the specifications and other documents which had been prepared for the work to be done on the office building on East Gay Street in Columbus. In addition to the documents furnished to the Commission before its meeting on January 16, 1953, he presented an addendum issued on January 23, 1953 by the Chief Engineer and General Counsel correcting some errors that had been discovered in the production of the original documents. He described the work of renovating the Gay Street property as comprising Contract R-1 covering general work, Contract R-2 covering plumbing, Contract R-3 covering heating and air conditioning, Contract R-2-3 an alternative combination of plumbing, heating and air conditioning, Contract R-4 electrical work, and Contract R-5, elevator work. He reported that bids for the work were to be received and opened on January 29, 1953, and offered a form of resolution by which the contract documents might be approved by the Commission.

Mr. Linzell stated that he had not reviewed the detailed contract documents but that he had reviewed the detailed specifications and plans. He expressed his confidence in the architects who had prepared

the specifications and plans and stated his willingness to approve them.

Resolution No. 34-1953 approving plans and specifications and other contract documents for the remodeling of the building on East Gay Street was moved for adoption by Mr. Linzell and seconded by Mr. Allen, as follows:

"RESOLVED that the contract documents presented to this meeting of the commission by general counsel with respect to contracts R-1, R-2, R-3, R-2-3, R-4, and R-5, covering the work of remodeling for headquarters of the commission the building at 135-141 East Gay Street in Columbus, be, and they hereby are, approved."

A vote by ayes and nays was taken and all members present responded to roll call. The vote was as follows:

Ayes, Linzell, McKay, Allen, Shocknessy.

Nays, None.

The Chairman declared the resolution adopted.

The Chief Engineer placed before the Commission bids received for the construction of Contracts C-46, C-46-A and C-46-B. He stated that the plans and the bids had all been reviewed by the Consulting Engineer and by himself. He presented to the Commission the following letter from the Consulting Engineers under date of January 23, 1953:

"J. E. Greiner Company
Consulting Engineers

1201 St. Paul Street
Baltimore 2, M. D.

January 23, 1953

C-619-20(a) 46

Mr. T. J. Kauer
Chief Engineer
Ohio Turnpike Commission
361 E. Broad Street
Columbus 15, Ohio

Dear Mr. Kauer:

The Maumee River Bridges were designed by the J. E. Greiner Company to carry Ohio Turnpike roadways over the Maumee River from Wood County into Lucas County. The bridges are twin and parallel structures spaced 80 feet between roadway centerlines. The substructure for each bridge is composed of 10 reinforced concrete piers founded on rock and two reinforced concrete abutments founded

on steel piles. Commencing at the west abutment and proceeding eastward to the east abutment the deck type superstructure for each bridge consists of 1 beam span 91' long, 3 plate girder spans at 145', 2 plate girder spans at 126'-6", 3 plate girder spans at 145', 1 beam span 91' long and 1 beam span 90' long, all constructed of steel and extending for an overall length of 1394' from abutment to abutment. Each bridge will carry a 30 foot wide reinforced concrete roadway flanked by 9 inch high curbs and 1'-6" wide safety walks.

For bidding purposes all construction has been divided into two parts; namely, the substructure, designated as Contract C-46A, and the superstructure, designated as Contract C-46B. Each bidder, at his option, could bid on either Contract C-46A or Contract C-46B, or on the combination of C-46A and B, designated as Contract C-46.

On January 21, 1953 the Ohio Turnpike Commission received the following proposals for performing the above described work:

	C-46-A	C-46-B	C-46
Booth & Flinn Company Pittsburgh, Pennsylvania	\$658,658.00	\$1,577,577.00	\$2,197,197.00
Fort Pitt Bridge Works Pittsburgh, Pennsylvania	-----	2,041,035.50	-----
George Vang, Inc. Pittsburgh, Pennsylvania	\$1,157,507.00	-----	\$2,817,638.00
Allied Structural Steel Co. Chicago, Illinois	-----	\$1,853,923.60	-----
Great Lakes Dredge & Dock Co. Cleveland, Ohio	\$1,087,502.00	-----	-----
American Bridge Division U. S. Steel Corporation Cincinnati, Ohio	-----	\$1,736,270.28	-----
John F. Casey Co. Pittsburgh, Pennsylvania	\$ 789,507.00	-----	-----
Dravo Corporation Pittsburgh, Pennsylvania	\$ 896,570.00	-----	-----

Two arithmetical errors existed in the proposal as submitted by American Bridge Division of U. S. Steel Corporation for Contract C-46-B, which changes their Total Bid from \$ 1,730,373.48 to

\$1,736,270.28.

We have carefully checked all proposals and have determined the proposal for Contract C-46 as submitted by Booth & Flinn Company to be the lowest bid received for that contract, and that such bid is lower than any combination of the bids received separately for Contracts C-46A and C-46B. Our examination of the qualification papers submitted by Booth and Flinn Company convinces us that they are fully qualified to perform the work.

We have reviewed the status of the land acquisition for right of way necessary for performance of the work covered by Contract C-46. We find that the land necessary for construction on the west bank of the Maumee River is now available to the Commission and the contractor can be given access to this land in accordance with the terms of the contract.

We understand that the single parcel required for right of way on the east bank may involve condemnation but we understand that the contractors schedule, as outlined to yourself and the undersigned by Mr. J. C. Knee, Vice President of Booth and Flinn contemplates that construction operations on the east bank will not proceed until May or June. It therefore appears that ample time for acquisition of the right of way on the east bank is available and we therefore can foresee no delay to the contractor due to lack of right of way.

We therefore recommend to the Commission that they award Contract C-46 to Booth and Flinn Company at their low bid price of \$2,197,197.

Very truly yours,

J. E. GREINER COMPANY

By (S) J. J. Jenkins, Jr.
J. J. Jenkins, Jr.

cc: Cleveland Office"

The Chief Engineer then presented to the Commission the following recommendation for the award of Contract C-46 under date of January 24, 1953:

"January 24, 1953

Report of the Chief Engineer
To the Ohio Turnpike Commission

Re: Recommendation of Award of Contract C-46 in Lucas & Wood
Counties. 630.

The plans for this contract were prepared by the J. E. Greiner Company of Baltimore, Maryland to provide for the construction of the twin bridges over the Maumee River in Lucas and Wood Counties. These plans were prepared in two parts, C-46-A for the substructure, and C-46-B for the superstructure.

Bids were requested on the substructure alone, Contract C-46-A; or on the superstructure alone, Contract C-46-B; or on both the substructure and superstructure, Contract C-46; or on Contract C-46 together with either or both of Contracts C-46-A and C-46-B.

The work covered by Contract C-46-A consists generally of the construction of the substructure for the aforesaid twin bridges. Substructure units for each bridge are the west abutments, nine river piers, one land pier, and the east abutments.

The construction of this substructure will require almost 10,000 cubic yards of concrete and 725,000 pounds of reinforcing steel. Work is to be completed on the substructure in 350 calendar days.

The work covered by Contract C-46-B consists generally of the construction of the superstructure for the aforesaid twin bridges, total length 1394 feet c-c of bearings of abutments, each bridge consisting of eleven simple deck-beam or girder spans (1 @ 90'; 3 @ 145'; 2 @ 126.5'; 3 @ 145'; 1 @ 91' and 1 @ 90').

The superstructure will require the use of about 6,761,000 pounds of structural steel and must be completed in 540 days.

The contracts were duly advertised for bids in Columbus and Toledo newspapers and in Engineering News-Record, a national engineering and construction trade publication, for letting on January 21, 1953.

Bids were received in the office of the Commission until 10:00 A. M., EST, on January 21, 1953. Immediately after the closing of bids the bid box was removed to the Neil House Ball Room, 41 South High Street, Columbus, where the bids were publicly opened and read.

Five bids were received on C-46-A, four bids on C-46-B and two bids on C-46. A total of eight firms participated in the bidding. The bids as received were as follows:

	C-46-A	C-46-B	C-46
Booth & Flinn Co. 1942 Forbes Street Pittsburgh 19, Pa.	\$658,658.00	\$1,577,577.00	\$2,197,197

	C-46-A	C-46-B	C-46
John F. Casey Co. Box 1888 Pittsburgh 30, Pa.	\$789,507.00		
Dravo Corporation Neville Island Pittsburgh 25, Pa.	\$896,570.00		
Great Lakes Dredge & Dock Co. 213 Euclid Avenue Cleveland 14, Ohio	\$1,087,502.00		
George Vang, Inc. 623 Grant Bldg. Pittsburgh 19, Pa.	\$1,157,507.00		\$2,817,638.00
American Bridge Division U. S. Steel Corporation 1302 Union Trust Bldg. Cincinnati 2, Ohio		\$1,736,270.28	
Allied Structural Steel Co. 20 N. Wacker Drive Chicago 6, Illinois		\$1,853,923.60	
Fort Pitt Bridge Works 212 Wood Street Pittsburgh 22, Penn.		\$2,041,035.50	

All bids have been carefully checked and reviewed by the engineers of the Commission and myself and found to be in order. The Confidential Financial Statement and Experience Questionnaire of the Booth & Flinn Company has also been reviewed by the Consulting Engineers, the Comptroller and myself and was found to be satisfactory.

The J. E. Greiner Company, Consulting Engineers and Contracting Engineers, have carefully reviewed all bids. They recommend that the award be made to the Booth & Flinn Company on their low bid of \$2,197,197.00 on Contract C-46, this being the lowest of any possible bid or combination of bids. A copy of J. E. Greiner Company's recommendation is attached hereto.

I have personally reviewed the bids received on Contracts C-46, C-46-A and C-46-B and am familiar with the conditions surrounding the work. I discussed the work with Mr. J. C. Knee,

Vice President and Chief Engineer of Booth & Flinn Company on the telephone yesterday as he said he would be unable to be here today. Mr. Knee advised that his firm has made arrangements to secure the necessary steel required in the construction of the bridges and plans to begin operation in May or not later than June 1 depending on stream conditions at the time. Work can be completed within the time schedule specified in the proposal, which is within the 350 days for the substructure and 540 days for the superstructure. I recommend that the low bidder, Booth & Flinn Company, Pittsburgh, Penn. being fully qualified, be awarded Contract C-46 in accordance with the terms and prices set forth in the proposal.

(Signed) T. J. Kauer
T. J. Kauer
Chief Engineer

copy for:
Mr. Shocknessy
Mr. Teagarden
Mr. Allen
Mr. McKay
Mr. Linzell
General Counsel
Greiner Co. - 3
File"

The Chief Engineer then handed to the Commission the following opinion of the General Counsel under date of January 27, 1953:

"January 27, 1953

Ohio Turnpike Commission
Columbus, Ohio

Subject: Bids of Booth and Flinn Company
For Contracts Nos. C-46, C-46A, and
C-46B.

Gentlemen:

The chief engineer has submitted to me for my examination, and I have returned to him, the proposals of Booth and Flinn Company for the performance of Contracts C-46, C-46A, and C-46B (Maumee River twin bridges, substructures thereof and superstructures).

The bid of Booth and Flinn Company for Contract C-46

is lower than the combination of bids submitted for contracts C-46A and C-46B. I am informed that a tabulation of bids also shows this bid to be lower than any other bid or combination of bids for the construction of both the substructures and superstructures of the twin bridges.

I have carefully examined the proposals themselves, the certified check submitted with them, and various other papers and documents which accompanied them. As to each of the proposals, I find that the documents are complete and in compliance with all legal requirements. It is, therefore, my opinion that if the commission shall, on the basis of other than legal considerations, determine the bid of Booth and Flinn Company for Contract C-46 to be the lowest and best bid, it may also determine such bid to be the lowest and best for all purposes and award a contract accordingly.

Very truly yours,

(Signed)

Frank C. Dunbar, Jr.
Frank C. Dunbar, Jr.
General Counsel.

cc: Mr. Shocknessy
Mr. Teagarden
Mr. Allen
Mr. McKay
Mr. Linzell
Chief Engineer
Consulting Engineer (2)"

The Chief Engineer read the following telegram from Booth & Flinn Company:

"JANUARY 24, 1953

"OHIO TURNPIKE COMMISSION
ATTN T J KAUER, CHIEF ENGR.
361 EAST BROAD ST COLUMBUS OHIO

"DELIVER BEFORE 10 AM DONT FONE
RELATIVE YOUR TELEGRAM OF JAN 23RD I UNDERSTOOD
FROM CONVERSATION WITH MR. HARTFORD THAT DELAY
WOULD BE ON WEST BANK ONLY BUT ASSUME NOW NEITHER
BANK WILL BE ACCESSIBLE UNTIL SOME TIME AFTER FEB-
RUARY 15TH. CONFIRMING YESTERDAYS PHONE CONVERSATION

"WE ARE WILLING TO DELAY OCCUPYING EITHER BANK UNTIL MARCH 15TH FOR ONE SIDE OF RIVER AND APRIL 1ST FOR OTHER SIDE. WE SHOULD HAVE 15 DAYS NOTICE IN ADVANCE OF DATE FIRST SIDE READY FOR US AND IF SUCH NOTICE IS IMPOSSIBLE FOR YOU TO GIVE BEFORE MARCH FIRST WE FEEL IT FAIR TO ASK YOU TO GIVE CONSIDERATION AT THAT TIME TO EQUITABLE EXTENSION TO COMPLETION DATE. AS EXPLAINED BY PHONE IT IS ESSENTIAL THAT WE OCCUPY BOTH BANKS NOT LATER THAN MAY 1ST AND WE SHOULD HAVE WEST BANK WHICH CONTAINS SIDING BY APRIL 1ST AS A DEADLINE. WE CAN NEVER AGREE TO ANY DELAY, WITHOUT NEGOTIATION. BEYOND MAY 1ST FOR BOTH BANKS BECAUSE OUR ESTIMATE AND SCHEDULE FOR SUBSTRUCTURE COMPLETION BY ABOUT NOV 1 AND 15 WOULD BE KNOCKED COCKEYED.

BOOTH AND FLINN CO - KNEE"

The General Counsel explained that the telegram constituted a waiver of the right which Booth and Flinn Company would otherwise have under the contract documents upon the basis of which they had submitted their bid, to expect that they would be able to enter the parcel referred to in the telegram by February 15, 1953. He stated that he would not have submitted his unqualified approval letter had the telegram not been received.

The Chairman then read the following item from The Columbus Dispatch of January 23, 1953:

"Lausche Urges Ohio
Turnpike Bidding

"Gov. Frank J. Lausche expressed concern Friday over the failure of Ohio road contractors to participate in the bidding for construction of sections of the Ohio Turnpike.

"Questioned concerning this situation, the governor said that he has requested Highway Director Samuel O. Linzell, to prepare a schedule of unit prices on the bidding submitted and to secure similar information from the governors of adjoining states for purposes of comparison."

He said that this was the first intimation that the Commission had had of any anxiety on the part of the Governor about any business of the

Commission and that he was going to ask Mr. Linzell to advise the Commission of his opinion with respect to the extent of bidding and whether or not there was any occasion and any reason for the Commission to delay in proceeding to award the contract because of the anxiety indicated in the clipping. He observed that the Director of Highways sits on the Commission as an ex officio member in accordance with law, and stated his understanding that the Director of Highways in the conduct of affairs of his office is the Governor's own alternate who could speak to the Commission for and in behalf of the Governor. He suggested that a report of the Director of Highways might be reinstated upon the agenda of the Commission. The Chairman said that there was nothing he would like more than to be advised from day to day of the Governor's anxiety, and that if the Governor had any anxiety about any action of the Commission he hoped that as his alternate the Director of Highways would express it to the Commission.

The Chairman stated that he, and no doubt other members of the Commission, had some concern about the near absence of Ohio bidders on some of the construction contracts, and said that he had spoken with the Ohio Contractors Association about the matter and that he had been advised by the Ohio Contractors Association that there was no anxiety in that Association so far as the man with whom he spoke knew about the contract and the ability of Ohio contractors to bid. He said he had been advised that it was the belief of the Ohio Contractors Association that the Commission had been very fair in its dealings with the Ohio contractors and had given every opportunity to the Ohio contractors that could be given to make their views known.

The Chairman asked the Chief Engineer and the Consulting Engineer whether they considered the bids received to be representative. Both the Chief Engineer and Mr. Jenkins for the Consulting Engineer agreed that the Commission had not only had representative bidders but had been very fortunate to obtain very good and very low bids on this contract. The Chief Engineer pointed out that the superstructure for the bridge would be built by the American Bridge Company of Cincinnati for Booth and Flinn Company, and that many good Ohio contractors would be expected to perform subcontract work on the Turnpike in spite of the fact that they might not receive prime contracts.

The Chairman asked the Chief Engineer whether he believed that the contract sections were so large as to discourage bids from those who

otherwise should be able to bid upon them. The Chief Engineer replied that the construction sections on the Ohio Turnpike will vary from about three to five miles, and that he believed such lengths would give Ohio contractors every opportunity to bid upon work in which they were interested. He pointed out that construction sections on the New Jersey Turnpike had been as long as 20 miles.

The Chairman then asked for the opinion of Mr. Linzell. Mr. Linzell said that as Director of Highways he had conferred with the Governor of Ohio and had discussed prices which the Department of Highways received in the last year on construction contracts, and that nothing was said by the Governor regarding the Turnpike. Mr. Linzell said that he had stated to the Governor when discussing land prices that the prices in the Department of Highways compared favorably with those on the Turnpike. Mr. Linzell said that he had not had opportunity to make a detailed study of prices on the Turnpike Project and that the Governor of Ohio had not indicated concern about Turnpike prices in his conference with the Director of Highways. Mr. Linzell said that he had received no message indicating the Governor's anxiety.

The Chairman noted the presence at the meeting of Mr. Charles E. McKee a representative of the Ohio Contractors Association, and invited Mr. McKee to discuss the matter with the Commission. Mr. McKee said that his Association suffered no anxiety at this time about the bids being received. He said that his Association did have a concern that the Commission keep its dates of completion of construction contracts realistic because of the clause in the General Specifications which provides a penalty for overrun of the time limit of a contract. He stated his concern that some Ohio contractors might be excluded unless a reasonable length of time was permitted for the completion of construction. At the suggestion of Mr. McKay, Mr. McKee agreed to file a statement in the matter with the Commission. With respect to Construction Contract C-1, Mr. McKee stated that it was in the area normally considered to be of primary attraction to Pittsburgh contractors. He also said that the bridge contracts which the Commission has had under consideration up to this time have been for special structures which few bridge builders could handle. Mr. McKee concluded his remarks with the statement that as of January 24, 1953 on those awards that had been made and might then be contemplated there was no need for anxiety on his part.

Resolution No. 35-1953 awarding Construction Contract C-46 was moved for adoption by Mr. Linzell and seconded by Mr. McKay, as follows:

"WHEREAS the Commission has duly advertised according to law for bids upon a contract for the construction of a portion of Ohio Turnpike Project No. 1 which has been designated as construction

section C-46, and proof of said advertising is before this Commission;

"WHEREAS the Commission has advertised in like manner for bids upon separate contracts for the construction of each of two portions of said construction section, which portions are designated as C-46-A and C-46-B;

"WHEREAS bids for the performance of each and all of said contracts have been received, and were duly opened and read as provided in the published notice for said bids and all of said bids are before this meeting;

"WHEREAS said bids have been analyzed by the Commission's consulting engineer and by its chief engineer, and they have reported thereon to the Commission with respect to said analysis and made their recommendations predicated thereon;

"WHEREAS Booth and Flinn Company has informed the Commission that it will not have to have possession of the parcel of land on the east bank of the Maumee River in order to perform according to its bid;

"WHEREAS all of the aforesaid bids for each of the said contracts, that is to say, for contract C-46, contract C-46-A, and C-46-B, were solicited on the basis of the same terms and conditions and the same specifications, with respect to all bidders and potential bidders, and the bid of Booth and Flinn Company for the performance of contract C 46 was, and is by the Commission determined to be, the lowest of all of said bids or combinations of bids for the construction of said construction section, and the Commission has been advised by its general counsel that said bid conforms to the requirements of Sec. 1205 of the General Code of Ohio and to the terms and conditions and specifications and legal notice applicable thereto, and, accordingly, the Commission is authorized to accept said bid as the lowest and best bid; and

"WHEREAS the Commission is satisfied with the capacity of said bidder to perform its obligations pursuant to its proposal;

"NOW, THEREFORE, BE IT

"RESOLVED that the bid of Booth and Flinn Company for the performance of construction contract C-46, Ohio Turnpike Project No. 1, be, and hereby it is, determined to be the lowest

and best of all bids or combinations of bids and is accepted; and that each of the chairman and the chief engineer be, and each of them hereby is, authorized (1) to execute a contract with said successful bidder in the form heretofore prescribed by the Commission, pursuant to the aforesaid bid and upon condition that said successful bidder shall furnish a performance bond as heretofore approved by the Commission by and in its resolution No. 69-1952, and meeting the conditions and requirements of said resolution, (2) to return to all other bidders the bid security furnished by each of them, respectively, (3) to return said successful bidder's bid security when the aforesaid contract shall have been duly executed and said performance bond furnished, and (4) to take any and all action necessary or proper to carry out the terms of said bid and said contract."

A vote by ayes and nays was taken and all members responded to roll call. The vote was as follows:

Ayes, Linzell, Allen, McKay, Shocknessy.

Nays, None.

The Chairman declared the resolution adopted and the contract thereby awarded. He then stated he had been advised by the Chief Engineer with respect to the relation of the estimate to the low bid, that the estimate was \$602,803.00 in excess of the low bid.

A motion was made by Mr. McKay, seconded by Mr. Linzell, that the reading of the minutes for the meeting of January 6, 1953 which had been examined by the members of the Commission and upon which the required corrections had been made be approved without reading. A vote by ayes and nays was taken and all members present responded to roll call. The vote was as follows:

Ayes, McKay, Linzell, Allen, Shocknessy.

Nays, None.

The Chairman declared the motion carried.

The Chief Engineer then handed to the Commission the following report with respect to variable widths of median:

"January 24, 1953

Report to the Ohio Turnpike Commission

From: Chief Engineer

Re: Variable Median

In conformance with your request for a report on the matter of compliance by the Consulting Engineer and the Contracting Engineers with the design criteria for Ohio Turnpike Project No. 1 as it relates to variable widths of the median and differences in elevation of the opposing roadways, I have made an intensive study of the proposed design of the Turnpike in these respects.

First, the variable widths of the median in Summit and Cuyahoga Counties, as shown on the original strip maps, are being used in the design. Likewise, the difference in roadway elevations shown on the same strip maps are also included in the detail design. Other differences in opposing roadway elevations are incorporated in the Contract Plans for the Turnpike in Mahoning, Summit, Cuyahoga and Erie Counties.

There are several factors included in the approved design criteria which largely control the possibility of widening the median and varying the roadway elevations. These controls are: sight distance, maximum **degree** of curvature, maximum gradients, length of horizontal curves and length of vertical curves. Such criteria are an integral part of the safety features provided in the design. In addition to these geometric standards there are physical control points which affect the Turnpike design, such as: stream crossings, railroads, and cross roads, important buildings, and valuable agricultural lands.

The criteria for the Ohio Turnpike does permit latitude on the part of the Engineers in the widening of the median as well as in the elevations of the opposing roadways to whatever extent surrounding terrain permits and wherever such variation is economically feasible and practical. However, most of the terrain traversed by the Turnpike is gently rolling or extremely flat. In such areas the problem lies in providing minimum grades rather than maximum grades, and the same is true with respect to curvature. Forced alignments or gradients to attain variation under such conditions can only be accomplished at the sacrifice of sound engineering and economic design.

The criteria controlling the design of the Turnpike, and which have been approved by the Commission, contemplate a safe transportation facility for both high speed traffic and heavy cargo

carriers, so that State Highways, both rural and urban, may be relieved of the terrific burden now placed upon them. As pointed out by several Contracting Engineers, it certainly is not practical to build parkway characteristics into an expressway type facility. The two types of facilities are designed for entirely different purposes, and to accommodate traffic of completely different characteristics.

Several Contracting Engineers who attended the conference on January 16th stated that when they were requested to prepare estimates to vary the median they were of the belief that consideration was being given to reducing the median from the 56 foot minimum width provided for in the design criteria. It was the general belief of the Contracting Engineers that the 56 foot median already secures the major part of safety and that further separation would be of minor value. The Ohio Turnpike, according to them, has the widest average median of any turnpike in existence or being designed.

Mr. Cambern of Howard, Needles, Tammen & Bergendoff, one of the Contracting Engineers, said that an assumption seems to have been made by those objecting to the uniform 56 foot median that there is something inherently desirable in a variable width median. He did not subscribe to that view at all. As a matter of fact he considered a variable width median as being quite undesirable. From a safety standpoint it would increase rather than decrease certain hazards such as headlight glare in night driving. A variable median would be fine where the two roadways diverged, but for every diversion of the roadways there would have to be a converging section and when such occurred the opposing headlights would also converge and the resulting glare would be greatly increased. Mr. Cambern also felt that the hypnotic effect of driving on roads with long tangents and easy curves is greatly exaggerated. And further, presuming that there is some hypnosis created by the monotony of such driving, it would seem hardly logical to dispel that hazard by creating other hazards such as sharper curves in the roadway to snap a driver out of it occasionally.

It is believed that the 56 foot median with the gradual curvatures and the changing of grades over and under cross roads and railroads, provides adequate change in view to relieve monotony of driving the Turnpike. Structures which occur on the average of 3 per mile, have a different type of guard rail than that on the intermediate roadway stretches, portions of which will have no guard rail at all because of the slight elevation of the roadway. This feature alone will tend to relieve the monotony of driving. Delineators or reflectors will be placed only at the curves which further tend to relieve the monotony. Every practical safety feature

known to highway engineers is being incorporated into the Turnpike design.

Completely separated roadways with a center mall of 200 to 1000 feet or more, unless made desirable by the terrain, prove to be much more costly in many respects. Instead of only one high slope protected by guard rail on the outside edge of the pavement we would have a similar condition on the inside edge also where now a shallow, flat slope is located. The steeper slope is more costly to maintain as is the greatly increased median. The added roadway length and increased number and length of structures would add further to the construction and maintenance costs.

Land traversed by the turnpike is largely valuable agricultural land or part of suburban developments. Not only is such land costly, but protests are already heard from farmers who want to keep their land, and from county officials who object to the removal of such property from the tax duplicate. Where buildings are taken the cost increases tremendously.

Costs of construction and of engineering to provide a wider variable median through a forcing of the alignment, would prove to be prohibitive. Contracting Engineers all across the State pointed out that further widening of the median in their Design Section could not be made except at greatly increased costs, and that we would not get a safer highway than that already being designed. Added construction costs, according to estimates given at the recent conference by the Contracting Engineers, vary from \$1000 per foot of added length of structure and \$800 to \$900 per foot increased width of median per mile, to \$140,000 per mile including structures. These figures do not include right of way. In each case all engineering work already completed on the sections which would be changed would be lost. Such cost was estimated to run from \$120,000 to \$176,000 for each change made. Estimates of additional time needed to complete plans varied from 3 to 5 months.

I have personally reviewed the strip maps in detail, sheet by sheet, very carefully, and have found no place where the design was not of the highest standard. Flat curves of the nature of 20, 30 or 40 minutes have been used extensively. The only place where the curvature exceeds 1 degree is where the alignment is controlled by stream crossings, railroads, cross-roads, airports, and other valuable properties or by buildings. At only eight locations can the median be widened without substantial increases in the cost of construction or right of way, and at these locations the widening of the median could be accomplished only by sacrificing

engineering standards to increase the sharpness of the curves on one or other of the roadways. At any other location reverse curves would be necessary and the distance in which the widening could be accomplished and still adhere to the design criteria would be at least a mile.

Except in rough wooded areas such as in the mountains of New York and in West Virginia, no turnpike presently existing or being designed has a median as wide as the 56 foot minimum width on the Ohio Turnpike. Widely separated directional roadways, except at greatly increased cost, are feasible only where advantage can be taken of the terrain. Otherwise, in a forced alignment there must be a sacrifice of engineering standards. All turnpikes, so far as I know, have a uniform median of from 10 to 20 feet except where the natural terrain permits a more economical construction of a wider section.

I am firmly of the belief that wherever it would be desirable and economically feasible from a standpoint of safety to vary the median or grade, it has been done. There may be fewer variations than were originally believed obtainable, but because of the gentle roll of the terrain through which the turnpike passes there are only a minimum number of spots where there could properly be a variation in the median or variable grade lines.

Further, I am confident that the design criteria has been faithfully adhered to, and that the standards of engineering within economic reason are being incorporated into the Ohio Turnpike. With proper landscaping of the Turnpike as soon as it is built, I believe that the Ohio Turnpike will be the finest highway to be found anywhere.

(Signed) T. J. Kauer
T. J. Kauer, Chief Engineer."

The report of the Chief Engineer with respect to median widths was accepted by the Commission in substantiation of the conference held with the contracting engineers on January 16, 1953, and the members of the Commission agreed that no further action in the matter was necessary.

Mr. McKay stated that it was his intention to report at a subsequent meeting of the Commission concerning certain statements made in the report of the Consulting Engineer on median widths and other design criteria dated January 15, 1953, presented to the Commission at its meeting on January 16, 1953.

Resolution No. 36-1953 ratifying actions of administrative officers was moved for adoption by Mr. Linzell and seconded by Mr. McKay, as follows:

"WHEREAS the executive assistant, chief engineer, general counsel, assistant secretary, comptroller, and chief of the right-of-way section of the Commission have, by various written and oral communications, fully advised the members of the Commission with respect to their official actions taken on behalf of the Commission since the Commission's last meeting, and the Commission has duly reviewed and considered the same:

"NOW, THEREFORE, BE IT

"RESOLVED that all official actions taken by the aforesaid administrative officers of the Commission on its behalf since the Commission's meeting on January 16, 1953, are hereby ratified, approved, and confirmed."

A vote by ayes and nays was taken and all members present responded to roll call. The vote was as follows:

Ayes, Linzell, McKay, Allen, Shocknessy.

Nays, None.

The Chairman declared the resolution adopted.

There being no further business to come before the Commission, a motion was made by Mr. McKay, seconded by Mr. Linzell, that the meeting adjourn subject to call of the Chairman. A vote by ayes and nays was taken and all members present responded to roll call. The vote was as follows:

Ayes, McKay, Linzell, Allen, Shocknessy.

Nays, None.

The Chairman declared the meeting adjourned. The time of adjournment was 1:45 P. M.

Approved as a correct transcript of the proceedings of the Ohio Turnpike Commission


A. J. Allen, Secretary-Treasurer.